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O. C. C.
ARTESIA, OFFICE

Form C-122
Revised 9-1-65

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

Type Test: ☐ Initial ☐ Annual ☒ Special				Test Date: 12-8-72	NM 0275360
Company: Phillips Petroleum Co.			Connection: El Paso Natural Gas Company		
Pool: Carlsbad, South (Morrow) Gas			Formation: Morrow		Unit
Completion Date: 8-2-72	Total Depth: 12,041		Plug Back TD: 11,970	Elevation: 3217' Gr. 3237' DF	Farm or Lease Name: Drag "B"
Csg. Size: 5-1/2	Wt.: 17#, 20#	d: --	Set At: 12,040	Perforations: From 11,468 To 11,721	Well No.: 1
Tbg. Size: 2-7/8	Wt.: 6.5	d: 2.441	Set At: 11,383	Perforations: From To	Unit: K Sec.: 18 Twp.: 23-S Rge.: 27-E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: G. G. Multiple			Packer Set At: 11,380'		County: Eddy
Producing Thru: tubing	Reservoir Temp. °F: 178 @ 12,041		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico
L: 11,468	H: 11,468	Gg: .580	% CO_2: --	% N_2: .72	% H_2S: --
Prover: --	Meter Run: 6				Taps: Flange

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							4250		Canyon zone		48 hrs.
1.	6.065	x	2.50	504.1	81.0	70	3200	70	flowing		24 hrs.
2.									thru		
3.									annulus		
4.											
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	30.31	202.1	517.3	.9905	1.313	1.040	8285
2							
3							
4							
5							

NO.	P_r	Temp. °R	T_r	Z
1	.77	530	1.51	.925
2				
3				
4				
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure 672 P.S.I.A. _____ P.S.I.A.
Critical Temperature 350 R _____ R

P_c 4263.2 P_c^2 18,174.9

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	10,324.6	3333.9	11,114.9	7060
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{18174.9}{7060}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.574$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 21325$

* "n" established by Multipoint Back-Pressure test dated 8-7-72.

Absolute Open Flow 21325 Mcfd @ 15.025 Angle of Slope θ 55.3 Slope, n .692*

Remarks: Calculations made by Electronic Calculator. Program based on New Mexico Manual for Back-Pressure testing of gas wells.

Approved By Commission:	Conducted By:	Calculated By: D. E. Simpson	Checked By: W.J. Mueller
		D.E. Simpson	