

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

C/S F. 1/2
Form C-22
Revised 9-1-65

DEC 21 1983

O. C. D.
ARTESIA, OFFICE

Type Test ☒ Initial 4-POINT ☐ Annual ☐ Special				Test Date 10-16-83							
Company STEVENS OPERATING				Connection AIR NEW WELL							
Pool WILDCAT <i>Atoka</i>				Formation ATOKA							
Completion Date 10-14-83		Total Depth 8530		Elevation 3958							
Casing Size 5.500		ID 4.892		Perforations: From 7712 To 7726							
Tubing Size 2.375		ID 1.995		Perforations: From 0 To 0							
Type Well - Single - Headhead - G.G. or G.O. Multiple SINGLE				Packoff Set At 7632							
Producing Time TUBING		Reservoir Temp. °F 137 7719		Mean Annual Temp. °F 60.0							
L 7719		H 7719		Cg 0.750							
				% CO ₂ 0.51							
				% N ₂ 1.58							
				% H ₂ S 0							
				Prover 0							
				Motor Run 4.0							
				Taps FLANGE							
FLOW DATA TUBING DATA B.H.P. DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	CHOKE	Duration of Flow
51							2150	24			48.0
1.	4.03 X 2.000			120	7.0	100	1995	60	0	8.5/64	1.0
2.	4.03 X 2.000			130	14.0	88	1940	60	0	12/64	1.0
3.	4.03 X 2.000			155	26.0	66	1830	60	0	16/64	1.0
4.	4.03 X 2.000			140	59.0	84	1690	60	0	18/64	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	19.81	30.54	133.2	0.9636	1.1547	1.0131	682				
2	19.81	44.77	143.2	0.9741	1.1547	1.0155	1013				
3	19.81	66.13	168.2	0.9943	1.1547	1.0208	1536				
4	19.81	95.07	153.2	0.9777	1.1547	1.0171	2163				
5											
NO.	P _t	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	0.20	560	1.40	0.974	18.0 Mcf/bbl.	63.0 Deg.	0.750	XXXXXX	664 P.S.I.A.	400 R	
2	0.22	548	1.37	0.970				XXXXXX	658 P.S.I.A.	441 R	
3	0.25	526	1.31	0.960							
4	0.23	544	1.36	0.967							
5											
$P_c = 2237.2$ $P_c^2 = 5005.$											
NO.	P ₁ ²	P _w ²	P _w ² - P ₁ ²	(1) $\frac{P_c^2}{P_1^2 - P_w^2} = 2.4866$	(2) $\left[\frac{P_c^2}{P_1^2 - P_w^2} \right]^n = 2.4866$						
1	4033	2013	4052	953							
2	3815	1960	3844	1161							
3	3397	1857	3450	1555							
4	2901	1730	2992	2013							
5											
$AOI = 0 \left[\frac{P_1^2}{P_c^2 - P_w^2} \right]^n = 5378$											
<i>Post ID-2 10-28-83 Jung JAK</i>											
Absolute Open Flow				5378 Mcfd @ 15.025	Angle of Slope @ 45.0						
				Slope, n 1.000							
Remarks:											
Approved By: Commissioner		Conducted By: RICHARD TOWNLEY		Calculated By: BENNETT & CATHEY							
				Checked By:							