

**STATE OF KANSAS - CORPORATION COMMISSION**  
**ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

FORM O-2  
8-7-58  
P2  
5-23-89

15-005-20040-0000

**TYPE TEST:**  Deliverability  Open Flow      **TEST DATE:** April 20, 1989

**COMPANY:** FAIRWAY PETROLEUM, INC      **LEASE:** Bracke      **WELL NO.:** 2

**COUNTY:** Atchison      **LOCATION:** SW 1/4      **SECTION:** 24      **TWP:** 7S      **RNG:** 21E      **ACRES:** 40

**FIELD:** McLouth      **RESERVOIR:** McLouth      **PIPELINE CONNECTION:** LAGGS INC.

**COMPLETION DATE:** 3/30/84 (oil only)      **PLUG BACK TOTAL DEPTH:**      **PACKER SET AT:**

**CASING SIZE:** WT.      I.D. 4 1/2"      SET AT 1485      PERF. 1374-1376, 1384-1388, 1389-1392      TO

**TUBING SIZE:** WT.      I.D. 2 3/8"      SET AT 1410      PERF.      TO

**TYPE COMPLETION (Describe):** Perforation      **TYPE FLUID PRODUCTION:** Oil

**PRODUCING THRU:** 2 3/8" Tubing      **RESERVOIR TEMPERATURE F:** 77      **BAR. PRESS - P<sub>a</sub>:** 14.4 Psia

**GAS GRAVITY - G<sub>g</sub>:** 0.5813      **% CARBON DIOXIDE:** .23      **% NITROGEN:** 3.95      **API GRAVITY OF LIQUID:** 19.8

**VERTICAL DEPTH (ft):** 1485      **TYPE METER CONN.:** None      **(METER RUN)(PROVER) SIZE:** 2"

**SHUT-IN PRESSURE:** SHUT IN April 12, 1989 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)  
 FLOW TEST: STARTED April 19, 1989 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)

**OBSERVED DATA**

DURATION OF SHUT-IN 24 HR.

SHUT-IN OR FLOW	ORIFICE SIZE In.	(METER) (PROVER) PRESSURE psig	DIFF. In. (h <sub>w</sub> Xh <sub>d</sub> )	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P <sub>w</sub> )(P <sub>f</sub> )(P <sub>c</sub> ) psig	psig	(P <sub>w</sub> )(P <sub>f</sub> )(P <sub>c</sub> ) psig		
SHUT-IN						205	219.4			24	
FLOW	.75	35	--	77	77	*35	49.4			1	

\*Oil makes data recovery almost impossible.

**RATE OF FLOW CALCULATIONS**

COEFFICIENT (F <sub>1</sub> )(F <sub>2</sub> ) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP. FACTOR F <sub>L</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcfd
9.694	49.4	--	1.3116	0.9834	1.0025	619

RECEIVED  
 STATE CORPORATION COMMISSION  
 MAY 22 1989  
 CONSERVATION DIVISION  
 Wichita, Kansas

**(OPEN FLOW) (DELIVERABILITY) CALCULATIONS**

(P<sub>c</sub>)<sup>2</sup> = 48.1 ; (P<sub>w</sub>)<sup>2</sup> = 2.5 ; P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>c</sub>)<sup>2</sup> = 0.207 ; (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
	45.6			0.85			639.9

**OPEN FLOW** 639.9 Mcfd @ 14.65 psia      **DELIVERABILITY** Mcfd @ 14.65 psia

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 26 day of April, 1989

*[Signature]*  
 For Company

Witness (if any)

Checked by