

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

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Form C-122
Revised 9-1-65
122311

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Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 8-15-76		OCT 28 1976	
Company Yates Petroleum Corp. ✓					Connection		D.C.C.	
Pool Wildcat					Formation Abo		Unit ARTESIA, OFFICE	
Completion Date 6-21-76			Total Depth 7384		Plug Back TD 4992		Elevation 351591. 3530 DF	
Farm or Lease Name Terry "FU" State					Well No. 1			
Csg. Size 4 1/2"	Wt. 10.5	d 4.052	Set At 5142	Perforations: From 4881 To 4920		Unit Sec. Twp. Rge. F 21 - 16S-25E		
Tbg. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 4850	Perforations: From To		County Eddy		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 4850		State New Mexico	
Producing Thru Tubing		Reservoir Temp. °F 102 4900		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		
L 4900	H 4900	G _a 0.640	% CO ₂ 0.05	% N ₂ 0.61	% 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							1697	86			
1.	4 X 1.000			290	6	86	1302	68			72 hrs.
2.	4 X 1.000			300	10	86	1225	68			24 hrs.
3.	4 X 1.000			540	10	87	1098	67			24 hrs.
4.	4 X 1.000			550	16	87	990	66			24 hrs.
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 _{pv}	Rate of Flow Q, Mcfd
1	4.753	42.652	303.2	.9759	1.250	1.0260	254
2	4.753	55.964	313.2	.9759	1.250	1.0265	333
3	4.753	74.377	553.2	.9750	1.250	1.0471	451
4	4.753	94.927	563.2	.9750	1.250	1.0477	576
5.							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	171.3 Mcf/bbl.
					A.P.I. Gravity of Liquid Hydrocarbons	52.0 Deg.
1.	.453	546	1.472	.950	Specific Gravity Separator Gas	0.640
2.	.468	546	1.472	.949	Specific Gravity Flowing Fluid	X X X X X
3.	.827	547	1.474	.912	Critical Pressure	669 P.S.I.A.
4.	.842	547	1.474	.911	Critical Temperature	371 R
5.						

P _c 1969.2 P _c ² 3878				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1			2295	1583
2			2025	1853
3			1629	2249
4			1326	2552
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5196$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 875$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5196$

Absolute Open Flow	875 Mcfd @ 15.025	Angle of Slope θ	45 deg.	Slope, n	1.000
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Remarks: Initial BHP by Bennett Wireline. Variable rates taken in reservoir evaluation.

Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By:
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