

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-30-80		NOV 06 1980	
Company W. A. Moncrief, JR. ✓				Connection El Paso Natural Gas Co.			
Pool Balldridge Canyon - Morrow				Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 10-18-80		Total Depth 10687		Plug Back TD 10252		Elevation 4115.3 G.L.	
Csg. Size 4 1/2		Wt. 12.7		d 3.958		Set At 10687	
Trg. Size 2 3/8		Wt. 4.7		d 1.995		Set At 10110	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At 10110		County Eddy	
Producing Thru TBG.		Reservoir Temp. °F 176 @ 10177.5		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 10110		H 10110		Cg .591		% CO ₂	
				% N ₂		% H ₂ S	
				Prover		Meter Run 4"	
						Taps Flg.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	of Flow
SI							3169		PKR		
1.	4 X 1.250			438	2.25	73	3105		"		45 Min.
2.	4 X 1.250			441	9.00	86	2933		"		1 Hr.
3.	4 X 1.250			446	25.00	84	2658		"		1 Hr.
4.	4 X 1.250			453	47.61	79	2245		"		1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcf/d
1	7.469	31.86	451.2	.9877	1.301	1.035	316
2	7.469	63.94	454.2	.9759	1.301	1.036	628
3	7.469	107.14	459.2	.9777	1.301	1.036	1,054
4	7.469	148.98	466.2	.9822	1.301	1.036	1,473
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/tbl.		
1	.67	533	1.50	.933	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2	.68	546	1.54	.932	Specific Gravity Separator Gas .591 X X X X X X X X		
3	.68	544	1.54	.932	Specific Gravity Flowing Fluid X X X X X		
4	.69	539	1.52	.931	Critical Pressure 672 P.S.I.A. _____ P.S.I.A. _____		
5					Critical Temperature 354 R _____ R _____		

P _c 3182.2		P _w 10126.4	
NO.	P _t	P _w	P _t ² - P _w ²
1		3118.9	9727.5
2		2949.0	8696.6
3		2678.0	7171.7
4			
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.028$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.619$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.384$

Absolute Open Flow 2,384 Mcf/d @ 15.025		Angle of Slope 55.750		Slope, n 681	
Remarks: No Fluid made during test.					
Approved By Division		Conducted By: McMurrain, Rea & Townley		Calculated By: Joe B. Murray & Reggie Reston	
				Checked By:	