

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

FORM O-2
8-7-58

15-103-20895-0000

TYPE TEST: Deliverability Open Flow TEST DATE: March 30, 1988

COMPANY: MID-GULF, INC. LEASE: Caraway WELL NO.: 1

COUNTY: Leavenworth LOCATION: ne-sw-sw SECTION: 1 TWP: 10S RNO: 22E ACRES:

FIELD: Fairmount RESERVOIR: McLouth PIPELINE CONNECTION: Mid-Gulf

COMPLETION DATE: PLUG BACK TOTAL DEPTH: PACKER SET AT:

CASINO SIZE: 4 1/2" WT. 10.5 L.D. SET AT 1180 PERF. 1034 TO 1042

TUBING SIZE: 2 3/8" WT. L.D. SET AT PERF. TO

TYPE COMPLETION (Describe): Single RECEIVED CORPORATION COMMISSION TYPE FLUID PRODUCTION

PRODUCING THRU: Casing RESERVOIR TEMPERATURE: 90 BAR. PRESS - P_o: 14.4 Psia

GAS GRAVITY - G_g: 0.5738 SEP 10 1988 CARBON DIOXIDE: 0 NITROGEN: 4 API GRAVITY OF LIQUID:

VERTICAL DEPTH (ft): 1040 CONSERVATION DIVISION Wichita, Kansas TYPE METER CONN.: Flange (METER RUN)(PROVER) SIZE: 2"

SHUT-IN PRESSURE: SHUT IN March 27 19 88 AT (AM)(PM) TAKEN March 30 19 88 AT 10:15 am (AM)(PM)

FLOW TEST: STARTED March 30 19 88 AT 10:30 am (AM)(PM) TAKEN 19 AT (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN _____ 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	CASINO 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						314.0	328.4	283.0	297.4	24+	
FLOW	1.00	81	58	60	60	278.0	292.4	235.0	249.4	1.5	

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _o)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_{wh}h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
5.073	95.4	74.39	1.320	1.000	1.003	500		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 107.8 (P_w)² = 85.5 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 []	"a"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
107.6	22.3			0.863			2047

OPEN FLOW: 2047 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 16th day of May, 19 88.

DeWayne McCune
For Company

Witness (if any)

Checked by