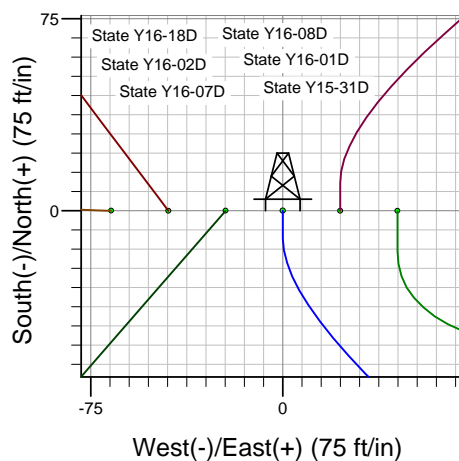
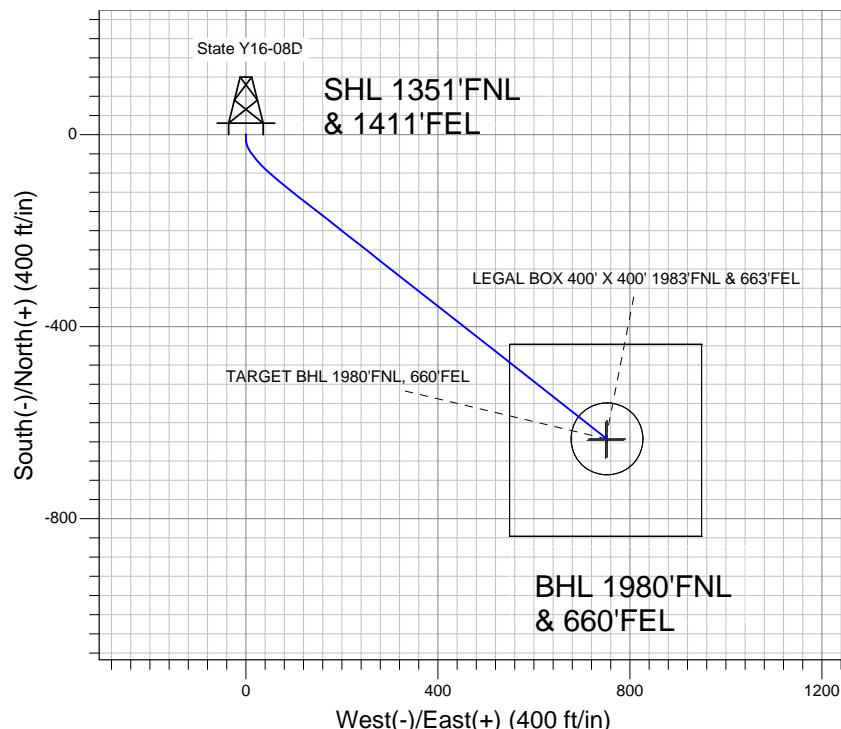
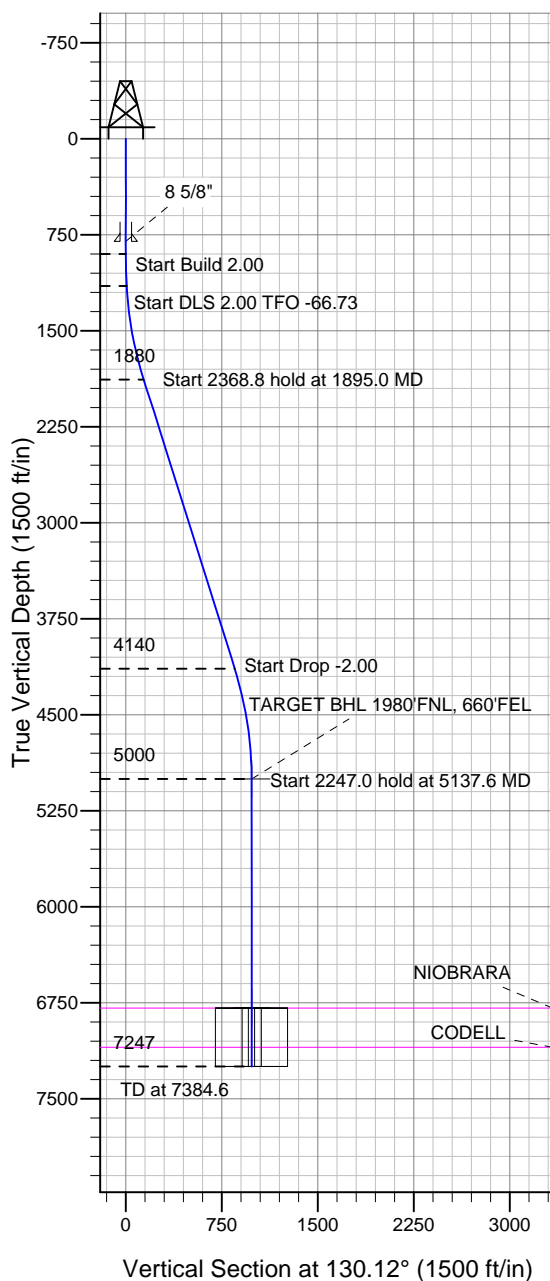


### Well Name: State Y16-08D

Surface Location: State Y16-18D Pad Sec.16-T2N-R64W  
 North American Datum 1983, US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 4929.0  
 +N/-S 0.0 +E/-W 0.0 Northing 1296005.26 Easting 3265016.21 Latitude 40.142040 Longitude -104.552040 Slot  
 Original Well EleWELL @ 4942.0ft (Original Well Elev)

## NOBLE ENERGY INC WELD COUNTY CO



State Y16-18D Pad Sec.16-T2N-R64W  
 State Y16-08D  
 Noble State Y16-08D Plan #1 (9-29-11)  
 12:01, September 30 2011



Azimuths to True North  
 Magnetic North: 8.69°  
 Magnetic Field  
 Strength: 52987.2snT  
 Dip Angle: 66.87°  
 Date: 9/29/2011  
 Model: IGRF2010

### WELLBORE TARGET DETAILS (LAT/LONG)

| Name                                     | TVD    | +N/-S  | +E/-W | Latitude  | Longitude   | Shape                            |
|--|--------|--------|-------|-----------|-------------|----------------------------------|
| TARGET BHL 1980'FNL, 660'FEL             | 5000.0 | -633.9 | 752.1 | 40.140300 | -104.549350 | Point                            |
| LEGAL BOX 400' X 400' 1983'FNL & 663'FEL | 6792.0 | -636.9 | 749.1 | 40.140292 | -104.549361 | Rectangle (Sides: L400.0 W400.0) |
| TARGET CIRCLE 1980'FNL & 660'FEL         | 6792.0 | -633.9 | 752.1 | 40.140300 | -104.549350 | Circle (Radius: 75.0)            |

### 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   | 900.0  | 0.00  | 0.00   | 900.0  | 0.0    | 0.0   | 0.00 | 0.00   | 0.0   |                              |
| 3   | 1150.0 | 5.00  | 180.00 | 1149.7 | -10.9  | 0.0   | 2.00 | 180.00 | 7.0   |                              |
| 4   | 1895.0 | 17.48 | 128.13 | 1880.2 | -113.0 | 88.5  | 2.00 | -66.73 | 140.5 |                              |
| 5   | 4263.8 | 17.48 | 128.13 | 4139.7 | -552.2 | 648.1 | 0.00 | 0.00   | 851.4 |                              |
| 6   | 5137.6 | 0.00  | 0.00   | 5000.0 | -633.9 | 752.1 | 2.00 | 180.00 | 983.6 | TARGET BHL 1980'FNL, 660'FEL |
| 7   | 7384.6 | 0.00  | 0.00   | 7247.0 | -633.9 | 752.1 | 0.00 | 0.00   | 983.6 |                              |



**Directional**

# **NOBLE ENERGY INC WELD COUNTY CO**

**SEC.16-T2N-R64W**

**State Y16-18D Pad Sec.16-T2N-R64W**

**State Y16-08D**

**Wellbore #1**

**Plan: Noble State Y16-08D Plan #1 (9-29-11)**

## **Standard Planning Report**

**30 September, 2011**



|                  |                                       |                                     |                                      |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | Landmark                              | <b>Local Co-ordinate Reference:</b> | Well State Y16-08D                   |
| <b>Company:</b>  | NOBLE ENERGY INC WELD COUNTY CO       | <b>TVD Reference:</b>               | WELL @ 4942.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.16-T2N-R64W                       | <b>MD Reference:</b>                | WELL @ 4942.0ft (Original Well Elev) |
| <b>Site:</b>     | State Y16-18D Pad Sec.16-T2N-R64W     | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | State Y16-08D                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                           |                                     |                                      |
| <b>Design:</b>   | Noble State Y16-08D Plan #1 (9-29-11) |                                     |                                      |

|                    |  |                      |                             |
|--------------------|--|----------------------|-----------------------------|
| <b>Project</b>     | SEC.16-T2N-R64W, Weld County, Colorado |                      |                             |
| <b>Map System:</b> | US State Plane 1983                    | <b>System Datum:</b> | Mean Sea Level              |
| <b>Geo Datum:</b>  | North American Datum 1983              |                      | Using Well Reference Point  |
| <b>Map Zone:</b>   | Colorado Northern Zone                 |                      | Using geodetic scale factor |

| Site                         |  |  |          |  |  | State Y16-18D Pad Sec.16-T2N-R64W |  |  |                 |  |  |                          |  |  |             |  |  |
|------------------------------|--|--|----------|--|--|-----------------------------------|--|--|-----------------|--|--|--------------------------|--|--|-------------|--|--|
| <b>Site Position:</b>        |  |  |          |  |  | <b>Northing:</b>                  |  |  | 1,296,004.55 ft |  |  | <b>Latitude:</b>         |  |  | 40.142040   |  |  |
| <b>From:</b>                 |  |  | Lat/Long |  |  | <b>Easting:</b>                   |  |  | 3,264,949.12 ft |  |  | <b>Longitude:</b>        |  |  | -104.552280 |  |  |
| <b>Position Uncertainty:</b> |  |  | 0.0 ft   |  |  | <b>Slot Radius:</b>               |  |  | "               |  |  | <b>Grid Convergence:</b> |  |  | 0.61 °      |  |  |

| Well                 | State Y16-08D |         |                     |                 |               |             |
|----------------------|---------------|---------|---------------------|-----------------|---------------|-------------|
| Well Position        | +N/-S         | 0.0 ft  | Northing:           | 1,296,005.26 ft | Latitude:     | 40.142040   |
|                      | +E/-W         | 67.1 ft | Easting:            | 3,265,016.21 ft | Longitude:    | -104.552040 |
| Position Uncertainty |               | 0.0 ft  | Wellhead Elevation: | ft              | Ground Level: | 4,929.0 ft  |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010          | 9/29/2011          | 8.69                   | 66.87                | 52,987                     |

|                          |                                       |                   |                      |                      |
|--------------------------|---------------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Noble State Y16-08D Plan #1 (9-29-11) |                   |                      |                      |
| <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) (ft)</b>          | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.0                                   | 0.0               | 0.0                  | 130.12               |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                 |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-----------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target          |
| 0.0                  | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |
| 900.0                | 0.00            | 0.00        | 900.0               | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |
| 1,150.0              | 5.00            | 180.00      | 1,149.7             | -10.9      | 0.0        | 2.00                  | 2.00                 | 0.00                | 180.00  |                 |
| 1,895.0              | 17.48           | 128.13      | 1,880.2             | -113.0     | 88.5       | 2.00                  | 1.67                 | -6.96               | -66.73  |                 |
| 4,263.8              | 17.48           | 128.13      | 4,139.7             | -552.2     | 648.1      | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |
| 5,137.6              | 0.00            | 0.00        | 5,000.0             | -633.9     | 752.1      | 2.00                  | -2.00                | 0.00                | 180.00  | TARGET BHL 198C |
| 7,384.6              | 0.00            | 0.00        | 7,247.0             | -633.9     | 752.1      | 0.00                  | 0.00                 | 0.00                | 0.00    |                 |

|                  |                                       |                                     |                                      |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | Landmark                              | <b>Local Co-ordinate Reference:</b> | Well State Y16-08D                   |
| <b>Company:</b>  | NOBLE ENERGY INC WELD COUNTY CO       | <b>TVD Reference:</b>               | WELL @ 4942.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.16-T2N-R64W                       | <b>MD Reference:</b>                | WELL @ 4942.0ft (Original Well Elev) |
| <b>Site:</b>     | State Y16-18D Pad Sec.16-T2N-R64W     | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | State Y16-08D                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                           |                                     |                                      |
| <b>Design:</b>   | Noble State Y16-08D Plan #1 (9-29-11) |                                     |                                      |

| 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) |
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 40.0                | 0.00            | 0.00        | 40.0                | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 80.0                | 0.00            | 0.00        | 80.0                | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 120.0               | 0.00            | 0.00        | 120.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 160.0               | 0.00            | 0.00        | 160.0               | 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                |
| 240.0               | 0.00            | 0.00        | 240.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 280.0               | 0.00            | 0.00        | 280.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 320.0               | 0.00            | 0.00        | 320.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 360.0               | 0.00            | 0.00        | 360.0               | 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                |
| 440.0               | 0.00            | 0.00        | 440.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 480.0               | 0.00            | 0.00        | 480.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 520.0               | 0.00            | 0.00        | 520.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 560.0               | 0.00            | 0.00        | 560.0               | 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                |
| 640.0               | 0.00            | 0.00        | 640.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 680.0               | 0.00            | 0.00        | 680.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 720.0               | 0.00            | 0.00        | 720.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 760.0               | 0.00            | 0.00        | 760.0               | 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                |
| 8 5/8"              |                 |             |                     |            |            |                       |                       |                      |                     |
| 840.0               | 0.00            | 0.00        | 840.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 880.0               | 0.00            | 0.00        | 880.0               | 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                |
| 920.0               | 0.40            | 180.00      | 920.0               | -0.1       | 0.0        | 0.0                   | 2.00                  | 2.00                 | 0.00                |
| 960.0               | 1.20            | 180.00      | 960.0               | -0.6       | 0.0        | 0.4                   | 2.00                  | 2.00                 | 0.00                |
| 1,000.0             | 2.00            | 180.00      | 1,000.0             | -1.7       | 0.0        | 1.1                   | 2.00                  | 2.00                 | 0.00                |
| 1,040.0             | 2.80            | 180.00      | 1,039.9             | -3.4       | 0.0        | 2.2                   | 2.00                  | 2.00                 | 0.00                |
| 1,080.0             | 3.60            | 180.00      | 1,079.9             | -5.7       | 0.0        | 3.6                   | 2.00                  | 2.00                 | 0.00                |
| 1,120.0             | 4.40            | 180.00      | 1,119.8             | -8.4       | 0.0        | 5.4                   | 2.00                  | 2.00                 | 0.00                |
| 1,150.0             | 5.00            | 180.00      | 1,149.7             | -10.9      | 0.0        | 7.0                   | 2.00                  | 2.00                 | 0.00                |
| 1,160.0             | 5.08            | 177.93      | 1,159.6             | -11.8      | 0.0        | 7.6                   | 2.00                  | 0.82                 | -20.75              |
| 1,200.0             | 5.47            | 170.32      | 1,199.5             | -15.4      | 0.4        | 10.3                  | 2.00                  | 0.98                 | -19.01              |
| 1,240.0             | 5.95            | 163.82      | 1,239.3             | -19.3      | 1.3        | 13.4                  | 2.00                  | 1.18                 | -16.25              |
| 1,280.0             | 6.48            | 158.34      | 1,279.0             | -23.4      | 2.7        | 17.1                  | 2.00                  | 1.34                 | -13.72              |
| 1,320.0             | 7.07            | 153.72      | 1,318.8             | -27.7      | 4.6        | 21.4                  | 2.00                  | 1.47                 | -11.54              |
| 1,360.0             | 7.69            | 149.83      | 1,358.4             | -32.2      | 7.1        | 26.2                  | 2.00                  | 1.56                 | -9.73               |
| 1,400.0             | 8.35            | 146.53      | 1,398.0             | -37.0      | 10.0       | 31.5                  | 2.00                  | 1.64                 | -8.24               |
| 1,440.0             | 9.03            | 143.72      | 1,437.6             | -41.9      | 13.5       | 37.3                  | 2.00                  | 1.70                 | -7.03               |
| 1,480.0             | 9.72            | 141.30      | 1,477.0             | -47.1      | 17.4       | 43.7                  | 2.00                  | 1.74                 | -6.05               |
| 1,520.0             | 10.43           | 139.21      | 1,516.4             | -52.4      | 21.9       | 50.6                  | 2.00                  | 1.78                 | -5.24               |
| 1,560.0             | 11.16           | 137.38      | 1,555.7             | -58.0      | 26.9       | 58.0                  | 2.00                  | 1.81                 | -4.57               |
| 1,600.0             | 11.89           | 135.77      | 1,594.9             | -63.8      | 32.4       | 65.9                  | 2.00                  | 1.83                 | -4.02               |
| 1,640.0             | 12.63           | 134.35      | 1,634.0             | -69.8      | 38.4       | 74.4                  | 2.00                  | 1.85                 | -3.55               |
| 1,680.0             | 13.38           | 133.08      | 1,673.0             | -76.1      | 44.9       | 83.4                  | 2.00                  | 1.87                 | -3.17               |
| 1,720.0             | 14.13           | 131.95      | 1,711.8             | -82.5      | 51.9       | 92.9                  | 2.00                  | 1.88                 | -2.83               |
| 1,760.0             | 14.89           | 130.93      | 1,750.6             | -89.1      | 59.4       | 102.9                 | 2.00                  | 1.90                 | -2.55               |
| 1,800.0             | 15.65           | 130.01      | 1,789.1             | -96.0      | 67.5       | 113.4                 | 2.00                  | 1.91                 | -2.31               |
| 1,840.0             | 16.42           | 129.17      | 1,827.6             | -103.0     | 76.0       | 124.5                 | 2.00                  | 1.91                 | -2.10               |
| 1,880.0             | 17.19           | 128.40      | 1,865.9             | -110.2     | 85.0       | 136.0                 | 2.00                  | 1.92                 | -1.92               |
| 1,895.0             | 17.48           | 128.13      | 1,880.2             | -113.0     | 88.5       | 140.5                 | 2.00                  | 1.93                 | -1.80               |
| 1,920.0             | 17.48           | 128.13      | 1,904.0             | -117.6     | 94.4       | 148.0                 | 0.00                  | 0.00                 | 0.00                |
| 1,960.0             | 17.48           | 128.13      | 1,942.2             | -125.1     | 103.8      | 160.0                 | 0.00                  | 0.00                 | 0.00                |

|                  |                                       |                                     |                                      |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | Landmark                              | <b>Local Co-ordinate Reference:</b> | Well State Y16-08D                   |
| <b>Company:</b>  | NOBLE ENERGY INC WELD COUNTY CO       | <b>TVD Reference:</b>               | WELL @ 4942.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.16-T2N-R64W                       | <b>MD Reference:</b>                | WELL @ 4942.0ft (Original Well Elev) |
| <b>Site:</b>     | State Y16-18D Pad Sec.16-T2N-R64W     | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | State Y16-08D                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                           |                                     |                                      |
| <b>Design:</b>   | Noble State Y16-08D Plan #1 (9-29-11) |                                     |                                      |

| 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) |
| 2,000.0             | 17.48           | 128.13      | 1,980.3             | -132.5     | 113.3      | 172.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,040.0             | 17.48           | 128.13      | 2,018.5             | -139.9     | 122.7      | 184.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,080.0             | 17.48           | 128.13      | 2,056.7             | -147.3     | 132.2      | 196.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,120.0             | 17.48           | 128.13      | 2,094.8             | -154.7     | 141.6      | 208.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,160.0             | 17.48           | 128.13      | 2,133.0             | -162.1     | 151.1      | 220.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,200.0             | 17.48           | 128.13      | 2,171.1             | -169.6     | 160.5      | 232.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,240.0             | 17.48           | 128.13      | 2,209.3             | -177.0     | 170.0      | 244.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,280.0             | 17.48           | 128.13      | 2,247.4             | -184.4     | 179.4      | 256.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,320.0             | 17.48           | 128.13      | 2,285.6             | -191.8     | 188.9      | 268.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,360.0             | 17.48           | 128.13      | 2,323.7             | -199.2     | 198.3      | 280.0                 | 0.00                  | 0.00                 | 0.00                |
| 2,400.0             | 17.48           | 128.13      | 2,361.9             | -206.6     | 207.8      | 292.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,440.0             | 17.48           | 128.13      | 2,400.0             | -214.1     | 217.2      | 304.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,480.0             | 17.48           | 128.13      | 2,438.2             | -221.5     | 226.7      | 316.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,520.0             | 17.48           | 128.13      | 2,476.3             | -228.9     | 236.1      | 328.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,560.0             | 17.48           | 128.13      | 2,514.5             | -236.3     | 245.6      | 340.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,600.0             | 17.48           | 128.13      | 2,552.7             | -243.7     | 255.0      | 352.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,640.0             | 17.48           | 128.13      | 2,590.8             | -251.1     | 264.5      | 364.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,680.0             | 17.48           | 128.13      | 2,629.0             | -258.6     | 273.9      | 376.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,720.0             | 17.48           | 128.13      | 2,667.1             | -266.0     | 283.4      | 388.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,760.0             | 17.48           | 128.13      | 2,705.3             | -273.4     | 292.8      | 400.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,800.0             | 17.48           | 128.13      | 2,743.4             | -280.8     | 302.3      | 412.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,840.0             | 17.48           | 128.13      | 2,781.6             | -288.2     | 311.7      | 424.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,880.0             | 17.48           | 128.13      | 2,819.7             | -295.6     | 321.2      | 436.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,920.0             | 17.48           | 128.13      | 2,857.9             | -303.1     | 330.6      | 448.1                 | 0.00                  | 0.00                 | 0.00                |
| 2,960.0             | 17.48           | 128.13      | 2,896.0             | -310.5     | 340.1      | 460.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,000.0             | 17.48           | 128.13      | 2,934.2             | -317.9     | 349.5      | 472.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,040.0             | 17.48           | 128.13      | 2,972.3             | -325.3     | 359.0      | 484.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,080.0             | 17.48           | 128.13      | 3,010.5             | -332.7     | 368.4      | 496.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,120.0             | 17.48           | 128.13      | 3,048.7             | -340.1     | 377.9      | 508.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,160.0             | 17.48           | 128.13      | 3,086.8             | -347.6     | 387.3      | 520.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,200.0             | 17.48           | 128.13      | 3,125.0             | -355.0     | 396.8      | 532.1                 | 0.00                  | 0.00                 | 0.00                |
| 3,240.0             | 17.48           | 128.13      | 3,163.1             | -362.4     | 406.2      | 544.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,280.0             | 17.48           | 128.13      | 3,201.3             | -369.8     | 415.7      | 556.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,320.0             | 17.48           | 128.13      | 3,239.4             | -377.2     | 425.1      | 568.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,360.0             | 17.48           | 128.13      | 3,277.6             | -384.6     | 434.6      | 580.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,400.0             | 17.48           | 128.13      | 3,315.7             | -392.1     | 444.0      | 592.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,440.0             | 17.48           | 128.13      | 3,353.9             | -399.5     | 453.5      | 604.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,480.0             | 17.48           | 128.13      | 3,392.0             | -406.9     | 462.9      | 616.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,520.0             | 17.48           | 128.13      | 3,430.2             | -414.3     | 472.4      | 628.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,560.0             | 17.48           | 128.13      | 3,468.3             | -421.7     | 481.8      | 640.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,600.0             | 17.48           | 128.13      | 3,506.5             | -429.1     | 491.3      | 652.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,640.0             | 17.48           | 128.13      | 3,544.7             | -436.5     | 500.7      | 664.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,680.0             | 17.48           | 128.13      | 3,582.8             | -444.0     | 510.2      | 676.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,720.0             | 17.48           | 128.13      | 3,621.0             | -451.4     | 519.6      | 688.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,760.0             | 17.48           | 128.13      | 3,659.1             | -458.8     | 529.1      | 700.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,800.0             | 17.48           | 128.13      | 3,697.3             | -466.2     | 538.5      | 712.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,840.0             | 17.48           | 128.13      | 3,735.4             | -473.6     | 548.0      | 724.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,880.0             | 17.48           | 128.13      | 3,773.6             | -481.0     | 557.4      | 736.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,920.0             | 17.48           | 128.13      | 3,811.7             | -488.5     | 566.9      | 748.2                 | 0.00                  | 0.00                 | 0.00                |
| 3,960.0             | 17.48           | 128.13      | 3,849.9             | -495.9     | 576.3      | 760.2                 | 0.00                  | 0.00                 | 0.00                |
| 4,000.0             | 17.48           | 128.13      | 3,888.0             | -503.3     | 585.8      | 772.2                 | 0.00                  | 0.00                 | 0.00                |
| 4,040.0             | 17.48           | 128.13      | 3,926.2             | -510.7     | 595.2      | 784.2                 | 0.00                  | 0.00                 | 0.00                |
| 4,080.0             | 17.48           | 128.13      | 3,964.3             | -518.1     | 604.7      | 796.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,120.0             | 17.48           | 128.13      | 4,002.5             | -525.5     | 614.1      | 808.3                 | 0.00                  | 0.00                 | 0.00                |

|                  |                                       |                                     |                                      |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | Landmark                              | <b>Local Co-ordinate Reference:</b> | Well State Y16-08D                   |
| <b>Company:</b>  | NOBLE ENERGY INC WELD COUNTY CO       | <b>TVD Reference:</b>               | WELL @ 4942.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.16-T2N-R64W                       | <b>MD Reference:</b>                | WELL @ 4942.0ft (Original Well Elev) |
| <b>Site:</b>     | State Y16-18D Pad Sec.16-T2N-R64W     | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | State Y16-08D                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                           |                                     |                                      |
| <b>Design:</b>   | Noble State Y16-08D Plan #1 (9-29-11) |                                     |                                      |

| 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) |
| 4,160.0                      | 17.48           | 128.13      | 4,040.7             | -533.0     | 623.6      | 820.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,200.0                      | 17.48           | 128.13      | 4,078.8             | -540.4     | 633.0      | 832.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,240.0                      | 17.48           | 128.13      | 4,117.0             | -547.8     | 642.4      | 844.3                 | 0.00                  | 0.00                 | 0.00                |
| 4,263.8                      | 17.48           | 128.13      | 4,139.7             | -552.2     | 648.1      | 851.4                 | 0.00                  | 0.00                 | 0.00                |
| 4,280.0                      | 17.15           | 128.13      | 4,155.1             | -555.2     | 651.9      | 856.2                 | 2.00                  | -2.00                | 0.00                |
| 4,320.0                      | 16.35           | 128.13      | 4,193.4             | -562.3     | 660.9      | 867.8                 | 2.00                  | -2.00                | 0.00                |
| 4,360.0                      | 15.55           | 128.13      | 4,231.9             | -569.1     | 669.6      | 878.7                 | 2.00                  | -2.00                | 0.00                |
| 4,400.0                      | 14.75           | 128.13      | 4,270.5             | -575.5     | 677.8      | 889.2                 | 2.00                  | -2.00                | 0.00                |
| 4,440.0                      | 13.95           | 128.13      | 4,309.2             | -581.7     | 685.6      | 899.1                 | 2.00                  | -2.00                | 0.00                |
| 4,480.0                      | 13.15           | 128.13      | 4,348.1             | -587.5     | 693.0      | 908.5                 | 2.00                  | -2.00                | 0.00                |
| 4,520.0                      | 12.35           | 128.13      | 4,387.1             | -592.9     | 699.9      | 917.3                 | 2.00                  | -2.00                | 0.00                |
| 4,560.0                      | 11.55           | 128.13      | 4,426.3             | -598.0     | 706.4      | 925.6                 | 2.00                  | -2.00                | 0.00                |
| 4,600.0                      | 10.75           | 128.13      | 4,465.5             | -602.8     | 712.5      | 933.3                 | 2.00                  | -2.00                | 0.00                |
| 4,640.0                      | 9.95            | 128.13      | 4,504.9             | -607.2     | 718.2      | 940.5                 | 2.00                  | -2.00                | 0.00                |
| 4,680.0                      | 9.15            | 128.13      | 4,544.3             | -611.3     | 723.4      | 947.1                 | 2.00                  | -2.00                | 0.00                |
| 4,720.0                      | 8.35            | 128.13      | 4,583.9             | -615.1     | 728.2      | 953.2                 | 2.00                  | -2.00                | 0.00                |
| 4,760.0                      | 7.55            | 128.13      | 4,623.5             | -618.5     | 732.5      | 958.7                 | 2.00                  | -2.00                | 0.00                |
| 4,800.0                      | 6.75            | 128.13      | 4,663.2             | -621.6     | 736.5      | 963.7                 | 2.00                  | -2.00                | 0.00                |
| 4,840.0                      | 5.95            | 128.13      | 4,702.9             | -624.3     | 739.9      | 968.1                 | 2.00                  | -2.00                | 0.00                |
| 4,880.0                      | 5.15            | 128.13      | 4,742.7             | -626.7     | 743.0      | 972.0                 | 2.00                  | -2.00                | 0.00                |
| 4,920.0                      | 4.35            | 128.13      | 4,782.6             | -628.8     | 745.6      | 975.3                 | 2.00                  | -2.00                | 0.00                |
| 4,960.0                      | 3.55            | 128.13      | 4,822.5             | -630.5     | 747.8      | 978.1                 | 2.00                  | -2.00                | 0.00                |
| 5,000.0                      | 2.75            | 128.13      | 4,862.4             | -631.8     | 749.5      | 980.3                 | 2.00                  | -2.00                | 0.00                |
| 5,040.0                      | 1.95            | 128.13      | 4,902.4             | -632.8     | 750.8      | 981.9                 | 2.00                  | -2.00                | 0.00                |
| 5,080.0                      | 1.15            | 128.13      | 4,942.4             | -633.5     | 751.6      | 983.0                 | 2.00                  | -2.00                | 0.00                |
| 5,120.0                      | 0.35            | 128.13      | 4,982.4             | -633.8     | 752.1      | 983.5                 | 2.00                  | -2.00                | 0.00                |
| 5,137.6                      | 0.00            | 0.00        | 5,000.0             | -633.9     | 752.1      | 983.6                 | 2.00                  | -2.00                | 0.00                |
| TARGET BHL 1980°FNL, 660°FEL |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,160.0                      | 0.00            | 0.00        | 5,022.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,200.0                      | 0.00            | 0.00        | 5,062.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,240.0                      | 0.00            | 0.00        | 5,102.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,280.0                      | 0.00            | 0.00        | 5,142.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,320.0                      | 0.00            | 0.00        | 5,182.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,360.0                      | 0.00            | 0.00        | 5,222.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,400.0                      | 0.00            | 0.00        | 5,262.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,440.0                      | 0.00            | 0.00        | 5,302.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,480.0                      | 0.00            | 0.00        | 5,342.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,520.0                      | 0.00            | 0.00        | 5,382.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,560.0                      | 0.00            | 0.00        | 5,422.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,600.0                      | 0.00            | 0.00        | 5,462.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,640.0                      | 0.00            | 0.00        | 5,502.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,680.0                      | 0.00            | 0.00        | 5,542.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,720.0                      | 0.00            | 0.00        | 5,582.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,760.0                      | 0.00            | 0.00        | 5,622.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,800.0                      | 0.00            | 0.00        | 5,662.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,840.0                      | 0.00            | 0.00        | 5,702.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,880.0                      | 0.00            | 0.00        | 5,742.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,920.0                      | 0.00            | 0.00        | 5,782.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 5,960.0                      | 0.00            | 0.00        | 5,822.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,000.0                      | 0.00            | 0.00        | 5,862.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,040.0                      | 0.00            | 0.00        | 5,902.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,080.0                      | 0.00            | 0.00        | 5,942.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,120.0                      | 0.00            | 0.00        | 5,982.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,160.0                      | 0.00            | 0.00        | 6,022.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |

|                  |                                       |                                     |                                      |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | Landmark                              | <b>Local Co-ordinate Reference:</b> | Well State Y16-08D                   |
| <b>Company:</b>  | NOBLE ENERGY INC WELD COUNTY CO       | <b>TVD Reference:</b>               | WELL @ 4942.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.16-T2N-R64W                       | <b>MD Reference:</b>                | WELL @ 4942.0ft (Original Well Elev) |
| <b>Site:</b>     | State Y16-18D Pad Sec.16-T2N-R64W     | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | State Y16-08D                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                           |                                     |                                      |
| <b>Design:</b>   | Noble State Y16-08D Plan #1 (9-29-11) |                                     |                                      |

| 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) |
| 6,200.0   | 0.00            | 0.00        | 6,062.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,240.0   | 0.00            | 0.00        | 6,102.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,280.0   | 0.00            | 0.00        | 6,142.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,320.0   | 0.00            | 0.00        | 6,182.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,360.0   | 0.00            | 0.00        | 6,222.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,400.0   | 0.00            | 0.00        | 6,262.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,440.0   | 0.00            | 0.00        | 6,302.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,480.0   | 0.00            | 0.00        | 6,342.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,520.0   | 0.00            | 0.00        | 6,382.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,560.0   | 0.00            | 0.00        | 6,422.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,600.0   | 0.00            | 0.00        | 6,462.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,640.0   | 0.00            | 0.00        | 6,502.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,680.0   | 0.00            | 0.00        | 6,542.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,720.0   | 0.00            | 0.00        | 6,582.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,760.0   | 0.00            | 0.00        | 6,622.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,800.0   | 0.00            | 0.00        | 6,662.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,840.0   | 0.00            | 0.00        | 6,702.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,880.0   | 0.00            | 0.00        | 6,742.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,920.0   | 0.00            | 0.00        | 6,782.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 6,929.6   | 0.00            | 0.00        | 6,792.0             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| <b>NIORRARA - TARGET CIRCLE 1980'FNL &amp; 660'FEL - LEGAL BOX 400' X 400' 1983'FNL &amp; 663'FEL</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 6,960.0   | 0.00            | 0.00        | 6,822.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,000.0   | 0.00            | 0.00        | 6,862.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,040.0   | 0.00            | 0.00        | 6,902.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,080.0   | 0.00            | 0.00        | 6,942.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,120.0   | 0.00            | 0.00        | 6,982.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,160.0   | 0.00            | 0.00        | 7,022.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,200.0   | 0.00            | 0.00        | 7,062.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,234.6   | 0.00            | 0.00        | 7,097.0             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| <b>CODELL</b>   |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,240.0   | 0.00            | 0.00        | 7,102.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,280.0   | 0.00            | 0.00        | 7,142.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,320.0   | 0.00            | 0.00        | 7,182.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,360.0   | 0.00            | 0.00        | 7,222.4             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |
| 7,384.6   | 0.00            | 0.00        | 7,247.0             | -633.9     | 752.1      | 983.6                 | 0.00                  | 0.00                 | 0.00                |

| Targets   |               |              |          |            |            |               |              |           |             |
|---|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|
| Target Name   | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude  | Longitude   |
| - hit/miss target   |               |              |          |            |            |               |              |           |             |
| - Shape   |               |              |          |            |            |               |              |           |             |
| TARGET CIRCLE 1980'F  | 0.00          | 0.00         | 6,792.0  | -633.9     | 752.1      | 1,295,379.51  | 3,265,775.01 | 40.140300 | -104.549350 |
| - plan hits target center   |               |              |          |            |            |               |              |           |             |
| - Circle (radius 75.0)  |               |              |          |            |            |               |              |           |             |
| TARGET BHL 1980'F   | 0.00          | 0.00         | 5,000.0  | -633.9     | 752.1      | 1,295,379.51  | 3,265,775.01 | 40.140300 | -104.549350 |
| - plan hits target center   |               |              |          |            |            |               |              |           |             |
| - Point   |               |              |          |            |            |               |              |           |             |
| LEGAL BOX 400' X 400'   | 0.00          | 0.00         | 6,792.0  | -636.9     | 749.1      | 1,295,376.43  | 3,265,772.05 | 40.140292 | -104.549361 |
| - plan misses target center by 4.3ft at 6929.6ft MD (6792.0 TVD, -633.9 N, 752.1 E) |               |              |          |            |            |               |              |           |             |
| - Rectangle (sides W400.0 H400.0 D455.0)  |               |              |          |            |            |               |              |           |             |



|                  |                                       |                                     |                                      |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | Landmark                              | <b>Local Co-ordinate Reference:</b> | Well State Y16-08D                   |
| <b>Company:</b>  | NOBLE ENERGY INC WELD COUNTY CO       | <b>TVD Reference:</b>               | WELL @ 4942.0ft (Original Well Elev) |
| <b>Project:</b>  | SEC.16-T2N-R64W                       | <b>MD Reference:</b>                | WELL @ 4942.0ft (Original Well Elev) |
| <b>Site:</b>     | State Y16-18D Pad Sec.16-T2N-R64W     | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | State Y16-08D                         | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Wellbore #1                           |                                     |                                      |
| <b>Design:</b>   | Noble State Y16-08D Plan #1 (9-29-11) |                                     |                                      |

| Casing Points       |                     |        |                     |                   |  |
|---------------------|---------------------|--------|---------------------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (") | Hole Diameter (") |  |
| 800.0               | 800.0               | 8 5/8" | 8-5/8               | 12-1/4            |  |

| Formations          |                     |          |           |         |                   |
|---------------------|---------------------|----------|-----------|---------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name     | Lithology | Dip (°) | Dip Direction (°) |
| 6,929.6             | 6,792.0             | NIOBRARA |           | 0.00    |                   |
| 7,234.6             | 7,097.0             | CODELL   |           | 0.00    |                   |