

GEARHART

CEMENT BOND  
WITH NUCLEAR LOG

FILING NO.

COMPANY COORS ENERGY COMPANY

WELL COORS ENERGY CO. USA #1-20 JC

FIELD WILDCAT

COUNTY MESA STATE COLORADO

LOCATION

998.5 FNL & 2198 FEL

SEC. 20 TWP. 9S RGE. 98W

OTHER SERVICES:

PERMANENT DATUM: G.L. ELEV. 5921

LOG MEASURED FROM K.B. 11 FT. ABOVE PERM. DATUM

DRILLING MEASURED FROM K.B.

ELEV. K.B. 5932

D.F. 5921

G.L. 5921

Date 7-15-81

Type Fluid in Hole

KCL

Run No.

One

Dens.

Visc.

Depth-Driller

7356

Max. Rec. Temp.

Depth-Logger

7207

Est. Cement Top

Btm. Log Interval

7201

Equip. Location

5245

29-078

Top Log Interval

2000

Recorded By

Chapman

Open Hole Size

7 7/8 (Bit)

Witnessed By

Mr. Sprague

CASING REC.

Size

Grade

Type Joint

Top

Bottom

Surface String

8 5/8

Surface

412

Prot. String

4 1/2

10.5 &

Surface

6690

Prod. String

4 1/2

11.60

Surface

6690

Liner

4 1/2

11.60

Surface

6690

T.D.

PRIMARY CEMENTING DATA

STRING

Surface

Protection

Production

Liner

Vol. of cement

Type of cement

Additive

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.				
48 hrs.				
72 hrs.				

PRIMARY CEMENTING PROCEDURE

Hour - date	Hours from start of operation	Run No.	Bond Equipment Data 521
			Type standoff Rubber
			Logging speed 30 ft./min
Started pumping cement			Sig. Sen. 118
Plug on bottom			Out. Sen. 140
Release pressure			T-R Sapcing 3 ft.
Start Cement Bond Log			Tool Type Comb.
Finish Cement Bond Log			
Preceding fluid	Volume	bbls.	Pipe reciprocated during Pumping: Yes No
Returns: Full	Partial	None	Pipe reciprocated after plug down: Yes min., No

AMPLITUDE CURVE  
BONDING INCREASES

0 MILLIVOLTS 50 0 MICRO SECONDS 1000

SINGLE RECEIVER TRAVEL TIME  
MICRO SECONDS / FT.

SEISMIC SPECTRUM

AMPLITUDE  
100% Bonding Zero % Bonding

Casing Collars

2000

Gamma Ray Zero

FORM 220



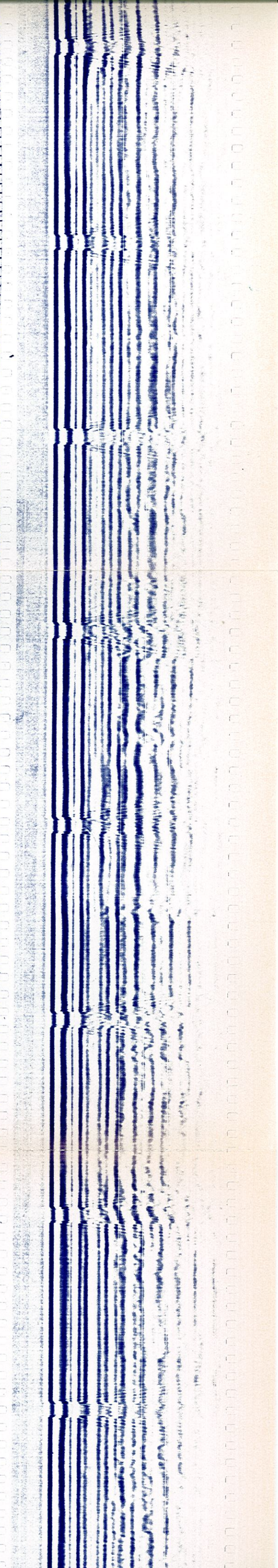
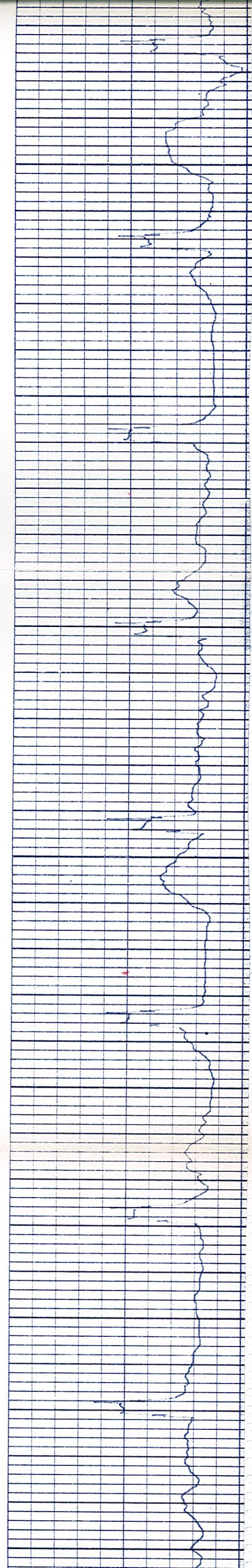
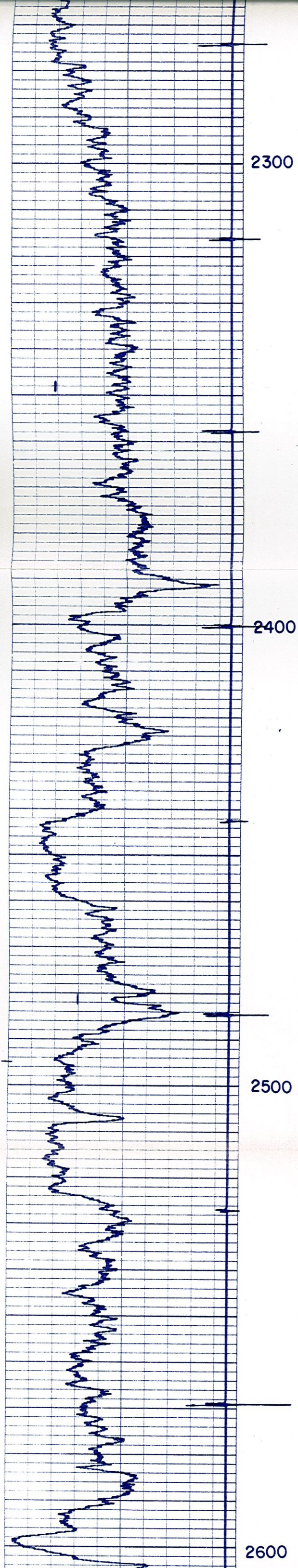
Casing Collars

2100

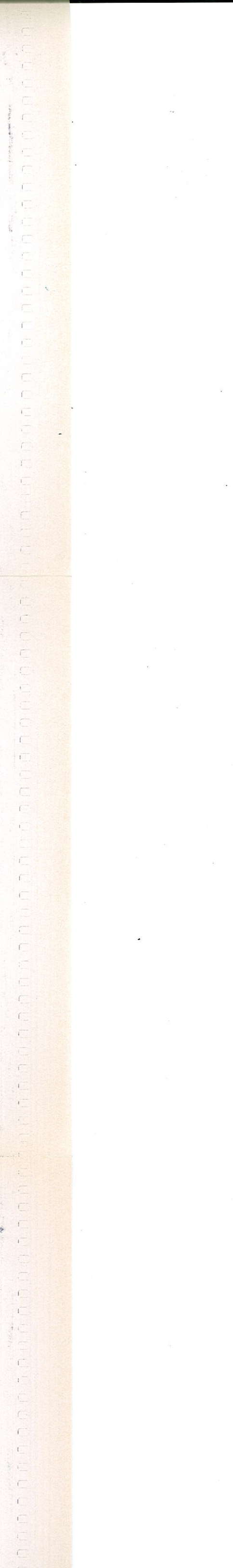
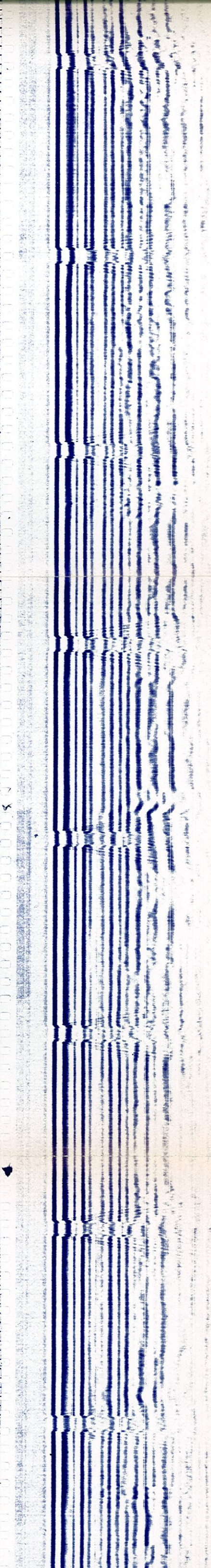
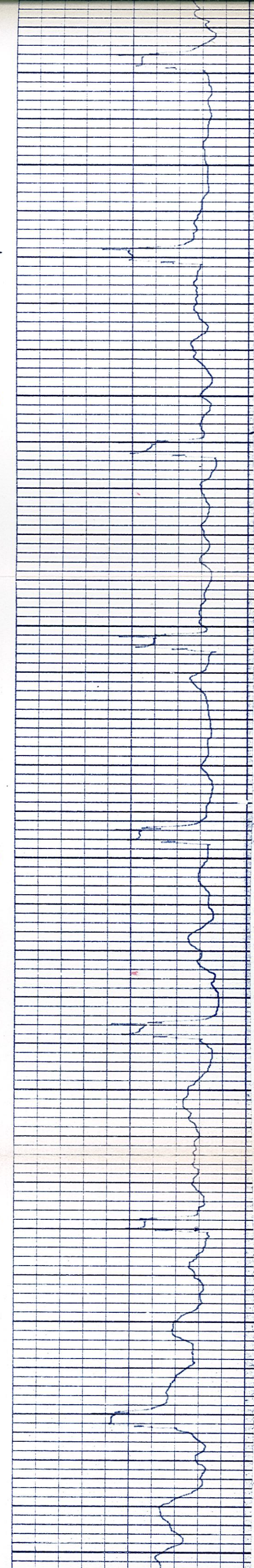
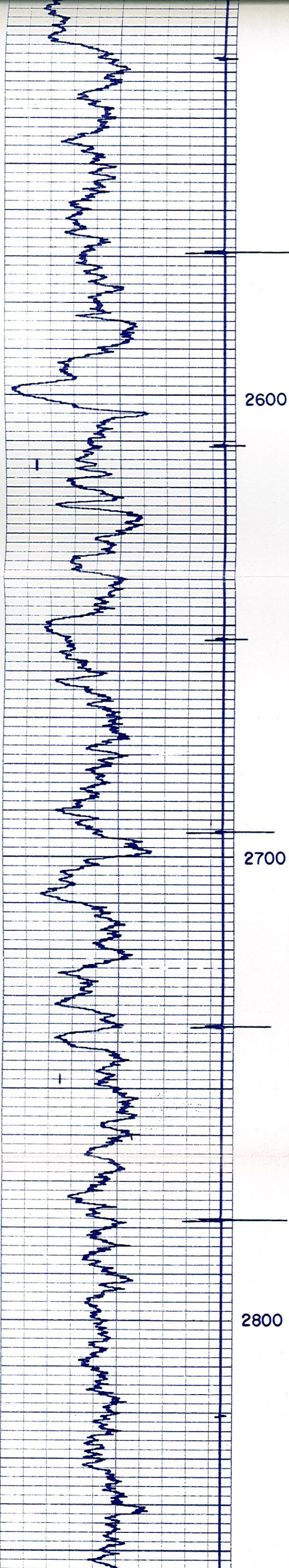
2200

2300











2800

2900

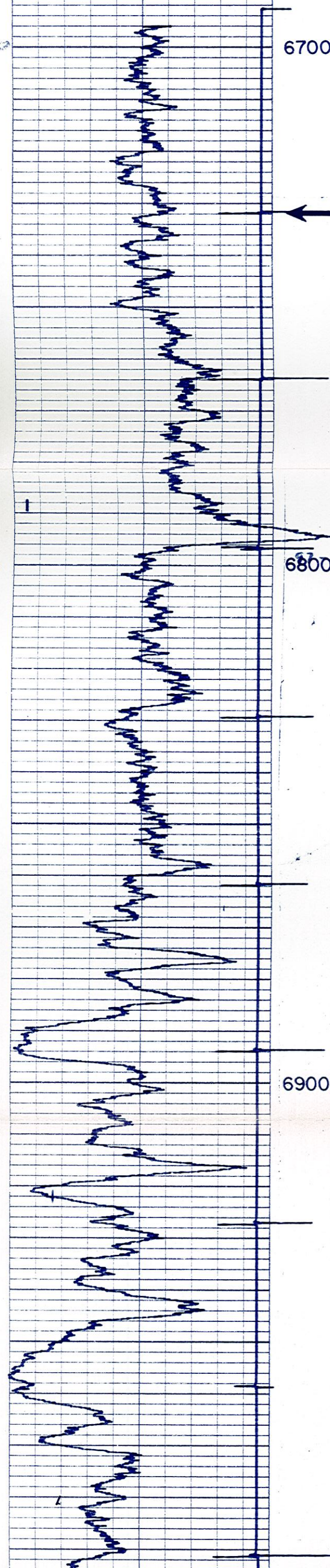
3000

Log from 2000 to 3000 is 5 ft deep.

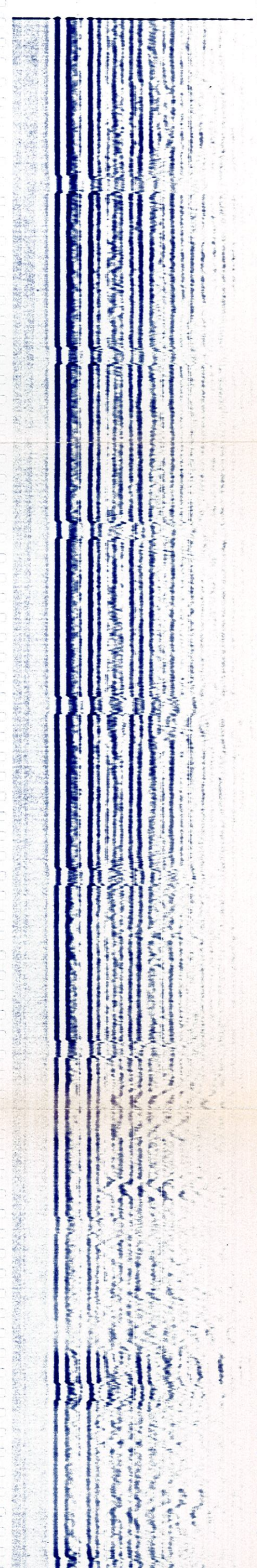
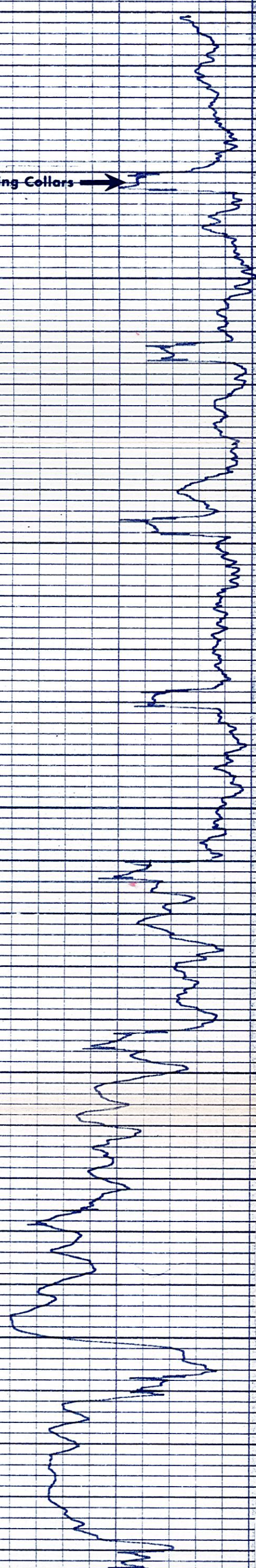
6700

Casing Collars

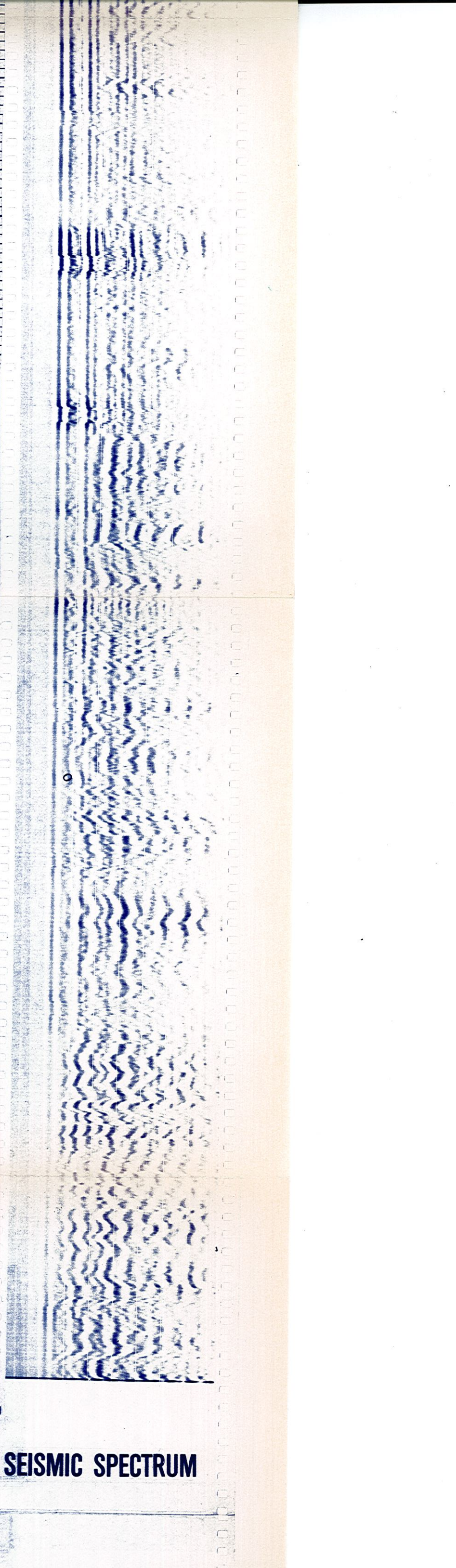
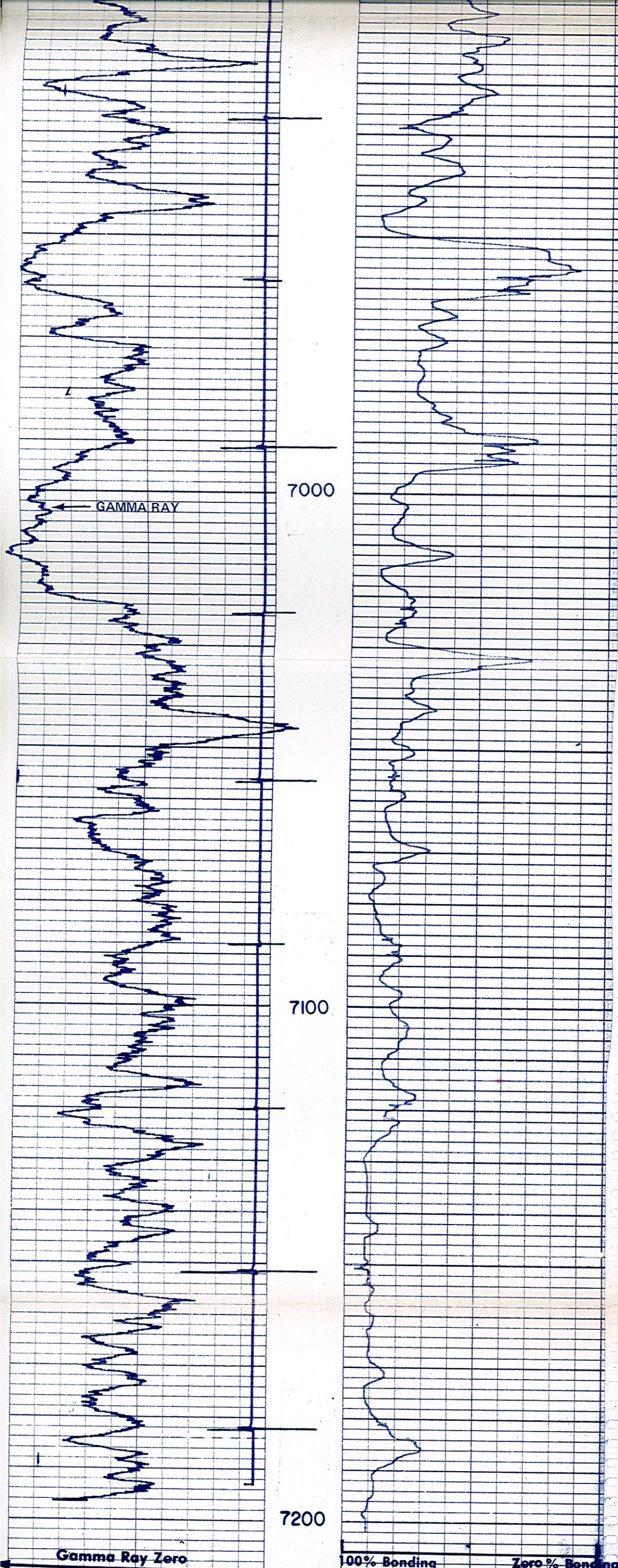




Casing Collars



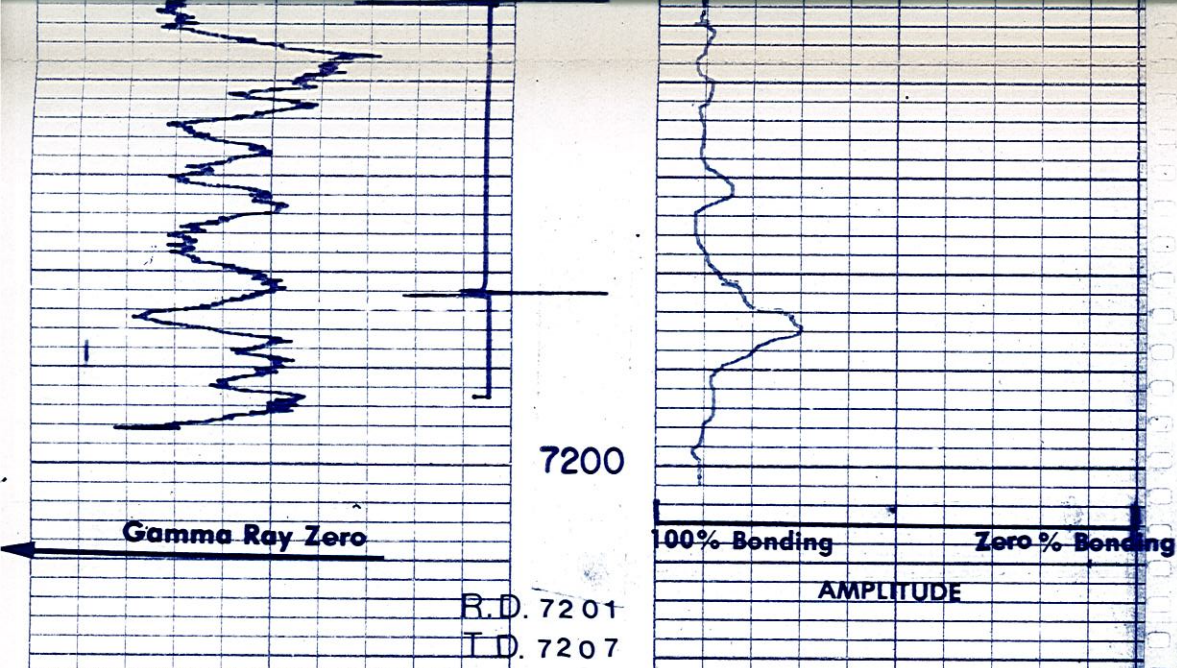




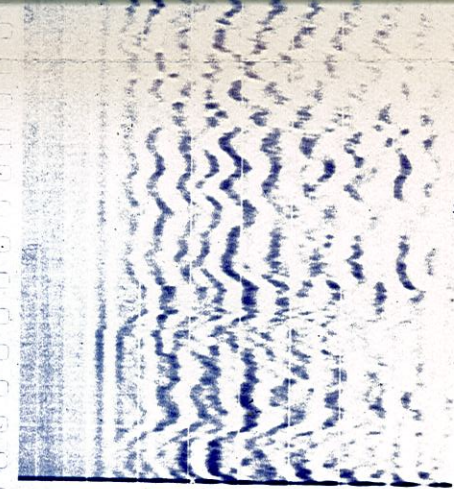
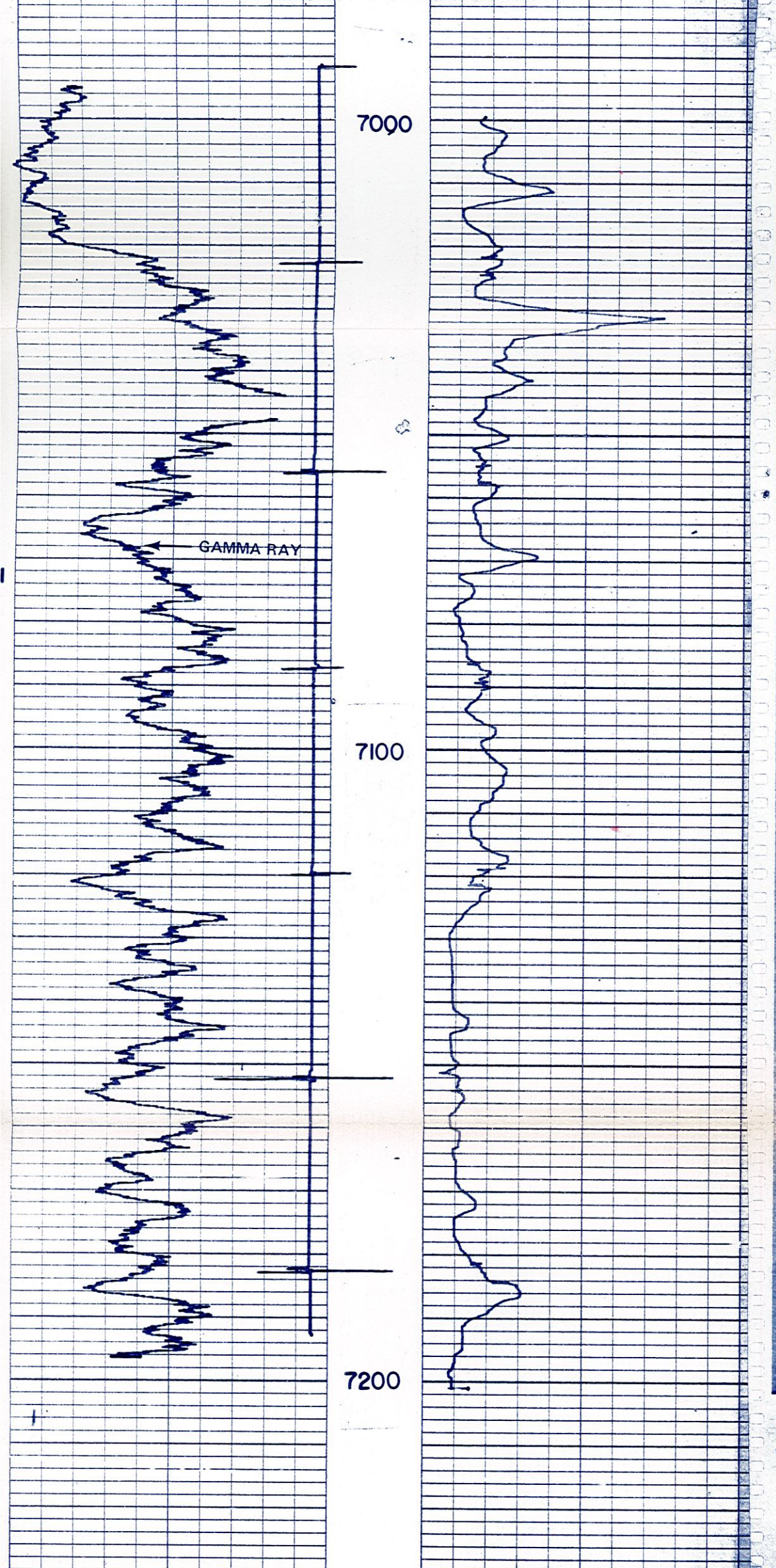
REPEAT SECTION

R.D. 7201  
T.D. 7207

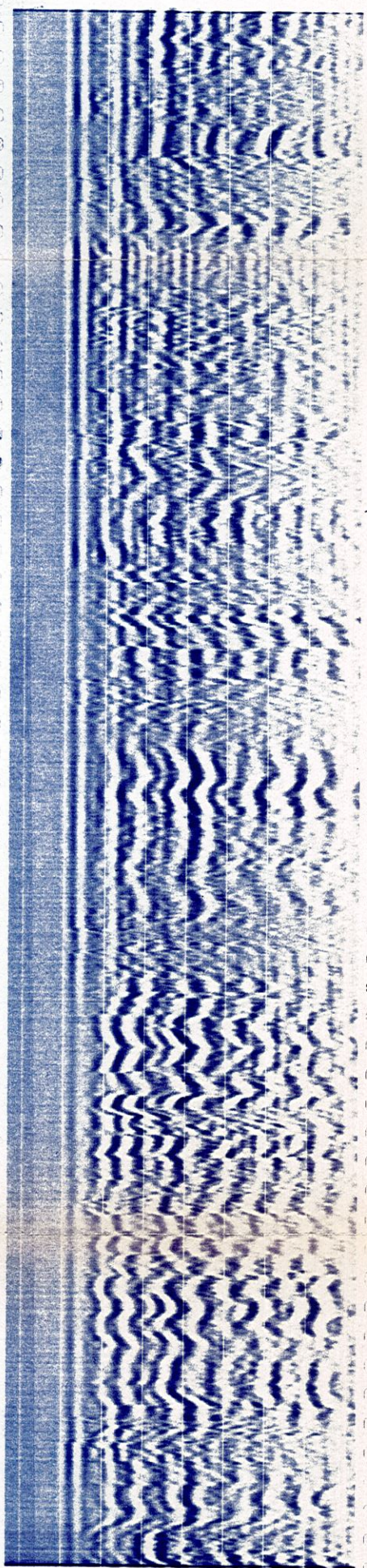




**REPEAT SECTION**

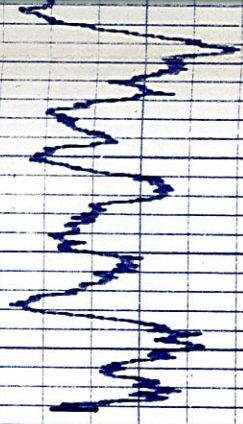


**SEISMIC SPECTRUM**

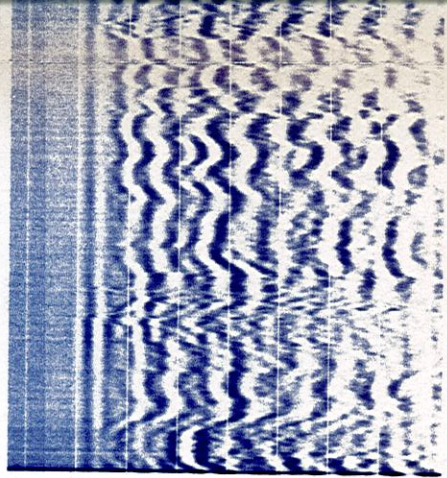


**SEISMIC SPECTRUM**





7200



SEISMIC SPECTRUM

CALIBRATION

PEN SPACING CHECK

GAMMA RAY

COLLAR LOG

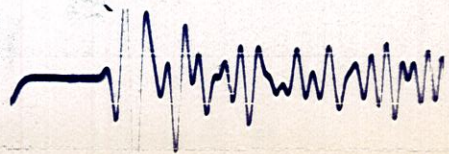
AMPLITUDE

100% Bonding

Zero % Bonding

Span Adjust

Zero

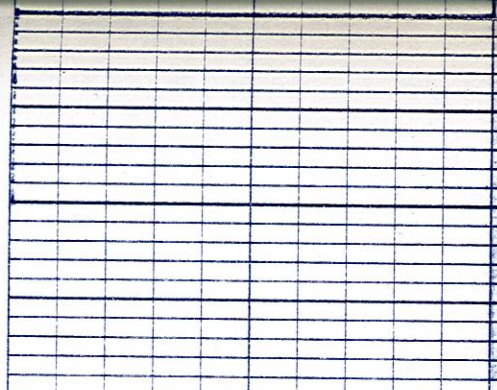
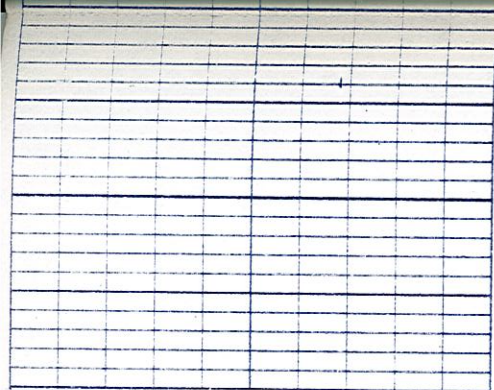


CALIBRATION SIGNAL



GATED SIGNAL





CALIBRATION SIGNAL



GATED SIGNAL