

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

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

**NW SW SEC. 8 T9N R59W 6th P.M.**

**TIMBRO 9-59 8B-9-9**

**ORIGINAL WELLBORE**

**05 March, 2018**

**Plan: PROPOSAL #1**





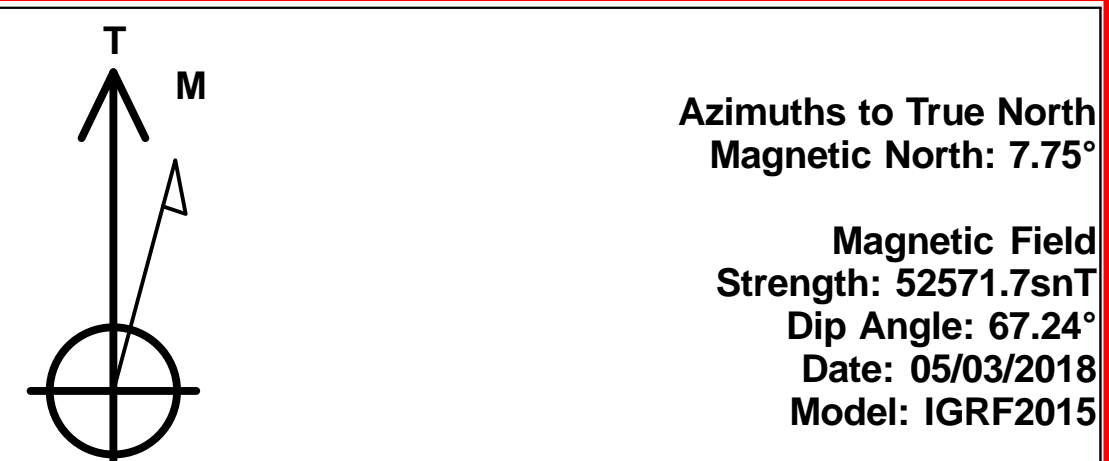
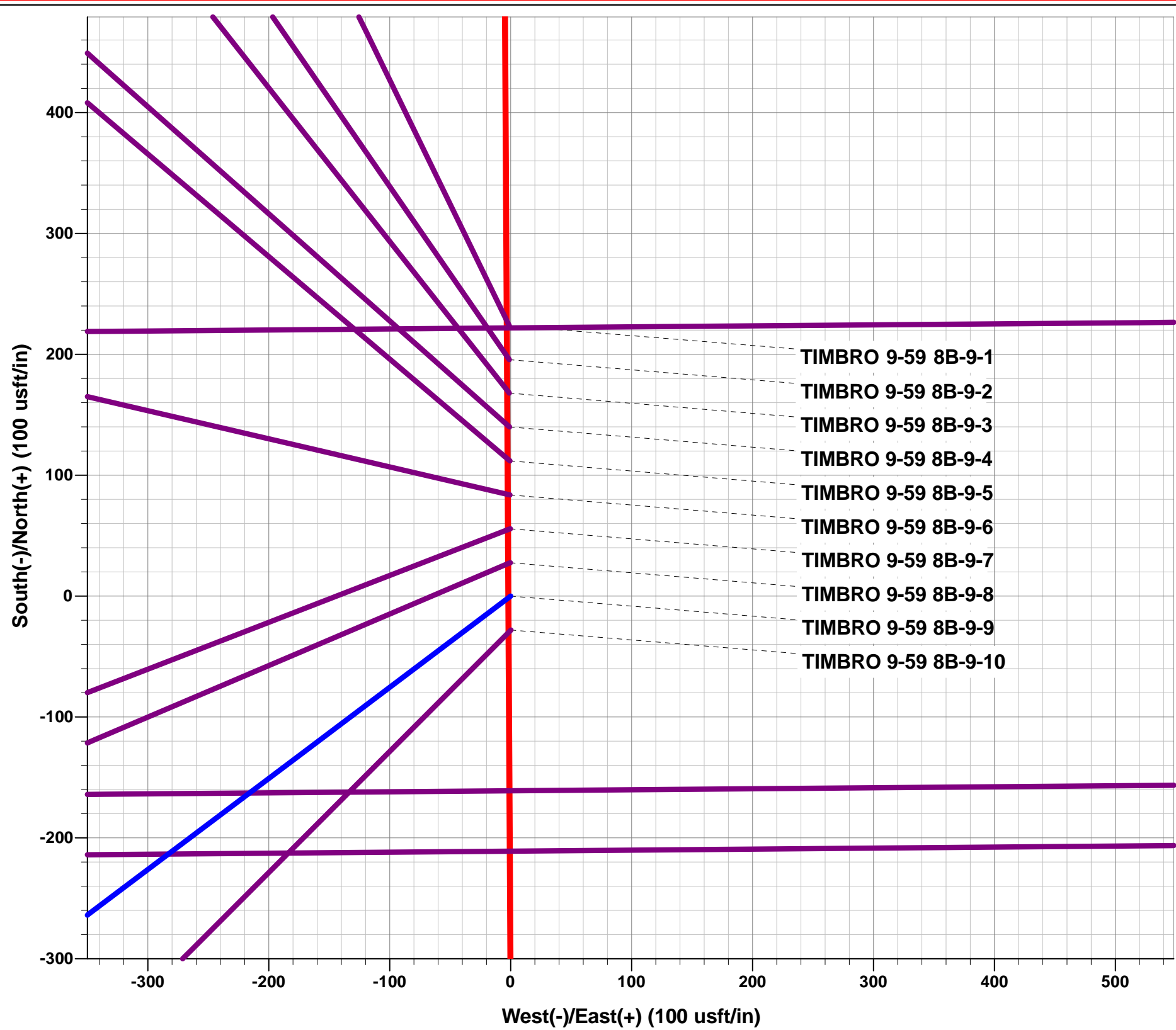
Project: WELD COUNTY, COLORADO (NAD 83)  
Site: NW SW SEC. 8 T9N R59W 6th P.M.  
Well: TIMBRO 9-59 8B-9-9  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

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: 1219ft FSL & 600ft FWL of Sec 8
200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
795.62	800.00	12.00	232.99	-37.69	-49.99	-47.90	62.60	EOB TO 12° INC
3479.93	3544.28	12.00	232.99	-381.18	-505.57	-484.50	633.17	END OF TANGENT
4075.55	4144.28	0.00	0.00	-418.87	-555.56	-532.41	695.77	EOD TO VERTICAL
5717.94	5786.66	0.00	0.00	-418.87	-555.56	-532.41	695.77	KOP (10°/100ft BUR)
6290.90	6686.67	90.00	102.60	-543.86	3.60	32.63	1268.73	BPI *NEW*: 675ft FSL & 600ft FWL of Sec 8
6290.90	7122.67	90.00	89.52	-589.79	436.23	467.09	1704.74	EOT TO 89.52° AZ
6290.90	15981.51	90.00	89.52	-515.59	9294.76	9309.03	10563.58	EPI: 621ft FSL & 600ft FEL of Sec 9
6290.90	15982.51	90.00	89.49	-515.58	9295.76	9310.03	10564.58	EOT TO 89.49° AZ
6290.90	16281.27	90.00	89.49	-512.92	9594.51	9608.21	10863.34	BHL: 620ft FSL & 300ft FEL of Sec 9

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - TIMBRO 9-59 8B-9-9	5717.94	-418.87	-555.56	40.759931	-104.011525
BPI *NEW* - TIMBRO 9-59 8B-9-9	6290.90	-543.86	3.60	40.759588	-104.009507
EPI - TIMBRO 9-59 8B-9-9	6290.90	-515.59	9294.76	40.759661	-103.975969
BHL - TIMBRO 9-59 8B-9-9	6290.90	-512.92	9594.51	40.759668	-103.974887

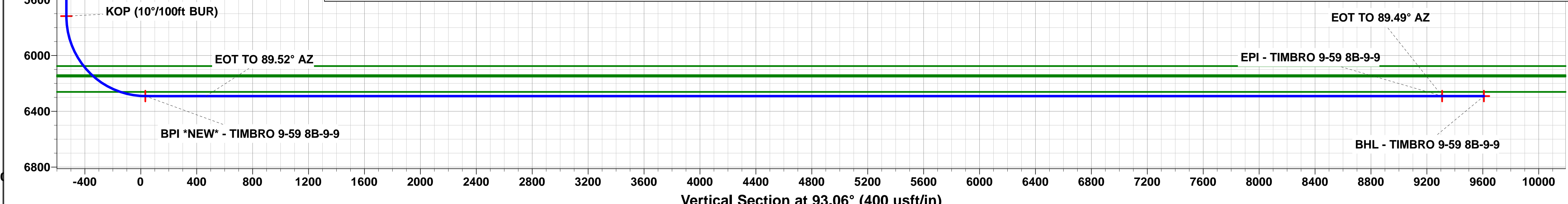
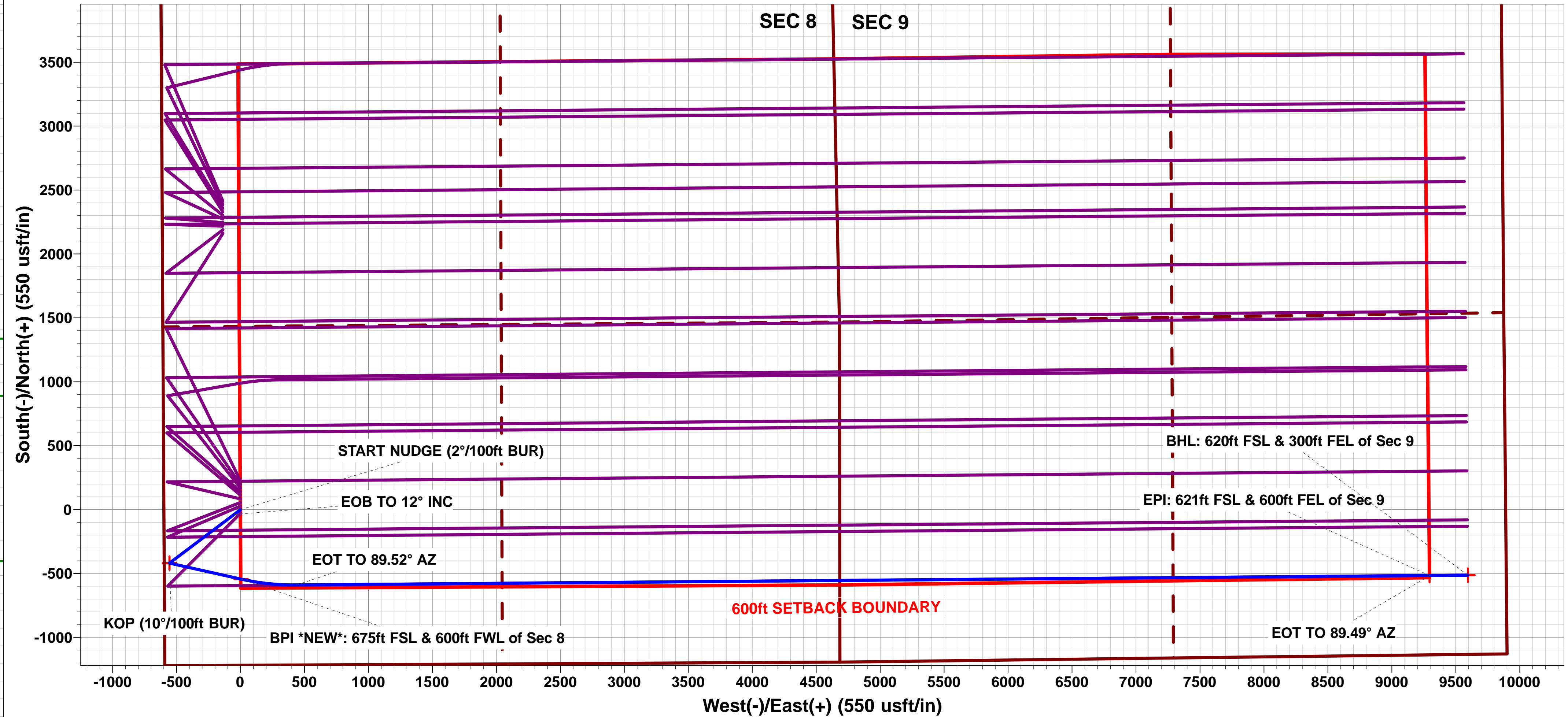
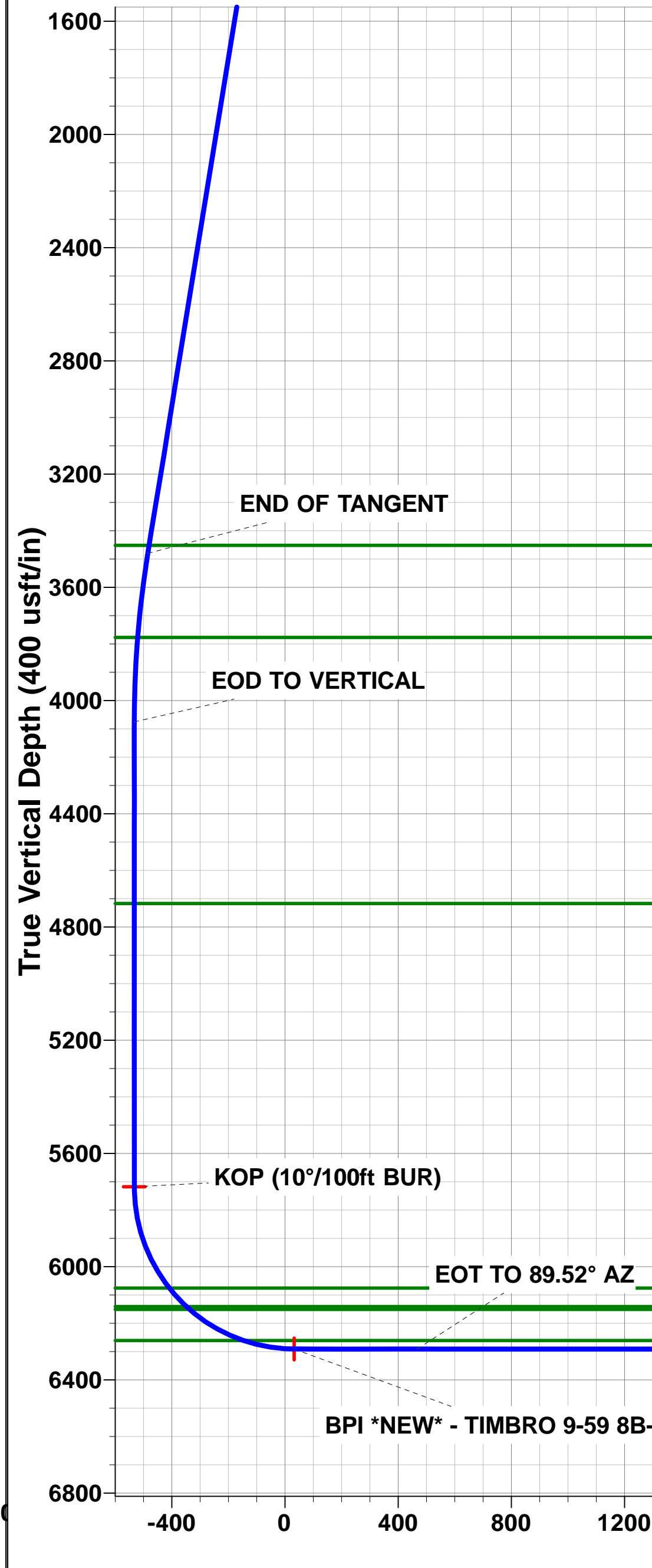
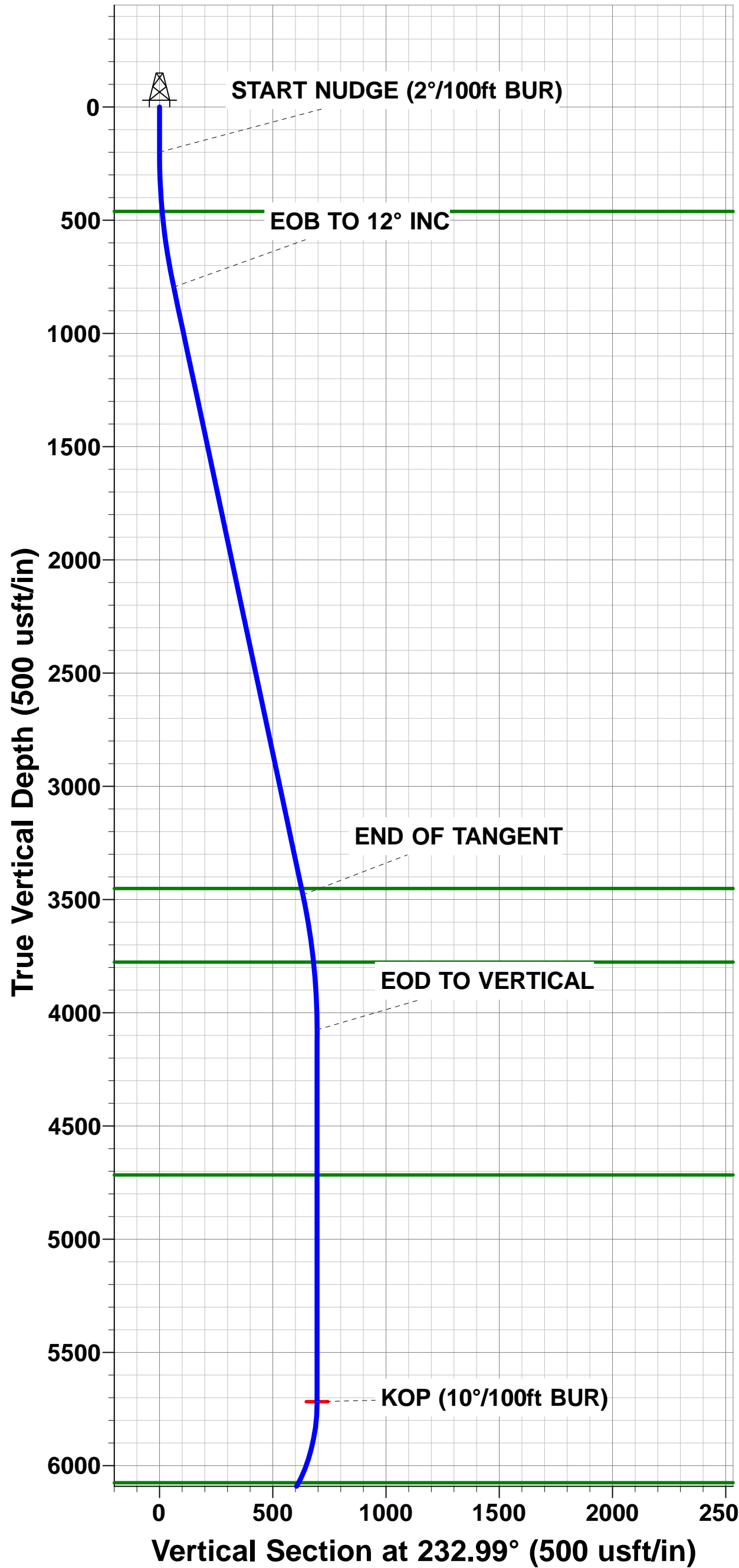


