

# WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE ( $P_f$  &  $P_s$ )  
(SURFACE) ( $P_c$  &  $P_w$ )

Form G-122-E  
Adopted 9-1-65

COMPANY Union Oil Co. Calif. LEASE Red Hills

WELL NO. 1181

LOCATION: Unit 2 Section 5 Township 26 S Range 33 E DATE 4/10/62

L 13424 H 13424 L/H 1 G 0.224 % CO<sub>2</sub> 0.15 % N<sub>2</sub> 0.41 % H<sub>2</sub>S N/A

d 2.385  $F_r$  0.01022  $Q_m$  1.760  $M^2$  cfd (L/H) ( $F_r Q_m$ )<sup>2</sup> .000373  $P_{cr}$  668  $T_{cr}$  398

TABLE IX & X

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| LINE | ITEM                          | SOURCE | 1       | 2       | 3       | 4       | 5       | 6       | 7 | 8 | 9 | 10 |
|------|-------------------------------|--------|---------|---------|---------|---------|---------|---------|---|---|---|----|
| 1    | H                             |        | 0       | 6712    |         | ③       | ①       | ⑤       |   |   |   |    |
| 2    | GH                            |        | 0       | 4859    |         |         | 13424   |         |   |   |   |    |
| 3    | 37.5GH                        |        | 0       | 182,100 |         |         | 9718.98 |         |   |   |   |    |
|      |                               |        |         |         |         |         | 364,412 |         |   |   |   |    |
| 4    | $P_c$ or $P_h$                |        | 722.52  | 8224.2  | 8209.2  | 8195.2  | 9165.2  | 9161.7  |   |   |   |    |
| 5    | $P_r$                         |        | 12.82   | 12.32   | 12.28   | 12.25   | 13.72   | 13.72   |   |   |   |    |
| 6    | T                             |        | 54.5    | 59.55   | 58.55   | 59.55   | 61.6    | 61.6    |   |   |   |    |
| 7    | $T_r$                         |        | 1.37    | 1.496   | 1.496   | 1.496   | 1.79    | 1.79    |   |   |   |    |
| 8    | Z                             |        | 1.209   | 1.301   | 1.297   | 1.295   | 1.352   | 1.352   |   |   |   |    |
| 9    | $P/Z$ $P/Z$                   |        | 57.80   | 63.25   | 63.30   | 63.25   | 6779.0  | 6726.4  |   |   |   |    |
| 10   | $P/TZ$                        |        | 9.6     | 10.62   | 10.63   | 10.62   | 10.49   | 10.49   |   |   |   |    |
| 11   | ( $P/TZ$ ) <sup>2</sup> /1000 |        | 1.205   | 1.127   | 1.131   | 1.130   | 1.10040 | 1.10040 |   |   |   |    |
| 12   | $L/H(F_r Q_m)^2$              |        | .000373 | .000373 | .000373 | .000373 | .000373 | .000373 |   |   |   |    |
| 13   |                               |        | 1.20872 | 1.20872 | 1.13473 | 1.13373 | 1.10413 | 1.10413 |   |   |   |    |
| 14   | $I_h$                         |        | 91.15   | 93.93   | 93.80   | 93.80   | 95.01   | 95.01   |   |   |   |    |
| 15   | $M=P_h-P_{h-1}$               |        | 999.0   | 954.0   | 970.0   | 970.0   | 922.8   | 922.8   |   |   |   |    |
| 16   | $N=I_h+I_{h-1}$               |        | 185.08  | 187.73  | 187.60  | 187.60  | 188.81  | 190.02  |   |   |   |    |
| 17   | $M \times N$                  |        | 181.972 | 181.972 | 181.972 | 181.972 | 181.972 | 181.972 |   |   |   |    |
| 18   | $\Sigma(M \times N)$          |        | 181.972 | 181.972 | 181.972 | 181.972 | 181.972 | 181.972 |   |   |   |    |