

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: 2-28-86

COMPANY: F.M.P. Operating LEASE: O'Brien WELL NO.: 1-31-

COUNTY: Cheyenne LOCATION: SECTION 31 TWP 4 RNG 41 ACRES

FIELD: Nishnaboni RESERVOIR: Nishnaboni PIPELINE CONNECTION: RN Energy

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

CASINO 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: 2.90 % CARBON DIOXIDE: % NITROGEN: API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): TYPE METER CONN.: (METER RUN)(PROVER) SIZE: 2

SHUT-IN PRESSURE: SHUT IN 2-28 1986 AT 8 (AM)(PM) TAKEN 3-3 1986 AT 8 (AM)(PM)

FLOW TEST: STARTED 3-4 1986 AT 8 (AM)(PM) TAKEN 3-5 1986 AT 8 (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						242.0	256.4				
FLOW	1/8	690	64.0		95%	236.0	244.3				

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION √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
1.371	83.4	73.059	1.302	1.000	1.000	13.0		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 65.7; (P_w)² = 59.7; P_d = _____ % (P_c - 14.4) + 14.4 = _____; (P_a)² = 0.207; (P_d)² = _____

(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
65.5	6.0	10.9167	1.0381	.929	.9644	9.2127	120.0

OPEN FLOW 120.0 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)
[Signature]
For Commission

STATE COMMISSION

MAR 18 1986

For Company
Checked by