

STATE OF KANSAS - CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM CG-1

15-005-20060-0000

TYPE TEST: Initial Annual Special TEST DATE: 7/6/88

COMPANY Fairway Petroleum, Inc. LEASE HUND WELL NO. 1-1

COUNTY Atchison LOCATION SW SE NW SECTION 23 TWP 7S RNG 21E ACRES 405

FIELD RESERVOIR McLouth (probably) PIPELINE CONNECTION LAGGS, Inc.

COMPLETION DATE 4/12/88 PLUG BACK TOTAL DEPTH 1347 PACKER SET AT

CASING SIZE 4 1/2" WT. ID. SET AT 1347 PERF. TO 1267.5

TUBING SIZE WT. ID. SET AT PERF. TO

TYPE COMPLETION (Describe) Perforation TYPE FLUID PRODUCTION water

PRODUCING THRU 4 1/2" casing RESERVOIR TEMPERATURE 75° BAR PRESS - P_a 14.4 Psia

GAS GRAVITY - G_g 0.5929 % CARBON DIOXIDE n/a % NITROGEN 4.9% API GRAVITY OF LIQUID

VERTICAL DEPTH (H) 1347 TYPE METER CONN. none (PROVER) SIZE 2"

REMARKS Tests rates varied significantly as water made accurate readings almost impossible

OBSERVED DATA DURATION OF SHUT-IN 72 HR.

RATE NO.	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DISP. (h _w) (h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _i)(P _c) psia	psig	(P _w)(P _i)(P _c) psia		
SHUT IN						458.0	472.4			72	
1	0.50	442.0	-	75	75	442.0	456.4			1.5	
2	0.75	411.0	-	75	75	411.0	425.4			1.5	
3	1.00	360.0	-	75	75	360.0	374.4			1.5	
4	1.25	301.0	-	75	75	301.0	315.4			1.5	
5											

RATE OF FLOW CALCULATIONS

RATE NO.	COEFFICIENT (F _o)(F _p) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION √P _m shw	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW Q Mcfd	GOR	Q _m
1	4.388	456.4	-	1.299	0.985	1.024	2623		
2	9.694	425.4	-	1.299	0.985	1.020	5381		
3	17.53	374.4	-	1.299	0.985	1.015	8522		
4	28.34	315.4	-	1.299	0.985	1.015	11606		
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PRESSURE CALCULATIONS

RATE NO.	P _i psia	P _c psia	P _w psia	(P _c) ² THOUSANDS	(P _w) ² THOUSANDS	PLOTING POINTS		100 [P _w -P _a / P _c -P _a]
						(P _c) ² - (P _w) ² THOUSANDS	Q Mcfd	
1		472.4	456.4	223.2	208.3	14.9	2623	
2		472.4	425.4	223.2	181.0	42.2	5381	
3		472.4	374.4	223.2	140.0	83.0	8522	
4		472.4	315.4	223.2	99.5	123.7	11606	
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INDICATED WELLHEAD OPEN FLOW 17250 Mcfd @ 14.85 psia GOR = 0.700

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 therein, and that said report is true and correct.

Executed this the 8 day of September, 1988

Jeffrey M. Keith
for Company

Witness (if any)

FAIRWAY PETROLEUM

Hund 1-1

46 7202

KE LOGARITHMIC 2 X 2 CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

