

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

FORM G-2
 6-7-50

1-3-91

TYPE TEST: Deliverability Open Flow TEST DATE: 3/09/90

COMPANY: GOODLAND GAS COMPANY LEASE: Briney WELL NO.: 1-33

COUNTY: Sherman LOCATION: SW/SW/SW SECTION: 33 TWP: 7S RNG: 39W ACRES:

FIELD: Goodland RESERVOIR: Niobrara PIPELINE CONNECTION: KNEnergy

COMPLETION DATE: 8-30-80 PLUG BACK TOTAL DEPTH: 1050 PACKER SET AT: None

CASING SIZE: 4 1/2" WT.: 9.5#/ft. I.D.: SET AT: 934 PERF.: None TO:

TUBING SIZE: None WT.: I.D.: SET AT: PERF.: TO:

TYPE COMPLETION (Describe): Open Hole TYPE FLUID PRODUCTION: Gas

PRODUCING THRU: Casing RESERVOIR TEMPERATURE: BAR. PRESS - Pa: Psia

GAS GRAVITY - Gg: 0.5837 % CARBON DIOXIDE: 1.98 % NITROGEN: 2.790 API GRAVITY OF LIQUID: --

VERTICAL DEPTH (H): TYPE METER CONN.: Orifice-Flange (METER RUN) (PROVER) SIZE: 2.067

SHUT-IN PRESSURE: SHUT IN 2/9 19: 90 AT 11:25 (AM)(PM) TAKEN 2/12 19: 90 AT 11:15 (AM)(PM) X

FLOW TEST: STARTED 2/22 19: 90 AT 8:00 (AM)(PM) TAKEN 2/23 19: 90 AT 8:00 (AM)(PM) X

OBSERVED DATA DURATION OF SHUT-IN: 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE In.	(METER) (PROVER) PRESSURE psig	DIFF. In. (hw)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELL-HEAD PRESS		TUBING WELL-HEAD PRESS		DURATION HOURS	LIQUID PROD. Bois.
						psig	(Pw)(Pi)(Pc) psia	psig	(Pw)(Pi)(Pc) psia		
SHUT-IN	--	--	--	--	--	27	41.4	--	--	72	--
FLOW	0.625	14.9	3.0	45	--	13	27.4	--	--	24	--

RATE OF FLOW CALCULATIONS

COEFFICIENT (Fb)(Zb) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR Fg	FLOWING TEMP. FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcfd	GOR	Gm
1.914	29.3	9.44	1.3089	1.015	1.0012	24	--	--

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2 = 1.714$; $(P_w)^2 = 0.751$; $P_d = --$ % $(P_c - 14.4) + 14.4 = --$; $(P_w)^2 = 0.207$; $(P_d)^2 = --$

$(P_c)^2 - (P_w)^2$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1.507	0.963	1.565	0.194	0.85	0.165	1.46	35

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 31st day of Dec, 1990.

John P. Sanders
 For Company

Witness (if any)

For Commission

Checked by