

30-015-42830



NM OIL CONSERVATION

ARTESIA DISTRICT

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## Mewbourne Oil Company .

Eddy County, New Mexico

Section 19/30-23S-27E Jester 19/30 W0AH Fed Com #

Jester 19/30 W0AH Fed Com #1H

Original Hole

Design: Original Hole

## Standard Survey Report

26 June, 2015

↓  
Provide signature page for Survey





# Stryker Directional Survey Report



|                  |                                                   |                                     |                                        |
|------------------|---------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                             | <b>Local Co-ordinate Reference:</b> | Well Jester 19/30 W0AH Fed Com #1H     |
| <b>Project:</b>  | Eddy County, New Mexico                           | <b>TVD Reference:</b>               | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Site:</b>     | Section 19/30-23S-27E Jester 19/30 W0AH Fed Com # | <b>MD Reference:</b>                | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Well:</b>     | Jester 19/30 W0AH Fed Com #1H                     | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Original Hole                                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Original Hole                                     | <b>Database:</b>                    | Stryker_EDM                            |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project:</b>    | Eddy County, New Mexico              |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                              |                                                   |                     |                 |                                     |
|------------------------------|---------------------------------------------------|---------------------|-----------------|-------------------------------------|
| <b>Site:</b>                 | Section 19/30-23S-27E Jester 19/30 W0AH Fed Com # |                     |                 |                                     |
| <b>Site Position:</b>        |                                                   | <b>Northing:</b>    | 471,761.30 usft | <b>Latitude:</b> 32° 17' 48.983 N   |
| <b>From:</b>                 | Map                                               | <b>Easting:</b>     | 534,253.50 usft | <b>Longitude:</b> 104° 13' 20.919 W |
| <b>Position Uncertainty:</b> | 0.0 usft                                          | <b>Slot Radius:</b> | 13-3/16 "       | <b>Grid Convergence:</b> 0.06 °     |

|                             |                               |          |                            |                 |
|-----------------------------|-------------------------------|----------|----------------------------|-----------------|
| <b>Well:</b>                | Jester 19/30 W0AH Fed Com #1H |          |                            |                 |
| <b>Well Position</b>        | <b>+N/-S</b>                  | 0.0 usft | <b>Northing:</b>           | 471,761.30 usft |
|                             | <b>+E/-W</b>                  | 0.0 usft | <b>Easting:</b>            | 534,253.50 usft |
| <b>Position Uncertainty</b> |                               | 0.0 usft | <b>Wellhead Elevation:</b> | 0.0 usft        |
|                             |                               |          | <b>Ground Level:</b>       | 3,192.0 usft    |

|                  |               |  |  |  |
|------------------|---------------|--|--|--|
| <b>Wellbore:</b> | Original Hole |  |  |  |
|------------------|---------------|--|--|--|

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2015          | 5/22/2015          | 7.48                   | 60.05                | 48,125                     |

|                |               |  |  |  |
|----------------|---------------|--|--|--|
| <b>Design:</b> | Original Hole |  |  |  |
|----------------|---------------|--|--|--|

|                     |     |               |        |                          |
|---------------------|-----|---------------|--------|--------------------------|
| <b>Audit Notes:</b> |     |               |        |                          |
| <b>Version:</b>     | 1.0 | <b>Phase:</b> | ACTUAL | <b>Tie On Depth:</b> 0.0 |

|                          |                                |                     |                     |                      |
|--------------------------|--------------------------------|---------------------|---------------------|----------------------|
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Direction (°)</b> |
|                          | 0.0                            | 0.0                 | 0.0                 | 0.00                 |

|                       |                       |                                         |                  |                                           |
|-----------------------|-----------------------|-----------------------------------------|------------------|-------------------------------------------|
| <b>Survey Program</b> | <b>Date</b> 6/26/2015 |                                         |                  |                                           |
| <b>From (usft)</b>    | <b>To (usft)</b>      | <b>Survey (Wellbore)</b>                | <b>Tool Name</b> | <b>Description</b>                        |
| 100.0                 | 8,300.0               | VES Gyro Survey (Original Hole)         | NSG-CT_WL        | Continuous north-seeking gyro on wireline |
| 8,381.0               | 16,070.0              | MWD Survey Curve & Lateral (Original Ho | MWD              | MWD v3:standard declination               |

|                              |                        |                    |                              |                     |                     |                                |                                |                               |                              |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|
| <b>Survey</b>                |                        |                    |                              |                     |                     |                                |                                |                               |                              |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Vertical Section (usft)</b> | <b>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> |
| 0.0                          | 0.00                   | 0.00               | 0.0                          | 0.0                 | 0.0                 | 0.0                            | 0.00                           | 0.00                          | 0.00                         |
| 100.0                        | 0.97                   | 209.39             | 100.0                        | -0.7                | -0.4                | -0.7                           | 0.97                           | 0.97                          | 0.00                         |
| 200.0                        | 0.99                   | 205.15             | 200.0                        | -2.3                | -1.2                | -2.3                           | 0.08                           | 0.02                          | -4.24                        |
| 300.0                        | 0.80                   | 214.56             | 300.0                        | -3.6                | -2.0                | -3.6                           | 0.24                           | -0.19                         | 9.41                         |
| 400.0                        | 0.66                   | 275.09             | 400.0                        | -4.1                | -2.9                | -4.1                           | 0.75                           | -0.14                         | 60.53                        |
| 500.0                        | 0.82                   | 283.57             | 500.0                        | -3.9                | -4.2                | -3.9                           | 0.19                           | 0.16                          | 8.48                         |
| 600.0                        | 0.63                   | 277.17             | 599.9                        | -3.7                | -5.4                | -3.7                           | 0.21                           | -0.19                         | -6.40                        |
| 700.0                        | 0.81                   | 200.23             | 699.9                        | -4.3                | -6.2                | -4.3                           | 0.91                           | 0.18                          | -76.94                       |
| 800.0                        | 0.23                   | 189.47             | 799.9                        | -5.1                | -6.5                | -5.1                           | 0.59                           | -0.58                         | -10.76                       |



# Stryker Directional Survey Report



|                  |                                                   |                                     |                                        |
|------------------|---------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                             | <b>Local Co-ordinate Reference:</b> | Well Jester 19/30 W0AH Fed Com #1H     |
| <b>Project:</b>  | Eddy County, New Mexico                           | <b>TVD Reference:</b>               | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Site:</b>     | Section 19/30-23S-27E Jester 19/30 W0AH Fed Com # | <b>MD Reference:</b>                | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Well:</b>     | Jester 19/30 W0AH Fed Com #1H                     | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Original Hole                                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Original Hole                                     | <b>Database:</b>                    | Stryker_EDM                            |

| 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) |
| 900.0                 | 0.94            | 276.99      | 899.9                 | -5.2         | -7.4         | -5.2                    | 0.96                    | 0.71                   | 87.52                 |
| 1,000.0               | 0.57            | 358.25      | 999.9                 | -4.6         | -8.2         | -4.6                    | 1.02                    | -0.37                  | 81.26                 |
| 1,100.0               | 1.53            | 97.59       | 1,099.9               | -4.3         | -6.9         | -4.3                    | 1.72                    | 0.96                   | 99.34                 |
| 1,200.0               | 0.67            | 45.58       | 1,199.9               | -4.1         | -5.1         | -4.1                    | 1.24                    | -0.86                  | -52.01                |
| 1,300.0               | 0.36            | 45.92       | 1,299.9               | -3.5         | -4.5         | -3.5                    | 0.31                    | -0.31                  | 0.34                  |
| 1,400.0               | 0.86            | 71.83       | 1,399.9               | -3.0         | -3.6         | -3.0                    | 0.56                    | 0.50                   | 25.91                 |
| 1,500.0               | 0.24            | 133.04      | 1,499.9               | -2.9         | -2.7         | -2.9                    | 0.77                    | -0.62                  | 61.21                 |
| 1,600.0               | 1.12            | 154.19      | 1,599.9               | -3.9         | -2.1         | -3.9                    | 0.90                    | 0.88                   | 21.15                 |
| 1,700.0               | 1.14            | 127.67      | 1,699.9               | -5.4         | -0.9         | -5.4                    | 0.52                    | 0.02                   | -26.52                |
| 1,800.0               | 0.46            | 127.54      | 1,799.8               | -6.3         | 0.2          | -6.3                    | 0.68                    | -0.68                  | -0.13                 |
| 1,900.0               | 0.82            | 215.62      | 1,899.8               | -7.1         | 0.1          | -7.1                    | 0.93                    | 0.36                   | 88.08                 |
| 2,000.0               | 0.46            | 190.86      | 1,999.8               | -8.1         | -0.4         | -8.1                    | 0.45                    | -0.36                  | -24.76                |
| 2,100.0               | 0.45            | 192.17      | 2,099.8               | -8.9         | -0.5         | -8.9                    | 0.01                    | -0.01                  | 1.31                  |
| 2,200.0               | 0.49            | 186.02      | 2,199.8               | -9.7         | -0.7         | -9.7                    | 0.06                    | 0.04                   | -6.15                 |
| 2,300.0               | 0.52            | 187.80      | 2,299.8               | -10.5        | -0.8         | -10.5                   | 0.03                    | 0.03                   | 1.78                  |
| 2,400.0               | 0.53            | 201.93      | 2,399.8               | -11.4        | -1.0         | -11.4                   | 0.13                    | 0.01                   | 14.13                 |
| 2,500.0               | 0.52            | 192.07      | 2,499.8               | -12.3        | -1.3         | -12.3                   | 0.09                    | -0.01                  | -9.86                 |
| 2,600.0               | 0.52            | 193.30      | 2,599.8               | -13.2        | -1.5         | -13.2                   | 0.01                    | 0.00                   | 1.23                  |
| 2,700.0               | 0.40            | 208.52      | 2,699.8               | -13.9        | -1.7         | -13.9                   | 0.17                    | -0.12                  | 15.22                 |
| 2,800.0               | 0.25            | 254.16      | 2,799.8               | -14.3        | -2.1         | -14.3                   | 0.29                    | -0.15                  | 45.64                 |
| 2,900.0               | 0.28            | 271.71      | 2,899.8               | -14.3        | -2.6         | -14.3                   | 0.09                    | 0.03                   | 17.55                 |
| 3,000.0               | 0.24            | 253.31      | 2,999.8               | -14.4        | -3.0         | -14.4                   | 0.09                    | -0.04                  | -18.40                |
| 3,100.0               | 0.17            | 292.77      | 3,099.8               | -14.4        | -3.4         | -14.4                   | 0.15                    | -0.07                  | 39.46                 |
| 3,200.0               | 0.27            | 294.05      | 3,199.8               | -14.2        | -3.7         | -14.2                   | 0.10                    | 0.10                   | 1.28                  |
| 3,300.0               | 0.27            | 277.25      | 3,299.8               | -14.1        | -4.2         | -14.1                   | 0.08                    | 0.00                   | -16.80                |
| 3,400.0               | 0.25            | 275.03      | 3,399.8               | -14.1        | -4.6         | -14.1                   | 0.02                    | -0.02                  | -2.22                 |
| 3,500.0               | 0.18            | 266.69      | 3,499.8               | -14.1        | -5.0         | -14.1                   | 0.08                    | -0.07                  | -8.34                 |
| 3,600.0               | 0.16            | 243.87      | 3,599.8               | -14.1        | -5.3         | -14.1                   | 0.07                    | -0.02                  | -22.82                |
| 3,700.0               | 0.20            | 247.17      | 3,699.8               | -14.3        | -5.6         | -14.3                   | 0.04                    | 0.04                   | 3.30                  |
| 3,800.0               | 0.31            | 221.57      | 3,799.8               | -14.5        | -5.9         | -14.5                   | 0.16                    | 0.11                   | -25.60                |
| 3,900.0               | 0.30            | 231.40      | 3,899.8               | -14.9        | -6.3         | -14.9                   | 0.05                    | -0.01                  | 9.83                  |
| 4,000.0               | 0.46            | 267.51      | 3,999.8               | -15.1        | -6.9         | -15.1                   | 0.28                    | 0.16                   | 36.11                 |
| 4,100.0               | 0.43            | 268.48      | 4,099.8               | -15.1        | -7.7         | -15.1                   | 0.03                    | -0.03                  | 0.97                  |
| 4,200.0               | 0.45            | 274.87      | 4,199.8               | -15.1        | -8.4         | -15.1                   | 0.05                    | 0.02                   | 6.39                  |
| 4,300.0               | 0.50            | 264.57      | 4,299.8               | -15.1        | -9.3         | -15.1                   | 0.10                    | 0.05                   | -10.30                |
| 4,400.0               | 0.80            | 239.20      | 4,399.8               | -15.5        | -10.3        | -15.5                   | 0.41                    | 0.30                   | -25.37                |
| 4,500.0               | 0.86            | 232.53      | 4,499.8               | -16.3        | -11.5        | -16.3                   | 0.11                    | 0.06                   | -6.67                 |
| 4,600.0               | 0.89            | 232.81      | 4,599.8               | -17.2        | -12.7        | -17.2                   | 0.03                    | 0.03                   | 0.28                  |
| 4,700.0               | 0.78            | 225.65      | 4,699.7               | -18.2        | -13.8        | -18.2                   | 0.15                    | -0.11                  | -7.16                 |
| 4,800.0               | 0.62            | 224.46      | 4,799.7               | -19.0        | -14.7        | -19.0                   | 0.16                    | -0.16                  | -1.19                 |
| 4,900.0               | 0.61            | 224.83      | 4,899.7               | -19.8        | -15.4        | -19.8                   | 0.01                    | -0.01                  | 0.37                  |
| 5,000.0               | 0.53            | 208.49      | 4,999.7               | -20.6        | -16.0        | -20.6                   | 0.18                    | -0.08                  | -16.34                |



# Stryker Directional Survey Report



|                  |                                                   |                                     |                                        |
|------------------|---------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                             | <b>Local Co-ordinate Reference:</b> | Well Jester 19/30 W0AH Fed Com #1H     |
| <b>Project:</b>  | Eddy County, New Mexico                           | <b>TVD Reference:</b>               | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Site:</b>     | Section 19/30-23S-27E Jester 19/30 W0AH Fed Com # | <b>MD Reference:</b>                | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Well:</b>     | Jester 19/30 W0AH Fed Com #1H                     | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Original Hole                                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Original Hole                                     | <b>Database:</b>                    | Stryker_EDM                            |

| 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) |  |
| 5,100.0                         | 0.56            | 182.58      | 5,099.7               | -21.5       | -16.3       | -21.5                   | 0.25                    | 0.03                   | -25.91                |  |
| 5,200.0                         | 0.54            | 181.88      | 5,199.7               | -22.4       | -16.3       | -22.4                   | 0.02                    | -0.02                  | -0.70                 |  |
| 5,300.0                         | 0.61            | 181.52      | 5,299.7               | -23.4       | -16.3       | -23.4                   | 0.07                    | 0.07                   | -0.36                 |  |
| 5,400.0                         | 0.58            | 176.90      | 5,399.7               | -24.5       | -16.3       | -24.5                   | 0.06                    | -0.03                  | -4.62                 |  |
| 5,500.0                         | 0.70            | 171.39      | 5,499.7               | -25.6       | -16.2       | -25.6                   | 0.13                    | 0.12                   | -5.51                 |  |
| 5,600.0                         | 1.11            | 152.38      | 5,599.7               | -27.1       | -15.7       | -27.1                   | 0.50                    | 0.41                   | -19.01                |  |
| 5,700.0                         | 1.29            | 176.30      | 5,699.7               | -29.0       | -15.1       | -29.0                   | 0.53                    | 0.18                   | 23.92                 |  |
| 5,800.0                         | 1.32            | 180.89      | 5,799.6               | -31.3       | -15.1       | -31.3                   | 0.11                    | 0.03                   | 4.59                  |  |
| 5,900.0                         | 1.02            | 208.35      | 5,899.6               | -33.2       | -15.5       | -33.2                   | 0.63                    | -0.30                  | 27.46                 |  |
| 6,000.0                         | 1.01            | 206.36      | 5,999.6               | -34.8       | -16.3       | -34.8                   | 0.04                    | -0.01                  | -1.99                 |  |
| 6,100.0                         | 1.55            | 215.42      | 6,099.6               | -36.7       | -17.5       | -36.7                   | 0.58                    | 0.54                   | 9.06                  |  |
| 6,200.0                         | 1.92            | 208.14      | 6,199.5               | -39.3       | -19.1       | -39.3                   | 0.43                    | 0.37                   | -7.28                 |  |
| 6,300.0                         | 2.00            | 208.29      | 6,299.5               | -42.3       | -20.7       | -42.3                   | 0.08                    | 0.08                   | 0.15                  |  |
| 6,400.0                         | 1.95            | 207.83      | 6,399.4               | -45.3       | -22.3       | -45.3                   | 0.05                    | -0.05                  | -0.46                 |  |
| 6,500.0                         | 1.82            | 218.61      | 6,499.4               | -48.1       | -24.1       | -48.1                   | 0.38                    | -0.13                  | 10.78                 |  |
| 6,600.0                         | 1.71            | 220.47      | 6,599.3               | -50.5       | -26.1       | -50.5                   | 0.12                    | -0.11                  | 1.86                  |  |
| 6,700.0                         | 1.58            | 230.46      | 6,699.3               | -52.5       | -28.1       | -52.5                   | 0.31                    | -0.13                  | 9.99                  |  |
| 6,800.0                         | 0.74            | 222.93      | 6,799.3               | -53.8       | -29.6       | -53.8                   | 0.85                    | -0.84                  | -7.53                 |  |
| 6,900.0                         | 0.56            | 217.35      | 6,899.2               | -54.7       | -30.3       | -54.7                   | 0.19                    | -0.18                  | -5.58                 |  |
| 7,000.0                         | 0.54            | 230.45      | 6,999.2               | -55.4       | -31.0       | -55.4                   | 0.13                    | -0.02                  | 13.10                 |  |
| 7,100.0                         | 0.44            | 242.42      | 7,099.2               | -55.9       | -31.7       | -55.9                   | 0.14                    | -0.10                  | 11.97                 |  |
| 7,200.0                         | 0.47            | 229.60      | 7,199.2               | -56.3       | -32.4       | -56.3                   | 0.11                    | 0.03                   | -12.82                |  |
| 7,300.0                         | 0.41            | 236.13      | 7,299.2               | -56.8       | -33.0       | -56.8                   | 0.08                    | -0.06                  | 6.53                  |  |
| 7,400.0                         | 0.44            | 297.76      | 7,399.2               | -56.8       | -33.6       | -56.8                   | 0.44                    | 0.03                   | 61.63                 |  |
| 7,500.0                         | 0.55            | 321.96      | 7,499.2               | -56.2       | -34.2       | -56.2                   | 0.23                    | 0.11                   | 24.20                 |  |
| 7,600.0                         | 0.78            | 54.26       | 7,599.2               | -55.5       | -34.0       | -55.5                   | 0.97                    | 0.23                   | 92.30                 |  |
| 7,700.0                         | 1.41            | 96.42       | 7,699.2               | -55.2       | -32.2       | -55.2                   | 0.98                    | 0.63                   | 42.16                 |  |
| 7,800.0                         | 1.11            | 73.28       | 7,799.2               | -55.0       | -30.1       | -55.0                   | 0.58                    | -0.30                  | -23.14                |  |
| 7,900.0                         | 1.08            | 108.73      | 7,899.2               | -55.1       | -28.2       | -55.1                   | 0.67                    | -0.03                  | 35.45                 |  |
| 8,000.0                         | 1.21            | 111.65      | 7,999.1               | -55.8       | -26.4       | -55.8                   | 0.14                    | 0.13                   | 2.92                  |  |
| 8,100.0                         | 1.97            | 118.74      | 8,099.1               | -57.0       | -23.9       | -57.0                   | 0.78                    | 0.76                   | 7.09                  |  |
| 8,200.0                         | 2.89            | 126.93      | 8,199.0               | -59.3       | -20.3       | -59.3                   | 0.98                    | 0.92                   | 8.19                  |  |
| 8,300.0                         | 2.08            | 134.81      | 8,298.9               | -62.1       | -17.0       | -62.1                   | 0.88                    | -0.81                  | 7.88                  |  |
| <b>8300' MD Ves Gyro Survey</b> |                 |             |                       |             |             |                         |                         |                        |                       |  |
| 8,381.0                         | 2.08            | 134.81      | 8,379.9               | -64.2       | -15.0       | -64.2                   | 0.00                    | 0.00                   | 0.00                  |  |
| 8,412.0                         | 4.40            | 165.30      | 8,410.8               | -65.7       | -14.3       | -65.7                   | 9.07                    | 7.48                   | 98.35                 |  |
| 8,444.0                         | 7.60            | 159.20      | 8,442.6               | -68.9       | -13.2       | -68.9                   | 10.18                   | 10.00                  | -19.06                |  |
| 8,476.0                         | 10.40           | 165.20      | 8,474.2               | -73.7       | -11.7       | -73.7                   | 9.22                    | 8.75                   | 18.75                 |  |
| 8,507.0                         | 12.70           | 174.10      | 8,504.6               | -79.8       | -10.6       | -79.8                   | 9.37                    | 7.42                   | 28.71                 |  |
| 8,539.0                         | 15.70           | 177.30      | 8,535.6               | -87.6       | -10.1       | -87.6                   | 9.69                    | 9.38                   | 10.00                 |  |
| 8,571.0                         | 18.90           | 175.90      | 8,566.2               | -97.1       | -9.5        | -97.1                   | 10.08                   | 10.00                  | -4.38                 |  |
| 8,603.0                         | 21.90           | 175.80      | 8,596.2               | -108.2      | -8.7        | -108.2                  | 9.38                    | 9.38                   | -0.31                 |  |
| 8,634.0                         | 24.40           | 179.40      | 8,624.7               | -120.4      | -8.2        | -120.4                  | 9.26                    | 8.06                   | 11.61                 |  |



# Stryker Directional Survey Report



|                  |                                                   |                                     |                                        |
|------------------|---------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                             | <b>Local Co-ordinate Reference:</b> | Well Jester 19/30 W0AH Fed Com #1H     |
| <b>Project:</b>  | Eddy County, New Mexico                           | <b>TVD Reference:</b>               | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Site:</b>     | Section 19/30-23S-27E Jester 19/30 W0AH Fed Com # | <b>MD Reference:</b>                | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Well:</b>     | Jester 19/30 W0AH Fed Com #1H                     | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Original Hole                                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Original Hole                                     | <b>Database:</b>                    | Stryker_EDM                            |

| 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) |  |
| 8,666.0                          | 27.70           | 181.40      | 8,653.4               | -134.4       | -8.3         | -134.4                  | 10.67                   | 10.31                  | 6.25                  |  |
| 8,697.0                          | 30.60           | 181.10      | 8,680.5               | -149.5       | -8.6         | -149.5                  | 9.37                    | 9.35                   | -0.97                 |  |
| 8,729.0                          | 32.80           | 183.10      | 8,707.7               | -166.3       | -9.3         | -166.3                  | 7.62                    | 6.88                   | 6.25                  |  |
| 8,761.0                          | 34.60           | 184.40      | 8,734.3               | -184.0       | -10.4        | -184.0                  | 6.06                    | 5.63                   | 4.06                  |  |
| 8,792.0                          | 36.90           | 182.10      | 8,759.5               | -202.1       | -11.4        | -202.1                  | 8.59                    | 7.42                   | -7.42                 |  |
| 8,824.0                          | 40.20           | 181.00      | 8,784.5               | -222.1       | -12.0        | -222.1                  | 10.53                   | 10.31                  | -3.44                 |  |
| 8,856.0                          | 43.70           | 179.70      | 8,808.3               | -243.4       | -12.1        | -243.4                  | 11.27                   | 10.94                  | -4.06                 |  |
| 8,887.0                          | 47.30           | 179.20      | 8,830.0               | -265.5       | -11.9        | -265.5                  | 11.67                   | 11.61                  | -1.61                 |  |
| 8,919.0                          | 50.80           | 177.60      | 8,851.0               | -289.7       | -11.2        | -289.7                  | 11.57                   | 10.94                  | -5.00                 |  |
| 8,950.0                          | 54.80           | 177.80      | 8,869.7               | -314.4       | -10.2        | -314.4                  | 12.91                   | 12.90                  | 0.65                  |  |
| 8,982.0                          | 58.10           | 178.00      | 8,887.4               | -341.0       | -9.2         | -341.0                  | 10.33                   | 10.31                  | 0.63                  |  |
| 9,014.0                          | 61.30           | 179.00      | 8,903.6               | -368.6       | -8.5         | -368.6                  | 10.36                   | 10.00                  | 3.13                  |  |
| 9,045.0                          | 64.70           | 178.90      | 8,917.6               | -396.2       | -8.0         | -396.2                  | 10.97                   | 10.97                  | -0.32                 |  |
| 9,077.0                          | 68.10           | 177.80      | 8,930.5               | -425.6       | -7.2         | -425.6                  | 11.08                   | 10.63                  | -3.44                 |  |
| 9,109.0                          | 71.30           | 178.60      | 8,941.6               | -455.5       | -6.2         | -455.5                  | 10.27                   | 10.00                  | 2.50                  |  |
| 9,140.0                          | 75.10           | 178.90      | 8,950.5               | -485.2       | -5.6         | -485.2                  | 12.29                   | 12.26                  | 0.97                  |  |
| LP Jester 19 30 W0AH Fed Com #1H |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 9,172.0                          | 78.40           | 178.90      | 8,957.8               | -516.3       | -5.0         | -516.3                  | 10.31                   | 10.31                  | 0.00                  |  |
| 9,204.0                          | 81.80           | 178.30      | 8,963.3               | -547.9       | -4.2         | -547.9                  | 10.78                   | 10.63                  | -1.88                 |  |
| 9,235.0                          | 83.80           | 177.70      | 8,967.2               | -578.6       | -3.1         | -578.6                  | 6.73                    | 6.45                   | -1.94                 |  |
| 9,267.0                          | 87.50           | 177.80      | 8,969.7               | -610.5       | -1.9         | -610.5                  | 11.57                   | 11.56                  | 0.31                  |  |
| 9,332.0                          | 93.50           | 176.80      | 8,969.1               | -675.4       | -1.2         | -675.4                  | 9.36                    | 9.23                   | -1.54                 |  |
| 9,428.0                          | 94.00           | 180.30      | 8,962.8               | -771.1       | 3.6          | -771.1                  | 3.68                    | 0.52                   | 3.65                  |  |
| 9,523.0                          | 92.00           | 185.00      | 8,957.8               | -865.9       | -0.8         | -865.9                  | 5.37                    | -2.11                  | 4.95                  |  |
| 9,618.0                          | 87.10           | 187.00      | 8,958.6               | -960.3       | -10.7        | -960.3                  | 5.57                    | -5.16                  | 2.11                  |  |
| 9,713.0                          | 84.70           | 185.00      | 8,965.4               | -1,054.5     | -20.6        | -1,054.5                | 3.28                    | -2.53                  | -2.11                 |  |
| 9,776.0                          | 84.00           | 183.70      | 8,971.6               | -1,117.0     | -25.4        | -1,117.0                | 2.33                    | -1.11                  | -2.06                 |  |
| 9,808.0                          | 83.20           | 180.90      | 8,975.1               | -1,148.8     | -26.6        | -1,148.8                | 9.05                    | -2.50                  | -8.75                 |  |
| 9,840.0                          | 82.80           | 177.90      | 8,979.0               | -1,180.6     | -26.3        | -1,180.6                | 9.39                    | -1.25                  | -9.38                 |  |
| 9,871.0                          | 85.20           | 176.30      | 8,982.3               | -1,211.3     | -24.8        | -1,211.3                | 9.29                    | 7.74                   | -5.16                 |  |
| 9,903.0                          | 88.60           | 175.60      | 8,984.0               | -1,243.2     | -22.5        | -1,243.2                | 10.85                   | 10.63                  | -2.19                 |  |
| 9,935.0                          | 91.00           | 174.60      | 8,984.1               | -1,275.1     | -19.8        | -1,275.1                | 8.12                    | 7.50                   | -3.13                 |  |
| 9,998.0                          | 92.10           | 175.80      | 8,982.4               | -1,337.8     | -14.5        | -1,337.8                | 2.58                    | 1.75                   | 1.90                  |  |
| 10,093.0                         | 90.70           | 175.80      | 8,980.1               | -1,432.6     | -7.5         | -1,432.6                | 1.47                    | -1.47                  | 0.00                  |  |
| 10,187.0                         | 88.00           | 172.80      | 8,981.2               | -1,526.1     | 1.8          | -1,526.1                | 4.29                    | -2.87                  | -3.19                 |  |
| 10,219.0                         | 88.30           | 172.90      | 8,982.2               | -1,557.8     | 5.8          | -1,557.8                | 0.99                    | 0.94                   | 0.31                  |  |
| 10,251.0                         | 90.20           | 172.70      | 8,982.6               | -1,589.6     | 9.8          | -1,589.6                | 5.97                    | 5.94                   | -0.63                 |  |
| 10,283.0                         | 94.10           | 173.40      | 8,981.4               | -1,621.3     | 13.7         | -1,621.3                | 12.38                   | 12.19                  | 2.19                  |  |
| 10,314.0                         | 95.10           | 173.90      | 8,978.9               | -1,652.0     | 17.1         | -1,652.0                | 3.60                    | 3.23                   | 1.61                  |  |
| 10,346.0                         | 95.10           | 174.00      | 8,976.1               | -1,683.7     | 20.4         | -1,683.7                | 0.31                    | 0.00                   | 0.31                  |  |
| 10,377.0                         | 94.70           | 173.90      | 8,973.4               | -1,714.4     | 23.7         | -1,714.4                | 1.33                    | -1.29                  | -0.32                 |  |
| 10,409.0                         | 94.60           | 175.20      | 8,970.8               | -1,746.2     | 26.7         | -1,746.2                | 4.06                    | -0.31                  | 4.06                  |  |
| 10,440.0                         | 94.70           | 175.90      | 8,968.3               | -1,777.0     | 29.1         | -1,777.0                | 2.27                    | 0.32                   | 2.26                  |  |



# Stryker Directional Survey Report



|                  |                                                   |                                     |                                        |
|------------------|---------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                             | <b>Local Co-ordinate Reference:</b> | Well Jester 19/30 W0AH Fed Com #1H     |
| <b>Project:</b>  | Eddy County, New Mexico                           | <b>TVD Reference:</b>               | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Site:</b>     | Section 19/30-23S-27E Jester 19/30 W0AH Fed Com # | <b>MD Reference:</b>                | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Well:</b>     | Jester 19/30 W0AH Fed Com #1H                     | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Original Hole                                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Original Hole                                     | <b>Database:</b>                    | Stryker_EDM                            |

| Survey                |                 |             |                       |              |              |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 10,472.0              | 94.00           | 176.30      | 8,965.9               | -1,808.8     | 31.3         | -1,808.8                | 2.52                    | -2.19                  | 1.25                  |  |
| 10,504.0              | 93.30           | 177.40      | 8,963.9               | -1,840.7     | 33.0         | -1,840.7                | 4.07                    | -2.19                  | 3.44                  |  |
| 10,567.0              | 90.90           | 177.50      | 8,961.6               | -1,903.6     | 35.8         | -1,903.6                | 3.81                    | -3.81                  | 0.16                  |  |
| 10,662.0              | 89.90           | 177.60      | 8,960.9               | -1,998.5     | 39.9         | -1,998.5                | 1.06                    | -1.05                  | 0.11                  |  |
| 10,757.0              | 89.70           | 178.00      | 8,961.2               | -2,093.4     | 43.5         | -2,093.4                | 0.47                    | -0.21                  | 0.42                  |  |
| 10,852.0              | 89.50           | 178.80      | 8,961.9               | -2,188.4     | 46.2         | -2,188.4                | 0.87                    | -0.21                  | 0.84                  |  |
| 10,947.0              | 91.30           | 181.90      | 8,961.2               | -2,283.4     | 45.6         | -2,283.4                | 3.77                    | 1.89                   | 3.26                  |  |
| 11,042.0              | 89.80           | 181.70      | 8,960.3               | -2,378.3     | 42.6         | -2,378.3                | 1.59                    | -1.58                  | -0.21                 |  |
| 11,137.0              | 87.30           | 180.80      | 8,962.7               | -2,473.2     | 40.6         | -2,473.2                | 2.80                    | -2.63                  | -0.95                 |  |
| 11,231.0              | 88.50           | 178.60      | 8,966.2               | -2,567.2     | 41.1         | -2,567.2                | 2.66                    | 1.28                   | -2.34                 |  |
| 11,326.0              | 90.80           | 179.50      | 8,966.7               | -2,662.1     | 42.6         | -2,662.1                | 2.60                    | 2.42                   | 0.95                  |  |
| 11,421.0              | 89.60           | 179.20      | 8,966.4               | -2,757.1     | 43.7         | -2,757.1                | 1.30                    | -1.26                  | -0.32                 |  |
| 11,516.0              | 94.70           | 181.50      | 8,962.9               | -2,852.0     | 43.1         | -2,852.0                | 5.89                    | 5.37                   | 2.42                  |  |
| 11,611.0              | 90.50           | 182.10      | 8,958.5               | -2,946.9     | 40.1         | -2,946.9                | 4.47                    | -4.42                  | 0.63                  |  |
| 11,706.0              | 88.10           | 181.50      | 8,959.7               | -3,041.8     | 37.2         | -3,041.8                | 2.60                    | -2.53                  | -0.63                 |  |
| 11,801.0              | 87.10           | 182.20      | 8,963.7               | -3,136.7     | 34.1         | -3,136.7                | 1.28                    | -1.05                  | 0.74                  |  |
| 11,896.0              | 87.50           | 182.80      | 8,968.2               | -3,231.5     | 30.0         | -3,231.5                | 0.76                    | 0.42                   | 0.63                  |  |
| 11,991.0              | 91.60           | 181.60      | 8,968.9               | -3,326.4     | 26.3         | -3,326.4                | 4.50                    | 4.32                   | -1.26                 |  |
| 12,086.0              | 90.70           | 180.70      | 8,967.0               | -3,421.3     | 24.4         | -3,421.3                | 1.34                    | -0.95                  | -0.95                 |  |
| 12,181.0              | 89.20           | 178.10      | 8,967.1               | -3,516.3     | 25.4         | -3,516.3                | 3.16                    | -1.58                  | -2.74                 |  |
| 12,276.0              | 92.50           | 177.10      | 8,965.7               | -3,611.2     | 29.4         | -3,611.2                | 3.63                    | 3.47                   | -1.05                 |  |
| 12,371.0              | 91.10           | 175.60      | 8,962.7               | -3,706.0     | 35.4         | -3,706.0                | 2.16                    | -1.47                  | -1.58                 |  |
| 12,465.0              | 88.90           | 175.40      | 8,962.7               | -3,799.7     | 42.8         | -3,799.7                | 2.35                    | -2.34                  | -0.21                 |  |
| 12,560.0              | 88.60           | 174.90      | 8,964.8               | -3,894.3     | 50.8         | -3,894.3                | 0.61                    | -0.32                  | -0.53                 |  |
| 12,655.0              | 89.10           | 175.40      | 8,966.7               | -3,988.9     | 58.9         | -3,988.9                | 0.74                    | 0.53                   | 0.53                  |  |
| 12,719.0              | 89.20           | 175.50      | 8,967.6               | -4,052.7     | 63.9         | -4,052.7                | 0.22                    | 0.16                   | 0.16                  |  |
| 12,750.0              | 90.40           | 176.70      | 8,967.7               | -4,083.7     | 66.0         | -4,083.7                | 5.47                    | 3.87                   | 3.87                  |  |
| 12,782.0              | 90.80           | 176.80      | 8,967.4               | -4,115.6     | 67.9         | -4,115.6                | 1.29                    | 1.25                   | 0.31                  |  |
| 12,845.0              | 92.20           | 177.70      | 8,965.7               | -4,178.5     | 70.9         | -4,178.5                | 2.64                    | 2.22                   | 1.43                  |  |
| 12,940.0              | 93.00           | 178.30      | 8,961.4               | -4,273.4     | 74.2         | -4,273.4                | 1.05                    | 0.84                   | 0.63                  |  |
| 13,035.0              | 91.00           | 177.40      | 8,958.1               | -4,368.2     | 77.8         | -4,368.2                | 2.31                    | -2.11                  | -0.95                 |  |
| 13,130.0              | 89.60           | 177.10      | 8,957.6               | -4,463.1     | 82.3         | -4,463.1                | 1.51                    | -1.47                  | -0.32                 |  |
| 13,225.0              | 91.60           | 177.50      | 8,956.6               | -4,558.0     | 86.8         | -4,558.0                | 2.15                    | 2.11                   | 0.42                  |  |
| 13,321.0              | 92.30           | 178.40      | 8,953.4               | -4,653.9     | 90.2         | -4,653.9                | 1.19                    | 0.73                   | 0.94                  |  |
| 13,415.0              | 91.60           | 178.20      | 8,950.2               | -4,747.8     | 93.0         | -4,747.8                | 0.77                    | -0.74                  | -0.21                 |  |
| 13,510.0              | 92.90           | 180.90      | 8,946.4               | -4,842.7     | 93.8         | -4,842.7                | 3.15                    | 1.37                   | 2.84                  |  |
| 13,605.0              | 89.80           | 182.50      | 8,944.2               | -4,937.6     | 90.9         | -4,937.6                | 3.67                    | -3.26                  | 1.68                  |  |
| 13,700.0              | 88.70           | 182.40      | 8,945.4               | -5,032.5     | 86.9         | -5,032.5                | 1.16                    | -1.16                  | -0.11                 |  |
| 13,795.0              | 89.10           | 183.20      | 8,947.3               | -5,127.4     | 82.2         | -5,127.4                | 0.94                    | 0.42                   | 0.84                  |  |
| 13,891.0              | 86.60           | 181.80      | 8,950.9               | -5,223.2     | 78.0         | -5,223.2                | 2.98                    | -2.60                  | -1.46                 |  |
| 13,985.0              | 86.50           | 180.90      | 8,956.5               | -5,317.0     | 75.8         | -5,317.0                | 0.96                    | -0.11                  | -0.96                 |  |
| 14,080.0              | 91.80           | 180.00      | 8,957.9               | -5,412.0     | 75.1         | -5,412.0                | 5.66                    | 5.58                   | -0.95                 |  |



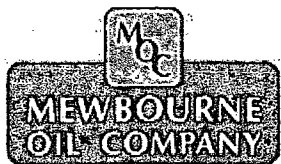
# Stryker Directional Survey Report



|                  |                                                   |                                     |                                        |
|------------------|---------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                             | <b>Local Co-ordinate Reference:</b> | Well Jester 19/30 W0AH Fed Com #1H     |
| <b>Project:</b>  | Eddy County, New Mexico                           | <b>TVD Reference:</b>               | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Site:</b>     | Section 19/30-23S-27E Jester 19/30 W0AH Fed Com # | <b>MD Reference:</b>                | 3192 + 25 @ 3217.0usft (Patterson 243) |
| <b>Well:</b>     | Jester 19/30 W0AH Fed Com #1H                     | <b>North Reference:</b>             | Grid                                   |
| <b>Wellbore:</b> | Original Hole                                     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | Original Hole                                     | <b>Database:</b>                    | Stryker_EDM                            |

| 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) |  |
| 14,176.0                                                        | 89.00           | 178.10      | 8,957.3               | -5,507.9     | 76.7         | -5,507.9                | 3.52                    | -2.92                  | -1.98                 |  |
| 14,270.0                                                        | 94.70           | 182.60      | 8,954.2               | -5,601.8     | 76.1         | -5,601.8                | 7.72                    | 6.06                   | 4.79                  |  |
| 14,365.0                                                        | 94.20           | 182.80      | 8,946.8               | -5,696.4     | 71.7         | -5,696.4                | 0.57                    | -0.53                  | 0.21                  |  |
| 14,461.0                                                        | 90.30           | 182.80      | 8,943.1               | -5,792.2     | 67.0         | -5,792.2                | 4.06                    | -4.06                  | 0.00                  |  |
| 14,555.0                                                        | 90.90           | 183.10      | 8,942.1               | -5,886.1     | 62.1         | -5,886.1                | 0.71                    | 0.64                   | 0.32                  |  |
| 14,650.0                                                        | 88.90           | 183.00      | 8,942.3               | -5,981.0     | 57.1         | -5,981.0                | 2.11                    | -2.11                  | -0.11                 |  |
| 14,745.0                                                        | 91.10           | 184.30      | 8,942.3               | -6,075.8     | 51.0         | -6,075.8                | 2.69                    | 2.32                   | 1.37                  |  |
| 14,841.0                                                        | 89.40           | 183.70      | 8,941.8               | -6,171.5     | 44.3         | -6,171.5                | 1.88                    | -1.77                  | -0.63                 |  |
| 14,935.0                                                        | 88.00           | 182.80      | 8,944.0               | -6,265.3     | 39.0         | -6,265.3                | 1.77                    | -1.49                  | -0.96                 |  |
| 15,030.0                                                        | 89.40           | 183.70      | 8,946.1               | -6,360.2     | 33.6         | -6,360.2                | 1.75                    | 1.47                   | 0.95                  |  |
| 15,125.0                                                        | 91.20           | 182.50      | 8,945.6               | -6,455.0     | 28.5         | -6,455.0                | 2.28                    | 1.89                   | -1.26                 |  |
| 15,220.0                                                        | 91.20           | 182.60      | 8,943.6               | -6,549.9     | 24.3         | -6,549.9                | 0.11                    | 0.00                   | 0.11                  |  |
| 15,315.0                                                        | 90.00           | 183.30      | 8,942.6               | -6,644.8     | 19.4         | -6,644.8                | 1.46                    | -1.26                  | 0.74                  |  |
| 15,410.0                                                        | 90.70           | 183.10      | 8,942.1               | -6,739.6     | 14.1         | -6,739.6                | 0.77                    | 0.74                   | -0.21                 |  |
| 15,505.0                                                        | 89.00           | 185.20      | 8,942.3               | -6,834.4     | 7.2          | -6,834.4                | 2.84                    | -1.79                  | 2.21                  |  |
| 15,600.0                                                        | 90.80           | 185.80      | 8,942.5               | -6,928.9     | -1.9         | -6,928.9                | 2.00                    | 1.89                   | 0.63                  |  |
| 15,694.0                                                        | 92.70           | 187.40      | 8,939.6               | -7,022.2     | -12.7        | -7,022.2                | 2.64                    | 2.02                   | 1.70                  |  |
| 15,789.0                                                        | 89.50           | 185.00      | 8,937.8               | -7,116.6     | -23.0        | -7,116.6                | 4.21                    | -3.37                  | -2.53                 |  |
| 15,885.0                                                        | 88.00           | 184.00      | 8,939.9               | -7,212.3     | -30.5        | -7,212.3                | 1.88                    | -1.56                  | -1.04                 |  |
| 15,979.0                                                        | 91.20           | 185.60      | 8,940.5               | -7,306.0     | -38.4        | -7,306.0                | 3.81                    | 3.40                   | 1.70                  |  |
| 16,021.0                                                        | 89.30           | 185.00      | 8,940.4               | -7,347.8     | -42.2        | -7,347.8                | 4.74                    | -4.52                  | -1.43                 |  |
| 16,070.0                                                        | 89.30           | 185.00      | 8,941.0               | -7,396.6     | -46.5        | -7,396.6                | 0.00                    | 0.00                   | 0.00                  |  |
| 16070' MD Projected to Bit - PBHL Jester 19 30 W0AH Fed Com #1H |                 |             |                       |              |              |                         |                         |                        |                       |  |

| Design Annotations    |                       |                   |              |                            |  |
|-----------------------|-----------------------|-------------------|--------------|----------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                            |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                    |  |
| 8,300.0               | 8,298.9               | -62.1             | -17.0        | 8300' MD Ves Gyro Survey   |  |
| 16,070.0              | 8,941.0               | -7,396.6          | -46.5        | 16070' MD Projected to Bit |  |



Company: Mewbourne Oil & Gas  
Lease/Well: Jester 19 30 Woah Federal Com/1H

Rig Name: Patterson 243  
State/County: New Mexico/Eddy  
VS-Azi: 0.00 Degrees

Latitude: 32.29694, Longitude: -104.22248  
Grid Convergence Applied = -0.06 degs (NAD 27)  
Grid North = True North -0.06 degs



Depth Reference : RKB= 25.6

DRILLOG HA GYRO SURVEY CALCULATIONS  
Filename: jester19-30woahfedcom1h-de\_01.ut  
Minimum Curvature Method  
Report Date/Time: 6/18/2015 / 09:11

NM OIL CONSERVATION  
ARTESIA DISTRICT

AUG 28 2015

VES Survey International  
Ft. Worth, Texas  
817-741-3610

RECEIVED

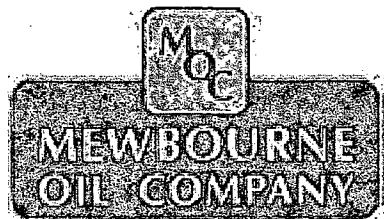
Surveyor: Gregg Wilson

Jester 19 30 Woah Federal Com 1H / API 30-015-42830

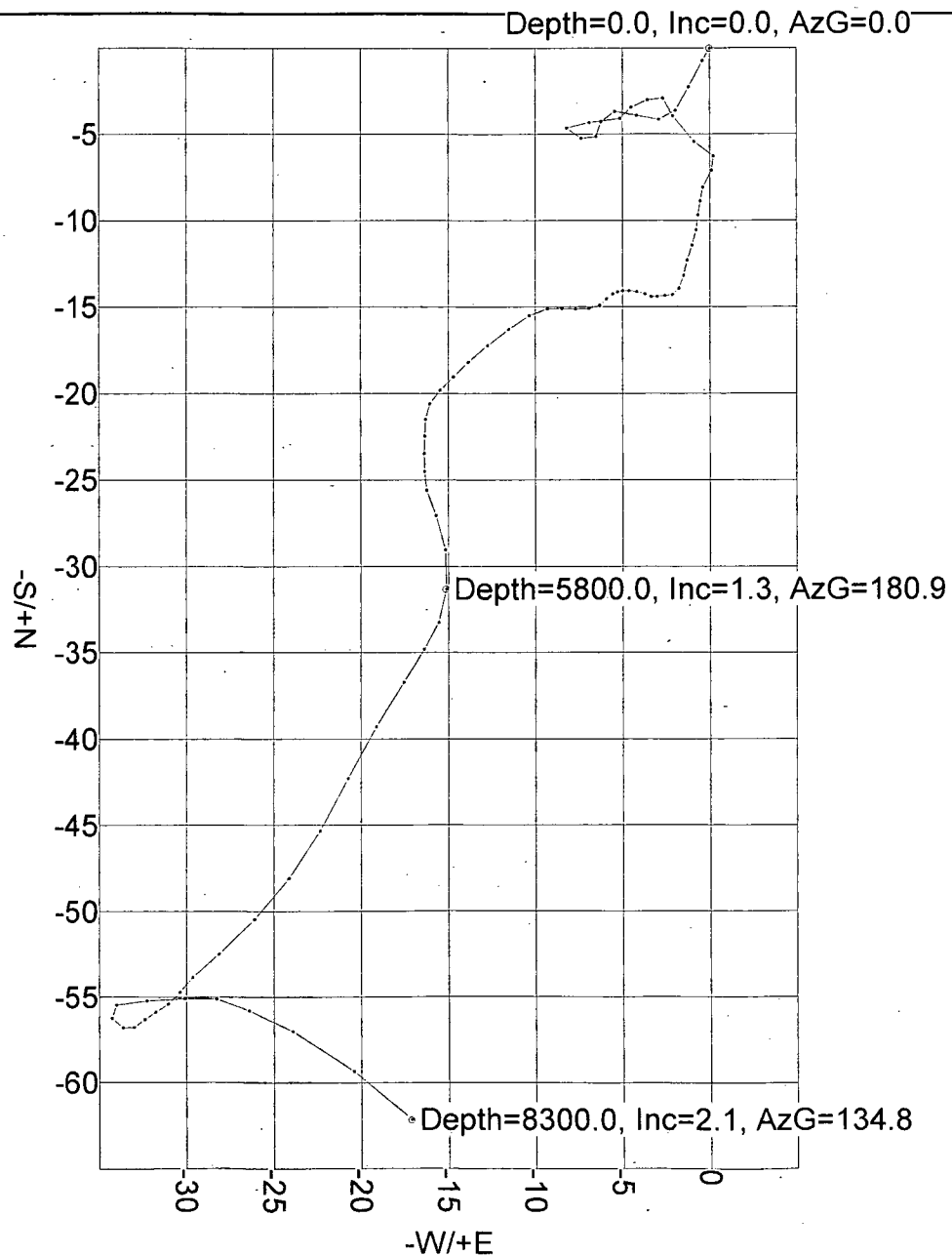
| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 0.00                    | 0.00                 | 0.00                      | 0.00      | 0.00        | 0.00        | 0.00                      | 0.00                      | 0.00                        | ****                          |
| 100.00                  | 0.97                 | 209.39                    | 100.00    | -0.74       | -0.42       | -0.74                     | 0.85                      | 209.39                      | 0.97                          |
| 200.00                  | 0.99                 | 205.15                    | 199.98    | -2.26       | -1.20       | -2.26                     | 2.56                      | 207.95                      | 0.08                          |
| 300.00                  | 0.80                 | 214.56                    | 299.97    | -3.62       | -1.96       | -3.62                     | 4.12                      | 208.48                      | 0.24                          |
| 400.00                  | 0.66                 | 275.09                    | 399.96    | -4.14       | -2.93       | -4.14                     | 5.07                      | 215.27                      | 0.74                          |
| 500.00                  | 0.82                 | 283.57                    | 499.95    | -3.92       | -4.20       | -3.92                     | 5.74                      | 226.94                      | 0.20                          |
| 600.00                  | 0.63                 | 277.17                    | 599.95    | -3.68       | -5.44       | -3.68                     | 6.57                      | 235.89                      | 0.21                          |
| 700.00                  | 0.81                 | 200.23                    | 699.94    | -4.28       | -6.23       | -4.28                     | 7.56                      | 235.52                      | 0.91                          |
| 800.00                  | 0.23                 | 189.47                    | 799.93    | -5.14       | -6.51       | -5.14                     | 8.30                      | 231.68                      | 0.58                          |
| 900.00                  | 0.94                 | 276.99                    | 899.93    | -5.25       | -7.36       | -5.25                     | 9.04                      | 234.52                      | 0.96                          |
| 1000.00                 | 0.57                 | 358.25                    | 999.92    | -4.64       | -8.19       | -4.64                     | 9.42                      | 240.45                      | 1.03                          |
| 1100.00                 | 1.53                 | 97.59                     | 1099.91   | -4.32       | -6.89       | -4.32                     | 8.13                      | 237.90                      | 1.72                          |
| 1200.00                 | 0.67                 | 45.58                     | 1199.89   | -4.09       | -5.15       | -4.09                     | 6.57                      | 231.57                      | 1.23                          |
| 1300.00                 | 0.36                 | 45.92                     | 1299.89   | -3.46       | -4.50       | -3.46                     | 5.68                      | 232.50                      | 0.31                          |
| 1400.00                 | 0.86                 | 71.83                     | 1399.88   | -3.00       | -3.56       | -3.00                     | 4.66                      | 229.89                      | 0.56                          |
| 1500.00                 | 0.24                 | 133.04                    | 1499.88   | -2.91       | -2.70       | -2.91                     | 3.97                      | 222.78                      | 0.77                          |
| 1600.00                 | 1.12                 | 154.19                    | 1599.87   | -3.94       | -2.11       | -3.94                     | 4.47                      | 208.23                      | 0.90                          |

| Measured<br>Depth<br>FT | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1700.00                 | 1.14                 | 127.67                    | 1699.85   | -5.43       | -0.90       | -5.43                     | 5.50                      | 189.43                      | 0.52                          |
| 1800.00                 | 0.46                 | 127.54                    | 1799.84   | -6.28       | 0.20        | -6.28                     | 6.28                      | 178.14                      | 0.68                          |
| 1900.00                 | 0.82                 | 215.62                    | 1899.84   | -7.11       | 0.10        | -7.11                     | 7.11                      | 179.16                      | 0.93                          |
| 2000.00                 | 0.46                 | 190.86                    | 1999.83   | -8.09       | -0.39       | -8.09                     | 8.10                      | 182.76                      | 0.45                          |
| 2100.00                 | 0.45                 | 192.17                    | 2099.83   | -8.87       | -0.55       | -8.87                     | 8.89                      | 183.54                      | 0.01                          |
| 2200.00                 | 0.49                 | 186.02                    | 2199.82   | -9.68       | -0.68       | -9.68                     | 9.70                      | 184.00                      | 0.06                          |
| 2300.00                 | 0.52                 | 187.80                    | 2299.82   | -10.55      | -0.78       | -10.55                    | 10.58                     | 184.24                      | 0.03                          |
| 2400.00                 | 0.53                 | 201.93                    | 2399.82   | -11.42      | -1.02       | -11.42                    | 11.47                     | 185.09                      | 0.13                          |
| 2500.00                 | 0.52                 | 192.07                    | 2499.81   | -12.29      | -1.28       | -12.29                    | 12.36                     | 185.96                      | 0.09                          |
| 2600.00                 | 0.52                 | 193.30                    | 2599.81   | -13.17      | -1.48       | -13.17                    | 13.26                     | 186.42                      | 0.01                          |
| 2700.00                 | 0.40                 | 208.52                    | 2699.80   | -13.92      | -1.75       | -13.92                    | 14.03                     | 187.18                      | 0.17                          |
| 2800.00                 | 0.25                 | 254.16                    | 2799.80   | -14.29      | -2.13       | -14.29                    | 14.45                     | 188.47                      | 0.29                          |
| 2900.00                 | 0.28                 | 271.71                    | 2899.80   | -14.34      | -2.58       | -14.34                    | 14.57                     | 190.20                      | 0.09                          |
| 3000.00                 | 0.24                 | 253.31                    | 2999.80   | -14.39      | -3.03       | -14.39                    | 14.71                     | 191.88                      | 0.09                          |
| 3100.00                 | 0.17                 | 292.77                    | 3099.80   | -14.40      | -3.37       | -14.40                    | 14.79                     | 193.18                      | 0.16                          |
| 3200.00                 | 0.27                 | 294.05                    | 3199.80   | -14.24      | -3.73       | -14.24                    | 14.72                     | 194.67                      | 0.10                          |
| 3300.00                 | 0.27                 | 277.25                    | 3299.80   | -14.11      | -4.18       | -14.11                    | 14.72                     | 196.49                      | 0.08                          |
| 3400.00                 | 0.25                 | 275.03                    | 3399.80   | -14.07      | -4.63       | -14.07                    | 14.81                     | 198.20                      | 0.02                          |
| 3500.00                 | 0.18                 | 266.69                    | 3499.80   | -14.06      | -5.00       | -14.06                    | 14.92                     | 199.58                      | 0.08                          |
| 3600.00                 | 0.16                 | 243.87                    | 3599.80   | -14.13      | -5.29       | -14.13                    | 15.08                     | 200.51                      | 0.07                          |
| 3700.00                 | 0.20                 | 247.17                    | 3699.80   | -14.26      | -5.58       | -14.26                    | 15.31                     | 201.36                      | 0.04                          |
| 3800.00                 | 0.31                 | 221.57                    | 3799.79   | -14.53      | -5.92       | -14.53                    | 15.69                     | 202.17                      | 0.16                          |
| 3900.00                 | 0.30                 | 231.40                    | 3899.79   | -14.90      | -6.31       | -14.90                    | 16.18                     | 202.95                      | 0.05                          |
| 4000.00                 | 0.46                 | 267.51                    | 3999.79   | -15.08      | -6.92       | -15.08                    | 16.59                     | 204.63                      | 0.28                          |
| 4100.00                 | 0.43                 | 268.48                    | 4099.79   | -15.11      | -7.69       | -15.11                    | 16.96                     | 206.97                      | 0.03                          |
| 4200.00                 | 0.45                 | 274.87                    | 4199.79   | -15.09      | -8.46       | -15.09                    | 17.30                     | 209.28                      | 0.05                          |
| 4300.00                 | 0.50                 | 264.57                    | 4299.78   | -15.10      | -9.29       | -15.10                    | 17.72                     | 211.60                      | 0.10                          |
| 4400.00                 | 0.80                 | 239.20                    | 4399.78   | -15.50      | -10.32      | -15.50                    | 18.62                     | 213.66                      | 0.41                          |
| 4500.00                 | 0.86                 | 232.53                    | 4499.77   | -16.31      | -11.52      | -16.31                    | 19.96                     | 215.22                      | 0.12                          |
| 4600.00                 | 0.89                 | 232.81                    | 4599.75   | -17.24      | -12.73      | -17.24                    | 21.43                     | 216.45                      | 0.03                          |
| 4700.00                 | 0.78                 | 225.65                    | 4699.74   | -18.18      | -13.84      | -18.18                    | 22.85                     | 217.27                      | 0.15                          |
| 4800.00                 | 0.62                 | 224.46                    | 4799.74   | -19.04      | -14.70      | -19.04                    | 24.06                     | 217.67                      | 0.16                          |
| 4900.00                 | 0.61                 | 224.83                    | 4899.73   | -19.81      | -15.46      | -19.81                    | 25.13                     | 217.97                      | 0.01                          |
| 5000.00                 | 0.53                 | 208.49                    | 4999.72   | -20.60      | -16.06      | -20.60                    | 26.12                     | 217.94                      | 0.18                          |
| 5100.00                 | 0.56                 | 182.58                    | 5099.72   | -21.49      | -16.30      | -21.49                    | 26.97                     | 217.18                      | 0.25                          |
| 5200.00                 | 0.54                 | 181.88                    | 5199.72   | -22.45      | -16.34      | -22.45                    | 27.77                     | 216.04                      | 0.01                          |
| 5300.00                 | 0.61                 | 181.52                    | 5299.71   | -23.46      | -16.37      | -23.46                    | 28.61                     | 214.90                      | 0.07                          |
| 5400.00                 | 0.58                 | 176.90                    | 5399.71   | -24.50      | -16.35      | -24.50                    | 29.45                     | 213.73                      | 0.06                          |
| 5500.00                 | 0.70                 | 171.39                    | 5499.70   | -25.60      | -16.24      | -25.60                    | 30.31                     | 212.39                      | 0.14                          |

| Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | TVD<br>FT | +N/-S<br>FT | +E/-W<br>FT | Vertical<br>Section<br>FT | Closure<br>Distance<br>FT | Closure<br>Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|----------------------|---------------------------|-----------|-------------|-------------|---------------------------|---------------------------|-----------------------------|-------------------------------|
| 1.11                 | 152.38                    | 5599.69   | -27.06      | -15.70      | -27.06                    | 31.28                     | 210.12                      | 0.50                          |
| 1.29                 | 176.30                    | 5699.67   | -29.04      | -15.18      | -29.04                    | 32.76                     | 207.59                      | 0.53                          |
| 1.32                 | 180.89                    | 5799.64   | -31.31      | -15.12      | -31.31                    | 34.77                     | 205.78                      | 0.11                          |
| 1.02                 | 208.35                    | 5899.62   | -33.24      | -15.56      | -33.24                    | 36.70                     | 205.09                      | 0.62                          |
| 1.01                 | 206.36                    | 5999.60   | -34.82      | -16.38      | -34.82                    | 38.48                     | 205.19                      | 0.04                          |
| 1.55                 | 215.42                    | 6099.58   | -36.71      | -17.55      | -36.71                    | 40.69                     | 205.55                      | 0.57                          |
| 1.92                 | 208.14                    | 6199.53   | -39.29      | -19.13      | -39.29                    | 43.70                     | 205.96                      | 0.43                          |
| 2.00                 | 208.29                    | 6299.47   | -42.30      | -20.74      | -42.30                    | 47.11                     | 206.12                      | 0.08                          |
| 1.95                 | 207.83                    | 6399.41   | -45.34      | -22.36      | -45.34                    | 50.55                     | 206.25                      | 0.05                          |
| 1.82                 | 218.61                    | 6499.36   | -48.08      | -24.15      | -48.08                    | 53.81                     | 206.66                      | 0.38                          |
| 1.71                 | 220.47                    | 6599.31   | -50.46      | -26.11      | -50.46                    | 56.81                     | 207.36                      | 0.12                          |
| 1.58                 | 230.46                    | 6699.27   | -52.48      | -28.14      | -52.48                    | 59.55                     | 208.20                      | 0.31                          |
| 0.74                 | 222.93                    | 6799.25   | -53.83      | -29.65      | -53.83                    | 61.45                     | 208.84                      | 0.86                          |
| 0.56                 | 217.35                    | 6899.24   | -54.69      | -30.39      | -54.69                    | 62.57                     | 209.05                      | 0.19                          |
| 0.54                 | 230.45                    | 6999.24   | -55.39      | -31.05      | -55.39                    | 63.50                     | 209.27                      | 0.13                          |
| 0.44                 | 242.42                    | 7099.24   | -55.87      | -31.75      | -55.87                    | 64.26                     | 209.61                      | 0.15                          |
| 0.47                 | 229.60                    | 7199.23   | -56.31      | -32.41      | -56.31                    | 64.97                     | 209.92                      | 0.11                          |
| 0.41                 | 236.13                    | 7299.23   | -56.78      | -33.02      | -56.78                    | 65.68                     | 210.18                      | 0.08                          |
| 0.44                 | 297.76                    | 7399.23   | -56.80      | -33.66      | -56.80                    | 66.02                     | 210.65                      | 0.44                          |
| 0.55                 | 321.96                    | 7499.22   | -56.24      | -34.29      | -56.24                    | 65.87                     | 211.37                      | 0.23                          |
| 0.78                 | 54.26                     | 7599.22   | -55.47      | -34.03      | -55.47                    | 65.08                     | 211.53                      | 0.97                          |
| 1.41                 | 96.42                     | 7699.20   | -55.22      | -32.26      | -55.22                    | 63.95                     | 210.30                      | 0.98                          |
| 1.11                 | 73.28                     | 7799.18   | -55.07      | -30.11      | -55.07                    | 62.77                     | 208.67                      | 0.58                          |
| 1.08                 | 108.73                    | 7899.16   | -55.10      | -28.29      | -55.10                    | 61.93                     | 207.18                      | 0.67                          |
| 1.21                 | 111.65                    | 7999.14   | -55.79      | -26.42      | -55.79                    | 61.73                     | 205.34                      | 0.14                          |
| 1.97                 | 118.74                    | 8099.10   | -57.00      | -23.94      | -57.00                    | 61.82                     | 202.78                      | 0.78                          |
| 2.89                 | 126.93                    | 8199.01   | -59.34      | -20.42      | -59.34                    | 62.75                     | 198.99                      | 0.98                          |
| 2.08                 | 134.81                    | 8298.92   | -62.13      | -17.12      | -62.13                    | 64.45                     | 195.40                      | 0.87                          |



VES Survey International  
Ft. Worth, Texas  
817-741-3610  
Surveyor: Gregg Wilson  
Jester 19 30 Woah Federal Com 1H / API 30-015-42830



VES Survey Date: 6/13/2015