

410 File

RECEIVED BY
11-23-83 11 1983
O.C.D.
ARTESIA UNIT

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special				Test Date 11-23-83 11 1983	
Company ROBERT ENFIELD ✓			Connection GAS COMPANY OF NEW MEXICO		
Pool UNDESIGNATED <i>Atoka</i>			Formation ATOKA		
Completion Date 9-18-83		Total Depth 9970 <i>9966</i>		Elevation 3274.1	
Casing Size 4.500		Casing Weight 11.6		Perforations From 9310 To 9320	
Tubing Size 2.375		Tubing Weight 4.7		Perforations From 0 To 0	
Type Well - Single - Bradenhead - G.O. or G.O. Multiple SINGLE			Packoff Set At 9246		Well No. #1
Producing thru TUBING		Reservoir Temp. °F 153 @ 9315		Mean Annual Temp. °F 60.0	
Baro. Press. - P _a 13.2		State NEW MEXICO		County EDDY	
L 9315	H 9315	C _g 0.604	% CO ₂ 0.47	% N ₂ 1.02	% H ₂ S 0
Prover 0		Motor Run 2.1		Taps FLANGE	

FLOW DATA						TUBING DATA		B.H.P. 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.		CHOKE
51							3300	60			72.0
1.	2.07 X 1.000			534	4.4	67	1577	60	0	44/64	1.0
2.	2.07 X 1.000			534	20.2	65	962	60	0	22/64	1.0
3.	2.07 X 1.000			526	24.3	67	691	60	0	13/64	1.0
4.	2.07 X 1.000			520	28.1	65	530	60	0	8/64	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 _{sp}	Rate of Flow Q, Mcfd
1	4.95	49.14	547.6	0.9933	1.2867	1.0455	325.
2	4.95	105.30	547.6	0.9952	1.2867	1.0462	698.
3	4.95	114.43	538.8	0.9933	1.2867	1.0447	756.
4	4.95	122.35	532.9	0.9952	1.2867	1.0449	810.
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	0.81	527.	1.48	0.915	0	0	0.604	XXXXXX	673.	356.
2	0.81	525.	1.47	0.914				XXXXX		
3	0.80	527.	1.48	0.916						
4	0.79	525.	1.47	0.916						
5										

$P_r = 3313.2$ $P_r^2 = 10977.$					$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.0294$		$(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.0294$	
NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	$AOIF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 834.$			
1	2529.	1592.	2535.	8442.				
2	951.	982.	965.	10012.				
3	496.	715.	511.	10466.				
4	295.	560.	313.	10664.				

Absolute Open Flow <u>834.</u> Mcfd @ 15.025		Angle of Slope @ <u>45.0</u>		Slope, n <u>1.000</u>	
Remarks:					
Approved By Commission:		Conducted By:		Checked By:	
RICHARD TOWNLEY		BENNETT & CATHEY			

*Post ID 2
12-16-83
Comp. POF BH*