



CEMENT BOND LOG
VDL, CCL
LOG RAN UNDER 0 PSI

| | | | |
|------------------------|---------------------------------|-----------|--|
| Company | GREAT WESTERN OIL & GAS COMPANY | | |
| Well | UPRR PIERCE TOWNSITE # 1 | | |
| Field | WATTENBERG | | |
| County | WELD | | |
| State | COLO | | |
| Location: | API # : 05-123-05520 | | Other Services |
| Permanent Datum | SEC 56 | TWP 8N | RGE 66W |
| Log Measured From | GL | Elevation | 5037' |
| Drilling Measured From | KB | | Elevation K.B. 5053 D.F. 5051 G.L. 5037 |

| | |
|------------------------|-------------|
| Date | 10/09/19 |
| Run Number | ONE |
| Depth Driller | 9050' |
| Depth Logger | 9237' |
| Bottom Logged Interval | 9050' |
| Top Log Interval | 500' |
| Open Hole Size | 7" |
| Type Fluid | WATER |
| Density / Viscosity | 8.34PPG |
| Max. Recorded Temp. | N/A |
| Estimated Cement Top | SEE LOG |
| Time Well Ready | ROA |
| Time Logger on Bottom | PM |
| Equipment Number | 72 |
| Location | STERLING |
| Recorded By | A.WILLIAMS |
| Witnessed By | S. PRIMOSCH |

| Borehole Record | | | | Tubing Record | | | |
|-------------------|--------|------|----|---------------|--------|------|--------|
| Run Number | Bit | From | To | Size | Weight | From | To |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Casing Record | Size | | | Wgt/Ft | Top | | Bottom |
| Surface String | 10.75" | | | 40.5 | 0 | | 43 |
| Prot. String | | | | | | | |
| Production String | 7" | | | 23.26 | 0 | | 9237 |
| 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

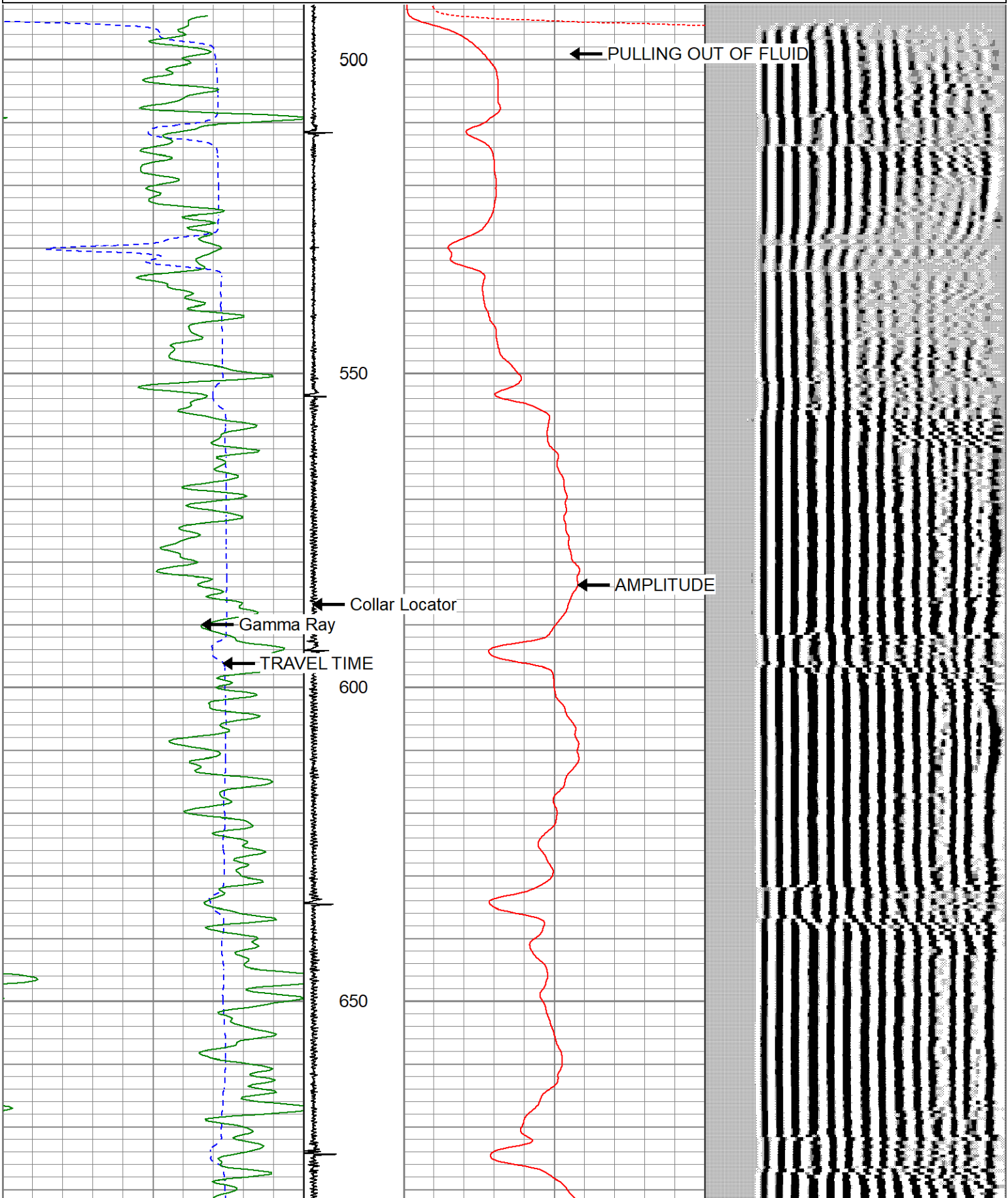
THANK YOU FOR CHOOSING KLX ENERGY SERVICES!

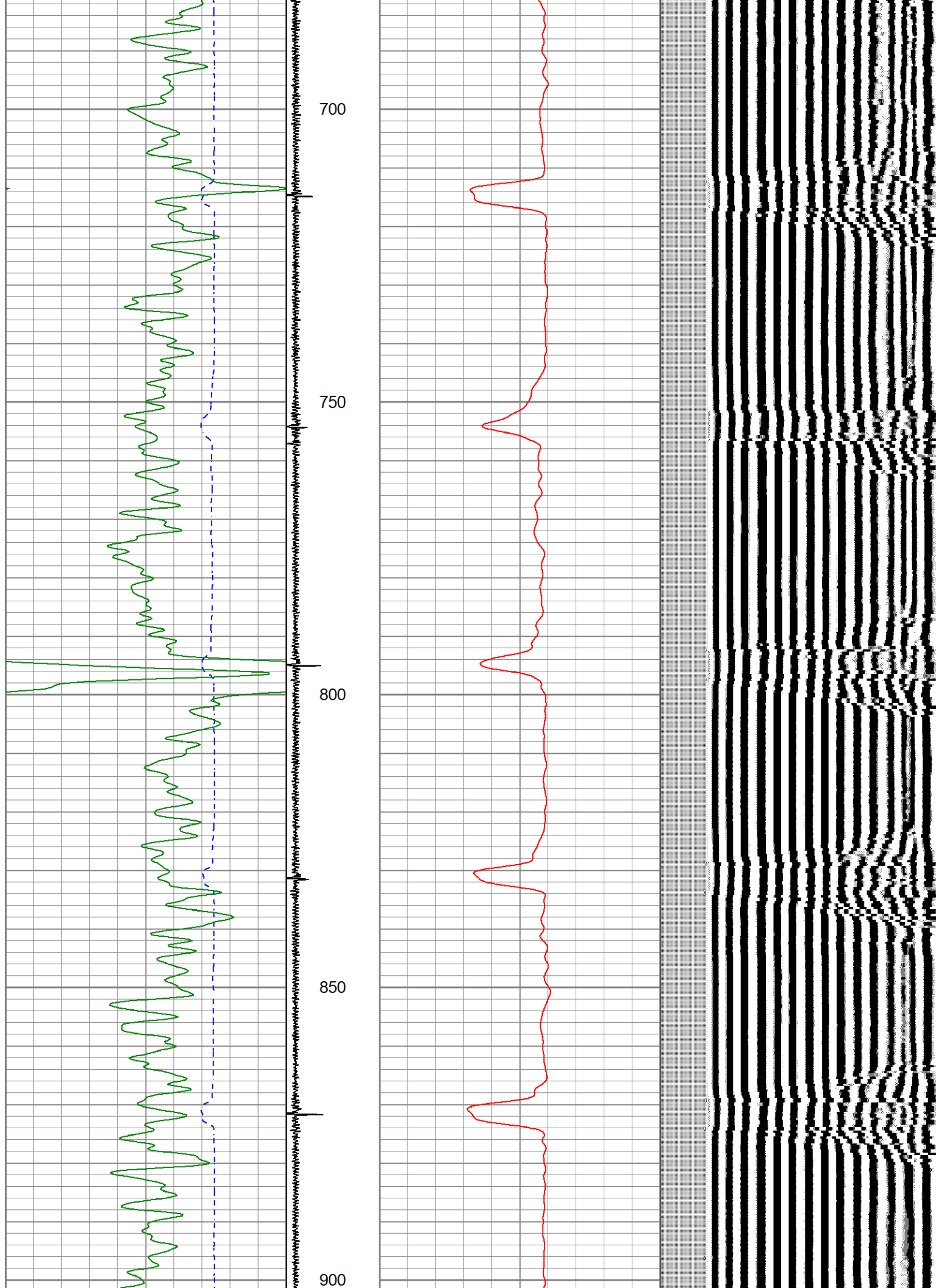


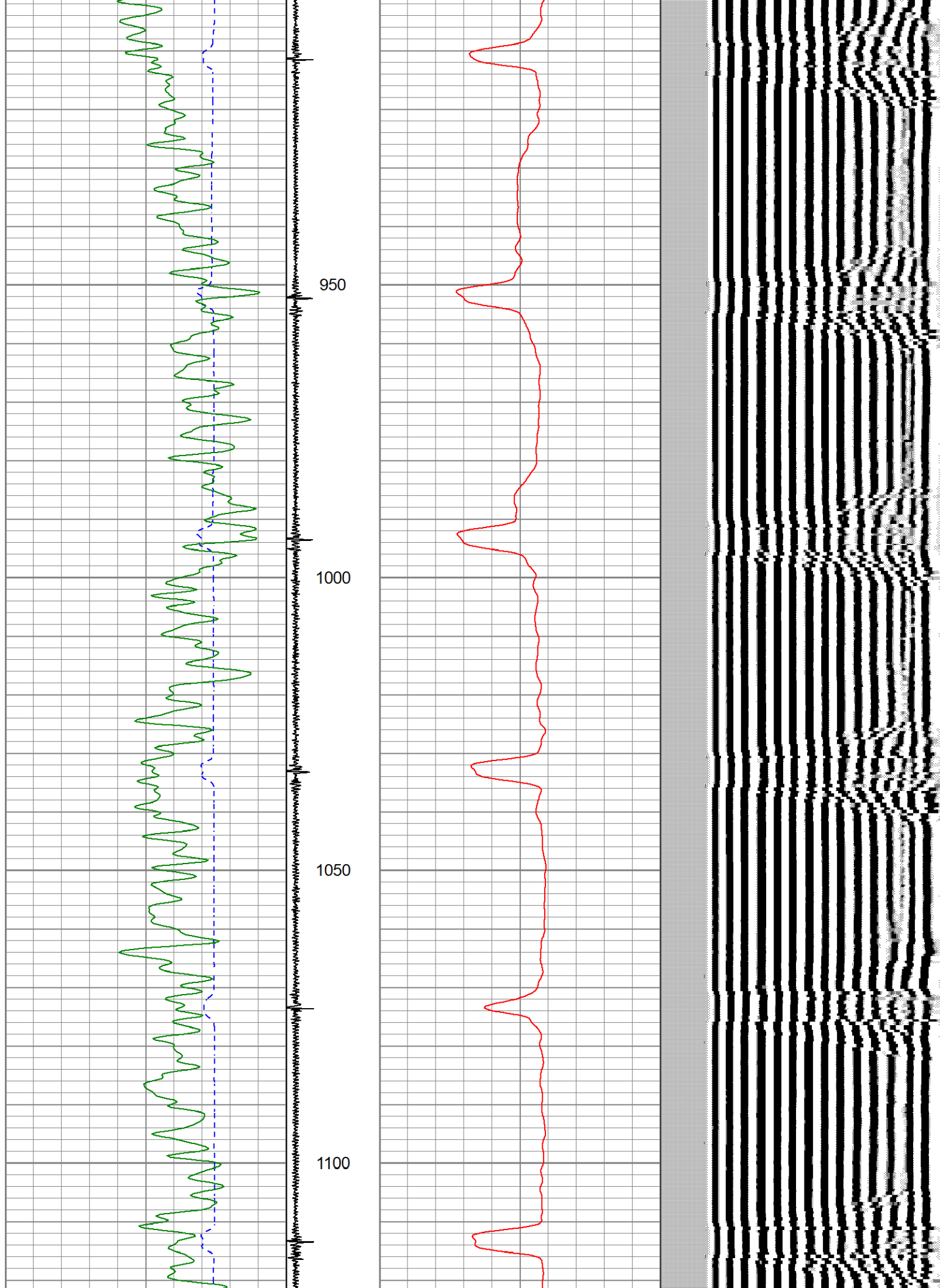
MAIN PASS

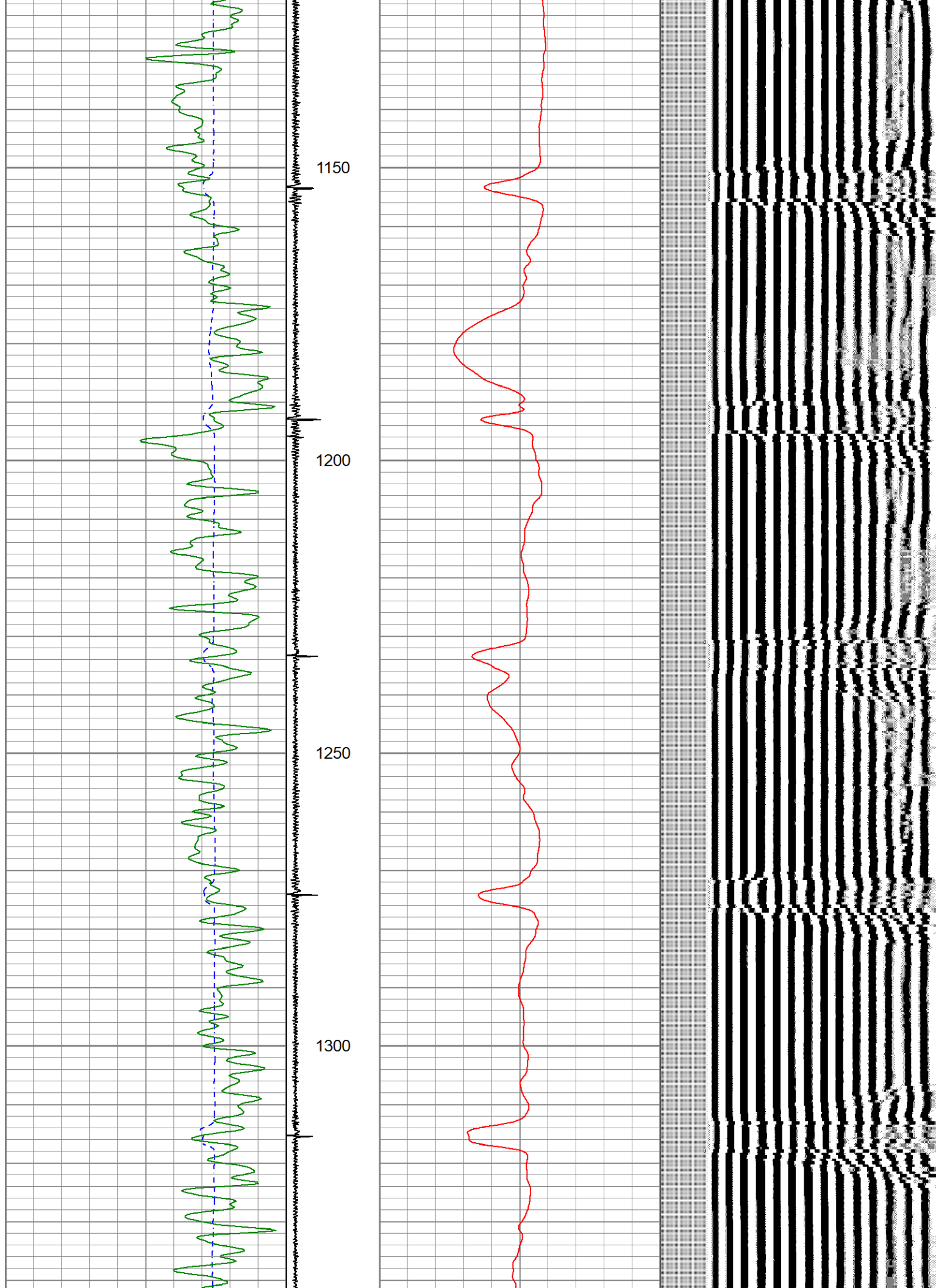
| | |
|---------------------|----------------------------|
| Database File | townsite_1_cbl.db |
| Dataset Pathname | pass2 |
| Presentation Format | cbl_drs |
| Dataset Creation | Wed Oct 09 12:56:45 2019 |
| Charted by | Depth in Feet scaled 1:240 |

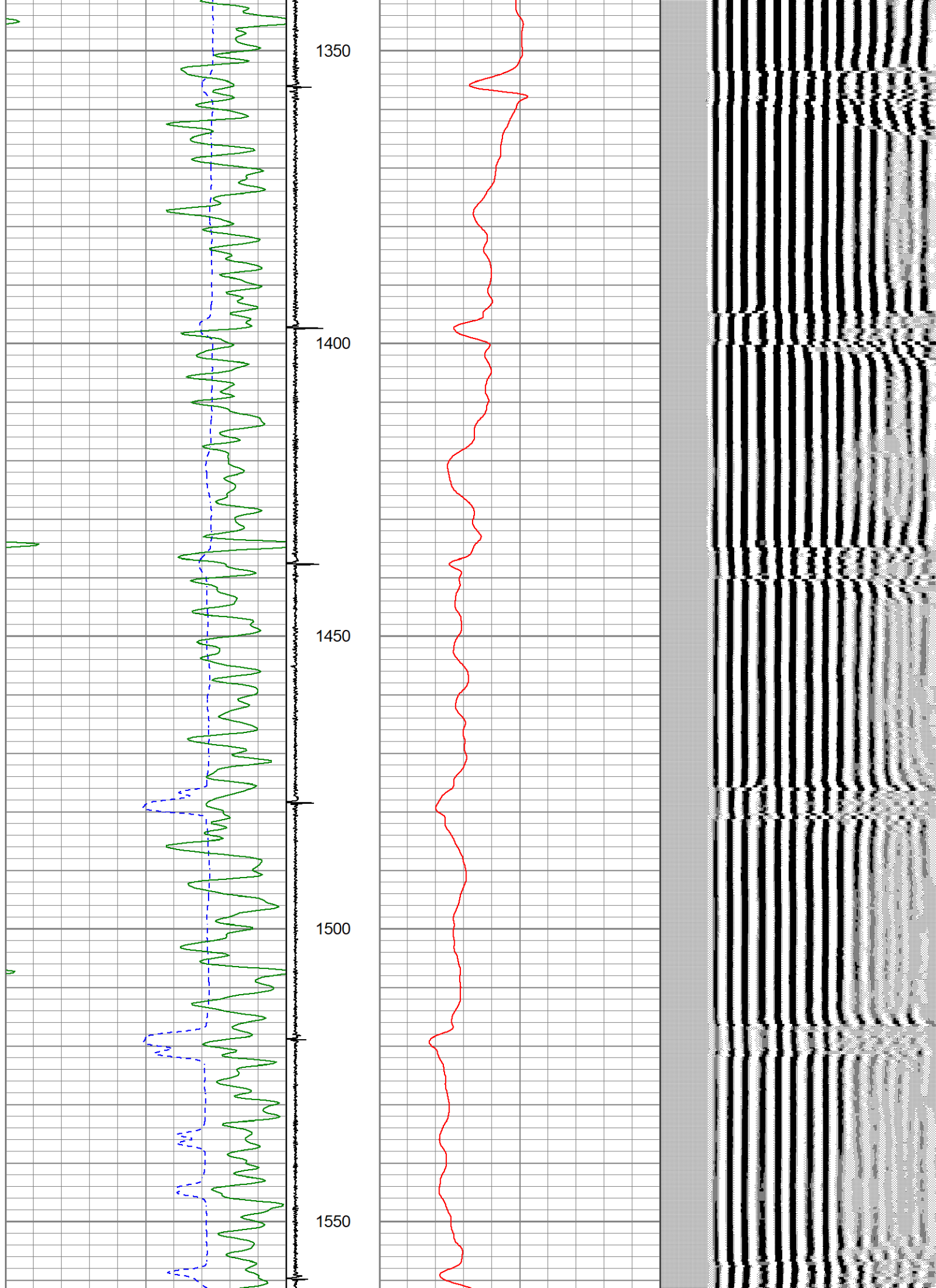
| | | | | | | | | | |
|-----|--------------------|-----|----------------|-----|--------------------|-----|-----|------------|------|
| 400 | TRAVEL TIME (usec) | 200 | Collar Locator | 0 | AMP AMPLITUDE (mV) | 10 | 200 | VDL (usec) | 1200 |
| 0 | Gamma Ray | 150 | -1 | 9 0 | AMPLITUDE (mV) | 100 | | | |

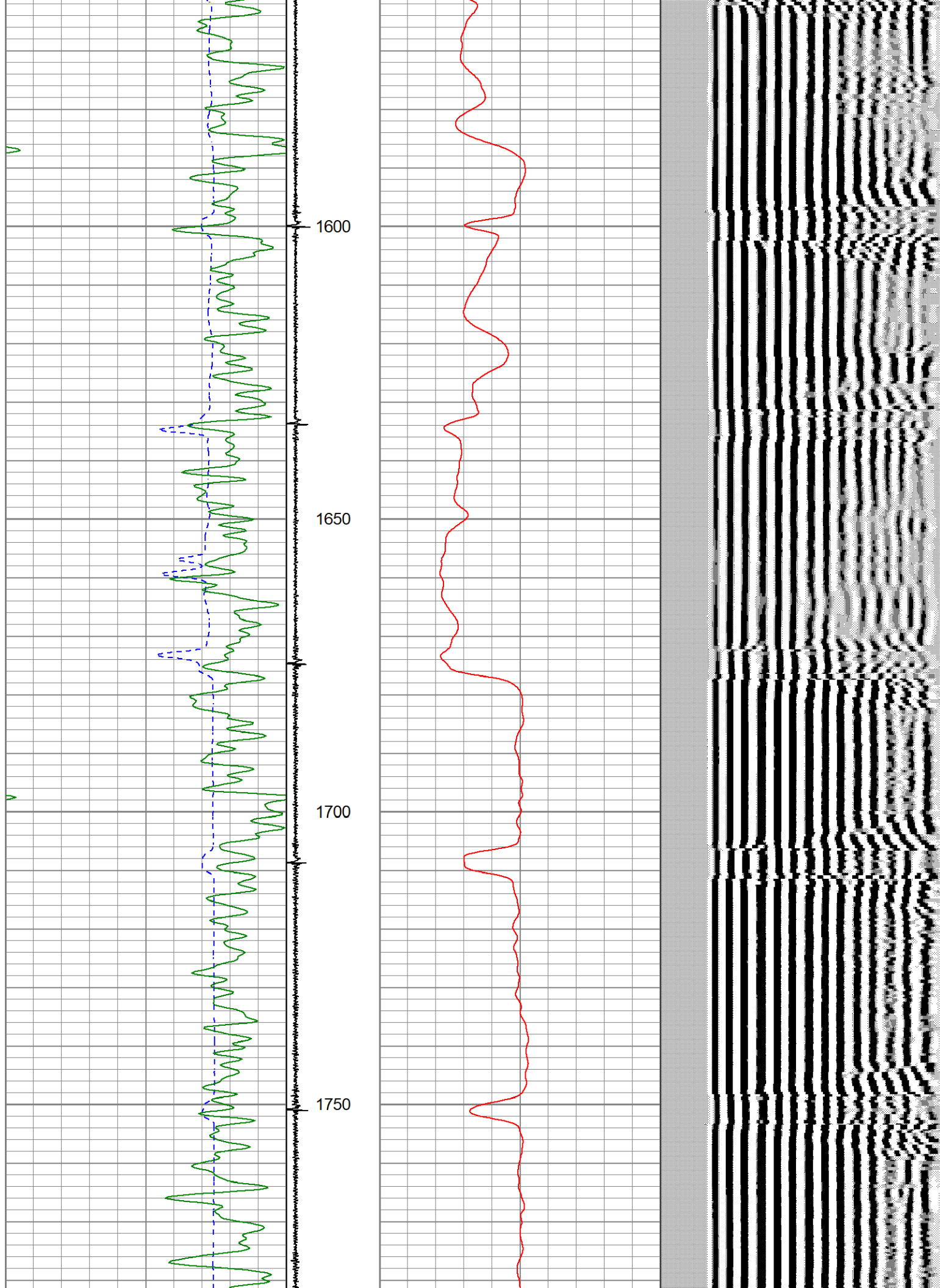


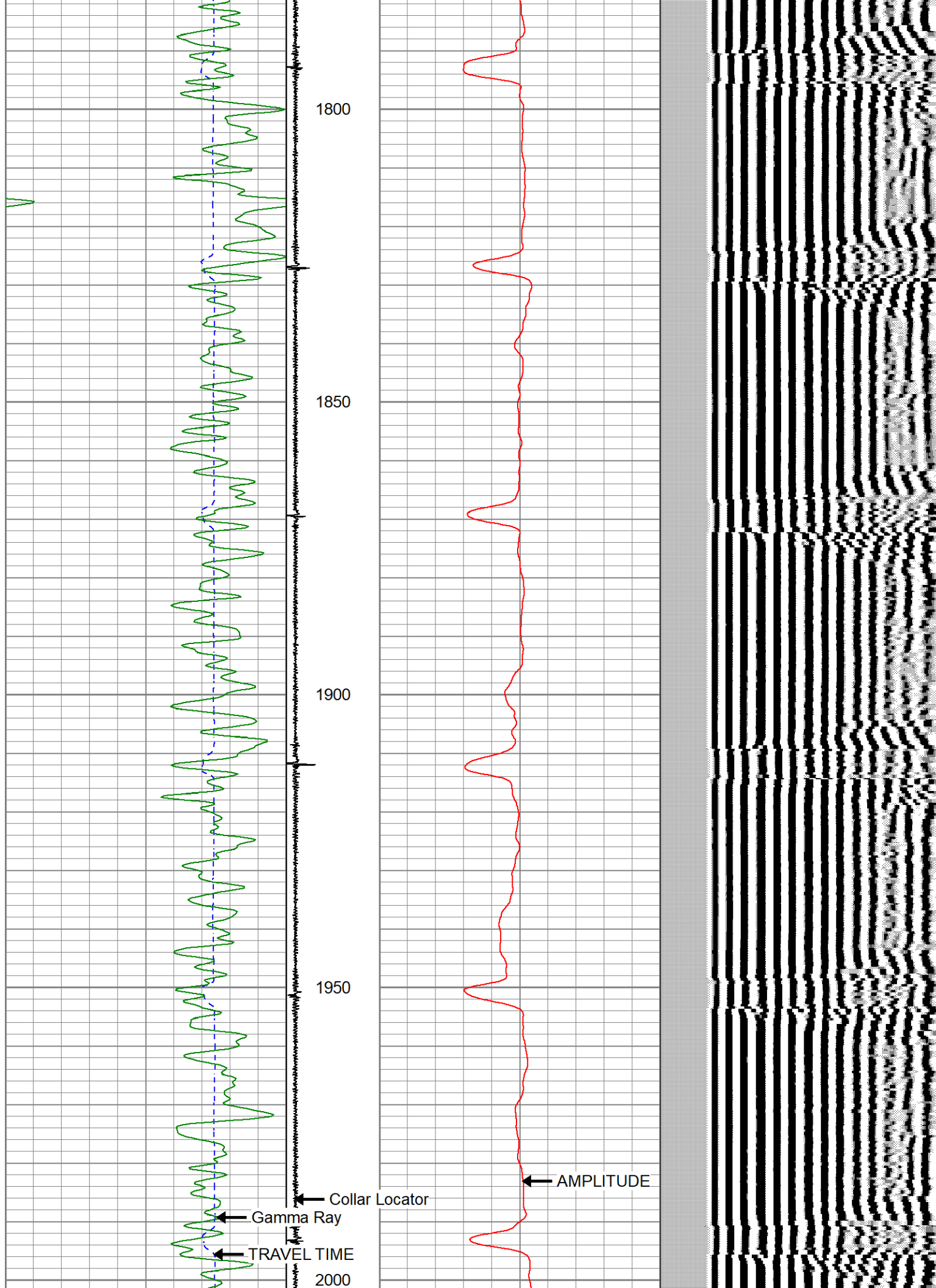


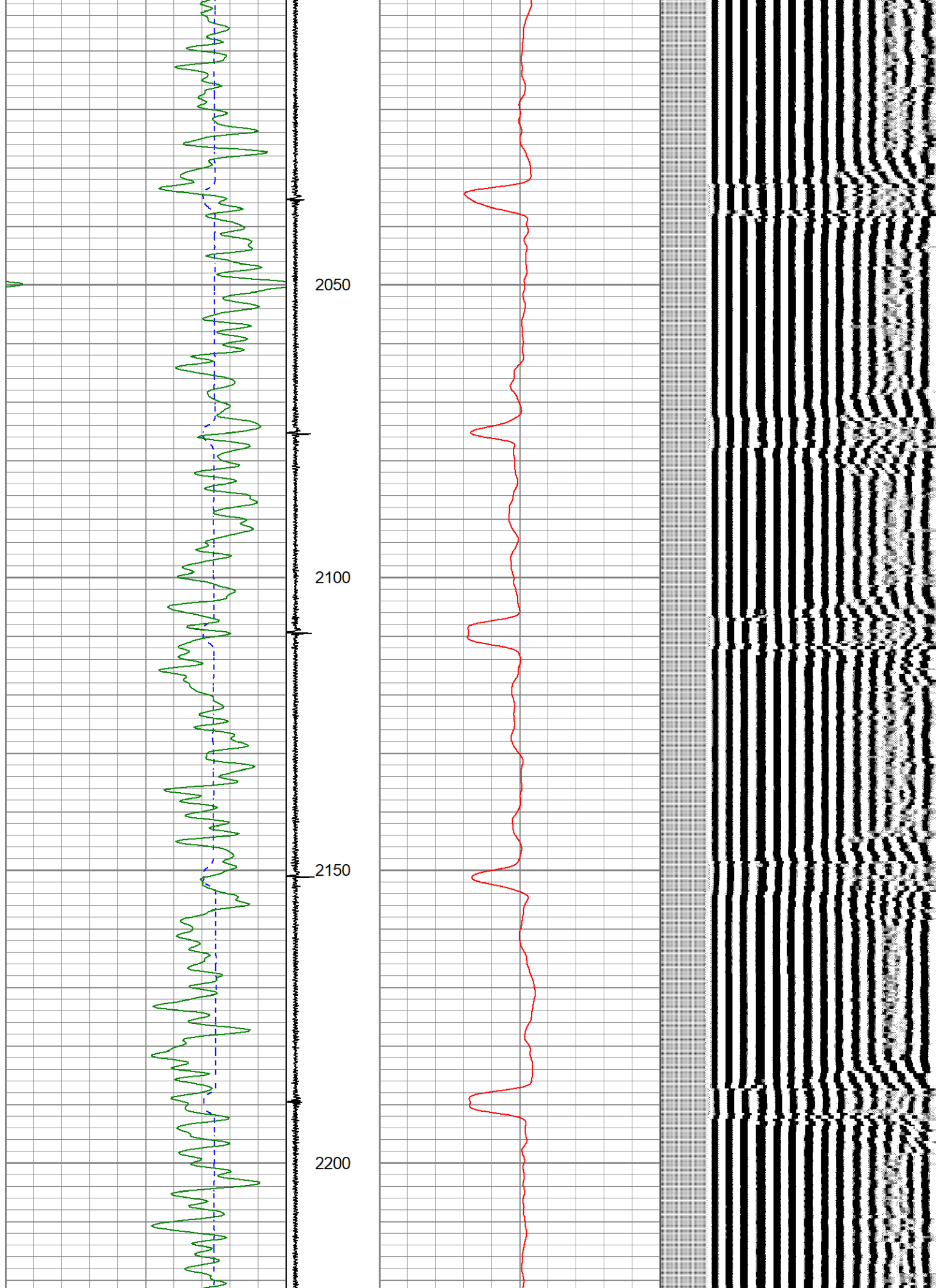


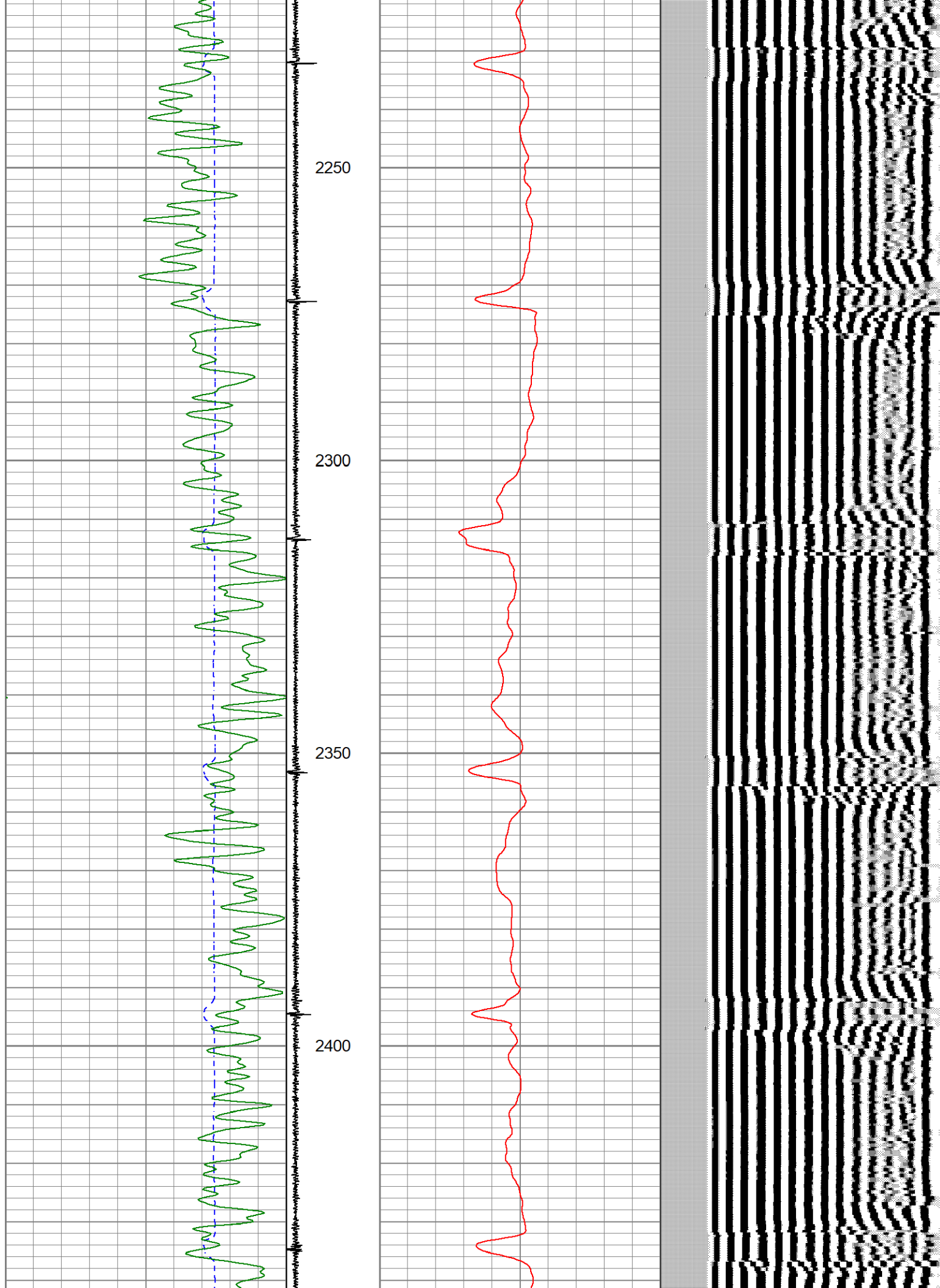


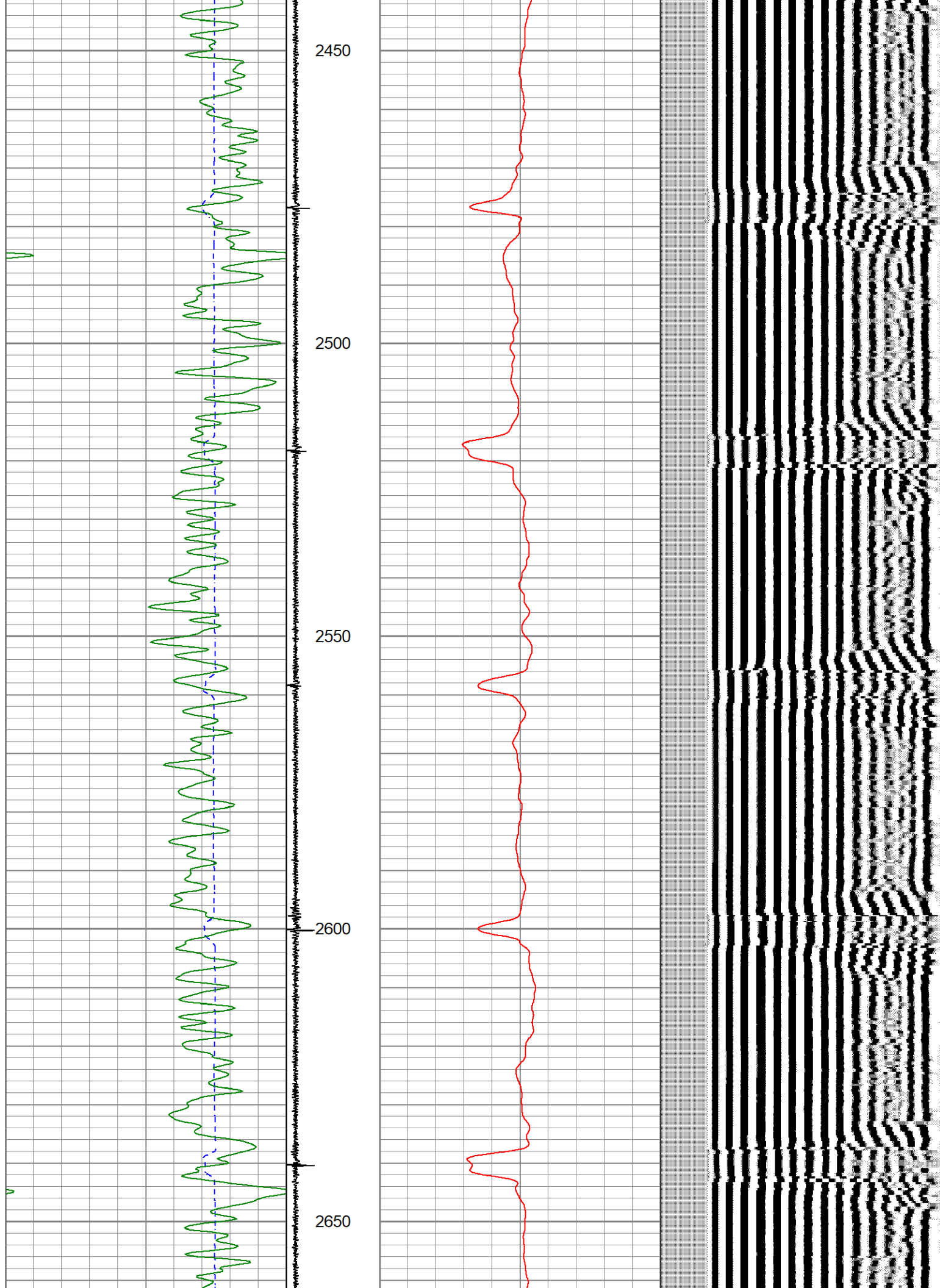


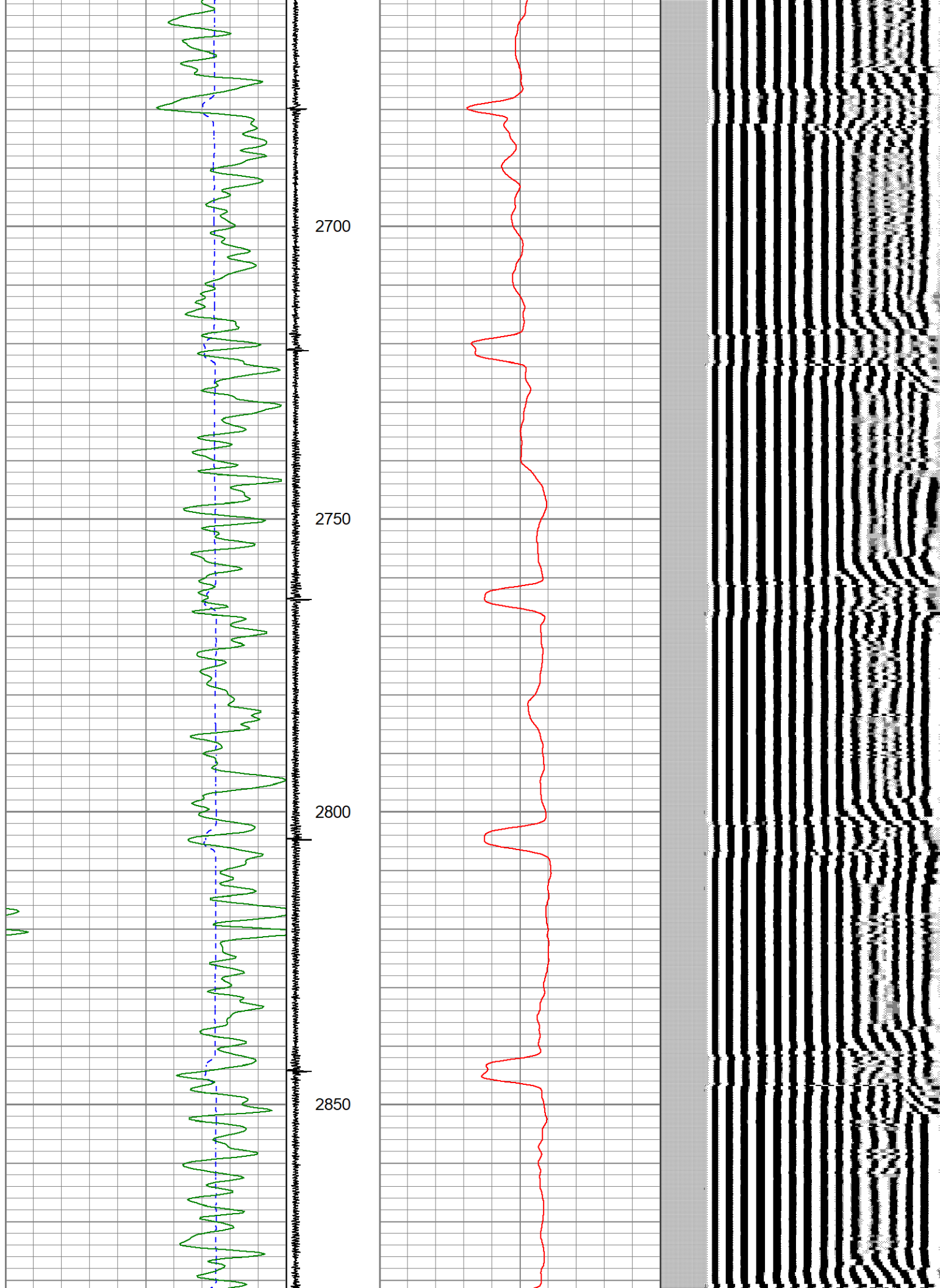


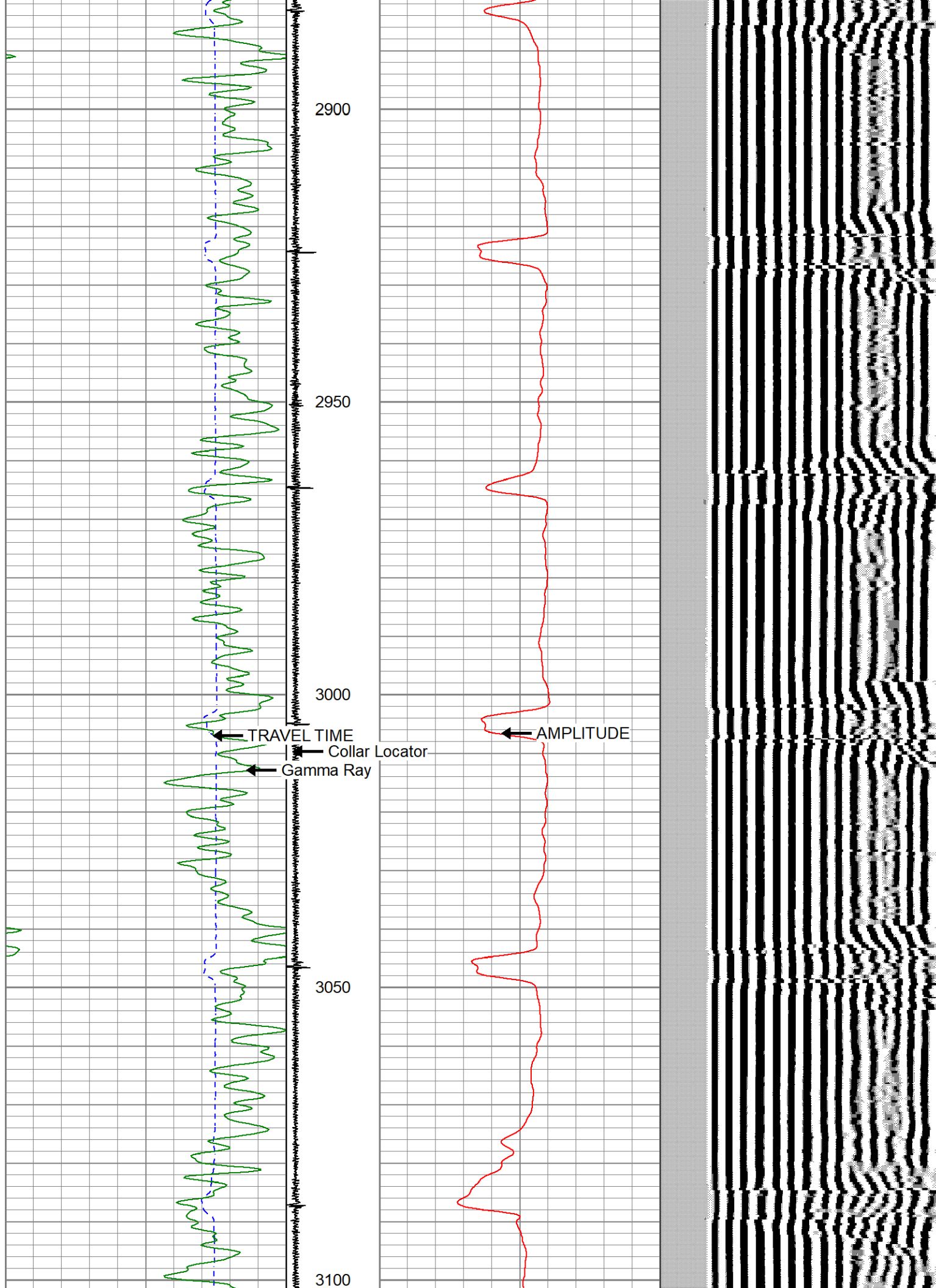


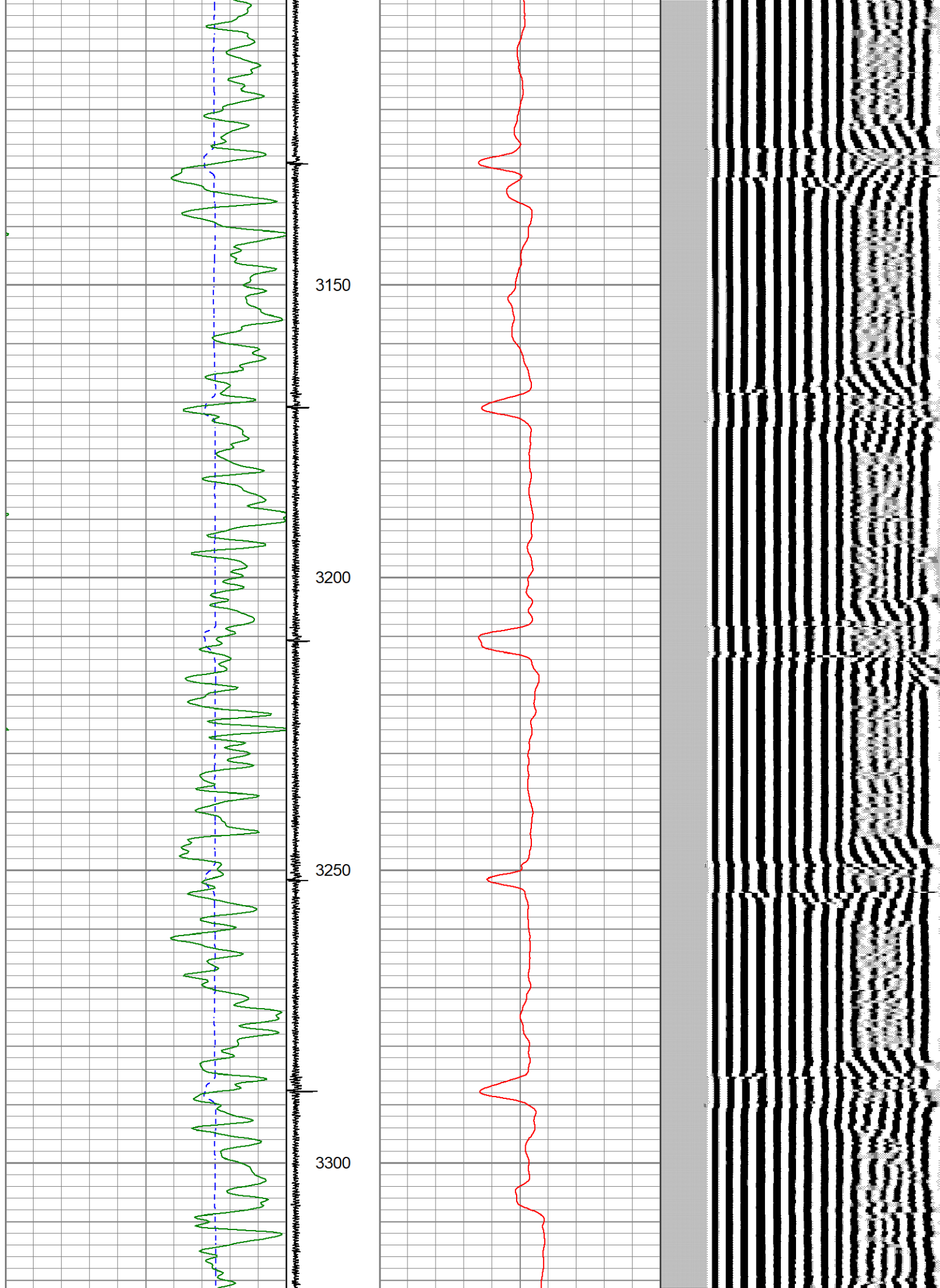


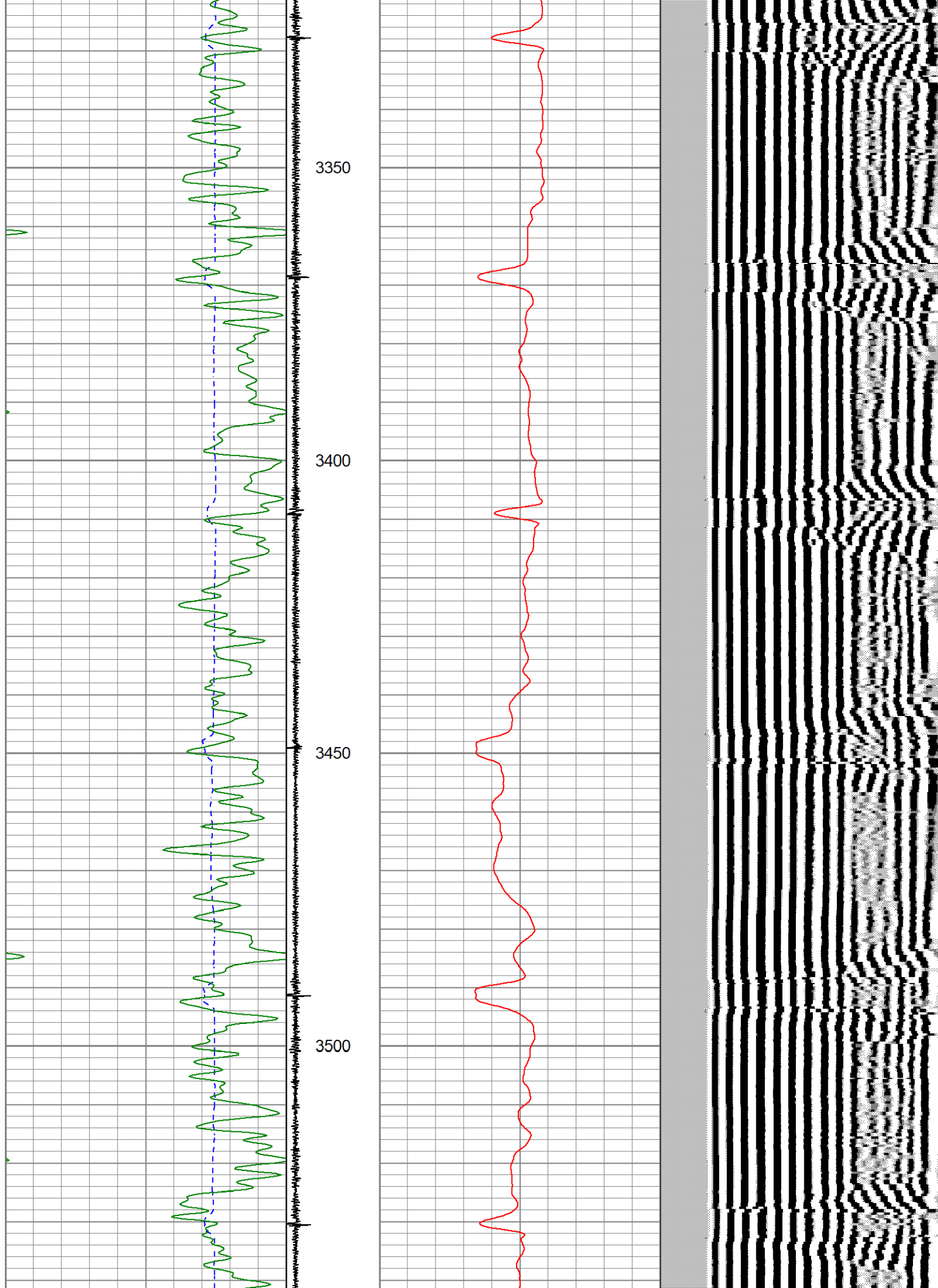


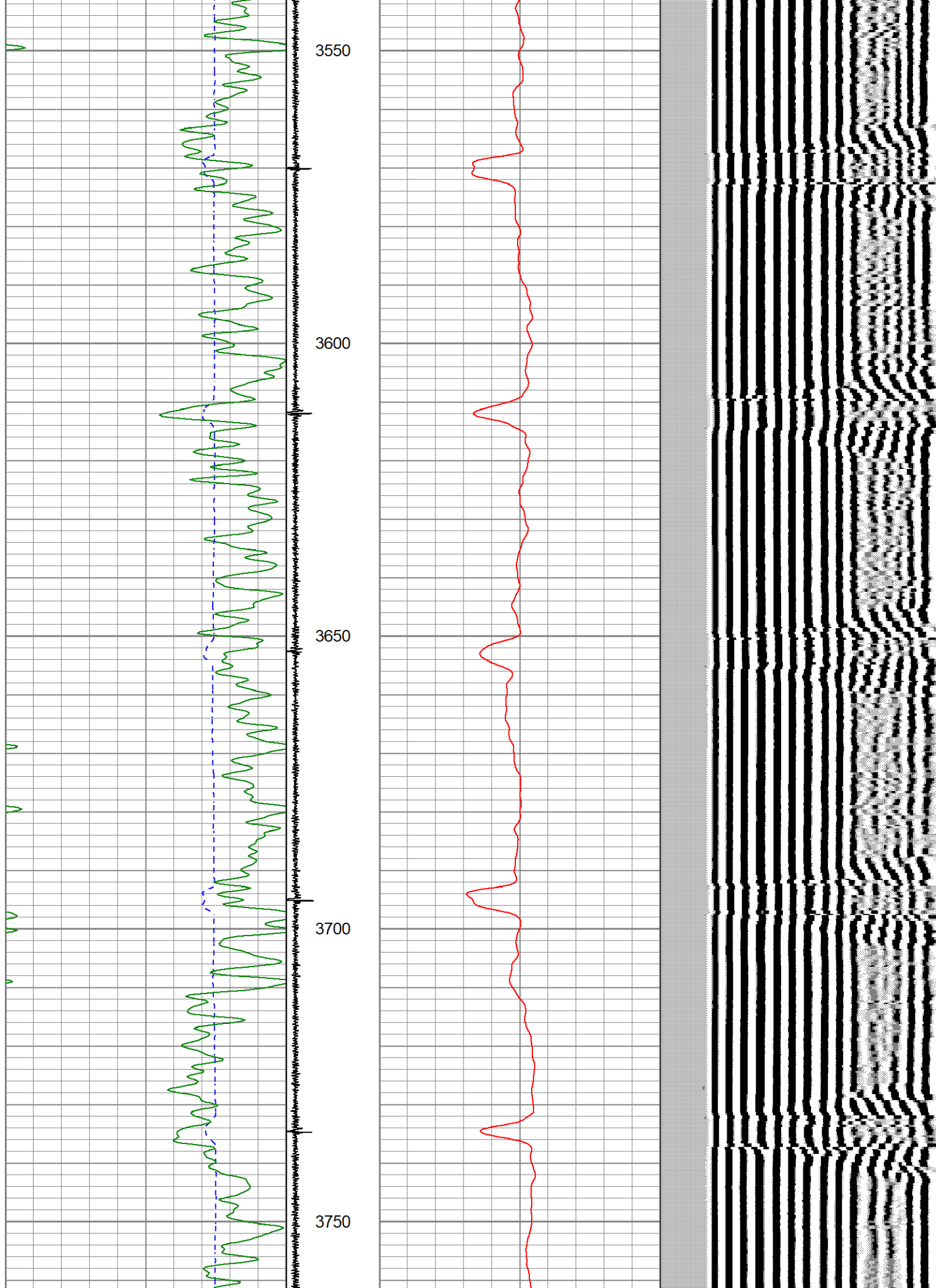


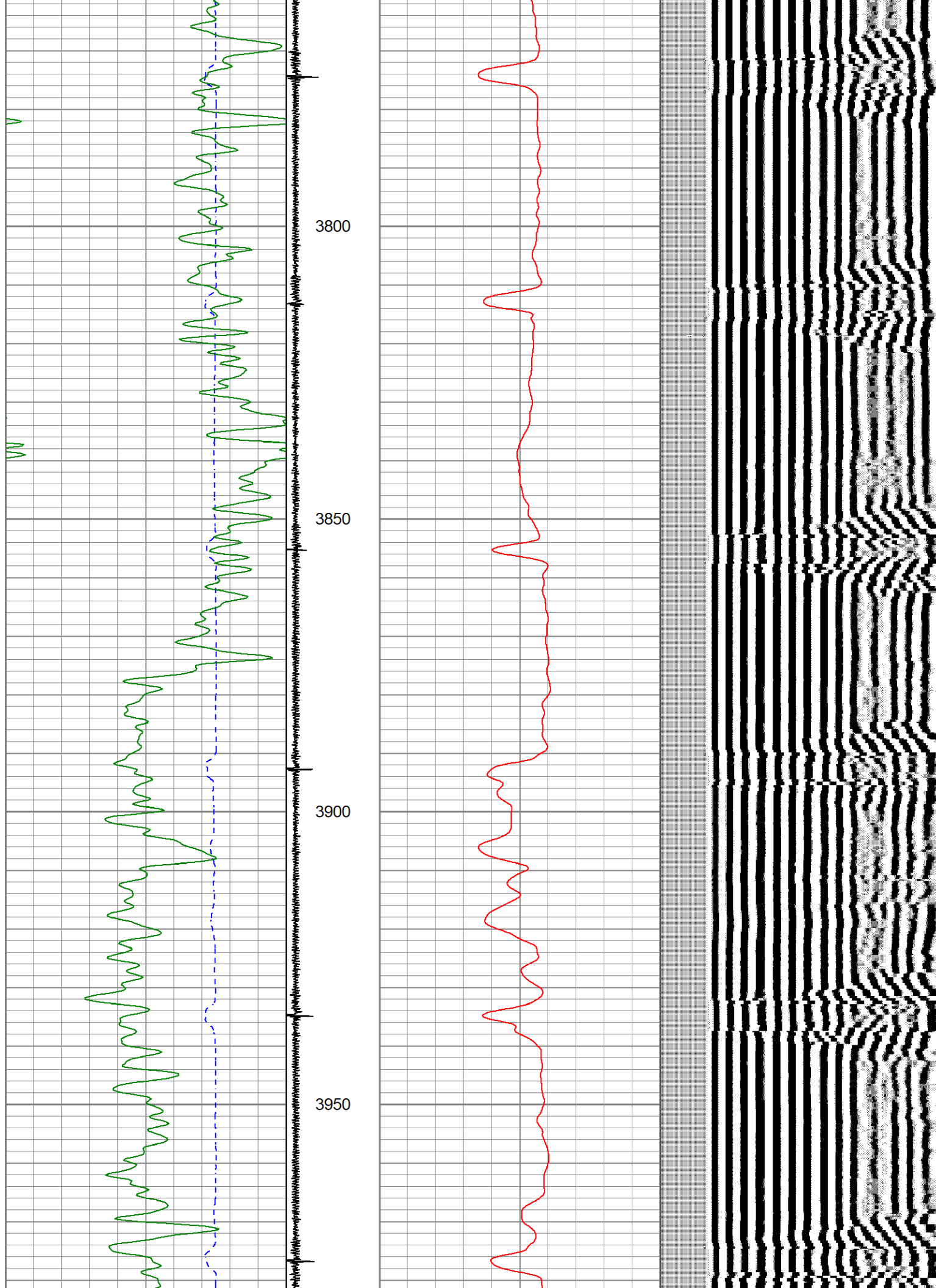


