

15-103-20666-00-00
STATE OF KANSAS - CORPORATION COMMISSION

FORM O-2
 8-7-88

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 P9
 5-23-89

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

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

COMPANY: Fairway Petroleum, Inc. **LEASE:** Ryan **WELL NO.:** 2

COUNTY: Leavenworth **LOCATION:** NE **SECTION:** 33 **TWP:** 8S **RNG:** 22E **ACRES:** 27

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

COMPLETION DATE: 7/2/86 **PLUG BACK TOTAL DEPTH:** 1256 **PACKER SET AT:**

CASING SIZE: WT. 4 1/2" I.D. **SET AT:** 1256 **PERF.:** 1196 **TO:** 1204

TUBING SIZE: WT. I.D. **SET AT:** **PERF.:** **TO:**

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

PRODUCING THRU: 4 1/2" Casing **RESERVOIR TEMPERATURE F:** 76° **BAR. PRESS - P_a:** 14.4 Psia

GAS GRAVITY - G_g: 0.5826 **% CARBON DIOXIDE:** N.A. **% NITROGEN:** N.A. **API GRAVITY OF LIQUID:**

VERTICAL DEPTH (H): 1256 **TYPE METER CONN.:** Flange **(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 20, 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 _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						115.0	129.4			24	
FLOW	1.25	45	5.5	76	76	87.0	101.4			24	

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	STATE CORRECTION	CONSERVATION DIVISION
8.329	59.4	18.1	1.2982	0.9843	1.0076	194.1	MAY 22 1989	Wichita, Kansas

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 16.7 ; (P_w)² = 10.3 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_w)² = 0.207 ; (P_d)² = _____

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
6.4				0.85			507

OPEN FLOW: 507 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 20 day of April, 1989.

[Signature]
 For Company

Witness (if any)

Checked by