

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

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-13-70	
Company PHILLIPS OIL COMPANY			Connection PHILLIPS PETROLEUM CO.		
Field SERRANO VALLEY			Formation ATOKA GAS		Unit -
Completion Date 3-1-70		Total Depth 8278'		Fluid Back TD -	
Elevation 3450' GL		Farm or Lease Name MILLER FEDERAL			
Well No. 1					
Perforations: OPEN HOLE From 8200' To 8278'					
Perforations: From OPEN To ENDED					
Type Well - Single - Bradenhead - G.O. or G.O. Multiple Single	Packer Set At 7507'		County CHAVES		
Producing Thru 8225'	Reservoir Temp. °F 100 @ 7457'	Mean Annual Temp. °F 60	Baro. Press. - P _g 13.2	State NEW MEXICO	
L 8225'	H -	G _g 0.630	% CO ₂ 0.34	% N ₂ 0.37	% H ₂ S 0.00
Prover -		Meter Run X		Exp. F	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
5i							1970		PACKER		72.0 HRS
1.	3/4"	1	5.2	3.8	82	680	72				3.0 HRS
2.	1"	1	5.2	3.4	70	972	72				1.0
3.	1 1/4"	1	5.2	3.0	62	1110	72				1.0
4.	1 3/4"	1	5.2	2.8	60	1240	72				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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	1.753	62.47	270.2	0.9795	1.260	1.022	374.5
2	4.753	55.90	270.2	0.9905	1.260	1.024	379.7
3	4.753	49.32	270.2	0.9981	1.260	1.025	382.2
4	1.753	46.83	270.2	1.000	1.260	1.025	282.7
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	0.40	542	1.40	0.958	26122		54.8		0.630		XXXXXXX		673		364	
2	0.40	530	1.40	0.954							XXXXX					
3	0.40	522	1.43	0.951												
4	0.40	520	1.43	0.951												
5																

NO.	P _r	P _w *	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	-	1098.2	1206.0	5659.4	1.213	1.150
2	-	1282.2	1642.0	5203.4		
3	-	1520.2	2310.5	4220.9		
4	-	1743.2	3038.7	3825.7		
5						

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ 431		Angle of Slope $\theta =$ 54° 01'		Slope, n = 1.24	
Remarks: (1775') 8225' USED FOR PRESSURE CALCULATIONS					
Approved By Commission:		Conducted By: COLEMAN PET. ENG. CO.		Checked By: JOE A. COLEMAN	