

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

|   |                           |                  |                              |                                  |                              |                      |  |
|---|---------------------------|------------------|------------------------------|----------------------------------|------------------------------|----------------------|--|
| Operator<br><b>Pan American Petroleum Corporation</b> |                           |                  | Lease<br><b>Eva Owen "B"</b> |                                  |                              | Well<br>No. <b>4</b> |  |
| Location<br>of Well                                   | Unit<br><b>N</b>          | Sec<br><b>34</b> | Twp<br><b>21</b>             | Rge<br><b>37</b>                 | County<br><b>Lea</b>         |                      |  |
|   | Name of Reservoir or Pool |                  | Type of Prod<br>(Oil or Gas) | Method of Prod<br>Flow, Art Lift | Prod. Medium<br>(Tbg or Csg) | Choke Size           |  |
| Upper<br>Compl  | <b>Blinobry</b>           |                  | <b>Gas</b>                   | <b>Flow</b>                      | <b>Csg</b>                   |                      |  |
| Lower<br>Compl  | <b>Brinkard</b>           |                  | <b>Oil</b>                   | <b>Flow</b>                      | <b>Tbg</b>                   |                      |  |

FLOW TEST NO. 1

Both zones shut-in at (hour, date): 10:00 AM 2-10-64

|  |                                |                             |                                   |
|--|--------------------------------|-----------------------------|-----------------------------------|
| Well opened at (hour, date):                             | <u>10:00 AM 2-11-64</u>        | Upper<br>Completion         | Lower<br>Completion               |
| Indicate by ( X ) the zone producing.....                |                                |                             | <b>X</b>                          |
| Pressure at beginning of test.....                       |                                | <b>1300</b>                 | <b>450</b>                        |
| Stabilized? (Yes or No).....                             |                                | <b>Yes</b>                  | <b>Yes</b>                        |
| Maximum pressure during test.....                        |                                | <b>1350</b>                 | <b>450</b>                        |
| Minimum pressure during test.....                        |                                | <b>1300</b>                 | <b>10</b>                         |
| Pressure at conclusion of test.....                      |                                | <b>1350</b>                 | <b>10</b>                         |
| Pressure change during test (Maximum minus Minimum)..... |                                | <b>50</b>                   | <b>440</b>                        |
| Was pressure change an increase or a decrease?.....      |                                | <b>Increase</b>             | <b>Decrease</b>                   |
| Well closed at (hour, date):                             | <u>10:00 AM 2-12-64</u>        | Total Time On<br>Production | <u>24 hours</u>                   |
| Oil Production   |                                | Gas Production              |                                   |
| During Test:   | <u>4</u> bbls; Grav. <u>32</u> | During Test                 | <u>120</u> MCF; GOR <u>22,913</u> |
| Remarks _____  |                                |                             |                                   |

FLOW TEST NO. 2

|  |                                    |                             |                                    |
|--|------------------------------------|-----------------------------|------------------------------------|
| Well opened at (hour, date):                             | <u>10:00 AM 2-13-64</u>            | Upper<br>Completion         | Lower<br>Completion                |
| Indicate by ( X ) the zone producing.....                |                                    | <b>X</b>                    |                                    |
| Pressure at beginning of test.....                       |                                    | <b>1400</b>                 | <b>450</b>                         |
| Stabilized? (Yes or No).....                             |                                    | <b>Yes</b>                  | <b>Yes</b>                         |
| Maximum pressure during test.....                        |                                    | <b>1400</b>                 | <b>500</b>                         |
| Minimum pressure during test.....                        |                                    | <b>1000</b>                 | <b>450</b>                         |
| Pressure at conclusion of test.....                      |                                    | <b>1000</b>                 | <b>500</b>                         |
| Pressure change during test (Maximum minus Minimum)..... |                                    | <b>400</b>                  | <b>50</b>                          |
| Was pressure change an increase or a decrease?.....      |                                    | <b>Decrease</b>             | <b>Increase</b>                    |
| Well closed at (hour, date):                             | <u>10:00 AM 2-14-64</u>            | Total time on<br>Production | <u>24 hours</u>                    |
| Oil Production   |                                    | Gas Production              |                                    |
| During Test:   | <u>20.84</u> bbls; Grav. <u>36</u> | During Test                 | <u>1150</u> MCF; GOR <u>54,762</u> |
| Remarks _____  |                                    |                             |                                    |

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved \_\_\_\_\_ 19  
New Mexico Oil Conservation Commission

Operator **Pan American Petroleum Corporation**  
By \_\_\_\_\_  
Original Signed By:  
**J. W. MEEK**

By \_\_\_\_\_  
Title \_\_\_\_\_

Title **Area Engineer**  
Date **Feb. 28, 1964**

# REGULATIONS GOVERNING THE CONDUCT OF PACKER LEAKAGE TESTS

1. A packer leakage test shall be conducted on a well which is completely completed within a zone and which is producing oil or gas and actually thereafter shut-in for a period of not less than 24 hours prior to completion. Such tests shall be conducted on all wells within seven days following recompletion and/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 Commission.
2. At least 72 hours prior to the completion of a packer leakage test, the operator shall submit to the Commission a written report of the exact time the test is to be conducted and the zone to be tested.
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 wellhead pressure has been stabilized and for a minimum of two hours thereafter, provided that the well need not remain shut-in more than 24 hours.
4. For Flow Test No. 1, the flow shall be produced at the normal operating rate until the wellhead pressure has become stabilized and for a minimum of two hours thereafter, provided however, that the flow shall be maintained at a rate of not less than 1 barrel per hour.

5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.

6. 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 shut-in while the previously shut-in zone is produced.

7. All pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges, the accuracy of which must be checked with a deadweight tester at least twice, once at the beginning and once at the end, of each flow test.

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 appropriate District Office of the New Mexico Oil Conservation Commission on Southeast New Mexico Packer Leakage Test Form Revised 11-1-58, together with the original pressure recording gauge charts with all the deadweight pressures which were taken indicated thereon. In lieu of filing the aforesaid charts, the operator may construct a pressure versus time curve for each zone of each test, indicating thereon all pressure changes which may be reflected by the gauge charts as well as all deadweight pressure readings which were taken. If the pressure curve is submitted, the original chart must be permanently filed in the operator's office. Form C-116 shall also accompany the Packer Leakage Test Form when the test period coincides with a gas-oil ratio test period.

The form consists of a large grid of graph paper, divided into four main quadrants by a vertical line and a horizontal line. Each quadrant contains a grid of small squares, suitable for plotting pressure versus time curves. The grid is approximately 20 units wide and 20 units high in each quadrant.