

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

APR 25 1983

d/sf
File
Rm

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 4-18-83		1980 FS	
Company DEPCO INC.		Connection ARTESIA, OFFICE		660 FE	
Pool PECOS SLOPE <i>Alto</i>		Formation ABO		Unit E	
Completion Date 4-15-83		Total Depth 4225		Plug Hole 1 4139	
Well Size 4.500		Well ID 10.5		Elevation 3893	
Fig. Size 2 3/8		Well ID 4.7		Perforations: From 3677 To 3827	
Completion Date 4-15-83		Total Depth 4225		Plug Hole 1 4139	
Well Size 4.500		Well ID 10.5		Elevation 3893	
Fig. Size 2 3/8		Well ID 4.7		Perforations: From 3677 To 3827	
Type Well - Single - Freedomhead - O.O. or O.O. Multiple SINGLE		Packer Set At NONE		County CHAVES	
Producing Zone TUBING		Reservoir Temp. °F 96° @ 3752		Mean Annual Temp. °F 60.0	
Baro. Press. - P _g 13.2		State NEW MEXICO		Well No. #7	
L 3752		H 3752		Q _g 0.681	
% CO ₂ 3.09		% N ₂ 6.43		% H ₂ S 0.	
Prover 0.		Motor Run 2.1		Tape 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. In. H ₂ O	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							975		1085	
1	2.07 X 1.250		420	3.0	72.	961	72	1076	8/64	1.0
2	2.07 X 1.250		420	8.0	70.	950	70	1068	10/64	1.0
3	2.07 X 1.250		425	18.0	66.	938	66	1055	14/64	1.0
4	2.07 X 1.250		425	61.5	64.	893	64	1021	17/64	1.0
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RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Compens. Factor, F _{sc}	Rate of Flow Q, Mhd
1	8.12	36.05	433.2	0.9887	1.2118	1.0368	364
2	8.12	58.87	433.2	0.9905	1.2118	1.0374	595
3	8.12	88.81	438.2	0.9943	1.2118	1.0390	903
4	8.12	164.16	438.2	0.9962	1.2118	1.0396	1673
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NO.	R	Temp. °R	Q	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	0.65	532	1.47	0.930	0	0	0.681	XXXXXXX	671	361
2	0.65	530	1.47	0.929				XXXXXX		
3	0.65	526	1.46	0.926						
4	0.65	524	1.45	0.925						
5										

NO.	P ₁ ²	P ₂ ²	R ₁ ²	R ₂ ²	R ₁ ² - R ₂ ²
1	1186	980	961	16	
2	1169	973	947	30	
3	1141	962	925	52	
4	1070	932	868	109	
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(1) $\frac{P_1^2}{R_1^2 - R_2^2} = 8.9697$

AOF = Q $\left[\frac{R_1^2}{R_1^2 - R_2^2} \right]^n = 9412$

(2) $\left[\frac{R_1^2}{R_1^2 - R_2^2} \right]^n = 5.6262$

Absolute Open Flow	9412	Mhd @ 15.025	Angle of Slope @	51.8	Slope, n	0.787
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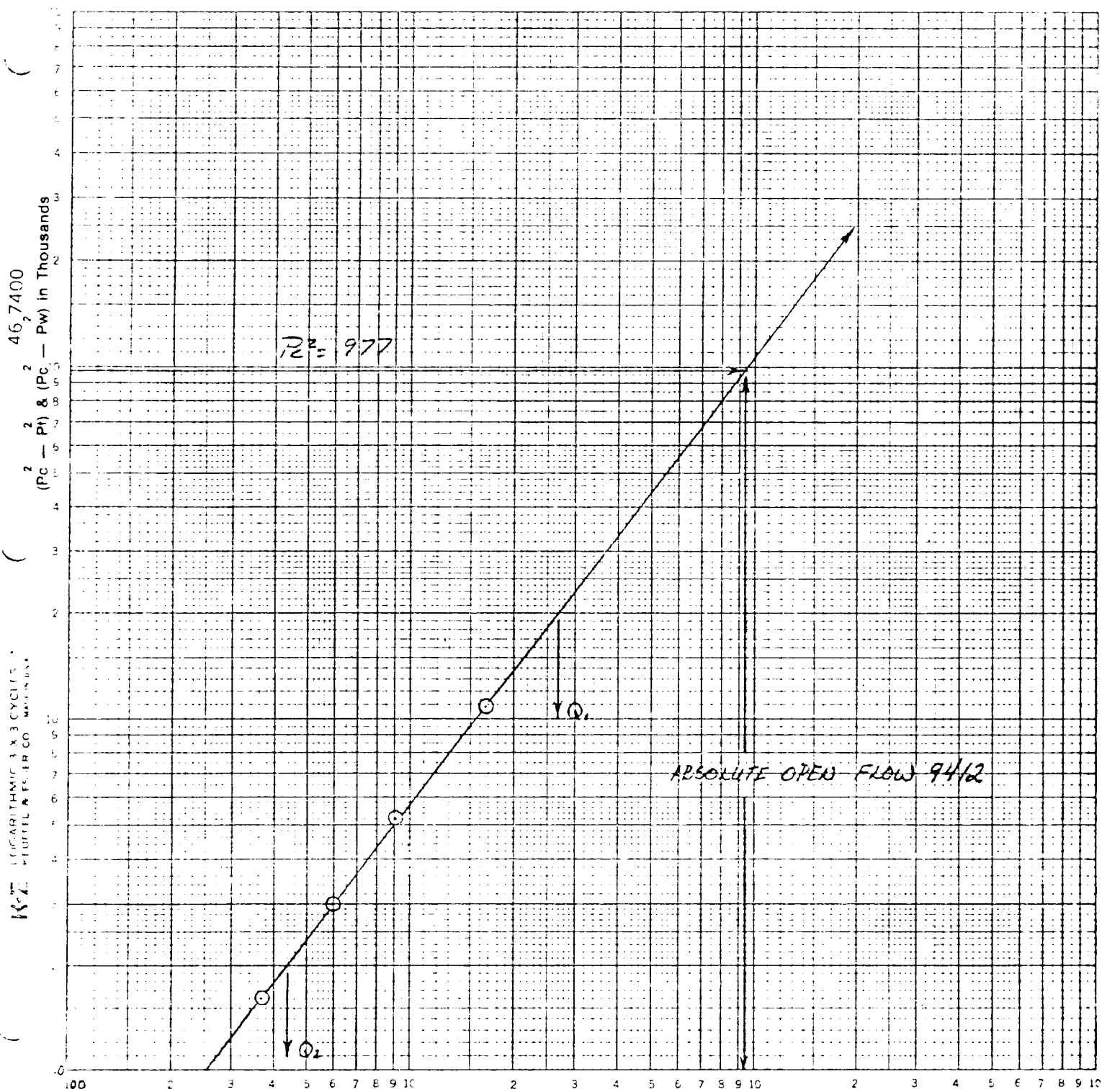
Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission	Conducted By: RICHARD TOWNLEY	Calculated By: BENNETT & CATHEY	Checked By:
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BACK PRESSURE CURVE

Operator DEPO Lease ROSE FE. RAL Well No. 7
 County CHIEFS Field PROS SLOPE UD. Location I 19 55 25E
 Date of Test 4-18-83 Slope "n" .787 Angle of Slope 51.8

Calc. Abs. Potential 9412 MCF/D



$$\overline{\Delta P}_1: R^2 - P_w^2 = 200$$

$$\overline{\Delta P}_2: R^2 - P_w^2 = 20$$

$$Q_1 = 2694$$

$$Q_2 = 440$$

Q in MCF/Day

$$\log Q_1 = 3.4304$$

$$\log Q_2 = 2.6434$$

$$n = .787$$