

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

Form C-122
Revised 9-1-65

HOBBS OFFICE 0.6.8.
May 17 11 22 AM '68

Increasing Flow Sequence

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date: 5-6-68	
Company ATLANTIC RICHFIELD COMPANY		Connection Unconnected	
Pool Todd Upper San Andres		Formation San Andres	
Completion Date 4-27-68		Total Depth 4338'	Plug Back TD 4246'
Elevation 4204 K.B.		Farm or Lease Name Dalport State	
Csg. Size 5-1/2" 14#	Wt. 5.012	Set At 4338'	Perforations: From 4139' To 4229'
Well No. 1			
Tub. Size 2-3/8 EUE 4.7#	Wt. 1.995	Set At 4090'	Perforations: From Open To Ended
Unit H	Sec. 34	Twp. 7S	Rge. 35E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 4030'	County Roosevelt
Producing Thru Tubing	Reservoir Temp. °F 112 @ 4200	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2
State New Mexico			
L 4090'	H 4090'	G _g 0.746	% CO ₂
		% N ₂	% H ₂ S
Prover 2"		Meter Run	Taps

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hg. in. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI						68	891		Packer		216 hrs.
1.	2"	x	1.250	10.8	22	67	802	60			1 hr.
2.	2"	x	1.250	21.6	44	68	697	60			1 hr.
3.	2"	x	1.250	23.6	48	70	500	60			1 hr.
4.	2"	x	1.250	29.5	60	70	400	60			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	27.63		24.0	0.9933	1.158	1.000	763
2	27.63		34.8	0.9924	1.158	1.000	1105
3	27.63		35.8	0.9905	1.158	1.000	1166
4	27.63		42.7	0.9905	1.158	1.000	1353
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.0360	527	1.30	1.000	52.2	
2	0.0522	528	1.30	1.000	17	
3	0.0552	530	1.31	1.000	0.746	
4	0.0640	530	1.31	1.000	XXXXXX	
5						

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1	664.6		673.4	974.6
2	504.4		523.7	1124.3
3	263.4		286.7	1361.3
4	170.7		203.2	1448.8
5				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.137$ (2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.137$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1538$

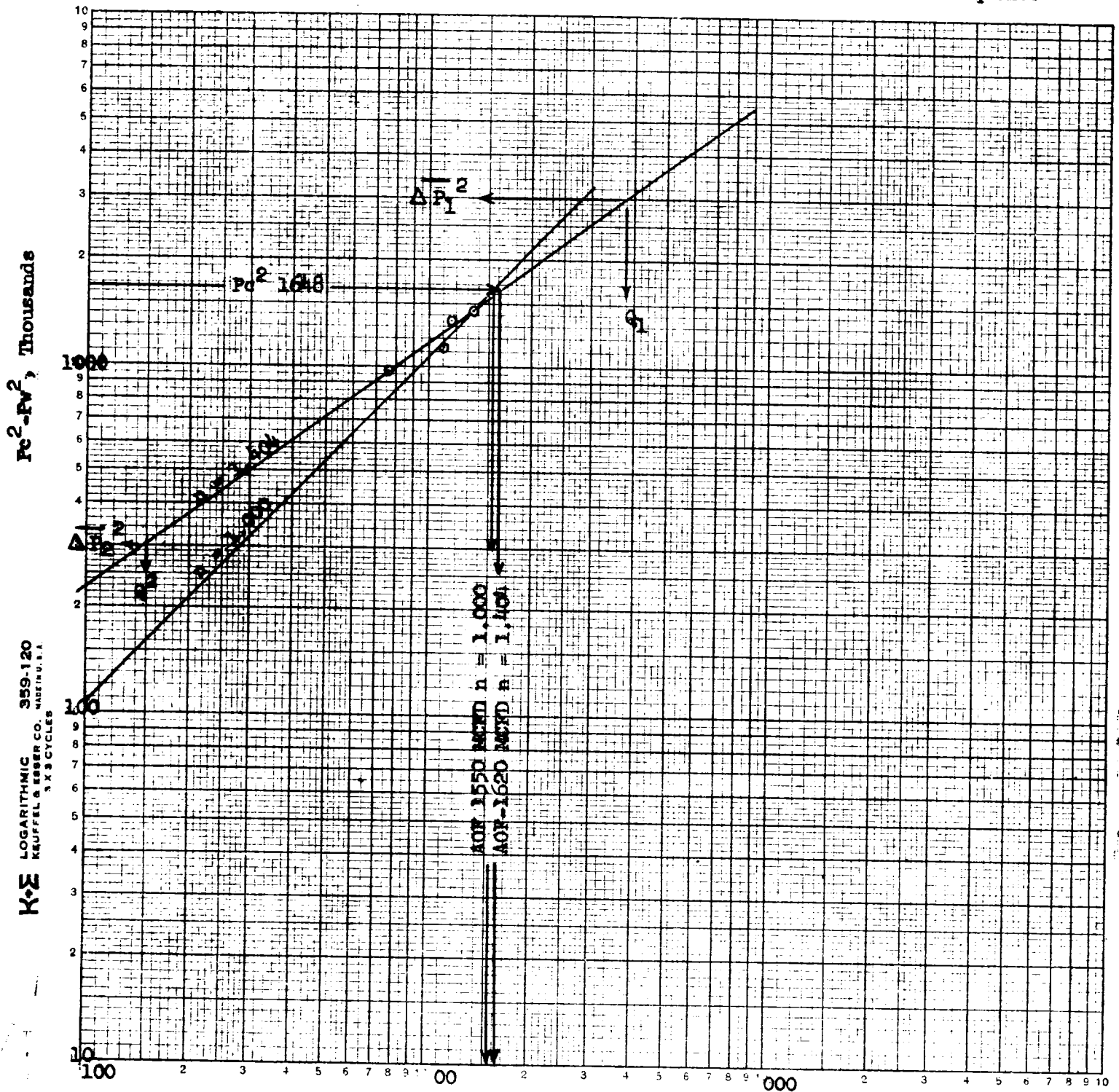
Absolute Open Flow	1540	Mcf/d @ 15.025	Angle of Slope θ	45°	Slope, n	1.0000
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Remarks: Test data indicates AOF of 1620 MCFD using slope of 1.404.

Approved By Commission:	Conducted By: Ed Ingram	Calculated By: R. F. Baker	Checked By:
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ATLANTIC RICHFIELD COMPANY
DALPORT STATE NO. 1
H, 34-78-35E
ROOSEVELT COUNTY, NEW MEXICO
MAY 6, 1968

Increasing Flow
Sequence



$$\Delta \overline{P}_1^2 \text{ } Pc^2 - P_w^2 = 3000$$

$$\Delta \overline{P}_2^2 \text{ } Pc^2 - P_w^2 = 300$$

$$Q_1 = 3800 \text{ MCFD}$$

$$Q_2 = 150 \text{ MCFD}$$

Q, MCFD

$$\log Q_1 = 3.579784$$

$$\log Q_2 = \underline{2.176091}$$

$$n = 1.403693$$