

EW 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 6-5-80			
Company THE SUPERIOR OIL COMPANY				Connection TRANSWESTERN PIPELINE			
Pool				Formation MORROW		Unit	
Completion Date 3-8-80		Total Depth 14,696		Plug Back TD 14,576		Elevation 3573 GI	
Farm or Lease Name GOVERNMENT "L" COM.				Well No. 2			
Casing Size 3 1/2		Wt. 11.0		Set At 14,696		Perforations: From 14,401 To 14,446	
Tub. Size 2 7/8		Wt. 6.5		Set At 13,770		Perforations: From OPEN To END	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At PBR @ 13,770		County LEA	
Producing Thru TUBING		Reservoir Temp. °F 218° @ 14,401		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 15,956		H 15,956		G _g .584		% CO ₂ .0029	
						% N ₂ .0027	
						% H ₂ S	
Prover		Meter Run 4		Taps FLG			

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
1.	4 X 1.500			830	9	75	3979	75			45 MIN.
2.	4 X 1.500			840	24	66	3624	78			1 Hr.
3.	4 X 1.500			840	30	66	3437	80			1 Hr.
4.	4 X 1.500			840	42	66	3170	83			1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor Fpv	Rate of Flow Q, Mcfd
1.	10.84	87.11	843.2	.9859	1.309	1.061	1293
2.	10.84	143.10	853.2	.9943	1.309	1.067	2154
3.	10.84	159.99	853.2	.9943	1.309	1.067	2408
4.	10.84	189.30	853.2	.9943	1.309	1.067	2850
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY	Mcf/bbl.
1.	1.25	535	1.53	.888	A.P.I. Gravity of Liquid Hydrocarbons		Deq.
2.	1.27	526	1.50	.878	Specific Gravity Separator Gas	.584	X X X X X X X X
3.	1.27	526	1.50	.878	Specific Gravity Flowing Fluid	X X X X X	
4.	1.27	526	1.50	.878	Critical Pressure	672	P.S.I.A.
5.					Critical Temperature	350	R

P _c 4390.2 P _c ² 14273.9			
NO.	P _t ²	P _w	P _w ²
1.		3996.9	15975.2
2.		3649.0	13315.2
3.		3465.2	12007.6
4.		3204.9	10271.4
5.			

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.141$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5.252$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.843$$

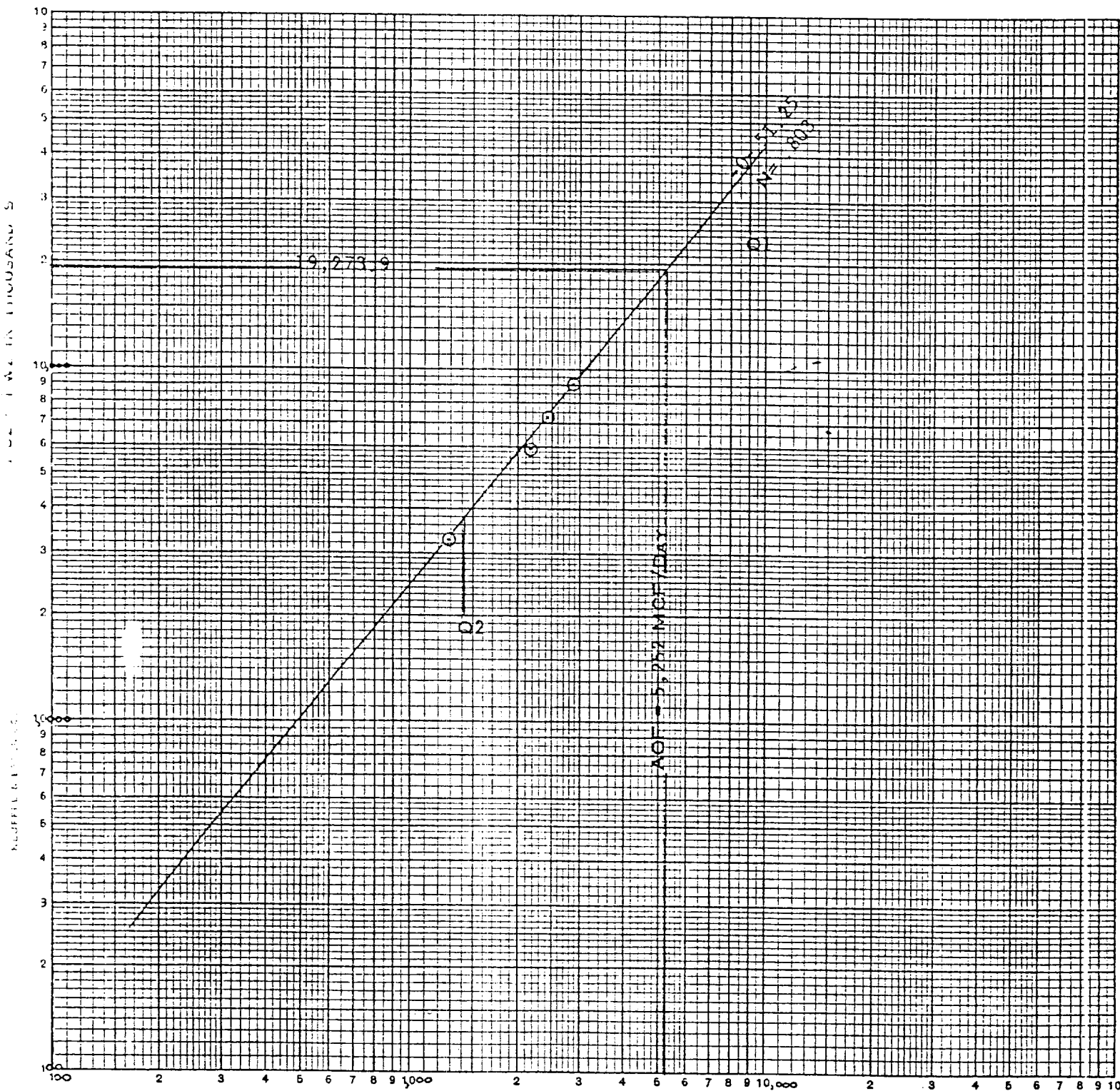
Absolute Open Flow	5,252	Mcf/d @ 15.025	Angle of Slope °	51.250	Slope, n	803
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Remarks: NO FLUID
* EQUIVALENT LENGTH

Approved By: Commission JERRY DEXTER	Conducted By: W.S.	Calculated By: R.R.	Checked By: J.W.W.
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$$\begin{aligned} \text{ABS (N)} &= Q1 = 9000 = 3.954242 \\ &Q2 = 1417 = 3.151242 \\ \hline N &= .803000 \end{aligned}$$

$$\text{CAOF} = 2850 \frac{(19273.9)^{.803}}{(9002.5)} = 5,252 \text{ MCF / DAY}$$



Q = MCF / DAY