

GEARHART

CEMENT BOND WITH
NUCLEAR LOG

FILING NO.

COMPANY CHANDLER & ASSOCIATES

WELL FORK UNIT 2-32-1-1

FIELD DRAGON TRAIL

COUNTY RIO BLANCO STATE COLORADO

LOCATION NW/NE

OTHER SERVICES:

SEC. 32 TWP. 1S RGE. 101W

PERMANENT DATUM: G.L. ELEV. 5792

ELEV. K.B. 5804

LOG MEASURED FROM K.B. 12 FT. ABOVE PERM. DATUM

DILLING MEASURED FROM K.B.

D.F. G.L. 5792

Date 12-22-80

Type Fluid in Hole Water

Run No. One

Depth-Driller 2726

Dens. Visc.

Depth-Logger 2602

Est. Cement Top

Btm. Log Interval 2596

Equip. Location

Top Log Interval 950

Recorded By Benham

Open Hole Size 7 7/8 Bit

Witnessed By Mr. Reese

CASING REC. Size 8 5/8

Grade Type Joint

Surface String

Surface Top Bottom

Prot. String

Surface 175

Prod. String 5 1/2

Surface T.D.

Liner

PRIMARY CEMENTING DATA

STRING Surface Protection Production Liner

Vol. of cement

Type of cement

Additive

Additive by %

Retarder

Retarder by %

Wt. of slurry

Water loss

Drill. mud type

Drilling mud wt.

COMPRESSIVE STRENGTH (p.s.i.) Curing Temp.)

Time Elapsed	Surface	Protective	Production	Liner
24 hrs.		°F	°F	°F
48 hrs.		°F	°F	°F
72 hrs.		°F	°F	°F

PRIMARY CEMENTING PROCEDURE

Hour - date	Hours from start of operation	Run No.	Bond Equipment Data 517
Started pumping cement			Type standoff Rubber
Plug on bottom			Logging speed 30 ft./min
Release pressure			Sig. Sen. 308
Start Cement Bond Log			Out. Sen. 238
Finish Cement Bond Log			T-R Sapcing 3 ft.
			Tool Type Comb.
Preceding fluid _____ Volume _____ bbls.	Pipe reciprocated during Pumping: Yes _____ No _____		
Returns: Full _____ Partial _____ None _____	Pipe reciprocated after plug down: Yes _____ min., No _____		

GAMMA-RAY

Depths

AMPLITUDE CURVE

BONDING INCREASES

SEISMIC SPECTRUM

022

Collar Log

0 MILLIVOLTS 50 0 MICRO SECONDS 1000

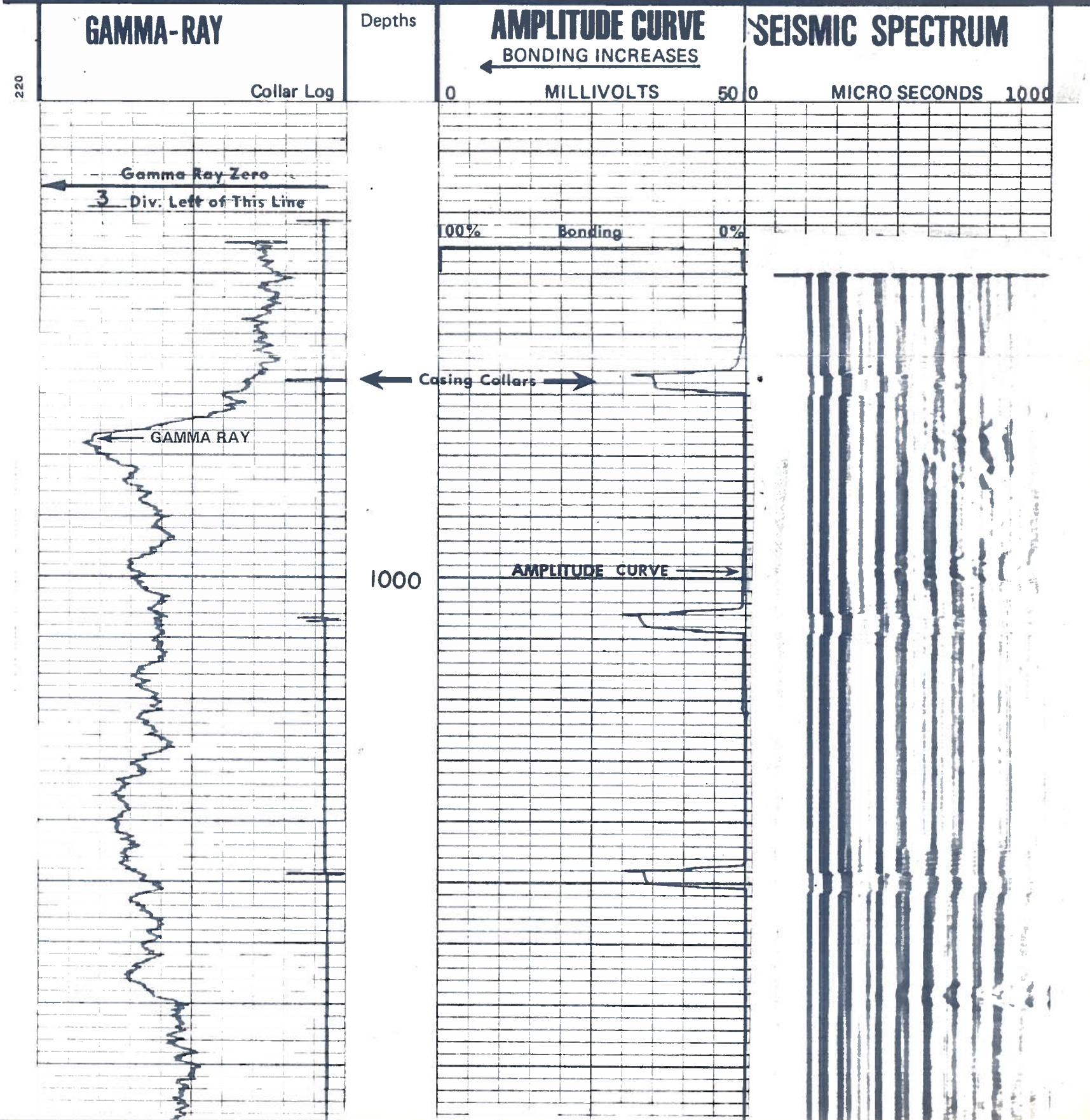
Gamma Ray Zero

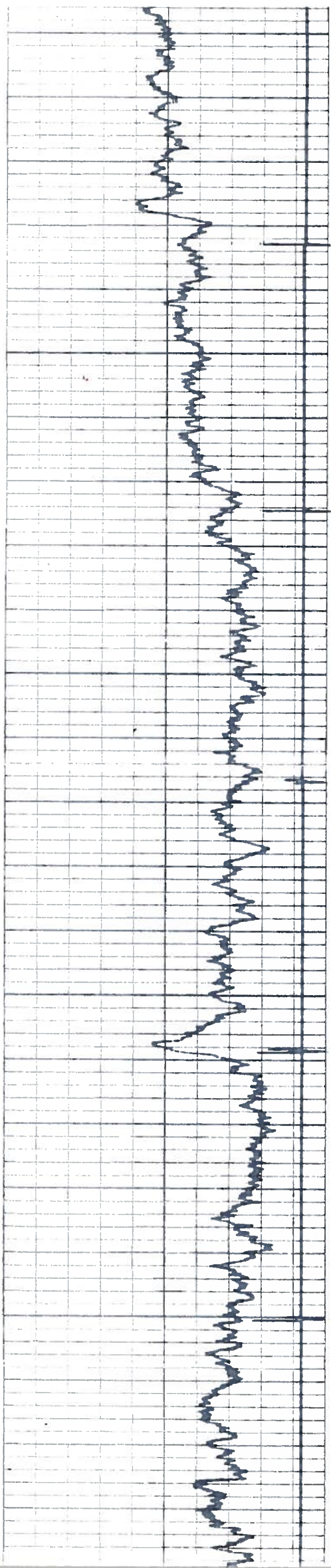
3 Div. Left of This Line

100% Bonding 0%

COMPRESSIVE STRENGTH (p.s.i.) Curing Temp.)							
Time Elapsed	Surface		Protective		Production		Liner
24 hrs.		°F		°F		°F	°F
48 hrs.		°F		°F		°F	°F
72 hrs.		°F		°F		°F	°F

PRIMARY CEMENTING PROCEDURE				Bond Equipment Data	
	Hour — date	Hours from start of operation	Run No.	517	
Started pumping cement				Type standoff	Rubber
Plug on bottom				Logging speed	30 ft./min
Release pressure				Sig. Sen.	308
Start Cement Bond Log				Out. Sen.	238
Finish Cement Bond Log				T-R Sapcing	3 ft.
				Tool Type	Comb.
Preceding fluid _____ Volume _____ bbls.			Pipe reciprocated during Pumping: Yes _____ No _____		
Returns: Full _____ Partial _____ None _____			Pipe reciprocated after plug down: Yes _____ min., No _____		

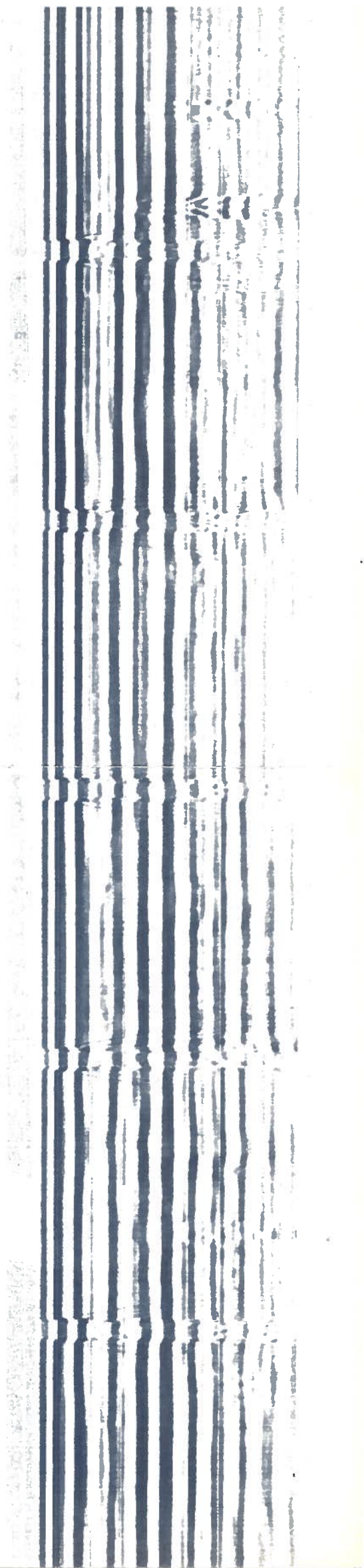
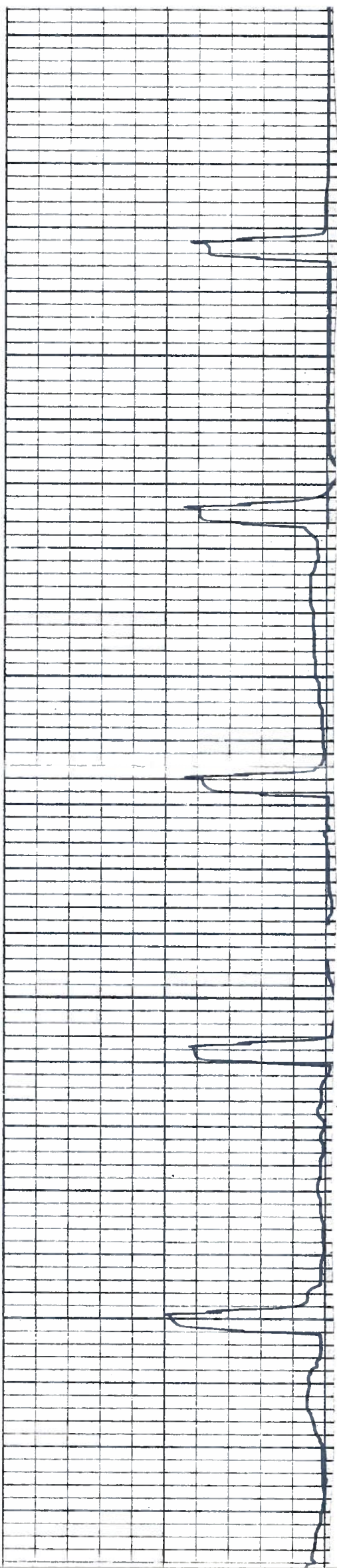


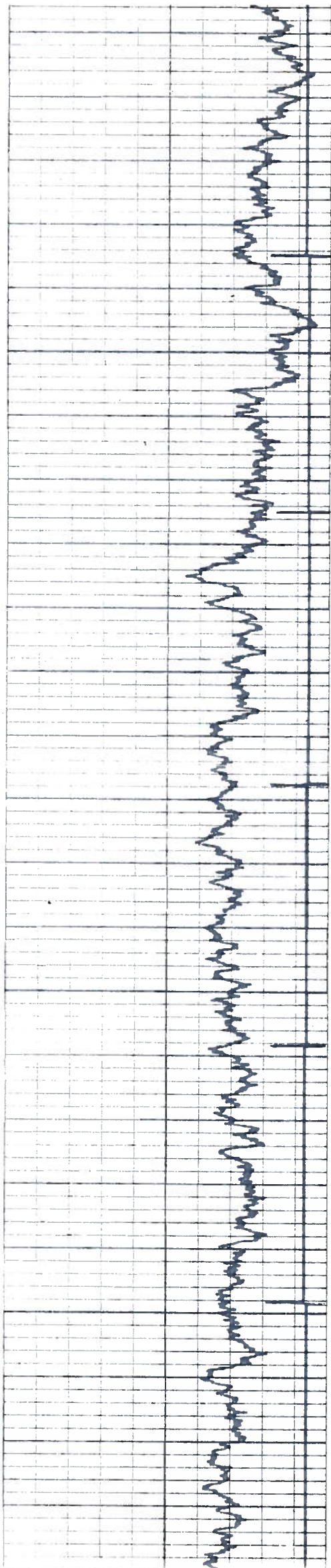


1100

1200

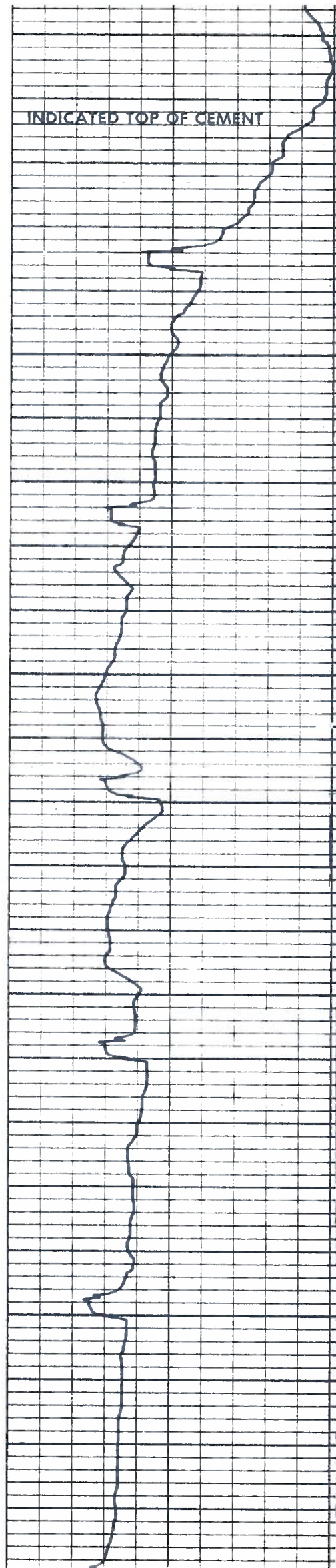
1300



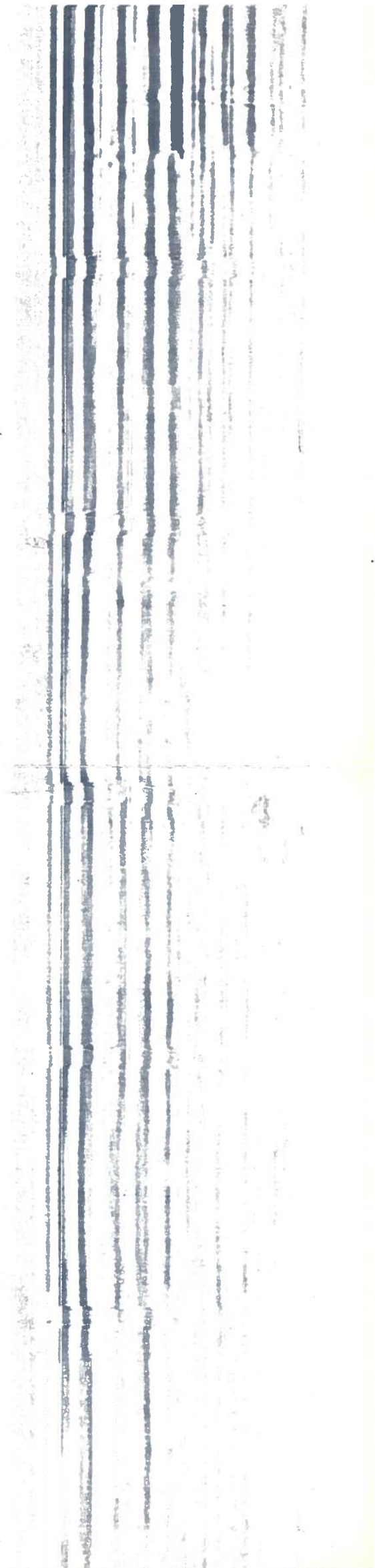


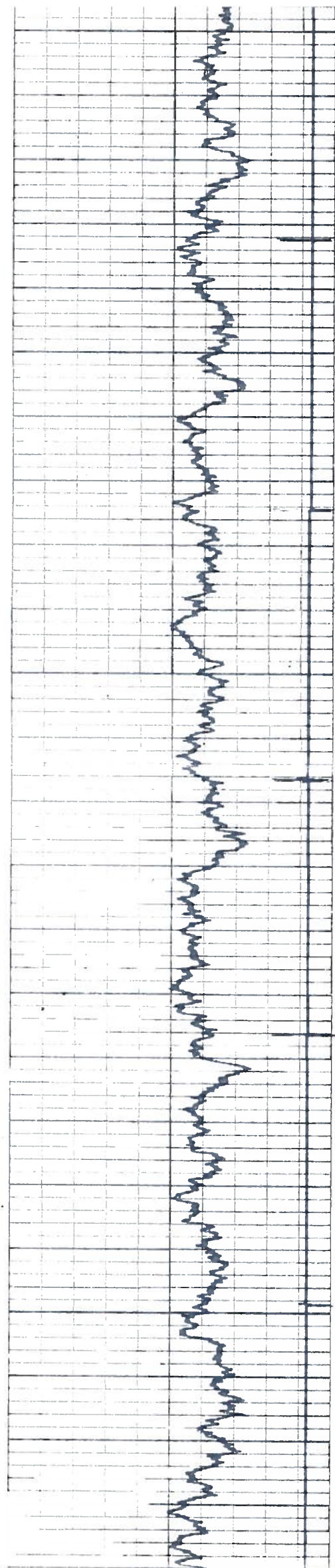
1400

1500



INDICATED TOP OF CEMENT

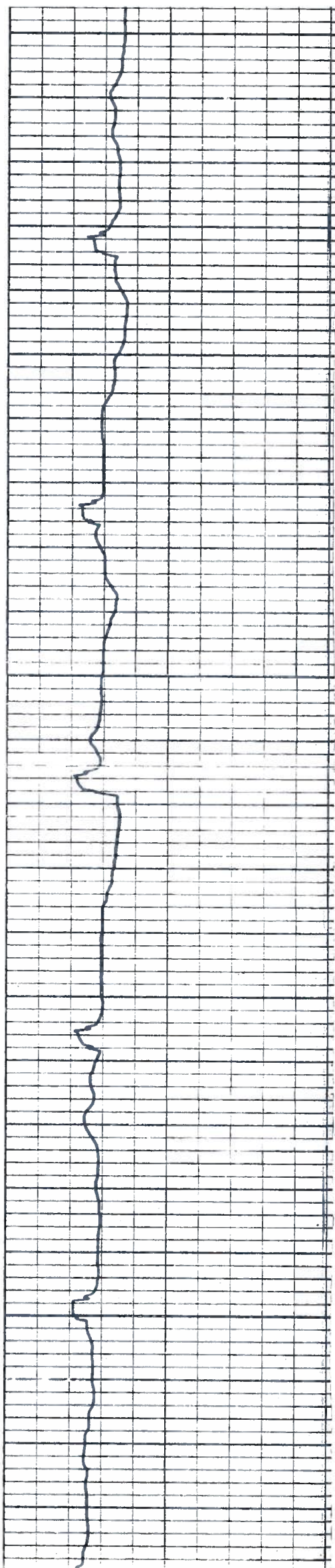


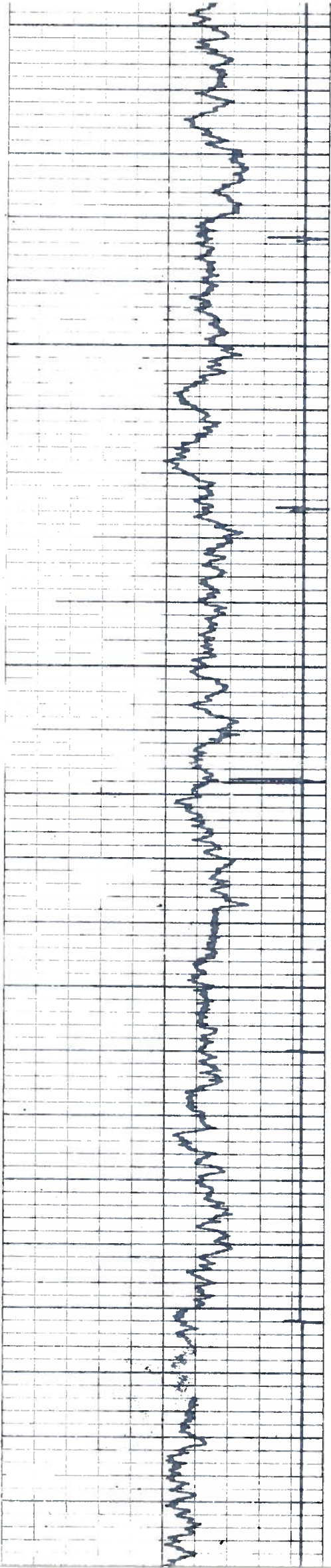


1600

1700

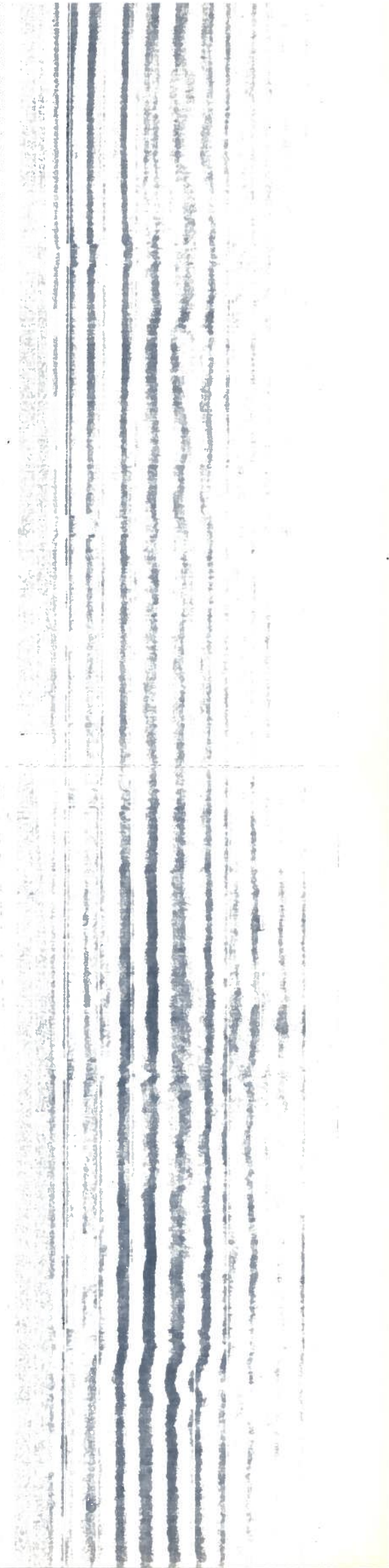
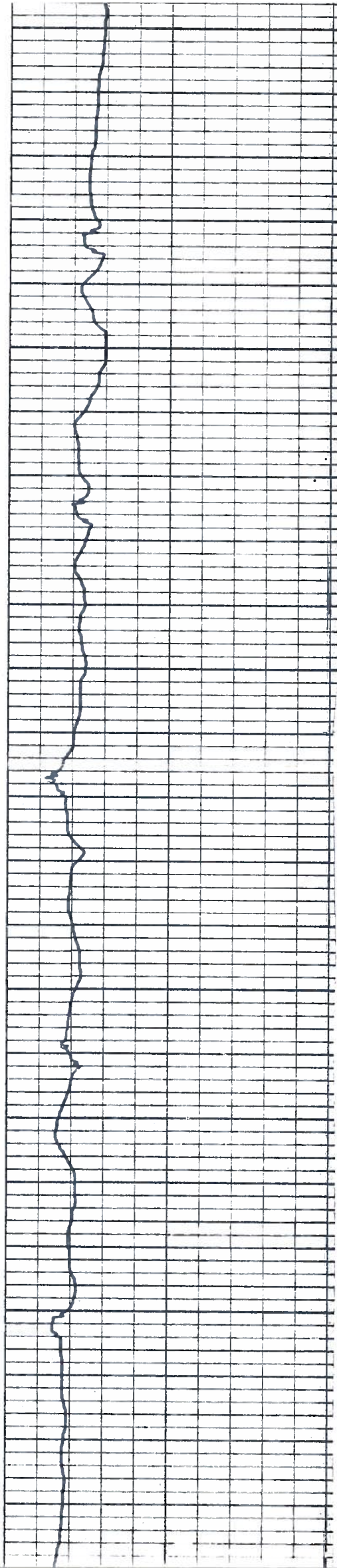
1800

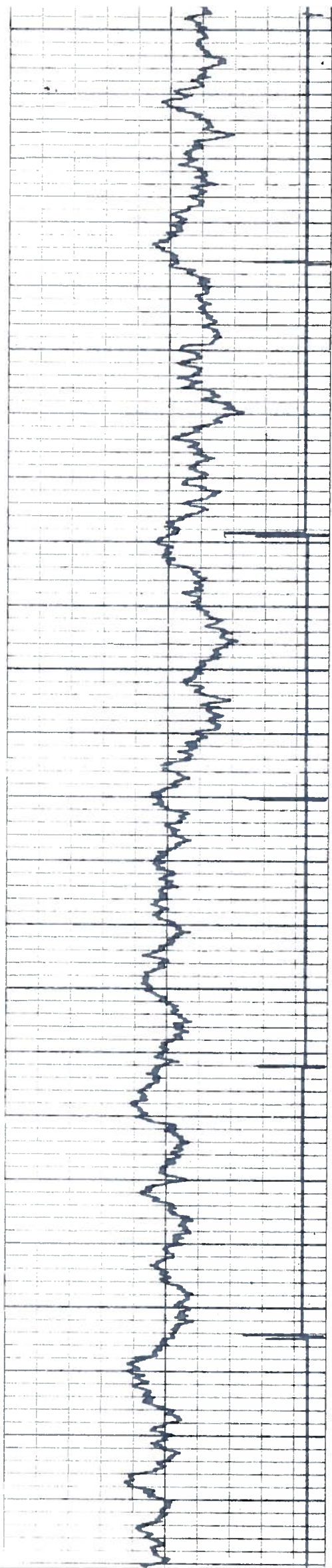




1900

2000

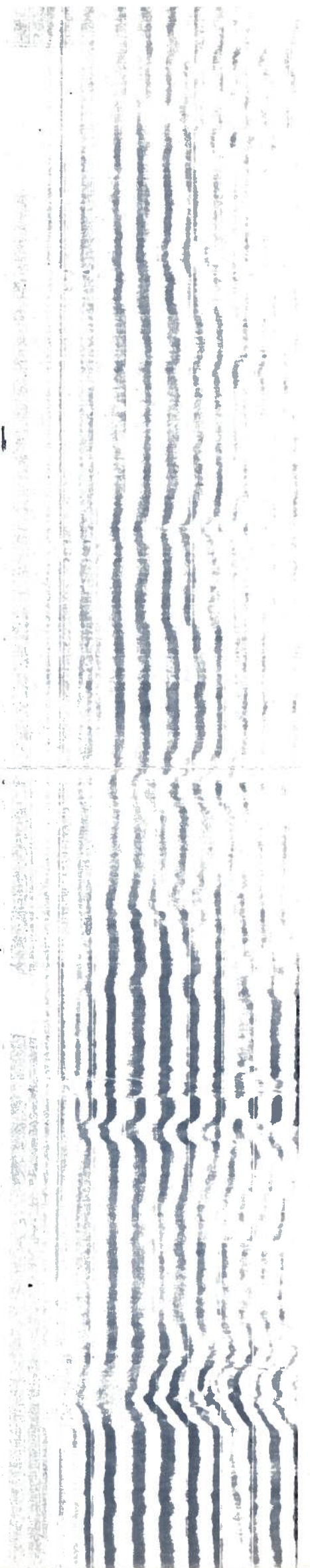
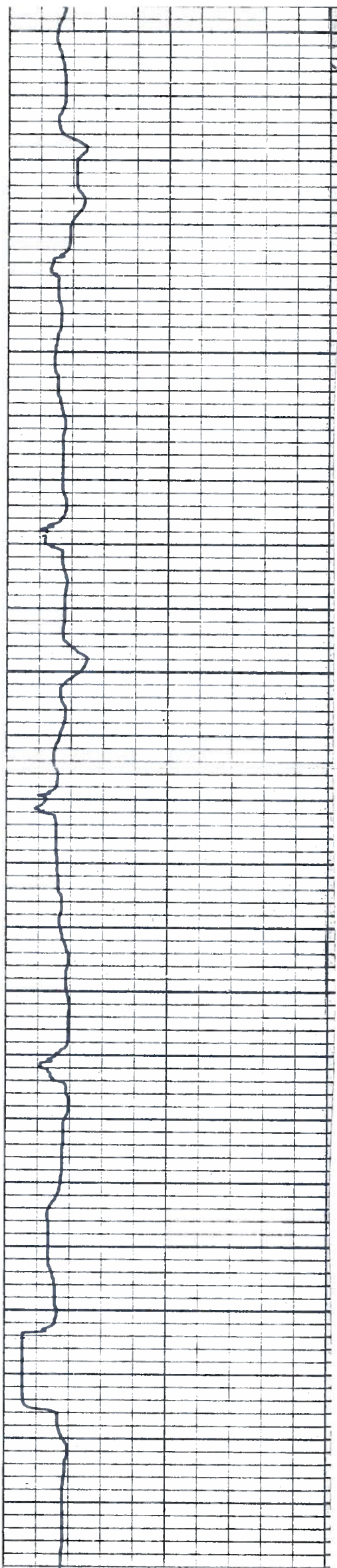


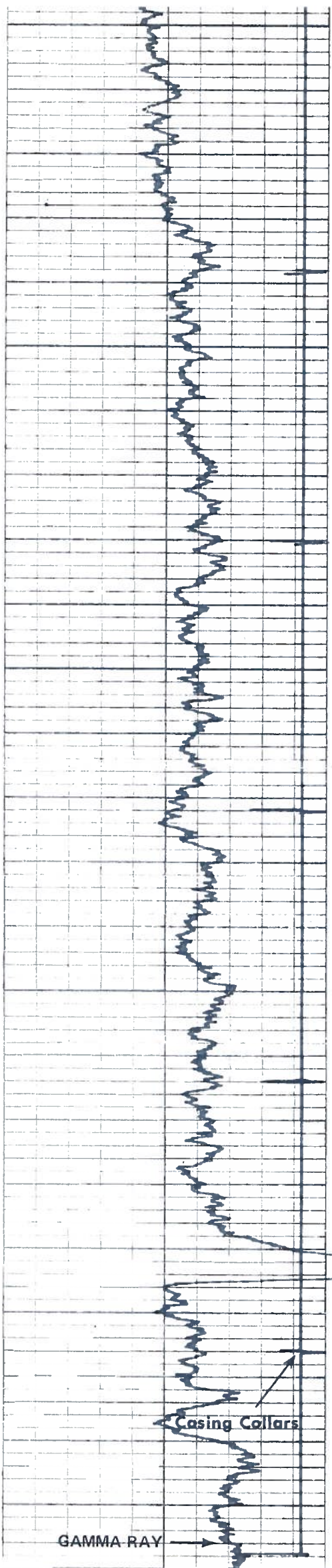


2100

2200

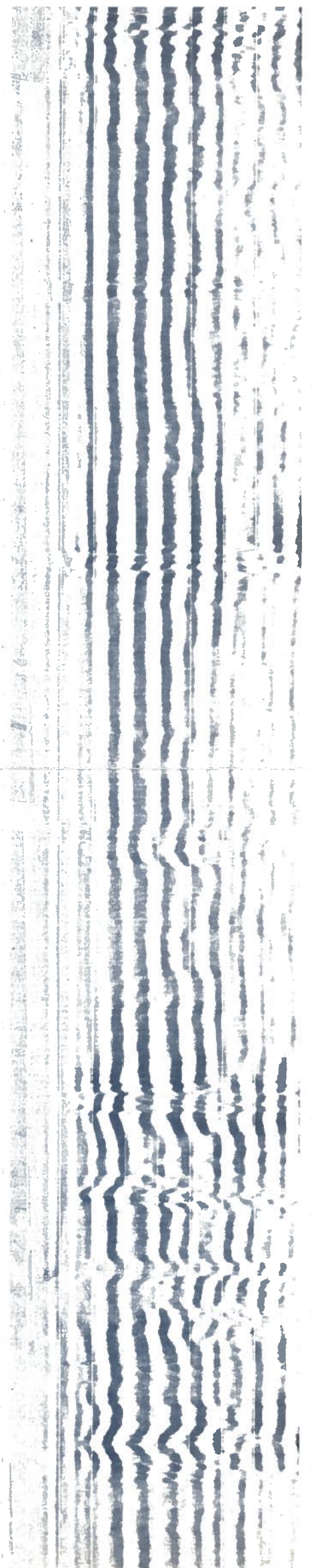
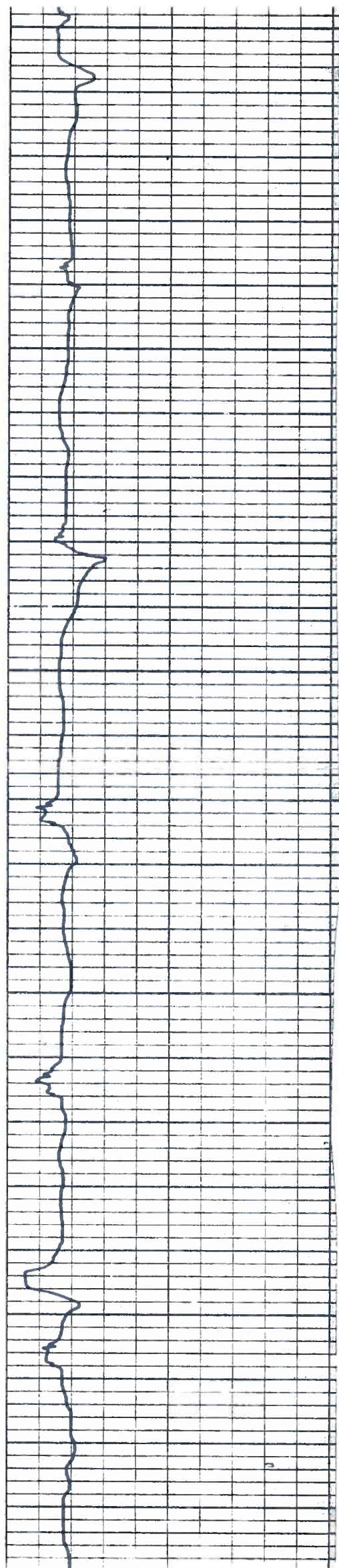
2300





2400

2500



Gamma Ray Zero
3 Div. Left of This Line

2600

REPEAT SECTION

Gamma Ray Zero
3 Div. Left of This Line

COLLAR LOG

GAMMA RAY

2500

2600

CALIBRATION

SEISMIC SPECTRUM

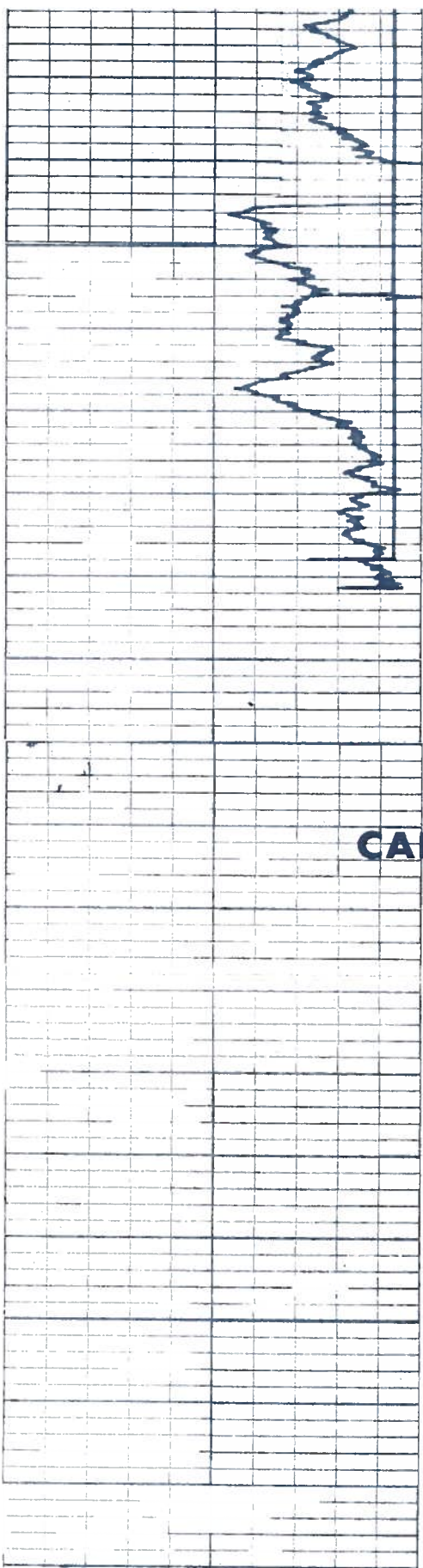
100% Bonding 0%

SEISMIC SPECTRUM

100% Bonding 0%

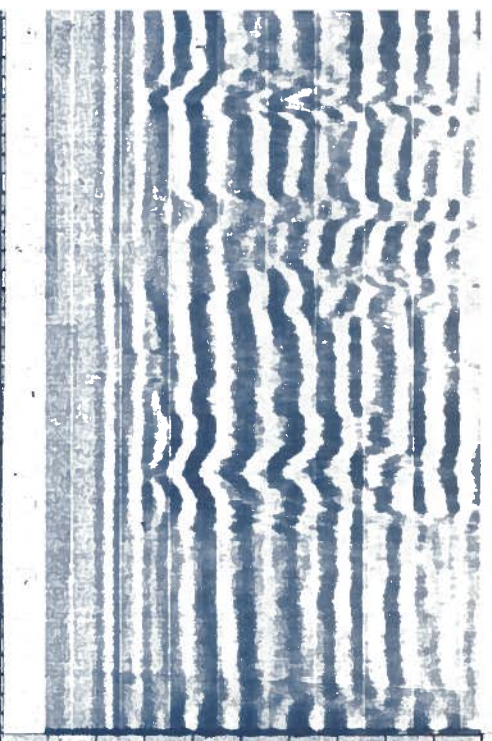
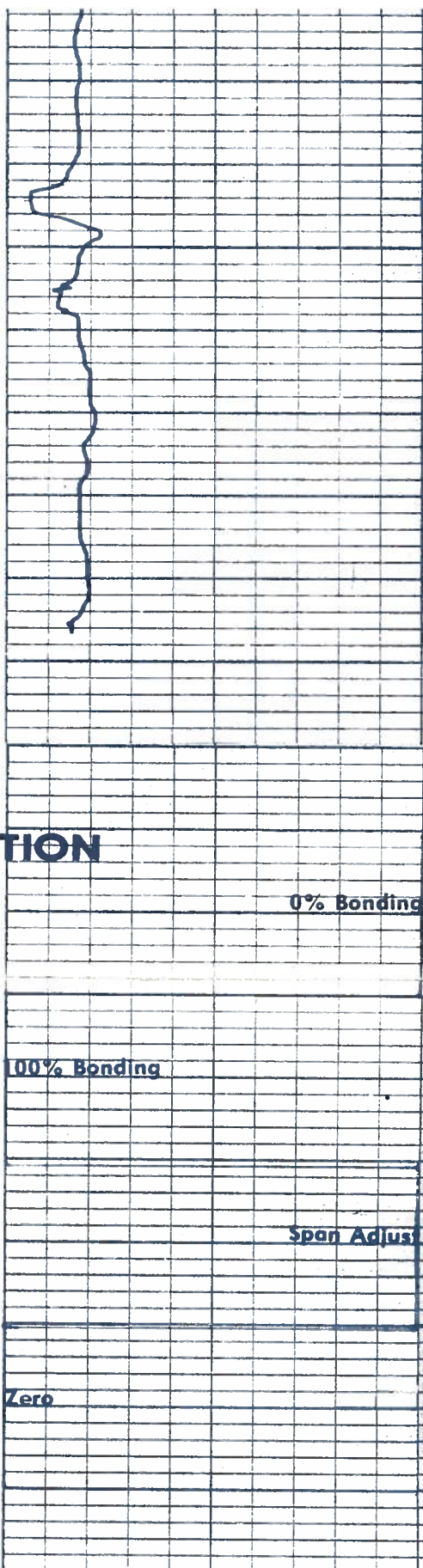
AMPLITUDE CURVE

0% Bonding



2600

CALIBRATION

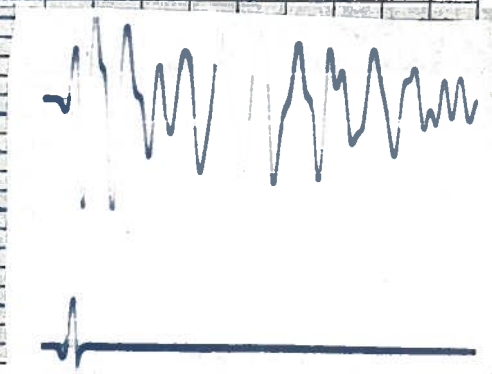


0% Bonding

100% Bonding

Span Adjust

Zero



GATED SIGNAL