FORMATION TOP DETAILS

TVDPath	MDPath	Formation
461.90	462.27	PIERRE SHALE
3451.90	3515.62	PARKMAN
3776.90	3845.08	SUSSEX
4716.90	4785.62	SHANNON
6075.90	6173.31	SHARON SPRINGS SHALE
6140.90	6262.45	NOBRARA FORMATION
6150.90	6277.49	NOBRARA A CHALK
6260.90	6500.44	NOBRARA B CHALK

PROPOSED LOCAL COORDINATES:

SHL: 1219ft FSL & 600ft FWL of Sec 8  
BEGIN PROD INT \*NEW\*: 675ft FSL & 600ft FWL of Sec 8  
END PROD INTERVAL: 621ft FSL & 600ft FEL of Sec 9  
BHL: 620ft FSL & 300ft FEL of Sec 9



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 8 T9N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-9	<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

<b>Site</b>	NW SW SEC. 8 T9N R59W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,523,800.83 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,412,878.72 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	1.10000ft
		<b>Latitude:</b>	40.761695
		<b>Longitude:</b>	-104.009524
		<b>Grid Convergence:</b>	0.96 °

<b>Well</b>	TIMBRO 9-59 8B-9-9		
<b>Well Position</b>	<b>+N/-S</b>	-223.71 usft	<b>Northing:</b>
	<b>+E/-W</b>	1.11 usft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.00 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	05/03/2018	7.75	67.24	52,572

<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>
	6,290.90	0.00	0.00	93.06

<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	-5,066.90	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	-4,866.90	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	12.00	232.99	795.62	-4,271.28	-37.69	-49.99	2.00	2.00	0.00	232.99	
3,544.28	12.00	232.99	3,479.93	-1,586.97	-381.18	-505.57	0.00	0.00	0.00	0.00	
4,144.28	0.00	0.00	4,075.55	-991.35	-418.87	-555.56	2.00	-2.00	0.00	180.00	
5,786.66	0.00	0.00	5,717.94	651.04	-418.87	-555.56	0.00	0.00	0.00	0.00	KOP - TIMBRO 9-5
6,686.67	90.00	102.60	6,290.90	1,224.00	-543.86	3.60	10.00	10.00	11.40	102.60	BPI *NEW* - TIMBF
7,122.67	90.00	89.52	6,290.90	1,224.00	-589.79	436.23	3.00	0.00	-3.00	-90.00	
15,981.51	90.00	89.52	6,290.90	1,224.00	-515.59	9,294.76	0.00	0.00	0.00	0.00	EPI - TIMBRO 9-59
15,982.51	90.00	89.49	6,290.90	1,224.00	-515.58	9,295.76	3.00	0.00	-3.00	-90.00	
16,281.27	90.00	89.49	6,290.90	1,224.00	-512.92	9,594.51	0.00	0.00	0.00	0.00	BHL - TIMBRO 9-59

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 8 T9N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-9	<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: 1219ft FSL &amp; 600ft FWL of Sec 8</b>										
0.00	0.00	0.00	0.00	5,066.90	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	4,966.90	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	4,866.90	0.00	0.00	0.00	0.00	0.00	0.00
300.00	2.00	232.99	299.98	4,766.92	-1.05	-1.39	-1.34	2.00	2.00	0.00
400.00	4.00	232.99	399.84	4,667.06	-4.20	-5.57	-5.34	2.00	2.00	0.00
<b>PIERRE SHALE</b>										
462.27	5.25	232.99	461.90	4,605.00	-7.22	-9.58	-9.18	2.00	2.00	0.00
500.00	6.00	232.99	499.45	4,567.45	-9.45	-12.53	-12.01	2.00	2.00	0.00
600.00	8.00	232.99	598.70	4,468.20	-16.78	-22.26	-21.33	2.00	2.00	0.00
700.00	10.00	232.99	697.47	4,369.43	-26.20	-34.75	-33.30	2.00	2.00	0.00
<b>EOB TO 12° INC</b>										
800.00	12.00	232.99	795.62	4,271.28	-37.69	-49.99	-47.90	2.00	2.00	0.00
900.00	12.00	232.99	893.44	4,173.46	-50.20	-66.59	-63.81	0.00	0.00	0.00
1,000.00	12.00	232.99	991.25	4,075.65	-62.72	-83.19	-79.72	0.00	0.00	0.00
1,100.00	12.00	232.99	1,089.07	3,977.83	-75.24	-99.79	-95.63	0.00	0.00	0.00
1,200.00	12.00	232.99	1,186.88	3,880.02	-87.76	-116.39	-111.54	0.00	0.00	0.00
1,300.00	12.00	232.99	1,284.70	3,782.20	-100.27	-132.99	-127.45	0.00	0.00	0.00
1,400.00	12.00	232.99	1,382.51	3,684.39	-112.79	-149.59	-143.36	0.00	0.00	0.00
1,500.00	12.00	232.99	1,480.33	3,586.57	-125.31	-166.20	-159.27	0.00	0.00	0.00
1,600.00	12.00	232.99	1,578.14	3,488.76	-137.82	-182.80	-175.18	0.00	0.00	0.00
1,700.00	12.00	232.99	1,675.96	3,390.94	-150.34	-199.40	-191.09	0.00	0.00	0.00
1,800.00	12.00	232.99	1,773.77	3,293.13	-162.86	-216.00	-207.00	0.00	0.00	0.00
1,900.00	12.00	232.99	1,871.59	3,195.31	-175.37	-232.60	-222.91	0.00	0.00	0.00
2,000.00	12.00	232.99	1,969.40	3,097.50	-187.89	-249.20	-238.82	0.00	0.00	0.00
2,100.00	12.00	232.99	2,067.22	2,999.68	-200.41	-265.80	-254.73	0.00	0.00	0.00
2,200.00	12.00	232.99	2,165.03	2,901.87	-212.92	-282.41	-270.64	0.00	0.00	0.00
2,300.00	12.00	232.99	2,262.84	2,804.06	-225.44	-299.01	-286.55	0.00	0.00	0.00
2,400.00	12.00	232.99	2,360.66	2,706.24	-237.96	-315.61	-302.46	0.00	0.00	0.00
2,500.00	12.00	232.99	2,458.47	2,608.43	-250.47	-332.21	-318.36	0.00	0.00	0.00
2,600.00	12.00	232.99	2,556.29	2,510.61	-262.99	-348.81	-334.27	0.00	0.00	0.00
2,700.00	12.00	232.99	2,654.10	2,412.80	-275.51	-365.41	-350.18	0.00	0.00	0.00
2,800.00	12.00	232.99	2,751.92	2,314.98	-288.02	-382.01	-366.09	0.00	0.00	0.00
2,900.00	12.00	232.99	2,849.73	2,217.17	-300.54	-398.61	-382.00	0.00	0.00	0.00
3,000.00	12.00	232.99	2,947.55	2,119.35	-313.06	-415.22	-397.91	0.00	0.00	0.00
3,100.00	12.00	232.99	3,045.36	2,021.54	-325.57	-431.82	-413.82	0.00	0.00	0.00
3,200.00	12.00	232.99	3,143.18	1,923.72	-338.09	-448.42	-429.73	0.00	0.00	0.00
3,300.00	12.00	232.99	3,240.99	1,825.91	-350.61	-465.02	-445.64	0.00	0.00	0.00
3,400.00	12.00	232.99	3,338.81	1,728.09	-363.12	-481.62	-461.55	0.00	0.00	0.00
3,500.00	12.00	232.99	3,436.62	1,630.28	-375.64	-498.22	-477.46	0.00	0.00	0.00
<b>PARKMAN</b>										
3,515.62	12.00	232.99	3,451.90	1,615.00	-377.60	-500.82	-479.94	0.00	0.00	0.00
<b>END OF TANGENT</b>										
3,544.28	12.00	232.99	3,479.93	1,586.97	-381.18	-505.57	-484.50	0.00	0.00	0.00
3,600.00	10.89	232.99	3,534.55	1,532.35	-387.84	-514.40	-492.96	2.00	-2.00	0.00
3,700.00	8.89	232.99	3,633.06	1,433.84	-398.17	-528.11	-506.10	2.00	-2.00	0.00
3,800.00	6.89	232.99	3,732.11	1,334.79	-406.43	-539.06	-516.60	2.00	-2.00	0.00
<b>SUSSEX</b>										
3,845.08	5.98	232.99	3,776.90	1,290.00	-409.47	-543.10	-520.46	2.00	-2.00	0.00
3,900.00	4.89	232.99	3,831.57	1,235.33	-412.60	-547.25	-524.44	2.00	-2.00	0.00
4,000.00	2.89	232.99	3,931.34	1,135.56	-416.68	-552.66	-529.63	2.00	-2.00	0.00
4,100.00	0.89	232.99	4,031.28	1,035.62	-418.66	-555.29	-532.15	2.00	-2.00	0.00



# Planning Report



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<b>Site:</b>	NW SW SEC. 8 T9N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-9	<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>EOD TO VERTICAL</b>										
4,144.28	0.00	0.00	4,075.55	991.35	-418.87	-555.56	-532.41	2.00	-2.00	0.00
4,200.00	0.00	0.00	4,131.28	935.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
4,300.00	0.00	0.00	4,231.28	835.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
4,400.00	0.00	0.00	4,331.28	735.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
4,500.00	0.00	0.00	4,431.28	635.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
4,600.00	0.00	0.00	4,531.28	535.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
4,700.00	0.00	0.00	4,631.28	435.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
<b>SHANNON</b>										
4,785.62	0.00	0.00	4,716.90	350.00	-418.87	-555.56	-532.41	0.00	0.00	0.00
4,800.00	0.00	0.00	4,731.28	335.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
4,900.00	0.00	0.00	4,831.28	235.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,000.00	0.00	0.00	4,931.28	135.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,100.00	0.00	0.00	5,031.28	35.62	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,200.00	0.00	0.00	5,131.28	-64.38	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,300.00	0.00	0.00	5,231.28	-164.38	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,400.00	0.00	0.00	5,331.28	-264.38	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,500.00	0.00	0.00	5,431.28	-364.38	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,600.00	0.00	0.00	5,531.28	-464.38	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,700.00	0.00	0.00	5,631.28	-564.38	-418.87	-555.56	-532.41	0.00	0.00	0.00
<b>KOP (10°/100ft BUR)</b>										
5,786.66	0.00	0.00	5,717.94	-651.04	-418.87	-555.56	-532.41	0.00	0.00	0.00
5,800.00	1.33	102.60	5,731.28	-664.38	-418.90	-555.41	-532.25	10.00	10.00	0.00
5,900.00	11.33	102.60	5,830.54	-763.64	-421.31	-544.66	-521.39	10.00	10.00	0.00
6,000.00	21.33	102.60	5,926.38	-859.48	-427.43	-517.25	-493.69	10.00	10.00	0.00
6,100.00	31.33	102.60	6,015.89	-948.99	-437.10	-474.01	-450.00	10.00	10.00	0.00
<b>SHARON SPRINGS SHALE</b>										
6,173.31	38.66	102.60	6,075.90	-1,009.00	-446.27	-433.00	-408.56	10.00	10.00	0.00
6,200.00	41.33	102.60	6,096.35	-1,029.45	-450.01	-416.26	-391.64	10.00	10.00	0.00
<b>NIORARA FORMATION</b>										
6,262.45	47.58	102.60	6,140.90	-1,074.00	-459.54	-373.60	-348.53	10.00	10.00	0.00
<b>NIORARA A CHALK</b>										
6,277.49	49.08	102.60	6,150.90	-1,084.00	-462.00	-362.63	-337.45	10.00	10.00	0.00
6,300.00	51.33	102.60	6,165.30	-1,098.40	-465.77	-345.76	-320.40	10.00	10.00	0.00
6,400.00	61.33	102.60	6,220.67	-1,153.77	-483.90	-264.63	-238.42	10.00	10.00	0.00
6,500.00	71.33	102.60	6,260.76	-1,193.86	-503.86	-175.36	-148.22	10.00	10.00	0.00
<b>NIORARA B CHALK</b>										
6,500.44	71.38	102.60	6,260.90	-1,194.00	-503.95	-174.96	-147.81	10.00	10.00	0.00
6,600.00	81.33	102.60	6,284.36	-1,217.46	-525.03	-80.66	-52.51	10.00	10.00	0.00
<b>BPI *NEW*: 675ft FSL &amp; 600ft FWL of Sec 8</b>										
6,686.67	90.00	102.60	6,290.90	-1,224.00	-543.86	3.60	32.63	10.00	10.00	0.00
6,700.00	90.00	102.20	6,290.90	-1,224.00	-546.72	16.62	45.79	3.00	0.00	-3.00
6,800.00	90.00	99.20	6,290.90	-1,224.00	-565.29	114.87	144.89	3.00	0.00	-3.00
6,900.00	90.00	96.20	6,290.90	-1,224.00	-578.69	213.96	244.55	3.00	0.00	-3.00
7,000.00	90.00	93.20	6,290.90	-1,224.00	-586.88	313.61	344.50	3.00	0.00	-3.00
7,100.00	90.00	90.20	6,290.90	-1,224.00	-589.85	413.56	444.46	3.00	0.00	-3.00
<b>EOT TO 89.52° AZ</b>										
7,122.67	90.00	89.52	6,290.90	-1,224.00	-589.79	436.23	467.09	3.00	0.00	-3.00
7,200.00	90.00	89.52	6,290.90	-1,224.00	-589.14	513.55	544.27	0.00	0.00	0.00
7,300.00	90.00	89.52	6,290.90	-1,224.00	-588.31	613.55	644.08	0.00	0.00	0.00
7,400.00	90.00	89.52	6,290.90	-1,224.00	-587.47	713.55	743.89	0.00	0.00	0.00
7,500.00	90.00	89.52	6,290.90	-1,224.00	-586.63	813.54	843.70	0.00	0.00	0.00
7,600.00	90.00	89.52	6,290.90	-1,224.00	-585.79	913.54	943.51	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 8 T9N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-9	<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)
7,700.00	90.00	89.52	6,290.90	-1,224.00	-584.95	1,013.54	1,043.32	0.00	0.00	0.00
