

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 1-6-79		JAN 25 1979	
Company Harvey E. Yates Company				Connection Llano		O. C. C. ARTESIA OFFICE	
Pool So. Carlsbad Morrow				Formation Morrow			
Completion Date 9-21-78		Total Depth 12297		Plug Back TD 12245		Elevation 3177.4 KB	
Csg. Size 5.5		Wt. 17		Set At 12267		Perforations: From 12200 To 12212	
Tub. Size 2 3/8		Wt. 4.7		Set At 12124		Perforations: From 12222 To 12230	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12107		Farm or Lease Name Mobil "21" State	
Producing Thru Tubing		Reservoir Temp. °F 204 @ 12106		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 12206		H 12206		G _g 0.577		County Eddy	
				% CO ₂		State New Mexico	
				% N ₂		Meter Run X	
				% H ₂ S		Prover	
						Tape	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI	65 hrs.						3002		Pkr.	
1.	3.068 X 0.750			518	3.75	36	2780		Pkr.	1 hr.
2.	3.068 X 0.750			515	9.00	42	2520		Pkr.	1 hr.
3.	3.068 X 0.750			518	27.00	45	2104		Pkr.	1 hr.
4.	3.068 X 0.750			520	64.00	47	1357		Pkr.	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	2.672	44.6318	531.2	1.204	1.316	1.050	168.74
2	2.672	68.9478	528.2	1.018	1.316	1.048	258.66
3	2.672	119.7598	531.2	1.015	1.316	1.047	447.52
4	2.672	184.7290	533.2	1.013	1.316	1.045	687.63
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry gas Mcf/bbl.
1	0.79	496	1.43	0.907	A.P.I. Gravity of Liquid Hydrocarbons	Dry gas
2	0.79	502	1.45	0.911	Specific Gravity Separator Gas	0.577
3	0.79	505	1.46	0.913	Specific Gravity Flowing Fluid	X X X X X X X X
4	0.79	507	1.47	0.915	Critical Pressure	672 P.S.I.A.
5					Critical Temperature	346 °R

NO.	P _t ²	P _s	P _s ²	P _f ² - P _s ²
1	3913.2	15313		
1		3648.2	13309	2004
2		3329.2	11084	4229
3		2834.2	8033	7280
4		2036.2	4146	11167
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3712724$

AGP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 940.06$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.367100$

Absolute Open Flow	940.06	Mcf @ 15.025	Angle of Slope @	45° 16'	Slope, n	0.990349
Remarks:						
Approved By Commission:		Conducted By:		Calculated By:		Checked By:
		Tefteller, Inc.		F. Tefteller		