

# **BISON OIL & GAS II, LLC**

**WELD COUNTY, COLORADO (NAD 83)**

**SW SW SEC. 20 T8N R59W 6th P.M.**

**WADE 8-59 20A-9**

**ORIGINAL WELLBORE**

**10 December, 2017**

**Plan: PROPOSAL #1**





Project: WELD COUNTY, COLORADO (NAD 83)  
Site: SW SW SEC. 20 T8N R59W 6th P.M.  
Well: WADE 8-59 20A-9  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 460ft FSL & 647ft FWL of Sec 20	
200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2"/100ft BUR)	
1255.60	1281.08	21.62	106.39	-56.88	193.38	12.19	201.57	EOB TO 21.62° INC	
4392.84	4655.77	21.62	106.39	-407.78	1386.33	87.37	1445.06	END OF TANGENT	
5448.44	5736.84	0.00	0.00	-464.66	1579.71	99.56	1646.63	EOD TO VERTICAL	
5548.44	5836.84	0.00	0.00	-464.66	1579.71	99.56	1646.63	KOP (10"/100ft BUR)	
6121.40	6736.85	90.00	0.66	108.26	1586.31	640.66	2219.59	BPI: 600ft FSL & 2232ft FWL of Sec 20	
6121.40	10863.50	90.00	0.67	4234.64	1634.05	4537.91	6346.24	EPI: 600ft FNL & 2231ft FWL of Sec 20	
6121.40	11163.36	90.00	0.71	4534.48	1637.64	4821.14	6646.11	BHL: 300ft FNL & 2232ft FWL of Sec 20	

PROPOSED LOCAL COORDINATES:

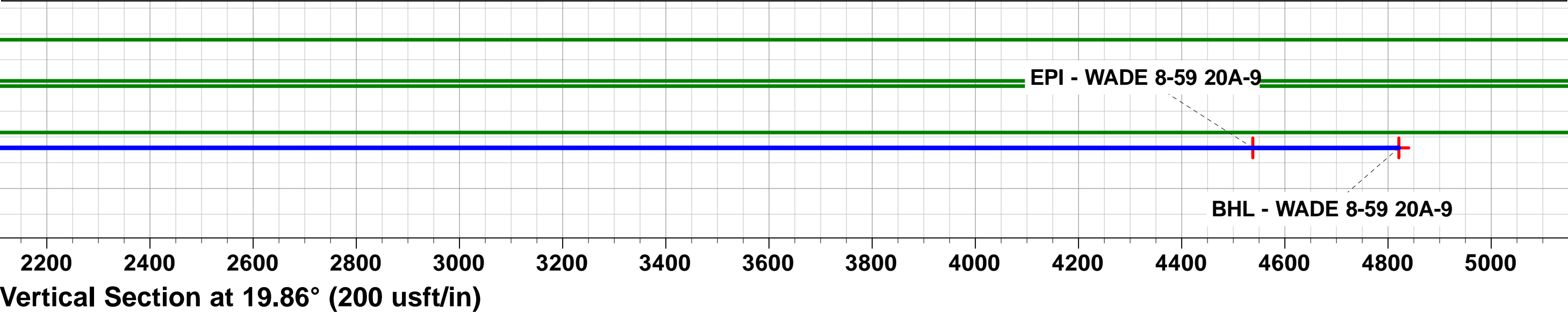
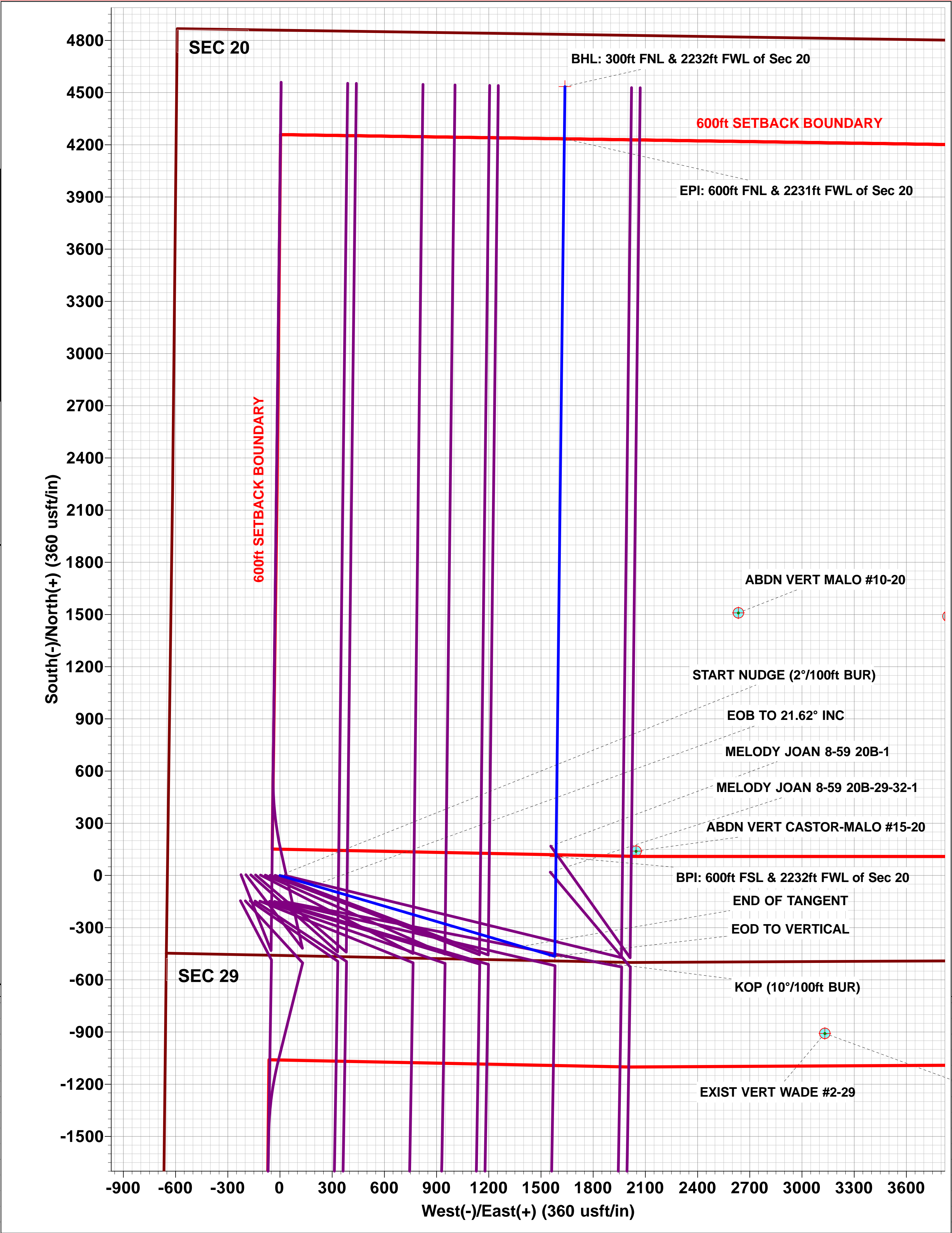
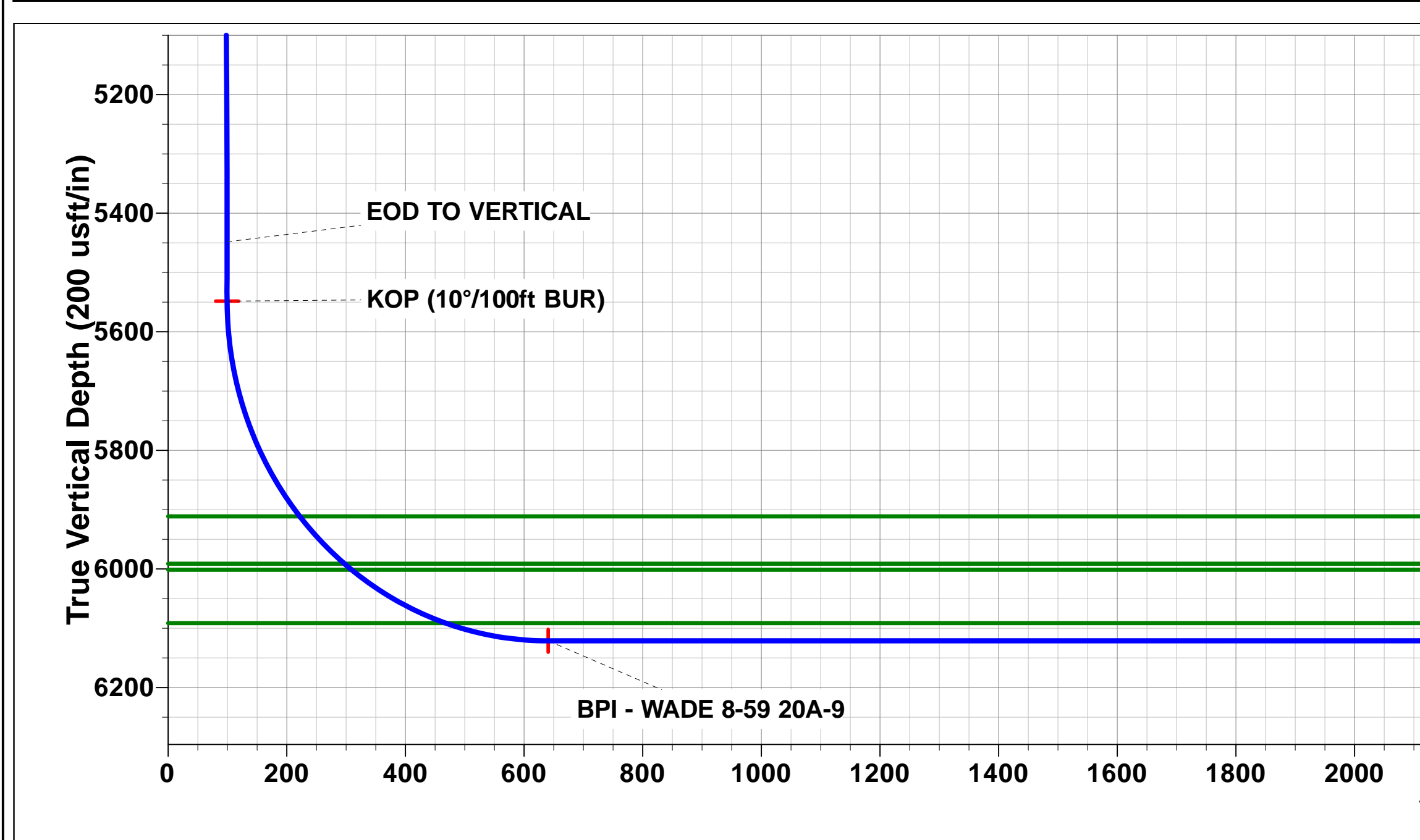
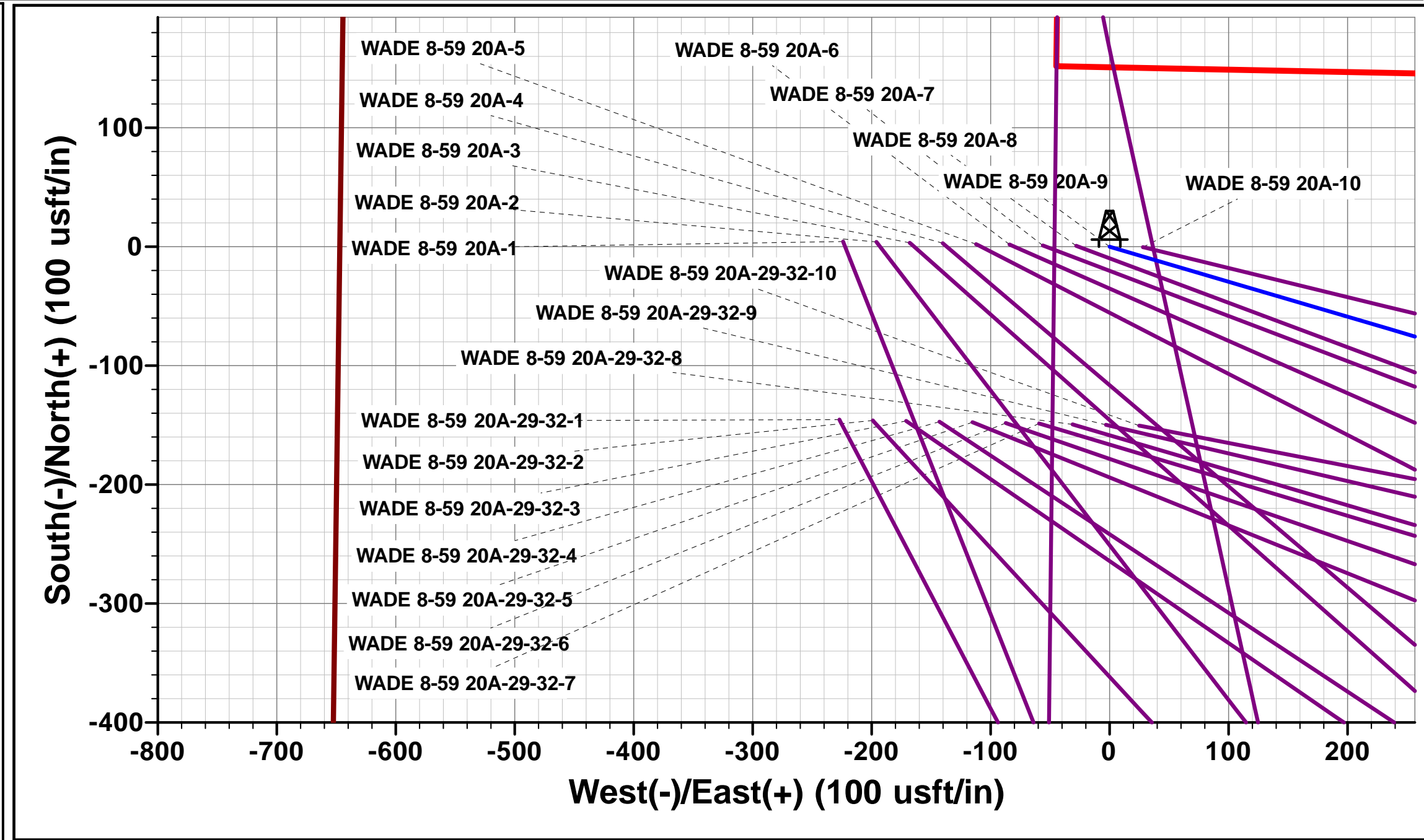
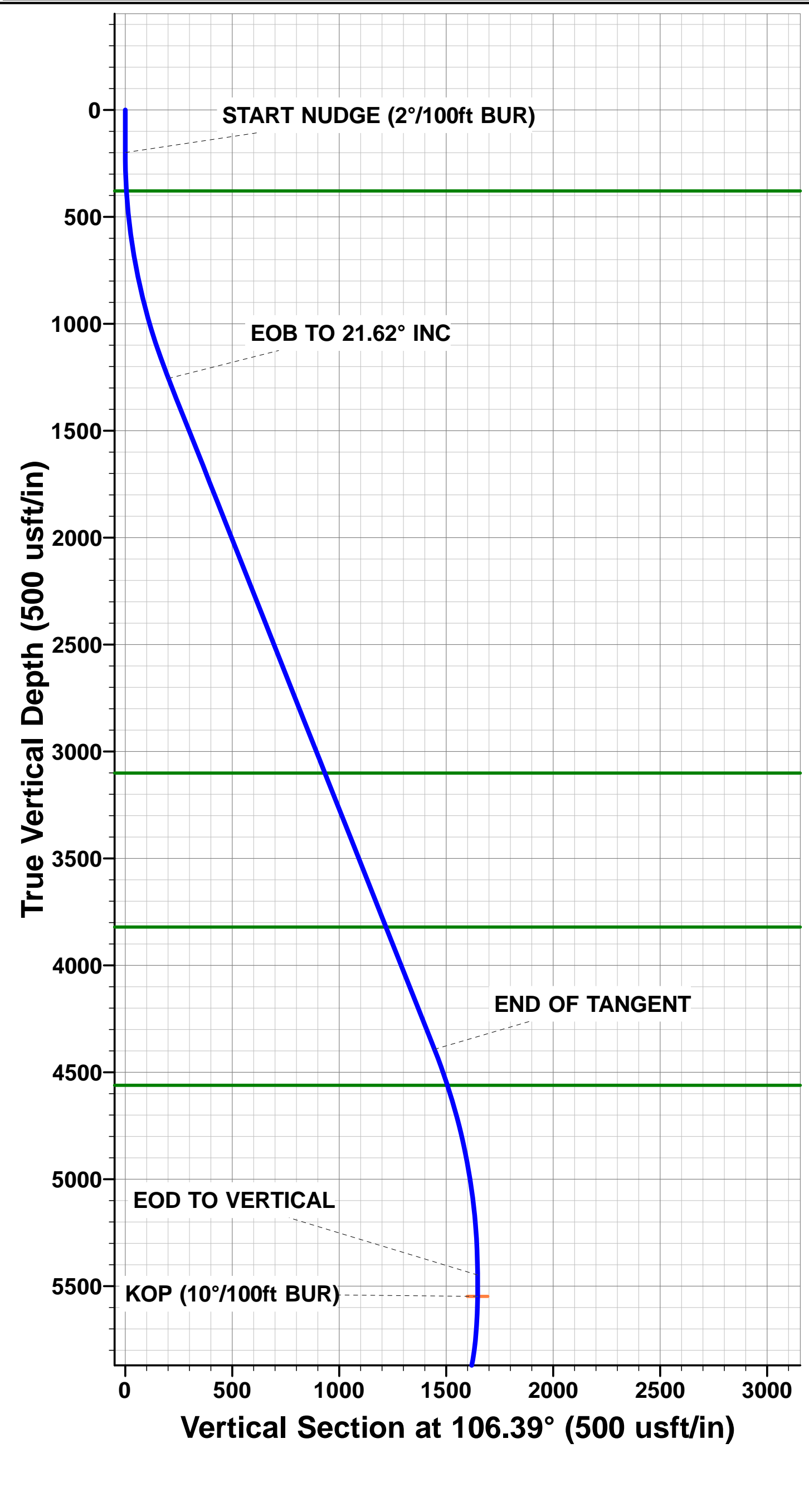
SHL: 460ft FSL & 647ft FWL Sec 20

BPI: 600ft FSL & 2232ft FWL Sec 20

EPI: 600ft FNL & 2231ft FWL Sec 20

BHL: 300ft FNL & 2232ft FWL of Sec 20

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - WADE 8-59 20A-9	5548.44	-464.66	1579.71	40.640436	-104.002541
BPI - WADE 8-59 20A-9	6121.40	108.26	1586.31	40.642009	-104.002517
EPI - WADE 8-59 20A-9	6121.40	4234.64	1634.05	40.653335	-104.002344
BHL - WADE 8-59 20A-9	6121.40	4534.48	1637.64	40.654158	-104.002331



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WADE 8-59 20A-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 20 T8N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	WADE 8-59 20A-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	WELD COUNTY, COLORADO (NAD 83)		
<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

Site	SW SW SEC. 20 T8N R59W 6th P.M.				
Site Position:		Northing:	1,480,100.70 usft	Latitude:	40.641724
From:	Lat/Long	Easting:	3,413,747.65 usft	Longitude:	-104.009040
Position Uncertainty:	0.00 usft	Slot Radius:	1.10000ft	Grid Convergence:	0.96 °

Well	WADE 8-59 20A-9					
Well Position	+N/-S	-4.38 usft	Northing:	1,480,100.09 usft	Latitude:	40.641712
	+E/-W	223.96 usft	Easting:	3,413,971.65 usft	Longitude:	-104.008233
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,866.40 usft

<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	10/12/2017	7.77	67.15	52,539

<b>Design</b>	PROPOSAL #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	6,121.40	0.00	0.00	19.86

<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
0.00	0.00	0.00	0.00	-4,891.40	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	-4,691.40	0.00	0.00	0.00	0.00	0.00	0.00	
1,281.08	21.62	106.39	1,255.60	-3,635.80	-56.88	193.38	2.00	2.00	0.00	106.39	
4,655.77	21.62	106.39	4,392.84	-498.56	-407.78	1,386.33	0.00	0.00	0.00	0.00	
5,736.84	0.00	0.00	5,448.44	557.04	-464.66	1,579.71	2.00	-2.00	0.00	180.00	
5,836.84	0.00	0.00	5,548.44	657.04	-464.66	1,579.71	0.00	0.00	0.00	0.00	KOP - WADE 8-59 2
6,736.85	90.00	0.66	6,121.40	1,230.00	108.26	1,586.31	10.00	10.00	0.07	0.66	BPI - WADE 8-59 2
10,863.50	90.00	0.67	6,121.40	1,230.00	4,234.64	1,634.05	0.00	0.00	0.00	95.18	EPI - WADE 8-59 2
11,163.36	90.00	0.71	6,121.40	1,230.00	4,534.48	1,637.64	0.01	0.00	0.01	89.37	BHL - WADE 8-59 2

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WADE 8-59 20A-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 20 T8N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	WADE 8-59 20A-9	<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: 460ft FSL &amp; 647ft FWL of Sec 20</b>										
0.00	0.00	0.00	0.00	4,891.40	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	4,791.40	0.00	0.00	0.00	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
200.00	0.00	0.00	200.00	4,691.40	0.00	0.00	0.00	0.00	0.00	0.00
300.00	2.00	106.39	299.98	4,591.42	-0.49	1.67	0.11	2.00	2.00	0.00
<b>PIERRE SHALE (BASE OF FOX HILLS)</b>										
379.52	3.59	106.39	379.40	4,512.00	-1.59	5.39	0.34	2.00	2.00	0.00
400.00	4.00	106.39	399.84	4,491.56	-1.97	6.69	0.42	2.00	2.00	0.00
500.00	6.00	106.39	499.45	4,391.95	-4.43	15.06	0.95	2.00	2.00	0.00
600.00	8.00	106.39	598.70	4,292.70	-7.87	26.75	1.69	2.00	2.00	0.00
700.00	10.00	106.39	697.47	4,193.93	-12.28	41.75	2.63	2.00	2.00	0.00
800.00	12.00	106.39	795.62	4,095.78	-17.67	60.06	3.79	2.00	2.00	0.00
900.00	14.00	106.39	893.06	3,998.34	-24.01	81.64	5.15	2.00	2.00	0.00
1,000.00	16.00	106.39	989.64	3,901.76	-31.32	106.47	6.71	2.00	2.00	0.00
1,100.00	18.00	106.39	1,085.27	3,806.13	-39.57	134.51	8.48	2.00	2.00	0.00
1,200.00	20.00	106.39	1,179.82	3,711.58	-48.75	165.75	10.45	2.00	2.00	0.00
<b>EOB TO 21.62° INC</b>										
1,281.08	21.62	106.39	1,255.60	3,635.80	-56.88	193.38	12.19	2.00	2.00	0.00
1,300.00	21.62	106.39	1,273.19	3,618.21	-58.85	200.07	12.61	0.00	0.00	0.00
1,400.00	21.62	106.39	1,366.16	3,525.24	-69.25	235.42	14.84	0.00	0.00	0.00
1,500.00	21.62	106.39	1,459.12	3,432.28	-79.64	270.77	17.07	0.00	0.00	0.00
1,600.00	21.62	106.39	1,552.08	3,339.32	-90.04	306.12	19.29	0.00	0.00	0.00
1,700.00	21.62	106.39	1,645.05	3,246.35	-100.44	341.47	21.52	0.00	0.00	0.00
1,800.00	21.62	106.39	1,738.01	3,153.39	-110.84	376.82	23.75	0.00	0.00	0.00
1,900.00	21.62	106.39	1,830.97	3,060.43	-121.24	412.17	25.98	0.00	0.00	0.00
2,000.00	21.62	106.39	1,923.94	2,967.46	-131.63	447.52	28.21	0.00	0.00	0.00
2,100.00	21.62	106.39	2,016.90	2,874.50	-142.03	482.87	30.43	0.00	0.00	0.00
2,200.00	21.62	106.39	2,109.87	2,781.53	-152.43	518.22	32.66	0.00	0.00	0.00
2,300.00	21.62	106.39	2,202.83	2,688.57	-162.83	553.57	34.89	0.00	0.00	0.00
2,400.00	21.62	106.39	2,295.79	2,595.61	-173.23	588.92	37.12	0.00	0.00	0.00
2,500.00	21.62	106.39	2,388.76	2,502.64	-183.62	624.27	39.34	0.00	0.00	0.00
2,600.00	21.62	106.39	2,481.72	2,409.68	-194.02	659.62	41.57	0.00	0.00	0.00
2,700.00	21.62	106.39	2,574.69	2,316.71	-204.42	694.97	43.80	0.00	0.00	0.00
2,800.00	21.62	106.39	2,667.65	2,223.75	-214.82	730.32	46.03	0.00	0.00	0.00
2,900.00	21.62	106.39	2,760.61	2,130.79	-225.22	765.67	48.26	0.00	0.00	0.00
3,000.00	21.62	106.39	2,853.58	2,037.82	-235.61	801.02	50.48	0.00	0.00	0.00
3,100.00	21.62	106.39	2,946.54	1,944.86	-246.01	836.37	52.71	0.00	0.00	0.00
3,200.00	21.62	106.39	3,039.50	1,851.90	-256.41	871.72	54.94	0.00	0.00	0.00
<b>PARKMAN</b>										
3,266.58	21.62	106.39	3,101.40	1,790.00	-263.33	895.25	56.42	0.00	0.00	0.00
3,300.00	21.62	106.39	3,132.47	1,758.93	-266.81	907.07	57.17	0.00	0.00	0.00
3,400.00	21.62	106.39	3,225.43	1,665.97	-277.21	942.42	59.40	0.00	0.00	0.00
3,500.00	21.62	106.39	3,318.40	1,573.00	-287.60	977.77	61.62	0.00	0.00	0.00
3,600.00	21.62	106.39	3,411.36	1,480.04	-298.00	1,013.12	63.85	0.00	0.00	0.00
3,700.00	21.62	106.39	3,504.32	1,387.08	-308.40	1,048.47	66.08	0.00	0.00	0.00
3,800.00	21.62	106.39	3,597.29	1,294.11	-318.80	1,083.82	68.31	0.00	0.00	0.00
3,900.00	21.62	106.39	3,690.25	1,201.15	-329.19	1,119.17	70.54	0.00	0.00	0.00
4,000.00	21.62	106.39	3,783.21	1,108.19	-339.59	1,154.52	72.76	0.00	0.00	0.00
<b>SUSSEX</b>										
4,041.08	21.62	106.39	3,821.40	1,070.00	-343.86	1,169.04	73.68	0.00	0.00	0.00
4,100.00	21.62	106.39	3,876.18	1,015.22	-349.99	1,189.87	74.99	0.00	0.00	0.00
4,200.00	21.62	106.39	3,969.14	922.26	-360.39	1,225.22	77.22	0.00	0.00	0.00

# Planning Report



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<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 20 T8N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	WADE 8-59 20A-9	<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)
4,300.00	21.62	106.39	4,062.11	829.29	-370.79	1,260.57	79.45	0.00	0.00	0.00
4,400.00	21.62	106.39	4,155.07	736.33	-381.18	1,295.92	81.68	0.00	0.00	0.00
4,500.00	21.62	106.39	4,248.03	643.37	-391.58	1,331.27	83.90	0.00	0.00	0.00
4,600.00	21.62	106.39	4,341.00	550.40	-401.98	1,366.62	86.13	0.00	0.00	0.00
<b>END OF TANGENT</b>										
<b>4,655.77</b>	<b>21.62</b>	<b>106.39</b>	<b>4,392.84</b>	<b>498.56</b>	<b>-407.78</b>	<b>1,386.33</b>	<b>87.37</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,700.00	20.74	106.39	4,434.09	457.31	-412.29	1,401.66	88.34	2.00	-2.00	0.00
4,800.00	18.74	106.39	4,528.21	363.19	-421.82	1,434.06	90.38	2.00	-2.00	0.00
<b>SHANNON</b>										
<b>4,834.98</b>	<b>18.04</b>	<b>106.39</b>	<b>4,561.40</b>	<b>330.00</b>	<b>-424.93</b>	<b>1,444.64</b>	<b>91.05</b>	<b>2.00</b>	<b>-2.00</b>	<b>0.00</b>
4,900.00	16.74	106.39	4,623.45	267.95	-430.41	1,463.28	92.22	2.00	-2.00	0.00
5,000.00	14.74	106.39	4,719.69	171.71	-438.07	1,489.30	93.86	2.00	-2.00	0.00
5,100.00	12.74	106.39	4,816.83	74.57	-444.77	1,512.08	95.30	2.00	-2.00	0.00
5,200.00	10.74	106.39	4,914.73	-23.33	-450.51	1,531.59	96.53	2.00	-2.00	0.00
5,300.00	8.74	106.39	5,013.29	-121.89	-455.28	1,547.82	97.55	2.00	-2.00	0.00
5,400.00	6.74	106.39	5,112.37	-220.97	-459.08	1,560.73	98.37	2.00	-2.00	0.00
5,500.00	4.74	106.39	5,211.87	-320.47	-461.90	1,570.32	98.97	2.00	-2.00	0.00
5,600.00	2.74	106.39	5,311.65	-420.25	-463.74	1,576.58	99.36	2.00	-2.00	0.00
5,700.00	0.74	106.39	5,411.60	-520.20	-464.59	1,579.48	99.55	2.00	-2.00	0.00
<b>EOD TO VERTICAL</b>										
<b>5,736.84</b>	<b>0.00</b>	<b>0.00</b>	<b>5,448.44</b>	<b>-557.04</b>	<b>-464.66</b>	<b>1,579.71</b>	<b>99.56</b>	<b>2.00</b>	<b>-2.00</b>	<b>0.00</b>
5,800.00	0.00	0.00	5,511.60	-620.20	-464.66	1,579.71	99.56	0.00	0.00	0.00
<b>KOP (10°/100ft BUR)</b>										
<b>5,836.84</b>	<b>0.00</b>	<b>0.00</b>	<b>5,548.44</b>	<b>-657.04</b>	<b>-464.66</b>	<b>1,579.71</b>	<b>99.56</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,900.00	6.32	0.66	5,611.47	-720.07	-461.18	1,579.75	102.85	10.00	10.00	0.00
6,000.00	16.32	0.66	5,709.40	-818.00	-441.59	1,579.98	121.35	10.00	10.00	0.00
6,100.00	26.32	0.66	5,802.44	-911.04	-405.29	1,580.39	155.64	10.00	10.00	0.00
6,200.00	36.32	0.66	5,887.77	-996.37	-353.38	1,580.99	204.66	10.00	10.00	0.00
<b>SHARON SPRINGS SHALE</b>										
<b>6,229.92</b>	<b>39.31</b>	<b>0.66</b>	<b>5,911.40</b>	<b>-1,020.00</b>	<b>-335.04</b>	<b>1,581.20</b>	<b>221.98</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
6,300.00	46.32	0.66	5,962.78	-1,071.38	-287.45	1,581.75	266.93	10.00	10.00	0.00
<b>NIORARA FORMATION</b>										
<b>6,343.18</b>	<b>50.63</b>	<b>0.66</b>	<b>5,991.40</b>	<b>-1,100.00</b>	<b>-255.13</b>	<b>1,582.13</b>	<b>297.46</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
<b>NIORARA A CHALK</b>										
<b>6,359.23</b>	<b>52.24</b>	<b>0.66</b>	<b>6,001.40</b>	<b>-1,110.00</b>	<b>-242.59</b>	<b>1,582.27</b>	<b>309.30</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
6,400.00	56.32	0.66	6,025.20	-1,133.80	-209.49	1,582.65	340.56	10.00	10.00	0.00
6,500.00	66.32	0.66	6,073.14	-1,181.74	-121.88	1,583.66	423.30	10.00	10.00	0.00
<b>NIORARA B CHALK</b>										
<b>6,550.62</b>	<b>71.38</b>	<b>0.66</b>	<b>6,091.40</b>	<b>-1,200.00</b>	<b>-74.69</b>	<b>1,584.20</b>	<b>467.87</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
6,600.00	76.32	0.66	6,105.14	-1,213.74	-27.28	1,584.75	512.65	10.00	10.00	0.00
6,700.00	86.32	0.66	6,120.22	-1,228.82	71.44	1,585.89	605.89	10.00	10.00	0.00
<b>BPI: 600ft FSL &amp; 2232ft FWL of Sec 20</b>										
<b>6,736.85</b>	<b>90.00</b>	<b>0.66</b>	<b>6,121.40</b>	<b>-1,230.00</b>	<b>108.26</b>	<b>1,586.31</b>	<b>640.66</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
6,800.00	90.00	0.66	6,121.40	-1,230.00	171.41	1,587.04	700.30	0.00	0.00	0.00
6,900.00	90.00	0.66	6,121.40	-1,230.00	271.40	1,588.19	794.74	0.00	0.00	0.00
7,000.00	90.00	0.66	6,121.40	-1,230.00	371.40	1,589.35	889.18	0.00	0.00	0.00
7,100.00	90.00	0.66	6,121.40	-1,230.00	471.39	1,590.50	983.62	0.00	0.00	0.00
7,200.00	90.00	0.66	6,121.40	-1,230.00	571.38	1,591.65	1,078.06	0.00	0.00	0.00
7,300.00	90.00	0.66	6,121.40	-1,230.00	671.38	1,592.81	1,172.50	0.00	0.00	0.00
7,400.00	90.00	0.66	6,121.40	-1,230.00	771.37	1,593.96	1,266.94	0.00	0.00	0.00
7,500.00	90.00	0.66	6,121.40	-1,230.00	871.36	1,595.12	1,361.38	0.00	0.00	0.00
7,600.00	90.00	0.66	6,121.40	-1,230.00	971.36	1,596.27	1,455.82	0.00	0.00	0.00
7,700.00	90.00	0.66	6,121.40	-1,230.00	1,071.35	1,597.42	1,550.26	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WADE 8-59 20A-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 20 T8N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	WADE 8-59 20A-9	<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)
7,800.00	90.00	0.66	6,121.40	-1,230.00	1,171.34	1,598.58	1,644.70	0.00	0.00	0.00
7,900.00	90.00	0.66	6,121.40	-1,230.00	1,271.34	1,599.73	1,739.14	0.00	0.00	0.00
8,000.00	90.00	0.66	6,121.40	-1,230.00	1,371.33	1,600.89	1,833.58	0.00	0.00	0.00
8,100.00	90.00	0.66	6,121.40	-1,230.00	1,471.32	1,602.04	1,928.02	0.00	0.00	0.00
8,200.00	90.00	0.66	6,121.40	-1,230.00	1,571.32	1,603.20	2,022.46	0.00	0.00	0.00
8,300.00	90.00	0.66	6,121.40	-1,230.00	1,671.31	1,604.35	2,116.90	0.00	0.00	0.00
8,400.00	90.00	0.66	6,121.40	-1,230.00	1,771.30	1,605.51	2,211.34	0.00	0.00	0.00
8,500.00	90.00	0.66	6,121.40	-1,230.00	1,871.30	1,606.67	2,305.78	0.00	0.00	0.00
8,600.00	90.00	0.66	6,121.40	-1,230.00	1,971.29	1,607.82	2,400.22	0.00	0.00	0.00
8,700.00	90.00	0.66	6,121.40	-1,230.00	2,071.28	1,608.98	2,494.67	0.00	0.00	0.00
8,800.00	90.00	0.66	6,121.40	-1,230.00	2,171.28	1,610.14	2,589.11	0.00	0.00	0.00
8,900.00	90.00	0.66	6,121.40	-1,230.00	2,271.27	1,611.29	2,683.55	0.00	0.00	0.00
9,000.00	90.00	0.66	6,121.40	-1,230.00	2,371.26	1,612.45	2,777.99	0.00	0.00	0.00
9,100.00	90.00	0.66	6,121.40	-1,230.00	2,471.26	1,613.61	2,872.43	0.00	0.00	0.00
9,200.00	90.00	0.66	6,121.40	-1,230.00	2,571.25	1,614.77	2,966.87	0.00	0.00	0.00
9,300.00	90.00	0.66	6,121.40	-1,230.00	2,671.24	1,615.92	3,061.31	0.00	0.00	0.00
9,400.00	90.00	0.66	6,121.40	-1,230.00	2,771.24	1,617.08	3,155.75	0.00	0.00	0.00
9,500.00	90.00	0.66	6,121.40	-1,230.00	2,871.23	1,618.24	3,250.19	0.00	0.00	0.00
9,600.00	90.00	0.66	6,121.40	-1,230.00	2,971.22	1,619.40	3,344.63	0.00	0.00	0.00
9,700.00	90.00	0.66	6,121.40	-1,230.00	3,071.22	1,620.56	3,439.08	0.00	0.00	0.00
9,800.00	90.00	0.66	6,121.40	-1,230.00	3,171.21	1,621.71	3,533.52	0.00	0.00	0.00
9,900.00	90.00	0.66	6,121.40	-1,230.00	3,271.20	1,622.87	3,627.96	0.00	0.00	0.00
10,000.00	90.00	0.66	6,121.40	-1,230.00	3,371.20	1,624.03	3,722.40	0.00	0.00	0.00
10,100.00	90.00	0.66	6,121.40	-1,230.00	3,471.19	1,625.19	3,816.84	0.00	0.00	0.00
10,200.00	90.00	0.66	6,121.40	-1,230.00	3,571.18	1,626.35	3,911.28	0.00	0.00	0.00
10,300.00	90.00	0.66	6,121.40	-1,230.00	3,671.18	1,627.51	4,005.73	0.00	0.00	0.00
10,400.00	90.00	0.66	6,121.40	-1,230.00	3,771.17	1,628.67	4,100.17	0.00	0.00	0.00
10,500.00	90.00	0.66	6,121.40	-1,230.00	3,871.16	1,629.83	4,194.61	0.00	0.00	0.00
10,600.00	90.00	0.66	6,121.40	-1,230.00	3,971.16	1,630.99	4,289.05	0.00	0.00	0.00
10,700.00	90.00	0.67	6,121.40	-1,230.00	4,071.15	1,632.15	4,383.49	0.00	0.00	0.00
10,800.00	90.00	0.67	6,121.40	-1,230.00	4,171.14	1,633.31	4,477.94	0.00	0.00	0.00
<b>EPI: 600ft FNL &amp; 2231ft FWL of Sec 20</b>										
<b>10,863.50</b>	<b>90.00</b>	<b>0.67</b>	<b>6,121.40</b>	<b>-1,230.00</b>	<b>4,234.64</b>	<b>1,634.05</b>	<b>4,537.91</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
10,900.00	90.00	0.67	6,121.40	-1,230.00	4,271.14	1,634.48	4,572.38	0.01	0.00	0.01
11,000.00	90.00	0.68	6,121.40	-1,230.00	4,371.13	1,635.66	4,666.83	0.01	0.00	0.01
11,100.00	90.00	0.70	6,121.40	-1,230.00	4,471.12	1,636.86	4,761.28	0.01	0.00	0.01
<b>BHL: 300ft FNL &amp; 2232ft FWL of Sec 20</b>										
<b>11,163.36</b>	<b>90.00</b>	<b>0.71</b>	<b>6,121.40</b>	<b>-1,230.00</b>	<b>4,534.48</b>	<b>1,637.64</b>	<b>4,821.14</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well WADE 8-59 20A-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4891.40usft (Original Well Elev)
<b>Site:</b>	SW SW SEC. 20 T8N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	WADE 8-59 20A-9	<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 (°)
379.52	379.40	PIERRE SHALE (BASE OF FOX HI			
3,266.58	3,101.40	PARKMAN			
4,041.08	3,821.40	SUSSEX			
4,834.98	4,561.40	SHANNON			
6,229.92	5,911.40	SHARON SPRINGS SHALE			
6,343.18	5,991.40	NIOBRARA FORMATION			
6,359.23	6,001.40	NIOBRARA A CHALK			
6,550.62	6,091.40	NIOBRARA B CHALK			

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.00	0.00	0.00	0.00	SHL: 460ft FSL & 647ft FWL of Sec 20
200.00	200.00	0.00	0.00	START NUDGE (2°/100ft BUR)
1,281.08	1,255.60	-56.88	193.38	EOB TO 21.62° INC
4,655.77	4,392.84	-407.78	1,386.33	END OF TANGENT
5,736.84	5,448.44	-464.66	1,579.71	EOD TO VERTICAL
5,836.84	5,548.44	-464.66	1,579.71	KOP (10°/100ft BUR)
6,736.85	6,121.40	108.26	1,586.31	BPI: 600ft FSL & 2232ft FWL of Sec 20
10,863.50	6,121.40	4,234.64	1,634.05	EPI: 600ft FNL & 2231ft FWL of Sec 20
11,163.36	6,121.40	4,534.48	1,637.64	BHL: 300ft FNL & 2232ft FWL of Sec 20