Submit in duplicate to appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

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Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator	H. L. BROWN				Lease or Unit Name	FED. B			
Type Test: ☑ Initial ☐ Annual ☐ Special					Test Date: 3/22/04	Well No.: 2			
Completion Date	Total Depth: 8025			Plug Back TD	Elevation: 4054 GL	Unit Ltr - Sec - TWP - Rge: 4 8 37			
Csg. Size: 5 1/2	Wt.: 17#	d: 4.892	Set At: 8006	Perforations: From: 8006 To: 8025		County: ROOSEVELT			
Tbg. Size: 2 7/8	Wt.: 6.5	d: 2.441	Set At: 7971	Perforations: From: To:		Pool:			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple: SINGLE				Packer Set At: 7935		Formation: WOLF CAMP			
Producing Thru: TBG	Reservoir Temp.°F: 136 @ 7971		Mean Annual Temp. °F: 60	Baro. Press.-P_a: 13.2		Connection: SALEA			
L: 7971	H: 7971	Gg: 0.715	%CO_2: 0	%N_2: 0	%H_2S: N/A	Prover: N/A	Meter Run: 4.026	Taps: FLG	

	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					1319		PKR		48 HRS
1	4 X 1.500	93	21.5	64	110		"		24 HRS
2							"		
3							"		
4							"		
5									

RATE OF FLOW CALCULATIONS

No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor F_g	Super Compress Factor F pv	Rate of Flow Q. Mcfd
1	10.84	47.78	106.2	0.9962	1.183	1.011	617
2							
3							
4							
5							

No.	P_r	Temp. °R	T_r	Z
1	0.15	524	1.31	0.978
2				
3				
4				
5				

Gas Liquid Hydrocarbon Ratio: 308.5 Mcf bbl.
A.P. I. Gravity of Liquid Hydrocarbons: 61.2 @ 60 Deg.
Specific Gravity Separator Gas: 0.715 XXXXXXX
Specific Gravity Flowing Fluid: XXXXX GMIX = .724
Critical Pressure: 668 P.S.I.A. 668 P.S.I.A.
Critical Temperature: 395 R. 398 R

P_c 1332.2 P_c^2 1774.8

No.	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		139.6	19.5	1775.3
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ 1.011 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 1.011

AOF = Q 79825 $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n =$ 0.624

Absolute Open Flow: 624 Mcfd @ 15.025 Angle of Slope θ: 45 Slope n: 1

Remarks: WELL PRODUCED 2.0 BBLS 61.2 API GR. CONDENSATE

Approved By Division:	Conducted By:	Calculated By:	Checked By:
	Pro Well Testing & Wire Line	BM	BM

O COMPANY : H. L. BROWN LEASE : FED. B WELL NO. : 2

UNIT : SECTION : 4 TOWNSHIP : 8

L : 7971 H : 7971 L/H : 1 G/GMIX : 0.724

%CO2 : 0 %N2 : 0 H2S : DATE :3-23-04

d : 2.441 Fr :0.010763 GH : 5771.0 RANGE : 37

VOL 1 : 617 PSIA 1 : 123.2 RESV.TEMP 153.7

VOL 2 : PSIA 2 :

VOL 3 : PSIA 3 : SHUT-IN PR= 1332.2

VOL 4 : PSIA 4 :

PCR : 668

TCR : 398

LINE	RATE 1		RATE 2		RATE 3		RATE 4	
	`1ST	`2ND	`1ST	``2ND	`1ST	`2ND	`1ST	`2ND
1 QM	0.617	0.617	0.000	0.000	0.000	0.000	0.000	0.000
2 TW	534	534	534	534	534	534	534	534
3 Ts	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.7
4 T	573.9	573.9	573.9	573.9	573.9	573.9	573.9	573.9
PR (est)	0.18		0.00		0.00		0.00	
5 Z(est)	0.955	0.951	ERR	ERR	ERR	ERR	ERR	ERR
6 TZ	548.1	545.9	ERR	ERR	ERR	ERR	ERR	ERR
7 GH/TZ	10.529	10.572	ERR	ERR	ERR	ERR	ERR	ERR
8 eS	1.484	1.487	ERR	ERR	ERR	ERR	ERR	ERR
9 1-e-S	0.326	0.327	ERR	ERR	ERR	ERR	ERR	ERR
10 Pt	123.2	123.2	0.0	0.0	0.0	0.0	0.0	0.0
11 Pt2 /1000	15.2	15.2	0.0	0.0	0.0	0.0	0.0	0.0
12 Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.0107631
13 Fc=FrTZ	5.899	5.875	ERR	ERR	ERR	ERR	ERR	ERR
14 FcQm	3.64	3.63	ERR	ERR	ERR	ERR	ERR	ERR
15 L/H(FcQm)	13.2	13.1	ERR	ERR	ERR	ERR	ERR	ERR
16 Fw	4.321908	4.301106	ERR	ERR	ERR	ERR	ERR	ERR
17 Pw2	19.5	19.5	ERR	ERR	ERR	ERR	ERR	ERR
18 Ps2	28.9	29.0	ERR	ERR	ERR	ERR	ERR	ERR
19 Ps	170.1	170.2	ERR	ERR	ERR	ERR	ERR	ERR
20 P	146.7	146.7	ERR	ERR	ERR	ERR	ERR	ERR
21 Pr	0.22	0.22	ERR	ERR	ERR	ERR	ERR	ERR
22 Tr	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
23 Z	0.951	0.951	ERR	ERR	ERR	ERR	ERR	ERR

Pc = 1332.2 Pc2 = 1774.8

Pt2 = 15.2 Pw = 139.6

0.0 ERR

0.0 ERR

0.0 ERR

Pc2-Pw2= 1755.3 Pw2 = 19.5

ERR ERR

ERR ERR

ERR ERR

n = 1.000

Pc2/(Pc2-Pw2) = 1.011

ERR

ERR

ERR

[Pc2/Pc2-Pw2]n = 1.011

ERR

ERR

ERR

AOF= Q 0.624

ERR

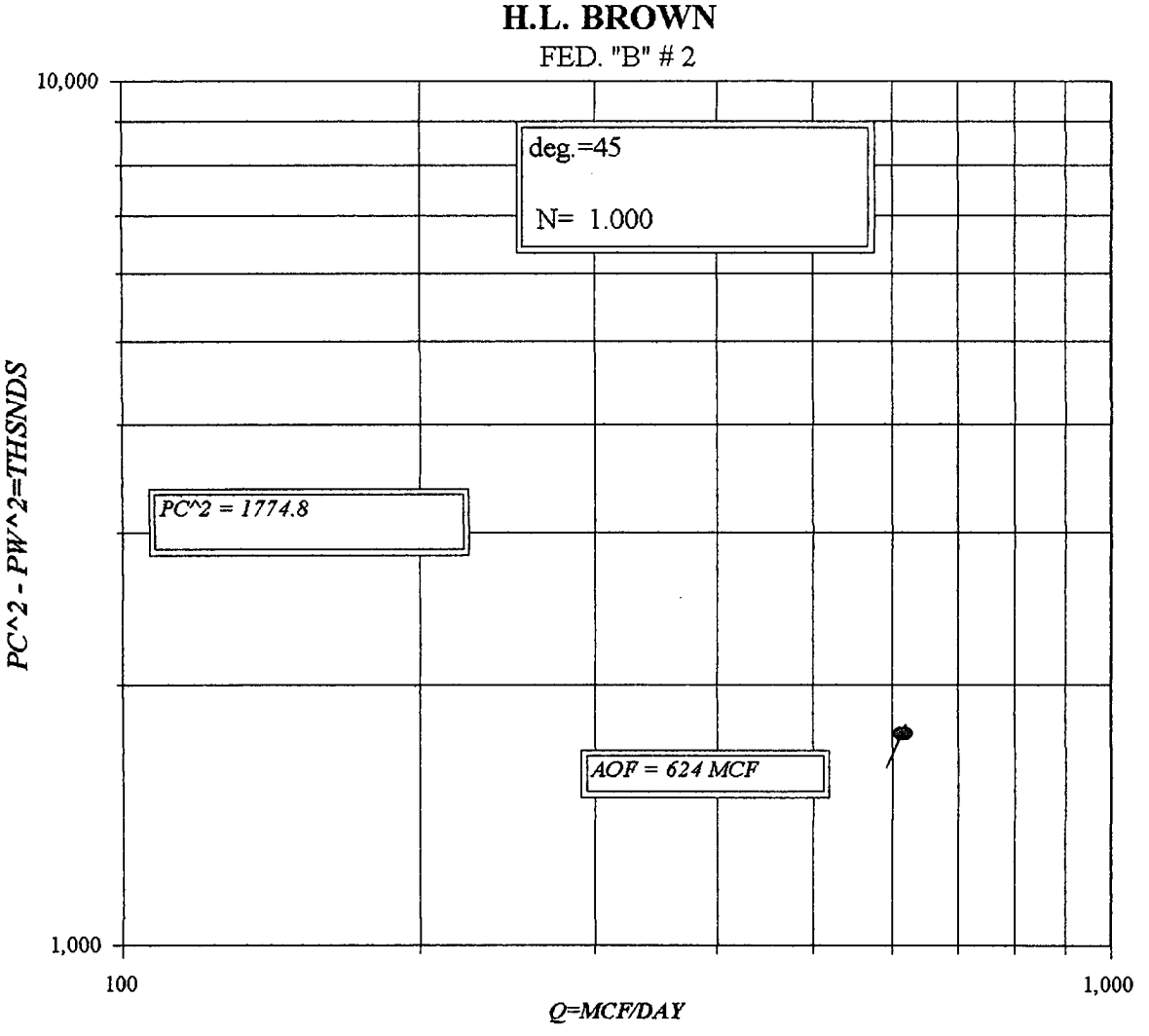
ERR

ERR

FORM C122-D

NEW MEXICO G.O.R./G. MIX

NO. OF BBLS PRODUCED	=	2.0
API GRAVITY @ 60 DEG.	=	61.2
SPECIFIC GRAVITY OF GAS	=	0.7150
TOTAL GAS PRODUCED	=	617
G.O.R.	=	308.500
G.MIX	=	0.724


H.L. BROWN
FED. "B" # 2
10,000
1,000
100
1,000
deg.=45
N= 1.000
PC^2 = 1774.8
AOF = 624 MCF
PC^2 - PW^2=THSNDS
Q=MCF/DAY