

- FINAL -



# SURVEY CALCULATION PROGRAM

# TARGET DETAILS

|                                   |  |       |  |        |  |                      |  |                |  |                         |  |                         |  |                 |  |
|-----------------------------------|--|-------|--|--------|--|----------------------|--|----------------|--|-------------------------|--|-------------------------|--|-----------------|--|
| OPERATOR: Mewbourne Oil Co.       |  |       |  |        |  | Supervisors:         |  |                |  | TARGET N-S              |  | Directional             |  |                 |  |
| WELL: Excalibur 17 MP Federal Com |  |       |  |        |  | Will Ellison DD      |  |                |  | TARGET E-W              |  |                         |  |                 |  |
| LOCATION: Lea Co. NM              |  |       |  |        |  | Scott Anderson DD    |  |                |  | TARGET RADIUS           |  |                         |  |                 |  |
| JOB NUMBER: WT-13814              |  |       |  |        |  | Gordyn Kirschner MWD |  |                |  | TARGET DISPLACEMENT     |  |                         |  |                 |  |
| Curr<                             |  | Prev< |  | DIFF   |  | S/Ahead              |  | PROJ           |  | Wes Goodman MWD         |  | TARGET CLOSURE          |  |                 |  |
| 89.1                              |  | 89.2  |  | -0.1   |  | -0.003               |  | 32 89.30       |  | George Berryman Co. Rep |  | TARGET KBTVD Horizontal |  | 9828.22         |  |
| Slide/Seen                        |  | BR/FT |  | A/BR   |  | BRN                  |  | JNT D/S        |  | Russel Bryant Co-Rep    |  | DIP AZ                  |  | 89.73           |  |
| -0.10                             |  | 32    |  | -0.003 |  | -0.31 0.00           |  | -0.3 32.00 0.0 |  | Patterson #75 Rig       |  | DIP DEG UP+/DN-         |  | -0.97           |  |
| TARGET INCLINATION                |  |       |  |        |  |                      |  |                |  |                         |  |                         |  | 89.03           |  |
| Magnetic Declination              |  |       |  |        |  |                      |  |                |  |                         |  |                         |  | 7.04            |  |
| Target #PBHL                      |  | MD    |  | TVD    |  | Vertical Section     |  | N-S            |  | E-W                     |  | Sec/Plane 89.73         |  | TARGET TRACKING |  |
| SVY                               |  |       |  | TRUE   |  | COURSE               |  |                |  | DLS/                    |  | ABOVE(+)                |  | RIGHT(+)        |  |
| NUM                               |  | MD    |  | INC    |  | AZM                  |  | LENGTH         |  | TVD                     |  | SECT                    |  | N-S             |  |
| TIE                               |  | 9165  |  | 0.46   |  | 143.93               |  |                |  | 9162.44                 |  | -57.28                  |  | 93.20           |  |
| 1                                 |  | 9229  |  | 1.30   |  | 232.00               |  | 64.00          |  | 9226.43                 |  | -57.70                  |  | 92.55           |  |
| 2                                 |  | 9260  |  | 0.80   |  | 167.40               |  | 31.00          |  | 9257.42                 |  | -57.94                  |  | 92.12           |  |
| 3                                 |  | 9292  |  | 3.50   |  | 91.40                |  | 32.00          |  | 9289.40                 |  | -56.91                  |  | 91.88           |  |
| 4                                 |  | 9324  |  | 6.90   |  | 81.90                |  | 32.00          |  | 9321.27                 |  | -54.03                  |  | 92.12           |  |
| 5                                 |  | 9355  |  | 9.70   |  | 74.00                |  | 31.00          |  | 9351.94                 |  | -49.67                  |  | 93.11           |  |
| 6                                 |  | 9387  |  | 12.80  |  | 72.40                |  | 32.00          |  | 9383.32                 |  | -43.69                  |  | 94.92           |  |
| 7                                 |  | 9419  |  | 15.20  |  | 73.70                |  | 32.00          |  | 9414.37                 |  | -36.27                  |  | 97.17           |  |
| 8                                 |  | 9450  |  | 18.40  |  | 78.80                |  | 31.00          |  | 9444.04                 |  | -27.56                  |  | 99.26           |  |
| 9                                 |  | 9482  |  | 20.00  |  | 78.90                |  | 32.00          |  | 9474.26                 |  | -17.23                  |  | 101.30          |  |
| 10                                |  | 9514  |  | 21.60  |  | 77.50                |  | 32.00          |  | 9504.18                 |  | -6.09                   |  | 103.63          |  |
| 11                                |  | 9545  |  | 24.60  |  | 82.30                |  | 31.00          |  | 9532.69                 |  | 5.88                    |  | 105.73          |  |
| 12                                |  | 9577  |  | 27.80  |  | 84.60                |  | 32.00          |  | 9561.40                 |  | 19.93                   |  | 107.32          |  |
| 13                                |  | 9608  |  | 32.00  |  | 85.40                |  | 31.00          |  | 9588.27                 |  | 35.32                   |  | 108.66          |  |
| 14                                |  | 9640  |  | 34.80  |  | 88.80                |  | 32.00          |  | 9614.98                 |  | 52.91                   |  | 109.53          |  |
| 15                                |  | 9671  |  | 38.40  |  | 87.70                |  | 31.00          |  | 9639.87                 |  | 71.39                   |  | 110.10          |  |
| 16                                |  | 9703  |  | 42.40  |  | 88.60                |  | 32.00          |  | 9664.23                 |  | 92.11                   |  | 110.77          |  |
| 17                                |  | 9734  |  | 46.60  |  | 88.60                |  | 31.00          |  | 9686.34                 |  | 113.83                  |  | 111.30          |  |
| 18                                |  | 9766  |  | 51.40  |  | 89.30                |  | 32.00          |  | 9707.32                 |  | 137.97                  |  | 111.73          |  |
| 19                                |  | 9797  |  | 55.40  |  | 90.00                |  | 31.00          |  | 9725.80                 |  | 162.86                  |  | 111.88          |  |
| 20                                |  | 9829  |  | 58.80  |  | 91.40                |  | 32.00          |  | 9743.18                 |  | 189.71                  |  | 111.55          |  |
| 21                                |  | 9861  |  | 62.30  |  | 92.50                |  | 32.00          |  | 9758.91                 |  | 217.55                  |  | 110.60          |  |
| 22                                |  | 9892  |  | 65.30  |  | 93.50                |  | 31.00          |  | 9772.60                 |  | 245.32                  |  | 109.14          |  |
| 23                                |  | 9924  |  | 68.40  |  | 93.50                |  | 32.00          |  | 9785.18                 |  | 274.68                  |  | 107.34          |  |

15-4/253



## SURVEY CALCULATION PROGRAM

## TARGET DETAILS

|                                   |       |        |          |                  |         |                      |                 |                         |                |                           |                     |                      |                            |                       |                      |
|-----------------------------------|-------|--------|----------|------------------|---------|----------------------|-----------------|-------------------------|----------------|---------------------------|---------------------|----------------------|----------------------------|-----------------------|----------------------|
| OPERATOR: Mewbourne Oil Co.       |       |        |          |                  |         | Supervisors:         |                 |                         |                | TARGET N-S                |                     | Directional          |                            |                       |                      |
| WELL: Excalibur 17 MP Federal Com |       |        |          |                  |         | Will Ellison DD      |                 |                         |                | TARGET E-W                |                     |                      |                            |                       |                      |
| LOCATION: Lea Co. NM              |       |        |          |                  |         | Scott Anderson DD    |                 |                         |                | TARGET RADIUS             |                     |                      |                            |                       |                      |
| JOB NUMBER: WT-13814              |       |        |          |                  |         | Gordyn Kirschner MWD |                 |                         |                | TARGET DISPLACEMENT       |                     |                      |                            |                       |                      |
| Curr<                             | Prev< | DIFF   | S/Ahead  |                  |         | PROJ                 | Wes Goodman MWD |                         | TARGET CLOSURE |                           |                     |                      |                            |                       |                      |
| 89.1                              | 89.2  | -0.1   | -0.003   |                  |         | 32                   | 89.30           | George Berryman Co. Rep |                | TARGET KBTVD Horizontal   |                     | 9828.22              |                            |                       |                      |
| Slide/Seen                        |       |        | BR/FT    | A/BR             | BRN     | JNT                  | D/S             | Russel Bryant Co. Rep   |                | DIP AZ                    |                     | 89.73                |                            |                       |                      |
| -0.10                             | 32    | -0.003 | -0.31    | 0.00             | -0.3    | 32.00                | 0.0             | Patterson #75 Rig       |                | DIP DEG UP+/DN-           |                     | -0.97                |                            |                       |                      |
|                                   |       |        |          |                  |         |                      |                 |                         |                | TARGET INCLINATION        |                     | 89.03                |                            |                       |                      |
| Target #PBHL                      |       | MD     | TVD      | Vertical Section |         | N-S                  | E-W             | Sec/Plane               | 89.73          | TARGET TRACKING TO CENTER |                     | Magnetic Declination |                            | 7.04                  |                      |
| SVY NUM                           | MD    | INC    | TRUE AZM | COURSE LENGTH    | TVD     | SECT                 | N-S             | E-W                     | DLS/ 100       | ABOVE(+)<br>BELOW(-)      | RIGHT(+)<br>LEFT(-) | DIR (DEG AZ)         | CLOSURE<br>DISTANCE (FEET) | BUILD<br>RATE/ %/100' | WALK<br>RATE/ %/100' |
| 24                                | 9955  | 71.10  | 93.70    | 31.00            | 9795.91 | 303.69               | 105.51          | 303.20                  | 8.73           | 37.45                     | -104.08             | 70.81                | 321.03                     | 8.71                  | 0.54                 |
| 25                                | 9987  | 73.80  | 92.80    | 32.00            | 9805.55 | 334.14               | 103.79          | 333.65                  | 8.85           | 28.32                     | -102.21             | 72.72                | 349.42                     | 8.44                  | -2.41                |
| 26                                | 10018 | 76.80  | 91.80    | 31.00            | 9813.42 | 364.09               | 102.59          | 363.61                  | 10.17          | 20.96                     | -100.87             | 74.24                | 377.81                     | 9.68                  | -2.80                |
| 27                                | 10050 | 79.00  | 91.20    | 32.00            | 9820.13 | 395.36               | 101.77          | 394.89                  | 7.12           | 14.78                     | -99.90              | 75.55                | 407.79                     | 6.88                  | -1.65                |
| 28                                | 10081 | 80.80  | 91.10    | 31.00            | 9825.56 | 425.87               | 101.15          | 425.40                  | 5.82           | 9.86                      | -99.15              | 76.62                | 437.26                     | 5.81                  | -0.28                |
| 29                                | 10113 | 83.60  | 90.70    | 32.00            | 9829.91 | 457.57               | 100.66          | 457.10                  | 8.84           | 6.06                      | -98.50              | 77.58                | 468.05                     | 8.75                  | -1.11                |
| 30                                | 10139 | 85.50  | 91.70    | 26.00            | 9832.38 | 483.44               | 100.11          | 482.97                  | 8.25           | 4.03                      | -97.84              | 78.29                | 493.24                     | 7.31                  | 3.44                 |
| 31                                | 10170 | 86.30  | 91.50    | 31.00            | 9834.59 | 514.34               | 99.25           | 513.88                  | 2.66           | 2.33                      | -96.83              | 79.07                | 523.38                     | 2.58                  | -0.58                |
| 32                                | 10202 | 89.40  | 91.50    | 32.00            | 9835.79 | 546.30               | 98.41           | 545.84                  | 9.69           | 1.67                      | -95.84              | 79.78                | 554.64                     | 9.69                  | 0.00                 |
| 33                                | 10234 | 90.30  | 92.00    | 32.00            | 9835.88 | 578.28               | 97.44           | 577.83                  | 3.22           | 2.13                      | -94.71              | 80.43                | 585.99                     | 2.81                  | 1.40                 |
| 34                                | 10265 | 91.00  | 91.70    | 31.00            | 9835.52 | 609.26               | 96.44           | 608.81                  | 2.46           | 3.01                      | -93.57              | 81.00                | 616.40                     | 2.26                  | -0.87                |
| 35                                | 10329 | 90.80  | 91.80    | 64.00            | 9834.52 | 673.21               | 94.48           | 672.77                  | 0.35           | 5.10                      | -91.31              | 82.01                | 679.37                     | -0.31                 | 0.14                 |
| 36                                | 10392 | 90.20  | 91.30    | 63.00            | 9833.97 | 736.17               | 92.78           | 735.75                  | 1.24           | 6.71                      | -89.31              | 82.81                | 741.57                     | -0.95                 | -0.71                |
| 37                                | 10456 | 88.90  | 90.20    | 64.00            | 9834.47 | 800.16               | 91.94           | 799.74                  | 2.66           | 7.29                      | -88.17              | 83.44                | 805.00                     | -2.03                 | -1.54                |
| 38                                | 10519 | 88.00  | 90.90    | 63.00            | 9836.18 | 863.13               | 91.34           | 862.71                  | 1.81           | 6.65                      | -87.27              | 83.96                | 867.53                     | -1.43                 | 1.00                 |
| 39                                | 10582 | 88.50  | 91.30    | 63.00            | 9838.10 | 926.08               | 90.13           | 925.67                  | 1.02           | 5.80                      | -85.76              | 84.44                | 930.05                     | 0.79                  | 0.57                 |
| 40                                | 10645 | 87.70  | 91.10    | 63.00            | 9840.19 | 989.03               | 88.81           | 988.62                  | 1.31           | 4.77                      | -84.15              | 84.87                | 992.60                     | -1.27                 | -0.28                |
| 41                                | 10709 | 87.70  | 91.50    | 64.00            | 9842.76 | 1052.95              | 87.36           | 1052.55                 | 0.62           | 3.29                      | -82.40              | 85.26                | 1056.17                    | 0.00                  | 0.56                 |
| 42                                | 10772 | 88.20  | 91.70    | 63.00            | 9845.01 | 1115.88              | 85.60           | 1115.49                 | 0.85           | 2.10                      | -80.34              | 85.61                | 1118.77                    | 0.79                  | 0.28                 |
| 43                                | 10836 | 89.20  | 91.50    | 64.00            | 9846.46 | 1179.83              | 83.81           | 1179.44                 | 1.59           | 1.73                      | -78.25              | 85.94                | 1182.42                    | 1.56                  | -0.28                |
| 44                                | 10899 | 89.20  | 92.00    | 63.00            | 9847.34 | 1242.78              | 81.89           | 1242.41                 | 0.79           | 1.92                      | -76.03              | 86.23                | 1245.10                    | 0.00                  | 0.71                 |
| 45                                | 10962 | 88.20  | 91.10    | 63.00            | 9848.77 | 1305.73              | 80.19           | 1305.37                 | 2.14           | 1.55                      | -74.03              | 86.48                | 1307.83                    | -1.59                 | -1.28                |
| 46                                | 11025 | 88.50  | 91.30    | 63.00            | 9850.59 | 1368.68              | 78.87           | 1368.33                 | 0.57           | 0.80                      | -72.42              | 86.70                | 1370.60                    | 0.48                  | 0.28                 |
| 47                                | 11089 | 89.30  | 90.90    | 64.00            | 9851.82 | 1432.65              | 77.64           | 1432.30                 | 1.40           | 0.66                      | -70.89              | 86.90                | 1434.41                    | 1.25                  | -0.56                |



## SURVEY CALCULATION PROGRAM

## TARGET DETAILS

|                                   |       |        |       |       |         |          |       |                      |      |                         |        |                           |         |                      |       |                   |  |
|-----------------------------------|-------|--------|-------|-------|---------|----------|-------|----------------------|------|-------------------------|--------|---------------------------|---------|----------------------|-------|-------------------|--|
| OPERATOR: Mewbourne Oil Co.       |       |        |       |       |         |          |       | Supervisors:         |      |                         |        | TARGET N-S                |         | Directional          |       |                   |  |
| WELL: Excalibur 17 MP Federal Com |       |        |       |       |         |          |       | Will Ellison DD      |      |                         |        | TARGET E-W                |         |                      |       |                   |  |
| LOCATION: Lea Co. NM              |       |        |       |       |         |          |       | Scott Anderson DD    |      |                         |        | TARGET RADIUS             |         |                      |       |                   |  |
| JOB NUMBER: WT-13814              |       |        |       |       |         |          |       | Gordyn Kirschner MWD |      |                         |        | TARGET DISPLACEMENT       |         |                      |       |                   |  |
| Curr<                             |       | Prev<  |       | DIFF  |         | S/Ahead  |       | PROJ                 |      | Wes Goodman MWD         |        | TARGET CLOSURE            |         |                      |       |                   |  |
| 89.1                              | 89.2  | -0.1   |       |       |         | -0.003   | 32    | 89.30                |      | George Berryman Co. Rep |        | TARGET KBTVD Horizontal   |         | 9828.22              |       |                   |  |
| Slide/Seen                        |       | BR/FT  |       | A/BR  |         | BRN      |       | JNT                  |      | D/S                     |        | Russel Bryant Co. Rep     |         | DIP AZ               |       | 89.73             |  |
| -0.10                             | 32    | -0.003 |       | -0.31 |         | 0.00     |       | -0.3                 |      | 32.00                   |        | 0.0                       |         | DIP DEG UP+/DN-      |       | -0.97             |  |
|                                   |       |        |       |       |         |          |       |                      |      |                         |        |                           |         | TARGET INCLINATION   |       | 89.03             |  |
| Target #PBHL                      |       |        |       |       |         |          |       | MD                   |      | TVD                     |        | Vertical Section          |         | N-S                  |       | E-W               |  |
|                                   |       |        |       |       |         |          |       | Sec/Plane            |      | 89.73                   |        | TARGET TRACKING TO CENTER |         | Magnetic Declination |       | 7.04              |  |
| SVY NUM                           |       | MD     |       | INC   |         | TRUE AZM |       | COURSE LENGTH        |      | TVD                     |        | SECT                      |         | N-S                  |       | E-W               |  |
|                                   |       |        |       |       |         |          |       |                      |      | DLS/ 100                |        | ABOVE(+) BELOW(-)         |         | RIGHT(+) LEFT(-)     |       | DIR (DEG AZ)      |  |
|                                   |       |        |       |       |         |          |       |                      |      |                         |        |                           |         |                      |       | DISTANCE (FEET)   |  |
|                                   |       |        |       |       |         |          |       |                      |      |                         |        |                           |         |                      |       | RATE/ %/100'      |  |
|                                   |       |        |       |       |         |          |       |                      |      |                         |        |                           |         |                      |       | WALK RATE/ %/100' |  |
| 48                                | 11152 | 88.60  | 91.70 | 63.00 | 9852.97 | 1495.62  | 76.21 | 1495.27              | 1.69 | 0.57                    | -69.16 | 87.08                     | 1497.22 | -1.11                | 1.14  |                   |  |
| 49                                | 11215 | 88.70  | 91.80 | 63.00 | 9854.45 | 1558.56  | 74.29 | 1558.23              | 0.22 | 0.15                    | -66.94 | 87.27                     | 1560.00 | 0.16                 | 0.14  |                   |  |
| 50                                | 11279 | 89.20  | 91.80 | 64.00 | 9855.63 | 1622.51  | 72.28 | 1622.19              | 0.78 | 0.06                    | -64.63 | 87.45                     | 1623.79 | 0.78                 | 0.00  |                   |  |
| 51                                | 11342 | 89.60  | 91.70 | 63.00 | 9856.29 | 1685.47  | 70.35 | 1685.15              | 0.65 | 0.47                    | -62.41 | 87.61                     | 1686.62 | 0.63                 | -0.14 |                   |  |
| 52                                | 11406 | 89.60  | 90.60 | 64.00 | 9856.73 | 1749.44  | 69.07 | 1749.14              | 1.72 | 1.10                    | -60.82 | 87.74                     | 1750.50 | 0.00                 | -1.54 |                   |  |
| 53                                | 11470 | 90.40  | 90.10 | 64.00 | 9856.73 | 1813.44  | 68.68 | 1813.14              | 1.47 | 2.19                    | -60.13 | 87.83                     | 1814.44 | 1.25                 | -0.70 |                   |  |
| 54                                | 11532 | 89.10  | 90.20 | 62.00 | 9857.00 | 1875.44  | 68.51 | 1875.13              | 2.10 | 2.97                    | -59.68 | 87.91                     | 1876.38 | -2.10                | 0.14  |                   |  |
| 55                                | 11595 | 89.30  | 90.90 | 63.00 | 9857.88 | 1938.42  | 67.91 | 1938.12              | 1.16 | 3.15                    | -58.78 | 87.99                     | 1939.31 | 0.32                 | 1.00  |                   |  |
| 56                                | 11658 | 90.00  | 90.80 | 63.00 | 9858.27 | 2001.41  | 66.98 | 2001.12              | 1.12 | 3.84                    | -57.54 | 88.08                     | 2002.24 | 1.11                 | -0.14 |                   |  |
| 57                                | 11721 | 88.40  | 90.60 | 63.00 | 9859.15 | 2064.39  | 66.21 | 2064.10              | 2.56 | 4.02                    | -56.48 | 88.16                     | 2065.16 | -2.54                | -0.28 |                   |  |
| 58                                | 11785 | 88.70  | 90.60 | 64.00 | 9860.77 | 2128.36  | 65.54 | 2128.08              | 0.47 | 3.49                    | -55.51 | 88.24                     | 2129.09 | 0.47                 | 0.00  |                   |  |
| 59                                | 11848 | 87.60  | 90.10 | 63.00 | 9862.80 | 2191.33  | 65.15 | 2191.04              | 1.92 | 2.52                    | -54.83 | 88.30                     | 2192.01 | -1.75                | -0.71 |                   |  |
| 60                                | 11912 | 88.40  | 89.70 | 64.00 | 9865.03 | 2255.29  | 65.26 | 2255.00              | 1.40 | 1.37                    | -54.64 | 88.34                     | 2255.95 | 1.25                 | -0.56 |                   |  |
| 61                                | 11975 | 89.10  | 89.70 | 63.00 | 9866.41 | 2318.27  | 65.59 | 2317.99              | 1.11 | 1.06                    | -54.67 | 88.38                     | 2318.91 | 1.11                 | 0.00  |                   |  |
| 62                                | 12038 | 89.30  | 89.90 | 63.00 | 9867.29 | 2381.26  | 65.81 | 2380.98              | 0.45 | 1.25                    | -54.59 | 88.42                     | 2381.89 | 0.32                 | 0.28  |                   |  |
| 63                                | 12101 | 90.20  | 89.40 | 63.00 | 9867.56 | 2444.26  | 66.20 | 2443.98              | 1.63 | 2.04                    | -54.68 | 88.45                     | 2444.87 | 1.43                 | -0.71 |                   |  |
| 64                                | 12164 | 89.50  | 90.10 | 63.00 | 9867.73 | 2507.26  | 66.47 | 2506.98              | 1.57 | 2.94                    | -54.66 | 88.48                     | 2507.86 | -1.11                | 1.00  |                   |  |
| 65                                | 12227 | 90.30  | 90.10 | 63.00 | 9867.84 | 2570.26  | 66.36 | 2569.98              | 1.27 | 3.90                    | -54.25 | 88.52                     | 2570.83 | 1.27                 | 0.00  |                   |  |
| 66                                | 12291 | 88.70  | 89.70 | 64.00 | 9868.40 | 2634.25  | 66.47 | 2633.97              | 2.58 | 4.42                    | -54.06 | 88.55                     | 2634.81 | -2.50                | -0.56 |                   |  |
| 67                                | 12354 | 89.10  | 90.10 | 63.00 | 9869.61 | 2697.24  | 66.58 | 2696.96              | 0.90 | 4.28                    | -53.87 | 88.59                     | 2697.78 | 0.63                 | 0.57  |                   |  |
| 68                                | 12417 | 88.20  | 89.20 | 63.00 | 9871.09 | 2760.22  | 66.97 | 2759.94              | 2.02 | 3.86                    | -53.96 | 88.61                     | 2760.75 | -1.43                | -1.28 |                   |  |
| 69                                | 12480 | 88.50  | 89.40 | 63.00 | 9872.90 | 2823.20  | 67.74 | 2822.91              | 0.57 | 3.11                    | -54.43 | 88.63                     | 2823.72 | 0.48                 | 0.28  |                   |  |
| 70                                | 12543 | 90.00  | 89.40 | 63.00 | 9873.73 | 2886.19  | 68.40 | 2885.90              | 2.38 | 3.35                    | -54.80 | 88.64                     | 2886.71 | 2.38                 | 0.00  |                   |  |
| 71                                | 12607 | 88.90  | 89.40 | 64.00 | 9874.34 | 2950.18  | 69.07 | 2949.89              | 1.72 | 3.82                    | -55.17 | 88.66                     | 2950.70 | -1.72                | 0.00  |                   |  |



## SURVEY CALCULATION PROGRAM

## TARGET DETAILS

|              |  |       |  |                             |  |                  |  |                      |  |                 |  |                         |  |                           |  |
|--------------|--|-------|--|-----------------------------|--|------------------|--|----------------------|--|-----------------|--|-------------------------|--|---------------------------|--|
| OPERATOR:    |  |       |  | Mewbourne Oil Co.           |  |                  |  | Supervisors:         |  |                 |  | TARGET N-S              |  | Directional               |  |
| WELL:        |  |       |  | Excalibur 17 MP Federal Com |  |                  |  | Will Ellison DD      |  |                 |  | TARGET E-W              |  |                           |  |
| LOCATION:    |  |       |  | Lea Co. NM                  |  |                  |  | Scott Anderson DD    |  |                 |  | TARGET RADIUS           |  |                           |  |
| JOB NUMBER:  |  |       |  | WT-13814                    |  |                  |  | Gordyn Kirschner MWD |  |                 |  | TARGET DISPLACEMENT     |  |                           |  |
| Curr<        |  | Prev< |  | DIFF                        |  | S/Ahead          |  | PROJ                 |  | Wes Goodman MWD |  | TARGET CLOSURE          |  |                           |  |
| 89.1         |  | 89.2  |  | -0.1                        |  | -0.003           |  | 32                   |  | 89.30           |  | George Berryman Co. Rep |  | Horizontal 9828.22        |  |
| Slide/Seen   |  | BR/FT |  | A/BR                        |  | BRN              |  | JNT                  |  | D/S             |  | Russel Bryant Co. Rep   |  | DIP AZ 89.73              |  |
| -0.10        |  | 32    |  | -0.003                      |  | -0.31            |  | 0.00                 |  | -0.3            |  | 32.00                   |  | 0.0                       |  |
|              |  |       |  |                             |  |                  |  |                      |  |                 |  | Patterson #75 Rig       |  | DIP DEG UP+/DN- -0.97     |  |
|              |  |       |  |                             |  |                  |  |                      |  |                 |  |                         |  | TARGET INCLINATION 89.03  |  |
|              |  |       |  |                             |  |                  |  |                      |  |                 |  |                         |  | Magnetic Declination 7.04 |  |
| Target #PBHL |  | MD    |  | TVD                         |  | Vertical Section |  | N-S                  |  | E-W             |  | Sec/Plane 89.73         |  | TARGET TRACKING TO CENTER |  |
| SVY NUM      |  | MD    |  | INC                         |  | TRUE AZM         |  | COURSE LENGTH        |  | TVD             |  | SECT                    |  | N-S                       |  |
|              |  |       |  |                             |  |                  |  |                      |  |                 |  |                         |  |                           |  |
| 72           |  | 12670 |  | 87.80                       |  | 90.60            |  | 63.00                |  | 9876.16         |  | 3013.15                 |  | 69.07                     |  |
| 73           |  | 12734 |  | 88.00                       |  | 91.10            |  | 64.00                |  | 9878.50         |  | 3077.10                 |  | 68.12                     |  |
| 74           |  | 12797 |  | 88.50                       |  | 91.10            |  | 63.00                |  | 9880.43         |  | 3140.05                 |  | 66.91                     |  |
| 75           |  | 12861 |  | 89.40                       |  | 91.10            |  | 64.00                |  | 9881.60         |  | 3204.02                 |  | 65.68                     |  |
| 76           |  | 12924 |  | 90.60                       |  | 90.80            |  | 63.00                |  | 9881.60         |  | 3267.01                 |  | 64.64                     |  |
| 77           |  | 12988 |  | 89.10                       |  | 91.30            |  | 64.00                |  | 9881.77         |  | 3330.99                 |  | 63.46                     |  |
| 78           |  | 13051 |  | 89.10                       |  | 91.80            |  | 63.00                |  | 9882.76         |  | 3393.95                 |  | 61.76                     |  |
| 79           |  | 13115 |  | 90.00                       |  | 92.20            |  | 64.00                |  | 9883.26         |  | 3457.89                 |  | 59.53                     |  |
| 80           |  | 13178 |  | 88.60                       |  | 91.30            |  | 63.00                |  | 9884.03         |  | 3520.85                 |  | 57.60                     |  |
| 81           |  | 13242 |  | 88.60                       |  | 90.80            |  | 64.00                |  | 9885.59         |  | 3584.81                 |  | 56.43                     |  |
| 82           |  | 13305 |  | 89.20                       |  | 90.60            |  | 63.00                |  | 9886.80         |  | 3647.79                 |  | 55.66                     |  |
| 83           |  | 13368 |  | 88.60                       |  | 90.90            |  | 63.00                |  | 9888.01         |  | 3710.77                 |  | 54.84                     |  |
| 84           |  | 13432 |  | 88.50                       |  | 91.50            |  | 64.00                |  | 9889.63         |  | 3774.73                 |  | 53.50                     |  |
| 85           |  | 13495 |  | 88.90                       |  | 91.50            |  | 63.00                |  | 9891.06         |  | 3837.68                 |  | 51.85                     |  |
| 86           |  | 13559 |  | 89.30                       |  | 91.70            |  | 64.00                |  | 9892.07         |  | 3901.64                 |  | 50.06                     |  |
| 87           |  | 13623 |  | 88.20                       |  | 91.30            |  | 64.00                |  | 9893.46         |  | 3965.59                 |  | 48.39                     |  |
| 88           |  | 13686 |  | 88.30                       |  | 90.90            |  | 63.00                |  | 9895.39         |  | 4028.54                 |  | 47.18                     |  |
| 89           |  | 13750 |  | 89.10                       |  | 90.40            |  | 64.00                |  | 9896.84         |  | 4092.52                 |  | 46.45                     |  |
| 90           |  | 13813 |  | 89.50                       |  | 90.10            |  | 63.00                |  | 9897.61         |  | 4155.51                 |  | 46.18                     |  |
| 88           |  | 13877 |  | 88.10                       |  | 89.90            |  | 64.00                |  | 9898.95         |  | 4219.49                 |  | 46.18                     |  |
| 88           |  | 13940 |  | 88.80                       |  | 89.20            |  | 63.00                |  | 9900.65         |  | 4282.47                 |  | 46.67                     |  |
| 88           |  | 14003 |  | 88.20                       |  | 89.90            |  | 63.00                |  | 9902.30         |  | 4345.45                 |  | 47.17                     |  |
| 94           |  | 14067 |  | 89.00                       |  | 89.90            |  | 64.00                |  | 9903.86         |  | 4409.43                 |  | 47.28                     |  |
| 95           |  | 14131 |  | 89.50                       |  | 89.70            |  | 64.00                |  | 9904.70         |  | 4473.42                 |  | 47.50                     |  |



## SURVEY CALCULATION PROGRAM

## TARGET DETAILS

|                                          |            |            |                 |                         |            |                |            |                 |                                  |                      |                                   |                               |                        |                     |                          |
|------------------------------------------|------------|------------|-----------------|-------------------------|------------|----------------|------------|-----------------|----------------------------------|----------------------|-----------------------------------|-------------------------------|------------------------|---------------------|--------------------------|
| <b>OPERATOR:</b> Mewbourne Oil Co.       |            |            |                 |                         |            |                |            |                 |                                  | <b>Supervisors:</b>  |                                   | <b>TARGET N-S</b> Directional |                        |                     |                          |
| <b>WELL:</b> Excalibur 17 MP Federal Com |            |            |                 |                         |            |                |            |                 |                                  | Will Ellison DD      |                                   | <b>TARGET E-W</b>             |                        |                     |                          |
| <b>LOCATION:</b> Lea Co. NM              |            |            |                 |                         |            |                |            |                 |                                  | Scott Anderson DD    |                                   | <b>TARGET RADIUS</b>          |                        |                     |                          |
| <b>JOB NUMBER:</b> WT-13814              |            |            |                 |                         |            |                |            |                 |                                  | Gordyn Kirschner MWD |                                   | <b>TARGET DISPLACEMENT</b>    |                        |                     |                          |
|                                          |            |            |                 |                         |            |                |            |                 |                                  | Wes Goodman MWD      |                                   | <b>TARGET CLOSURE</b>         |                        |                     |                          |
| Curr< 89.1                               | Prev< 89.2 | DIFF -0.1  |                 |                         |            | S/Ahead -0.003 | PROJ 32    | 89.30           | George Berryman Co. Rep          |                      | <b>TARGET KBTVD</b> Horizontal    |                               |                        |                     |                          |
| Slide/Seen -0.10                         |            | BR/FT 32   | A/BR -0.003     | BRN -0.31               | 0.00       | -0.3           | JNT 32.00  | D/S 0.0         | Russel Bryant Co. Rep            |                      | <b>DIP AZ</b>                     |                               |                        |                     |                          |
|                                          |            |            |                 |                         |            |                |            |                 |                                  | Patterson #75 Rig    |                                   | <b>DIP DEG UP+/DN-</b>        |                        |                     |                          |
|                                          |            |            |                 |                         |            |                |            |                 |                                  |                      |                                   | <b>TARGET INCLINATION</b>     |                        |                     |                          |
|                                          |            |            |                 |                         |            |                |            |                 |                                  |                      |                                   | <b>Magnetic Declination</b>   |                        |                     |                          |
| <b>Target #PBHL</b>                      |            | <b>MD</b>  | <b>TVD</b>      | <b>Vertical Section</b> |            | <b>N-S</b>     | <b>E-W</b> | Sec/Plane 89.73 | <b>TARGET TRACKING TO CENTER</b> |                      | <b>CLOSURE CLOSURE BUILD WALK</b> |                               |                        |                     |                          |
| <b>SVY NUM</b>                           | <b>MD</b>  | <b>INC</b> | <b>TRUE AZM</b> | <b>COURSE LENGTH</b>    | <b>TVD</b> | <b>SECT</b>    | <b>N-S</b> | <b>E-W</b>      | <b>DLS/ 100</b>                  | <b>ABOVE(+)</b>      | <b>RIGHT(+)</b>                   | <b>DIR (DEG AZ)</b>           | <b>DISTANCE (FEET)</b> | <b>RATE/ °/100'</b> | <b>WALK RATE/ °/100'</b> |
| 96                                       | 14194      | 90.50      | 89.20           | 63.00                   | 9904.70    | 4536.42        | 48.11      | 4536.24         | 1.77                             | 0.32                 | -26.73                            | 89.39                         | 4536.50                | 1.59                | -0.71                    |
| 97                                       | 14258      | 88.90      | 89.50           | 64.00                   | 9905.04    | 4600.42        | 48.83      | 4600.24         | 2.54                             | 1.07                 | -27.15                            | 89.39                         | 4600.50                | -2.50               | 0.42                     |
| 98                                       | 14322      | 88.90      | 89.50           | 64.00                   | 9906.27    | 4664.40        | 49.39      | 4664.22         | 0.00                             | 0.93                 | -27.41                            | 89.39                         | 4664.48                | 0.00                | 0.00                     |
| 99                                       | 14385      | 89.20      | 89.40           | 63.00                   | 9907.31    | 4727.39        | 50.00      | 4727.21         | 0.50                             | 0.95                 | -27.72                            | 89.39                         | 4727.47                | 0.48                | -0.14                    |
| 100                                      | 14425      | 89.10      | 89.20           | 40.00                   | 9907.90    | 4767.39        | 50.48      | 4767.20         | 0.56                             | 1.03                 | -28.02                            | 89.39                         | 4767.47                | -0.25               | -0.45                    |
| Bit                                      | 14475      | 89.10      | 89.20           | 50.00                   | 9908.7     | 4817.38        | 51.18      | 4817.19         | 0.00                             | 1.09                 | -28.48                            | 89.39                         | 4817.46                | 0.00                | 0.00                     |