

BISON OIL & GAS II, LLC

WELD COUNTY, COLORADO (NAD 83)

SW SE SEC.23 T10N R59W 6th P.M.

NELSON RANCHES 10-59 23-9

ORIGINAL WELLBORE

15 May, 2018

Plan: PROPOSAL #1





Project: WELD COUNTY, COLORADO (NAD 83)
Site: SW SE SEC.23 T10N R59W 6th P.M.
Well: NELSON RANCHES 10-59 23-9
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: 516ft FSL & 2464ft FEL of Sec 23		
800.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDDGE (2°/100ft BUR)		
1395.62	1400.00	12.00	228.03	-41.87	-46.54	-34.76	62.60	EOB TO 12° INC		
4293.25	4362.36	12.00	228.03	-453.75	-504.47	-376.73	678.51	END OF TANGENT		
4888.87	4962.36	0.00	0.00	-495.62	-551.01	-411.49	741.11	EOD TO VERTICAL		
5463.74	5537.23	0.00	0.00	-495.62	-551.01	-411.49	741.11	KOP (10°/100ft BUR)		
6036.70	6437.24	90.00	358.94	77.25	-561.61	156.99	1314.09	BPI: 600ft FSL & 2232ft FWL of Sec 23		
6036.70	10490.11	90.00	358.95	4129.43	-636.24	4177.99	5366.95	EPI: 600ft FNL & 2204ft FWL of Sec 23		
6036.70	10790.01	90.00	358.94	4429.28	-641.77	4475.53	5666.85	BHL: 300ft FNL & 2232ft FWL of Sec 23		

PROPOSED LOCAL COORDINATES:

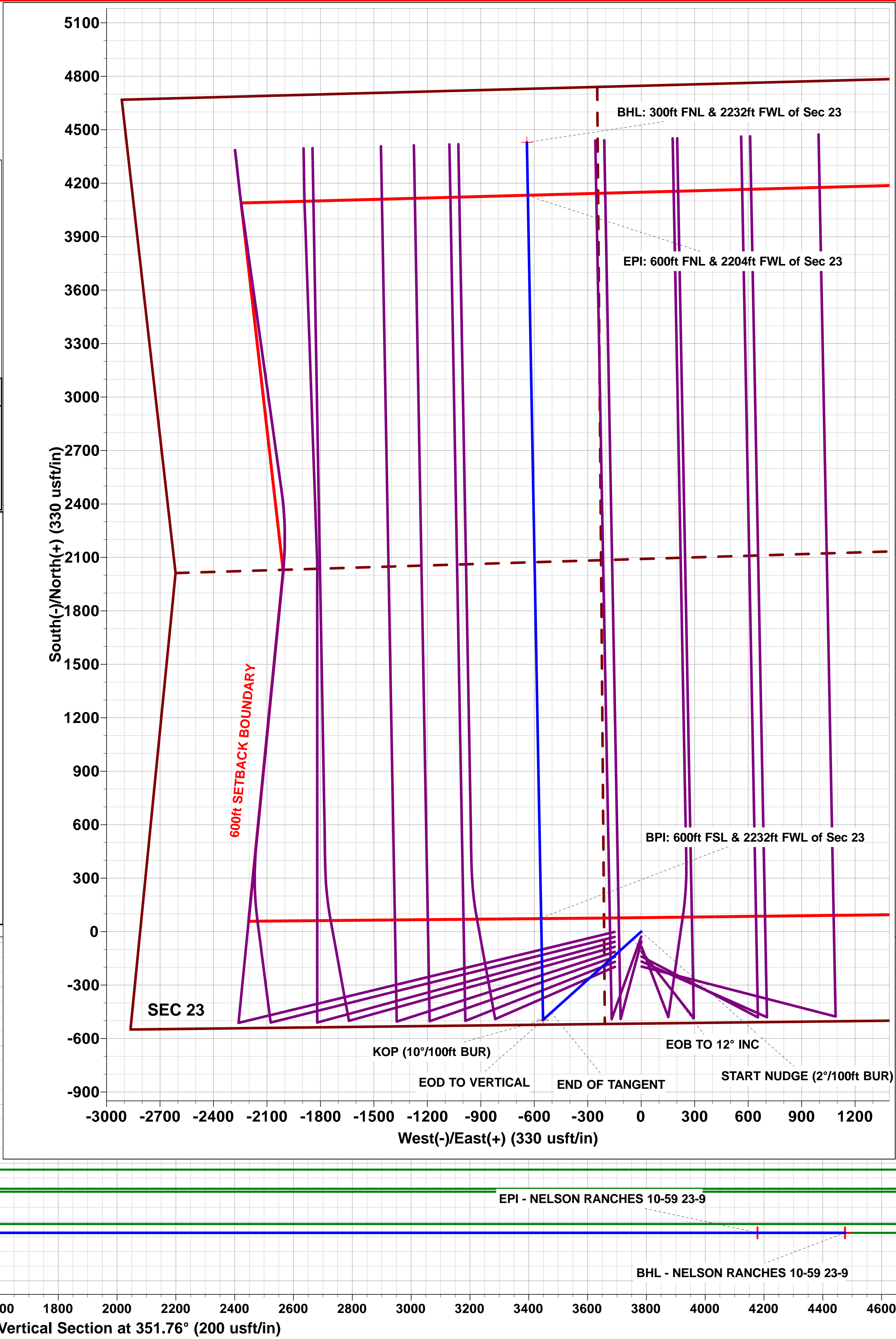
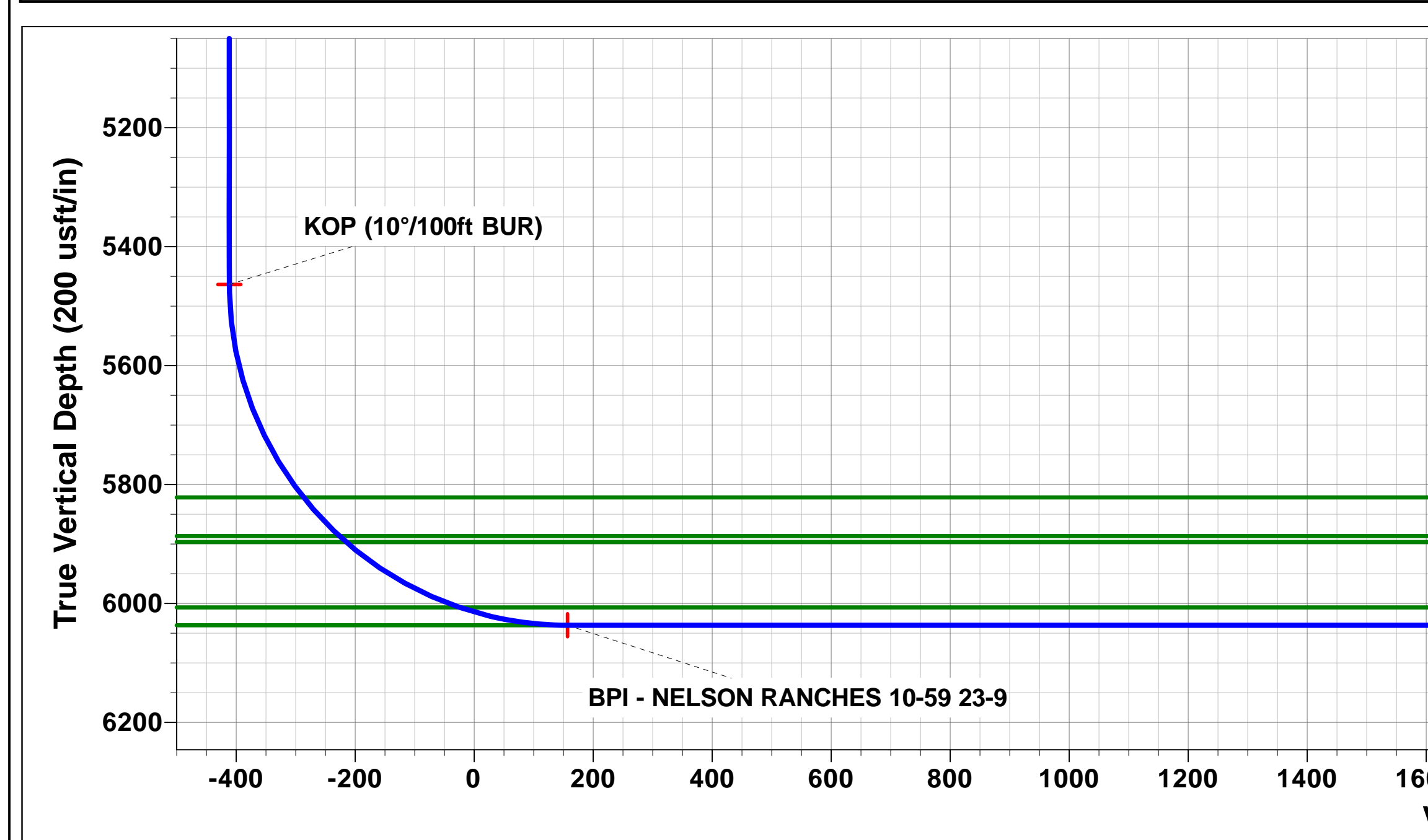
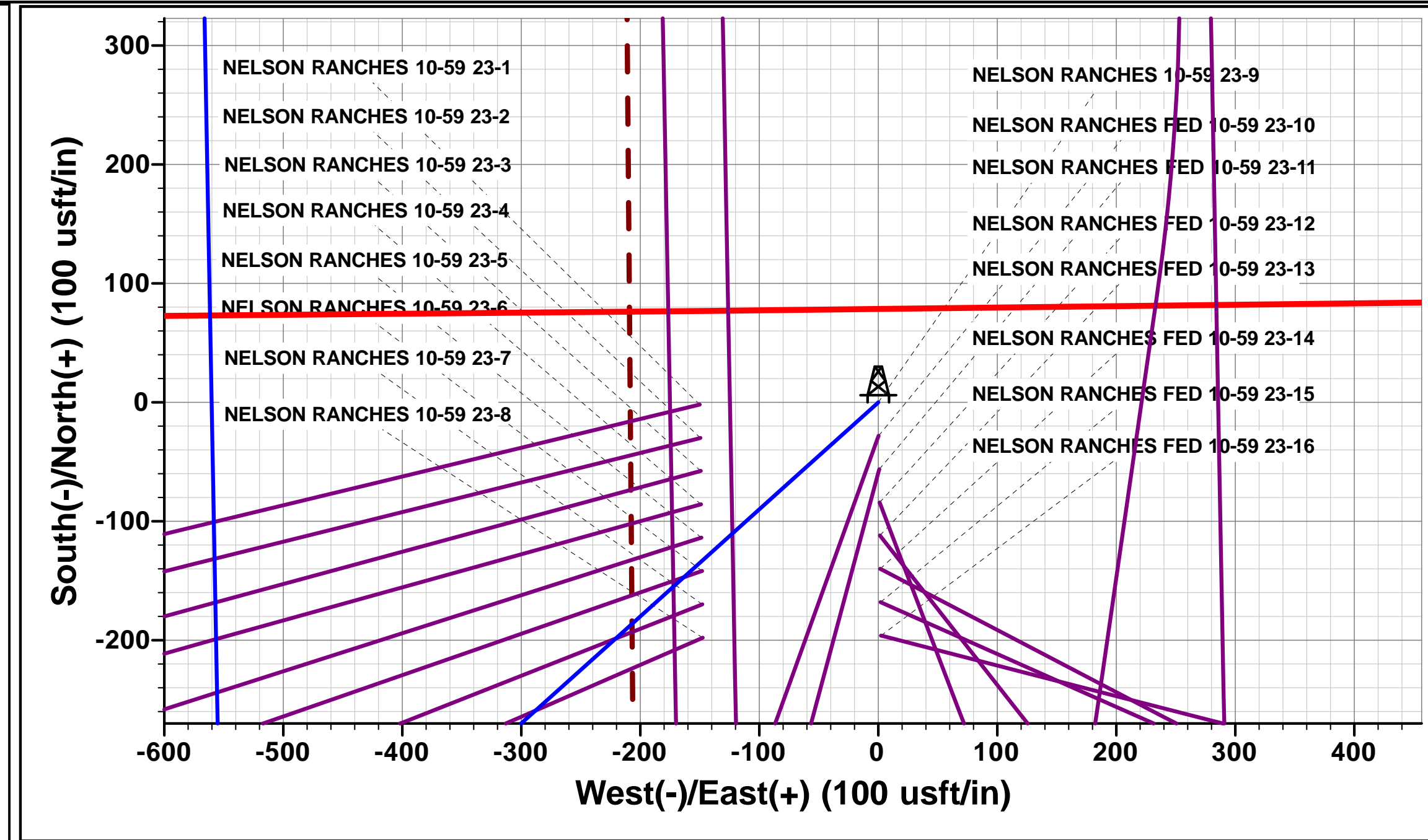
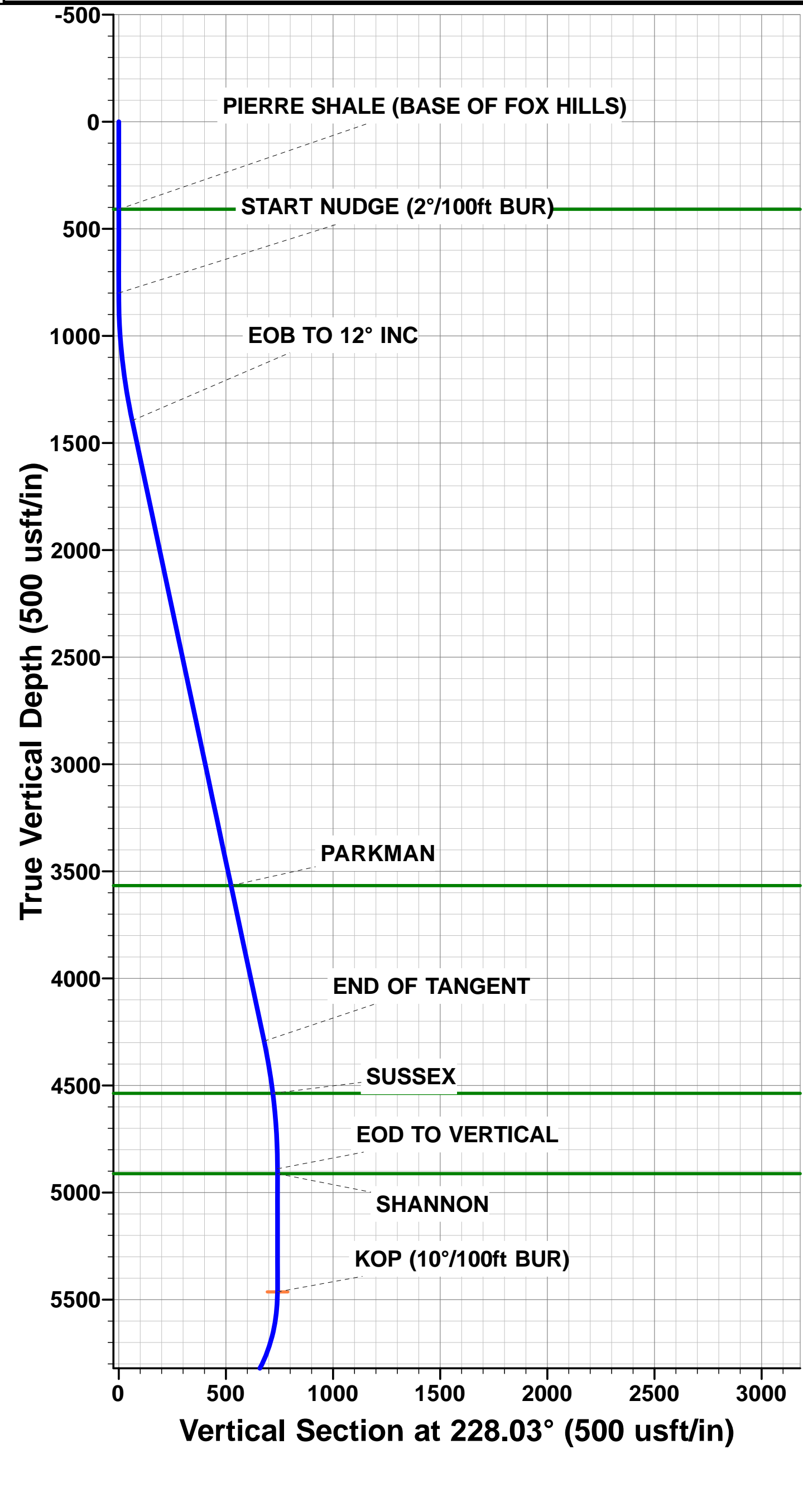
SHL: 516ft FSL & 2464ft FEL Sec 23

BPI : 600ft FSL & 2232ft FWL Sec 23

EPI: 600ft FNL & 2204ft FWL Sec 23

BHL: 300ft FNL & 2232ft FWL of Sec 23

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - NELSON RANCHES 10-59 23-9	5463.74	-495.62	-551.01	40.816351	-103.947359
BPI - NELSON RANCHES 10-59 23-9	6036.70	77.25	-561.61	40.817923	-103.947397
EPI - NELSON RANCHES 10-59 23-9	6036.70	4129.43	-636.24	40.829045	-103.947667
BHL - NELSON RANCHES 10-59 23-9	6036.70	4429.28	-641.77	40.829868	-103.947687



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well NELSON RANCHES 10-59 23-9
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Site:	SW SE SEC.23 T10N R59W 6th P.M.	North Reference:	True
Well:	NELSON RANCHES 10-59 23-9	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	SW SE SEC.23 T10N R59W 6th P.M.		
Site Position:		Northing:	1,544,507.06 usft
From:	Lat/Long	Easting:	3,430,141.12 usft
Position Uncertainty:	0.00 usft	Slot Radius:	1.10000ft
		Latitude:	40.817706
		Longitude:	-103.945910
		Grid Convergence:	1.00 °

Well	NELSON RANCHES 10-59 23-9					
Well Position	+N/-S	1.81 usft	Northing:	1,544,511.50 usfi	Latitude:	40.817711
	+E/-W	150.02 usft	Easting:	3,430,291.09 usfi	Longitude:	-103.945368
Position Uncertainty		0.00 usft	Wellhead Elevation:	usfi	Ground Level:	4,961.70 usft

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	15/05/2018	7.70	67.29	52,585

Design	PROPOSAL #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	6,036.70	0.00	0.00	351.76

Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100usf)	Turn Rate (°/100usf)	TFO (°)	Target
0.00	0.00	0.00	0.00	-4,986.70	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	-4,186.70	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	12.00	228.03	1,395.62	-3,591.08	-41.87	-46.54	2.00	2.00	0.00	228.03	
4,362.36	12.00	228.03	4,293.25	-693.45	-453.75	-504.47	0.00	0.00	0.00	0.00	
4,962.36	0.00	0.00	4,888.87	-97.83	-495.62	-551.01	2.00	-2.00	0.00	180.00	
5,537.23	0.00	0.00	5,463.74	477.04	-495.62	-551.01	0.00	0.00	0.00	0.00	KOP - NELSON RA
6,437.24	90.00	358.94	6,036.70	1,050.00	77.25	-561.61	10.00	10.00	-0.12	358.94	BPI - NELSON RAM
10,490.11	90.00	358.95	6,036.70	1,050.00	4,129.43	-636.24	0.00	0.00	0.00	103.54	EPI - NELSON RAM
10,790.01	90.00	358.94	6,036.70	1,050.00	4,429.28	-641.77	0.00	0.00	0.00	-78.48	BHL - NELSON RA

Planning Report



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Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Site:	SW SE SEC.23 T10N R59W 6th P.M.	North Reference:	True
Well:	NELSON RANCHES 10-59 23-9	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: 516ft FSL & 2464ft FEL of Sec 23										
0.00	0.00	0.00	0.00	4,986.70	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	4,886.70	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	4,786.70	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	4,686.70	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	4,586.70	0.00	0.00	0.00	0.00	0.00	0.00
PIERRE SHALE (BASE OF FOX HILLS)										
408.70	0.00	0.00	408.70	4,578.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	4,486.70	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	4,386.70	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	4,286.70	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
800.00	0.00	0.00	800.00	4,186.70	0.00	0.00	0.00	0.00	0.00	0.00
900.00	2.00	228.03	899.98	4,086.72	-1.17	-1.30	-0.97	2.00	2.00	0.00
1,000.00	4.00	228.03	999.84	3,986.86	-4.67	-5.19	-3.87	2.00	2.00	0.00
1,100.00	6.00	228.03	1,099.45	3,887.25	-10.50	-11.67	-8.71	2.00	2.00	0.00
1,200.00	8.00	228.03	1,198.70	3,788.00	-18.64	-20.73	-15.48	2.00	2.00	0.00
1,300.00	10.00	228.03	1,297.47	3,689.23	-29.11	-32.36	-24.16	2.00	2.00	0.00
EOB TO 12° INC										
1,400.00	12.00	228.03	1,395.62	3,591.08	-41.87	-46.54	-34.76	2.00	2.00	0.00
1,500.00	12.00	228.03	1,493.44	3,493.26	-55.77	-62.00	-46.30	0.00	0.00	0.00
1,600.00	12.00	228.03	1,591.25	3,395.45	-69.67	-77.46	-57.85	0.00	0.00	0.00
1,700.00	12.00	228.03	1,689.07	3,297.63	-83.58	-92.92	-69.39	0.00	0.00	0.00
1,800.00	12.00	228.03	1,786.88	3,199.82	-97.48	-108.38	-80.93	0.00	0.00	0.00
1,900.00	12.00	228.03	1,884.70	3,102.00	-111.39	-123.83	-92.48	0.00	0.00	0.00
2,000.00	12.00	228.03	1,982.51	3,004.19	-125.29	-139.29	-104.02	0.00	0.00	0.00
2,100.00	12.00	228.03	2,080.33	2,906.37	-139.19	-154.75	-115.57	0.00	0.00	0.00
2,200.00	12.00	228.03	2,178.14	2,808.56	-153.10	-170.21	-127.11	0.00	0.00	0.00
2,300.00	12.00	228.03	2,275.96	2,710.74	-167.00	-185.67	-138.65	0.00	0.00	0.00
2,400.00	12.00	228.03	2,373.77	2,612.93	-180.91	-201.12	-150.20	0.00	0.00	0.00
2,500.00	12.00	228.03	2,471.59	2,515.11	-194.81	-216.58	-161.74	0.00	0.00	0.00
2,600.00	12.00	228.03	2,569.40	2,417.30	-208.71	-232.04	-173.28	0.00	0.00	0.00
2,700.00	12.00	228.03	2,667.22	2,319.48	-222.62	-247.50	-184.83	0.00	0.00	0.00
2,800.00	12.00	228.03	2,765.03	2,221.67	-236.52	-262.96	-196.37	0.00	0.00	0.00
2,900.00	12.00	228.03	2,862.84	2,123.86	-250.43	-278.41	-207.92	0.00	0.00	0.00
3,000.00	12.00	228.03	2,960.66	2,026.04	-264.33	-293.87	-219.46	0.00	0.00	0.00
3,100.00	12.00	228.03	3,058.47	1,928.23	-278.23	-309.33	-231.00	0.00	0.00	0.00
3,200.00	12.00	228.03	3,156.29	1,830.41	-292.14	-324.79	-242.55	0.00	0.00	0.00
3,300.00	12.00	228.03	3,254.10	1,732.60	-306.04	-340.25	-254.09	0.00	0.00	0.00
3,400.00	12.00	228.03	3,351.92	1,634.78	-319.95	-355.70	-265.63	0.00	0.00	0.00
3,500.00	12.00	228.03	3,449.73	1,536.97	-333.85	-371.16	-277.18	0.00	0.00	0.00
3,600.00	12.00	228.03	3,547.55	1,439.15	-347.76	-386.62	-288.72	0.00	0.00	0.00
PARKMAN										
3,619.58	12.00	228.03	3,566.70	1,420.00	-350.48	-389.65	-290.98	0.00	0.00	0.00
3,700.00	12.00	228.03	3,645.36	1,341.34	-361.66	-402.08	-300.27	0.00	0.00	0.00
3,800.00	12.00	228.03	3,743.18	1,243.52	-375.56	-417.54	-311.81	0.00	0.00	0.00
3,900.00	12.00	228.03	3,840.99	1,145.71	-389.47	-432.99	-323.35	0.00	0.00	0.00
4,000.00	12.00	228.03	3,938.81	1,047.89	-403.37	-448.45	-334.90	0.00	0.00	0.00
4,100.00	12.00	228.03	4,036.62	950.08	-417.28	-463.91	-346.44	0.00	0.00	0.00
4,200.00	12.00	228.03	4,134.44	852.26	-431.18	-479.37	-357.98	0.00	0.00	0.00
4,300.00	12.00	228.03	4,232.25	754.45	-445.08	-494.83	-369.53	0.00	0.00	0.00
END OF TANGENT										
4,362.36	12.00	228.03	4,293.25	693.45	-453.75	-504.47	-376.73	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)
4,400.00	11.25	228.03	4,330.12	656.58	-458.83	-510.10	-380.94	2.00	-2.00	0.00
4,500.00	9.25	228.03	4,428.52	558.18	-470.72	-523.33	-390.81	2.00	-2.00	0.00
4,600.00	7.25	228.03	4,527.48	459.22	-480.31	-533.99	-398.78	2.00	-2.00	0.00
SUSSEX										
4,609.30	7.06	228.03	4,536.70	450.00	-481.09	-534.85	-399.42	2.00	-2.00	0.00
4,700.00	5.25	228.03	4,626.88	359.82	-487.59	-542.08	-404.82	2.00	-2.00	0.00
4,800.00	3.25	228.03	4,726.60	260.10	-492.54	-547.59	-408.93	2.00	-2.00	0.00
4,900.00	1.25	228.03	4,826.52	160.18	-495.17	-550.51	-411.11	2.00	-2.00	0.00
EOD TO VERTICAL										
4,962.36	0.00	0.00	4,888.87	97.83	-495.62	-551.01	-411.49	2.00	-2.00	0.00
SHANNON										
4,985.19	0.00	0.00	4,911.70	75.00	-495.62	-551.01	-411.49	0.00	0.00	0.00
5,000.00	0.00	0.00	4,926.51	60.19	-495.62	-551.01	-411.49	0.00	0.00	0.00
5,100.00	0.00	0.00	5,026.51	-39.81	-495.62	-551.01	-411.49	0.00	0.00	0.00
5,200.00	0.00	0.00	5,126.51	-139.81	-495.62	-551.01	-411.49	0.00	0.00	0.00
5,300.00	0.00	0.00	5,226.51	-239.81	-495.62	-551.01	-411.49	0.00	0.00	0.00
5,400.00	0.00	0.00	5,326.51	-339.81	-495.62	-551.01	-411.49	0.00	0.00	0.00
5,500.00	0.00	0.00	5,426.51	-439.81	-495.62	-551.01	-411.49	0.00	0.00	0.00
KOP (10°/100ft BUR)										
5,537.23	0.00	0.00	5,463.74	-477.04	-495.62	-551.01	-411.49	0.00	0.00	0.00
5,600.00	6.28	358.94	5,526.39	-539.69	-492.19	-551.07	-408.08	10.00	10.00	0.00
5,700.00	16.28	358.94	5,624.33	-637.63	-472.66	-551.43	-388.70	10.00	10.00	0.00
5,800.00	26.28	358.94	5,717.40	-730.70	-436.42	-552.11	-352.74	10.00	10.00	0.00
5,900.00	36.28	358.94	5,802.75	-816.05	-384.58	-553.06	-301.30	10.00	10.00	0.00
SHARON SPRINGS SHALE										
5,923.87	38.66	358.94	5,821.70	-835.00	-370.06	-553.33	-286.89	10.00	10.00	0.00
6,000.00	46.28	358.94	5,877.81	-891.11	-318.70	-554.28	-235.93	10.00	10.00	0.00
NIOBRARA FORMATION										
6,013.01	47.58	358.94	5,886.70	-900.00	-309.20	-554.46	-226.50	10.00	10.00	0.00
NIOBRARA A CHALK										
6,028.06	49.08	358.94	5,896.70	-910.00	-297.97	-554.67	-215.35	10.00	10.00	0.00
6,100.00	56.28	358.94	5,940.29	-953.59	-240.80	-555.73	-158.62	10.00	10.00	0.00
6,200.00	66.28	358.94	5,988.29	-1,001.59	-153.23	-557.35	-71.73	10.00	10.00	0.00
NIOBRARA B CHALK										
6,251.00	71.38	358.94	6,006.70	-1,020.00	-105.70	-558.23	-24.56	10.00	10.00	0.00
6,300.00	76.28	358.94	6,020.34	-1,033.64	-58.66	-559.10	22.12	10.00	10.00	0.00
6,400.00	86.28	358.94	6,035.49	-1,048.79	40.04	-560.92	120.06	10.00	10.00	0.00
BPI: 600ft FSL & 2232ft FWL of Sec 23 - NIO B LP										
6,437.24	90.00	358.94	6,036.70	-1,050.00	77.25	-561.61	156.99	10.00	10.00	0.00
6,500.00	90.00	358.94	6,036.70	-1,050.00	140.00	-562.77	219.25	0.00	0.00	0.00
6,600.00	90.00	358.94	6,036.70	-1,050.00	239.98	-564.62	318.47	0.00	0.00	0.00
6,700.00	90.00	358.94	6,036.69	-1,049.99	339.97	-566.47	417.68	0.00	0.00	0.00
6,800.00	90.00	358.94	6,036.69	-1,049.99	439.95	-568.32	516.90	0.00	0.00	0.00
6,900.00	90.00	358.94	6,036.69	-1,049.99	539.93	-570.17	616.11	0.00	0.00	0.00
7,000.00	90.00	358.94	6,036.69	-1,049.99	639.91	-572.02	715.32	0.00	0.00	0.00
7,100.00	90.00	358.94	6,036.69	-1,049.99	739.90	-573.86	814.54	0.00	0.00	0.00
7,200.00	90.00	358.94	6,036.69	-1,049.99	839.88	-575.71	913.75	0.00	0.00	0.00
7,300.00	90.00	358.94	6,036.69	-1,049.99	939.86	-577.56	1,012.97	0.00	0.00	0.00
7,400.00	90.00	358.94	6,036.68	-1,049.98	1,039.85	-579.40	1,112.18	0.00	0.00	0.00
7,500.00	90.00	358.94	6,036.68	-1,049.98	1,139.83	-581.25	1,211.40	0.00	0.00	0.00
7,600.00	90.00	358.94	6,036.68	-1,049.98	1,239.81	-583.09	1,310.61	0.00	0.00	0.00
7,700.00	90.00	358.94	6,036.68	-1,049.98	1,339.79	-584.94	1,409.83	0.00	0.00	0.00
7,800.00	90.00	358.94	6,036.68	-1,049.98	1,439.78	-586.78	1,509.04	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well NELSON RANCHES 10-59 23-9
Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Site:	SW SE SEC.23 T10N R59W 6th P.M.	North Reference:	True
Well:	NELSON RANCHES 10-59 23-9	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)
7,900.00	90.00	358.94	6,036.68	-1,049.98	1,539.76	-588.63	1,608.25	0.00	0.00	0.00
8,000.00	90.00	358.94	6,036.68	-1,049.98	1,639.74	-590.47	1,707.47	0.00	0.00	0.00
8,100.00	90.00	358.94	6,036.68	-1,049.98	1,739.73	-592.31	1,806.68	0.00	0.00	0.00
8,200.00	90.00	358.94	6,036.68	-1,049.98	1,839.71	-594.16	1,905.90	0.00	0.00	0.00
8,300.00	90.00	358.94	6,036.68	-1,049.98	1,939.69	-596.00	2,005.11	0.00	0.00	0.00
8,400.00	90.00	358.94	6,036.68	-1,049.98	2,039.68	-597.84	2,104.32	0.00	0.00	0.00
8,500.00	90.00	358.94	6,036.68	-1,049.98	2,139.66	-599.68	2,203.54	0.00	0.00	0.00
8,600.00	90.00	358.95	6,036.68	-1,049.98	2,239.64	-601.52	2,302.75	0.00	0.00	0.00
8,700.00	90.00	358.95	6,036.68	-1,049.98	2,339.62	-603.36	2,401.97	0.00	0.00	0.00
8,800.00	90.00	358.95	6,036.68	-1,049.98	2,439.61	-605.20	2,501.18	0.00	0.00	0.00
8,900.00	90.00	358.95	6,036.68	-1,049.98	2,539.59	-607.04	2,600.39	0.00	0.00	0.00
9,000.00	90.00	358.95	6,036.68	-1,049.98	2,639.57	-608.88	2,699.61	0.00	0.00	0.00
9,100.00	90.00	358.95	6,036.68	-1,049.98	2,739.56	-610.72	2,798.82	0.00	0.00	0.00
9,200.00	90.00	358.95	6,036.68	-1,049.98	2,839.54	-612.56	2,898.03	0.00	0.00	0.00
9,300.00	90.00	358.95	6,036.68	-1,049.98	2,939.52	-614.40	2,997.25	0.00	0.00	0.00
9,400.00	90.00	358.95	6,036.68	-1,049.98	3,039.51	-616.24	3,096.46	0.00	0.00	0.00
9,500.00	90.00	358.95	6,036.68	-1,049.98	3,139.49	-618.07	3,195.67	0.00	0.00	0.00
9,600.00	90.00	358.95	6,036.69	-1,049.99	3,239.47	-619.91	3,294.89	0.00	0.00	0.00
9,700.00	90.00	358.95	6,036.69	-1,049.99	3,339.46	-621.75	3,394.10	0.00	0.00	0.00
9,800.00	90.00	358.95	6,036.69	-1,049.99	3,439.44	-623.58	3,493.31	0.00	0.00	0.00
9,900.00	90.00	358.95	6,036.69	-1,049.99	3,539.42	-625.42	3,592.53	0.00	0.00	0.00
10,000.00	90.00	358.95	6,036.69	-1,049.99	3,639.41	-627.25	3,691.74	0.00	0.00	0.00
10,100.00	90.00	358.95	6,036.69	-1,049.99	3,739.39	-629.09	3,790.95	0.00	0.00	0.00
10,200.00	90.00	358.95	6,036.69	-1,049.99	3,839.37	-630.92	3,890.16	0.00	0.00	0.00
10,300.00	90.00	358.95	6,036.70	-1,050.00	3,939.35	-632.75	3,989.38	0.00	0.00	0.00
10,400.00	90.00	358.95	6,036.70	-1,050.00	4,039.34	-634.59	4,088.59	0.00	0.00	0.00
EPI: 600ft FNL & 2204ft FWL of Sec 23										
10,490.11	90.00	358.95	6,036.70	-1,050.00	4,129.43	-636.24	4,177.99	0.00	0.00	0.00
10,500.00	90.00	358.95	6,036.70	-1,050.00	4,139.32	-636.42	4,187.80	0.00	0.00	0.00
10,600.00	90.00	358.95	6,036.70	-1,050.00	4,239.30	-638.26	4,287.02	0.00	0.00	0.00
10,700.00	90.00	358.94	6,036.70	-1,050.00	4,339.29	-640.10	4,386.23	0.00	0.00	0.00
BHL: 300ft FNL & 2232ft FWL of Sec 23										
10,790.01	90.00	358.94	6,036.70	-1,050.00	4,429.28	-641.77	4,475.53	0.00	0.00	0.00

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
408.70	408.70	PIERRE SHALE (BASE OF FOX HI				
3,619.58	3,566.70	PARKMAN				
4,609.30	4,536.70	SUSSEX				
4,985.19	4,911.70	SHANNON				
5,923.87	5,821.70	SHARON SPRINGS SHALE				
6,013.01	5,886.70	NIOBRARA FORMATION				
6,028.06	5,896.70	NIOBRARA A CHALK				
6,251.00	6,006.70	NIOBRARA B CHALK				
6,437.24	6,036.70	NIO B LP				

Planning Report



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Company:	BISON OIL & GAS II, LLC	TVD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4986.70usft (Original Well Elev)
Site:	SW SE SEC.23 T10N R59W 6th P.M.	North Reference:	True
Well:	NELSON RANCHES 10-59 23-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.00	0.00	0.00	0.00	SHL: 516ft FSL & 2464ft FEL of Sec 23
800.00	800.00	0.00	0.00	START NUDGE (2°/100ft BUR)
1,400.00	1,395.62	-41.87	-46.54	EOB TO 12° INC
4,362.36	4,293.25	-453.75	-504.47	END OF TANGENT
4,962.36	4,888.87	-495.62	-551.01	EOD TO VERTICAL
5,537.23	5,463.74	-495.62	-551.01	KOP (10°/100ft BUR)
6,437.24	6,036.70	77.25	-561.61	BPI: 600ft FSL & 2232ft FWL of Sec 23
10,490.11	6,036.70	4,129.43	-636.24	EPI: 600ft FNL & 2204ft FWL of Sec 23
10,790.01	6,036.70	4,429.28	-641.77	BHL: 300ft FNL & 2232ft FWL of Sec 23