

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

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Form C-22
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FEB 1 1979

Type Test ☒ Initial ☐ Annual ☐ Special										Test Date 8-10-78	
Company Yates Petroleum Corp. ✓					Connection El Paso Natural Gas Company					ARTESIA, 07702	
Pool Little Box Canyon					Formation Strawn					Unit NM 13968	
Completion Date 4-6-78			Total Depth 8050' KB		Plug Back TD 6888' KB		Elevation 4564' KB		Farm or Lease Name Huber "IA" Federal		
Csg. Size 5-1/2"	Wt. 15.5#	d 4.950	Set At 7717' KB	Perforations: From 6790 To 6796' KB				Well No. 2			
Tbg. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 6749' KB	Perforations: From To				Unit Sec. Twp. Rge. P 15 21S 21E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 6749' KB				County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 125 @ 6793		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico			
L 6786	H 6786	Gg 0.630	% CO ₂ Nil	% N ₂ 1.10	% H ₂ S Nil	Prover		Meter Run 4"	Taps Flange		

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	
SI							1930	67			weeks
1.	4.026 x 0.625			595	10	70	1845	68			1 hour
2.				595	21	70	1770	69			1 hour
3.				595	39	69	1657	70			1 hour
4.				595	72	68	1451	71			1 hour
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	1.845	77.99	608.2	.9905	1.260	1.0553	190
2	1.845	113.01	608.2	.9905	1.260	1.0553	275
3	1.845	154.01	608.2	.9915	1.260	1.0554	375
4	1.845	209.26	608.2	.9924	1.260	1.0555	510
5.							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons Deg.
1.	.908	530	1.452	.898	Specific Gravity Separator Gas 0.630	XXXXXXX
2.	.908	530	1.452	.898	Specific Gravity Flowing Fluid XXXXX	.682
3.	.908	529	1.449	.898	Critical Pressure 670 P.S.I.A.	668 P.S.I.A.
4.	.908	528	1.447	.8975	Critical Temperature 365 R	383 R
5.						

NO.	P _t ²	P _w	R _w ²	P _t ² - R _w ²
1			5256	500
2			4831	925
3			4226	1530
4			3256	2500
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.3024$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 858$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6828$$

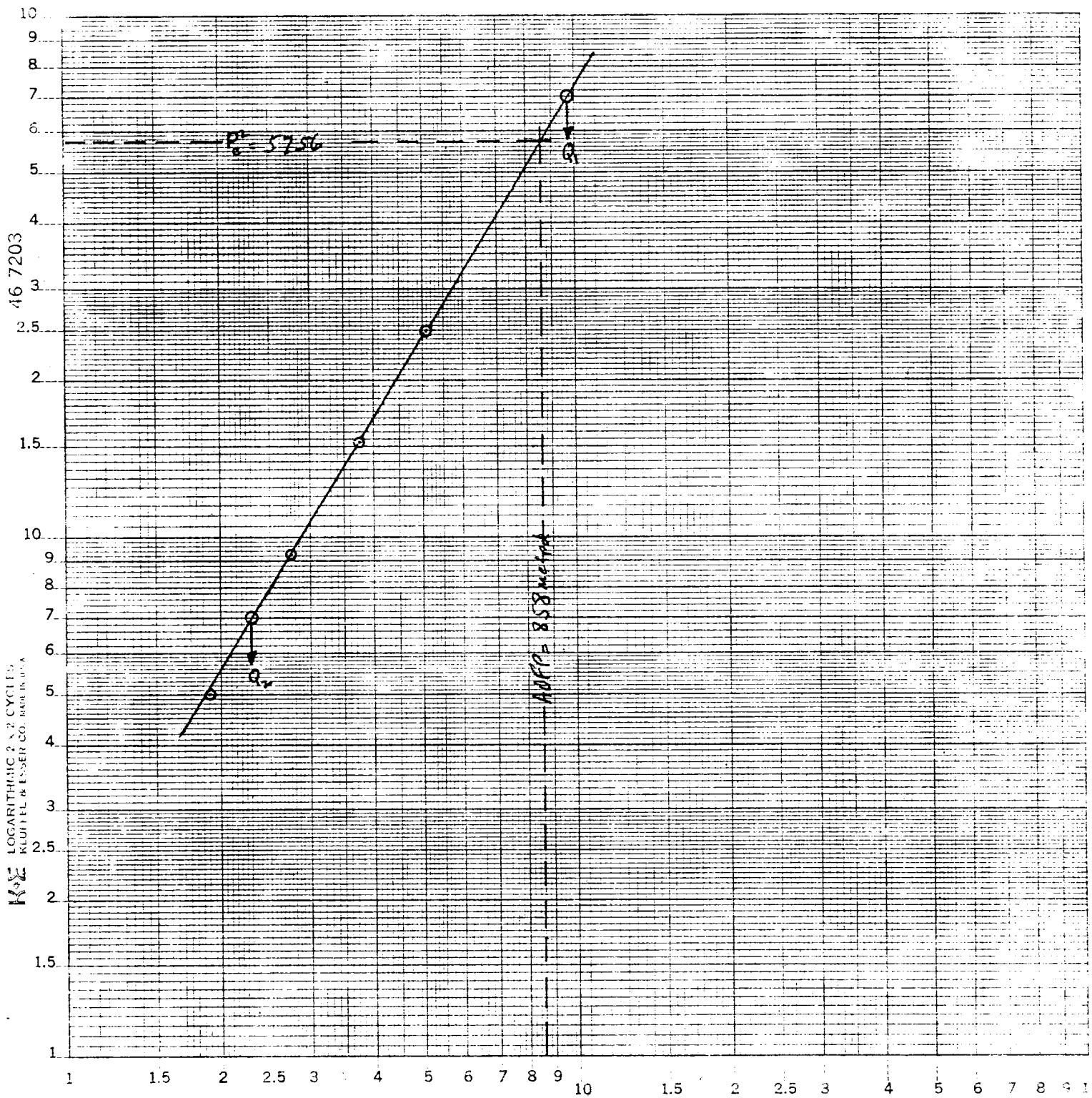
Absolute Open Flow	858	Mcf/d @ 15.025	Angle of Slope	54° 40'	Slope, n	0.6241
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Remarks: Static pressures by Bennett Wireline, flowing pressures by DWT. Calculations worksheet C-122D attached.

Approved By Commission:	Conducted By: Bill Trembley, Jr.	Calculated By: Eddie Mahfood	Checked By:
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YPC - Huber 1A Federal No. 2

P-15-21s-21E, Little Box Canyon Strawn, Eddy Co, N.Mex



$$Q_1 = 972 \text{ metpd} \quad \log Q_1 = 2.9877$$

$$Q_2 = 231 \text{ metpd} \quad \log Q_2 = 2.3636$$

$$n = 0.6241$$

LOCATION: Unit P Section 15 Township 21 S Range 21 E

$\frac{d}{F_1} = \frac{2.0228}{.016089} = 125.72$

[illegible]