

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 9/12/99		Well Number #165				
Completion Date 9/3/99		Total Depth 6085'		Plug Back TD 6050'		Elevation 6393' GR		Unit Sec Twp Rng F 25 31N 6W	
Casing Size 4 1/2"		Weight 10.5#		Set At 6085'		Perforations: From 3229' To 3426'		County Rio Arriba	
Tubing Size 2 3/8"		Weight 4.7#		Set At 3369'		Perforations:		Pool Rosa Pictured Cliffs	
Type Well - Single-Bradenhead-GG or GO Multiple					Packer Set At		Formation PC		
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"				1046		1047		0
1					227	63	716		0.5 hr
2					198	71	571		1.0 hr
3					161	74	501		1.5 hrs
4					159	77	464		2.0 hrs
5					103	81	377		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				115	0.9804	1.29	1.02	1425
2									
3									
4									

NO	Pr	Temp. oR	Tr	Z	Gas Liquid Hydrocarbon Ration	Mcf/bbl.
1					A.P.I Gravity of Liquid Hydrocabrons _____	Deq.
2					Specific Gravity Separator _____	XXXXXX
3					Specific Gravity Flowing Fluid xxxxxxxxxx	
4					Critical Pressure _____ p.s.i.a.	_____ p.s.i.a.
5					Critical Temperature _____ R	_____ R

Pc	1059	Pc2	1121481
NO	Pt1	Pw	Pw2
1		389	151321
2			
3			
4			

(1) $\frac{Pc2}{Pc2-Pw2} =$ 1.1559753		(2) $\frac{Pc2^n}{Pc2-Pw2} =$ 1.1311137	
AOF = Q $\frac{Pc2^n}{Pc2 - Pw2} =$ 1612			

Absolute Open Flow	1612	Mcf/d @ 15.025	Angle of Slope _____	Slope, n	0.85
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Remarks:			
Approved By Commission:	Conducted By: Chic Charley	Calculated By: Tracy Ross	Checked By: David Spitz