

# **BISON EXPLORATION**

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

**SW NW SEC. 2 T5S R64W 6th P.M.**

**DALTON 5-64 2-6**

**ORIGINAL WELLBORE**

**27 April, 2017**

**Plan: PROPOSAL #1**



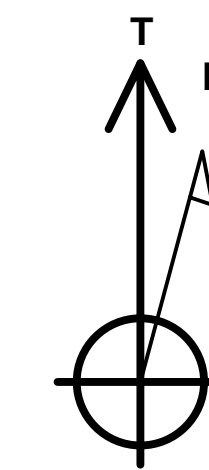
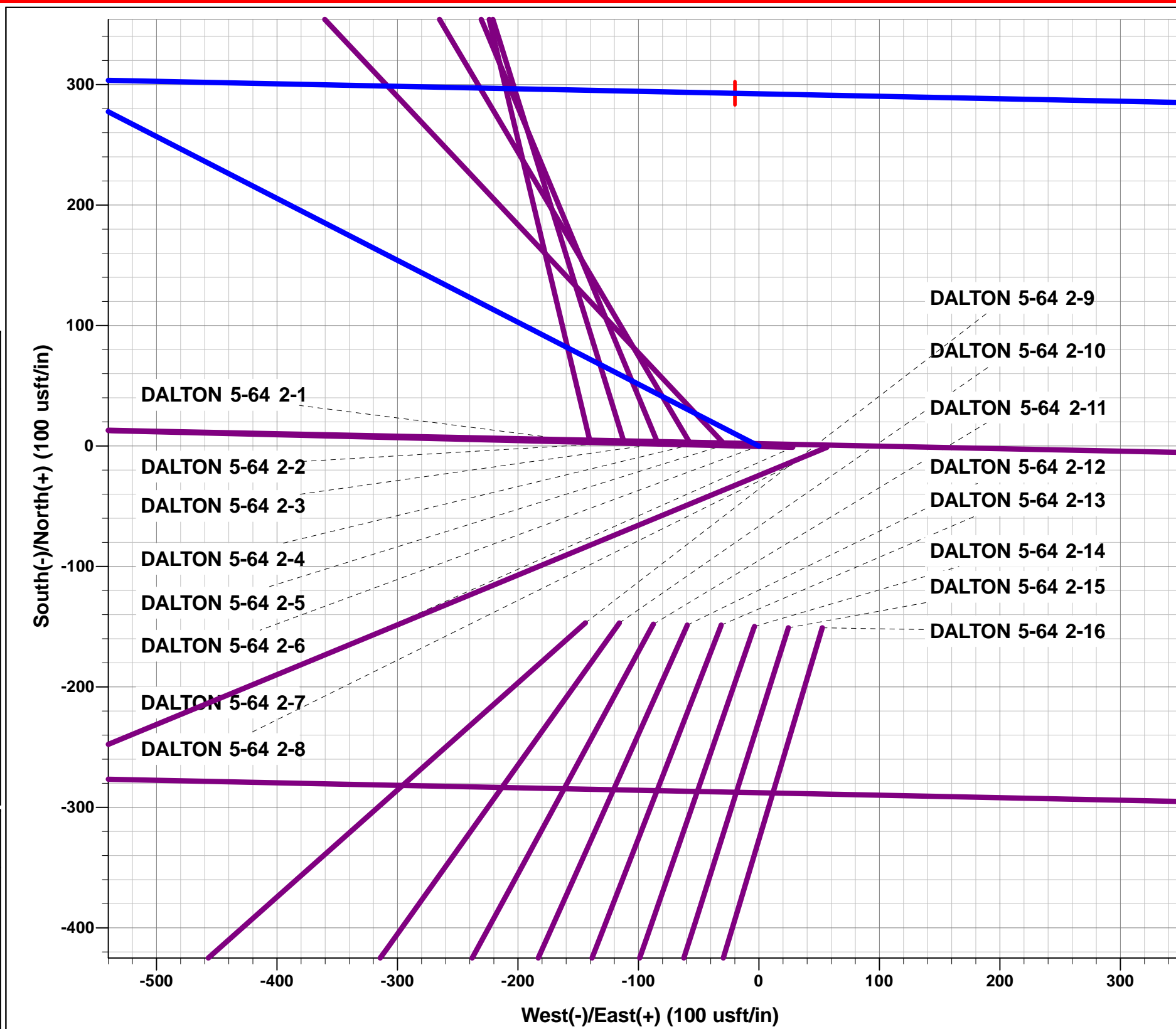
Project: ARAPAHOE COUNTY, COLORADO (NAD 83)  
Site: SW NW SEC. 2 T5S R64W 6th P.M.  
Well: DALTON 5-64 2-6  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

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: 2202ft FNL & 615ft FWL of Sec 2
600.0	600.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1195.6	1199.9	12.00	297.20	28.6	-55.7	-54.2	62.6	EOB TO 12° INC
3742.0	3803.3	12.00	297.20	276.0	-537.0	-522.9	603.8	END OF TANGENT
4337.6	4403.2	0.00	0.00	304.6	-592.7	-577.1	666.4	EOD TO VERTICAL
6965.6	7031.2	0.00	0.00	304.6	-592.7	-577.1	666.4	KOP (10°/100ft BUR)
7524.1	7802.2	77.10	91.18	295.4	-147.8	-133.2	1111.4	BPI: 1910ft FNL & 460ft FWL of Sec 2
7538.6	7931.2	90.00	91.18	292.8	-19.9	-5.5	1239.3	HZ LP: 1910ft FNL & 587.9ft FWL of Sec 2
7538.6	12161.4	90.00	91.18	205.8	4209.4	4214.4	5469.5	BHL: 1910ft FNL & 460ft FEL of Sec 2

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - DALTON 5-64 2-6	6965.6	304.6	-592.7	39.646400	-104.528636
BHL - DALTON 5-64 2-6	7538.6	205.8	4209.4	39.646128	-104.511583
HZ LP - DALTON 5-64 2-6	7538.6	292.8	-19.9	39.646368	-104.526602



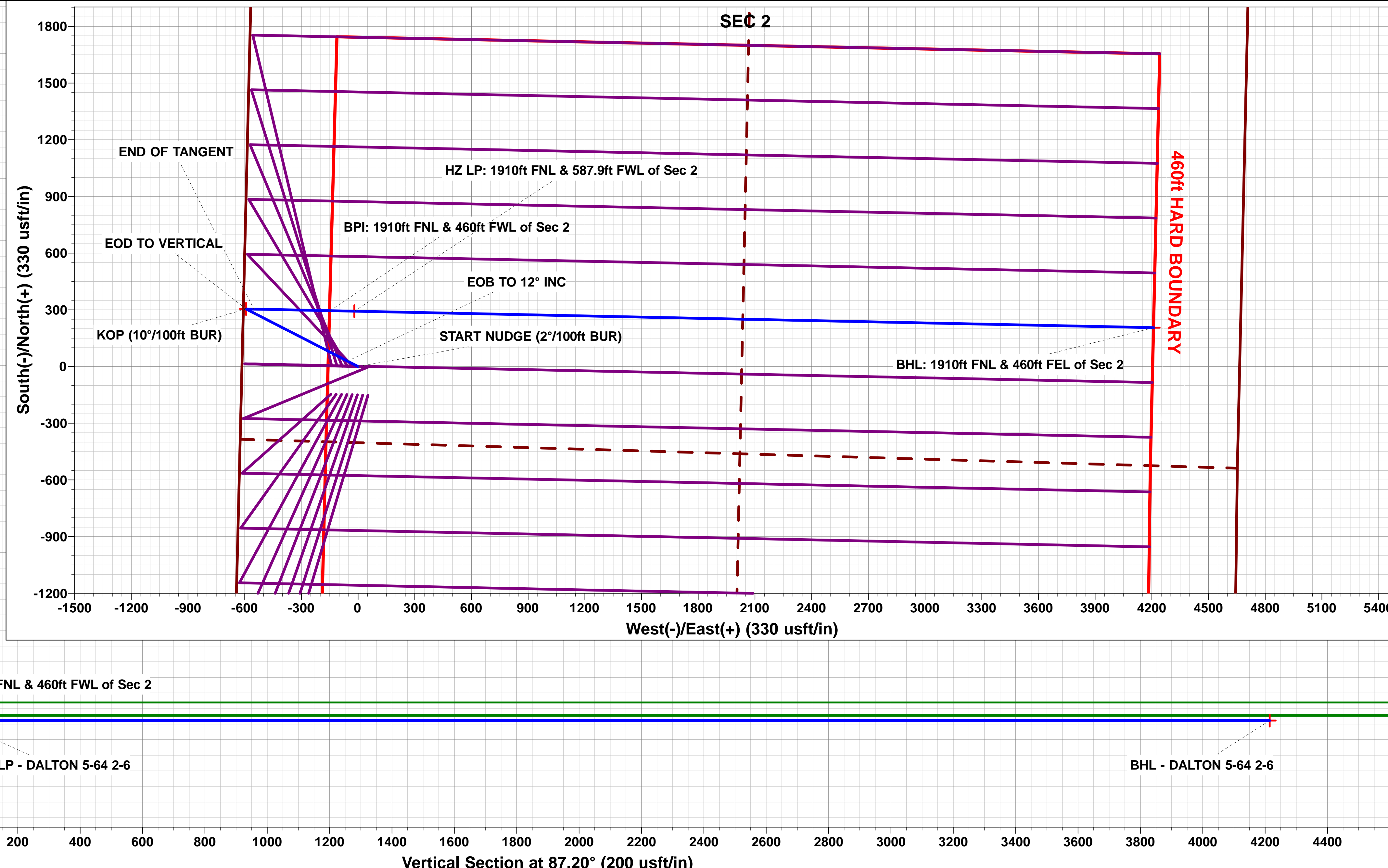
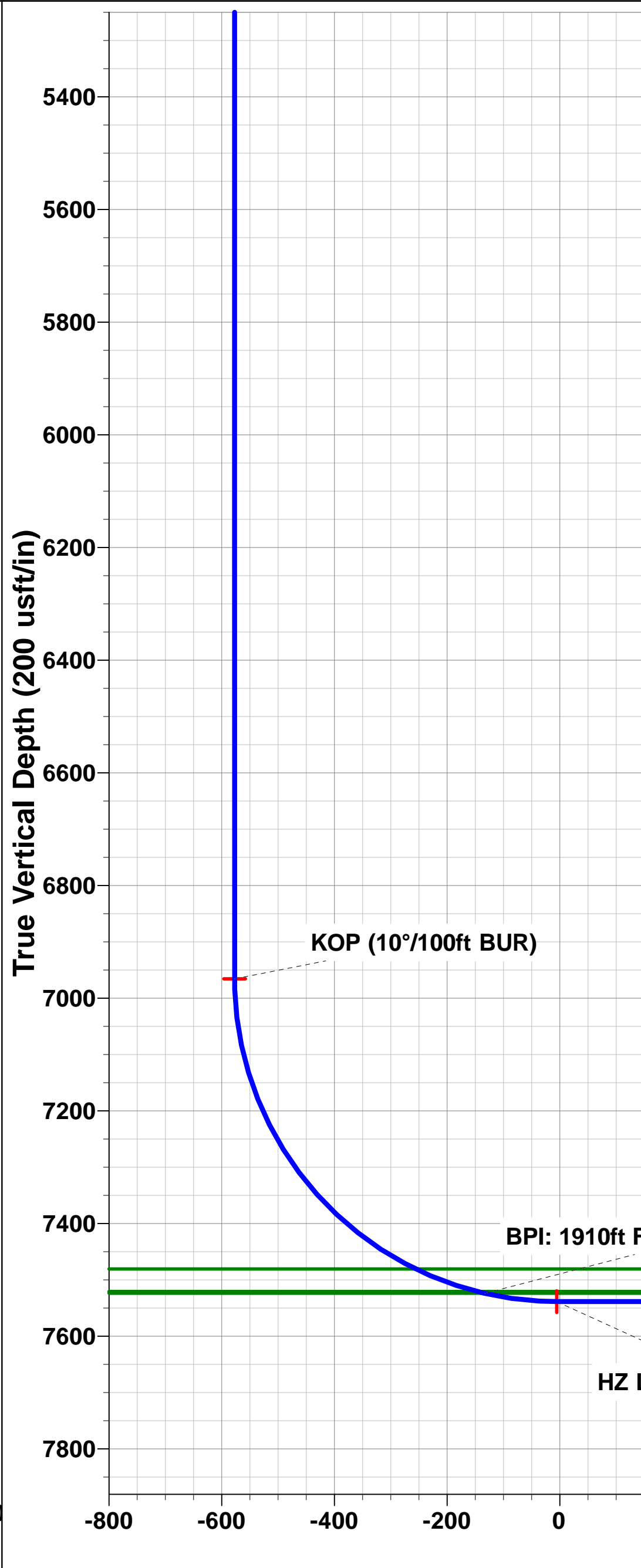
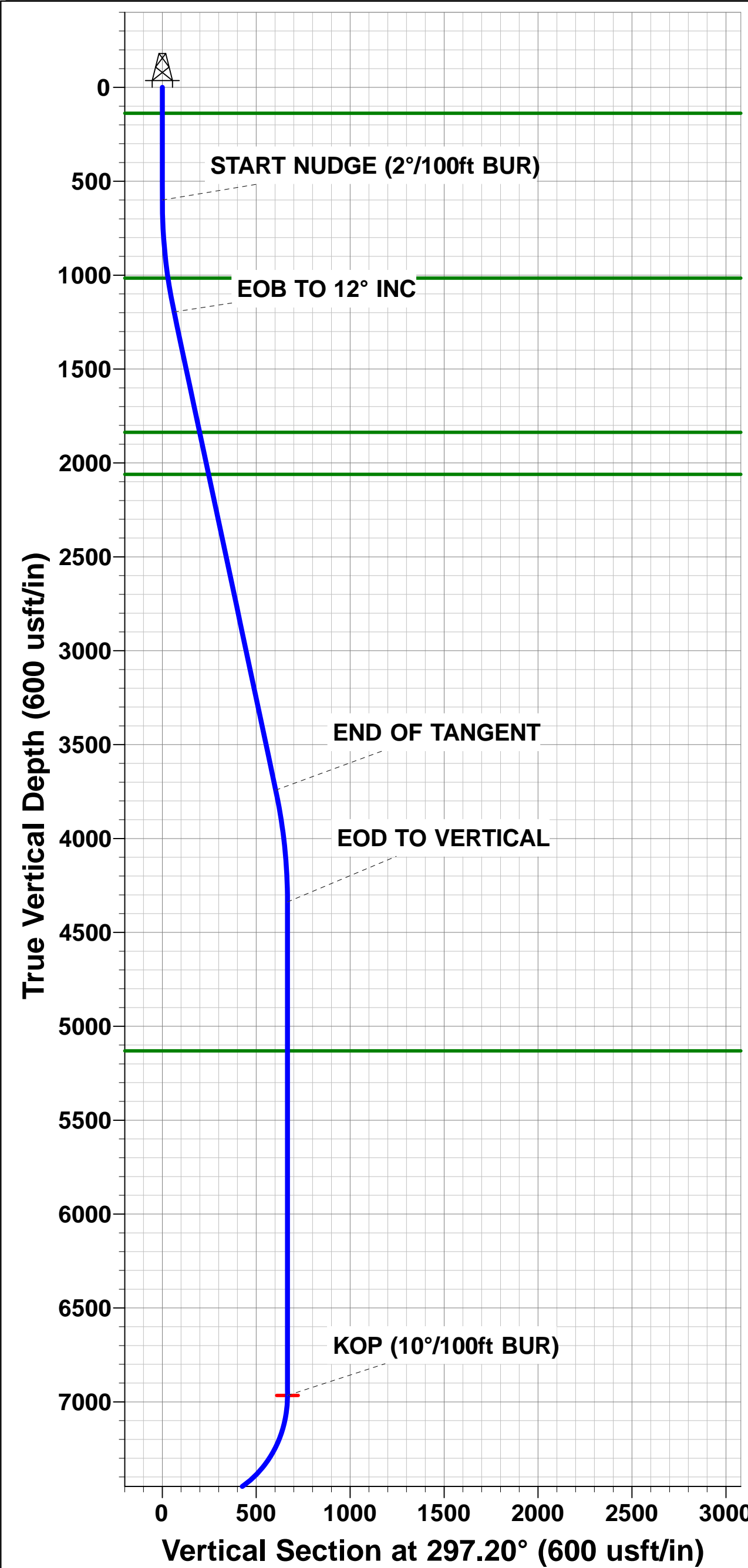
Azimuths to True North  
Magnetic North: 8.03°  
  
Magnetic Field  
Strength: 52029.4snT  
Dip Angle: 66.29°  
Date: 27/04/2017  
Model: IGRF2015

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
137.6	137.6	DENVER
1015.6	1017.1	UPPER ARAPAHOE
1836.6	1855.3	LARAMIE - FOX HILLS
2060.6	2084.3	PIERRE SHALE
5130.6	5196.2	SHANNON SANDSTONE MBR
7480.6	7671.3	SHARON SPRINGS SHALE
7520.6	7787.4	NIOBARRA FM
7523.6	7800.0	NIOBARRA A CHALK

PROPOSED LOCAL COORDINATES:

SHL: 2202ft FNL & 615ft FWL of Sec 2  
BEGIN PROD INT: 1910ft FNL & 460ft FWL of Sec 2  
HZ LP: 1910ft FNL & 587.9ft FWL of Sec 2  
BHL: 1910ft FNL & 460ft FEL of Sec 2



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well DALTON 5-64 2-6
<b>Company:</b>	BISON EXPLORATION	<b>TVD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
<b>Project:</b>	ARAPAHOE COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
<b>Site:</b>	SW NW SEC. 2 T5S R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	DALTON 5-64 2-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	ARAPAHOE 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 Central Zone		Using geodetic scale factor

<b>Site</b>	SW NW SEC. 2 T5S R64W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,661,495.36 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,273,984.42 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft
		<b>Latitude:</b>	39.645572
		<b>Longitude:</b>	-104.527028
		<b>Grid Convergence:</b>	0.61 °

<b>Well</b>	DALTON 5-64 2-6		
<b>Well Position</b>	<b>+N/-S</b>	-2.9 usft	<b>Northing:</b>
	<b>+E/-W</b>	140.0 usft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>
			usft
			<b>Latitude:</b>
			39.645564
			<b>Longitude:</b>
			-104.526531
			<b>Ground Level:</b>
			5,905.6 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>
	IGRF2015	27/04/2017	8.04	66.29	52,029

<b>Design</b>	PROPOSAL #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	7,538.6	0.0	0.0	87.20

<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
0.0	0.00	0.00	0.0	-5,930.6	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	-5,330.6	0.0	0.0	0.00	0.00	0.00	0.00	
1,199.9	12.00	297.20	1,195.6	-4,735.0	28.6	-55.7	2.00	2.00	0.00	297.20	
3,803.3	12.00	297.20	3,742.0	-2,188.6	276.0	-537.0	0.00	0.00	0.00	0.00	
4,403.2	0.00	0.00	4,337.6	-1,593.0	304.6	-592.7	2.00	-2.00	0.00	180.00	
7,031.2	0.00	0.00	6,965.6	1,035.0	304.6	-592.7	0.00	0.00	0.00	0.00	KOP - DALTON 5-6
7,931.2	90.00	91.18	7,538.6	1,608.0	292.8	-19.9	10.00	10.00	0.00	91.18	
12,161.4	90.00	91.18	7,538.6	1,608.0	205.8	4,209.4	0.00	0.00	0.00	-110.52	BHL - DALTON 5-6

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<b>Project:</b>	ARAPAHOE COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
<b>Site:</b>	SW NW SEC. 2 T5S R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	DALTON 5-64 2-6	<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: 2202ft FNL &amp; 615ft FWL of Sec 2</b>										
0.0	0.00	0.00	0.0	5,930.60	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	5,830.60	0.0	0.0	0.0	0.00	0.00	0.00
<b>DENVER</b>										
137.6	0.00	0.00	137.6	5,793.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	5,730.60	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	5,630.60	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	5,530.60	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	5,430.60	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
600.0	0.00	0.00	600.0	5,330.60	0.0	0.0	0.0	0.00	0.00	0.00
700.0	2.00	297.20	700.0	5,230.62	0.8	-1.6	-1.5	2.00	2.00	0.00
800.0	4.00	297.20	799.8	5,130.76	3.2	-6.2	-6.0	2.00	2.00	0.00
900.0	6.00	297.20	899.5	5,031.15	7.2	-14.0	-13.6	2.00	2.00	0.00
1,000.0	8.00	297.20	998.7	4,931.90	12.7	-24.8	-24.1	2.00	2.00	0.00
<b>UPPER ARAPAHOE</b>										
1,017.1	8.34	297.20	1,015.6	4,915.00	13.9	-27.0	-26.2	2.00	2.00	0.00
1,100.0	10.00	297.20	1,097.5	4,833.13	19.9	-38.7	-37.7	2.00	2.00	0.00
<b>EOB TO 12° INC</b>										
1,199.9	12.00	297.20	1,195.6	4,735.04	28.6	-55.7	-54.2	2.00	2.00	0.00
1,200.0	12.00	297.20	1,195.6	4,734.98	28.6	-55.7	-54.2	0.00	0.00	0.00
1,300.0	12.00	297.20	1,293.4	4,637.16	38.1	-74.2	-72.2	0.00	0.00	0.00
1,400.0	12.00	297.20	1,391.3	4,539.35	47.6	-92.7	-90.2	0.00	0.00	0.00
1,500.0	12.00	297.20	1,489.1	4,441.53	57.1	-111.2	-108.2	0.00	0.00	0.00
1,600.0	12.00	297.20	1,586.9	4,343.72	66.6	-129.6	-126.2	0.00	0.00	0.00
1,700.0	12.00	297.20	1,684.7	4,245.90	76.1	-148.1	-144.2	0.00	0.00	0.00
1,800.0	12.00	297.20	1,782.5	4,148.09	85.6	-166.6	-162.2	0.00	0.00	0.00
<b>LARAMIE - FOX HILLS</b>										
1,855.3	12.00	297.20	1,836.6	4,094.00	90.9	-176.8	-172.2	0.00	0.00	0.00
1,900.0	12.00	297.20	1,880.3	4,050.27	95.1	-185.1	-180.2	0.00	0.00	0.00
2,000.0	12.00	297.20	1,978.1	3,952.46	104.6	-203.6	-198.2	0.00	0.00	0.00
<b>PIERRE SHALE (BASE FOX HILLS)</b>										
2,084.3	12.00	297.20	2,060.6	3,870.00	112.6	-219.2	-213.4	0.00	0.00	0.00
2,100.0	12.00	297.20	2,076.0	3,854.64	114.1	-222.1	-216.3	0.00	0.00	0.00
2,200.0	12.00	297.20	2,173.8	3,756.82	123.6	-240.6	-234.3	0.00	0.00	0.00
2,300.0	12.00	297.20	2,271.6	3,659.01	133.1	-259.1	-252.3	0.00	0.00	0.00
2,400.0	12.00	297.20	2,369.4	3,561.19	142.6	-277.6	-270.3	0.00	0.00	0.00
2,500.0	12.00	297.20	2,467.2	3,463.38	152.1	-296.1	-288.3	0.00	0.00	0.00
2,600.0	12.00	297.20	2,565.0	3,365.56	161.6	-314.5	-306.3	0.00	0.00	0.00
2,700.0	12.00	297.20	2,662.9	3,267.75	171.2	-333.0	-324.3	0.00	0.00	0.00
2,800.0	12.00	297.20	2,760.7	3,169.93	180.7	-351.5	-342.3	0.00	0.00	0.00
2,900.0	12.00	297.20	2,858.5	3,072.12	190.2	-370.0	-360.3	0.00	0.00	0.00
3,000.0	12.00	297.20	2,956.3	2,974.30	199.7	-388.5	-378.3	0.00	0.00	0.00
3,100.0	12.00	297.20	3,054.1	2,876.49	209.2	-407.0	-396.3	0.00	0.00	0.00
3,200.0	12.00	297.20	3,151.9	2,778.67	218.7	-425.5	-414.3	0.00	0.00	0.00
3,300.0	12.00	297.20	3,249.7	2,680.86	228.2	-444.0	-432.3	0.00	0.00	0.00
3,400.0	12.00	297.20	3,347.6	2,583.04	237.7	-462.5	-450.3	0.00	0.00	0.00
3,500.0	12.00	297.20	3,445.4	2,485.23	247.2	-481.0	-468.3	0.00	0.00	0.00
3,600.0	12.00	297.20	3,543.2	2,387.41	256.7	-499.4	-486.3	0.00	0.00	0.00
3,700.0	12.00	297.20	3,641.0	2,289.60	266.2	-517.9	-504.3	0.00	0.00	0.00
3,800.0	12.00	297.20	3,738.8	2,191.78	275.7	-536.4	-522.3	0.00	0.00	0.00
<b>END OF TANGENT</b>										

# Planning Report



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<b>Company:</b>	BISON EXPLORATION	<b>TVD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
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<b>Site:</b>	SW NW SEC. 2 T5S R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	DALTON 5-64 2-6	<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>3,803.3</b>	<b>12.00</b>	<b>297.20</b>	<b>3,742.0</b>	<b>2,188.56</b>	<b>276.0</b>	<b>-537.0</b>	<b>-522.9</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
3,900.0	10.06	297.20	3,837.0	2,093.64	284.4	-553.5	-538.9	2.00	-2.00	0.00
4,000.0	8.06	297.20	3,935.7	1,994.90	291.7	-567.5	-552.6	2.00	-2.00	0.00
4,100.0	6.06	297.20	4,034.9	1,895.66	297.3	-578.4	-563.2	2.00	-2.00	0.00
4,200.0	4.06	297.20	4,134.5	1,796.06	301.3	-586.3	-570.9	2.00	-2.00	0.00
4,300.0	2.06	297.20	4,234.4	1,696.21	303.7	-591.0	-575.5	2.00	-2.00	0.00
4,400.0	0.06	297.20	4,334.4	1,596.23	304.6	-592.7	-577.1	2.00	-2.00	0.00
<b>EOD TO VERTICAL</b>										
<b>4,403.2</b>	<b>0.00</b>	<b>0.00</b>	<b>4,337.6</b>	<b>1,593.00</b>	<b>304.6</b>	<b>-592.7</b>	<b>-577.1</b>	<b>2.00</b>	<b>-2.00</b>	<b>0.00</b>
4,500.0	0.00	0.00	4,434.4	1,496.23	304.6	-592.7	-577.1	0.00	0.00	0.00
4,600.0	0.00	0.00	4,534.4	1,396.23	304.6	-592.7	-577.1	0.00	0.00	0.00
4,700.0	0.00	0.00	4,634.4	1,296.23	304.6	-592.7	-577.1	0.00	0.00	0.00
4,800.0	0.00	0.00	4,734.4	1,196.23	304.6	-592.7	-577.1	0.00	0.00	0.00
4,900.0	0.00	0.00	4,834.4	1,096.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,000.0	0.00	0.00	4,934.4	996.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,100.0	0.00	0.00	5,034.4	896.23	304.6	-592.7	-577.1	0.00	0.00	0.00
<b>SHANNON SANDSTONE MBR</b>										
<b>5,196.2</b>	<b>0.00</b>	<b>0.00</b>	<b>5,130.6</b>	<b>800.00</b>	<b>304.6</b>	<b>-592.7</b>	<b>-577.1</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,200.0	0.00	0.00	5,134.4	796.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,300.0	0.00	0.00	5,234.4	696.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,400.0	0.00	0.00	5,334.4	596.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,500.0	0.00	0.00	5,434.4	496.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,600.0	0.00	0.00	5,534.4	396.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,700.0	0.00	0.00	5,634.4	296.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,800.0	0.00	0.00	5,734.4	196.23	304.6	-592.7	-577.1	0.00	0.00	0.00
5,900.0	0.00	0.00	5,834.4	96.23	304.6	-592.7	-577.1	0.00	0.00	0.00
6,000.0	0.00	0.00	5,934.4	-3.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,100.0	0.00	0.00	6,034.4	-103.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,200.0	0.00	0.00	6,134.4	-203.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,300.0	0.00	0.00	6,234.4	-303.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,400.0	0.00	0.00	6,334.4	-403.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,500.0	0.00	0.00	6,434.4	-503.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,534.4	-603.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,700.0	0.00	0.00	6,634.4	-703.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,734.4	-803.77	304.6	-592.7	-577.1	0.00	0.00	0.00
6,900.0	0.00	0.00	6,834.4	-903.77	304.6	-592.7	-577.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,934.4	-1,003.77	304.6	-592.7	-577.1	0.00	0.00	0.00
<b>KOP (10°/100ft BUR)</b>										
<b>7,031.2</b>	<b>0.00</b>	<b>0.00</b>	<b>6,965.6</b>	<b>-1,035.00</b>	<b>304.6</b>	<b>-592.7</b>	<b>-577.1</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
7,100.0	6.88	91.18	7,034.2	-1,103.61	304.5	-588.6	-573.0	10.00	10.00	0.00
7,200.0	16.88	91.18	7,131.9	-1,201.34	304.1	-568.0	-552.5	10.00	10.00	0.00
7,300.0	26.88	91.18	7,224.6	-1,294.02	303.3	-530.8	-515.4	10.00	10.00	0.00
7,400.0	36.88	91.18	7,309.4	-1,378.83	302.2	-478.1	-462.8	10.00	10.00	0.00
7,500.0	46.88	91.18	7,383.8	-1,453.20	300.9	-411.4	-396.3	10.00	10.00	0.00
7,600.0	56.88	91.18	7,445.5	-1,514.85	299.2	-332.9	-317.9	10.00	10.00	0.00
<b>SHARON SPRINGS SHALE</b>										
<b>7,671.3</b>	<b>64.01</b>	<b>91.18</b>	<b>7,480.6</b>	<b>-1,550.00</b>	<b>298.0</b>	<b>-270.9</b>	<b>-256.0</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
7,700.0	66.88	91.18	7,492.5	-1,561.93	297.4	-244.8	-230.0	10.00	10.00	0.00
<b>NIORARA FM</b>										
<b>7,787.4</b>	<b>75.62</b>	<b>91.18</b>	<b>7,520.6</b>	<b>-1,590.00</b>	<b>295.7</b>	<b>-162.2</b>	<b>-147.5</b>	<b>10.00</b>	<b>10.00</b>	<b>0.00</b>
<b>NIORARA A CHALK</b>										
<b>7,800.0</b>	<b>76.88</b>	<b>91.18</b>	<b>7,523.6</b>	<b>-1,593.00</b>	<b>295.5</b>	<b>-149.9</b>	<b>-135.3</b>	<b>9.98</b>	<b>9.98</b>	<b>0.00</b>



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well DALTON 5-64 2-6
<b>Company:</b>	BISON EXPLORATION	<b>TVD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
<b>Project:</b>	ARAPAHOE COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
<b>Site:</b>	SW NW SEC. 2 T5S R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	DALTON 5-64 2-6	<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>BPI: 1910ft FNL &amp; 460ft FWL of Sec 2</b>										
7,802.2	77.10	91.18	7,524.1	-1,593.49	295.4	-147.8	-133.2	10.09	10.09	0.00
7,900.0	86.88	91.18	7,537.7	-1,607.11	293.4	-51.1	-36.7	10.00	10.00	0.00
<b>HZ LP: 1910ft FNL &amp; 587.9ft FWL of Sec 2</b>										
7,931.2	90.00	91.18	7,538.6	-1,607.96	292.8	-19.9	-5.5	10.00	10.00	0.00
8,000.0	90.00	91.18	7,538.6	-1,607.96	291.4	48.9	63.1	0.00	0.00	0.00
8,100.0	90.00	91.18	7,538.6	-1,607.96	289.3	148.9	162.8	0.00	0.00	0.00
8,200.0	90.00	91.18	7,538.6	-1,607.96	287.3	248.9	262.6	0.00	0.00	0.00
8,300.0	90.00	91.18	7,538.6	-1,607.96	285.2	348.8	362.3	0.00	0.00	0.00
8,400.0	90.00	91.18	7,538.6	-1,607.96	283.1	448.8	462.1	0.00	0.00	0.00
8,500.0	90.00	91.18	7,538.6	-1,607.96	281.1	548.8	561.9	0.00	0.00	0.00
8,600.0	90.00	91.18	7,538.6	-1,607.96	279.0	648.8	661.6	0.00	0.00	0.00
8,700.0	90.00	91.18	7,538.6	-1,607.96	277.0	748.7	761.4	0.00	0.00	0.00
8,800.0	90.00	91.18	7,538.6	-1,607.96	274.9	848.7	861.1	0.00	0.00	0.00
8,900.0	90.00	91.18	7,538.6	-1,607.96	272.9	948.7	960.9	0.00	0.00	0.00
9,000.0	90.00	91.18	7,538.6	-1,607.96	270.8	1,048.7	1,060.7	0.00	0.00	0.00
9,100.0	90.00	91.18	7,538.6	-1,607.96	268.7	1,148.7	1,160.4	0.00	0.00	0.00
9,200.0	90.00	91.18	7,538.6	-1,607.96	266.7	1,248.6	1,260.2	0.00	0.00	0.00
9,300.0	90.00	91.18	7,538.6	-1,607.96	264.6	1,348.6	1,359.9	0.00	0.00	0.00
9,400.0	90.00	91.18	7,538.6	-1,607.96	262.6	1,448.6	1,459.7	0.00	0.00	0.00
9,500.0	90.00	91.18	7,538.6	-1,607.96	260.5	1,548.6	1,559.4	0.00	0.00	0.00
9,600.0	90.00	91.18	7,538.6	-1,607.96	258.5	1,648.6	1,659.2	0.00	0.00	0.00
9,700.0	90.00	91.18	7,538.6	-1,607.97	256.4	1,748.5	1,759.0	0.00	0.00	0.00
9,800.0	90.00	91.18	7,538.6	-1,607.97	254.3	1,848.5	1,858.7	0.00	0.00	0.00
9,900.0	90.00	91.18	7,538.6	-1,607.97	252.3	1,948.5	1,958.5	0.00	0.00	0.00
10,000.0	90.00	91.18	7,538.6	-1,607.97	250.2	2,048.5	2,058.2	0.00	0.00	0.00
10,100.0	90.00	91.18	7,538.6	-1,607.97	248.2	2,148.4	2,158.0	0.00	0.00	0.00
10,200.0	90.00	91.18	7,538.6	-1,607.97	246.1	2,248.4	2,257.8	0.00	0.00	0.00
10,300.0	90.00	91.18	7,538.6	-1,607.97	244.1	2,348.4	2,357.5	0.00	0.00	0.00
10,400.0	90.00	91.18	7,538.6	-1,607.97	242.0	2,448.4	2,457.3	0.00	0.00	0.00
10,500.0	90.00	91.18	7,538.6	-1,607.97	239.9	2,548.4	2,557.0	0.00	0.00	0.00
10,600.0	90.00	91.18	7,538.6	-1,607.97	237.9	2,648.3	2,656.8	0.00	0.00	0.00
10,700.0	90.00	91.18	7,538.6	-1,607.98	235.8	2,748.3	2,756.6	0.00	0.00	0.00
10,800.0	90.00	91.18	7,538.6	-1,607.98	233.8	2,848.3	2,856.3	0.00	0.00	0.00
10,900.0	90.00	91.18	7,538.6	-1,607.98	231.7	2,948.3	2,956.1	0.00	0.00	0.00
11,000.0	90.00	91.18	7,538.6	-1,607.98	229.7	3,048.3	3,055.8	0.00	0.00	0.00
11,100.0	90.00	91.18	7,538.6	-1,607.98	227.6	3,148.2	3,155.6	0.00	0.00	0.00
11,200.0	90.00	91.18	7,538.6	-1,607.98	225.6	3,248.2	3,255.4	0.00	0.00	0.00
11,300.0	90.00	91.18	7,538.6	-1,607.98	223.5	3,348.2	3,355.1	0.00	0.00	0.00
11,400.0	90.00	91.18	7,538.6	-1,607.99	221.4	3,448.2	3,454.9	0.00	0.00	0.00
11,500.0	90.00	91.18	7,538.6	-1,607.99	219.4	3,548.2	3,554.6	0.00	0.00	0.00
11,600.0	90.00	91.18	7,538.6	-1,607.99	217.3	3,648.1	3,654.4	0.00	0.00	0.00
11,700.0	90.00	91.18	7,538.6	-1,607.99	215.3	3,748.1	3,754.2	0.00	0.00	0.00
11,800.0	90.00	91.18	7,538.6	-1,607.99	213.2	3,848.1	3,853.9	0.00	0.00	0.00
11,900.0	90.00	91.18	7,538.6	-1,607.99	211.2	3,948.1	3,953.7	0.00	0.00	0.00
12,000.0	90.00	91.18	7,538.6	-1,608.00	209.1	4,048.0	4,053.4	0.00	0.00	0.00
12,100.0	90.00	91.18	7,538.6	-1,608.00	207.1	4,148.0	4,153.2	0.00	0.00	0.00
<b>BHL: 1910ft FNL &amp; 460ft FEL of Sec 2</b>										
12,161.4	90.00	91.18	7,538.6	-1,608.00	205.8	4,209.4	4,214.4	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well DALTON 5-64 2-6
<b>Company:</b>	BISON EXPLORATION	<b>TVD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
<b>Project:</b>	ARAPAHOE COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 5930.6usft (Original Well Elev)
<b>Site:</b>	SW NW SEC. 2 T5S R64W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	DALTON 5-64 2-6	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

Formations					
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
137.6	137.6	DENVER			
1,017.1	1,015.6	UPPER ARAPAHOE			
1,855.3	1,836.6	LARAMIE - FOX HILLS			
2,084.3	2,060.6	PIERRE SHALE (BASE FOX HILLS			
5,196.2	5,130.6	SHANNON SANDSTONE MBR			
7,671.3	7,480.6	SHARON SPRINGS SHALE			
7,787.4	7,520.6	NIOBRARA FM			
7,800.0	7,523.6	NIOBRARA A 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: 2202ft FNL & 615ft FWL of Sec 2
600.0	600.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,199.9	1,195.6	28.6	-55.7	EOB TO 12° INC
3,803.3	3,742.0	276.0	-537.0	END OF TANGENT
4,403.2	4,337.6	304.6	-592.7	EOD TO VERTICAL
7,031.2	6,965.6	304.6	-592.7	KOP (10°/100ft BUR)
7,802.2	7,524.1	295.4	-147.8	BPI: 1910ft FNL & 460ft FWL of Sec 2
7,931.2	7,538.6	292.8	-19.9	HZ LP: 1910ft FNL & 587.9ft FWL of Sec 2
12,161.4	7,538.6	205.8	4,209.4	BHL: 1910ft FNL & 460ft FEL of Sec 2