

HERNDON OIL AND GAS  
O.A. WOODY NO. 1  
KNOWLES DEVONIAN FIELD  
LEA COUNTY, NEW MEXICO  
GYROSCOPIC SURVEY

DATE OF SURVEY SEPTEMBER 12, 1979  
VERTICAL SECTION DIRECTION  
CLOSURE

PAGE 2

SU3-6372

SPERRY-SUN

RECORD OF SURVEY

| MEASURED<br>DEPTH | TRUE<br>VERTICAL<br>DEPTH | SUB<br>SEA<br>TVD | COURSE<br>INCLINATION<br>DEG MIN | COURSE<br>DIRECTION<br>DEC | DOG-LEG<br>SEV<br>DEG/100 | TOTAL                      |                          | VERTICAL<br>SECTION |
|-------------------|---------------------------|-------------------|----------------------------------|----------------------------|---------------------------|----------------------------|--------------------------|---------------------|
|                   |                           |                   |                                  |                            |                           | RECTANGULAR<br>NORTH/SOUTH | COORDINATES<br>EAST/WEST |                     |
| 6000              | 5999.98                   | 5999.98           | 0 10                             | N 14 W                     | 0.02                      | 1.05 N                     | 0.70 E                   | -1.08               |
| 6200              | 6199.98                   | 6199.98           | 0 0                              | N 0 E                      | 0.08                      | 1.33 N                     | 0.63 E                   | -1.14               |
| 6400              | 6399.98                   | 6399.98           | 0 7                              | S 66 W                     | 0.06                      | 1.25 N                     | 0.45 E                   | -0.07               |
| 6600              | 6599.98                   | 6599.98           | 0 25                             | S 61 W                     | 0.15                      | 0.81 N                     | 0.37 W                   | -0.07               |
| 6800              | 6799.97                   | 6799.97           | 0 35                             | S 65 W                     | 0.09                      | 0.03 N                     | 1.93 W                   | 1.74                |
| 7000              | 6999.96                   | 6999.96           | 0 35                             | N 86 W                     | 0.15                      | 0.33 S                     | 3.87 W                   | 3.65                |
| 7200              | 7199.96                   | 7199.96           | 0 10                             | S 11 W                     | 0.29                      | 0.54 S                     | 4.94 W                   | 4.71                |
| 7400              | 7399.96                   | 7399.96           | 0 30                             | N 85 W                     | 0.26                      | 0.75 S                     | 5.87 W                   | 5.63                |
| 7600              | 7599.95                   | 7599.95           | 0 40                             | N 60 W                     | 0.15                      | 0.10 S                     | 7.74 W                   | 7.05                |
| 7800              | 7799.94                   | 7799.94           | 0 15                             | S 80 W                     | 0.25                      | 0.41 N                     | 9.18 W                   | 8.14                |
| 8000              | 7999.94                   | 7999.94           | 0 10                             | N 58 W                     | 0.08                      | 0.49 N                     | 9.86 W                   | 8.72                |
| 8200              | 8199.94                   | 8199.94           | 0 15                             | N 38 W                     | 0.07                      | 0.66 N                     | 10.54 N                  | 0.27                |
| 8400              | 8399.94                   | 8399.94           | 0 0                              | N 0 E                      | 0.12                      | 0.67 N                     | 10.98 W                  | 2.66                |
| 8600              | 8599.93                   | 8599.93           | 0 20                             | N 26 W                     | 0.17                      | 1.20 N                     | 11.23 W                  | 0.57                |
| 8800              | 8799.89                   | 8799.89           | 1 50                             | N 46 W                     | 0.76                      | 3.94 N                     | 13.79 W                  | 10.82               |
| 9000              | 8999.77                   | 8999.77           | 2 10                             | N 36 W                     | 0.24                      | 9.22 N                     | 18.31 W                  | 12.68               |
| 9200              | 9199.63                   | 9199.63           | 2 10                             | N 12 W                     | 0.45                      | 15.98 N                    | 21.32 W                  | 12.51               |
| 9400              | 9399.52                   | 9399.52           | 1 40                             | N 2 W                      | 0.30                      | 22.58 N                    | 22.21 W                  | 10.54               |
| 9600              | 9599.46                   | 9599.46           | 1 10                             | N 0 E                      | 0.25                      | 27.53 N                    | 22.31 W                  | 8.54                |
| 9800              | 9799.43                   | 9799.43           | 0 45                             | N 38 E                     | 0.37                      | 30.59 N                    | 21.50 W                  | 6.51                |
| 10000             | 9999.43                   | 9999.43           | 0 40                             | S 24 E                     | 0.61                      | 30.56 N                    | 20.22 W                  | 5.36                |
| 10200             | 10199.42                  | 10199.42          | 0 20                             | S 58 E                     | 0.22                      | 29.19 N                    | 19.26 W                  | 5.07                |
| 10400             | 10399.41                  | 10399.41          | 0 50                             | N 68 W                     | 0.58                      | 29.43 N                    | 20.11 W                  | 5.74                |
| 10600             | 10599.39                  | 10599.39          | 1 0                              | S 34 W                     | 0.58                      | 28.53 N                    | 22.44 W                  | 8.23                |
| 10800             | 10799.35                  | 10799.35          | 1 15                             | S 31 W                     | 0.13                      | 25.21 N                    | 24.54 W                  | 11.54               |
| 11000             | 10999.30                  | 10999.30          | 1 20                             | S 46 W                     | 0.17                      | 21.72 N                    | 27.33 W                  | 15.55               |
| 11200             | 11199.25                  | 11199.25          | 1 20                             | S 29 W                     | 0.20                      | 18.07 N                    | 30.14 W                  | 19.64               |
| 11400             | 11399.18                  | 11399.18          | 1 40                             | S 24 W                     | 0.18                      | 13.38 N                    | 32.45 W                  | 23.72               |
| 11600             | 11599.11                  | 11599.11          | 1 25                             | S 15 W                     | 0.17                      | 8.33 N                     | 34.27 W                  | 27.51               |
| 11800             | 11799.03                  | 11799.03          | 1 45                             | S 7 W                      | 0.20                      | 2.91 N                     | 35.28 W                  | 30.72               |