

15-181-20127-00-00

FORM G-2
8-7-58

8-29
6-4-87

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

TYPE TEST: Deliverability Open Flow TEST DATE: 4-25 to 5-1-87

COMPANY: Goodland Gas Company LEASE: Cebula WELL NO.: 1-15

COUNTY: Sherman LOCATION: SW 1/4, SW 1/4, NW 1/4 SECTION: 15 TWP: 8S RNO: 39W ACRES: .

FIELD: Goodland RESERVOIR: Niobrara PIPELINE CONNECTION: KN Energy

COMPLETION DATE: 4-25-82 PLUG BACK TOTAL DEPTH: 960' PACKER SET AT: None

CASINO SIZE: 2 3/8" WT. 4.7#/ft LD. SET AT 993' PERF. 934' TO 954'

TUBING SIZE: None WT. LD. SET AT PERF. TO

TYPE COMPLETION (Describe): Frac 40,000# Sd., 16,000 Gal. H2O, 300 MCF CO2 Gas TYPE FLUID PRODUCTION: Gas

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

GAS GRAVITY - G_g: 0.5827 % CARBON DIOXIDE: 1.280 % NITROGEN: 2.635 API GRAVITY OF LIQUID: --

VERTICAL DEPTH (M): TYPE METER CONN.: Orifice - flange (METER RUN) (PROVER) SIZE: 2.067

SHUT-IN PRESSURE: SHUT IN 4-25 19 87 AT 9:49 (AM)(PM) TAKEN 4-28 19 87 AT 9:34 (AM)(PM)

FLOW TEST: STARTED 4-28 19 87 AT 9:36 (AM)(PM) TAKEN 5-1 19 87 AT 9:36 (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN 72 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	--	--	--	--	--	18.0	32.4	--	--	72	--
FLOW	0.500	13.7	1.20	60	--	14.0	28.4	--	--	72	--

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _c) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR RECEIVED STATE CORPORATION COMMISSION 6-1-87
50.5	28.10	5.81	1.31	1.00	1.0004	9	

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1049.76, (P_w)² = 806.56, P_d = _____ % (P_c - 14.4) + 14.4 = _____, (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 x ANTILOG Mcfd
842.40	243.20	3.46	0.54	0.85	0.46	2.87	26

OPEN FLOW 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 15 day of May, 1987

Howard D. Sullivan
For Company

Witness (if any)

Checked by