

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

Form C-122
Revised 9-1-65

File

Type Test ☒ Initial ☐ Annual ☐ Special								Test Date 10/16/83			
Company Pennzoil Company						Connection Air					
Pool Quail Ridge						Formation Morrow				Unit	
Completion Date			Total Depth 13680		Plug Back TD 13637'		Elevation		Farm or Lease Name Mescalero Federal 29 <i>led</i>		
Csg. Size 5 1/2"	Wt. d	Set At 13680'	Perforations: From 13505' To 13521'				Well No. 1		<i>Perm</i>		
Tubg. Size 2 3/8"	Wt. 4.7	Set At 12999'	Perforations: From To				Unit K		Sec. 29	Twp. 19	Rge. 34
Type Well - Single - Prodenhead - G.G. or G.O. Multiple Single								Packer Set At 12999'		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 204 @ 12999'		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico			
L 12999'	H 12999'	G _g .6846	% CO ₂ .656	% N ₂ .526	% H ₂ S	Prover	Meter Run 2.900	Taps F			

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	
51							2261	62	PKR		72.0 hrs
1.	3	X	1.000	500	4.0	88	1790	62	PKR		1.0 hr
2.	3	X	1.000	490	6.0	88	1535	62	PKR		1.0 hr
3.	3	X	1.000	490	11.0	88	1125	62	PKR		1.0 hr
4.	3	X	1.000	480	10.0	80	660	62	PKR		1.0 hr
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, Mhd
1	4.801	45.31	513.2	.9741	1.208	1.050	269
2	4.801	54.95	503.2	.9741	1.208	1.049	326
3	4.801	74.40	503.2	.9741	1.208	1.049	441
4	4.801	70.23	493.2	.9813	1.208	1.051	420
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	6.741	Mcf/cbl.
1.	.77	548	1.42	.907	A.P.I. Gravity of Liquid Hydrocarbons	56 @ 60	Deg.
2.	.75	548	1.42	.909	Specific Gravity Separator Gas	.6846	X X X X X X X X
3.	.75	548	1.42	.909	Specific Gravity Flowing Fluid	X X X X X	1.075
4.	.74	540	1.40	.906	Critical Pressure	669	P.S.I.A. 654
5.					Critical Temperature	385	R 517

P _c 2274.2 P _c ² 5172.0				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.697$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.642$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 442$		
1		1803.9	3254.0	1918.0			
2		1549.2	2400.1	2771.9			
3		1140.2	1300.1	3871.9			
4		676.7	457.9	4714.1			
5							

Absolute Open Flow	442	Mhd @ 15.025	Angle of Slope α	63.5	Slope, n	.500
--------------------	-----	--------------	------------------	------	----------	------

Remarks: PRODUCED 9 BBLs. OF CONDENSATE DURING THE TEST

Approved by Commission:	Conducted By:	Calculated By:	Checked By:
<i>[Signature]</i>	JARREL WELL TESTING, INC.	Rick Pagan	Rick Pagan

RECEIVED
OCT 25 1983
C. J.
ROBB'S OFFICE