NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 10-1-65

RECEIVED BY
DEC 15 1983
O. C. D.
ARTESIA, OFFICE

c/s F file

Amended

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 12-6-83

Company: PERRY R. BASS	Connection: AIR NEW WELL		
Pool: ~~UNDESIGNATED~~ Quahada Ridge	Formation: MORROW		Unit: E
Completion Date: 7-1-83	Total Depth: 13422	Plug Back T.D.: 13123	Elevation: 3409
Farm or Lease Name: BIG EDDY UNIT			

Csg. Size	Wt.	d	Set At	Perforations	Well No.
5.500	17.0	4.892	13422	From 12918 To 13066	97

Tbg. Size	Wt.	d	Set At	Perforations	Unit	Sec.	Twp.	Rge.
2.375	4.7	1.995	12894	From 0 To 0	F	35	21S	29E

Type Well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At	County
SINGLE	12865	EDDY

Producing Thru	Reservoir Temp. °F	Mean Annual Temp. °F	Baro. Press. – P_a	State
TUBING	200 @ 12992	60.0	13.2	NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12992	12992	0.592	2.88	1.25	0	0	4.0	FLANGE

NO	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	B.H.P. DATA: Press. p.s.i.g.	CHOKE	Duration of Flow
SI					2748		3733		96.0
1	4.03 X 0.750	450	2.0	99	2552	99	3522	1/64	1.0
2	4.03 X 0.750	520	6.0	107	2257	107	3164	2/64	1.0
3	4.03 X 0.750	490	12.0	105	2091	105	2998	3/64	1.0
4	4.03 X 0.750	430	24.5	94	1814	94	2736	4/64	1.0
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	2.66	30.44	463.2	0.9645	1.2997	1.0278	104.
2	2.66	56.56	533.2	0.9577	1.2997	1.0301	193.
3	2.66	77.71	503.2	0.9594	1.2997	1.0289	265.
4	2.66	104.20	443.2	0.9688	1.2997	1.0278	359.
5							

NO	P_t	Temp. °R	T_d	Z
1	0.68	559.	1.60	0.947
2	0.78	567.	1.62	0.942
3	0.73	565.	1.61	0.945
4	0.65	554.	1.58	0.947
5				

Gas Liquid Hydrocarbon Ratio: DRY Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: — Deg.
Specific Gravity Separator Gas: 0.592 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 685 P.S.I.A. ____ P.S.I.A.
Critical Temperature: 350 R ____ R

P_c^2 2816.5 P_c^2 7933

NO	P_t^2	P_w	R_w^2	$P_c^2 - R_w^2$
1	12498	2651	7028	904
2	10095	2376	5646	2287
3	9067	2250	5063	2870
4	7558	2055	4221	3711
5				

(1) $\frac{P_c^2}{P_c^2 - R_w^2} = 2.1377$ (2) $\left[\frac{P_c^2}{P_c^2 - R_w^2}\right]^n = 2.1377$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - R_w^2}\right]^n = 767.$

Rec'd 12-20-83 Temp + BR

Absolute Open Flow: 767 Mcfd @ 15.025 Angle of Slope @: 45° Slope, n: 1.000

Remarks: BOTTOM HOLE PRESSURE MEASURED WITH AMERADA PRESSURE ELEMENTS

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

2987

BENNETT & CATHEY PRODUCTION TESTING

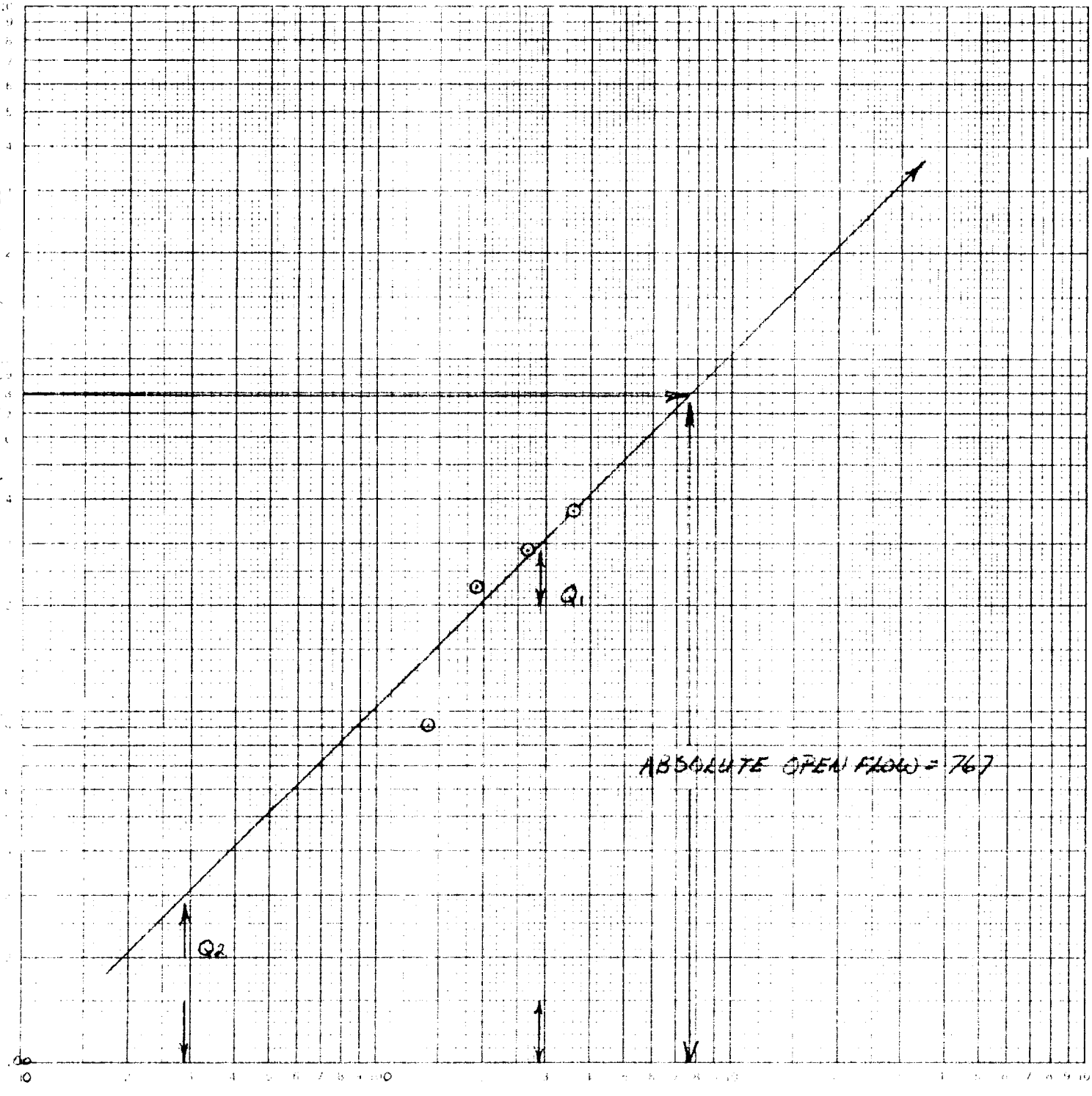
BACK PRESSURE CURV

Operator PERRY R. BASS Lease Big Eddy UNIT Well No. 97

County Eddy Field Undes. Location 35 21S 29E

Date of Test 12-6-83 Slope "n" 1.000 Angle of Slope 45°

Calc. Abs. Potential 767 MCF/D



ΔP_1^2 $P_c^2 - P_w^2 = 3000$

ΔP_2^2 $P_c^2 - P_w^2 = 300$

$Q_1 = .290$

$Q_2 = .29$

LOG Q_1 = 2.4624

LOG Q_2 = 1.4624

n = 1.0000