

# **PDC ENERGY**

**WELD COUNTY, COLORADO**

**SW SW SEC. 28 T5N R67W 6th P.M.**

**KINZER 28H-432**

**ORIGINAL WELLBORE**

**24 March, 2016**

**Plan: PROPOSAL #1**





Project: WELD COUNTY, COLORADO  
Site: SW SW SEC. 28 T5N R67W 6th P.M.  
Well: KINZER 28H-432  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

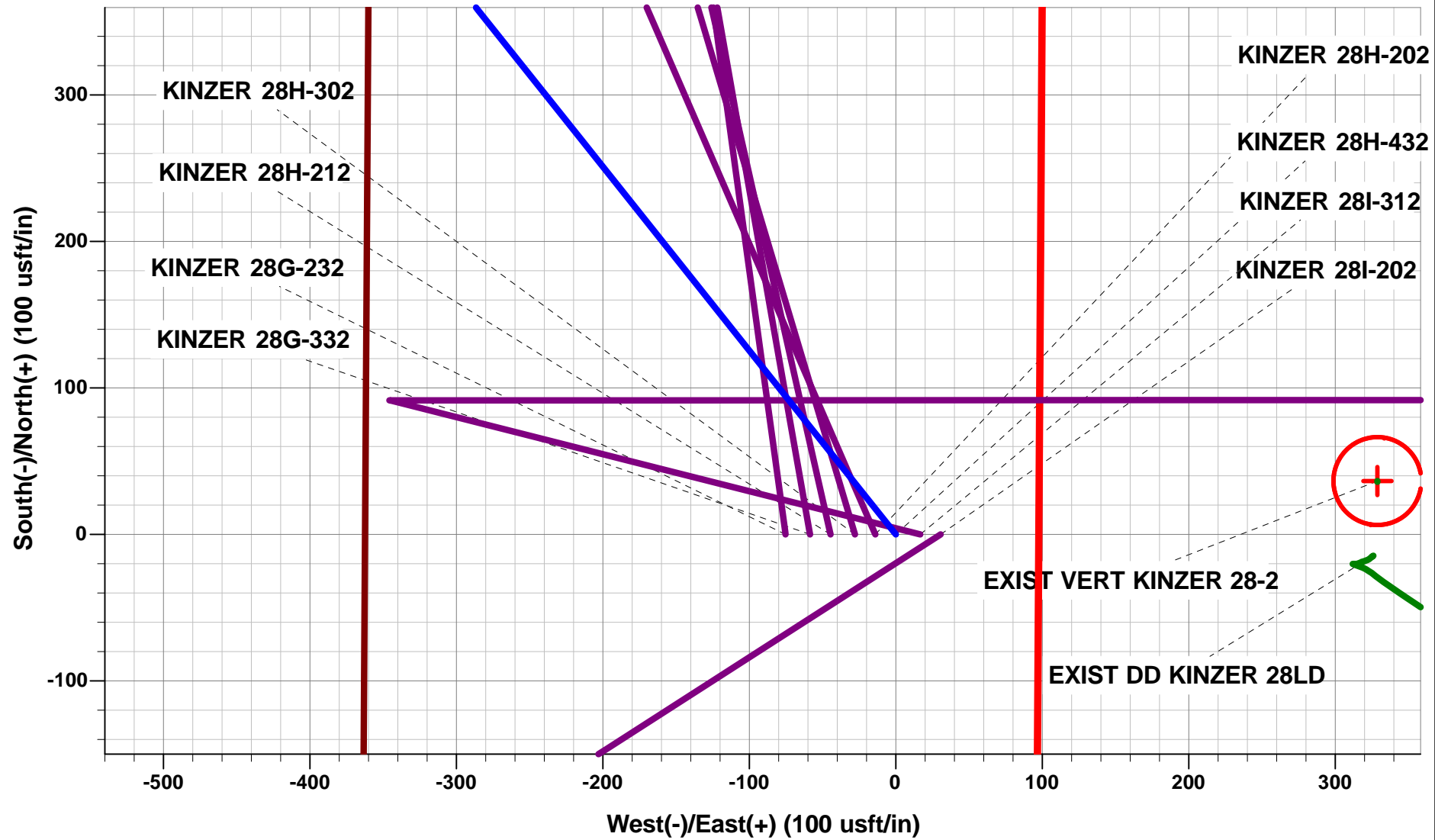


ANNOTATIONS

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: 430ft FSL & 363ft FWL of Sec 28
800.0	800.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDDGE (2°/100ft BUR)
1395.8	1400.2	12.00	321.46	49.0	-39.0	-34.6	62.6	EOB TO 12° INC
3416.0	3465.5	12.00	321.46	385.0	-306.7	-272.1	492.2	END OF TANGENT
4011.8	4065.7	0.00	321.46	434.0	-345.7	-306.7	554.9	EOD TO VERTICAL
6268.8	6322.7	0.00	0.00	434.0	-345.7	-306.7	554.9	KOP (8°/100ft BUR)
6985.0	7447.7	90.00	90.00	434.0	370.5	406.8	1271.0	HZ LP *NEW*: 864.8ft FSL & 731.2ft FWL of Sec 28
6985.0	12054.1	90.00	90.00	434.0	4976.9	4995.8	5877.4	BHL: 870ft FSL & 75ft FEL of Sec 28

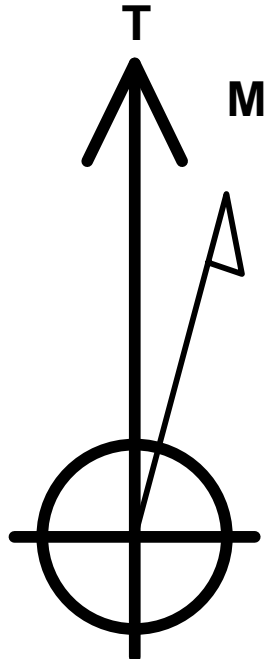
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - KINZER 28H-432	6268.8	434.0	-345.7	40.365801	-104.907541
BHL - KINZER 28H-432	6985.0	434.0	4976.9	40.365800	-104.888440
HZ LANDING PNT *NEW* - KINZER 28H-432	6985.0	434.0	370.5	40.365801	-104.904970



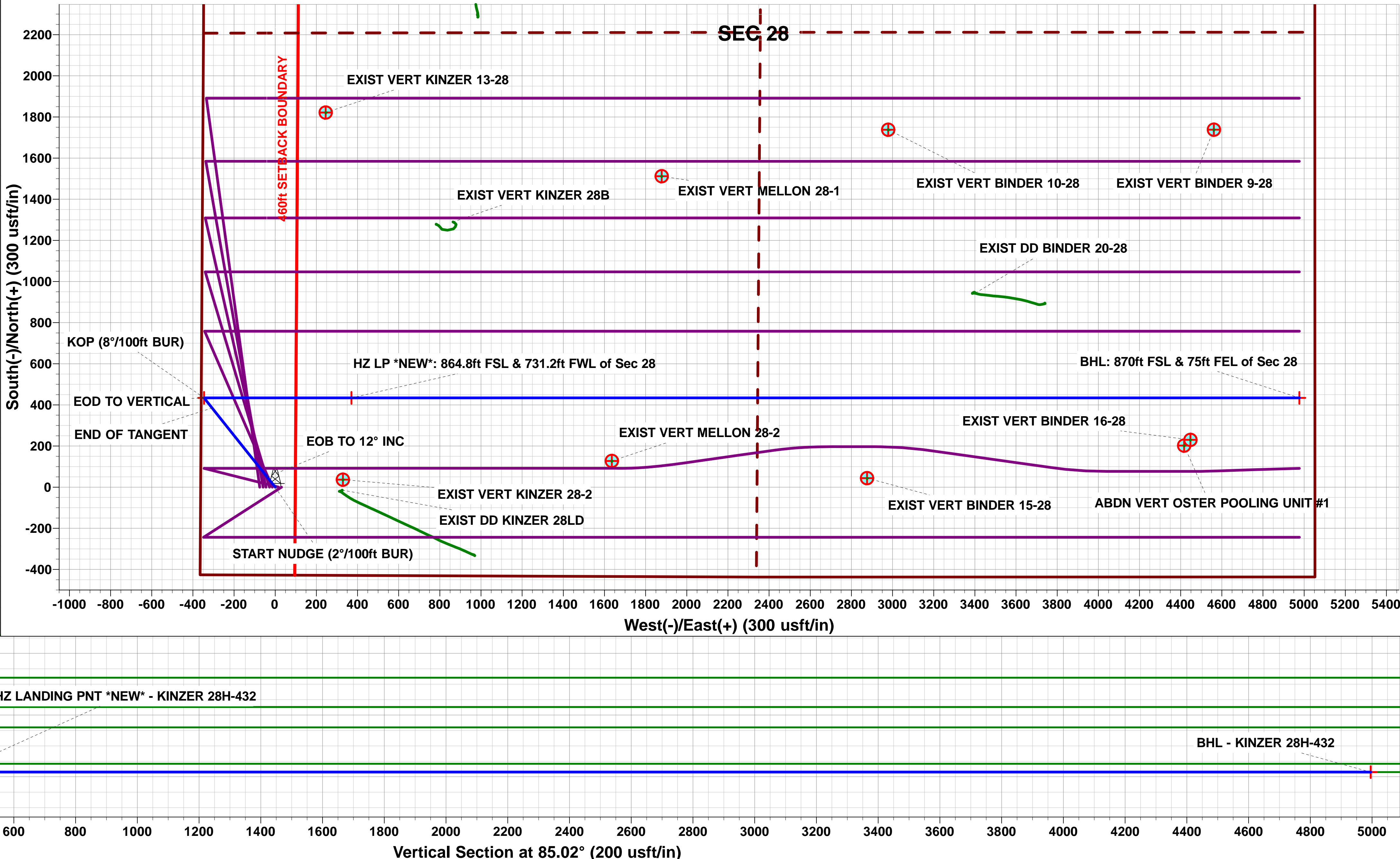
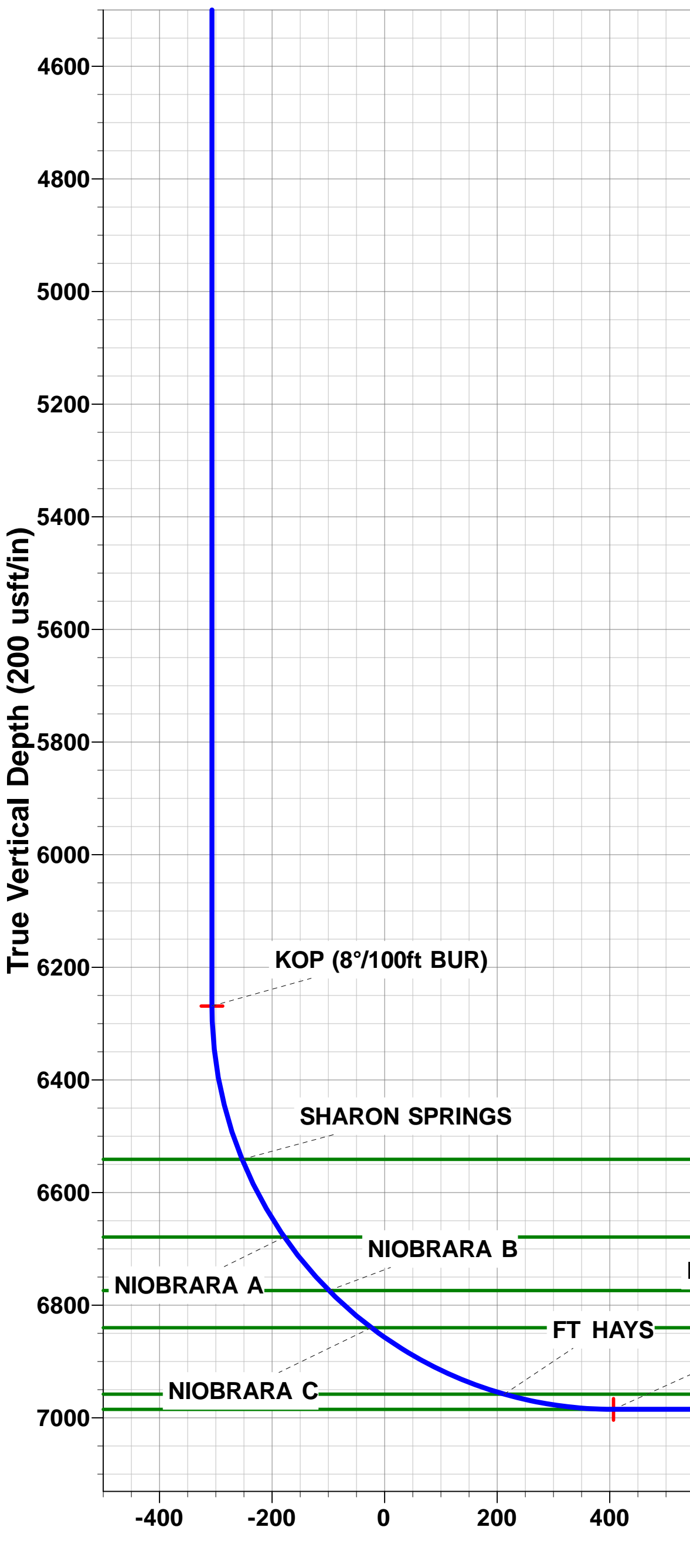
