



## **EOG Resources - Midland**

**Lea County, NM (NAD 83 NME)**

**Speedy 16 State Com**

**#203H**

**OH**

**Plan: Plan #0.1**

## **Standard Planning Report**

**30 October, 2018**



## Planning Report

**Database:** EDM 5000.14  
**Company:** EOG Resources - Midland  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** Speedy 16 State Com  
**Well:** #203H  
**Wellbore:** OH  
**Design:** Plan #0.1

**Local Co-ordinate Reference:** Well #203H  
**TVD Reference:** KB = 25 @ 3595.0usft  
**MD Reference:** KB = 25 @ 3595.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

|                    |                             |                      |                |
|--------------------|-----------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County, NM (NAD 83 NME) |                      |                |
| <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>   | New Mexico Eastern Zone     |                      |                |

|                       |     |                     |                 |            |                   |        |
|-----------------------|-----|---------------------|-----------------|------------|-------------------|--------|
| Site                  |     | Speedy 16 State Com |                 |            |                   |        |
| Site Position:        |     | Northing:           | 509,397.00 usft | Latitude:  | 32° 23' 53.425 N  |        |
| From:                 | Map | Easting:            | 772,576.00 usft | Longitude: | 103° 35' 2.858 W  |        |
| Position Uncertainty: |     | 0.0 usft            | Slot Radius:    | 13-3/16 "  | Grid Convergence: | 0.40 ' |

|                      |       |              |                     |                 |               |                   |
|----------------------|-------|--------------|---------------------|-----------------|---------------|-------------------|
| Well                 | #203H |              |                     |                 |               |                   |
| Well Position        | +N/-S | -57.0 usft   | Northing:           | 509,340.00 usft | Latitude:     | 32° 23' 52.768 N  |
|                      | +E/-W | 1,331.0 usft | Easting:            | 773,907.00 usft | Longitude:    | 103° 34' 47.339 W |
| Position Uncertainty |       | 0.0 usft     | Wellhead Elevation: |                 | Ground Level: | 3,570.0 usft      |

|                  |                   |                    |                    |                  |                       |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| <b>Wellbore</b>  | OH                |                    |                    |                  |                       |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> | <b>Dip Angle</b> | <b>Field Strength</b> |
|                  | IGRF2015          | 10/30/2018         | (°)                | (°)              | (nT)                  |
|                  |                   |                    | 6.82               | 60.20            | 47,898.29551069       |

|                          |                         |              |                      |                  |
|--------------------------|-------------------------|--------------|----------------------|------------------|
| <b>Design</b>            | Plan #0.1               |              |                      |                  |
| <b>Audit Notes:</b>      |                         |              |                      |                  |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> | 0.0              |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>         | <b>Direction</b> |
|                          | (usft)                  | (usft)       | (usft)               | (°)              |
|                          | 0.0                     | 0.0          | 0.0                  | 182.65           |

|                                 |                 |                          |                     |                |
|---------------------------------|-----------------|--------------------------|---------------------|----------------|
| <b>Plan Survey Tool Program</b> | <b>Date</b>     | 10/30/2018               |                     |                |
| <b>Depth From</b>               | <b>Depth To</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>    | <b>Remarks</b> |
| (usft)                          | (usft)          |                          |                     |                |
| 1                               | 0.0             | 14,349.6 Plan #0.1 (OH)  | MWD                 |                |
|                                 |                 |                          | OWSG MWD - Standard |                |

|                      |                    |                |                 |               |               |               |              |             |            |                     |
|----------------------|--------------------|----------------|-----------------|---------------|---------------|---------------|--------------|-------------|------------|---------------------|
| <b>Plan Sections</b> |                    |                |                 |               |               |               |              |             |            |                     |
| <b>Measured</b>      | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical</b> | <b>+N/-S</b>  | <b>+E/-W</b>  | <b>Dogleg</b> | <b>Build</b> | <b>Turn</b> | <b>TFO</b> | <b>Target</b>       |
| <b>Depth</b>         | <b>(°)</b>         | <b>(°)</b>     | <b>Depth</b>    | <b>(usft)</b> | <b>(usft)</b> | <b>Rate</b>   | <b>Rate</b>  | <b>Rate</b> | <b>(°)</b> |                     |
| (usft)               |                    |                | (usft)          |               |               | (°/100usft)   | (°/100usft)  | (°/100usft) |            |                     |
| 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       |                     |
| 3,216.0              | 4.32               | 322.22         | 3,215.8         | 6.4           | -5.0          | 2.00          | 2.00         | 0.00        | 322.22     |                     |
| 8,676.4              | 4.32               | 322.22         | 8,660.7         | 331.6         | -257.0        | 0.00          | 0.00         | 0.00        | 0.00       |                     |
| 8,892.4              | 0.00               | 0.00           | 8,876.5         | 338.0         | -262.0        | 2.00          | -2.00        | 0.00        | 180.00     | KOP(speedy 16 State |
| 9,792.4              | 90.00              | 179.55         | 9,449.5         | -234.9        | -257.5        | 10.00         | 10.00        | 19.95       | 179.55     |                     |
| 14,349.6             | 90.00              | 179.55         | 9,449.5         | -4,792.0      | -222.0        | 0.00          | 0.00         | 0.00        | 0.00       | PBHL(speedy 16 Stat |



# Planning Report

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 Project: Lea County, NM (NAD 83 NME)  
 Site: Speedy 16 State Com  
 Well: #203H  
 Wellbore: OH  
 Design: Plan #0.1

Local Co-ordinate Reference: Well #203H  
 TVD Reference: KB = 25 @ 3595.0usft  
 MD Reference: KB = 25 @ 3595.0usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

## 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               | 2.00            | 322.22      | 3,100.0               | 1.4          | -1.1         | -1.3                    | 2.00                    | 2.00                   | 0.00                  |
| 3,200.0               | 4.00            | 322.22      | 3,199.8               | 5.5          | -4.3         | -5.3                    | 2.00                    | 2.00                   | 0.00                  |
| 3,216.0               | 4.32            | 322.22      | 3,215.8               | 6.4          | -5.0         | -6.2                    | 2.00                    | 2.00                   | 0.00                  |
| 3,300.0               | 4.32            | 322.22      | 3,299.6               | 11.4         | -8.9         | -11.0                   | 0.00                    | 0.00                   | 0.00                  |
| 3,400.0               | 4.32            | 322.22      | 3,399.3               | 17.4         | -13.5        | -16.7                   | 0.00                    | 0.00                   | 0.00                  |
| 3,500.0               | 4.32            | 322.22      | 3,499.0               | 23.3         | -18.1        | -22.5                   | 0.00                    | 0.00                   | 0.00                  |
| 3,600.0               | 4.32            | 322.22      | 3,598.7               | 29.3         | -22.7        | -28.2                   | 0.00                    | 0.00                   | 0.00                  |
| 3,700.0               | 4.32            | 322.22      | 3,698.4               | 35.3         | -27.3        | -33.9                   | 0.00                    | 0.00                   | 0.00                  |
| 3,800.0               | 4.32            | 322.22      | 3,798.1               | 41.2         | -31.9        | -39.7                   | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0               | 4.32            | 322.22      | 3,897.9               | 47.2         | -36.6        | -45.4                   | 0.00                    | 0.00                   | 0.00                  |
| 4,000.0               | 4.32            | 322.22      | 3,997.6               | 53.1         | -41.2        | -51.2                   | 0.00                    | 0.00                   | 0.00                  |
| 4,100.0               | 4.32            | 322.22      | 4,097.3               | 59.1         | -45.8        | -56.9                   | 0.00                    | 0.00                   | 0.00                  |
| 4,200.0               | 4.32            | 322.22      | 4,197.0               | 65.0         | -50.4        | -62.6                   | 0.00                    | 0.00                   | 0.00                  |
| 4,300.0               | 4.32            | 322.22      | 4,296.7               | 71.0         | -55.0        | -68.4                   | 0.00                    | 0.00                   | 0.00                  |
| 4,400.0               | 4.32            | 322.22      | 4,396.4               | 76.9         | -59.6        | -74.1                   | 0.00                    | 0.00                   | 0.00                  |
| 4,500.0               | 4.32            | 322.22      | 4,496.1               | 82.9         | -64.2        | -79.8                   | 0.00                    | 0.00                   | 0.00                  |
| 4,600.0               | 4.32            | 322.22      | 4,595.9               | 88.8         | -68.9        | -85.6                   | 0.00                    | 0.00                   | 0.00                  |
| 4,700.0               | 4.32            | 322.22      | 4,695.6               | 94.8         | -73.5        | -91.3                   | 0.00                    | 0.00                   | 0.00                  |
| 4,800.0               | 4.32            | 322.22      | 4,795.3               | 100.8        | -78.1        | -97.0                   | 0.00                    | 0.00                   | 0.00                  |
| 4,900.0               | 4.32            | 322.22      | 4,895.0               | 106.7        | -82.7        | -102.8                  | 0.00                    | 0.00                   | 0.00                  |
| 5,000.0               | 4.32            | 322.22      | 4,994.7               | 112.7        | -87.3        | -108.5                  | 0.00                    | 0.00                   | 0.00                  |
| 5,100.0               | 4.32            | 322.22      | 5,094.4               | 118.6        | -91.9        | -114.2                  | 0.00                    | 0.00                   | 0.00                  |
| 5,200.0               | 4.32            | 322.22      | 5,194.2               | 124.6        | -96.6        | -120.0                  | 0.00                    | 0.00                   | 0.00                  |



# Planning Report

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 Wellbore: OH  
 Design: Plan #0.1

Local Co-ordinate Reference: Well #203H  
 TVD Reference: KB = 25 @ 3595.0usft  
 MD Reference: KB = 25 @ 3595.0usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

## 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                        | 4.32            | 322.22      | 5,293.9               | 130.5        | -101.2       | -125.7                  | 0.00                    | 0.00                   | 0.00                  |
| 5,400.0                        | 4.32            | 322.22      | 5,393.6               | 136.5        | -105.8       | -131.4                  | 0.00                    | 0.00                   | 0.00                  |
| 5,500.0                        | 4.32            | 322.22      | 5,493.3               | 142.4        | -110.4       | -137.2                  | 0.00                    | 0.00                   | 0.00                  |
| 5,600.0                        | 4.32            | 322.22      | 5,593.0               | 148.4        | -115.0       | -142.9                  | 0.00                    | 0.00                   | 0.00                  |
| 5,700.0                        | 4.32            | 322.22      | 5,692.7               | 154.3        | -119.6       | -148.6                  | 0.00                    | 0.00                   | 0.00                  |
| 5,800.0                        | 4.32            | 322.22      | 5,792.5               | 160.3        | -124.3       | -154.4                  | 0.00                    | 0.00                   | 0.00                  |
| 5,900.0                        | 4.32            | 322.22      | 5,892.2               | 166.2        | -128.9       | -160.1                  | 0.00                    | 0.00                   | 0.00                  |
| 6,000.0                        | 4.32            | 322.22      | 5,991.9               | 172.2        | -133.5       | -165.8                  | 0.00                    | 0.00                   | 0.00                  |
| 6,100.0                        | 4.32            | 322.22      | 6,091.6               | 178.2        | -138.1       | -171.6                  | 0.00                    | 0.00                   | 0.00                  |
| 6,200.0                        | 4.32            | 322.22      | 6,191.3               | 184.1        | -142.7       | -177.3                  | 0.00                    | 0.00                   | 0.00                  |
| 6,300.0                        | 4.32            | 322.22      | 6,291.0               | 190.1        | -147.3       | -183.0                  | 0.00                    | 0.00                   | 0.00                  |
| 6,400.0                        | 4.32            | 322.22      | 6,390.7               | 196.0        | -151.9       | -188.8                  | 0.00                    | 0.00                   | 0.00                  |
| 6,500.0                        | 4.32            | 322.22      | 6,490.5               | 202.0        | -156.6       | -194.5                  | 0.00                    | 0.00                   | 0.00                  |
| 6,600.0                        | 4.32            | 322.22      | 6,590.2               | 207.9        | -161.2       | -200.2                  | 0.00                    | 0.00                   | 0.00                  |
| 6,700.0                        | 4.32            | 322.22      | 6,689.9               | 213.9        | -165.8       | -206.0                  | 0.00                    | 0.00                   | 0.00                  |
| 6,800.0                        | 4.32            | 322.22      | 6,789.6               | 219.8        | -170.4       | -211.7                  | 0.00                    | 0.00                   | 0.00                  |
| 6,900.0                        | 4.32            | 322.22      | 6,889.3               | 225.8        | -175.0       | -217.5                  | 0.00                    | 0.00                   | 0.00                  |
| 7,000.0                        | 4.32            | 322.22      | 6,989.0               | 231.7        | -179.6       | -223.2                  | 0.00                    | 0.00                   | 0.00                  |
| 7,100.0                        | 4.32            | 322.22      | 7,088.8               | 237.7        | -184.3       | -228.9                  | 0.00                    | 0.00                   | 0.00                  |
| 7,200.0                        | 4.32            | 322.22      | 7,188.5               | 243.7        | -188.9       | -234.7                  | 0.00                    | 0.00                   | 0.00                  |
| 7,300.0                        | 4.32            | 322.22      | 7,288.2               | 249.6        | -193.5       | -240.4                  | 0.00                    | 0.00                   | 0.00                  |
| 7,400.0                        | 4.32            | 322.22      | 7,387.9               | 255.6        | -198.1       | -246.1                  | 0.00                    | 0.00                   | 0.00                  |
| 7,500.0                        | 4.32            | 322.22      | 7,487.6               | 261.5        | -202.7       | -251.9                  | 0.00                    | 0.00                   | 0.00                  |
| 7,600.0                        | 4.32            | 322.22      | 7,587.3               | 267.5        | -207.3       | -257.6                  | 0.00                    | 0.00                   | 0.00                  |
| 7,700.0                        | 4.32            | 322.22      | 7,687.1               | 273.4        | -211.9       | -263.3                  | 0.00                    | 0.00                   | 0.00                  |
| 7,800.0                        | 4.32            | 322.22      | 7,786.8               | 279.4        | -216.6       | -269.1                  | 0.00                    | 0.00                   | 0.00                  |
| 7,900.0                        | 4.32            | 322.22      | 7,886.5               | 285.3        | -221.2       | -274.8                  | 0.00                    | 0.00                   | 0.00                  |
| 8,000.0                        | 4.32            | 322.22      | 7,986.2               | 291.3        | -225.8       | -280.5                  | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0                        | 4.32            | 322.22      | 8,085.9               | 297.2        | -230.4       | -286.3                  | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0                        | 4.32            | 322.22      | 8,185.6               | 303.2        | -235.0       | -292.0                  | 0.00                    | 0.00                   | 0.00                  |
| 8,300.0                        | 4.32            | 322.22      | 8,285.3               | 309.2        | -239.6       | -297.7                  | 0.00                    | 0.00                   | 0.00                  |
| 8,400.0                        | 4.32            | 322.22      | 8,385.1               | 315.1        | -244.3       | -303.5                  | 0.00                    | 0.00                   | 0.00                  |
| 8,500.0                        | 4.32            | 322.22      | 8,484.8               | 321.1        | -248.9       | -309.2                  | 0.00                    | 0.00                   | 0.00                  |
| 8,600.0                        | 4.32            | 322.22      | 8,584.5               | 327.0        | -253.5       | -314.9                  | 0.00                    | 0.00                   | 0.00                  |
| 8,676.4                        | 4.32            | 322.22      | 8,660.7               | 331.6        | -257.0       | -319.3                  | 0.00                    | 0.00                   | 0.00                  |
| 8,700.0                        | 3.85            | 322.22      | 8,684.2               | 332.9        | -258.0       | -320.6                  | 2.00                    | -2.00                  | 0.00                  |
| 8,800.0                        | 1.85            | 322.22      | 8,784.1               | 336.8        | -261.1       | -324.4                  | 2.00                    | -2.00                  | 0.00                  |
| 8,892.4                        | 0.00            | 0.00        | 8,876.5               | 338.0        | -262.0       | -325.5                  | 2.00                    | -2.00                  | 0.00                  |
| KOP(speedy 16 State Com #203H) |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,900.0                        | 0.76            | 179.55      | 8,884.1               | 337.9        | -262.0       | -325.5                  | 10.00                   | 10.00                  | 0.00                  |
| 8,950.0                        | 5.76            | 179.55      | 8,934.0               | 335.1        | -262.0       | -322.6                  | 10.00                   | 10.00                  | 0.00                  |
| 9,000.0                        | 10.76           | 179.55      | 8,983.4               | 327.9        | -261.9       | -315.5                  | 10.00                   | 10.00                  | 0.00                  |
| 9,050.0                        | 15.76           | 179.55      | 9,032.1               | 316.5        | -261.8       | -304.0                  | 10.00                   | 10.00                  | 0.00                  |
| 9,100.0                        | 20.76           | 179.55      | 9,079.6               | 300.8        | -261.7       | -288.4                  | 10.00                   | 10.00                  | 0.00                  |
| 9,150.0                        | 25.76           | 179.55      | 9,125.5               | 281.1        | -261.6       | -268.7                  | 10.00                   | 10.00                  | 0.00                  |
| 9,200.0                        | 30.76           | 179.55      | 9,169.5               | 257.4        | -261.4       | -245.0                  | 10.00                   | 10.00                  | 0.00                  |
| 9,250.0                        | 35.76           | 179.55      | 9,211.3               | 230.0        | -261.2       | -217.7                  | 10.00                   | 10.00                  | 0.00                  |
| 9,300.0                        | 40.76           | 179.55      | 9,250.6               | 199.1        | -260.9       | -186.8                  | 10.00                   | 10.00                  | 0.00                  |
| 9,350.0                        | 45.76           | 179.55      | 9,287.0               | 164.8        | -260.6       | -152.6                  | 10.00                   | 10.00                  | 0.00                  |
| 9,366.3                        | 47.39           | 179.55      | 9,298.2               | 153.0        | -260.6       | -140.7                  | 10.00                   | 10.00                  | 0.00                  |
| FTP(speedy 16 State Com #203H) |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,400.0                        | 50.76           | 179.55      | 9,320.2               | 127.5        | -260.4       | -115.3                  | 10.00                   | 10.00                  | 0.00                  |
| 9,450.0                        | 55.76           | 179.55      | 9,350.1               | 87.5         | -260.0       | -75.3                   | 10.00                   | 10.00                  | 0.00                  |



# Planning Report

Database: EDM 5000.14  
 Company: EOG Resources - Midland  
 Project: Lea County, NM (NAD 83 NME)  
 Site: Speedy 16 State Com  
 Well: #203H  
 Wellbore: OH  
 Design: Plan #0.1

Local Co-ordinate Reference: Well #203H  
 TVD Reference: KB = 25 @ 3595.0usft  
 MD Reference: KB = 25 @ 3595.0usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 9,500.0                     | 60.76              | 179.55         | 9,376.4                     | 44.9            | -259.7          | -32.9                         | 10.00                         | 10.00                        | 0.00                        |
| 9,550.0                     | 65.76              | 179.55         | 9,398.9                     | 0.3             | -259.4          | 11.7                          | 10.00                         | 10.00                        | 0.00                        |
| 9,600.0                     | 70.76              | 179.55         | 9,417.4                     | -46.1           | -259.0          | 58.1                          | 10.00                         | 10.00                        | 0.00                        |
| 9,650.0                     | 75.76              | 179.55         | 9,431.8                     | -94.0           | -258.6          | 105.8                         | 10.00                         | 10.00                        | 0.00                        |
| 9,700.0                     | 80.76              | 179.55         | 9,442.0                     | -142.9          | -258.3          | 154.7                         | 10.00                         | 10.00                        | 0.00                        |
| 9,750.0                     | 85.76              | 179.55         | 9,447.9                     | -192.6          | -257.9          | 204.3                         | 10.00                         | 10.00                        | 0.00                        |
| 9,792.4                     | 90.00              | 179.55         | 9,449.5                     | -234.9          | -257.5          | 246.6                         | 10.00                         | 10.00                        | 0.00                        |
| 9,800.0                     | 90.00              | 179.55         | 9,449.5                     | -242.5          | -257.5          | 254.2                         | 0.00                          | 0.00                         | 0.00                        |
| 9,900.0                     | 90.00              | 179.55         | 9,449.5                     | -342.5          | -256.7          | 354.0                         | 0.00                          | 0.00                         | 0.00                        |
| 10,000.0                    | 90.00              | 179.55         | 9,449.5                     | -442.5          | -255.9          | 453.9                         | 0.00                          | 0.00                         | 0.00                        |
| 10,100.0                    | 90.00              | 179.55         | 9,449.5                     | -542.5          | -255.1          | 553.7                         | 0.00                          | 0.00                         | 0.00                        |
| 10,200.0                    | 90.00              | 179.55         | 9,449.5                     | -642.5          | -254.4          | 653.6                         | 0.00                          | 0.00                         | 0.00                        |
| 10,300.0                    | 90.00              | 179.55         | 9,449.5                     | -742.5          | -253.6          | 753.4                         | 0.00                          | 0.00                         | 0.00                        |
| 10,400.0                    | 90.00              | 179.55         | 9,449.5                     | -842.5          | -252.8          | 853.3                         | 0.00                          | 0.00                         | 0.00                        |
| 10,500.0                    | 90.00              | 179.55         | 9,449.5                     | -942.5          | -252.0          | 953.1                         | 0.00                          | 0.00                         | 0.00                        |
| 10,600.0                    | 90.00              | 179.55         | 9,449.5                     | -1,042.5        | -251.2          | 1,053.0                       | 0.00                          | 0.00                         | 0.00                        |
| 10,700.0                    | 90.00              | 179.55         | 9,449.5                     | -1,142.5        | -250.5          | 1,152.9                       | 0.00                          | 0.00                         | 0.00                        |
| 10,800.0                    | 90.00              | 179.55         | 9,449.5                     | -1,242.5        | -249.7          | 1,252.7                       | 0.00                          | 0.00                         | 0.00                        |
| 10,900.0                    | 90.00              | 179.55         | 9,449.5                     | -1,342.5        | -248.9          | 1,352.6                       | 0.00                          | 0.00                         | 0.00                        |
| 11,000.0                    | 90.00              | 179.55         | 9,449.5                     | -1,442.5        | -248.1          | 1,452.4                       | 0.00                          | 0.00                         | 0.00                        |
| 11,100.0                    | 90.00              | 179.55         | 9,449.5                     | -1,542.5        | -247.3          | 1,552.3                       | 0.00                          | 0.00                         | 0.00                        |
| 11,200.0                    | 90.00              | 179.55         | 9,449.5                     | -1,642.5        | -246.6          | 1,652.1                       | 0.00                          | 0.00                         | 0.00                        |
| 11,300.0                    | 90.00              | 179.55         | 9,449.5                     | -1,742.5        | -245.8          | 1,752.0                       | 0.00                          | 0.00                         | 0.00                        |
| 11,400.0                    | 90.00              | 179.55         | 9,449.5                     | -1,842.5        | -245.0          | 1,851.8                       | 0.00                          | 0.00                         | 0.00                        |
| 11,500.0                    | 90.00              | 179.55         | 9,449.5                     | -1,942.5        | -244.2          | 1,951.7                       | 0.00                          | 0.00                         | 0.00                        |
| 11,600.0                    | 90.00              | 179.55         | 9,449.5                     | -2,042.5        | -243.4          | 2,051.5                       | 0.00                          | 0.00                         | 0.00                        |
| 11,700.0                    | 90.00              | 179.55         | 9,449.5                     | -2,142.5        | -242.7          | 2,151.4                       | 0.00                          | 0.00                         | 0.00                        |
| 11,800.0                    | 90.00              | 179.55         | 9,449.5                     | -2,242.5        | -241.9          | 2,251.2                       | 0.00                          | 0.00                         | 0.00                        |
| 11,900.0                    | 90.00              | 179.55         | 9,449.5                     | -2,342.4        | -241.1          | 2,351.1                       | 0.00                          | 0.00                         | 0.00                        |
| 12,000.0                    | 90.00              | 179.55         | 9,449.5                     | -2,442.4        | -240.3          | 2,451.0                       | 0.00                          | 0.00                         | 0.00                        |
| 12,100.0                    | 90.00              | 179.55         | 9,449.5                     | -2,542.4        | -239.5          | 2,550.8                       | 0.00                          | 0.00                         | 0.00                        |
| 12,200.0                    | 90.00              | 179.55         | 9,449.5                     | -2,642.4        | -238.8          | 2,650.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,300.0                    | 90.00              | 179.55         | 9,449.5                     | -2,742.4        | -238.0          | 2,750.5                       | 0.00                          | 0.00                         | 0.00                        |
| 12,400.0                    | 90.00              | 179.55         | 9,449.5                     | -2,842.4        | -237.2          | 2,850.4                       | 0.00                          | 0.00                         | 0.00                        |
| 12,500.0                    | 90.00              | 179.55         | 9,449.5                     | -2,942.4        | -236.4          | 2,950.2                       | 0.00                          | 0.00                         | 0.00                        |
| 12,600.0                    | 90.00              | 179.55         | 9,449.5                     | -3,042.4        | -235.6          | 3,050.1                       | 0.00                          | 0.00                         | 0.00                        |
| 12,700.0                    | 90.00              | 179.55         | 9,449.5                     | -3,142.4        | -234.9          | 3,149.9                       | 0.00                          | 0.00                         | 0.00                        |
| 12,800.0                    | 90.00              | 179.55         | 9,449.5                     | -3,242.4        | -234.1          | 3,249.8                       | 0.00                          | 0.00                         | 0.00                        |
| 12,900.0                    | 90.00              | 179.55         | 9,449.5                     | -3,342.4        | -233.3          | 3,349.6                       | 0.00                          | 0.00                         | 0.00                        |
| 13,000.0                    | 90.00              | 179.55         | 9,449.5                     | -3,442.4        | -232.5          | 3,449.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,100.0                    | 90.00              | 179.55         | 9,449.5                     | -3,542.4        | -231.7          | 3,549.3                       | 0.00                          | 0.00                         | 0.00                        |
| 13,200.0                    | 90.00              | 179.55         | 9,449.5                     | -3,642.4        | -231.0          | 3,649.2                       | 0.00                          | 0.00                         | 0.00                        |
| 13,300.0                    | 90.00              | 179.55         | 9,449.5                     | -3,742.4        | -230.2          | 3,749.0                       | 0.00                          | 0.00                         | 0.00                        |
| 13,400.0                    | 90.00              | 179.55         | 9,449.5                     | -3,842.4        | -229.4          | 3,848.9                       | 0.00                          | 0.00                         | 0.00                        |
| 13,500.0                    | 90.00              | 179.55         | 9,449.5                     | -3,942.4        | -228.6          | 3,948.8                       | 0.00                          | 0.00                         | 0.00                        |
| 13,600.0                    | 90.00              | 179.55         | 9,449.5                     | -4,042.4        | -227.8          | 4,048.6                       | 0.00                          | 0.00                         | 0.00                        |
| 13,700.0                    | 90.00              | 179.55         | 9,449.5                     | -4,142.4        | -227.1          | 4,148.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,800.0                    | 90.00              | 179.55         | 9,449.5                     | -4,242.4        | -226.3          | 4,248.3                       | 0.00                          | 0.00                         | 0.00                        |
| 13,900.0                    | 90.00              | 179.55         | 9,449.5                     | -4,342.4        | -225.5          | 4,348.2                       | 0.00                          | 0.00                         | 0.00                        |
| 14,000.0                    | 90.00              | 179.55         | 9,449.5                     | -4,442.4        | -224.7          | 4,448.0                       | 0.00                          | 0.00                         | 0.00                        |
| 14,100.0                    | 90.00              | 179.55         | 9,449.5                     | -4,542.4        | -223.9          | 4,547.9                       | 0.00                          | 0.00                         | 0.00                        |
| 14,200.0                    | 90.00              | 179.55         | 9,449.5                     | -4,642.4        | -223.2          | 4,647.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,300.0                    | 90.00              | 179.55         | 9,449.5                     | -4,742.4        | -222.4          | 4,747.6                       | 0.00                          | 0.00                         | 0.00                        |
| 14,349.6                    | 90.00              | 179.55         | 9,449.5                     | -4,792.0        | -222.0          | 4,797.1                       | 0.00                          | 0.00                         | 0.00                        |



## Planning Report

**Database:** EDM 5000.14  
**Company:** EOG Resources - Midland  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** Speedy 16 State Com  
**Well:** #203H  
**Wellbore:** OH  
**Design:** Plan #0.1

**Local Co-ordinate Reference:** Well #203H  
**TVD Reference:** KB = 25 @ 3595.0usft  
**MD Reference:** KB = 25 @ 3595.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

| Measured<br>Depth<br>(usft)     | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|---------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| PBHL(speedy 16 State Com #203H) |                    |                |                             |                 |                 |                               |                               |                              |                             |

### Design Targets

| Target Name<br>- hit/miss target<br>- Shape                                                                                   | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         |
|-------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|-------------------|
| KOP(speedy 16 State C<br>- plan hits target center<br>- Point                                                                 | 0.00             | 0.00            | 8,876.5       | 338.0           | -262.0          | 509,678.00         | 773,645.00        | 32° 23' 56.131 N | 103° 34' 50.367 W |
| FTP(speedy 16 State C<br>- plan misses target center by 202.8usft at 9366.3usft MD (9298.2 TVD, 153.0 N, -260.6 E)<br>- Point | 0.00             | 0.00            | 9,449.5       | 288.0           | -262.0          | 509,628.00         | 773,645.00        | 32° 23' 55.636 N | 103° 34' 50.371 W |
| PBHL(speedy 16 State C<br>- plan hits target center<br>- Point                                                                | 0.00             | 0.01            | 9,449.5       | -4,792.0        | -222.0          | 504,548.00         | 773,685.00        | 32° 23' 5.367 N  | 103° 34' 50.322 W |



Lea County, NM (NAD 83 NME)

Speedy 16 State Com #203H

Plan #0.1



Azimuths to Grid North  
True North: -0.40°  
Magnetic North: 0.42°  
Magnetic Field  
Strength: 47888.3nT  
Dip Angle: 60.20°  
Date: 10/30/2018  
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 0.42°  
To convert a Magnetic Direction to a True Direction, Add 0.52° East  
To convert a True Direction to a Grid Direction, Subtract 0.40°

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

WELL DETAILS: #203H

KB = 25 @ 3595.0usR  
Northing 509340.00 Easting 773907.00 Latitude 32° 23' 52.768 N Longitude 103° 34' 47.339 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   | 3218.0  | 4.32  | 322.22 | 3218.0 | 0.4     | -0.0   | 2.00  | 322.22 | -6.2   |                                 |
| 4   | 8876.4  | 4.32  | 322.22 | 8860.7 | 331.6   | -237.0 | 0.00  | 0.00   | -319.3 |                                 |
| 5   | 8892.4  | 0.00  | 0.00   | 8876.5 | 338.0   | -262.0 | 2.00  | 180.00 | -325.8 | KOP(speedy 16 State Com #203H)  |
| 6   | 9792.4  | 90.00 | 179.55 | 9449.5 | -234.9  | -237.5 | 10.00 | 179.55 | 248.6  |                                 |
| 7   | 14349.6 | 90.00 | 179.55 | 9449.5 | -4792.0 | -232.0 | 0.00  | 0.00   | 4797.1 | PBHL(speedy 16 State Com #203H) |

#### CASING DETAILS

No casing data is available

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

| Name                            | TVD    | +N/-S   | +E/-W  | Northing  | Easting   |
|---------------------------------|--------|---------|--------|-----------|-----------|
| KOP(speedy 16 State Com #203H)  | 8876.5 | 338.0   | -262.0 | 509675.00 | 773845.00 |
| FTP(speedy 16 State Com #203H)  | 8449.5 | 288.0   | -282.0 | 509828.00 | 773645.00 |
| PBHL(speedy 16 State Com #203H) | 8449.5 | -4792.0 | -232.0 | 504548.00 | 775875.00 |

