

BONANZA CREEK ENERGY INC.

WELD COUNTY, COLORADO (NAD 83)

NW NE SEC. 22 T5N R63W 6th P.M.

NORTH PLATTE FEDERAL 31-34-22HNB

ORIGINAL WELLBORE

06 October, 2016

Plan: PROPOSAL #4





Project: WELD COUNTY, COLORADO (NAD 83)
Site: NW NE SEC. 22 T5N R63W 6th P.M.
Well: NORTH PLATTE FEDERAL 31-34-22HNB
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #4

ANNOTATIONS

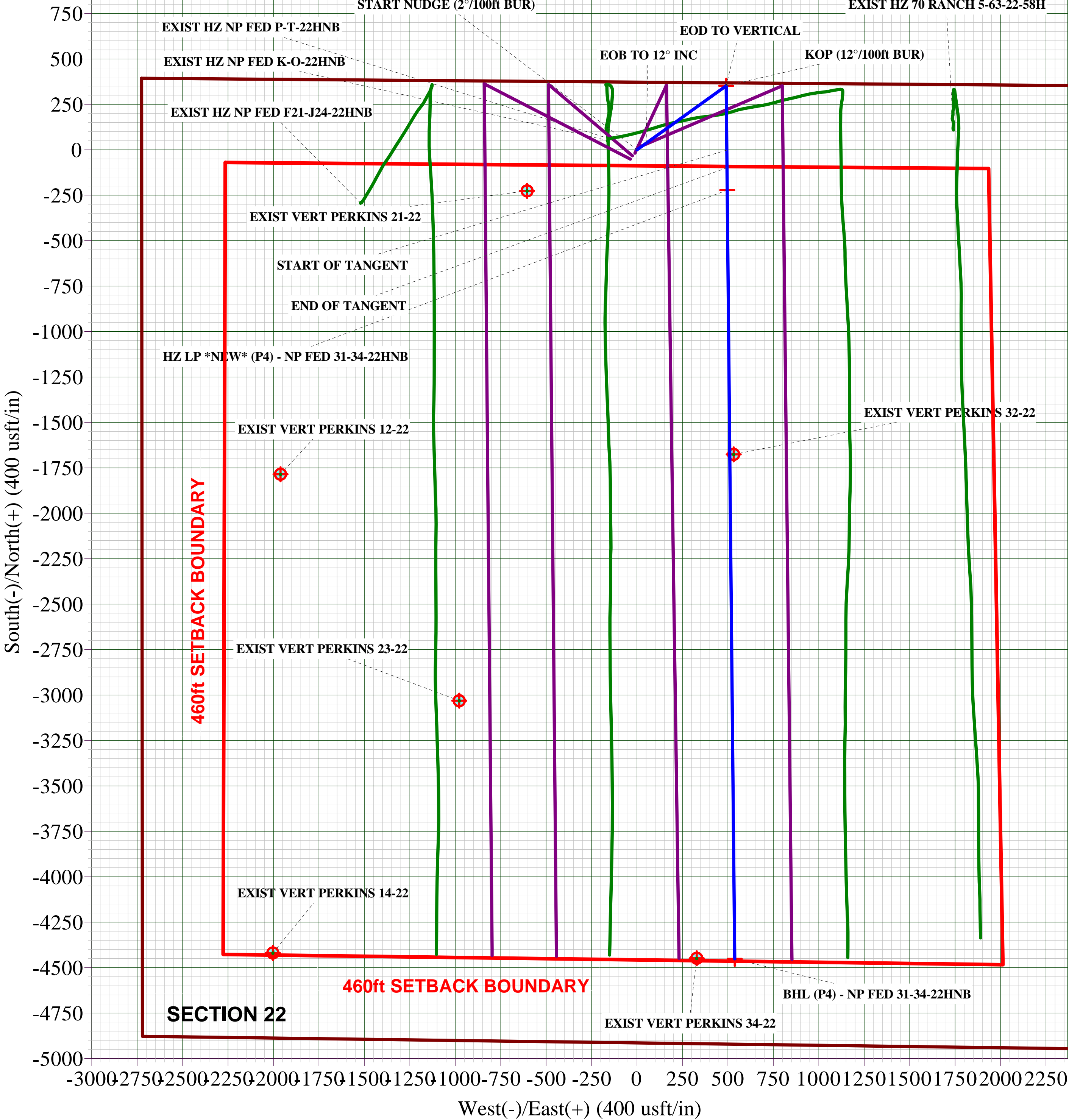
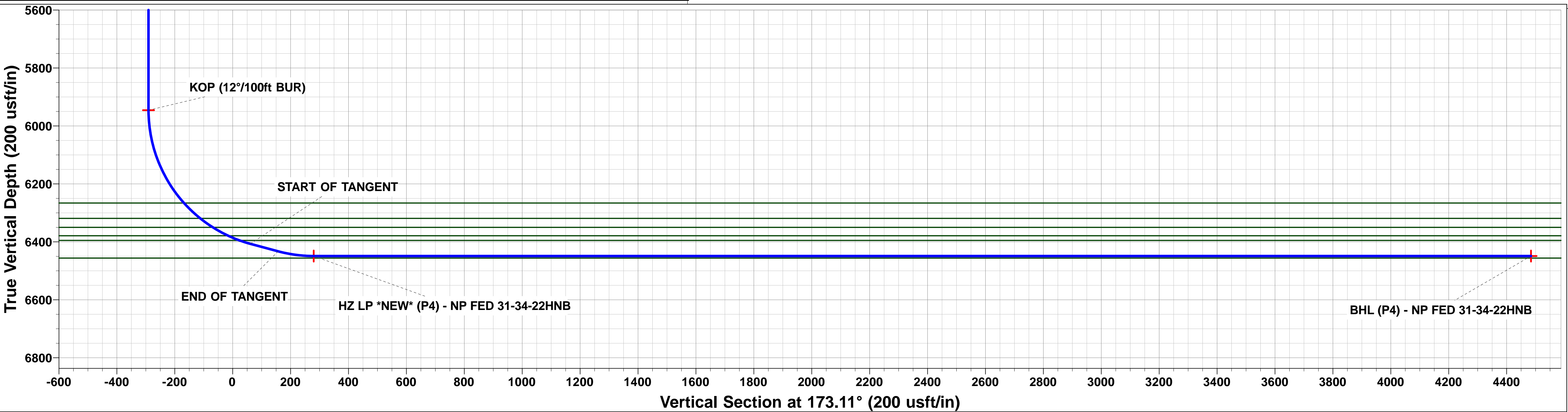
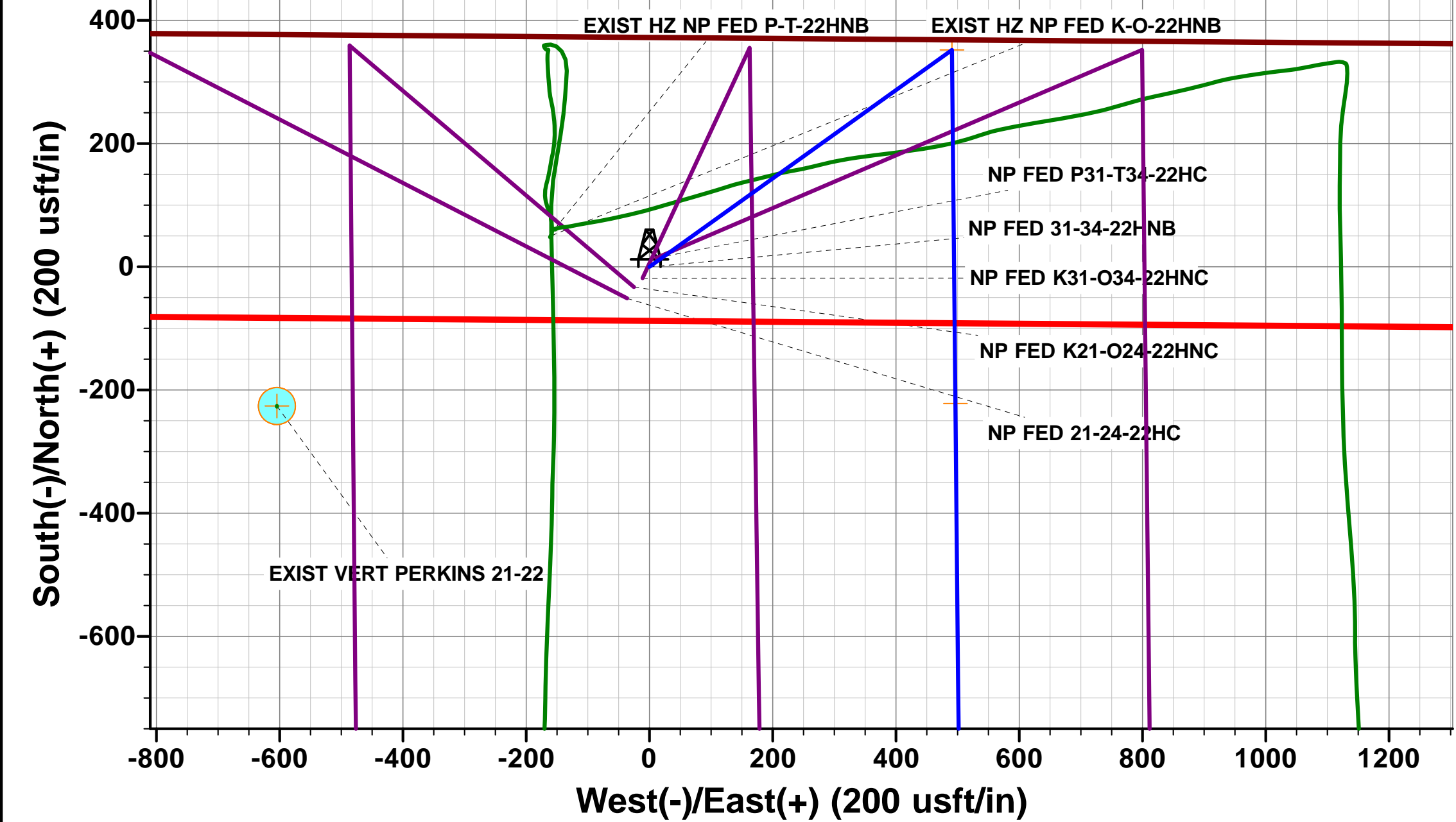
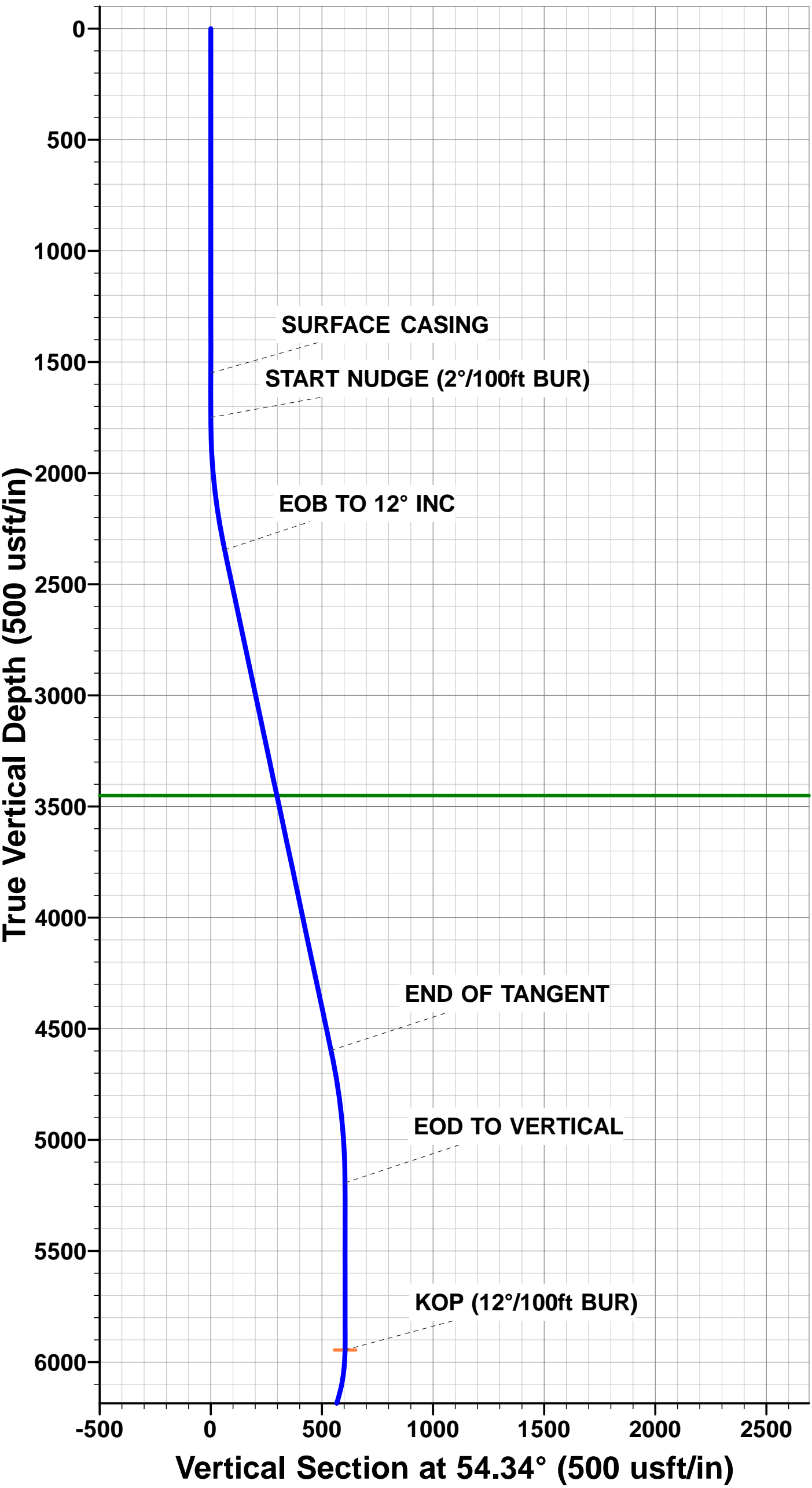
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Dep	Annotation
1550.0	1550.0	0.00	0.00	0.0	0.0	0.0	0.0	SURFACE CASING
1750.0	1750.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
2345.7	2350.1	12.00	54.34	36.5	50.9	-30.1	62.6	EOB TO 12° INC
4598.0	4652.7	12.00	54.34	315.6	439.9	-260.6	541.4	END OF TANGENT
5193.7	5252.8	0.00	0.00	352.1	490.8	-290.7	604.0	EOD TO VERTICAL
5945.7	6004.8	0.00	0.00	352.1	490.8	-290.7	604.0	KOP (12°/100ft BUR)
6406.9	6629.8	75.00	179.44	-1.8	494.3	61.0	957.9	START OF TANGENT
6432.8	6729.8	75.00	179.44	-98.4	495.2	157.0	1054.5	END OF TANGENT
6449.0	6854.8	90.00	179.44	-221.9	496.4	279.9	1178.1	HZ LP *NEW* (P4) - NP FED 31-34-22HNB
6449.0	11084.9	90.00	179.44	-4451.8	537.7	4484.2	5408.2	BHL (P4) - NP FED 31-34-22HNB

PROPOSED LOCAL COORDINATES:

SHL: 373ft FNL & 2404ft FEL Sec 22
HZ LP *NEW: 589ft FNL & 1910ft FEL Sec 22
BHL: 470ft FSL & 1945ft FEL Sec 22

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP (P4) - NP FED 31-34-22HNB	5945.7	352.1	490.8	40.392056	-104.419598
BHL (P4) - NP FED 31-34-22HNB	6449.0	-4451.9	537.7	40.378870	-104.419430
HZ LP *NEW* (P4) - NP FED 31-34-22HNB	6449.0	-221.9	496.4	40.390481	-104.419578



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well NORTH PLATTE FEDERAL 31-34-22HNB
Company:	BONANZA CREEK ENERGY INC.	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site:	NW NE SEC. 22 T5N R63W 6th P.M.	North Reference:	True
Well:	NORTH PLATTE FEDERAL 31-34-22HNB	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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. 22 T5N R63W 6th P.M.		
Site Position:		Northing:	1,386,960.17 usft
From:	Lat/Long	Easting:	3,300,476.11 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.390590
		Longitude:	-104.421254
		Grid Convergence:	0.70 °

Well	NORTH PLATTE FEDERAL 31-34-22HNB		
Well Position	+N/-S	182.0 usft	Northing:
	+E/-W	-29.4 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			usft
			Latitude:
			Longitude:
			Ground Level:

Wellbore	ORIGINAL WELLBORE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	07/09/2016	8.11	66.92	52,513

Design	PROPOSAL #4				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	173.11	

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
0.0	0.00	0.00	0.0	-4,664.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,750.0	0.00	0.00	1,750.0	-2,914.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,350.1	12.00	54.34	2,345.7	-2,318.3	36.5	50.9	2.00	2.00	0.00	54.34	
4,652.7	12.00	54.34	4,598.0	-66.0	315.6	439.9	0.00	0.00	0.00	0.00	
5,252.8	0.00	0.00	5,193.7	529.7	352.1	490.8	2.00	-2.00	0.00	180.00	
6,004.8	0.00	0.00	5,945.7	1,281.7	352.1	490.8	0.00	0.00	0.00	0.00	KOP (P4) - NP FEC
6,629.8	75.00	179.44	6,406.9	1,742.9	-1.8	494.3	12.00	12.00	0.00	179.44	
6,729.8	75.00	179.44	6,432.8	1,768.8	-98.4	495.2	0.00	0.00	0.00	0.00	
6,854.8	90.00	179.44	6,449.0	1,785.0	-221.9	496.4	12.00	12.00	0.00	0.00	
11,084.9	90.00	179.44	6,449.0	1,785.0	-4,451.9	537.7	0.00	0.00	0.00	40.78	BHL (P4) - NP FED

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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site:	NW NE SEC. 22 T5N R63W 6th P.M.	North Reference:	True
Well:	NORTH PLATTE FEDERAL 31-34-22HNB	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
0.0	0.00	0.00	0.0	4,664.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,564.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,464.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,364.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,264.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,164.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,064.00	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	3,964.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	3,864.00	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	3,764.00	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	3,664.00	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	3,564.00	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	3,464.00	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	3,364.00	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	3,264.00	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	3,164.00	0.0	0.0	0.0	0.00	0.00	0.00
SURFACE CASING										
1,550.0	0.00	0.00	1,550.0	3,114.00	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	3,064.00	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	2,964.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
1,750.0	0.00	0.00	1,750.0	2,914.00	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	1.00	54.34	1,800.0	2,864.00	0.3	0.4	-0.2	2.00	2.00	0.00
1,900.0	3.00	54.34	1,899.9	2,764.07	2.3	3.2	-1.9	2.00	2.00	0.00
2,000.0	5.00	54.34	1,999.7	2,664.32	6.4	8.9	-5.2	2.00	2.00	0.00
2,100.0	7.00	54.34	2,099.1	2,564.87	12.4	17.4	-10.3	2.00	2.00	0.00
2,200.0	9.00	54.34	2,198.2	2,465.85	20.6	28.7	-17.0	2.00	2.00	0.00
2,300.0	11.00	54.34	2,296.6	2,367.37	30.7	42.8	-25.3	2.00	2.00	0.00
EOB TO 12° INC										
2,350.1	12.00	54.34	2,345.7	2,318.28	36.5	50.9	-30.1	2.00	2.00	0.00
2,400.0	12.00	54.34	2,394.5	2,269.47	42.6	59.3	-35.1	0.00	0.00	0.00
2,500.0	12.00	54.34	2,492.3	2,171.66	54.7	76.2	-45.1	0.00	0.00	0.00
2,600.0	12.00	54.34	2,590.2	2,073.84	66.8	93.1	-55.1	0.00	0.00	0.00
2,700.0	12.00	54.34	2,688.0	1,976.03	78.9	110.0	-65.2	0.00	0.00	0.00
2,800.0	12.00	54.34	2,785.8	1,878.21	91.0	126.9	-75.2	0.00	0.00	0.00
2,900.0	12.00	54.34	2,883.6	1,780.40	103.2	143.8	-85.2	0.00	0.00	0.00
3,000.0	12.00	54.34	2,981.4	1,682.58	115.3	160.7	-95.2	0.00	0.00	0.00
3,100.0	12.00	54.34	3,079.2	1,584.77	127.4	177.6	-105.2	0.00	0.00	0.00
3,200.0	12.00	54.34	3,177.0	1,486.96	139.5	194.5	-115.2	0.00	0.00	0.00
3,300.0	12.00	54.34	3,274.9	1,389.14	151.6	211.4	-125.2	0.00	0.00	0.00
3,400.0	12.00	54.34	3,372.7	1,291.33	163.8	228.3	-135.2	0.00	0.00	0.00
PARKMAN										
3,480.1	12.00	54.34	3,451.0	1,213.00	173.5	241.8	-143.2	0.00	0.00	0.00
3,500.0	12.00	54.34	3,470.5	1,193.51	175.9	245.2	-145.2	0.00	0.00	0.00
3,600.0	12.00	54.34	3,568.3	1,095.70	188.0	262.1	-155.2	0.00	0.00	0.00
3,700.0	12.00	54.34	3,666.1	997.88	200.1	279.0	-165.2	0.00	0.00	0.00
3,800.0	12.00	54.34	3,763.9	900.07	212.2	295.9	-175.2	0.00	0.00	0.00
3,900.0	12.00	54.34	3,861.7	802.26	224.4	312.7	-185.2	0.00	0.00	0.00
4,000.0	12.00	54.34	3,959.6	704.44	236.5	329.6	-195.3	0.00	0.00	0.00
4,100.0	12.00	54.34	4,057.4	606.63	248.6	346.5	-205.3	0.00	0.00	0.00
4,200.0	12.00	54.34	4,155.2	508.81	260.7	363.4	-215.3	0.00	0.00	0.00
4,300.0	12.00	54.34	4,253.0	411.00	272.8	380.3	-225.3	0.00	0.00	0.00
4,400.0	12.00	54.34	4,350.8	313.18	285.0	397.2	-235.3	0.00	0.00	0.00

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Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
4,500.0	12.00	54.34	4,448.6	215.37	297.1	414.1	-245.3	0.00	0.00	0.00
4,600.0	12.00	54.34	4,546.4	117.56	309.2	431.0	-255.3	0.00	0.00	0.00
END OF TANGENT										
4,652.7	12.00	54.34	4,598.0	66.01	315.6	439.9	-260.6	0.00	0.00	0.00
4,700.0	11.06	54.34	4,644.3	19.66	321.1	447.6	-265.1	2.00	-2.00	0.00
4,800.0	9.06	54.34	4,742.8	-78.80	331.3	461.8	-273.5	2.00	-2.00	0.00
4,900.0	7.06	54.34	4,841.8	-177.80	339.5	473.2	-280.3	2.00	-2.00	0.00
5,000.0	5.06	54.34	4,941.2	-277.24	345.6	481.7	-285.3	2.00	-2.00	0.00
5,100.0	3.06	54.34	5,041.0	-376.99	349.7	487.5	-288.7	2.00	-2.00	0.00
5,200.0	1.06	54.34	5,140.9	-476.92	351.8	490.4	-290.5	2.00	-2.00	0.00
EOD TO VERTICAL										
5,252.8	0.00	0.00	5,193.7	-529.71	352.1	490.8	-290.7	2.00	-2.00	0.00
5,300.0	0.00	0.00	5,240.9	-576.91	352.1	490.8	-290.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,340.9	-676.91	352.1	490.8	-290.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,440.9	-776.91	352.1	490.8	-290.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,540.9	-876.91	352.1	490.8	-290.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,640.9	-976.91	352.1	490.8	-290.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,740.9	-1,076.91	352.1	490.8	-290.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,840.9	-1,176.91	352.1	490.8	-290.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,940.9	-1,276.91	352.1	490.8	-290.7	0.00	0.00	0.00
KOP (12°/100ft BUR)										
6,004.8	0.00	0.00	5,945.7	-1,281.71	352.1	490.8	-290.7	0.00	0.00	0.00
6,100.0	11.43	179.44	6,040.3	-1,376.28	342.6	490.9	-281.3	12.00	12.00	0.00
6,200.0	23.43	179.44	6,135.5	-1,471.52	312.7	491.2	-251.6	12.00	12.00	0.00
6,300.0	35.43	179.44	6,222.5	-1,558.46	263.7	491.7	-202.9	12.00	12.00	0.00
SHARON SPRINGS										
6,355.9	42.13	179.44	6,266.0	-1,602.00	228.7	492.0	-168.1	12.00	12.00	0.00
6,400.0	47.43	179.44	6,297.3	-1,633.30	197.7	492.3	-137.2	12.00	12.00	0.00
SHARON SPRINGS "A"										
6,433.4	51.43	179.44	6,319.0	-1,655.00	172.3	492.6	-112.0	12.00	12.00	0.00
SHARON SPRINGS "B"										
6,487.0	57.86	179.44	6,350.0	-1,686.00	128.6	493.0	-68.6	12.00	12.00	0.00
6,500.0	59.43	179.44	6,356.8	-1,692.78	117.5	493.1	-57.5	12.00	12.00	0.00
NIOBRARA "A" CHALK										
6,547.8	65.16	179.44	6,379.0	-1,715.00	75.2	493.5	-15.5	12.00	12.00	0.00
NIOBRARA "A" MARL										
6,590.0	70.22	179.44	6,395.0	-1,731.00	36.2	493.9	23.3	12.00	12.00	0.00
6,600.0	71.43	179.44	6,398.3	-1,734.29	26.7	494.0	32.7	12.00	12.00	0.00
START OF TANGENT										
6,629.8	75.00	179.44	6,406.9	-1,742.90	-1.8	494.3	61.0	11.99	11.99	0.00
6,700.0	75.00	179.44	6,425.1	-1,761.07	-69.6	494.9	128.4	0.00	0.00	0.00
END OF TANGENT										
6,729.8	75.00	179.44	6,432.8	-1,768.78	-98.4	495.2	157.0	0.00	0.00	0.00
6,800.0	83.43	179.44	6,445.9	-1,781.91	-167.3	495.9	225.5	12.00	12.00	0.00
HZ LP *NEW* (P4) - NP FED 31-34-22HNB										
6,854.8	90.00	179.44	6,449.0	-1,785.05	-221.9	496.4	279.9	12.00	12.00	0.00
6,900.0	90.00	179.44	6,449.0	-1,785.05	-267.1	496.9	324.8	0.00	0.00	0.00
7,000.0	90.00	179.44	6,449.0	-1,785.05	-367.1	497.8	424.2	0.00	0.00	0.00
7,100.0	90.00	179.44	6,449.0	-1,785.05	-467.1	498.8	523.6	0.00	0.00	0.00
7,200.0	90.00	179.44	6,449.0	-1,785.05	-567.1	499.8	623.0	0.00	0.00	0.00
7,300.0	90.00	179.44	6,449.0	-1,785.05	-667.1	500.8	722.4	0.00	0.00	0.00
7,400.0	90.00	179.44	6,449.0	-1,785.05	-767.1	501.7	821.7	0.00	0.00	0.00

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Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site:	NW NE SEC. 22 T5N R63W 6th P.M.	North Reference:	True
Well:	NORTH PLATTE FEDERAL 31-34-22HNB	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

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)
7,500.0	90.00	179.44	6,449.0	-1,785.05	-867.1	502.7	921.1	0.00	0.00	0.00
7,600.0	90.00	179.44	6,449.0	-1,785.05	-967.1	503.7	1,020.5	0.00	0.00	0.00
7,700.0	90.00	179.44	6,449.0	-1,785.04	-1,067.1	504.7	1,119.9	0.00	0.00	0.00
7,800.0	90.00	179.44	6,449.0	-1,785.04	-1,167.1	505.6	1,219.3	0.00	0.00	0.00
7,900.0	90.00	179.44	6,449.0	-1,785.04	-1,267.1	506.6	1,318.7	0.00	0.00	0.00
8,000.0	90.00	179.44	6,449.0	-1,785.04	-1,367.1	507.6	1,418.1	0.00	0.00	0.00
8,100.0	90.00	179.44	6,449.0	-1,785.04	-1,467.1	508.6	1,517.5	0.00	0.00	0.00
8,200.0	90.00	179.44	6,449.0	-1,785.04	-1,567.1	509.6	1,616.9	0.00	0.00	0.00
8,300.0	90.00	179.44	6,449.0	-1,785.04	-1,667.1	510.5	1,716.3	0.00	0.00	0.00
8,400.0	90.00	179.44	6,449.0	-1,785.04	-1,767.1	511.5	1,815.7	0.00	0.00	0.00
8,500.0	90.00	179.44	6,449.0	-1,785.04	-1,867.1	512.5	1,915.0	0.00	0.00	0.00
8,600.0	90.00	179.44	6,449.0	-1,785.04	-1,967.1	513.5	2,014.4	0.00	0.00	0.00
8,700.0	90.00	179.44	6,449.0	-1,785.04	-2,067.1	514.4	2,113.8	0.00	0.00	0.00
8,800.0	90.00	179.44	6,449.0	-1,785.04	-2,167.1	515.4	2,213.2	0.00	0.00	0.00
8,900.0	90.00	179.44	6,449.0	-1,785.04	-2,267.0	516.4	2,312.6	0.00	0.00	0.00
9,000.0	90.00	179.44	6,449.0	-1,785.03	-2,367.0	517.4	2,412.0	0.00	0.00	0.00
9,100.0	90.00	179.44	6,449.0	-1,785.03	-2,467.0	518.3	2,511.4	0.00	0.00	0.00
9,200.0	90.00	179.44	6,449.0	-1,785.03	-2,567.0	519.3	2,610.8	0.00	0.00	0.00
9,300.0	90.00	179.44	6,449.0	-1,785.03	-2,667.0	520.3	2,710.2	0.00	0.00	0.00
9,400.0	90.00	179.44	6,449.0	-1,785.03	-2,767.0	521.3	2,809.6	0.00	0.00	0.00
9,500.0	90.00	179.44	6,449.0	-1,785.03	-2,867.0	522.2	2,909.0	0.00	0.00	0.00
9,600.0	90.00	179.44	6,449.0	-1,785.03	-2,967.0	523.2	3,008.3	0.00	0.00	0.00
9,700.0	90.00	179.44	6,449.0	-1,785.03	-3,067.0	524.2	3,107.7	0.00	0.00	0.00
9,800.0	90.00	179.44	6,449.0	-1,785.02	-3,167.0	525.2	3,207.1	0.00	0.00	0.00
9,900.0	90.00	179.44	6,449.0	-1,785.02	-3,267.0	526.2	3,306.5	0.00	0.00	0.00
10,000.0	90.00	179.44	6,449.0	-1,785.02	-3,367.0	527.1	3,405.9	0.00	0.00	0.00
10,100.0	90.00	179.44	6,449.0	-1,785.02	-3,467.0	528.1	3,505.3	0.00	0.00	0.00
10,200.0	90.00	179.44	6,449.0	-1,785.02	-3,567.0	529.1	3,604.7	0.00	0.00	0.00
10,300.0	90.00	179.44	6,449.0	-1,785.02	-3,667.0	530.1	3,704.1	0.00	0.00	0.00
10,400.0	90.00	179.44	6,449.0	-1,785.01	-3,767.0	531.0	3,803.5	0.00	0.00	0.00
10,500.0	90.00	179.44	6,449.0	-1,785.01	-3,867.0	532.0	3,902.9	0.00	0.00	0.00
10,600.0	90.00	179.44	6,449.0	-1,785.01	-3,967.0	533.0	4,002.3	0.00	0.00	0.00
10,700.0	90.00	179.44	6,449.0	-1,785.01	-4,067.0	534.0	4,101.6	0.00	0.00	0.00
10,800.0	90.00	179.44	6,449.0	-1,785.01	-4,167.0	534.9	4,201.0	0.00	0.00	0.00
10,900.0	90.00	179.44	6,449.0	-1,785.00	-4,267.0	535.9	4,300.4	0.00	0.00	0.00
11,000.0	90.00	179.44	6,449.0	-1,785.00	-4,366.9	536.9	4,399.8	0.00	0.00	0.00
BHL (P4) - NP FED 31-34-22HNB										
11,084.9	90.00	179.44	6,449.0	-1,785.00	-4,451.8	537.7	4,484.2	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,480.1	3,451.0	PARKMAN			
6,355.9	6,266.0	SHARON SPRINGS			
6,433.4	6,319.0	SHARON SPRINGS "A"			
6,487.0	6,350.0	SHARON SPRINGS "B"			
6,547.8	6,379.0	NIOBRARA "A" CHALK			
6,590.0	6,395.0	NIOBRARA "A" MARL			

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well NORTH PLATTE FEDERAL 31-34-22HNB
Company:	BONANZA CREEK ENERGY INC.	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site:	NW NE SEC. 22 T5N R63W 6th P.M.	North Reference:	True
Well:	NORTH PLATTE FEDERAL 31-34-22HNB	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #4		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,550.0	1,550.0	0.0	0.0	SURFACE CASING
1,750.0	1,750.0	0.0	0.0	START NUDGE (2°/100ft BUR)
2,350.1	2,345.7	36.5	50.9	EOB TO 12° INC
4,652.7	4,598.0	315.6	439.9	END OF TANGENT
5,252.8	5,193.7	352.1	490.8	EOD TO VERTICAL
6,004.8	5,945.7	352.1	490.8	KOP (12°/100ft BUR)
6,629.8	6,406.9	-1.8	494.3	START OF TANGENT
6,729.8	6,432.8	-98.4	495.2	END OF TANGENT
6,854.8	6,449.0	-221.9	496.4	HZ LP *NEW* (P4) - NP FED 31-34-22HNB
11,084.9	6,449.0	-4,451.8	537.7	BHL (P4) - NP FED 31-34-22HNB