



SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

COMPENSATED DENSITY NEUTRON LOG

| | | | |
|------------------------------|--|-----------------------|---------------------|
| Company | XTO Energy Inc. | Company | XTO Energy Inc. |
| Well | Apache Canyon 31-12 | Well | Apache Canyon 31-12 |
| Field | Purgatory River | Field | Purgatory River |
| County | Las Animas | County | Las Animas |
| State | Colorado | State | Colorado |
| Location: | API # : 071 09120 00 2482' FSL & 331' FWL | Other Services DIL | |
| Permanent Datum | SEC 31 TWP 33S RGE 67W | Elevation | |
| Log Measured From | Ground Level | K.B. ----- | |
| Drilling Measured From | Ground Level | D.F. ----- | |
| | Ground Level | G.L. 7743' | |
| Date | 3-7-07 | | |
| Run Number | Two | | |
| Depth Driller | 2200' | | |
| Depth Logger | 2200' | | |
| Bottom Logged Interval | 2198' | | |
| Top Log Interval | Surface Casing | | |
| Casing Driller | 8 5/8" @ 500' | | |
| Casing Logger | 500' | | |
| Bit Size | 7 7/8" | | |
| Type Fluid in Hole | Water | | |
| Density / Viscosity | /// | | |
| pH / Fluid Loss | /// | | |
| Source of Sample | /// | | |
| Rm @ Meas. Temp | /// | | |
| Rmf @ Meas. Temp | /// | | |
| Rmc @ Meas. Temp | /// | | |
| Source of Rmf / Rmc | /// | | |
| Rm @ BHT | /// | | |
| Time Circulation Stopped | 3:30 P.M. | | |
| Time Logger on Bottom | 7:00 P.M. | | |
| Maximum Recorded Temperature | 99 DEG F | | |
| Equipment Number | T0697 | | |
| Location | Trinidad | | |
| Recorded By | M. Norton | | |
| Witnessed By | Mr. Don Johnson | | |

>>> 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

Neutron Density Porosity Presented On Sandstone Matrix.
ABHV Calculated For 5 1/2" Casing.
Well Directions:
Second Bosque entrance four miles past Weston turn left,
at Y stay left on Ciruele Canyon, drive to wind mill stay right,
stay on main road second drive thru location.



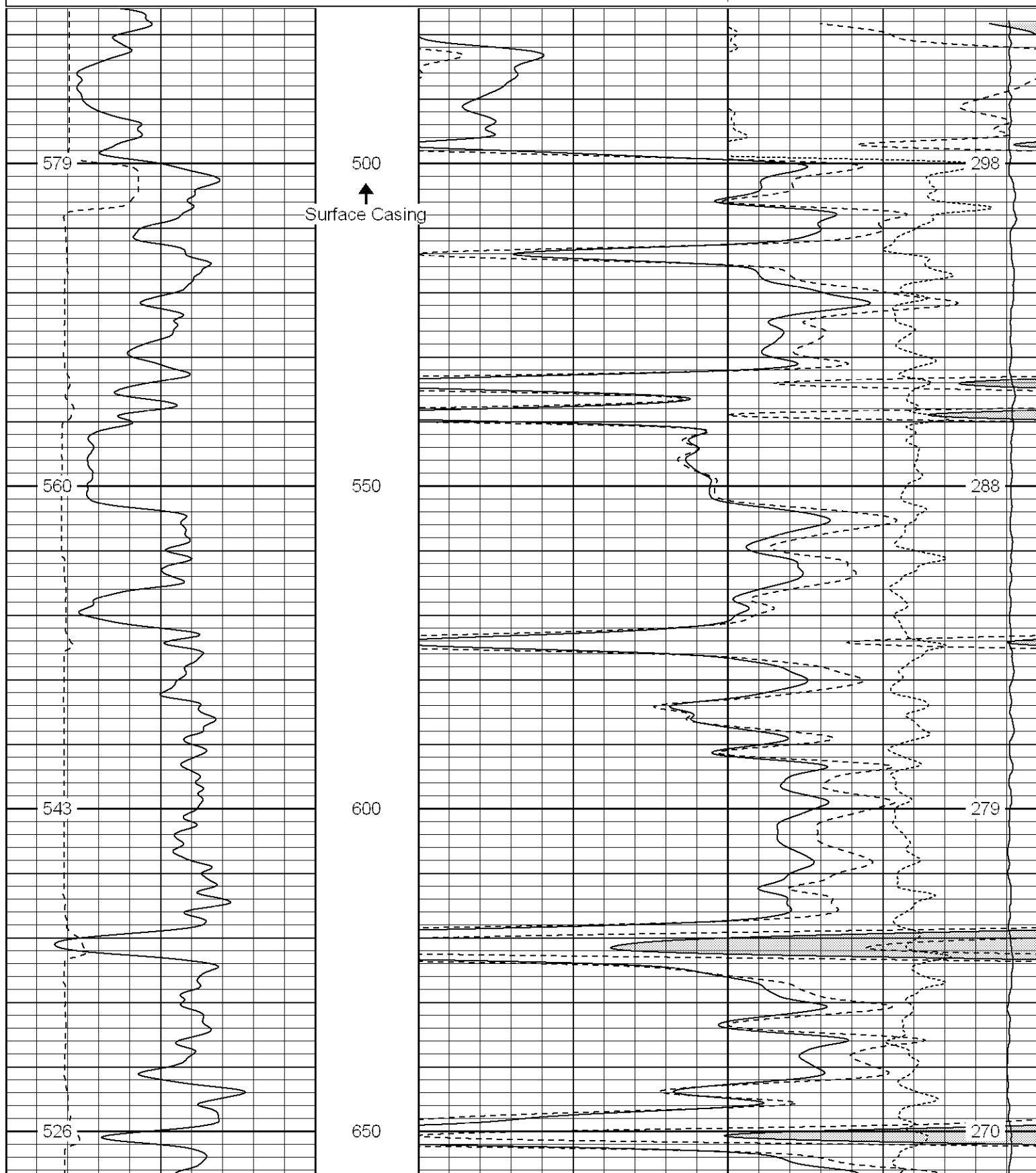
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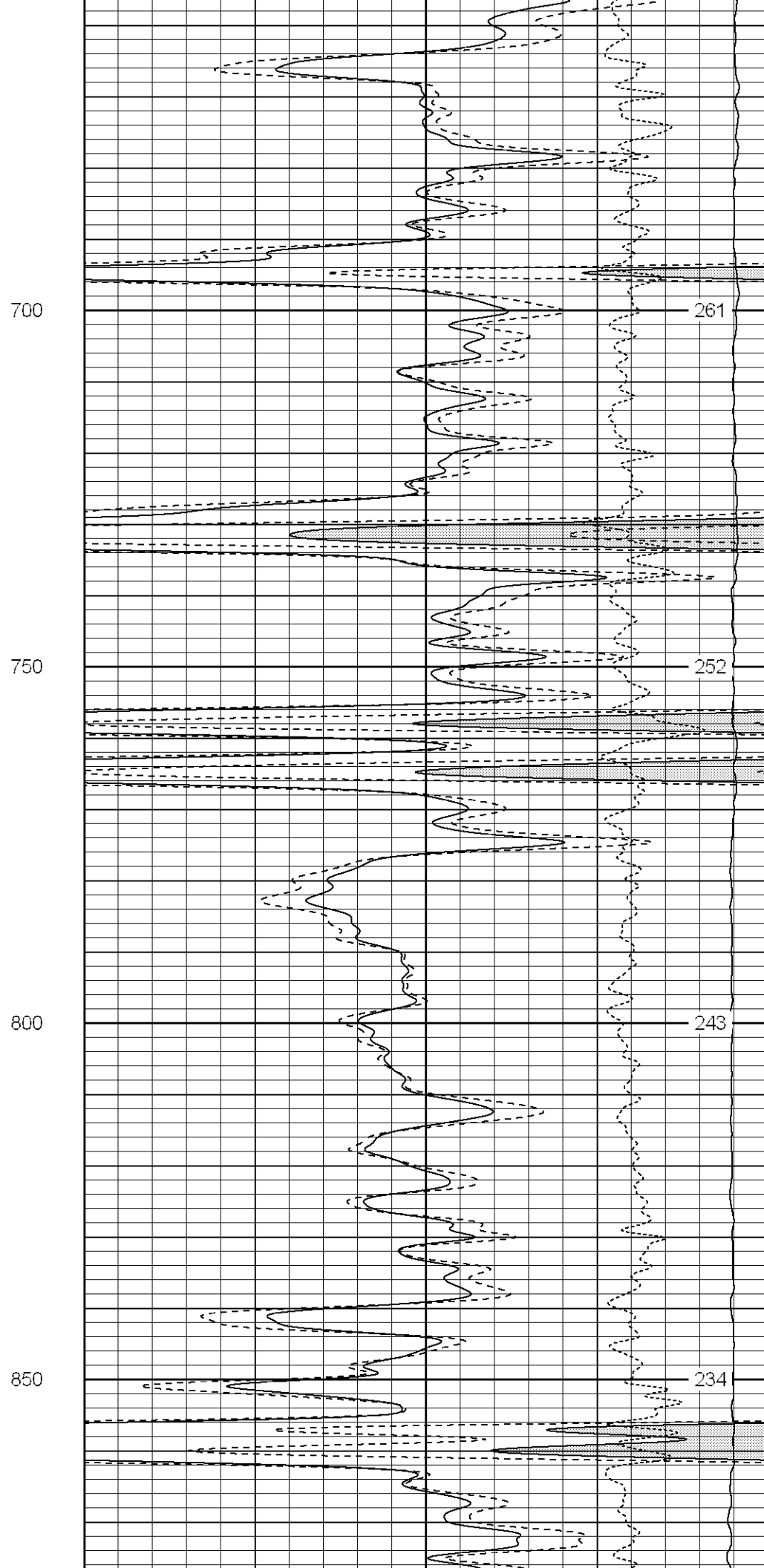
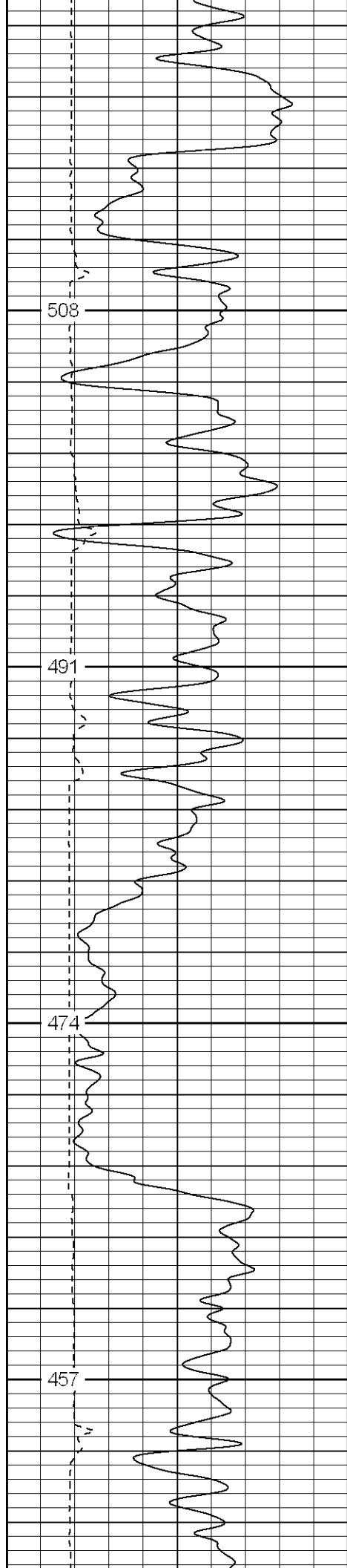
Main Pass

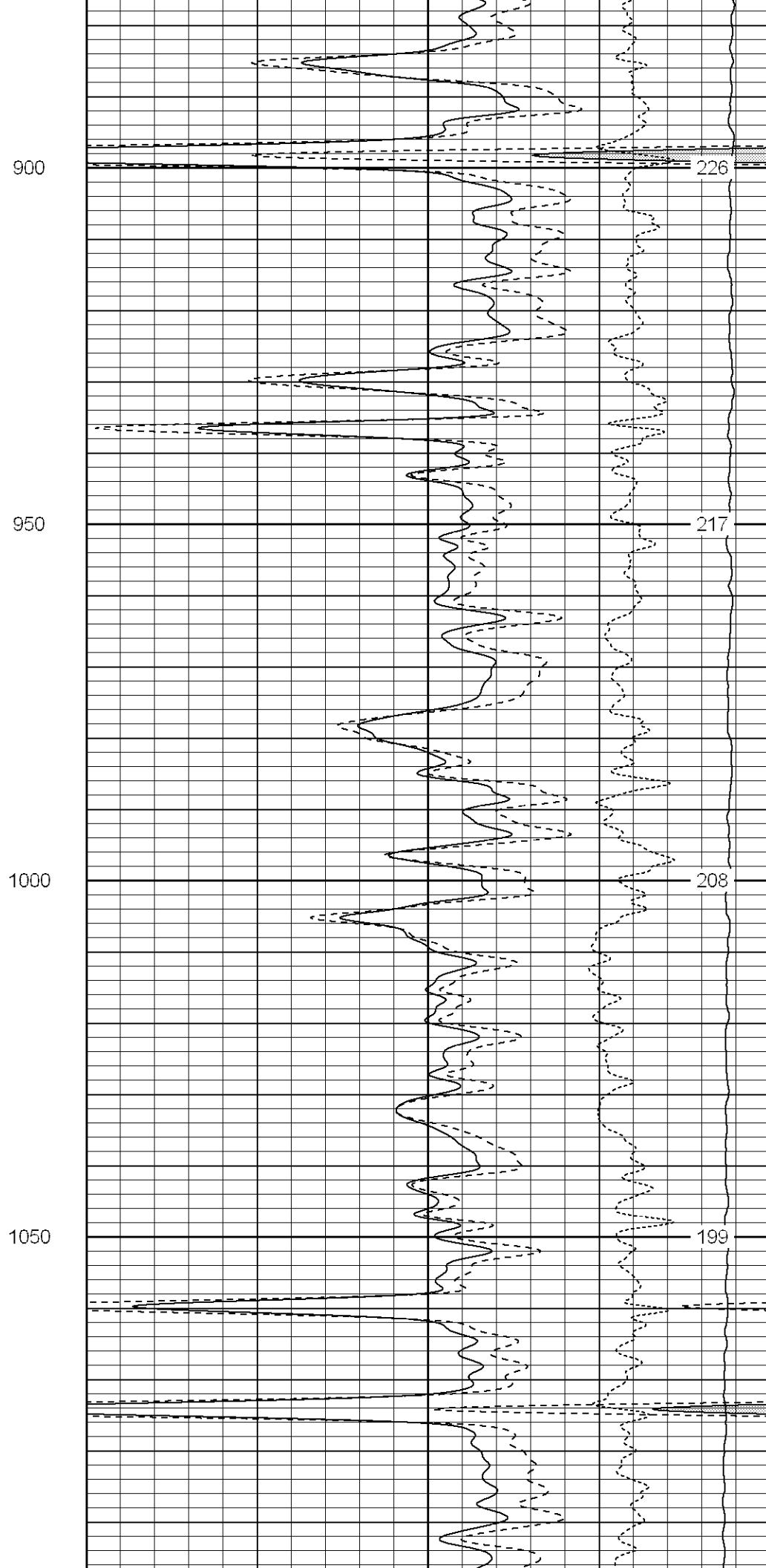
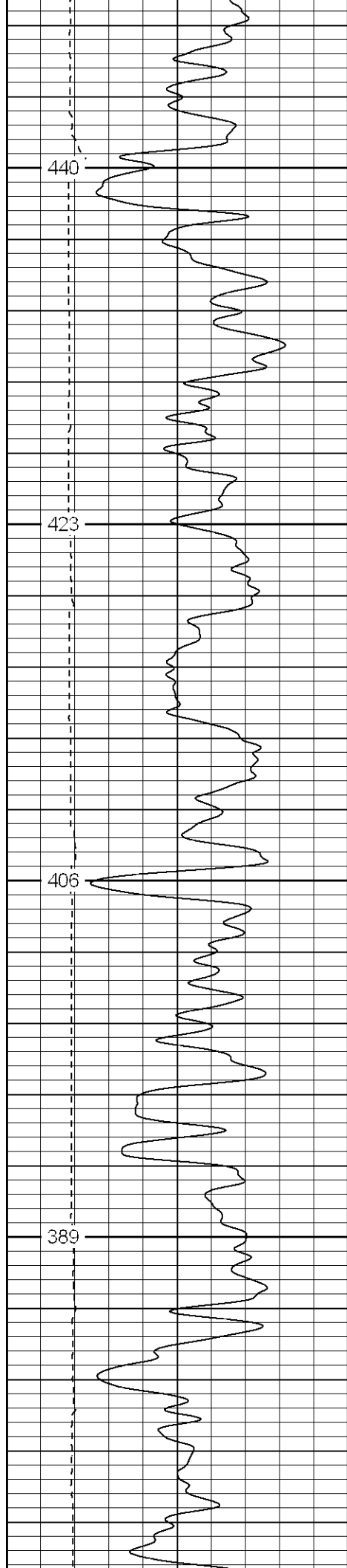
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Presentation Format: cdl
Dataset Creation: Wed Mar 07 20:13:16 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

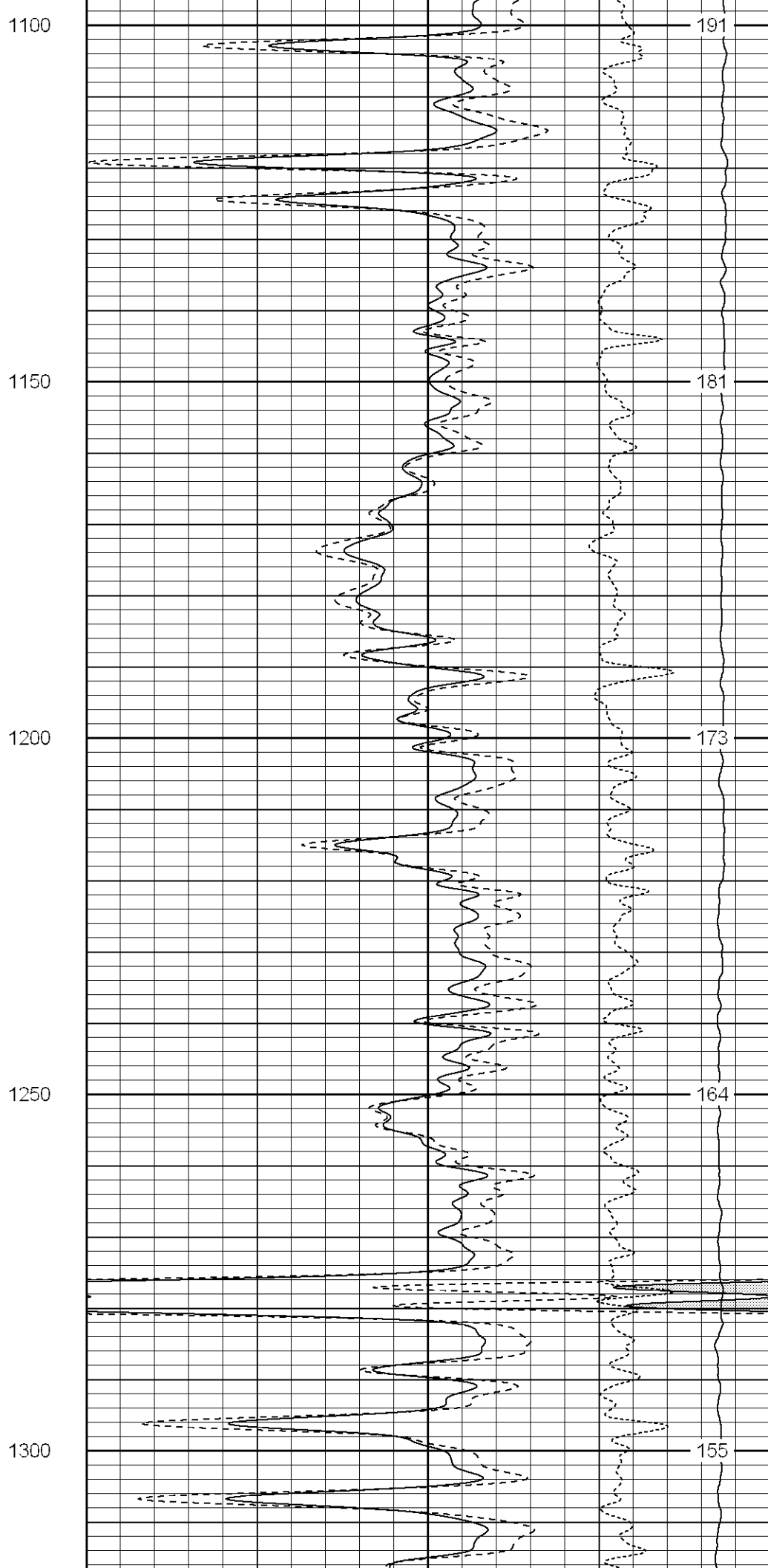
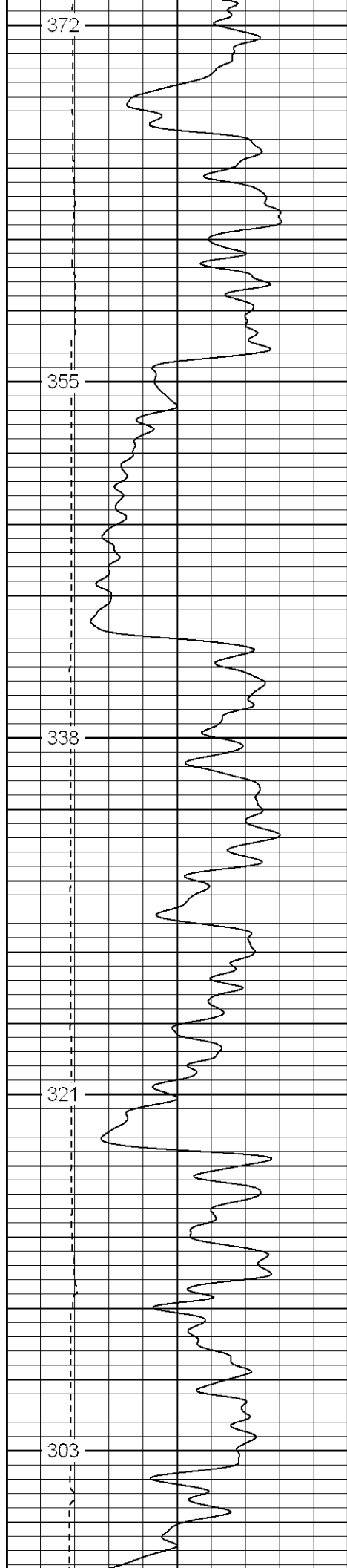
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|---|-----------|-----|
| 0 | GR (GAPI) | 200 |
| 6 | DCAL (in) | 16 |

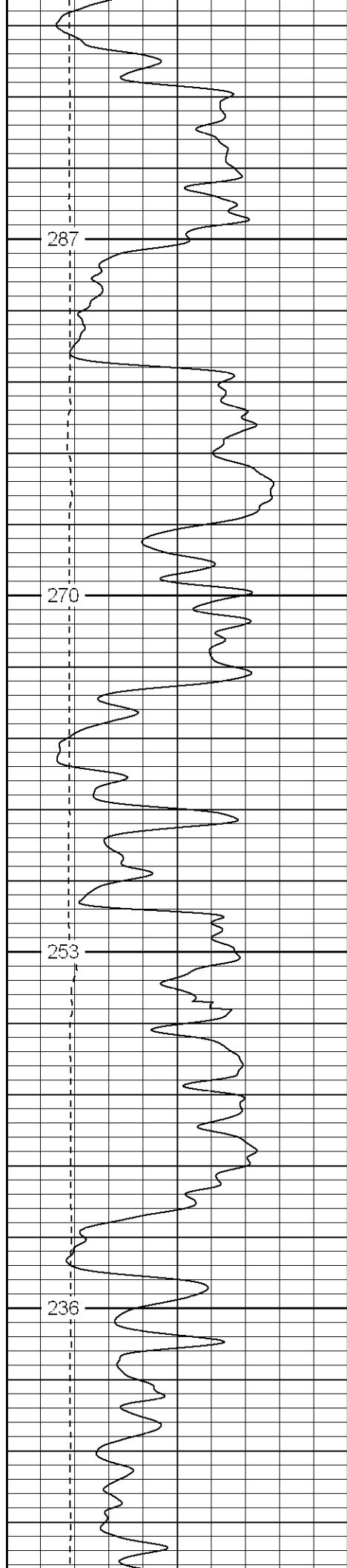
| | | |
|------|-------------|-----|
| 1 | RHOB (g/cc) | 2 |
| 30 | DPOR (pu) | -10 |
| -0.5 | RHOC (g/cc) | 0.5 |
| 4000 | LTEN (lb) | 0 |









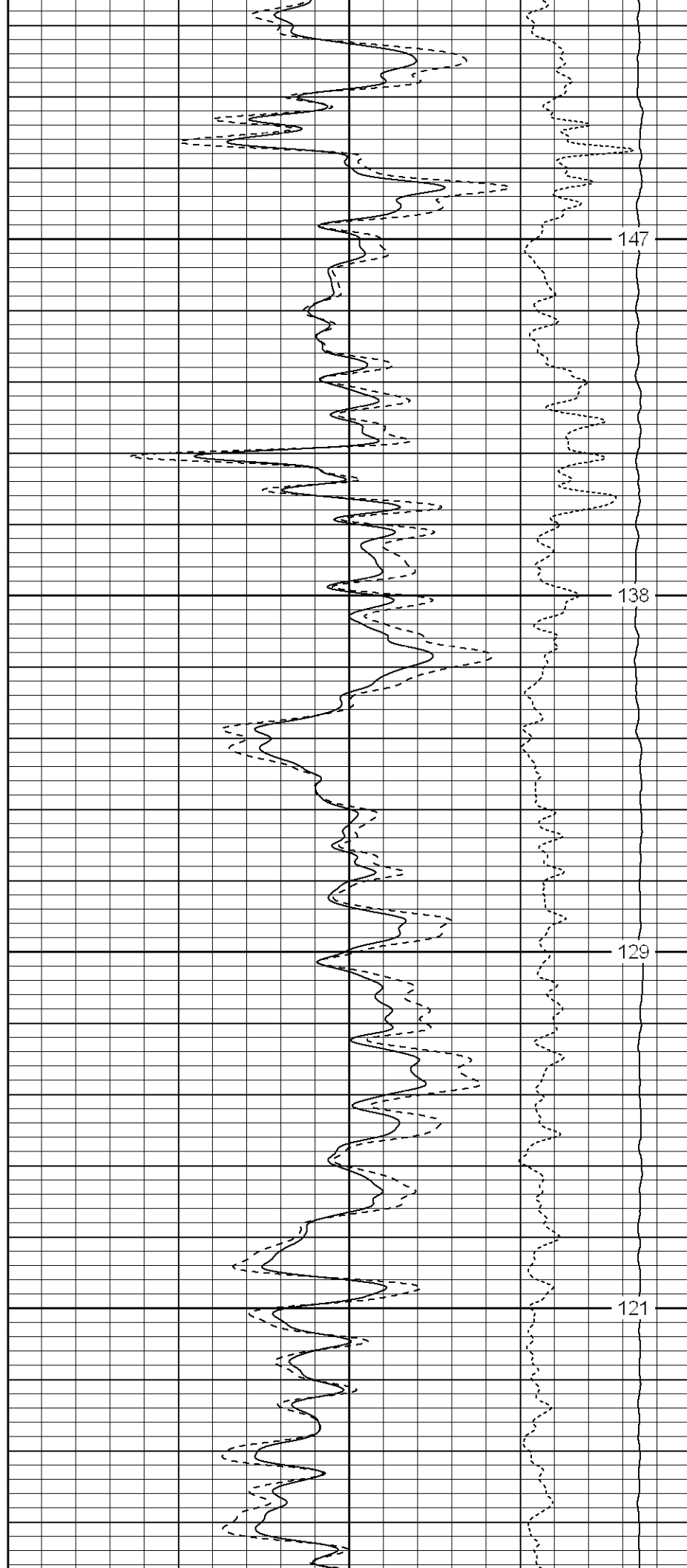


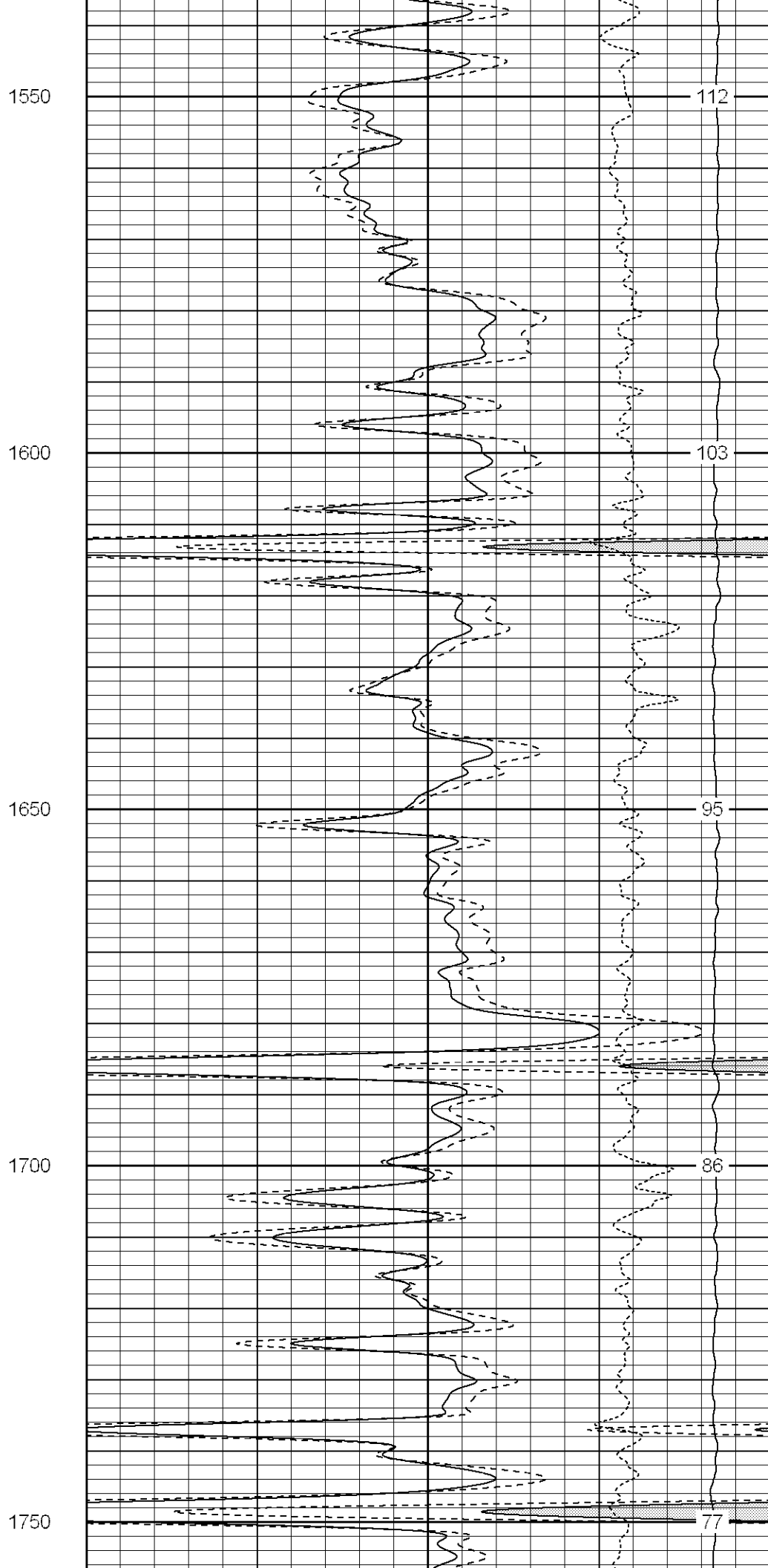
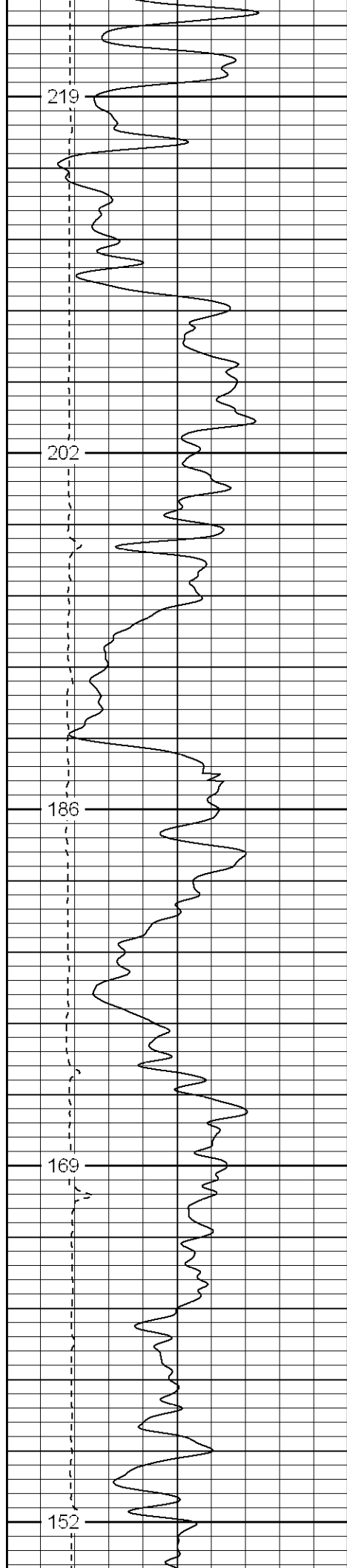
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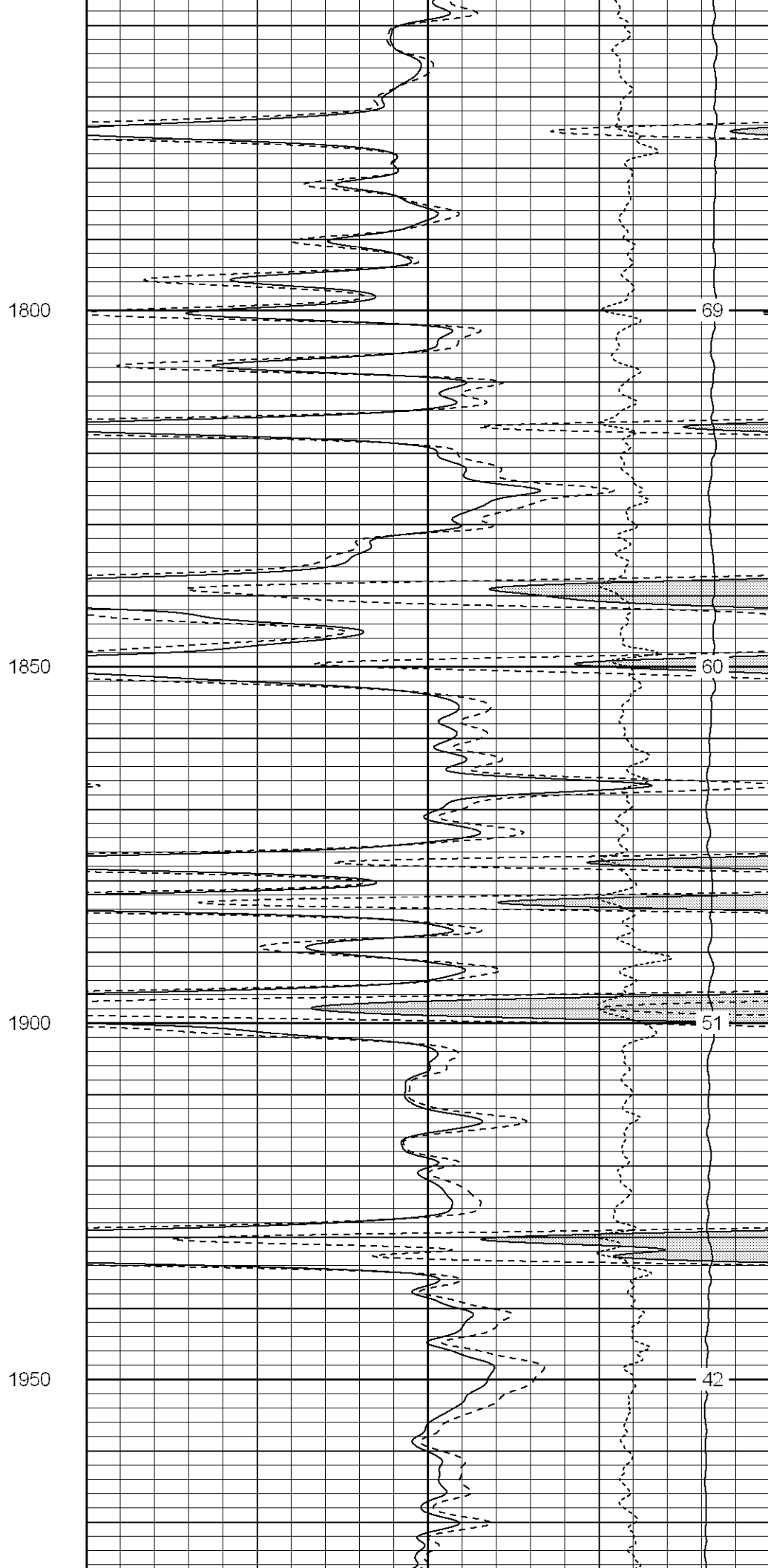
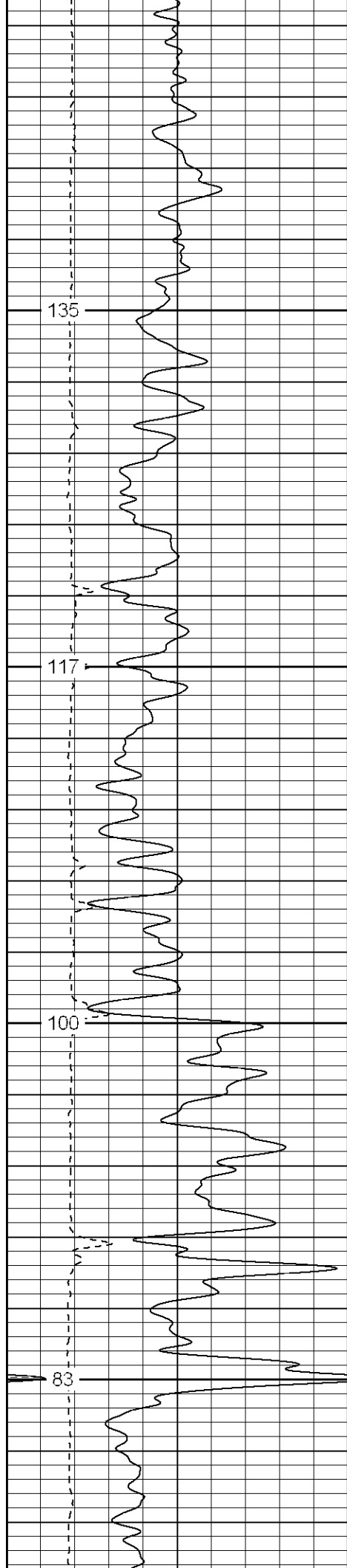
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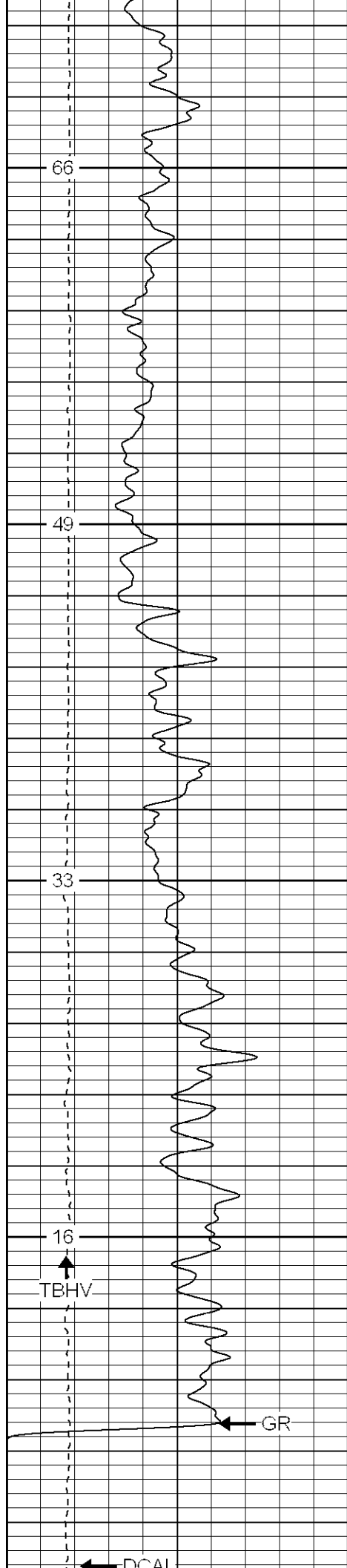
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1500







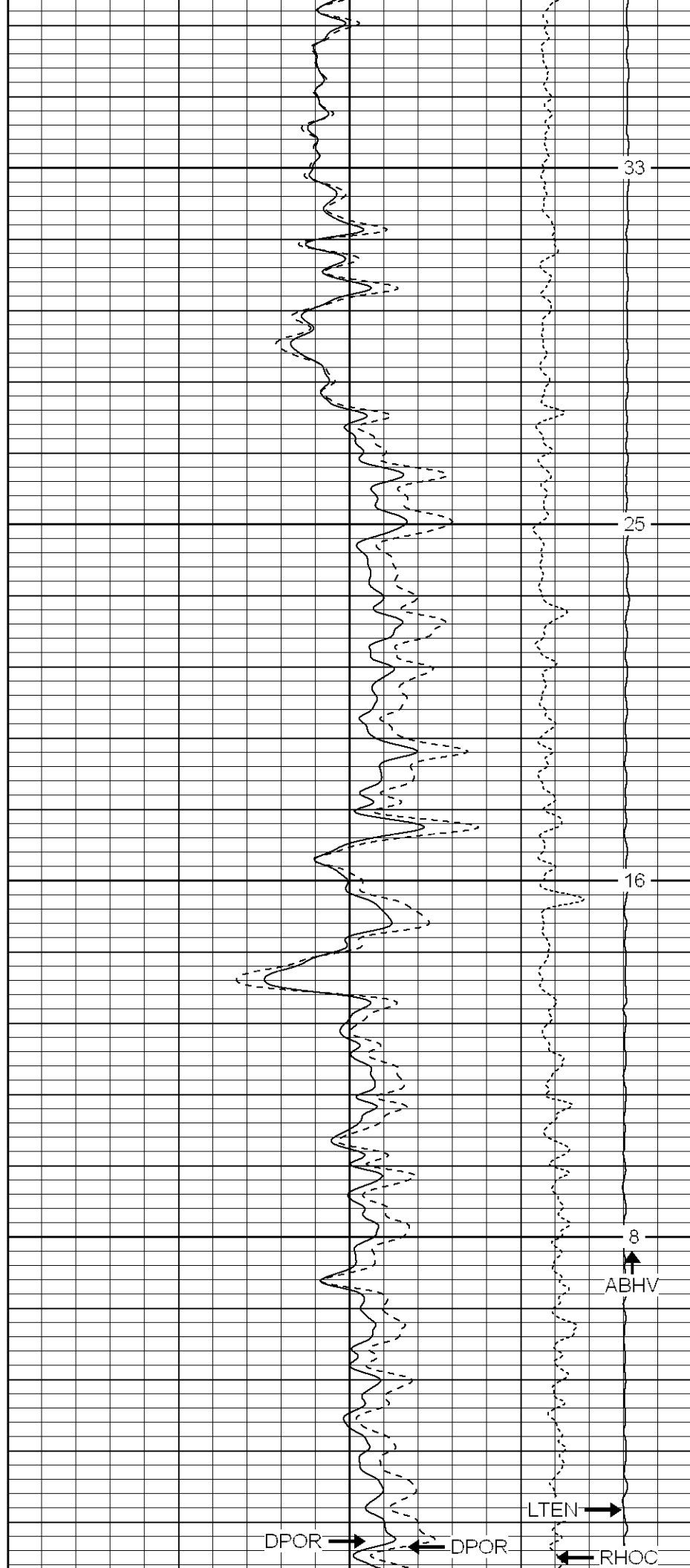


2000

2050

2100

2150



| | | | | | |
|---|-----------|-----|------|-------------|-----|
| 0 | GR (GAPI) | 200 | 1 | RHOB (g/cc) | 2 |
| 6 | DCAL (in) | 16 | 30 | DPOR (pu) | -10 |
| | | | -0.5 | RHOC (g/cc) | 0.5 |
| | | | 4000 | LTEN (lb) | 0 |



