# STATE OF NEW MEXICO ENERGY and MINERALS DEPARTMENT

## OIL CONSERVATION DIVISION

Page 1 Revised 10/01/78

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

## NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

						T.4	aarilla	•		/ell o. <u>K13</u>	
erator	Sou	thern	Union	Exploration	Lea	isc1	<u>car in a</u>				<b>L</b> .
cation	urus T	Sac	11 T	wp. <u>25</u>	Rg	e. <u> </u>		C	ounty	Rio Arri	
Well: U	Unit				į TYP	E OF PHOD.		METHOD OF P	nop. Liii)	PROD. N (Tbg. o	
l			OF RESERVOI	R OR POOL		Con C		Flow		Cs	g
Upper			Cliff			Gas		Flow		Th	g.
mpletion	Mic	ldle (	Charca						• • • •	Th	g.
Lower mpletion	Dal	kota				Gas		Flow_			
				PRE-FL	OW SHUT				Stabiliz	ed? (Yes or No)	Yes
	Hour, date	hut-In 1	0-2-88	Length of time st		ys i	ress. psig	300 525			Yes
mpletion Upper	Charc		7-29-88	Length of time el	67 Da.	ys    sir	oress. psig	_1/	Stabiliz	ed? (Yes or No)	
Lower	Hour, date		7-29 <b>-</b> 88		67 Da	ys !		1150			No .
mpletion	<u> </u>		1 27 00		ELOW!	TEST NO	) 1				
					FLOW	TEST INC	Zone producin	g (Upper or Lower	);		
nimence	d at (hour, d			PRE	SSURE		PROD. ZONE			REMARKS	
	IME r, deta)	LAP	SED TIME	Upper Completion	Lower Com	pletion	TEMP.		. <u></u>	<u> </u>	
					Charca 525	1135					
10-3	88 .			300		1122					
10-4	88	Ì		300	525	1140					
10-4					505	1140		Midd	le zone	on	
10-5	5-88			300	525	1140					
10 4				300	385	1140					
10-6	<u>6-88</u>					1150	•				
1Ω	7-88			305	380_	<u> </u>					
• .	•		•								
					:						
'roduc	tion rate	during	test					1		G	OR
Oil:	. 0	*	ВО	PD based on		Bbls. in	ŀ	louts.	Grav	6	
J11		,			CFPD; Test	ad then I	Orifice of	Meter):			
Gas:	617			and the second second					*		· · · · · · · · · · · · · · · · · · ·
•	,			MID	-TEST SHU	T-IN PR	ESSURE D	ATA	Siet	oilized? (Yes or No)	
		te shut-in		Length of time			SI press, psig		3141		i gyrufusi teri 
Upper Completi							SI press. palg		Stat	of to say) Sheallic	400
Lower	Hour, de	te shut-in		Length of time	g gnulini ,				7 4 1		
Complet		<u> </u>			<del></del>						
				4				4.4.2			/
	.:			. :					VInic	الگستان و در ا	and the first

REMARKS

FLOW TEST NO. 2

Lower Completion

PRESSURE

Upper Compission

Zone producing (Upper or Lower):

PROD. ZONE

TEMP.

		Treat this end	PAREESING O	PERMIT	जुलाइज्र तथ्य	
	<u></u>		:	:		
			engarat y ter			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			41.			The second secon
1 .						<del> </del>
Remarks:			in agricultural properties of the sector	(Orifice or Meter	A CONTRACTOR OF THE STATE OF TH	The second secon
I hereby certify th	hat the informati		ed is true and co	omplete to the bes	t of my knowled	ge.
Approved New Mexico O	il Conscrvation I	Division		Operator Sou	thern Union A Audgor	
Ву		by CHARLES J	0.0%	Firls Testin	ver Technician	<u> </u>
Title	DEPUTY GN & -	ias inspector, a	<u> </u>	Date	· · · · · · · · · · · · · · · · · · ·	
		NORTHWEST NE	W MEXICO PACKER I	IEAKAGE TEST INSTRU	ICTIONS	

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 it suspected or when requested by the Division.

Communced at (hour, date) \*\*

TIME 1000

(hour, deta)

LAPSED TIME

SINCE \*\*

- 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.
- 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 and deal.

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 13 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).

## OIL CONSERVATION DIVISION

Hoyland 10/0 1/10

of form at minot elift."

markai la	skapa lasis Litter Mexico	иоклим	EST NEW	MEXICO PA	CKEN-I	EAKAGE	TEST	
· i _	Ilm ion	Evnlor.	ation	Lease	Jicari	11a		No. K13
presator	thern Union	EXPIOL	at Ion	LCM3C			Commi	y Rio Arriba
ocation ( Well: Unit <u>E</u>	Sec117		Rge	5		HOU OF PROD.	. PROD. MEDIUM	
	TYPE OF PROD.		. (11	ow or Art. LIN	(1bg. or Ceg)			
	NAME OF RESERVO	1.6f	. Gas			Flow .	Tbg.	
amplallon South	Blanco Pic Chacra		,Gas			Flow	Tbg	
tomptetton Basin	Gaș			Flow	108.			
		1	RE-FLOW	SHUT-IN P	RESSUIU	DATA		Glabilized? (Yes or flo)
Upper 10/2	hulde .	Length	t tline shut-in 3 Da	ys	51 prese. pr	308		Yes
1 1072	2/89 2/89———	نميدير:	3 Da	χş.		., 440		Yes
completion 10/1			6 Da	ıys .	l	1120		
	•	• • •	. }	LOW TEST	NO. 1			
Conimenced at fliour, d	atel #					ddn) fulanpor	et of Loneth	
TIME	LAPSED TIME	Upper	rnessun Mlddle	- Lower		D. ZONE EMP.		NEMARKS
(hour, date)			440	1120				
10/23/89	1 Day	308			-			
10/24/89	2 Days	308	440	1120	-		· ·	
10/25/89	3 Days	308	440!	1120	_		Middle	zone on
•	4 Days	308	350	1120			1	
_10/26/89_			000	1120			•	
10/27/89	5 Days	308	320	1120	_			40 42 7 1939 Bridge
		<u> </u>				· , ,		COM DIVIN
Production 12te	during test		,. · '		• •			0151. 3
; ; ;		 PD based	00	ՄՍԱ.	in	Hours		GIAY. GOR
Oil:	BO	D Dioca		• .	.•	a ne Maia	()	
Gas: 463				); Tested thi			!/:	Section of the sectio
				T SHUT-IN	riuessu	RE DATA		Stabilized? (Yes or No)
Upper :	s shul-in	Leng	th of time shul-	n	SI press		1 p. 1	Stabilized? (Yes or Ho)
Completion	te shut in	Leng	th of time shut-	ln .··.	Si press	. paig · · ·		Oleanor Land Allen Allen
Completion						,,	1.1. 1. 10	

REMARKS

. . . .

### FLOW TEST NO. 2

**Lower Completion** 

PRESSURE

**Upper Completion** 

Zone producing (Upper or Lower):

PROD. ZONE

TEMP.

		Tournay's	PAREERAGO	एक प्रकृति के	<i>प्रमाधिक</i>	Control of the second
		•		<u>;</u>	•	
			CALCERON AND AND THE		1	* 1 - 21 - 1
1 2 2 3 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4		1			1	
1 (1)						
		e seminar or exercise services.	green region to the	•		
Gas:	•	MCF	PD: Tested thru			ئىسچەلىپچىدىن ئىرلاندا خارىمىدىنىدىن
_			•			GOR
					<del></del>	
I hereby certify th	at the information	on herein contain	ed is true and co	nplete to the best	of my knowled	lge.
Approved NC New Mexico Oi	l Conscruation D	Division	_19 C	perator Sout	Adudgeis	Exploration
By	gned by CHARLES	GHULSON		itle <u>Tech</u>	*	
THE DEPUTY OF	IL & GAS INSPECT	OR. DIST. #3	:	11/1	4 /89	

### NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

e :

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 complexion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracsure treatment, and whenever remedial work has been done on a well during which the packet or the tubing have been disnurbed. Tests shall also be taken at any time that communication is suspected or when requested by the Division.

Commenced at (hour, date) \*\*

LAPSED TIME

SINCE \*\*

TIME

(hour, data)

Title

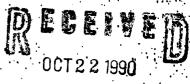
- At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.
- 3. The packet leakage test shall commence when both zones of the dual completion are 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 thut-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).

Page 1

	This form to be manifor packer leaki to Southeast t	inparting non-tasts		est new	MEXICO PA	CKER-L	EAKAGE	TEST .	ans 44		
	i a si	hern Union	Explora	tion.	 Lease	Jicar	illa		No.	K13	
perator cation				•	Rgc.	5	.· 	. Coun	ty <u>Rio</u>	Arriba	
Well: 1	Unit <u>E</u>	_ Sec11T	177.		TYPE OF FRE		. ME	litop of Prop.	•	PHOD, MEDIUM [1bg, or Cog.]	
		NAME OF RESERVO			Gas			Flow		Csg .Tbg	
urnii mpieilno Ldd LE	South -Otero	Blanco Pic	cured C.		Gas			Flow Flow		Tbg.	
[बनम mpletton	Basin	Dakota			Gas SHUT-IN PI	u:5SUIU	L : DATA				: ;
	Hour, date six	ut in		IIII-TLO W	•	SI press. ps	280		Glabilizadi (	No .	
Veerr mpleilan 1714 Fe	9-23-	90		3 Da	iys	. <u>-= 1  </u>	7332 1000	and the second	<u></u>	No No	<u></u>
mplellon				5 Da			1000				
	· ·		<u> </u>		ILOW TEST	Zone p	roducting (Upp	er or Luner;			
	d at frout, date	LAPSED TIME	Upper:	rnessun Madle	- Lower		D. ZONE EMP.		пем	<b>ДПКВ</b>	··-
	1, datel	SINCE*	270	300 <sub>i</sub>	940				·		· 
9-24-	-90	1 Day	275	325	965						
9-25-		2 Days 3 Days	275	332	990			Middle	zone c	n	<del></del> -
9-26-		4 Days	· 275·	255 <sup>3</sup>	995				· ·		· ·
9-27	• .	5 Days	280	250	1000		· · · · · · · · · · · · · · · · · · ·		·		
9-28	-90	J Days					``				
	tion tate d	uring test				• • •					, ,
: '	; ; 0		l'D based o	on	Bbls. i	  n	Hour	3	Giav	GOR	
Oil: Gas:	67				D; Tested du	u (Orific	c or Meio	(): <u>Met</u>	er		!!
•	•	•			ST SHUT-IN I	PINESSUI	RE DATA		Stabilizac	17 (Yes of 110)	
Upper Compiell		eliulia		h of time shut		SI press	. palg		Stabiliza	it (res or Ho)	., 3

· (Continue on reverse side)



OIL CON. DIV.)

FLOW TEST NO. 2

	14)**		Zone producing (Upper or Lowerk					
TIME PARTIES	LAPSED TIME	PRES	SURE	PROD. ZONE	-			
(hour, data)	SINCE **	Upper Completion	Lower Completion	. TEMP.	<u> </u>	REMARKS		
		Treat have s	PARTERIALS	122 A Sept. 13	MASSON			
	•••		:	<u> </u>				
• · · ·		or a common a dig.	**************************************			• •		
1 22 1 1 2	e to week a					The former of animals of the service		
			• • •					
11.00		Contract of the second	em sign mo					
Oil:		D based onMCFI	•					
Remarks:			r takan di kacamatan kancamatan kancamatan kancamatan kancamatan kancamatan kancamatan kancamatan kancamatan k	an man of the second		1000		
1 - 1 - 1				: 100 i	4 ,			
	OCT 221			perator Sou	of my knowled	gc Exploration		
0.:-:	nal Signed by CH	ARLES GIOLSON	e months and entered	0	/ hnician			
Ву	······································	PECTOR, DIST. #3	<u></u> 11	IIC	THE LOTE			

1. A packet 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 packet of 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 thus-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 shur-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 shough 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 beginn. ing of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals theseafter, 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 13 days after completion of the test. Tests shall be filed with the Artec 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 foil zones only).