

ST file
C122

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5-4-82		JUL 7 1982	
Company Yates Petroleum Corp. ✓				Connection Transwestern Pipeline Co.		O. C. D.	
Pool South Millman Morrow				Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 1-27-82		Total Depth 11300KB		Plug Back TD 11203 KB		Elevation 3493 KB	
Form or Lease Name Millman SB State		Well No. 1					
Chq. Size 5 1/2"	Wt. 17.0#	d 4.892	Set At 11300KB	Perforations: From 11073 To 11083KB		Unit Soc. Twp. Rge. G 16 19S 28E	
Thq. Size 2-7/8"	Wt. 6.5#	d 2.441	Set At 11071	Perforations: From 11043 To 11046KB			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11036KB		County Eddy	
Producing Thru Tbng		Reservoir Temp. °F 175 • 11080		Mean Annual Temp. °F 62		Base Press. - P _h 13.2	
State NM							
L 11068	R 11068	Gg 0.6302	% CO ₂ 0.77	% H ₂ 0.26	% N ₂ Nil	Prover -	Meter Run 4"
Taps f1ngd							

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
1.	4.026 x 2.250			546	5.5	66	3168	74			20 hrs
2.	4.026 x 2.250			518	10	70	2963	76			24 hrs
3.	4.026 x 2.250			506	17.5	72	2592	77			24 hrs
4.	4.026 x 2.250			501	24	72	2311	78			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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mscf/d
1	25.64	55.46	559.2	0.9943	1.272	1.049	1888
2	25.64	72.88	531.2	0.9905	1.272	1.045	2460
3	25.64	95.32	519.2	0.9887	1.272	1.043	3206
4	25.64	111.09	514.2	0.9887	1.272	1.043	3736
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.827	526	1.459	.9092	256.4	
2	0.786	530	1.470	.9154	50.4	
3	0.768	532	1.476	.9188		
4	0.761	532	1.476	.9196		
5						

NO.	P _r	P _w	P _r ²	P _w ²	P _r ² - P _w ²
1	5133.2	26351	17372	8979	
2			15330	11021	
3			11981	14370	
4			9681	16670	
5					

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.5807$		(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.5807$	
AOIF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 5905$			

Absolute Open Flow 5905		Mscf @ 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 C122D attached

Approved By Division	Conducted By: Bill Trembley Jr.	Calculated By: Eddie Mahfood	Checked By:
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