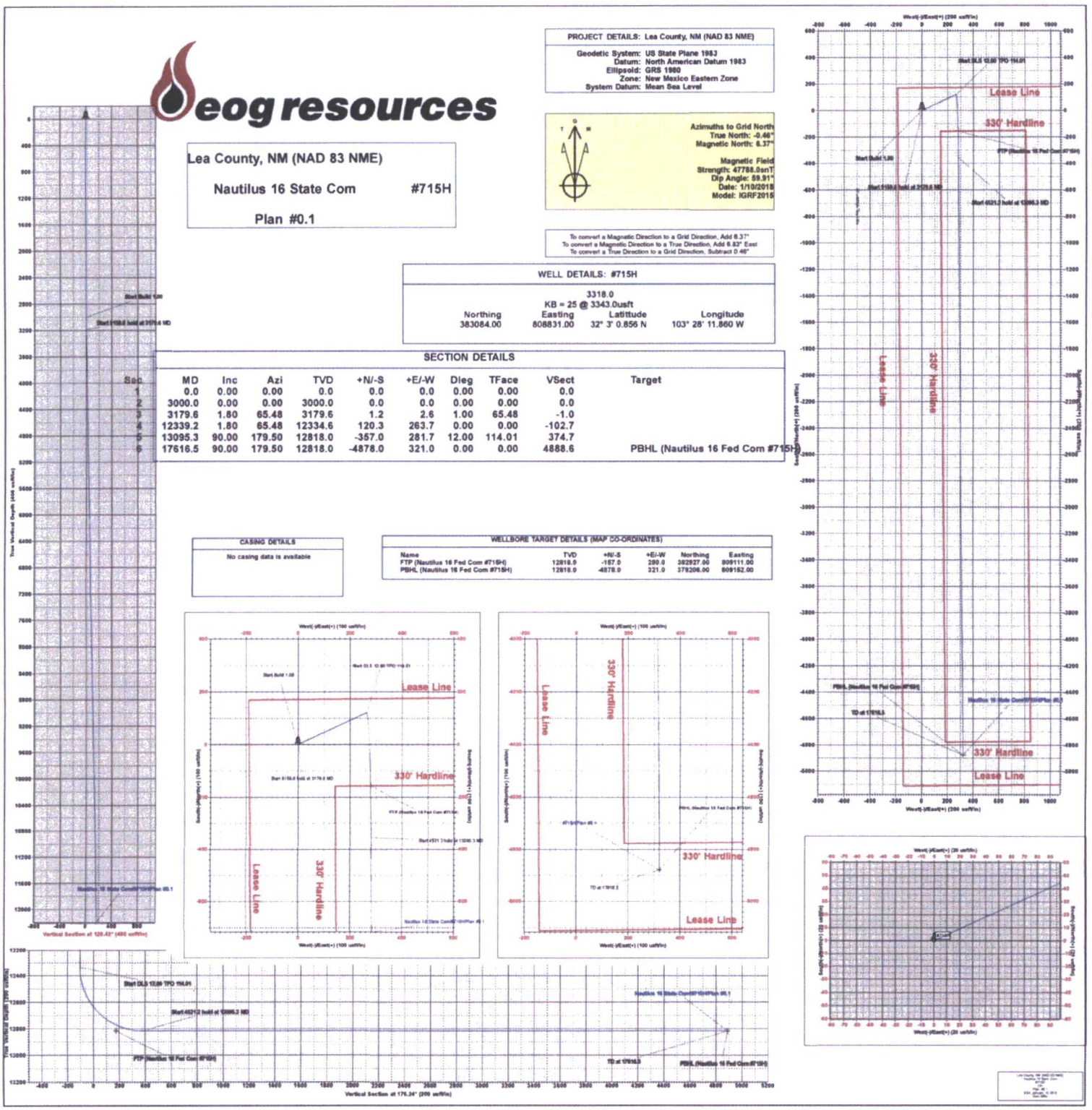
eog resources
Lea County, NM (NAD 83 NME)
Nautilus 16 State Com #715H
Plan #0.1
PROJECT DETAILS: Lea County, NM (NAD 83 NME)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Azimuths to Grid North
True North: -0.46°
Magnetic North: 6.37°
Magnetic Field
Strength: 47788.0snT
Dip Angle: 59.91°
Date: 1/10/2018
Model: IGRF2015
To convert a Magnetic Direction to a Grid Direction, Add 6.37°
To convert a Magnetic Direction to a True Direction, Add 6.83° East
To convert a True Direction to a Grid Direction, Subtract 0.46°
WELL DETAILS: #715H
3318.0
KB = 25 @ 3343.0usft
Northing 383084.00
Easting 808831.00
Latittude 32° 3' 0.856 N
Longitude 103° 28' 11.860 W
SECTION DETAILS
Sec MD Inc Azi TVD +N/-S +E/-W Dleg TFace VSect Target
1 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.0
