

15-023-20087-00-00

FORM O-2
8-7-58

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

TYPE TEST: Deliverability Open Flow TEST DATE: 2-28-86

COMPANY: E.M.P. Operating LEASE: M.D.M. WELL NO.: 1-19

COUNTY: Cherokee LOCATION: SECTION: 19 TWP: 4 RNO: 41 ACRES:

FIELD: Reservoir: Niobrara 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

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

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

SHUT-IN PRESSURE: SHUT IN 2-28 19 86 AT (AM)(PM) TAKEN 3-3 19 86 AT (AM)(PM)
FLOW TEST: STARTED 3-3 19 86 AT (AM)(PM) TAKEN 3-4 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	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN						199.0	213.4				
FLOW	1/4	70	12			189.1	203.5				

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m h w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	Q _m
.3067	84.4	31.825	1.304	1.000	1.000	13.0		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 45.5, (P_w)² = 41.4, P_d = _____ % (P_c - 14.4) + 14.4 = _____, (P_w)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
45.3	4.1	11.0488	1.0433	.802	.8367	6.8665	89.0

OPEN FLOW 89.0 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

MAR 15 1986
CONSERVATION DIVISION

For Company
Checked by