

ConocoPhillips RBU Gold Data

Niobrara Central Zone

Bear

Bear 3-65 22-23 3CH

Wellbore #1

Plan: Bear 3-65 22-23 3CH Rev.A

Standard Planning Report

16 October, 2017

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	Local Co-ordinate Reference:	Well Bear 3-65 22-23 3CH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	WELL @ 5596.90ft (Original Well Elev)
Project:	Niobrara Central Zone	MD Reference:	WELL @ 5596.90ft (Original Well Elev)
Site:	Bear	North Reference:	True
Well:	Bear 3-65 22-23 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Bear 3-65 22-23 3CH Rev.A		

Project	Niobrara Central Zone, Colorado Central Zone, FIPS Zone: 0502		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site		Bear			
Site Position:		Northing:	1,707,569.460 usft	Latitude:	39° 46' 23.050 N
From:	Lat/Long	Easting:	3,236,851.239 usft	Longitude:	104° 39' 26.530 W
Position Uncertainty:	2.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.53 °

Well	Bear 3-65 22-23 3CH					
Well Position	+N/-S	-64.76 ft	Northing:	1,707,504.691 usft	Latitude:	39° 46' 22.410 N
	+E/-W	-0.78 ft	Easting:	3,236,851.059 usft	Longitude:	104° 39' 26.540 W
Position Uncertainty		2.00 ft	Wellhead Elevation:		Ground Level:	5,569.90 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2017	10/16/2017	8.26	66.39	52,018.43897360

Design	Bear 3-65 22-23 3CH Rev.A			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	87.94

Plan Survey Tool Program	Date	10/16/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	2,172.00	Bear 3-65 22-23 3CH Rev.A (We	SDI ADK 105 AdK w/ Gyrocompass HS refer
2	2,172.00	18,131.47	Bear 3-65 22-23 3CH Rev.A (We	MWD+IFR_No SAG MWD + IFR (No SAG) correctic

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Plan Sections										
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	
2,172.00	0.00	0.00	2,172.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,075.00	0.00	0.00	4,075.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,211.49	17.05	297.02	5,194.79	76.25	-149.50	1.50	1.50	0.00	297.02	
7,244.63	17.05	297.02	7,138.61	347.07	-680.46	0.00	0.00	0.00	0.00	
8,303.96	90.73	90.53	7,855.00	441.18	-119.46	10.00	6.96	14.49	152.36	Bear 3CH BPI
18,131.47	90.73	90.53	7,730.00	349.93	9,706.83	0.00	0.00	0.00	0.00	Bear 3CH BHL

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Wellbore:	Wellbore #1		
Design:	Bear 3-65 22-23 3CH Rev.A		

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
2,172.00	0.00	0.00	2,172.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,075.00	0.00	0.00	4,075.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.38	297.02	4,100.00	0.04	-0.07	-0.07	1.50	1.50	0.00
4,200.00	1.88	297.02	4,199.98	0.93	-1.82	-1.79	1.50	1.50	0.00
4,300.00	3.38	297.02	4,299.87	3.01	-5.90	-5.79	1.50	1.50	0.00
4,400.00	4.88	297.02	4,399.61	6.28	-12.31	-12.08	1.50	1.50	0.00
4,500.00	6.38	297.02	4,499.12	10.73	-21.04	-20.64	1.50	1.50	0.00
4,600.00	7.88	297.02	4,598.35	16.37	-32.09	-31.48	1.50	1.50	0.00
4,700.00	9.38	297.02	4,697.21	23.18	-45.45	-44.58	1.50	1.50	0.00
4,800.00	10.88	297.02	4,795.65	31.17	-61.11	-59.95	1.50	1.50	0.00
4,900.00	12.38	297.02	4,893.60	40.32	-79.06	-77.55	1.50	1.50	0.00
5,000.00	13.88	297.02	4,990.99	50.64	-99.29	-97.40	1.50	1.50	0.00

