

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

SW NE SEC. 13 T9N R60W 6th P.M.

ROHN FED 9-60 13-24-2

ORIGINAL WELLBORE

10 January, 2018

Plan: PROPOSAL #2





Project: WELD COUNTY, COLORADO (NAD 83)
Site: SW NE SEC. 13 T9N R60W 6th P.M.
Well: ROHN FED 9-60 13-24-2
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

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: 1994ft FNL & 1681ft FEL of Sec 13		
200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (3"/100ft BUR)		
1198.66	1250.89	31.53	253.81	-78.62	-270.72	153.50	281.90	EOB TO 31.53° INC		
4725.58	5388.55	31.53	253.81	-682.04	-2348.43	1331.61	2445.47	END OF TANGENT		
5724.24	6439.44	0.00	0.00	-760.66	-2619.15	1485.11	2727.37	EOD TO VERTICAL		
5824.24	6539.44	0.00	0.00	-760.66	-2619.15	1485.11	2727.37	KOP (10"/100ft BUR)		
6397.20	7439.43	90.00	179.37	-1333.57	-2612.85	2031.75	3300.32	BPI: 2080ft FSL & 1033ft FWL of Sec 13		
6397.20	14201.59	90.00	179.36	-8095.32	-2537.91	8483.34	10062.48	EPI: 600ft FSL & 1034ft FWL of Sec 24		
6397.20	14202.92	90.00	179.32	-8096.65	-2537.89	8484.61	10063.81	EOT TO 179.32° AZ		
6397.20	14501.82	90.00	179.32	-8395.53	-2534.34	8769.70	10362.71	BHL: 300ft FSL & 1033ft FWL of Sec 24		

PROPOSED LOCAL COORDINATES:

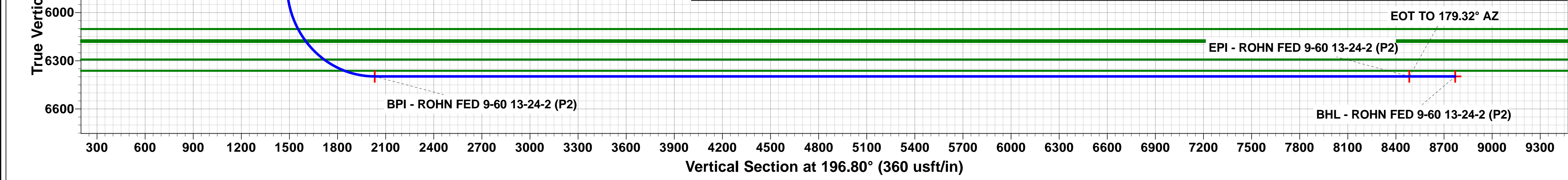
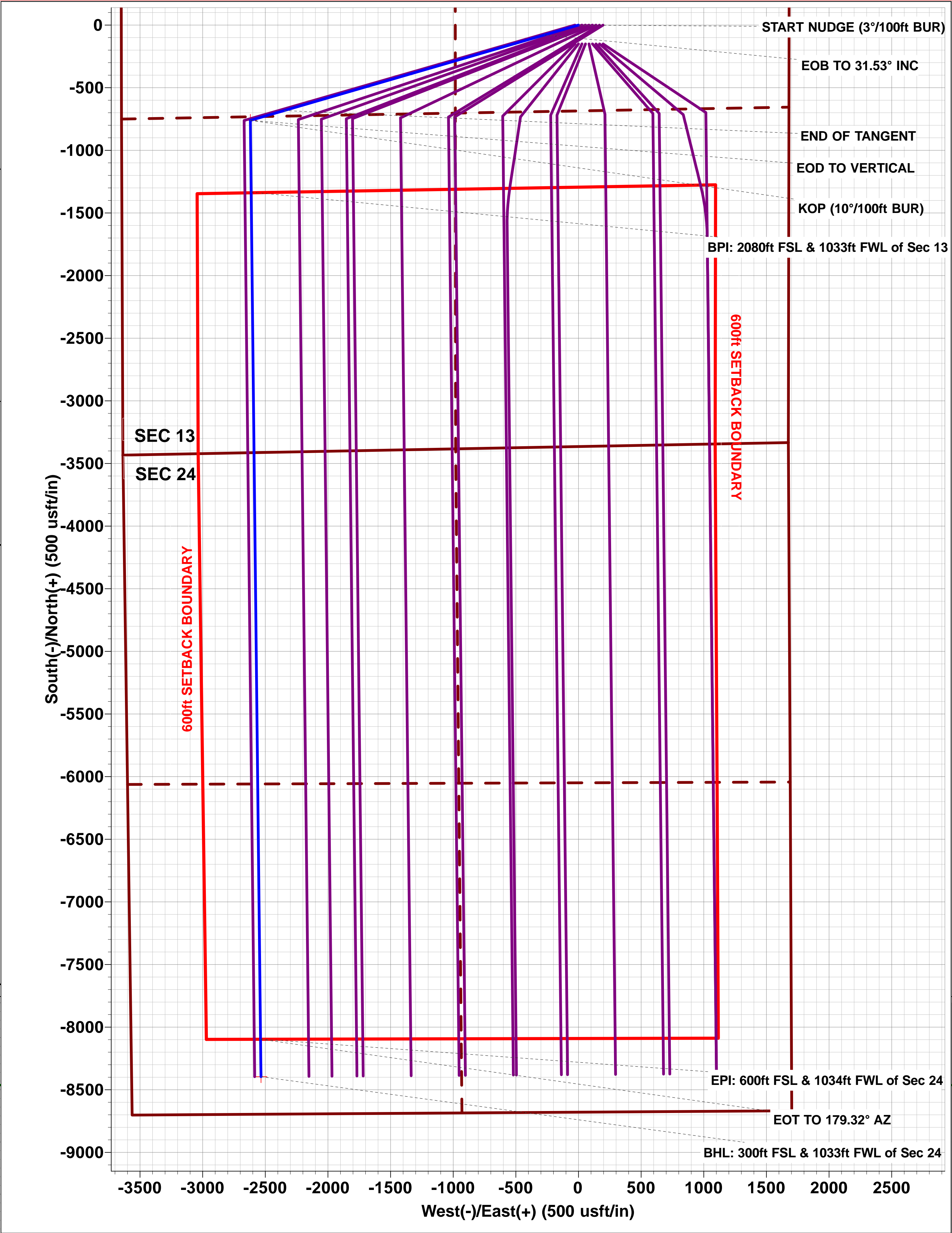
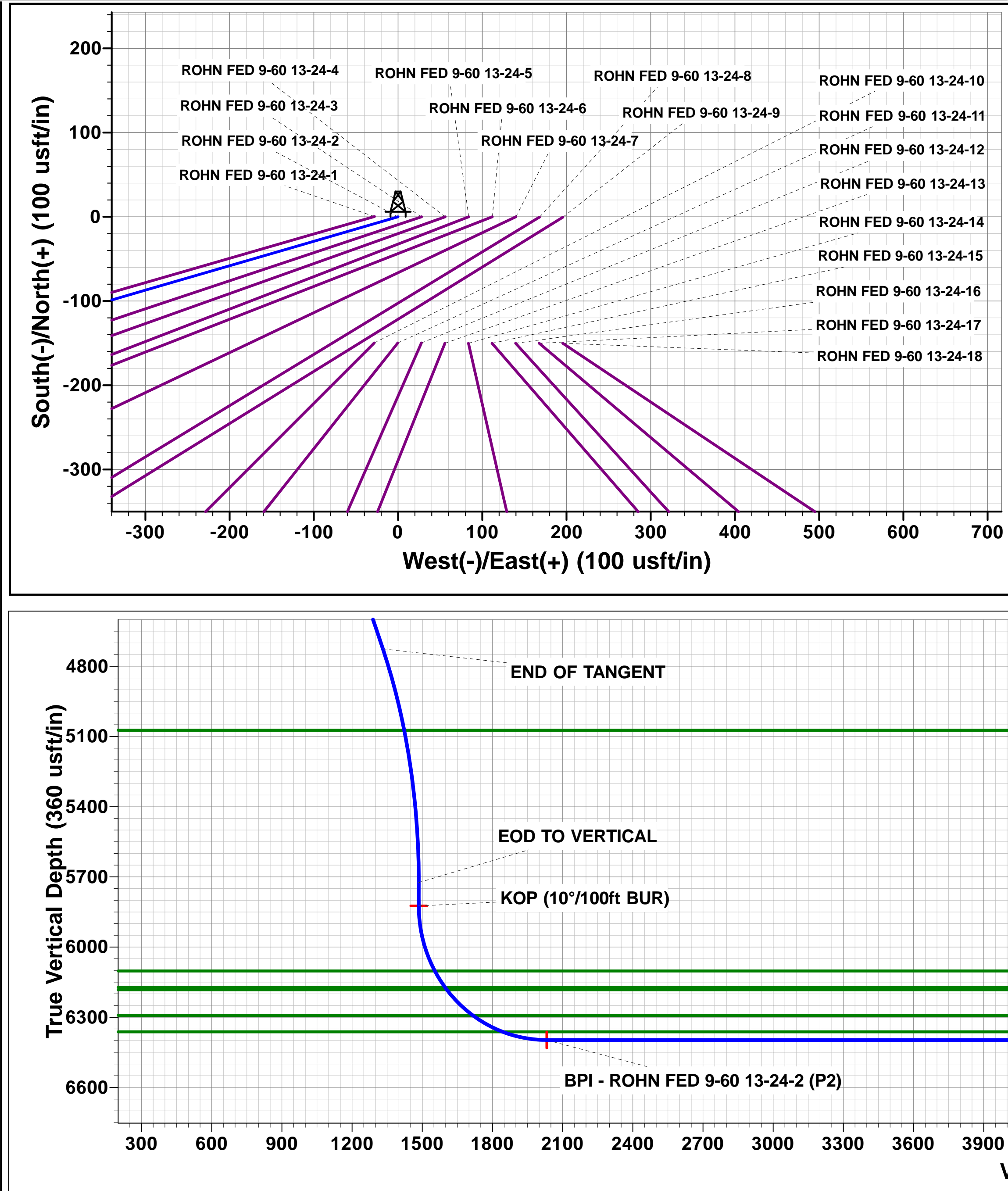
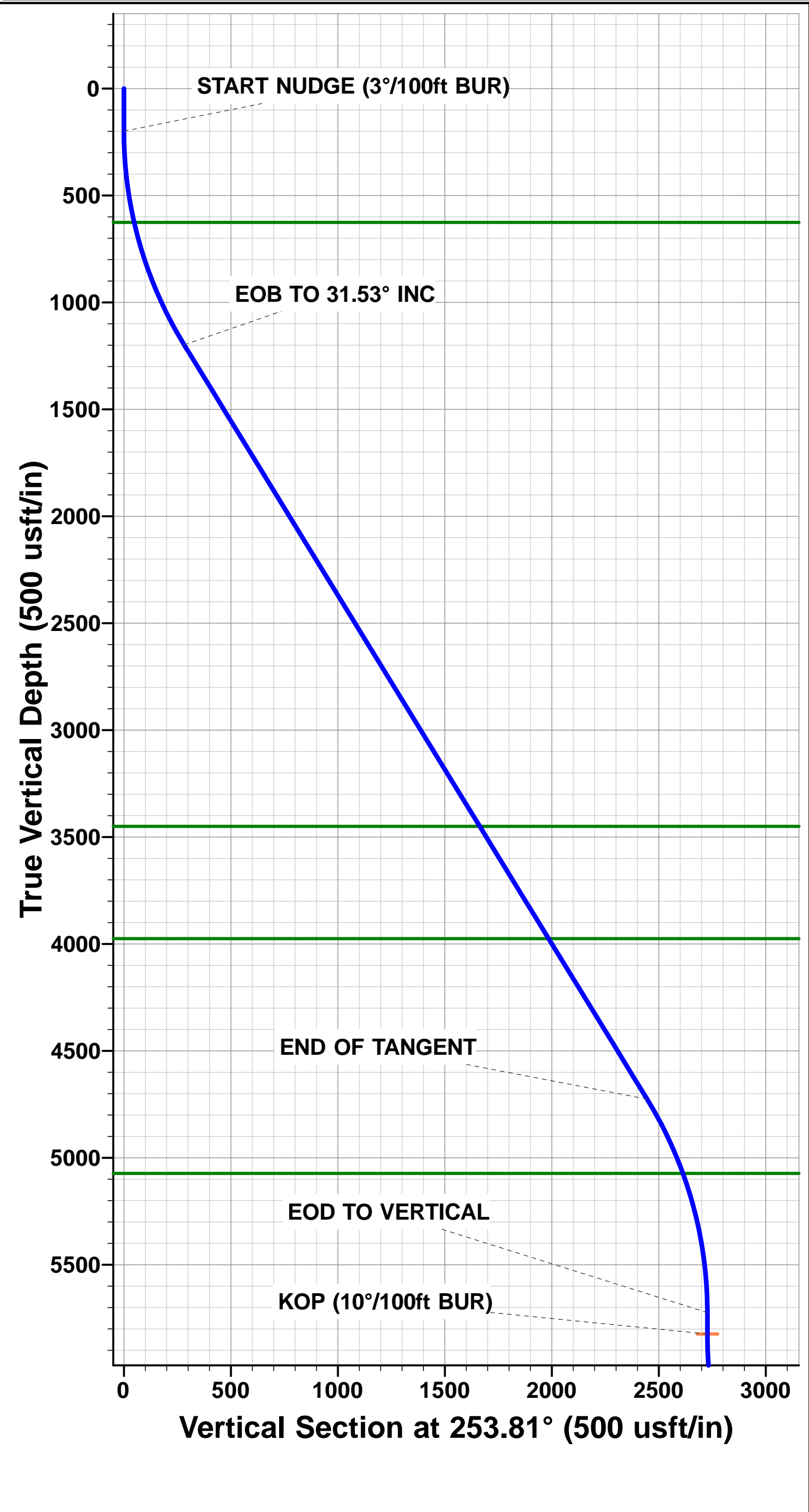
SHL: 1994ft FNL & 1681ft FEL Sec 13

BPI: 2080ft FSL & 1033ft FWL Sec 13

EPI: 600ft FSL & 1034ft FWL Sec 24

BHL: 300ft FSL & 1033ft FWL of Sec 24

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - ROHN FED 9-60 13-24-2 (P2)	5824.24	-760.66	-2619.15	40.750372	-104.045917
BPI - ROHN FED 9-60 13-24-2 (P2)	6397.20	-1333.57	-2612.85	40.748799	-104.045894
EPI - ROHN FED 9-60 13-24-2 (P2)	6397.20	-8095.32	-2537.91	40.730240	-104.045621
BHL - ROHN FED 9-60 13-24-2 (P2)	6397.20	-8395.53	-2534.34	40.729416	-104.045608



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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	SW NE SEC. 13 T9N R60W 6th P.M.		
Site Position:		Northing:	1,520,312.28 usft
From:	Lat/Long	Easting:	3,405,444.26 usft
Position Uncertainty:	0.00 usft	Slot Radius:	1.10000ft
		Latitude:	40.752461
		Longitude:	-104.036565
		Grid Convergence:	0.95 °

Well	ROHN FED 9-60 13-24-2		
Well Position	+N/-S	-0.38 usft	Northing: 1,520,312.36 usft
	+E/-W	27.98 usft	Easting: 3,405,472.25 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	40.752460
		Longitude:	-104.036464
		Ground Level:	5,038.20 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	09/01/2018	7.78	67.23	52,582

Design	PROPOSAL #2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	6,397.20	0.00	0.00	196.80

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
0.00	0.00	0.00	0.00	-5,063.20	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	-4,863.20	0.00	0.00	0.00	0.00	0.00	0.00	
1,250.89	31.53	253.81	1,198.66	-3,864.54	-78.62	-270.72	3.00	3.00	0.00	253.81	
5,388.55	31.53	253.81	4,725.58	-337.62	-682.04	-2,348.43	0.00	0.00	0.00	0.00	
6,439.44	0.00	0.00	5,724.24	661.04	-760.66	-2,619.15	3.00	-3.00	0.00	180.00	
6,539.44	0.00	0.00	5,824.24	761.04	-760.66	-2,619.15	0.00	0.00	0.00	0.00	KOP - ROHN FED 9
7,439.43	90.00	179.37	6,397.20	1,334.00	-1,333.57	-2,612.85	10.00	10.00	19.93	179.37	BPI - ROHN FED 9
14,201.59	90.00	179.36	6,397.20	1,334.00	-8,095.32	-2,537.91	0.00	0.00	0.00	-73.33	EPI - ROHN FED 9
14,202.92	90.00	179.32	6,397.20	1,334.00	-8,096.65	-2,537.89	3.00	0.00	-3.00	-90.00	
14,501.82	90.00	179.32	6,397.20	1,334.00	-8,395.53	-2,534.34	0.00	0.00	0.00	-130.61	BHL - ROHN FED 9

Planning Report



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Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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: 1994ft FNL & 1681ft FEL of Sec 13										
0.00	0.00	0.00	0.00	5,063.20	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	4,963.20	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (3°/100ft BUR)										
200.00	0.00	0.00	200.00	4,863.20	0.00	0.00	0.00	0.00	0.00	0.00
300.00	3.00	253.81	299.95	4,763.25	-0.73	-2.51	1.43	3.00	3.00	0.00
400.00	6.00	253.81	399.63	4,663.57	-2.92	-10.05	5.70	3.00	3.00	0.00
500.00	9.00	253.81	498.77	4,564.43	-6.56	-22.58	12.80	3.00	3.00	0.00
600.00	12.00	253.81	597.08	4,466.12	-11.64	-40.08	22.73	3.00	3.00	0.00
PIERRE SHALE (BASE OF FOX HILLS)										
629.82	12.89	253.81	626.20	4,437.00	-13.43	-46.25	26.23	3.00	3.00	0.00
700.00	15.00	253.81	694.31	4,368.89	-18.15	-62.49	35.44	3.00	3.00	0.00
800.00	18.00	253.81	790.18	4,273.02	-26.07	-89.77	50.90	3.00	3.00	0.00
900.00	21.00	253.81	884.43	4,178.77	-35.38	-121.82	69.07	3.00	3.00	0.00
1,000.00	24.00	253.81	976.81	4,086.39	-46.05	-158.56	89.91	3.00	3.00	0.00
1,100.00	27.00	253.81	1,067.06	3,996.14	-58.06	-199.90	113.35	3.00	3.00	0.00
1,200.00	30.00	253.81	1,154.93	3,908.27	-71.36	-245.72	139.33	3.00	3.00	0.00
EOB TO 31.53° INC										
1,250.89	31.53	253.81	1,198.66	3,864.54	-78.62	-270.72	153.50	3.00	3.00	0.00
1,300.00	31.53	253.81	1,240.52	3,822.68	-85.78	-295.38	167.48	0.00	0.00	0.00
1,400.00	31.53	253.81	1,325.76	3,737.44	-100.37	-345.59	195.96	0.00	0.00	0.00
1,500.00	31.53	253.81	1,411.00	3,652.20	-114.95	-395.81	224.43	0.00	0.00	0.00
1,600.00	31.53	253.81	1,496.24	3,566.96	-129.53	-446.02	252.90	0.00	0.00	0.00
1,700.00	31.53	253.81	1,581.48	3,481.72	-144.12	-496.24	281.37	0.00	0.00	0.00
1,800.00	31.53	253.81	1,666.72	3,396.48	-158.70	-546.45	309.85	0.00	0.00	0.00
1,900.00	31.53	253.81	1,751.96	3,311.24	-173.29	-596.67	338.32	0.00	0.00	0.00
2,000.00	31.53	253.81	1,837.20	3,226.00	-187.87	-646.88	366.79	0.00	0.00	0.00
2,100.00	31.53	253.81	1,922.44	3,140.76	-202.45	-697.10	395.27	0.00	0.00	0.00
2,200.00	31.53	253.81	2,007.68	3,055.52	-217.04	-747.31	423.74	0.00	0.00	0.00
2,300.00	31.53	253.81	2,092.91	2,970.29	-231.62	-797.52	452.21	0.00	0.00	0.00
2,400.00	31.53	253.81	2,178.15	2,885.05	-246.20	-847.74	480.68	0.00	0.00	0.00
2,500.00	31.53	253.81	2,263.39	2,799.81	-260.79	-897.95	509.16	0.00	0.00	0.00
2,600.00	31.53	253.81	2,348.63	2,714.57	-275.37	-948.17	537.63	0.00	0.00	0.00
2,700.00	31.53	253.81	2,433.87	2,629.33	-289.95	-998.38	566.10	0.00	0.00	0.00
2,800.00	31.53	253.81	2,519.11	2,544.09	-304.54	-1,048.60	594.57	0.00	0.00	0.00
2,900.00	31.53	253.81	2,604.35	2,458.85	-319.12	-1,098.81	623.05	0.00	0.00	0.00
3,000.00	31.53	253.81	2,689.59	2,373.61	-333.70	-1,149.03	651.52	0.00	0.00	0.00
3,100.00	31.53	253.81	2,774.83	2,288.37	-348.29	-1,199.24	679.99	0.00	0.00	0.00
3,200.00	31.53	253.81	2,860.07	2,203.13	-362.87	-1,249.46	708.47	0.00	0.00	0.00
3,300.00	31.53	253.81	2,945.31	2,117.89	-377.45	-1,299.67	736.94	0.00	0.00	0.00
3,400.00	31.53	253.81	3,030.55	2,032.65	-392.04	-1,349.89	765.41	0.00	0.00	0.00
3,500.00	31.53	253.81	3,115.79	1,947.41	-406.62	-1,400.10	793.88	0.00	0.00	0.00
3,600.00	31.53	253.81	3,201.03	1,862.17	-421.20	-1,450.32	822.36	0.00	0.00	0.00
3,700.00	31.53	253.81	3,286.27	1,776.93	-435.79	-1,500.53	850.83	0.00	0.00	0.00
3,800.00	31.53	253.81	3,371.51	1,691.69	-450.37	-1,550.75	879.30	0.00	0.00	0.00
PARKMAN										
3,892.32	31.53	253.81	3,450.20	1,613.00	-463.83	-1,597.10	905.59	0.00	0.00	0.00
3,900.00	31.53	253.81	3,456.75	1,606.45	-464.96	-1,600.96	907.77	0.00	0.00	0.00
4,000.00	31.53	253.81	3,541.99	1,521.21	-479.54	-1,651.18	936.25	0.00	0.00	0.00
4,100.00	31.53	253.81	3,627.23	1,435.97	-494.12	-1,701.39	964.72	0.00	0.00	0.00
4,200.00	31.53	253.81	3,712.47	1,350.73	-508.71	-1,751.61	993.19	0.00	0.00	0.00
4,300.00	31.53	253.81	3,797.71	1,265.49	-523.29	-1,801.82	1,021.67	0.00	0.00	0.00
4,400.00	31.53	253.81	3,882.95	1,180.25	-537.87	-1,852.04	1,050.14	0.00	0.00	0.00
4,500.00	31.53	253.81	3,968.19	1,095.01	-552.46	-1,902.25	1,078.61	0.00	0.00	0.00

Planning Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
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Well:	ROHN FED 9-60 13-24-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
SUSSEX										
4,508.23	31.53	253.81	3,975.20	1,088.00	-553.66	-1,906.38	1,080.95	0.00	0.00	0.00
4,600.00	31.53	253.81	4,053.43	1,009.77	-567.04	-1,952.47	1,107.08	0.00	0.00	0.00
4,700.00	31.53	253.81	4,138.67	924.53	-581.62	-2,002.68	1,135.56	0.00	0.00	0.00
4,800.00	31.53	253.81	4,223.91	839.29	-596.21	-2,052.90	1,164.03	0.00	0.00	0.00
4,900.00	31.53	253.81	4,309.15	754.05	-610.79	-2,103.11	1,192.50	0.00	0.00	0.00
5,000.00	31.53	253.81	4,394.38	668.82	-625.37	-2,153.32	1,220.97	0.00	0.00	0.00
5,100.00	31.53	253.81	4,479.62	583.58	-639.96	-2,203.54	1,249.45	0.00	0.00	0.00
5,200.00	31.53	253.81	4,564.86	498.34	-654.54	-2,253.75	1,277.92	0.00	0.00	0.00
5,300.00	31.53	253.81	4,650.10	413.10	-669.12	-2,303.97	1,306.39	0.00	0.00	0.00
END OF TANGENT										
5,388.55	31.53	253.81	4,725.58	337.62	-682.04	-2,348.43	1,331.61	0.00	0.00	0.00
5,400.00	31.18	253.81	4,735.36	327.84	-683.70	-2,354.16	1,334.85	3.00	-3.00	0.00
5,500.00	28.18	253.81	4,822.23	240.97	-697.51	-2,401.71	1,361.81	3.00	-3.00	0.00
5,600.00	25.18	253.81	4,911.57	151.63	-710.03	-2,444.82	1,386.26	3.00	-3.00	0.00
5,700.00	22.18	253.81	5,003.14	60.06	-721.23	-2,483.39	1,408.13	3.00	-3.00	0.00
SHANNON										
5,775.08	19.93	253.81	5,073.20	-10.00	-728.76	-2,509.30	1,422.82	3.00	-3.00	0.00
5,800.00	19.18	253.81	5,096.68	-33.48	-731.08	-2,517.31	1,427.36	3.00	-3.00	0.00
5,900.00	16.18	253.81	5,191.94	-128.74	-739.55	-2,546.48	1,443.90	3.00	-3.00	0.00
6,000.00	13.18	253.81	5,288.67	-225.47	-746.62	-2,570.81	1,457.70	3.00	-3.00	0.00
6,100.00	10.18	253.81	5,386.59	-323.39	-752.27	-2,590.26	1,468.72	3.00	-3.00	0.00
6,200.00	7.18	253.81	5,485.43	-422.23	-756.48	-2,604.76	1,476.94	3.00	-3.00	0.00
6,300.00	4.18	253.81	5,584.92	-521.72	-759.24	-2,614.26	1,482.34	3.00	-3.00	0.00
6,400.00	1.18	253.81	5,684.80	-621.60	-760.55	-2,618.76	1,484.88	3.00	-3.00	0.00
EOD TO VERTICAL										
6,439.44	0.00	0.00	5,724.24	-661.04	-760.66	-2,619.15	1,485.11	3.00	-3.00	0.00
6,500.00	0.00	0.00	5,784.80	-721.60	-760.66	-2,619.15	1,485.11	0.00	0.00	0.00
KOP (10°/100ft BUR)										
6,539.44	0.00	0.00	5,824.24	-761.04	-760.66	-2,619.15	1,485.11	0.00	0.00	0.00
6,600.00	6.06	179.37	5,884.69	-821.49	-763.86	-2,619.11	1,488.16	10.00	10.00	0.00
6,700.00	16.06	179.37	5,982.71	-919.51	-783.01	-2,618.90	1,506.43	10.00	10.00	0.00
6,800.00	26.06	179.37	6,075.91	-1,012.71	-818.89	-2,618.51	1,540.67	10.00	10.00	0.00
SHARON SPRINGS SHALE										
6,829.65	29.02	179.37	6,102.20	-1,039.00	-832.60	-2,618.36	1,553.74	10.00	10.00	0.00
6,900.00	36.06	179.37	6,161.47	-1,098.27	-870.41	-2,617.94	1,589.82	10.00	10.00	0.00
NIOBRARA FORMATION										
6,913.39	37.39	179.37	6,172.20	-1,109.00	-878.41	-2,617.86	1,597.46	10.00	10.00	0.00
NIOBRARA A CHALK										
6,926.08	38.66	179.37	6,182.20	-1,119.00	-886.23	-2,617.77	1,604.92	10.00	10.00	0.00
7,000.00	46.06	179.37	6,236.78	-1,173.58	-936.00	-2,617.22	1,652.41	10.00	10.00	0.00
NIOBRARA B CHALK										
7,087.04	54.76	179.37	6,292.20	-1,229.00	-1,003.00	-2,616.49	1,716.34	10.00	10.00	0.00
7,100.00	56.06	179.37	6,299.56	-1,236.36	-1,013.67	-2,616.37	1,726.52	10.00	10.00	0.00
7,200.00	66.06	179.37	6,347.89	-1,284.69	-1,101.07	-2,615.41	1,809.91	10.00	10.00	0.00
NIOBRARA C CHALK										
7,238.14	69.87	179.37	6,362.20	-1,299.00	-1,136.41	-2,615.02	1,843.63	10.00	10.00	0.00
7,300.00	76.06	179.37	6,380.32	-1,317.12	-1,195.52	-2,614.37	1,900.03	10.00	10.00	0.00
7,400.00	86.06	179.37	6,395.84	-1,332.64	-1,294.18	-2,613.28	1,994.16	10.00	10.00	0.00
BPI: 2080ft FSL & 1033ft FWL of Sec 13										
7,439.43	90.00	179.37	6,397.20	-1,334.00	-1,333.57	-2,612.85	2,031.75	10.00	10.00	0.00
7,500.00	90.00	179.37	6,397.20	-1,334.00	-1,394.14	-2,612.19	2,089.54	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
7,600.00	90.00	179.37	6,397.20	-1,334.00	-1,494.13	-2,611.09	2,184.95	0.00	0.00	0.00
7,700.00	90.00	179.37	6,397.21	-1,334.01	-1,594.13	-2,609.99	2,280.36	0.00	0.00	0.00
7,800.00	90.00	179.37	6,397.21	-1,334.01	-1,694.12	-2,608.89	2,375.77	0.00	0.00	0.00
7,900.00	90.00	179.37	6,397.21	-1,334.01	-1,794.11	-2,607.79	2,471.18	0.00	0.00	0.00
8,000.00	90.00	179.37	6,397.21	-1,334.01	-1,894.11	-2,606.68	2,566.59	0.00	0.00	0.00
8,100.00	90.00	179.37	6,397.22	-1,334.02	-1,994.10	-2,605.58	2,662.00	0.00	0.00	0.00
8,200.00	90.00	179.37	6,397.22	-1,334.02	-2,094.10	-2,604.48	2,757.41	0.00	0.00	0.00
8,300.00	90.00	179.37	6,397.22	-1,334.02	-2,194.09	-2,603.38	2,852.82	0.00	0.00	0.00
8,400.00	90.00	179.37	6,397.22	-1,334.02	-2,294.08	-2,602.28	2,948.23	0.00	0.00	0.00
8,500.00	90.00	179.37	6,397.22	-1,334.02	-2,394.08	-2,601.18	3,043.64	0.00	0.00	0.00
8,600.00	90.00	179.37	6,397.23	-1,334.03	-2,494.07	-2,600.08	3,139.05	0.00	0.00	0.00
8,700.00	90.00	179.37	6,397.23	-1,334.03	-2,594.07	-2,598.97	3,234.46	0.00	0.00	0.00
8,800.00	90.00	179.37	6,397.23	-1,334.03	-2,694.06	-2,597.87	3,329.86	0.00	0.00	0.00
8,900.00	90.00	179.37	6,397.23	-1,334.03	-2,794.05	-2,596.77	3,425.27	0.00	0.00	0.00
9,000.00	90.00	179.37	6,397.23	-1,334.03	-2,894.05	-2,595.66	3,520.68	0.00	0.00	0.00
9,100.00	90.00	179.37	6,397.23	-1,334.03	-2,994.04	-2,594.56	3,616.09	0.00	0.00	0.00
9,200.00	90.00	179.37	6,397.23	-1,334.03	-3,094.04	-2,593.46	3,711.50	0.00	0.00	0.00
9,300.00	90.00	179.37	6,397.24	-1,334.04	-3,194.03	-2,592.35	3,806.91	0.00	0.00	0.00
9,400.00	90.00	179.37	6,397.24	-1,334.04	-3,294.02	-2,591.25	3,902.32	0.00	0.00	0.00
9,500.00	90.00	179.37	6,397.24	-1,334.04	-3,394.02	-2,590.14	3,997.72	0.00	0.00	0.00
9,600.00	90.00	179.37	6,397.24	-1,334.04	-3,494.01	-2,589.04	4,093.13	0.00	0.00	0.00
9,700.00	90.00	179.37	6,397.24	-1,334.04	-3,594.01	-2,587.93	4,188.54	0.00	0.00	0.00
9,800.00	90.00	179.37	6,397.24	-1,334.04	-3,694.00	-2,586.83	4,283.95	0.00	0.00	0.00
9,900.00	90.00	179.37	6,397.24	-1,334.04	-3,793.99	-2,585.72	4,379.36	0.00	0.00	0.00
10,000.00	90.00	179.37	6,397.24	-1,334.04	-3,893.99	-2,584.62	4,474.76	0.00	0.00	0.00
10,100.00	90.00	179.37	6,397.24	-1,334.04	-3,993.98	-2,583.51	4,570.17	0.00	0.00	0.00
10,200.00	90.00	179.37	6,397.24	-1,334.04	-4,093.97	-2,582.40	4,665.58	0.00	0.00	0.00
10,300.00	90.00	179.37	6,397.24	-1,334.04	-4,193.97	-2,581.30	4,760.99	0.00	0.00	0.00
10,400.00	90.00	179.37	6,397.24	-1,334.04	-4,293.96	-2,580.19	4,856.39	0.00	0.00	0.00
10,500.00	90.00	179.37	6,397.24	-1,334.04	-4,393.96	-2,579.08	4,951.80	0.00	0.00	0.00
10,600.00	90.00	179.37	6,397.25	-1,334.05	-4,493.95	-2,577.97	5,047.21	0.00	0.00	0.00
10,700.00	90.00	179.37	6,397.25	-1,334.05	-4,593.94	-2,576.87	5,142.62	0.00	0.00	0.00
10,800.00	90.00	179.37	6,397.25	-1,334.05	-4,693.94	-2,575.76	5,238.02	0.00	0.00	0.00
10,900.00	90.00	179.36	6,397.25	-1,334.05	-4,793.93	-2,574.65	5,333.43	0.00	0.00	0.00
11,000.00	90.00	179.36	6,397.25	-1,334.05	-4,893.93	-2,573.54	5,428.84	0.00	0.00	0.00
11,100.00	90.00	179.36	6,397.25	-1,334.05	-4,993.92	-2,572.43	5,524.24	0.00	0.00	0.00
11,200.00	90.00	179.36	6,397.24	-1,334.04	-5,093.91	-2,571.32	5,619.65	0.00	0.00	0.00
11,300.00	90.00	179.36	6,397.24	-1,334.04	-5,193.91	-2,570.21	5,715.06	0.00	0.00	0.00
11,400.00	90.00	179.36	6,397.24	-1,334.04	-5,293.90	-2,569.10	5,810.46	0.00	0.00	0.00
11,500.00	90.00	179.36	6,397.24	-1,334.04	-5,393.90	-2,567.99	5,905.87	0.00	0.00	0.00
11,600.00	90.00	179.36	6,397.24	-1,334.04	-5,493.89	-2,566.88	6,001.28	0.00	0.00	0.00
11,700.00	90.00	179.36	6,397.24	-1,334.04	-5,593.88	-2,565.77	6,096.68	0.00	0.00	0.00
11,800.00	90.00	179.36	6,397.24	-1,334.04	-5,693.88	-2,564.66	6,192.09	0.00	0.00	0.00
11,900.00	90.00	179.36	6,397.24	-1,334.04	-5,793.87	-2,563.55	6,287.50	0.00	0.00	0.00
12,000.00	90.00	179.36	6,397.24	-1,334.04	-5,893.86	-2,562.44	6,382.90	0.00	0.00	0.00
12,100.00	90.00	179.36	6,397.24	-1,334.04	-5,993.86	-2,561.33	6,478.31	0.00	0.00	0.00
12,200.00	90.00	179.36	6,397.24	-1,334.04	-6,093.85	-2,560.22	6,573.72	0.00	0.00	0.00
12,300.00	90.00	179.36	6,397.24	-1,334.04	-6,193.85	-2,559.11	6,669.12	0.00	0.00	0.00
12,400.00	90.00	179.36	6,397.24	-1,334.04	-6,293.84	-2,557.99	6,764.53	0.00	0.00	0.00
12,500.00	90.00	179.36	6,397.23	-1,334.03	-6,393.83	-2,556.88	6,859.93	0.00	0.00	0.00
12,600.00	90.00	179.36	6,397.23	-1,334.03	-6,493.83	-2,555.77	6,955.34	0.00	0.00	0.00
12,700.00	90.00	179.36	6,397.23	-1,334.03	-6,593.82	-2,554.65	7,050.74	0.00	0.00	0.00
12,800.00	90.00	179.36	6,397.23	-1,334.03	-6,693.81	-2,553.54	7,146.15	0.00	0.00	0.00
12,900.00	90.00	179.36	6,397.23	-1,334.03	-6,793.81	-2,552.43	7,241.56	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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)
13,000.00	90.00	179.36	6,397.23	-1,334.03	-6,893.80	-2,551.31	7,336.96	0.00	0.00	0.00
13,100.00	90.00	179.36	6,397.22	-1,334.02	-6,993.80	-2,550.20	7,432.37	0.00	0.00	0.00
13,200.00	90.00	179.36	6,397.22	-1,334.02	-7,093.79	-2,549.08	7,527.77	0.00	0.00	0.00
13,300.00	90.00	179.36	6,397.22	-1,334.02	-7,193.78	-2,547.97	7,623.18	0.00	0.00	0.00
13,400.00	90.00	179.36	6,397.22	-1,334.02	-7,293.78	-2,546.86	7,718.58	0.00	0.00	0.00
13,500.00	90.00	179.36	6,397.22	-1,334.02	-7,393.77	-2,545.74	7,813.99	0.00	0.00	0.00
13,600.00	90.00	179.36	6,397.21	-1,334.01	-7,493.77	-2,544.62	7,909.39	0.00	0.00	0.00
13,700.00	90.00	179.36	6,397.21	-1,334.01	-7,593.76	-2,543.51	8,004.80	0.00	0.00	0.00
13,800.00	90.00	179.36	6,397.21	-1,334.01	-7,693.75	-2,542.39	8,100.20	0.00	0.00	0.00
13,900.00	90.00	179.36	6,397.21	-1,334.01	-7,793.75	-2,541.28	8,195.61	0.00	0.00	0.00
14,000.00	90.00	179.36	6,397.21	-1,334.01	-7,893.74	-2,540.16	8,291.01	0.00	0.00	0.00
14,100.00	90.00	179.36	6,397.20	-1,334.00	-7,993.73	-2,539.04	8,386.42	0.00	0.00	0.00
14,200.00	90.00	179.36	6,397.20	-1,334.00	-8,093.73	-2,537.93	8,481.82	0.00	0.00	0.00
EPI: 600ft FSL & 1034ft FWL of Sec 24										
14,201.59	90.00	179.36	6,397.20	-1,334.00	-8,095.32	-2,537.91	8,483.34	0.00	0.00	0.00
EOT TO 179.32° AZ										
14,202.92	90.00	179.32	6,397.20	-1,334.00	-8,096.65	-2,537.89	8,484.61	3.00	0.00	-3.00
14,300.00	90.00	179.32	6,397.20	-1,334.00	-8,193.72	-2,536.74	8,577.20	0.00	0.00	0.00
14,400.00	90.00	179.32	6,397.20	-1,334.00	-8,293.71	-2,535.55	8,672.59	0.00	0.00	0.00
14,500.00	90.00	179.32	6,397.20	-1,334.00	-8,393.71	-2,534.36	8,767.97	0.00	0.00	0.00
BHL: 300ft FSL & 1033ft FWL of Sec 24										
14,501.82	90.00	179.32	6,397.20	-1,334.00	-8,395.53	-2,534.34	8,769.70	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
629.82	626.20	PIERRE SHALE (BASE OF FOX HI				
3,892.32	3,450.20	PARKMAN				
4,508.23	3,975.20	SUSSEX				
5,775.08	5,073.20	SHANNON				
6,829.65	6,102.20	SHARON SPRINGS SHALE				
6,913.39	6,172.20	NIOBRARA FORMATION				
6,926.08	6,182.20	NIOBRARA A CHALK				
7,087.04	6,292.20	NIOBRARA B CHALK				
7,238.14	6,362.20	NIOBRARA C CHALK				

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ROHN FED 9-60 13-24-2
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5063.20usft (Original Well Elev)
Site:	SW NE SEC. 13 T9N R60W 6th P.M.	North Reference:	True
Well:	ROHN FED 9-60 13-24-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.00	0.00	0.00	0.00	SHL: 1994ft FNL & 1681ft FEL of Sec 13
200.00	200.00	0.00	0.00	START NUDGE (3°/100ft BUR)
1,250.89	1,198.66	-78.62	-270.72	EOB TO 31.53° INC
5,388.55	4,725.58	-682.04	-2,348.43	END OF TANGENT
6,439.44	5,724.24	-760.66	-2,619.15	EOD TO VERTICAL
6,539.44	5,824.24	-760.66	-2,619.15	KOP (10°/100ft BUR)
7,439.43	6,397.20	-1,333.57	-2,612.85	BPI: 2080ft FSL & 1033ft FWL of Sec 13
14,201.59	6,397.20	-8,095.32	-2,537.91	EPI: 600ft FSL & 1034ft FWL of Sec 24
14,202.92	6,397.20	-8,096.65	-2,537.89	EOT TO 179.32° AZ
14,501.82	6,397.20	-8,395.53	-2,534.34	BHL: 300ft FSL & 1033ft FWL of Sec 24