

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SE SE SEC. 7 T6N R64W 6th P.M.  
ELVERA 7D-404**

**ORIGINAL WELLBORE**

**03 March, 2016**

**Plan: PROPOSAL #1**





Project: WELD COUNTY, COLORADO  
Site: SE SE SEC. 7 T6N R64W 6th P.M.  
Well: ELVERA 7D-404  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

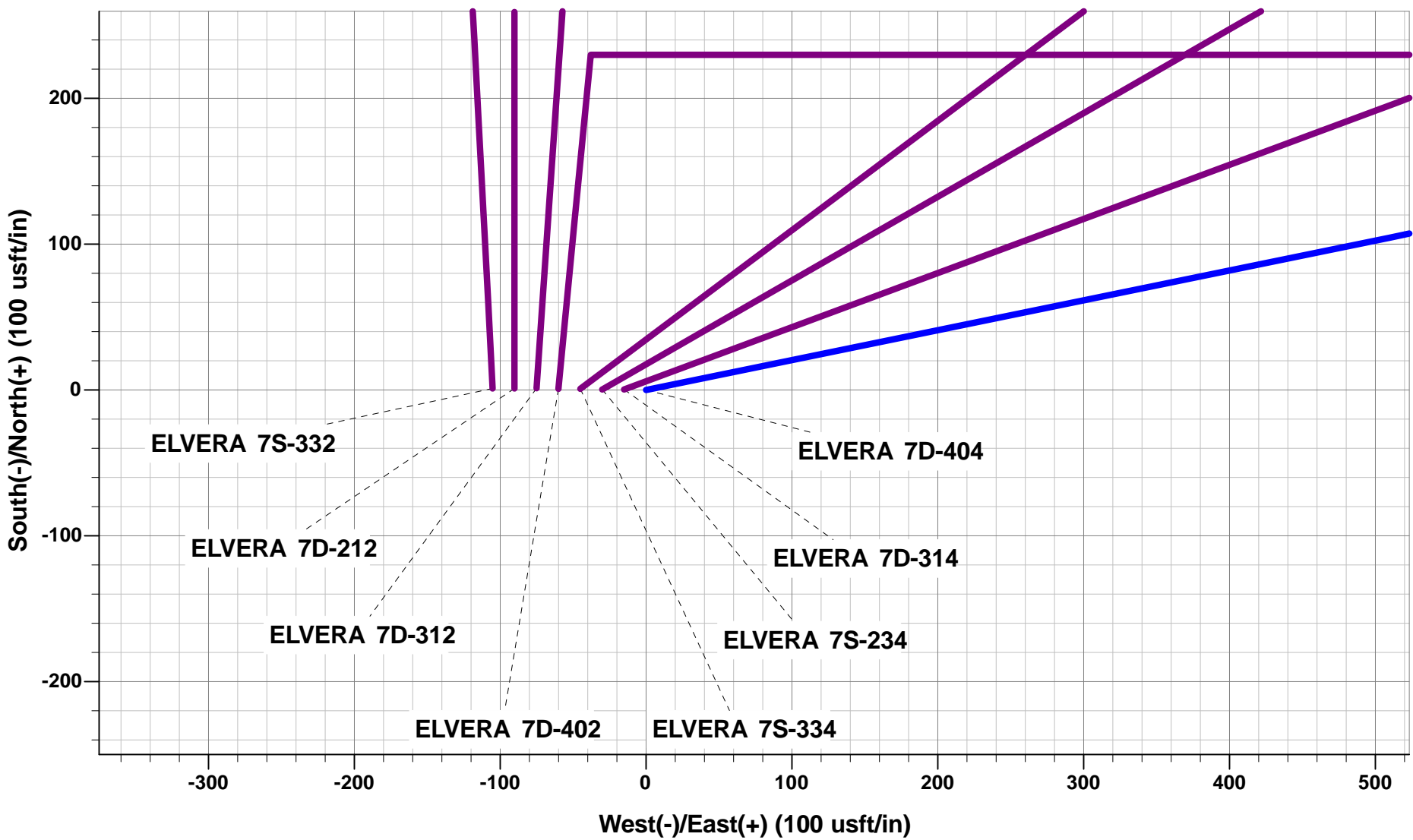


ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 1136ft FSL & 912ft FEL of Sec 7
1061.0	1061.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1940.5	1954.9	17.88	78.42	27.8	135.5	-133.3	138.3	EOB TO 17.88° INC
5382.3	5571.4	17.88	78.42	250.5	1223.2	-1203.4	1248.6	END OF TANGENT
6261.8	6465.3	0.00	0.00	278.3	1358.7	-1336.7	1386.9	EOD TO VERTICAL
6291.8	6495.3	0.00	0.00	278.3	1358.7	-1336.7	1386.9	KOP (8°/100ft BUR)
7008.0	7620.3	90.00	270.00	278.3	642.5	-622.1	2103.1	7" ICP *NEW*: 1407.8ft FSL & 270ft FEL of Sec 7
7008.0	12357.0	90.00	270.00	278.3	-4094.2	4103.7	6839.8	BHL: 1472ft FSL & 0ft FWL of Sec 7

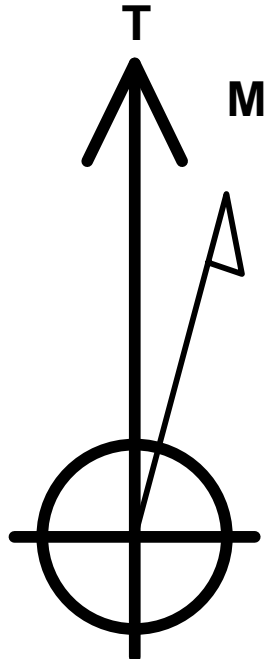
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - ELVERA 7D-404	6291.8	278.3	1358.7	40.497151	-104.582088
7" ICP *NEW* - ELVERA 7D-404	7008.0	278.3	642.5	40.497151	-104.584663
BHL - ELVERA 7D-404	7008.0	278.3	-4094.2	40.497150	-104.601694



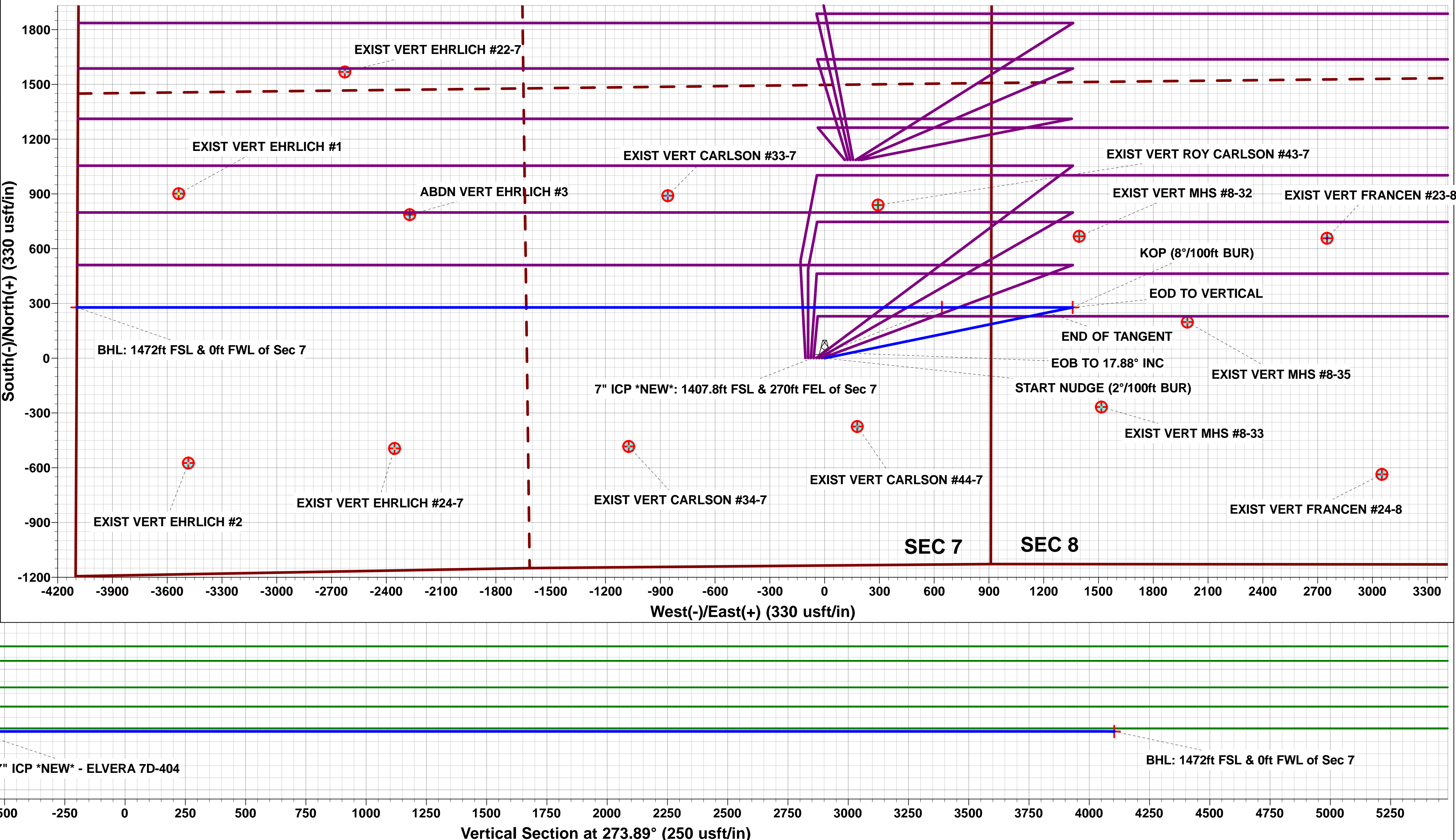
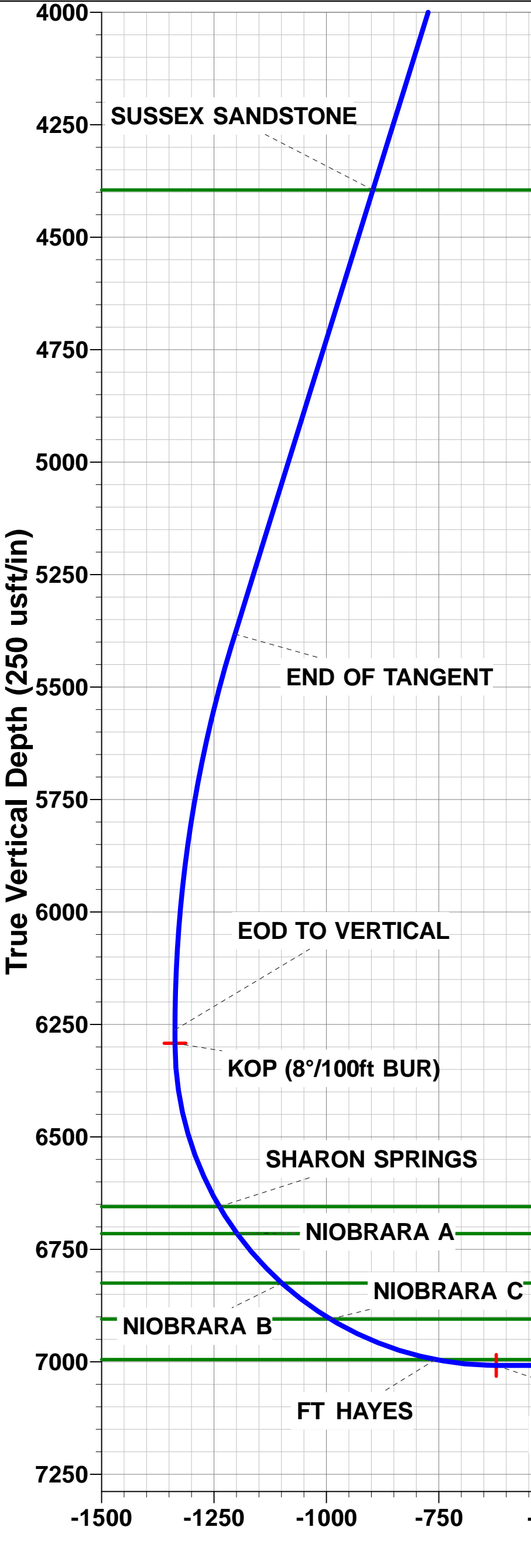
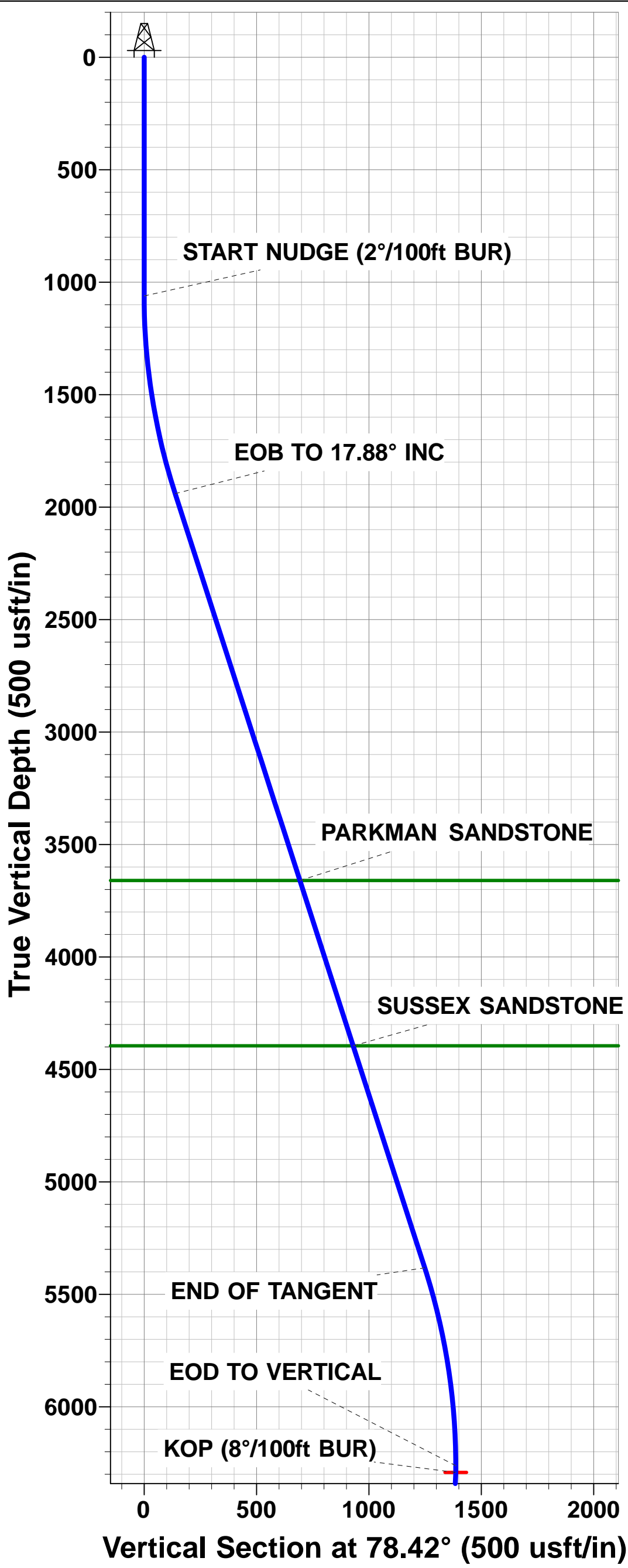
PROPOSED LOCAL COORDINATES:

SHL: 1136ft FSL & 912ft FEL of Sec 7  
7" ICP \*NEW\*: 1407.8ft FSL & 270ft FEL of Sec 7  
BHL: 1472ft FSL & 0ft FWL of Sec 7



Azimuths to True North  
Magnetic North: 8.26°

Magnetic Field  
Strength: 52609.5snT  
Dip Angle: 66.99°  
Date: 01/03/2016  
Model: IGRF2015



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELVERA 7D-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4748.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4748.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-404	<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>	SE SE SEC. 7 T6N R64W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,424,981.51 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,253,921.44 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft
		<b>Latitude:</b>	40.496387
		<b>Longitude:</b>	-104.586973
		<b>Grid Convergence:</b>	0.59 °

<b>Well</b>	ELVERA 7D-404		
<b>Well Position</b>	<b>+N-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E-W</b>	0.0 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	01/03/2016	8.26	66.99	52,609

<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	273.89

<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	-4,748.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,061.0	0.00	0.00	1,061.0	-3,687.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,954.9	17.88	78.42	1,940.5	-2,807.5	27.8	135.5	2.00	2.00	0.00	78.42	
5,571.4	17.88	78.42	5,382.3	634.3	250.5	1,223.2	0.00	0.00	0.00	0.00	
6,465.3	0.00	0.00	6,261.8	1,513.8	278.3	1,358.7	2.00	-2.00	0.00	180.00	
6,495.3	0.00	0.00	6,291.8	1,543.8	278.3	1,358.7	0.00	0.00	0.00	0.00	KOP - ELVERA 7D-
7,620.3	90.00	270.00	7,008.0	2,260.0	278.3	642.5	8.00	8.00	-8.00	270.00	7" ICP *NEW* - EL
12,357.0	90.00	270.00	7,008.0	2,260.0	278.3	-4,094.2	0.00	0.00	0.00	0.00	BHL - ELVERA 7D-

