

OPERATOR  
WELL/LEASE  
COUNTY

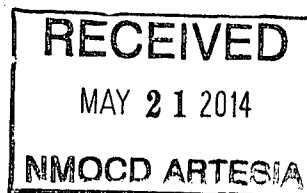
MEWBOURNE OIL COMPANY  
Delaware Ranch 12 MD Fed Com 1H  
EDDY

075-0104

STATE OF NEW MEXICO  
DEVIATION REPORT

15-42081

|       |      |
|-------|------|
| 413   | 1.96 |
| 516   | 1.80 |
| 848   | 1.30 |
| 1,262 | 1.20 |
| 1,730 | 0.80 |
| 2,004 | 2.30 |
| 2,101 | 3.40 |
| 2,196 | 2.80 |
| 2,130 | 3.00 |
| 2,226 | 3.20 |
| 2,162 | 2.50 |
| 2,257 | 2.90 |
| 2,386 | 3.10 |
| 2,449 | 3.30 |
| 2,480 | 3.10 |
| 2,537 | 2.40 |
| 2,874 | 1.74 |
| 3,284 | 0.89 |
| 3,666 | 0.36 |
| 4,332 | 0.31 |
| 4,778 | 0.40 |
| 5,188 | 0.35 |
| 5,600 | 0.94 |
| 6,013 | 1.49 |
| 6,240 | 1.77 |
| 6,456 | 0.80 |
| 6,712 | 1.07 |
| 6,969 | 1.88 |
| 7,221 | 2.21 |
| 7,469 | 1.94 |
| 7,760 | 1.33 |
| 8,012 | 0.72 |
| 8,261 | 0.59 |
| 8,701 | 1.20 |
| 8,955 | 1.50 |
| 9,462 | 1.80 |



BY:

*Daisy Carrillo*

STATE OF TEXAS

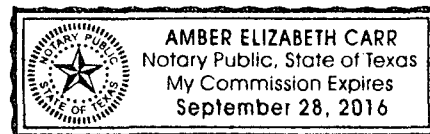
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on  
Daisy Carrillo on behalf of Patterson-UTI Drilling Company LLC.

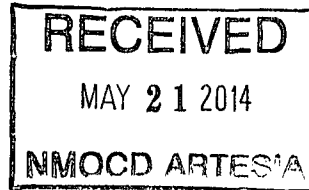
5/8/14, by

*Amber Carr*

Notary Public for Midland County, Texas  
My Commission Expires:



15-42081



## **Mewbourne Oil Co**

**Eddy County, New Mexico**

**Sec 12, T26S, R28E**

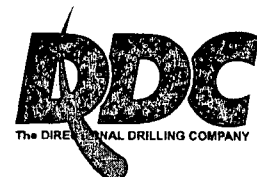
**Delaware Ranch 12 MD Fed Com #1H**

**Wellbore #1**

**Design: Wellbore #1**

## **DDC Survey Report**

**14 April, 2014**



DDC  
Survey Report



|           |                                  |                              |                                       |
|-----------|----------------------------------|------------------------------|---------------------------------------|
| Company:  | Mewbourne Oil Co.                | Local Co-ordinate Reference: | Well Delaware Ranch 12 MD Fed Com #1H |
| Project:  | Eddy County, New Mexico          | TVD Reference:               | WELL @ 2967.0usft (Patterson #75)     |
| Site:     | Sec 12, T26S, R28E               | MD Reference:                | WELL @ 2967.0usft (Patterson #75)     |
| Well:     | Delaware Ranch 12 MD Fed Com #1H | North Reference:             | Grid                                  |
| Wellbore: | Wellbore #1                      | Survey Calculation Method:   | Minimum Curvature                     |
| Design:   | Wellbore #1                      | Database:                    | EDM 5000.1 Single User Db             |

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

|                          |          |              |                 |                   |                  |
|--------------------------|----------|--------------|-----------------|-------------------|------------------|
| Site: Sec 12, T26S, R28E |          |              |                 |                   |                  |
| Site Position:           |          | Northing:    | 382,174.62 usft | Latitude:         | 32° 3' 1.399 N   |
| From:                    | Map      | Easting:     | 588,852.66 usft | Longitude:        | 104° 2' 47.582 W |
| Position Uncertainty:    | 0.0 usft | Slot Radius: | 13-3/16 "       | Grid Convergence: | 0.15 °           |

|                      |                                  |                     |           |                 |              |                  |
|----------------------|----------------------------------|---------------------|-----------|-----------------|--------------|------------------|
| Well:                | Delaware Ranch 12 MD Fed Com #1H |                     |           |                 |              |                  |
| Well Position        | +N/-S                            | 0.0 usft            | Northing: | 382,174.62 usft | Latitude:    | 32° 3' 1.399 N   |
|                      | +E/-W                            | 0.0 usft            | Easting:  | 588,852.66 usft | Longitude:   | 104° 2' 47.582 W |
| Position Uncertainty | 0.0 usft                         | Wellhead Elevation: | usft      | Ground Level:   | 2,947.0 usft |                  |

|             |            |             |                    |                  |                        |
|-------------|------------|-------------|--------------------|------------------|------------------------|
| Wellbore    |            |             |                    |                  |                        |
| Wellbore #1 |            |             |                    |                  |                        |
| Magnetics   | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|             | IGRF2010   | 3/12/2014   | 7.46               | 59.88            | 48,190                 |

|                   |                            |                 |                 |                   |
|-------------------|----------------------------|-----------------|-----------------|-------------------|
| Design:           | # Wellbore: #1             |                 |                 |                   |
| Audit Notes:      |                            |                 |                 |                   |
| Version:          | 1.0                        | Phase:          | ACTUAL          | Tie On Depth: 0.0 |
| Vertical Section: | Depth From (TVD)<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Direction<br>(°)  |
|                   | 0.0                        | 0.0             | 0.0             | 359.94            |

| Survey Program |              | Date               | 4/14/2014   |                |
|----------------|--------------|--------------------|-------------|----------------|
| From<br>(usft) | To<br>(usft) | Survey (Wellbore)  | Tool Name   | Description    |
| 100.0          | 9,900.0      | Gyro (Wellbore #1) | Good_gyro   | Good Gyro      |
| 9,955.0        | 15,160.0     | MWD (Wellbore #1)  | MWD default | MWD - Standard |

| Survey                | Wellbore #1     |             |                       |              |              |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |  |
| 100.0                 | 0.29            | 334.78      | 100.0                 | 0.2          | -0.1         | 0.2                     | 0.29                    | 0.29                   | 0.00                  |  |
| 200.0                 | 0.63            | 346.10      | 200.0                 | 1.0          | -0.3         | 1.0                     | 0.35                    | 0.34                   | 11.32                 |  |
| 300.0                 | 1.59            | 349.73      | 300.0                 | 2.9          | -0.7         | 2.9                     | 0.96                    | 0.96                   | 3.63                  |  |
| 400.0                 | 1.58            | 352.30      | 399.9                 | 5.6          | -1.2         | 5.6                     | 0.07                    | -0.01                  | 2.57                  |  |
| 500.0                 | 1.51            | 3.28        | 499.9                 | 8.3          | -1.3         | 8.3                     | 0.30                    | -0.07                  | 10.98                 |  |
| 600.0                 | 1.39            | 14.71       | 599.9                 | 10.8         | -0.9         | 10.8                    | 0.31                    | -0.12                  | 11.43                 |  |
| 700.0                 | 1.32            | 29.98       | 699.8                 | 13.0         | 0.0          | 13.0                    | 0.37                    | -0.07                  | 15.27                 |  |
| 800.0                 | 1.44            | 39.23       | 799.8                 | 14.9         | 1.4          | 14.9                    | 0.25                    | 0.12                   | 9.25                  |  |
| 900.0                 | 1.31            | 35.65       | 899.8                 | 16.8         | 2.8          | 16.8                    | 0.16                    | -0.13                  | -3.58                 |  |

**DDC**  
Survey Report



|           |                                  |                              |                                       |
|-----------|----------------------------------|------------------------------|---------------------------------------|
| Company:  | Mawbourne Oil Co.                | Local Co-ordinate Reference: | Well-Delaware Ranch 12 MD Fed Com #1H |
| Project:  | Eddy County New Mexico           | TVD Reference:               | WELL @ 2967.0usft (Patterson #75)     |
| Site:     | Sec 12 T26S R28E                 | MD Reference:                | WELL @ 2967.0usft (Patterson #75)     |
| Well:     | Delaware Ranch 12 MD Fed Com #1H | North Reference:             | Grid                                  |
| Wellbore: | Wellbore #1                      | Survey Calculation Method:   | Minimum Curvature                     |
| Design:   | Wellbore #1                      | Database:                    | EDM 5000.1 Single User Db             |

| 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) |
| 1,000.0               | 1.07            | 27.66       | 999.8                 | 18.6         | 3.9          | 18.6                    | 0.29                    | -0.24                  | -7.99                 |
| 1,100.0               | 0.94            | 21.58       | 1,099.7               | 20.2         | 4.7          | 20.2                    | 0.17                    | -0.13                  | -6.08                 |
| 1,200.0               | 0.73            | 11.09       | 1,199.7               | 21.6         | 5.1          | 21.6                    | 0.26                    | -0.21                  | -10.49                |
| 1,300.0               | 0.70            | 350.72      | 1,299.7               | 22.8         | 5.1          | 22.8                    | 0.25                    | -0.03                  | -20.37                |
| 1,400.0               | 0.59            | 331.61      | 1,399.7               | 23.9         | 4.8          | 23.8                    | 0.24                    | -0.11                  | -19.11                |
| 1,500.0               | 0.51            | 286.82      | 1,499.7               | 24.4         | 4.1          | 24.4                    | 0.43                    | -0.08                  | -44.79                |
| 1,600.0               | 0.22            | 235.66      | 1,599.7               | 24.5         | 3.5          | 24.5                    | 0.41                    | -0.29                  | -51.16                |
| 1,700.0               | 0.39            | 212.18      | 1,699.7               | 24.1         | 3.2          | 24.1                    | 0.21                    | 0.17                   | -23.48                |
| 1,800.0               | 0.53            | 174.18      | 1,799.7               | 23.3         | 3.0          | 23.3                    | 0.33                    | 0.14                   | -38.00                |
| 1,900.0               | 0.37            | 148.18      | 1,899.7               | 22.6         | 3.3          | 22.6                    | 0.26                    | -0.16                  | -26.00                |
| 2,000.0               | 2.19            | 93.10       | 1,999.7               | 22.2         | 5.3          | 22.2                    | 2.00                    | 1.82                   | -55.08                |
| 2,100.0               | 2.66            | 93.86       | 2,099.6               | 21.9         | 9.6          | 21.9                    | 0.47                    | 0.47                   | 0.76                  |
| 2,200.0               | 2.71            | 97.08       | 2,199.5               | 21.5         | 14.2         | 21.5                    | 0.16                    | 0.05                   | 3.22                  |
| 2,300.0               | 2.67            | 97.52       | 2,299.4               | 20.9         | 18.9         | 20.9                    | 0.05                    | -0.04                  | 0.44                  |
| 2,400.0               | 2.73            | 97.90       | 2,399.3               | 20.3         | 23.5         | 20.2                    | 0.06                    | 0.06                   | 0.38                  |
| 2,500.0               | 2.68            | 98.22       | 2,499.2               | 19.6         | 28.2         | 19.6                    | 0.05                    | -0.05                  | 0.32                  |
| 2,600.0               | 2.13            | 98.32       | 2,599.1               | 19.0         | 32.4         | 19.0                    | 0.55                    | -0.55                  | 0.10                  |
| 2,700.0               | 1.60            | 97.68       | 2,699.0               | 18.5         | 35.6         | 18.5                    | 0.53                    | -0.53                  | -0.64                 |
| 2,800.0               | 1.38            | 96.17       | 2,799.0               | 18.2         | 38.2         | 18.2                    | 0.22                    | -0.22                  | -1.51                 |
| 2,900.0               | 1.33            | 94.08       | 2,898.9               | 18.0         | 40.5         | 18.0                    | 0.07                    | -0.05                  | -2.09                 |
| 3,000.0               | 1.04            | 87.82       | 2,998.9               | 18.0         | 42.6         | 17.9                    | 0.32                    | -0.29                  | -6.26                 |
| 3,100.0               | 0.78            | 100.50      | 3,098.9               | 17.9         | 44.2         | 17.8                    | 0.33                    | -0.26                  | 12.68                 |
| 3,200.0               | 0.66            | 118.09      | 3,198.9               | 17.5         | 45.3         | 17.4                    | 0.25                    | -0.12                  | 17.59                 |
| 3,300.0               | 0.64            | 109.80      | 3,298.9               | 17.0         | 46.4         | 17.0                    | 0.10                    | -0.02                  | -8.29                 |
| 3,400.0               | 0.46            | 96.52       | 3,398.9               | 16.8         | 47.3         | 16.7                    | 0.22                    | -0.18                  | -13.28                |
| 3,500.0               | 0.25            | 139.91      | 3,498.9               | 16.6         | 47.8         | 16.5                    | 0.33                    | -0.21                  | 43.39                 |
| 3,600.0               | 0.31            | 141.07      | 3,598.9               | 16.2         | 48.2         | 16.1                    | 0.06                    | 0.06                   | 1.16                  |
| 3,700.0               | 0.22            | 137.58      | 3,698.9               | 15.8         | 48.5         | 15.8                    | 0.09                    | -0.09                  | -3.49                 |
| 3,800.0               | 0.12            | 176.92      | 3,798.9               | 15.6         | 48.6         | 15.5                    | 0.15                    | -0.10                  | 39.34                 |
| 3,900.0               | 0.30            | 230.80      | 3,898.9               | 15.3         | 48.4         | 15.3                    | 0.25                    | 0.18                   | 53.88                 |
| 4,000.0               | 0.37            | 227.98      | 3,998.9               | 14.9         | 47.9         | 14.9                    | 0.07                    | 0.07                   | -2.82                 |
| 4,100.0               | 0.37            | 224.05      | 4,098.9               | 14.5         | 47.5         | 14.4                    | 0.03                    | 0.00                   | -3.93                 |
| 4,200.0               | 0.39            | 211.14      | 4,198.9               | 14.0         | 47.1         | 13.9                    | 0.09                    | 0.02                   | -12.91                |
| 4,300.0               | 0.31            | 229.97      | 4,298.9               | 13.5         | 46.7         | 13.5                    | 0.14                    | -0.08                  | 18.83                 |
| 4,400.0               | 0.33            | 251.17      | 4,398.9               | 13.2         | 46.2         | 13.2                    | 0.12                    | 0.02                   | 21.20                 |
| 4,500.0               | 0.21            | 224.60      | 4,498.9               | 13.0         | 45.8         | 13.0                    | 0.17                    | -0.12                  | -26.57                |
| 4,600.0               | 0.18            | 218.58      | 4,598.9               | 12.8         | 45.6         | 12.7                    | 0.04                    | -0.03                  | -6.02                 |
| 4,700.0               | 0.26            | 196.23      | 4,698.9               | 12.4         | 45.4         | 12.4                    | 0.12                    | 0.08                   | -22.35                |
| 4,800.0               | 0.21            | 195.98      | 4,798.9               | 12.0         | 45.3         | 12.0                    | 0.05                    | -0.05                  | -0.25                 |
| 4,900.0               | 0.41            | 215.57      | 4,898.9               | 11.6         | 45.1         | 11.5                    | 0.22                    | 0.20                   | 19.59                 |
| 5,000.0               | 0.52            | 220.01      | 4,998.9               | 10.9         | 44.6         | 10.9                    | 0.12                    | 0.11                   | 4.44                  |
| 5,100.0               | 0.56            | 186.53      | 5,098.9               | 10.1         | 44.2         | 10.0                    | 0.31                    | 0.04                   | -33.48                |
| 5,200.0               | 0.52            | 204.97      | 5,198.9               | 9.2          | 44.0         | 9.2                     | 0.18                    | -0.04                  | 18.44                 |

DDC  
Survey Report



|           |                                  |                              |                                       |
|-----------|----------------------------------|------------------------------|---------------------------------------|
| Company:  | Mewbourne Oil Co.                | Local Co-ordinate Reference: | Well Delaware Ranch 12 MD.Fed.Com #1H |
| Project:  | Eddy County, New Mexico          | TVD Reference:               | WELL @ 2967.0usft (Patterson #75)     |
| Site:     | Sec 12, T26S, R28E               | MD Reference:                | WELL @ 2967.0usft (Patterson #75)     |
| Well:     | Delaware Ranch 12 MD.Fed.Com #1H | North Reference:             | Grid                                  |
| Wellbore: | Wellbore #1                      | Survey Calculation Method:   | Minimum Curvature                     |
| Design:   | Wellbore #1                      | Database:                    | EDM 5000.1 Single User Db             |

| 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               | 0.69            | 205.74      | 5,298.9               | 8.2         | 43.5        | 8.2                     | 0.17                    | 0.17                   | 0.77                  |
| 5,400.0               | 0.79            | 206.32      | 5,398.8               | 7.1         | 42.9        | 7.0                     | 0.10                    | 0.10                   | 0.58                  |
| 5,500.0               | 0.86            | 198.87      | 5,498.8               | 5.8         | 42.4        | 5.7                     | 0.13                    | 0.07                   | -7.45                 |
| 5,600.0               | 0.97            | 201.09      | 5,598.8               | 4.3         | 41.8        | 4.2                     | 0.12                    | 0.11                   | 2.22                  |
| 5,700.0               | 1.08            | 194.35      | 5,698.8               | 2.6         | 41.3        | 2.5                     | 0.16                    | 0.11                   | -6.74                 |
| 5,800.0               | 1.30            | 187.15      | 5,798.8               | 0.5         | 40.9        | 0.5                     | 0.27                    | 0.22                   | -7.20                 |
| 5,900.0               | 1.39            | 183.62      | 5,898.8               | -1.8        | 40.7        | -1.9                    | 0.12                    | 0.09                   | -3.53                 |
| 6,000.0               | 1.46            | 180.28      | 5,998.7               | -4.3        | 40.6        | -4.4                    | 0.11                    | 0.07                   | -3.34                 |
| 6,100.0               | 1.46            | 185.92      | 6,098.7               | -6.8        | 40.5        | -6.9                    | 0.14                    | 0.00                   | 5.64                  |
| 6,200.0               | 1.39            | 180.79      | 6,198.7               | -9.3        | 40.3        | -9.4                    | 0.15                    | -0.07                  | -5.13                 |
| 6,300.0               | 1.41            | 187.42      | 6,298.6               | -11.8       | 40.2        | -11.8                   | 0.16                    | 0.02                   | 6.63                  |
| 6,400.0               | 1.57            | 243.50      | 6,398.6               | -13.6       | 38.8        | -13.6                   | 1.41                    | 0.16                   | 56.08                 |
| 6,500.0               | 0.55            | 245.98      | 6,498.6               | -14.4       | 37.1        | -14.4                   | 1.02                    | -1.02                  | 2.48                  |
| 6,600.0               | 0.65            | 245.64      | 6,598.6               | -14.8       | 36.2        | -14.9                   | 0.10                    | 0.10                   | -0.34                 |
| 6,700.0               | 0.69            | 236.86      | 6,698.6               | -15.4       | 35.1        | -15.4                   | 0.11                    | 0.04                   | -8.78                 |
| 6,800.0               | 0.81            | 237.12      | 6,798.6               | -16.1       | 34.0        | -16.1                   | 0.12                    | 0.12                   | 0.26                  |
| 6,900.0               | 1.15            | 259.85      | 6,898.6               | -16.7       | 32.5        | -16.7                   | 0.51                    | 0.34                   | 22.73                 |
| 7,000.0               | 1.24            | 262.13      | 6,998.5               | -17.0       | 30.4        | -17.0                   | 0.10                    | 0.09                   | 2.28                  |
| 7,100.0               | 1.47            | 240.91      | 7,098.5               | -17.8       | 28.2        | -17.8                   | 0.55                    | 0.23                   | -21.22                |
| 7,200.0               | 1.91            | 248.07      | 7,198.5               | -19.0       | 25.5        | -19.0                   | 0.49                    | 0.44                   | 7.16                  |
| 7,300.0               | 1.95            | 272.49      | 7,298.4               | -19.6       | 22.3        | -19.6                   | 0.82                    | 0.04                   | 24.42                 |
| 7,400.0               | 1.98            | 276.24      | 7,398.3               | -19.3       | 18.9        | -19.3                   | 0.13                    | 0.03                   | 3.75                  |
| 7,500.0               | 1.54            | 275.19      | 7,498.3               | -19.0       | 15.8        | -19.0                   | 0.44                    | -0.44                  | -1.05                 |
| 7,600.0               | 1.68            | 278.89      | 7,598.3               | -18.6       | 13.0        | -18.7                   | 0.17                    | 0.14                   | 3.70                  |
| 7,700.0               | 1.44            | 282.36      | 7,698.2               | -18.1       | 10.4        | -18.2                   | 0.26                    | -0.24                  | 3.47                  |
| 7,800.0               | 0.95            | 283.92      | 7,798.2               | -17.7       | 8.3         | -17.7                   | 0.49                    | -0.49                  | 1.56                  |
| 7,900.0               | 0.40            | 234.82      | 7,898.2               | -17.7       | 7.2         | -17.7                   | 0.75                    | -0.55                  | -49.10                |
| 8,000.0               | 0.49            | 167.89      | 7,998.2               | -18.3       | 7.1         | -18.3                   | 0.50                    | 0.09                   | -66.93                |
| 8,100.0               | 0.68            | 143.86      | 8,098.2               | -19.2       | 7.5         | -19.2                   | 0.31                    | 0.19                   | -24.03                |
| 8,200.0               | 0.40            | 183.51      | 8,198.2               | -20.0       | 7.8         | -20.0                   | 0.45                    | -0.28                  | 39.65                 |
| 8,300.0               | 0.50            | 175.98      | 8,298.2               | -20.8       | 7.8         | -20.8                   | 0.12                    | 0.10                   | -7.53                 |
| 8,400.0               | 0.69            | 86.61       | 8,398.2               | -21.2       | 8.5         | -21.2                   | 0.85                    | 0.19                   | -89.37                |
| 8,500.0               | 0.21            | 93.98       | 8,498.2               | -21.2       | 9.2         | -21.2                   | 0.48                    | -0.48                  | 7.37                  |
| 8,600.0               | 0.86            | 210.56      | 8,598.2               | -21.8       | 9.0         | -21.8                   | 0.97                    | 0.65                   | 116.58                |
| 8,700.0               | 0.84            | 216.68      | 8,698.2               | -23.1       | 8.2         | -23.1                   | 0.09                    | -0.02                  | 6.12                  |
| 8,800.0               | 1.60            | 180.66      | 8,798.1               | -25.1       | 7.8         | -25.1                   | 1.04                    | 0.76                   | -36.02                |
| 8,900.0               | 1.53            | 178.61      | 8,898.1               | -27.8       | 7.8         | -27.8                   | 0.09                    | -0.07                  | -2.05                 |
| 9,000.0               | 1.38            | 177.75      | 8,998.1               | -30.3       | 7.9         | -30.3                   | 0.15                    | -0.15                  | -0.86                 |
| 9,100.0               | 1.49            | 179.31      | 9,098.0               | -32.8       | 7.9         | -32.8                   | 0.12                    | 0.11                   | 1.56                  |
| 9,200.0               | 1.33            | 178.57      | 9,198.0               | -35.3       | 8.0         | -35.3                   | 0.16                    | -0.16                  | -0.74                 |
| 9,300.0               | 1.47            | 182.10      | 9,298.0               | -37.7       | 8.0         | -37.7                   | 0.16                    | 0.14                   | 3.53                  |
| 9,400.0               | 1.56            | 179.62      | 9,397.9               | -40.4       | 7.9         | -40.4                   | 0.11                    | 0.09                   | -2.48                 |
| 9,500.0               | 1.54            | 181.76      | 9,497.9               | -43.1       | 7.9         | -43.1                   | 0.06                    | -0.02                  | 2.14                  |

DDC  
Survey Report



|           |                                  |                              |                                       |
|-----------|----------------------------------|------------------------------|---------------------------------------|
| Company:  | Mewbourne Oil Co                 | Local Co-ordinate Reference: | Well Delaware Ranch 12 MD Fed Com #1H |
| Project:  | Eddy County, New Mexico          | TVD Reference:               | WELL @ 2967.0usft (Patterson #75)     |
| Site:     | Sec 12, T26S, R28E               | MD Reference:                | WELL @ 2967.0usft (Patterson #75)     |
| Well:     | Delaware Ranch 12 MD Fed Com #1H | North Reference:             | Grid                                  |
| Wellbore: | Wellbore #1                      | Survey Calculation Method:   | Minimum Curvature                     |
| Design:   | Wellbore #1                      | Database:                    | EDM 5000.1 Single User Db             |

| Measured<br>Depth<br>(usft)                    | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|------------------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 9,600.0                                        | 1.44               | 189.85         | 9,597.9                     | -45.7           | 7.6             | -45.7                         | 0.23                          | -0.10                        | 8.09                        |
| 9,700.0                                        | 1.36               | 189.63         | 9,697.8                     | -48.1           | 7.2             | -48.1                         | 0.08                          | -0.08                        | -0.22                       |
| 9,800.0                                        | 0.89               | 196.96         | 9,797.8                     | -50.0           | 6.8             | -50.0                         | 0.49                          | -0.47                        | 7.33                        |
| TIE IN @ 9900' MD / 9898' TVD                  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,900.0                                        | 1.15               | 218.83         | 9,897.8                     | -51.5           | 5.9             | -51.5                         | 0.46                          | 0.26                         | 21.87                       |
| 9,955.0                                        | 1.20               | 215.80         | 9,952.8                     | -52.4           | 5.3             | -52.4                         | 0.14                          | 0.09                         | -5.51                       |
| 9,987.0                                        | 0.70               | 228.50         | 9,984.8                     | -52.8           | 4.9             | -52.8                         | 1.69                          | -1.56                        | 39.69                       |
| 10,019.0                                       | 1.90               | 343.00         | 10,016.8                    | -52.4           | 4.6             | -52.4                         | 7.13                          | 3.75                         | 357.81                      |
| 10,051.0                                       | 4.70               | 345.90         | 10,048.7                    | -50.6           | 4.1             | -50.7                         | 8.76                          | 8.75                         | 9.06                        |
| 10,082.0                                       | 7.10               | 344.20         | 10,079.6                    | -47.6           | 3.3             | -47.6                         | 7.76                          | 7.74                         | -5.48                       |
| 10,114.0                                       | 9.40               | 353.40         | 10,111.2                    | -43.1           | 2.5             | -43.1                         | 8.27                          | 7.19                         | 28.75                       |
| 10,146.0                                       | 11.60              | 352.60         | 10,142.7                    | -37.3           | 1.7             | -37.3                         | 6.89                          | 6.88                         | -2.50                       |
| 10,178.0                                       | 14.00              | 355.00         | 10,173.9                    | -30.2           | 1.0             | -30.2                         | 7.68                          | 7.50                         | 7.50                        |
| 10,209.0                                       | 16.20              | 359.10         | 10,203.8                    | -22.2           | 0.6             | -22.2                         | 7.88                          | 7.10                         | 13.23                       |
| 10,241.0                                       | 18.90              | 0.40           | 10,234.3                    | -12.5           | 0.6             | -12.5                         | 8.53                          | 8.44                         | 4.06                        |
| 10,272.0                                       | 21.10              | 359.70         | 10,263.5                    | -1.9            | 0.6             | -1.9                          | 7.14                          | 7.10                         | -2.26                       |
| 10,303.0                                       | 23.90              | 359.60         | 10,292.1                    | 9.9             | 0.5             | 9.9                           | 9.03                          | 9.03                         | -0.32                       |
| 10,335.0                                       | 27.20              | 357.80         | 10,321.0                    | 23.7            | 0.2             | 23.7                          | 10.59                         | 10.31                        | -5.63                       |
| 10,367.0                                       | 30.10              | 357.90         | 10,349.0                    | 39.1            | -0.4            | 39.1                          | 9.06                          | 9.06                         | 0.31                        |
| 10,399.0                                       | 32.20              | 356.00         | 10,376.4                    | 55.6            | -1.3            | 55.6                          | 7.24                          | 6.56                         | -5.94                       |
| 10,430.0                                       | 34.70              | 356.80         | 10,402.3                    | 72.6            | -2.4            | 72.6                          | 8.19                          | 8.06                         | 2.58                        |
| 10,462.0                                       | 37.80              | 356.00         | 10,428.1                    | 91.5            | -3.6            | 91.5                          | 9.80                          | 9.69                         | -2.50                       |
| CROSSED 33' HARD LINE @ 10476' MD / 10439' TVD |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 10,475.8                                       | 38.96              | 357.25         | 10,438.9                    | 100.1           | -4.1            | 100.1                         | 10.08                         | 8.38                         | 9.04                        |
| 10,494.0                                       | 40.50              | 358.80         | 10,452.9                    | 111.7           | -4.5            | 111.7                         | 10.08                         | 8.48                         | 8.53                        |
| 10,525.0                                       | 43.20              | 359.60         | 10,476.0                    | 132.4           | -4.7            | 132.4                         | 8.88                          | 8.71                         | 2.58                        |
| 10,557.0                                       | 45.80              | 1.70           | 10,498.8                    | 154.8           | -4.5            | 154.8                         | 9.34                          | 8.13                         | 6.56                        |
| 10,589.0                                       | 48.20              | 0.90           | 10,520.6                    | 178.2           | -3.9            | 178.2                         | 7.72                          | 7.50                         | -2.50                       |
| 10,620.0                                       | 52.50              | 0.70           | 10,540.4                    | 202.1           | -3.6            | 202.1                         | 13.88                         | 13.87                        | -0.65                       |
| 10,652.0                                       | 56.20              | 359.30         | 10,559.1                    | 228.1           | -3.6            | 228.1                         | 12.10                         | 11.56                        | -4.38                       |
| 10,684.0                                       | 59.90              | 358.00         | 10,576.0                    | 255.2           | -4.3            | 255.2                         | 12.07                         | 11.56                        | -4.06                       |
| 10,715.0                                       | 64.00              | 358.40         | 10,590.6                    | 282.5           | -5.1            | 282.5                         | 13.27                         | 13.23                        | 1.29                        |
| 10,747.0                                       | 67.80              | 357.40         | 10,603.6                    | 311.7           | -6.2            | 311.7                         | 12.21                         | 11.88                        | -3.13                       |
| 10,770.0                                       | 70.20              | 358.00         | 10,611.9                    | 333.2           | -7.1            | 333.2                         | 10.72                         | 10.43                        | 2.61                        |
| 10,860.0                                       | 75.50              | 357.90         | 10,638.4                    | 419.1           | -10.1           | 419.1                         | 5.89                          | 5.89                         | -0.11                       |
| 10,891.0                                       | 78.30              | 356.50         | 10,645.4                    | 449.2           | -11.6           | 449.2                         | 10.05                         | 9.03                         | -4.52                       |
| 10,923.0                                       | 80.20              | 355.40         | 10,651.4                    | 480.6           | -13.8           | 480.6                         | 6.83                          | 5.94                         | -3.44                       |
| 10,955.0                                       | 82.40              | 356.00         | 10,656.2                    | 512.1           | -16.2           | 512.2                         | 7.12                          | 6.88                         | 1.88                        |
| 10,986.0                                       | 85.30              | 356.60         | 10,659.6                    | 542.9           | -18.2           | 542.9                         | 9.55                          | 9.35                         | 1.94                        |
| 11,018.0                                       | 89.30              | 357.60         | 10,661.1                    | 574.8           | -19.8           | 574.8                         | 12.88                         | 12.50                        | 3.13                        |
| 11,050.0                                       | 91.60              | 358.70         | 10,660.8                    | 606.8           | -20.8           | 606.8                         | 7.97                          | 7.19                         | 3.44                        |
| 11,144.0                                       | 90.20              | 359.00         | 10,659.3                    | 700.8           | -22.7           | 700.8                         | 1.52                          | -1.49                        | 0.32                        |
| 11,239.0                                       | 87.70              | 0.40           | 10,661.1                    | 795.7           | -23.2           | 795.7                         | 3.02                          | -2.63                        | 1.47                        |
| 11,302.0                                       | 89.00              | 2.30           | 10,662.9                    | 858.7           | -21.7           | 858.7                         | 3.65                          | 2.06                         | 3.02                        |

**DDC**  
Survey Report



|                  |                                  |                                     |                                       |
|------------------|----------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co                 | <b>Local Co-ordinate Reference:</b> | Well Delaware Ranch 12 MD Fed Com #1H |
| <b>Project:</b>  | Eddy County, New Mexico          | <b>TVD Reference:</b>               | WELL @ 2967.0usft (Patterson #75)     |
| <b>Site:</b>     | Sec 12 N T26S R28E               | <b>MD Reference:</b>                | WELL @ 2967.0usft (Patterson #75)     |
| <b>Well:</b>     | Delaware Ranch 12 MD Fed Com #1H | <b>North Reference:</b>             | Grid                                  |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM 5000.1 Single User Db             |

| 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 11,366.0              | 89.80           | 1.70        | 10,663.6              | 922.6        | -19.5        | 922.7                   | 1.56                    | 1.25                   | -0.94                 |
| 11,429.0              | 91.60           | 1.10        | 10,662.8              | 985.6        | -18.0        | 985.6                   | 3.01                    | 2.86                   | -0.95                 |
| 11,493.0              | 90.10           | 359.80      | 10,661.9              | 1,049.6      | -17.5        | 1,049.6                 | 3.10                    | -2.34                  | -2.03                 |
| 11,556.0              | 90.20           | 358.30      | 10,661.7              | 1,112.6      | -18.5        | 1,112.6                 | 2.39                    | 0.16                   | -2.38                 |
| 11,619.0              | 89.50           | 357.70      | 10,661.9              | 1,175.5      | -20.7        | 1,175.6                 | 1.46                    | -1.11                  | -0.95                 |
| 11,682.0              | 89.40           | 0.70        | 10,662.5              | 1,238.5      | -21.6        | 1,238.5                 | 4.76                    | -0.16                  | 4.76                  |
| 11,745.0              | 90.20           | 3.10        | 10,662.7              | 1,301.5      | -19.5        | 1,301.5                 | 4.02                    | 1.27                   | 3.81                  |
| 11,808.0              | 88.00           | 2.20        | 10,663.7              | 1,364.4      | -16.6        | 1,364.4                 | 3.77                    | -3.49                  | -1.43                 |
| 11,871.0              | 88.60           | 2.20        | 10,665.5              | 1,427.3      | -14.2        | 1,427.3                 | 0.95                    | 0.95                   | 0.00                  |
| 11,934.0              | 88.90           | 1.20        | 10,666.9              | 1,490.3      | -12.3        | 1,490.3                 | 1.66                    | 0.48                   | -1.59                 |
| 11,997.0              | 90.40           | 1.30        | 10,667.3              | 1,553.3      | -10.9        | 1,553.3                 | 2.39                    | 2.38                   | 0.16                  |
| 12,061.0              | 90.80           | 359.20      | 10,666.6              | 1,617.3      | -10.6        | 1,617.3                 | 3.34                    | 0.63                   | -3.28                 |
| 12,124.0              | 89.90           | 359.90      | 10,666.2              | 1,680.3      | -11.1        | 1,680.3                 | 1.81                    | -1.43                  | 1.11                  |
| 12,187.0              | 89.20           | 359.80      | 10,666.7              | 1,743.3      | -11.3        | 1,743.3                 | 1.12                    | -1.11                  | -0.16                 |
| 12,250.0              | 91.90           | 359.60      | 10,666.1              | 1,806.2      | -11.6        | 1,806.3                 | 4.30                    | 4.29                   | -0.32                 |
| 12,313.0              | 90.20           | 359.30      | 10,665.0              | 1,869.2      | -12.2        | 1,869.2                 | 2.74                    | -2.70                  | -0.48                 |
| 12,376.0              | 90.60           | 359.50      | 10,664.5              | 1,932.2      | -12.9        | 1,932.2                 | 0.71                    | 0.63                   | 0.32                  |
| 12,439.0              | 89.60           | 359.90      | 10,664.4              | 1,995.2      | -13.2        | 1,995.2                 | 1.71                    | -1.59                  | 0.63                  |
| 12,503.0              | 88.70           | 0.60        | 10,665.4              | 2,059.2      | -13.0        | 2,059.2                 | 1.78                    | -1.41                  | 1.09                  |
| 12,566.0              | 87.70           | 0.10        | 10,667.4              | 2,122.2      | -12.6        | 2,122.2                 | 1.77                    | -1.59                  | -0.79                 |
| 12,629.0              | 87.50           | 0.00        | 10,670.0              | 2,185.1      | -12.5        | 2,185.1                 | 0.35                    | -0.32                  | -0.16                 |
| 12,692.0              | 87.80           | 1.10        | 10,672.6              | 2,248.1      | -11.9        | 2,248.1                 | 1.81                    | 0.48                   | 1.75                  |
| 12,756.0              | 89.10           | 0.40        | 10,674.3              | 2,312.0      | -11.1        | 2,312.1                 | 2.31                    | 2.03                   | -1.09                 |
| 12,819.0              | 89.70           | 0.60        | 10,675.0              | 2,375.0      | -10.5        | 2,375.0                 | 1.00                    | 0.95                   | 0.32                  |
| 12,882.0              | 89.80           | 0.40        | 10,675.2              | 2,438.0      | -10.0        | 2,438.0                 | 0.35                    | 0.16                   | -0.32                 |
| 12,945.0              | 91.30           | 1.30        | 10,674.6              | 2,501.0      | -9.0         | 2,501.0                 | 2.78                    | 2.38                   | 1.43                  |
| 13,008.0              | 91.50           | 2.10        | 10,673.1              | 2,564.0      | -7.2         | 2,564.0                 | 1.31                    | 0.32                   | 1.27                  |
| 13,071.0              | 91.20           | 2.00        | 10,671.6              | 2,626.9      | -4.9         | 2,626.9                 | 0.50                    | -0.48                  | -0.16                 |
| 13,134.0              | 90.80           | 1.10        | 10,670.5              | 2,689.9      | -3.2         | 2,689.9                 | 1.56                    | -0.63                  | -1.43                 |
| 13,197.0              | 91.40           | 1.50        | 10,669.3              | 2,752.9      | -1.8         | 2,752.9                 | 1.14                    | 0.95                   | 0.63                  |
| 13,260.0              | 90.90           | 1.80        | 10,668.0              | 2,815.8      | 0.0          | 2,815.8                 | 0.93                    | -0.79                  | 0.48                  |
| 13,324.0              | 90.10           | 1.00        | 10,667.5              | 2,879.8      | 1.6          | 2,879.8                 | 1.77                    | -1.25                  | -1.25                 |
| 13,387.0              | 89.80           | 1.90        | 10,667.5              | 2,942.8      | 3.2          | 2,942.8                 | 1.51                    | -0.48                  | 1.43                  |
| 13,450.0              | 90.30           | 3.50        | 10,667.5              | 3,005.7      | 6.2          | 3,005.7                 | 2.66                    | 0.79                   | 2.54                  |
| 13,513.0              | 91.40           | 5.80        | 10,666.5              | 3,068.5      | 11.3         | 3,068.5                 | 4.05                    | 1.75                   | 3.65                  |
| 13,576.0              | 91.30           | 6.00        | 10,665.1              | 3,131.1      | 17.7         | 3,131.1                 | 0.35                    | -0.16                  | 0.32                  |
| 13,640.0              | 89.80           | 6.40        | 10,664.4              | 3,194.7      | 24.6         | 3,194.7                 | 2.43                    | -2.34                  | 0.63                  |
| 13,703.0              | 88.20           | 5.40        | 10,665.5              | 3,257.4      | 31.1         | 3,257.4                 | 2.99                    | -2.54                  | -1.59                 |
| 13,767.0              | 89.50           | 7.10        | 10,666.8              | 3,321.0      | 38.1         | 3,321.0                 | 3.34                    | 2.03                   | 2.66                  |
| 13,830.0              | 87.60           | 6.50        | 10,668.4              | 3,383.5      | 45.5         | 3,383.5                 | 3.16                    | -3.02                  | -0.95                 |
| 13,893.0              | 87.30           | 7.10        | 10,671.2              | 3,446.0      | 53.0         | 3,446.0                 | 1.06                    | -0.48                  | 0.95                  |
| 13,956.0              | 86.30           | 6.20        | 10,674.7              | 3,508.5      | 60.3         | 3,508.4                 | 2.13                    | -1.59                  | -1.43                 |
| 13,988.0              | 85.90           | 5.10        | 10,676.9              | 3,540.3      | 63.4         | 3,540.2                 | 3.65                    | -1.25                  | -3.44                 |

**DDC**  
Survey Report



|                  |                                  |                                     |                                       |
|------------------|----------------------------------|-------------------------------------|---------------------------------------|
| <b>Company:</b>  | Mewbourne Oil Co.                | <b>Local Co-ordinate Reference:</b> | Well Delaware Ranch-12 MD Fed.Com #1H |
| <b>Project:</b>  | Eddy County, New Mexico          | <b>TVD Reference:</b>               | WELL @ 2967.0usft (Patterson #75)     |
| <b>Site:</b>     | Sec 12 T26S R28E                 | <b>MD Reference:</b>                | WELL @ 2967.0usft (Patterson #75)     |
| <b>Well:</b>     | Delaware Ranch-12 MD Fed.Com #1H | <b>North Reference:</b>             | Grid                                  |
| <b>Wellbore:</b> | Wellbore #1                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                     |
| <b>Design:</b>   | Wellbore #1                      | <b>Database:</b>                    | EDM 5000.1 Single User Db             |

| 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) |  |
| 14,020.0                    | 85.60              | 4.80           | 10,679.3                    | 3,572.1         | 66.2            | 3,572.0                       | 1.32                          | -0.94                        | -0.94                       |  |
| 14,051.0                    | 85.50              | 4.60           | 10,681.7                    | 3,602.9         | 68.7            | 3,602.8                       | 0.72                          | -0.32                        | -0.65                       |  |
| 14,083.0                    | 85.20              | 4.10           | 10,684.3                    | 3,634.7         | 71.1            | 3,634.6                       | 1.82                          | -0.94                        | -1.56                       |  |
| 14,114.0                    | 86.60              | 3.10           | 10,686.5                    | 3,665.5         | 73.1            | 3,665.5                       | 5.55                          | 4.52                         | -3.23                       |  |
| 14,146.0                    | 89.50              | 3.10           | 10,687.6                    | 3,697.5         | 74.8            | 3,697.4                       | 9.06                          | 9.06                         | 0.00                        |  |
| 14,178.0                    | 91.20              | 3.80           | 10,687.4                    | 3,729.4         | 76.7            | 3,729.3                       | 5.75                          | 5.31                         | 2.19                        |  |
| 14,241.0                    | 91.60              | 2.60           | 10,685.9                    | 3,792.3         | 80.2            | 3,792.2                       | 2.01                          | 0.63                         | -1.90                       |  |
| 14,273.0                    | 91.30              | 2.60           | 10,685.1                    | 3,824.2         | 81.7            | 3,824.2                       | 0.94                          | -0.94                        | 0.00                        |  |
| 14,336.0                    | 90.00              | 0.60           | 10,684.3                    | 3,887.2         | 83.5            | 3,887.1                       | 3.79                          | -2.06                        | -3.17                       |  |
| 14,399.0                    | 89.10              | 0.10           | 10,684.8                    | 3,950.2         | 83.8            | 3,950.1                       | 1.63                          | -1.43                        | -0.79                       |  |
| 14,462.0                    | 89.40              | 1.10           | 10,685.7                    | 4,013.2         | 84.5            | 4,013.1                       | 1.66                          | 0.48                         | 1.59                        |  |
| 14,525.0                    | 91.10              | 2.60           | 10,685.4                    | 4,076.2         | 86.5            | 4,076.1                       | 3.60                          | 2.70                         | 2.38                        |  |
| 14,589.0                    | 91.10              | 1.80           | 10,684.2                    | 4,140.1         | 89.0            | 4,140.0                       | 1.25                          | 0.00                         | -1.25                       |  |
| 14,652.0                    | 88.90              | 0.70           | 10,684.2                    | 4,203.1         | 90.4            | 4,203.0                       | 3.90                          | -3.49                        | -1.75                       |  |
| 14,715.0                    | 88.90              | 358.90         | 10,685.4                    | 4,266.1         | 90.1            | 4,266.0                       | 2.86                          | 0.00                         | -2.86                       |  |
| 14,778.0                    | 89.80              | 0.30           | 10,686.1                    | 4,329.1         | 89.7            | 4,329.0                       | 2.64                          | 1.43                         | 2.22                        |  |
| 14,841.0                    | 89.20              | 1.90           | 10,686.6                    | 4,392.0         | 90.9            | 4,391.9                       | 2.71                          | -0.95                        | 2.54                        |  |
| 14,905.0                    | 90.00              | 1.60           | 10,687.1                    | 4,456.0         | 92.9            | 4,455.9                       | 1.33                          | 1.25                         | -0.47                       |  |
| 14,968.0                    | 90.80              | 2.50           | 10,686.6                    | 4,519.0         | 95.1            | 4,518.9                       | 1.91                          | 1.27                         | 1.43                        |  |
| 15,031.0                    | 90.30              | 2.60           | 10,686.0                    | 4,581.9         | 97.9            | 4,581.8                       | 0.81                          | -0.79                        | 0.16                        |  |
| 15,095.0                    | 89.60              | 1.80           | 10,686.1                    | 4,645.9         | 100.4           | 4,645.7                       | 1.66                          | -1.09                        | -1.25                       |  |
| 15,109.0                    | 89.60              | 2.50           | 10,686.2                    | 4,659.8         | 100.9           | 4,659.7                       | 5.00                          | 0.00                         | 5.00                        |  |
| TD @ 15160' MD / 10687' TVD |                    |                |                             |                 |                 |                               |                               |                              |                             |  |
| 15,160.0                    | 89.50              | 2.50           | 10,686.6                    | 4,710.8         | 103.1           | 4,710.7                       | 0.20                          | -0.20                        | 0.00                        |  |

| Design Annotations          |                             |                   |                 |                                                |  |
|-----------------------------|-----------------------------|-------------------|-----------------|------------------------------------------------|--|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                        |  |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                                |  |
| 9,900.0                     | 9,897.8                     | -51.5             | 5.9             | TIE IN @ 9900' MD / 9898' TVD                  |  |
| 10,475.8                    | 10,438.9                    | 100.1             | -4.1            | CROSSED 33' HARD LINE @ 10476' MD / 10439' TVD |  |
| 15,160.0                    | 10,686.6                    | 4,710.8           | 103.1           | TD @ 15160' MD / 10687' TVD                    |  |

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

|                 |                  |
|-----------------|------------------|
| Company Rep     | Gary Sutton      |
| Field           | 0                |
| BOT Service Rep | Zach Blenkinsopp |



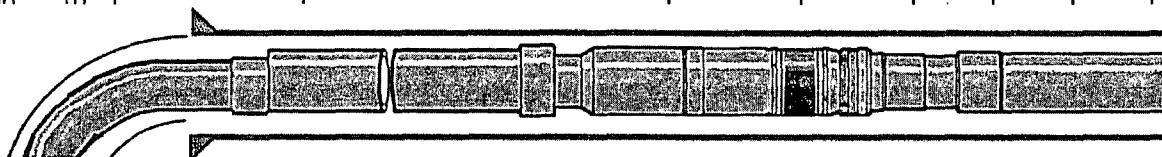
Date 4/17/2014

District Location Odessa, TX

|            | Size     | Weight | Grade  | ID    | Drift    | Thread    | Capacity  | Length   | Burst             | Collapse |
|------------|----------|--------|--------|-------|----------|-----------|-----------|----------|-------------------|----------|
| Casing     | 7.000    | 26.00  | 110000 | 6.276 | 6.151    | LTC / 8RD | 0.03826   | 7,990.00 | 9,960             | 6,230    |
| Top Liner  | 4.500    | 13.50  | 110000 | 3.920 | 3.795    | LTC / 8RD | 0.01493   | 4,367.20 | 12,410            | 10,690   |
| Bott Liner | 0.000    | 0.00   | 0      | 0.000 | 0.000    | 0         | 0.00000   | -        | -                 | -        |
| TVD        | 10686.00 |        | KOP    |       | 10079.00 |           | Open Hole | 6.125    | Casing Vol. (bbl) |          |

|                          |     |                       |  |                    |   |
|--------------------------|-----|-----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.4 | Propant Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|-----------------------|--|--------------------|---|

|              | Comm. Number | Description                       | Depth    | Length | OD    | ID    | Ball Seat | Shear Press | Max Rate | Disp (BBL) |
|--------------|--------------|-----------------------------------|----------|--------|-------|-------|-----------|-------------|----------|------------|
| Liner Top 10 | 10292414     | JR SLV W/ 4.750" ALT SEAL BORE ID | 10598.07 | 4.00   | 5.750 | 3.913 |           |             |          |            |

Zone  
Length

|            |                                  |          |        |       |       |       |      |  |  |
|------------|----------------------------------|----------|--------|-------|-------|-------|------|--|--|
| H409400010 | S3 CASING HANGING PACKER         | 10602.07 | 4.63   | 5.875 | 3.875 |       | 1760 |  |  |
| H299900281 | 4.5 LT&C x 4.5 LT&C CLR          | 10606.70 | 0.59   | 5.000 | 4.000 |       |      |  |  |
| H299710014 | 4.5 LT&C 13.5# NIPPLE            | 10607.29 | 7.49   | 4.500 | 4.000 |       |      |  |  |
|            | (7) 4.5 LT&C 13.5# P110 CSG/JNTS | 10614.78 | 316.65 | 4.500 | 3.875 |       |      |  |  |
| 4505763576 | 3.500" EXPress Sleeve (Zone 30)  | 10931.43 | 2.40   | 5.630 | 3.845 | 3.448 | 2286 |  |  |
|            | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 10933.83 | 90.31  | 4.500 | 3.875 |       |      |  |  |
| H409360008 | 582 OH PACKER                    | 11024.14 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|            | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11028.03 | 45.35  | 4.500 | 3.875 |       |      |  |  |
| 4506856624 | 3.438" EXPress Sleeve (Zone 29)  | 11073.38 | 2.40   | 5.630 | 3.845 | 3.385 | 2286 |  |  |
|            | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11075.78 | 90.65  | 4.500 | 3.875 |       |      |  |  |
| H409360008 | 582 OH PACKER                    | 11166.42 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|            | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11170.32 | 45.33  | 4.500 | 3.875 |       |      |  |  |
| 4506856624 | 3.375" EXPress Sleeve (Zone 28)  | 11215.65 | 2.40   | 5.630 | 3.845 | 3.323 | 2286 |  |  |
|            | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11218.05 | 90.68  | 4.500 | 3.875 |       |      |  |  |
| H409360008 | 582 OH PACKER                    | 11308.73 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|            | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 11312.62 | 45.68  | 4.500 | 3.875 |       |      |  |  |
| 4506856624 | 3.313" EXPress Sleeve (Zone 27)  | 11358.30 | 2.40   | 5.630 | 3.845 | 3.260 | 2286 |  |  |
|            | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11360.70 | 90.41  | 4.500 | 3.875 |       |      |  |  |
| H409360008 | 582 OH PACKER                    | 11451.11 | 3.89   | 5.820 | 3.875 |       | 2154 |  |  |
|            | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11455.00 | 45.32  | 4.500 | 3.875 |       |      |  |  |
| 104695309  | 3.25" EXPress Sleeve (Zone 26)   | 11500.32 | 2.40   | 5.630 | 3.845 | 3.198 | 2286 |  |  |

Operating Company Mewbourne Oil Co.  
 Well Name & Number ware Ranch 12 MD Fed Com  
 Sales Ticket Number 6297306-1  
 Date 4/17/2014

Company Rep Gary Sutton  
 Field 0  
 BOT Service Rep Zach Blenkinsopp  
 District Location Odessa, TX



|            | Size  | Weight | Grade  | ID    | Drift | Thread    | Capacity | Length   | Burst  | Collapse |
|------------|-------|--------|--------|-------|-------|-----------|----------|----------|--------|----------|
| Casing     | 7.000 | 26.00  | 110000 | 6.276 | 6.151 | LTC / 8RD | 0.03826  | 7,990.00 | 9,960  | 6,230    |
| Top Liner  | 4.500 | 13.50  | 110000 | 3.920 | 3.795 | LTC / 8RD | 0.01493  | 4,367.20 | 12,410 | 10,690   |
| Bott Liner | 0.000 | 0.00   | 0      | 0.000 | 0.000 | 0         | 0.00000  | -        | -      | -        |

|     |          |     |          |           |       |                   |  |
|-----|----------|-----|----------|-----------|-------|-------------------|--|
| TVD | 10686.00 | KOP | 10079.00 | Open Hole | 6.125 | Casing Vol. (bbl) |  |
|-----|----------|-----|----------|-----------|-------|-------------------|--|

|                          |     |                       |  |                    |   |
|--------------------------|-----|-----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.4 | Propant Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|-----------------------|--|--------------------|---|

|  | Comm. Number | Description                      | Depth    | Length | OD    | ID    | Ball Seat | Shear Press | Max Rate | Disp (BBL) |
|--|--------------|----------------------------------|----------|--------|-------|-------|-----------|-------------|----------|------------|
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11502.72 | 90.64  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 11593.36 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 11597.25 | 45.32  | 4.500 | 3.875 |           |             |          |            |
|  | 450763754    | 3.25' EXPress Sleeve (Zone 25)   | 11642.57 | 2.40   | 5.630 | 3.845 | 3.135     | 2286        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 11644.97 | 90.63  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 11735.80 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11739.49 | 45.30  | 4.500 | 3.875 |           |             |          |            |
|  | 450763754    | 3.125' EXPress Sleeve (Zone 24)  | 11784.79 | 2.40   | 5.630 | 3.845 | 3.073     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11787.19 | 90.65  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 11877.84 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 11881.73 | 45.32  | 4.500 | 3.875 |           |             |          |            |
|  | 4505763754   | 3.063' EXPress Sleeve (Zone 23)  | 11927.05 | 2.40   | 5.630 | 3.845 | 3.010     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 11929.45 | 90.63  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 12020.08 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 12023.97 | 45.34  | 4.500 | 3.875 |           |             |          |            |
|  | 4505953988   | 3.000' EXPress Sleeve (Zone 22)  | 12069.31 | 2.40   | 5.630 | 3.845 | 2.948     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12071.71 | 90.33  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 12162.04 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12165.93 | 45.36  | 4.500 | 3.875 |           |             |          |            |
|  | 450688322    | 2.938' EXPress Sleeve (Zone 21)  | 12211.29 | 2.40   | 5.630 | 3.845 | 2.885     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12213.69 | 90.62  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 12304.31 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 12308.20 | 45.32  | 4.500 | 3.875 |           |             |          |            |
|  | 4506883432   | 2.875' EXPress Sleeve (Zone 20)  | 12353.52 | 2.40   | 5.630 | 3.845 | 2.823     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12355.92 | 90.40  | 4.500 | 3.875 |           |             |          |            |

Operating Company Mewbourne Oil Co.  
Well Name & Number ware Ranch 12 MD Fed Com  
Sales Ticket Number 6297306-1

Company Rep Gary Sutton  
Field 0  
BOT Service Rep Zach Blenkinsopp



Date 4/17/2014

District Location Odessa, TX

|            | Size     | Weight | Grade  | ID    | Drift    | Thread    | Capacity  | Length   | Burst  | Collapse          |
|------------|----------|--------|--------|-------|----------|-----------|-----------|----------|--------|-------------------|
| Casing     | 7.000    | 26.00  | 110000 | 6.276 | 6.151    | LTC / 8RD | 0.03826   | 7,990.00 | 9,960  | 6,230             |
| Top Liner  | 4.500    | 13.50  | 110000 | 3.920 | 3.795    | LTC / 8RD | 0.01493   | 4,367.20 | 12,410 | 10,690            |
| Bott Liner | 0.000    | 0.00   | 0      | 0.000 | 0.000    | 0         | 0.00000   | -        | -      | -                 |
| TVD        | 10686.00 |        | KOP    |       | 10079.00 |           | Open Hole |          | 6.125  | Casing Vol. (bbl) |

|                          |     |                       |  |                    |   |
|--------------------------|-----|-----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.4 | Propant Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|-----------------------|--|--------------------|---|

|  | Comm. Number | Description                      | Depth    | Length | OD    | ID    | Ball Seat | Shear Press | Max Rate | Disp (BBL) |
|--|--------------|----------------------------------|----------|--------|-------|-------|-----------|-------------|----------|------------|
|  | H409360008   | 582 OH PACKER                    | 12446.32 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12450.21 | 90.37  | 4.500 | 3.875 |           |             |          |            |
|  | 104645218    | 2.813" EXPress Sleeve (Zone 19)  | 12540.58 | 2.40   | 5.630 | 3.845 | 2.760     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12542.98 | 90.62  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 12633.60 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 12637.49 | 45.05  | 4.500 | 3.875 |           |             |          |            |
|  | 4506856624   | 2.75" EXPress Sleeve (Zone 18)   | 12682.54 | 2.40   | 5.630 | 3.845 | 2.698     | 2286        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 12684.94 | 90.39  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 12775.33 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12779.22 | 45.33  | 4.500 | 3.875 |           |             |          |            |
|  | 4506856624   | 2.688" EXPress Sleeve (Zone 17)  | 12824.55 | 2.40   | 5.630 | 3.845 | 2.635     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12826.95 | 90.63  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 12917.58 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12921.47 | 44.96  | 4.500 | 3.875 |           |             |          |            |
|  | 4506883932   | 2.625" EXPress Sleeve (Zone 16)  | 12966.43 | 2.40   | 5.630 | 3.845 | 2.525     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 12968.83 | 89.43  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 13058.26 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 13062.15 | 45.30  | 4.500 | 3.875 |           |             |          |            |
|  | 4506883932   | 2.563" EXPress Sleeve (Zone 15)  | 13107.45 | 2.40   | 5.630 | 3.845 | 2.510     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13109.85 | 88.07  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 13197.92 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13201.81 | 40.71  | 4.500 | 3.875 |           |             |          |            |
|  | 4506883932   | 2.500" EXPress Sleeve (Zone 14)  | 13242.52 | 2.40   | 5.630 | 3.845 | 2.400     | 2286        |          |            |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 13244.92 | 90.33  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 13335.25 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |

Operating Company Mewbourne Oil Co.  
 Well Name & Number ware Ranch 12 MD Fed Com  
 Sales Ticket Number 6297306-1  
 Date 4/17/2014

Company Rep Gary Sutton  
 Field 0  
 BOT Service Rep Zach Blenkinsopp  
 District Location Odessa, TX



|            | Size     | Weight | Grade  | ID    | Drift    | Thread    | Capacity  | Length   | Burst  | Collapse          |
|------------|----------|--------|--------|-------|----------|-----------|-----------|----------|--------|-------------------|
| Casing     | 7.000    | 26.00  | 110000 | 6.276 | 6.151    | LTC / 8RD | 0.03826   | 7,990.00 | 9,960  | 16,230            |
| Top Liner  | 4.500    | 13.50  | 110000 | 3.920 | 3.795    | LTC / 8RD | 0.01493   | 4,367.20 | 12,410 | 10,690            |
| Bott Liner | 0.000    | 0.00   | 0      | 0.000 | 0.000    | 0         | 0.00000   | -        | -      | -                 |
| TVD        | 10686.00 |        | KOP    |       | 10079.00 |           | Open Hole |          | 6.125  | Casing Vol. (bbl) |

|                          |     |                       |  |                    |   |
|--------------------------|-----|-----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.4 | Propant Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|-----------------------|--|--------------------|---|

|  | Comm. Number | Description                      | Depth    | Length | OD    | ID    | Ball Seat | Shear Press | Max Rate | Displ (BBL) |
|--|--------------|----------------------------------|----------|--------|-------|-------|-----------|-------------|----------|-------------|
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13339.14 | 45.03  | 4.500 | 3.875 |           |             |          |             |
|  | 4506883932   | 2.438" EXPress Sleeve (Zone 13)  | 13384.17 | 2.40   | 5.630 | 3.845 | 2.385     | 2286        |          |             |
|  |              | (3) 4.5 LT&C 13.5# P110 JNTS/CSG | 13386.57 | 89.93  | 4.500 | 3.875 |           |             |          |             |
|  | H409360008   | 582 OH PACKER                    | 13476.50 | 3.89   | 5.820 | 3.875 |           | 2154        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13480.39 | 44.99  | 4.500 | 3.875 |           |             |          |             |
|  | 4506883932   | 2.375" EXPress Sleeve (Zone 12)  | 13525.38 | 2.40   | 5.630 | 3.845 | 2.275     | 2286        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13527.78 | 90.33  | 4.500 | 3.875 |           |             |          |             |
|  | H409360008   | 582 OH PACKER                    | 13518.11 | 3.89   | 5.820 | 3.875 |           | 2154        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13622.00 | 45.31  | 4.500 | 3.875 |           |             |          |             |
|  | 4506856624   | 2.313" EXPress Sleeve (Zone 11)  | 13667.31 | 2.40   | 5.630 | 3.845 | 2.260     | 2286        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13669.71 | 90.34  | 4.500 | 3.875 |           |             |          |             |
|  | H409360008   | 582 OH PACKER                    | 13760.05 | 3.89   | 5.820 | 3.875 |           | 2154        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13763.94 | 45.12  | 4.500 | 3.875 |           |             |          |             |
|  | 104686343    | 2.250" EXPress Sleeve (Zone 10)  | 13809.06 | 2.40   | 5.630 | 3.845 | 2.197     | 2286        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13811.46 | 90.43  | 4.500 | 3.875 |           |             |          |             |
|  | H409360008   | 582 OH PACKER                    | 13901.89 | 3.89   | 5.820 | 3.875 |           | 2154        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13905.78 | 45.31  | 4.500 | 3.875 |           |             |          |             |
|  | 10468343     | 2.188" EXPress Sleeve (Zone 9)   | 13951.09 | 2.40   | 5.630 | 3.845 | 2.135     | 2286        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 13953.49 | 90.63  | 4.500 | 3.875 |           |             |          |             |
|  | H409360008   | 582 OH PACKER                    | 14044.12 | 3.89   | 5.820 | 3.875 |           | 2154        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14048.01 | 45.32  | 4.500 | 3.875 |           |             |          |             |
|  | 4500883932   | 2.125" EXPress Sleeve (Zone 8)   | 14093.33 | 2.40   | 5.630 | 3.845 | 2.072     | 2286        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14095.73 | 87.40  | 4.500 | 3.875 |           |             |          |             |
|  | H409360008   | 582 OH PACKER                    | 14183.13 | 3.89   | 5.820 | 3.875 |           | 2154        |          |             |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14187.02 | 45.06  | 4.500 | 3.875 |           |             |          |             |

Operating Company Mewbourne Oil Co.  
Well Name & Number ware Ranch 12 MD Fed Com  
Sales Ticket Number 6297306-1

Company Rep Gary Sutton  
Field 0  
BOT Service Rep Zach Blenkinsopp



Date 4/17/2014

District Location Odessa, TX

|            | Size     | Weight | Grade  | ID    | Drift    | Thread    | Capacity  | Length   | Burst  | Collapse          |
|------------|----------|--------|--------|-------|----------|-----------|-----------|----------|--------|-------------------|
| Casing     | 7.000    | 26.00  | 110000 | 6.276 | 6.151    | LTC / 8RD | 0.03826   | 7,990.00 | 9,960  | 6,230             |
| Top Liner  | 4.500    | 13.50  | 110000 | 3.920 | 3.795    | LTC / 8RD | 0.01493   | 4,367.20 | 12,410 | 10,690            |
| Bott Liner | 0.000    | 0.00   | 0      | 0.000 | 0.000    | 0         | 0.00000   | -        | -      | -                 |
| TVD        | 10686.00 |        | KOP    |       | 10079.00 |           | Open Hole |          | 6.125  | Casing Vol. (bbl) |

|                          |     |                       |  |                    |   |
|--------------------------|-----|-----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.4 | Propant Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|-----------------------|--|--------------------|---|

|  | Comm. Number | Description                      | Depth    | Length | OD    | ID    | Ball Seat | Shear Press | Max Rate | Disp (BBL) |
|--|--------------|----------------------------------|----------|--------|-------|-------|-----------|-------------|----------|------------|
|  | 450594557    | 2.063" EXPress Sleeve (Zone 7)   | 14232.08 | 2.40   | 5.630 | 3.845 | 2.010     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14234.48 | 89.48  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 14323.96 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14327.85 | 42.71  | 4.500 | 3.875 |           |             |          |            |
|  | 4508149005   | 2.000" EXPress Sleeve (Zone 6)   | 14370.56 | 2.40   | 5.630 | 3.845 | 1.947     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14372.96 | 90.61  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 14463.57 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14467.46 | 45.31  | 4.500 | 3.875 |           |             |          |            |
|  | 45059545005  | 1.938" EXPress Sleeve (Zone 5)   | 14512.77 | 2.40   | 5.630 | 3.845 | 1.885     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14515.17 | 90.62  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 14605.79 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14609.68 | 45.30  | 4.500 | 3.875 |           |             |          |            |
|  | 4505954005   | 1.875" EXPress Sleeve (Zone 4)   | 14654.98 | 2.40   | 5.630 | 3.845 | 1.822     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14657.38 | 90.33  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 14747.71 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14751.60 | 45.32  | 4.500 | 3.875 |           |             |          |            |
|  | 104383299    | 1.813" EXPress Sleeve (Zone 3)   | 14796.92 | 2.40   | 5.630 | 3.845 | 1.760     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14799.32 | 90.21  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 14889.53 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14893.42 | 45.33  | 4.500 | 3.875 |           |             |          |            |
|  | 104409173    | 1.750" EXPress Sleeve (Zone 2)   | 14938.75 | 2.40   | 5.630 | 3.845 | 1.697     | 2286        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 14941.15 | 90.65  | 4.500 | 3.875 |           |             |          |            |
|  | H409360008   | 582 OH PACKER                    | 15031.80 | 3.89   | 5.820 | 3.875 |           | 2154        |          |            |
|  |              | (2) 4.5 LT&C 13.5# P110 JNTS/CSG | 15035.69 | 45.32  | 4.500 | 3.875 |           |             |          |            |
|  | H299900281   | 4-1/2" LT&C COLLAR               | 15081.01 | 0.58   | 5.000 | 4.500 |           |             |          |            |

|                 |                  |
|-----------------|------------------|
| Company Rep     | Gary Sutton      |
| Field           | 0                |
| BOT Service Rep | Zach Blenkinsopp |



Date 4/17/2014

District Location Odessa, TX

|            | Size     | Weight | Grade  | ID    | Drift    | Thread    | Capacity  | Length   | Burst  | Collapse          |
|------------|----------|--------|--------|-------|----------|-----------|-----------|----------|--------|-------------------|
| Casing     | 7.000    | 26.00  | 110000 | 6.276 | 6.151    | LTC / 8RD | 0.03826   | 7,990.00 | 9,960  | 6,230             |
| Top Liner  | 4.500    | 13.50  | 110000 | 3.920 | 3.795    | LTC / 8RD | 0.01493   | 4,367.20 | 12,410 | 10,690            |
| Bott Liner | 0.000    | 0.00   | 0      | 0.000 | 0.000    | 0         | 0.00000   | -        | -      | -                 |
| TVD        | 10686.00 |        | KOP    |       | 10079.00 |           | Open Hole |          | 6.125  | Casing Vol. (bbl) |

|                          |     |                       |  |                    |   |
|--------------------------|-----|-----------------------|--|--------------------|---|
| Carry Fluid Weight (ppg) | 8.4 | Propant Content (ppa) |  | Max Drill Out Size | 0 |
|--------------------------|-----|-----------------------|--|--------------------|---|

[illegible]

**Frac-Point**



## Alpha Sleeve Performance Calculator

### Well Parameters

Static BHT:  deg F

Total Vertical Depth (TVD) @ Alpha Sleeve:  ft

RH Completion Fluid Wt:  ppg

Cement Wt:  ppg

Displacement Completion Fluid Wt:  ppg

\* Note: Use to assist in determining the operating pressure

### Test and Shift Pressures

Approximate Casing Test Pressure:  psi

Min. Desired Shift Pressure:  psi

Max. Topside Pressure:  psi

\*\* Note: method of casing pressure test

### Operational Pressures

Circulation Max Pressure:  psi

Max. Cementation Pumping Pressure:  psi

Max. Displacement Pressure:  psi

Additional Plug Bump Pressure:  psi

Notes:

Uncemented installation.  
In-Traffic Ball Seat option selected.  
Reduced target pressures to 7000 psi.

Date of Analysis:   
Engineer:   
Customer:   
Well Name:   
Field:   
End Connections:

**BAKER HUGHES**  
Rev. L (11/13)

### Option 1 Lower Pressure

Min Surface Pressure:  psi

Nominal Surface Pressure:  psi

Maximum Surface Pressure:  psi

Min Absolute Pressure:  psi

Nominal Absolute Pressure:  psi

Maximum Absolute Pressure:  psi

RH Circulation Buffer:  psi

Cementation Buffer:  psi

Displacement Buffer:  psi

Testing Percentage of Nominal:

Approx. Casing Test Pressure should be under 90%

Max. Req. Pressure Percentage of Max. Allowable Topside Pressure:

Max. Casing Test Pressure:  psi

Activator Part Number:

Company Representative: X

Date:

### Option 2 Closest Selection

Min Surface Pressure:  psi

Nominal Surface Pressure:  psi

Maximum Surface Pressure:  psi

Min Absolute Pressure:  psi

Nominal Absolute Pressure:  psi

Maximum Absolute Pressure:  psi

RH Circulation Buffer:  psi

Cementation Buffer:  psi

Displacement Buffer:  psi

Testing Percentage of Nominal:

Approx. Casing Test Pressure should be under 90%

Max. Req. Pressure Percentage of Max. Allowable Topside Pressure:

Max. Casing Test Pressure:  psi

Activator Part Number:

Baker Hughes Representative: X

Date:

### Option 3 Highest Pressure

Min Surface Pressure:  psi

Nominal Surface Pressure:  psi

Maximum Surface Pressure:  psi

Min Absolute Pressure:  psi

Nominal Absolute Pressure:  psi

Maximum Absolute Pressure:  psi

RH Circulation Buffer:  psi

Cementation Buffer:  psi

Displacement Buffer:  psi

Testing Percentage of Nominal:

Approx. Casing Test Pressure should be under 90%

Max. Req. Pressure Percentage of Max. Allowable Topside Pressure:

Max. Casing Test Pressure:  psi

Activator Part Number: