

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3-16-78		MAY 16 1978	
Company Yates Petroleum Corporation						Connection El Paso Natural Gas Company			
Pool Box Canyon <i>Porro Penn</i>						Formation Upper Penn (Cisco)		Unit J.C.C. ARTEBIA, OFFICE	
Completion Date 2-24-78		Total Depth 8400' KB		Plug Back TD 6050' KB		Elevation 4605' KB		Farm or Lease Name Box Canyon "4A"	
Csg. Size 5-1/2"	Wt. 15.5#	d 4.950	Set At 6486' KB	Perforations: From 5886 To 6020'		Well No. 1			
Thg. Size 2-3/8"	Wt. 4.6#	d 1.995	Set At 5862'	Perforations: From To		Unit Sec. Twp. Rge. B 23 21S 21E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 5862'		County Eddy	
Producing Thru tubing		Reservoir Temp. °F 117 @ 5840		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico	
L 5944	H 5944	Gg 0.732	% CO ₂ 0.59	% N ₂ 1.12	% H ₂ S Nil	Prover 4"	Meter Run Flange	Taps	

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							1618	58			weeks
1.	4.026 x 1.250			534	19	70	1560	72			1 hour
2.				536	33	70	1536	75			1 hour
3.				538	54	70	1507	77			1 hour
4.				540	86	70	1476	79			1 hour
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 Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.469	101.96	547.2	.9905	1.253	1.0500	992
2		134.62	549.2	.9905	1.253	1.0501	1310
3		172.52	551.2	.9905	1.253	1.0503	1680
4		218.08	553.2	.9905	1.253	1.0505	2124
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	165.75 Mcf/bbl.
1	.814	530	1.444	.9071	A.P.I. Gravity of Liquid Hydrocarbons	61.8 Deg.
2	.817	530	1.444	.9068	Specific Gravity Separator Gas	0.637 XXXXXXXXXX
3	.820	530	1.444	.9065	Specific Gravity Flowing Fluid	0.654 XXXXXX
4	.823	530	1.444	.9062	Critical Pressure	672 P.S.I.A. 671 P.S.I.A.
5					Critical Temperature	367 R 372 R

P _c 1938	P _c ² 3756	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 6.0096$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.4962$
NO.	P _t ²	P _w	P _w ²
1			3476
2			3380
3			3272
4			3131
5			625

Absolute Open Flow		11675 Mcfd @ 15.025	Angle of Slope @	46.5 deg.	Slope, n	0.9502
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Remarks: Static BHP by Bennett Wireline; flowing pressures by DWT. Flow rates were limited by orifice size on sales line. Calculations worksheet C-122D attached.

Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie M. Mahfood	Checked By:
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