

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 4/9/85	
Company TEXACO			Connection TO AIR		
Pool			Formation MORROW		Unit
Completion Date		Total Depth 13250	Plug Back To 13249		Elevation 3628
Farm or Lease Name NM DW STATE		Well No. 1			
Plug Size 5.000	Wt. 18.0	d 4.276	Set At 13249	Perforations: From 12995 To 13009	
Plug Size 2.375	Wt. 4.7	d 1.995	Set At 12760	Perforations: From 0 To 0	
Type Well - Single - Drivenhead - G.G. or G.O. Multiple SINGLE				Factor Set At 12757	
Producing thru TUBING		Reservoir Temp. °F 212 • 13002	Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2
State NEW MEXICO		County LEA			
L 13002	H 13002	Gg 0.606	% CO ₂ 0.43	% N ₂ 0.29	% H ₂ O 0
Prover 0		Motor Run 4.0		Type FLANGE	

FLOW DATA							TUBING DATA		B.H.P. 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	
5							2365	60			72.0
1	4.03	X	2.250	200	4.0	86	1940	74	0	8/64	1.0
2	4.03	X	2.250	200	8.0	82	1785	74	0	12/64	1.0
3	4.03	X	2.250	200	14.0	82	1535	74	0	16/64	1.0
4	4.03	X	2.250	210	34.0	78	1420	74	0	25/64	4.0

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	25.64	29.20	213.2	0.9759	1.2846	1.0158	954
2	25.64	41.30	213.2	0.9795	1.2846	1.0162	1354
3	25.64	54.63	213.2	0.9795	1.2846	1.0162	1791
4	25.64	87.11	223.2	0.9831	1.2846	1.0174	2870

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcft/bbl.
1	0.32	546	1.52	0.969	65.7	
2	0.32	542	1.51	0.968	54.0	
3	0.32	542	1.51	0.968		
4	0.33	538	1.50	0.966		

A.P.I. Gravity of Liquid Hydrocarbons 54.0 Specific Gravity Separator Gas 0.606 Specific Gravity Flowing Fluid XXXXX Critical Pressure 674 P.S.I.A. 671 Critical Temperature 359 °F 372 °F				
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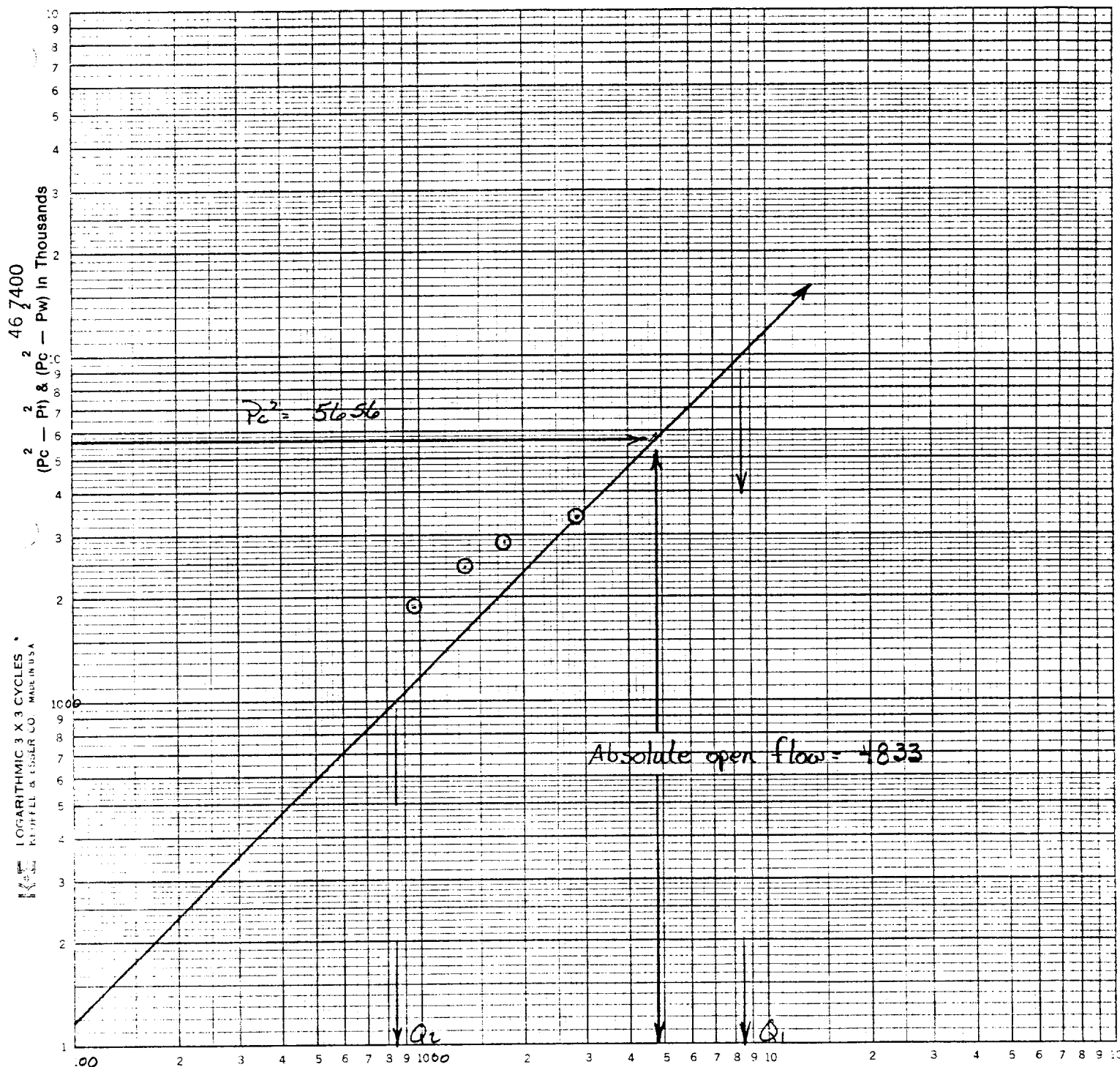
$P_c = 2378.2$ $P_c^2 = 5656$ NO. P_1^2 P_w^2 P_2^2 $P_2^2 - P_w^2$ 1 3815 1946 3786 1870 2 3234 1801 3245 2411 3 2717 1668 2781 2874 4 2054 1516 2297 3359	$(1) \frac{P_c^2}{P_2^2 - P_w^2} = 1.6838$ $(2) \left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 1.6838$ $AOI = Q \left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 4833$
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Absolute Open Flow 4833 Mcfd @ 15.025	Angle of Slope 45.0	Slope, n 1.000
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Approved By Commission	Conducted By	Calculated By	Checked By <i>W. Baker</i>
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VNETT & CATHEY PRODUCTION TESTING BACK PRESSURE CURVE

Operator Texaco Lease 71M "DW" State Well No. 1
 County Lea Field _____ Location _____
 Date of Test 4-9-85 Slope "n" 1.000 Angle of Slope 45°
 Calc. Abs. Potential 4833 MCF/D



$$\Delta P_1^2 \quad P_c^2 - P_w^2 = \underline{10000}$$

$$\Delta P_2^2 \quad P_c^2 - P_w^2 = \underline{1000}$$

$$Q_1 = \underline{8500}$$

$$Q_2 = \underline{8501}$$

Q in MCF/Day

$$\text{LOG } Q_1 = \underline{3.9294}$$

$$\text{LOG } Q_2 = \underline{2.9294}$$

$$n = \underline{1.000}$$