

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 12-1-78		DEC 27 1978	
Company Yates Petroleum Corp. ✓					Connection Transwestern Pipeline Co.			
Pool Boyd Wildcat					Formation Morrow		Unit O.G.C. ARTESIA, OFFSHORE	
Completion Date 9-20-78		Total Depth 9251' KB		Plug Back TD 9190' KB		Elevation 3487' KB		Form or Lease Name Rio Penasco "JX" Com
Csg. Size 4-1/2"	Wt. 11.6#	d 4.000	Set At 9224' KB	Perforations: From 9002 To 9026' KB		Well No. 1		
Tng. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 9000' KB	Perforations: From 8990 To 8993' KB		Unit Sec. Twp. Rge. N 35 18S 25E		
Type Well - Single - Bradenhead - G.G. or G.D. Multiple Single					Packer Set At 8988' KB		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 147 @ 9008		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico
L 9008	H 9008	Gg 0.595	% CO ₂ 0.68	% N ₂ 0.45	% H ₂ S Nil	Prover	Meter Run 4" 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							3022	59			24 hours
1.	4.026 x 1.625			230	15	66	2926	62			1 hour
2.				230	29	66	2880	64			1 hour
3.				231	48	66	2825	67			1 hour
4.				231	87	66	2735	69			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	12.79	60.40	243.2	0.9943	1.300	1.020	1019
2	12.79	83.98	243.2	0.9943	1.300	1.020	1416
3	12.79	108.27	244.2	0.9943	1.300	1.020	1826
4	12.79	145.76	244.2	0.9943	1.300	1.020	2458
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 1012.6 Mcf/bbl.
1	.361	526	1.486	.9615	A.P.I. Gravity of Liquid Hydrocarbons 59 Deg.
2	.361	526	1.486	.9615	Specific Gravity Separator Gas 0.592 XXXXXXXXX
3	.362	526	1.486	.9614	Specific Gravity Flowing Fluid XXXXX 0.595
4	.362	526	1.486	.9614	Critical Pressure 674 P.S.I.A. 674 P.S.I.A.
5					Critical Temperature 353 R 354 R

P _c 3750.2 P _c ² 14063				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 6.0098$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.425$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10875$		
1			13238	825			
2			12856	1207			
3			12438	1625			
4			11723	2340			
5							

Absolute Open Flow 10875 Mcfd @ 15.025		Angle of Slope 50.33 deg		Slope, n 0.8293	
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Remarks: Static pressures by Bennett Wireline; flowing pressures by DWT. Calculations worksheet C-122D attached. NOTE: Orifice plate was too small to achieve greater drawdown.			
Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By: