

KANSAS CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM G-1
8-7-58

TYPE TEST: <input type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		TEST DATE: 01/08/2000	
COMPANY Horseshoe Operating Inc		LEASE Mai	WELL NO. #1
COUNTY Hamilton	LOCATION NE	SECTION 8 23S 41W	TWP RNG ACRES 640
FIELD Bradshaw	RESERVOIR Winfield	PIPELINE CONNECTION KN	
COMPLETION DATE 11-20-99	PLUG BACK DEPTH TOTAL DEPTH	2607 2608	PACKER SET AT
CASING SIZE 4.500	WT. 10.500	ID 4.052	SET AT 2607
TUBING SIZE 2.375	WT. 4.700	ID 1.995	SET AT 2591
TYPE COMPLETION (Describe) New Well		TYPE FLUID PRODUCTION Gas	
PRODUCING THRU (Annulus/Tubing) Casing		RESERVOIR TEMPERATURE F 95	BAR PRESS - Pa 14.4 psia
GAS GRAVITY - Gg .803	% CARBON DIOXIDE .026	% NITROGEN 35.907	API GRAVITY OF LIQUID
VERTICAL DEPTH (ft) 2511	TYPE METER CONN. Flange		METER RUN SIZE 3"
REMARKS Perforated @ 2506-17; 42-49; 54-56; 61-69; 78-87			

OBSERVED SURFACE DATA

RATE NO.	ORIFICE SIZE in.	(METER) PRESSURE psig	DIFF. (h _w) (h _t)	FLOWING TEMP. t.	WELLHEAD TEMP. t.	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w) (P _t) (P _c) psia	psig	(P _w) (P _t) (P _c) psia		
SHUT-IN						200	213			76.30	
1.	1.000	42.00	12.00	68		191	204			.50	
2.	1.000	44.00	32.00	68		181	194			.50	
3.	1.000	47.00	56.00	65		173	186			.50	
4.	1.000	50.00	80.00	60		157	170			.50	

FLOW STREAM ATTRIBUTES

RATE NO.	COEFFICIENT (F _b) Mcfd	(METER) PRESSURE psia	EXPENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW Q Mcfd	GOR	G _m
1.	4.910	55.3	25.76	1.1159	.9924	1.0038	140		.803
2.	4.910	57.3	42.82	1.1159	.9924	1.0042	233		.803
3.	4.912	60.3	58.11	1.1159	.9952	1.0045	318		.803
4.	4.910	63.3	71.16	1.1159	1.0000	1.0048	391		.803

PRESSURE CALCULATION

RATE NO.	P _t psia	P _c psia	P _w psia	(P _c) ² Thousands	(P _w) ² Thousands	PLOTTING POINTS		% SHUT-IN 100 $\left[\frac{P_w - P_a}{P_c - P_a} \right]$
						(P _c) ² - (P _w) ² Thousands	Q Mcfd	
1.	204.3	213.3	204.4	45.5	41.8	3.7	140.6	95.6
2.	194.3	213.3	194.6	45.5	37.9	7.6	233.8	90.7
3.	186.3	213.3	186.9	45.5	34.9	10.6	318.4	86.8
4.	170.3	213.3	171.3	45.5	29.3	16.2	391.8	79.0

INDICATED WELLHEAD OPEN FLOW

856

Mcfd @ 14.65 psia

"n" =

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated herein and that said report is true and correct. Executed this the 11 day of Feb, 2000

Witness (if any)

For Commission

Original - Wichita
Copy - Dodge City
Copy - Horseshoe Operating Co.

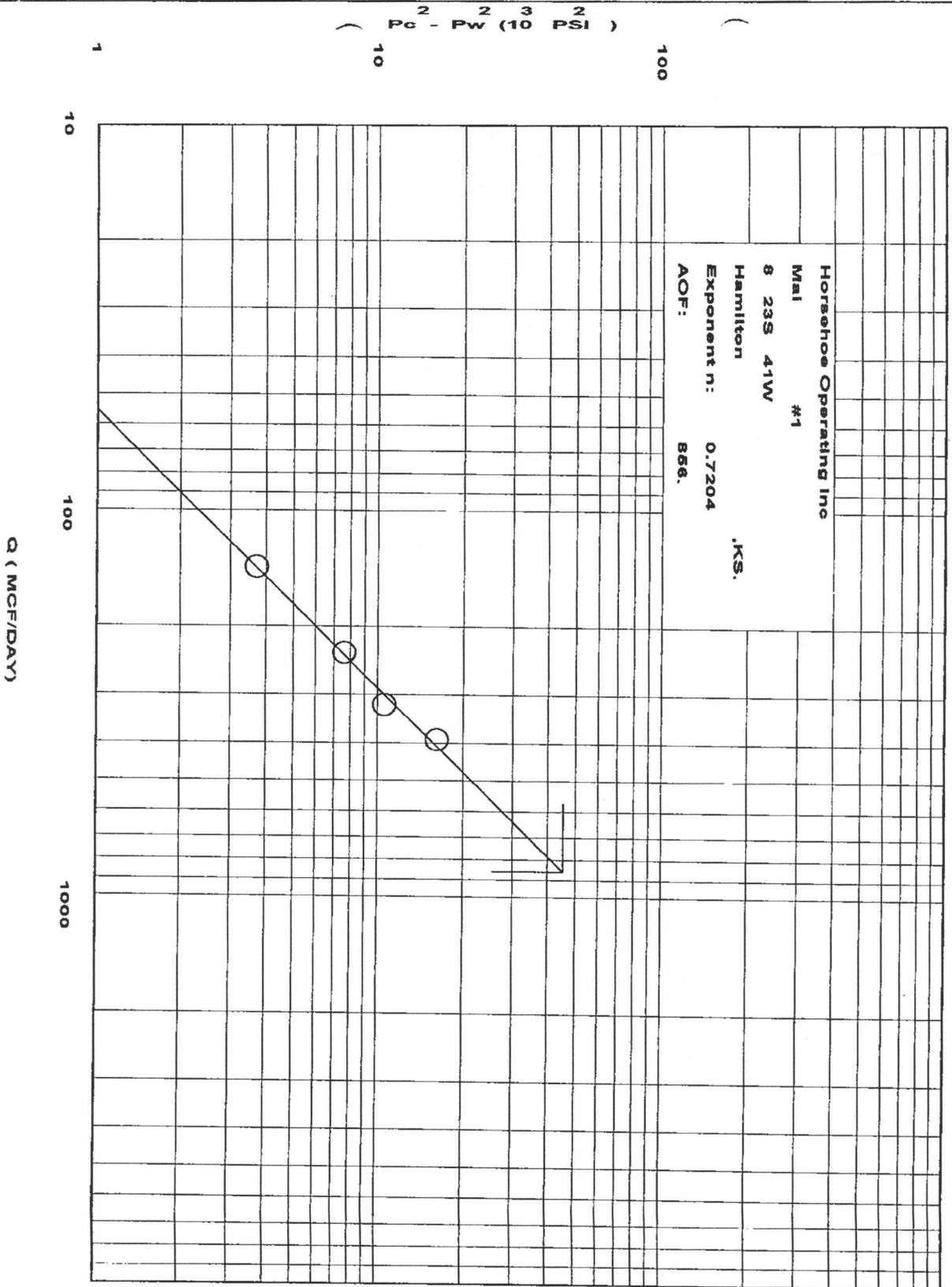
Paul [Signature]
For Company

Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER:
TEST DATE: 01/08/2000

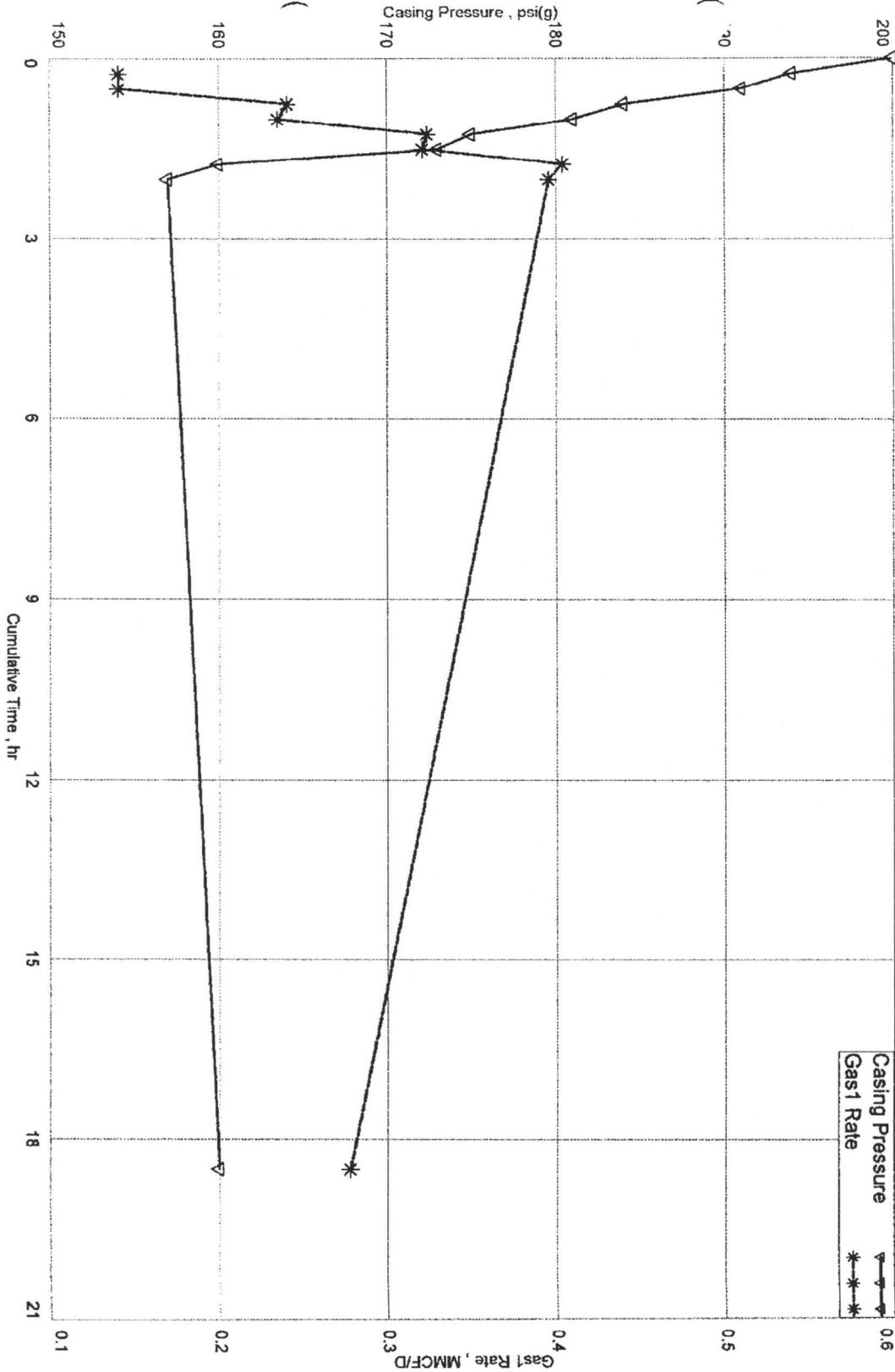
Horseshoe Operating Inc
 Mail #1
 S 23S 41W
 Hamilton, KS.
 Exponent n: 0.7204
 AOF: 856.



Horseshoe Operating Company
8-23s-41w C/NE Hamilton county Kansas
Start Test Date: 2000/01/08
Final Test Date: 2000/01/09

Plot

Mai #1



Horseshoe Operating Company
 8-23s-41w C/NE Hamilton county Kansas
 Start Test Date: 2000/01/08
 Final Test Date: 2000/01/09

FieldNotes

Mai #1

Field Measurements

Date	Clock Time	Comments	Casing		Static1		Diff1		Meter1	Gas1
			Pres	psi(g)	Pres	psi(g)	Pres	in of H2O	Temp °F	MMCF/D
1 2000/01/08		Shutin								
2 2000/01/08	15:15:00		200.00						70.00	
3	15:30:00		194.00		42.00		12.00		70.00	0.141
4		1st pt								
5	15:45:00		191.00		42.00		12.00		68.00	0.141
6	16:00:00		184.00		45.00		33.00		68.00	0.241
7		2nd pt								
8	16:15:00		181.00		44.00		32.00		68.00	0.235
9	16:30:00		175.00		47.00		57.00		65.00	0.324
10		3rd pt								
11	16:45:00		173.00		47.00		56.00		65.00	0.321
12	17:00:00		160.00		51.00		82.00		60.00	0.404
13		4th pt								
14	17:15:00		157.00		50.00		80.00		60.00	0.396
15 2000/01/09		1pt								
16 2000/01/09	09:45:00		160.00		48.00		41.00		59.00	0.278