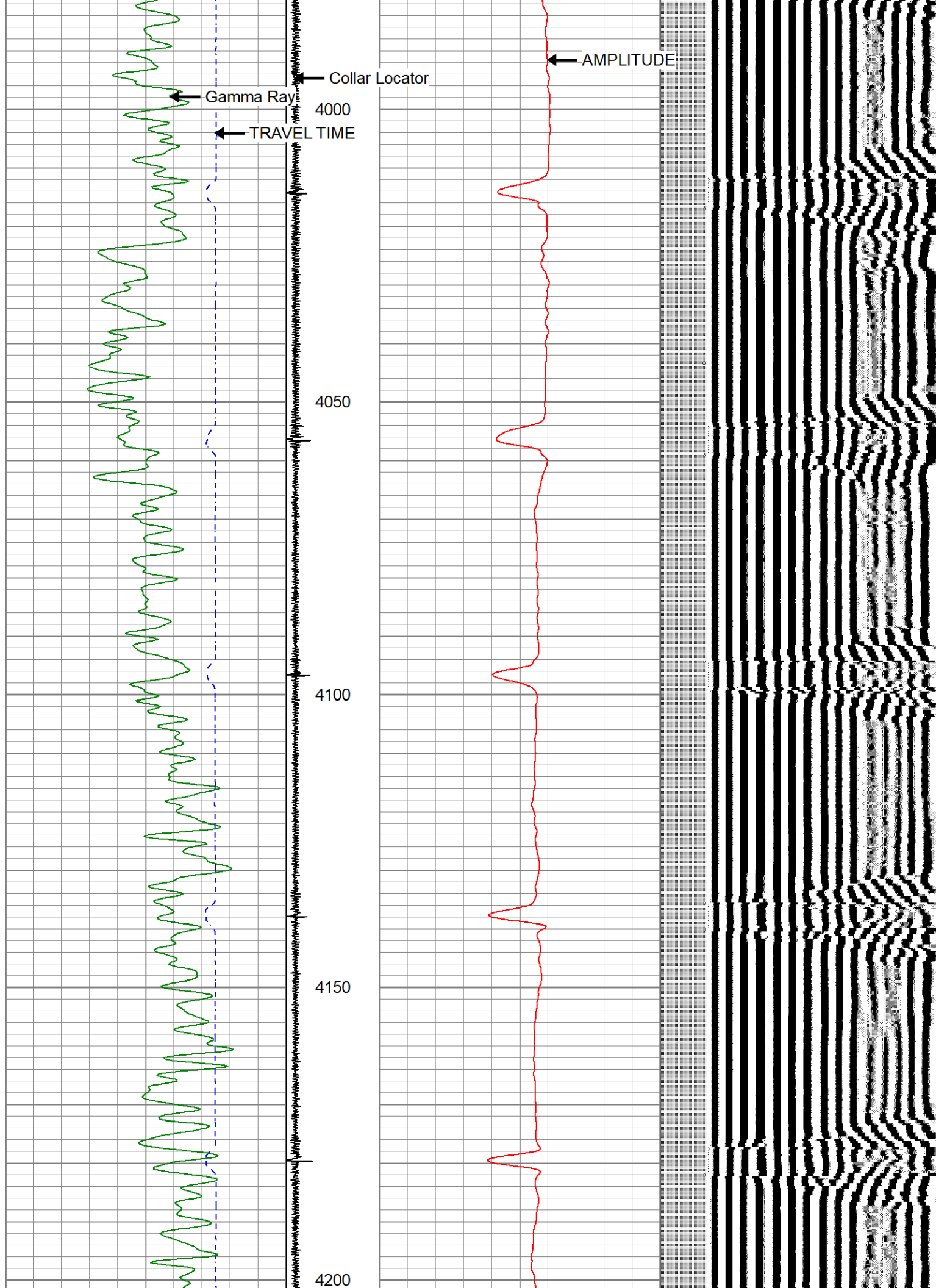


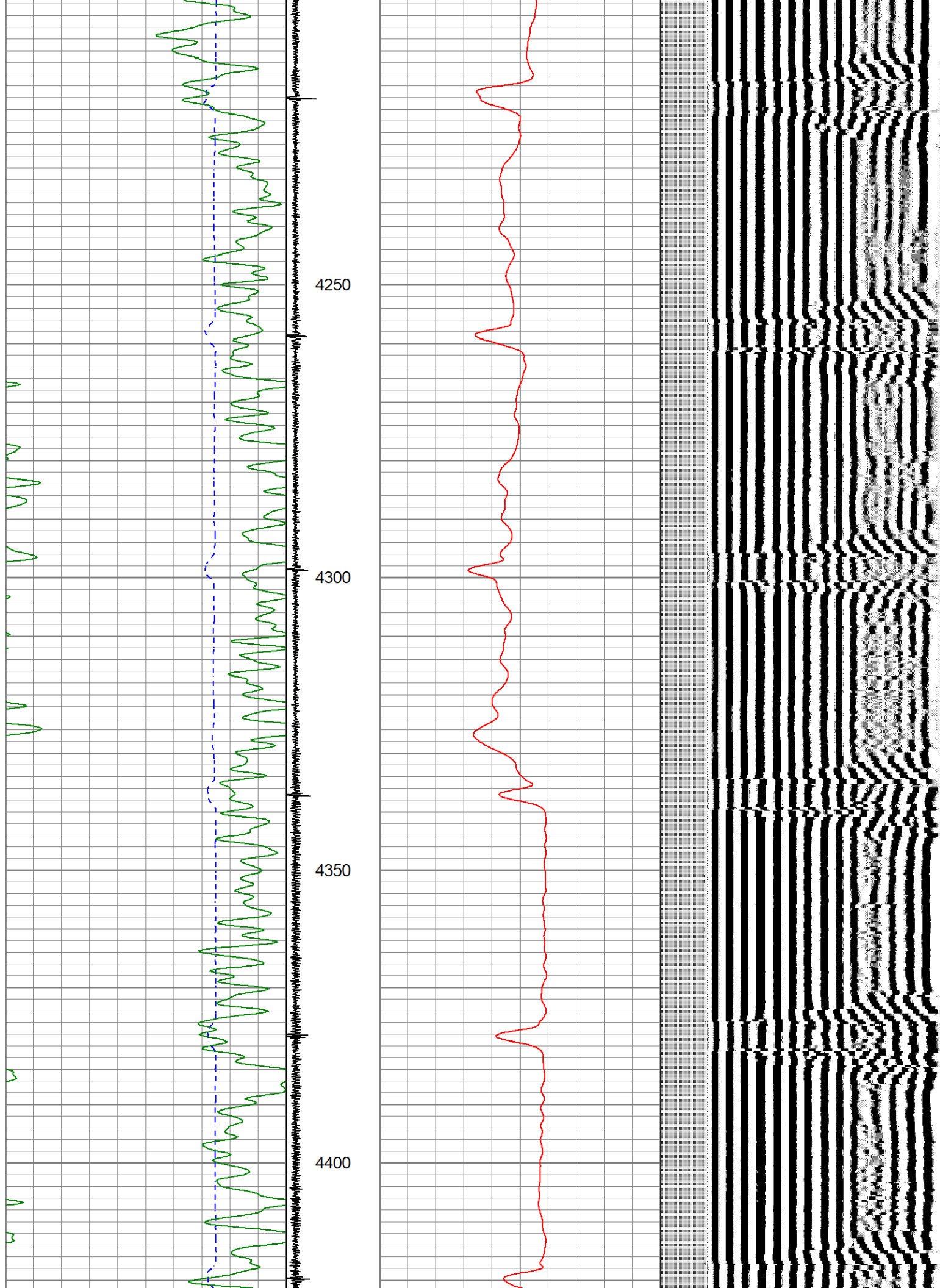


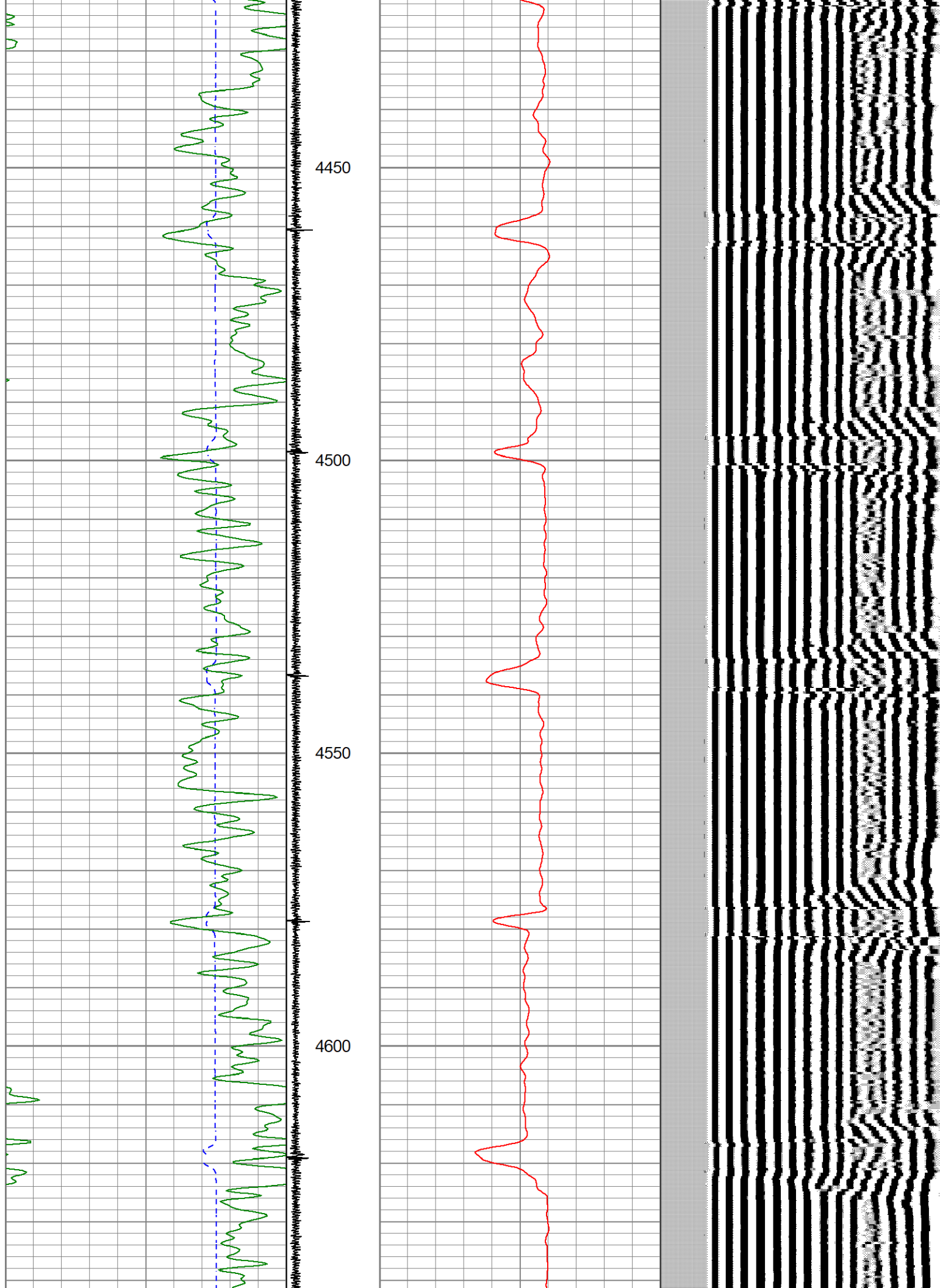


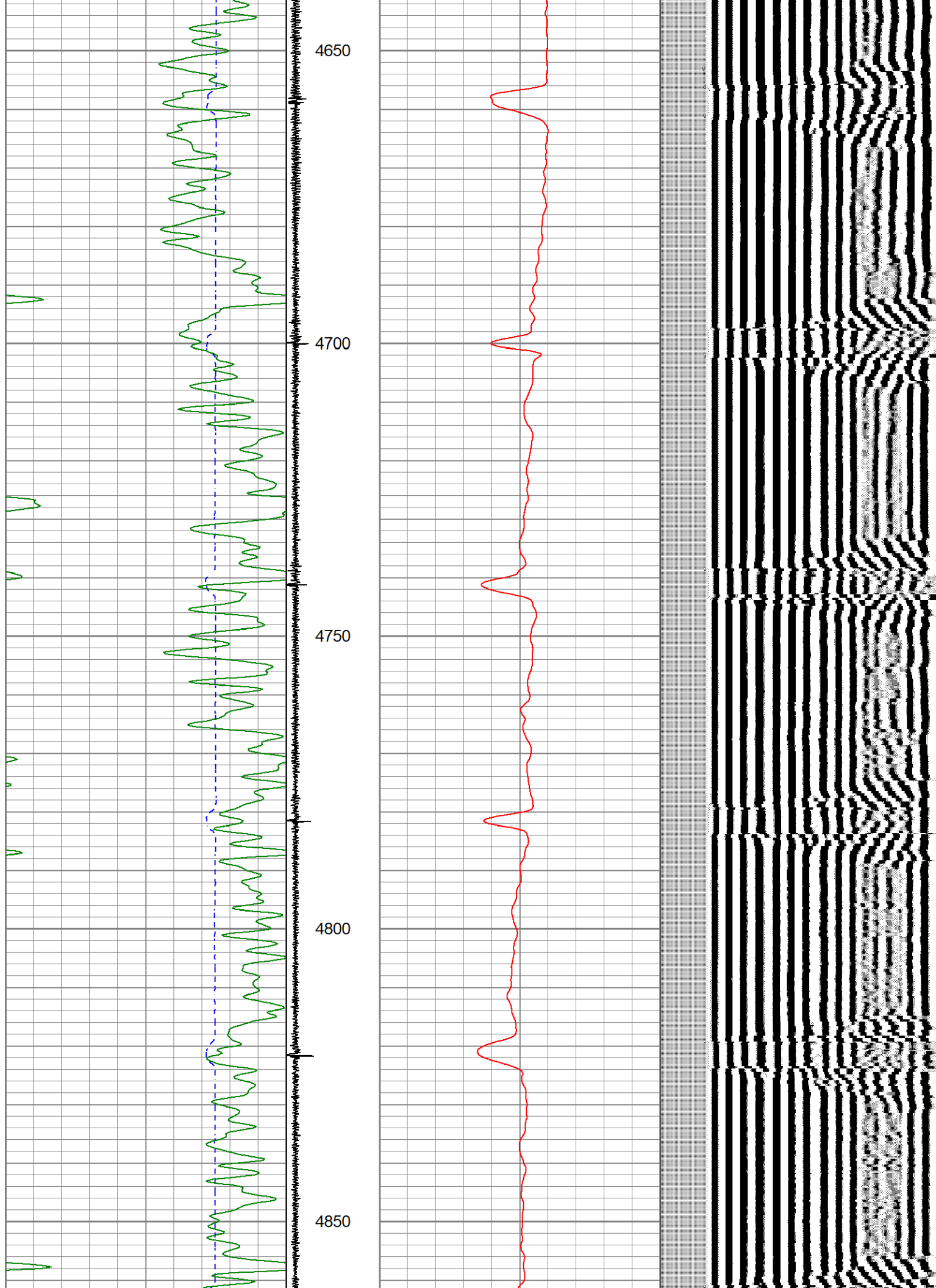


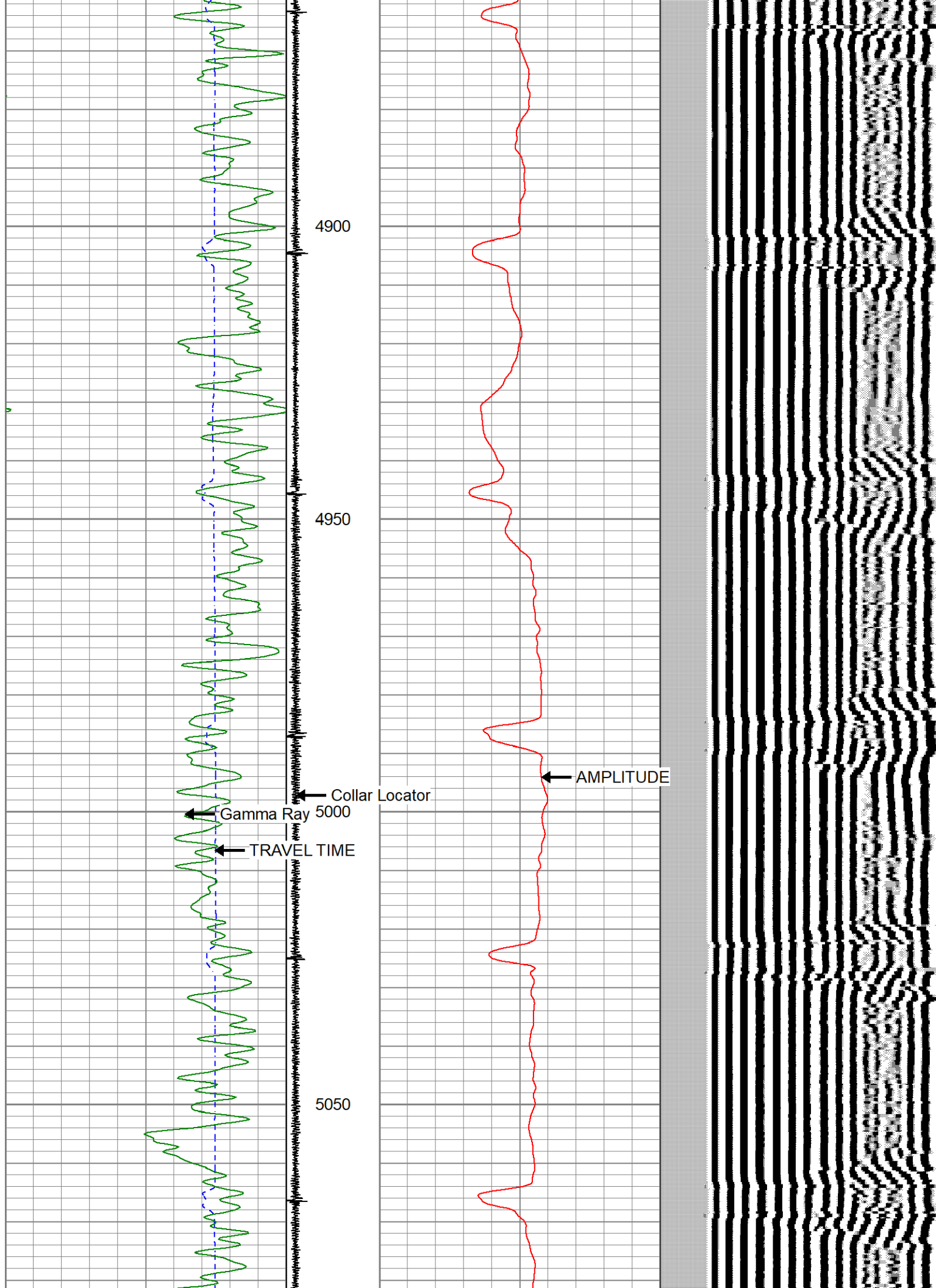


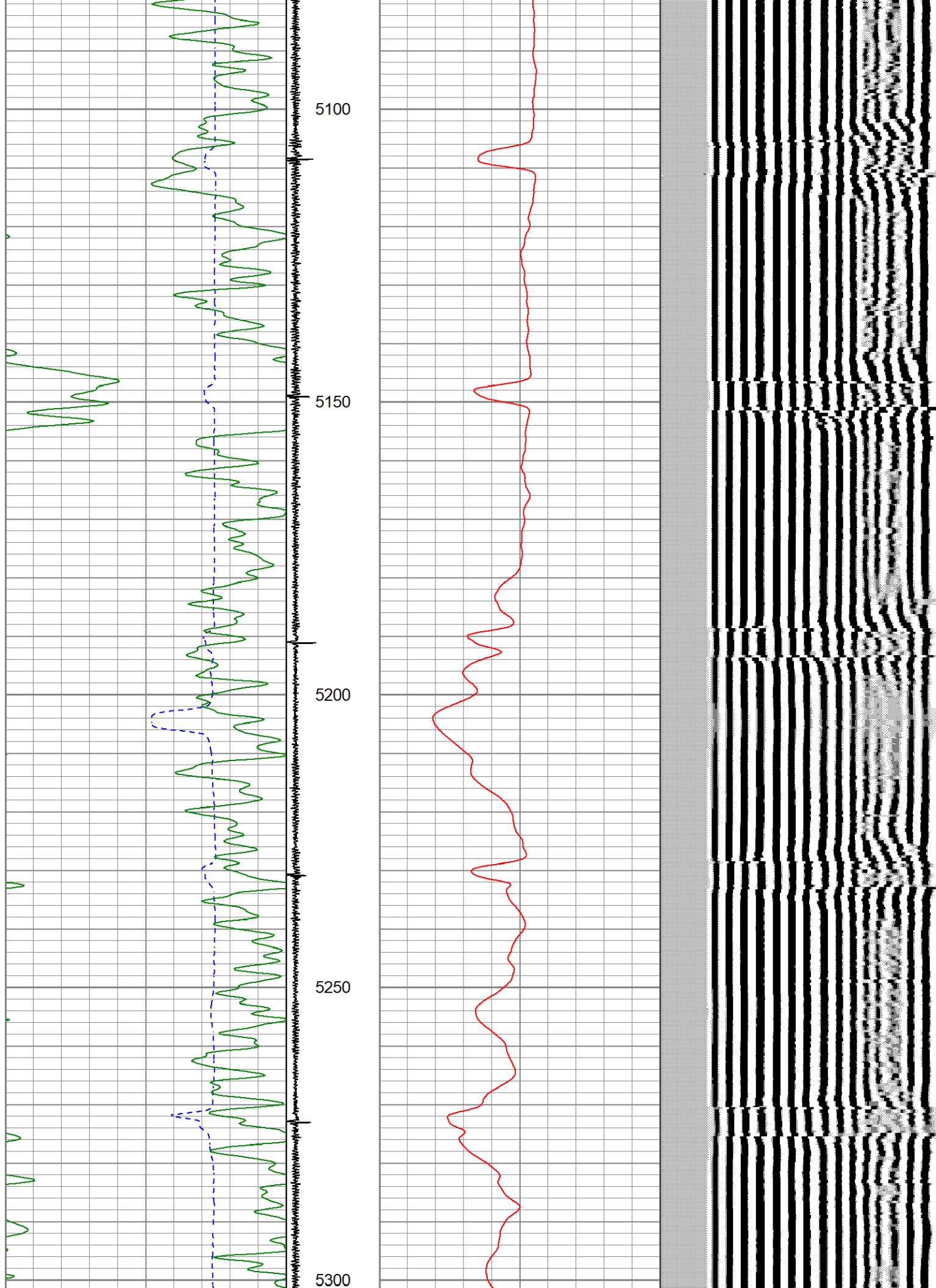


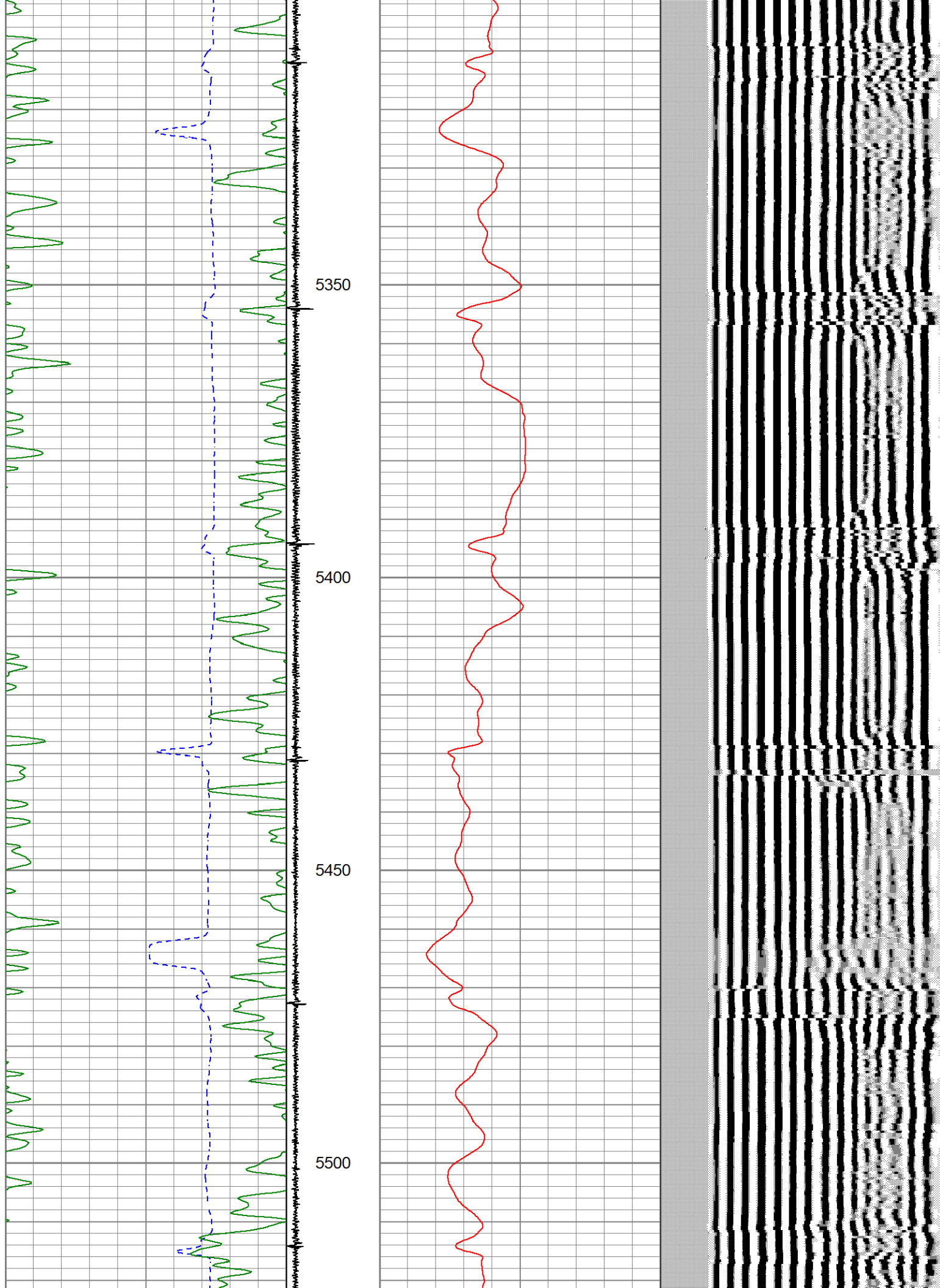


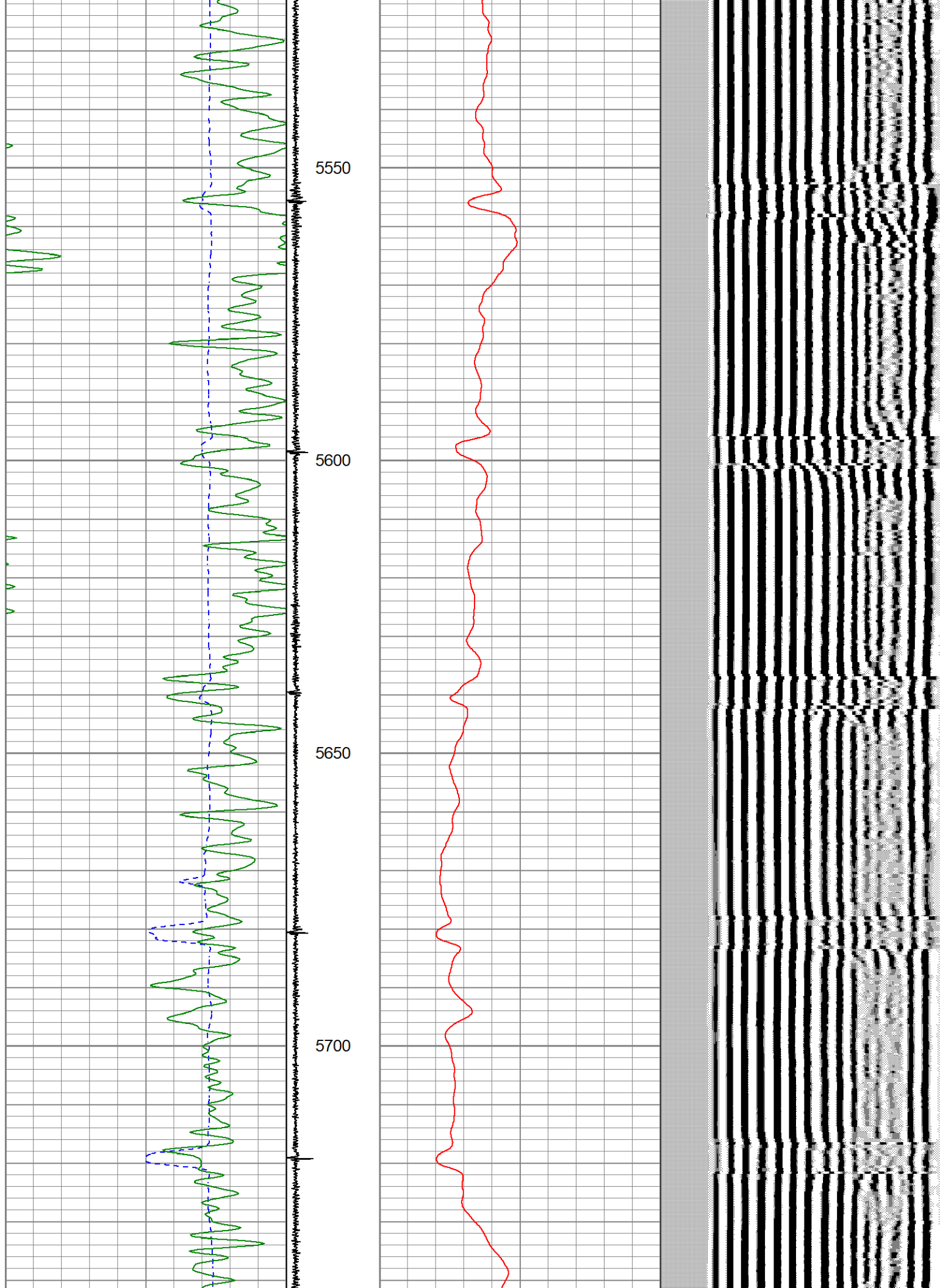


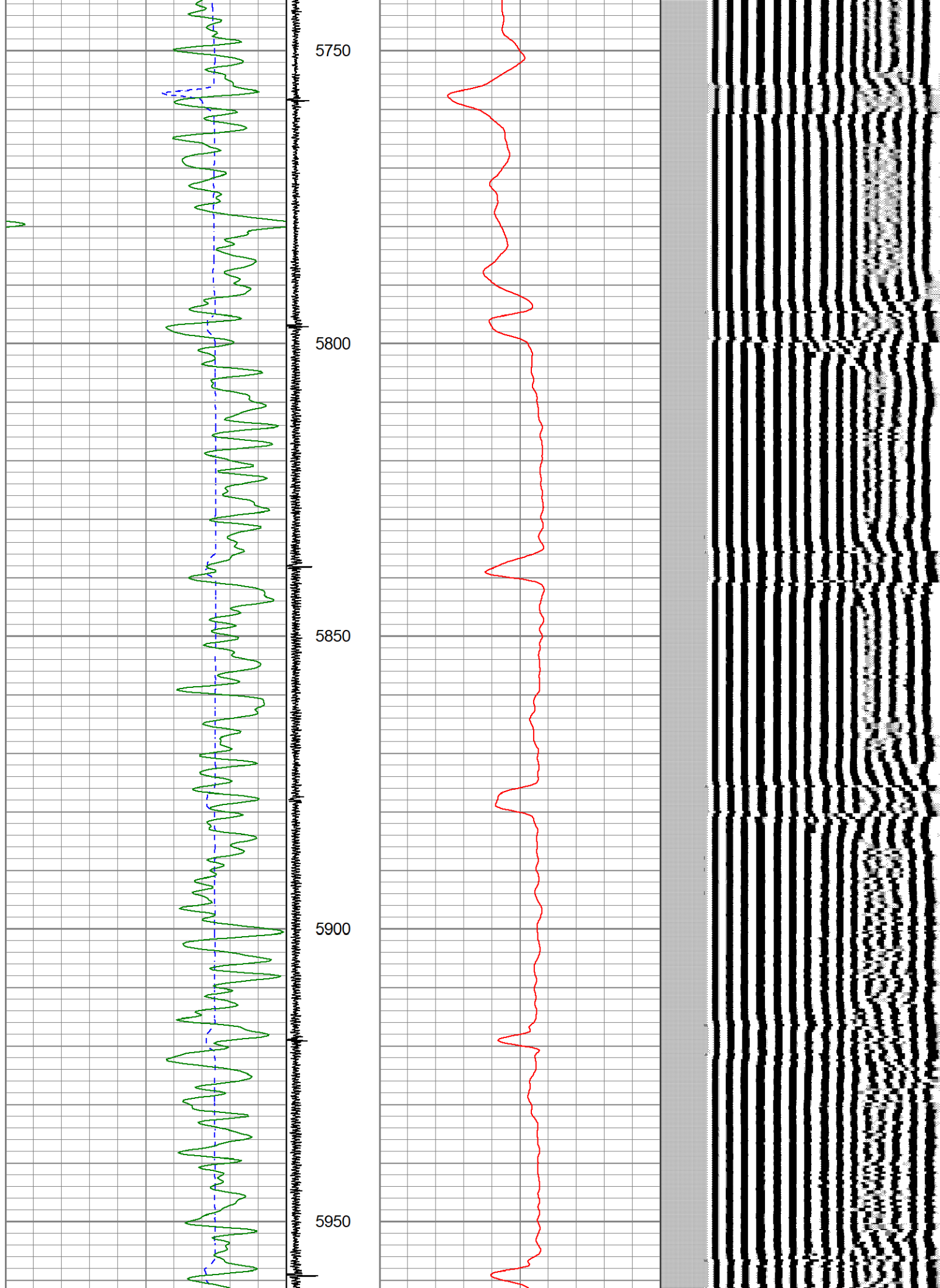


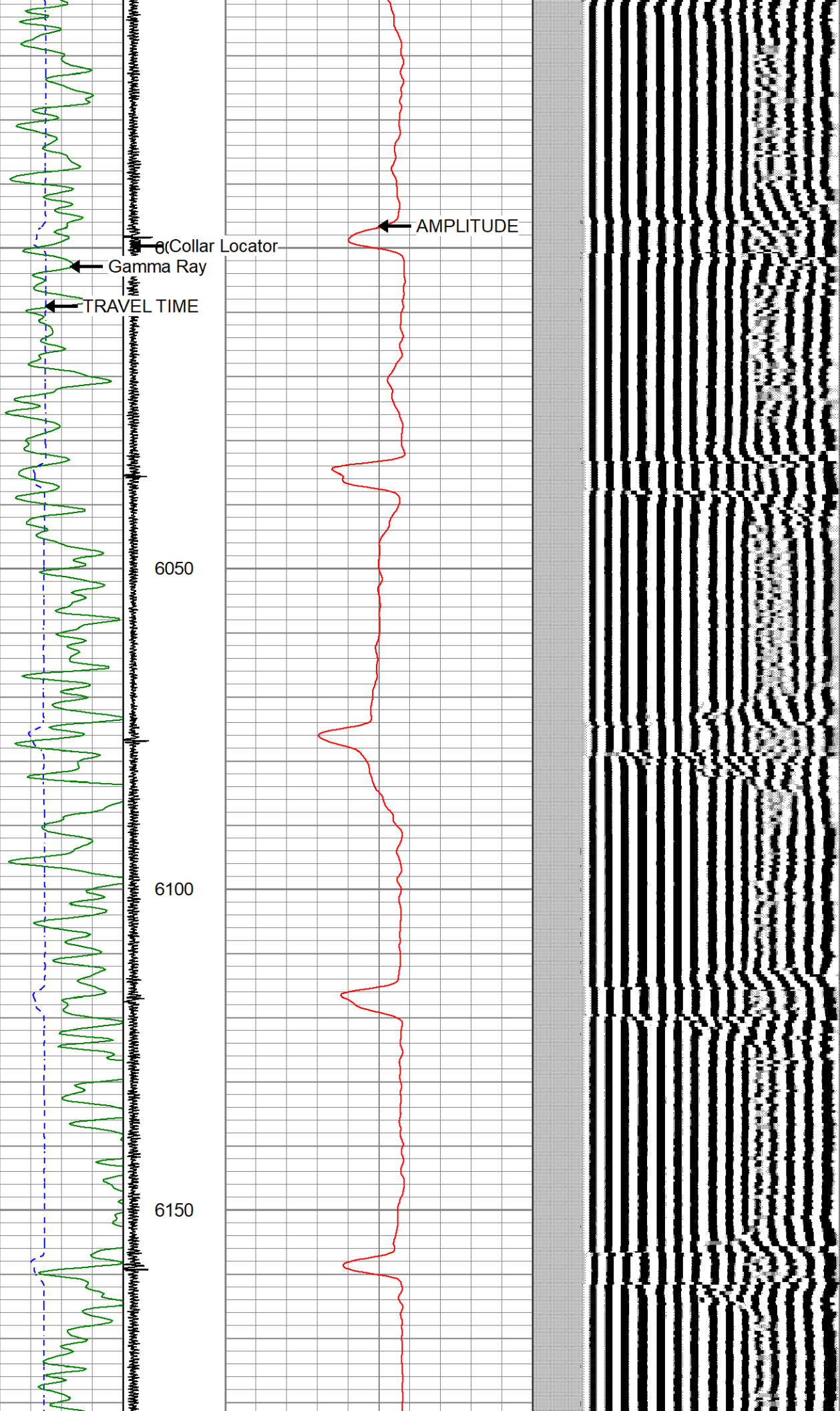


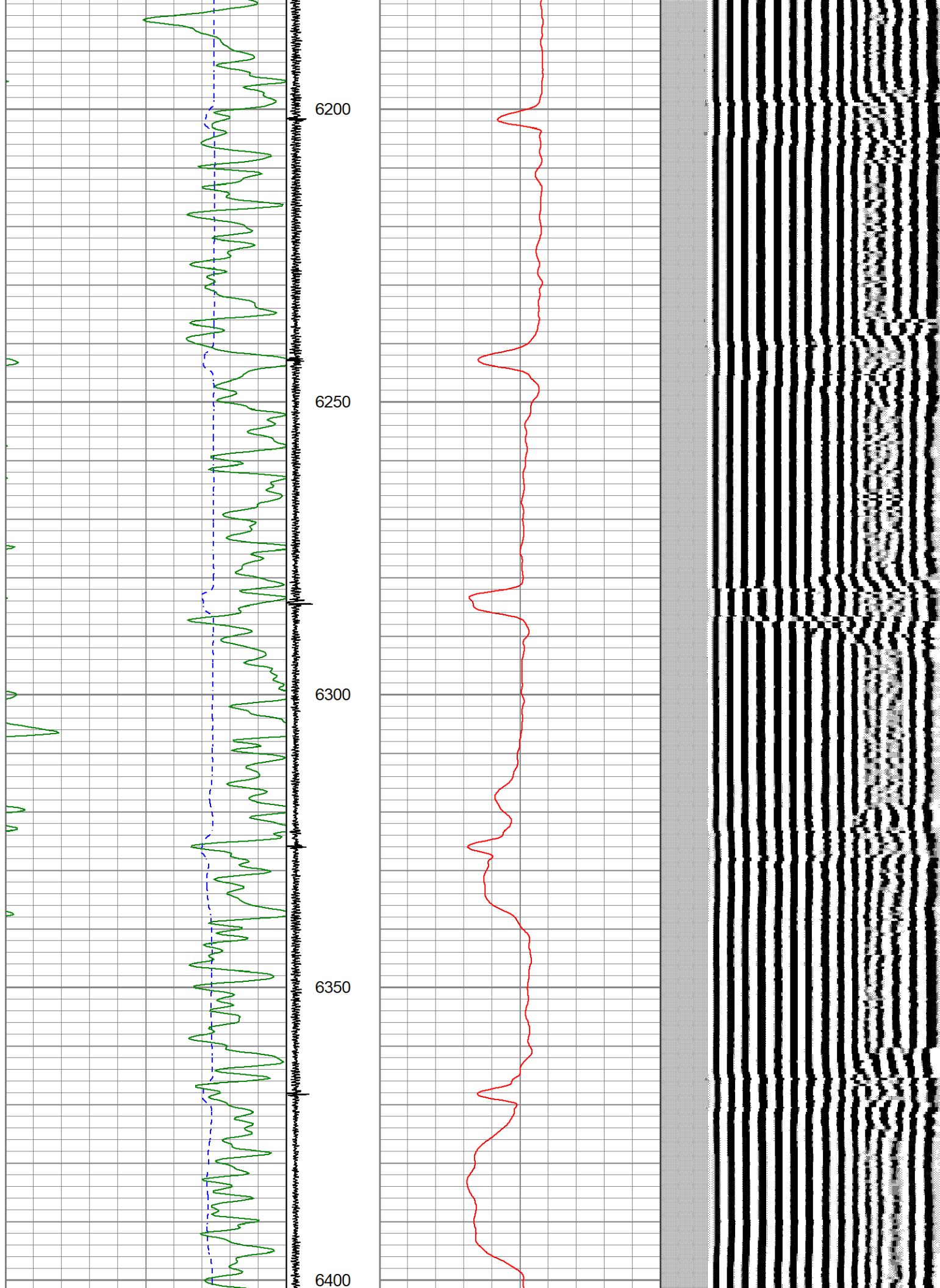


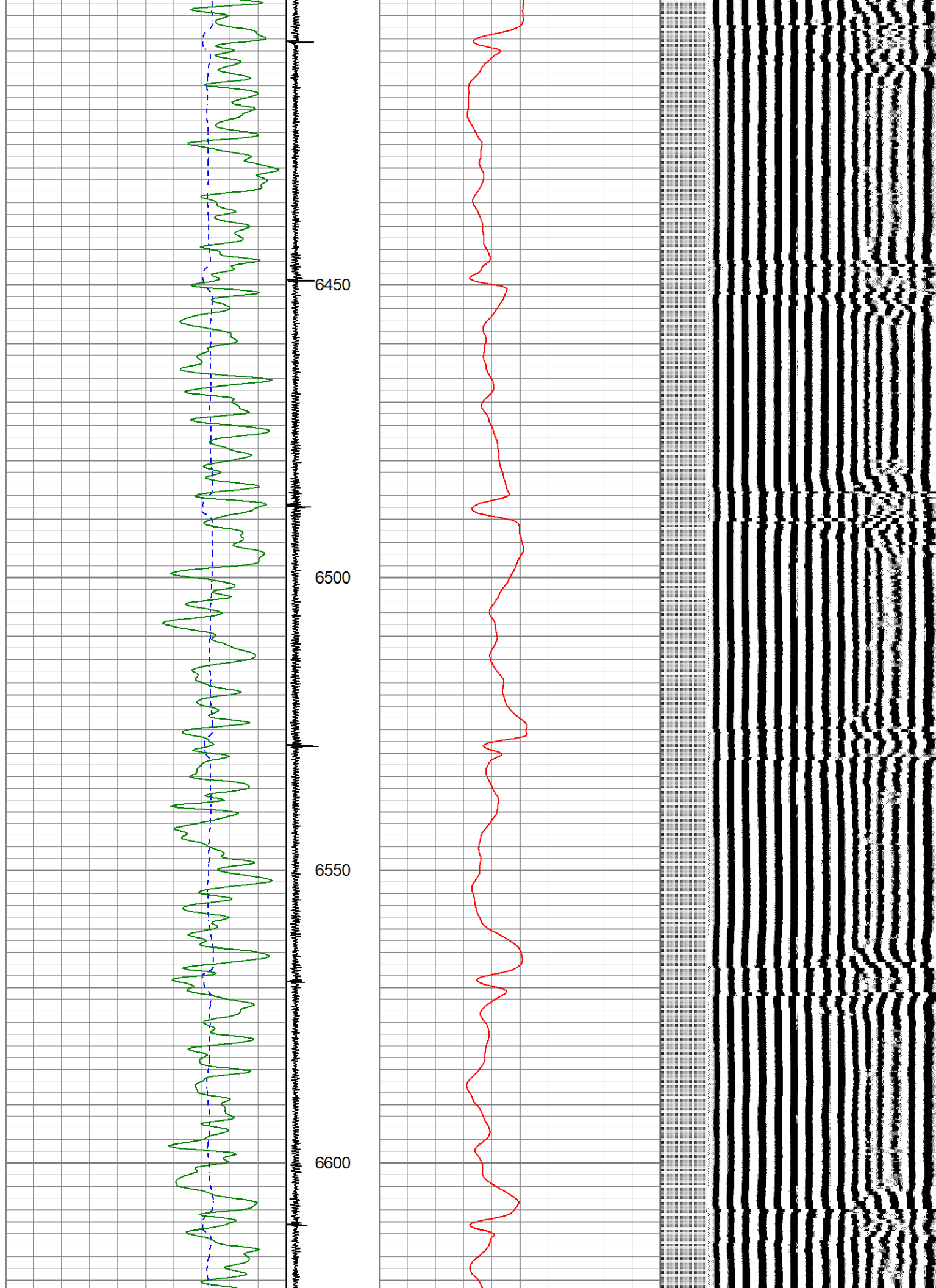


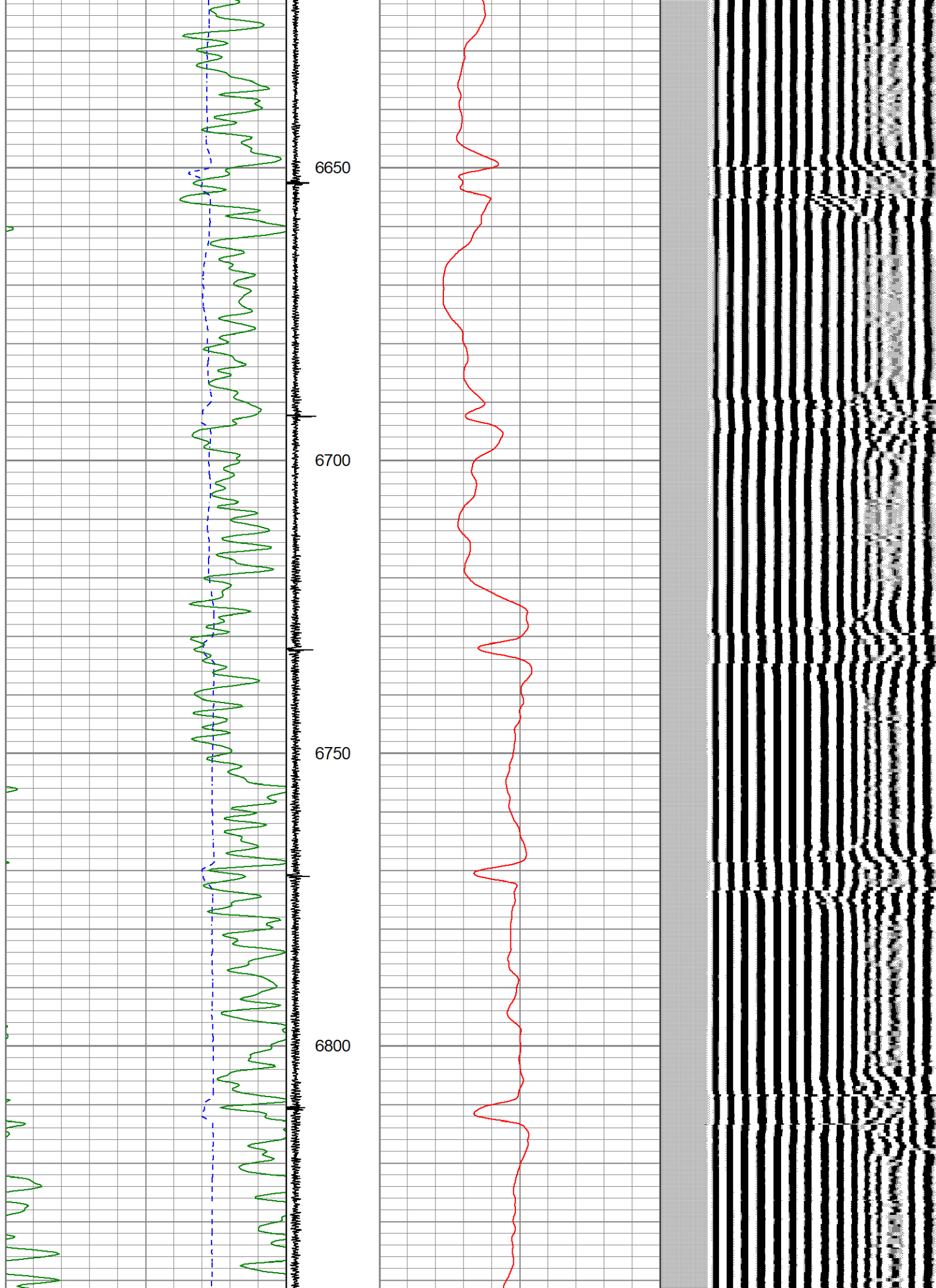


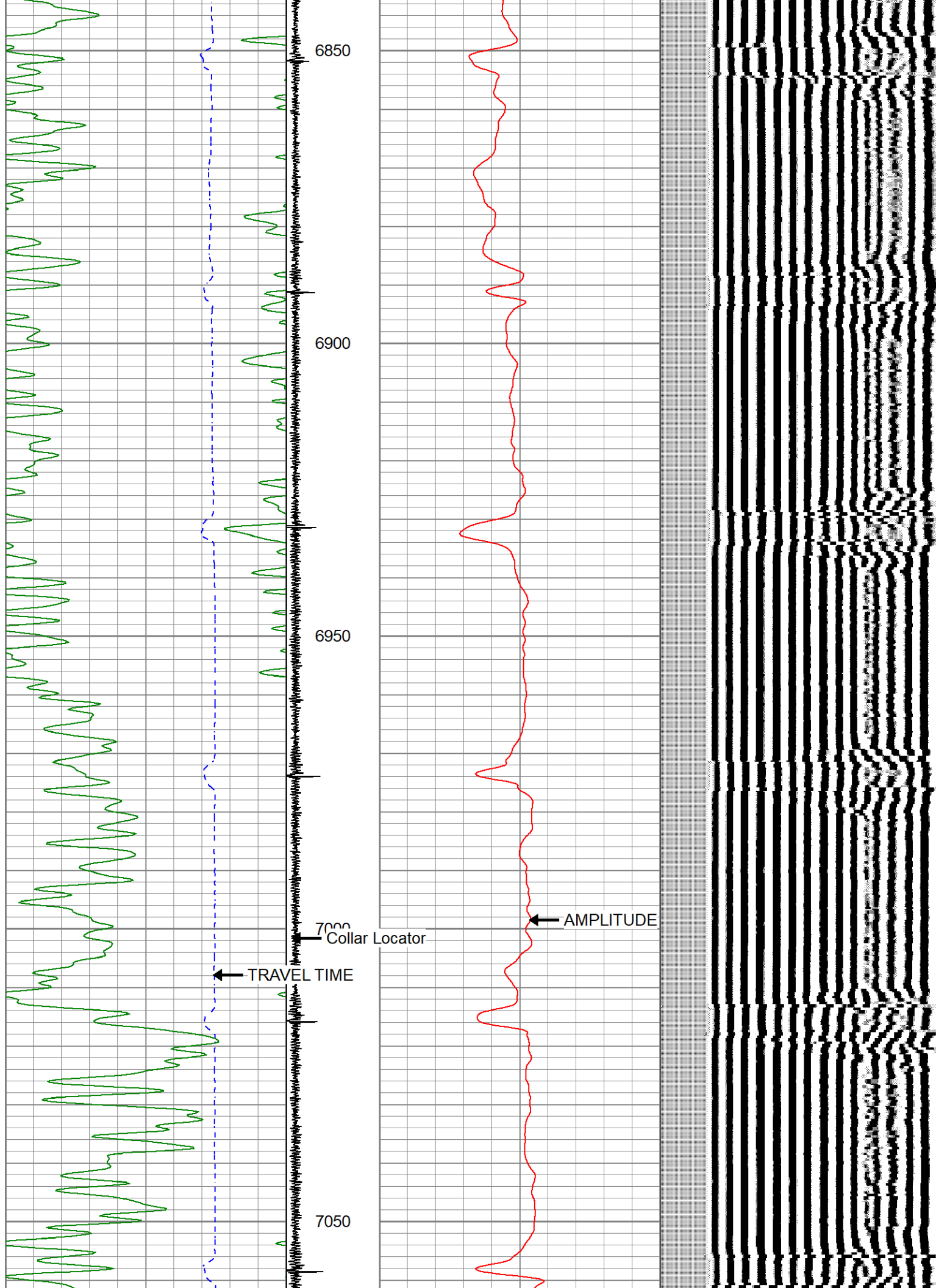


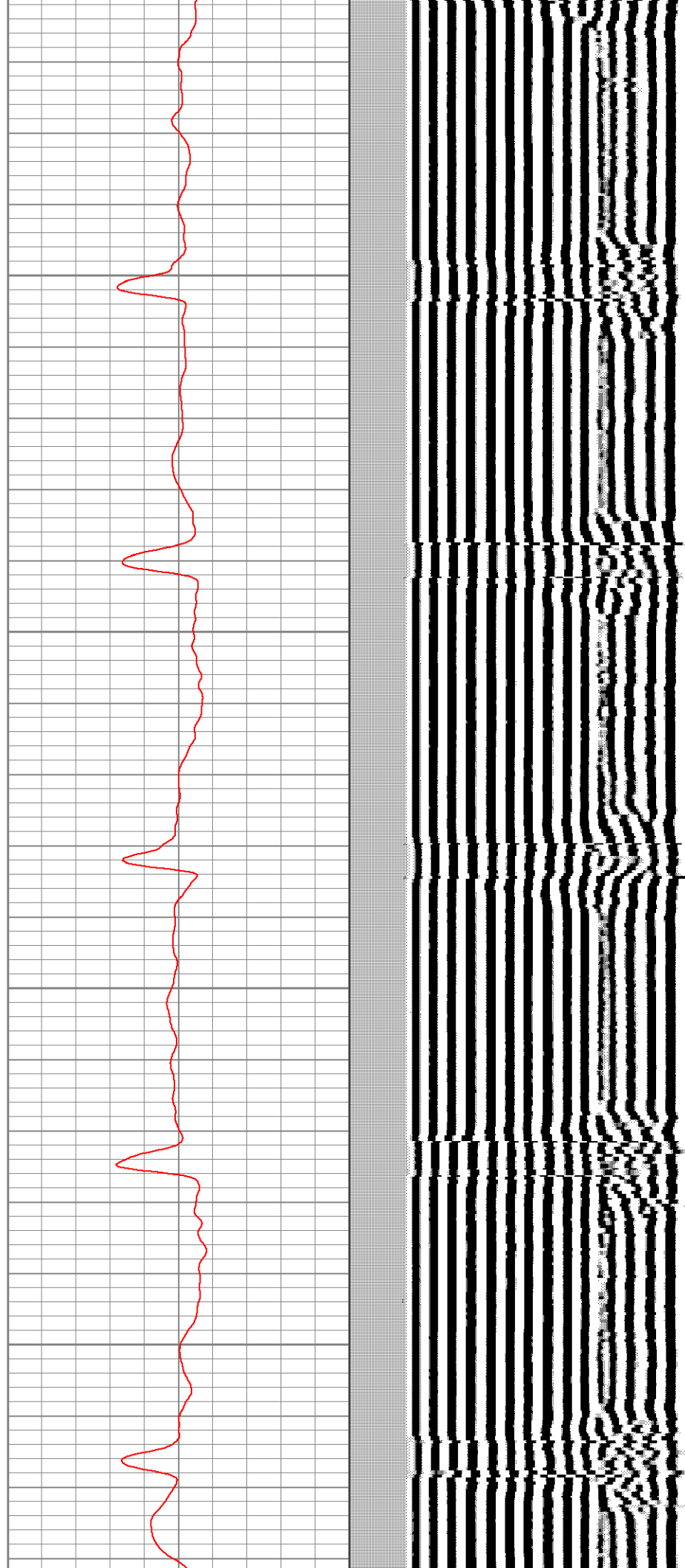
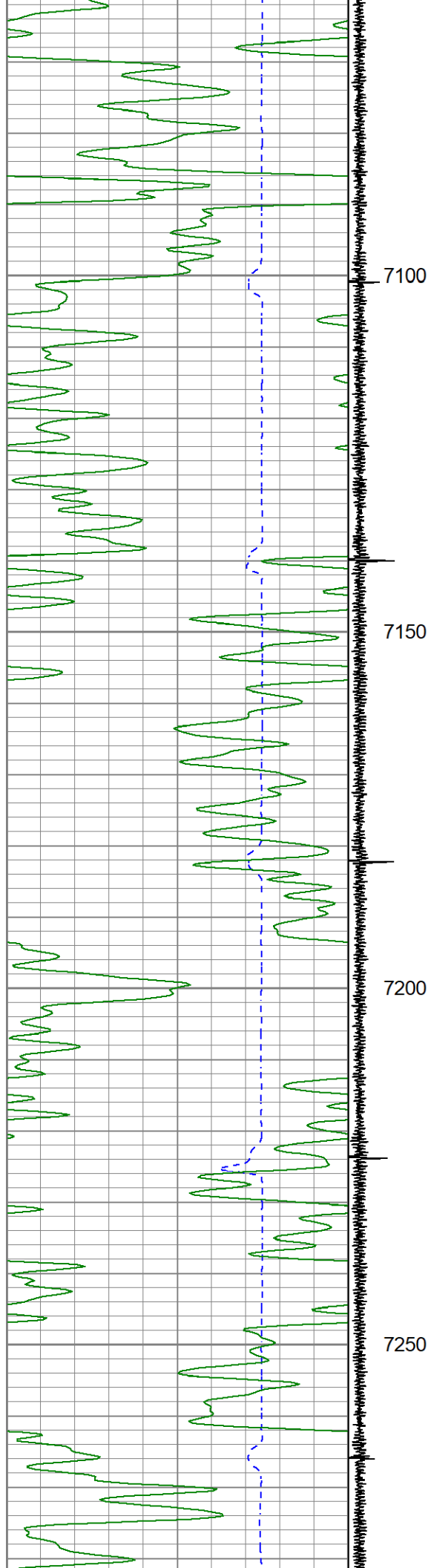


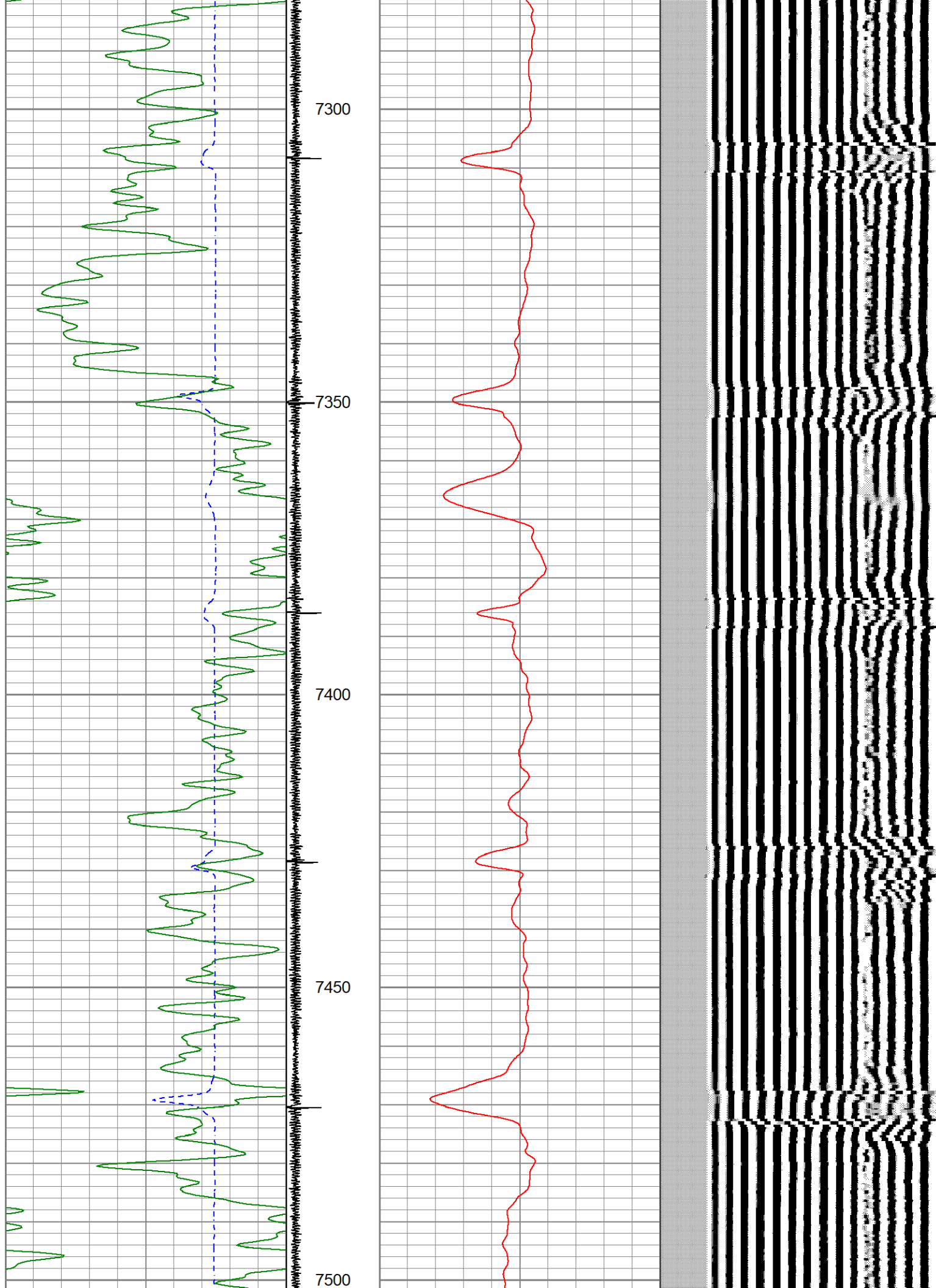


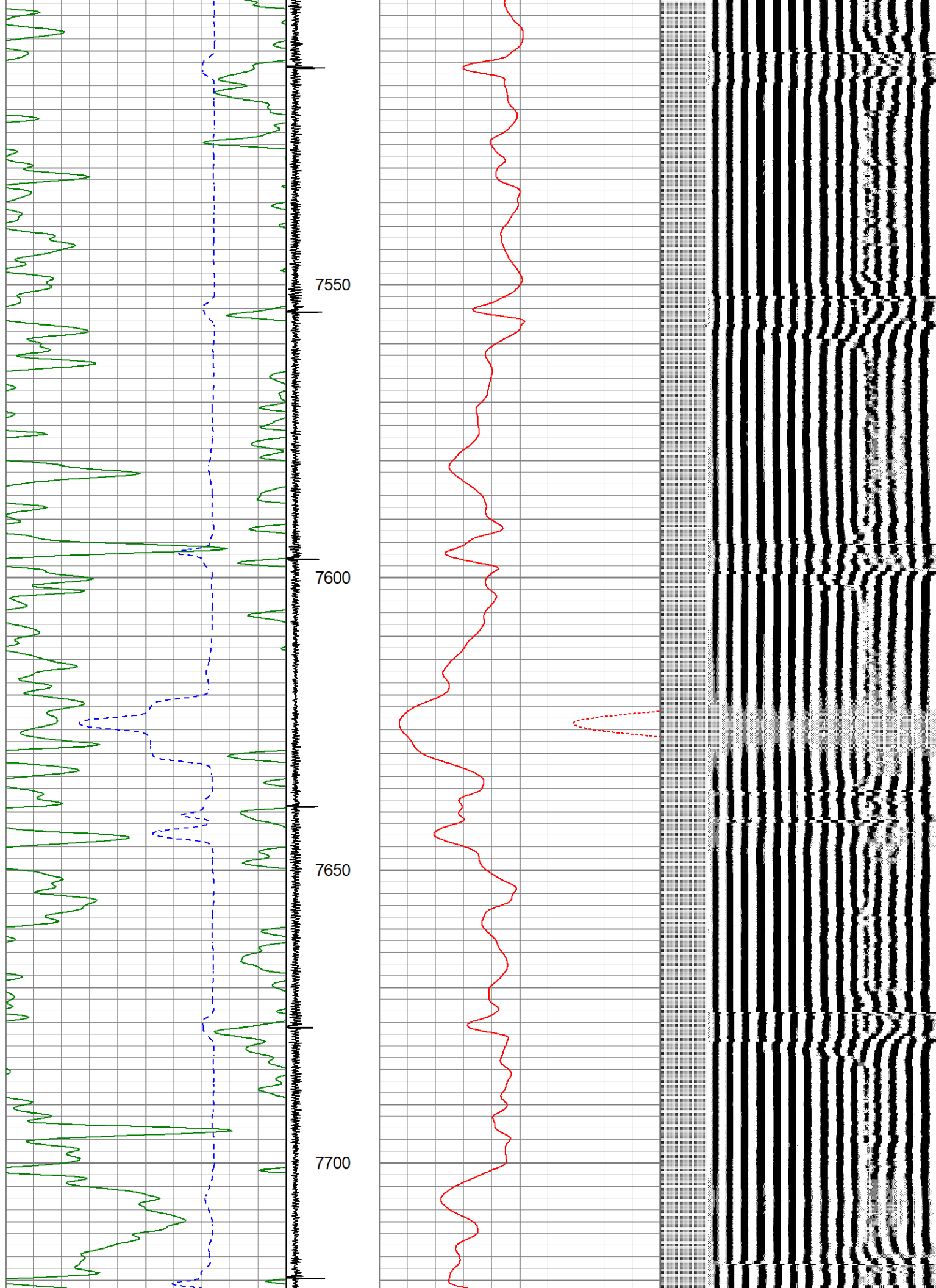


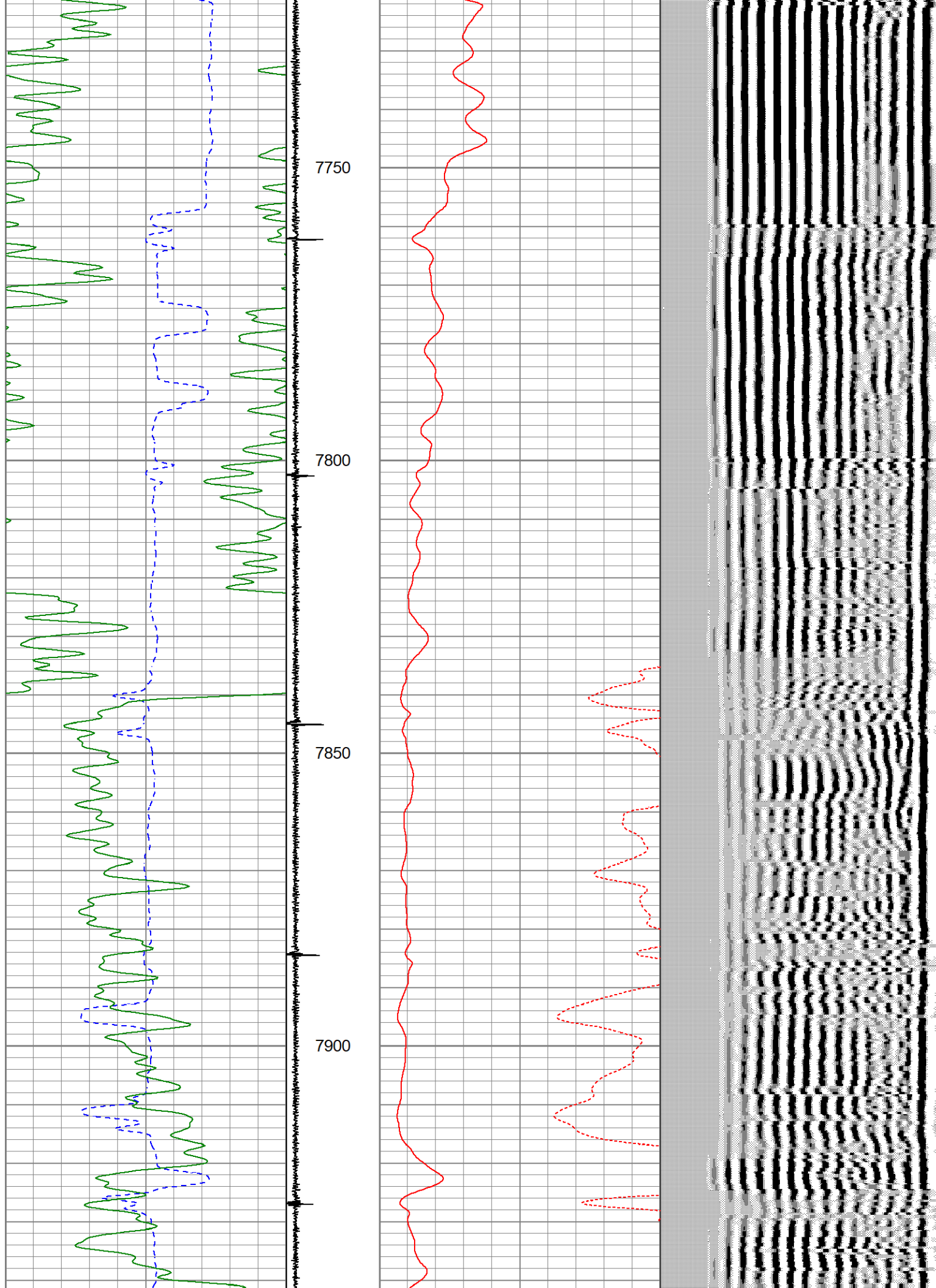


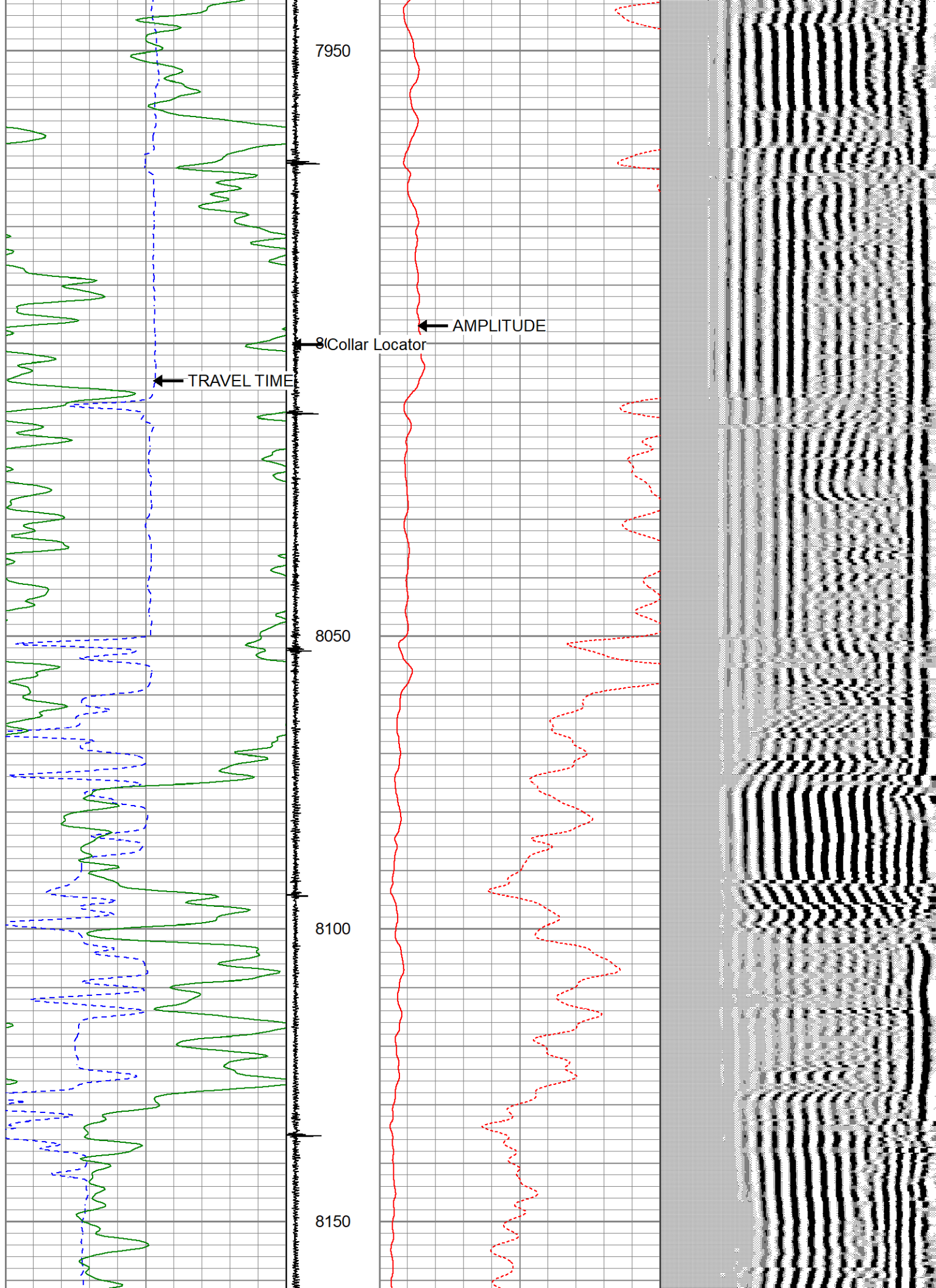


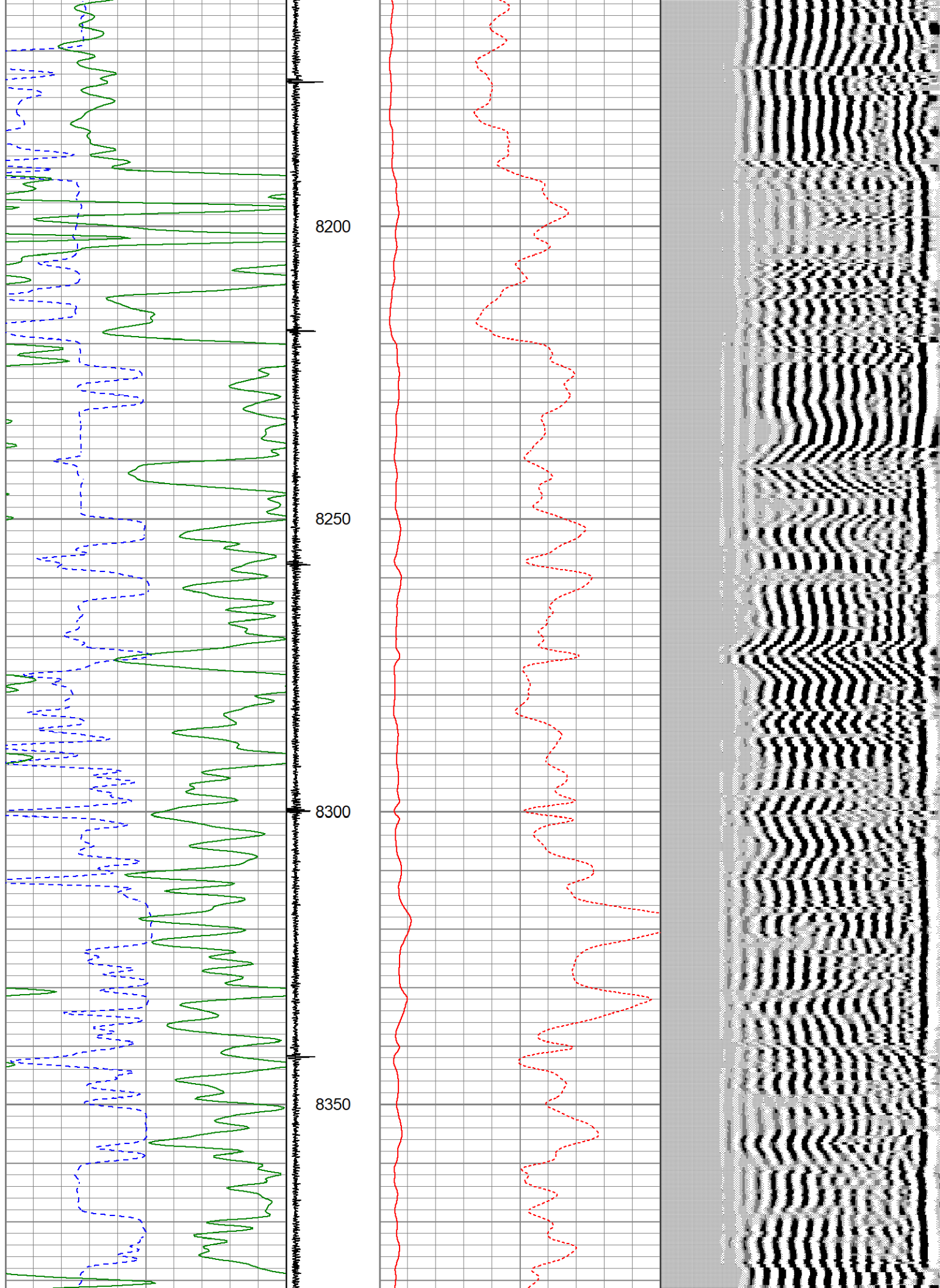


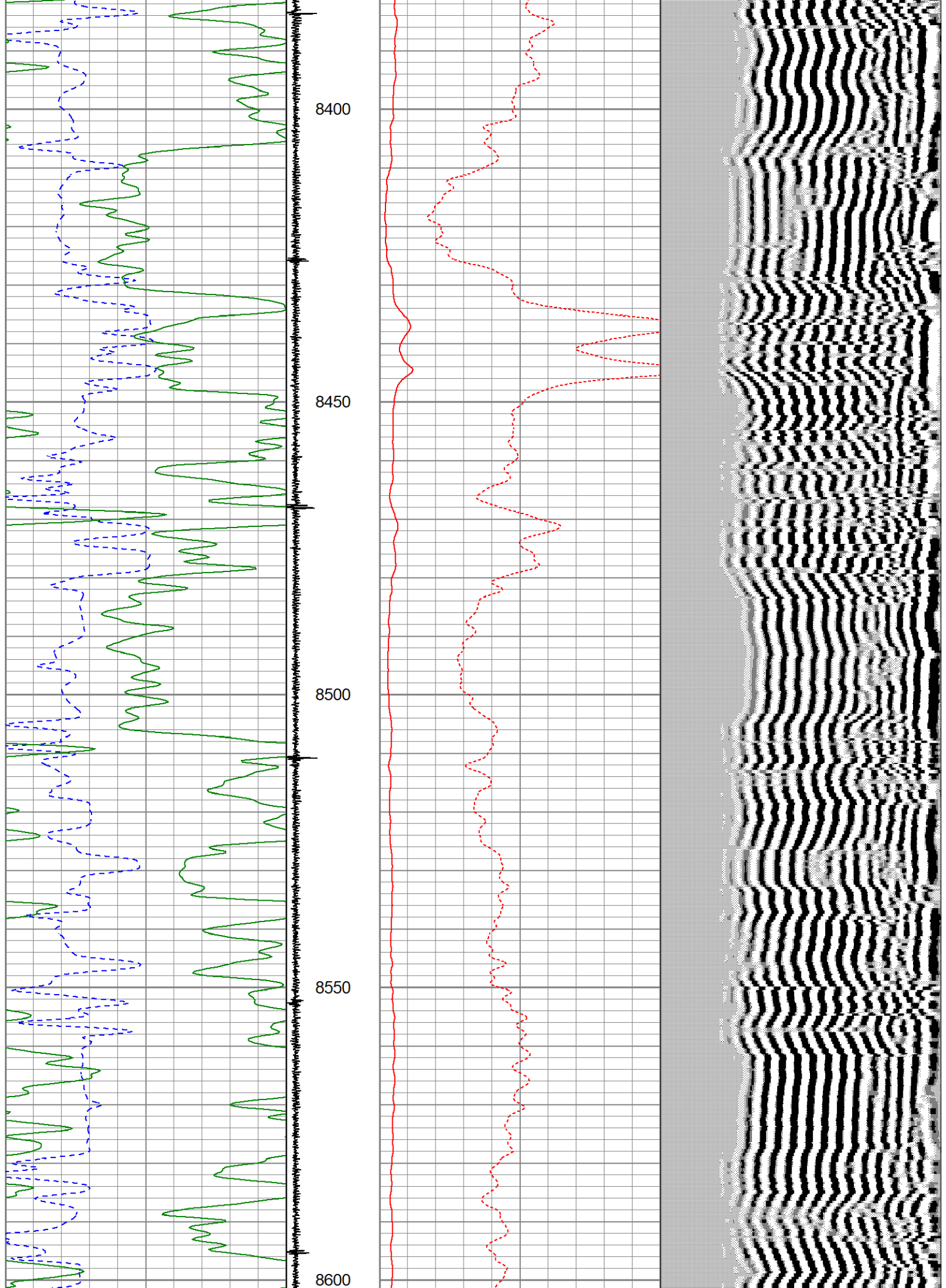


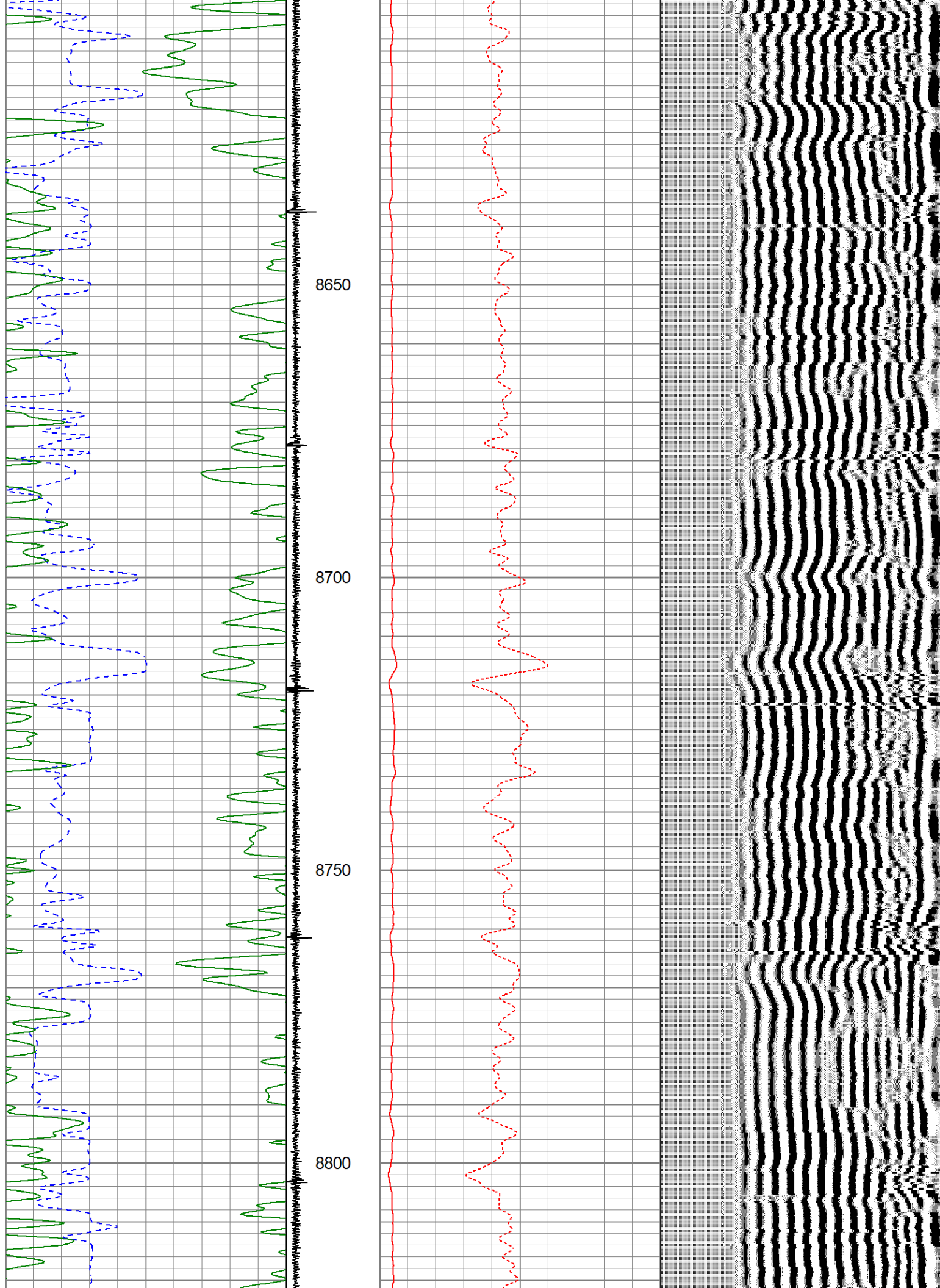


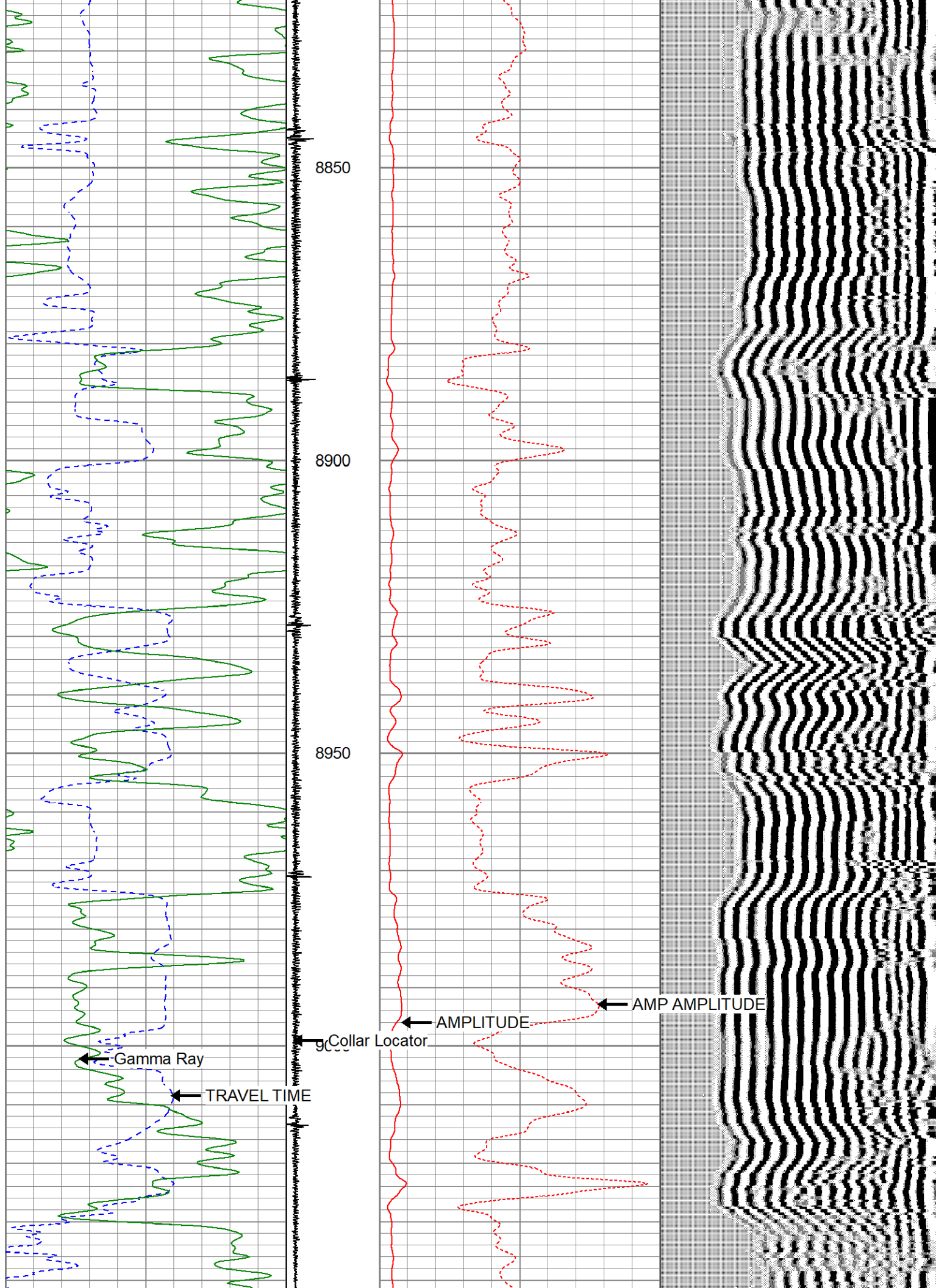


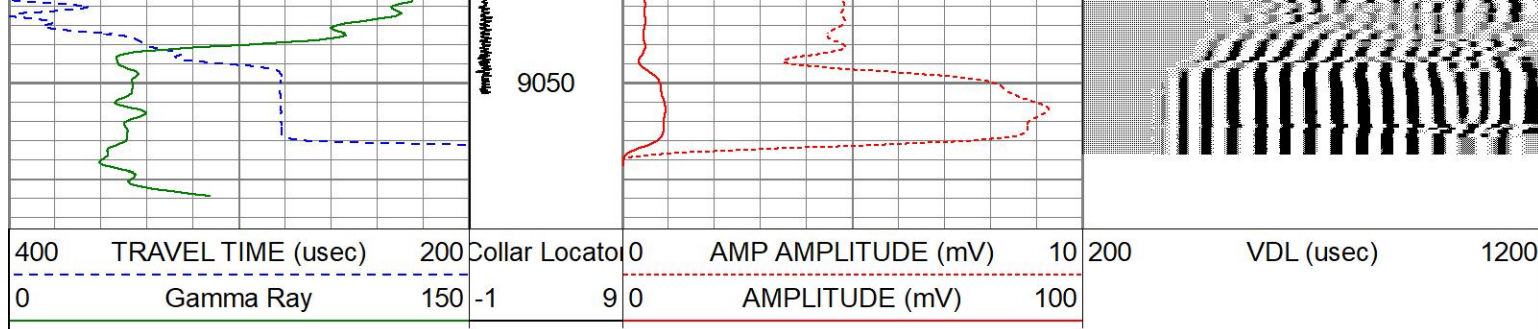






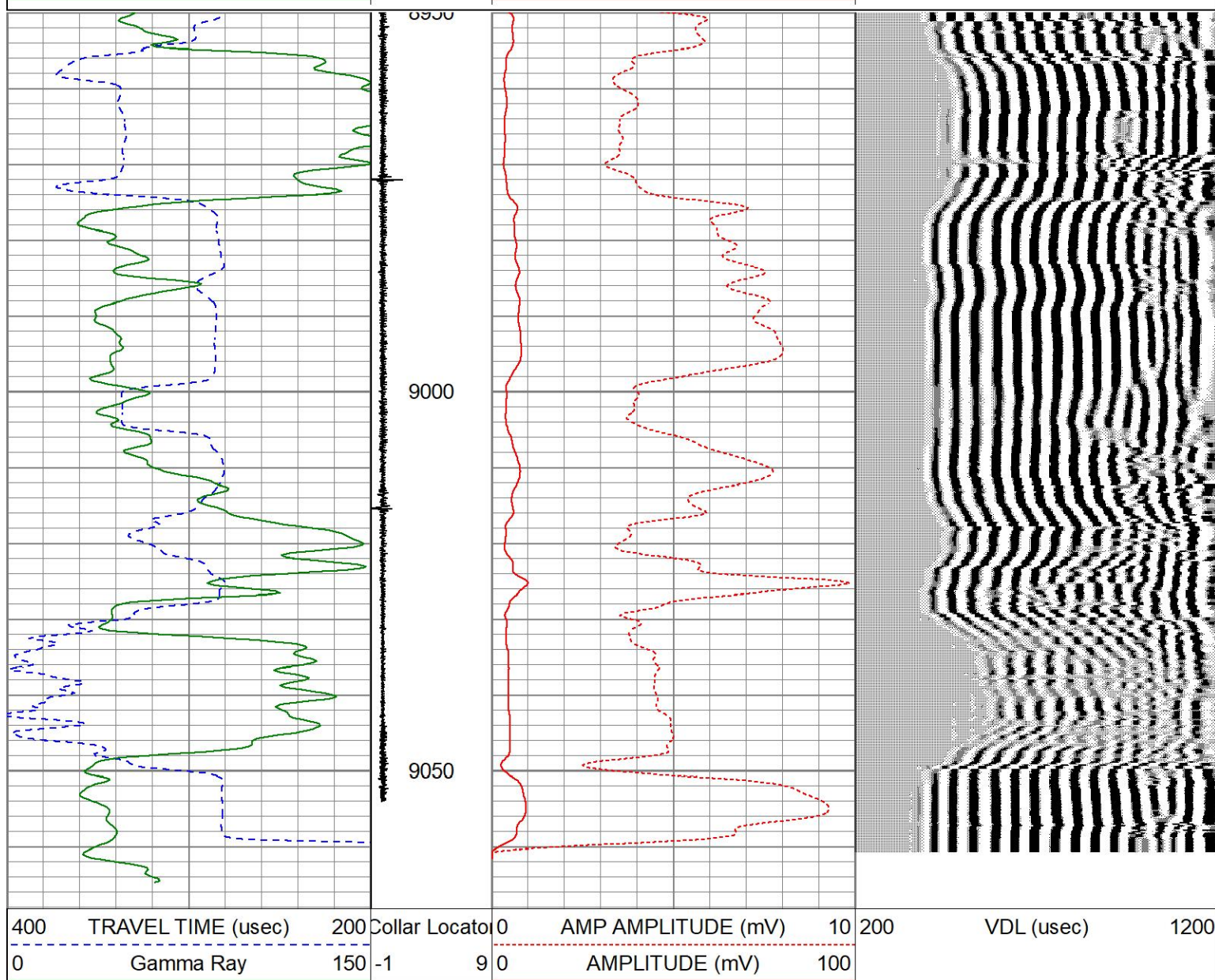
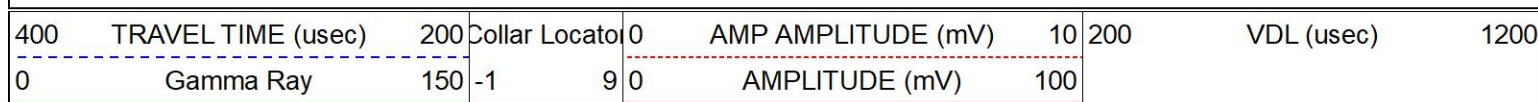



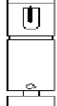







REPEAT PASS

Database File: townsite_1_cbl.db
 Dataset Pathname: pass1
 Presentation Format: cbl_drs
 Dataset Creation: Wed Oct 09 12:51:11 2019
 Charted by: Depth in Feet scaled 1:240



| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|---------|-------------|---|---|-------------|-----------|-------------|
| CCL | 14.07 |  | CHD-STNDRD (GOI) Standard Cable Head | 1.00 | 1.44 | 2.00 |
| | | | CCL-275tekco (111) 2 3/4" 450 Deg. "F" TekCo CCL Earth Mag | 1.83 | 2.75 | 20.00 |
| TEMP | 10.64 |  | | | | |
| WVFS8 | 9.34 |  | 275CTEKSECWTWSLCANS-275RIB (1234) 2 3/4" (R.I.B.) TOOL 3FT, 5FT and 8EA RIB SIGNALS 400 DEG "F" @20K PSI With Sliding Cans For Pressure Ballance | 9.13 | 2.75 | 102.00 |
| WVFS7 | 9.34 | | | | | |
| WVFS6 | 9.34 | | | | | |
| WVFS5 | 9.34 | | | | | |
| WVFS4 | 9.34 | | | | | |
| WVFS3 | 9.34 | | | | | |
| WVFS2 | 9.34 | | | | | |
| WVFS1 | 9.34 | | | | | |
| WVFSYNC | 8.59 | | | | | |
| WVFCAL | 8.59 | | | | | |
| WVF3FT | 8.59 | | | | | |
| WVF5FT | 7.59 | | | | | |
| WVFTEMP | 4.26 |  | | | | |
| GR | 1.04 |  | GR-Tek-Co 2 3/4 HT (001) Tekco 2 3/4" 500 Deg. F Logging Gamma Ray | 4.26 | 2.75 | 53.00 |
| | | | | | | |

Total Weight: 177.00 lb
O.D.: 2.75 in

Calibration Report

Database File townsite_1_cbl.db
Dataset Pathname pass2
Dataset Creation Wed Oct 09 12:56:45 2019

Gamma Ray Calibration Report

Serial Number: 001
Tool Model: Tek-Co 2 3/4 HT
Performed: (Not Performed)

Calibrator Value: 1.0

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 /cps

Segmented Cement Bond Log Calibration Report

Serial Number: 1234
Tool Model: 275RIB

Calibration Casing Diameter: 7.000 in
Calibration Depth: 5924.208 ft

Master Calibration, performed Wed Oct 09 12:27:15 2019:

| | Raw (v) | | Calibrated (mv) | | Results | |
|-----|---------|-------|-----------------|---------|---------|--------|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | 0.011 | 0.546 | 1.000 | 62.165 | 114.231 | -0.212 |
| CAL | 0.038 | 1.010 | | | | |
| 5' | 0.010 | 0.859 | 1.000 | 62.165 | 72.053 | 0.275 |
| SUM | | | | | | |
| S1 | 0.014 | 1.858 | 0.000 | 100.000 | 54.223 | -0.734 |
| S2 | 0.011 | 1.887 | 0.000 | 100.000 | 53.280 | -0.564 |
| S3 | 0.017 | 1.873 | 0.000 | 100.000 | 53.873 | -0.908 |
| S4 | 0.019 | 1.835 | 0.000 | 100.000 | 55.085 | -1.065 |
| S5 | 0.018 | 1.757 | 0.000 | 100.000 | 57.494 | -1.016 |
| S6 | 0.014 | 1.700 | 0.000 | 100.000 | 59.298 | -0.826 |
| S7 | 0.012 | 1.681 | 0.000 | 100.000 | 59.933 | -0.721 |
| S8 | 0.011 | 1.868 | 0.000 | 100.000 | 53.876 | -0.620 |

Internal Reference Calibration, performed (Not Performed):

| | Raw (v) | | Calibrated (v) | | Results | |
|-----|---------|-------|----------------|-------|---------|--------|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| CAL | 0.000 | 0.000 | 0.038 | 1.010 | 1.000 | 0.000 |

Air Zero Calibration, performed Sun Sep 08 14:37:23 2019:

| | Raw (v) | | Calibrated (v) | | Results | |
|-----|---------|--|----------------|--|---------|--|
| | Zero | | Zero | | Offset | |
| 3' | 0.000 | | 0.000 | | 0.000 | |
| 5' | 0.000 | | 0.000 | | 0.000 | |
| SUM | | | | | | |

| | | | |
|----|-------|-------|-------|
| S1 | 0.000 | 0.000 | 0.000 |
| S2 | 0.000 | 0.000 | 0.000 |
| S3 | 0.000 | 0.000 | 0.000 |
| S4 | 0.000 | 0.000 | 0.000 |
| S5 | 0.000 | 0.000 | 0.000 |
| S6 | 0.000 | 0.000 | 0.000 |
| S7 | 0.000 | 0.000 | 0.000 |
| S8 | 0.000 | 0.000 | 0.000 |

Temperature Calibration Report

Serial Number: 1234
Tool Model: 275RIB
Performed: Fri Sep 06 10:27:59 2019

| | Reference | Reading |
|-----------------|-------------|-------------|
| Low Reference: | 75.00 degF | 300.00 usec |
| High Reference: | 400.00 degF | 1282.00usec |

Gain: 0.33
Offset: 0.00
Delta Spacing 1