

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

Form C-122
Revised 9-1-6

APR 14 1981

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 2-20-81			
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Co.			
Pool Undesignated Morrow				Formation Springer Basin Also Morrow		Unit	
Completion Date 11-27-80		Total Depth 8220 KB		Plug Back TD 8078 KB		Elevation 3486 KB	
Farm or Lease Name Long Arroyo OD State							
Cas. Size 4 1/2"	Wt. 11.6#	d 4.000"	Set At 8162 KB	Perforations: From 7853 To 7858		Well No. Com #1	
Tbg. Size 2 3/8"	Wt. 4.7#	d 1.995"	Set At 7822 KB	Perforations: From To		Unit Sec. Twp. Rje. I 14 14s 27e	
Type Well - Single - Rodenhead - G.G. or G.O. Multiple single				Packer Set At 7822 KB		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 136 @ 7855		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2	
State New Mexico							
L 7848	H 7848	G _g 0.665	% CO ₂ 0.32	% N ₂ 0.52	% H ₂ S N.7	Prover ---	Meter Run 2"
						Taps Flanged	

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							2206	44			Weeks
1.	2.067	X	0.875	740	8	69	1703	64			14 hrs.
2.	2.067	X	0.875	740	20	75	1438	68			24 hrs.
3.	2.067	X	0.875	745	40	72	1102	71			24 hrs.
4.	2.067	X	0.875	750	51	72	810	73			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	3.729	77.62	753.2	.9915	1.248	1.073	384
2	3.729	122.74	753.2	.9859	1.248	1.069	602
3	3.729	174.15	758.2	.9887	1.248	1.072	859
4	3.729	197.29	763.2	.9887	1.248	1.072	973
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	1.123	529	1.426	.8688	114.9	
2	1.123	535	1.442	.8744	62.5	
3	1.130	532	1.434	.8702		
4	1.137	532	1.434	.8695		
5						

P _c 2991.2 P _c ² 8947		A.P.I. Gravity of Liquid Hydrocarbons 62.5		Specific Gravity Separator Gas 0.642		Specific Gravity Flowing Fluid XXXXX		Critical Pressure 671		Critical Temperature 371	
								P.S.I.A. 828		P.S.I.A. 435.5	

NO	P _t ²	P _w	R _w ²	P _c ² - R _w ²	(1) $\frac{P_c^2}{R_c^2 - R_w^2} = 1.1354$	(2) $\left[\frac{R_c^2}{R_c^2 - R_w^2} \right]^n = 1.1354$
1			5144	3803		
2			3547	5400		
3			2003	6944		
4			1067	7880		
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Absolute Open Flow 1105 Mcfd @ 15.025				Angle of Slope @ 45 deg.		Slope, n 1.000	
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Remarks: BHP extrapolated from BHP build-up by Bennett Wireline. Tubing pressures by dead weight tester calculations worksheet C122D attached

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