

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-6-78		JUL 14 1978	
Company Yates Petroleum Corporation				Connection El Paso Natural Gas Co.		O. C. C. ARTESIA, OFFICE	
Pool Undesignated				Formation Cisco		Unit	
Completion Date 4-7-78		Total Depth 8680'		Plug Back TD 7527'		Elevation 4329' KB	
Farm or Lease Name Federal "HQ"		Well No. 1		Unit N		Sec. Twp. Rge. 5 21S 22E	
Csg. Size 5-1/2"		Wt. 15.5#		Set At 4.950		Perforations: From 6020 To 6110'	
Thq. Size 2-3/8"		Wt. 4.6#		Set At 1.995		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 5989' KB		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 118 @ 6065'		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2	
State New Mexico		L 6065		H 6065		Gg 0.665	
% CO ₂ 1.08		% N ₂ 1.09		% H ₂ S Nil		Prover 4"	
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							1847	53			weeks
1.	4.026 x 0.500			610	11	74	1717	60			1 hour
2.				610	21	74	1646	65			1 hour
3.				610	42	74	1513	68			1 hour
4.				610	69	74	1353	70			1 hour
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	1.182	82.80	623.2	.9868	1.240	1.0575	127
2	1.182	114.40	623.2	.9868	1.240	1.0575	175
3	1.182	161.79	623.2	.9868	1.240	1.0575	247
4	1.182	207.37	623.2	.9868	1.240	1.0575	317
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Trace water & 1495 Mcf/bbl.
1.	0.926	534	1.44	.8942	A.P.I. Gravity of Liquid Hydrocarbons	59.0 Deg.
2.	0.926	534	1.44	.8942	Specific Gravity Separator Gas	0.650 X X X X X X X X
3.	0.926	534	1.44	.8942	Specific Gravity Flowing Fluid	X X X X X 0.665
4.	0.926	534	1.44	.8942	Critical Pressure	673.2 P.S.I.A. 673 P.S.I.A.
5.					Critical Temperature	370.7 R 376 R

P _c 2241	P _c ² 5022	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1092$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.7310$
NO.	P _t ²	P _w	P _w ²
1			4314
2			3946
3			3319
4			2641
5			

Absolute Open Flow		549 Mcfd @ 15.025	Angle of Slope	53-2/3 deg	Slope, n	.7352
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Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT, Calculations worksheet attached.	
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Approved By Commission:	Conducted By: David Weaver	Calculated By: Eddie M. Mahfood	Checked By:
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