

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

NE SE SEC. 14 T8N R60W 6th P.M.

BOOMSLANG FED 8-60 14B-13-18-5

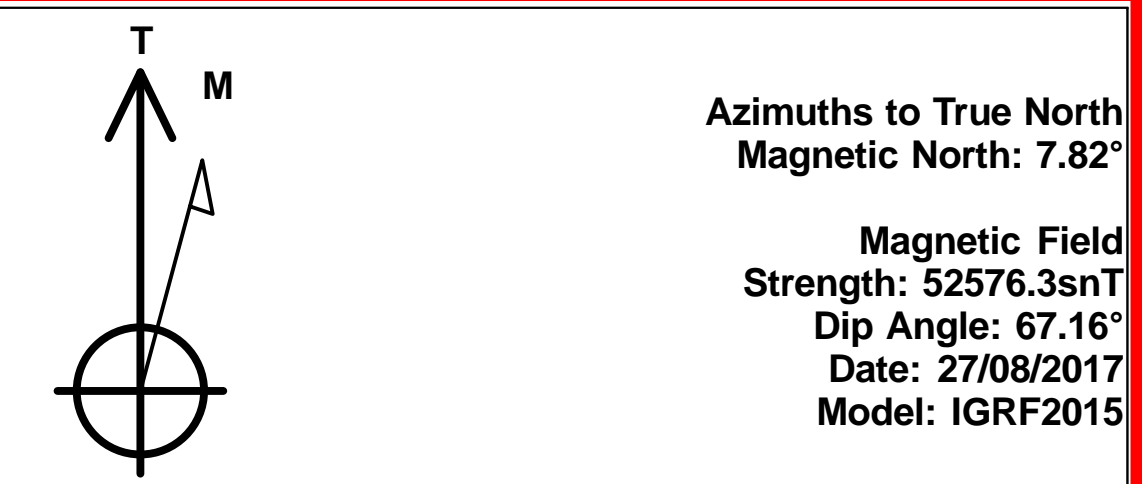
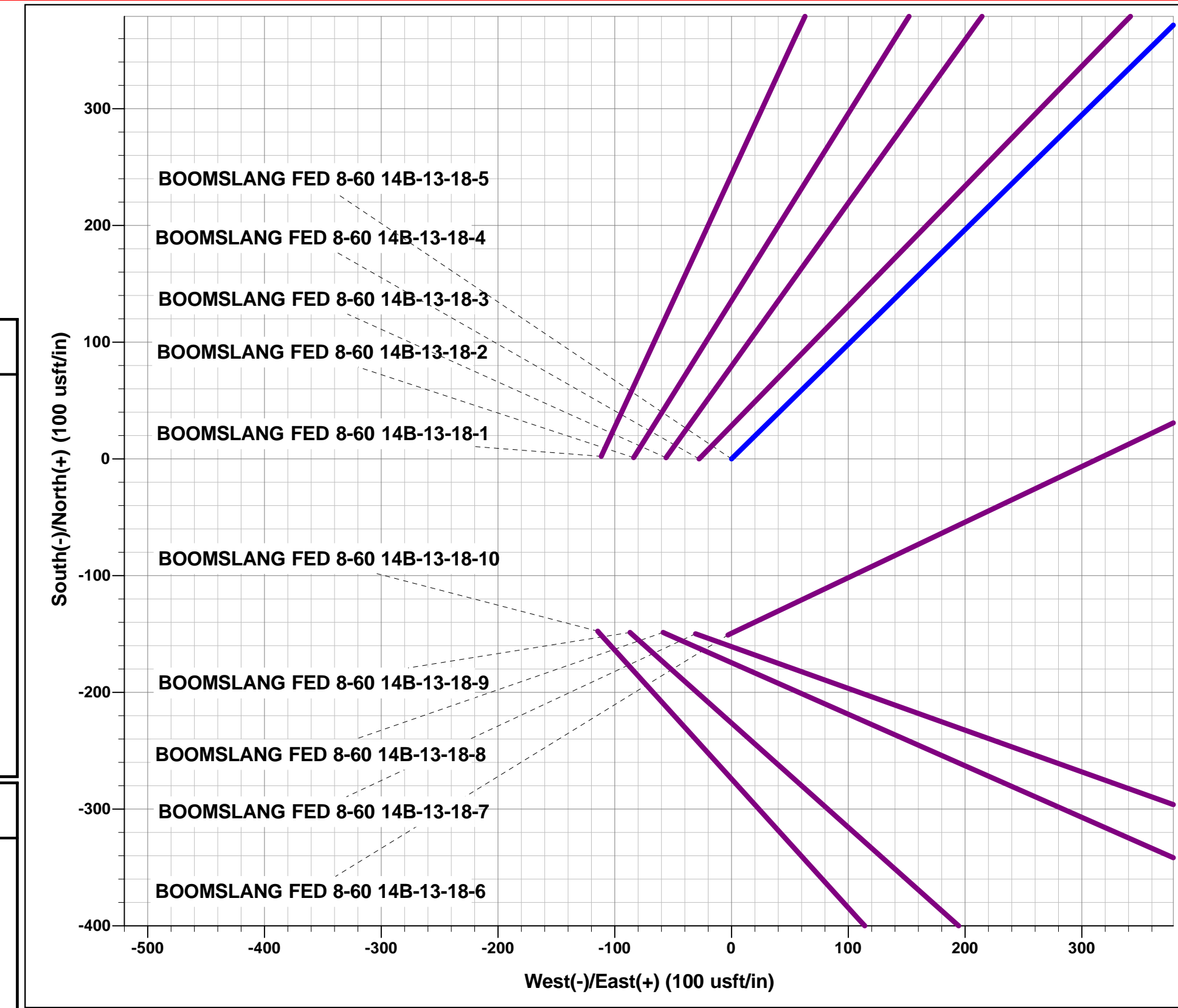
ORIGINAL WELLBORE

27 August, 2017

Plan: PROPOSAL #1



Project: WELD COUNTY, COLORADO (NAD 83)
 Site: NE SE SEC. 14 T8N R60W 6th P.M.
 Well: BOOMSLANG FED 8-60 14B-13-18-5
 Wellbore: ORIGINAL WELLBORE
 Design: PROPOSAL #1

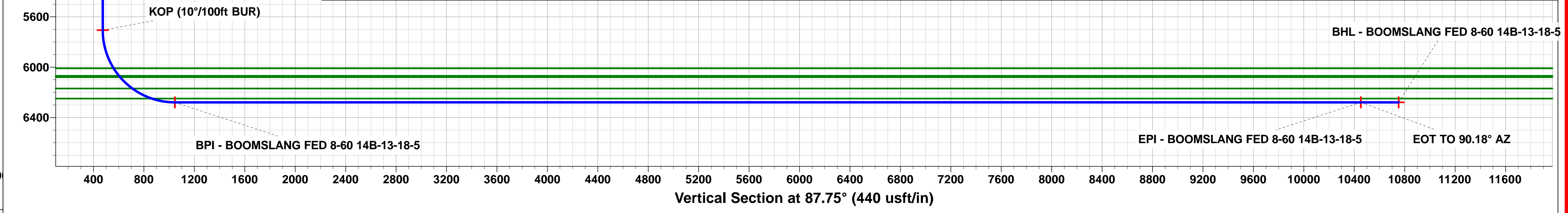
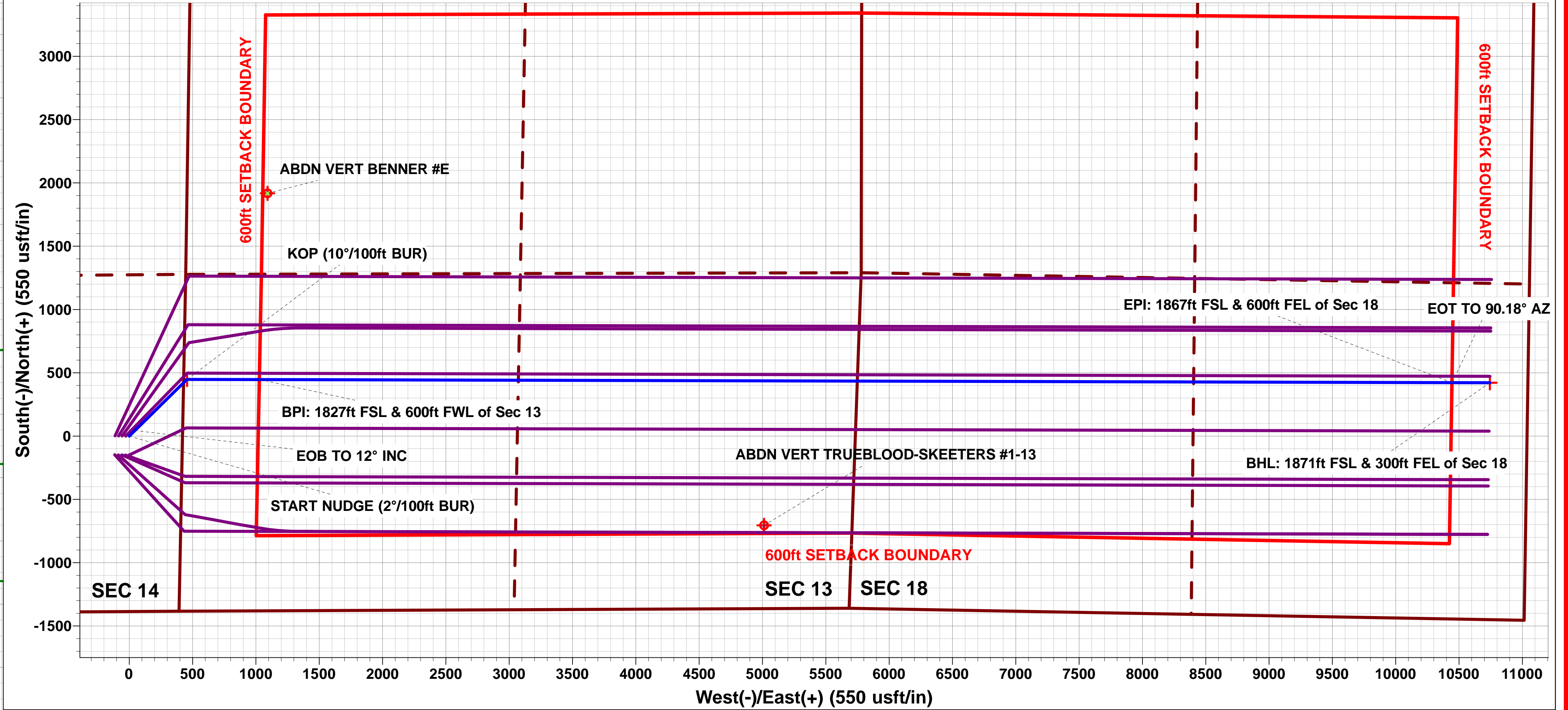
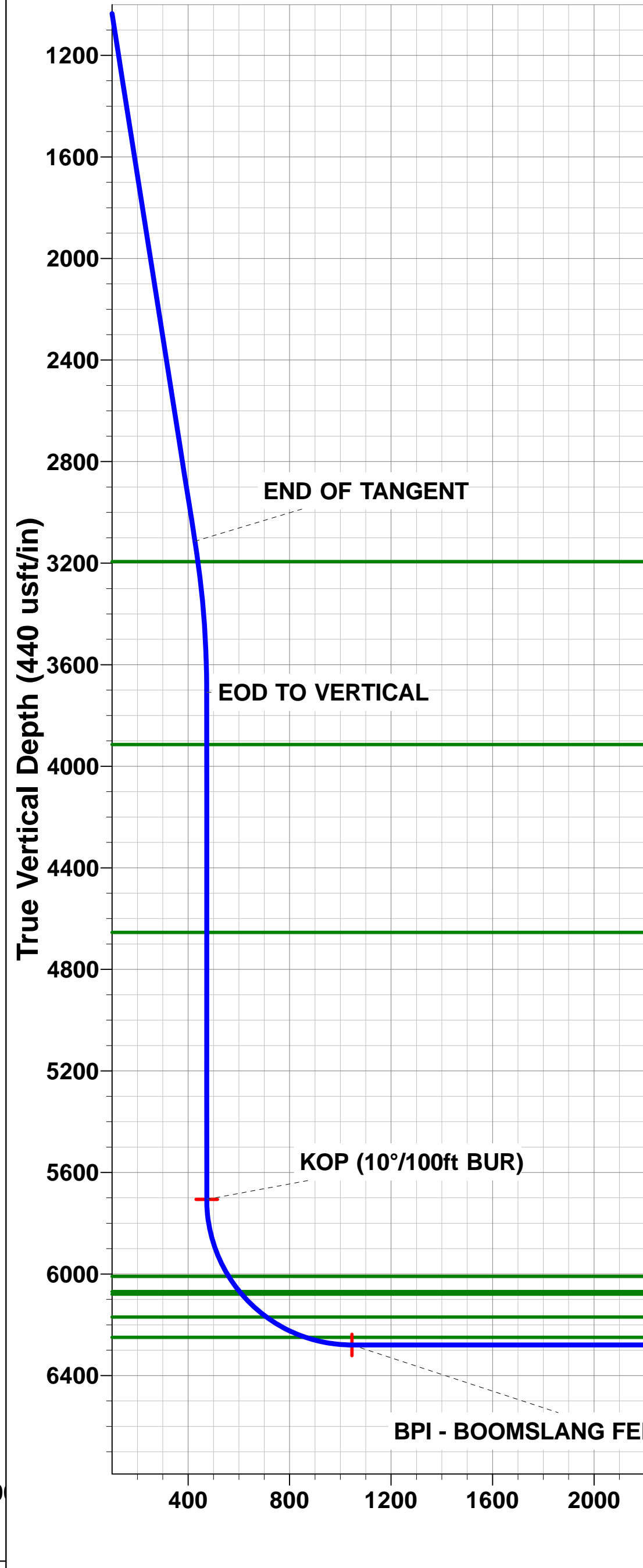
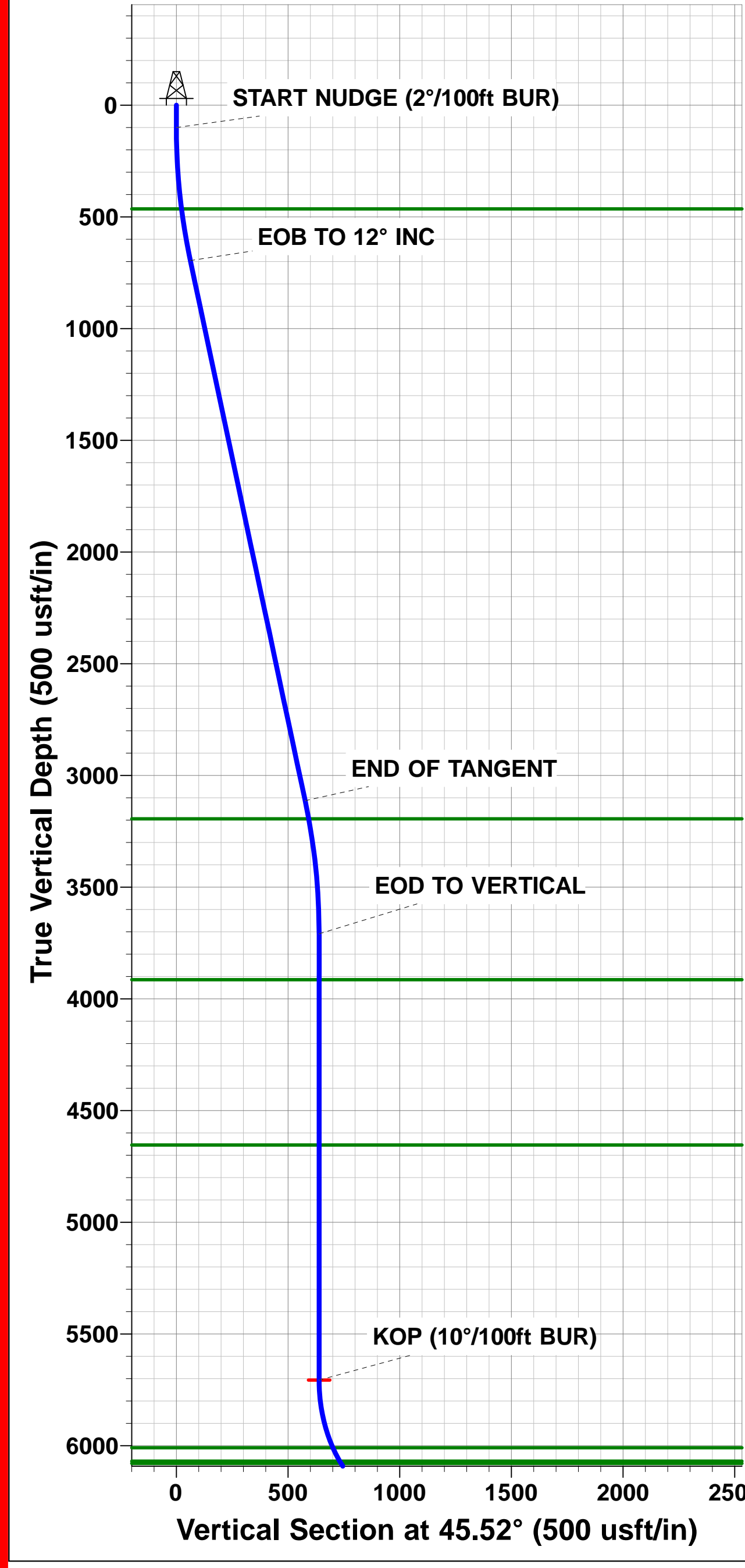


ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Dep	Annotation	
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 1386ft FSL & 420ft FEL of Sec 14	
100.0	100.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUJGE (2°/100ft BUR)	
695.6	700.0	12.00	45.52	43.9	44.7	46.4	62.6	EOB TO 12° INC	
3113.4	3171.7	12.00	45.52	403.9	411.3	426.8	576.5	END OF TANGENT	
3709.0	3771.7	0.00	0.00	447.8	456.0	473.2	639.1	EOD TO VERTICAL	
5706.2	5769.0	0.00	0.00	447.8	456.0	473.2	639.1	KOP (10°/100ft BUR)	
6279.2	6669.1	90.00	90.15	446.3	1029.0	1045.7	1212.2	BPI: 1827ft FSL & 600ft FWL of Sec 13	
6279.2	16083.7	90.00	90.15	422.3	10443.6	10452.2	10626.8	EPI: 1867ft FSL & 600ft FEL of Sec 18	
6279.2	16084.8	90.00	90.18	422.3	10444.7	10453.3	10627.9	EOT TO 90.18° AZ	
6279.2	16383.6	90.00	90.19	421.3	10743.5	10751.8	10926.7	BHL: 1871ft FSL & 300ft FEL of Sec 18	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
464.2	465.2	PIERRE SH (BASE FOX HILLS)
3194.2	3254.2	PARKMAN
3914.2	3977.0	SUSSEX
4654.2	4717.0	SHANNON
6009.2	6088.2	SHARON SPRINGS SHALE
6069.2	6162.1	NIORARA FORMATION
6079.2	6175.1	NIORARA A CHALK
6169.2	6308.0	NIORARA B CHALK
6249.2	6482.8	NIORARA C CHALK

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - BOOMSLANG FED 8-60 14B-13-18-5	5706.2	447.8	456.0	40.660301	-104.048412
BPI - BOOMSLANG FED 8-60 14B-13-18-5	6279.2	446.3	1029.0	40.660297	-104.046347
EPI - BOOMSLANG FED 8-60 14B-13-18-5	6279.2	422.3	10443.6	40.660225	-104.012414
BHL - BOOMSLANG FED 8-60 14B-13-18-5	6279.2	421.3	10743.5	40.660222	-104.011333

PROPOSED LOCAL COORDINATES:
 SHL:1386ft FSL & 420ft FEL of Sec 14
 BEGIN PROD INT: 1827ft FSL & 600ft FWL of Sec 13
 END PROD INTERVAL: 1867ft FSL & 600ft FEL of Sec 18
 BHL: 1871ft FSL & 300ft FEL of Sec 18



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-5
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-5	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	NE SE SEC. 14 T8N R60W 6th P.M.				
Site Position:		Northing:	1,486,231.70 usft	Latitude:	40.659078
From:	Lat/Long	Easting:	3,402,151.68 usft	Longitude:	-104.050458
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft	Grid Convergence:	0.94 °

Well	BOOMSLANG FED 8-60 14B-13-18-5					
Well Position	+N-S	-2.2 usft	Northing:	1,486,231.32 usft	Latitude:	40.659072
	+E-W	111.5 usft	Easting:	3,402,263.23 usft	Longitude:	-104.050056
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,889.2 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	27/08/2017	7.82	67.16	52,576

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 (°)
	6,279.2	0.0	0.0	87.75

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	-4,914.2	0.0	0.0	0.00	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	-4,814.2	0.0	0.0	0.00	0.00	0.00	0.00	
700.0	12.00	45.52	695.6	-4,218.6	43.9	44.7	2.00	2.00	0.00	45.52	
3,171.7	12.00	45.52	3,113.4	-1,800.8	403.9	411.3	0.00	0.00	0.00	0.00	
3,771.7	0.00	0.00	3,709.0	-1,205.2	447.8	456.0	2.00	-2.00	0.00	180.00	
5,769.0	0.00	0.00	5,706.2	792.0	447.8	456.0	0.00	0.00	0.00	0.00	KOP - BOOMSLAN
6,669.1	90.00	90.15	6,279.2	1,365.0	446.3	1,029.0	10.00	10.00	10.01	90.15	BPI - BOOMSLANG
16,083.7	90.00	90.15	6,279.2	1,365.0	422.3	10,443.6	0.00	0.00	0.00	172.80	EPI - BOOMSLANG
16,084.8	90.00	90.18	6,279.2	1,365.0	422.3	10,444.7	3.00	0.00	3.00	90.00	
16,383.6	90.00	90.19	6,279.2	1,365.0	421.3	10,743.5	0.00	0.00	0.00	40.71	BHL - BOOMSLAN

Planning Report



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Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-5	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: 1386ft FSL & 420ft FEL of Sec 14										
0.0	0.00	0.00	0.0	4,914.20	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
100.0	0.00	0.00	100.0	4,814.20	0.0	0.0	0.0	0.00	0.00	0.00
200.0	2.00	45.52	200.0	4,714.22	1.2	1.2	1.3	2.00	2.00	0.00
300.0	4.00	45.52	299.8	4,614.36	4.9	5.0	5.2	2.00	2.00	0.00
400.0	6.00	45.52	399.5	4,514.75	11.0	11.2	11.6	2.00	2.00	0.00
PIERRE SHALE (BASE FOX HILLS)										
465.2	7.30	45.52	464.2	4,450.00	16.3	16.6	17.2	2.00	2.00	0.00
500.0	8.00	45.52	498.7	4,415.50	19.5	19.9	20.6	2.00	2.00	0.00
600.0	10.00	45.52	597.5	4,316.73	30.5	31.1	32.2	2.00	2.00	0.00
EOB TO 12° INC										
700.0	12.00	45.52	695.6	4,218.58	43.9	44.7	46.4	2.00	2.00	0.00
800.0	12.00	45.52	793.4	4,120.76	58.4	59.5	61.7	0.00	0.00	0.00
900.0	12.00	45.52	891.3	4,022.95	73.0	74.3	77.1	0.00	0.00	0.00
1,000.0	12.00	45.52	989.1	3,925.13	87.6	89.2	92.5	0.00	0.00	0.00
1,100.0	12.00	45.52	1,086.9	3,827.32	102.1	104.0	107.9	0.00	0.00	0.00
1,200.0	12.00	45.52	1,184.7	3,729.50	116.7	118.8	123.3	0.00	0.00	0.00
1,300.0	12.00	45.52	1,282.5	3,631.69	131.3	133.7	138.7	0.00	0.00	0.00
1,400.0	12.00	45.52	1,380.3	3,533.87	145.8	148.5	154.1	0.00	0.00	0.00
1,500.0	12.00	45.52	1,478.1	3,436.06	160.4	163.3	169.5	0.00	0.00	0.00
1,600.0	12.00	45.52	1,576.0	3,338.24	175.0	178.2	184.9	0.00	0.00	0.00
1,700.0	12.00	45.52	1,673.8	3,240.43	189.5	193.0	200.3	0.00	0.00	0.00
1,800.0	12.00	45.52	1,771.6	3,142.61	204.1	207.8	215.7	0.00	0.00	0.00
1,900.0	12.00	45.52	1,869.4	3,044.80	218.7	222.7	231.1	0.00	0.00	0.00
2,000.0	12.00	45.52	1,967.2	2,946.98	233.2	237.5	246.5	0.00	0.00	0.00
2,100.0	12.00	45.52	2,065.0	2,849.17	247.8	252.3	261.9	0.00	0.00	0.00
2,200.0	12.00	45.52	2,162.8	2,751.36	262.4	267.2	277.3	0.00	0.00	0.00
2,300.0	12.00	45.52	2,260.7	2,653.54	276.9	282.0	292.7	0.00	0.00	0.00
2,400.0	12.00	45.52	2,358.5	2,555.73	291.5	296.9	308.0	0.00	0.00	0.00
2,500.0	12.00	45.52	2,456.3	2,457.91	306.1	311.7	323.4	0.00	0.00	0.00
2,600.0	12.00	45.52	2,554.1	2,360.10	320.6	326.5	338.8	0.00	0.00	0.00
2,700.0	12.00	45.52	2,651.9	2,262.28	335.2	341.4	354.2	0.00	0.00	0.00
2,800.0	12.00	45.52	2,749.7	2,164.47	349.8	356.2	369.6	0.00	0.00	0.00
2,900.0	12.00	45.52	2,847.5	2,066.65	364.4	371.0	385.0	0.00	0.00	0.00
3,000.0	12.00	45.52	2,945.4	1,968.84	378.9	385.9	400.4	0.00	0.00	0.00
3,100.0	12.00	45.52	3,043.2	1,871.02	393.5	400.7	415.8	0.00	0.00	0.00
END OF TANGENT										
3,171.7	12.00	45.52	3,113.4	1,800.85	403.9	411.3	426.8	0.00	0.00	0.00
3,200.0	11.43	45.52	3,141.0	1,773.18	408.0	415.4	431.1	2.00	-2.00	0.00
PARKMAN										
3,254.2	10.35	45.52	3,194.2	1,720.00	415.1	422.7	438.7	2.00	-2.00	0.00
3,300.0	9.43	45.52	3,239.4	1,674.84	420.6	428.3	444.5	2.00	-2.00	0.00
3,400.0	7.43	45.52	3,338.3	1,575.92	430.9	438.8	455.4	2.00	-2.00	0.00
3,500.0	5.43	45.52	3,437.6	1,476.56	438.8	446.8	463.7	2.00	-2.00	0.00
3,600.0	3.43	45.52	3,537.3	1,376.86	444.2	452.3	469.4	2.00	-2.00	0.00
3,700.0	1.43	45.52	3,637.2	1,276.96	447.2	455.4	472.5	2.00	-2.00	0.00
EOD TO VERTICAL										
3,771.7	0.00	0.00	3,709.0	1,205.22	447.8	456.0	473.2	2.00	-2.00	0.00
3,800.0	0.00	0.00	3,737.2	1,176.97	447.8	456.0	473.2	0.00	0.00	0.00
3,900.0	0.00	0.00	3,837.2	1,076.97	447.8	456.0	473.2	0.00	0.00	0.00
SUSSEX										
3,977.0	0.00	0.00	3,914.2	1,000.00	447.8	456.0	473.2	0.00	0.00	0.00

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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)
4,000.0	0.00	0.00	3,937.2	976.97	447.8	456.0	473.2	0.00	0.00	0.00
4,100.0	0.00	0.00	4,037.2	876.97	447.8	456.0	473.2	0.00	0.00	0.00
4,200.0	0.00	0.00	4,137.2	776.97	447.8	456.0	473.2	0.00	0.00	0.00
4,300.0	0.00	0.00	4,237.2	676.97	447.8	456.0	473.2	0.00	0.00	0.00
4,400.0	0.00	0.00	4,337.2	576.97	447.8	456.0	473.2	0.00	0.00	0.00
4,500.0	0.00	0.00	4,437.2	476.97	447.8	456.0	473.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,537.2	376.97	447.8	456.0	473.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,637.2	276.97	447.8	456.0	473.2	0.00	0.00	0.00
SHANNON										
4,717.0	0.00	0.00	4,654.2	260.00	447.8	456.0	473.2	0.00	0.00	0.00
4,800.0	0.00	0.00	4,737.2	176.97	447.8	456.0	473.2	0.00	0.00	0.00
4,900.0	0.00	0.00	4,837.2	76.97	447.8	456.0	473.2	0.00	0.00	0.00
5,000.0	0.00	0.00	4,937.2	-23.03	447.8	456.0	473.2	0.00	0.00	0.00
5,100.0	0.00	0.00	5,037.2	-123.03	447.8	456.0	473.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,137.2	-223.03	447.8	456.0	473.2	0.00	0.00	0.00
5,300.0	0.00	0.00	5,237.2	-323.03	447.8	456.0	473.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,337.2	-423.03	447.8	456.0	473.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,437.2	-523.03	447.8	456.0	473.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,537.2	-623.03	447.8	456.0	473.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,637.2	-723.03	447.8	456.0	473.2	0.00	0.00	0.00
KOP (10°/100ft BUR)										
5,769.0	0.00	0.00	5,706.2	-792.00	447.8	456.0	473.2	0.00	0.00	0.00
5,800.0	3.10	90.15	5,737.2	-823.02	447.8	456.8	474.0	10.00	10.00	0.00
5,900.0	13.10	90.15	5,836.1	-921.89	447.8	470.9	488.1	10.00	10.00	0.00
6,000.0	23.10	90.15	5,931.0	-1,016.82	447.7	501.9	519.1	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,088.2	31.92	90.15	6,009.2	-1,095.00	447.6	542.7	559.8	10.00	10.00	0.00
6,100.0	33.10	90.15	6,019.1	-1,104.92	447.6	549.0	566.1	10.00	10.00	0.00
NIOBRARA FORMATION										
6,162.1	39.31	90.15	6,069.2	-1,155.00	447.5	585.6	602.7	10.00	10.00	0.00
NIOBRARA A CHALK										
6,175.1	40.61	90.15	6,079.2	-1,165.00	447.4	594.0	611.1	10.00	10.00	0.00
6,200.0	43.10	90.15	6,097.7	-1,183.52	447.4	610.6	627.7	10.00	10.00	0.00
6,300.0	53.10	90.15	6,164.4	-1,250.22	447.2	685.0	702.0	10.00	10.00	0.00
NIOBRARA B CHALK										
6,308.0	53.90	90.15	6,169.2	-1,255.00	447.2	691.4	708.4	10.00	10.00	0.00
6,400.0	63.10	90.15	6,217.2	-1,302.99	447.0	769.7	786.7	10.00	10.00	0.00
NIOBRARA C CHALK										
6,482.8	71.38	90.15	6,249.2	-1,335.00	446.8	846.0	862.9	10.00	10.00	0.00
6,500.0	73.10	90.15	6,254.4	-1,340.25	446.8	862.4	879.3	10.00	10.00	0.00
6,600.0	83.10	90.15	6,275.0	-1,360.85	446.5	960.1	976.9	10.00	10.00	0.00
BPI: 1827ft FSL & 600ft FWL of Sec 13										
6,669.1	90.00	90.15	6,279.2	-1,365.00	446.3	1,029.0	1,045.7	10.00	10.00	0.00
6,700.0	90.00	90.15	6,279.2	-1,365.00	446.3	1,060.0	1,076.6	0.00	0.00	0.00
6,800.0	90.00	90.15	6,279.2	-1,364.99	446.0	1,160.0	1,176.6	0.00	0.00	0.00
6,900.0	90.00	90.15	6,279.2	-1,364.98	445.8	1,260.0	1,276.5	0.00	0.00	0.00
7,000.0	90.00	90.15	6,279.2	-1,364.97	445.5	1,360.0	1,376.4	0.00	0.00	0.00
7,100.0	90.00	90.15	6,279.2	-1,364.97	445.2	1,460.0	1,476.3	0.00	0.00	0.00
7,200.0	90.00	90.15	6,279.2	-1,364.96	445.0	1,560.0	1,576.2	0.00	0.00	0.00
7,300.0	90.00	90.15	6,279.1	-1,364.95	444.7	1,660.0	1,676.1	0.00	0.00	0.00
7,400.0	90.00	90.15	6,279.1	-1,364.94	444.5	1,760.0	1,776.0	0.00	0.00	0.00
7,500.0	90.00	90.15	6,279.1	-1,364.94	444.2	1,860.0	1,875.9	0.00	0.00	0.00
7,600.0	90.00	90.15	6,279.1	-1,364.93	444.0	1,960.0	1,975.9	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-5
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-5	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)
7,700.0	90.00	90.15	6,279.1	-1,364.92	443.7	2,060.0	2,075.8	0.00	0.00	0.00
7,800.0	90.00	90.15	6,279.1	-1,364.92	443.5	2,160.0	2,175.7	0.00	0.00	0.00
7,900.0	90.00	90.15	6,279.1	-1,364.91	443.2	2,260.0	2,275.6	0.00	0.00	0.00
8,000.0	90.00	90.15	6,279.1	-1,364.90	443.0	2,360.0	2,375.5	0.00	0.00	0.00
8,100.0	90.00	90.15	6,279.1	-1,364.90	442.7	2,460.0	2,475.4	0.00	0.00	0.00
8,200.0	90.00	90.15	6,279.1	-1,364.89	442.4	2,560.0	2,575.3	0.00	0.00	0.00
8,300.0	90.00	90.15	6,279.1	-1,364.89	442.2	2,660.0	2,675.2	0.00	0.00	0.00
8,400.0	90.00	90.15	6,279.1	-1,364.88	441.9	2,760.0	2,775.2	0.00	0.00	0.00
8,500.0	90.00	90.15	6,279.1	-1,364.87	441.7	2,860.0	2,875.1	0.00	0.00	0.00
8,600.0	90.00	90.15	6,279.1	-1,364.87	441.4	2,960.0	2,975.0	0.00	0.00	0.00
8,700.0	90.00	90.15	6,279.1	-1,364.86	441.2	3,060.0	3,074.9	0.00	0.00	0.00
8,800.0	90.00	90.15	6,279.1	-1,364.86	440.9	3,160.0	3,174.8	0.00	0.00	0.00
8,900.0	90.00	90.15	6,279.1	-1,364.86	440.7	3,260.0	3,274.7	0.00	0.00	0.00
9,000.0	90.00	90.15	6,279.1	-1,364.85	440.4	3,360.0	3,374.6	0.00	0.00	0.00
9,100.0	90.00	90.15	6,279.0	-1,364.85	440.2	3,460.0	3,474.5	0.00	0.00	0.00
9,200.0	90.00	90.15	6,279.0	-1,364.84	439.9	3,560.0	3,574.5	0.00	0.00	0.00
9,300.0	90.00	90.15	6,279.0	-1,364.84	439.6	3,660.0	3,674.4	0.00	0.00	0.00
9,400.0	90.00	90.15	6,279.0	-1,364.84	439.4	3,760.0	3,774.3	0.00	0.00	0.00
9,500.0	90.00	90.15	6,279.0	-1,364.83	439.1	3,860.0	3,874.2	0.00	0.00	0.00
9,600.0	90.00	90.15	6,279.0	-1,364.83	438.9	3,960.0	3,974.1	0.00	0.00	0.00
9,700.0	90.00	90.15	6,279.0	-1,364.83	438.6	4,060.0	4,074.0	0.00	0.00	0.00
9,800.0	90.00	90.15	6,279.0	-1,364.82	438.4	4,160.0	4,173.9	0.00	0.00	0.00
9,900.0	90.00	90.15	6,279.0	-1,364.82	438.1	4,260.0	4,273.9	0.00	0.00	0.00
10,000.0	90.00	90.15	6,279.0	-1,364.82	437.9	4,360.0	4,373.8	0.00	0.00	0.00
10,100.0	90.00	90.15	6,279.0	-1,364.81	437.6	4,460.0	4,473.7	0.00	0.00	0.00
10,200.0	90.00	90.15	6,279.0	-1,364.81	437.4	4,560.0	4,573.6	0.00	0.00	0.00
10,300.0	90.00	90.15	6,279.0	-1,364.81	437.1	4,660.0	4,673.5	0.00	0.00	0.00
10,400.0	90.00	90.15	6,279.0	-1,364.81	436.8	4,760.0	4,773.4	0.00	0.00	0.00
10,500.0	90.00	90.15	6,279.0	-1,364.81	436.6	4,860.0	4,873.3	0.00	0.00	0.00
10,600.0	90.00	90.15	6,279.0	-1,364.81	436.3	4,960.0	4,973.2	0.00	0.00	0.00
10,700.0	90.00	90.15	6,279.0	-1,364.80	436.1	5,060.0	5,073.2	0.00	0.00	0.00
10,800.0	90.00	90.15	6,279.0	-1,364.80	435.8	5,160.0	5,173.1	0.00	0.00	0.00
10,900.0	90.00	90.15	6,279.0	-1,364.80	435.6	5,260.0	5,273.0	0.00	0.00	0.00
11,000.0	90.00	90.15	6,279.0	-1,364.80	435.3	5,360.0	5,372.9	0.00	0.00	0.00
11,100.0	90.00	90.15	6,279.0	-1,364.80	435.1	5,460.0	5,472.8	0.00	0.00	0.00
11,200.0	90.00	90.15	6,279.0	-1,364.80	434.8	5,559.9	5,572.7	0.00	0.00	0.00
11,300.0	90.00	90.15	6,279.0	-1,364.80	434.5	5,659.9	5,672.6	0.00	0.00	0.00
11,400.0	90.00	90.15	6,279.0	-1,364.80	434.3	5,759.9	5,772.5	0.00	0.00	0.00
11,500.0	90.00	90.15	6,279.0	-1,364.80	434.0	5,859.9	5,872.5	0.00	0.00	0.00
11,600.0	90.00	90.15	6,279.0	-1,364.80	433.8	5,959.9	5,972.4	0.00	0.00	0.00
11,700.0	90.00	90.15	6,279.0	-1,364.80	433.5	6,059.9	6,072.3	0.00	0.00	0.00
11,800.0	90.00	90.15	6,279.0	-1,364.80	433.3	6,159.9	6,172.2	0.00	0.00	0.00
11,900.0	90.00	90.15	6,279.0	-1,364.80	433.0	6,259.9	6,272.1	0.00	0.00	0.00
12,000.0	90.00	90.15	6,279.0	-1,364.80	432.8	6,359.9	6,372.0	0.00	0.00	0.00
12,100.0	90.00	90.15	6,279.0	-1,364.80	432.5	6,459.9	6,471.9	0.00	0.00	0.00
12,200.0	90.00	90.15	6,279.0	-1,364.81	432.2	6,559.9	6,571.8	0.00	0.00	0.00
12,300.0	90.00	90.15	6,279.0	-1,364.81	432.0	6,659.9	6,671.8	0.00	0.00	0.00
12,400.0	90.00	90.15	6,279.0	-1,364.81	431.7	6,759.9	6,771.7	0.00	0.00	0.00
12,500.0	90.00	90.15	6,279.0	-1,364.81	431.5	6,859.9	6,871.6	0.00	0.00	0.00
12,600.0	90.00	90.15	6,279.0	-1,364.81	431.2	6,959.9	6,971.5	0.00	0.00	0.00
12,700.0	90.00	90.15	6,279.0	-1,364.82	431.0	7,059.9	7,071.4	0.00	0.00	0.00
12,800.0	90.00	90.15	6,279.0	-1,364.82	430.7	7,159.9	7,171.3	0.00	0.00	0.00
12,900.0	90.00	90.15	6,279.0	-1,364.82	430.5	7,259.9	7,271.2	0.00	0.00	0.00
13,000.0	90.00	90.15	6,279.0	-1,364.82	430.2	7,359.9	7,371.1	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-5
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-5	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)
13,100.0	90.00	90.15	6,279.0	-1,364.83	429.9	7,459.9	7,471.1	0.00	0.00	0.00
13,200.0	90.00	90.15	6,279.0	-1,364.83	429.7	7,559.9	7,571.0	0.00	0.00	0.00
13,300.0	90.00	90.15	6,279.0	-1,364.83	429.4	7,659.9	7,670.9	0.00	0.00	0.00
13,400.0	90.00	90.15	6,279.0	-1,364.84	429.2	7,759.9	7,770.8	0.00	0.00	0.00
13,500.0	90.00	90.15	6,279.0	-1,364.84	428.9	7,859.9	7,870.7	0.00	0.00	0.00
13,600.0	90.00	90.15	6,279.0	-1,364.84	428.7	7,959.9	7,970.6	0.00	0.00	0.00
13,700.0	90.00	90.15	6,279.0	-1,364.85	428.4	8,059.9	8,070.5	0.00	0.00	0.00
13,800.0	90.00	90.15	6,279.1	-1,364.85	428.2	8,159.9	8,170.5	0.00	0.00	0.00
13,900.0	90.00	90.15	6,279.1	-1,364.86	427.9	8,259.9	8,270.4	0.00	0.00	0.00
14,000.0	90.00	90.15	6,279.1	-1,364.86	427.6	8,359.9	8,370.3	0.00	0.00	0.00
14,100.0	90.00	90.15	6,279.1	-1,364.87	427.4	8,459.9	8,470.2	0.00	0.00	0.00
14,200.0	90.00	90.15	6,279.1	-1,364.87	427.1	8,559.9	8,570.1	0.00	0.00	0.00
14,300.0	90.00	90.15	6,279.1	-1,364.88	426.9	8,659.9	8,670.0	0.00	0.00	0.00
14,400.0	90.00	90.15	6,279.1	-1,364.88	426.6	8,759.9	8,769.9	0.00	0.00	0.00
14,500.0	90.00	90.15	6,279.1	-1,364.89	426.4	8,859.9	8,869.8	0.00	0.00	0.00
14,600.0	90.00	90.15	6,279.1	-1,364.89	426.1	8,959.9	8,969.8	0.00	0.00	0.00
14,700.0	90.00	90.15	6,279.1	-1,364.90	425.9	9,059.9	9,069.7	0.00	0.00	0.00
14,800.0	90.00	90.15	6,279.1	-1,364.91	425.6	9,159.9	9,169.6	0.00	0.00	0.00
14,900.0	90.00	90.15	6,279.1	-1,364.91	425.3	9,259.9	9,269.5	0.00	0.00	0.00
15,000.0	90.00	90.15	6,279.1	-1,364.92	425.1	9,359.9	9,369.4	0.00	0.00	0.00
15,100.0	90.00	90.15	6,279.1	-1,364.93	424.8	9,459.9	9,469.3	0.00	0.00	0.00
15,200.0	90.00	90.15	6,279.1	-1,364.93	424.6	9,559.9	9,569.2	0.00	0.00	0.00
15,300.0	90.00	90.15	6,279.1	-1,364.94	424.3	9,659.9	9,669.1	0.00	0.00	0.00
15,400.0	90.00	90.15	6,279.1	-1,364.95	424.1	9,759.9	9,769.1	0.00	0.00	0.00
15,500.0	90.00	90.15	6,279.2	-1,364.95	423.8	9,859.9	9,869.0	0.00	0.00	0.00
15,600.0	90.00	90.15	6,279.2	-1,364.96	423.5	9,959.9	9,968.9	0.00	0.00	0.00
15,700.0	90.00	90.15	6,279.2	-1,364.97	423.3	10,059.9	10,068.8	0.00	0.00	0.00
15,800.0	90.00	90.15	6,279.2	-1,364.98	423.0	10,159.9	10,168.7	0.00	0.00	0.00
15,900.0	90.00	90.15	6,279.2	-1,364.98	422.8	10,259.9	10,268.6	0.00	0.00	0.00
16,000.0	90.00	90.15	6,279.2	-1,364.99	422.5	10,359.9	10,368.5	0.00	0.00	0.00
EPI: 1867ft FSL & 600ft FEL of Sec 18										
16,083.7	90.00	90.15	6,279.2	-1,365.00	422.3	10,443.6	10,452.2	0.00	0.00	0.00
EOT TO 90.18° AZ										
16,084.8	90.00	90.18	6,279.2	-1,365.00	422.3	10,444.7	10,453.3	3.00	0.00	3.00
16,100.0	90.00	90.18	6,279.2	-1,365.00	422.3	10,459.9	10,468.4	0.00	0.00	0.00
16,200.0	90.00	90.18	6,279.2	-1,365.01	421.9	10,559.9	10,568.4	0.00	0.00	0.00
16,300.0	90.00	90.19	6,279.2	-1,365.01	421.6	10,659.9	10,668.3	0.00	0.00	0.00
BHL: 1871ft FSL & 300ft FEL of Sec 18										
16,383.6	90.00	90.19	6,279.2	-1,365.00	421.3	10,743.5	10,751.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BOOMSLANG FED 8-60 14B-13-18-5
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4914.2usft (Original Well Elev)
Site:	NE SE SEC. 14 T8N R60W 6th P.M.	North Reference:	True
Well:	BOOMSLANG FED 8-60 14B-13-18-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
465.2	464.2	PIERRE SHALE (BASE FOX HILLS				
3,254.2	3,194.2	PARKMAN				
3,977.0	3,914.2	SUSSEX				
4,717.0	4,654.2	SHANNON				
6,088.2	6,009.2	SHARON SPRINGS SHALE				
6,162.1	6,069.2	NIOBRARA FORMATION				
6,175.1	6,079.2	NIOBRARA A CHALK				
6,308.0	6,169.2	NIOBRARA B CHALK				
6,482.8	6,249.2	NIOBRARA C CHALK				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
0.0	0.0	0.0	0.0	SHL: 1386ft FSL & 420ft FEL of Sec 14
100.0	100.0	0.0	0.0	START NUDGE (2°/100ft BUR)
700.0	695.6	43.9	44.7	EOB TO 12° INC
3,171.7	3,113.4	403.9	411.3	END OF TANGENT
3,771.7	3,709.0	447.8	456.0	EOD TO VERTICAL
5,769.0	5,706.2	447.8	456.0	KOP (10°/100ft BUR)
6,669.1	6,279.2	446.3	1,029.0	BPI: 1827ft FSL & 600ft FWL of Sec 13
16,083.7	6,279.2	422.3	10,443.6	EPI: 1867ft FSL & 600ft FEL of Sec 18
16,084.8	6,279.2	422.3	10,444.7	EOT TO 90.18° AZ
16,383.6	6,279.2	421.3	10,743.5	BHL: 1871ft FSL & 300ft FEL of Sec 18