

MEXICO OIL CONSERVATION COMM ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-3-85	
Company SUN OIL			Connection AIR NEW WELL		
Pool WILDCAT			Formation MORROW		Unit
Completion Date 6-1-85		Total Depth 13750		Plug Hole 1 13492	Elevation 3628
Farm or Lease Name BRIGHT FEDERAL <i>Comm</i>					Well No. 1
Well Size 5.500	Wt. 20.0	d 4.778	Set At 13750	Perforations: From 13492 To 13546	
Fig. Size 2.785	Wt. 6.5	d 2.441	Set At 13380	Perforations: From 0 To 0	
Type Well - Single - Freedomhead - G.O. or G.O. Multiple SINGLE				Packer Set At 13380	County LEA
Producing thru TUBING		Reservoir Temp. °F 242 @ 13519	Mean Annual Temp. °F 60.0	Baro. Press. - P _a NEW MEXICO	
L 13519	H 13519	G _g 0.668	% CO ₂ 0.330	% N ₂ 0.422	% H ₂ S 0
Prover 0		Meter Run 4.026		Type 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.	
SI							4066		6026	
1	4.026	X	1.750	400	5	93	3755	72	5743	8
2	4.026	X	1.750	405	10.5	90	3636	72	5631	10.5
3	4.026	X	1.750	405	29.0	96	3493	72	5425	12
4	4.026	X	1.750	405	67.0	82	3292	72	5184	14
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 O. Mhd
1	14.93	45.45	413.2	.9697	1.224	1.040	838
2	14.93	66.26	418.2	.9723	1.224	1.040	1224
3	14.93	110.13	418.2	.9671	1.224	1.039	2022
4	14.93	167.39	418.2	.9795	1.224	1.042	3122
5							

NO.	R ₁	Temp. °R	T ₁	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	.618	553	1.42	.924	13.65	55	.668	.8744	669	388
2	.625	550	1.42	.924						
3	.625	556	1.43	.926						
4	.625	542	1.40	.921						
5										

$1. 4146.7 P_c^2 17195.8$				$(1) \frac{P_c^2}{R^2 - R_w^2} = 3.1529$		$(2) \left[\frac{R^2}{R^2 - R_w^2} \right]^n = 3.1529$	
NO	P ₁ ²	P _w	R ₁ ²	R ₂ ²	R ₂ ² - R _w ²		
1		3899.6	15206.7		1989		
2		3801.8	14453.4		2747		
3		3629.5	13173.7		4022		
4		3426.6	11741.7		5454		
5							

$AOF = Q \left[\frac{R^2}{R^2 - R_w^2} \right]^n = 9843$			
Absolute Open Flow		9843	
Mhd @ 15.025		Angle of Slope @ 45.0	
		Slope, n 1.000	

Remarks: B.H.P. MEASURED WITH AMERADA HESS PRESSURE ELEMENT

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
<i>[Signature]</i>	BENNETT & CATHEY	RICHARD TOWNLEY	

RECEIVED

JUN 10 1985

C. I. D.
HOBBS OFFICE