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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)
5,100.00	15.38	297.02	5,087.74	62.11	-121.78	-119.46	1.50	1.50	0.00
5,200.00	16.88	297.02	5,183.81	74.73	-146.52	-143.73	1.50	1.50	0.00
5,211.49	17.05	297.02	5,194.79	76.25	-149.50	-146.66	1.50	1.50	0.00
5,300.00	17.05	297.02	5,279.42	88.04	-172.62	-169.33	0.00	0.00	0.00
5,400.00	17.05	297.02	5,375.02	101.37	-198.73	-194.95	0.00	0.00	0.00
5,500.00	17.05	297.02	5,470.63	114.69	-224.85	-220.57	0.00	0.00	0.00
5,600.00	17.05	297.02	5,566.24	128.01	-250.96	-246.19	0.00	0.00	0.00
5,700.00	17.05	297.02	5,661.84	141.33	-277.08	-271.81	0.00	0.00	0.00
5,800.00	17.05	297.02	5,757.45	154.65	-303.19	-297.43	0.00	0.00	0.00
5,900.00	17.05	297.02	5,853.06	167.97	-329.31	-323.04	0.00	0.00	0.00
6,000.00	17.05	297.02	5,948.66	181.29	-355.42	-348.66	0.00	0.00	0.00
6,100.00	17.05	297.02	6,044.27	194.61	-381.54	-374.28	0.00	0.00	0.00
6,200.00	17.05	297.02	6,139.87	207.93	-407.66	-399.90	0.00	0.00	0.00
6,300.00	17.05	297.02	6,235.48	221.25	-433.77	-425.52	0.00	0.00	0.00
6,400.00	17.05	297.02	6,331.09	234.57	-459.89	-451.14	0.00	0.00	0.00
6,500.00	17.05	297.02	6,426.69	247.89	-486.00	-476.75	0.00	0.00	0.00
6,600.00	17.05	297.02	6,522.30	261.21	-512.12	-502.37	0.00	0.00	0.00
6,700.00	17.05	297.02	6,617.91	274.53	-538.23	-527.99	0.00	0.00	0.00
6,800.00	17.05	297.02	6,713.51	287.85	-564.35	-553.61	0.00	0.00	0.00
6,900.00	17.05	297.02	6,809.12	301.17	-590.46	-579.23	0.00	0.00	0.00
7,000.00	17.05	297.02	6,904.72	314.49	-616.58	-604.85	0.00	0.00	0.00
7,100.00	17.05	297.02	7,000.33	327.81	-642.69	-630.46	0.00	0.00	0.00
7,200.00	17.05	297.02	7,095.94	341.13	-668.81	-656.08	0.00	0.00	0.00
7,244.63	17.05	297.02	7,138.61	347.07	-680.46	-667.52	0.00	0.00	0.00
7,300.00	12.40	309.05	7,192.16	354.51	-692.32	-679.10	10.00	-8.39	21.72
7,400.00	7.82	2.93	7,290.77	368.11	-700.33	-686.62	10.00	-4.58	53.87
7,500.00	12.94	53.73	7,389.29	381.56	-690.94	-676.74	10.00	5.11	50.81
7,600.00	21.73	70.29	7,484.71	394.46	-664.42	-649.78	10.00	8.79	16.55
7,700.00	31.24	77.35	7,574.14	406.41	-621.58	-606.54	10.00	9.51	7.06
7,800.00	40.96	81.33	7,654.85	417.06	-563.73	-548.34	10.00	9.73	3.98
7,900.00	50.78	84.00	7,724.40	426.07	-492.63	-476.96	10.00	9.82	2.66
8,000.00	60.64	86.00	7,780.67	433.17	-410.42	-394.55	10.00	9.86	2.00
8,100.00	70.53	87.65	7,821.95	438.15	-319.62	-303.62	10.00	9.89	1.65
8,200.00	80.43	89.11	7,847.00	440.86	-222.97	-206.94	10.00	9.90	1.46
8,300.00	90.34	90.48	7,855.04	441.21	-123.42	-107.45	10.00	9.91	1.37
8,303.96	90.73	90.53	7,855.00	441.18	-119.46	-103.49	10.00	9.91	1.36
8,400.00	90.73	90.53	7,853.78	440.29	-23.44	-7.56	0.00	0.00	0.00
8,500.00	90.73	90.53	7,852.51	439.36	76.55	92.33	0.00	0.00	0.00
8,600.00	90.73	90.53	7,851.23	438.43	176.54	192.22	0.00	0.00	0.00
8,700.00	90.73	90.53	7,849.96	437.50	276.53	292.11	0.00	0.00	0.00
8,800.00	90.73	90.53	7,848.69	436.57	376.52	392.00	0.00	0.00	0.00
8,900.00	90.73	90.53	7,847.42	435.65	476.50	491.89	0.00	0.00	0.00
9,000.00	90.73	90.53	7,846.15	434.72	576.49	591.78	0.00	0.00	0.00
9,100.00	90.73	90.53	7,844.88	433.79	676.48	691.67	0.00	0.00	0.00
9,200.00	90.73	90.53	7,843.60	432.86	776.47	791.56	0.00	0.00	0.00
9,300.00	90.73	90.53	7,842.33	431.93	876.45	891.45	0.00	0.00	0.00
9,400.00	90.73	90.53	7,841.06	431.00	976.44	991.33	0.00	0.00	0.00
9,500.00	90.73	90.53	7,839.79	430.07	1,076.43	1,091.22	0.00	0.00	0.00
9,600.00	90.73	90.53	7,838.52	429.15	1,176.42	1,191.11	0.00	0.00	0.00
9,700.00	90.73	90.53	7,837.24	428.22	1,276.40	1,291.00	0.00	0.00	0.00
9,800.00	90.73	90.53	7,835.97	427.29	1,376.39	1,390.89	0.00	0.00	0.00
9,900.00	90.73	90.53	7,834.70	426.36	1,476.38	1,490.78	0.00	0.00	0.00
10,000.00	90.73	90.53	7,833.43	425.43	1,576.37	1,590.67	0.00	0.00	0.00
10,100.00	90.73	90.53	7,832.16	424.50	1,676.35	1,690.56	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Bear 3-65 22-23 3CH Rev.A		

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)	
10,200.00	90.73	90.53	7,830.88	423.57	1,776.34	1,790.45	0.00	0.00	0.00	
10,300.00	90.73	90.53	7,829.61	422.65	1,876.33	1,890.34	0.00	0.00	0.00	
10,400.00	90.73	90.53	7,828.34	421.72	1,976.32	1,990.23	0.00	0.00	0.00	
10,500.00	90.73	90.53	7,827.07	420.79	2,076.30	2,090.12	0.00	0.00	0.00	
10,600.00	90.73	90.53	7,825.80	419.86	2,176.29	2,190.01	0.00	0.00	0.00	
10,700.00	90.73	90.53	7,824.52	418.93	2,276.28	2,289.89	0.00	0.00	0.00	
10,800.00	90.73	90.53	7,823.25	418.00	2,376.27	2,389.78	0.00	0.00	0.00	
10,900.00	90.73	90.53	7,821.98	417.08	2,476.25	2,489.67	0.00	0.00	0.00	
11,000.00	90.73	90.53	7,820.71	416.15	2,576.24	2,589.56	0.00	0.00	0.00	
11,100.00	90.73	90.53	7,819.44	415.22	2,676.23	2,689.45	0.00	0.00	0.00	
11,200.00	90.73	90.53	7,818.16	414.29	2,776.22	2,789.34	0.00	0.00	0.00	
11,300.00	90.73	90.53	7,816.89	413.36	2,876.21	2,889.23	0.00	0.00	0.00	
11,400.00	90.73	90.53	7,815.62	412.43	2,976.19	2,989.12	0.00	0.00	0.00	
11,500.00	90.73	90.53	7,814.35	411.50	3,076.18	3,089.01	0.00	0.00	0.00	
11,600.00	90.73	90.53	7,813.08	410.58	3,176.17	3,188.90	0.00	0.00	0.00	
11,700.00	90.73	90.53	7,811.80	409.65	3,276.16	3,288.79	0.00	0.00	0.00	
11,800.00	90.73	90.53	7,810.53	408.72	3,376.14	3,388.68	0.00	0.00	0.00	
11,900.00	90.73	90.53	7,809.26	407.79	3,476.13	3,488.57	0.00	0.00	0.00	
12,000.00	90.73	90.53	7,807.99	406.86	3,576.12	3,588.45	0.00	0.00	0.00	
12,100.00	90.73	90.53	7,806.72	405.93	3,676.11	3,688.34	0.00	0.00	0.00	
12,200.00	90.73	90.53	7,805.44	405.00	3,776.09	3,788.23	0.00	0.00	0.00	
12,300.00	90.73	90.53	7,804.17	404.08	3,876.08	3,888.12	0.00	0.00	0.00	
12,400.00	90.73	90.53	7,802.90	403.15	3,976.07	3,988.01	0.00	0.00	0.00	
12,500.00	90.73	90.53	7,801.63	402.22	4,076.06	4,087.90	0.00	0.00	0.00	
12,600.00	90.73	90.53	7,800.36	401.29	4,176.04	4,187.79	0.00	0.00	0.00	
12,700.00	90.73	90.53	7,799.09	400.36	4,276.03	4,287.68	0.00	0.00	0.00	
12,800.00	90.73	90.53	7,797.81	399.43	4,376.02	4,387.57	0.00	0.00	0.00	
12,900.00	90.73	90.53	7,796.54	398.51	4,476.01	4,487.46	0.00	0.00	0.00	
13,000.00	90.73	90.53	7,795.27	397.58	4,575.99	4,587.35	0.00	0.00	0.00	
13,100.00	90.73	90.53	7,794.00	396.65	4,675.98	4,687.24	0.00	0.00	0.00	
13,200.00	90.73	90.53	7,792.73	395.72	4,775.97	4,787.13	0.00	0.00	0.00	
13,300.00	90.73	90.53	7,791.45	394.79	4,875.96	4,887.01	0.00	0.00	0.00	
13,400.00	90.73	90.53	7,790.18	393.86	4,975.94	4,986.90	0.00	0.00	0.00	
13,500.00	90.73	90.53	7,788.91	392.93	5,075.93	5,086.79	0.00	0.00	0.00	
13,600.00	90.73	90.53	7,787.64	392.01	5,175.92	5,186.68	0.00	0.00	0.00	
13,700.00	90.73	90.53	7,786.37	391.08	5,275.91	5,286.57	0.00	0.00	0.00	
13,800.00	90.73	90.53	7,785.09	390.15	5,375.90	5,386.46	0.00	0.00	0.00	
13,900.00	90.73	90.53	7,783.82	389.22	5,475.88	5,486.35	0.00	0.00	0.00	
14,000.00	90.73	90.53	7,782.55	388.29	5,575.87	5,586.24	0.00	0.00	0.00	
14,100.00	90.73	90.53	7,781.28	387.36	5,675.86	5,686.13	0.00	0.00	0.00	
14,200.00	90.73	90.53	7,780.01	386.44	5,775.85	5,786.02	0.00	0.00	0.00	
14,300.00	90.73	90.53	7,778.73	385.51	5,875.83	5,885.91	0.00	0.00	0.00	
14,400.00	90.73	90.53	7,777.46	384.58	5,975.82	5,985.80	0.00	0.00	0.00	
14,500.00	90.73	90.53	7,776.19	383.65	6,075.81	6,085.69	0.00	0.00	0.00	
14,600.00	90.73	90.53	7,774.92	382.72	6,175.80	6,185.58	0.00	0.00	0.00	
14,700.00	90.73	90.53	7,773.65	381.79	6,275.78	6,285.46	0.00	0.00	0.00	
14,800.00	90.73	90.53	7,772.37	380.86	6,375.77	6,385.35	0.00	0.00	0.00	
14,900.00	90.73	90.53	7,771.10	379.94	6,475.76	6,485.24	0.00	0.00	0.00	
15,000.00	90.73	90.53	7,769.83	379.01	6,575.75	6,585.13	0.00	0.00	0.00	
15,100.00	90.73	90.53	7,768.56	378.08	6,675.73	6,685.02	0.00	0.00	0.00	
15,200.00	90.73	90.53	7,767.29	377.15	6,775.72	6,784.91	0.00	0.00	0.00	
15,300.00	90.73	90.53	7,766.01	376.22	6,875.71	6,884.80	0.00	0.00	0.00	
15,400.00	90.73	90.53	7,764.74	375.29	6,975.70	6,984.69	0.00	0.00	0.00	
15,500.00	90.73	90.53	7,763.47	374.36	7,075.68	7,084.58	0.00	0.00	0.00	

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Planning Report

Database:	EDT 14 Central Planning	Local Co-ordinate Reference:	Well Bear 3-65 22-23 3CH
Company:	ConocoPhillips RBU Gold Data	TVD Reference:	WELL @ 5596.90ft (Original Well Elev)
Project:	Niobrara Central Zone	MD Reference:	WELL @ 5596.90ft (Original Well Elev)
Site:	Bear	North Reference:	True
Well:	Bear 3-65 22-23 3CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Bear 3-65 22-23 3CH Rev.A		

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)
15,600.00	90.73	90.53	7,762.20	373.44	7,175.67	7,184.47	0.00	0.00	0.00
15,700.00	90.73	90.53	7,760.93	372.51	7,275.66	7,284.36	0.00	0.00	0.00
15,800.00	90.73	90.53	7,759.66	371.58	7,375.65	7,384.25	0.00	0.00	0.00
15,900.00	90.73	90.53	7,758.38	370.65	7,475.63	7,484.14	0.00	0.00	0.00
16,000.00	90.73	90.53	7,757.11	369.72	7,575.62	7,584.02	0.00	0.00	0.00
16,100.00	90.73	90.53	7,755.84	368.79	7,675.61	7,683.91	0.00	0.00	0.00
16,200.00	90.73	90.53	7,754.57	367.87	7,775.60	7,783.80	0.00	0.00	0.00
16,300.00	90.73	90.53	7,753.30	366.94	7,875.59	7,883.69	0.00	0.00	0.00
16,400.00	90.73	90.53	7,752.02	366.01	7,975.57	7,983.58	0.00	0.00	0.00
16,500.00	90.73	90.53	7,750.75	365.08	8,075.56	8,083.47	0.00	0.00	0.00
16,600.00	90.73	90.53	7,749.48	364.15	8,175.55	8,183.36	0.00	0.00	0.00
16,700.00	90.73	90.53	7,748.21	363.22	8,275.54	8,283.25	0.00	0.00	0.00
16,800.00	90.73	90.53	7,746.94	362.29	8,375.52	8,383.14	0.00	0.00	0.00
16,900.00	90.73	90.53	7,745.66	361.37	8,475.51	8,483.03	0.00	0.00	0.00
17,000.00	90.73	90.53	7,744.39	360.44	8,575.50	8,582.92	0.00	0.00	0.00
17,100.00	90.73	90.53	7,743.12	359.51	8,675.49	8,682.81	0.00	0.00	0.00
17,200.00	90.73	90.53	7,741.85	358.58	8,775.47	8,782.70	0.00	0.00	0.00
17,300.00	90.73	90.53	7,740.58	357.65	8,875.46	8,882.58	0.00	0.00	0.00
17,400.00	90.73	90.53	7,739.30	356.72	8,975.45	8,982.47	0.00	0.00	0.00
17,500.00	90.73	90.53	7,738.03	355.80	9,075.44	9,082.36	0.00	0.00	0.00
17,600.00	90.73	90.53	7,736.76	354.87	9,175.42	9,182.25	0.00	0.00	0.00
17,700.00	90.73	90.53	7,735.49	353.94	9,275.41	9,282.14	0.00	0.00	0.00
17,800.00	90.73	90.53	7,734.22	353.01	9,375.40	9,382.03	0.00	0.00	0.00
17,900.00	90.73	90.53	7,732.94	352.08	9,475.39	9,481.92	0.00	0.00	0.00
18,000.00	90.73	90.53	7,731.67	351.15	9,575.37	9,581.81	0.00	0.00	0.00
18,100.00	90.73	90.53	7,730.40	350.22	9,675.36	9,681.70	0.00	0.00	0.00
18,131.00	90.73	90.53	7,730.01	349.94	9,706.36	9,712.66	0.00	0.00	0.00
5 1/2" x 8 1/2"									
18,131.47	90.73	90.53	7,730.00	349.93	9,706.83	9,713.13	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Bear 3CH BHL	0.00	0.00	7,730.00	349.93	9,706.83	1,707,944.642	3,246,554.246	39° 46' 25.850 N	104° 37' 22.220 W
- plan hits target center									
- Point									
Bear 3CH BPI	0.00	0.00	7,855.00	441.18	-119.46	1,707,944.745	3,236,727.511	39° 46' 26.770 N	104° 39' 28.070 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
2,172.00	2,172.00	9 5/8"	9-5/8	12-1/4	
18,131.00	7,730.01	5 1/2" x 8 1/2"	5-1/2	8-1/2	



ConocoPhillips

Bear 3-65 22-23 3CH Rev.A

Ground Level: 5569.90
Surface Location Latitude: 39° 46' 22.410 N
Surface Location Longitude: 104° 39' 26.540 W
North Reference: True
WELL @ 5596.90ft (Original Well Elev)

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

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
2172.00	0.00	0.00	2172.00	0.00	0.00	0.00	0.00
4075.00	0.00	0.00	4075.00	0.00	0.00	0.00	0.00
5211.49	17.05	297.02	5194.79	76.25	-149.50	1.50	-146.66
7244.63	17.05	297.02	7138.61	347.07	-680.46	0.00	-667.52
8303.96	90.73	90.53	7855.00	441.18	-119.46	10.00	-103.49
18131.47	90.73	90.53	7730.00	349.93	9706.83	0.00	9713.13

West(-)/East(+) (2000 ft/in)

-2000 -1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 11000

Casing Depths

TVD	MD	Name	Size
2172.00	2172.00	9 5/8"	9-5/8
7730.01	18131.005	1/2" x 8 1/2"	5-1/2

22

23

TD at 18131.47

BPI 1849' FSL 460' FWL

SL 1408' FSL 583' FWL

Bear 3-65 22-23 3CH

KOP 1755' FSL 97' FWL

BHL 1849' FSL 325' FEL

EPI 1849' FSL 460' FEL

Section Lines

Wellbore Targets

Name	TVD	Latitude	Longitude
Bear 3CH BHL	7730.00	39° 46' 25.850 N	104° 37' 22.220 W
Bear 3CH BPI	7855.00	39° 46' 26.770 N	104° 39' 28.070 W