7,800.00	90.00	89.52	6,290.90	-1,224.00	-584.12	1,113.53	1,143.13	0.00	0.00	0.00
7,900.00	90.00	89.52	6,290.90	-1,224.00	-583.28	1,213.53	1,242.94	0.00	0.00	0.00
8,000.00	90.00	89.52	6,290.90	-1,224.00	-582.44	1,313.53	1,342.75	0.00	0.00	0.00
8,100.00	90.00	89.52	6,290.90	-1,224.00	-581.60	1,413.52	1,442.56	0.00	0.00	0.00
8,200.00	90.00	89.52	6,290.90	-1,224.00	-580.77	1,513.52	1,542.36	0.00	0.00	0.00
8,300.00	90.00	89.52	6,290.90	-1,224.00	-579.93	1,613.52	1,642.17	0.00	0.00	0.00
8,400.00	90.00	89.52	6,290.90	-1,224.00	-579.09	1,713.51	1,741.98	0.00	0.00	0.00
8,500.00	90.00	89.52	6,290.90	-1,224.00	-578.25	1,813.51	1,841.79	0.00	0.00	0.00
8,600.00	90.00	89.52	6,290.90	-1,224.00	-577.42	1,913.51	1,941.60	0.00	0.00	0.00
8,700.00	90.00	89.52	6,290.90	-1,224.00	-576.58	2,013.50	2,041.41	0.00	0.00	0.00
8,800.00	90.00	89.52	6,290.90	-1,224.00	-575.74	2,113.50	2,141.22	0.00	0.00	0.00
8,900.00	90.00	89.52	6,290.90	-1,224.00	-574.90	2,213.49	2,241.03	0.00	0.00	0.00
9,000.00	90.00	89.52	6,290.90	-1,224.00	-574.07	2,313.49	2,340.84	0.00	0.00	0.00
9,100.00	90.00	89.52	6,290.90	-1,224.00	-573.23	2,413.49	2,440.65	0.00	0.00	0.00
9,200.00	90.00	89.52	6,290.90	-1,224.00	-572.39	2,513.48	2,540.46	0.00	0.00	0.00
9,300.00	90.00	89.52	6,290.90	-1,224.00	-571.55	2,613.48	2,640.27	0.00	0.00	0.00
9,400.00	90.00	89.52	6,290.90	-1,224.00	-570.72	2,713.48	2,740.07	0.00	0.00	0.00
9,500.00	90.00	89.52	6,290.90	-1,224.00	-569.88	2,813.47	2,839.88	0.00	0.00	0.00
9,600.00	90.00	89.52	6,290.90	-1,224.00	-569.04	2,913.47	2,939.69	0.00	0.00	0.00
9,700.00	90.00	89.52	6,290.90	-1,224.00	-568.20	3,013.47	3,039.50	0.00	0.00	0.00
9,800.00	90.00	89.52	6,290.90	-1,224.00	-567.36	3,113.46	3,139.31	0.00	0.00	0.00
9,900.00	90.00	89.52	6,290.90	-1,224.00	-566.53	3,213.46	3,239.12	0.00	0.00	0.00
10,000.00	90.00	89.52	6,290.90	-1,224.00	-565.69	3,313.46	3,338.93	0.00	0.00	0.00
10,100.00	90.00	89.52	6,290.90	-1,224.00	-564.85	3,413.45	3,438.74	0.00	0.00	0.00
10,200.00	90.00	89.52	6,290.90	-1,224.00	-564.01	3,513.45	3,538.55	0.00	0.00	0.00
10,300.00	90.00	89.52	6,290.90	-1,224.00	-563.18	3,613.45	3,638.36	0.00	0.00	0.00
10,400.00	90.00	89.52	6,290.90	-1,224.00	-562.34	3,713.44	3,738.17	0.00	0.00	0.00
10,500.00	90.00	89.52	6,290.90	-1,224.00	-561.50	3,813.44	3,837.98	0.00	0.00	0.00
10,600.00	90.00	89.52	6,290.90	-1,224.00	-560.66	3,913.43	3,937.79	0.00	0.00	0.00
10,700.00	90.00	89.52	6,290.90	-1,224.00	-559.83	4,013.43	4,037.59	0.00	0.00	0.00
10,800.00	90.00	89.52	6,290.90	-1,224.00	-558.99	4,113.43	4,137.40	0.00	0.00	0.00
10,900.00	90.00	89.52	6,290.90	-1,224.00	-558.15	4,213.42	4,237.21	0.00	0.00	0.00
11,000.00	90.00	89.52	6,290.90	-1,224.00	-557.31	4,313.42	4,337.02	0.00	0.00	0.00
11,100.00	90.00	89.52	6,290.90	-1,224.00	-556.48	4,413.42	4,436.83	0.00	0.00	0.00
11,200.00	90.00	89.52	6,290.90	-1,224.00	-555.64	4,513.41	4,536.64	0.00	0.00	0.00
11,300.00	90.00	89.52	6,290.90	-1,224.00	-554.80	4,613.41	4,636.45	0.00	0.00	0.00
11,400.00	90.00	89.52	6,290.90	-1,224.00	-553.96	4,713.41	4,736.26	0.00	0.00	0.00
11,500.00	90.00	89.52	6,290.90	-1,224.00	-553.13	4,813.40	4,836.07	0.00	0.00	0.00
11,600.00	90.00	89.52	6,290.90	-1,224.00	-552.29	4,913.40	4,935.88	0.00	0.00	0.00
11,700.00	90.00	89.52	6,290.90	-1,224.00	-551.45	5,013.40	5,035.69	0.00	0.00	0.00
11,800.00	90.00	89.52	6,290.90	-1,224.00	-550.61	5,113.39	5,135.50	0.00	0.00	0.00
11,900.00	90.00	89.52	6,290.90	-1,224.00	-549.78	5,213.39	5,235.30	0.00	0.00	0.00
12,000.00	90.00	89.52	6,290.90	-1,224.00	-548.94	5,313.39	5,335.11	0.00	0.00	0.00
12,100.00	90.00	89.52	6,290.90	-1,224.00	-548.10	5,413.38	5,434.92	0.00	0.00	0.00
12,200.00	90.00	89.52	6,290.90	-1,224.00	-547.26	5,513.38	5,534.73	0.00	0.00	0.00
12,300.00	90.00	89.52	6,290.90	-1,224.00	-546.42	5,613.38	5,634.54	0.00	0.00	0.00
12,400.00	90.00	89.52	6,290.90	-1,224.00	-545.59	5,713.37	5,734.35	0.00	0.00	0.00
12,500.00	90.00	89.52	6,290.90	-1,224.00	-544.75	5,813.37	5,834.16	0.00	0.00	0.00
12,600.00	90.00	89.52	6,290.90	-1,224.00	-543.91	5,913.36	5,933.97	0.00	0.00	0.00
12,700.00	90.00	89.52	6,290.90	-1,224.00	-543.07	6,013.36	6,033.78	0.00	0.00	0.00
12,800.00	90.00	89.52	6,290.90	-1,224.00	-542.24	6,113.36	6,133.59	0.00	0.00	0.00
12,900.00	90.00	89.52	6,290.90	-1,224.00	-541.40	6,213.35	6,233.40	0.00	0.00	0.00
13,000.00	90.00	89.52	6,290.90	-1,224.00	-540.56	6,313.35	6,333.21	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 8 T9N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-9	<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)
