

NEW MEXICO  
OIL CONSERVATION COMMISSION

4-1-56

PACKER LEAKAGE TEST

Operator Phillips Petroleum Company Pool (Upper Completion) Vacuum (Yates)  
Lease Santa Fe Well 18 Pool (Lower Completion) Vacuum (San Andres)  
Location: Unit B, S. 34, T 17S, R 35E, Lea County, N. M.

Pre-Test Shut-In

	Upper Completion	Lower Completion
Shut-in at (hour, date).....	<u>8 AM 7-2-58</u>	<u>8 AM 7-2-58</u>
Pressure stabilized at (hour, date).....	<u>8 AM 7-3-58</u>	<u>9 AM 7-2-58</u>
Length of time required to stabilize (hours).....	<u>24 hours</u>	<u>1 hour</u>

Flow Test No. 1

Test commenced at (hour, date) 4:45 PM 7-3-58 Choke size Pumping  
Completion producing San Andres Completion shut-in Yates

	Upper Completion	Lower Completion
Stabilized pressure at beginning of test.....	<u>275</u> psi	<u>200</u> psi
Maximum pressure during test.....	<u>275</u> psi	<u>200</u> psi
Minimum pressure during test.....	<u>275</u> psi	<u>25</u> psi
Pressure at end of test.....	<u>275</u> psi	<u>25</u> psi
Maximum pressure change during test.....	<u>0</u> psi	<u>175</u> psi
Oil flow rate during test: <u>238</u> BOPD based on <u>39.64</u> BO in		<u>4</u> hours.
Gas flow rate during test: <u>69.397</u> MCFPD based on <u>11.566</u> MCF in		<u>4</u> hours.

Mid-Test Shut-In

	Upper Completion	Lower Completion
Shut-in at (hour, date).....	<u>9:20 PM 7-3-58</u>	<u>9:20 PM 7-3-58</u>
Pressure stabilized at (hour, date).....	<u>8:15 AM 7-4-58</u>	<u>2:00 AM 7-4-58</u>
Length of time required to stabilize (hours).....	<u>11 hours</u>	<u>4-1/2 hours</u>

Flow Test No. 2

Test commenced at (hour, date) 1:15 PM 7-4-58 Choke size 13/64"  
Completion producing Yates Completion shut-in San Andres

	Upper Completion	Lower Completion
Stabilized pressure at beginning of test.....	<u>350</u> psi	<u>60</u> psi
Maximum pressure during test.....	<u>575</u> psi	<u>60</u> psi
Minimum pressure during test.....	<u>190</u> psi	<u>60</u> psi
Pressure at end of test.....	<u>190</u> psi	<u>60</u> psi
Maximum pressure change during test.....	<u>385</u> psi	<u>none</u> psi
Oil flow rate during test: <u>66</u> BOPD based on <u>66</u> BO in		<u>24</u> hours.
Gas flow rate during test: <u>52.1</u> MCFPD based on <u>52.1</u> MCF in		<u>24</u> hours.

Test performed by B. E. Allen Title Sub-Foreman

Witnessed by \_\_\_\_\_ Title \_\_\_\_\_

REMARKS: Well produced through dual strings of tubing.  
Pressure recorded from tubing string of both completions

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.

B. E. Allen For Phillips Petroleum Company  
(Representative of Company Making Test) (Company Making Test)

SWORN TO AND SUBSCRIBED before me this the 8 day of July, 1958

MY COMMISSION EXPIRES AUGUST 28, 1961

James S. Lawrence  
Notary Public in and for the County of Lea  
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.

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

6-1-56

PACKER-SETTING AFFIDAVIT  
(Dual Completions)

STATE OF New Mexico )  
County of Lea ) ss

B. E. Allen, being first duly sworn according to law, upon his oath deposes and says:

That he is of lawful age and has full knowledge of the facts herein below set out.

That he is employed by Phillips Petroleum Company in the capacity of Sub-Foreman and as such is its authorized agent.

That on June 20, 1958, he personally supervised the setting of a Baker Model 415-D Production Packer in Phillips Petroleum Company's  
(Make and Type of Packer) (Operator)

Santa Fe Well No. 18, located in Unit  
(lease)  
Letter B, Section 34, Township 17S, Range 35E, NMPM,  
Lea County, New Mexico.

That said packer was set at a subsurface depth of 4140' feet, said depth measurement having been furnished by Ram Guns Inc.

That the purpose of setting this packer was to effect a seal in the annular space between the two strings of pipe where the packer was set so as to prevent the commingling, within the well-bore, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer. That this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

Phillips Petroleum Company  
(Company)

B. E. Allen  
(its Agent)

Subscribed and sworn to before me this the 8 day of July, AD, 1958.

James S. [Signature]  
Notary Public in and for the County  
of Lea

My Commission Expires August 28, 1961.