



COMPANY: Mewbourne Oil Company  
WELL: Pronghorn 15 B3DM Fed Com 1H  
COUNTY: Lea County N.M.  
DATUM: NAD 1927 (NADCON CONUS)  
RIG: Patterson 231



OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.50°

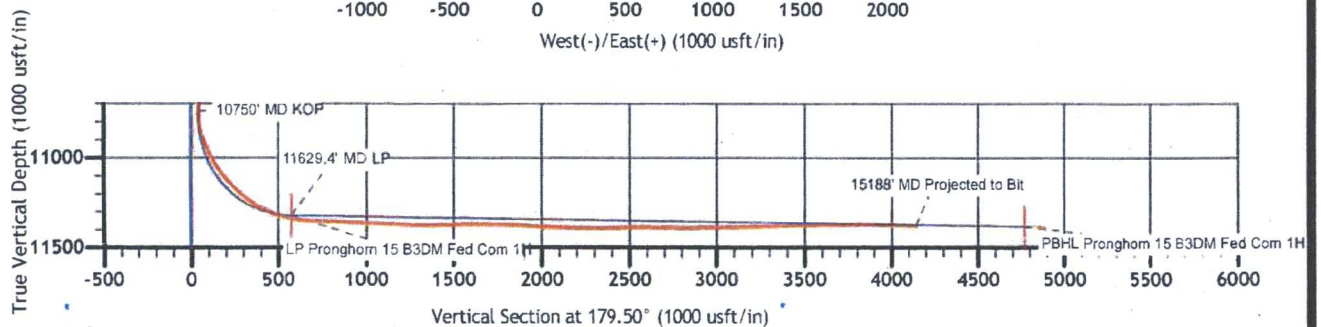
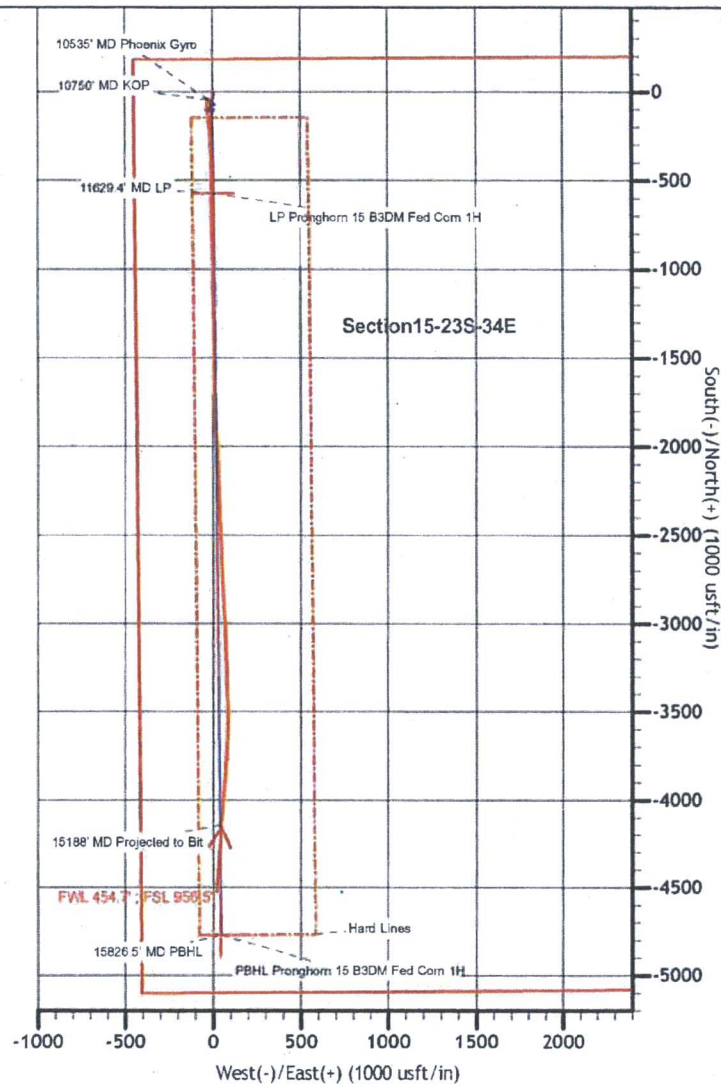
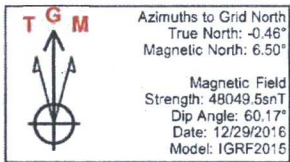
GEODETTIC ZONE: New Mexico East 3001  
3402 + 27 @ 3429.0usft (Patterson 231)  
GROUND ELEVATION: 3402.0

| +N/-S | +E/-W | Northing  | Easting   | Latitude         | Longitude         | Slot |
|-------|-------|-----------|-----------|------------------|-------------------|------|
| 0.0   | 0.0   | 476039.00 | 768405.30 | 32° 18' 40.519 N | 103° 27' 52.422 W |      |

#### PLAN SECTIONS

| Sec | MD      | Inc   | Azi    | TVD     | +N/-S   | +E/-W | Dleg  | TFace  | VSeet  | Target                            |
|-----|---------|-------|--------|---------|---------|-------|-------|--------|--------|-----------------------------------|
| 1   | 10535.0 | 2.83  | 298.16 | 10526.4 | -45.4   | -20.7 | 0.00  | 0.00   | 45.2   |                                   |
| 2   | 10676.5 | 0.00  | 0.00   | 10667.9 | -43.7   | -23.8 | 2.00  | 180.00 | 43.5   |                                   |
| 3   | 10750.0 | 0.00  | 0.00   | 10741.4 | -43.7   | -23.8 | 0.00  | 0.00   | 43.5   |                                   |
| 4   | 10778.7 | 3.07  | 53.98  | 10770.1 | -43.3   | -23.2 | 10.69 | 53.98  | 43.1   |                                   |
| 5   | 11629.4 | 89.18 | 179.50 | 11322.0 | -571.0  | 5.1   | 10.69 | 125.52 | 571.0  | LP Pronghorn 15 B3DM Fed Com 1H   |
| 6   | 15826.5 | 89.18 | 179.50 | 11382.0 | -4767.5 | 41.7  | 0.00  | 0.00   | 4767.7 | PBHL Pronghorn 15 B3DM Fed Com 1H |

SHL: 185' FNL; 450' FWL  
Section 15-23S-34E  
PBHL: 330' FSL; 450' FWL  
Section 15-23S-34E



HOBBS OCD  
JUL 03 2017  
RECEIVED

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.50°

GEOIDETIC ZONE: New Mexico East 3001  
3402 + 27 @ 3429.0usft (Patterson 231)

