

15-181-20255-00-01
STATE OF KANSAS - CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

29
12-3-86
FORM 0-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: 6-2-86

COMPANY: GOODLAND GAS COMPANY LEASE: Dallman WELL NO.: 1-10

COUNTY: Sherman LOCATION: NE 1/4, NE 1/4, NE 1/4 SECTION: 10 TWP: 8S RNG: 40W ACRES: _____

FIELD: Goodland RESERVOIR: Niobrara PIPELINE CONNECTION: KN Energy

COMPLETION DATE: 9-20-83 PLUG BACK TOTAL DEPTH: 1261 PACKER SET AT: None

CASINO SIZE: 4 1/2" WT. 9.5#/ft. L.D. SET AT: 1267 PERF. 1122 TO 1162

TUBING SIZE: None WT. L.D. SET AT: 1168 TO 1180

TYPE COMPLETION (Describe): Frac 98,000# Sd., 13,000 gal H2O TYPE FLUID PRODUCTION: Gas

PRODUCING THRU: Casing RESERVOIR TEMPERATURE, F: 13.2 BAR. PRESS - P_a: XXXX Psia

GAS GRAVITY - G_r: 0.5837 % CARBON DIOXIDE: 1.98 % NITROGEN: 2.79 API GRAVITY OF LIQUID: _____

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

SHUT-IN PRESSURE: SHUT IN 5-19 19 86 AT _____ (AM)(PM) TAKEN 5-30 19 86 AT _____ (AM)(PM)

FLOW TEST: STARTED 5-30 19 86 AT _____ (AM)(PM) TAKEN 6-2 19 86 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	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	--	--	--	--	--	27	40.2	--	--	72+	--
FLOW	0.500	--	--	64	--	15.8	29	--	--	72	--

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _w)(F _p) / 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	Q _m
50.5	--	--	1.3089	0.9962	1.0009	39	--	--

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2} \right]$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1.442	0.775	1.860	0.270	0.500	0.135	1.364	53
				1.000	0.270	1.860	73

OPEN FLOW 53-73 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 25th day of NOV, 1986.

Robert M. Richardson
For Company

Witness (if any)

REC'D
12-5-86

Checked by