

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 8/22/2002		Well Number #148B				
Completion Date 8/15/2002		Total Depth 5990'		Plug Back TD 5966'		Elevation 6236'		Unit Sec Twp Rng P 2 31N 6W	
Casing Size 4 1/2"		Weight 10.5#		Set At 5990'		Perforations: 5011' - 5523'		County Rio Arriba	
Tubing Size 2 3/8"		Weight 4.7#		Set At 5897'		Perforations: 5561' - 5906'		Pool Blanco MV	
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"				980	84	995		0
1					300	65	910		0.5 hr
2					295	66	880		1.0 hr
3					285	68	845		1.5 hrs
4					280	69	820		2.0 hrs
5					270	70	785		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					282	0.9905	1.29	1.034	3578
2										
3										
4										

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

Pc	1007	Pc2	1014049	
NO	Pt1	Pw	Pw2	Pc2-Pw2
1		797	635209	378840
2				
3				
4				

(1) $\frac{Pc2}{Pc2-Pw2} = \underline{\underline{2.676721}}$

AOF = Q $\frac{Pc2^n}{Pc2 - Pw2} = \underline{\underline{7488}}$

(2) $\frac{Pc2^n}{Pc2-Pw2} = \underline{\underline{2.0926776}}$

Absolute Open Flow	7488	Mcf @ 15.025	Angle of Slope _____	Slope, n	0.75
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Remarks:			
Approved By Commission:	Conducted By: Larry Higgins	Calculated By: Tracy Ross	Checked By: