

# **BISON IV OPERATING**

**LARIMER COUNTY, COLORADO (NAD 83)**

**SEC. 11 T5N R68W 6th P.M.**

**CE 5-68 11-10-8H**

**ORIGINAL WELLBORE**

**19 July, 2024**

**Plan: PROPOSAL #1**

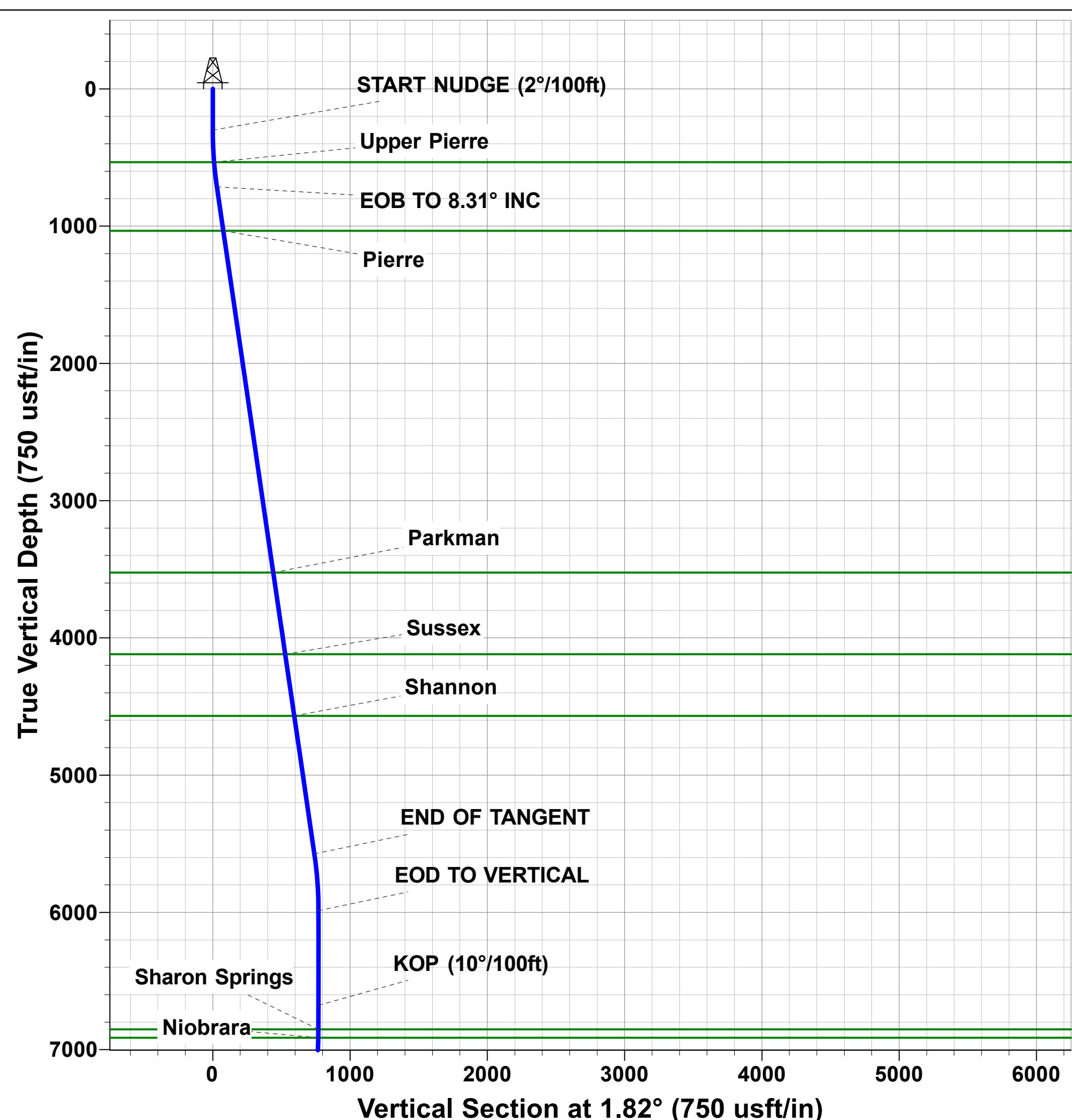
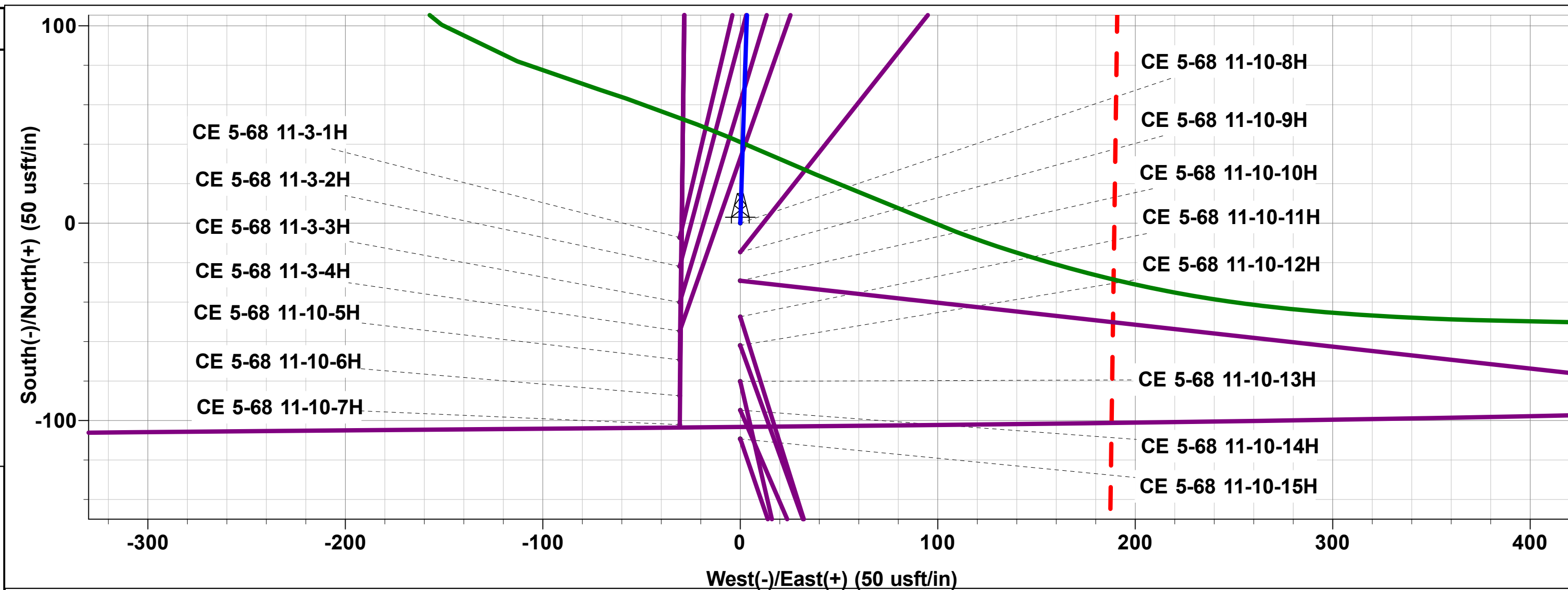