13,100.00	90.00	89.52	6,290.90	-1,224.00	-539.72	6,413.35	6,433.01	0.00	0.00	0.00
13,200.00	90.00	89.52	6,290.90	-1,224.00	-538.89	6,513.34	6,532.82	0.00	0.00	0.00
13,300.00	90.00	89.52	6,290.90	-1,224.00	-538.05	6,613.34	6,632.63	0.00	0.00	0.00
13,400.00	90.00	89.52	6,290.90	-1,224.00	-537.21	6,713.34	6,732.44	0.00	0.00	0.00
13,500.00	90.00	89.52	6,290.90	-1,224.00	-536.37	6,813.33	6,832.25	0.00	0.00	0.00
13,600.00	90.00	89.52	6,290.90	-1,224.00	-535.54	6,913.33	6,932.06	0.00	0.00	0.00
13,700.00	90.00	89.52	6,290.90	-1,224.00	-534.70	7,013.33	7,031.87	0.00	0.00	0.00
13,800.00	90.00	89.52	6,290.90	-1,224.00	-533.86	7,113.32	7,131.68	0.00	0.00	0.00
13,900.00	90.00	89.52	6,290.90	-1,224.00	-533.02	7,213.32	7,231.49	0.00	0.00	0.00
14,000.00	90.00	89.52	6,290.90	-1,224.00	-532.19	7,313.32	7,331.30	0.00	0.00	0.00
14,100.00	90.00	89.52	6,290.90	-1,224.00	-531.35	7,413.31	7,431.11	0.00	0.00	0.00
14,200.00	90.00	89.52	6,290.90	-1,224.00	-530.51	7,513.31	7,530.92	0.00	0.00	0.00
14,300.00	90.00	89.52	6,290.90	-1,224.00	-529.67	7,613.31	7,630.73	0.00	0.00	0.00
14,400.00	90.00	89.52	6,290.90	-1,224.00	-528.84	7,713.30	7,730.53	0.00	0.00	0.00
14,500.00	90.00	89.52	6,290.90	-1,224.00	-528.00	7,813.30	7,830.34	0.00	0.00	0.00
14,600.00	90.00	89.52	6,290.90	-1,224.00	-527.16	7,913.29	7,930.15	0.00	0.00	0.00
14,700.00	90.00	89.52	6,290.90	-1,224.00	-526.32	8,013.29	8,029.96	0.00	0.00	0.00
14,800.00	90.00	89.52	6,290.90	-1,224.00	-525.48	8,113.29	8,129.77	0.00	0.00	0.00
14,900.00	90.00	89.52	6,290.90	-1,224.00	-524.65	8,213.28	8,229.58	0.00	0.00	0.00
15,000.00	90.00	89.52	6,290.90	-1,224.00	-523.81	8,313.28	8,329.39	0.00	0.00	0.00
15,100.00	90.00	89.52	6,290.90	-1,224.00	-522.97	8,413.28	8,429.20	0.00	0.00	0.00
15,200.00	90.00	89.52	6,290.90	-1,224.00	-522.13	8,513.27	8,529.01	0.00	0.00	0.00
15,300.00	90.00	89.52	6,290.90	-1,224.00	-521.30	8,613.27	8,628.82	0.00	0.00	0.00
15,400.00	90.00	89.52	6,290.90	-1,224.00	-520.46	8,713.27	8,728.63	0.00	0.00	0.00
15,500.00	90.00	89.52	6,290.90	-1,224.00	-519.62	8,813.26	8,828.44	0.00	0.00	0.00
15,600.00	90.00	89.52	6,290.90	-1,224.00	-518.78	8,913.26	8,928.24	0.00	0.00	0.00
15,700.00	90.00	89.52	6,290.90	-1,224.00	-517.95	9,013.26	9,028.05	0.00	0.00	0.00
15,800.00	90.00	89.52	6,290.90	-1,224.00	-517.11	9,113.25	9,127.86	0.00	0.00	0.00
15,900.00	90.00	89.52	6,290.90	-1,224.00	-516.27	9,213.25	9,227.67	0.00	0.00	0.00
<b>EPI: 621ft FSL &amp; 600ft FEL of Sec 9</b>										
15,981.51	90.00	89.52	6,290.90	-1,224.00	-515.59	9,294.76	9,309.03	0.00	0.00	0.00
<b>EOT TO 89.49° AZ</b>										
15,982.51	90.00	89.49	6,290.90	-1,224.00	-515.58	9,295.76	9,310.03	3.00	0.00	-3.00
16,000.00	90.00	89.49	6,290.90	-1,224.00	-515.42	9,313.25	9,327.48	0.00	0.00	0.00
16,100.00	90.00	89.49	6,290.90	-1,224.00	-514.53	9,413.24	9,427.29	0.00	0.00	0.00
16,200.00	90.00	89.49	6,290.90	-1,224.00	-513.64	9,513.24	9,527.09	0.00	0.00	0.00
<b>BHL: 620ft FSL &amp; 300ft FEL of Sec 9</b>										
16,281.27	90.00	89.49	6,290.90	-1,224.00	-512.92	9,594.51	9,608.21	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TIMBRO 9-59 8B-9-9
<b>Company:</b>	BISON OIL & GAS II, LLC	<b>TVD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5066.90usft (Original Well Elev)
<b>Site:</b>	NW SW SEC. 8 T9N R59W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TIMBRO 9-59 8B-9-9	<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 (°)
462.27	461.90	PIERRE SHALE			
3,515.62	3,451.90	PARKMAN			
3,845.08	3,776.90	SUSSEX			
4,785.62	4,716.90	SHANNON			
6,173.31	6,075.90	SHARON SPRINGS SHALE			
6,262.45	6,140.90	NIOBRARA FORMATION			
6,277.49	6,150.90	NIOBRARA A CHALK			
6,500.44	6,260.90	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: 1219ft FSL & 600ft FWL of Sec 8
200.00	200.00	0.00	0.00	START NUDGE (2°/100ft BUR)
800.00	795.62	-37.69	-49.99	EOB TO 12° INC
3,544.28	3,479.93	-381.18	-505.57	END OF TANGENT
4,144.28	4,075.55	-418.87	-555.56	EOD TO VERTICAL
5,786.66	5,717.94	-418.87	-555.56	KOP (10°/100ft BUR)
6,686.67	6,290.90	-543.86	3.60	BPI *NEW*: 675ft FSL & 600ft FWL of Sec 8
7,122.67	6,290.90	-589.79	436.23	EOT TO 89.52° AZ
15,981.51	6,290.90	-515.59	9,294.76	EPI: 621ft FSL & 600ft FEL of Sec 9
15,982.51	6,290.90	-515.58	9,295.76	EOT TO 89.49° AZ
16,281.27	6,290.90	-512.92	9,594.51	BHL: 620ft FSL & 300ft FEL of Sec 9