

NEW MEXICO  
OIL CONSERVATION COMMISSION

4-1-56

PACKER LEAKAGE TEST

Operator Western Natural Gas Company Pool (Upper Completion) Drinkard  
Lease Winklerley Well 3 Pool (Lower Completion) Fusselman  
Location: Unit D, S. 24, T. 25, R. 37, Lee County, N. M.

Pre-Test Shut-In

|   | Upper Completion         | Lower Completion         |
|---|--------------------------|--------------------------|
| Shut-in at (hour, date).....                      | <u>9:30 PM (1-15-58)</u> | <u>9:30 PM (1-15-58)</u> |
| Pressure stabilized at (hour, date).....          | <u>Unknown</u>           | <u>Unknown</u>           |
| Length of time required to stabilize (hours)..... | <u>2 Hr. Minimum</u>     | <u>2 Hr. Minimum</u>     |

Flow Test No. 1

| Test commenced at (hour, date)  | <u>1:30 PM (1-22-58)</u> | Choke size         | <u>16/64"</u>        |
|---|--------------------------|--------------------|----------------------|
| Completion producing  | <u>Fusselman</u>         | Completion shut-in | <u>Drinkard</u>      |
| Stabilized pressure at beginning of test.....                             | <u>970 Chart</u> psi     | Lower Completion   | <u>540 Chart</u> psi |
| Maximum pressure during test.....   | <u>970</u> psi           |                    | <u>540</u> psi       |
| Minimum pressure during test.....   | <u>970</u> psi           |                    | <u>360</u> psi       |
| Pressure at end of test.....  | <u>970</u> psi           |                    | <u>475</u> psi       |
| Maximum pressure change during test.....                                  | <u>None</u> psi          |                    | <u>180</u> psi       |
| Oil flow rate during test: <u>123.60</u> BOPD based on <u>19.32</u> BO in |                          |                    | <u>3 1/4</u> hours.  |
| Gas flow rate during test: <u>27.60</u> MCFPD based on <u>4.33</u> MCF in |                          |                    | <u>3 3/4</u> hours.  |

Mid-Test Shut-In

|   | Upper Completion         | Lower Completion         |
|---|--------------------------|--------------------------|
| Shut-in at (hour, date).....                      | <u>9:30 PM (1-15-58)</u> | <u>5:15 PM (1-22-58)</u> |
| Pressure stabilized at (hour, date).....          | <u>Unknown</u>           | <u>7:00 PM (1-22-58)</u> |
| Length of time required to stabilize (hours)..... | <u>2 Hr. Minimum</u>     | <u>1 3/4 Hrs.</u>        |

Flow Test No. 2

| Test commenced at (hour, date)   | <u>11:30 AM (1-23-58)</u> | Choke size         | <u>16/64"</u>        |
|--|---------------------------|--------------------|----------------------|
| Completion producing   | <u>Drinkard</u>           | Completion shut-in | <u>Fusselman</u>     |
| Stabilized pressure at beginning of test.....                                | <u>970 Chart</u> psi      | Lower Completion   | <u>500 Chart</u> psi |
| Maximum pressure during test.....  | <u>970</u> psi            |                    | <u>500</u> psi       |
| Minimum pressure during test.....  | <u>700</u> psi            |                    | <u>500</u> psi       |
| Pressure at end of test.....   | <u>840</u> psi            |                    | <u>500</u> psi       |
| Maximum pressure change during test.....                                     | <u>270</u> psi            |                    | <u>None</u> psi      |
| Oil flow rate during test: <u>296.16</u> BOPD based on <u>286.83</u> BO in   |                           |                    | <u>22 3/4</u> hours. |
| Gas flow rate during test: <u>303.46</u> MCFPD based on <u>287.63</u> MCF in |                           |                    | <u>22 3/4</u> hours. |

Test performed by Coleman Petroleum Engineering Title Agent

Witnessed by Don Gillet Title District Superintendent

REMARKS: Test results indicate that the two producing zones are separated properly.

NOTE: Recording gauge pressure charts, test data sheet, and a graphic depiction of all phases of the test shall be submitted with this report.

AFFIDAVIT:

I HEREBY CERTIFY that all conditions prescribed by Oil Conservation Commission of the State of New Mexico for this packer leakage test were complied with and carried out in full, and that all dates and facts set forth in this form and all attached material are true and correct.

Don Gillet For Western Natural Gas Company  
(Representative of Company Making Test) (Company Making Test)

SWORN TO AND SUBSCRIBED before me this the 23 day of Jan, 1958

Notary Public in and for the County of Lee  
State of New Mexico

(OVER)

INSTRUCTIONS  
(SOUTHEAST NEW MEXICO ONLY)

1. At least 24 hours prior to the commencement of this test, the operator shall notify the District Office of the Oil Conservation Commission in writing of the exact time said test is to be commenced.
2. The packer leakage test shall commence with both sides of the completion shut-in. Both sides of the completion must be shut-in a sufficient length of time to allow for complete stabilization of both wellhead pressures, and for a minimum of 2 hours thereafter- this minimum of 2 hours shut-in must show on the charts of the pressure recorder and also must appear on the data sheet.
3. For Flow Test No. 1, one side of the dual completion shall be produced with the other side shut-in. Such test shall be continued until the flowing wellhead pressure has become stabilized and for a minimum of 2 hours thereafter, and shall be at a rate of flow approximating the normal rate of flow for the zone being produced.
4. Following the completion of flow test No. 1, the well will again be shut-in, and remain so until the wellhead pressures have again become stabilized and for a minimum of 2 hours thereafter.
5. Flow Test No. 2 shall be performed with the previously shut-in side of the dual completion flowing and with the flowing side of the completion used in test number 1 remaining shut-in. This test shall be conducted exactly as outlined under Flow Test No. 1, and must be performed even though no leak was indicated by Flow Test No. 1.
6. All pressures, throughout the entire test, must be continuously measured and recorded with recording pressure gauges.
7. The accuracy of the recording gauges shall be checked at regular intervals throughout the test with a dead weight test gauge, and such readings shall be recorded on the test data sheet provided.
8. For any well on which the wellhead pressures will not stabilize in (24) twenty four hours or less, the minimum producing or shut-in time allowed for stabilization shall be (24) twenty-four hours.
9. This form must be completed and filed in duplicate with the District Office of the Oil Conservation Commission within 15 days following the completion of the testing, and must be accompanied by:
  - a. all of the charts, or copies thereof, used on the pressure recorders during the test.
  - b. the test data-sheet (s), or copies thereof, required under paragraph 7 above.
  - c. a graph depicting the pressures and their changes, for both sides of the completion over the entire test.
10. This packer leakage test shall be performed upon dual completion of any new wells so approved by the Commission. This test shall also be required each year during the annual GOR test for the lowermost oil zone or oil pool so concerned. The Commission may also request packer leakage tests at any time they feel that a new test is desirable.