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELVERA 7D-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4748.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4748.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-404	<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: 1136ft FSL &amp; 912ft FEL of Sec 7</b>										
0.0	0.00	0.00	0.0	4,748.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,648.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,548.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,448.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,348.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,248.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,148.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	4,048.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,948.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,848.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,748.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
1,061.0	0.00	0.00	1,061.0	3,687.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.78	78.42	1,100.0	3,648.00	0.1	0.3	-0.3	2.00	2.00	0.00
1,200.0	2.78	78.42	1,199.9	3,548.05	0.7	3.3	-3.2	2.00	2.00	0.00
1,300.0	4.78	78.42	1,299.7	3,448.28	2.0	9.8	-9.6	2.00	2.00	0.00
1,400.0	6.78	78.42	1,399.2	3,348.79	4.0	19.6	-19.3	2.00	2.00	0.00
1,500.0	8.78	78.42	1,498.3	3,249.72	6.7	32.9	-32.4	2.00	2.00	0.00
1,600.0	10.78	78.42	1,596.8	3,151.17	10.1	49.5	-48.7	2.00	2.00	0.00
1,700.0	12.78	78.42	1,694.7	3,053.29	14.2	69.5	-68.4	2.00	2.00	0.00
1,800.0	14.78	78.42	1,791.8	2,956.17	19.0	92.9	-91.4	2.00	2.00	0.00
1,900.0	16.78	78.42	1,888.1	2,859.94	24.5	119.5	-117.6	2.00	2.00	0.00
<b>EOB TO 17.88° INC</b>										
1,954.9	17.88	78.42	1,940.5	2,807.53	27.8	135.5	-133.3	2.00	2.00	0.00
2,000.0	17.88	78.42	1,983.4	2,764.61	30.5	149.1	-146.7	0.00	0.00	0.00
2,100.0	17.88	78.42	2,078.6	2,669.44	36.7	179.2	-176.3	0.00	0.00	0.00
2,200.0	17.88	78.42	2,173.7	2,574.27	42.9	209.2	-205.8	0.00	0.00	0.00
2,300.0	17.88	78.42	2,268.9	2,479.10	49.0	239.3	-235.4	0.00	0.00	0.00
2,400.0	17.88	78.42	2,364.1	2,383.93	55.2	269.4	-265.0	0.00	0.00	0.00
2,500.0	17.88	78.42	2,459.2	2,288.76	61.3	299.5	-294.6	0.00	0.00	0.00
2,600.0	17.88	78.42	2,554.4	2,193.59	67.5	329.5	-324.2	0.00	0.00	0.00
2,700.0	17.88	78.42	2,649.6	2,098.41	73.7	359.6	-353.8	0.00	0.00	0.00
2,800.0	17.88	78.42	2,744.8	2,003.24	79.8	389.7	-383.4	0.00	0.00	0.00
2,900.0	17.88	78.42	2,839.9	1,908.07	86.0	419.8	-413.0	0.00	0.00	0.00
3,000.0	17.88	78.42	2,935.1	1,812.90	92.1	449.8	-442.5	0.00	0.00	0.00
3,100.0	17.88	78.42	3,030.3	1,717.73	98.3	479.9	-472.1	0.00	0.00	0.00
3,200.0	17.88	78.42	3,125.4	1,622.56	104.5	510.0	-501.7	0.00	0.00	0.00
3,300.0	17.88	78.42	3,220.6	1,527.39	110.6	540.1	-531.3	0.00	0.00	0.00
3,400.0	17.88	78.42	3,315.8	1,432.22	116.8	570.1	-560.9	0.00	0.00	0.00
3,500.0	17.88	78.42	3,411.0	1,337.05	122.9	600.2	-590.5	0.00	0.00	0.00
3,600.0	17.88	78.42	3,506.1	1,241.87	129.1	630.3	-620.1	0.00	0.00	0.00
3,700.0	17.88	78.42	3,601.3	1,146.70	135.3	660.4	-649.7	0.00	0.00	0.00
<b>PARKMAN SANDSTONE</b>										
3,761.7	17.88	78.42	3,660.0	1,088.00	139.1	678.9	-667.9	0.00	0.00	0.00
3,800.0	17.88	78.42	3,696.5	1,051.53	141.4	690.4	-679.2	0.00	0.00	0.00
3,900.0	17.88	78.42	3,791.6	956.36	147.6	720.5	-708.8	0.00	0.00	0.00
4,000.0	17.88	78.42	3,886.8	861.19	153.7	750.6	-738.4	0.00	0.00	0.00
4,100.0	17.88	78.42	3,982.0	766.02	159.9	780.7	-768.0	0.00	0.00	0.00
4,200.0	17.88	78.42	4,077.2	670.85	166.1	810.7	-797.6	0.00	0.00	0.00
4,300.0	17.88	78.42	4,172.3	575.68	172.2	840.8	-827.2	0.00	0.00	0.00
4,400.0	17.88	78.42	4,267.5	480.50	178.4	870.9	-856.8	0.00	0.00	0.00
4,500.0	17.88	78.42	4,362.7	385.33	184.5	901.0	-886.4	0.00	0.00	0.00
<b>SUSSEX SANDSTONE</b>										

# Planning Report



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<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4748.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4748.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-404	<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>4,534.0</b>	<b>17.88</b>	<b>78.42</b>	<b>4,395.0</b>	<b>353.00</b>	<b>186.6</b>	<b>911.2</b>	<b>-896.4</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,600.0	17.88	78.42	4,457.8	290.16	190.7	931.0	-916.0	0.00	0.00	0.00
4,700.0	17.88	78.42	4,553.0	194.99	196.9	961.1	-945.5	0.00	0.00	0.00
4,800.0	17.88	78.42	4,648.2	99.82	203.0	991.2	-975.1	0.00	0.00	0.00
4,900.0	17.88	78.42	4,743.4	4.65	209.2	1,021.3	-1,004.7	0.00	0.00	0.00
5,000.0	17.88	78.42	4,838.5	-90.52	215.3	1,051.3	-1,034.3	0.00	0.00	0.00
5,100.0	17.88	78.42	4,933.7	-185.69	221.5	1,081.4	-1,063.9	0.00	0.00	0.00
5,200.0	17.88	78.42	5,028.9	-280.86	227.7	1,111.5	-1,093.5	0.00	0.00	0.00
5,300.0	17.88	78.42	5,124.0	-376.04	233.8	1,141.6	-1,123.1	0.00	0.00	0.00
5,400.0	17.88	78.42	5,219.2	-471.21	240.0	1,171.6	-1,152.7	0.00	0.00	0.00
5,500.0	17.88	78.42	5,314.4	-566.38	246.2	1,201.7	-1,182.2	0.00	0.00	0.00
<b>END OF TANGENT</b>										
<b>5,571.4</b>	<b>17.88</b>	<b>78.42</b>	<b>5,382.3</b>	<b>-634.33</b>	<b>250.5</b>	<b>1,223.2</b>	<b>-1,203.4</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,600.0	17.31	78.42	5,409.6	-661.59	252.3	1,231.6	-1,211.7	2.00	-2.00	0.00
5,700.0	15.31	78.42	5,505.6	-757.57	257.9	1,259.2	-1,238.8	2.00	-2.00	0.00
5,800.0	13.31	78.42	5,602.5	-854.46	262.9	1,283.4	-1,262.6	2.00	-2.00	0.00
5,900.0	11.31	78.42	5,700.2	-952.16	267.2	1,304.2	-1,283.1	2.00	-2.00	0.00
6,000.0	9.31	78.42	5,798.5	-1,050.54	270.7	1,321.8	-1,300.4	2.00	-2.00	0.00
6,100.0	7.31	78.42	5,897.5	-1,149.48	273.6	1,335.9	-1,314.3	2.00	-2.00	0.00
6,200.0	5.31	78.42	5,996.9	-1,248.87	275.8	1,346.7	-1,324.9	2.00	-2.00	0.00
6,300.0	3.31	78.42	6,096.6	-1,348.59	277.4	1,354.0	-1,332.1	2.00	-2.00	0.00
6,400.0	1.31	78.42	6,196.5	-1,448.50	278.2	1,358.0	-1,336.0	2.00	-2.00	0.00
<b>EOD TO VERTICAL</b>										
<b>6,465.3</b>	<b>0.00</b>	<b>0.00</b>	<b>6,261.8</b>	<b>-1,513.80</b>	<b>278.3</b>	<b>1,358.7</b>	<b>-1,336.7</b>	<b>2.00</b>	<b>-2.00</b>	<b>0.00</b>
<b>KOP (8°/100ft BUR)</b>										
<b>6,495.3</b>	<b>0.00</b>	<b>0.00</b>	<b>6,291.8</b>	<b>-1,543.80</b>	<b>278.3</b>	<b>1,358.7</b>	<b>-1,336.7</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,500.0	0.38	270.00	6,296.5	-1,548.50	278.3	1,358.7	-1,336.7	8.00	8.00	0.00
6,600.0	8.38	270.00	6,396.1	-1,648.12	278.3	1,351.1	-1,329.1	8.00	8.00	0.00
6,700.0	16.38	270.00	6,493.7	-1,745.72	278.3	1,329.6	-1,307.7	8.00	8.00	0.00
6,800.0	24.38	270.00	6,587.4	-1,839.39	278.3	1,294.9	-1,273.0	8.00	8.00	0.00
<b>SHARON SPRINGS</b>										
<b>6,876.2</b>	<b>30.47</b>	<b>270.00</b>	<b>6,655.0</b>	<b>-1,907.00</b>	<b>278.3</b>	<b>1,259.8</b>	<b>-1,238.0</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
6,900.0	32.38	270.00	6,675.3	-1,927.30	278.3	1,247.4	-1,225.6	8.00	8.00	0.00
<b>NIOBRARA A</b>										
<b>6,948.1</b>	<b>36.22</b>	<b>270.00</b>	<b>6,715.0</b>	<b>-1,967.00</b>	<b>278.3</b>	<b>1,220.3</b>	<b>-1,198.6</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,000.0	40.38	270.00	6,755.7	-2,007.75	278.3	1,188.1	-1,166.5	8.00	8.00	0.00
<b>NIOBRARA B</b>										
<b>7,096.7</b>	<b>48.11</b>	<b>270.00</b>	<b>6,825.0</b>	<b>-2,077.00</b>	<b>278.3</b>	<b>1,120.7</b>	<b>-1,099.2</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,100.0	48.38	270.00	6,827.2	-2,079.17	278.3	1,118.2	-1,096.8	8.00	8.00	0.00
7,200.0	56.38	270.00	6,888.2	-2,140.17	278.3	1,039.1	-1,017.8	8.00	8.00	0.00
<b>NIOBRARA C</b>										
<b>7,231.4</b>	<b>58.89</b>	<b>270.00</b>	<b>6,905.0</b>	<b>-2,157.00</b>	<b>278.3</b>	<b>1,012.5</b>	<b>-991.3</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,300.0	64.38	270.00	6,937.6	-2,189.56	278.3	952.2	-931.2	8.00	8.00	0.00
7,400.0	72.38	270.00	6,974.4	-2,226.38	278.3	859.4	-838.5	8.00	8.00	0.00
<b>FT HAYES</b>										
<b>7,483.6</b>	<b>79.07</b>	<b>270.00</b>	<b>6,995.0</b>	<b>-2,247.00</b>	<b>278.3</b>	<b>778.3</b>	<b>-757.7</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,500.0	80.38	270.00	6,997.9	-2,249.92	278.3	762.2	-741.6	8.00	8.00	0.00
7,600.0	88.38	270.00	7,007.7	-2,259.71	278.3	662.8	-642.4	8.00	8.00	0.00
<b>7" ICP *NEW*: 1407.8ft FSL &amp; 270ft FEL of Sec 7</b>										
<b>7,620.3</b>	<b>90.00</b>	<b>270.00</b>	<b>7,008.0</b>	<b>-2,260.00</b>	<b>278.3</b>	<b>642.5</b>	<b>-622.1</b>	<b>8.00</b>	<b>8.00</b>	<b>0.00</b>
7,700.0	90.00	270.00	7,008.0	-2,260.00	278.3	562.8	-542.6	0.00	0.00	0.00
7,800.0	90.00	270.00	7,008.0	-2,260.00	278.3	462.8	-442.9	0.00	0.00	0.00
7,900.0	90.00	270.00	7,008.0	-2,260.00	278.3	362.8	-343.1	0.00	0.00	0.00



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well ELVERA 7D-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4748.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4748.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-404	<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)
8,000.0	90.00	270.00	7,008.0	-2,260.00	278.3	262.8	-243.3	0.00	0.00	0.00
8,100.0	90.00	270.00	7,008.0	-2,260.00	278.3	162.8	-143.6	0.00	0.00	0.00
8,200.0	90.00	270.00	7,008.0	-2,260.00	278.3	62.8	-43.8	0.00	0.00	0.00
8,300.0	90.00	270.00	7,008.0	-2,260.00	278.3	-37.2	56.0	0.00	0.00	0.00
8,400.0	90.00	270.00	7,008.0	-2,260.00	278.3	-137.2	155.8	0.00	0.00	0.00
8,500.0	90.00	270.00	7,008.0	-2,260.00	278.3	-237.2	255.5	0.00	0.00	0.00
8,600.0	90.00	270.00	7,008.0	-2,260.00	278.3	-337.2	355.3	0.00	0.00	0.00
8,700.0	90.00	270.00	7,008.0	-2,260.00	278.3	-437.2	455.1	0.00	0.00	0.00
8,800.0	90.00	270.00	7,008.0	-2,260.00	278.3	-537.2	554.8	0.00	0.00	0.00
8,900.0	90.00	270.00	7,008.0	-2,260.00	278.3	-637.2	654.6	0.00	0.00	0.00
9,000.0	90.00	270.00	7,008.0	-2,260.00	278.3	-737.2	754.4	0.00	0.00	0.00
9,100.0	90.00	270.00	7,008.0	-2,260.00	278.3	-837.2	854.1	0.00	0.00	0.00
9,200.0	90.00	270.00	7,008.0	-2,260.00	278.3	-937.2	953.9	0.00	0.00	0.00
9,300.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,037.2	1,053.7	0.00	0.00	0.00
9,400.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,137.2	1,153.4	0.00	0.00	0.00
9,500.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,237.2	1,253.2	0.00	0.00	0.00
9,600.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,337.2	1,353.0	0.00	0.00	0.00
9,700.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,437.2	1,452.8	0.00	0.00	0.00
9,800.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,537.2	1,552.5	0.00	0.00	0.00
9,900.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,637.2	1,652.3	0.00	0.00	0.00
10,000.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,737.2	1,752.1	0.00	0.00	0.00
10,100.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,837.2	1,851.8	0.00	0.00	0.00
10,200.0	90.00	270.00	7,008.0	-2,260.00	278.3	-1,937.2	1,951.6	0.00	0.00	0.00
10,300.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,037.2	2,051.4	0.00	0.00	0.00
10,400.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,137.2	2,151.1	0.00	0.00	0.00
10,500.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,237.2	2,250.9	0.00	0.00	0.00
10,600.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,337.2	2,350.7	0.00	0.00	0.00
10,700.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,437.2	2,450.5	0.00	0.00	0.00
10,800.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,537.2	2,550.2	0.00	0.00	0.00
10,900.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,637.2	2,650.0	0.00	0.00	0.00
11,000.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,737.2	2,749.8	0.00	0.00	0.00
11,100.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,837.2	2,849.5	0.00	0.00	0.00
11,200.0	90.00	270.00	7,008.0	-2,260.00	278.3	-2,937.2	2,949.3	0.00	0.00	0.00
11,300.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,037.2	3,049.1	0.00	0.00	0.00
11,400.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,137.2	3,148.8	0.00	0.00	0.00
11,500.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,237.2	3,248.6	0.00	0.00	0.00
11,600.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,337.2	3,348.4	0.00	0.00	0.00
11,700.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,437.2	3,448.2	0.00	0.00	0.00
11,800.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,537.2	3,547.9	0.00	0.00	0.00
11,900.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,637.2	3,647.7	0.00	0.00	0.00
12,000.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,737.2	3,747.5	0.00	0.00	0.00
12,100.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,837.2	3,847.2	0.00	0.00	0.00
12,200.0	90.00	270.00	7,008.0	-2,260.00	278.3	-3,937.2	3,947.0	0.00	0.00	0.00
12,300.0	90.00	270.00	7,008.0	-2,260.00	278.3	-4,037.2	4,046.8	0.00	0.00	0.00
<b>BHL: 1472ft FSL &amp; 0ft FWL of Sec 7</b>										
<b>12,357.0</b>	<b>90.00</b>	<b>270.00</b>	<b>7,008.0</b>	<b>-2,260.00</b>	<b>278.3</b>	<b>-4,094.2</b>	<b>4,103.7</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 ELVERA 7D-404
<b>Company:</b>	PDC ENERGY	<b>TVD Reference:</b>	KB-EST @ 4748.0usft
<b>Project:</b>	WELD COUNTY, COLORADO	<b>MD Reference:</b>	KB-EST @ 4748.0usft
<b>Site:</b>	SE SE SEC. 7 T6N R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	ELVERA 7D-404	<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 (°)
3,761.7	3,660.0	PARKMAN SANDSTONE			
4,534.0	4,395.0	SUSSEX SANDSTONE			
6,876.2	6,655.0	SHARON SPRINGS			
6,948.1	6,715.0	NIOBRARA A			
7,096.7	6,825.0	NIOBRARA B			
7,231.4	6,905.0	NIOBRARA C			
7,483.6	6,995.0	FT HAYES			

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.0	0.0	0.0	0.0	SHL: 1136ft FSL & 912ft FEL of Sec 7
1,061.0	1,061.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,954.9	1,940.5	27.8	135.5	EOB TO 17.88° INC
5,571.4	5,382.3	250.5	1,223.2	END OF TANGENT
6,465.3	6,261.8	278.3	1,358.7	EOD TO VERTICAL
6,495.3	6,291.8	278.3	1,358.7	KOP (8°/100ft BUR)
7,620.3	7,008.0	278.3	642.5	7" ICP *NEW*: 1407.8ft FSL & 270ft FEL of Sec 7
12,357.0	7,008.0	278.3	-4,094.2	BHL: 1472ft FSL & 0ft FWL of Sec 7