



RADIAL ANALYSIS BOND LOG

Baker Atlas

| | | | |
|---|--|---|-------------------|
| File No: CH070856 | Company Well Field County | WPX ENERGY DUGGAN RWF 313-29 RULLISON GARFIELD | State COLORADO |
| API No: 05045216640000 | | | |
| 29 GS 94W RWF 14-29 NABORS SSD 573 | Location SHL: 567' FSL & 575' FWL BHL: 1489' FSL & 705' FWL SEC 29 TWP 6S RGE 94W | Other Services RPM | |
| Permanent Datum Log Measured From Drill Measured From | G.L. _____ Elevation 5419.2 ft K.B. _____ 5445.2 ft Above P. D. KELLY BUSHING | Elevations KB 5445.2 ft DF GL 5419.2 ft | |

| | | |
|------------------------------|--------------|----------------|
| Date | 22/APR/13 | |
| Run | ONE | |
| Service Order | 533662 | |
| Depth Driller | 7979 ft | |
| Depth Logger | 7964 ft | |
| Bottom Logged Interval | 7954 ft | |
| Top Logged Interval | 26 ft | |
| Time Started | 7:30 | |
| Time Finished | 11:30 | |
| Operator Rig Time | 4 HRS | |
| Type of Fluid in Hole | WATER | |
| Fluid Density | N/A | |
| Salinity | N/A | |
| Fluid Level | 132 ft | |
| Logged Cement Top | N/A | |
| Wellhead Pressure | 0 psi | |
| Maximum Hole Deviation | N/A | |
| Nominal Logging Speed | 45 fpm | |
| Maximum Recorded Temperature | 227 degF | |
| Reference Log | N/A | |
| Reference Log Date | N/A | |
| Equipment No. | 6726 | ROCK SPRINGS |
| Recorded By | U. KINSEL | 9712 |
| Witnessed By | MR. BOB CADY | GRAND JUNCTION |

- FOLD HERE

In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

| Borehole Record | | |
|-----------------|------|---------|
| Bit Size | From | To |
| 13.5 in | 0 ft | 1113 ft |
| 8.75 in | 0 ft | 8014 ft |

| Casing Record | | | | |
|---------------|-------------|-------|------|---------|
| Size | Weight | Grade | From | To |
| 9.625 in | N/A | N/A | 0 ft | 1100 ft |
| 4.5 in | 11.6 lbm/ft | 1-80 | 0 ft | 7979 ft |

| |
|--|
| Remarks |
| ALL DATA IN THIS LOG WAS DEPTH SHIFTED TO MATCH THE TOP CCL MARK WITH KB LEVEL |
| AT THE CLIENT'S REQUEST. THE AMOUNT OF LINEAR SHIFT WAS 7 FEET DOWN. |
| SHORT JOINT: 4370' - 4391' |
| BHT: 227 degF |
| LOG DONE WITH 0 PSI ON WELLHEAD |

| Equipment Data | | | | | |
|----------------|------|---------------|---------------|---------------|-------------|
| Run | Trip | Tool | Series Number | Serial Number | Position |
| 1 | 1 | VDL | 1426XA | 10163028 | CENTRALIZED |
| 1 | 1 | GAMMA RAY/CCL | 2459XA | 10417457 | CENTRALIZED |

MAIN LOG PRIMARY PRESENTATION
0 PSI

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
|------------------|-----------------------|---------|---------|--------|----------|
| RAL | Amp Gate Start Far | 325.674 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Start Near | 197.549 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Start Radial | 197.429 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Width Far | 25.000 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Width Near | 25.000 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Width Radial | 25.000 | usec | 37.078 | 7973.000 |
| RAL | casing od | 4.500 | inches | 37.078 | 7973.000 |
| RAL | casing wt | 11.600 | lbm/ft | 37.078 | 7973.000 |
| RAL | FB Start Far | 291.900 | usec | 37.078 | 7973.000 |
| RAL | FB Start Near | 175.391 | usec | 37.078 | 7973.000 |
| RAL | FB Start Radial | 175.391 | usec | 37.078 | 7973.000 |
| RAL | FB Thresh Far | 10.000 | mv | 37.078 | 7973.000 |
| RAL | FB Thresh Near | 4.000 | mv | 37.078 | 7973.000 |
| RAL | FB Thresh Radial | 4.000 | mv | 37.078 | 7973.000 |
| RAL | Fluid Travel Time | 200.000 | usec/ft | 37.078 | 7972.953 |

DEPTH OFFSETS

(for Acquired Curves)

| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
|--------|--------------|-----------------|-----|-----|-----|-----|------|
| 1426XA | -16.750 | ACAL | ANR | AR1 | AR2 | AR3 | AR4 |
| | | AR5 | AR6 | AR7 | AR8 | CHV | FPR2 |

1426XA -15.750
2459XA -11.340
2459XA -9.490
2459XA -4.090

| | | | | | |
|------|------|------|------|------|------|
| FPR3 | FPR5 | TT3 | TTR1 | TTR2 | TTR3 |
| TTR4 | TTR5 | TTR6 | TTR7 | TTR8 | XAMP |
| AFAR | SIG | TT5 | | | |
| CCL | | | | | |
| GR | | | | | |
| NEU | | | | | |

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

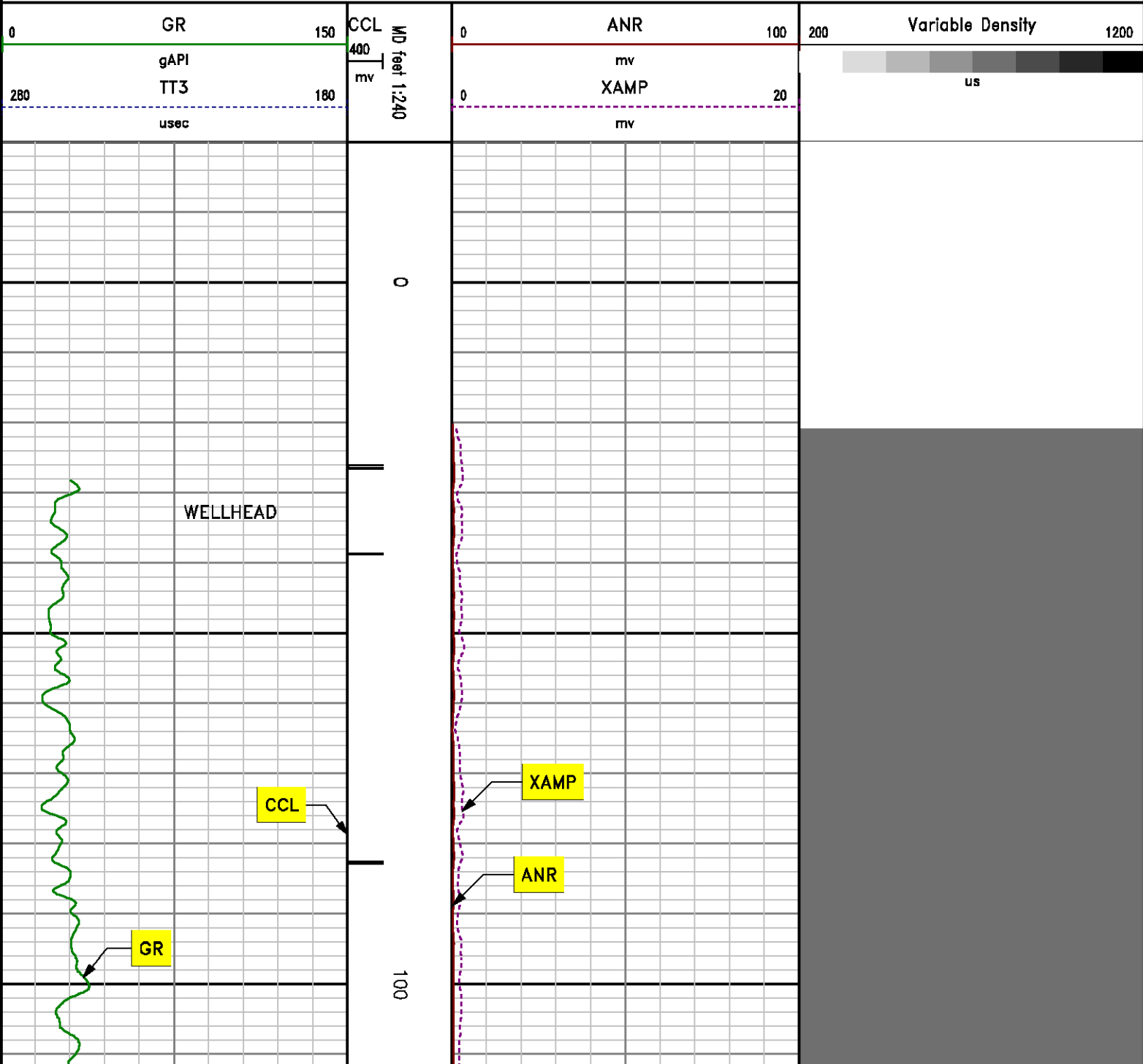
Well : DUGGAN RWF 313-29

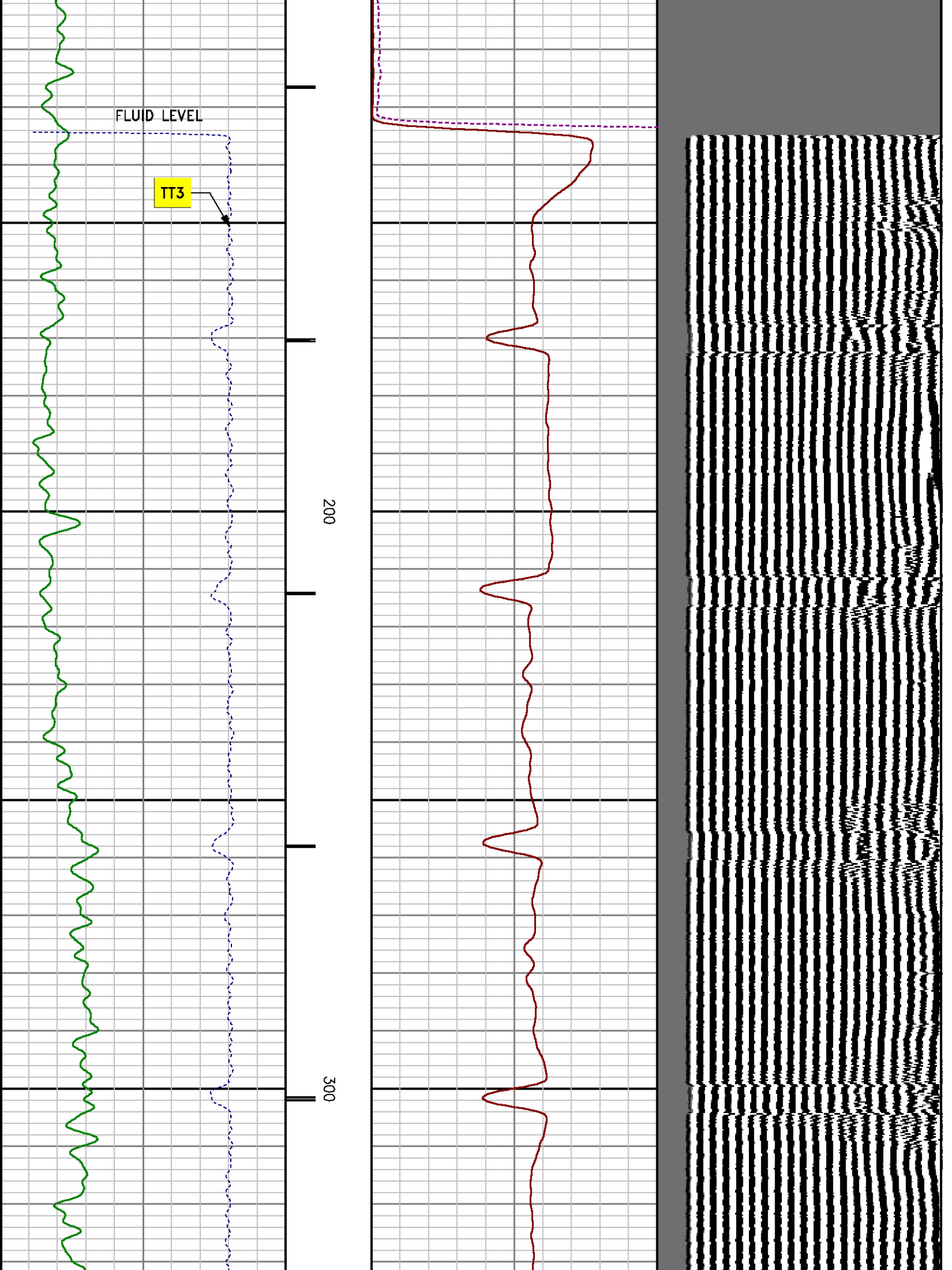
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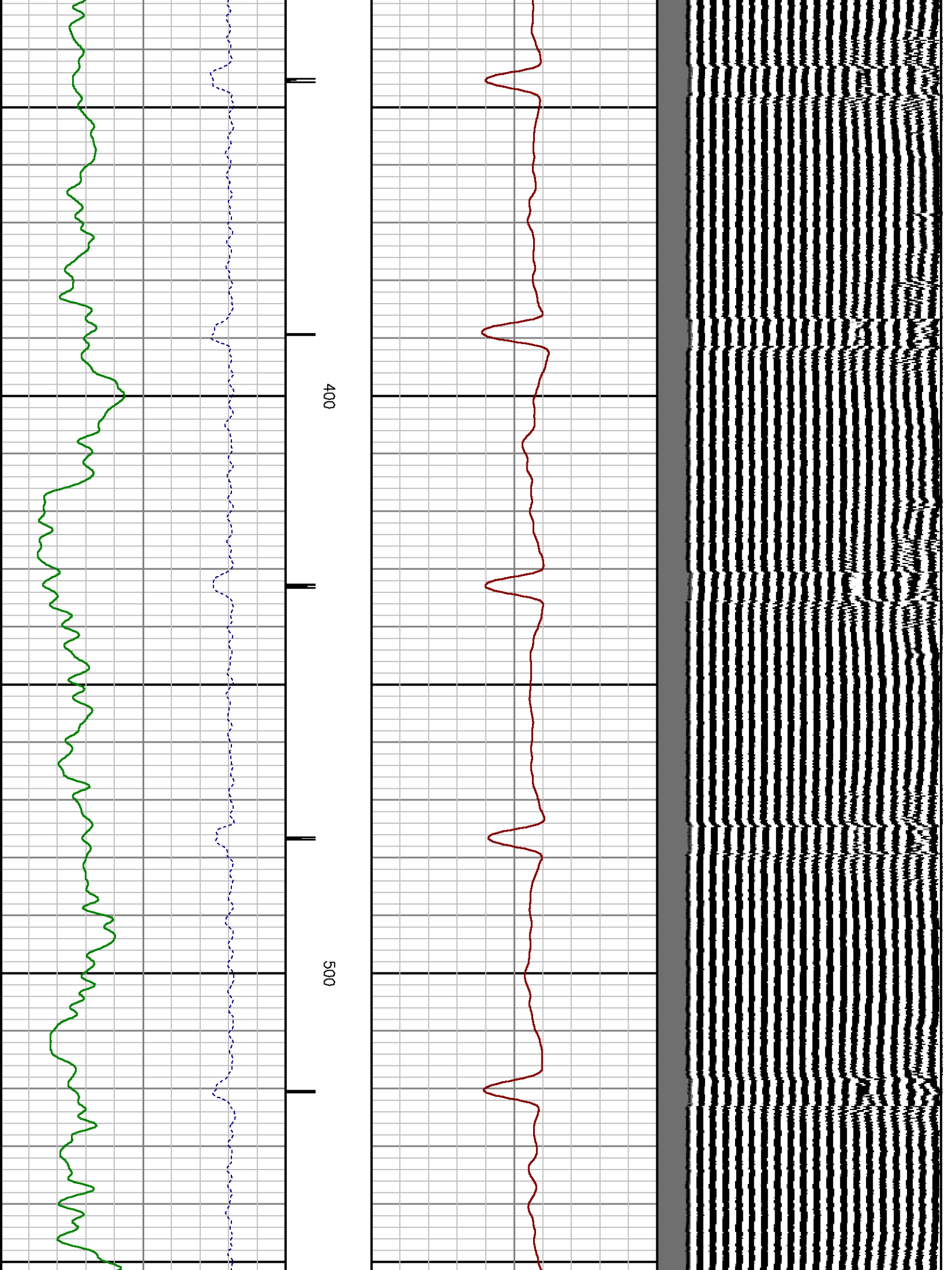
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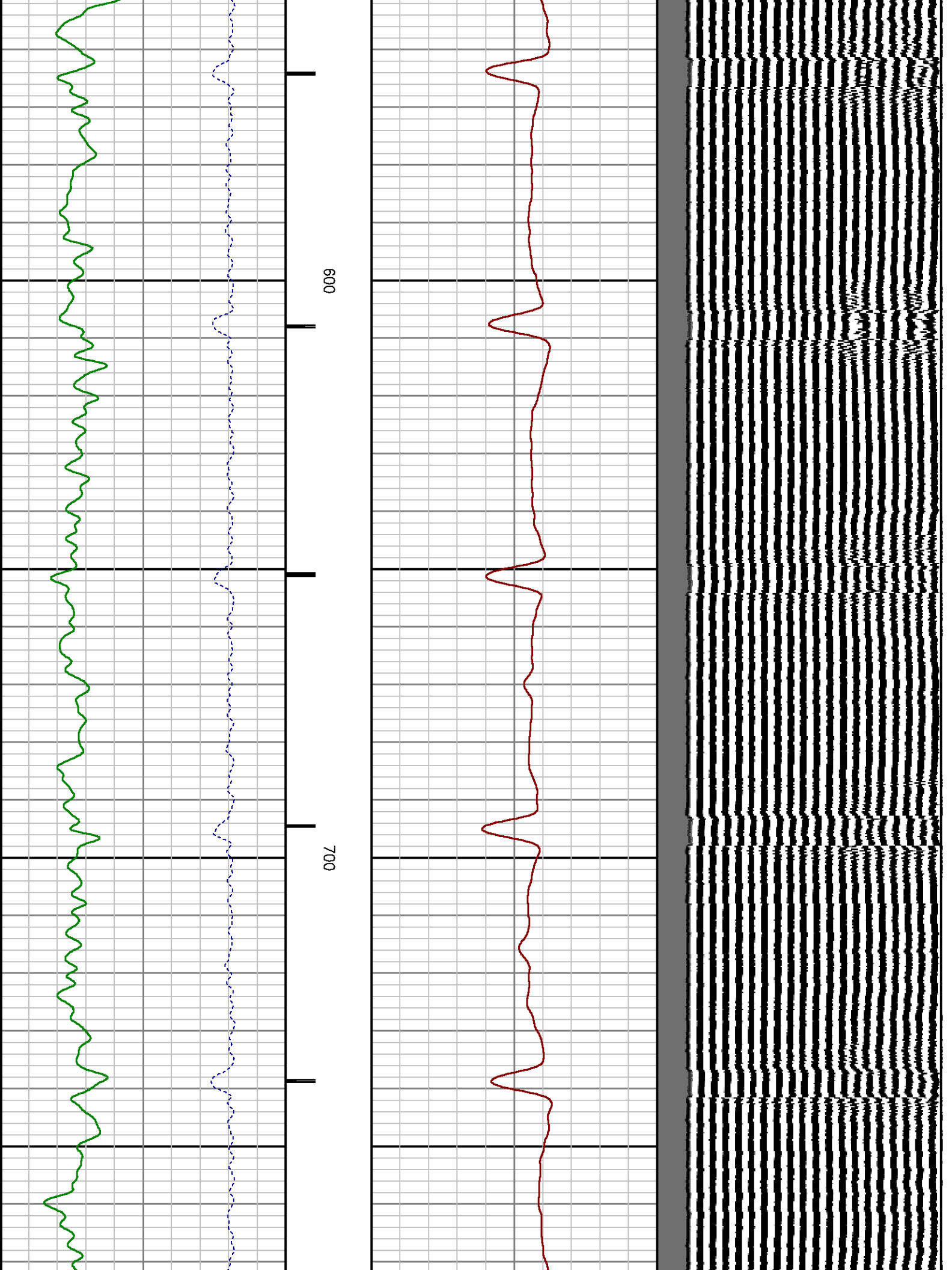
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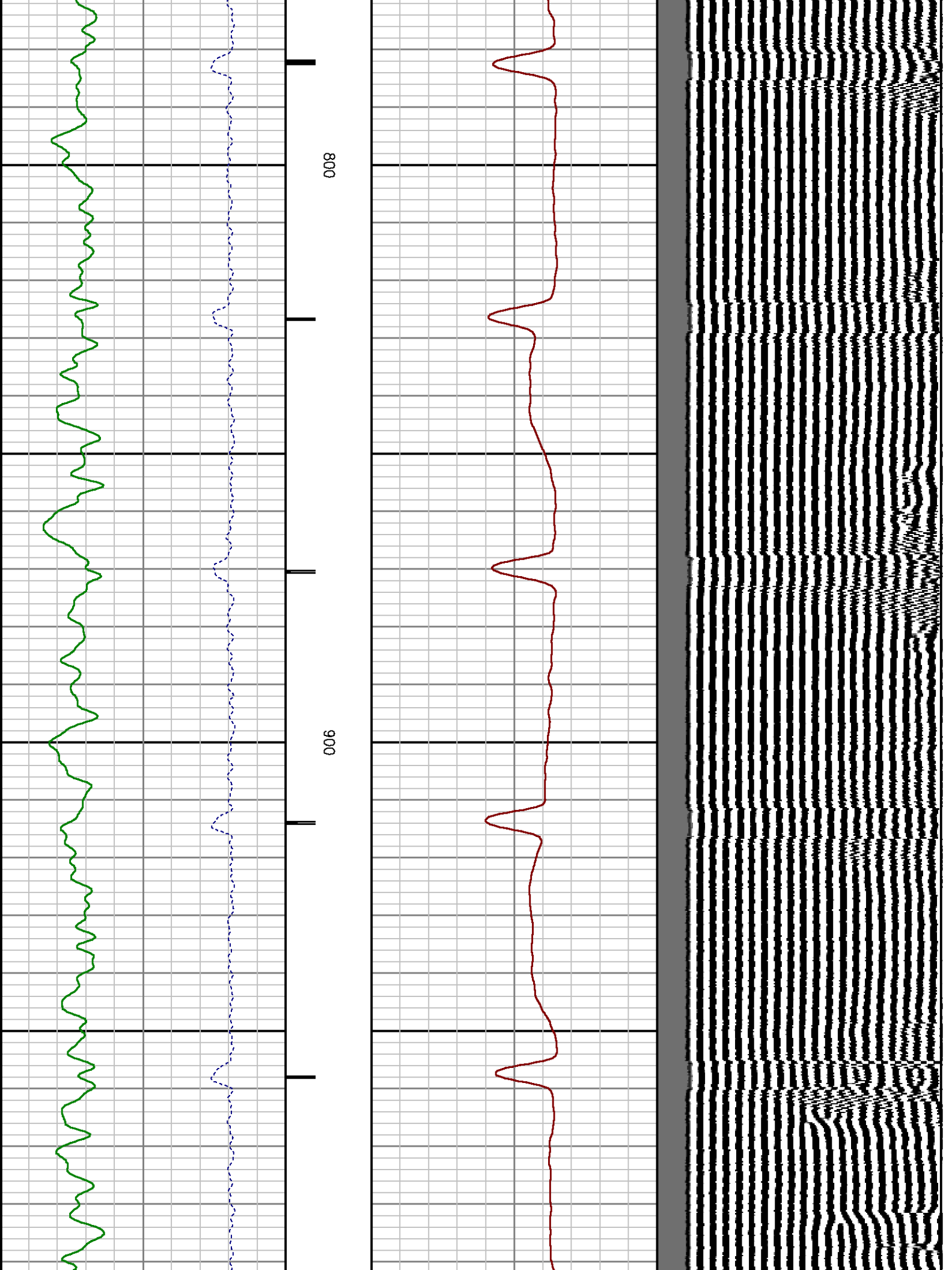
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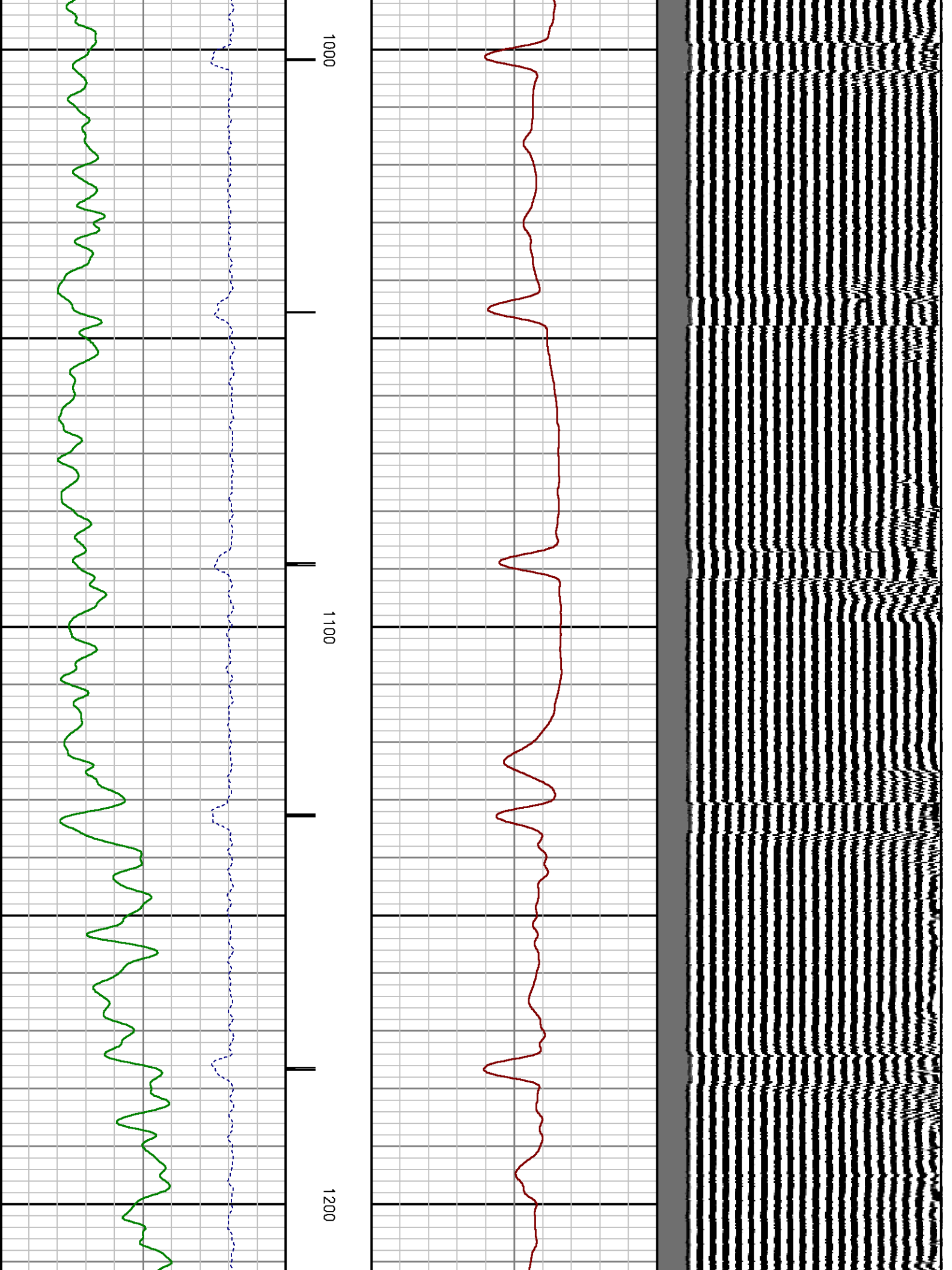


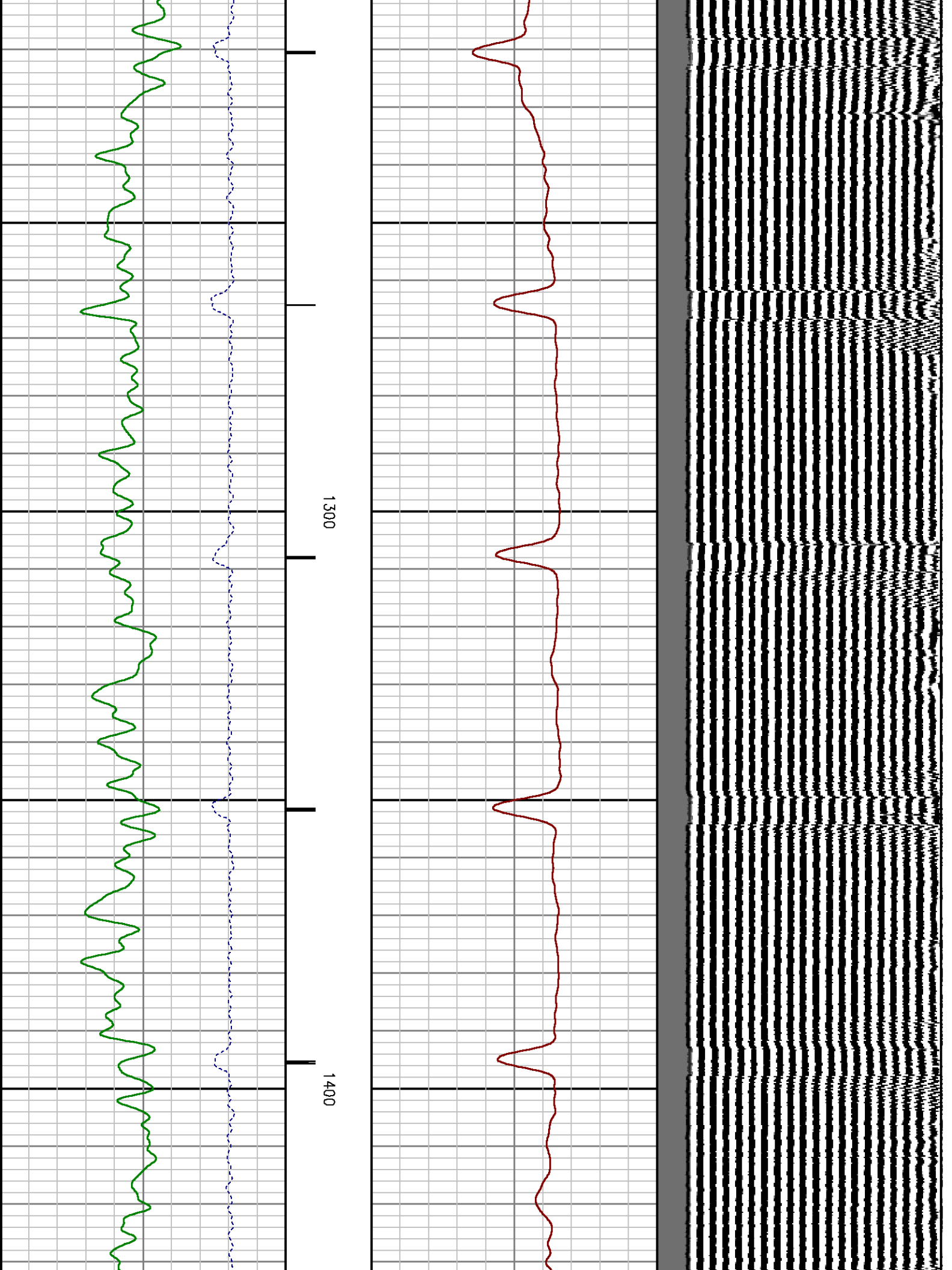


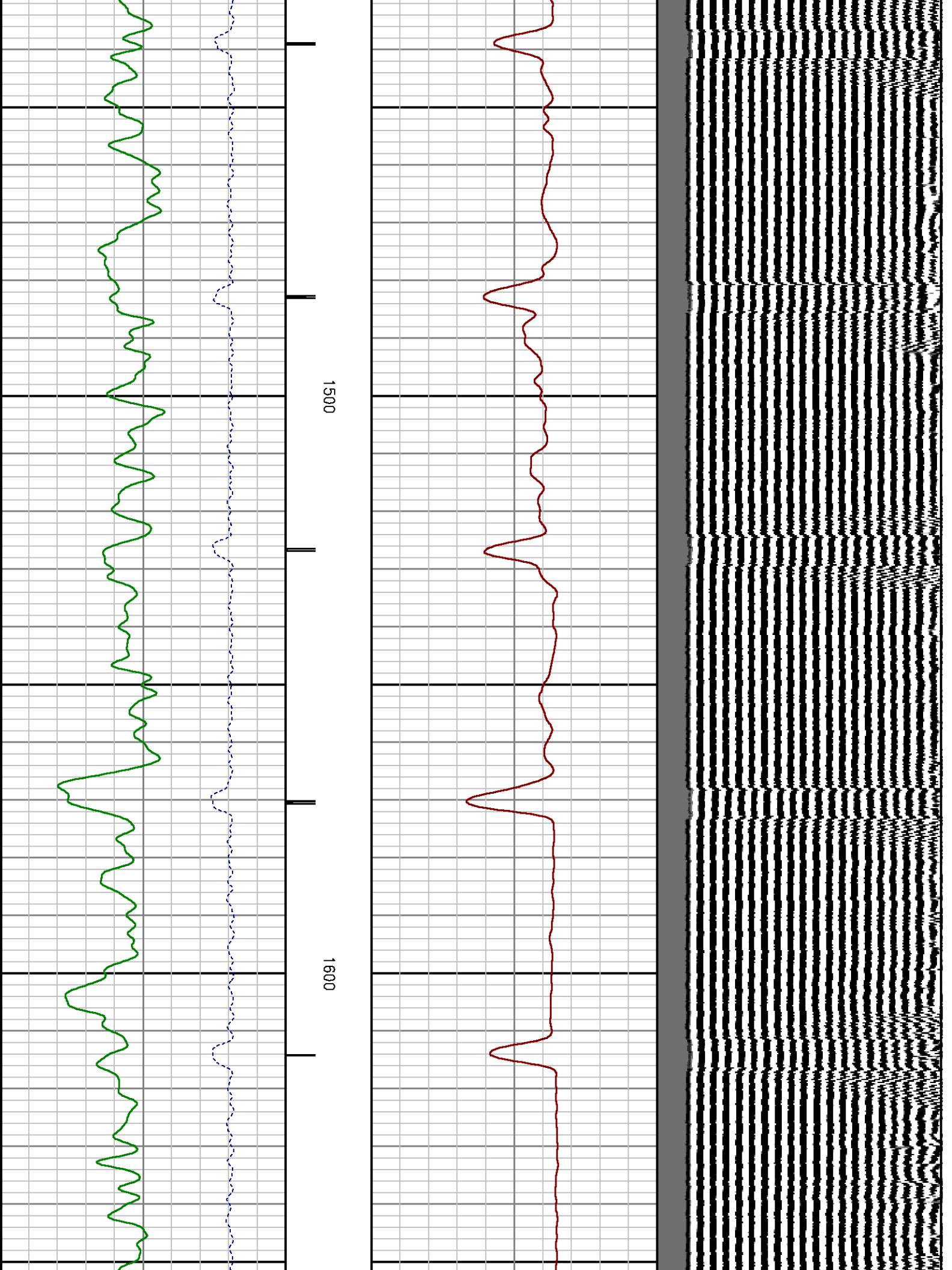


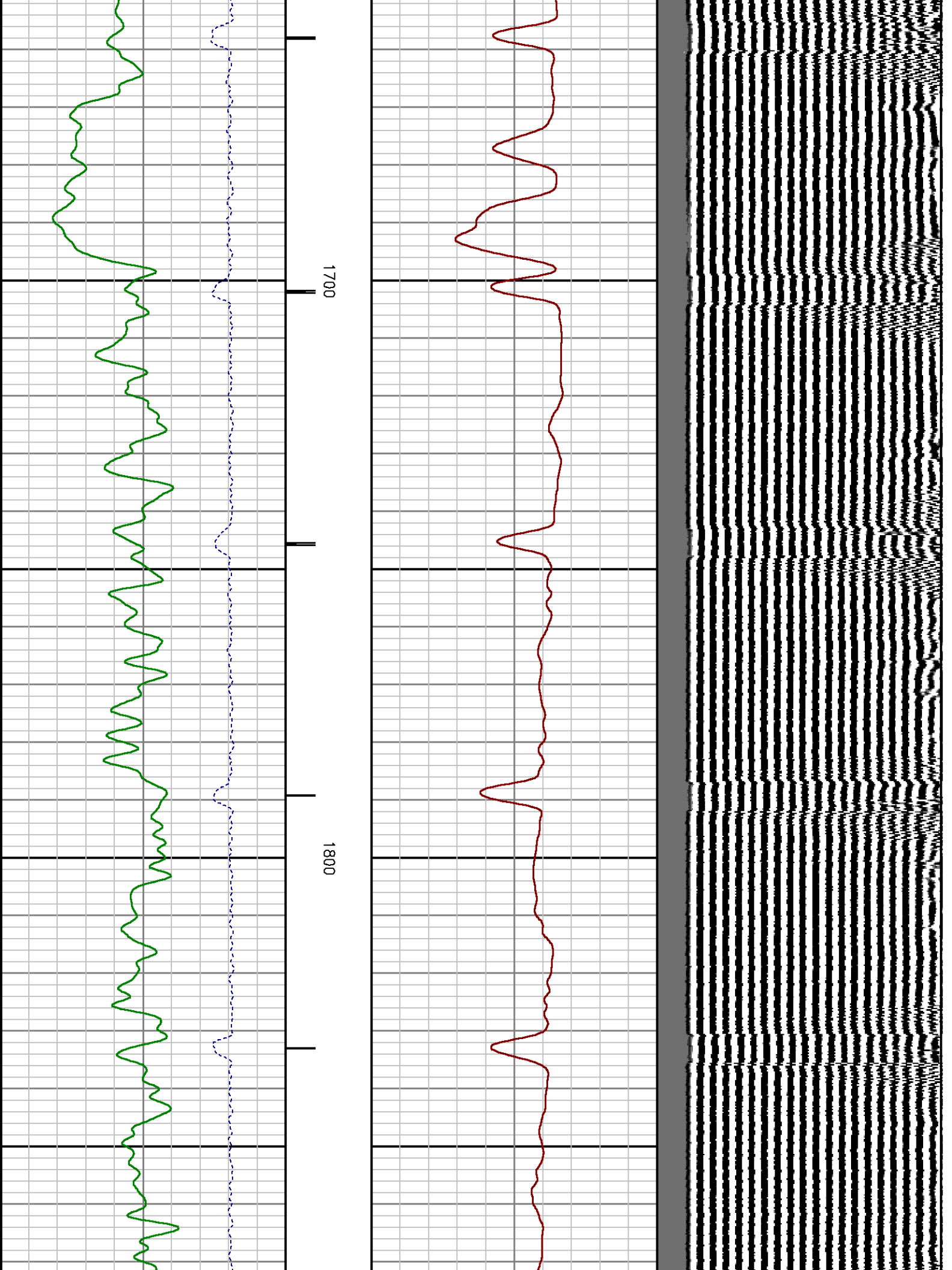


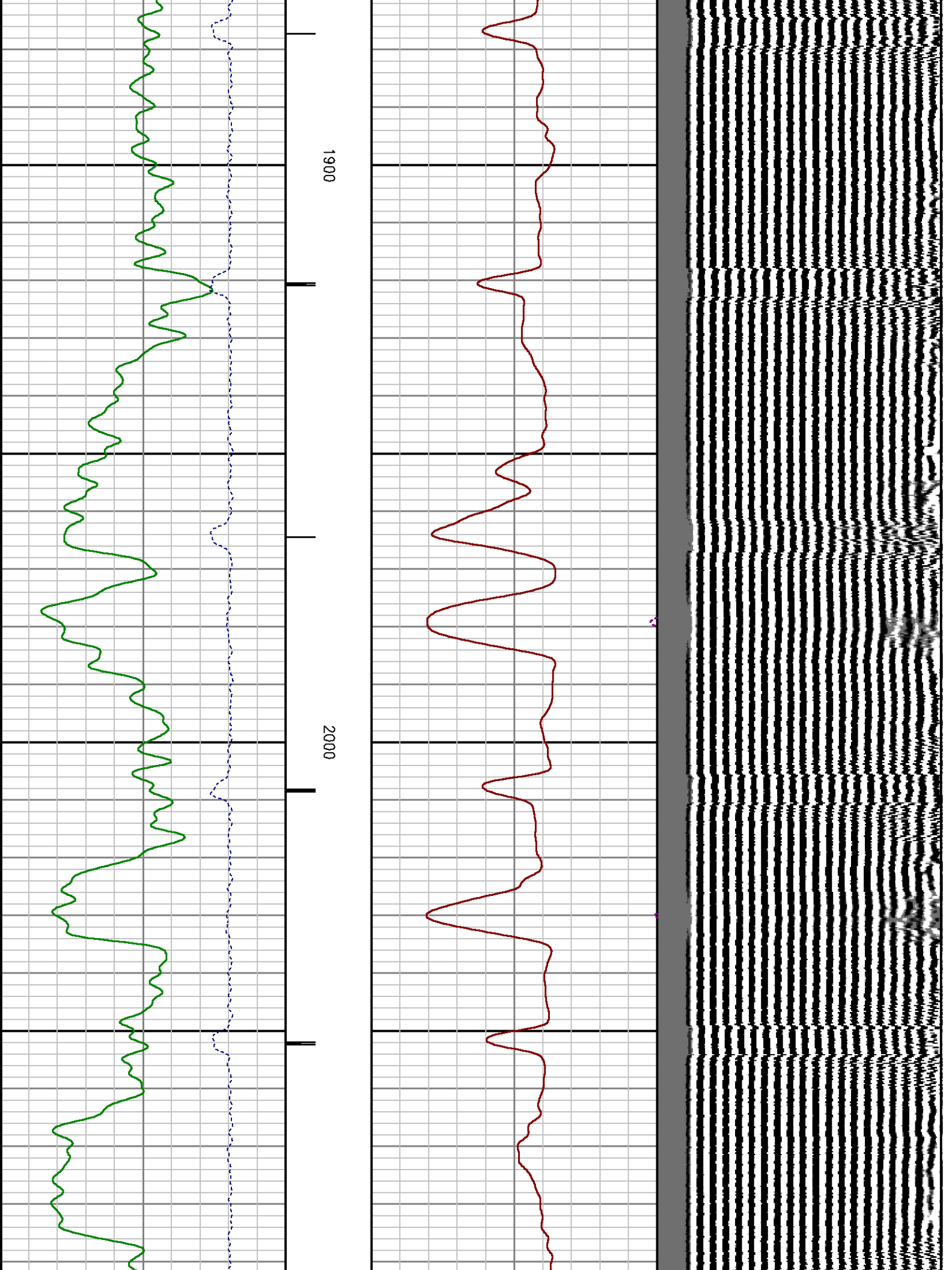


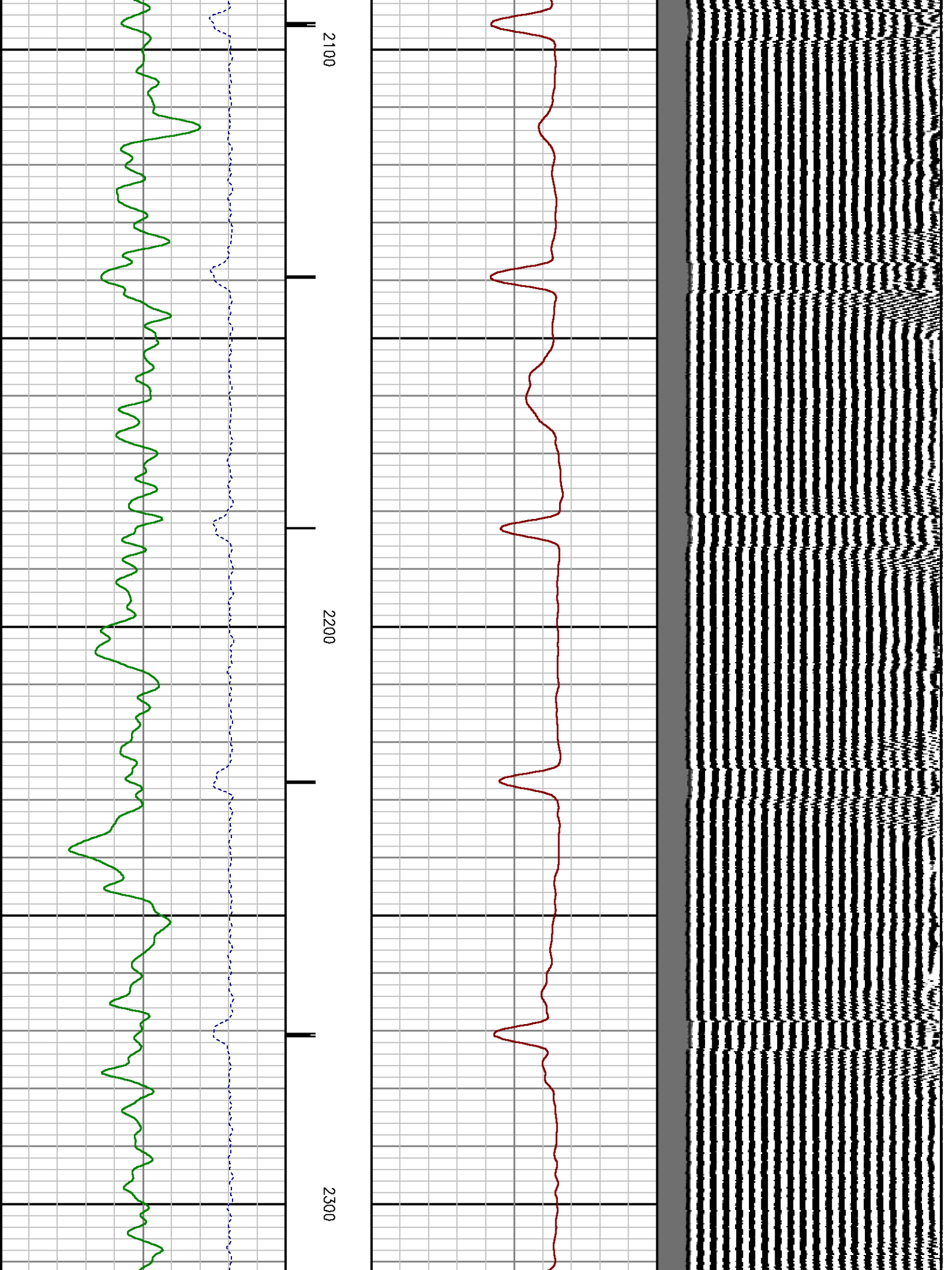


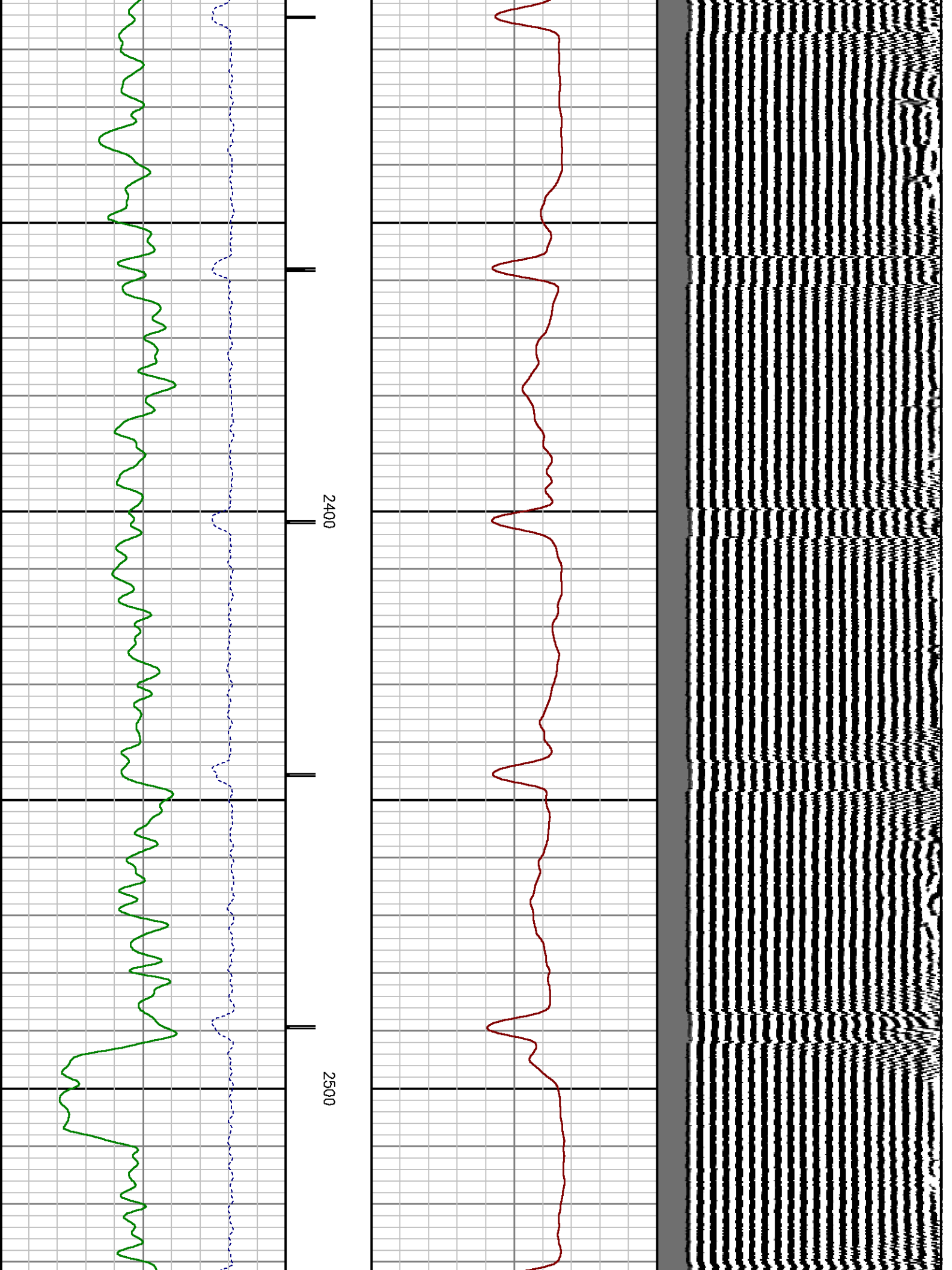


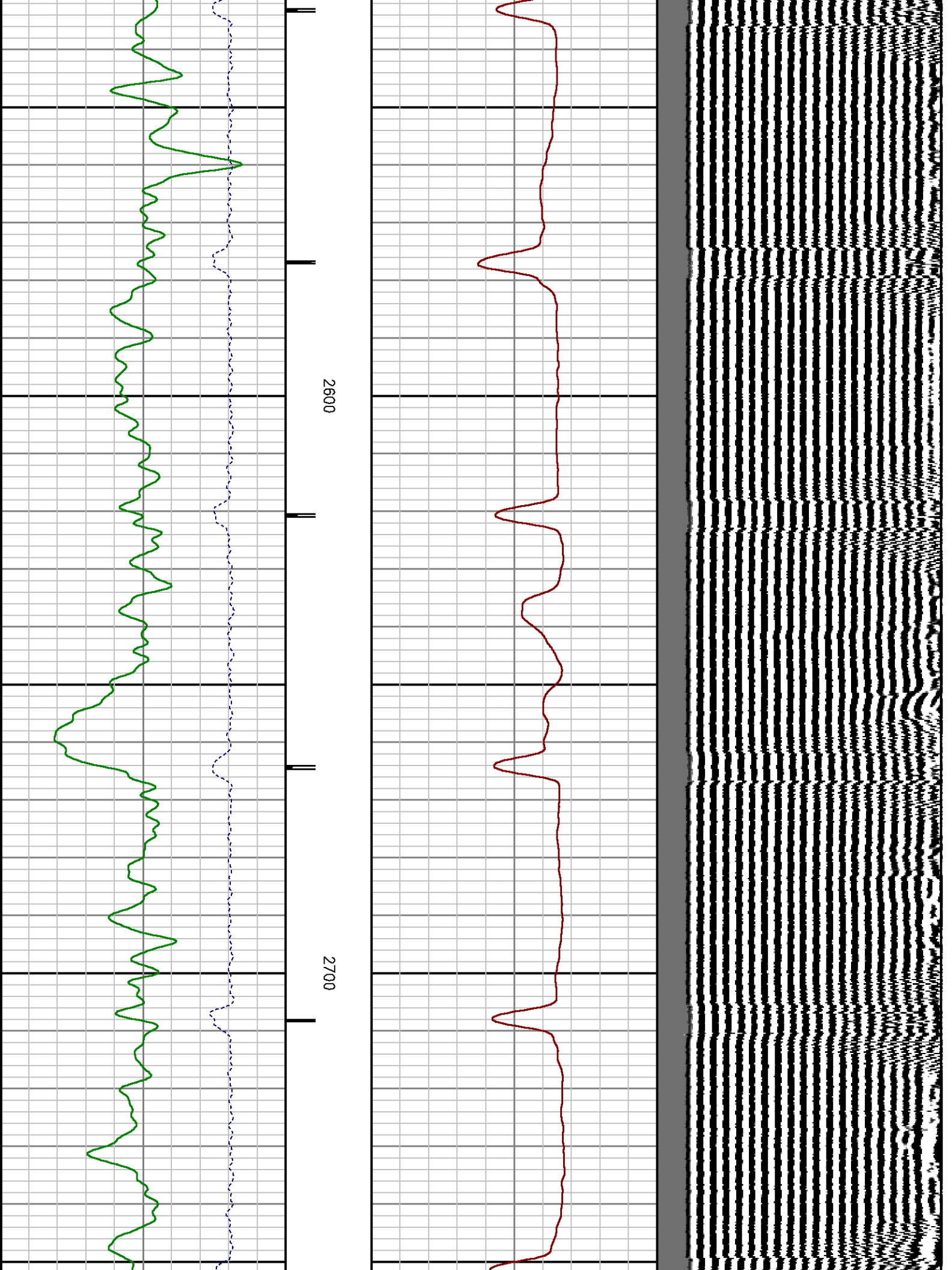


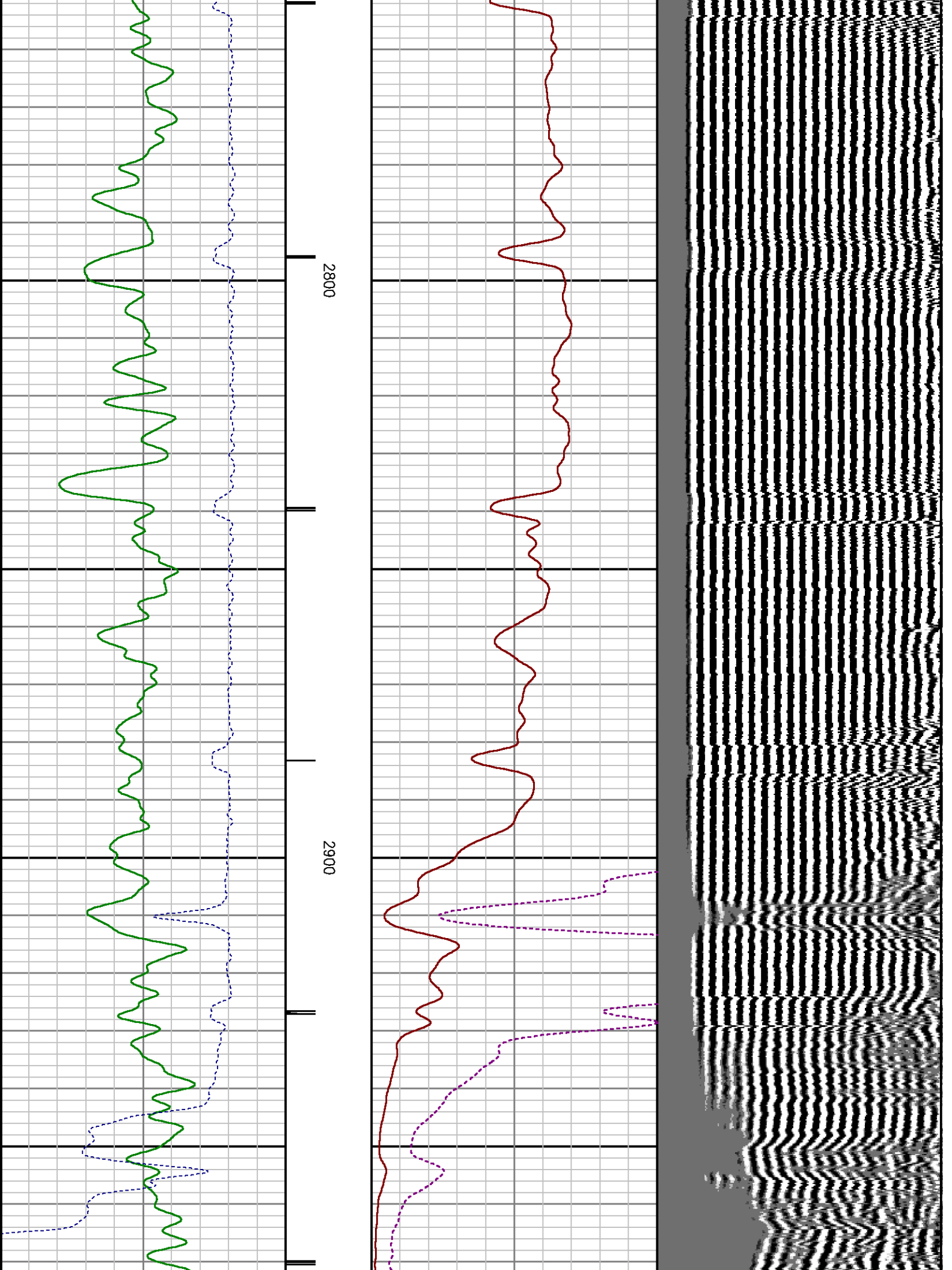


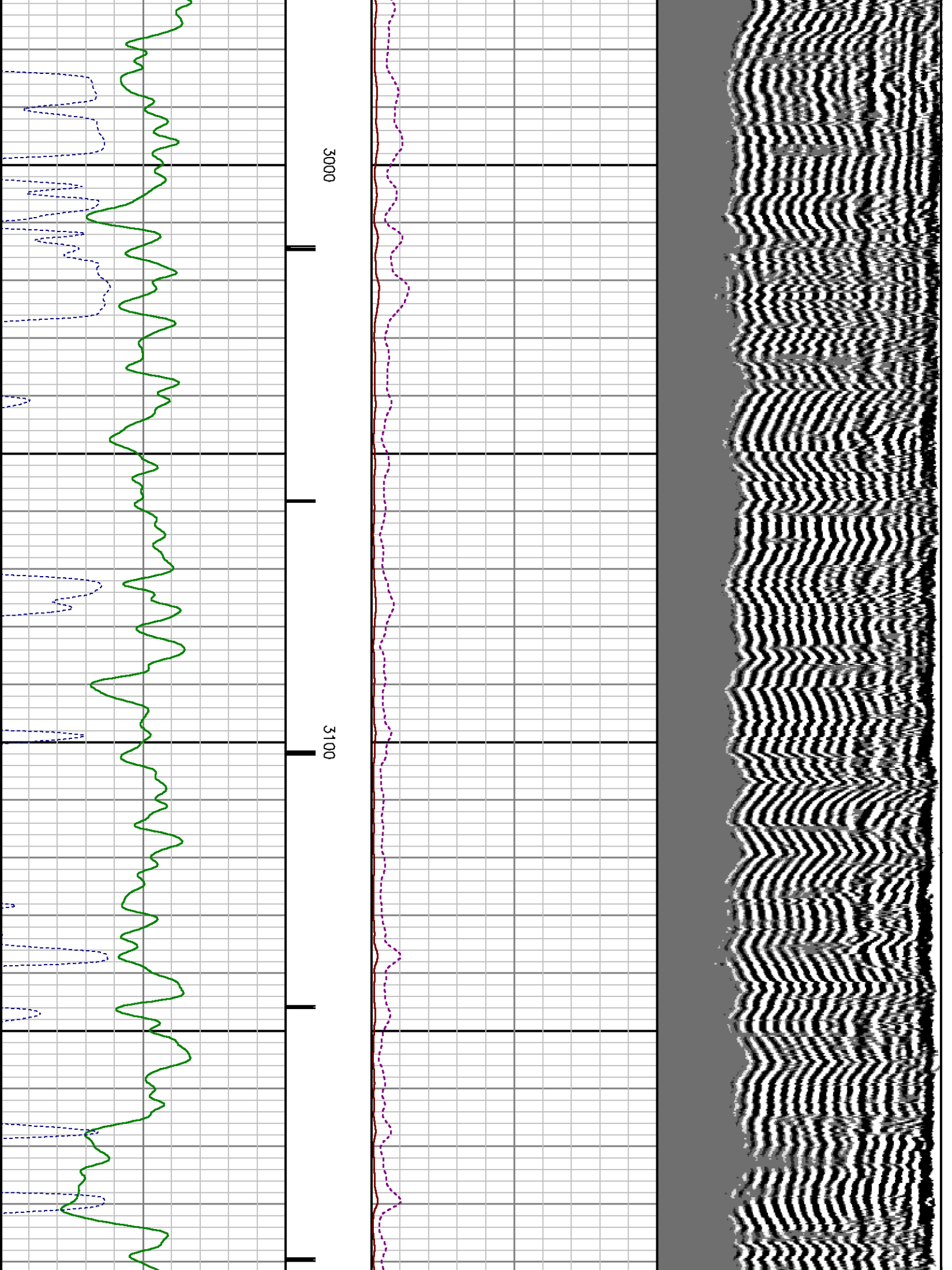


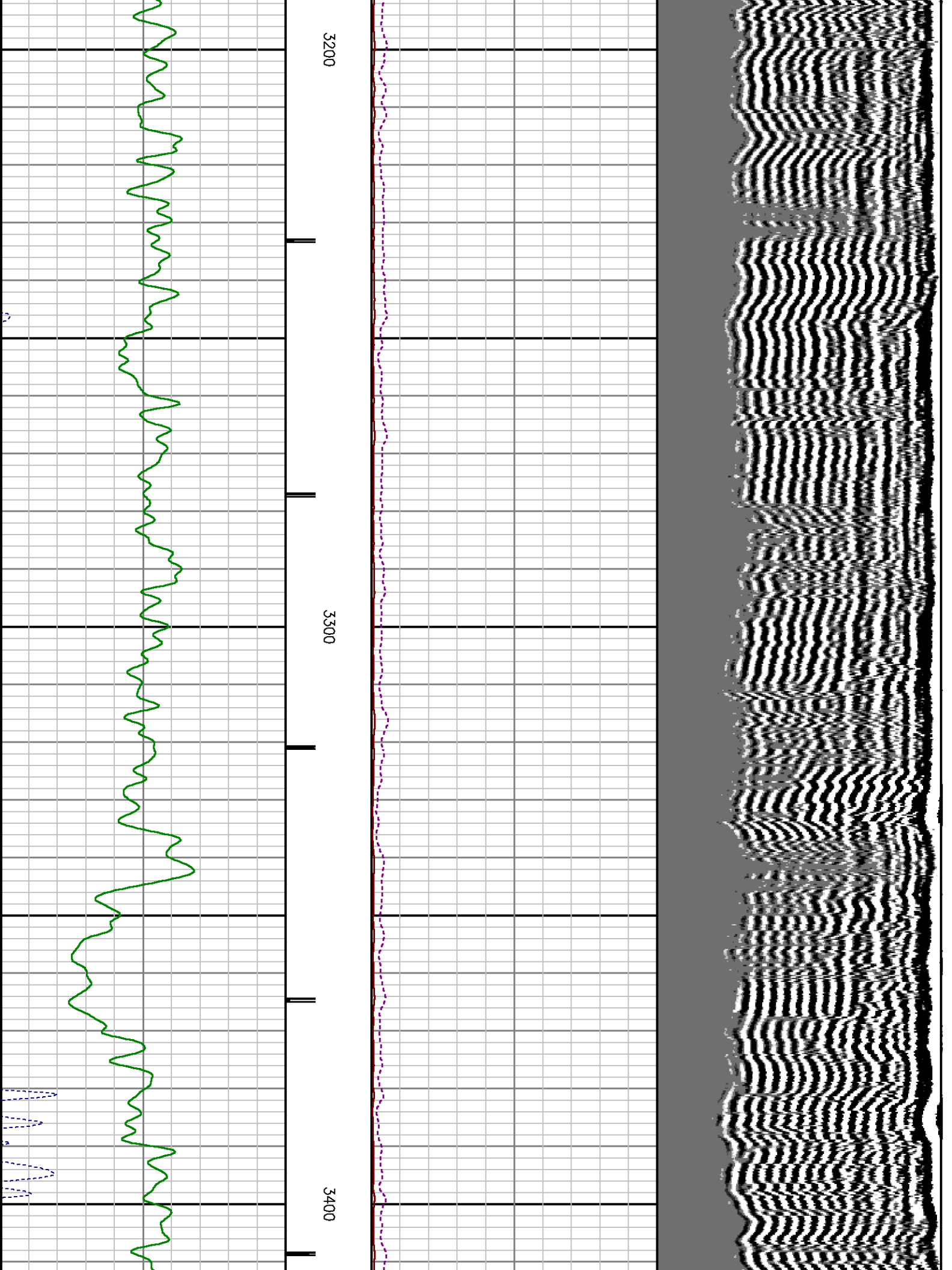


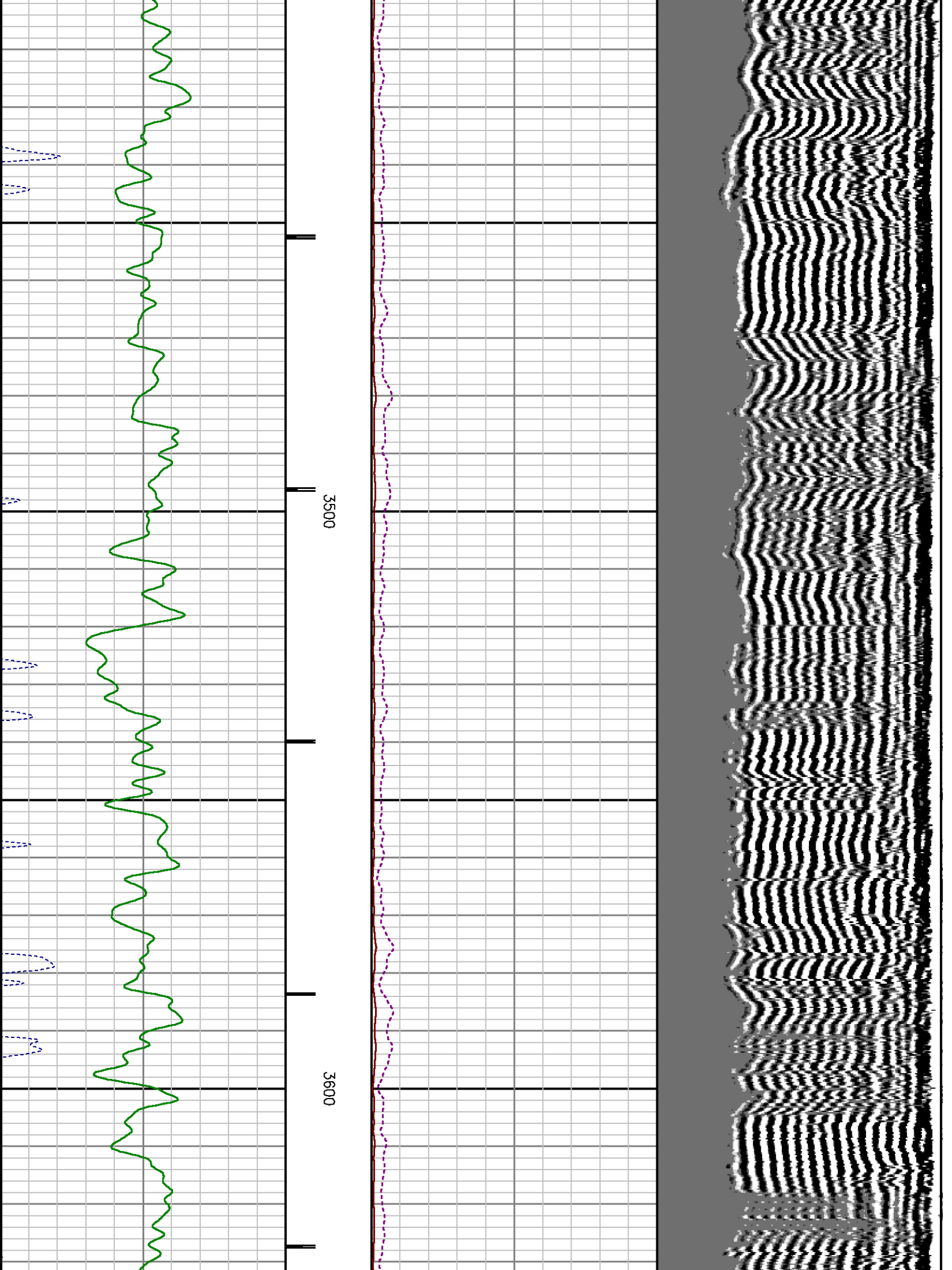


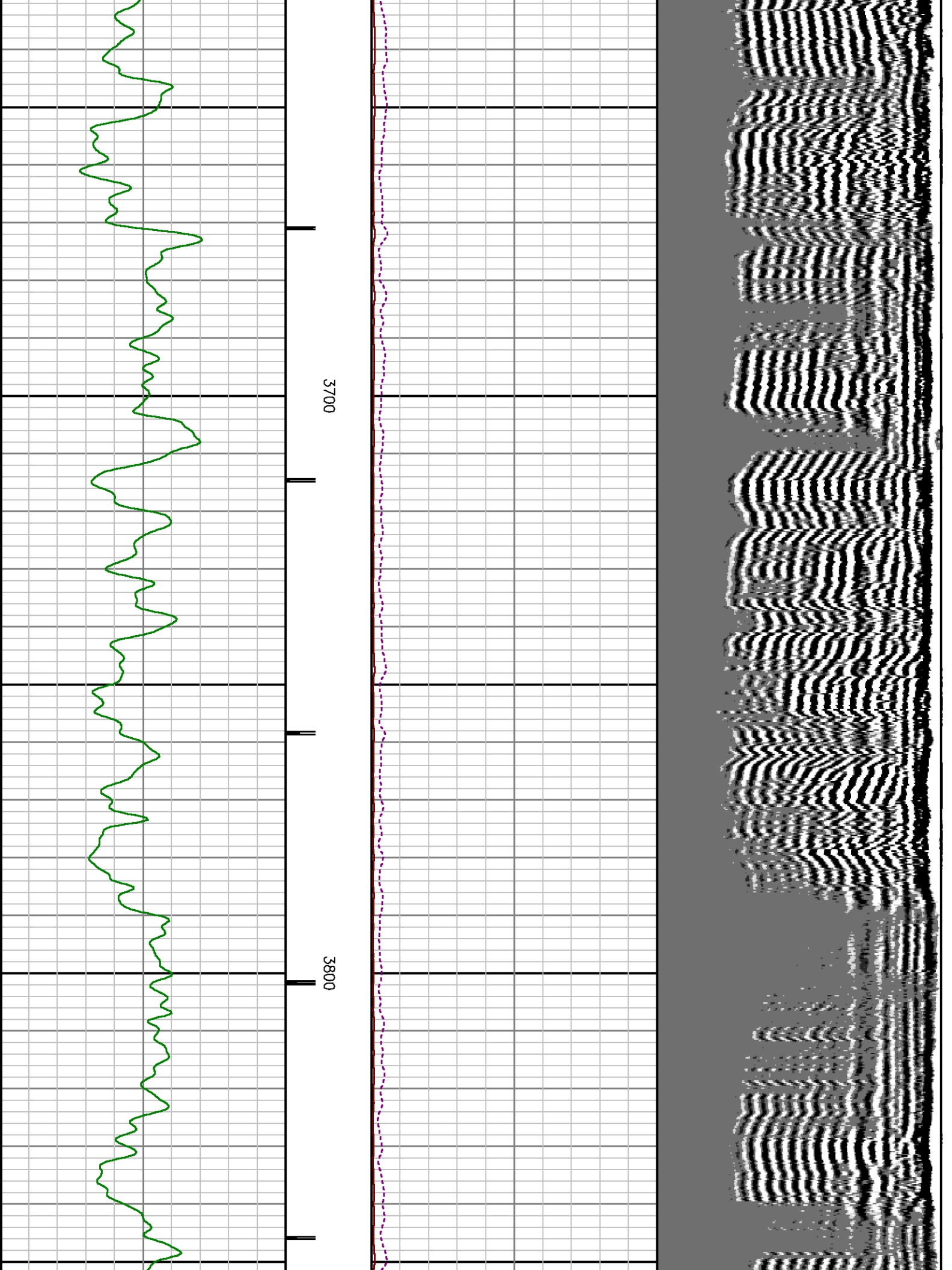


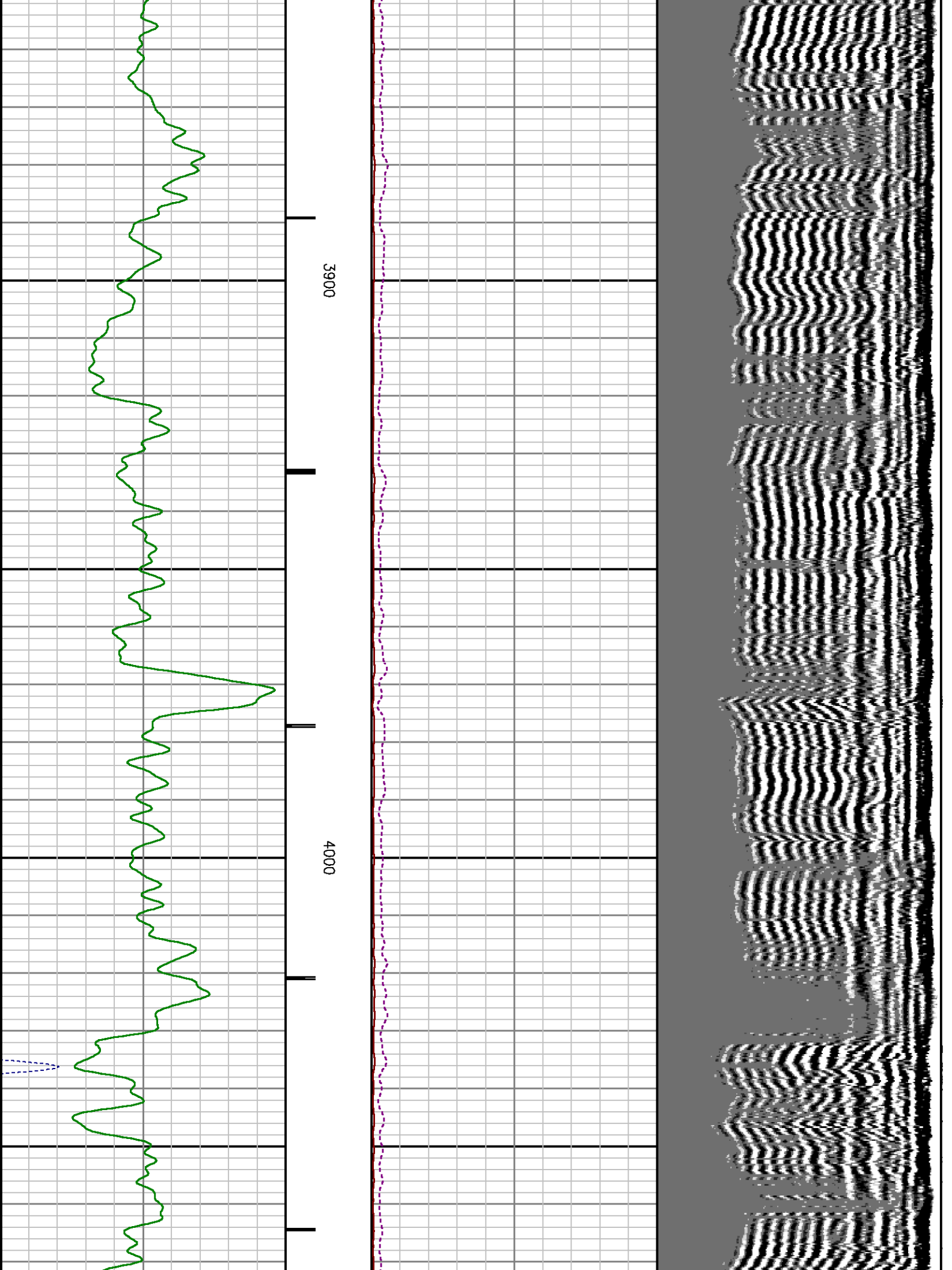


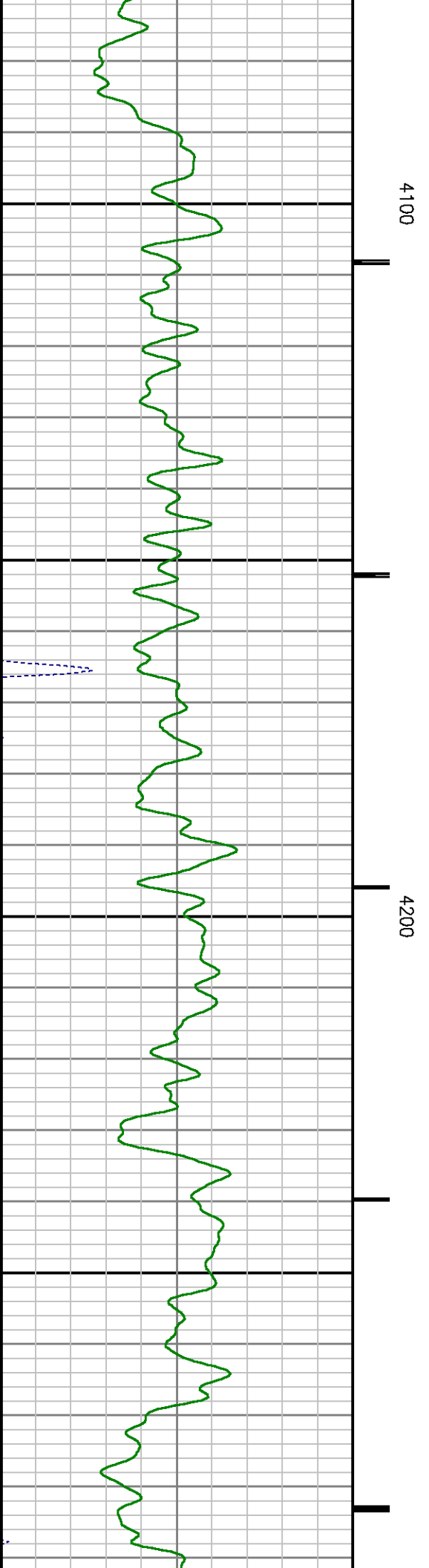
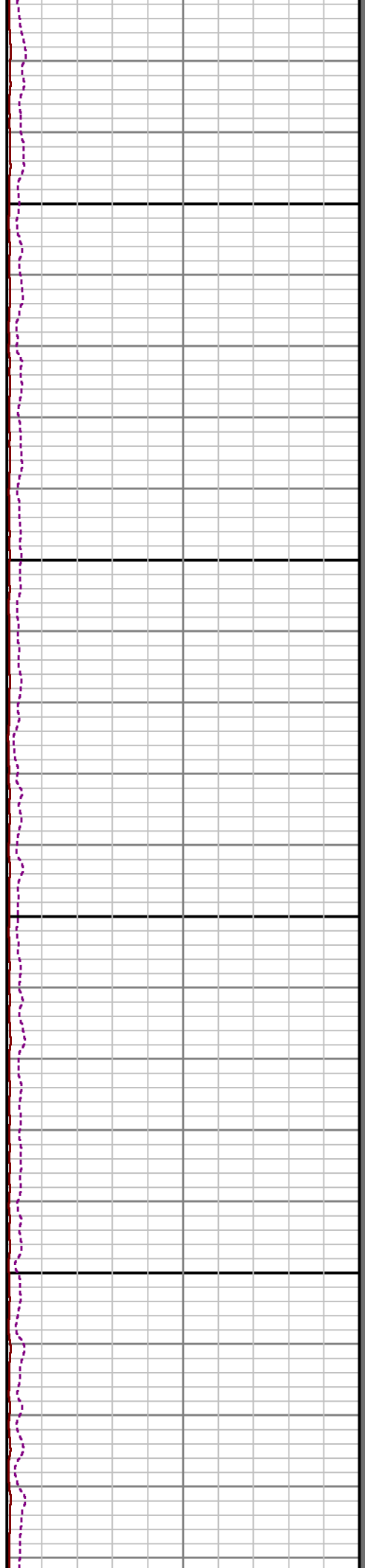
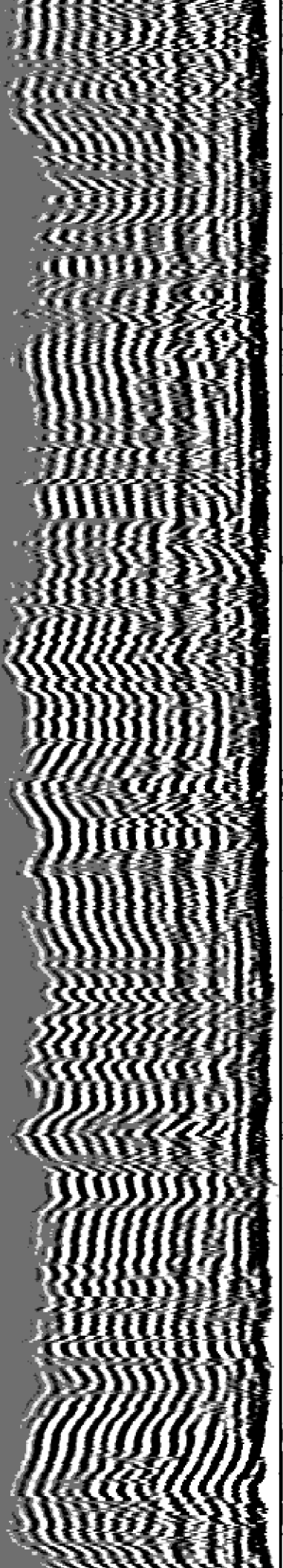


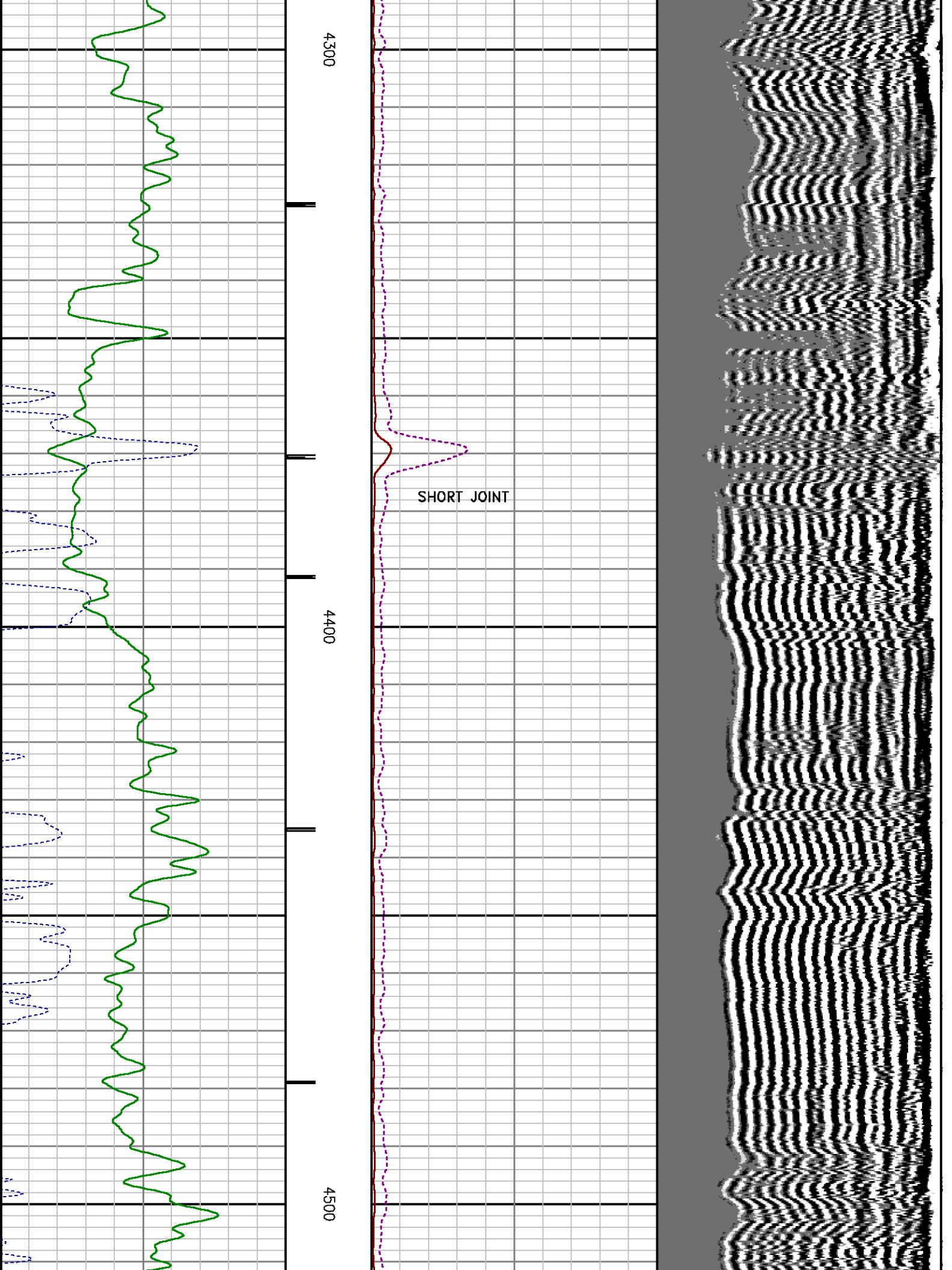


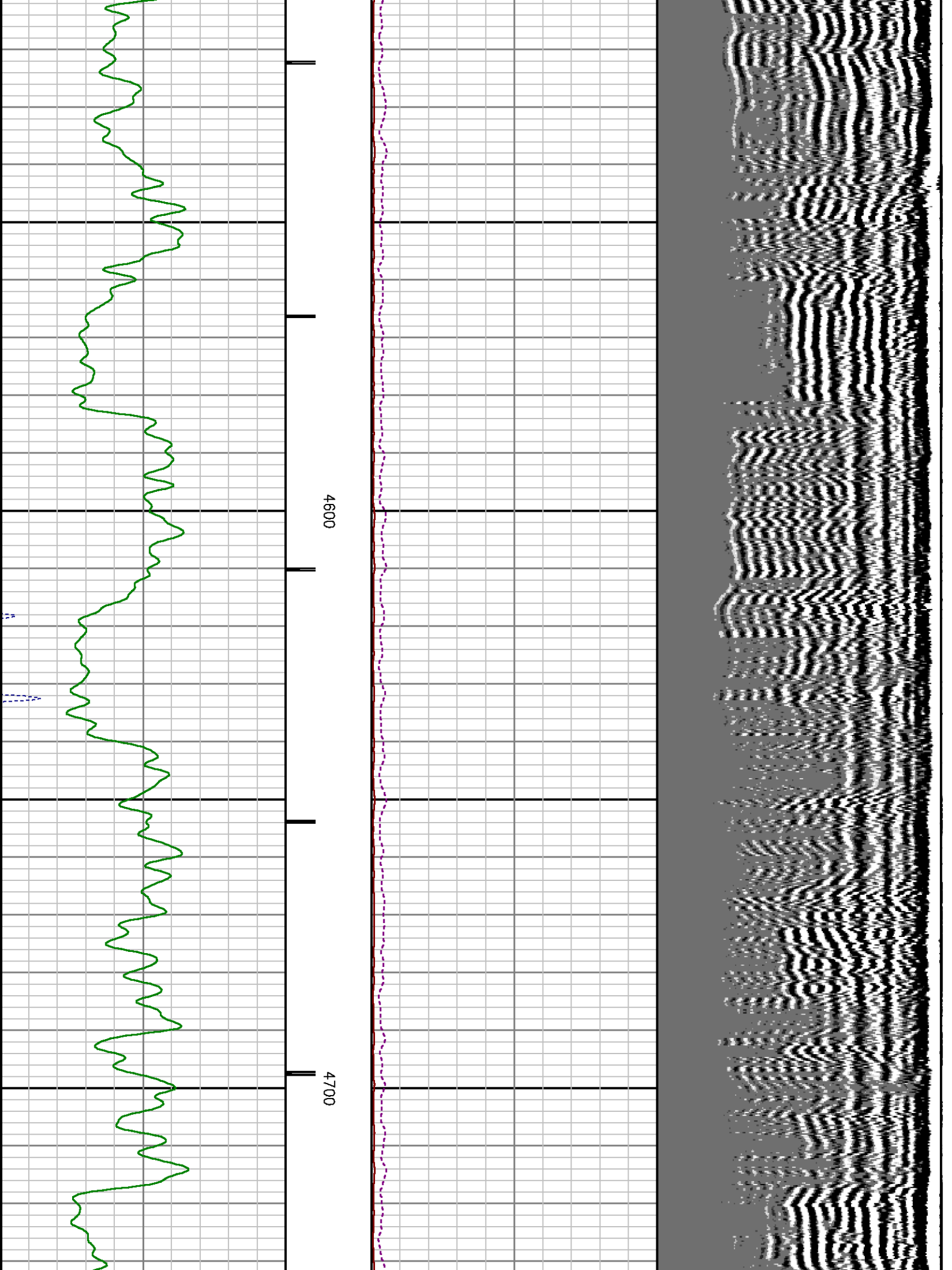


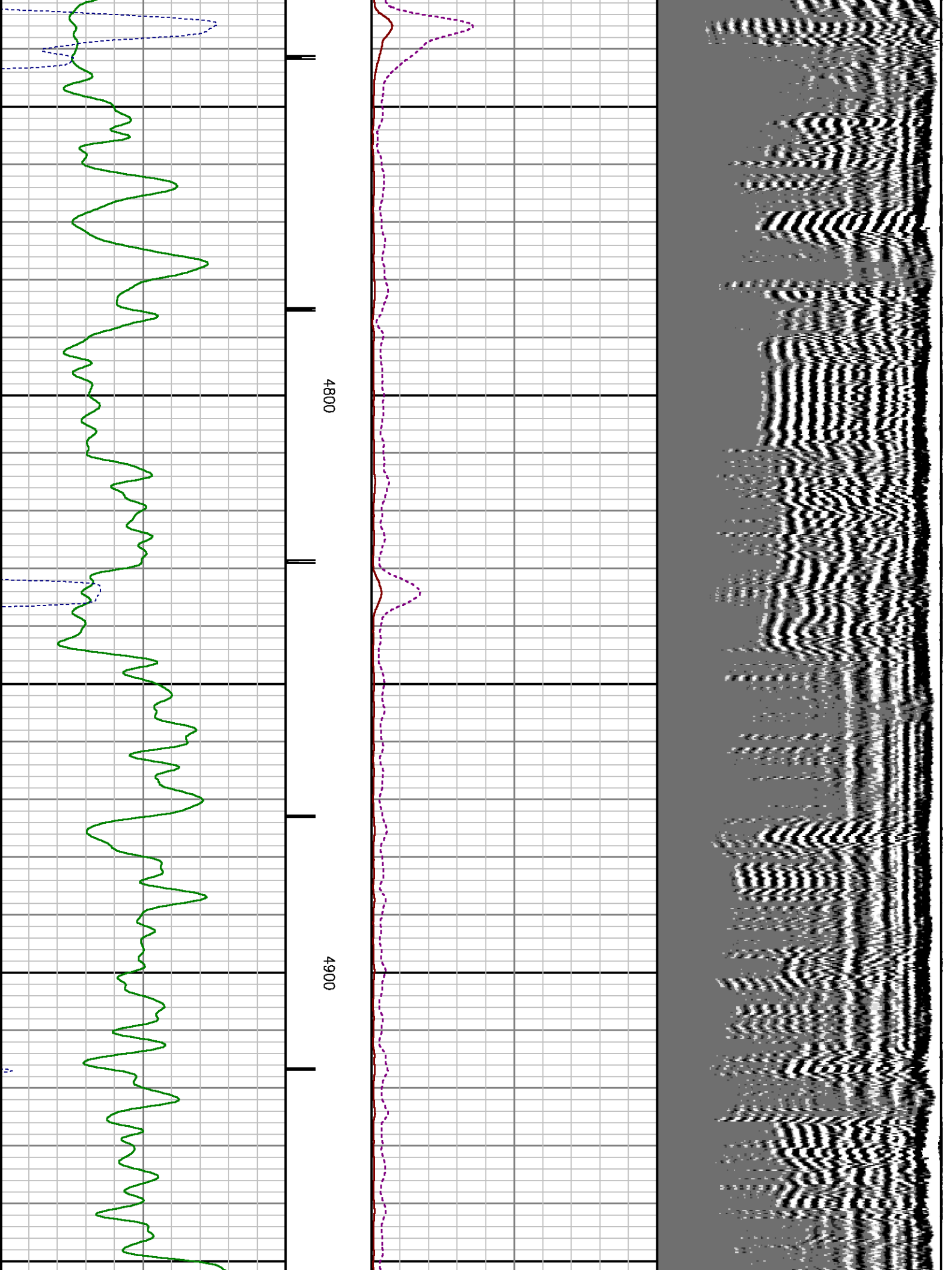


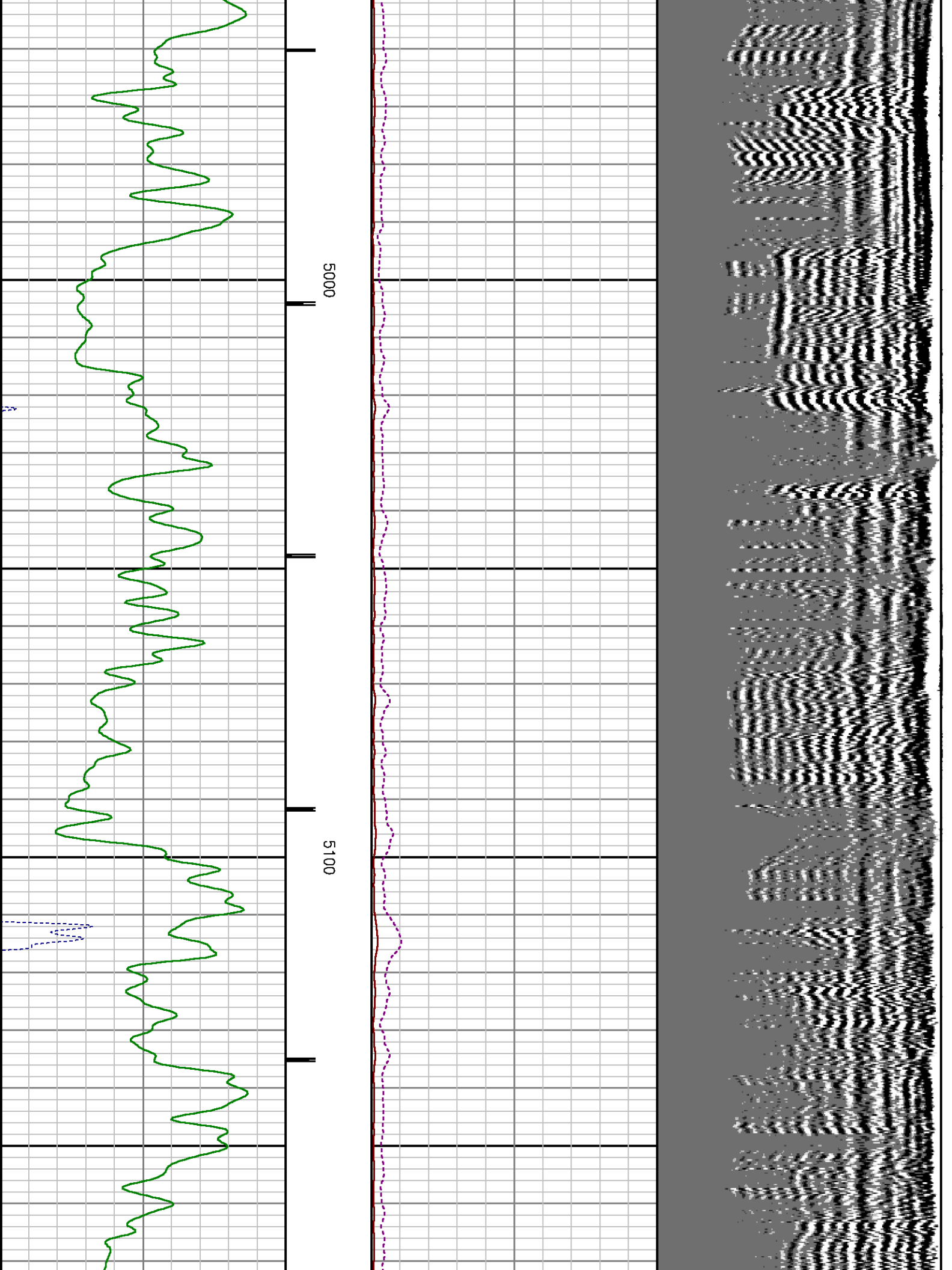


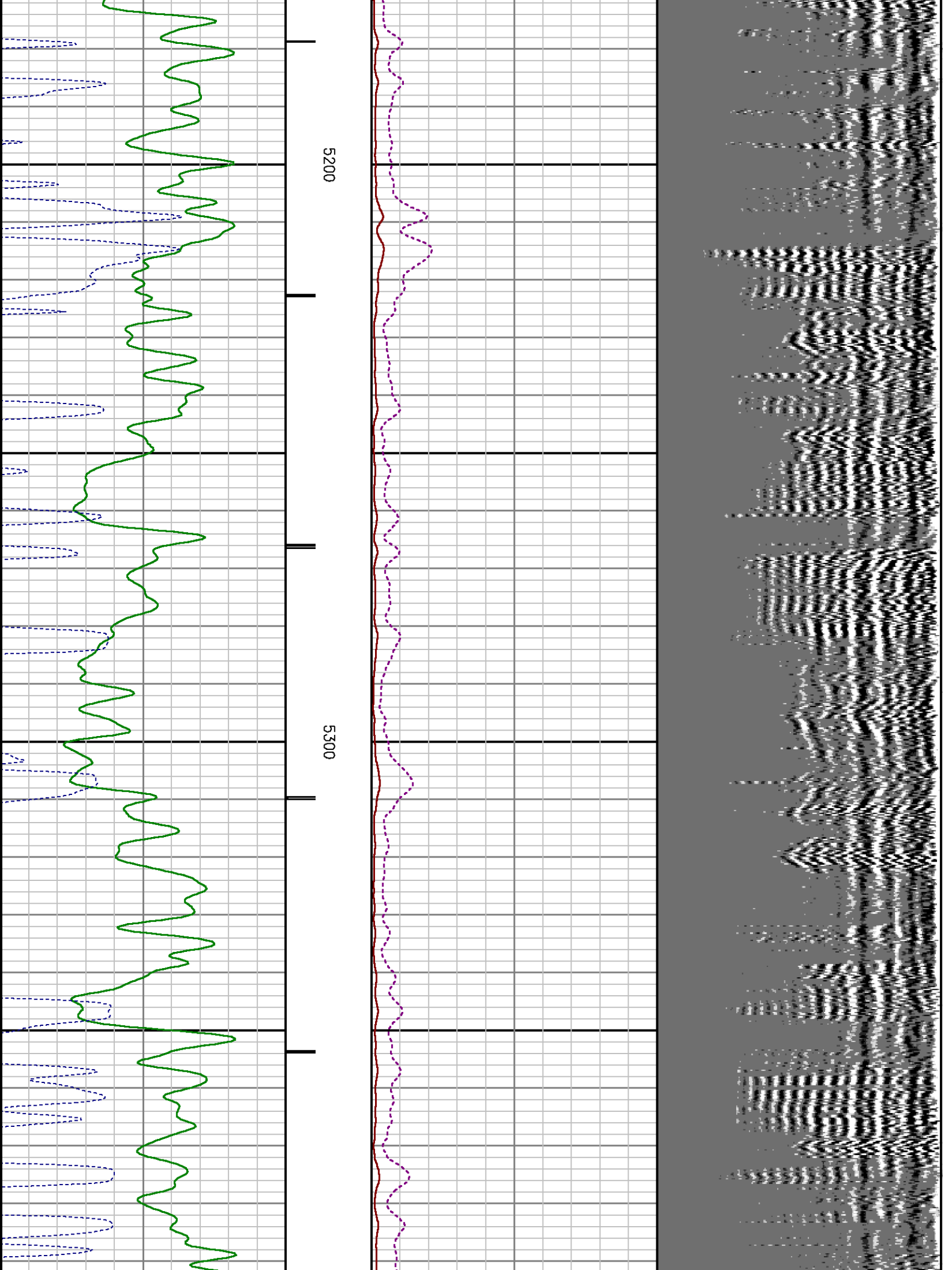


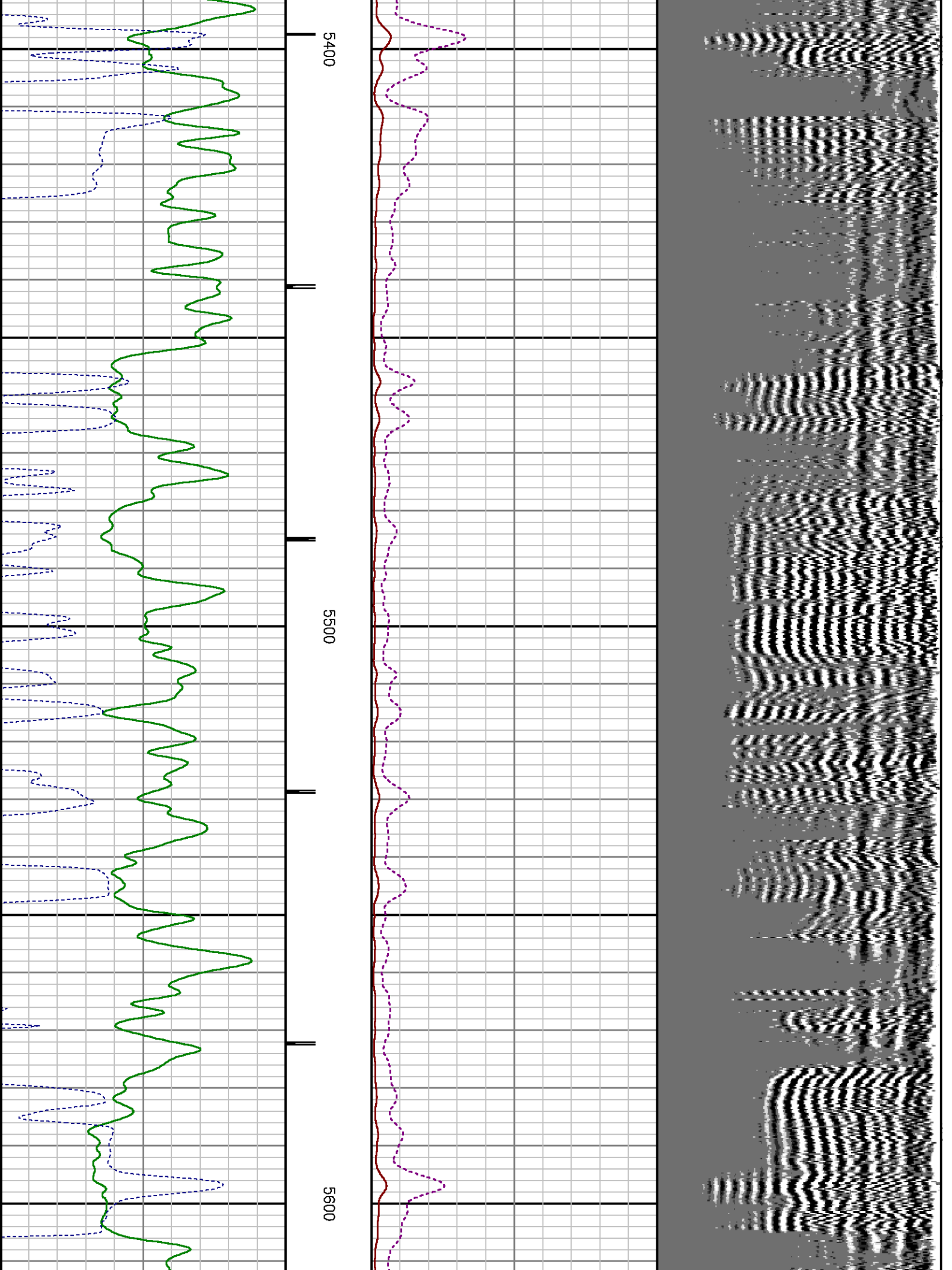


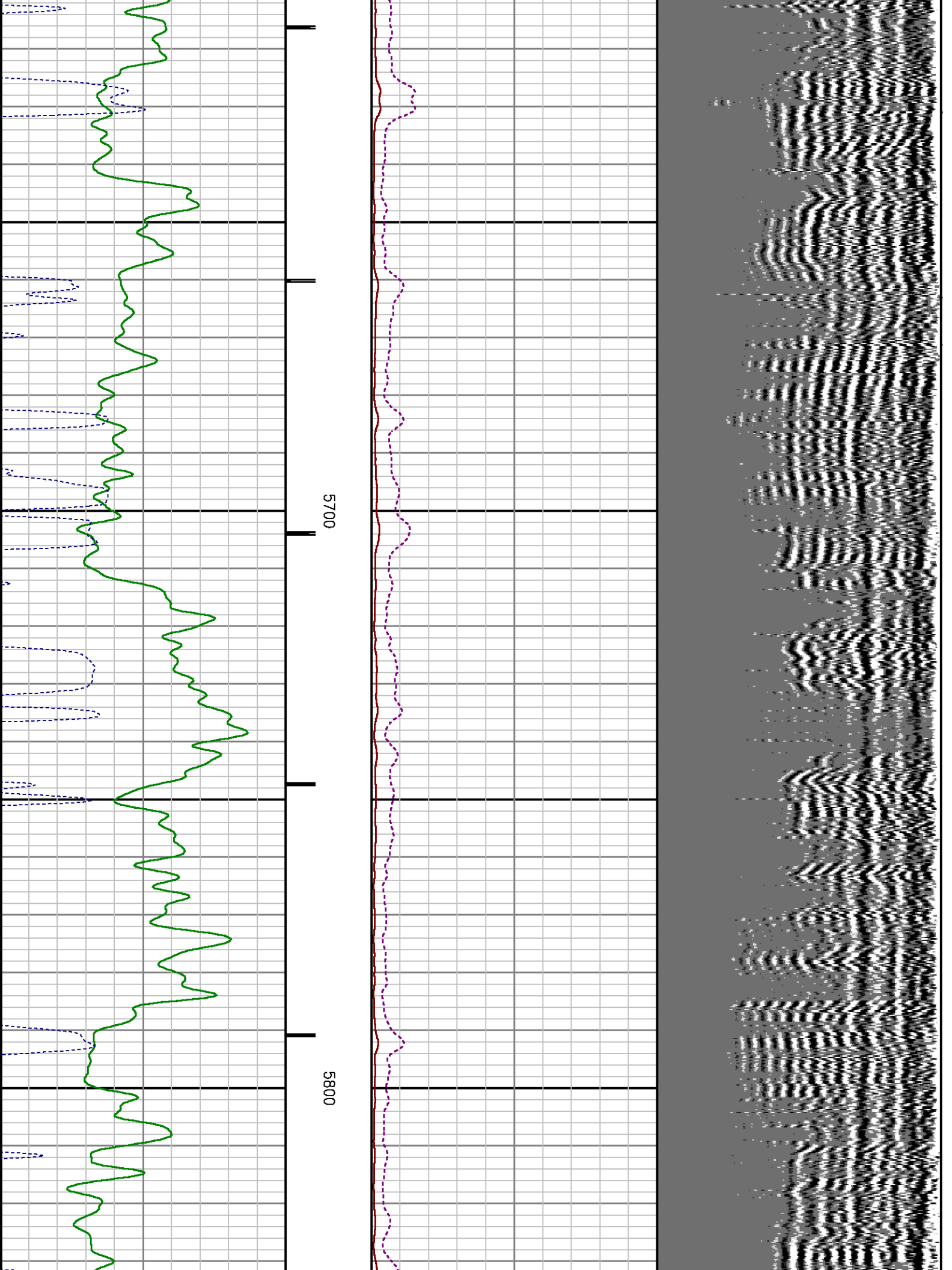


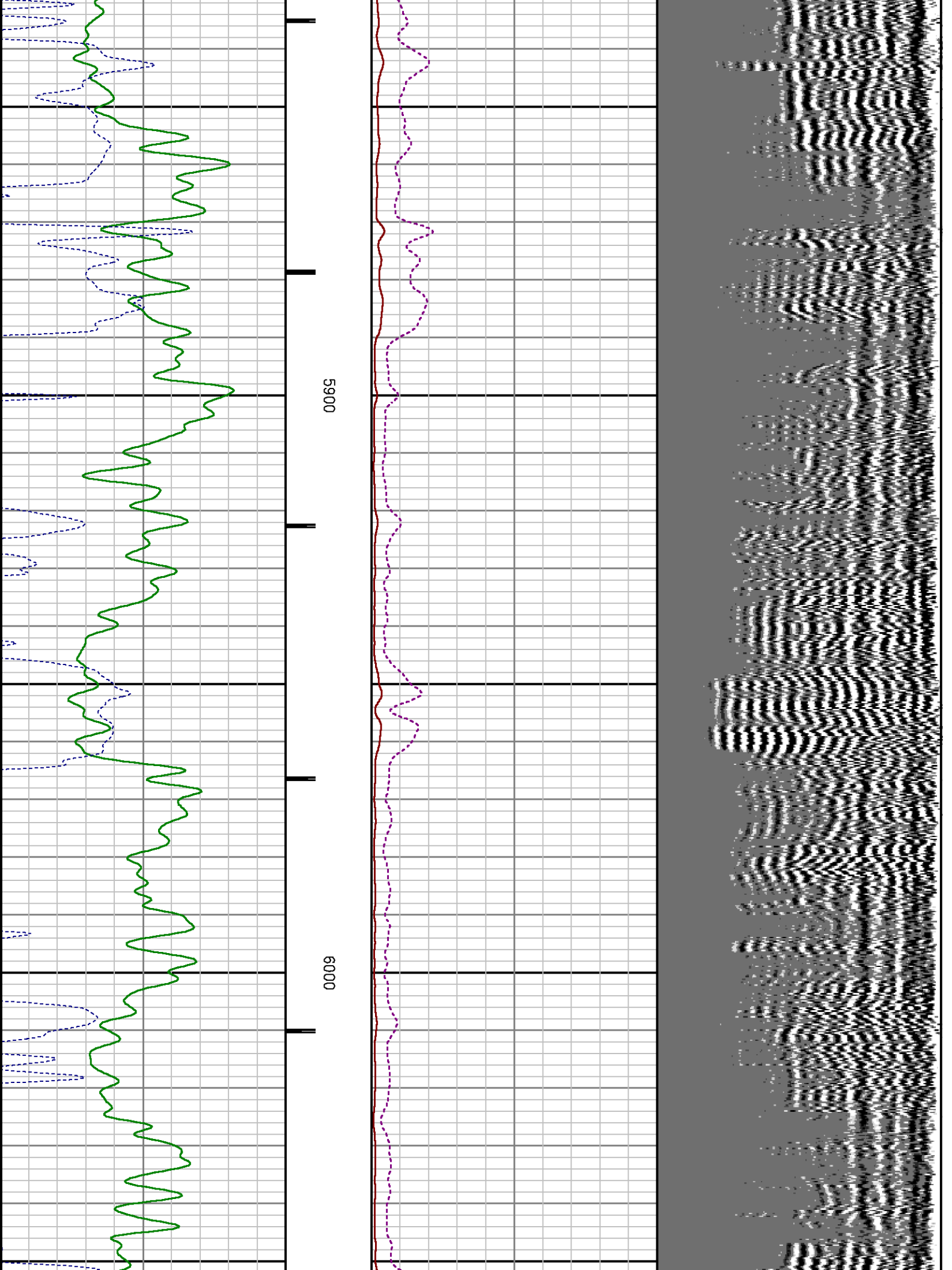


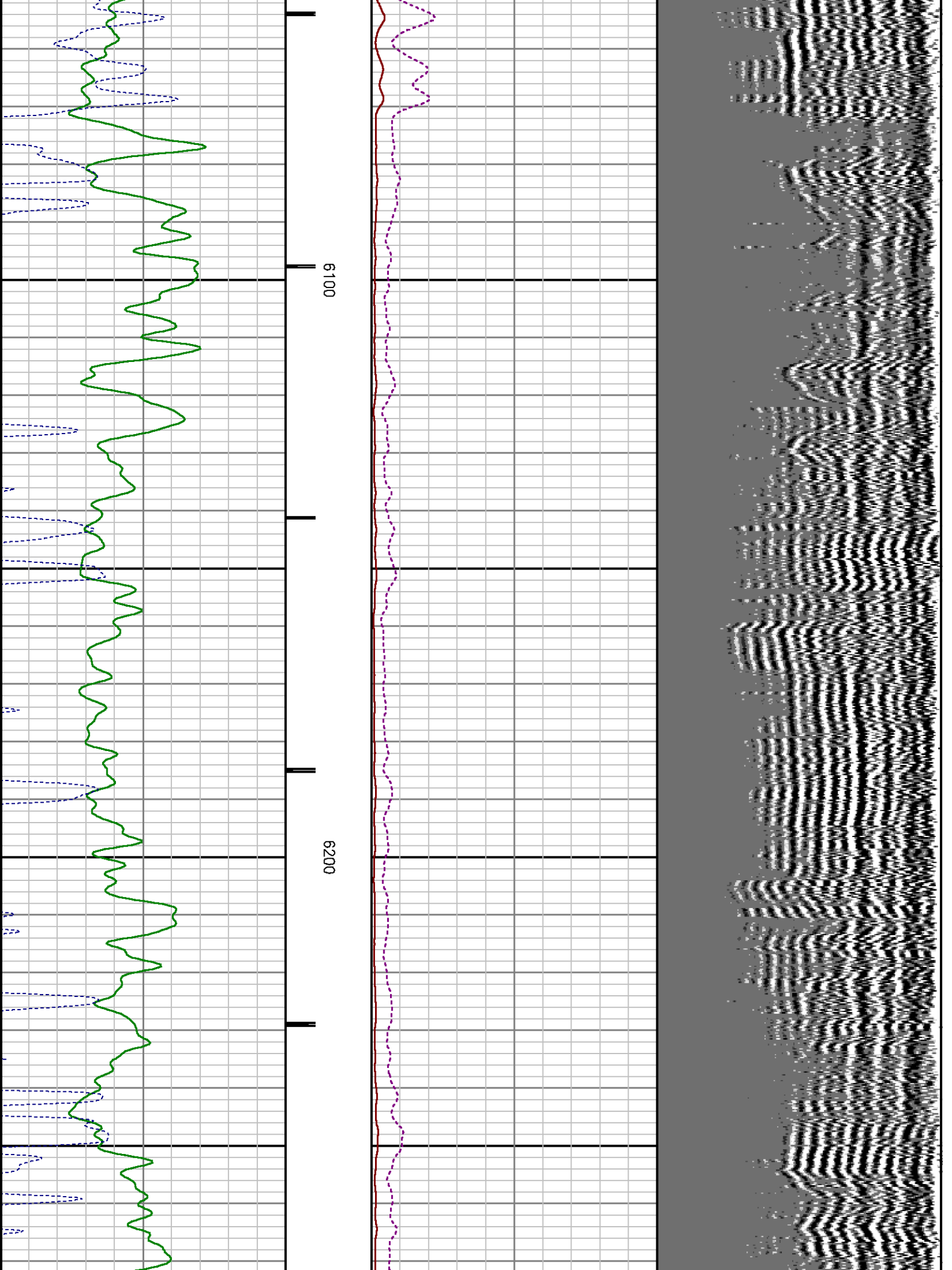


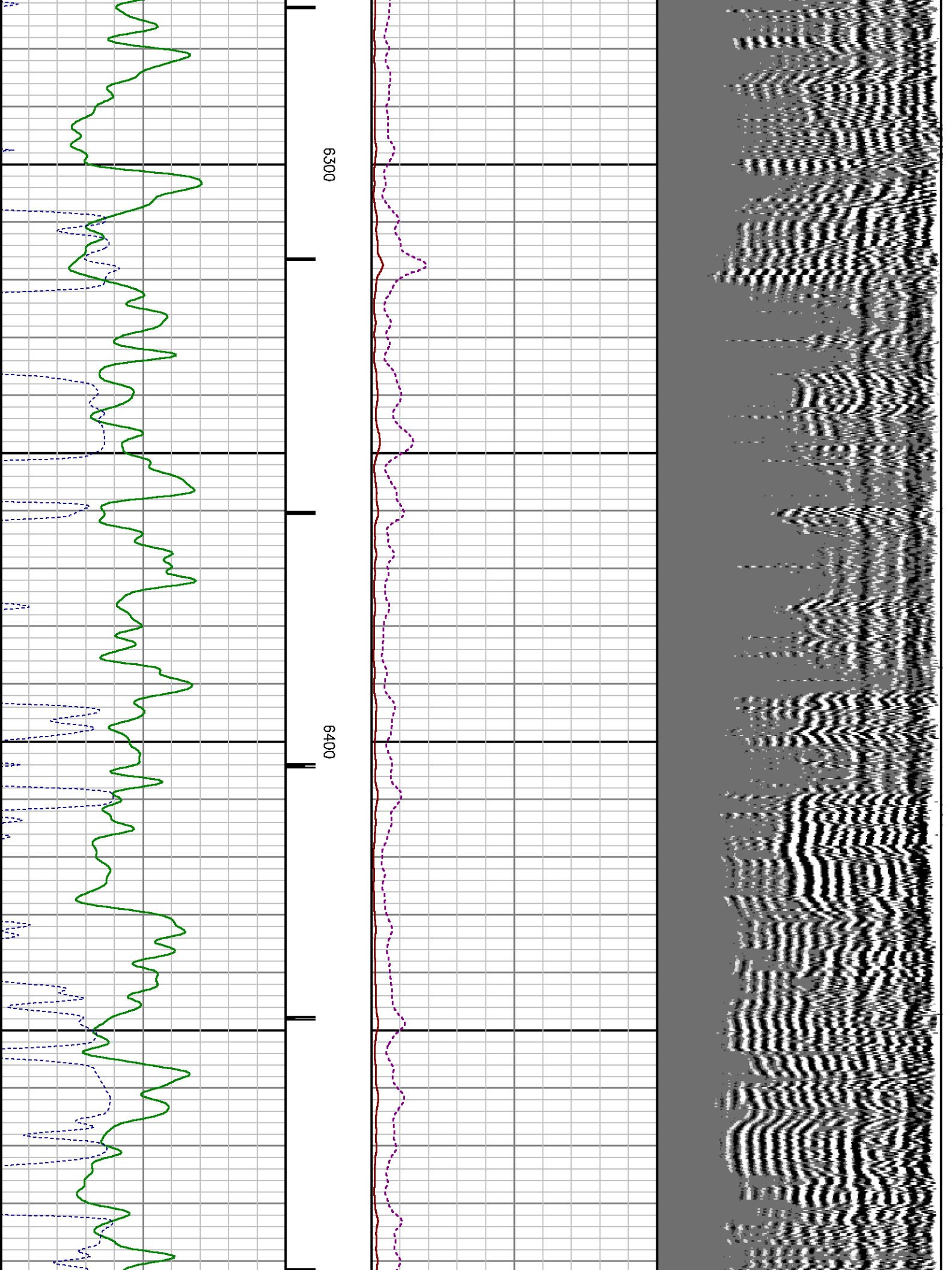


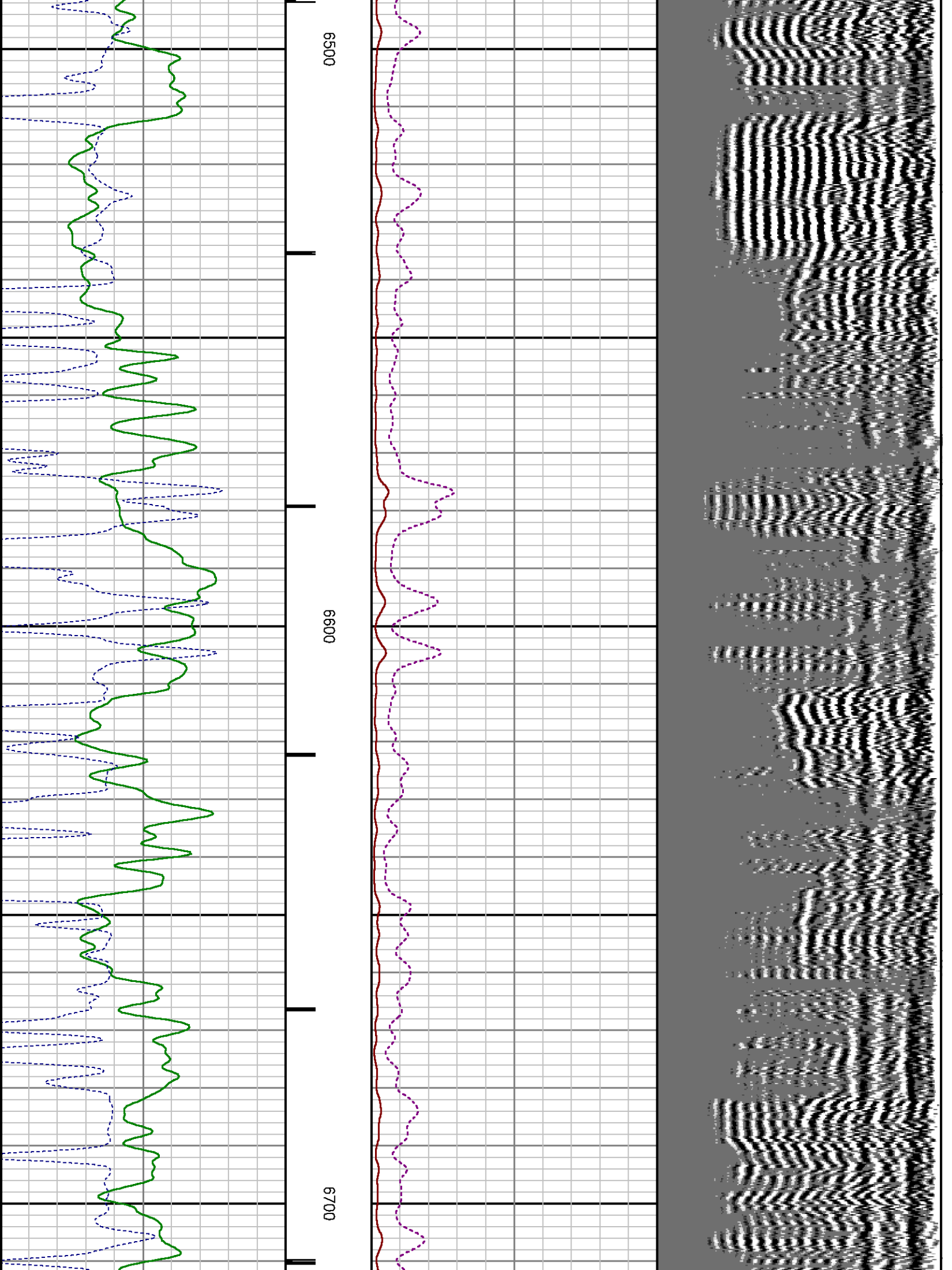


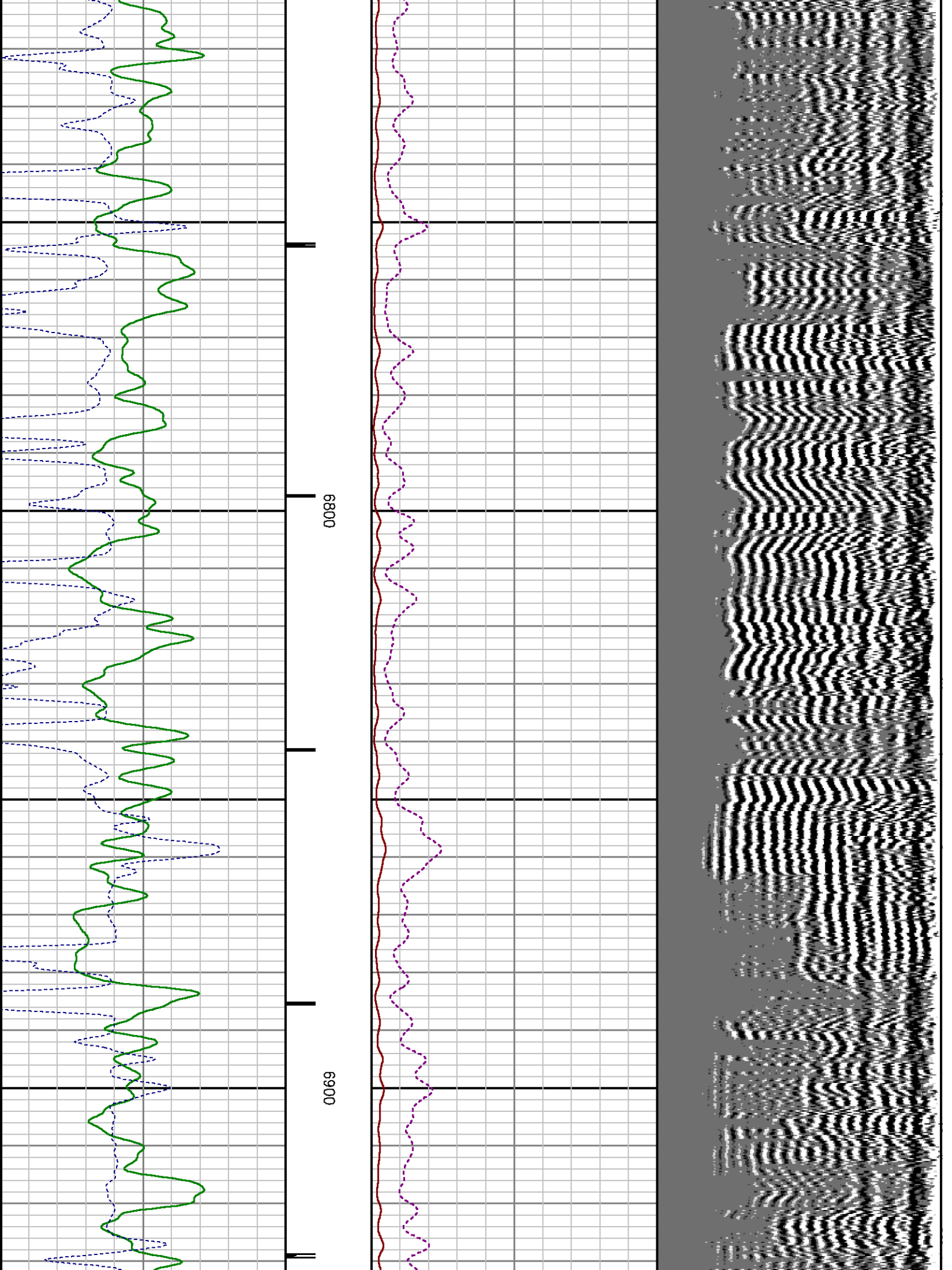


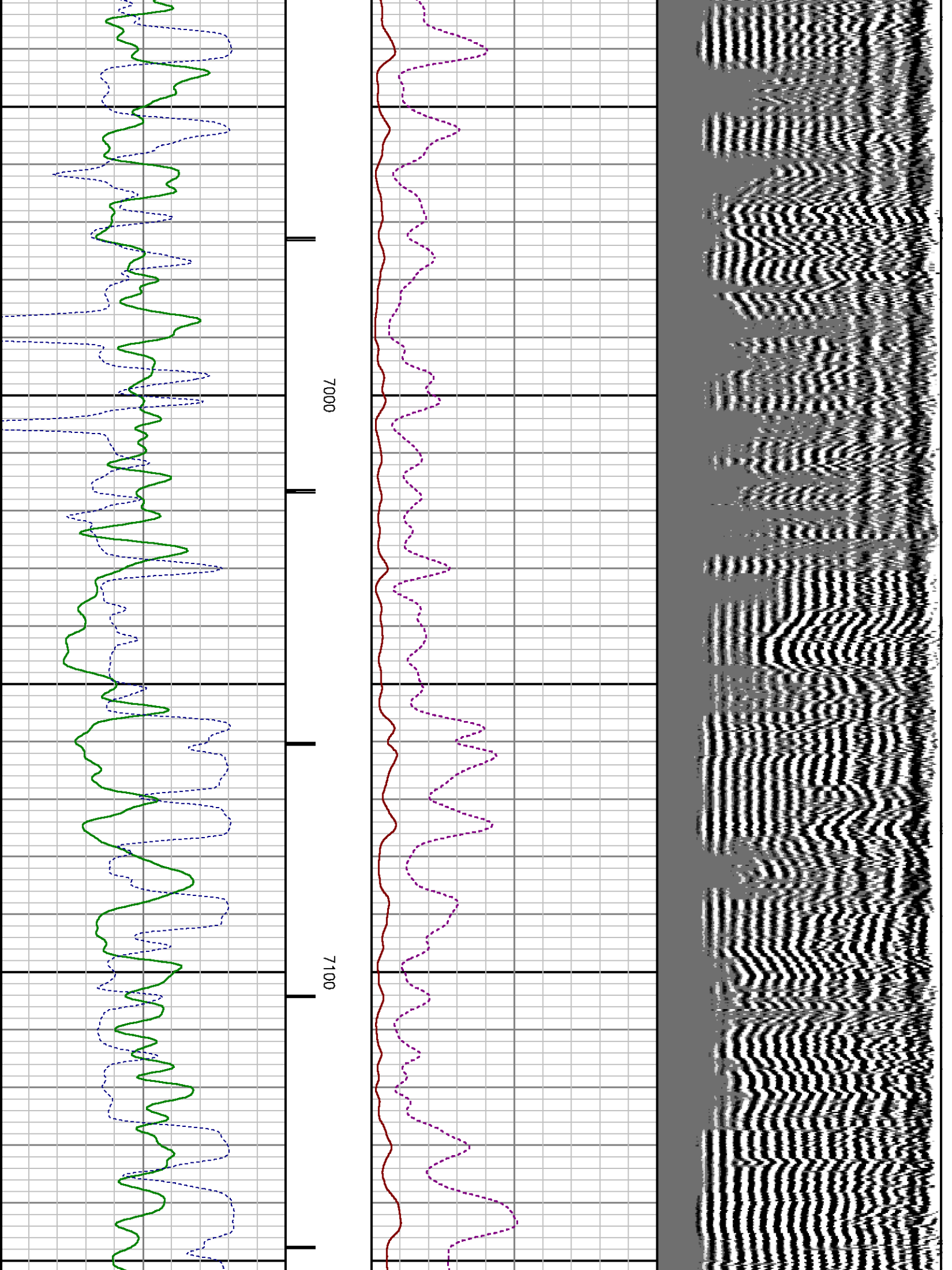


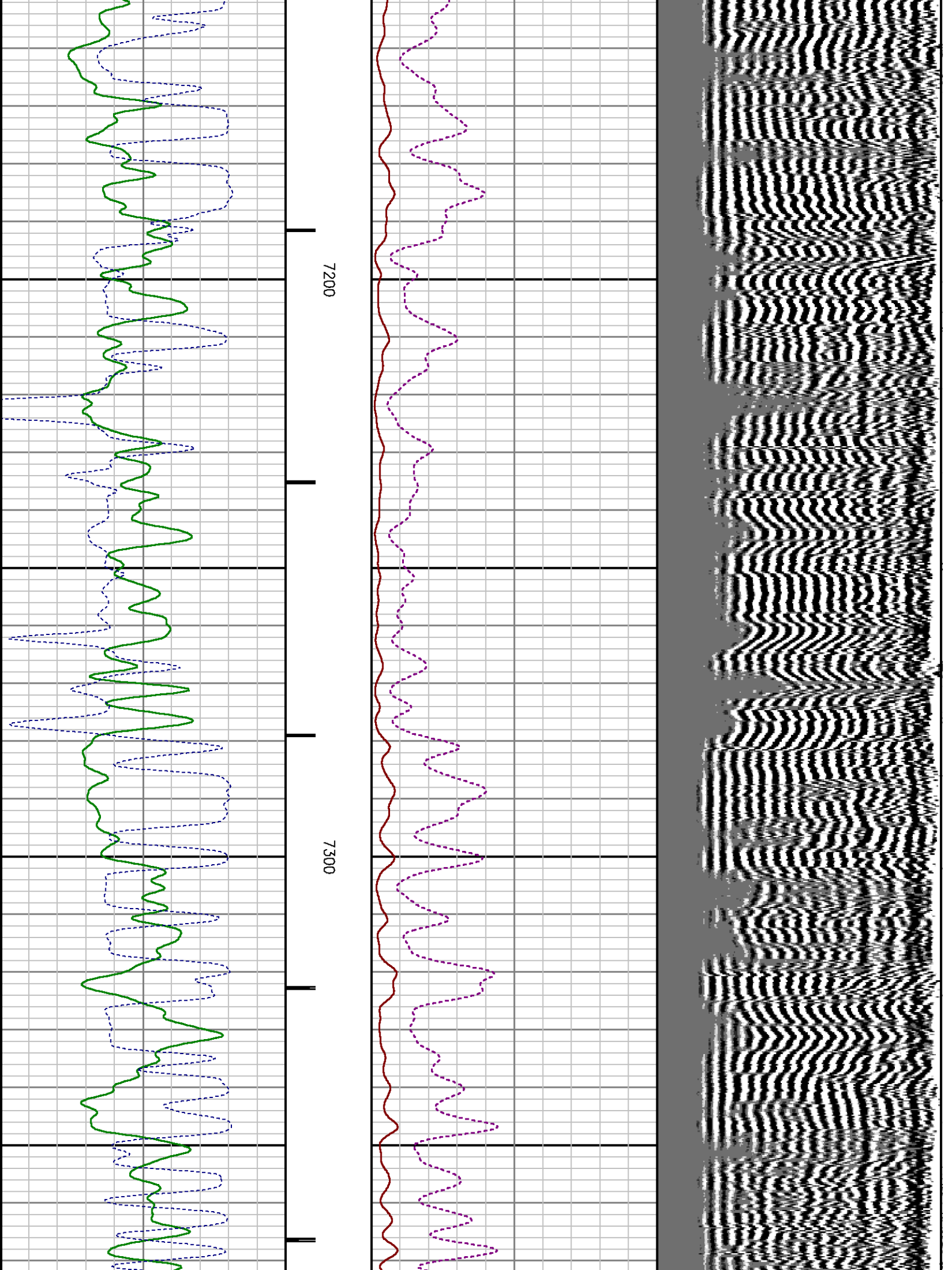


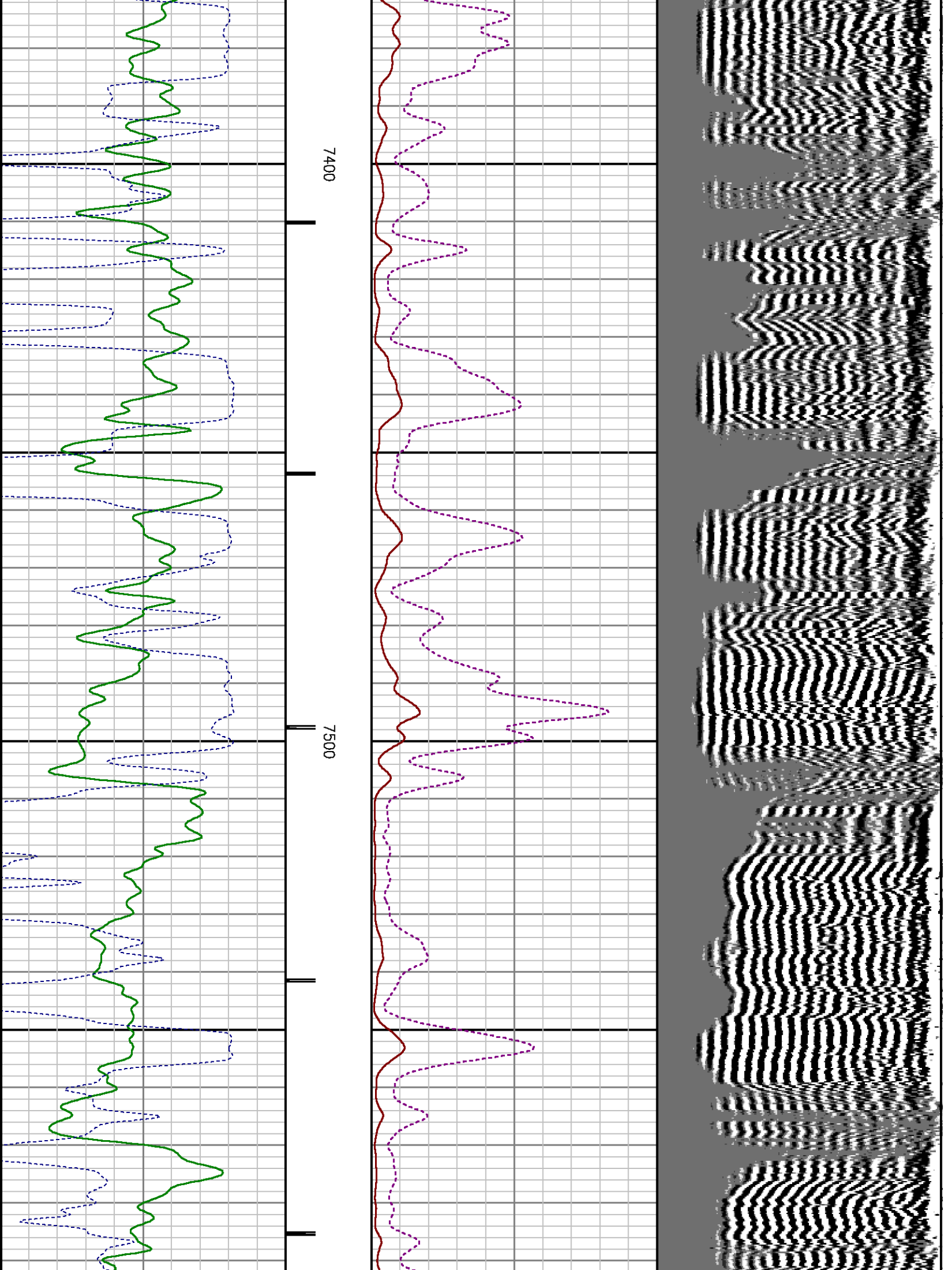


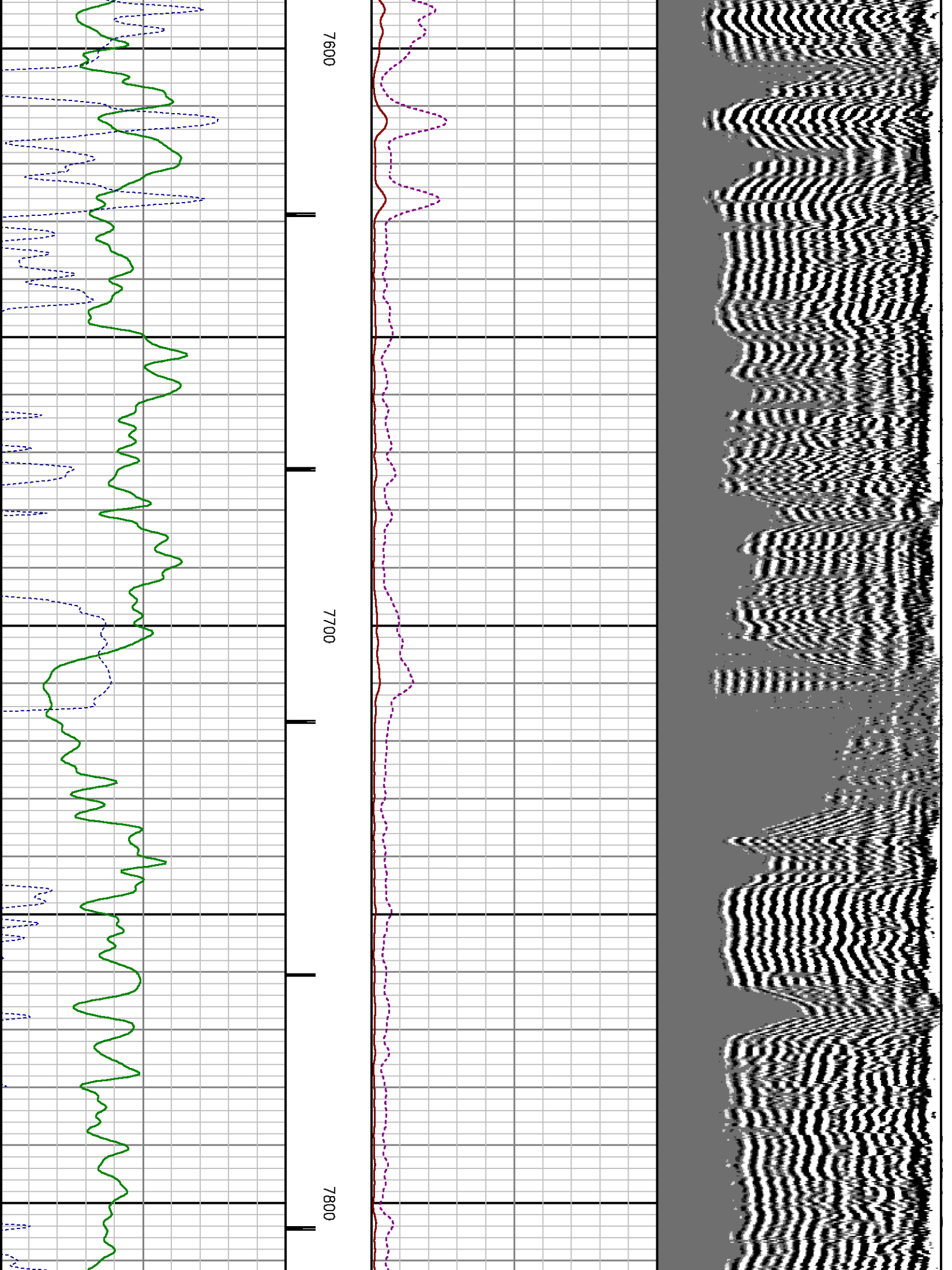


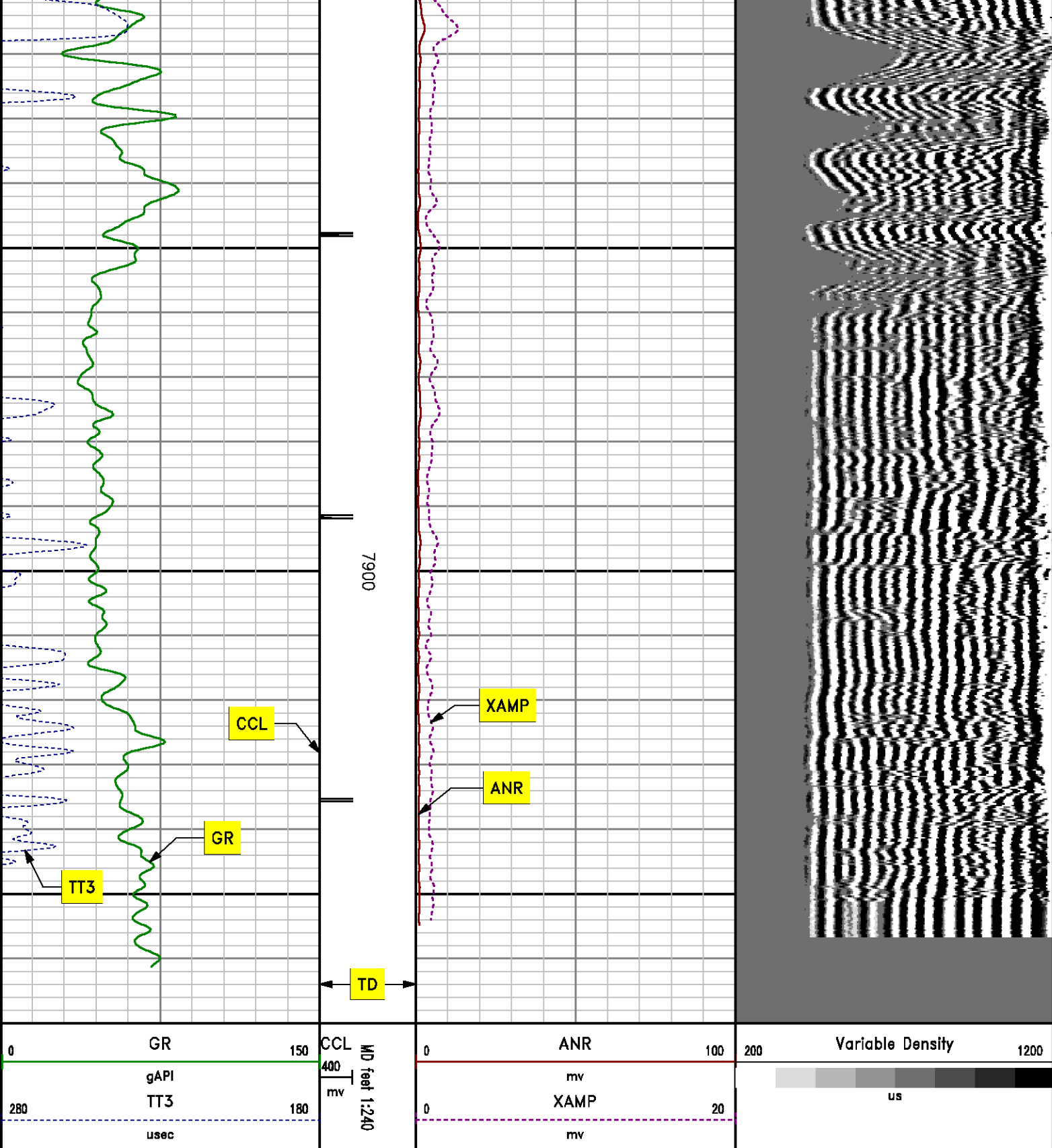












MAIN LOG SECONDARY PRESENTATION
0 PSI

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
|------------------|-----------------------|---------|---------|--------|----------|
| RAL | Amp Gate Start Far | 325.674 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Start Near | 197.549 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Start Radial | 197.429 | usec | 37.078 | 7973.000 |
| RAL | Amp Gate Width Far | 25.000 | usec | 37.078 | 7973.000 |
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| RAL | casing od | 4.500 | inches | 37.078 | 7973.000 |
| RAL | casing wt | 11.600 | lbm/ft | 37.078 | 7973.000 |
| RAL | FB Start Far | 291.900 | usec | 37.078 | 7973.000 |
| RAL | FB Start Near | 175.391 | usec | 37.078 | 7973.000 |
| RAL | FB Start Radial | 175.391 | usec | 37.078 | 7973.000 |
| RAL | FB Thresh Far | 10.000 | mv | 37.078 | 7973.000 |
| RAL | FB Thresh Near | 4.000 | mv | 37.078 | 7973.000 |
| RAL | FB Thresh Radial | 4.000 | mv | 37.078 | 7973.000 |
| RAL | Fluid Travel Time | 200.000 | usec/ft | 37.078 | 7972.953 |

DEPTH OFFSETS

(for Acquired Curves)

| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
|--------|--------------|-----------------|------|------|------|------|------|
| 1426XA | -16.750 | ACAL | ANR | AR1 | AR2 | AR3 | AR4 |
| | | AR5 | AR6 | AR7 | AR8 | CHV | FPR2 |
| | | FPR3 | FPR5 | TT3 | TTR1 | TTR2 | TTR3 |
| | | TTR4 | TTR5 | TTR6 | TTR7 | TTR8 | XAMP |
| 1426XA | -15.750 | AFAR | SIG | TT5 | | | |
| 2459XA | -11.340 | CCL | | | | | |
| 2459XA | -9.490 | GR | | | | | |
| 2459XA | -4.090 | NEU | | | | | |

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : DUGGAN RWF 313-29

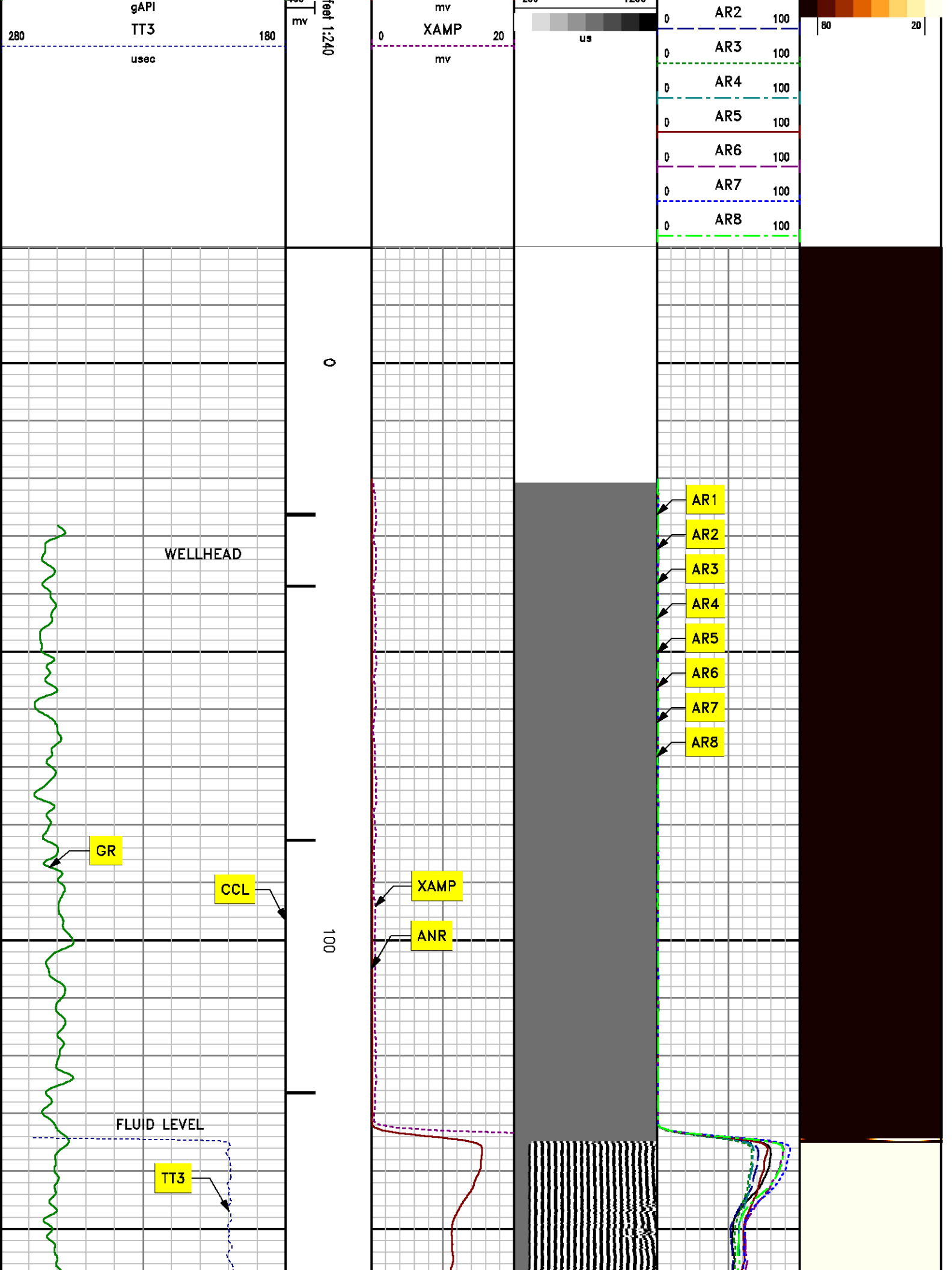
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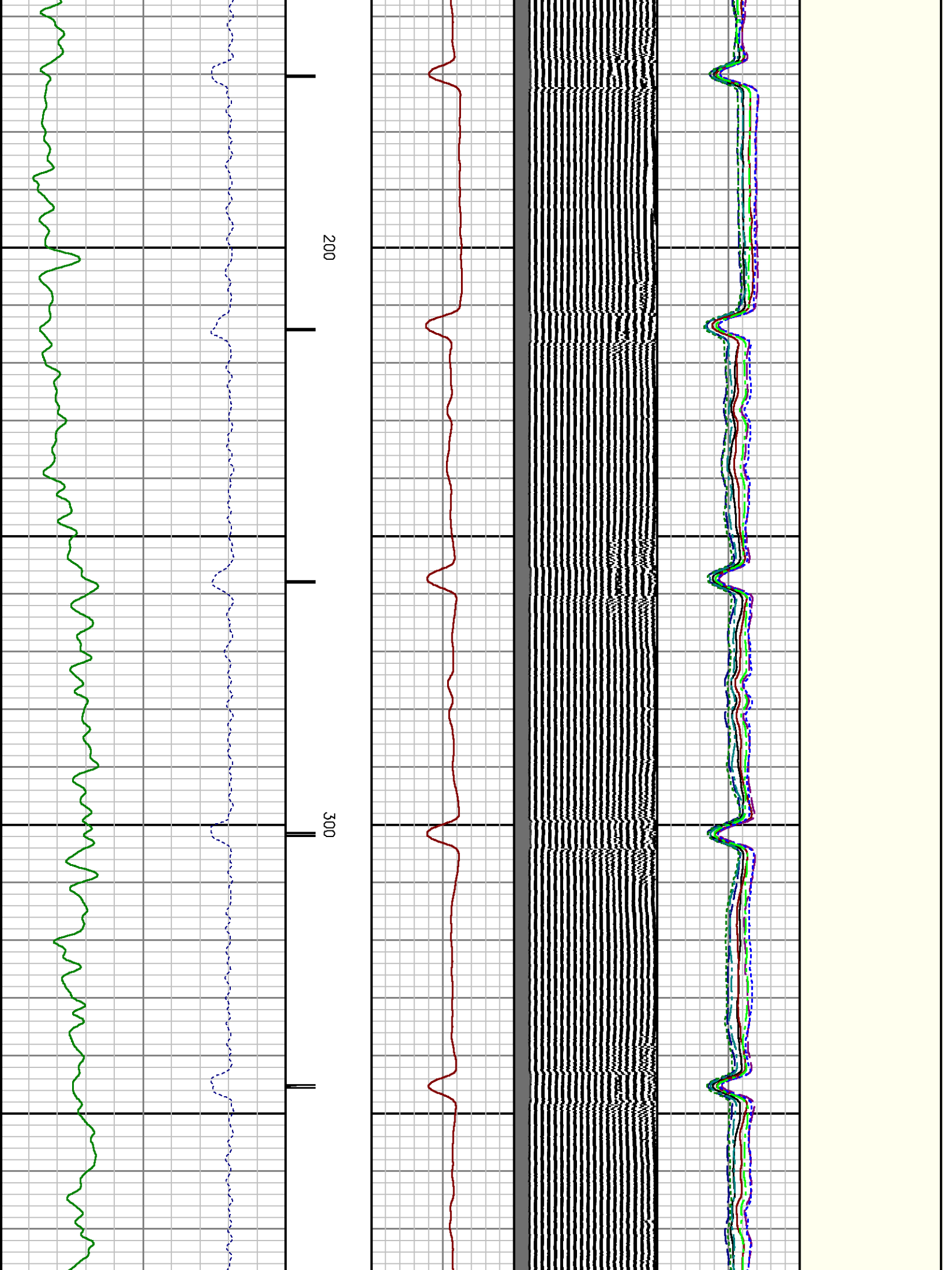
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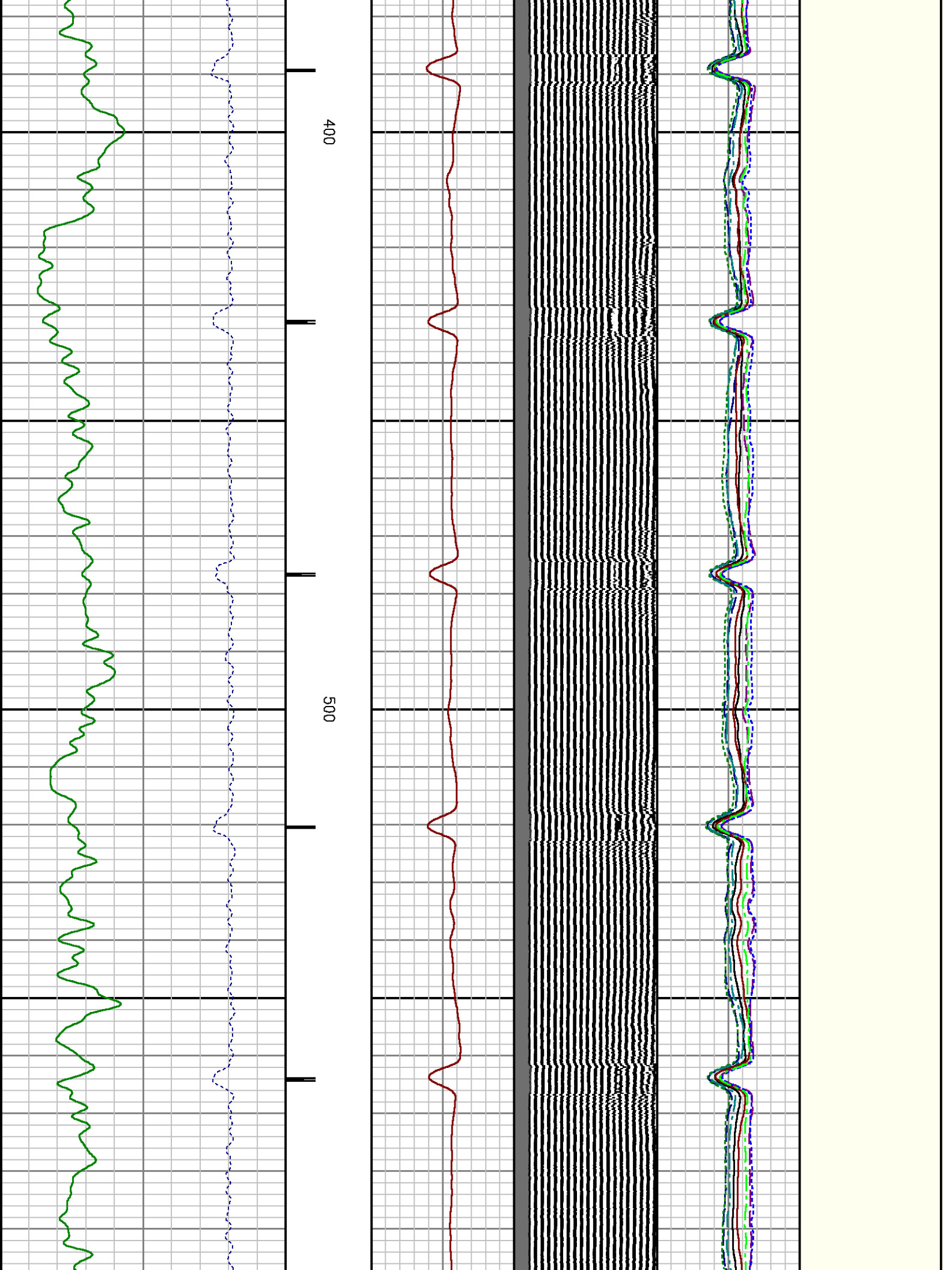
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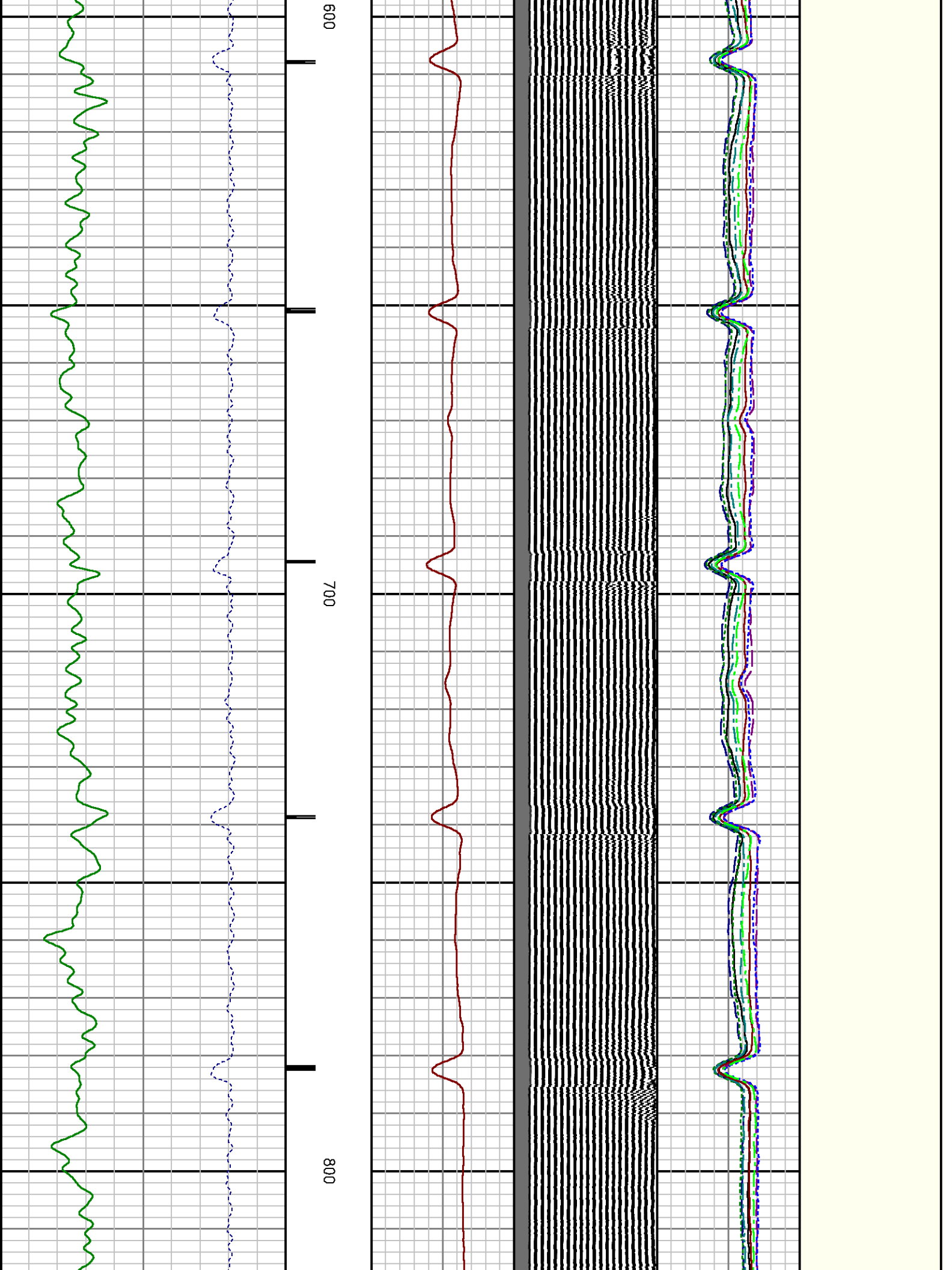
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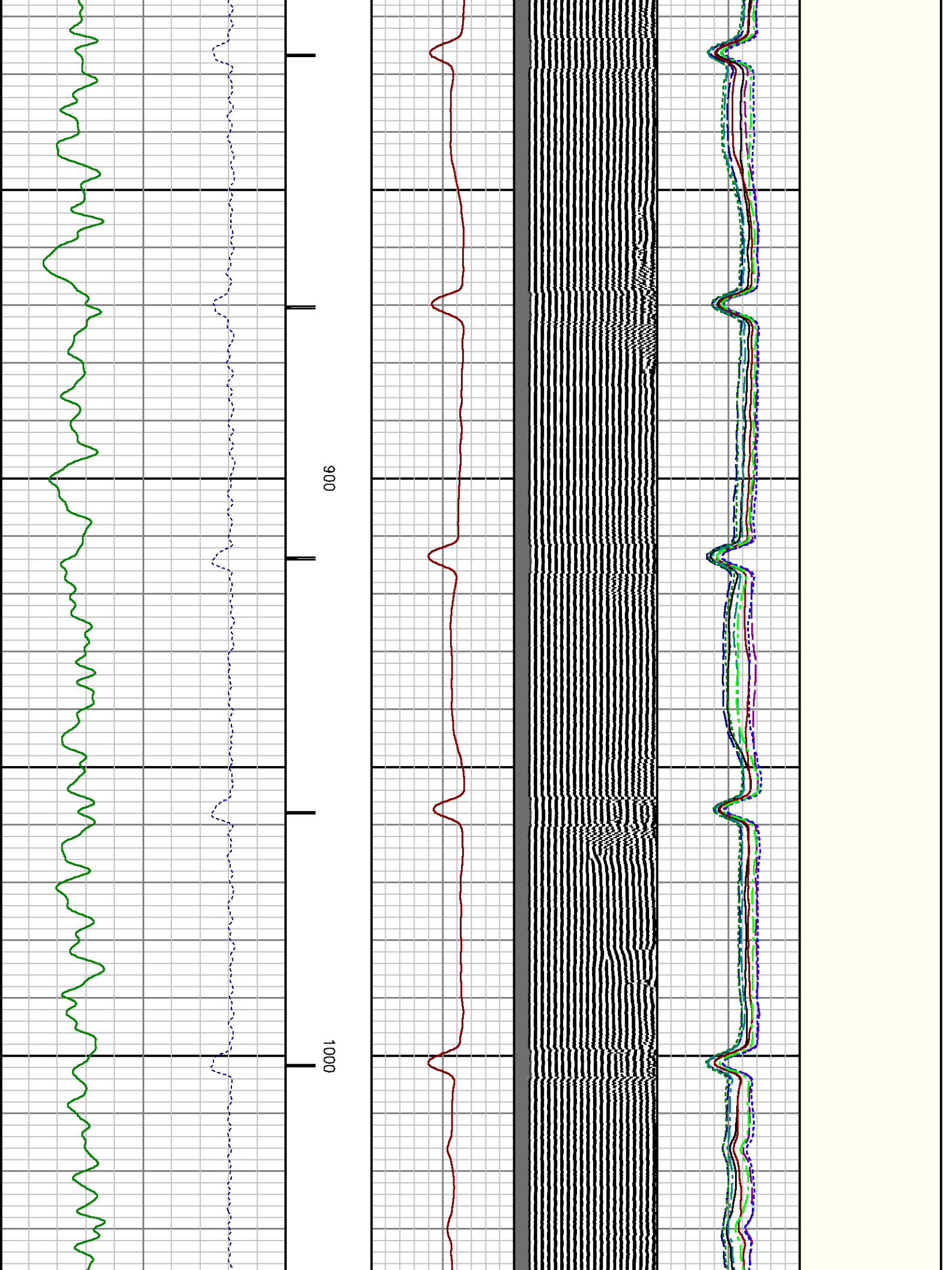
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|---|----|-----|-----|-----|---|-----|-----|------------------|-----|------|---|-----|-----|---|-------|-----|
| 0 | GR | 150 | CCL | 400 | 0 | ANR | 100 | Variable Density | 200 | 1200 | 0 | AR1 | 100 | 0 | PBMAP | 360 |
|---|----|-----|-----|-----|---|-----|-----|------------------|-----|------|---|-----|-----|---|-------|-----|

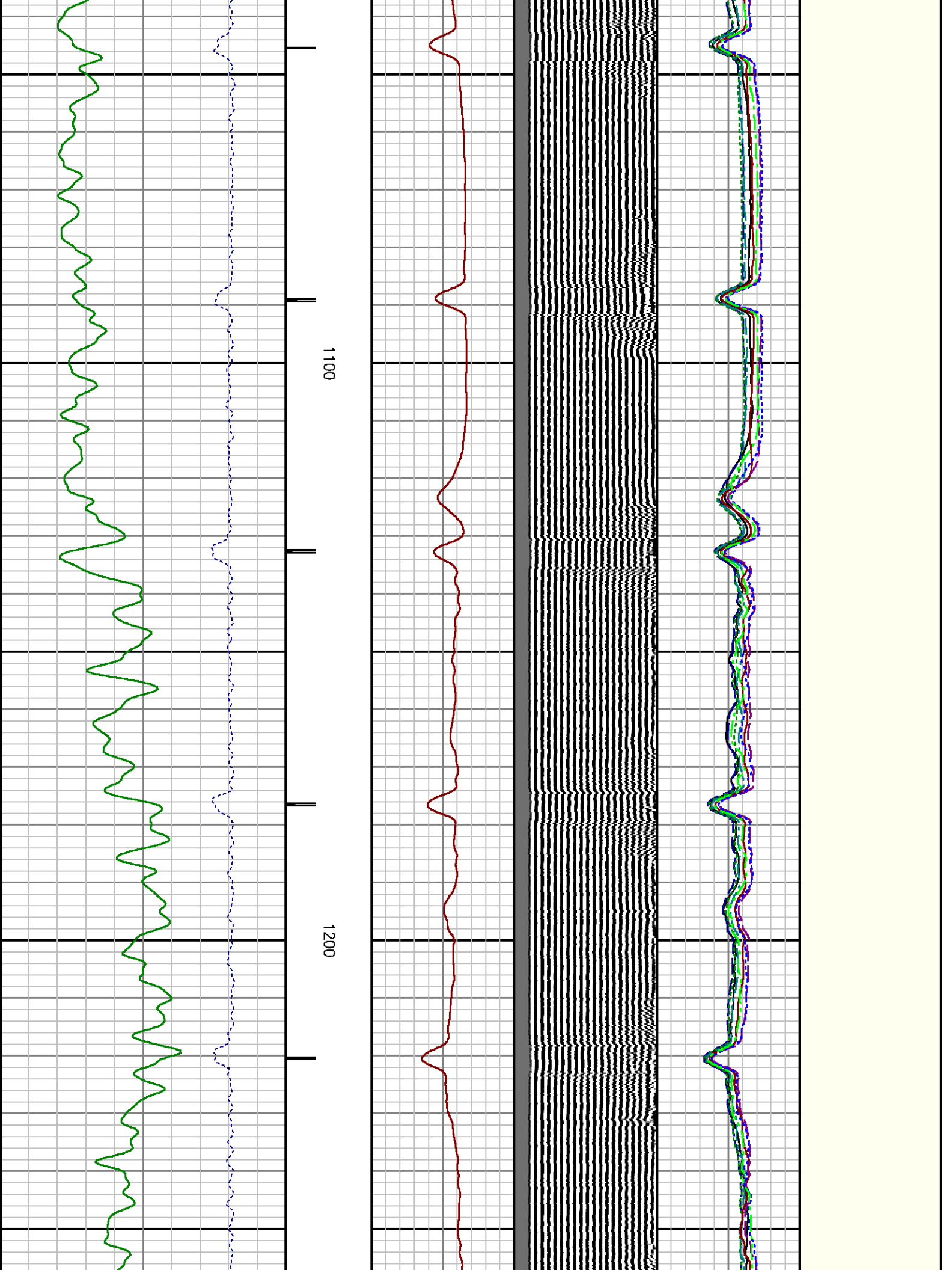


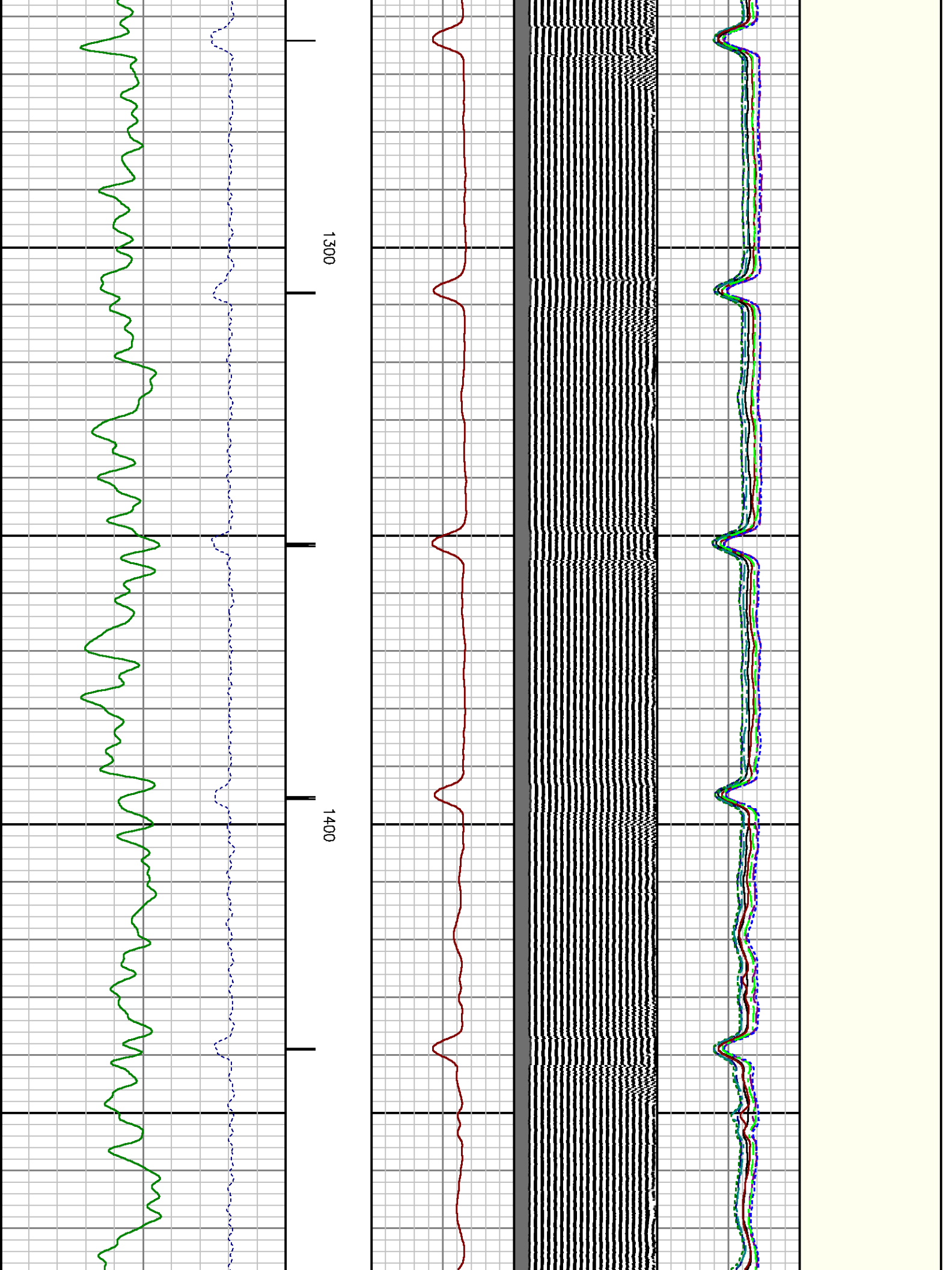


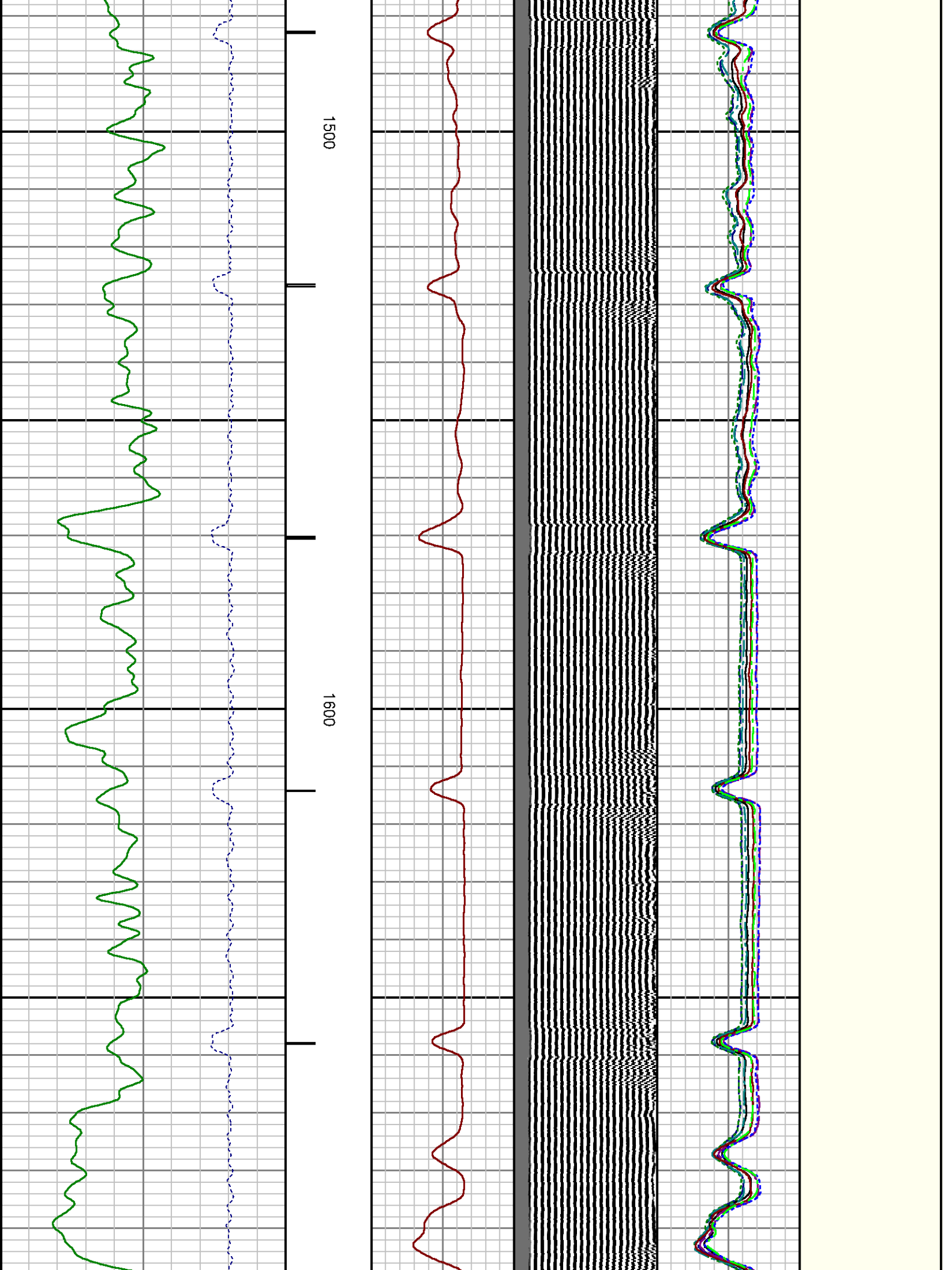


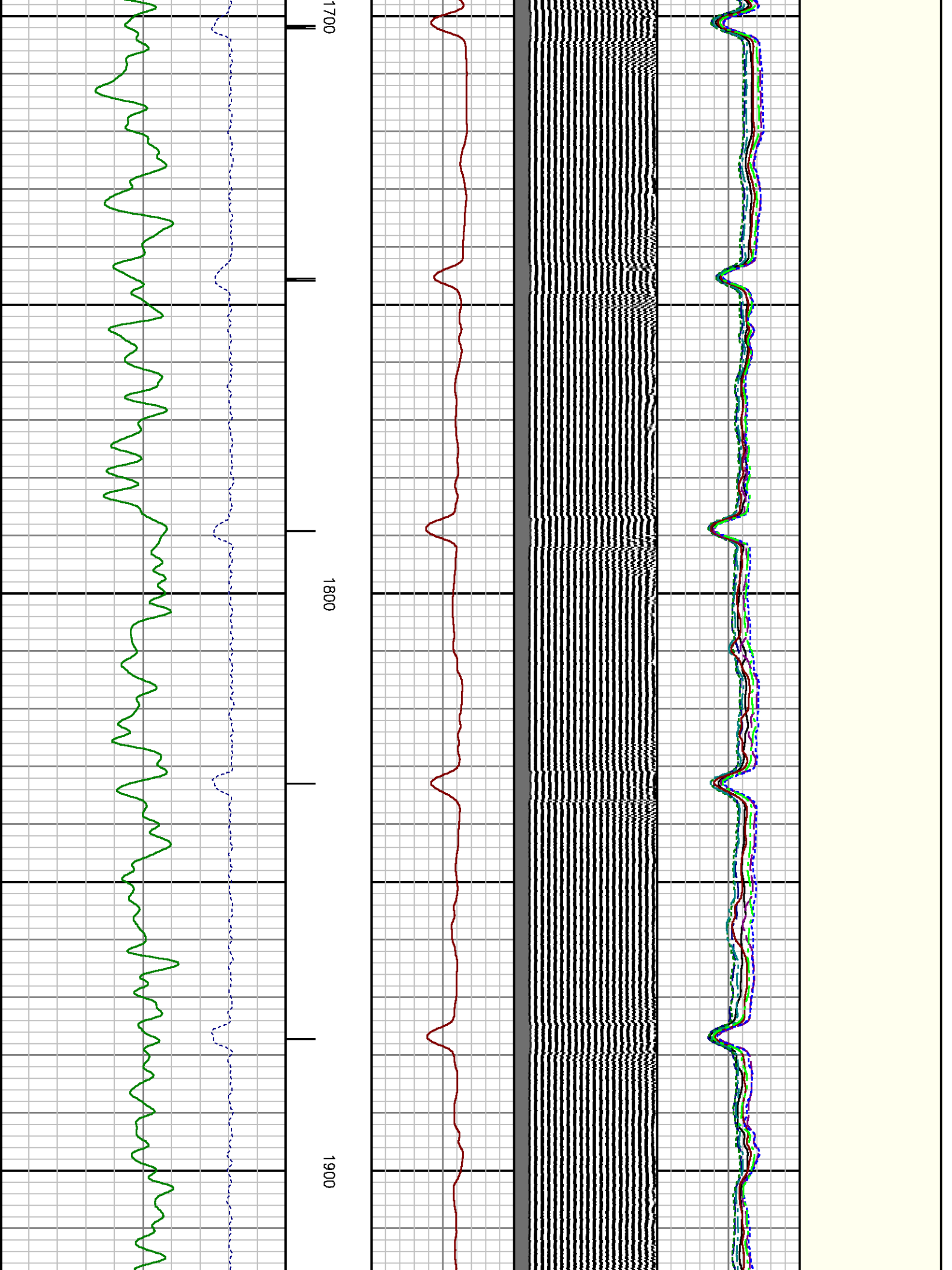


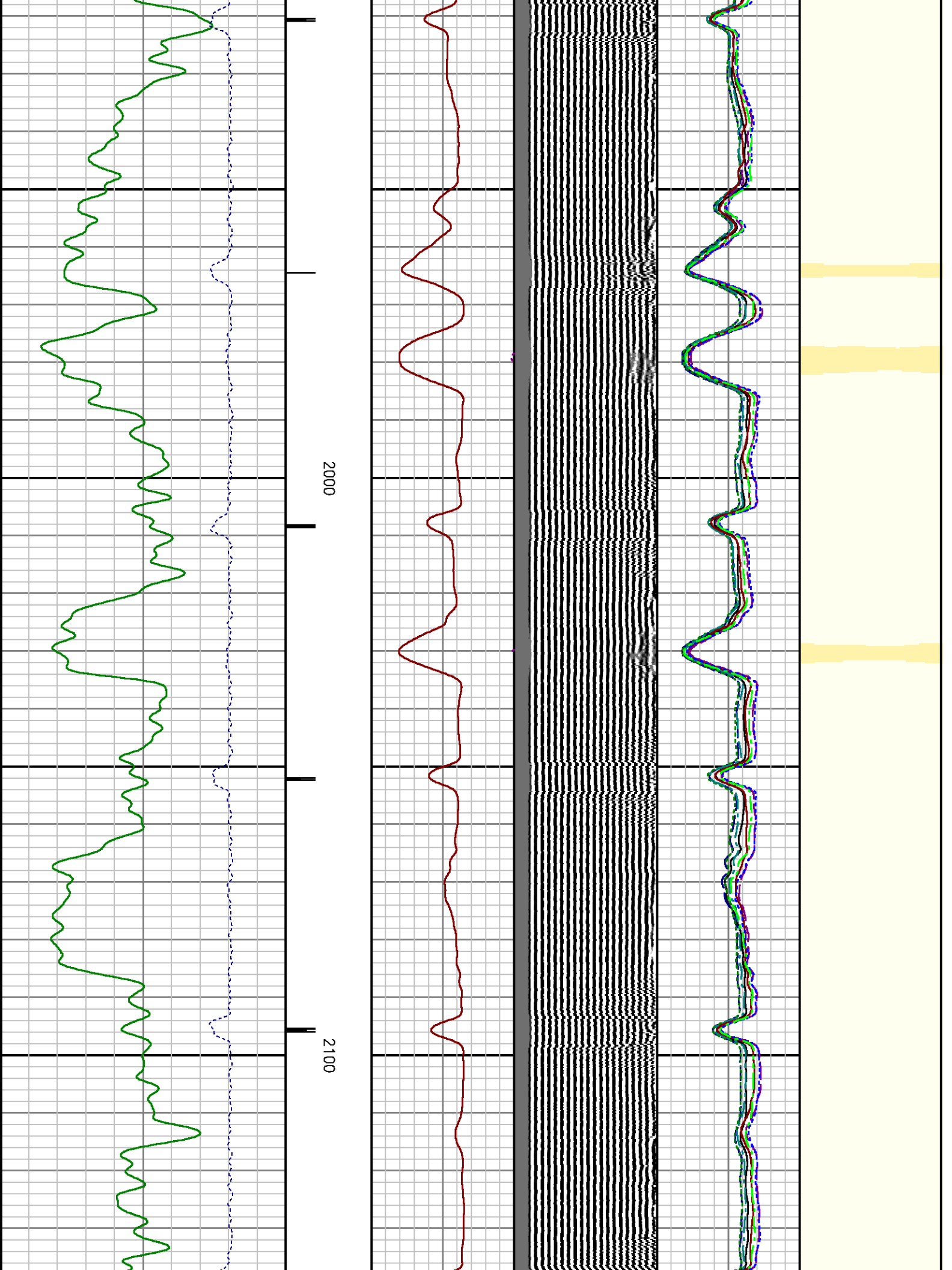


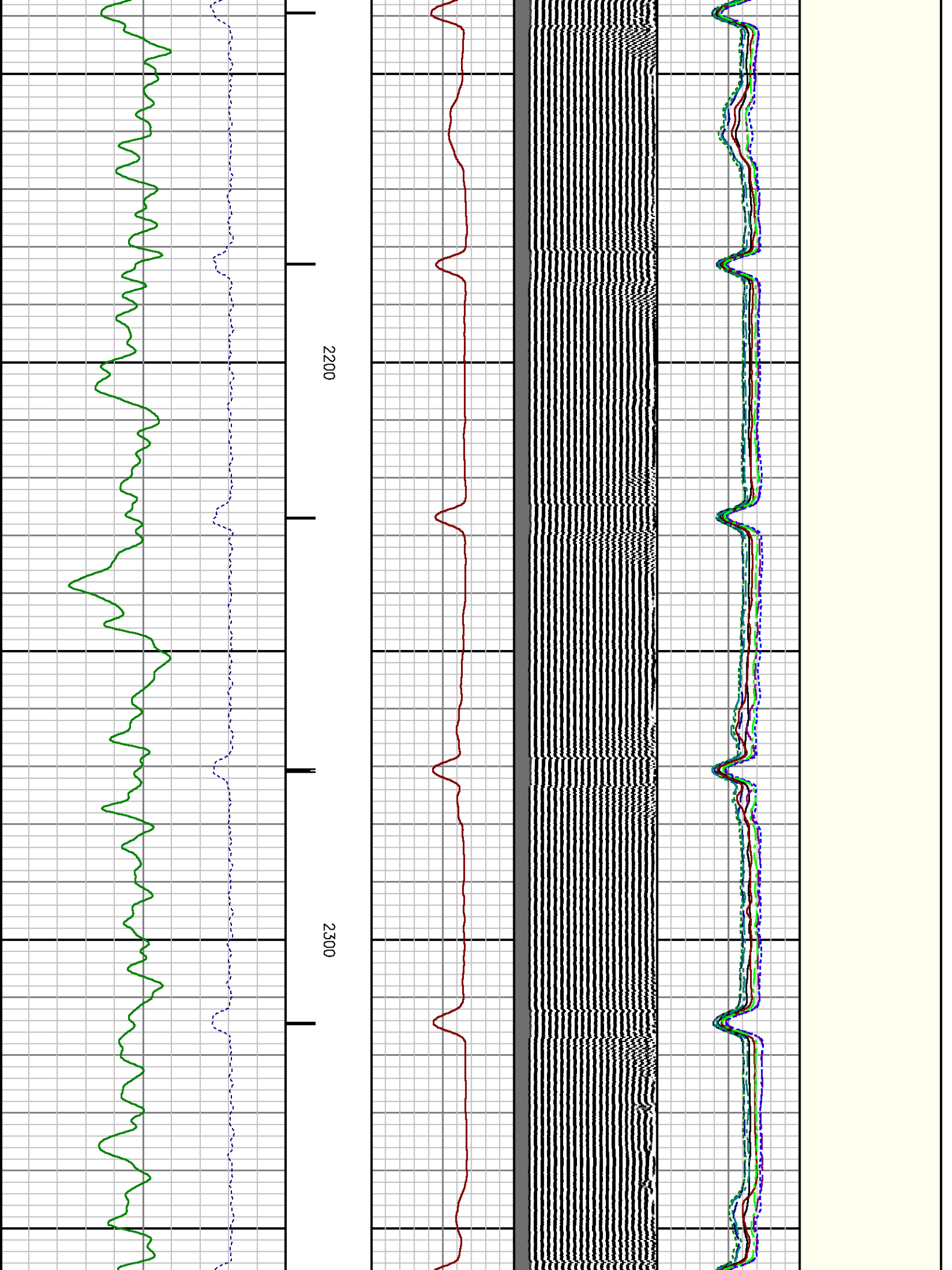


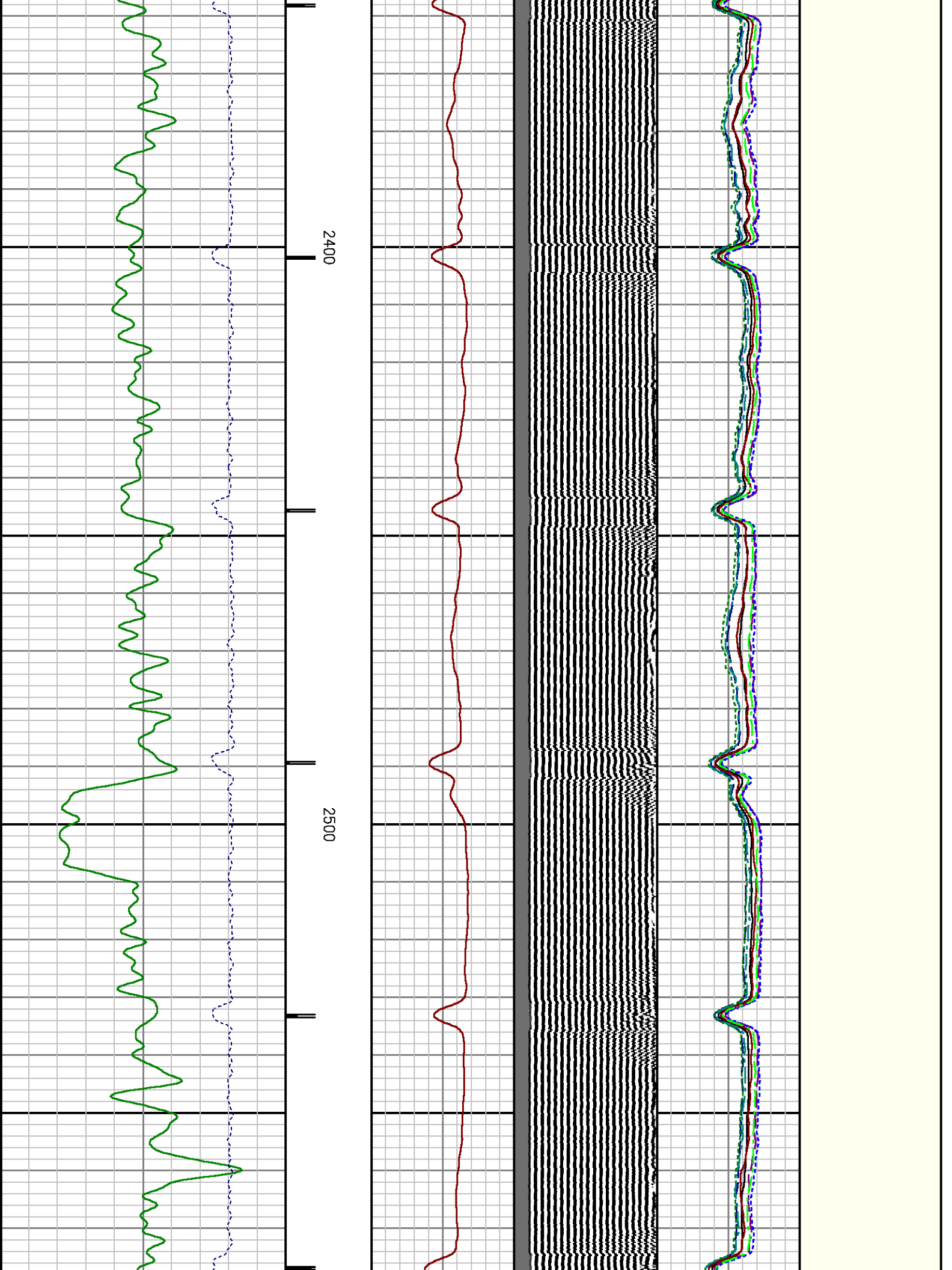


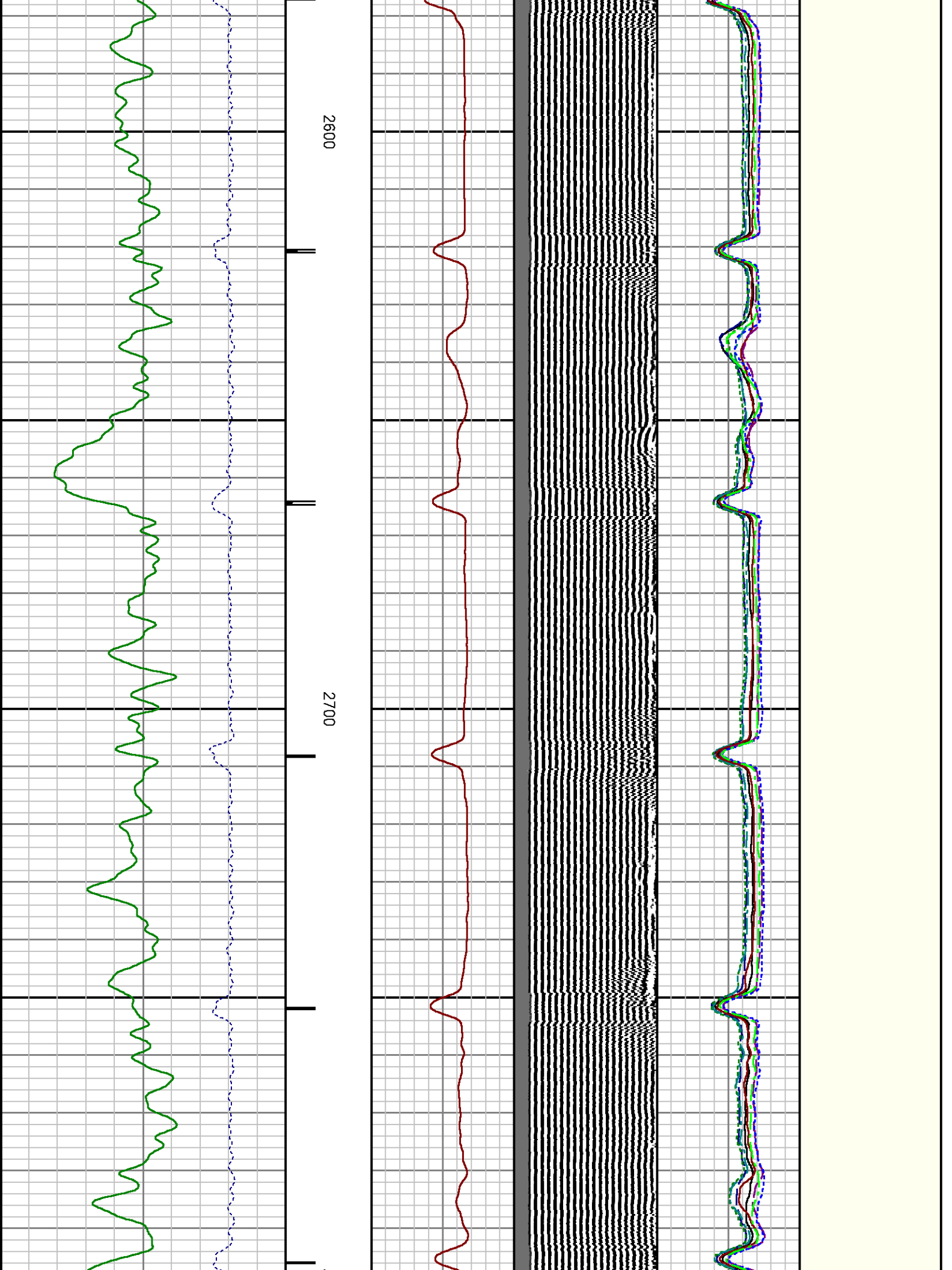


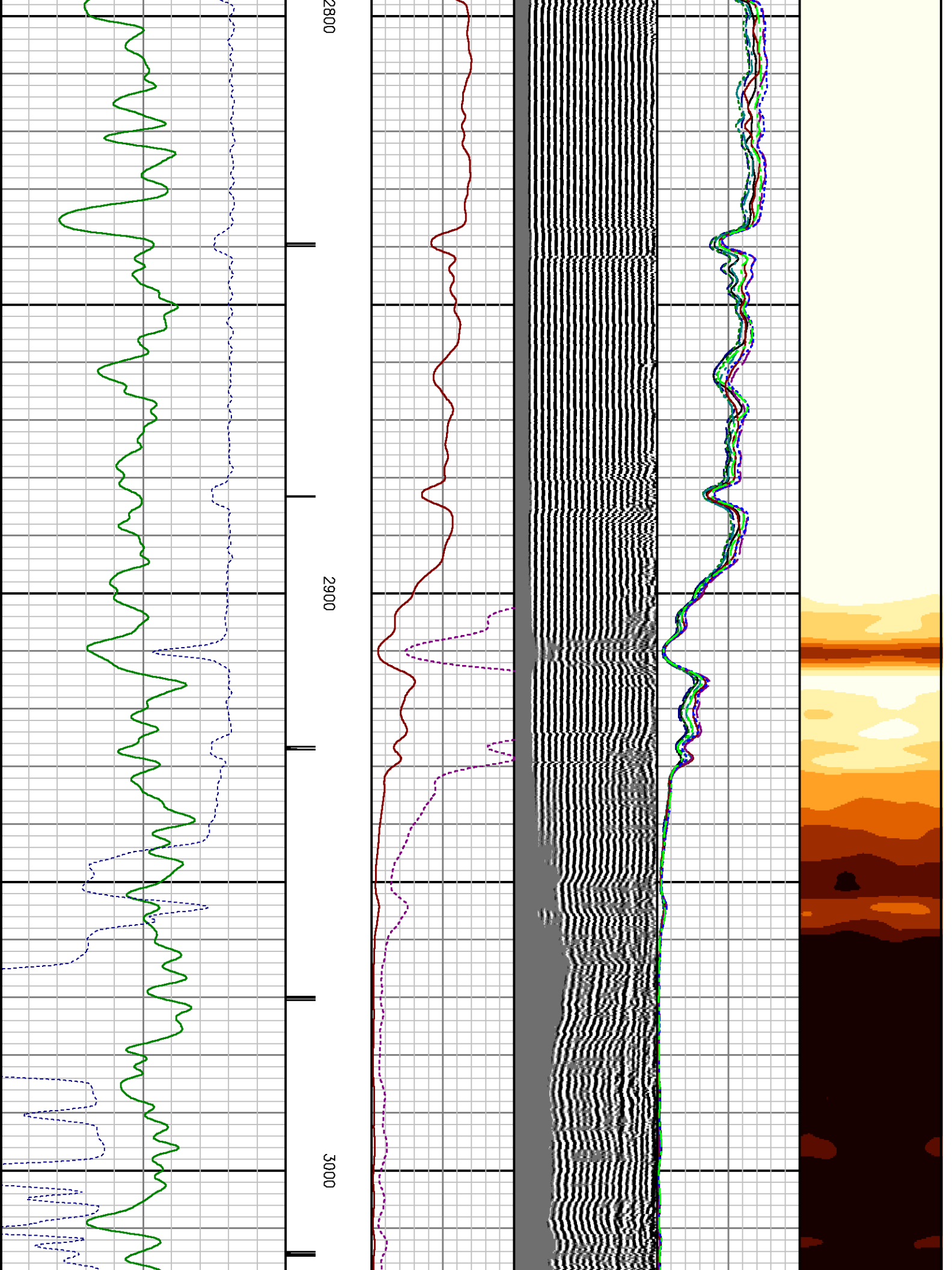


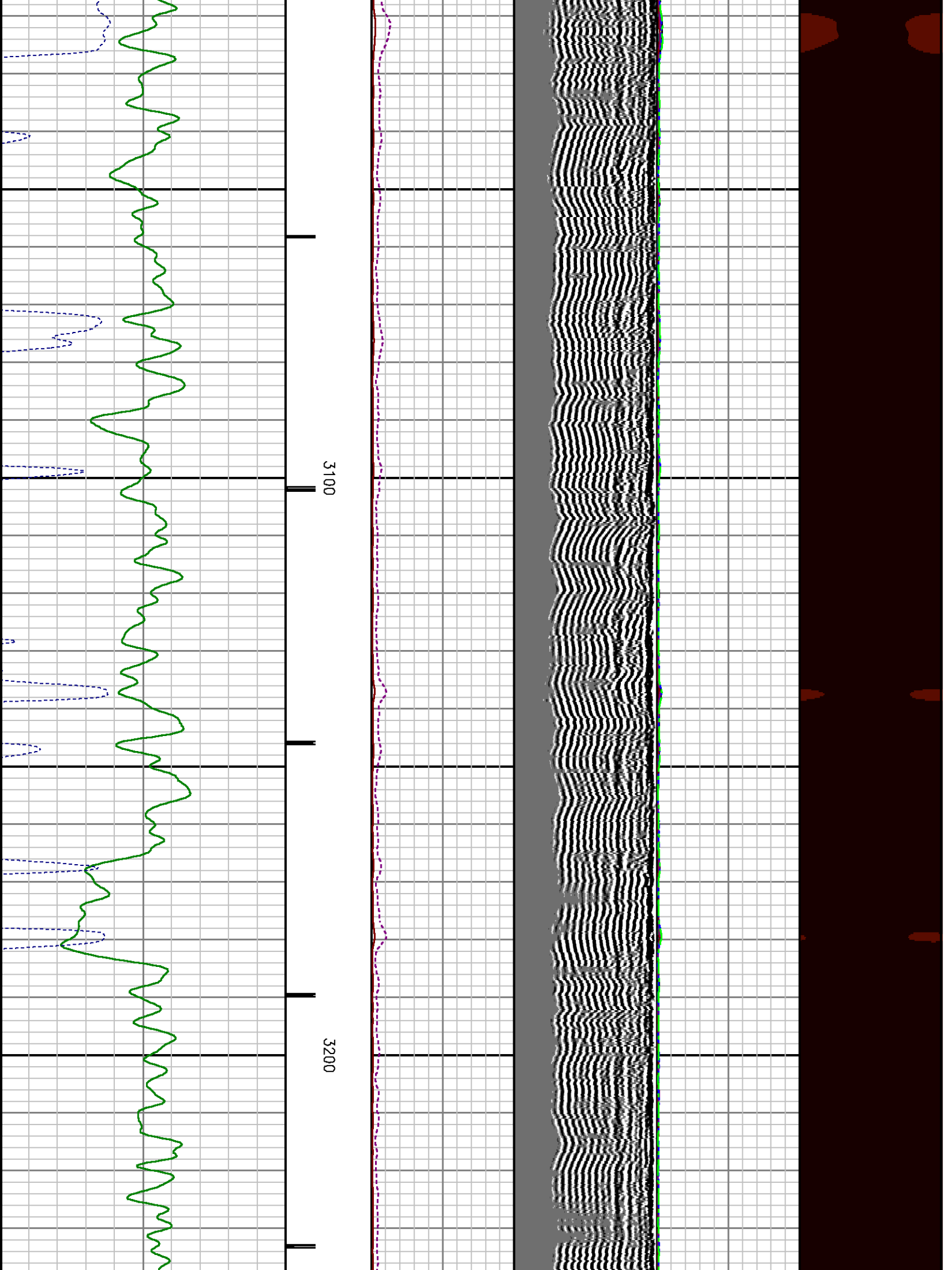


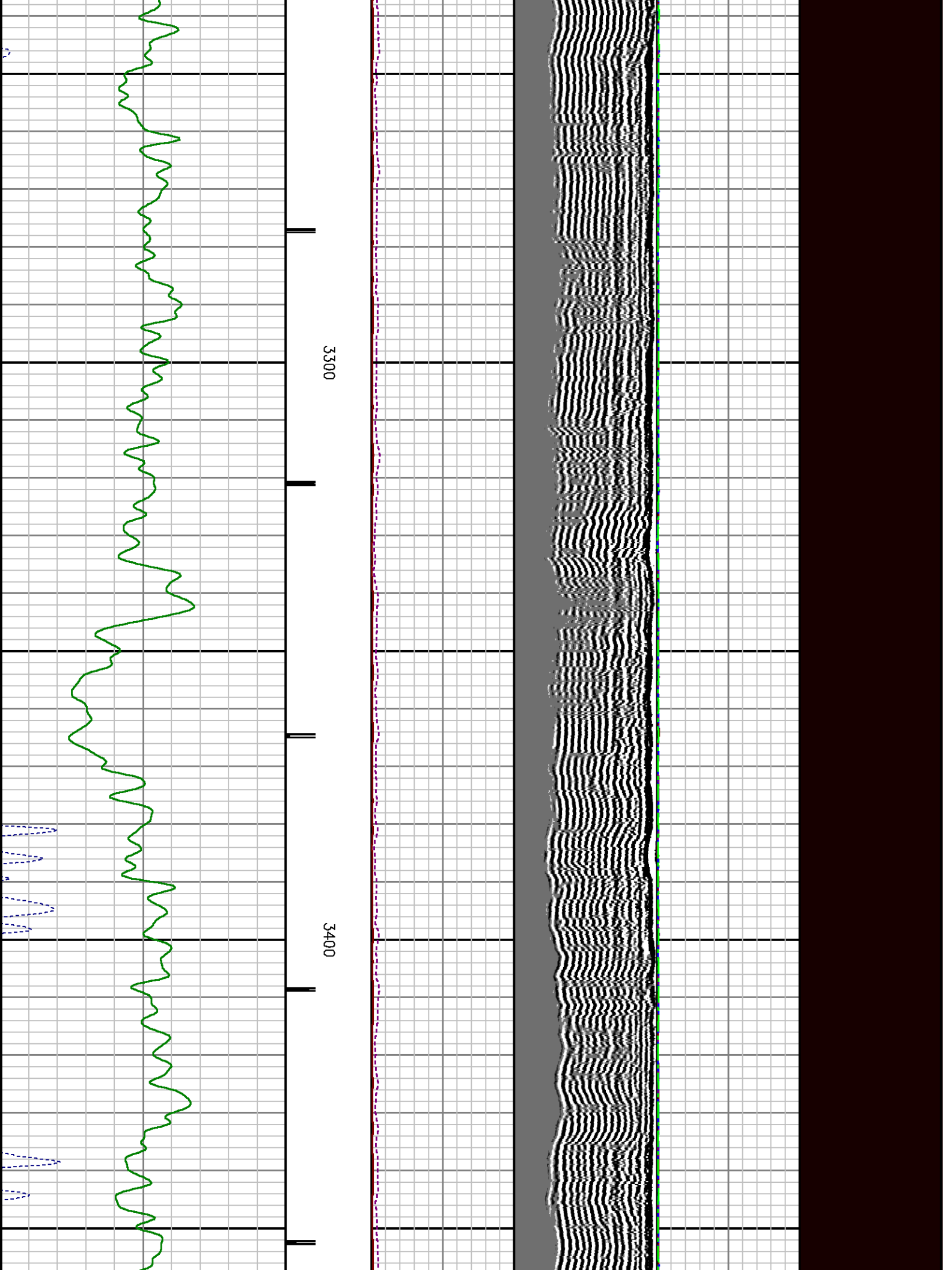


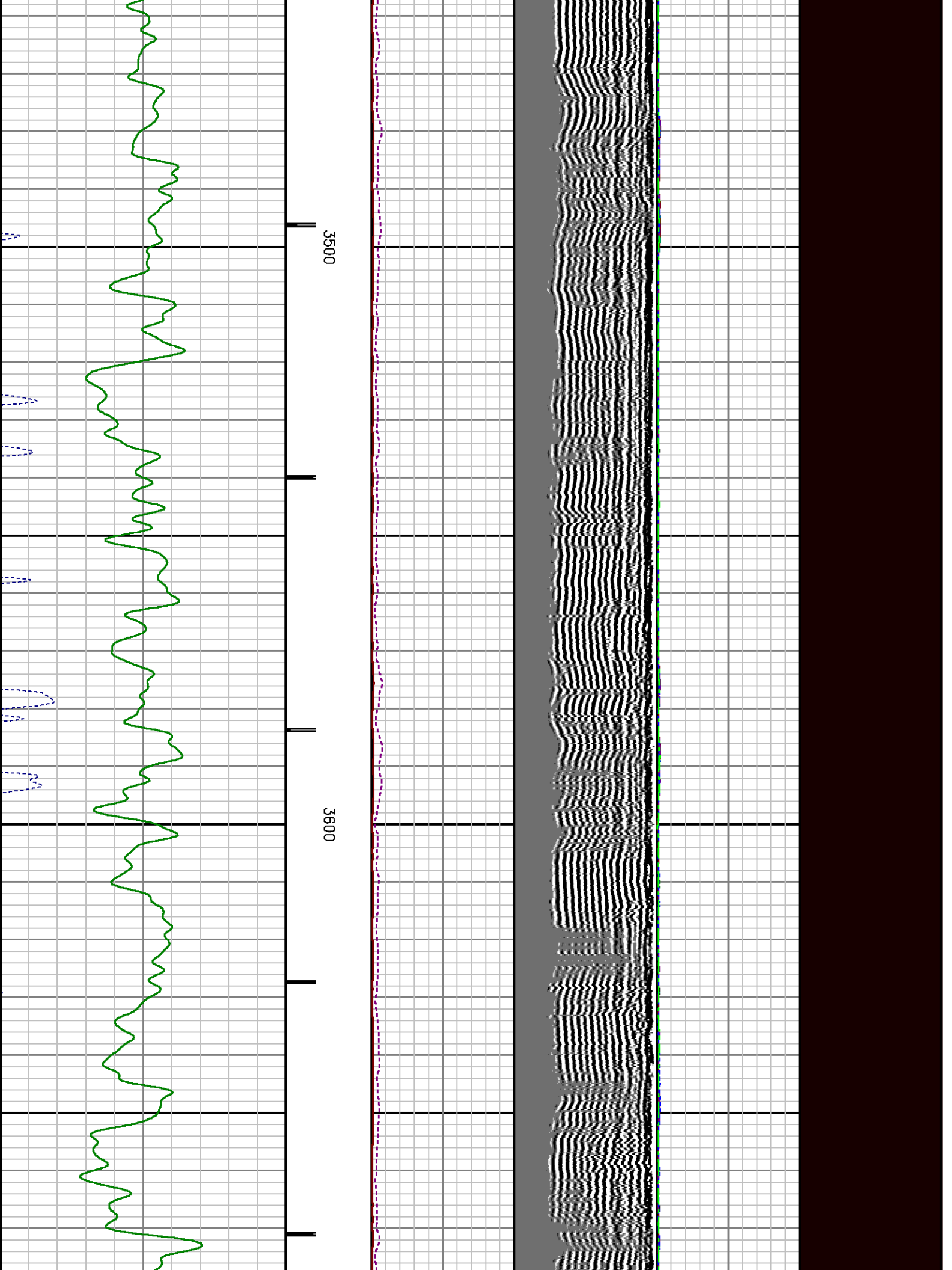


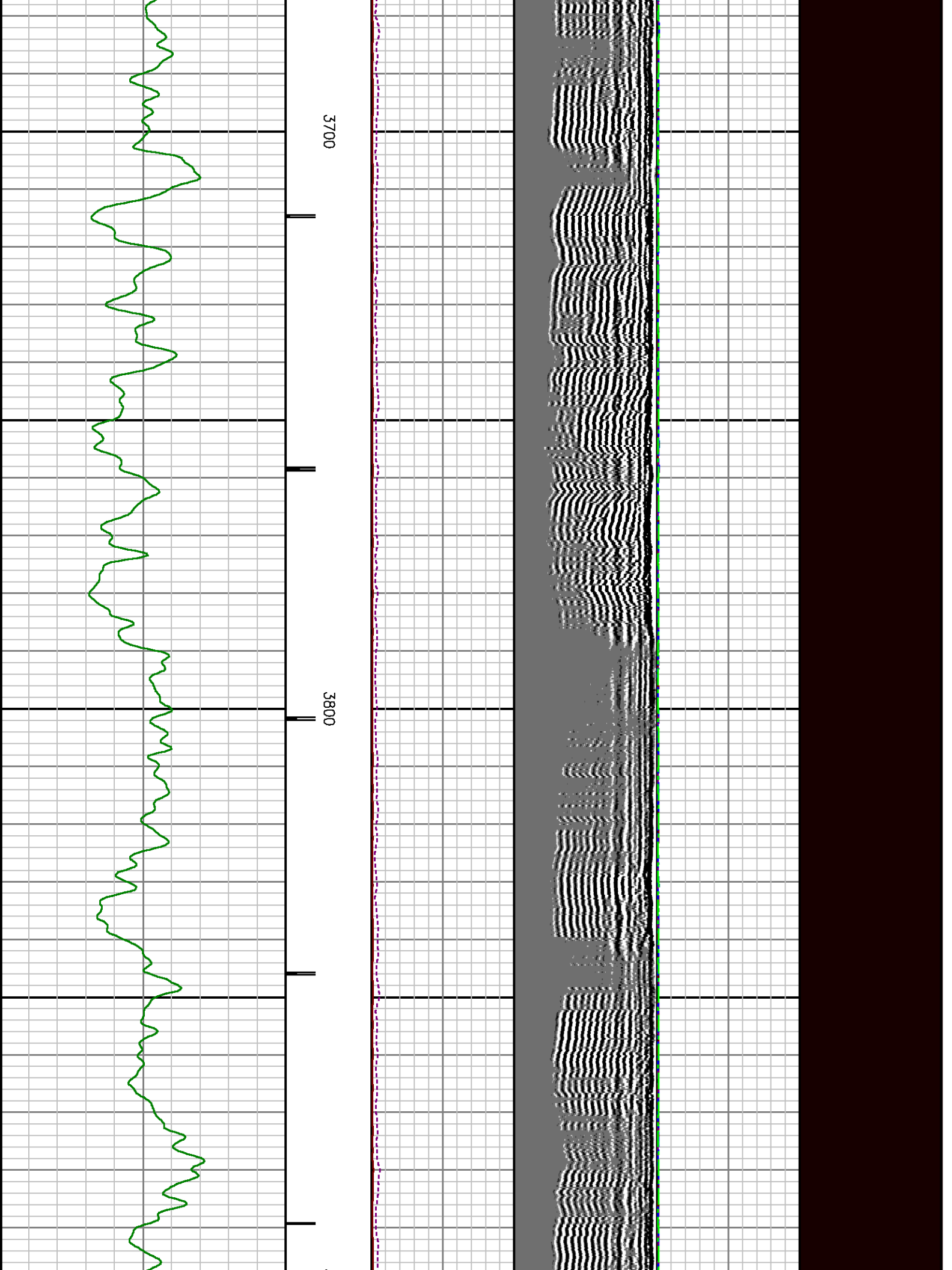


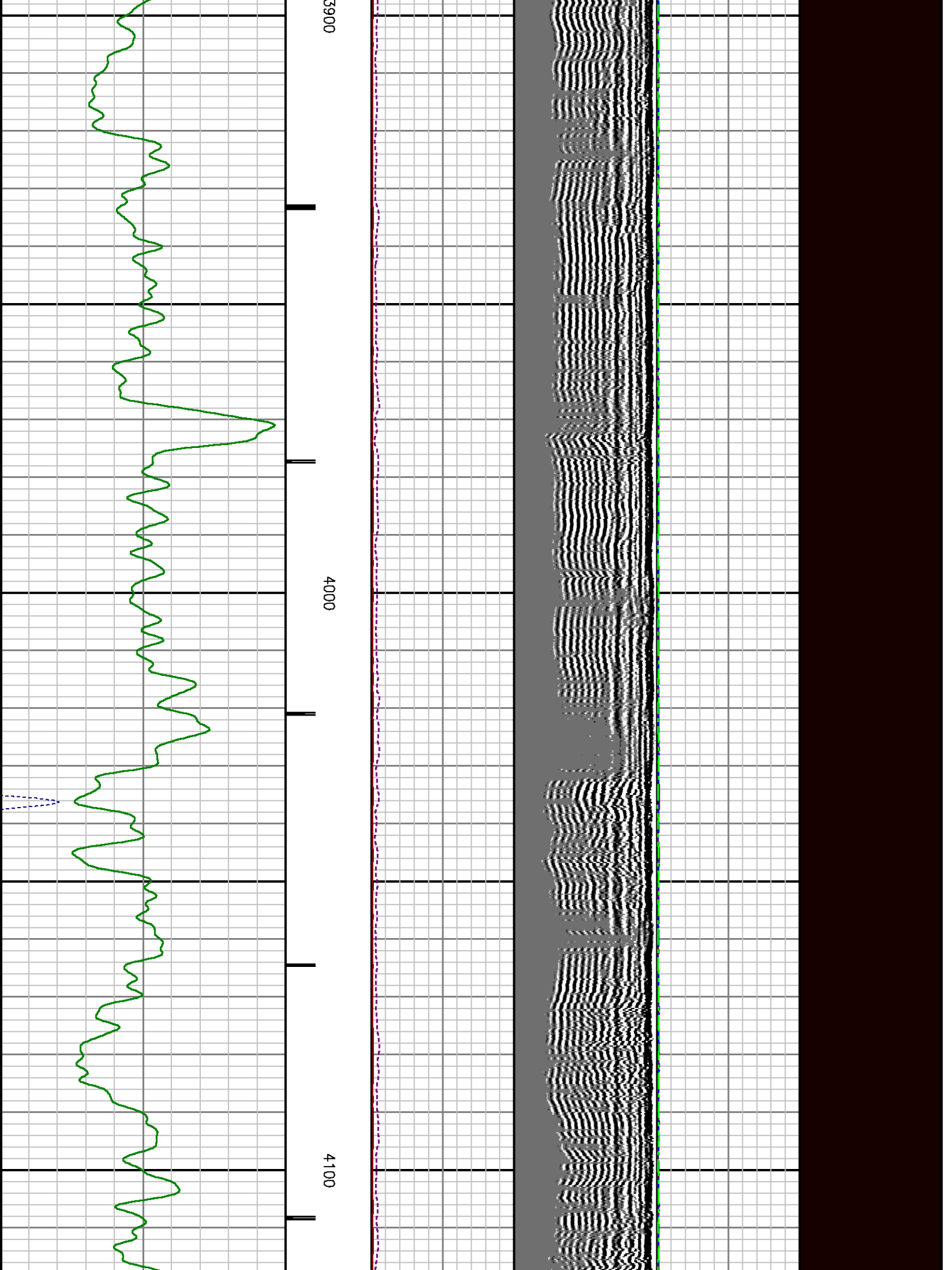


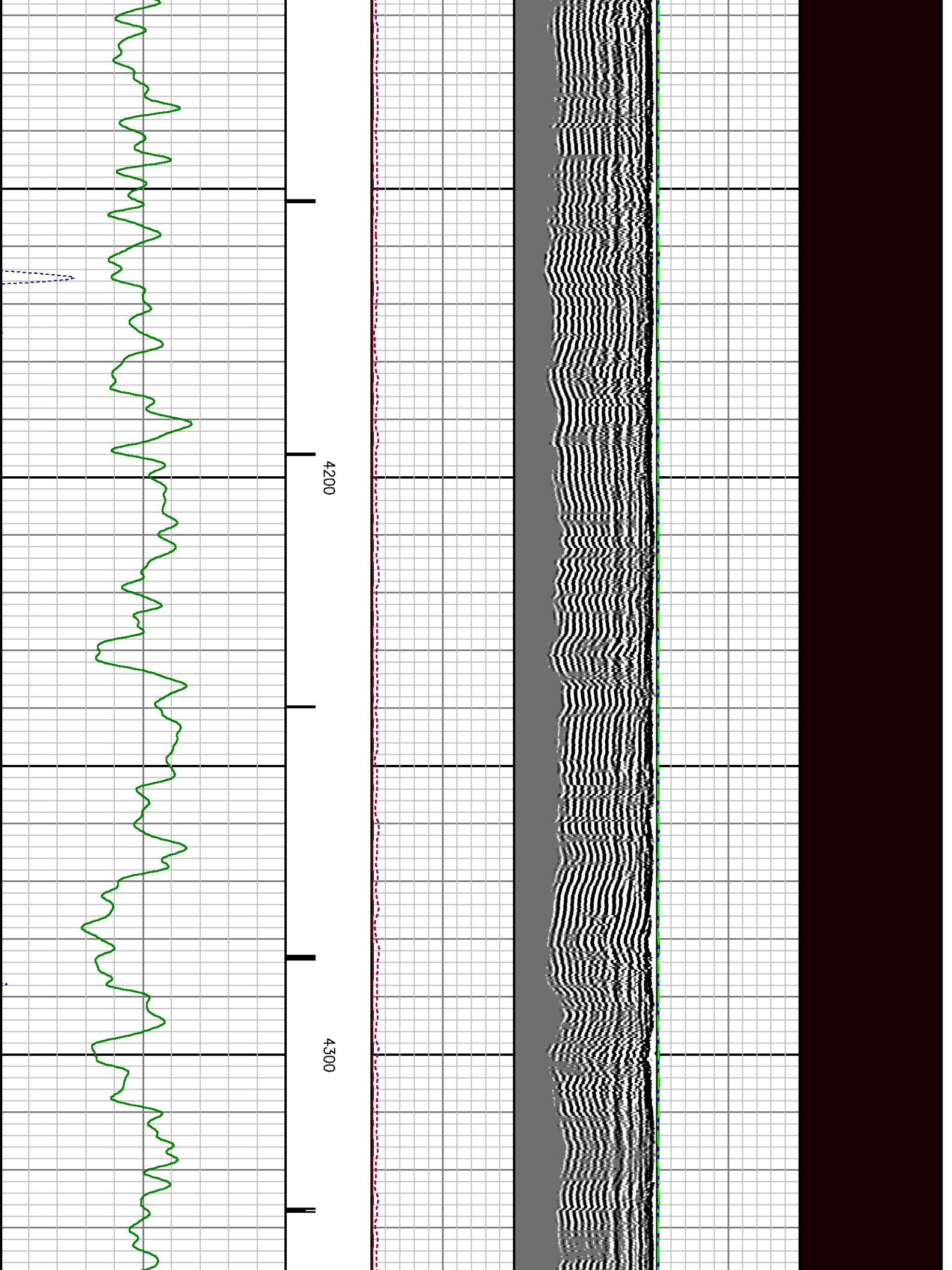


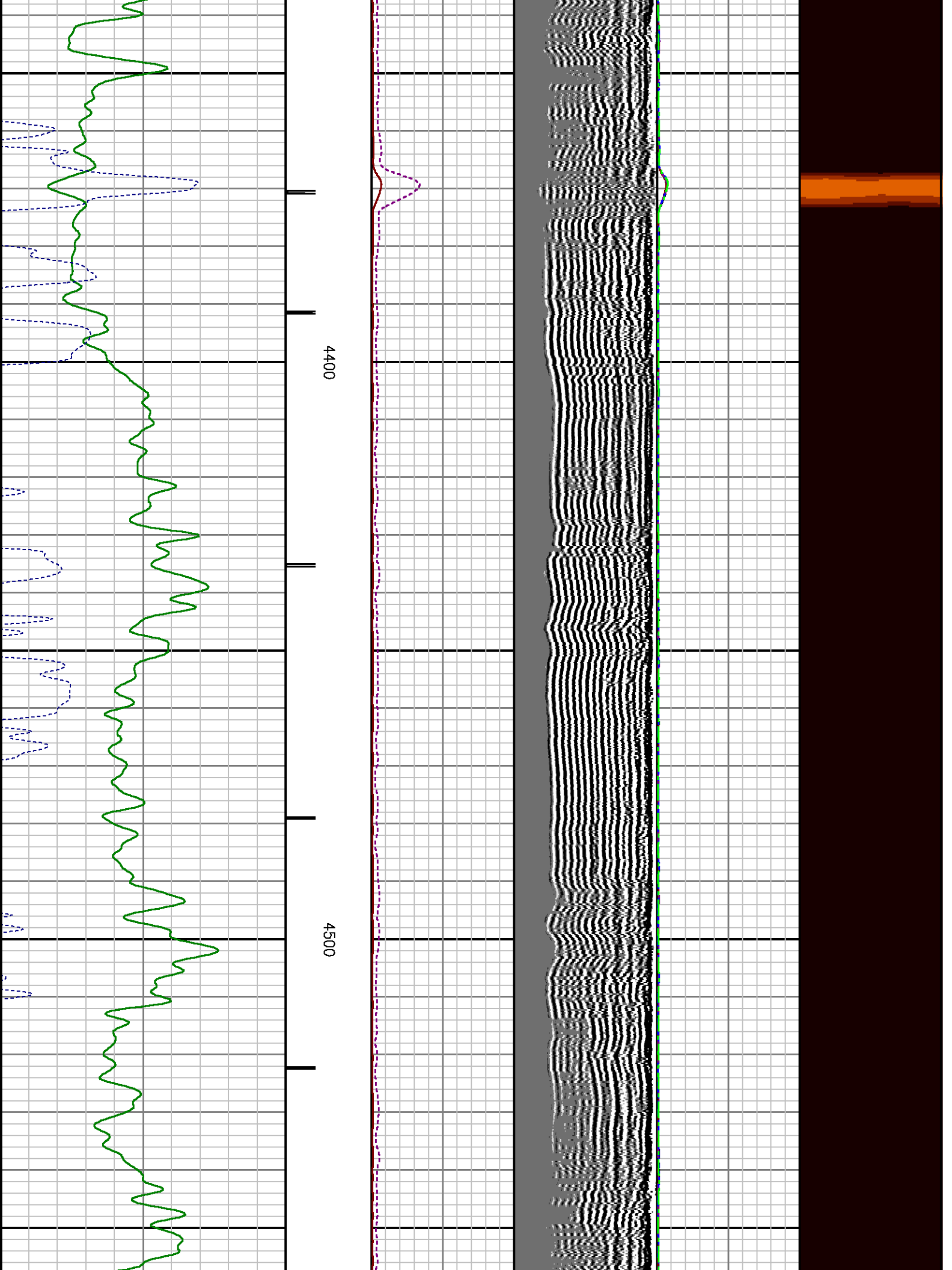


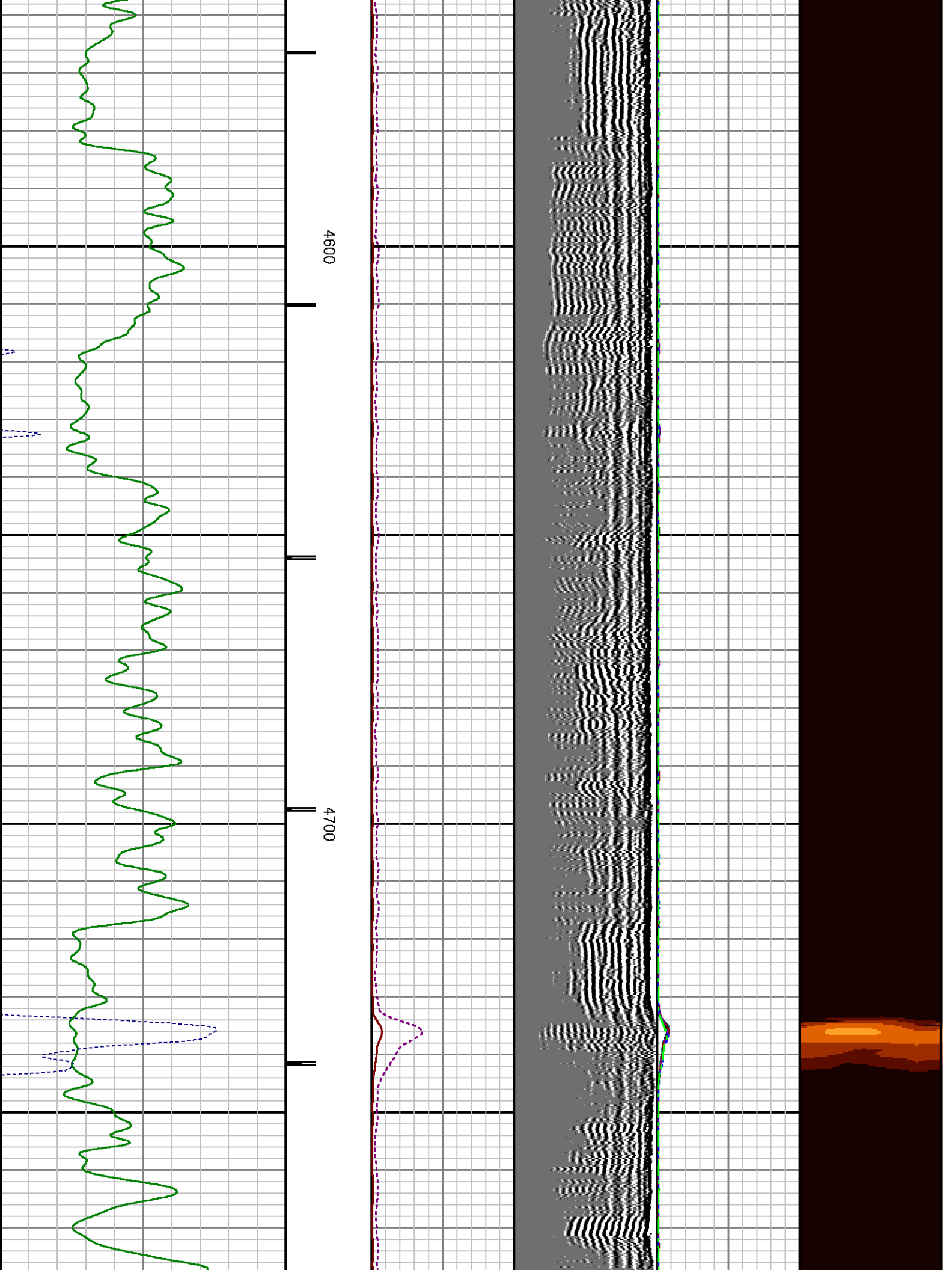


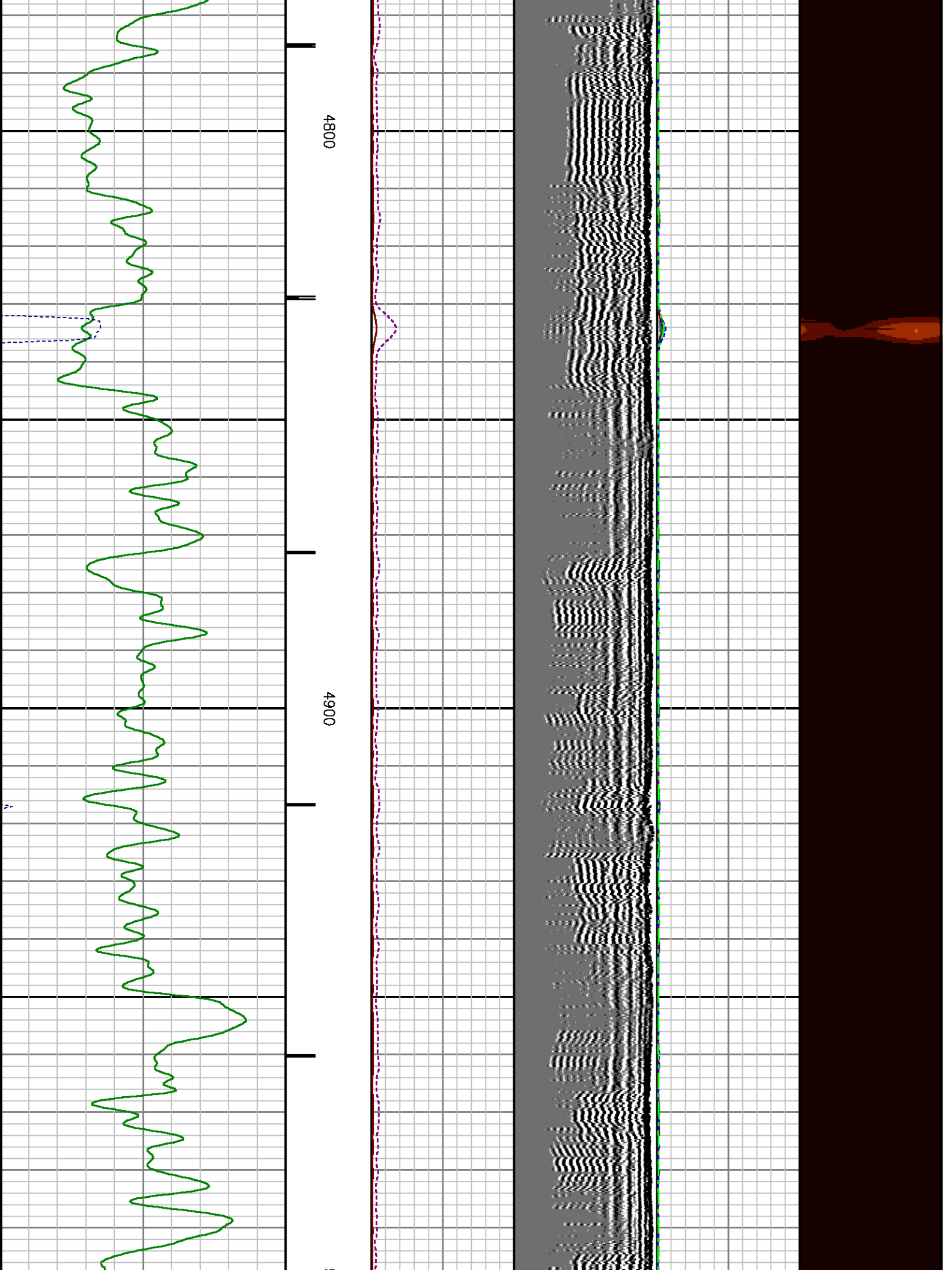


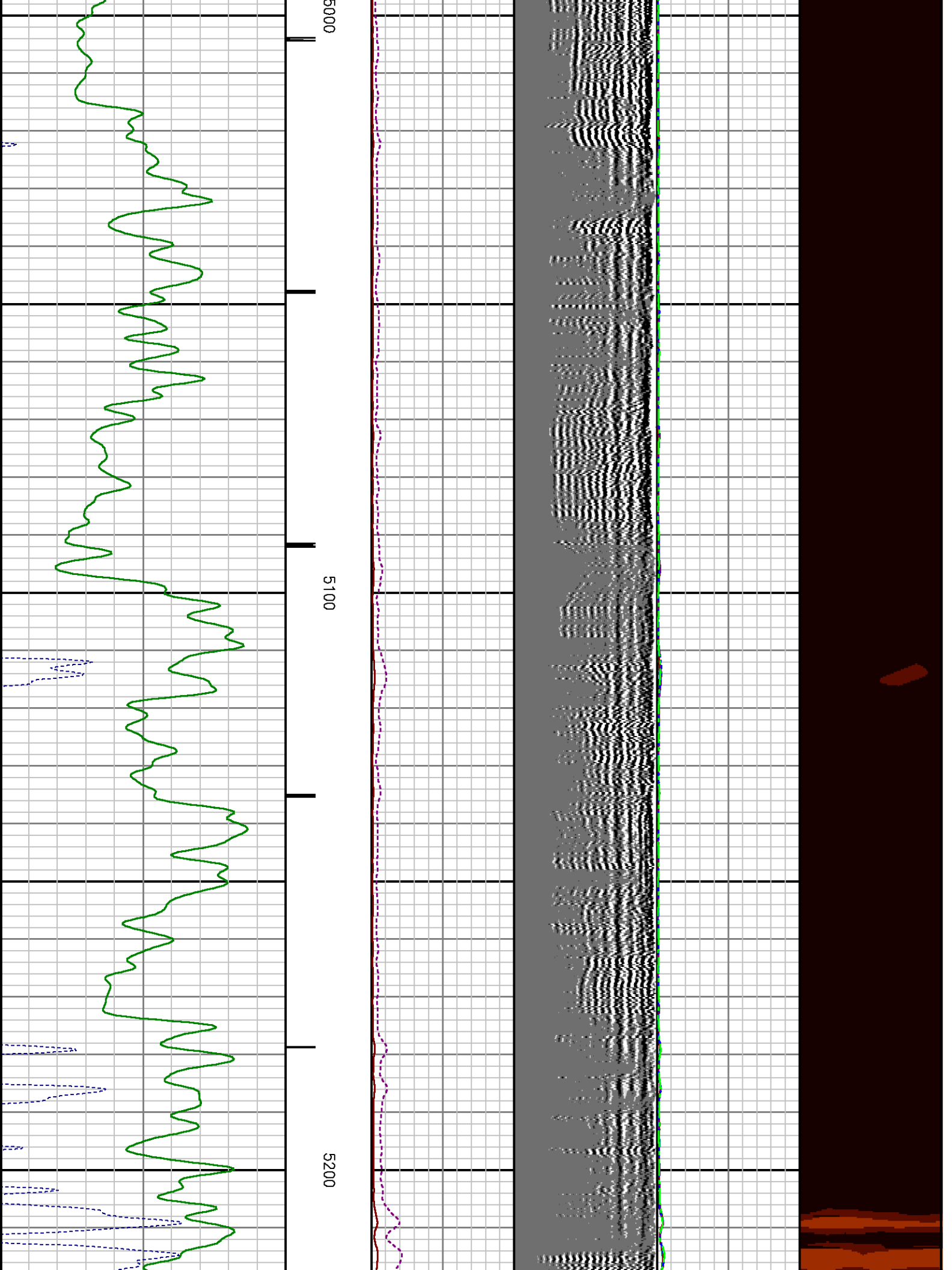


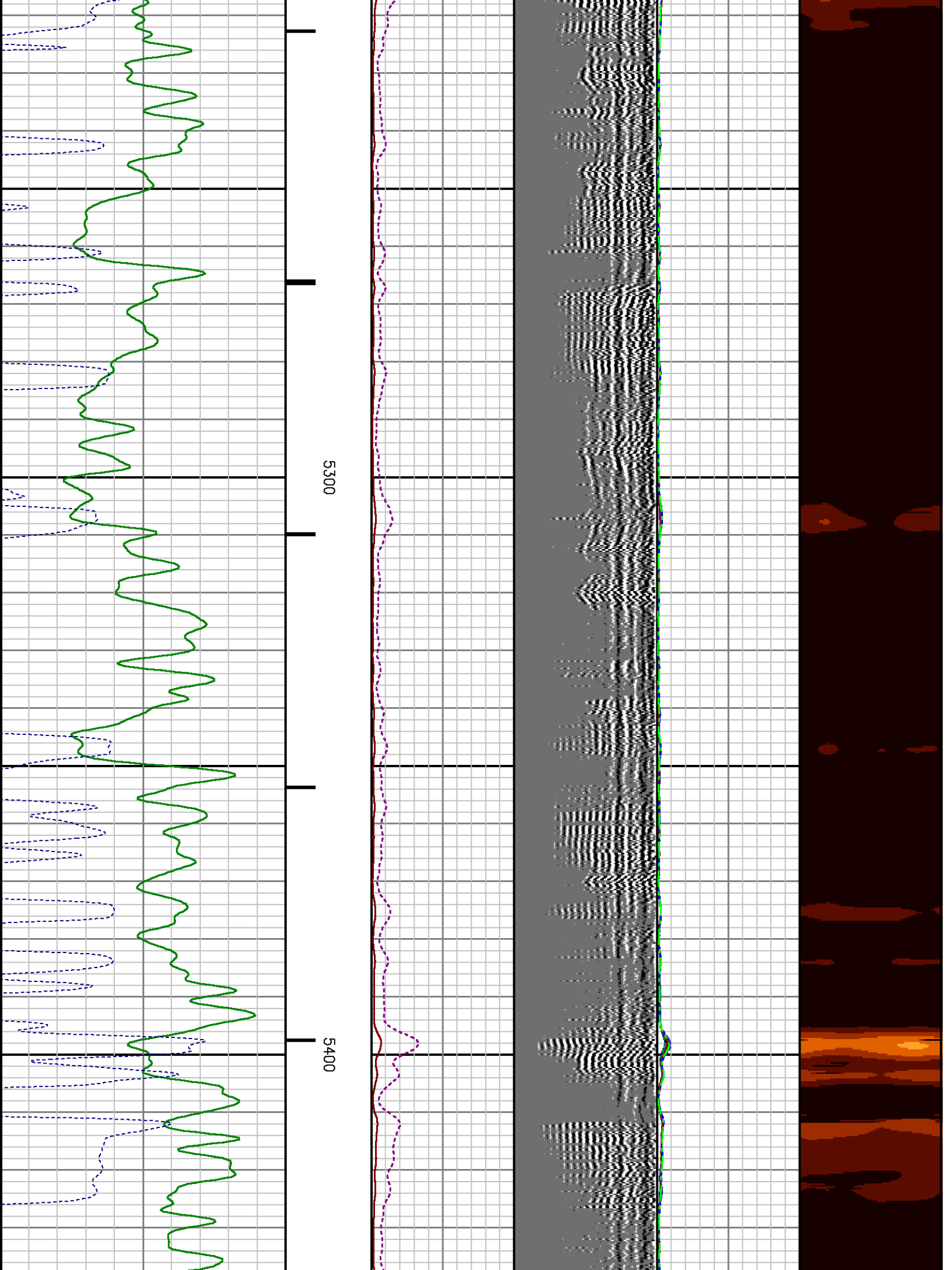


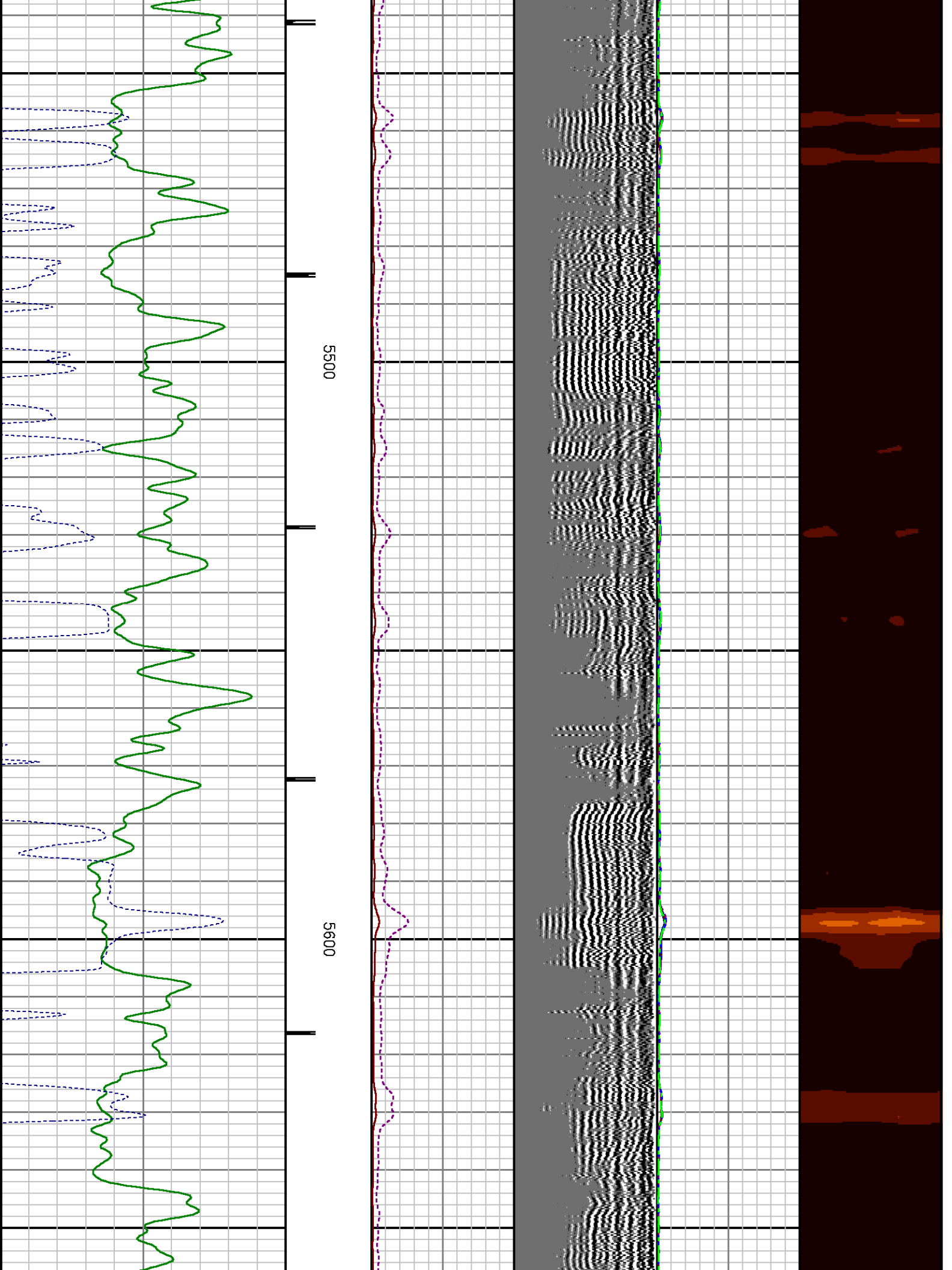


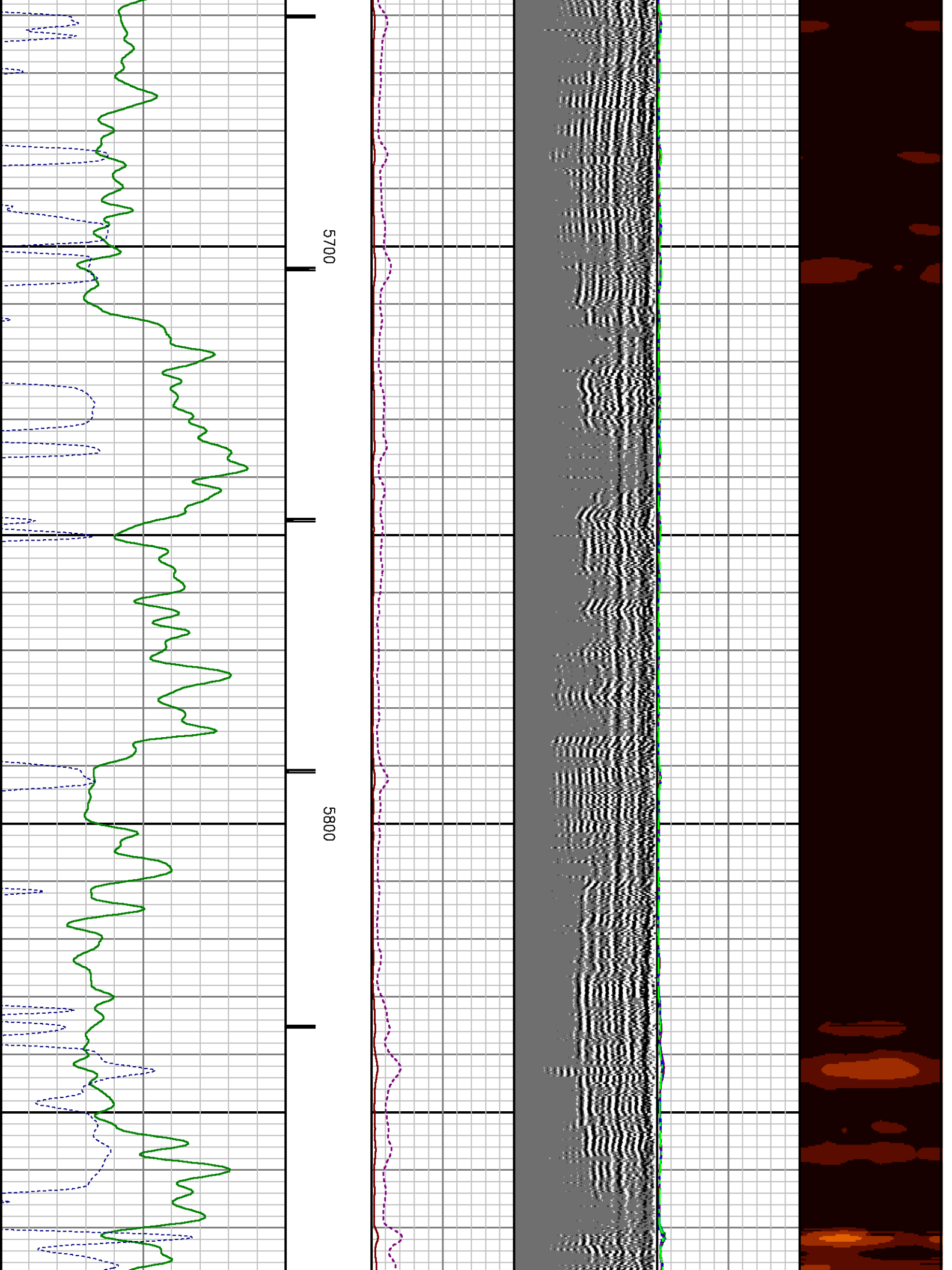


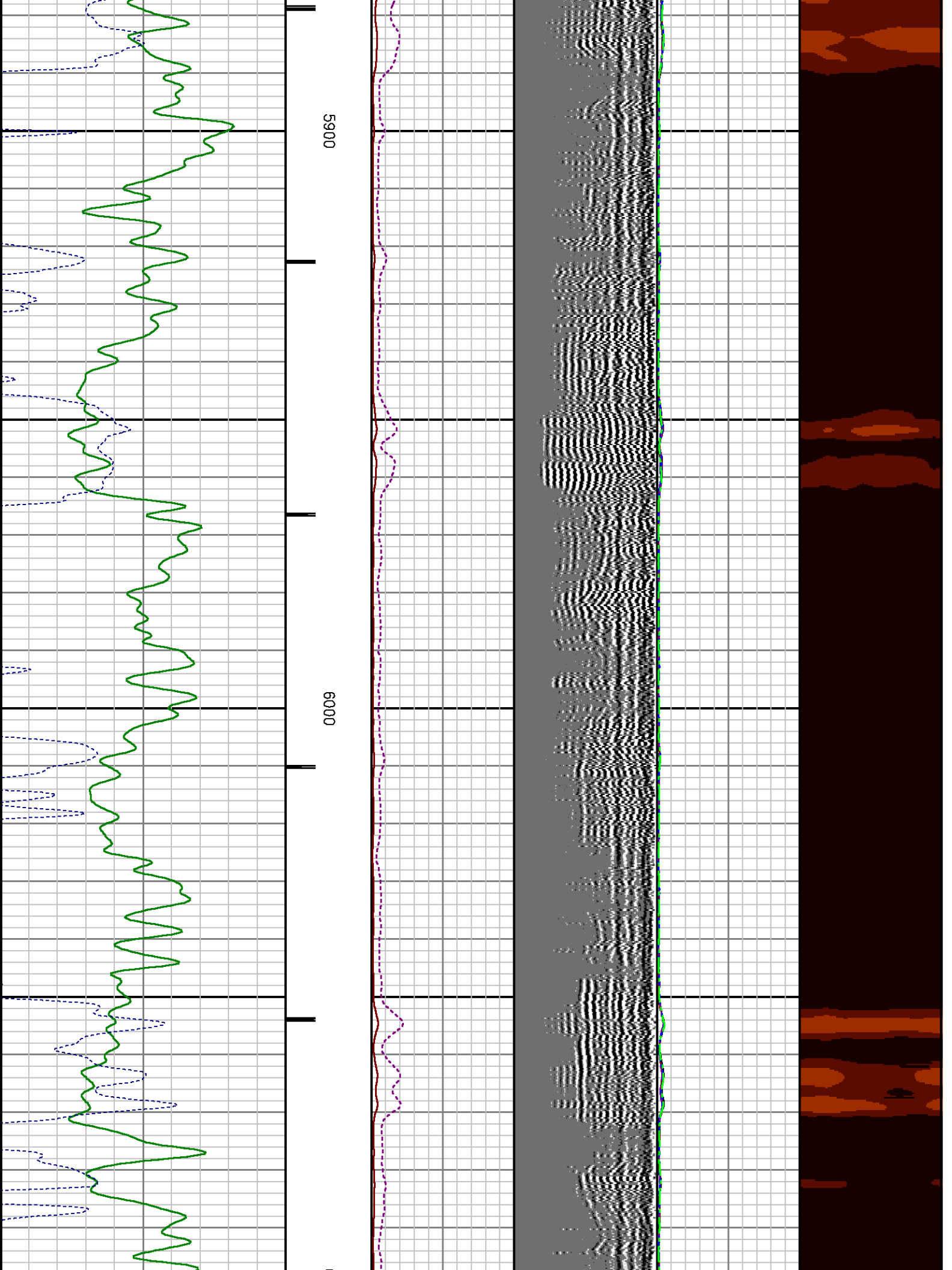


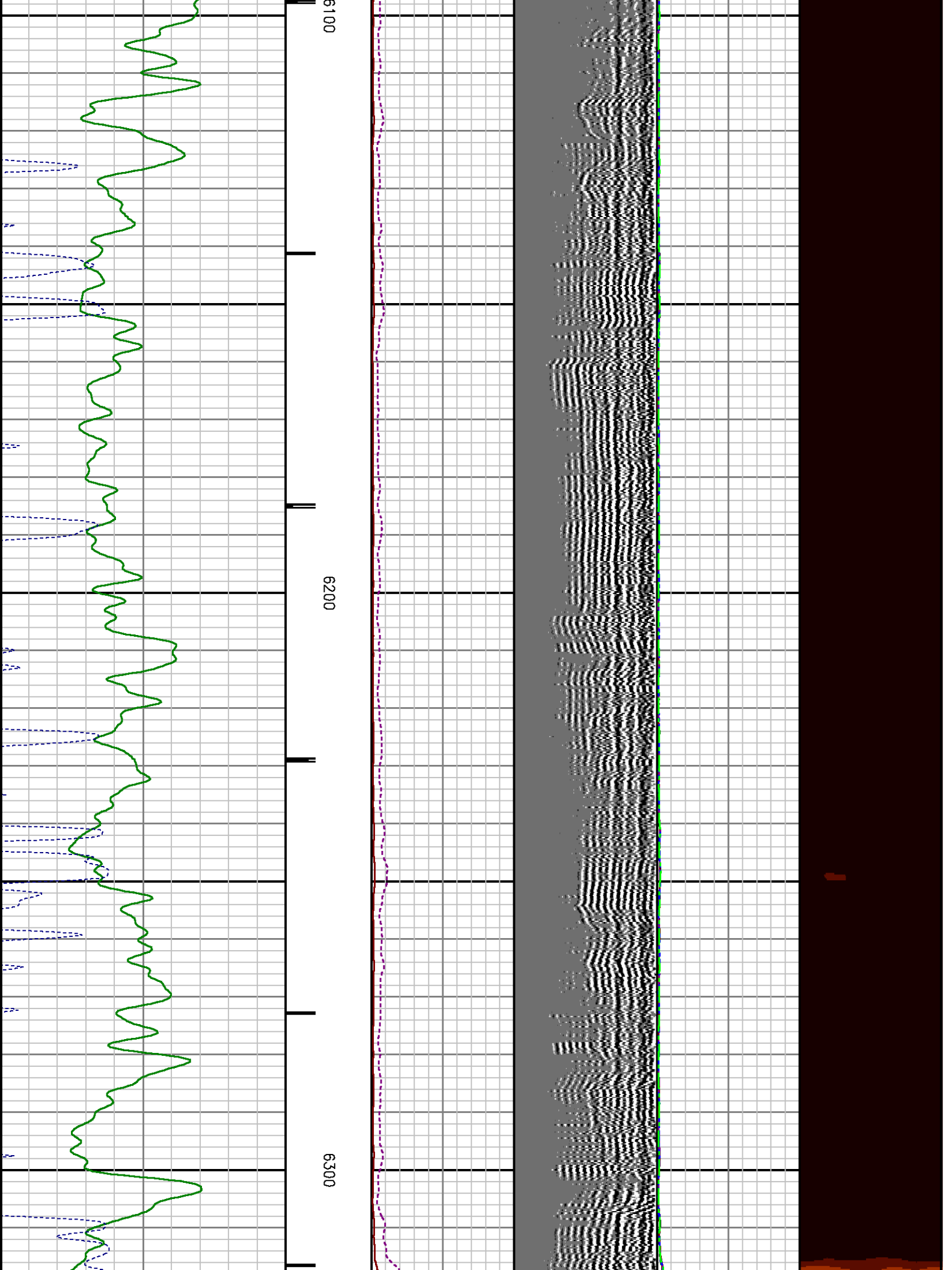


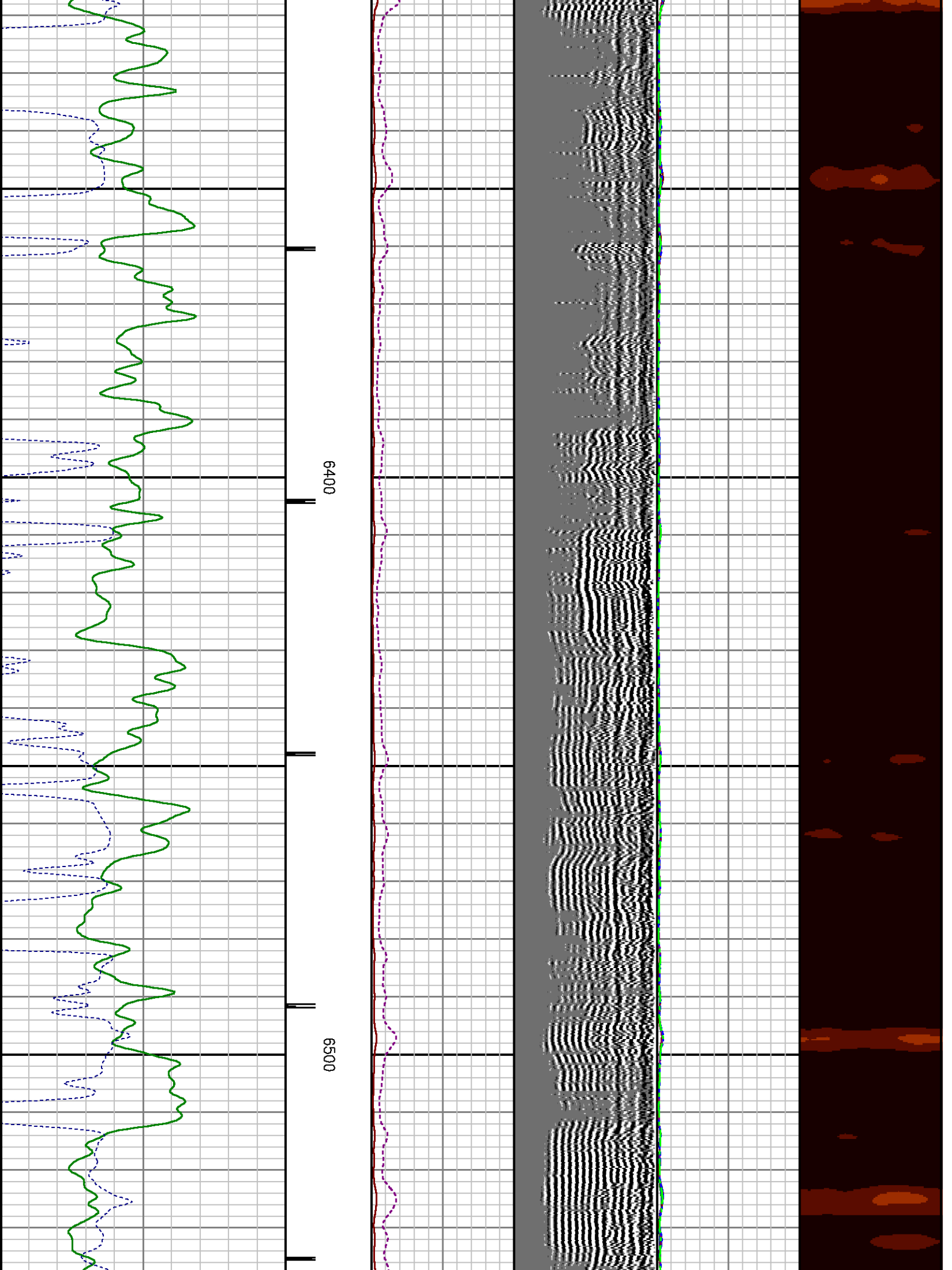


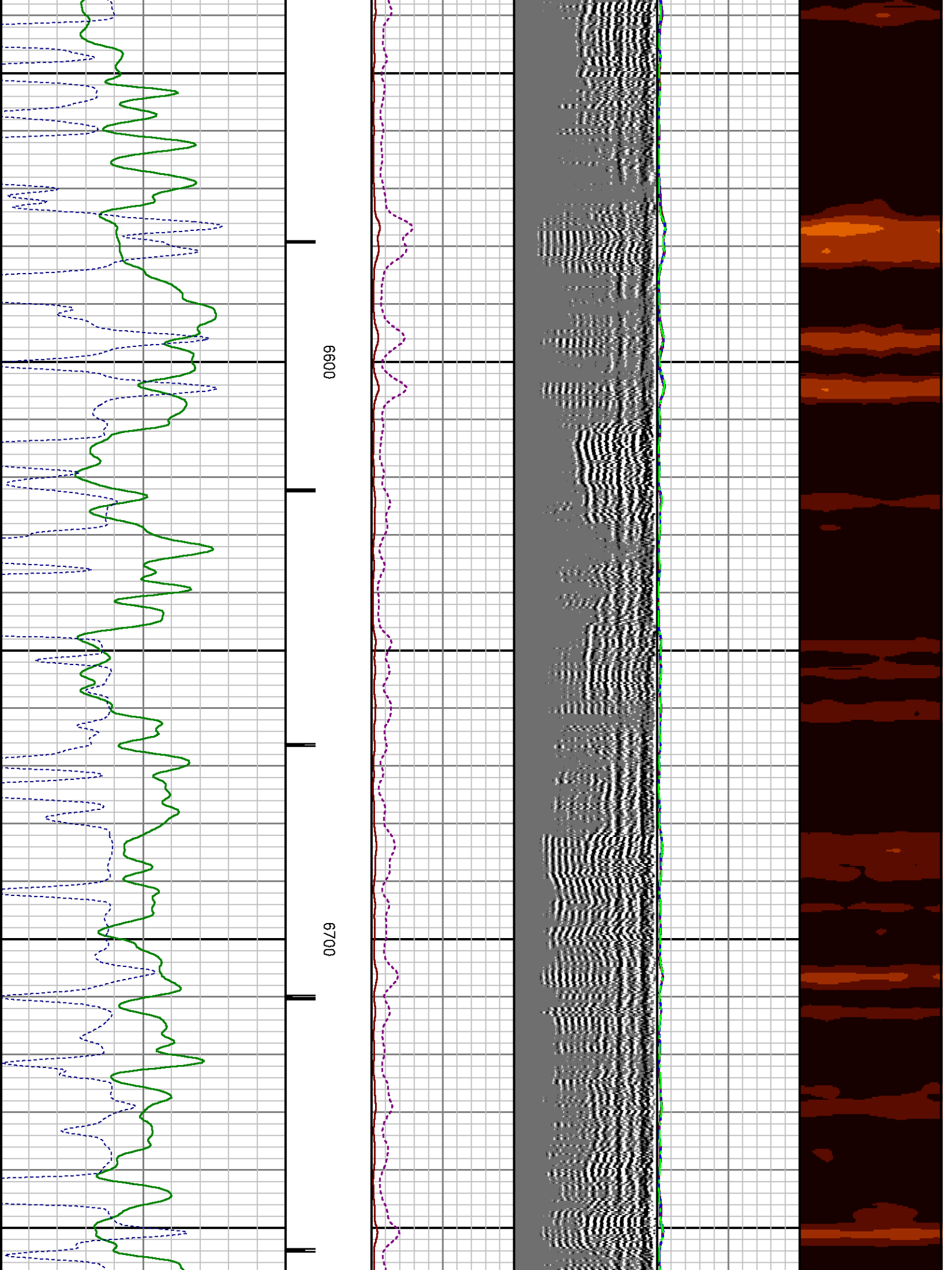


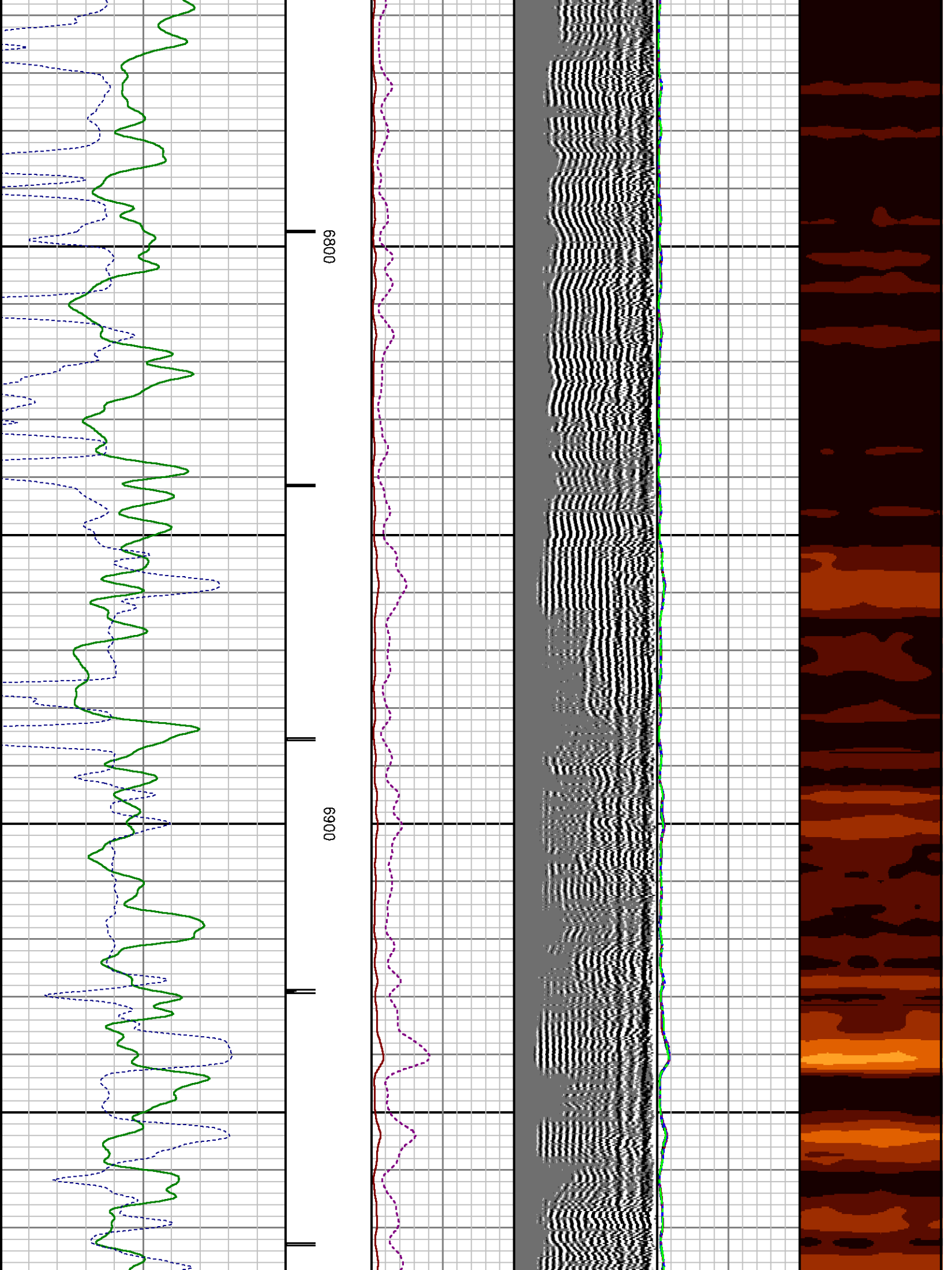


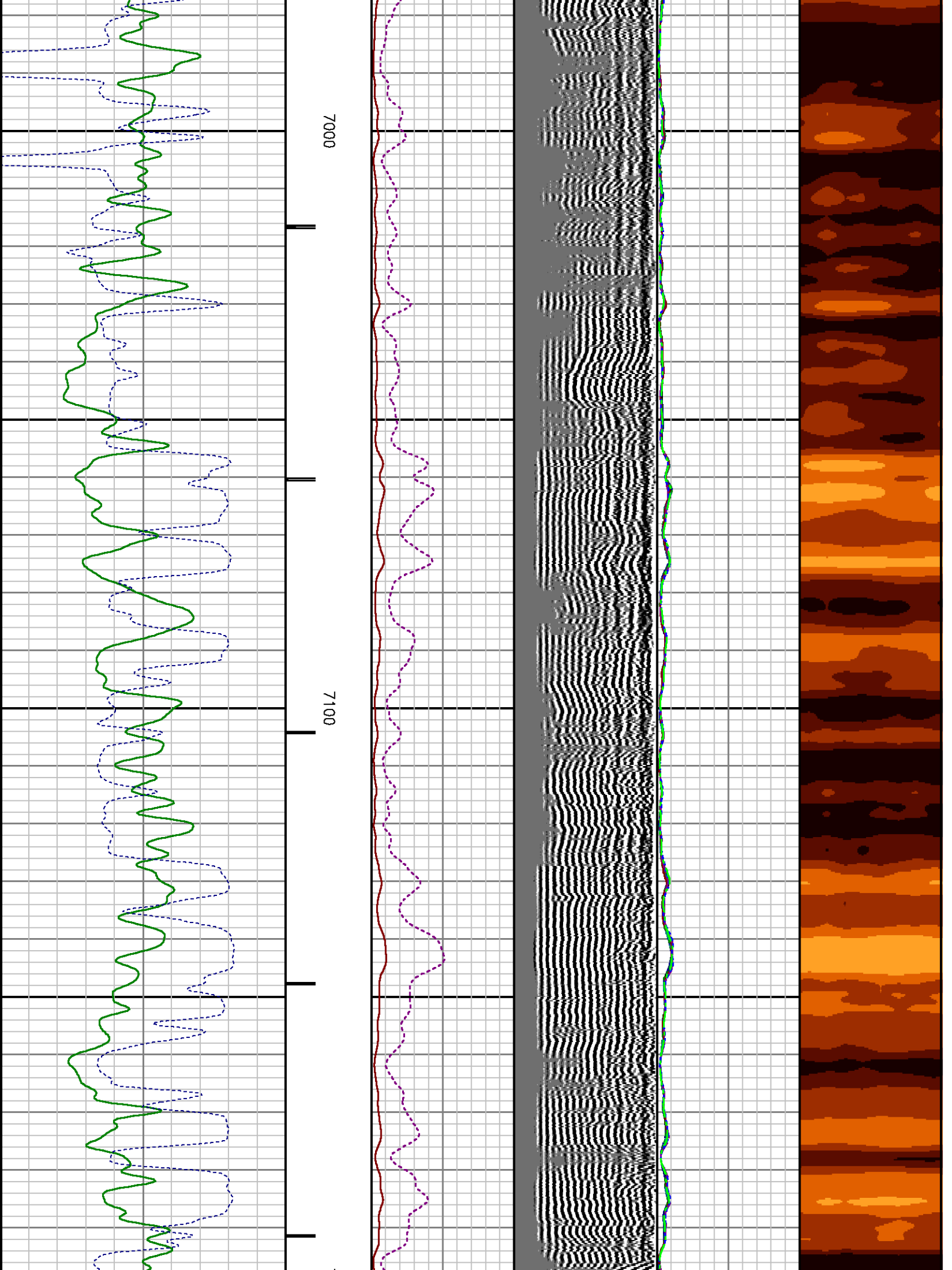


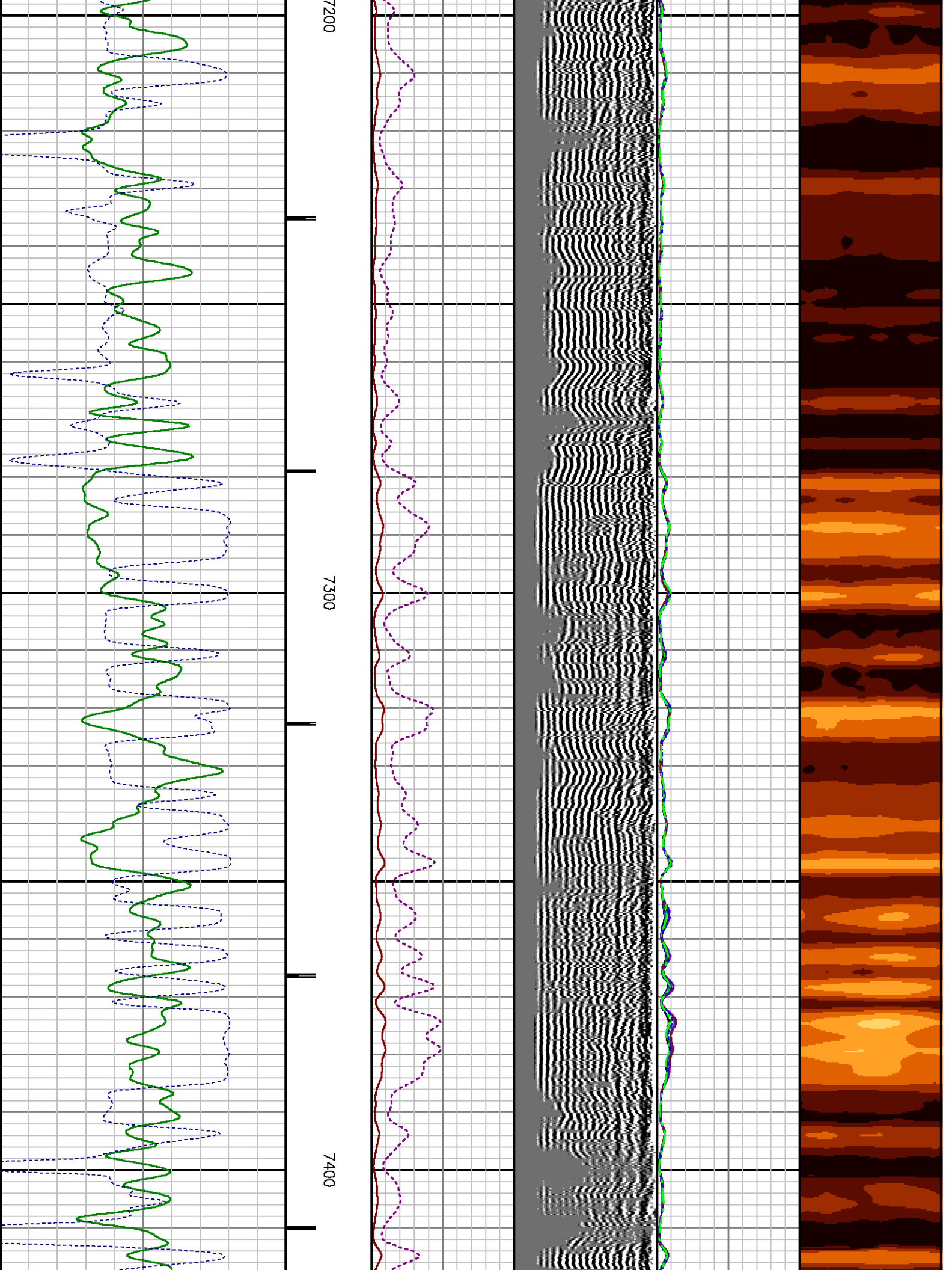


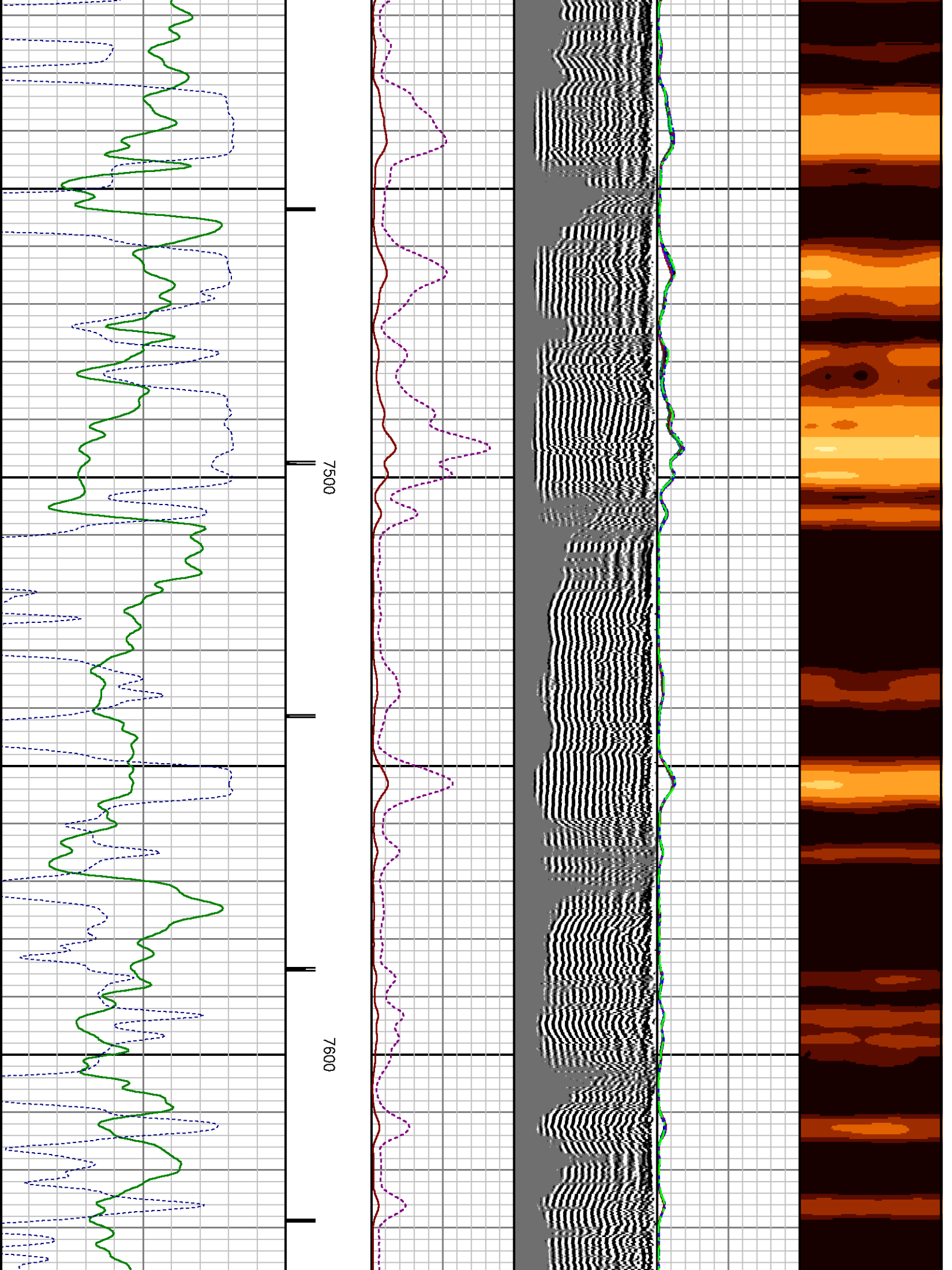


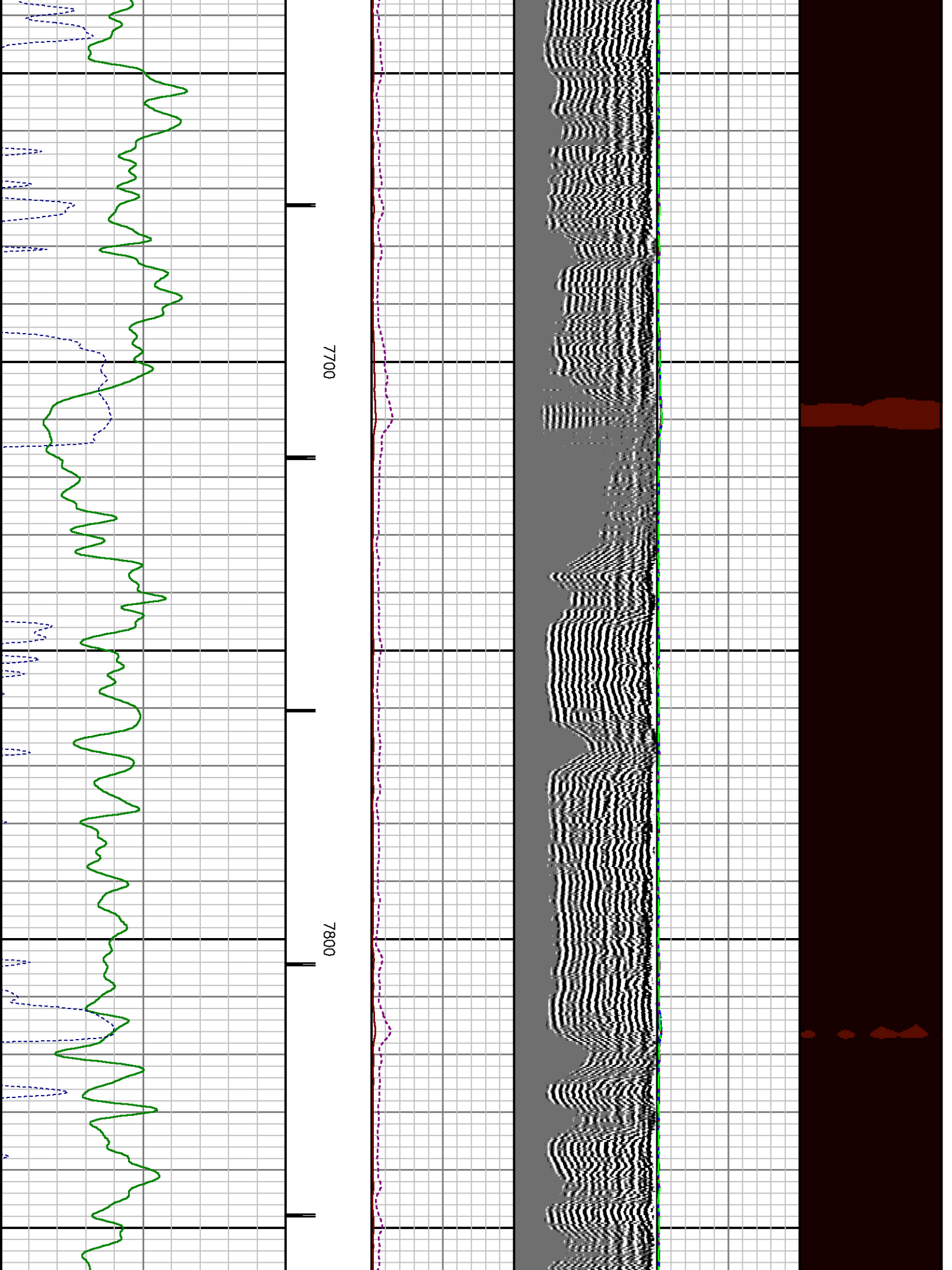


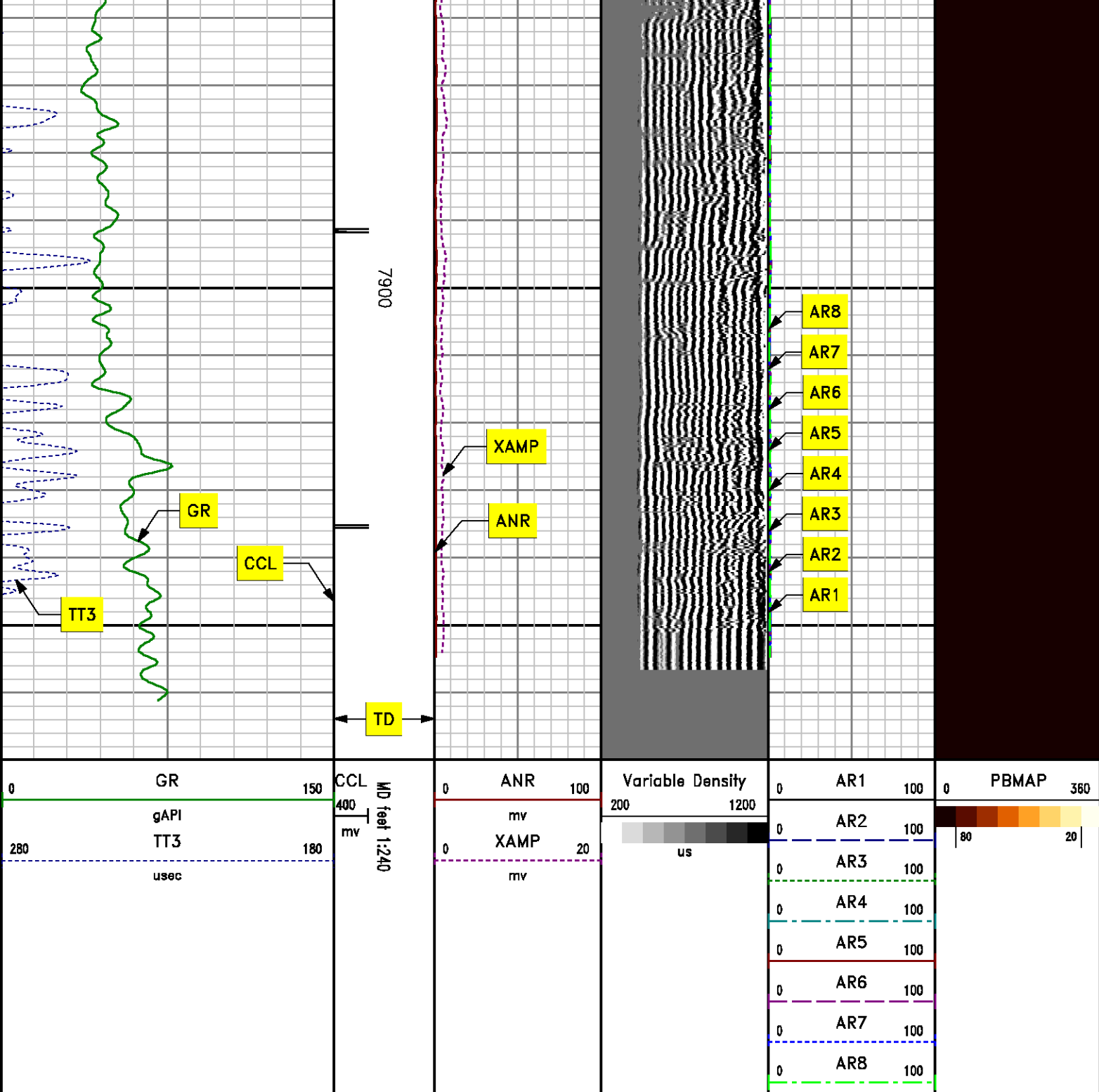












REPEAT PASS
0 PSI

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
|------------------|-----------------------|---------|---------|----------|----------|
| RAL | Amp Gate Start Far | 325.674 | usec | 7599.750 | 7955.000 |
| RAL | Amp Gate Start Near | 197.549 | usec | 7599.750 | 7955.000 |
| RAL | Amp Gate Start Radial | 197.429 | usec | 7599.750 | 7955.000 |
| RAL | Amp Gate Width Far | 25.000 | usec | 7599.750 | 7955.000 |
| RAL | Amp Gate Width Near | 25.000 | usec | 7599.750 | 7955.000 |
| RAL | Amp Gate Width Radial | 25.000 | usec | 7599.750 | 7955.000 |
| RAL | casing od | 4.500 | inches | 7599.750 | 7955.000 |
| RAL | casing wt | 11.600 | lbm/ft | 7599.750 | 7955.000 |
| RAL | FB Start Far | 291.900 | usec | 7599.750 | 7955.000 |
| RAL | FB Start Near | 175.391 | usec | 7599.750 | 7955.000 |
| RAL | FB Start Radial | 175.391 | usec | 7599.750 | 7955.000 |
| RAL | FB Thresh Far | 10.000 | mv | 7599.750 | 7955.000 |
| RAL | FB Thresh Near | 4.000 | mv | 7599.750 | 7955.000 |
| RAL | FB Thresh Radial | 4.000 | mv | 7599.750 | 7955.000 |
| RAL | Fluid Travel Time | 200.000 | usec/ft | 7599.750 | 7955.000 |

DEPTH OFFSETS

(for Acquired Curves)

| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
|--------|--------------|-----------------|------|------|------|------|------|
| 1426XA | -16.750 | ACAL | ANR | AR1 | AR2 | AR3 | AR4 |
| | | AR5 | AR6 | AR7 | AR8 | CHV | FPR2 |
| | | FPR3 | FPR5 | TT3 | TTR1 | TTR2 | TTR3 |
| | | TTR4 | TTR5 | TTR6 | TTR7 | TTR8 | XAMP |
| 1426XA | -15.750 | AFAR | SIG | TT5 | | | |
| 2459XA | -11.340 | CCL | | | | | |
| 2459XA | -9.490 | GR | | | | | |
| 2459XA | -4.090 | NEU | | | | | |

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

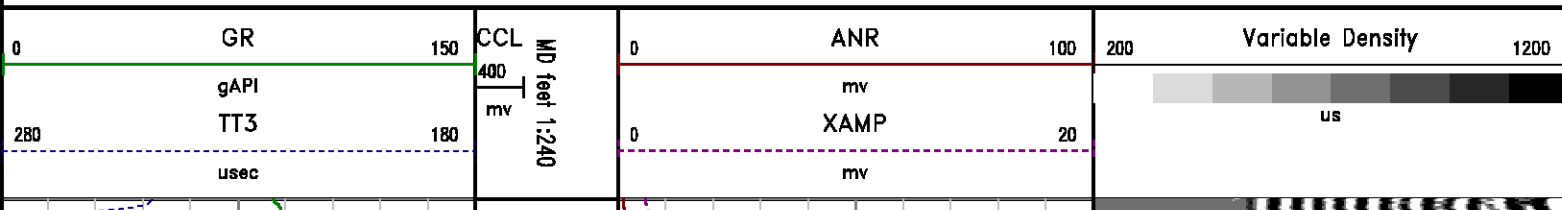
Well : DUGGAN RWF 313-29

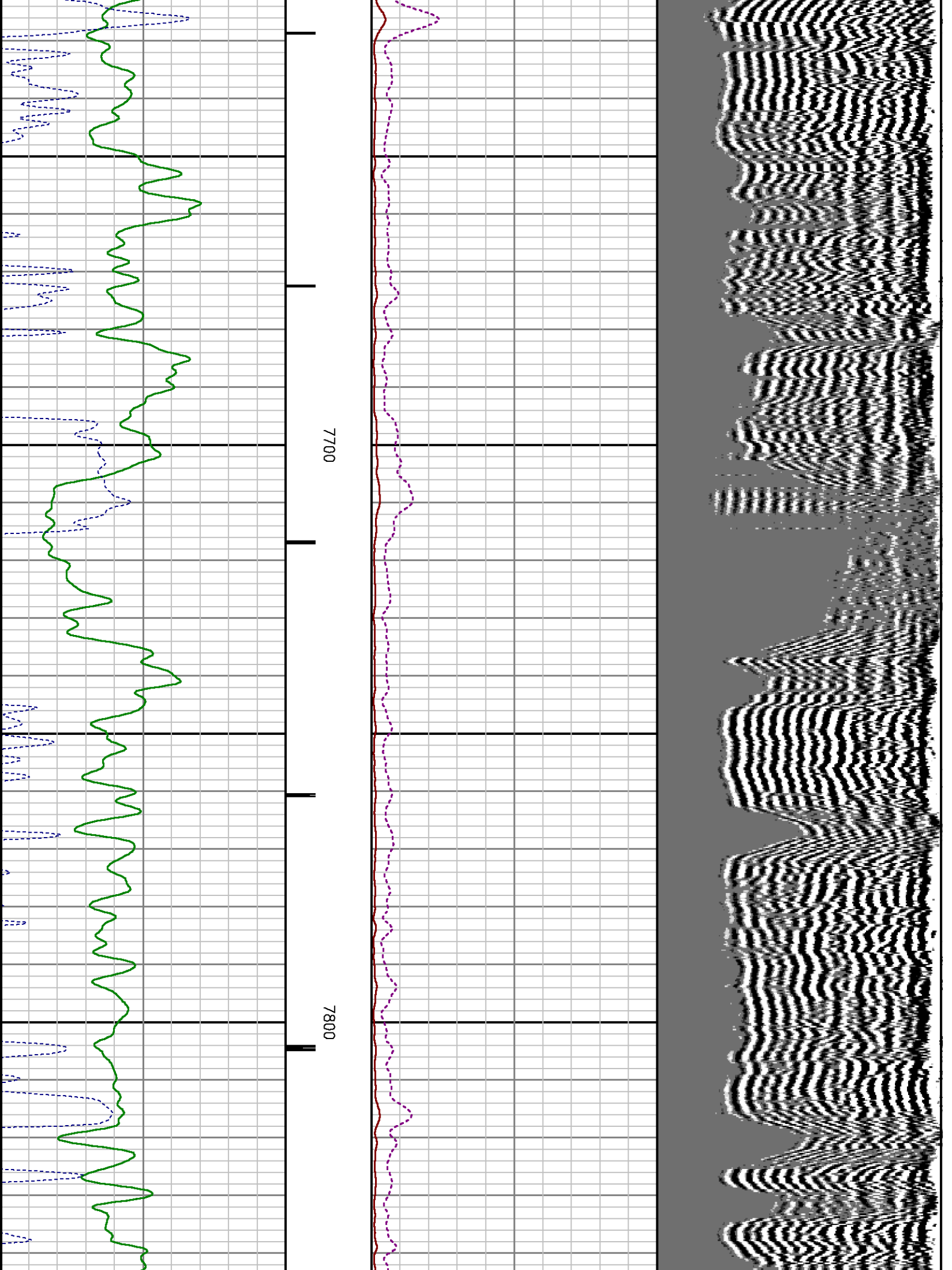
File Name : d:\welldata\313cb1\repeat.xtf

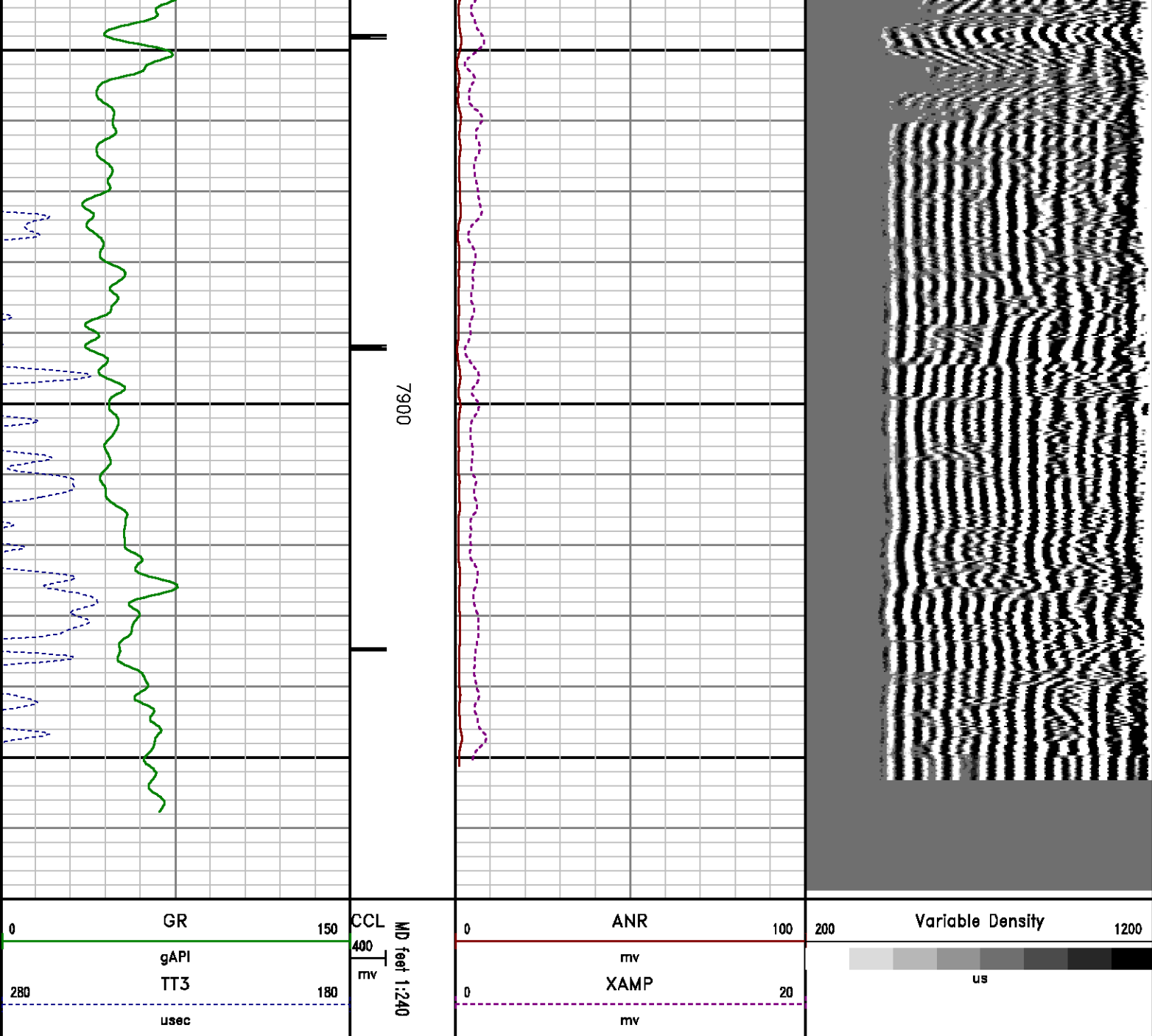
Mode : PlotMgr 5.4.504

Interval : 7620.00 - 7970.00 feet UP

Created : 4/22/2013 8:53:41 AM







CALIBRATION SUMMARY

RALSHP

| | | | | | | | | |
|----------------------|-----------------------|------------------------------|------------------------------|------------------------------|------------------------------|-------------------|------------------|-------------|
| Tool Delay [usec] | -61.00 | Tank OD in | 5.50 | Tank Wt lbm/ft | 15.50 | Tank ID in | 4.95 | |
| RECEIVER | Travel Time [usec] | Amp. Gate Start [usec] | Amp. Gate Width [usec] | Zero Gate Start [usec] | Zero Gate Width [usec] | Zero Amp. [mV] | Amp Ref. [mV] | Shop Factor |
| CAL Pulse | 219 | 216 | 30 | 166 | 25 | 0.033 | 100.00 | 0.74 |
| 3 Ft. Receiver | 217 | 216 | 30 | 166 | 25 | -0.339 | 100.00 | 0.73 |
| 5 Ft. Receiver | 315 | 348 | 30 | 282 | 25 | -1.639 | 150.00 | 0.62 |
| Radial #1 | 219 | 216 | 30 | 166 | 25 | 0.322 | 100.00 | 0.73 |
| Radial #2 | 219 | 216 | 30 | 166 | 25 | -0.017 | 100.00 | 0.73 |
| Radial #3 | 218 | 216 | 30 | 166 | 25 | -0.011 | 100.00 | 0.74 |
| Radial #4 | 217 | 216 | 30 | 166 | 25 | 0.011 | 100.00 | 0.74 |
| Radial #5 | 217 | 216 | 30 | 166 | 25 | -0.344 | 100.00 | 0.73 |
| Radial #6 | 215 | 216 | 30 | 166 | 25 | 0.022 | 100.00 | 0.74 |
| Radial #7 | 215 | 216 | 30 | 166 | 25 | -0.089 | 100.00 | 0.73 |
| Radial #8 | 219 | 216 | 30 | 166 | 25 | 0.189 | 100.00 | 0.73 |

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\028A21 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Apr 21 11:08:50 2013 TOOL SERIES: 1426XA ASSET: 028 SEQ: A21

| | | | | | | | | |
|----------------------|------------------------------|------------------------------|-------------------|---------------------|-----------------|------------------|------|--|
| Tool Delay [usec] | -61.00 | Casing OD in | 4.50 | Casing Wt lbm/ft | 11.60 | Casing ID in | 4.00 | |
| RECEIVER | Zero Gate Start [usec] | Zero Gate Width [usec] | Zero Amp. [mV] | Full Amp. [mV] | Wellsite Factor | Amp. Ref [mV] | | |
| CAL Pulse | 166 | 25 | -0.008 | 0.000 | 1.00 | 100.000 | | |
| 3 Ft. Receiver | 200 | 30 | 0.059 | | | | | |
| 5 Ft. Receiver | 317 | 30 | 0.006 | | | | | |
| Radial #1 | 200 | 30 | 0.059 | | | | | |
| Radial #2 | 200 | 30 | 0.083 | | | | | |
| Radial #3 | 200 | 30 | 0.028 | | | | | |
| Radial #4 | 200 | 30 | -0.011 | | | | | |
| Radial #5 | 200 | 30 | 0.063 | | | | | |
| Radial #6 | 200 | 30 | 0.081 | | | | | |
| Radial #7 | 200 | 30 | 0.021 | | | | | |
| Radial #8 | 200 | 30 | 0.014 | | | | | |

GAMMA RAY

Calibration File: C:\case\calver\GR\457A8.cal

DATE/TIME PERFORMED: Sun Apr 18 23:15:39 2013 TOOL SERIES: 2459XA ASSET: 457 SEQ: A8

| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|---------------------|------------------------|----------------|---------------------|------------------------|-----------------------|
| SHOP JIG | 66.00 | 309.33 | 0.760 | 50.17 | 235.17 | 185.00 |

Verification File: C:\case\calver\GR\457A8.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sun Apr 18 23:18:38 2013 TOOL SERIES: 2459XA ASSET: 457 SEQ: A8

| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|---------------------|------------------------|----------------|---------------------|------------------------|-----------------------|
| SHOP JIG | 62.89 | 300.67 | 0.760 | 47.81 | 228.59 | 180.77 |

TOOL DIAGRAM

OTA SHORT CABLE HEAD

PROBE 2 3/4 DUAL RECEIVER RADII

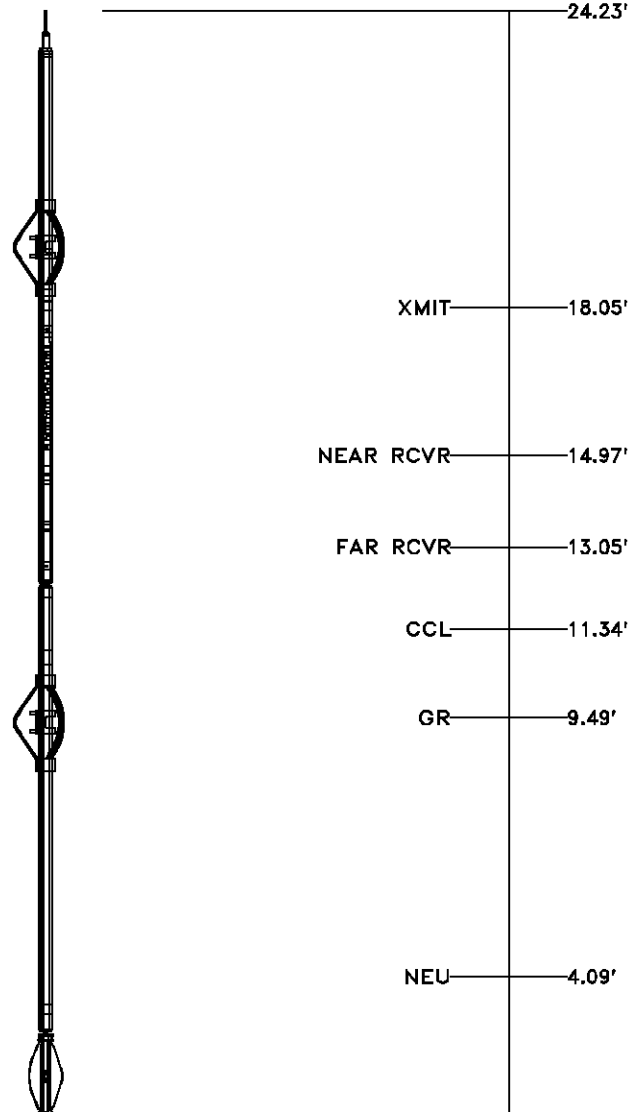
| | |
|---------------|-----------------|
| Series | 1426XA |
| Mnemonic | PROB |
| Diameter | 2.75" |
| Length | 11.17' |
| Measure Point | 0.75' FAR RCVR |
| Measure Point | 2.67' NEAR RCVR |
| Measure Point | 5.75' XMIT |
| Temp Rating | 350.00 °F |
| Press Rating | 18000.00 PSI |

Probe GR/CCL/NEU

| | |
|---------------|-----------|
| Series | 2459XA |
| Mnemonic | PROB |
| Diameter | 2.75" |
| Length | 9.42' |
| Measure Point | 1.21' NEU |
| Measure Point | 6.60' GR |
| Measure Point | 8.46' CCL |

CENTRALIZER

| | |
|----------|---------|
| Series | RALCENT |
| Mnemonic | CENT |





| | |
|----------|----------|
| Diameter | 3.12" |
| Weight | 20.00 lb |



| | |
|--|-------|
| | 0.00' |
|--|-------|

Total Length: 24.23'
 Total Weight: Not Available
 Max Diameter: 0' 3.12"

| | | |
|---|--|---|
|  Baker Atlas  | Company WPX ENERGY Well DUGGAN RWF 313-29 Field RULISON County GARFIELD State COLORADO | File No: CH070856 API No: 05045216640000 |
| | Location SHL: 567' FSL & 575' FWL BHL: 1489' FSL & 705' FWL SEC 29 TWP 6S RGE 94W | Elevations KB 5445.2 ft DF GL 5419.2 ft 29 6S 94W RWF 14-29 NABORS SSD 573 |