

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

Form C-122
Revised 9-1-65

c/sf
file

Type Test ☒ Initial 4-POINT ☐ Annual ☐ Special						Test Date 8-10-83			
Company PHILLIPS OIL Co. ✓				Connection AIR NEW WELL					
Pool WILDCAT				Formation MORROW				Unit 15"	
Completion Date 8-9-83		Total Depth 10,450		Plug Back 10,450		Elevation 3658		Farm or Lease Name ILLINOIS CAMP "A"	
Case Size 5.500	Wt. 20.0	d 4.778	Set At 10,450	Perforations: From 10,070 To 10,184		Well No. #1			
Int. Size 2.875	Wt. 6.5	d 2.441	Set At 9,922	Perforations: From 0 To 0		Unit Sec. Twp. Rge. E 5 18S 28E			
Type Well - Single - Blindhead - G.G. or G.O. Multiple SINGLE						Packer Set At 9900		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 162° 10,127		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 10127	M 10127	Cg 0.648	% CO ₂ 0.39	% N ₂ 0.40	% H ₂ S 0	Provar 0	Motor Run 4.0	Tape FLANGE	

FLOW DATA						TUBING DATA		B.H.P. 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.	
51							2879	87	4029	
1	4.03 X 1.500			395	2.5	92	2620	77	3709	4/64
2	4.03 X 1.500			405	6.5	86	2462	77	3510	6/64
3	4.03 X 1.500			410	12.0	82	2289	78	3265	8/64
4	4.03 X 1.500			415	23.0	74	1993	76	2869	11/64
5										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mc/d
1	10.84	31.95	408.2	0.9706	1.2423	1.0336	432.
2	10.84	52.14	418.2	0.9759	1.2423	1.0360	710.
3	10.84	71.26	423.2	0.9795	1.2423	1.0376	975
4	10.84	99.24	428.2	0.9868	1.2423	1.0400	1372.
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mc/bbl.
1	0.61	552.	1.48	0.936	21.9	
2	0.62	546.	1.47	0.932	53.0	
3	0.63	542.	1.46	0.929		
4	0.64	534.	1.44	0.925		
5						

A.P.I. Gravity of Liquid Hydrocarbons				Specific Gravity Separator Gas		Specific Gravity Flowing Fluid		Critical Pressure		Critical Temperature	
53.0				0.648		XXXXXX		671.		372.	
								P.G.I.A.		R	
								665.		410.	

P _r 2893.6 P _w 8373.				(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.9034$		(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.9034$	
NO	P _r ²	P _w ²	P _r ² - P _w ²	P _r ² - P _w ²			
1	13855	2633	6934	1439			
2	12413	2475	6128	2245			
3	10747	2287	5229	3144			
4	8307	1994	3974	4399			
5							

Absolute Open Flow				Angle of Slope		Slope, n	
2611.				45.0		1.000	

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.							
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Approved by Commission:	Conducted By:	Calculated By:	Checked By:
	RICHARD TOWNLEY	BENNETT & CATHEY	