



VDL CCL GAMMA RAY CEMENT BOND LOG

Pioneer Energy Services

Company KERR-MCGEE OIL & GAS ONSHORE LP
Well HSR PFISTER 3-18
Field WATTENBERG
County WELD State COLORADO

Location: API # : 05123168680000
1901' FWL
865' FNL
SEC 18 TWP 3N RGE 67W
Permanent Datum GL
Log Measured From KB
Drilling Measured From KB
Elevation 4851'
Other Services
K.B. 4861'
D.F. 4860'
G.L. 4851'

Date 11/18/13

Run Number ONE
Depth Driller 7321'
Depth Logger 5900'
Bottom Logged Interval 5800'
Top Log Interval 3500'
Open Hole Size 7.875"
Type Fluid WATER
Density / Viscosity NA
Max. Recorded Temp. 194 DEG. F
Estimated Cement Top
Time Well Ready NA
Time Logger on Bottom NA
Equipment Number 9605
Location FT MORGAN
Recorded By TODD YOUNG
Witnessed By TRAUX DEAL

Borehole Record
Run Number Bit From To Size Weight From To

Casing Record
Surface String Size Wgt/Ft Top Bottom
Prot. String 4.5" 10.5# SURFACE TD
Production String
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

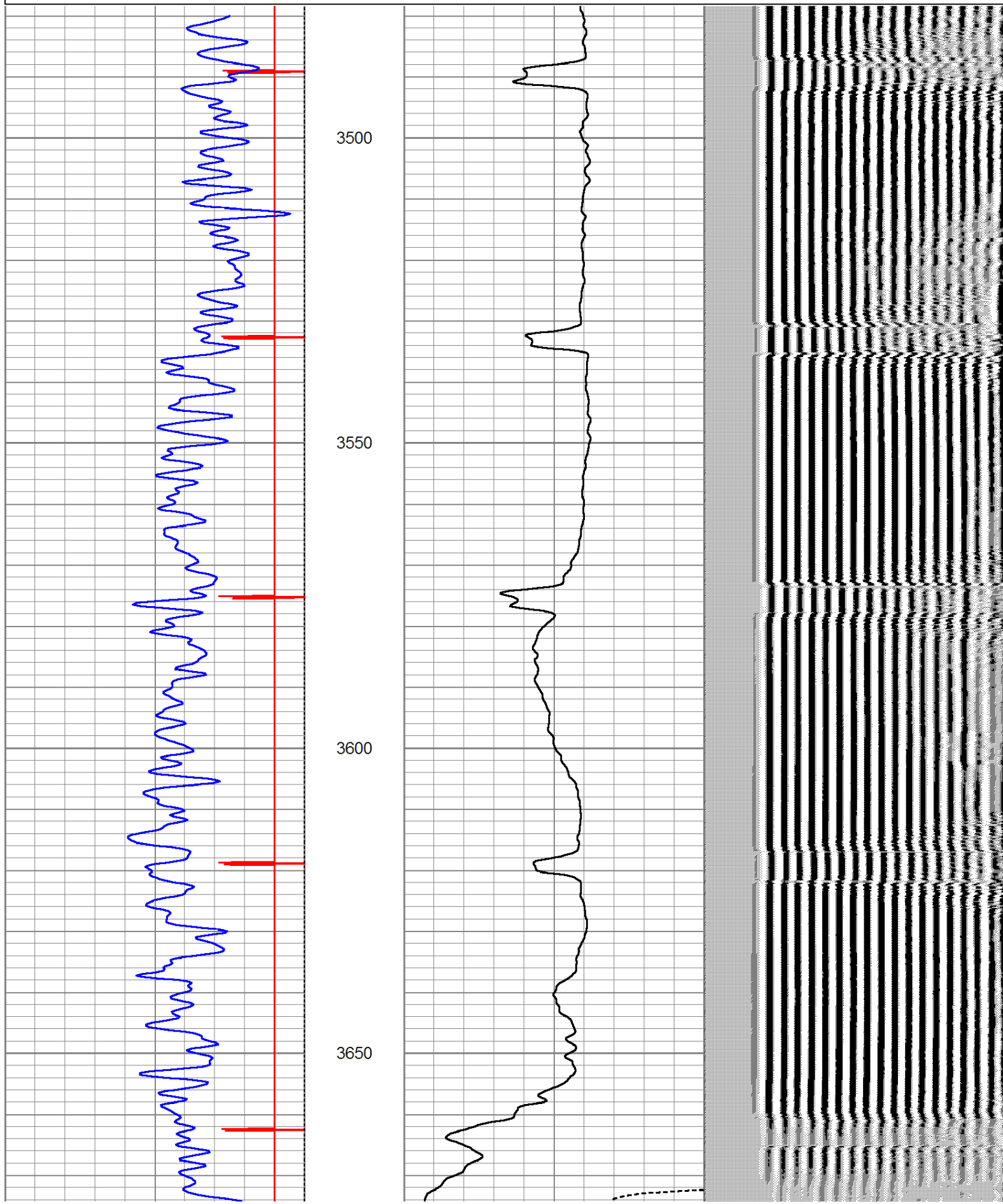
SO # 2-204869

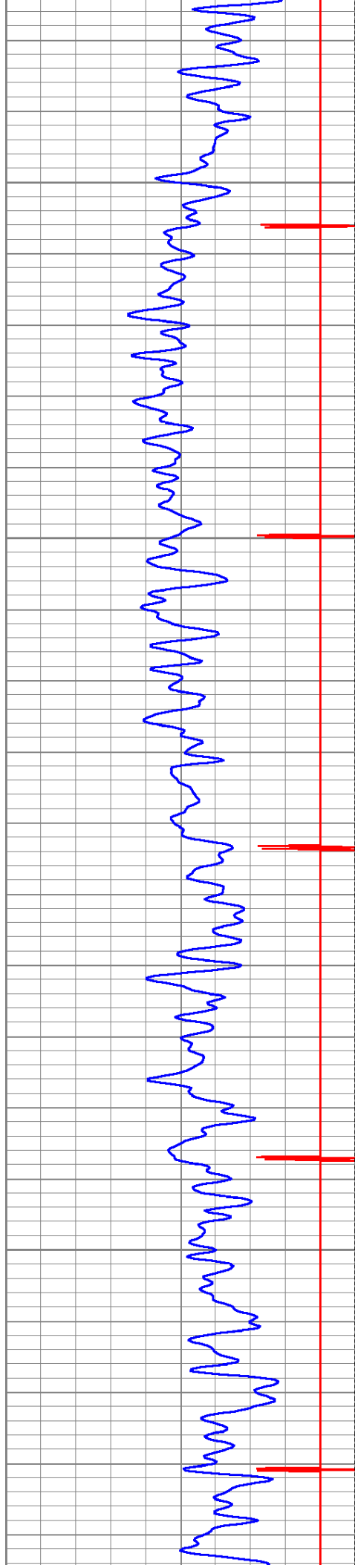
THANK YOU FOR USING
PIONEER ENERGY SERVICES

| Sensor | Offset (ft) | Schematic | Description | Len (ft) | OD (in) | Wt (lb) |
|--------|-------------|---|-------------------|----------|---------|---------|
| CCL | 19.31 |  | CCL-titan01 (01t) | 1.92 | 2.75 | |

| | | | | | | | |
|--|-------|--|---|--|------|------|--------|
| | | |  | SDSCENT Centralizer for testing | 3.00 | 3.25 | 20.00 |
| WVF3 | 10.92 | | | | | | |
| WVF5 | 9.92 | |  | CBL-Probe (110215) 2.75 digital probe | 8.75 | 2.75 | 106.50 |
| | | | | | | | |
| | | |  | SDSCENT Centralizer for testing | 3.00 | 3.25 | 20.00 |
| GR | 1.13 | |  | GR-probe 2.75 (51013) | 3.67 | 2.75 | 100.00 |
| Dataset: hsr pfister 3-18.db: field/well/run1/pass2 Total Length: 20.33 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 | | | |



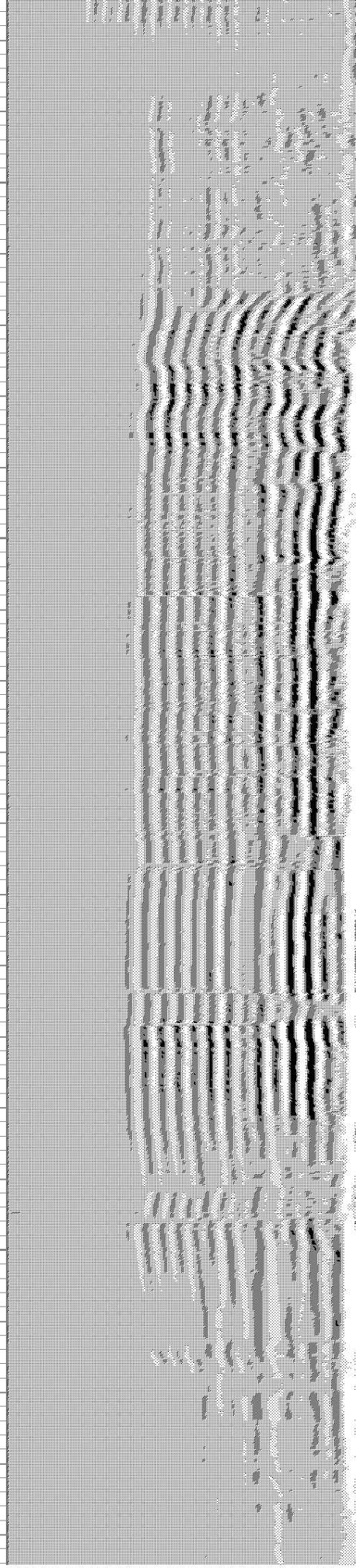
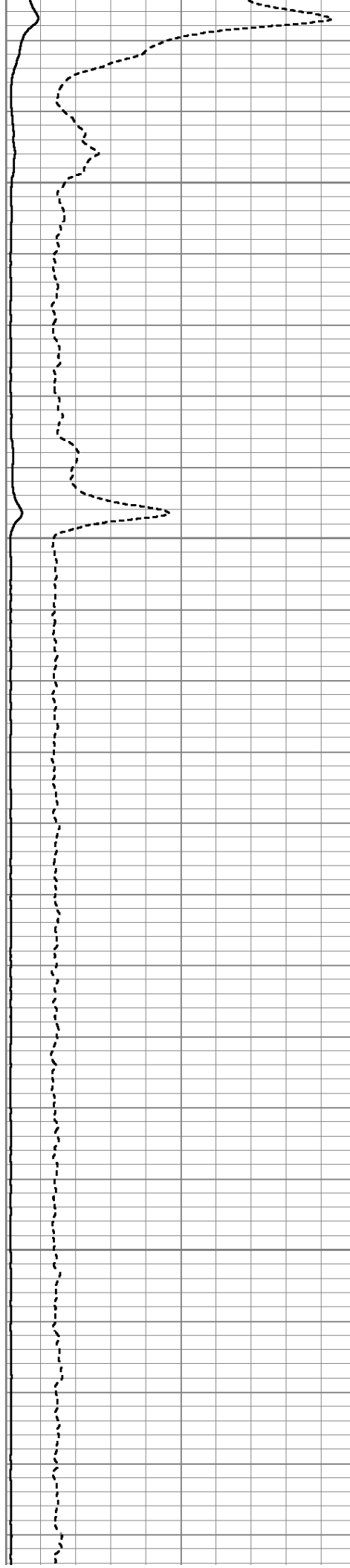


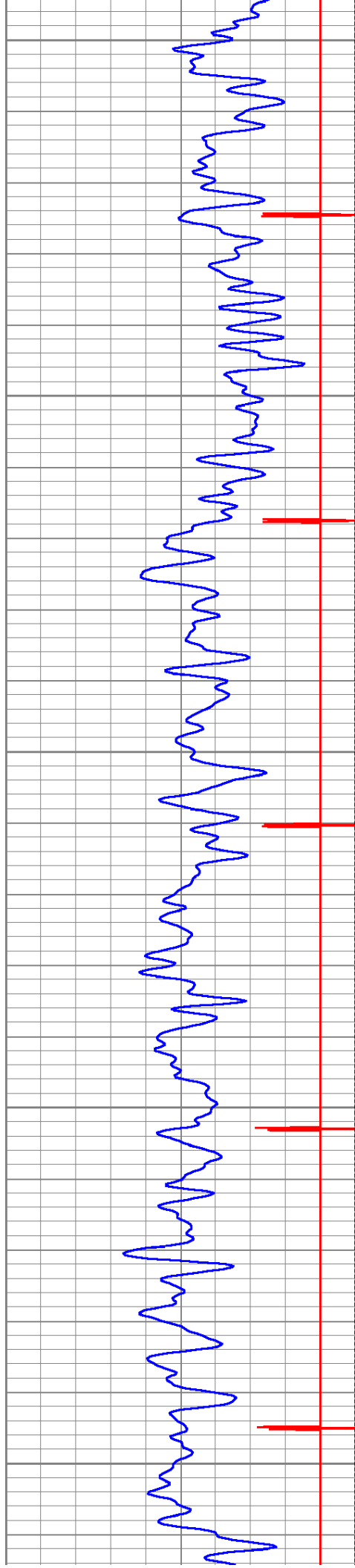
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3800

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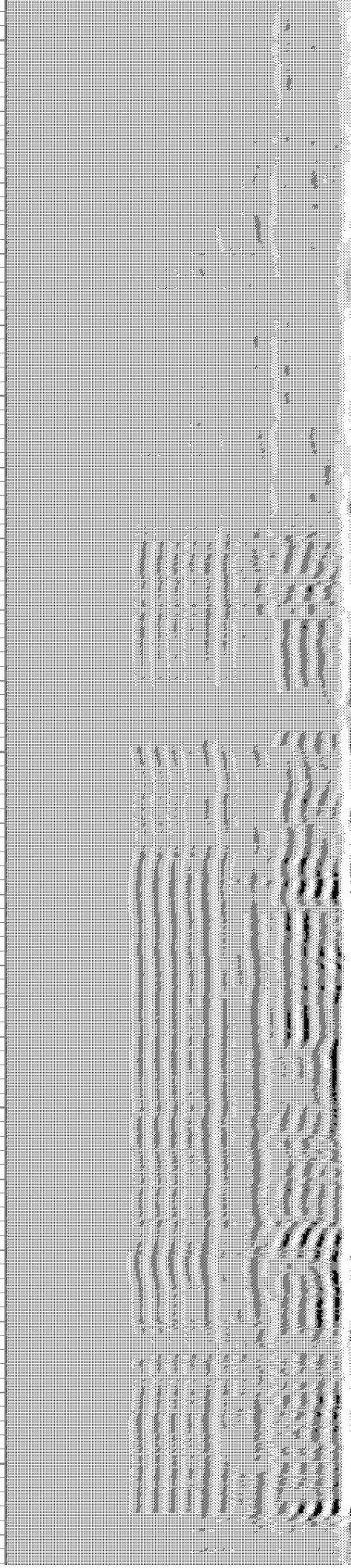
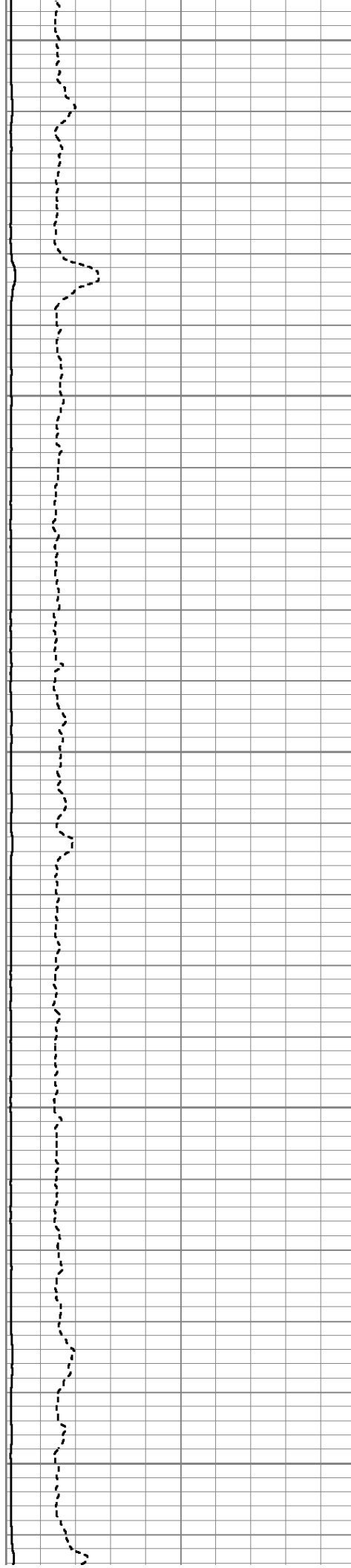
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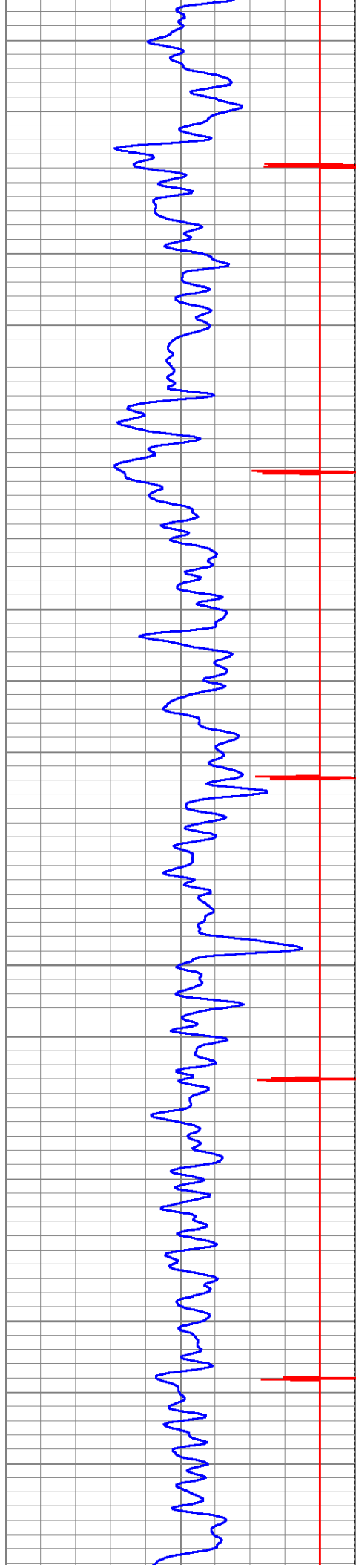
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4100



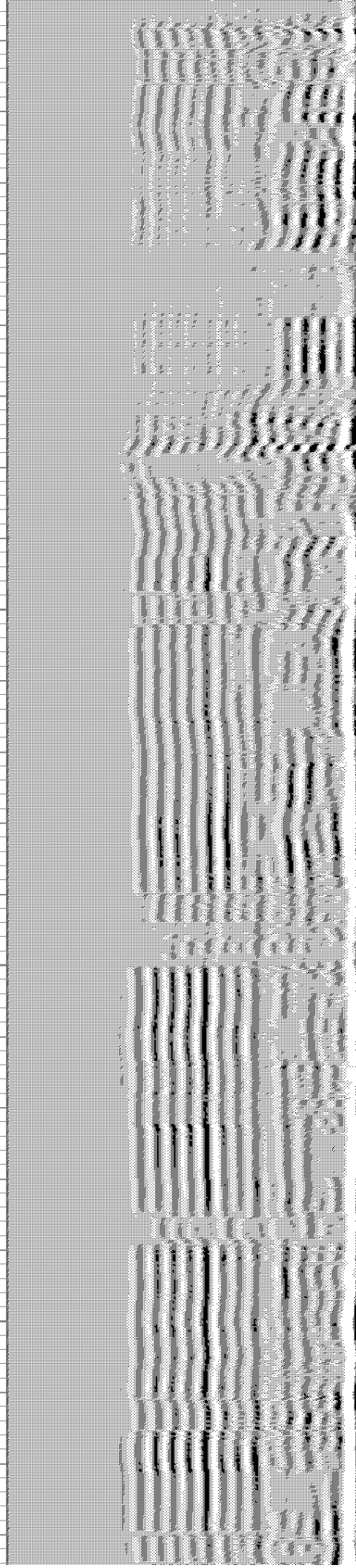
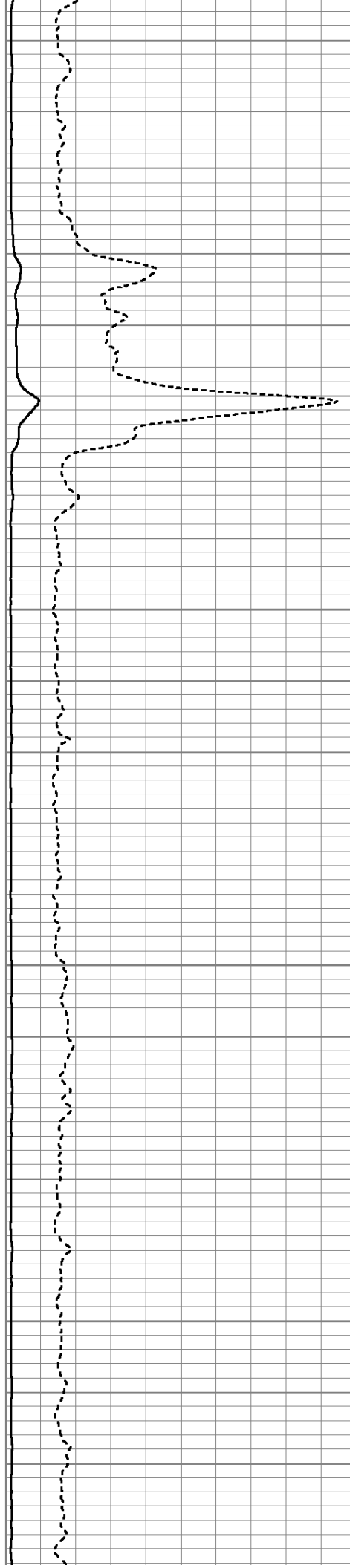


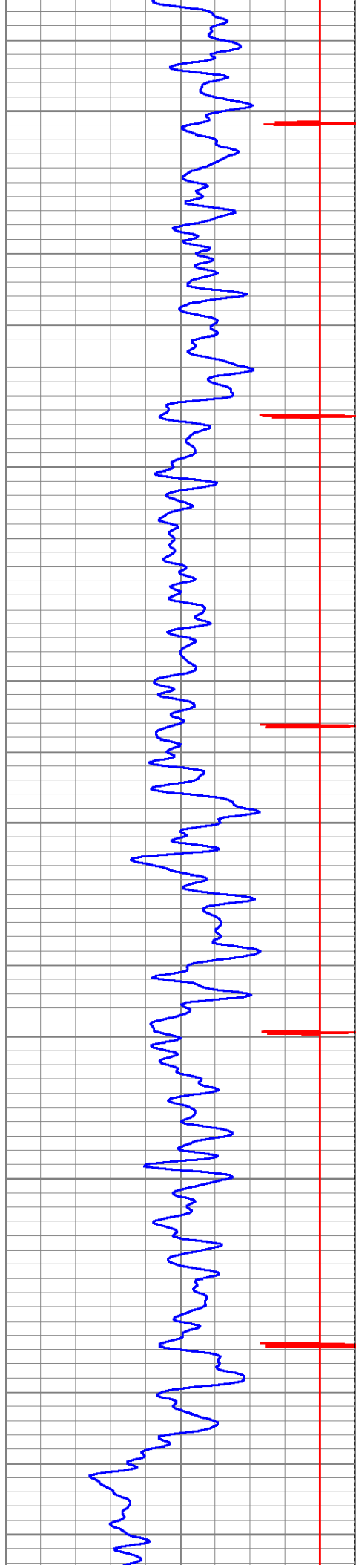
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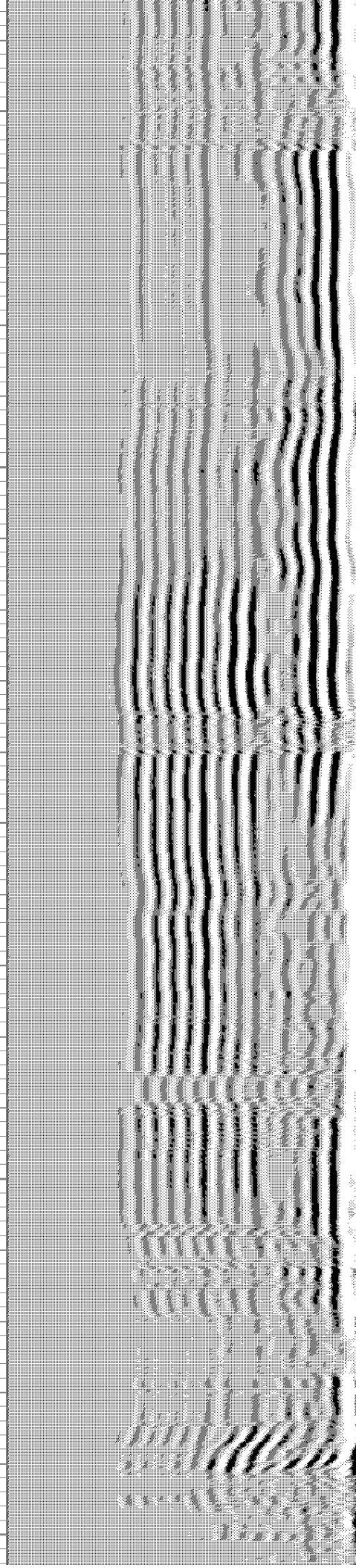
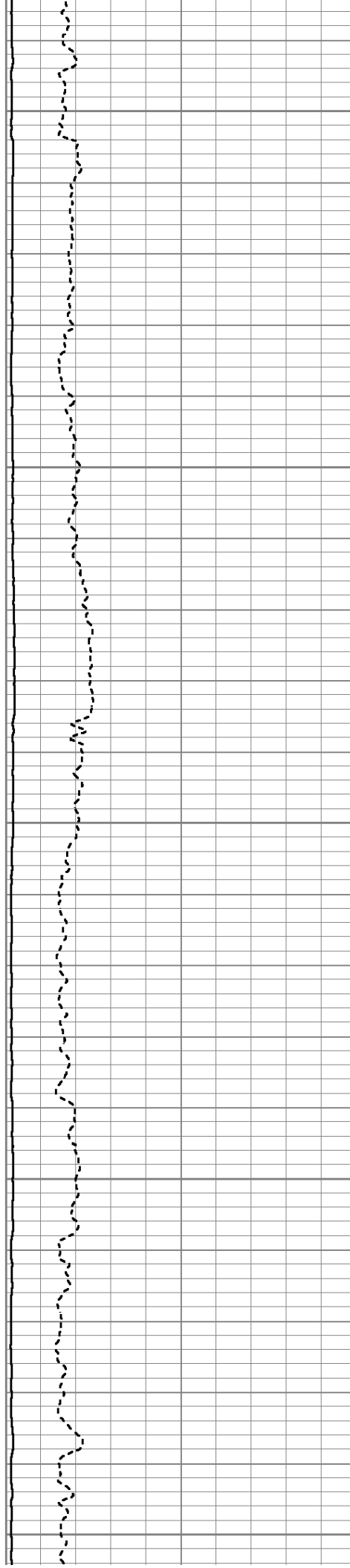
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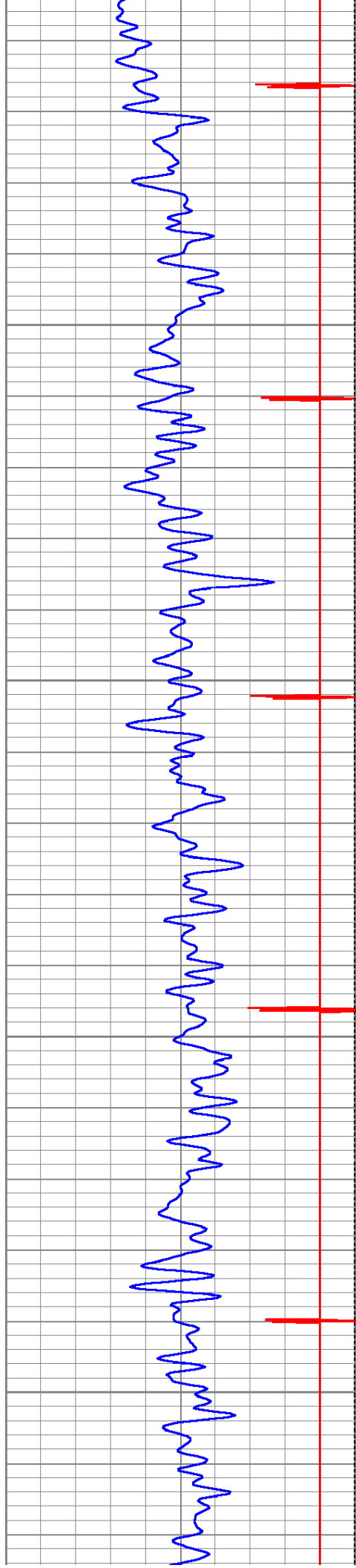
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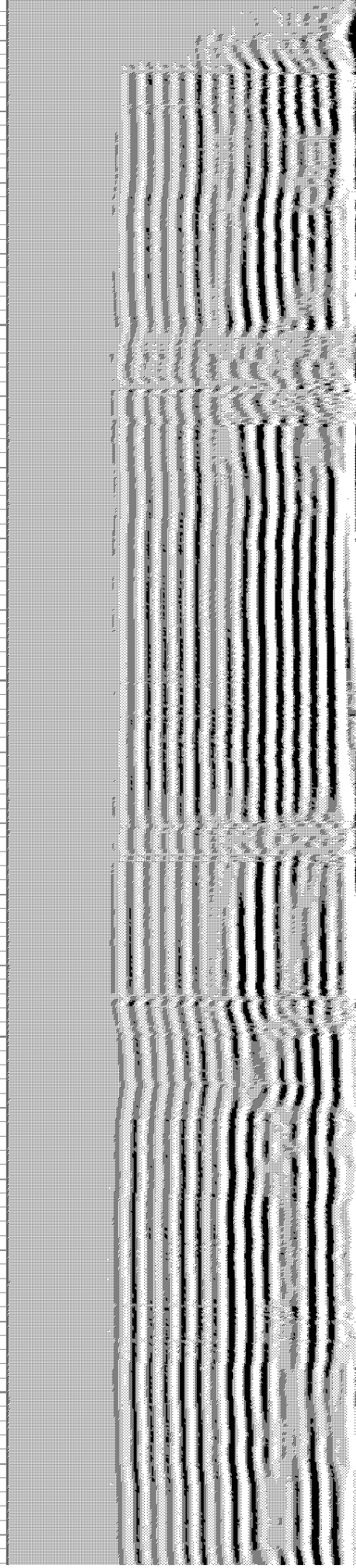
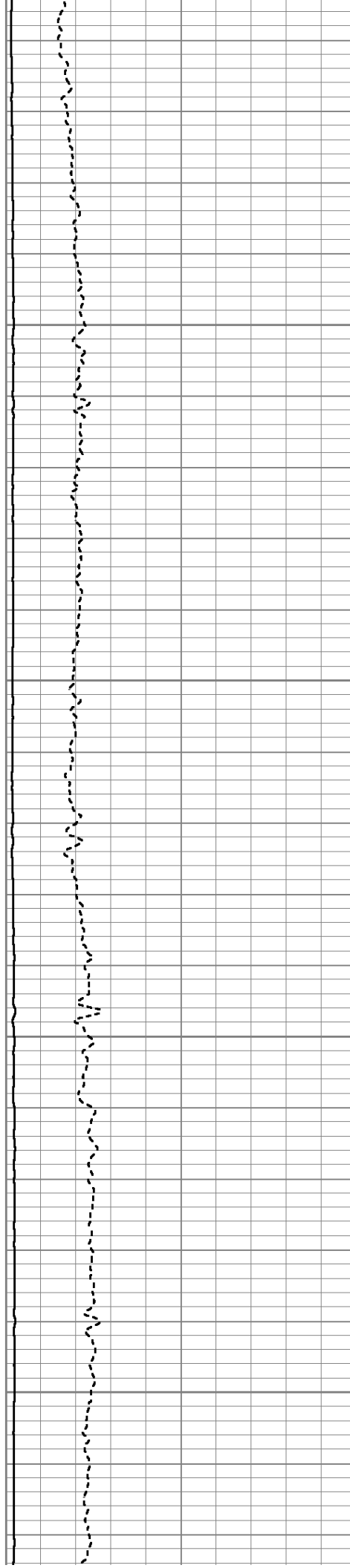


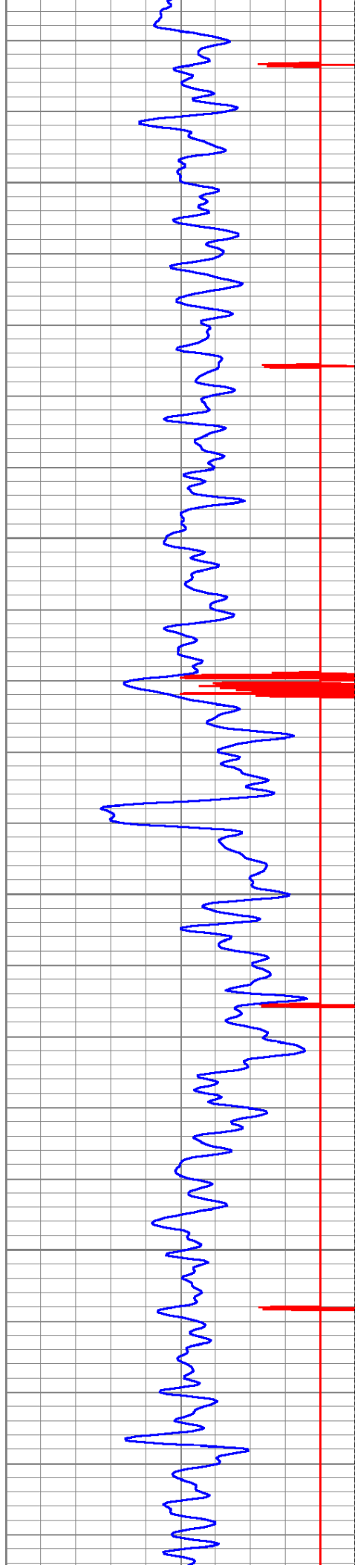
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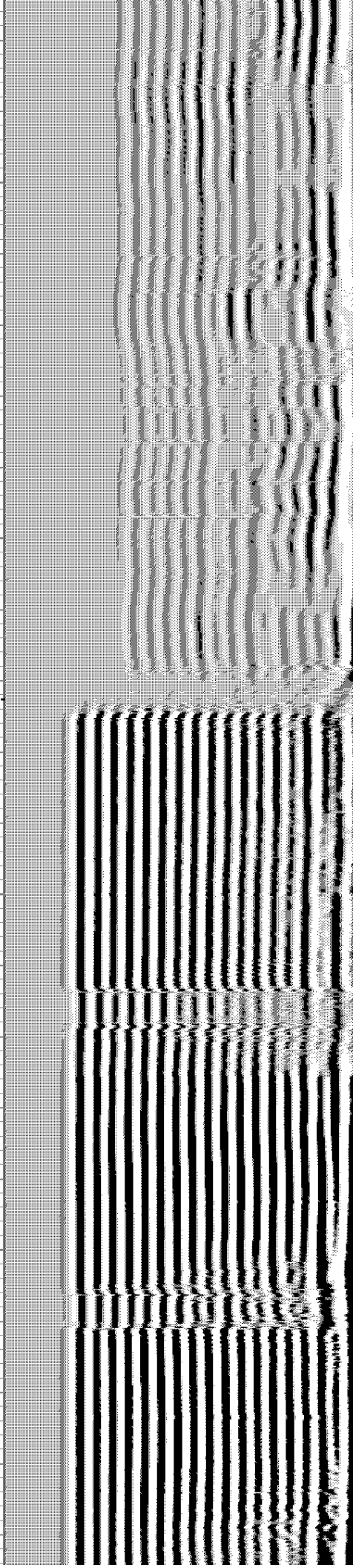
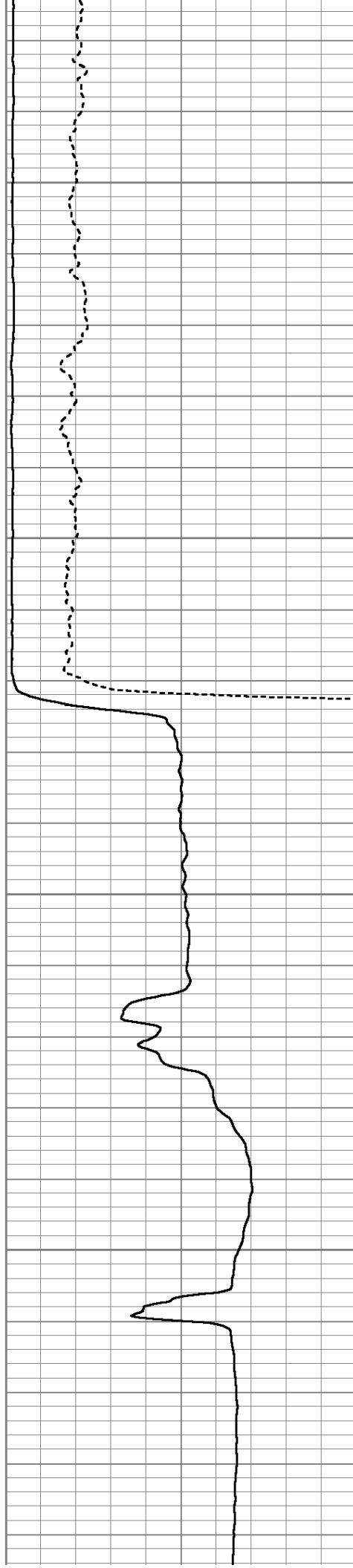


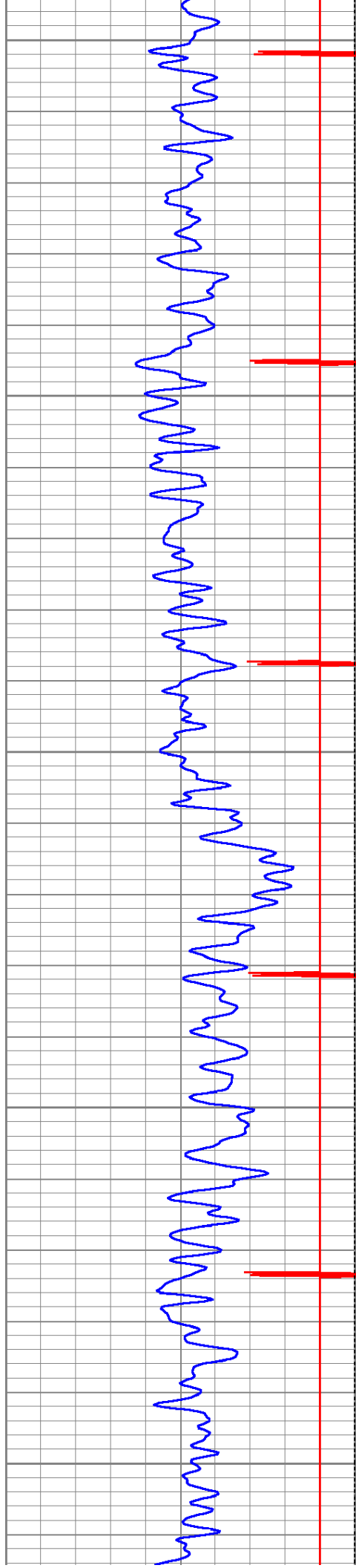
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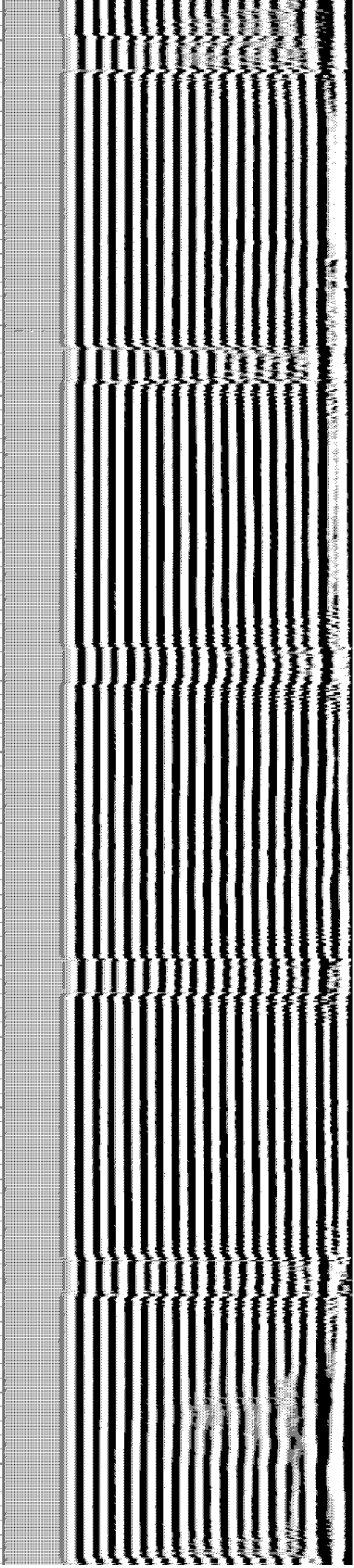
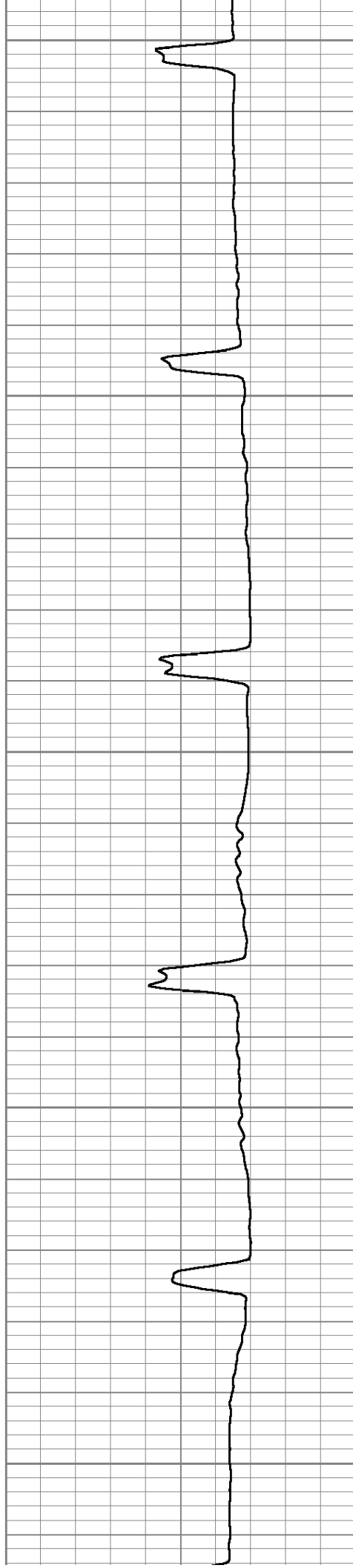
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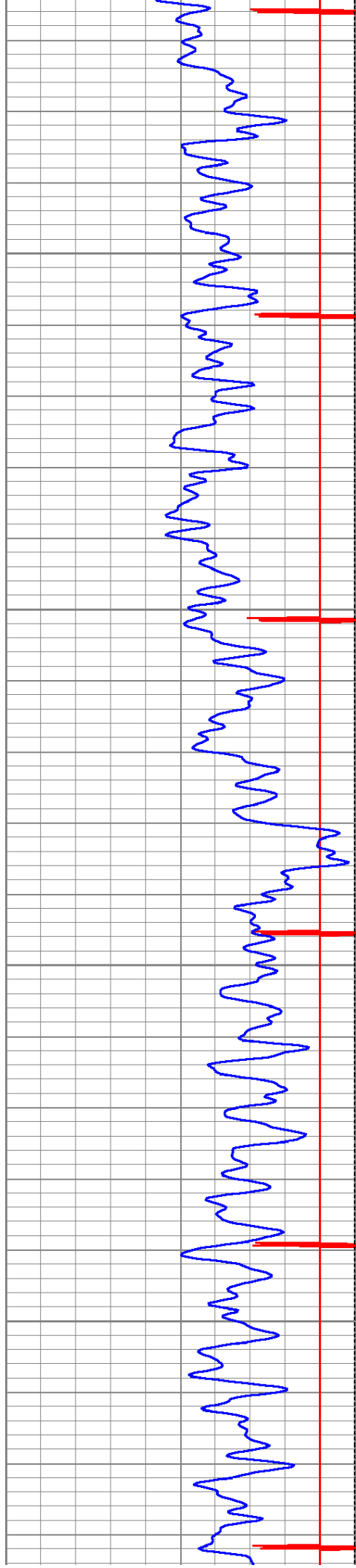
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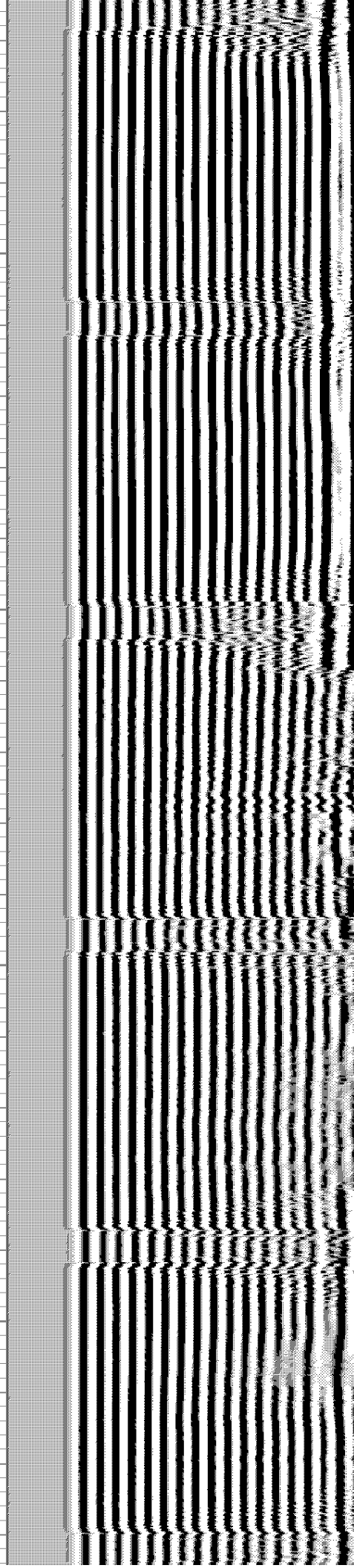
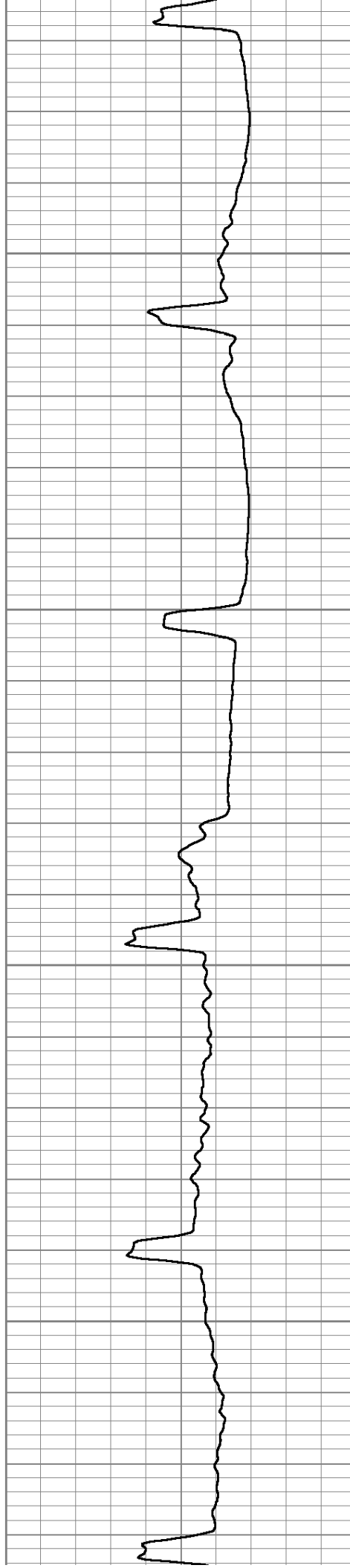


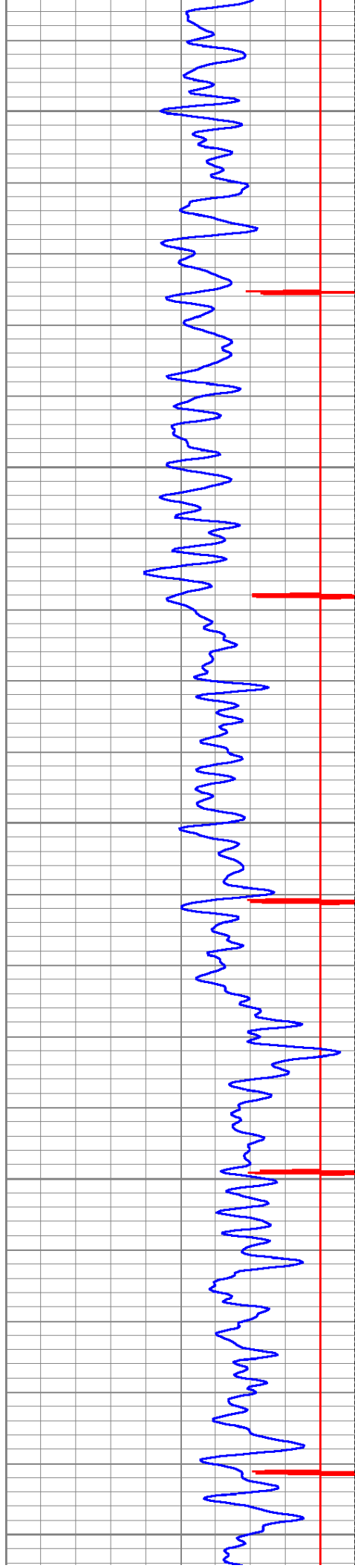
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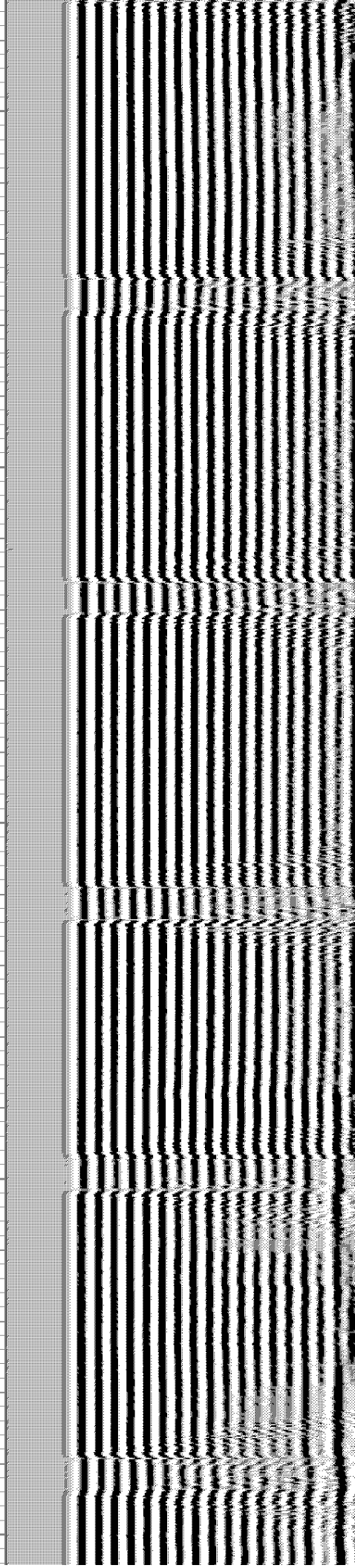
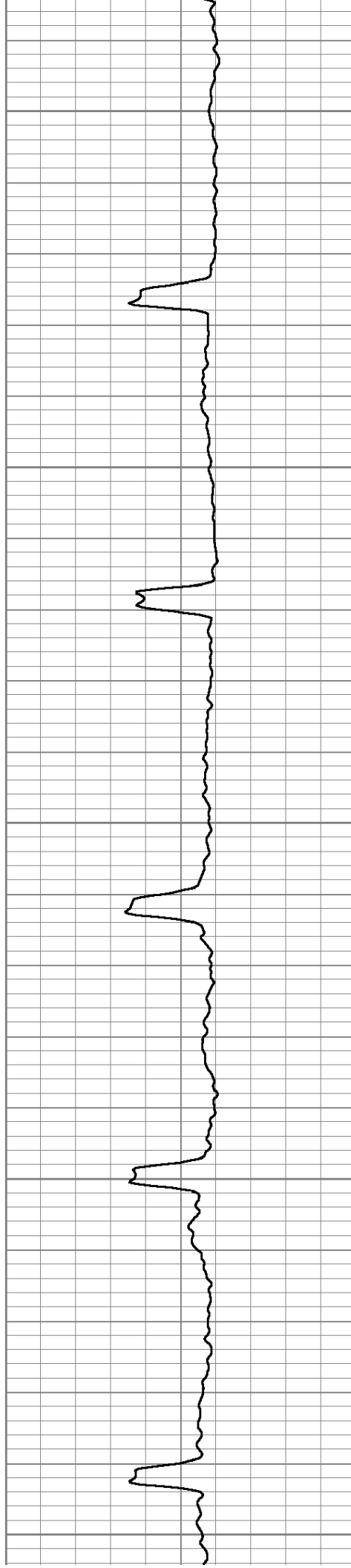
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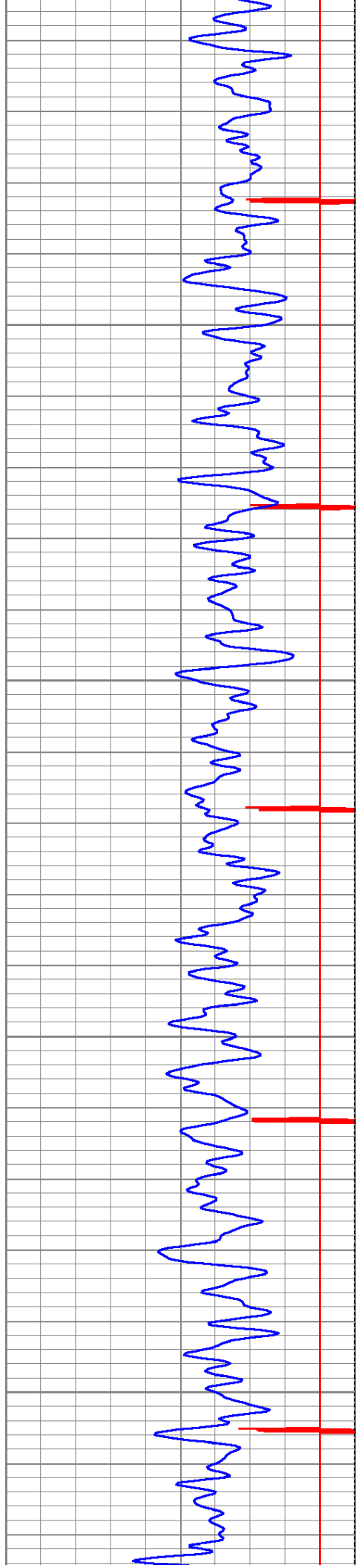
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