## Preliminary Horizontal Planning Worksheet

Fill in the Blue Boxes  Yellow Boxes are Calculated

2/15/2013

| | | |
|---|---|---|
| **Well Name:** | | *Layla 35 NC Fee Com 1H* |
| | | |
| **Surface Location:** | | 150 FSL & 1800 FWL |
| State/ County | | NM/Eddy |
| S-T-R or Section-Block-Survey (Texas) | | Section 35/ 23S/ 28E |
| **Target Formation:** | | *Basal Brushy Lt Blue Sd* |
| **Elevation of SL** | | |
| Ground Level: | 2930 | |
| Height of KB: | 20 | |
| KB Elevation: | 2950 | |
| | | |
| **Landing Point** | | |
| Footing Calls | | 725 FSL & 1800 FWL Sec 35/23S/28E |
| Subsea Depth | -3230 | |
| TVD = | 6180 | |
| | | |
| **PBHL** | | |
| Footing Calls | | 330 FNL & 1800 FWL Sec 35/23S/28E |
| Subsea Depth | -3220 | |
| TVD = | 6170 | |
| | | |
| **Lateral Length:** | 4237.79 | |
| | | |
| **Estimated KOP:** | 5607.04 | |
| | | |
| **Est. Total Depth:** | 10746.18 | |

| | | |
|---|---|---|
| PBHL Offsets = | 4812.05 | NS |
| | 21.33 | EW |

Oil Conservation Division
Case No. _____
Exhibit No. 12

# Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Layla 35 NC Fee Com 1H
KOP 5607.04
SL: 150 FNL & 1400 FWL Sec 6-20S-29E
BHL: 330 FSL & 1400 FWL Sec 6-20S-29E

Target KBTVD: 6,180 Feet 6180.00
Target Angle: 90.14 Degrees 90.14
Section Plane: 0.25 Degrees
Declination Corrected to True North: 6.63 Degrees
Bit to Survey Offset: 44 Feet

| Survey No. | Measured Depth-ft | Drift (Deg.) | Azimuth (Deg.) | Course Length | TVD (Feet) | Vertical Section | +N/-S (Feet) | +E/-W (Feet) | Closure Distance | Closure Direction | BUR | DLS | KBTVD | +Above -Below Target | DRIFT RADIANS | AZIMUTH (RADIANS) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T/I | 5607.04 | 0.00 | 0.25 | N/A | 5607.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A | N/A | 5607.0 | 573.0 | 1E-12 | 0.00 | #VALUE! |
| 1 | 5697.18 | 9.01 | 0.25 | 90.135 | 5696.8 | 7.1 | 7.1 | 0.0 | 7.1 | 0.3 | 10.0 | 10.0 | 5696.8 | 483.2 | 0.157316 | 0.00 | 0.1573155 |
| 2 | 5787.31 | 18.03 | 0.25 | 90.135 | 5784.4 | 28.1 | 28.1 | 0.1 | 28.1 | 0.3 | 10.0 | 10.0 | 5784.4 | 395.6 | 0.314631 | 0.00 | 0.1573155 |
| 3 | 5877.45 | 27.04 | 0.25 | 90.135 | 5867.5 | 62.6 | 62.6 | 0.3 | 62.6 | 0.3 | 10.0 | 10.0 | 5867.7 | 312.3 | 0.471947 | 0.00 | 0.1573155 |
| 4 | 5967.58 | 36.05 | 0.25 | 90.135 | 5944.3 | 109.7 | 109.7 | 0.5 | 109.7 | 0.3 | 10.0 | 10.0 | 5944.5 | 235.5 | 0.629262 | 0.00 | 0.1573155 |
| 5 | 6057.72 | 45.07 | 0.25 | 90.135 | 6012.7 | 168.3 | 168.3 | 0.7 | 168.3 | 0.3 | 10.0 | 10.0 | 6013.1 | 166.9 | 0.786578 | 0.00 | 0.1573155 |
| 6 | 6147.85 | 54.08 | 0.25 | 90.135 | 6071.1 | 236.8 | 236.8 | 1.0 | 236.8 | 0.3 | 10.0 | 10.0 | 6071.6 | 108.4 | 0.943893 | 0.00 | 0.1573155 |
| 7 | 6237.99 | 63.09 | 0.25 | 90.135 | 6118.0 | 313.7 | 313.7 | 1.4 | 313.7 | 0.3 | 10.0 | 10.0 | 6118.7 | 61.3 | 1.101209 | 0.00 | 0.1573155 |
| 8 | 6328.12 | 72.11 | 0.25 | 90.135 | 6152.3 | 396.9 | 396.9 | 1.8 | 396.9 | 0.3 | 10.0 | 10.0 | 6153.2 | 26.8 | 1.258524 | 0.00 | 0.1573155 |
| 9 | 6418.26 | 81.12 | 0.25 | 90.135 | 6173.1 | 484.5 | 484.5 | 2.1 | 484.5 | 0.3 | 10.0 | 10.0 | 6174.3 | 5.7 | 1.41584 | 0.00 | 0.1573155 |
| 10 | 6508.39 | 90.14 | 0.25 | 90.135 | 6180.0 | 574.3 | 574.3 | 2.5 | 574.3 | 0.3 | 10.0 | 10.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 0.1573155 |
| 11 | 6600.00 | 90.14 | 0.25 | 91.606 | 6179.8 | 665.9 | 665.9 | 3.0 | 665.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 12 | 6700.00 | 90.14 | 0.25 | 100 | 6179.5 | 765.9 | 765.9 | 3.4 | 765.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 13 | 6800.00 | 90.14 | 0.25 | 100 | 6179.3 | 865.9 | 865.9 | 3.8 | 865.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 14 | 6900.00 | 90.14 | 0.25 | 100 | 6179.1 | 965.9 | 965.9 | 4.3 | 965.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 15 | 7000.00 | 90.14 | 0.25 | 100 | 6178.8 | 1065.9 | 1065.9 | 4.7 | 1065.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 16 | 7100.00 | 90.14 | 0.25 | 100 | 6178.6 | 1165.9 | 1165.9 | 5.2 | 1165.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 17 | 7200.00 | 90.14 | 0.25 | 100 | 6178.4 | 1265.9 | 1265.9 | 5.6 | 1265.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 18 | 7300.00 | 90.14 | 0.25 | 100 | 6178.1 | 1365.9 | 1365.9 | 6.1 | 1365.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 19 | 7400.00 | 90.14 | 0.25 | 100 | 6177.9 | 1465.9 | 1465.9 | 6.5 | 1465.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 20 | 7500.00 | 90.14 | 0.25 | 100 | 6177.7 | 1565.9 | 1565.9 | 6.9 | 1565.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 21 | 7600.00 | 90.14 | 0.25 | 100 | 6177.4 | 1665.9 | 1665.9 | 7.4 | 1665.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 22 | 7700.00 | 90.14 | 0.25 | 100 | 6177.2 | 1765.9 | 1765.9 | 7.8 | 1765.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 23 | 7800.00 | 90.14 | 0.25 | 100 | 6177.0 | 1865.9 | 1865.9 | 8.3 | 1865.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 24 | 7900.00 | 90.14 | 0.25 | 100 | 6176.7 | 1965.9 | 1965.9 | 8.7 | 1965.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 25 | 8000.00 | 90.14 | 0.25 | 100 | 6176.5 | 2065.9 | 2065.9 | 9.2 | 2065.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 26 | 8100.00 | 90.14 | 0.25 | 100 | 6176.2 | 2165.9 | 2165.9 | 9.6 | 2165.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 27 | 8200.00 | 90.14 | 0.25 | 100 | 6176.0 | 2265.9 | 2265.9 | 10.0 | 2265.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 28 | 8300.00 | 90.14 | 0.25 | 100 | 6175.8 | 2365.9 | 2365.9 | 10.5 | 2365.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 29 | 8400.00 | 90.14 | 0.25 | 100 | 6175.5 | 2465.9 | 2465.9 | 10.9 | 2465.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 30 | 8500.00 | 90.14 | 0.25 | 100 | 6175.3 | 2565.9 | 2565.9 | 11.4 | 2565.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 31 | 8600.00 | 90.14 | 0.25 | 100 | 6175.1 | 2665.9 | 2665.9 | 11.8 | 2665.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 32 | 8700.00 | 90.14 | 0.25 | 100 | 6174.8 | 2765.9 | 2765.9 | 12.3 | 2765.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 33 | 8800.00 | 90.14 | 0.25 | 100 | 6174.6 | 2865.9 | 2865.9 | 12.7 | 2865.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 34 | 8900.00 | 90.14 | 0.25 | 100 | 6174.4 | 2965.9 | 2965.9 | 13.1 | 2965.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 35 | 9000.00 | 90.14 | 0.25 | 100 | 6174.1 | 3065.9 | 3065.9 | 13.6 | 3065.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 36 | 9100.00 | 90.14 | 0.25 | 100 | 6173.9 | 3165.9 | 3165.9 | 14.0 | 3165.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 37 | 9200.00 | 90.14 | 0.25 | 100 | 6173.6 | 3265.9 | 3265.9 | 14.5 | 3265.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 38 | 9300.00 | 90.14 | 0.25 | 100 | 6173.4 | 3365.9 | 3365.9 | 14.9 | 3365.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 39 | 9400.00 | 90.14 | 0.25 | 100 | 6173.2 | 3465.9 | 3465.9 | 15.4 | 3465.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 40 | 9500.00 | 90.14 | 0.25 | 100 | 6172.9 | 3565.9 | 3565.9 | 15.8 | 3565.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 41 | 9600.00 | 90.14 | 0.25 | 100 | 6172.7 | 3665.9 | 3665.9 | 16.2 | 3665.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 42 | 9700.00 | 90.14 | 0.25 | 100 | 6172.5 | 3765.9 | 3765.9 | 16.7 | 3765.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 43 | 9800.00 | 90.14 | 0.25 | 100 | 6172.2 | 3865.9 | 3865.9 | 17.1 | 3865.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 44 | 9900.00 | 90.14 | 0.25 | 100 | 6172.0 | 3965.9 | 3965.9 | 17.6 | 3965.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 45 | 10000.00 | 90.14 | 0.25 | 100 | 6171.8 | 4065.9 | 4065.9 | 18.0 | 4065.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 46 | 10100.00 | 90.14 | 0.25 | 100 | 6171.5 | 4165.9 | 4165.9 | 18.5 | 4165.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 47 | 10200.00 | 90.14 | 0.25 | 100 | 6171.3 | 4265.9 | 4265.9 | 18.9 | 4265.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 48 | 10300.00 | 90.14 | 0.25 | 100 | 6171.1 | 4365.9 | 4365.9 | 19.4 | 4365.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 49 | 10400.00 | 90.14 | 0.25 | 100 | 6170.8 | 4465.9 | 4465.9 | 19.8 | 4465.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 50 | 10500.00 | 90.14 | 0.25 | 100 | 6170.6 | 4565.9 | 4565.9 | 20.2 | 4565.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 51 | 10600.00 | 90.14 | 0.25 | 100 | 6170.3 | 4665.9 | 4665.9 | 20.7 | 4665.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 52 | 10700.00 | 90.14 | 0.25 | 100 | 6170.1 | 4765.9 | 4765.9 | 21.1 | 4765.9 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 53 | 10746.18 | 90.14 | 0.25 | 46.182 | 6170.0 | 4812.1 | 4812.0 | 21.3 | 4812.1 | 0.3 | 0.0 | 0.0 | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 54 | 10746.18 | 90.14 | 0.25 | 0 | 6170.0 | 4812.1 | 4812.0 | 21.3 | 4812.1 | 0.3 | ###### | ###### | 6181.4 | -1.4 | 1.573155 | 0.00 | 1E-10 |
| 55 | | | | ###### | #VALUE! | ###### | ###### | ###### | ###### | ###### | ###### | ###### | #VALUE! | ###### | ###### | ###### | #VALUE! |
| 56 | #VALUE! | #VALUE! | #VALUE! | ###### | #VALUE! | ###### | ###### | ###### | ###### | ###### | ###### | ###### | #VALUE! | ###### | ###### | ###### | #VALUE! |