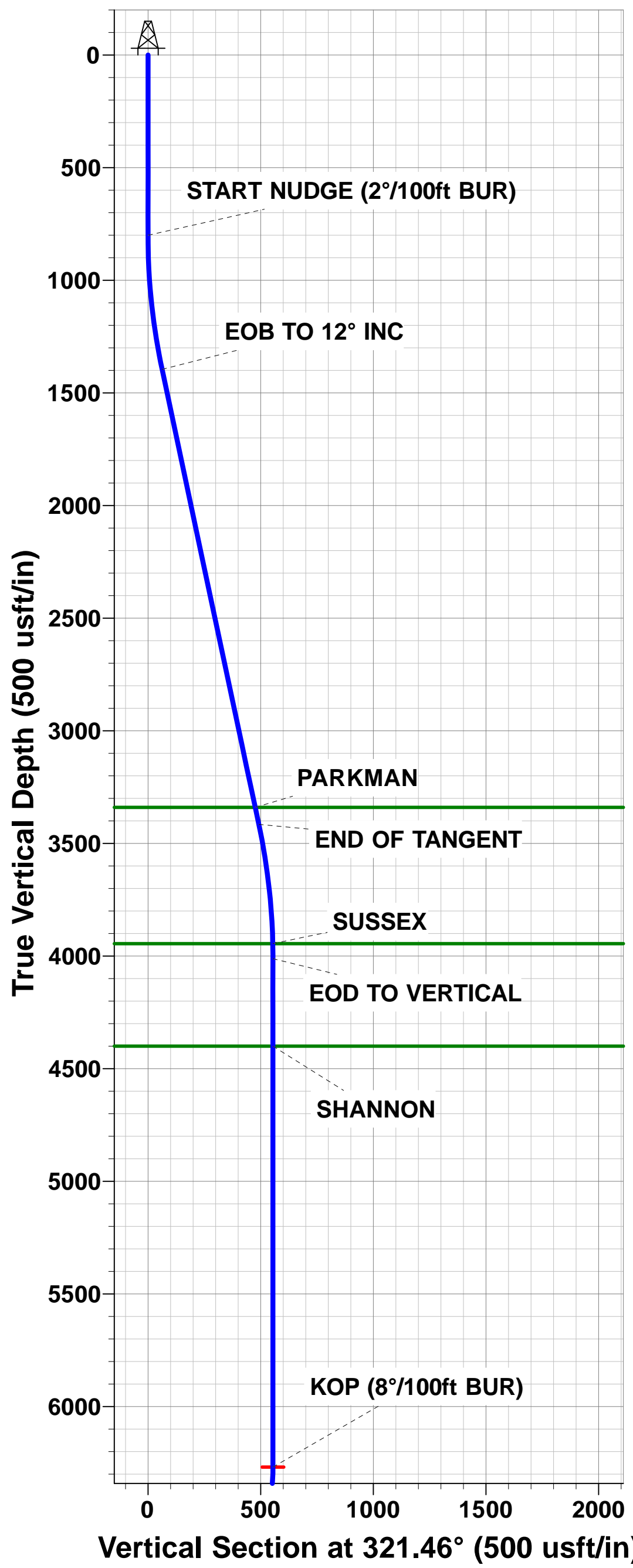
PROPOSED LOCAL COORDINATES:

SHL: 430ft FSL & 363ft FWL of Sec 28  
HZ LP \*NEW\*: 864.8ft FSL & 731.2ft FWL of Sec 28  
BHL: 870ft FSL & 75ft FEL of Sec 28



Azimuths to True North  
Magnetic North: 8.41°

Magnetic Field  
Strength: 52499.7snT  
Dip Angle: 66.83°  
Date: 24/03/2016  
Model: IGRF2015



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-432
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	KINZER 28H-432	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	WELD COUNTY, COLORADO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	SW SW SEC. 28 T5N R67W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,376,222.00 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,165,467.33 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000 ft
		<b>Latitude:</b>	40.364610
		<b>Longitude:</b>	-104.906190
		<b>Grid Convergence:</b>	0.38 °

<b>Well</b>	KINZER 28H-432		
<b>Well Position</b>	<b>+N-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E-W</b>	-30.7 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	ORIGINAL WELLBORE				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	24/03/2016	8.41	66.83	52,500

<b>Design</b>	PROPOSAL #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N-S (usft)</b>	<b>+E-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	85.02	

<b>Plan Sections</b>											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.0	0.00	0.00	0.0	-4,797.5	0.0	0.0	0.00	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	-3,997.5	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.2	12.00	321.46	1,395.8	-3,401.7	49.0	-39.0	2.00	2.00	0.00	321.46	
3,465.5	12.00	321.46	3,416.0	-1,381.5	385.0	-306.7	0.00	0.00	0.00	0.00	
4,065.7	0.00	0.00	4,011.8	-785.7	434.0	-345.7	2.00	-2.00	0.00	180.00	
6,322.7	0.00	0.00	6,268.8	1,471.3	434.0	-345.7	0.00	0.00	0.00	0.00	KOP - KINZER 28H
7,447.7	90.00	90.00	6,985.0	2,187.5	434.0	370.5	8.00	8.00	0.00	90.00	
12,054.1	90.00	90.00	6,985.0	2,187.5	434.0	4,976.9	0.00	0.00	0.00	0.00	BHL - KINZER 28H

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-432
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	KINZER 28H-432	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

## Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>SHL: 430ft FSL &amp; 363ft FWL of Sec 28</b>										
0.0	0.00	0.00	0.0	4,797.50	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,697.50	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,597.50	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,497.50	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,397.50	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,297.50	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,197.50	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,097.50	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
800.0	0.00	0.00	800.0	3,997.50	0.0	0.0	0.0	0.00	0.00	0.00
900.0	2.00	321.46	900.0	3,897.52	1.4	-1.1	-1.0	2.00	2.00	0.00
1,000.0	4.00	321.46	999.8	3,797.66	5.5	-4.3	-3.9	2.00	2.00	0.00
1,100.0	6.00	321.46	1,099.5	3,698.05	12.3	-9.8	-8.7	2.00	2.00	0.00
1,200.0	8.00	321.46	1,198.7	3,598.80	21.8	-17.4	-15.4	2.00	2.00	0.00
1,300.0	10.00	321.46	1,297.5	3,500.03	34.0	-27.1	-24.1	2.00	2.00	0.00
1,400.0	12.00	321.46	1,395.6	3,401.88	49.0	-39.0	-34.6	2.00	2.00	0.00
<b>EOB TO 12° INC</b>										
1,400.2	12.00	321.46	1,395.8	3,401.68	49.0	-39.0	-34.6	2.00	2.00	0.00
1,500.0	12.00	321.46	1,493.4	3,304.06	65.2	-52.0	-46.1	0.00	0.00	0.00
1,600.0	12.00	321.46	1,591.2	3,206.25	81.5	-64.9	-57.6	0.00	0.00	0.00
1,700.0	12.00	321.46	1,689.1	3,108.44	97.8	-77.9	-69.1	0.00	0.00	0.00
1,800.0	12.00	321.46	1,786.9	3,010.62	114.0	-90.8	-80.6	0.00	0.00	0.00
1,900.0	12.00	321.46	1,884.7	2,912.81	130.3	-103.8	-92.1	0.00	0.00	0.00
2,000.0	12.00	321.46	1,982.5	2,815.00	146.6	-116.8	-103.6	0.00	0.00	0.00
2,100.0	12.00	321.46	2,080.3	2,717.19	162.8	-129.7	-115.1	0.00	0.00	0.00
2,200.0	12.00	321.46	2,178.1	2,619.37	179.1	-142.7	-126.6	0.00	0.00	0.00
2,300.0	12.00	321.46	2,275.9	2,521.56	195.4	-155.6	-138.1	0.00	0.00	0.00
2,400.0	12.00	321.46	2,373.8	2,423.75	211.7	-168.6	-149.6	0.00	0.00	0.00
2,500.0	12.00	321.46	2,471.6	2,325.93	227.9	-181.5	-161.1	0.00	0.00	0.00
2,600.0	12.00	321.46	2,569.4	2,228.12	244.2	-194.5	-172.6	0.00	0.00	0.00
2,700.0	12.00	321.46	2,667.2	2,130.31	260.5	-207.5	-184.1	0.00	0.00	0.00
2,800.0	12.00	321.46	2,765.0	2,032.49	276.7	-220.4	-195.6	0.00	0.00	0.00
2,900.0	12.00	321.46	2,862.8	1,934.68	293.0	-233.4	-207.0	0.00	0.00	0.00
3,000.0	12.00	321.46	2,960.6	1,836.87	309.3	-246.3	-218.5	0.00	0.00	0.00
3,100.0	12.00	321.46	3,058.4	1,739.05	325.5	-259.3	-230.0	0.00	0.00	0.00
3,200.0	12.00	321.46	3,156.3	1,641.24	341.8	-272.3	-241.5	0.00	0.00	0.00
3,300.0	12.00	321.46	3,254.1	1,543.43	358.1	-285.2	-253.0	0.00	0.00	0.00
<b>PARKMAN</b>										
3,387.8	12.00	321.46	3,340.0	1,457.50	372.4	-296.6	-263.1	0.00	0.00	0.00
3,400.0	12.00	321.46	3,351.9	1,445.61	374.3	-298.2	-264.5	0.00	0.00	0.00
<b>END OF TANGENT</b>										
3,465.5	12.00	321.46	3,416.0	1,381.55	385.0	-306.7	-272.1	0.00	0.00	0.00
3,500.0	11.31	321.46	3,449.7	1,347.76	390.4	-311.0	-275.9	2.00	-2.00	0.00
3,600.0	9.31	321.46	3,548.1	1,249.38	404.5	-322.2	-285.8	2.00	-2.00	0.00
3,700.0	7.31	321.46	3,647.1	1,150.44	415.8	-331.2	-293.8	2.00	-2.00	0.00
3,800.0	5.31	321.46	3,746.5	1,051.05	424.4	-338.0	-299.9	2.00	-2.00	0.00
3,900.0	3.31	321.46	3,846.2	951.34	430.3	-342.7	-304.0	2.00	-2.00	0.00
<b>SUSSEX</b>										
3,998.9	1.34	321.46	3,945.0	852.50	433.4	-345.2	-306.3	2.00	-2.00	0.00
4,000.0	1.31	321.46	3,946.1	851.42	433.4	-345.2	-306.3	2.00	-2.00	0.00
<b>EOD TO VERTICAL</b>										
4,065.7	0.00	321.46	4,011.8	785.73	434.0	-345.7	-306.7	2.00	-2.00	0.00

# Planning Report



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<b>Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	KINZER 28H-432	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

## Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.0	0.00	0.00	4,046.1	751.43	434.0	-345.7	-306.7	0.00	0.00	0.00
4,200.0	0.00	0.00	4,146.1	651.43	434.0	-345.7	-306.7	0.00	0.00	0.00
4,300.0	0.00	0.00	4,246.1	551.43	434.0	-345.7	-306.7	0.00	0.00	0.00
4,400.0	0.00	0.00	4,346.1	451.43	434.0	-345.7	-306.7	0.00	0.00	0.00
<b>SHANNON</b>										
<b>4,453.9</b>	<b>0.00</b>	<b>0.00</b>	<b>4,400.0</b>	<b>397.50</b>	<b>434.0</b>	<b>-345.7</b>	<b>-306.7</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,500.0	0.00	0.00	4,446.1	351.43	434.0	-345.7	-306.7	0.00	0.00	0.00
4,600.0	0.00	0.00	4,546.1	251.43	434.0	-345.7	-306.7	0.00	0.00	0.00
4,700.0	0.00	0.00	4,646.1	151.43	434.0	-345.7	-306.7	0.00	0.00	0.00
4,800.0	0.00	0.00	4,746.1	51.43	434.0	-345.7	-306.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,846.1	-48.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,000.0	0.00	0.00	4,946.1	-148.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,100.0	0.00	0.00	5,046.1	-248.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,146.1	-348.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,246.1	-448.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,346.1	-548.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,446.1	-648.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,546.1	-748.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,646.1	-848.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,746.1	-948.57	434.0	-345.7	-306.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,846.1	-1,048.57	434.0	-345.7	-306.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,946.1	-1,148.57	434.0	-345.7	-306.7	0.00	0.00	0.00
6,100.0	0.00	0.00	6,046.1	-1,248.57	434.0	-345.7	-306.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,146.1	-1,348.57	434.0	-345.7	-306.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,246.1	-1,448.57	434.0	-345.7	-306.7	0.00	0.00	0.00
<b>KOP (8°/100ft BUR)</b>										
<b>6,322.7</b>	<b>0.00</b>	<b>0.00</b>	<b>6,268.8</b>	<b>-1,471.28</b>	<b>434.0</b>	<b>-345.7</b>	<b>-306.7</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,400.0	6.18	90.00	6,345.9	-1,548.42	434.0	-341.5	-302.5	8.00	8.00	0.00
6,500.0	14.18	90.00	6,444.3	-1,646.77	434.0	-323.9	-284.9	8.00	8.00	0.00
6,600.0	22.18	90.00	6,539.2	-1,741.70	434.0	-292.7	-253.9	8.00	8.00	0.00
<b>SHARON SPRINGS</b>										
<b>6,601.9</b>	<b>22.34</b>	<b>90.00</b>	<b>6,541.0</b>	<b>-1,743.50</b>	<b>434.0</b>	<b>-292.0</b>	<b>-253.1</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
6,700.0	30.18	90.00	6,628.9	-1,831.36	434.0	-248.6	-210.0	8.00	8.00	0.00
<b>NIOBRARA A</b>										
<b>6,759.5</b>	<b>34.94</b>	<b>90.00</b>	<b>6,679.0</b>	<b>-1,881.50</b>	<b>434.0</b>	<b>-216.6</b>	<b>-178.1</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
6,800.0	38.18	90.00	6,711.5	-1,914.02	434.0	-192.5	-154.0	8.00	8.00	0.00
<b>NIOBRARA B</b>										
<b>6,883.5</b>	<b>44.86</b>	<b>90.00</b>	<b>6,774.0</b>	<b>-1,976.50</b>	<b>434.0</b>	<b>-137.2</b>	<b>-98.9</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
6,900.0	46.18	90.00	6,785.6	-1,988.06	434.0	-125.4	-87.2	8.00	8.00	0.00
<b>NIOBRARA C</b>										
<b>6,983.9</b>	<b>52.90</b>	<b>90.00</b>	<b>6,840.0</b>	<b>-2,042.50</b>	<b>434.0</b>	<b>-61.6</b>	<b>-23.6</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,000.0	54.18	90.00	6,849.5	-2,052.05	434.0	-48.6	-10.7	8.00	8.00	0.00
7,100.0	62.18	90.00	6,902.2	-2,104.73	434.0	36.3	73.8	8.00	8.00	0.00
7,200.0	70.18	90.00	6,942.6	-2,145.08	434.0	127.7	164.9	8.00	8.00	0.00
<b>FT HAYS</b>										
<b>7,250.5</b>	<b>74.22</b>	<b>90.00</b>	<b>6,958.0</b>	<b>-2,160.50</b>	<b>434.0</b>	<b>175.7</b>	<b>212.8</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,300.0	78.18	90.00	6,969.8	-2,172.32	434.0	223.8	260.7	8.00	8.00	0.00
7,400.0	86.18	90.00	6,983.4	-2,185.91	434.0	322.8	359.3	8.00	8.00	0.00
<b>HZ LP *NEW*: 864.8ft FSL &amp; 731.2ft FWL of Sec 28 - CODELL</b>										
<b>7,447.7</b>	<b>90.00</b>	<b>90.00</b>	<b>6,985.0</b>	<b>-2,187.50</b>	<b>434.0</b>	<b>370.5</b>	<b>406.8</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,500.0	90.00	90.00	6,985.0	-2,187.50	434.0	422.8	458.9	0.00	0.00	0.00
7,600.0	90.00	90.00	6,985.0	-2,187.50	434.0	522.8	558.5	0.00	0.00	0.00
7,700.0	90.00	90.00	6,985.0	-2,187.50	434.0	622.8	658.1	0.00	0.00	0.00



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-432
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	KINZER 28H-432	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Planned Survey										
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,800.0	90.00	90.00	6,985.0	-2,187.50	434.0	722.8	757.7	0.00	0.00	0.00
7,900.0	90.00	90.00	6,985.0	-2,187.50	434.0	822.8	857.4	0.00	0.00	0.00
8,000.0	90.00	90.00	6,985.0	-2,187.50	434.0	922.8	957.0	0.00	0.00	0.00
8,100.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,022.8	1,056.6	0.00	0.00	0.00
8,200.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,122.8	1,156.2	0.00	0.00	0.00
8,300.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,222.8	1,255.9	0.00	0.00	0.00
8,400.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,322.8	1,355.5	0.00	0.00	0.00
8,500.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,422.8	1,455.1	0.00	0.00	0.00
8,600.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,522.8	1,554.7	0.00	0.00	0.00
8,700.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,622.8	1,654.3	0.00	0.00	0.00
8,800.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,722.8	1,754.0	0.00	0.00	0.00
8,900.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,822.8	1,853.6	0.00	0.00	0.00
9,000.0	90.00	90.00	6,985.0	-2,187.50	434.0	1,922.8	1,953.2	0.00	0.00	0.00
9,100.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,022.8	2,052.8	0.00	0.00	0.00
9,200.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,122.8	2,152.4	0.00	0.00	0.00
9,300.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,222.8	2,252.1	0.00	0.00	0.00
9,400.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,322.8	2,351.7	0.00	0.00	0.00
9,500.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,422.8	2,451.3	0.00	0.00	0.00
9,600.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,522.8	2,550.9	0.00	0.00	0.00
9,700.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,622.8	2,650.6	0.00	0.00	0.00
9,800.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,722.8	2,750.2	0.00	0.00	0.00
9,900.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,822.8	2,849.8	0.00	0.00	0.00
10,000.0	90.00	90.00	6,985.0	-2,187.50	434.0	2,922.8	2,949.4	0.00	0.00	0.00
10,100.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,022.8	3,049.0	0.00	0.00	0.00
10,200.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,122.8	3,148.7	0.00	0.00	0.00
10,300.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,222.8	3,248.3	0.00	0.00	0.00
10,400.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,322.8	3,347.9	0.00	0.00	0.00
10,500.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,422.8	3,447.5	0.00	0.00	0.00
10,600.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,522.8	3,547.2	0.00	0.00	0.00
10,700.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,622.8	3,646.8	0.00	0.00	0.00
10,800.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,722.8	3,746.4	0.00	0.00	0.00
10,900.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,822.8	3,846.0	0.00	0.00	0.00
11,000.0	90.00	90.00	6,985.0	-2,187.50	434.0	3,922.8	3,945.6	0.00	0.00	0.00
11,100.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,022.8	4,045.3	0.00	0.00	0.00
11,200.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,122.8	4,144.9	0.00	0.00	0.00
11,300.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,222.8	4,244.5	0.00	0.00	0.00
11,400.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,322.8	4,344.1	0.00	0.00	0.00
11,500.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,422.8	4,443.8	0.00	0.00	0.00
11,600.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,522.8	4,543.4	0.00	0.00	0.00
11,700.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,622.8	4,643.0	0.00	0.00	0.00
11,800.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,722.8	4,742.6	0.00	0.00	0.00
11,900.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,822.8	4,842.2	0.00	0.00	0.00
12,000.0	90.00	90.00	6,985.0	-2,187.50	434.0	4,922.8	4,941.9	0.00	0.00	0.00
<b>BHL: 870ft FSL &amp; 75ft FEL of Sec 28</b>										
<b>12,054.1</b>	<b>90.00</b>	<b>90.00</b>	<b>6,985.0</b>	<b>-2,187.50</b>	<b>434.0</b>	<b>4,976.9</b>	<b>4,995.8</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KINZER 28H-432
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	KINZER 28H-432	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,387.8	3,340.0	PARKMAN				
3,998.9	3,945.0	SUSSEX				
4,453.9	4,400.0	SHANNON				
6,601.9	6,541.0	SHARON SPRINGS				
6,759.5	6,679.0	NIOBRARA A				
6,883.5	6,774.0	NIOBRARA B				
6,983.9	6,840.0	NIOBRARA C				
7,250.5	6,958.0	FT HAYS				
7,447.7	6,985.0	CODELL				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 430ft FSL & 363ft FWL of Sec 28
800.0	800.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,400.2	1,395.8	49.0	-39.0	EOB TO 12° INC
3,465.5	3,416.0	385.0	-306.7	END OF TANGENT
4,065.7	4,011.8	434.0	-345.7	EOD TO VERTICAL
6,322.7	6,268.8	434.0	-345.7	KOP (8°/100ft BUR)
7,447.7	6,985.0	434.0	370.5	HZ LP *NEW*: 864.8ft FSL & 731.2ft FWL of Sec 28
12,054.1	6,985.0	434.0	4,976.9	BHL: 870ft FSL & 75ft FEL of Sec 28