Case No.
5978

Large Exhibits

Schlumberger

BOREHOLE COMPENSATED SONIC LOG

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
CASE NO. 5978

COMPANY BTA OIL PRODUCERS
WELL 7608 JV-P MAGOOBMIT NO. 4
FIELD WILDCAT
COUNTY LEA STATE NEW MEXICO
990' FNL & 1980' FEL
Other Services: DLL
SEC. 25 TWP. 26-S RANGE 35-E

Permanent Datum: G.L. Elev.: 2959
Log Measured From: K.B. 31 Ft. Above Perm. Datum
Drilling Measured From: K.B.

Elev.: K.B. 2990
D.F. 2989
G.L. 2959

Date	10-27-76	1-28-77	4-30-77
Run No.	ONE	TWO	THREE
Depth—Driller	13200	18070	19000
Depth—Logger (ENG)	13200	18065	19000
Btm. Log Interval	13196	18062	18997
Top Log Interval	SURF	13200	18065
Casing—Driller	13 3/8@5050	9 5/8@13209	7/4@ 18070 @
Casing—Logger		13200	18063
Bit Size	12 1/4	8 1/2	6 1/8
Type Fluid in Hole	CUT BRINE	BRINE	BRINE
Dens. / Visc.	9 30	9.3 42	9.0 30
pH / Fluid Loss	9	8 20	10
Source of Sample	PIT	RETURN TANKPIT	
Rm @ Meas. Temp.	.09 @ 50°F	.062@ 74°F	.063 @ 75°F @ °F
Rmf @ Meas. Temp.	.06 @ 50°F	.045@ 75°F	.063 @ 75°F @ °F
Rmc @ Meas. Temp.	@ °F	.031@ 75°F	@ °F @ °F
Source Rmf / Rmc	M	M C	M @ °F
Rm @ BHT	.03 @162°F	.021@ 215°F	.013 @260 °F @ °F
Time Circulation Stopped	1700	1700	0700
Time Logger on Bottom	2010	1915	1200
Max. Rec. Temp.	162 °F	215 °F	260 °F °F
Equip. Location	7718 HOBBS	7610 HOBBS	7775 HOBBS
Recorded By	MILLER	SCHMELZER	CLARK
Witnessed By	LOVELOCK	BALDWIN	BALDWIN

The well shown, location and borehole reference data were furnished by the customer.

SCALE CHANGES
Sonic Dn Hole 0-100
GR 18495 0-200

RECORDED DATA
Receiver Selection
Depth From To
D Sonic
D_tw D_t1 Gr

EQUIPMENT DATA
Run No. THREE
Base Log FULL
Sonic Cart No. 722
Sonic Panel No. 7453
Sonic Panel No. 752
Sonic Panel No. 970
G.R. Panel No. 955
T.R. No.
Centralizers No. CHE-H
Centralizer No. 24-CL CAL CHE-H
Standoffs No. 2 1.5"RUBBER
Sonic Conn. Sin. 60
Sonic Conn. Sin. 60
Sonic Type Fluid 60

CALIBRATION DATA
Sonic Cal. Sec.
GR Cal. Sec.
Tc Sec.

731 719
1450 1300
1452 1300
752 1450
970 1300
955 745
267
1
3 SB HZ

RECORDED BY: MILLER
WITNESSED BY: LOVELOCK
TRACER DN HOLE TO 18495 (SAND) MAX. RECORDED TEMP. 260 DEG. F.
RUN 1 - 7" CASING @ 18070 - DRILLER; 18063 - LOGGER
RUN 2 - 9 5/8" CASING @ 13209 - DRILLER; 13200 - LOGGER
RUN 3 - OPEN HOLE - DRILLER; 19000 - LOGGER

Borehole Compensated Sonic Log
Gamma Ray Neutron Log
Dual Induction Laterolog

INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
100 70 130

DEPTH
RUN 1
100 200

GAMMA RAY
API UNITS
0 100

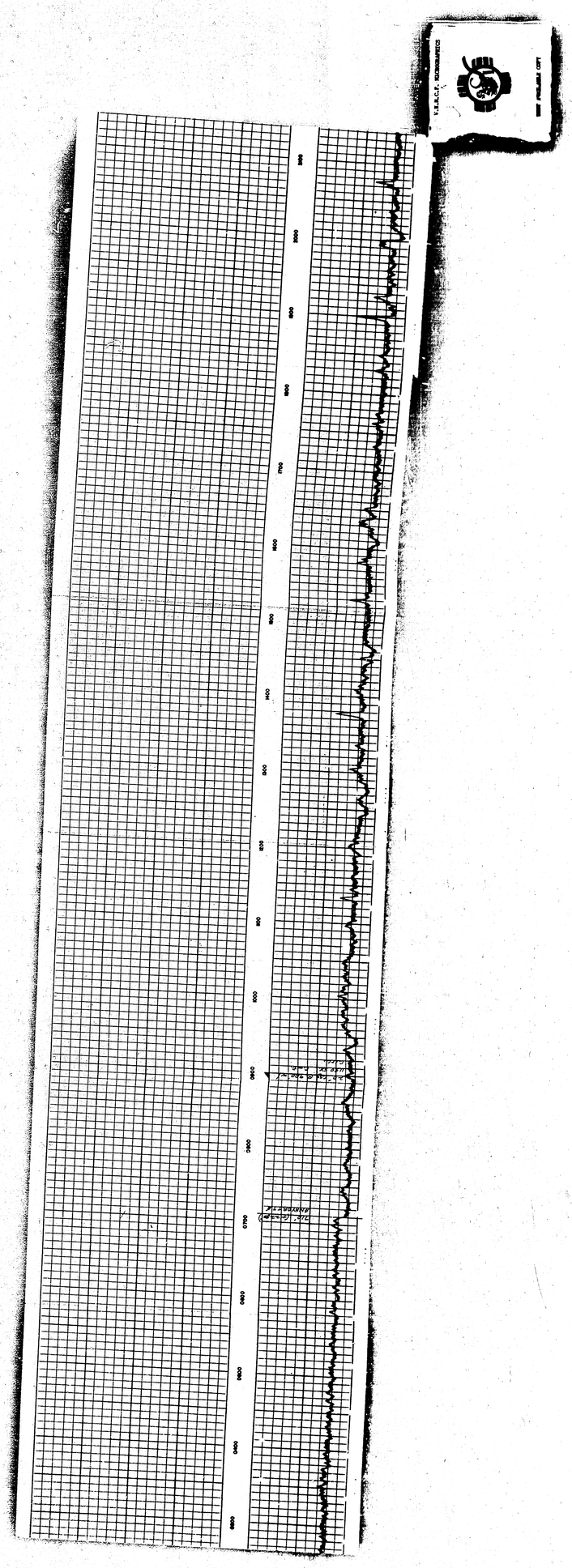
CALIPER
DUAL INDUCTION
6 16

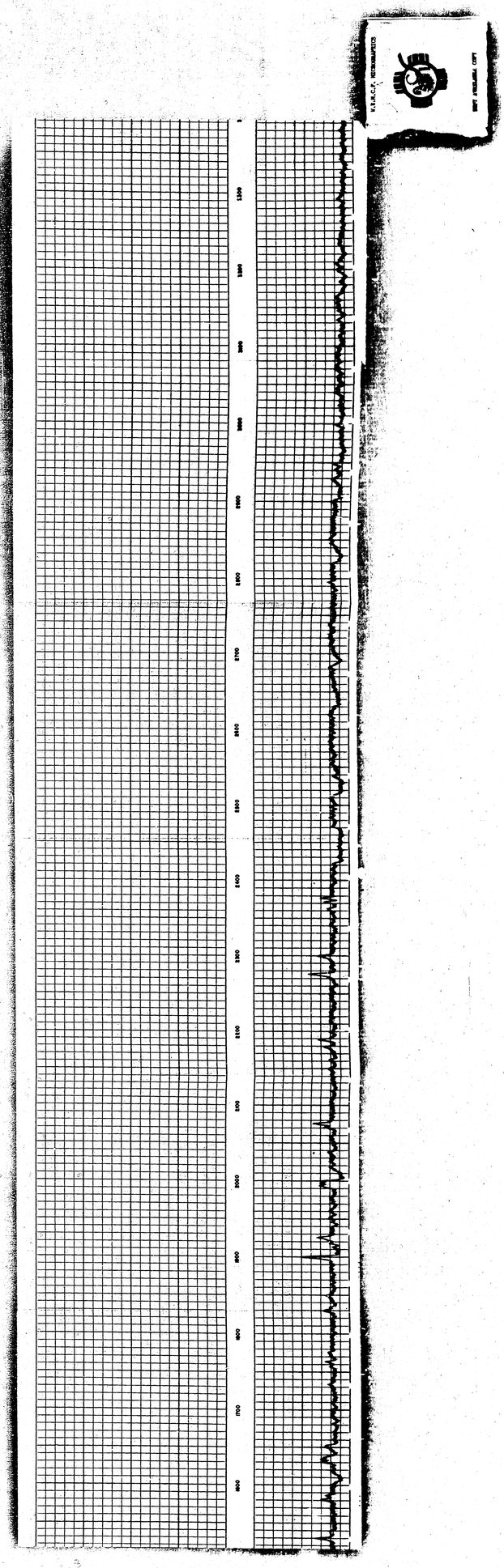
5-02-77 0025 250

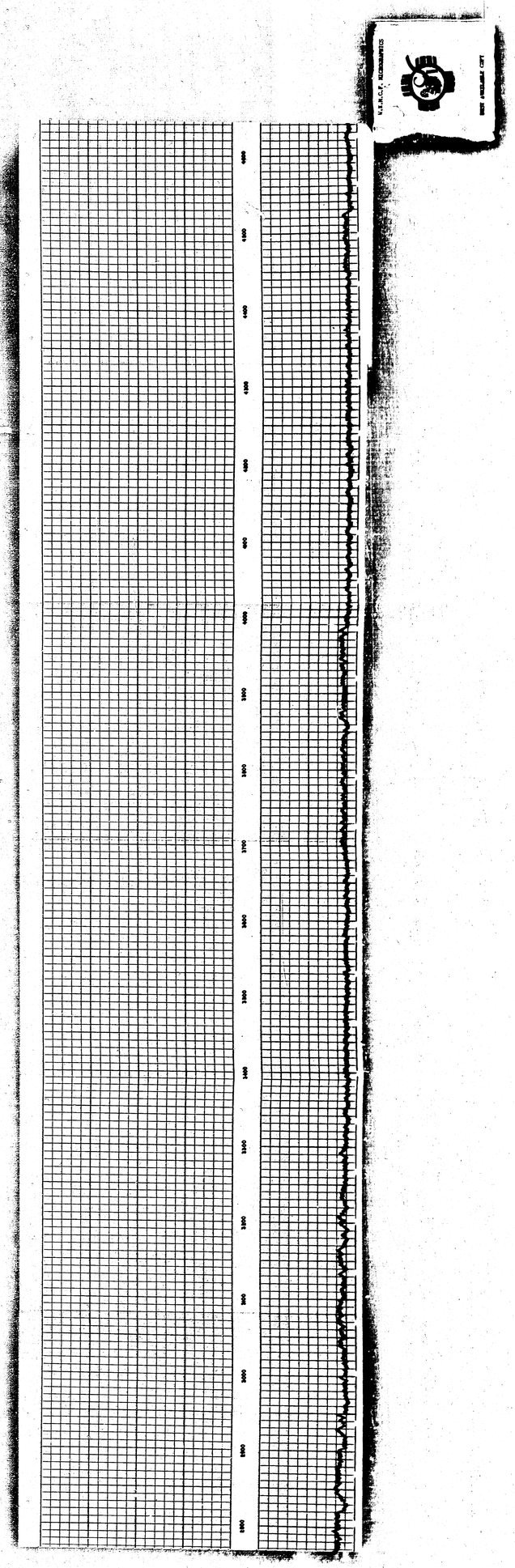
0400 0500 0600 0700 0800

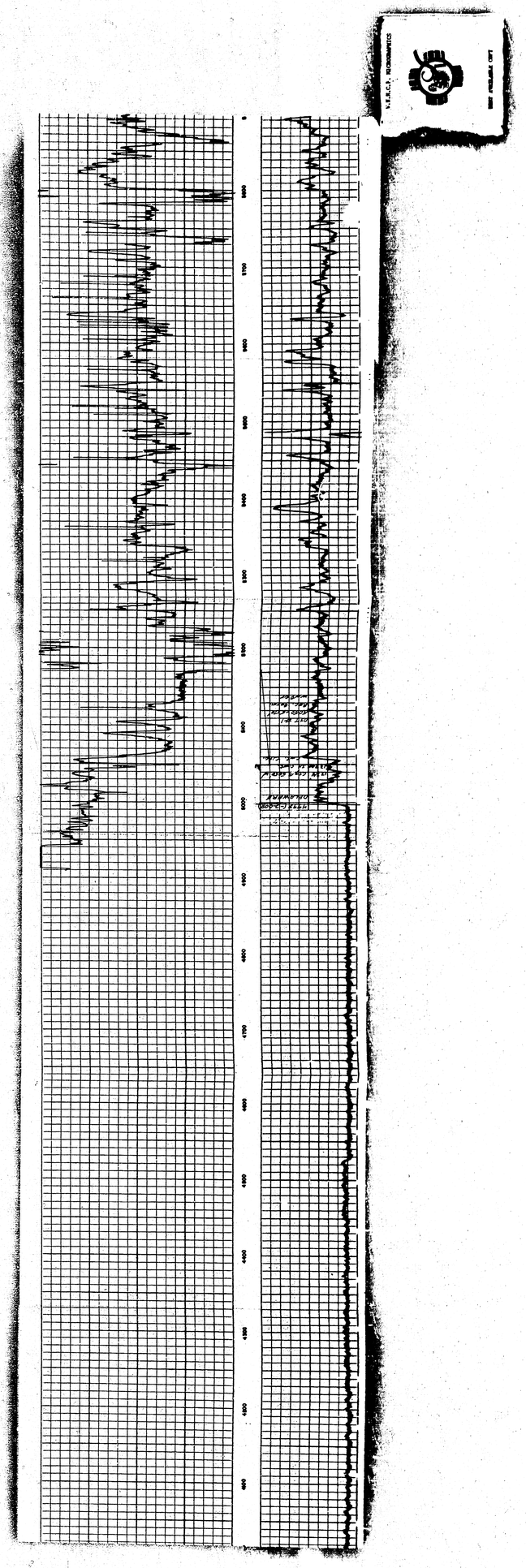
DLL (SLS-GR)
MAGNIFIED 5X

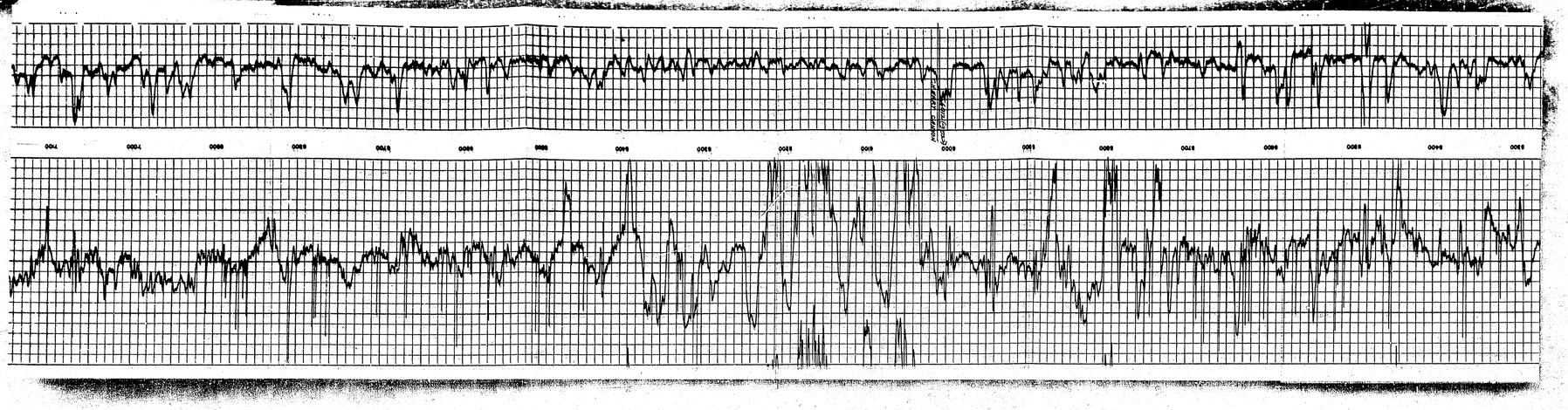
V.R.N.C.F. MICROGRAPHICS
NOT AVAILABLE (OFF)

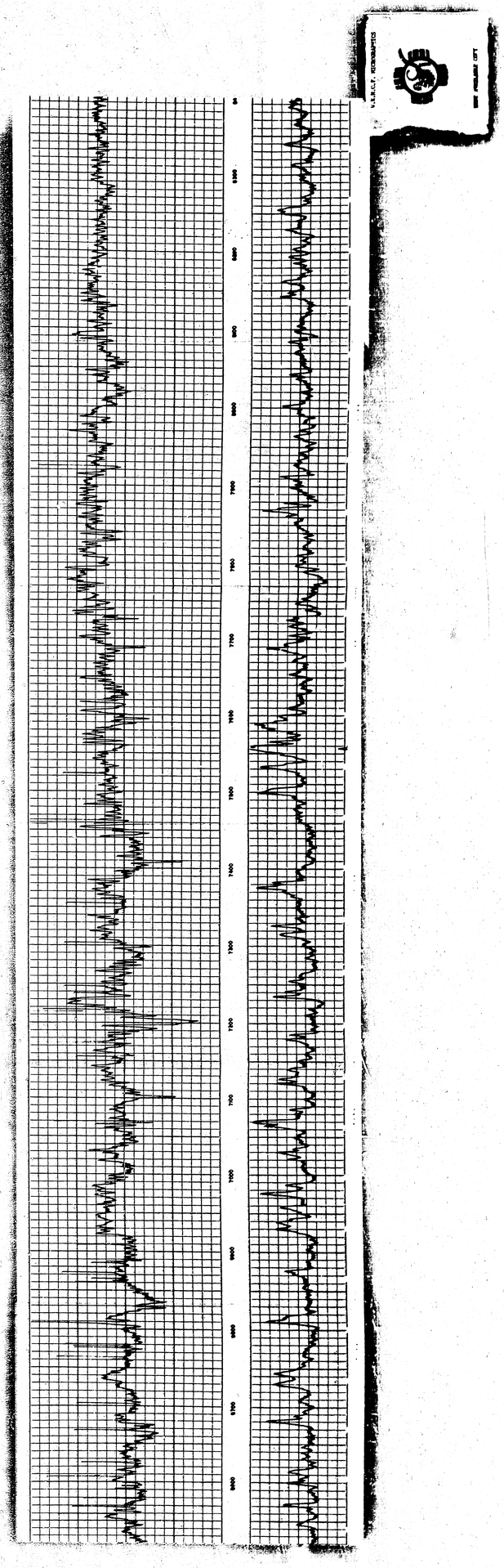

M.E.M.C.F. RECORDATEURS
0800
0900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
0100
0200
0300
0400
0500
0600
0700

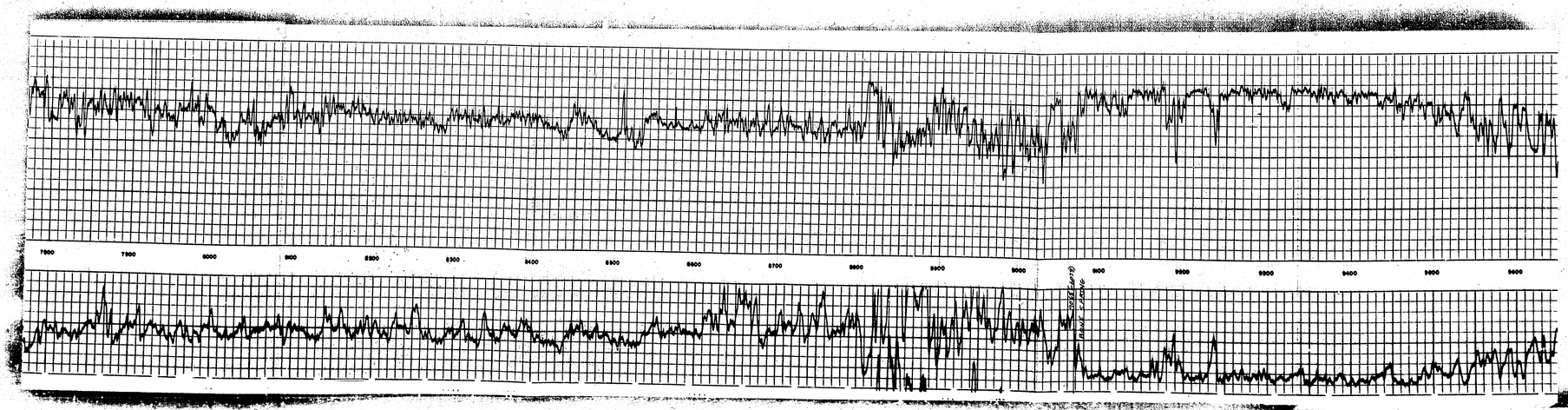

V.A.M.C.P. NEUROGRAPHICS
NOT FURNISHED COPY


M.M.A.C.P. MICROGRAPHICS
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
4600

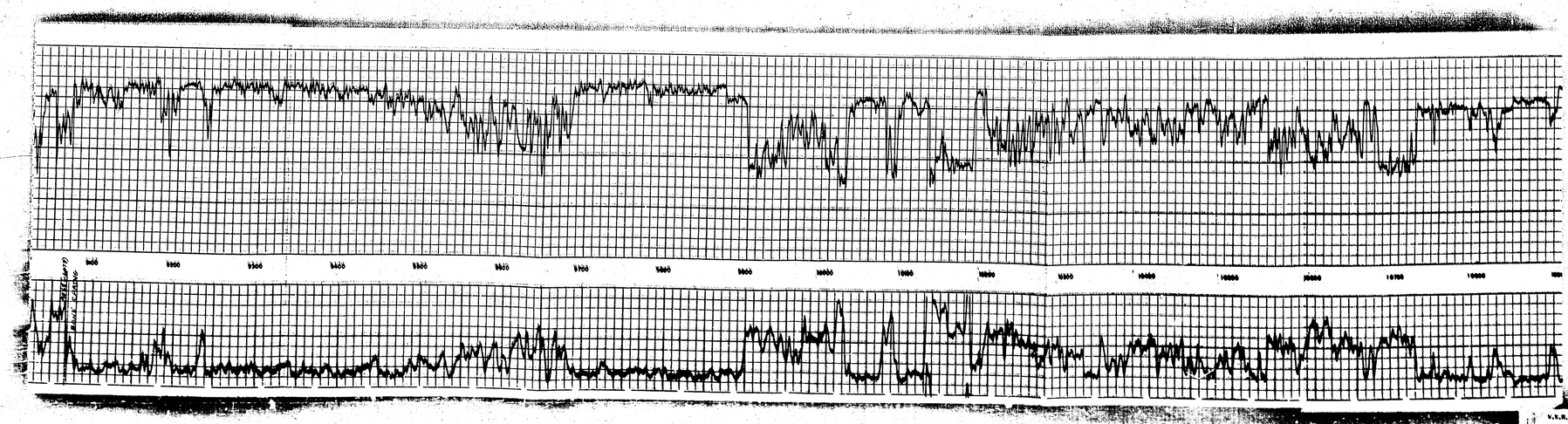

V.E.R.C.I. RICORRETTO

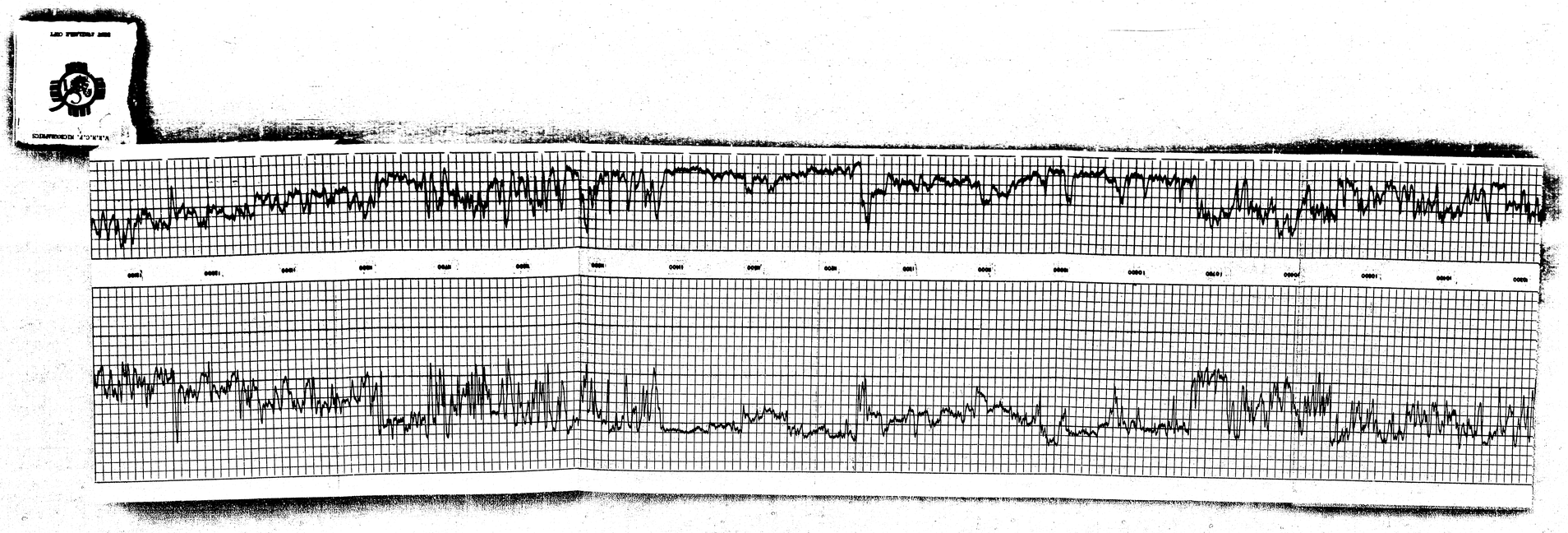


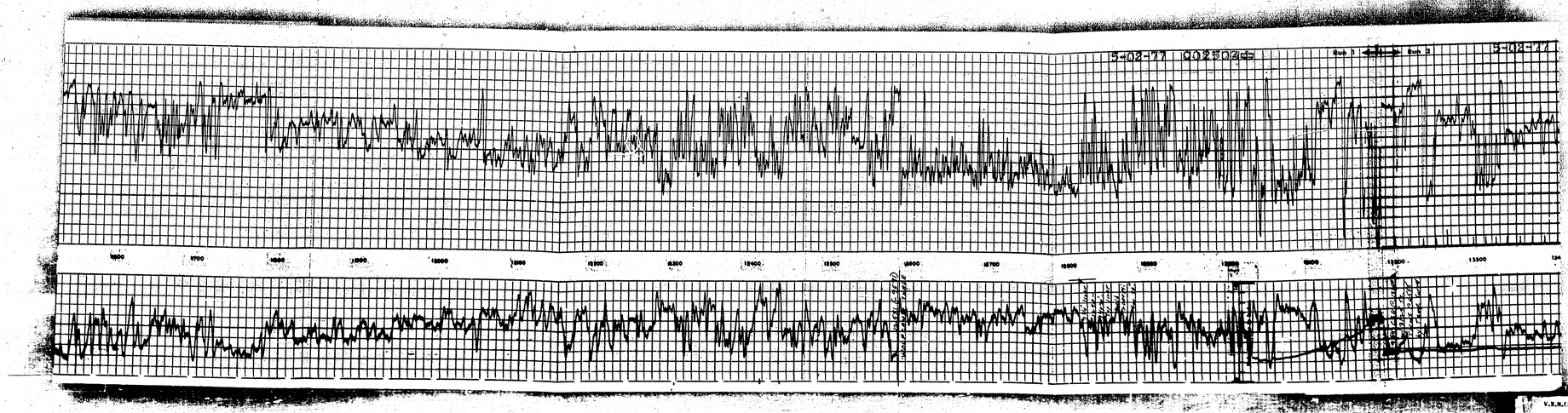

V.E.B.C.F. HEIDEKRAUTER
8000
8100
8200
8300
8400
8500
8600
8700
8800
8900
9000
9100
9200
9300
9400
9500
9600
9700
9800
9900
10000

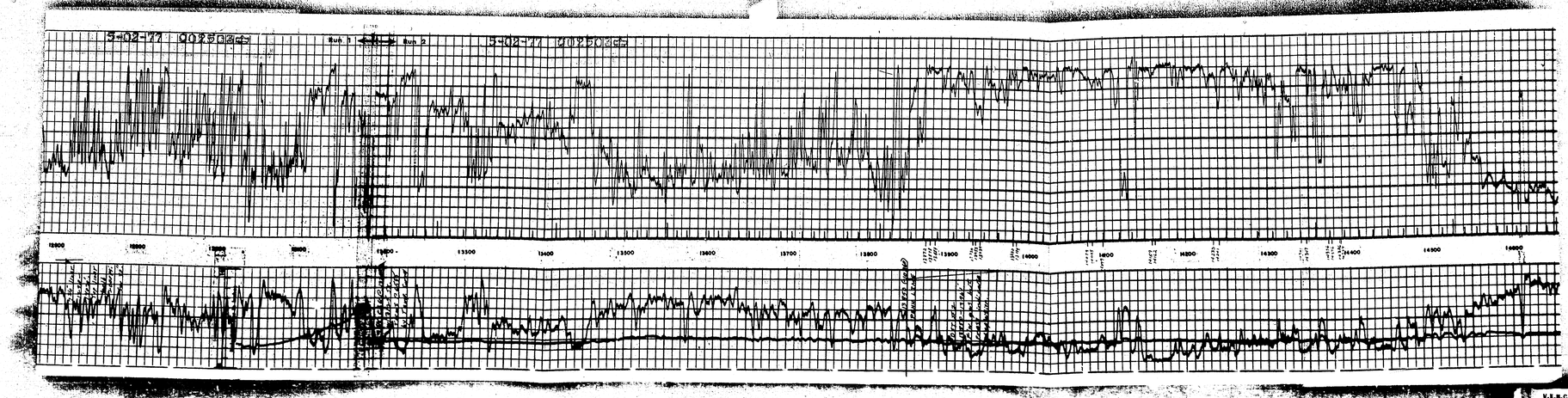


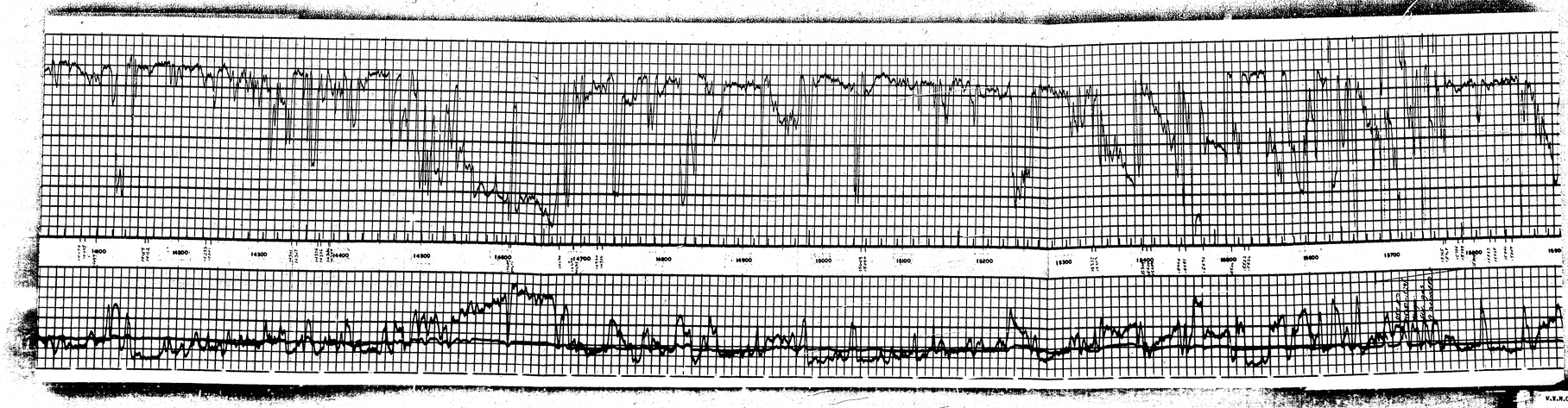
V.R.M.C.F. MICROGRAPHICS



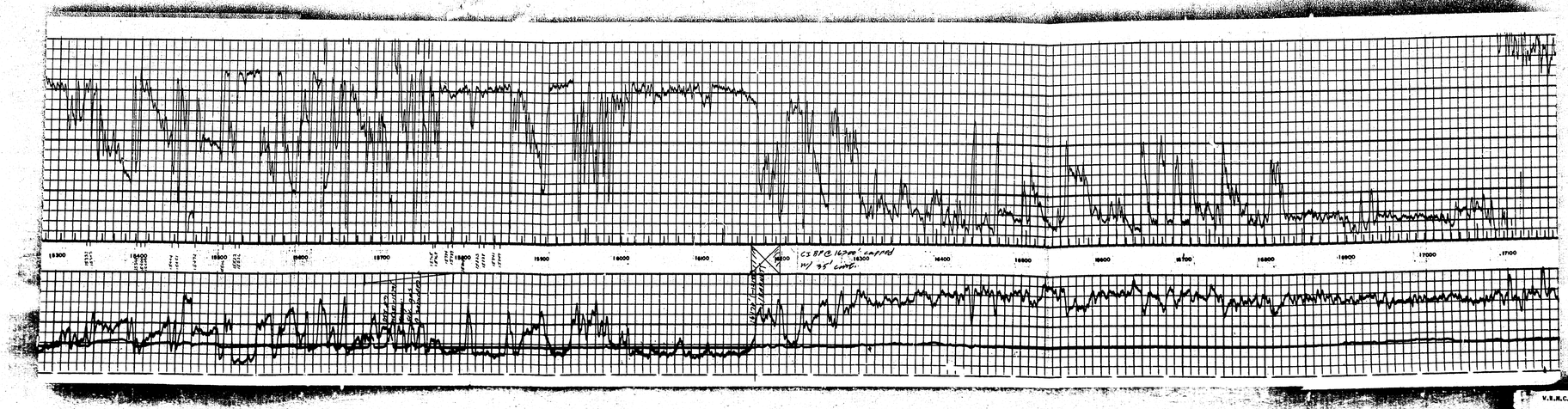



5-02-77 0025045
Sub 1
Sub 2
5-02-77

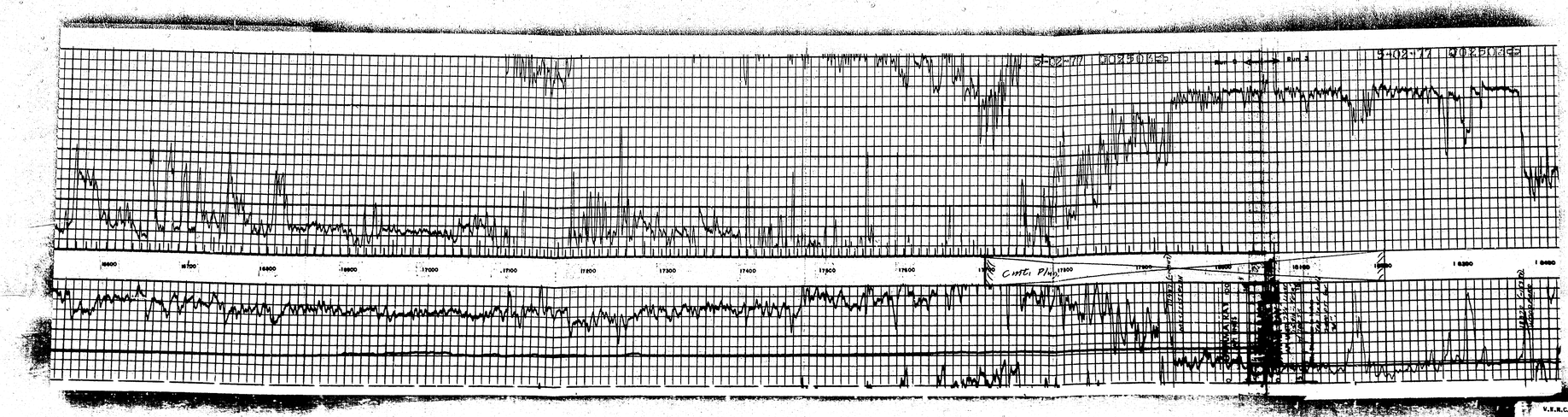

5-02-77 0025 GMT
Run 1
Run 2
5-02-77 0025 GMT



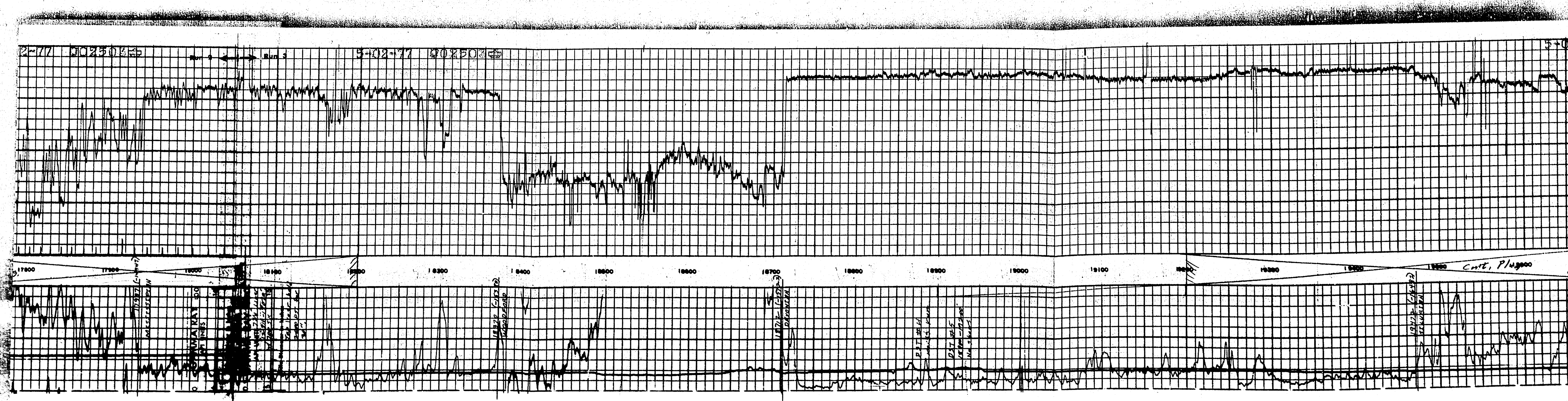
V.V.R.C.P. MICROGRAPHICS
BEST AVAILABLE COPY



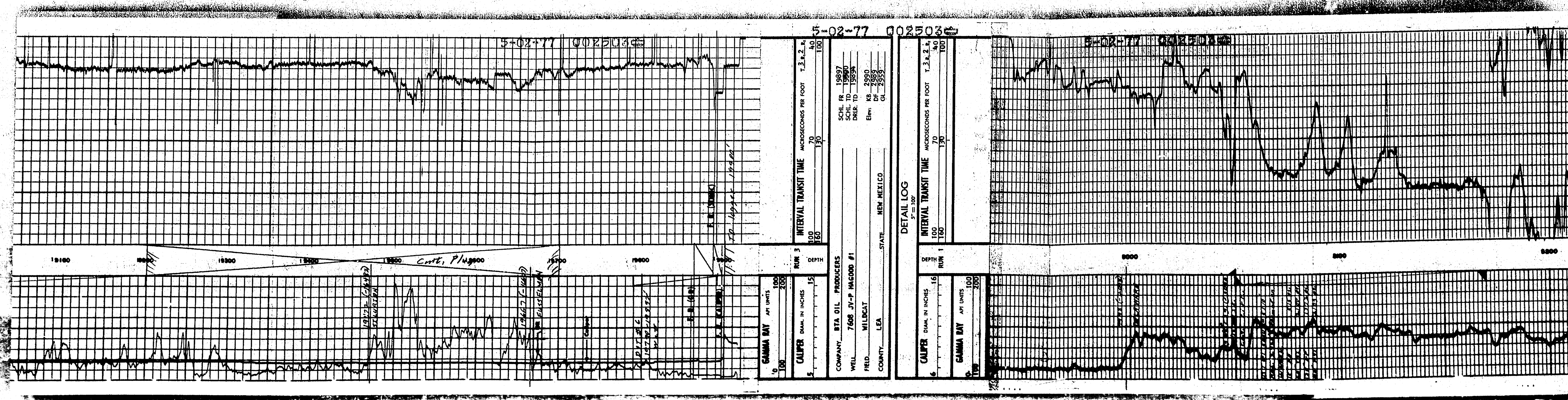
V.S.R.C.F. MICROGRAPHICS
BEST AVAILABLE COPY



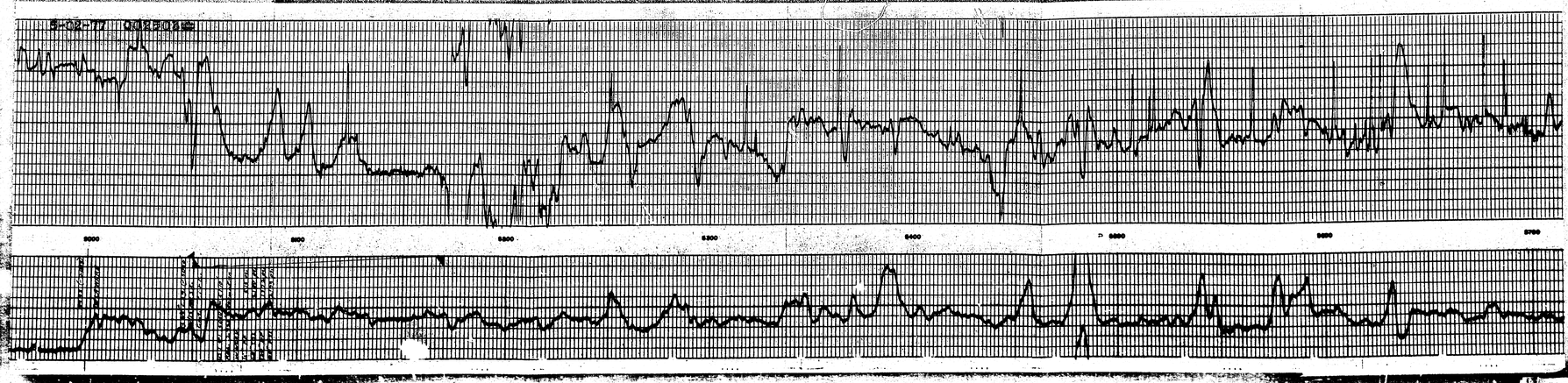
V.E.R.C.F. REPRODUCTION
BEST AVAILABLE COPY



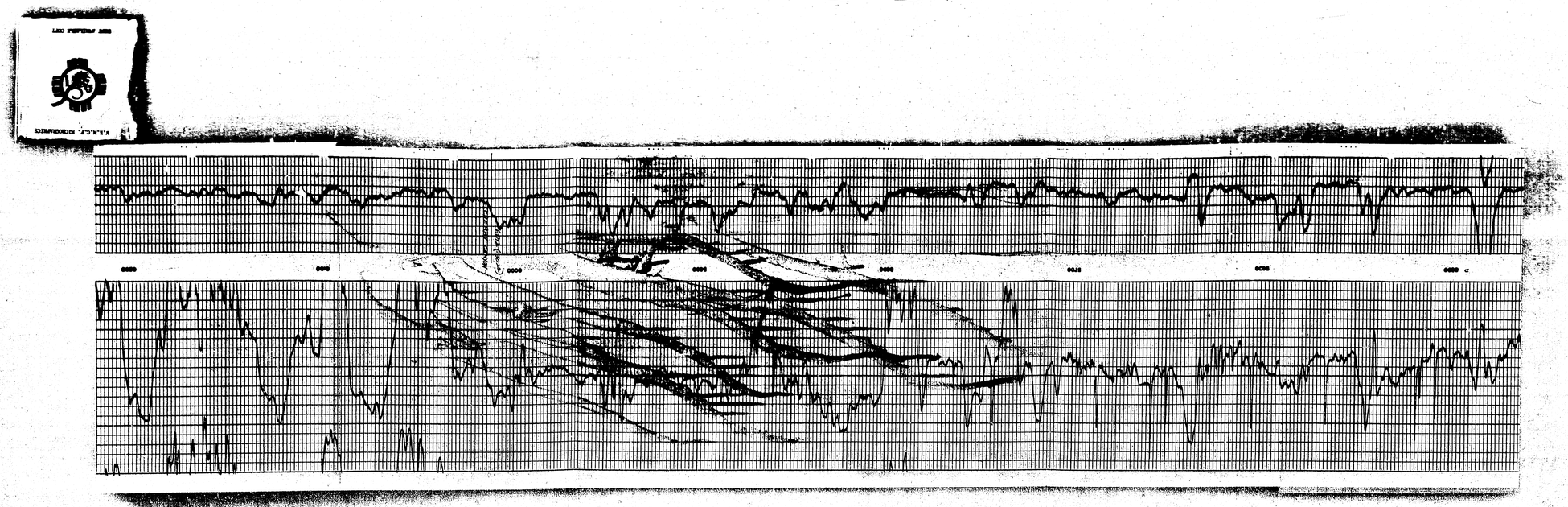
V.N.M.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

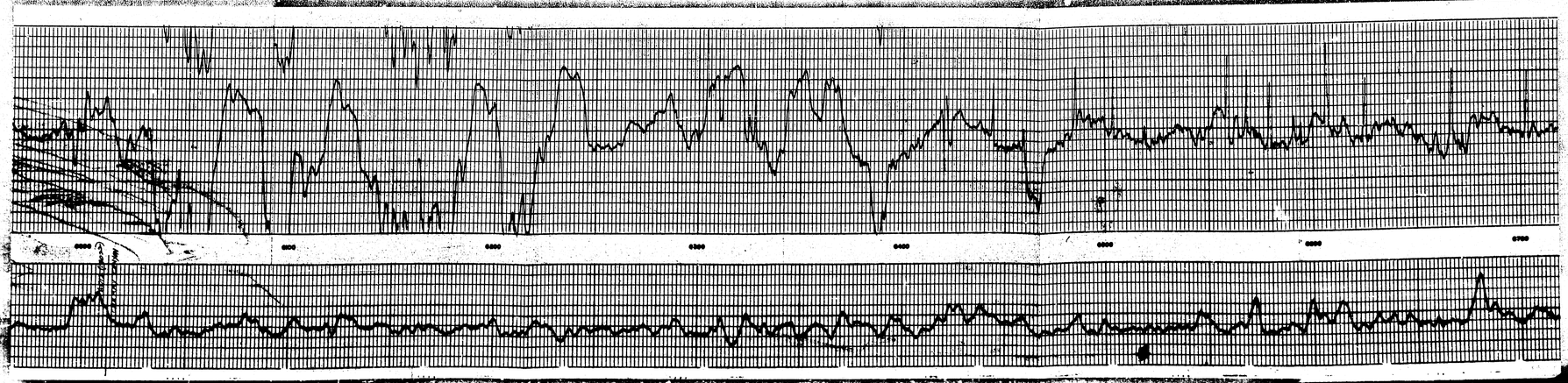


W.N.M.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

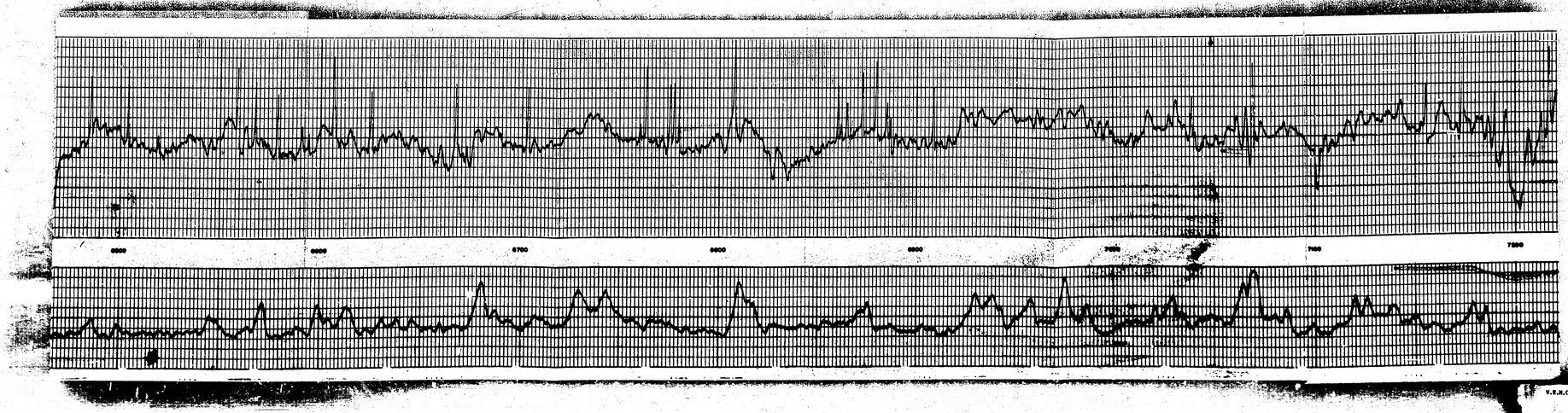


V.E.R.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

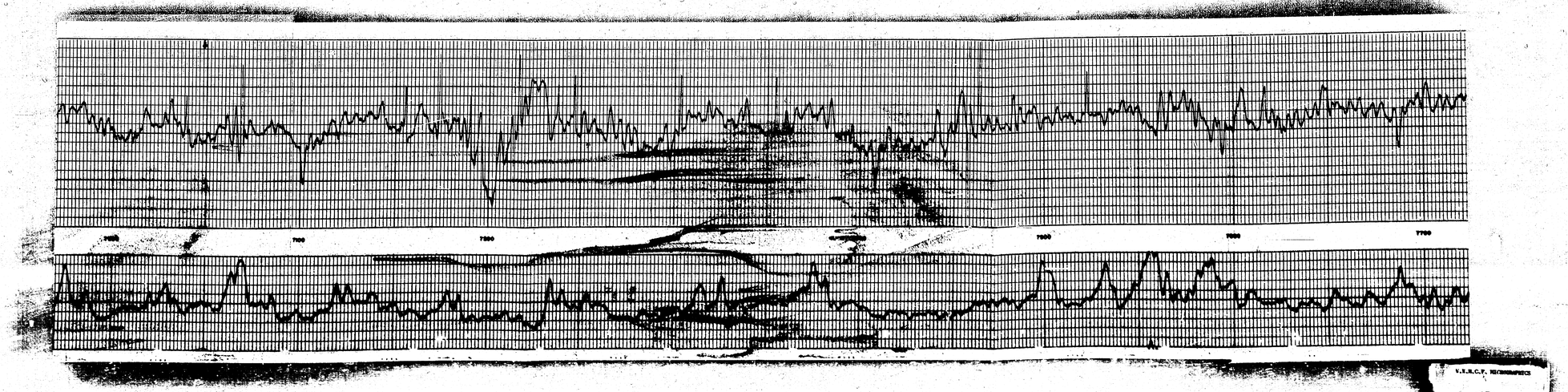


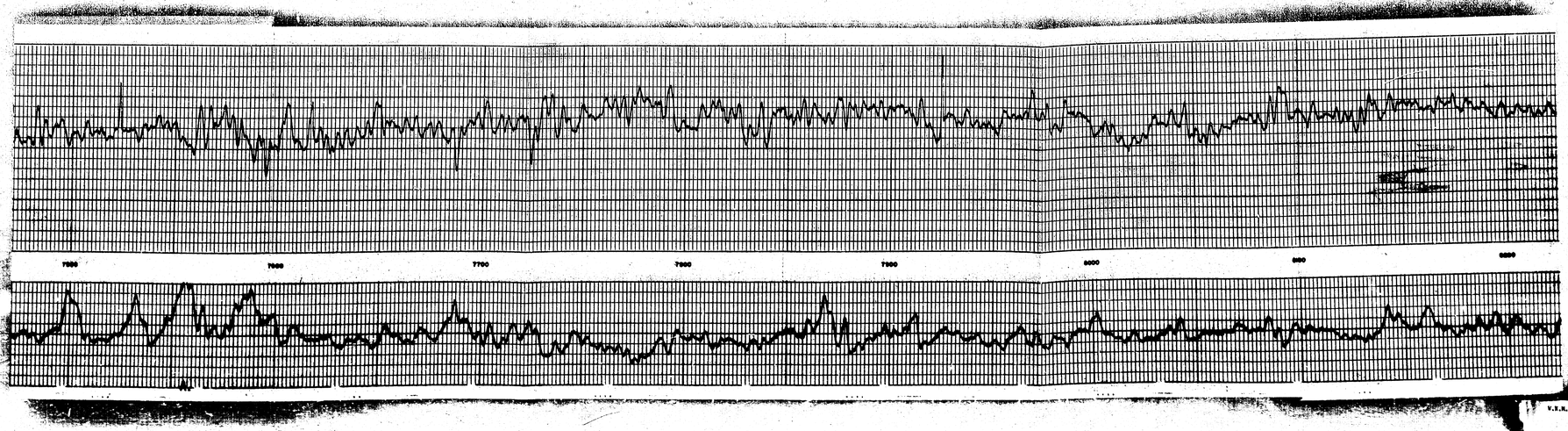


U.S.N.C.F. MICROGRAPHICS

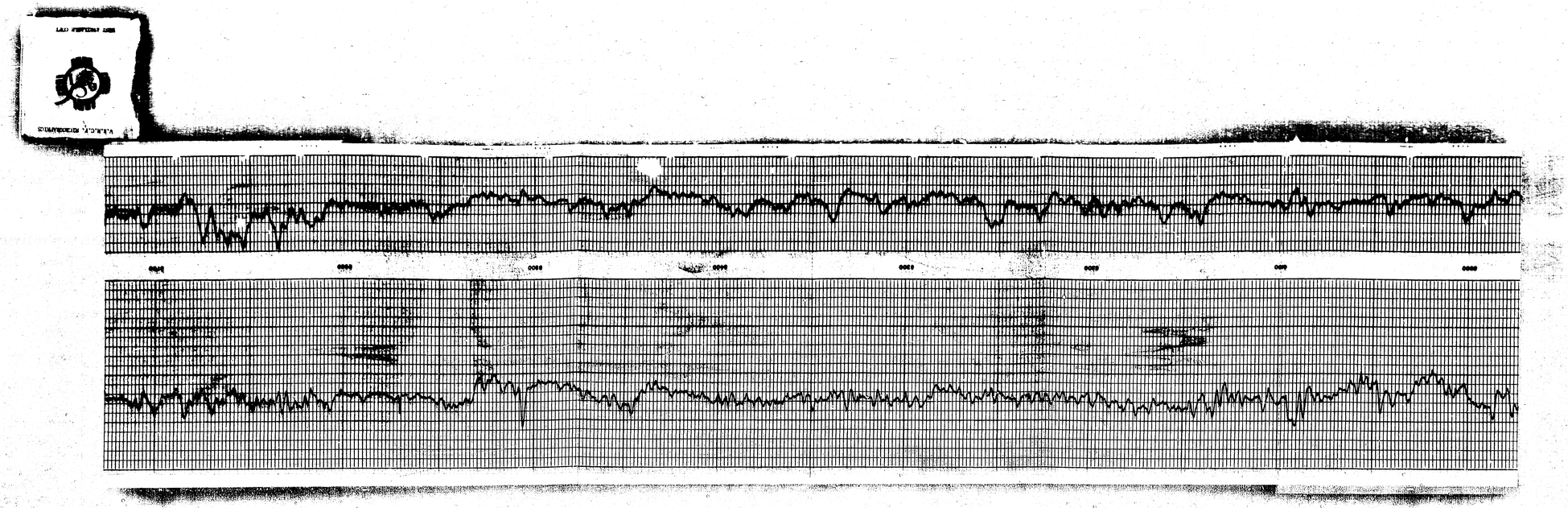


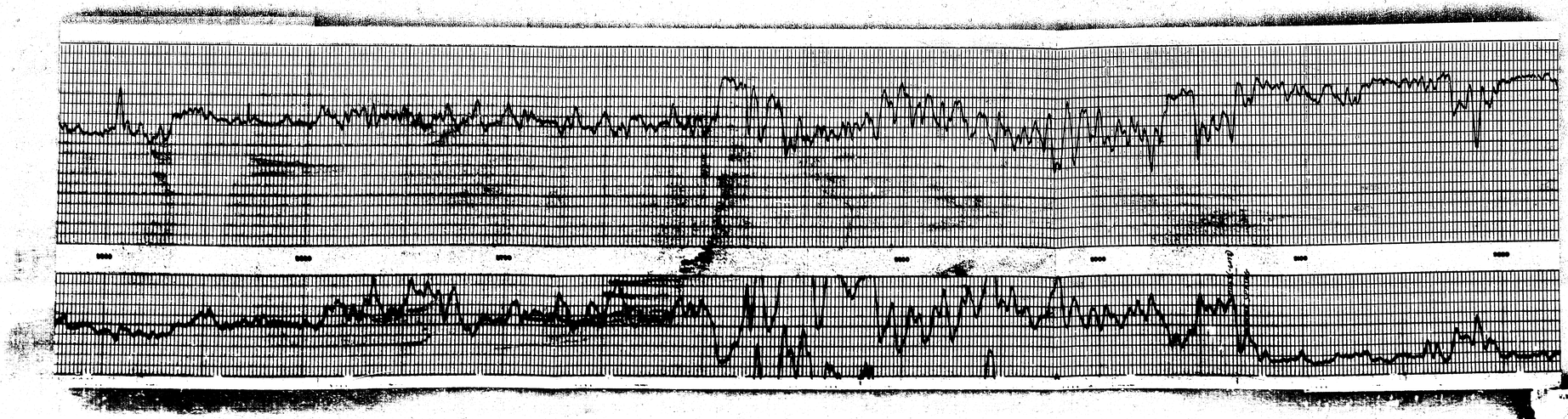
V.R.N.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

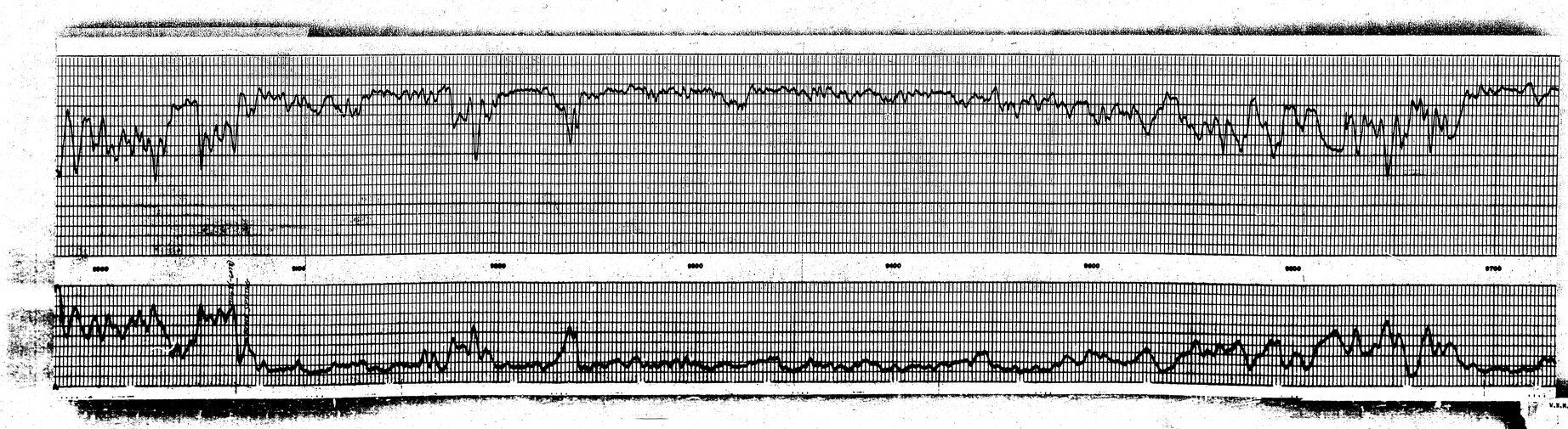




V.T.R.C.F. MICROGRAPHICS

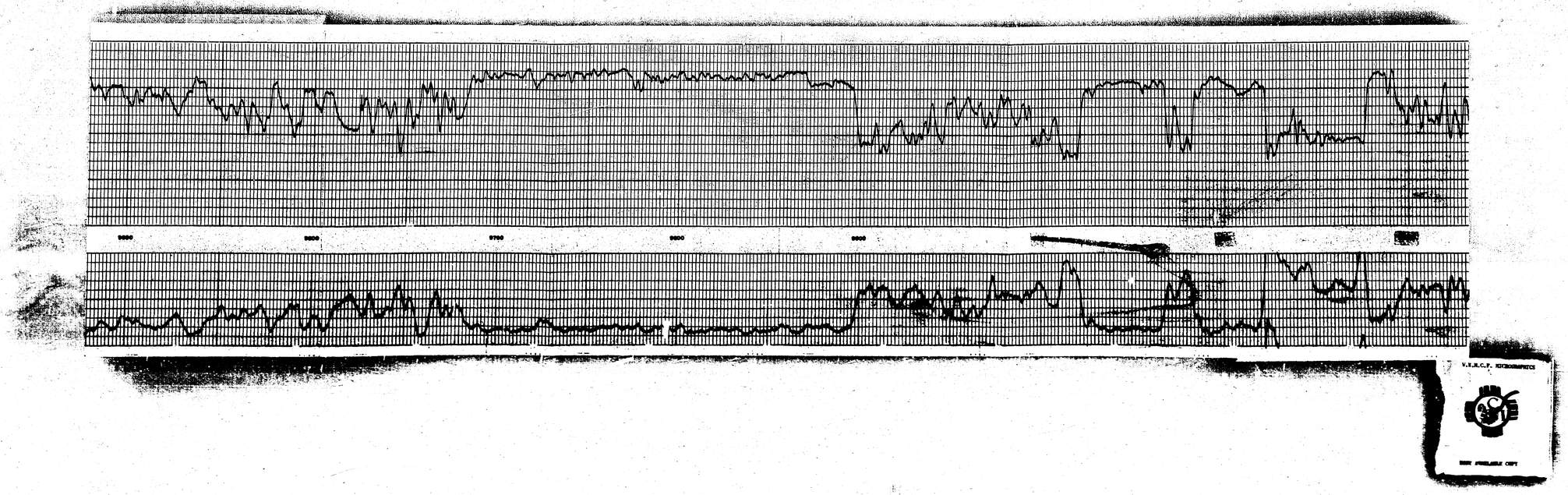


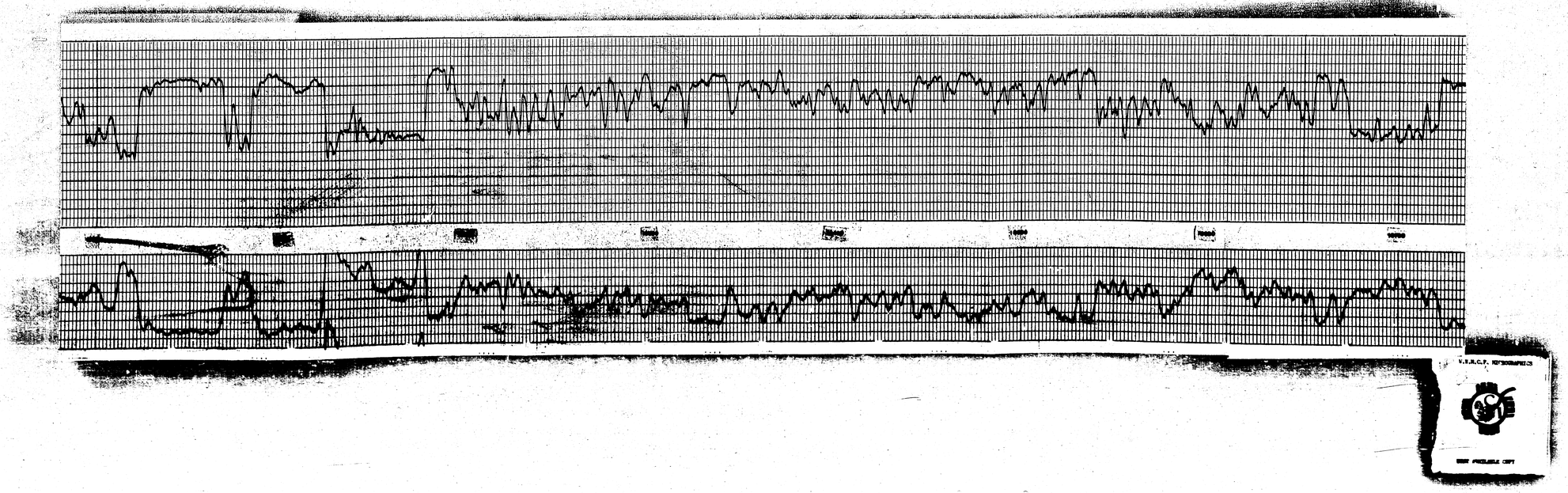


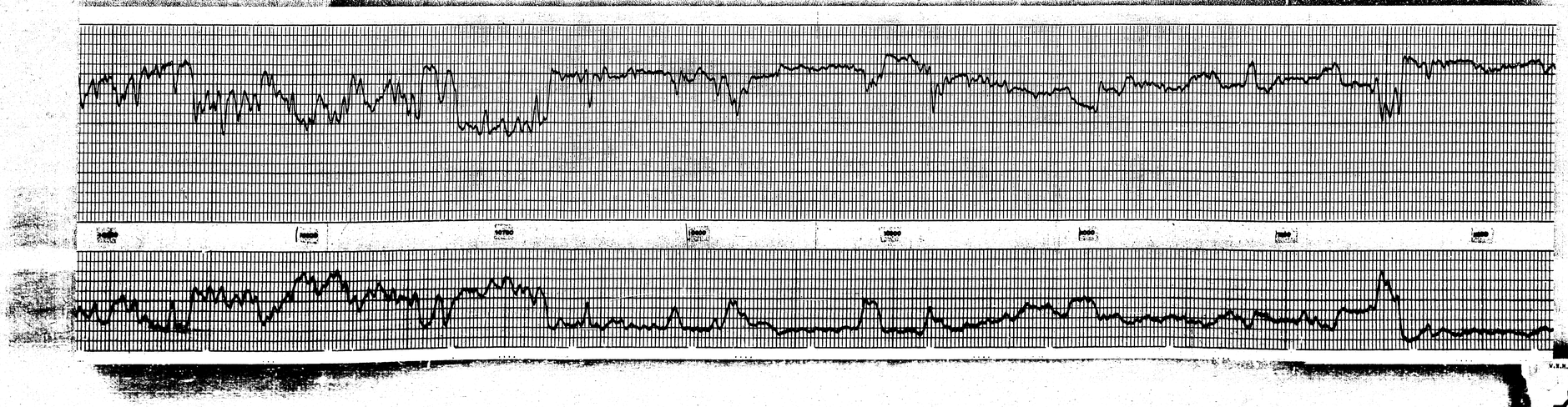


V.V.R.C.P. MICROGRAPHICS

BEST AVAILABLE COPY

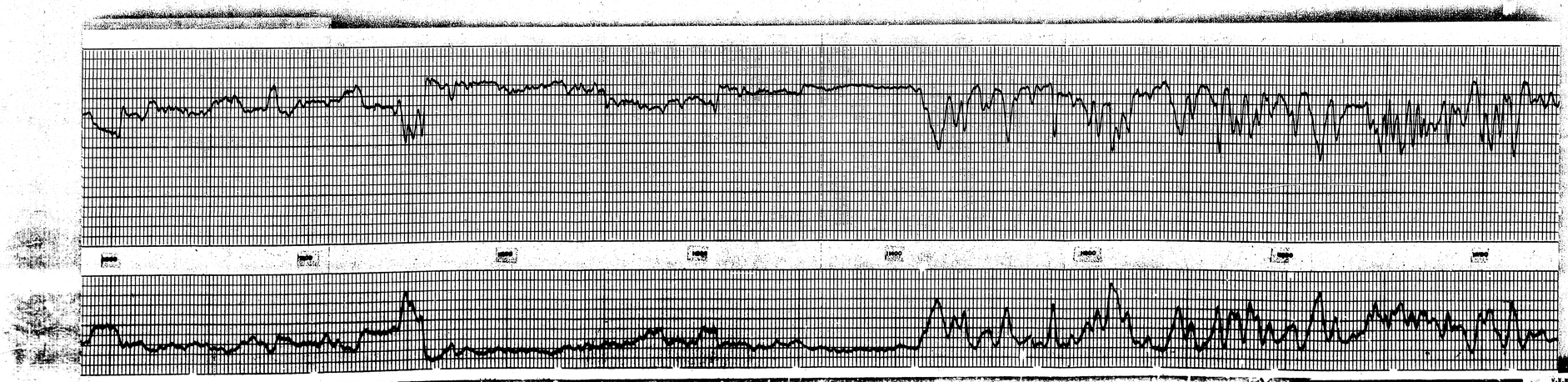




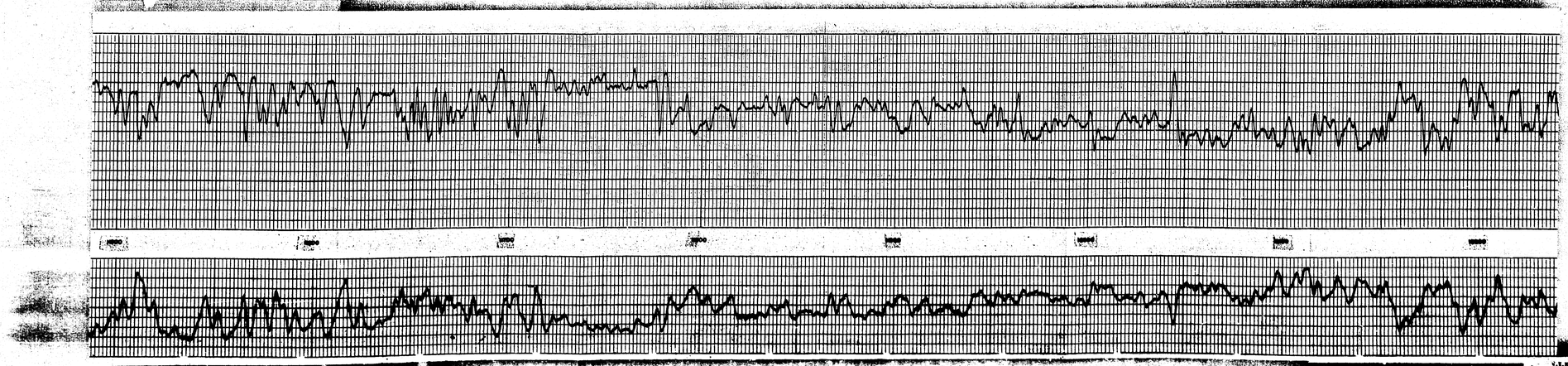


U.S.N.C.F. MICROGRAPHICS

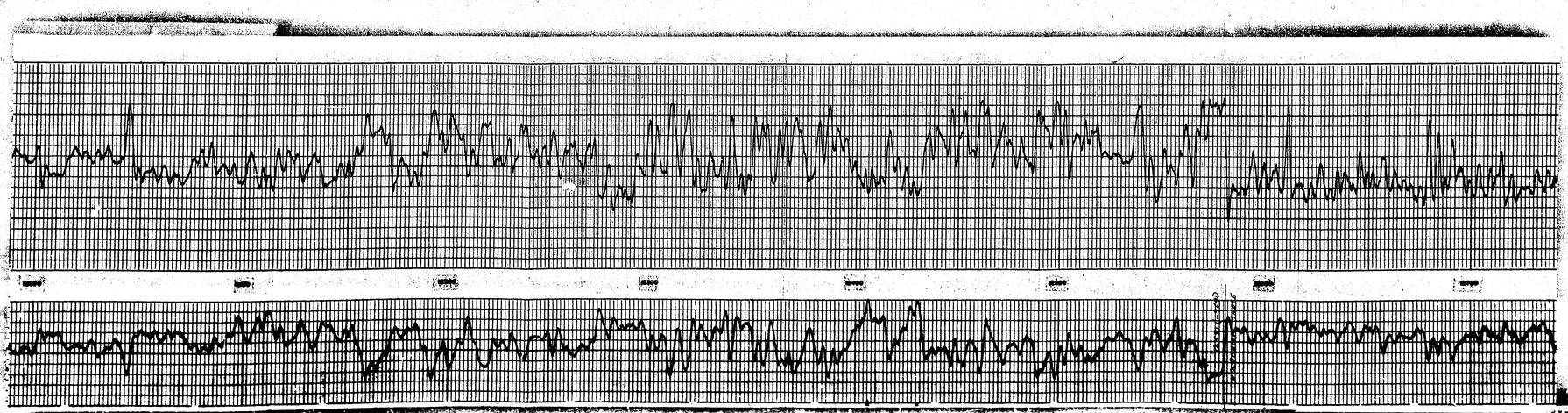
BEST AVAILABLE COPY



V.R.N.C.P. MICROGRAPHICS

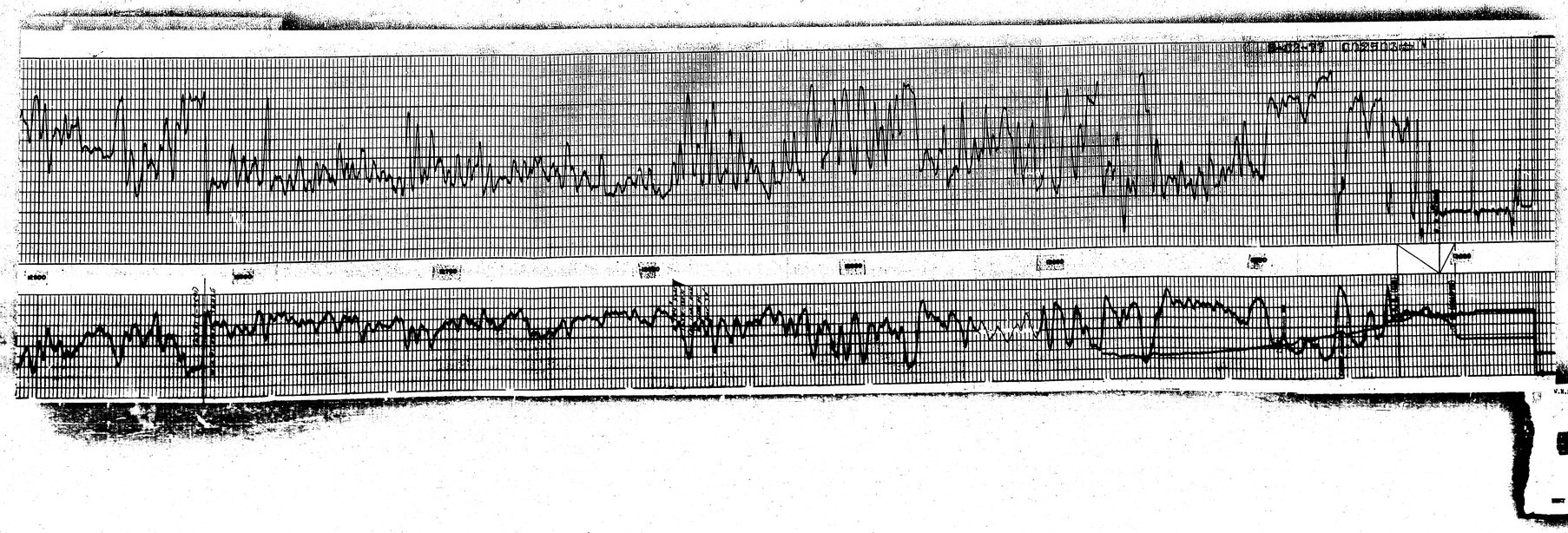


V.R.R.C.P. MICROGRAPHICS



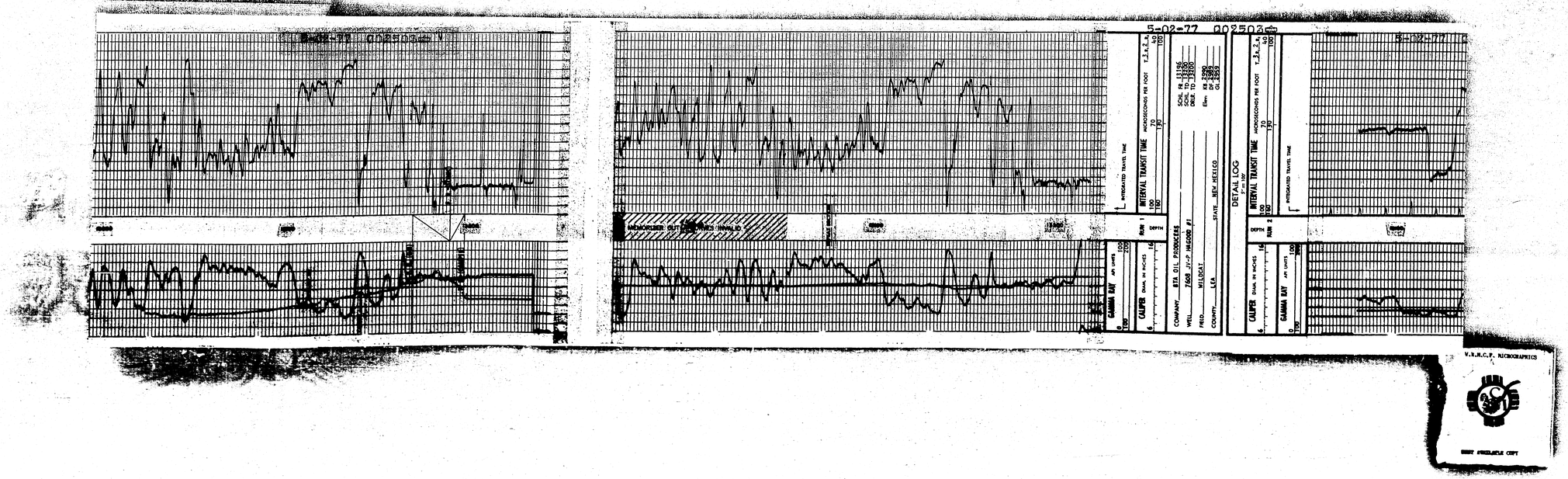
U.S.N.C.F. MICROGRAPHICS

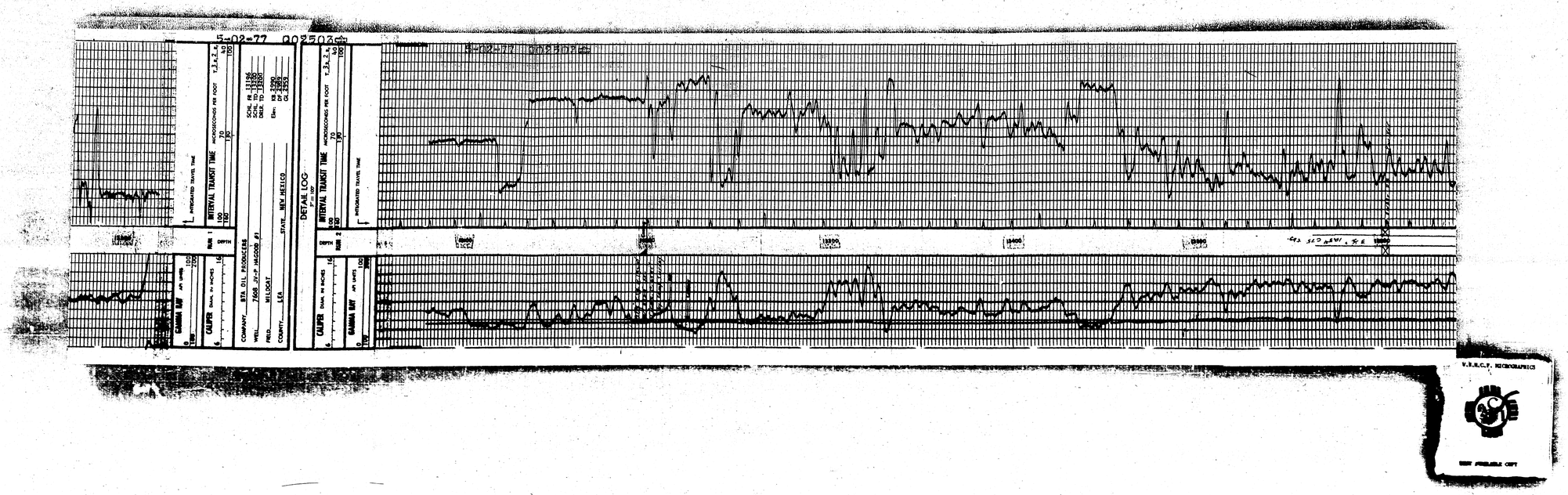
BEST AVAILABLE COPY

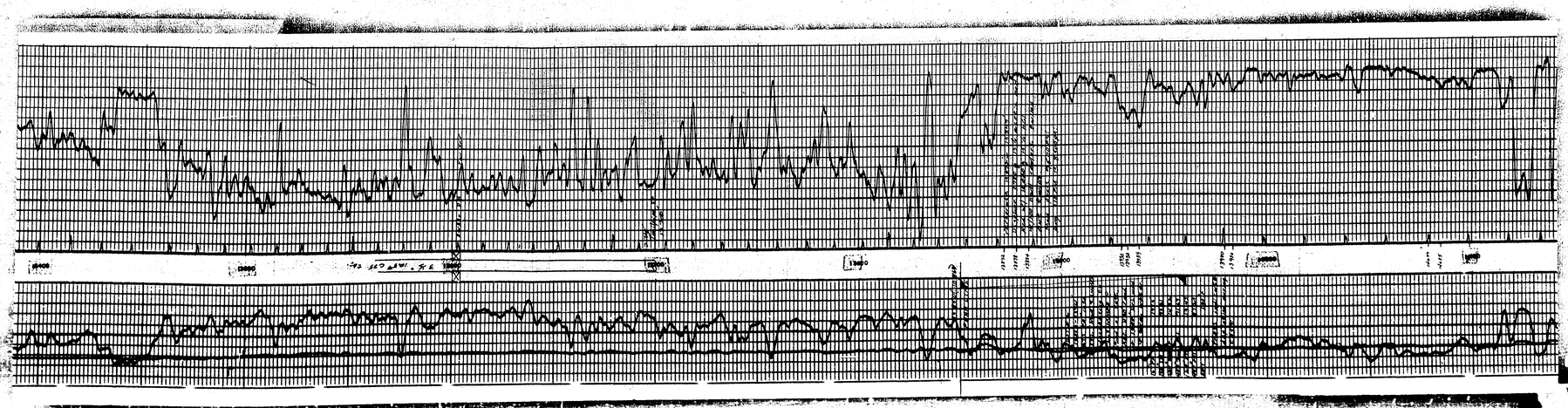


U.S.N.C.P. MICROGRAPHICS

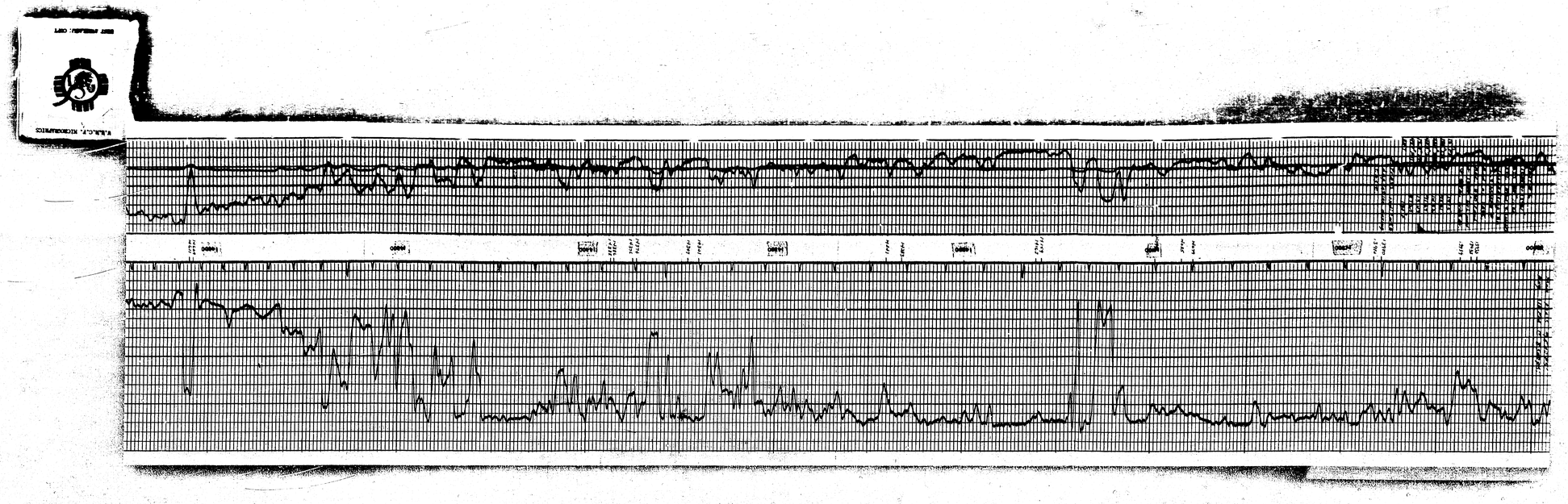
BEST AVAILABLE COPY

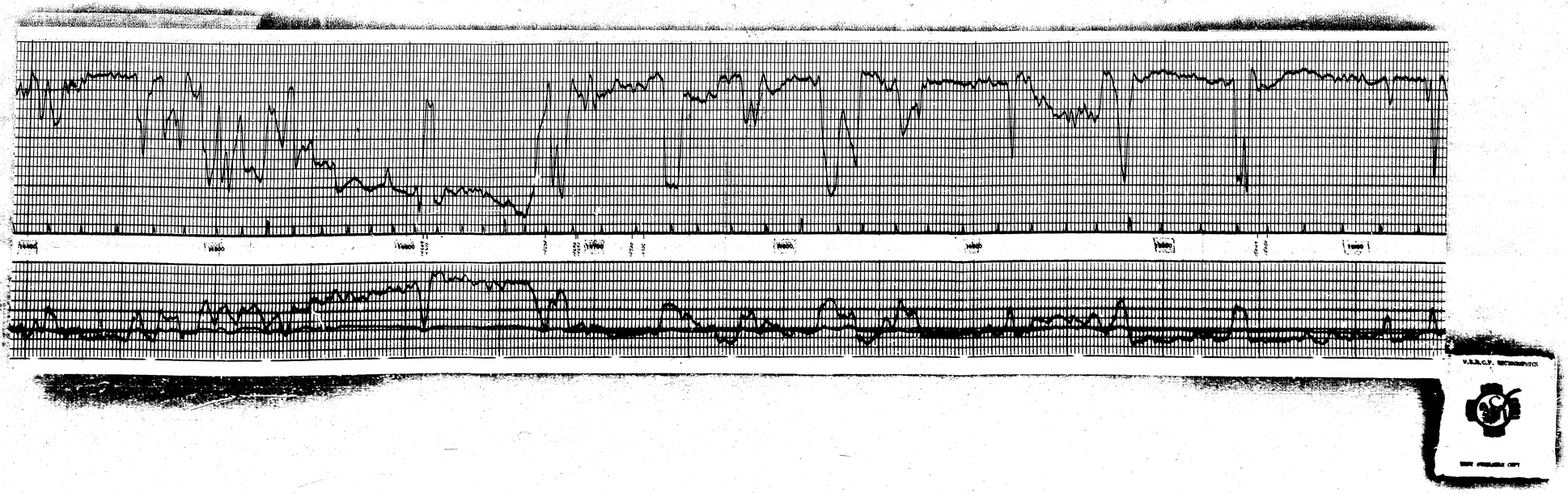

5-02-77 002503
INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
INTEGRATED TRAVEL TIME
CALIPER
GAMMA RAY
DEPTH
RUN 1
RUN 2
COMPANY BTA OIL PRODUCERS
WELL 7608 JV-P MADDOX #1
FIELD WILDCAT
COUNTY LEA
STATE NEW MEXICO
SCHL TD 13106
DRLR TD 13200
Elev. KB 2980
DF 2979
GL 2953
DETAIL LOG
V.R.M.C.P. MICROGRAPHICS

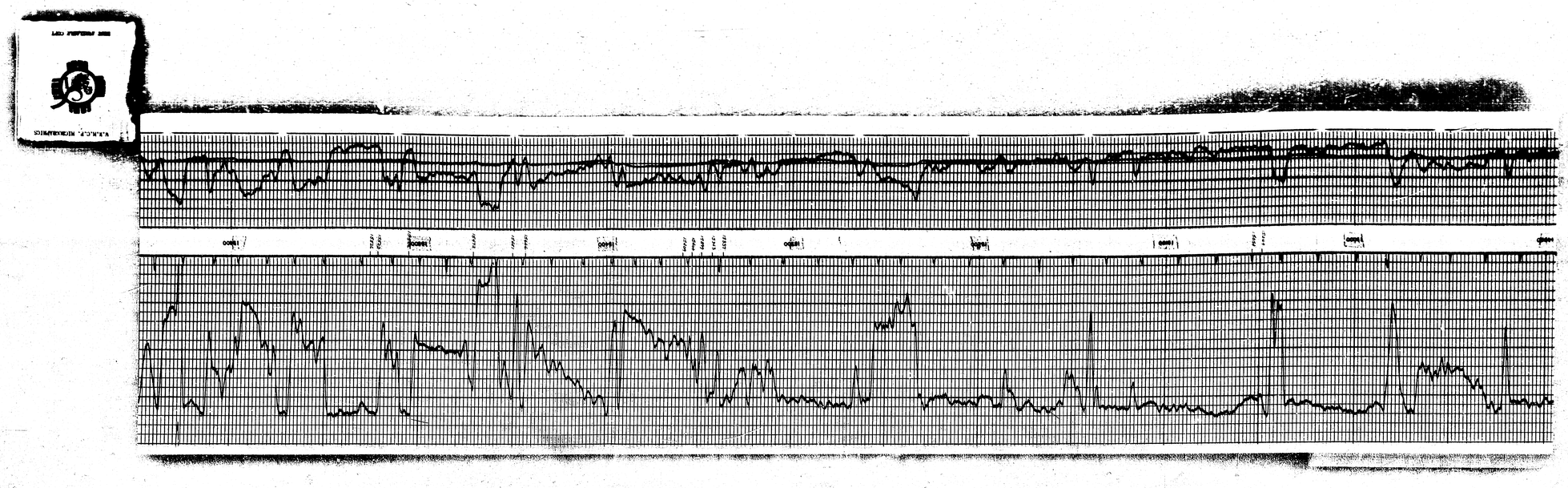

5-02-77 002502
DETAIL LOG
COMPANY ETA OIL PRODUCERS
WELL 7608 JV-P MCCOOD #1
FIELD WILDCAT
COUNTY LEA
STATE NEW MEXICO
INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
CALIPER
GAMMA RAY
API UNITS
RUN 1
RUN 2
DEPTH
INTEGRATED TRAVEL TIME
V.R.I.C.F. MICROGRAPHICS

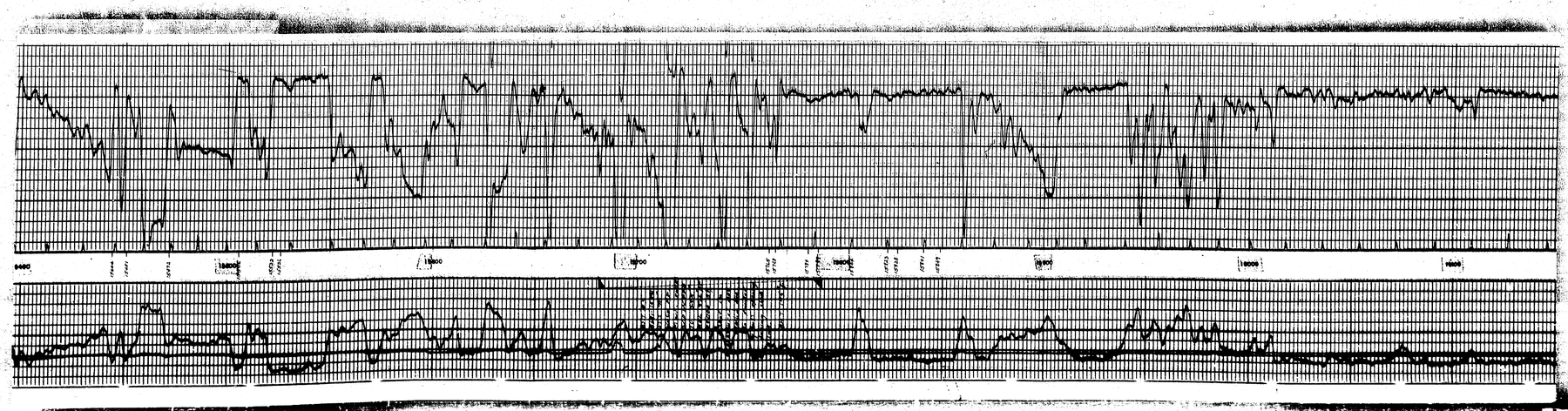


V.P.R.C.F. MICROGRAPHICS

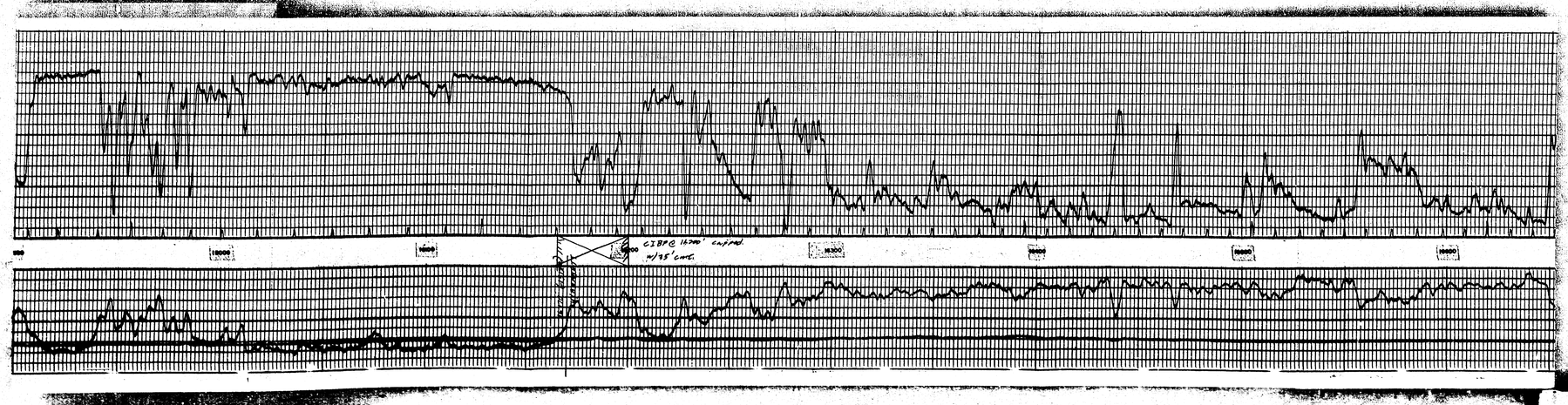




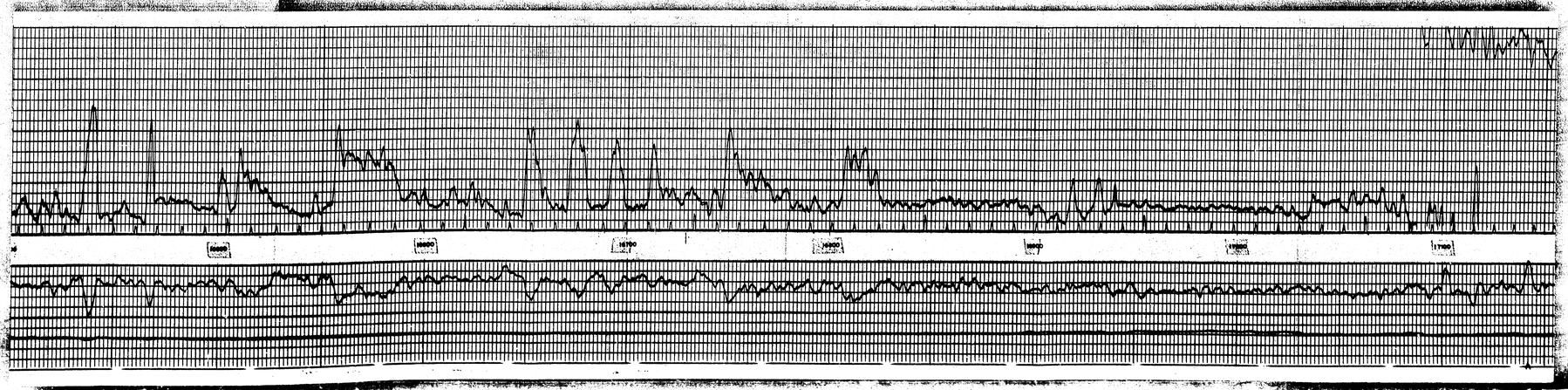




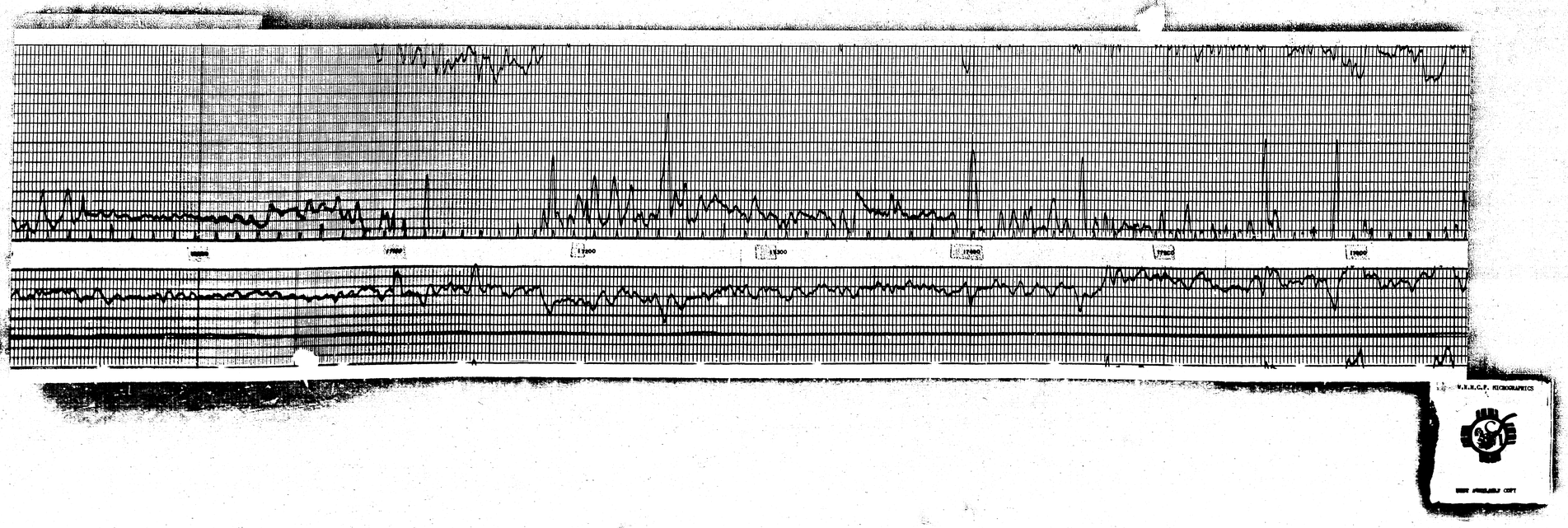
V.N.R.C.P. MICROGRAPHUS

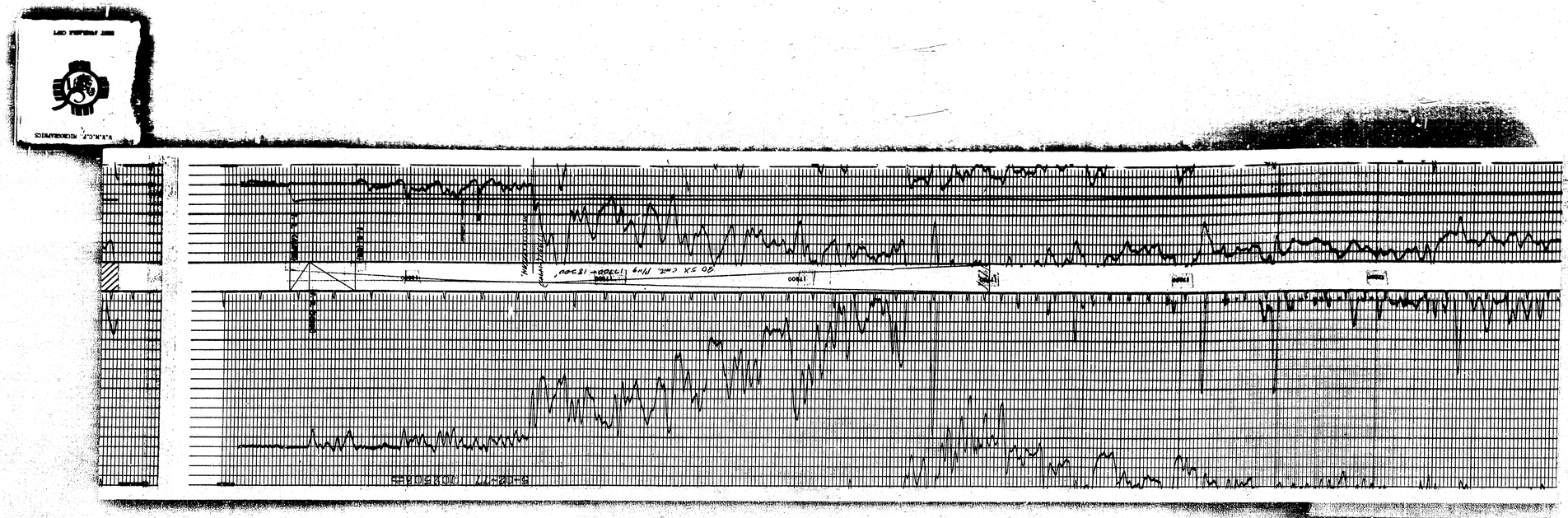


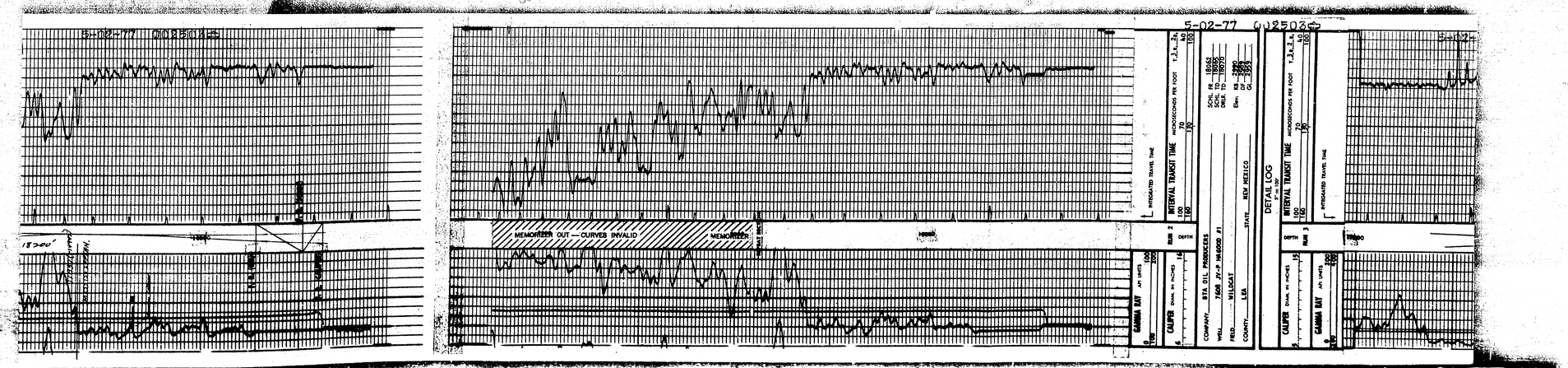
V.E.N.C.P. MICROGRAPHICS

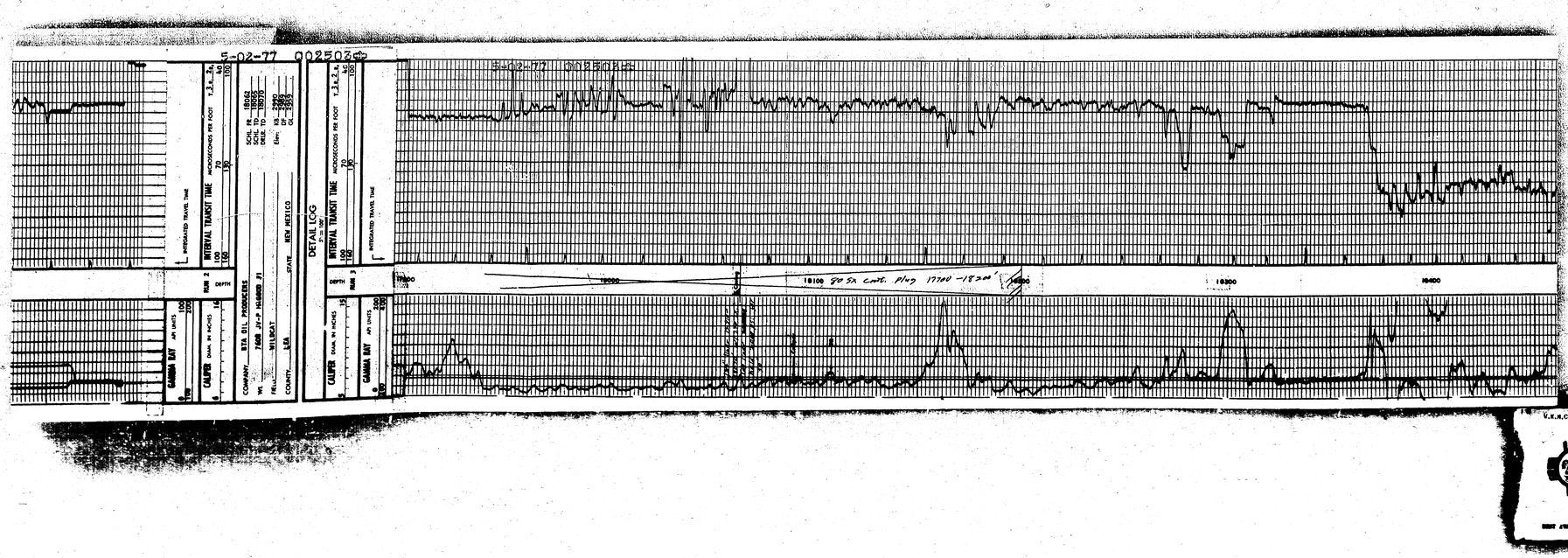


V.V.R.C.P. MICROGRAPHICS

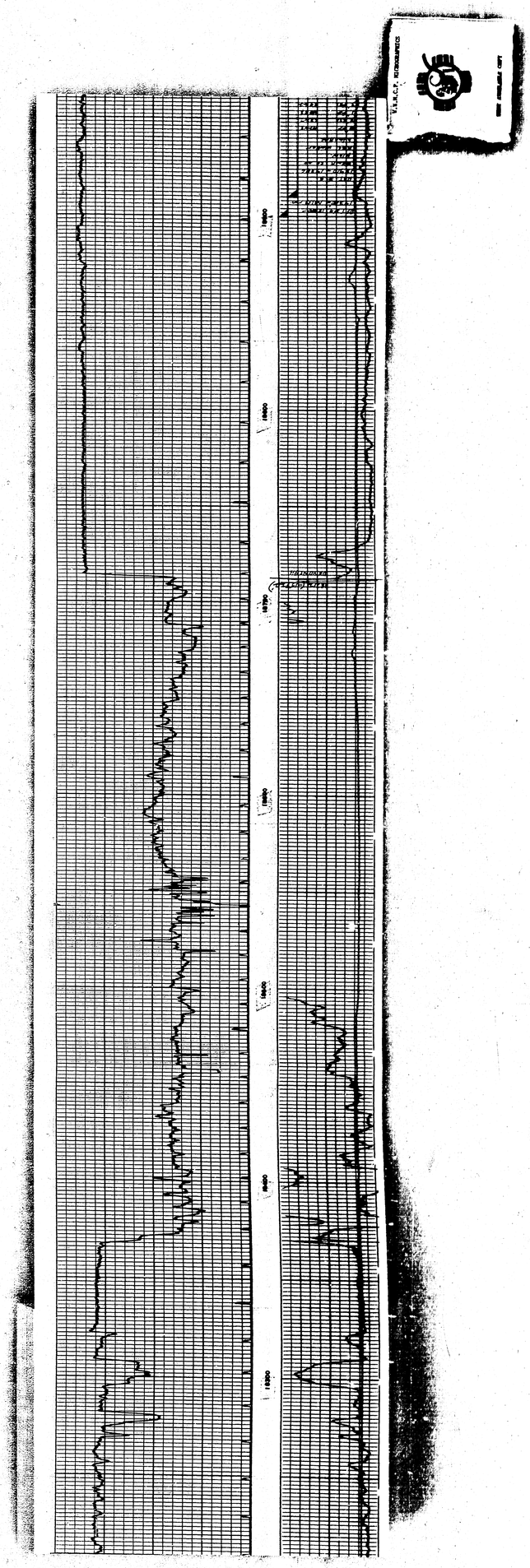

17100
17200
17300
17400
17500
17600
V.R.N.C.F. MICROGRAPHICS

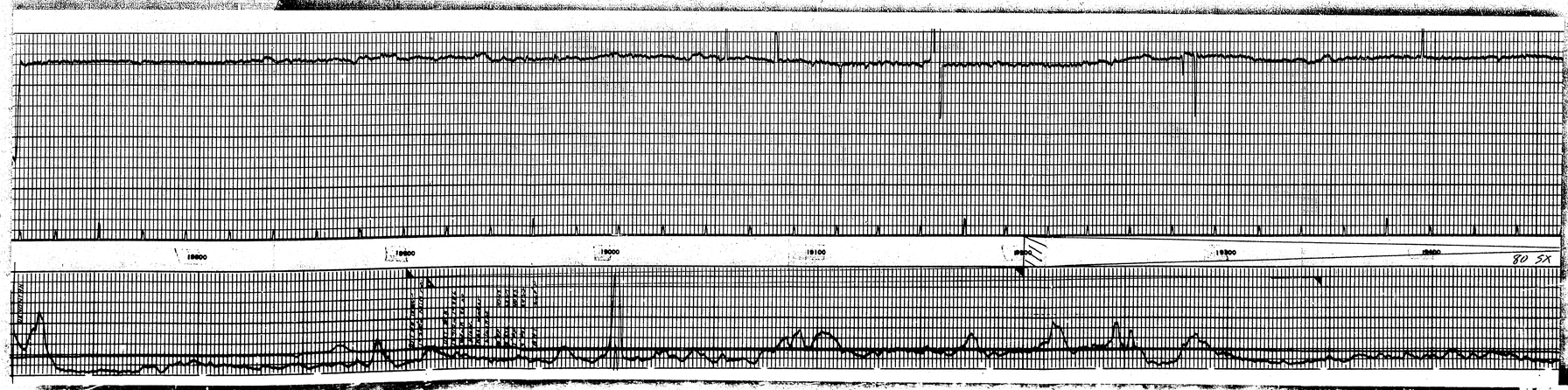



5-02-77 002503
MEMORIZER OUT — CURVES INVALID
MEMORIZER
INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
INTEGRATED TRAVEL TIME
GAMMA RAY
API UNITS
CALIPER
DIAM. IN INCHES
RUN 2
RUN 3
DEPTH
COMPANY BTA OIL PRODUCERS
WELL 7608 JV-P NM-0000 #1
FIELD WILDCAT
COUNTY LEA
STATE NEW MEXICO
DETAIL LOG
SCHL ID 18062
SCHL ID 18065
DRLR ID 190070
Elev. KB 3995
DF 3994
GL 3965
18200'
W.V.R.C.F. MICROGRAPHICS
NOT AVAILABLE (OCR)

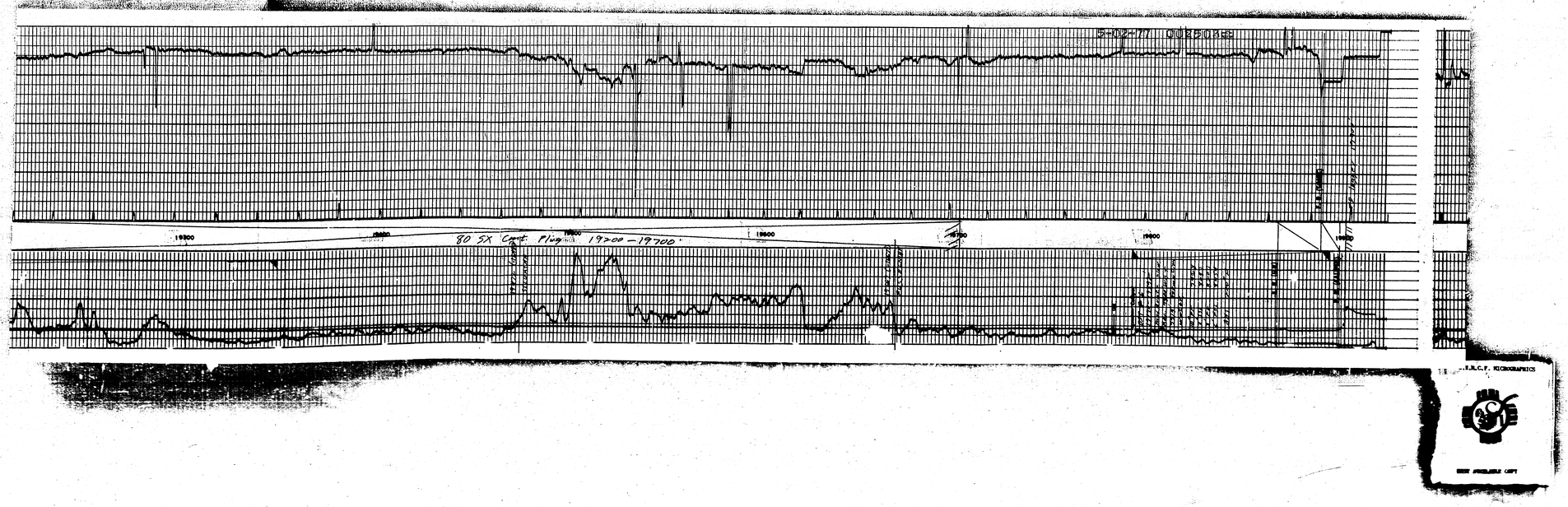


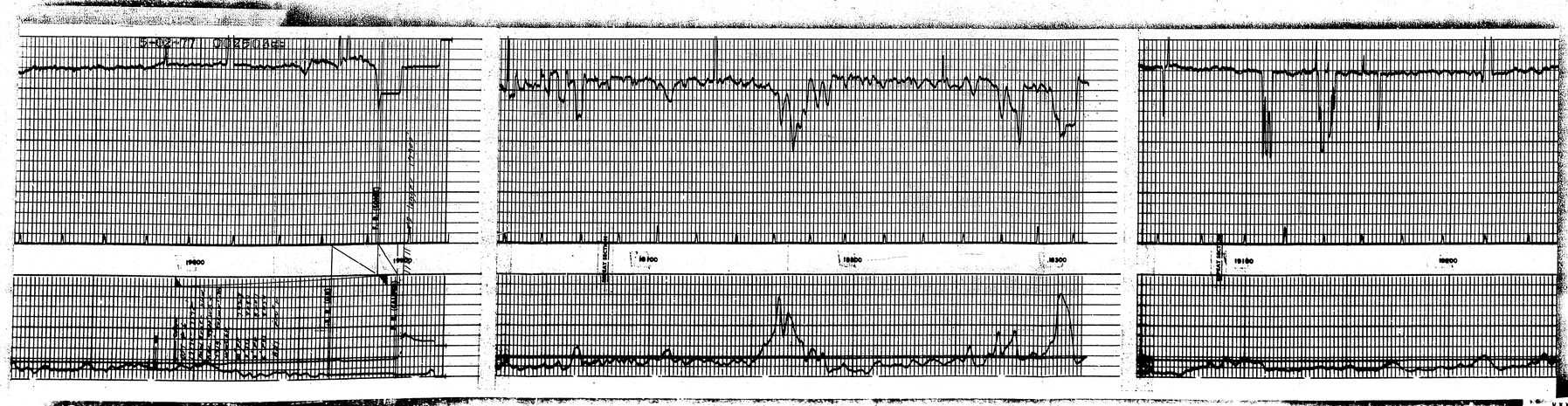
U.M.I.G.P. MICROGRAPHICS
BEST AVAILABLE COPY



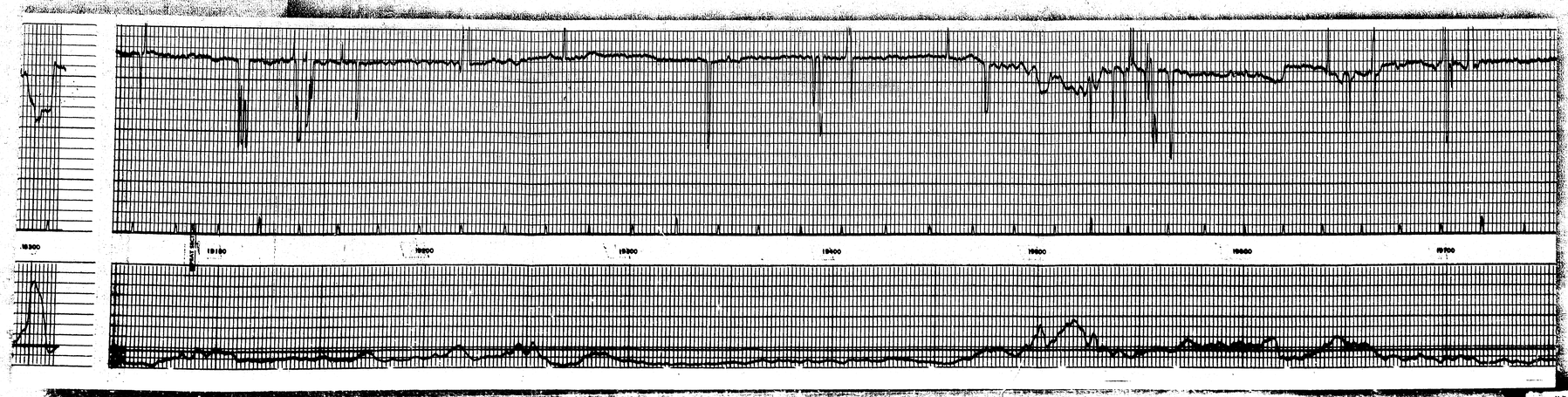


U.S.N.R.C.F. MICROGRAPHICS


5-02-77 0025 0455
19300
19400
19500
19600
19700
19800
19900
80 SX Cmt: Plug 19700 - 19700'
T.R.C.F. MICROGRAPHICS

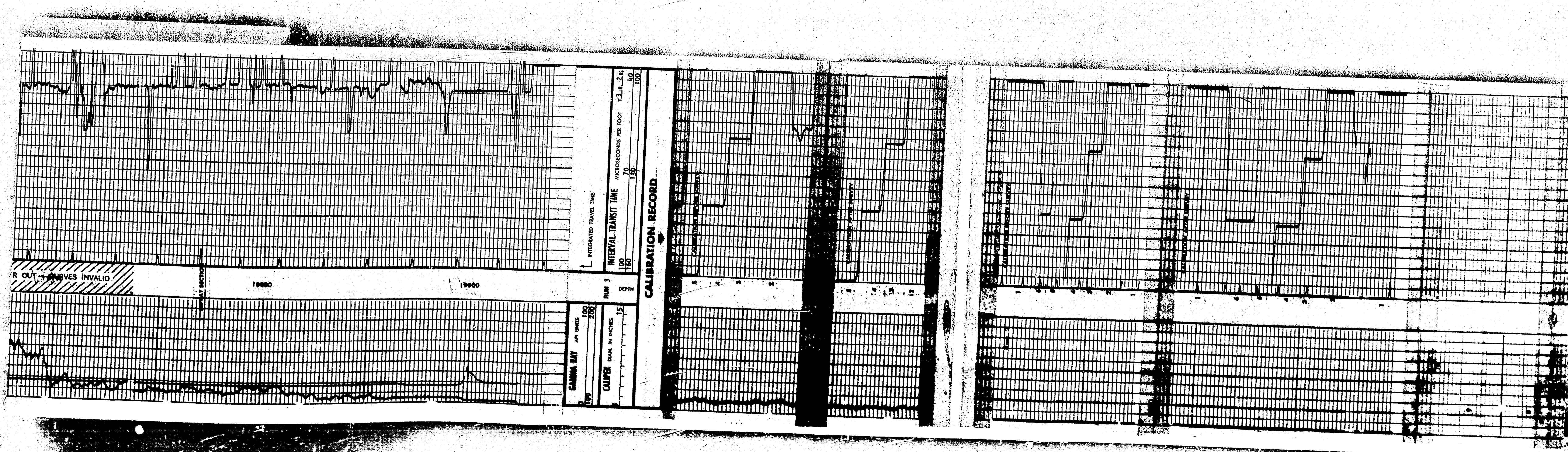


U.S.N.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

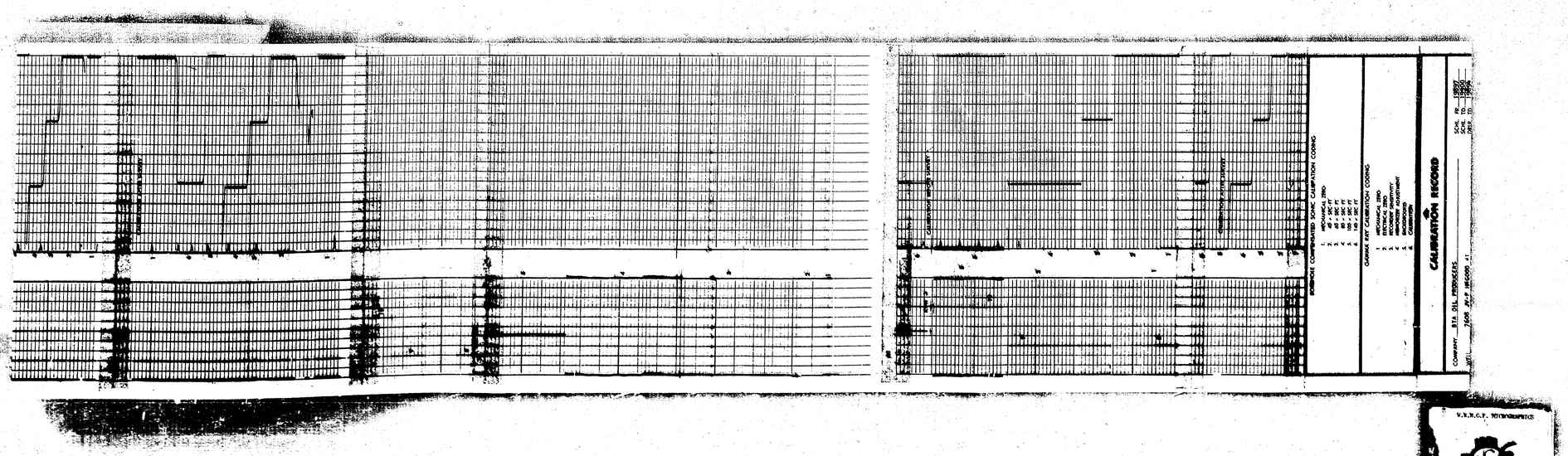


V.N.R.C.F. MICROGRAPHICS

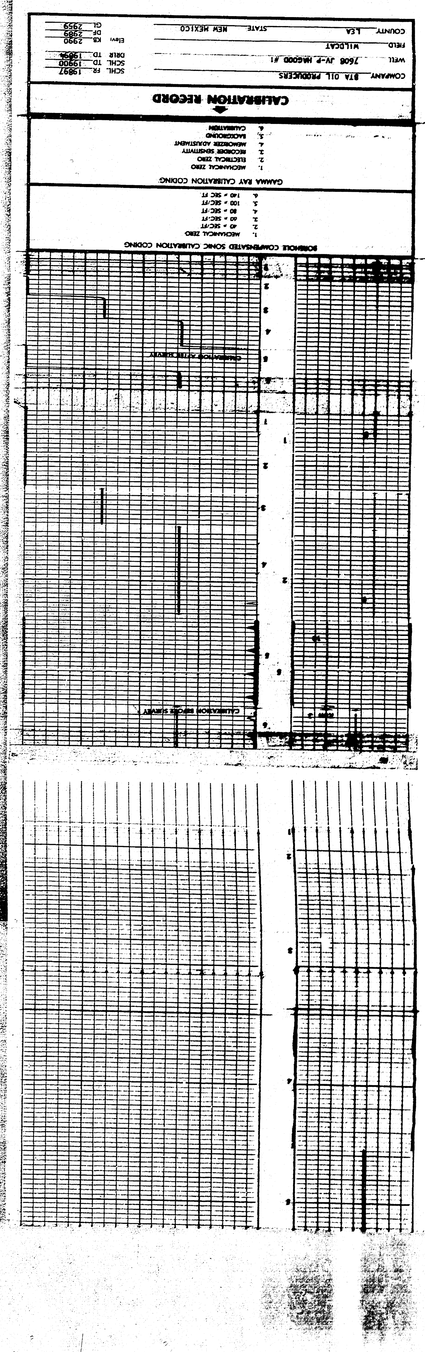
V.S.R.C.F. MICROGRAPHICS
BEST AVAILABLE COPY



C.F. MICROGRAPHICS
BEST AVAILABLE COPY


CALIBRATION RECORD
COMPANY STA OIL PRODUCERS
WELL JOB 24-7 SECOND #1
SCHL FR 18897
SCHL TO 19950
SEC TO 19950
GAMMA RAY CALIBRATION CODING
1 MECHANICAL ZERO
2 ELECTRICAL ZERO
3 API CALIBRATION
4 BRIDGER ADJUSTMENT
5 BACKGROUND
6 CALIBRATED
BOREHOLE COMPENSATED SONIC CALIBRATION CODING
1 MECHANICAL ZERO
2 40 = 140 FT
3 40 = 180 FT
4 100 = 140 FT
5 100 = 180 FT
6 CALIBRATED
CALIBRATED GAMMA RAY SURVEY
CALIBRATED SONIC SURVEY
V.R.N.C.F. MICROGRAPHICS

S.A.M.C.P. RECOMMENDED


CALIBRATION RECORD
COMPANY BTA OIL PRODUCERS
WELL 7608 JV-P NM6000 #1
FIELD WILDCAT
COUNTY LEA
STATE NEW MEXICO
SCHL FR 19897
SCHL TD 19900
DRLF TD 19906
ELEV. KB 2990
DF 2989
GL 2959
BOREHOLE COMPENSATED SONIC CALIBRATION CODING
1. MECHANICAL ZERO
2. 40 + SEC/FT
3. 80 + SEC/FT
4. 120 + SEC/FT
5. 140 + SEC/FT
6. 160 + SEC/FT
GAMMA RAY CALIBRATION CODING
1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. RECORDER SENSITIVITY
4. MICRODOSE ADJUSTMENT
5. BACKGROUND
6. CALIBRATION
CHECKSHOT SURVEY
ARMCO STEEL CORPORATION