

15-181-20268-00-00
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:

COMPANY Goodland Gas Co. LEASE Armstrong WELL NO. 1-12 A
 COUNTY Sherman LOCATION SW NW SECTION 12 TWP 8 RNG 40 W ACRES
 FIELD Goodland Gas RESERVOIR Niobrara Chalk 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 % CARBON DIOXIDE % NITROGEN API GRAVITY OF LIQUID
 .5827

VERTICAL DEPTH (H) TYPE METER CONN. (METER RUN) (PROVER) SIZE
 F 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 _i)(P _c) psia	psig	(P _w)(P _i)(P _c) psia		
SHUT-IN						27.5	41.9				
FLOW	.750	25.5	4.0	60		25.6	40.0				

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _v) M _{cd}	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_{mshw}}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R M _{cd}	GOR	Q _m
2.779	39.8	12.62	1.31	1.0	1.011	46.45		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1755.61, (P_w)² = 1600.00, 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 M _{cd}
1548.25	155.61	9.950	.9978	.850	.8481	7.048	327.38

OPEN FLOW 327 M_{cd} @ 14.65 psia DELIVERABILITY 327 M_{cd} @ 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 F. Baltzger
 For Commission

JUN 9 1987
 6-9-87
 STATE CORPORATION COMMISSION
 Wichita, Kansas

Checked by _____