STATE OF NEW MEXICO
ENERGY and MINERALS DEPARTMENT

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

Operator Southern Union Exploration Lease Jicarilla Well No. K13

Location of Well: Unit E Sec. 11 Twp. 25 Rge. 5 County Rio Arriba

	NAME OF RESERVOIR OR POOL	TYPE OF PROD. (Oil or Gas)	METHOD OF PROD. (Flow or Art. Lift)	PROD. MEDIUM (Tbg. or Csg.)
Upper Completion	Pictured Cliff	Gas	Flow	Csg.
	Middle Charca	Gas	Flow	Tbg.
Lower Completion	Dakota	Gas	Flow	Tbg.

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Upper Completion	10-2-88	3 Days	300	Yes
	Charca 7-29-88	67 Days	525	Yes
Lower Completion	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
	7-29-88	67 Days	1150	No

FLOW TEST NO. 1

Commenced at (hour, date)* Zone producing (Upper or Lower):

TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE Upper Completion	PRESSURE Lower Completion		PROD. ZONE TEMP.	REMARKS
			Charca			
10-3-88		300	525	1135		
10-4-88		300	525	1140		
10-5-88		300	525	1140		Middle zone on
10-6-88		300	385	1140		
10-7-88		305	380	1150		

Production rate during test

Oil: 0 BOPD based on _____ Bbls. in _____ Hours. _____ Grav. _____ GOR _____

Gas: 617 MCFPD; Tested thru (Orifice or Meter): _____

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	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)

NOV 1 0 '88
OIL CON. DIV.
DIST. 3

(Continue on reverse side)

FLOW TEST NO. 2

Commenced at (hour, date)** Zone producing (Upper or Lower):

TIME (hour, date)	LAPSED TIME SINCE **	PRESSURE Upper Completion	PRESSURE Lower Completion	PROD. ZONE TEMP.	REMARKS

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hours. _____ Grav. _____ GOR _____

Gas: _____ MCFPD: Tested thru (Orifice or Meter): _____

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 Division

Original Signed by CHARLES [illegible]

By _____

Title DEPUTY OIL & GAS INSPECTOR, DIST. #3

Operator Southern Union Exploration

By Dwight Hudgins

Title Testing Technician

Date _____

NORTHWEST NEW MEXICO 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 the 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).

STATE OF NEW MEXICO
ENERGY and MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

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NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Southern Union Exploration Lease Jicarilla Well No. K13

Location of Well: Unit E Sec. 11 Twp. 25 Rge. 5 County Rio Arriba

	NAME OF RESERVOIR OR POOL	TYPE OF PROD. (Oil or Gas)	METHOD OF PROD. (Flow or Art. Lift)	PROD. MEDIUM (Tbg. or Csg.)
Upper Completion	South Blanco Pictured Cliff	Gas	Flow	Tbg.
Middle Completion	Otero Chacra	Gas	Flow	Csg.
Lower Completion	Basin Dakota	Gas	Flow	Tbg.

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Upper Completion	10/22/89	3 Days	308	Yes
Middle Completion	10/22/89	3 Days	440	Yes
Lower Completion	10/19/89	6 Days	1120	Yes

FLOW TEST NO. 1

Commenced at (hour, date)* Zone producing (Upper or Lower):

TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE Upper	Middle	Lower	PROD. ZONE TEMP.	REMARKS
10/23/89	1 Day	308	440	1120		
10/24/89	2 Days	308	440	1120		
10/25/89	3 Days	308	440	1120		Middle zone on
10/26/89	4 Days	308	350	1120		
10/27/89	5 Days	308	320	1120		

OIL CON. DIV.
DIST. 3

Production rate during test

Oil: 0 BOPD based on _____ Bbls. in _____ Hours. _____ Grav. _____ GOR _____

Gas: 463 MCFPD; Tested thru (Orifice or Meter): _____

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	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)

(Continue on reverse side)

FLOW TEST NO. 2

Commenced at (hour, date)** | Zone producing (Upper or Lower):

TIME (hour, date)	LAPSED TIME SINCE **	PRESSURE		PROD. ZONE TEMP.	REMARKS
		Upper Completion	Lower Completion		

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hours. _____ Grav. _____ GOR _____

Gas: _____ MCFPD: Tested thru (Orifice or Meter): _____

Remarks: _____

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

Approved NOV 27 1989 19___
New Mexico Oil Conservation Division

Original Signed by CHARLES GHOLSON

By _____

Title DEPUTY OIL & GAS INSPECTOR, DIST. #3

Operator Southern Union Exploration

By Lucy H. Hodgins

Title Technician

Date 11/14/89

NORTHWEST NEW MEXICO 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 the 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).

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Location of Well: Unit E Sec. 11 Twp. 25 Rge. 5 County Rio Arriba

	NAME OF RESERVOIR OR POOL	TYPE OF PROD. (Oil or Gas)	METHOD OF PROD. (Flow or Art. Lift)	PROD. MEDIUM (Tbg. or Csg.)
Upper Completion	South Blanco Pictured Cliff	Gas	Flow	Csg
Middle ~~Lower~~ Completion	~~Otero Chacra~~	Gas	Flow	Tbg.
Lower Completion	Basin Dakota	Gas	Flow	Tbg.

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Upper Completion	9-23-90	5 Days	280	No
Middle ~~Lower~~ Completion	~~9-23-90~~	3 Days	332	No
Lower Completion	9-23-90	5 Days	1000	No

FLOW TEST NO. 1

Commenced at (hour, date)*

Zone producing (Upper or Lower):

TIME (hour, date)	LAPSED TIME SINCE*	PRESSURE Upper	PRESSURE Middle	PRESSURE Lower	PROD. ZONE TEMP.	REMARKS
9-24-90	1 Day	270	300	940		
9-25-90	2 Days	275	325	965		
9-26-90	3 Days	275	332	990		Middle zone on
9-27-90	4 Days	275	255	995		
9-28-90	5 Days	280	250	1000		

Production rate during test

Oil: 0 BOPD based on _____ Bbls. in _____ Hours. _____ Grav. _____ GOR _____

Gas: 67 MCFPD; Tested thru (Orifice or Meter): Meter

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 (hour, date)** | Zone producing (Upper or Lower):

TIME (hour, date)	LAPSED TIME SINCE **	PRESSURE		PROD. ZONE TEMP.	REMARKS
		Upper Completion	Lower Completion		

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hours. _____ Grav. _____ GOR _____

Gas: _____ MCFPD: Tested thru (Orifice or Meter): _____

Remarks: _____

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

Approved OCT 22 1990 19___

New Mexico Oil Conservation Division

Original Signed by CHARLES GHOLSON

By _____

DEPUTY OIL & GAS INSPECTOR, DIST. #3

Title _____

Operator Southern Union Exploration

By Gary W Hedgin

Title Technician

Date 10-19-90

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