

NOV 02 1984

45F
File

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special				Test Date 9-25-84		O. C. D. ARTESIA OFFICE	
Company HERMAN WALLIS				Connection TO AIR			
Pool SAMS RANCH <i>Lina</i>				Formation GRAYBERG		Unit #1	
Completion Date 9-22-84		Total Depth 1752.1750		Plug Back 1740.		Elevation 3578.	
Casing Size 4.500		Wt. 10.5		d 4.052		Set At 1691.	
Perforations: From 1679.		To 1699.		Well No. #2			
Casing Size 2.375		Wt. 4.7		d 1.995		Set At 1630.	
Perforations: From 0.		To 0.		Unit H		Sec. 9	
Twp. 14S		Rge. 28E		County CHAVES		State NEW MEXICO	
Type Well - Single - Drawhead - G.O. or G.O. Multiple SINGLE				Factor Set At 0.		County CHAVES	
Producing thru TUBING		Reservoir Temp. °F 90 • 1689.		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 1689.		H 1689.		Cg 0.736		% CO ₂ 1.08	
% N ₂ 31.38		% H ₂ O 0.		Prover Ø		Motor Run 3.1	
Taps FLANGE							

FLOW DATA						TUBING DATA		B.H.P. DATA		Duration	
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	of Flow
5							667.	74.	860.		72.0
1	3.07 X 0.250			100.	2.0	60.	210.	74.	464.	4/64	1.0
2	3.07 X 0.250			60.	6.0	70.	60.	74.	404.	6/64	1.0
3	3.07 X 0.250			90.	7.0	72.	150.	74.	215.	8/64	1.0
4	3.07 X 0.250			90.	0.5	70.	90.	74.	160.	10/64	1.0

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	0.30	15.05	113.2	1.0000	1.1656	1.0065	5.
2	0.30	20.96	73.2	0.9905	1.1656	1.0038	7.
3	0.30	26.88	103.2	0.9887	1.1656	1.0053	9.
4	0.30	7.18	103.2	0.9905	1.1656	1.0054	2.

NO.	P _h	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	0.18	520.	1.66	0.987	230 CF/bbl	38.7	0.736	X X X X X X X X	616.	314.
2	0.12	530.	1.69	0.992				X X X X X		
3	0.17	532.	1.70	0.989						
4	0.17	530.	1.69	0.989						

NO.	P ₁ ²	P _w ²	P ₂ ²	P ₂ ² - P _w ²
1	228.	477.	227.	534.
2	174.	417.	174.	587.
3	52.	228.	52.	709.
4	30.	173.	30.	731.

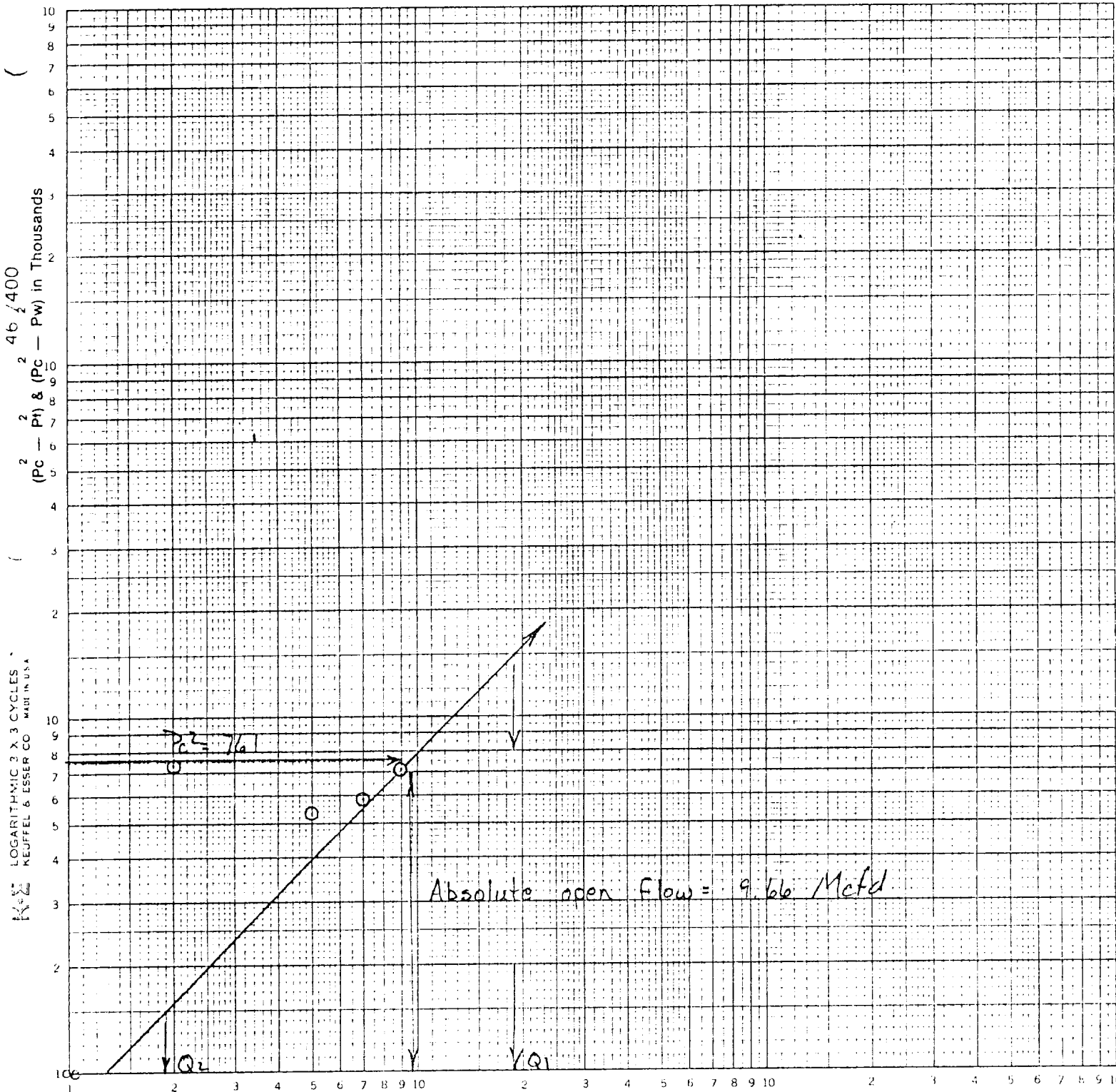
(1) $\frac{P_c^2}{P_2^2 - P_w^2} = 1.0733$		(2) $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 1.0733$	
AOI = 0 $\left[\frac{P_c^2}{P_2^2 - P_w^2} \right]^n = 9.660$			

Absolute Open Flow 9.660		Mold # 15.025		Angle of Slope 45.0		Slope, n 1.000	
Remarks: The 25 barrels of oil recovered during potential test was load oil used to fracture well.							

Approved By Commission	Conducted By	Calculated By	Checked By
	RICHARD TOWNLEY	BENNETT & CATHEY INC.	

Operator H. V. Wallis Lease Lura Federal Well No. 2
 County Chaves Field Sams Ranch Location 9-14S-28E
 Date of Test 9-25-84 Slope "n" 1.000 Angle of Slope 45°

Calc. Abs. Potential 9.66 MCF/D



$$\overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 = \underline{1500}$$

$$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = \underline{150}$$

$$Q_1 = \underline{19}$$

$$Q_2 = \underline{1.9}$$

Q in MCF/Day

$$\text{LOG } Q_1 = \underline{1.2787}$$

$$\text{LOG } Q_2 = \underline{0.2787}$$

$$n = \underline{1.0000}$$