

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

RECEIVED

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-14-80		MAR 11 1980	
Company Yates Petroleum Corp.		Connection Transwestern Pipeline Co.		O. C. D.	
Pool East Burton Flat Morrow		Formation Morrow		Unit ARTESIA, OFFICE	
Completion Date 9-21-79		Total Depth 11500' KB		Plug Back TD 11453' KB	
Elevation 3288' KB		Farm or Lease Name Superior "KJ" Fed Com		Well No. 1	
Csg. Size 5-1/2"	Wt. 17#	d 4.892	Set At 11500 KB	Perforations: From 11412 To 11416	
Thq. Size 2-7/8"	Wt. 6.5#	d 2.441	Set At 11410 KB	Perforations: From 11398 To 11400	
Type Well - Single - Prodenhead - G.G. or G.O. Multiple Single				Packer Set At 11395' KB	
Producing Thru Tubing		Reservoir Temp. °F 70 @ 11414		Mean Annual Temp. °F 62	
Baro. Press. - P _a 13.2		State New Mexico		County Eddy	
L 11406	H 11406	G _g 0.627	% CO ₂ 0.36	% N ₂ 0.29	% 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							3307	33			Days
1.	4.026 x 1.375			80	15	46	2963	38			1 hour
2.				82	28	47	2605	42			1 hour
3.				84	52	48	2410	44			1 hour
4.				85	95	49	2240	46			1 hour
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	9.071	37.39	93.2	1.014	1.265	1.0096	439
2	9.071	51.63	95.2	1.013	1.265	1.0096	606
3	9.071	71.09	97.2	1.012	1.265	1.0096	833
4	9.071	96.59	98.2	1.011	1.265	1.0096	1131
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.14	506	1.386	.981	1514 Mcf/bbl.	52 Deg.	0.625	XXXXXXX	672 P.S.I.A.	365 R
2	0.14	507	1.389	.981				XXXXX	855 P.S.I.A.	423.5 R
3	0.14	508	1.392	.981						
4	0.14	509	1.395	.981						
5										

$P_c = 4652.2$ $P_c^2 = 21643$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.9293$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.9293$
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²		
1			17748	3895		
2			13962	7681		
3			12048	9595		
4			10425	11218		
5						

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2182$			Absolute Open Flow <u>2182</u> Mcfd @ 15.025	Angle of Slope <u>45 degrees</u>	Slope, n <u>1.000</u>
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Remarks: Static pressures by Bennett Wireline; Flowing pressures by DWT.	
Calculations worksheet C-122D attached. NOTE: Well unloaded during test.	
Approved By Commission:	Conducted By: Don Weaver
Calculated By: Eddie Mahfood	Checked By: