

# Wilson Brothers Drilling Company

217 E. KALISTE SALOOM RD. • P.O. DRAWER 53628 • LAFAYETTE, LOUISIANA 70505 • AREA CODE 318 / 233-5950  
February 20, 1986

DIAMOND SHAMROCK EXPLORATION CO.  
P.O. Box 400 - First National Place II  
Amarillo, TX 79188

Federal #1  
Lea County, New Mexico

## RECORD OF INCLINATION

| 11. Measured Depth<br>(feet) | 12. Course Length<br>(Hundreds of feet) | 13. Angle of<br>Inclination (Degrees) | 14. Displacement per<br>Hundred Feet<br>(Sine of Angle X100) | 15. Course<br>Displacement (feet) | 16. Accumulative<br>Displacement (feet) |
|------------------------------|-----------------------------------------|---------------------------------------|--------------------------------------------------------------|-----------------------------------|-----------------------------------------|
| 136                          | 1.36                                    | 1/2                                   | .873                                                         | 1.19                              | 1.19                                    |
| 198                          | .62                                     | 1/4                                   | .436                                                         | .27                               | 1.46                                    |
| 317                          | 1.19                                    | 1/4                                   | .436                                                         | .52                               | 1.98                                    |
| 410                          | .93                                     | 1/2                                   | .873                                                         | .81                               | 2.79                                    |
| 469                          | .59                                     | 1                                     | 1.745                                                        | 1.03                              | 3.82                                    |
| 518                          | .49                                     | 1/2                                   | .873                                                         | .43                               | 4.25                                    |
| 726                          | 2.08                                    | 1/2                                   | .873                                                         | 1.82                              | 6.07                                    |
| 911                          | 1.85                                    | 3/4                                   | 1.309                                                        | 2.42                              | 8.49                                    |
| 1,004                        | .93                                     | 3/4                                   | 1.309                                                        | 1.22                              | 9.71                                    |
| 1,116                        | 1.12                                    | 1-1/4                                 | 2.182                                                        | 2.44                              | 12.15                                   |
| 1,193                        | .82                                     | 3/4                                   | 1.309                                                        | 1.07                              | 13.22                                   |
| 1,344                        | 1.46                                    | 1-1/4                                 | 2.182                                                        | 3.18                              | 16.40                                   |
| 1,445                        | 1.01                                    | 1-1/2                                 | 2.618                                                        | 2.64                              | 19.04                                   |
| 1,568                        | 1.23                                    | 2-1/4                                 | 3.926                                                        | 4.83                              | 23.87                                   |
| 1,693                        | 1.25                                    | 2                                     | 3.490                                                        | 4.36                              | 28.23                                   |
| 1,776                        | .83                                     | 2-1/2                                 | 4.362                                                        | 3.62                              | 31.85                                   |
| 1,856                        | .80                                     | 4-1/2                                 | 7.846                                                        | 6.28                              | 38.13                                   |
| 1,883                        | .27                                     | 4-1/2                                 | 7.846                                                        | 2.12                              | 40.25                                   |
| 1,914                        | .31                                     | 4-3/4                                 | 8.281                                                        | 2.57                              | 42.82                                   |
| 1,944                        | .30                                     | 4-3/4                                 | 8.281                                                        | 2.48                              | 45.30                                   |
| 1,975                        | .31                                     | 4-3/4                                 | 8.281                                                        | 2.57                              | 47.87                                   |
| 2,005                        | .30                                     | 4-1/2                                 | 7.846                                                        | 2.35                              | 50.22                                   |
| 2,035                        | .30                                     | 4-1/2                                 | 7.846                                                        | 2.35                              | 52.57                                   |
| 2,065                        | .30                                     | 4-1/2                                 | 7.846                                                        | 2.35                              | 54.92                                   |
| 2,096                        | .31                                     | 4-3/4                                 | 8.281                                                        | 2.57                              | 57.49                                   |
| 2,128                        | .32                                     | 4-1/2                                 | 7.846                                                        | 2.51                              | 60.00                                   |
| 2,159                        | .31                                     | 5                                     | 8.716                                                        | 2.70                              | 62.70                                   |
| 2,190                        | .31                                     | 5                                     | 8.716                                                        | 2.70                              | 65.40                                   |
| 2,235                        | .45                                     | 5                                     | 8.716                                                        | 3.92                              | 69.32                                   |
| 2,267                        | .32                                     | 4-1/2                                 | 7.846                                                        | 2.51                              | 71.83                                   |
| 2,297                        | .30                                     | 4-1/2                                 | 7.846                                                        | 2.35                              | 74.18                                   |
| 2,329                        | .32                                     | 4-1/2                                 | 7.846                                                        | 2.51                              | 76.69                                   |
| 2,360                        | .31                                     | 4                                     | 6.976                                                        | 2.16                              | 78.85                                   |
| 2,390                        | .30                                     | 4                                     | 6.976                                                        | 2.09                              | 80.94                                   |
| 2,424                        | .34                                     | 3-1/4                                 | 5.669                                                        | 1.93                              | 82.87                                   |
| 2,454                        | .30                                     | 3-1/4                                 | 5.669                                                        | 1.70                              | 84.57                                   |
| 2,550                        | .96                                     | 2-1/2                                 | 4.362                                                        | 4.19                              | 88.76                                   |
| 2,585                        | .35                                     | 3                                     | 5.234                                                        | 1.83                              | 90.59                                   |

Diamond Shamrock Exploration Co.  
FEDERAL #1-191-43 Well  
Lea County, New Mexico

continued:

## RECORD OF INCLINATION

| 11. Measured Depth<br>(feet) | 12. Course Length<br>(Hundreds of feet) | 13. Angle of<br>Inclination (Degrees) | 14. Displacement per<br>Hundred Feet<br>(Sine of Angle X100) | 15. Course<br>Displacement (feet) | 16. Accumulative<br>Displacement (feet) |
|------------------------------|-----------------------------------------|---------------------------------------|--------------------------------------------------------------|-----------------------------------|-----------------------------------------|
| 2,644                        | .59                                     | 1-3/4                                 | 3.054                                                        | 1.80                              | 92.39                                   |
| 2,704                        | .60                                     | 2                                     | 3.490                                                        | 2.09                              | 94.48                                   |
| 2,768                        | .64                                     | 1-1/4                                 | 2.182                                                        | 1.40                              | 95.88                                   |
| 2,830                        | .62                                     | 1-1/4                                 | 2.182                                                        | 1.35                              | 97.23                                   |
| 2,890                        | .60                                     | 1-1/4                                 | 2.182                                                        | 1.31                              | 98.54                                   |
| 2,928                        | .48                                     | 1                                     | 1.745                                                        | .84                               | 99.38                                   |
| 2,999                        | .61                                     | 1-1/4                                 | 2.182                                                        | 1.33                              | 100.71                                  |
| 3,092                        | .93                                     | 1-3/4                                 | 3.054                                                        | 2.84                              | 103.55                                  |
| 3,156                        | .64                                     | 1-1/2                                 | 2.618                                                        | 1.67                              | 105.22                                  |
| 3,218                        | .62                                     | 1                                     | 1.745                                                        | 1.08                              | 106.30                                  |
| 3,277                        | .59                                     | 3/4                                   | 1.309                                                        | .77                               | 107.07                                  |
| 3,371                        | .94                                     | 3/4                                   | 1.309                                                        | 1.23                              | 108.30                                  |
| 3,463                        | .92                                     | 1-1/4                                 | 2.182                                                        | 2.00                              | 110.30                                  |
| 3,524                        | .61                                     | 1                                     | 1.745                                                        | 1.06                              | 111.36                                  |
| 3,583                        | .59                                     | 1                                     | 1.745                                                        | 1.03                              | 112.39                                  |
| 3,676                        | .93                                     | 1                                     | 1.745                                                        | 1.62                              | 114.01                                  |
| 3,769                        | .93                                     | 1-1/4                                 | 2.182                                                        | 2.03                              | 116.04                                  |
| 3,864                        | .95                                     | 1                                     | 1.745                                                        | 1.66                              | 117.70                                  |
| 3,985                        | 1.21                                    | 1                                     | 1.745                                                        | 2.11                              | 119.81                                  |
| 4,108                        | 1.23                                    | 1                                     | 1.745                                                        | 2.15                              | 121.96                                  |
| 4,231                        | 1.23                                    | 1/2                                   | .873                                                         | 1.07                              | 123.03                                  |
| 4,535                        | 3.04                                    | 3/4                                   | 1.309                                                        | 3.98                              | 127.01                                  |
| 4,577                        | 4.20                                    | 1/4                                   | .436                                                         | 1.83                              | 128.84                                  |
| 5,084                        | 5.07                                    | 1/2                                   | .873                                                         | 4.43                              | 133.27                                  |
| 5,320                        | 2.36                                    | 3/4                                   | 1.309                                                        | 3.09                              | 136.36                                  |
| 5,594                        | 2.74                                    | 1/4                                   | .436                                                         | 1.19                              | 137.55                                  |
| 5,837                        | 2.43                                    | 1/2                                   | .873                                                         | 2.12                              | 139.67                                  |
| 6,088                        | 2.51                                    | 1/4                                   | .436                                                         | 1.09                              | 140.76                                  |
| 6,334                        | 2.46                                    | 1/4                                   | .436                                                         | 1.07                              | 141.83                                  |
| 6,613                        | 2.79                                    | 1/4                                   | .436                                                         | 1.22                              | 143.05                                  |
| 6,888                        | 2.75                                    | 1/4                                   | .436                                                         | 1.20                              | 144.25                                  |
| 7,134                        | 2.46                                    | 1/4                                   | .436                                                         | 1.07                              | 145.32                                  |
| 7,226                        | .92                                     | 1/4                                   | .436                                                         | .40                               | 145.72                                  |
| 7,465                        | 2.39                                    | 1/4                                   | .436                                                         | 1.04                              | 146.76                                  |
| 7,770                        | 3.05                                    | 1/2                                   | .873                                                         | 2.66                              | 149.42                                  |
| 8,008                        | 2.38                                    | 1/2                                   | .873                                                         | 2.08                              | 151.50                                  |
| 8,262                        | 2.54                                    | 1/4                                   | .436                                                         | 1.11                              | 152.61                                  |
| 8,509                        | 2.47                                    | 1/2                                   | .873                                                         | 2.16                              | 154.77                                  |
| 8,570                        | .61                                     | 1/4                                   | .436                                                         | .27                               | 155.04                                  |
| 8,847                        | 2.77                                    | 1/2                                   | .873                                                         | 2.42                              | 157.46                                  |
| 9,094                        | 2.47                                    | 1/4                                   | .436                                                         | 1.08                              | 158.54                                  |

continued on page 3

RECEIVED  
MAY 15 1986  
O.C.P.  
HOBBS OFFICE

Lea County, New Mexico

RECORD OF INCLINATION

[illegible]

By Ronnie Latham  
Ronnie Latham - Drlg. Supt.  
WILSON BROTHERS DRILLING COMPANY

SWORN TO AND SUBSCRIBED TO THIS  
21 DAY OF Feb, 1986

Robert W. Lusk  
Notary Public