

NEW MEXICO OIL CONSERVATION COMMISSION

SOUTHEAST NEW MEXICO PACKER LEAKAGE TEST

Operator John M. Kelly			Lease Fowler Half			Well No. 1		
Location of Well L		Unit 8	Sec 24	Twp 10N 37E	Rge 11S	County 105		
Name of Reservoir or Pool			Type of Prod (Oil or Gas)	Method of Prod Flow, Art Lift	Prod. Medium (Tbg or Csg)	Choke Size		
Jalnet			Gas	Flow	Gas	1"		
Langlie Mattix			Oil	Flow	Tbg	3/4"		

FLOW TEST NO. 1

Both zones shut-in at (hour, date): **10 AM 4-1-60**

	Upper Completion	Lower Completion
Well opened at (hour, date):	10 AM 4-2-60	
Indicate by (X) the zone producing.....		X
Pressure at beginning of test.....	765	145
Stabilized? (Yes or No).....	Yes	Yes
Maximum pressure during test.....	765	145
Minimum pressure during test.....	765	35
Pressure at conclusion of test.....	765	50
Pressure change during test (Maximum minus Minimum).....	None	110
Was pressure change an increase or a decrease?.....	None	Decrease
Well closed at (hour, date):	4-4-60	
Total Time On Production 3 Days		
Oil Production During Test: 0 bbls; Grav. 35	Gas Production During Test 90/ 42	MCF; GOR 30,000
Remarks		

FLOW TEST NO. 2

Well opened at (hour, date):	10 AM 4-5-60	Upper Completion	Lower Completion
Indicate by (X) the zone producing.....		X	
Pressure at beginning of test.....	765	135	
Stabilized? (Yes or No).....	Yes	No	
Maximum pressure during test.....	765	145	
Minimum pressure during test.....	550	145	
Pressure at conclusion of test.....	550	145	
Pressure change during test (Maximum minus Minimum).....	215	None	
Was pressure change an increase or a decrease?.....	Decrease	None	
Well closed at (hour, date):	4-6-60	Total time on Production	1 Day
Oil Production During Test: 0 bbls; Grav. _____	Gas Production During Test 2,500	MCF; GOR	
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

By _____
Title _____

Operator **John M. Kelly**
By **Lawrence D. Miller**
Title **Prod. Supt.**
Date **May 15, 1960**

TEST INSTRUMENTS

A packed test set shall be commenced on each multiply completed well after seven days after actual completion of the well and the completion shall be as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within 14 days following recompletion and/or chemical or fracture treatment, and when over 500 ft of work has been done on a well during which the casing or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.

4. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Commission 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 test-head pressure in each has stabilized and for a minimum of two hours thereafter, provided however that they need not remain shut-in more than 24 hours.

For flow test 5, if the zone of the coal completion shall be produced at the normal rate of production while the other zone remains sealing. Such test shall be continued until the flow rate falls and pressure has become stabilized and is a minimum of two hours thereafter, provided however, that the flow test need not continue for more than 24 hours.

[illegible]

As the temperature of the water increases, the rate of diffusion of the dye increases. This is because the kinetic energy of the water molecules increases, causing them to move faster and collide with the dye molecules more frequently. As a result, the dye molecules are dispersed more rapidly throughout the water. The rate of diffusion is also affected by the concentration of the dye. A higher concentration of dye results in a faster rate of diffusion, as there are more dye molecules available to be dispersed. The rate of diffusion is also affected by the surface area of the container. A larger surface area results in a faster rate of diffusion, as there is more area for the dye molecules to be dispersed. Finally, the rate of diffusion is also affected by the viscosity of the water. A more viscous liquid would result in a slower rate of diffusion, as the dye molecules would have more difficulty moving through the liquid.

2. All pressure transducers, throughout the test, are to be checked, calibrated, measured and recorded with recording pressure gauges. The accuracy of the transducers 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 on file within 15 days after completion of the test. Tests shall be conducted at the appropriate District Office of the U.S. Department of Justice, or at a location on Southeast New Mexico where the Los Alamos Laboratory is located, together with the original pressure recording graph and the original deadweight pressures which were later indicated to be correct. In the event of a change of the original deadweight pressures, the original deadweight pressures shall be indicated for each test, and the original deadweight pressures shall be indicated for each test, and the original deadweight pressures shall be indicated for each test. Changes which may be required by the pressure standards as well as the deadweight pressure readings shall be indicated. If the pressure readings are not correct, the original deadweight pressures shall be indicated for each test. The original deadweight pressures shall be indicated for each test. The original deadweight pressures shall be indicated for each test. When the test series is completed with a general ratio for the test series.

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