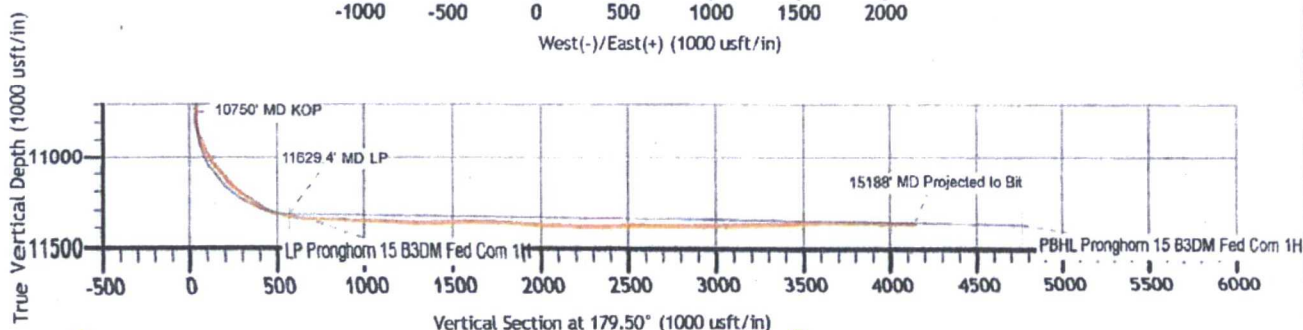
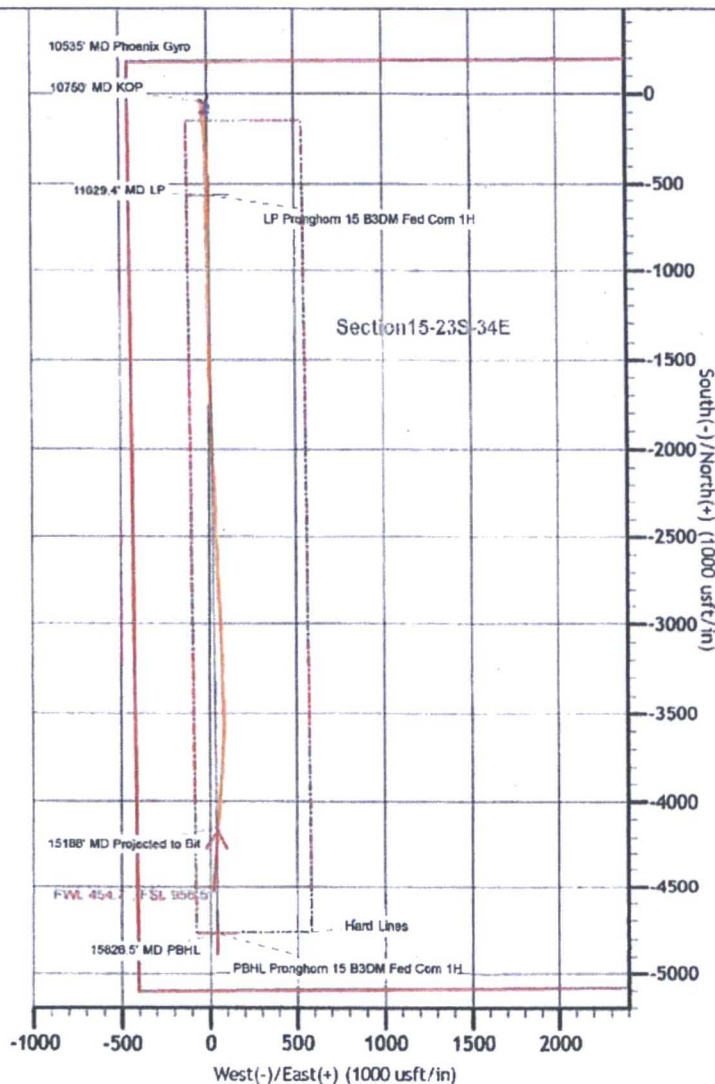
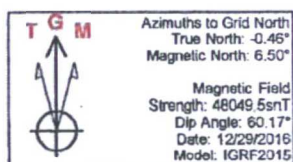
GROUND ELEVATION: 3402.0

| +N/-S | +E/-W | Northing  | Easting   | Latitude         | Longitude         | Slot |
|-------|-------|-----------|-----------|------------------|-------------------|------|
| 0.0   | 0.0   | 478039.00 | 768405.30 | 32° 18' 40.519 N | 103° 27' 52.422 W |      |

PLAN SECTIONS

| Sec | MD      | Inc   | Azi    | TVD     | +N/-S   | +E/-W | Dleg  | TFace  | Vsect  | Target                             |
|-----|---------|-------|--------|---------|---------|-------|-------|--------|--------|------------------------------------|
| 1   | 10535.0 | 2.83  | 298.18 | 10526.4 | -45.4   | -20.7 | 0.00  | 0.00   | 45.2   |                                    |
| 2   | 10676.5 | 0.00  | 0.00   | 10667.9 | -43.7   | -23.8 | 2.00  | 180.00 | 43.5   |                                    |
| 3   | 10750.0 | 0.00  | 0.00   | 10741.4 | -43.7   | -23.8 | 0.00  | 0.00   | 43.5   |                                    |
| 4   | 10778.7 | 3.07  | 53.98  | 10770.1 | -43.3   | -23.2 | 10.69 | 53.98  | 43.1   |                                    |
| 5   | 11629.4 | 89.18 | 179.50 | 11322.0 | -571.0  | 5.1   | 10.69 | 125.52 | 571.0  | LP Pronghorn 15 B3DM Fed Corn 1H   |
| 6   | 15826.5 | 89.18 | 179.50 | 11382.0 | -4767.5 | 41.7  | 0.00  | 0.00   | 4767.7 | PBHL Pronghorn 15 B3DM Fed Corn 1H |

SHL: 185° FNL: 450° FWL  
Section 15-23S-34E  
PBHL: 330° FSL: 450° FWL  
Section 15-23S-34E





# **Mewbourne Oil Company**

**Lea County N.M.**

**Section 15-23S-34E Pronghorn 15 B3Dm Fed Com 1H  
Pronghorn 15 B3DM Fed Com 1H**

**Original Hole**

**Design: Original Hole**

## **Standard Survey Report**

**01 February, 2017**





|                  |                                                |                                     |                                        |
|------------------|------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                          | <b>Local Co-ordinate Reference:</b> | Well Pronghorn 15 B3DM Fed Com 1H      |
| <b>Project:</b>  | Lea County N.M.                                | <b>TVD Reference:</b>               | 3402 + 27 @ 3429.0usft (Patterson 231) |
| <b>Site:</b>     | Section15-23S-34E Pronghorn 15 B3Dm Fed Com 1H | <b>MD Reference:</b>                | 3402 + 27 @ 3429.0usft (Patterson 231) |
| <b>Well:</b>     | Pronghorn 15 B3DM 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>     | Lea County N.M.                      |                      |                |
| <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>                  | Section15-23S-34E Pronghorn 15 B3Dm Fed Com 1H |                          |                   |
| <b>Site Position:</b>        |                                                | <b>Northing:</b>         | 478,039.00 usft   |
| <b>From:</b>                 | Map                                            | <b>Easting:</b>          | 768,405.30 usft   |
| <b>Position Uncertainty:</b> | 0.0 usft                                       | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                                                | <b>Latitude:</b>         | 32° 18' 40.519 N  |
|                              |                                                | <b>Longitude:</b>        | 103° 27' 52.422 W |
|                              |                                                | <b>Grid Convergence:</b> | 0.46 °            |

|                             |                              |                            |                                  |
|-----------------------------|------------------------------|----------------------------|----------------------------------|
| <b>Well</b>                 | Pronghorn 15 B3DM Fed Com 1H |                            |                                  |
| <b>Well Position</b>        | <b>+N/-S</b>                 | 0.0 usft                   | <b>Northing:</b> 478,039.00 usft |
|                             | <b>+E/-W</b>                 | 0.0 usft                   | <b>Easting:</b> 768,405.30 usft  |
| <b>Position Uncertainty</b> | 0.0 usft                     | <b>Wellhead Elevation:</b> | 27.0 usft                        |
|                             |                              | <b>Latitude:</b>           | 32° 18' 40.519 N                 |
|                             |                              | <b>Longitude:</b>          | 103° 27' 52.422 W                |
|                             |                              | <b>Ground Level:</b>       | 3,402.0 usft                     |

|                  |                   |                    |                                            |
|------------------|-------------------|--------------------|--------------------------------------------|
| <b>Wellbore</b>  | Original Hole     |                    |                                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b>                     |
|                  | IGRF2015          | 12/29/2016         | 6.96                                       |
|                  |                   |                    | <b>Dip Angle (°)</b> 60.17                 |
|                  |                   |                    | <b>Field Strength (nT)</b> 48,049.52734364 |

|                          |                                |                      |                             |
|--------------------------|--------------------------------|----------------------|-----------------------------|
| <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>         |
|                          | 0.0                            | 0.0                  | 0.0                         |
|                          |                                |                      | <b>Direction (°)</b> 215.61 |

|                       |                  |                                     |                                           |
|-----------------------|------------------|-------------------------------------|-------------------------------------------|
| <b>Survey Program</b> | Date 2/1/2017    |                                     |                                           |
| <b>From (usft)</b>    | <b>To (usft)</b> | <b>Survey (Wellbore)</b>            | <b>Tool Name</b>                          |
| 100.0                 | 10,535.0         | Phoenix Tech Survey (Original Hole) | NSG-CT_WL                                 |
| 10,702.0              | 15,188.0         | MWD Survey (Original Hole)          | MWD                                       |
|                       |                  |                                     | <b>Description</b>                        |
|                       |                  |                                     | Continuous north-seeking gyro on wireline |
|                       |                  |                                     | 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                        | 0.52                   | 129.51             | 100.0                        | -0.3                | 0.4                 | 0.0                            | 0.52                           | 0.52                          | 0.00                         |  |
| 200.0                        | 0.74                   | 180.92             | 200.0                        | -1.2                | 0.7                 | 0.6                            | 0.58                           | 0.22                          | 51.41                        |  |
| 300.0                        | 0.26                   | 68.08              | 300.0                        | -1.8                | 0.9                 | 0.9                            | 0.87                           | -0.48                         | -112.84                      |  |
| 400.0                        | 0.28                   | 135.48             | 400.0                        | -1.9                | 1.3                 | 0.8                            | 0.30                           | 0.02                          | 67.40                        |  |
| 500.0                        | 0.53                   | 85.44              | 500.0                        | -2.0                | 1.9                 | 0.5                            | 0.41                           | 0.25                          | -50.04                       |  |
| 600.0                        | 0.70                   | 127.62             | 600.0                        | -2.3                | 2.8                 | 0.2                            | 0.47                           | 0.17                          | 42.18                        |  |
| 700.0                        | 2.25                   | 158.22             | 699.9                        | -4.5                | 4.1                 | 1.3                            | 1.69                           | 1.55                          | 30.60                        |  |
| 800.0                        | 3.74                   | 169.95             | 799.8                        | -9.6                | 5.4                 | 4.7                            | 1.60                           | 1.49                          | 11.73                        |  |



|                  |                                                |                                     |                                        |
|------------------|------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                          | <b>Local Co-ordinate Reference:</b> | Well Pronghorn 15 B3DM Fed Com 1H      |
| <b>Project:</b>  | Lea County N.M.                                | <b>TVD Reference:</b>               | 3402 + 27 @ 3429.0usft (Patterson 231) |
| <b>Site:</b>     | Section15-23S-34E Pronghorn 15 B3DM Fed Com 1H | <b>MD Reference:</b>                | 3402 + 27 @ 3429.0usft (Patterson 231) |
| <b>Well:</b>     | Pronghorn 15 B3DM 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                 | 5.13            | 193.56      | 899.5                 | -17.1        | 4.9          | 11.1                    | 2.27                    | 1.39                   | 23.61                 |
| 1,000.0               | 5.99            | 194.75      | 999.0                 | -26.5        | 2.5          | 20.1                    | 0.87                    | 0.86                   | 1.19                  |
| 1,100.0               | 6.56            | 196.29      | 1,098.4               | -37.1        | -0.4         | 30.4                    | 0.59                    | 0.57                   | 1.54                  |
| 1,200.0               | 6.80            | 196.75      | 1,197.8               | -48.2        | -3.7         | 41.4                    | 0.25                    | 0.24                   | 0.46                  |
| 1,300.0               | 6.58            | 196.84      | 1,297.1               | -59.4        | -7.1         | 52.4                    | 0.22                    | -0.22                  | 0.09                  |
| 1,400.0               | 6.34            | 197.83      | 1,396.4               | -70.1        | -10.5        | 63.1                    | 0.26                    | -0.24                  | 0.99                  |
| 1,500.0               | 5.88            | 197.11      | 1,495.9               | -80.3        | -13.7        | 73.2                    | 0.47                    | -0.46                  | -0.72                 |
| 1,600.0               | 5.29            | 196.23      | 1,595.4               | -89.6        | -16.4        | 82.4                    | 0.60                    | -0.59                  | -0.88                 |
| 1,700.0               | 4.63            | 202.83      | 1,695.0               | -97.7        | -19.3        | 90.7                    | 0.87                    | -0.66                  | 6.60                  |
| 1,800.0               | 3.65            | 201.67      | 1,794.8               | -104.4       | -22.0        | 97.7                    | 0.98                    | -0.98                  | -1.16                 |
| 1,900.0               | 2.51            | 223.57      | 1,894.6               | -108.9       | -24.7        | 103.0                   | 1.62                    | -1.14                  | 21.90                 |
| 2,000.0               | 1.17            | 318.30      | 1,994.6               | -109.8       | -26.9        | 104.9                   | 2.86                    | -1.34                  | 94.73                 |
| 2,100.0               | 1.87            | 313.05      | 2,094.6               | -107.9       | -28.8        | 104.5                   | 0.71                    | 0.70                   | -5.25                 |
| 2,200.0               | 1.72            | 328.13      | 2,194.5               | -105.5       | -30.8        | 103.7                   | 0.49                    | -0.15                  | 15.08                 |
| 2,300.0               | 1.69            | 323.78      | 2,294.5               | -103.0       | -32.4        | 102.7                   | 0.13                    | -0.03                  | -4.35                 |
| 2,400.0               | 0.52            | 11.41       | 2,394.4               | -101.4       | -33.2        | 101.8                   | 1.39                    | -1.17                  | 47.63                 |
| 2,500.0               | 0.60            | 337.98      | 2,494.4               | -100.5       | -33.3        | 101.1                   | 0.33                    | 0.08                   | -33.43                |
| 2,600.0               | 0.61            | 16.70       | 2,594.4               | -99.5        | -33.4        | 100.3                   | 0.40                    | 0.01                   | 38.72                 |
| 2,700.0               | 0.72            | 106.99      | 2,694.4               | -99.2        | -32.6        | 99.6                    | 0.95                    | 0.11                   | 90.29                 |
| 2,800.0               | 1.00            | 30.33       | 2,794.4               | -98.6        | -31.6        | 98.5                    | 1.09                    | 0.28                   | -76.66                |
| 2,900.0               | 1.43            | 36.50       | 2,894.4               | -96.8        | -30.4        | 96.4                    | 0.45                    | 0.43                   | 6.17                  |
| 3,000.0               | 1.41            | 70.16       | 2,994.4               | -95.4        | -28.5        | 94.2                    | 0.82                    | -0.02                  | 33.66                 |
| 3,100.0               | 1.19            | 90.71       | 3,094.3               | -95.0        | -26.3        | 92.5                    | 0.51                    | -0.22                  | 20.55                 |
| 3,200.0               | 1.50            | 87.44       | 3,194.3               | -95.0        | -23.9        | 91.1                    | 0.32                    | 0.31                   | -3.27                 |
| 3,300.0               | 1.50            | 105.65      | 3,294.3               | -95.3        | -21.4        | 89.9                    | 0.47                    | 0.00                   | 18.21                 |
| 3,400.0               | 1.41            | 121.29      | 3,394.2               | -96.2        | -19.1        | 89.4                    | 0.41                    | -0.09                  | 15.64                 |
| 3,500.0               | 0.34            | 118.48      | 3,494.2               | -97.0        | -17.8        | 89.2                    | 1.07                    | -1.07                  | -2.81                 |
| 3,600.0               | 0.84            | 65.41       | 3,594.2               | -96.9        | -16.8        | 88.5                    | 0.69                    | 0.50                   | -53.07                |
| 3,700.0               | 1.10            | 64.83       | 3,694.2               | -96.1        | -15.3        | 87.1                    | 0.26                    | 0.26                   | -0.58                 |
| 3,800.0               | 2.01            | 62.49       | 3,794.2               | -94.9        | -12.9        | 84.7                    | 0.91                    | 0.91                   | -2.34                 |
| 3,900.0               | 1.40            | 115.31      | 3,894.1               | -94.6        | -10.2        | 82.9                    | 1.61                    | -0.61                  | 52.82                 |
| 4,000.0               | 1.40            | 140.69      | 3,994.1               | -96.1        | -8.3         | 83.0                    | 0.62                    | 0.00                   | 25.38                 |
| 4,100.0               | 1.56            | 112.12      | 4,094.1               | -97.6        | -6.3         | 83.0                    | 0.75                    | 0.16                   | -28.57                |
| 4,200.0               | 2.03            | 102.79      | 4,194.0               | -98.5        | -3.3         | 82.0                    | 0.55                    | 0.47                   | -9.33                 |
| 4,300.0               | 1.07            | 107.50      | 4,294.0               | -99.1        | -0.7         | 81.0                    | 0.97                    | -0.96                  | 4.71                  |
| 4,400.0               | 0.98            | 116.50      | 4,394.0               | -99.8        | 1.0          | 80.6                    | 0.18                    | -0.09                  | 9.00                  |
| 4,500.0               | 1.45            | 97.22       | 4,494.0               | -100.3       | 3.0          | 79.8                    | 0.62                    | 0.47                   | -19.28                |
| 4,600.0               | 1.68            | 95.72       | 4,593.9               | -100.7       | 5.7          | 78.5                    | 0.23                    | 0.23                   | -1.50                 |
| 4,700.0               | 0.66            | 223.39      | 4,693.9               | -101.2       | 6.8          | 78.4                    | 2.15                    | -1.02                  | 127.67                |
| 4,800.0               | 0.95            | 246.11      | 4,793.9               | -102.0       | 5.6          | 79.6                    | 0.43                    | 0.29                   | 22.72                 |
| 4,900.0               | 0.71            | 247.20      | 4,893.9               | -102.5       | 4.3          | 80.9                    | 0.24                    | -0.24                  | 1.09                  |
| 5,000.0               | 0.71            | 228.71      | 4,993.9               | -103.2       | 3.2          | 82.0                    | 0.23                    | 0.00                   | -18.49                |

