

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

FORM O-3
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: 15-181-20267-00-00

COMPANY: Goodland Gas Co. LEASE: Armsstrong WELL NO.: 1-11 A
 COUNTY: Sherman LOCATION: SW SW NW SECTION: 11 TWP: 8 RNG: 40W ACRES:
 FIELD: Goodland Gas RESERVOIR: Niobrara PIPELINE CONNECTION: K.N. Energy

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

CASING 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 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	CASING WELLHEAD PRESS		TUBING WELLHEAD PRESS		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN						25.5	39.9				
FLOW	.500	23.9	6.5	60		24.2	38.6				

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	GOR	G _m
1.219	38.3	15.78	1.31	1.0	1.011	25.48		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1592.01, (P_w)² = 1489.96, P_d = _____ % (P_c - 14.4) + 14.4 = _____, (P_d)² = 0.207

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	(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 x ANTILOG Mcfd
1384.65	102.05	13.568	1.1325	.850	.9626	9.174	233.75

OPEN FLOW 2.34 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 _____ day of _____, 19____.

Witness (if any)
 Dale J. Baethzger
 For Commission

RECEIVED
 STATE CORPORATION COMMISSION
 JUN 9 1987
 6-9-87
 CONSERVATION DIVISION
 Wichita, Kansas
 Checked by _____