

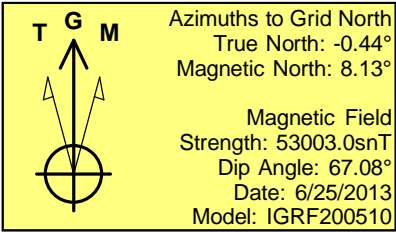
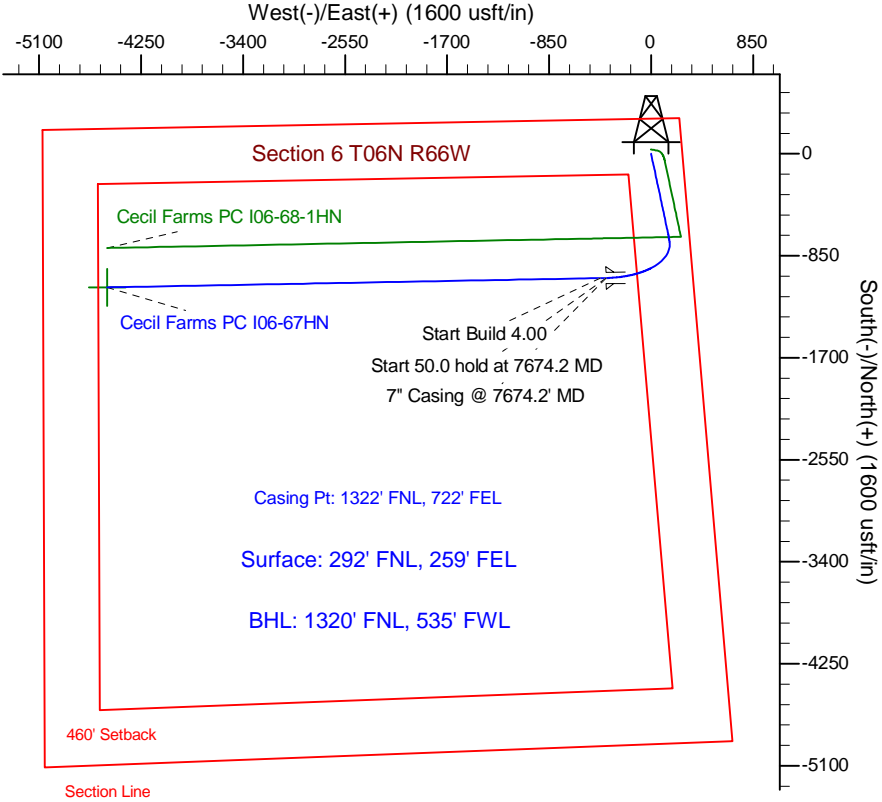
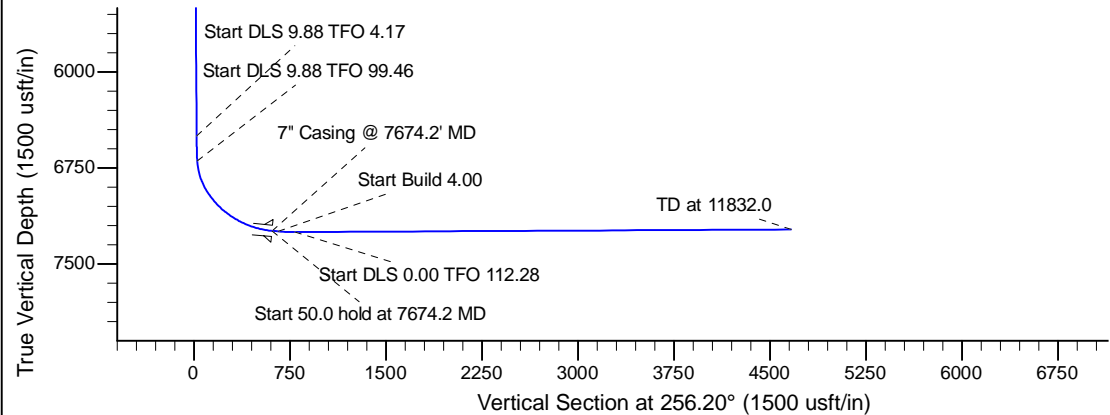
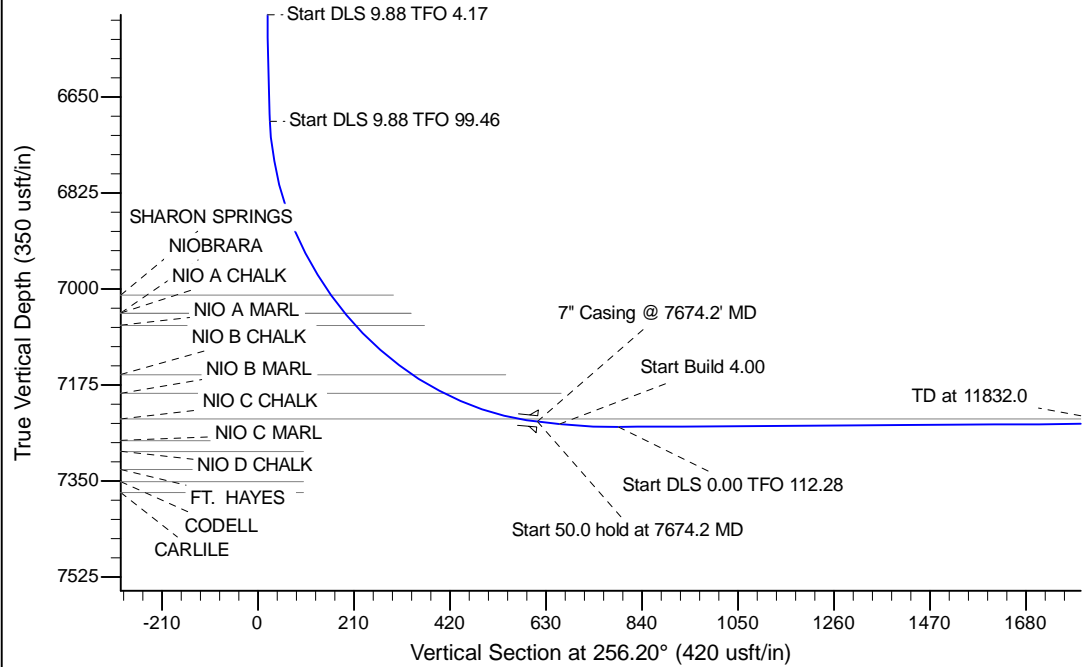
Project: Wattenberg Field  
Site: I (Sec.6-T06N-R66W) Weld County, CO  
Well: Cecil Farms PC I06-67HN  
Wellbore: Original Drilling  
Design: APD - Rev 0