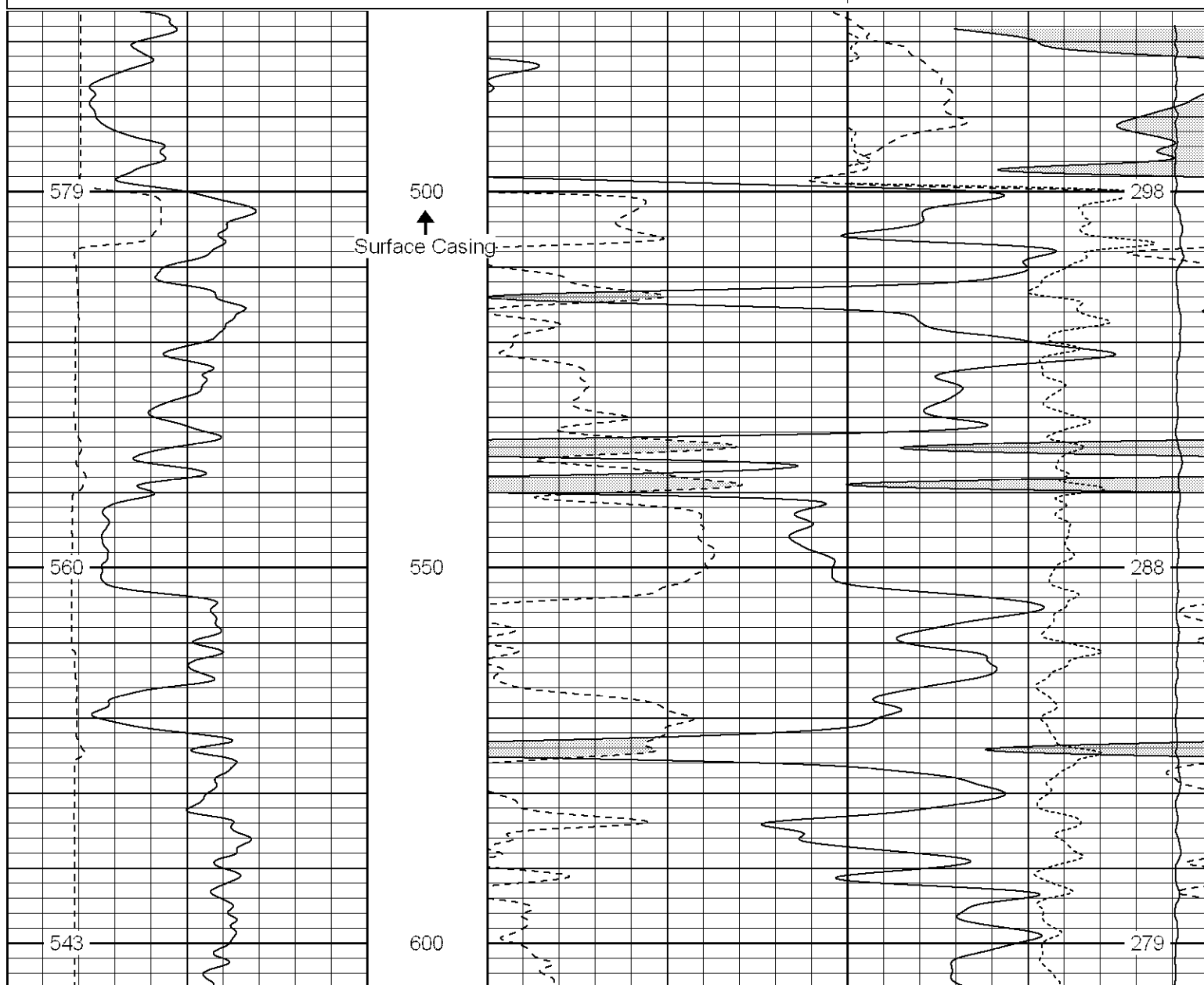
SUPERIOR

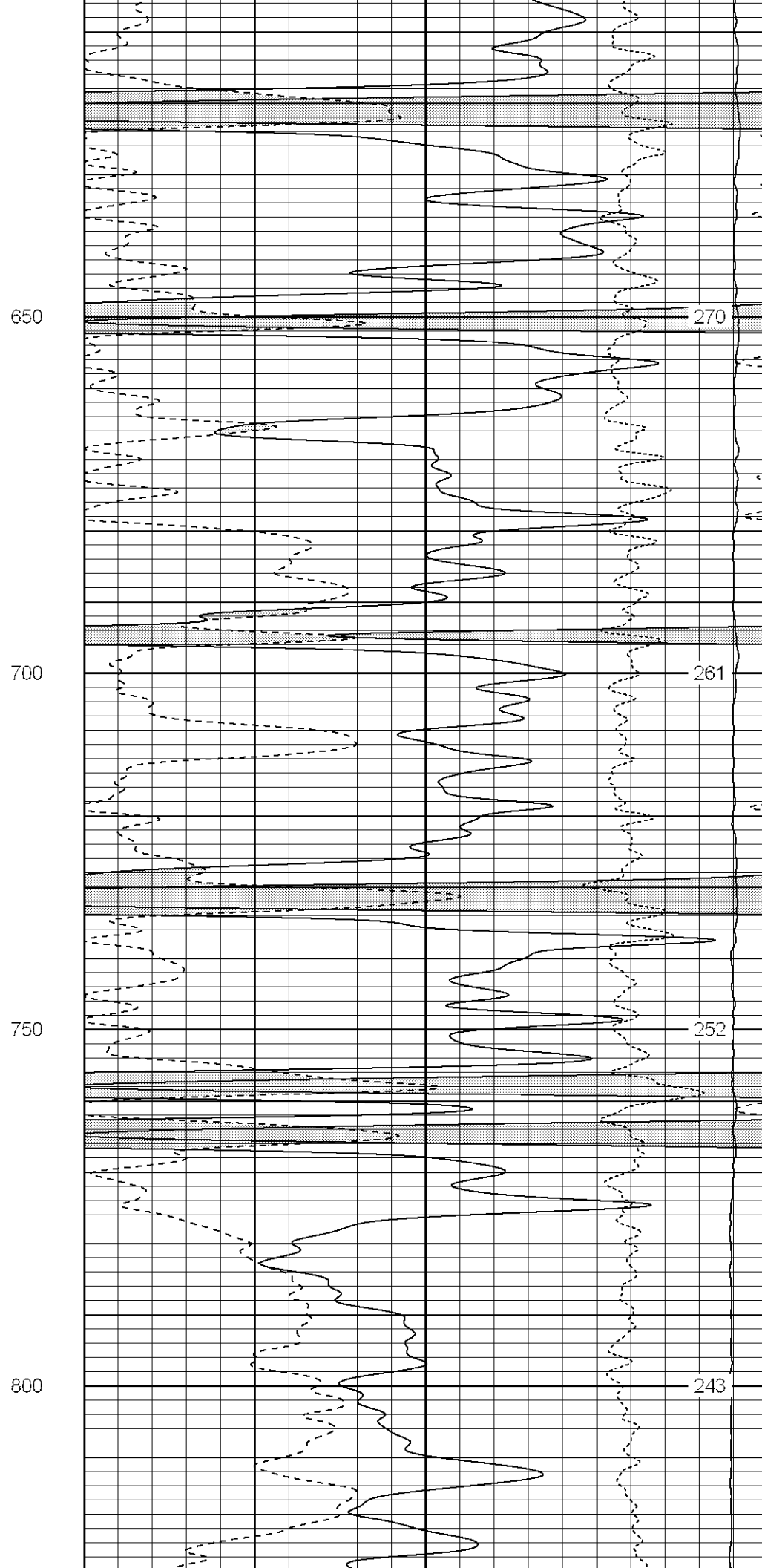
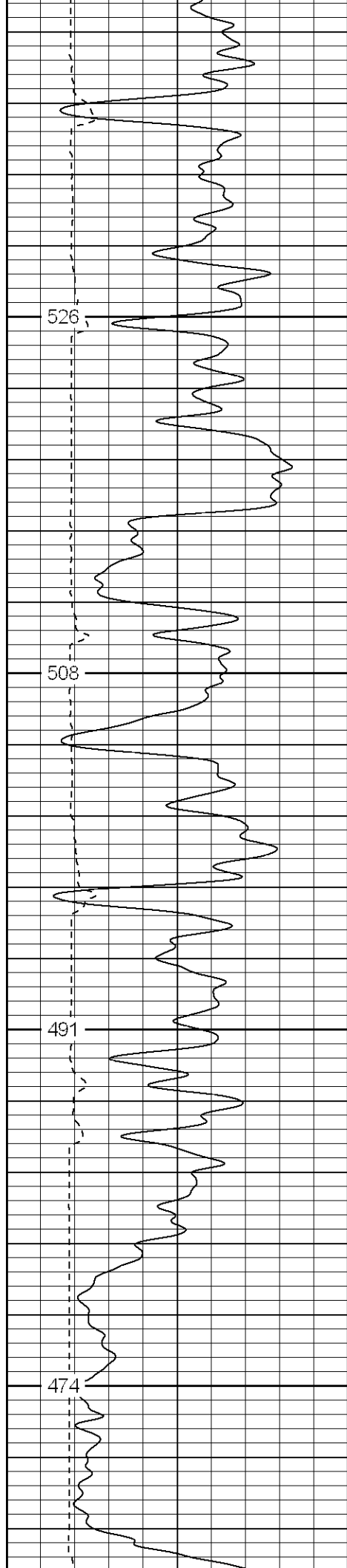
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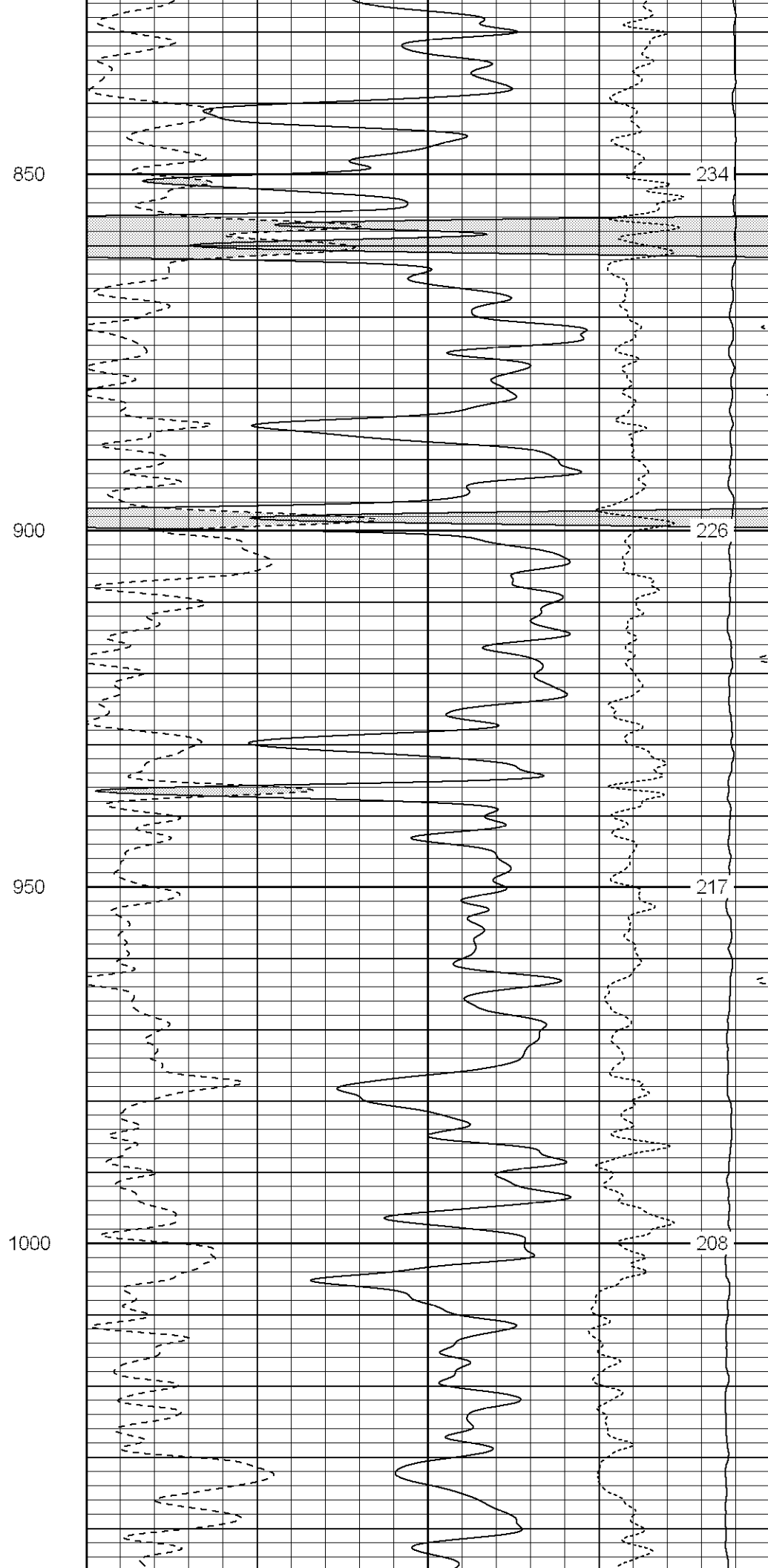
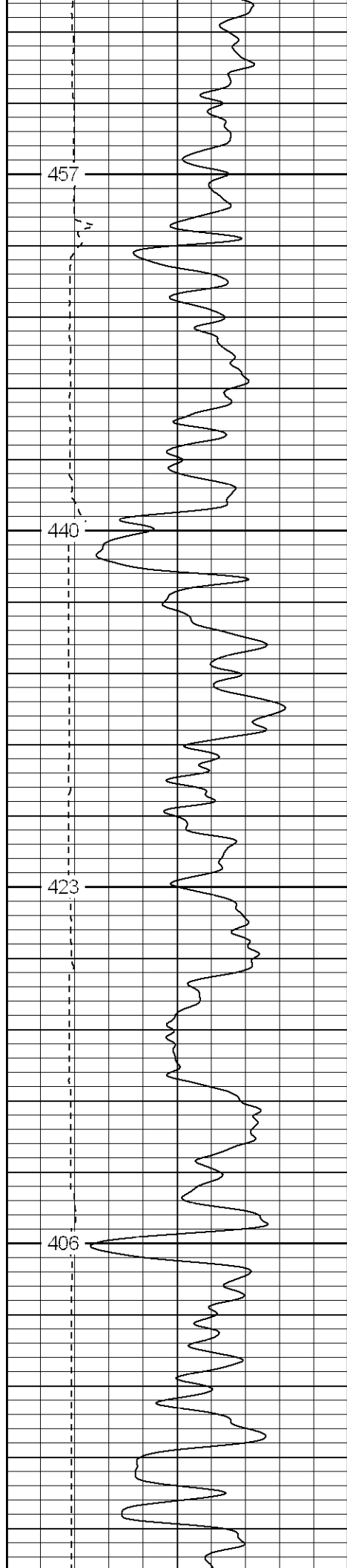
Main Pass

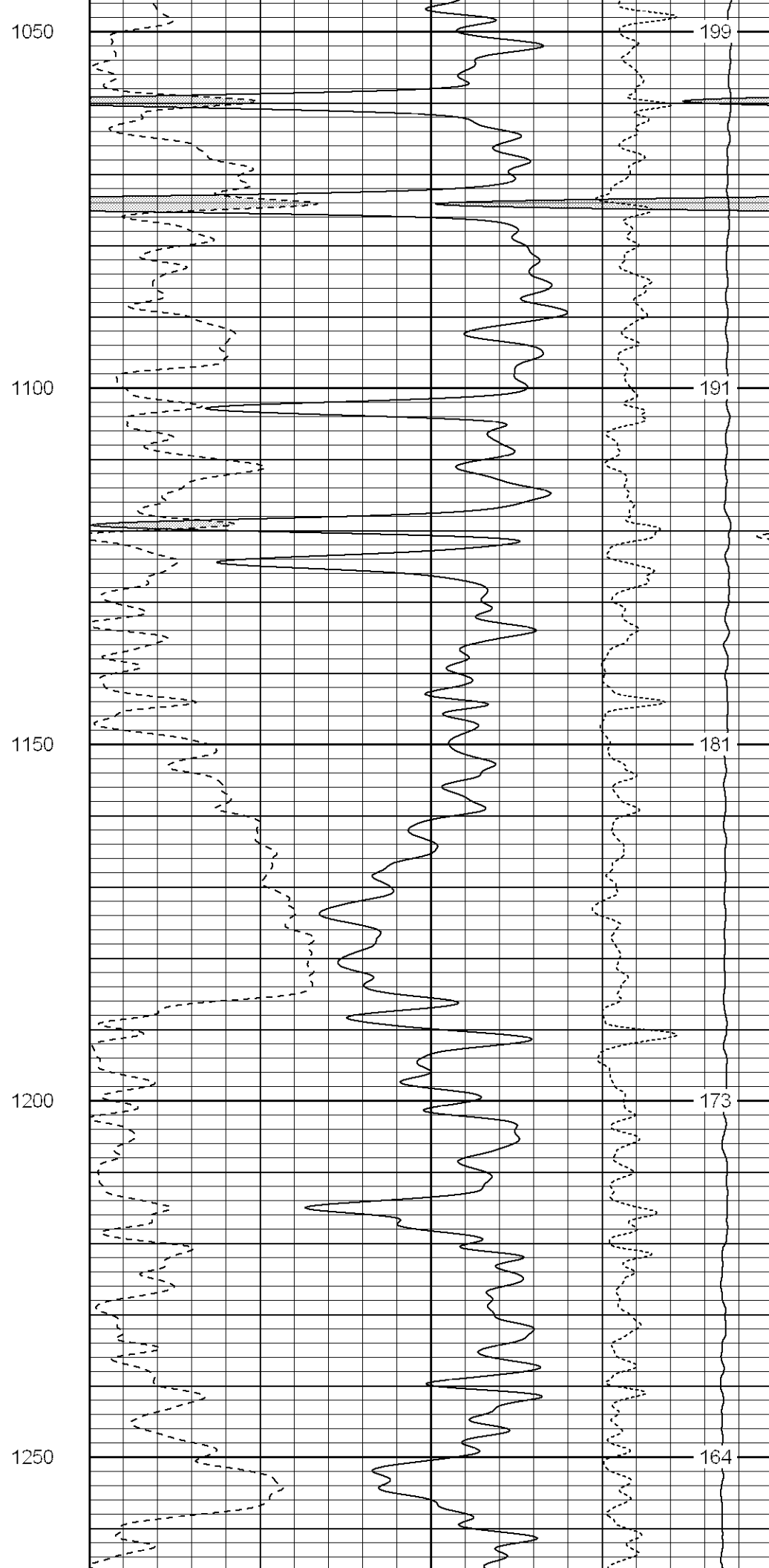
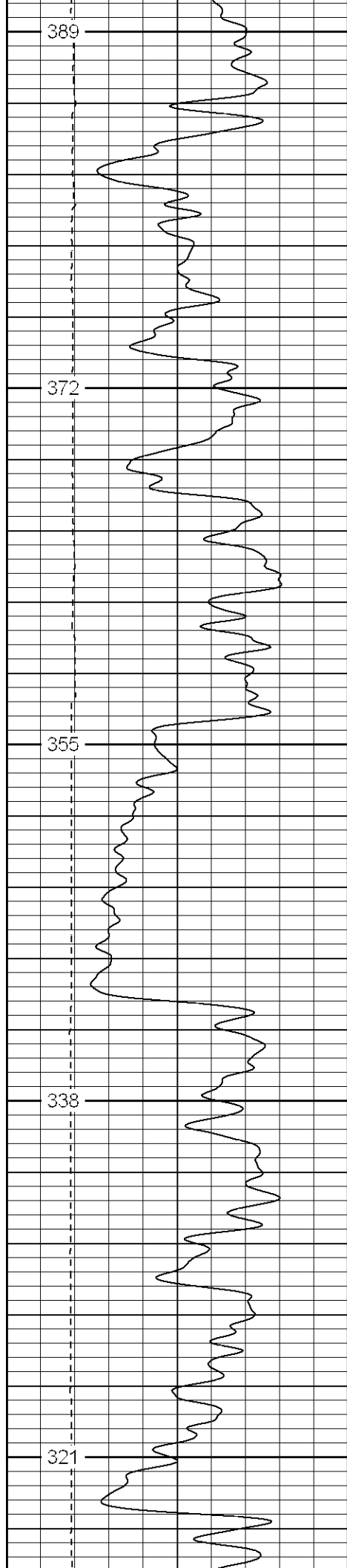
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Dataset Pathname: pass4.1
Presentation Format: cdnl
Dataset Creation: Wed Mar 07 20:13:16 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

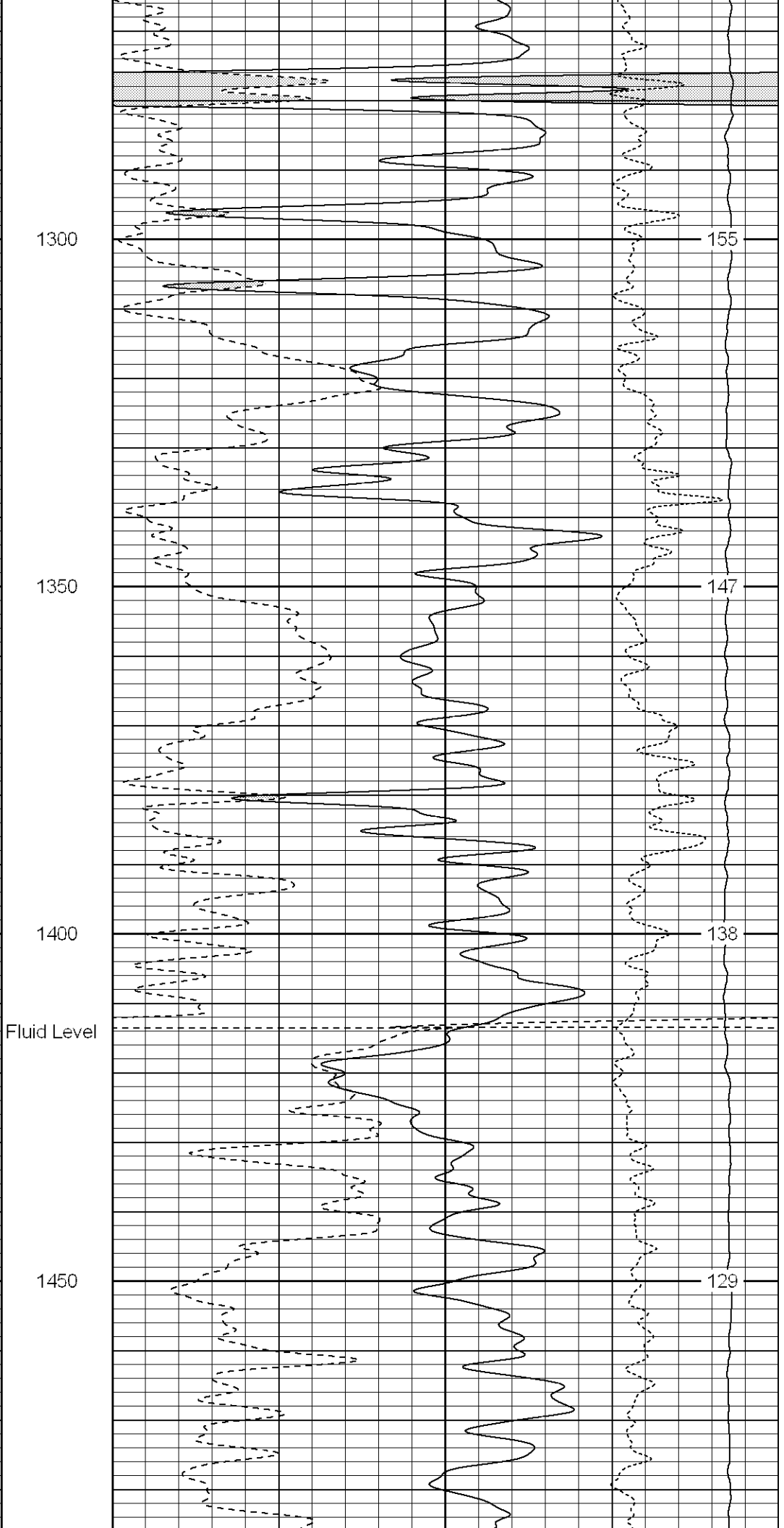
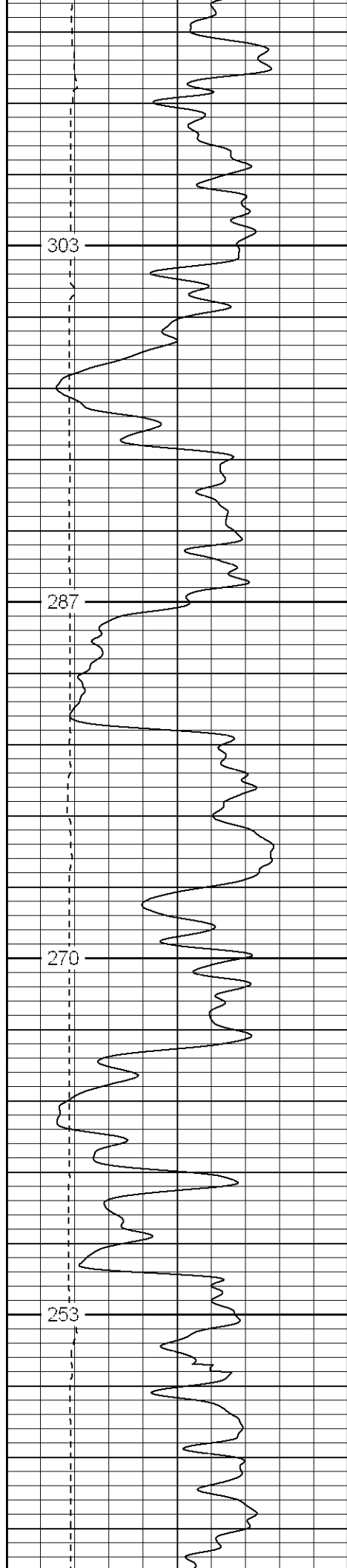
| | | | | | |
|---|-----------|-----|------|-------------|-----|
| 0 | GR (GAPI) | 200 | 30 | NPOR (pu) | -10 |
| 6 | DCAL (in) | 16 | 30 | DPOR (pu) | -10 |
| | | | -0.5 | RHOC (g/cc) | 0.5 |
| | | | 4000 | LTEN (lb) | 0 |

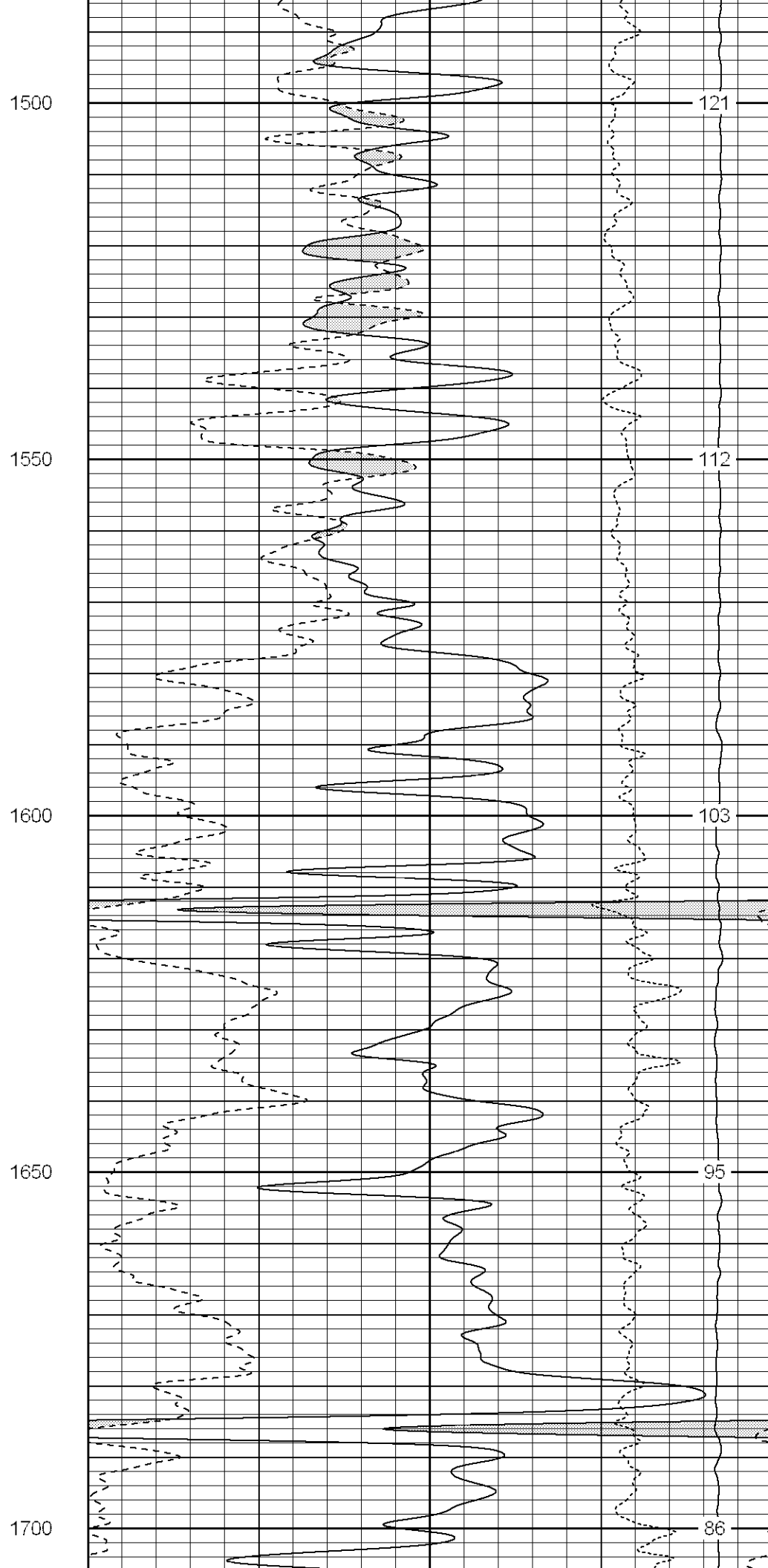
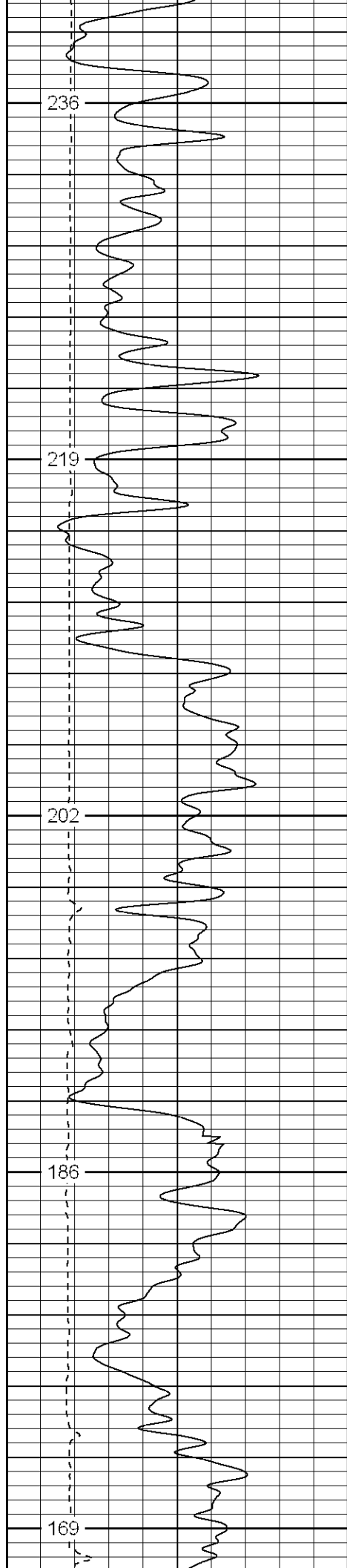


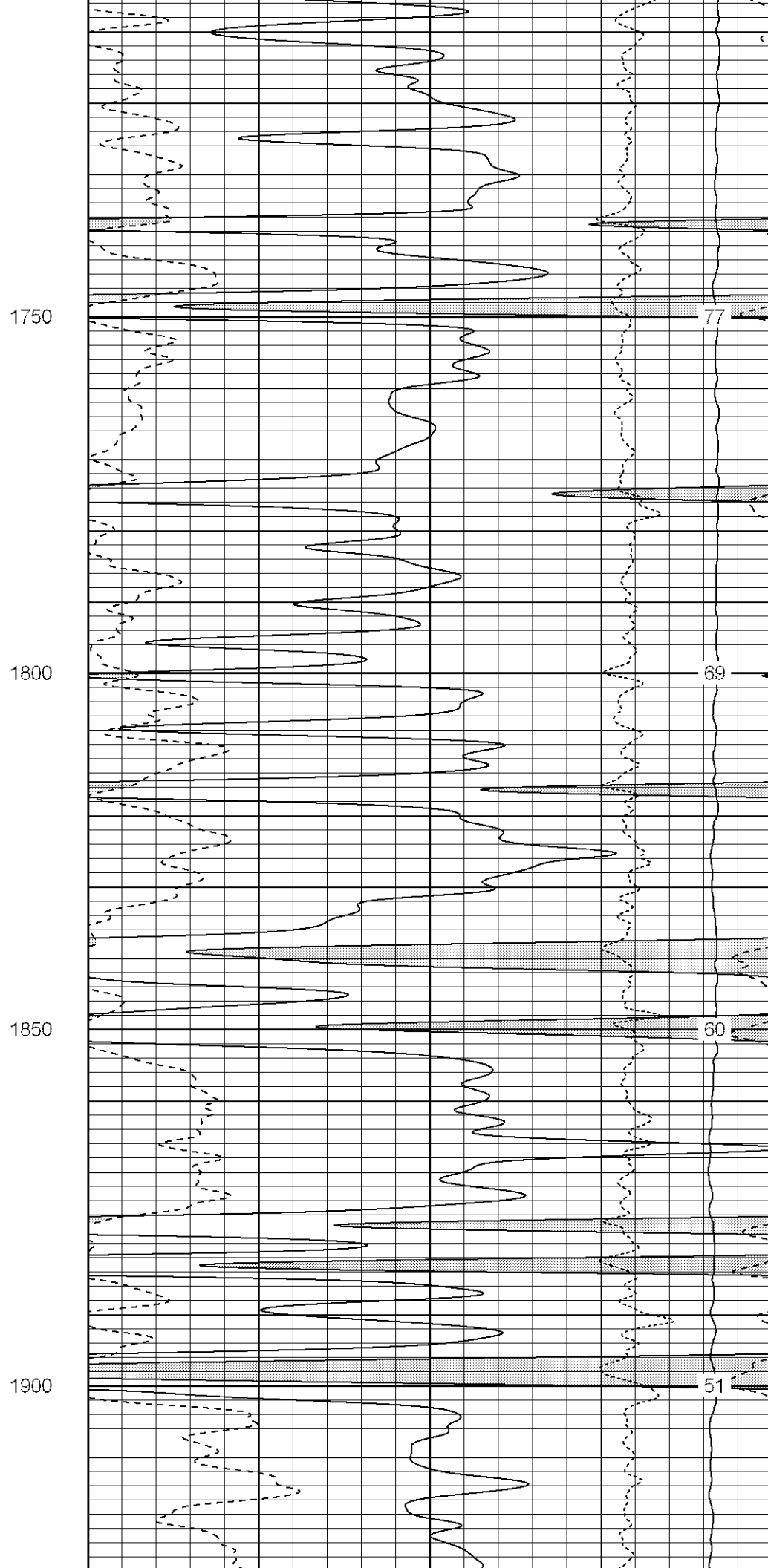
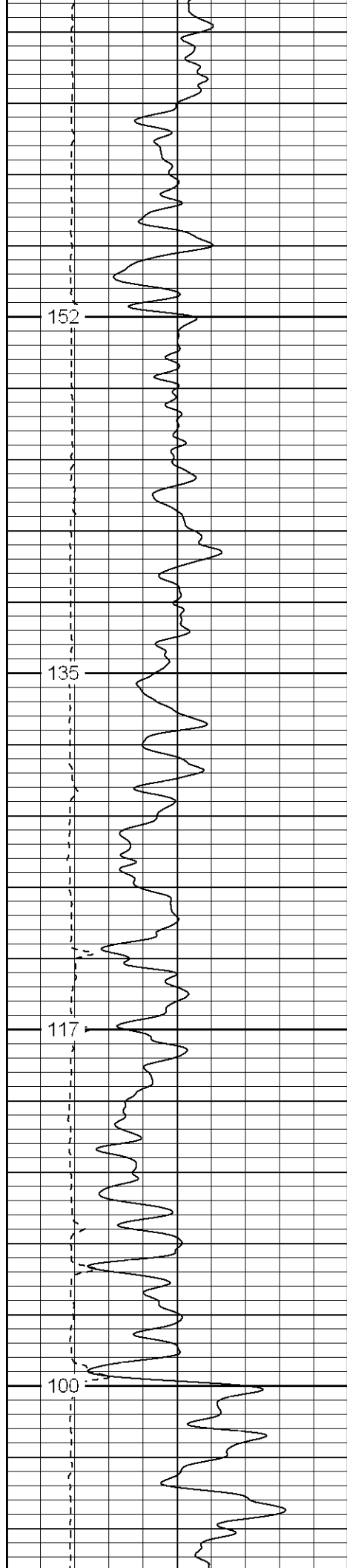


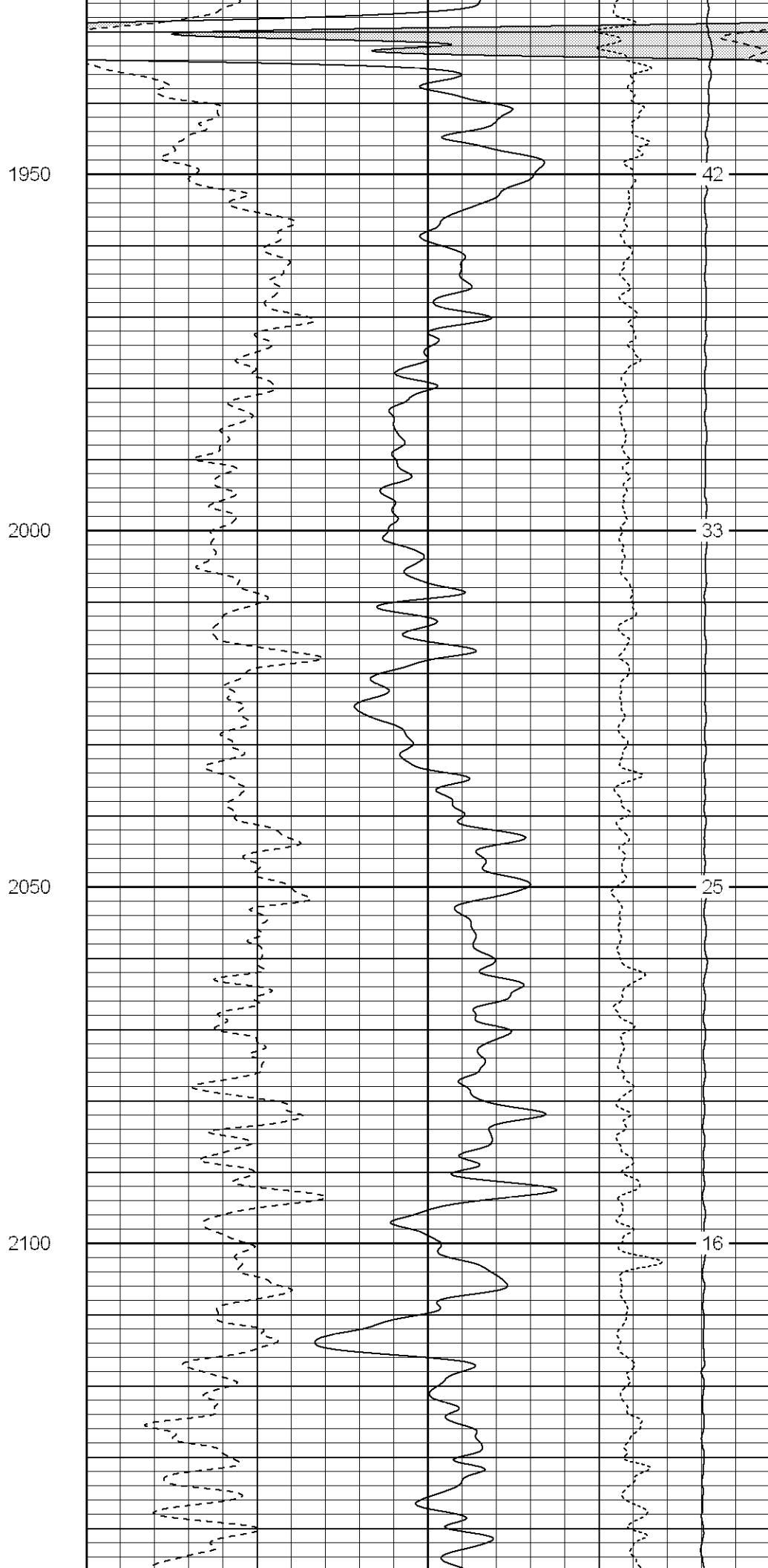
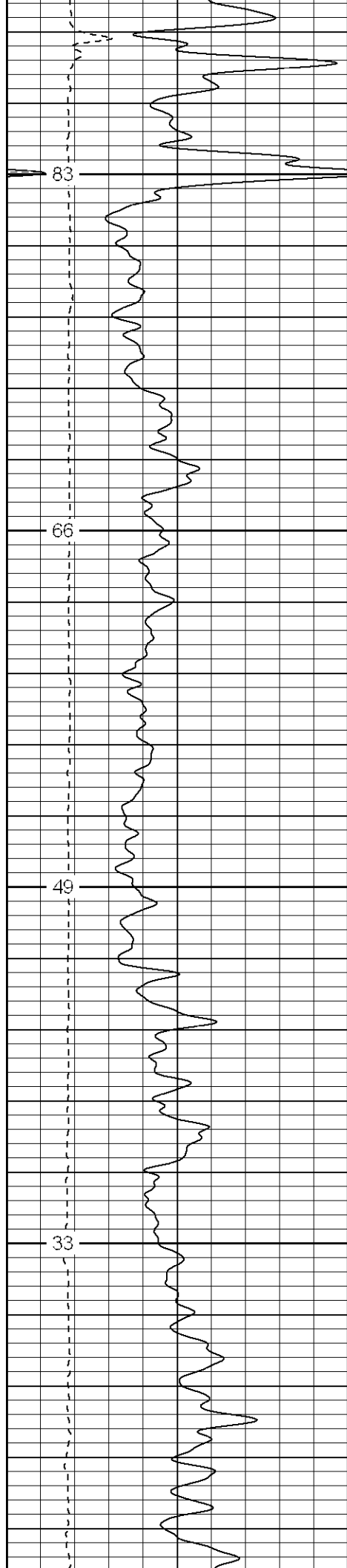


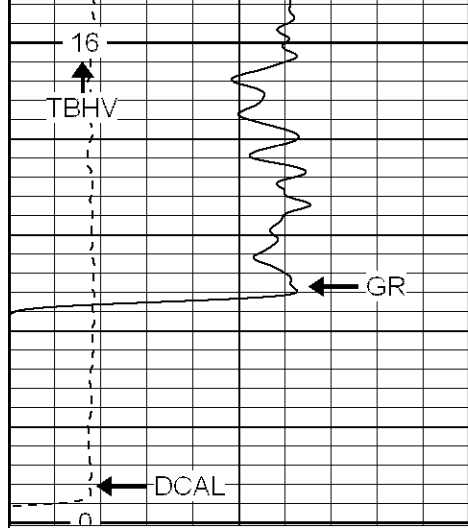








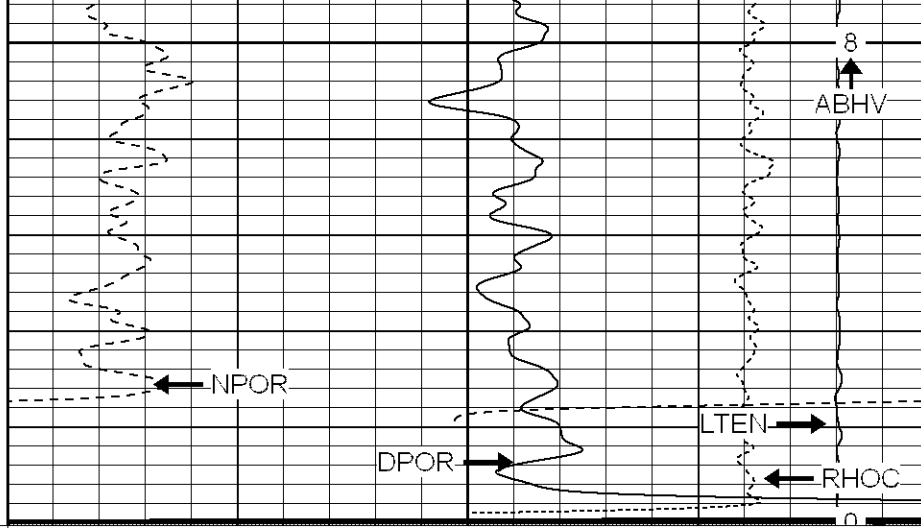




| | | |
|---|-----------|-----|
| 0 | GR (GAPI) | 200 |
| 6 | DCAL (in) | 16 |

2150

2200



| | | |
|------|-------------|-----|
| 30 | NPOR (pu) | -10 |
| 30 | DPOR (pu) | -10 |
| -0.5 | RHOC (g/cc) | 0.5 |
| 4000 | LTEN (lb) | 0 |



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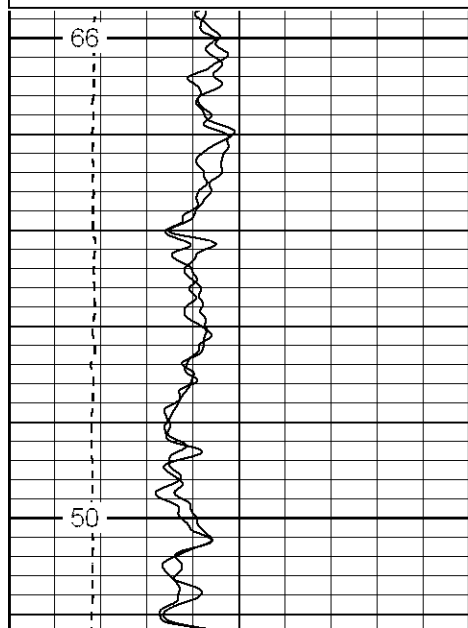
Repeat Section

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Dataset Pathname: pass3.1
Presentation Format: cdnl
Dataset Creation: Wed Mar 07 20:07:51 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:240

| | | |
|---|------------------|-----|
| 0 | GR (GAPI) | 200 |
| 6 | DCAL (in) | 16 |
| 0 | GR-repeat (GAPI) | 200 |
| 6 | DCAL-repeat (in) | 16 |

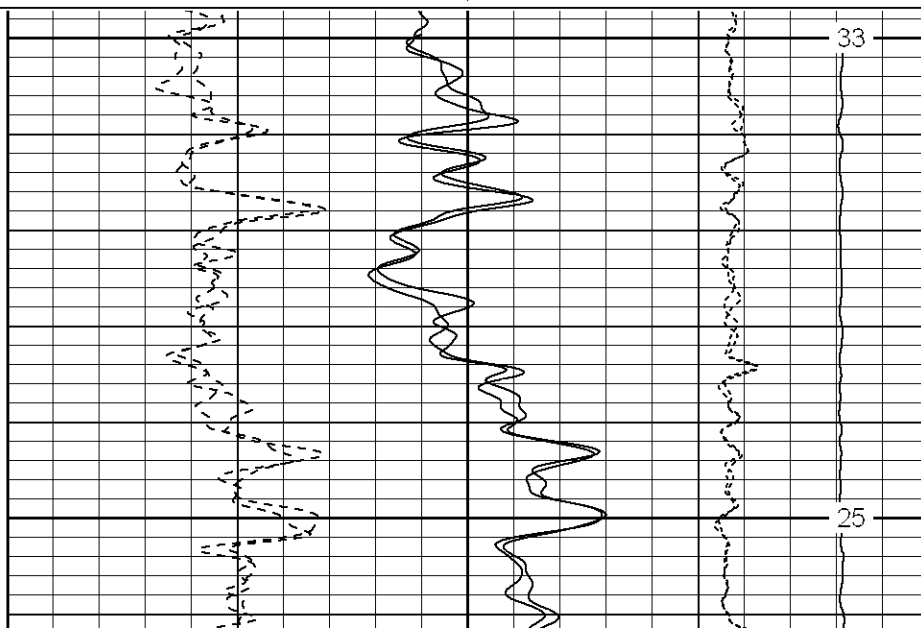
| | | |
|----|------------------|-----|
| 30 | NPOR (pu) | -10 |
| 30 | DPOR (pu) | -10 |
| 30 | NPOR-repeat (pu) | -10 |
| 30 | DPOR-repeat (pu) | -10 |

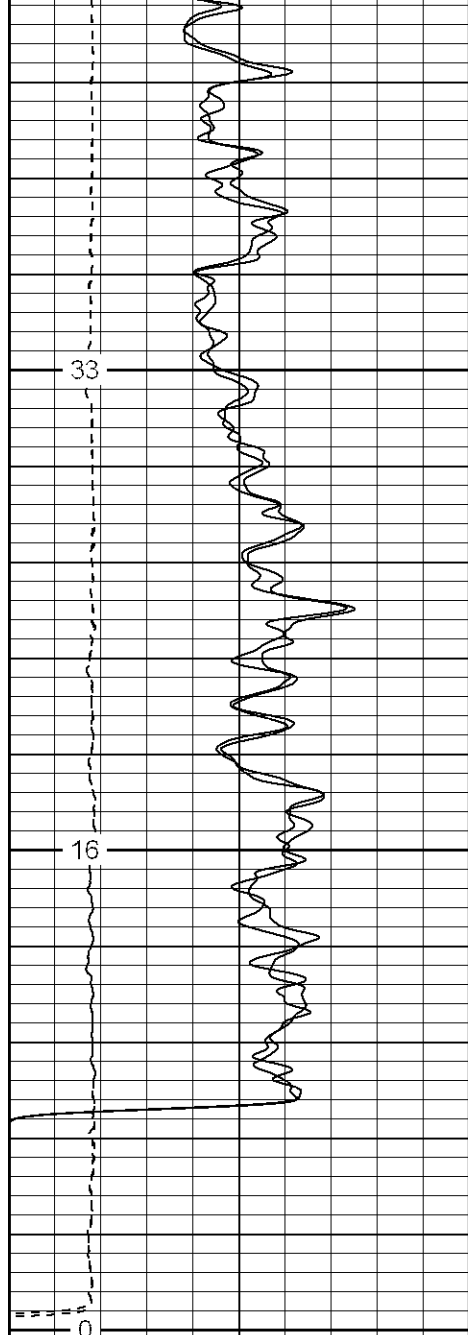
| | | |
|------|--------------------|-----|
| -0.5 | RHOC (g/cc) | 0.5 |
| 4000 | LTEN (lb) | 0 |
| -0.5 | RHOC-repeat (g/cc) | 0.5 |



2000

2050



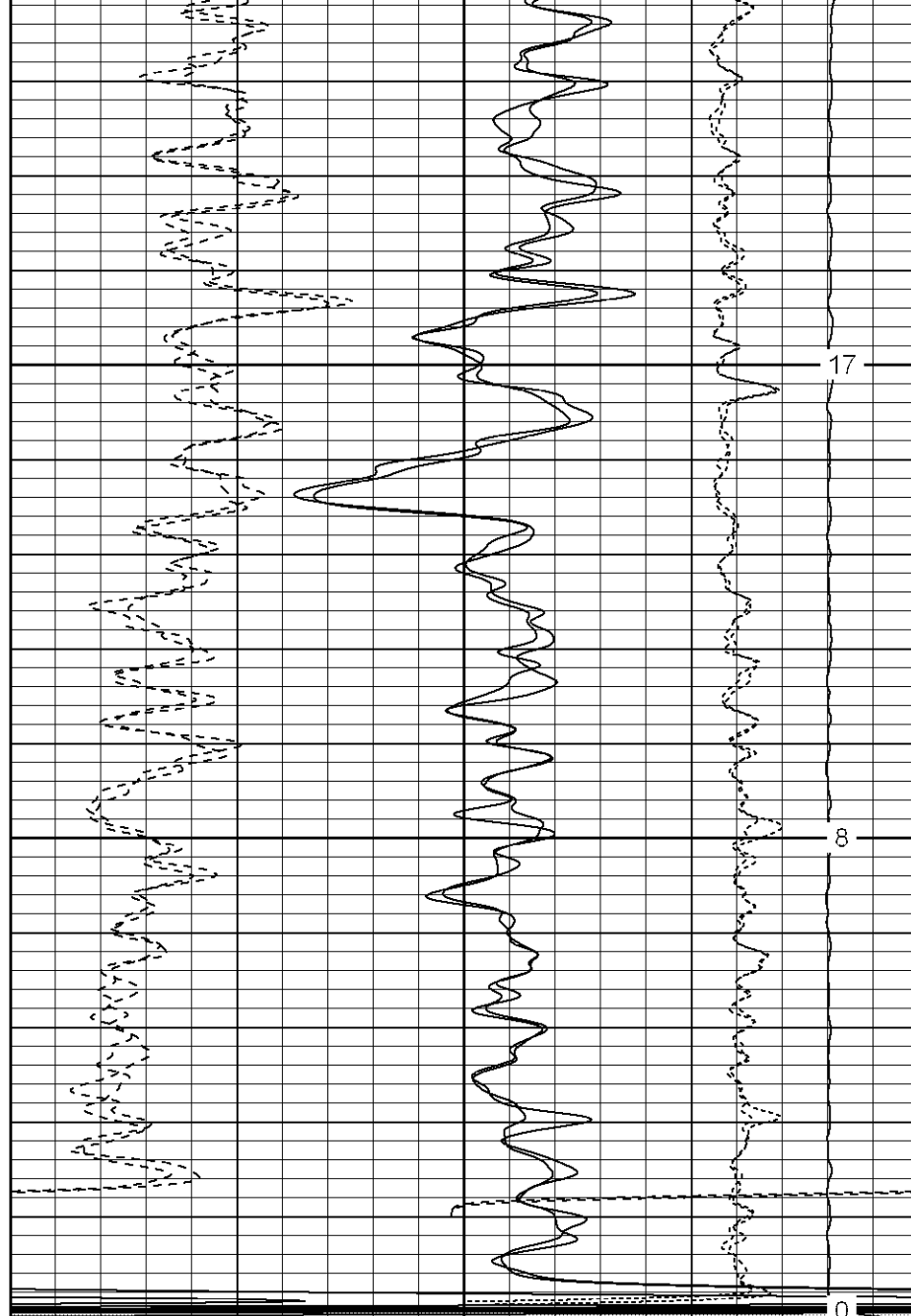


| | | |
|---|------------------|-----|
| 0 | GR (GAPI) | 200 |
| 6 | DCAL (in) | 16 |
| 0 | GR-repeat (GAPI) | 200 |
| 6 | DCAL-repeat (in) | 16 |

2100

2150

2200



| | | |
|----|------------------|-----|
| 30 | NPOR (pu) | -10 |
| 30 | DPOR (pu) | -10 |
| 30 | NPOR-repeat (pu) | -10 |
| 30 | DPOR-repeat (pu) | -10 |

| | | |
|------|--------------------|-----|
| -0.5 | RHOC (g/cc) | 0.5 |
| 4000 | LTEN (lb) | 0 |
| -0.5 | RHOC-repeat (g/cc) | 0.5 |



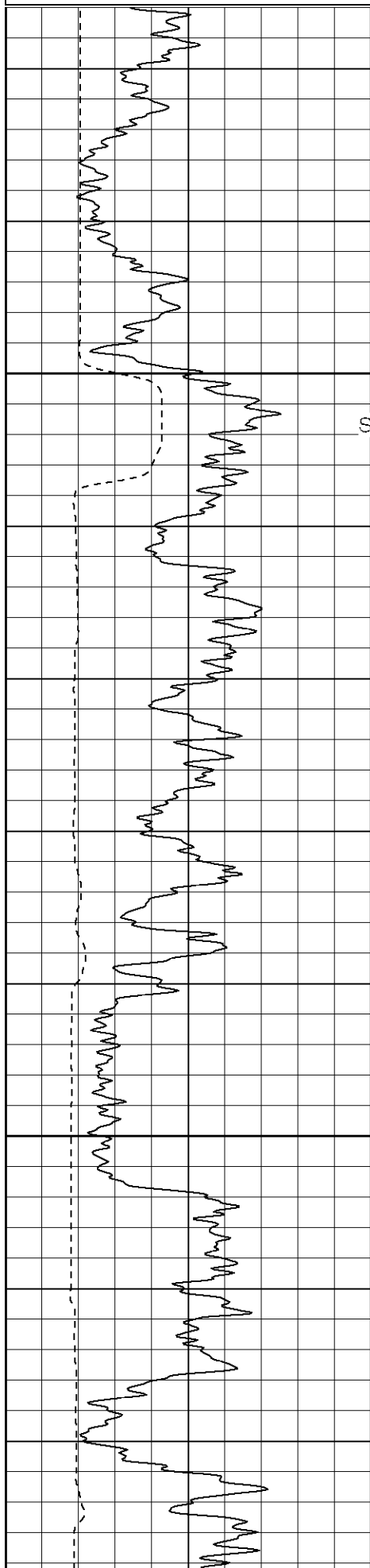
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High Resolution Pass

Database File: xtoac3112.db
Dataset Pathname: pass4.2
Presentation Format: cdlhr
Dataset Creation: Thu Mar 08 07:09:07 2007 by Calc Open-Cased 061129
Charted by: Depth in Feet scaled 1:120

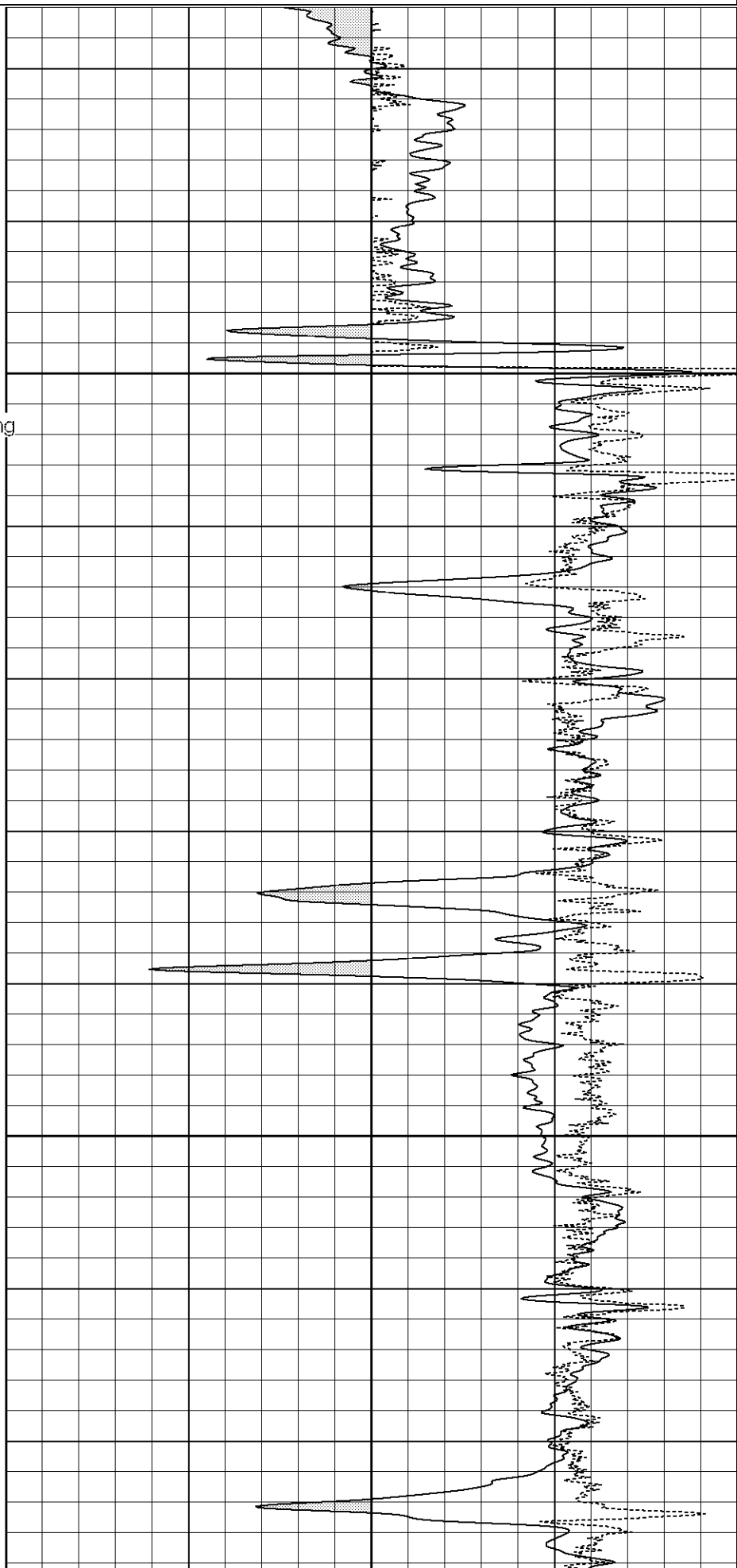
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|---|-----------|-----|
| 0 | GR (GAPI) | 200 |
| 6 | DCAL (in) | 16 |

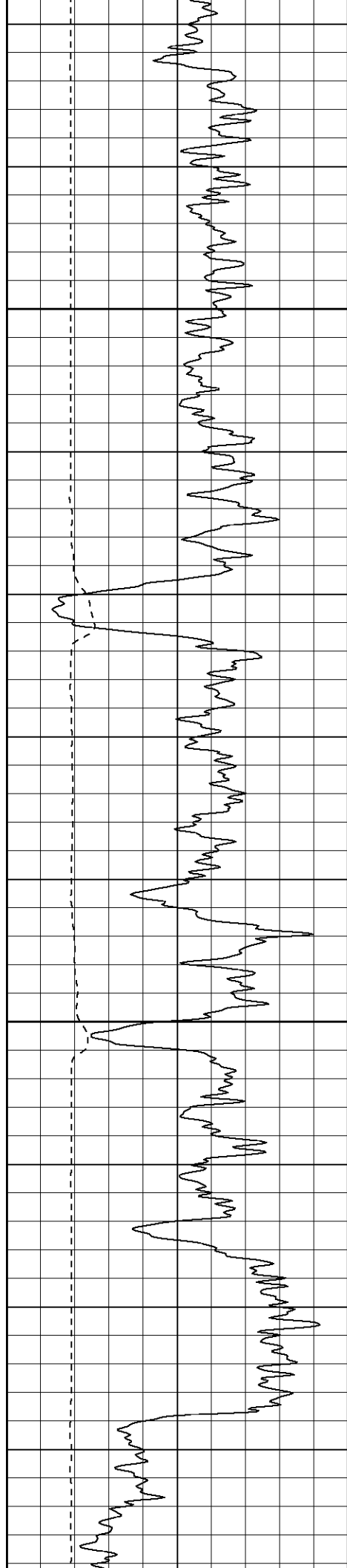


500
↑
Surface Casing

550

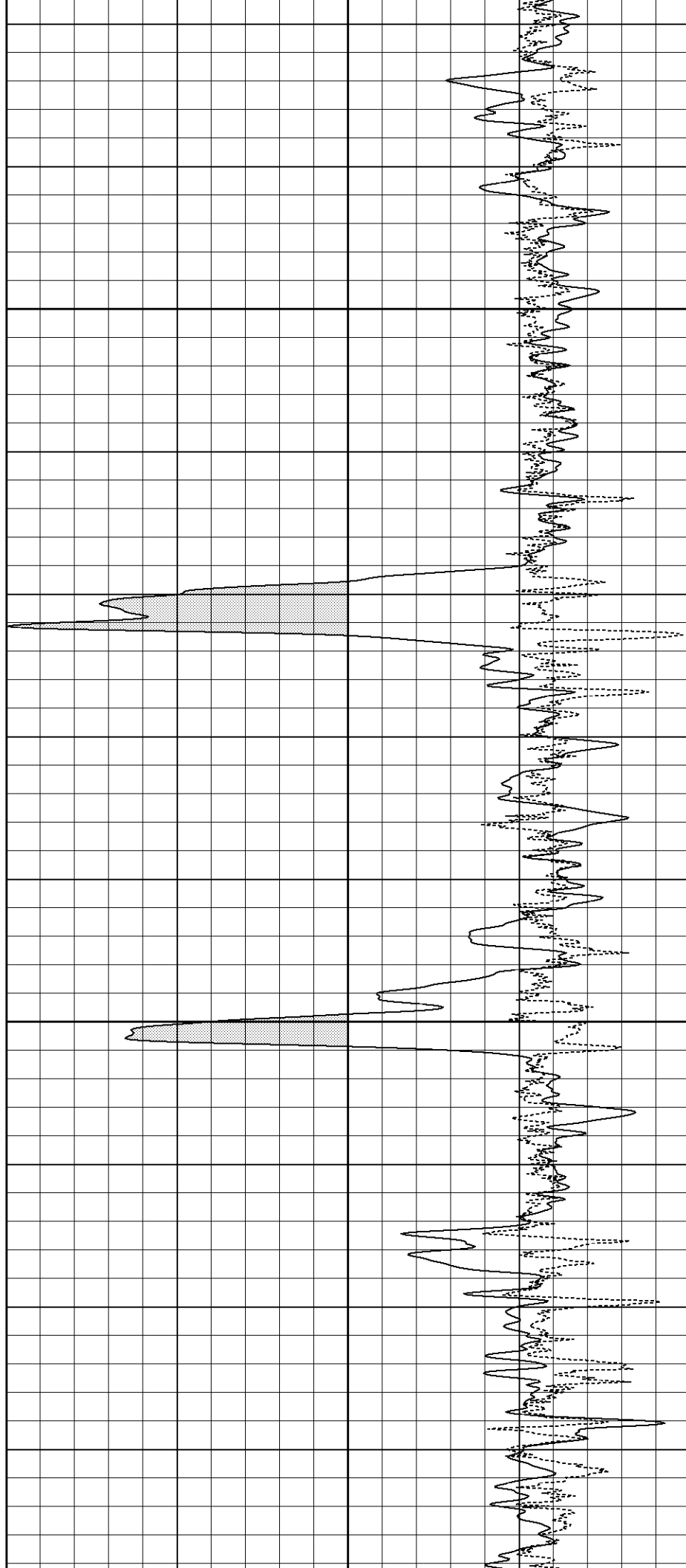
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|------|-------------|-----|
| 1 | RHOB (g/cc) | 3 |
| -0.5 | RHOC (g/cc) | 0.5 |

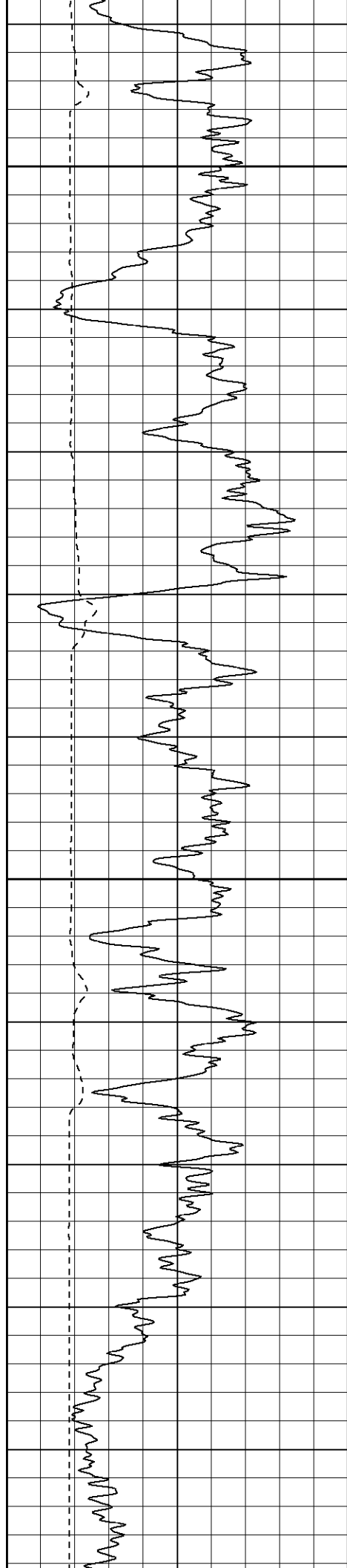




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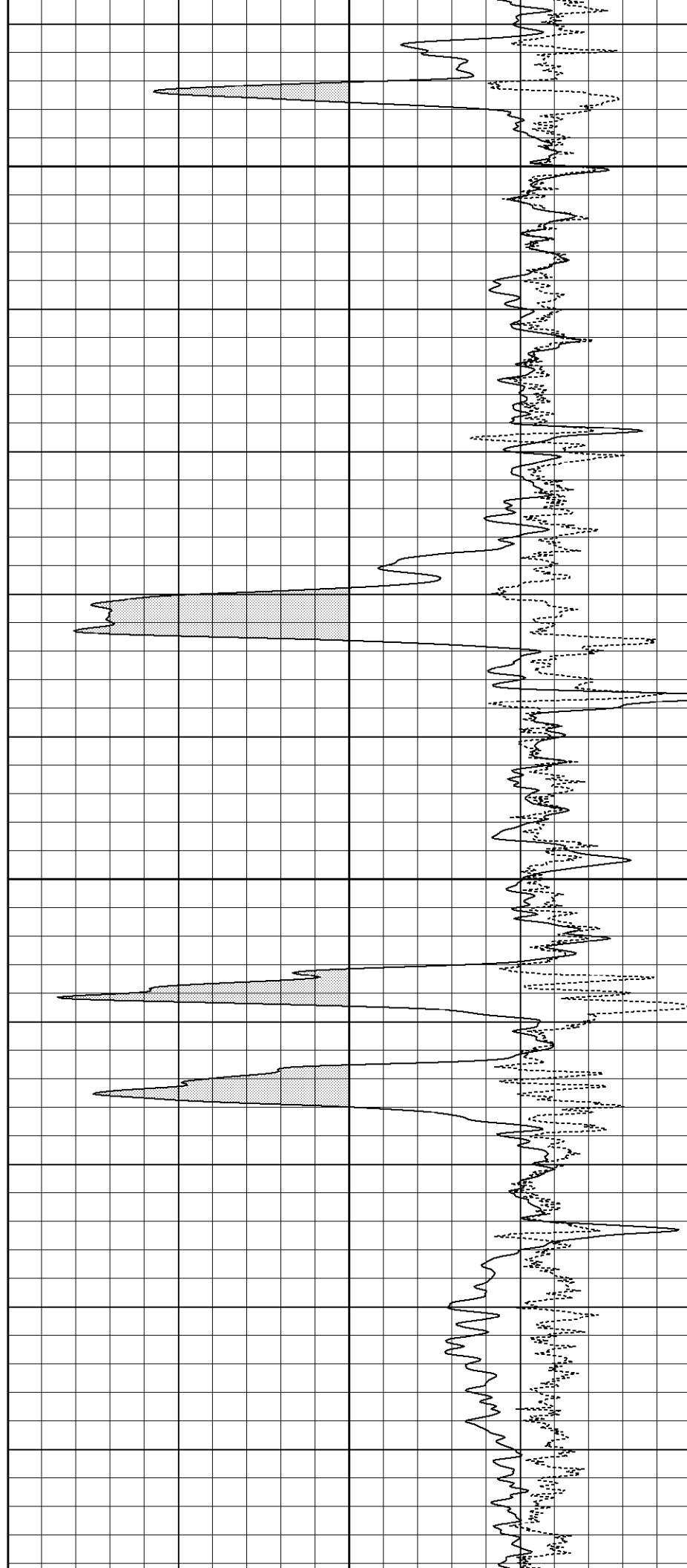
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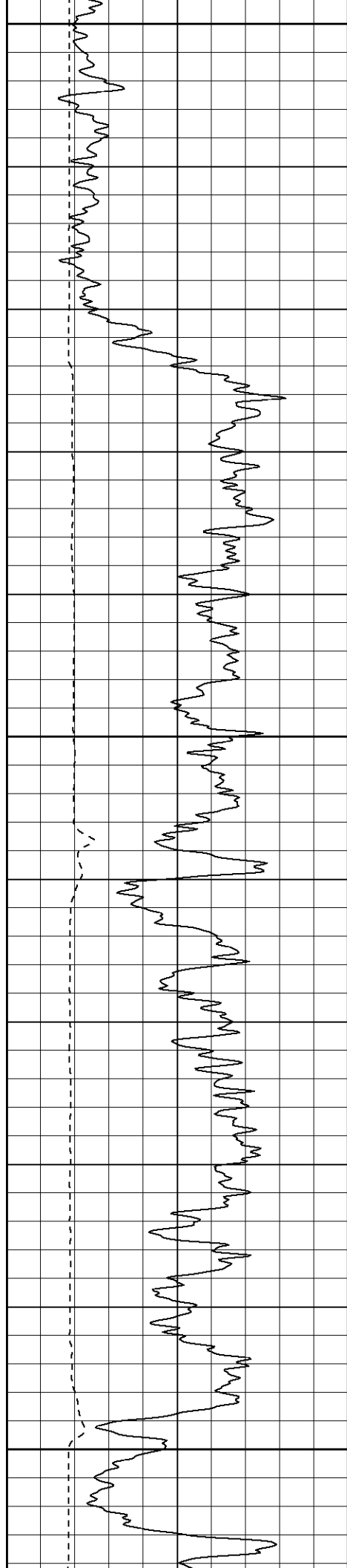




700

750

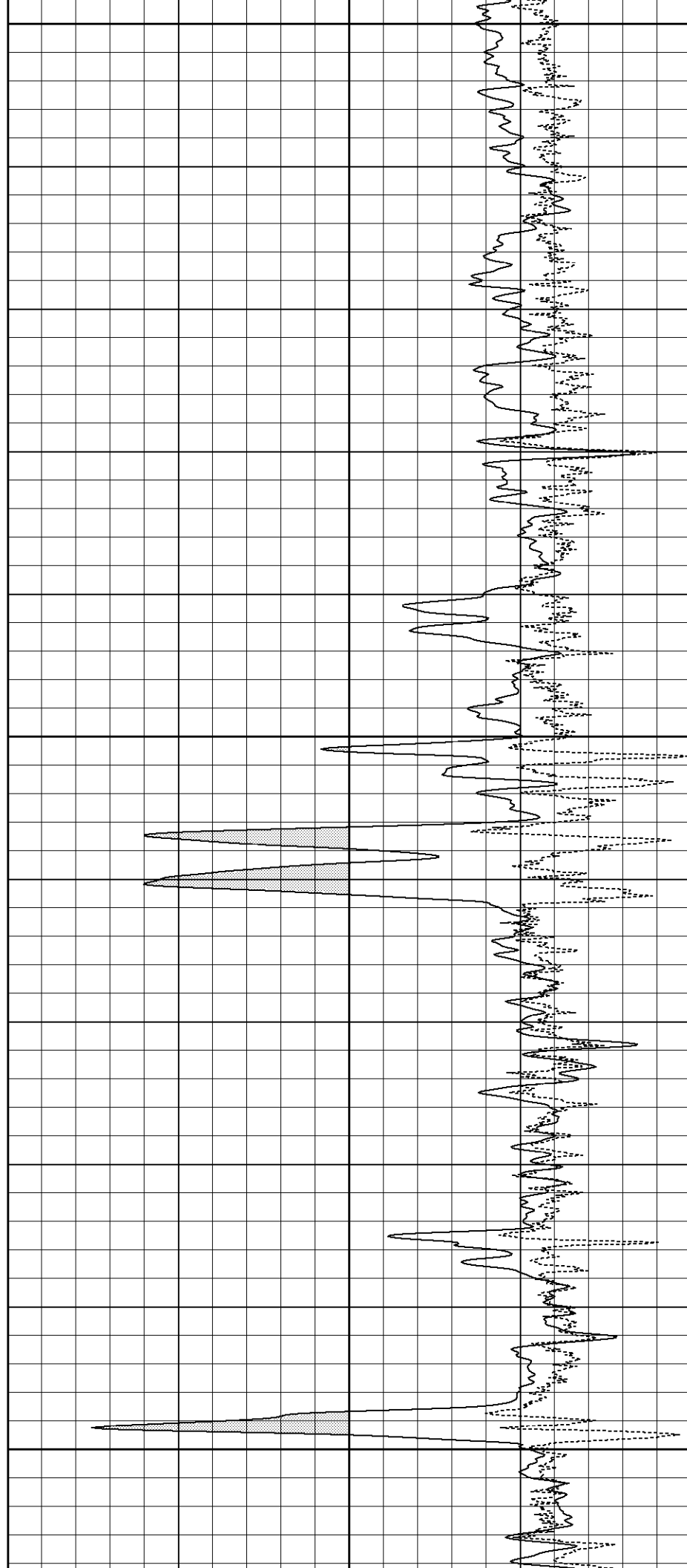


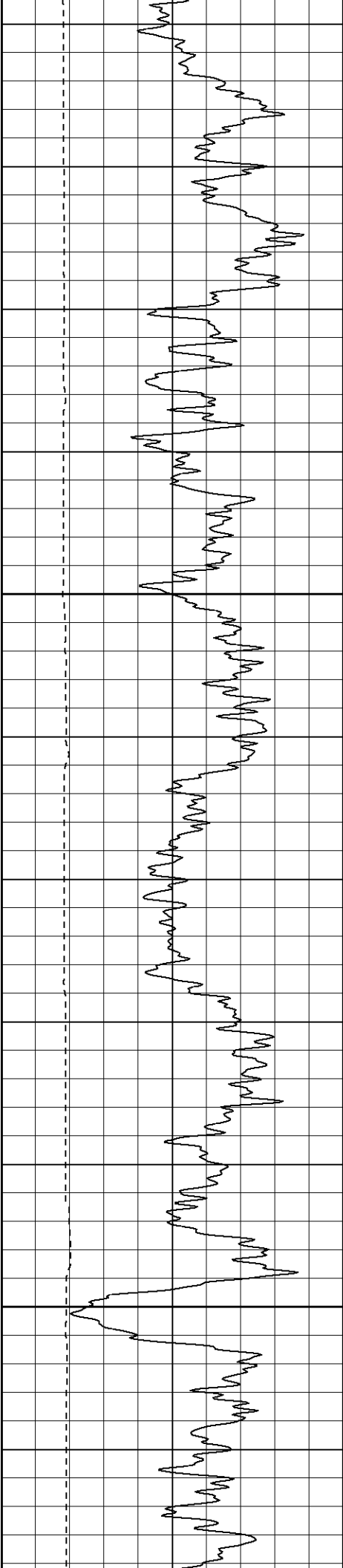


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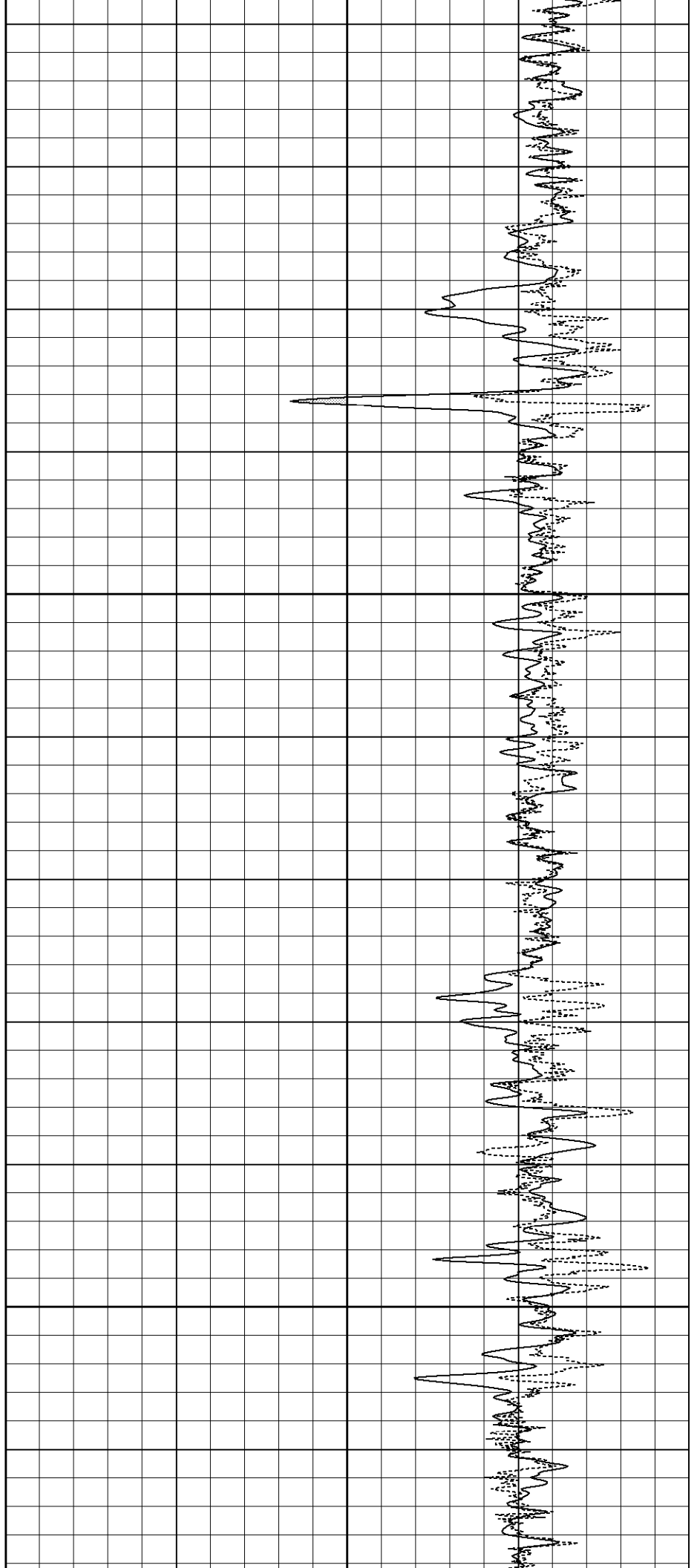
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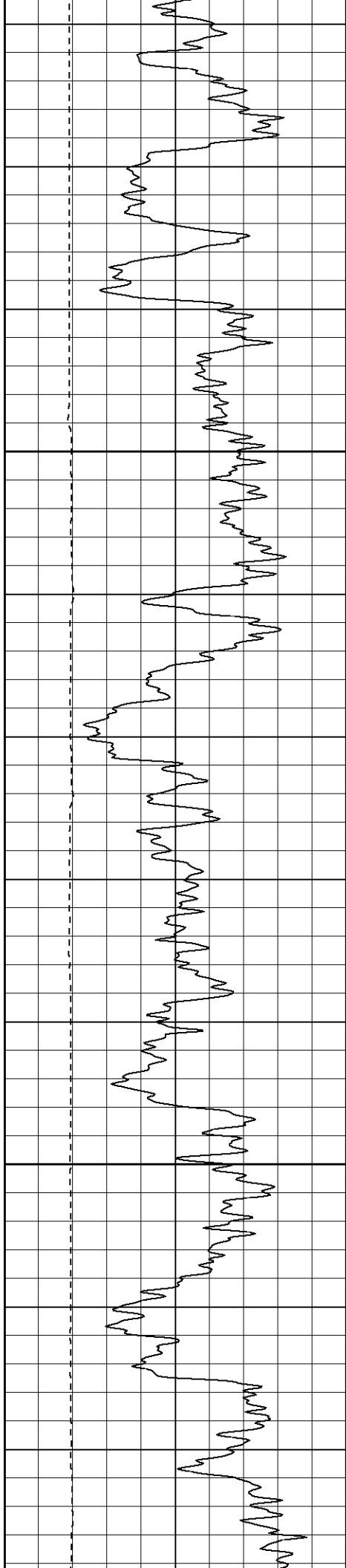




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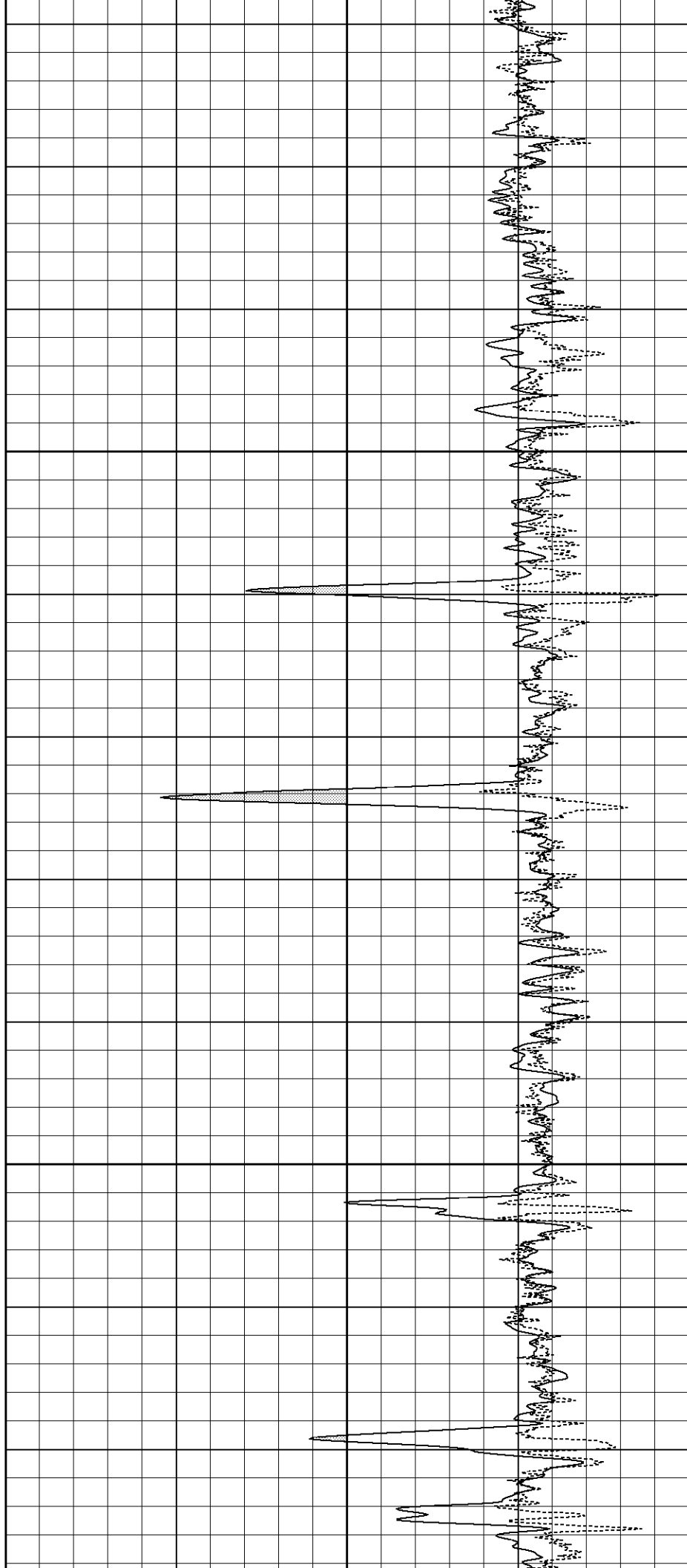
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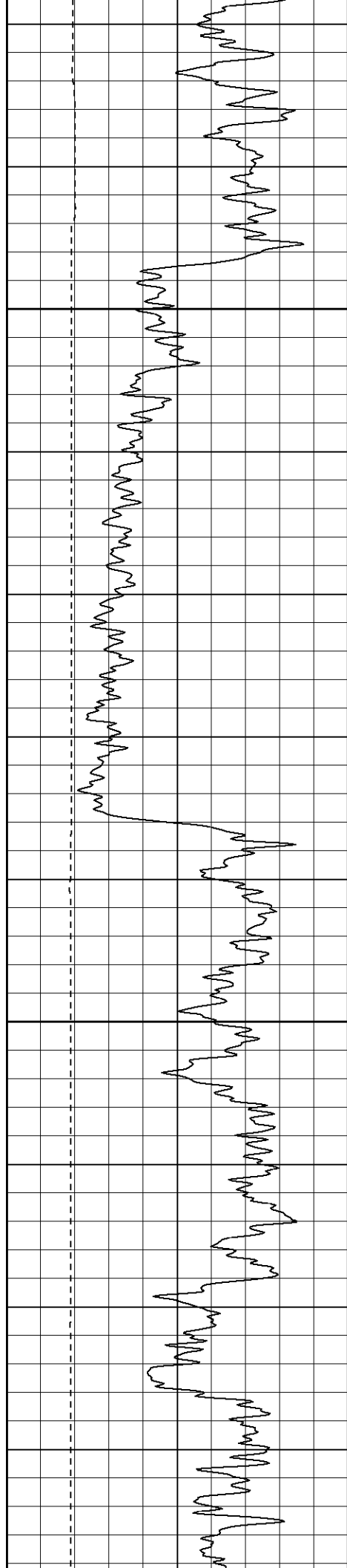




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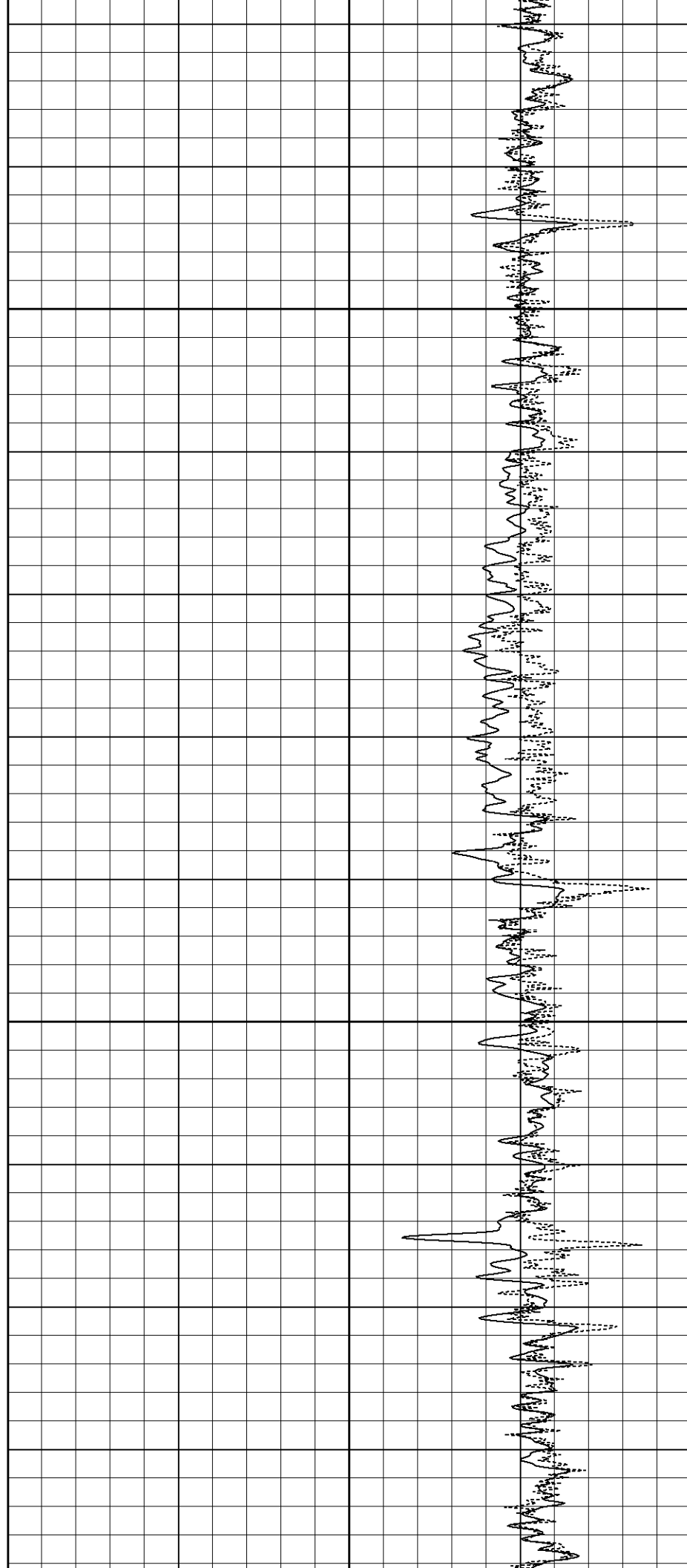
1100

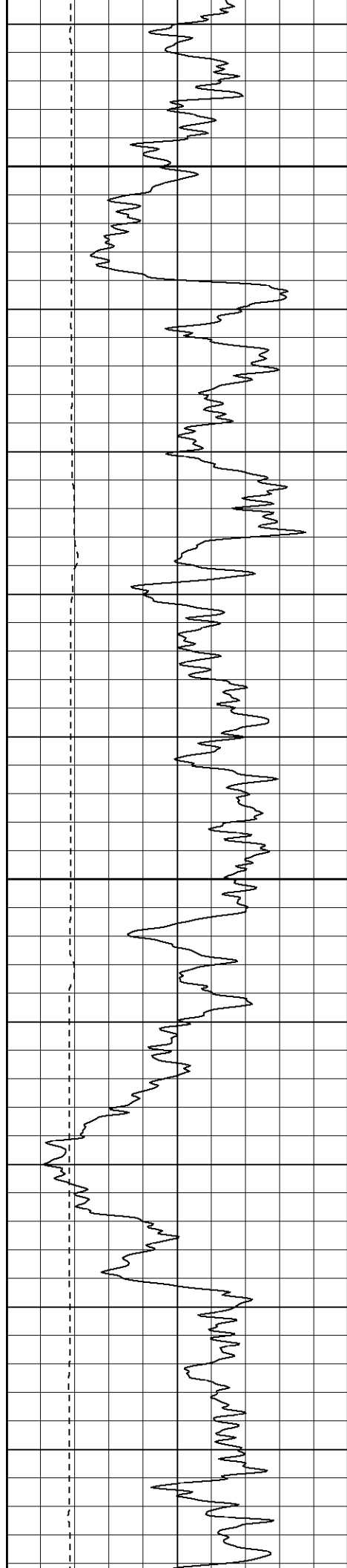




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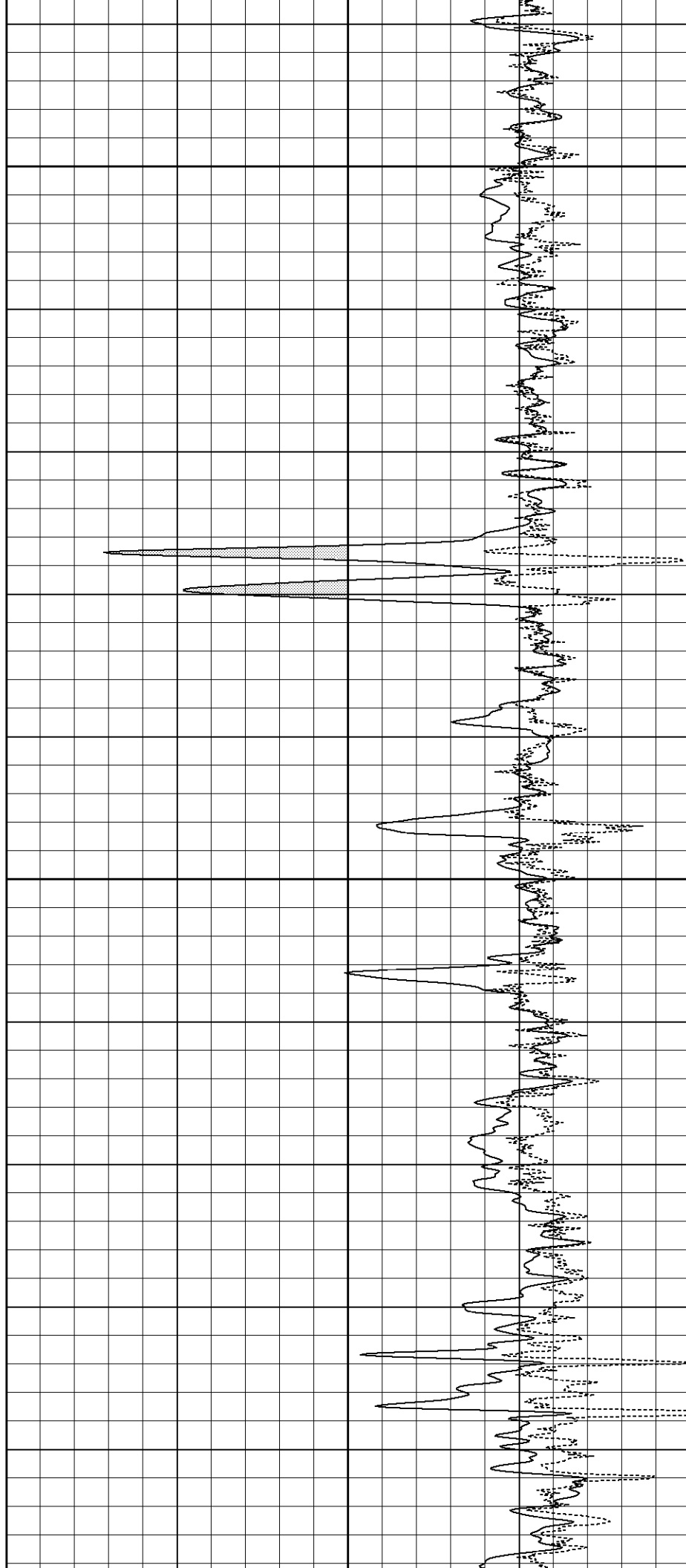
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1250

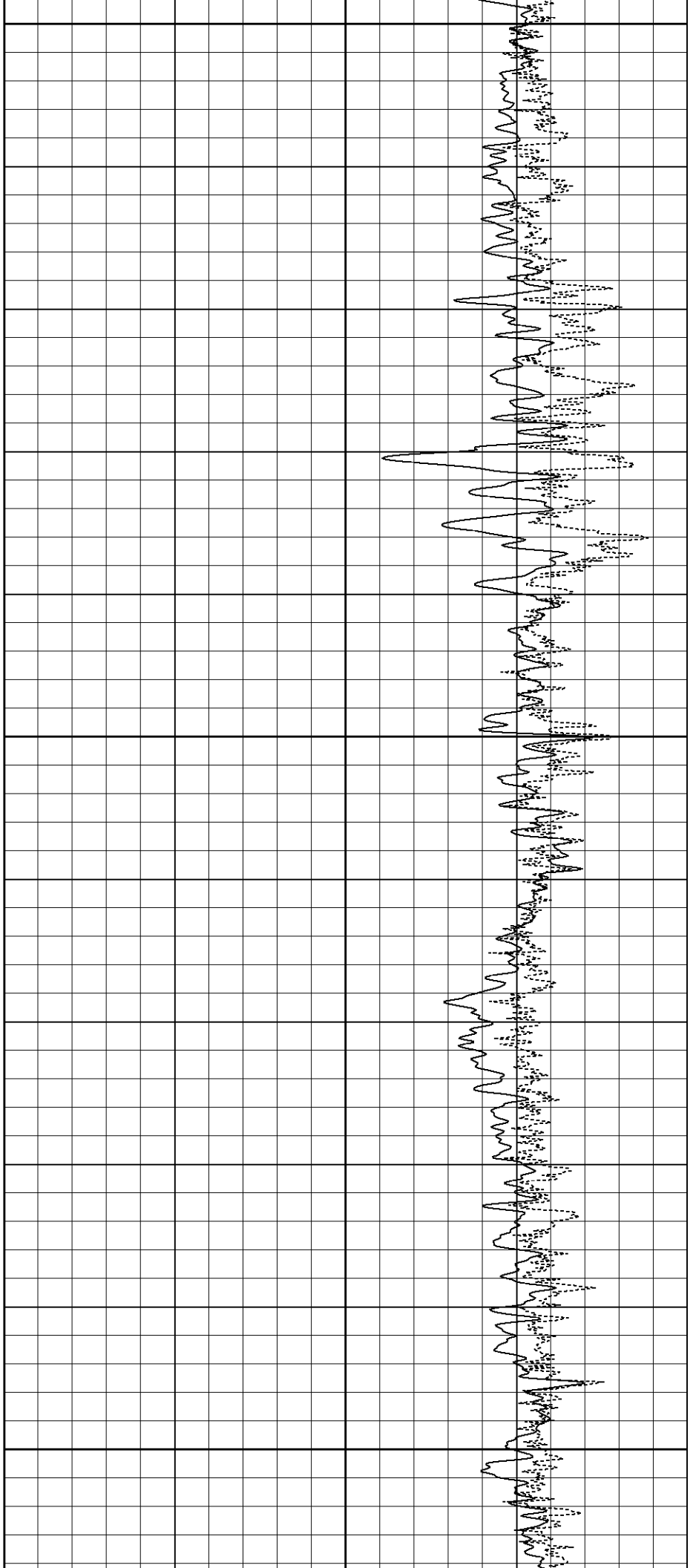
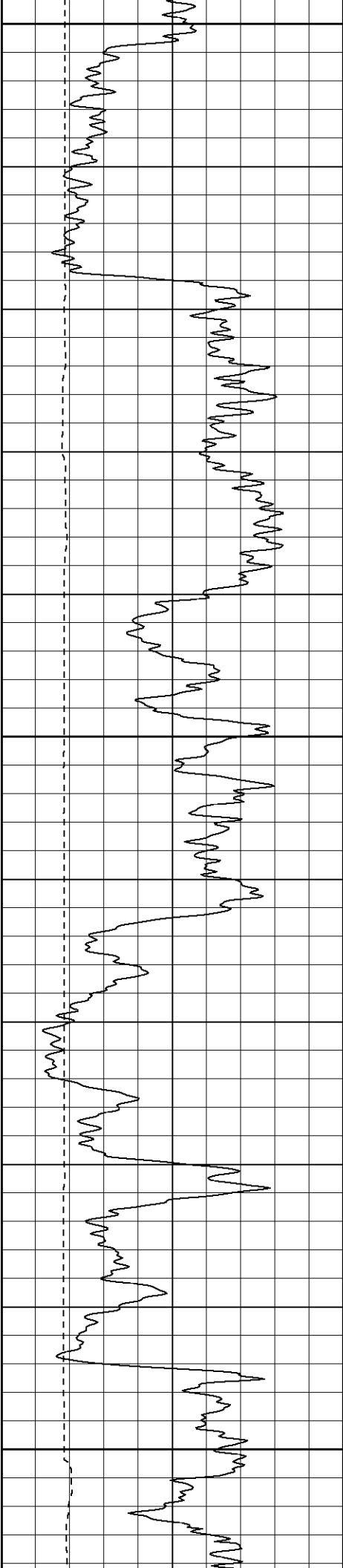
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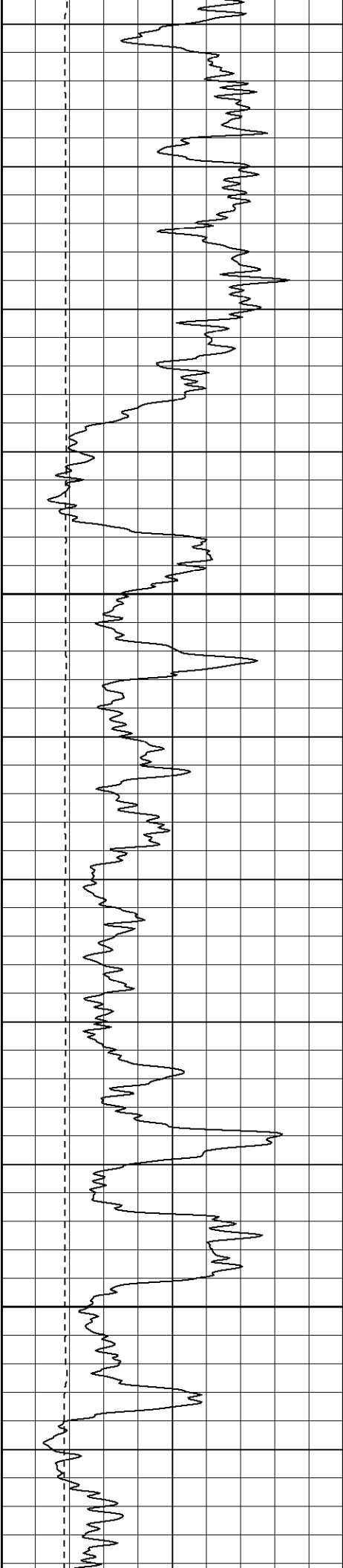


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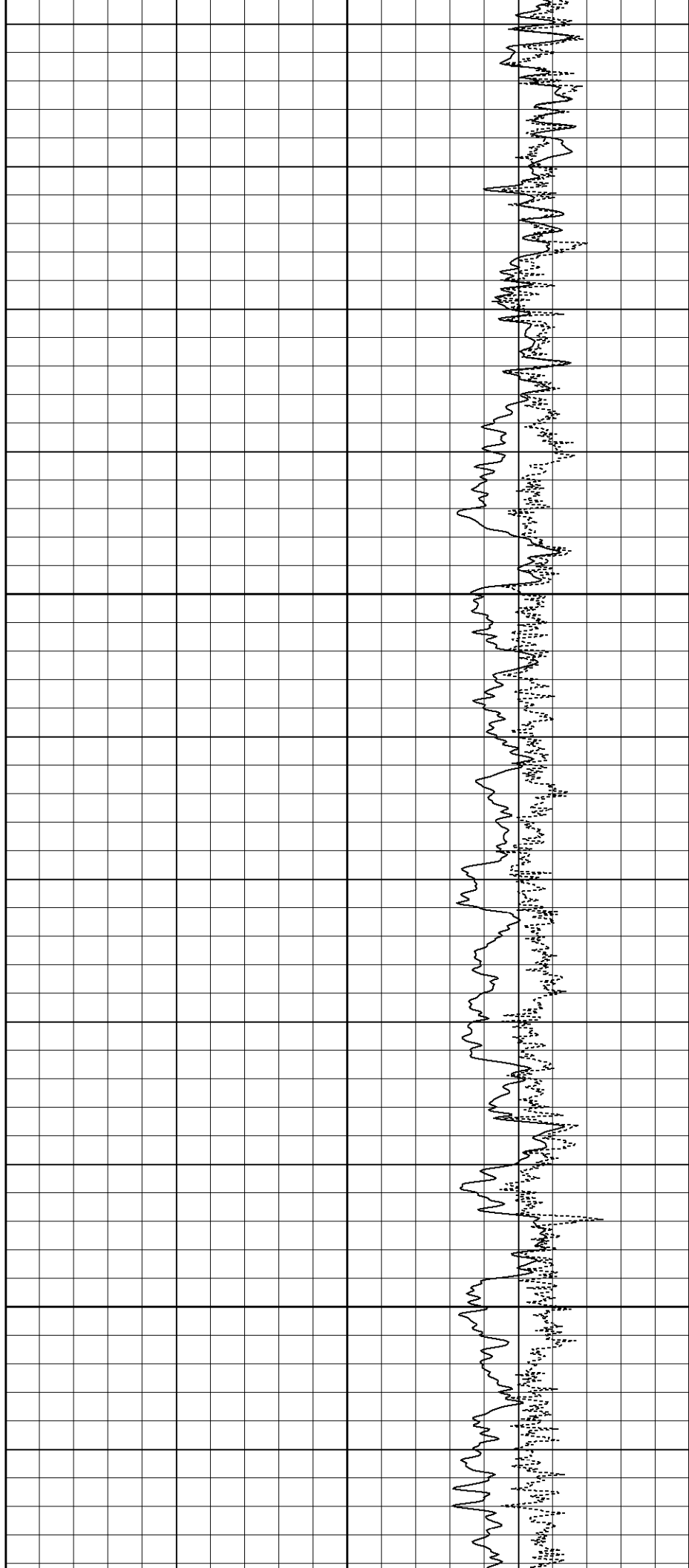
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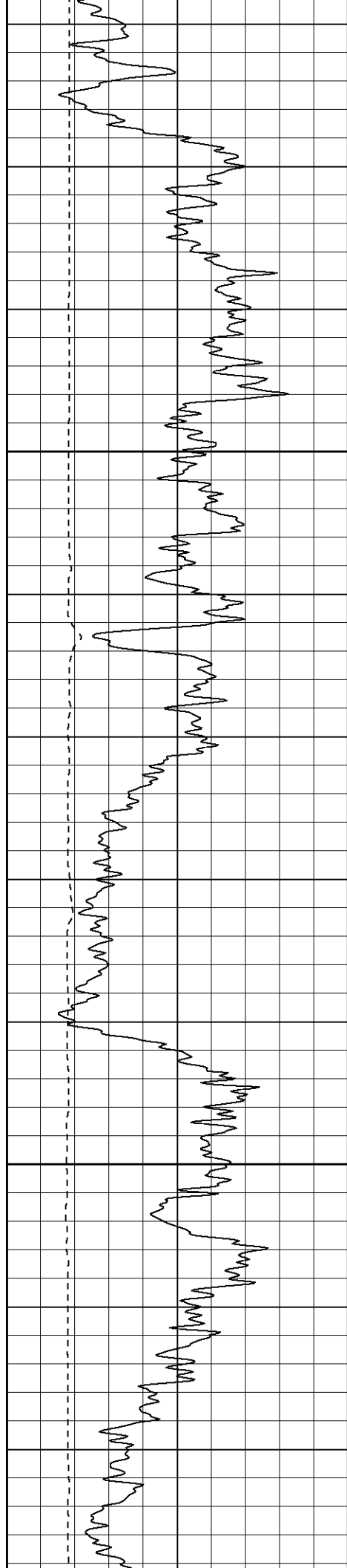




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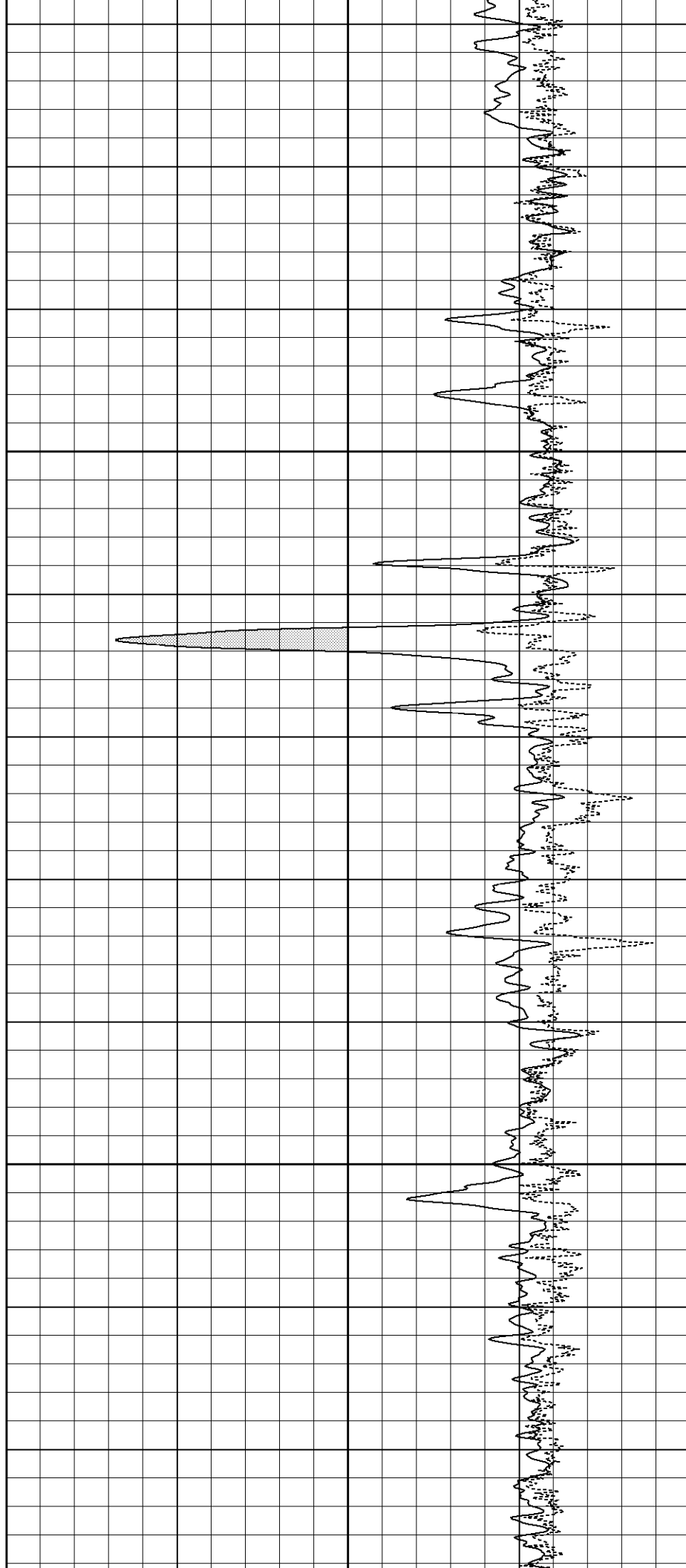
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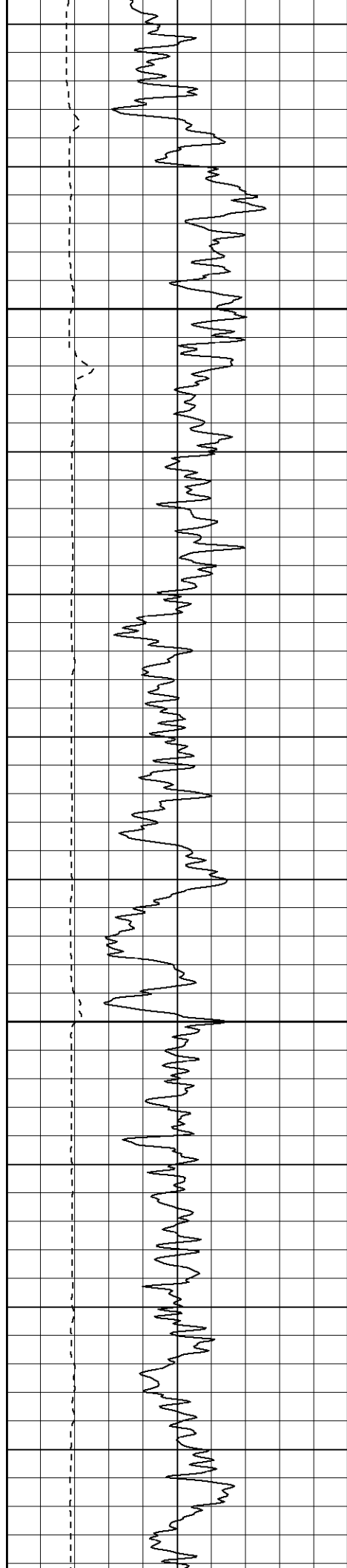




1600

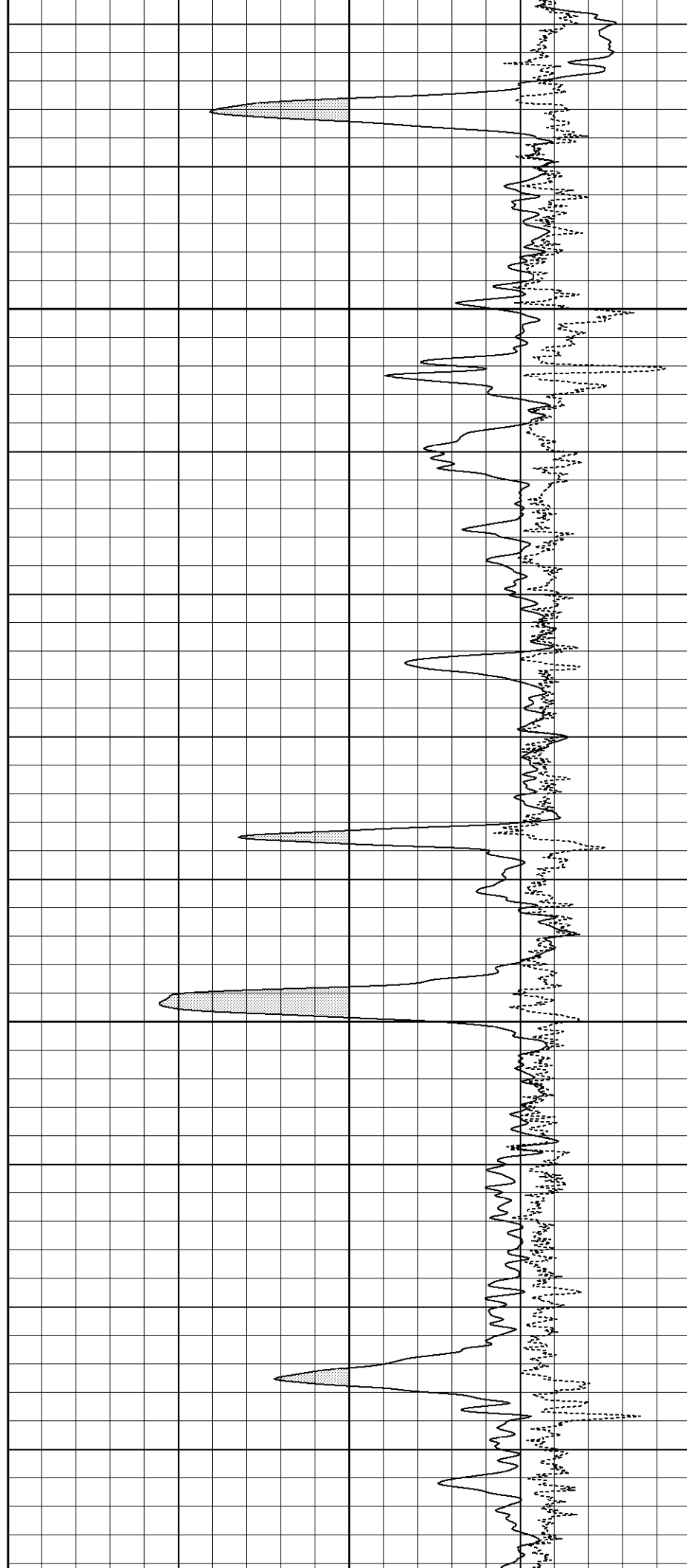
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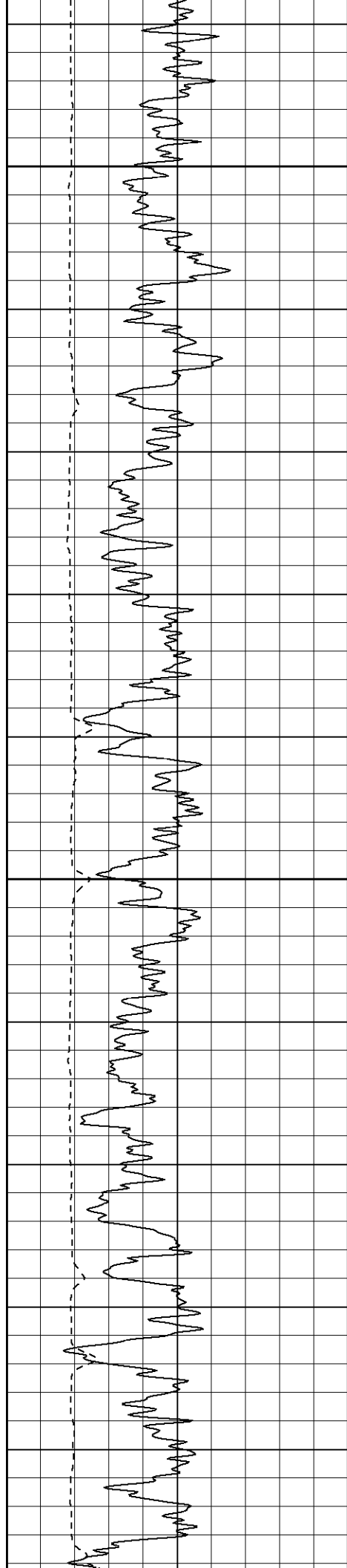




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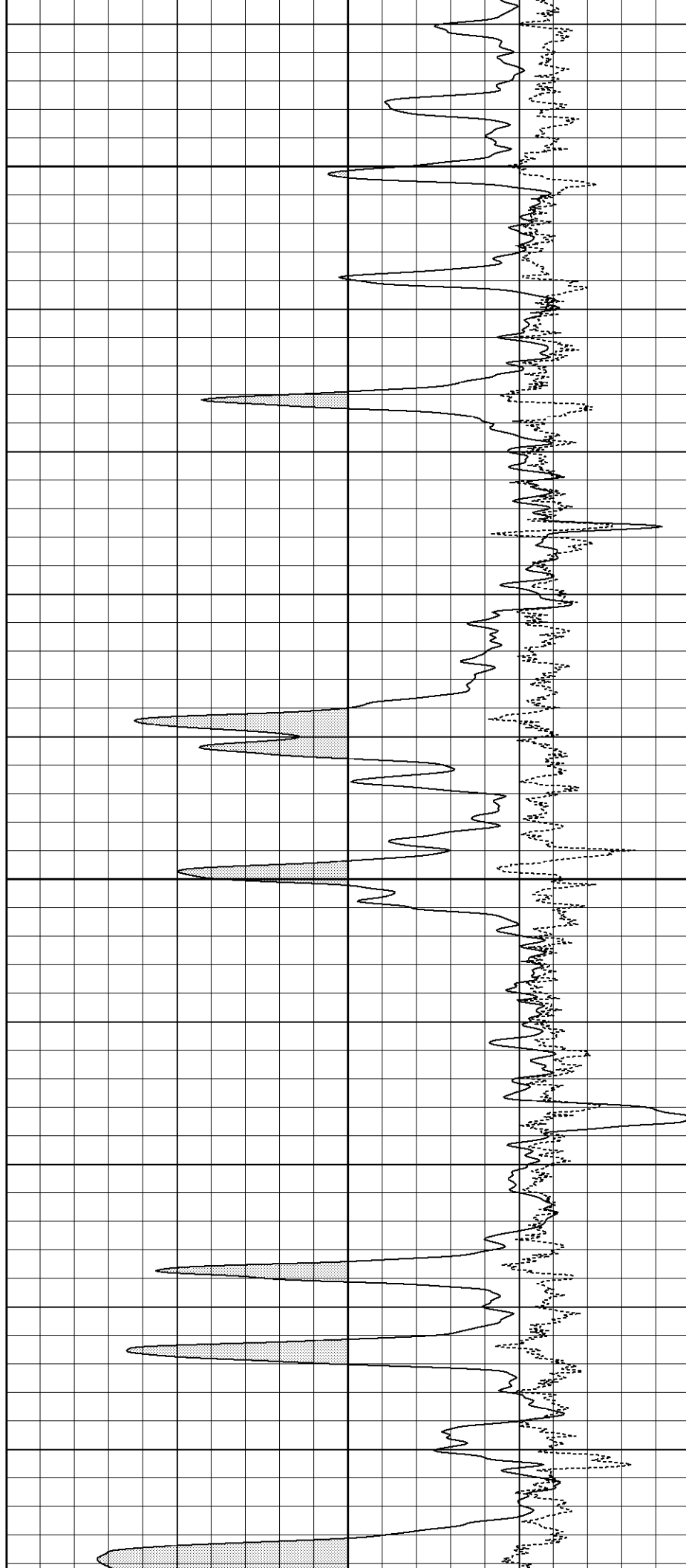
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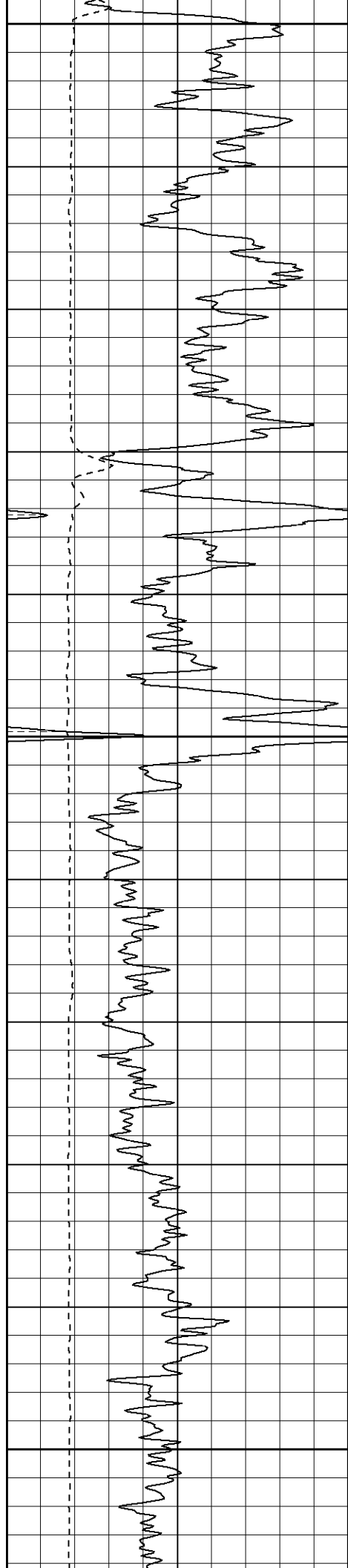




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1850

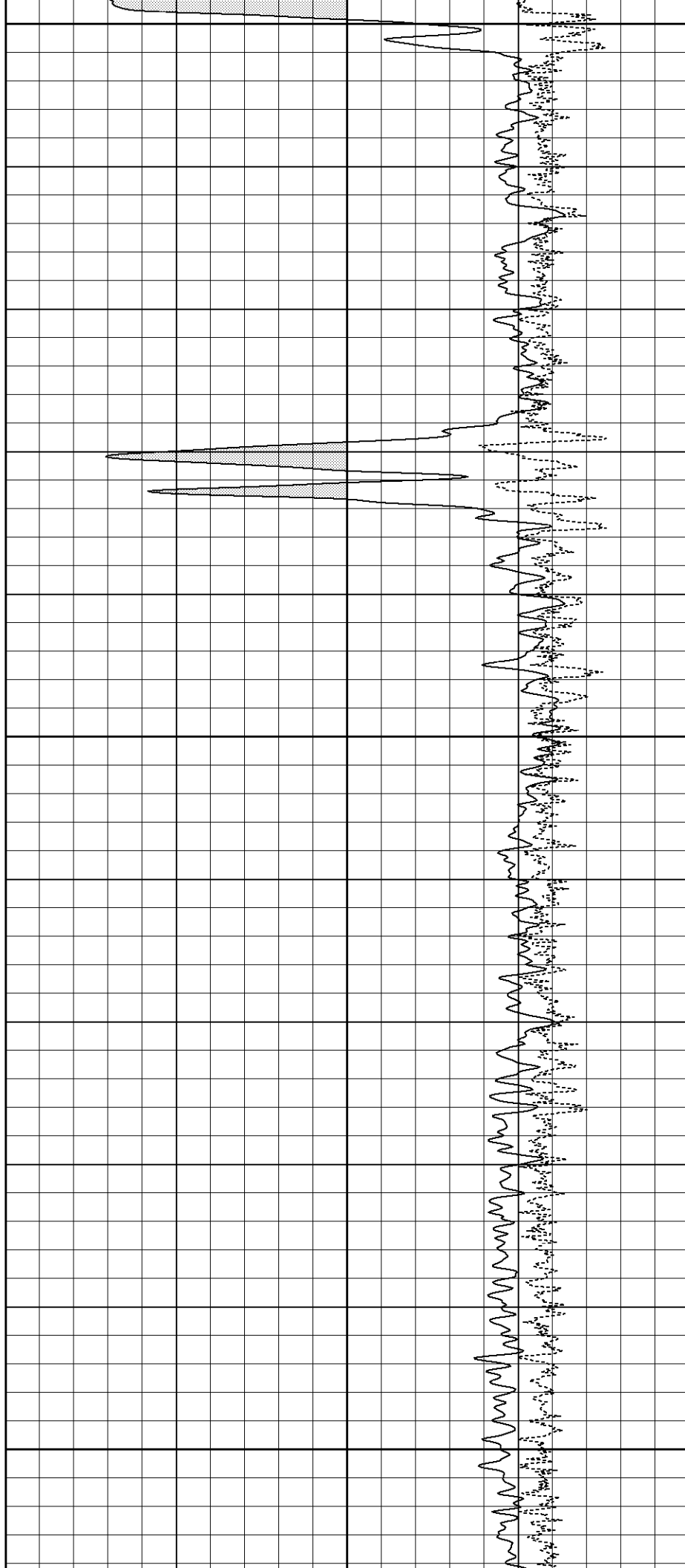


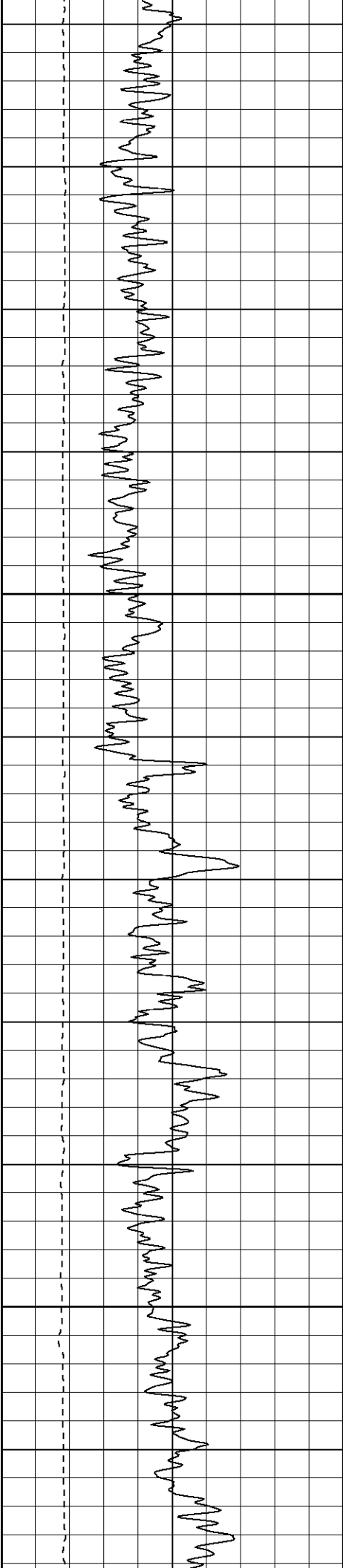


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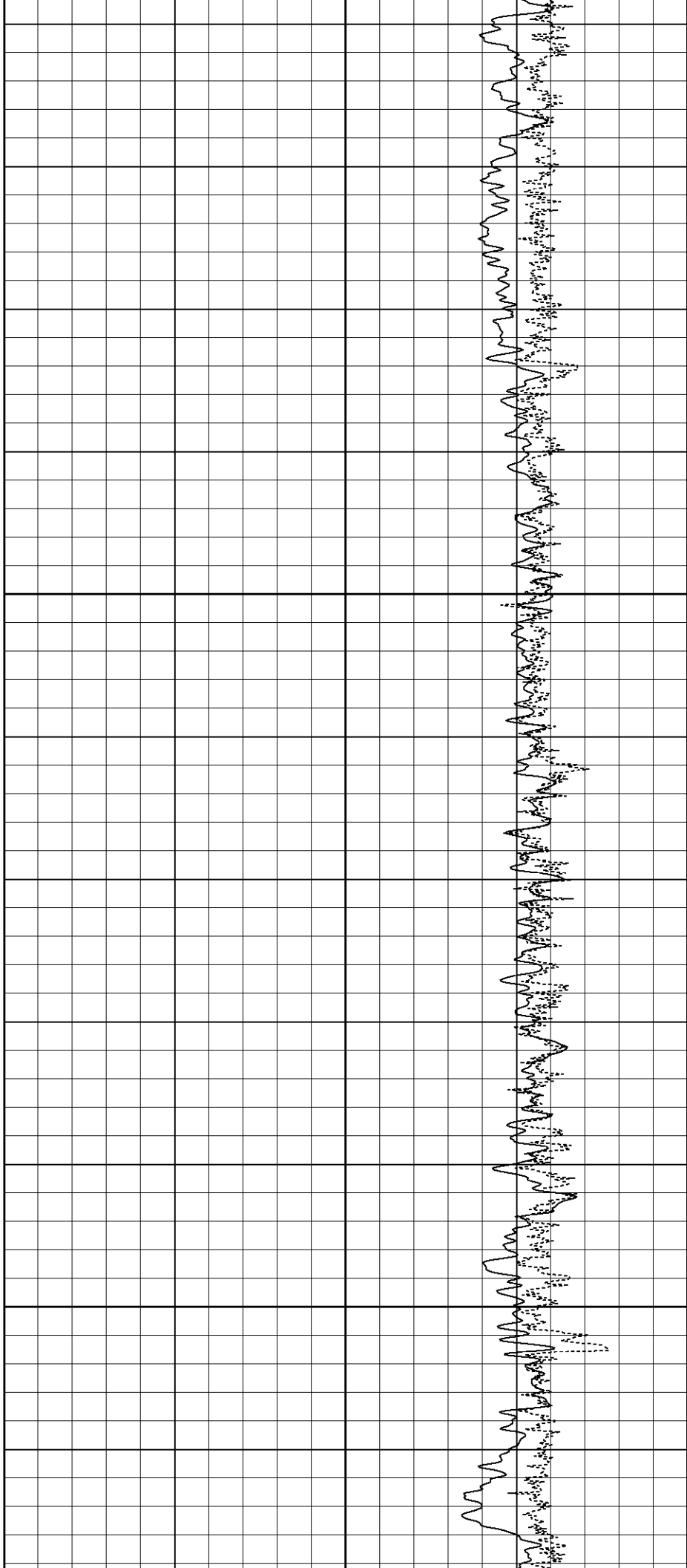
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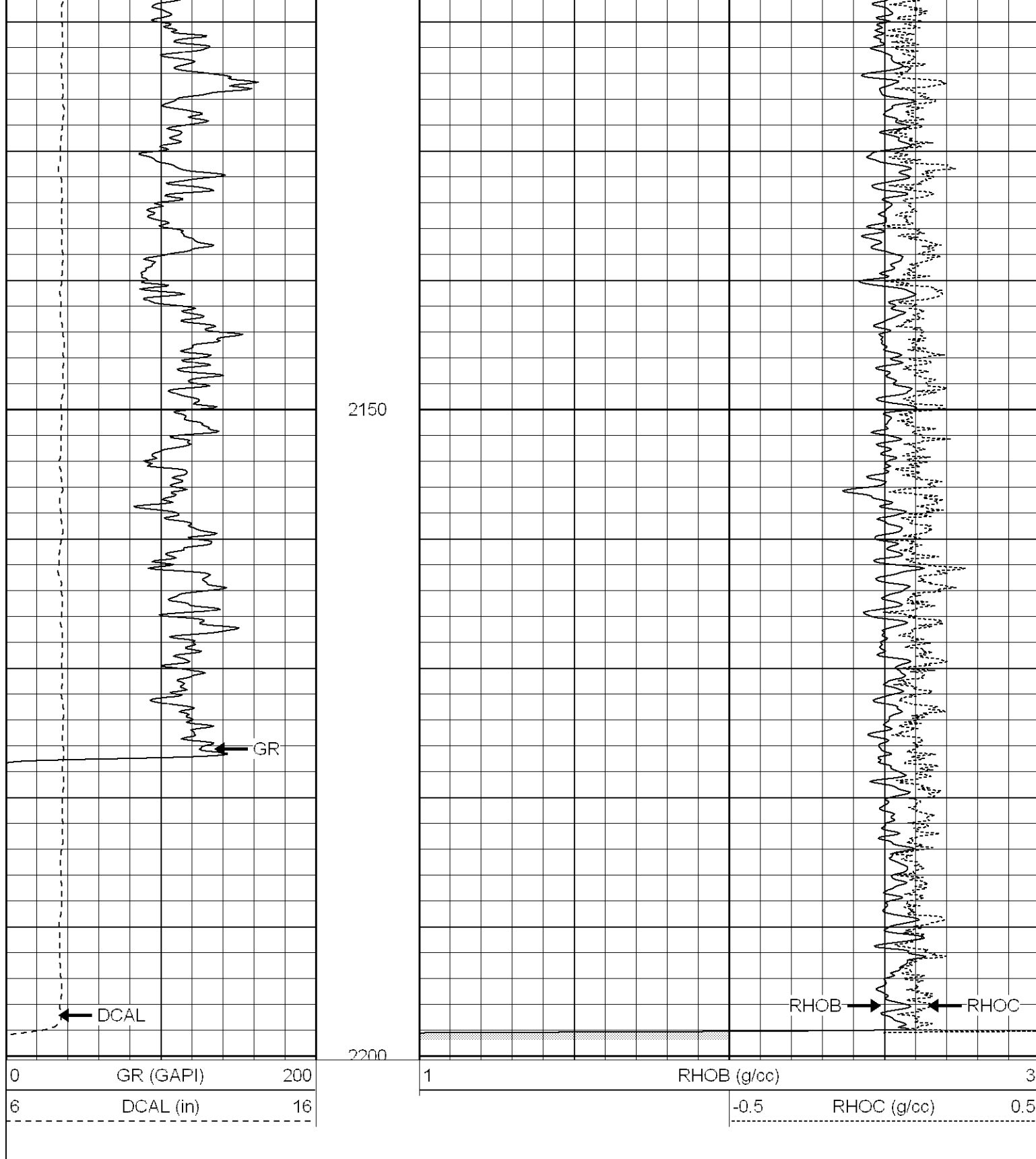




2050

2100





Calibration Report

Database File: xtoac3112.db
Dataset Pathname: pass4
Dataset Creation: Wed Mar 07 19:07:58 2007 by Log Open-Cased 061129

Compensated Density Calibration Report

Serial-Model: 2119-O
Source / Verifier: csv-j12 / blks
Master Calibration Performed: Tue Jan 09 13:59:23 2007

| Master Calibration | | | | | |
|---------------------|---------|------|-----------------------------|---------------|-----|
| | Density | | Far Detector | Near Detector | |
| Magnesium | 1.710 | g/cc | 986.57 | 607.78 | cps |
| Aluminum | 2.590 | g/cc | 221.07 | 405.01 | cps |
| Spine Angle = 74.82 | | | Density/Spine Ratio = 0.568 | | |
| | Size | | Reading | | |
| Small Ring | 7.85 | in | 2.80 | V | |
| Large Ring | 14.00 | in | 8.81 | V | |

| |
|--|
| |
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| |
|------------------------------|
| Gamma Ray Calibration Report |
|------------------------------|

| | | |
|---------------------|--------------------------|----------|
| Serial Number: | 2119 | |
| Tool Model: | O | |
| Performed: | Mon Jan 15 08:35:20 2007 | |
| Calibrator Value: | 170.0 | GAPI |
| Background Reading: | 42.6 | cps |
| Calibrator Reading: | 139.0 | cps |
| Sensitivity: | 1.0000 | GAPI/cps |

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| Neutron Calibration Report |
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|---------------------|--------------------------|----------|
| Serial Number: | 5145 | |
| Tool Model: | G | |
| Performed: | Thu Jan 25 22:38:45 2007 | |
| Calibrator Value: | 1200 | NAPI |
| Calibrator Reading: | 1700 | cps |
| Sensitivity: | 1 | NAPI/cps |

| Sensor | Offset (ft) | Schematic | Description | Len (ft) | OD (in) | Wt (lb) |
|--------|-------------|-----------|-------------------------------------|----------|---------|---------|
| NEU | 12.44 | | NEU-G (5145) Gearhart Epithermal | 5.75 | 3.50 | 85.00 |
| GR | 7.64 | | GR-O (2119) Oilex | 2.60 | 3.63 | 74.00 |
| LSD | 2.13 | | CDL-O (2119) Oilex | 5.77 | 4.00 | 201.00 |
| DCAL | 1.79 | | | | | |
| SSD | 1.58 | | | | | |

| | |
|---------------|------------------------------------|
| Dataset: | xtoc3112.db: field/well/run1/pass4 |
| Total Length: | 14.12 ft |
| Total Weight: | 360.00 lb |
| O.D. | 4.00 in |