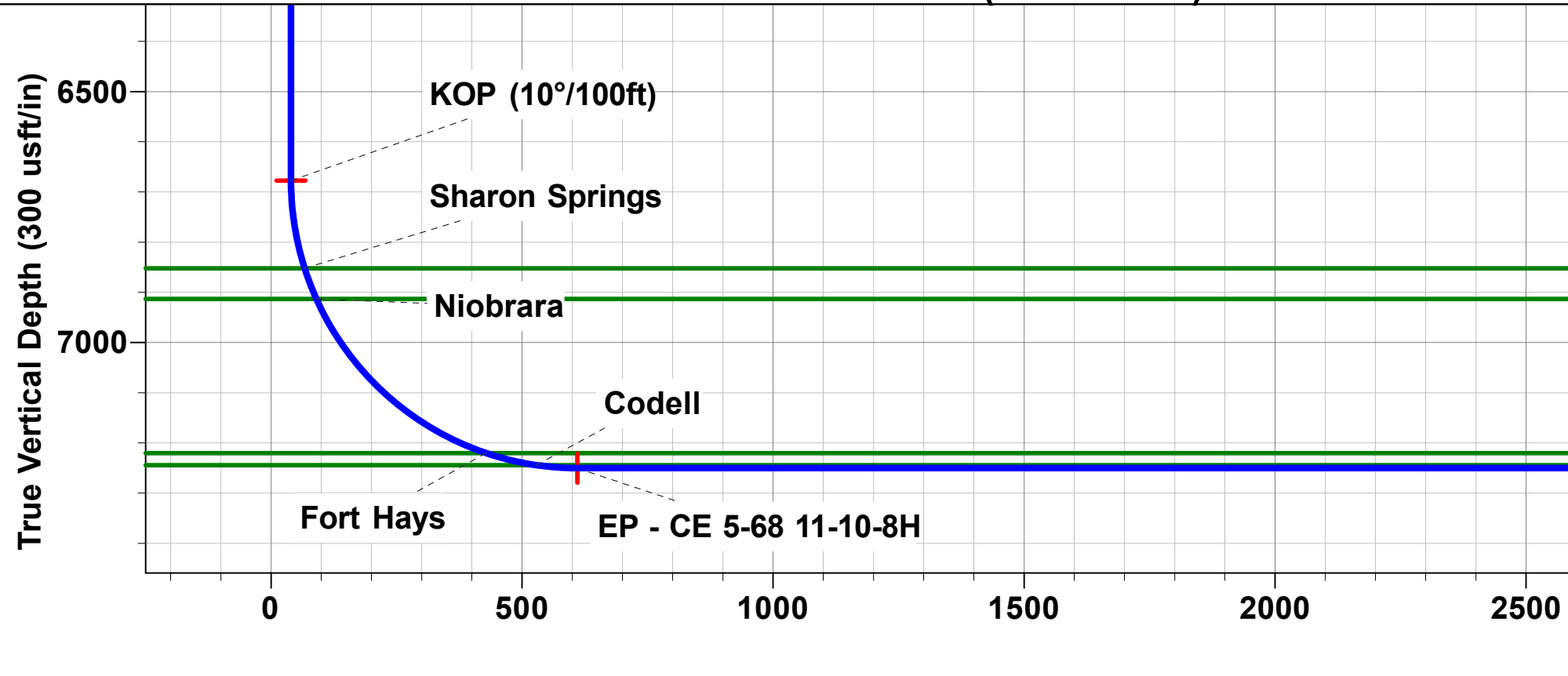
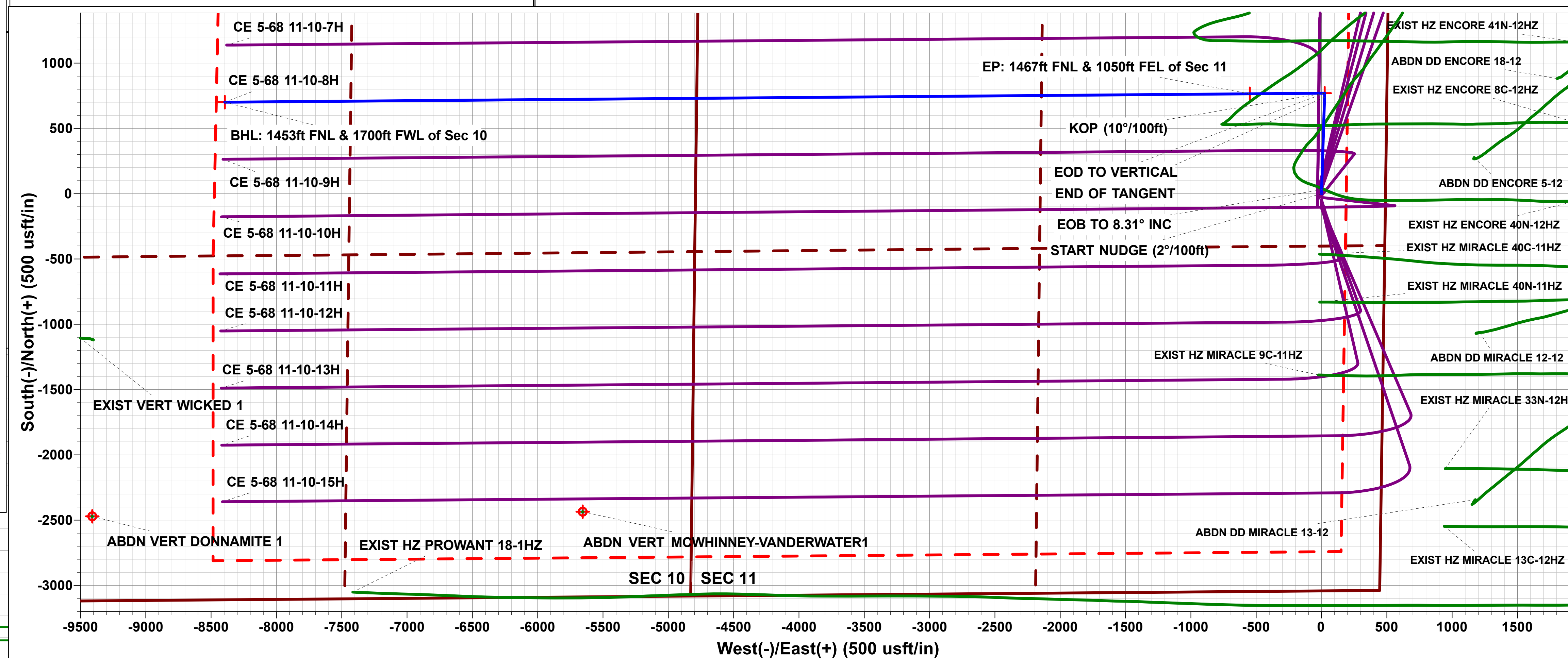
Project: LARIMER COUNTY, COLORADO (NAD 83)  
 Site: SEC. 11 T5N R68W 6th P.M.  
 Well: CE 5-68 11-10-8H  
 Wellbore: ORIGINAL WELLBORE  
 Design: PROPOSAL #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 2236ft FNL & 489ft FEL of Sec 11
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	START NUDDGE (2°/100ft)
715.65	8.31	1.82	714.19	30.09	0.95	1.55	30.10	EOB TO 8.31° INC
5625.90	8.31	1.82	5572.85	739.65	23.47	38.16	740.03	END OF TANGENT
6041.55	0.00	0.00	5987.04	769.74	24.42	39.71	770.13	EOD TO VERTICAL
6731.55	0.00	0.00	6677.04	769.74	24.42	39.71	770.13	KOP (10°/100ft)
7631.55	90.00	269.53	7250.00	765.04	-548.52	610.27	1343.09	EP: 1467ft FNL & 1050ft FEL of Sec 11
15478.21	90.00	269.53	7250.00	700.89	-8394.92	8424.13	9189.75	BHL: 1453ft FNL & 1700ft FWL of Sec 10



PROPOSED LOCAL COORDINATES:  
 SHL: 2236ft FNL & 489ft FEL of Sec 11  
 EP: 1467ft FNL & 1050ft FEL of Sec 11  
 BHL: 1453ft FNL & 1700ft FWL of Sec 10  
**SETBACK BOUNDARY**  
 300ft FSL of Sec 11 & 300ft FNL of Sec 2  
 300ft FEL of Sec 2/11 & 300ft FW 1/4 1/4 Sec 10/3



<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-10-8H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-10-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	LARIMER COUNTY, COLORADO (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	SEC. 11 T5N R68W 6th P.M.				
<b>Site Position:</b>		<b>Northing:</b>	1,394,672.84 usft	<b>Latitude:</b>	40.415550
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,148,675.60 usft	<b>Longitude:</b>	-104.966050
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	1.10 ft	<b>Grid Convergence:</b>	0.35 °

<b>Well</b>	CE 5-68 11-10-8H					
<b>Well Position</b>	<b>+N/-S</b>	7.28 usft	<b>Northing:</b>	1,394,680.30 usf	<b>Latitude:</b>	40.415570
	<b>+E/-W</b>	30.63 usft	<b>Easting:</b>	3,148,706.18 usf	<b>Longitude:</b>	-104.965940
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usf	<b>Ground Level:</b>	4,980.00 usft

<b>Wellbore</b>	ORIGINAL WELLBORE				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	2024-07-18	7.64	66.51	51,613.98353214

<b>Design</b>	PROPOSAL #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	274.77

<b>Plan Sections</b>											
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	-5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	-4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
715.65	8.31	1.82	714.19	-4,285.81	30.09	0.95	2.00	2.00	0.00	1.82	
5,625.90	8.31	1.82	5,572.85	572.85	739.65	23.47	0.00	0.00	0.00	0.00	
6,041.55	0.00	0.00	5,987.04	987.04	769.74	24.42	2.00	-2.00	0.00	180.00	
6,731.55	0.00	0.00	6,677.04	1,677.04	769.74	24.42	0.00	0.00	0.00	0.00	KOP - CE 5-68 11-1
7,631.55	90.00	269.53	7,250.00	2,250.00	765.04	-548.52	10.00	10.00	-10.05	269.53	EP - CE 5-68 11-10
15,478.21	90.00	269.53	7,250.00	2,250.00	700.89	-8,394.92	0.00	0.00	0.00	0.00	BHL - CE 5-68 11-1

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-10-8H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-10-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
<b>SHL: 2236ft FNL &amp; 489ft FEL of Sec 11</b>										
0.00	0.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>START NUDGE (2°/100ft)</b>										
300.00	0.00	0.00	300.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	1.82	399.98	4,600.02	1.74	0.06	0.09	2.00	2.00	0.00
500.00	4.00	1.82	499.84	4,500.16	6.97	0.22	0.36	2.00	2.00	0.00
<b>Upper Pierre</b>										
534.26	4.69	1.82	534.00	4,466.00	9.57	0.30	0.49	2.00	2.00	0.00
600.00	6.00	1.82	599.45	4,400.55	15.69	0.50	0.81	2.00	2.00	0.00
700.00	8.00	1.82	698.70	4,301.30	27.87	0.88	1.44	2.00	2.00	0.00
<b>EOB TO 8.31° INC</b>										
715.65	8.31	1.82	714.19	4,285.81	30.09	0.95	1.55	2.00	2.00	0.00
800.00	8.31	1.82	797.66	4,202.34	42.27	1.34	2.18	0.00	0.00	0.00
900.00	8.31	1.82	896.61	4,103.39	56.73	1.80	2.93	0.00	0.00	0.00
1,000.00	8.31	1.82	995.56	4,004.44	71.18	2.26	3.67	0.00	0.00	0.00
<b>Pierre</b>										
1,038.85	8.31	1.82	1,034.00	3,966.00	76.79	2.44	3.96	0.00	0.00	0.00
1,100.00	8.31	1.82	1,094.50	3,905.50	85.63	2.72	4.42	0.00	0.00	0.00
1,200.00	8.31	1.82	1,193.45	3,806.55	100.08	3.17	5.16	0.00	0.00	0.00
1,300.00	8.31	1.82	1,292.40	3,707.60	114.53	3.63	5.91	0.00	0.00	0.00
1,400.00	8.31	1.82	1,391.35	3,608.65	128.98	4.09	6.65	0.00	0.00	0.00
1,500.00	8.31	1.82	1,490.30	3,509.70	143.43	4.55	7.40	0.00	0.00	0.00
1,600.00	8.31	1.82	1,589.25	3,410.75	157.88	5.01	8.14	0.00	0.00	0.00
1,700.00	8.31	1.82	1,688.20	3,311.80	172.33	5.47	8.89	0.00	0.00	0.00
1,800.00	8.31	1.82	1,787.15	3,212.85	186.78	5.93	9.64	0.00	0.00	0.00
1,900.00	8.31	1.82	1,886.10	3,113.90	201.23	6.38	10.38	0.00	0.00	0.00
2,000.00	8.31	1.82	1,985.05	3,014.95	215.68	6.84	11.13	0.00	0.00	0.00
2,100.00	8.31	1.82	2,084.00	2,916.00	230.13	7.30	11.87	0.00	0.00	0.00
2,200.00	8.31	1.82	2,182.95	2,817.05	244.59	7.76	12.62	0.00	0.00	0.00
2,300.00	8.31	1.82	2,281.90	2,718.10	259.04	8.22	13.36	0.00	0.00	0.00
2,400.00	8.31	1.82	2,380.85	2,619.15	273.49	8.68	14.11	0.00	0.00	0.00
2,500.00	8.31	1.82	2,479.80	2,520.20	287.94	9.13	14.85	0.00	0.00	0.00
2,600.00	8.31	1.82	2,578.74	2,421.26	302.39	9.59	15.60	0.00	0.00	0.00
2,700.00	8.31	1.82	2,677.69	2,322.31	316.84	10.05	16.34	0.00	0.00	0.00
2,800.00	8.31	1.82	2,776.64	2,223.36	331.29	10.51	17.09	0.00	0.00	0.00
2,900.00	8.31	1.82	2,875.59	2,124.41	345.74	10.97	17.84	0.00	0.00	0.00
3,000.00	8.31	1.82	2,974.54	2,025.46	360.19	11.43	18.58	0.00	0.00	0.00
3,100.00	8.31	1.82	3,073.49	1,926.51	374.64	11.89	19.33	0.00	0.00	0.00
3,200.00	8.31	1.82	3,172.44	1,827.56	389.09	12.34	20.07	0.00	0.00	0.00
3,300.00	8.31	1.82	3,271.39	1,728.61	403.54	12.80	20.82	0.00	0.00	0.00
3,400.00	8.31	1.82	3,370.34	1,629.66	418.00	13.26	21.56	0.00	0.00	0.00
3,500.00	8.31	1.82	3,469.29	1,530.71	432.45	13.72	22.31	0.00	0.00	0.00
<b>Parkman</b>										
3,555.29	8.31	1.82	3,524.00	1,476.00	440.44	13.97	22.72	0.00	0.00	0.00
3,600.00	8.31	1.82	3,568.24	1,431.76	446.90	14.18	23.05	0.00	0.00	0.00
3,700.00	8.31	1.82	3,667.19	1,332.81	461.35	14.64	23.80	0.00	0.00	0.00
3,800.00	8.31	1.82	3,766.14	1,233.86	475.80	15.09	24.54	0.00	0.00	0.00
3,900.00	8.31	1.82	3,865.09	1,134.91	490.25	15.55	25.29	0.00	0.00	0.00
4,000.00	8.31	1.82	3,964.03	1,035.97	504.70	16.01	26.03	0.00	0.00	0.00
4,100.00	8.31	1.82	4,062.98	937.02	519.15	16.47	26.78	0.00	0.00	0.00
<b>Sussex</b>										

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-10-8H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-10-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
<b>4,156.61</b>	<b>8.31</b>	<b>1.82</b>	<b>4,119.00</b>	<b>881.00</b>	<b>527.33</b>	<b>16.73</b>	<b>27.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,200.00	8.31	1.82	4,161.93	838.07	533.60	16.93	27.53	0.00	0.00	0.00
4,300.00	8.31	1.82	4,260.88	739.12	548.05	17.39	28.27	0.00	0.00	0.00
4,400.00	8.31	1.82	4,359.83	640.17	562.50	17.85	29.02	0.00	0.00	0.00
4,500.00	8.31	1.82	4,458.78	541.22	576.95	18.30	29.76	0.00	0.00	0.00
4,600.00	8.31	1.82	4,557.73	442.27	591.40	18.76	30.51	0.00	0.00	0.00
<b>Shannon</b>										
<b>4,610.38</b>	<b>8.31</b>	<b>1.82</b>	<b>4,568.00</b>	<b>432.00</b>	<b>592.90</b>	<b>18.81</b>	<b>30.59</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
4,700.00	8.31	1.82	4,656.68	343.32	605.86	19.22	31.25	0.00	0.00	0.00
4,800.00	8.31	1.82	4,755.63	244.37	620.31	19.68	32.00	0.00	0.00	0.00
4,900.00	8.31	1.82	4,854.58	145.42	634.76	20.14	32.74	0.00	0.00	0.00
5,000.00	8.31	1.82	4,953.53	46.47	649.21	20.60	33.49	0.00	0.00	0.00
5,100.00	8.31	1.82	5,052.48	-52.48	663.66	21.05	34.23	0.00	0.00	0.00
5,200.00	8.31	1.82	5,151.43	-151.43	678.11	21.51	34.98	0.00	0.00	0.00
5,300.00	8.31	1.82	5,250.38	-250.38	692.56	21.97	35.73	0.00	0.00	0.00
5,400.00	8.31	1.82	5,349.32	-349.32	707.01	22.43	36.47	0.00	0.00	0.00
5,500.00	8.31	1.82	5,448.27	-448.27	721.46	22.89	37.22	0.00	0.00	0.00
5,600.00	8.31	1.82	5,547.22	-547.22	735.91	23.35	37.96	0.00	0.00	0.00
<b>END OF TANGENT</b>										
<b>5,625.90</b>	<b>8.31</b>	<b>1.82</b>	<b>5,572.85</b>	<b>-572.85</b>	<b>739.65</b>	<b>23.47</b>	<b>38.16</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,700.00	6.83	1.82	5,646.30	-646.30	749.41	23.78	38.66	2.00	-2.00	0.00
5,800.00	4.83	1.82	5,745.78	-745.78	759.57	24.10	39.18	2.00	-2.00	0.00
5,900.00	2.83	1.82	5,845.55	-845.55	766.25	24.31	39.53	2.00	-2.00	0.00
6,000.00	0.83	1.82	5,945.50	-945.50	769.44	24.41	39.69	2.00	-2.00	0.00
<b>EOD TO VERTICAL</b>										
<b>6,041.55</b>	<b>0.00</b>	<b>0.00</b>	<b>5,987.04</b>	<b>-987.04</b>	<b>769.74</b>	<b>24.42</b>	<b>39.71</b>	<b>2.00</b>	<b>-2.00</b>	<b>0.00</b>
6,100.00	0.00	0.00	6,045.49	-1,045.49	769.74	24.42	39.71	0.00	0.00	0.00
6,200.00	0.00	0.00	6,145.49	-1,145.49	769.74	24.42	39.71	0.00	0.00	0.00
6,300.00	0.00	0.00	6,245.49	-1,245.49	769.74	24.42	39.71	0.00	0.00	0.00
6,400.00	0.00	0.00	6,345.49	-1,345.49	769.74	24.42	39.71	0.00	0.00	0.00
6,500.00	0.00	0.00	6,445.49	-1,445.49	769.74	24.42	39.71	0.00	0.00	0.00
6,600.00	0.00	0.00	6,545.49	-1,545.49	769.74	24.42	39.71	0.00	0.00	0.00
6,700.00	0.00	0.00	6,645.49	-1,645.49	769.74	24.42	39.71	0.00	0.00	0.00
<b>KOP (10°/100ft)</b>										
<b>6,731.55</b>	<b>0.00</b>	<b>0.00</b>	<b>6,677.04</b>	<b>-1,677.04</b>	<b>769.74</b>	<b>24.42</b>	<b>39.71</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,800.00	6.85	269.53	6,745.33	-1,745.33	769.71	20.34	43.77	10.00	10.00	0.00
6,900.00	16.85	269.53	6,843.08	-1,843.08	769.54	-0.16	64.19	10.00	10.00	0.00
<b>Sharon Springs</b>										
<b>6,909.35</b>	<b>17.78</b>	<b>269.53</b>	<b>6,852.00</b>	<b>-1,852.00</b>	<b>769.52</b>	<b>-2.95</b>	<b>66.96</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
<b>Niobrara</b>										
<b>6,974.74</b>	<b>24.32</b>	<b>269.53</b>	<b>6,913.00</b>	<b>-1,913.00</b>	<b>769.32</b>	<b>-26.42</b>	<b>90.34</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
7,000.00	26.85	269.53	6,935.78	-1,935.78	769.23	-37.33	101.20	10.00	10.00	0.00
7,100.00	36.85	269.53	7,020.62	-2,020.62	768.80	-90.02	153.67	10.00	10.00	0.00
7,200.00	46.85	269.53	7,095.02	-2,095.02	768.25	-156.65	220.02	10.00	10.00	0.00
7,300.00	56.85	269.53	7,156.72	-2,156.72	767.61	-235.18	298.23	10.00	10.00	0.00
7,400.00	66.85	269.53	7,203.85	-2,203.85	766.89	-323.23	385.92	10.00	10.00	0.00
<b>Fort Hays</b>										
<b>7,445.32</b>	<b>71.38</b>	<b>269.53</b>	<b>7,220.00</b>	<b>-2,220.00</b>	<b>766.54</b>	<b>-365.56</b>	<b>428.07</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
7,500.00	76.85	269.53	7,234.96	-2,234.96	766.11	-418.13	480.42	10.00	10.00	0.00
<b>Codell</b>										
<b>7,548.56</b>	<b>81.70</b>	<b>269.53</b>	<b>7,244.00</b>	<b>-2,244.00</b>	<b>765.72</b>	<b>-465.82</b>	<b>527.91</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
7,600.00	86.85	269.53	7,249.13	-2,249.13	765.30	-516.99	578.87	10.00	10.00	0.00
<b>EP: 1467ft FNL &amp; 1050ft FEL of Sec 11</b>										

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-10-8H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-10-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
7,631.55	90.00	269.53	7,250.00	-2,250.00	765.04	-548.52	610.27	10.00	10.00	0.00
7,700.00	90.00	269.53	7,250.00	-2,250.00	764.48	-616.97	678.44	0.00	0.00	0.00
7,800.00	90.00	269.53	7,250.00	-2,250.00	763.66	-716.97	778.02	0.00	0.00	0.00
7,900.00	90.00	269.53	7,250.00	-2,250.00	762.84	-816.96	877.60	0.00	0.00	0.00
8,000.00	90.00	269.53	7,250.00	-2,250.00	762.02	-916.96	977.18	0.00	0.00	0.00
8,100.00	90.00	269.53	7,250.00	-2,250.00	761.20	-1,016.96	1,076.76	0.00	0.00	0.00
8,200.00	90.00	269.53	7,250.00	-2,250.00	760.38	-1,116.95	1,176.34	0.00	0.00	0.00
8,300.00	90.00	269.53	7,250.00	-2,250.00	759.56	-1,216.95	1,275.93	0.00	0.00	0.00
8,400.00	90.00	269.53	7,250.00	-2,250.00	758.74	-1,316.95	1,375.51	0.00	0.00	0.00
8,500.00	90.00	269.53	7,250.00	-2,250.00	757.92	-1,416.94	1,475.09	0.00	0.00	0.00
8,600.00	90.00	269.53	7,250.00	-2,250.00	757.10	-1,516.94	1,574.67	0.00	0.00	0.00
8,700.00	90.00	269.53	7,250.00	-2,250.00	756.28	-1,616.94	1,674.25	0.00	0.00	0.00
8,800.00	90.00	269.53	7,250.00	-2,250.00	755.46	-1,716.93	1,773.83	0.00	0.00	0.00
8,900.00	90.00	269.53	7,250.00	-2,250.00	754.64	-1,816.93	1,873.42	0.00	0.00	0.00
9,000.00	90.00	269.53	7,250.00	-2,250.00	753.82	-1,916.93	1,973.00	0.00	0.00	0.00
9,100.00	90.00	269.53	7,250.00	-2,250.00	753.00	-2,016.92	2,072.58	0.00	0.00	0.00
9,200.00	90.00	269.53	7,250.00	-2,250.00	752.18	-2,116.92	2,172.16	0.00	0.00	0.00
9,300.00	90.00	269.53	7,250.00	-2,250.00	751.36	-2,216.92	2,271.74	0.00	0.00	0.00
9,400.00	90.00	269.53	7,249.99	-2,249.99	750.54	-2,316.91	2,371.32	0.00	0.00	0.00
9,500.00	90.00	269.53	7,249.99	-2,249.99	749.72	-2,416.91	2,470.91	0.00	0.00	0.00
9,600.00	90.00	269.53	7,249.99	-2,249.99	748.90	-2,516.91	2,570.49	0.00	0.00	0.00
9,700.00	90.00	269.53	7,249.99	-2,249.99	748.07	-2,616.90	2,670.07	0.00	0.00	0.00
9,800.00	90.00	269.53	7,249.99	-2,249.99	747.25	-2,716.90	2,769.65	0.00	0.00	0.00
9,900.00	90.00	269.53	7,249.99	-2,249.99	746.43	-2,816.90	2,869.23	0.00	0.00	0.00
10,000.00	90.00	269.53	7,249.99	-2,249.99	745.61	-2,916.89	2,968.81	0.00	0.00	0.00
10,100.00	90.00	269.53	7,249.99	-2,249.99	744.79	-3,016.89	3,068.40	0.00	0.00	0.00
10,200.00	90.00	269.53	7,249.99	-2,249.99	743.97	-3,116.89	3,167.98	0.00	0.00	0.00
10,300.00	90.00	269.53	7,249.99	-2,249.99	743.15	-3,216.88	3,267.56	0.00	0.00	0.00
10,400.00	90.00	269.53	7,249.99	-2,249.99	742.33	-3,316.88	3,367.14	0.00	0.00	0.00
10,500.00	90.00	269.53	7,249.99	-2,249.99	741.51	-3,416.88	3,466.72	0.00	0.00	0.00
10,600.00	90.00	269.53	7,249.99	-2,249.99	740.69	-3,516.87	3,566.30	0.00	0.00	0.00
10,700.00	90.00	269.53	7,249.99	-2,249.99	739.87	-3,616.87	3,665.89	0.00	0.00	0.00
10,800.00	90.00	269.53	7,249.99	-2,249.99	739.05	-3,716.87	3,765.47	0.00	0.00	0.00
10,900.00	90.00	269.53	7,249.99	-2,249.99	738.23	-3,816.86	3,865.05	0.00	0.00	0.00
11,000.00	90.00	269.53	7,249.99	-2,249.99	737.41	-3,916.86	3,964.63	0.00	0.00	0.00
11,100.00	90.00	269.53	7,249.99	-2,249.99	736.59	-4,016.86	4,064.21	0.00	0.00	0.00
11,200.00	90.00	269.53	7,249.99	-2,249.99	735.77	-4,116.85	4,163.79	0.00	0.00	0.00
11,300.00	90.00	269.53	7,249.99	-2,249.99	734.95	-4,216.85	4,263.38	0.00	0.00	0.00
11,400.00	90.00	269.53	7,249.99	-2,249.99	734.13	-4,316.85	4,362.96	0.00	0.00	0.00
11,500.00	90.00	269.53	7,249.99	-2,249.99	733.31	-4,416.84	4,462.54	0.00	0.00	0.00
11,600.00	90.00	269.53	7,249.99	-2,249.99	732.49	-4,516.84	4,562.12	0.00	0.00	0.00
11,700.00	90.00	269.53	7,249.99	-2,249.99	731.67	-4,616.84	4,661.70	0.00	0.00	0.00
11,800.00	90.00	269.53	7,249.99	-2,249.99	730.85	-4,716.83	4,761.28	0.00	0.00	0.00
11,900.00	90.00	269.53	7,249.99	-2,249.99	730.03	-4,816.83	4,860.87	0.00	0.00	0.00
12,000.00	90.00	269.53	7,249.99	-2,249.99	729.21	-4,916.82	4,960.45	0.00	0.00	0.00
12,100.00	90.00	269.53	7,249.99	-2,249.99	728.39	-5,016.82	5,060.03	0.00	0.00	0.00
12,200.00	90.00	269.53	7,249.99	-2,249.99	727.57	-5,116.82	5,159.61	0.00	0.00	0.00
12,300.00	90.00	269.53	7,249.99	-2,249.99	726.75	-5,216.81	5,259.19	0.00	0.00	0.00
12,400.00	90.00	269.53	7,249.99	-2,249.99	725.93	-5,316.81	5,358.77	0.00	0.00	0.00
12,500.00	90.00	269.53	7,249.99	-2,249.99	725.11	-5,416.81	5,458.36	0.00	0.00	0.00
12,600.00	90.00	269.53	7,249.99	-2,249.99	724.29	-5,516.80	5,557.94	0.00	0.00	0.00
12,700.00	90.00	269.53	7,249.99	-2,249.99	723.47	-5,616.80	5,657.52	0.00	0.00	0.00
12,800.00	90.00	269.53	7,249.98	-2,249.98	722.65	-5,716.80	5,757.10	0.00	0.00	0.00
12,900.00	90.00	269.53	7,249.98	-2,249.98	721.83	-5,816.79	5,856.68	0.00	0.00	0.00

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-10-8H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-10-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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)
13,000.00	90.00	269.53	7,249.98	-2,249.98	721.01	-5,916.79	5,956.26	0.00	0.00	0.00
13,100.00	90.00	269.53	7,249.98	-2,249.98	720.19	-6,016.79	6,055.85	0.00	0.00	0.00
13,200.00	90.00	269.53	7,249.98	-2,249.98	719.37	-6,116.78	6,155.43	0.00	0.00	0.00
13,300.00	90.00	269.53	7,249.98	-2,249.98	718.55	-6,216.78	6,255.01	0.00	0.00	0.00
13,400.00	90.00	269.53	7,249.98	-2,249.98	717.73	-6,316.78	6,354.59	0.00	0.00	0.00
13,500.00	90.00	269.53	7,249.98	-2,249.98	716.91	-6,416.77	6,454.17	0.00	0.00	0.00
13,600.00	90.00	269.53	7,249.98	-2,249.98	716.09	-6,516.77	6,553.76	0.00	0.00	0.00
13,700.00	90.00	269.53	7,249.98	-2,249.98	715.27	-6,616.77	6,653.34	0.00	0.00	0.00
13,800.00	90.00	269.53	7,249.98	-2,249.98	714.45	-6,716.76	6,752.92	0.00	0.00	0.00
13,900.00	90.00	269.53	7,249.98	-2,249.98	713.63	-6,816.76	6,852.50	0.00	0.00	0.00
14,000.00	90.00	269.53	7,249.98	-2,249.98	712.81	-6,916.76	6,952.08	0.00	0.00	0.00
14,100.00	90.00	269.53	7,249.98	-2,249.98	711.99	-7,016.75	7,051.66	0.00	0.00	0.00
14,200.00	90.00	269.53	7,249.98	-2,249.98	711.17	-7,116.75	7,151.25	0.00	0.00	0.00
14,300.00	90.00	269.53	7,249.98	-2,249.98	710.35	-7,216.75	7,250.83	0.00	0.00	0.00
14,400.00	90.00	269.53	7,249.98	-2,249.98	709.53	-7,316.74	7,350.41	0.00	0.00	0.00
14,500.00	90.00	269.53	7,249.98	-2,249.98	708.71	-7,416.74	7,449.99	0.00	0.00	0.00
14,600.00	90.00	269.53	7,249.98	-2,249.98	707.88	-7,516.74	7,549.57	0.00	0.00	0.00
14,700.00	90.00	269.53	7,249.98	-2,249.98	707.06	-7,616.73	7,649.15	0.00	0.00	0.00
14,800.00	90.00	269.53	7,249.98	-2,249.98	706.24	-7,716.73	7,748.74	0.00	0.00	0.00
14,900.00	90.00	269.53	7,249.98	-2,249.98	705.42	-7,816.73	7,848.32	0.00	0.00	0.00
15,000.00	90.00	269.53	7,249.98	-2,249.98	704.60	-7,916.72	7,947.90	0.00	0.00	0.00
15,100.00	90.00	269.53	7,249.98	-2,249.98	703.78	-8,016.72	8,047.48	0.00	0.00	0.00
15,200.00	90.00	269.53	7,249.98	-2,249.98	702.96	-8,116.72	8,147.06	0.00	0.00	0.00
15,300.00	90.00	269.53	7,249.98	-2,249.98	702.14	-8,216.71	8,246.64	0.00	0.00	0.00
15,400.00	90.00	269.53	7,249.98	-2,249.98	701.32	-8,316.71	8,346.23	0.00	0.00	0.00
<b>BHL: 1453ft FNL &amp; 1700ft FWL of Sec 10</b>										
<b>15,478.21</b>	<b>90.00</b>	<b>269.53</b>	<b>7,250.00</b>	<b>-2,250.00</b>	<b>700.89</b>	<b>-8,394.92</b>	<b>8,424.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**Formations**

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
534.26	534.00	Upper Pierre			
1,038.85	1,034.00	Pierre			
3,555.29	3,524.00	Parkman			
4,156.61	4,119.00	Sussex			
4,610.38	4,568.00	Shannon			
6,909.35	6,852.00	Sharon Springs			
6,974.74	6,913.00	Niobrara			
7,445.32	7,220.00	Fort Hays			
7,548.56	7,244.00	Codell			

<b>Database:</b>	Database 1	<b>Local Co-ordinate Reference:</b>	Well CE 5-68 11-10-8H
<b>Company:</b>	BISON IV OPERATING	<b>TVD Reference:</b>	KBE @ 5000.00usft
<b>Project:</b>	LARIMER COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KBE @ 5000.00usft
<b>Site:</b>	SEC. 11 T5N R68W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	CE 5-68 11-10-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	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: 2236ft FNL & 489ft FEL of Sec 11
300.00	300.00	0.00	0.00	START NUDGE (2°/100ft)
715.65	714.19	30.09	0.95	EOB TO 8.31° INC
5,625.90	5,572.85	739.65	23.47	END OF TANGENT
6,041.55	5,987.04	769.74	24.42	EOD TO VERTICAL
6,731.55	6,677.04	769.74	24.42	KOP (10°/100ft)
7,631.55	7,250.00	765.04	-548.52	EP: 1467ft FNL & 1050ft FEL of Sec 11
15,478.21	7,250.00	700.89	-8,394.92	BHL: 1453ft FNL & 1700ft FWL of Sec 10