

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 4-12-73		APR 26 1973			
Company Phillips Petroleum				Connection El Paso Natural Gas Company					
Pool So. Garfield (Atoka)---Gas				Formation Atoka				Unit B. C. C. ARTESIA, OFFICE	
Completion Date 1-20-73		Total Depth 12,000		Plug Back TD 11,902		Elevation 3203.0' M		Farm or Lease Name Tidwell "A" Com.	
Csg. Size 5-1/2"	Wt. 74, 204	d 3.434	Set At 11,904	Perforations: From 10,754 To 10,760			Well No. 1		
Tbg. Size 2-7/8"	Wt. 6.5	d	Set At 11,300	Perforations: From To			Unit Sec. Twp. Rge. E 8 23-8 27-E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple (G.G.)				Packer Set At 11,300		County Eddy			
Producing Thru Annulus		Reservoir Temp. °F 181 @ 11,976		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 10,754	H 10,754	G _g .604	% CO ₂ ---	% N ₂ ---	% H ₂ S ---	Prover ---	Meter Run	Taps Flange	

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.	Temp. °F	Press. p.s.i.g.	
SI										
1.	4	X 1.75		548	11.6	78	3864	58	5621	58
2.							Narrow zone completed in tubing.		600	87
3.										
4.										
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	14.93	80.68	561.2	.9831	1.268	1.048	1573
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.84	538	1.47	.910	169	56
2.					A.P.I. Gravity of Liquid Hydrocarbons	Deg.
3.					Specific Gravity Separator Gas	.604
4.					Specific Gravity Flowing Fluid	.622
5.					Critical Pressure	671 P.S.I.A.
					Critical Temperature	368 °R

P _c	5634.2	P _c ²	31,744
NO.	P _r ²	P _w	P _w ²
1.	376	617.1	381
2.			
3.			
4.			
5.			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{31,744}{31,363}$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1592$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.012$

***n* established by multipoint back-pressure test, dated 1-31-73.**

Absolute Open Flow	1592	Mcf/d @ 15.025	Angle of Slope °	45°	Slope, n	1*
Remarks: Calculations made by electronic calculator.						
Approved By Commission:	Conducted By:	Calculated By: D. E. Simpson	Checked By:			