

ARCO OIL AND GAS CO.  
EUE K-142  
EMPIRE-ABO  
EDDY COUNTY, NEW MEXICO  
GYROSCOPIC SURVEILL

RECEIVED

OCT 1 1979

SPERRY-SUN

DATE OF SURVEY AUGUST 30, 1979  
VERTICAL SECTION DIRECTION CLOSURE

SUI-75-6358

| MEASURED DEPTH | TRUE VERTICAL DEPTH | SUBSEA ANGLE | COURSE DEVIATION | RECORD OF SURVEY  | COURSE DEVIATION | DOG-LEG | RECTANGULAR NORTH/SOUTH | TOTAL COORDINATES EAST/WEST | VERTICAL SECTION |
|----------------|---------------------|--------------|------------------|-------------------|------------------|---------|-------------------------|-----------------------------|------------------|
| 0              | 0                   | 0            | 0                | ORIGIN AT SURFACE | 45               | 0.50    | 0                       | 0                           | 0                |
| 100            | 100.00              | 100.00       | 0 30             | N                 | E                | 0.31    | N                       | 0.31                        | 0.19             |
| 200            | 199.99              | 199.99       | 0 35             | N                 | E                | 0.34    | N                       | 0.70                        | 0.82             |
| 300            | 299.99              | 299.99       | 0 27             | N                 | W                | 0.70    | N                       | 0.40                        | 1.49             |
| 400            | 399.99              | 399.99       | 0 30             | S                 | W                | 0.13    | N                       | 0.42                        | 1.85             |
| 500            | 499.98              | 499.98       | 0 35             | N                 | W                | 0.10    | N                       | 1.37                        | 2.21             |
| 600            | 599.98              | 599.98       | 0 30             | N                 | W                | 0.13    | N                       | 2.29                        | 2.67             |
| 700            | 699.97              | 699.97       | 1 15             | N                 | W                | 0.79    | N                       | 3.60                        | 3.81             |
| 800            | 799.93              | 799.93       | 2 0              | N                 | W                | 0.75    | N                       | 5.89                        | 6.15             |
| 900            | 899.87              | 899.87       | 2 0              | N                 | W                | 0.24    | N                       | 8.54                        | 9.17             |
| 1000           | 999.80              | 999.80       | 2 0              | N                 | W                | 0       | N                       | 11.05                       | 12.29            |
| 1100           | 1099.74             | 1099.74      | 2 0              | N                 | W                | 0.28    | N                       | 13.38                       | 15.50            |
| 1200           | 1199.69             | 1199.69      | 1 50             | N                 | W                | 0.21    | N                       | 15.35                       | 18.70            |
| 1300           | 1299.64             | 1299.64      | 1 40             | N                 | W                | 0.19    | N                       | 17.12                       | 21.64            |
| 1400           | 1399.60             | 1399.60      | 1 45             | N                 | W                | 0.09    | N                       | 18.93                       | 24.47            |
| 1500           | 1499.55             | 1499.55      | 1 42             | N                 | W                | 0.06    | N                       | 20.77                       | 27.34            |
| 1600           | 1599.51             | 1599.51      | 1 40             | N                 | W                | 0.07    | N                       | 22.58                       | 30.12            |
| 1700           | 1699.47             | 1699.47      | 1 30             | N                 | W                | 0.17    | N                       | 24.31                       | 32.72            |
| 1800           | 1799.44             | 1799.44      | 1 28             | N                 | W                | 0.04    | N                       | 25.96                       | 35.15            |
| 1900           | 1899.40             | 1899.40      | 1 25             | N                 | W                | 0.69    | N                       | 27.63                       | 37.49            |
| 2000           | 1999.38             | 1999.38      | 1 15             | N                 | W                | 0.29    | N                       | 29.06                       | 39.68            |
| 2100           | 2099.35             | 2099.35      | 1 12             | N                 | W                | 0.18    | N                       | 30.10                       | 41.78            |
| 2200           | 2199.33             | 2199.33      | 1 20             | N                 | W                | 0.14    | N                       | 31.00                       | 43.99            |
| 2300           | 2299.30             | 2299.30      | 1 30             | N                 | W                | 0.17    | N                       | 31.98                       | 46.45            |
| 2400           | 2399.27             | 2399.27      | 1 30             | N                 | W                | 0.10    | N                       | 33.13                       | 49.05            |
| 2500           | 2499.23             | 2499.23      | 1 35             | N                 | W                | 0.26    | N                       | 34.58                       | 51.66            |
| 2600           | 2599.19             | 2599.19      | 1 35             | N                 | W                | 0.05    | N                       | 36.28                       | 54.28            |
| 2700           | 2699.15             | 2699.15      | 1 35             | N                 | W                | 0.05    | N                       | 38.05                       | 56.87            |
| 2800           | 2799.11             | 2799.11      | 1 35             | N                 | W                | 0       | N                       | 39.87                       | 59.44            |
| 2900           | 2899.08             | 2899.08      | 1 30             | N                 | W                | 0.10    | N                       | 41.67                       | 61.92            |