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JAN 28 1971

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

O.C.C.
ARTESIA, OFFICE

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JAN 23 1971
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-12-71	
Company YATES PETROLEUM CO.		Connection NONE	
Pool QUEEN		Formation GAS	
Completion Date 11-6-1948		Total Depth 3610'	Plug Back TD 1755'
Elevation 3828' GL		Farm or Lease Name KIMES	
Csg. Size 8 5/8"	Wt. 32.0	d 7.921	Set At 1736'
Perforations: From -- To --		Well No. 1	
Tbg. Size --	Wt. --	d --	Set At --
Perforations: From -- To --		Unit A	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At NONE	County CHAVES
Producing Thru CASING	Reservoir Temp. °F 78° 1744'	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2
State NEW MEXICO		Unit Sec. Twp. R _{1/4} 28 15s 29e	
L 1744'	H --	G _g 0.901	% CO ₂ 0.00
% N ₂ 61.65		% H ₂ S 0.0	Prover X
Meter Run --		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							618	--	--	--	5 YEARS
1.	2		1	214	--	62	242	--	--	--	1.0
2.	2		1	179	--	58	350	--	--	--	1.0
3.	2		1	125	--	54	432	--	--	--	1.0
4.	2		1	48	--	47	560	--	--	--	1.0
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	17.09	--	227.2	0.9981	1.054	1.023	4176.6
2	17.09	--	192.2	1.002	1.054	1.020	3538.4
3	17.09	✓	138.2	1.006	1.054	1.015	2541.9
4	17.09	✓	61.2	1.013	1.054	1.000	1116.7
5.							

NO.	P _t	Temp. °R	T _f	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.	0.38	522	1.45	0.955	0.901	XXXXXXX	XXXXXX	601	359	
2.	0.32	518	1.44	0.962						
3.	0.23	514	1.43	0.971						
4.	0.12	507	1.41	--						
5.										

NO.	P _t	P _w *	R _w ²	P _t ² - R _w ²
1	--	314.2	98.7	349.1
2	--	391.2	153.0	294.8
3	--	472.2	223.0	224.8
4	--	601.2	361.4	86.4
5				

(1) $\frac{P_t^2}{P_t^2 - R_w^2} = 1.519$ (2) $\left[\frac{P_t^2}{P_t^2 - R_w^2} \right]^n = 1.481$

AOF = Q $\left[\frac{P_t^2}{P_t^2 - R_w^2} \right]^n = 5240$

Absolute Open Flow	5250	Mcfd @ 15.025	Angle of Slope	40° 48'	Slope, n	0.009
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Remarks: * P_t = (+208.1) 1744' USED FOR PRESSURE CALCULATIONS

Approved By Commission: For Record Only RLS Conducted By: COLEMAN PET. ENG. CO. Calculated By: JOE A. COLEMAN Checked By: JOE A. COLEMAN