

# Provide Signature Page for Directional Survey

NM OIL CONSERVATION  
ARTESIA DISTRICT

Dec. 17, 2018

## Survey Report

30-015-44313 RECEIVED

Company: XTO Energy

Local Co-ordinate Reference:

Well Remuda North 25 State 101H - Slot  
N-25\_101H

Project: Eddy County, NM (NAD27) NMEZ

TVD Reference:

3065+24 @ 3089.00usft (Hercules)

Site: Remuda North 25 State Pad

MD Reference:

3065+24 @ 3089.00usft (Hercules)

Well: Remuda North 25 State 101H

North Reference:

Grid

Wellbore: Lateral

Survey Calculation Method:

Minimum Curvature

Design: Lateral

Database:

TRUEPERF\_EDM

Project Eddy County, NM (NAD27) NMEZ

Map System: US State Plane 1927 (Exact solution)

System Datum:

Mean Sea Level

Geo Datum: NAD 1927 (NADCON CONUS)

Map Zone: New Mexico East 3001

Site Remuda North 25 State Pad, Centered on 904H

|                       |           |              |               |                   |                   |
|-----------------------|-----------|--------------|---------------|-------------------|-------------------|
| Site Position:        | Map       | Northing:    | 463,887.20 ft | Latitude:         | 32° 16' 29.021 N  |
| From:                 |           | Easting:     | 621,538.10 ft | Longitude:        | 103° 56' 24.348 W |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13.20 in      | Grid Convergence: | 0.21 °            |

Well Remuda North 25 State 101H - Slot N-25\_101H

|                      |       |           |                     |               |               |                   |
|----------------------|-------|-----------|---------------------|---------------|---------------|-------------------|
| Well Position        | +N/-S | 0.00 usft | Northing:           | 463,886.50 ft | Latitude:     | 32° 16' 29.060 N  |
|                      | +E/-W | 0.00 usft | Easting:            | 620,248.40 ft | Longitude:    | 103° 56' 39.370 W |
| Position Uncertainty |       | 0.00 usft | Wellhead Elevation: | usft          | Ground Level: | 3,065.00 usft     |

Wellbore Lateral

| Magnetics | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|-----------|------------|-------------|--------------------|------------------|------------------------|
|           | IGRF2015   | 04/12/18    | 7.04               | 60.04            | 47,847                 |

Design Lateral

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00

| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°) |
|-------------------|----------------------------|-----------------|-----------------|------------------|
|                   | 0.00                       | 0.00            | 0.00            | 347.09           |

Survey Program Date 06/01/18

| From<br>(usft) | To<br>(usft) | Survey (Wellbore)   | Tool Name  | Description                 |
|----------------|--------------|---------------------|------------|-----------------------------|
| 160.00         | 18,160.00    | Survey #1 (Lateral) | MWD        | MWD v3:standard declination |
| 18,213.00      | 18,213.00    | Survey #2 (Lateral) | Projection | Projection                  |

## 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>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|
| 0.00                        | 0.00               | 0.00           | 0.00                        | 0.00            | 0.00            | 0.00                          | 0.00                        | 0.00                       | 0.00                      |
| N-25_101H_SL                |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 19.48                       | 0.11               | 290.00         | 19.48                       | 0.01            | -0.02           | 0.01                          | 0.56                        | 0.56                       | 0.00                      |
| Random                      |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 160.00                      | 0.90               | 290.00         | 159.99                      | 0.43            | -1.18           | 0.68                          | 0.56                        | 0.56                       | 0.00                      |
| 188.00                      | 0.10               | 107.00         | 187.99                      | 0.50            | -1.36           | 0.79                          | 3.57                        | -2.86                      | 632.14                    |
| 217.00                      | 1.00               | 281.00         | 216.99                      | 0.54            | -1.59           | 0.88                          | 3.79                        | 3.10                       | 600.00                    |
| 300.00                      | 0.50               | 63.00          | 299.99                      | 0.84            | -1.98           | 1.26                          | 1.72                        | -0.60                      | 171.08                    |
| 330.00                      | 0.90               | 39.00          | 329.99                      | 1.08            | -1.71           | 1.44                          | 1.63                        | 1.33                       | -80.00                    |

# Survey Report

Company: XTO Energy

Project: Eddy County, NM (NAD27) NMEZ

Site: Remuda North 25 State Pad

Well: Remuda North 25 State 101H

Wellbore: Lateral

Design: Lateral

Local Co-ordinate Reference:

Well Remuda North 25 State 101H - Slot  
N-25\_101H

TVD Reference:

3085+24 @ 3089.00usft (Hercules)

MD Reference:

3085+24 @ 3089.00usft (Hercules)

North Reference:

Grid

Survey Calculation Method:

Minimum Curvature

Database:

TRUEPERF\_EDM

## 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>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|
| 394.00                      | 1.20               | 89.20          | 393.98                      | 1.48            | -0.73           | 1.61                          | 1.46                        | 0.47                       | 78.44                     |
| 495.00                      | 1.50               | 43.50          | 494.95                      | 2.46            | 1.24            | 2.12                          | 1.07                        | 0.30                       | -45.25                    |
| 590.00                      | 2.30               | 349.30         | 589.90                      | 5.23            | 1.74            | 4.71                          | 1.97                        | 0.84                       | -57.05                    |
| 684.00                      | 1.70               | 321.80         | 683.85                      | 8.18            | 0.53            | 7.86                          | 1.19                        | -0.64                      | -29.26                    |
| 780.00                      | 0.40               | 242.90         | 779.83                      | 9.15            | -0.65           | 9.06                          | 1.74                        | -1.35                      | -82.19                    |
| 855.00                      | 0.70               | 185.40         | 854.83                      | 8.57            | -0.92           | 8.56                          | 0.79                        | 0.40                       | -76.67                    |
| 949.00                      | 0.80               | 175.70         | 948.82                      | 7.35            | -0.93           | 7.37                          | 0.17                        | 0.11                       | -10.32                    |
| 1,044.00                    | 1.00               | 178.20         | 1,043.81                    | 5.86            | -0.85           | 5.90                          | 0.21                        | 0.21                       | 2.63                      |
| 1,138.00                    | 1.00               | 180.90         | 1,137.80                    | 4.22            | -0.84           | 4.30                          | 0.05                        | 0.00                       | 2.87                      |
| 1,233.00                    | 0.20               | 222.90         | 1,232.79                    | 3.27            | -0.97           | 3.40                          | 0.91                        | -0.84                      | 44.21                     |
| 1,326.00                    | 0.30               | 312.20         | 1,325.79                    | 3.31            | -1.26           | 3.51                          | 0.39                        | 0.11                       | 96.02                     |
| 1,422.00                    | 1.10               | 345.70         | 1,421.78                    | 4.37            | -1.67           | 4.64                          | 0.90                        | 0.83                       | 34.90                     |
| 1,516.00                    | 1.40               | 348.20         | 1,515.76                    | 6.37            | -2.13           | 6.69                          | 0.32                        | 0.32                       | 2.66                      |
| 1,609.00                    | 1.60               | 348.90         | 1,608.73                    | 8.76            | -2.61           | 9.12                          | 0.22                        | 0.22                       | 0.75                      |
| 1,703.00                    | 1.50               | 348.70         | 1,702.69                    | 11.25           | -3.10           | 11.66                         | 0.11                        | -0.11                      | -0.21                     |
| 1,797.00                    | 1.70               | 352.80         | 1,796.66                    | 13.84           | -3.52           | 14.28                         | 0.25                        | 0.21                       | 4.36                      |
| 1,891.00                    | 1.70               | 352.60         | 1,890.62                    | 16.61           | -3.87           | 17.05                         | 0.01                        | 0.00                       | -0.21                     |
| 1,985.00                    | 1.80               | 353.60         | 1,984.57                    | 19.46           | -4.22           | 19.91                         | 0.11                        | 0.11                       | 1.06                      |
| 2,080.00                    | 1.80               | 348.50         | 2,079.52                    | 22.40           | -4.68           | 22.88                         | 0.17                        | 0.00                       | -5.37                     |
| 2,175.00                    | 2.00               | 349.30         | 2,174.47                    | 25.49           | -5.29           | 26.03                         | 0.21                        | 0.21                       | 0.84                      |
| 2,269.00                    | 2.20               | 354.20         | 2,268.41                    | 28.90           | -5.77           | 29.46                         | 0.29                        | 0.21                       | 5.21                      |
| 2,364.00                    | 1.00               | 14.10          | 2,363.37                    | 31.52           | -5.76           | 32.01                         | 1.37                        | -1.26                      | 20.95                     |
| 2,458.00                    | 1.10               | 88.30          | 2,457.36                    | 32.34           | -4.65           | 32.56                         | 1.35                        | 0.11                       | 78.94                     |
| 2,552.00                    | 2.60               | 112.30         | 2,551.31                    | 31.56           | -1.78           | 31.16                         | 1.76                        | 1.60                       | 25.53                     |
| 2,647.00                    | 2.90               | 128.50         | 2,646.20                    | 29.24           | 2.09            | 28.04                         | 0.87                        | 0.32                       | 17.05                     |
| 2,742.00                    | 1.60               | 155.20         | 2,741.13                    | 26.54           | 4.53            | 24.86                         | 1.72                        | -1.37                      | 28.11                     |
| 2,835.00                    | 2.50               | 172.10         | 2,834.07                    | 23.36           | 5.36            | 21.57                         | 1.16                        | 0.97                       | 18.17                     |
| 2,942.00                    | 1.90               | 184.20         | 2,940.99                    | 19.28           | 5.55            | 17.55                         | 0.71                        | -0.56                      | 11.31                     |
| 3,025.00                    | 1.90               | 198.50         | 3,023.94                    | 16.60           | 5.01            | 15.06                         | 0.57                        | 0.00                       | 17.23                     |
| 3,121.00                    | 2.10               | 277.80         | 3,119.90                    | 15.33           | 2.76            | 14.32                         | 2.66                        | 0.21                       | 82.60                     |
| 3,215.00                    | 2.50               | 319.20         | 3,213.83                    | 17.11           | -0.29           | 16.75                         | 1.77                        | 0.43                       | 44.04                     |
| 3,304.00                    | 2.00               | 7.60           | 3,302.77                    | 20.12           | -1.35           | 19.92                         | 2.13                        | -0.56                      | 54.38                     |
| 3,403.00                    | 1.80               | 52.50          | 3,401.72                    | 22.78           | 0.11            | 22.18                         | 1.48                        | -0.20                      | 45.35                     |
| 3,497.00                    | 1.80               | 63.40          | 3,495.67                    | 24.34           | 2.60            | 23.14                         | 0.36                        | 0.00                       | 11.60                     |
| 3,592.00                    | 1.80               | 57.60          | 3,590.63                    | 25.85           | 5.27            | 24.02                         | 0.22                        | 0.11                       | -6.11                     |
| 3,687.00                    | 2.10               | 86.60          | 3,685.57                    | 26.80           | 8.34            | 24.26                         | 1.07                        | 0.21                       | 30.53                     |
| 3,781.00                    | 2.50               | 96.50          | 3,779.49                    | 26.67           | 12.09           | 23.29                         | 0.60                        | 0.43                       | 10.53                     |
| 3,877.00                    | 2.20               | 122.60         | 3,875.42                    | 25.44           | 15.72           | 21.28                         | 1.15                        | -0.31                      | 27.19                     |
| 3,971.00                    | 1.90               | 155.40         | 3,969.36                    | 23.05           | 17.89           | 18.47                         | 1.27                        | -0.32                      | 34.89                     |
| 4,066.00                    | 1.70               | 195.30         | 4,064.32                    | 20.26           | 18.18           | 15.69                         | 1.31                        | -0.21                      | 42.00                     |
| 4,160.00                    | 1.80               | 194.00         | 4,158.27                    | 17.48           | 17.45           | 13.14                         | 0.11                        | 0.11                       | -1.38                     |
| 4,254.00                    | 1.80               | 198.80         | 4,252.23                    | 14.65           | 16.62           | 10.57                         | 0.16                        | 0.00                       | 5.11                      |
| 4,348.00                    | 1.80               | 189.90         | 4,346.18                    | 11.72           | 15.88           | 7.88                          | 0.32                        | 0.11                       | -9.47                     |

# Survey Report

Company: XTO Energy

Local Co-ordinate Reference: Well Ramuda North 25 State 101H - Slot N-25\_101H

Project: Eddy County, NM (NAD27) NMEZ

TVD Reference: 3085+24 @ 3089.00usft (Hercules)

Site: Remuda North 25 State Pad

MD Reference: 3085+24 @ 3089.00usft (Hercules)

Well: Remuda North 25 State 101H

North Reference: Grid

Wellbore: Lateral

Survey Calculation Method: Minimum Curvature

Design: Lateral

Database: TRUEPERF\_EDM

## Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| 4,441.00              | 1.10            | 189.80      | 4,439.14              | 9.32         | 15.46        | 5.63                    | 0.86                  | -0.86                | -0.11               |
| 4,535.00              | 0.30            | 183.90      | 4,533.14              | 8.19         | 15.29        | 4.56                    | 0.85                  | -0.85                | -6.28               |
| 4,629.00              | 0.30            | 169.40      | 4,627.14              | 7.70         | 15.32        | 4.08                    | 0.08                  | 0.00                 | -15.43              |
| 4,723.00              | 0.60            | 16.10       | 4,721.13              | 7.93         | 15.50        | 4.27                    | 0.93                  | 0.32                 | -163.08             |
| 4,817.00              | 1.40            | 29.70       | 4,815.12              | 9.40         | 16.20        | 5.54                    | 0.88                  | 0.85                 | 14.47               |
| 4,910.00              | 1.60            | 21.10       | 4,908.09              | 11.60        | 17.23        | 7.46                    | 0.32                  | 0.22                 | -9.25               |
| 5,004.00              | 1.70            | 25.00       | 5,002.05              | 14.09        | 18.30        | 9.64                    | 0.16                  | 0.11                 | 4.15                |
| 5,098.00              | 1.80            | 23.40       | 5,096.00              | 16.71        | 19.47        | 11.93                   | 0.12                  | 0.11                 | -1.70               |
| 5,193.00              | 1.70            | 18.80       | 5,190.96              | 19.41        | 20.52        | 14.33                   | 0.18                  | -0.11                | -4.84               |
| 5,287.00              | 1.60            | 18.40       | 5,284.92              | 21.98        | 21.38        | 16.64                   | 0.11                  | -0.11                | -0.43               |
| 5,381.00              | 1.50            | 16.70       | 5,378.89              | 24.40        | 22.15        | 18.83                   | 0.12                  | -0.11                | -1.81               |
| 5,475.00              | 1.50            | 9.40        | 5,472.85              | 26.79        | 22.70        | 21.04                   | 0.20                  | 0.00                 | -7.77               |
| 5,569.00              | 1.10            | 353.00      | 5,566.83              | 28.90        | 22.80        | 23.07                   | 0.58                  | -0.43                | -17.45              |
| 5,663.00              | 0.70            | 320.50      | 5,660.82              | 30.24        | 22.32        | 24.49                   | 0.67                  | -0.43                | -34.57              |
| 5,758.00              | 0.70            | 282.50      | 5,755.81              | 30.81        | 21.38        | 25.25                   | 0.48                  | 0.00                 | -40.00              |
| 5,851.00              | 0.80            | 286.50      | 5,848.80              | 31.12        | 20.21        | 25.82                   | 0.12                  | 0.11                 | 4.30                |
| 5,945.00              | 0.60            | 251.30      | 5,942.80              | 31.15        | 19.11        | 26.09                   | 0.49                  | -0.21                | -37.45              |
| 6,038.00              | 0.50            | 250.20      | 6,035.79              | 30.85        | 18.27        | 25.99                   | 0.11                  | -0.11                | -1.18               |
| 6,133.00              | 0.80            | 247.00      | 6,130.79              | 30.46        | 17.27        | 25.83                   | 0.32                  | 0.32                 | -3.37               |
| 6,226.00              | 0.80            | 231.60      | 6,223.78              | 29.80        | 16.16        | 25.43                   | 0.23                  | 0.00                 | -16.56              |
| 6,322.00              | 0.80            | 243.20      | 6,319.77              | 29.08        | 15.04        | 24.98                   | 0.17                  | 0.00                 | 12.08               |
| 6,416.00              | 0.80            | 227.90      | 6,413.76              | 28.34        | 13.97        | 24.51                   | 0.23                  | 0.00                 | -16.28              |
| 6,510.00              | 0.70            | 236.10      | 6,507.75              | 27.58        | 13.00        | 23.98                   | 0.16                  | -0.11                | 8.72                |
| 6,605.00              | 1.00            | 235.90      | 6,602.74              | 26.80        | 11.83        | 23.47                   | 0.32                  | 0.32                 | -0.21               |
| 6,700.00              | 1.00            | 245.10      | 6,697.73              | 25.98        | 10.40        | 23.00                   | 0.17                  | 0.00                 | 9.68                |
| 6,795.00              | 1.00            | 231.60      | 6,792.71              | 25.12        | 8.99         | 22.47                   | 0.25                  | 0.00                 | -14.21              |
| 6,889.00              | 1.00            | 245.30      | 6,886.70              | 24.27        | 7.61         | 21.95                   | 0.25                  | 0.00                 | 14.57               |
| 6,983.00              | 1.00            | 237.70      | 6,980.68              | 23.48        | 6.17         | 21.51                   | 0.14                  | 0.00                 | -8.09               |
| 7,078.00              | 1.00            | 229.80      | 7,075.67              | 22.51        | 4.83         | 20.86                   | 0.15                  | 0.00                 | -8.32               |
| 7,172.00              | 1.20            | 238.90      | 7,169.65              | 21.47        | 3.36         | 20.17                   | 0.28                  | 0.21                 | 9.68                |
| 7,267.00              | 1.20            | 232.00      | 7,264.63              | 20.34        | 1.73         | 19.44                   | 0.15                  | 0.00                 | -7.26               |
| 7,363.00              | 1.40            | 216.40      | 7,360.61              | 18.78        | 0.24         | 18.25                   | 0.42                  | 0.21                 | -16.25              |
| 7,426.00              | 1.50            | 195.40      | 7,423.59              | 17.36        | -0.44        | 17.02                   | 0.85                  | 0.16                 | -33.33              |
| 7,575.00              | 1.60            | 163.40      | 7,572.54              | 13.49        | -0.36        | 13.23                   | 0.58                  | 0.07                 | -21.48              |
| 7,668.00              | 1.80            | 169.30      | 7,665.50              | 10.81        | 0.28         | 10.47                   | 0.29                  | 0.22                 | 6.34                |
| 7,762.00              | 0.80            | 190.90      | 7,759.47              | 8.72         | 0.43         | 8.40                    | 1.17                  | -1.06                | 22.98               |
| 7,855.00              | 0.60            | 214.40      | 7,852.46              | 7.68         | 0.04         | 7.48                    | 0.37                  | -0.22                | 25.27               |
| 7,949.00              | 0.10            | 227.00      | 7,946.46              | 7.22         | -0.30        | 7.10                    | 0.53                  | -0.53                | 13.40               |
| 8,043.00              | 0.60            | 240.00      | 8,040.46              | 6.91         | -0.79        | 6.91                    | 0.54                  | 0.53                 | 13.83               |
| 8,137.00              | 0.80            | 239.70      | 8,134.45              | 6.34         | -1.78        | 6.57                    | 0.21                  | 0.21                 | -0.32               |
| 8,231.00              | 1.30            | 249.50      | 8,228.44              | 5.63         | -3.35        | 6.24                    | 0.56                  | 0.53                 | 10.43               |
| 8,325.00              | 0.80            | 247.10      | 8,322.42              | 5.00         | -4.95        | 5.98                    | 0.53                  | -0.53                | -2.55               |

# Survey Report

Company: XTO Energy

Local Co-ordinate Reference:

Well Remuda North 25 State 101H - Slot  
N-25\_101H

Project: Eddy County, NM (NAD27) NMEZ

TVD Reference:

3065+24 @ 3089.00usft (Hercules)

Site: Remuda North 25 State Pad

MD Reference:

3065+24 @ 3089.00usft (Hercules)

Well: Remuda North 25 State 101H

North Reference:

Grid

Wellbore: Lateral

Survey Calculation Method:

Minimum Curvature

Design: Lateral

Database:

TRUEPERF\_EDM

## 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>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
|------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|
| 8,420.00                           | 0.90               | 295.00         | 8,417.41                    | 5.06            | -8.24           | 6.33                          | 0.73                        | 0.11                       | 50.42                     |
| 8,514.00                           | 1.60               | 289.60         | 8,511.39                    | 5.81            | -8.14           | 7.48                          | 0.75                        | 0.74                       | -5.74                     |
| 8,609.00                           | 2.40               | 275.10         | 8,606.33                    | 6.43            | -11.37          | 8.81                          | 0.99                        | 0.84                       | -15.26                    |
| 8,704.00                           | 3.00               | 268.70         | 8,701.22                    | 6.55            | -15.84          | 8.93                          | 0.71                        | 0.63                       | -6.74                     |
| 8,799.00                           | 2.30               | 294.20         | 8,796.13                    | 7.28            | -20.06          | 11.58                         | 1.43                        | -0.74                      | 26.84                     |
| 8,893.00                           | 2.30               | 307.70         | 8,890.05                    | 9.21            | -23.28          | 14.18                         | 0.58                        | 0.00                       | 14.36                     |
| 8,988.00                           | 0.70               | 332.10         | 8,985.02                    | 10.88           | -25.06          | 16.21                         | 1.78                        | -1.68                      | 25.68                     |
| 9,082.00                           | 0.50               | 342.00         | 9,079.01                    | 11.78           | -25.45          | 17.17                         | 0.24                        | -0.21                      | 10.53                     |
| 9,176.00                           | 0.20               | 302.80         | 9,173.01                    | 12.26           | -25.72          | 17.70                         | 0.39                        | -0.32                      | -41.70                    |
| 9,270.00                           | 0.90               | 244.00         | 9,267.00                    | 12.03           | -26.52          | 17.65                         | 0.87                        | 0.74                       | -62.55                    |
| 9,366.00                           | 0.50               | 234.30         | 9,363.00                    | 11.45           | -27.54          | 17.32                         | 0.43                        | -0.42                      | -10.10                    |
| 9,460.00                           | 1.40               | 296.10         | 9,456.98                    | 11.72           | -28.90          | 17.88                         | 1.32                        | 0.96                       | 65.74                     |
| 9,569.00                           | 2.90               | 290.50         | 9,565.90                    | 13.27           | -32.68          | 20.24                         | 1.39                        | 1.38                       | -5.14                     |
| 9,664.00                           | 8.40               | 323.90         | 9,660.43                    | 19.72           | -39.03          | 27.95                         | 6.51                        | 5.79                       | 35.16                     |
| 9,759.00                           | 13.90              | 327.90         | 9,753.60                    | 35.01           | -49.19          | 45.11                         | 5.84                        | 5.79                       | 4.21                      |
| 9,853.00                           | 19.90              | 335.50         | 9,843.51                    | 59.16           | -61.83          | 71.48                         | 6.79                        | 6.38                       | 8.09                      |
| 9,948.00                           | 26.50              | 331.40         | 9,930.78                    | 92.51           | -78.70          | 107.76                        | 7.15                        | 6.95                       | -4.32                     |
| 10,041.00                          | 33.30              | 330.40         | 10,011.36                   | 132.98          | -101.27         | 152.25                        | 7.33                        | 7.31                       | -1.08                     |
| 10,135.00                          | 37.80              | 328.20         | 10,087.82                   | 179.92          | -129.21         | 204.25                        | 4.98                        | 4.79                       | -2.34                     |
| 10,167.00                          | 38.00              | 326.80         | 10,113.07                   | 196.50          | -139.77         | 222.77                        | 2.76                        | 0.62                       | -4.37                     |
| 10,229.00                          | 43.00              | 323.70         | 10,160.21                   | 229.53          | -162.76         | 260.10                        | 8.69                        | 8.06                       | -5.00                     |
| 10,277.00                          | 50.60              | 324.20         | 10,193.04                   | 257.81          | -183.33         | 292.26                        | 15.85                       | 15.83                      | 1.04                      |
| 10,324.00                          | 58.40              | 325.00         | 10,220.31                   | 288.98          | -205.46         | 327.59                        | 16.65                       | 16.60                      | 1.70                      |
| 10,418.00                          | 70.10              | 330.10         | 10,261.10                   | 360.37          | -250.64         | 407.27                        | 13.37                       | 12.45                      | 5.43                      |
| 10,513.00                          | 79.60              | 342.00         | 10,285.99                   | 443.99          | -287.55         | 497.03                        | 15.68                       | 10.00                      | 12.53                     |
| 10,559.00                          | 84.30              | 348.50         | 10,292.43                   | 488.01          | -299.12         | 542.51                        | 17.32                       | 10.22                      | 14.13                     |
| 10,576.00                          | 85.60              | 351.20         | 10,293.93                   | 504.67          | -302.10         | 559.42                        | 17.57                       | 7.65                       | 15.88                     |
| 10,604.00                          | 86.80              | 355.80         | 10,295.79                   | 532.42          | -305.26         | 587.18                        | 16.94                       | 4.29                       | 16.43                     |
| 10,635.00                          | 87.80              | 0.90           | 10,297.25                   | 563.37          | -306.15         | 617.54                        | 16.75                       | 3.23                       | 16.45                     |
| 10,660.00                          | 88.40              | 4.70           | 10,298.08                   | 588.32          | -304.93         | 641.58                        | 15.38                       | 2.40                       | 15.20                     |
| 10,663.59                          | 88.64              | 5.18           | 10,298.17                   | 591.89          | -304.62         | 645.00                        | 14.91                       | 6.66                       | 13.34                     |
| N-25_101H_LP p2                    |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 10,684.00                          | 90.00              | 7.90           | 10,298.41                   | 612.17          | -302.30         | 664.24                        | 14.91                       | 6.67                       | 13.33                     |
| 10,735.00                          | 90.90              | 14.90          | 10,298.01                   | 662.13          | -292.23         | 710.69                        | 13.84                       | 1.76                       | 13.73                     |
| 10,770.00                          | 90.70              | 14.20          | 10,297.52                   | 696.00          | -283.43         | 741.74                        | 2.08                        | -0.57                      | -2.00                     |
| 10,777.00                          | 90.38              | 13.57          | 10,297.46                   | 702.80          | -281.75         | 747.99                        | 10.08                       | -4.58                      | -8.98                     |
| Wellpath Crosses FTP(330F8L349FWL) |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 10,778.98                          | 90.29              | 13.39          | 10,297.44                   | 704.72          | -281.29         | 749.76                        | 10.08                       | -4.58                      | -8.98                     |
| N-25_101H_FTP                      |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 10,780.97                          | 90.20              | 13.21          | 10,297.44                   | 706.66          | -280.83         | 751.55                        | 10.08                       | -4.58                      | -8.98                     |
| N-25_121H_FTP                      |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 10,829.00                          | 88.00              | 8.90           | 10,298.19                   | 753.78          | -271.63         | 795.42                        | 10.08                       | -4.58                      | -8.98                     |
| 10,853.82                          | 88.13              | 7.74           | 10,299.03                   | 778.32          | -268.04         | 818.54                        | 4.71                        | 0.53                       | -4.68                     |

# Survey Report

Company: XTO Energy

Local Co-ordinate Reference:

Well Remuda North 25 State 101H - Slot  
N-25\_101H

Project: Eddy County, NM (NAD27) NMEZ

TVD Reference:

3065+24 @ 3089.00usft (Hercules)

Site: Remuda North 25 State Pad

MD Reference:

3065+24 @ 3089.00usft (Hercules)

Well: Remuda North 25 State 101H

North Reference:

Grid

Wellbore: Lateral

Survey Calculation Method:

Minimum Curvature

Design: Lateral

Database:

TRUEPERF\_EDM

## 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) | Degleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|
| <b>N-25_902H_FTP</b>        |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 10,856.73                   | 88.15              | 7.60           | 10,299.12                   | 781.20          | -267.65         | 821.26                        | 4.71                        | 0.53                       | -4.68                     |
| <b>N-25_122H_FTP</b>        |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 10,923.00                   | 88.50              | 4.50           | 10,301.06                   | 847.07          | -260.67         | 883.90                        | 4.71                        | 0.53                       | -4.68                     |
| 11,017.00                   | 90.40              | 2.00           | 10,301.97                   | 940.90          | -255.34         | 974.17                        | 3.34                        | 2.02                       | -2.66                     |
| 11,112.00                   | 91.90              | 1.60           | 10,300.06                   | 1,035.83        | -252.36         | 1,066.03                      | 1.63                        | 1.58                       | -0.42                     |
| 11,206.00                   | 89.60              | 358.90         | 10,298.83                   | 1,129.81        | -251.95         | 1,157.54                      | 3.77                        | -2.45                      | -2.87                     |
| 11,301.00                   | 90.30              | 358.80         | 10,298.91                   | 1,224.79        | -253.85         | 1,250.54                      | 0.74                        | 0.74                       | -0.11                     |
| 11,395.00                   | 88.80              | 359.10         | 10,299.65                   | 1,318.77        | -255.58         | 1,342.53                      | 1.63                        | -1.60                      | 0.32                      |
| 11,489.00                   | 89.50              | 359.50         | 10,301.04                   | 1,412.75        | -256.72         | 1,434.39                      | 0.86                        | 0.74                       | 0.43                      |
| 11,585.00                   | 91.00              | 359.50         | 10,300.63                   | 1,508.74        | -257.56         | 1,528.14                      | 1.56                        | 1.56                       | 0.00                      |
| 11,678.00                   | 88.60              | 359.10         | 10,300.95                   | 1,601.73        | -258.70         | 1,619.03                      | 2.62                        | -2.58                      | -0.43                     |
| 11,773.00                   | 90.00              | 359.50         | 10,302.11                   | 1,696.71        | -259.86         | 1,711.87                      | 1.53                        | 1.47                       | 0.42                      |
| 11,866.00                   | 91.10              | 359.50         | 10,301.22                   | 1,789.70        | -260.67         | 1,802.69                      | 1.18                        | 1.18                       | 0.00                      |
| 11,961.00                   | 89.70              | 359.60         | 10,300.55                   | 1,884.69        | -261.42         | 1,895.45                      | 1.48                        | -1.47                      | 0.11                      |
| 12,055.00                   | 91.40              | 359.80         | 10,299.65                   | 1,978.68        | -261.91         | 1,987.17                      | 1.82                        | 1.81                       | 0.21                      |
| 12,150.00                   | 89.80              | 359.50         | 10,298.66                   | 2,073.67        | -262.49         | 2,079.89                      | 1.71                        | -1.68                      | -0.32                     |
| 12,244.00                   | 90.90              | 359.20         | 10,298.08                   | 2,167.66        | -263.55         | 2,171.74                      | 1.21                        | 1.17                       | -0.32                     |
| 12,339.00                   | 89.60              | 0.00           | 10,297.67                   | 2,262.66        | -264.22         | 2,264.48                      | 1.61                        | -1.37                      | 0.84                      |
| 12,434.00                   | 90.70              | 0.00           | 10,297.42                   | 2,357.66        | -264.22         | 2,357.07                      | 1.16                        | 1.16                       | 0.00                      |
| 12,529.00                   | 88.90              | 0.00           | 10,297.75                   | 2,452.65        | -264.22         | 2,449.67                      | 1.89                        | -1.89                      | 0.00                      |
| 12,623.00                   | 90.20              | 0.50           | 10,298.49                   | 2,546.65        | -263.81         | 2,541.19                      | 1.48                        | 1.38                       | 0.53                      |
| 12,718.00                   | 88.80              | 359.50         | 10,299.32                   | 2,641.64        | -263.81         | 2,633.78                      | 1.81                        | -1.47                      | -1.05                     |
| 12,811.00                   | 90.80              | 359.80         | 10,299.64                   | 2,734.63        | -264.37         | 2,724.55                      | 2.17                        | 2.15                       | 0.32                      |
| 12,906.00                   | 89.80              | 0.60           | 10,299.15                   | 2,829.63        | -264.04         | 2,817.07                      | 1.35                        | -1.05                      | 0.84                      |
| 13,001.00                   | 90.50              | 358.80         | 10,298.90                   | 2,924.62        | -264.54         | 2,909.77                      | 2.03                        | 0.74                       | -1.89                     |
| 13,095.00                   | 91.40              | 359.30         | 10,297.34                   | 3,018.59        | -266.10         | 3,001.71                      | 1.10                        | 0.96                       | 0.53                      |
| 13,189.00                   | 90.20              | 357.80         | 10,298.03                   | 3,112.55        | -268.48         | 3,093.83                      | 2.04                        | -1.28                      | -1.60                     |
| 13,283.00                   | 91.70              | 358.70         | 10,294.47                   | 3,206.49        | -271.35         | 3,186.03                      | 1.86                        | 1.60                       | 0.96                      |
| 13,378.00                   | 90.10              | 358.30         | 10,292.98                   | 3,301.44        | -273.83         | 3,279.14                      | 1.74                        | -1.68                      | -0.42                     |
| 13,472.00                   | 88.20              | 358.10         | 10,294.37                   | 3,395.38        | -276.79         | 3,371.36                      | 2.03                        | -2.02                      | -0.21                     |
| 13,567.00                   | 87.80              | 357.60         | 10,297.69                   | 3,490.26        | -280.35         | 3,464.63                      | 0.67                        | -0.42                      | -0.53                     |
| 13,661.00                   | 89.10              | 357.80         | 10,300.23                   | 3,584.14        | -284.12         | 3,556.99                      | 1.40                        | 1.38                       | 0.21                      |
| 13,755.00                   | 92.70              | 358.70         | 10,298.75                   | 3,678.07        | -286.99         | 3,649.18                      | 3.95                        | 3.83                       | 0.96                      |
| 13,849.00                   | 91.40              | 355.90         | 10,295.39                   | 3,771.90        | -291.41         | 3,741.62                      | 3.28                        | -1.38                      | -2.98                     |
| 13,944.00                   | 90.10              | 357.50         | 10,294.15                   | 3,866.73        | -296.88         | 3,835.27                      | 2.17                        | -1.37                      | 1.68                      |
| 14,038.00                   | 90.70              | 358.40         | 10,293.49                   | 3,960.66        | -300.24         | 3,927.59                      | 1.15                        | 0.64                       | 0.96                      |
| 14,133.00                   | 89.30              | 359.50         | 10,293.49                   | 4,055.64        | -301.99         | 4,020.55                      | 1.87                        | -1.47                      | 1.16                      |
| 14,227.00                   | 88.20              | 1.10           | 10,295.54                   | 4,149.61        | -301.49         | 4,112.04                      | 2.07                        | -1.17                      | 1.70                      |
| 14,320.00                   | 90.60              | 2.80           | 10,298.51                   | 4,242.54        | -298.33         | 4,201.91                      | 3.16                        | 2.58                       | 1.83                      |
| 14,416.00                   | 92.80              | 4.00           | 10,293.67                   | 4,338.33        | -292.64         | 4,294.00                      | 2.61                        | 2.29                       | 1.25                      |
| 14,510.00                   | 92.10              | 3.10           | 10,289.65                   | 4,432.06        | -286.82         | 4,384.06                      | 1.21                        | -0.74                      | -0.96                     |
| 14,605.00                   | 90.80              | 1.30           | 10,287.24                   | 4,526.95        | -283.18         | 4,475.74                      | 2.34                        | -1.37                      | -1.89                     |

# Survey Report

Company: XTO Energy

Local Co-ordinate Reference:

Well Remuda North 25 State 101H - Slot  
N-25\_101H

Project: Eddy County, NM (NAD27) NMEZ

TVD Reference:

3065+24 @ 3089.00usft (Hercules)

Site: Remuda North 25 State Pad

MD Reference:

3065+24 @ 3089.00usft (Hercules)

Well: Remuda North 25 State 101H

North Reference:

Grid

Wellbore: Lateral

Survey Calculation Method:

Minimum Curvature

Design: Lateral

Database:

TRUEPERF\_EDM

## 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>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|
| 14,700.00                   | 91.30              | 0.90           | 10,285.50                   | 4,621.92        | -281.36         | 4,567.90                      | 0.67                        | 0.53                       | -0.42                     |
| 14,795.00                   | 91.10              | 1.00           | 10,283.51                   | 4,716.88        | -279.78         | 4,660.11                      | 0.24                        | -0.21                      | 0.11                      |
| 14,890.00                   | 92.20              | 0.90           | 10,280.78                   | 4,811.83        | -278.21         | 4,752.30                      | 1.16                        | 1.16                       | -0.11                     |
| 14,986.00                   | 89.30              | 359.80         | 10,279.52                   | 4,907.81        | -277.62         | 4,845.72                      | 3.23                        | -3.02                      | -1.15                     |
| 15,079.00                   | 89.30              | 358.70         | 10,280.66                   | 5,000.79        | -278.84         | 4,936.62                      | 1.18                        | 0.00                       | -1.18                     |
| 15,173.00                   | 89.80              | 359.20         | 10,281.40                   | 5,094.77        | -280.56         | 5,028.61                      | 0.75                        | 0.53                       | 0.53                      |
| 15,268.00                   | 90.40              | 359.10         | 10,281.23                   | 5,189.76        | -281.97         | 5,121.51                      | 0.64                        | 0.63                       | -0.11                     |
| 15,361.00                   | 89.10              | 359.10         | 10,281.64                   | 5,282.75        | -283.43         | 5,212.47                      | 1.40                        | -1.40                      | 0.00                      |
| 15,456.00                   | 89.20              | 359.00         | 10,283.04                   | 5,377.72        | -285.01         | 5,305.40                      | 0.15                        | 0.11                       | -0.11                     |
| 15,550.00                   | 89.80              | 358.70         | 10,283.87                   | 5,471.70        | -286.89         | 5,397.42                      | 0.71                        | 0.64                       | -0.32                     |
| 15,644.00                   | 89.10              | 0.10           | 10,284.77                   | 5,565.69        | -287.88         | 5,489.25                      | 1.67                        | -0.74                      | 1.49                      |
| 15,739.00                   | 88.30              | 1.20           | 10,286.92                   | 5,660.66        | -286.80         | 5,581.58                      | 1.43                        | -0.84                      | 1.16                      |
| 15,833.00                   | 88.80              | 0.90           | 10,289.30                   | 5,754.61        | -285.08         | 5,672.77                      | 0.62                        | 0.53                       | -0.32                     |
| 15,926.00                   | 88.50              | 0.70           | 10,291.49                   | 5,847.57        | -283.78         | 5,763.09                      | 0.39                        | -0.32                      | -0.22                     |
| 16,021.00                   | 90.60              | 1.30           | 10,292.24                   | 5,942.55        | -282.12         | 5,855.30                      | 2.30                        | 2.21                       | 0.63                      |
| 16,114.00                   | 90.80              | 0.60           | 10,291.10                   | 6,035.53        | -280.58         | 5,945.58                      | 0.78                        | 0.22                       | -0.75                     |
| 16,209.00                   | 90.00              | 0.20           | 10,290.44                   | 6,130.53        | -279.92         | 6,038.02                      | 0.94                        | -0.84                      | -0.42                     |
| 16,302.00                   | 89.30              | 359.80         | 10,291.01                   | 6,223.52        | -279.92         | 6,128.67                      | 0.87                        | -0.75                      | -0.43                     |
| 16,397.00                   | 89.80              | 359.70         | 10,291.75                   | 6,318.52        | -280.33         | 6,221.35                      | 0.54                        | 0.53                       | -0.11                     |
| 16,493.00                   | 90.60              | 358.70         | 10,291.42                   | 6,414.51        | -281.67         | 6,315.21                      | 1.33                        | 0.83                       | -1.04                     |
| 16,587.00                   | 91.20              | 359.20         | 10,289.94                   | 6,508.48        | -283.39         | 6,407.19                      | 0.83                        | 0.64                       | 0.53                      |
| 16,681.00                   | 90.70              | 358.70         | 10,288.38                   | 6,602.45        | -285.12         | 6,499.17                      | 0.75                        | -0.53                      | -0.53                     |
| 16,776.00                   | 91.00              | 358.70         | 10,286.97                   | 6,697.41        | -287.27         | 6,592.22                      | 0.32                        | 0.32                       | 0.00                      |
| 16,870.00                   | 90.00              | 357.30         | 10,286.15                   | 6,791.35        | -290.55         | 6,684.51                      | 1.83                        | -1.06                      | -1.49                     |
| 16,965.00                   | 91.60              | 358.40         | 10,284.83                   | 6,886.27        | -294.11         | 6,777.83                      | 2.04                        | 1.68                       | 1.16                      |
| 17,059.00                   | 91.20              | 358.10         | 10,282.53                   | 6,980.20        | -296.98         | 6,870.02                      | 0.53                        | -0.43                      | -0.32                     |
| 17,152.00                   | 91.40              | 359.40         | 10,280.42                   | 7,073.15        | -299.01         | 6,961.07                      | 1.41                        | 0.22                       | 1.40                      |
| 17,246.00                   | 90.70              | 0.80           | 10,278.70                   | 7,167.13        | -298.85         | 7,052.64                      | 1.66                        | -0.74                      | 1.49                      |
| 17,340.00                   | 91.00              | 0.80           | 10,277.30                   | 7,261.11        | -297.54         | 7,143.95                      | 0.32                        | 0.32                       | 0.00                      |
| 17,434.00                   | 91.70              | 0.90           | 10,275.09                   | 7,355.07        | -296.14         | 7,235.23                      | 0.75                        | 0.74                       | 0.11                      |
| 17,528.00                   | 91.50              | 0.40           | 10,272.44                   | 7,450.03        | -295.07         | 7,327.54                      | 0.57                        | -0.21                      | -0.53                     |
| 17,623.00                   | 90.40              | 0.30           | 10,270.88                   | 7,544.01        | -294.49         | 7,419.02                      | 1.18                        | -1.17                      | -0.11                     |
| 17,717.00                   | 91.30              | 0.50           | 10,269.48                   | 7,638.00        | -293.83         | 7,510.48                      | 0.98                        | 0.96                       | 0.21                      |
| 17,811.00                   | 90.90              | 0.60           | 10,267.68                   | 7,731.98        | -292.93         | 7,601.88                      | 0.44                        | -0.43                      | 0.11                      |
| 17,906.00                   | 91.20              | 0.60           | 10,265.94                   | 7,826.96        | -291.94         | 7,694.23                      | 0.32                        | 0.32                       | 0.00                      |
| 18,001.00                   | 91.30              | 0.40           | 10,263.87                   | 7,921.93        | -291.11         | 7,786.62                      | 0.24                        | 0.11                       | -0.21                     |
| 18,086.92                   | 91.84              | 0.49           | 10,261.51                   | 8,007.81        | -290.44         | 7,870.18                      | 0.64                        | 0.63                       | 0.11                      |
| N-25_121H_LTP               |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 18,091.74                   | 91.87              | 0.50           | 10,261.35                   | 8,012.63        | -290.40         | 7,874.87                      | 0.64                        | 0.63                       | 0.11                      |
| N-25_122H_LTP               |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 18,095.53                   | 91.90              | 0.50           | 10,261.23                   | 8,016.42        | -290.37         | 7,878.55                      | 0.64                        | 0.63                       | 0.11                      |
| N-25_101H_LTP               |                    |                |                             |                 |                 |                               |                             |                            |                           |
| 18,096.00                   | 91.90              | 0.50           | 10,261.21                   | 8,016.89        | -290.36         | 7,879.01                      | 0.64                        | 0.63                       | 0.11                      |

## Survey Report

|                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                 |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Company:</b> XTO Energy<br><br><b>Project:</b> Eddy County, NM (NAD27) NMEZ<br><b>Site:</b> Remuda North 25 State Pad<br><b>Well:</b> Remuda North 25 State 101H<br><b>Wellbore:</b> Lateral<br><b>Design:</b> Lateral | <b>Local Co-ordinate Reference:</b> Well Remuda North 25 State 101H - Slot N-25_101H<br><b>TVD Reference:</b> 3065+24 @ 3089.00usft (Hercules)<br><b>MD Reference:</b> 3065+24 @ 3089.00usft (Hercules)<br><b>North Reference:</b> Grid<br><b>Survey Calculation Method:</b> Minimum Curvature<br><b>Database:</b> TRUEPERF_EDM |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

### Survey

| Measured Depth (usft)                                                                                                           | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| 18,097.00                                                                                                                       | 91.90           | 0.50        | 10,261.18             | 8,017.89     | -290.35      | 7,879.98                | 0.00                  | 0.00                 | 0.00                |
| <b>Wellpath Crosses LTP (330FNL376FWL)</b>                                                                                      |                 |             |                       |              |              |                         |                       |                      |                     |
| 18,101.89                                                                                                                       | 91.92           | 0.51        | 10,261.02             | 8,022.77     | -290.31      | 7,884.73                | 0.35                  | 0.32                 | 0.16                |
| <b>N-25_902H_LTP</b>                                                                                                            |                 |             |                       |              |              |                         |                       |                      |                     |
| 18,160.00                                                                                                                       | 92.10           | 0.60        | 10,258.98             | 8,080.85     | -289.75      | 7,941.21                | 0.35                  | 0.32                 | 0.16                |
| 18,213.00                                                                                                                       | 92.10           | 0.60        | 10,257.04             | 8,133.81     | -289.19      | 7,992.71                | 0.00                  | 0.00                 | 0.00                |
| <b>TD @ 212FNL, 378FWL - N-25_101H_PBHL p2 - N-25_101H_BHL - N-25_902H_PBHL - N-25_122H_PBHL - N-25_101H_PBHL - N-25_121H_I</b> |                 |             |                       |              |              |                         |                       |                      |                     |

### Design Targets

| Target Name<br>- hit/miss target<br>- Shape                                                                                                                                    | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (ft) | Easting (ft) | Latitude         | Longitude         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|---------------|--------------|------------------|-------------------|
| N-25_101H_SL<br>- actual wellpath hits target center<br>- Point                                                                                                                | 0.00          | 0.00         | 0.00       | 0.00         | 0.00         | 463,886.50    | 620,248.40   | 32° 16' 29.080 N | 103° 56' 39.370 W |
| Random<br>- actual wellpath misses target center by 8151.95usft at 2.37usft MD (2.37 TVD, 0.00 N, 0.00 E)<br>- Point                                                           | 0.00          | 0.00         | 0.00       | 8,145.48     | 324.70       | 472,032.00    | 620,573.10   | 32° 17' 49.657 N | 103° 56' 35.243 W |
| N-25_101H_BHL<br>- actual wellpath misses target center by 0.01usft at 18213.00usft MD (10257.04 TVD, 8133.81 N, -289.19 E)<br>- Point                                         | 0.00          | 0.00         | 10,257.04  | 8,133.81     | -289.19      | 472,020.33    | 619,959.21   | 32° 17' 49.563 N | 103° 56' 42.395 W |
| N-25_101H_LTP<br>- actual wellpath misses target center by 47.13usft at 18095.39usft MD (10261.23 TVD, 8016.28 N, -290.37 E)<br>- Point                                        | 0.00          | 0.00         | 10,282.00  | 8,017.33     | -332.66      | 471,903.84    | 619,915.74   | 32° 17' 48.412 N | 103° 56' 42.907 W |
| N-25_101H_PBHL p2<br>- actual wellpath misses target center by 53.74usft at 18213.00usft MD (10257.04 TVD, 8133.81 N, -289.19 E)<br>- Rectangle (sides W50.00 H7,442.00 D0.00) | 0.00          | 0.00         | 10,282.00  | 8,146.38     | -335.10      | 472,032.90    | 619,913.30   | 32° 17' 49.689 N | 103° 56' 42.930 W |
| N-25_101H_FTP<br>- actual wellpath misses target center by 5.22usft at 10778.97usft MD (10297.44 TVD, 704.71 N, -281.29 E)<br>- Point                                          | 0.00          | 0.00         | 10,302.00  | 705.33       | -283.76      | 464,591.83    | 619,964.64   | 32° 16' 36.050 N | 103° 56' 42.645 W |

### Design Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                             |
|-----------------------|-----------------------|-------------------|--------------|-------------------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                     |
| 10,777.00             | 10,297.46             | 702.80            | -281.75      | Wellpath Crosses FTP(330FSL349FWL)  |
| 18,097.00             | 10,261.18             | 8,017.89          | -290.35      | Wellpath Crosses LTP (330FNL376FWL) |
| 18,213.00             | 10,257.04             | 8,133.81          | -289.19      | TD @ 212FNL, 378FWL                 |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# XTO Energy

Project: Eddy County, NM (NAD27) NMEZ  
Site: Remuda North 25 State Pad  
Well: Remuda North 25 State 101H  
Wellbore: Lateral  
Design: Lateral

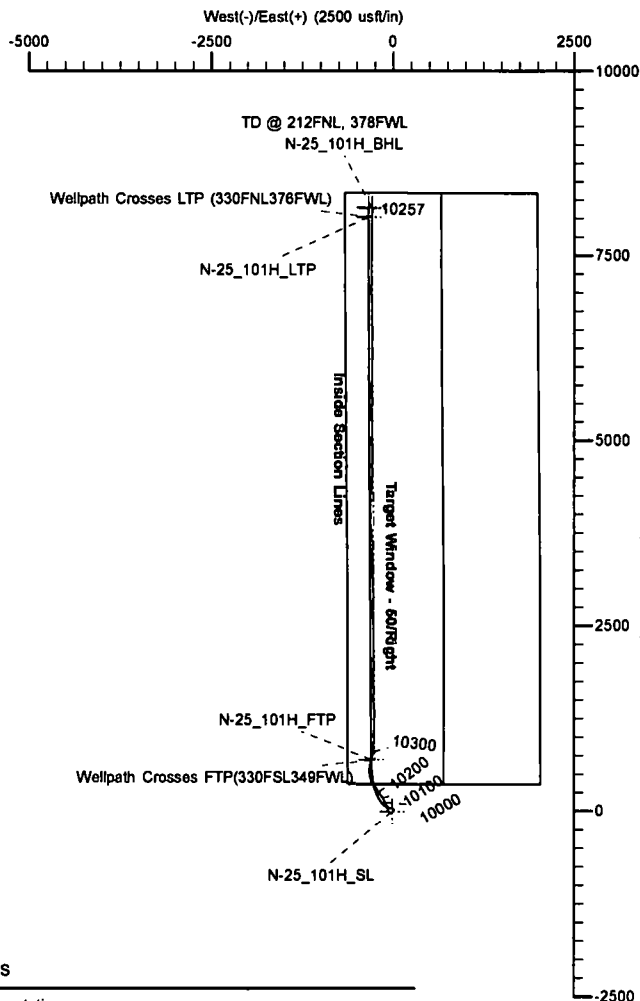
3065+24 @ 3089.00usft (Hercules)  
NAD 1927 (NADCON CONUS)

To convert a Magnetic Direction to a Grid Direction, Add 6.83°



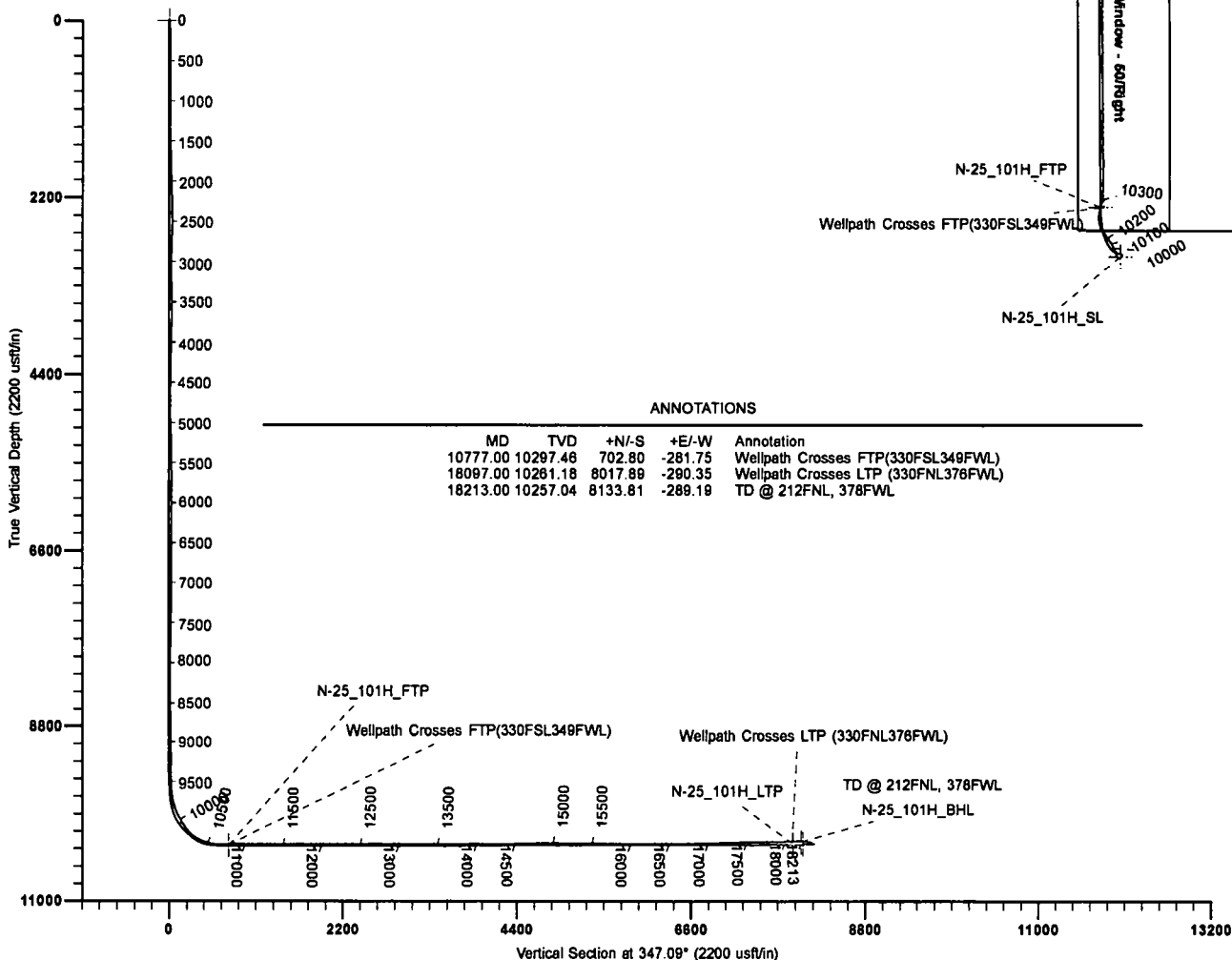
Azimuths to Grid North  
True North: -0.21°  
Magnetic North: 6.83°

Magnetic Field  
Strength: 47847.0snT  
Dip Angle: 80.04°  
Date: 04/12/2018  
Model: IGRF2015



## ANNOTATIONS

| MD       | TVD      | +N/-S   | +E/-W   | Annotation                          |
|----------|----------|---------|---------|-------------------------------------|
| 10777.00 | 10297.46 | 702.80  | -281.75 | Wellpath Crosses FTP(330FSL349FWL)  |
| 18097.00 | 10261.18 | 8017.89 | -290.35 | Wellpath Crosses LTP (330FNL378FWL) |
| 18213.00 | 10257.04 | 8133.81 | -289.19 | TD @ 212FNL, 378FWL                 |



## TARGET DETAILS

| Name              | TVD      | +N/-S   | +E/-W   | Northing  | Easting   | Shape |
|-------------------|----------|---------|---------|-----------|-----------|-------|
| N-25_101H_SL      | 0.00     | 0.00    | 0.00    | 463888.50 | 620248.40 | Point |
| N-25_101H_BHL     | 10257.04 | 8133.81 | -289.19 | 472020.33 | 619959.21 | Point |
| N-25_101H_LTP     | 10282.00 | 8017.33 | -332.68 | 471903.84 | 619915.74 | Point |
| N-25_101H_PBHL p2 | 10282.00 | 8146.38 | -335.10 | 472032.90 | 619913.30 | Point |
| N-25_101H_FTP     | 10302.00 | 705.33  | -283.78 | 464591.83 | 619984.64 | Point |

Design: Lateral (Remuda North 25 State 101H/Lateral)  
Created By: Mekka Williams  
eSomnia Well Design  
mekka@esominawell.com  
10:35, June 01 2018

**TRUE PERFORMANCE DIRECTIONAL DRILLING**  
5075 E 52nd Street, Odessa, Texas 79762  
281.222.8366