|                  |                                                |                                     |                                        |
|------------------|------------------------------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Company                          | <b>Local Co-ordinate Reference:</b> | Well Pronghorn 15 B3DM Fed Com 1H      |
| <b>Project:</b>  | Lea County N.M.                                | <b>TVD Reference:</b>               | 3402 + 27 @ 3429.0usft (Patterson 231) |
| <b>Site:</b>     | Section15-23S-34E Pronghorn 15 B3DM Fed Com 1H | <b>MD Reference:</b>                | 3402 + 27 @ 3429.0usft (Patterson 231) |
| <b>Well:</b>     | Pronghorn 15 B3DM 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               | 0.72            | 252.17      | 5,093.9               | -103.8       | 2.2          | 83.1                    | 0.29                    | 0.01                   | 23.46                 |
| 5,200.0               | 0.64            | 237.69      | 5,193.9               | -104.3       | 1.1          | 84.1                    | 0.19                    | -0.08                  | -14.48                |
| 5,300.0               | 0.50            | 261.15      | 5,293.9               | -104.7       | 0.2          | 85.0                    | 0.27                    | -0.14                  | 23.46                 |
| 5,400.0               | 0.59            | 264.28      | 5,393.9               | -104.8       | -0.7         | 85.6                    | 0.09                    | 0.09                   | 3.13                  |
| 5,500.0               | 0.47            | 285.26      | 5,493.8               | -104.7       | -1.6         | 86.1                    | 0.23                    | -0.12                  | 20.98                 |
| 5,600.0               | 0.43            | 313.12      | 5,593.8               | -104.4       | -2.3         | 86.2                    | 0.22                    | -0.04                  | 27.86                 |
| 5,700.0               | 0.58            | 271.31      | 5,693.8               | -104.1       | -3.1         | 86.4                    | 0.39                    | 0.15                   | -41.81                |
| 5,800.0               | 0.54            | 316.78      | 5,793.8               | -103.7       | -3.9         | 86.6                    | 0.43                    | -0.04                  | 45.47                 |
| 5,900.0               | 0.38            | 295.11      | 5,893.8               | -103.2       | -4.5         | 86.6                    | 0.23                    | -0.16                  | -21.67                |
| 6,000.0               | 0.49            | 266.33      | 5,993.8               | -103.1       | -5.3         | 86.9                    | 0.24                    | 0.11                   | -28.78                |
| 6,100.0               | 0.24            | 80.58       | 6,093.8               | -103.1       | -5.5         | 87.0                    | 0.73                    | -0.25                  | 174.25                |
| 6,200.0               | 0.14            | 342.25      | 6,193.8               | -103.0       | -5.3         | 86.8                    | 0.29                    | -0.10                  | -98.33                |
| 6,300.0               | 0.11            | 324.10      | 6,293.8               | -102.8       | -5.4         | 86.7                    | 0.05                    | -0.03                  | -18.15                |
| 6,400.0               | 0.33            | 23.40       | 6,393.8               | -102.4       | -5.4         | 86.4                    | 0.29                    | 0.22                   | 59.30                 |
| 6,500.0               | 0.29            | 92.07       | 6,493.8               | -102.2       | -5.0         | 86.0                    | 0.35                    | -0.04                  | 68.67                 |
| 6,600.0               | 0.25            | 306.41      | 6,593.8               | -102.1       | -4.9         | 85.8                    | 0.52                    | -0.04                  | -145.66               |
| 6,700.0               | 0.06            | 350.84      | 6,693.8               | -101.9       | -5.1         | 85.8                    | 0.21                    | -0.19                  | 44.43                 |
| 6,800.0               | 0.16            | 250.65      | 6,793.8               | -101.9       | -5.2         | 85.9                    | 0.18                    | 0.10                   | -100.19               |
| 6,900.0               | 0.37            | 34.41       | 6,893.8               | -101.7       | -5.2         | 85.7                    | 0.51                    | 0.21                   | 143.76                |
| 7,000.0               | 0.30            | 182.26      | 6,993.8               | -101.7       | -5.0         | 85.6                    | 0.64                    | -0.07                  | 147.85                |
| 7,100.0               | 0.17            | 132.27      | 7,093.8               | -102.0       | -4.9         | 85.8                    | 0.23                    | -0.13                  | -49.99                |
| 7,200.0               | 0.13            | 145.24      | 7,193.8               | -102.2       | -4.7         | 85.9                    | 0.05                    | -0.04                  | 12.97                 |
| 7,300.0               | 0.78            | 169.85      | 7,293.8               | -103.0       | -4.6         | 86.4                    | 0.66                    | 0.65                   | 24.61                 |
| 7,400.0               | 0.70            | 175.13      | 7,393.8               | -104.2       | -4.4         | 87.3                    | 0.11                    | -0.08                  | 5.28                  |
| 7,500.0               | 0.33            | 149.12      | 7,493.8               | -105.1       | -4.2         | 87.9                    | 0.43                    | -0.37                  | -26.01                |
| 7,600.0               | 0.47            | 178.89      | 7,593.8               | -105.8       | -4.0         | 88.3                    | 0.25                    | 0.14                   | 29.77                 |
| 7,700.0               | 0.77            | 163.33      | 7,693.8               | -106.8       | -3.8         | 89.1                    | 0.34                    | 0.30                   | -15.56                |
| 7,800.0               | 0.17            | 251.36      | 7,793.8               | -107.5       | -3.8         | 89.6                    | 0.78                    | -0.60                  | 88.03                 |
| 7,900.0               | 0.20            | 137.36      | 7,893.8               | -107.7       | -3.8         | 89.8                    | 0.31                    | 0.03                   | -114.00               |
| 8,000.0               | 0.24            | 169.65      | 7,993.8               | -108.0       | -3.6         | 89.9                    | 0.13                    | 0.04                   | 32.29                 |
| 8,100.0               | 0.41            | 58.09       | 8,093.8               | -108.0       | -3.3         | 89.8                    | 0.55                    | 0.17                   | -111.56               |
| 8,200.0               | 0.48            | 41.19       | 8,193.8               | -107.5       | -2.7         | 89.0                    | 0.15                    | 0.07                   | -16.90                |
| 8,300.0               | 0.47            | 38.98       | 8,293.8               | -106.9       | -2.2         | 88.2                    | 0.02                    | -0.01                  | -2.21                 |
| 8,400.0               | 0.68            | 2.25        | 8,393.8               | -106.0       | -1.9         | 87.3                    | 0.41                    | 0.21                   | -36.73                |
| 8,500.0               | 0.66            | 350.28      | 8,493.8               | -104.8       | -2.0         | 86.4                    | 0.14                    | -0.02                  | -11.97                |
| 8,600.0               | 0.70            | 305.67      | 8,593.8               | -103.9       | -2.6         | 86.0                    | 0.52                    | 0.04                   | -44.61                |
| 8,700.0               | 0.98            | 306.41      | 8,693.8               | -103.0       | -3.8         | 86.0                    | 0.28                    | 0.28                   | 0.74                  |
| 8,800.0               | 1.48            | 327.30      | 8,793.7               | -101.4       | -5.1         | 85.5                    | 0.66                    | 0.50                   | 20.89                 |
| 8,900.0               | 2.16            | 327.74      | 8,893.7               | -98.8        | -6.8         | 84.3                    | 0.68                    | 0.68                   | 0.44                  |
| 9,000.0               | 2.66            | 12.70       | 8,993.6               | -94.9        | -7.3         | 81.4                    | 1.90                    | 0.50                   | 44.96                 |
| 9,100.0               | 3.62            | 12.93       | 9,093.5               | -89.6        | -6.1         | 76.4                    | 0.96                    | 0.96                   | 0.23                  |
| 9,200.0               | 3.67            | 8.26        | 9,193.3               | -83.3        | -5.0         | 70.6                    | 0.30                    | 0.05                   | -4.67                 |
| 9,300.0               | 4.51            | 357.42      | 9,293.0               | -76.2        | -4.7         | 64.7                    | 1.14                    | 0.84                   | -10.84                |



|           |                                                |                              |                                        |
|-----------|------------------------------------------------|------------------------------|----------------------------------------|
| Company:  | Mewbourne Oil Company                          | Local Co-ordinate Reference: | Well Pronghorn 15 B3DM Fed Com 1H      |
| Project:  | Lea County N.M.                                | TVD Reference:               | 3402 + 27 @ 3429.0usft (Patterson 231) |
| Site:     | Section15-23S-34E Pronghorn 15 B3DM Fed Com 1H | MD Reference:                | 3402 + 27 @ 3429.0usft (Patterson 231) |
| Well:     | Pronghorn 15 B3DM Fed Com 1H                   | North Reference:             | Grid                                   |
| Wellbore: | Original Hole                                  | Survey Calculation Method:   | Minimum Curvature                      |
| Design:   | Original Hole                                  | Database:                    | 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) |
| 9,400.0                | 4.83            | 114.68      | 9,392.8               | -74.0        | -1.0         | 60.8                    | 7.97                    | 0.32                   | 117.26                |
| 9,500.0                | 4.28            | 75.16       | 9,492.5               | -74.8        | 6.4          | 57.1                    | 3.12                    | -0.55                  | -39.52                |
| 9,600.0                | 2.80            | 338.52      | 9,592.4               | -71.6        | 9.1          | 52.9                    | 5.38                    | -1.48                  | -96.64                |
| 9,700.0                | 3.32            | 332.47      | 9,692.3               | -66.8        | 6.9          | 50.3                    | 0.61                    | 0.52                   | -6.05                 |
| 9,800.0                | 2.41            | 307.83      | 9,792.1               | -62.9        | 3.9          | 48.9                    | 1.51                    | -0.91                  | -24.64                |
| 9,900.0                | 1.92            | 314.28      | 9,892.1               | -60.5        | 1.0          | 48.6                    | 0.55                    | -0.49                  | 6.45                  |
| 10,000.0               | 2.10            | 287.04      | 9,992.0               | -58.8        | -1.9         | 48.9                    | 0.96                    | 0.18                   | -27.24                |
| 10,100.0               | 2.66            | 286.97      | 10,091.9              | -57.5        | -5.9         | 50.2                    | 0.56                    | 0.56                   | -0.07                 |
| 10,200.0               | 3.35            | 287.72      | 10,191.8              | -56.0        | -10.9        | 51.9                    | 0.69                    | 0.69                   | 0.75                  |
| 10,300.0               | 2.26            | 306.47      | 10,291.7              | -53.9        | -15.3        | 52.7                    | 1.41                    | -1.09                  | 18.75                 |
| 10,400.0               | 2.76            | 333.85      | 10,391.6              | -50.6        | -17.9        | 51.5                    | 1.28                    | 0.50                   | 27.38                 |
| 10,500.0               | 2.38            | 338.83      | 10,491.5              | -46.5        | -19.7        | 49.3                    | 0.44                    | -0.38                  | 4.98                  |
| 10,535.0               | 2.83            | 298.16      | 10,526.4              | -45.4        | -20.7        | 49.0                    | 5.31                    | 1.29                   | -116.20               |
| 10535' MD Phoenix Gyro |                 |             |                       |              |              |                         |                         |                        |                       |
| 10,702.0               | 4.30            | 347.70      | 10,693.1              | -37.3        | -25.7        | 45.3                    | 1.96                    | 0.88                   | 29.66                 |
| 10,766.0               | 1.50            | 316.90      | 10,757.1              | -34.4        | -26.8        | 43.5                    | 4.86                    | -4.38                  | -48.13                |
| 10,797.0               | 4.50            | 188.80      | 10,788.0              | -35.3        | -27.3        | 44.6                    | 17.91                   | 9.68                   | -413.23               |
| 10,829.0               | 10.60           | 187.20      | 10,819.7              | -39.4        | -27.8        | 48.3                    | 19.07                   | 19.06                  | -5.00                 |
| 10,861.0               | 17.10           | 184.40      | 10,850.8              | -47.1        | -28.6        | 54.9                    | 20.41                   | 20.31                  | -8.75                 |
| 10,892.0               | 20.70           | 182.10      | 10,880.1              | -57.1        | -29.1        | 63.4                    | 11.86                   | 11.61                  | -7.42                 |
| 10,924.0               | 22.80           | 179.80      | 10,909.8              | -68.9        | -29.3        | 73.1                    | 7.08                    | 6.56                   | -7.19                 |
| 10,955.0               | 25.00           | 178.20      | 10,938.2              | -81.5        | -29.1        | 83.2                    | 7.40                    | 7.10                   | -5.16                 |
| 10,987.0               | 27.60           | 176.60      | 10,966.9              | -95.7        | -28.4        | 94.3                    | 8.42                    | 8.13                   | -5.00                 |
| 11,019.0               | 29.90           | 174.70      | 10,994.9              | -111.0       | -27.2        | 106.1                   | 7.73                    | 7.19                   | -5.94                 |
| 11,050.0               | 32.70           | 174.20      | 11,021.4              | -127.0       | -25.7        | 118.2                   | 9.07                    | 9.03                   | -1.61                 |
| 11,082.0               | 35.10           | 174.80      | 11,048.0              | -144.8       | -24.0        | 131.7                   | 7.57                    | 7.50                   | 1.88                  |
| 11,114.0               | 36.10           | 173.40      | 11,074.0              | -163.3       | -22.0        | 145.6                   | 4.03                    | 3.13                   | -4.38                 |
| 11,145.0               | 38.10           | 172.30      | 11,098.7              | -181.9       | -19.7        | 159.3                   | 6.80                    | 6.45                   | -3.55                 |
| 11,177.0               | 41.50           | 172.20      | 11,123.3              | -202.2       | -17.0        | 174.2                   | 10.63                   | 10.63                  | -0.31                 |
| 11,208.0               | 45.30           | 174.50      | 11,145.8              | -223.3       | -14.5        | 190.0                   | 13.27                   | 12.26                  | 7.42                  |
| 11,240.0               | 47.40           | 176.90      | 11,167.9              | -246.4       | -12.8        | 207.8                   | 8.51                    | 6.56                   | 7.50                  |
| 11,272.0               | 49.50           | 178.40      | 11,189.1              | -270.3       | -11.8        | 226.7                   | 7.44                    | 6.56                   | 4.69                  |
| 11,303.0               | 51.20           | 178.00      | 11,208.9              | -294.2       | -11.0        | 245.6                   | 5.57                    | 5.48                   | -1.29                 |
| 11,335.0               | 53.30           | 177.30      | 11,228.5              | -319.5       | -10.0        | 265.6                   | 6.79                    | 6.56                   | -2.19                 |
| 11,367.0               | 56.60           | 177.40      | 11,246.9              | -345.6       | -8.8         | 286.1                   | 10.32                   | 10.31                  | 0.31                  |
| 11,398.0               | 60.40           | 178.40      | 11,263.1              | -372.0       | -7.8         | 307.0                   | 12.56                   | 12.26                  | 3.23                  |
| 11,430.0               | 63.70           | 178.50      | 11,278.1              | -400.3       | -7.1         | 329.6                   | 10.32                   | 10.31                  | 0.31                  |
| 11,462.0               | 66.50           | 178.60      | 11,291.5              | -429.3       | -6.3         | 352.7                   | 8.75                    | 8.75                   | 0.31                  |
| 11,493.0               | 68.40           | 179.20      | 11,303.4              | -457.9       | -5.8         | 375.7                   | 6.38                    | 6.13                   | 1.94                  |
| 11,525.0               | 69.00           | 179.40      | 11,315.0              | -487.7       | -5.4         | 399.7                   | 1.96                    | 1.88                   | 0.63                  |
| 11,557.0               | 72.40           | 179.80      | 11,325.6              | -517.9       | -5.2         | 424.1                   | 10.69                   | 10.63                  | 1.25                  |
| 11,589.0               | 77.40           | 181.00      | 11,334.0              | -548.8       | -5.4         | 449.4                   | 16.04                   | 15.63                  | 3.75                  |

|           |                                                |                              |                                        |
|-----------|------------------------------------------------|------------------------------|----------------------------------------|
| Company:  | Mewbourne Oil Company                          | Local Co-ordinate Reference: | Well Pronghorn 15 B3DM Fed Com 1H      |
| Project:  | Lea County N.M.                                | TVD Reference:               | 3402 + 27 @ 3429.0usft (Patterson 231) |
| Site:     | Section15-23S-34E Pronghorn 15 B3DM Fed Com 1H | MD Reference:                | 3402 + 27 @ 3429.0usft (Patterson 231) |
| Well:     | Pronghorn 15 B3DM Fed Com 1H                   | North Reference:             | Grid                                   |
| Wellbore: | Original Hole                                  | Survey Calculation Method:   | Minimum Curvature                      |
| Design:   | Original Hole                                  | Database:                    | 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 11,621.0              | 80.40           | 181.00      | 11,340.1              | -580.2       | -6.0         | 475.2                   | 9.38                    | 9.38                   | 0.00                  |
| 11,652.0              | 83.30           | 180.00      | 11,344.5              | -610.9       | -6.2         | 500.3                   | 9.88                    | 9.35                   | -3.23                 |
| 11,748.0              | 88.10           | 178.80      | 11,351.7              | -706.6       | -5.2         | 577.5                   | 5.15                    | 5.00                   | -1.25                 |
| 11,844.0              | 87.80           | 178.80      | 11,355.1              | -802.5       | -3.2         | 654.3                   | 0.31                    | -0.31                  | 0.00                  |
| 11,939.0              | 87.80           | 178.90      | 11,358.8              | -897.4       | -1.3         | 730.4                   | 0.11                    | 0.00                   | 0.11                  |
| 12,033.0              | 87.40           | 178.90      | 11,362.7              | -991.3       | 0.5          | 805.7                   | 0.43                    | -0.43                  | 0.00                  |
| 12,128.0              | 88.70           | 179.80      | 11,366.0              | -1,086.3     | 1.6          | 882.3                   | 1.66                    | 1.37                   | 0.95                  |
| 12,223.0              | 87.20           | 178.90      | 11,369.4              | -1,181.2     | 2.6          | 958.8                   | 1.84                    | -1.58                  | -0.95                 |
| 12,318.0              | 86.70           | 177.90      | 11,374.4              | -1,276.0     | 5.3          | 1,034.4                 | 1.18                    | -0.53                  | -1.05                 |
| 12,413.0              | 91.90           | 179.70      | 11,375.6              | -1,370.9     | 7.3          | 1,110.4                 | 5.79                    | 5.47                   | 1.89                  |
| 12,508.0              | 92.30           | 179.80      | 11,372.1              | -1,465.9     | 7.7          | 1,187.3                 | 0.43                    | 0.42                   | 0.11                  |
| 12,603.0              | 91.60           | 180.00      | 11,368.9              | -1,560.8     | 7.8          | 1,264.4                 | 0.77                    | -0.74                  | 0.21                  |
| 12,698.0              | 88.70           | 178.90      | 11,368.6              | -1,655.8     | 8.8          | 1,341.1                 | 3.26                    | -3.05                  | -1.16                 |
| 12,793.0              | 88.70           | 178.90      | 11,370.8              | -1,750.8     | 10.6         | 1,417.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,888.0              | 87.90           | 177.80      | 11,373.6              | -1,845.7     | 13.3         | 1,492.8                 | 1.43                    | -0.84                  | -1.16                 |
| 12,983.0              | 84.80           | 176.50      | 11,379.6              | -1,940.4     | 18.0         | 1,567.1                 | 3.54                    | -3.26                  | -1.37                 |
| 13,078.0              | 88.50           | 177.50      | 11,385.2              | -2,035.0     | 23.0         | 1,641.2                 | 4.03                    | 3.89                   | 1.05                  |
| 13,174.0              | 89.30           | 177.40      | 11,387.0              | -2,130.9     | 27.3         | 1,716.6                 | 0.84                    | 0.83                   | -0.10                 |
| 13,269.0              | 88.70           | 177.20      | 11,388.7              | -2,225.8     | 31.7         | 1,791.2                 | 0.67                    | -0.63                  | -0.21                 |
| 13,364.0              | 89.40           | 178.20      | 11,390.3              | -2,320.7     | 35.5         | 1,866.1                 | 1.28                    | 0.74                   | 1.05                  |
| 13,460.0              | 92.20           | 178.30      | 11,388.9              | -2,416.7     | 38.5         | 1,942.4                 | 2.92                    | 2.92                   | 0.10                  |
| 13,554.0              | 91.50           | 177.90      | 11,385.9              | -2,510.6     | 41.6         | 2,016.9                 | 0.86                    | -0.74                  | -0.43                 |
| 13,650.0              | 89.40           | 177.20      | 11,385.1              | -2,606.5     | 45.7         | 2,092.5                 | 2.31                    | -2.19                  | -0.73                 |
| 13,745.0              | 89.50           | 177.30      | 11,386.0              | -2,701.3     | 50.2         | 2,167.0                 | 0.15                    | 0.11                   | 0.11                  |
| 13,840.0              | 89.10           | 177.40      | 11,387.2              | -2,796.2     | 54.6         | 2,241.6                 | 0.43                    | -0.42                  | 0.11                  |
| 13,935.0              | 90.20           | 176.60      | 11,387.8              | -2,891.1     | 59.6         | 2,315.8                 | 1.43                    | 1.16                   | -0.84                 |
| 14,030.0              | 89.90           | 176.80      | 11,387.7              | -2,985.9     | 65.1         | 2,389.8                 | 0.38                    | -0.32                  | 0.21                  |
| 14,125.0              | 92.40           | 178.40      | 11,385.8              | -3,080.8     | 69.1         | 2,464.6                 | 3.12                    | 2.63                   | 1.68                  |
| 14,219.0              | 91.40           | 178.20      | 11,382.7              | -3,174.7     | 71.8         | 2,539.3                 | 1.08                    | -1.06                  | -0.21                 |
| 14,314.0              | 91.80           | 178.20      | 11,380.0              | -3,269.7     | 74.8         | 2,614.8                 | 0.42                    | 0.42                   | 0.00                  |
| 14,410.0              | 90.60           | 178.00      | 11,378.0              | -3,365.6     | 78.0         | 2,690.9                 | 1.27                    | -1.25                  | -0.21                 |
| 14,505.0              | 90.80           | 178.20      | 11,376.8              | -3,460.5     | 81.2         | 2,766.3                 | 0.30                    | 0.21                   | 0.21                  |
| 14,600.0              | 93.10           | 179.70      | 11,373.6              | -3,555.4     | 82.9         | 2,842.4                 | 2.89                    | 2.42                   | 1.58                  |
| 14,695.0              | 89.90           | 183.10      | 11,371.1              | -3,650.4     | 80.6         | 2,920.9                 | 4.91                    | -3.37                  | 3.58                  |
| 14,790.0              | 89.90           | 184.10      | 11,371.3              | -3,745.2     | 74.6         | 3,001.5                 | 1.05                    | 0.00                   | 1.05                  |
| 14,886.0              | 88.40           | 184.00      | 11,372.7              | -3,840.9     | 67.8         | 3,083.3                 | 1.57                    | -1.56                  | -0.10                 |
| 14,981.0              | 88.70           | 184.50      | 11,375.1              | -3,935.6     | 60.8         | 3,164.4                 | 0.61                    | 0.32                   | 0.53                  |
| 15,077.0              | 89.20           | 185.10      | 11,376.9              | -4,031.3     | 52.8         | 3,246.8                 | 0.81                    | 0.52                   | 0.63                  |
| 15,188.0              | 89.20           | 185.10      | 11,378.4              | -4,141.8     | 42.9         | 3,342.4                 | 0.00                    | 0.00                   | 0.00                  |

15188' MD Projected to Bit



|           |                                                |                              |                                        |
|-----------|------------------------------------------------|------------------------------|----------------------------------------|
| Company:  | Mewbourne Oil Company                          | Local Co-ordinate Reference: | Well Pronghorn 15 B3DM Fed Com 1H      |
| Project:  | Lea County N.M.                                | TYD Reference:               | 3402 + 27 @ 3429.0usft (Patterson 231) |
| Site:     | Section15-23S-34E Pronghorn 15 B3Dm Fed Com 1H | MD Reference:                | 3402 + 27 @ 3429.0usft (Patterson 231) |
| Well:     | Pronghorn 15 B3DM Fed Com 1H                   | North Reference:             | Grid                                   |
| Wellbore: | Original Hole                                  | Survey Calculation Method:   | Minimum Curvature                      |
| Design:   | Original Hole                                  | Database:                    | Stryker_EDM                            |

## Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                    |
|-----------------------------|-----------------------------|-------------------|-----------------|----------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                            |
| 10,535.0                    | 10,526.4                    | -45.4             | -20.7           | 10535' MD Phoenix Gyro     |
| 15,188.0                    | 11,378.4                    | -4,141.8          | 42.9            | 15188' MD Projected to Bit |



March 7, 2017

New Mexico Energy, Minerals and Natural Resources Department  
Attn: Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Attn: Jackie Lathan

Re: Mewbourne Oil Company  
Pronghorn 15 B3DM Federal Com #001H  
Antelope Ridge; Bone Spring, West  
Lea County, New Mexico  
API# 30-025-42968

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

| <u>Name &amp; Title</u> | <u>Drainhole No.</u> | <u>Survey Depths</u>   | <u>Dates Performed</u> | <u>Type Survey</u> |
|-------------------------|----------------------|------------------------|------------------------|--------------------|
| Keith Broussard         | Original Hole        | 10,702ft. to 15,077ft. | 01-14-17 to 01-31-17   | MWD Survey         |

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

  
Todd Estes

Enclosures

CC:

Mewbourne Oil Company  
Attn: Frosty Lathan  
P.O. Box 5720  
Hobbs, NM 88241

Mewbourne Oil Company  
Attn: Robin Terrell  
P.O. Box 5720  
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Pronghorn 15 B3DM Federal Com #1H\M171001

**STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.**  
P.O. Box 1250  
Montgomery, TX 77356  
Office (936) 582-7296 \* Fax (936)-588-4163





March 7, 2017

**Survey Certification Report**

**STATE OF TEXAS**

**COUNTY OF Montgomery**

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of January 14, 2017, through January 31, 2017 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 10,702 feet to a depth of 15,077 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Pronghorn 15 B3DM Federal Com #001H well, API # 30-025-42968 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

**Todd Estes**

**STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.**

**STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.**

**P.O. Box 1250**

**Montgomery, TX 77356**

**Office (936) 582-7296 \* Fax (936)-588-4163**



Microsoft  
MWD Surveys



**Company:** Mewbourne Oil Company  
**Project:** Lea County N.M.  
**Site:** Section15-23S-34E Pronghorn 15 B3Dm Fed Cor  
**Well:** Pronghorn 15 B3DM Fed Com 1H  
**Wellbore:** Original Hole  
**Design:** Original Hole

**Local Co-ordinate Reference:** Well Pronghorn 15 B3DM Fed Com 1H  
**TVD Reference:** 3402 + 27 @ 3429.0usft (Patterson 231)  
**MD Reference:** 3402 + 27 @ 3429.0usft (Patterson 231)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Stryker\_EDM

**Project** Lea County N.M.

**Map System:** US State Plane 1927 (Exact solution)  
**Geo Datum:** NAD 1927 (NADCON CONUS)  
**Map Zone:** New Mexico East 3001

**System Datum:** Mean Sea Level

**Site** Section15-23S-34E Pronghorn 15 B3Dm Fed Com 1H

|                              |          |                     |                 |                          |                   |
|------------------------------|----------|---------------------|-----------------|--------------------------|-------------------|
| <b>Site Position:</b>        |          | <b>Northing:</b>    | 478,039.00 usft | <b>Latitude:</b>         | 32° 18' 40.519 N  |
| <b>From:</b>                 | Map      | <b>Easting:</b>     | 768,405.30 usft | <b>Longitude:</b>        | 103° 27' 52.422 W |
| <b>Position Uncertainty:</b> | 0.0 usft | <b>Slot Radius:</b> | 13-3/16 "       | <b>Grid Convergence:</b> | 0.46 °            |

**Well** Pronghorn 15 B3DM Fed Com 1H

|                             |             |          |                            |                 |                      |                   |
|-----------------------------|-------------|----------|----------------------------|-----------------|----------------------|-------------------|
| <b>Well Position</b>        | <b>+N-S</b> | 0.0 usft | <b>Northing:</b>           | 478,039.00 usft | <b>Latitude:</b>     | 32° 18' 40.519 N  |
|                             | <b>+E-W</b> | 0.0 usft | <b>Easting:</b>            | 768,405.30 usft | <b>Longitude:</b>    | 103° 27' 52.422 W |
| <b>Position Uncertainty</b> |             | 0.0 usft | <b>Wellhead Elevation:</b> | 27.0 usft       | <b>Ground Level:</b> | 3,402.0usft       |

**Wellbore** Original Hole

| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination<br/>(°)</b> | <b>Dip Angle<br/>(°)</b> | <b>Field Strength<br/>(nT)</b> |
|------------------|-------------------|--------------------|----------------------------|--------------------------|--------------------------------|
|                  | IGRF2015          | 12/29/2016         | 6.96                       | 60.17                    | 48,049.52734364                |

**Design** Original Hole

**Audit Notes:**

**Version:** 1.0      **Phase:** ACTUAL      **Tie On Depth:** 0.0

| <b>Vertical Section:</b> | <b>Depth From (TVD)<br/>(usft)</b> | <b>+N-S<br/>(usft)</b> | <b>+E-W<br/>(usft)</b> | <b>Direction<br/>(°)</b> |
|--------------------------|------------------------------------|------------------------|------------------------|--------------------------|
|                          | 0.0                                | 0.0                    | 0.0                    | 215.61                   |





# Microsoft MWD Surveys



**Company:** Mewbourne Oil Company  
**Project:** Lea County N.M.  
**Site:** Section15-23S-34E Pronghorn 15 B3Dm Fed Cor  
**Well:** Pronghorn 15 B3DM Fed Com 1H  
**Wellbore:** Original Hole  
**Design:** Original Hole

**Local Co-ordinate Reference:** Well Pronghorn 15 B3DM Fed Com 1H  
**TVD Reference:** 3402 + 27 @ 3429.0usft (Patterson 231)  
**MD Reference:** 3402 + 27 @ 3429.0usft (Patterson 231)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Stryker\_EDM

**Survey Program** Date 2/1/2017

| From (usft) | To (usft) | Survey (Wellbore)                   | Tool Name | Description                               |
|-------------|-----------|-------------------------------------|-----------|-------------------------------------------|
| 100.0       | 10,535.0  | Phoenix Tech Survey (Original Hole) | NSG-CT_WL | Continuous north-seeking gyro on wireline |
| 10,702.0    | 15,188.0  | MWD Survey (Original Hole)          | MWD       | MWD v3:standard declination               |

## Survey

| MD (usft) | Inc (") | Azi (azimuth) (") | TVD (usft) | N/S (usft) | E/W (usft) | Closure Distance (usft) | Closure Azimuth (") |        |
|-----------|---------|-------------------|------------|------------|------------|-------------------------|---------------------|--------|
| 10,535.0  | 2.83    | 298.16            | 10,526.4   | -45.4      | -20.7      | 49.9                    | 204.56              | Tie-In |
| 10,702.0  | 4.30    | 347.70            | 10,693.1   | -37.3      | -25.7      | 45.3                    | 214.56              |        |
| 10,766.0  | 1.50    | 316.90            | 10,757.1   | -34.4      | -26.8      | 43.6                    | 217.94              |        |
| 10,797.0  | 4.50    | 188.80            | 10,788.0   | -35.3      | -27.3      | 44.6                    | 217.69              |        |
| 10,829.0  | 10.60   | 187.20            | 10,819.7   | -39.4      | -27.8      | 48.3                    | 215.20              |        |
| 10,861.0  | 17.10   | 184.40            | 10,850.8   | -47.1      | -28.6      | 55.0                    | 211.24              |        |
| 10,892.0  | 20.70   | 182.10            | 10,880.1   | -57.1      | -29.1      | 64.1                    | 207.01              |        |
| 10,924.0  | 22.80   | 179.80            | 10,909.8   | -68.9      | -29.3      | 74.9                    | 203.02              |        |
| 10,955.0  | 25.00   | 178.20            | 10,938.2   | -81.5      | -29.1      | 86.5                    | 199.63              |        |
| 10,987.0  | 27.60   | 176.60            | 10,966.9   | -95.7      | -28.4      | 99.8                    | 196.54              |        |
| 11,019.0  | 29.90   | 174.70            | 10,994.9   | -111.0     | -27.2      | 114.3                   | 193.78              |        |
| 11,050.0  | 32.70   | 174.20            | 11,021.4   | -127.0     | -25.7      | 129.6                   | 191.43              |        |
| 11,082.0  | 35.10   | 174.80            | 11,048.0   | -144.8     | -24.0      | 146.8                   | 189.40              |        |
| 11,114.0  | 36.10   | 173.40            | 11,074.0   | -163.3     | -22.0      | 164.8                   | 187.69              |        |
| 11,145.0  | 38.10   | 172.30            | 11,098.7   | -181.9     | -19.7      | 182.9                   | 186.19              |        |
| 11,177.0  | 41.50   | 172.20            | 11,123.3   | -202.2     | -17.0      | 202.9                   | 184.79              |        |
| 11,208.0  | 45.30   | 174.50            | 11,145.8   | -223.3     | -14.5      | 223.8                   | 183.72              |        |
| 11,240.0  | 47.40   | 176.90            | 11,167.9   | -246.4     | -12.8      | 246.7                   | 182.97              |        |
| 11,272.0  | 49.50   | 178.40            | 11,189.1   | -270.3     | -11.8      | 270.6                   | 182.50              |        |
| 11,303.0  | 51.20   | 178.00            | 11,208.9   | -294.2     | -11.0      | 294.4                   | 182.15              |        |
| 11,335.0  | 53.30   | 177.30            | 11,228.5   | -319.5     | -10.0      | 319.6                   | 181.79              |        |



Microsoft  
MWD Surveys



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**Well:** Pronghorn 15 B3DM Fed Com 1H  
**Wellbore:** Original Hole  
**Design:** Original Hole

**Local Co-ordinate Reference:** Well Pronghorn 15 B3DM Fed Com 1H  
**TVD Reference:** 3402 + 27 @ 3429.0usft (Patterson 231)  
**MD Reference:** 3402 + 27 @ 3429.0usft (Patterson 231)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Stryker\_EDM

**Survey**

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) |
|--------------|------------|----------------------|---------------|---------------|---------------|----------------------------|------------------------|
| 11,367.0     | 56.60      | 177.40               | 11,246.9      | -345.6        | -8.8          | 345.7                      | 181.46                 |
| 11,398.0     | 60.40      | 178.40               | 11,263.1      | -372.0        | -7.8          | 372.1                      | 181.21                 |
| 11,430.0     | 63.70      | 178.50               | 11,278.1      | -400.3        | -7.1          | 400.4                      | 181.01                 |
| 11,462.0     | 66.50      | 178.60               | 11,291.5      | -429.3        | -6.3          | 429.4                      | 180.85                 |
| 11,493.0     | 68.40      | 179.20               | 11,303.4      | -457.9        | -5.8          | 458.0                      | 180.72                 |
| 11,525.0     | 69.00      | 179.40               | 11,315.0      | -487.7        | -5.4          | 487.8                      | 180.64                 |
| 11,557.0     | 72.40      | 179.80               | 11,325.6      | -517.9        | -5.2          | 518.0                      | 180.58                 |
| 11,589.0     | 77.40      | 181.00               | 11,334.0      | -548.8        | -5.4          | 548.8                      | 180.57                 |
| 11,621.0     | 80.40      | 181.00               | 11,340.1      | -580.2        | -6.0          | 580.2                      | 180.59                 |
| 11,652.0     | 83.30      | 180.00               | 11,344.5      | -610.9        | -6.2          | 610.9                      | 180.59                 |
| 11,748.0     | 88.10      | 178.80               | 11,351.7      | -706.6        | -5.2          | 706.6                      | 180.43                 |
| 11,844.0     | 87.80      | 178.80               | 11,355.1      | -802.5        | -3.2          | 802.5                      | 180.23                 |
| 11,939.0     | 87.80      | 178.90               | 11,358.8      | -897.4        | -1.3          | 897.4                      | 180.08                 |
| 12,033.0     | 87.40      | 178.90               | 11,362.7      | -991.3        | 0.5           | 991.3                      | 179.97                 |
| 12,128.0     | 88.70      | 179.80               | 11,366.0      | -1,086.3      | 1.6           | 1,086.3                    | 179.92                 |
| 12,223.0     | 87.20      | 178.90               | 11,369.4      | -1,181.2      | 2.6           | 1,181.2                    | 179.87                 |
| 12,318.0     | 86.70      | 177.90               | 11,374.4      | -1,276.0      | 5.3           | 1,276.0                    | 179.76                 |
| 12,413.0     | 91.90      | 179.70               | 11,375.6      | -1,370.9      | 7.3           | 1,371.0                    | 179.70                 |
| 12,508.0     | 92.30      | 179.80               | 11,372.1      | -1,465.9      | 7.7           | 1,465.9                    | 179.70                 |
| 12,603.0     | 91.60      | 180.00               | 11,368.9      | -1,560.8      | 7.8           | 1,560.8                    | 179.71                 |
| 12,698.0     | 88.70      | 178.90               | 11,368.6      | -1,655.8      | 8.8           | 1,655.8                    | 179.70                 |
| 12,793.0     | 88.70      | 178.90               | 11,370.8      | -1,750.8      | 10.6          | 1,750.8                    | 179.65                 |
| 12,888.0     | 87.90      | 177.80               | 11,373.6      | -1,845.7      | 13.3          | 1,845.7                    | 179.59                 |
| 12,983.0     | 84.80      | 175.50               | 11,379.6      | -1,940.4      | 18.0          | 1,940.4                    | 179.47                 |
| 13,078.0     | 88.50      | 177.50               | 11,385.2      | -2,035.0      | 23.0          | 2,035.2                    | 179.35                 |
| 13,174.0     | 89.30      | 177.40               | 11,387.0      | -2,130.9      | 27.3          | 2,131.1                    | 179.27                 |
| 13,269.0     | 88.70      | 177.20               | 11,388.7      | -2,225.8      | 31.7          | 2,226.0                    | 179.18                 |





Microsoft  
MWD Surveys



Company: Mewbourne Oil Company  
Project: Lea County N.M.  
Site: Section 15-23S-34E Pronghorn 15 B3DM Fed Cor  
Well: Pronghorn 15 B3DM Fed Com 1H  
Wellbore: Original Hole  
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3DM Fed Com 1H  
TVD Reference: 3402 + 27 @ 3429.0usft (Patterson 231)  
MD Reference: 3402 + 27 @ 3429.0usft (Patterson 231)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Stryker\_EDM

Survey

| MD<br>(usft) | Inc<br>(°) | Azi (azimuth)<br>(°) | TVD<br>(usft) | N/S<br>(usft) | E/W<br>(usft) | Closure Distance<br>(usft) | Closure Azimuth<br>(°) |
|--------------|------------|----------------------|---------------|---------------|---------------|----------------------------|------------------------|
| 13,364.0     | 89.40      | 178.20               | 11,390.3      | -2,320.7      | 35.5          | 2,321.0                    | 179.12                 |
| 13,460.0     | 92.20      | 178.30               | 11,388.9      | -2,416.7      | 38.5          | 2,417.0                    | 179.09                 |
| 13,554.0     | 91.50      | 177.90               | 11,385.9      | -2,510.6      | 41.6          | 2,510.9                    | 179.05                 |
| 13,650.0     | 89.40      | 177.20               | 11,385.1      | -2,606.5      | 45.7          | 2,606.9                    | 179.00                 |
| 13,745.0     | 89.50      | 177.30               | 11,386.0      | -2,701.3      | 50.2          | 2,701.8                    | 178.93                 |
| 13,840.0     | 89.10      | 177.40               | 11,387.2      | -2,796.2      | 54.6          | 2,796.8                    | 178.88                 |
| 13,935.0     | 90.20      | 176.60               | 11,387.8      | -2,891.1      | 59.6          | 2,891.7                    | 178.82                 |
| 14,030.0     | 89.90      | 176.80               | 11,387.7      | -2,985.9      | 65.1          | 2,986.7                    | 178.75                 |
| 14,125.0     | 92.40      | 178.40               | 11,385.8      | -3,080.8      | 69.1          | 3,081.6                    | 178.72                 |
| 14,219.0     | 91.40      | 178.20               | 11,382.7      | -3,174.7      | 71.8          | 3,175.6                    | 178.70                 |
| 14,314.0     | 91.80      | 178.20               | 11,380.0      | -3,269.7      | 74.8          | 3,270.5                    | 178.69                 |
| 14,410.0     | 90.60      | 178.00               | 11,378.0      | -3,365.6      | 78.0          | 3,366.5                    | 178.67                 |
| 14,505.0     | 90.80      | 178.20               | 11,376.8      | -3,460.5      | 81.2          | 3,461.5                    | 178.66                 |
| 14,600.0     | 93.10      | 179.70               | 11,373.6      | -3,555.4      | 82.9          | 3,556.4                    | 178.66                 |
| 14,695.0     | 89.90      | 183.10               | 11,371.1      | -3,650.4      | 80.6          | 3,651.2                    | 178.74                 |
| 14,790.0     | 89.90      | 184.10               | 11,371.3      | -3,745.2      | 74.6          | 3,745.9                    | 178.86                 |
| 14,886.0     | 88.40      | 184.00               | 11,372.7      | -3,840.9      | 67.8          | 3,841.5                    | 178.99                 |
| 14,981.0     | 88.70      | 184.50               | 11,375.1      | -3,935.6      | 60.8          | 3,936.1                    | 179.11                 |
| 15,077.0     | 89.20      | 185.10               | 11,376.9      | -4,031.3      | 52.8          | 4,031.6                    | 179.25                 |
| 15,188.0     | 89.20      | 185.10               | 11,378.4      | -4,141.8      | 42.9          | 4,142.0                    | 179.41                 |

15188' MD Projected to Bit

Survey Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                    |
|-----------------------------|-----------------------------|-------------------|-----------------|----------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                            |
| 15,188.0                    | 11,378.4                    | -4,141.8          | 42.9            | 15188' MD Projected to Bit |