

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 9/6/98		Well Number #148A				
Completion Date 8/16/98		Total Depth		Plug Back TD		Elevation		Unit Sec Twp Rng N 2 31N 6W	
Casing Size		Weight	d	Set At	Perforations: From To	County RIO ARRIBA			
Tubing Size		Weight	d	Set At	Perforations: From To	Pool BLANCO			
Type Well - Single-Bradenhead-GG or GO Multiple					Packer Set At		Formation 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"			1071		1021		0
1					382	54	974		0.5 hr
2					376	62	921		1.0 hr
3					372	63	902		1.5 hrs
4					371	65	888		2.0 hrs
5					366	68	869		3.0 hrs

RATE OF FLOW CALCULATION										
NO	Coefficient (24 Hours)				hwPm	Pressure Pm	Flow Temp. Factor Fl	Gravity Factor Fq	Super Compress. Factor. Fpv	Rate of Flow Q.Mcfd
1	9.604					378	0.9924	1.29	1.04	4833
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. XXXXXX ____ p.s.i.a. ____ R
Pc	1033	Pc ²	1067089							
NO	Ptl	Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} = \underline{3.66788}$					(2) $\frac{Pc^{2-n}}{Pc^2 - Pw^2} = \underline{2.6504}$
1		881	776161	290928	AOF = Q $\frac{Pc^{2-n}}{Pc^2 - Pw^2} = \underline{12810}$					
2										
3										
4										
Absolute Open Flow		12810	Mcfd @ 15.025		Angle of Slope _____			Slope, n 0.75		
Remarks:										
Approved By Commission:			Conducted By:			Calculated By: <i>[Signature]</i>		Checked By:		