

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 11/22/98		Well Number #156				
Completion Date 10/30/98		Total Depth		Plug Back TD		Elevation		Unit Sec Twp Rng 9 31N 6W	
Casing Size		Weight d		Set At		Perforations: From To		County SAN JUAN	
Tubing Size		Weight d		Set At		Perforations: From To		Pool BLANCO	
Type Well - Single-Bradenhead-GG or GO Multiple				Packer Set At		Formation MV		DIST. 2	
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"				1081		1082		0
1					408	59	991		0.5 hr
2					389	60	950		1.0 hr
3					382	62	918		1.5 hrs
4					374	64	902		2.0 hrs
5					361	66	818		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					373	0.9943	1.29	1.041	4783
2										
3										
4										
NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ration					Mcf/bbl. Deq.
1					A.P.I Gravity of Liquid Hydrocabrons _____					
2					Specific Gravity Separator _____					
3					Specific Gravity Flowing Fluid xxxxxxxxxx					XXXXXXX
4					Critical Pressure _____ p.s.i.a.					____ p.s.i.a.
5					Critical Temperature _____ R					____ R
Pc	1094	Pc ²	1196836							
NO	Ptl	Pw	Pw ²	Pc ² -Pw ²	(1) $\frac{Pc^2}{Pc^2 - Pw^2} = \underline{2.3562732}$ (2) $\frac{Pc^{2n}}{Pc^2 - Pw^2} = \underline{1.9018}$					
1		830	688900	507936						
2										
3					AOF = Q $\frac{Pc^{2n}}{Pc^2 - Pw^2} = \underline{9097}$					
4										
Absolute Open Flow		9097	Mcf/d @ 15.025		Angle of Slope _____			Slope, n 0.75		

Remarks:

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