

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

1-File
1-C-122 File
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3-2-78		MAY - 3 1978	
Company Yates Petroleum Corp.				Connection El Paso Natural Gas Co.					
Pool East Burton Flat				Formation Morrow				Unit B.E.E. ARTESIA OFFICE NM 01165	
Completion Date 10-14-77		Total Depth 11,640'		Plug Back TD 11,327'		Elevation 3270' KB		Farm or Lease Name Williamson "BC"	
Csg. Size 4-1/2"	Wt. 13.5#	d 3.920	Set At 11,623'	Perforations: From 11,264 To 11,271'			Well No. 4		
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 11,262	Perforations: From 11,232 To 11,235'			Unit Sec. Twp. Rge. K 7 20S 29E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 11,226'		County Eddy	
Producing Thru tubing		Reservoir Temp. °F 168 @ 11,260		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico	
L 11.257	H 11.257	Gg 0.643	% CO ₂ 0.68	% N ₂ 0.37	% H ₂ S Nil	Prover	Meter Run 4"	Taps Flange	

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	
SI							3557	56			72 hrs
1.	4.026 x 2.000			542	11	77	3030	69			1 hr
2.				545	20	77	2888	78			1 hr
3.				548	38	78	2612	86			1 hr
4.				550	59	78	2289	93			1 hr
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 _{pv}	Rate of Flow Q, Mcfd
1	19.81	78.13	555	.9840	1.272	1.0463	2.027
2.		105.64	558	.9840	1.272	1.0466	2.741
3.		146.01	561	.9831	1.272	1.0466	3.786
4.		182.26	563	.9831	1.272	1.0468	4.726
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	116.79 Mcf/bbl.
1.	0.825	537	1.479	.9135	A.P.I. Gravity of Liquid Hydrocarbons	56.2 Deg.
2.	0.829	537	1.479	.9130	Specific Gravity Separator Gas	0.618 XXXXXXXXX
3.	0.834	538	1.482	.9130	Specific Gravity Flowing Fluid	XXXXXX .643
4.	0.837	538	1.482	.9125	Critical Pressure	673 P.S.I.A. 672 P.S.I.A.
5.					Critical Temperature	363 R 371 R

P _c 4672.3 P _c ² 21830					(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 1.9208$		(2) $\left[\frac{P_c^2}{P_c^2 - R_w^2} \right]^n = 1.9208$	
NO.	P _i ²	P _w	P _w ²	P _c ² - R _w ²				
1			16340	5490				
2			15079	6651				
3			12806	9024				
4			10465	11365				
5								

Absolute Open Flow 9078 Mcfd @ 15.025					Angle of Slope 45 degrees		Slope, n 1.000		
Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT. Calculations data sheet attached.									
Approved By Commission:			Conducted By: Bill Trembley, Jr.			Calculated By: Eddie M. Mahfood		Checked By:	