

# **ConocoPhillips RBU Gold Data\_Niobrara**

**Niobrara - CO Northern Zone**

**Bear**

**Bear 3-65 22-23 3AH**

**Bear 3-65 22-23 3AH**

**Plan: Bear 3-65 22-23 3AH**

## **Standard Planning Report**

**25 October, 2016**

# ConocoPhillips

## Planning Report

<b>Database:</b>	EDM Central Planning	<b>Local Co-ordinate Reference:</b>	Well Bear 3-65 22-23 3AH
<b>Company:</b>	ConocoPhillips RBU Gold Data_Niobrara	<b>TVD Reference:</b>	24' RKB @ 5593.90ft
<b>Project:</b>	Niobrara - CO Northern Zone	<b>MD Reference:</b>	24' RKB @ 5593.90ft
<b>Site:</b>	Bear	<b>North Reference:</b>	True
<b>Well:</b>	Bear 3-65 22-23 3AH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Bear 3-65 22-23 3AH		
<b>Design:</b>	Bear 3-65 22-23 3AH		

<b>Project</b>	Niobrara - CO Northern Zone, Adams County, CO, Definitive (Gold) Database		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	Bear			
<b>Site Position:</b>		<b>Northing:</b>	1,165,129.402 usft	<b>Latitude:</b> 39° 47' 0.870 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,236,258.060 usft	<b>Longitude:</b> 104° 39' 33.620 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.54 °

<b>Well</b>	Bear 3-65 22-23 3AH			
<b>Well Position</b>	<b>+N/-S</b>	-3,826.89 ft	<b>Northing:</b>	1,161,307.975 usft
	<b>+E/-W</b>	553.62 ft	<b>Easting:</b>	3,236,847.928 usft
<b>Position Uncertainty</b>		2.00 ft	<b>Wellhead Elevation:</b>	0.00 ft
			<b>Ground Level:</b>	5,569.90 ft

<b>Wellbore</b>	Bear 3-65 22-23 3AH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2016	10/25/2016	8.34	66.45	52,147

<b>Design</b>	Bear 3-65 22-23 3AH			
<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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	83.16

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,269.00	0.00	0.00	2,269.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,002.48	11.00	359.87	2,997.98	70.21	-0.16	1.50	1.50	0.00	359.87	
7,363.46	11.00	359.87	7,278.81	902.48	-2.11	0.00	0.00	0.00	0.00	
8,273.00	90.85	90.47	7,842.00	1,008.85	580.11	10.00	8.78	9.96	90.43	Bear 3-65 22-23 3AH
15,594.58	90.85	90.47	7,733.00	948.37	7,900.64	0.00	0.00	0.00	0.00	Bear 3-65 22-23 3AH

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<b>Project:</b>	Niobrara - CO Northern Zone	<b>MD Reference:</b>	24' RKB @ 5593.90ft
<b>Site:</b>	Bear	<b>North Reference:</b>	True
<b>Well:</b>	Bear 3-65 22-23 3AH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Bear 3-65 22-23 3AH		
<b>Design:</b>	Bear 3-65 22-23 3AH		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,269.00	0.00	0.00	2,269.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.47	359.87	2,300.00	0.13	0.00	0.01	1.50	1.50	0.00
2,400.00	1.97	359.87	2,399.97	2.25	-0.01	0.26	1.50	1.50	0.00
2,500.00	3.47	359.87	2,499.86	6.98	-0.02	0.82	1.50	1.50	0.00
2,600.00	4.97	359.87	2,599.59	14.33	-0.03	1.67	1.50	1.50	0.00
2,700.00	6.47	359.87	2,699.09	24.29	-0.06	2.84	1.50	1.50	0.00
2,800.00	7.97	359.87	2,798.29	36.85	-0.09	4.31	1.50	1.50	0.00
2,900.00	9.47	359.87	2,897.13	52.00	-0.12	6.08	1.50	1.50	0.00
3,002.48	11.00	359.87	2,997.98	70.21	-0.16	8.20	1.50	1.50	0.00
3,100.00	11.00	359.87	3,093.71	88.82	-0.21	10.38	0.00	0.00	0.00
3,200.00	11.00	359.87	3,191.87	107.90	-0.25	12.61	0.00	0.00	0.00
3,300.00	11.00	359.87	3,290.03	126.99	-0.30	14.84	0.00	0.00	0.00
3,400.00	11.00	359.87	3,388.19	146.07	-0.34	17.07	0.00	0.00	0.00
3,500.00	11.00	359.87	3,486.36	165.16	-0.39	19.30	0.00	0.00	0.00
3,600.00	11.00	359.87	3,584.52	184.24	-0.43	21.53	0.00	0.00	0.00
3,700.00	11.00	359.87	3,682.68	203.33	-0.48	23.76	0.00	0.00	0.00
3,800.00	11.00	359.87	3,780.84	222.41	-0.52	25.99	0.00	0.00	0.00
3,900.00	11.00	359.87	3,879.00	241.49	-0.57	28.22	0.00	0.00	0.00
4,000.00	11.00	359.87	3,977.17	260.58	-0.61	30.45	0.00	0.00	0.00
4,100.00	11.00	359.87	4,075.33	279.66	-0.65	32.68	0.00	0.00	0.00
4,200.00	11.00	359.87	4,173.49	298.75	-0.70	34.91	0.00	0.00	0.00
4,300.00	11.00	359.87	4,271.65	317.83	-0.74	37.14	0.00	0.00	0.00
4,400.00	11.00	359.87	4,369.81	336.92	-0.79	39.37	0.00	0.00	0.00
4,500.00	11.00	359.87	4,467.98	356.00	-0.83	41.60	0.00	0.00	0.00
4,600.00	11.00	359.87	4,566.14	375.09	-0.88	43.83	0.00	0.00	0.00
4,700.00	11.00	359.87	4,664.30	394.17	-0.92	46.06	0.00	0.00	0.00
4,800.00	11.00	359.87	4,762.46	413.25	-0.97	48.29	0.00	0.00	0.00
4,900.00	11.00	359.87	4,860.62	432.34	-1.01	50.52	0.00	0.00	0.00
5,000.00	11.00	359.87	4,958.79	451.42	-1.06	52.75	0.00	0.00	0.00
5,100.00	11.00	359.87	5,056.95	470.51	-1.10	54.98	0.00	0.00	0.00
5,200.00	11.00	359.87	5,155.11	489.59	-1.15	57.21	0.00	0.00	0.00

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<b>Well:</b>	Bear 3-65 22-23 3AH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Bear 3-65 22-23 3AH		
<b>Design:</b>	Bear 3-65 22-23 3AH		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	11.00	359.87	5,253.27	508.68	-1.19	59.44	0.00	0.00	0.00
5,400.00	11.00	359.87	5,351.43	527.76	-1.24	61.67	0.00	0.00	0.00
5,500.00	11.00	359.87	5,449.60	546.85	-1.28	63.90	0.00	0.00	0.00
5,600.00	11.00	359.87	5,547.76	565.93	-1.33	66.13	0.00	0.00	0.00
5,700.00	11.00	359.87	5,645.92	585.02	-1.37	68.36	0.00	0.00	0.00
5,800.00	11.00	359.87	5,744.08	604.10	-1.41	70.59	0.00	0.00	0.00
5,900.00	11.00	359.87	5,842.24	623.18	-1.46	72.82	0.00	0.00	0.00
6,000.00	11.00	359.87	5,940.41	642.27	-1.50	75.05	0.00	0.00	0.00
6,100.00	11.00	359.87	6,038.57	661.35	-1.55	77.28	0.00	0.00	0.00
6,200.00	11.00	359.87	6,136.73	680.44	-1.59	79.51	0.00	0.00	0.00
6,300.00	11.00	359.87	6,234.89	699.52	-1.64	81.74	0.00	0.00	0.00
6,400.00	11.00	359.87	6,333.05	718.61	-1.68	83.97	0.00	0.00	0.00
6,500.00	11.00	359.87	6,431.22	737.69	-1.73	86.20	0.00	0.00	0.00
6,600.00	11.00	359.87	6,529.38	756.78	-1.77	88.43	0.00	0.00	0.00
6,700.00	11.00	359.87	6,627.54	775.86	-1.82	90.66	0.00	0.00	0.00
6,800.00	11.00	359.87	6,725.70	794.95	-1.86	92.89	0.00	0.00	0.00
6,900.00	11.00	359.87	6,823.86	814.03	-1.91	95.12	0.00	0.00	0.00
7,000.00	11.00	359.87	6,922.03	833.11	-1.95	97.35	0.00	0.00	0.00
7,100.00	11.00	359.87	7,020.19	852.20	-2.00	99.58	0.00	0.00	0.00
7,200.00	11.00	359.87	7,118.35	871.28	-2.04	101.82	0.00	0.00	0.00
7,300.00	11.00	359.87	7,216.51	890.37	-2.08	104.05	0.00	0.00	0.00
7,363.46	11.00	359.87	7,278.81	902.48	-2.11	105.46	0.00	0.00	0.00
7,400.00	11.56	18.41	7,314.65	909.44	-0.97	107.43	10.00	1.53	50.75
7,450.00	13.91	38.60	7,363.44	918.90	4.37	113.86	10.00	4.71	40.39
7,500.00	17.40	51.97	7,411.60	928.21	14.02	124.54	10.00	6.98	26.74
7,550.00	21.48	60.71	7,458.74	937.30	27.90	139.41	10.00	8.16	17.47
7,600.00	25.88	66.68	7,504.53	946.11	45.92	158.35	10.00	8.79	11.95
7,650.00	30.45	70.99	7,548.60	954.56	67.93	181.21	10.00	9.14	8.63
7,700.00	35.12	74.26	7,590.63	962.59	93.77	207.82	10.00	9.35	6.54
7,750.00	39.87	76.85	7,630.29	970.14	123.24	237.98	10.00	9.49	5.17
7,800.00	44.67	78.96	7,667.28	977.16	156.12	271.46	10.00	9.59	4.23
7,850.00	49.49	80.75	7,701.32	983.58	192.15	308.00	10.00	9.65	3.57
7,900.00	54.34	82.29	7,732.15	989.37	231.06	347.33	10.00	9.70	3.09
7,950.00	59.21	83.66	7,759.54	994.47	272.56	389.14	10.00	9.74	2.73
8,000.00	64.09	84.89	7,783.28	998.85	316.33	433.12	10.00	9.76	2.47
8,050.00	68.98	86.02	7,803.18	1,002.47	362.04	478.94	10.00	9.78	2.27
8,100.00	73.88	87.09	7,819.10	1,005.31	409.34	526.23	10.00	9.80	2.13
8,150.00	78.78	88.10	7,830.91	1,007.35	457.86	574.66	10.00	9.81	2.02
8,200.00	83.69	89.08	7,838.53	1,008.56	507.25	623.84	10.00	9.81	1.96
8,250.00	88.60	90.03	7,841.89	1,008.95	557.12	673.40	10.00	9.82	1.92
8,273.00	90.85	90.47	7,842.00	1,008.85	580.11	696.21	10.00	9.82	1.91
8,300.00	90.85	90.47	7,841.60	1,008.62	607.11	722.99	0.00	0.00	0.00
8,400.00	90.85	90.47	7,840.11	1,007.80	707.10	822.17	0.00	0.00	0.00
8,500.00	90.85	90.47	7,838.62	1,006.97	807.08	921.34	0.00	0.00	0.00
8,600.00	90.85	90.47	7,837.13	1,006.15	907.07	1,020.52	0.00	0.00	0.00
8,700.00	90.85	90.47	7,835.64	1,005.32	1,007.05	1,119.69	0.00	0.00	0.00
8,800.00	90.85	90.47	7,834.15	1,004.49	1,107.04	1,218.87	0.00	0.00	0.00
8,900.00	90.85	90.47	7,832.67	1,003.67	1,207.03	1,318.04	0.00	0.00	0.00
9,000.00	90.85	90.47	7,831.18	1,002.84	1,307.01	1,417.22	0.00	0.00	0.00
9,100.00	90.85	90.47	7,829.69	1,002.02	1,407.00	1,516.39	0.00	0.00	0.00
9,200.00	90.85	90.47	7,828.20	1,001.19	1,506.98	1,615.56	0.00	0.00	0.00
9,300.00	90.85	90.47	7,826.71	1,000.36	1,606.97	1,714.74	0.00	0.00	0.00
9,400.00	90.85	90.47	7,825.22	999.54	1,706.95	1,813.91	0.00	0.00	0.00
9,500.00	90.85	90.47	7,823.73	998.71	1,806.94	1,913.09	0.00	0.00	0.00

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<b>Project:</b>	Niobrara - CO Northern Zone	<b>MD Reference:</b>	24' RKB @ 5593.90ft
<b>Site:</b>	Bear	<b>North Reference:</b>	True
<b>Well:</b>	Bear 3-65 22-23 3AH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Bear 3-65 22-23 3AH		
<b>Design:</b>	Bear 3-65 22-23 3AH		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,600.00	90.85	90.47	7,822.24	997.89	1,906.92	2,012.26	0.00	0.00	0.00
9,700.00	90.85	90.47	7,820.76	997.06	2,006.91	2,111.44	0.00	0.00	0.00
9,800.00	90.85	90.47	7,819.27	996.23	2,106.89	2,210.61	0.00	0.00	0.00
9,900.00	90.85	90.47	7,817.78	995.41	2,206.88	2,309.78	0.00	0.00	0.00
10,000.00	90.85	90.47	7,816.29	994.58	2,306.87	2,408.96	0.00	0.00	0.00
10,100.00	90.85	90.47	7,814.80	993.76	2,406.85	2,508.13	0.00	0.00	0.00
10,200.00	90.85	90.47	7,813.31	992.93	2,506.84	2,607.31	0.00	0.00	0.00
10,300.00	90.85	90.47	7,811.82	992.10	2,606.82	2,706.48	0.00	0.00	0.00
10,400.00	90.85	90.47	7,810.33	991.28	2,706.81	2,805.66	0.00	0.00	0.00
10,500.00	90.85	90.47	7,808.85	990.45	2,806.79	2,904.83	0.00	0.00	0.00
10,600.00	90.85	90.47	7,807.36	989.63	2,906.78	3,004.01	0.00	0.00	0.00
10,700.00	90.85	90.47	7,805.87	988.80	3,006.76	3,103.18	0.00	0.00	0.00
10,800.00	90.85	90.47	7,804.38	987.97	3,106.75	3,202.35	0.00	0.00	0.00
10,900.00	90.85	90.47	7,802.89	987.15	3,206.74	3,301.53	0.00	0.00	0.00
11,000.00	90.85	90.47	7,801.40	986.32	3,306.72	3,400.70	0.00	0.00	0.00
11,100.00	90.85	90.47	7,799.91	985.50	3,406.71	3,499.88	0.00	0.00	0.00
11,200.00	90.85	90.47	7,798.42	984.67	3,506.69	3,599.05	0.00	0.00	0.00
11,300.00	90.85	90.47	7,796.94	983.84	3,606.68	3,698.23	0.00	0.00	0.00
11,400.00	90.85	90.47	7,795.45	983.02	3,706.66	3,797.40	0.00	0.00	0.00
11,500.00	90.85	90.47	7,793.96	982.19	3,806.65	3,896.58	0.00	0.00	0.00
11,600.00	90.85	90.47	7,792.47	981.37	3,906.63	3,995.75	0.00	0.00	0.00
11,700.00	90.85	90.47	7,790.98	980.54	4,006.62	4,094.92	0.00	0.00	0.00
11,800.00	90.85	90.47	7,789.49	979.71	4,106.60	4,194.10	0.00	0.00	0.00
11,900.00	90.85	90.47	7,788.00	978.89	4,206.59	4,293.27	0.00	0.00	0.00
12,000.00	90.85	90.47	7,786.51	978.06	4,306.58	4,392.45	0.00	0.00	0.00
12,100.00	90.85	90.47	7,785.03	977.24	4,406.56	4,491.62	0.00	0.00	0.00
12,200.00	90.85	90.47	7,783.54	976.41	4,506.55	4,590.80	0.00	0.00	0.00
12,300.00	90.85	90.47	7,782.05	975.58	4,606.53	4,689.97	0.00	0.00	0.00
12,400.00	90.85	90.47	7,780.56	974.76	4,706.52	4,789.15	0.00	0.00	0.00
12,500.00	90.85	90.47	7,779.07	973.93	4,806.50	4,888.32	0.00	0.00	0.00
12,600.00	90.85	90.47	7,777.58	973.11	4,906.49	4,987.49	0.00	0.00	0.00
12,700.00	90.85	90.47	7,776.09	972.28	5,006.47	5,086.67	0.00	0.00	0.00
12,800.00	90.85	90.47	7,774.60	971.45	5,106.46	5,185.84	0.00	0.00	0.00
12,900.00	90.85	90.47	7,773.12	970.63	5,206.45	5,285.02	0.00	0.00	0.00
13,000.00	90.85	90.47	7,771.63	969.80	5,306.43	5,384.19	0.00	0.00	0.00
13,100.00	90.85	90.47	7,770.14	968.98	5,406.42	5,483.37	0.00	0.00	0.00
13,200.00	90.85	90.47	7,768.65	968.15	5,506.40	5,582.54	0.00	0.00	0.00
13,300.00	90.85	90.47	7,767.16	967.32	5,606.39	5,681.71	0.00	0.00	0.00
13,400.00	90.85	90.47	7,765.67	966.50	5,706.37	5,780.89	0.00	0.00	0.00
13,500.00	90.85	90.47	7,764.18	965.67	5,806.36	5,880.06	0.00	0.00	0.00
13,600.00	90.85	90.47	7,762.69	964.85	5,906.34	5,979.24	0.00	0.00	0.00
13,700.00	90.85	90.47	7,761.21	964.02	6,006.33	6,078.41	0.00	0.00	0.00
13,800.00	90.85	90.47	7,759.72	963.19	6,106.31	6,177.59	0.00	0.00	0.00
13,900.00	90.85	90.47	7,758.23	962.37	6,206.30	6,276.76	0.00	0.00	0.00
14,000.00	90.85	90.47	7,756.74	961.54	6,306.29	6,375.94	0.00	0.00	0.00
14,100.00	90.85	90.47	7,755.25	960.72	6,406.27	6,475.11	0.00	0.00	0.00
14,200.00	90.85	90.47	7,753.76	959.89	6,506.26	6,574.28	0.00	0.00	0.00
14,300.00	90.85	90.47	7,752.27	959.06	6,606.24	6,673.46	0.00	0.00	0.00
14,400.00	90.85	90.47	7,750.78	958.24	6,706.23	6,772.63	0.00	0.00	0.00
14,500.00	90.85	90.47	7,749.30	957.41	6,806.21	6,871.81	0.00	0.00	0.00
14,600.00	90.85	90.47	7,747.81	956.59	6,906.20	6,970.98	0.00	0.00	0.00
14,700.00	90.85	90.47	7,746.32	955.76	7,006.18	7,070.16	0.00	0.00	0.00
14,800.00	90.85	90.47	7,744.83	954.93	7,106.17	7,169.33	0.00	0.00	0.00
14,900.00	90.85	90.47	7,743.34	954.11	7,206.16	7,268.51	0.00	0.00	0.00

# ConocoPhillips

## Planning Report

<b>Database:</b>	EDM Central Planning	<b>Local Co-ordinate Reference:</b>	Well Bear 3-65 22-23 3AH
<b>Company:</b>	ConocoPhillips RBU Gold Data_Niobrara	<b>TVD Reference:</b>	24' RKB @ 5593.90ft
<b>Project:</b>	Niobrara - CO Northern Zone	<b>MD Reference:</b>	24' RKB @ 5593.90ft
<b>Site:</b>	Bear	<b>North Reference:</b>	True
<b>Well:</b>	Bear 3-65 22-23 3AH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Bear 3-65 22-23 3AH		
<b>Design:</b>	Bear 3-65 22-23 3AH		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
15,000.00	90.85	90.47	7,741.85	953.28	7,306.14	7,367.68	0.00	0.00	0.00	
15,100.00	90.85	90.47	7,740.36	952.45	7,406.13	7,466.85	0.00	0.00	0.00	
15,200.00	90.85	90.47	7,738.87	951.63	7,506.11	7,566.03	0.00	0.00	0.00	
15,300.00	90.85	90.47	7,737.39	950.80	7,606.10	7,665.20	0.00	0.00	0.00	
15,400.00	90.85	90.47	7,735.90	949.98	7,706.08	7,764.38	0.00	0.00	0.00	
15,500.00	90.85	90.47	7,734.41	949.15	7,806.07	7,863.55	0.00	0.00	0.00	
15,594.58	90.85	90.47	7,733.00	948.37	7,900.64	7,957.35	0.00	0.00	0.00	

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Bear 3-65 22-23 3AH BH - plan hits target center - Point	0.00	0.00	7,733.00	948.37	7,900.64	1,162,331.365	3,244,739.113	39° 46' 32.410 N	104° 37' 45.340 W	
Bear 3-65 22-23 3AH BF - plan hits target center - Point	0.00	0.00	7,842.00	1,008.85	580.11	1,162,322.279	3,237,418.422	39° 46' 33.020 N	104° 39' 19.100 W	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
2,169.00	2,169.00	Surface	9-5/8	13-1/2	
15,594.58	7,733.00	Production	5-1/2	8-3/4	



# ConocoPhillips

## Adams County, Colorado

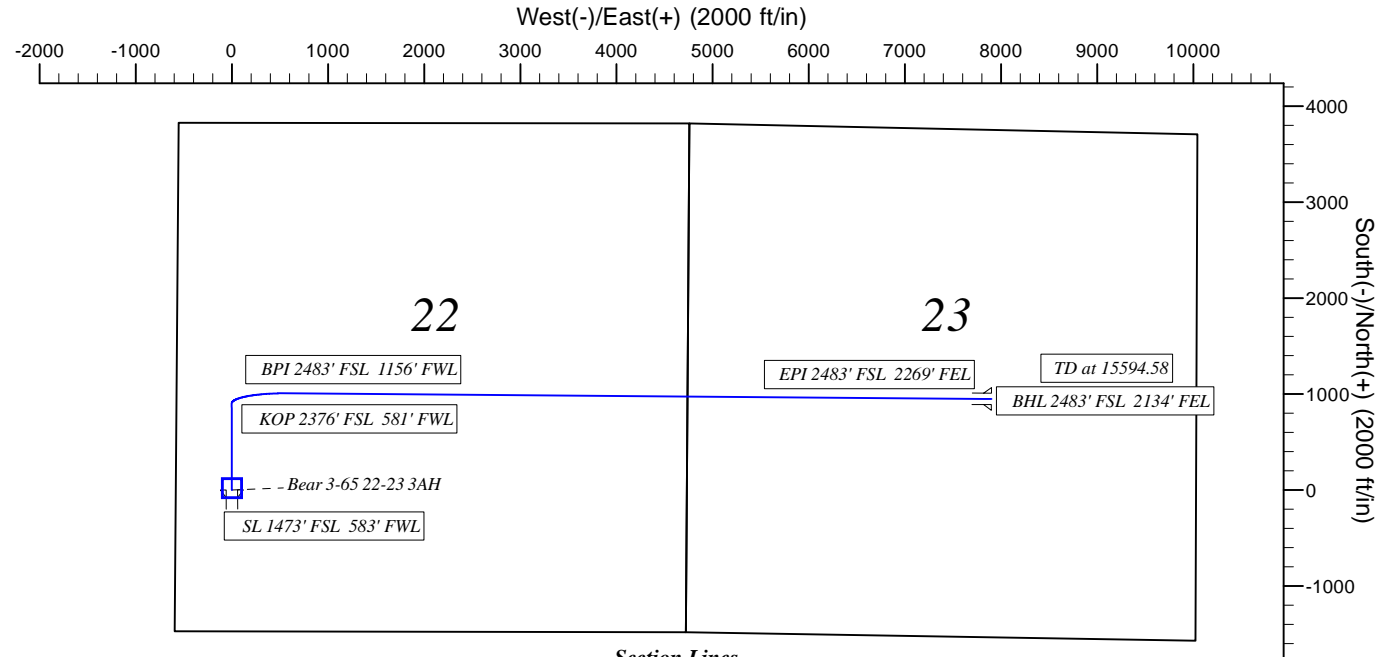
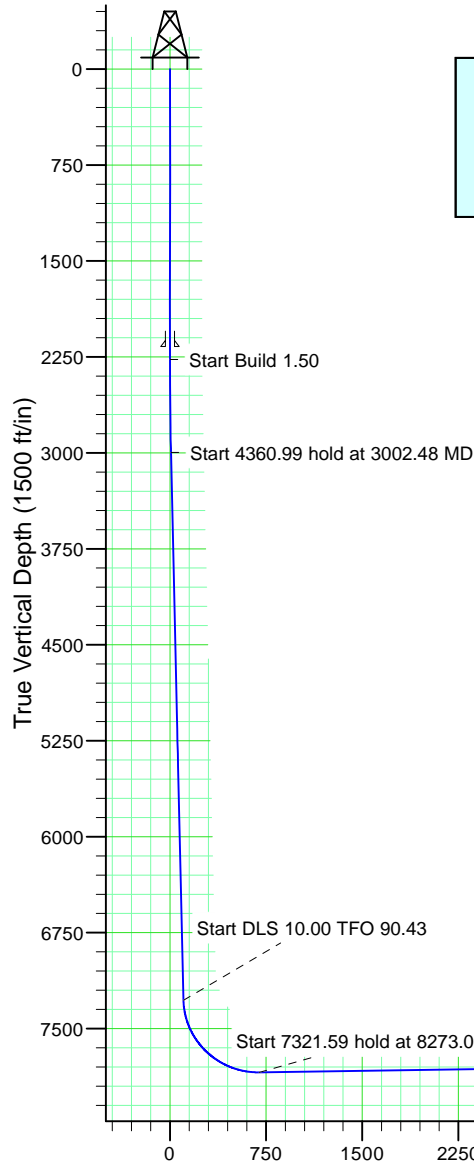
### Bear 3-65 22-23 3AH

#### Well Profile Data

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2269.00	0.00	0.00	2269.00	0.00	0.00	0.00	0.00
3002.48	11.00	359.87	2997.98	70.21	-0.16	1.50	8.20
7363.46	11.00	359.87	7278.81	902.48	-2.11	0.00	105.46
8273.00	90.85	90.47	7842.00	1008.85	580.11	10.00	696.21
15594.58	90.85	90.47	7733.00	948.37	7900.64	0.00	7957.35

#### Casing Depths

TVD	MD	Name	Size
2169.00	2169.00	Surface	9-5/8
7733.00	15594.58	Production	5-1/2



Section Lines

North American Datum 1983  
GRS 1980  
US State Plane 1983  
Colorado Northern Zone

Ground Level: 5569.90  
Surface Location Latitude: 39° 46' 23.050 N  
Surface Location Longitude: 104° 39' 26.530 W  
North Reference: True  
24' RKB @ 5593.90ft