

**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 10/14/2005		Well Number (API #) #221A (API # 30-039-29492)				
Completion Date 10/11/2005		Total Depth 3574'		Plug Back TD		Elevation 6516'		Unit Sec Twp Rng C 18 31N 05W	
Casing Size 5 1/2"		Weight 17#		Set At 3572'		Perforations: 3265' - 3458'		County Rio Arriba	
Tubing Size 2 7/8"		Weight 6.5#		Set At 3527'		Perforations:		Pool Basin	
Type Well - Single-Bradenhead-GG or GO Multiple					Packer Set At		Formation Fruitland Coal		
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.g	Temperature oF	Pressure p.s.i.g	Temperature oF	Pressure p.s.i.g	Temperature oF	Duration of Flow
SI		2" X 3/4"			245	70	1210		0
1					235	70	1162		0.5 hr
2					235	64	1162		1.0 hr
3					205	64	1040		1.5 hrs
4					205	55	1040		2.0 hrs
5					200	55	990		3.0 hrs

RATE OF FLOW CALCULATION								
NO	Coefficient (24 Hours)	hwPm	Pressure Pm	Flow Temp. Factor FI	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd	
1	9.604		212	1.0048	1.29	1.017	2684	
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 xxxxxxxxxxxx	
4					Critical Pressure _____ p.s.i.a.	____ p.s.i.a.
5					Critical Temperature _____ R	____ R

Pc	1222	Pc2	1493284	
NO	Pt1	Pw	Pw2	Pc2-Pw2
1		1002	1004004	489280
2				
3				
4				

(1) $\frac{Pc2}{Pc2-Pw2} =$ 3.0520029		(2) $\frac{Pc2^n}{Pc2-Pw2} =$ 2.3090786	
AOF = Q $\frac{Pc2^n}{Pc2 - Pw2} =$ 6198			

Absolute Open Flow	6198	Mcf @ 15.025	Angle of Slope _____	Slope, n	0.75
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Remarks:			
Approved By Commission:	Conducted By: Mark Lepich	Calculated By: Tracy Ross	Checked By: