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

Oil Conservation Division

Northwest New Mexico Packer-Leakage Test

Revised June 10, 2003

Operator Hilcorp Energy Company Lease Name NORDHAUS Well No. 1B

Location of Well: Unit Letter M Sec 13 Twp 031N Rge 009W API # 30-045-30193

	Name of Reservoir or Pool	Type of Prod	Method of Prod	Prod Medium
Upper Completion	MV	Gas	Artificial Lift	Casing
Lower Completion	DK	Gas	Flow	Tubing

Pre-Flow Shut-In Pressure Data

	Hour, Date, Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized?(Yes or No)
Upper Completion	7/16/2019	240	80	Yes
Lower Completion	7/16/2019		0	Yes

Flow Test No. 1

Commenced at: 7/23/2019 Zone Producing (Upper or Lower): UPPER

Time (date/time)	Lapsed Time Since*	PRESSURE Upper zone	PRESSURE Lower zone	Prod Zone Temperature	Remarks
7/23/2019 1:42 PM	13	80	0		Start test @ 1345 on non production zone, MV @ 80, DK 0. Had no change, 0 DK, 80 MV. Shut in non producing zone and returned normally producing zone to service
7/24/2019 12:00 AM	24	54	0		Pressures taken by Joshua Whatley @ 1500 hrs on 7-24-19
7/25/2019 12:00 AM	48	55	0		Pressures taken by Josh Whatley @ 1515
7/26/2019 12:00 AM	72	57	0		Pressures taken by Josh Whatley, Finished test 7-26-19

Production rate during test

Oil: BPOD Based on: Bbls. In Hrs. Grav. GOR

Gas MCFPD; Test thru (Orifice or Meter)

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DISTRICT III

Mid-Test Shut-In Pressure Data

	Hour, Date, Shut-In	Length of Time Shut-In	SI Press. PSIG	Stabilized?(Yes or No)
Upper Completion				
Lower Completion				

(Continue on reverse side)

Northwest New Mexico Packer-Leakage Test

Flow Test No. 2

Commenced at: Zone Producing (Upper or Lower)

Time (date/time)	Lapsed Time Since*	PRESSURE		Prod Zone Temperature	Remarks
		Upper zone	Lower zone		

Production rate during test

Oil: _____ BPOD Based on: _____ Bbls. In _____ Hrs. _____ Grav. _____ GOR _____

Gas _____ MCFPD; Test thru (Orifice or Meter) _____

Remarks:

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

Approved: 6 aug 20 19

New Mexico Oil Conservation Division

By: John Durham

Title: Deputy Oil & Gas Inspector, District #3

Operator: Hilcorp Energy Company

By: Jesse McDowell

Title: Multi-Skilled Operator

Date: Monday, August 5, 2019

NORTHWEST NEWMEXICO 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.

2. 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 shut-in. 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 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.

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 zone which was previously shut-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 Aztec 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).