

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

RECEIVED

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11-12-81		DEC 17 1981							
Company Yates Petroleum Corporation /		Connection Transwestern Pipeline Company		O. C. D. ARTESIA, OFFICE							
Pool Undesignated Abo		Formation Abo		Unit Fee Lease							
Completion Date 7-30-81		Total Depth 4808'		Plug Back TD 4675'							
Csg. Size 4-1/2"		WT. 9.5#		ID 4.090"							
Set At 4707'		Perforations: From 4067' To 4415'		Well No. 1							
Tub. Size 2-3/8"		WT. 4.7#		ID 1.995"							
Set At 4350'		Perforations: From - To -		Unit Sec. Twp. Range K 6 9S 26E							
Type Well - Single - Ironhead - G.G. or G.O. Multiple Single				Packer Set At None							
Producing thru Tubing		Reservoir Temp. °F 99 @ 4443		Mean Annual Temp. °F 60							
L 4350'		H 4350'		G _g 0.646							
% CO ₂ 0.95		% N ₂ 5.61		% H ₂ S 0							
Prover --		Meter Run 2"		Flange							
FLOW DATA											
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							770				days
1.	2.067 x 0.500			260	3.6"	58	572	62			24 hrs
2.	2.067 x 0.500			260	5.3"	58	500	62			24 hrs
3.	2.067 x 0.500			260	8"	58	370	62			24 hrs
4.	2.067 x 0.500			260	10"	58	250	62			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 Compression Factor, F _{sc}	Rate of Flow Q, Mgd				
1	1.189	31.36	273.2	1.002	1.244	1.025	48				
2	1.189	38.05	273.2	1.002	1.244	1.025	58				
3	1.189	46.75	273.2	1.002	1.244	1.025	71				
4	1.189	52.27	273.2	1.002	1.244	1.025	79				
5											
NO.	P _t	Temp. °R	T _r	Z	Gas-Liquid Hydrocarbon Ratio Mcf/bbl.						
1	0.411	518	1.451	0.952	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2	0.411	518	1.451	0.952	Specific Gravity Separator Gas 0.646 XXXXX						
3	0.411	518	1.451	0.952	Specific Gravity Flowing Fluid XXXXX						
4	0.411	518	1.451	0.952	Critical Pressure 664 P.S.I.A. P.S.I.A.						
5					Critical Temperature 357 R R						
NO.	P _t ²	P _w ²	P _w ²	P _t ² - P _w ²	(1) $\frac{P_t^2}{P_t^2 - P_w^2} = 1.3864$ (2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 1.3846$						
1	342.5		342.5	420	AOF = Q $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 86$						
2	263.4		263.5	499							
3	146.8		146.9	615.6							
4	69.3		69.4	693.1							
5											
Absolute Open Flow 86 Mgd @ 15.025					Angle of Slope θ		Slope, n 0.996				
Remarks: Static and flowing pressures by DWT calculations. Worksheet C122D attached.											
Approved By Division		Conducted By: David Weaver		Calculated By: Albert R. Stall		Checked By:					