STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION 2002



NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

NAME OF RESERVOIR OR POOL Upper Completion MESA VERDE GAS FLOW PRE-FLOW SHUT-IN PRESSURE DATA Upper Completion Upper Completion DAKOTA PRE-FLOW SHUT-IN PRESSURE DATA Upper Completion Upper Completion Upper Completion DAKOTA Upper Completion Hour, date shut-in 09/27/02 Length of time shut-in 09/27/02 Length of time shut-in 09/27/02 Length of time shut-in SI press. psig 280 yes Completion O9/27/02 Length of time shut-in SI press. psig Stabilize Completion O9/27/02 SI press. psig Stabilize Completion O9/27/02 FLOW TEST NO. 1	Operator	CORDILLERA ENERGY, INC.			Lease	JENNEY		Well No. 1M		
Completion MESA VERDE GAS FLOW		Unit P	_ Sec	13	Twp.	26N	Rge <u>4W</u>	API #	30-039-21513	
Completion MESA VERDE GAS FLOW		NAME OF RESERVOIR OR POOL			1				PROD. MEDIUM (Tbg. or Csg.)	
DAKOTA GAS FLOW	Completion	MESA VERDE		GAS		FL	ow	TBG		
Upper Completion Dol/27/02 Stabilize Stabil		DAKOTA			GAS		FL	ow	TBG	
Completion O9/27/O2				PR		-IN PRES			Tarania and an	
Length of time shul-in O9/27/02 Length of time shul-in O9/27/02 Stabilize Stab	Upper	Hour, date shut-in			1 -		SI press. psi	-	Stabilized? (Yes or No)	
Langth of time shut-in 3 days St press, psig Stabilize S	Completion	09/27/02								
Solution Commenced at (hour, date) *		Hour, date shut-in					SI press. psi	-	Stabilized? (Yes or No)	
Commenced at (hour, date) * 09/30/02 Zone producing (Upper or Lower): Lower TIME (hour, date) Caps Caps TIME (hour, date) Caps Ca	Completion	09/27/02			3 days	3 days 705			_yes	
TIME					FLO'				.	
Comparison Com	Commenced	at (hour, date) * 09/30/02				Zone produ	icing (Upper or I	Lower):	Lower	
Composition	TIME	LAPSED TIME		PRESSURE	PROD. ZONE					
Csg tbg tbg	(hour, date)	Since *	Upper Completion		Lower Completion	TEMP.		REMARKS		
09/28 270 170 300 Both Zones Shut In 09/29 285 220 490 Both Zones Shut In 09/30 300 280 705 Both Zones Shut In 10/01 1 day 305 290 135 Lower Zone Flowing 10/02 2 days 310 295 130 Lower Zone Flowing Production rate during test Oil: BoPD based on Bbls. in Hours Grav. Gas: 53 MCFPD: Tested thru (Orifice or Mete METER States as in a contract thrus the state of the contract thrus the state of thrus thrus the state of thrus thrus thrus the state of thrus thrus thrus thrus the state of thrus	(1.5.5)		csq	tbg	tbg					
10/01 1 day 305 290 135 Lower Zone Flowing	09/28				300		Both Zo	nes Shut In		
10/01 1 day 305 290 135 Lower Zone Flowing 10/02 2 days 310 295 130 Lower Zone Flowing Production rate during test Oil: BOPD based on Bbls. in Hours Grav. Gas: 53 MCFPD: Tested thru (Orifice or Mete METER	09/29		285	220	490		Both Zo	ones Shut In		
10/01 1 day 305 290 135 Lower Zone Flowing 10/02 2 days 310 295 130 Lower Zone Flowing Production rate during test Oil: BOPD based on Bbls. in Hours Grav. Gas: 53 MCFPD: Tested thru (Orifice or Metc METER	09/30		300	280	705		Both Zo	ones Shut In		
Production rate during test Oil: BOPD based on Bbls. in Hours Grav. Gas: 53 MCFPD: Tested thru (Orifice or Mete METER MID-TEST SHUT-IN PRESSURE DATA	10/01	1 day	305	290	135		Lower 2	Zone Flowing	_	
Production rate during test Oil: BOPD based on Bbls. in Hours Grav. Gas: 53 MCFPD: Tested thru (Orifice or Mete METER MID-TEST SHUT-IN PRESSURE DATA				295	130		Lower			
Oil: BOPD based on Bbls. in Hours Grav. Gas: 53 MCFPD: Tested thru (Orifice or Mete METER MID-TEST SHUT-IN PRESSURE DATA										
Gas: 53 MCFPD: Tested thru (Orifice or Mete METER MID-TEST SHUT-IN PRESSURE DATA	Production	rate during test								
MID-TEST SHUT-IN PRESSURE DATA	Oil:	BOPD based on			Bbls. in Hour		Hours	Grav.	GOR	
MID-TEST SHUT-IN PRESSURE DATA	Gas:		53		MCFPD: Tested to	hru (Orifice o	or Mete METEF	₹		
Sleege paig				BAID	TEST SHIIT IN	N DDEGGI	IRE DATA			
	Upper	Hour, date shut-in		1 FRESS						
Completion Lower Hour, date shut-in Length of time shut-in SI press. psig Stabilize		Hour, date shut-in			Length of time shut-in		SI press. ps	sig	Stabilized? (Yes or No)	

FLOW TEST NO. 2

Commenced a	at (hour, date) **		Zone Producing (Upper or Lower):			
Time	LAPSED TIME	PR	ESSURE	PROD. ZONE		
(hour, date)	SINCE **	Upper Completion	Lower Completion	TEMP.	REMARKS	
				†		
		 				
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	L	<u> </u>	<u>l</u>	<u>.ll</u>		
Production	rate during test					
i ioductioi	rate during test					
O:1.					- COD	
OII:	BOPD ba	sed on	Bbls. in	Hrs	GravGOR	
Gas:		MCFPD: Tested thru	(Orifice or Meter):			
Remarks:						
r comanc.					· · · · · · · · · · · · · · · · · · ·	
I hereby certif		erein contained is true an	nd complete to the best of	f my knowledge.		
	NUV 1 1	2 002				
Approved		, 20	002 Oper	ator CORDILL	ERA ENERGY, INCORPORATED	
New Mexic	co Oil Conservatio	on Division		1/ 00	1 4	
60	MEN'S TROUBLE AND THE	HAPLE T. MITTEN	Ву	Kaysc	ekeleer	
D.			Title	PRODUC	TION TECHNICIAN	
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Title	CARRIES AND A CONTROL OF THE CARRIES AND A CO		Date	11/12/02		

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 distrubed. Tests shall also be taken at any time that communication is suspected or when requested by the Division.
- 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 notified.
- 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.
- 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 dead-weight pressure gauge at time intervals as follows: 3 hours tests: immediately prior to the beginning of each flow-period, at fifteen-nminute 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 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 10-01-98 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only).