

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

SF
FV
Form C-122
Revised 9-1-65
C-122 F
yates
RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-16-80		SEP 9 1980	
Company Yates Petroleum Corporation					Connection Transwestern Pipeline Co.		O. C. D. ARTESIA, OFFICE	
Pool Red Lake Penn					Formation Morrow		Unit NM 025605	
Completion Date 5-27-80		Total Depth 9867'		Plug Back TD 9676		Elevation 3375 KB		Farm or Lease Name Rio Pecos "MH" Fed
Csg. Size 5-1/2"	Wt. 17#	d 4.892	Set At 9765	Perforations: From 9626 To 9635		Well No. #1-CON		
Tub. Size 2-7/8"	Wt. 6.5#	d 2.441	Set At 9626	Perforations: From 9596 To 9599		Unit Soc. Twp. Rge. I 29-T18S-R27E		
Type Well - Single - Bradenhead - G.O. or G.O. Multiple Single					Packer Set At 9589' KB		County Eddy Co.	
Producing Thru Tubing		Reservoir Temp. °F 153 @ 9630		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico
L 9623	H 9623	G _g 0.618	% CO ₂ 0.57	% N ₂ 0.35	% H ₂ S Nil	Prover ----	Meter Run 4"	Tops 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							2131	95			Months
1.	4.026 x 2.250			563	10	75	2072	96			1 hr
2.	"			564	21	75	2013	97			1 hr
3.	"			565	42	75	1898	98			1 hr
4.	"			566	79	75	1689	99			1 hr
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	25.64	75.91	576.2	.9859	1.277	1.048	2568
2.	25.64	110.10	577.2	.9859	1.277	1.048	3725
3.	25.64	155.83	578.2	.9859	1.277	1.048	5272
4.	25.64	213.91	579.2	.9859	1.277	1.048	7237
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 549.0 Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons 57.1 Deg.	Specific Gravity Separator Gas 0.613	Specific Gravity Flowing Fluid XXXXXX	Critical Pressure 669 P.S.I.A.	Critical Temperature 361 °R
1.	0.861	535	1.482	.9109						
2.	0.863	535	1.482	.9107						
3.	0.864	535	1.482	.9106						
4.	0.865	535	1.482	.9105						
5.										

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1			7155	330
2			6851	634
3			6276	1209
4			5347	2138
5				

$$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 3.5009$$

$$AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 14590$$

$$(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.0157$$

Absolute Open Flow	14590 Mcfd @ 15.025	Angle of Slope θ	60.78 deg.	Slope, n	0.5594
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Remarks: Static pressures by Bennett Wireline flowing pressures by DWT.
 Calculations worksheet C122-D attached.

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