

# **EXTRACTION OIL & GAS**

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

**NE SE SEC. 8 T5N R66W 6th P.M.**

**TC-COUNTRY CLUB WEST 3-9-11**

**ORIGINAL WELLBORE**

**23 July, 2015**

**Plan: PROPOSAL #1**





Project: WELD COUNTY, COLORADO (NAD 83)  
Site: NE SE SEC. 8 T5N R66W 6th P.M.  
Well: TC-COUNTRY CLUB WEST 3-9-11  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

ANNOTATIONS										FORMATION TOP DETAILS		
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Dep	Annotation		TVDPath	MDPath	Formation
700.0	700.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)		3680.0	3770.3	PARKMAN
1454.0	1463.0	15.26	45.63	70.6	72.2	77.4	101.0	EOB TO 15.26° INC		4410.0	4527.0	SUSSEX
6634.7	6833.0	15.26	45.63	1058.9	1082.4	1159.6	1514.3	START BUILD & TURN		4820.0	4952.0	SHANNON
7092.0	7625.0	90.00	90.26	1144.0	1645.6	1727.7	2090.3	LANDING PNT - TC-COUNTRY CLUB WEST 3-9-11		6940.0	7193.8	SHARON SPRINGS
7092.0	20255.6	90.00	90.26	1086.1	14276.1	14317.3	14720.9	BHL - TC-COUNTRY CLUB WEST 3-9-11		6972.0	7243.8	NIOBRARA
										7092.0	7625.0	NIO B TARGET

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LANDING PNT - TC-COUNTRY CLUB WEST 3-9-11	7092.0	1144.0	1645.6	40.417740	-104.792780
BHL - TC-COUNTRY CLUB WEST 3-9-11	7092.0	1086.1	14276.1	40.417570	-104.747420

South(-)/North(+) (150 usft/in)

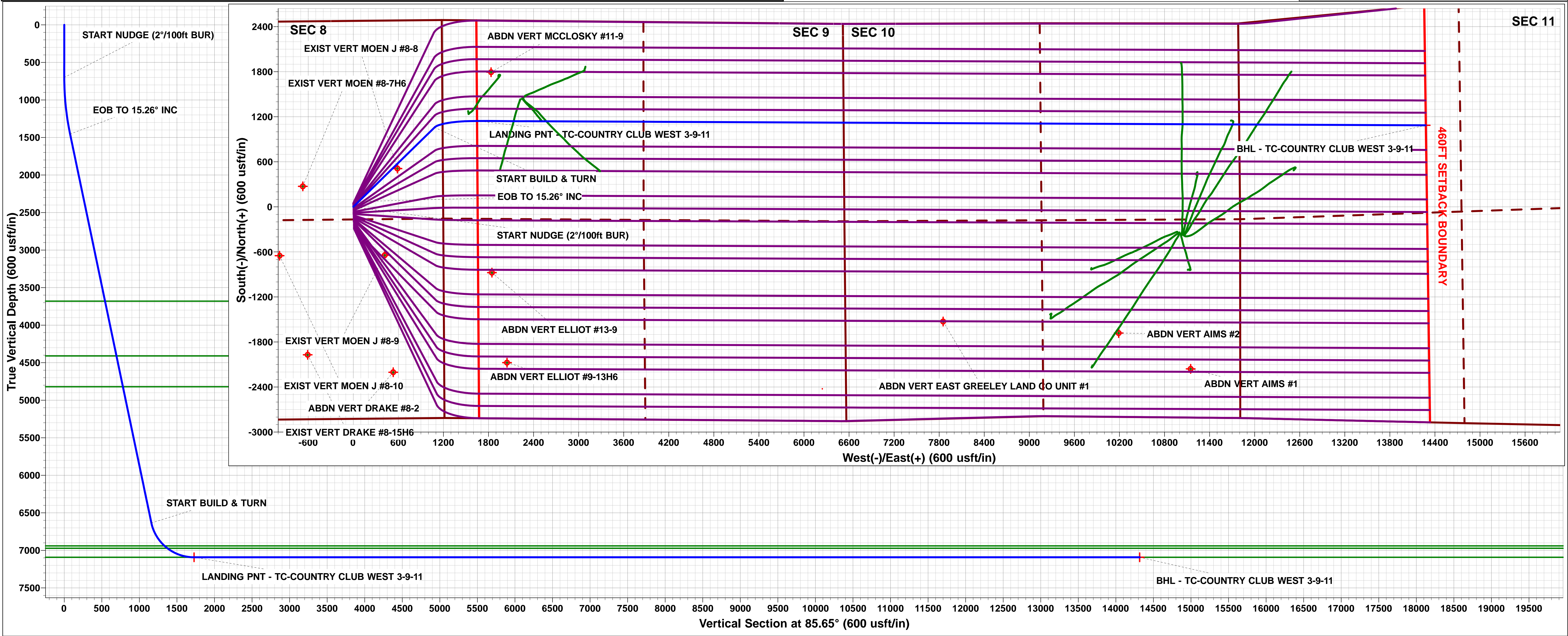
West(-)/East(+) (150 usft/in)

TC-MOISER HILL 2-9-7  
TC-MOISER HILL 3-9-11  
TC-COUNTRY CLUB WEST C1-9-11  
TC-COUNTRY CLUB WEST 1-9-11  
TC-COUNTRY CLUB WEST 2-9-11  
TC-COUNTRY CLUB WEST C2-9-11  
TC-COUNTRY CLUB WEST 3-9-11  
TC-COUNTRY CLUB WEST 4-9-11  
TC-COUNTRY CLUB WEST C3-9-11  
TC-COUNTRY CLUB WEST 5-9-11  
TC-AIMS 1-9-11  
TC-AIMS C4-9-11  
TC-AIMS 2-9-11  
TC-AIMS 3-9-11  
TC-AIMS C5-9-11  
TC-AIMS 4-9-11  
TC-HILAND KNOLLS 1-9-11  
TC-HILAND KNOLLS C6-9-11  
TC-HILAND KNOLLS 2-9-11  
TC-HILAND KNOLLS 3-9-11  
TC-HILAND KNOLLS C7-9-11  
TC-HILAND KNOLLS 4-9-11  
TC-PINNACLE PARK 1-9-11  
TC-PINNACLE PARK C8-9-11  
TC-PINNACLE PARK 2-9-11

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Azimuths to True North  
Magnetic North: 8.43°

Magnetic Field  
Strength: 52613.7snT  
Dip Angle: 66.91°  
Date: 23/07/2015  
Model: IGRF2015



# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 3-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 3-9-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ORIGINAL WELLBORE		
<b>Design:</b>	PROPOSAL #1		

<b>Project</b>	WELD 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		Using geodetic scale factor

<b>Site</b>	NE SE SEC. 8 T5N R66W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,394,363.62 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,195,288.63 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	1.10000ft
		<b>Latitude:</b>	40.413810
		<b>Longitude:</b>	-104.798660
		<b>Grid Convergence:</b>	0.45 °

<b>Well</b>	TC-COUNTRY CLUB WEST 3-9-11		
<b>Well Position</b>	<b>+N/-S</b>	287.8 usft	<b>Northing:</b>
	<b>+E/-W</b>	-8.4 usft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<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	23/07/2015	8.43	66.91	52,614

<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>
	7,092.0	0.0	0.0	85.65

<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	-4,804.0	0.0	0.0	0.00	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	-4,104.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,463.0	15.26	45.63	1,454.0	-3,350.0	70.6	72.2	2.00	2.00	0.00	45.63	
1,463.0	15.26	45.63	1,454.0	-3,350.0	70.6	72.2	10.00	-9.47	-12.30	-161.12	
6,833.0	15.26	45.63	6,634.7	1,830.7	1,058.9	1,082.4	0.00	0.00	0.00	0.00	
7,625.0	90.00	90.26	7,092.0	2,288.0	1,144.0	1,645.6	10.00	9.44	5.64	45.66	LANDING PNT - TC
20,255.6	90.00	90.26	7,092.0	2,288.0	1,086.1	14,276.1	0.00	0.00	0.00	0.00	BHL - TC-COUNTR

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<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 3-9-11	<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)
0.0	0.00	0.00	0.0	4,804.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	4,704.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	4,604.00	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	4,504.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	4,404.00	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	4,304.00	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	4,204.00	0.0	0.0	0.0	0.00	0.00	0.00
<b>START NUDGE (2°/100ft BUR)</b>										
700.0	0.00	0.00	700.0	4,104.00	0.0	0.0	0.0	0.00	0.00	0.00
800.0	2.00	45.63	800.0	4,004.02	1.2	1.2	1.3	2.00	2.00	0.00
900.0	4.00	45.63	899.8	3,904.16	4.9	5.0	5.3	2.00	2.00	0.00
1,000.0	6.00	45.63	999.5	3,804.55	11.0	11.2	12.0	2.00	2.00	0.00
1,100.0	8.00	45.63	1,098.7	3,705.30	19.5	19.9	21.4	2.00	2.00	0.00
1,200.0	10.00	45.63	1,197.5	3,606.53	30.4	31.1	33.3	2.00	2.00	0.00
1,300.0	12.00	45.63	1,295.6	3,508.38	43.8	44.8	47.9	2.00	2.00	0.00
1,400.0	14.00	45.63	1,393.1	3,410.94	59.5	60.8	65.2	2.00	2.00	0.00
<b>EOB TO 15.26° INC</b>										
1,463.0	15.26	45.63	1,454.0	3,349.99	70.6	72.2	77.4	2.00	2.00	0.00
1,500.0	15.26	45.63	1,489.7	3,314.29	77.4	79.2	84.8	0.00	0.00	0.00
1,600.0	15.26	45.63	1,586.2	3,217.82	95.8	98.0	105.0	0.00	0.00	0.00
1,700.0	15.26	45.63	1,682.7	3,121.34	114.3	116.8	125.1	0.00	0.00	0.00
1,800.0	15.26	45.63	1,779.1	3,024.87	132.7	135.6	145.3	0.00	0.00	0.00
1,900.0	15.26	45.63	1,875.6	2,928.39	151.1	154.4	165.4	0.00	0.00	0.00
2,000.0	15.26	45.63	1,972.1	2,831.92	169.5	173.2	185.6	0.00	0.00	0.00
2,100.0	15.26	45.63	2,068.6	2,735.44	187.9	192.0	205.7	0.00	0.00	0.00
2,200.0	15.26	45.63	2,165.0	2,638.97	206.3	210.9	225.9	0.00	0.00	0.00
2,300.0	15.26	45.63	2,261.5	2,542.49	224.7	229.7	246.0	0.00	0.00	0.00
2,400.0	15.26	45.63	2,358.0	2,446.02	243.1	248.5	266.2	0.00	0.00	0.00
2,500.0	15.26	45.63	2,454.5	2,349.55	261.5	267.3	286.4	0.00	0.00	0.00
2,600.0	15.26	45.63	2,550.9	2,253.07	279.9	286.1	306.5	0.00	0.00	0.00
2,700.0	15.26	45.63	2,647.4	2,156.60	298.3	304.9	326.7	0.00	0.00	0.00
2,800.0	15.26	45.63	2,743.9	2,060.12	316.7	323.7	346.8	0.00	0.00	0.00
2,900.0	15.26	45.63	2,840.4	1,963.65	335.1	342.5	367.0	0.00	0.00	0.00
3,000.0	15.26	45.63	2,936.8	1,867.17	353.5	361.3	387.1	0.00	0.00	0.00
3,100.0	15.26	45.63	3,033.3	1,770.70	371.9	380.2	407.3	0.00	0.00	0.00
3,200.0	15.26	45.63	3,129.8	1,674.22	390.3	399.0	427.4	0.00	0.00	0.00
3,300.0	15.26	45.63	3,226.3	1,577.75	408.7	417.8	447.6	0.00	0.00	0.00
3,400.0	15.26	45.63	3,322.7	1,481.27	427.1	436.6	467.7	0.00	0.00	0.00
3,500.0	15.26	45.63	3,419.2	1,384.80	445.5	455.4	487.9	0.00	0.00	0.00
3,600.0	15.26	45.63	3,515.7	1,288.32	463.9	474.2	508.1	0.00	0.00	0.00
3,700.0	15.26	45.63	3,612.2	1,191.85	482.3	493.0	528.2	0.00	0.00	0.00
<b>PARKMAN</b>										
3,770.3	15.26	45.63	3,680.0	1,124.00	495.3	506.3	542.4	0.00	0.00	0.00
3,800.0	15.26	45.63	3,708.6	1,095.37	500.7	511.8	548.4	0.00	0.00	0.00
3,900.0	15.26	45.63	3,805.1	998.90	519.1	530.7	568.5	0.00	0.00	0.00
4,000.0	15.26	45.63	3,901.6	902.42	537.5	549.5	588.7	0.00	0.00	0.00
4,100.0	15.26	45.63	3,998.1	805.95	556.0	568.3	608.8	0.00	0.00	0.00
4,200.0	15.26	45.63	4,094.5	709.47	574.4	587.1	629.0	0.00	0.00	0.00
4,300.0	15.26	45.63	4,191.0	613.00	592.8	605.9	649.1	0.00	0.00	0.00
4,400.0	15.26	45.63	4,287.5	516.52	611.2	624.7	669.3	0.00	0.00	0.00
4,500.0	15.26	45.63	4,384.0	420.05	629.6	643.5	689.4	0.00	0.00	0.00
<b>SUSSEX</b>										
4,527.0	15.26	45.63	4,410.0	394.00	634.5	648.6	694.9	0.00	0.00	0.00
4,600.0	15.26	45.63	4,480.4	323.57	648.0	662.3	709.6	0.00	0.00	0.00



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<b>Well:</b>	TC-COUNTRY CLUB WEST 3-9-11	<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)
4,700.0	15.26	45.63	4,576.9	227.10	666.4	681.2	729.7	0.00	0.00	0.00
4,800.0	15.26	45.63	4,673.4	130.62	684.8	700.0	749.9	0.00	0.00	0.00
4,900.0	15.26	45.63	4,769.8	34.15	703.2	718.8	770.1	0.00	0.00	0.00
<b>SHANNON</b>										
<b>4,952.0</b>	<b>15.26</b>	<b>45.63</b>	<b>4,820.0</b>	<b>-16.00</b>	<b>712.8</b>	<b>728.6</b>	<b>780.5</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
5,000.0	15.26	45.63	4,866.3	-62.32	721.6	737.6	790.2	0.00	0.00	0.00
5,100.0	15.26	45.63	4,962.8	-158.80	740.0	756.4	810.4	0.00	0.00	0.00
5,200.0	15.26	45.63	5,059.3	-255.27	758.4	775.2	830.5	0.00	0.00	0.00
5,300.0	15.26	45.63	5,155.7	-351.75	776.8	794.0	850.7	0.00	0.00	0.00
5,400.0	15.26	45.63	5,252.2	-448.22	795.2	812.8	870.8	0.00	0.00	0.00
5,500.0	15.26	45.63	5,348.7	-544.70	813.6	831.7	891.0	0.00	0.00	0.00
5,600.0	15.26	45.63	5,445.2	-641.17	832.0	850.5	911.1	0.00	0.00	0.00
5,700.0	15.26	45.63	5,541.6	-737.65	850.4	869.3	931.3	0.00	0.00	0.00
5,800.0	15.26	45.63	5,638.1	-834.12	868.8	888.1	951.4	0.00	0.00	0.00
5,900.0	15.26	45.63	5,734.6	-930.60	887.2	906.9	971.6	0.00	0.00	0.00
6,000.0	15.26	45.63	5,831.1	-1,027.07	905.6	925.7	991.8	0.00	0.00	0.00
6,100.0	15.26	45.63	5,927.5	-1,123.55	924.0	944.5	1,011.9	0.00	0.00	0.00
6,200.0	15.26	45.63	6,024.0	-1,220.02	942.4	963.3	1,032.1	0.00	0.00	0.00
6,300.0	15.26	45.63	6,120.5	-1,316.50	960.8	982.2	1,052.2	0.00	0.00	0.00
6,400.0	15.26	45.63	6,217.0	-1,412.97	979.2	1,001.0	1,072.4	0.00	0.00	0.00
6,500.0	15.26	45.63	6,313.4	-1,509.45	997.7	1,019.8	1,092.5	0.00	0.00	0.00
6,600.0	15.26	45.63	6,409.9	-1,605.92	1,016.1	1,038.6	1,112.7	0.00	0.00	0.00
6,700.0	15.26	45.63	6,506.4	-1,702.40	1,034.5	1,057.4	1,132.8	0.00	0.00	0.00
6,800.0	15.26	45.63	6,602.9	-1,798.87	1,052.9	1,076.2	1,153.0	0.00	0.00	0.00
<b>START BUILD &amp; TURN</b>										
<b>6,833.0</b>	<b>15.26</b>	<b>45.63</b>	<b>6,634.7</b>	<b>-1,830.71</b>	<b>1,058.9</b>	<b>1,082.4</b>	<b>1,159.6</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
6,900.0	20.50	59.42	6,698.5	-1,894.48	1,071.1	1,098.8	1,176.9	10.01	7.82	20.59
7,000.0	29.41	70.38	6,789.1	-1,985.10	1,088.3	1,137.1	1,216.4	10.00	8.91	10.96
7,100.0	38.81	76.48	6,871.8	-2,067.83	1,103.9	1,190.9	1,271.2	10.00	9.41	6.10
<b>SHARON SPRINGS</b>										
<b>7,193.8</b>	<b>47.83</b>	<b>80.26</b>	<b>6,940.0</b>	<b>-2,136.00</b>	<b>1,116.7</b>	<b>1,253.8</b>	<b>1,334.9</b>	<b>10.00</b>	<b>9.61</b>	<b>4.04</b>
7,200.0	48.43	80.48	6,944.1	-2,140.15	1,117.4	1,258.4	1,339.5	10.00	9.68	3.39
<b>NIOBRARA</b>										
<b>7,243.8</b>	<b>52.68</b>	<b>81.86</b>	<b>6,972.0</b>	<b>-2,168.00</b>	<b>1,122.6</b>	<b>1,291.9</b>	<b>1,373.3</b>	<b>10.00</b>	<b>9.70</b>	<b>3.16</b>
7,300.0	58.15	83.42	7,003.9	-2,199.86	1,128.5	1,337.7	1,419.4	10.00	9.73	2.78
7,400.0	67.92	85.80	7,049.2	-2,245.16	1,136.8	1,426.3	1,508.4	10.00	9.77	2.38
7,500.0	77.73	87.87	7,078.7	-2,274.66	1,142.0	1,521.6	1,603.8	10.00	9.80	2.07
7,600.0	87.54	89.79	7,091.5	-2,287.46	1,144.0	1,620.6	1,702.7	10.00	9.82	1.92
<b>LANDING PNT - TC-COUNTRY CLUB WEST 3-9-11 - NIO B TARGET</b>										
<b>7,625.0</b>	<b>90.00</b>	<b>90.26</b>	<b>7,092.0</b>	<b>-2,288.00</b>	<b>1,144.0</b>	<b>1,645.6</b>	<b>1,727.7</b>	<b>10.00</b>	<b>9.82</b>	<b>1.88</b>
7,700.0	90.00	90.26	7,092.0	-2,288.00	1,143.7	1,720.6	1,802.4	0.00	0.00	0.00
7,800.0	90.00	90.26	7,092.0	-2,288.00	1,143.2	1,820.6	1,902.1	0.00	0.00	0.00
7,900.0	90.00	90.26	7,092.0	-2,288.00	1,142.7	1,920.6	2,001.8	0.00	0.00	0.00
8,000.0	90.00	90.26	7,092.0	-2,288.00	1,142.3	2,020.6	2,101.4	0.00	0.00	0.00
8,100.0	90.00	90.26	7,092.0	-2,288.00	1,141.8	2,120.6	2,201.1	0.00	0.00	0.00
8,200.0	90.00	90.26	7,092.0	-2,288.00	1,141.4	2,220.6	2,300.8	0.00	0.00	0.00
8,300.0	90.00	90.26	7,092.0	-2,288.00	1,140.9	2,320.6	2,400.5	0.00	0.00	0.00
8,400.0	90.00	90.26	7,092.0	-2,288.00	1,140.5	2,420.6	2,500.1	0.00	0.00	0.00
8,500.0	90.00	90.26	7,092.0	-2,288.00	1,140.0	2,520.6	2,599.8	0.00	0.00	0.00
8,600.0	90.00	90.26	7,092.0	-2,288.00	1,139.5	2,620.6	2,699.5	0.00	0.00	0.00
8,700.0	90.00	90.26	7,092.0	-2,288.00	1,139.1	2,720.6	2,799.2	0.00	0.00	0.00
8,800.0	90.00	90.26	7,092.0	-2,288.00	1,138.6	2,820.6	2,898.8	0.00	0.00	0.00
8,900.0	90.00	90.26	7,092.0	-2,288.00	1,138.2	2,920.6	2,998.5	0.00	0.00	0.00

# Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 3-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 3-9-11	<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)
9,000.0	90.00	90.26	7,092.0	-2,288.00	1,137.7	3,020.6	3,098.2	0.00	0.00	0.00
9,100.0	90.00	90.26	7,092.0	-2,288.00	1,137.2	3,120.6	3,197.9	0.00	0.00	0.00
9,200.0	90.00	90.26	7,092.0	-2,288.00	1,136.8	3,220.6	3,297.6	0.00	0.00	0.00
9,300.0	90.00	90.26	7,092.0	-2,288.00	1,136.3	3,320.6	3,397.2	0.00	0.00	0.00
9,400.0	90.00	90.26	7,092.0	-2,288.00	1,135.9	3,420.6	3,496.9	0.00	0.00	0.00
9,500.0	90.00	90.26	7,092.0	-2,288.00	1,135.4	3,520.6	3,596.6	0.00	0.00	0.00
9,600.0	90.00	90.26	7,092.0	-2,288.00	1,135.0	3,620.6	3,696.3	0.00	0.00	0.00
9,700.0	90.00	90.26	7,092.0	-2,288.00	1,134.5	3,720.6	3,795.9	0.00	0.00	0.00
9,800.0	90.00	90.26	7,092.0	-2,288.00	1,134.0	3,820.6	3,895.6	0.00	0.00	0.00
9,900.0	90.00	90.26	7,092.0	-2,288.00	1,133.6	3,920.6	3,995.3	0.00	0.00	0.00
10,000.0	90.00	90.26	7,092.0	-2,288.00	1,133.1	4,020.6	4,095.0	0.00	0.00	0.00
10,100.0	90.00	90.26	7,092.0	-2,288.00	1,132.7	4,120.6	4,194.6	0.00	0.00	0.00
10,200.0	90.00	90.26	7,092.0	-2,288.00	1,132.2	4,220.6	4,294.3	0.00	0.00	0.00
10,300.0	90.00	90.26	7,092.0	-2,288.00	1,131.7	4,320.6	4,394.0	0.00	0.00	0.00
10,400.0	90.00	90.26	7,092.0	-2,288.00	1,131.3	4,420.6	4,493.7	0.00	0.00	0.00
10,500.0	90.00	90.26	7,092.0	-2,288.00	1,130.8	4,520.6	4,593.3	0.00	0.00	0.00
10,600.0	90.00	90.26	7,092.0	-2,288.00	1,130.4	4,620.6	4,693.0	0.00	0.00	0.00
10,700.0	90.00	90.26	7,092.0	-2,288.00	1,129.9	4,720.6	4,792.7	0.00	0.00	0.00
10,800.0	90.00	90.26	7,092.0	-2,288.00	1,129.5	4,820.6	4,892.4	0.00	0.00	0.00
10,900.0	90.00	90.26	7,092.0	-2,288.00	1,129.0	4,920.6	4,992.0	0.00	0.00	0.00
11,000.0	90.00	90.26	7,092.0	-2,288.00	1,128.5	5,020.6	5,091.7	0.00	0.00	0.00
11,100.0	90.00	90.26	7,092.0	-2,288.00	1,128.1	5,120.6	5,191.4	0.00	0.00	0.00
11,200.0	90.00	90.26	7,092.0	-2,288.00	1,127.6	5,220.6	5,291.1	0.00	0.00	0.00
11,300.0	90.00	90.26	7,092.0	-2,288.00	1,127.2	5,320.6	5,390.7	0.00	0.00	0.00
11,400.0	90.00	90.26	7,092.0	-2,288.00	1,126.7	5,420.6	5,490.4	0.00	0.00	0.00
11,500.0	90.00	90.26	7,092.0	-2,288.00	1,126.3	5,520.6	5,590.1	0.00	0.00	0.00
11,600.0	90.00	90.26	7,092.0	-2,288.00	1,125.8	5,620.6	5,689.8	0.00	0.00	0.00
11,700.0	90.00	90.26	7,092.0	-2,288.00	1,125.3	5,720.6	5,789.5	0.00	0.00	0.00
11,800.0	90.00	90.26	7,092.0	-2,288.00	1,124.9	5,820.6	5,889.1	0.00	0.00	0.00
11,900.0	90.00	90.26	7,092.0	-2,288.00	1,124.4	5,920.6	5,988.8	0.00	0.00	0.00
12,000.0	90.00	90.26	7,092.0	-2,288.00	1,124.0	6,020.6	6,088.5	0.00	0.00	0.00
12,100.0	90.00	90.26	7,092.0	-2,288.00	1,123.5	6,120.6	6,188.2	0.00	0.00	0.00
12,200.0	90.00	90.26	7,092.0	-2,288.00	1,123.0	6,220.6	6,287.8	0.00	0.00	0.00
12,300.0	90.00	90.26	7,092.0	-2,288.00	1,122.6	6,320.6	6,387.5	0.00	0.00	0.00
12,400.0	90.00	90.26	7,092.0	-2,288.00	1,122.1	6,420.6	6,487.2	0.00	0.00	0.00
12,500.0	90.00	90.26	7,092.0	-2,288.00	1,121.7	6,520.6	6,586.9	0.00	0.00	0.00
12,600.0	90.00	90.26	7,092.0	-2,288.00	1,121.2	6,620.6	6,686.5	0.00	0.00	0.00
12,700.0	90.00	90.26	7,092.0	-2,288.00	1,120.8	6,720.6	6,786.2	0.00	0.00	0.00
12,800.0	90.00	90.26	7,092.0	-2,288.00	1,120.3	6,820.6	6,885.9	0.00	0.00	0.00
12,900.0	90.00	90.26	7,092.0	-2,288.00	1,119.8	6,920.6	6,985.6	0.00	0.00	0.00
13,000.0	90.00	90.26	7,092.0	-2,288.00	1,119.4	7,020.6	7,085.2	0.00	0.00	0.00
13,100.0	90.00	90.26	7,092.0	-2,288.00	1,118.9	7,120.6	7,184.9	0.00	0.00	0.00
13,200.0	90.00	90.26	7,092.0	-2,288.00	1,118.5	7,220.6	7,284.6	0.00	0.00	0.00
13,300.0	90.00	90.26	7,092.0	-2,288.00	1,118.0	7,320.6	7,384.3	0.00	0.00	0.00
13,400.0	90.00	90.26	7,092.0	-2,288.00	1,117.5	7,420.5	7,483.9	0.00	0.00	0.00
13,500.0	90.00	90.26	7,092.0	-2,288.00	1,117.1	7,520.5	7,583.6	0.00	0.00	0.00
13,600.0	90.00	90.26	7,092.0	-2,288.00	1,116.6	7,620.5	7,683.3	0.00	0.00	0.00
13,700.0	90.00	90.26	7,092.0	-2,288.00	1,116.2	7,720.5	7,783.0	0.00	0.00	0.00
13,800.0	90.00	90.26	7,092.0	-2,288.00	1,115.7	7,820.5	7,882.6	0.00	0.00	0.00
13,900.0	90.00	90.26	7,092.0	-2,288.00	1,115.3	7,920.5	7,982.3	0.00	0.00	0.00
14,000.0	90.00	90.26	7,092.0	-2,288.00	1,114.8	8,020.5	8,082.0	0.00	0.00	0.00
14,100.0	90.00	90.26	7,092.0	-2,288.00	1,114.3	8,120.5	8,181.7	0.00	0.00	0.00
14,200.0	90.00	90.26	7,092.0	-2,288.00	1,113.9	8,220.5	8,281.4	0.00	0.00	0.00
14,300.0	90.00	90.26	7,092.0	-2,288.00	1,113.4	8,320.5	8,381.0	0.00	0.00	0.00

## Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 3-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 3-9-11	<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)
14,400.0	90.00	90.26	7,092.0	-2,288.00	1,113.0	8,420.5	8,480.7	0.00	0.00	0.00
14,500.0	90.00	90.26	7,092.0	-2,288.00	1,112.5	8,520.5	8,580.4	0.00	0.00	0.00
14,600.0	90.00	90.26	7,092.0	-2,288.00	1,112.1	8,620.5	8,680.1	0.00	0.00	0.00
14,700.0	90.00	90.26	7,092.0	-2,288.00	1,111.6	8,720.5	8,779.7	0.00	0.00	0.00
14,800.0	90.00	90.26	7,092.0	-2,288.00	1,111.1	8,820.5	8,879.4	0.00	0.00	0.00
14,900.0	90.00	90.26	7,092.0	-2,288.00	1,110.7	8,920.5	8,979.1	0.00	0.00	0.00
15,000.0	90.00	90.26	7,092.0	-2,288.00	1,110.2	9,020.5	9,078.8	0.00	0.00	0.00
15,100.0	90.00	90.26	7,092.0	-2,288.00	1,109.8	9,120.5	9,178.4	0.00	0.00	0.00
15,200.0	90.00	90.26	7,092.0	-2,288.00	1,109.3	9,220.5	9,278.1	0.00	0.00	0.00
15,300.0	90.00	90.26	7,092.0	-2,288.00	1,108.8	9,320.5	9,377.8	0.00	0.00	0.00
15,400.0	90.00	90.26	7,092.0	-2,288.00	1,108.4	9,420.5	9,477.5	0.00	0.00	0.00
15,500.0	90.00	90.26	7,092.0	-2,288.00	1,107.9	9,520.5	9,577.1	0.00	0.00	0.00
15,600.0	90.00	90.26	7,092.0	-2,288.00	1,107.5	9,620.5	9,676.8	0.00	0.00	0.00
15,700.0	90.00	90.26	7,092.0	-2,288.00	1,107.0	9,720.5	9,776.5	0.00	0.00	0.00
15,800.0	90.00	90.26	7,092.0	-2,288.00	1,106.6	9,820.5	9,876.2	0.00	0.00	0.00
15,900.0	90.00	90.26	7,092.0	-2,288.00	1,106.1	9,920.5	9,975.8	0.00	0.00	0.00
16,000.0	90.00	90.26	7,092.0	-2,288.00	1,105.6	10,020.5	10,075.5	0.00	0.00	0.00
16,100.0	90.00	90.26	7,092.0	-2,288.00	1,105.2	10,120.5	10,175.2	0.00	0.00	0.00
16,200.0	90.00	90.26	7,092.0	-2,288.00	1,104.7	10,220.5	10,274.9	0.00	0.00	0.00
16,300.0	90.00	90.26	7,092.0	-2,288.00	1,104.3	10,320.5	10,374.6	0.00	0.00	0.00
16,400.0	90.00	90.26	7,092.0	-2,288.00	1,103.8	10,420.5	10,474.2	0.00	0.00	0.00
16,500.0	90.00	90.26	7,092.0	-2,288.00	1,103.3	10,520.5	10,573.9	0.00	0.00	0.00
16,600.0	90.00	90.26	7,092.0	-2,288.00	1,102.9	10,620.5	10,673.6	0.00	0.00	0.00
16,700.0	90.00	90.26	7,092.0	-2,288.00	1,102.4	10,720.5	10,773.3	0.00	0.00	0.00
16,800.0	90.00	90.26	7,092.0	-2,288.00	1,102.0	10,820.5	10,872.9	0.00	0.00	0.00
16,900.0	90.00	90.26	7,092.0	-2,288.00	1,101.5	10,920.5	10,972.6	0.00	0.00	0.00
17,000.0	90.00	90.26	7,092.0	-2,288.00	1,101.1	11,020.5	11,072.3	0.00	0.00	0.00
17,100.0	90.00	90.26	7,092.0	-2,288.00	1,100.6	11,120.5	11,172.0	0.00	0.00	0.00
17,200.0	90.00	90.26	7,092.0	-2,288.00	1,100.1	11,220.5	11,271.6	0.00	0.00	0.00
17,300.0	90.00	90.26	7,092.0	-2,288.00	1,099.7	11,320.5	11,371.3	0.00	0.00	0.00
17,400.0	90.00	90.26	7,092.0	-2,288.00	1,099.2	11,420.5	11,471.0	0.00	0.00	0.00
17,500.0	90.00	90.26	7,092.0	-2,288.00	1,098.8	11,520.5	11,570.7	0.00	0.00	0.00
17,600.0	90.00	90.26	7,092.0	-2,288.00	1,098.3	11,620.5	11,670.3	0.00	0.00	0.00
17,700.0	90.00	90.26	7,092.0	-2,288.00	1,097.9	11,720.5	11,770.0	0.00	0.00	0.00
17,800.0	90.00	90.26	7,092.0	-2,288.00	1,097.4	11,820.5	11,869.7	0.00	0.00	0.00
17,900.0	90.00	90.26	7,092.0	-2,288.00	1,096.9	11,920.5	11,969.4	0.00	0.00	0.00
18,000.0	90.00	90.26	7,092.0	-2,288.00	1,096.5	12,020.5	12,069.0	0.00	0.00	0.00
18,100.0	90.00	90.26	7,092.0	-2,288.00	1,096.0	12,120.5	12,168.7	0.00	0.00	0.00
18,200.0	90.00	90.26	7,092.0	-2,288.00	1,095.6	12,220.5	12,268.4	0.00	0.00	0.00
18,300.0	90.00	90.26	7,092.0	-2,288.00	1,095.1	12,320.5	12,368.1	0.00	0.00	0.00
18,400.0	90.00	90.26	7,092.0	-2,288.00	1,094.6	12,420.5	12,467.7	0.00	0.00	0.00
18,500.0	90.00	90.26	7,092.0	-2,288.00	1,094.2	12,520.5	12,567.4	0.00	0.00	0.00
18,600.0	90.00	90.26	7,092.0	-2,288.00	1,093.7	12,620.5	12,667.1	0.00	0.00	0.00
18,700.0	90.00	90.26	7,092.0	-2,288.00	1,093.3	12,720.5	12,766.8	0.00	0.00	0.00
18,800.0	90.00	90.26	7,092.0	-2,288.00	1,092.8	12,820.5	12,866.5	0.00	0.00	0.00
18,900.0	90.00	90.26	7,092.0	-2,288.00	1,092.4	12,920.5	12,966.1	0.00	0.00	0.00
19,000.0	90.00	90.26	7,092.0	-2,288.00	1,091.9	13,020.5	13,065.8	0.00	0.00	0.00
19,100.0	90.00	90.26	7,092.0	-2,288.00	1,091.4	13,120.5	13,165.5	0.00	0.00	0.00
19,200.0	90.00	90.26	7,092.0	-2,288.00	1,091.0	13,220.5	13,265.2	0.00	0.00	0.00
19,300.0	90.00	90.26	7,092.0	-2,288.00	1,090.5	13,320.5	13,364.8	0.00	0.00	0.00
19,400.0	90.00	90.26	7,092.0	-2,288.00	1,090.1	13,420.5	13,464.5	0.00	0.00	0.00
19,500.0	90.00	90.26	7,092.0	-2,288.00	1,089.6	13,520.5	13,564.2	0.00	0.00	0.00
19,600.0	90.00	90.26	7,092.0	-2,288.00	1,089.1	13,620.5	13,663.9	0.00	0.00	0.00
19,700.0	90.00	90.26	7,092.0	-2,288.00	1,088.7	13,720.5	13,763.5	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well TC-COUNTRY CLUB WEST 3-9-11
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>MD Reference:</b>	KB-EST @ 4804.0usft (Original Well Elev)
<b>Site:</b>	NE SE SEC. 8 T5N R66W 6th P.M.	<b>North Reference:</b>	True
<b>Well:</b>	TC-COUNTRY CLUB WEST 3-9-11	<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)
19,800.0	90.00	90.26	7,092.0	-2,288.00	1,088.2	13,820.5	13,863.2	0.00	0.00	0.00
19,900.0	90.00	90.26	7,092.0	-2,288.00	1,087.8	13,920.5	13,962.9	0.00	0.00	0.00
20,000.0	90.00	90.26	7,092.0	-2,288.00	1,087.3	14,020.5	14,062.6	0.00	0.00	0.00
20,100.0	90.00	90.26	7,092.0	-2,288.00	1,086.9	14,120.5	14,162.2	0.00	0.00	0.00
20,200.0	90.00	90.26	7,092.0	-2,288.00	1,086.4	14,220.5	14,261.9	0.00	0.00	0.00
<b>BHL - TC-COUNTRY CLUB WEST 3-9-11</b>										
<b>20,255.6</b>	<b>90.00</b>	<b>90.26</b>	<b>7,092.0</b>	<b>-2,288.00</b>	<b>1,086.1</b>	<b>14,276.1</b>	<b>14,317.3</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Formations						
MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,770.3	3,680.0	PARKMAN				
4,527.0	4,410.0	SUSSEX				
4,952.0	4,820.0	SHANNON				
7,193.8	6,940.0	SHARON SPRINGS				
7,243.8	6,972.0	NIOBRARA				
7,625.0	7,092.0	NIO B TARGET				

Plan Annotations				
MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
700.0	700.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,463.0	1,454.0	70.6	72.2	EOB TO 15.26° INC
6,833.0	6,634.7	1,058.9	1,082.4	START BUILD & TURN
7,625.0	7,092.0	1,144.0	1,645.6	LANDING PNT - TC-COUNTRY CLUB WEST 3-9-11
20,255.6	7,092.0	1,086.1	14,276.1	BHL - TC-COUNTRY CLUB WEST 3-9-11