

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

Form C-122
Revised 9-1-65

RECEIVED

JUN 14 1978

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-14-78			
Company Yates Petroleum Corp.				Connection El Paso Natural Gas Company					
Pool Crooked Creek Morrow				Formation Morrow				Unit O. C. C. ARTESIA, OFFICE	
Completion Date 2-14-78		Total Depth 10350 KB		Plug Back TD 10150 KB		Elevation		Farm or Lease Name Lechuguilla Canyon Un.	
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 10217	Perforations: From 9891 To 9981 KB			Well No. 7		
Tbg. Size 2-3/8	Wt. 4.7#	d 1.995	Set At 9834	Perforations: From To			Unit F	Sec. Twp. Rge. 4 24S 24E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 9840		County Eddy	
Producing Thru Tbg		Reservoir Temp. °F 158 @ 9930		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico	
L .9929	H 9929	Gg 0582	% CO ₂ 1.53	% N ₂ 0.26	% H ₂ S N.7	Prover	Meter Run 4"	Taps 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							3018	72			Days
1.	4.026 x 1.250			504	11	78	2843	75			1 day
2.				505	21	78	2732	77			1
3.				506	44	78	2528	79			1
4.				507	85	78	2158	80			1
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	75.43	517.2	.9831	1.311	1.036	752
2.		104.32	518.2	.9831	1.311	1.036	1040
3.		151.14	519.2	.9831	1.311	1.035	1507
4.		210.28	520.2	.9831	1.311	1.035	2097
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	.763	538	1.548	.9325	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	.764	538	1.548	.9326	Specific Gravity Separator Gas .582 XXXXXXXXXX
3.	.766	538	1.548	.9328	Specific Gravity Flowing Fluid XXXXX
4.	.767	538	1.548	.9329	Critical Pressure 678 P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature 347.5 R _____ R

P _c 3767 P _c ² 14195				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1272$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6856$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²			
1			12672	1523			
2			11747	2448			
3			10149	4046			
4			7522	6673			
5							

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3535$				Absolute Open Flow 3535 Mcfd @ 15.025		Angle of Slope θ 55		Slope, n 0.6917	
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Remarks: Static Pressures by Bennett Wireline, Flowing pressures by DWT. Calculations worksheet C122D attached.			
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Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By:
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