

30-015-41749

## **Mewbourne Oil Co**

Eddy County, New Mexico

Sec 3-20S-29E

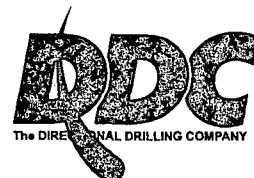
Sharps 3 HE Fed #1H

Wellbore #1

Design: Wellbore #1

## **DDC Survey Report**

31 January, 2014



DDC  
Survey Report



|           |                         |                              |                               |
|-----------|-------------------------|------------------------------|-------------------------------|
| Company:  | Mewbourne Oil Co.       | Local Co-ordinate Reference: | Well Sharps 3 HE Fed #1H      |
| Project:  | Eddy County, New Mexico | TVD Reference:               | WELL @ 3336.0usft (Patterson) |
| Site:     | Sec 3-20S-29E           | MD Reference:                | WELL @ 3336.0usft (Patterson) |
| Well:     | Sharps 3 HE Fed #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 3-20S-29E |                 |                   |                  |
| Site Position:        |          | Northing:     | 580,736.70 usft | Latitude:         | 32° 35' 46.466 N |
| From:                 | Map      | Easting:      | 585,955.21 usft | Longitude:        | 104° 3' 15.239 W |
| Position Uncertainty: | 0.0 usft | Slot Radius:  | 13-3/16 "       | Grid Convergence: | 0.15 °           |

|                      |                     |                     |           |                 |              |                  |
|----------------------|---------------------|---------------------|-----------|-----------------|--------------|------------------|
| Well:                | Sharps 3 HE Fed #1H |                     |           |                 |              |                  |
| Well Position        | +N/-S               | 0.0 usft            | Northing: | 583,776.12 usft | Latitude:    | 32° 36' 16.543 N |
|                      | +E/-W               | 0.0 usft            | Easting:  | 585,962.77 usft | Longitude:   | 104° 3' 15.057 W |
| Position Uncertainty | 0.0 usft            | Wellhead Elevation: | usft      | Ground Level:   | 3,316.0 usft |                  |

|           |             |             |                    |                  |                        |
|-----------|-------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | Wellbore #1 |             |                    |                  |                        |
| Magnetics | Model Name  | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010    | 1/7/2014    | 7.52               | 60.39            | 48,537                 |

|                   |                            |                |                |                  |     |
|-------------------|----------------------------|----------------|----------------|------------------|-----|
| 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            | 268.98           |     |

|                |           |                    |             |                |
|----------------|-----------|--------------------|-------------|----------------|
| Survey Program |           | Date 1/31/2014     |             |                |
| From (usft)    | To (usft) | Survey (Wellbore)  | Tool Name   | Description    |
| 100.0          | 7,483.0   | GYRO (Wellbore #1) | Good_gyro   | Good Gyro      |
| 7,486.0        | 12,780.0  | MWD (Wellbore #1)  | MWD default | MWD - Standard |

| Survey                      |                    |                |                             |                 |                 |                               |                               |                              |                             |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| 0.0                         | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 100.0                       | 0.33               | 259.59         | 100.0                       | -0.1            | -0.3            | 0.3                           | 0.33                          | 0.33                         | 0.00                        |
| 200.0                       | 0.26               | 210.46         | 200.0                       | -0.3            | -0.7            | 0.7                           | 0.25                          | -0.07                        | -49.13                      |
| 300.0                       | 0.44               | 207.46         | 300.0                       | -0.8            | -1.0            | 1.0                           | 0.18                          | 0.18                         | -3.00                       |
| 400.0                       | 1.15               | 203.60         | 400.0                       | -2.1            | -1.6            | 1.6                           | 0.71                          | 0.71                         | -3.86                       |
| 500.0                       | 1.92               | 202.34         | 499.9                       | -4.6            | -2.6            | 2.7                           | 0.77                          | 0.77                         | -1.26                       |
| 600.0                       | 2.77               | 192.46         | 599.9                       | -8.5            | -3.7            | 3.9                           | 0.94                          | 0.85                         | -9.88                       |
| 700.0                       | 3.03               | 181.00         | 699.7                       | -13.5           | -4.3            | 4.6                           | 0.63                          | 0.26                         | -11.46                      |
| 800.0                       | 2.71               | 170.61         | 799.6                       | -18.5           | -4.0            | 4.3                           | 0.61                          | -0.32                        | -10.39                      |
| 900.0                       | 2.97               | 153.06         | 899.5                       | -23.1           | -2.4            | 2.8                           | 0.90                          | 0.26                         | -17.55                      |

