

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

NW NE SEC. 27 T9N R60 W 6th P.M.

BASHOR 9-60 27B-34-3

ORIGINAL WELLBORE

03 July, 2017

Plan: PROPOSAL #1

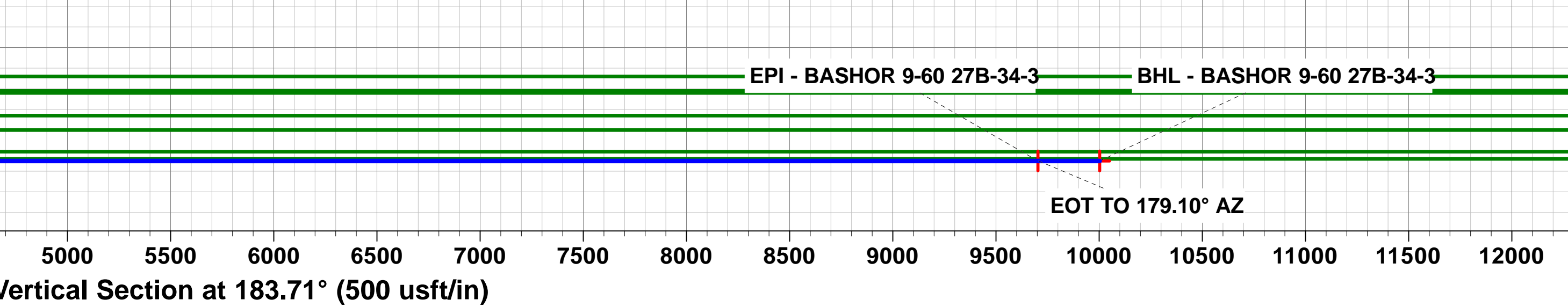
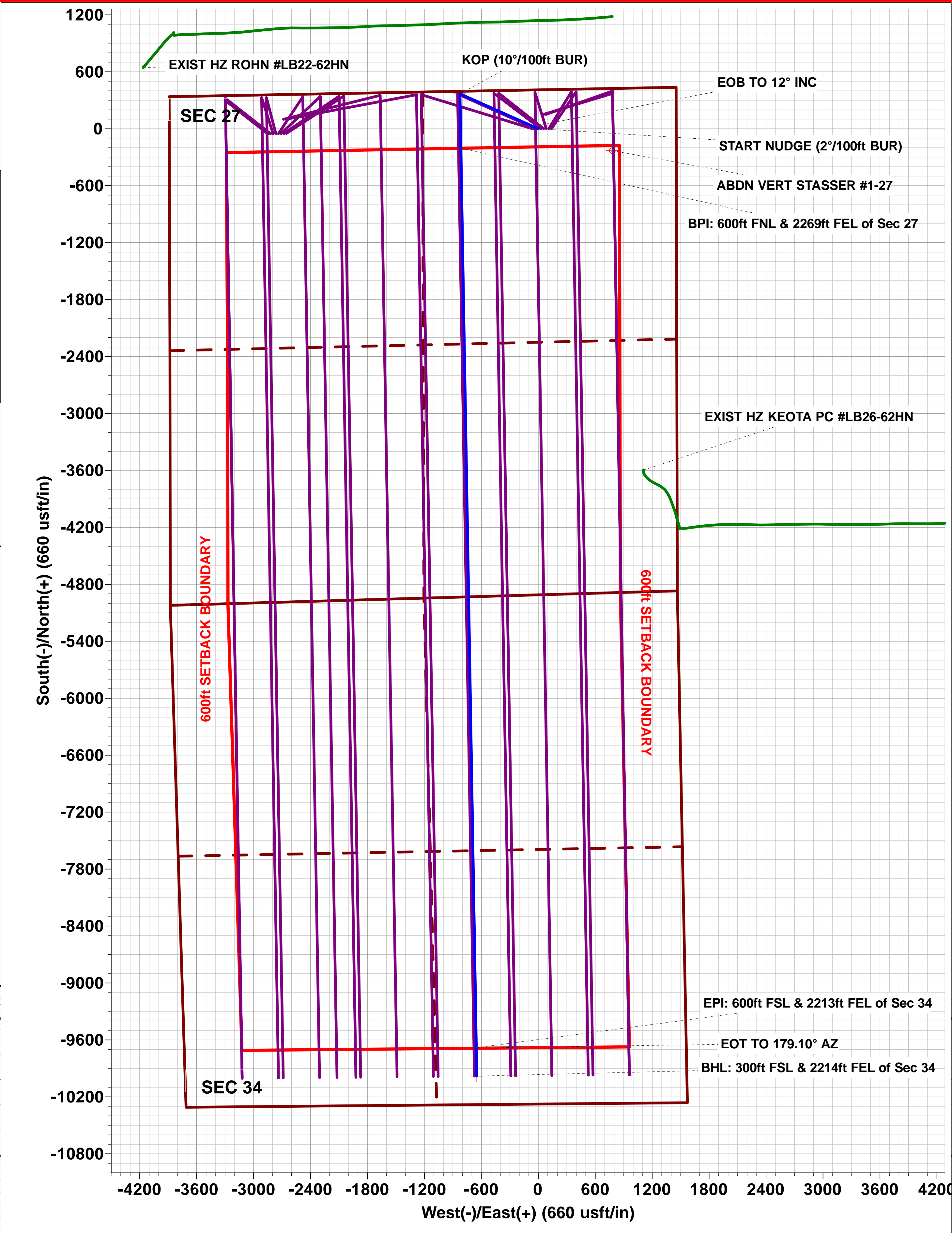
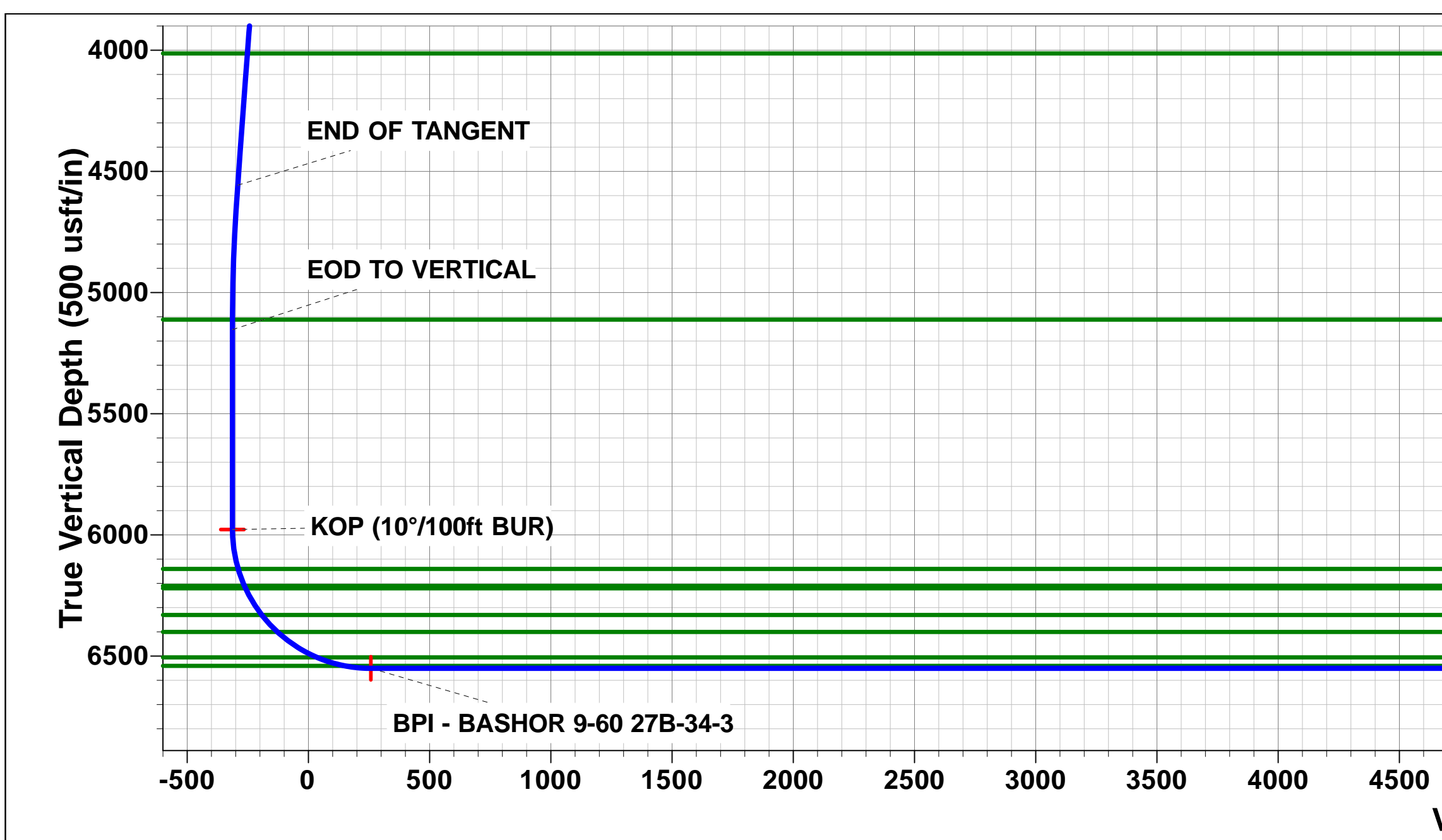
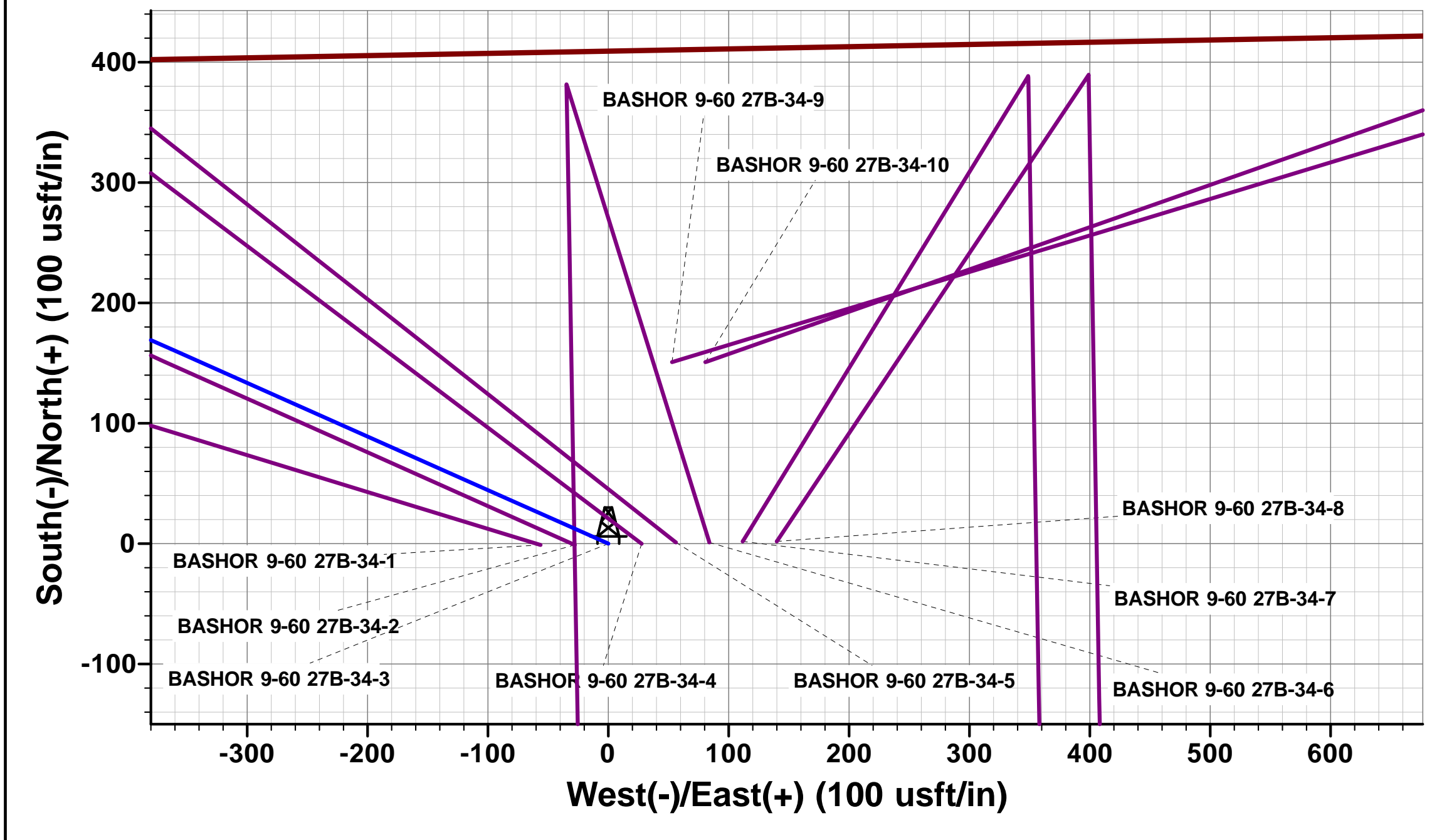
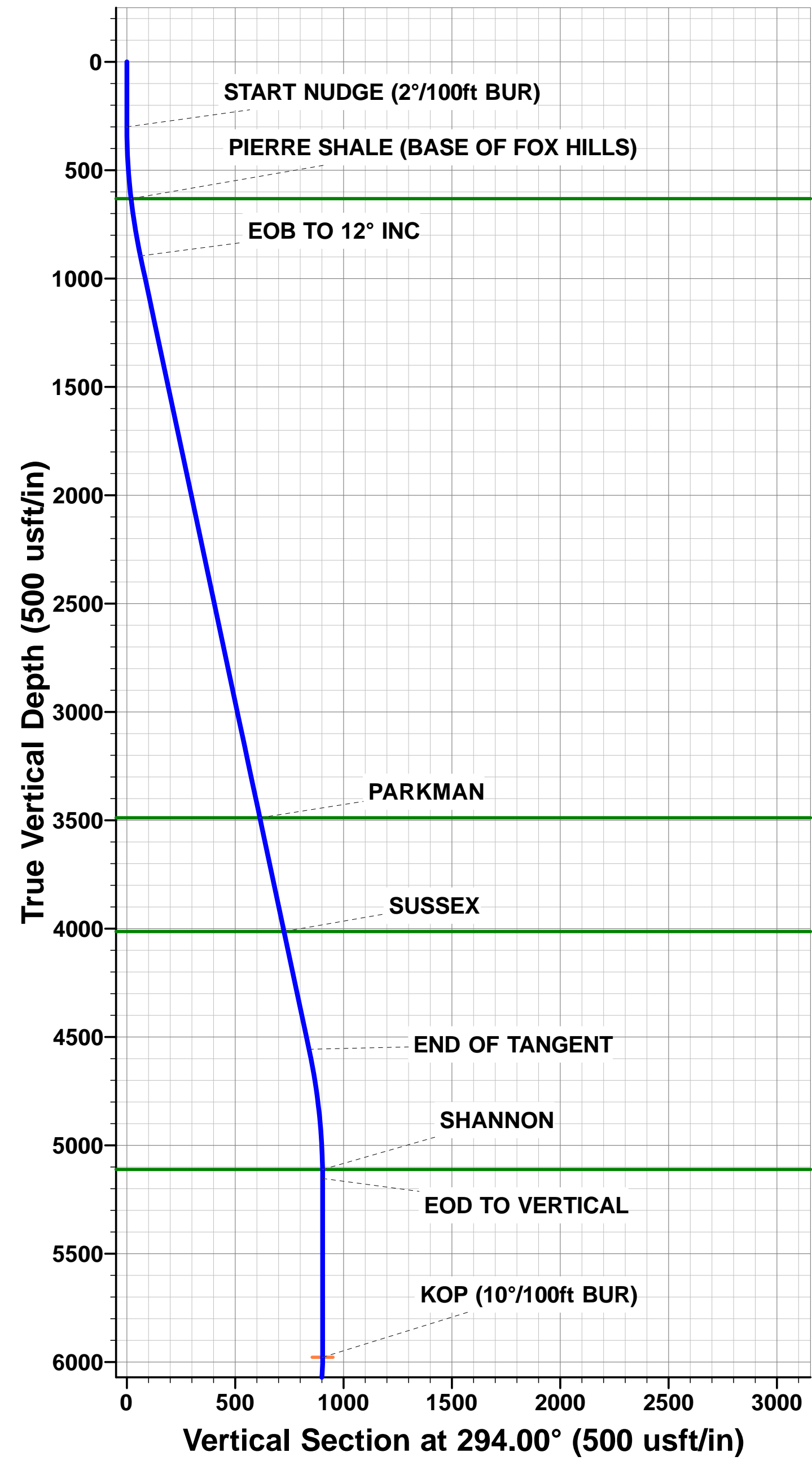




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NW NE SEC. 27 T9N R60 W 6th P.M.
Well: BASHOR 9-60 27B-34-3
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS											PROPOSED LOCAL COORDINATES: SHL: 410ft FNL & 1453ft FEL Sec 27 BPI: 600ft FNL & 2269ft FEL Sec 27 EPI: 600ft FSL & 2213ft FEL Sec 34 BHL: 300ft FSL & 2214ft FEL of Sec 34
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: 410ft FNL & 1453ft FEL of Sec 27			
300.0	300.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)			
895.5	899.9	12.00	294.00	25.5	-57.2	-21.7	62.6	EOB TO 12° INC			
4557.5	4643.6	12.00	294.00	341.9	-768.1	-291.5	840.8	END OF TANGENT			
5153.0	5243.5	0.00	0.00	367.4	-825.3	-313.2	903.4	EOD TO VERTICAL			
5978.0	6068.5	0.00	0.00	367.4	-825.3	-313.2	903.4	KOP (10°/100ft BUR)			
6550.9	6968.5	90.00	179.01	-205.5	-815.4	257.8	1476.3	BPI: 600ft FNL & 2269ft FEL of Sec 27			
6550.9	16446.5	90.00	179.02	-9682.1	-652.4	9704.0	10954.3	EPI: 600ft FSL & 2213ft FEL of Sec 34			
6550.9	16449.3	90.00	179.10	-9684.9	-652.4	9706.8	10957.2	EOT TO 179.10° AZ			
6550.9	16746.0	90.00	179.10	-9981.5	-647.7	10002.5	11253.9	BHL: 300ft FSL & 2214ft FEL of Sec 34			

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - BASHOR 9-60 27B-34-3	5978.0	367.4	-825.3	40.728247	-104.076975
BHL - BASHOR 9-60 27B-34-3	6550.9	-9981.5	-647.7	40.699842	-104.076333
BPI - BASHOR 9-60 27B-34-3	6550.9	-205.5	-815.4	40.726675	-104.076939
EPI - BASHOR 9-60 27B-34-3	6550.9	-9682.1	-652.4	40.700664	-104.076350



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BASHOR 9-60 27B-34-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5016.9usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5016.9usft (Original Well Elev)
Site:	NW NE SEC. 27 T9N R60 W 6th P.M.	North Reference:	True
Well:	BASHOR 9-60 27B-34-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Project	WELD COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	NW NE SEC. 27 T9N R60 W 6th P.M.		
Site Position:		Northing:	1,510,953.37 usft
From:	Lat/Long	Easting:	3,395,166.17 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.727236
		Longitude:	-104.074200
		Grid Convergence:	0.92 °

Well	BASHOR 9-60 27B-34-3		
Well Position	+N/-S	1.1 usft	Northing:
	+E/-W	56.3 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/07/2017	7.86	67.22	52,625

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	6,550.9	0.0	0.0	183.71

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	-5,016.9	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-4,716.9	0.0	0.0	0.00	0.00	0.00	0.00	
899.9	12.00	294.00	895.5	-4,121.4	25.5	-57.2	2.00	2.00	0.00	294.00	
4,643.6	12.00	294.00	4,557.5	-459.4	341.9	-768.1	0.00	0.00	0.00	0.00	
5,243.5	0.00	0.00	5,153.0	136.1	367.4	-825.3	2.00	-2.00	0.00	180.00	
6,068.5	0.00	0.00	5,978.0	961.1	367.4	-825.3	0.00	0.00	0.00	0.00	KOP - BASHOR 9-60
6,968.5	90.00	179.01	6,550.9	1,534.0	-205.5	-815.4	10.00	10.00	19.89	179.01	BPI - BASHOR 9-60
16,446.5	90.00	179.02	6,550.9	1,534.0	-9,682.1	-652.4	0.00	0.00	0.00	167.33	EPI - BASHOR 9-60
16,449.3	90.00	179.10	6,550.9	1,534.0	-9,684.9	-652.4	3.00	0.17	3.00	86.82	
16,746.0	90.00	179.10	6,550.9	1,534.0	-9,981.5	-647.7	0.00	0.00	0.00	0.00	BHL - BASHOR 9-60

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5016.9usft (Original Well Elev)
Site:	NW NE SEC. 27 T9N R60 W 6th P.M.	North Reference:	True
Well:	BASHOR 9-60 27B-34-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)
SHL: 410ft FNL & 1453ft FEL of Sec 27										
0.0	0.00	0.00	0.0	5,016.90	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,916.90	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,816.90	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
300.0	0.00	0.00	300.0	4,716.90	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	294.00	400.0	4,616.92	0.7	-1.6	-0.6	2.00	2.00	0.00
500.0	4.00	294.00	499.8	4,517.06	2.8	-6.4	-2.4	2.00	2.00	0.00
600.0	6.00	294.00	599.5	4,417.45	6.4	-14.3	-5.4	2.00	2.00	0.00
PIERRE SHALE (BASE OF FOX HILLS)										
632.6	6.65	294.00	631.9	4,385.00	7.8	-17.6	-6.7	2.00	2.00	0.00
700.0	8.00	294.00	698.7	4,318.20	11.3	-25.5	-9.7	2.00	2.00	0.00
800.0	10.00	294.00	797.5	4,219.43	17.7	-39.8	-15.1	2.00	2.00	0.00
EOB TO 12° INC										
899.9	12.00	294.00	895.5	4,121.39	25.5	-57.2	-21.7	2.00	2.00	0.00
900.0	12.00	294.00	895.6	4,121.28	25.5	-57.2	-21.7	0.00	0.00	0.00
1,000.0	12.00	294.00	993.4	4,023.46	33.9	-76.2	-28.9	0.00	0.00	0.00
1,100.0	12.00	294.00	1,091.3	3,925.65	42.4	-95.2	-36.1	0.00	0.00	0.00
1,200.0	12.00	294.00	1,189.1	3,827.83	50.8	-114.2	-43.3	0.00	0.00	0.00
1,300.0	12.00	294.00	1,286.9	3,730.01	59.3	-133.2	-50.5	0.00	0.00	0.00
1,400.0	12.00	294.00	1,384.7	3,632.20	67.7	-152.1	-57.7	0.00	0.00	0.00
1,500.0	12.00	294.00	1,482.5	3,534.38	76.2	-171.1	-64.9	0.00	0.00	0.00
1,600.0	12.00	294.00	1,580.3	3,436.57	84.6	-190.1	-72.1	0.00	0.00	0.00
1,700.0	12.00	294.00	1,678.1	3,338.75	93.1	-209.1	-79.4	0.00	0.00	0.00
1,800.0	12.00	294.00	1,776.0	3,240.94	101.5	-228.1	-86.6	0.00	0.00	0.00
1,900.0	12.00	294.00	1,873.8	3,143.12	110.0	-247.1	-93.8	0.00	0.00	0.00
2,000.0	12.00	294.00	1,971.6	3,045.31	118.5	-266.1	-101.0	0.00	0.00	0.00
2,100.0	12.00	294.00	2,069.4	2,947.49	126.9	-285.1	-108.2	0.00	0.00	0.00
2,200.0	12.00	294.00	2,167.2	2,849.67	135.4	-304.1	-115.4	0.00	0.00	0.00
2,300.0	12.00	294.00	2,265.0	2,751.86	143.8	-323.1	-122.6	0.00	0.00	0.00
2,400.0	12.00	294.00	2,362.9	2,654.04	152.3	-342.0	-129.8	0.00	0.00	0.00
2,500.0	12.00	294.00	2,460.7	2,556.23	160.7	-361.0	-137.0	0.00	0.00	0.00
2,600.0	12.00	294.00	2,558.5	2,458.41	169.2	-380.0	-144.2	0.00	0.00	0.00
2,700.0	12.00	294.00	2,656.3	2,360.60	177.6	-399.0	-151.4	0.00	0.00	0.00
2,800.0	12.00	294.00	2,754.1	2,262.78	186.1	-418.0	-158.6	0.00	0.00	0.00
2,900.0	12.00	294.00	2,851.9	2,164.97	194.5	-437.0	-165.8	0.00	0.00	0.00
3,000.0	12.00	294.00	2,949.8	2,067.15	203.0	-456.0	-173.0	0.00	0.00	0.00
3,100.0	12.00	294.00	3,047.6	1,969.33	211.4	-475.0	-180.2	0.00	0.00	0.00
3,200.0	12.00	294.00	3,145.4	1,871.52	219.9	-494.0	-187.5	0.00	0.00	0.00
3,300.0	12.00	294.00	3,243.2	1,773.70	228.4	-513.0	-194.7	0.00	0.00	0.00
3,400.0	12.00	294.00	3,341.0	1,675.89	236.8	-532.0	-201.9	0.00	0.00	0.00
3,500.0	12.00	294.00	3,438.8	1,578.07	245.3	-550.9	-209.1	0.00	0.00	0.00
PARKMAN										
3,551.2	12.00	294.00	3,488.9	1,528.00	249.6	-560.7	-212.8	0.00	0.00	0.00
3,600.0	12.00	294.00	3,536.6	1,480.26	253.7	-569.9	-216.3	0.00	0.00	0.00
3,700.0	12.00	294.00	3,634.5	1,382.44	262.2	-588.9	-223.5	0.00	0.00	0.00
3,800.0	12.00	294.00	3,732.3	1,284.63	270.6	-607.9	-230.7	0.00	0.00	0.00
3,900.0	12.00	294.00	3,830.1	1,186.81	279.1	-626.9	-237.9	0.00	0.00	0.00
4,000.0	12.00	294.00	3,927.9	1,088.99	287.5	-645.9	-245.1	0.00	0.00	0.00
SUSSEX										
4,087.9	12.00	294.00	4,013.9	1,003.00	295.0	-662.6	-251.4	0.00	0.00	0.00
4,100.0	12.00	294.00	4,025.7	991.18	296.0	-664.9	-252.3	0.00	0.00	0.00
4,200.0	12.00	294.00	4,123.5	893.36	304.4	-683.9	-259.5	0.00	0.00	0.00

Planning Report



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Well:	BASHOR 9-60 27B-34-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)
4,300.0	12.00	294.00	4,221.4	795.55	312.9	-702.9	-266.7	0.00	0.00	0.00
4,400.0	12.00	294.00	4,319.2	697.73	321.4	-721.9	-273.9	0.00	0.00	0.00
4,500.0	12.00	294.00	4,417.0	599.92	329.8	-740.9	-281.1	0.00	0.00	0.00
4,600.0	12.00	294.00	4,514.8	502.10	338.3	-759.8	-288.3	0.00	0.00	0.00
END OF TANGENT										
4,643.6	12.00	294.00	4,557.5	459.41	341.9	-768.1	-291.5	0.00	0.00	0.00
4,700.0	10.87	294.00	4,612.7	404.17	346.5	-778.3	-295.4	2.00	-2.00	0.00
4,800.0	8.87	294.00	4,711.2	305.66	353.5	-794.0	-301.3	2.00	-2.00	0.00
4,900.0	6.87	294.00	4,810.3	206.61	359.0	-806.5	-306.1	2.00	-2.00	0.00
5,000.0	4.87	294.00	4,909.8	107.13	363.2	-815.8	-309.6	2.00	-2.00	0.00
5,100.0	2.87	294.00	5,009.5	7.37	365.9	-822.0	-311.9	2.00	-2.00	0.00
5,200.0	0.87	294.00	5,109.5	-92.57	367.3	-825.0	-313.1	2.00	-2.00	0.00
SHANNON										
5,202.4	0.82	294.00	5,111.9	-95.00	367.3	-825.0	-313.1	2.00	-2.00	0.00
EOD TO VERTICAL										
5,243.5	0.00	0.00	5,153.0	-136.10	367.4	-825.3	-313.2	2.00	-2.00	0.00
5,300.0	0.00	0.00	5,209.5	-192.57	367.4	-825.3	-313.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,309.5	-292.57	367.4	-825.3	-313.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,409.5	-392.57	367.4	-825.3	-313.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,509.5	-492.57	367.4	-825.3	-313.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,609.5	-592.57	367.4	-825.3	-313.2	0.00	0.00	0.00
5,800.0	0.00	0.00	5,709.5	-692.57	367.4	-825.3	-313.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,809.5	-792.57	367.4	-825.3	-313.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,909.5	-892.57	367.4	-825.3	-313.2	0.00	0.00	0.00
KOP (10°/100ft BUR)										
6,068.5	0.00	0.00	5,978.0	-961.10	367.4	-825.3	-313.2	0.00	0.00	0.00
6,100.0	3.15	179.01	6,009.5	-992.56	366.5	-825.3	-312.3	10.00	10.00	0.00
6,200.0	13.15	179.01	6,108.3	-1,091.42	352.4	-825.0	-298.2	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,233.7	16.52	179.01	6,140.9	-1,124.00	343.8	-824.9	-289.6	10.00	10.00	0.00
6,300.0	23.15	179.01	6,203.2	-1,186.33	321.3	-824.5	-267.2	10.00	10.00	0.00
NIORARA FORMATION										
6,308.4	23.99	179.01	6,210.9	-1,194.00	317.9	-824.4	-263.9	10.00	10.00	0.00
NIORARA A CHALK										
6,319.4	25.09	179.01	6,220.9	-1,204.00	313.4	-824.4	-259.3	10.00	10.00	0.00
6,400.0	33.15	179.01	6,291.3	-1,274.38	274.2	-823.7	-220.3	10.00	10.00	0.00
NIORARA B CHALK										
6,448.7	38.02	179.01	6,330.9	-1,314.00	245.8	-823.2	-192.0	10.00	10.00	0.00
6,500.0	43.15	179.01	6,369.8	-1,352.92	212.5	-822.6	-158.8	10.00	10.00	0.00
NIORARA C CHALK										
6,544.2	47.58	179.01	6,400.9	-1,384.00	181.0	-822.1	-127.4	10.00	10.00	0.00
6,600.0	53.15	179.01	6,436.5	-1,419.55	138.1	-821.4	-84.6	10.00	10.00	0.00
6,700.0	63.15	179.01	6,489.2	-1,472.25	53.3	-819.9	-0.1	10.00	10.00	0.00
FORT HAYS										
6,739.9	67.14	179.01	6,505.9	-1,489.00	17.1	-819.3	36.0	10.00	10.00	0.00
6,800.0	73.15	179.01	6,526.3	-1,509.42	-39.4	-818.3	92.3	10.00	10.00	0.00
CODELL										
6,861.2	79.28	179.01	6,540.9	-1,524.00	-98.9	-817.3	151.6	10.00	10.00	0.00
6,900.0	83.16	179.01	6,546.8	-1,529.92	-137.2	-816.6	189.7	10.00	10.00	0.00
BPI: 600ft FNL & 2269ft FEL of Sec 27										
6,968.5	90.00	179.01	6,550.9	-1,534.00	-205.5	-815.4	257.8	10.00	10.00	0.00
7,000.0	90.00	179.01	6,550.9	-1,534.00	-237.0	-814.9	289.2	0.00	0.00	0.00
7,100.0	90.00	179.01	6,550.9	-1,533.99	-337.0	-813.2	388.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BASHOR 9-60 27B-34-3
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5016.9usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5016.9usft (Original Well Elev)
Site:	NW NE SEC. 27 T9N R60 W 6th P.M.	North Reference:	True
Well:	BASHOR 9-60 27B-34-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)
7,200.0	90.00	179.01	6,550.9	-1,533.98	-436.9	-811.5	488.6	0.00	0.00	0.00
7,300.0	90.00	179.01	6,550.9	-1,533.97	-536.9	-809.7	588.2	0.00	0.00	0.00
7,400.0	90.00	179.01	6,550.9	-1,533.97	-636.9	-808.0	687.9	0.00	0.00	0.00
7,500.0	90.00	179.01	6,550.9	-1,533.96	-736.9	-806.3	787.6	0.00	0.00	0.00
7,600.0	90.00	179.01	6,550.9	-1,533.95	-836.9	-804.6	887.2	0.00	0.00	0.00
7,700.0	90.00	179.01	6,550.8	-1,533.94	-936.9	-802.8	986.9	0.00	0.00	0.00
7,800.0	90.00	179.01	6,550.8	-1,533.94	-1,036.9	-801.1	1,086.6	0.00	0.00	0.00
7,900.0	90.00	179.01	6,550.8	-1,533.93	-1,136.8	-799.4	1,186.2	0.00	0.00	0.00
8,000.0	90.00	179.01	6,550.8	-1,533.93	-1,236.8	-797.7	1,285.9	0.00	0.00	0.00
8,100.0	90.00	179.01	6,550.8	-1,533.92	-1,336.8	-796.0	1,385.5	0.00	0.00	0.00
8,200.0	90.00	179.01	6,550.8	-1,533.91	-1,436.8	-794.2	1,485.2	0.00	0.00	0.00
8,300.0	90.00	179.01	6,550.8	-1,533.91	-1,536.8	-792.5	1,584.9	0.00	0.00	0.00
8,400.0	90.00	179.01	6,550.8	-1,533.90	-1,636.8	-790.8	1,684.5	0.00	0.00	0.00
8,500.0	90.00	179.01	6,550.8	-1,533.90	-1,736.8	-789.1	1,784.2	0.00	0.00	0.00
8,600.0	90.00	179.01	6,550.8	-1,533.89	-1,836.7	-787.4	1,883.9	0.00	0.00	0.00
8,700.0	90.00	179.01	6,550.8	-1,533.88	-1,936.7	-785.6	1,983.5	0.00	0.00	0.00
8,800.0	90.00	179.01	6,550.8	-1,533.88	-2,036.7	-783.9	2,083.2	0.00	0.00	0.00
8,900.0	90.00	179.01	6,550.8	-1,533.87	-2,136.7	-782.2	2,182.9	0.00	0.00	0.00
9,000.0	90.00	179.01	6,550.8	-1,533.87	-2,236.7	-780.5	2,282.5	0.00	0.00	0.00
9,100.0	90.00	179.01	6,550.8	-1,533.87	-2,336.7	-778.7	2,382.2	0.00	0.00	0.00
9,200.0	90.00	179.01	6,550.8	-1,533.86	-2,436.6	-777.0	2,481.9	0.00	0.00	0.00
9,300.0	90.00	179.01	6,550.8	-1,533.86	-2,536.6	-775.3	2,581.5	0.00	0.00	0.00
9,400.0	90.00	179.01	6,550.8	-1,533.85	-2,636.6	-773.6	2,681.2	0.00	0.00	0.00
9,500.0	90.00	179.01	6,550.7	-1,533.85	-2,736.6	-771.9	2,780.8	0.00	0.00	0.00
9,600.0	90.00	179.01	6,550.7	-1,533.85	-2,836.6	-770.1	2,880.5	0.00	0.00	0.00
9,700.0	90.00	179.01	6,550.7	-1,533.84	-2,936.6	-768.4	2,980.2	0.00	0.00	0.00
9,800.0	90.00	179.01	6,550.7	-1,533.84	-3,036.6	-766.7	3,079.8	0.00	0.00	0.00
9,900.0	90.00	179.01	6,550.7	-1,533.83	-3,136.5	-765.0	3,179.5	0.00	0.00	0.00
10,000.0	90.00	179.01	6,550.7	-1,533.83	-3,236.5	-763.3	3,279.2	0.00	0.00	0.00
10,100.0	90.00	179.01	6,550.7	-1,533.83	-3,336.5	-761.5	3,378.8	0.00	0.00	0.00
10,200.0	90.00	179.01	6,550.7	-1,533.83	-3,436.5	-759.8	3,478.5	0.00	0.00	0.00
10,300.0	90.00	179.01	6,550.7	-1,533.82	-3,536.5	-758.1	3,578.2	0.00	0.00	0.00
10,400.0	90.00	179.01	6,550.7	-1,533.82	-3,636.5	-756.4	3,677.8	0.00	0.00	0.00
10,500.0	90.00	179.01	6,550.7	-1,533.82	-3,736.5	-754.7	3,777.5	0.00	0.00	0.00
10,600.0	90.00	179.01	6,550.7	-1,533.82	-3,836.4	-752.9	3,877.1	0.00	0.00	0.00
10,700.0	90.00	179.01	6,550.7	-1,533.82	-3,936.4	-751.2	3,976.8	0.00	0.00	0.00
10,800.0	90.00	179.01	6,550.7	-1,533.81	-4,036.4	-749.5	4,076.5	0.00	0.00	0.00
10,900.0	90.00	179.01	6,550.7	-1,533.81	-4,136.4	-747.8	4,176.1	0.00	0.00	0.00
11,000.0	90.00	179.01	6,550.7	-1,533.81	-4,236.4	-746.1	4,275.8	0.00	0.00	0.00
11,100.0	90.00	179.01	6,550.7	-1,533.81	-4,336.4	-744.3	4,375.5	0.00	0.00	0.00
11,200.0	90.00	179.01	6,550.7	-1,533.81	-4,436.4	-742.6	4,475.1	0.00	0.00	0.00
11,300.0	90.00	179.01	6,550.7	-1,533.81	-4,536.3	-740.9	4,574.8	0.00	0.00	0.00
11,400.0	90.00	179.01	6,550.7	-1,533.81	-4,636.3	-739.2	4,674.5	0.00	0.00	0.00
11,500.0	90.00	179.01	6,550.7	-1,533.81	-4,736.3	-737.5	4,774.1	0.00	0.00	0.00
11,600.0	90.00	179.01	6,550.7	-1,533.81	-4,836.3	-735.7	4,873.8	0.00	0.00	0.00
11,700.0	90.00	179.01	6,550.7	-1,533.81	-4,936.3	-734.0	4,973.4	0.00	0.00	0.00
11,800.0	90.00	179.01	6,550.7	-1,533.81	-5,036.3	-732.3	5,073.1	0.00	0.00	0.00
11,900.0	90.00	179.01	6,550.7	-1,533.81	-5,136.2	-730.6	5,172.8	0.00	0.00	0.00
12,000.0	90.00	179.01	6,550.7	-1,533.81	-5,236.2	-728.9	5,272.4	0.00	0.00	0.00
12,100.0	90.00	179.01	6,550.7	-1,533.81	-5,336.2	-727.1	5,372.1	0.00	0.00	0.00
12,200.0	90.00	179.01	6,550.7	-1,533.81	-5,436.2	-725.4	5,471.8	0.00	0.00	0.00
12,300.0	90.00	179.01	6,550.7	-1,533.81	-5,536.2	-723.7	5,571.4	0.00	0.00	0.00
12,400.0	90.00	179.01	6,550.7	-1,533.81	-5,636.2	-722.0	5,671.1	0.00	0.00	0.00
12,500.0	90.00	179.01	6,550.7	-1,533.81	-5,736.2	-720.3	5,770.8	0.00	0.00	0.00

Planning Report



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Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5016.9usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5016.9usft (Original Well Elev)
Site:	NW NE SEC. 27 T9N R60 W 6th P.M.	North Reference:	True
Well:	BASHOR 9-60 27B-34-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	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)
12,600.0	90.00	179.01	6,550.7	-1,533.81	-5,836.1	-718.5	5,870.4	0.00	0.00	0.00
12,700.0	90.00	179.01	6,550.7	-1,533.82	-5,936.1	-716.8	5,970.1	0.00	0.00	0.00
12,800.0	90.00	179.01	6,550.7	-1,533.82	-6,036.1	-715.1	6,069.8	0.00	0.00	0.00
12,900.0	90.00	179.01	6,550.7	-1,533.82	-6,136.1	-713.4	6,169.4	0.00	0.00	0.00
13,000.0	90.00	179.01	6,550.7	-1,533.82	-6,236.1	-711.7	6,269.1	0.00	0.00	0.00
13,100.0	90.00	179.01	6,550.7	-1,533.82	-6,336.1	-709.9	6,368.7	0.00	0.00	0.00
13,200.0	90.00	179.01	6,550.7	-1,533.83	-6,436.1	-708.2	6,468.4	0.00	0.00	0.00
13,300.0	90.00	179.01	6,550.7	-1,533.83	-6,536.0	-706.5	6,568.1	0.00	0.00	0.00
13,400.0	90.00	179.01	6,550.7	-1,533.83	-6,636.0	-704.8	6,667.7	0.00	0.00	0.00
13,500.0	90.00	179.01	6,550.7	-1,533.83	-6,736.0	-703.1	6,767.4	0.00	0.00	0.00
13,600.0	90.00	179.02	6,550.7	-1,533.84	-6,836.0	-701.4	6,867.1	0.00	0.00	0.00
13,700.0	90.00	179.02	6,550.7	-1,533.84	-6,936.0	-699.6	6,966.7	0.00	0.00	0.00
13,800.0	90.00	179.02	6,550.7	-1,533.84	-7,036.0	-697.9	7,066.4	0.00	0.00	0.00
13,900.0	90.00	179.02	6,550.7	-1,533.85	-7,136.0	-696.2	7,166.1	0.00	0.00	0.00
14,000.0	90.00	179.02	6,550.8	-1,533.85	-7,235.9	-694.5	7,265.7	0.00	0.00	0.00
14,100.0	90.00	179.02	6,550.8	-1,533.86	-7,335.9	-692.8	7,365.4	0.00	0.00	0.00
14,200.0	90.00	179.02	6,550.8	-1,533.86	-7,435.9	-691.0	7,465.0	0.00	0.00	0.00
14,300.0	90.00	179.02	6,550.8	-1,533.86	-7,535.9	-689.3	7,564.7	0.00	0.00	0.00
14,400.0	90.00	179.02	6,550.8	-1,533.87	-7,635.9	-687.6	7,664.4	0.00	0.00	0.00
14,500.0	90.00	179.02	6,550.8	-1,533.87	-7,735.9	-685.9	7,764.0	0.00	0.00	0.00
14,600.0	90.00	179.02	6,550.8	-1,533.88	-7,835.8	-684.2	7,863.7	0.00	0.00	0.00
14,700.0	90.00	179.02	6,550.8	-1,533.88	-7,935.8	-682.4	7,963.4	0.00	0.00	0.00
14,800.0	90.00	179.02	6,550.8	-1,533.89	-8,035.8	-680.7	8,063.0	0.00	0.00	0.00
14,900.0	90.00	179.02	6,550.8	-1,533.89	-8,135.8	-679.0	8,162.7	0.00	0.00	0.00
15,000.0	90.00	179.02	6,550.8	-1,533.90	-8,235.8	-677.3	8,262.4	0.00	0.00	0.00
15,100.0	90.00	179.02	6,550.8	-1,533.91	-8,335.8	-675.6	8,362.0	0.00	0.00	0.00
15,200.0	90.00	179.02	6,550.8	-1,533.91	-8,435.8	-673.9	8,461.7	0.00	0.00	0.00
15,300.0	90.00	179.02	6,550.8	-1,533.92	-8,535.7	-672.1	8,561.4	0.00	0.00	0.00
15,400.0	90.00	179.02	6,550.8	-1,533.92	-8,635.7	-670.4	8,661.0	0.00	0.00	0.00
15,500.0	90.00	179.02	6,550.8	-1,533.93	-8,735.7	-668.7	8,760.7	0.00	0.00	0.00
15,600.0	90.00	179.02	6,550.8	-1,533.94	-8,835.7	-667.0	8,860.3	0.00	0.00	0.00
15,700.0	90.00	179.02	6,550.8	-1,533.94	-8,935.7	-665.3	8,960.0	0.00	0.00	0.00
15,800.0	90.00	179.02	6,550.9	-1,533.95	-9,035.7	-663.5	9,059.7	0.00	0.00	0.00
15,900.0	90.00	179.02	6,550.9	-1,533.96	-9,135.7	-661.8	9,159.3	0.00	0.00	0.00
16,000.0	90.00	179.02	6,550.9	-1,533.97	-9,235.6	-660.1	9,259.0	0.00	0.00	0.00
16,100.0	90.00	179.02	6,550.9	-1,533.97	-9,335.6	-658.4	9,358.7	0.00	0.00	0.00
16,200.0	90.00	179.02	6,550.9	-1,533.98	-9,435.6	-656.7	9,458.3	0.00	0.00	0.00
16,300.0	90.00	179.02	6,550.9	-1,533.99	-9,535.6	-655.0	9,558.0	0.00	0.00	0.00
16,400.0	90.00	179.02	6,550.9	-1,534.00	-9,635.6	-653.2	9,657.7	0.00	0.00	0.00
EPI: 600ft FSL & 2213ft FEL of Sec 34										
16,446.5	90.00	179.02	6,550.9	-1,534.00	-9,682.1	-652.4	9,704.0	0.00	0.00	0.00
EOT TO 179.10° AZ										
16,449.3	90.00	179.10	6,550.9	-1,534.00	-9,684.9	-652.4	9,706.8	3.00	0.17	3.00
16,500.0	90.00	179.10	6,550.9	-1,534.00	-9,735.6	-651.6	9,757.3	0.00	0.00	0.00
16,600.0	90.00	179.10	6,550.9	-1,534.00	-9,835.6	-650.0	9,857.0	0.00	0.00	0.00
16,700.0	90.00	179.10	6,550.9	-1,534.00	-9,935.5	-648.5	9,956.7	0.00	0.00	0.00
BHL: 300ft FSL & 2214ft FEL of Sec 34										
16,746.0	90.00	179.10	6,550.9	-1,534.00	-9,981.5	-647.7	10,002.5	0.00	0.00	0.00

Planning Report



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Site:	NW NE SEC. 27 T9N R60 W 6th P.M.	North Reference:	True
Well:	BASHOR 9-60 27B-34-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations					
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
632.6	631.9	PIERRE SHALE (BASE OF FOX HI			
3,551.2	3,488.9	PARKMAN			
4,087.9	4,013.9	SUSSEX			
5,202.4	5,111.9	SHANNON			
6,233.7	6,140.9	SHARON SPRINGS SHALE			
6,308.4	6,210.9	NIOBRARA FORMATION			
6,319.4	6,220.9	NIOBRARA A CHALK			
6,448.7	6,330.9	NIOBRARA B CHALK			
6,544.2	6,400.9	NIOBRARA C CHALK			
6,739.9	6,505.9	FORT HAYS			
6,861.2	6,540.9	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: 410ft FNL & 1453ft FEL of Sec 27
300.0	300.0	0.0	0.0	START NUDGE (2°/100ft BUR)
899.9	895.5	25.5	-57.2	EOB TO 12° INC
4,643.6	4,557.5	341.9	-768.1	END OF TANGENT
5,243.5	5,153.0	367.4	-825.3	EOD TO VERTICAL
6,068.5	5,978.0	367.4	-825.3	KOP (10°/100ft BUR)
6,968.5	6,550.9	-205.5	-815.4	BPI: 600ft FNL & 2269ft FEL of Sec 27
16,446.5	6,550.9	-9,682.1	-652.4	EPI: 600ft FSL & 2213ft FEL of Sec 34
16,449.3	6,550.9	-9,684.9	-652.4	EOT TO 179.10° AZ
16,746.0	6,550.9	-9,981.5	-647.7	BHL: 300ft FSL & 2214ft FEL of Sec 34