

HALLIBURTON

ACOUSTIC CEMENT
BOND LOG

Company	ORION ENERGY PARTNERS		
Well	HILTON 16-312D		
Field	MAMM CREEK		
County	GARFIELD	State	CO
Company ORION ENERGY PARTNERS			
Well HILTON 16-312D			
Field MAMM CREEK			
County GARFIELD State CO			
API No.:	050451600500	Serv #:	6081240
Location:	SURFACE		Other Services
0650' FSL & 2008' FWL			
BOTTOM			
1980' FSL & 1980' FEL			
RMTE			

Permanent Datum	GROUND LEVEL	Elevation	6792'	Elevation
Log Measured From	KB	21 Ft. above perm. datum		K.B. 6813'
Drilling Measured From	KB			D.F. 6812'
				G.L. 6792'
Date @ Time Logged	6 AUG 2008 @ 06:30	Type Fluid in Hole	FRESH WATER	
Run No.	ONE	Density of Fluid	8.4 PPG	
Depth - Driller	8823'	Fluid Level	FULL	
Depth - Logger	8732'	Cement Top Est. Logged	LOGGED	
Bottom - Logged Interval	8729'	Equipment / Location	10389647 / GU	
Top - Log Interval	SURFACE	Recorded by	D. BARNES	
Max. Recorded Temp.	213 F	Witnessed by	N/A	
CEMENTING DATA	Surface	Protection	String	Liner
Date / Time Cemented	String	Protection	String	
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/
Borehole Record				
Run Number	Bit	From	To	Size
ONE	12.25"	SURFACE	1000'	8.625"
TWO	7.875"	1000'	8823'	4.5"
Casing & Tubing Record				
		Weight	32#	SURFACE
			11.6#	SURFACE
				8823'

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

CBL/GR/CCL/ TEMP RAN IN COMBINATION

HES CBL LOG IS THE PRIMARY DEPTH REFERENCE

SHORT JOINT: 5914' TO 5937'

YOUR CREW TODAY: K. HOLLIDAY, M. SMITH, D. HAYDEN,

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES, GRAND JUNCTION, CO

(970) 523 - 3600

GAMMA RAY		CBL		TEMP		CCL		
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	ONE	
Serial No.	061018	Serial No.	061115	Serial No.	001	Serial No.	061018	
Model No.	GR-PROBE	Model No.	CBL-PROBE	Model No.	TEMP-1.375TEMP	Model No.	CCL-PROBE	
Diameter	2.75"	Diameter	2.75"	Diameter	1.88"	Diameter	2.75"	
LOGGING DATA								
General Data								
Pass	Depths		Well Head	Speed	Logging Run Comments			
No.	From	To	Pressure	Ft/Min				
ONE	8732'	SURFACE	0 PSI	65	MAIN LOG SECTION			
	GAMMA RAY		COLLAR LOCATOR		MSG		AMPLITUDE	
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	R
ONE	0	200	-9	1	200	1200	0	100
DIRECTIONAL INFORMATION								
Maximum Deviation			deg. @		KOP			

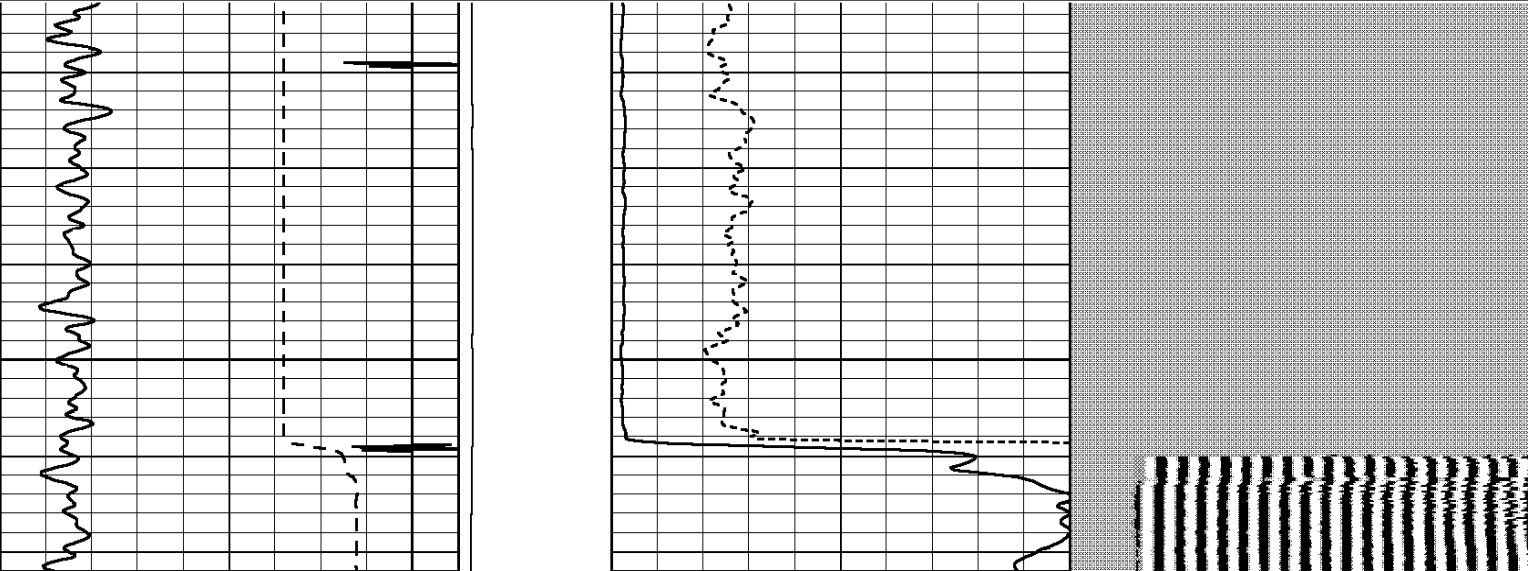
HALLIBURTON

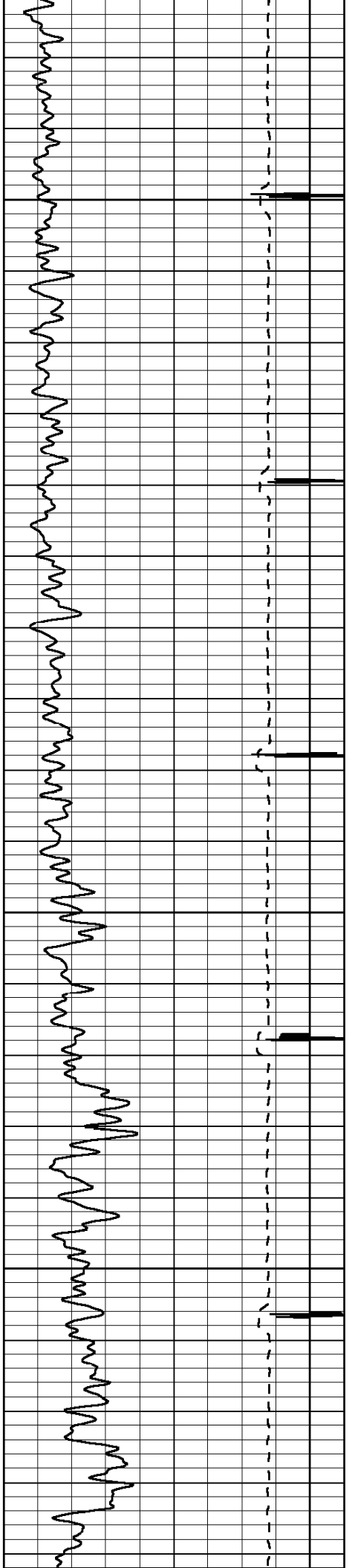
ACOUSTIC CEMENT BOND LOG

MAIN LOG SECTION
5"=100'

Database File:	hilton_16_312d_cbl.db
Dataset Pathname:	CBL/MAIN
Presentation Format:	cbl_main
Dataset Creation:	Wed Aug 06 06:22:16 2008 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

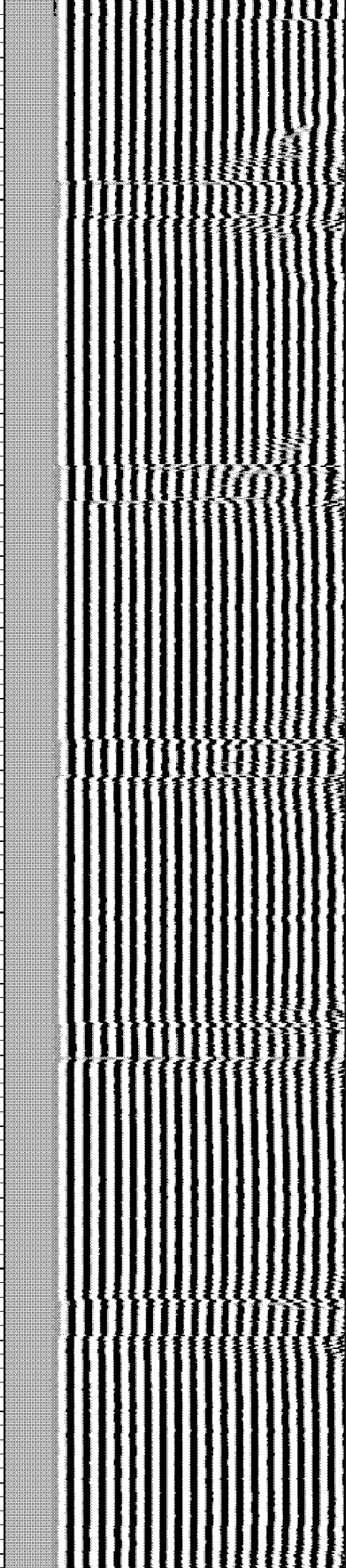
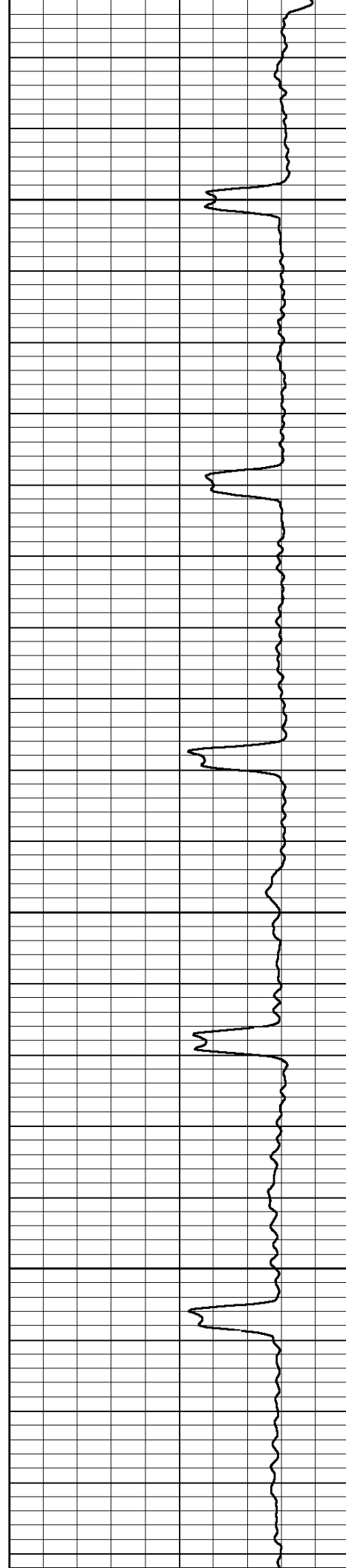
400	Travel Time (usec)	200	LTEN	0	Amplified Amplitude (mV)	10	200	MSG	1200
9	Collar Locator	-1	0	(lb)3000	0	Amplitude (mV)	100		
0	Gamma Ray (GAPI)	200							

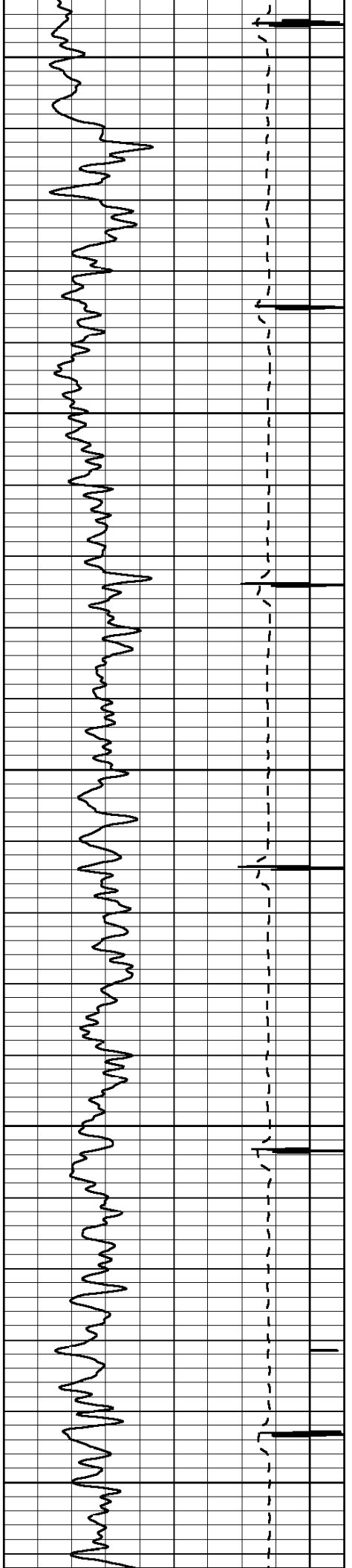




100

200

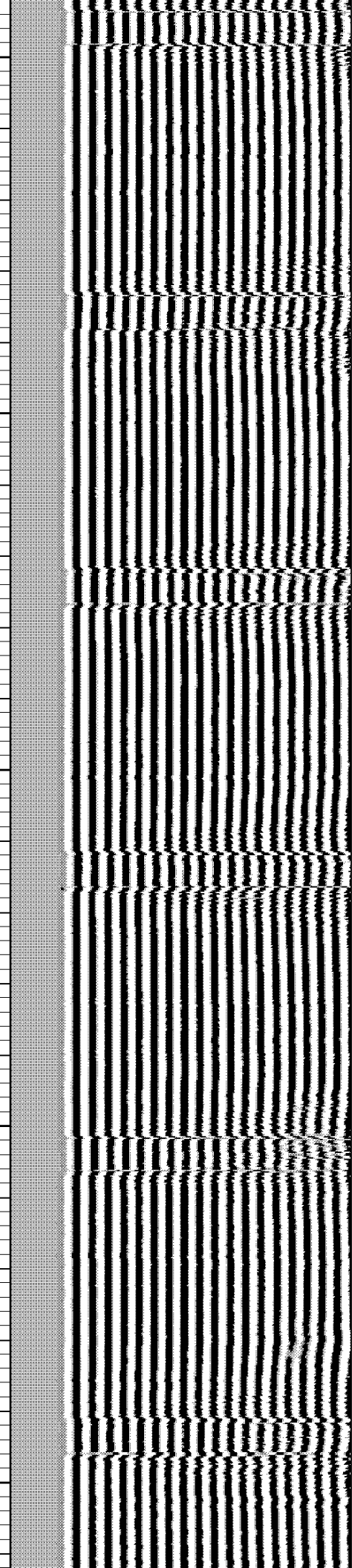
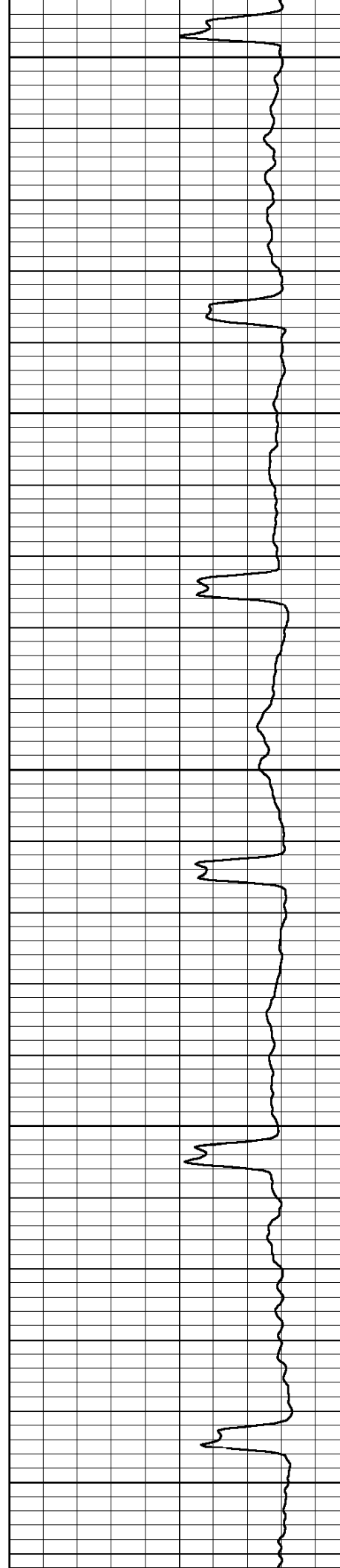


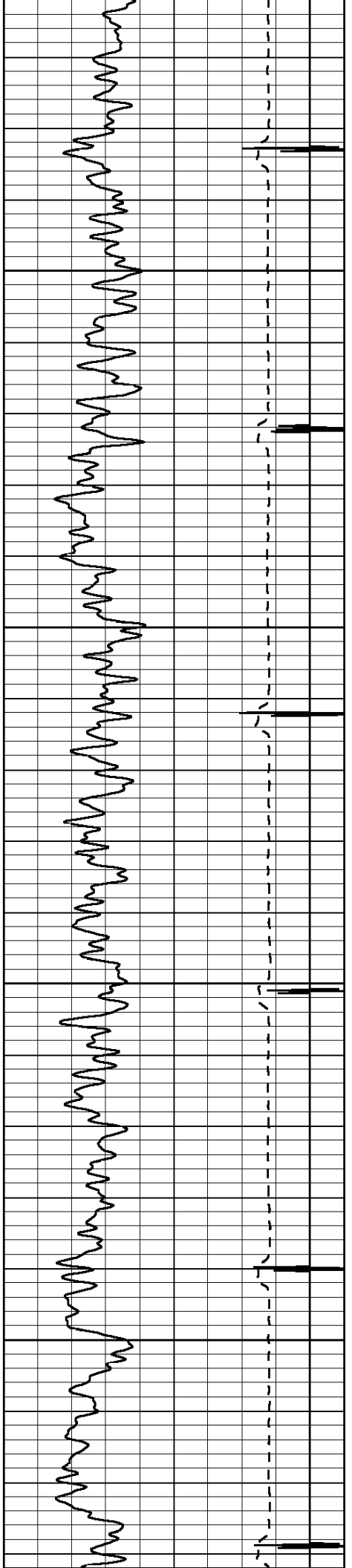


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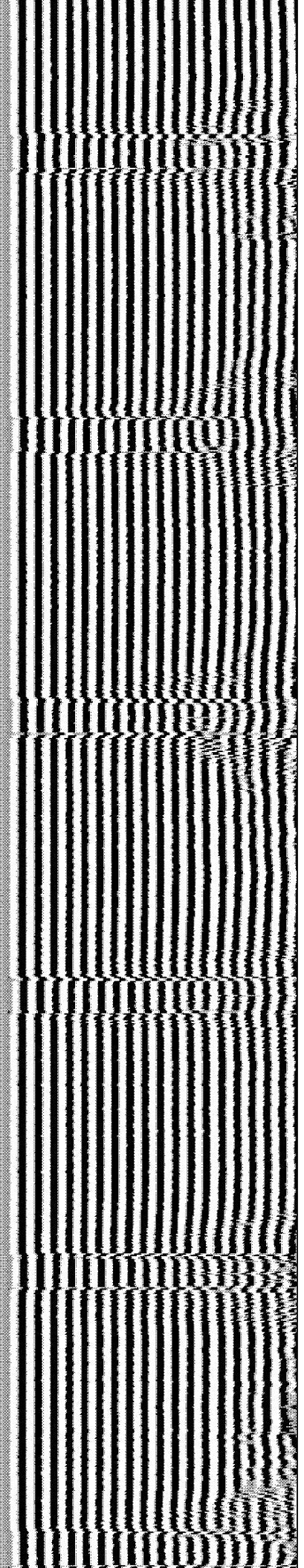
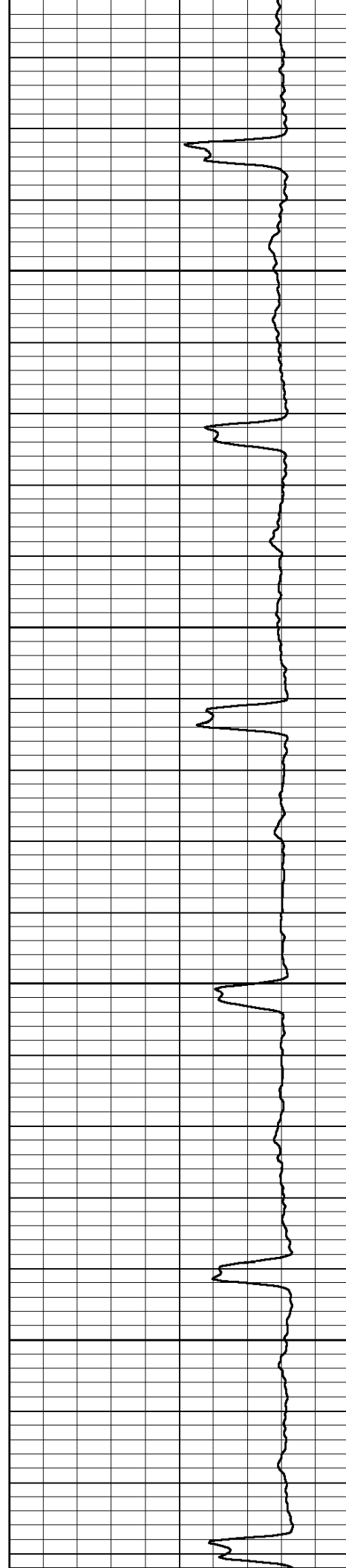
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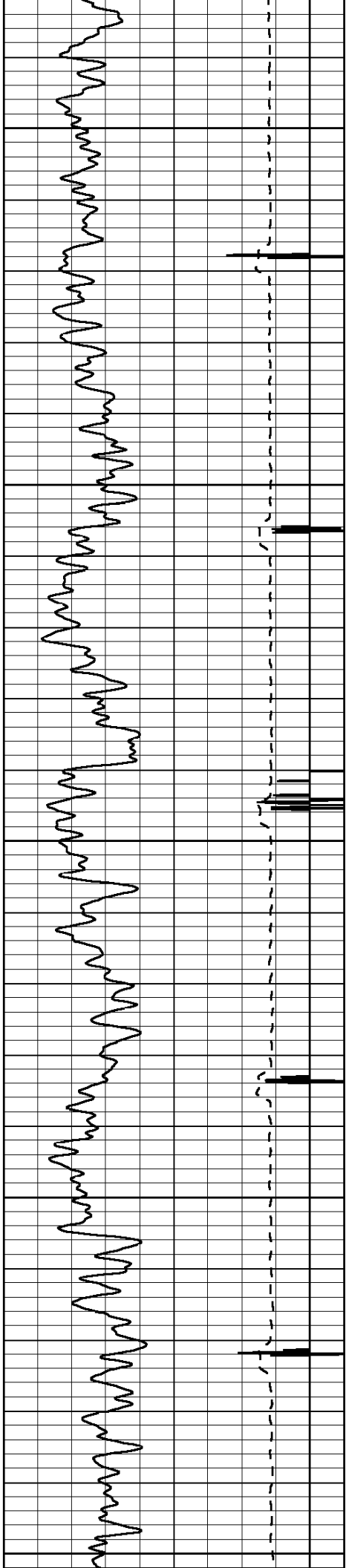




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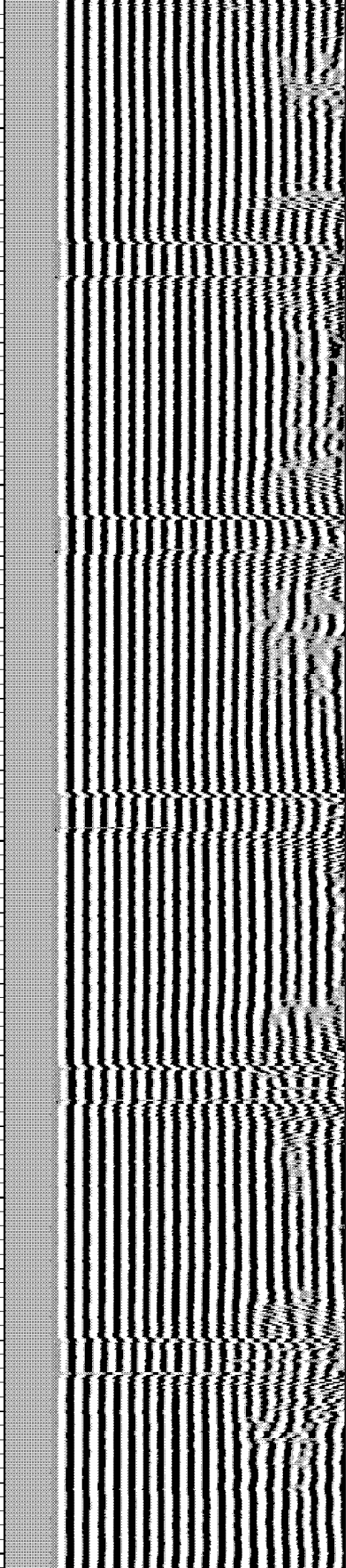
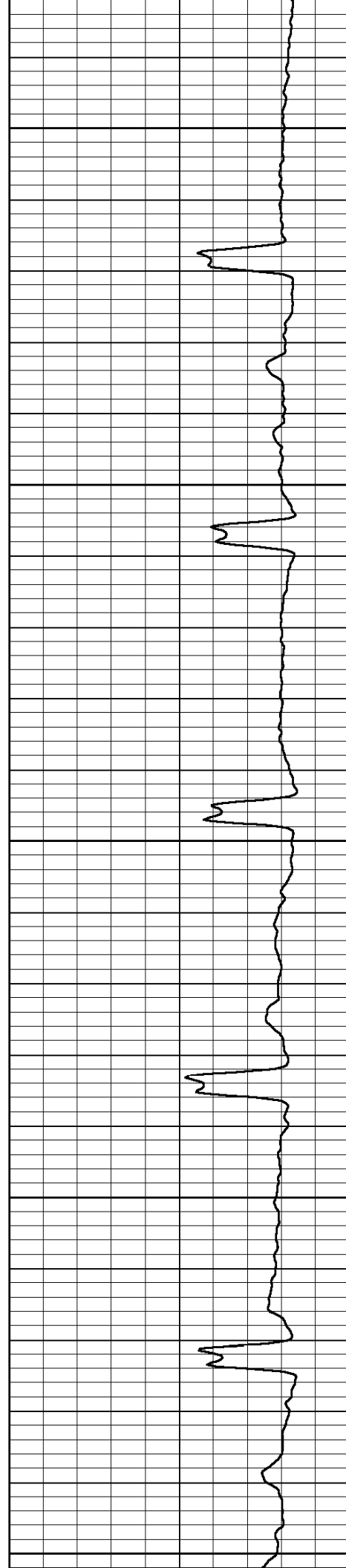
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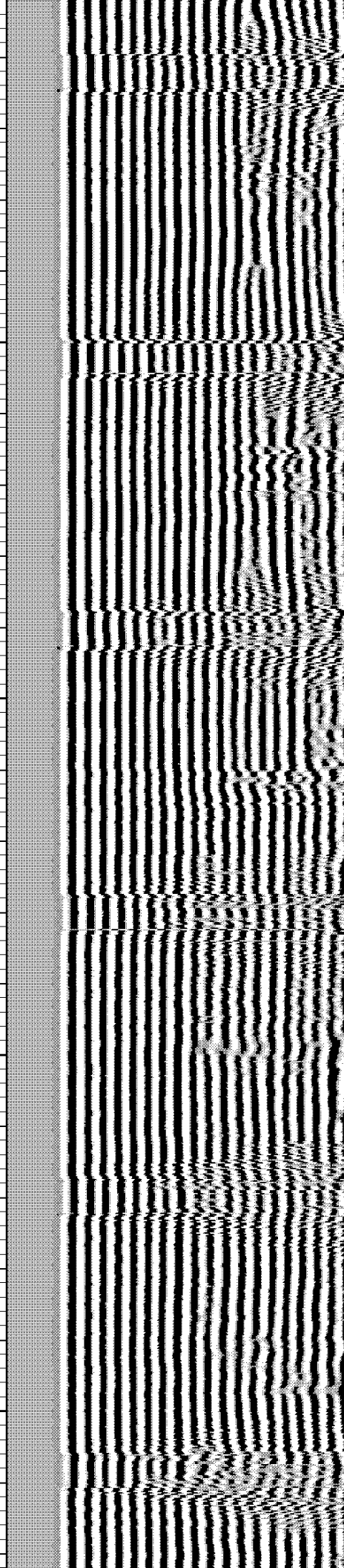
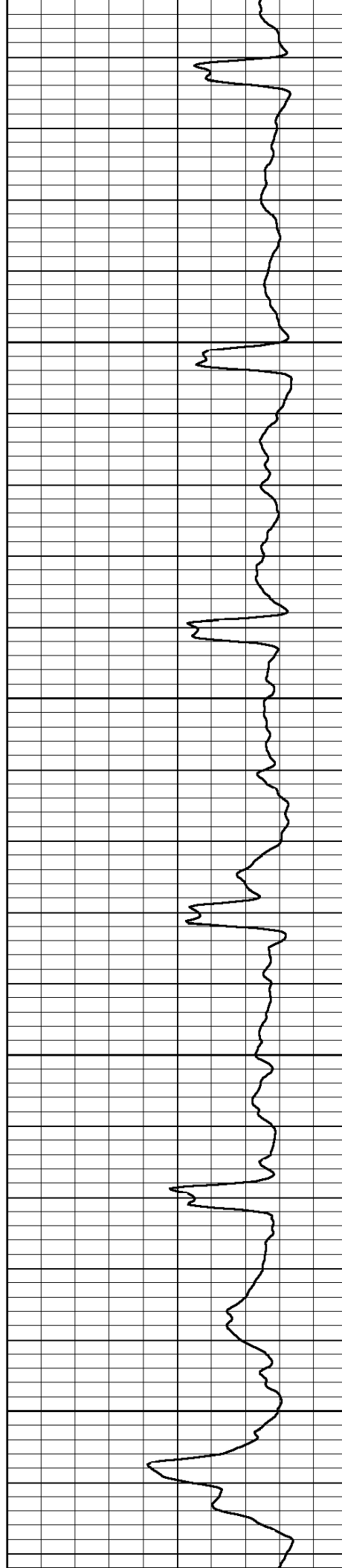
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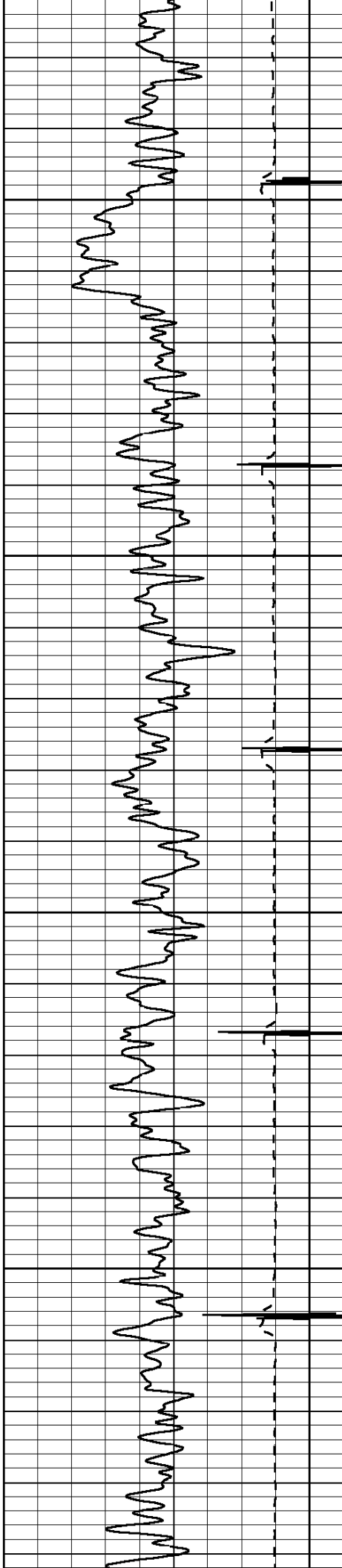




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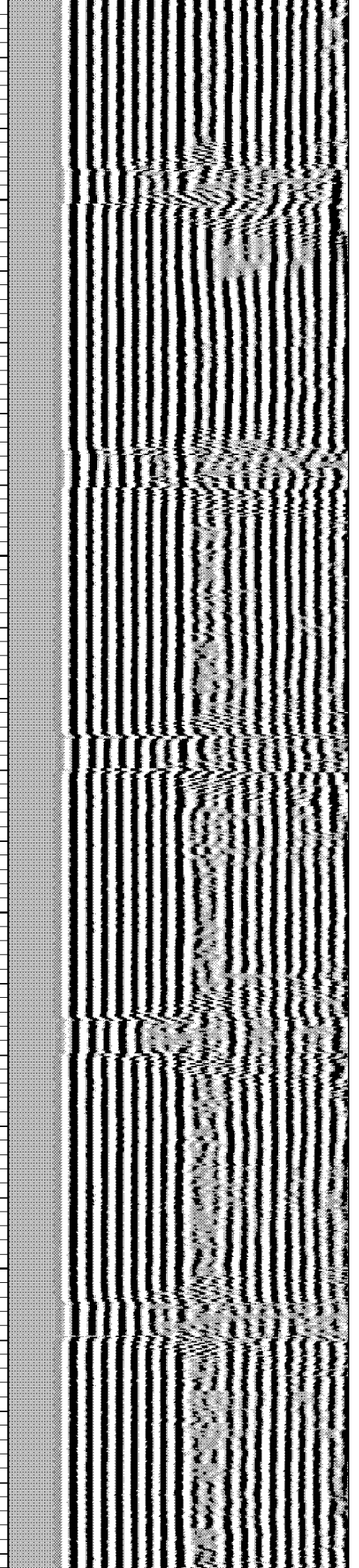
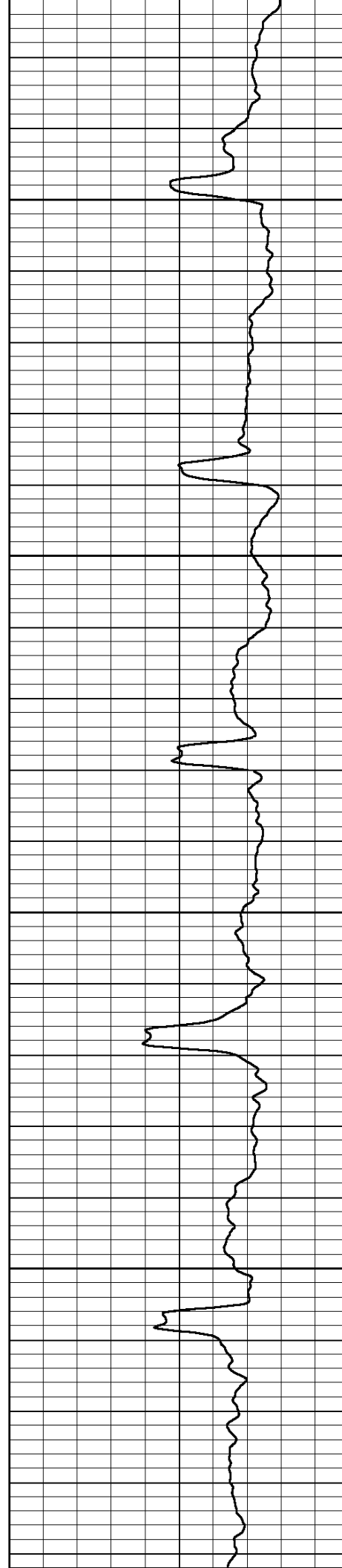
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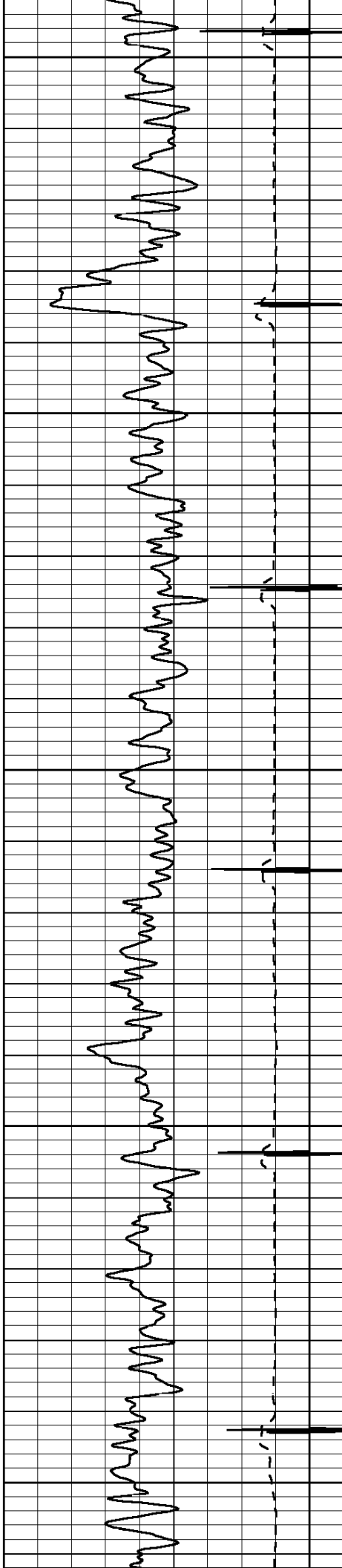




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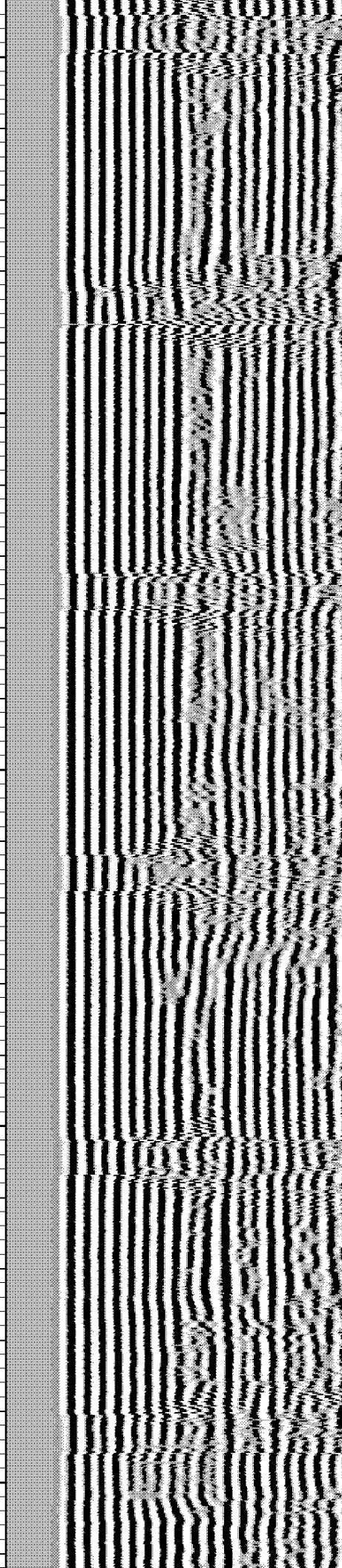
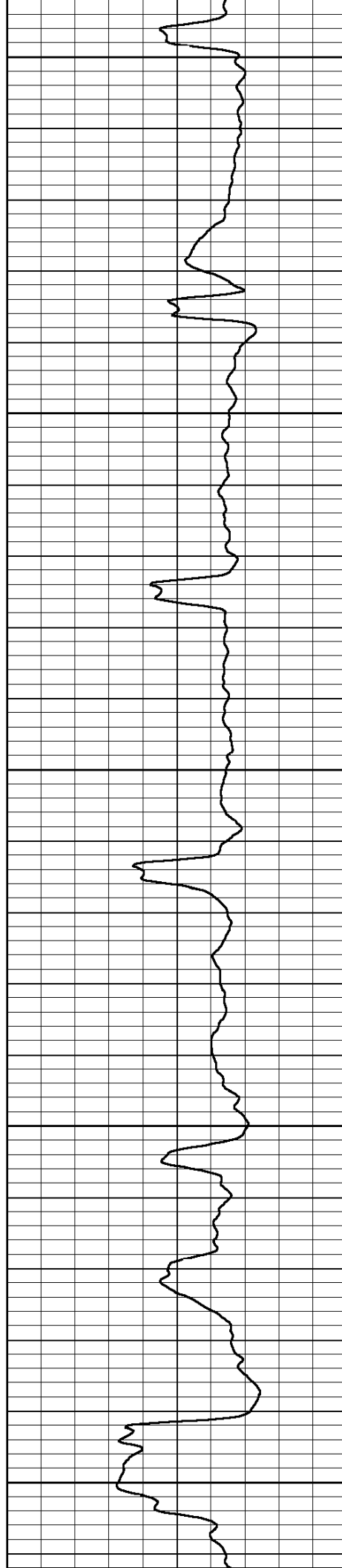


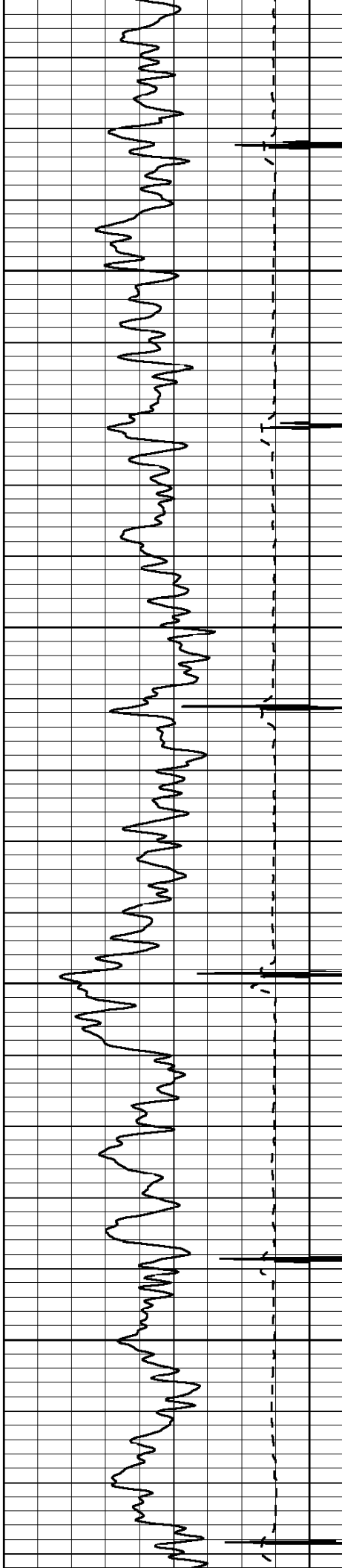


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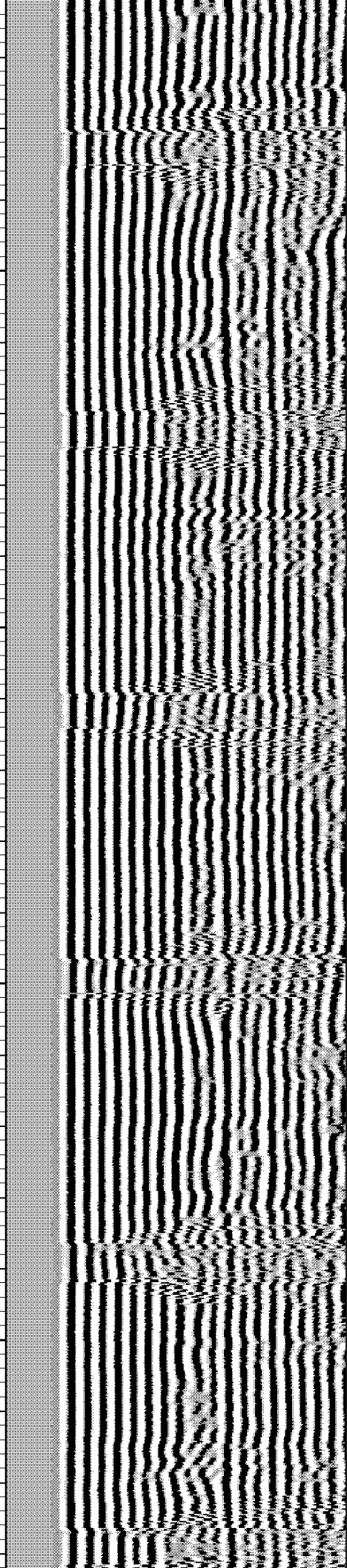
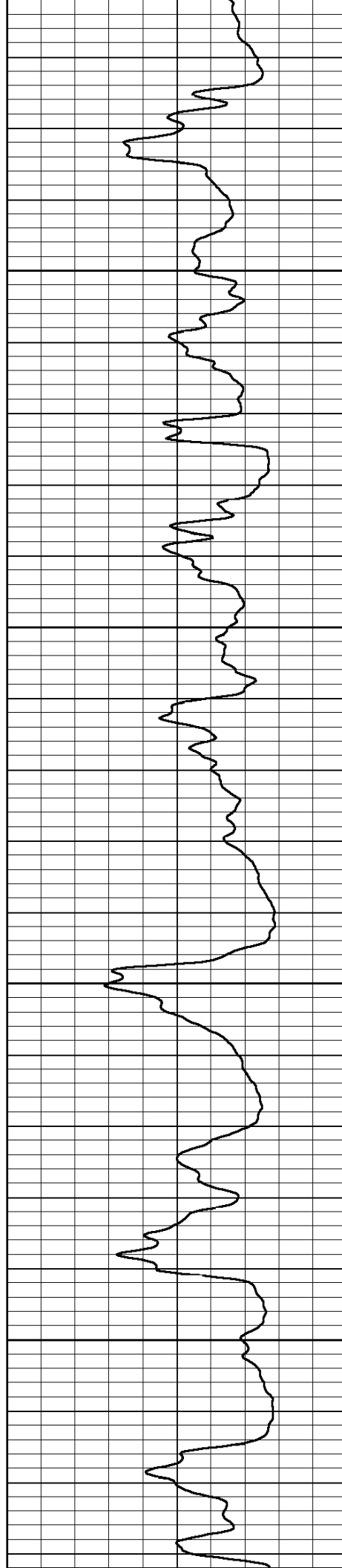
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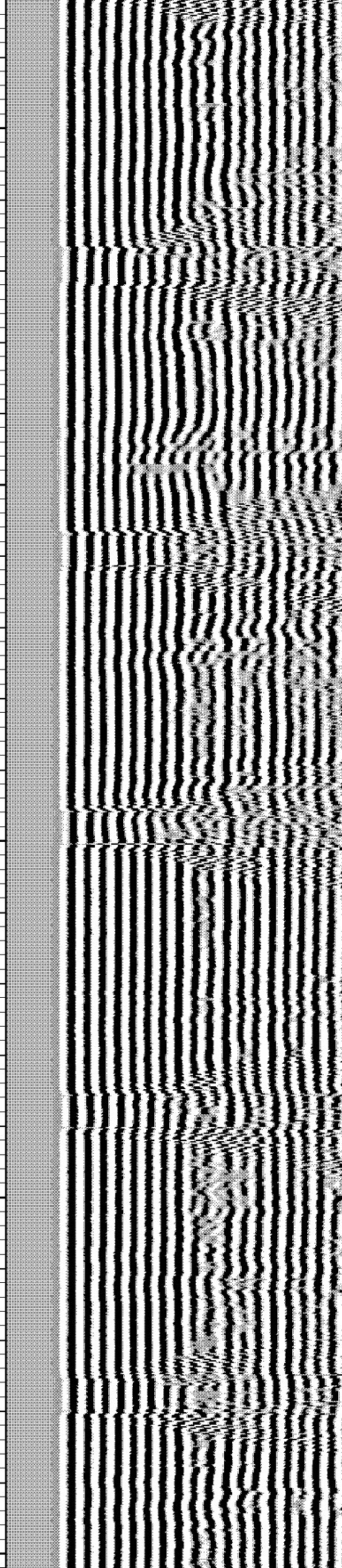
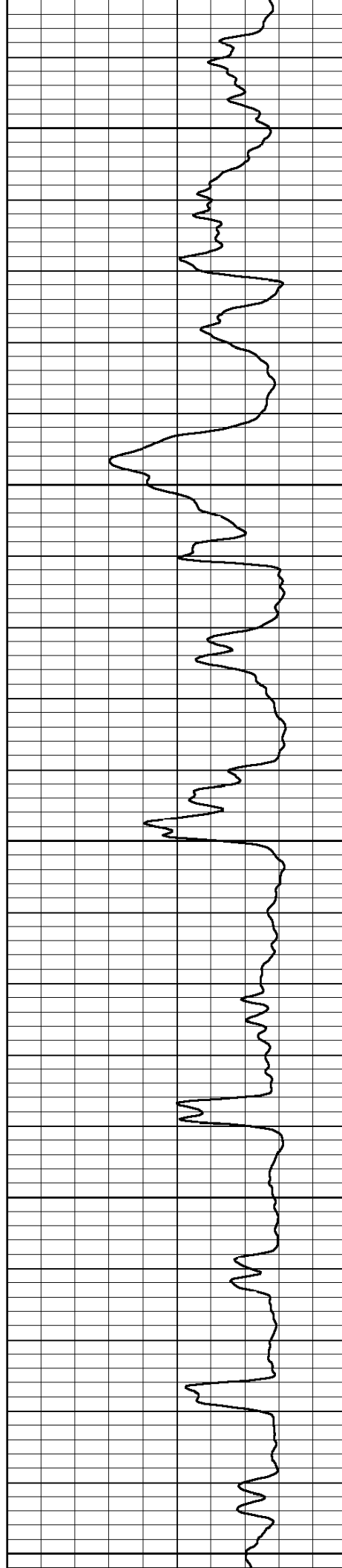
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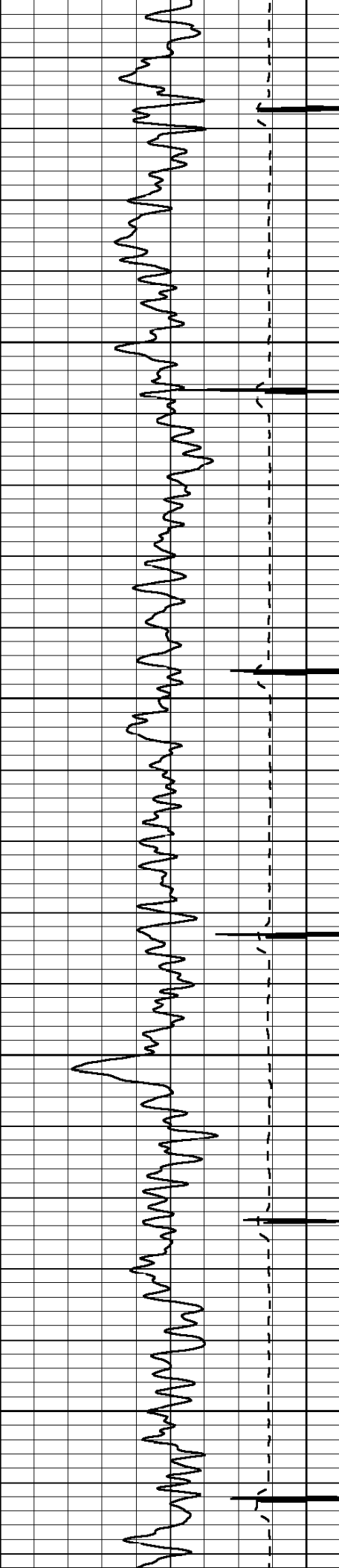




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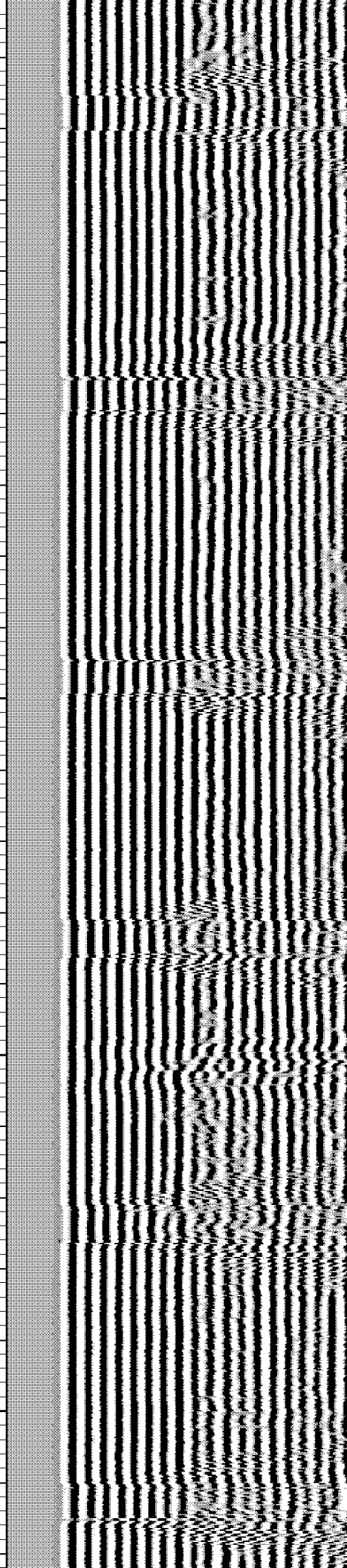
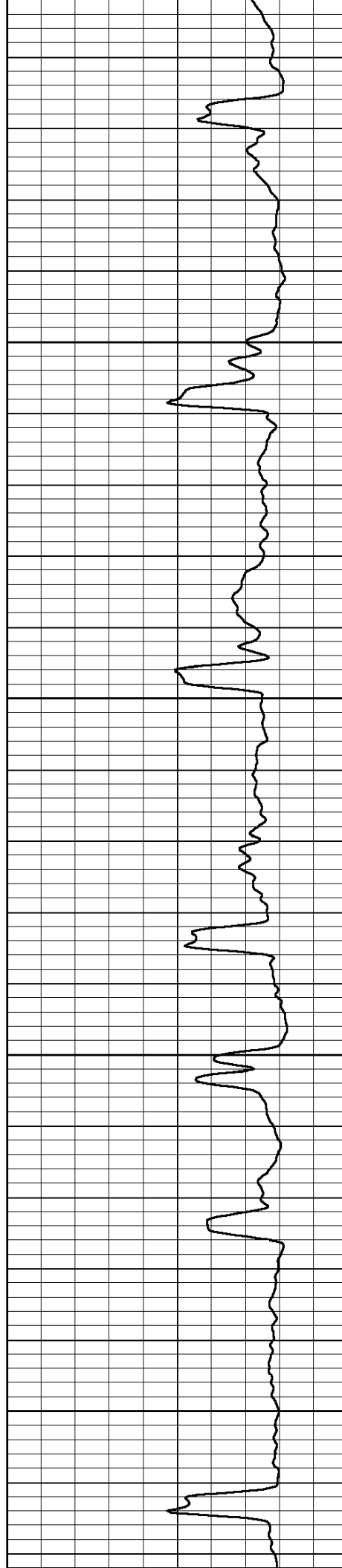
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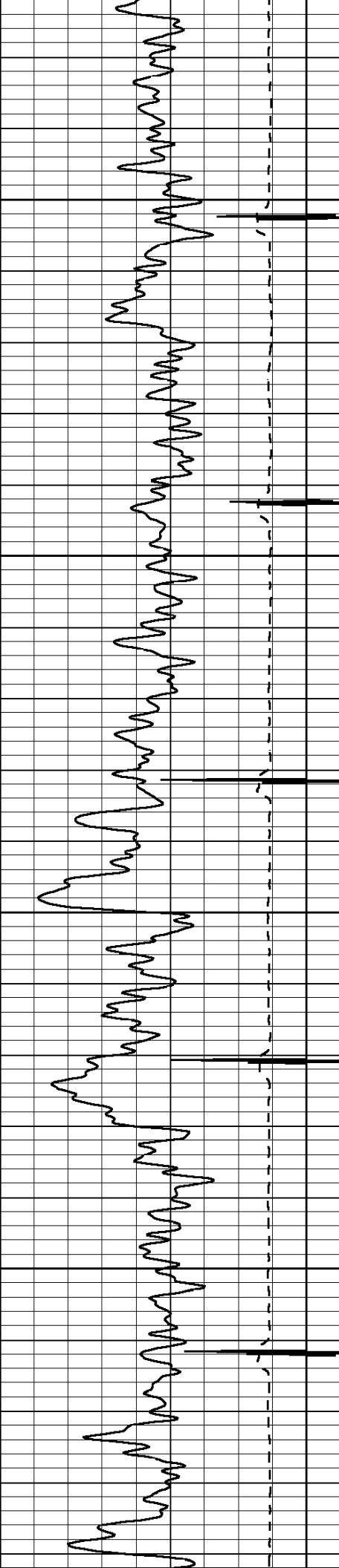




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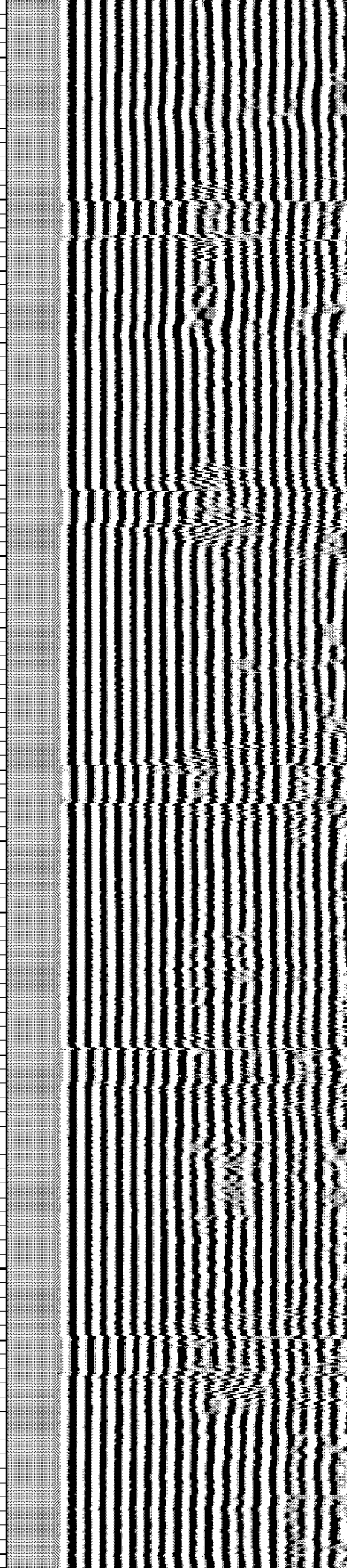
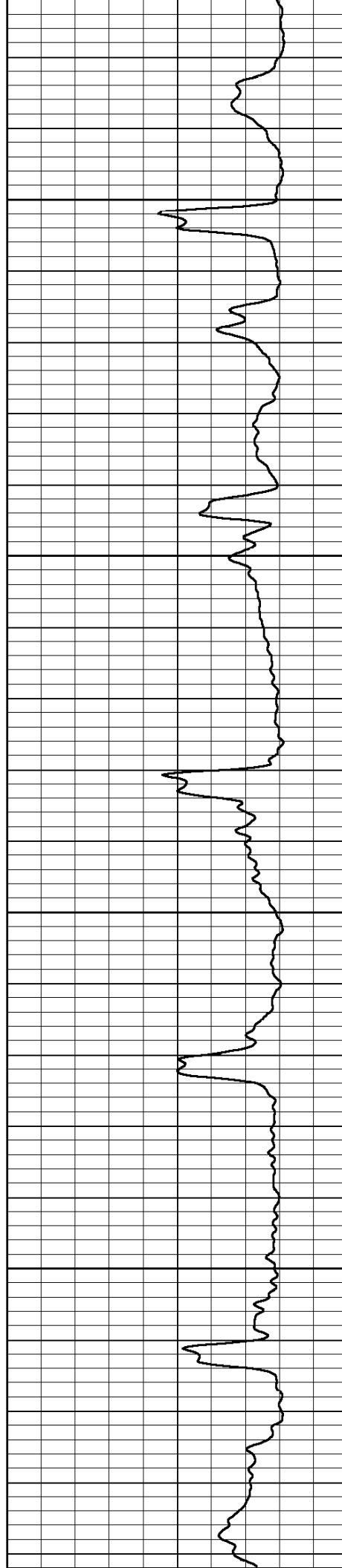
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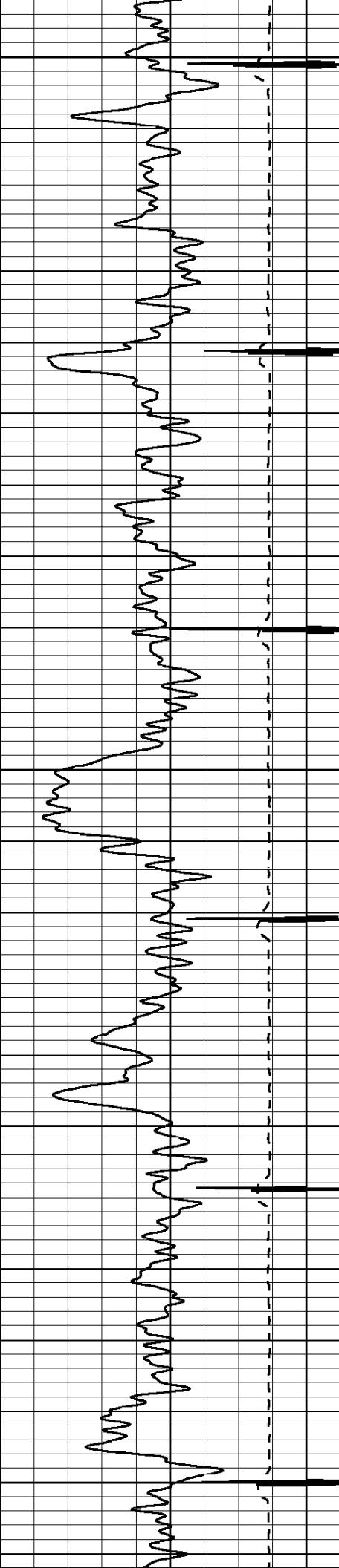




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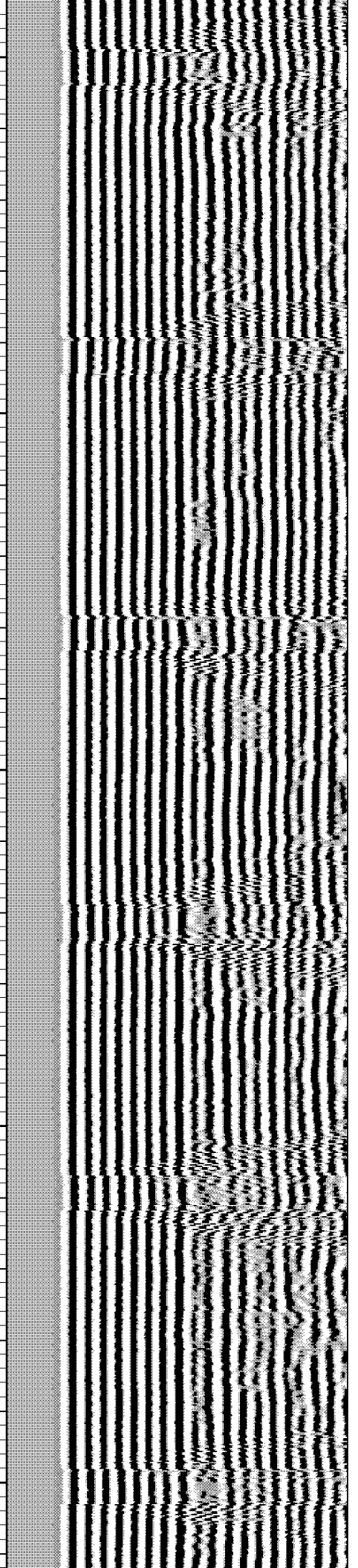
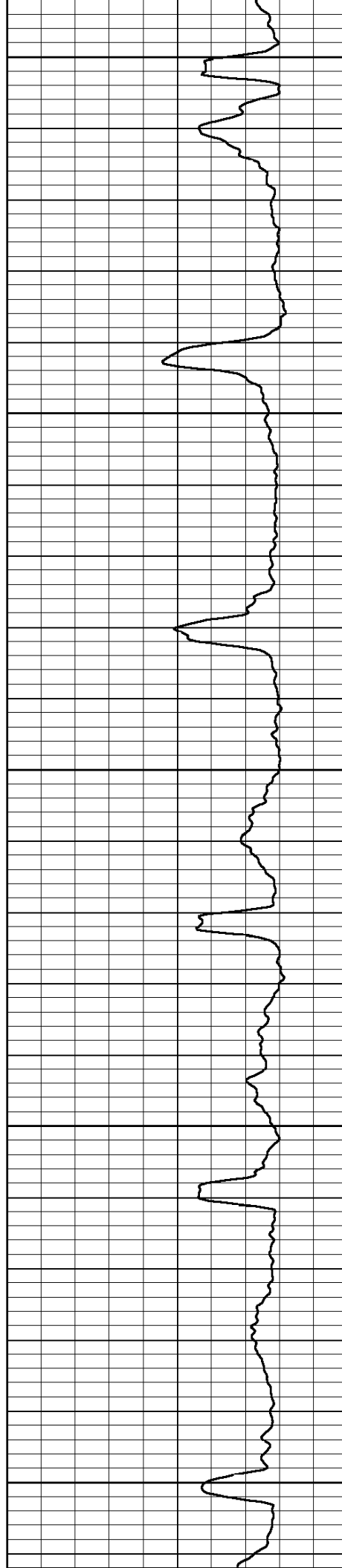


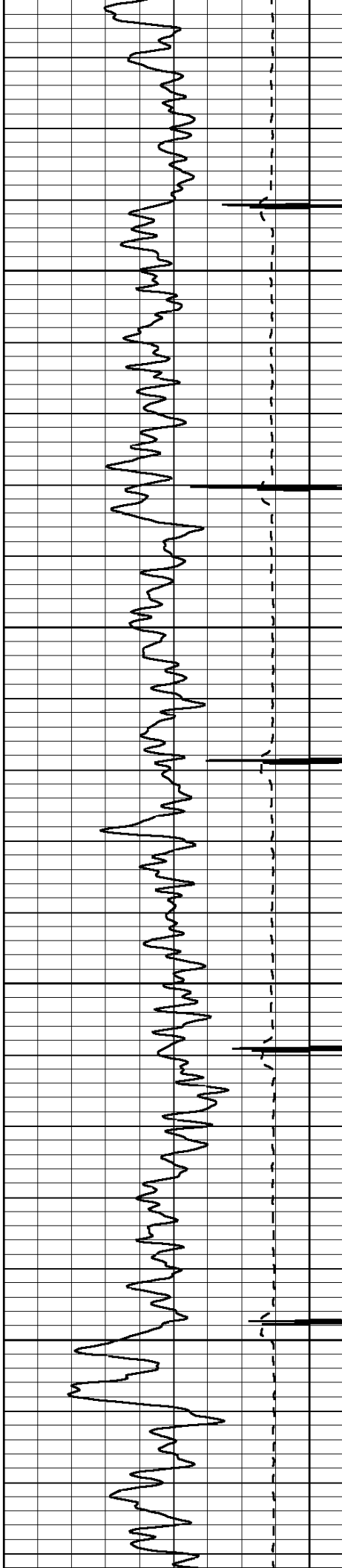


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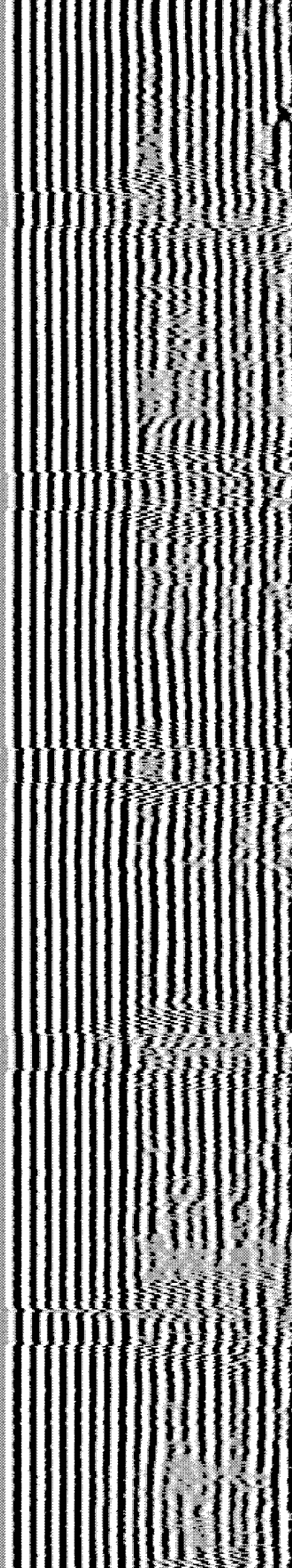
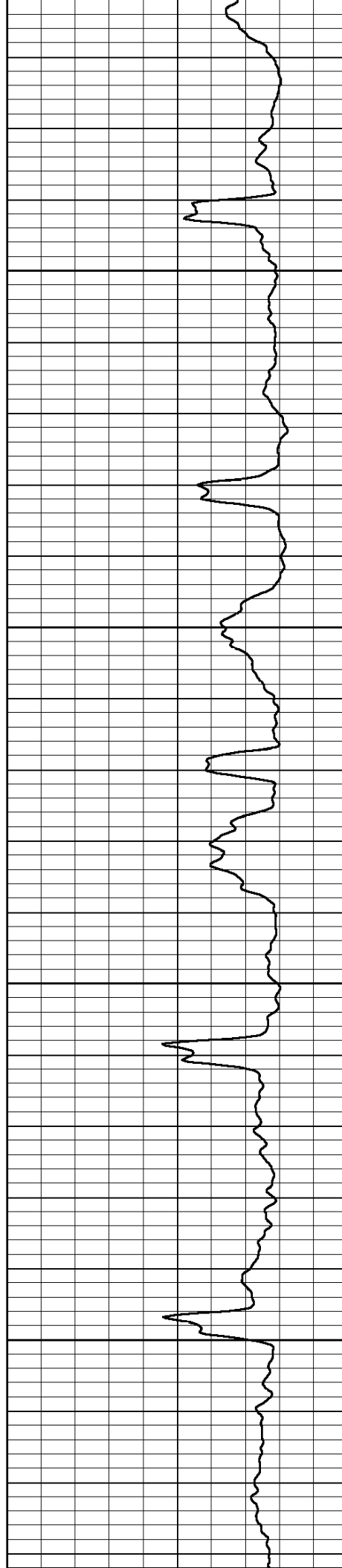
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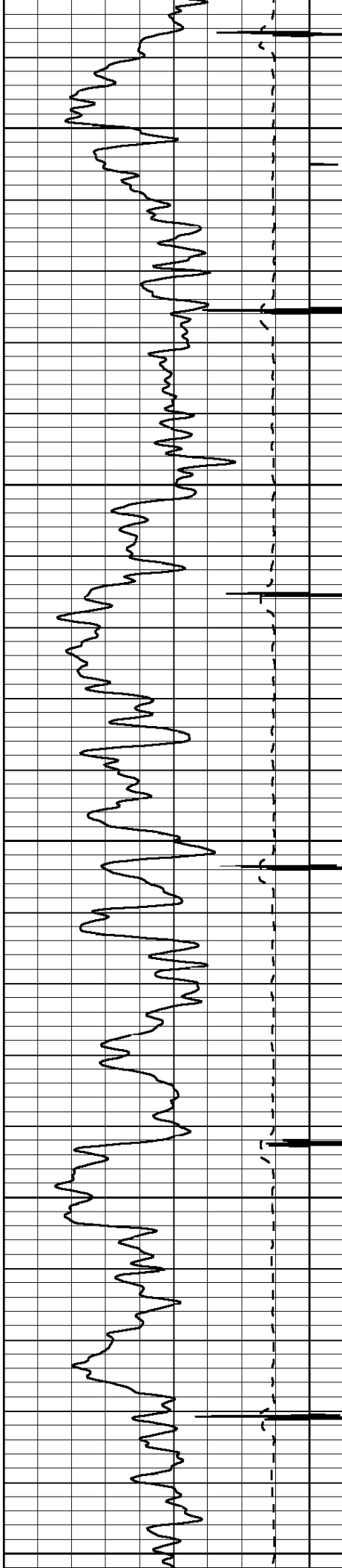




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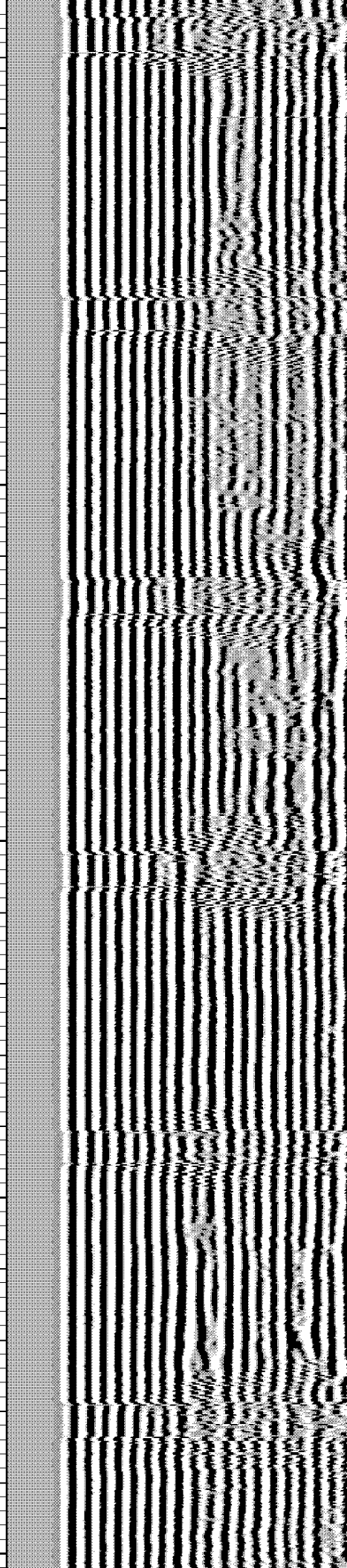
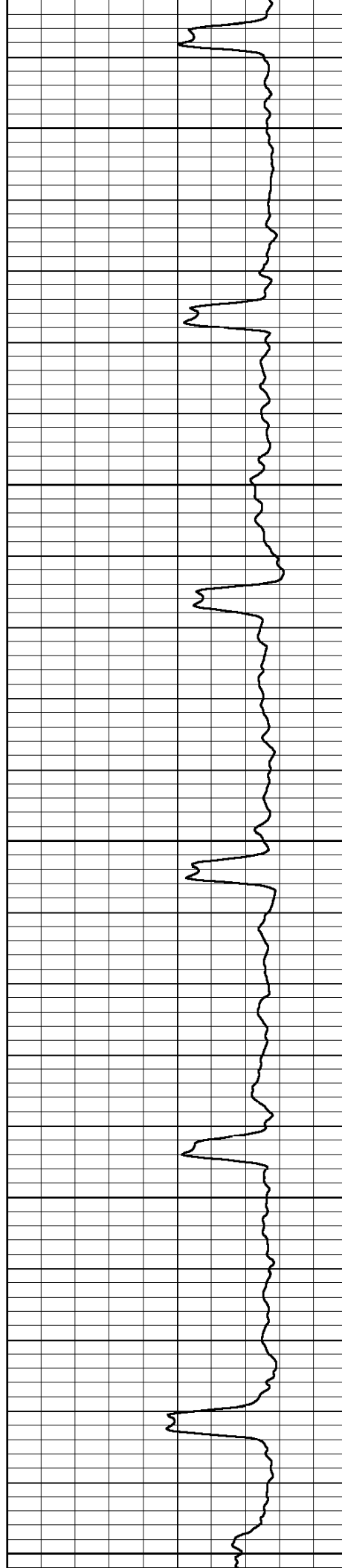
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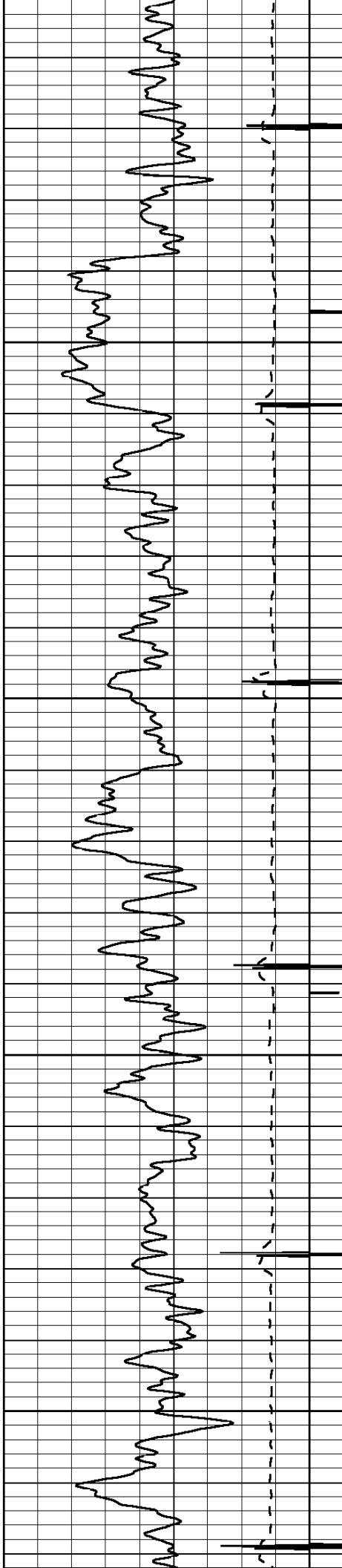




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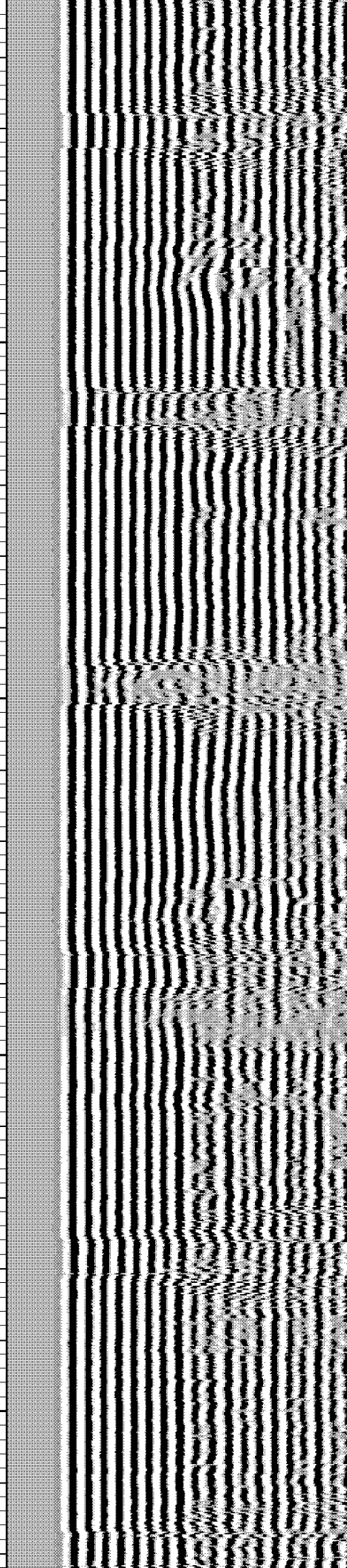
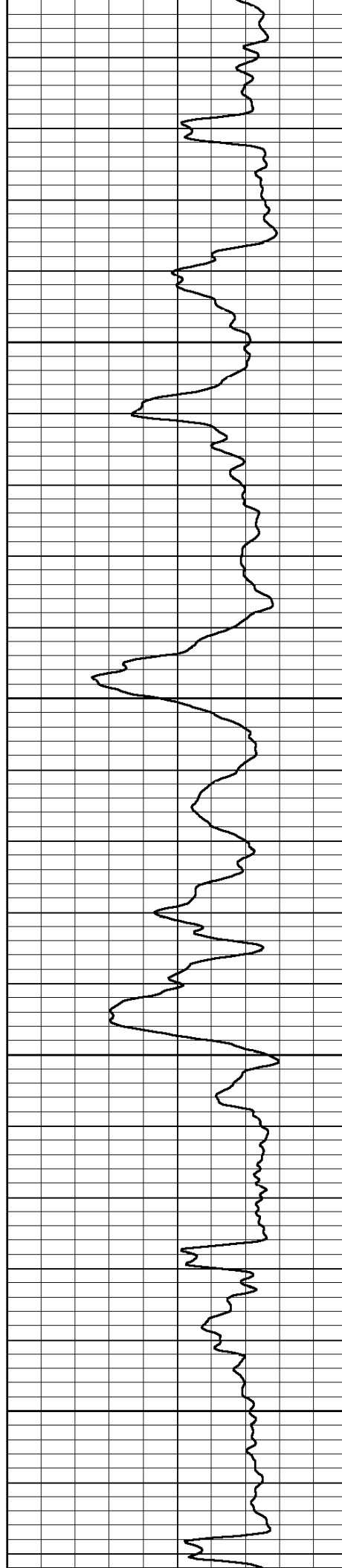
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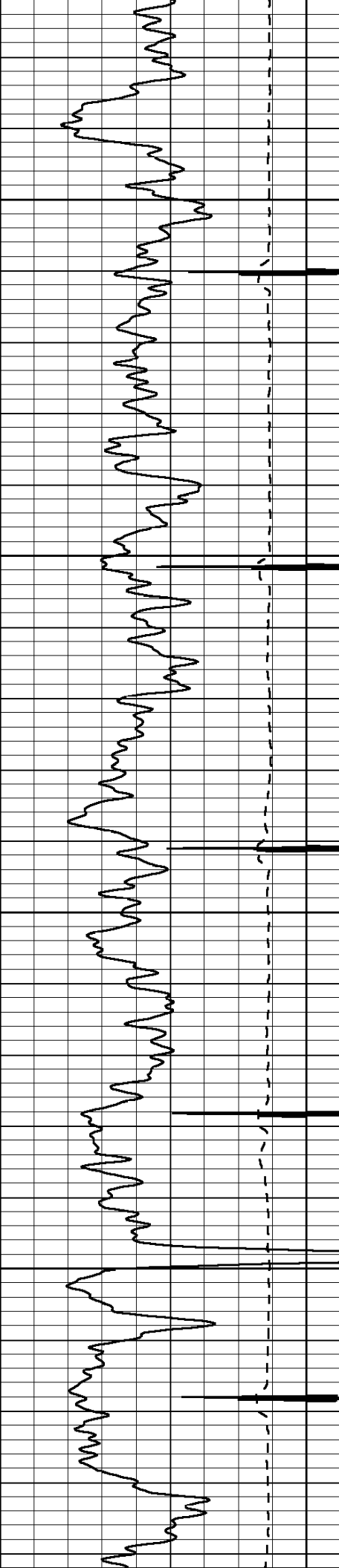




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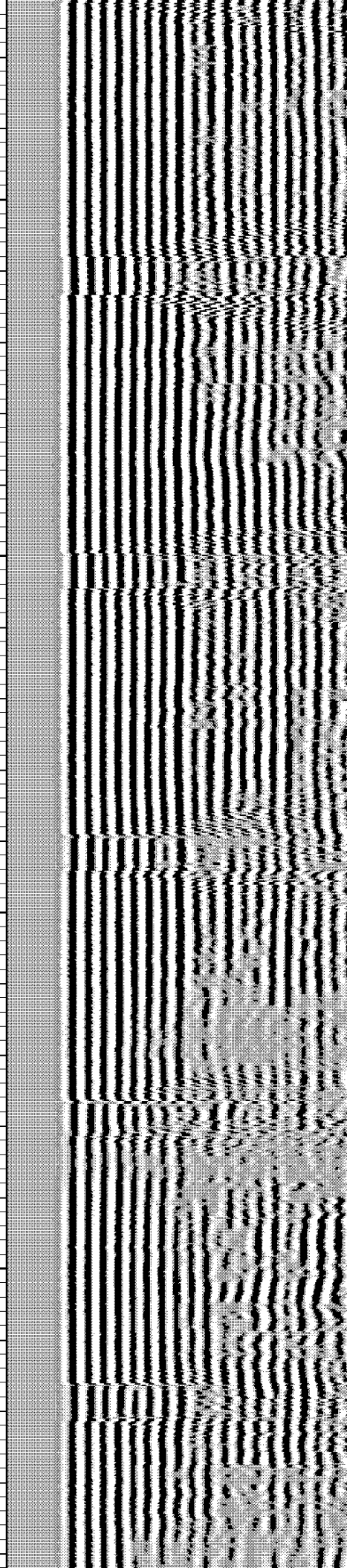
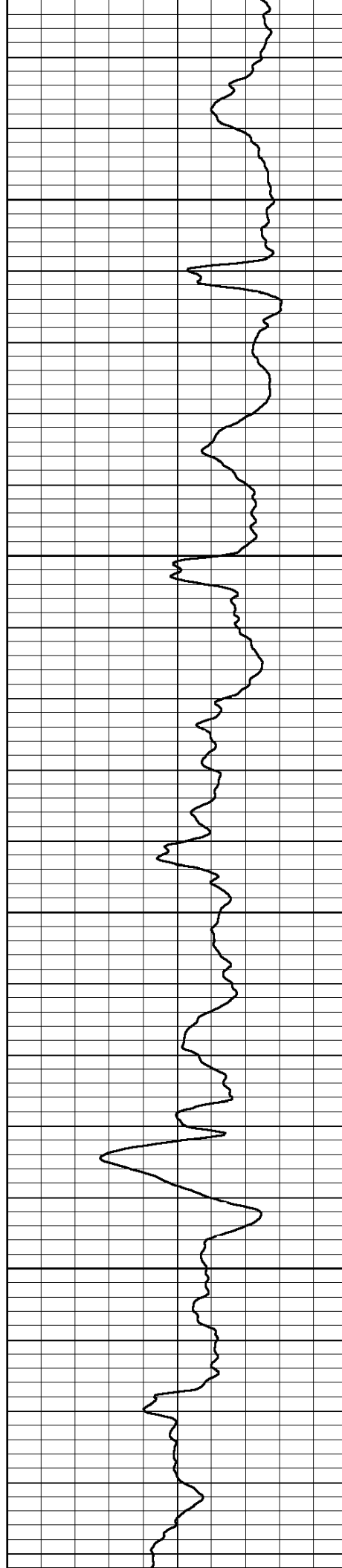
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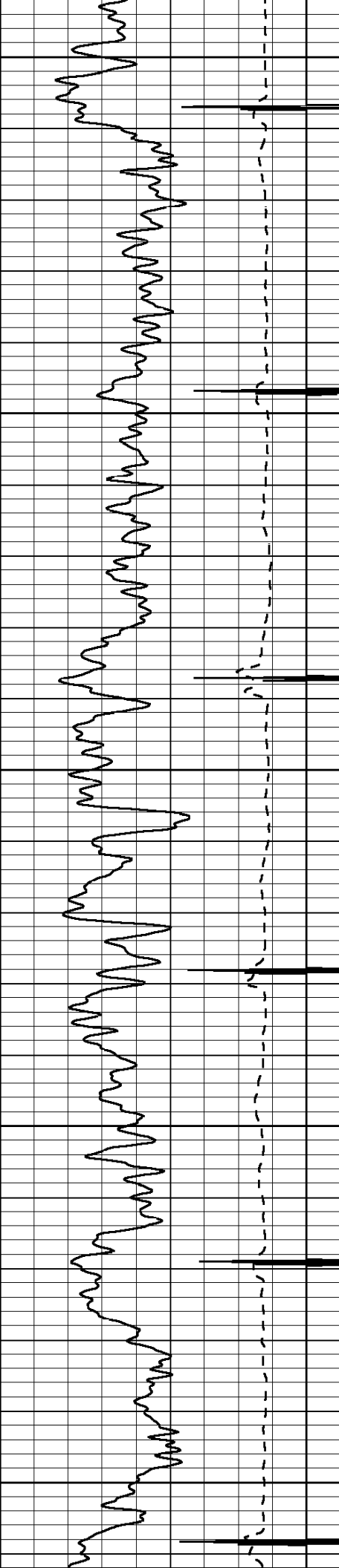




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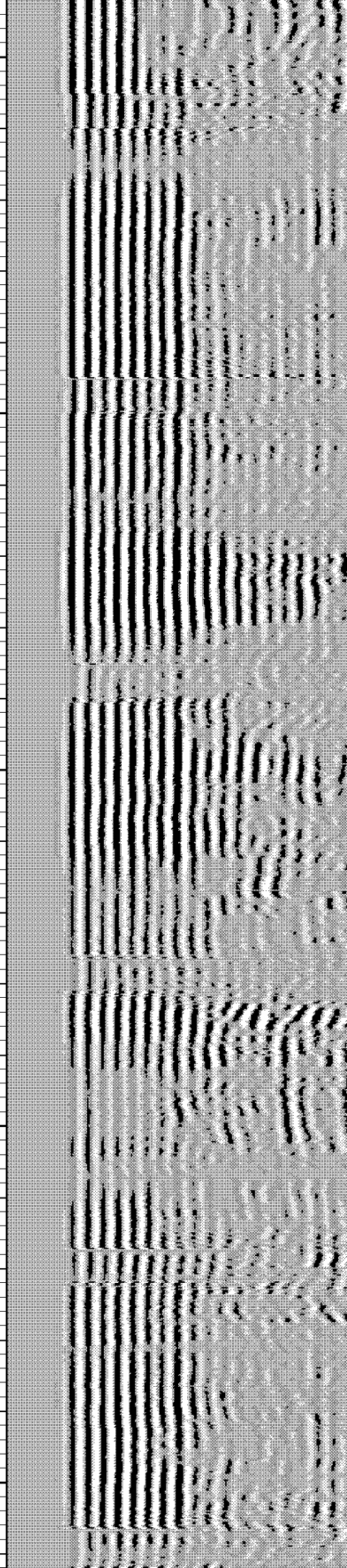
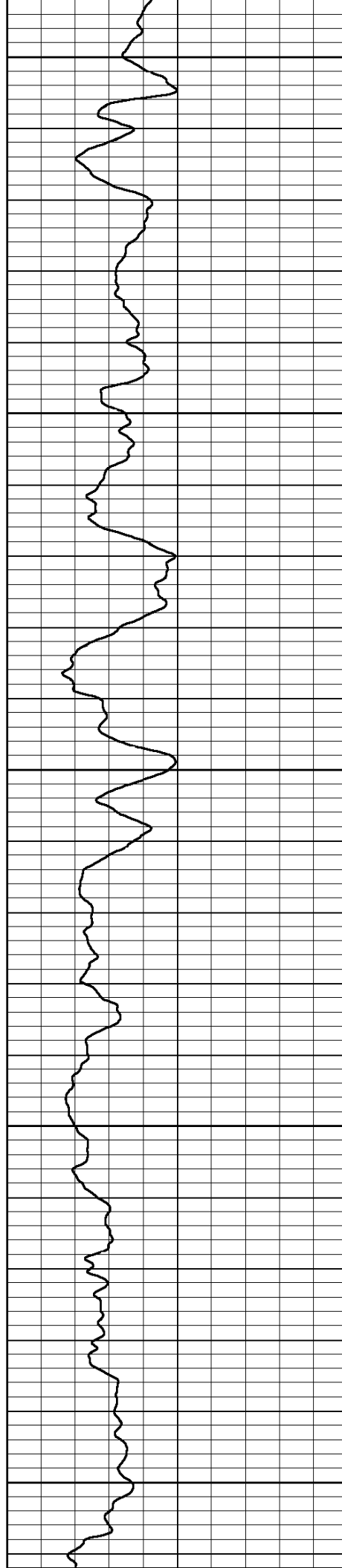


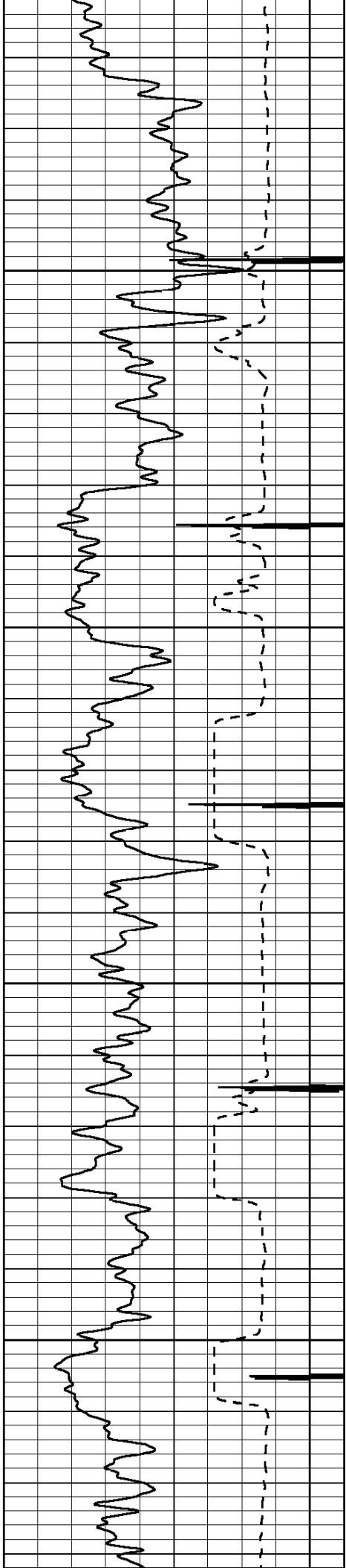


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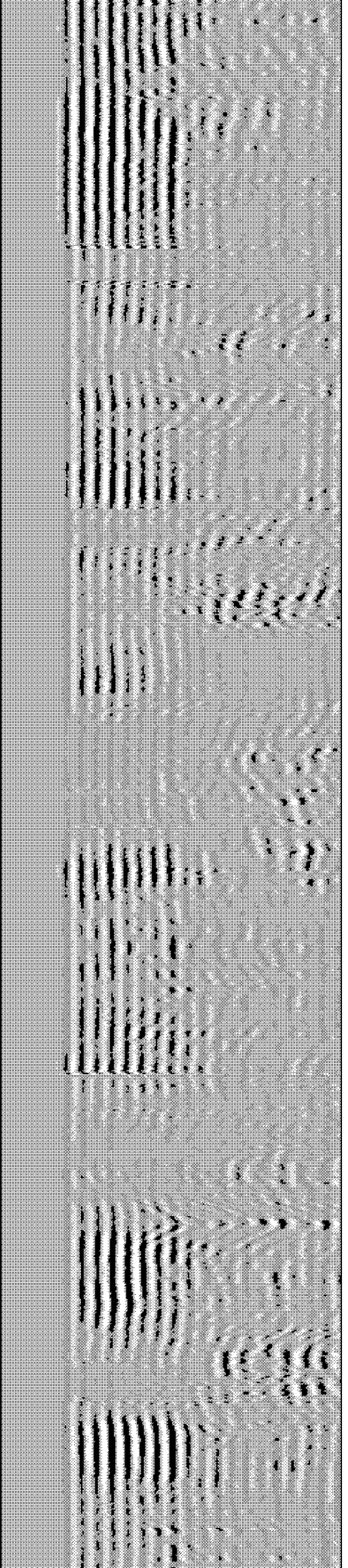
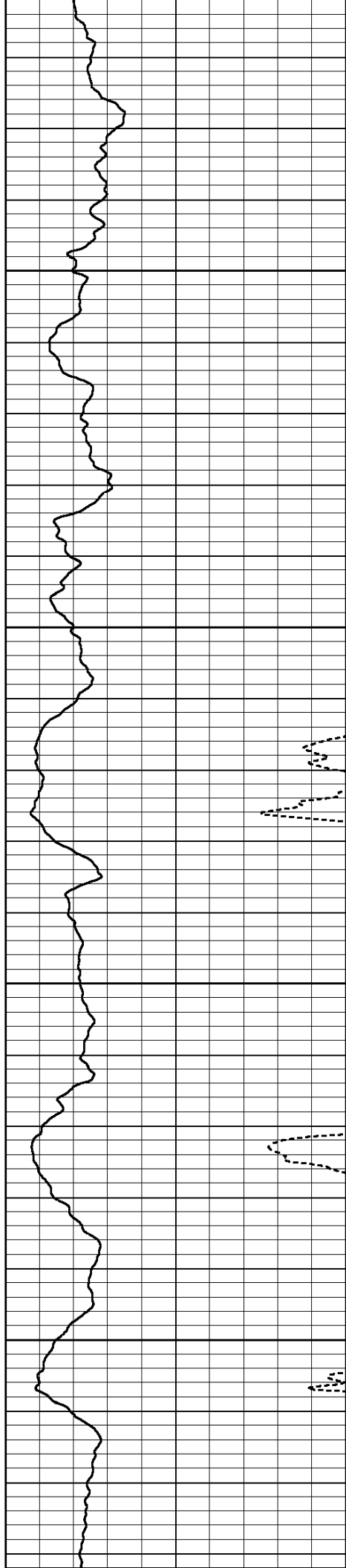
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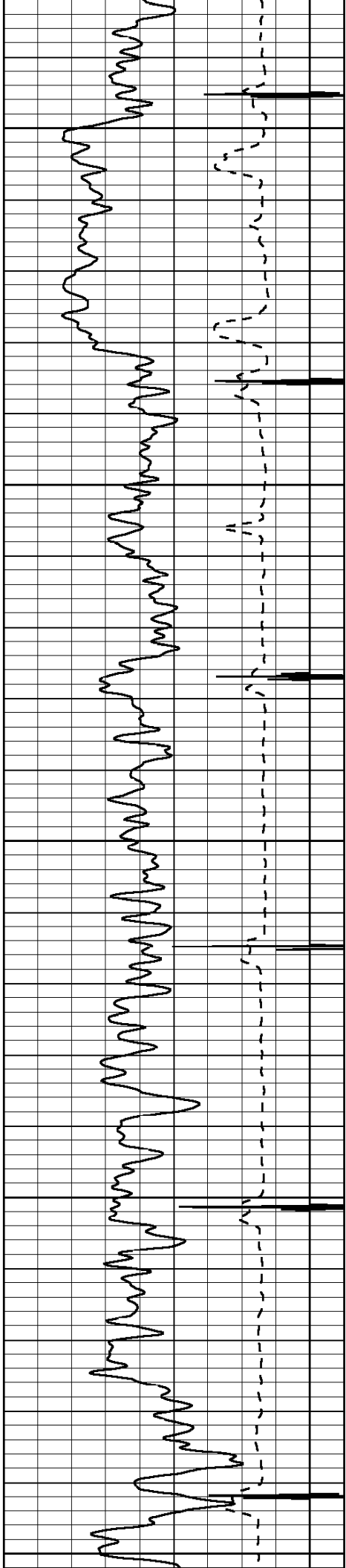




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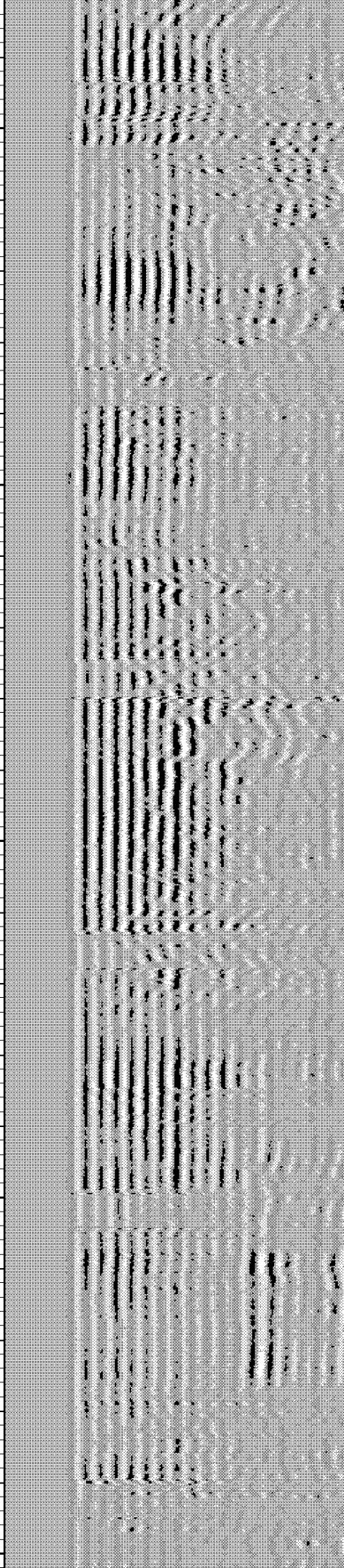
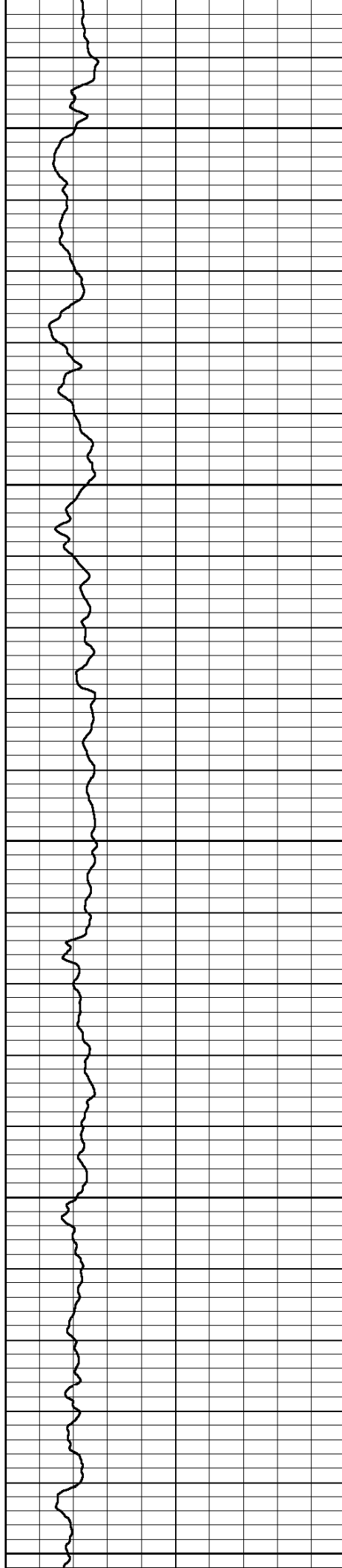
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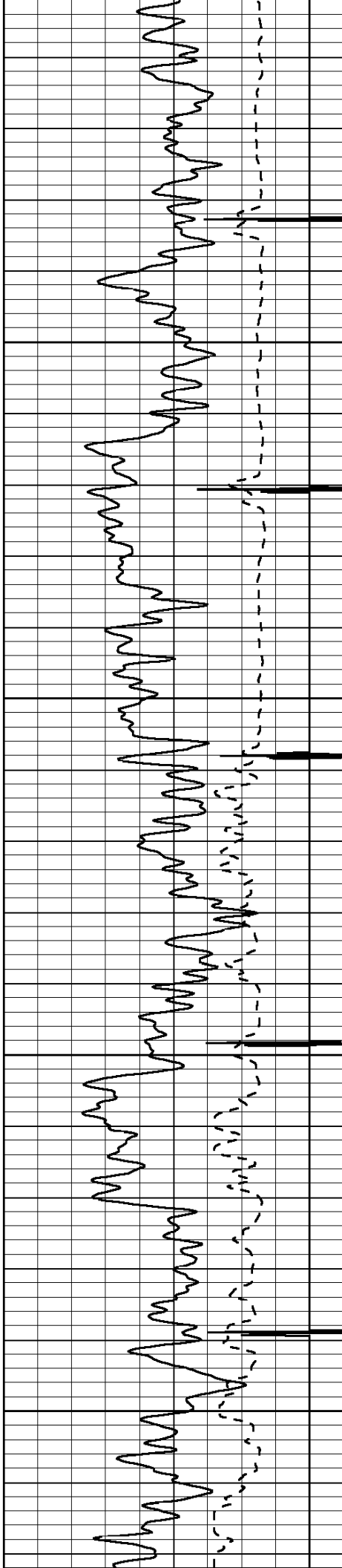




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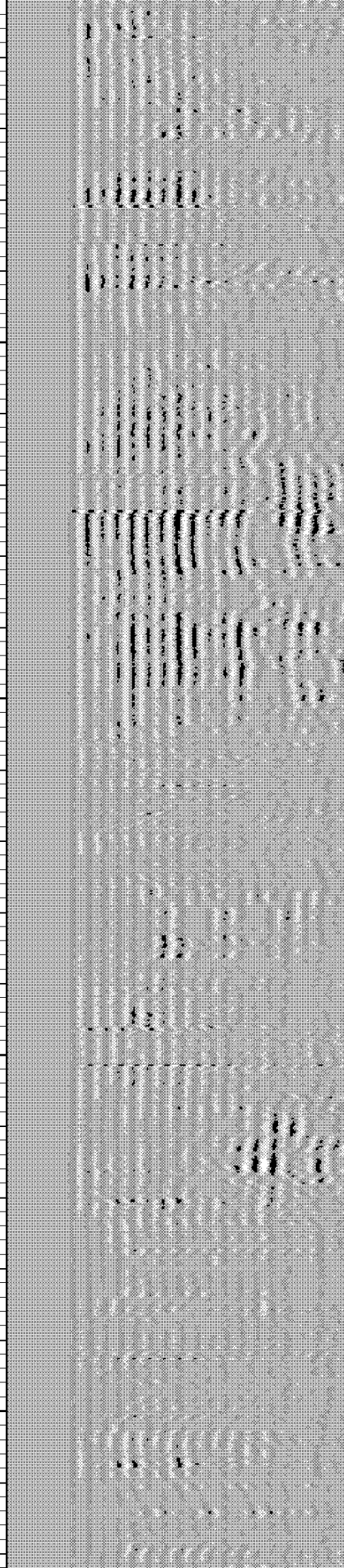
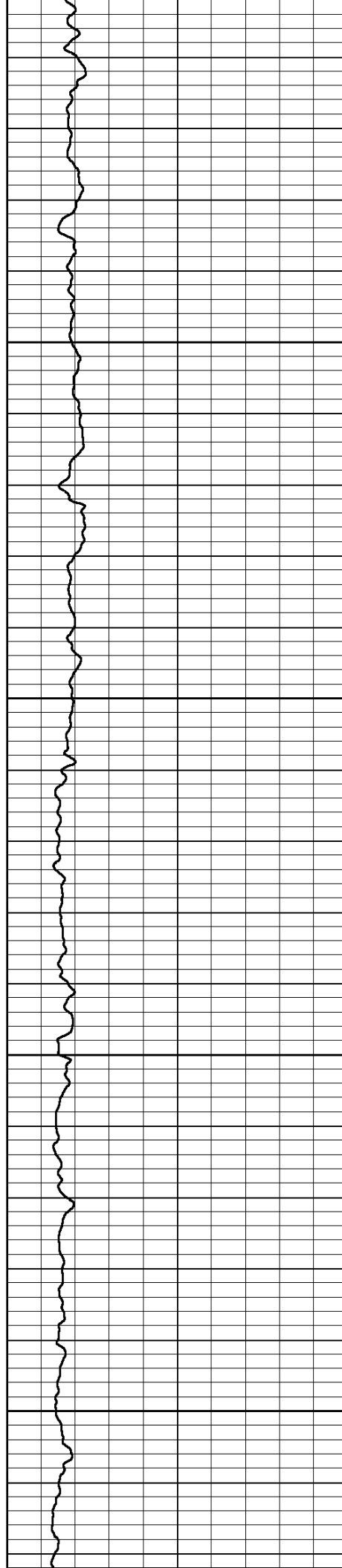
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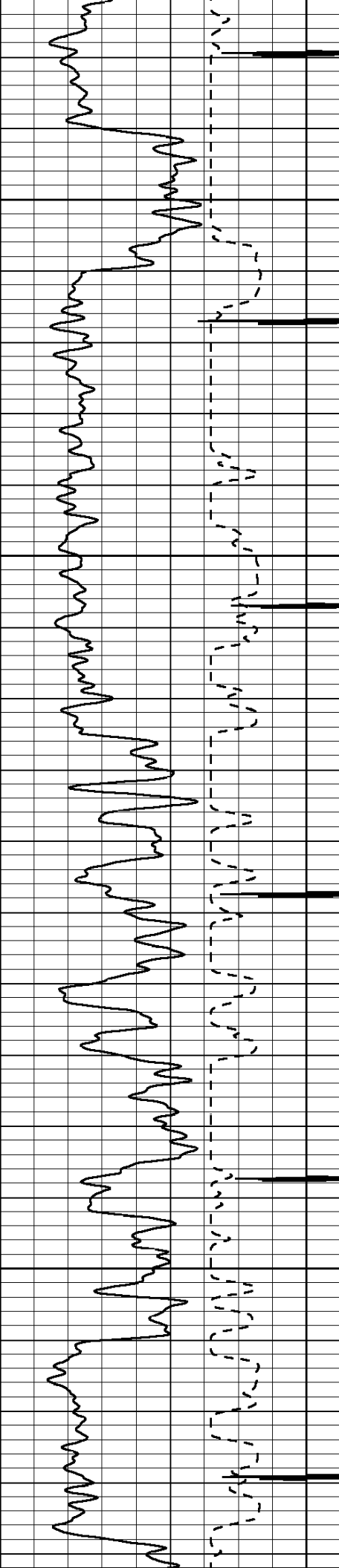




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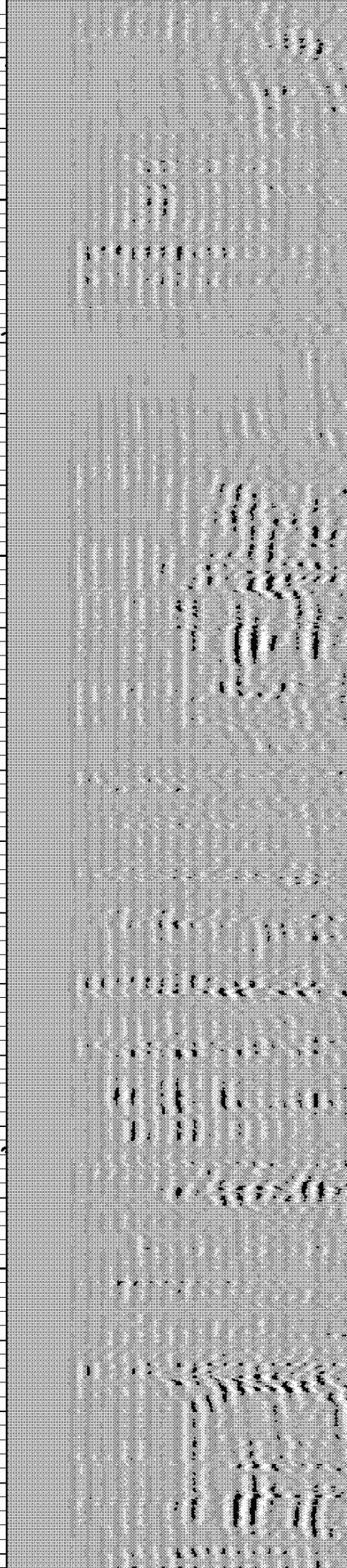
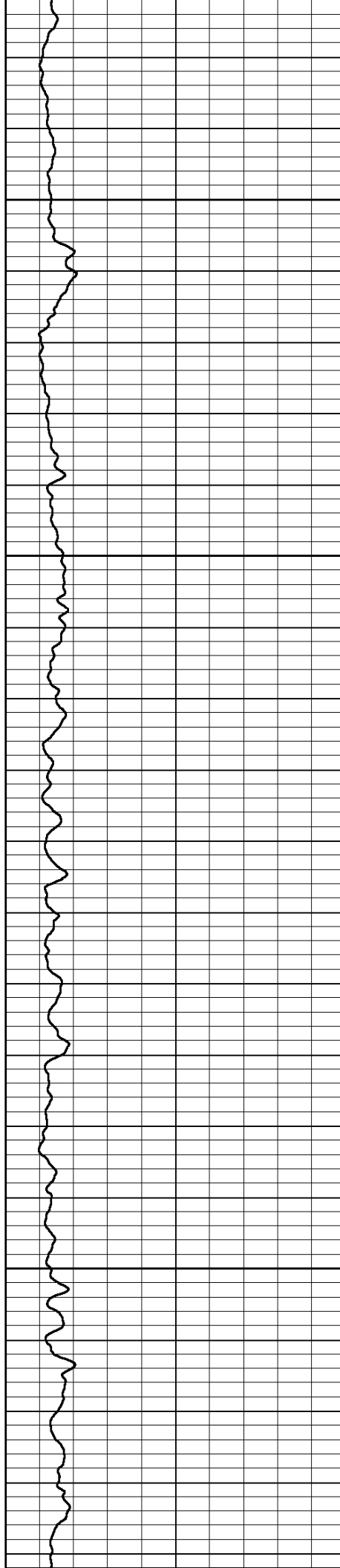
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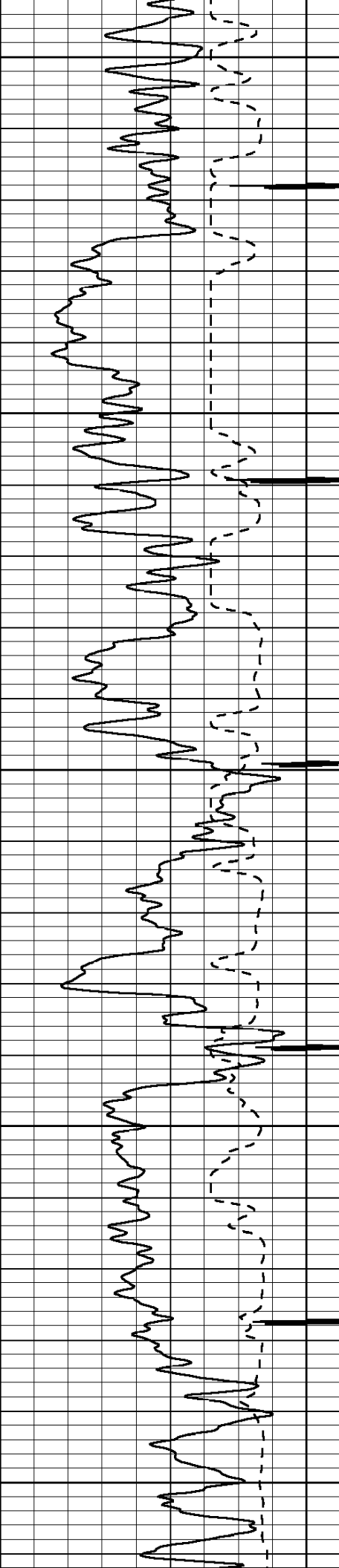




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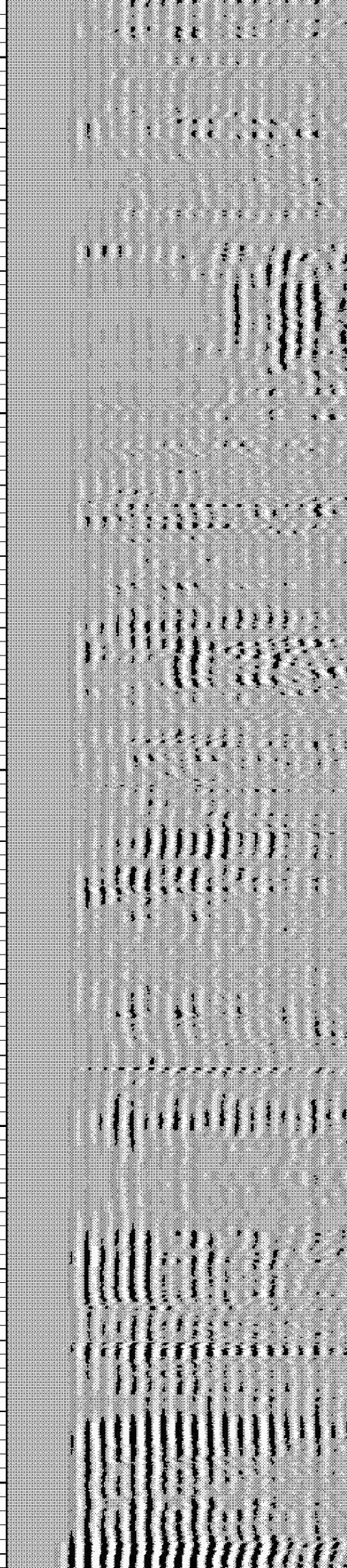
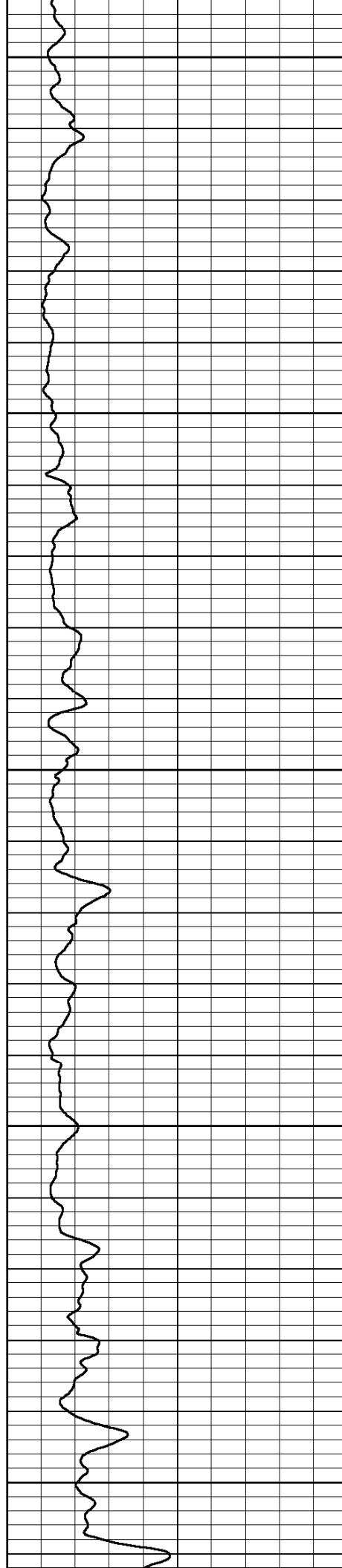


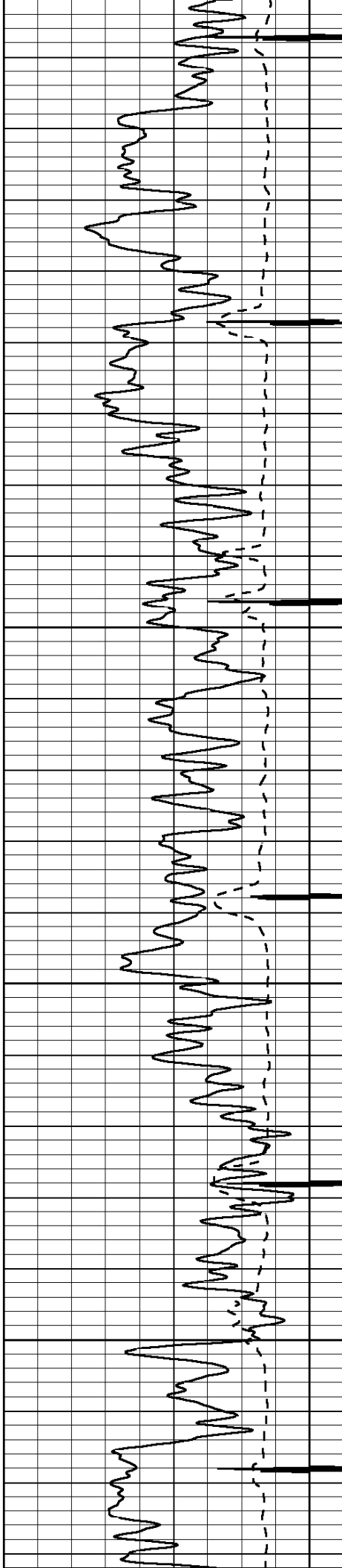


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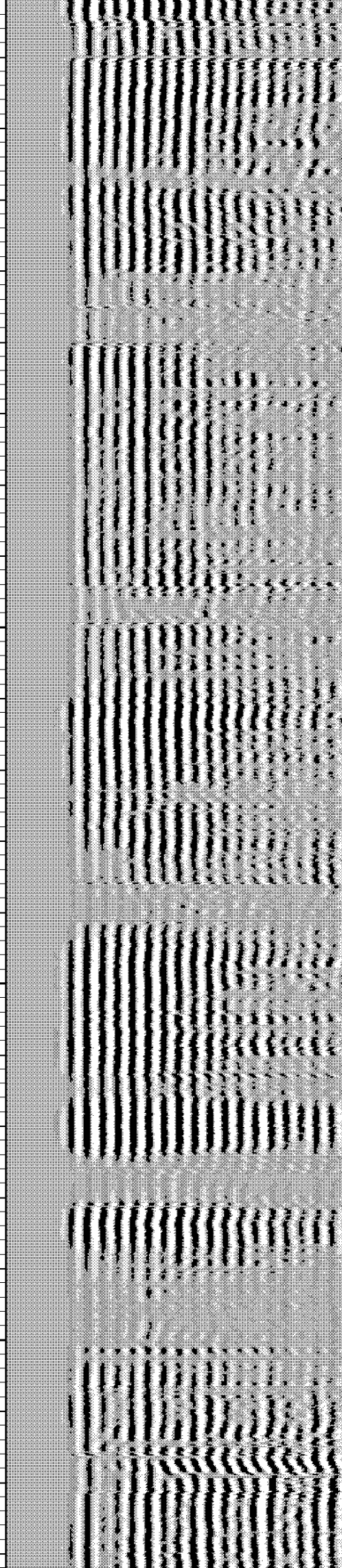
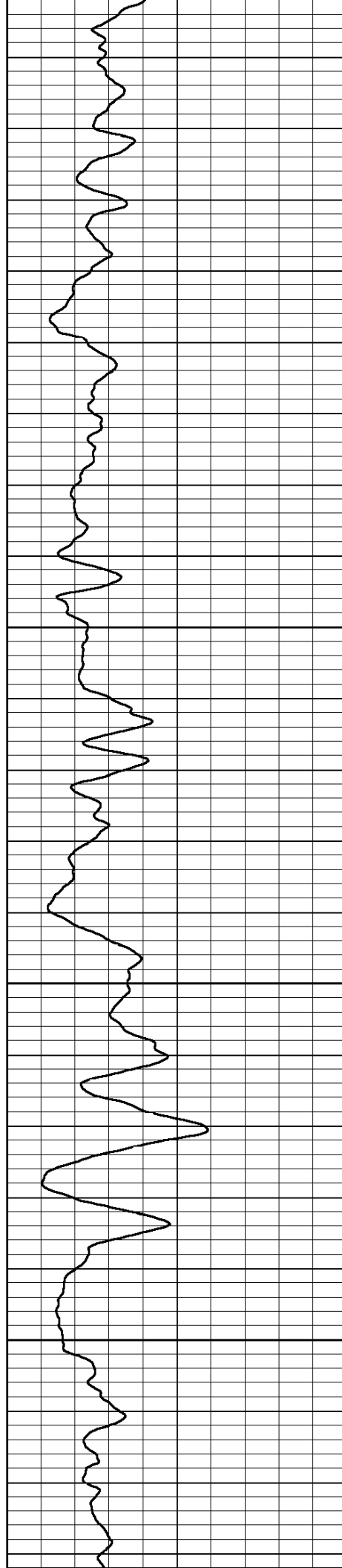
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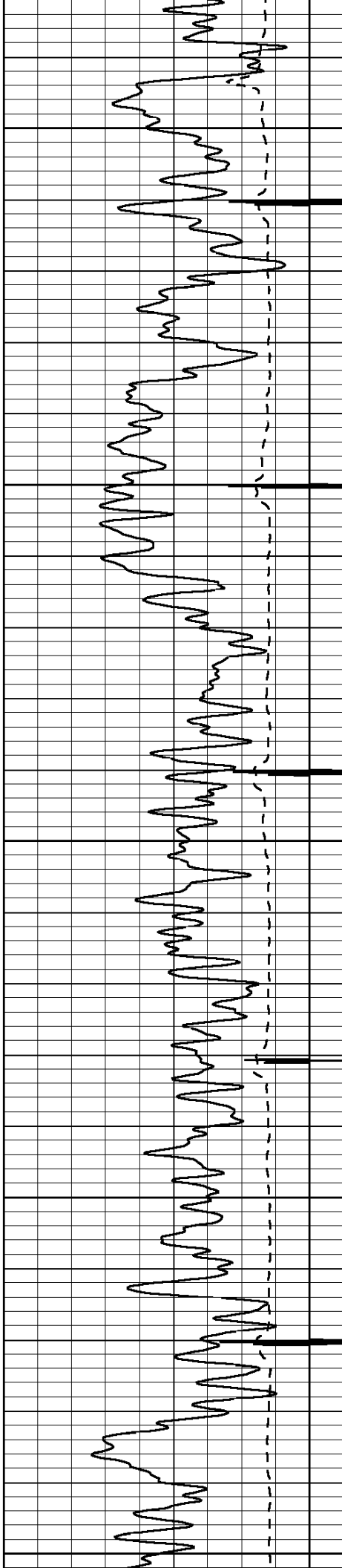




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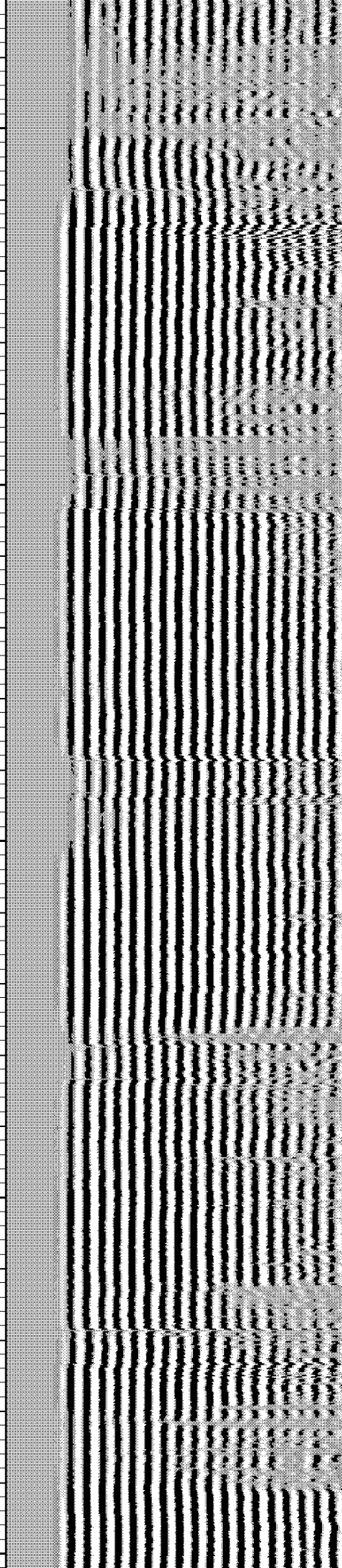
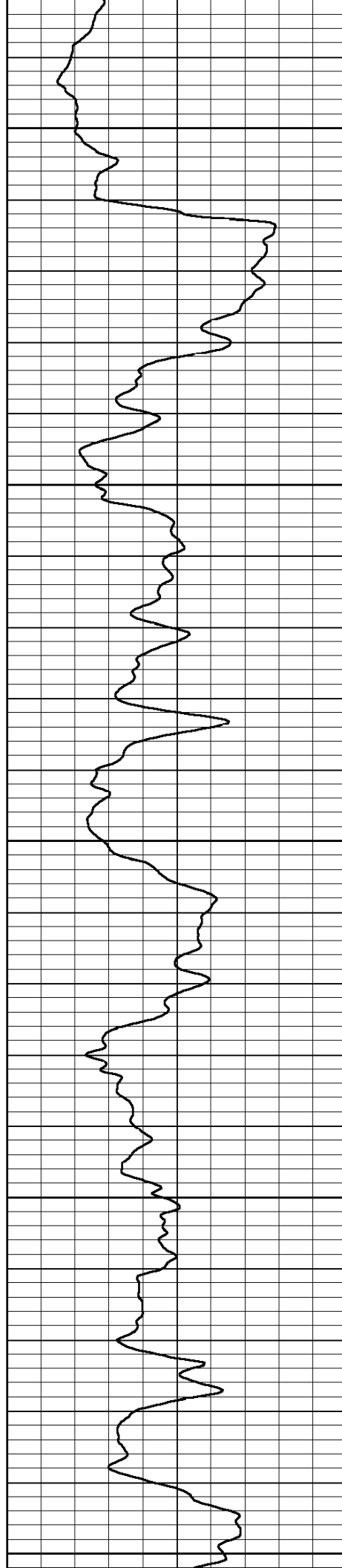
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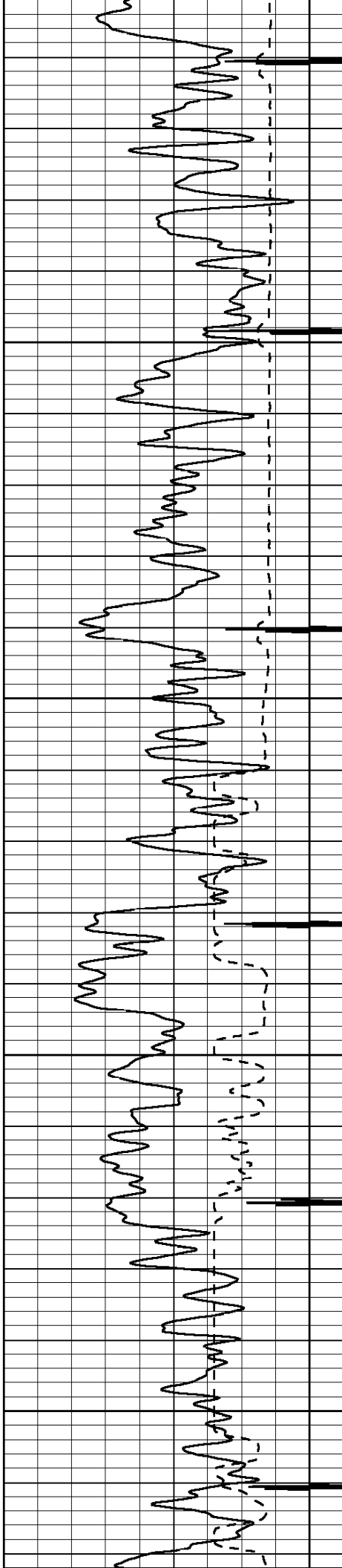




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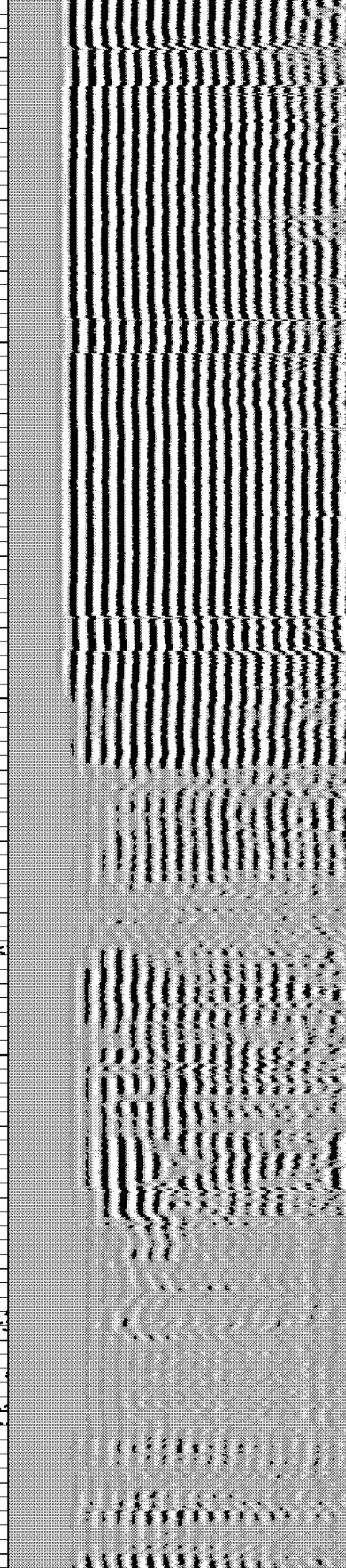
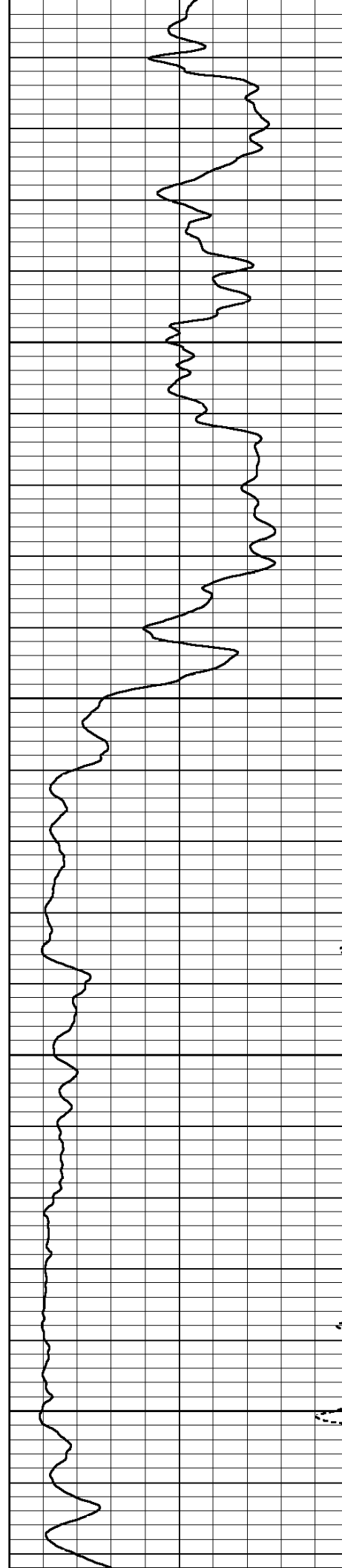
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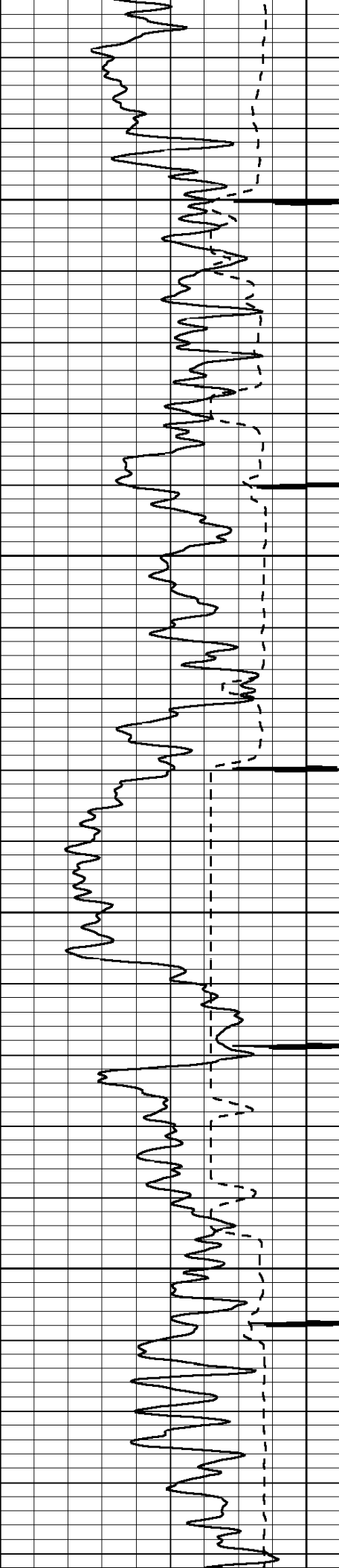




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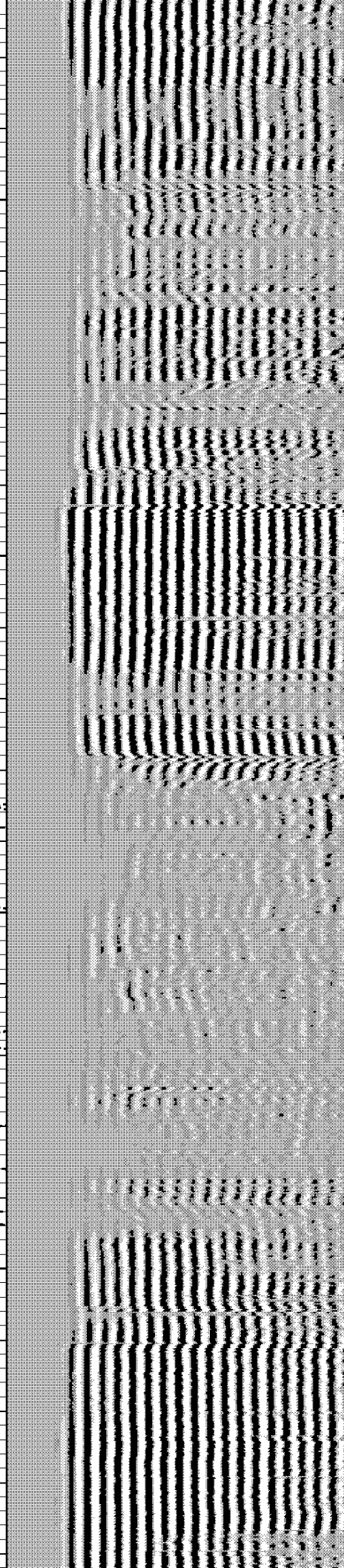
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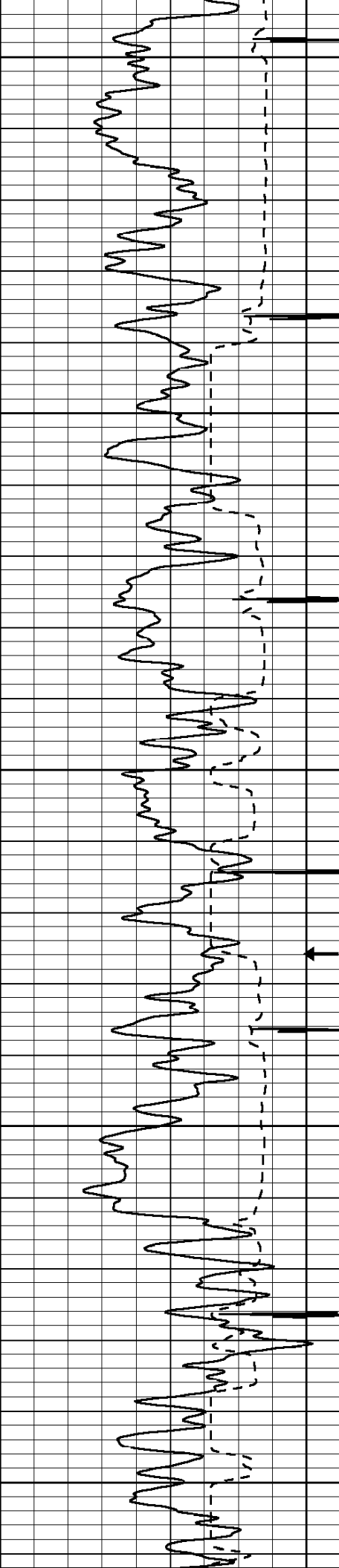




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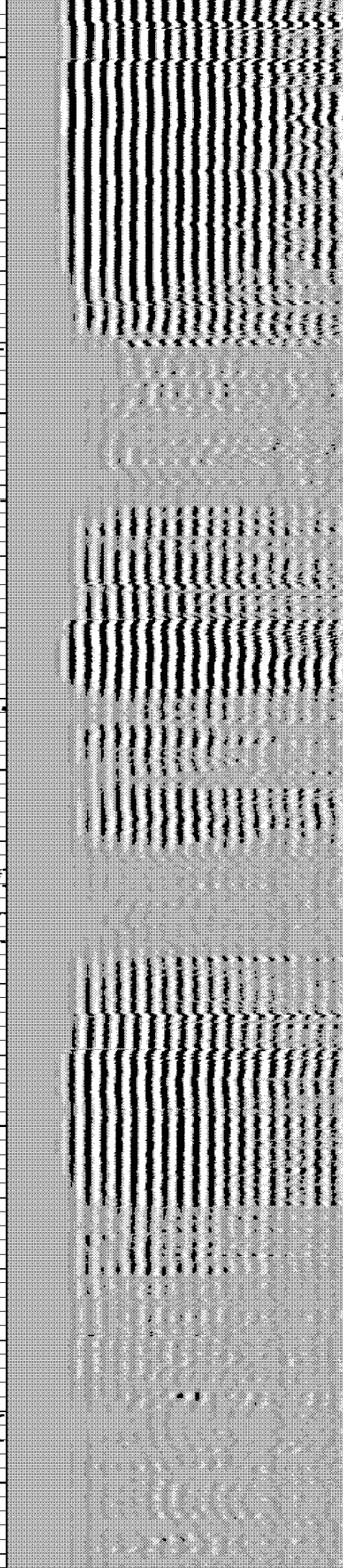
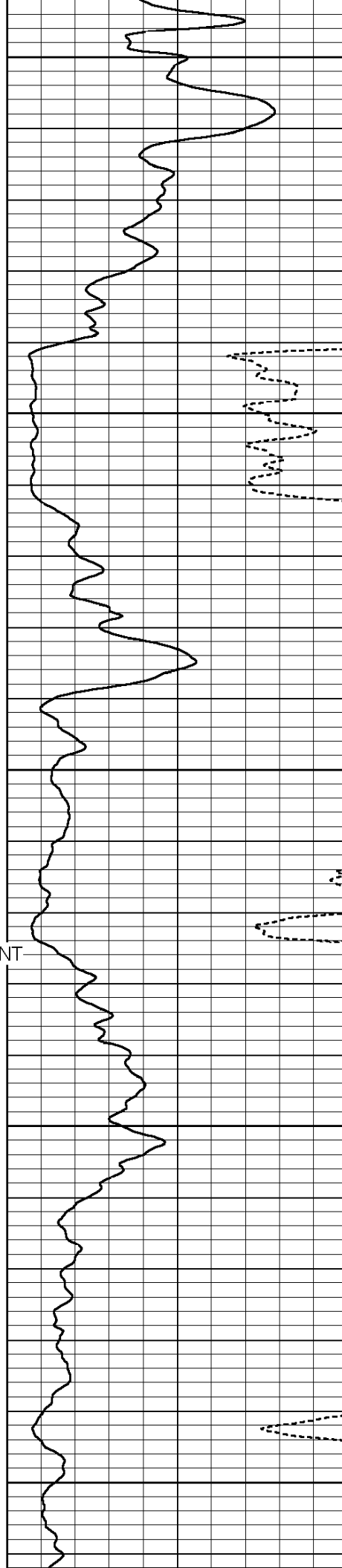


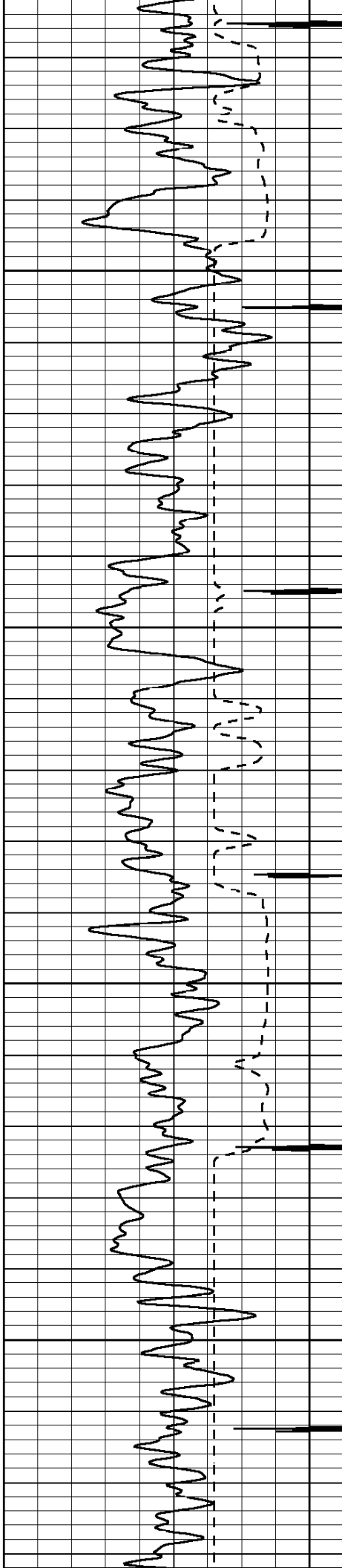
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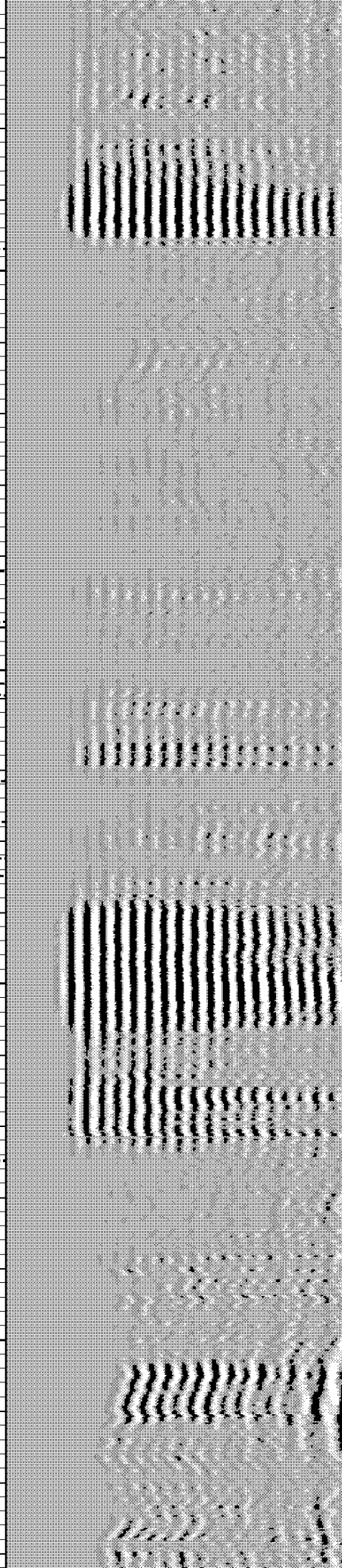
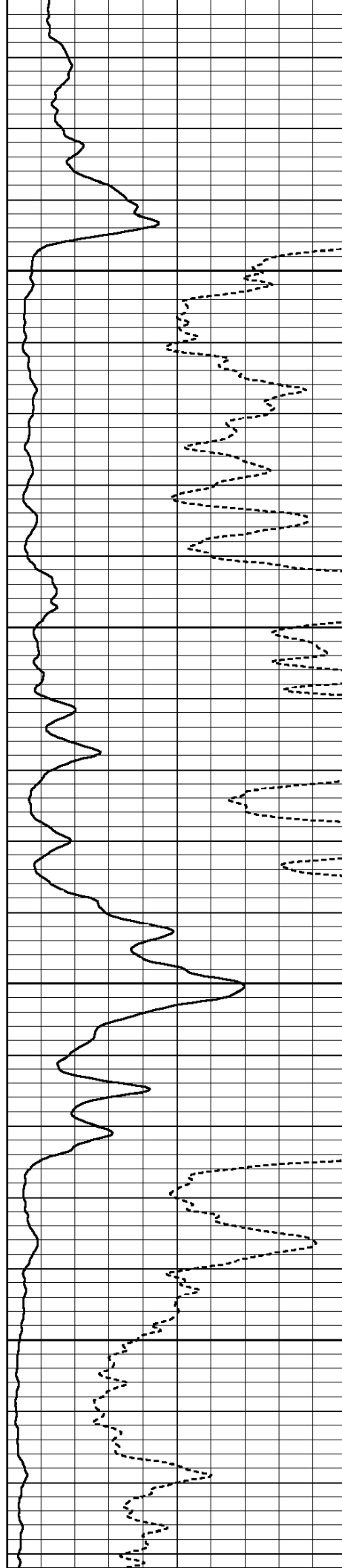
SHORT JOINT

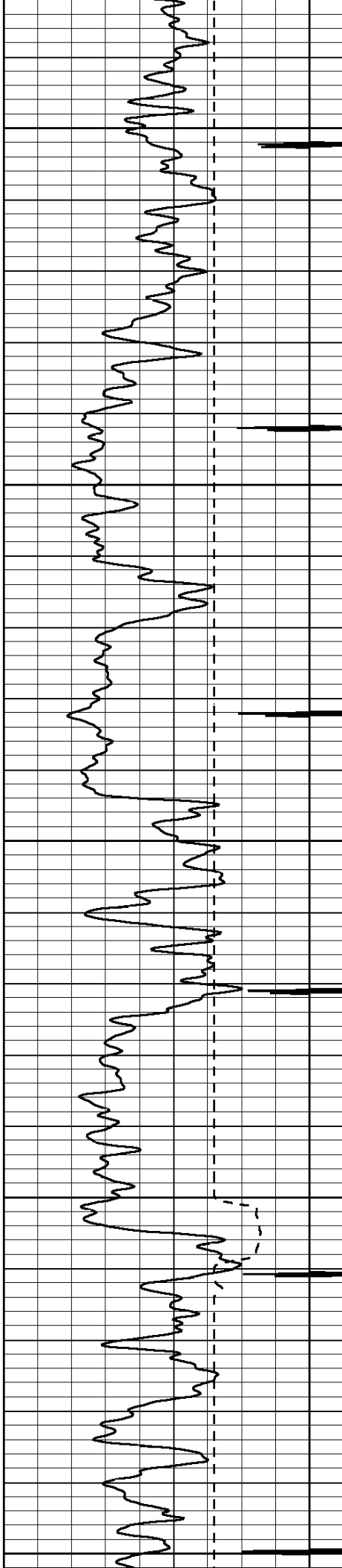




6100

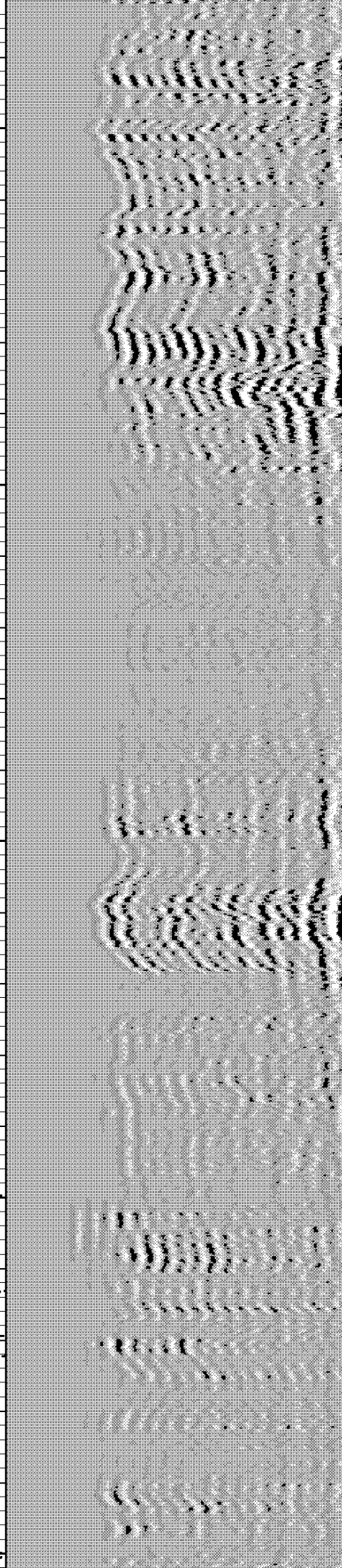
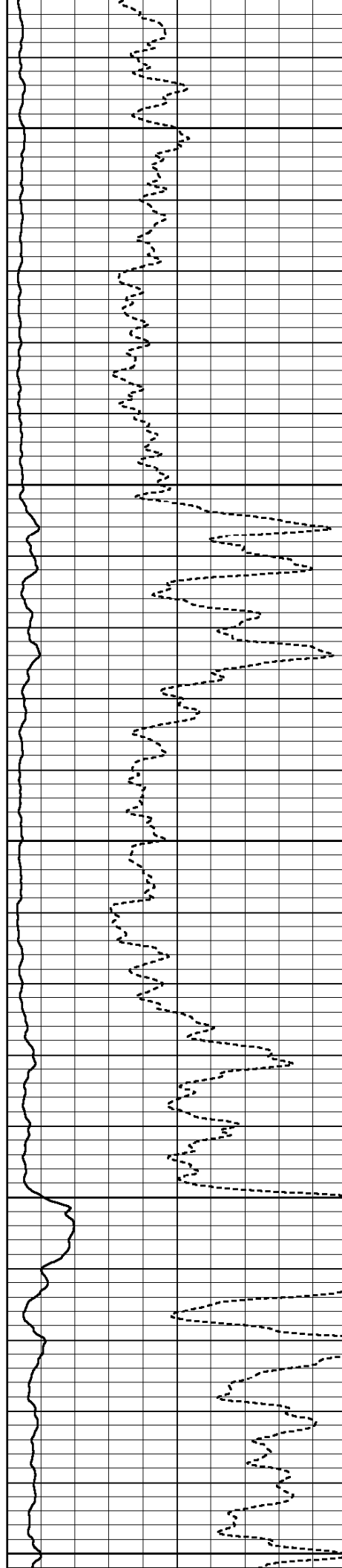
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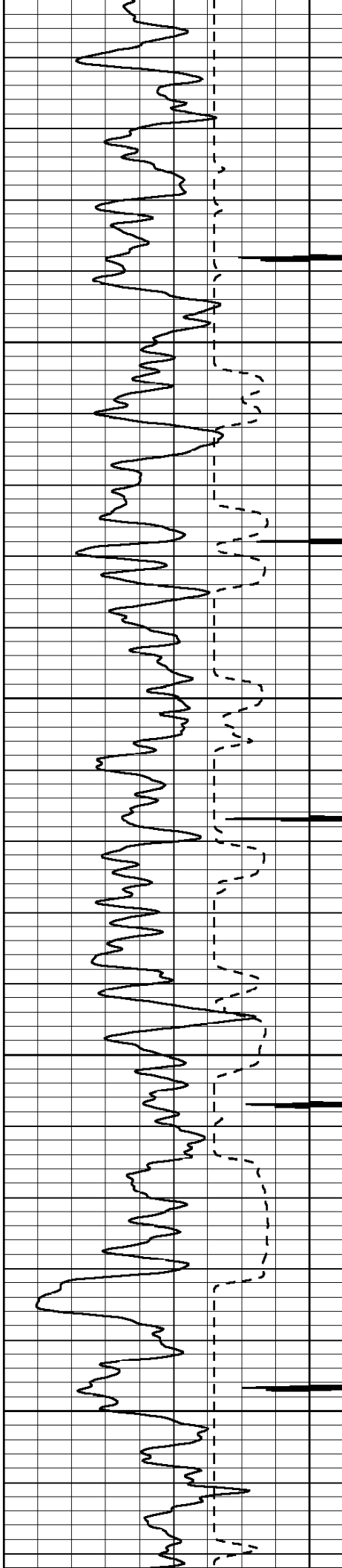




6300

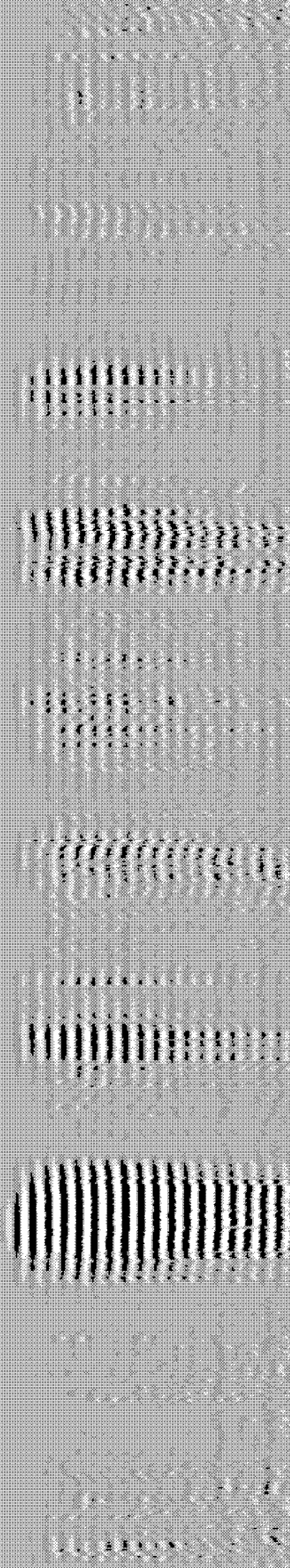
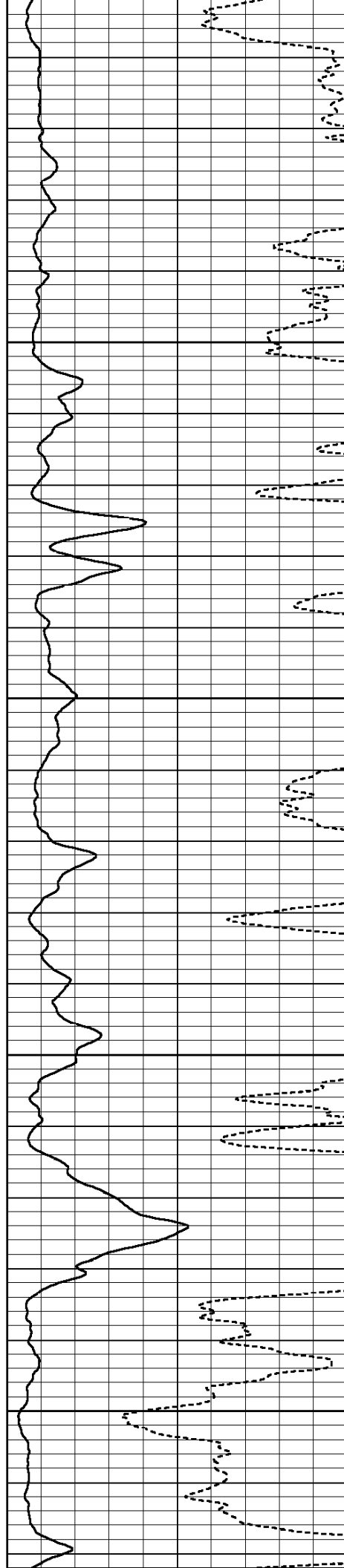
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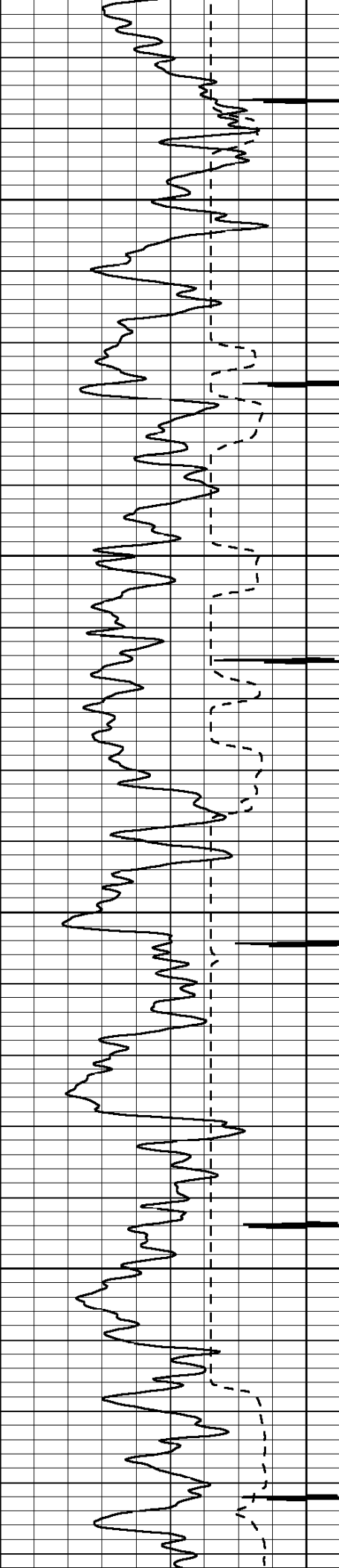




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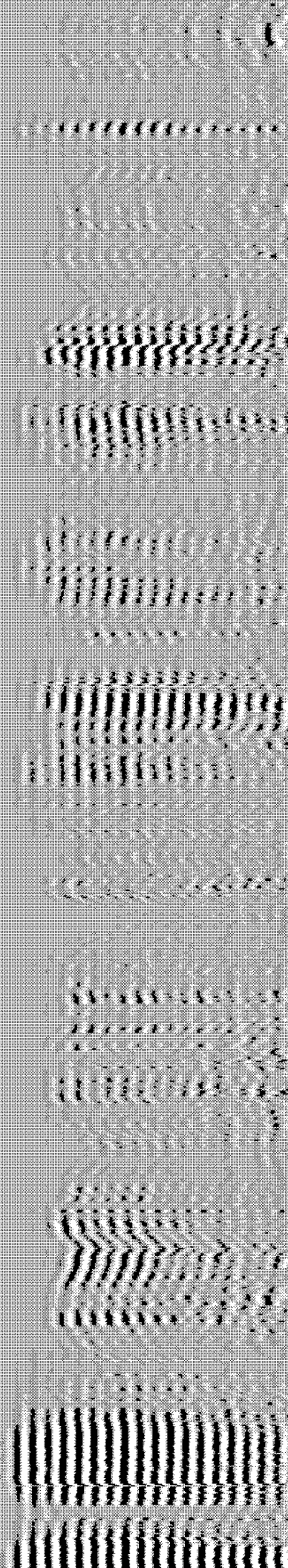
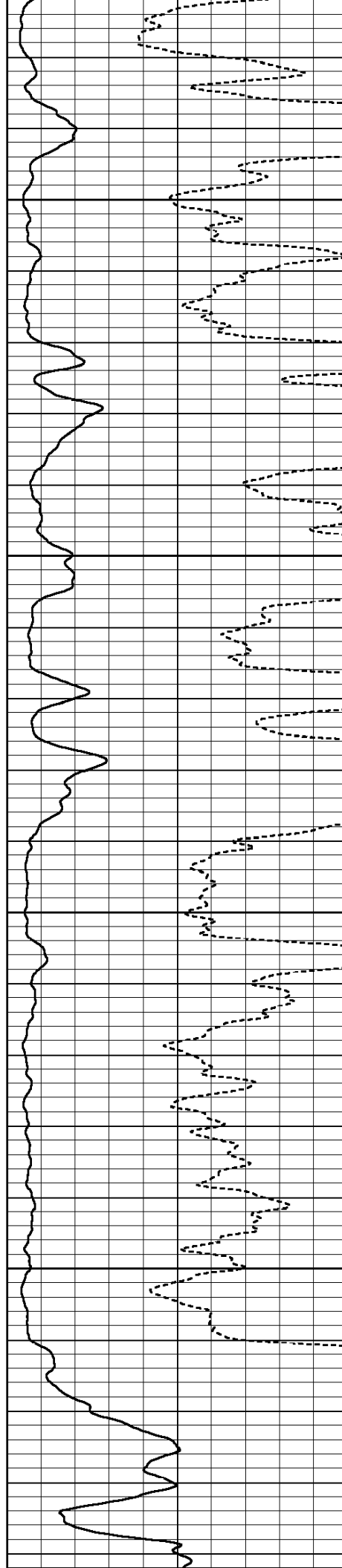
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6700

6800

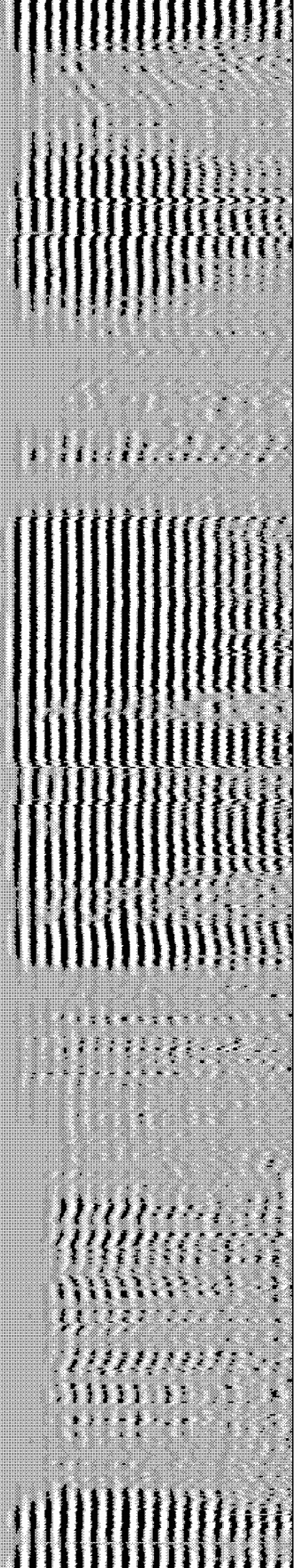
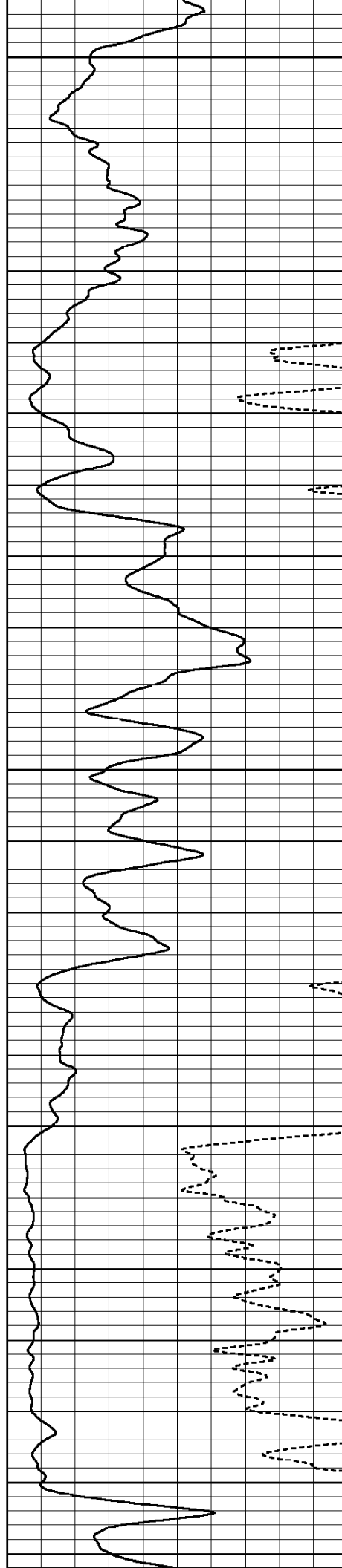


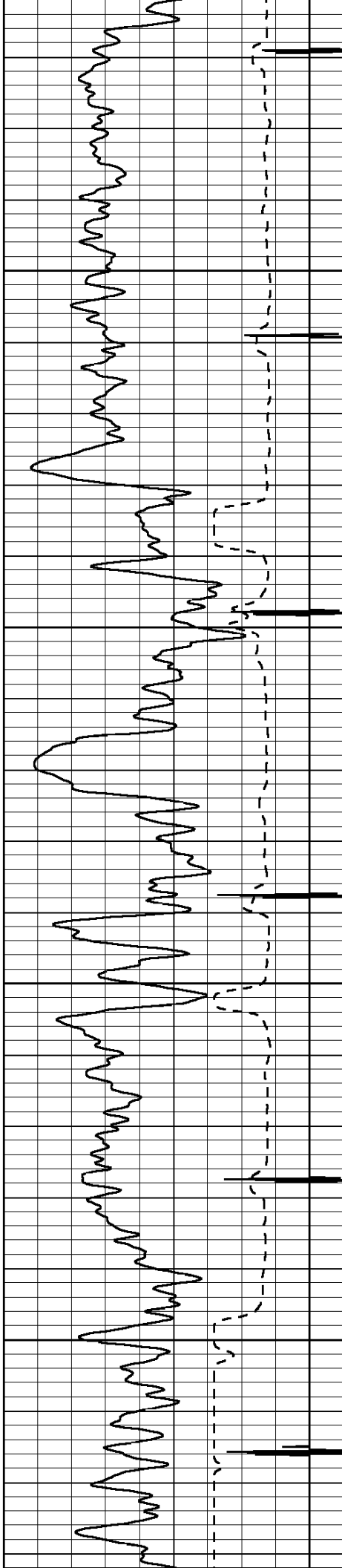


6900

7000

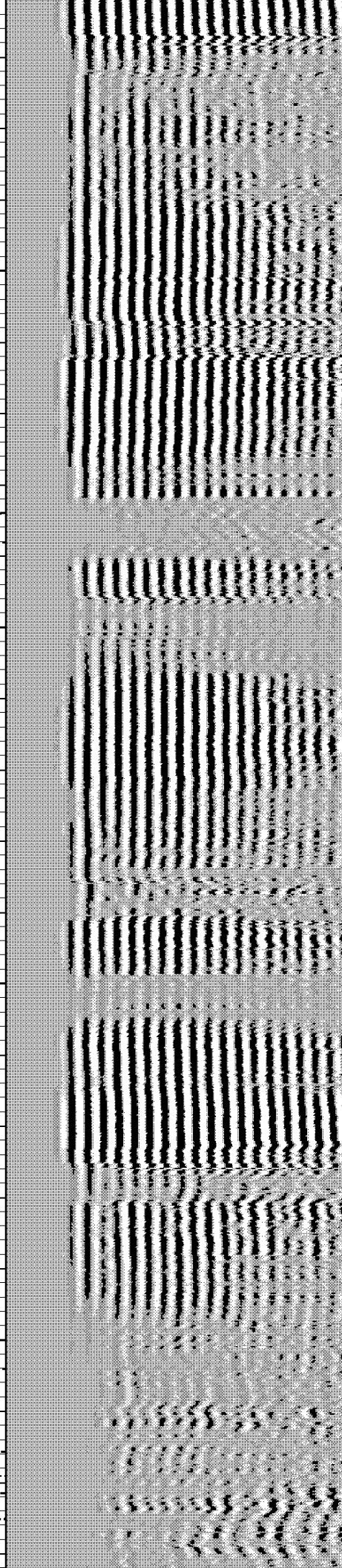
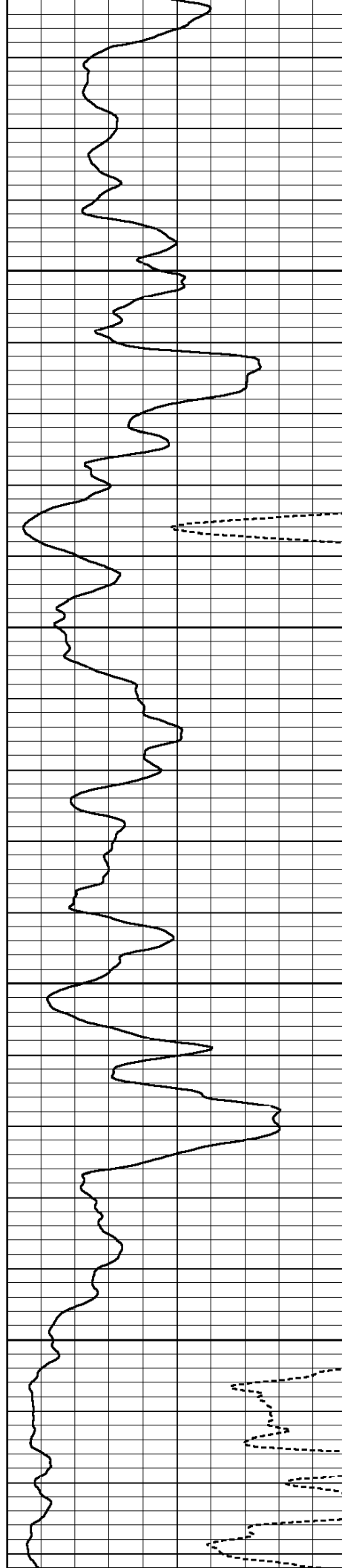
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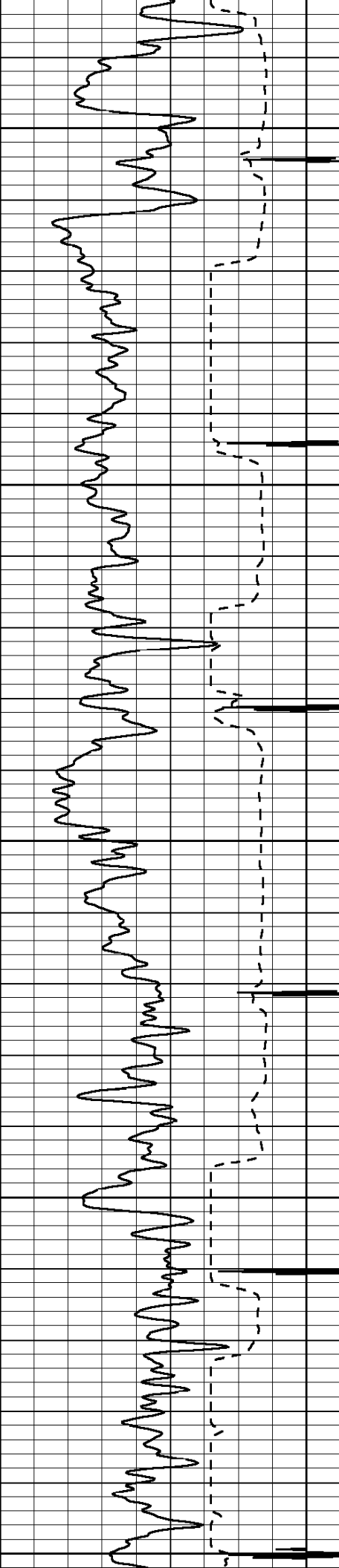




7200

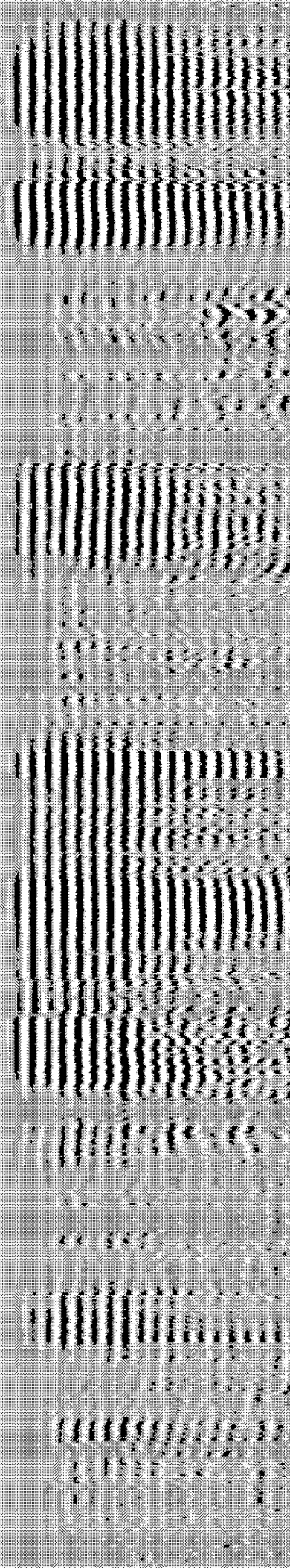
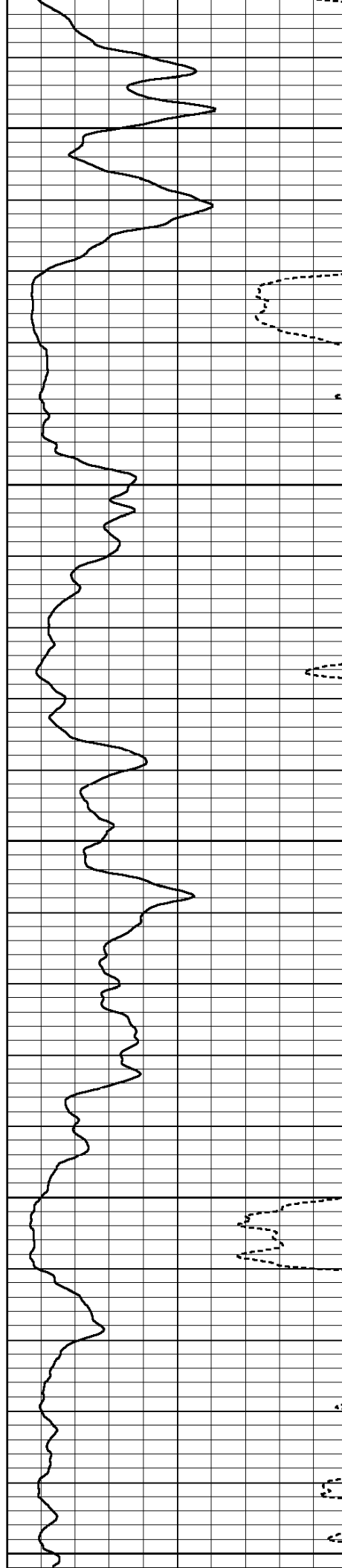
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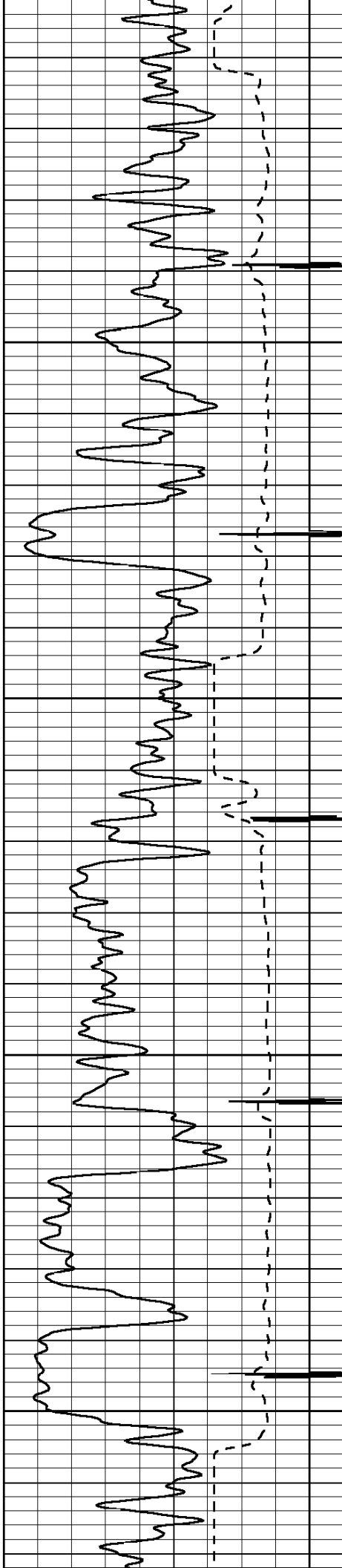




7400

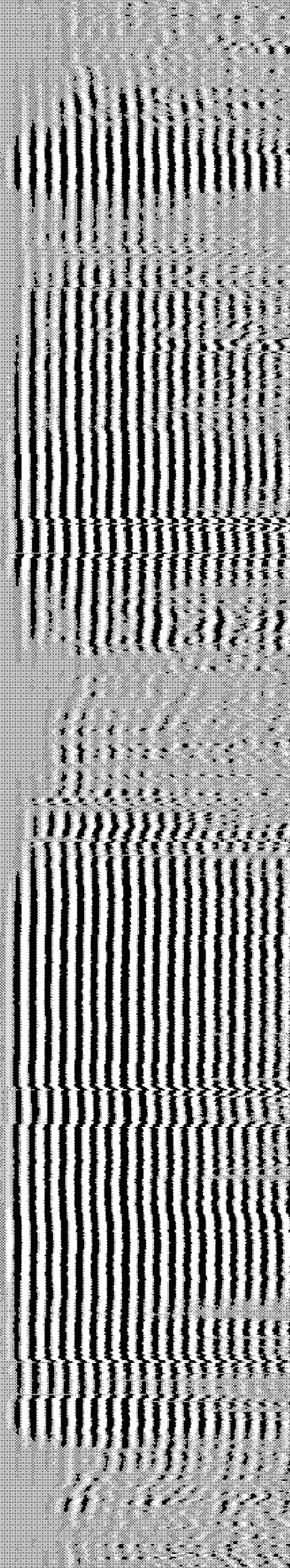
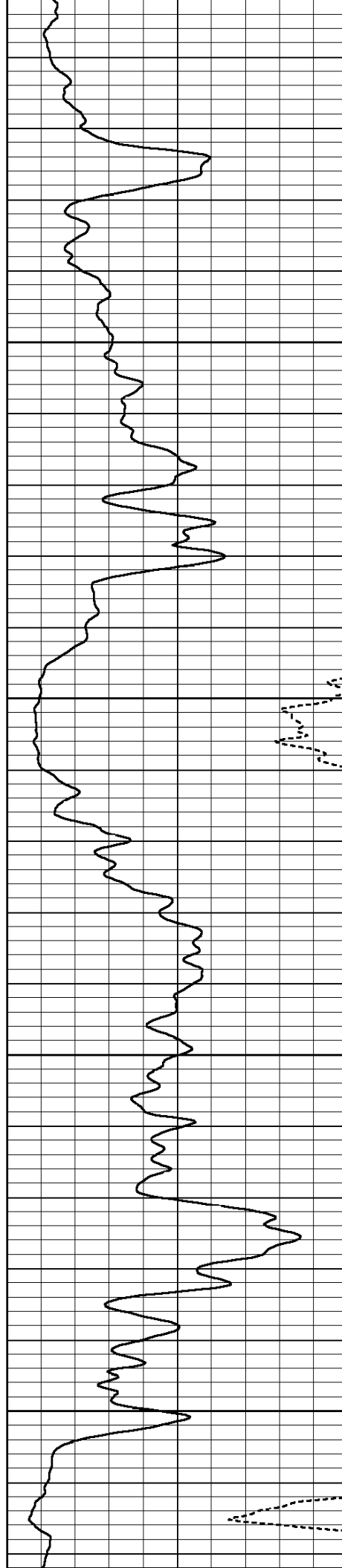
7500





7600

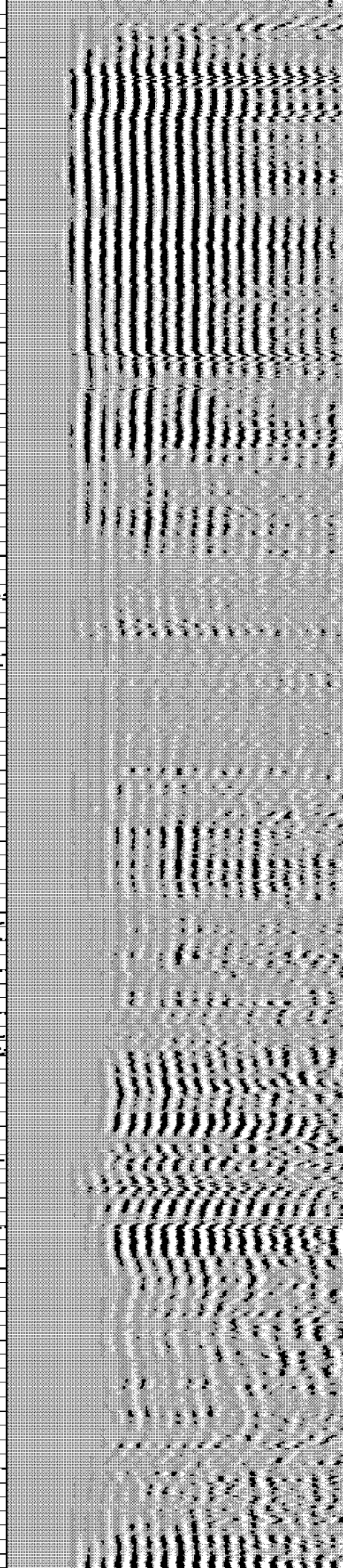
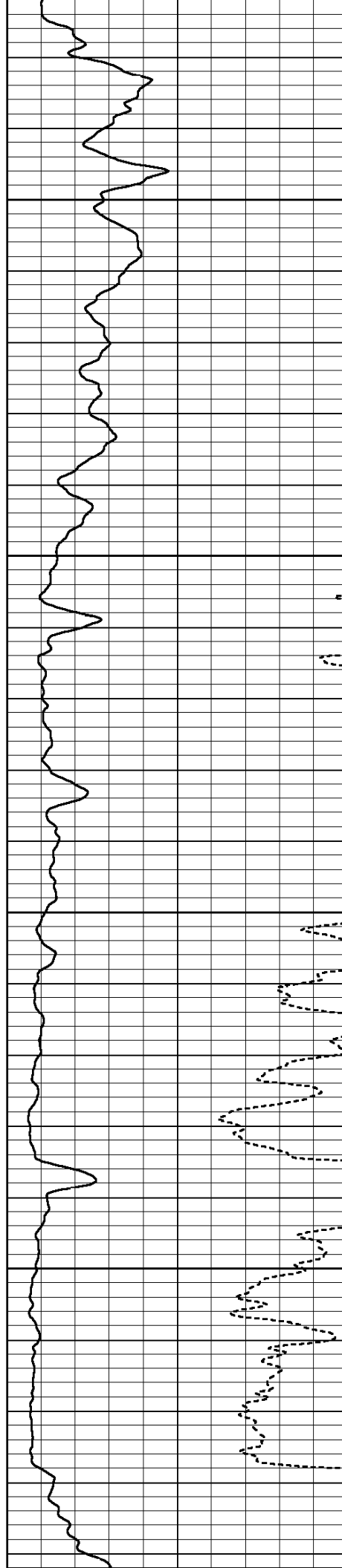
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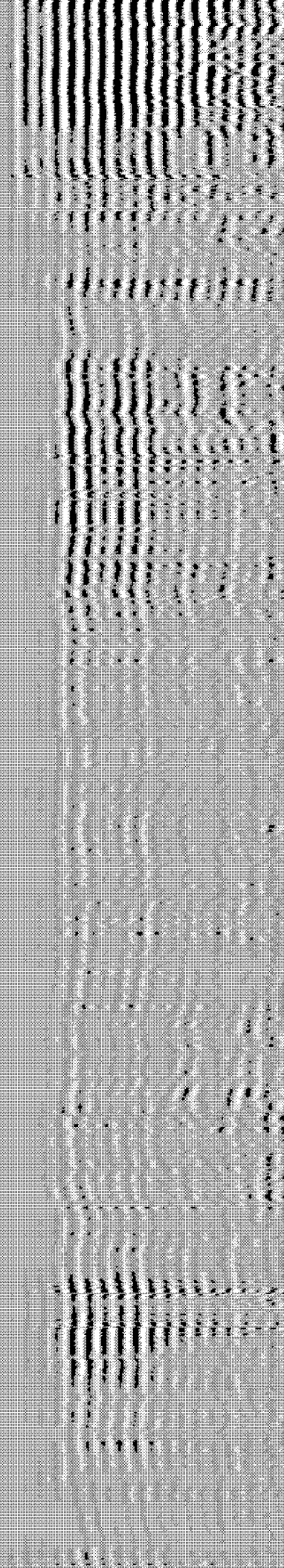
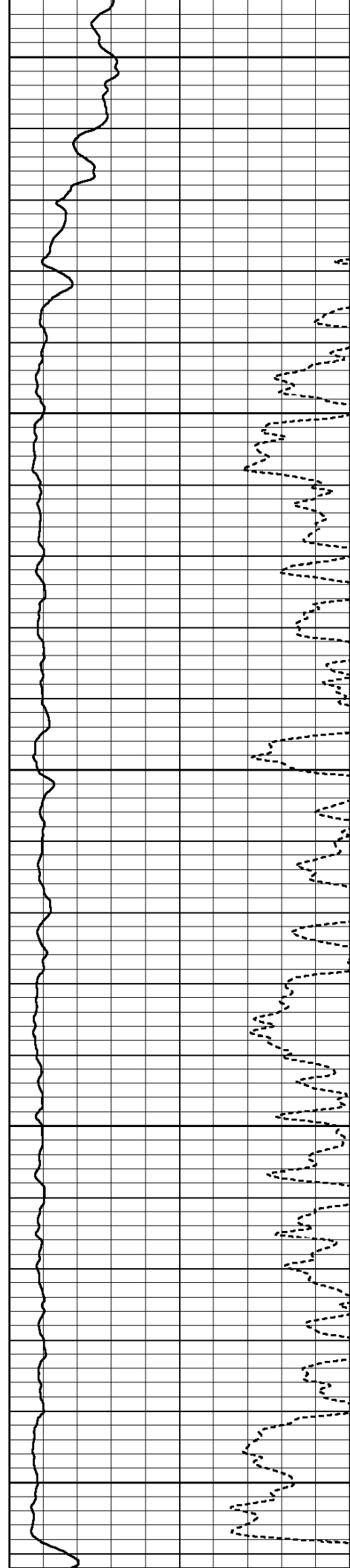
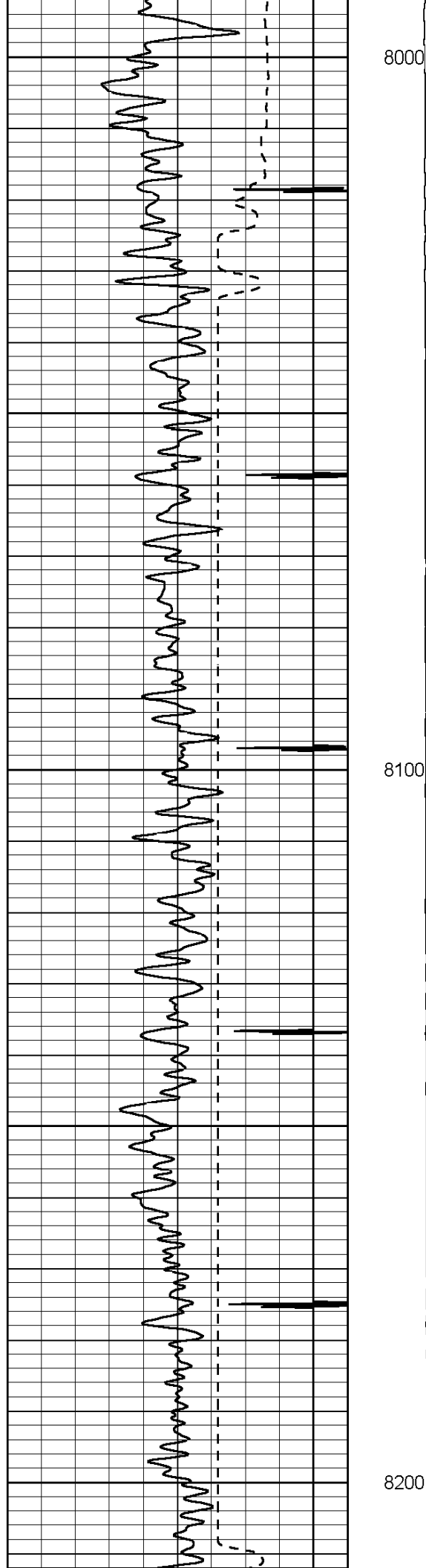


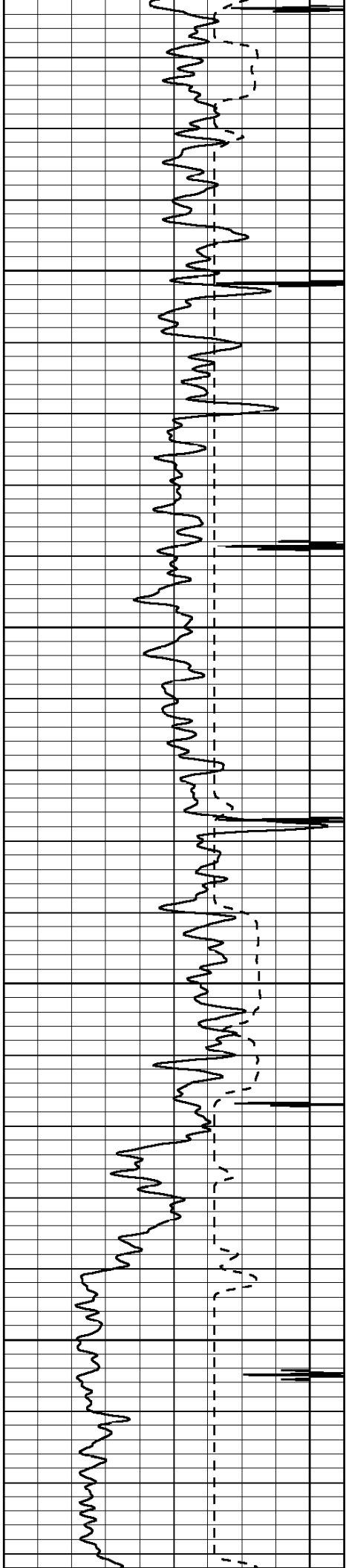


7800

7900

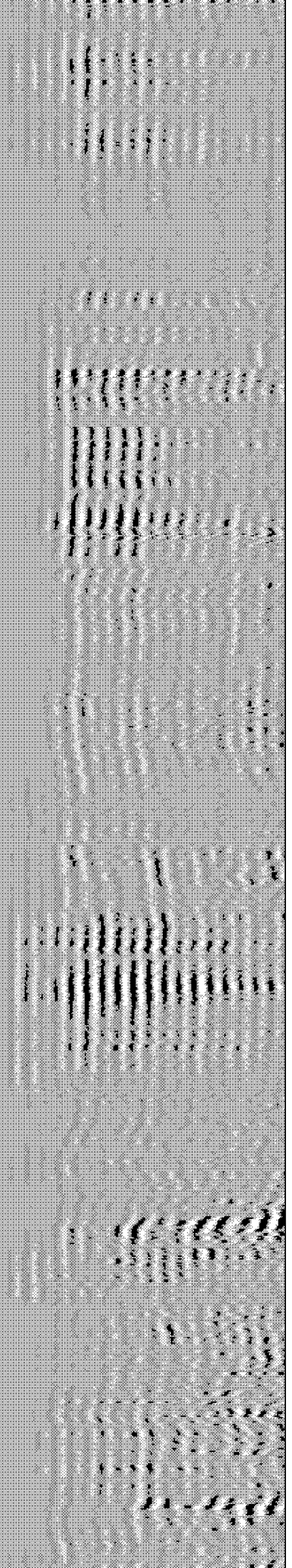
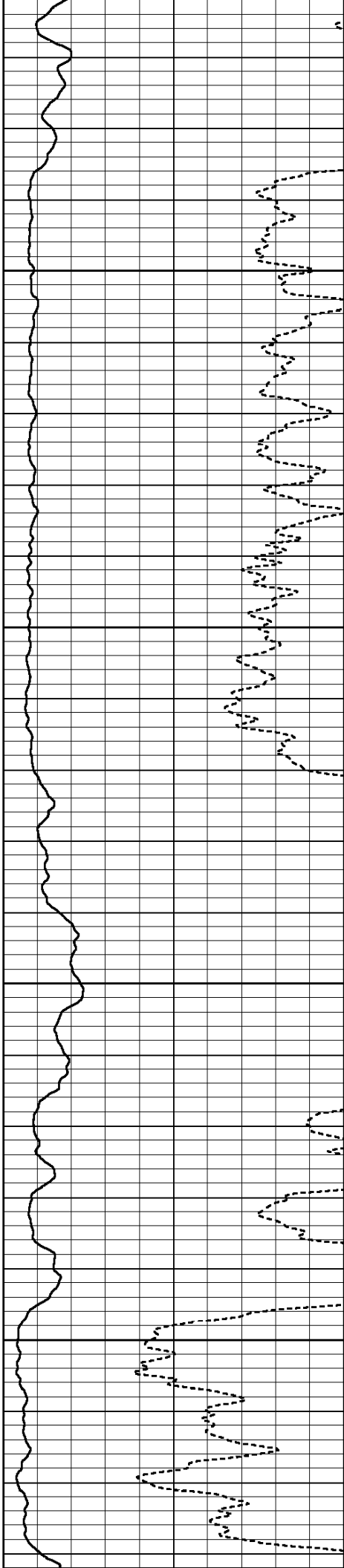


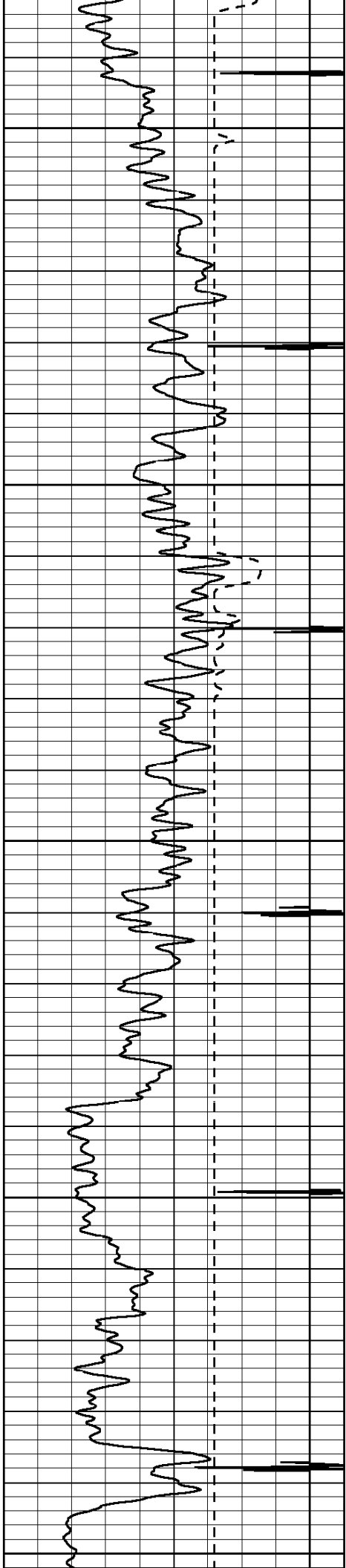




8300

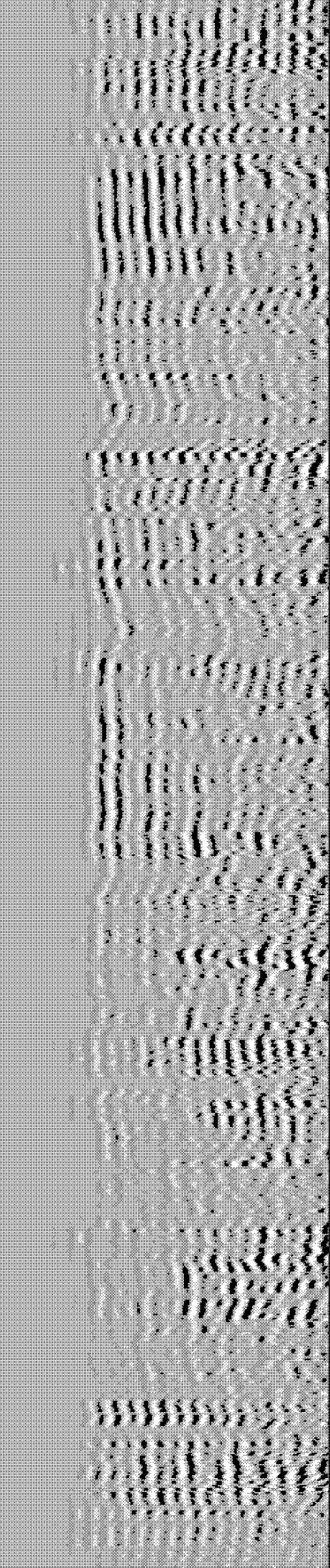
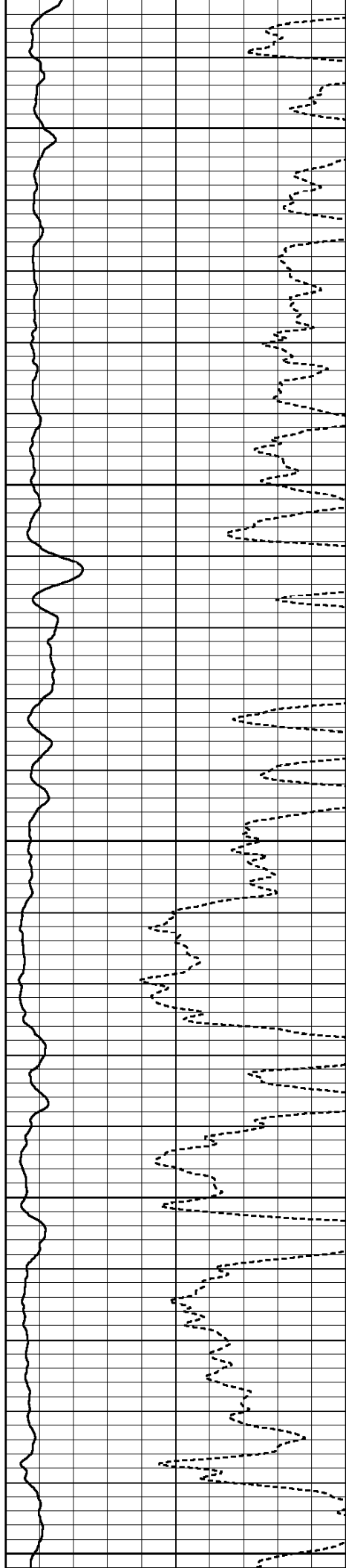
8400

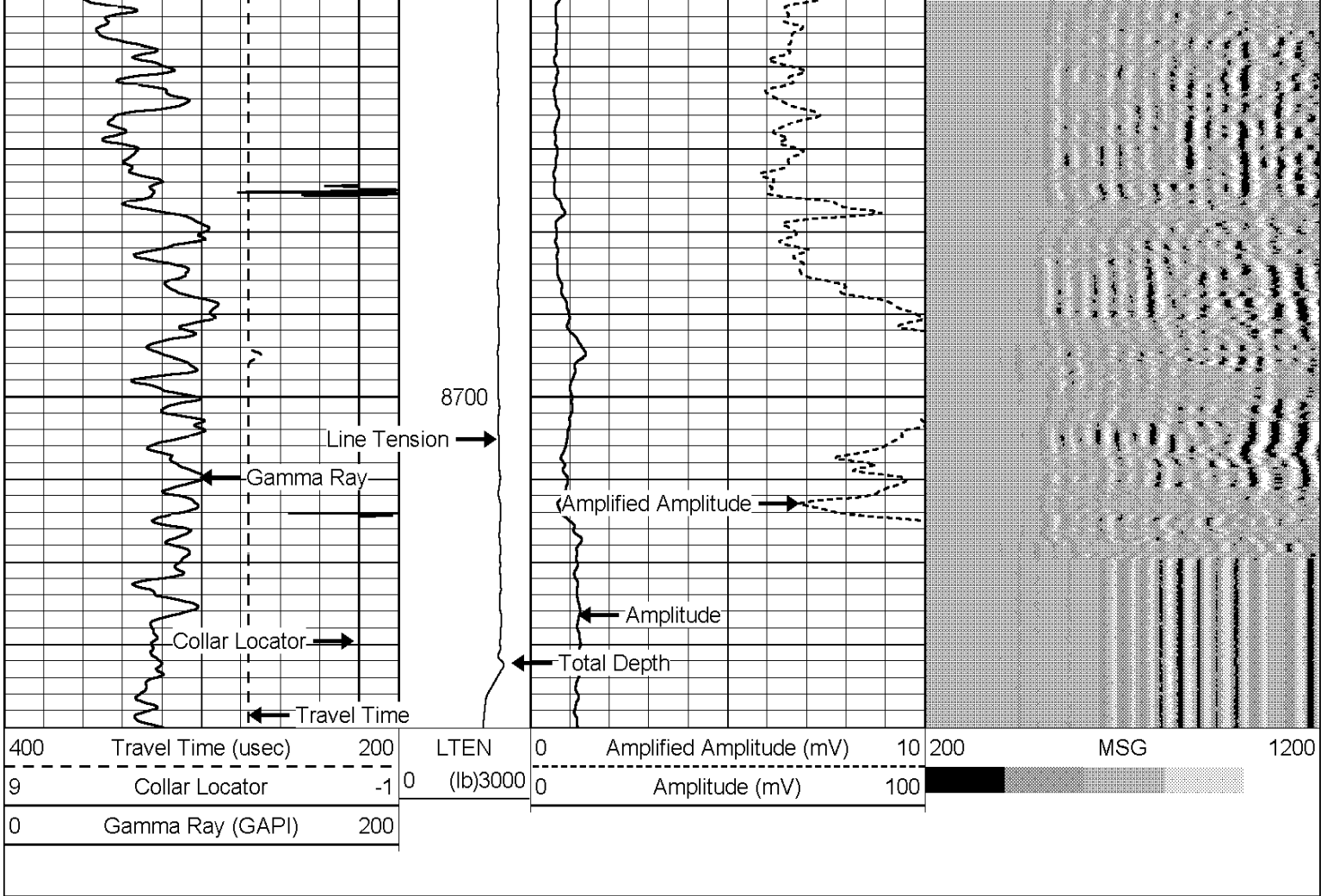




8500

8600





HALLIBURTON

ACOUSTIC CEMENT BOND LOG

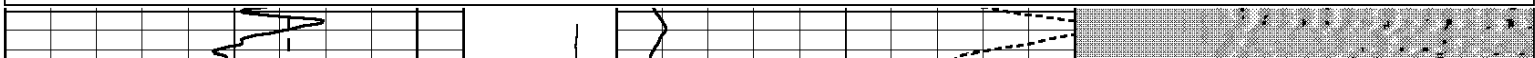
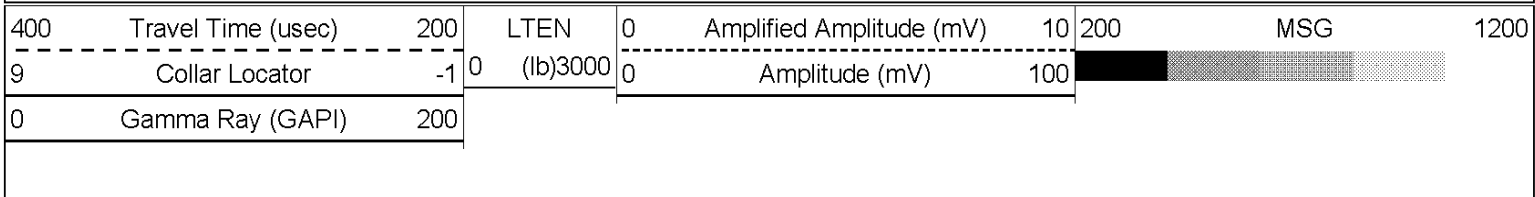
MAIN LOG SECTION
5"=100'

HALLIBURTON

ACOUSTIC CEMENT BOND LOG

REPEAT LOG SECTION
5"=100'

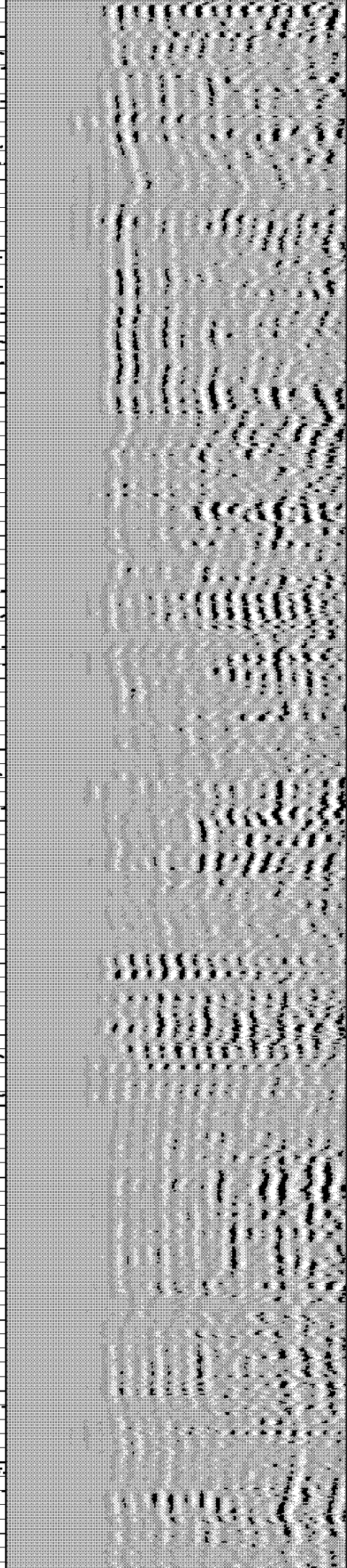
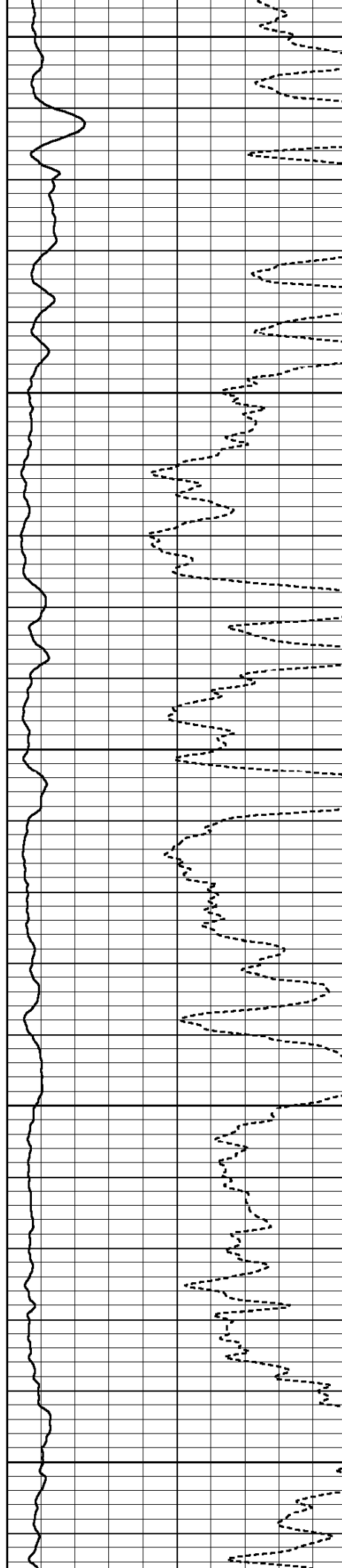
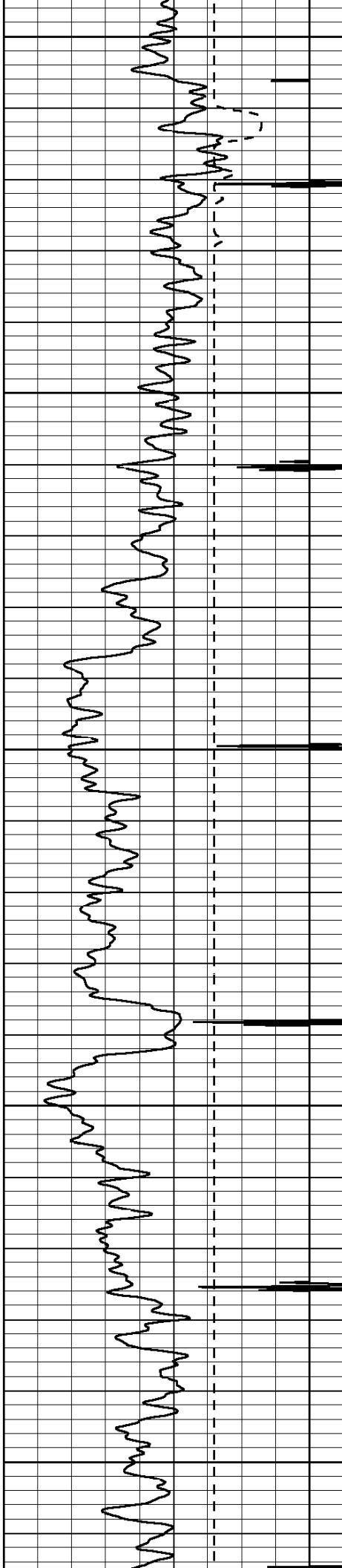
Database File: hilton_16_312d_cbl.db
Dataset Pathname: CBL/REPEAT
Presentation Format: cbl_main
Dataset Creation: Wed Aug 06 06:13:56 2008 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

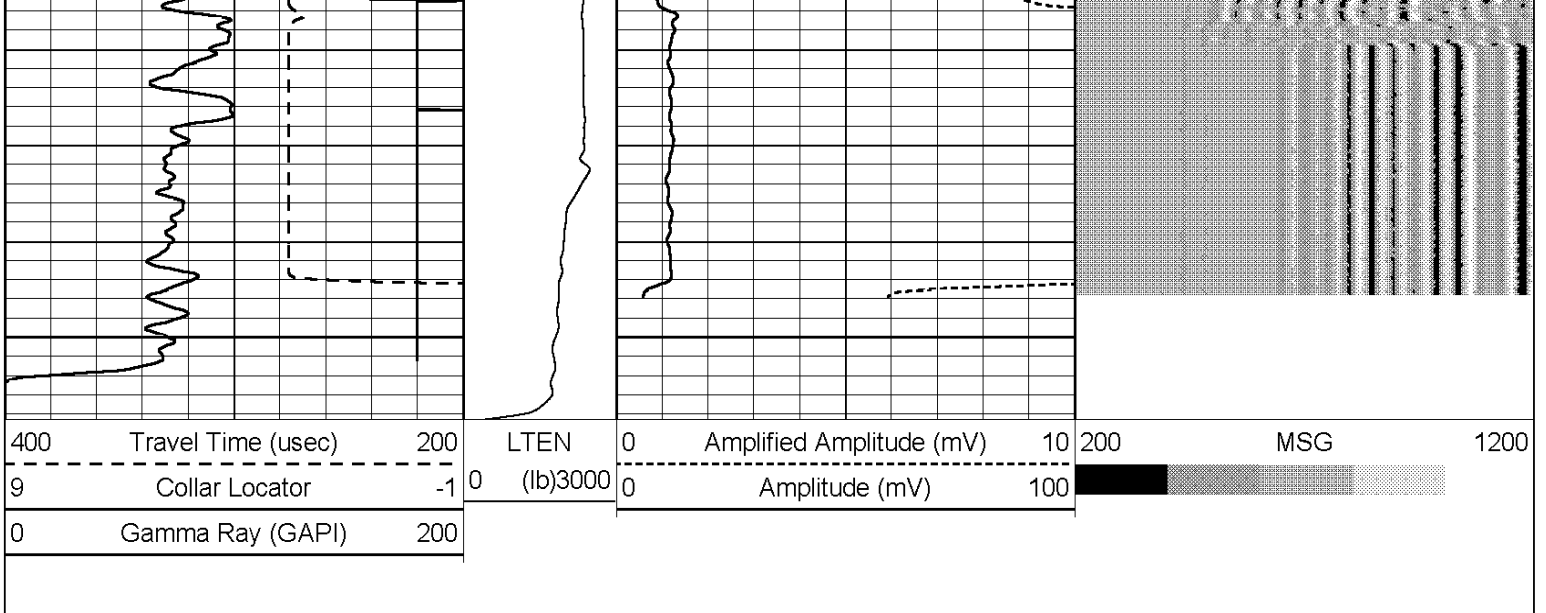


8500

8600

8700





HALLIBURTON

ACOUSTIC CEMENT BOND LOG

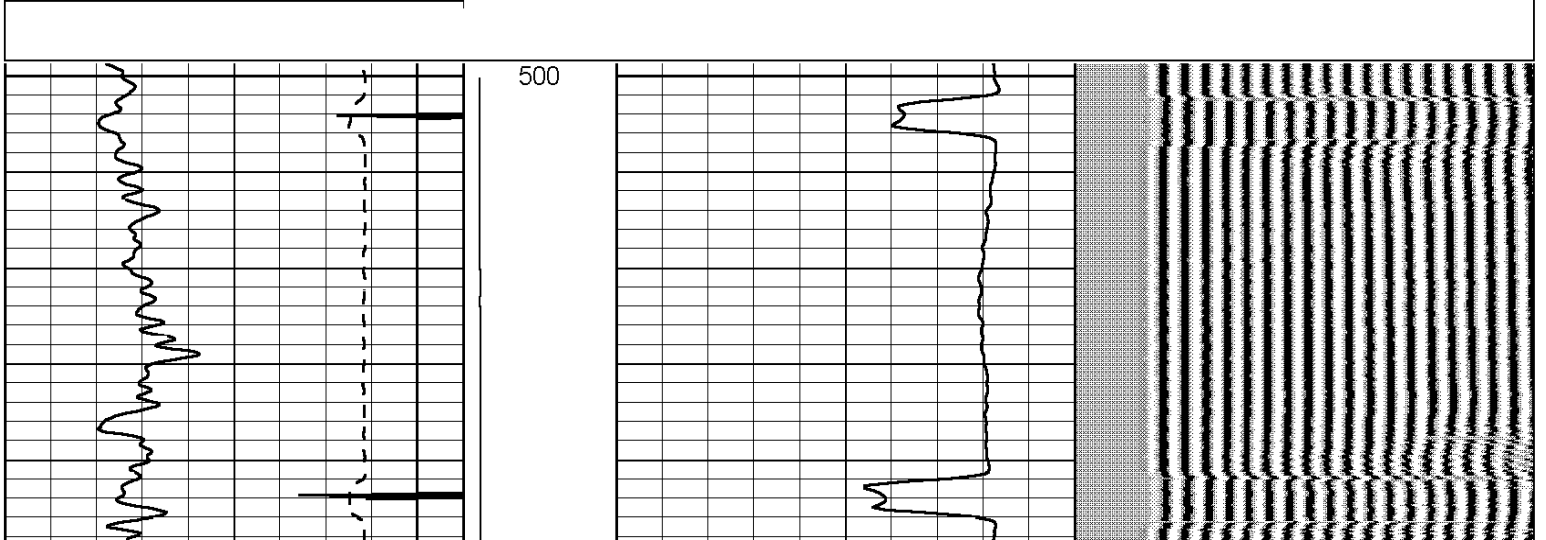
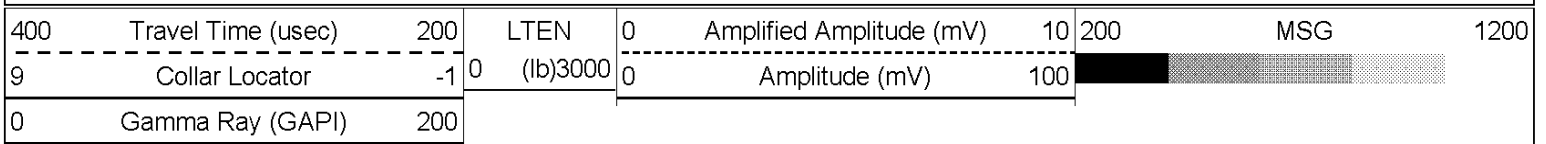
REPEAT LOG SECTION
5"=100'

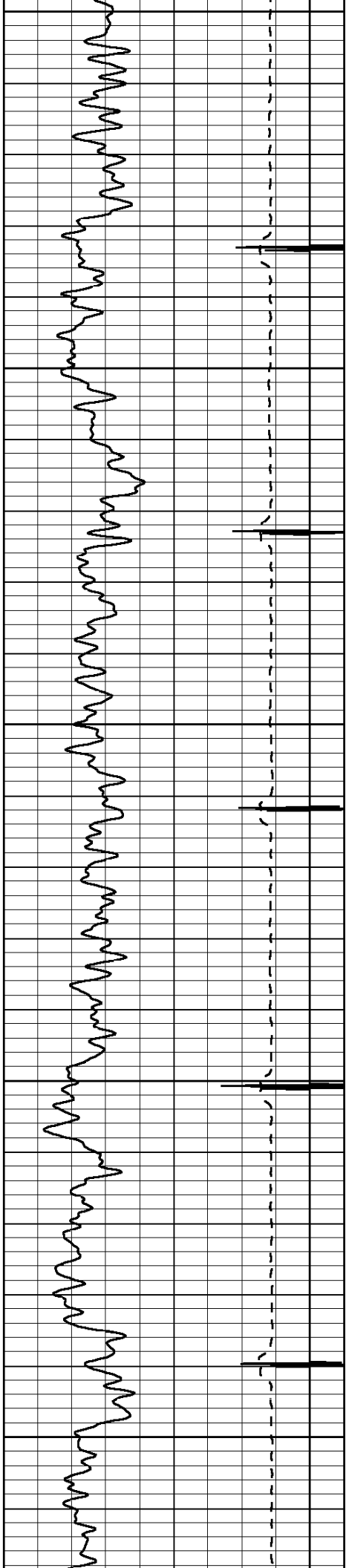
HALLIBURTON

ACOUSTIC CEMENT BOND LOG

FREE PIPE LOG SECTION
5"=100'

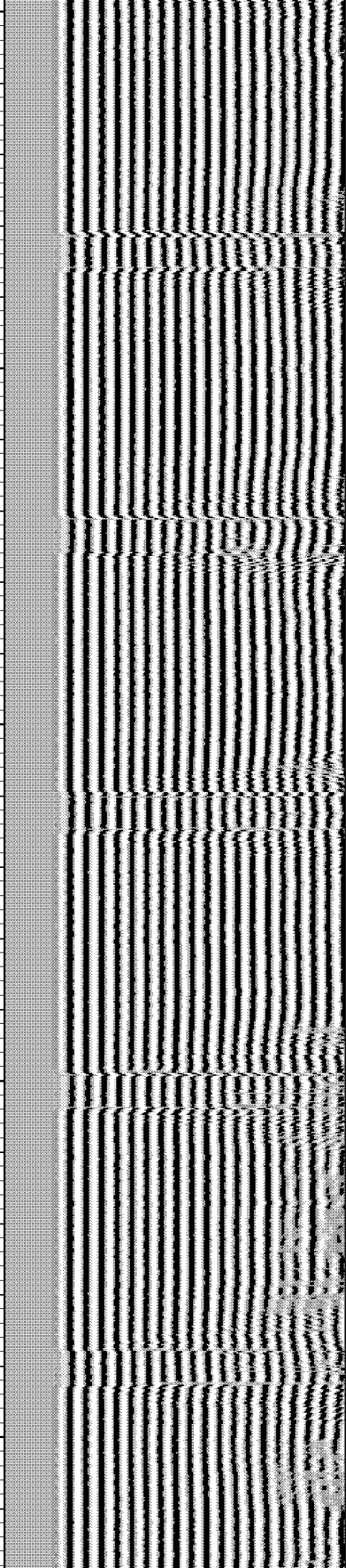
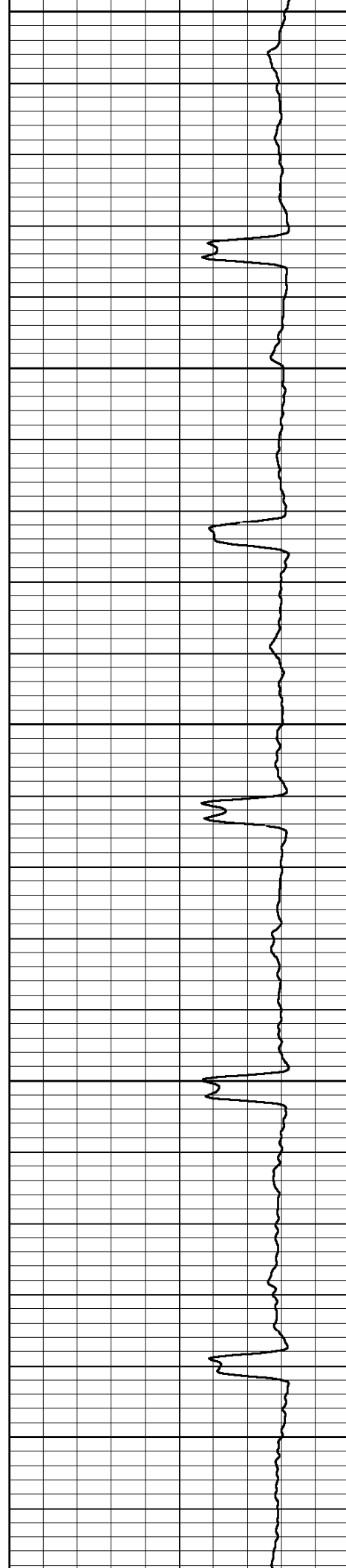
Database File: hilton_16_312d_cbl.db
 Dataset Pathname: CBL/FREE1
 Presentation Format: cbl_main
 Dataset Creation: Wed Aug 06 05:21:04 2008 by Log Halliburton Casedho
 Charted by: Depth in Feet scaled 1:240

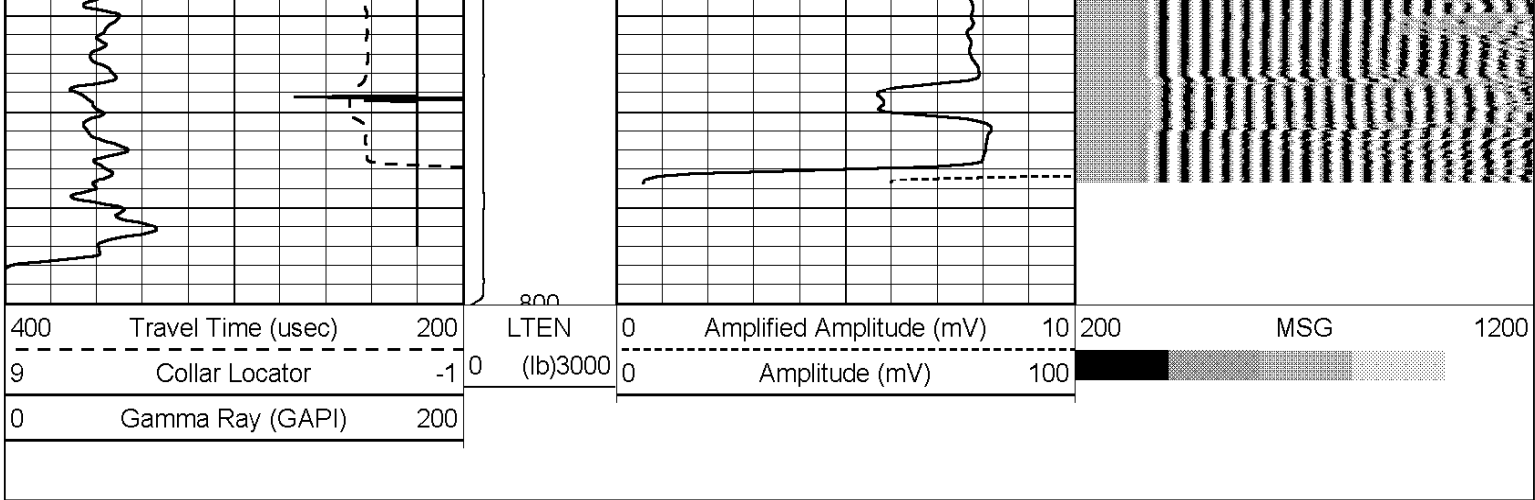




600

700





HALLIBURTON

ACOUSTIC CEMENT BOND LOG
FREE PIPE LOG SECTION
5"=100'

Calibration Report

Database File: hilton_16_312d_cbl.db
Dataset Pathname: CBL/MAIN
Dataset Creation: Wed Aug 06 06:22:16 2008 by Log Halliburton Casedho

Temperature Calibration Report					
Serial Number:	0001				
Tool Model:	1.375TEMP				
Performed:	Fri Jul 05 02:18:21 1996				
	Reference		Reading		
Low Reference:	0.00	degF	0.00	cps	
High Reference:	1.00	degF	1.00	cps	
Gain:	0.10				
Offset:	0.00				
Delta Spacing	1				

Gamma Ray Calibration Report					
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Type / Serial:	Probe / 061018
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SHOP CALIBRATION		Tue Aug 05 08:43:38 2008			
	Counts/Sec.	Gain	Offset	Jig	Units
Background	84.4				cps
Calibrator	402.0				cps
		0.7430			GAPI/cps
PRIMARY VERIFICATION		Tue Aug 05 08:47:14 2008			
Background	63.6				cps
Calibrator	298.0				cps
Difference				234.4	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps

Difference

0.0

GAPI

AFTER SURVEY VERIFICATION

Background 0.0
 Calibrator 0.0
 Difference

0.0

cps
 cps
 GAPI

Cement Bond Log Calibration Report

Serial Number: 061115
 Tool Model: Probe
 Performed: Wed Aug 06 05:19:24 2008

Depth: 658.997 ft
 Casing Diameter: 4.5 in

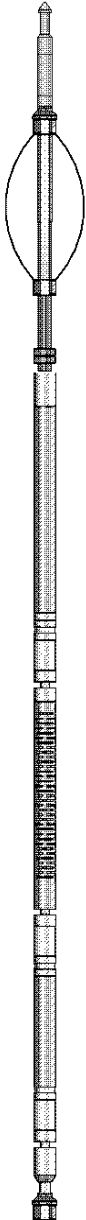
3' Spacing

5' Spacing

Signal Zero: 2 mV
 Calibrated Amplitude: 81.1961 mV
 Reading at Signal Zero: -0.00964355 V
 Reading in Free Pipe: 0.184497 V

Gain: 407.932
 Offset: 5.93391

425.649
 6.16712

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			STNDRD Standard Cable Head - F.N. 1 3/8"	1.15	1.44	1.10
			CENT-Probe (PT_MONO2)	2.88	2.75	35.00
WVF3	13.86		CBL-Probe (061115) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
WVF5	12.86					

				CENT-Probe (PT_MONO2)	2.88	2.75	35.00
CCL	6.00						
GR	4.42			GR-Probe (061018) Probe 2.75" 4 Channel Pulse	4.92	2.75	30.00
TEMP	0.58			TEMP-1.375TEMP (0001) Temperature Tool	1.88	1.38	30.00
LLMTEN	0.00						
<div> <div> Dataset: Total Length: Total Weight: O.D. </div> <div> hilton_16_312d_cbl.db: field/well/CBL/MAIN 22.62 ft 191.10 lb 2.75 in </div> </div>							

Company	ORION ENERGY PARTNERS		
Well	HILTON 16-312D		
Field	MAMM CREEK		
County	GARFIELD	State	CO
HALLIBURTON		ACOUSTIC CEMENT BOND LOG	