

C/FF

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122D
Revised 9-78

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1-7-81		MAR 05 1981	
Company Yates Petroleum Corporation ✓				Connection Transwestern Pipeline Co.		O. C. D.	
Pool South Millman Morrow				Formation Morrow		Unit ARIESIA, OFFICE	
Completion Date 9-1-80				Total Depth 11280 KB		State E-1051	
Casing Size 5½				Perforations: From 10891 To 10926		Form or Lease Name No. Millman Unit	
Well No. 2				Unit 8		Sec. 19s	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10827 KB		County Eddy	
Producing Thru Tubing				Reservoir Temp. °F 167 • 10908 KB		Mean Annual Temp. °F 62	
Baro. Press. - P _g 13.2				State N. Mex.			
L 10900		H 10900		C _g 0.623		% CO ₂ 0.96	
				% N ₂ 0.31		% H ₂ S N. 7	
Prover ---		Meter Run 4"		Taps Flanged			

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							3334	53			DAYS
1.	4.026	X	1.500	820	7	60	2486	64			7 hrs.
2.	4.026	X	1.500	820	12	60	2075	72			13 hrs.
3.	4.026	X	1.500	820	23	60	1708	77			24 hrs.
4.	4.026	X	1.500	820	34	60	839	79			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 _{pv}	Rate of Flow Q, Mcfd
1	10.840	76.37	833.2	1.000	1.285	1.075	1144
2	10.840	99.99	833.2	1.000	1.285	1.075	1497
3	10.840	138.43	833.2	1.000	1.285	1.075	2073
4	10.840	168.31	833.2	1.000	1.285	1.075	2520
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	205.4	Mcl/bbl
1	1.234	520	1.450	.8656	A.P.I. Gravity of Liquid Hydrocarbons	56.3	Dens.
2	1.234	520	1.450	.8656	Specific Gravity Separator Gas	0.606	XXXXXXX
3	1.234	520	1.450	.8656	Specific Gravity Flowing Fluid	XXXXX	0.623
4	1.234	520	1.450	.8656	Critical Pressure	675	P.S.I.A.
5					Critical Temperature	358.5	R

P _r 4332.2	P _w 18768		
NO.	P _r ²	P _w ²	P _r ² - P _w ²
1			10780
2			7544
3			5115
4			1293
5			

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.074$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.074$
$AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2706$	

Absolute Open Flow	2706	Mcf/d @ 15.025	Angle of Slope @	45 deg.	Slope, n	1.000
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Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT. Calculations worksheet C 122D attached.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Bill Trembly Jr.	Eddie Mahfood	