DDC  
Survey Report



|           |                         |                              |                               |
|-----------|-------------------------|------------------------------|-------------------------------|
| Company:  | Mewbourne Oil Co.       | Local Co-ordinate Reference: | Well Sharps 3 HE Fed #1H      |
| Project:  | Eddy County, New Mexico | TVD Reference:               | WELL @ 3336.0usft (Patterson) |
| Site:     | Sec 3-20S-29E           | MD Reference:                | WELL @ 3336.0usft (Patterson) |
| Well:     | Sharps 3 HE Fed #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) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 1,000.0                     | 4.21               | 132.55         | 999.3                       | -27.9           | 1.5             | -1.0                          | 1.77                          | 1.24                         | -20.51                      |
| 1,100.0                     | 4.56               | 121.39         | 1,099.0                     | -32.4           | 7.6             | -7.0                          | 0.92                          | 0.35                         | -11.16                      |
| 1,200.0                     | 3.90               | 119.20         | 1,198.7                     | -36.2           | 13.9            | -13.3                         | 0.68                          | -0.66                        | -2.19                       |
| 1,300.0                     | 3.63               | 118.83         | 1,298.5                     | -39.4           | 19.7            | -19.0                         | 0.27                          | -0.27                        | -0.37                       |
| 1,400.0                     | 3.09               | 116.88         | 1,398.3                     | -42.1           | 24.8            | -24.1                         | 0.55                          | -0.54                        | -1.95                       |
| 1,500.0                     | 3.24               | 120.59         | 1,498.2                     | -44.8           | 29.7            | -28.9                         | 0.25                          | 0.15                         | 3.71                        |
| 1,600.0                     | 2.79               | 122.02         | 1,598.1                     | -47.5           | 34.2            | -33.3                         | 0.46                          | -0.45                        | 1.43                        |
| 1,700.0                     | 2.53               | 120.60         | 1,697.9                     | -49.9           | 38.1            | -37.2                         | 0.27                          | -0.26                        | -1.42                       |
| 1,800.0                     | 2.25               | 123.42         | 1,797.9                     | -52.1           | 41.7            | -40.7                         | 0.30                          | -0.28                        | 2.82                        |
| 1,900.0                     | 2.26               | 122.31         | 1,897.8                     | -54.2           | 45.0            | -44.0                         | 0.04                          | 0.01                         | -1.11                       |
| 2,000.0                     | 2.69               | 116.49         | 1,997.7                     | -56.3           | 48.7            | -47.7                         | 0.50                          | 0.43                         | -5.82                       |
| 2,100.0                     | 2.76               | 118.37         | 2,097.6                     | -58.5           | 53.0            | -51.9                         | 0.11                          | 0.07                         | 1.88                        |
| 2,200.0                     | 1.76               | 118.67         | 2,197.5                     | -60.4           | 56.4            | -55.3                         | 1.00                          | -1.00                        | 0.30                        |
| 2,300.0                     | 1.44               | 110.47         | 2,297.5                     | -61.6           | 59.0            | -57.8                         | 0.39                          | -0.32                        | -8.20                       |
| 2,400.0                     | 0.93               | 75.99          | 2,397.4                     | -61.8           | 60.9            | -59.8                         | 0.85                          | -0.51                        | -34.48                      |
| 2,500.0                     | 0.92               | 51.95          | 2,497.4                     | -61.1           | 62.3            | -61.2                         | 0.39                          | -0.01                        | -24.04                      |
| 2,600.0                     | 1.30               | 46.83          | 2,597.4                     | -59.9           | 63.8            | -62.7                         | 0.39                          | 0.38                         | -5.12                       |
| 2,700.0                     | 1.23               | 31.57          | 2,697.4                     | -58.2           | 65.2            | -64.1                         | 0.34                          | -0.07                        | -15.26                      |
| 2,800.0                     | 1.13               | 12.47          | 2,797.4                     | -56.3           | 66.0            | -64.9                         | 0.40                          | -0.10                        | -19.10                      |
| 2,900.0                     | 0.69               | 350.81         | 2,897.3                     | -54.7           | 66.1            | -65.1                         | 0.55                          | -0.44                        | -21.66                      |
| 3,000.0                     | 0.94               | 341.55         | 2,997.3                     | -53.4           | 65.7            | -64.8                         | 0.28                          | 0.25                         | -9.26                       |
| 3,100.0                     | 1.08               | 328.11         | 3,097.3                     | -51.8           | 65.0            | -64.0                         | 0.27                          | 0.14                         | -13.44                      |
| 3,200.0                     | 1.33               | 304.63         | 3,197.3                     | -50.3           | 63.5            | -62.6                         | 0.55                          | 0.25                         | -23.48                      |
| 3,300.0                     | 1.36               | 302.35         | 3,297.3                     | -49.0           | 61.6            | -60.7                         | 0.06                          | 0.03                         | -2.28                       |
| 3,400.0                     | 1.09               | 307.14         | 3,397.3                     | -47.8           | 59.8            | -58.9                         | 0.29                          | -0.27                        | 4.79                        |
| 3,500.0                     | 1.05               | 302.96         | 3,497.2                     | -46.8           | 58.3            | -57.4                         | 0.09                          | -0.04                        | -4.18                       |
| 3,600.0                     | 0.94               | 298.76         | 3,597.2                     | -45.9           | 56.8            | -56.0                         | 0.13                          | -0.11                        | -4.20                       |
| 3,700.0                     | 0.94               | 300.03         | 3,697.2                     | -45.1           | 55.4            | -54.5                         | 0.02                          | 0.00                         | 1.27                        |
| 3,800.0                     | 0.23               | 309.20         | 3,797.2                     | -44.5           | 54.5            | -53.7                         | 0.71                          | -0.71                        | 9.17                        |
| 3,900.0                     | 0.07               | 328.99         | 3,897.2                     | -44.3           | 54.3            | -53.5                         | 0.17                          | -0.16                        | 19.79                       |
| 4,000.0                     | 0.52               | 350.93         | 3,997.2                     | -43.8           | 54.2            | -53.4                         | 0.46                          | 0.45                         | 21.94                       |
| 4,100.0                     | 0.92               | 26.78          | 4,097.2                     | -42.7           | 54.5            | -53.7                         | 0.58                          | 0.40                         | 35.85                       |
| 4,200.0                     | 1.14               | 41.64          | 4,197.2                     | -41.2           | 55.5            | -54.8                         | 0.34                          | 0.22                         | 14.86                       |
| 4,300.0                     | 1.08               | 88.21          | 4,297.2                     | -40.4           | 57.1            | -56.4                         | 0.88                          | -0.06                        | 46.57                       |
| 4,400.0                     | 1.19               | 94.69          | 4,397.1                     | -40.5           | 59.1            | -58.4                         | 0.17                          | 0.11                         | 6.48                        |
| 4,500.0                     | 1.21               | 110.44         | 4,497.1                     | -41.0           | 61.1            | -60.4                         | 0.33                          | 0.02                         | 15.75                       |
| 4,600.0                     | 1.39               | 124.11         | 4,597.1                     | -42.0           | 63.1            | -62.3                         | 0.36                          | 0.18                         | 13.67                       |
| 4,700.0                     | 1.38               | 157.38         | 4,697.1                     | -43.8           | 64.6            | -63.8                         | 0.79                          | -0.01                        | 33.27                       |
| 4,800.0                     | 2.13               | 165.59         | 4,797.0                     | -46.7           | 65.5            | -64.7                         | 0.79                          | 0.75                         | 8.21                        |
| 4,900.0                     | 2.39               | 178.35         | 4,896.9                     | -50.6           | 66.0            | -65.1                         | 0.56                          | 0.26                         | 12.76                       |
| 5,000.0                     | 1.90               | 191.72         | 4,996.9                     | -54.3           | 65.7            | -64.8                         | 0.70                          | -0.49                        | 13.37                       |
| 5,100.0                     | 1.52               | 201.09         | 5,096.8                     | -57.2           | 64.9            | -63.9                         | 0.47                          | -0.38                        | 9.37                        |
| 5,200.0                     | 1.23               | 209.86         | 5,196.8                     | -59.3           | 63.9            | -62.9                         | 0.36                          | -0.29                        | 8.77                        |

DDC  
Survey Report



|           |                         |                              |                               |
|-----------|-------------------------|------------------------------|-------------------------------|
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| Project:  | Eddy County, New Mexico | TVD Reference:               | WELL @ 3336.0usft (Patterson) |
| Site:     | Sec 3-20S-29E           | MD Reference:                | WELL @ 3336.0usft (Patterson) |
| Well:     | Sharps 3 HE Fed #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) |  |
| 5,300.0                       | 0.37            | 211.12      | 5,296.8               | -60.5        | 63.2         | -62.1                   | 0.86                    | -0.86                  | 1.26                  |  |
| 5,400.0                       | 0.38            | 222.81      | 5,396.8               | -61.0        | 62.8         | -61.7                   | 0.08                    | 0.01                   | 11.69                 |  |
| 5,500.0                       | 0.57            | 221.69      | 5,496.8               | -61.7        | 62.3         | -61.2                   | 0.19                    | 0.19                   | -1.12                 |  |
| 5,600.0                       | 0.35            | 224.07      | 5,596.8               | -62.3        | 61.7         | -60.6                   | 0.22                    | -0.22                  | 2.38                  |  |
| 5,700.0                       | 0.36            | 238.39      | 5,696.8               | -62.6        | 61.2         | -60.1                   | 0.09                    | 0.01                   | 14.32                 |  |
| 5,800.0                       | 0.07            | 263.65      | 5,796.8               | -62.8        | 60.9         | -59.8                   | 0.30                    | -0.29                  | 25.26                 |  |
| 5,900.0                       | 0.32            | 306.32      | 5,896.8               | -62.7        | 60.6         | -59.5                   | 0.27                    | 0.25                   | 42.67                 |  |
| 6,000.0                       | 0.49            | 328.08      | 5,996.8               | -62.1        | 60.2         | -59.1                   | 0.23                    | 0.17                   | 21.76                 |  |
| 6,100.0                       | 0.37            | 354.88      | 6,096.8               | -61.4        | 59.9         | -58.8                   | 0.23                    | -0.12                  | 26.80                 |  |
| 6,200.0                       | 0.69            | 1.66        | 6,196.8               | -60.5        | 59.9         | -58.8                   | 0.33                    | 0.32                   | 6.78                  |  |
| 6,300.0                       | 0.74            | 4.40        | 6,296.8               | -59.3        | 60.0         | -58.9                   | 0.06                    | 0.05                   | 2.74                  |  |
| 6,400.0                       | 0.30            | 3.97        | 6,396.7               | -58.4        | 60.0         | -59.0                   | 0.44                    | -0.44                  | -0.43                 |  |
| 6,500.0                       | 0.14            | 1.37        | 6,496.7               | -58.0        | 60.1         | -59.0                   | 0.16                    | -0.16                  | -2.60                 |  |
| 6,600.0                       | 0.37            | 0.48        | 6,596.7               | -57.5        | 60.1         | -59.0                   | 0.23                    | 0.23                   | -0.89                 |  |
| 6,700.0                       | 0.43            | 357.50      | 6,696.7               | -56.8        | 60.1         | -59.0                   | 0.06                    | 0.06                   | -2.98                 |  |
| 6,800.0                       | 1.21            | 357.26      | 6,796.7               | -55.4        | 60.0         | -59.0                   | 0.78                    | 0.78                   | -0.24                 |  |
| 6,900.0                       | 1.07            | 351.67      | 6,896.7               | -53.4        | 59.8         | -58.8                   | 0.18                    | -0.14                  | -5.59                 |  |
| 7,000.0                       | 1.06            | 338.45      | 6,996.7               | -51.6        | 59.3         | -58.4                   | 0.25                    | -0.01                  | -13.22                |  |
| 7,100.0                       | 0.97            | 301.06      | 7,096.7               | -50.3        | 58.3         | -57.4                   | 0.66                    | -0.09                  | -37.39                |  |
| 7,200.0                       | 1.10            | 294.41      | 7,196.7               | -49.5        | 56.7         | -55.8                   | 0.18                    | 0.13                   | -6.65                 |  |
| 7,300.0                       | 1.39            | 292.79      | 7,296.6               | -48.6        | 54.7         | -53.8                   | 0.29                    | 0.29                   | -1.62                 |  |
| 7,400.0                       | 1.41            | 261.27      | 7,396.6               | -48.4        | 52.3         | -51.5                   | 0.76                    | 0.02                   | -31.52                |  |
| TIE IN @ 7483' MD / 7480' TVD |                 |             |                       |              |              |                         |                         |                        |                       |  |
| 7,483.0                       | 1.51            | 231.74      | 7,479.6               | -49.2        | 50.5         | -49.6                   | 0.90                    | 0.12                   | -35.58                |  |
| 7,486.0                       | 1.60            | 239.10      | 7,482.6               | -49.2        | 50.4         | -49.5                   | 7.33                    | 3.02                   | 246.56                |  |
| 7,551.0                       | 4.30            | 265.60      | 7,547.5               | -49.9        | 47.2         | -46.3                   | 4.55                    | 4.15                   | 40.77                 |  |
| 7,581.0                       | 4.60            | 269.30      | 7,577.4               | -50.0        | 44.9         | -44.0                   | 1.38                    | 1.00                   | 12.33                 |  |
| 7,613.0                       | 0.70            | 252.80      | 7,609.4               | -50.1        | 43.4         | -42.5                   | 12.29                   | -12.19                 | -51.56                |  |
| 7,645.0                       | 0.80            | 251.40      | 7,641.3               | -50.2        | 43.0         | -42.1                   | 0.32                    | 0.31                   | -4.38                 |  |
| 7,677.0                       | 5.00            | 273.70      | 7,673.3               | -50.2        | 41.4         | -40.5                   | 13.35                   | 13.13                  | 69.69                 |  |
| 7,709.0                       | 9.30            | 275.10      | 7,705.0               | -49.9        | 37.4         | -36.5                   | 13.45                   | 13.44                  | 4.38                  |  |
| 7,740.0                       | 13.30           | 271.70      | 7,735.4               | -49.5        | 31.4         | -30.5                   | 13.08                   | 12.90                  | -10.97                |  |
| 7,772.0                       | 17.70           | 272.10      | 7,766.3               | -49.2        | 22.8         | -21.9                   | 13.75                   | 13.75                  | 1.25                  |  |
| 7,804.0                       | 22.00           | 270.30      | 7,796.4               | -49.0        | 12.0         | -11.1                   | 13.57                   | 13.44                  | -5.63                 |  |
| 7,836.0                       | 26.00           | 267.70      | 7,825.6               | -49.3        | -1.0         | 1.9                     | 12.93                   | 12.50                  | -8.13                 |  |
| 7,868.0                       | 30.10           | 266.10      | 7,853.8               | -50.1        | -16.1        | 16.9                    | 13.03                   | 12.81                  | -5.00                 |  |
| 7,899.0                       | 34.10           | 267.00      | 7,880.1               | -51.1        | -32.5        | 33.4                    | 12.99                   | 12.90                  | 2.90                  |  |
| 7,930.0                       | 38.20           | 266.30      | 7,905.1               | -52.2        | -50.8        | 51.7                    | 13.29                   | 13.23                  | -2.26                 |  |
| 7,963.0                       | 42.60           | 265.60      | 7,930.2               | -53.7        | -72.1        | 73.0                    | 13.40                   | 13.33                  | -2.12                 |  |
| 7,995.0                       | 46.70           | 265.90      | 7,953.0               | -55.4        | -94.5        | 95.5                    | 12.83                   | 12.81                  | 0.94                  |  |
| 8,027.0                       | 49.90           | 267.40      | 7,974.3               | -56.7        | -118.3       | 119.3                   | 10.59                   | 10.00                  | 4.69                  |  |
| 8,058.0                       | 53.40           | 269.10      | 7,993.5               | -57.5        | -142.6       | 143.6                   | 12.08                   | 11.29                  | 5.48                  |  |
| 8,090.0                       | 56.00           | 270.70      | 8,012.0               | -57.5        | -168.8       | 169.8                   | 9.09                    | 8.13                   | 5.00                  |  |

DDC  
Survey Report



|           |                        |                              |                               |
|-----------|------------------------|------------------------------|-------------------------------|
| Company:  | Mewbourne Oil Co       | Local Co-ordinate Reference: | Well Sharps 3 HE Fed #1H      |
| Project:  | Eddy County New Mexico | TVD Reference:               | WELL @ 3336.0usft (Patterson) |
| Site:     | Sec 3-20S-29E          | MD Reference:                | WELL @ 3336.0usft (Patterson) |
| Well:     | Sharps 3 HE Fed #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) |
|----------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| CROSSED HARD LINE @ 8103 MD / 8019 TVD |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 8,103.1                                | 57.35              | 270.83         | 8,019.2                     | -57.4           | -179.7          | 180.7                         | 10.35                         | 10.32                        | 0.99                        |
| 8,121.0                                | 59.20              | 271.00         | 8,028.6                     | -57.1           | -194.9          | 195.9                         | 10.35                         | 10.32                        | 0.95                        |
| 8,153.0                                | 61.80              | 270.90         | 8,044.4                     | -56.7           | -222.8          | 223.7                         | 8.13                          | 8.13                         | -0.31                       |
| 8,185.0                                | 64.50              | 271.70         | 8,058.8                     | -56.0           | -251.3          | 252.3                         | 8.73                          | 8.44                         | 2.50                        |
| 8,217.0                                | 66.90              | 271.70         | 8,072.0                     | -55.1           | -280.5          | 281.4                         | 7.50                          | 7.50                         | 0.00                        |
| 8,249.0                                | 69.10              | 271.70         | 8,084.0                     | -54.3           | -310.1          | 311.0                         | 6.88                          | 6.88                         | 0.00                        |
| 8,280.0                                | 72.20              | 271.40         | 8,094.2                     | -53.5           | -339.3          | 340.2                         | 10.04                         | 10.00                        | -0.97                       |
| 8,312.0                                | 75.20              | 271.20         | 8,103.2                     | -52.8           | -370.1          | 370.9                         | 9.39                          | 9.38                         | -0.63                       |
| 8,344.0                                | 76.90              | 270.00         | 8,110.9                     | -52.5           | -401.1          | 402.0                         | 6.44                          | 5.31                         | -3.75                       |
| 8,376.0                                | 78.70              | 268.80         | 8,117.7                     | -52.8           | -432.4          | 433.2                         | 6.71                          | 5.63                         | -3.75                       |
| 8,407.0                                | 81.50              | 268.60         | 8,123.0                     | -53.5           | -462.9          | 463.8                         | 9.05                          | 9.03                         | -0.65                       |
| 8,428.0                                | 83.60              | 268.60         | 8,125.7                     | -54.0           | -483.7          | 484.6                         | 10.00                         | 10.00                        | 0.00                        |
| 8,519.0                                | 88.00              | 269.60         | 8,132.4                     | -55.4           | -574.4          | 575.3                         | 4.96                          | 4.84                         | 1.10                        |
| 8,550.0                                | 91.40              | 268.90         | 8,132.6                     | -55.8           | -605.4          | 606.3                         | 11.20                         | 10.97                        | -2.26                       |
| 8,582.0                                | 92.70              | 268.20         | 8,131.4                     | -56.6           | -637.4          | 638.3                         | 4.61                          | 4.06                         | -2.19                       |
| 8,645.0                                | 90.90              | 267.90         | 8,129.4                     | -58.8           | -700.3          | 701.3                         | 2.90                          | -2.86                        | -0.48                       |
| 8,709.0                                | 90.10              | 267.00         | 8,128.9                     | -61.6           | -764.3          | 765.2                         | 1.88                          | -1.25                        | -1.41                       |
| 8,772.0                                | 90.50              | 266.50         | 8,128.6                     | -65.2           | -827.2          | 828.2                         | 1.02                          | 0.63                         | -0.79                       |
| 8,835.0                                | 90.70              | 266.10         | 8,127.9                     | -69.3           | -890.0          | 891.1                         | 0.71                          | 0.32                         | -0.63                       |
| 8,899.0                                | 91.40              | 266.30         | 8,126.7                     | -73.5           | -953.9          | 955.0                         | 1.14                          | 1.09                         | 0.31                        |
| 8,962.0                                | 90.80              | 267.50         | 8,125.5                     | -76.9           | -1,016.8        | 1,018.0                       | 2.13                          | -0.95                        | 1.90                        |
| 9,026.0                                | 91.10              | 267.70         | 8,124.5                     | -79.6           | -1,080.7        | 1,081.9                       | 0.56                          | 0.47                         | 0.31                        |
| 9,089.0                                | 91.70              | 267.70         | 8,122.9                     | -82.1           | -1,143.6        | 1,144.9                       | 0.95                          | 0.95                         | 0.00                        |
| 9,152.0                                | 92.10              | 267.40         | 8,120.8                     | -84.8           | -1,206.5        | 1,207.9                       | 0.79                          | 0.63                         | -0.48                       |
| 9,216.0                                | 90.80              | 269.10         | 8,119.2                     | -86.8           | -1,270.5        | 1,271.8                       | 3.34                          | -2.03                        | 2.66                        |
| 9,279.0                                | 90.40              | 270.30         | 8,118.6                     | -87.1           | -1,333.5        | 1,334.8                       | 2.01                          | -0.63                        | 1.90                        |
| 9,342.0                                | 90.50              | 269.10         | 8,118.1                     | -87.4           | -1,396.5        | 1,397.8                       | 1.91                          | 0.16                         | -1.90                       |
| 9,406.0                                | 90.10              | 267.90         | 8,117.7                     | -89.1           | -1,460.5        | 1,461.8                       | 1.98                          | -0.63                        | -1.88                       |
| 9,469.0                                | 90.10              | 269.10         | 8,117.6                     | -90.7           | -1,523.4        | 1,524.8                       | 1.90                          | 0.00                         | 1.90                        |
| 9,533.0                                | 90.60              | 269.80         | 8,117.2                     | -91.3           | -1,587.4        | 1,588.8                       | 1.34                          | 0.78                         | 1.09                        |
| 9,596.0                                | 90.90              | 269.10         | 8,116.4                     | -92.0           | -1,650.4        | 1,651.8                       | 1.21                          | 0.48                         | -1.11                       |
| 9,659.0                                | 90.90              | 268.90         | 8,115.4                     | -93.1           | -1,713.4        | 1,714.8                       | 0.32                          | 0.00                         | -0.32                       |
| 9,723.0                                | 90.90              | 268.40         | 8,114.4                     | -94.6           | -1,777.4        | 1,778.8                       | 0.78                          | 0.00                         | -0.78                       |
| 9,786.0                                | 91.40              | 268.80         | 8,113.1                     | -96.1           | -1,840.3        | 1,841.8                       | 1.02                          | 0.79                         | 0.63                        |
| 9,849.0                                | 91.60              | 268.80         | 8,111.5                     | -97.4           | -1,903.3        | 1,904.7                       | 0.32                          | 0.32                         | 0.00                        |
| 9,912.0                                | 92.10              | 268.60         | 8,109.5                     | -98.8           | -1,966.3        | 1,967.7                       | 0.85                          | 0.79                         | -0.32                       |
| 9,975.0                                | 91.40              | 269.80         | 8,107.5                     | -99.7           | -2,029.2        | 2,030.7                       | 2.20                          | -1.11                        | 1.90                        |
| 10,038.0                               | 91.20              | 270.50         | 8,106.1                     | -99.6           | -2,092.2        | 2,093.6                       | 1.16                          | -0.32                        | 1.11                        |
| 10,102.0                               | 91.50              | 270.90         | 8,104.6                     | -98.8           | -2,156.2        | 2,157.6                       | 0.78                          | 0.47                         | 0.63                        |
| 10,165.0                               | 91.70              | 271.40         | 8,102.8                     | -97.5           | -2,219.1        | 2,220.5                       | 0.85                          | 0.32                         | 0.79                        |
| 10,228.0                               | 92.10              | 271.90         | 8,100.7                     | -95.7           | -2,282.1        | 2,283.4                       | 1.02                          | 0.63                         | 0.79                        |
| 10,292.0                               | 90.60              | 271.70         | 8,099.2                     | -93.7           | -2,346.0        | 2,347.3                       | 2.36                          | -2.34                        | -0.31                       |
| 10,355.0                               | 90.60              | 271.40         | 8,098.6                     | -92.0           | -2,409.0        | 2,410.3                       | 0.48                          | 0.00                         | -0.48                       |

DDC  
Survey Report



|           |                        |                              |                               |
|-----------|------------------------|------------------------------|-------------------------------|
| Company:  | Mewbourne Oil Co.      | Local Co-ordinate Reference: | Well Sharps 3 HE Fed #1H      |
| Project:  | Eddy County New Mexico | TVD Reference:               | WELL @ 3336.0usft (Patterson) |
| Site:     | Sec 3-20S-29E          | MD Reference:                | WELL @ 3336.0usft (Patterson) |
| Well:     | Sharps 3 HE Fed #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) |
|-----------------------------|--------------------|----------------|-----------------------------|----------------|----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 10,418.0                    | 90.80              | 271.70         | 8,097.8                     | -90.3          | -2,472.0       | 2,473.2                       | 0.57                          | 0.32                         | 0.48                        |
| 10,482.0                    | 91.40              | 271.90         | 8,096.6                     | -88.3          | -2,535.9       | 2,537.1                       | 0.99                          | 0.94                         | 0.31                        |
| 10,545.0                    | 91.20              | 271.90         | 8,095.1                     | -86.2          | -2,598.9       | 2,600.0                       | 0.32                          | -0.32                        | 0.00                        |
| 10,608.0                    | 91.40              | 272.10         | 8,093.7                     | -84.0          | -2,661.8       | 2,662.9                       | 0.45                          | 0.32                         | 0.32                        |
| 10,671.0                    | 91.90              | 272.60         | 8,091.9                     | -81.4          | -2,724.7       | 2,725.8                       | 1.12                          | 0.79                         | 0.79                        |
| 10,734.0                    | 92.40              | 273.00         | 8,089.5                     | -78.3          | -2,787.6       | 2,788.6                       | 1.02                          | 0.79                         | 0.63                        |
| 10,798.0                    | 91.30              | 273.50         | 8,087.5                     | -74.7          | -2,851.5       | 2,852.4                       | 1.89                          | -1.72                        | 0.78                        |
| 10,861.0                    | 91.40              | 273.90         | 8,086.0                     | -70.6          | -2,914.3       | 2,915.1                       | 0.65                          | 0.16                         | 0.63                        |
| 10,924.0                    | 91.30              | 274.40         | 8,084.5                     | -66.1          | -2,977.2       | 2,977.9                       | 0.81                          | -0.16                        | 0.79                        |
| 10,987.0                    | 90.90              | 273.10         | 8,083.3                     | -62.0          | -3,040.0       | 3,040.6                       | 2.16                          | -0.63                        | -2.06                       |
| 11,050.0                    | 90.80              | 272.50         | 8,082.4                     | -58.9          | -3,102.9       | 3,103.5                       | 0.97                          | -0.16                        | -0.95                       |
| 11,114.0                    | 90.60              | 271.90         | 8,081.6                     | -56.4          | -3,166.9       | 3,167.4                       | 0.99                          | -0.31                        | -0.94                       |
| 11,177.0                    | 90.50              | 271.90         | 8,081.0                     | -54.3          | -3,229.8       | 3,230.3                       | 0.16                          | -0.16                        | 0.00                        |
| 11,240.0                    | 90.80              | 271.20         | 8,080.3                     | -52.6          | -3,292.8       | 3,293.2                       | 1.21                          | 0.48                         | -1.11                       |
| 11,304.0                    | 91.70              | 271.90         | 8,078.9                     | -50.9          | -3,356.8       | 3,357.1                       | 1.78                          | 1.41                         | 1.09                        |
| 11,367.0                    | 91.90              | 272.10         | 8,076.9                     | -48.7          | -3,419.7       | 3,420.0                       | 0.45                          | 0.32                         | 0.32                        |
| 11,431.0                    | 92.10              | 272.50         | 8,074.7                     | -46.1          | -3,483.6       | 3,483.9                       | 0.70                          | 0.31                         | 0.63                        |
| 11,494.0                    | 92.60              | 272.50         | 8,072.1                     | -43.4          | -3,546.5       | 3,546.7                       | 0.79                          | 0.79                         | 0.00                        |
| 11,557.0                    | 91.70              | 272.80         | 8,069.7                     | -40.5          | -3,609.4       | 3,609.5                       | 1.51                          | -1.43                        | 0.48                        |
| 11,621.0                    | 91.40              | 273.30         | 8,068.0                     | -37.1          | -3,673.3       | 3,673.3                       | 0.91                          | -0.47                        | 0.78                        |
| 11,684.0                    | 90.10              | 273.00         | 8,067.2                     | -33.6          | -3,736.2       | 3,736.2                       | 2.12                          | -2.06                        | -0.48                       |
| 11,747.0                    | 89.20              | 272.30         | 8,067.5                     | -30.7          | -3,799.1       | 3,799.0                       | 1.81                          | -1.43                        | -1.11                       |
| 11,810.0                    | 89.30              | 272.60         | 8,068.4                     | -28.0          | -3,862.0       | 3,861.9                       | 0.50                          | 0.16                         | 0.48                        |
| 11,874.0                    | 90.60              | 272.10         | 8,068.4                     | -25.4          | -3,926.0       | 3,925.8                       | 2.18                          | 2.03                         | -0.78                       |
| 11,937.0                    | 91.60              | 272.10         | 8,067.2                     | -23.1          | -3,988.9       | 3,988.7                       | 1.59                          | 1.59                         | 0.00                        |
| 12,000.0                    | 92.40              | 271.90         | 8,065.0                     | -20.9          | -4,051.8       | 4,051.6                       | 1.31                          | 1.27                         | -0.32                       |
| 12,063.0                    | 93.00              | 272.30         | 8,062.0                     | -18.6          | -4,114.7       | 4,114.4                       | 1.14                          | 0.95                         | 0.63                        |
| 12,127.0                    | 91.80              | 272.50         | 8,059.4                     | -15.9          | -4,178.6       | 4,178.2                       | 1.90                          | -1.88                        | 0.31                        |
| 12,190.0                    | 91.00              | 272.50         | 8,057.8                     | -13.2          | -4,241.5       | 4,241.1                       | 1.27                          | -1.27                        | 0.00                        |
| 12,253.0                    | 91.10              | 271.40         | 8,056.7                     | -11.0          | -4,304.5       | 4,304.0                       | 1.75                          | 0.16                         | -1.75                       |
| 12,316.0                    | 91.40              | 271.60         | 8,055.3                     | -9.4           | -4,367.5       | 4,366.9                       | 0.57                          | 0.48                         | 0.32                        |
| 12,380.0                    | 90.80              | 270.20         | 8,054.1                     | -8.4           | -4,431.4       | 4,430.9                       | 2.38                          | -0.94                        | -2.19                       |
| 12,443.0                    | 90.80              | 269.30         | 8,053.2                     | -8.6           | -4,494.4       | 4,493.9                       | 1.43                          | 0.00                         | -1.43                       |
| 12,506.0                    | 91.40              | 269.30         | 8,052.0                     | -9.4           | -4,557.4       | 4,556.9                       | 0.95                          | 0.95                         | 0.00                        |
| 12,569.0                    | 89.90              | 268.90         | 8,051.3                     | -10.4          | -4,620.4       | 4,619.8                       | 2.46                          | -2.38                        | -0.63                       |
| 12,633.0                    | 89.60              | 268.60         | 8,051.5                     | -11.8          | -4,684.4       | 4,683.8                       | 0.66                          | -0.47                        | -0.47                       |
| 12,696.0                    | 90.70              | 269.60         | 8,051.4                     | -12.8          | -4,747.4       | 4,746.8                       | 2.36                          | 1.75                         | 1.59                        |
| 12,730.0                    | 90.70              | 269.80         | 8,051.0                     | -13.0          | -4,781.4       | 4,780.8                       | 0.59                          | 0.00                         | 0.59                        |
| 12,780.0                    | 90.70              | 269.80         | 8,050.3                     | -13.1          | -4,831.4       | 4,830.8                       | 0.00                          | 0.00                         | 0.00                        |

DDC  
Survey Report



|           |                         |                              |                               |
|-----------|-------------------------|------------------------------|-------------------------------|
| Company:  | Mewbourne Oil Co        | Local Co-ordinate Reference: | Well/Sharps 3 HE Fed #1H      |
| Project:  | Eddy County, New Mexico | TVD Reference:               | WELL @ 3336.0usft (Patterson) |
| Site:     | Sec 3-20S-29E           | MD Reference:                | WELL @ 3336.0usft (Patterson) |
| Well:     | Sharps 3 HE Fed #1H     | North Reference:             | Grid                          |
| Wellbore: | Wellbore #1             | Survey Calculation Method:   | Minimum Curvature             |
| Design:   | Wellbore #1             | Database:                    | EDM 5000.1 Single User Db     |

| Design Annotations          |                             |                   |                 |                                          |
|-----------------------------|-----------------------------|-------------------|-----------------|------------------------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                                  |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                          |
| 7,483.0                     | 7,479.6                     | -49.2             | 50.5            | TIE IN @ 7483' MD / 7480' TVD            |
| 8,103.1                     | 8,019.2                     | -57.4             | -179.7          | CROSSED HARD LINE @ 8103' MD / 8019' TVD |
| 12,780.0                    | 8,050.3                     | -13.1             | -4,831.4        | TD @ 12780' MD / 8050' TVD               |

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



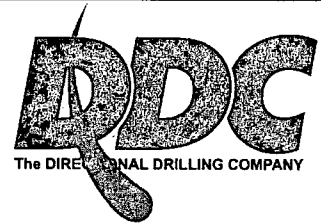
Company Name: Mewbourne Oil Co  
 Sharps 3 HE Fed #1H  
 Eddy County, New Mexico  
 Rig: Patterson #46  
 Created By: James Dawson  
 Date: 01/31/2014

PROJECT DETAILS: Eddy County, New Mexico

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: New Mexico East 3001  
 System Datum: Mean Sea Level

Sharps 3 HE Fed #1H  
 Eddy County, New Mexico  
 Q120359 & WT-140028  
 Design #3 Tie into GYRO

# Mewbourne Oil Co



WELL DETAILS: Sharps 3 HE Fed #1H

Ground Level: 3316.0  
 Northing: 583776.11 Easting: 585962.76  
 Latitude: 32° 36' 16.543 N Longitude: 104° 3' 15.957 W

ANNOTATIONS

| MD      | Inc   | Azi    | TVD    | +N-S  | +E-W   | V-Sect | Departure | Annotation                               |
|---------|-------|--------|--------|-------|--------|--------|-----------|------------------------------------------|
| 7483.0  | 1.51  | 231.74 | 7479.6 | -49.2 | 50.5   | -49.6  | 182.5     | TIE IN @ 7483' MD / 7480' TVD            |
| 8102.1  | 57.35 | 270.83 | 8019.2 | -67.4 | -79.7  | 180.7  | 413.3     | CROSSED HARD LINE @ 8103' MD / 8019' TVD |
| 12780.0 | 90.70 | 269.80 | 8050.3 | -13.1 | -651.4 | 4830.8 | 5087.8    | TD @ 12780' MD / 8050' TVD               |

DESIGN TARGET DETAILS

| Name                                                            | TVD    | +N-S  | +E-W    | Northing  | Easting   | Latitude         | Longitude        |
|-----------------------------------------------------------------|--------|-------|---------|-----------|-----------|------------------|------------------|
| PBHL Sharps 3 HE Fed #1H Design #2<br>- plan hits target center | 8066.0 | -85.8 | -4835.2 | 683690.30 | 581127.60 | 32° 36' 16.816 N | 104° 4' 11.585 W |

