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O. C. D.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

C-15F
File

Form C-122
Revised 9-1-65

Type Test: 4-POINT ☐ Initial ☐ Annual ☒ Special				Test Date: 8-8-85	
Company: FLAG-REDFERN		Connection: NATURAL GAS PIPELINE OF AMERICA			
Pool: BURTON FLATS ATOKA		Formation: ATOKA		Unit: G	
Completion Date: 8-1-85	Total Depth: 11600'	Plug Back T.D.: 11120'	Elevation: 3227 KB, 3212 GL	Farm or Lease Name: KEYSTONE	
Csg. Size: 4.5 / Wt.: 11.6/13.5 / d: / Set At: 11595'		Perforations: From 10592 To 10600		Well No.: 1	
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 10,500		Perforations: From To		Unit: G / Sec.: 32 / Twp.: 20S / Rge.: 28E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 10504'		County: EDDY	
Producing Thru: TUBING	Reservoir Temp. °F: 176 @ 10572	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NEW MEXICO	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10572	10572	0.629	0.33	0.97	0	0	3.1	FLANGE

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	B.H.P. DATA: Press. p.s.i.g.	CHOKE	Duration of Flow
SI					4230	101			24.0
1.	3.07 X 1.000	445	4.4	101	3210	80			1.0
2.	3.07 X 1.000	452	6.2	109	2986	80			1.0
3.	3.07 X 1.000	459	9.3	111	2779	80			1.0
4.	3.07 X 1.000	461	14.1	111	2541	80			1.0
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	4.79	44.90	458.2	0.9628	1.2609	1.0327	270
2	4.79	53.92	465.2	0.9560	1.2609	1.0313	321
3	4.79	66.30	472.2	0.9543	1.2609	1.0313	394
4	4.79	81.65	474.2	0.9543	1.2609	1.0314	485
5							

NO.	P_t	Temp. °R	T_f	Z
1	0.68	561	1.54	0.938
2	0.69	569	1.56	0.940
3	0.70	571	1.57	0.940
4	0.71	571	1.57	0.940
5				

Gas Liquid Hydrocarbon Ratio: 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 0 Deg.
Specific Gravity Separator Gas: 0.629 / XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX / 0.629
Critical Pressure: 671 P.S.I.A. / 671 P.S.I.A.
Critical Temperature: 364 R / 364 R

P_c 4193.1 P_c^2 17582

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3200	10238	7344
2		2976	8857	8725
3		2770	7672	9910
4		2533	6418	11164
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5748$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5748$

Post ID-2
8-30-85
Comp. Ato.

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 764$

Absolute Open Flow: 764 Mcfd @ 15.025 | Angle of Slope θ: 45.0 | Slope, n: 1.000

Remarks:

Approved By Commission	Conducted By: BENNETT & CATHEY	Calculated By: RICHARD TOWNLEY	Checked By: