

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 3-25-82		MAY 20 1982		
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Company		O. C. D. ARTESIA, OFFICE		
Pool Wildcat Penn Penn					Formation Mississippian		Unit L-6772		
Completion Date 1-24-82		Total Depth 6710		Plug Back TD 6549		Elevation 3850.6 KB 3842.6 GR		Farm or Lease Name Whitworth RU State	
Coq. Size 4-1/2"	Wt. 10.5#	d 4.052	Set At 6640	Perforations: From 6124 To 6307		Well No. 1			
Thq. Size 2-7/8"	Wt. 6.5#	d 2.441	Set At 6075	Perforations: From - To -		Unit H	Sec. 12	Twp. 9S	Rge. 26E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 6075		County Chaves		
Producing Thru Tubing		Reservoir Temp. °F 114 @ 6215		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 6075	H 6075	G _g 0.660	% CO ₂ 5.04	% N ₂ 3.96	% H ₂ S 0	Prover ---	Meter Run 2"	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	Duration of Flow
SI							1825				days
1.	2.067 x 0.875		440	4	60	700	62				24 hrs
2.											
3.											
4.											
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	3.729	42.58	453.2	0.9981	1.231	1.040	203
2.							
3.							
4.							
5.							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	0.6625	520	1.4525	0.925	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas 0.660
3.					Specific Gravity Flowing Fluid _____
4.					Critical Pressure 684 P.S.I.A.
5.					Critical Temperature 358 °R

$P_c = 1838.2$ $P_c^2 = 3379.0$				
NO.	P_1^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	508.7		509.0	2870
2.				
3.				
4.				
5.				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.1774$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 240$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1774$$

Absolute Open Flow 240 Mcfd @ 15.025		Angle of Slope θ _____		Slope, n 1	
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Remarks: Computed with only one flow rate because well loads up and dies.
Worksheet C122D attached.

Approved By Division	Conducted By: David Weaver	Calculated By: Albert R. Stall	Checked By:
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