

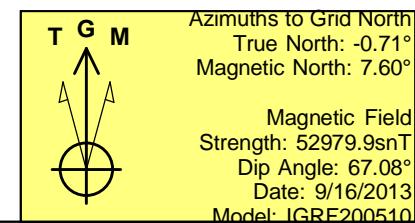
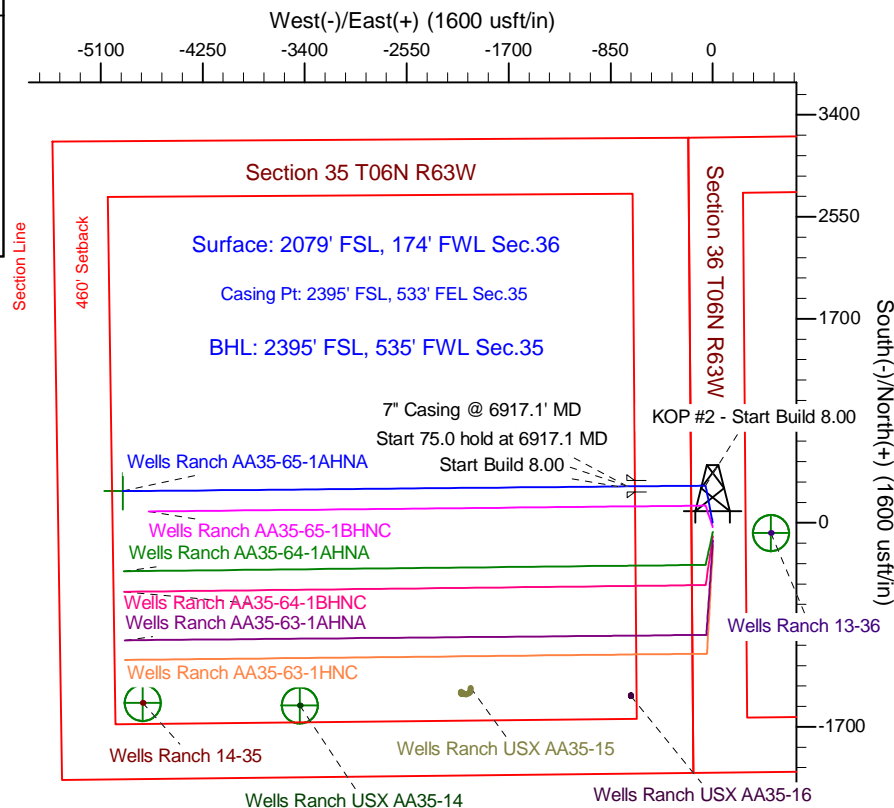
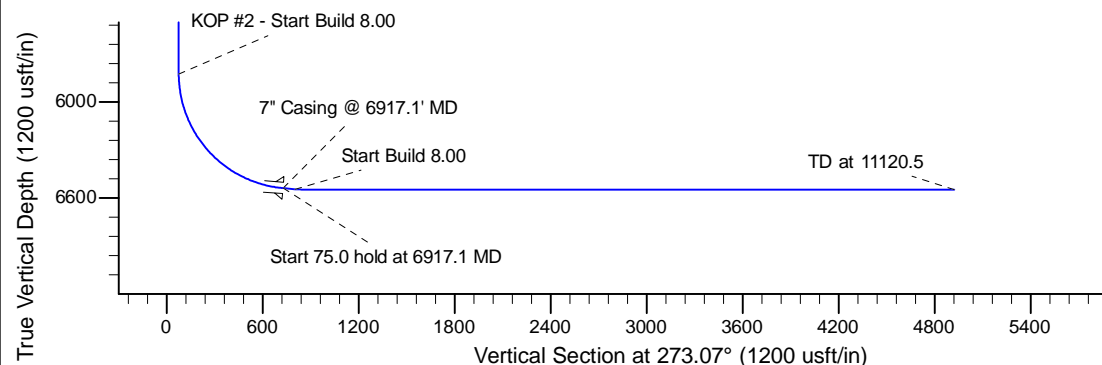
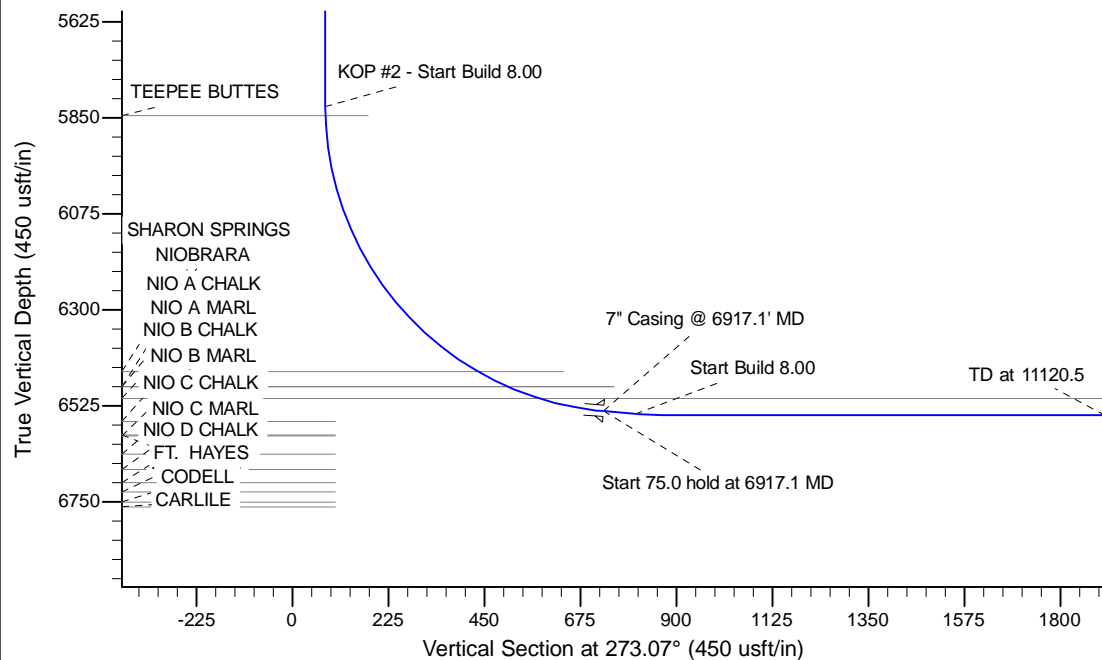
Project: Wattenberg Field  
Site: AA (Sec.36-T06N-R63W) Weld County, CO  
Well: Wells Ranch AA35-65-1AHNA  
Wellbore: Original Drilling  
Design: APD - Rev 0

# 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	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1850.4	13.01	349.05	1844.8	72.2	-14.0	2.00	349.05	17.8	
4	2600.0	13.01	349.05	2575.2	237.8	-46.0	0.00	0.00	58.7	
5	3250.4	0.00	0.00	3220.0	310.0	-60.0	2.00	180.00	76.5	
6	5854.6	0.00	0.00	5824.3	310.0	-60.0	0.00	0.00	76.5	
7	6917.1	85.00	269.45	6537.7	303.7	-713.7	8.00	269.45	729.0	
8	6992.1	85.00	269.45	6544.3	303.0	-788.5	0.00	0.00	803.5	
9	7054.6	90.00	269.45	6547.0	302.4	-850.9	8.00	0.00	865.8	
10	11120.5	90.00	269.45	6547.0	263.4	-4916.5	0.00	0.00	4923.6	Wells Ranch AA35-65-1AHNA BHL 2395'FSL, 535'FWL



WELL DETAILS: Wells Ranch AA35-65-1AHNA				
Ground Level: 4775.0				
0.0	0.0	Northing	Easting	Latitude
		1405536.28	3307808.85	40.441330
				Longitude
				-104.394100
Plan: APD - Rev 0 (Wells Ranch AA35-65-1AHNA/Original Drilling)				
Created By: Shailey Jewell		Date: 13:00, September 16 2013		
Checked: _____		Date: _____		
Reviewed: _____		Date: _____		
Approved: _____		Date: _____		

# **Northern Region Drilling - Working**

**Wattenberg Field**

**AA (06N-63W)**

**Wells Ranch AA35-65-1AHNA**

**Original Drilling**

**Plan: APD - Rev 0**

## **Standard Planning Report**

**16 September, 2013**

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site:</b>	AA (06N-63W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Wells Ranch AA35-65-1AHNA	<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		AA (06N-63W)			
Site Position:		Northing:	1,427,844.88 usft	Latitude:	40.502740
From:	Lat/Long	Easting:	3,302,558.01 usft	Longitude:	-104.411980
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.70 °

Well	Wells Ranch AA35-65-1AHNA					
Well Position	+N/-S	-22,309.3 usft	Northing:	1,405,536.28 usft	Latitude:	40.441330
	+E/-W	5,251.0 usft	Easting:	3,307,808.85 usft	Longitude:	-104.394100
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	4,775.0 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	9/16/2013	8.31	67.08	52,980

<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	273.07

<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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,850.4	13.01	349.05	1,844.8	72.2	-14.0	2.00	2.00	0.00	349.05	
2,600.0	13.01	349.05	2,575.2	237.8	-46.0	0.00	0.00	0.00	0.00	
3,250.4	0.00	0.00	3,220.0	310.0	-60.0	2.00	-2.00	0.00	180.00	
5,854.6	0.00	0.00	5,824.3	310.0	-60.0	0.00	0.00	0.00	0.00	
6,917.1	85.00	269.45	6,537.7	303.7	-713.7	8.00	8.00	0.00	269.45	
6,992.1	85.00	269.45	6,544.3	303.0	-788.5	0.00	0.00	0.00	0.00	
7,054.6	90.00	269.45	6,547.0	302.4	-850.9	8.00	8.00	0.00	0.00	
11,120.5	90.00	269.45	6,547.0	263.4	-4,916.5	0.00	0.00	0.00	0.00	Wells Ranch AA35-65

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site:</b>	AA (06N-63W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Wells Ranch AA35-65-1AHNA	<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
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
KOP - Start Build 2.00									
1,250.0	1.00	349.05	1,250.0	0.4	-0.1	0.1	2.00	2.00	0.00
1,300.0	2.00	349.05	1,300.0	1.7	-0.3	0.4	2.00	2.00	0.00
1,350.0	3.00	349.05	1,349.9	3.9	-0.7	1.0	2.00	2.00	0.00
1,400.0	4.00	349.05	1,399.8	6.9	-1.3	1.7	2.00	2.00	0.00
1,450.0	5.00	349.05	1,449.7	10.7	-2.1	2.6	2.00	2.00	0.00
1,500.0	6.00	349.05	1,499.5	15.4	-3.0	3.8	2.00	2.00	0.00
1,550.0	7.00	349.05	1,549.1	21.0	-4.1	5.2	2.00	2.00	0.00
1,600.0	8.00	349.05	1,598.7	27.4	-5.3	6.8	2.00	2.00	0.00
1,650.0	9.00	349.05	1,648.2	34.6	-6.7	8.5	2.00	2.00	0.00
1,700.0	10.00	349.05	1,697.5	42.7	-8.3	10.5	2.00	2.00	0.00
1,750.0	11.00	349.05	1,746.6	51.7	-10.0	12.8	2.00	2.00	0.00
1,800.0	12.00	349.05	1,795.6	61.5	-11.9	15.2	2.00	2.00	0.00
1,850.0	13.00	349.05	1,844.4	72.1	-14.0	17.8	2.00	2.00	0.00
1,850.4	13.01	349.05	1,844.8	72.2	-14.0	17.8	2.00	2.00	0.00
1,900.0	13.01	349.05	1,893.2	83.1	-16.1	20.5	0.00	0.00	0.00
1,950.0	13.01	349.05	1,941.9	94.2	-18.2	23.2	0.00	0.00	0.00
2,000.0	13.01	349.05	1,990.6	105.2	-20.4	26.0	0.00	0.00	0.00
2,050.0	13.01	349.05	2,039.3	116.3	-22.5	28.7	0.00	0.00	0.00
2,100.0	13.01	349.05	2,088.0	127.3	-24.6	31.4	0.00	0.00	0.00
2,150.0	13.01	349.05	2,136.7	138.4	-26.8	34.1	0.00	0.00	0.00
2,200.0	13.01	349.05	2,185.5	149.4	-28.9	36.9	0.00	0.00	0.00
2,250.0	13.01	349.05	2,234.2	160.5	-31.1	39.6	0.00	0.00	0.00
2,300.0	13.01	349.05	2,282.9	171.5	-33.2	42.3	0.00	0.00	0.00
2,350.0	13.01	349.05	2,331.6	182.6	-35.3	45.1	0.00	0.00	0.00
2,400.0	13.01	349.05	2,380.3	193.6	-37.5	47.8	0.00	0.00	0.00
2,450.0	13.01	349.05	2,429.0	204.7	-39.6	50.5	0.00	0.00	0.00
2,486.9	13.01	349.05	2,465.0	212.8	-41.2	52.5	0.00	0.00	0.00
PIERRE									

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site:</b>	AA (06N-63W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Wells Ranch AA35-65-1AHNA	<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)
2,500.0	13.01	349.05	2,477.8	215.7	-41.8	53.2	0.00	0.00	0.00
2,550.0	13.01	349.05	2,526.5	226.8	-43.9	56.0	0.00	0.00	0.00
2,600.0	13.01	349.05	2,575.2	237.8	-46.0	58.7	0.00	0.00	0.00
Start Drop -2.00									
2,650.0	12.01	349.05	2,624.0	248.5	-48.1	61.3	2.00	-2.00	0.00
2,700.0	11.01	349.05	2,673.0	258.3	-50.0	63.7	2.00	-2.00	0.00
2,750.0	10.01	349.05	2,722.2	267.2	-51.7	65.9	2.00	-2.00	0.00
2,800.0	9.01	349.05	2,771.5	275.3	-53.3	67.9	2.00	-2.00	0.00
2,850.0	8.01	349.05	2,820.9	282.6	-54.7	69.7	2.00	-2.00	0.00
2,900.0	7.01	349.05	2,870.5	289.0	-55.9	71.3	2.00	-2.00	0.00
2,950.0	6.01	349.05	2,920.2	294.6	-57.0	72.7	2.00	-2.00	0.00
3,000.0	5.01	349.05	2,969.9	299.3	-57.9	73.9	2.00	-2.00	0.00
3,050.0	4.01	349.05	3,019.8	303.1	-58.7	74.8	2.00	-2.00	0.00
3,100.0	3.01	349.05	3,069.7	306.1	-59.3	75.5	2.00	-2.00	0.00
3,150.0	2.01	349.05	3,119.6	308.3	-59.7	76.1	2.00	-2.00	0.00
3,200.0	1.01	349.05	3,169.6	309.6	-59.9	76.4	2.00	-2.00	0.00
3,250.0	0.01	349.05	3,219.6	310.0	-60.0	76.5	2.00	-2.00	0.00
3,250.4	0.00	0.00	3,220.0	310.0	-60.0	76.5	2.00	-2.00	0.00
3,300.0	0.00	0.00	3,269.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,350.0	0.00	0.00	3,319.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,400.0	0.00	0.00	3,369.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,450.0	0.00	0.00	3,419.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,500.0	0.00	0.00	3,469.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,550.0	0.00	0.00	3,519.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,600.0	0.00	0.00	3,569.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,650.0	0.00	0.00	3,619.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,700.0	0.00	0.00	3,669.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,750.0	0.00	0.00	3,719.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,800.0	0.00	0.00	3,769.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,850.0	0.00	0.00	3,819.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,900.0	0.00	0.00	3,869.6	310.0	-60.0	76.5	0.00	0.00	0.00
3,950.0	0.00	0.00	3,919.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,000.0	0.00	0.00	3,969.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,050.0	0.00	0.00	4,019.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,100.0	0.00	0.00	4,069.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,150.0	0.00	0.00	4,119.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,200.0	0.00	0.00	4,169.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,250.0	0.00	0.00	4,219.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,300.0	0.00	0.00	4,269.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,335.4	0.00	0.00	4,305.0	310.0	-60.0	76.5	0.00	0.00	0.00
SUSSEX									
4,350.0	0.00	0.00	4,319.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,400.0	0.00	0.00	4,369.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,450.0	0.00	0.00	4,419.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,500.0	0.00	0.00	4,469.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,550.0	0.00	0.00	4,519.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,600.0	0.00	0.00	4,569.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,650.0	0.00	0.00	4,619.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,700.0	0.00	0.00	4,669.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,750.0	0.00	0.00	4,719.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,800.0	0.00	0.00	4,769.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,850.0	0.00	0.00	4,819.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,900.0	0.00	0.00	4,869.6	310.0	-60.0	76.5	0.00	0.00	0.00
4,927.4	0.00	0.00	4,897.0	310.0	-60.0	76.5	0.00	0.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site:</b>	AA (06N-63W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Wells Ranch AA35-65-1AHNA	<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	0.00	0.00	4,919.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,000.0	0.00	0.00	4,969.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,050.0	0.00	0.00	5,019.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,100.0	0.00	0.00	5,069.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,150.0	0.00	0.00	5,119.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,169.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,250.0	0.00	0.00	5,219.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,300.0	0.00	0.00	5,269.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,350.0	0.00	0.00	5,319.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,369.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,450.0	0.00	0.00	5,419.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,469.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,550.0	0.00	0.00	5,519.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,569.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,650.0	0.00	0.00	5,619.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,700.0	0.00	0.00	5,669.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,750.0	0.00	0.00	5,719.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,769.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,850.0	0.00	0.00	5,819.6	310.0	-60.0	76.5	0.00	0.00	0.00
5,854.6	0.00	0.00	5,824.2	310.0	-60.0	76.5	0.00	0.00	0.00
<b>KOP #2 - Start Build 8.00</b>									
5,875.4	1.66	269.45	5,845.0	310.0	-60.3	76.8	7.98	7.98	0.00
<b>TEEPEE BUTTES</b>									
5,900.0	3.63	269.45	5,869.6	310.0	-61.4	77.9	8.00	8.00	0.00
5,950.0	7.63	269.45	5,919.3	309.9	-66.3	82.8	8.00	8.00	0.00
6,000.0	11.63	269.45	5,968.6	309.9	-74.7	91.2	8.00	8.00	0.00
6,050.0	15.63	269.45	6,017.2	309.7	-86.5	102.9	8.00	8.00	0.00
6,100.0	19.63	269.45	6,064.8	309.6	-101.6	118.0	8.00	8.00	0.00
6,150.0	23.63	269.45	6,111.3	309.4	-120.0	136.4	8.00	8.00	0.00
6,200.0	27.63	269.45	6,156.4	309.2	-141.7	158.0	8.00	8.00	0.00
6,250.0	31.63	269.45	6,199.8	309.0	-166.4	182.7	8.00	8.00	0.00
6,300.0	35.63	269.45	6,241.5	308.7	-194.1	210.3	8.00	8.00	0.00
6,350.0	39.63	269.45	6,281.1	308.4	-224.6	240.8	8.00	8.00	0.00
6,400.0	43.63	269.45	6,318.4	308.1	-257.8	273.9	8.00	8.00	0.00
6,450.0	47.63	269.45	6,353.4	307.8	-293.5	309.6	8.00	8.00	0.00
6,500.0	51.63	269.45	6,385.8	307.4	-331.6	347.6	8.00	8.00	0.00
6,550.0	55.63	269.45	6,415.4	307.0	-371.8	387.7	8.00	8.00	0.00
<b>Wells Ranch 13-36</b>									
6,600.0	59.63	269.45	6,442.2	306.6	-414.1	429.9	8.00	8.00	0.00
6,605.6	60.08	269.45	6,445.0	306.6	-418.9	434.7	8.00	8.00	0.00
<b>SHARON SPRINGS</b>									
6,650.0	63.63	269.45	6,465.9	306.2	-458.0	473.8	8.00	8.00	0.00
6,683.2	66.29	269.45	6,480.0	305.9	-488.2	503.8	8.00	8.00	0.00
<b>NIOBRARA - NIO A CHALK</b>									
6,700.0	67.63	269.45	6,486.6	305.7	-503.6	519.2	8.00	8.00	0.00
6,750.0	71.63	269.45	6,504.0	305.3	-550.4	566.0	8.00	8.00	0.00
6,763.2	72.68	269.45	6,508.0	305.2	-563.0	578.5	8.00	8.00	0.00
<b>NIO A MARL</b>									
6,800.0	75.63	269.45	6,518.1	304.8	-598.4	613.9	8.00	8.00	0.00
6,850.0	79.63	269.45	6,528.8	304.4	-647.2	662.6	8.00	8.00	0.00
6,900.0	83.63	269.45	6,536.0	303.9	-696.7	711.9	8.00	8.00	0.00
6,917.1	85.00	269.45	6,537.7	303.7	-713.7	728.9	8.00	8.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site:</b>	AA (06N-63W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Wells Ranch AA35-65-1AHNA	<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)
Start 75.0 hold at 6917.1 MD - 7" Casing @ 6917.1' MD									
6,950.0	85.00	269.45	6,540.6	303.4	-746.5	761.6	0.01	0.01	0.00
6,992.1	85.00	269.45	6,544.3	303.0	-788.4	803.5	0.00	0.00	0.00
Start Build 8.00									
7,000.0	85.63	269.45	6,544.9	302.9	-796.3	811.4	7.95	7.95	0.00
7,050.0	89.63	269.45	6,547.0	302.5	-846.2	861.2	8.00	8.00	0.00
7,054.6	90.00	269.45	6,547.0	302.4	-850.9	865.8	8.00	8.00	0.00
7,100.0	90.00	269.45	6,547.0	302.0	-896.2	911.1	0.00	0.00	0.00
7,150.0	90.00	269.45	6,547.0	301.5	-946.2	961.0	0.00	0.00	0.00
7,200.0	90.00	269.45	6,547.0	301.0	-996.2	1,010.9	0.00	0.00	0.00
7,250.0	90.00	269.45	6,547.0	300.5	-1,046.2	1,060.8	0.00	0.00	0.00
7,300.0	90.00	269.45	6,547.0	300.1	-1,096.2	1,110.7	0.00	0.00	0.00
7,350.0	90.00	269.45	6,547.0	299.6	-1,146.2	1,160.6	0.00	0.00	0.00
7,400.0	90.00	269.45	6,547.0	299.1	-1,196.2	1,210.5	0.00	0.00	0.00
7,450.0	90.00	269.45	6,547.0	298.6	-1,246.2	1,260.4	0.00	0.00	0.00
7,500.0	90.00	269.45	6,547.0	298.1	-1,296.2	1,310.3	0.00	0.00	0.00
7,550.0	90.00	269.45	6,547.0	297.7	-1,346.2	1,360.2	0.00	0.00	0.00
7,600.0	90.00	269.45	6,547.0	297.2	-1,396.2	1,410.1	0.00	0.00	0.00
7,650.0	90.00	269.45	6,547.0	296.7	-1,446.2	1,460.0	0.00	0.00	0.00
7,700.0	90.00	269.45	6,547.0	296.2	-1,496.2	1,509.9	0.00	0.00	0.00
7,750.0	90.00	269.45	6,547.0	295.8	-1,546.2	1,559.8	0.00	0.00	0.00
7,800.0	90.00	269.45	6,547.0	295.3	-1,596.2	1,609.7	0.00	0.00	0.00
7,850.0	90.00	269.45	6,547.0	294.8	-1,646.2	1,659.6	0.00	0.00	0.00
7,900.0	90.00	269.45	6,547.0	294.3	-1,696.2	1,709.5	0.00	0.00	0.00
7,950.0	90.00	269.45	6,547.0	293.8	-1,746.2	1,759.4	0.00	0.00	0.00
8,000.0	90.00	269.45	6,547.0	293.4	-1,796.2	1,809.3	0.00	0.00	0.00
8,050.0	90.00	269.45	6,547.0	292.9	-1,846.2	1,859.2	0.00	0.00	0.00
8,100.0	90.00	269.45	6,547.0	292.4	-1,896.2	1,909.1	0.00	0.00	0.00
8,150.0	90.00	269.45	6,547.0	291.9	-1,946.2	1,959.0	0.00	0.00	0.00
8,200.0	90.00	269.45	6,547.0	291.4	-1,996.2	2,008.9	0.00	0.00	0.00
8,250.0	90.00	269.45	6,547.0	291.0	-2,046.2	2,058.8	0.00	0.00	0.00
8,300.0	90.00	269.45	6,547.0	290.5	-2,096.2	2,108.7	0.00	0.00	0.00
8,350.0	90.00	269.45	6,547.0	290.0	-2,146.2	2,158.6	0.00	0.00	0.00
8,400.0	90.00	269.45	6,547.0	289.5	-2,196.2	2,208.5	0.00	0.00	0.00
8,450.0	90.00	269.45	6,547.0	289.0	-2,246.2	2,258.4	0.00	0.00	0.00
8,500.0	90.00	269.45	6,547.0	288.6	-2,296.2	2,308.3	0.00	0.00	0.00
8,550.0	90.00	269.45	6,547.0	288.1	-2,346.2	2,358.2	0.00	0.00	0.00
8,600.0	90.00	269.45	6,547.0	287.6	-2,396.2	2,408.1	0.00	0.00	0.00
8,650.0	90.00	269.45	6,547.0	287.1	-2,446.2	2,458.0	0.00	0.00	0.00
8,700.0	90.00	269.45	6,547.0	286.6	-2,496.2	2,507.9	0.00	0.00	0.00
8,750.0	90.00	269.45	6,547.0	286.2	-2,546.1	2,557.8	0.00	0.00	0.00
8,800.0	90.00	269.45	6,547.0	285.7	-2,596.1	2,607.7	0.00	0.00	0.00
8,850.0	90.00	269.45	6,547.0	285.2	-2,646.1	2,657.6	0.00	0.00	0.00
8,900.0	90.00	269.45	6,547.0	284.7	-2,696.1	2,707.5	0.00	0.00	0.00
8,950.0	90.00	269.45	6,547.0	284.2	-2,746.1	2,757.4	0.00	0.00	0.00
9,000.0	90.00	269.45	6,547.0	283.8	-2,796.1	2,807.3	0.00	0.00	0.00
9,050.0	90.00	269.45	6,547.0	283.3	-2,846.1	2,857.2	0.00	0.00	0.00
9,100.0	90.00	269.45	6,547.0	282.8	-2,896.1	2,907.1	0.00	0.00	0.00
9,150.0	90.00	269.45	6,547.0	282.3	-2,946.1	2,957.0	0.00	0.00	0.00
9,200.0	90.00	269.45	6,547.0	281.9	-2,996.1	3,006.9	0.00	0.00	0.00
9,250.0	90.00	269.45	6,547.0	281.4	-3,046.1	3,056.8	0.00	0.00	0.00
9,300.0	90.00	269.45	6,547.0	280.9	-3,096.1	3,106.7	0.00	0.00	0.00
9,350.0	90.00	269.45	6,547.0	280.4	-3,146.1	3,156.6	0.00	0.00	0.00

# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site:</b>	AA (06N-63W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Wells Ranch AA35-65-1AHNA	<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)
9,400.0	90.00	269.45	6,547.0	279.9	-3,196.1	3,206.5	0.00	0.00	0.00
9,450.0	90.00	269.45	6,547.0	279.5	-3,246.1	3,256.4	0.00	0.00	0.00
9,500.0	90.00	269.45	6,547.0	279.0	-3,296.1	3,306.3	0.00	0.00	0.00
9,550.0	90.00	269.45	6,547.0	278.5	-3,346.1	3,356.2	0.00	0.00	0.00
9,600.0	90.00	269.45	6,547.0	278.0	-3,396.1	3,406.1	0.00	0.00	0.00
9,650.0	90.00	269.45	6,547.0	277.5	-3,446.1	3,456.0	0.00	0.00	0.00
9,662.5	90.00	269.45	6,547.0	277.4	-3,458.6	3,468.5	0.00	0.00	0.00
Wells Ranch USX AA35-14									
9,700.0	90.00	269.45	6,547.0	277.1	-3,496.1	3,505.9	0.00	0.00	0.00
9,750.0	90.00	269.45	6,547.0	276.6	-3,546.1	3,555.8	0.00	0.00	0.00
9,800.0	90.00	269.45	6,547.0	276.1	-3,596.1	3,605.7	0.00	0.00	0.00
9,850.0	90.00	269.45	6,547.0	275.6	-3,646.1	3,655.6	0.00	0.00	0.00
9,900.0	90.00	269.45	6,547.0	275.1	-3,696.1	3,705.5	0.00	0.00	0.00
9,950.0	90.00	269.45	6,547.0	274.7	-3,746.1	3,755.4	0.00	0.00	0.00
10,000.0	90.00	269.45	6,547.0	274.2	-3,796.1	3,805.3	0.00	0.00	0.00
10,050.0	90.00	269.45	6,547.0	273.7	-3,846.1	3,855.2	0.00	0.00	0.00
10,100.0	90.00	269.45	6,547.0	273.2	-3,896.1	3,905.1	0.00	0.00	0.00
10,150.0	90.00	269.45	6,547.0	272.7	-3,946.1	3,955.0	0.00	0.00	0.00
10,200.0	90.00	269.45	6,547.0	272.3	-3,996.1	4,004.9	0.00	0.00	0.00
10,250.0	90.00	269.45	6,547.0	271.8	-4,046.1	4,054.8	0.00	0.00	0.00
10,300.0	90.00	269.45	6,547.0	271.3	-4,096.1	4,104.7	0.00	0.00	0.00
10,350.0	90.00	269.45	6,547.0	270.8	-4,146.1	4,154.6	0.00	0.00	0.00
10,400.0	90.00	269.45	6,547.0	270.3	-4,196.1	4,204.5	0.00	0.00	0.00
10,450.0	90.00	269.45	6,547.0	269.9	-4,246.1	4,254.4	0.00	0.00	0.00
10,500.0	90.00	269.45	6,547.0	269.4	-4,296.1	4,304.3	0.00	0.00	0.00
10,550.0	90.00	269.45	6,547.0	268.9	-4,346.1	4,354.2	0.00	0.00	0.00
10,600.0	90.00	269.45	6,547.0	268.4	-4,396.1	4,404.1	0.00	0.00	0.00
10,650.0	90.00	269.45	6,547.0	267.9	-4,446.1	4,454.0	0.00	0.00	0.00
10,700.0	90.00	269.45	6,547.0	267.5	-4,496.1	4,503.9	0.00	0.00	0.00
10,750.0	90.00	269.45	6,547.0	267.0	-4,546.1	4,553.8	0.00	0.00	0.00
10,800.0	90.00	269.45	6,547.0	266.5	-4,596.1	4,603.7	0.00	0.00	0.00
10,850.0	90.00	269.45	6,547.0	266.0	-4,646.1	4,653.6	0.00	0.00	0.00
10,900.0	90.00	269.45	6,547.0	265.6	-4,696.1	4,703.5	0.00	0.00	0.00
10,950.0	90.00	269.45	6,547.0	265.1	-4,746.0	4,753.4	0.00	0.00	0.00
10,971.0	90.00	269.45	6,547.0	264.9	-4,767.0	4,774.4	0.00	0.00	0.00
Wells Ranch 14-35									
11,000.0	90.00	269.45	6,547.0	264.6	-4,796.0	4,803.3	0.00	0.00	0.00
11,050.0	90.00	269.45	6,547.0	264.1	-4,846.0	4,853.2	0.00	0.00	0.00
11,100.0	90.00	269.45	6,547.0	263.6	-4,896.0	4,903.1	0.00	0.00	0.00
11,120.5	90.00	269.45	6,547.0	263.4	-4,916.5	4,923.6	0.00	0.00	0.00
TD at 11120.5 - Wells Ranch AA35-65-1AHNA BHL 2395°FSL, 535°FWL									



# Noble Energy Inc

## Planning Report

<b>Database:</b>	EDM Production	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Company:</b>	Northern Region Drilling - Working	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Project:</b>	Wattenberg Field	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site:</b>	AA (06N-63W)	<b>North Reference:</b>	Grid
<b>Well:</b>	Wells Ranch AA35-65-1AHNA	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling		
<b>Design:</b>	APD - Rev 0		

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									
Wells Ranch AA35-65-1A	0.00	0.00	6,547.0	263.4	-4,916.5	1,405,799.71	3,302,892.54	40.442220	-104.411750
- plan hits target center									
- Point									
Wells Ranch USX AA35-	0.00	0.00	6,948.0	-1,521.9	-3,441.4	1,404,014.43	3,304,367.58	40.437270	-104.406530
- plan misses target center by 1843.5usft at 9662.5usft MD (6547.0 TVD, 277.4 N, -3458.6 E)									
- Circle (radius 150.0)									
Wells Ranch 14-35	0.00	0.00	7,430.0	-1,501.6	-4,750.1	1,404,034.76	3,303,058.96	40.437370	-104.411230
- plan misses target center by 1974.9usft at 10971.0usft MD (6547.0 TVD, 264.9 N, -4767.0 E)									
- Circle (radius 150.0)									
Wells Ranch 13-36	0.00	0.00	7,701.0	-85.0	485.4	1,405,451.26	3,308,294.26	40.441080	-104.392360
- plan misses target center by 1594.2usft at 6550.0usft MD (6415.4 TVD, 307.0 N, -371.8 E)									
- Circle (radius 150.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
6,917.1	6,537.7	7" Casing @ 6917.1' MD	7	8-3/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,486.9	2,465.0	PIERRE		0.00		
4,335.4	4,305.0	SUSSEX		0.00		
4,927.4	4,897.0	SHANNON		0.00		
5,875.4	5,845.0	TEEPEE BUTTES		0.00		
6,605.6	6,445.0	SHARON SPRINGS		0.00		
6,683.2	6,480.0	NIOBRARA		0.00		
6,683.2	6,480.0	NIO A CHALK		0.00		
6,763.2	6,508.0	NIO A MARL		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,200.0	1,200.0	0.0	0.0	KOP - Start Build 2.00	
2,600.0	2,575.2	72.2	-14.0	Start Drop -2.00	
5,854.6	5,824.3	237.8	-46.0	KOP #2 - Start Build 8.00	
6,917.1	6,537.7	310.0	-60.0	Start 75.0 hold at 6917.1 MD	
6,992.1	6,544.3	310.0	-60.0	Start Build 8.00	
11,120.5	6,547.0	303.7	-713.7	TD at 11120.5	

# **Northern Region Drilling - Working**

**Wattenberg Field**

**AA (06N-63W)**

**Wells Ranch AA35-65-1AHNA**

**Original Drilling**

**APD - Rev 0**

## **Anticollision Summary Report**

**16 September, 2013**

**Noble Energy Inc**  
Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling - Working	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Reference Site:</b>	AA (06N-63W)	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Wells Ranch AA35-65-1AHNA	<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>	9/16/2013		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,120.5	APD - Rev 0 (Original Drilling)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
AA (06N-63W)						
Wells Ranch 13-36 - Wellbore #1 - Wellbore #1 - As Drill	1,200.0	1,171.0	492.8	488.9	127.212	CC, ES
Wells Ranch 13-36 - Wellbore #1 - Wellbore #1 - As Drill	5,854.6	5,795.3	673.5	653.6	33.908	SF
Wells Ranch 14-35 - Wellbore #1 - Wellbore #1 - As Drill	10,971.0	6,509.0	1,766.5	1,628.0	12.751	CC
Wells Ranch 14-35 - Wellbore #1 - Wellbore #1 - As Drill	11,000.0	6,509.0	1,766.8	1,627.4	12.678	ES
Wells Ranch 14-35 - Wellbore #1 - Wellbore #1 - As Drill	11,120.5	6,509.0	1,772.8	1,630.1	12.422	SF
Wells Ranch AA35-63-1AHNA - Original Drilling - APD - R	1,200.0	1,196.0	149.4	144.3	29.250	CC, ES
Wells Ranch AA35-63-1AHNA - Original Drilling - APD - R	11,120.5	11,172.2	1,242.3	971.9	4.593	SF
Wells Ranch AA35-63-1HNC - Original Drilling - APD - R	1,000.0	995.0	189.4	185.2	45.049	CC, ES
Wells Ranch AA35-63-1HNC - Original Drilling - APD - R	11,120.5	11,316.4	1,410.6	1,140.9	5.230	SF
Wells Ranch AA35-64-1AHNA - Original Drilling - APD - R	1,200.0	1,198.0	76.5	71.4	14.970	CC, ES
Wells Ranch AA35-64-1AHNA - Original Drilling - APD - R	11,120.5	11,106.0	666.7	396.1	2.464	SF
Wells Ranch AA35-64-1BHNC - Original Drilling - APD -	1,200.0	1,197.0	112.9	107.8	22.106	CC, ES
Wells Ranch AA35-64-1BHNC - Original Drilling - APD -	11,120.5	11,233.8	845.4	577.0	3.150	SF
Wells Ranch AA35-65-1BHNC - Wellbore #1 - APD - Rev	1,200.0	1,199.0	36.4	31.3	7.125	CC
Wells Ranch AA35-65-1BHNC - Wellbore #1 - APD - Rev	10,900.0	10,995.9	204.7	-14.9	0.932	Level 1, ES, SF
Wells Ranch USX AA35-14 - Wellbore #1 - Wellbore #1 -	9,662.5	6,506.0	1,799.4	1,697.3	17.622	CC
Wells Ranch USX AA35-14 - Wellbore #1 - Wellbore #1 -	9,700.0	6,506.0	1,799.8	1,696.6	17.448	ES
Wells Ranch USX AA35-14 - Wellbore #1 - Wellbore #1 -	10,500.0	6,506.0	1,984.7	1,859.3	15.827	SF
Wells Ranch USX AA35-15 - Wellbore #1 - Wellbore #1 -	8,239.3	6,468.6	1,670.2	1,603.3	24.971	CC
Wells Ranch USX AA35-15 - Wellbore #1 - Wellbore #1 -	8,300.0	6,468.5	1,671.3	1,602.8	24.388	ES
Wells Ranch USX AA35-15 - Wellbore #1 - Wellbore #1 -	9,400.0	6,467.4	2,034.0	1,935.2	20.603	SF
Wells Ranch USX AA35-16 - Wellbore #1 - Wellbore #1 -	603.6	531.6	1,590.8	1,588.7	757.889	CC
Wells Ranch USX AA35-16 - Wellbore #1 - Wellbore #1 -	900.0	819.1	1,591.1	1,587.9	490.478	ES
Wells Ranch USX AA35-16 - Wellbore #1 - Wellbore #1 -	9,800.0	6,484.7	3,384.8	3,275.0	30.810	SF

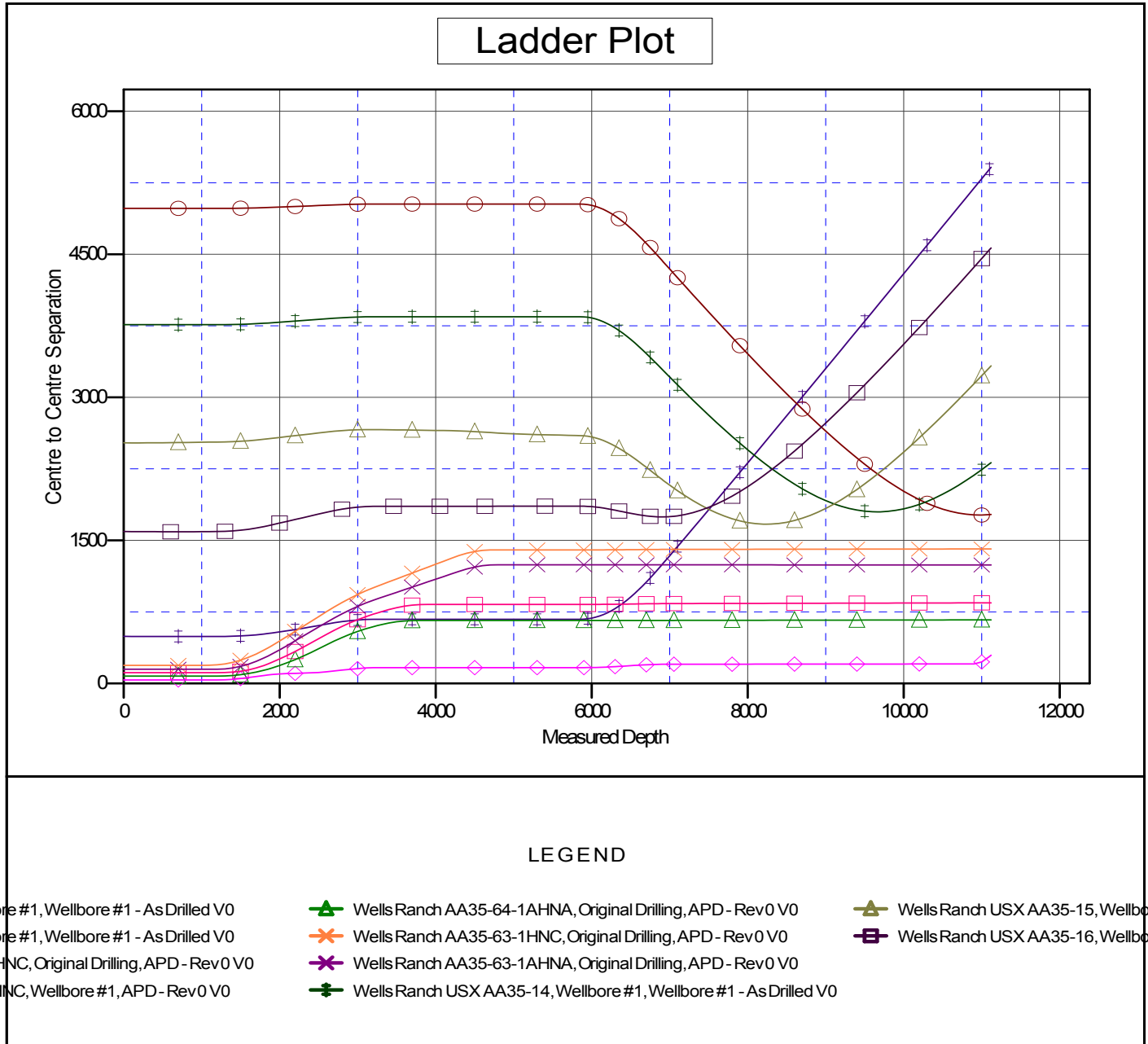
# Noble Energy Inc

## Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling - Working	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Reference Site:</b>	AA (06N-63W)	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Wells Ranch AA35-65-1AHNA	<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 @ 4799.0usft (Original Well Ele  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: Wells Ranch AA35-65-1AHNA  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.71°



# Noble Energy Inc

## Anticollision Summary Report

<b>Company:</b>	Northern Region Drilling - Working	<b>Local Co-ordinate Reference:</b>	Well Wells Ranch AA35-65-1AHNA
<b>Project:</b>	Wattenberg Field	<b>TVD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Reference Site:</b>	AA (06N-63W)	<b>MD Reference:</b>	WELL @ 4799.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Wells Ranch AA35-65-1AHNA	<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 @ 4799.0usft (Original Well Ele  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: Wells Ranch AA35-65-1AHNA  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.71°

