

**NM OIL CONSERVATION**

ARTESIA DISTRICT

DEC 24 2018

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Fort Worth, Texas 76140  
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www.msdir.com

MS Directional Survey Data Certification

30-015-44622

MS Directional Job Number: MSMO-53864  
Survey Type: MWD  
Operating Company: Matador Production Company  
Well Name & Number: Miss Sue 12-23S-27E RB 201H  
Location: Eddy County, NM  
API Number: 30-015-44622  
Tie In Depth: Surface  
Surveyed Depths: 145' – 14,232' MD  
Projected TD Survey: 14,303' MD  
Dates Performed: 08/22/2018 – 09/06/2018

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Directional; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Directional.

Digitally signed by:

MWD Surveyor Name: Patrick Walker

Date: 10-04-2018

Email: pwalker@msdir.com

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V09.04.02

|             |                             |
|-------------|-----------------------------|
| Company:    | Matador Production Company  |
| Well Name:  | Miss Sue 12-23S-27E RB 201H |
| Location:   | Eddy County, NM             |
| Rig:        | Patterson #810              |
| Job Number: | MSMO-53864                  |
| API #:      | 30-015-44622                |

Magnetic Declination: 7.07 REFERENCED TO GRID NORTH

Vertical Section Azimuth: 89.78 Proposed Direction: 89.78

Survey Calculation Method: Minimum Curvature

| PTB: | MD     | INC  | AZM  | TVD     | N/S    | E/W     | VS      |
|------|--------|------|------|---------|--------|---------|---------|
|      | 14,303 | 88.7 | 89.8 | 9364.36 | 644.01 | 5482.72 | 5485.15 |

| #      | Depth<br>Feet | Inc<br>Degrees | Azm<br>Degrees | TVD<br>Feet | N/S<br>Feet | E/W<br>Feet | Surface<br>Vert Sec | Closure<br>Distance | Azm   | DLS/<br>100 | BUR/<br>100' |
|--------|---------------|----------------|----------------|-------------|-------------|-------------|---------------------|---------------------|-------|-------------|--------------|
| TIE IN | 0             | 0.00           | 0.00           | 0.00        | 0.00        | 0.00        |                     |                     | 0.00  |             |              |
| 1      | 145           | 0.30           | 14.40          | 145.00      | 0.37        | 0.09        | 0.10                | 0.38                | 14.40 | 0.21        | 0.21         |
| 2      | 231           | 0.80           | 4.00           | 231.00      | 1.18        | 0.19        | 0.20                | 1.20                | 9.22  | 0.59        | 0.58         |
| 3      | 367           | 0.90           | 2.70           | 366.98      | 3.20        | 0.31        | 0.32                | 3.21                | 5.51  | 0.07        | 0.07         |
| 4      | 512           | 1.70           | 7.30           | 511.94      | 6.47        | 0.64        | 0.66                | 6.50                | 5.61  | 0.56        | 0.55         |
| 5      | 602           | 1.90           | 12.00          | 601.90      | 9.25        | 1.12        | 1.15                | 9.32                | 6.87  | 0.28        | 0.22         |
| 6      | 693           | 1.90           | 12.40          | 692.85      | 12.20       | 1.75        | 1.80                | 12.33               | 8.18  | 0.01        | 0.00         |
| 7      | 784           | 2.00           | 20.20          | 783.79      | 15.17       | 2.63        | 2.68                | 15.39               | 9.82  | 0.31        | 0.11         |
| 8      | 874           | 1.90           | 17.00          | 873.74      | 18.07       | 3.60        | 3.67                | 18.42               | 11.28 | 0.16        | -0.11        |
| 9      | 970           | 1.70           | 24.20          | 969.70      | 20.89       | 4.65        | 4.73                | 21.40               | 12.56 | 0.31        | -0.21        |
| 10     | 1,065         | 2.40           | 17.90          | 1064.63     | 24.07       | 5.84        | 5.93                | 24.76               | 13.64 | 0.77        | 0.74         |
| 11     | 1,160         | 3.50           | 19.50          | 1159.51     | 28.69       | 7.42        | 7.53                | 29.64               | 14.50 | 1.16        | 1.16         |
| 12     | 1,255         | 4.20           | 19.40          | 1254.29     | 34.71       | 9.54        | 9.68                | 36.00               | 15.38 | 0.74        | 0.74         |
| 13     | 1,351         | 5.00           | 22.10          | 1349.98     | 41.90       | 12.29       | 12.45               | 43.66               | 16.34 | 0.86        | 0.83         |
| 14     | 1,446         | 6.00           | 26.70          | 1444.54     | 50.17       | 16.08       | 16.27               | 52.68               | 17.77 | 1.15        | 1.05         |
| 15     | 1,541         | 6.50           | 31.00          | 1538.98     | 59.22       | 21.08       | 21.30               | 62.85               | 19.59 | 0.72        | 0.53         |
| 16     | 1,636         | 6.70           | 36.60          | 1633.35     | 68.27       | 27.15       | 27.41               | 73.47               | 21.69 | 0.71        | 0.21         |
| 17     | 1,731         | 5.80           | 34.10          | 1727.79     | 76.70       | 33.14       | 33.44               | 83.55               | 23.37 | 0.99        | -0.95        |
| 18     | 1,826         | 5.60           | 30.30          | 1822.32     | 84.67       | 38.17       | 38.50               | 92.88               | 24.27 | 0.45        | -0.21        |
| 19     | 1,921         | 6.30           | 27.30          | 1916.80     | 93.31       | 42.90       | 43.26               | 102.70              | 24.69 | 0.81        | 0.74         |
| 20     | 2,016         | 6.90           | 27.90          | 2011.17     | 102.98      | 47.96       | 48.36               | 113.61              | 24.97 | 0.64        | 0.63         |
| 21     | 2,110         | 6.90           | 23.10          | 2104.49     | 113.17      | 52.82       | 53.26               | 124.89              | 25.02 | 0.61        | 0.00         |
| 22     | 2,206         | 6.80           | 18.40          | 2199.81     | 123.86      | 56.88       | 57.35               | 136.30              | 24.66 | 0.59        | -0.10        |
| 23     | 2,301         | 6.70           | 19.00          | 2294.15     | 134.44      | 60.46       | 60.97               | 147.41              | 24.21 | 0.13        | -0.11        |
| 24     | 2,398         | 6.70           | 20.90          | 2390.49     | 145.08      | 64.32       | 64.88               | 158.70              | 23.91 | 0.23        | 0.00         |
| 25     | 2,588         | 7.80           | 19.60          | 2578.97     | 167.58      | 72.60       | 73.24               | 182.63              | 23.42 | 0.59        | 0.58         |
| 26     | 2,778         | 9.00           | 17.70          | 2766.93     | 193.88      | 81.44       | 82.19               | 210.29              | 22.79 | 0.65        | 0.63         |
| 27     | 2,969         | 8.90           | 17.80          | 2955.60     | 222.18      | 90.50       | 91.35               | 239.91              | 22.16 | 0.05        | -0.05        |
| 28     | 3,158         | 8.70           | 14.30          | 3142.38     | 249.96      | 98.50       | 99.46               | 268.66              | 21.51 | 0.30        | -0.11        |
| 29     | 3,348         | 9.90           | 14.40          | 3329.88     | 279.70      | 106.11      | 107.19              | 299.15              | 20.78 | 0.63        | 0.63         |
| 30     | 3,539         | 9.60           | 13.10          | 3518.12     | 311.12      | 113.81      | 115.00              | 331.28              | 20.09 | 0.19        | -0.16        |
| 31     | 3,729         | 10.00          | 15.30          | 3705.34     | 342.46      | 121.75      | 123.06              | 363.46              | 19.57 | 0.29        | 0.21         |
| 32     | 3,920         | 11.20          | 19.60          | 3893.08     | 375.93      | 132.35      | 133.79              | 398.55              | 19.39 | 0.75        | 0.63         |
| 33     | 4,110         | 11.10          | 20.90          | 4079.50     | 410.40      | 145.06      | 146.64              | 435.28              | 19.47 | 0.14        | -0.05        |

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|                            |               |                             |                |             |                   |                       |                     |                         |        |                            |              |  |         |  |
|----------------------------|---------------|-----------------------------|----------------|-------------|-------------------|-----------------------|---------------------|-------------------------|--------|----------------------------|--------------|--|---------|--|
| Company:                   |               | Matador Production Company  |                |             |                   |                       |                     |                         |        |                            |              |  |         |  |
| Well Name:                 |               | Miss Sue 12-23S-27E RB 201H |                |             |                   |                       |                     |                         |        |                            |              |  |         |  |
| Location:                  |               | Eddy County, NM             |                |             |                   |                       |                     |                         |        |                            |              |  |         |  |
| Rig:                       |               | Patterson #810              |                |             |                   | Magnetic Declination: |                     | 7.07                    |        | REFERENCED TO GRID NORTH ▼ |              |  |         |  |
| Job Number:                |               | MSMO-53864                  |                |             |                   |                       |                     |                         |        |                            |              |  |         |  |
| API #:                     |               | 30-015-44622                |                |             |                   |                       |                     |                         |        |                            |              |  |         |  |
| Vertical Section Azimuth:  |               |                             |                |             | 89.78             |                       | Proposed Direction: |                         | 89.78  |                            |              |  |         |  |
| Survey Calculation Method: |               |                             |                |             | Minimum Curvature |                       |                     |                         |        |                            |              |  |         |  |
| PTB:                       | MD            |                             | INC            |             | AZM               |                       | TVD                 |                         | N/S    |                            | E/W          |  | VS      |  |
|                            | 14,303        |                             | 88.7           |             | 89.8              |                       | 9364.36             |                         | 644.01 |                            | 5482.72      |  | 5485.15 |  |
| #                          | Depth<br>Feet | Inc<br>Degrees              | Azm<br>Degrees | TVD<br>Feet | N/S<br>Feet       | E/W<br>Feet           | Surface<br>Vert Sec | Closure<br>Distance Azm |        | DLS/<br>100                | BUR/<br>100' |  |         |  |
| 34                         | 4,301         | 9.00                        | 19.50          | 4267.56     | 441.66            | 156.61                | 158.30              | 468.61                  | 19.52  | 1.11                       | -1.10        |  |         |  |
| 35                         | 4,491         | 10.70                       | 19.30          | 4454.75     | 472.32            | 167.40                | 169.21              | 501.11                  | 19.52  | 0.89                       | 0.89         |  |         |  |
| 36                         | 4,681         | 10.60                       | 18.70          | 4641.48     | 505.52            | 178.83                | 180.77              | 536.22                  | 19.48  | 0.08                       | -0.05        |  |         |  |
| 37                         | 4,871         | 8.70                        | 15.20          | 4828.78     | 535.94            | 188.20                | 190.26              | 568.03                  | 19.35  | 1.05                       | -1.00        |  |         |  |
| 38                         | 5,061         | 7.30                        | 10.80          | 5016.93     | 561.67            | 194.23                | 196.39              | 594.31                  | 19.08  | 0.80                       | -0.74        |  |         |  |
| 39                         | 5,252         | 6.90                        | 14.50          | 5206.47     | 584.70            | 199.38                | 201.62              | 617.76                  | 18.83  | 0.32                       | -0.21        |  |         |  |
| 40                         | 5,442         | 5.50                        | 10.80          | 5395.35     | 604.69            | 203.95                | 206.27              | 638.16                  | 18.64  | 0.77                       | -0.74        |  |         |  |
| 41                         | 5,633         | 4.10                        | 4.20           | 5585.68     | 620.49            | 206.16                | 208.54              | 653.85                  | 18.38  | 0.79                       | -0.73        |  |         |  |
| 42                         | 5,823         | 2.50                        | 334.90         | 5775.37     | 631.02            | 204.90                | 207.32              | 663.45                  | 17.99  | 1.20                       | -0.84        |  |         |  |
| 43                         | 6,013         | 1.60                        | 237.80         | 5965.29     | 633.36            | 200.90                | 203.33              | 664.46                  | 17.60  | 1.65                       | -0.47        |  |         |  |
| 44                         | 6,204         | 2.90                        | 223.20         | 6156.14     | 628.42            | 195.33                | 197.74              | 658.08                  | 17.27  | 0.74                       | 0.68         |  |         |  |
| 45                         | 6,394         | 2.10                        | 218.20         | 6345.96     | 622.18            | 189.89                | 192.28              | 650.51                  | 16.97  | 0.44                       | -0.42        |  |         |  |
| 46                         | 6,584         | 0.80                        | 176.30         | 6535.90     | 618.12            | 187.82                | 190.19              | 646.02                  | 16.90  | 0.84                       | -0.68        |  |         |  |
| 47                         | 6,775         | 0.90                        | 79.00          | 6726.88     | 617.07            | 189.38                | 191.75              | 645.48                  | 17.06  | 0.67                       | 0.05         |  |         |  |
| 48                         | 6,964         | 0.70                        | 119.10         | 6915.87     | 616.80            | 191.85                | 194.21              | 645.94                  | 17.28  | 0.31                       | -0.11        |  |         |  |
| 49                         | 7,154         | 1.60                        | 105.90         | 7105.83     | 615.51            | 195.41                | 197.77              | 645.78                  | 17.61  | 0.49                       | 0.47         |  |         |  |
| 50                         | 7,345         | 0.70                        | 126.10         | 7296.79     | 614.09            | 198.92                | 201.28              | 645.50                  | 17.95  | 0.51                       | -0.47        |  |         |  |
| 51                         | 7,535         | 0.50                        | 127.10         | 7486.77     | 612.90            | 200.52                | 202.87              | 644.87                  | 18.12  | 0.11                       | -0.11        |  |         |  |
| 52                         | 7,726         | 0.50                        | 154.00         | 7677.77     | 611.65            | 201.55                | 203.90              | 644.00                  | 18.24  | 0.12                       | 0.00         |  |         |  |
| 53                         | 7,916         | 0.70                        | 188.00         | 7867.76     | 609.76            | 201.75                | 204.09              | 642.27                  | 18.31  | 0.21                       | 0.11         |  |         |  |
| 54                         | 8,106         | 1.40                        | 161.80         | 8057.73     | 606.40            | 202.31                | 204.64              | 639.26                  | 18.45  | 0.44                       | 0.37         |  |         |  |
| 55                         | 8,297         | 1.70                        | 169.10         | 8248.66     | 601.40            | 203.58                | 205.89              | 634.93                  | 18.70  | 0.19                       | 0.16         |  |         |  |
| 56                         | 8,487         | 1.60                        | 205.10         | 8438.58     | 596.23            | 202.99                | 205.27              | 629.84                  | 18.80  | 0.54                       | -0.05        |  |         |  |
| 57                         | 8,643         | 1.30                        | 228.20         | 8594.53     | 593.08            | 200.74                | 203.02              | 626.13                  | 18.70  | 0.42                       | -0.19        |  |         |  |
| 58                         | 8,696         | 1.10                        | 242.70         | 8647.52     | 592.45            | 199.84                | 202.12              | 625.25                  | 18.64  | 0.68                       | -0.38        |  |         |  |
| 59                         | 8,791         | 8.00                        | 89.20          | 8742.25     | 592.12            | 205.65                | 207.93              | 626.82                  | 19.15  | 9.47                       | 7.26         |  |         |  |
| 60                         | 8,838         | 15.60                       | 91.90          | 8788.22     | 591.96            | 215.25                | 217.53              | 629.88                  | 19.98  | 16.21                      | 16.17        |  |         |  |
| 61                         | 8,886         | 19.20                       | 92.80          | 8834.01     | 591.36            | 229.59                | 231.86              | 634.36                  | 21.22  | 7.52                       | 7.50         |  |         |  |
| 62                         | 8,933         | 25.10                       | 84.10          | 8877.54     | 592.01            | 247.25                | 249.52              | 641.56                  | 22.67  | 14.33                      | 12.55        |  |         |  |
| 63                         | 8,981         | 29.40                       | 77.40          | 8920.21     | 595.63            | 268.89                | 271.17              | 653.51                  | 24.30  | 10.99                      | 8.96         |  |         |  |
| 64                         | 9,028         | 38.90                       | 78.90          | 8959.06     | 601.00            | 294.69                | 296.99              | 669.36                  | 26.12  | 20.29                      | 20.21        |  |         |  |
| 65                         | 9,077         | 43.50                       | 84.00          | 8995.93     | 605.72            | 326.58                | 328.91              | 688.16                  | 28.33  | 11.62                      | 9.39         |  |         |  |
| 66                         | 9,124         | 47.30                       | 90.20          | 9028.94     | 607.36            | 359.97                | 362.30              | 706.02                  | 30.65  | 12.39                      | 8.09         |  |         |  |
| 67                         | 9,172         | 51.00                       | 93.90          | 9060.34     | 606.03            | 396.24                | 398.56              | 724.06                  | 33.18  | 9.66                       | 7.71         |  |         |  |

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|             |                             |                       |      |
|-------------|-----------------------------|-----------------------|------|
| Company:    | Matador Production Company  |                       |      |
| Well Name:  | Miss Sue 12-23S-27E RB 201H |                       |      |
| Location:   | Eddy County, NM             |                       |      |
| Rig:        | Patterson #810              | Magnetic Declination: | 7.07 |
| Job Number: | MSMO-53864                  |                       |      |
| API #:      | 30-015-44622                |                       |      |

|                           |       |                     |       |
|---------------------------|-------|---------------------|-------|
| Vertical Section Azimuth: | 89.78 | Proposed Direction: | 89.78 |
|---------------------------|-------|---------------------|-------|

|                            |                   |
|----------------------------|-------------------|
| Survey Calculation Method: | Minimum Curvature |
|----------------------------|-------------------|

| PTB: | MD     | INC  | AZM  | TVD     | N/S    | E/W     | VS      |
|------|--------|------|------|---------|--------|---------|---------|
|      | 14,303 | 88.7 | 89.8 | 9364.36 | 644.01 | 5482.72 | 5485.15 |

| #   | Depth<br>Feet | Inc<br>Degrees | Azm<br>Degrees | TVD<br>Feet | N/S<br>Feet | E/W<br>Feet | Surface<br>Vert Sec | Closure<br>Distance | Azm   | DLS/<br>100 | BUR/<br>100' |
|-----|---------------|----------------|----------------|-------------|-------------|-------------|---------------------|---------------------|-------|-------------|--------------|
| 68  | 9,219         | 52.80          | 95.00          | 9089.34     | 603.15      | 433.11      | 435.42              | 742.55              | 35.68 | 4.25        | 3.83         |
| 69  | 9,267         | 58.70          | 96.60          | 9116.34     | 599.12      | 472.56      | 474.86              | 763.06              | 38.26 | 12.60       | 12.29        |
| 70  | 9,314         | 64.10          | 95.50          | 9138.84     | 594.79      | 513.58      | 515.86              | 785.83              | 40.81 | 11.67       | 11.49        |
| 71  | 9,362         | 70.40          | 94.30          | 9157.39     | 591.02      | 557.66      | 559.93              | 812.58              | 43.34 | 13.33       | 13.13        |
| 72  | 9,480         | 74.30          | 94.30          | 9193.16     | 582.59      | 669.77      | 672.00              | 887.69              | 48.98 | 3.31        | 3.31         |
| 73  | 9,528         | 74.00          | 94.80          | 9206.27     | 578.93      | 715.80      | 718.02              | 920.61              | 51.03 | 1.18        | -0.62        |
| 74  | 9,575         | 74.90          | 93.40          | 9218.87     | 575.69      | 760.96      | 763.16              | 954.19              | 52.89 | 3.45        | 1.91         |
| 75  | 9,622         | 79.40          | 90.00          | 9229.32     | 574.34      | 806.74      | 808.94              | 990.31              | 54.55 | 11.89       | 9.57         |
| 76  | 9,669         | 83.10          | 88.60          | 9236.47     | 574.91      | 853.18      | 855.39              | 1028.81             | 56.03 | 8.40        | 7.87         |
| 77  | 9,763         | 89.40          | 89.70          | 9242.62     | 576.30      | 946.92      | 949.13              | 1108.51             | 58.68 | 6.80        | 6.70         |
| 78  | 9,857         | 87.20          | 89.00          | 9245.41     | 577.37      | 1040.87     | 1043.08             | 1190.28             | 60.98 | 2.46        | -2.34        |
| 79  | 9,951         | 90.00          | 90.70          | 9247.70     | 577.61      | 1134.83     | 1137.04             | 1273.37             | 63.02 | 3.48        | 2.98         |
| 80  | 10,045        | 88.40          | 87.70          | 9249.01     | 578.92      | 1228.80     | 1231.01             | 1358.34             | 64.77 | 3.62        | -1.70        |
| 81  | 10,140        | 88.90          | 86.90          | 9251.25     | 583.40      | 1323.66     | 1325.89             | 1446.53             | 66.21 | 0.99        | 0.53         |
| 82  | 10,234        | 89.60          | 86.90          | 9252.48     | 588.48      | 1417.52     | 1419.77             | 1534.82             | 67.45 | 0.74        | 0.74         |
| 83  | 10,328        | 89.00          | 86.80          | 9253.63     | 593.65      | 1511.37     | 1513.64             | 1623.78             | 68.56 | 0.65        | -0.64        |
| 84  | 10,423        | 88.70          | 86.90          | 9255.54     | 598.86      | 1606.21     | 1608.49             | 1714.22             | 69.55 | 0.33        | -0.32        |
| 85  | 10,516        | 88.00          | 87.10          | 9258.22     | 603.73      | 1699.04     | 1701.34             | 1803.11             | 70.44 | 0.78        | -0.75        |
| 86  | 10,611        | 87.30          | 87.60          | 9262.11     | 608.12      | 1793.86     | 1796.18             | 1894.13             | 71.27 | 0.91        | -0.74        |
| 87  | 10,704        | 87.80          | 88.70          | 9266.09     | 611.12      | 1886.72     | 1889.05             | 1983.23             | 72.05 | 1.30        | 0.54         |
| 88  | 10,799        | 88.60          | 89.10          | 9269.07     | 612.94      | 1981.66     | 1984.00             | 2074.28             | 72.81 | 0.94        | 0.84         |
| 89  | 10,893        | 89.40          | 90.80          | 9270.71     | 613.02      | 2075.64     | 2077.98             | 2164.27             | 73.55 | 2.00        | 0.85         |
| 90  | 10,987        | 90.00          | 91.60          | 9271.20     | 611.05      | 2169.61     | 2171.94             | 2254.02             | 74.27 | 1.06        | 0.64         |
| 91  | 11,081        | 89.80          | 91.00          | 9271.37     | 608.92      | 2263.59     | 2265.91             | 2344.06             | 74.94 | 0.67        | -0.21        |
| 92  | 11,175        | 89.10          | 90.70          | 9272.27     | 607.53      | 2357.57     | 2359.89             | 2434.59             | 75.55 | 0.81        | -0.74        |
| 93  | 11,269        | 86.50          | 90.00          | 9275.88     | 606.95      | 2451.49     | 2453.81             | 2525.51             | 76.09 | 2.86        | -2.77        |
| 94  | 11,364        | 86.40          | 89.20          | 9281.76     | 607.61      | 2546.31     | 2548.62             | 2617.80             | 76.58 | 0.85        | -0.11        |
| 95  | 11,458        | 88.90          | 90.70          | 9285.61     | 607.70      | 2640.22     | 2642.53             | 2709.25             | 77.04 | 3.10        | 2.66         |
| 96  | 11,553        | 87.80          | 90.40          | 9288.35     | 606.78      | 2735.17     | 2737.48             | 2801.67             | 77.49 | 1.20        | -1.16        |
| 97  | 11,646        | 87.80          | 90.60          | 9291.92     | 605.97      | 2828.10     | 2830.41             | 2892.29             | 77.91 | 0.21        | 0.00         |
| 98  | 11,741        | 88.10          | 90.10          | 9295.32     | 605.39      | 2923.04     | 2925.34             | 2985.07             | 78.30 | 0.61        | 0.32         |
| 99  | 11,835        | 87.40          | 89.20          | 9299.01     | 605.97      | 3016.96     | 3019.27             | 3077.22             | 78.64 | 1.21        | -0.74        |
| 100 | 11,929        | 88.40          | 90.00          | 9302.45     | 606.62      | 3110.90     | 3113.20             | 3169.49             | 78.97 | 1.36        | 1.06         |
| 101 | 12,023        | 88.60          | 89.90          | 9304.91     | 606.70      | 3204.86     | 3207.17             | 3261.79             | 79.28 | 0.24        | 0.21         |

|                            |               |                             |                |             |             |                       |                     |                         |       |                          |              |
|----------------------------|---------------|-----------------------------|----------------|-------------|-------------|-----------------------|---------------------|-------------------------|-------|--------------------------|--------------|
| Company:                   |               | Matador Production Company  |                |             |             |                       |                     |                         |       |                          |              |
| Well Name:                 |               | Miss Sue 12-23S-27E RB 201H |                |             |             |                       |                     |                         |       |                          |              |
| Location:                  |               | Eddy County, NM             |                |             |             |                       |                     |                         |       |                          |              |
| Rig:                       |               | Patterson #810              |                |             |             | Magnetic Declination: |                     | 7.07                    |       | REFERENCED TO GRID NORTH |              |
| Job Number:                |               | MSMO-53864                  |                |             |             |                       |                     |                         |       |                          |              |
| API #:                     |               | 30-015-44622                |                |             |             |                       |                     |                         |       |                          |              |
| Vertical Section Azimuth:  |               | 89.78                       |                |             |             | Proposed Direction:   |                     | 89.78                   |       |                          |              |
| Survey Calculation Method: |               | Minimum Curvature           |                |             |             |                       |                     |                         |       |                          |              |
| PTB:                       | MD            |                             | INC            |             | AZM         | TVD                   | N/S                 | E/W                     |       | VS                       |              |
|                            | 14,303        |                             | 88.7           |             | 89.8        | 9364.36               | 644.01              | 5482.72                 |       | 5485.15                  |              |
| #                          | Depth<br>Feet | Inc<br>Degrees              | Azm<br>Degrees | TVD<br>Feet | N/S<br>Feet | E/W<br>Feet           | Surface<br>Vert Sec | Closure<br>Distance Azm |       | DLS/<br>100              | BUR/<br>100' |
| 102                        | 12,117        | 88.60                       | 89.90          | 9307.21     | 606.87      | 3298.84               | 3301.14             | 3354.19                 | 79.58 | 0.00                     | 0.00         |
| 103                        | 12,211        | 86.60                       | 88.00          | 9311.15     | 608.59      | 3392.73               | 3395.04             | 3446.88                 | 79.83 | 2.93                     | -2.13        |
| 104                        | 12,305        | 85.50                       | 87.20          | 9317.62     | 612.51      | 3486.42               | 3488.75             | 3539.82                 | 80.04 | 1.45                     | -1.17        |
| 105                        | 12,398        | 89.30                       | 89.20          | 9321.84     | 615.43      | 3579.26               | 3581.59             | 3631.78                 | 80.24 | 4.62                     | 4.09         |
| 106                        | 12,492        | 89.00                       | 89.50          | 9323.24     | 616.50      | 3673.24               | 3675.58             | 3724.62                 | 80.47 | 0.45                     | -0.32        |
| 107                        | 12,586        | 88.30                       | 88.60          | 9325.45     | 618.05      | 3767.20               | 3769.55             | 3817.56                 | 80.68 | 1.21                     | -0.74        |
| 108                        | 12,681        | 87.80                       | 88.40          | 9328.68     | 620.54      | 3862.11               | 3864.47             | 3911.65                 | 80.87 | 0.57                     | -0.53        |
| 109                        | 12,775        | 90.10                       | 89.20          | 9330.41     | 622.51      | 3956.07               | 3958.43             | 4004.75                 | 81.06 | 2.59                     | 2.45         |
| 110                        | 12,868        | 88.70                       | 87.70          | 9331.38     | 625.02      | 4049.03               | 4051.40             | 4096.98                 | 81.22 | 2.21                     | -1.51        |
| 111                        | 12,963        | 87.60                       | 87.00          | 9334.45     | 629.41      | 4143.87               | 4146.26             | 4191.40                 | 81.36 | 1.37                     | -1.16        |
| 112                        | 13,057        | 90.50                       | 88.50          | 9336.00     | 633.10      | 4237.77               | 4240.17             | 4284.80                 | 81.50 | 3.47                     | 3.09         |
| 113                        | 13,151        | 89.10                       | 88.30          | 9336.33     | 635.73      | 4331.73               | 4334.14             | 4378.14                 | 81.65 | 1.50                     | -1.49        |
| 114                        | 13,245        | 87.00                       | 87.90          | 9339.53     | 638.84      | 4425.62               | 4428.04             | 4471.49                 | 81.79 | 2.27                     | -2.23        |
| 115                        | 13,339        | 89.10                       | 89.80          | 9342.73     | 640.72      | 4519.54               | 4521.97             | 4564.73                 | 81.93 | 3.01                     | 2.23         |
| 116                        | 13,432        | 90.40                       | 90.50          | 9343.14     | 640.48      | 4612.54               | 4614.96             | 4656.79                 | 82.09 | 1.59                     | 1.40         |
| 117                        | 13,526        | 90.20                       | 90.40          | 9342.64     | 639.74      | 4706.53               | 4708.95             | 4749.81                 | 82.26 | 0.24                     | -0.21        |
| 118                        | 13,620        | 86.00                       | 87.70          | 9345.76     | 641.30      | 4800.44               | 4802.86             | 4843.08                 | 82.39 | 5.31                     | -4.47        |
| 119                        | 13,715        | 84.40                       | 87.10          | 9353.71     | 645.59      | 4895.00               | 4897.45             | 4937.39                 | 82.49 | 1.80                     | -1.68        |
| 120                        | 13,809        | 89.20                       | 90.20          | 9358.96     | 647.79      | 4988.79               | 4991.24             | 5030.67                 | 82.60 | 6.08                     | 5.11         |
| 121                        | 13,903        | 89.90                       | 90.80          | 9359.69     | 646.97      | 5082.78               | 5085.23             | 5123.79                 | 82.75 | 0.98                     | 0.74         |
| 122                        | 13,998        | 89.60                       | 91.00          | 9360.11     | 645.48      | 5177.77               | 5180.21             | 5217.85                 | 82.89 | 0.38                     | -0.32        |
| 123                        | 14,092        | 89.80                       | 90.60          | 9360.60     | 644.17      | 5271.76               | 5274.20             | 5310.97                 | 83.03 | 0.48                     | 0.21         |
| 124                        | 14,186        | 88.80                       | 90.00          | 9361.75     | 643.68      | 5365.75               | 5368.18             | 5404.22                 | 83.16 | 1.24                     | -1.06        |
| 125                        | 14,232        | 88.70                       | 89.80          | 9362.75     | 643.76      | 5411.74               | 5414.17             | 5449.89                 | 83.22 | 0.49                     | -0.22        |
| PTB:                       | 14,303        | 88.70                       | 89.80          | 9364.36     | 644.01      | 5482.72               | 5485.15             | 5520.41                 | 83.30 | 0.00                     | 0.00         |