NEW MEXICO OIL CONSERVATION COMMISSION

MULTI[illegible]IT AND ONE POINT BACK PRESSU[illegible] TEST FOR GAS WELL

C/S T
File

RECEIVED
JUL 21 1983
O. C. D.
ARTESIA, OFFICE

Type Test: ☒ Initial 4-POINT ☐ Annual ☐ Special						Test Date: 7-15-83	
Company: DEPCO INC.			Connection: TO AIR				
Pool: [illegible]			Formation: ABO			Unit	
Completion Date: 7-12-83	Total Depth: 4285		Plug Back T.D.: 4189		Elevation: ~~3769~~ 3758 GL	Farm or Lease Name: ROSE FEDERAL	
Csg. Size: 4.500	Wt.: 10.5	d: 4.052	Set At: 4189	Perforations: From 3719 To 3869		Well No.: 10	
Tbg. Size: 2.375	Wt.: 4.7	d: 1.995	Set At: 3625	Perforations: From 0 To 0		Unit: I Sec.: 21 Twp.: 5S Rge.: 25E	
Type Well – Single – Bradenhead – C.O. or G.O. Multiple: SINGLE				Packer Set At: 0		County: CHAVES	
Producing Thru: TUBING	Reservoir Temp. °F: 109 @ 3794		Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2		State: NEW MEXICO	
L: 3794	H: 3794	G_g: 0.659	% CO_2: 1.45	% N_2: 6.41	% H_2S: 0	Prover: 0	Meter Run: 2.1 Taps: 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
SI						946		1050	72.0
1	2.07	X 1.250	485	5.0	83	919	83	1017	14/64 1.0
2	2.07	X 1.250	485	10.5	78	891	85	989	17/64 1.0
3	2.07	X 1.250	490	23.0	69	850	87	951	22/64 1.0
4	2.07	X 1.250	490	48.0	68	778	87	884	24/64 1.0
5									

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 Hour)	$\sqrt{h_w P_a}$	Pressure P_a	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	8.12	49.91	498.2	0.9786	1.2318	1.0375	507.
2	8.12	72.33	498.2	0.9831	1.2318	1.0388	739.
3	8.12	107.58	503.2	0.9915	1.2318	1.0420	1112.
4	8.12	155.41	503.2	0.9924	1.2318	1.0424	1608.
5							

NO	P_t	Temp. °R	T_g	Z
1	0.75	543.	1.52	0.929
2	0.75	538.	1.51	0.927
3	0.76	529.	1.48	0.921
4	0.76	528.	1.48	0.920
5				

Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.
Specific Gravity Separator Gas 0.659 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX 0.659
Critical Pressure 665. P.S.I.A 665. P.S.I.A.
Critical Temperature 357. R 357. R

P_c 962.5 P_c^2 926.

NO	P_t^2	P_w	R_w^2	$P_c^2 - P_w^2$
1	1061.	933.	870.	56.
2	1004.	903.	824.	102.
3	930.	874.	764.	163.
4	805.	814.	663.	264.
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.5124$ (2) $\left[\frac{R_w^2}{P_c^2 - P_w^2}\right]^n = 2.5557$

AOF = Q $\left[\frac{R_w^2}{P_c^2 - P_w^2}\right]^n$ = 4107.

Test ID-2
7-29-83
Comp + BK

Absolute Open Flow 4107. Mcfd @ 15.025 Angle of Slope θ 53.3 Slope, n 0.746

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission: [illegible] Conducted By: [illegible] Calculated By: [illegible] Checked By: [illegible]

2987

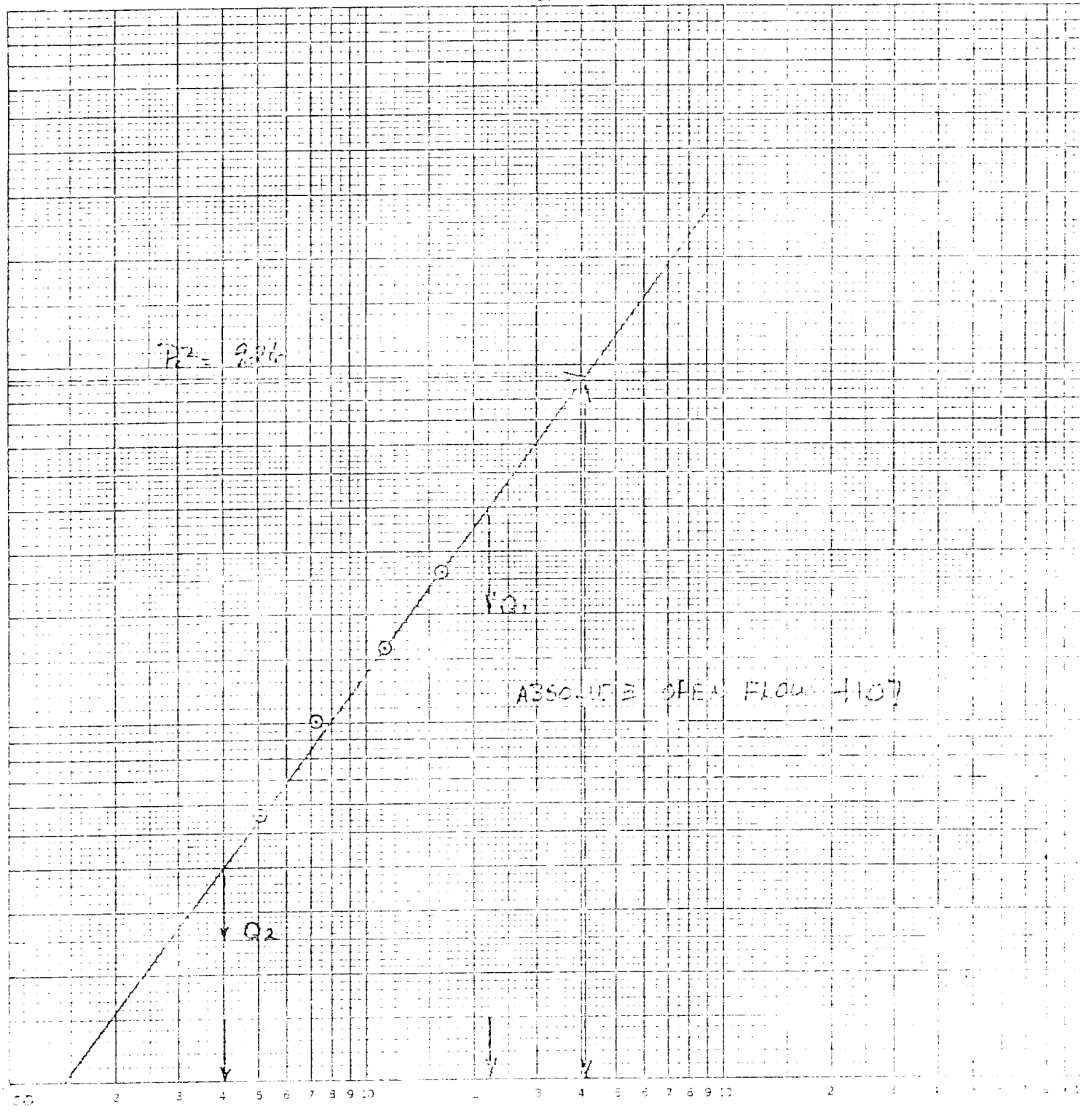
BENNETT & CATHEY PRODUCTION TESTING
BACK PRESSURE CURVE

Operator Depco Lease Rose federal Well No. 10

County Chaves Field Pecos Slope U.D. Location 21 S 25 E

Date of Test 7-17-83 Slope "n" .746 Angle of Slope 53.3

Calc. Abs. Potential 4107 MCF/D



ΔP_1^2 $P_c^2 - P_{w1}^2 = 400$

ΔP_2^2 $P_c^2 - P_{w2}^2 = 40$

LOG Q_1 = 3.34

LOG Q_2 = 2.60

n = .746