

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

Copy 6.5 F
C-122
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date <u>1-30-76</u>		FEB 11 1976	
Company Yates Petroleum Corporation				Connection None		O. C. C.	
Pool N. Burton Flats				Formation Atoka		Unit ARTESIA, OFFICE	
Completion Date <u>1-30-76</u> <u>11-25-75</u>		Total Depth 11530		Plug Back TD 11370		Elevation 3244' KB	
Farm or Lease Name Stonewall DS Fed.		Well No. No. 2		Well Sec. J 29		Twp. 20s	
Csg. Size 5 1/2		Wt. 17.0		Set At 11475		Perforations: From 10546 To 10556	
Tubg. Size 2 7/8		Wt. 6.5		Set At 10540		Perforations: From - To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10456		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 186 @ 10500		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico		Meter Run x		Taps F			
L 10551		H -		G _g 0.637		% CO ₂ 0.33	
				% N ₂ 0.86		% H ₂ S 0.00	
Prover							

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. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							4360		Packer		
1.	3	6/64	2.00	500	10	74	4270	56			1.0
2.	3	11/64	2.00	500	29	65	4100	60			1.0
3.	3	16/64	2.00	500	58	60	3835	64			1.0
4.	3	21/64	2.00	600	84	58	3555	70			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	21.32	71.62	513.2	0.9868	1.253	1.043	1969.2
2	21.32	121.97	513.2	0.9952	1.253	1.047	3395.1
3	21.32	172.50	513.2	1.0000	1.253	1.048	4829.4
4	21.32	226.93	513.2	1.0020	1.253	1.060	6438.8
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>69.302</u> Mcf/bbl.
1.	0.76	534	1.47	0.919	A.P.I. Gravity of Liquid Hydrocarbons <u>53.8</u> Deg.
2.	0.76	525	1.44	0.913	Specific Gravity Separator Gas <u>0.637</u> XXXXXXXXXX
3.	0.76	520	1.43	0.911	Specific Gravity Flowing Fluid <u>XXXXXX</u>
4.	0.91	518	1.42	0.890	Critical Pressure <u>673</u> P.S.I.A. - P.S.I.A.
					Critical Temperature <u>364</u> °R - °R

P _c <u>5621.2</u>	P _c ² <u>31597.9</u>	
NO.	P _t ²	P _w ²
1	5522.2	30494.7
2	5379.2	28935.8
3	5178.2	26813.8
4	4955.2	24554.0
5		

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 28.642$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 16522$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 8.39$

Absolute Open Flow <u>16522</u> Mcfd @ 15.025	Angle of Slope <u>57°40'</u>	Slope, n <u>0.633</u>
Remarks: * BHP @ (-7307) 10551' used for pressure calculations		
Approved By Commission:	Conducted By: Coleman Petr. Engr. Co.	Calculated By: Joe A. Coleman
		Checked By: Joe A. Coleman