

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

FORM O-3
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: 2/25/86 15-023-20241-06-00

COMPANY: FMP Operating Co. LEASE: Zweggardt WELL NO.: 2-32

COUNTY: Cheyenne LOCATION: SESE1 SECTION: 32 TWP: 3S RNO: 41W ACRES:

FIELD: Rueb RESERVOIR: Niobrara PIPELINE CONNECTION: None

COMPLETION DATE: 2/26/86 PLUG BACK TOTAL DEPTH: PACKER SET AT:

CASING SIZE: 4 1/2" WT.: 9.5# I.D.: SET AT: 1516' PERF.: 1340' TO: 1378'

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

TYPE COMPLETION (Describe): Single (Gas) TYPE FLUID PRODUCTION: None

PRODUCING THRU: Casing RESERVOIR TEMPERATURE: F BAR. PRESS - P_a: Est. Bar. Press. @ 12.6 Psia

GAS GRAVITY - G_g: Calculated with .594 (Actual) % CARBON DIOXIDE: % NITROGEN: API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): TYPE METER CONN.: None (~~XXXXXX~~) (PROVER) SIZE: Tested with 2" Critical Flow Prover

SHUT-IN PRESSURE: SHUT IN _____ 19____ AT _____ (AM)(PM) TAKEN 2/25 1986 AT 1:45 (XX)(XPM)

FLOW TEST: STARTED 2/25 1986 AT 2:00 (XX)(PM) TAKEN 2/26 1986 AT 2:00 (XX)(XPM)

OBSERVED DATA

DURATION OF SHUT-IN 2 wks+

SHUT-IN OR FLOW	ORIFICE SIZE in.	(MEETER) (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	Blank	272.2				272.2	284.8				
FLOW	3/8"	206.5		64°		206.5	219.1			24	None

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mcfd	(XXXXX) (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	G _m
2.439	219.1		1.298	.9962	1.019	704.1		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 81.1 ; (P_w)² = 48.0 ; P_d² = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_d)² = 0.207 ; (P_d)² = .2

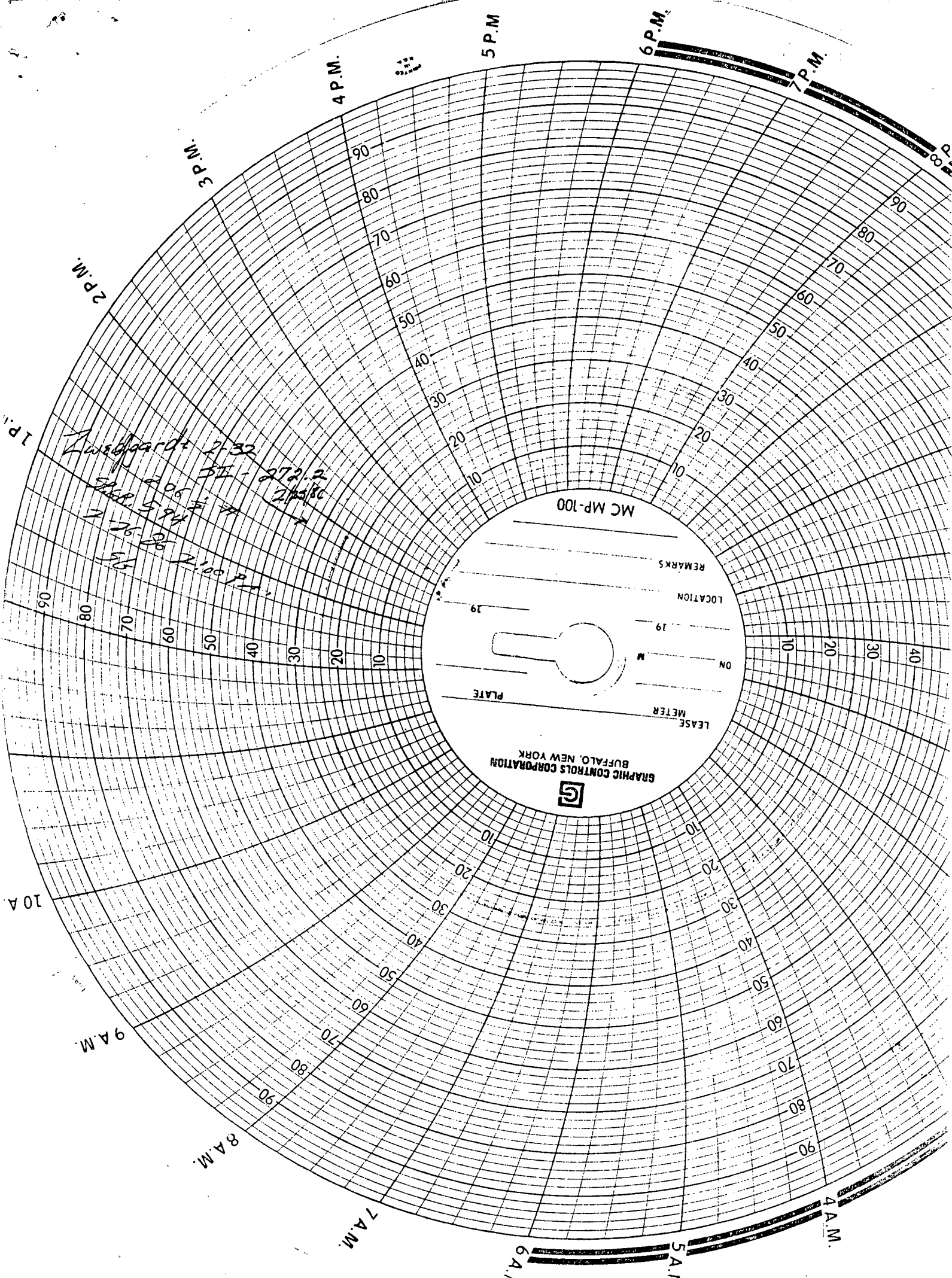
$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
80.9	33.1	2.4441	.3881	.723 *	.2806	1.9081	1343.5
OPEN FLOW	1344	Mcfd @ 14.65 psia			DELIVERABILITY		Mcfd @ 14.65 psia

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 27th day of February, 1986.

* Taken from Zweggardt 1-32 Stan Holmes
Well test For Company

Witness (if any) _____ For Commission _____
 _____ Checked by _____



1 P.M. 2 P.M. 3 P.M. 4 P.M. 5 P.M. 6 P.M. 7 P.M. 8 P.M. 9 P.M. 10 A.M.

06 08 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90

Zwischgard 2132
SE - 272.2
27.580
27.594
27.608
27.622
27.636
27.650
27.664
27.678
27.692
27.706
27.720
27.734
27.748
27.762
27.776
27.790
27.804
27.818
27.832
27.846
27.860
27.874
27.888
27.902
27.916
27.930
27.944
27.958
27.972
27.986
27.999

MC MP-100

REMARKS _____

LOCATION _____

ON _____

LEASE METER _____

PLATE _____

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK



KANSAS-NEBRASKA NATURAL GAS COMPANY, INC.
Back Pressure Field Data Sheet

Date of Test 2/25 1986

Lease Wedgards Well No. 2-32 Company FMP Operating
 Field Rueb County Cheyenne State Ks. Location SE 32-35-41W
 Production Casing 4 1/2 Wt. 10.5 Set at 1497' Perf. to
 Tubing Size NONE Set at Perf. to
 Meter run NONE Conn. Shut-in Pressure 272.2 psig. Well shut in 2wk + hrs.
 Gravity .594 (Before or After)
 Test Run on: Casing, ~~Tubing~~, ~~Annulus~~ (Cross out those not applicable.)
 Other remarks about test set-up: Test run on a 2" Critical Flow Prover

OBSERVATIONS

Date	Time	Orif. Size	Flow. Temp.	Meter or Prover Pressure psig	Diff. h _w Inches of Water	Wellhead Working Pressure psig	Remarks
2/25/86	1:15P	Blank		272.2		272.2	ST Press. (D.C.)
		2x					
2/25/86	1:45P	.3125	Star	24 hr.	Open Flow Test		
	2:00P	"	62°	261.3		261.3	4% D.O.; Change Plate
2/25/86	2:15P	.375	63°	253.5		253.5	6.9% D.O.
		2x					
2/26/86	2:00P	.375	64°	206.5		206.5	Blowing Dry; 24.1% D.O.
A Sample Was Taken for Specific Gravity; Well was shut in @ 2:05P.M. 2/26/86							

Tested By Stanley Z. Howard

DEPARTMENT OF REVENUE
WITNESS
MAR - 4 1986

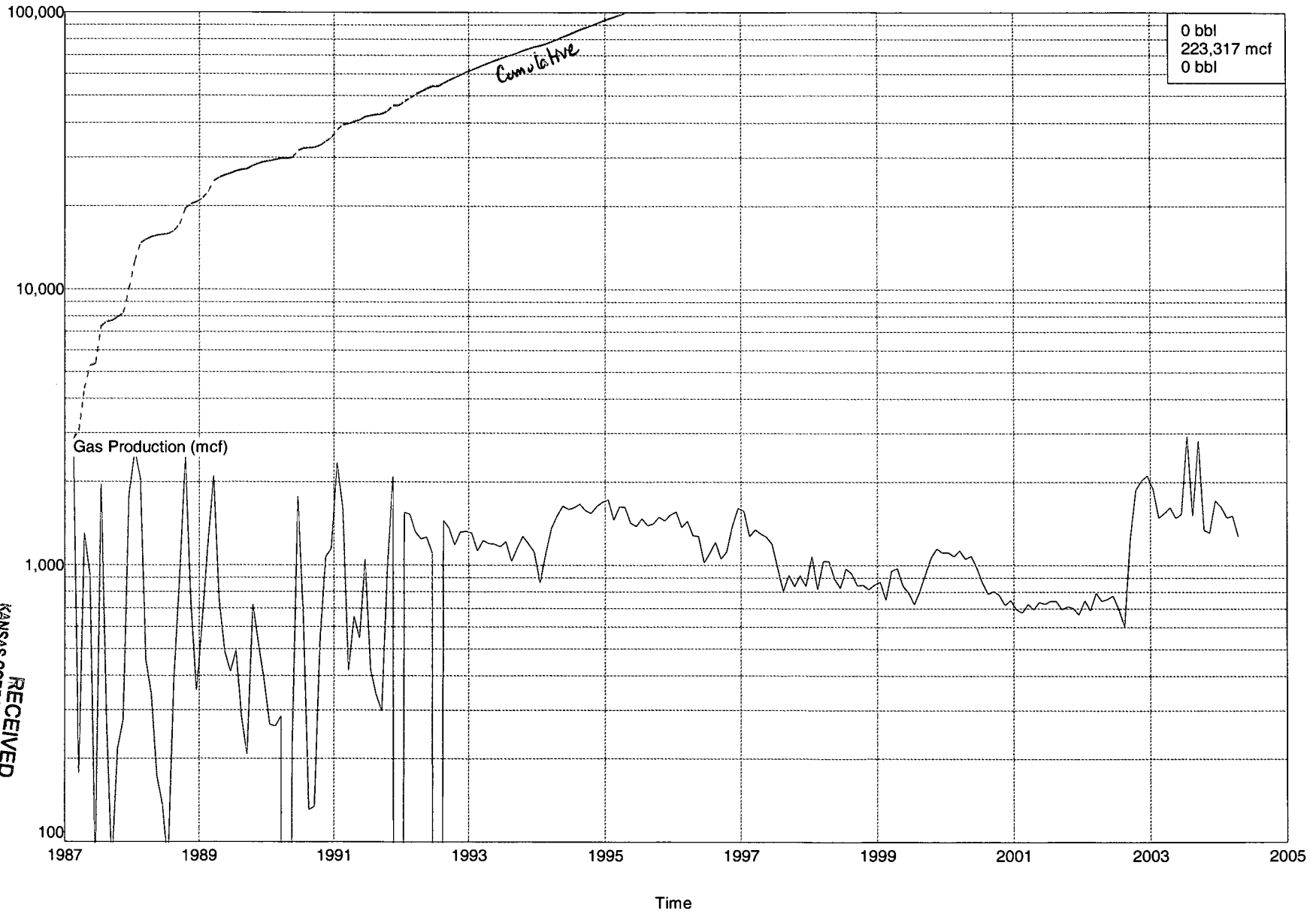
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RECEIVED
STATE CORPORATION COMMISSION

MAR 10 1986

Lease Name: ZWEYGARDT 2-32
County, State: CHEYENNE, KS
Operator: NOBLE ENERGY INCORPORATED
Field: CHERRY CREEK
Reservoir: NIOBRARA
Location: 32 3S 41W SE SE

ZWEYGARDT 2-32 - NOBLE ENERGY INCORPORATED NIOBRARA as of 04/2004 CHERRY CREEK



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KANSAS CORPORATION COMMISSION
AUG 16 2004
CONSERVATION DIVISION
WICHITA, KS