

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Williams Production Company					Lease or Unit Name ROSA UNIT				
Test Type X Initial Annual Special			Test Date 11/18/98		Well Number #147A				
Completion Date		Total Depth		Plug Back TD		Elevation		Unit Sec Twp Rng H 33 31N 5W	
Casing Size		Weight d		Set At		Perforations: From To		RIO ARRIBA	
Tubing Size		Weight d		Set At		Perforations: From To		BLANCO	
Type Well - Single-Bradenhead-GG or GO Multiple				Packer Set At		Connection MV			
Producing Thru Tubing		Reservoir Temp. oF		Mean Annual Temp. oF		Barometer Pressure - Pa		Connection	
L	H	Gq 0.6	%CO2	%N2	%H2S	Prover 3/4"		Meter Run	Taps

FLOW DATA					TUBING DATA		CASING DATA		
NO	Prover Line Size	X Orifice Size	Pressure p.s.i.q	Temperature oF	Pressure p.s.i.q	Temperature oF	Pressure p.s.i.q	Temperature oF	Duration of Flow
SI	2" X 3/4"				1178		1181		0
1					488	56	1077		0.5 hr
2					417	62	1024		1.0 hr
3					406	63	991		1.5 hrs
4					397	66	968		2.0 hrs
5					381	68	932		3.0 hrs

RATE OF FLOW CALCULATION										
NO	Coefficient (24 Hours)				hwPm	Pressure Pm	Flow Temp. Factor Fl	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	9.604					393	0.9924	1.29	1.04	5025
2										
3										
4										
NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ration _____ A.P.I Gravity of Liquid Hydrocabrons _____ Specific Gravity Separator _____ Specific Gravity Flowing Fluid <u>XXXXXXXXXX</u> Critical Pressure _____ p.s.i.a. Critical Temperature _____ R					Mcf/bbl. Deq. XXXXXXX _____ p.s.i.a. _____ R
Pc	1193		Pc ²	1423249						
NO	Ptl	Pw	Pw ²	Pc ² -Pw ²	(1) $Pc^2 = \frac{2.674712}{Pc^2 - Pw^2}$					(2) $Pc^2 \wedge n = \frac{2.0915}{Pc^2 - Pw^2}$
1		944	891136	532113						
2										
3										
4					AOF = Q $\frac{Pc^2 \wedge n}{Pc^2 - Pw^2} = \frac{10510}{Pc^2 - Pw^2}$					
Absolute Open Flow		10510		Mcf/d @ 15.025		Angle of Slope _____		Slope, n 0.75		

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
-------------------------	---------------	----------------	-------------