



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

|                |                                    |  |                 |
|----------------|------------------------------------|--|-----------------|
| Company        | Kerr-McGee Oil & Gas Onshore, L.P. |  |                 |
| Well           | Wilson Ranch 13N-27HZ              |  |                 |
| Field          | Wattenberg                         |  |                 |
| County         | Weld                               |  |                 |
| State          | Colorado                           |  |                 |
| Location:      | Company                            | Kerr-McGee Oil & Gas Onshore, L.P.     |                 |
|                | Well                               | Wilson Ranch 13N-27HZ                  |                 |
|                | Field                              | Wattenberg                             |                 |
|                | County                             | Weld                                   |                 |
| Other Services | State                              | Colorado                               |                 |
|                | AP1 # :                            | 05-123-41053                           |                 |
|                | SEC                                | 26                                     | TWP 4N RGE 68W  |
|                | Permanent Datum                    | Ground Level                           | Elevation 5072' |
| Gauge Ring     | Log Measured From                  | Kelly Bushing 20 FT                    |                 |
|                | Drilling Measured From             | Kelly Bushing                          |                 |
| Elevation      |                                    | K.B. 5092'<br>D.F. 5091'<br>G.L. 5072' |                 |

|                        |                 |
|------------------------|-----------------|
| Date                   | 27-Jan-2016     |
| Run Number             | Two             |
| Depth Driller          | 16741 FT        |
| Depth Logger           | 7250 FT         |
| Bottom Logged Interval | 7247 FT         |
| Top Log Interval       | Surface         |
| Open Hole Size         | 7.875"          |
| Type Fluid             | Water           |
| Density / Viscosity    | 8.34 lbm/gal    |
| Max. Recorded Temp.    | 222°F           |
| Estimated Cement Top   | Surface         |
| Time Well Ready        | ROA             |
| Time Logger on Bottom  | 09:13           |
| Equipment Number       | HD-0325         |
| Location               | Fort Lupton, CO |
| Recorded By            | R. Cameron      |
| Witnessed By           | Levi McArthur   |

| Borehole Record |           |              |         | Tubing Record |          |      |    |
|-----------------|-----------|--------------|---------|---------------|----------|------|----|
| Run Number      | Bit       | From         | To      | Size          | Weight   | From | To |
|                 |           |              |         |               |          |      |    |
|                 |           |              |         |               |          |      |    |
|                 |           |              |         |               |          |      |    |
| Casing Record   | Size (in) | Wgt (lbs/ft) | Grade   | Top           | Bottom   |      |    |
| Surface Casing  | 9 5/8     | 36           | J-55    | Surface       | 1838 FT  |      |    |
| Intermediate #1 | 5 1/2     | 17           | HCP-110 | Surface       | 16741 FT |      |    |
| Intermediate #2 |           |              |         |               |          |      |    |
| 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

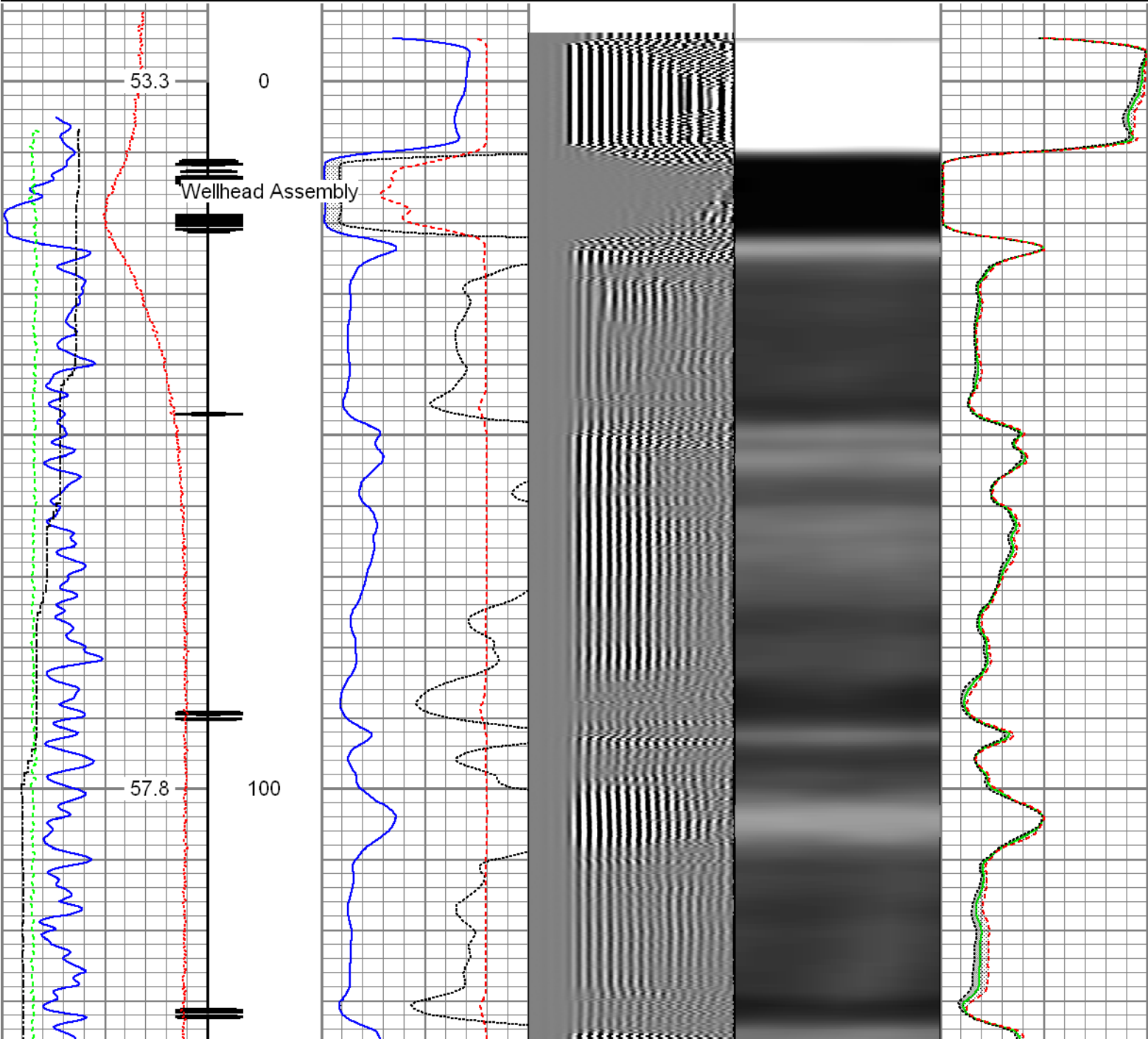
Log ran as per customer request  
Depth referenced to Casing Tally reported Marker Joint at 6514 FT  
Adjusted log +2 FT to correlate with Marker Joint  
Gauge Ring/Junk Basket ran to 7296 FT with no debris  
Recorded with 2800 PSI Surface Induced Pressure  
Logging tools were clean and free of any debris upon completions of operations  
  
Thank you for choosing FMC Technologies Surface Integrated Services.

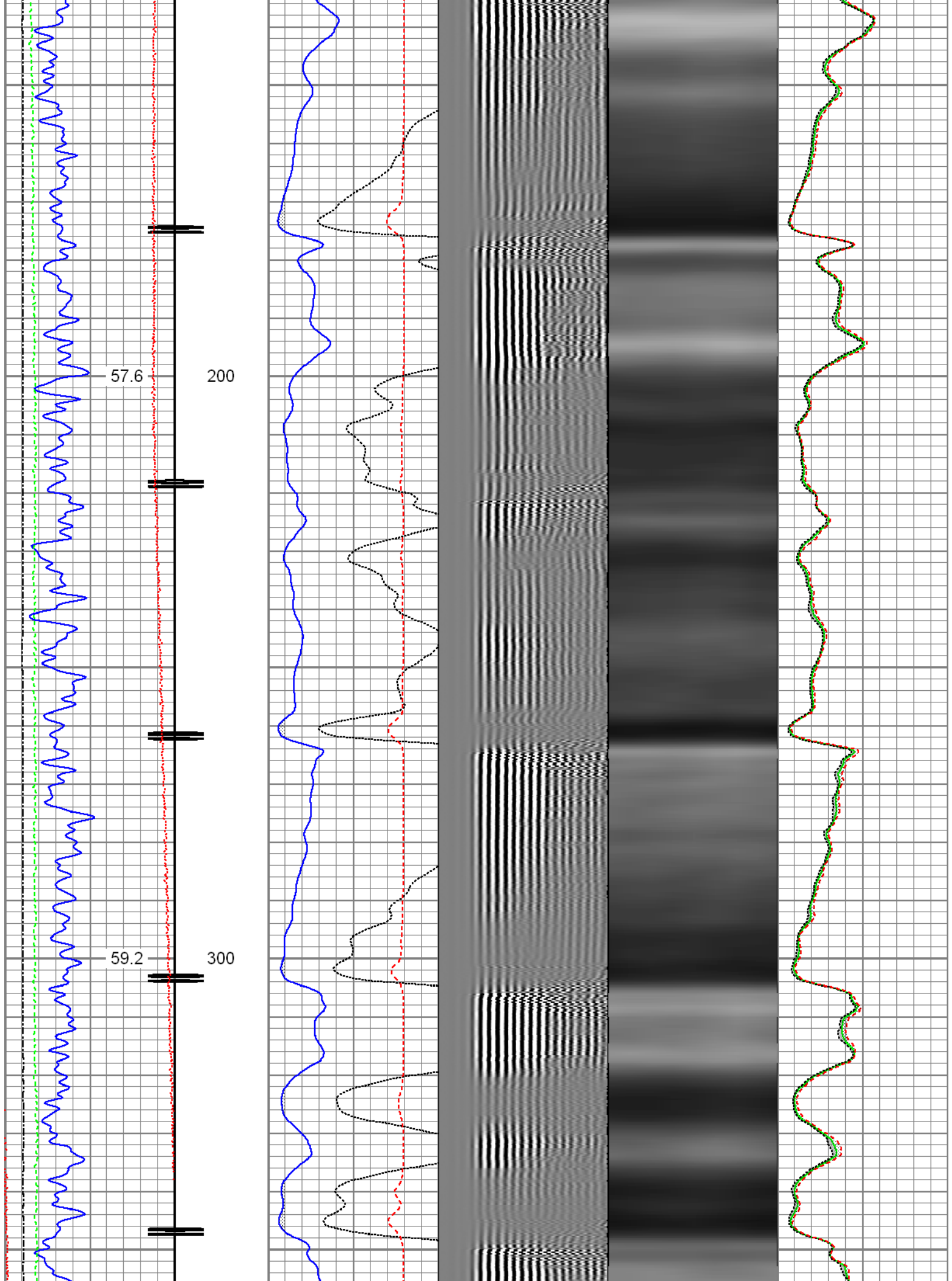


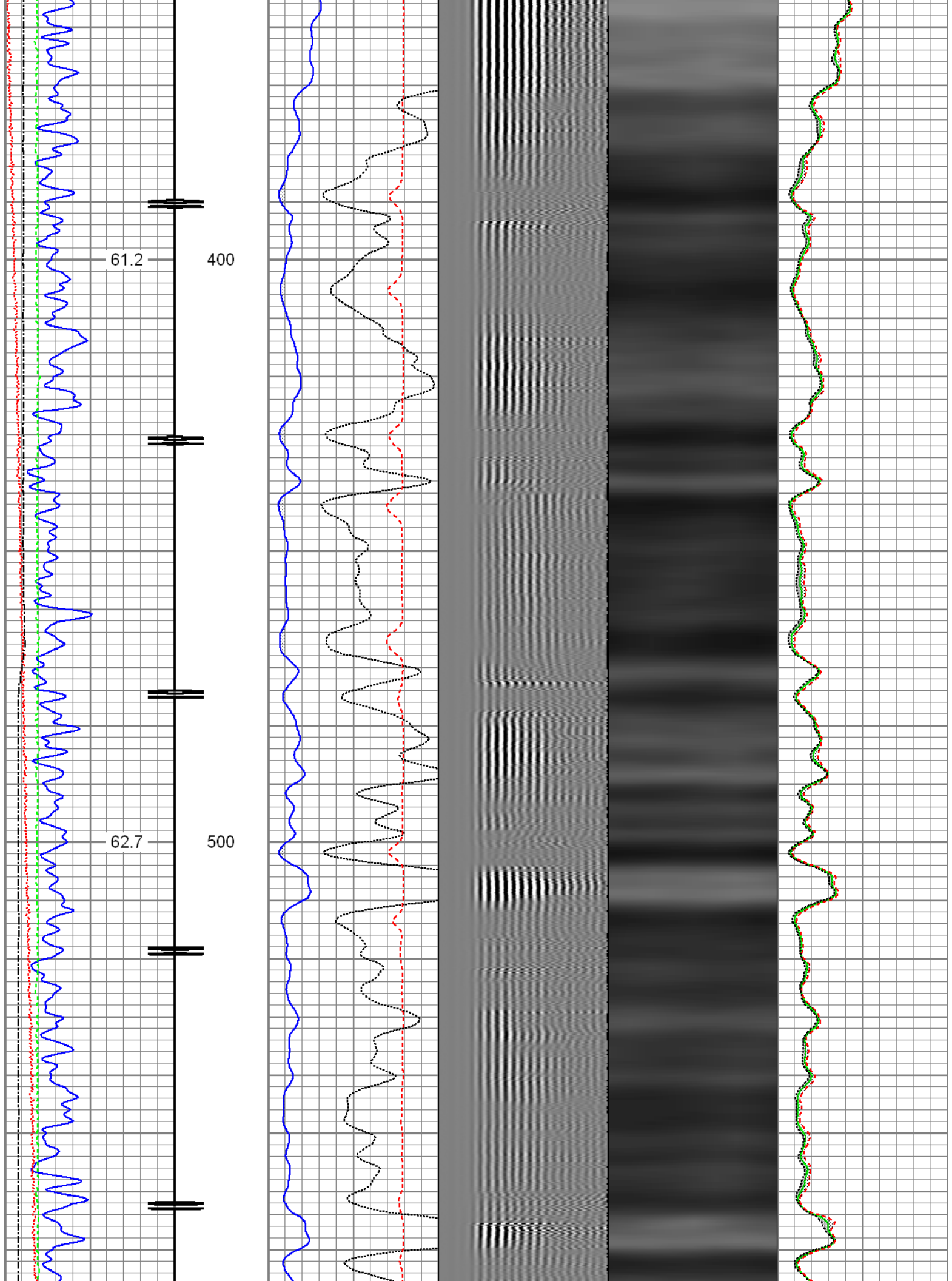
Main Pass

Recorded With 2800 PSI Surface Induced Pressure

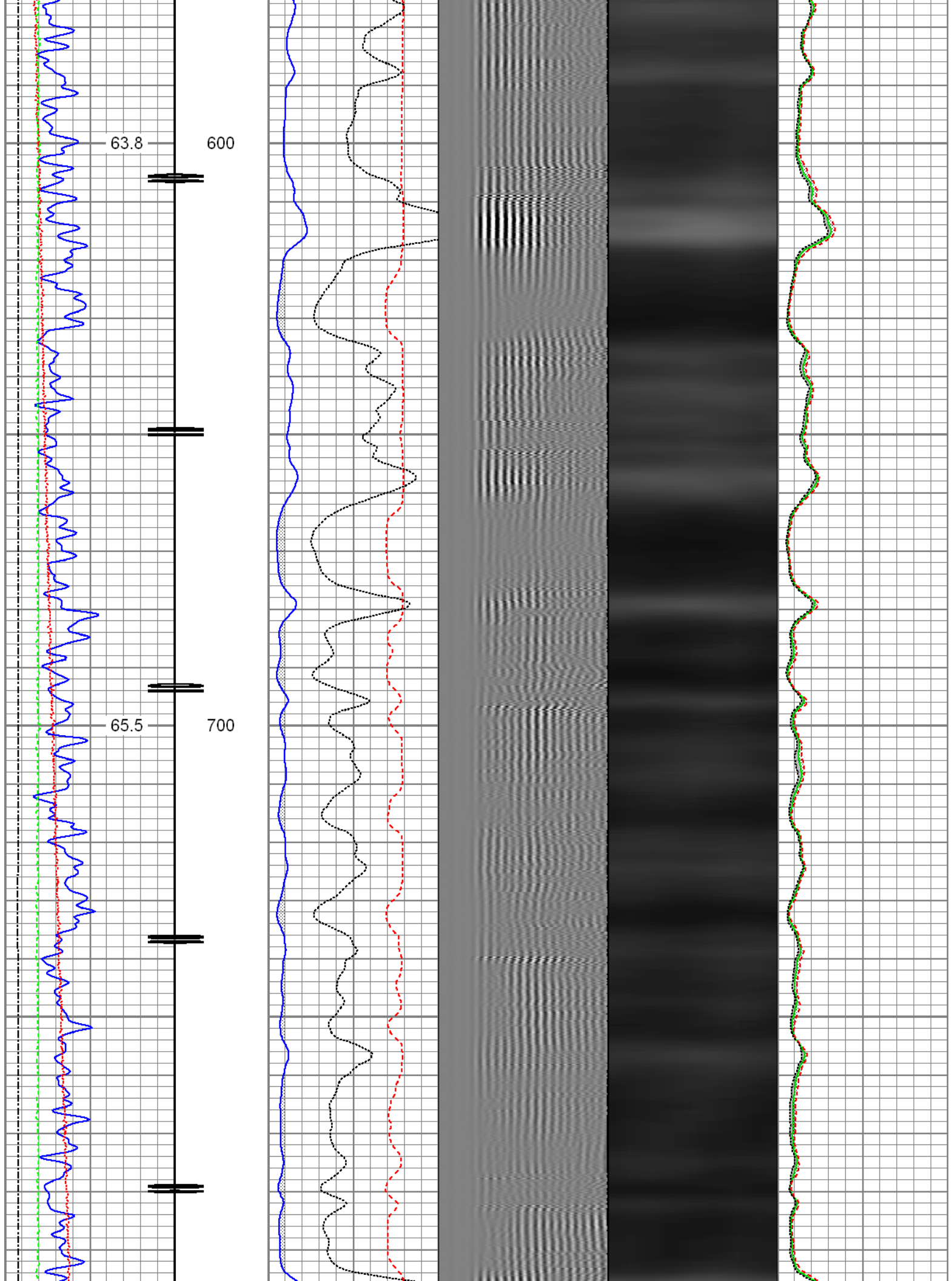
|                       |                  |                         |            |                   |
|-----------------------|------------------|-------------------------|------------|-------------------|
| Gamma Ray             | 3' Amplitude     | 5' Variable Density Log | Sector Map | Average Amplitude |
| 0 (GAPI) 120          | 0 (mV) 100       | 200 1200                |            | 0 100             |
| Casing Collar Locator | 3' Amplitude x 5 |                         |            | Mimimum Amplitude |
| Temperature           | 0 (mV) 20        |                         |            | 0 100             |
| 0 (degF) 20           | 3' Travel Time   |                         |            | Maximum Amplitude |
| Line Speed            | 650 (usec) 150   |                         |            | 0 100             |
| -150 (ft/min) 150     |                  |                         |            |                   |
| Line Tension          |                  |                         |            |                   |
| 0 (lb) 2000           |                  |                         |            |                   |

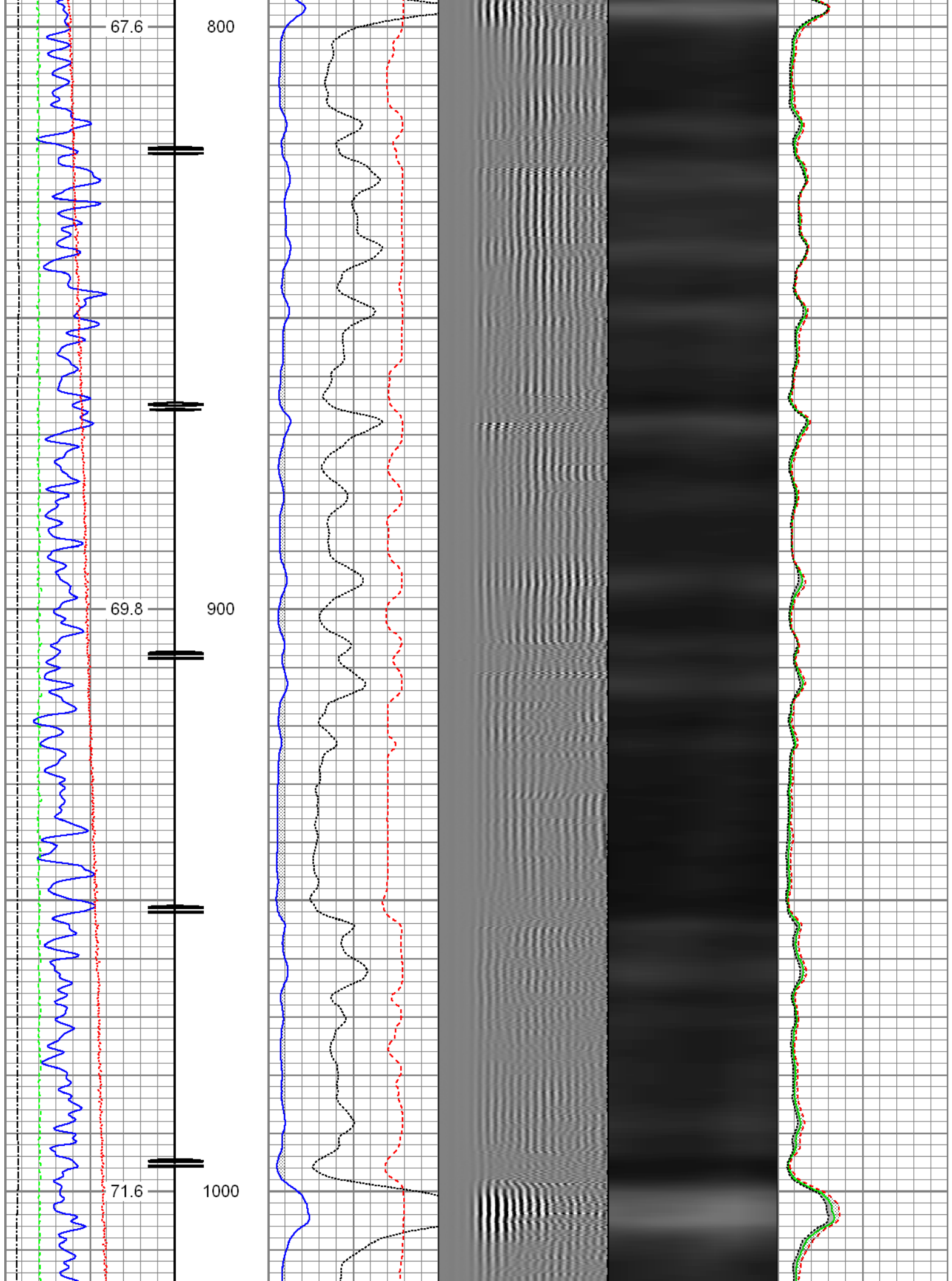


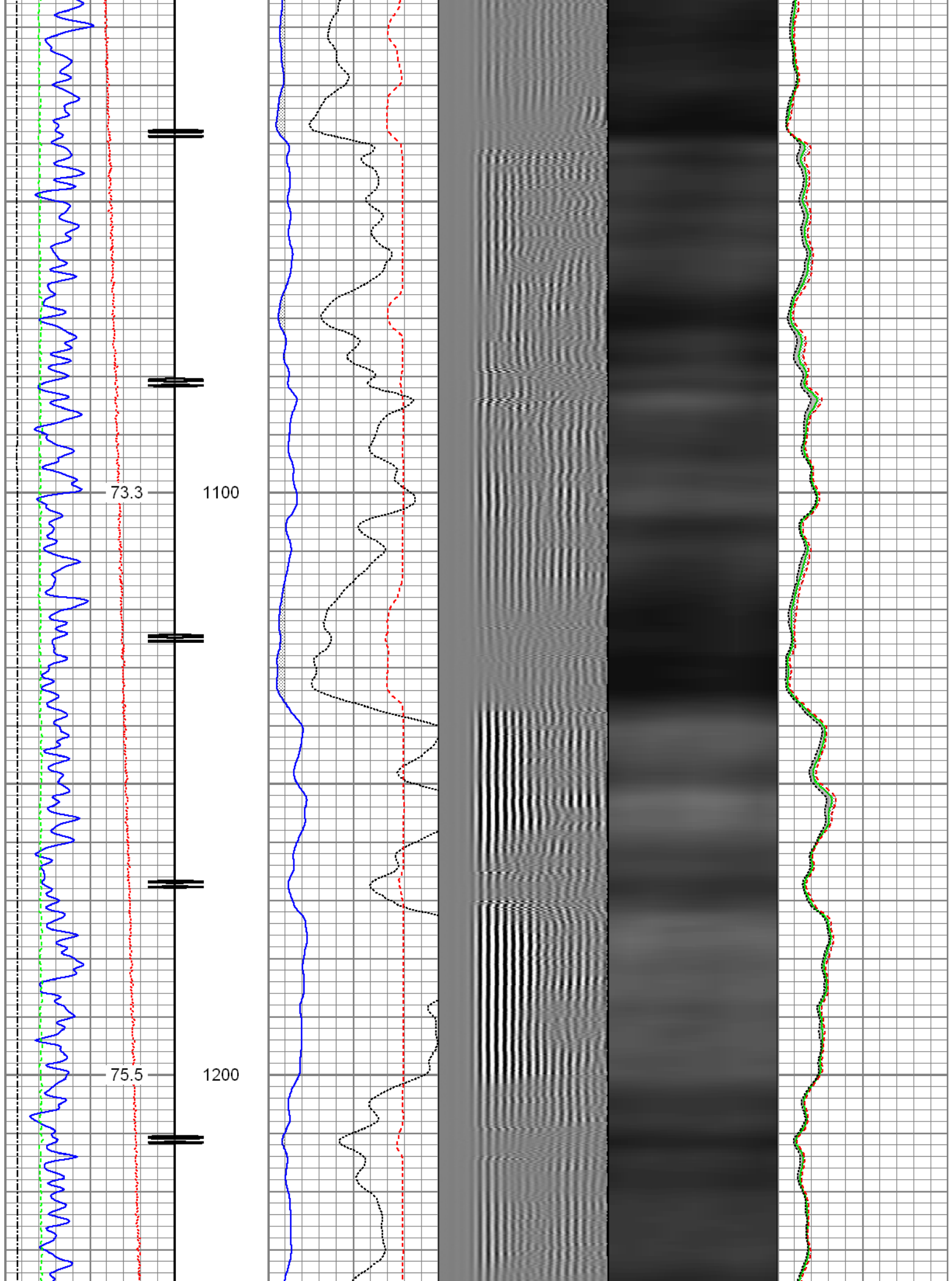


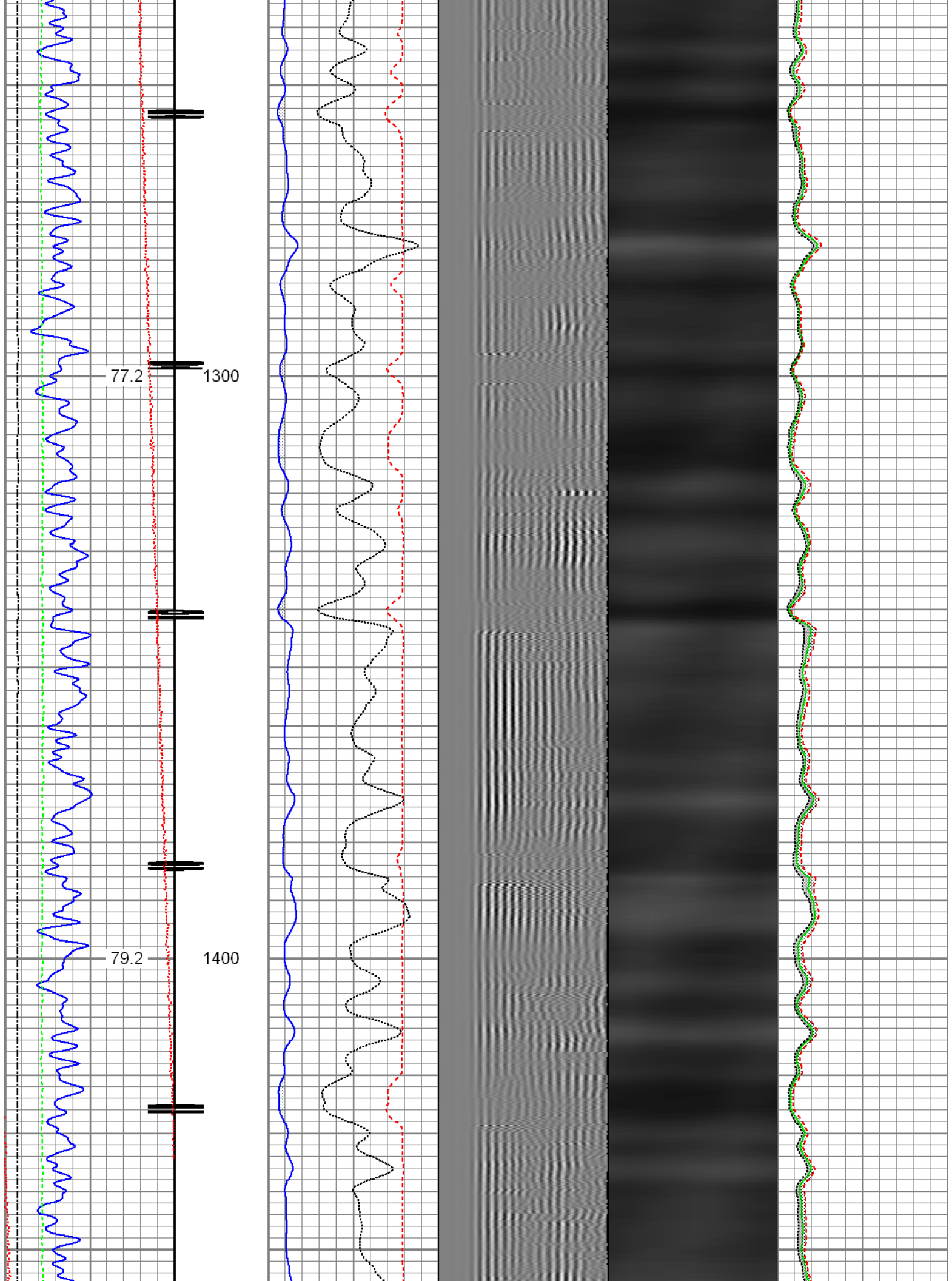




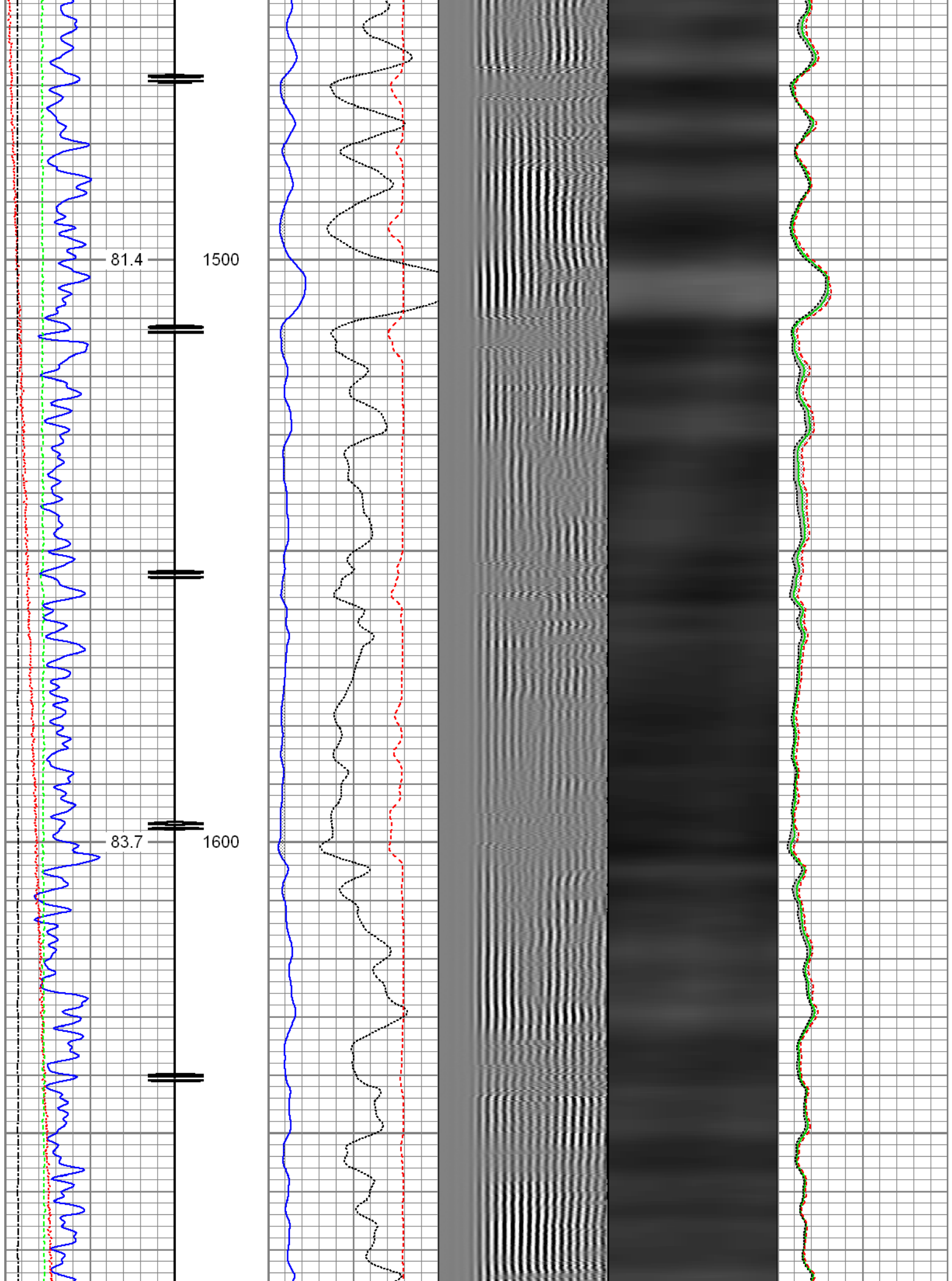


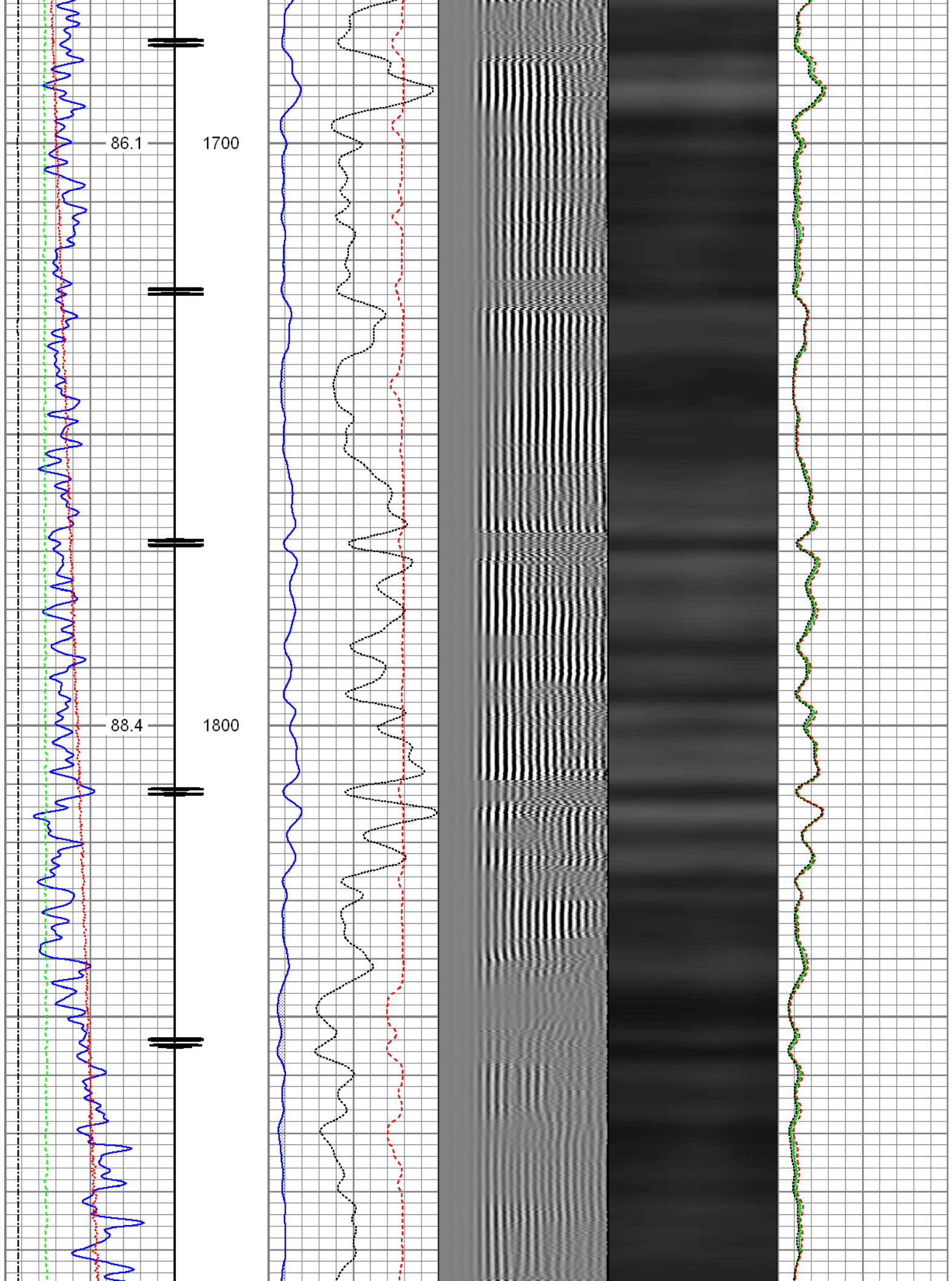


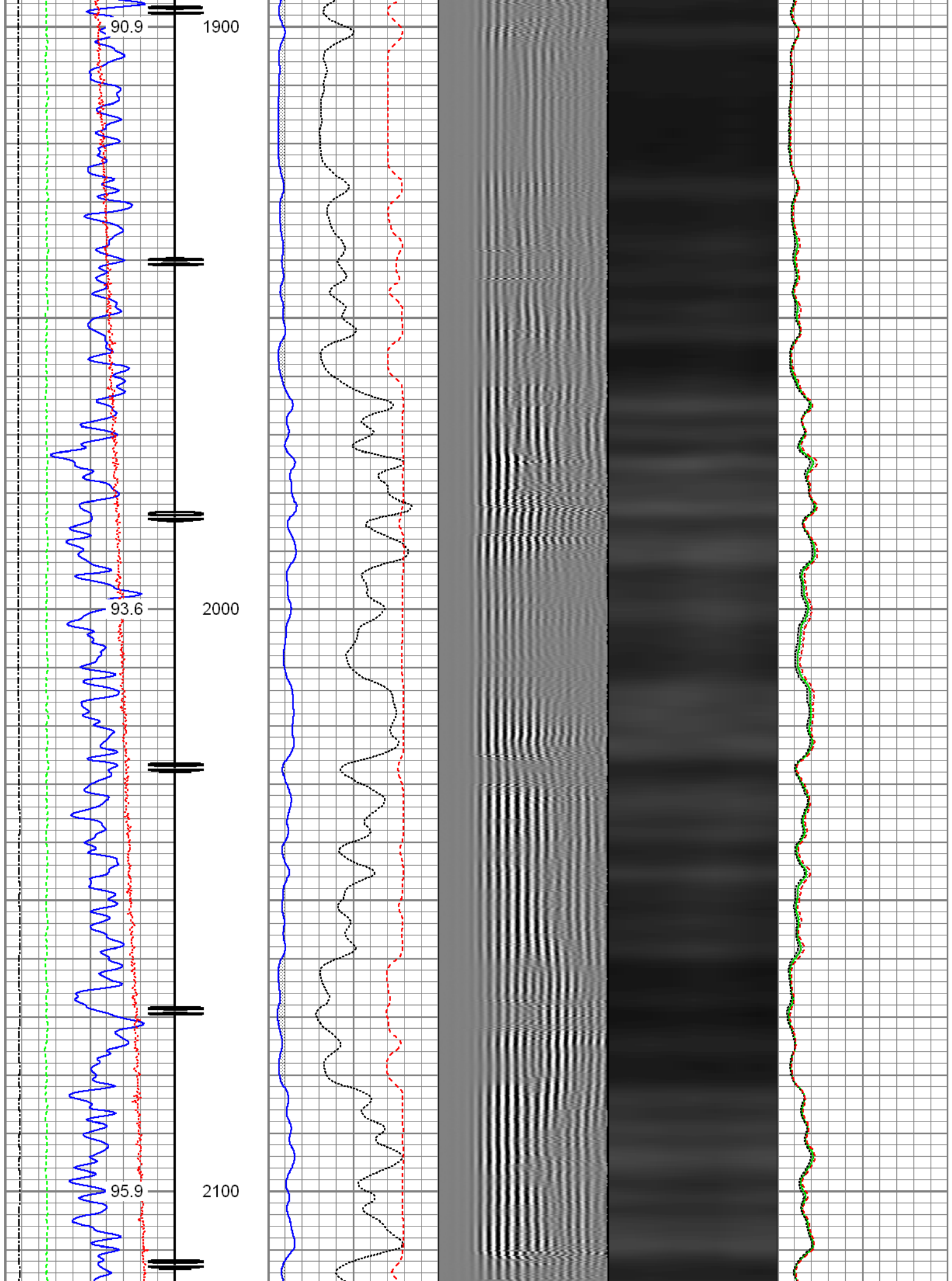


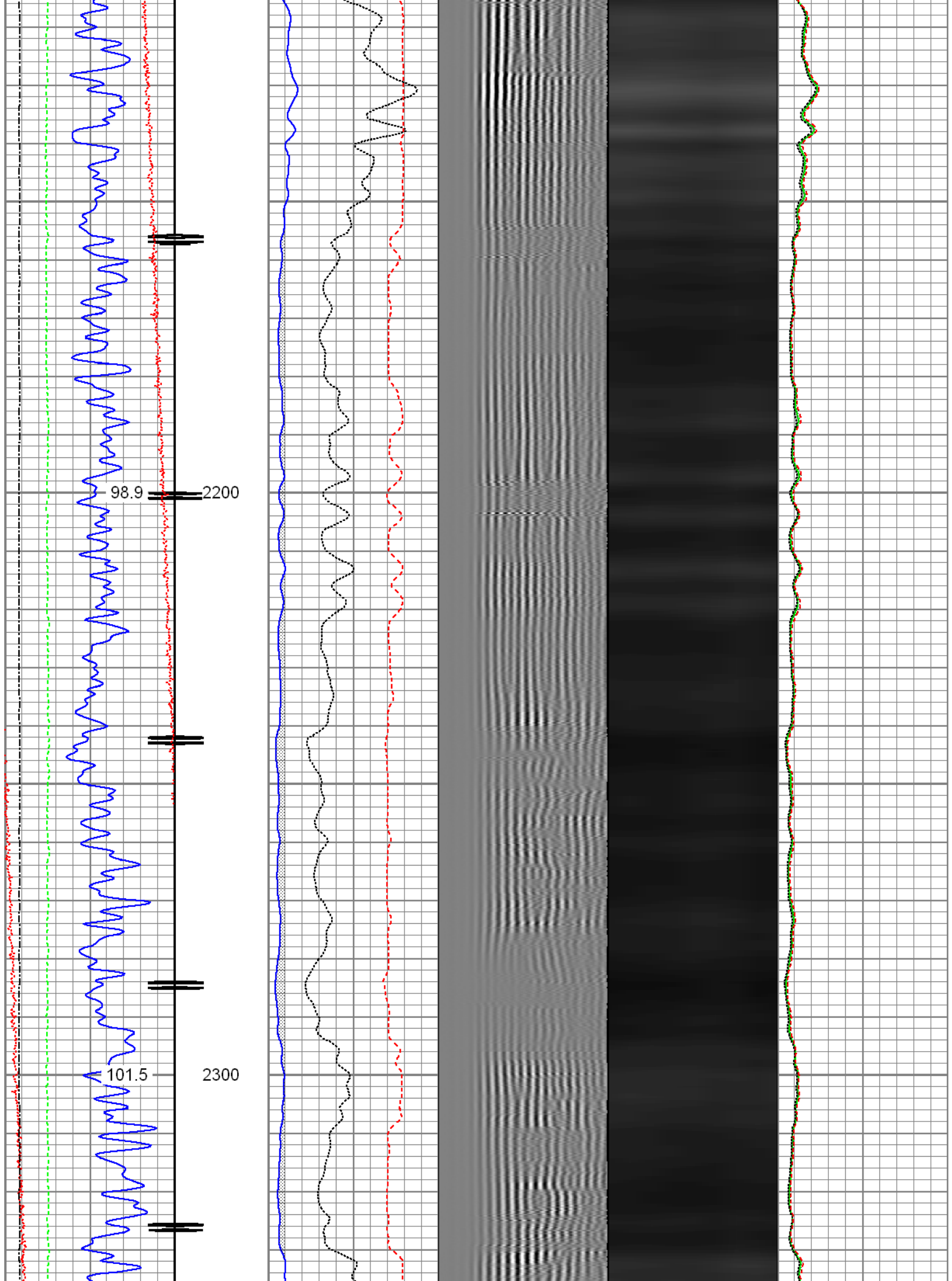




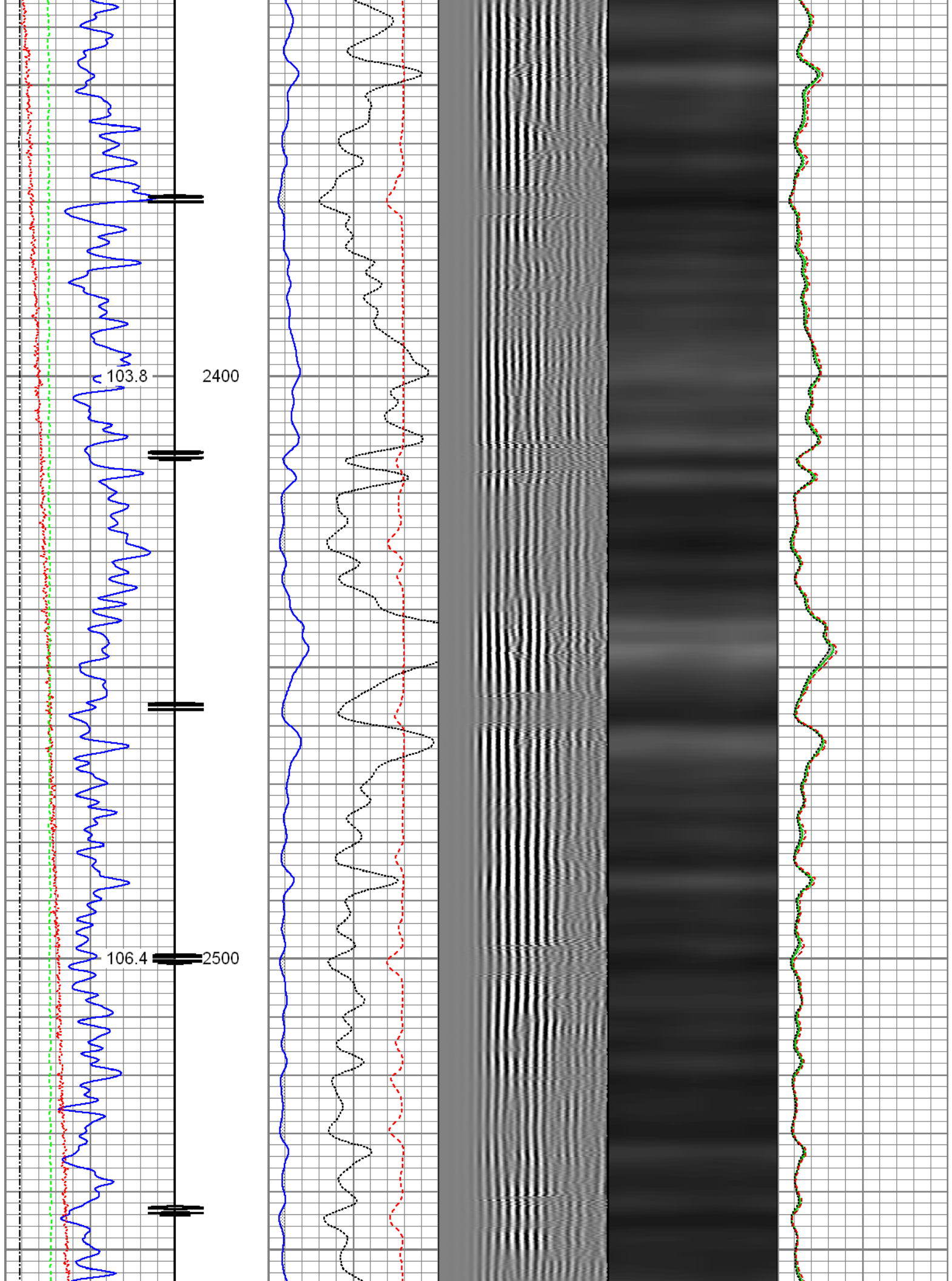


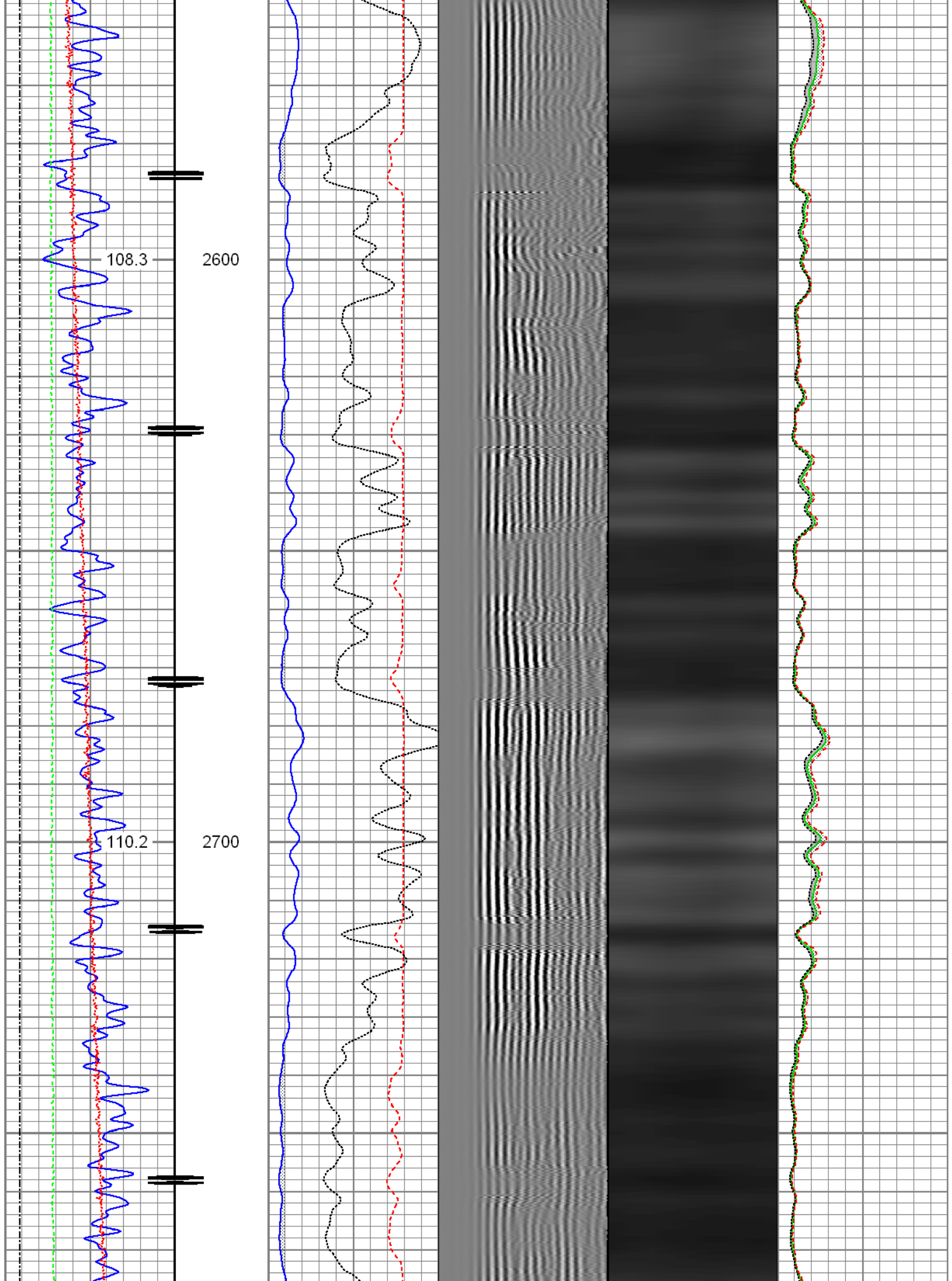


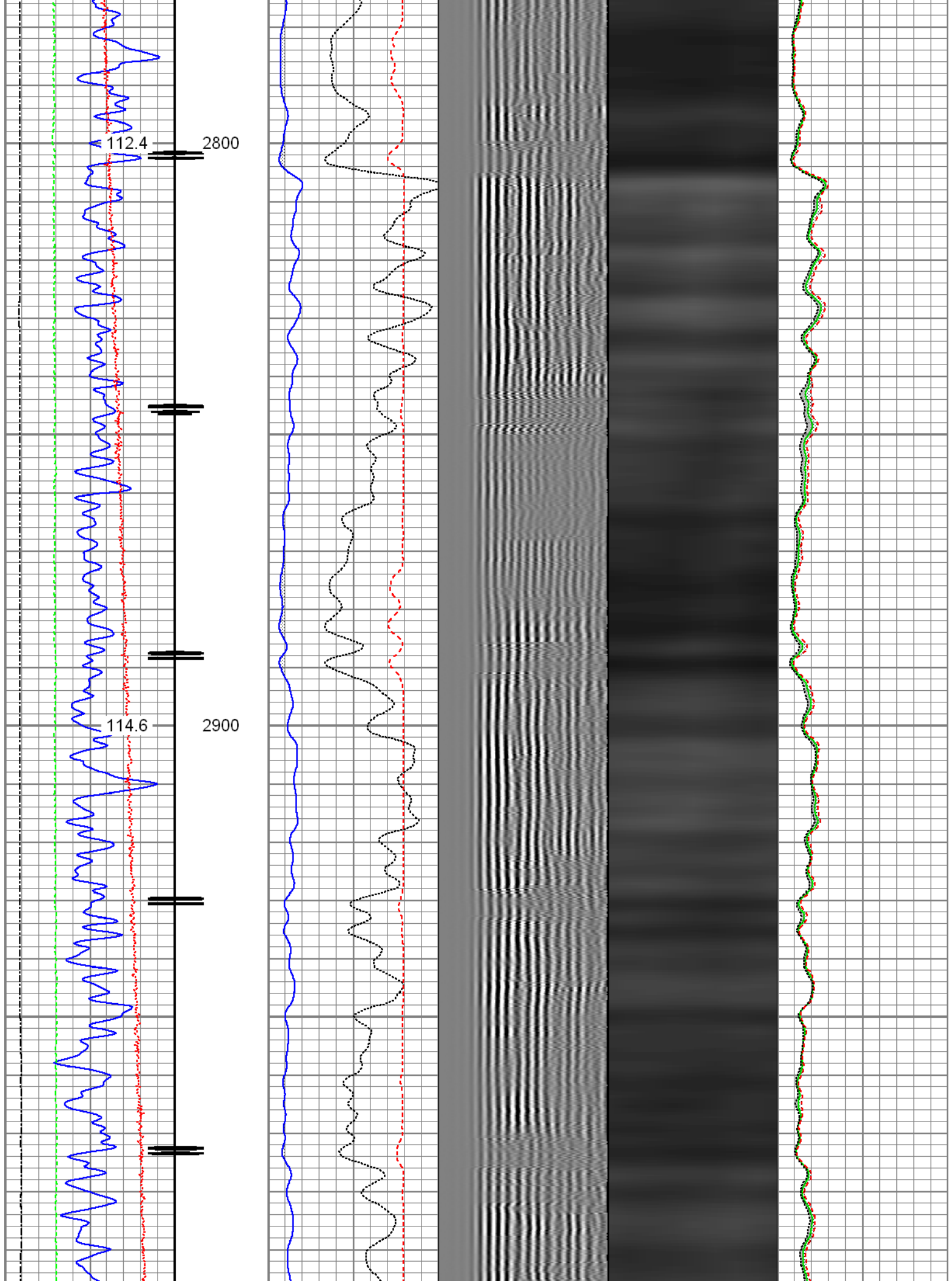


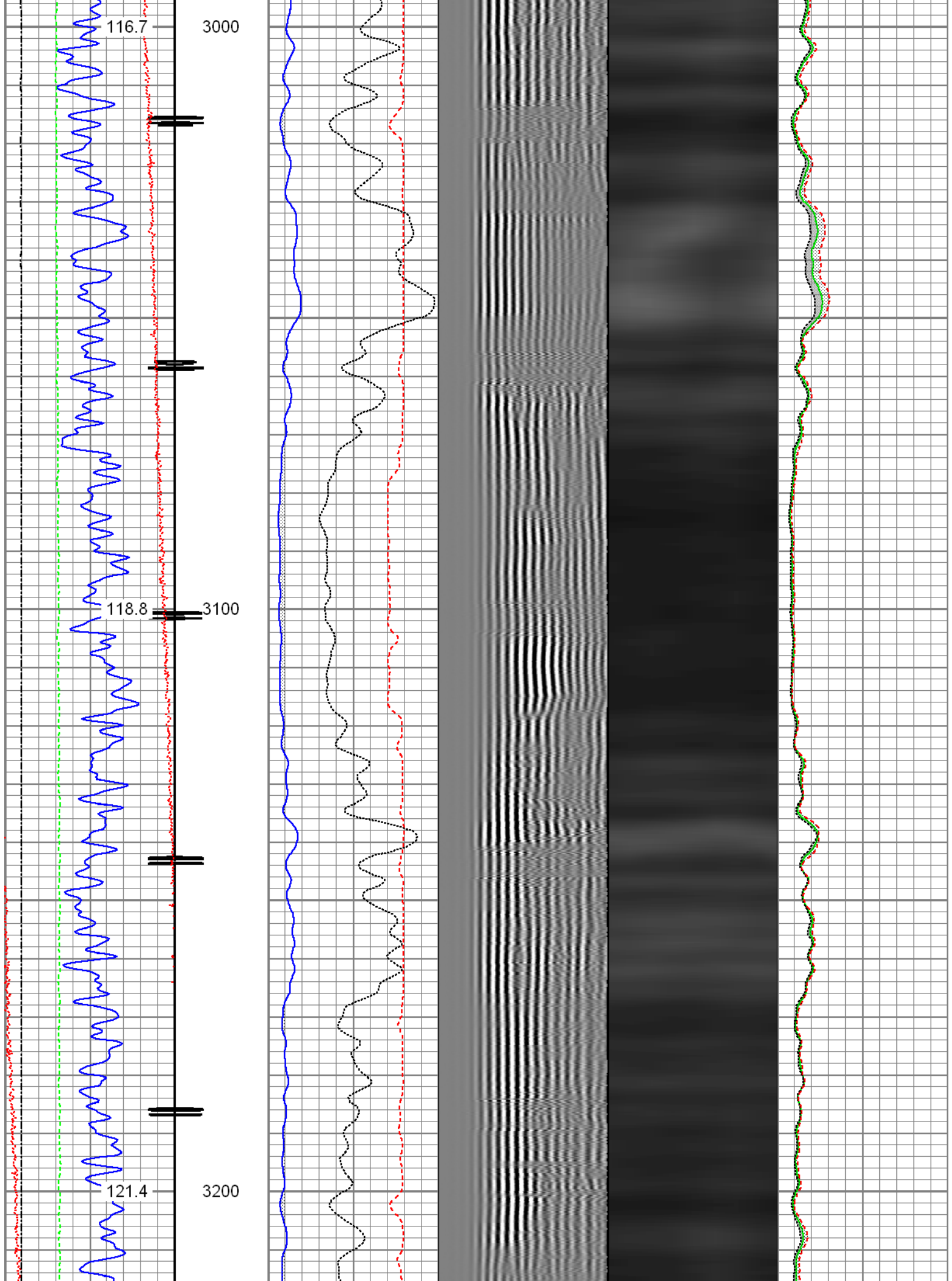




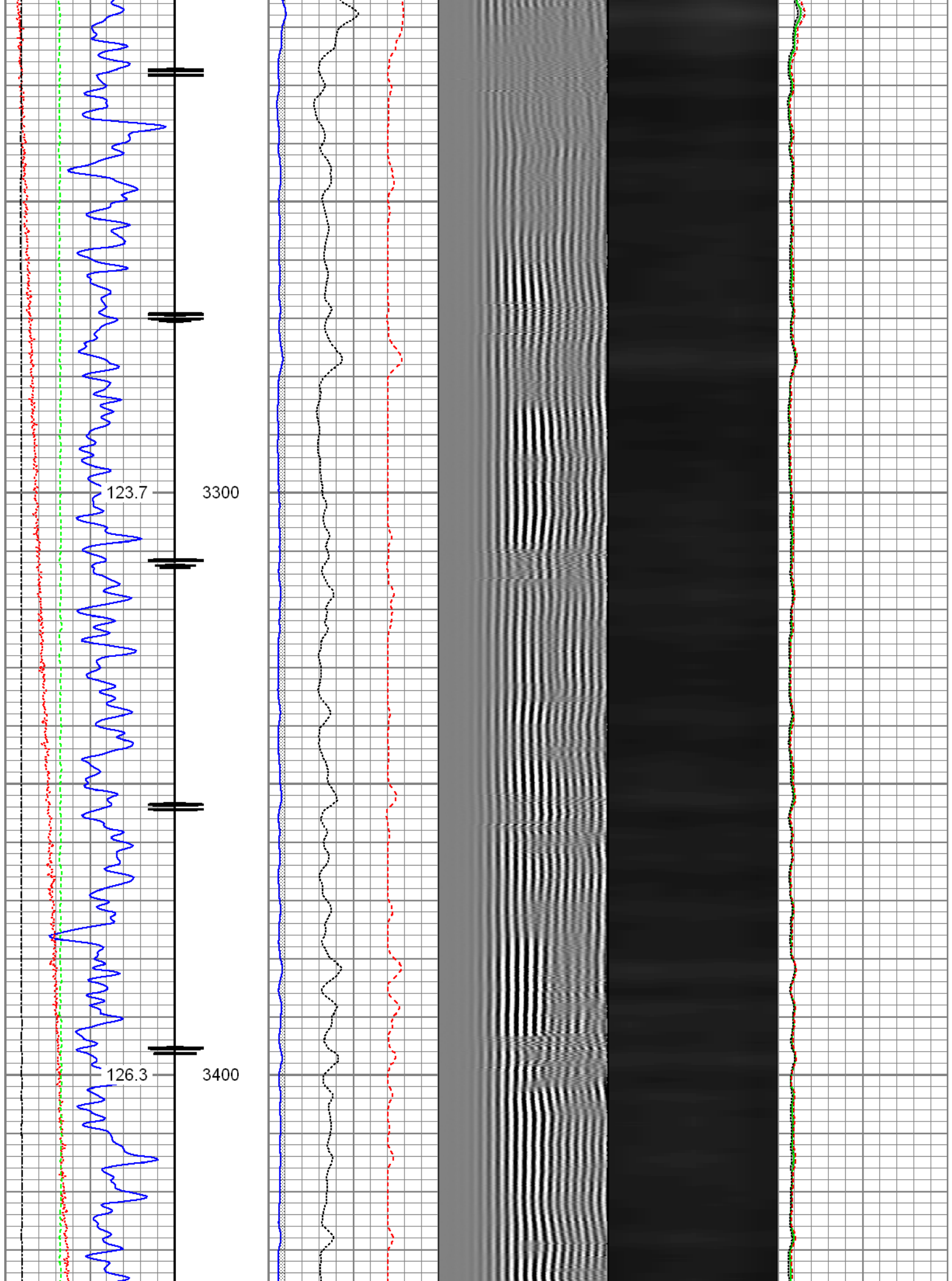


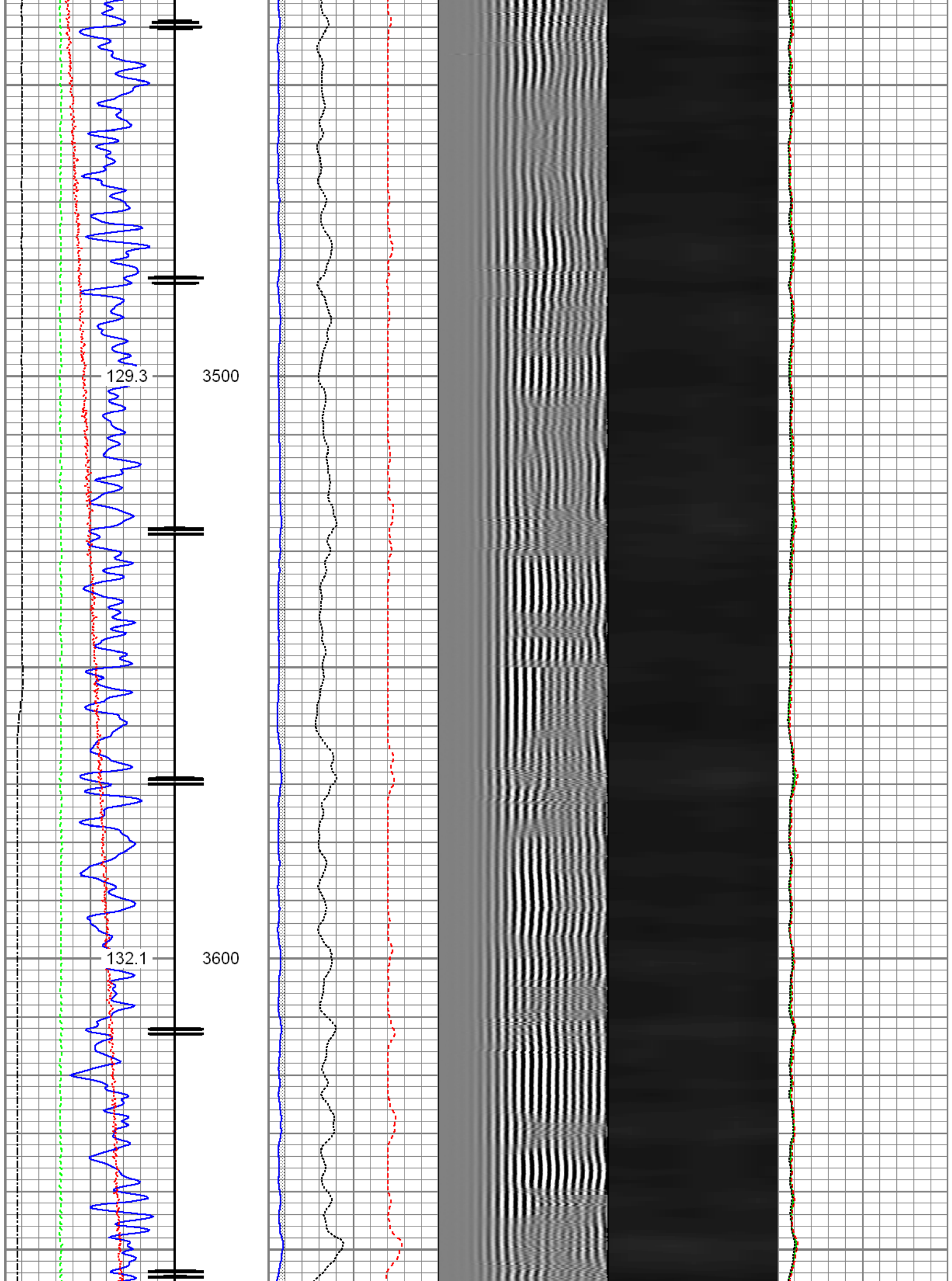


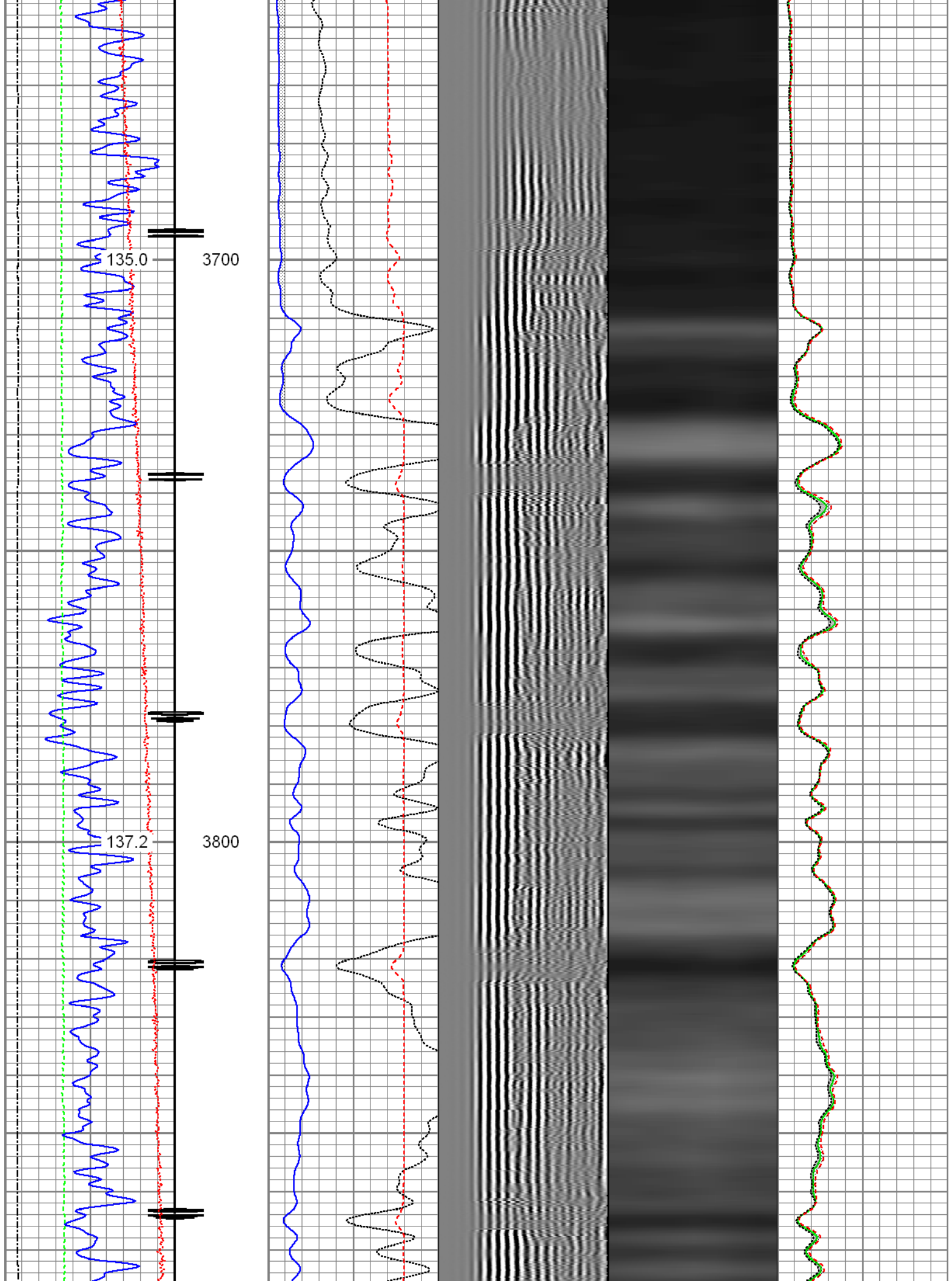


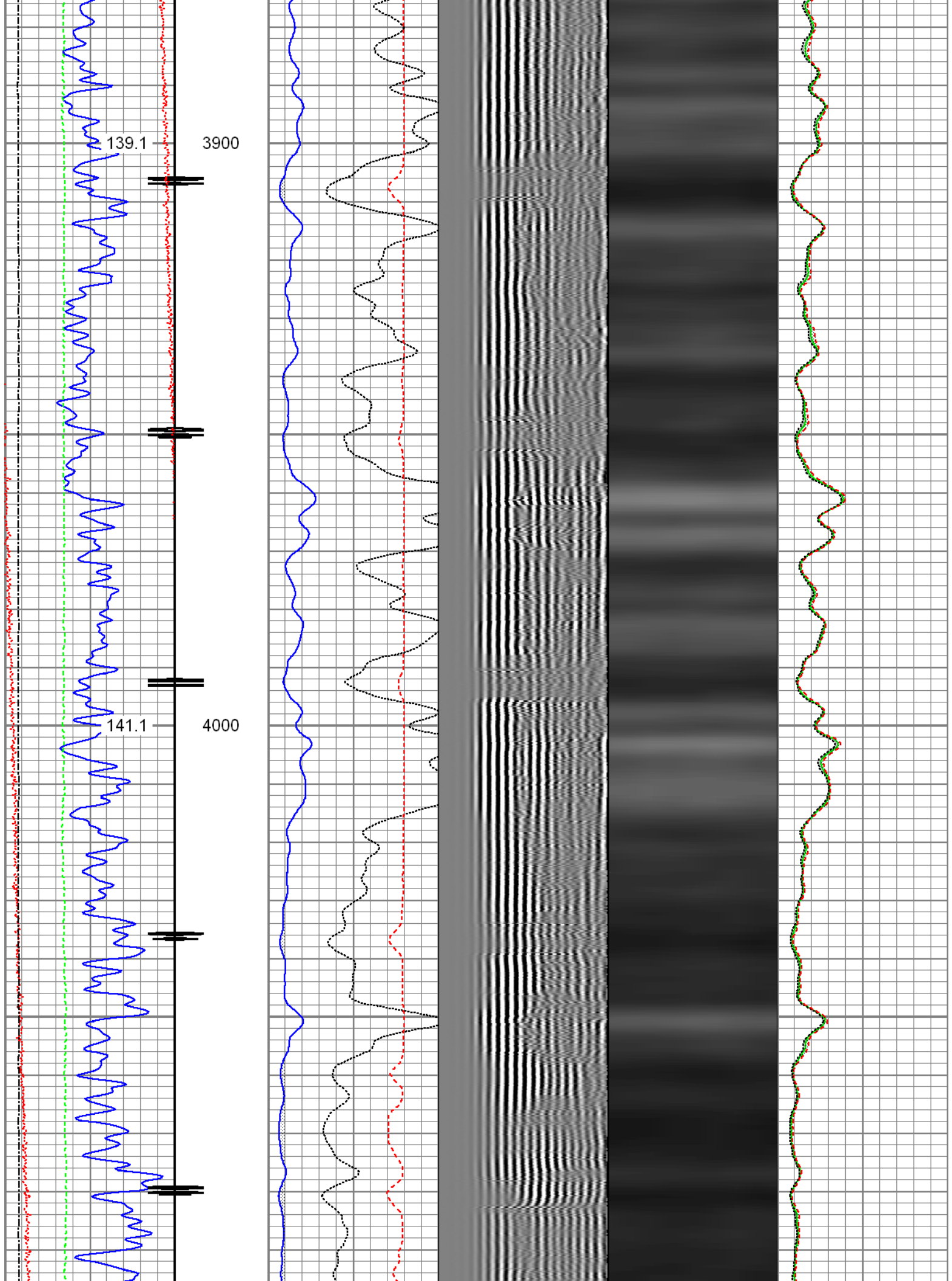




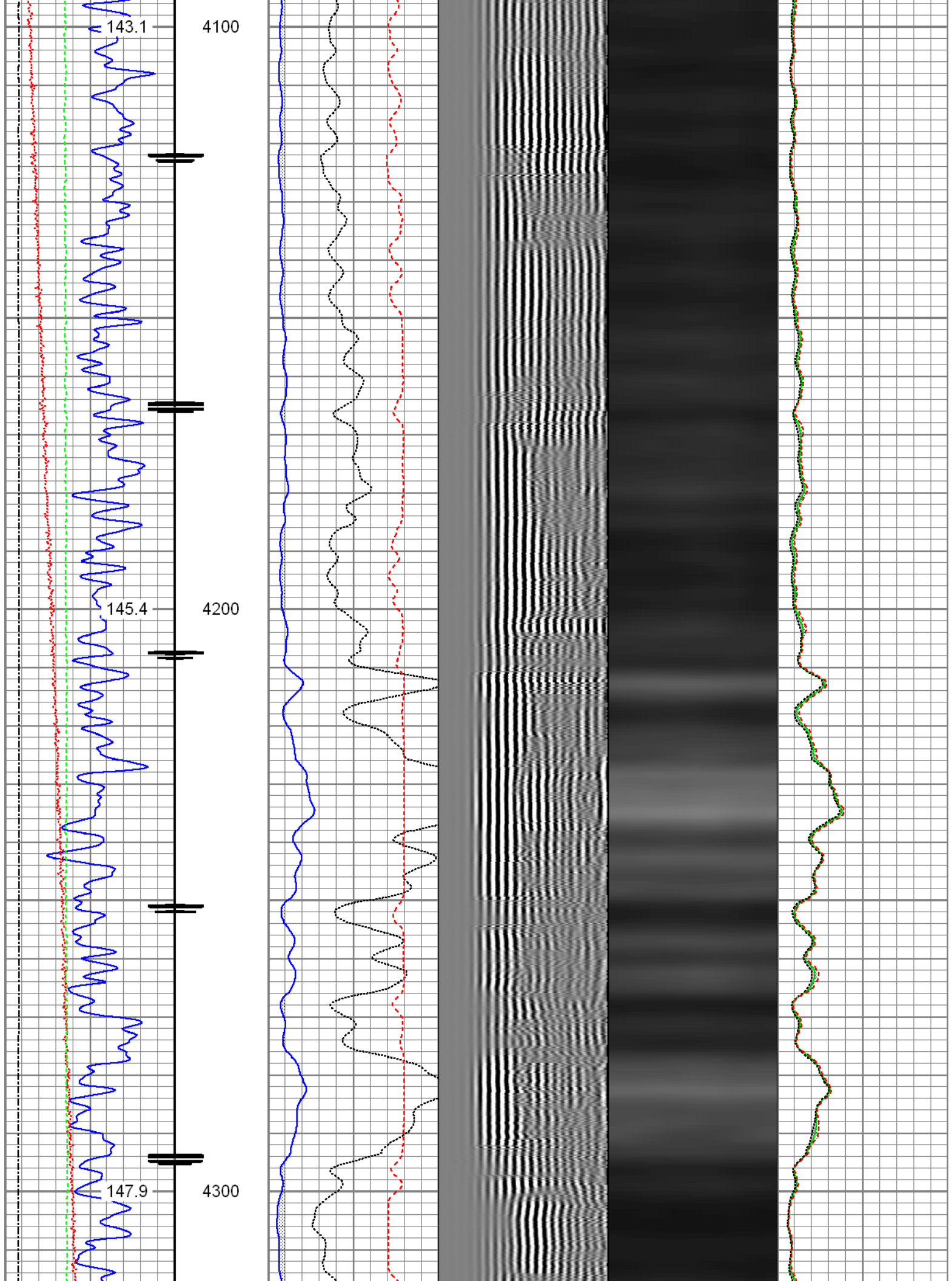


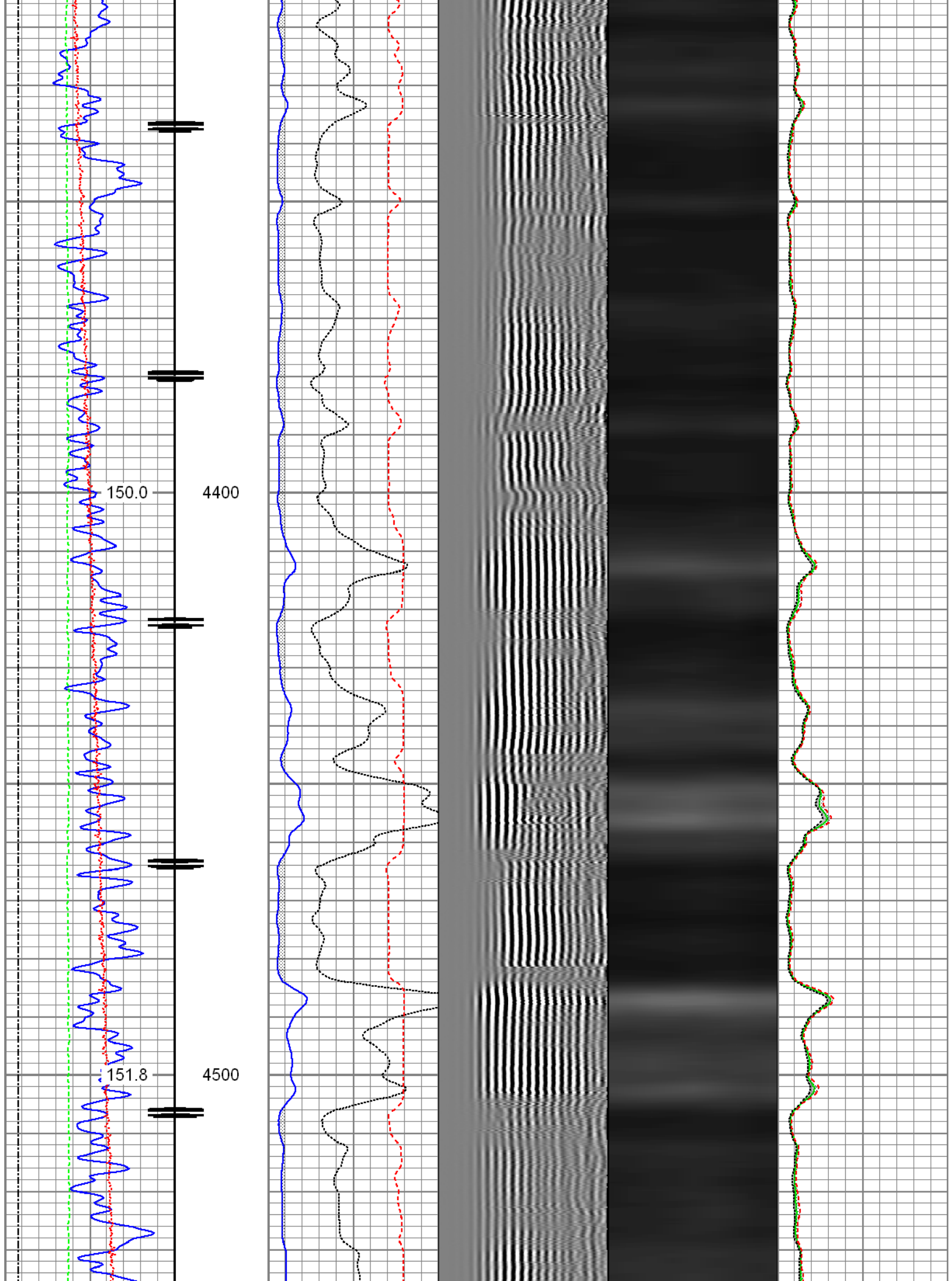


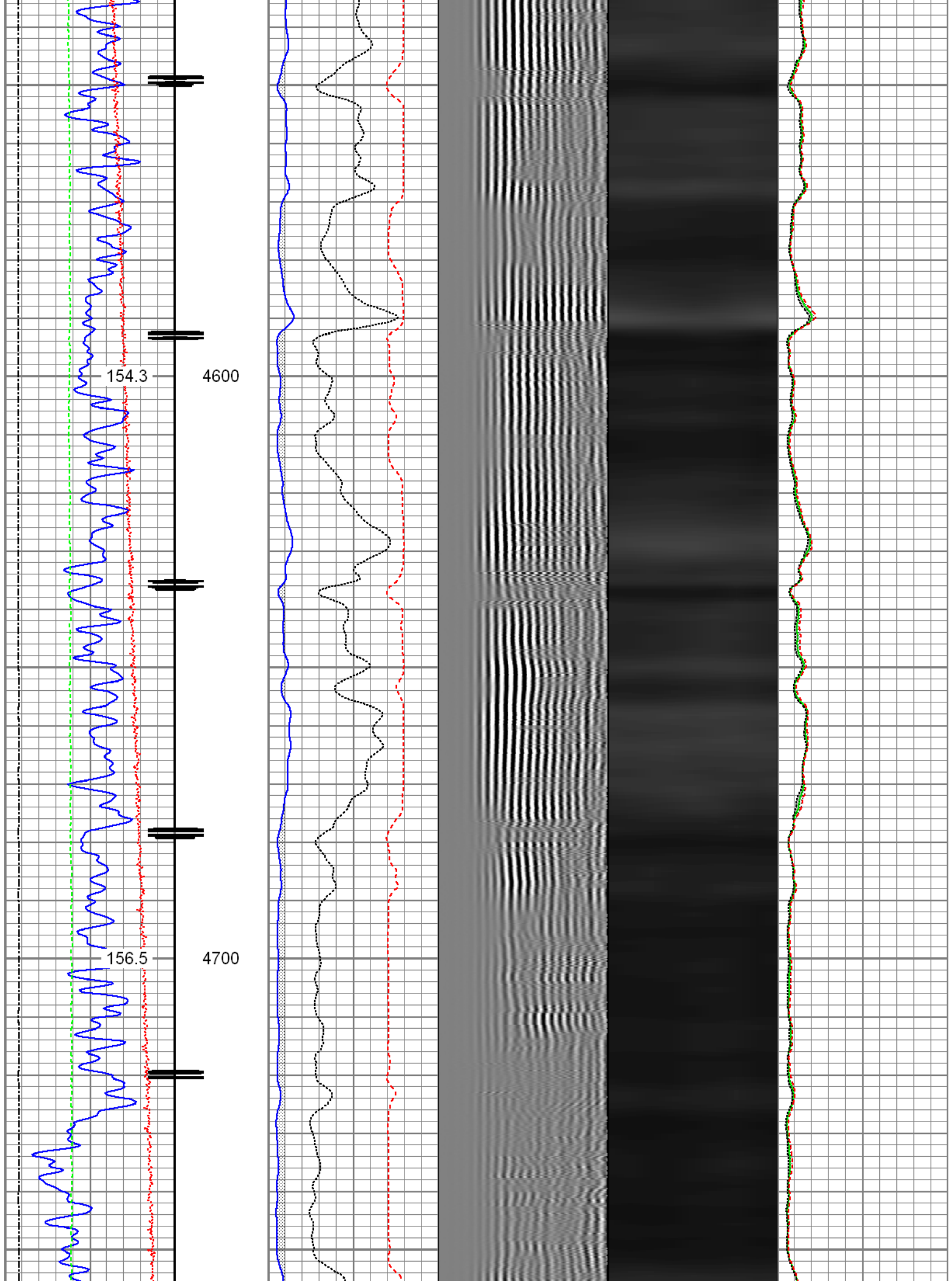


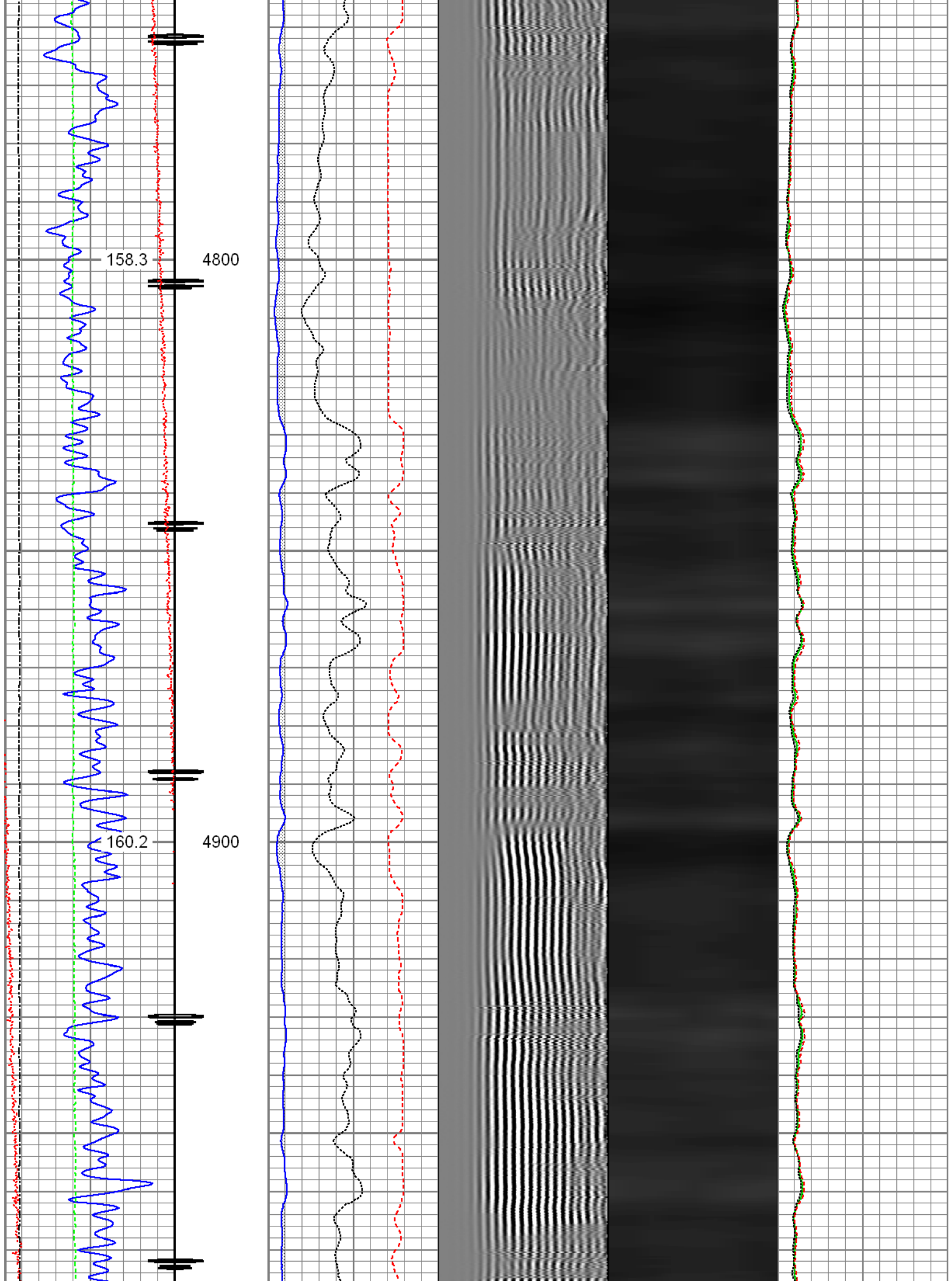




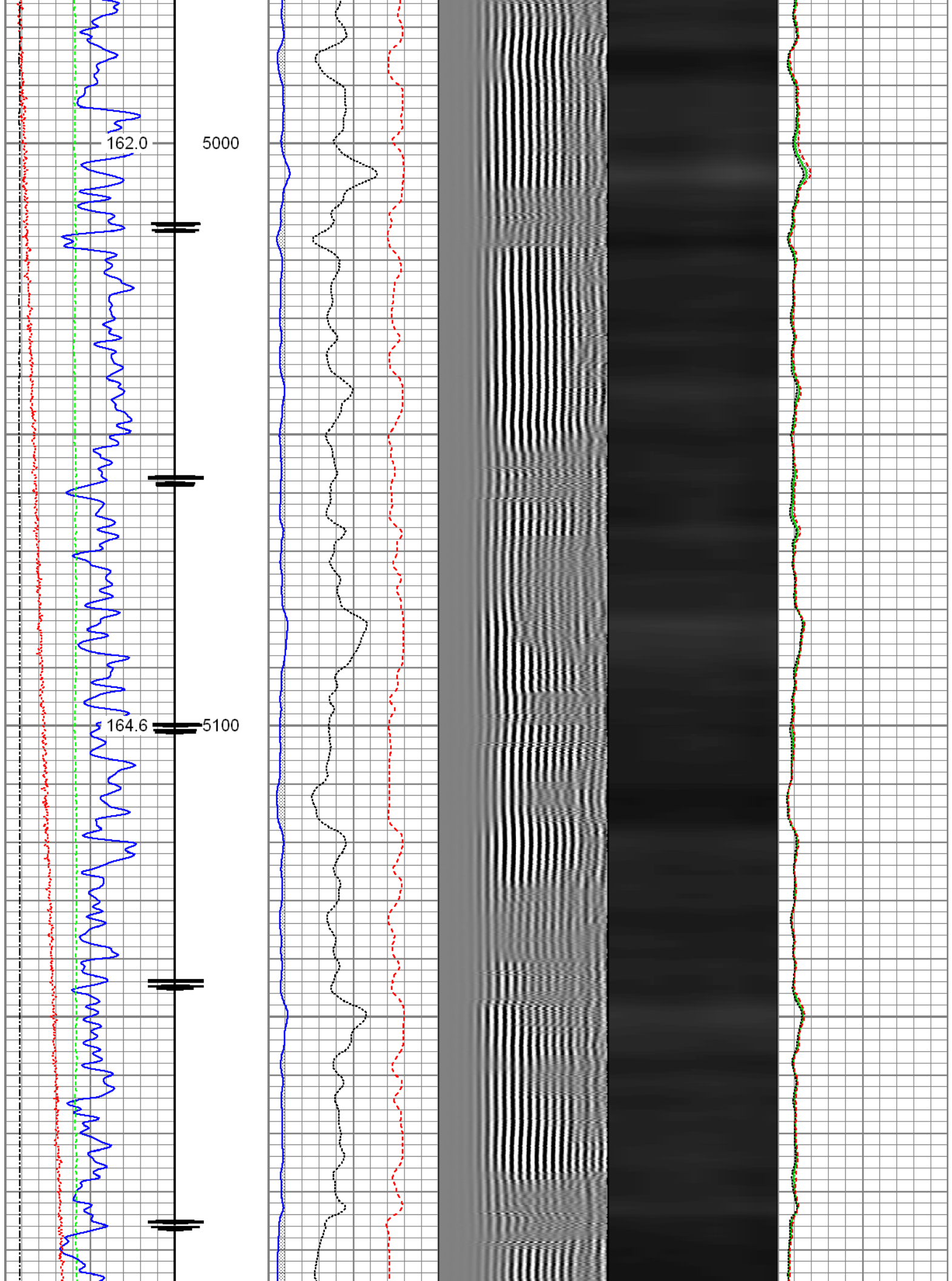


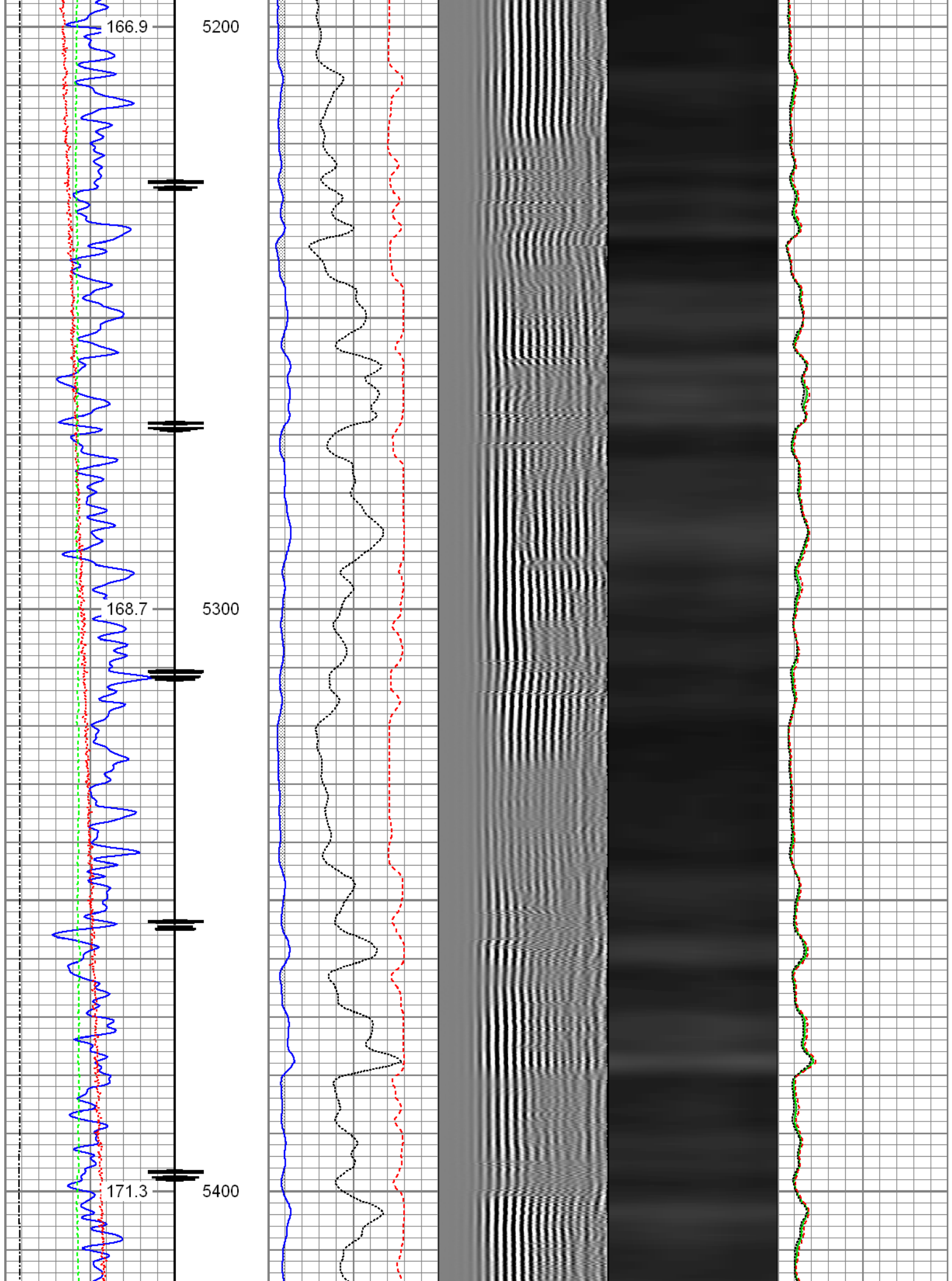


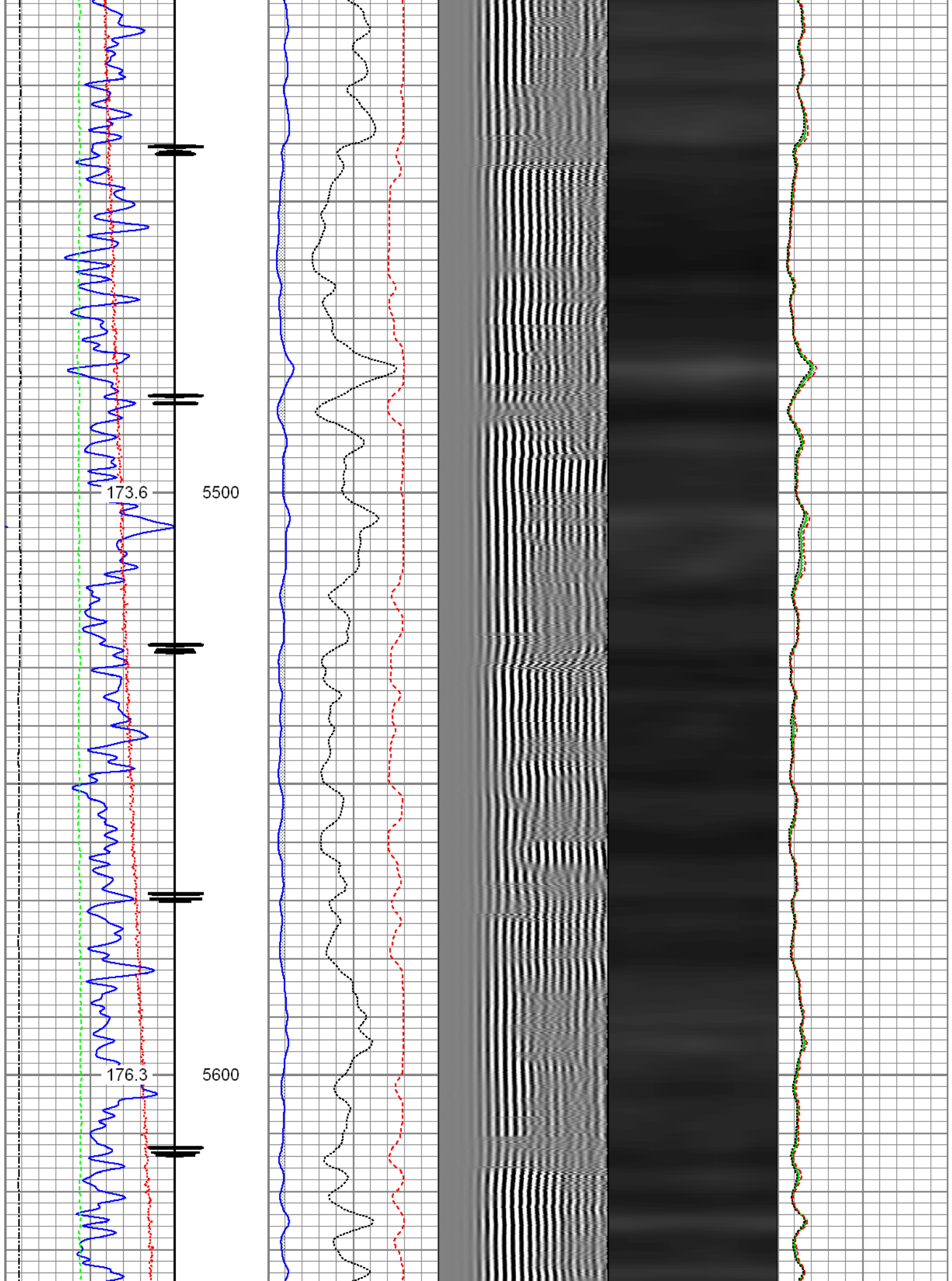


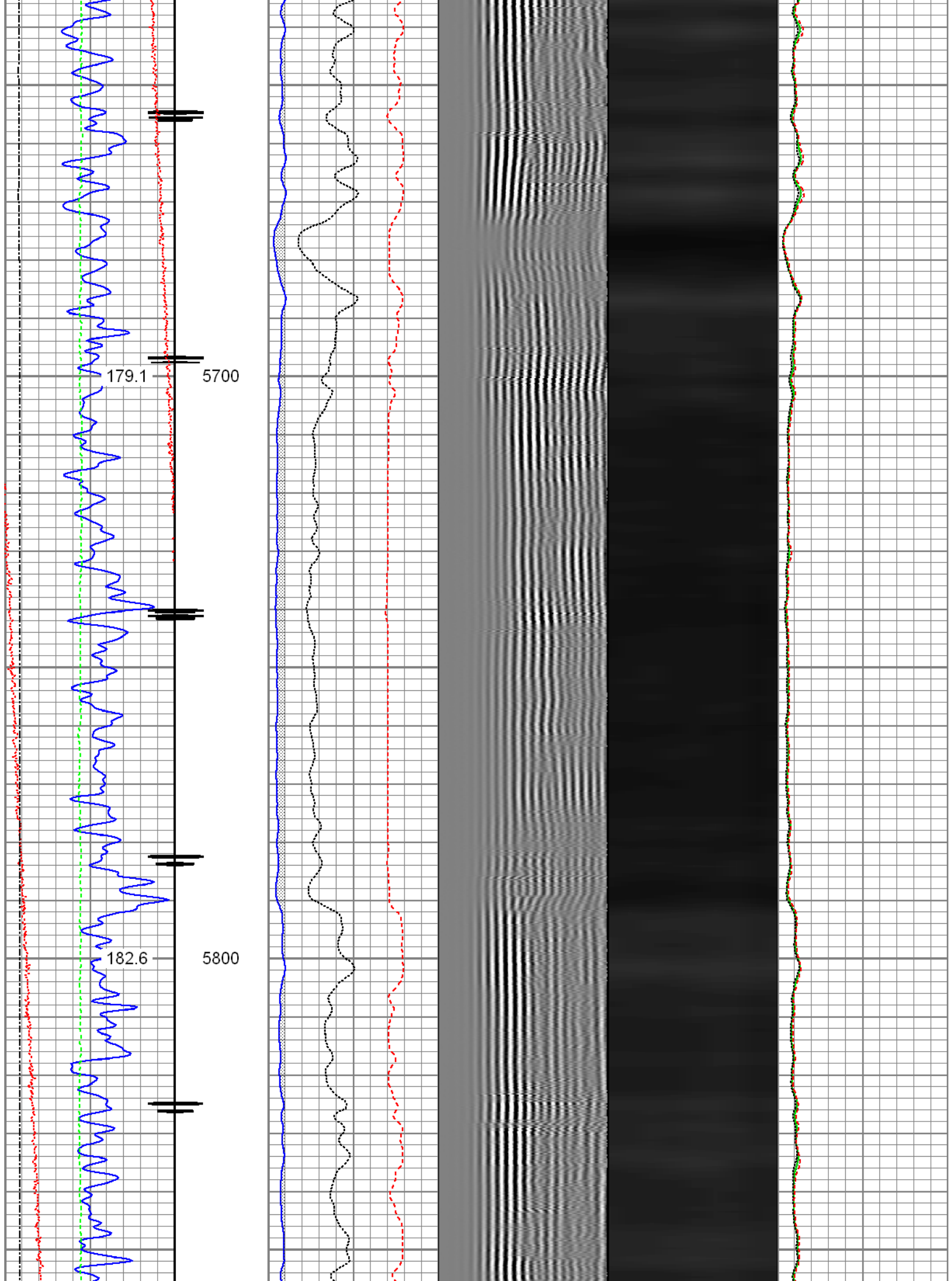




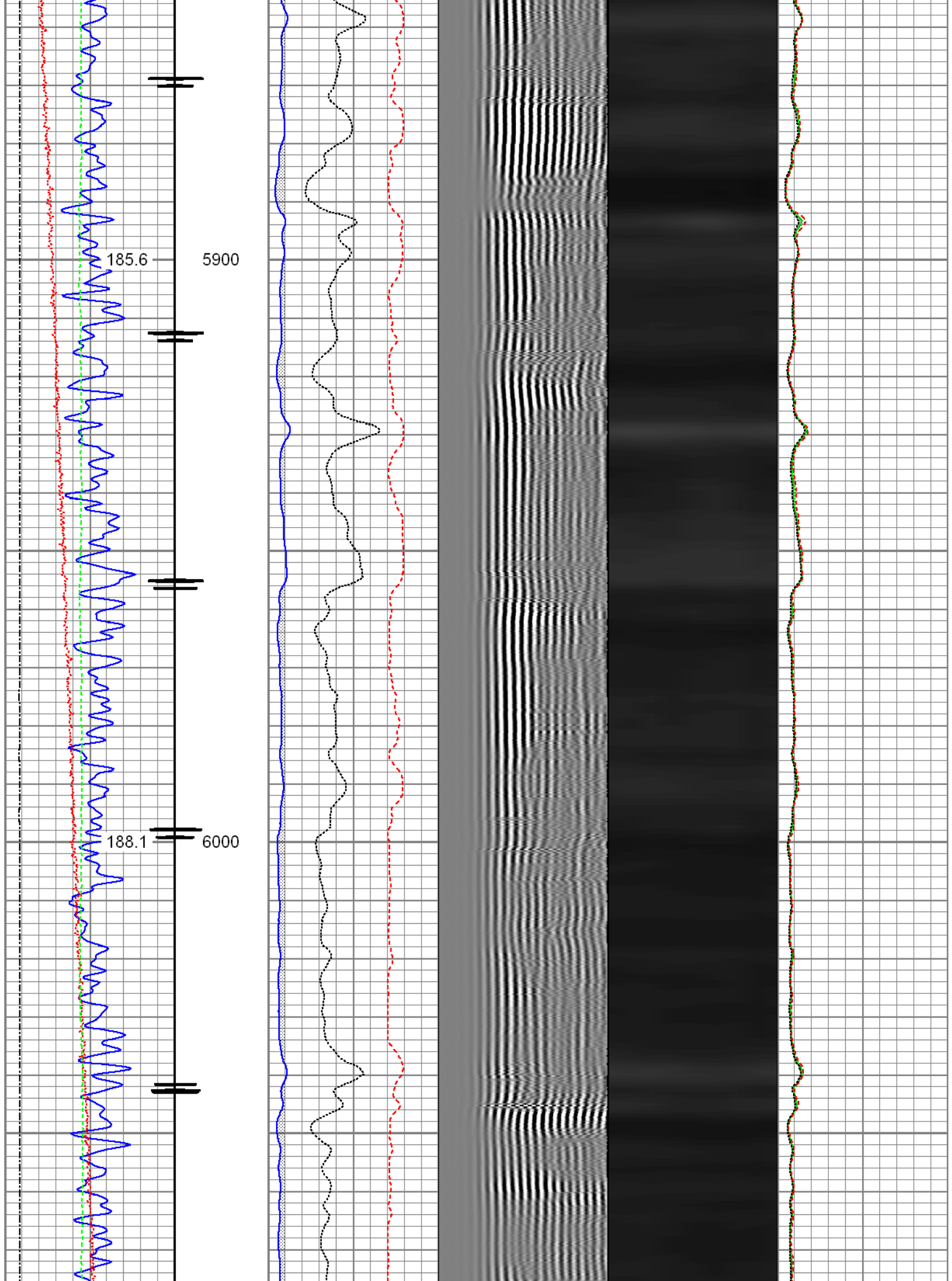


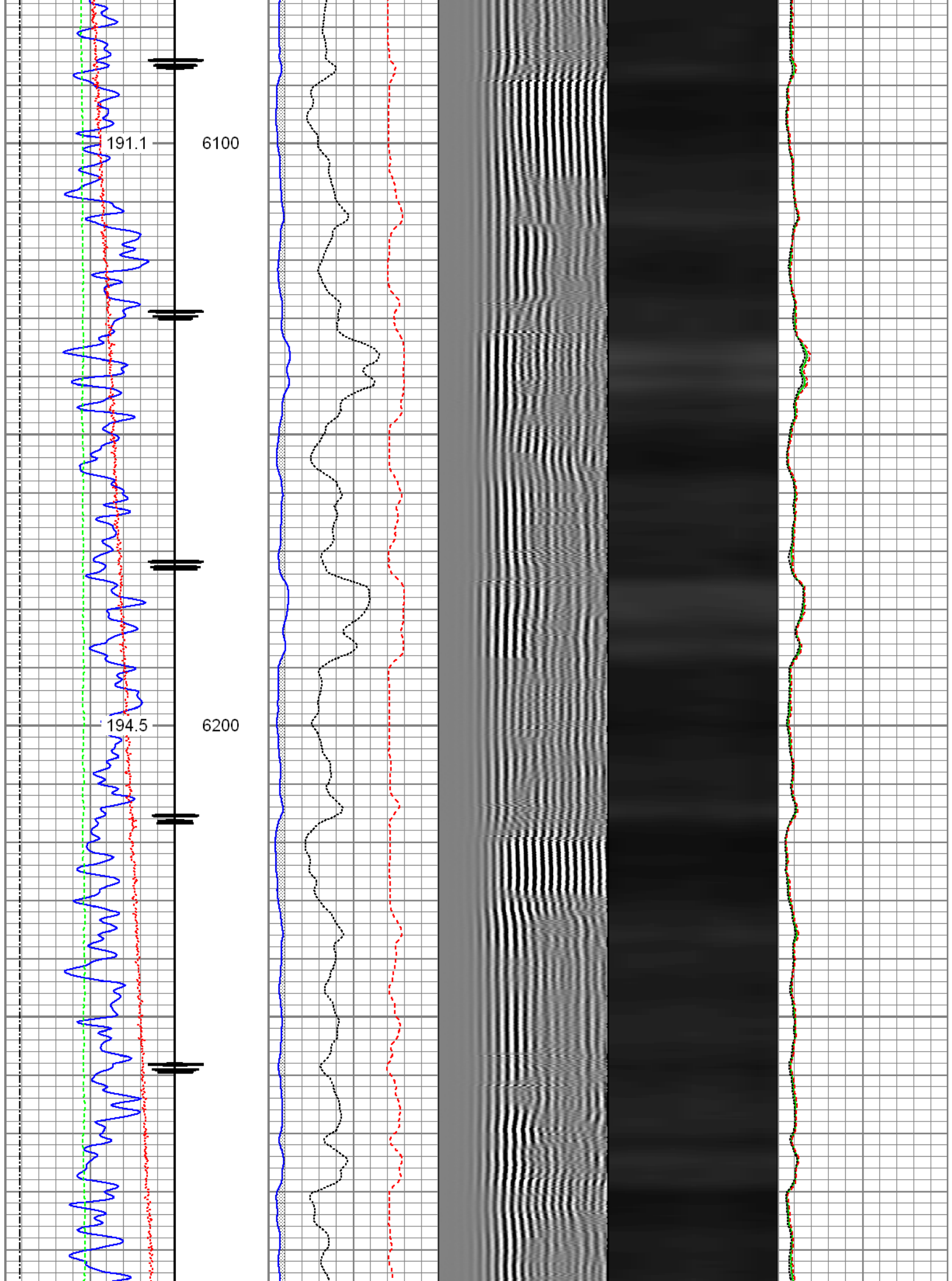


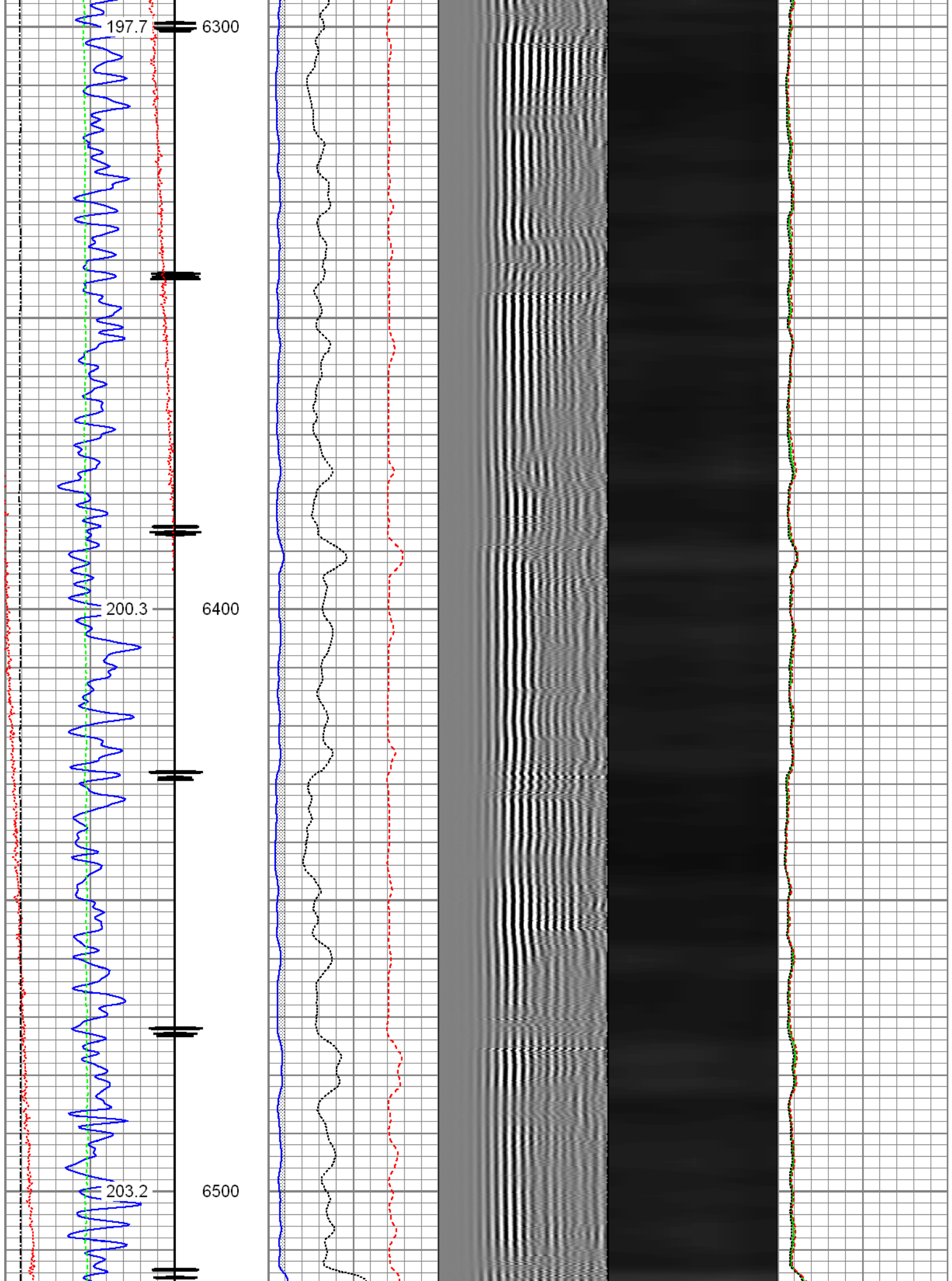












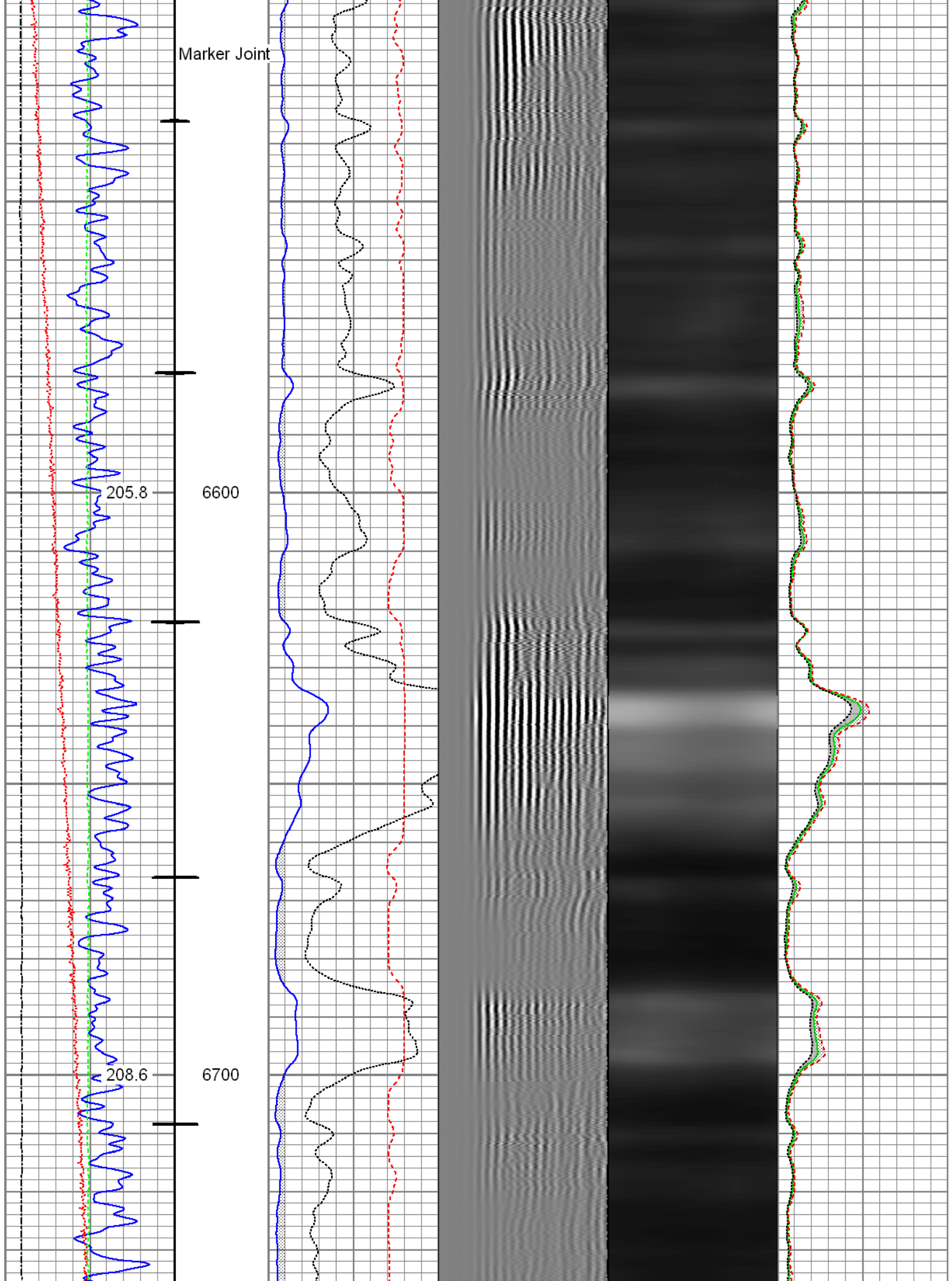
Marker Joint

205.8

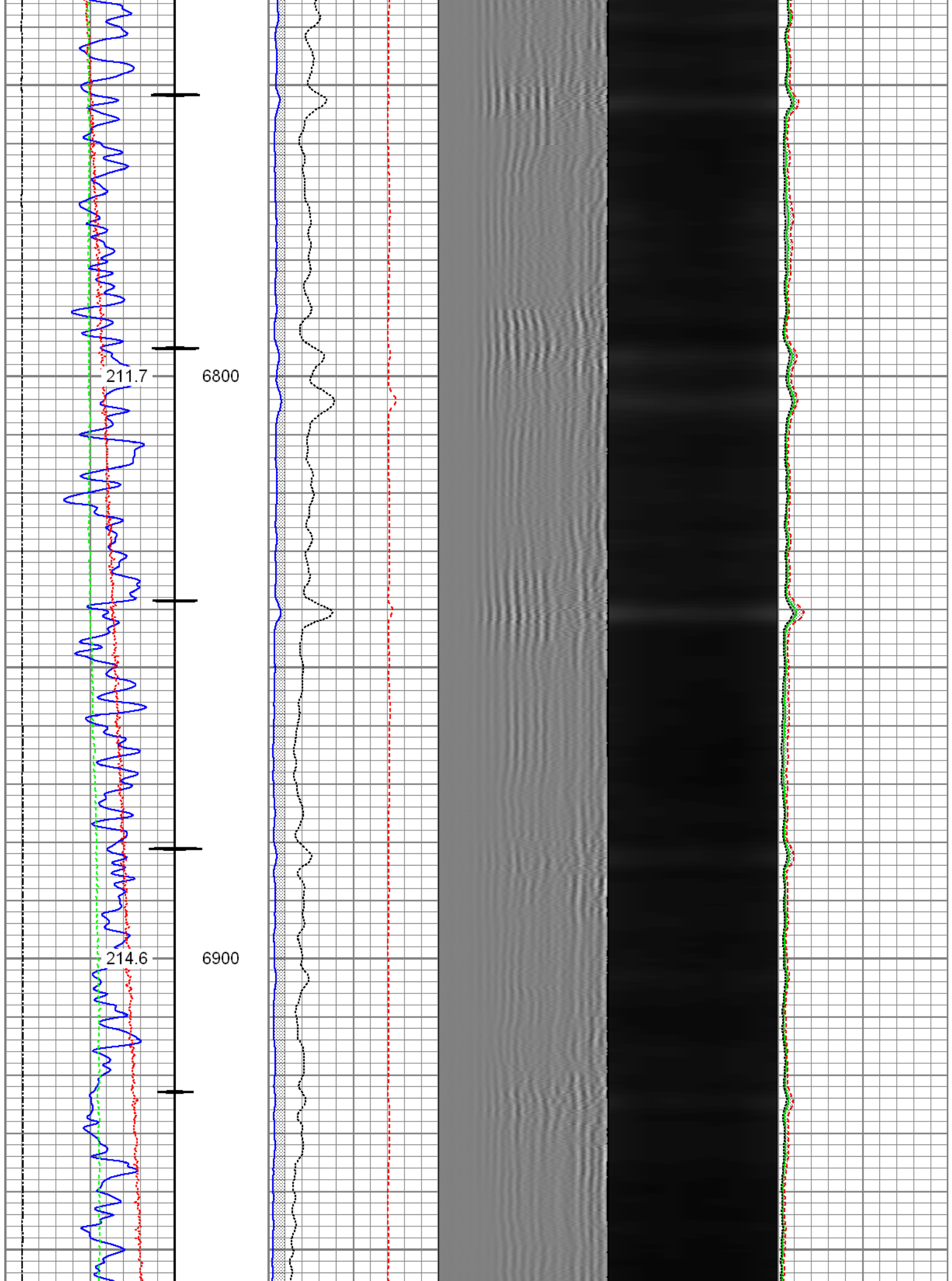
6600

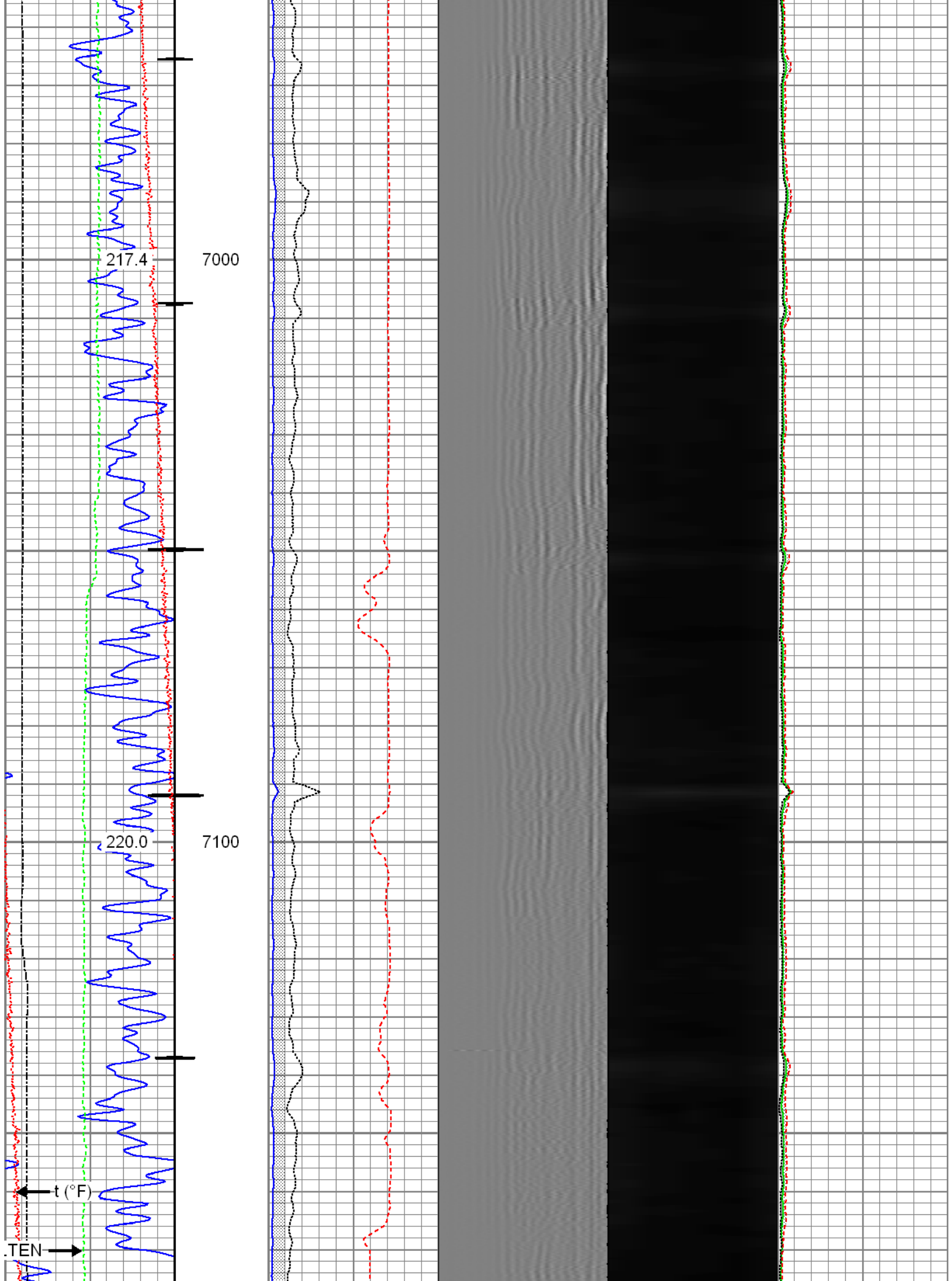
208.6

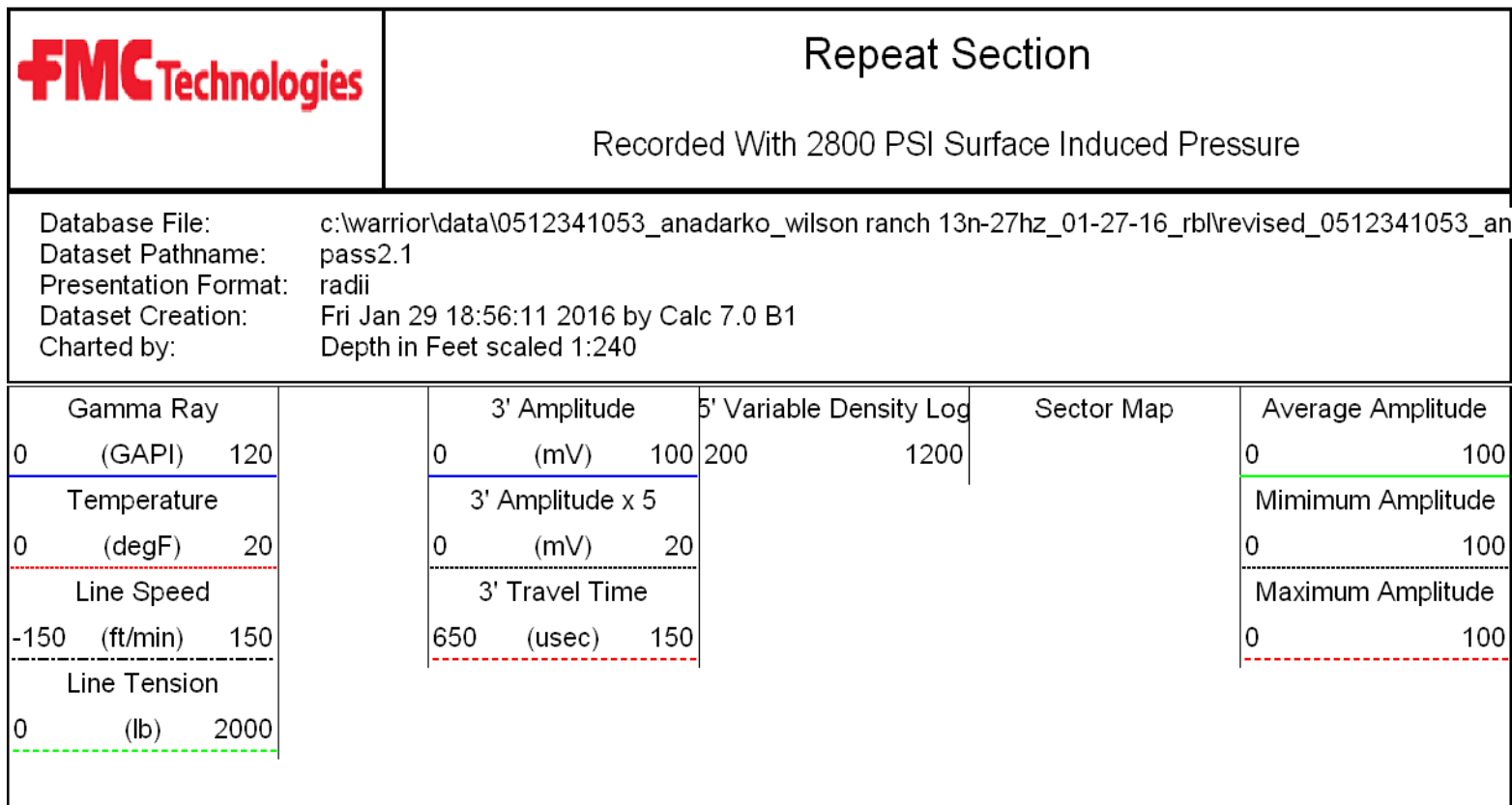
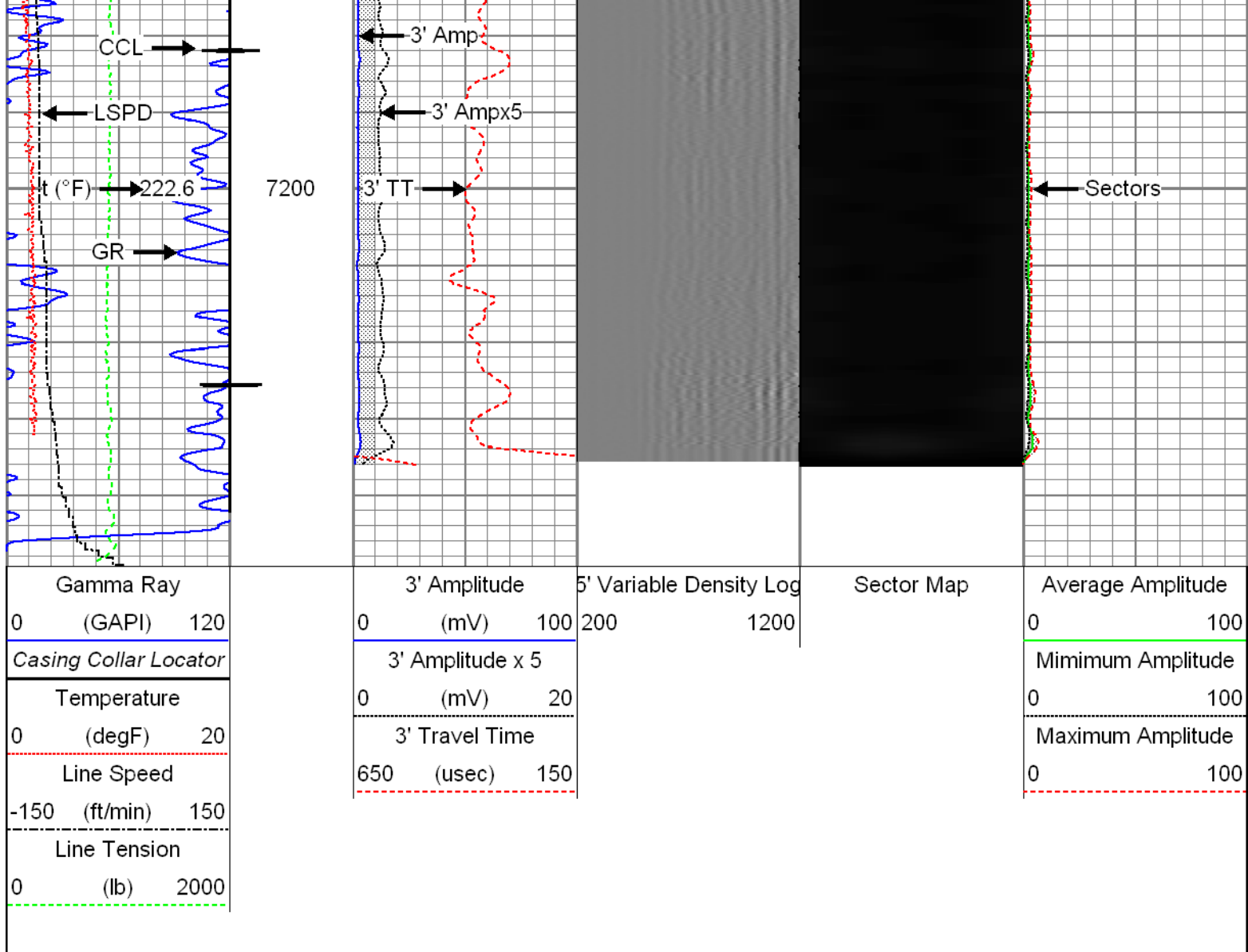
6700

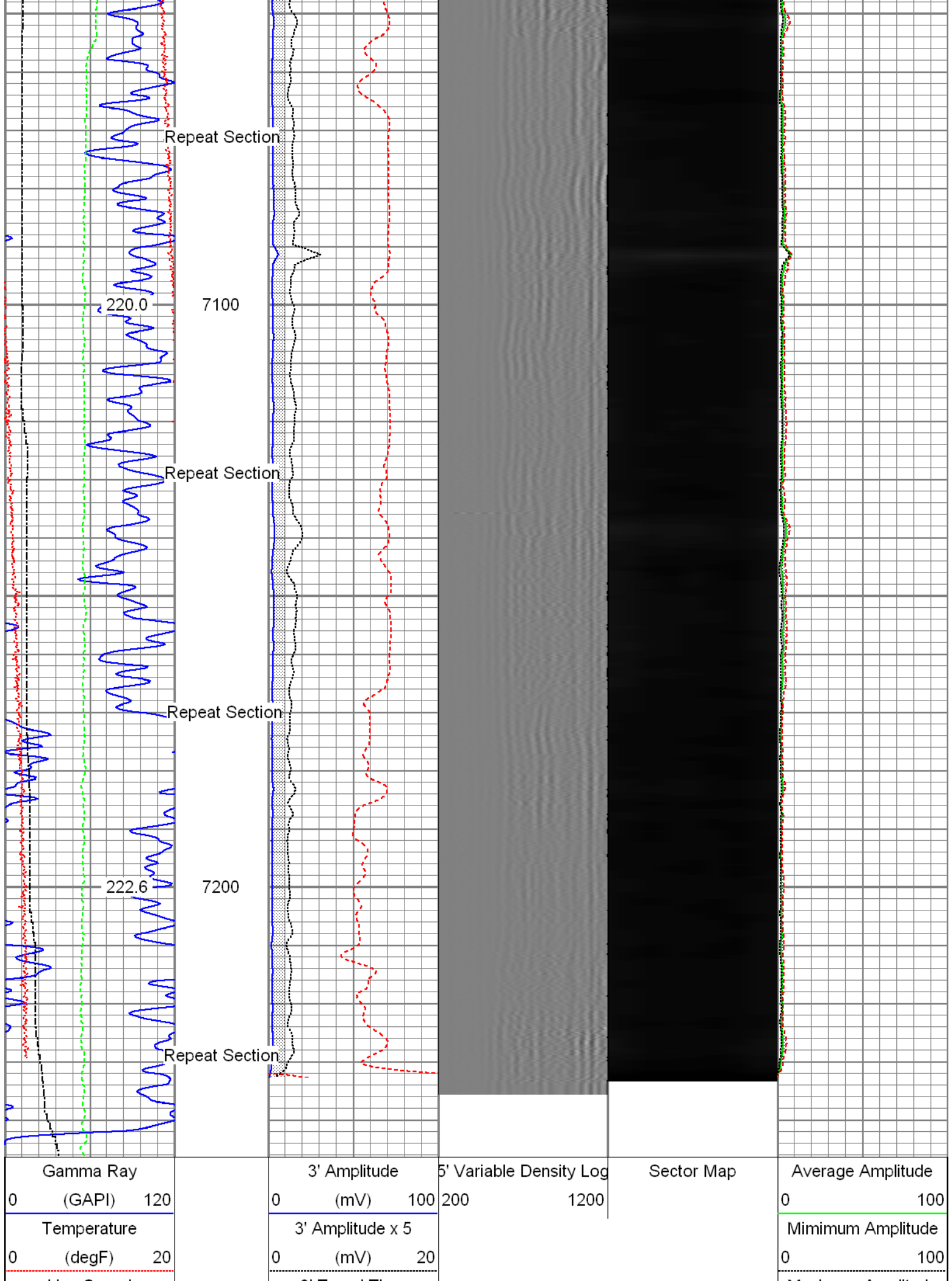








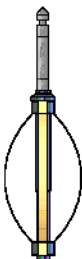






|                       |                          |                         |            |                   |
|-----------------------|--------------------------|-------------------------|------------|-------------------|
| Gamma Ray<br>(GAPI)   | 3' Amplitude<br>(mV)     | 5' Variable Density Log | Sector Map | Average Amplitude |
| 0 120                 | 0 100                    | 200 1200                |            | 0 100             |
| Temperature<br>(degF) | 3' Amplitude x 5<br>(mV) |                         |            | Minimum Amplitude |
| 0 20                  | 0 20                     |                         |            | 0 100             |



|                   |                |                   |
|-------------------|----------------|-------------------|
| Line Speed        | 3" Travel Time | Maximum Amplitude |
| -150 (ft/min) 150 | 650 (usec) 150 | 0 100             |
| Line Tension      |                |                   |
| 0 (lb) 2000       |                |                   |

| Sensor      | Offset (ft) | Schematic  | Description  | Len (ft) | OD (in) | Wt (lb) |
|-------------|-------------|--|--|----------|---------|---------|
| HeadVolt    | 19.49       |   | T_CH14375_1_GO<br>Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck               | 1.03     | 1.44    | 4.00    |
|             |             |  | Probe_IL_BS_Cent<br>Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer                  | 2.88     | 2.75    | 10.00   |
| Temp        | 16.72       |  |  |          |         |         |
| WVF3FT      | 14.55       |  | Probe_RADII-C-2-3/4" (FW1305-096)<br>Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe | 9.19     | 2.75    | 105.00  |
| WVFCAL      | 14.55       |  |  |          |         |         |
| WVFS1       | 14.55       |  |  |          |         |         |
| WVFS2       | 14.55       |  |  |          |         |         |
| WVFS3       | 14.55       |  |  |          |         |         |
| WVFS4       | 14.55       |  |  |          |         |         |
| WVFS5       | 14.55       |  |  |          |         |         |
| WVFS6       | 14.55       |  |  |          |         |         |
| WVFS7       | 14.55       |  |  |          |         |         |
| WVFS8       | 14.55       |  |  |          |         |         |
| WVF5FT      | 13.55       |  |  |          |         |         |
| CCL<br>DCCL | 6.51        |  | Probe_IL_BS_Cent<br>Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer                  | 2.88     | 2.75    | 10.00   |
|             | 6.51        |  |  |          |         |         |
| GR          | 3.77        |  | Probe_CCL_GR-2.75"Digital (FW1212-026)<br>Probe 2-3/4" Digital CCL / Gamma Ray Combined          | 4.54     | 2.75    | 55.00   |
|             |             |  | Probe_IL_BS_Cent<br>Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer                  | 2.88     | 2.75    | 10.00   |

|               |  |   |   |      |      |       |
|---------------|--|---|---|------|------|-------|
|               |  |  | Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer | 2.88 | 2.75 | 10.00 |
| Dataset:      | revised_0512341053_Anadarko_Wilson Ranch 13N-27HZ_01-27-16_RBL.db: field/well/run1/pass4.1 |   |   |      |      |       |
| Total Length: | 23.40 ft   |   |   |      |      |       |
| Total Weight: | 194.00 lb  |   |   |      |      |       |
| O.D.          | 2.75 in  |   |   |      |      |       |

|                   |   |                    |
|-------------------|---|--------------------|
|                   |   | Calibration Report |
| Database File:    | C:\Warrior\Data\0512341053_Anadarko_Wilson Ranch 13N-27HZ_01-27-16_RBL\revised_0512341053 |                    |
| Dataset Pathname: | pass4.1   |                    |
| Dataset Creation: | Fri Jan 29 18:43:14 2016 by Calc 7.0 B1   |                    |

|                              |                          |          |
|------------------------------|--------------------------|----------|
| Gamma Ray Calibration Report |                          |          |
| Serial Number:               | FW1212-026               |          |
| Tool Model:                  | 2.75"Digital             |          |
| Performed:                   | Fri Jan 08 09:20:24 2016 |          |
| Calibrator Value:            | 1.0                      | GAPI     |
| Background Reading:          | 0.0                      | cps      |
| Calibrator Reading:          | 1.0                      | cps      |
| Sensitivity:                 | 0.6000                   | GAPI/cps |

|  |            |    |
|--|------------|----|
| Segmented Cement Bond Log Calibration Report |            |    |
| Serial Number:                               | FW1305-096 |    |
| Tool Model:                                  | 2-3/4"     |    |
| Calibration Casing Diameter:                 | 5.500      | in |
| Calibration Depth:                           | 85.000     | ft |

|   |         |       |                 |         |         |        |
|---|---------|-------|-----------------|---------|---------|--------|
| Master Calibration, performed Fri Jan 29 18:42:35 2016: |         |       |                 |         |         |        |
|   | Raw (v) |       | Calibrated (mv) |         | Results |        |
|   | Zero    | Cal   | Zero            | Cal     | Gain    | Offset |
| 3'  | 0.000   | 0.548 | 0.800           | 71.921  | 129.851 | 0.743  |
| CAL   | 0.006   | 0.610 |                 |         |         |        |
| 5'  | 0.000   | 0.488 | 0.800           | 71.921  | 145.745 | 0.771  |
| SUM   |         |       |                 |         |         |        |
| S1  | 0.000   | 0.528 | 0.000           | 100.000 | 189.470 | -0.078 |
| S2  | 0.001   | 0.521 | 0.000           | 100.000 | 192.230 | -0.103 |
| S3  | 0.001   | 0.522 | 0.000           | 100.000 | 192.073 | -0.167 |
| S4  | 0.001   | 0.536 | 0.000           | 100.000 | 186.859 | -0.166 |
| S5  | 0.001   | 0.567 | 0.000           | 100.000 | 176.541 | -0.154 |
| S6  | 0.001   | 0.595 | 0.000           | 100.000 | 168.261 | -0.115 |
| S7  | 0.000   | 0.588 | 0.000           | 100.000 | 170.085 | -0.054 |
| S8  | 0.000   | 0.564 | 0.000           | 100.000 | 177.348 | -0.040 |

|   |         |       |                |       |         |        |
|---|---------|-------|----------------|-------|---------|--------|
| Internal Reference Calibration, performed Tue Jan 26 12:25:35 2016: |         |       |                |       |         |        |
|   | Raw (v) |       | Calibrated (v) |       | Results |        |
|   | Zero    | Cal   | Zero           | Cal   | Gain    | Offset |
| CAL   | 0.006   | 0.608 | 0.006          | 0.610 | 1.004   | 0.000  |

Air Zero Calibration, performed Tue Jan 26 12:24:58 2016:

|     | Raw (v)     | Calibrated (v) | Results       |
|-----|-------------|----------------|---------------|
|     | <u>Zero</u> | <u>Zero</u>    | <u>Offset</u> |
| 3'  | 0.006       | 0.000          | -0.000        |
| 5'  | 0.006       | 0.000          | -0.000        |
| SUM |             |                |               |
| S1  | 0.006       | 0.000          | 0.000         |
| S2  | 0.006       | 0.000          | 0.000         |
| S3  | 0.006       | 0.000          | 0.000         |
| S4  | 0.006       | 0.000          | 0.000         |
| S5  | 0.006       | 0.000          | 0.000         |
| S6  | 0.006       | 0.000          | 0.000         |
| S7  | 0.006       | 0.000          | -0.000        |
| S8  | 0.006       | 0.000          | -0.000        |



|         |                                    |
|---------|------------------------------------|
| Company | Kerr-McGee Oil & Gas Onshore, L.P. |
| Well    | Wilson Ranch 13N-27HZ              |
| Field   | Wattenberg                         |
| County  | Weld                               |
| State   | Colorado                           |