

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

Form C-122
Revised 9-1-65

MAY 15 1985

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 4-30-85	
Company SOUTHLAND ROYALTY TO AIR NEW WELL			
Pool SAND TANK STRAWN		Formation STRAWN	
Completion Date 3-18-85		Total Depth 11526	Plug Back TD 11482
Elevation 3506		Form or Lease Name HOLLEY 8A	
Csg. Size 5.500	Wt. 17.0	Set At 11526	Perforations: From 10400 To 10518
Trq. Size 2.375	Wt. 4.7	Set At 10214	Perforations: From 0 To 0
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE			Packer Set At 10214
Producing Thru TUBING		Reservoir Temp. °F 174 @ 10459	Mean Annual Temp. °F 60.0
Baro. Press. - P _a 13.2		State NEW MEXICO	
L 10459	H 10459	G _g .752	% CO ₂ 1.73
% N ₂ 2.98	% H ₂ S 0	Prover 2.0	Meter Run 0
Type			

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.		CHOKE
SI							2364.2	72			72.0
1.	2.00 X	0.094		460	0	66	2197.2	74	0	4/64	1.0
2.	2.00 X	0.094		590	0	74	2075.2	74	0	4.5/64	1.0
3.	2.00 X	0.125		600	0	76	1910.2	74	0	5.5/64	1.0
4.	2.00 X	0.188		560	0	76	1770.2	74	0	9/64	1.0
5.											

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	0.14	0	473.2	0.9943	1.1535	1.0587	81.
2	0.14	0	603.2	0.9868	1.1535	1.0719	104.
3	0.26	0	613.2	0.9850	1.1535	1.0721	197.
4	0.61	0	573.2	0.9850	1.1535	1.0671	422.
5.							

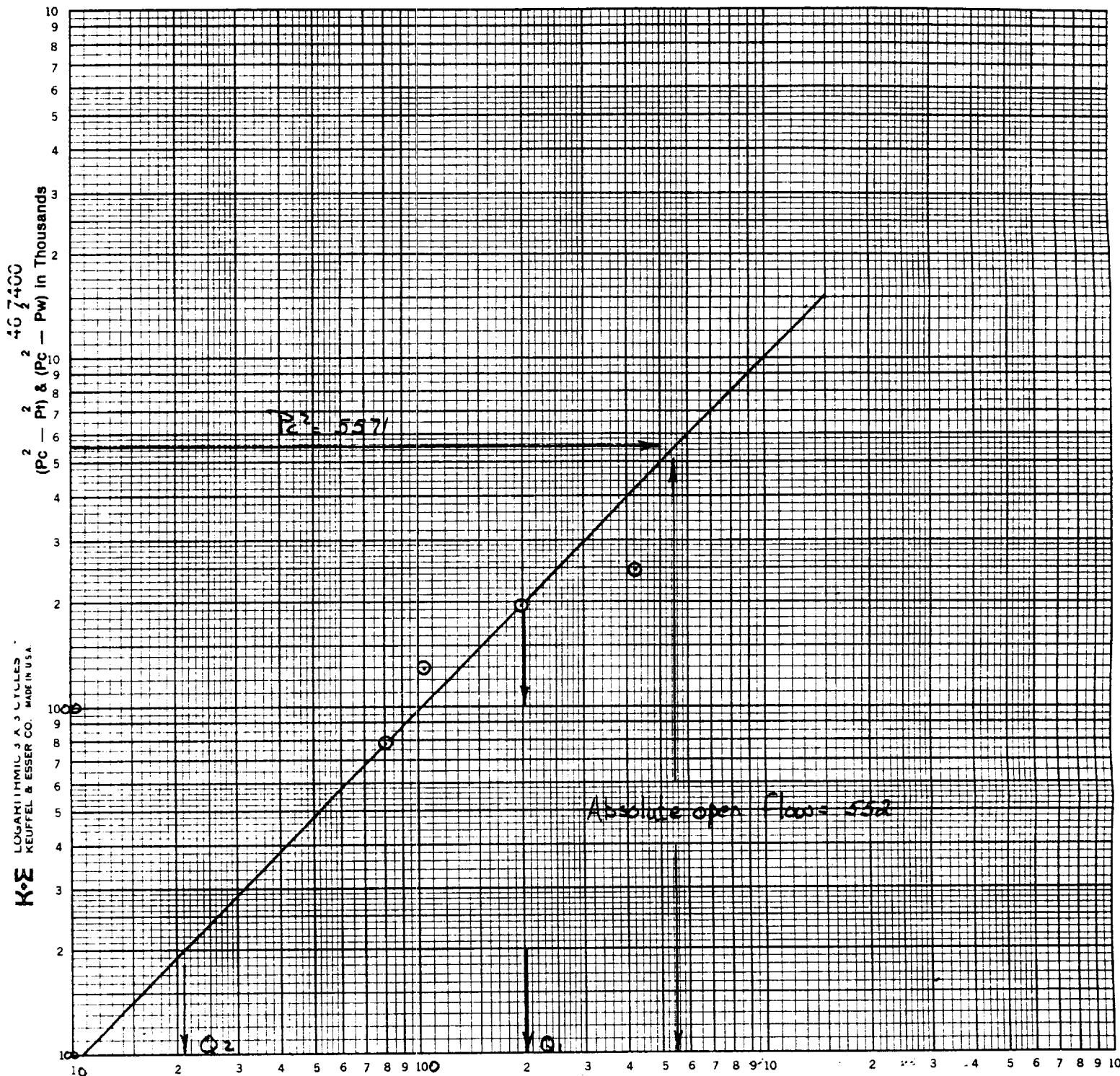
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.71	526	1.33	0.892	4.3	56.0	0.752	XXXXXX	667.	395.
2.	0.90	534	1.35	0.870			XXXXX	1.235	643.	546.
3.	0.92	536	1.36	0.870						
4.	0.86	536	1.36	0.878						
5.										

NO.	P _r ²	P _w ²	P _w ² - P _r ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2}$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n$
1	4885	2189	4793	2.8540	2.8036
2	4361	2067	4273		
3	3699	1902	3618		
4	3180	1763	3107		
5					

Absolute Open Flow	552	Mcf/d @ 15.025	Angle of Slope	45.5	Slope, n	.983
Remarks:						
Approved By: BENNETT & CATHEY Conducted By: RICHARD TOWNLEY Calculated By: D. ROBERTS						

BACK PRESSURE CURVE

Operator South Lanc Royalty Lease Holly 8A Well No. 1
 County Eddy Field UD Strawn Location 8 18S 30E
 Date of Test 4-30-85 Slope "n" 0.983 Angle of Slope 45.5
 Calc. Abs. Potential 552 MCF/D



$$\overline{\Delta P}_1^2 \quad PC^2 - PW^2 = \underline{2000}$$

$$\overline{\Delta P}_2^2 \quad PC^2 - PW^2 = \underline{200}$$

$$Q_1 = \underline{202}$$

$$Q_2 = \underline{21}$$

Q in MCF/Day

$$\text{LOG } Q_1 = \underline{2.305}$$

$$\text{LOG } Q_2 = \underline{1.322}$$

$$n = \underline{0.983}$$