STATE OF NEW MEXICO ENERGY and MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

Page 1 Revised 10/01/78

This form is not to be used for reporting packer leakage tests in Southeast New Mexico

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

| Upper | Operator | <u></u> | JTHLAND ROYA | Lease THOMPSON | | | | Well #10 | | | |
|--|---|---------------|-----------------|----------------|----------------|---|--------------------|--------------------|-------------|------------------|--------------------------------|
| Upper Completion MESA VERDE GAS FLOM TUBI Lower Completion DAKOTA GAS FLOM TUBI PRE-FLOW SHUT-IN PRESSURE DATA Upper Office of time shut-in SI press, psig Stabilized? (Yes or No) Lower Office of time shut-in SI press, psig Stabilized? (Yes or No) Lower Office of time shut-in SI press, psig Stabilized? (Yes or No) Lower Office of time shut-in SI press, psig Stabilized? (Yes or No) Exempletion Office of time shut-in SI press, psig Stabilized? (Yes or No) FLOW TEST NO. 1 Commenced at thour, data) ** 6/8/90 | Location of Well: I | Unit | E Sec. 27 | Twp. 31 | Rge | | 12 | Cou | nty | SAN | JUAN |
| Completion MESA VERDE GAS FLOM TUBI | | | NAME OF RESERVE | DIR OR POOL | | | | | | | PROD. MEDIUM (Tbg. or Cag.) |
| Completion DAKOTA | Completion | MESA | VERDE | | GAS | GAS | | FLOW | | | TUBING |
| Lower Completion Completion | | | | GAS | GAS FLO | | FLOW | | | TUBING | |
| Completion 6/5/90 | | | | PRE-FLO | W SHUT-IN P | RESSURE | DATA | | | | |
| Lower Completion St press, psig Stabilized? (Yes or No) | Upper | | - | | in | | q | | Stabilized | ? (Yes o | No) |
| Section Completion 6/5/90 3 DAYS 826 | Completion 6/5/ | | | | | | | | Stabiliand | | |
| Commenced at (hour, date) # 6/8/90 Zone producing (Upper or Lower): LOMER | i Lower I | | | 1 - | | 1 | 9 | | Stabilized | ? (Yes or | , NO) |
| TIME LAPSED TIME SINCE* Upper Completion Lower Completion TEMP. | | | | | FLOW TEST | NO. 1 | | | | | |
| | commenced (| at (hour, dat | ** 6/8/90 | | | Zone pro | ducing (Uppe | r or Lower): | LOWE | ER | |
| 6/7/90 2 DAYS 425 819 BOTH ZONES SHUT-IN 6/8/90 3 DAYS 425 826 BOTH ZONES SHUT-IN 6/9/90 1 DAY 426 367 LOWER ZONE FLOWING 6/10/90 2 DAYS 430 367 LOWER ZONE FLOWING Production rate during test Oil: | | - | | | | 1 | | | REI | MARKS | |
| 6/8/90 3 DAYS 425 826 BOTH ZONES SHUT-IN 6/9/90 1 DAY 426 367 LOWER ZONE FLOWING 6/10/90 2 DAYS 430 367 LOWER ZONE FLOWING Production rate during test Oil:BOPD based onBbls. inHoursGravGOR | 6/6/9 | 90 | 1 DAY | 419 | 819 | | | вотн Z | ONES S | SHUT- | ·IN |
| 6/9/90 1 DAY 426 367 LOWER ZONE FLOWING 6/10/90 2 DAYS 430 367 LOWER ZONE FLOWING Production rate during test Oil: | 6/7/90 2 DAYS 425 | | | | 819 | | | BOTH ZONES SHUT-IN | | | ·IN |
| 6/10/90 2 DAYS 430 367 LONER ZONE FLOWING Production rate during test Oil: BOPD based on Bbls. in Hours Grav GOR | 6/8/90 3 DAYS 425 | | | | 826 | | | BOTH ZONES SHUT-IN | | | ·IN |
| Production rate during test Oil: BOPD based on Bbls. in Hours Grav GOR | 6/9/90 1 DAY 426 | | | 367 | | | LOWER ZONE FLOWING | | | NG . | |
| Production rate during test Oil:BOPD based onBbls. inHoursGravGOR | 6/10/90 | | a english and a | 430 | 367 | | | LOWER ZONE FLOWING | | ING | |
| Oil: BOPD based on Bbls. in Hours Grav GOR | | | ### ### ### | | | | | | | | |
| | roduction | n rate du | ring test | | | | <u>-</u> | | | - | |
| Gas: MCFPD: Tested thru (Orifice or Meter): | Oil: | | BOPI | D based on | Bbls. in | | _ Hours | G | rav | | _ GOR |
| • | | | | | | | | | | | |
| MID-TEST SHUT-IN PRESSURE DATA | | | | | | | | | | | |
| Upper Hour, date shut-in Length of time shut-in SI press, psig Stabilized? (Yes or Not Completion | Upper Mour, date shut-in Length of time shut-in | | | | | , , , , , , , , , , , , , , , , , , , | | | Stabilized? | zed? (Yes or No) | |
| Lower Hour, date shut-in Length of time shut-in St press, psig Stabilized? (Yes or No) | Hour, date shut-in Legath of type shut-in | | | , | SI press. psig | Stabilized? (Yes or No) | | | Noi | | |



FLOW TEST NO. 2

| | | | · · · · · · · · · · · · · · · · · · · | Zone producing (Upper or Lower: | | | | | |
|----------------|--------------------|-------------------|---------------------------------------|---------------------------------|---------------------------|--|--|--|--|
| TIME | : LAPSED TIME | PRESSURE | | PROD. ZONE | | | | | |
| (hour, date) | SINCE ** | Upper Completion | Lower Completion | TEMP. | REMARKS | | | | |
| | | | | | | | | | |
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| | <u> </u> | | | | | | | | |
| urks: | | MCFI | PD: Tested thru | (Orifice or Meter | Grav GOR | | | | |
| by certally th | at the unformation | n nerein containe | ed is true and con | nplete to the bes | st of my knowledge. | | | | |
| oved | 1111 21 |) 1990 | | | SOUTHLAND ROYALTY COMPANY | | | | |
| | Conservation Di | vision | - 19 O | perator | COMPANI | | | | |
| | | · | ۵. | | C.L. CHANDLER | | | | |
| Orioin | sel Signed by CHAR | NEC CHOLOGO | _ by | | PRODUCTION ASST. | | | | |
| | - Silver by CHAM | TE2 CHOF2ON | Ті | tle | | | | | |
| DE | PUTY OIL & GAS II | MSPECTOR NICT " | | | JUL 25 1990 | | | | |
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NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Division.

Commenced at thour, date) **

- At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.
- 3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.
- 4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shurein. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: if, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.
- 5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.
- ii. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except

- that the previously produced zone shall remain shur-in while the zone which was previously shur-in is produced.
- 7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3 hours tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Azrec District Office of the New Mexico Oil Conservation Division on Northwest New Mexico Packer Leakage Test Form Revised 10-01-78 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only).