

15-181-20225-00-00
STATE OF KANSAS - CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM O-2
 8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: 5-29-87

COMPANY: Goodland Gas Co. LEASE: Armstrong WELL NO.: 1-12

COUNTY: Sherman LOCATION: C NW NW SECTION: 12 TWP: 8 RNG: 39W ACRES:

FIELD: Goodland Gas RESERVOIR: Niobrara Chalk PIPELINE CONNECTION: KN ENERGY

COMPLETION DATE: 6-18-82 PLUG BACK TOTAL DEPTH: Packer set at:

CASINO SIZE WT. I.D. SET AT PERF. TO

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

TYPE COMPLETION (Describe): TYPE FLUID PRODUCTION:

PRODUCING THRU: RESERVOIR TEMPERATURE F: BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY - G_g: 1.5827 % CARBON DIOXIDE: % NITROGEN: API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): TYPE METER CONN.: F (METER RUN)(PROVER) SIZE: 2

SHUT-IN PRESSURE: SHUT IN 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)
 FLOW TEST: STARTED 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)

OBSERVED DATA

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						22.1	36.5				
FLOW	0.625	14.4	2.9	60		14.5	28.9				

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mafd	(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 Mafd	GOR	Q _m
1.914	28.8	9.14	1.31	1.0	1.011	23.17		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1332.25 (P_w)² = 835.21 P_d² = _____ % (P_c - 14.4) + 14.4 = _____ (P_a)² = 0.207 (P_d)² = _____

$\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_d)^2}$	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mafd
1124.89	497.04	2.263	.3547	.85	1.3015	2.003	46.41

OPEN FLOW 46 Mafd @ 14.65 psia DELIVERABILITY Mafd @ 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 _____ day of _____, 19__.

JUN 12 1987

Witness (if any)
 Dale E. Balthazor
 For Commission

Checked by
 CONSOLIDATION DIVISION
 Wichita, Kansas