

STATE OF KANSAS - CORPORATION COMMISSION

FORM O-2
8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

15-005-20040-0000

TYPE TEST: Deliverability Open Flow TEST DATE: April 20, 1990

COMPANY: Fairway Petroleum, Inc. LEASE: Bracke WELL NO.: 2

COUNTY: Atchison LOCATION: SW 1/4 SECTION: 24 TWP: 7S R10: 21E ACRES: 40

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

COMPLETION DATE: 3/30/84 (oil only) PLUG BACK TOTAL DEPTH: 1485 PACKER SET AT: _____

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

TUBING SIZE: WT. LD. SET AT PERF. TO
2 3/8" 1410

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

PRODUCING THRU: 2 3/8" Tubing RESERVOIR TEMPERATURE F: 77 BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: 0.5813 % CARBON DIOXIDE: .23 % NITROGEN: 3.95 API GRAVITY OF LIQUID: 19.8

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

SHUT-IN PRESSURE: SHUT IN April 17, 1990 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)
FLOW TEST: STARTED April 19, 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 _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						203	217.4			24	
FLOW	.75	36	----	77	77	36(1)	50.4			1	

(1) Oil makes data recovery almost impossible

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) / Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION √P _m h _w	GRAVITY FACTOR F _g	FLOWING TEMP. F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R / Mcfd	GOR	G _m
9.694	50.4	-----	1.3116	0.9834	1.0025	631.8		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 47.3, (P_w)² = 2.5, P_d = _____ % (P_c - 14.4) + 14.4 = _____ (P_w)² = 0.207 (P_d)² = _____

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R = ANTILOG Mcfd
	44.8			0.85			653.7

OPEN FLOW 653.7 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 this report is true and correct.

Executed this the 12 day of May, 1990.

STATE OF KANSAS

Witness (if any)

MAY 29 1990

[Signature]
Checked by

CONSERVATION DIVISION
Wichita, Kansas