



CEMENT BOND  
GAMMA RAY  
CCL LOG

Pioneer Energy Services

Company	BONANZA CREEK ENERGY		
Well	STATE SEVENTY HOLES K21-024-4HNB		
Field	WATTENBERG		
County	WELD		
State	COLORADO		
Location:	API # : 05-123-39211		Other Services
Permanent Datum	SEC 4	TWP 4N	RGE 62W
Log Measured From	Ground Level		Elevation 4552'
Drilling Measured From	K.B. 22' A.G.L.		Elevation K.B. 4574'
			D.F. G.L. 4552'

Date	09-FEB-2015
Run Number	ONE
Depth Driller	N/A
Depth Logger	6400'
Bottom Logged Interval	6400'
Top Log Interval	SURFACE
Open Hole Size	N/A
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	SEE LOG
Time Well Ready	14:00
Time Logger on Bottom	14:30
Equipment Number	75
Location	FT. MORGAN
Recorded By	HARPER
Witnessed By	BUNKER

Borehole Record			Tubing Record				
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9-5/8"	36#	SURFACE	450'
Prot. String				
Production String	7"	26#	SURFACE	6680'
Liner				

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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 interpretation, 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 our general terms and conditions set out in our current Price Schedule.

Comments

LOG CORRELATED TO K.B. 22' A.G.L.

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			SDSCENT	3.00	3.25	20.00

			Centralizer for testing	3.00	3.25	20.00
WVF3	12.00		CBL SIE1X1-SIE (SDSDEMO) Probe 2.75" SIE Dual Receiver Bond	8.75	2.75	60.00
WVF5	11.00					
			SDSCENT Centralizer for testing	3.00	3.25	20.00
CCL	3.92		CCL-Probe (275)	1.42	2.75	
GR	2.54		GR-Probe275 (030606)	3.33	2.75	57.00
Dataset: bonanza creek state seventy holes k21-024-4hnb.db: field/well/run1/pass4 Total Length: 19.50 ft Total Weight: 157.00 lb O.D. 3.25 in						



# MAIN PASS

Database File:

bonanza creek state seventy holes k21-024-4hnb.db

Dataset Pathname:

pass4

Presentation Format:

cbl\_dr

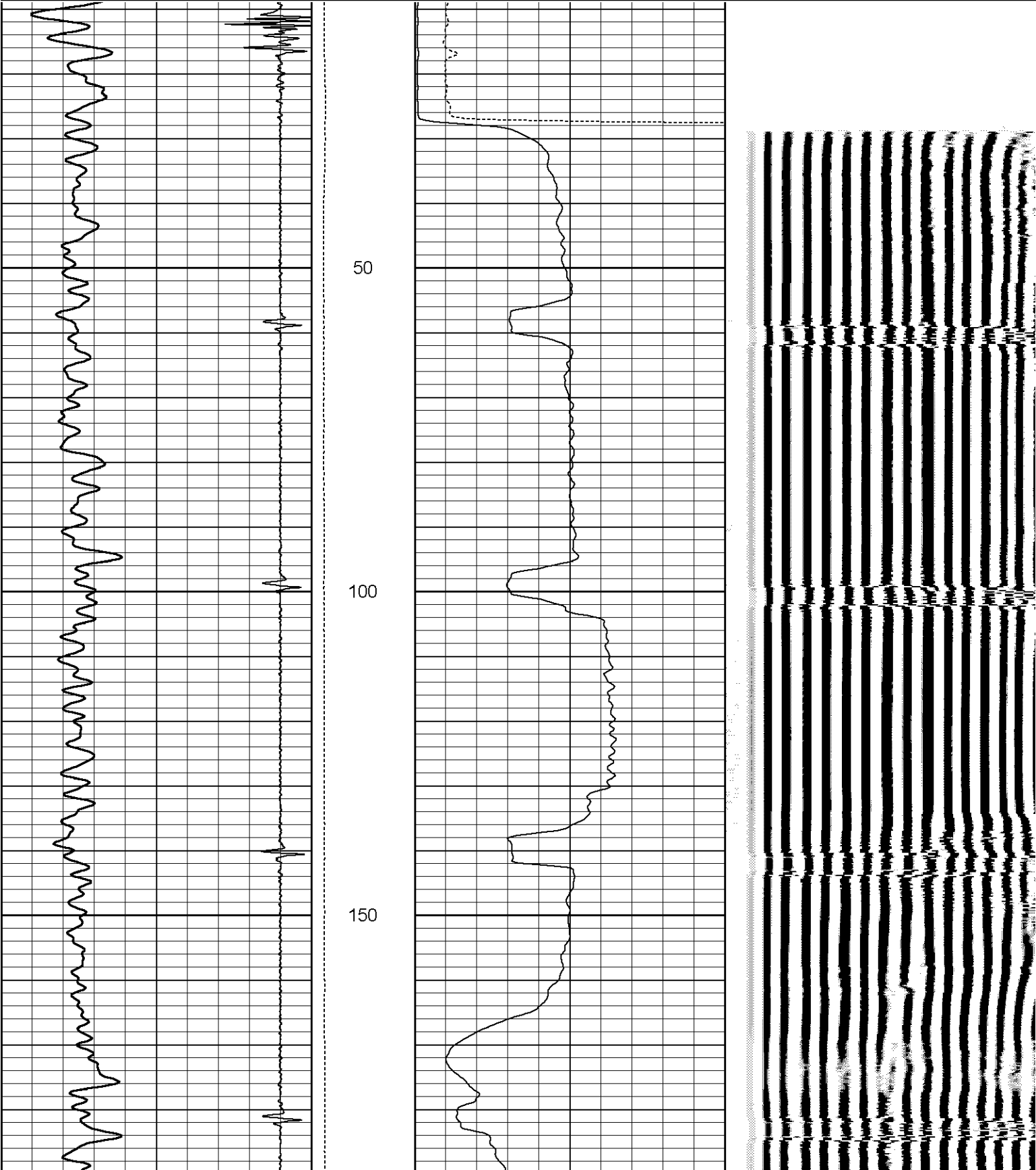
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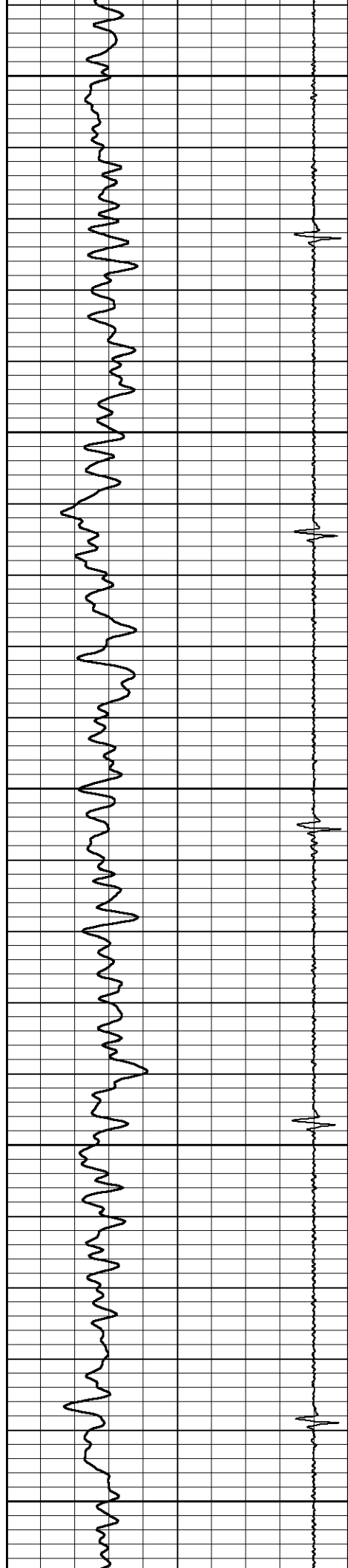
Mon Feb 09 15:01:50 2015 by Log 7.0 B1

Charted by:

Depth in Feet scaled 1:240

9	Collar Locator	-1	LTEN	0	Amplified Amplitude (mV)	10	200	Variable Density	1200
0	Gamma Ray (GAPI)	200	0	(lb)2000	0	Amplitude (mV)	100		





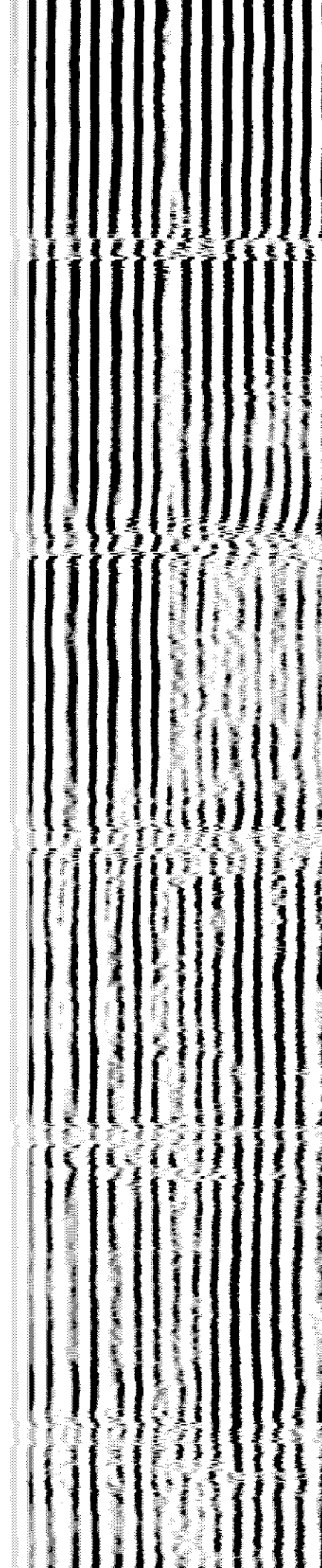
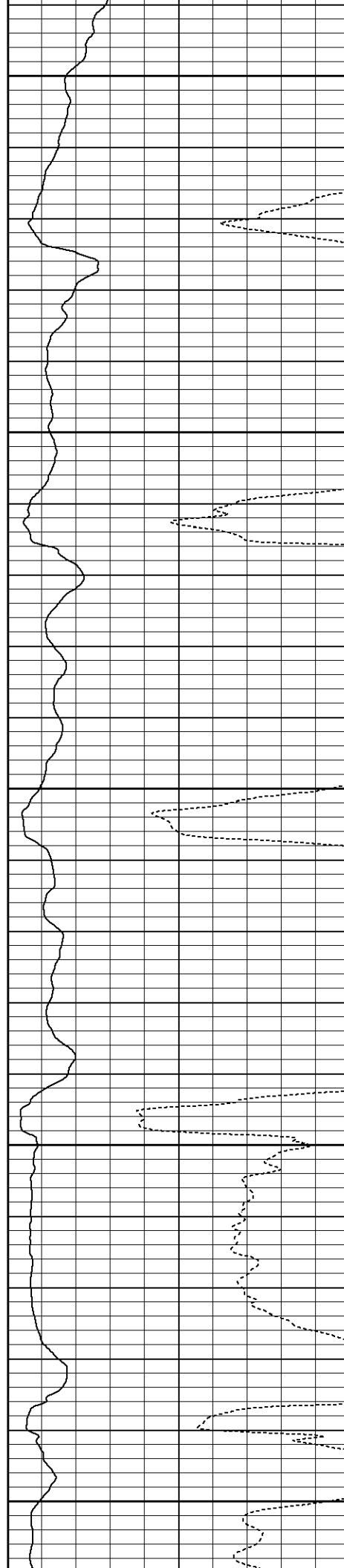
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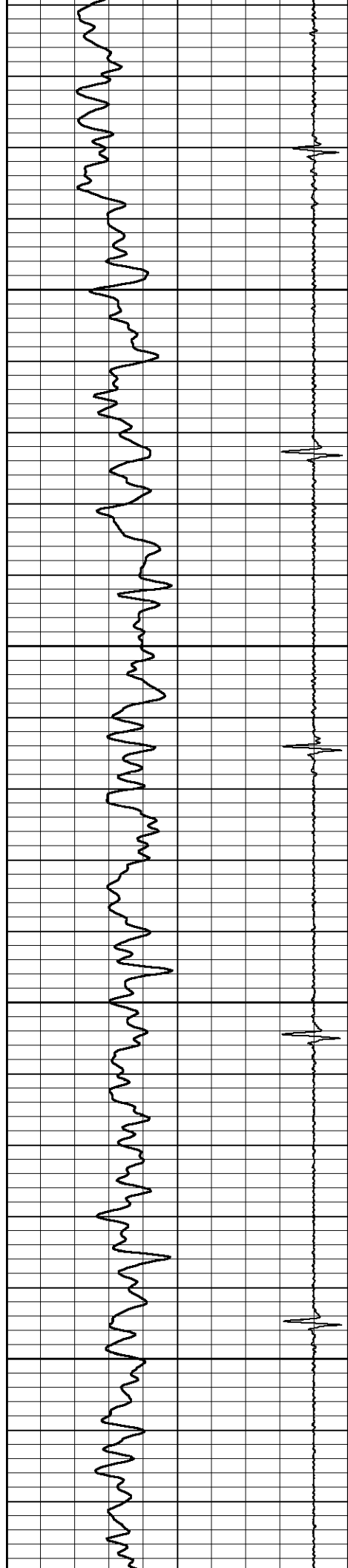
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400



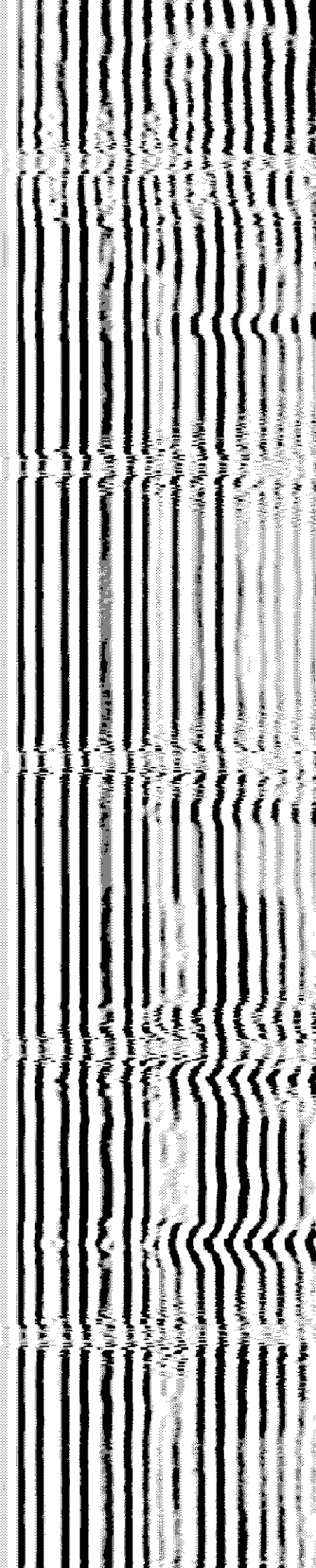
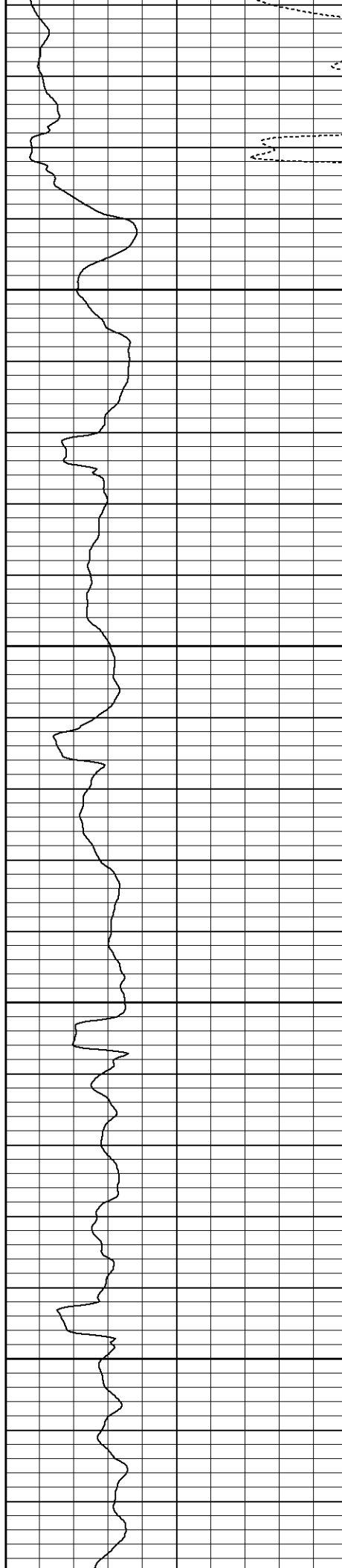


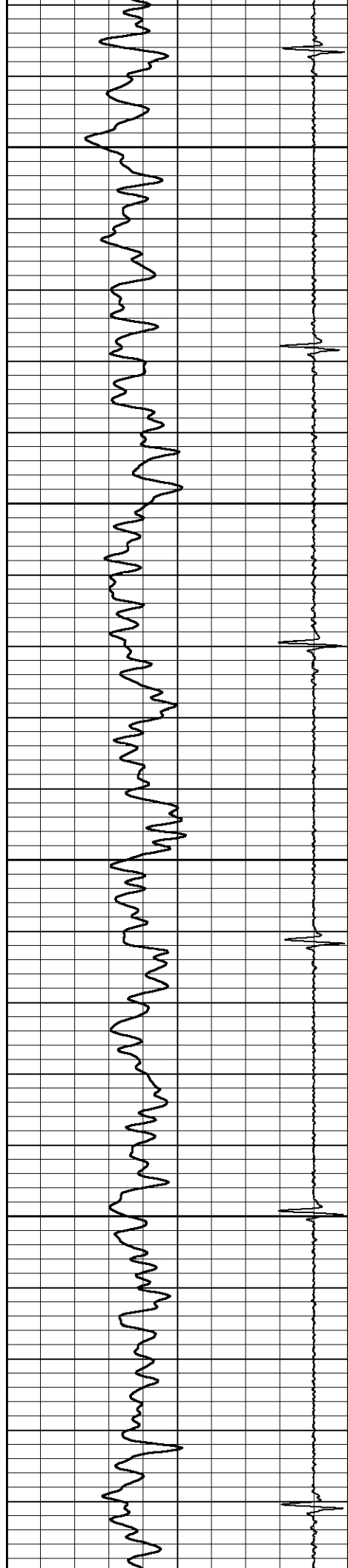
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500

550

600





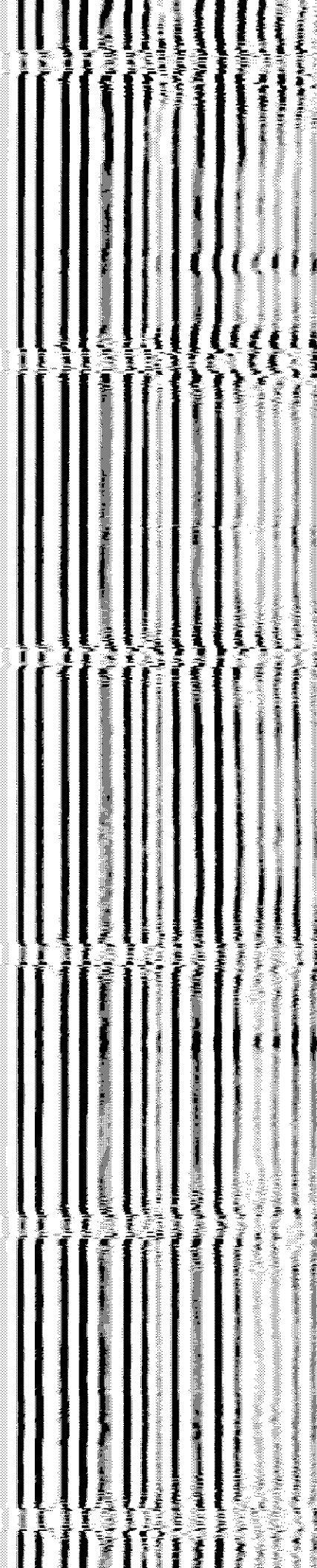
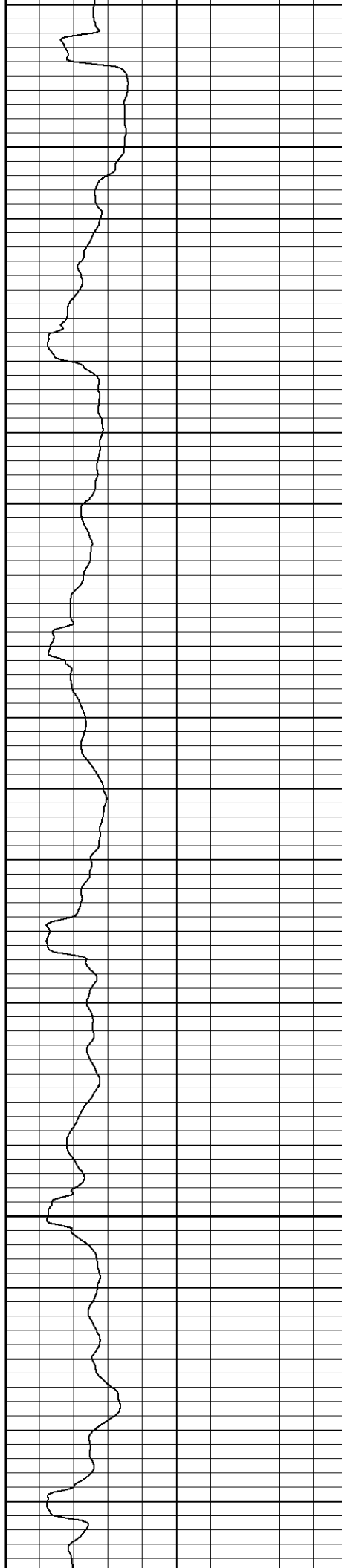
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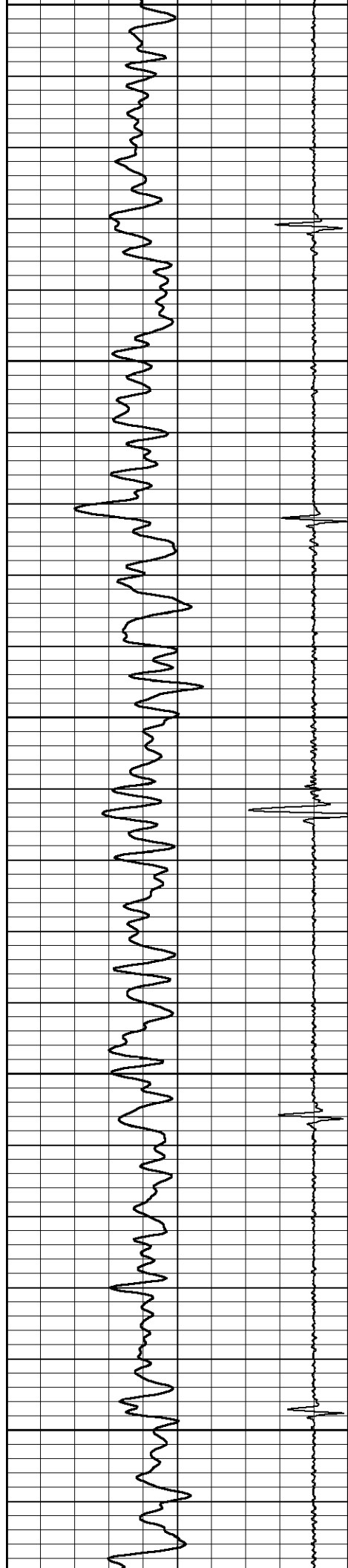
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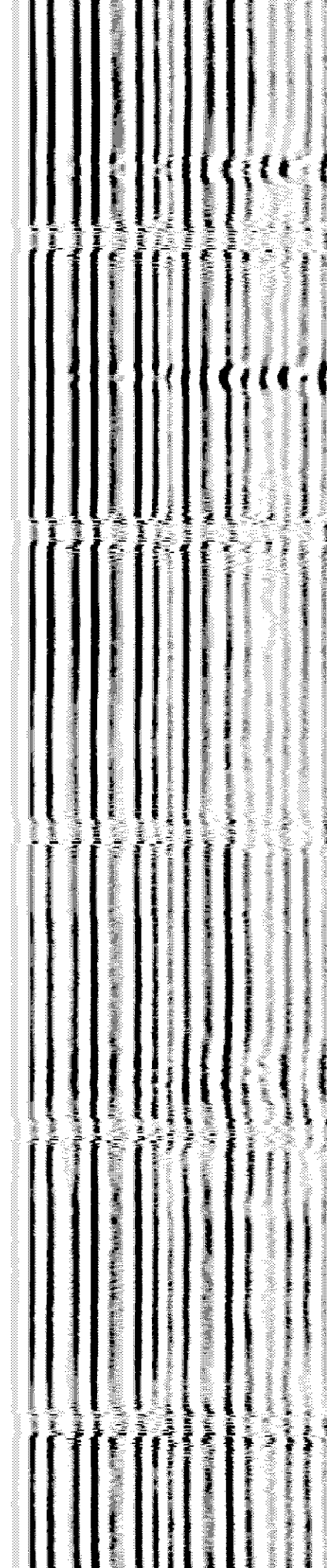
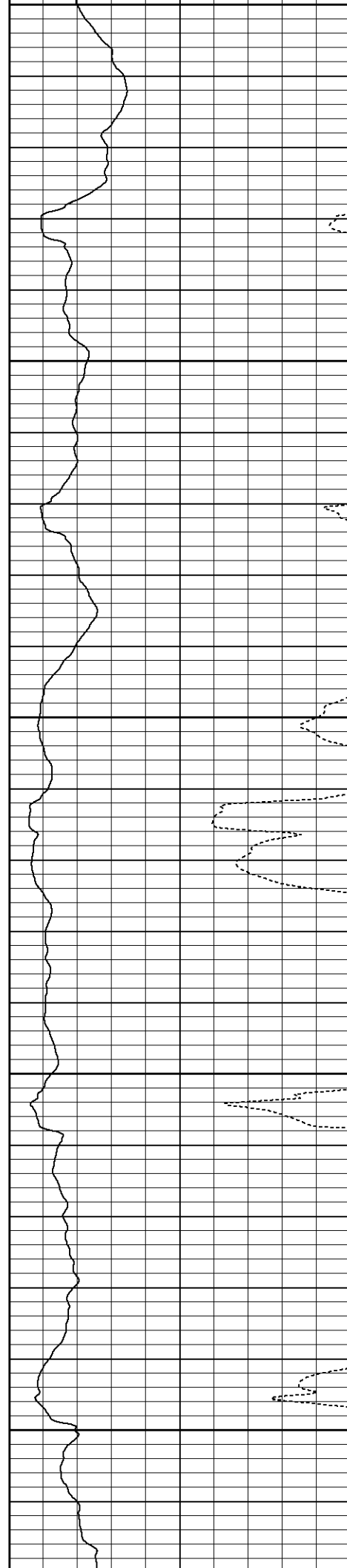
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950

1000

1050



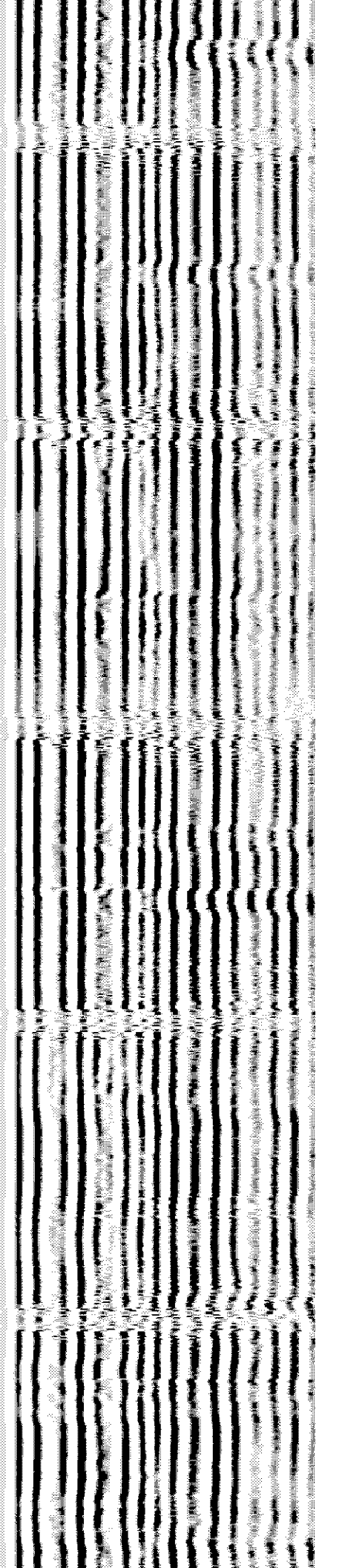
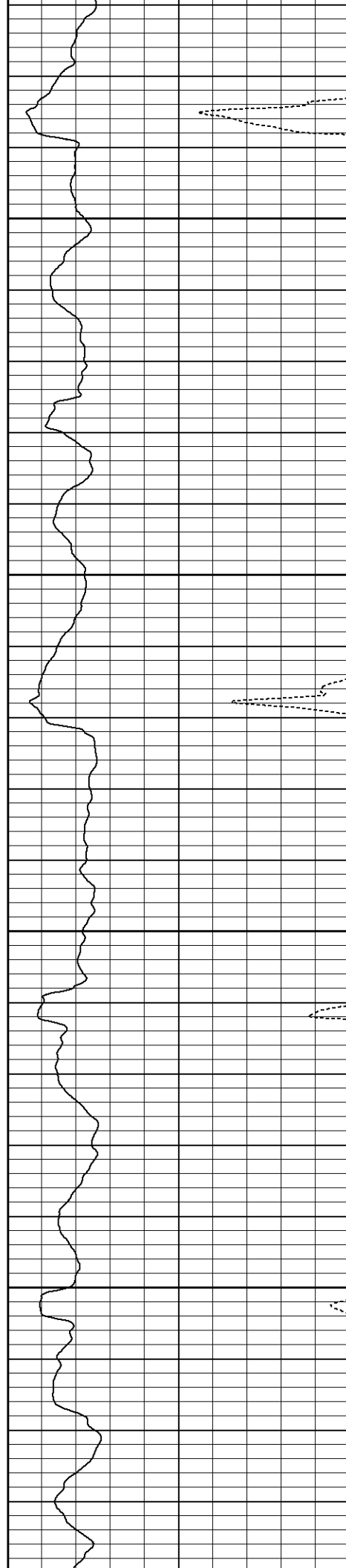


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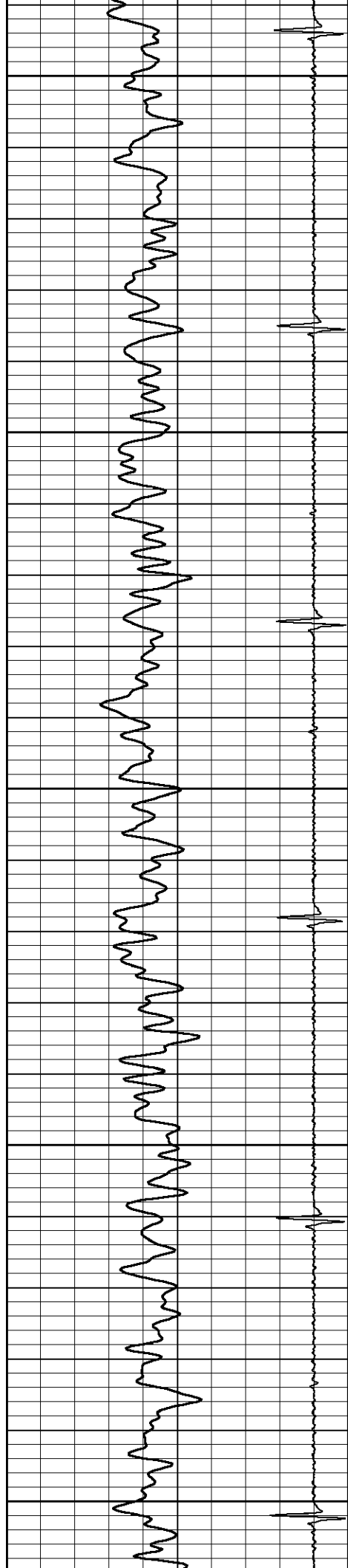
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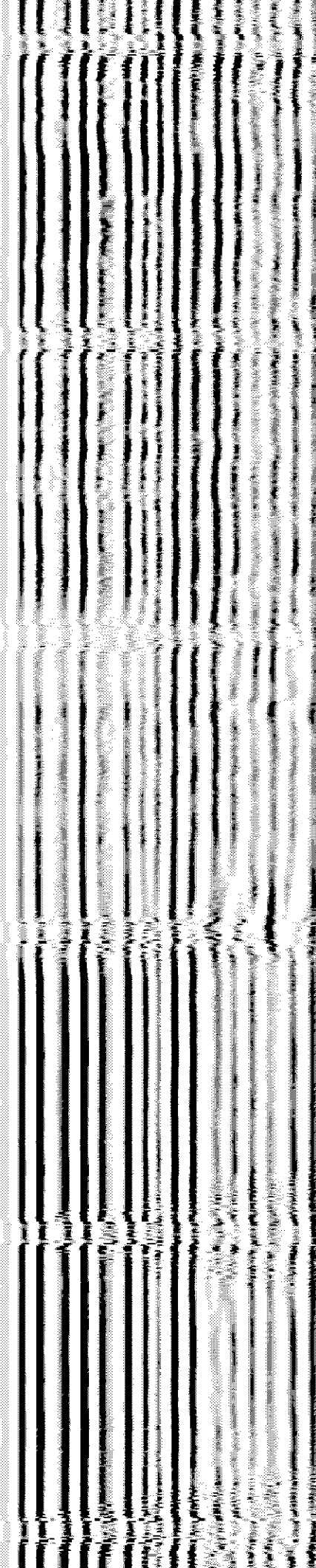
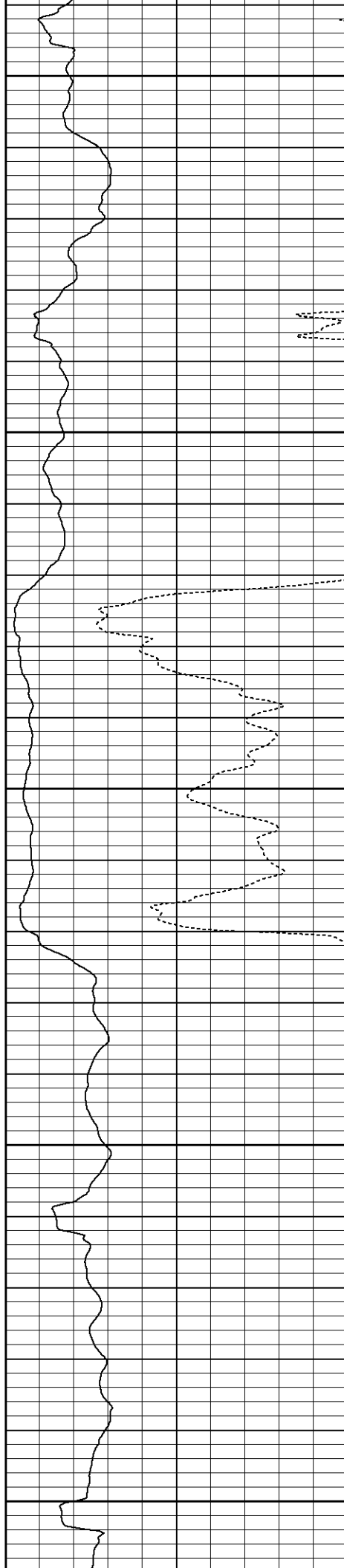
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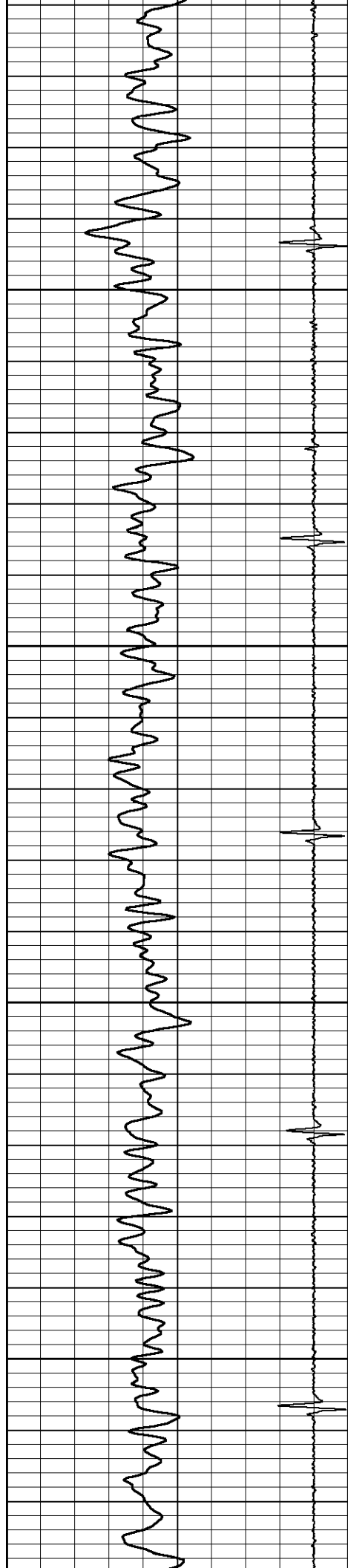
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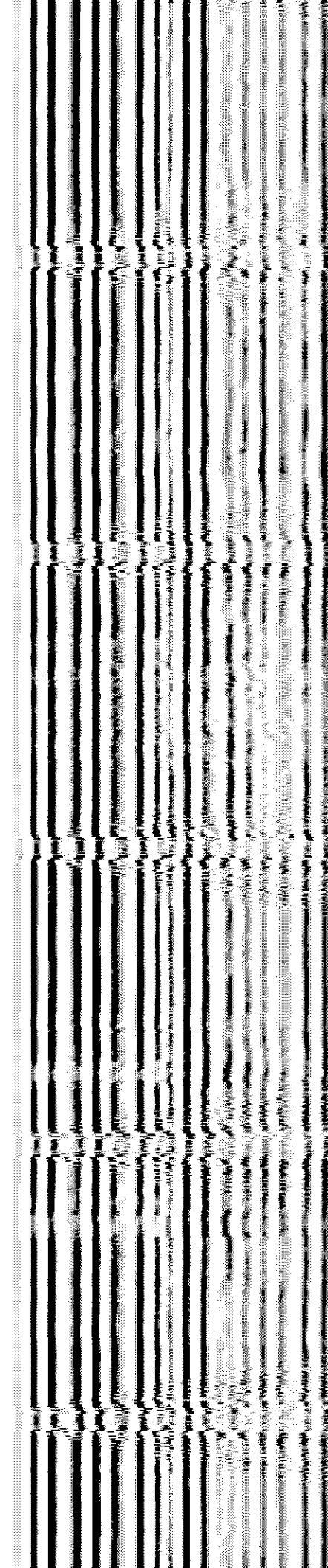
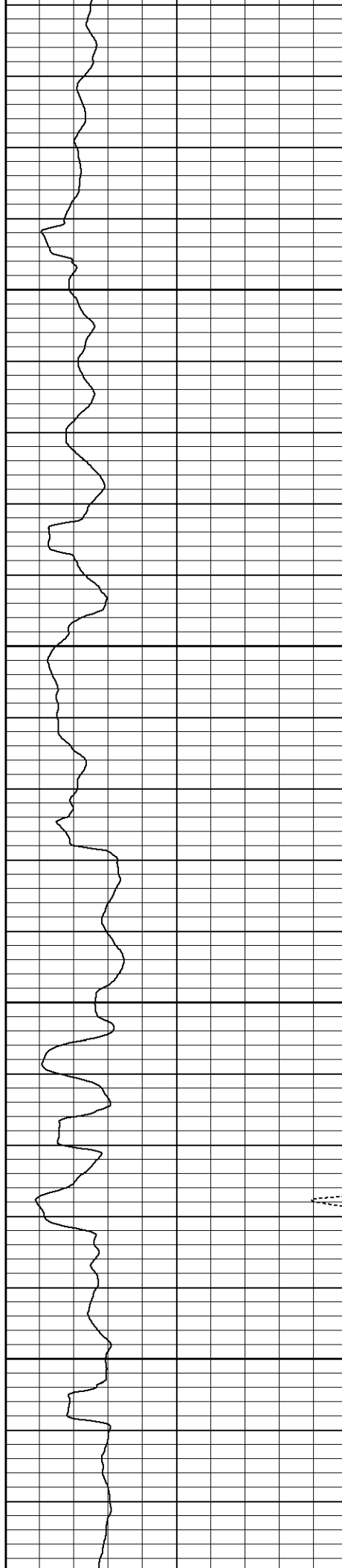


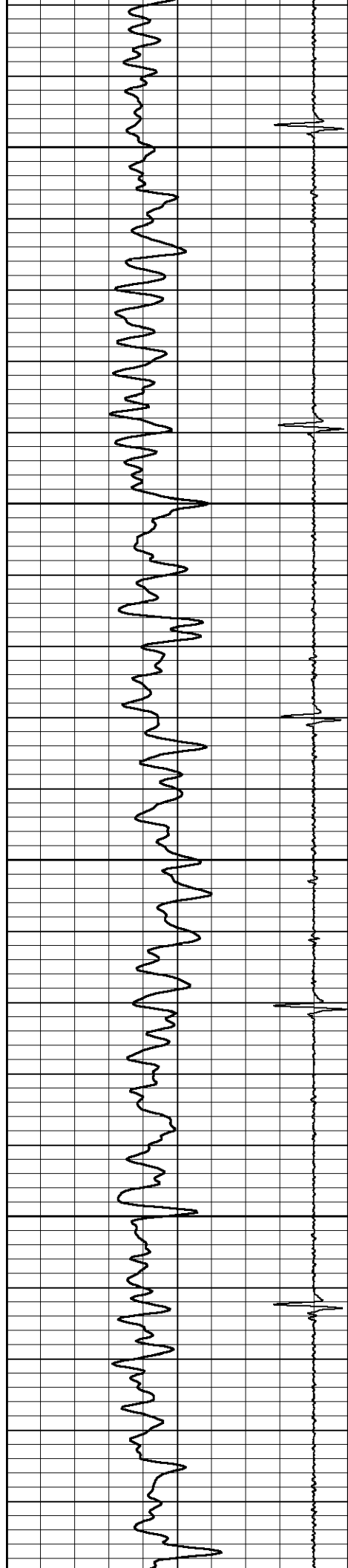
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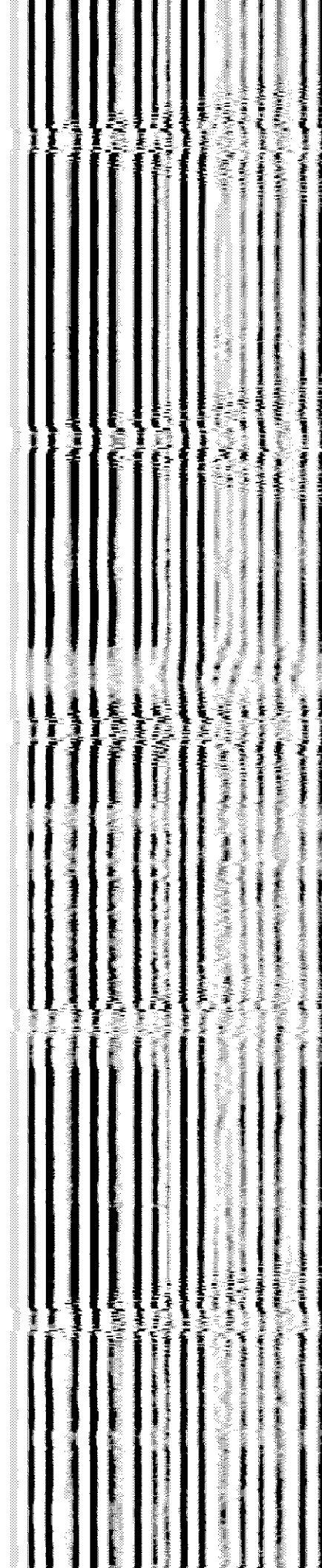
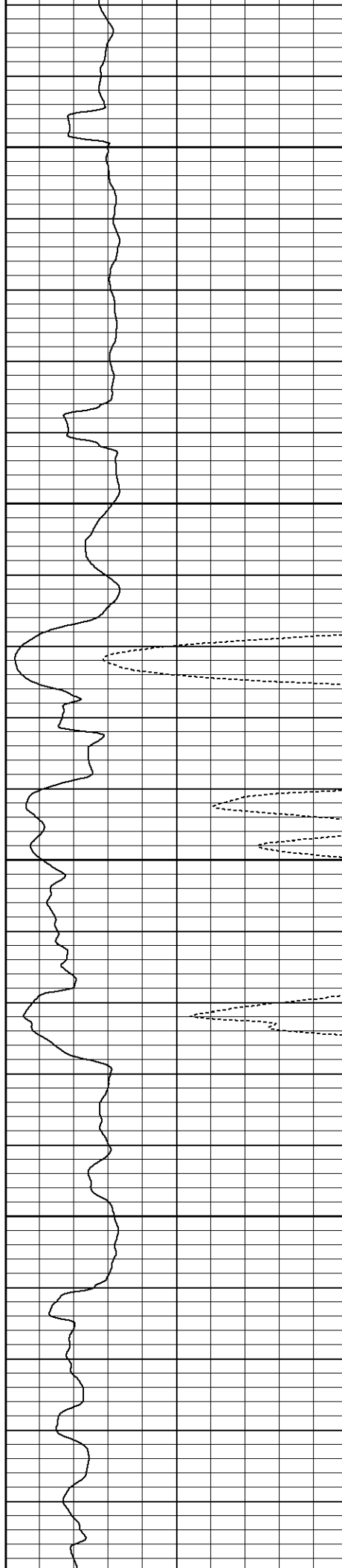
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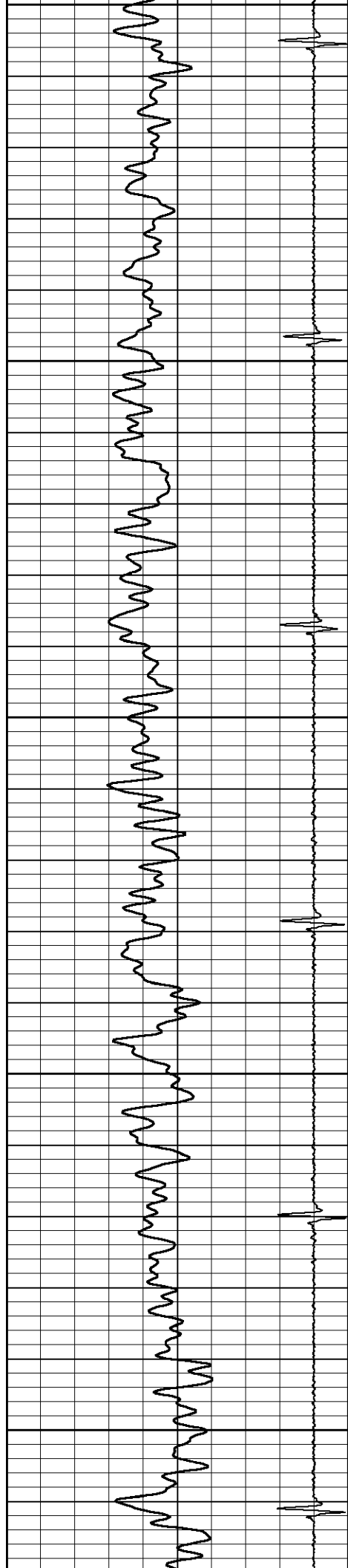
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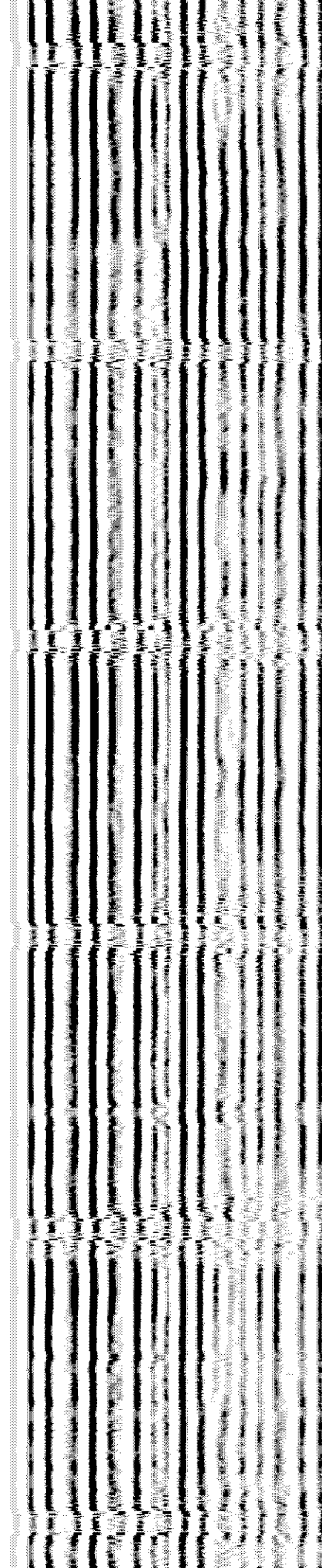
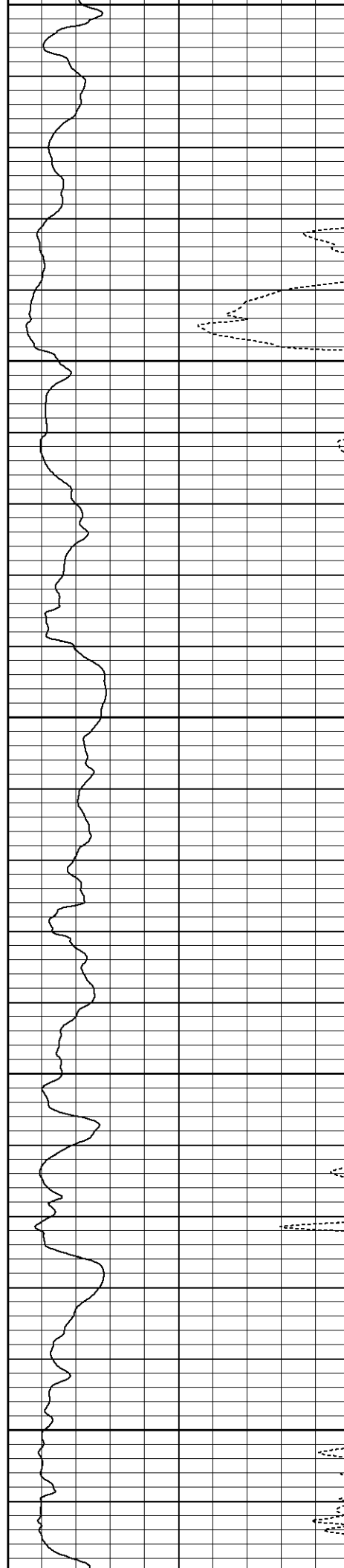
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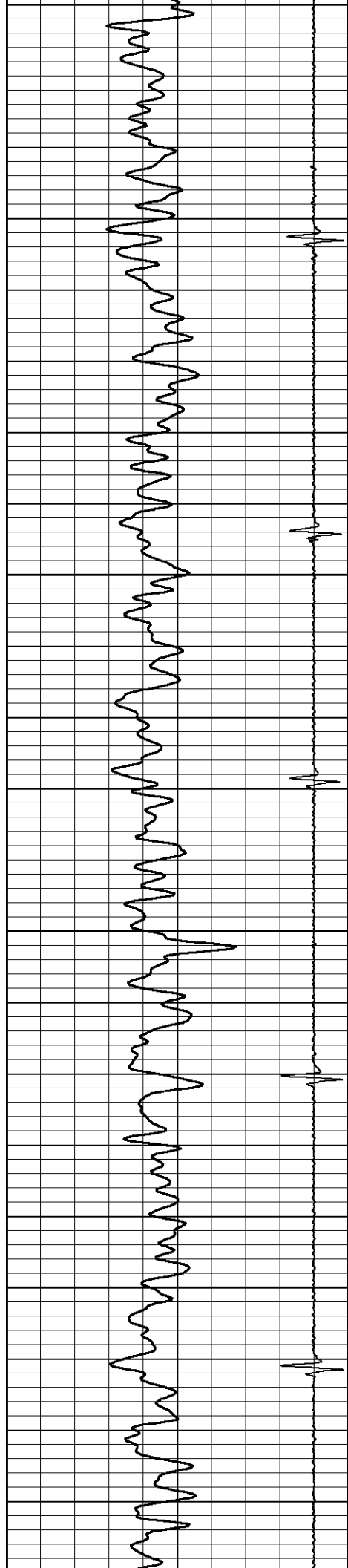
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2100  
2150



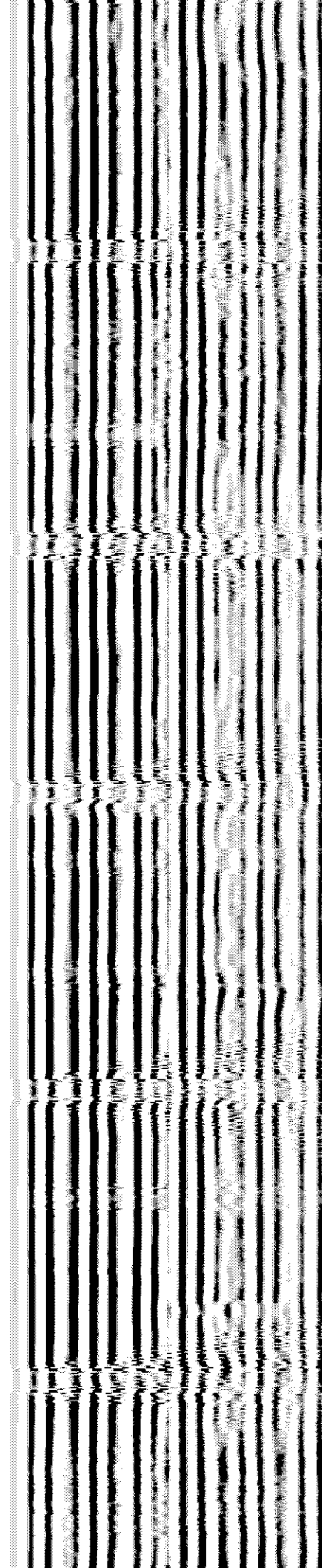
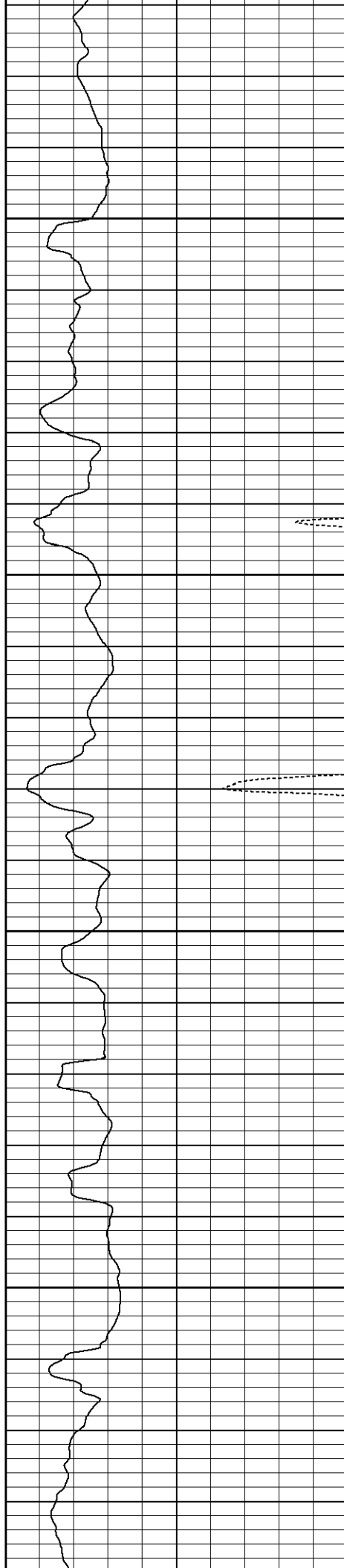


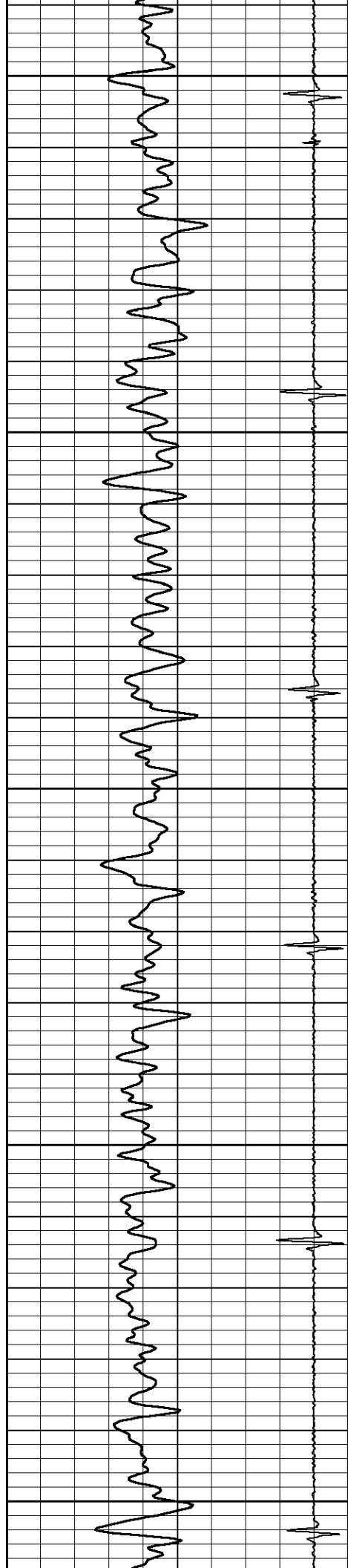
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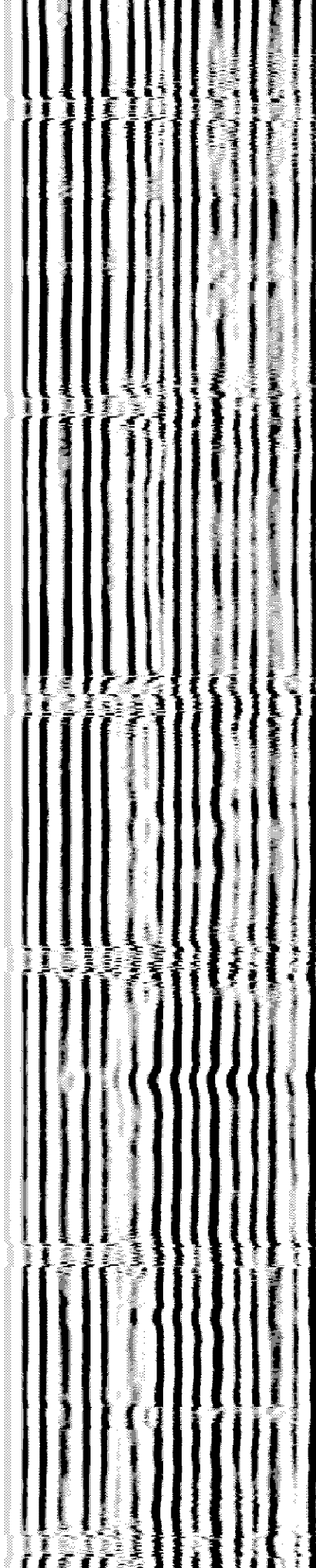
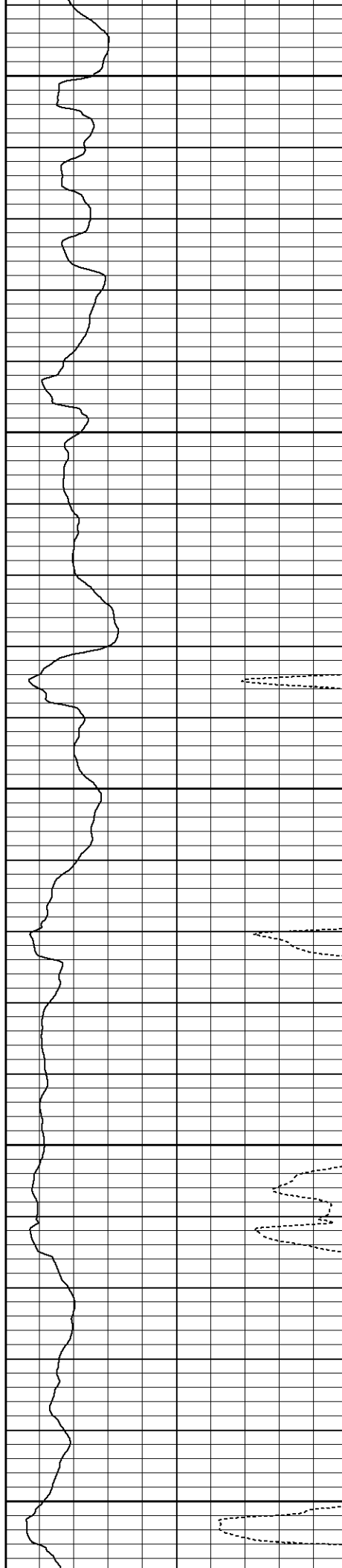
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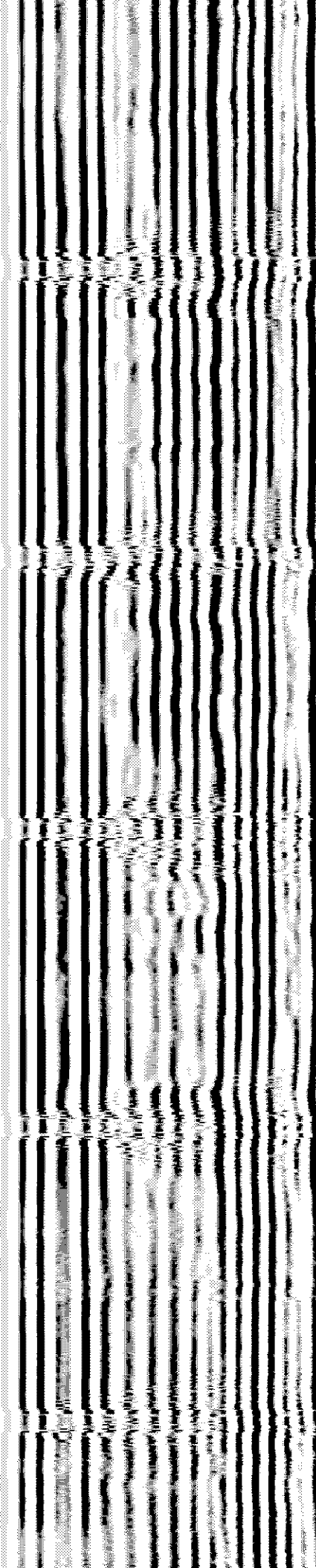
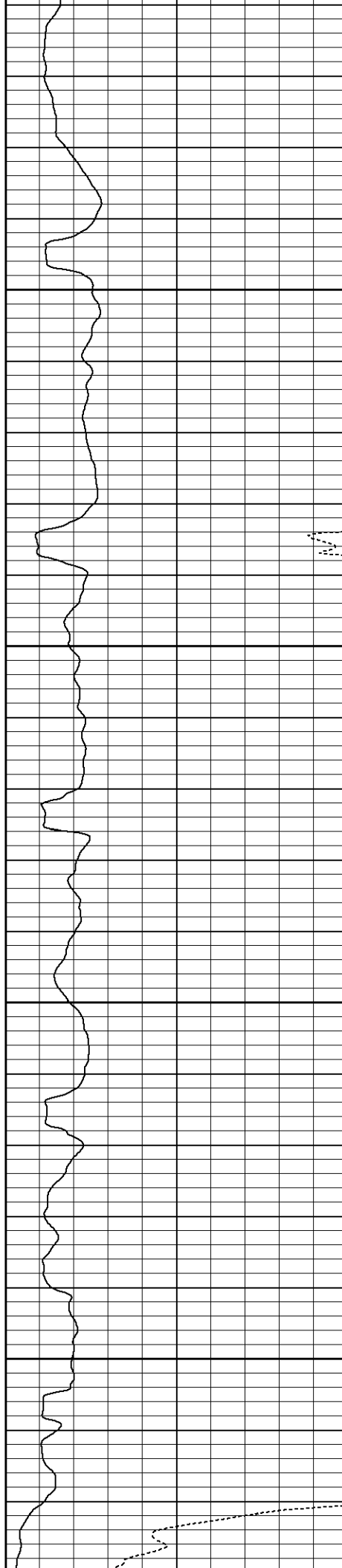


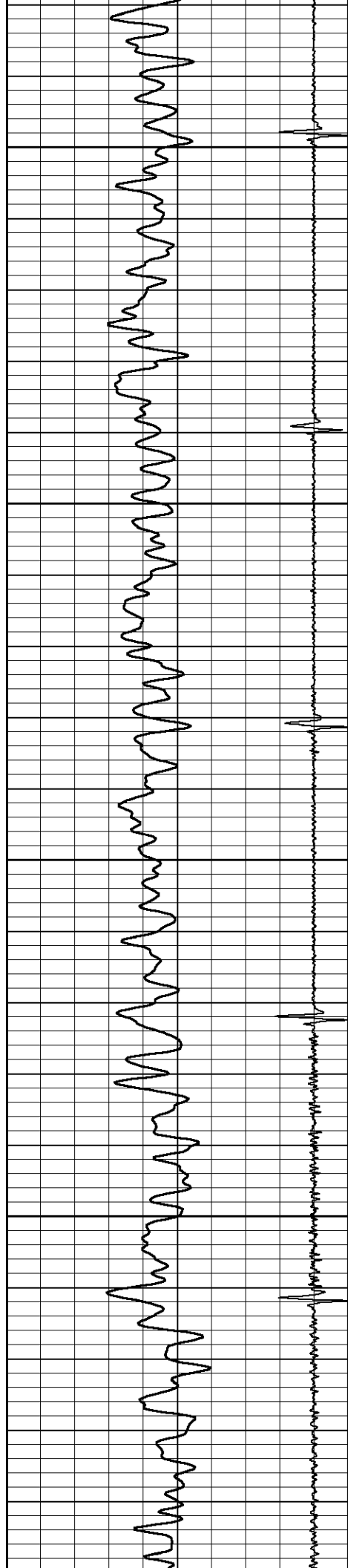
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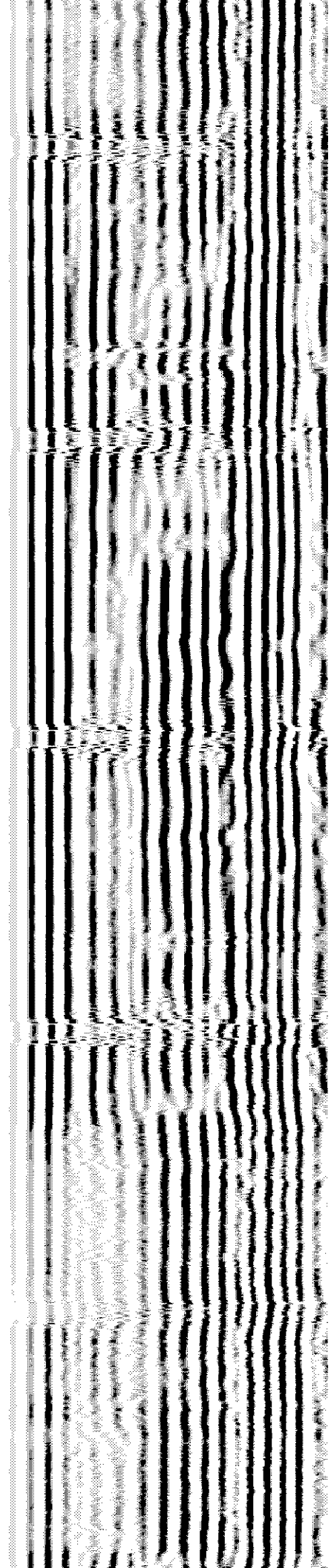
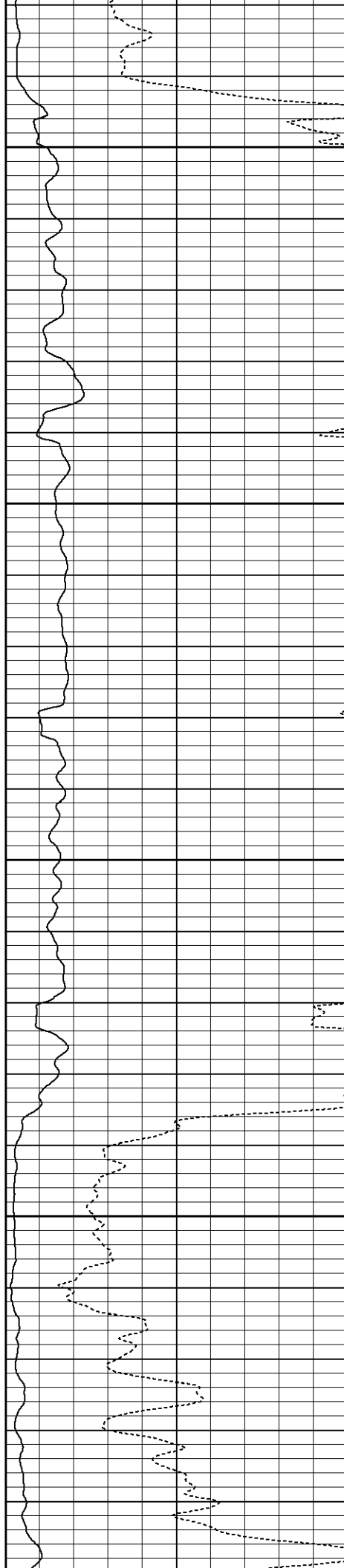
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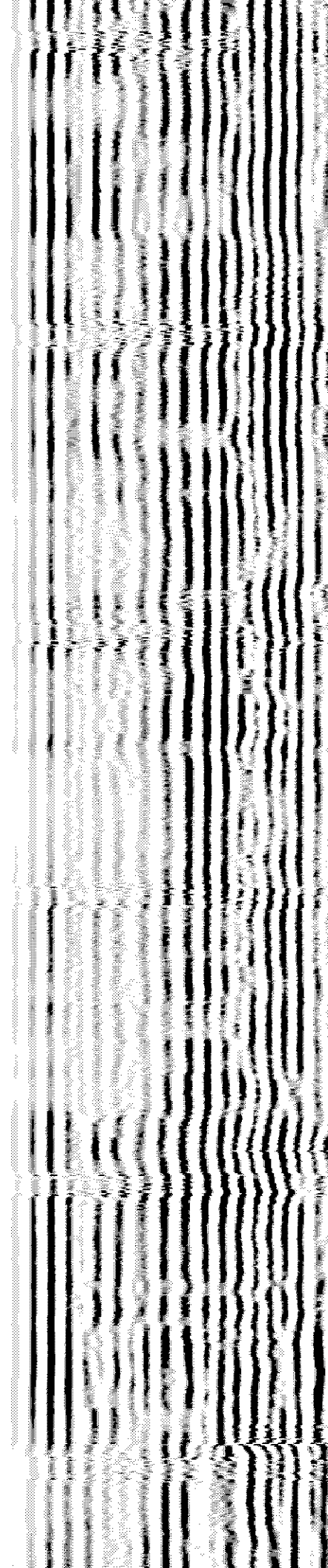
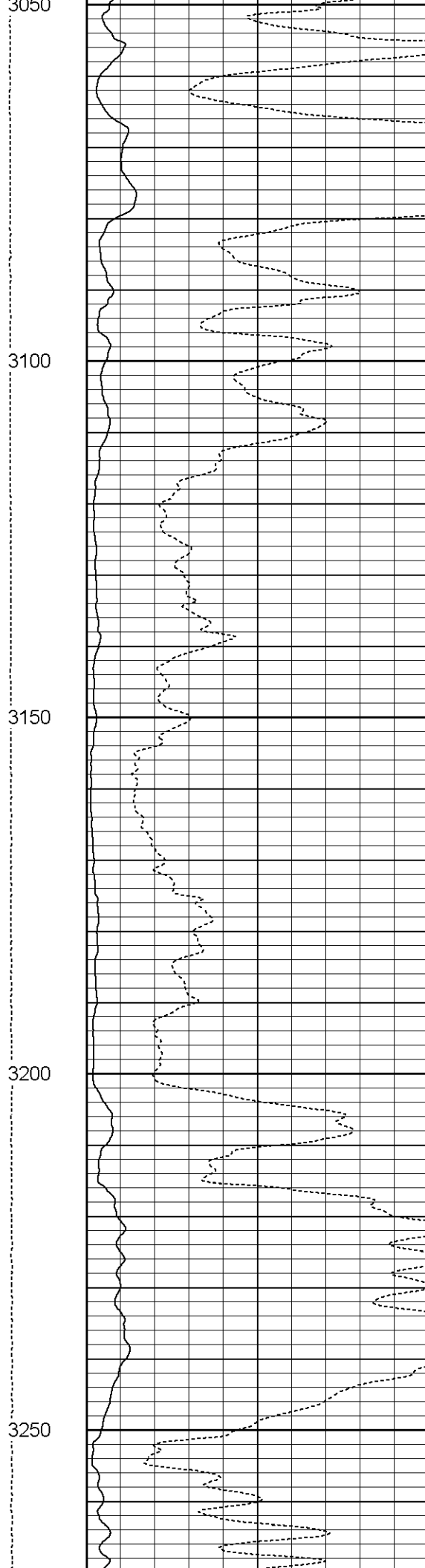
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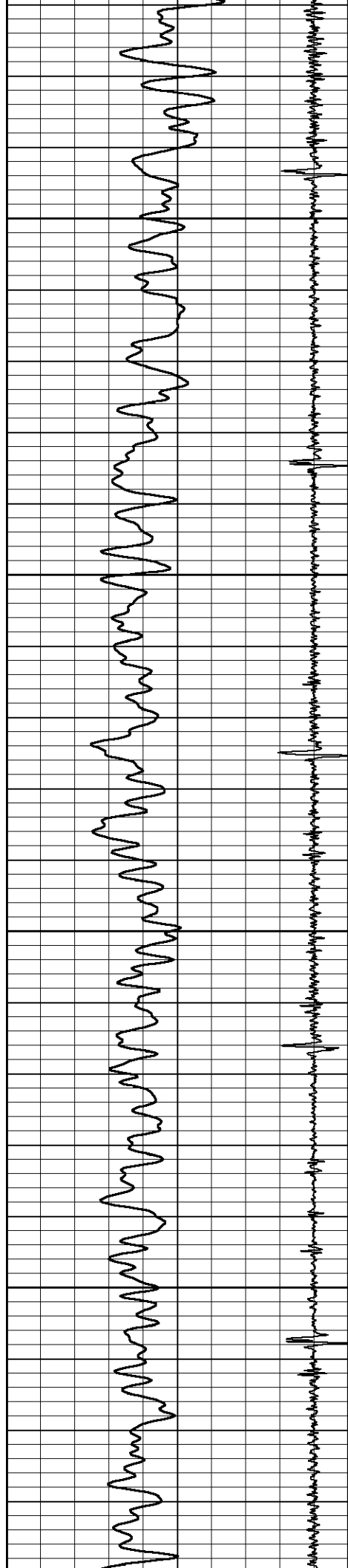
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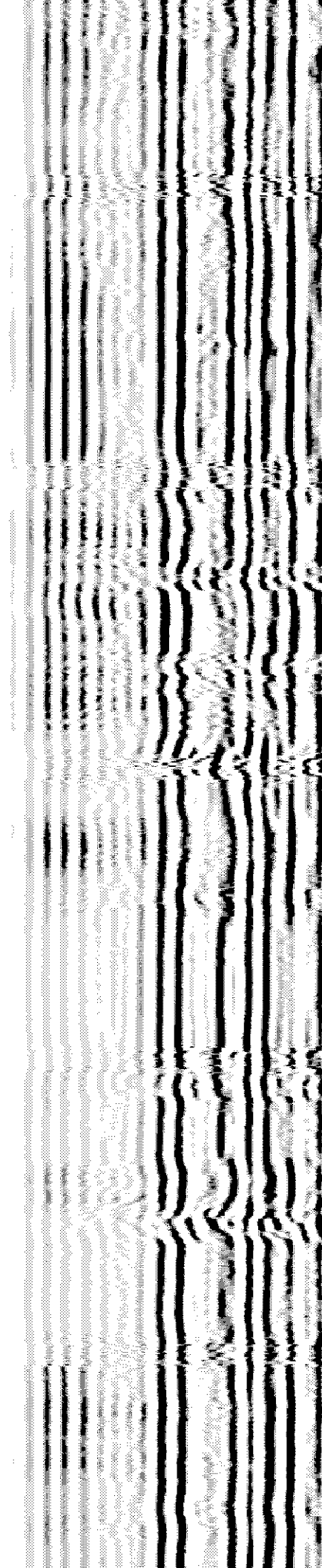
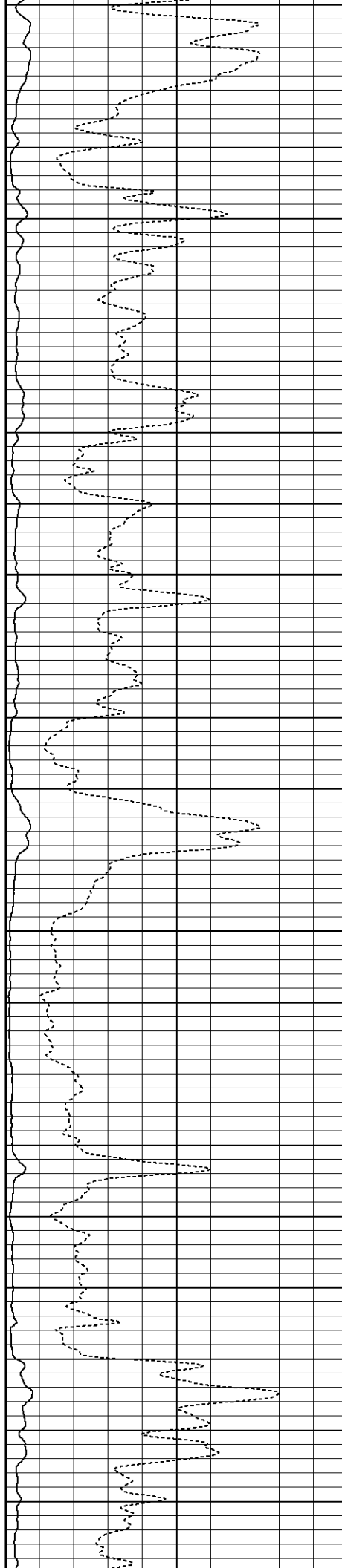


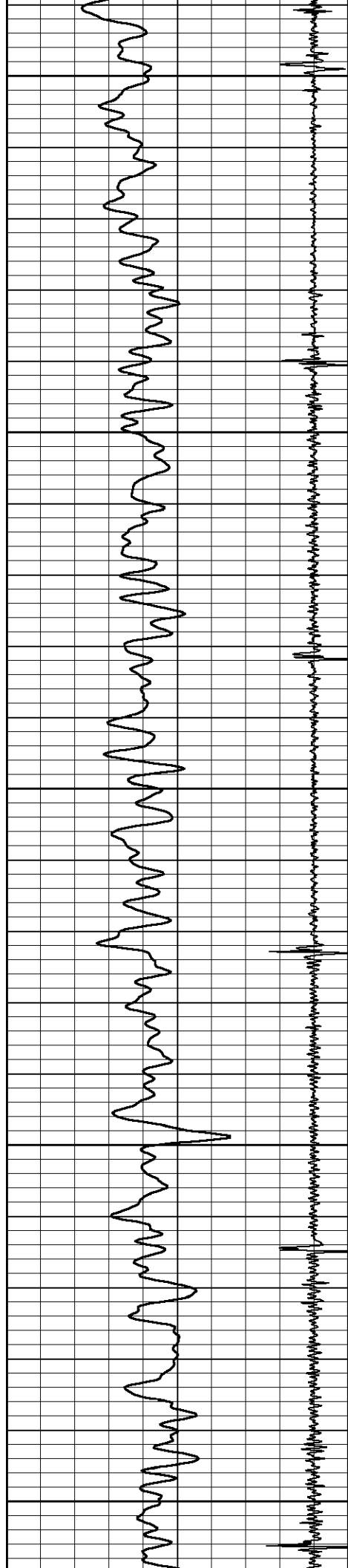
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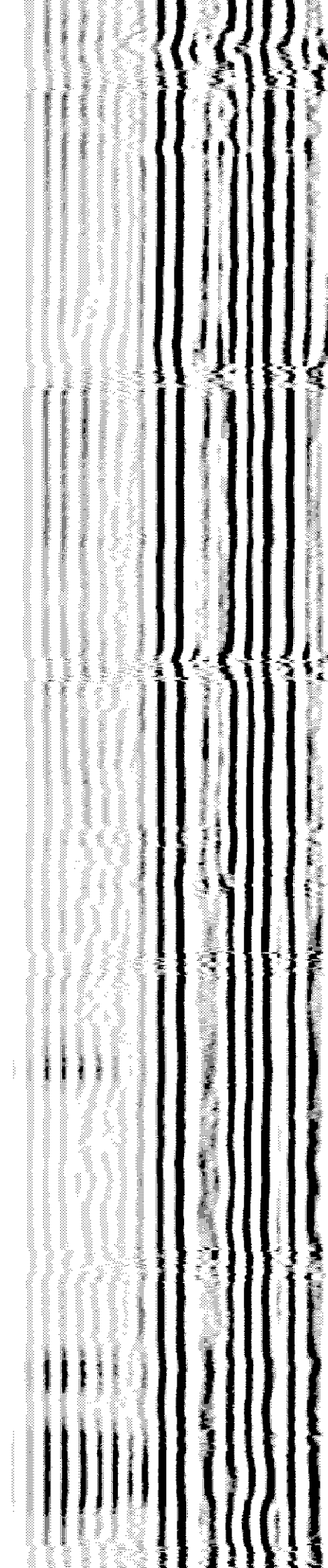
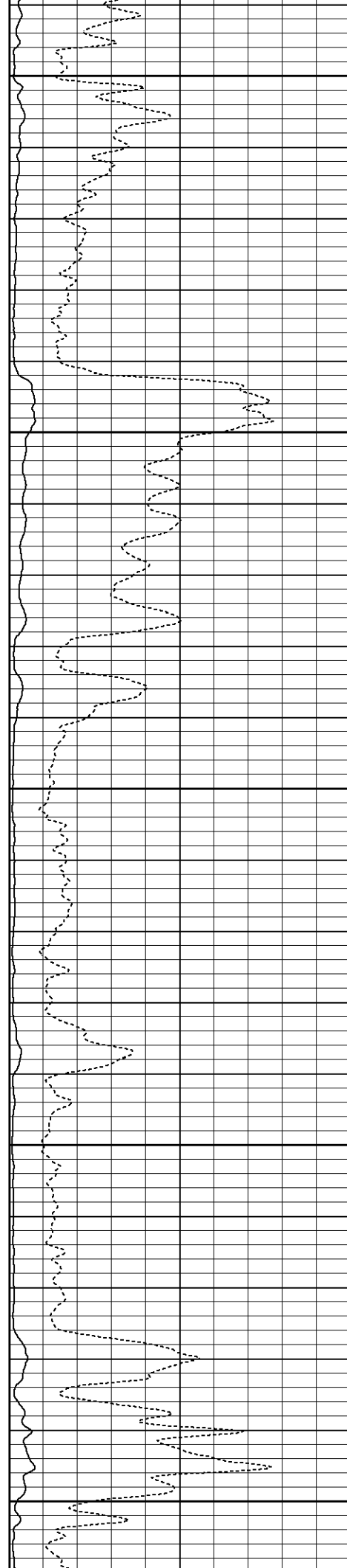
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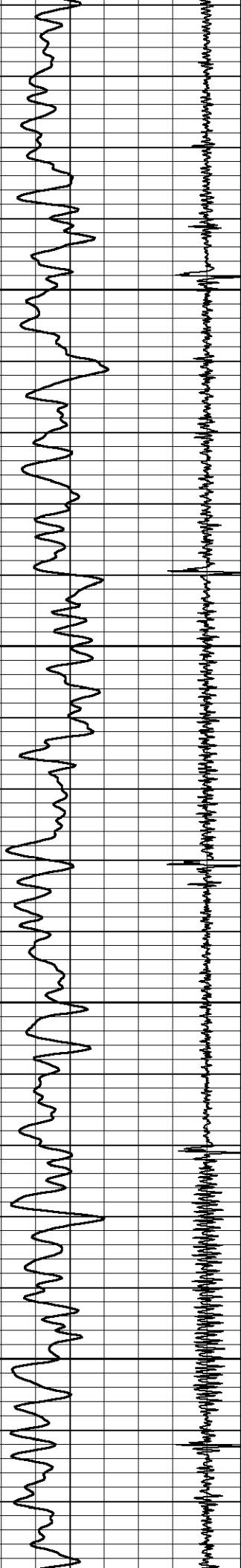
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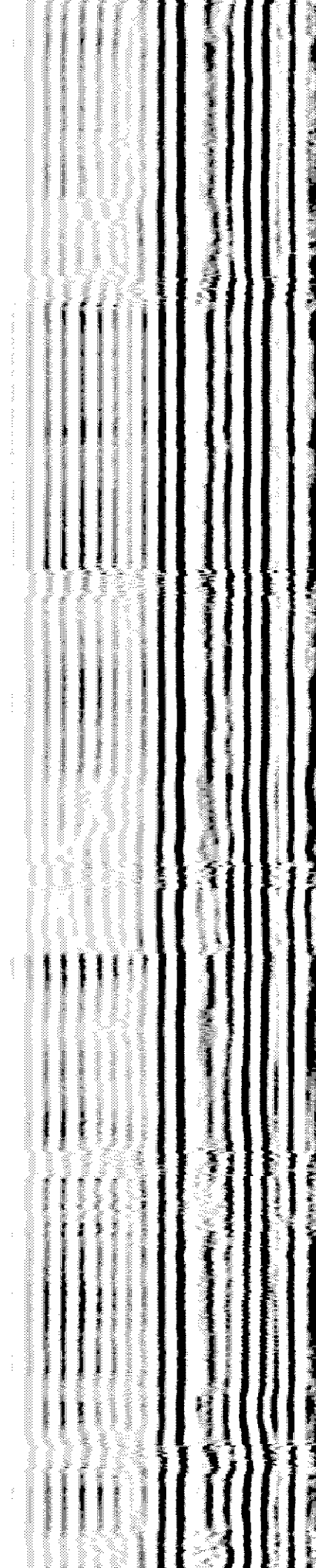
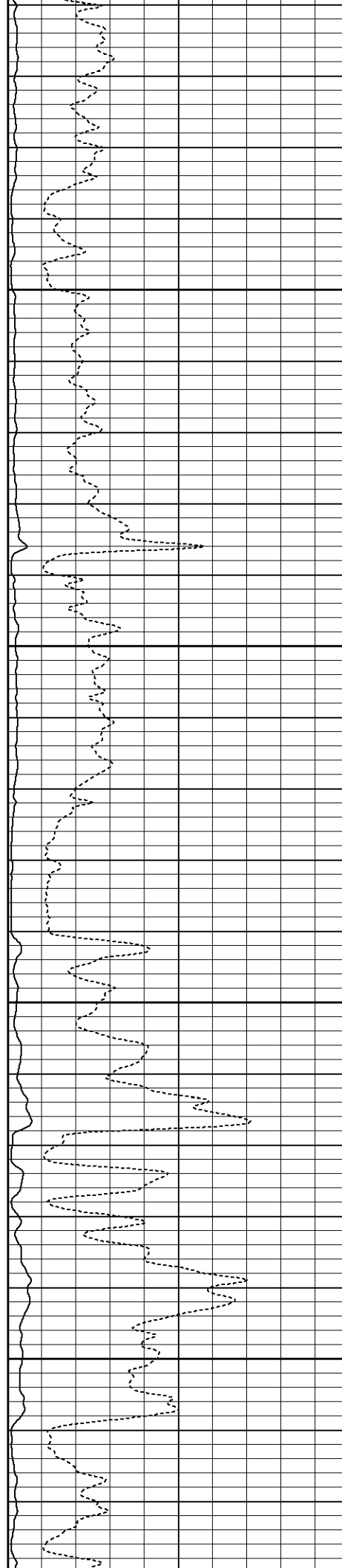


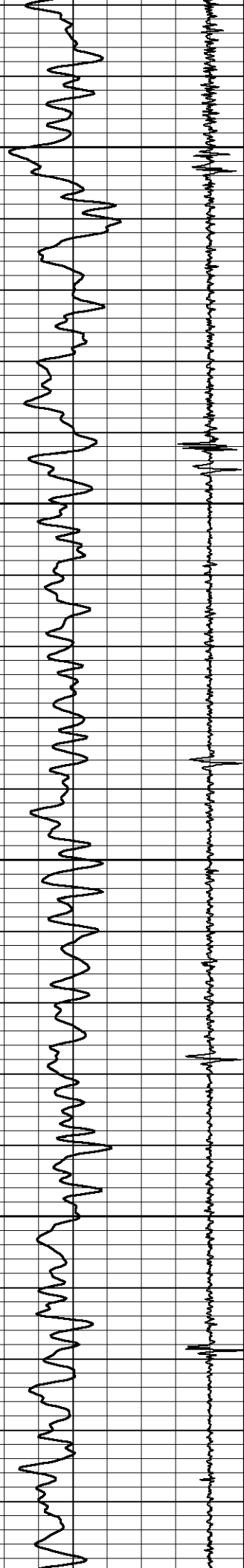
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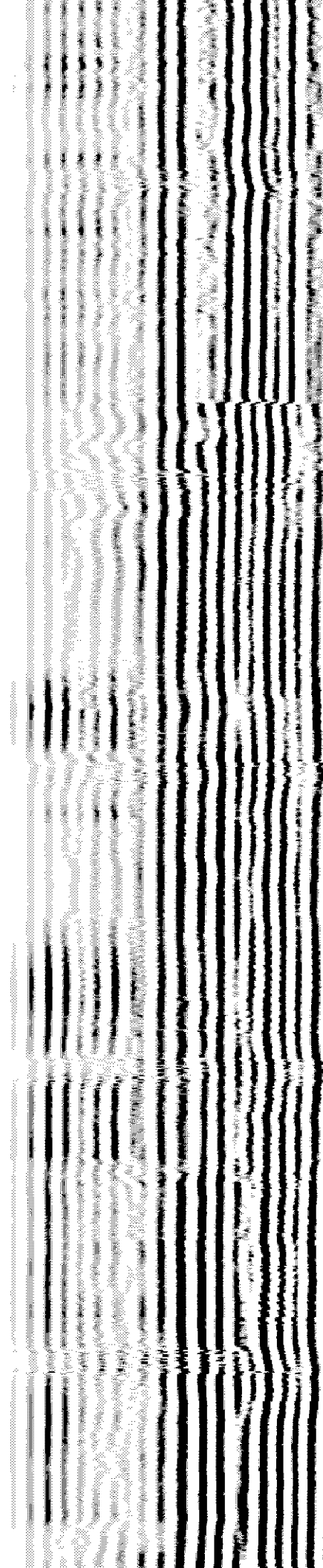
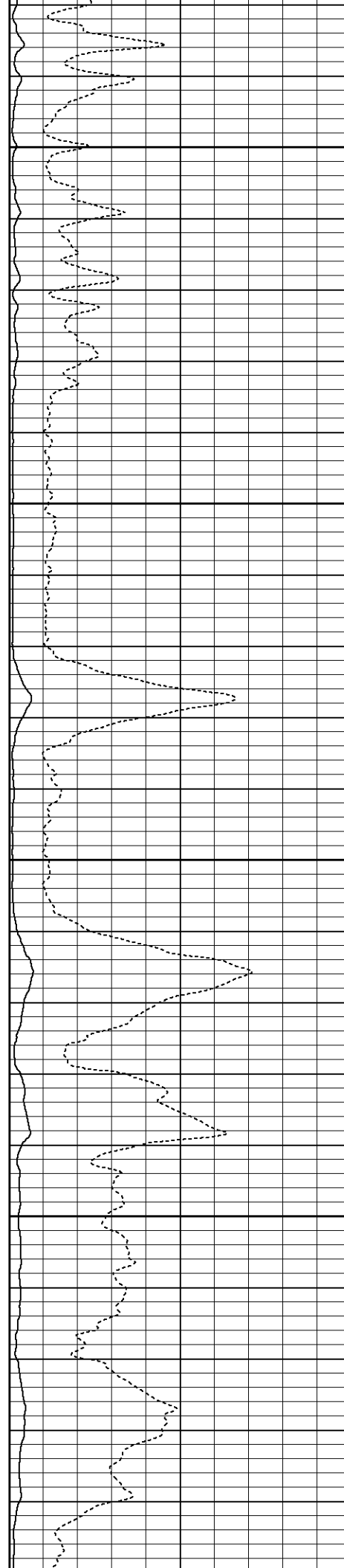


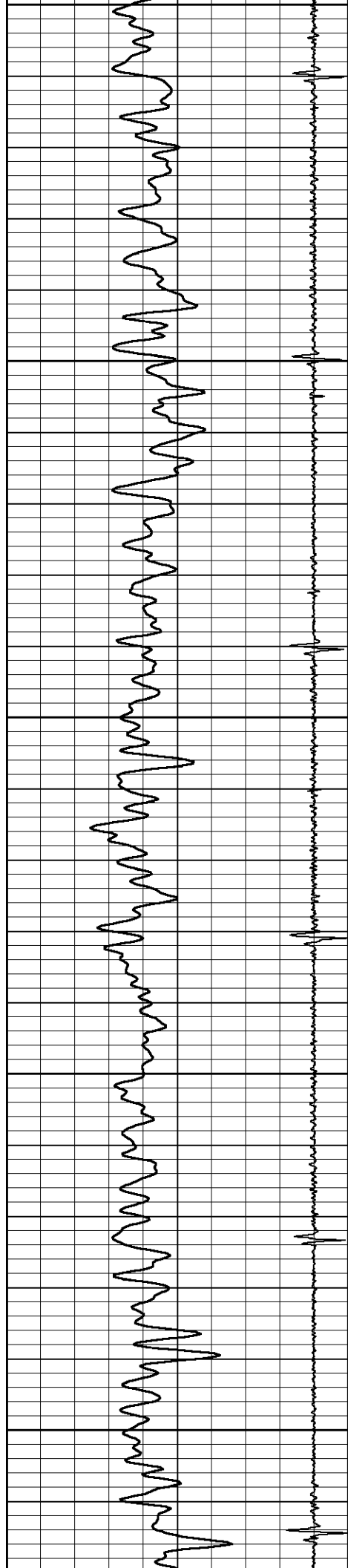
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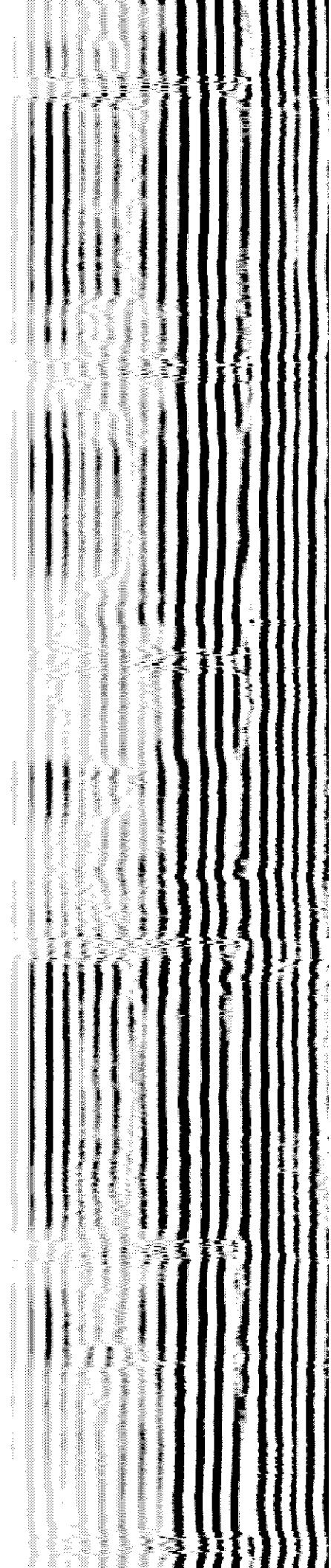
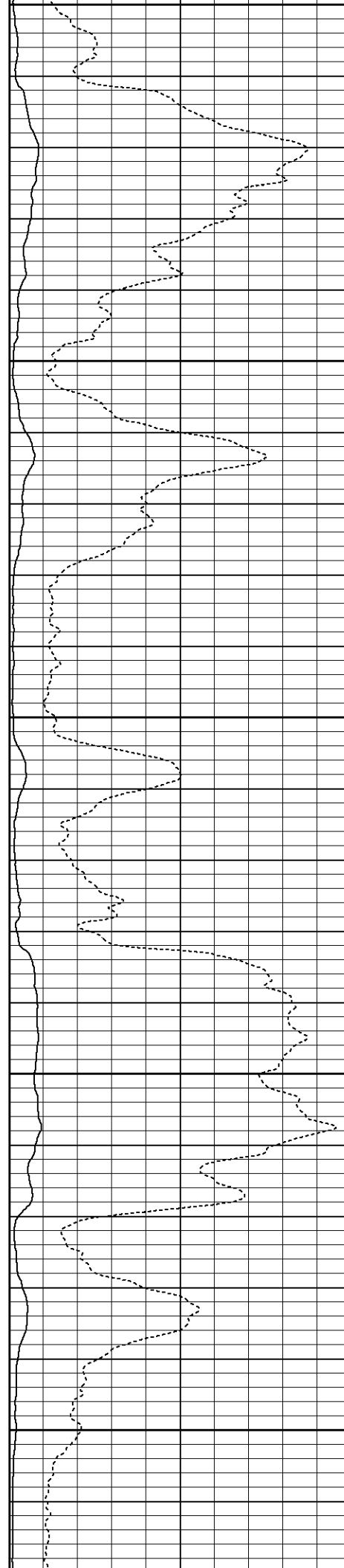
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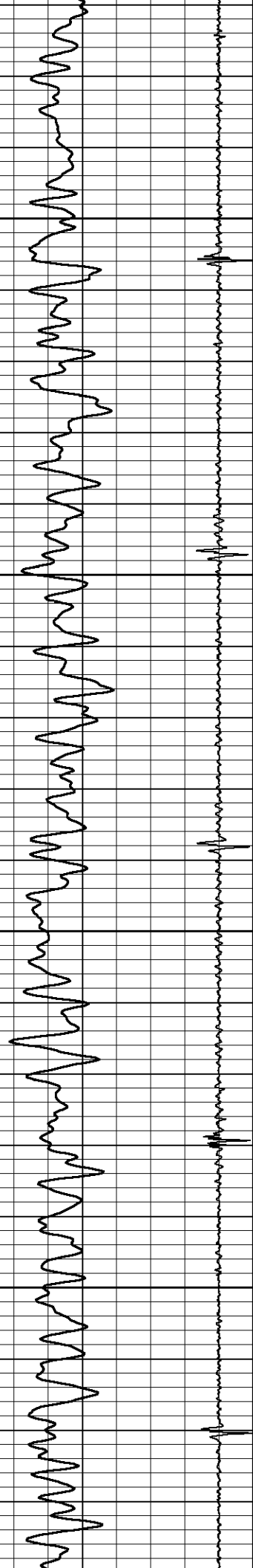
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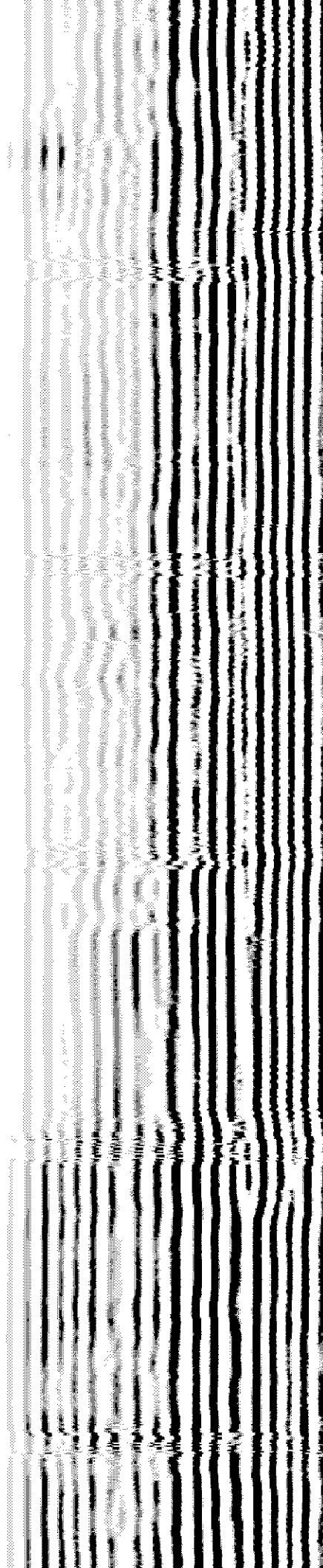
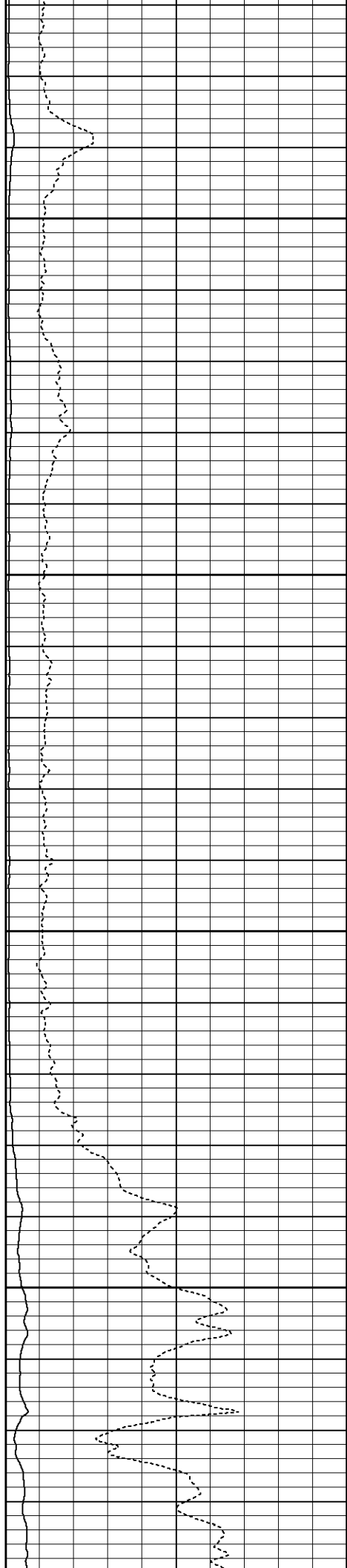


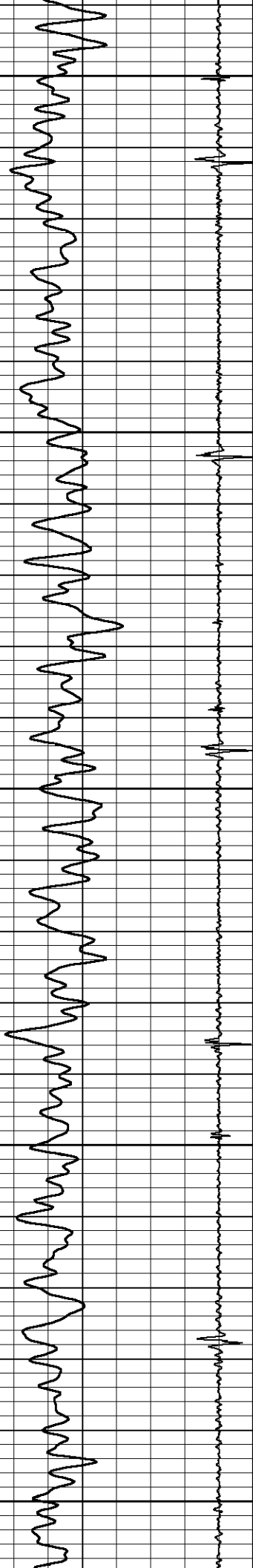
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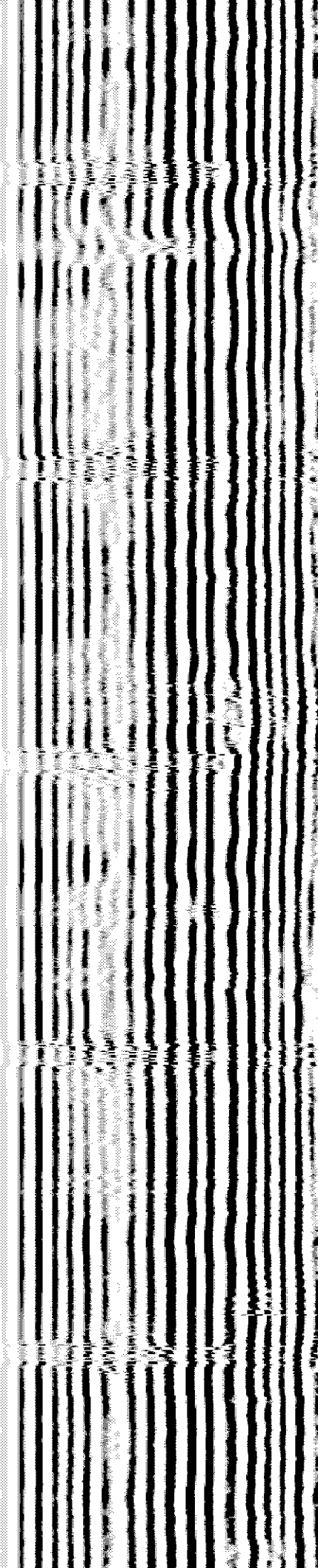
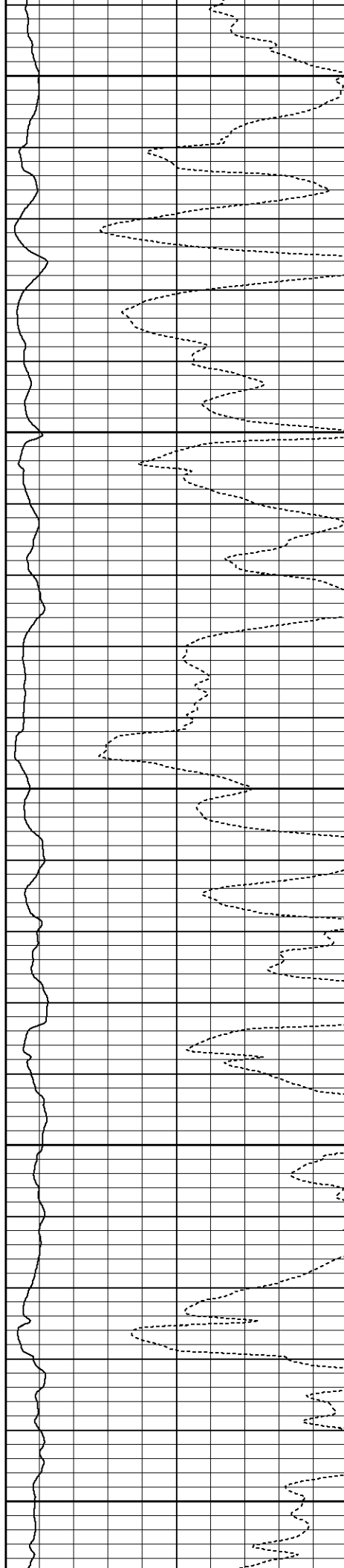
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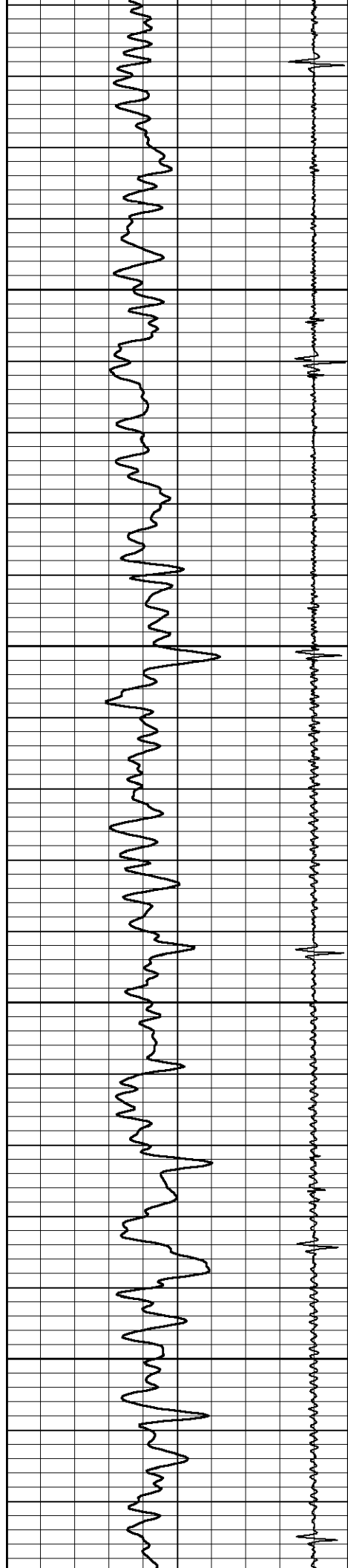
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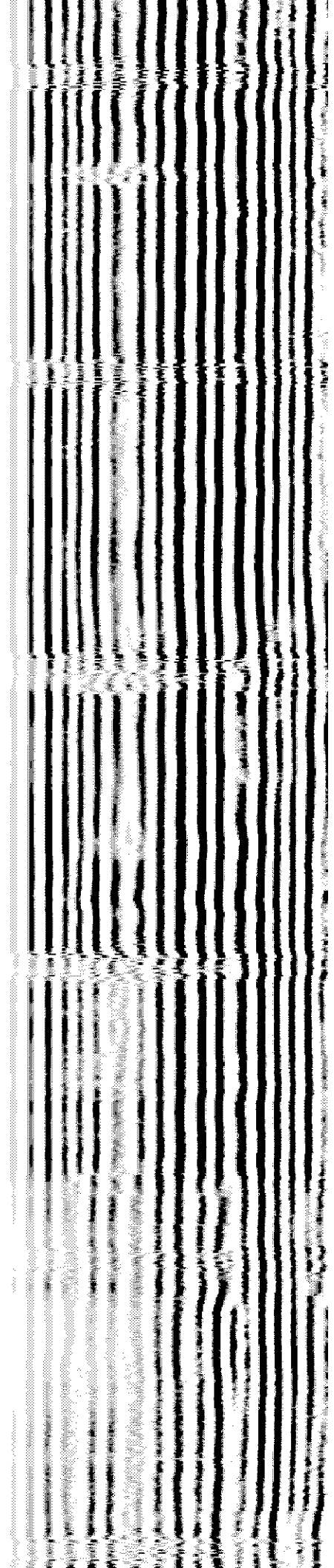
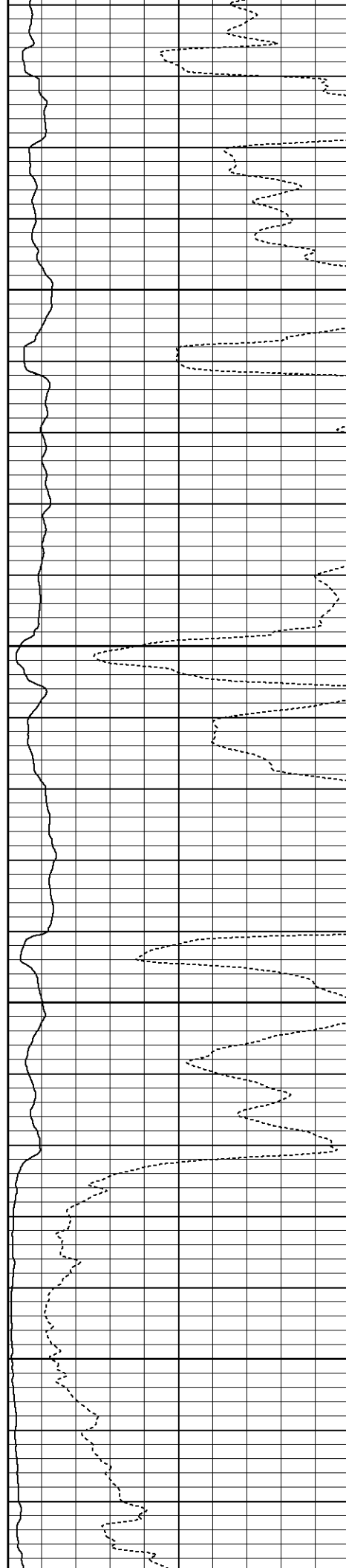


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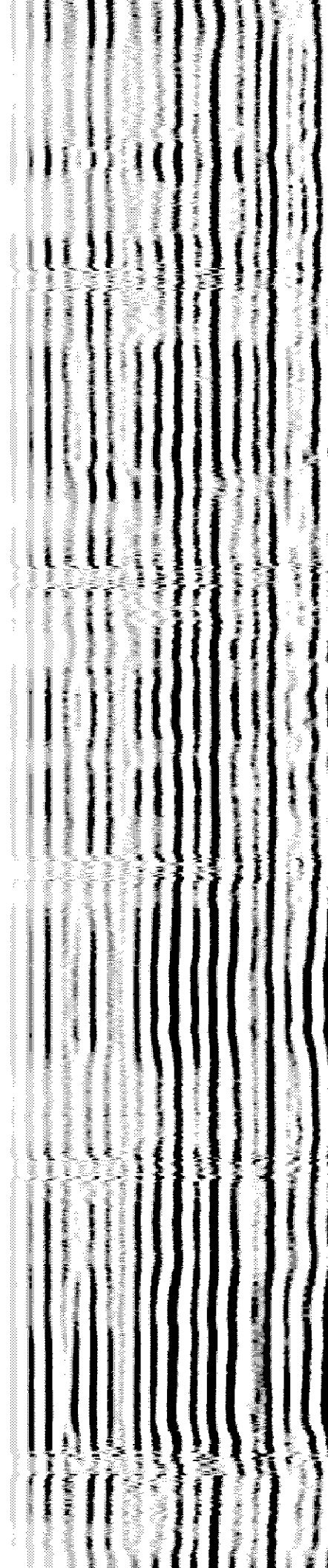
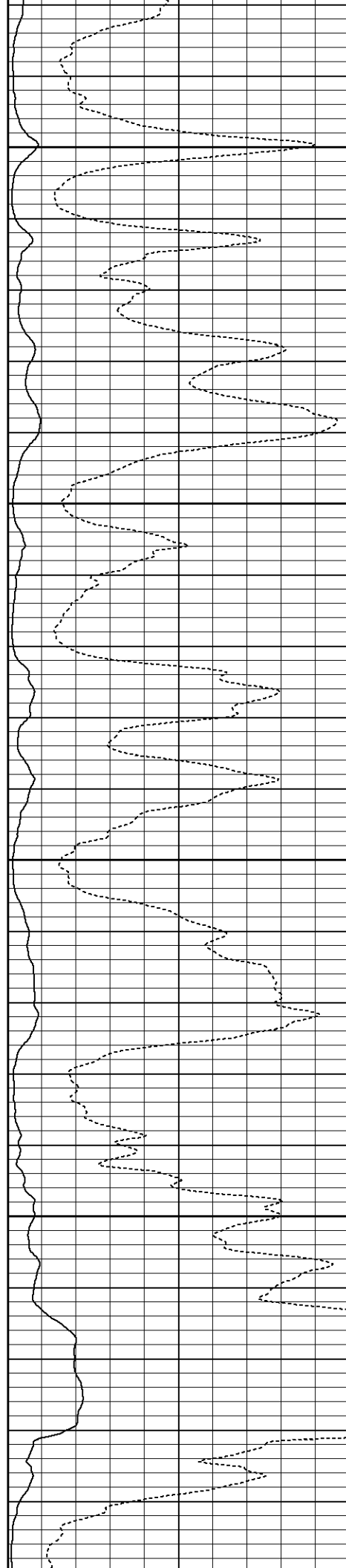
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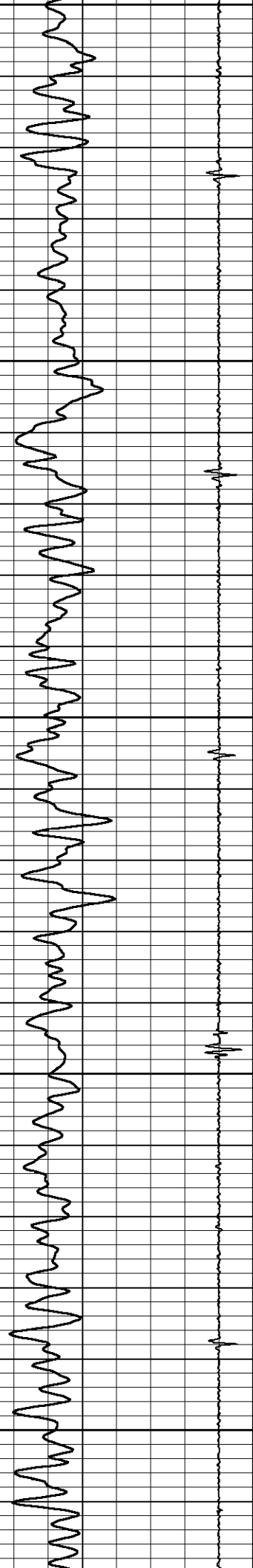
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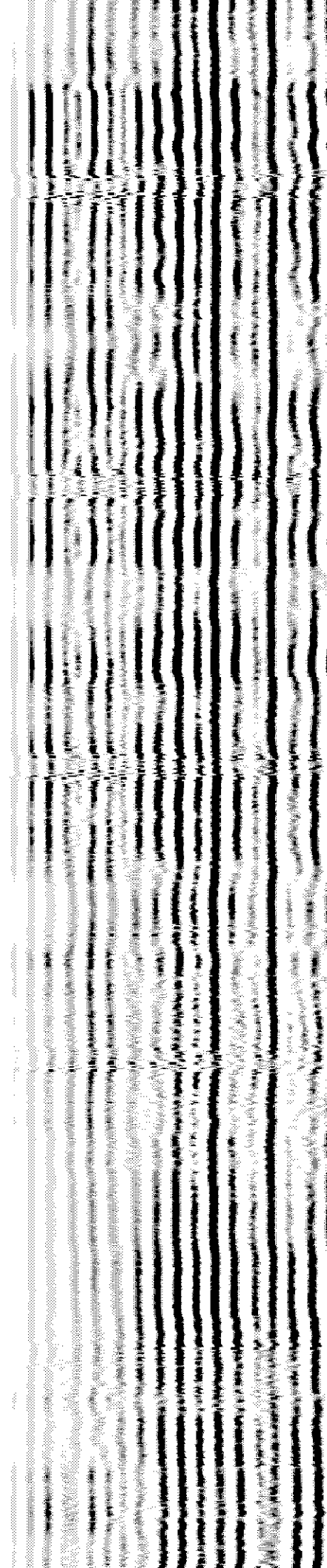
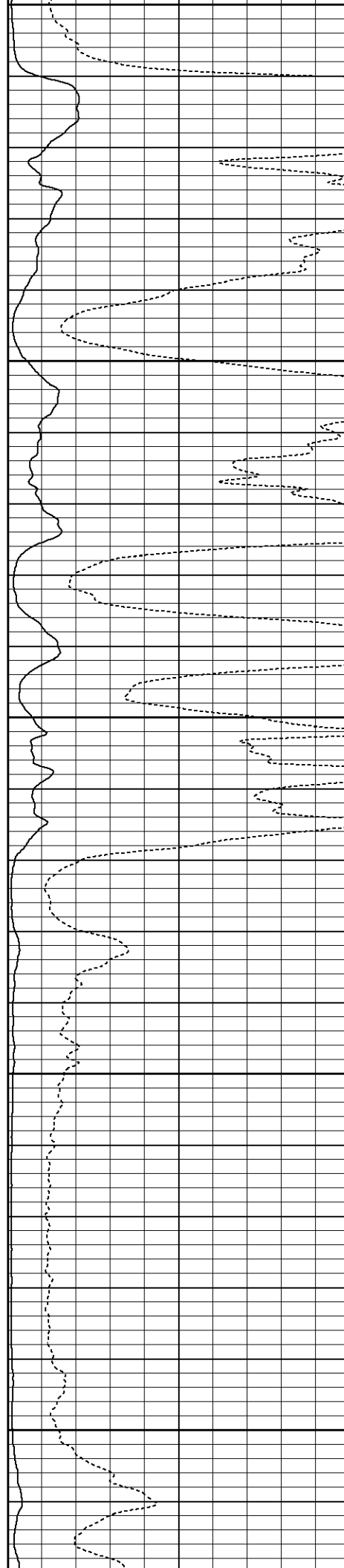
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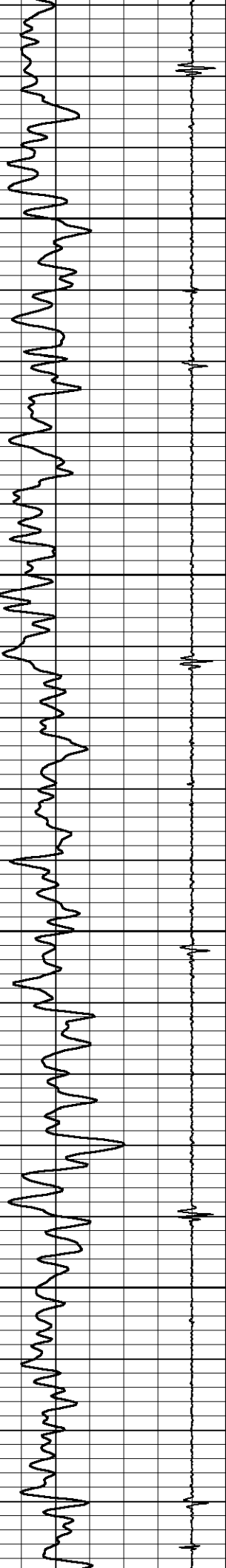
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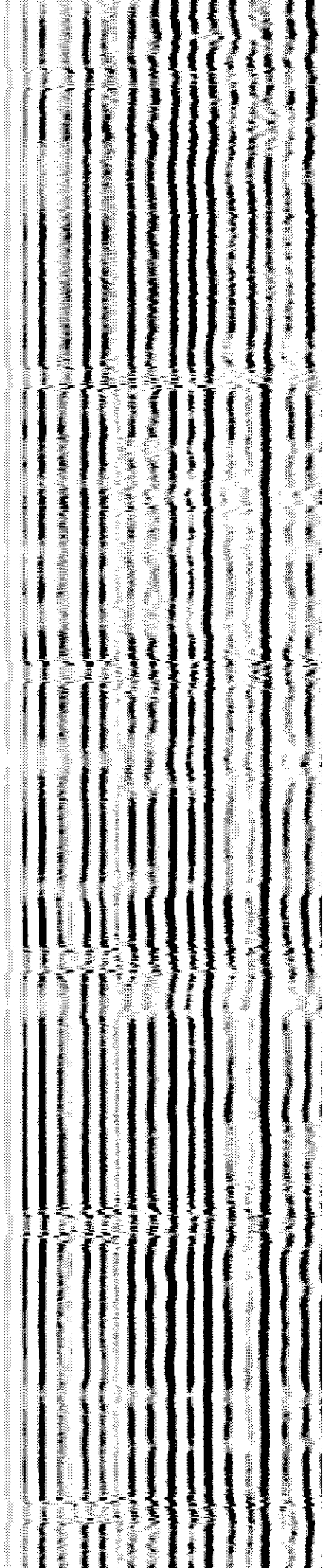
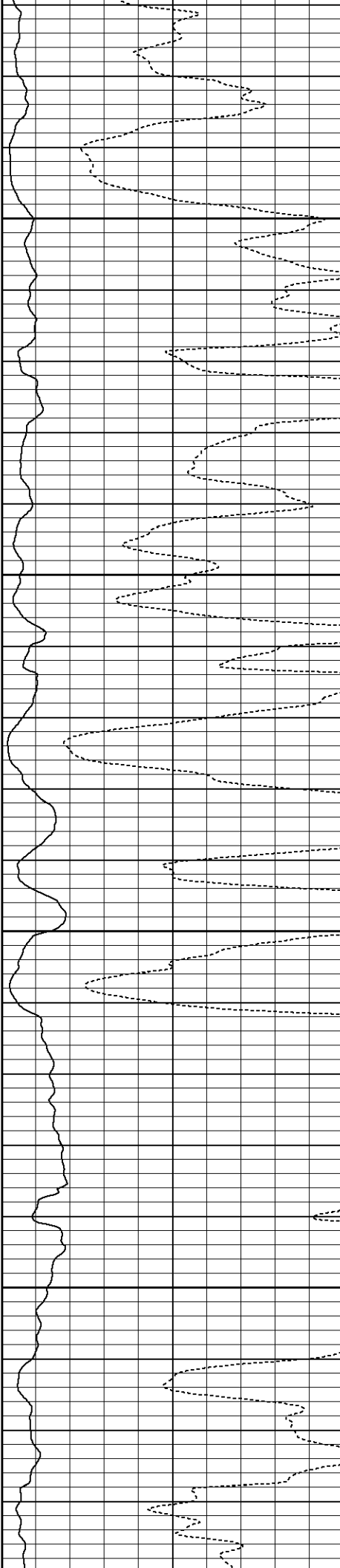


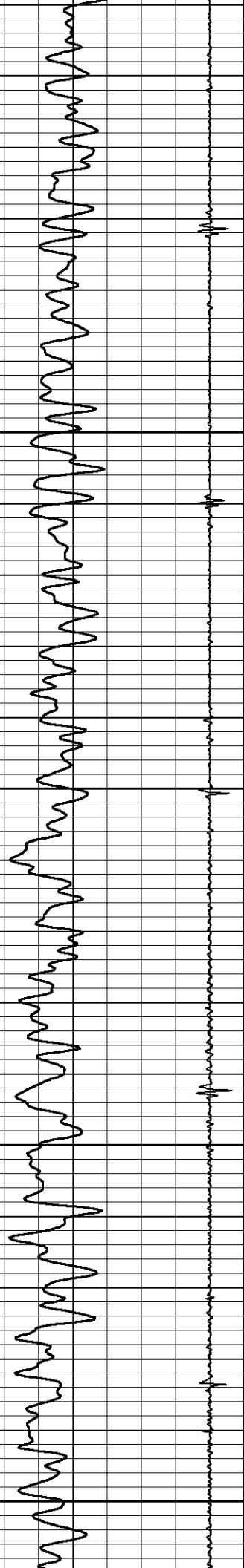
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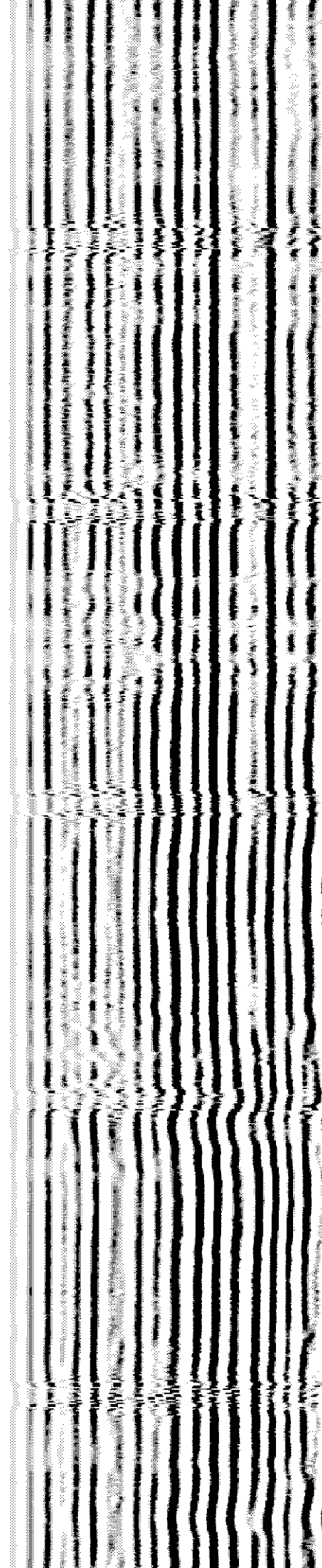
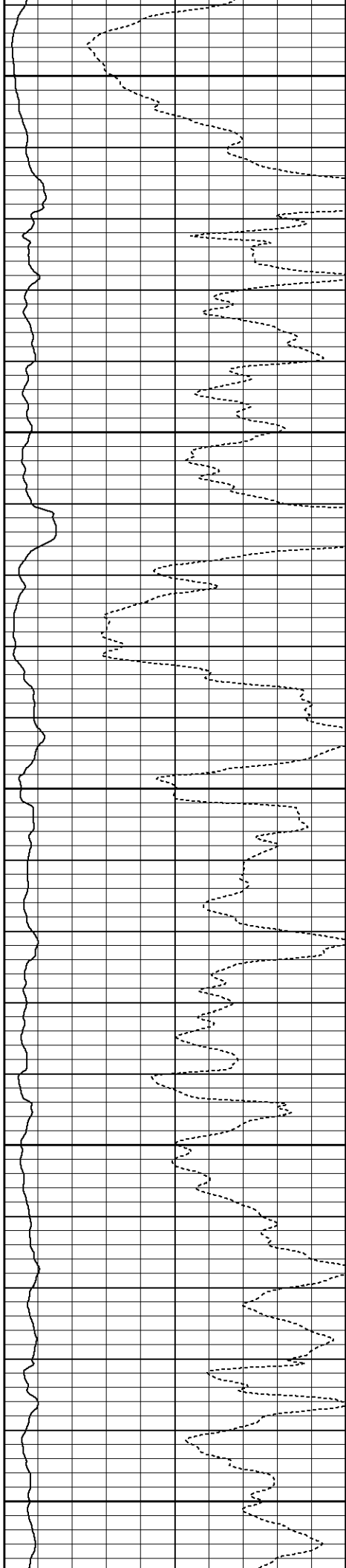
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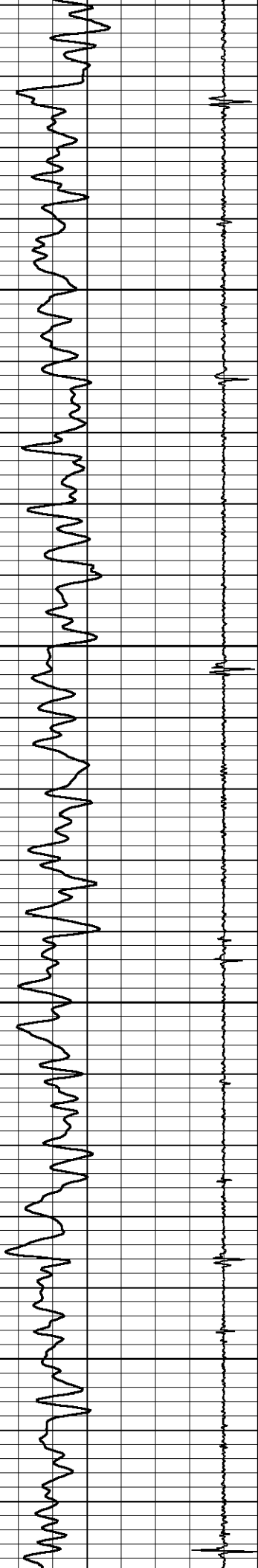
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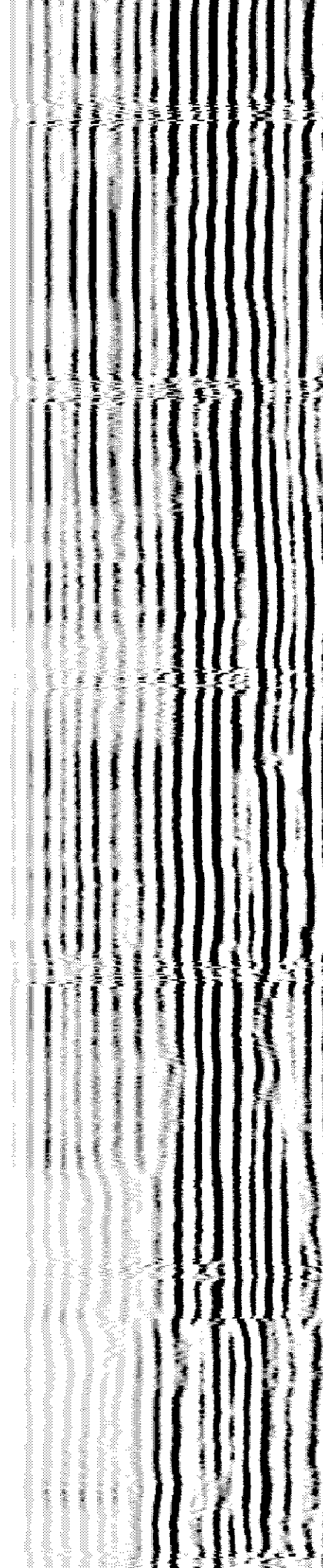
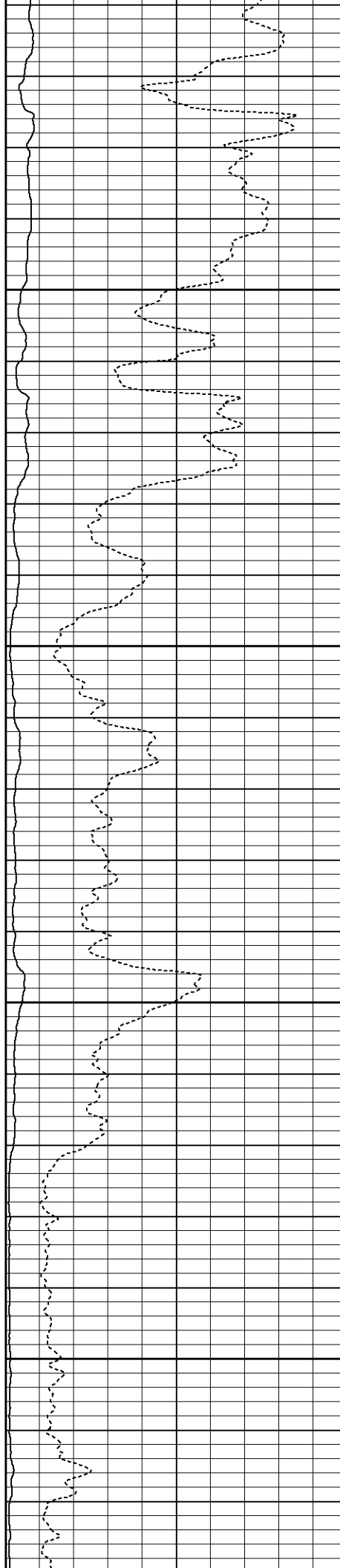


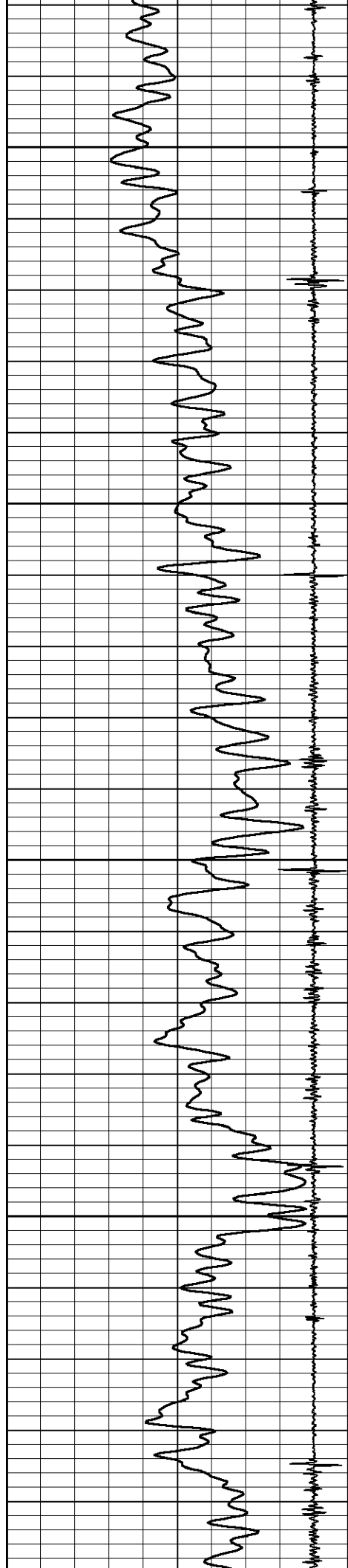
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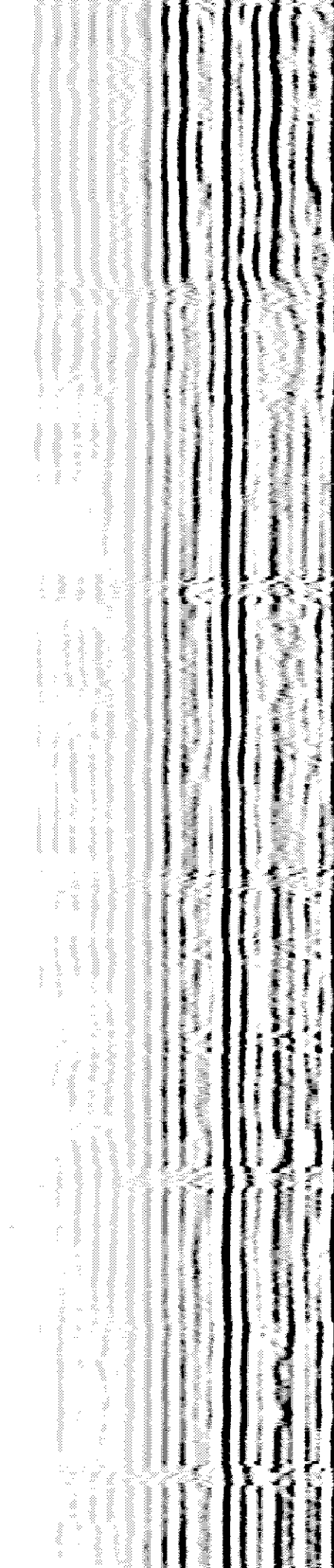
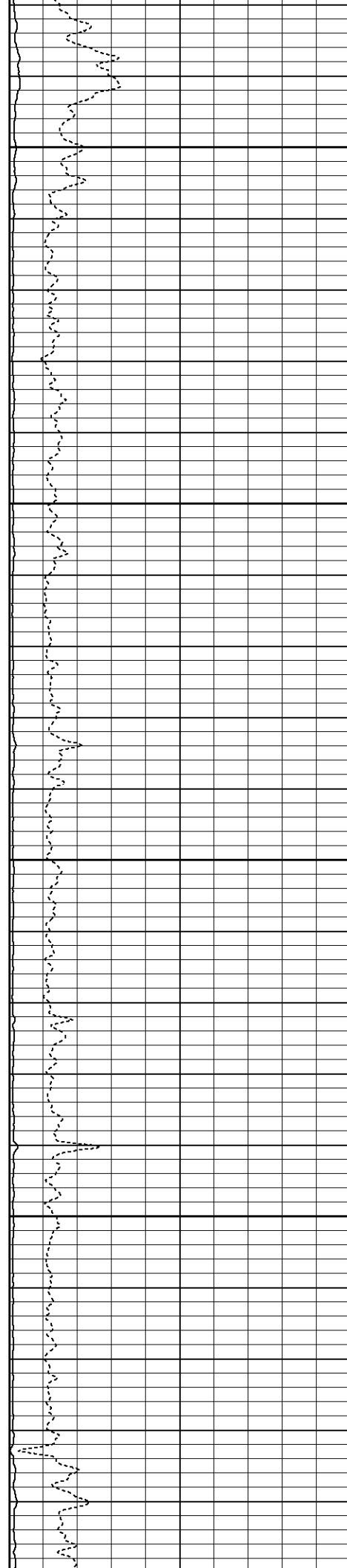


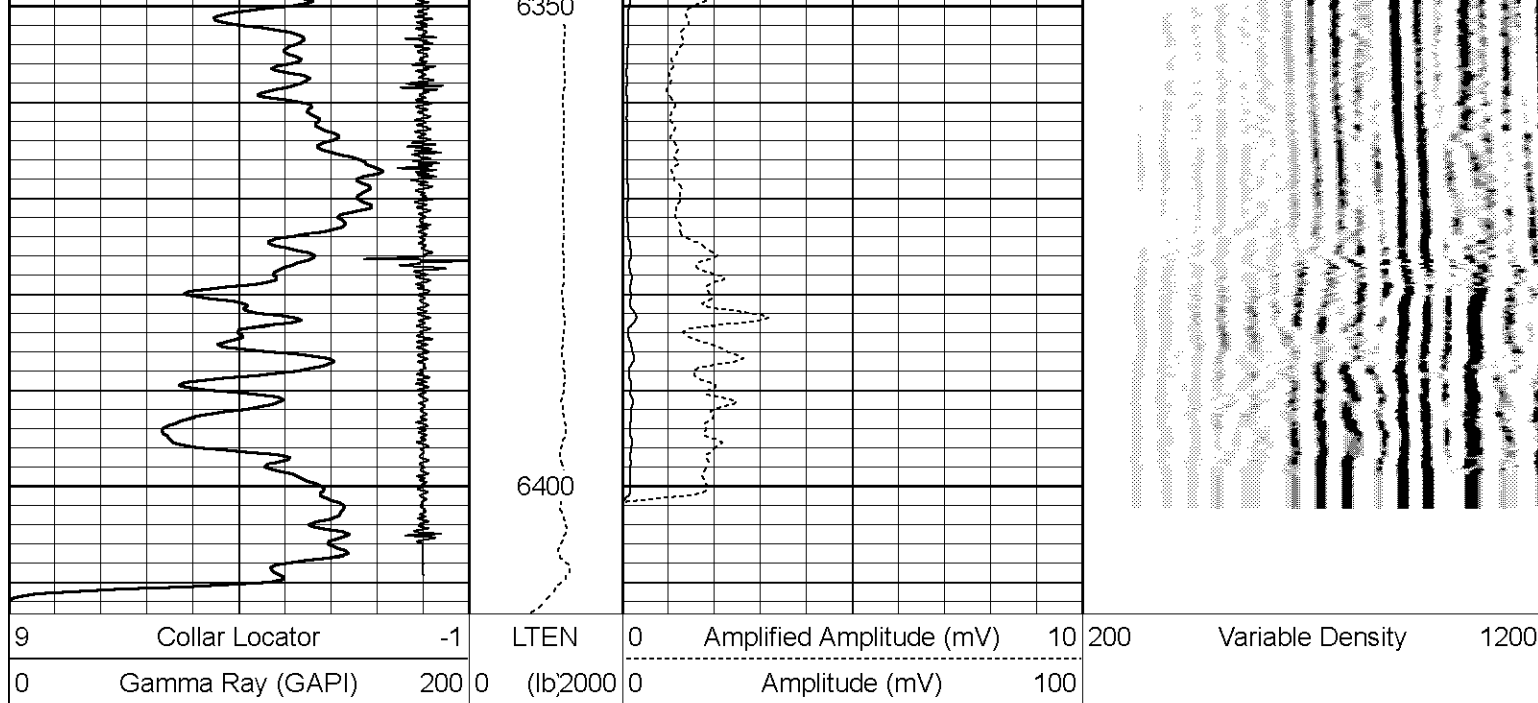
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6300



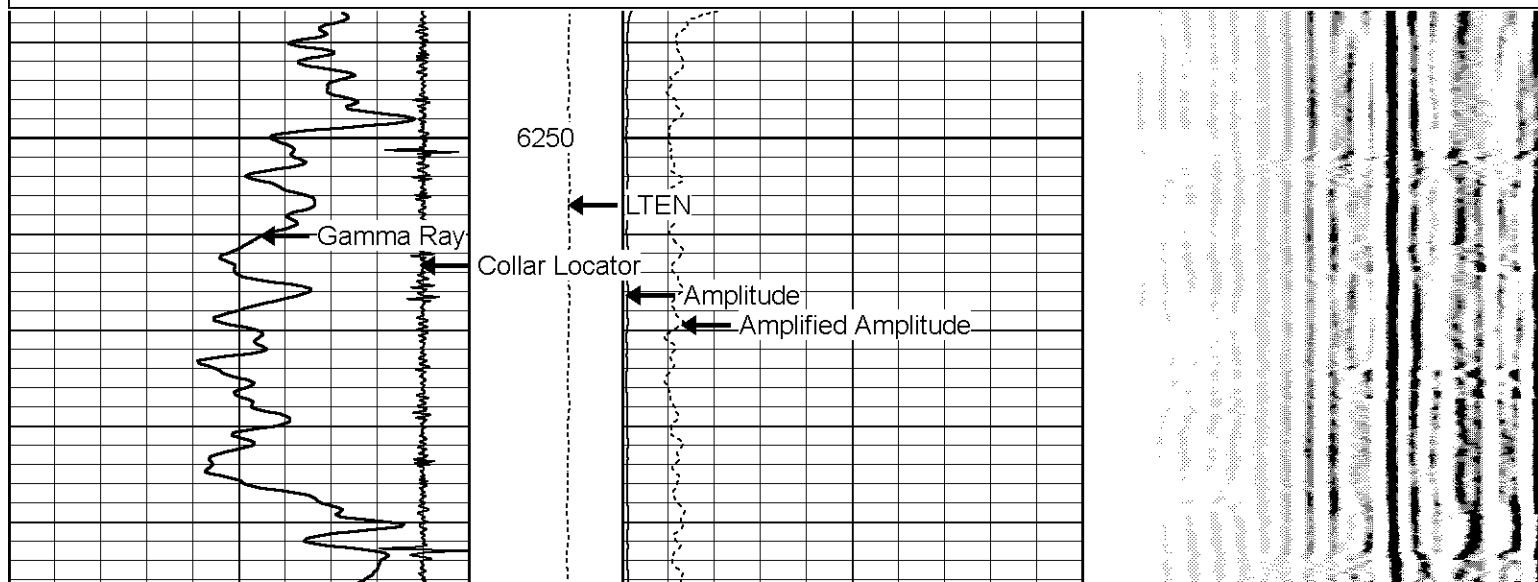
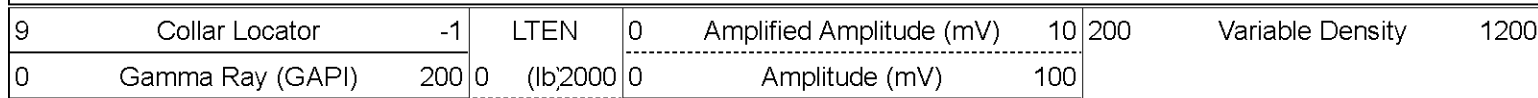


# MAIN PASS

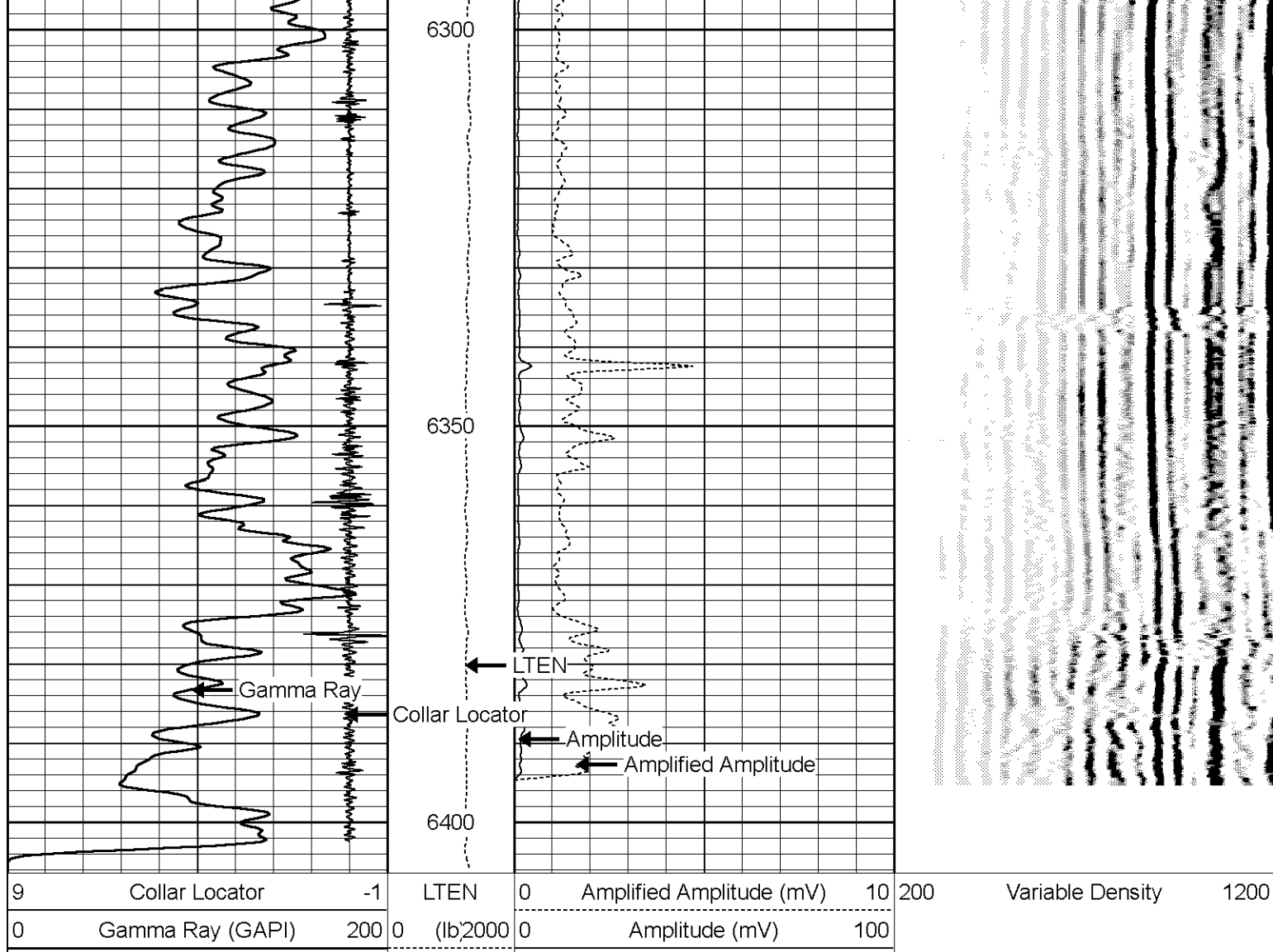


# REPEAT PASS

Database File: bonanza creek state seventy holes k21-024-4hnb.db  
Dataset Pathname: pass3  
Presentation Format: cbl\_dr  
Dataset Creation: Mon Feb 09 14:59:38 2015 by Log 7.0 B1  
Charted by: Depth in Feet scaled 1:240







# REPEAT PASS

## Calibration Report

Database File: bonanza creek state seventy holes k21-024-4hnb.db  
 Dataset Pathname: pass3  
 Dataset Creation: Mon Feb 09 14:59:38 2015 by Log 7.0 B1

## Gamma Ray Calibration Report

Serial Number: 030606  
 Tool Model: Probe275  
 Performed: Mon Feb 03 13:47:27 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

## Cement Bond Log Calibration Report

Serial Number: SDSDEMO

Tool Model: SIE  
Performed: Mon Feb 09 14:50:35 2015

Depth: 145.336 ft  
Casing Diameter: 7 in

3' Spacing                      5' Spacing

Signal Zero:	1	1	mV
Calibrated Amplitude:	63	63	mV
Reading at Signal Zero:	0.0127686	0.0123535	V
Reading in Free Pipe:	0.590796	0.528394	V

Gain:	107.261	120.146
Offset:	-0.369573	-0.484222



Company	BONANZA CREEK ENERGY
Well	STATE SEVENTY HOLES K21-024-4HN
Field	WATTENBERG
County	WELD
State	COLORADO