

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

Form C-122
Revised 9-1-65

State Lease K-3271

Type Test <input type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special				Test Date 3-16-73		RECEIVED					
Company Phillips Petroleum Company				Connection El Paso Natural Gas Company				-- MAR 23 1973			
Pool <i>Cabin Lake</i> Undesignated - Morrow				Formation P-4540 Morrow				Unit --			
Completion Date 1-25-73		Total Depth 14,923'		Plug Back TD 13,530'		Elevation 3191' DF		Farm or Lease Name James "A" ^{Q.E.E.} ARTESIA, OFFICE			
Csg. Size 5-1/2"	Wt. 4.670	Set At 14,570'	Perforations: From 13,246' To 13,424'			Well No. 1					
Tbg. Size 2-3/8"	Wt. 4.7#	Set At 12,547'	Perforations: From -- To --			Unit 0	Sec. 2	Twp. 22-S	Rge. 30-E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12,545'		County Eddy					
Producing Thru Tubing		Reservoir Temp. °F 197 @ 13,550'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico			
L 13,246	H 13,246	G _g 586	% CO ₂ --	% N ₂ --	% H ₂ S --	Prover --	Meter Run 4	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.	Temp. °F	Duration of Flow
SI							4497.0	84			72 hr.
1.	4.026 x 1.50		356	87.8	64	421.0	79				24 hr.
2.											
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	10.84	180.04	369.2	.9962	1.306	1.030	2615				
2.											
3.											
4.											
5.											
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio -- Mcf/bbl.						
1	.55	524	1.49	.943	A.P.I. Gravity of Liquid Hydrocarbons None Deg.						
2.					Specific Gravity Separator Gas .586 XXXXXXXXXX						
3.					Specific Gravity Flowing Fluid XXXXX						
4.					Critical Pressure 672 P.S.I.A. P.S.I.A.						
5.					Critical Temperature 352 R R						
P _c	4510.2	P _c ²	20,341.9								
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{20,341.9}{19,886.1}$			(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.023$			
1	188.5	675.1	455.8	19,886.1							
2											
3											
4											
5											
$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2,675$ * "N" established by multipoint back-pressure test dated 2-1-73.											
Absolute Open Flow 2,675 Mcfd @ 15.025				Angle of Slope @ 45°				Slope, n 1.00*			
Remarks: Calculations made by electronic calculator.											
Approved By Commission:				Conducted By:				Calculated By: D. E. Simpson			
								Checked By: W. J. Mueller <i>[Signature]</i>			