

Schlumberger

COMPENSATED NEUTRON LOG
 SCHLUMBERGER OF CANADA
 Calgary, Alberta

PROVINCE YUKON TERRITORY
 FIELD WILDCAT
 WELL COLUMBIA ET AL
 KOTANEELEE YT 1-48
 COMPANY COLUMBIA GAS
 DEVELOPMENT OF CANADA LTD.

COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD.
 WELL COLUMBIA ET AL KOTANEELEE
 FIELD WILDCAT
 PROVINCE YUKON TERRITORY
 LOCATION
 LSD 60° 07' 35.917" N-141° 07' 36.447" W-1095
 SEC 27 TWP 10 RANG 10
 Other Services:
 CRU - VD - GR
 FDC - CNL - GR
 BIC - GP, DISFI
 DLL

Perms. ant Datum: 01 Elev: 827.34 m
 Log Measu. ad From: 48 7.61 m Above Perm. Datum
 Drilling Measured From: KB
 Elev: K.B. 834.95 m
 C.F. 827.34 m
 G.L. 827.34 m

Date	Run No.	One	Two	Three	Four
	Depth - Driller	r	m	m	m
	Depth - Logger (Schl.)	m	m	m	m
	Birm Log Interval	m	m	m	m
	Top Log Interval	m	m	m	m
	Casing - Driller	@	@	@	@
	Casing - Logger	m	m	m	m
	Bit Size	mm	mm	mm	mm
	Type Fluid in Hole				KCl
	Dens (kg/m ³)				
	pH				
	Source of Sample				
	Rm @ Meas. Temp.	@	@	@	@
	Rmt @ Meas. Temp.	@	@	@	@
	Source: Rmt				
	Rm @ BHT	@	@	@	@
	Circulation Stopped				
	Tool Last on Bottom				
	Max Rec. Temp. #1 #2	°C	°C	°C	°C
	Unit District				
	Recorded By				
	Witnessed By				

Run No.	FOUR	REMARKS	2 nd J-LK 30 EDM RK 5-V
Service Order No.	200054		
EQUIPMENT DATA			
CNP	BA 1654		
CNC	A 1654		
CNB	AB 1664		
NSR	GB 2618		
SGC	JC 1638		
TTR			
		Log Taped	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

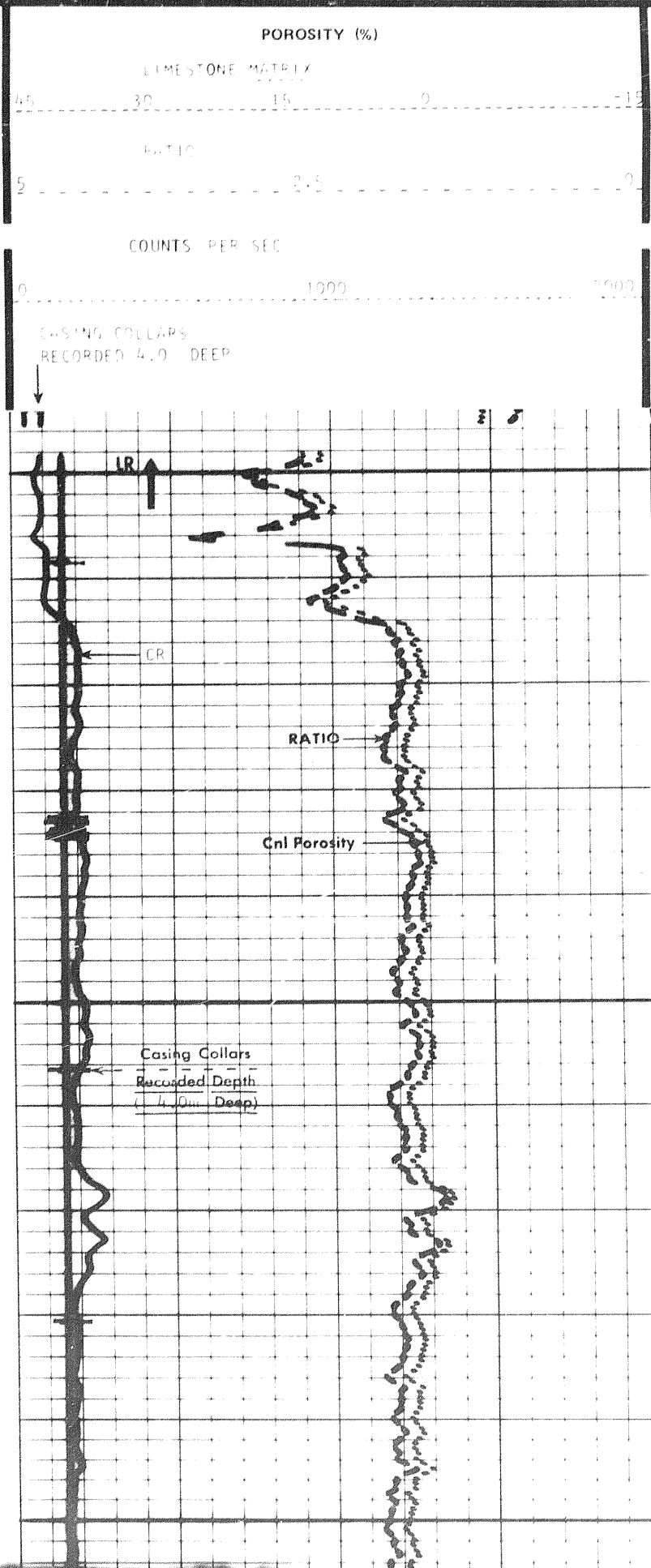
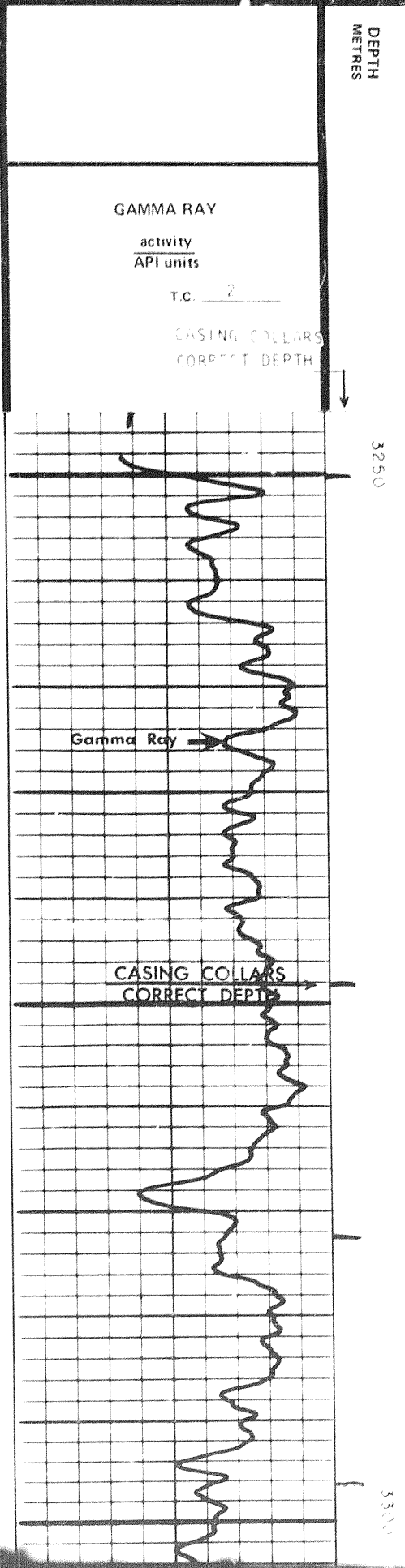
Run No.	GAMMA RAY - CPS			Before Log		CNL		After Log	
	Cal. Scale	Background	Total	Near CPS	Far CPS	Ratio	Near CPS	Far CPS	Ratio
One	165								
Two	165								
Three	165								
Four	165	N/C		371	153	2.37			2.37

Run No.	Depths		CNL Auto Hole Size Correction	Hole Size Setting (If not auto)	Speed m/min	T.C.	GR Scale	CNL Matrix	Porosity Scale
	From	To							
FOUR	TD	CSG.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		9.1	2	-	LIME	45-15-15

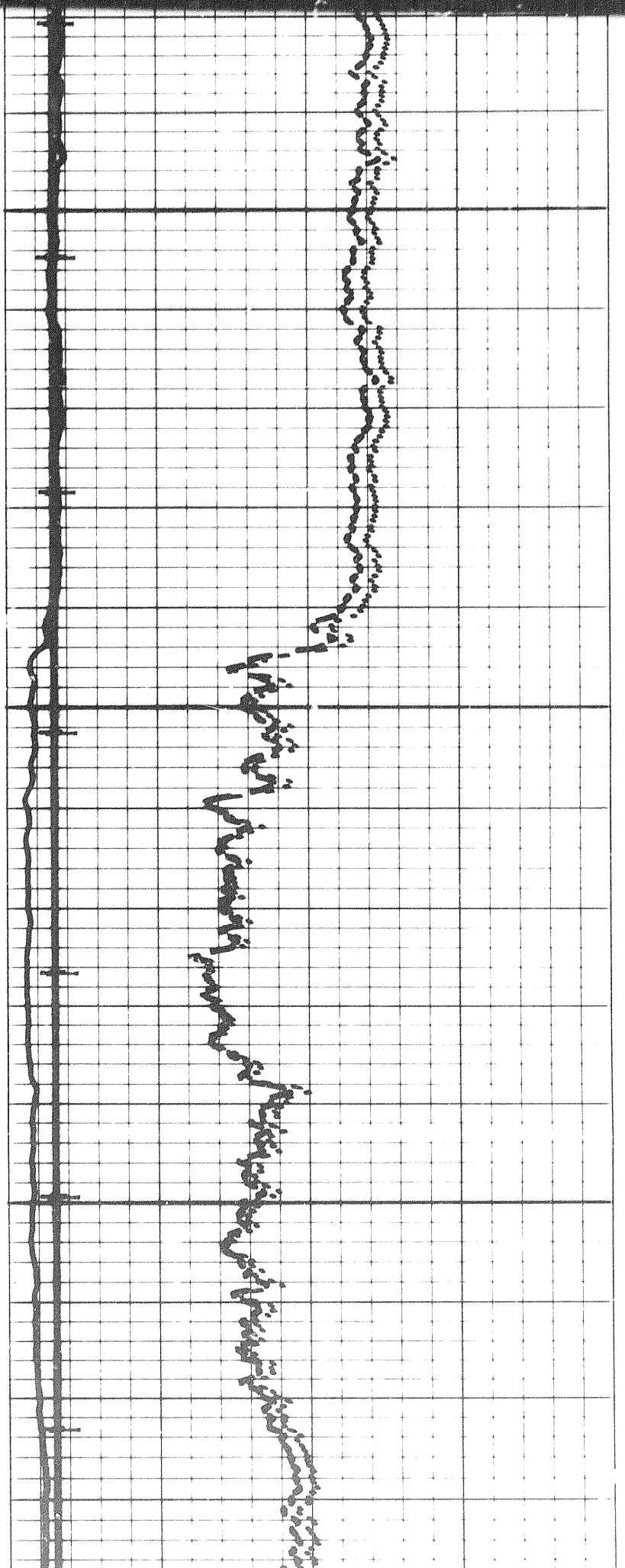
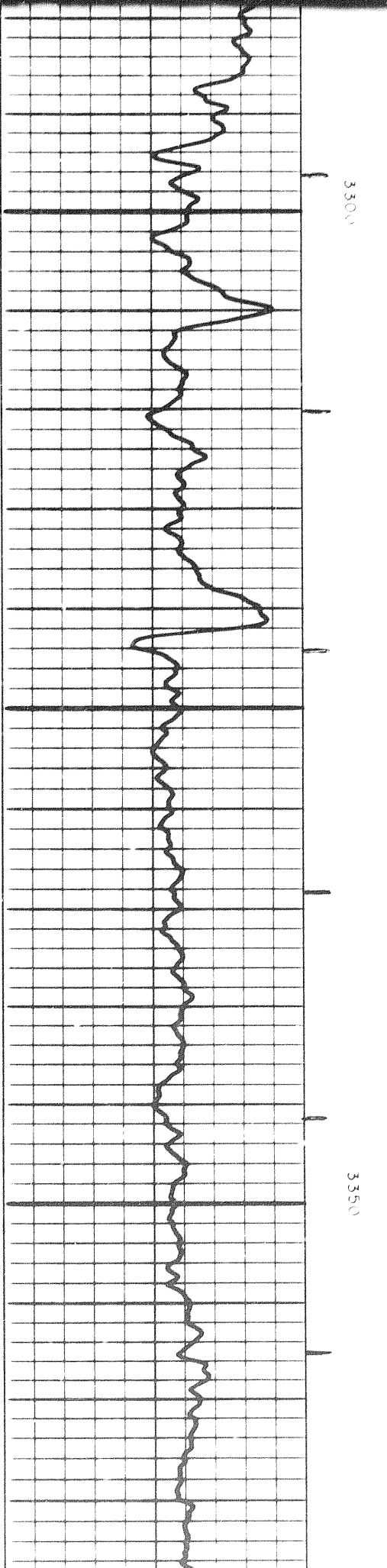
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

DEPTH METRES	POROSITY (%)			
	45	30	15	0

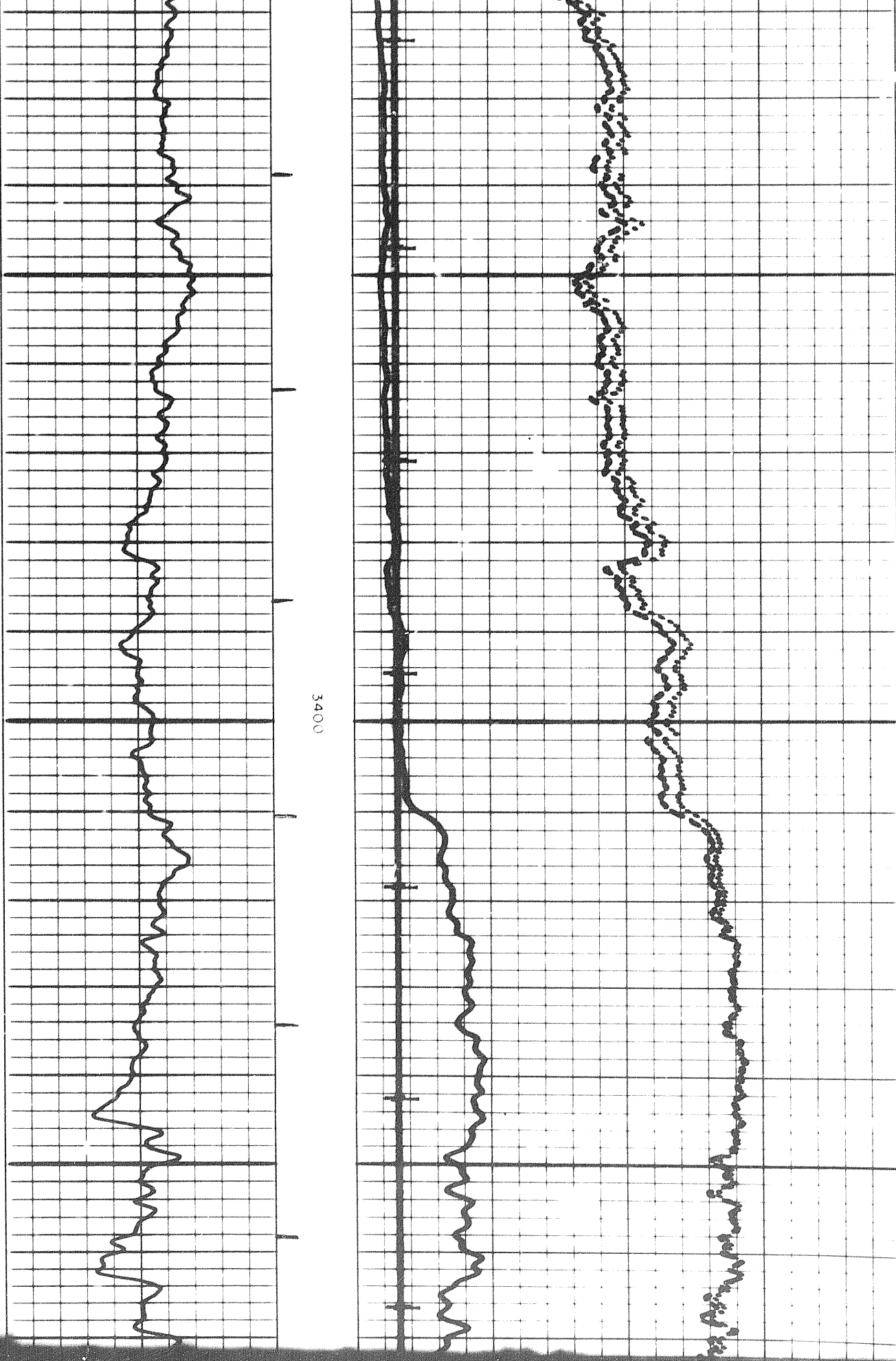
X2018

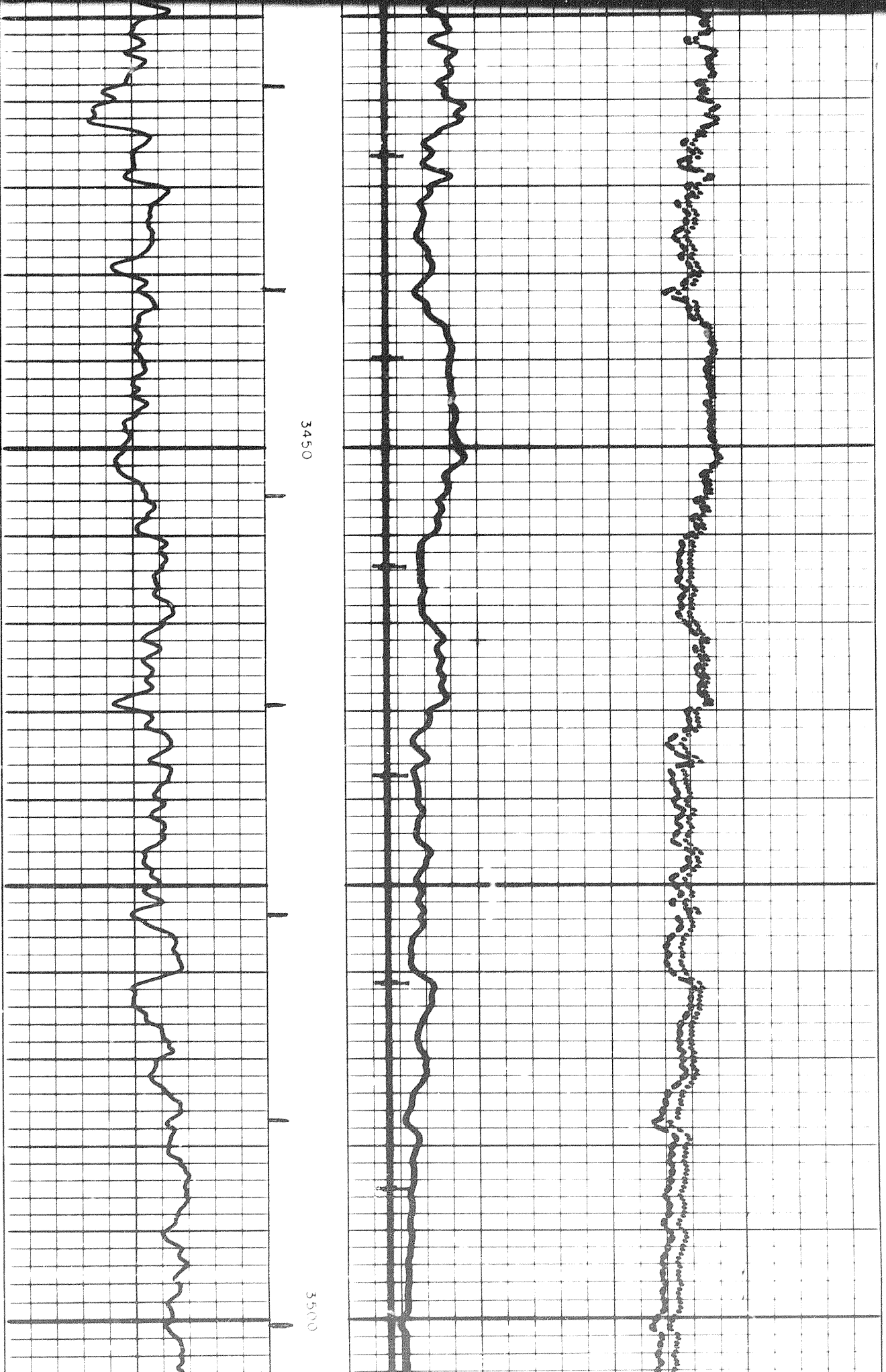


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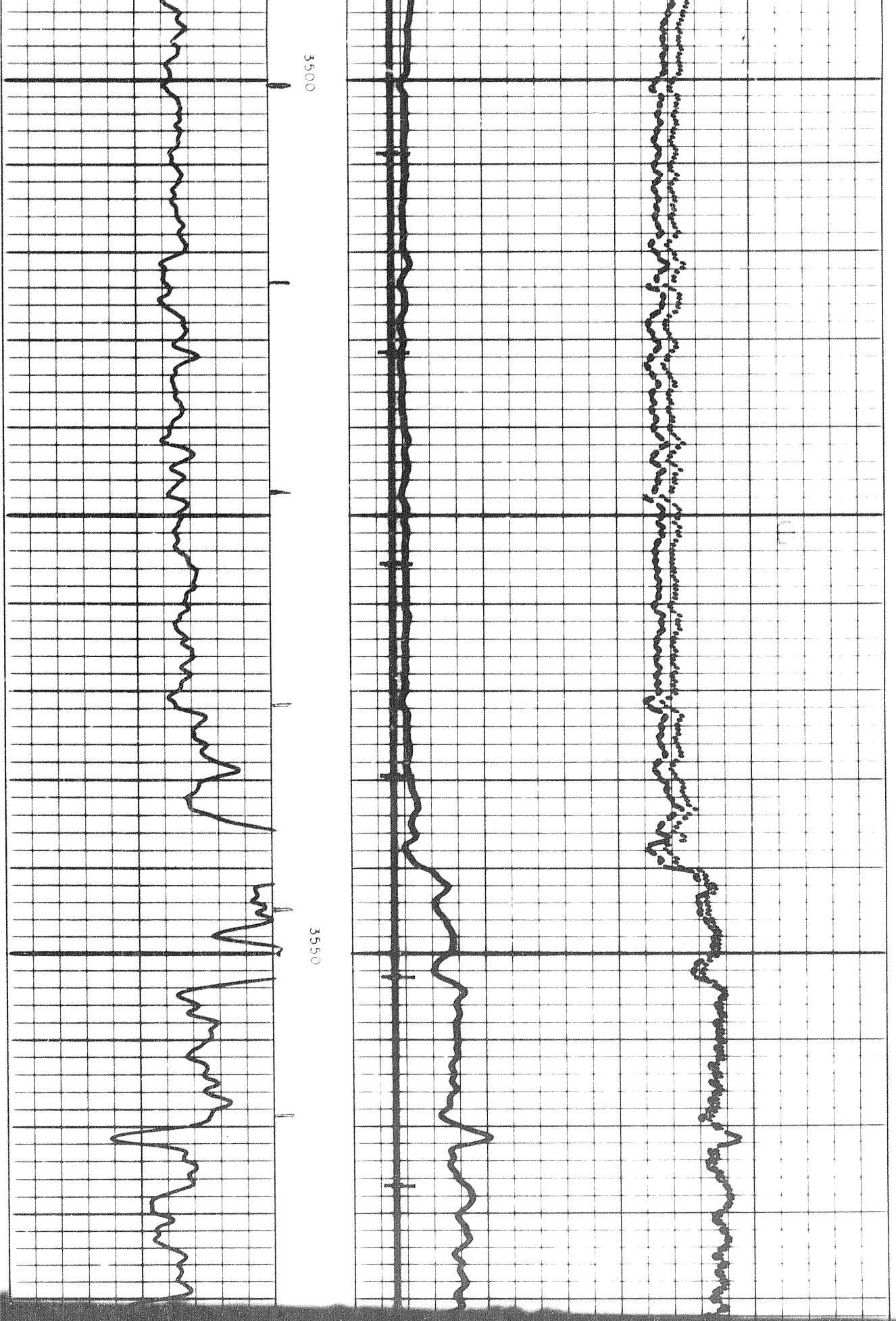


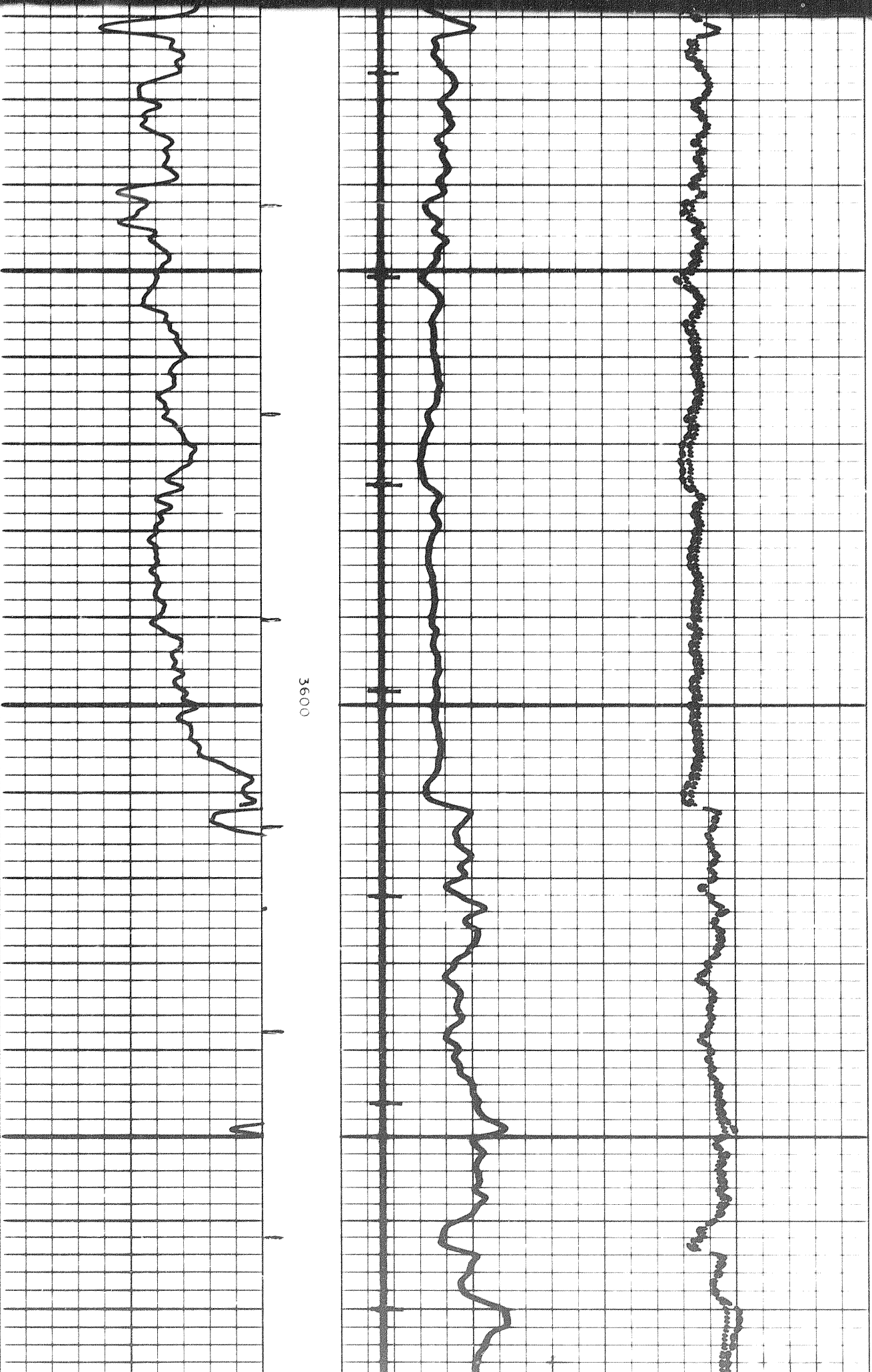
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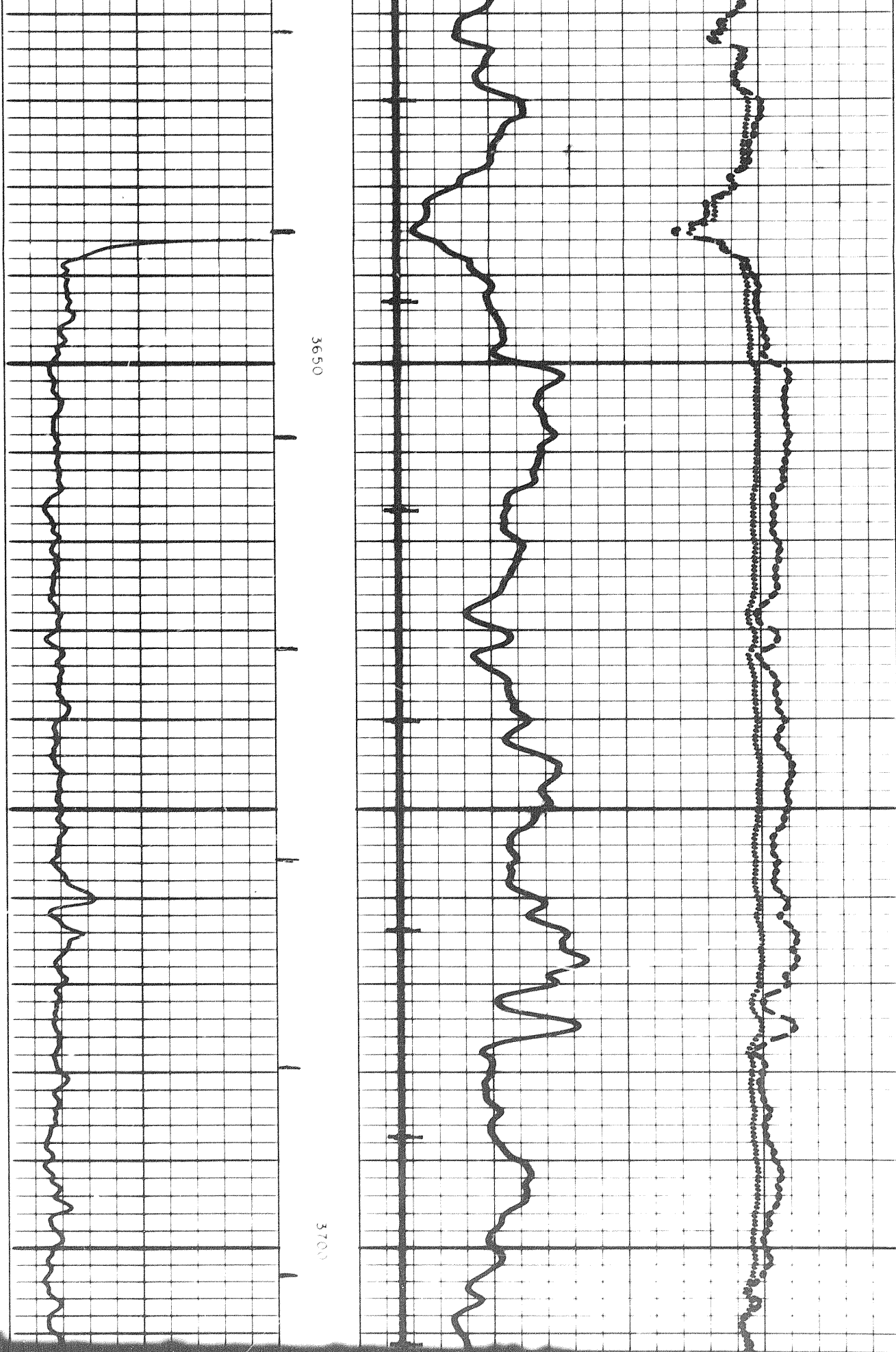


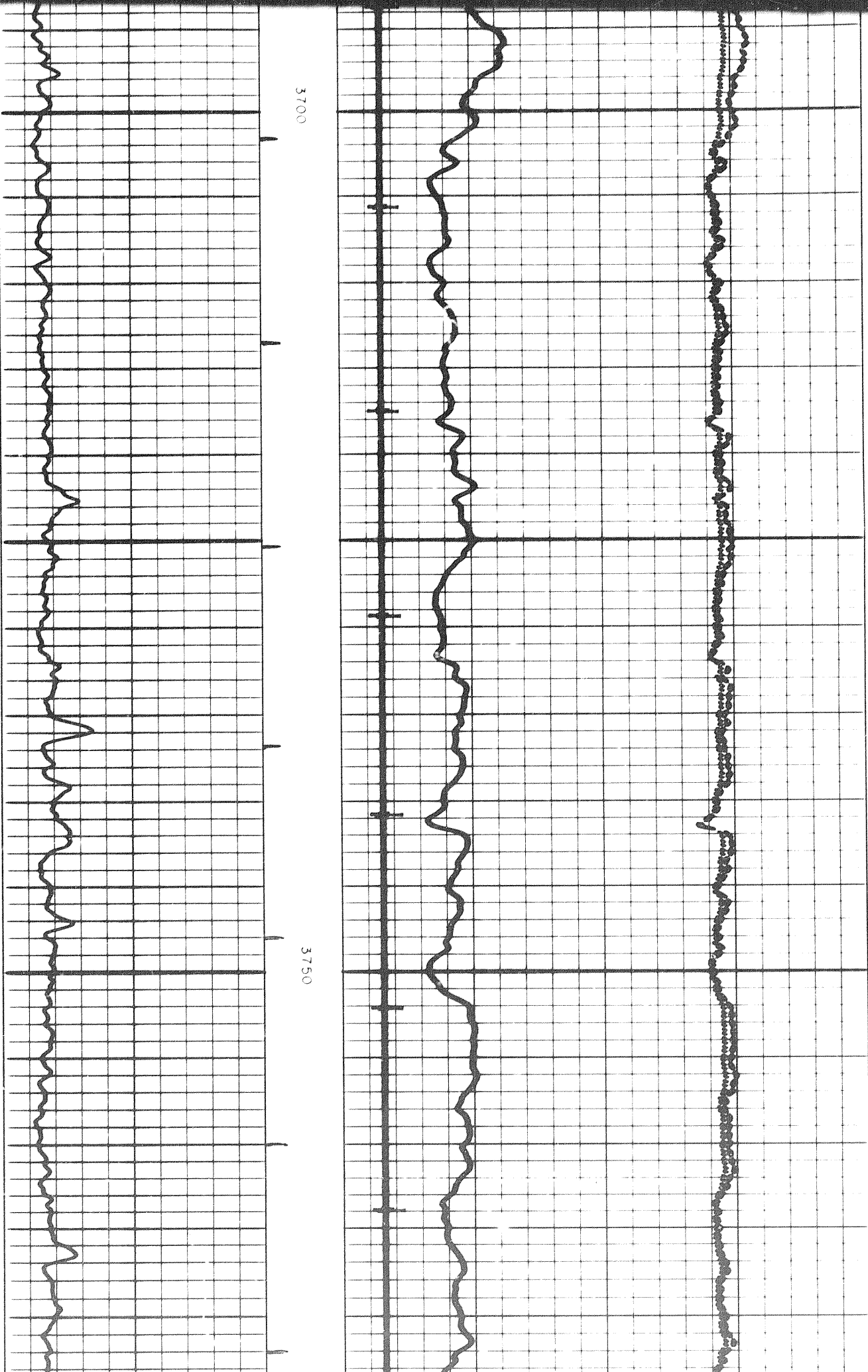
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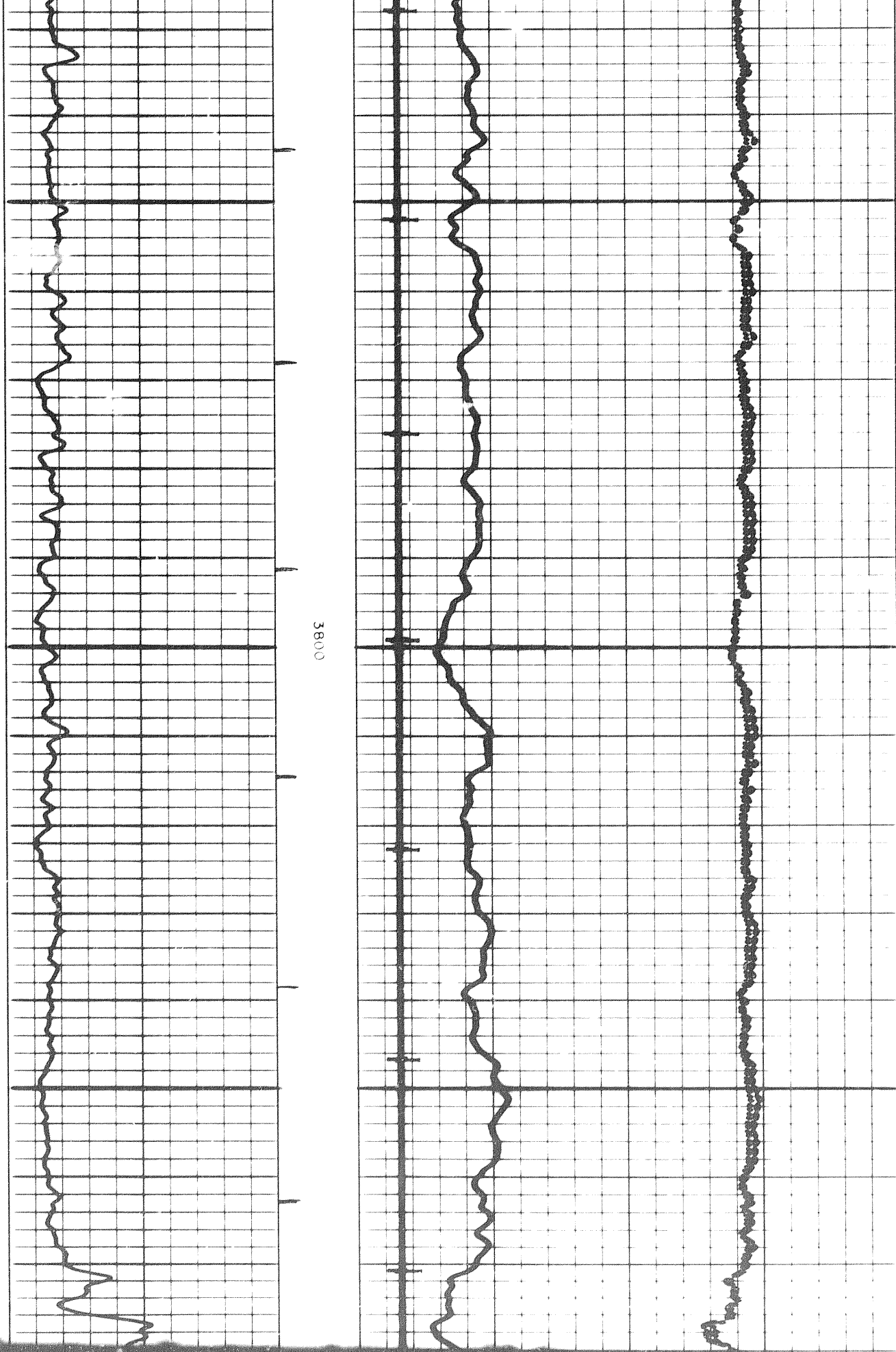


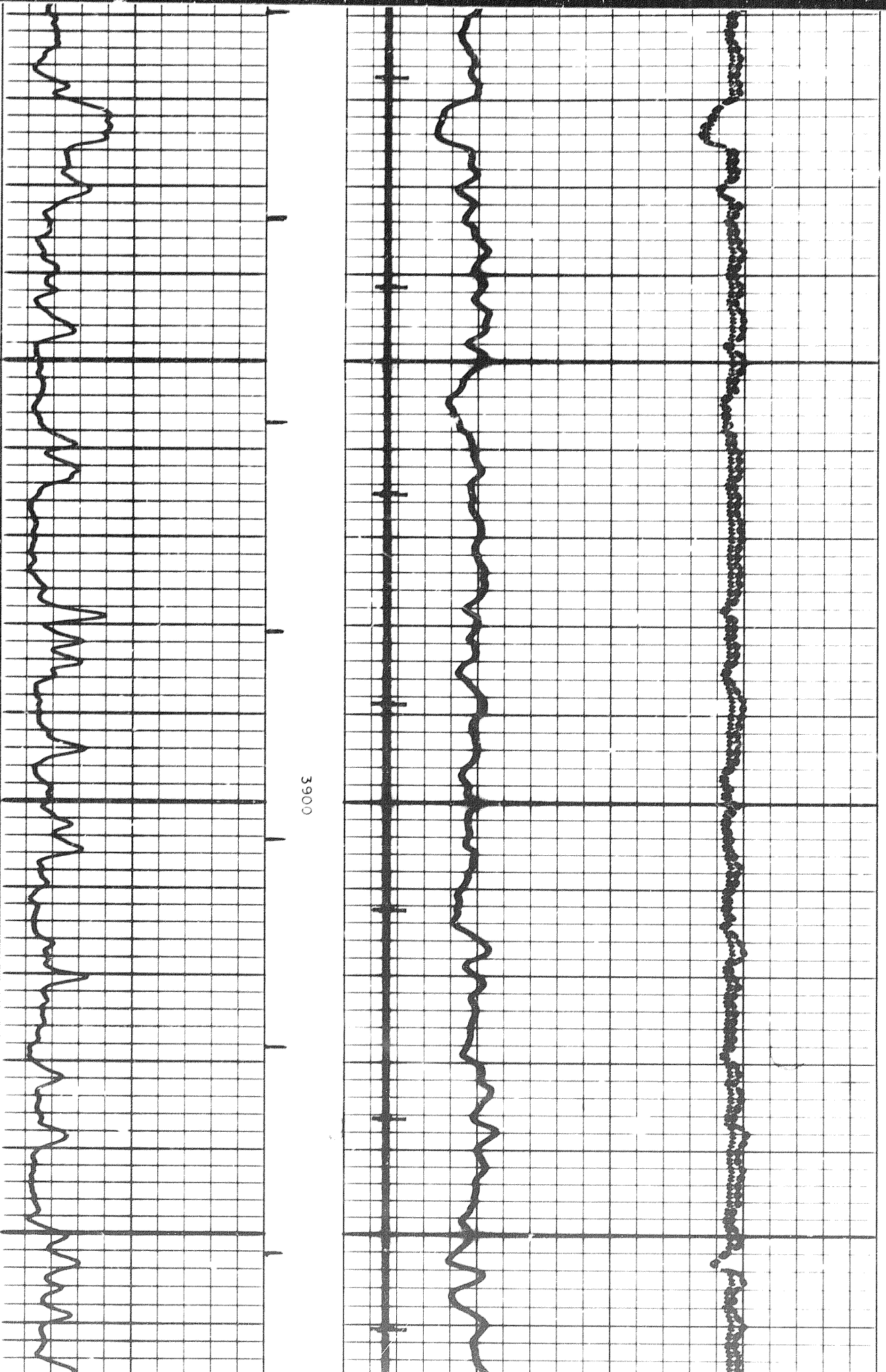
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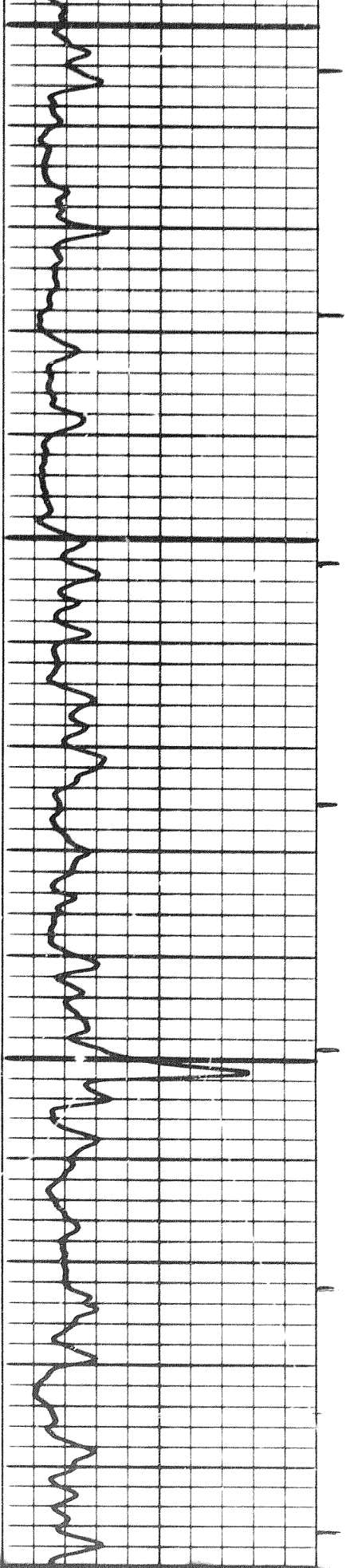


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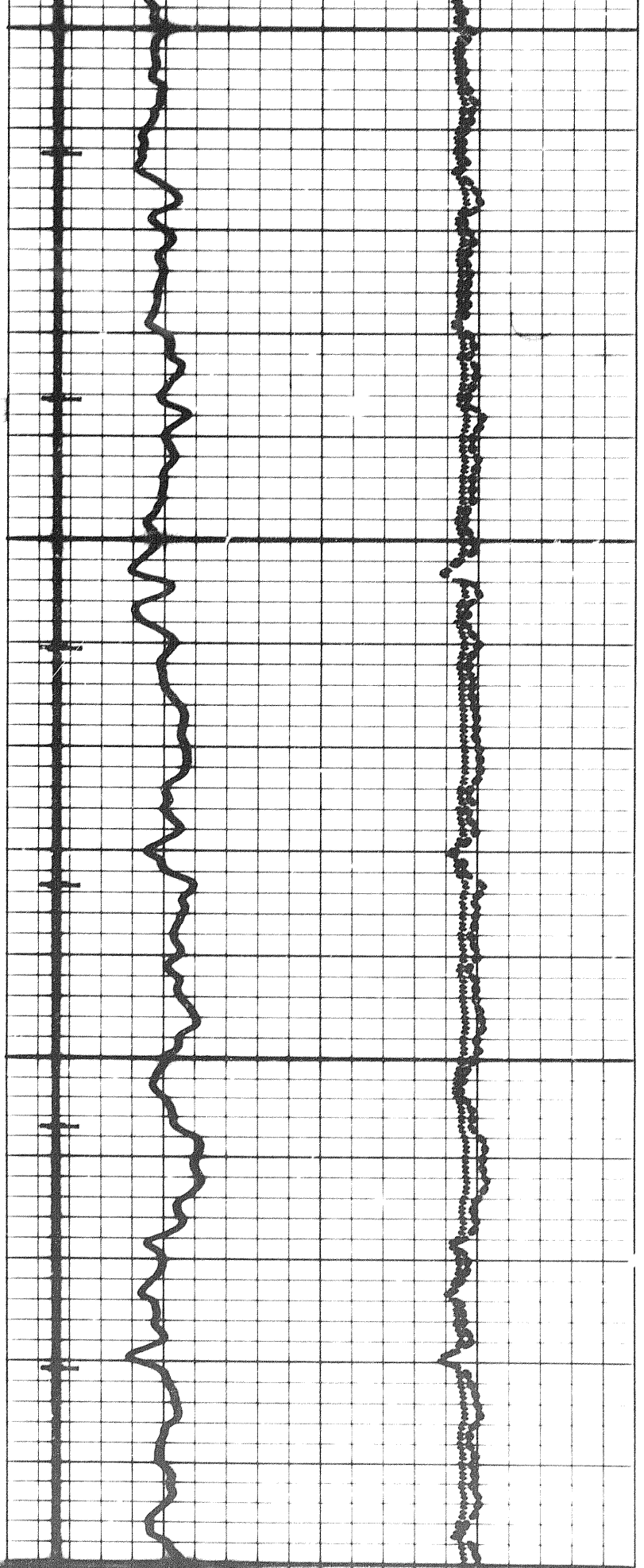


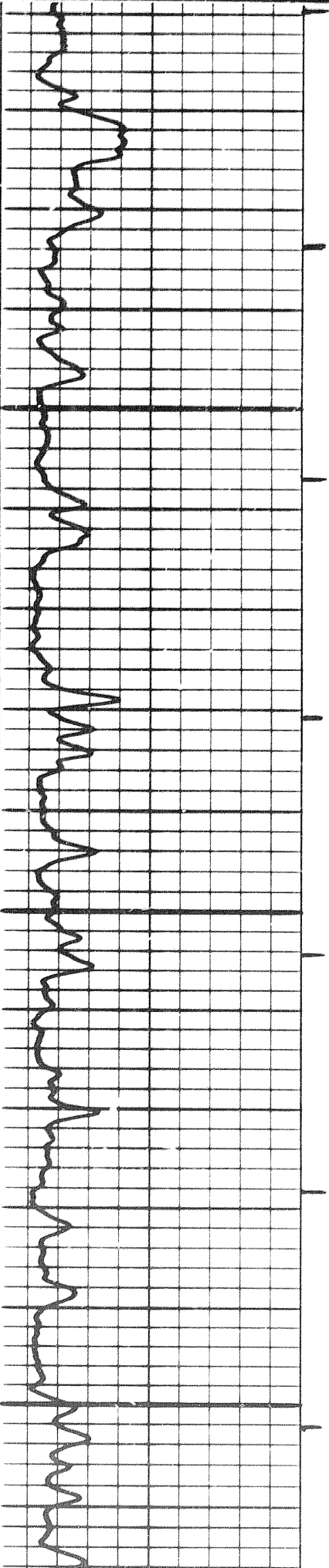
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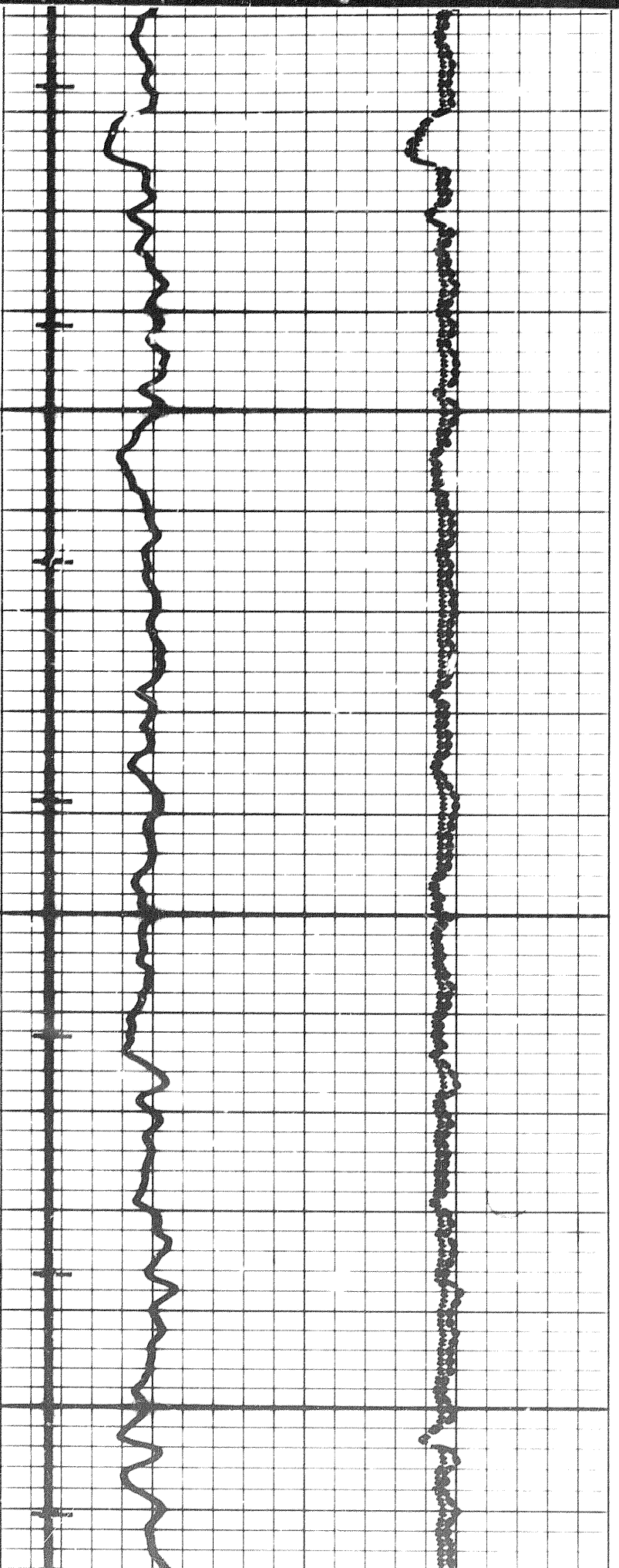
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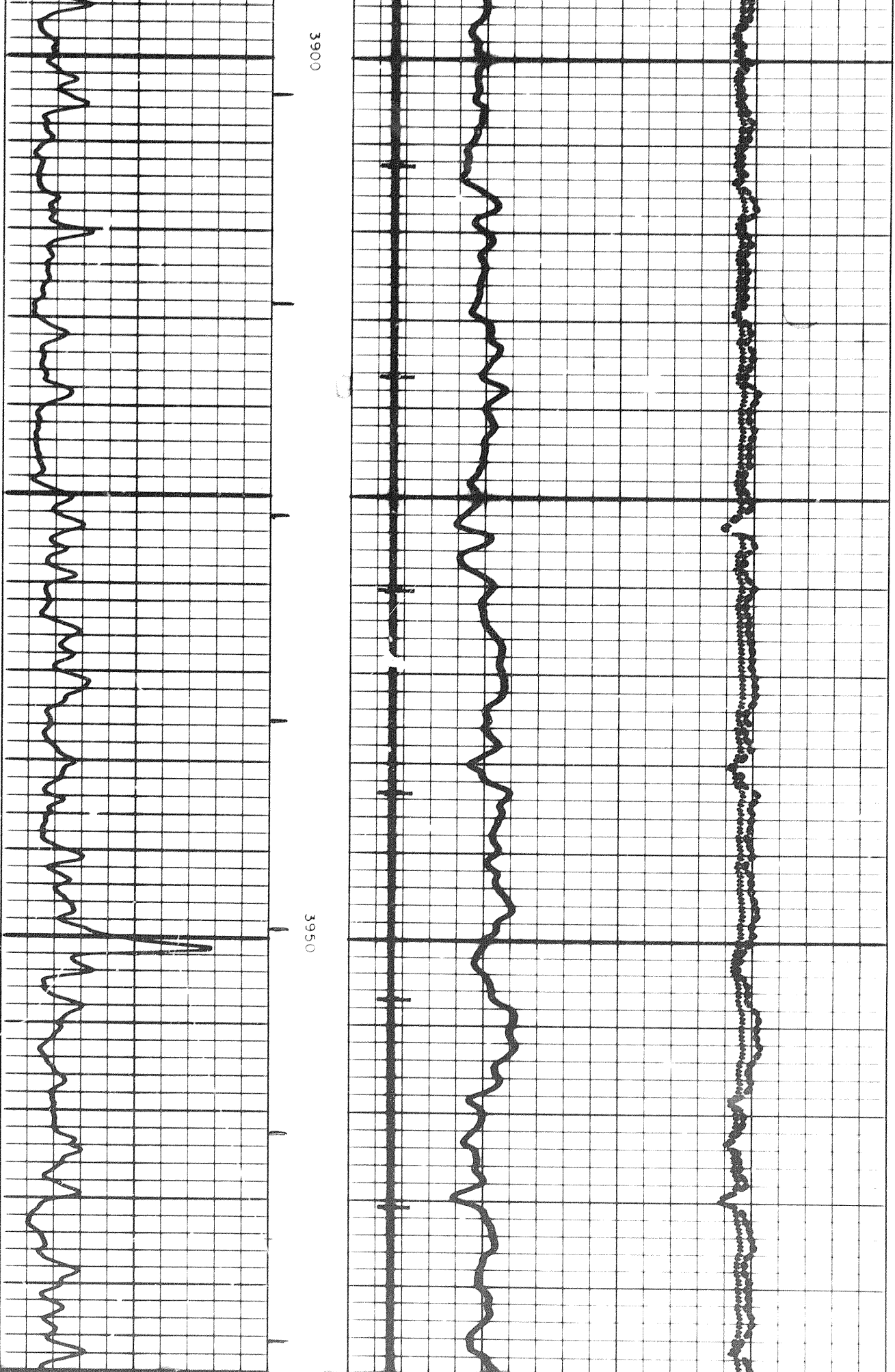
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3900

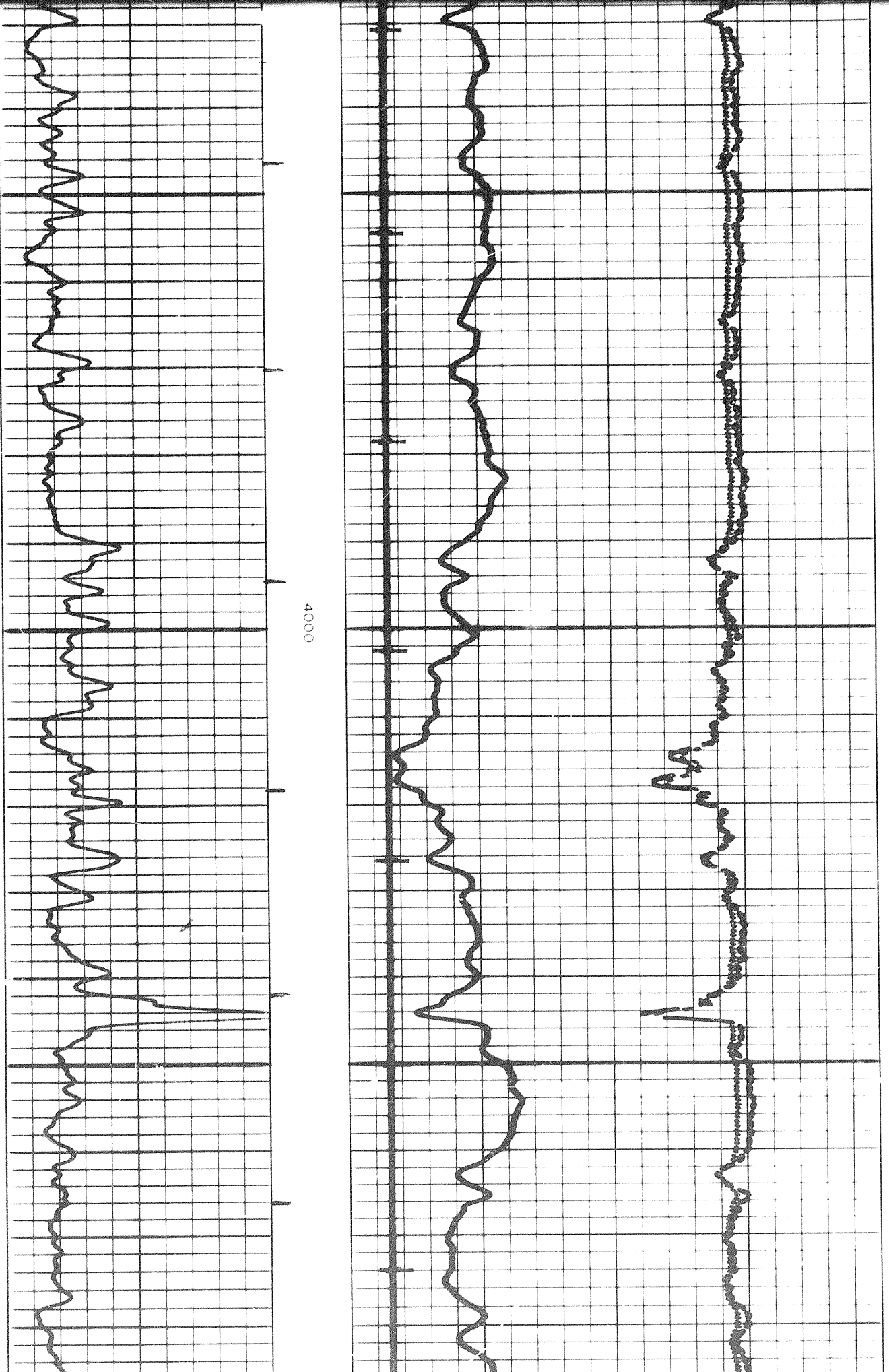




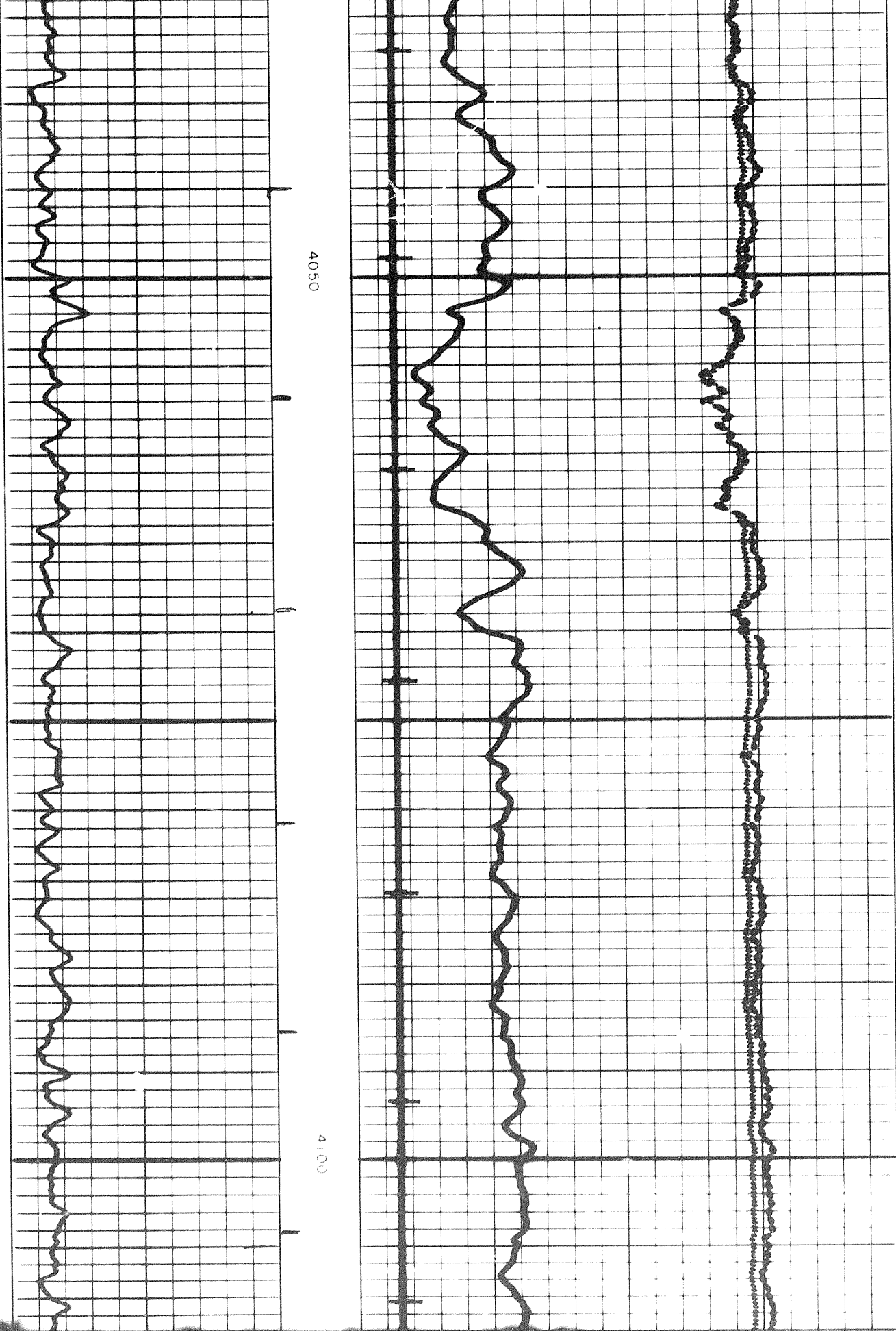
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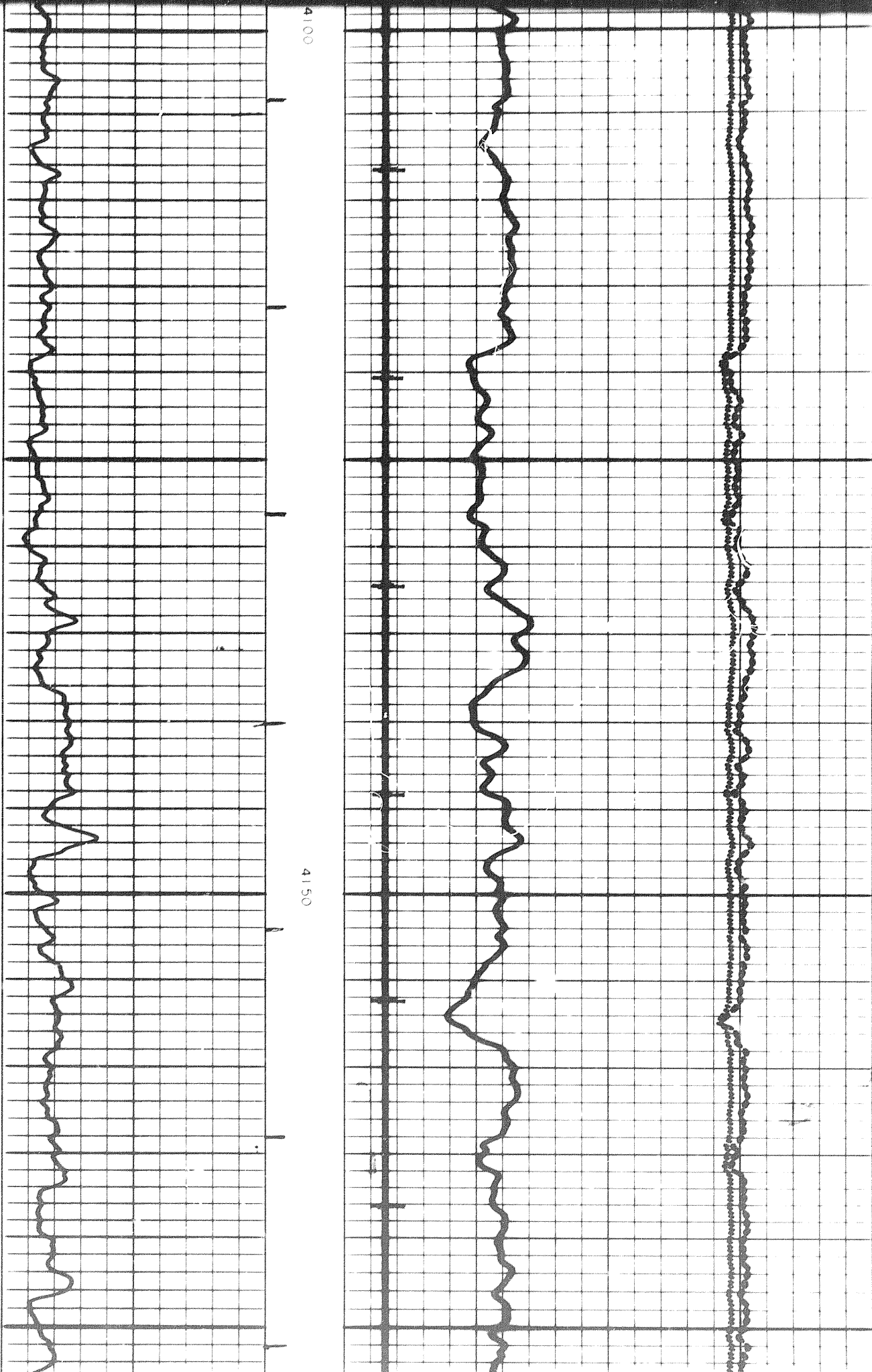
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6/27

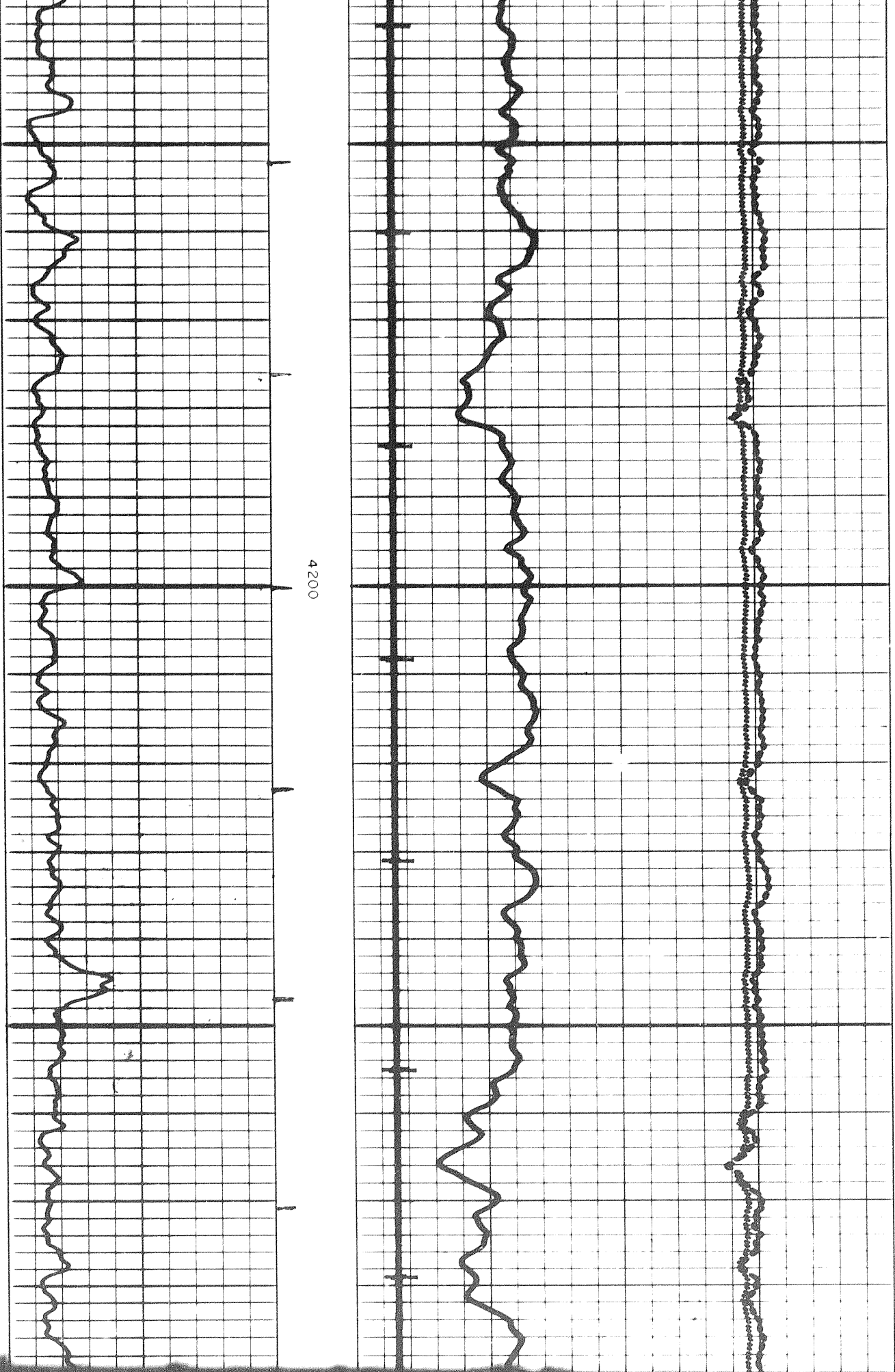


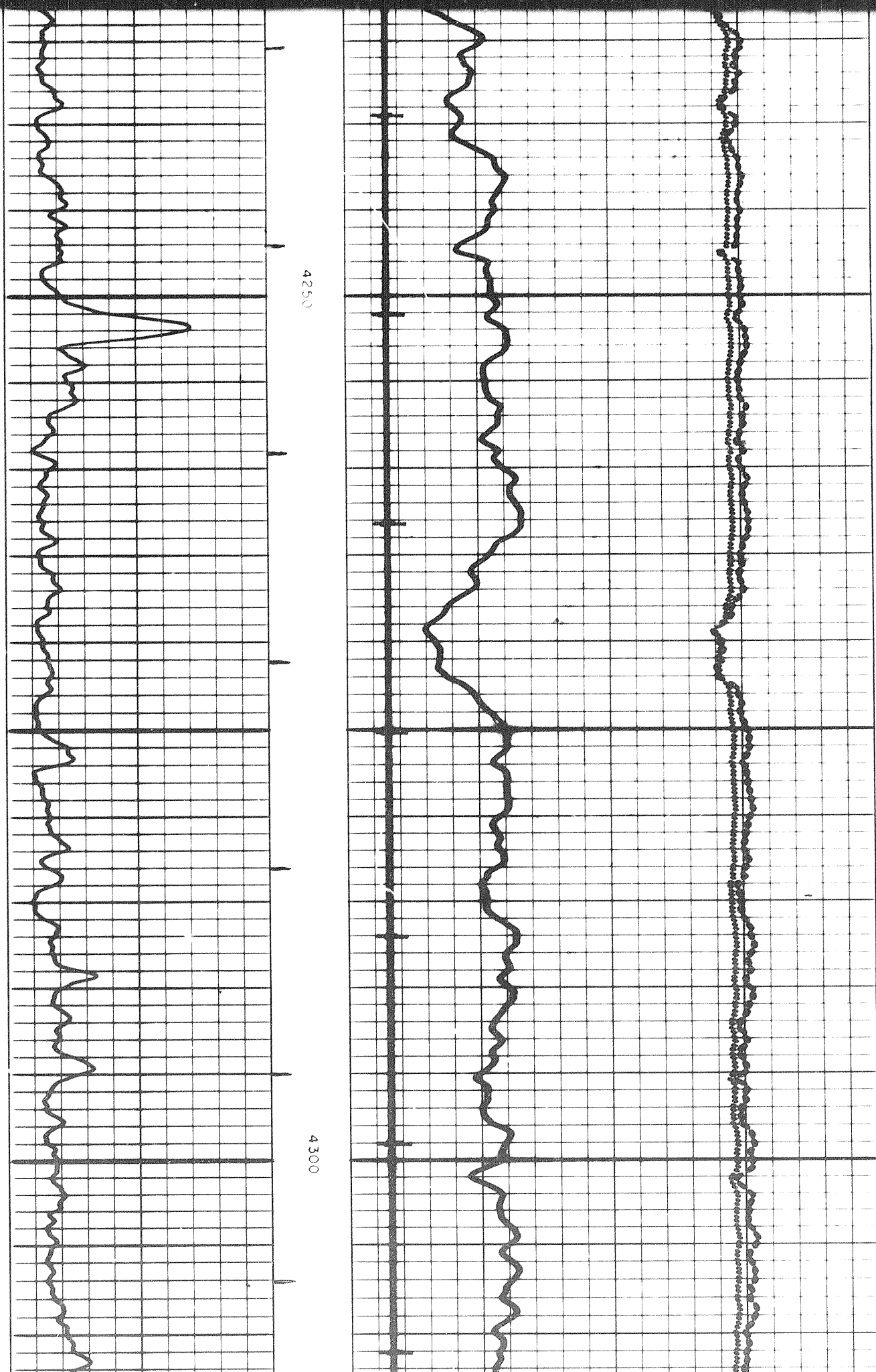
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84

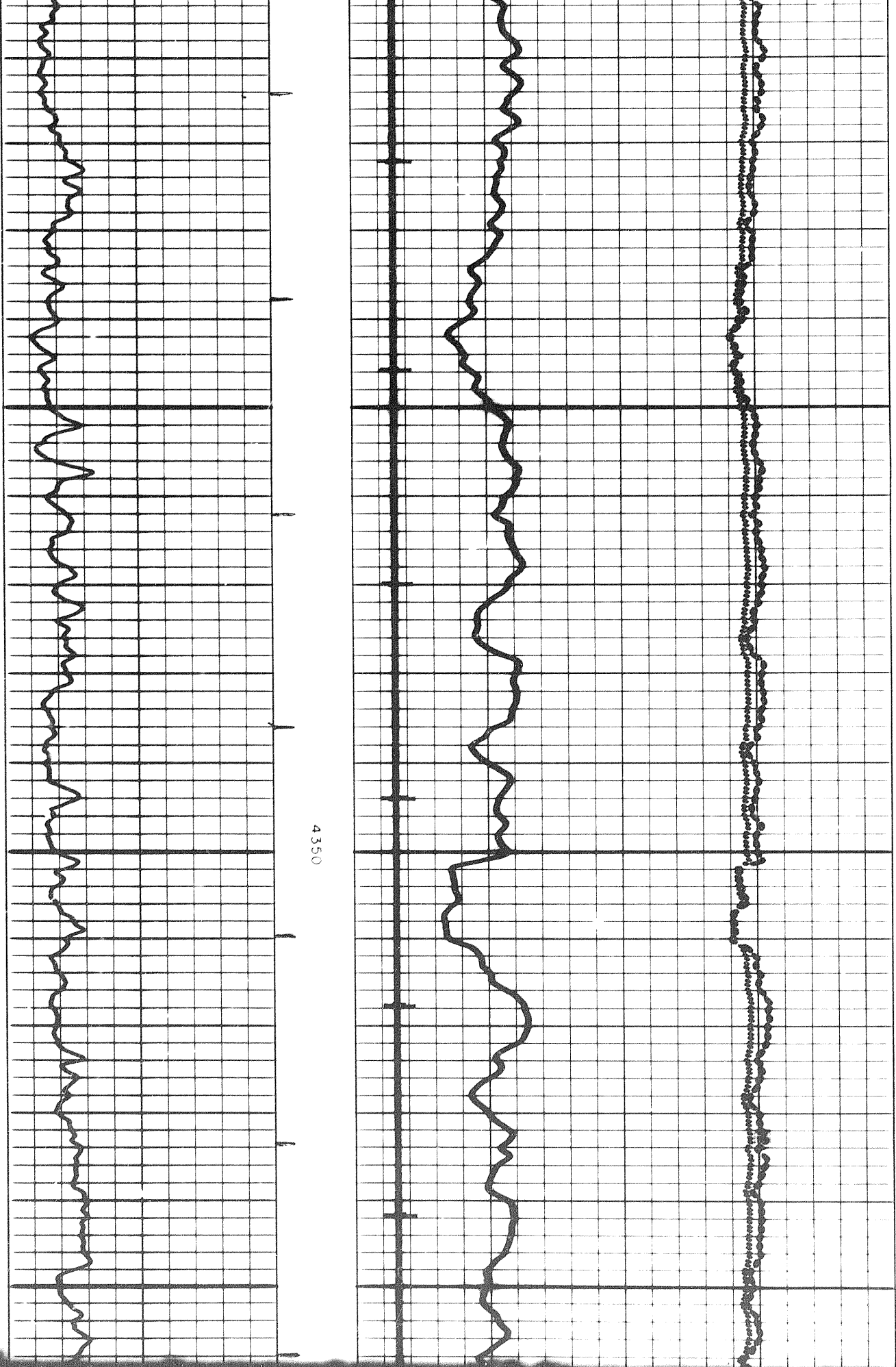


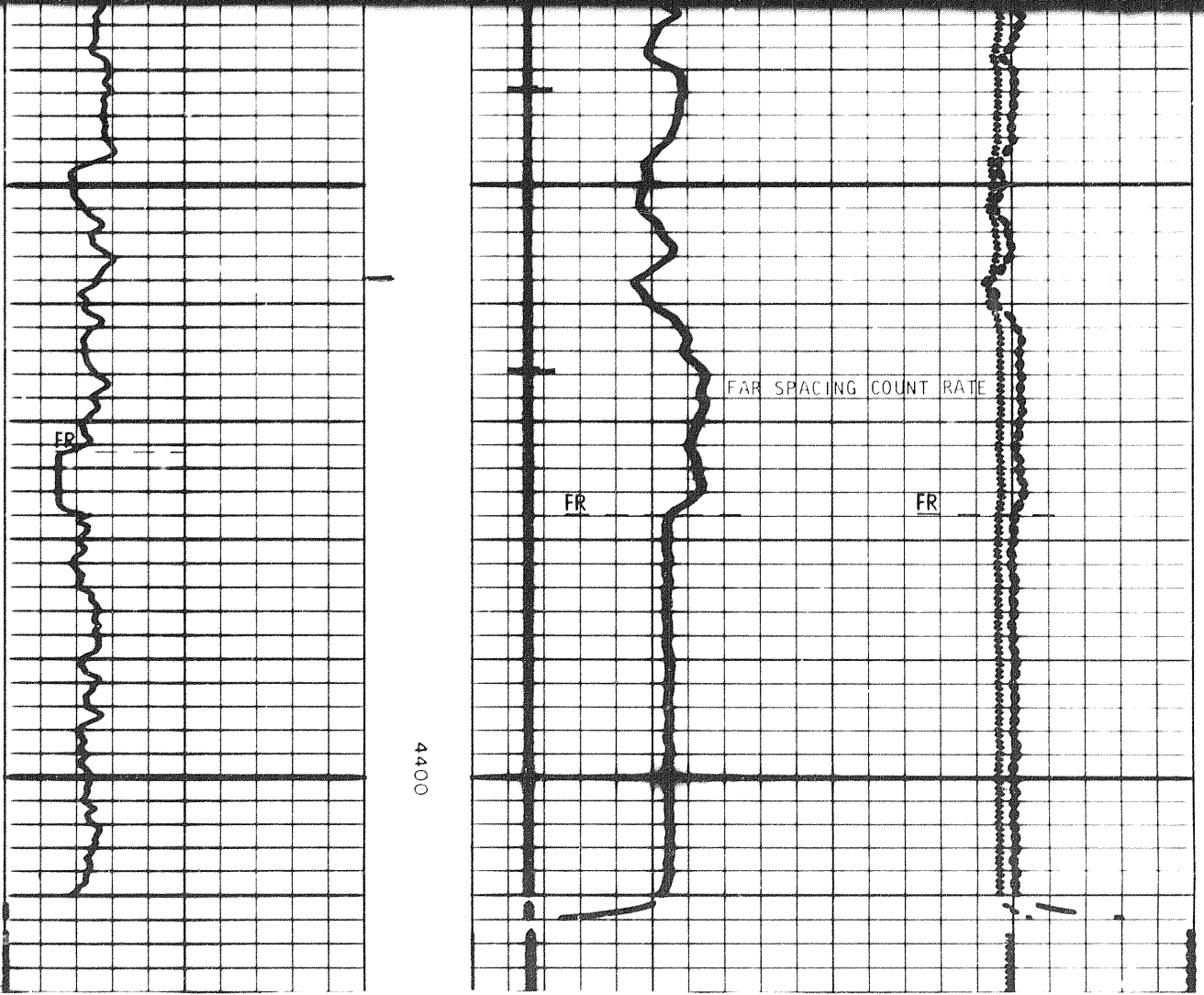


4250

4300

9 of

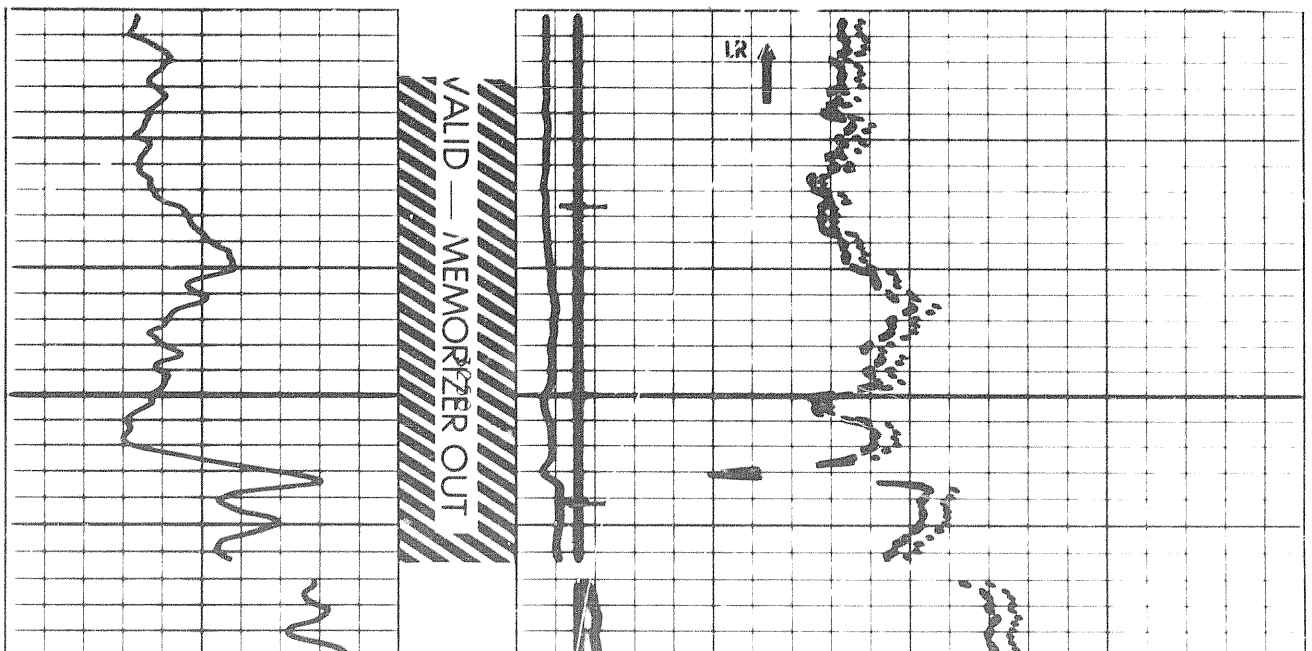


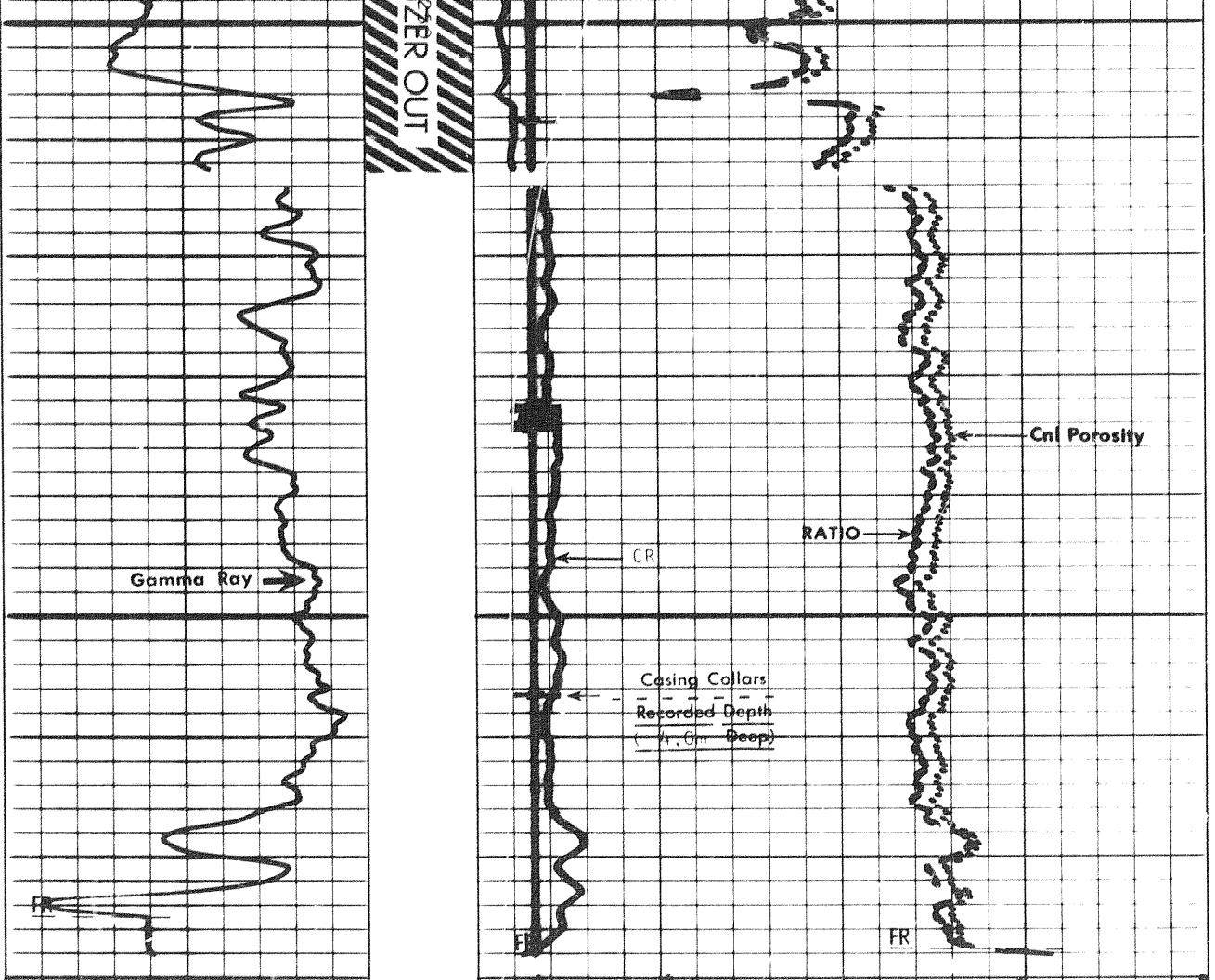


REPEAT SECTION

↓

X3000



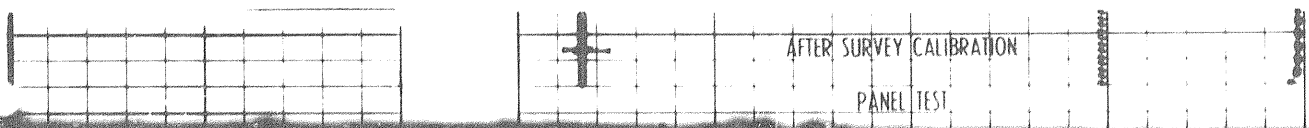


CASING COLLARS CORRECT DEPTH	CASING COLLARS RECORDED DEPTH DEFF
	TIME TOE MATRI
GAMMA RAY activity API units T.C.	RATIO
DEPTH METRES	POROSITY (%)

CALIBRATION RECORD

1001

X20218



GAMMA RAY

activity
API units

T.C. 2

DEPTH
METRES

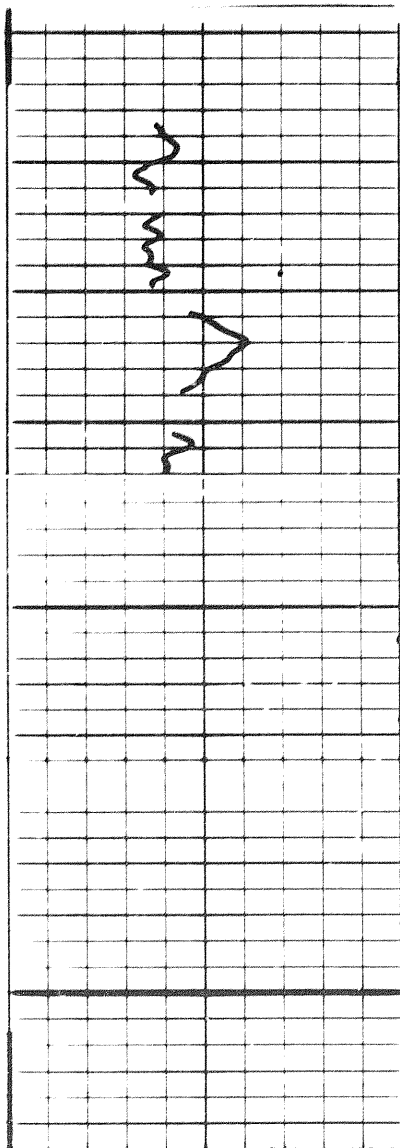
DATE

WELL NO.

POROSITY (%)

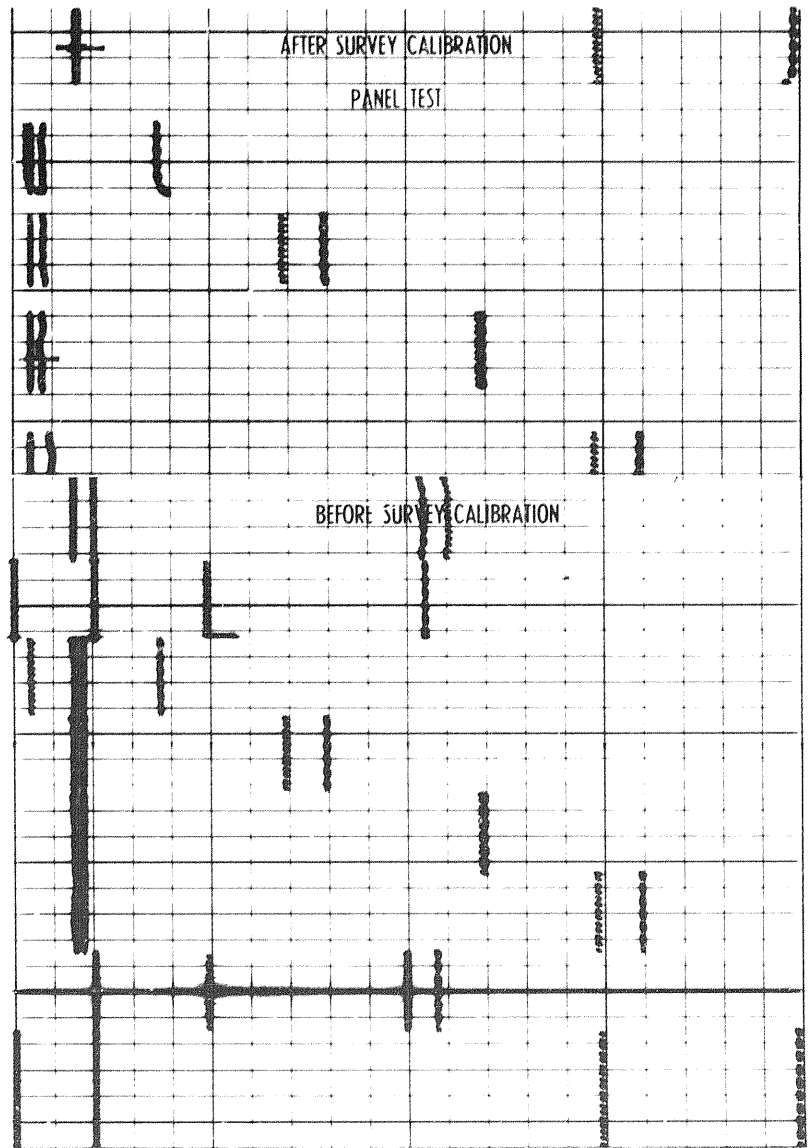
CALIBRATION RECORD

X20218



SEPT. 2/79
C/NH-A #1680

8A
SS.



SEPT. 2/79
 CNH-A #1680
 CNC-A #1654
 CNB-AB #1664
 RATIO 2.33

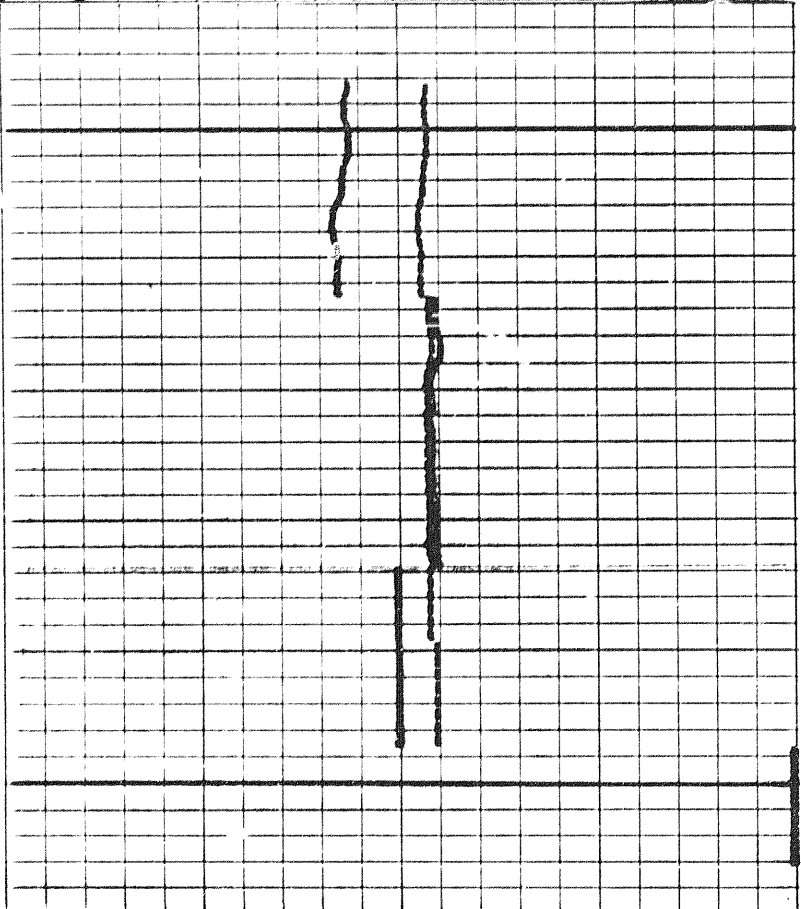
8A
 S.S.

8A
 LS.

7A

2

-1



COMPENSATED NEUTRON CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDED SENSITIVITY (THRU MEMORIZER IF USED)

RATIO	PANEL TEST			POROSITY	
	OH			CH	
	LS <input type="checkbox"/>	SS <input type="checkbox"/>	DOL <input type="checkbox"/>	SS <input type="checkbox"/>	LS <input checked="" type="checkbox"/>
3. 1	1.6	4.9	-0.2	2.4	0.1
4. 2	15.6	19.7	8.1	13.0	9.0
5. 3	30.5	36.0	25.2	29.1	24.1
6. 4	45.4	53.1	47.5	47.4	43.2

7. POROSITY NORMALIZED WITH CNB-A IN PLACE

7A. TOOL IN NCT-B

8. LOG POSITION WITH CNB-A IN PLACE

8A. LOG POSITION WITH TOOL IN NCT-B

OH			CH	
LS	SS	DOL	SS	LS
18	22.2	10.4	15.3	11.2

$$\text{RATIO (NORMALIZED)} = \frac{2.17}{\text{RATIO (NCT-B)}} \quad \text{RATIO (LOG)}$$

COMPANY COLUMBIA GAS DEVELOPMENT COMPANY

WELL COLUMBIA ET AL. CONSERVATION

FIELD WILCOX

PROVINCE ONTARIO

X2018C