



VDL CCL GAMMA-RAY CEMENT BOND LOG

Pioneer Energy Services

Company GREAT WESTERN
Well GRAND #1
Field WATTENBERG
County ADAMS State COLORADO

Location: API #: Other Services

SEC 15 TWP 1S RGE 65W
Permanent Datum GL
Log Measured From KB
Drilling Measured From KB
Elevation
GYRO
K.B.
D.F.
G.L.

Company GREAT WESTERN
Well GRAND #1
Field WATTENBERG
County ADAMS
State COLORADO

Date 7/1/13

Run Number ONE
Depth Driller 8140'
Depth Logger 7700'
Bottom Logged Interval 7690'
Top Log Interval 16'
Open Hole Size 7 7/8"
Type Fluid WATER
Density / Viscosity NA
Max. Recorded Temp. 206 DEG. F
Estimated Cement Top 7270'
Time Well Ready NA
Time Logger on Bottom NA
Equipment Number 9605
Location FT MORGAN
Recorded By TODD YOUNG
Witnessed By SHAWN AEMSTRONG

Borehole Record Bit From To Size Weight From To

Casing Record Surface String Size Wgt/Ft Top Bottom

Prot. String 4.5" 11.6# SURFACE TD
Production String
Liner


<<< Fold Here >>>


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

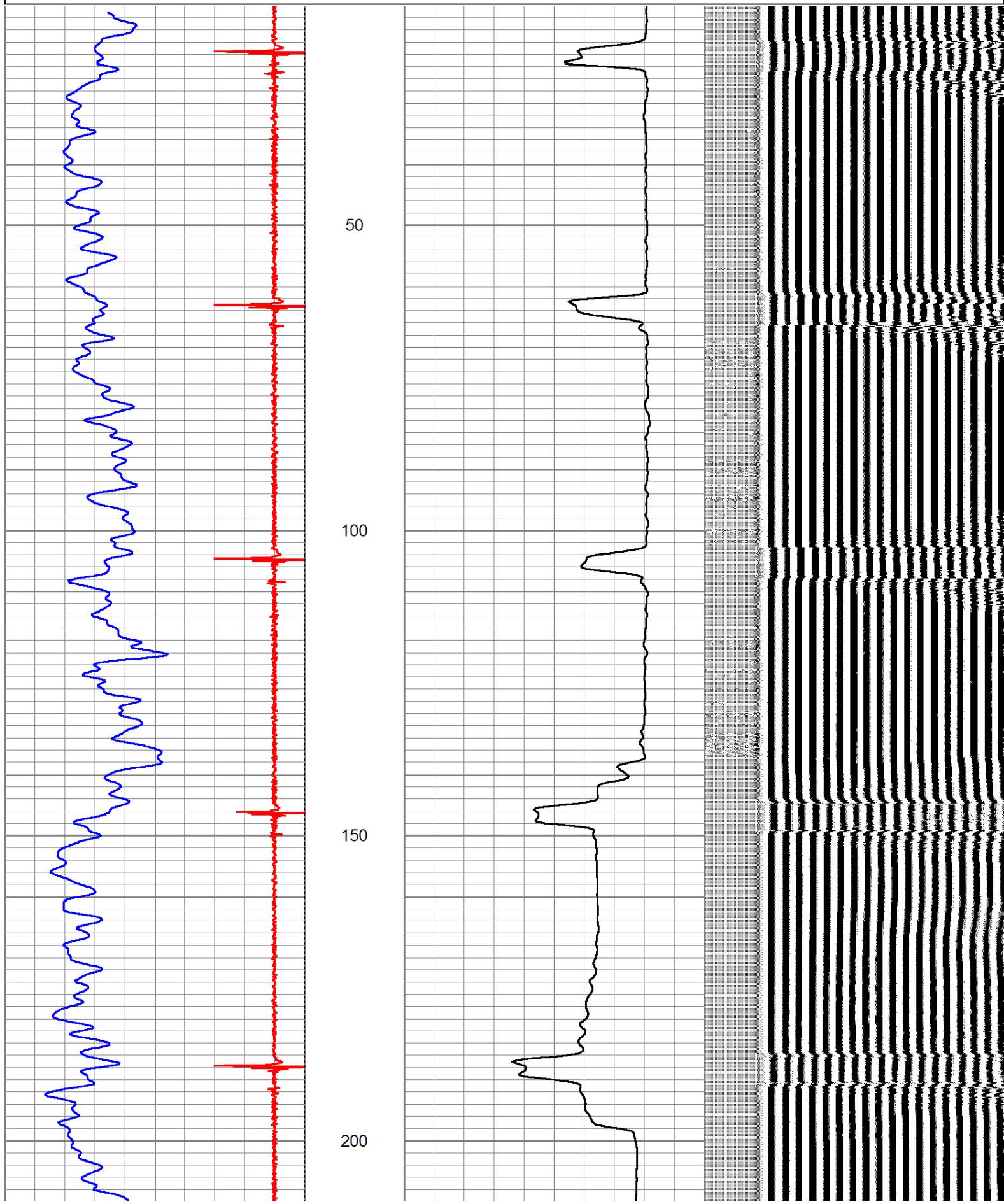
SO # 2-204180

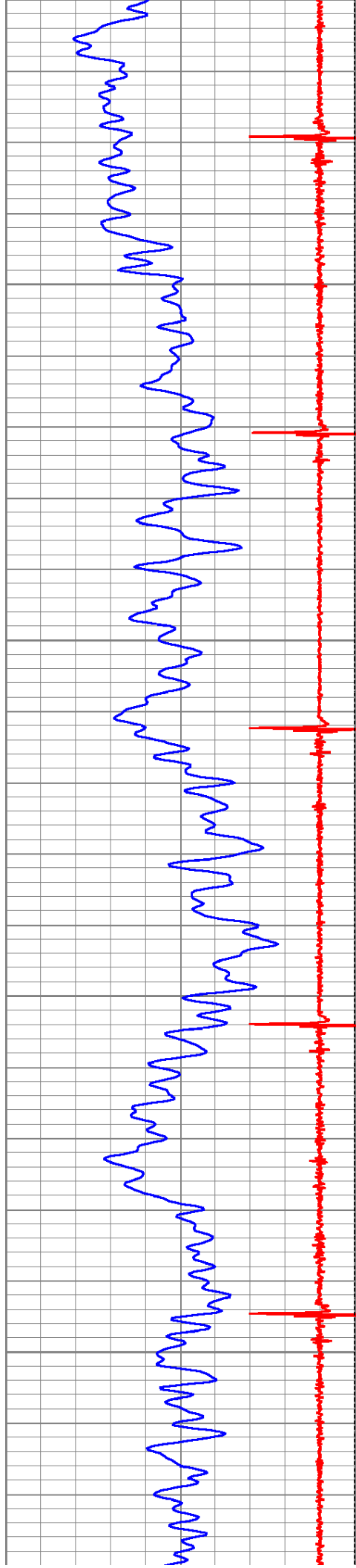
THANK YOU FOR USING
PIONEER ENERGY SERVICES

| Sensor | Offset (ft) | Schematic | Description | Len (ft) | OD (in) | Wt (lb) |
|--------|-------------|-------------------------------------------------------------------------------------|-------------------|----------|---------|---------|
| CCL | 19.98 |  | CCL-titan01 (01t) | 1.92 | 2.75 | |

| | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------|-------|--|----------------------------------------------------------------------------------|--|------|------|--------|--|
| | | |  | | | | | |
| | | | SDSCENT Centralizer for testing | | 3.00 | 3.25 | 20.00 | |
| WVF3 | 11.58 | | CBL-Probe (050215) 2.75 digital probe | | 8.75 | 2.75 | 106.50 | |
| WVF5 | 10.58 | | | | | | | |
| | | | SDSCENT Centralizer for testing | | 3.00 | 3.25 | 20.00 | |
| GR | 1.13 | | GR-probe 2.75 (51013) PROBE_GCT | | 4.33 | 2.75 | 100.00 | |
| Dataset: grand #1.db: field/well/run1/pass8 Total Length: 21.00 ft Total Weight: 246.50 lb O.D. 3.25 in | | | | | | | | |

| | | | | | | | | | |
|---|------------------|-----|------------|---|--------------------------|-----|-----|------------------|------|
| 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 | | | |



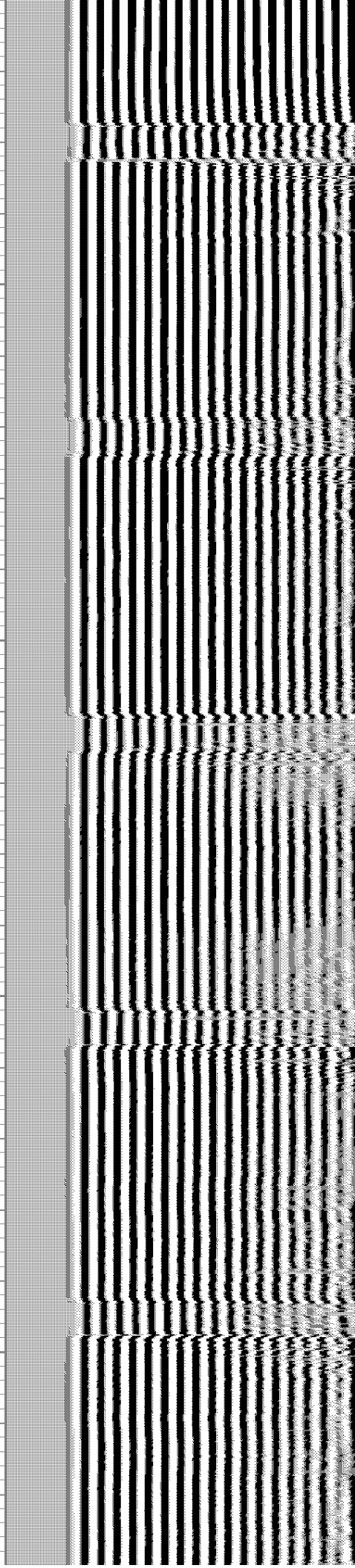
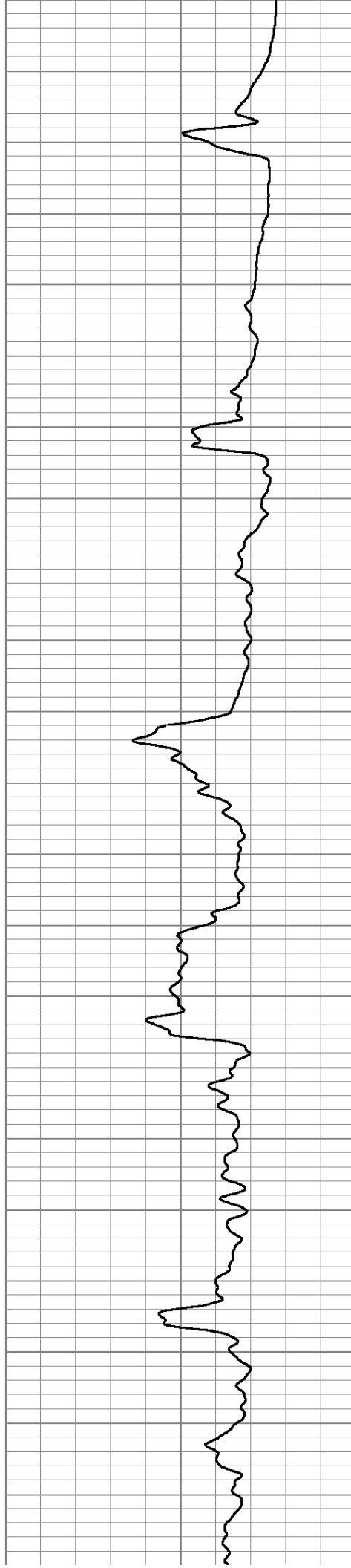


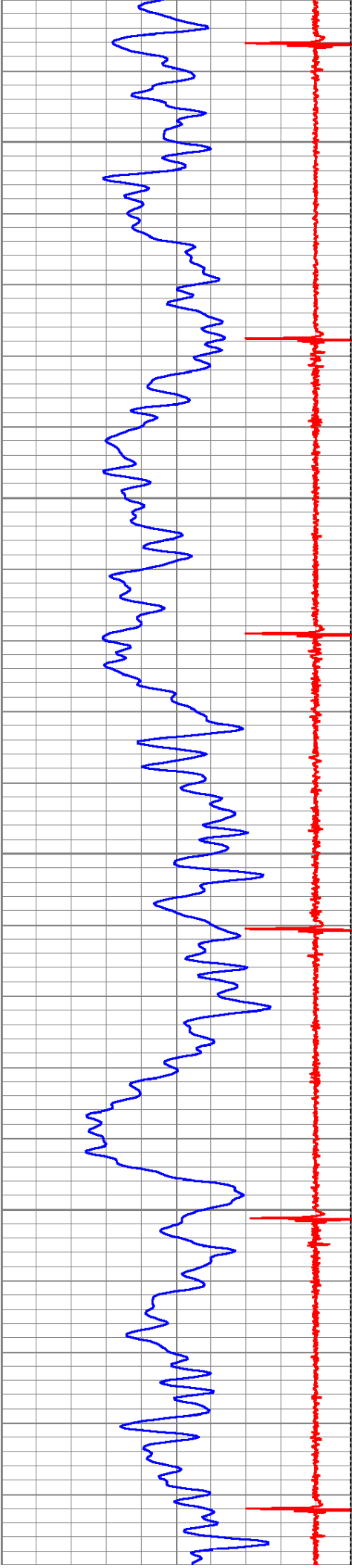
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300

350

400





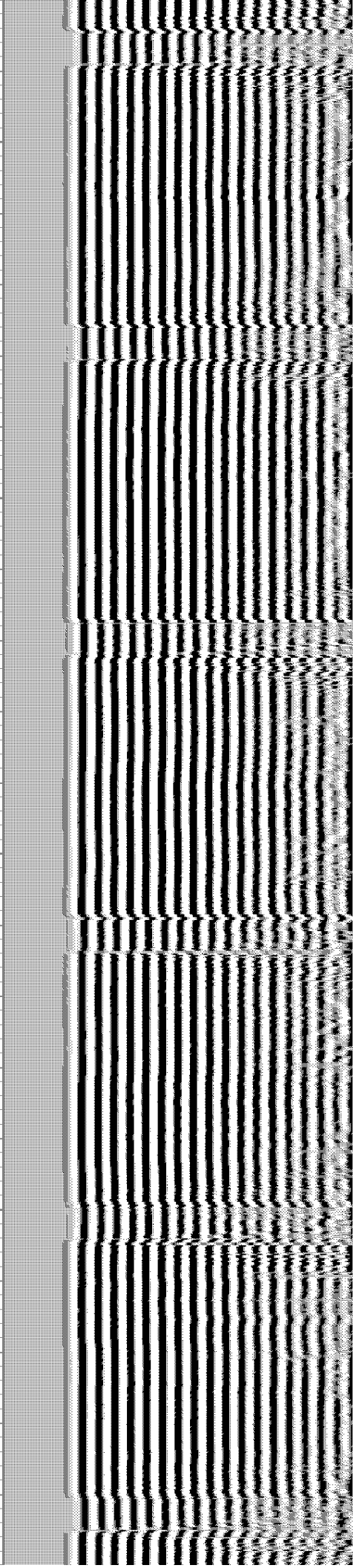
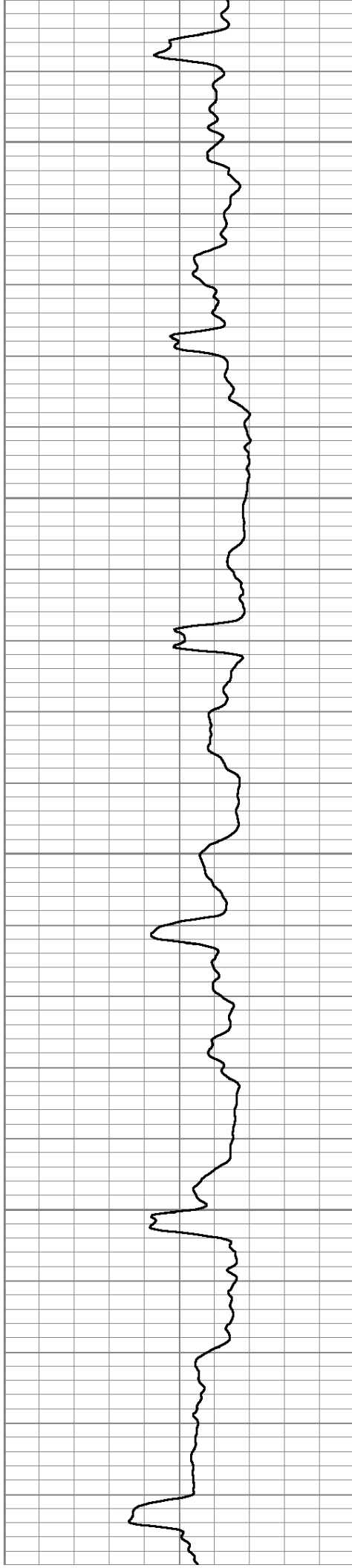
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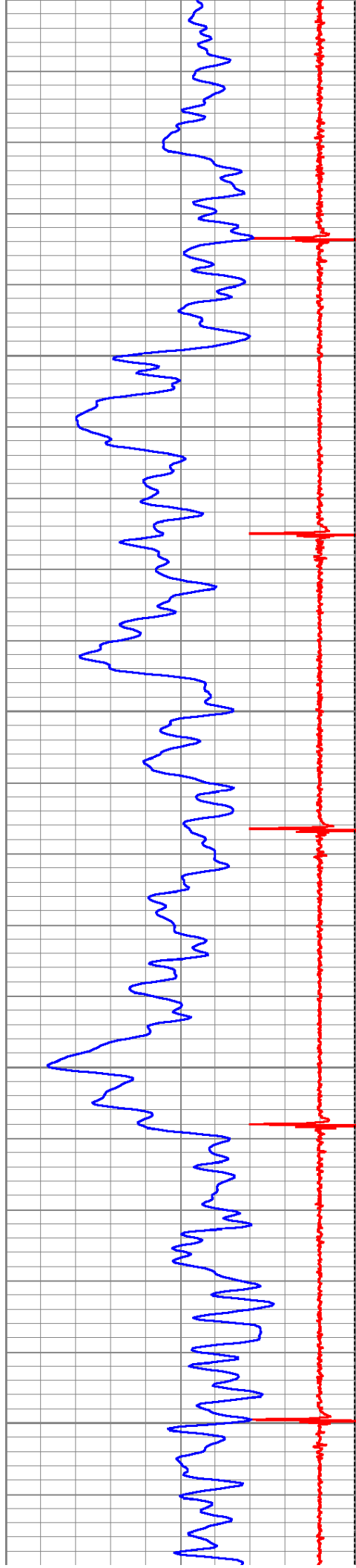
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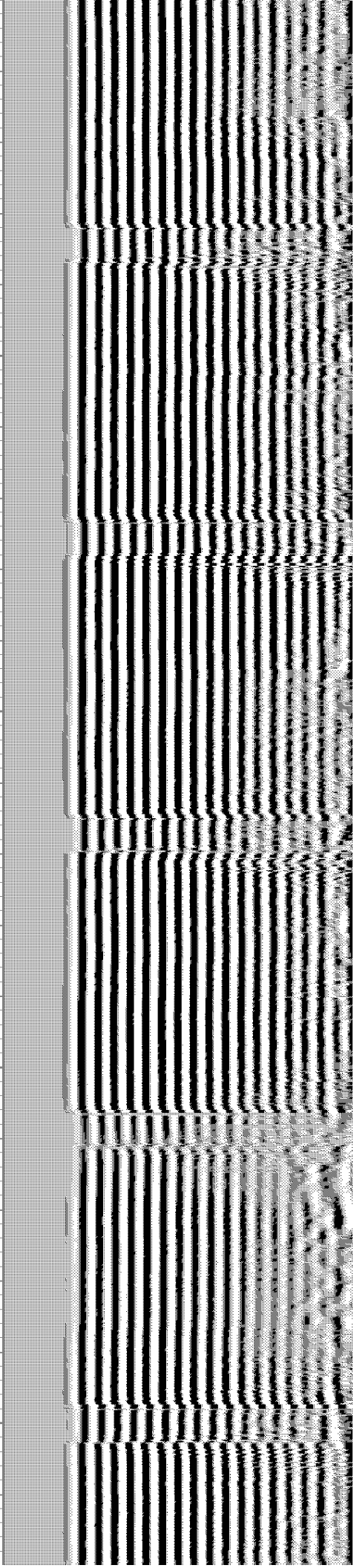
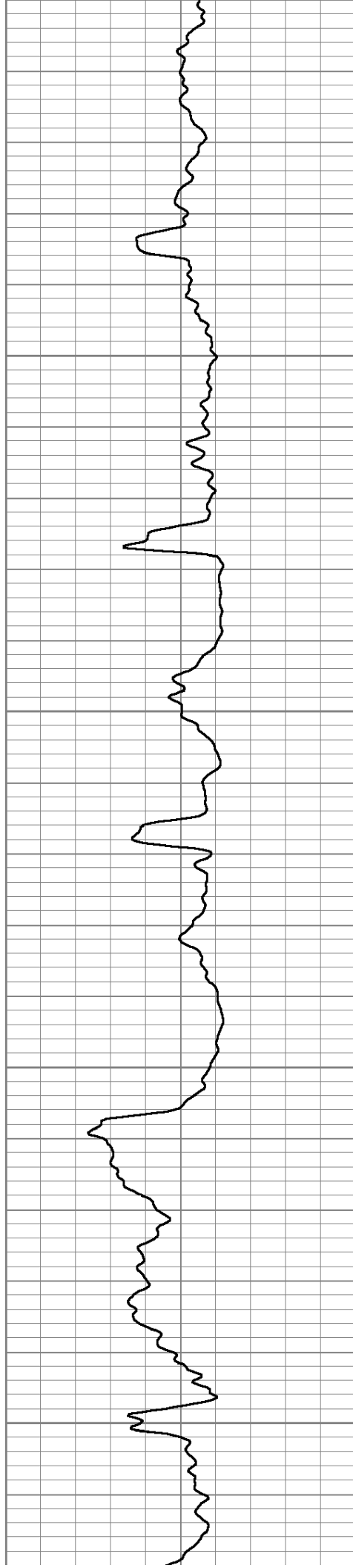
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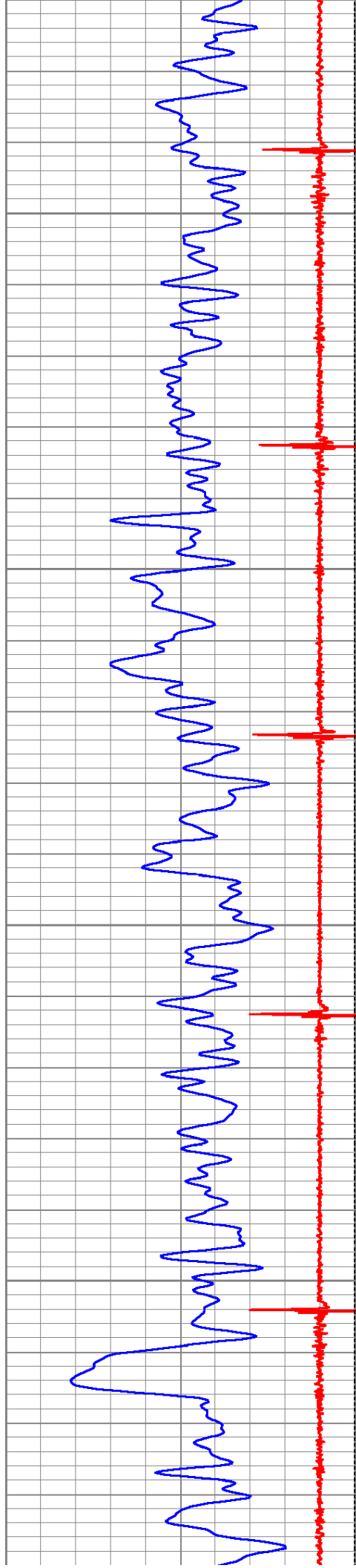
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650 700 750 800 850



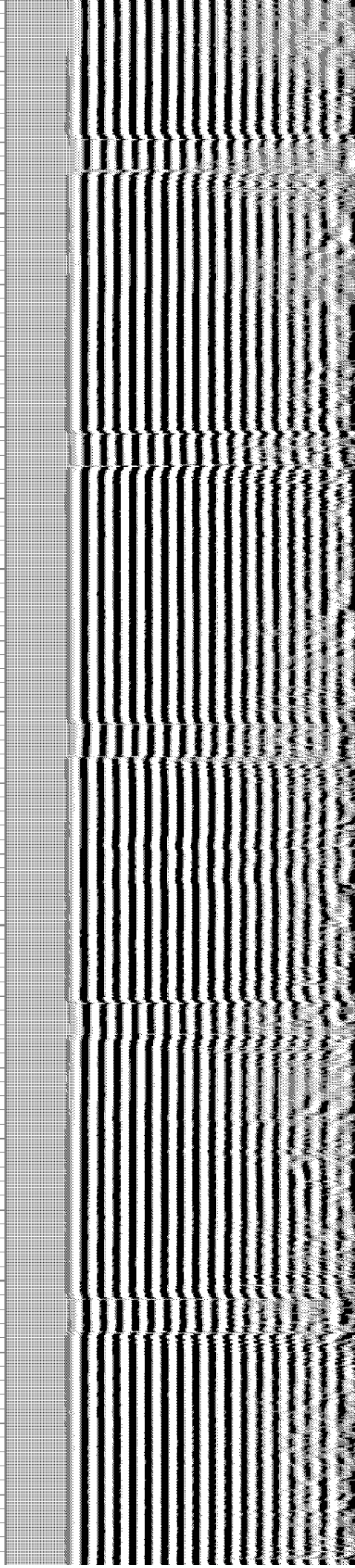
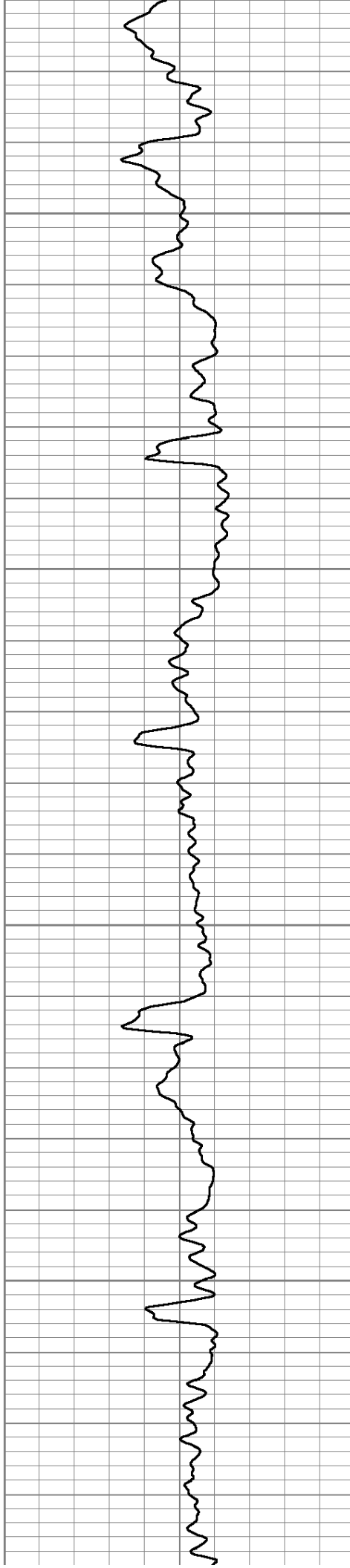


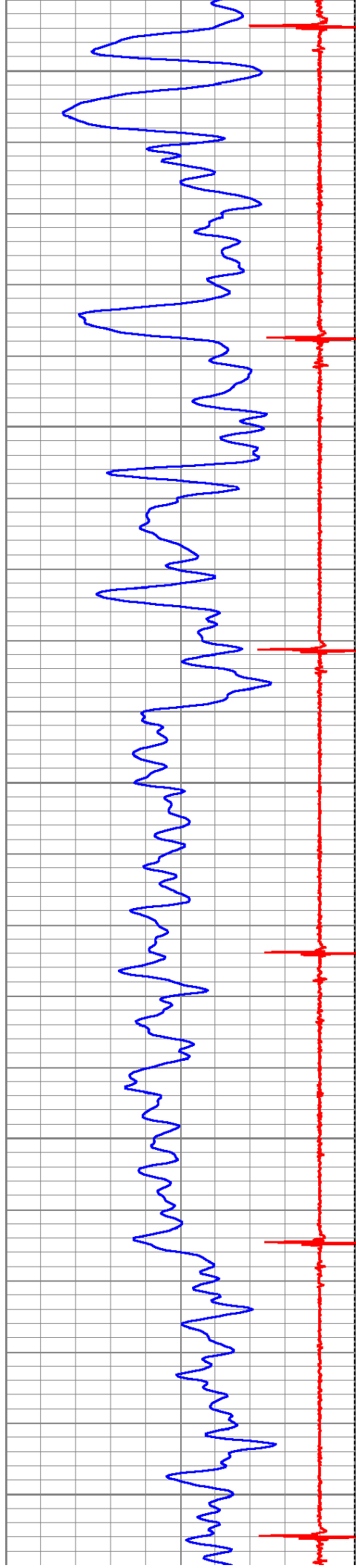
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950

1000

1050





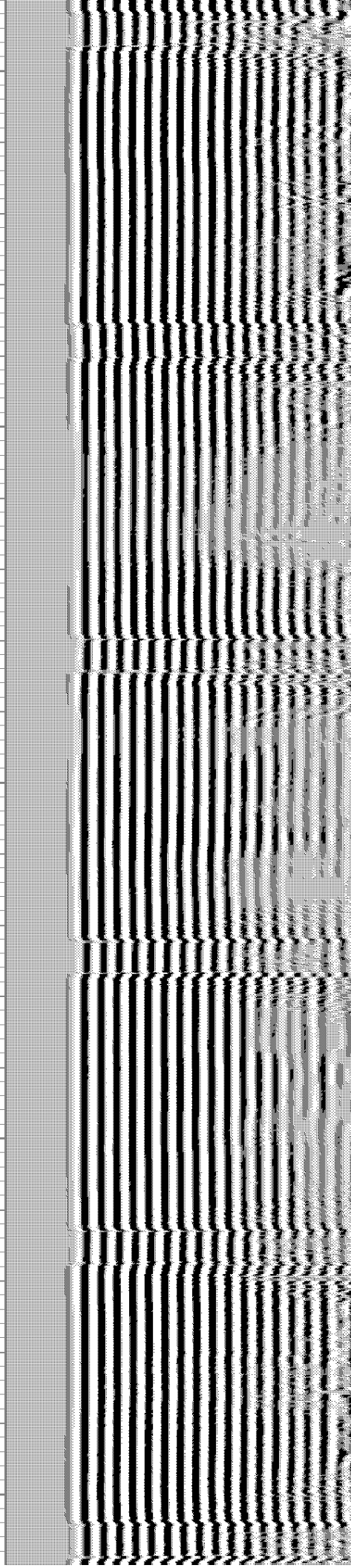
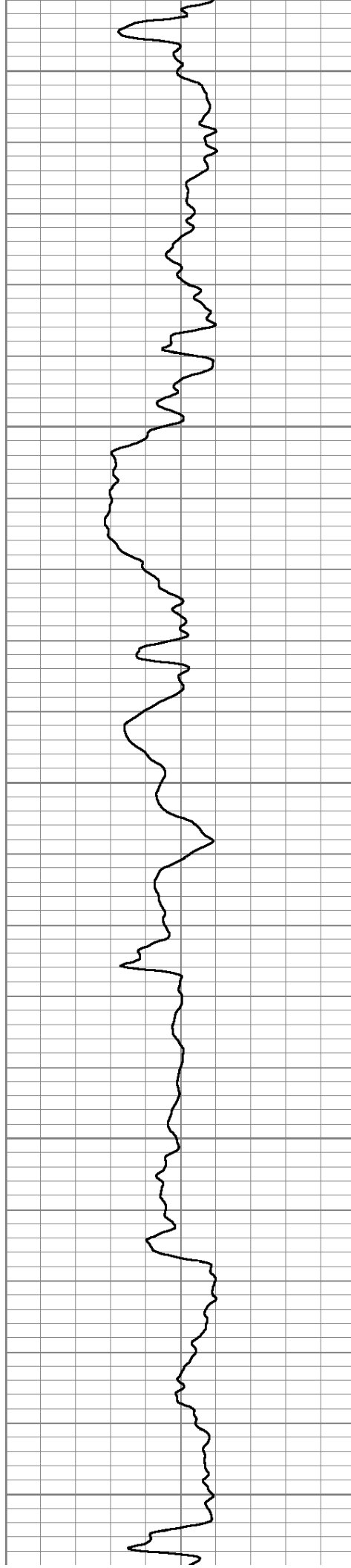
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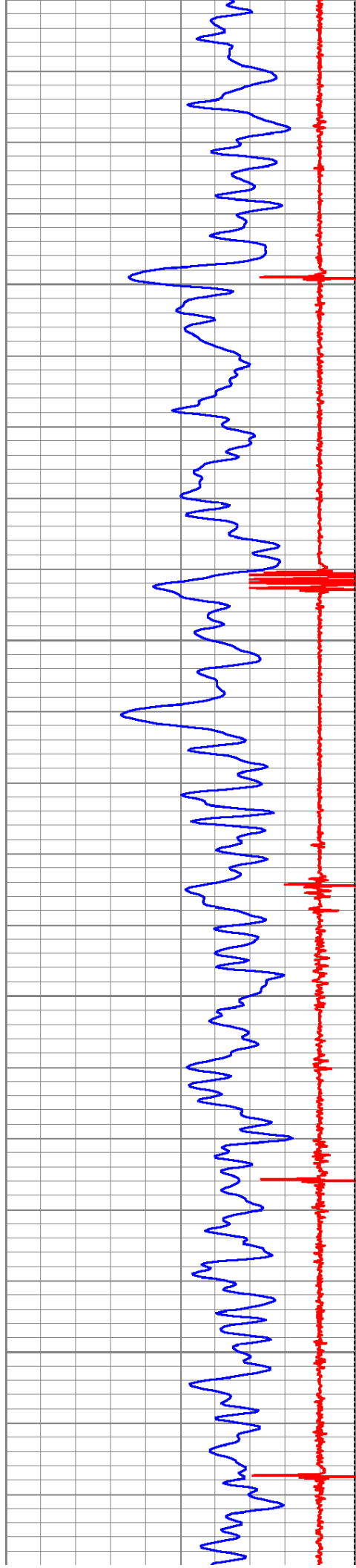
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1250

1300



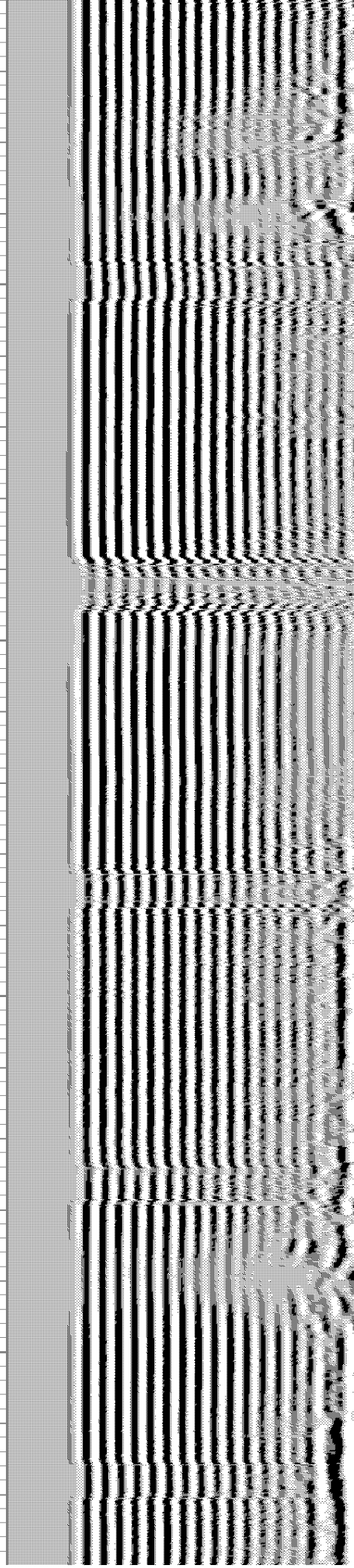
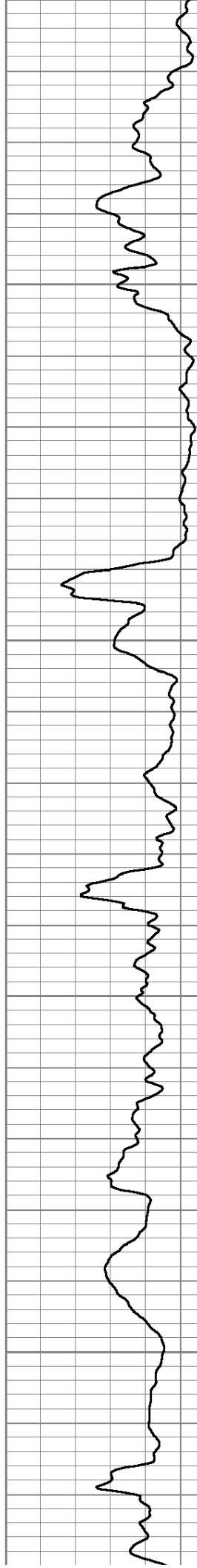


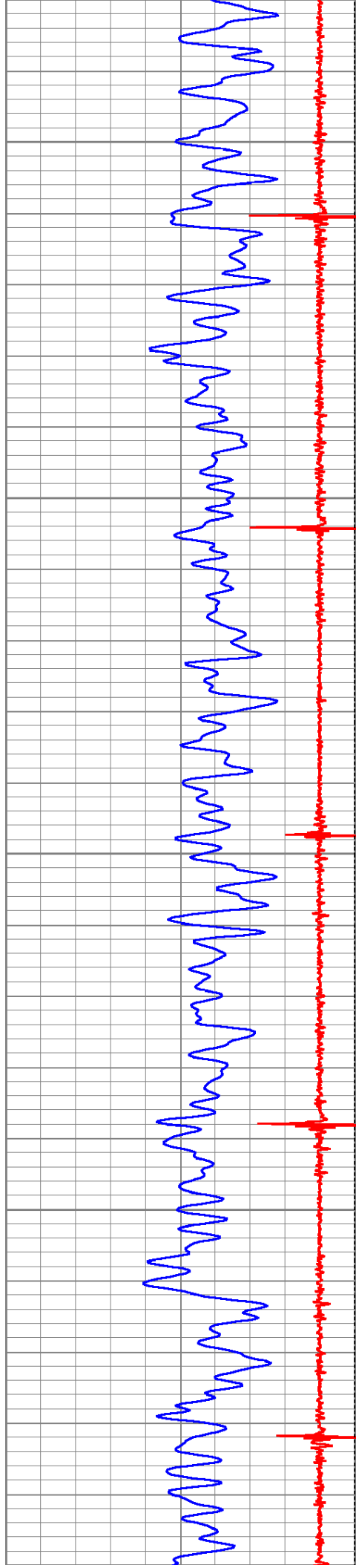
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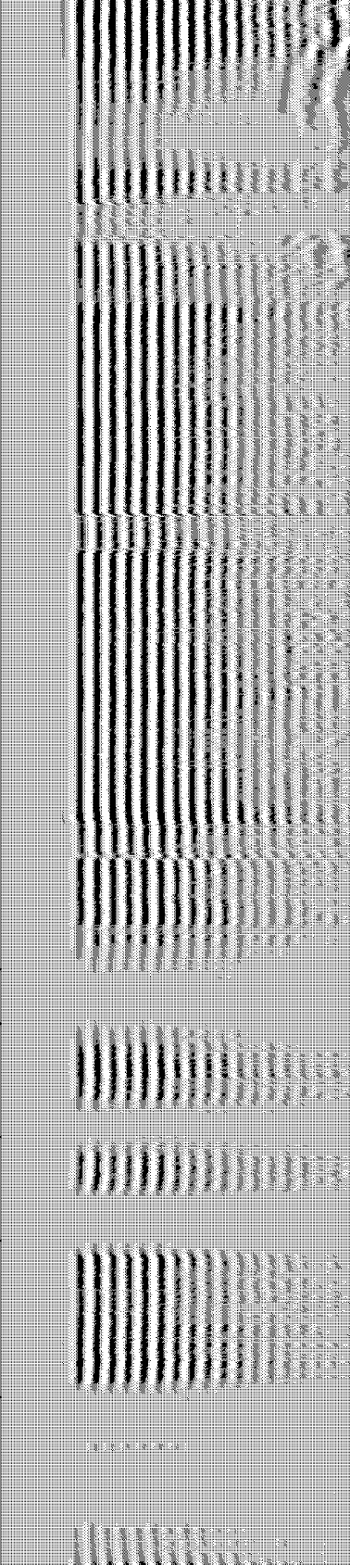
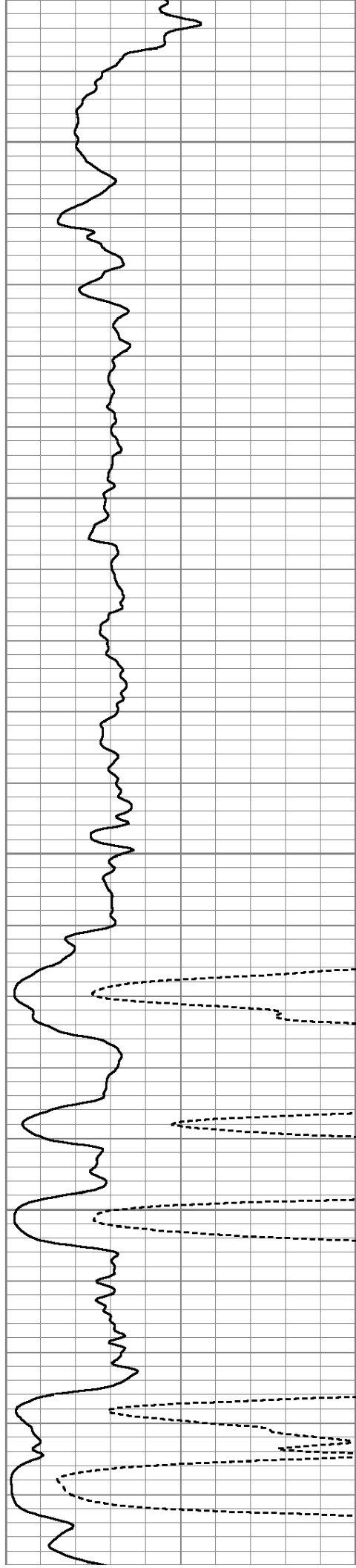
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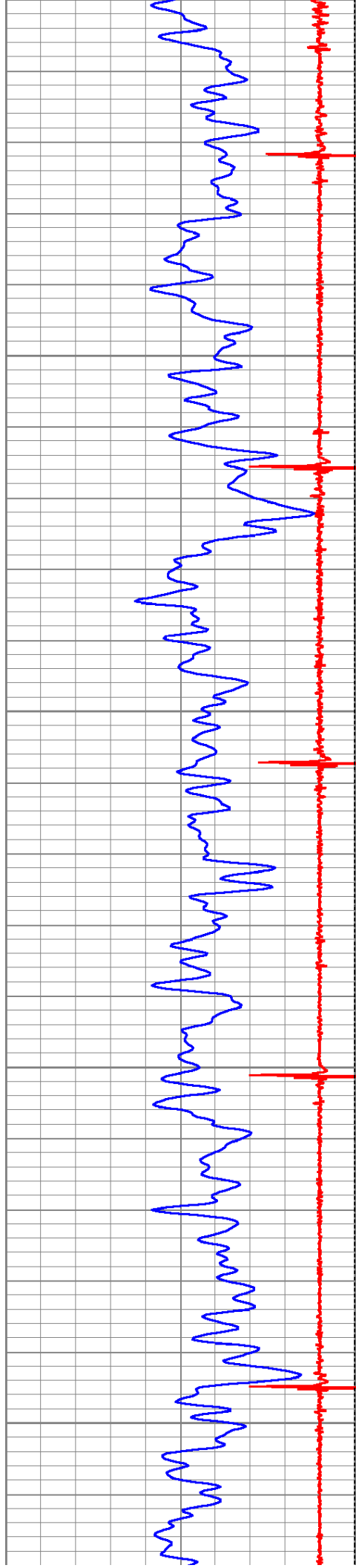
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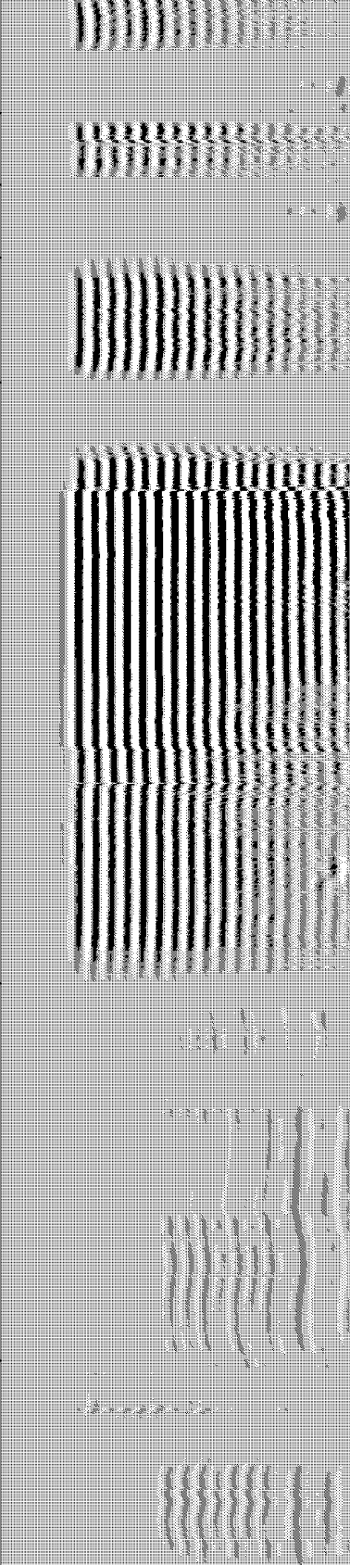
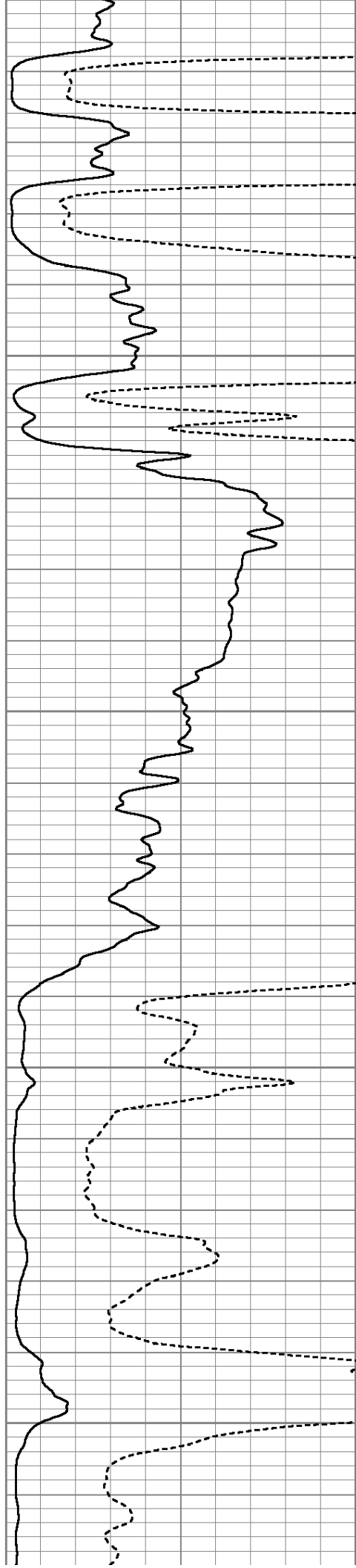
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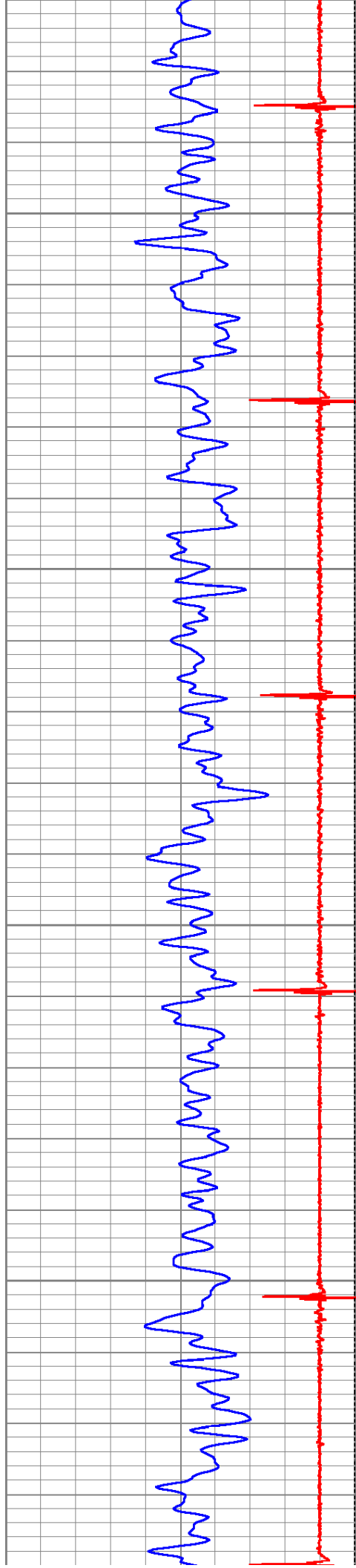
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1750
1800
1850
1900
1950



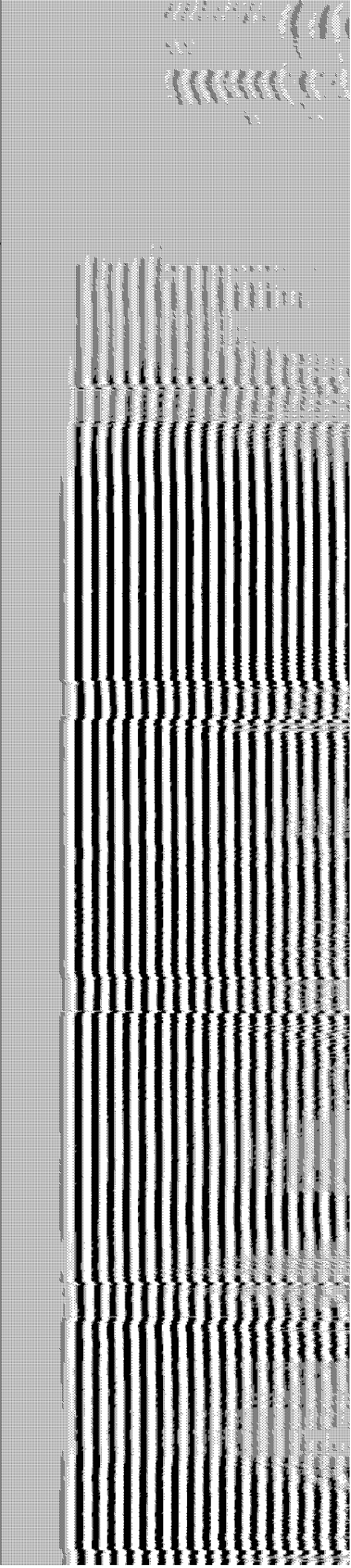
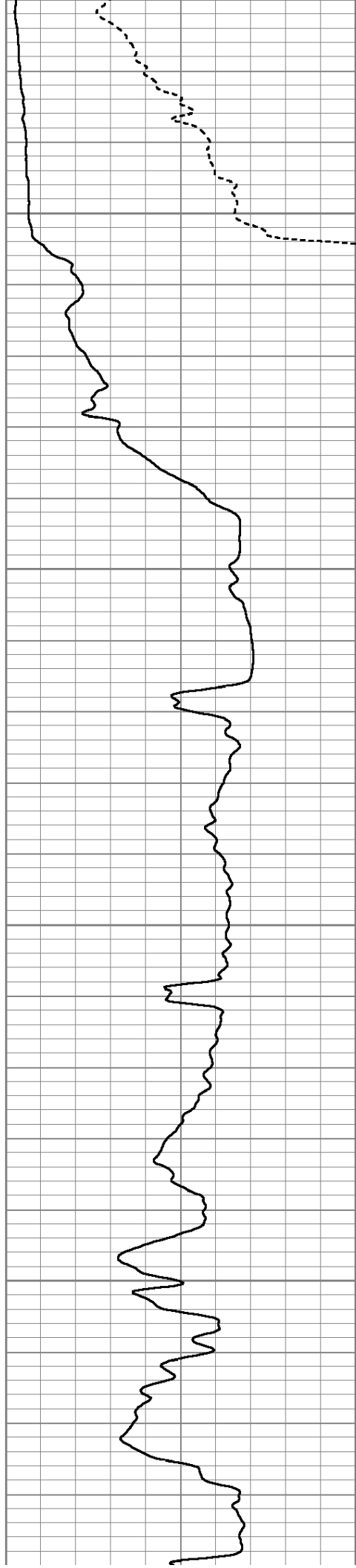


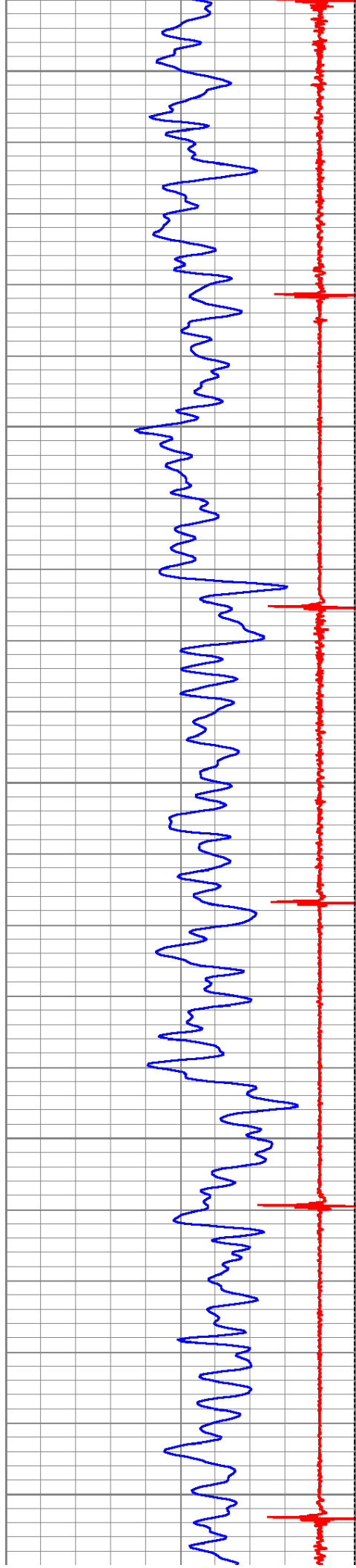
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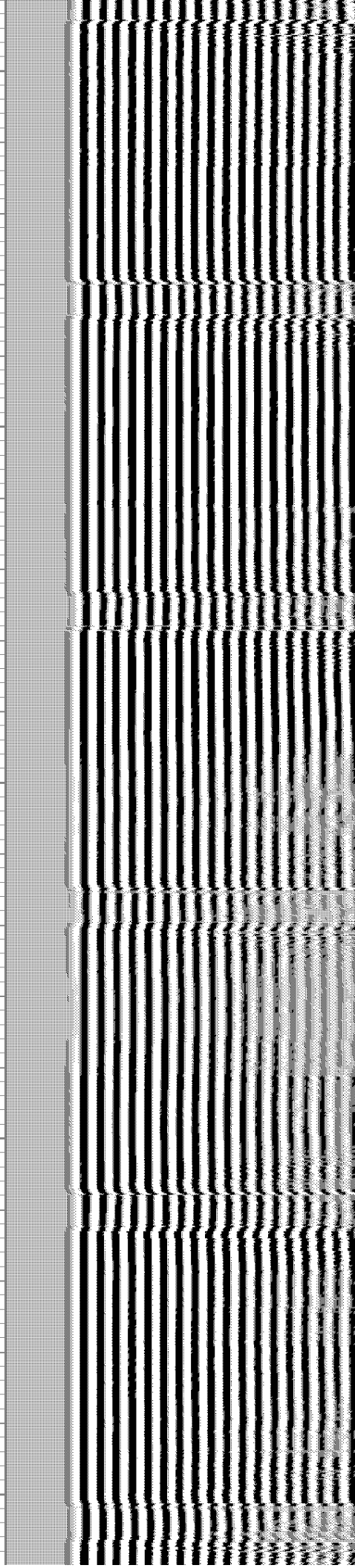
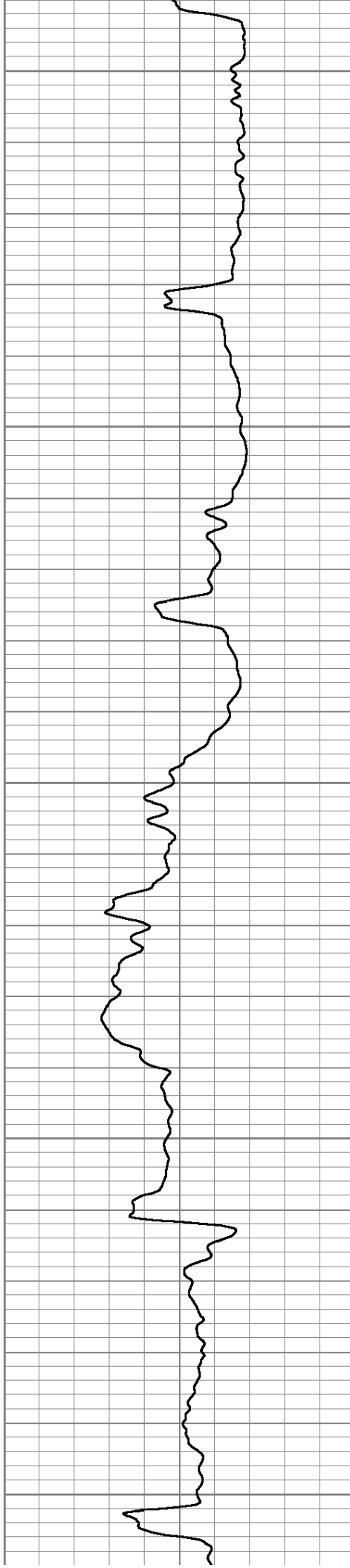
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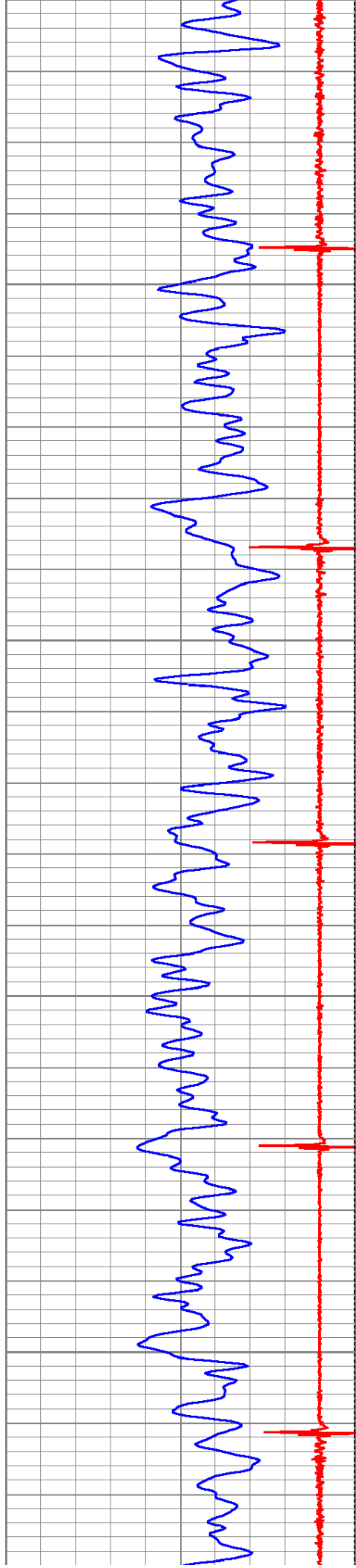
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2400



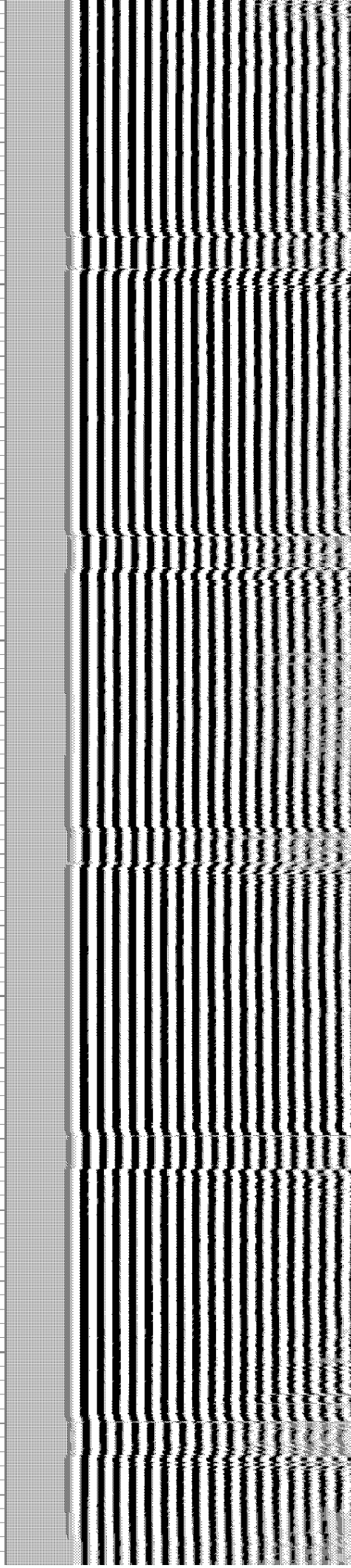
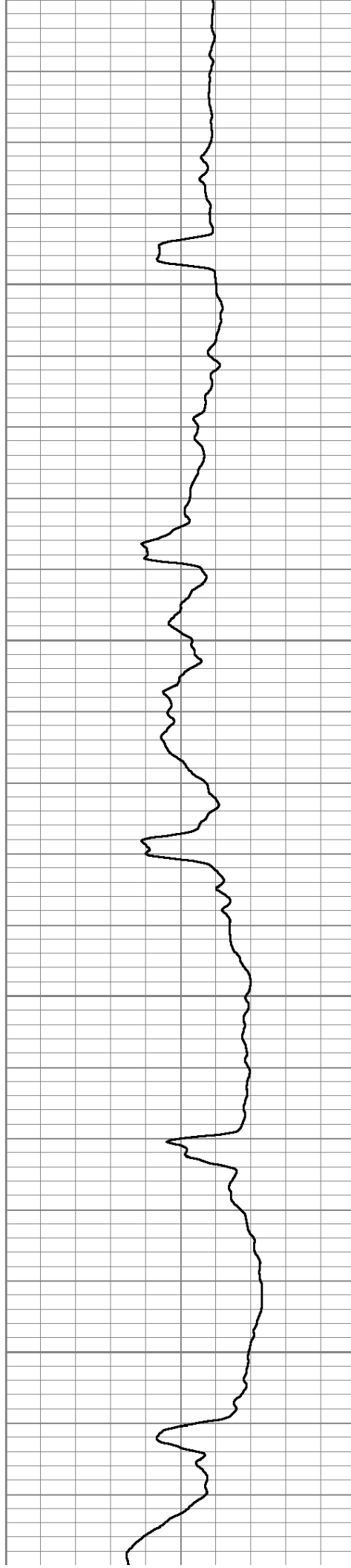


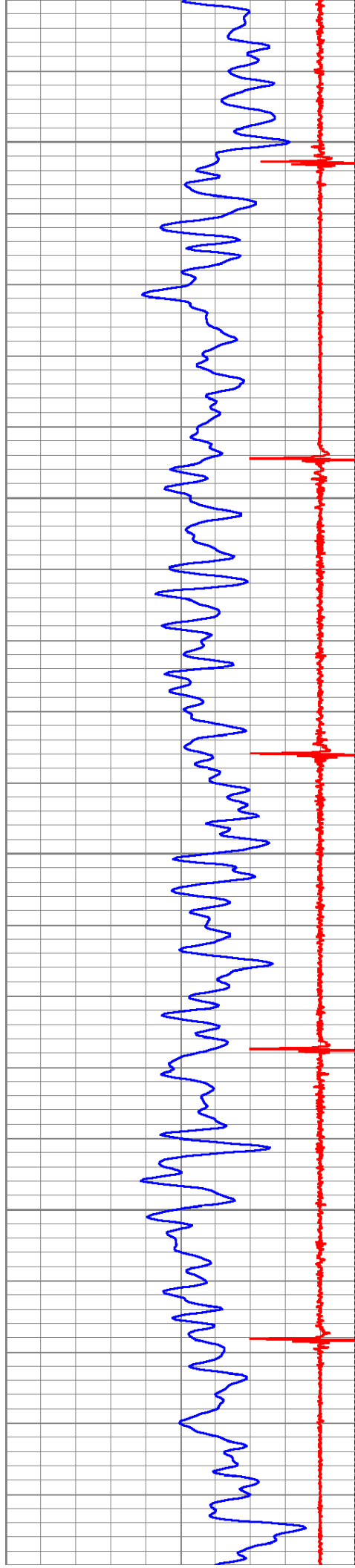
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2600





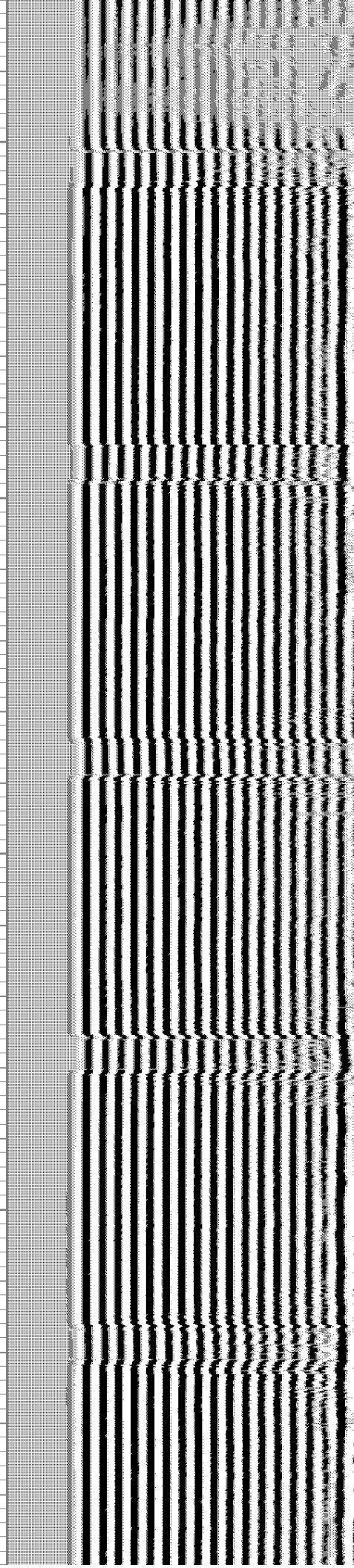
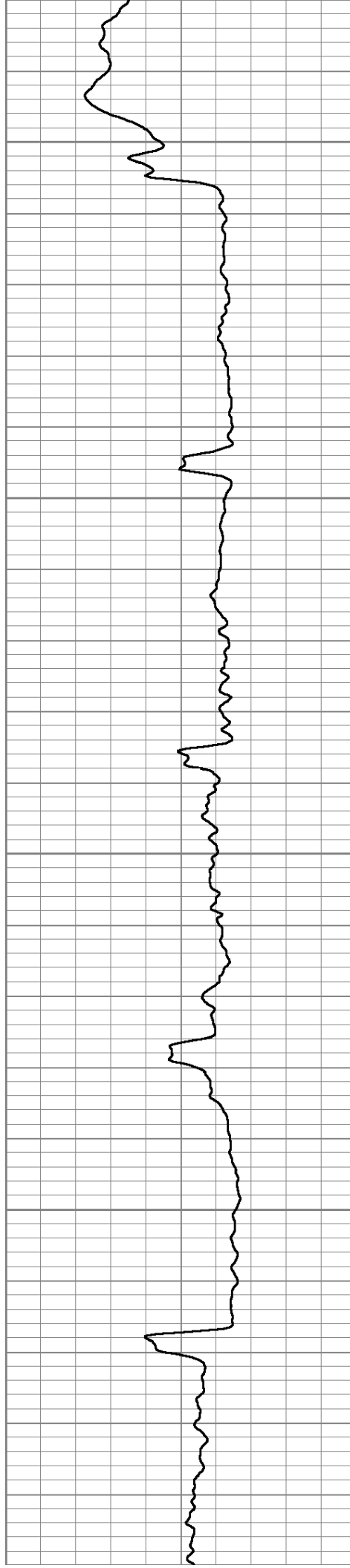
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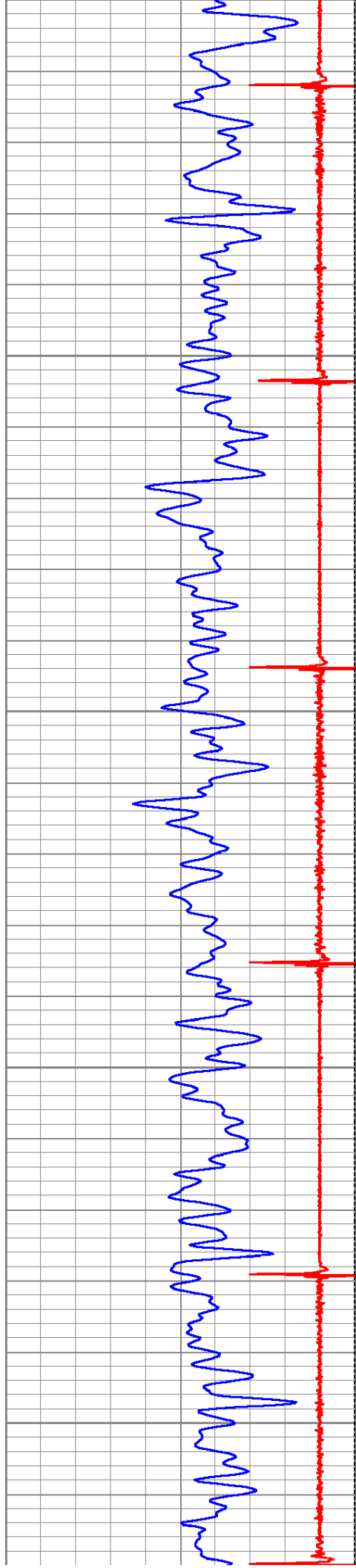
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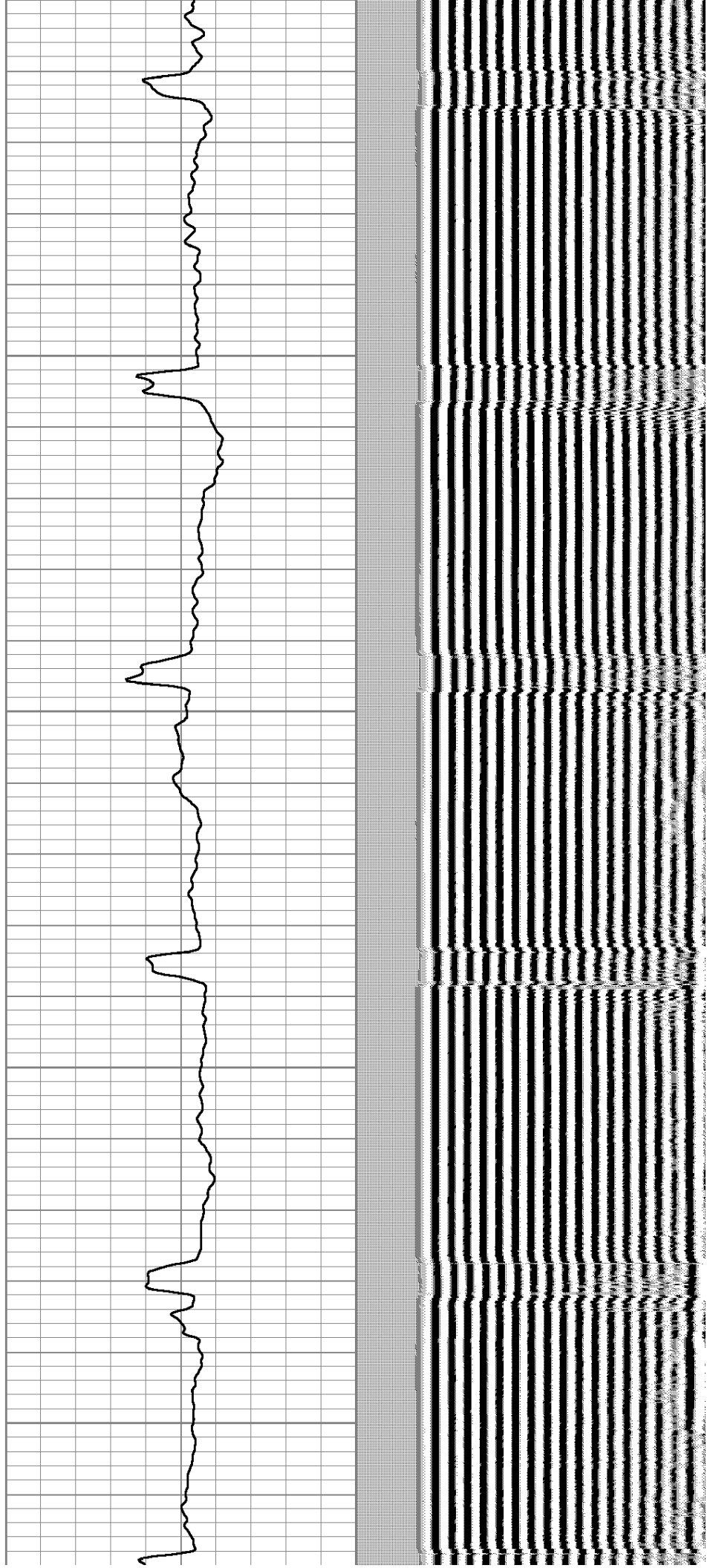
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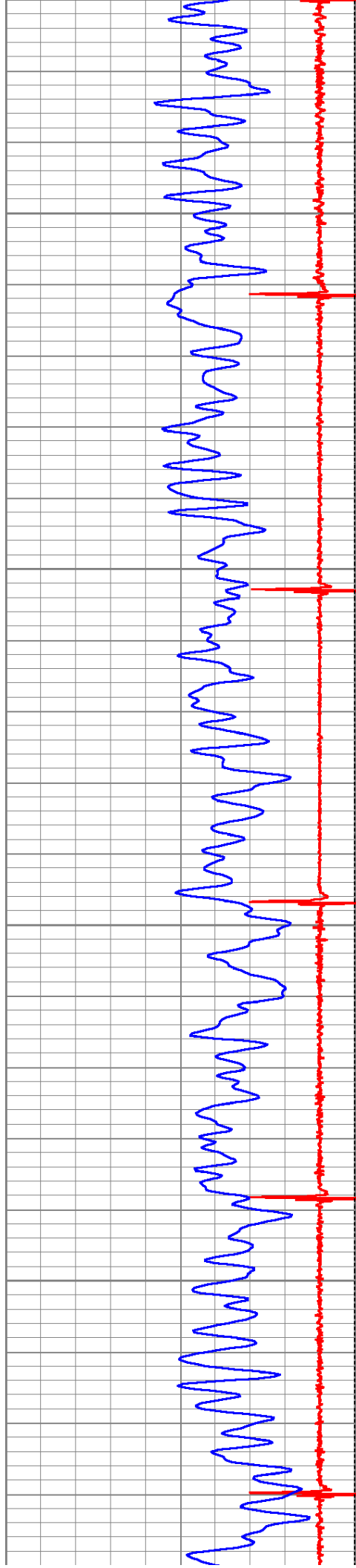
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2900
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3000
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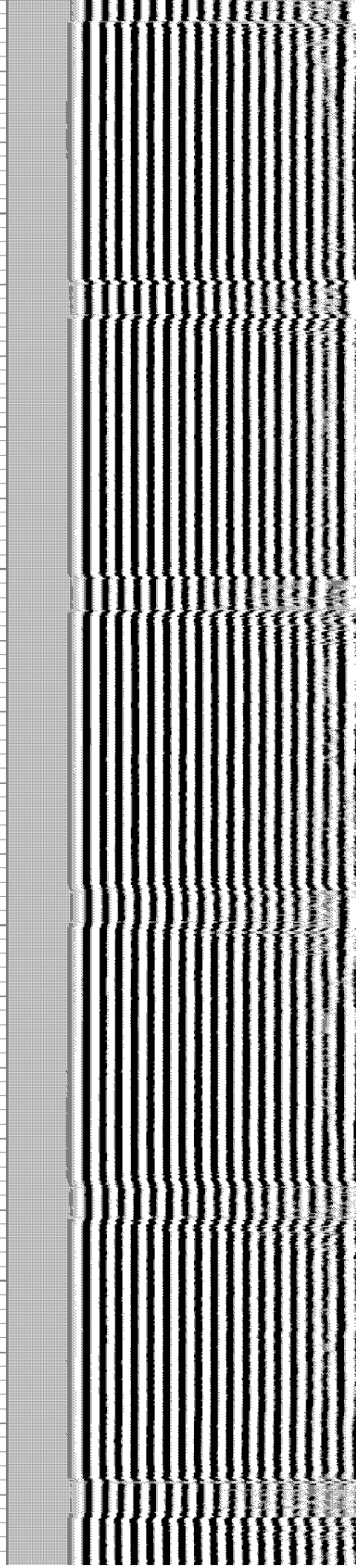
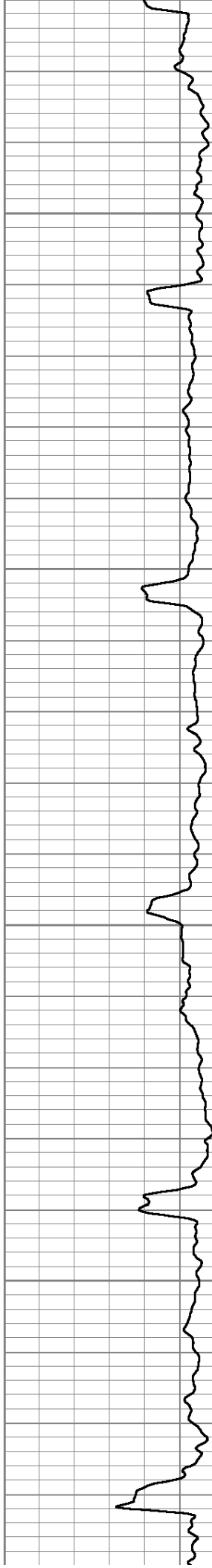


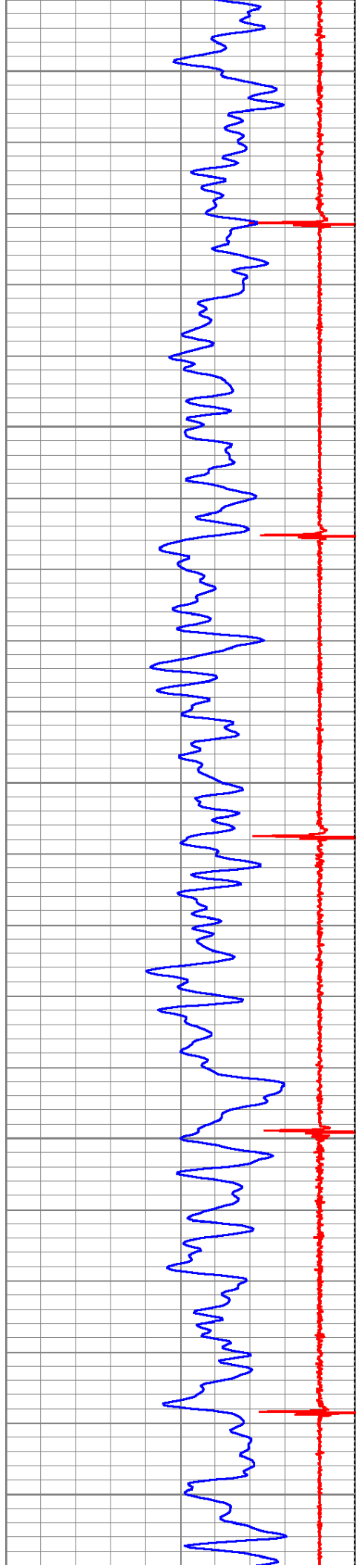
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3150

3200

3250





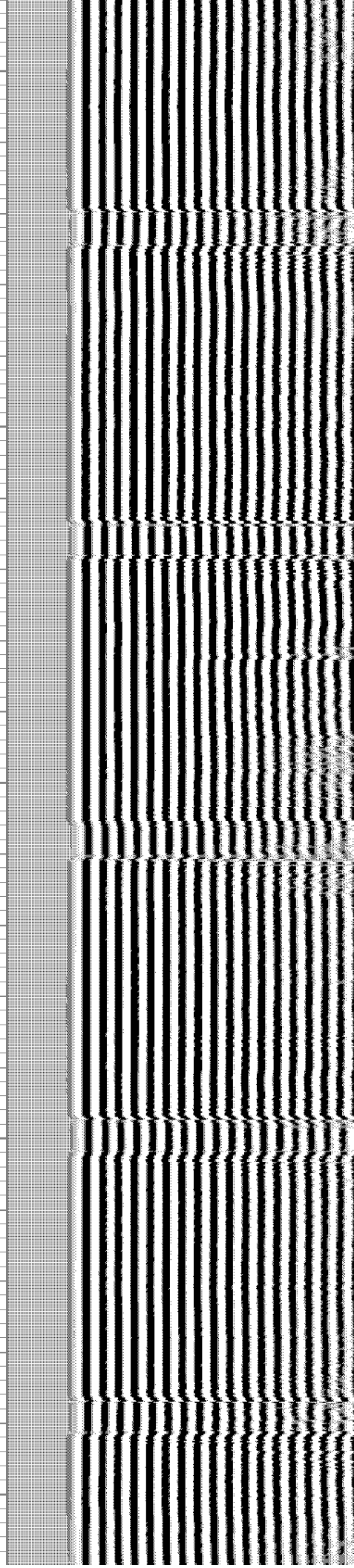
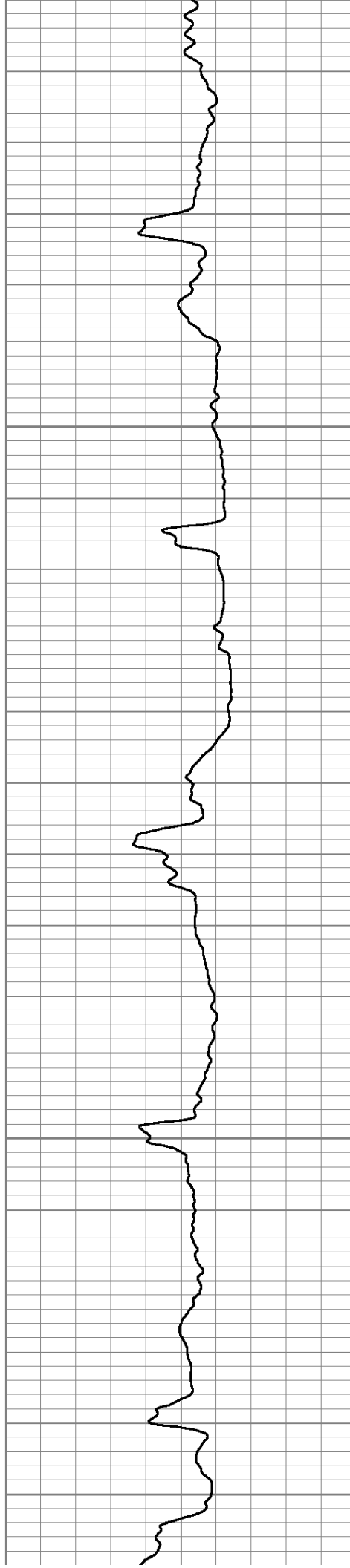
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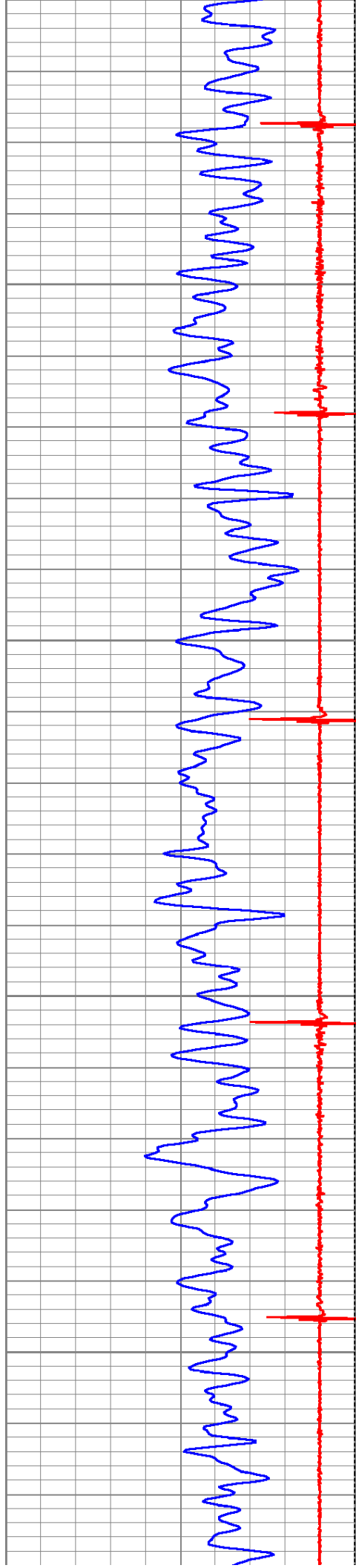
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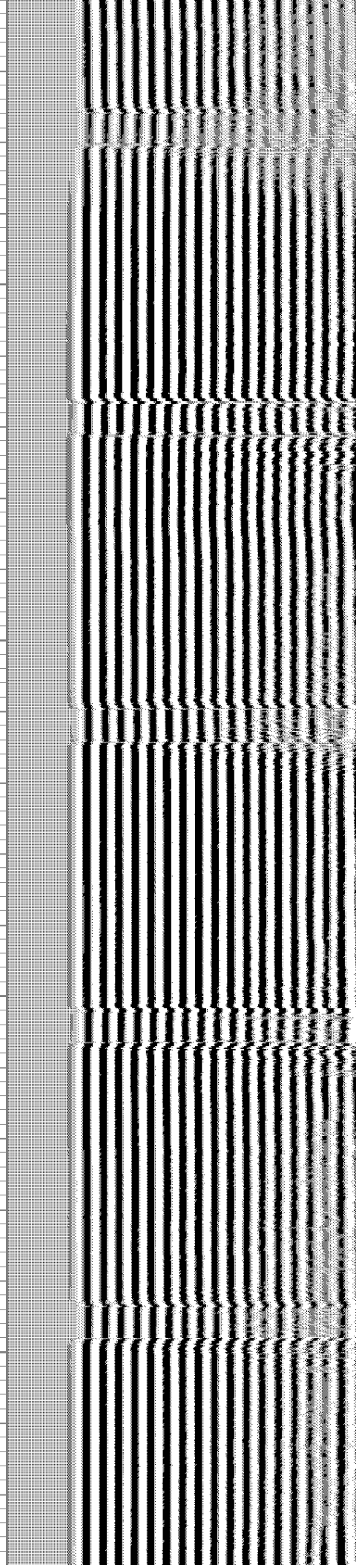
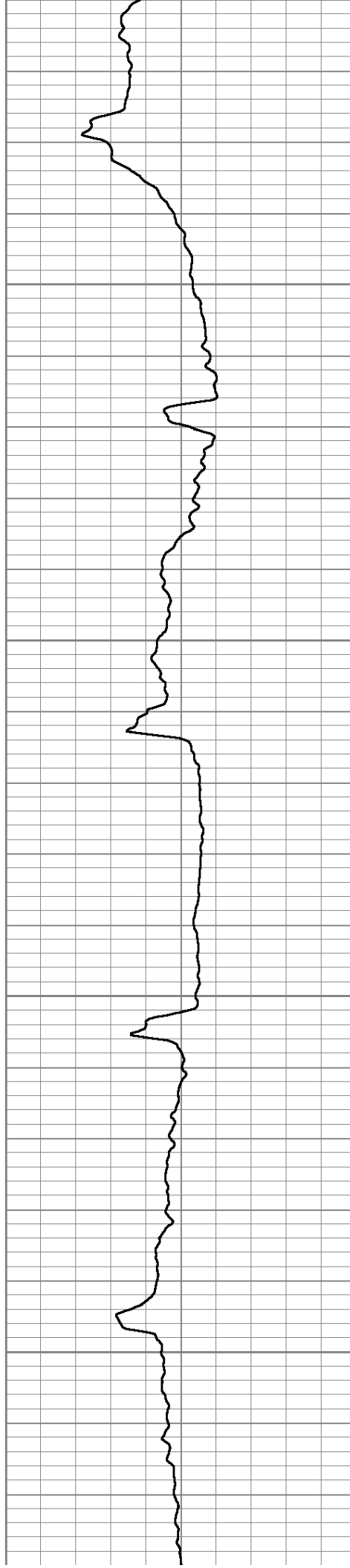


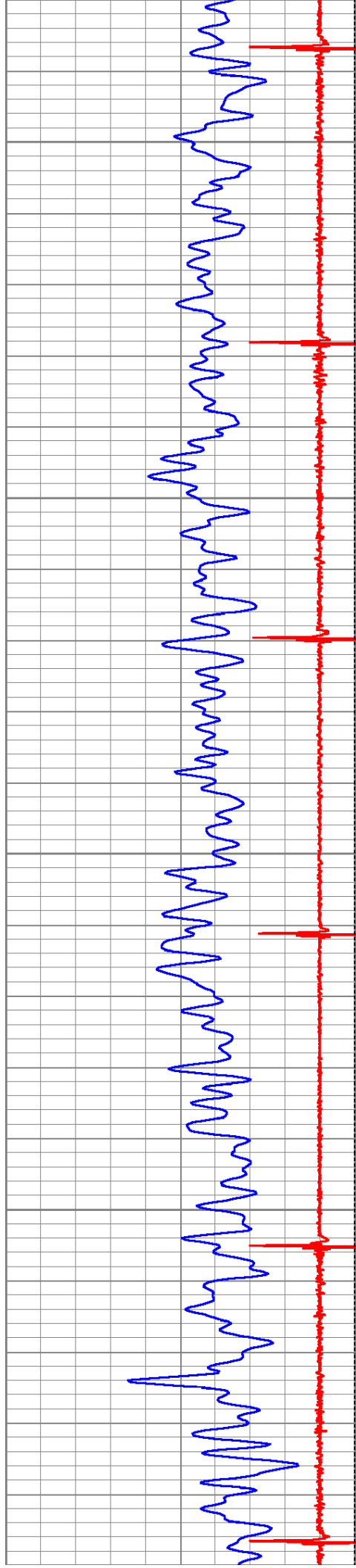
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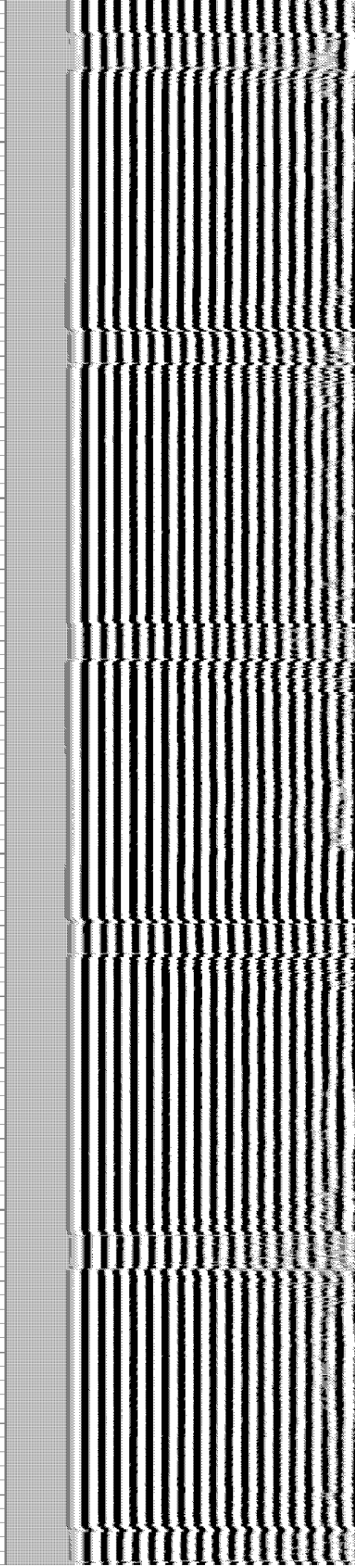
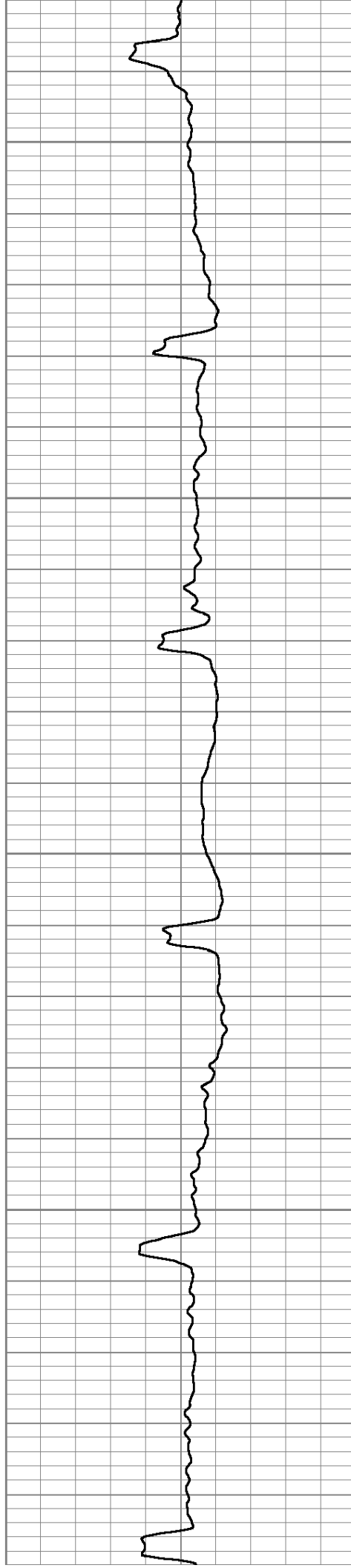
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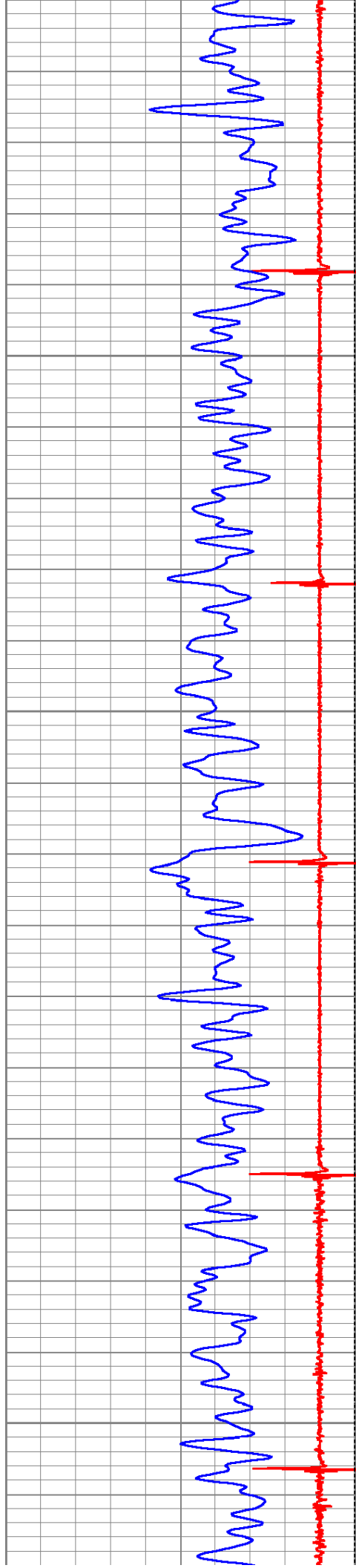
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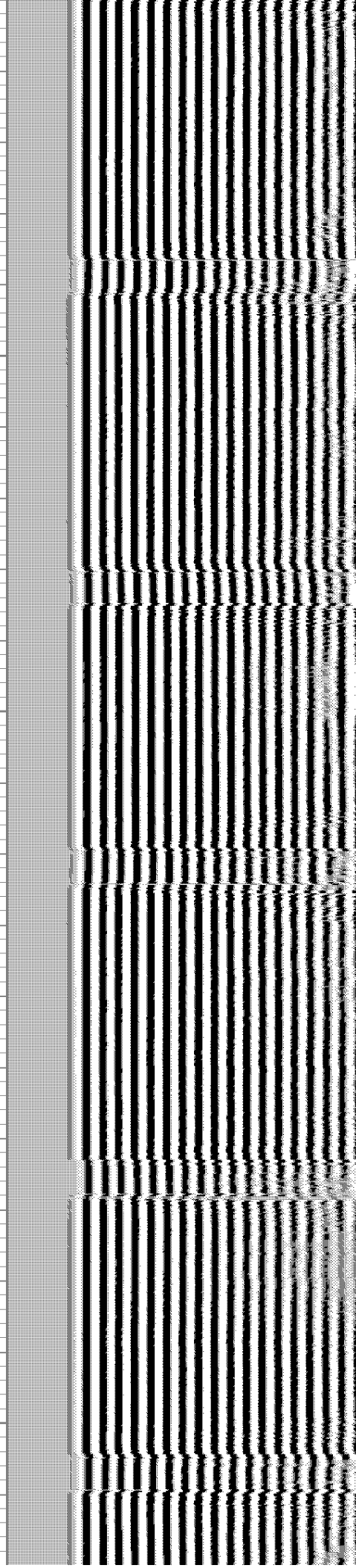
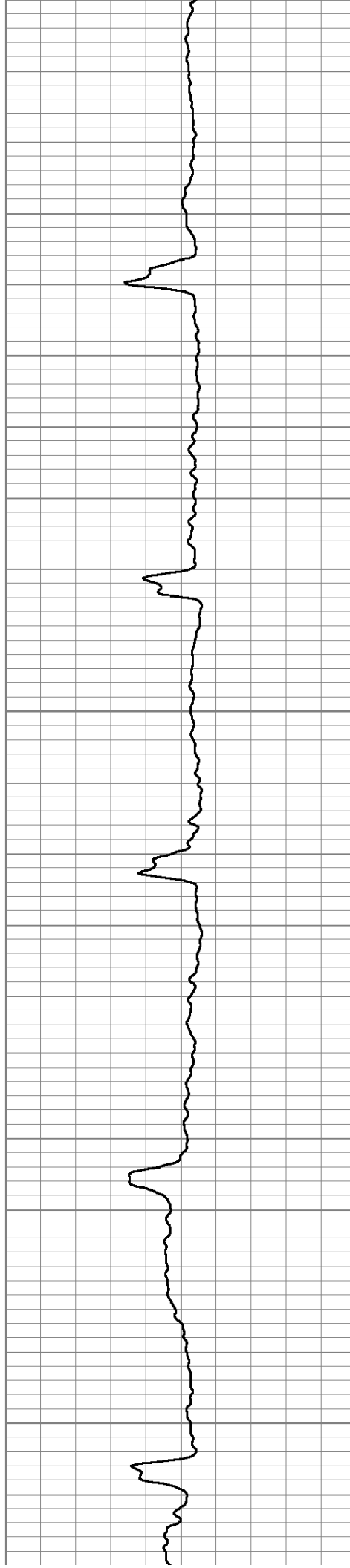
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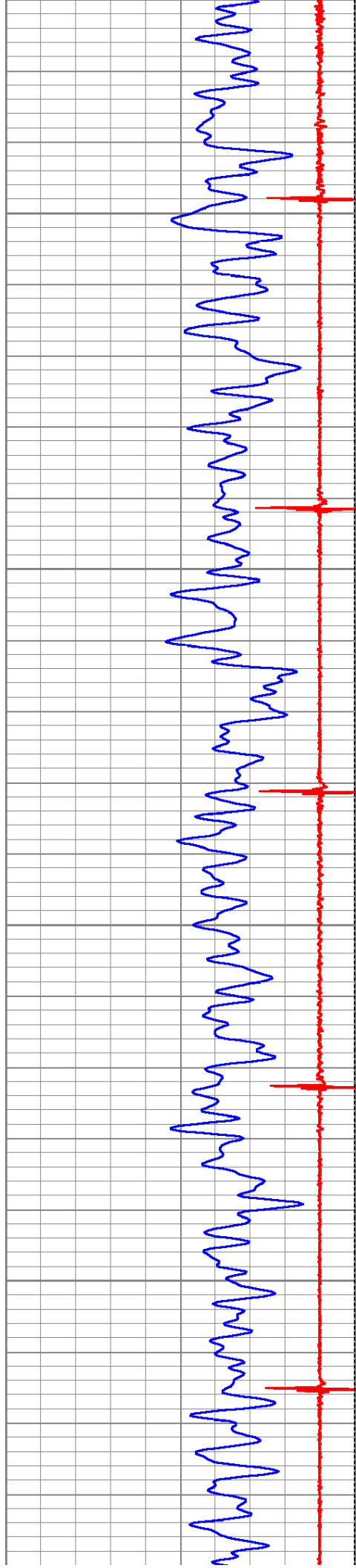
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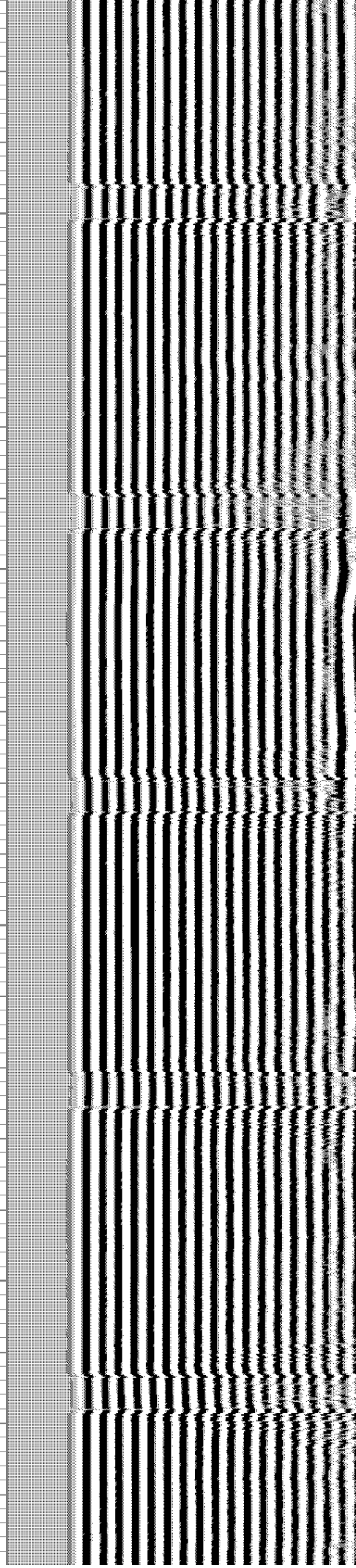
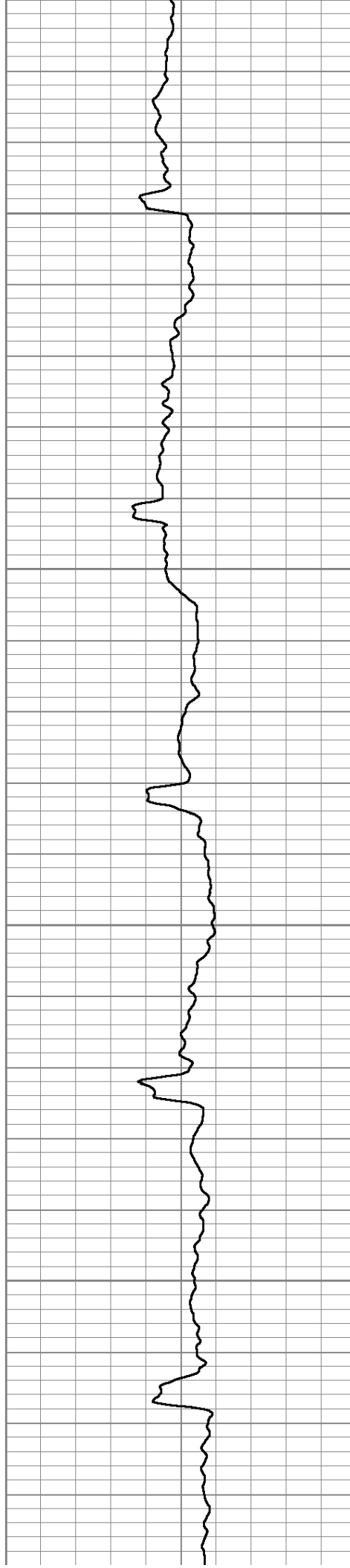


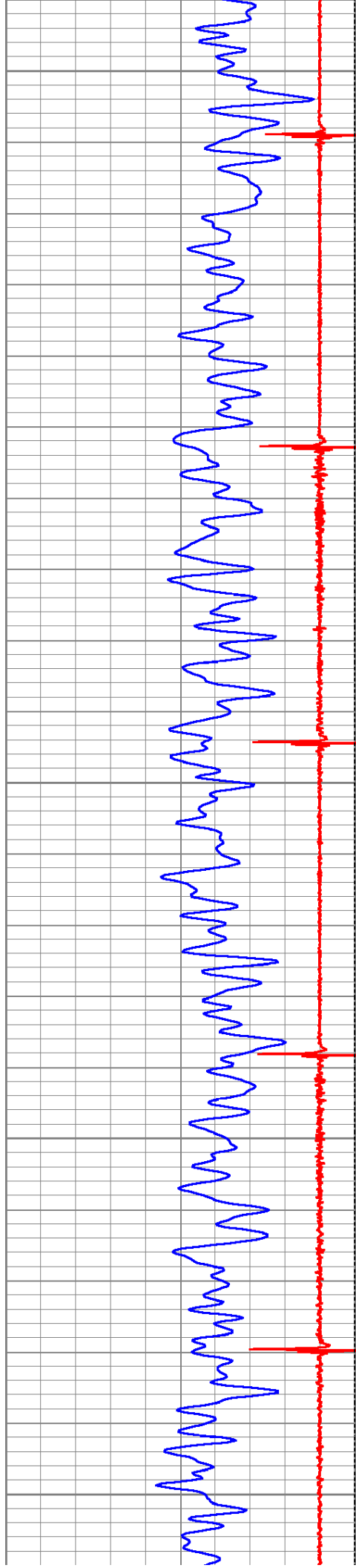
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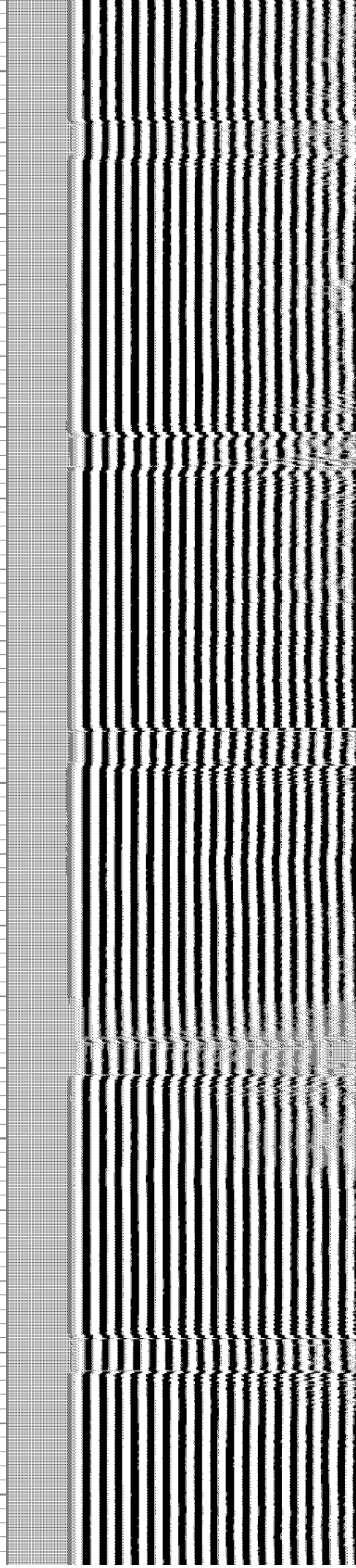
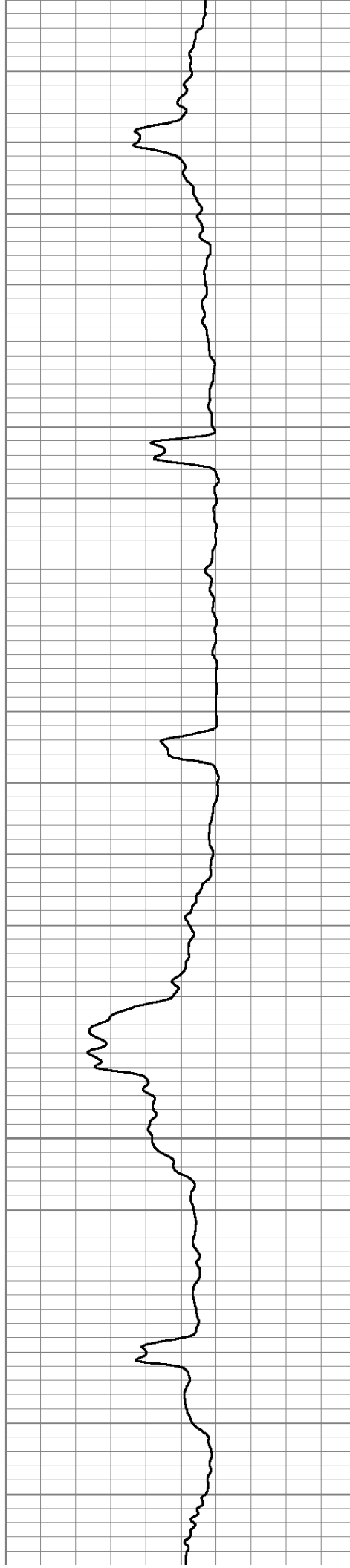
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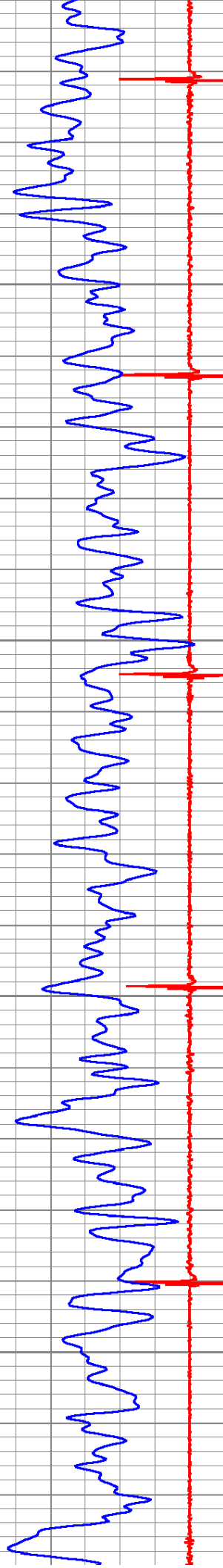
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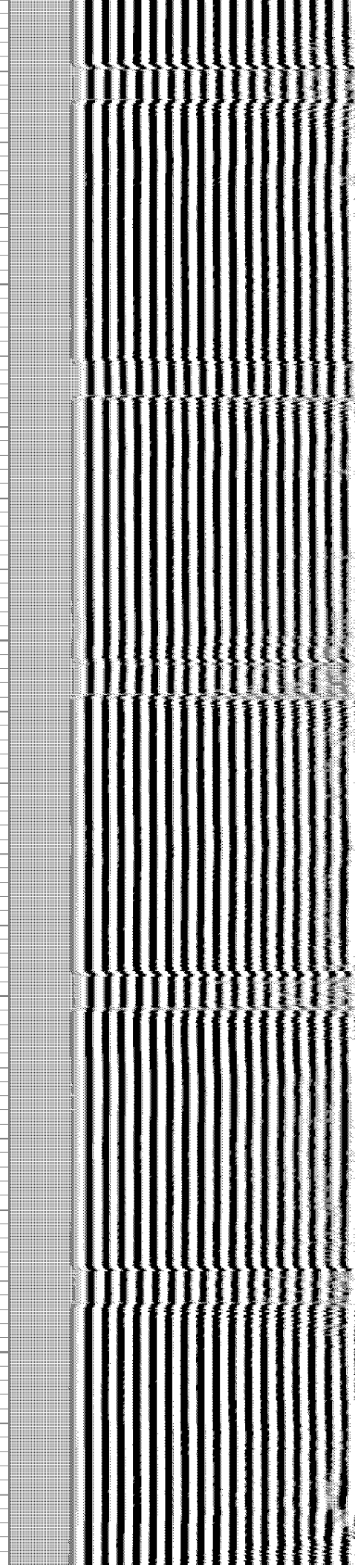
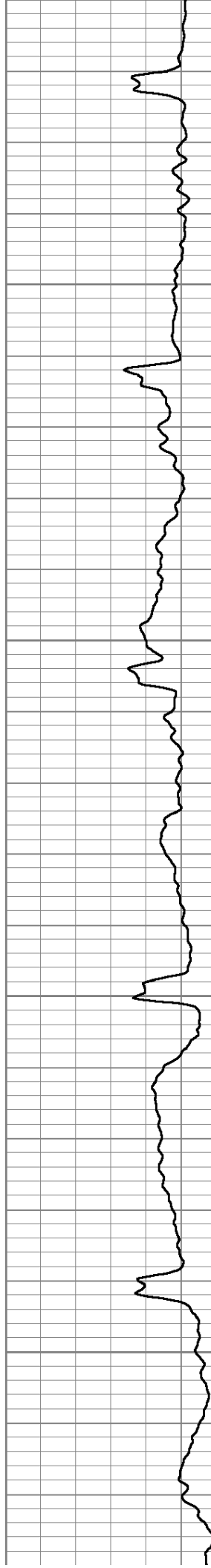


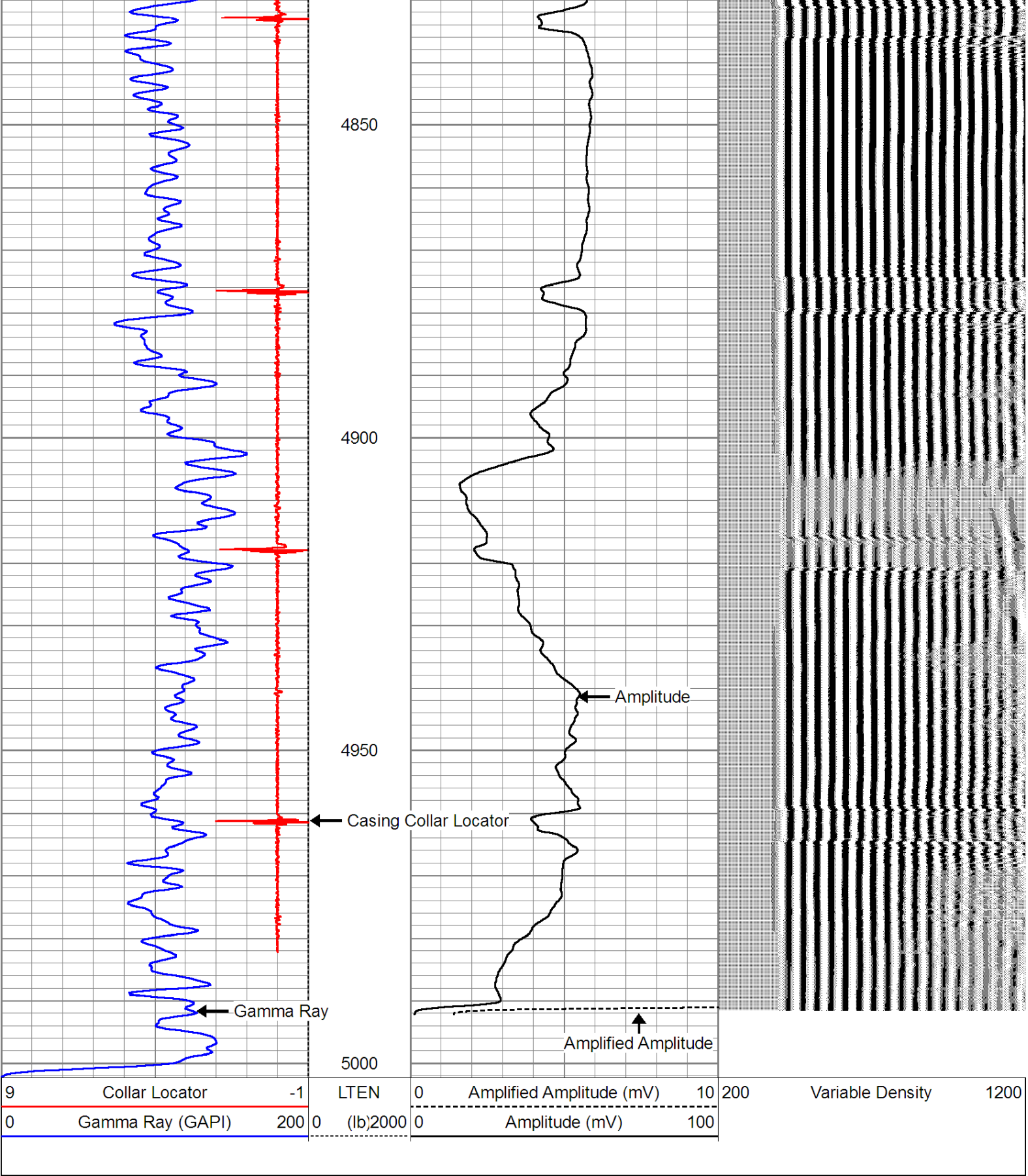
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Database File: grand #1.db
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Presentation Format: cbl_dr
Dataset Creation: Mon Jul 01 15:21:19 2013 by Log SCH 120126
Charted by: Depth in Feet scaled 1:240

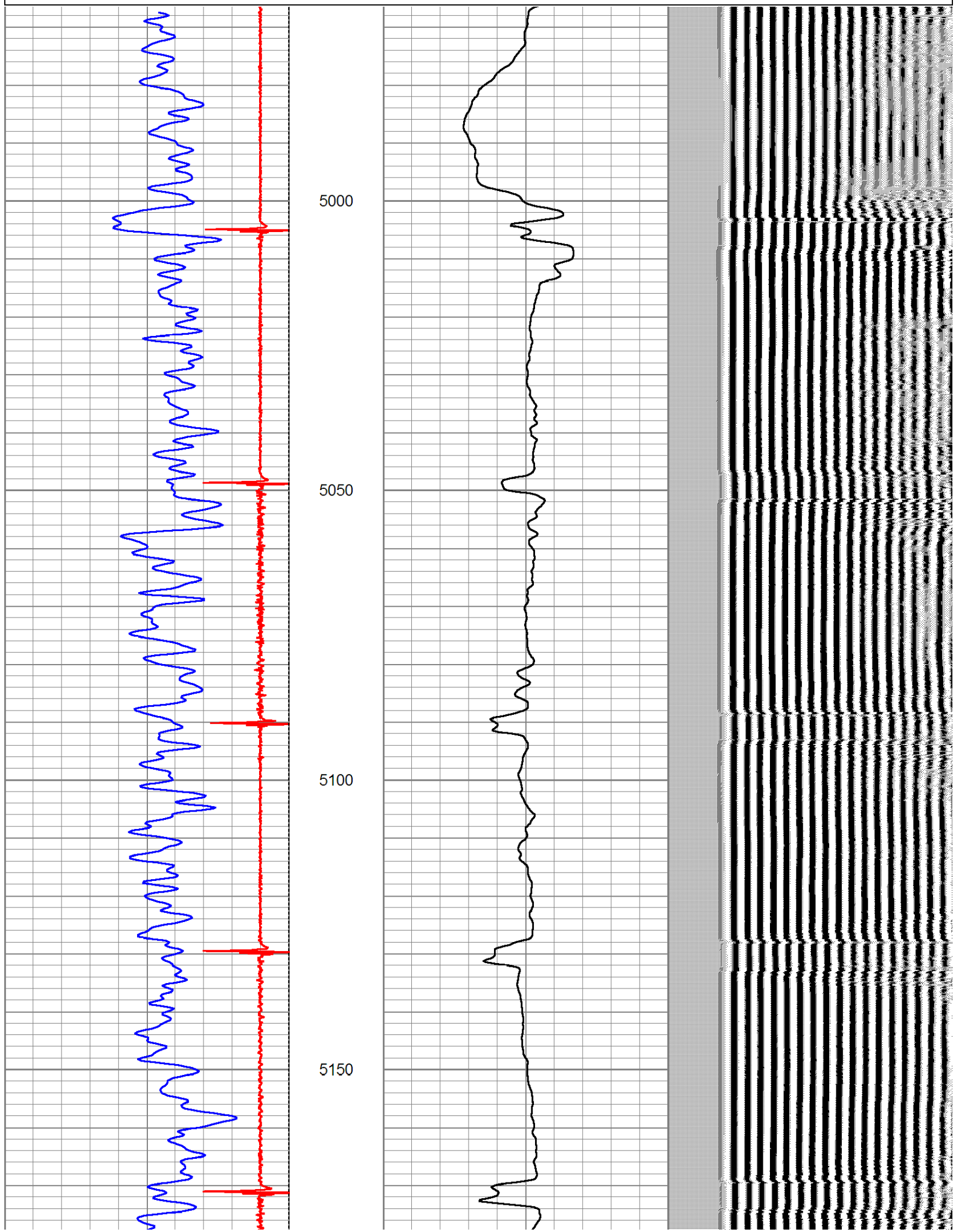
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|---|------------------|-----|------|----------|--------------------------|----------------|-----|------------------|------|
| 9 | Collar Locator | -1 | LTEN | 0 | Amplified Amplitude (mV) | 10 | 200 | Variable Density | 1200 |
| 0 | Gamma Ray (GAPI)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

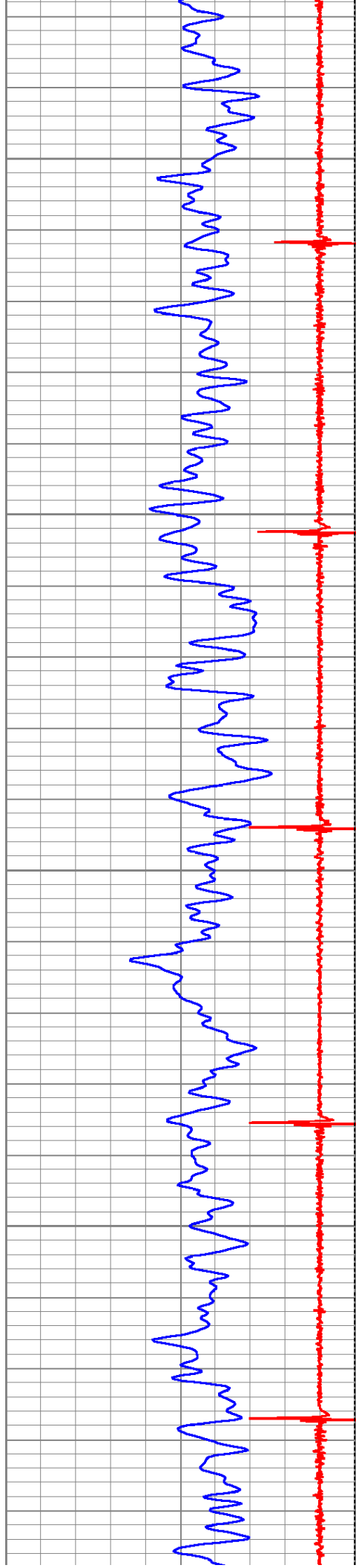
Gamma Ray (GAPI)

(10/2000 0

Amplitude (mV)

100



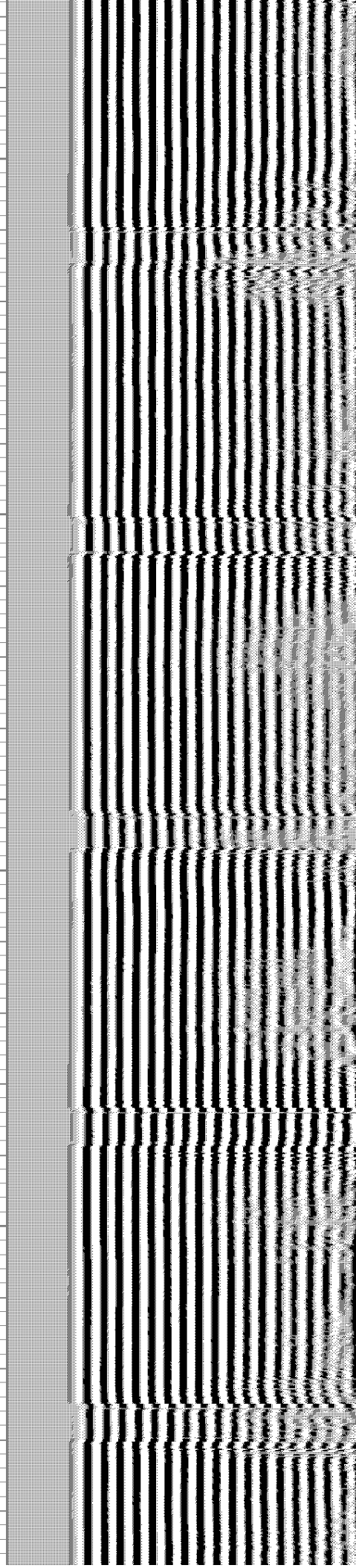
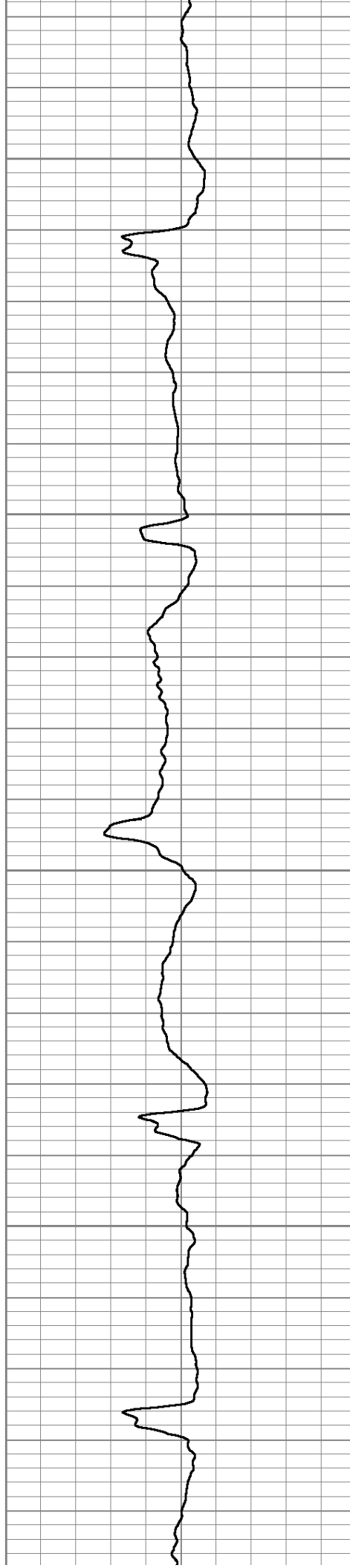


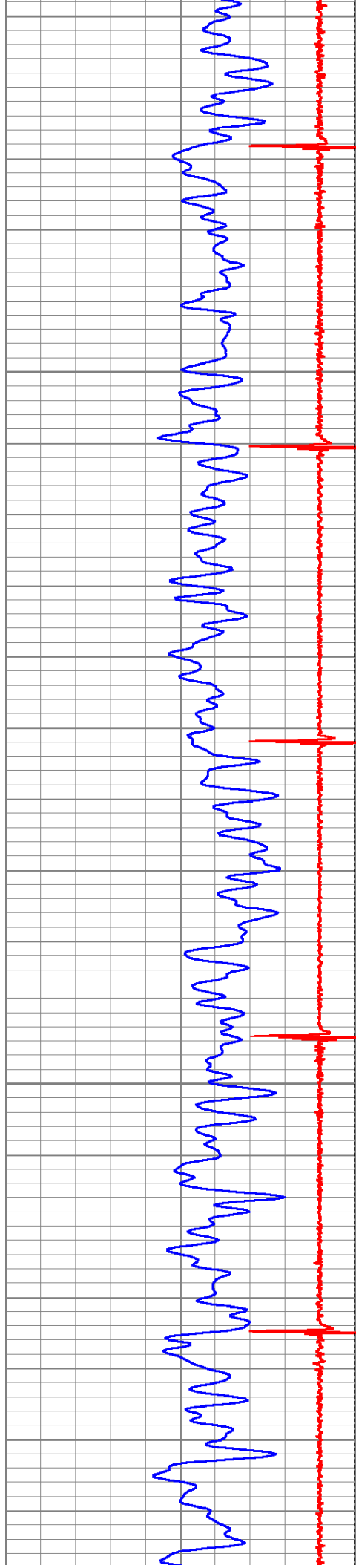
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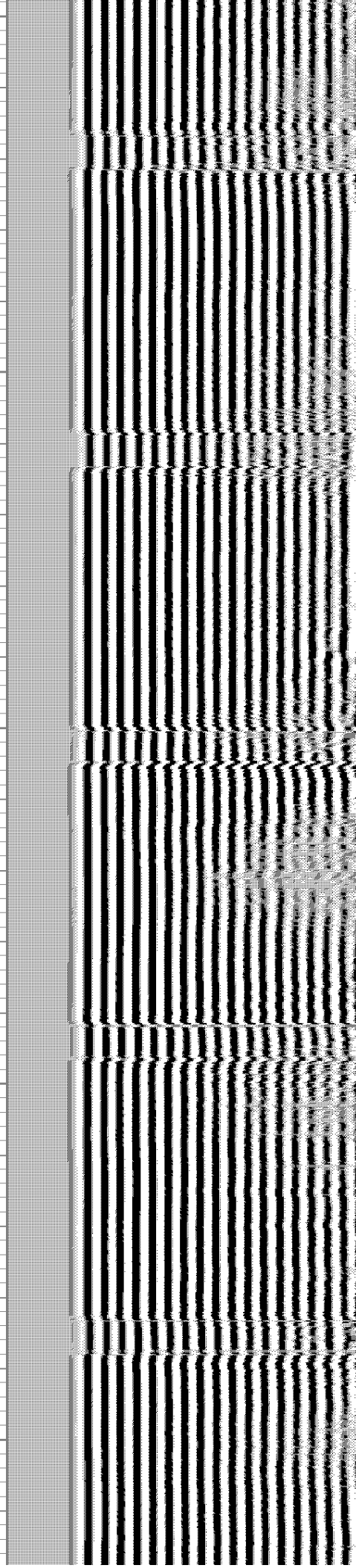
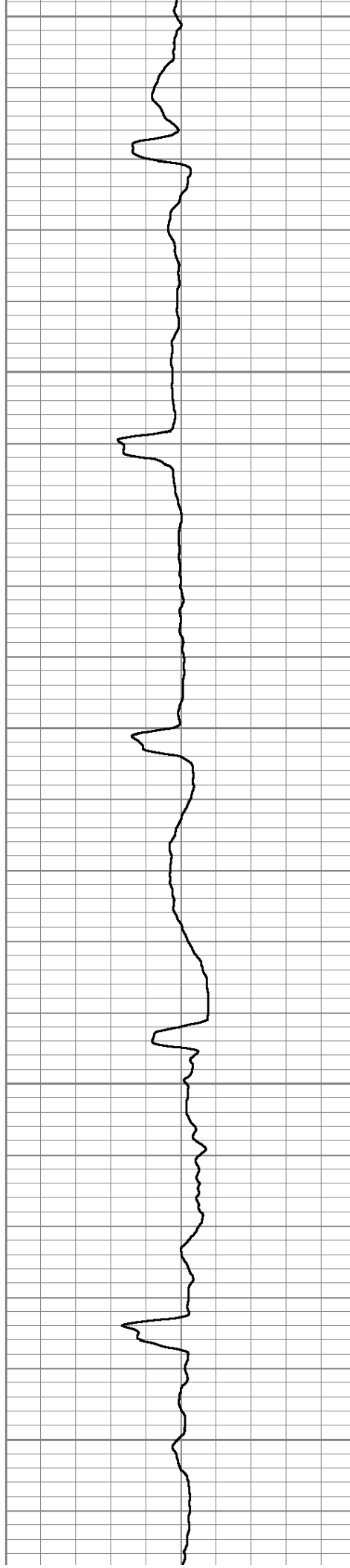
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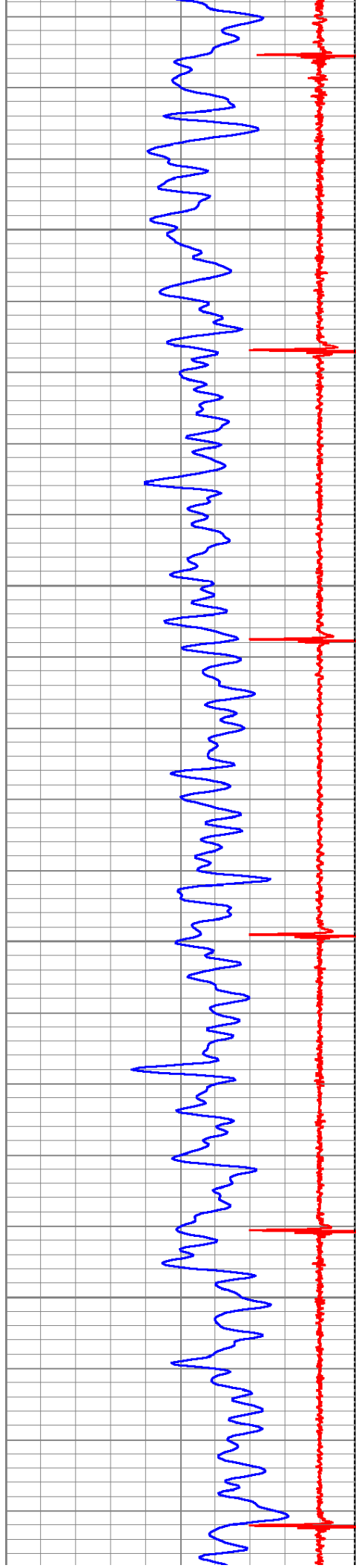
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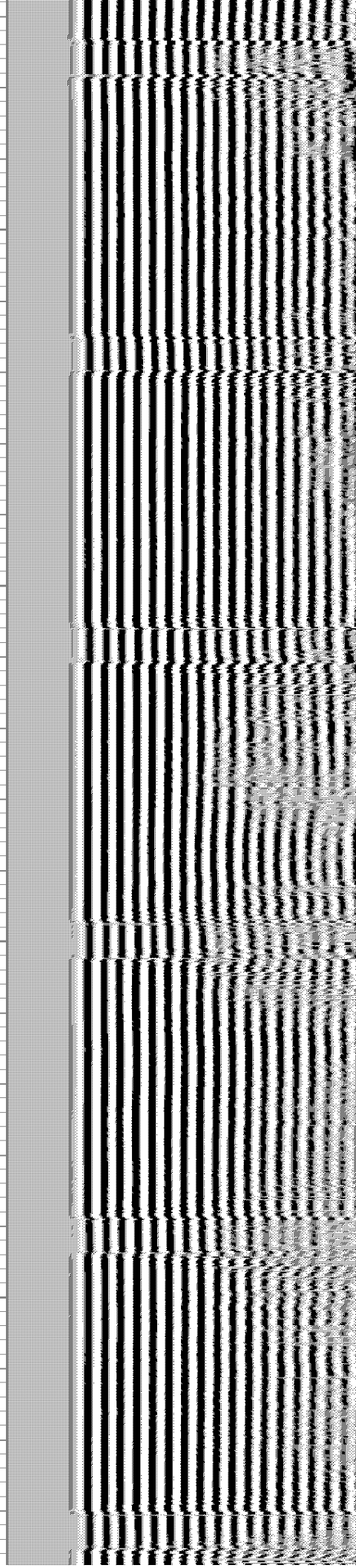
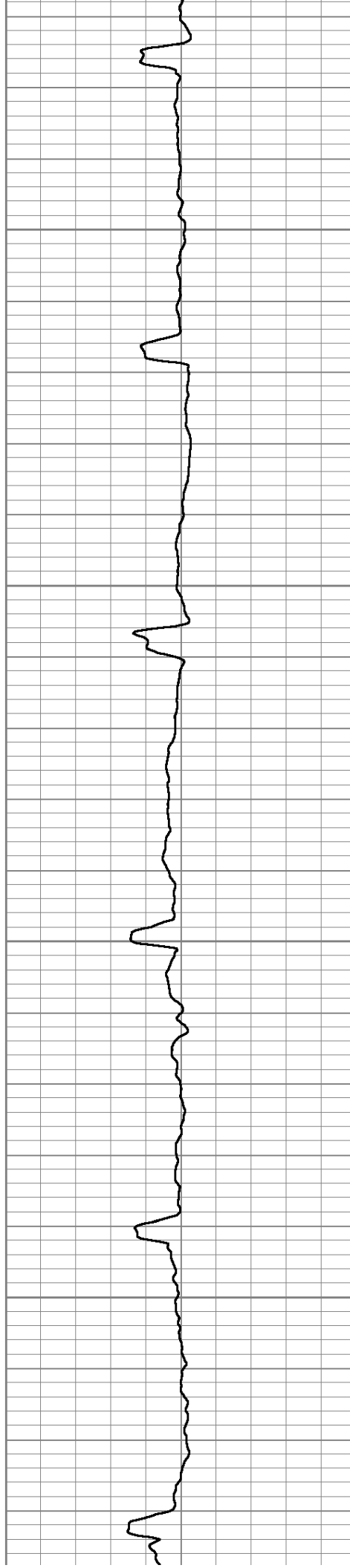


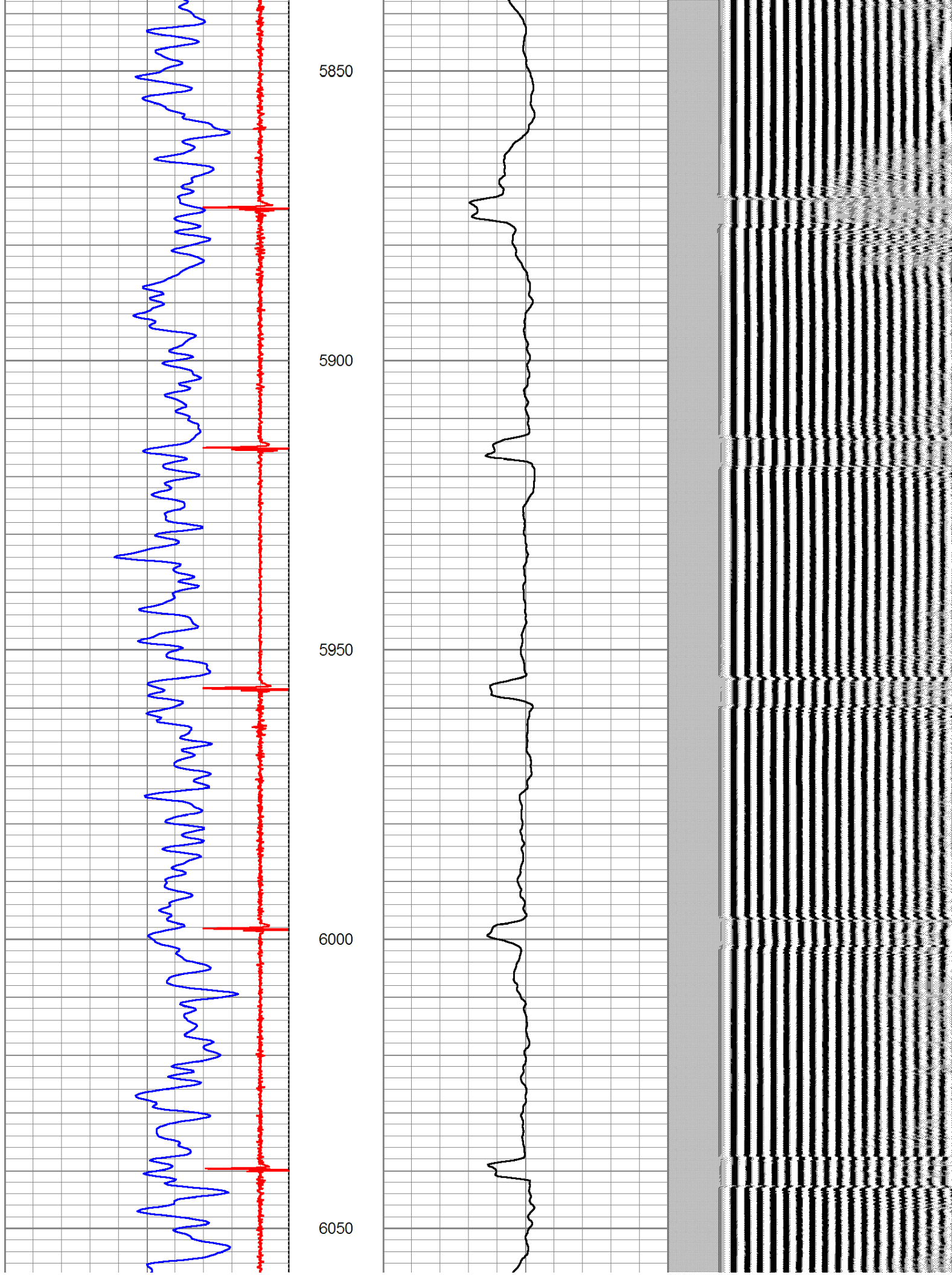
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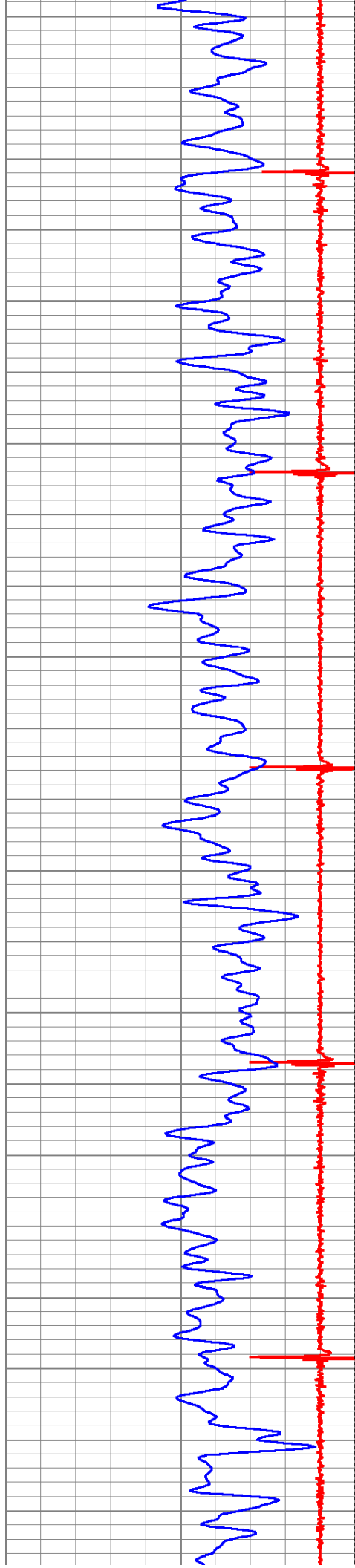
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5800





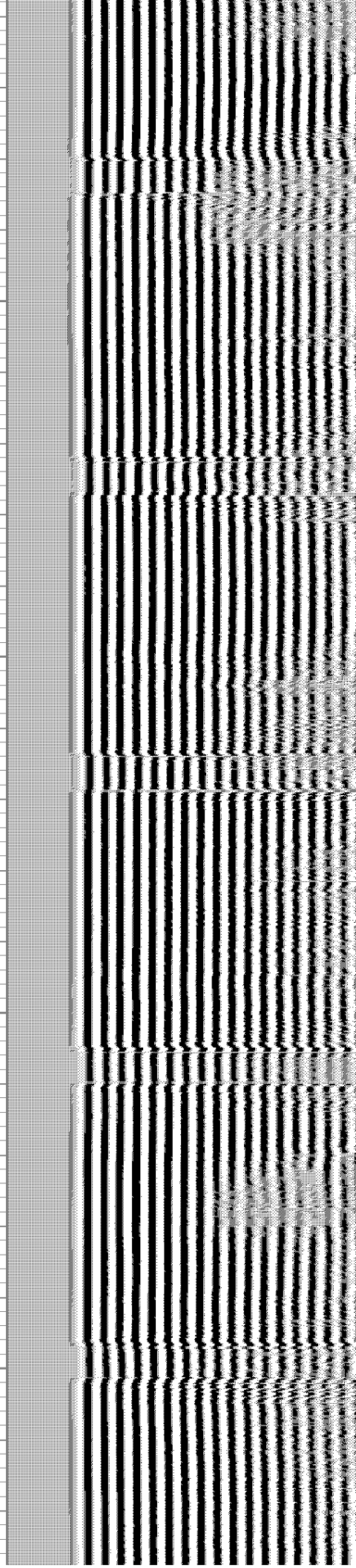
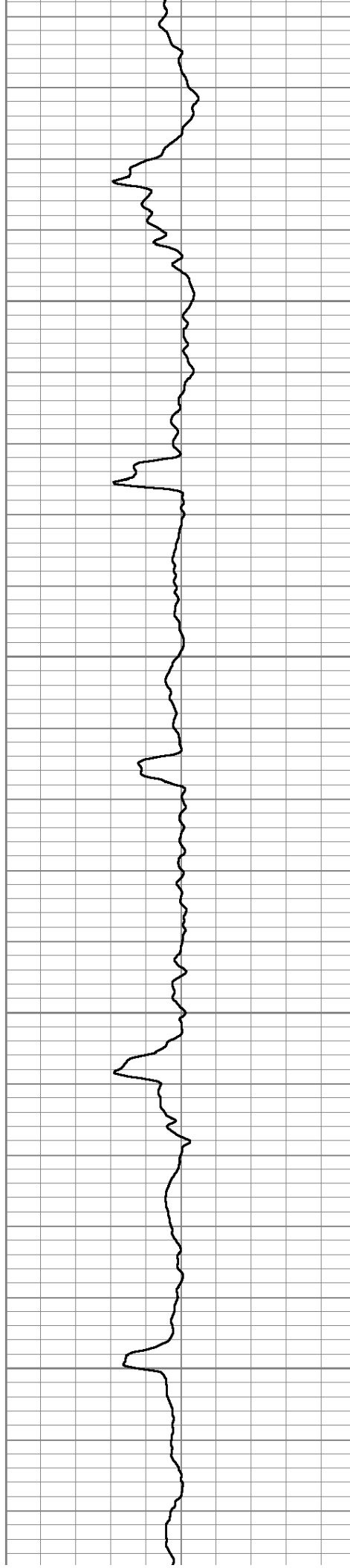


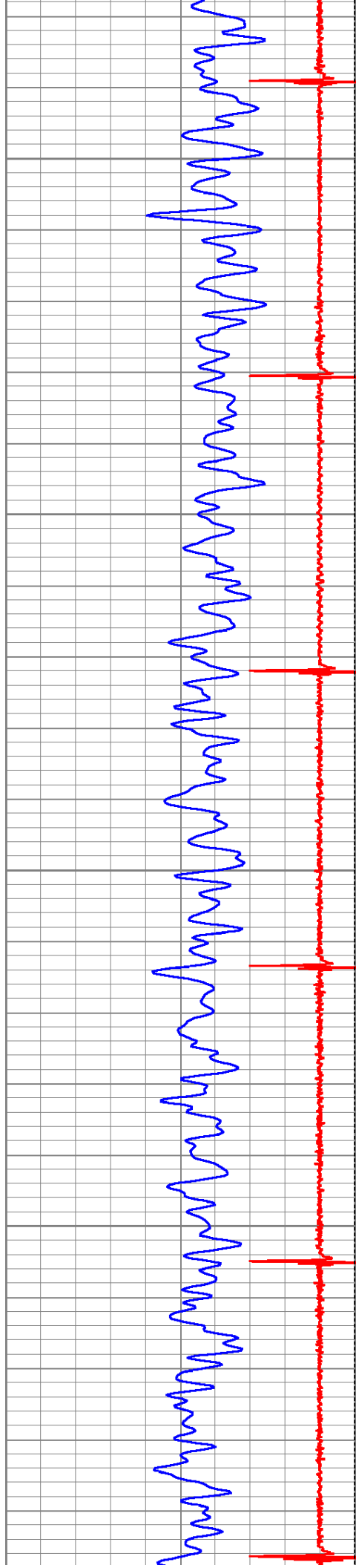
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6200

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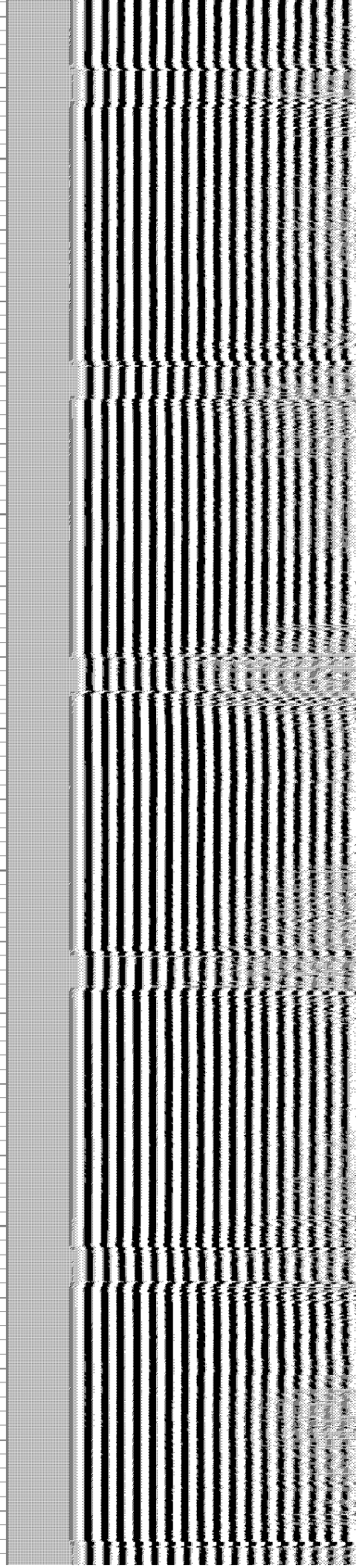
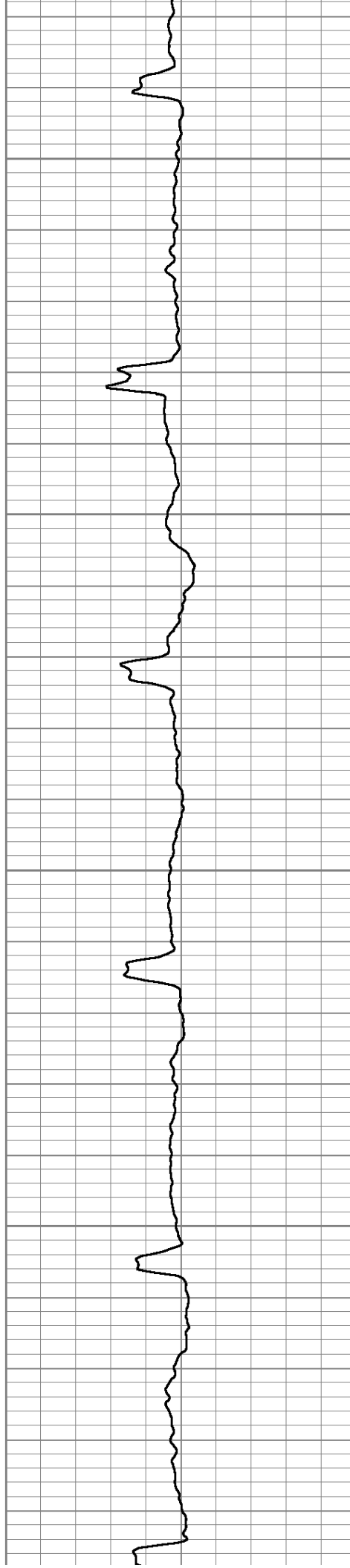


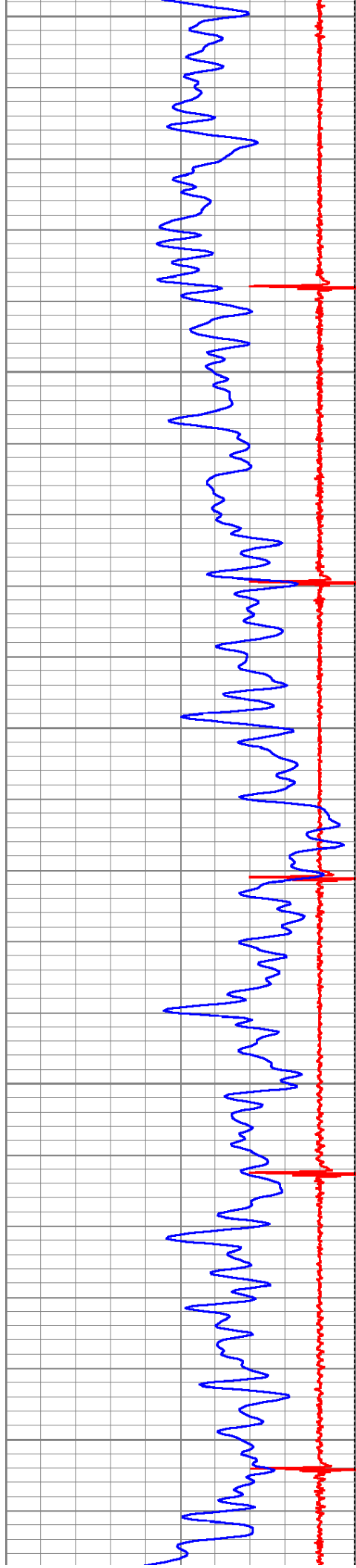
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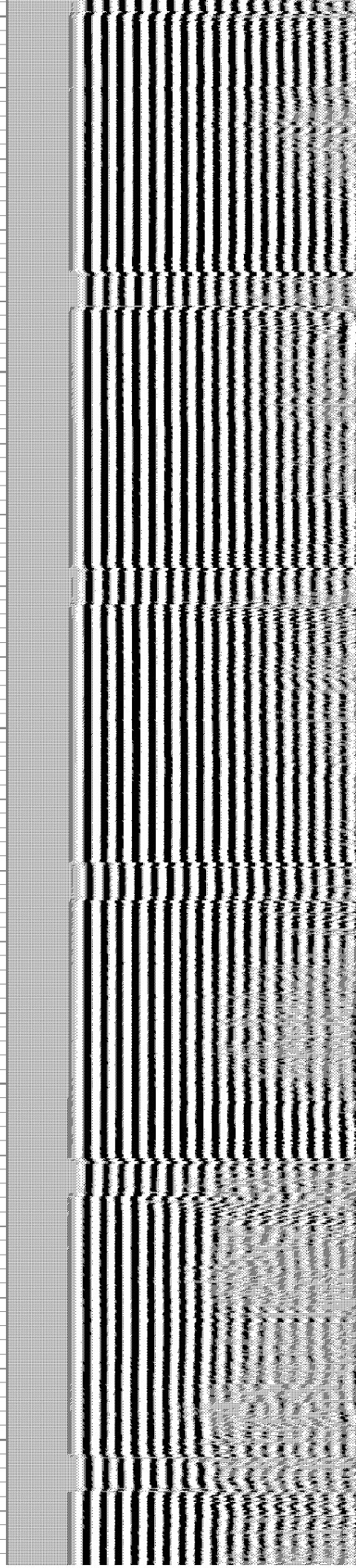
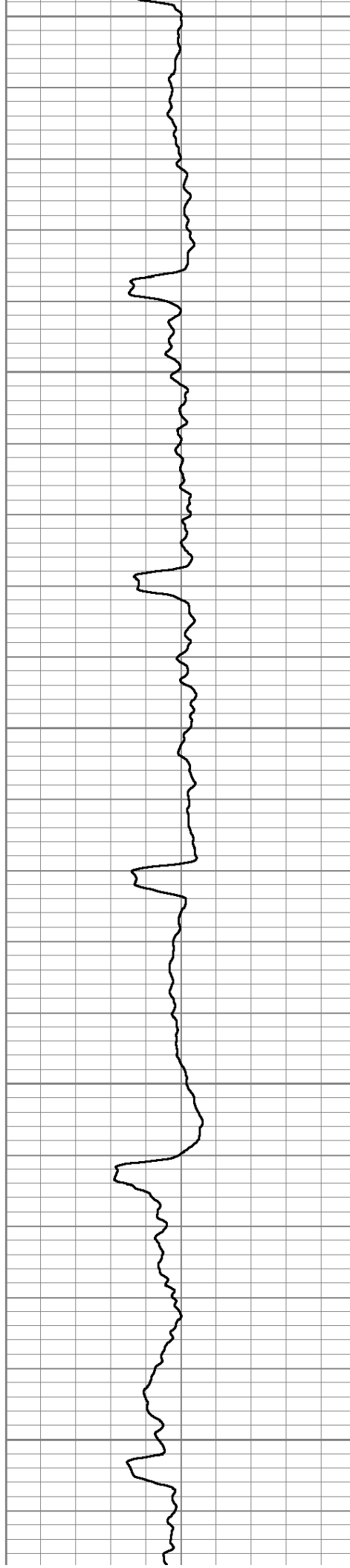
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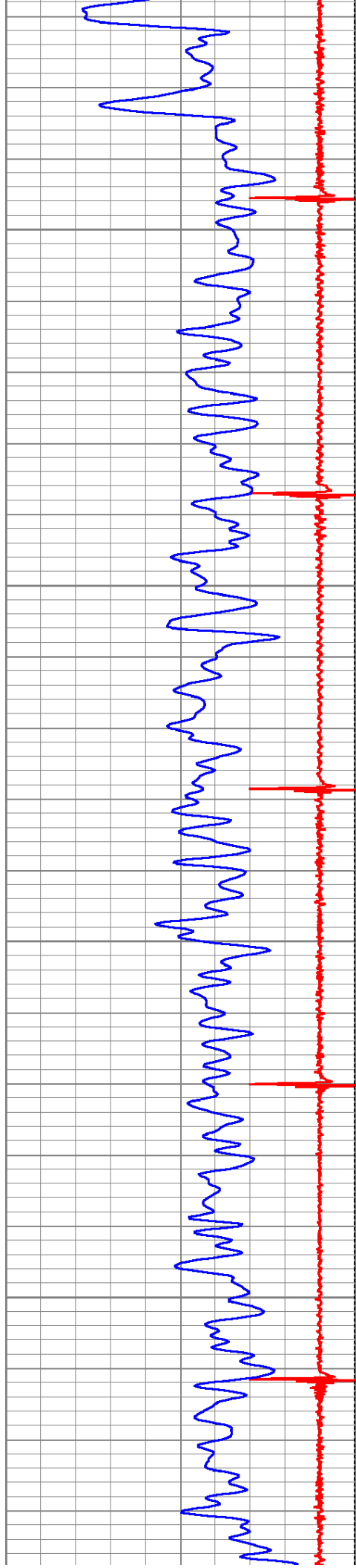
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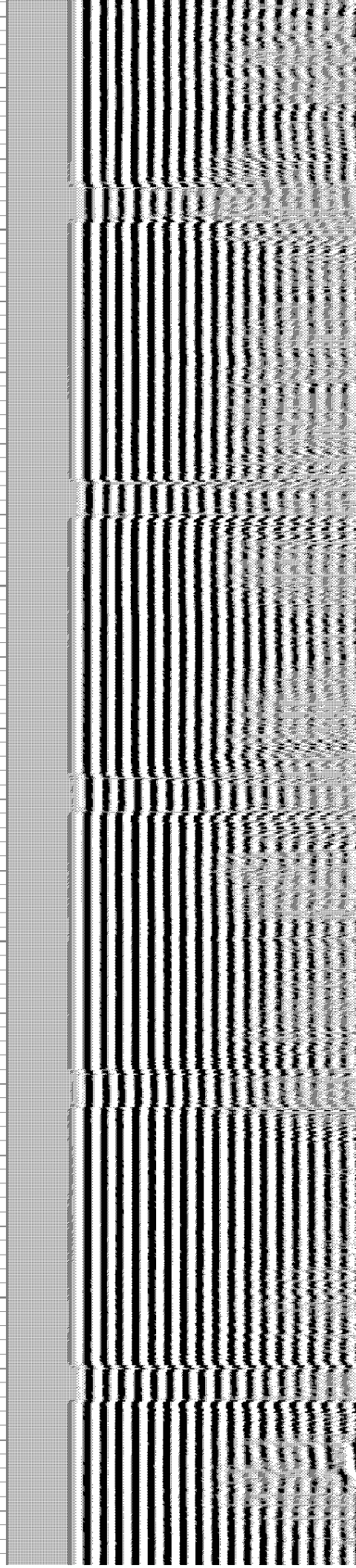
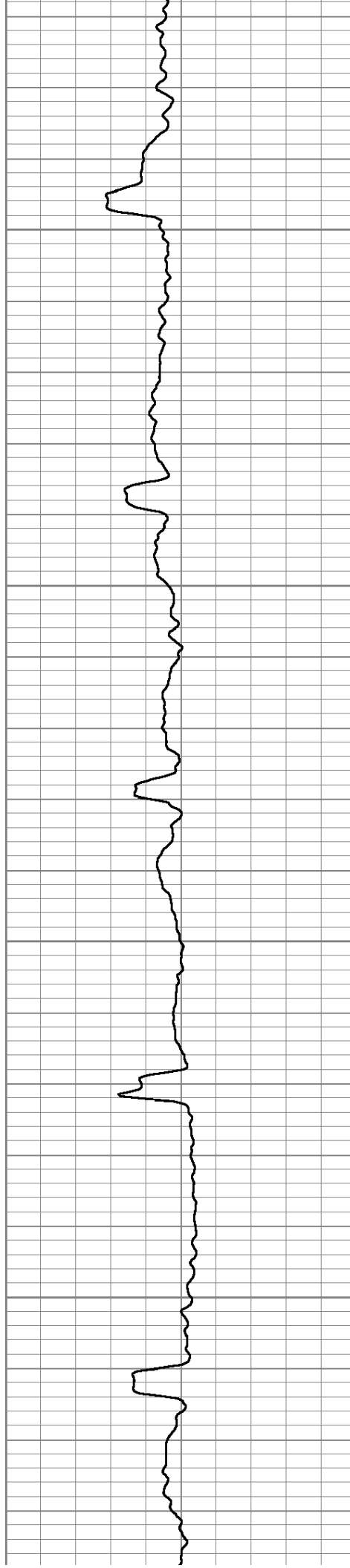


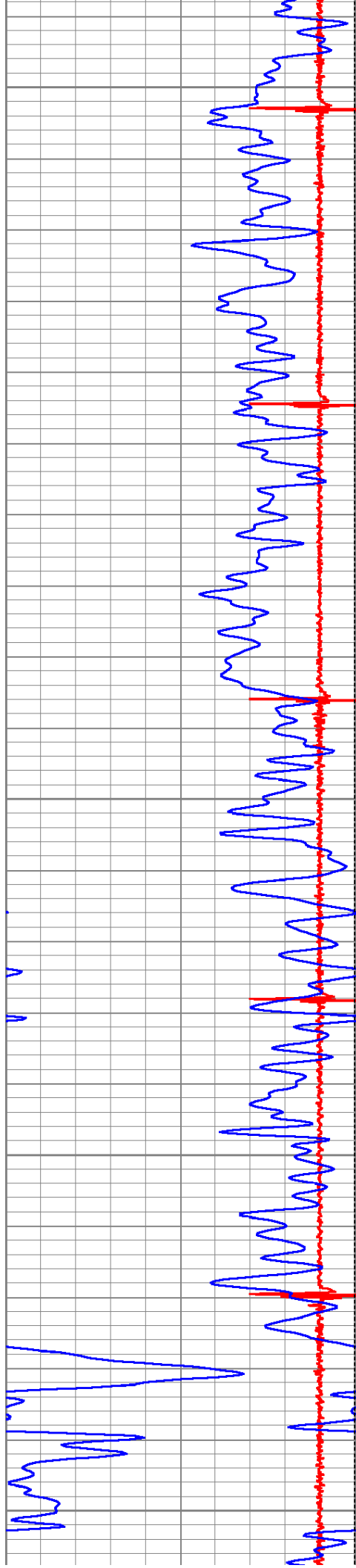
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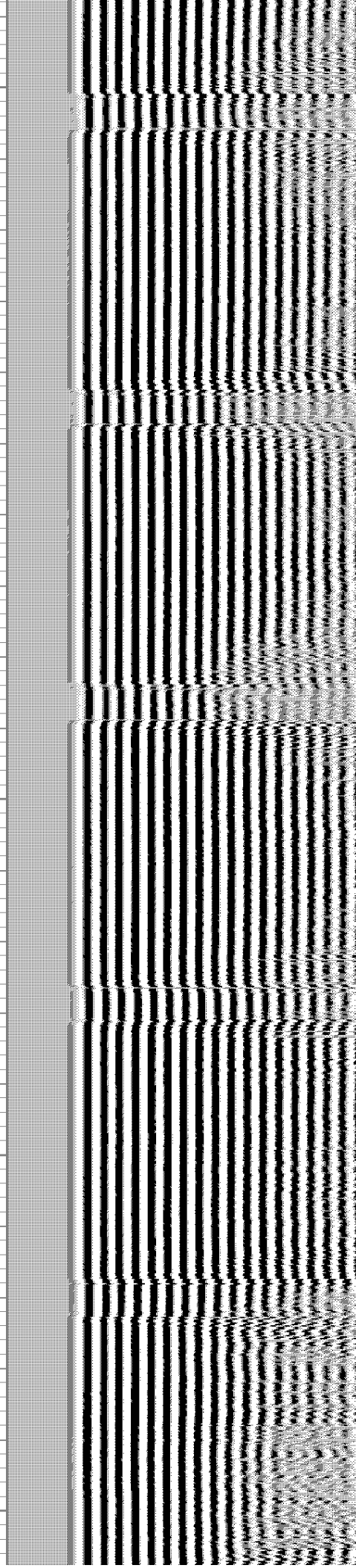
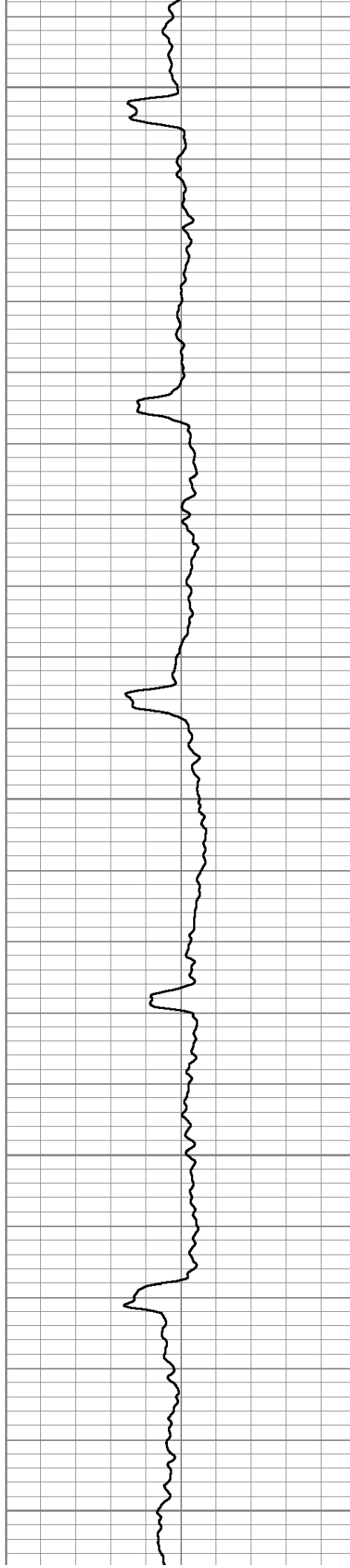
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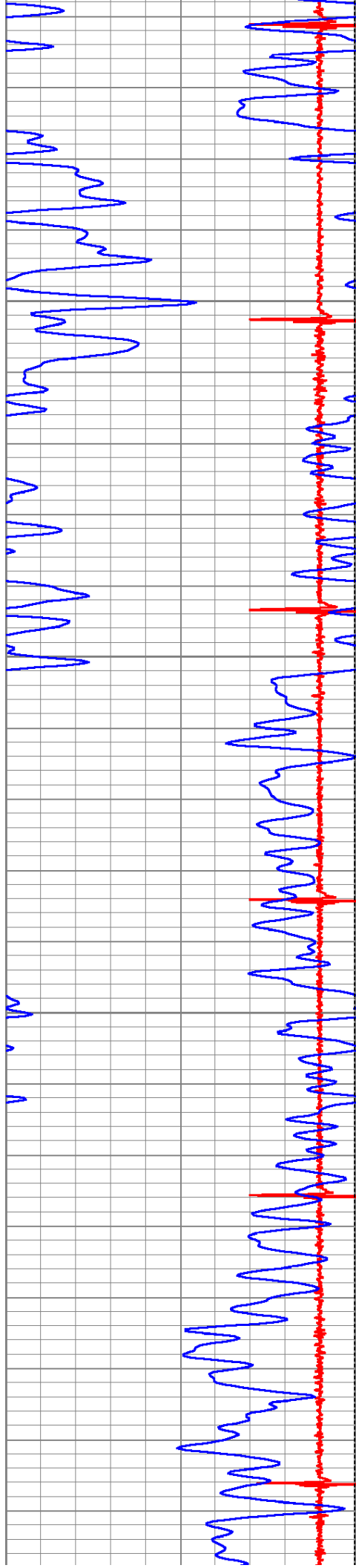
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