

KANSAS CORPORATION COMMISSION  
MULTIPOINT BACK PRESSURE TEST

FORM G-1  
8-7-58

TYPE TEST: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special	TEST DATE: 01-31-01				
COMPANY Horsehoe Operating Inc	LEASE Lewis	WELL NO. 2			
COUNTY Hamilton	LOCATION SE	SECTION 7-22S-41W	TWP RNG ACRES	2717 2755	
FIELD Bradshaw	RESERVOIR Winfield	PIPELINE CONNECTION Oneok			
COMPLETION DATE 10/22/00	PLUG BACK DEPTH TOTAL DEPTH	2782	PACKER SET AT		
CASING SIZE 4.500	WT. 10.500	ID 4.000	SET AT 2794	PERF. 2717	TO 2755
TUBING SIZE 2.380	WT. 4.700	ID 1.995	SET AT 2695	PERF.	TO
TYPE COMPLETION (Describe) New Well - Gas	TYPE FLUID PRODUCTION				
PRODUCING THRU (Annulus/Tubing) Annulus	RESERVOIR TEMPERATURE F 90			BAR PRESS - Pa 14.4 psia	
GAS GRAVITY - Gg .772	% CARBON DIOXIDE .063	% NITROGEN 29.573		API GRAVITY OF LIQUID	
VERTICAL DEPTH (H) 2736	TYPE METER CONN. Flange			METER RUN SIZE 3.068	
REMARKS					

OBSERVED SURFACE DATA

RATE NO.	ORIFICE SIZE in.	(METER) PRESSURE psig	DIFF. (h <sub>w</sub> ) (h <sub>t</sub> )	FLOWING TEMP. t.	WELLHEAD TEMP. t.	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbbls.
						psig	(P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> ) psia	psig	(P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> ) psia		
SHUT-IN						94	108				
1.	1.000	45.00	2.00	34		94	108			.50	
2.	1.000	46.00	4.00	38		85	99			.50	
3.	1.000	46.00	7.00	40		82	96			.50	
4.	1.000	46.00	18.00	45		76	90			.50	

FLOW STREAM ATTRIBUTES

RATE NO.	COEFFICIENT (F <sub>b</sub> ) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW Q Mcfd	GOR	G <sub>m</sub>
2.	4.912	60.4	15.54	1.1383	1.0218	1.0054	89		.772
3.	4.912	60.4	20.56	1.1383	1.0198	1.0054	117		.772
4.	4.912	60.4	32.97	1.1383	1.0147	1.0052	188		.772

PRESSURE CALCULATION

RATE NO.	P <sub>t</sub> psia	P <sub>c</sub> psia	P <sub>w</sub> psia	(P <sub>c</sub> ) <sup>2</sup> Thousands	(P <sub>w</sub> ) <sup>2</sup> Thousands	PLOTING POINTS		% SHUT-IN 100 $\left[ \frac{P_w - P_a}{P_c - P_a} \right]$
						(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> Thousands	Q Mcfd	
1.	108.4	108.4	108.5	11.8	11.8		62.8	100.1
2.	99.4	108.4	99.5	11.8	9.9	1.8	89.3	90.6
3.	96.4	108.4	96.6	11.8	9.3	2.4	117.9	87.5
4.	90.4	108.4	91.0	11.8	8.3	3.5	188.1	81.4

INDICATED WELLHEAD OPEN FLOW

771

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 9 day of Feb, 19 2001

Witness (if any)

For Company

For Commission

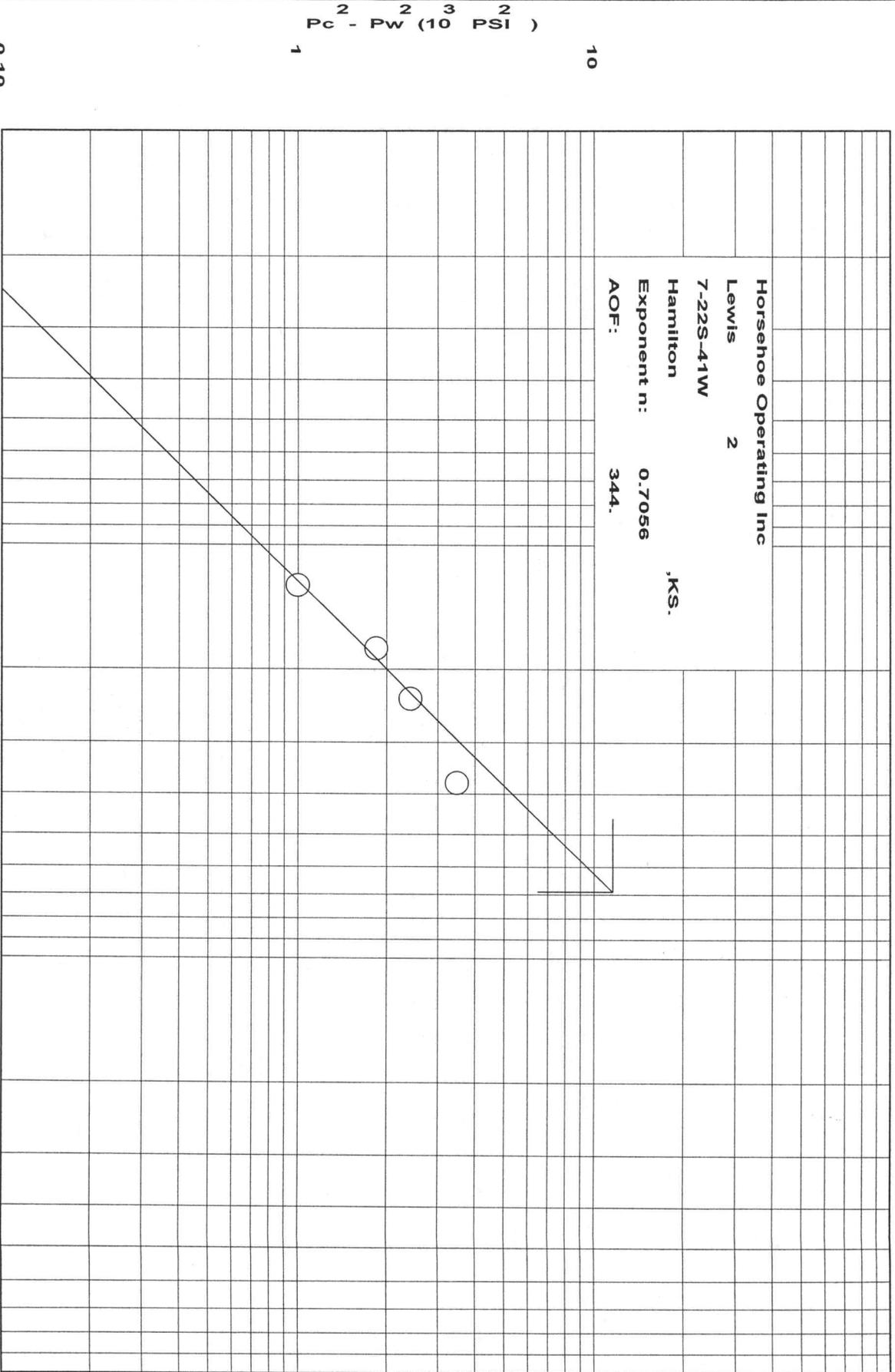
Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER:

TEST DATE: 01-31-01

Horsehoe Operating Inc  
 Lewis 2  
 7-22S-41W  
 Hamilton, KS.  
 Exponent n: 0.7056  
 AOF: 344.



$P_c - P_w (10 \text{ PSI})$

0.10

5

50

500

Q ( MCF/DAY )

Horseshoe Operating  
 7-22S-41W Hamilton co Kansas  
 Start Test Date: 2001/01/31  
 Final Test Date: 2001/02/01

# FieldNotes Field Measurements

Lewis #2

Date	Clock Time	Comments	Casing Pres psi(g)	Static1 Pres psi(g)	Diff1 Pres in of H2O	Meter1 Temp °F	Gas1 Rate MMCF/D	Orifice1 in
1	2001/01/31 09:45:00	Shutin						
2	09:45:00		94.00	0.00	0.00	0.00	0.000	1.000
3	09:55:00		91.00	46.00	3.00	29.00	0.078	
4	10:05:00		90.00	46.00	2.00	32.00	0.063	
5	10:15:00	1st pt						
6	10:15:00		89.00	45.00	2.00	34.00	0.063	
7	10:25:00		88.00	46.00	3.00	35.00	0.077	
8	10:35:00		86.00	46.00	4.00	36.00	0.089	
9	10:45:00	2nd pt						
10	10:45:00		85.00	46.00	4.00	38.00	0.089	
11	10:55:00		85.00	46.00	5.00	39.00	0.099	
12	11:05:00		83.00	46.00	7.00	40.00	0.117	
13	11:15:00	3rd pt						
14	11:15:00		82.00	46.00	7.00	40.00	0.117	
15	11:25:00		81.00	46.00	9.00	40.00	0.133	
16	11:35:00		78.00	46.00	15.00	43.00	0.171	
17	11:45:00	4th pt						
18	11:45:00		76.00	46.00	18.00	45.00	0.187	
19	2001/02/01 10:00:00	1pt						
20	10:00:00		84.00	45.00	2.00	37.00	0.062	

2001/01/31 09:45:00 To 2001/02/01 10:00:00  
 Gas 0.009 Cum. 0.009 MMCF