# Northern Region Drilling - Working

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2400.0	0.00	0.00	2400.0	0.0	0.0	0.00	0.00	0.0	
3	2900.0	10.00	168.00	2897.5	-42.6	9.0	2.00	168.00	1.4	
4	6558.1	10.00	168.00	6500.0	-663.9	141.1	0.00	0.00	21.3	
5	6766.1	30.55	170.88	6694.1	-734.5	153.4	9.88	4.17	26.2	
6	7674.2	85.00	268.92	7241.5	-1035.0	-375.0	9.88	99.46	611.1	
7	7724.2	85.00	268.92	7245.9	-1035.9	-424.8	0.00	0.00	659.6	
8	7856.7	90.30	268.92	7251.3	-1038.4	-557.1	4.00	0.00	788.7	
9	11832.0	90.30	268.93	7230.6	-1113.1	-4531.7	0.00	112.28	4666.4	Cecil Farms PC I06-67HN BHL 1320'FNL, 535'FWL



WELL DETAILS: Cecil Farms PC I06-67HN					
Ground Level: 4870.0					
0.0	0.0	Northing	Easting	Latitude	Longitude
		1434045.34	3190715.59	40.522830	-104.813980
Plan: APD - Rev 0 (Cecil Farms PC I06-67HN/Original Drilling)					
Created By: Shailey Jewell			Date: 9:26, July 03 2013		
Checked: _____			Date: _____		
Reviewed: _____			Date: _____		
Approved: _____			Date: _____		

# **Northern Region Drilling - Working**

**Wattenberg Field**

**I (06N-66W)**

**Cecil Farms PC I06-67HN**

**Original Drilling**

**Plan: APD - Rev 0**

## **Standard Planning Report**

**03 July, 2013**

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

<b>Project</b>	Wattenberg Field, Weld County CO		
<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

Site		I (06N-66W)			
Site Position:		Northing:	1,434,081.75 usft	Latitude:	40.522930
From:	Lat/Long	Easting:	3,190,712.53 usft	Longitude:	-104.813990
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.44 °

Well	Cecil Farms PC I06-67HN					
Well Position	+N/-S	-36.4 usft	Northing:	1,434,045.34 usft	Latitude:	40.522830
	+E/-W	3.1 usft	Easting:	3,190,715.59 usft	Longitude:	-104.813980
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	4,870.0 usft

<b>Wellbore</b>	Original Drilling				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	6/25/2013	8.58	67.08	53,003

<b>Design</b>	APD - Rev 0			
<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>
	0.0	0.0	0.0	256.20

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,900.0	10.00	168.00	2,897.5	-42.6	9.0	2.00	2.00	0.00	168.00	
6,558.1	10.00	168.00	6,500.0	-663.9	141.1	0.00	0.00	0.00	0.00	
6,766.1	30.55	170.88	6,694.1	-734.5	153.4	9.88	9.88	1.38	4.17	
7,674.2	85.00	268.92	7,241.5	-1,035.0	-375.0	9.88	6.00	10.80	99.46	
7,724.2	85.00	268.92	7,245.9	-1,035.9	-424.8	0.00	0.00	0.00	0.00	
7,856.7	90.30	268.92	7,251.3	-1,038.4	-557.1	4.00	4.00	0.00	0.00	
11,832.0	90.30	268.93	7,230.6	-1,113.1	-4,531.7	0.00	0.00	0.00	112.28	Cecil Farms PC I06-6

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (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	0.0	0.0	0.0	0.00	0.00	0.00
50.0	0.00	0.00	50.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
550.0	0.00	0.00	550.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
650.0	0.00	0.00	650.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
750.0	0.00	0.00	750.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
850.0	0.00	0.00	850.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
950.0	0.00	0.00	950.0	0.0	0.0	0.0	0.00	0.00	0.00
971.0	0.00	0.00	971.0	0.0	0.0	0.0	0.00	0.00	0.00
PIERRE									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,050.0	0.00	0.00	1,050.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,150.0	0.00	0.00	1,150.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,250.0	0.00	0.00	1,250.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,350.0	0.00	0.00	1,350.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,450.0	0.00	0.00	1,450.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,550.0	0.00	0.00	1,550.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,650.0	0.00	0.00	1,650.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,750.0	0.00	0.00	1,750.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,850.0	0.00	0.00	1,850.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,950.0	0.00	0.00	1,950.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,050.0	0.00	0.00	2,050.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,150.0	0.00	0.00	2,150.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,250.0	0.00	0.00	2,250.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,350.0	0.00	0.00	2,350.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 2.00									
2,450.0	1.00	168.00	2,450.0	-0.4	0.1	0.0	2.00	2.00	0.00
2,500.0	2.00	168.00	2,500.0	-1.7	0.4	0.1	2.00	2.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,550.0	3.00	168.00	2,549.9	-3.8	0.8	0.1	2.00	2.00	0.00
2,600.0	4.00	168.00	2,599.8	-6.8	1.5	0.2	2.00	2.00	0.00
2,650.0	5.00	168.00	2,649.7	-10.7	2.3	0.3	2.00	2.00	0.00
2,700.0	6.00	168.00	2,699.5	-15.4	3.3	0.5	2.00	2.00	0.00
2,750.0	7.00	168.00	2,749.1	-20.9	4.4	0.7	2.00	2.00	0.00
2,800.0	8.00	168.00	2,798.7	-27.3	5.8	0.9	2.00	2.00	0.00
2,850.0	9.00	168.00	2,848.2	-34.5	7.3	1.1	2.00	2.00	0.00
2,900.0	10.00	168.00	2,897.5	-42.6	9.0	1.4	2.00	2.00	0.00
2,950.0	10.00	168.00	2,946.7	-51.1	10.9	1.6	0.00	0.00	0.00
3,000.0	10.00	168.00	2,995.9	-59.6	12.7	1.9	0.00	0.00	0.00
3,050.0	10.00	168.00	3,045.2	-68.0	14.5	2.2	0.00	0.00	0.00
3,100.0	10.00	168.00	3,094.4	-76.5	16.3	2.5	0.00	0.00	0.00
3,150.0	10.00	168.00	3,143.7	-85.0	18.1	2.7	0.00	0.00	0.00
3,200.0	10.00	168.00	3,192.9	-93.5	19.9	3.0	0.00	0.00	0.00
3,250.0	10.00	168.00	3,242.1	-102.0	21.7	3.3	0.00	0.00	0.00
3,300.0	10.00	168.00	3,291.4	-110.5	23.5	3.5	0.00	0.00	0.00
3,350.0	10.00	168.00	3,340.6	-119.0	25.3	3.8	0.00	0.00	0.00
3,400.0	10.00	168.00	3,389.9	-127.5	27.1	4.1	0.00	0.00	0.00
3,450.0	10.00	168.00	3,439.1	-136.0	28.9	4.4	0.00	0.00	0.00
3,500.0	10.00	168.00	3,488.3	-144.5	30.7	4.6	0.00	0.00	0.00
3,550.0	10.00	168.00	3,537.6	-153.0	32.5	4.9	0.00	0.00	0.00
3,600.0	10.00	168.00	3,586.8	-161.5	34.3	5.2	0.00	0.00	0.00
3,650.0	10.00	168.00	3,636.1	-170.0	36.1	5.5	0.00	0.00	0.00
3,700.0	10.00	168.00	3,685.3	-178.5	37.9	5.7	0.00	0.00	0.00
3,708.8	10.00	168.00	3,694.0	-180.0	38.3	5.8	0.00	0.00	0.00
<b>PARKMAN</b>									
3,750.0	10.00	168.00	3,734.6	-186.9	39.7	6.0	0.00	0.00	0.00
3,800.0	10.00	168.00	3,783.8	-195.4	41.5	6.3	0.00	0.00	0.00
3,850.0	10.00	168.00	3,833.0	-203.9	43.3	6.5	0.00	0.00	0.00
3,900.0	10.00	168.00	3,882.3	-212.4	45.2	6.8	0.00	0.00	0.00
3,950.0	10.00	168.00	3,931.5	-220.9	47.0	7.1	0.00	0.00	0.00
4,000.0	10.00	168.00	3,980.8	-229.4	48.8	7.4	0.00	0.00	0.00
4,050.0	10.00	168.00	4,030.0	-237.9	50.6	7.6	0.00	0.00	0.00
4,100.0	10.00	168.00	4,079.2	-246.4	52.4	7.9	0.00	0.00	0.00
4,150.0	10.00	168.00	4,128.5	-254.9	54.2	8.2	0.00	0.00	0.00
4,200.0	10.00	168.00	4,177.7	-263.4	56.0	8.5	0.00	0.00	0.00
4,250.0	10.00	168.00	4,227.0	-271.9	57.8	8.7	0.00	0.00	0.00
4,275.4	10.00	168.00	4,252.0	-276.2	58.7	8.9	0.00	0.00	0.00
<b>SUSSEX</b>									
4,300.0	10.00	168.00	4,276.2	-280.4	59.6	9.0	0.00	0.00	0.00
4,350.0	10.00	168.00	4,325.4	-288.9	61.4	9.3	0.00	0.00	0.00
4,400.0	10.00	168.00	4,374.7	-297.4	63.2	9.5	0.00	0.00	0.00
4,450.0	10.00	168.00	4,423.9	-305.8	65.0	9.8	0.00	0.00	0.00
4,500.0	10.00	168.00	4,473.2	-314.3	66.8	10.1	0.00	0.00	0.00
4,550.0	10.00	168.00	4,522.4	-322.8	68.6	10.4	0.00	0.00	0.00
4,600.0	10.00	168.00	4,571.6	-331.3	70.4	10.6	0.00	0.00	0.00
4,650.0	10.00	168.00	4,620.9	-339.8	72.2	10.9	0.00	0.00	0.00
4,700.0	10.00	168.00	4,670.1	-348.3	74.0	11.2	0.00	0.00	0.00
4,750.0	10.00	168.00	4,719.4	-356.8	75.8	11.5	0.00	0.00	0.00
4,800.0	10.00	168.00	4,768.6	-365.3	77.6	11.7	0.00	0.00	0.00
4,850.0	10.00	168.00	4,817.8	-373.8	79.5	12.0	0.00	0.00	0.00
4,900.0	10.00	168.00	4,867.1	-382.3	81.3	12.3	0.00	0.00	0.00
4,910.1	10.00	168.00	4,877.0	-384.0	81.6	12.3	0.00	0.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>SHANNON</b>									
4,950.0	10.00	168.00	4,916.3	-390.8	83.1	12.5	0.00	0.00	0.00
5,000.0	10.00	168.00	4,965.6	-399.3	84.9	12.8	0.00	0.00	0.00
5,050.0	10.00	168.00	5,014.8	-407.8	86.7	13.1	0.00	0.00	0.00
5,100.0	10.00	168.00	5,064.0	-416.2	88.5	13.4	0.00	0.00	0.00
5,150.0	10.00	168.00	5,113.3	-424.7	90.3	13.6	0.00	0.00	0.00
5,200.0	10.00	168.00	5,162.5	-433.2	92.1	13.9	0.00	0.00	0.00
5,250.0	10.00	168.00	5,211.8	-441.7	93.9	14.2	0.00	0.00	0.00
5,300.0	10.00	168.00	5,261.0	-450.2	95.7	14.5	0.00	0.00	0.00
5,350.0	10.00	168.00	5,310.2	-458.7	97.5	14.7	0.00	0.00	0.00
5,400.0	10.00	168.00	5,359.5	-467.2	99.3	15.0	0.00	0.00	0.00
5,450.0	10.00	168.00	5,408.7	-475.7	101.1	15.3	0.00	0.00	0.00
5,500.0	10.00	168.00	5,458.0	-484.2	102.9	15.5	0.00	0.00	0.00
5,550.0	10.00	168.00	5,507.2	-492.7	104.7	15.8	0.00	0.00	0.00
5,600.0	10.00	168.00	5,556.4	-501.2	106.5	16.1	0.00	0.00	0.00
5,650.0	10.00	168.00	5,605.7	-509.7	108.3	16.4	0.00	0.00	0.00
5,700.0	10.00	168.00	5,654.9	-518.2	110.1	16.6	0.00	0.00	0.00
5,750.0	10.00	168.00	5,704.2	-526.7	111.9	16.9	0.00	0.00	0.00
5,800.0	10.00	168.00	5,753.4	-535.1	113.7	17.2	0.00	0.00	0.00
5,850.0	10.00	168.00	5,802.6	-543.6	115.6	17.5	0.00	0.00	0.00
5,900.0	10.00	168.00	5,851.9	-552.1	117.4	17.7	0.00	0.00	0.00
5,950.0	10.00	168.00	5,901.1	-560.6	119.2	18.0	0.00	0.00	0.00
6,000.0	10.00	168.00	5,950.4	-569.1	121.0	18.3	0.00	0.00	0.00
6,050.0	10.00	168.00	5,999.6	-577.6	122.8	18.5	0.00	0.00	0.00
6,100.0	10.00	168.00	6,048.9	-586.1	124.6	18.8	0.00	0.00	0.00
6,150.0	10.00	168.00	6,098.1	-594.6	126.4	19.1	0.00	0.00	0.00
6,200.0	10.00	168.00	6,147.3	-603.1	128.2	19.4	0.00	0.00	0.00
6,250.0	10.00	168.00	6,196.6	-611.6	130.0	19.6	0.00	0.00	0.00
6,269.7	10.00	168.00	6,216.0	-614.9	130.7	19.7	0.00	0.00	0.00
<b>TEEPEE BUTTES</b>									
6,300.0	10.00	168.00	6,245.8	-620.1	131.8	19.9	0.00	0.00	0.00
6,350.0	10.00	168.00	6,295.1	-628.6	133.6	20.2	0.00	0.00	0.00
6,400.0	10.00	168.00	6,344.3	-637.1	135.4	20.5	0.00	0.00	0.00
6,450.0	10.00	168.00	6,393.5	-645.6	137.2	20.7	0.00	0.00	0.00
6,500.0	10.00	168.00	6,442.8	-654.0	139.0	21.0	0.00	0.00	0.00
6,550.0	10.00	168.00	6,492.0	-662.5	140.8	21.3	0.00	0.00	0.00
6,558.1	10.00	168.00	6,500.0	-663.9	141.1	21.3	0.00	0.00	0.00
<b>Start DLS 9.88 TFO 4.17</b>									
6,600.0	14.13	169.23	6,541.0	-672.5	142.8	21.7	9.88	9.86	2.94
6,650.0	19.07	170.01	6,588.9	-686.5	145.4	22.6	9.88	9.87	1.56
6,700.0	24.01	170.48	6,635.4	-704.6	148.5	23.9	9.88	9.88	0.94
6,750.0	28.95	170.80	6,680.1	-726.6	152.1	25.6	9.88	9.88	0.63
6,766.1	30.54	170.88	6,694.1	-734.5	153.4	26.2	9.88	9.88	0.51
<b>Start DLS 9.88 TFO 99.46</b>									
6,800.0	30.16	177.46	6,723.3	-751.5	155.1	28.6	9.87	-1.13	19.42
6,850.0	30.20	187.30	6,766.6	-776.6	154.1	35.6	9.88	0.08	19.68
6,900.0	30.97	196.91	6,809.7	-801.4	148.7	46.7	9.88	1.53	19.21
6,950.0	32.40	205.92	6,852.2	-825.7	139.1	61.8	9.88	2.87	18.03
7,000.0	34.43	214.12	6,894.0	-849.5	125.4	80.9	9.88	4.05	16.39
7,050.0	36.94	221.42	6,934.6	-872.5	107.5	103.7	9.88	5.03	14.61
7,100.0	39.85	227.86	6,973.8	-894.5	85.6	130.2	9.88	5.82	12.88
7,149.6	43.04	233.48	7,011.0	-915.3	60.2	159.8	9.88	6.44	11.34
<b>SHARON SPRINGS</b>									

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,150.0	43.07	233.52	7,011.3	-915.4	60.0	160.1	9.88	6.71	10.63
7,196.0	46.25	238.14	7,044.0	-933.5	33.3	190.4	9.88	6.92	10.05
<b>NIOBRARA - NIO A CHALK</b>									
7,200.0	46.54	238.52	7,046.8	-935.1	30.8	193.1	9.88	7.13	9.45
7,228.5	48.61	241.12	7,066.0	-945.6	12.6	213.3	9.88	7.25	9.10
<b>NIO A MARL</b>									
7,250.0	50.20	242.97	7,080.0	-953.3	-1.8	229.1	9.88	7.42	8.60
7,300.0	54.02	246.95	7,110.7	-969.9	-37.6	267.8	9.88	7.63	7.97
7,350.0	57.95	250.56	7,138.7	-984.9	-76.2	308.9	9.88	7.87	7.22
7,384.0	60.68	252.84	7,156.0	-994.1	-103.9	338.0	9.88	8.03	6.70
<b>NIO B CHALK</b>									
7,400.0	61.98	253.87	7,163.7	-998.1	-117.4	352.1	9.88	8.11	6.44
7,450.0	66.08	256.94	7,185.6	-1,009.4	-160.9	397.0	9.88	8.20	6.14
7,461.1	67.00	257.59	7,190.0	-1,011.7	-170.8	407.2	9.88	8.28	5.89
<b>NIO B MARL</b>									
7,500.0	70.24	259.81	7,204.2	-1,018.7	-206.3	443.4	9.88	8.33	5.72
7,550.0	74.44	262.54	7,219.4	-1,026.0	-253.4	490.8	9.88	8.41	5.46
7,600.0	78.68	265.16	7,231.0	-1,031.2	-301.7	539.0	9.88	8.47	5.24
7,635.4	81.69	266.97	7,237.0	-1,033.6	-336.5	573.3	9.88	8.51	5.10
<b>NIO C CHALK</b>									
7,650.0	82.94	267.71	7,239.0	-1,034.3	-351.0	587.5	9.88	8.53	5.05
7,674.2	85.00	268.92	7,241.5	-1,035.0	-375.0	611.1	9.88	8.53	5.01
<b>Start 50.0 hold at 7674.2 MD - 7" Casing @ 7674.2' MD</b>									
7,700.0	85.00	268.92	7,243.8	-1,035.5	-400.7	636.1	0.00	0.00	0.00
7,724.2	85.00	268.92	7,245.9	-1,035.9	-424.8	659.7	0.00	0.00	0.00
<b>Start Build 4.00</b>									
7,750.0	86.03	268.92	7,247.9	-1,036.4	-450.5	684.7	4.00	4.00	0.00
7,800.0	88.03	268.92	7,250.5	-1,037.4	-500.5	733.5	4.00	4.00	0.00
7,850.0	90.03	268.92	7,251.3	-1,038.3	-550.4	782.2	4.00	4.00	0.00
7,856.7	90.30	268.92	7,251.3	-1,038.4	-557.1	788.8	3.99	3.99	0.00
<b>Start DLS 0.00 TFO 112.28</b>									
7,900.0	90.30	268.92	7,251.1	-1,039.2	-600.4	831.0	0.00	0.00	0.00
7,950.0	90.30	268.92	7,250.8	-1,040.2	-650.4	879.8	0.00	0.00	0.00
8,000.0	90.30	268.92	7,250.5	-1,041.1	-700.4	928.5	0.00	0.00	0.00
8,050.0	90.30	268.92	7,250.3	-1,042.1	-750.4	977.3	0.00	0.00	0.00
8,100.0	90.30	268.92	7,250.0	-1,043.0	-800.4	1,026.1	0.00	0.00	0.00
8,150.0	90.30	268.92	7,249.8	-1,044.0	-850.4	1,074.9	0.00	0.00	0.00
8,200.0	90.30	268.92	7,249.5	-1,044.9	-900.4	1,123.6	0.00	0.00	0.00
8,250.0	90.30	268.92	7,249.2	-1,045.8	-950.4	1,172.4	0.00	0.00	0.00
8,300.0	90.30	268.92	7,249.0	-1,046.8	-1,000.4	1,221.2	0.00	0.00	0.00
8,350.0	90.30	268.92	7,248.7	-1,047.7	-1,050.3	1,269.9	0.00	0.00	0.00
8,400.0	90.30	268.92	7,248.4	-1,048.7	-1,100.3	1,318.7	0.00	0.00	0.00
8,450.0	90.30	268.92	7,248.2	-1,049.6	-1,150.3	1,367.5	0.00	0.00	0.00
8,500.0	90.30	268.92	7,247.9	-1,050.6	-1,200.3	1,416.3	0.00	0.00	0.00
8,550.0	90.30	268.92	7,247.7	-1,051.5	-1,250.3	1,465.0	0.00	0.00	0.00
8,600.0	90.30	268.92	7,247.4	-1,052.4	-1,300.3	1,513.8	0.00	0.00	0.00
8,650.0	90.30	268.92	7,247.1	-1,053.4	-1,350.3	1,562.6	0.00	0.00	0.00
8,700.0	90.30	268.92	7,246.9	-1,054.3	-1,400.3	1,611.3	0.00	0.00	0.00
8,750.0	90.30	268.92	7,246.6	-1,055.3	-1,450.3	1,660.1	0.00	0.00	0.00
8,800.0	90.30	268.92	7,246.4	-1,056.2	-1,500.3	1,708.9	0.00	0.00	0.00
8,850.0	90.30	268.92	7,246.1	-1,057.1	-1,550.3	1,757.7	0.00	0.00	0.00
8,900.0	90.30	268.92	7,245.8	-1,058.1	-1,600.2	1,806.4	0.00	0.00	0.00
8,950.0	90.30	268.92	7,245.6	-1,059.0	-1,650.2	1,855.2	0.00	0.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,000.0	90.30	268.92	7,245.3	-1,060.0	-1,700.2	1,904.0	0.00	0.00	0.00	
9,050.0	90.30	268.92	7,245.1	-1,060.9	-1,750.2	1,952.7	0.00	0.00	0.00	
9,100.0	90.30	268.92	7,244.8	-1,061.8	-1,800.2	2,001.5	0.00	0.00	0.00	
9,150.0	90.30	268.92	7,244.5	-1,062.8	-1,850.2	2,050.3	0.00	0.00	0.00	
9,200.0	90.30	268.92	7,244.3	-1,063.7	-1,900.2	2,099.1	0.00	0.00	0.00	
9,250.0	90.30	268.92	7,244.0	-1,064.7	-1,950.2	2,147.8	0.00	0.00	0.00	
9,300.0	90.30	268.92	7,243.7	-1,065.6	-2,000.2	2,196.6	0.00	0.00	0.00	
9,350.0	90.30	268.92	7,243.5	-1,066.5	-2,050.2	2,245.4	0.00	0.00	0.00	
9,400.0	90.30	268.92	7,243.2	-1,067.5	-2,100.1	2,294.1	0.00	0.00	0.00	
9,450.0	90.30	268.92	7,243.0	-1,068.4	-2,150.1	2,342.9	0.00	0.00	0.00	
9,500.0	90.30	268.92	7,242.7	-1,069.4	-2,200.1	2,391.7	0.00	0.00	0.00	
9,550.0	90.30	268.92	7,242.4	-1,070.3	-2,250.1	2,440.5	0.00	0.00	0.00	
9,600.0	90.30	268.92	7,242.2	-1,071.2	-2,300.1	2,489.2	0.00	0.00	0.00	
9,650.0	90.30	268.92	7,241.9	-1,072.2	-2,350.1	2,538.0	0.00	0.00	0.00	
9,700.0	90.30	268.92	7,241.7	-1,073.1	-2,400.1	2,586.8	0.00	0.00	0.00	
9,750.0	90.30	268.92	7,241.4	-1,074.0	-2,450.1	2,635.5	0.00	0.00	0.00	
9,800.0	90.30	268.92	7,241.1	-1,075.0	-2,500.1	2,684.3	0.00	0.00	0.00	
9,850.0	90.30	268.92	7,240.9	-1,075.9	-2,550.1	2,733.1	0.00	0.00	0.00	
9,900.0	90.30	268.92	7,240.6	-1,076.9	-2,600.1	2,781.9	0.00	0.00	0.00	
9,950.0	90.30	268.92	7,240.4	-1,077.8	-2,650.0	2,830.6	0.00	0.00	0.00	
10,000.0	90.30	268.92	7,240.1	-1,078.7	-2,700.0	2,879.4	0.00	0.00	0.00	
10,050.0	90.30	268.92	7,239.8	-1,079.7	-2,750.0	2,928.2	0.00	0.00	0.00	
10,100.0	90.30	268.92	7,239.6	-1,080.6	-2,800.0	2,976.9	0.00	0.00	0.00	
10,150.0	90.30	268.93	7,239.3	-1,081.6	-2,850.0	3,025.7	0.00	0.00	0.00	
10,200.0	90.30	268.93	7,239.1	-1,082.5	-2,900.0	3,074.5	0.00	0.00	0.00	
10,250.0	90.30	268.93	7,238.8	-1,083.4	-2,950.0	3,123.3	0.00	0.00	0.00	
10,300.0	90.30	268.93	7,238.5	-1,084.4	-3,000.0	3,172.0	0.00	0.00	0.00	
10,350.0	90.30	268.93	7,238.3	-1,085.3	-3,050.0	3,220.8	0.00	0.00	0.00	
10,400.0	90.30	268.93	7,238.0	-1,086.2	-3,100.0	3,269.6	0.00	0.00	0.00	
10,450.0	90.30	268.93	7,237.8	-1,087.2	-3,149.9	3,318.3	0.00	0.00	0.00	
10,500.0	90.30	268.93	7,237.5	-1,088.1	-3,199.9	3,367.1	0.00	0.00	0.00	
10,550.0	90.30	268.93	7,237.2	-1,089.1	-3,249.9	3,415.9	0.00	0.00	0.00	
10,600.0	90.30	268.93	7,237.0	-1,090.0	-3,299.9	3,464.7	0.00	0.00	0.00	
10,650.0	90.30	268.93	7,236.7	-1,090.9	-3,349.9	3,513.4	0.00	0.00	0.00	
10,700.0	90.30	268.93	7,236.5	-1,091.9	-3,399.9	3,562.2	0.00	0.00	0.00	
10,750.0	90.30	268.93	7,236.2	-1,092.8	-3,449.9	3,611.0	0.00	0.00	0.00	
10,800.0	90.30	268.93	7,235.9	-1,093.7	-3,499.9	3,659.7	0.00	0.00	0.00	
10,850.0	90.30	268.93	7,235.7	-1,094.7	-3,549.9	3,708.5	0.00	0.00	0.00	
10,900.0	90.30	268.93	7,235.4	-1,095.6	-3,599.9	3,757.3	0.00	0.00	0.00	
10,950.0	90.30	268.93	7,235.2	-1,096.6	-3,649.9	3,806.1	0.00	0.00	0.00	
11,000.0	90.30	268.93	7,234.9	-1,097.5	-3,699.8	3,854.8	0.00	0.00	0.00	
11,050.0	90.30	268.93	7,234.6	-1,098.4	-3,749.8	3,903.6	0.00	0.00	0.00	
11,100.0	90.30	268.93	7,234.4	-1,099.4	-3,799.8	3,952.4	0.00	0.00	0.00	
11,150.0	90.30	268.93	7,234.1	-1,100.3	-3,849.8	4,001.1	0.00	0.00	0.00	
11,200.0	90.30	268.93	7,233.9	-1,101.2	-3,899.8	4,049.9	0.00	0.00	0.00	
11,250.0	90.30	268.93	7,233.6	-1,102.2	-3,949.8	4,098.7	0.00	0.00	0.00	
11,300.0	90.30	268.93	7,233.4	-1,103.1	-3,999.8	4,147.5	0.00	0.00	0.00	
11,350.0	90.30	268.93	7,233.1	-1,104.0	-4,049.8	4,196.2	0.00	0.00	0.00	
11,400.0	90.30	268.93	7,232.8	-1,105.0	-4,099.8	4,245.0	0.00	0.00	0.00	
11,450.0	90.30	268.93	7,232.6	-1,105.9	-4,149.8	4,293.8	0.00	0.00	0.00	
11,500.0	90.30	268.93	7,232.3	-1,106.8	-4,199.7	4,342.5	0.00	0.00	0.00	
11,550.0	90.30	268.93	7,232.1	-1,107.8	-4,249.7	4,391.3	0.00	0.00	0.00	
11,600.0	90.30	268.93	7,231.8	-1,108.7	-4,299.7	4,440.1	0.00	0.00	0.00	
11,650.0	90.30	268.93	7,231.5	-1,109.7	-4,349.7	4,488.9	0.00	0.00	0.00	



# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,700.0	90.30	268.93	7,231.3	-1,110.6	-4,399.7	4,537.6	0.00	0.00	0.00
11,750.0	90.30	268.93	7,231.0	-1,111.5	-4,449.7	4,586.4	0.00	0.00	0.00
11,800.0	90.30	268.93	7,230.8	-1,112.5	-4,499.7	4,635.2	0.00	0.00	0.00
11,832.0	90.30	268.93	7,230.6	-1,113.1	-4,531.7	4,666.4	0.00	0.00	0.00
TD at 11832.0 - Cecil Farms PC I06-67HN BHL 1320'FNL, 535'FWL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Cecil Farms PC I06-67H	0.00	0.00	7,230.6	-1,113.1	-4,531.7	1,432,932.32	3,186,184.04	40.519870	-104.830310
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
7,674.2	7,241.5	7" Casing @ 7674.2' MD	7	8-3/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
971.0	971.0	PIERRE		0.00		
3,708.8	3,694.0	PARKMAN		0.00		
4,275.4	4,252.0	SUSSEX		0.00		
4,910.1	4,877.0	SHANNON		0.00		
6,269.7	6,216.0	TEEPEE BUTTES		0.00		
7,149.6	7,011.0	SHARON SPRINGS		0.00		
7,196.0	7,044.0	NIOBRARA		0.00		
7,196.0	7,044.0	NIO A CHALK		0.00		
7,228.5	7,066.0	NIO A MARL		0.00		
7,384.0	7,156.0	NIO B CHALK		0.00		
7,461.1	7,190.0	NIO B MARL		0.00		
7,635.4	7,237.0	NIO C CHALK		0.00		

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site:</b>	I (06N-66W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,400.0	2,400.0	0.0	0.0	KOP - Start Build 2.00
6,558.1	6,500.0	-42.6	9.0	Start DLS 9.88 TFO 4.17
6,766.1	6,694.1	-663.9	141.1	Start DLS 9.88 TFO 99.46
7,674.2	7,241.5	-734.5	153.4	Start 50.0 hold at 7674.2 MD
7,724.2	7,245.9	-1,035.0	-375.0	Start Build 4.00
7,856.7	7,251.3	-1,035.9	-424.8	Start DLS 0.00 TFO 112.28
11,832.0	7,230.6	-1,038.4	-557.1	TD at 11832.0

# **Northern Region Drilling - Working**

**Wattenberg Field**

**I (06N-66W)**

**Cecil Farms PC I06-67HN**

**Original Drilling**

**APD - Rev 0**

## **Anticollision Summary Report**

**03 July, 2013**

**Noble Energy Inc**  
Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling - Working	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Reference Site:</b>	I (06N-66W)	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDM Production
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	APD - Rev 0		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0 usft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	7/3/2013		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,832.0	APD - Rev 0 (Original Drilling)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (usft)</b>	<b>Offset Measured Depth (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
I (06N-66W)						
Cecil Farms PC I06-68-1HN - Original Drilling - APD - Re	1,731.1	1,731.4	35.3	27.9	4.736	CC, ES
Cecil Farms PC I06-68-1HN - Original Drilling - APD - Re	11,832.0	11,737.0	333.3	78.6	1.308	Level 2, SF

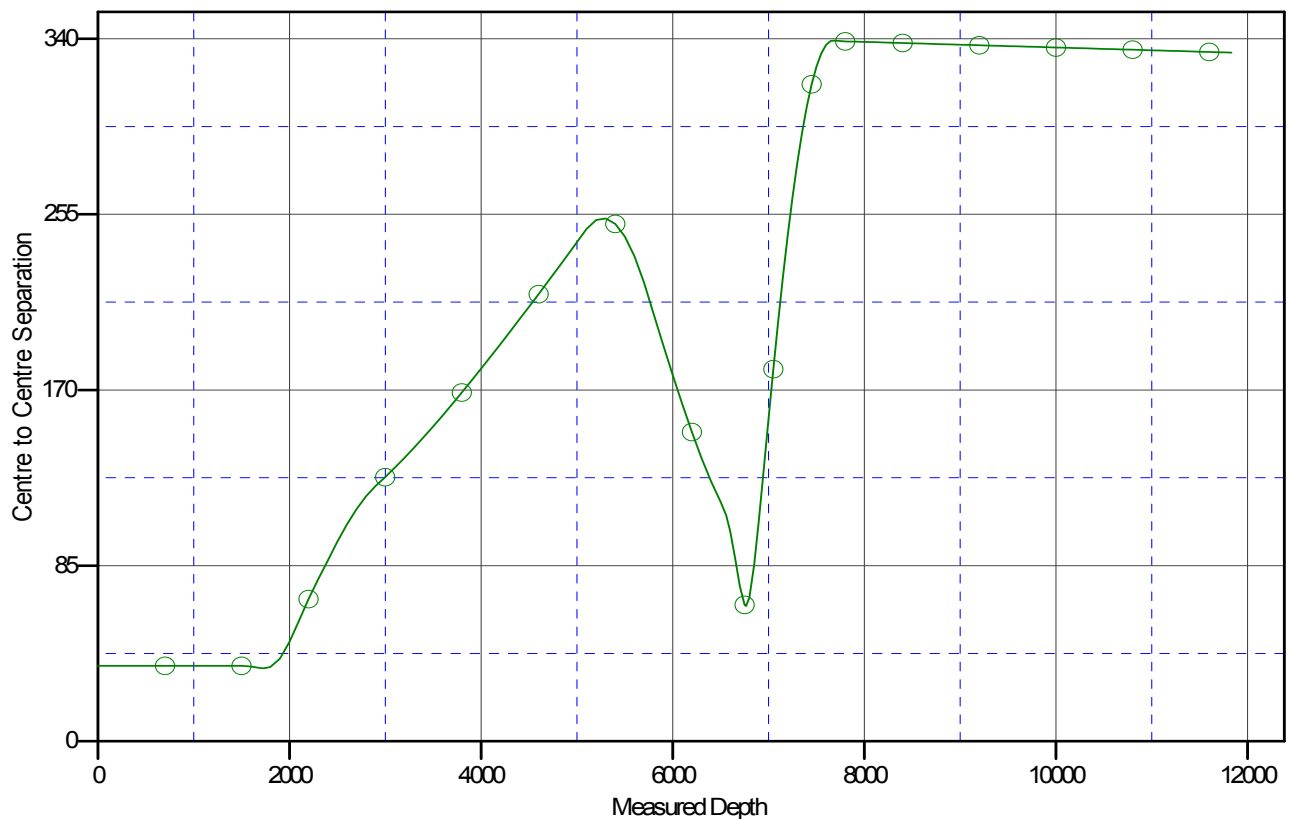
**Noble Energy Inc**  
Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling - Working	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Reference Site:</b>	I (06N-66W)	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDM Production
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4894.0usft (Original Well Ele)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: Cecil Farms PC I06-67HN  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.44°

## Ladder Plot



### LEGEND

PC I06-68-1HN, Original Drilling, APD - Rev2 V0

**Noble Energy Inc**  
Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling - Working	<b>Local Co-ordinate Reference:</b>	Well Cecil Farms PC I06-67HN
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Reference Site:</b>	I (06N-66W)	<b>MD Reference:</b>	WELL @ 4894.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Cecil Farms PC I06-67HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDM Production
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4894.0usft (Original Well Ele  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: Cecil Farms PC I06-67HN  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.44°

