

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

SEP 11 2017

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## **Mewbourne Oil Company**

**Eddy County, New Mexico**

**Armstrong 26-35 W1IP Fed Com #1H**

**Sec 26, T25S, R31E**

**SL: 2625' FNL & 380' FEL, Sec 26**

**BHL: 330' FSL & 990' FEL, Sec 35**

**Plan: Design #1**

## **Standard Planning Report**

**22 June, 2017**

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Armstrong 26-35 W11P Fed Com #1H  
**Well:** Sec 26, T25S, R31E  
**Wellbore:** BHL: 330' FSL & 990' FEL, Sec 35  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Armstrong 26-35 W11P Fed Com #1H  
**TVD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <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                 |                      |                |

|                       |                                  |              |                 |                   |                   |
|-----------------------|----------------------------------|--------------|-----------------|-------------------|-------------------|
| Site                  | Armstrong 26-35 W11P Fed Com #1H |              |                 |                   |                   |
| Site Position:        |                                  | Northing:    | 401,040.00 usft | Latitude:         | 32° 6' 4.283 N    |
| From:                 | Map                              | Easting:     | 683,437.00 usft | Longitude:        | 103° 44' 27.399 W |
| Position Uncertainty: | 0.0 usft                         | Slot Radius: | 13-3/16 "       | Grid Convergence: | 0.31 °            |

|                      |                    |          |                     |                 |               |                   |
|----------------------|--------------------|----------|---------------------|-----------------|---------------|-------------------|
| Well                 | Sec 26, T25S, R31E |          |                     |                 |               |                   |
| Well Position        | +N/-S              | 0.0 usft | Northing:           | 401,040.00 usft | Latitude:     | 32° 6' 4.283 N    |
|                      | +E/-W              | 0.0 usft | Easting:            | 683,437.00 usft | Longitude:    | 103° 44' 27.399 W |
| Position Uncertainty |                    | 0.0 usft | Wellhead Elevation: | 3,366.0 usft    | Ground Level: | 3,339.0 usft      |

|                  |                                  |                    |                        |                      |                            |
|------------------|----------------------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | BHL: 330' FSL & 990' FEL, Sec 35 |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b>                | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510                       | 12/31/2009         | 7.82                   | 60.10                | 48,700                     |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Design #1                      |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PROTOTYPE           | <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                  | 184.40               |

|                              |                        |                    |                              |                     |                     |                                |                               |                              |                |                      |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|-------------------------------|------------------------------|----------------|----------------------|
| <b>Plan Sections</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>Dogleg Rate (°/100usft)</b> | <b>Build Rate (°/100usft)</b> | <b>Turn Rate (°/100usft)</b> | <b>TFO (°)</b> | <b>Target</b>        |
| 0.0                          | 0.00                   | 0.00               | 0.0                          | 0.0                 | 0.0                 | 0.00                           | 0.00                          | 0.00                         | 0.00           |                      |
| 11,500.0                     | 0.00                   | 0.00               | 11,500.0                     | 0.0                 | 0.0                 | 0.00                           | 0.00                          | 0.00                         | 0.00           |                      |
| 12,079.9                     | 63.78                  | 252.63             | 11,967.3                     | -86.8               | -277.5              | 11.00                          | 11.00                         | 0.00                         | 252.63         |                      |
| 12,741.4                     | 90.37                  | 179.82             | 12,136.0                     | -578.0              | -608.0              | 11.31                          | 4.02                          | -11.01                       | -81.88         | LP: 2801' FSL & 990' |
| 19,774.6                     | 90.37                  | 179.82             | 12,091.0                     | -7,611.0            | -586.0              | 0.00                           | 0.00                          | 0.00                         | 0.00           | BHL: 330' FSL & 990' |

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Armstrong 26-35 W11P Fed Com #1H  
**Well:** Sec 26, T25S, R31E  
**Wellbore:** BHL: 330' FSL & 990' FEL, Sec 35  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Armstrong 26-35 W11P Fed Com #1H  
**TVD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)                | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|--------------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.0                                        | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>SL: 2625' FNL &amp; 380' FEL, Sec26</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 100.0                                      | 0.00               | 0.00           | 100.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 200.0                                      | 0.00               | 0.00           | 200.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 300.0                                      | 0.00               | 0.00           | 300.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 400.0                                      | 0.00               | 0.00           | 400.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 500.0                                      | 0.00               | 0.00           | 500.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 600.0                                      | 0.00               | 0.00           | 600.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 700.0                                      | 0.00               | 0.00           | 700.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 800.0                                      | 0.00               | 0.00           | 800.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 900.0                                      | 0.00               | 0.00           | 900.0                       | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,000.0                                    | 0.00               | 0.00           | 1,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,100.0                                    | 0.00               | 0.00           | 1,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,200.0                                    | 0.00               | 0.00           | 1,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,300.0                                    | 0.00               | 0.00           | 1,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,400.0                                    | 0.00               | 0.00           | 1,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,500.0                                    | 0.00               | 0.00           | 1,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,600.0                                    | 0.00               | 0.00           | 1,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,700.0                                    | 0.00               | 0.00           | 1,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,800.0                                    | 0.00               | 0.00           | 1,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,900.0                                    | 0.00               | 0.00           | 1,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,000.0                                    | 0.00               | 0.00           | 2,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,100.0                                    | 0.00               | 0.00           | 2,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,200.0                                    | 0.00               | 0.00           | 2,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,300.0                                    | 0.00               | 0.00           | 2,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,400.0                                    | 0.00               | 0.00           | 2,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,500.0                                    | 0.00               | 0.00           | 2,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,600.0                                    | 0.00               | 0.00           | 2,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,700.0                                    | 0.00               | 0.00           | 2,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,800.0                                    | 0.00               | 0.00           | 2,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,900.0                                    | 0.00               | 0.00           | 2,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,000.0                                    | 0.00               | 0.00           | 3,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,100.0                                    | 0.00               | 0.00           | 3,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,200.0                                    | 0.00               | 0.00           | 3,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,300.0                                    | 0.00               | 0.00           | 3,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,400.0                                    | 0.00               | 0.00           | 3,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,500.0                                    | 0.00               | 0.00           | 3,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,600.0                                    | 0.00               | 0.00           | 3,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,700.0                                    | 0.00               | 0.00           | 3,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,800.0                                    | 0.00               | 0.00           | 3,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,900.0                                    | 0.00               | 0.00           | 3,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,000.0                                    | 0.00               | 0.00           | 4,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,100.0                                    | 0.00               | 0.00           | 4,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,200.0                                    | 0.00               | 0.00           | 4,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,300.0                                    | 0.00               | 0.00           | 4,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,400.0                                    | 0.00               | 0.00           | 4,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,500.0                                    | 0.00               | 0.00           | 4,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,600.0                                    | 0.00               | 0.00           | 4,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,700.0                                    | 0.00               | 0.00           | 4,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,800.0                                    | 0.00               | 0.00           | 4,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,900.0                                    | 0.00               | 0.00           | 4,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,000.0                                    | 0.00               | 0.00           | 5,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,100.0                                    | 0.00               | 0.00           | 5,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,200.0                                    | 0.00               | 0.00           | 5,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Armstrong 26-35 W1IP Fed Com #1H  
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**Wellbore:** BHL: 330' FSL & 990' FEL, Sec 35  
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**MD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 5,300.0               | 0.00            | 0.00        | 5,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 5,400.0               | 0.00            | 0.00        | 5,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 5,500.0               | 0.00            | 0.00        | 5,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 5,600.0               | 0.00            | 0.00        | 5,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 5,700.0               | 0.00            | 0.00        | 5,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 5,800.0               | 0.00            | 0.00        | 5,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 5,900.0               | 0.00            | 0.00        | 5,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,000.0               | 0.00            | 0.00        | 6,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,100.0               | 0.00            | 0.00        | 6,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,200.0               | 0.00            | 0.00        | 6,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,300.0               | 0.00            | 0.00        | 6,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,400.0               | 0.00            | 0.00        | 6,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,500.0               | 0.00            | 0.00        | 6,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,600.0               | 0.00            | 0.00        | 6,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,700.0               | 0.00            | 0.00        | 6,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,800.0               | 0.00            | 0.00        | 6,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 6,900.0               | 0.00            | 0.00        | 6,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,000.0               | 0.00            | 0.00        | 7,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,100.0               | 0.00            | 0.00        | 7,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,200.0               | 0.00            | 0.00        | 7,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,300.0               | 0.00            | 0.00        | 7,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,400.0               | 0.00            | 0.00        | 7,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,500.0               | 0.00            | 0.00        | 7,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,600.0               | 0.00            | 0.00        | 7,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,700.0               | 0.00            | 0.00        | 7,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,800.0               | 0.00            | 0.00        | 7,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 7,900.0               | 0.00            | 0.00        | 7,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,000.0               | 0.00            | 0.00        | 8,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0               | 0.00            | 0.00        | 8,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0               | 0.00            | 0.00        | 8,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,300.0               | 0.00            | 0.00        | 8,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,400.0               | 0.00            | 0.00        | 8,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,500.0               | 0.00            | 0.00        | 8,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,600.0               | 0.00            | 0.00        | 8,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,700.0               | 0.00            | 0.00        | 8,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,800.0               | 0.00            | 0.00        | 8,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,900.0               | 0.00            | 0.00        | 8,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,000.0               | 0.00            | 0.00        | 9,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,100.0               | 0.00            | 0.00        | 9,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,200.0               | 0.00            | 0.00        | 9,200.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,300.0               | 0.00            | 0.00        | 9,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,400.0               | 0.00            | 0.00        | 9,400.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,500.0               | 0.00            | 0.00        | 9,500.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,600.0               | 0.00            | 0.00        | 9,600.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,700.0               | 0.00            | 0.00        | 9,700.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,800.0               | 0.00            | 0.00        | 9,800.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 9,900.0               | 0.00            | 0.00        | 9,900.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 10,000.0              | 0.00            | 0.00        | 10,000.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 10,100.0              | 0.00            | 0.00        | 10,100.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 10,200.0              | 0.00            | 0.00        | 10,200.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 10,300.0              | 0.00            | 0.00        | 10,300.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 10,400.0              | 0.00            | 0.00        | 10,400.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 10,500.0              | 0.00            | 0.00        | 10,500.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 10,600.0              | 0.00            | 0.00        | 10,600.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Armstrong 26-35 W1IP Fed Com #1H  
**Well:** Sec 26, T25S, R31E  
**Wellbore:** BHL: 330' FSL & 990' FEL, Sec 35  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Armstrong 26-35 W1IP Fed Com #1H  
**TVD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)                  | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|----------------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 10,700.0                                     | 0.00               | 0.00           | 10,700.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 10,800.0                                     | 0.00               | 0.00           | 10,800.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 10,900.0                                     | 0.00               | 0.00           | 10,900.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 11,000.0                                     | 0.00               | 0.00           | 11,000.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 11,100.0                                     | 0.00               | 0.00           | 11,100.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 11,200.0                                     | 0.00               | 0.00           | 11,200.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 11,300.0                                     | 0.00               | 0.00           | 11,300.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 11,400.0                                     | 0.00               | 0.00           | 11,400.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 11,500.0                                     | 0.00               | 0.00           | 11,500.0                    | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>KOP @ 11500'</b>                          |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 11,600.0                                     | 11.00              | 252.63         | 11,599.4                    | -2.9            | -9.1            | 3.5                           | 11.00                         | 11.00                        | 0.00                        |
| 11,700.0                                     | 22.00              | 252.63         | 11,695.1                    | -11.3           | -36.2           | 14.1                          | 11.00                         | 11.00                        | 0.00                        |
| 11,800.0                                     | 33.00              | 252.63         | 11,783.7                    | -25.1           | -80.2           | 31.2                          | 11.00                         | 11.00                        | 0.00                        |
| 11,900.0                                     | 44.00              | 252.63         | 11,861.8                    | -43.6           | -139.5          | 54.2                          | 11.00                         | 11.00                        | 0.00                        |
| 12,000.0                                     | 55.00              | 252.63         | 11,926.7                    | -66.3           | -212.0          | 82.4                          | 11.00                         | 11.00                        | 0.00                        |
| 12,079.9                                     | 63.78              | 252.63         | 11,967.3                    | -86.8           | -277.5          | 107.9                         | 11.00                         | 11.00                        | 0.00                        |
| 12,100.0                                     | 64.12              | 250.12         | 11,976.2                    | -92.6           | -294.6          | 114.9                         | 11.31                         | 1.70                         | -12.44                      |
| 12,200.0                                     | 66.44              | 237.94         | 12,018.1                    | -132.3          | -376.1          | 160.8                         | 11.31                         | 2.32                         | -12.19                      |
| 12,300.0                                     | 69.67              | 226.25         | 12,055.6                    | -189.3          | -449.0          | 223.2                         | 11.31                         | 3.23                         | -11.69                      |
| 12,400.0                                     | 73.64              | 215.09         | 12,087.1                    | -261.2          | -510.7          | 299.6                         | 11.31                         | 3.97                         | -11.16                      |
| 12,499.7                                     | 78.15              | 204.44         | 12,111.5                    | -345.0          | -558.5          | 386.9                         | 11.31                         | 4.53                         | -10.68                      |
| <b>FTP: 2311' FSL &amp; 939' FEL, Sec 26</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 12,500.0                                     | 78.17              | 204.41         | 12,111.6                    | -345.3          | -558.6          | 387.1                         | 11.31                         | 4.75                         | -10.48                      |
| 12,600.0                                     | 83.08              | 194.09         | 12,127.9                    | -438.3          | -591.0          | 482.4                         | 11.31                         | 4.92                         | -10.32                      |
| 12,700.0                                     | 88.21              | 183.98         | 12,135.5                    | -536.6          | -606.6          | 581.6                         | 11.31                         | 5.13                         | -10.11                      |
| 12,741.4                                     | 90.37              | 179.82         | 12,136.0                    | -578.0          | -608.0          | 623.0                         | 11.31                         | 5.19                         | -10.04                      |
| <b>LP: 2801' FSL &amp; 990' FEL, Sec 26</b>  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 12,800.0                                     | 90.37              | 179.82         | 12,135.6                    | -636.6          | -607.8          | 681.3                         | 0.00                          | 0.00                         | 0.00                        |
| 12,900.0                                     | 90.37              | 179.82         | 12,135.0                    | -736.6          | -607.5          | 781.0                         | 0.00                          | 0.00                         | 0.00                        |
| 13,000.0                                     | 90.37              | 179.82         | 12,134.3                    | -836.6          | -607.2          | 880.7                         | 0.00                          | 0.00                         | 0.00                        |
| 13,100.0                                     | 90.37              | 179.82         | 12,133.7                    | -936.6          | -606.9          | 980.4                         | 0.00                          | 0.00                         | 0.00                        |
| 13,200.0                                     | 90.37              | 179.82         | 12,133.1                    | -1,036.6        | -606.6          | 1,080.1                       | 0.00                          | 0.00                         | 0.00                        |
| 13,300.0                                     | 90.37              | 179.82         | 12,132.4                    | -1,136.6        | -606.3          | 1,179.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,400.0                                     | 90.37              | 179.82         | 12,131.8                    | -1,236.6        | -605.9          | 1,279.4                       | 0.00                          | 0.00                         | 0.00                        |
| 13,500.0                                     | 90.37              | 179.82         | 12,131.1                    | -1,336.5        | -605.6          | 1,379.1                       | 0.00                          | 0.00                         | 0.00                        |
| 13,600.0                                     | 90.37              | 179.82         | 12,130.5                    | -1,436.5        | -605.3          | 1,478.8                       | 0.00                          | 0.00                         | 0.00                        |
| 13,700.0                                     | 90.37              | 179.82         | 12,129.9                    | -1,536.5        | -605.0          | 1,578.5                       | 0.00                          | 0.00                         | 0.00                        |
| 13,800.0                                     | 90.37              | 179.82         | 12,129.2                    | -1,636.5        | -604.7          | 1,678.1                       | 0.00                          | 0.00                         | 0.00                        |
| 13,900.0                                     | 90.37              | 179.82         | 12,128.6                    | -1,736.5        | -604.4          | 1,777.8                       | 0.00                          | 0.00                         | 0.00                        |
| 14,000.0                                     | 90.37              | 179.82         | 12,127.9                    | -1,836.5        | -604.1          | 1,877.5                       | 0.00                          | 0.00                         | 0.00                        |
| 14,100.0                                     | 90.37              | 179.82         | 12,127.3                    | -1,936.5        | -603.8          | 1,977.2                       | 0.00                          | 0.00                         | 0.00                        |
| 14,200.0                                     | 90.37              | 179.82         | 12,126.7                    | -2,036.5        | -603.4          | 2,076.8                       | 0.00                          | 0.00                         | 0.00                        |
| 14,300.0                                     | 90.37              | 179.82         | 12,126.0                    | -2,136.5        | -603.1          | 2,176.5                       | 0.00                          | 0.00                         | 0.00                        |
| 14,400.0                                     | 90.37              | 179.82         | 12,125.4                    | -2,236.5        | -602.8          | 2,276.2                       | 0.00                          | 0.00                         | 0.00                        |
| 14,500.0                                     | 90.37              | 179.82         | 12,124.7                    | -2,336.5        | -602.5          | 2,375.9                       | 0.00                          | 0.00                         | 0.00                        |
| 14,600.0                                     | 90.37              | 179.82         | 12,124.1                    | -2,436.5        | -602.2          | 2,475.6                       | 0.00                          | 0.00                         | 0.00                        |
| 14,700.0                                     | 90.37              | 179.82         | 12,123.5                    | -2,536.5        | -601.9          | 2,575.2                       | 0.00                          | 0.00                         | 0.00                        |
| 14,800.0                                     | 90.37              | 179.82         | 12,122.8                    | -2,636.5        | -601.6          | 2,674.9                       | 0.00                          | 0.00                         | 0.00                        |
| 14,900.0                                     | 90.37              | 179.82         | 12,122.2                    | -2,736.5        | -601.2          | 2,774.6                       | 0.00                          | 0.00                         | 0.00                        |
| 15,000.0                                     | 90.37              | 179.82         | 12,121.5                    | -2,836.5        | -600.9          | 2,874.3                       | 0.00                          | 0.00                         | 0.00                        |
| 15,100.0                                     | 90.37              | 179.82         | 12,120.9                    | -2,936.5        | -600.6          | 2,974.0                       | 0.00                          | 0.00                         | 0.00                        |
| 15,200.0                                     | 90.37              | 179.82         | 12,120.3                    | -3,036.5        | -600.3          | 3,073.6                       | 0.00                          | 0.00                         | 0.00                        |
| 15,300.0                                     | 90.37              | 179.82         | 12,119.6                    | -3,136.5        | -600.0          | 3,173.3                       | 0.00                          | 0.00                         | 0.00                        |

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Armstrong 26-35 W1IP Fed Com #1H  
**Well:** Sec 26, T25S, R31E  
**Wellbore:** BHL: 330' FSL & 990' FEL, Sec 35  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Armstrong 26-35 W1IP Fed Com #1H  
**TVD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 15,400.0                    | 90.37              | 179.82         | 12,119.0                    | -3,236.5        | -599.7          | 3,273.0                       | 0.00                          | 0.00                         | 0.00                        |
| 15,500.0                    | 90.37              | 179.82         | 12,118.3                    | -3,336.5        | -599.4          | 3,372.7                       | 0.00                          | 0.00                         | 0.00                        |
| 15,600.0                    | 90.37              | 179.82         | 12,117.7                    | -3,436.5        | -599.1          | 3,472.3                       | 0.00                          | 0.00                         | 0.00                        |
| 15,700.0                    | 90.37              | 179.82         | 12,117.1                    | -3,536.5        | -598.7          | 3,572.0                       | 0.00                          | 0.00                         | 0.00                        |
| 15,800.0                    | 90.37              | 179.82         | 12,116.4                    | -3,636.5        | -598.4          | 3,671.7                       | 0.00                          | 0.00                         | 0.00                        |
| 15,900.0                    | 90.37              | 179.82         | 12,115.8                    | -3,736.5        | -598.1          | 3,771.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,000.0                    | 90.37              | 179.82         | 12,115.2                    | -3,836.5        | -597.8          | 3,871.1                       | 0.00                          | 0.00                         | 0.00                        |
| 16,100.0                    | 90.37              | 179.82         | 12,114.5                    | -3,936.5        | -597.5          | 3,970.7                       | 0.00                          | 0.00                         | 0.00                        |
| 16,200.0                    | 90.37              | 179.82         | 12,113.9                    | -4,036.5        | -597.2          | 4,070.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,300.0                    | 90.37              | 179.82         | 12,113.2                    | -4,136.5        | -596.9          | 4,170.1                       | 0.00                          | 0.00                         | 0.00                        |
| 16,400.0                    | 90.37              | 179.82         | 12,112.6                    | -4,236.5        | -596.6          | 4,269.8                       | 0.00                          | 0.00                         | 0.00                        |
| 16,500.0                    | 90.37              | 179.82         | 12,112.0                    | -4,336.5        | -596.2          | 4,369.4                       | 0.00                          | 0.00                         | 0.00                        |
| 16,600.0                    | 90.37              | 179.82         | 12,111.3                    | -4,436.5        | -595.9          | 4,469.1                       | 0.00                          | 0.00                         | 0.00                        |
| 16,700.0                    | 90.37              | 179.82         | 12,110.7                    | -4,536.5        | -595.6          | 4,568.8                       | 0.00                          | 0.00                         | 0.00                        |
| 16,800.0                    | 90.37              | 179.82         | 12,110.0                    | -4,636.5        | -595.3          | 4,668.5                       | 0.00                          | 0.00                         | 0.00                        |
| 16,900.0                    | 90.37              | 179.82         | 12,109.4                    | -4,736.5        | -595.0          | 4,768.2                       | 0.00                          | 0.00                         | 0.00                        |
| 17,000.0                    | 90.37              | 179.82         | 12,108.8                    | -4,836.5        | -594.7          | 4,867.8                       | 0.00                          | 0.00                         | 0.00                        |
| 17,100.0                    | 90.37              | 179.82         | 12,108.1                    | -4,936.5        | -594.4          | 4,967.5                       | 0.00                          | 0.00                         | 0.00                        |
| 17,200.0                    | 90.37              | 179.82         | 12,107.5                    | -5,036.5        | -594.1          | 5,067.2                       | 0.00                          | 0.00                         | 0.00                        |
| 17,300.0                    | 90.37              | 179.82         | 12,106.8                    | -5,136.5        | -593.7          | 5,166.9                       | 0.00                          | 0.00                         | 0.00                        |
| 17,400.0                    | 90.37              | 179.82         | 12,106.2                    | -5,236.5        | -593.4          | 5,266.6                       | 0.00                          | 0.00                         | 0.00                        |
| 17,500.0                    | 90.37              | 179.82         | 12,105.6                    | -5,336.4        | -593.1          | 5,366.2                       | 0.00                          | 0.00                         | 0.00                        |
| 17,600.0                    | 90.37              | 179.82         | 12,104.9                    | -5,436.4        | -592.8          | 5,465.9                       | 0.00                          | 0.00                         | 0.00                        |
| 17,700.0                    | 90.37              | 179.82         | 12,104.3                    | -5,536.4        | -592.5          | 5,565.6                       | 0.00                          | 0.00                         | 0.00                        |
| 17,800.0                    | 90.37              | 179.82         | 12,103.6                    | -5,636.4        | -592.2          | 5,665.3                       | 0.00                          | 0.00                         | 0.00                        |
| 17,900.0                    | 90.37              | 179.82         | 12,103.0                    | -5,736.4        | -591.9          | 5,764.9                       | 0.00                          | 0.00                         | 0.00                        |
| 18,000.0                    | 90.37              | 179.82         | 12,102.4                    | -5,836.4        | -591.6          | 5,864.6                       | 0.00                          | 0.00                         | 0.00                        |
| 18,100.0                    | 90.37              | 179.82         | 12,101.7                    | -5,936.4        | -591.2          | 5,964.3                       | 0.00                          | 0.00                         | 0.00                        |
| 18,200.0                    | 90.37              | 179.82         | 12,101.1                    | -6,036.4        | -590.9          | 6,064.0                       | 0.00                          | 0.00                         | 0.00                        |
| 18,300.0                    | 90.37              | 179.82         | 12,100.4                    | -6,136.4        | -590.6          | 6,163.7                       | 0.00                          | 0.00                         | 0.00                        |
| 18,400.0                    | 90.37              | 179.82         | 12,099.8                    | -6,236.4        | -590.3          | 6,263.3                       | 0.00                          | 0.00                         | 0.00                        |
| 18,500.0                    | 90.37              | 179.82         | 12,099.2                    | -6,336.4        | -590.0          | 6,363.0                       | 0.00                          | 0.00                         | 0.00                        |
| 18,600.0                    | 90.37              | 179.82         | 12,098.5                    | -6,436.4        | -589.7          | 6,462.7                       | 0.00                          | 0.00                         | 0.00                        |
| 18,700.0                    | 90.37              | 179.82         | 12,097.9                    | -6,536.4        | -589.4          | 6,562.4                       | 0.00                          | 0.00                         | 0.00                        |
| 18,800.0                    | 90.37              | 179.82         | 12,097.2                    | -6,636.4        | -589.0          | 6,662.1                       | 0.00                          | 0.00                         | 0.00                        |
| 18,900.0                    | 90.37              | 179.82         | 12,096.6                    | -6,736.4        | -588.7          | 6,761.7                       | 0.00                          | 0.00                         | 0.00                        |
| 19,000.0                    | 90.37              | 179.82         | 12,096.0                    | -6,836.4        | -588.4          | 6,861.4                       | 0.00                          | 0.00                         | 0.00                        |
| 19,100.0                    | 90.37              | 179.82         | 12,095.3                    | -6,936.4        | -588.1          | 6,961.1                       | 0.00                          | 0.00                         | 0.00                        |
| 19,200.0                    | 90.37              | 179.82         | 12,094.7                    | -7,036.4        | -587.8          | 7,060.8                       | 0.00                          | 0.00                         | 0.00                        |
| 19,300.0                    | 90.37              | 179.82         | 12,094.0                    | -7,136.4        | -587.5          | 7,160.4                       | 0.00                          | 0.00                         | 0.00                        |
| 19,400.0                    | 90.37              | 179.82         | 12,093.4                    | -7,236.4        | -587.2          | 7,260.1                       | 0.00                          | 0.00                         | 0.00                        |
| 19,500.0                    | 90.37              | 179.82         | 12,092.8                    | -7,336.4        | -586.9          | 7,359.8                       | 0.00                          | 0.00                         | 0.00                        |
| 19,600.0                    | 90.37              | 179.82         | 12,092.1                    | -7,436.4        | -586.5          | 7,459.5                       | 0.00                          | 0.00                         | 0.00                        |
| 19,700.0                    | 90.37              | 179.82         | 12,091.5                    | -7,536.4        | -586.2          | 7,559.2                       | 0.00                          | 0.00                         | 0.00                        |
| 19,774.6                    | 90.37              | 179.82         | 12,091.0                    | -7,611.0        | -586.0          | 7,633.5                       | 0.00                          | 0.00                         | 0.00                        |

BHL: 330' FSL & 990' FEL, Sec 35

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Armstrong 26-35 W11P Fed Com #1H  
**Well:** Sec 26, T25S, R31E  
**Wellbore:** BHL: 330' FSL & 990' FEL, Sec 35  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Armstrong 26-35 W11P Fed Com #1H  
**TVD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3366.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Design Targets

| Target Name<br>- hit/miss target<br>- Shape                     | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude        | Longitude         |
|-----------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|-----------------|-------------------|
| SL: 2625' FNL & 380' FE<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 0.0           | 0.0             | 0.0             | 401,040.00         | 683,437.00        | 32° 6' 4.283 N  | 103° 44' 27.399 W |
| KOP @ 11500'<br>- plan hits target center<br>- Point            | 0.00             | 0.00            | 11,500.0      | 0.0             | 0.0             | 401,040.00         | 683,437.00        | 32° 6' 4.283 N  | 103° 44' 27.399 W |
| BHL: 330' FSL & 990' FE<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 12,091.0      | -7,611.0        | -586.0          | 393,429.00         | 682,851.00        | 32° 4' 48.996 N | 103° 44' 34.695 W |
| FTP: 2311' FSL & 939' F<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 12,111.5      | -345.0          | -558.5          | 400,695.00         | 682,878.51        | 32° 6' 0.899 N  | 103° 44' 33.913 W |
| LP: 2801' FSL & 990' FE<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 12,136.0      | -578.0          | -608.0          | 400,462.00         | 682,829.00        | 32° 5' 58.596 N | 103° 44' 34.504 W |

## CONDITIONS OF APPROVAL

SEP 11 2017

|                       |                                    |          |
|-----------------------|------------------------------------|----------|
| OPERATOR'S NAME:      | Mewbourne Oil Company              | RECEIVED |
| LEASE NO.:            | NMNM19619                          |          |
| WELL NAME & NO.:      | 1H-Armstrong 26 35 W11P Fed Com    |          |
| SURFACE HOLE FOOTAGE: | 2625'/N & 380'/E                   |          |
| BOTTOM HOLE FOOTAGE:  | 330'/S & 990'/E Sec. 35            |          |
| LOCATION:             | Section 26, T.25 S., R.31 E., NMPM |          |
| COUNTY:               | Lea County, New Mexico             |          |

### A. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Operator has proposed a **multi-bowl wellhead assembly**. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi. 10M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.



- a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

CRW 082917