2 3000.0 0.00 0.00 3000.0 0.0 0.0 0.00 0.00 0.0
3 3179.6 1.80 65.48 3179.6 1.2 2.6 1.00 65.48 -1.0
4 12339.2 1.80 65.48 12334.6 120.3 263.7 0.00 0.00 -102.7
5 13095.3 90.00 179.50 12818.0 -357.0 281.7 12.00 114.01 374.7
6 17616.5 90.00 179.50 12818.0 -4878.0 321.0 0.00 0.00 4888.6 PBHL (Nautilus 16 Fed Com #715H)
CASING DETAILS
No casing data is available
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)
Name TVD +N/-S +E/-W Northing Easting
FTP (Nautilus 16 Fed Com #715H) 12818.0 -157.0 280.0 382927.00 809111.00
PBHL (Nautilus 16 Fed Com #715H) 12818.0 -4878.0 321.0 378206.00 809152.00
Lease Line
330' Hardline
Start Build 1.00
Start DLS 12.00 TFO 114.01
Start 4521.2 hold at 13095.3 MD
FTP (Nautilus 16 Fed Com #715H)
PBHL (Nautilus 16 Fed Com #715H)
TD at 17616.5
Vertical Section at 120.42° (400 usft/in)
Vertical Section at 176.34° (200 usft/in)

eog resources

# EOG Resources - Midland

**Lea County, NM (NAD 83 NME)**
**Nautilus 16 State Com**
**#715H**

**OH**

**Plan: Plan #0.1**

# Standard Planning Report

**10 January, 2018**

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 | **Local Co-ordinate Reference:** | Well #715H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB = 25 @ 3343.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB = 25 @ 3343.0usft |
| **Site:** | Nautilus 16 State Com | **North Reference:** | Grid |
| **Well:** | #715H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #0.1 | | |

| **Project** | Lea County, NM (NAD 83 NME) | | |
|---|---|---|---|
| **Map System:** | US State Plane 1983 | **System Datum:** | Mean Sea Level |
| **Geo Datum:** | North American Datum 1983 | | |
| **Map Zone:** | New Mexico Eastern Zone | | |

| **Site** | Nautilus 16 State Com | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 383,047.00 usft | **Latitude:** | 32° 3' 0.681 N |
| **From:** | Map | **Easting:** | 806,402.00 usft | **Longitude:** | 103° 28' 40.085 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.45 ° |

| **Well** | #715H | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 37.0 usft | **Northing:** | 383,084.00 usft | **Latitude:** | 32° 3' 0.856 N |
| | **+E/-W** | 2,429.0 usft | **Easting:** | 808,831.00 usft | **Longitude:** | 103° 28' 11.860 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | | **Ground Level:** | 3,318.0 usft |

| **Wellbore** | OH | | | |
|---|---|---|---|---|
| **Magnetics** | **Model Name** | **Sample Date** | **Declination (°)** | **Dip Angle (°)** | **Field Strength (nT)** |
| | IGRF2015 | 1/10/2018 | 6.83 | 59.91 | 47,787.97759588 |

| **Design** | Plan #0.1 | | | | |
|---|---|---|---|---|---|
| **Audit Notes:** | | | | | |
| **Version:** | | **Phase:** | PLAN | **Tie On Depth:** | 0.0 |
| **Vertical Section:** | **Depth From (TVD) (usft)** | **+N/-S (usft)** | **+E/-W (usft)** | **Direction (°)** | |
| | 0.0 | 0.0 | 0.0 | 176.24 | |

**Plan Survey Tool Program** **Date** 1/10/2018

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.0 | 17,616.5 | Plan #0.1 (OH) | MWD | |
| | | | | MWD - Standard | |

**Plan Sections**

| 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 | |
| 3,000.0 | 0.00 | 0.00 | 3,000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3,179.6 | 1.80 | 65.48 | 3,179.6 | 1.2 | 2.6 | 1.00 | 1.00 | 0.00 | 65.48 | |
| 12,339.2 | 1.80 | 65.48 | 12,334.6 | 120.3 | 263.7 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 13,095.3 | 90.00 | 179.50 | 12,818.0 | -357.0 | 281.7 | 12.00 | 11.67 | 15.08 | 114.01 | |
| 17,616.5 | 90.00 | 179.50 | 12,818.0 | -4,878.0 | 321.0 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL (Nautilus 16 Fe |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 | **Local Co-ordinate Reference:** | Well #715H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB = 25 @ 3343.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB = 25 @ 3343.0usft |
| **Site:** | Nautilus 16 State Com | **North Reference:** | Grid |
| **Well:** | #715H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #0.1 | | |

**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 |
| 100.0 | 0.00 | 0.00 | 100.0 | 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 |
| 300.0 | 0.00 | 0.00 | 300.0 | 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 |
| 500.0 | 0.00 | 0.00 | 500.0 | 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 |
| 700.0 | 0.00 | 0.00 | 700.0 | 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 |
| 900.0 | 0.00 | 0.00 | 900.0 | 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 |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 0.00 | 0.00 | 1,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 0.00 | 0.00 | 1,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 0.00 | 0.00 | 2,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 0.00 | 0.00 | 2,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 0.00 | 0.00 | 2,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 0.00 | 0.00 | 2,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 0.00 | 0.00 | 2,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 0.00 | 0.00 | 2,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 0.00 | 0.00 | 2,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 0.00 | 0.00 | 2,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 0.00 | 0.00 | 2,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 0.00 | 0.00 | 3,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 1.00 | 65.48 | 3,100.0 | 0.4 | 0.8 | -0.3 | 1.00 | 1.00 | 0.00 |
| 3,179.6 | 1.80 | 65.48 | 3,179.6 | 1.2 | 2.6 | -1.0 | 1.00 | 1.00 | 0.00 |
| 3,200.0 | 1.80 | 65.48 | 3,200.0 | 1.4 | 3.1 | -1.2 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 1.80 | 65.48 | 3,299.9 | 2.7 | 6.0 | -2.3 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 1.80 | 65.48 | 3,399.9 | 4.0 | 8.8 | -3.4 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 1.80 | 65.48 | 3,499.8 | 5.3 | 11.7 | -4.6 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 1.80 | 65.48 | 3,599.8 | 6.6 | 14.5 | -5.7 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 1.80 | 65.48 | 3,699.7 | 7.9 | 17.4 | -6.8 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 1.80 | 65.48 | 3,799.7 | 9.2 | 20.3 | -7.9 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 1.80 | 65.48 | 3,899.6 | 10.5 | 23.1 | -9.0 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 1.80 | 65.48 | 3,999.6 | 11.8 | 26.0 | -10.1 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 1.80 | 65.48 | 4,099.5 | 13.1 | 28.8 | -11.2 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 1.80 | 65.48 | 4,199.5 | 14.4 | 31.7 | -12.3 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 1.80 | 65.48 | 4,299.4 | 15.7 | 34.5 | -13.4 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 1.80 | 65.48 | 4,399.4 | 17.0 | 37.4 | -14.6 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 1.80 | 65.48 | 4,499.3 | 18.3 | 40.2 | -15.7 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 1.80 | 65.48 | 4,599.3 | 19.6 | 43.1 | -16.8 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 1.80 | 65.48 | 4,699.2 | 20.9 | 45.9 | -17.9 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 1.80 | 65.48 | 4,799.2 | 22.2 | 48.8 | -19.0 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 1.80 | 65.48 | 4,899.1 | 23.5 | 51.6 | -20.1 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 1.80 | 65.48 | 4,999.1 | 24.8 | 54.5 | -21.2 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 1.80 | 65.48 | 5,099.0 | 26.1 | 57.3 | -22.3 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 1.80 | 65.48 | 5,199.0 | 27.4 | 60.2 | -23.4 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
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| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB = 25 @ 3343.0usft |
| **Site:** | Nautilus 16 State Com | **North Reference:** | Grid |
| **Well:** | #715H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #0.1 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 5,300.0 | 1.80 | 65.48 | 5,298.9 | 28.8 | 63.0 | -24.6 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 1.80 | 65.48 | 5,398.9 | 30.1 | 65.9 | -25.7 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 1.80 | 65.48 | 5,498.8 | 31.4 | 68.7 | -26.8 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 1.80 | 65.48 | 5,598.8 | 32.7 | 71.6 | -27.9 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 1.80 | 65.48 | 5,698.7 | 34.0 | 74.4 | -29.0 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 1.80 | 65.48 | 5,798.7 | 35.3 | 77.3 | -30.1 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 1.80 | 65.48 | 5,898.6 | 36.6 | 80.1 | -31.2 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 1.80 | 65.48 | 5,998.6 | 37.9 | 83.0 | -32.3 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 1.80 | 65.48 | 6,098.5 | 39.2 | 85.8 | -33.4 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 1.80 | 65.48 | 6,198.5 | 40.5 | 88.7 | -34.5 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 1.80 | 65.48 | 6,298.4 | 41.8 | 91.5 | -35.7 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 1.80 | 65.48 | 6,398.4 | 43.1 | 94.4 | -36.8 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 1.80 | 65.48 | 6,498.3 | 44.4 | 97.2 | -37.9 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 1.80 | 65.48 | 6,598.3 | 45.7 | 100.1 | -39.0 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 1.80 | 65.48 | 6,698.2 | 47.0 | 102.9 | -40.1 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 1.80 | 65.48 | 6,798.2 | 48.3 | 105.8 | -41.2 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 1.80 | 65.48 | 6,898.1 | 49.6 | 108.6 | -42.3 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 1.80 | 65.48 | 6,998.1 | 50.9 | 111.5 | -43.4 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 1.80 | 65.48 | 7,098.0 | 52.2 | 114.4 | -44.5 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 1.80 | 65.48 | 7,198.0 | 53.5 | 117.2 | -45.7 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 1.80 | 65.48 | 7,297.9 | 54.8 | 120.1 | -46.8 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 1.80 | 65.48 | 7,397.9 | 56.1 | 122.9 | -47.9 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 1.80 | 65.48 | 7,497.8 | 57.4 | 125.8 | -49.0 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 1.80 | 65.48 | 7,597.8 | 58.7 | 128.6 | -50.1 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 1.80 | 65.48 | 7,697.7 | 60.0 | 131.5 | -51.2 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 1.80 | 65.48 | 7,797.7 | 61.3 | 134.3 | -52.3 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 1.80 | 65.48 | 7,897.7 | 62.6 | 137.2 | -53.4 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 1.80 | 65.48 | 7,997.6 | 63.9 | 140.0 | -54.5 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 1.80 | 65.48 | 8,097.6 | 65.2 | 142.9 | -55.7 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 1.80 | 65.48 | 8,197.5 | 66.5 | 145.7 | -56.8 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 1.80 | 65.48 | 8,297.5 | 67.8 | 148.6 | -57.9 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 1.80 | 65.48 | 8,397.4 | 69.1 | 151.4 | -59.0 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 1.80 | 65.48 | 8,497.4 | 70.4 | 154.3 | -60.1 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 1.80 | 65.48 | 8,597.3 | 71.7 | 157.1 | -61.2 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 1.80 | 65.48 | 8,697.3 | 73.0 | 160.0 | -62.3 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 1.80 | 65.48 | 8,797.2 | 74.3 | 162.8 | -63.4 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 1.80 | 65.48 | 8,897.2 | 75.6 | 165.7 | -64.5 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 1.80 | 65.48 | 8,997.1 | 76.9 | 168.5 | -65.6 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 1.80 | 65.48 | 9,097.1 | 78.2 | 171.4 | -66.8 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 1.80 | 65.48 | 9,197.0 | 79.5 | 174.2 | -67.9 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 1.80 | 65.48 | 9,297.0 | 80.8 | 177.1 | -69.0 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 1.80 | 65.48 | 9,396.9 | 82.1 | 179.9 | -70.1 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 1.80 | 65.48 | 9,496.9 | 83.4 | 182.8 | -71.2 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 1.80 | 65.48 | 9,596.8 | 84.7 | 185.6 | -72.3 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 1.80 | 65.48 | 9,696.8 | 86.0 | 188.5 | -73.4 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 1.80 | 65.48 | 9,796.7 | 87.3 | 191.3 | -74.5 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 1.80 | 65.48 | 9,896.7 | 88.6 | 194.2 | -75.6 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 1.80 | 65.48 | 9,996.6 | 89.9 | 197.0 | -76.8 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 1.80 | 65.48 | 10,096.6 | 91.2 | 199.9 | -77.9 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 1.80 | 65.48 | 10,196.5 | 92.5 | 202.7 | -79.0 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 1.80 | 65.48 | 10,296.5 | 93.8 | 205.6 | -80.1 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 1.80 | 65.48 | 10,396.4 | 95.1 | 208.5 | -81.2 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 1.80 | 65.48 | 10,496.4 | 96.4 | 211.3 | -82.3 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 1.80 | 65.48 | 10,596.3 | 97.7 | 214.2 | -83.4 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
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| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB = 25 @ 3343.0usft |
| **Site:** | Nautilus 16 State Com | **North Reference:** | Grid |
| **Well:** | #715H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #0.1 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 10,700.0 | 1.80 | 65.48 | 10,696.3 | 99.0 | 217.0 | -84.5 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 1.80 | 65.48 | 10,796.2 | 100.3 | 219.9 | -85.6 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 1.80 | 65.48 | 10,896.2 | 101.6 | 222.7 | -86.8 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 1.80 | 65.48 | 10,996.1 | 102.9 | 225.6 | -87.9 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 1.80 | 65.48 | 11,096.1 | 104.2 | 228.4 | -89.0 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 1.80 | 65.48 | 11,196.0 | 105.5 | 231.3 | -90.1 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 1.80 | 65.48 | 11,296.0 | 106.8 | 234.1 | -91.2 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 1.80 | 65.48 | 11,395.9 | 108.1 | 237.0 | -92.3 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 1.80 | 65.48 | 11,495.9 | 109.4 | 239.8 | -93.4 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 1.80 | 65.48 | 11,595.8 | 110.7 | 242.7 | -94.5 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 1.80 | 65.48 | 11,695.8 | 112.0 | 245.5 | -95.6 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 1.80 | 65.48 | 11,795.7 | 113.3 | 248.4 | -96.8 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 1.80 | 65.48 | 11,895.7 | 114.6 | 251.2 | -97.9 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 1.80 | 65.48 | 11,995.6 | 115.9 | 254.1 | -99.0 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 1.80 | 65.48 | 12,095.6 | 117.2 | 256.9 | -100.1 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 1.80 | 65.48 | 12,195.5 | 118.5 | 259.8 | -101.2 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 1.80 | 65.48 | 12,295.5 | 119.8 | 262.6 | -102.3 | 0.00 | 0.00 | 0.00 |
| 12,339.2 | 1.80 | 65.48 | 12,334.6 | 120.3 | 263.7 | -102.7 | 0.00 | 0.00 | 0.00 |
| 12,350.0 | 1.74 | 108.62 | 12,345.5 | 120.3 | 264.1 | -102.7 | 12.00 | -0.55 | 398.33 |
| 12,375.0 | 3.93 | 154.84 | 12,370.4 | 119.4 | 264.8 | -101.8 | 12.00 | 8.76 | 184.91 |
| 12,400.0 | 6.77 | 165.54 | 12,395.3 | 117.2 | 265.5 | -99.5 | 12.00 | 11.37 | 42.79 |
| 12,425.0 | 9.71 | 169.86 | 12,420.1 | 113.7 | 266.3 | -96.0 | 12.00 | 11.75 | 17.29 |
| 12,450.0 | 12.67 | 172.18 | 12,444.6 | 108.9 | 267.0 | -91.2 | 12.00 | 11.87 | 9.29 |
| 12,475.0 | 15.65 | 173.64 | 12,468.8 | 102.9 | 267.7 | -85.1 | 12.00 | 11.92 | 5.80 |
| 12,500.0 | 18.64 | 174.63 | 12,492.7 | 95.5 | 268.5 | -77.7 | 12.00 | 11.94 | 3.98 |
| 12,525.0 | 21.63 | 175.36 | 12,516.2 | 87.0 | 269.2 | -69.1 | 12.00 | 11.96 | 2.92 |
| 12,550.0 | 24.62 | 175.92 | 12,539.2 | 77.2 | 270.0 | -59.3 | 12.00 | 11.97 | 2.24 |
| 12,575.0 | 27.61 | 176.36 | 12,561.6 | 66.2 | 270.7 | -48.3 | 12.00 | 11.97 | 1.78 |
| 12,600.0 | 30.61 | 176.73 | 12,583.5 | 54.1 | 271.4 | -36.1 | 12.00 | 11.98 | 1.46 |
| 12,625.0 | 33.60 | 177.03 | 12,604.6 | 40.8 | 272.2 | -22.8 | 12.00 | 11.98 | 1.22 |
| 12,650.0 | 36.60 | 177.29 | 12,625.1 | 26.4 | 272.9 | -8.5 | 12.00 | 11.99 | 1.04 |
| 12,675.0 | 39.60 | 177.52 | 12,644.8 | 11.0 | 273.6 | 7.0 | 12.00 | 11.99 | 0.90 |
| 12,700.0 | 42.59 | 177.72 | 12,663.6 | -5.4 | 274.3 | 23.4 | 12.00 | 11.99 | 0.80 |
| 12,725.0 | 45.59 | 177.89 | 12,681.5 | -22.8 | 274.9 | 40.8 | 12.00 | 11.99 | 0.71 |
| 12,750.0 | 48.59 | 178.05 | 12,698.6 | -41.1 | 275.6 | 59.1 | 12.00 | 11.99 | 0.64 |
| 12,775.0 | 51.59 | 178.20 | 12,714.6 | -60.2 | 276.2 | 78.2 | 12.00 | 11.99 | 0.58 |
| 12,800.0 | 54.59 | 178.34 | 12,729.6 | -80.2 | 276.8 | 98.2 | 12.00 | 11.99 | 0.54 |
| 12,825.0 | 57.58 | 178.46 | 12,743.6 | -100.9 | 277.4 | 118.9 | 12.00 | 11.99 | 0.50 |
| 12,850.0 | 60.58 | 178.58 | 12,756.4 | -122.4 | 277.9 | 140.4 | 12.00 | 11.99 | 0.47 |
| 12,875.0 | 63.58 | 178.69 | 12,768.1 | -144.5 | 278.5 | 162.4 | 12.00 | 11.99 | 0.44 |
| 12,900.0 | 66.58 | 178.79 | 12,778.6 | -167.1 | 279.0 | 185.1 | 12.00 | 11.99 | 0.42 |
| 12,925.0 | 69.58 | 178.89 | 12,788.0 | -190.3 | 279.4 | 208.2 | 12.00 | 11.99 | 0.40 |
| 12,950.0 | 72.58 | 178.99 | 12,796.1 | -213.9 | 279.9 | 231.9 | 12.00 | 11.99 | 0.38 |
| 12,975.0 | 75.57 | 179.08 | 12,802.9 | -238.0 | 280.3 | 255.9 | 12.00 | 11.99 | 0.37 |
| 13,000.0 | 78.57 | 179.17 | 12,808.5 | -262.3 | 280.6 | 280.2 | 12.00 | 11.99 | 0.36 |
| 13,025.0 | 81.57 | 179.26 | 12,812.8 | -287.0 | 281.0 | 304.8 | 12.00 | 11.99 | 0.35 |
| 13,050.0 | 84.57 | 179.35 | 12,815.9 | -311.8 | 281.3 | 329.6 | 12.00 | 12.00 | 0.35 |
| 13,075.0 | 87.57 | 179.43 | 12,817.6 | -336.7 | 281.5 | 354.5 | 12.00 | 12.00 | 0.35 |
| 13,095.3 | 90.00 | 179.50 | 12,818.0 | -357.0 | 281.7 | 374.7 | 12.00 | 12.00 | 0.34 |
| 13,100.0 | 90.00 | 179.50 | 12,818.0 | -361.7 | 281.8 | 379.4 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 179.50 | 12,818.0 | -461.7 | 282.6 | 479.3 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 179.50 | 12,818.0 | -561.7 | 283.5 | 579.1 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 179.50 | 12,818.0 | -661.7 | 284.4 | 678.9 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 179.50 | 12,818.0 | -761.7 | 285.3 | 778.8 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 | **Local Co-ordinate Reference:** | Well #715H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB = 25 @ 3343.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB = 25 @ 3343.0usft |
| **Site:** | Nautilus 16 State Com | **North Reference:** | Grid |
| **Well:** | #715H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #0.1 | | |

**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) |
|---|---|---|---|---|---|---|---|---|---|
| 13,600.0 | 90.00 | 179.50 | 12,818.0 | -861.7 | 286.1 | 878.6 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 179.50 | 12,818.0 | -961.7 | 287.0 | 978.5 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 179.50 | 12,818.0 | -1,061.7 | 287.9 | 1,078.3 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 179.50 | 12,818.0 | -1,161.7 | 288.7 | 1,178.1 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.00 | 179.50 | 12,818.0 | -1,261.7 | 289.6 | 1,278.0 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.00 | 179.50 | 12,818.0 | -1,361.7 | 290.5 | 1,377.8 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 179.50 | 12,818.0 | -1,461.7 | 291.3 | 1,477.6 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 179.50 | 12,818.0 | -1,561.7 | 292.2 | 1,577.5 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 179.50 | 12,818.0 | -1,661.7 | 293.1 | 1,677.3 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 179.50 | 12,818.0 | -1,761.7 | 293.9 | 1,777.2 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.00 | 179.50 | 12,818.0 | -1,861.7 | 294.8 | 1,877.0 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 179.50 | 12,818.0 | -1,961.6 | 295.7 | 1,976.8 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.00 | 179.50 | 12,818.0 | -2,061.6 | 296.5 | 2,076.7 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 179.50 | 12,818.0 | -2,161.6 | 297.4 | 2,176.5 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.00 | 179.50 | 12,818.0 | -2,261.6 | 298.3 | 2,276.3 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 90.00 | 179.50 | 12,818.0 | -2,361.6 | 299.1 | 2,376.2 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 179.50 | 12,818.0 | -2,461.6 | 300.0 | 2,476.0 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 179.50 | 12,818.0 | -2,561.6 | 300.9 | 2,575.9 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.00 | 179.50 | 12,818.0 | -2,661.6 | 301.8 | 2,675.7 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.00 | 179.50 | 12,818.0 | -2,761.6 | 302.6 | 2,775.5 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.00 | 179.50 | 12,818.0 | -2,861.6 | 303.5 | 2,875.4 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.00 | 179.50 | 12,818.0 | -2,961.6 | 304.4 | 2,975.2 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.00 | 179.50 | 12,818.0 | -3,061.6 | 305.2 | 3,075.0 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 90.00 | 179.50 | 12,818.0 | -3,161.6 | 306.1 | 3,174.9 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.00 | 179.50 | 12,818.0 | -3,261.6 | 307.0 | 3,274.7 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.00 | 179.50 | 12,818.0 | -3,361.6 | 307.8 | 3,374.6 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.00 | 179.50 | 12,818.0 | -3,461.6 | 308.7 | 3,474.4 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 90.00 | 179.50 | 12,818.0 | -3,561.6 | 309.6 | 3,574.2 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 90.00 | 179.50 | 12,818.0 | -3,661.6 | 310.4 | 3,674.1 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 90.00 | 179.50 | 12,818.0 | -3,761.6 | 311.3 | 3,773.9 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 90.00 | 179.50 | 12,818.0 | -3,861.6 | 312.2 | 3,873.7 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 90.00 | 179.50 | 12,818.0 | -3,961.6 | 313.0 | 3,973.6 | 0.00 | 0.00 | 0.00 |
| 16,800.0 | 90.00 | 179.50 | 12,818.0 | -4,061.6 | 313.9 | 4,073.4 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 90.00 | 179.50 | 12,818.0 | -4,161.6 | 314.8 | 4,173.3 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 90.00 | 179.50 | 12,818.0 | -4,261.6 | 315.6 | 4,273.1 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 90.00 | 179.50 | 12,818.0 | -4,361.6 | 316.5 | 4,372.9 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 90.00 | 179.50 | 12,818.0 | -4,461.6 | 317.4 | 4,472.8 | 0.00 | 0.00 | 0.00 |
| 17,300.0 | 90.00 | 179.50 | 12,818.0 | -4,561.5 | 318.3 | 4,572.6 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 90.00 | 179.50 | 12,818.0 | -4,661.5 | 319.1 | 4,672.4 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 90.00 | 179.50 | 12,818.0 | -4,761.5 | 320.0 | 4,772.3 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 90.00 | 179.50 | 12,818.0 | -4,861.5 | 320.9 | 4,872.1 | 0.00 | 0.00 | 0.00 |
| 17,616.5 | 90.00 | 179.50 | 12,818.0 | -4,878.0 | 321.0 | 4,888.6 | 0.00 | 0.00 | 0.00 |

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.14 | **Local Co-ordinate Reference:** | Well #715H |
| **Company:** | EOG Resources - Midland | **TVD Reference:** | KB = 25 @ 3343.0usft |
| **Project:** | Lea County, NM (NAD 83 NME) | **MD Reference:** | KB = 25 @ 3343.0usft |
| **Site:** | Nautilus 16 State Com | **North Reference:** | Grid |
| **Well:** | #715H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OH | | |
| **Design:** | Plan #0.1 | | |

**Design Targets**

| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FTP (Nautilus 16 Fed Cc | 0.00 | 0.00 | 12,818.0 | -157.0 | 280.0 | 382,927.00 | 809,111.00 | 32° 2' 59.280 N | 103° 28' 8.622 W |
| - plan misses target center by 40.2usft at 12905.3usft MD (12780.7 TVD, -172.0 N, 279.1 E) | | | | | | | | | |
| - Point | | | | | | | | | |
| PBHL (Nautilus 16 Fed ( | 0.00 | 0.00 | 12,818.0 | -4,878.0 | 321.0 | 378,206.00 | 809,152.00 | 32° 2' 12.561 N | 103° 28' 8.584 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |