

**ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

**TYPE TEST:**  Deliverability  Open Flow **TEST DATE:** April 16, 1990

**COMPANY:** Fairway Petroleum, Inc. **LEASE:** Ketchum **WELL NO.:** 1

**COUNTY:** Leavenworth **LOCATION:** SW SE NE **SECTION:** 18 **TWP:** 8S **RNG:** 22E **ACRES:** 49.3

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

**COMPLETION DATE:** 11/18/85 **PLUG BACK TOTAL DEPTH:** 1291 **PACKER SET AT:**

**CASINO SIZE:** WT. 4 1/2" I.D. SET AT 1291 **PERF. TO:** 1238-1242 & 1249-1255

**TUBING SIZE:** WT. 2 3/8" I.D. SET AT 1231 **PERF. TO:**

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

**PRODUCING THRU:** 2 3/8" Tubing **RESERVOIR TEMPERATURE F:** 72° **BAR. PRESS - P<sub>a</sub>:** 14.4 Psia

**GAS GRAVITY - G<sub>g</sub>:** 0.5915 **% CARBON DIOXIDE:** .25 **% NITROGEN:** 3.17 **API GRAVITY OF LIQUID:** 21.5

**VERTICAL DEPTH (H):** 1291 **TYPE WTR. CONN.:** Flange **(METER RUN)(PROVER) SIZE:** 2"

**SHUT-IN PRESSURE: SHUT IN:** April 8, 1990 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)

**FLOW TEST: STARTED:** April 17, 1990 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> /h <sub>d</sub> )	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASINO WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						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						121	135.4			24	
FLOW	.75	46	16	71.7	71.7	92	106.4			24	

**RATE OF FLOW CALCULATIONS**

COEFFICIENT (F <sub>p</sub> )(F <sub>d</sub> ) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION √P <sub>a</sub> h <sub>w</sub>	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP. FACTOR F <sub>L</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcfd	GOR	G <sub>m</sub>
2.779	60.4	31.1	1.3002	0.9889	1.005	111.7		

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

(P<sub>c</sub>)<sup>2</sup> = 18.3 ; (P<sub>w</sub>)<sup>2</sup> = 11.3 ; P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>a</sub>)<sup>2</sup> = 0.207 ; (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
	7.0			0.85			286.2

**OPEN FLOW** 286.2 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 said report is true and correct.

Executed this the 29 day of May, 1990

Witness (if any)

CONSERVATION DIVISION  
 Wichita, Kansas

*Geoffrey M. Hart*  
 For Company

Checked by