

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12-15-81		FEB 17 1982	
Company Yates Petroleum Corporation		Operator Transwestern Pipeline Co.			
Pool Pecos Slope-Abo Gas		Formation Abo		Unit O. C. D. ARTESIA, OFFICE	
Completion Date 10-19-81		Total Length 4200'		Flow Back TD 4137'	
Casing Size 4-1/2"		Well ID 4.090		Perforations From 3811' To 3905'	
Perforations From 3811' To 3905'		Well No. 2		Name of Lease Owner Everette CO Federal	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At -		County Chaves	
Producing Through Tubing		Reservoir Temp. °F 100° @ 3853'		State New Mexico	
Mean Annual Temp. °F 62°		Baro. Press. - P _a 13.2			
L 3857	H 3857	G _g .655	% CO ₂ 1.17	% N ₂ 6.53	% H ₂ S 0
Prover -		Meter Run 2"		Type Flanged	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Test	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _v	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							998				days
1.	2.067 x .625			250	28	54	675	59			20 hrs
2.	2.067 x .625			260	18.7	54	763	59			14 hrs
3.	2.067 x .625			240	14.5	54	842	59			24 hrs
4.	2.067 x .625			240	6.7	54	908	59			24 hrs
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{spv}	Rate of Flow Q, Mscf/d
1	1.866	85.8	263.2	1.006	1.236	1.024	204
2	1.866	71.5	273.2	1.006	1.236	1.025	170
3	1.866	60.7	253.2	1.006	1.236	1.023	144
4	1.866	41.3	253.2	1.006	1.236	1.023	98
5							

NO.	P _r	Temp. °R	T _r	Z	Gas/Liquid Hydrocarbon Ratio	dry	critical
1	.40	514	1.45	.953	A.P.L. Gravity of Liquid Hydrocarbons	-	Deg.
2	.41	514	1.45	.952	Specific Gravity Separator Gas	.655	XXXXXX X
3	.38	514	1.45	.955	Specific Gravity Flowing Fluid	XXXXX	.655
4	.38	514	1.45	.955	Critical Pressure	662	P.S.I.A.
5					Critical Temperature	354	R

NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.8649$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.4827$
1	473.6		474.2	548.3			
2	602.5		602.9	419.6			
3	731.4		631.6	290.9			
4	848.6		848.7	173.8			
5							

Absolute Open Flow		302	Mscf @ 15.025	Angle of Slope θ	Slope, n	.65
Remarks:						
Approved By Division		Conducted By: David Weaver		Calculated By: Al Springer		Checked By: