NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [x] Initial [ ] Annual [ ] Special			Test Date: 3-29-73	
Company: Burleson & Huff		Connection: None		
Pool:		Formation: Jalmat		Unit:
Completion Date: 3-23-73	Total Depth: 3250	Plug Back TD: 2650	Elevation:	Farm or Lease Name: Gutman
Csg. Size: 7 / Wt.: 24 / d: / Set At: 3130		Perforations: From 2532 To 2552		Well No.: 1
Tbg. Size: 2 1/2 / Wt.: 6.5 / d: 2.441 / Set At: 2497		Perforations: From open ended To		Unit: O / Sec.: 29 / Twp.: 25 / Rge.: 37
Type Well – Single – Bradenhead – G.G. or G.O. Multiple		Packer Set At: 2497		County: Lea
Producing Thru: TBG	Reservoir Temp. °F: 99° @ 2492	Mean Annual Temp. °F	Baro. Press. – P_a: 13.2	State: New Mexico
L: 2497 / H: 2497	Gg: .672	% CO_2	% N_2	% H_2S / Prover: 2" / Meter Run / Taps

FLOW DATA / TUBING DATA / CASING DATA

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.	Temp. °F	Duration of Flow
SI									
1.	2x 1/8	510		66	509	60°			72 hr.
2.	2x 7/32	494		70	494				45 min
3.	2x 1/4	476		71	476				1 hr.
4.	2 x 5 / 16	345		73	345				1 hr.
5.									1 hr.

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	.2548		562.2	.9913	1.220	1.062	192
2.	.8393		467.2	.9905	1.220	1.049	497
3.	1.087		429.2	.9896	1.220	1.045	589
4.	1.672		358.2	.9877	1.220	1.036	748
5.							

NO.	P_t	Temp. °R	T_t	Z
1.	.84	526	1.38	.887
2.	.70	530	1.39	.903
3.	.64	531	1.39	.916
4.	.58	533	1.40	.933
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .672 assumed XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 669 P.S.I.A. _____ P.S.I.A.
Critical Temperature 382 R _____ R

P_c 604.2 P_c^2 365.1

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	316.1		316.2	48.9
2	216.3		219.3	146.0
3	184.2		185.4	179.7
4	128.3		130.3	234.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 1.555

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.473

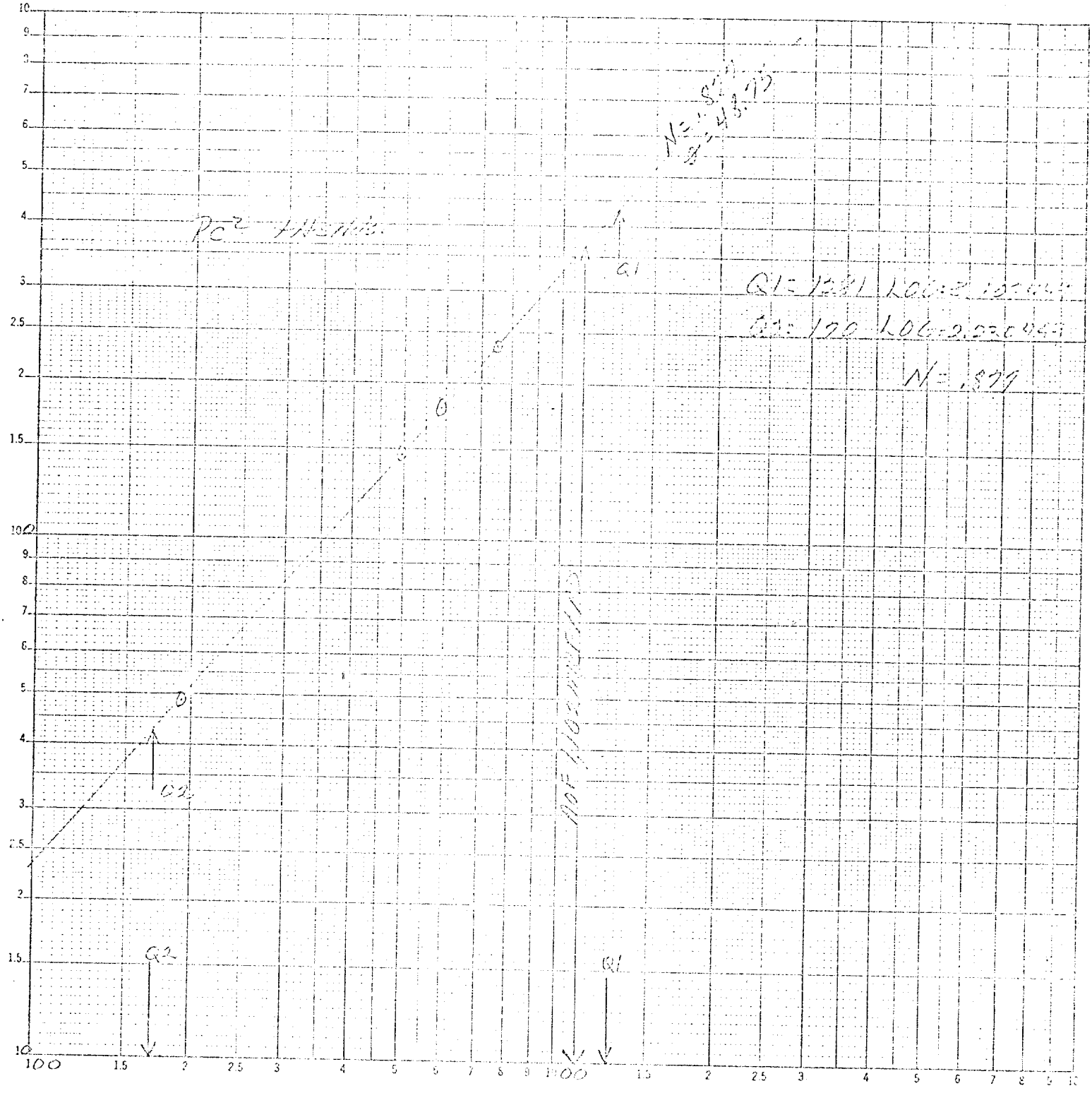
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.102

Absolute Open Flow 1,102 Mcfd @ 15.025 | Angle of Slope θ 48.75 | Slope, n .877

Remarks:

Approved By Commission: | Conducted By: Ballenger & Benton | Calculated By: Reggie Benton | Checked By:

BURLESON & HUFF
Guleman No. 1
I 29-25-37 Lea Co., New Mexico
March 3, 1973



Q = MCF/DAY

C-122D
Adopted 9-1-65

WORKSHEET FOR CALCULATION OF ST. C COLUMN WELLHEAD PRESSURE (P_w)

COMPANY Burleson & Huff LEASE Gutman WELL NO. 1 DATE 3-29-73

LOCATION: Unit I Section 29 Township 25 Range 37

L 2497 H 2497 L/H 1.000 G .672 (assd.) % CO_2 ____ % N_2 ____ % H_2S ____

d 2.441 F_r .010763 GH 1678 P_{cr} 669 (TABLE IX & X) T_{cr} 382 (TABLE IX & X)

LINE	1st		2nd		3rd					
1 Q_m	.192	.193	[illegible]	[illegible]	[illegible]	.583	[illegible]	[illegible]		
2 T_w (W.H. °R)	[illegible]	534	534	534	[illegible]	[illegible]	[illegible]	[illegible]		
3 T_s (B.H. °R)	559	559	[illegible]	[illegible]	[illegible]	559	[illegible]	[illegible]		
4 $T = (\frac{T_w + T_s}{2})$	[illegible]	547	547	547	[illegible]	[illegible]	[illegible]	547		
5 Z (Est.)	.901	.898	.898	.915	.915	.921	.921	.934		
6 TZ	492.4	490.8	490.8	500.0	500.0	503.7	503.7	[illegible]		
7 GH/TZ	3.408	3.419	3.419	3.356	3.356	3.334	3.334	[illegible]		
8 e^s (Table XIV)	1.136	1.137	1.137	1.134	1.134	1.133	1.133	1.131		
9 $1-e^{-s}$ (Table XIV)	.120	.120	.120	.118	.118	.118	.118	.116		
10 P_t	[illegible]	562.2	467.2	467.2	429.2	429.2	[illegible]	[illegible]		
11 $P_t^2/1000$	[illegible]	[illegible]	218.3	[illegible]	184.2	184.2	[illegible]	[illegible]		
12 F_r (Table XV)	[illegible]	[illegible]	[illegible]	[illegible]	.010763	[illegible]	[illegible]	[illegible]		
13 $F_c = F_r TZ$	5.300	5.282	5.282	5.382	5.382	5.417	5.417	5.494		
14 $F_c Q_m$	1.018	1.014	2.625	2.675	3.170	3.191	4.052	4.109		
15 $L/H (F_c Q_m)^2$	1.035	1.028	6.891	7.155	10.649	10.181	16.420	16.887		
16 $F_w = L/H (F_c Q_m)^2 (1-e^{-s})$	.1242	.1238	.8293	.8460	1.188	1.196	1.930	1.959		
17 $P_w^2 = P_t^2 + F_w$	316.2	316.2	219.1	219.1	185.4	185.4	130.2	130.3		
18 $P_s^2 = e^s P_w^2$	359.3	359.4	249.1	248.5	210.3	210.1	147.6	147.4		
19 P_s	599.4	599.5	499.1	498.5	458.5	458.4	384.2	383.9		
20 $P = (\frac{P_t + P_s}{2})$	580.8	580.9	483.1	483.9	443.9	443.8	371.2	371.0		
21 $P_r = (P/P_{cr})$	.87	.87	.72	.72	.66	.66	.55	.55		
22 $T_r = (T/T_{cr})$	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43		
23 Z (Table XI)	.898	.898	.915	.915	.921	.921	.934	.934		