



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Kerr McGee Oil & Gas Onshore LP
Well Powers 30C-27HZ
Field Wattenberg
County Weld State Colorado

Location: API #: 05-123-36365
SHL:510' FSL & 510 FWL
SW/SW
Permanent Datum SEC 27 TWP 2N RGE 65W
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing
Other Services
Gauge run Plug
Elevation
K.B. 4,948'
D.F. NA
G.L. 4,934'

Company Kerr McGee Oil & Gas Onshore LP
Well Powers 30C-27HZ
Field Wattenberg
County Weld
State Colorado

Date

04-MAR-2013

Run Number

Three

Depth Driller

Depth Logger

6676

Bottom Logged Interval

6674

Top Log Interval

50'

Open Hole Size

9.625

Type Fluid

Water

Density / Viscosity

8.34LB/Gal

Max. Recorded Temp.

Estimated Cement Top

1410'

Time Well Ready

ROA

Time Logger on Bottom

13:45

Equipment Number

HD0134

Location

Fort Lupton, CO

Recorded By

Patrick Grimes

Witnessed By

Van Franke

Run Number

Bit

From

To

Size

Weight

From

To

Casing Record

Size

Wgt/Ft

Top

Bottom

Surface String

9-5/8

36

Surface

1,838'

Prot. String

7

26

Surface

7,670'

Production String

4.5

11.6

Surface

6,491'

Liner

11.6

11.6

Surface

11,743'

Run Number

Bit

From

To

Size

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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

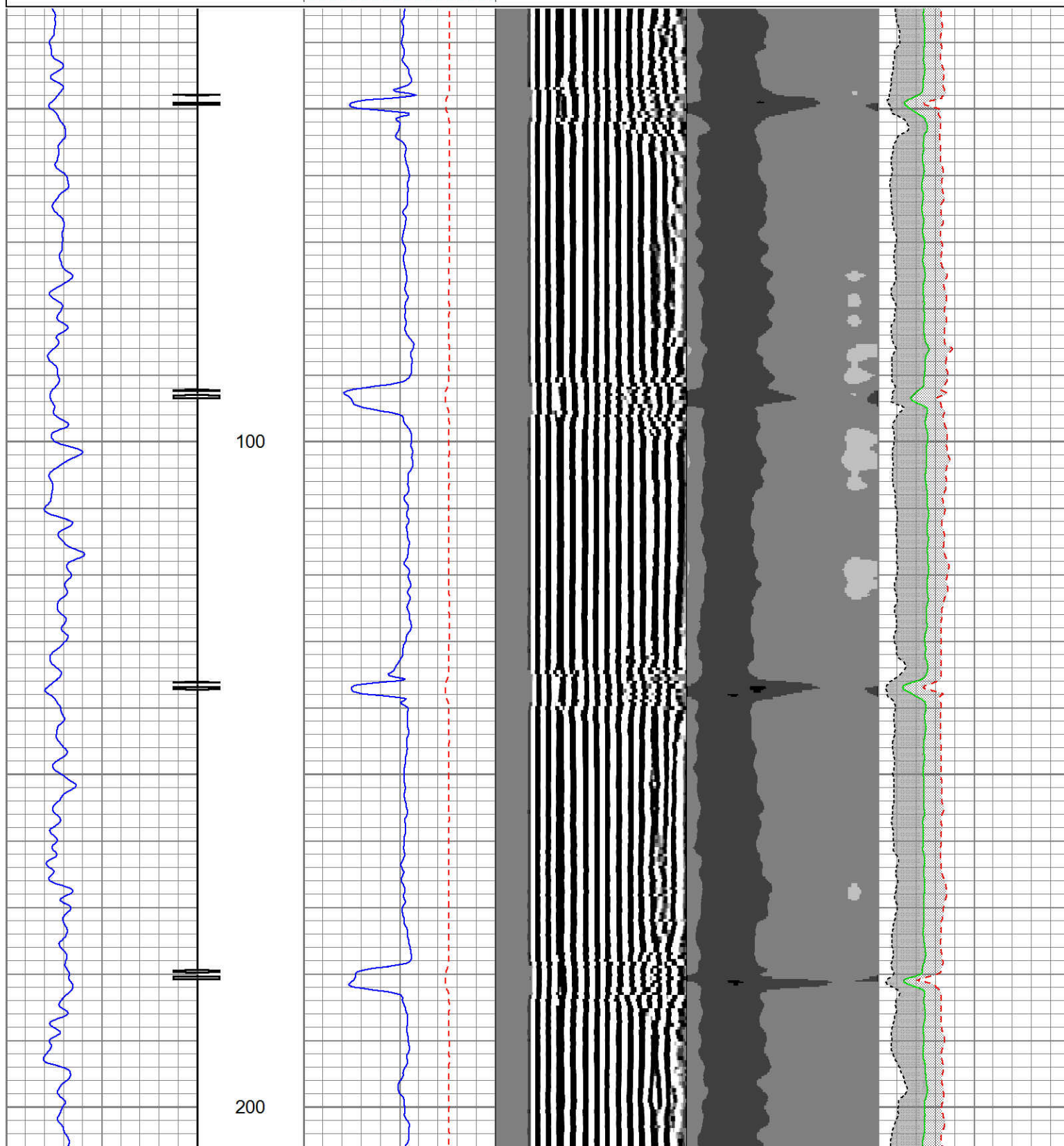
Radial Cement Bond is Primary Log
Correlated to Casing Tally Reported Liner Top @6632
Run CBL From Just Below Liner Top to Surface
RCBL Logged with 2800 PSU Surface Induced Pressure
Estimated Top of Cement 1410'
Corrected -16' @ Liner Top With Zero @ KB

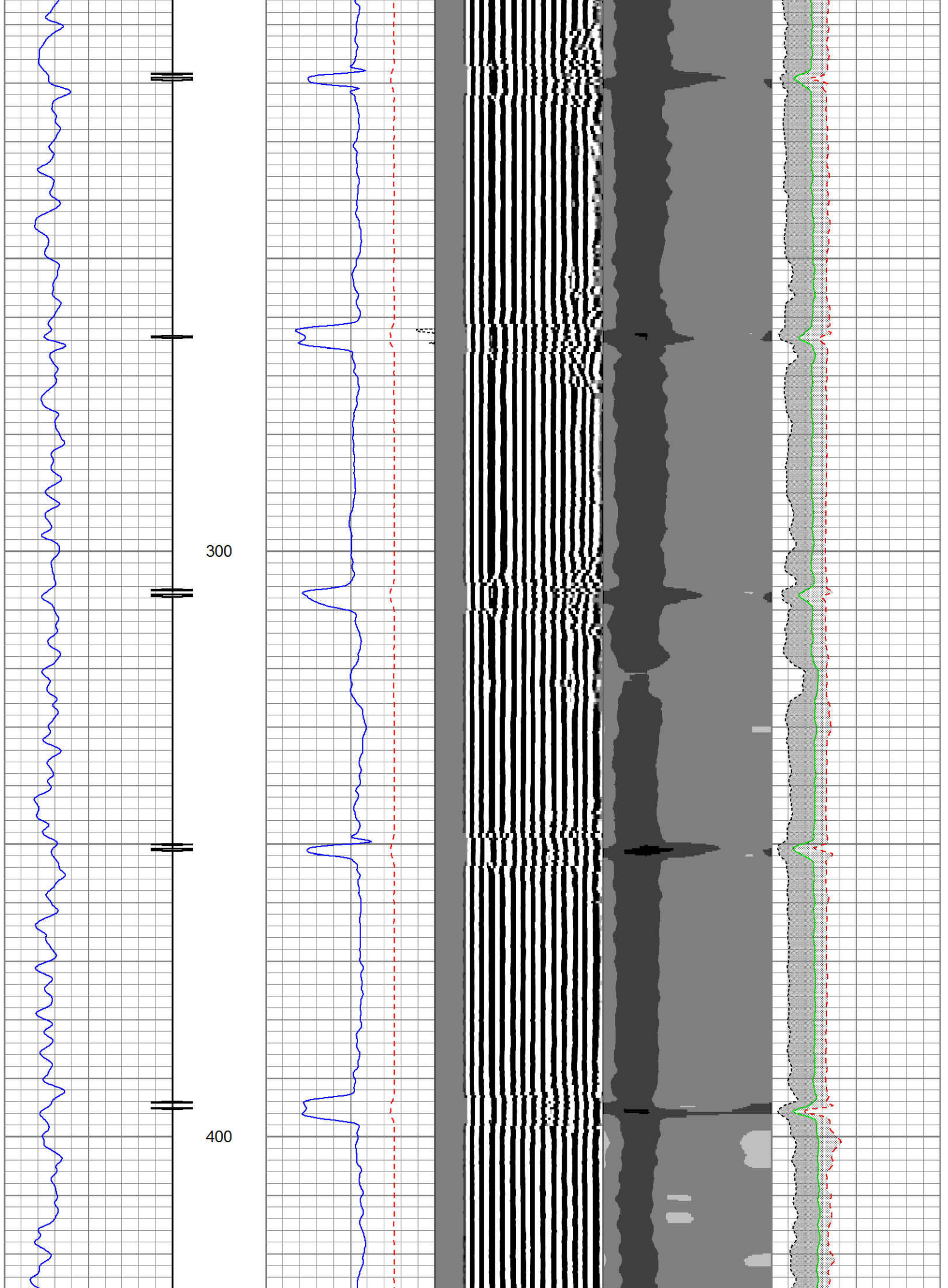
Thank you for choosing Pure Energy Wireline an FMC Technologies Company

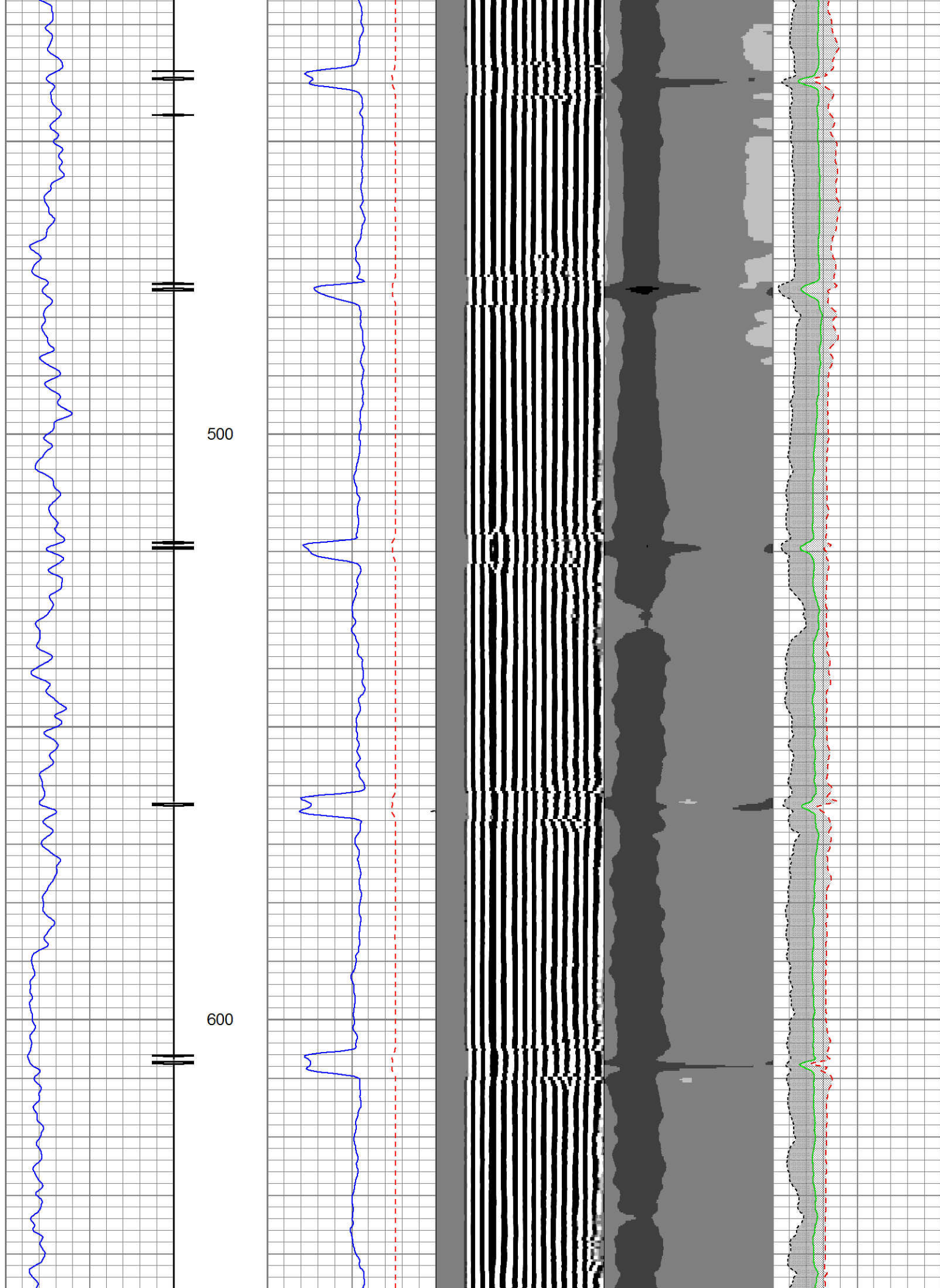
MAIN PASS 2800 PSI

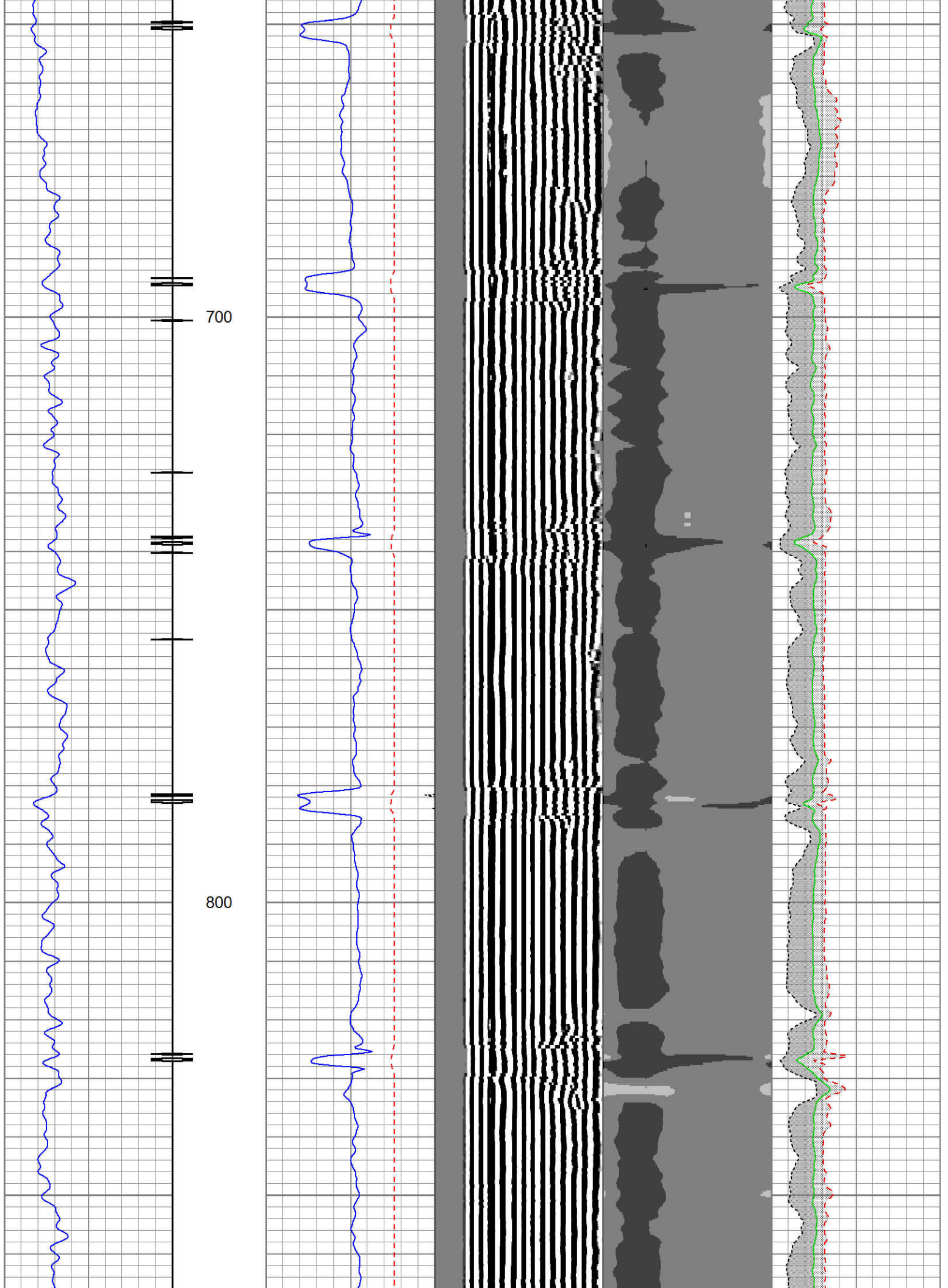
Database File: powers 30c-27hz.db
Dataset Pathname: proc.1
Presentation Format: rib
Dataset Creation: Wed Mar 13 11:55:12 2013 by Calc SCH 120126
Charted by: Depth in Feet scaled 1:240

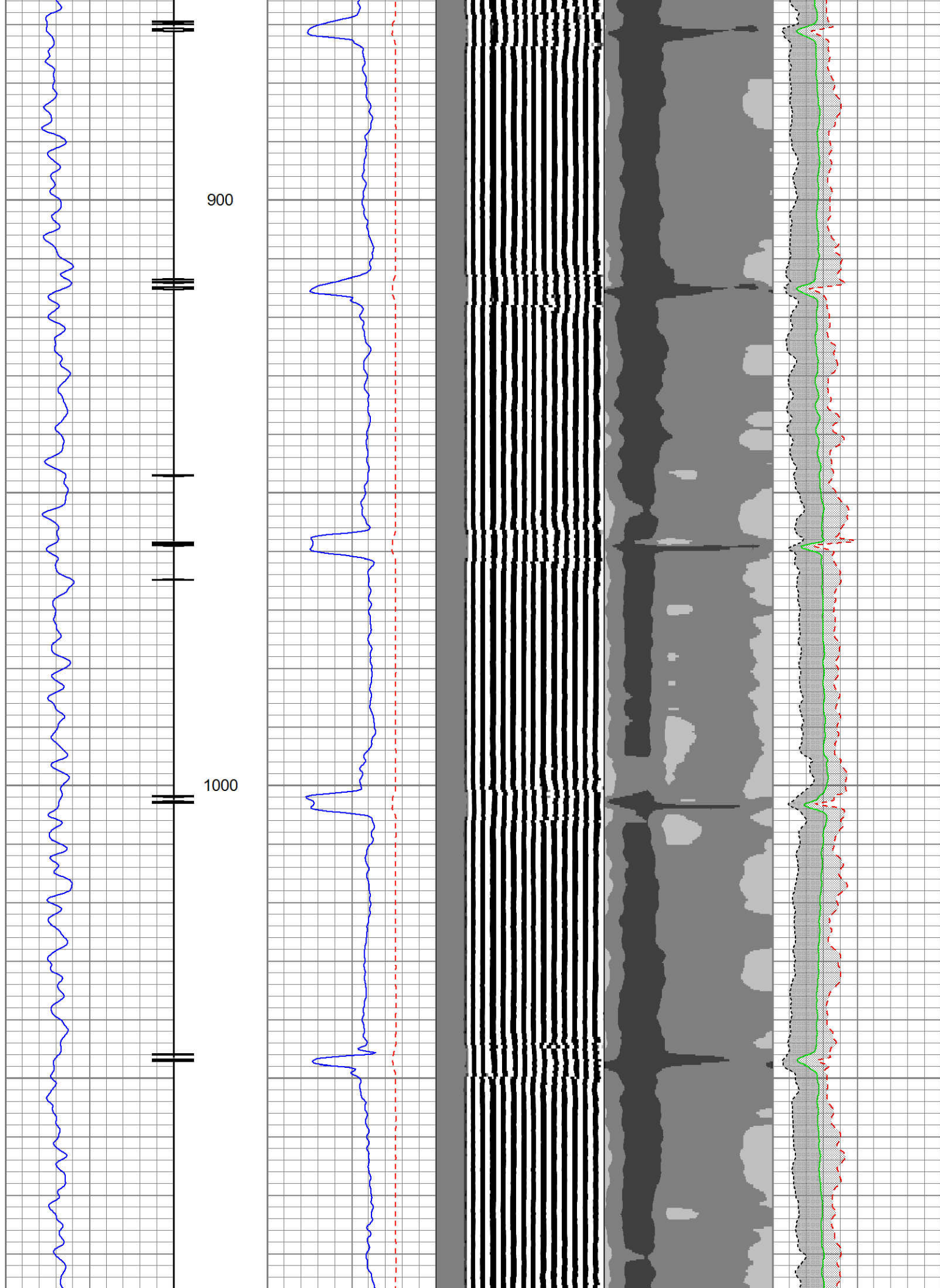
0	Gamma Ray 150	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
	Collar Locator	0 (mV) 100	200 1200		Minimum Amplitude
		3' Amplitude x 5			Maximum Amplitude
		0 (mV) 20			
		3' Travel Time			
		650 (usec) 150			

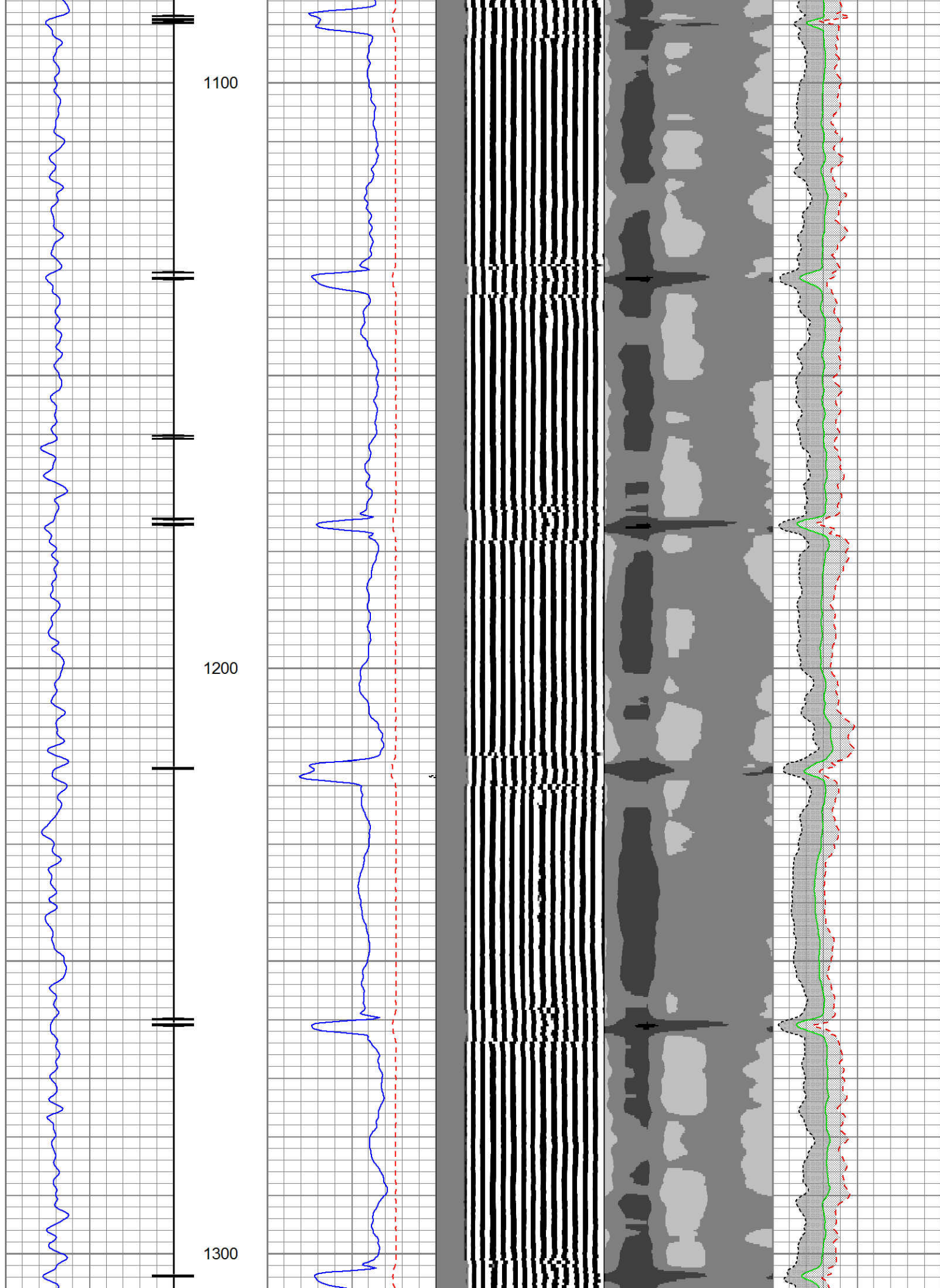


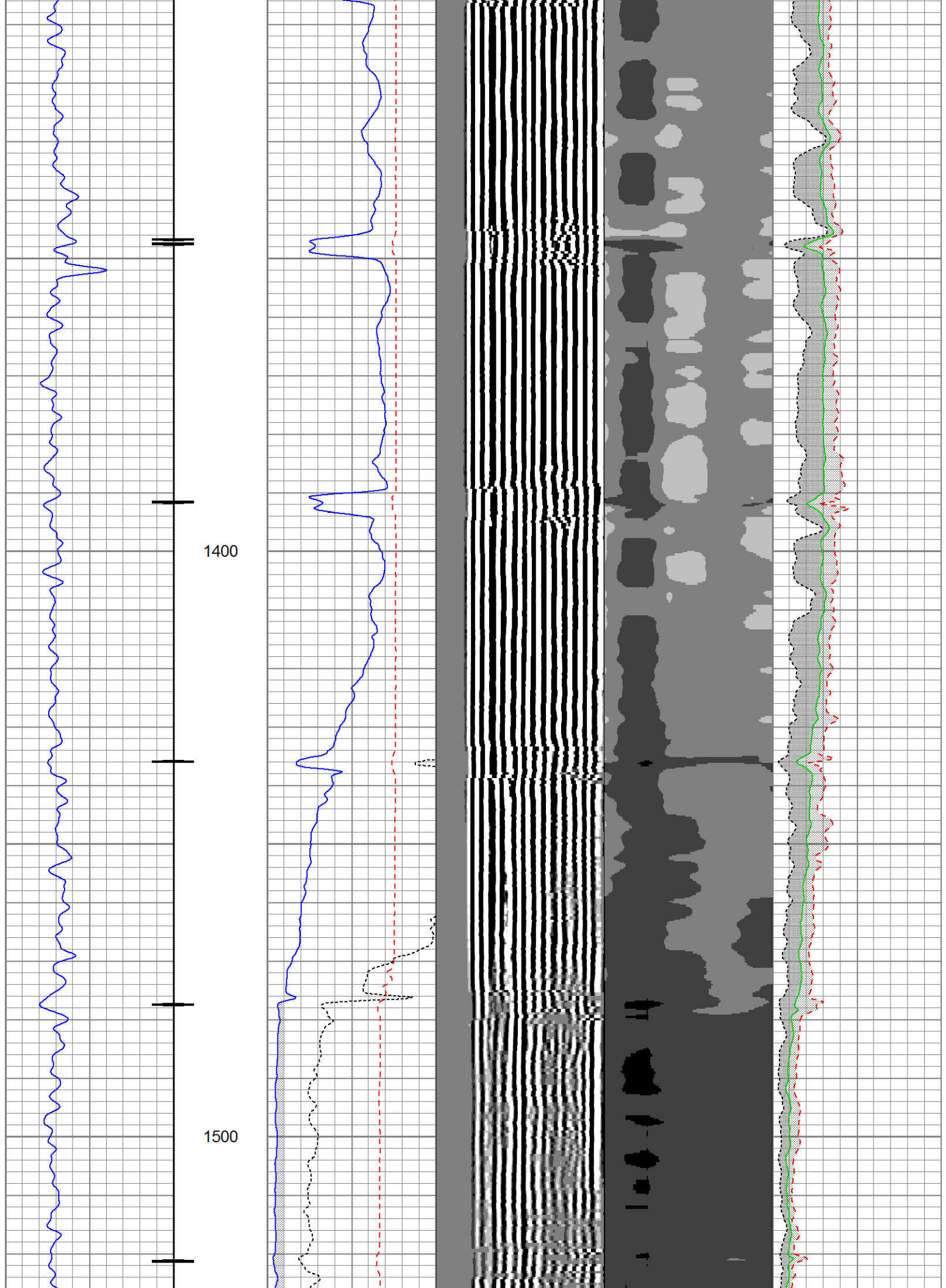


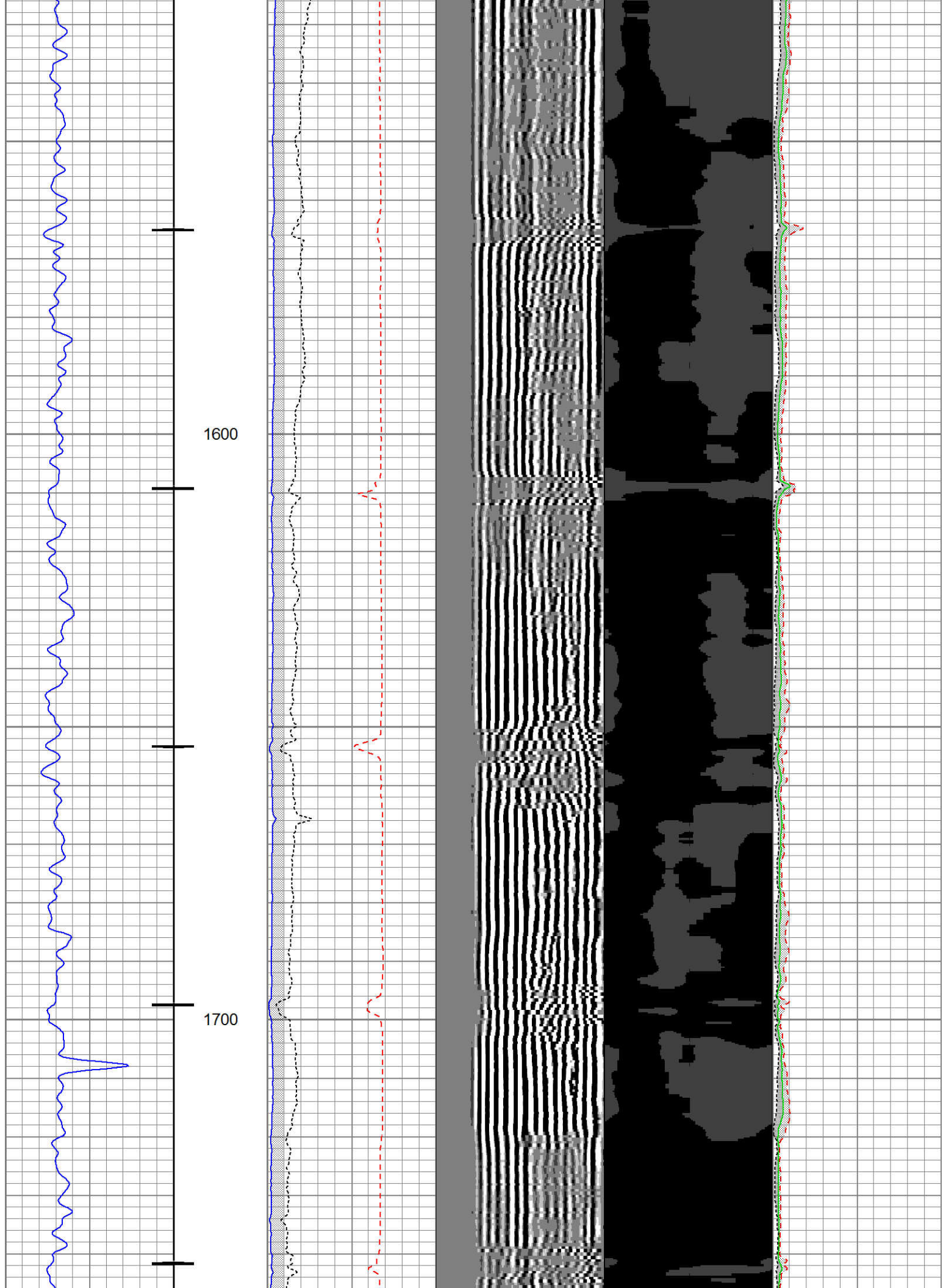


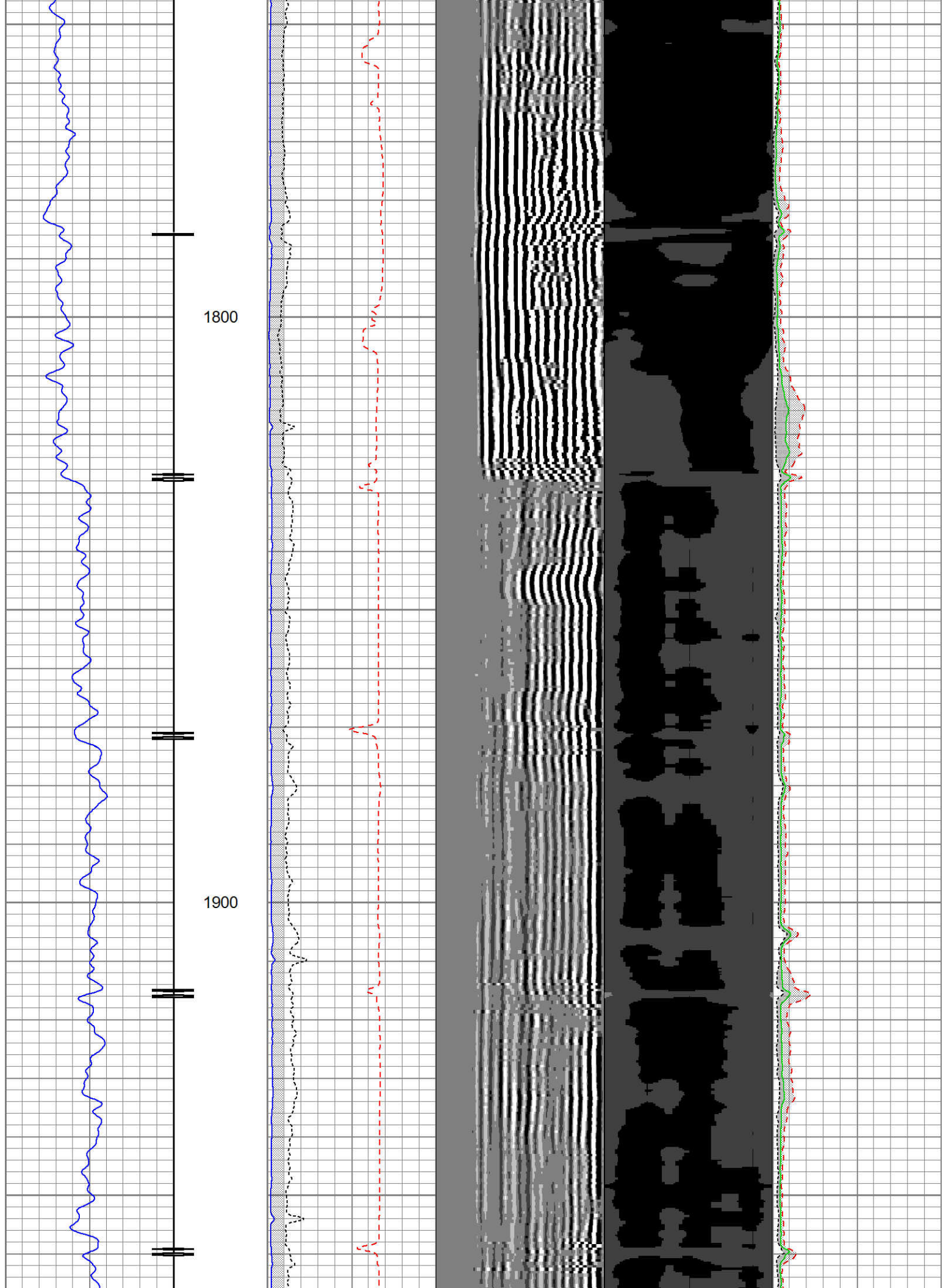


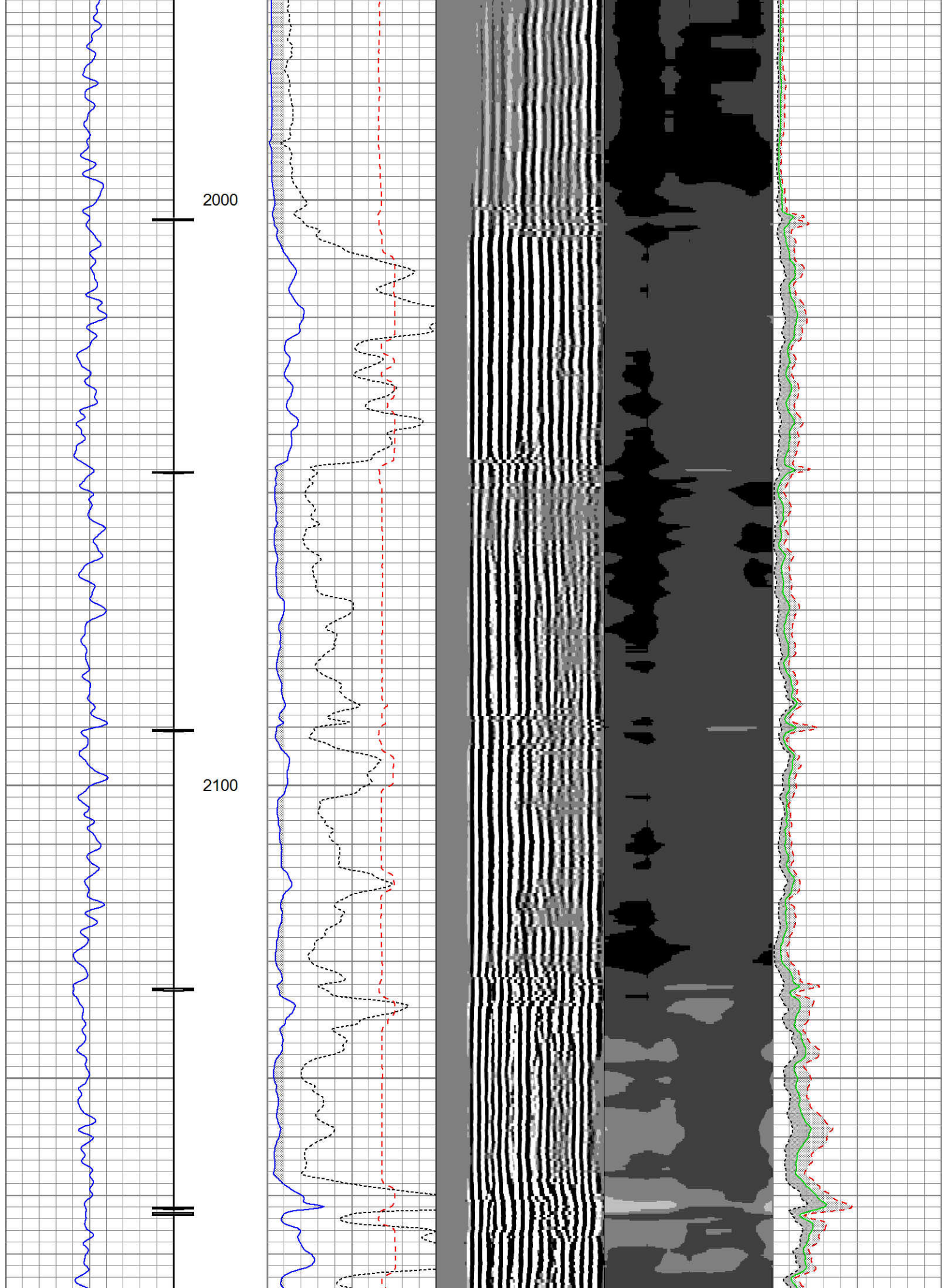


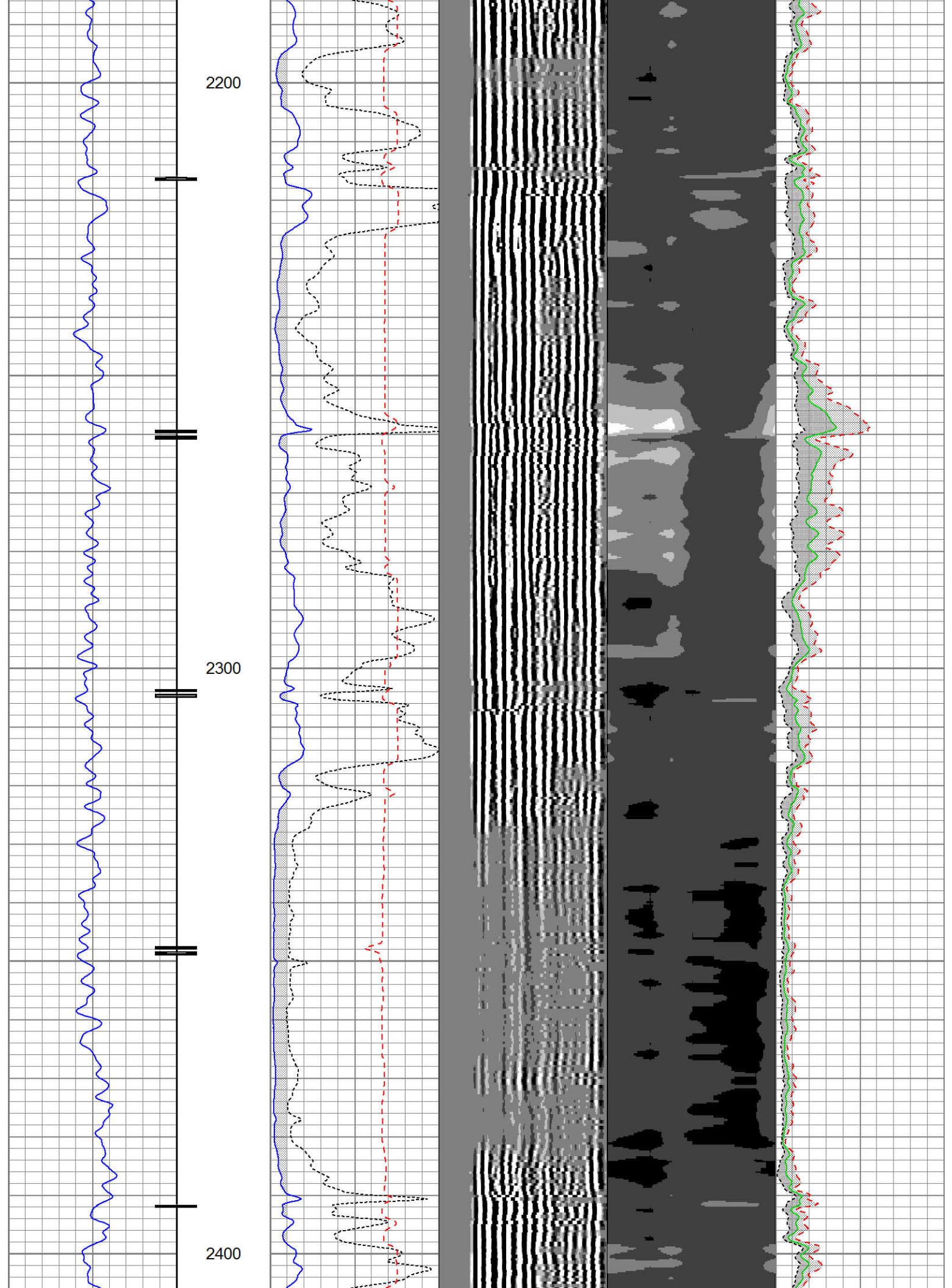


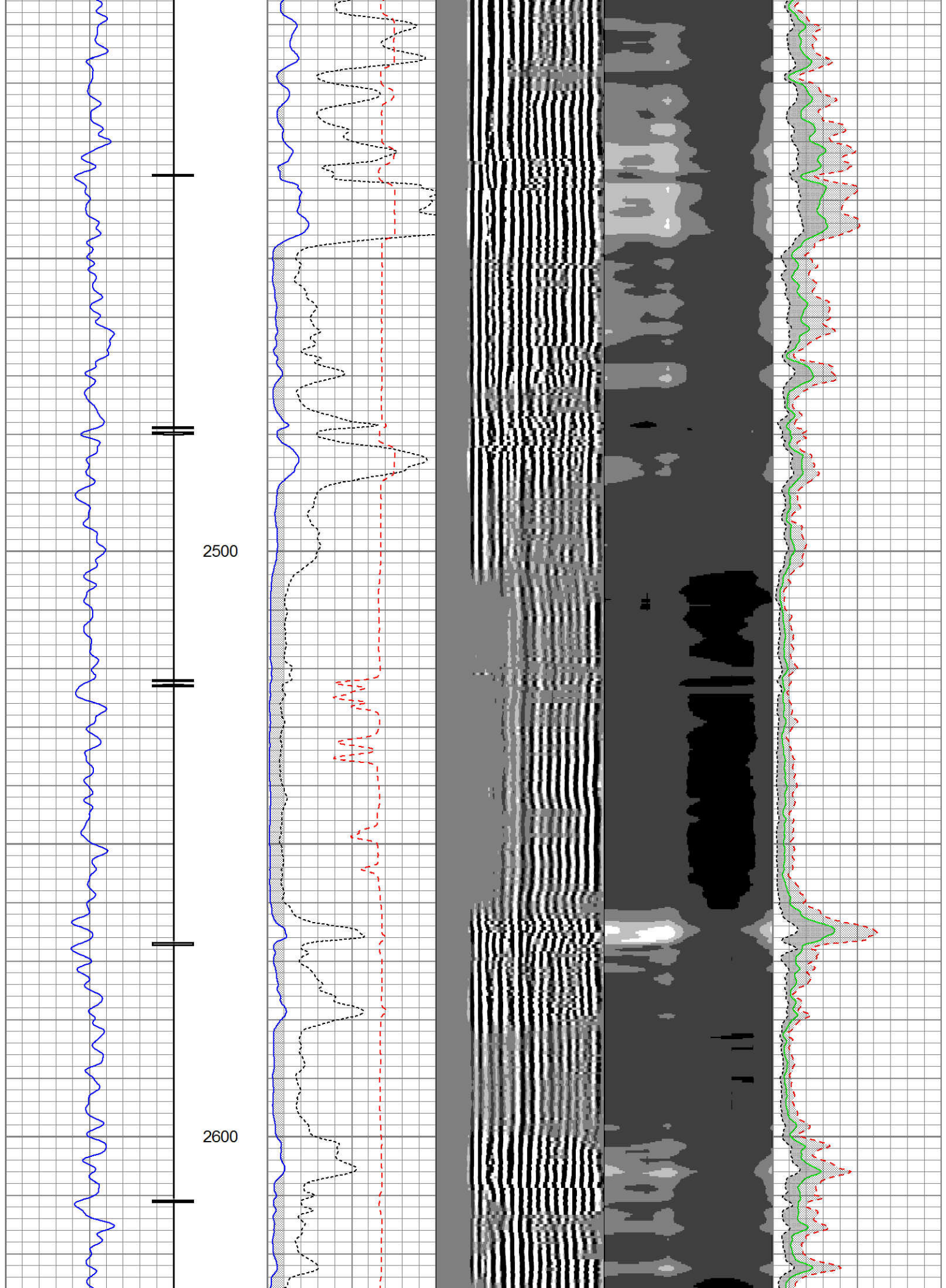


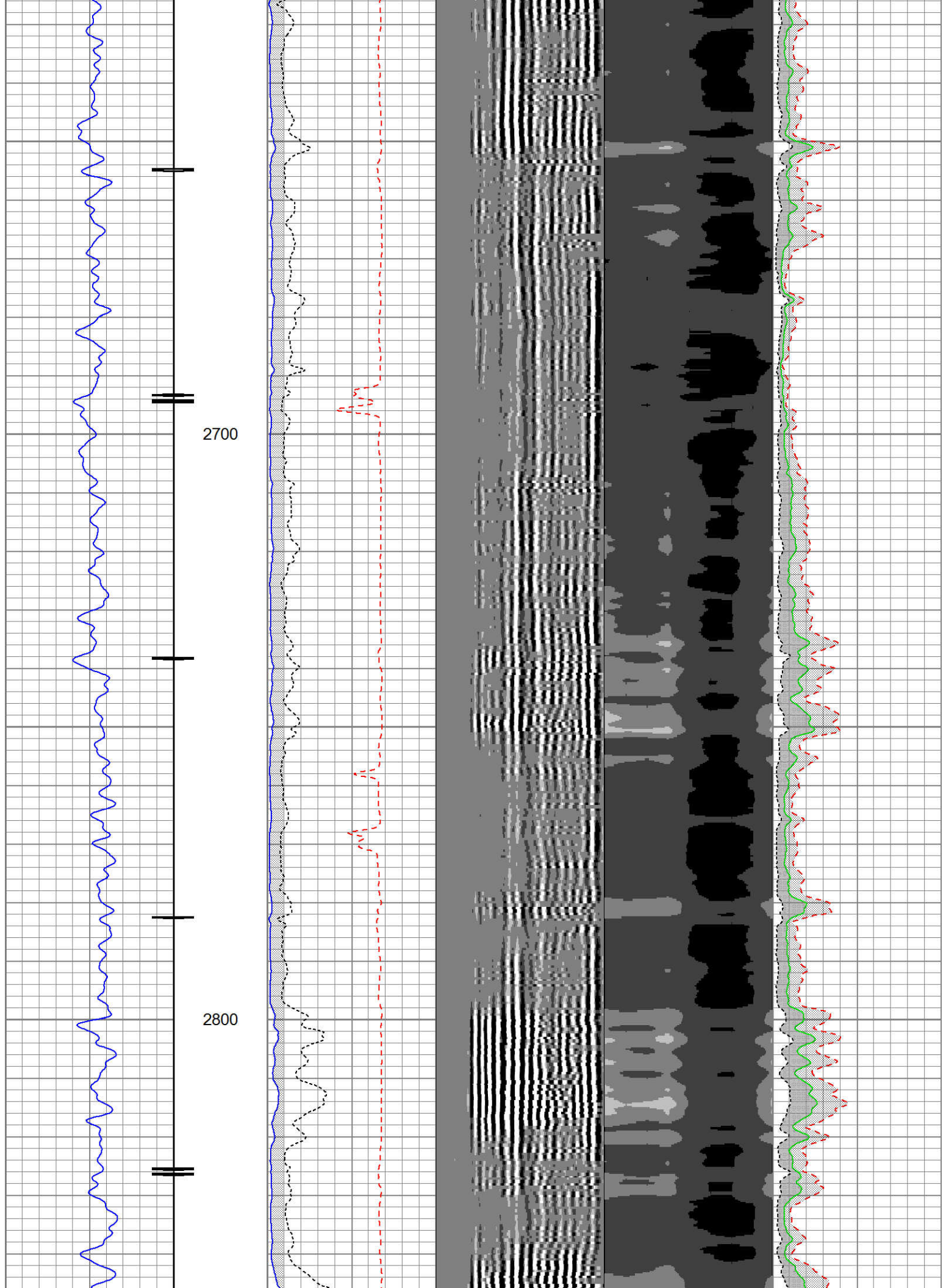


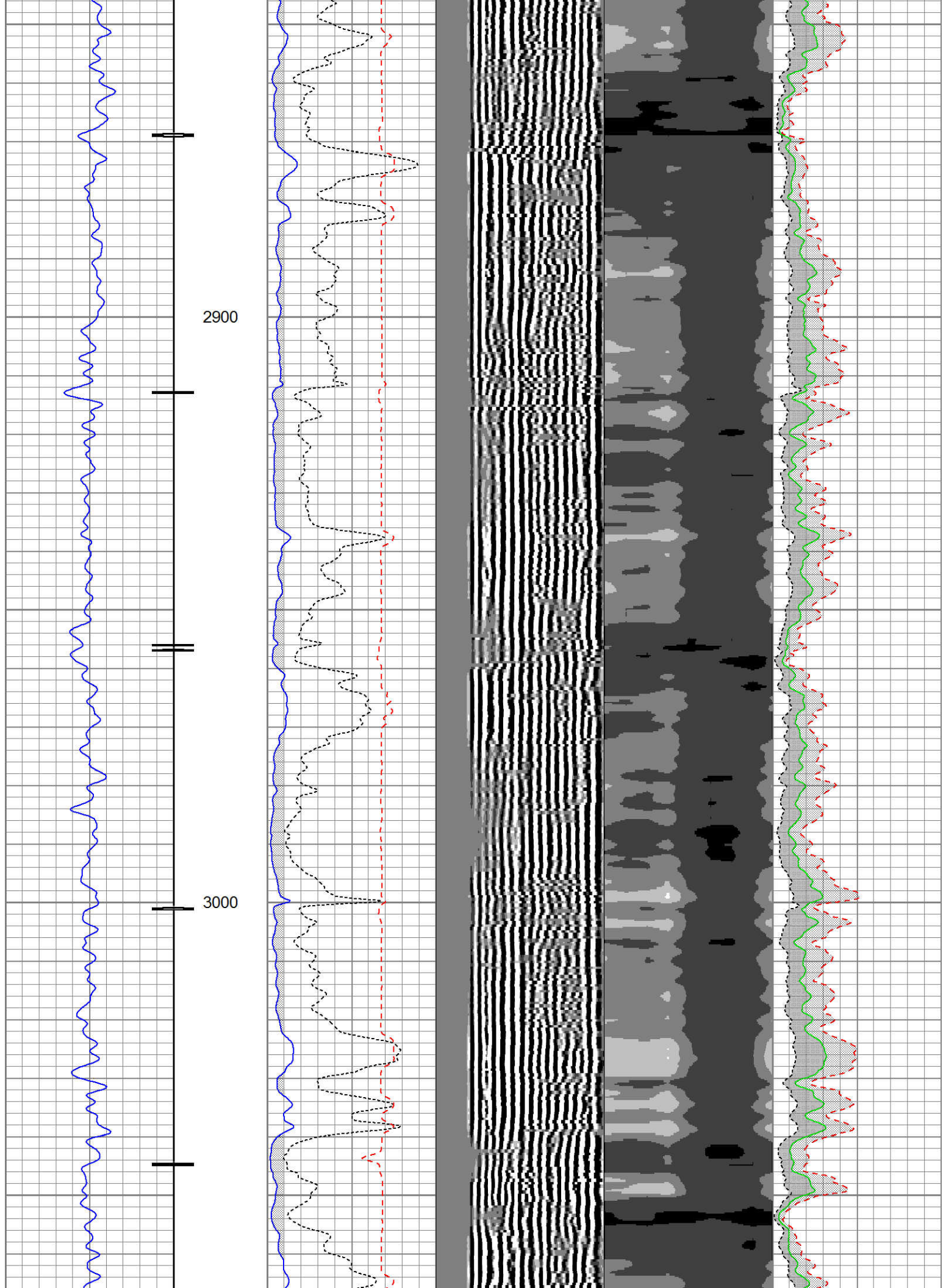


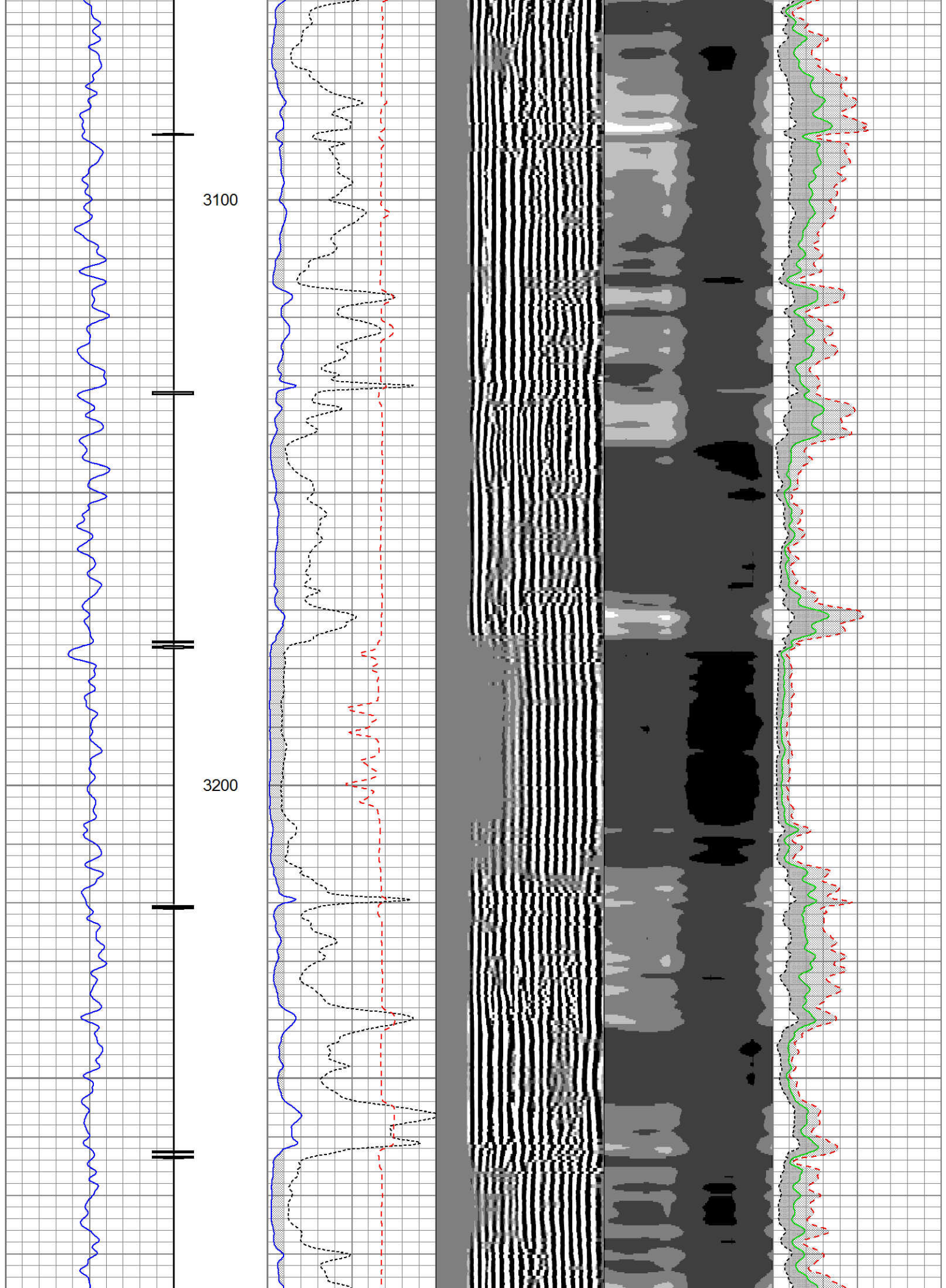


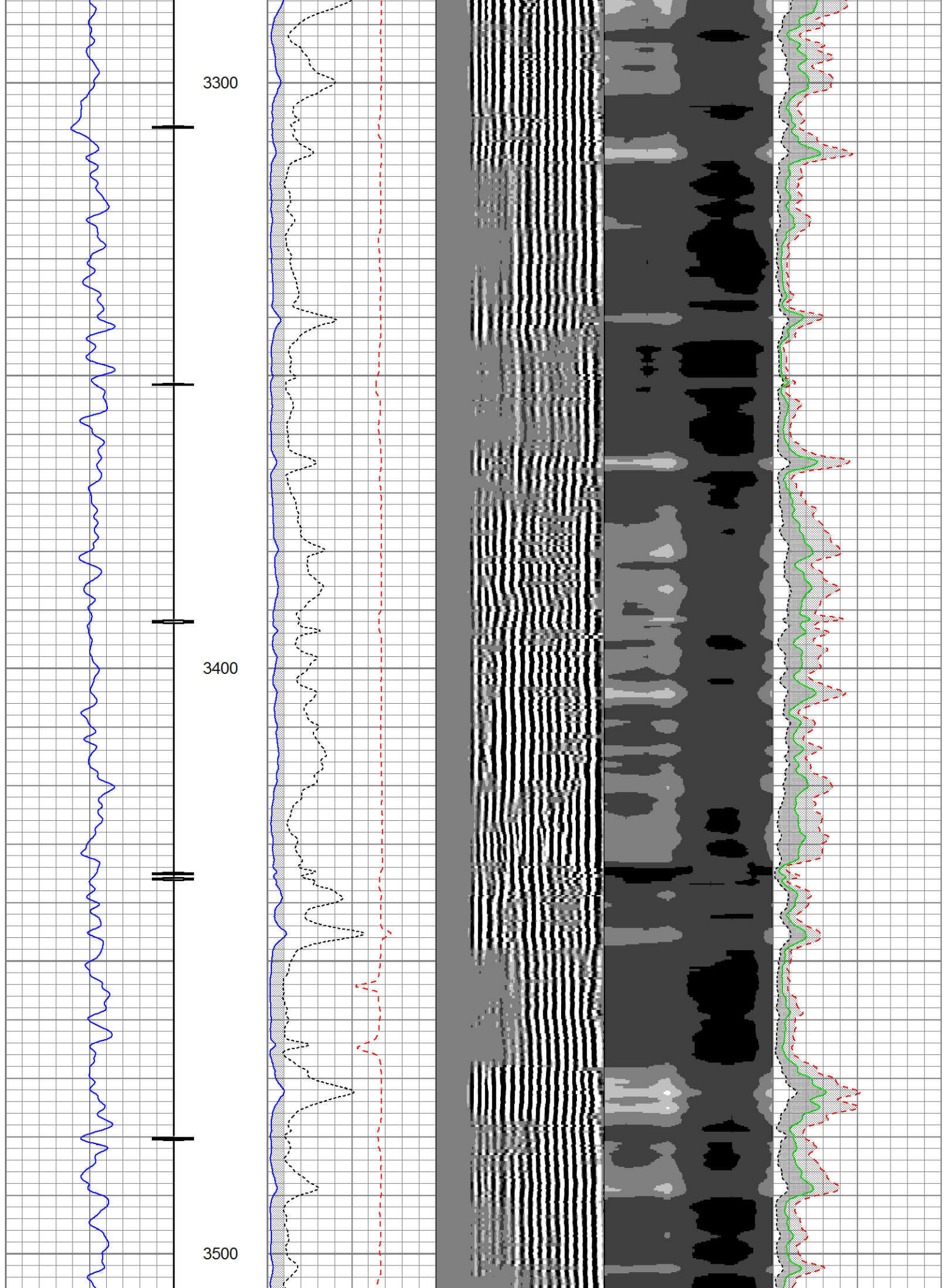


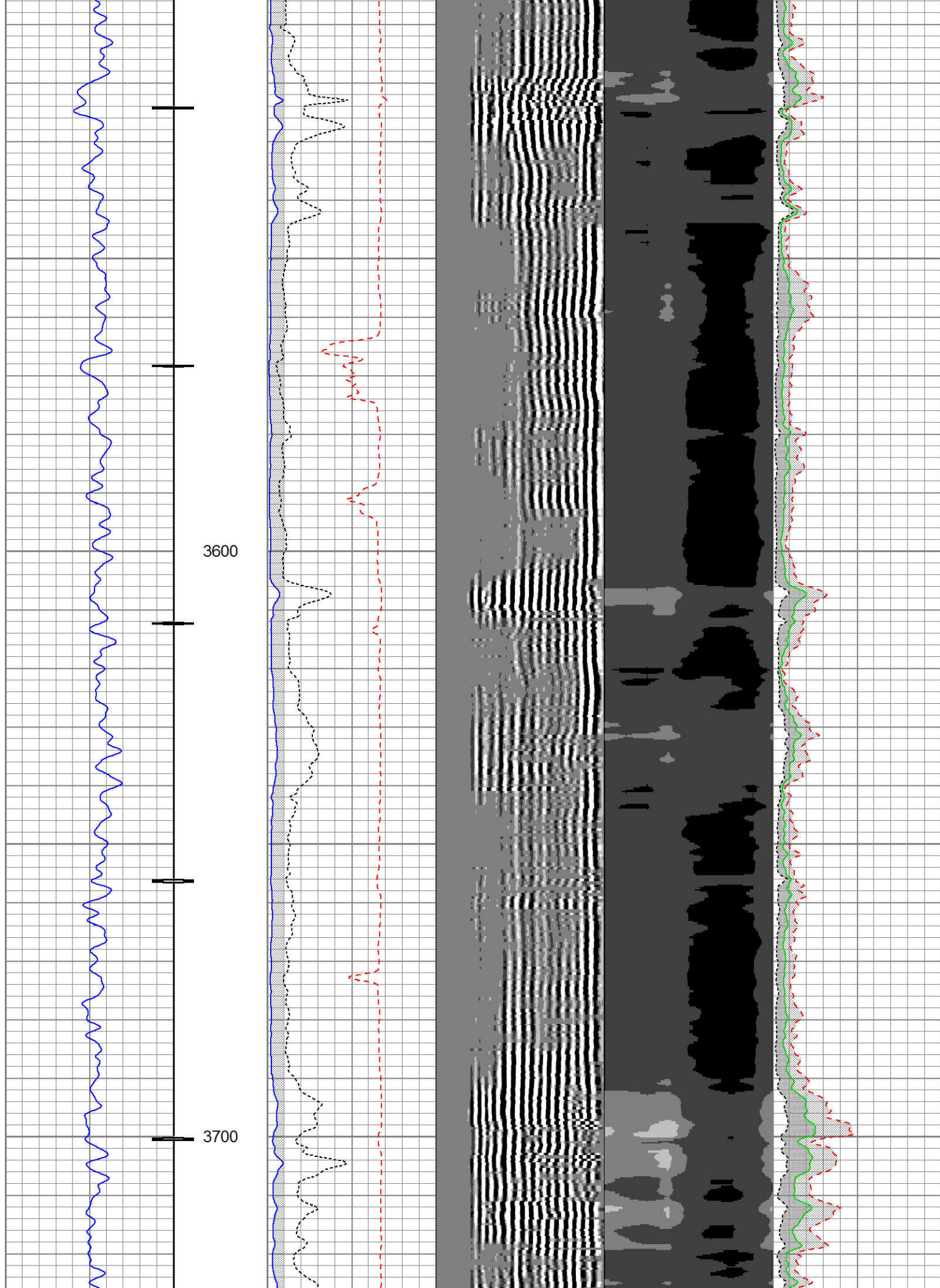


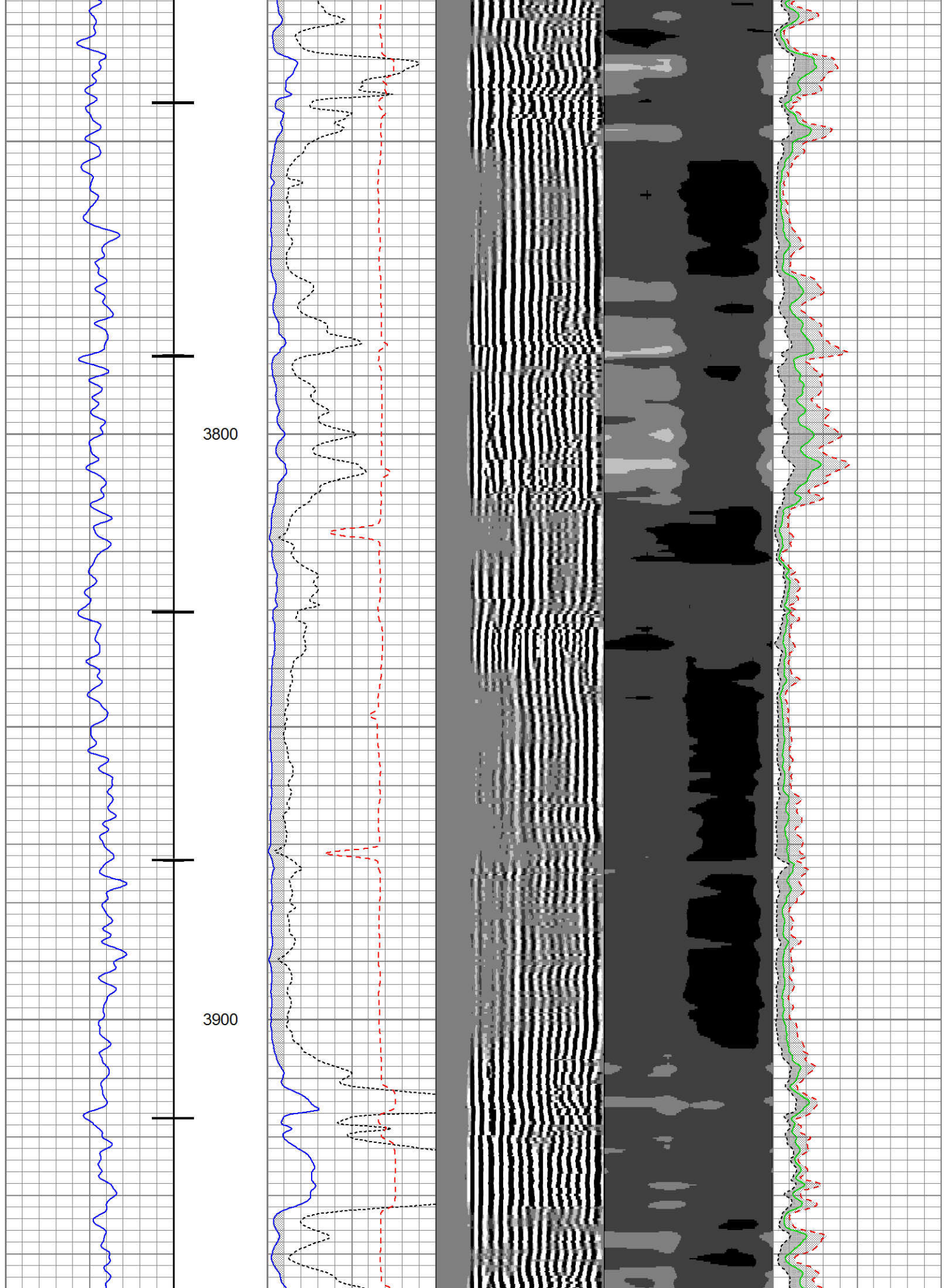


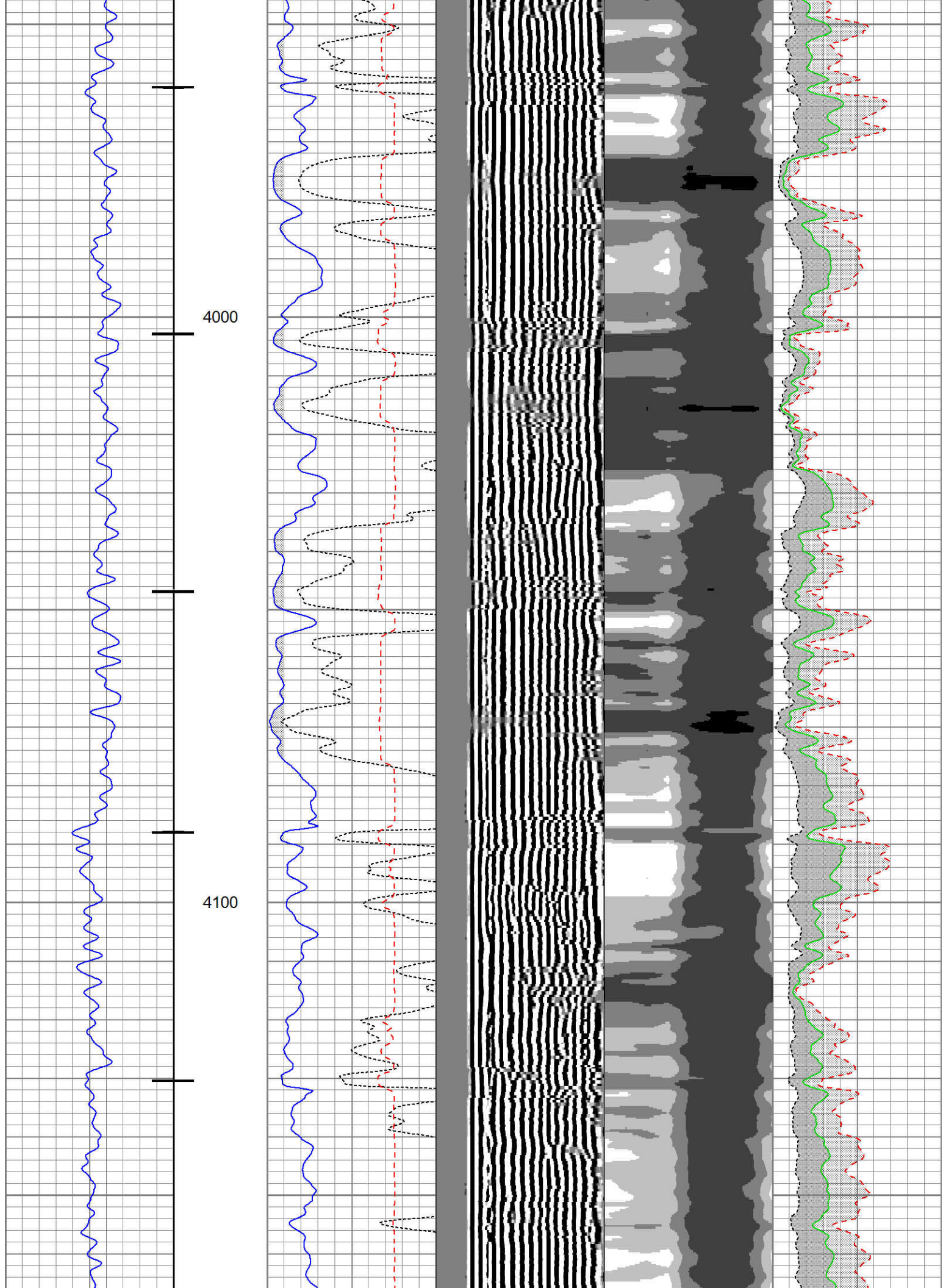


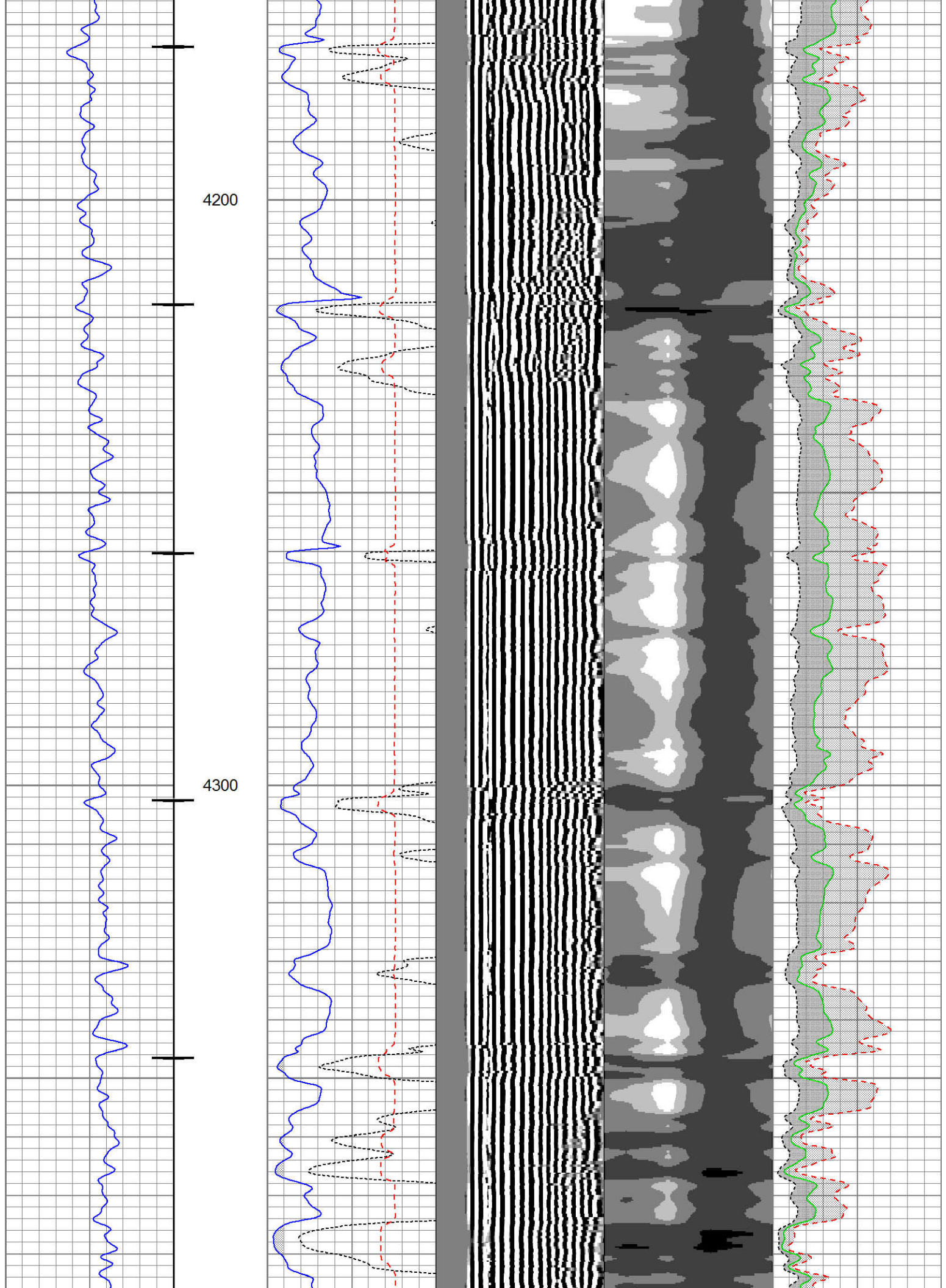


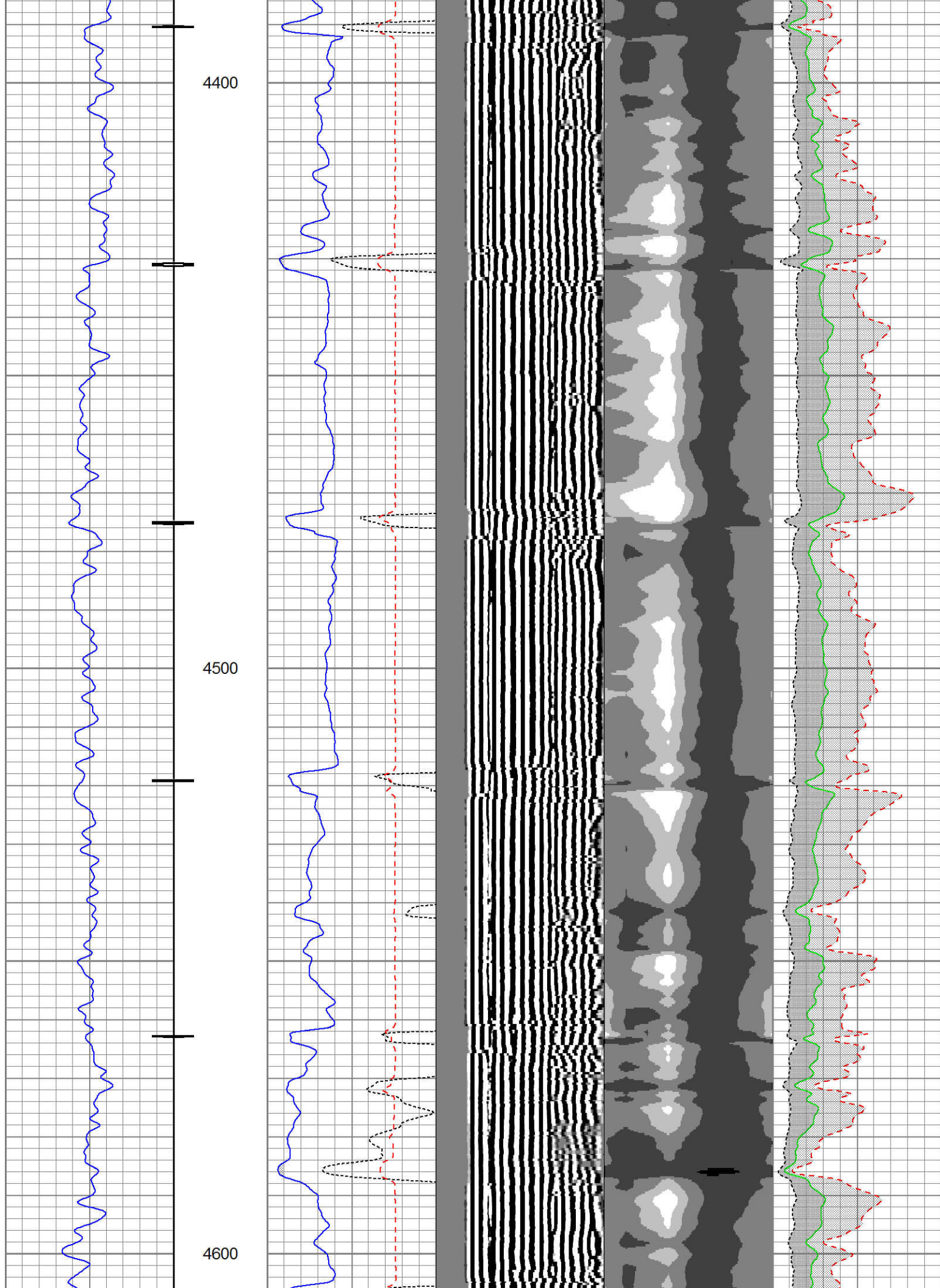


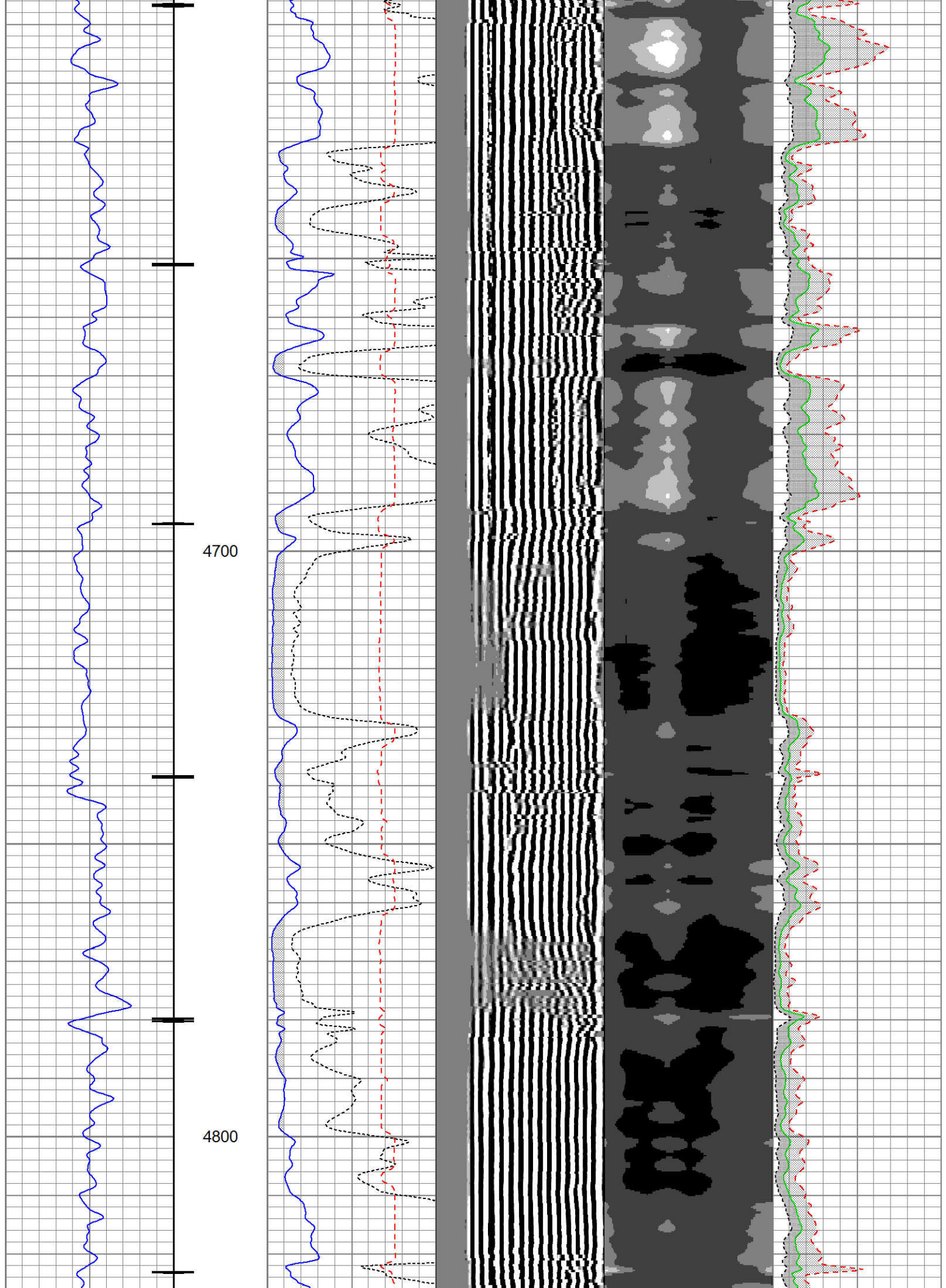


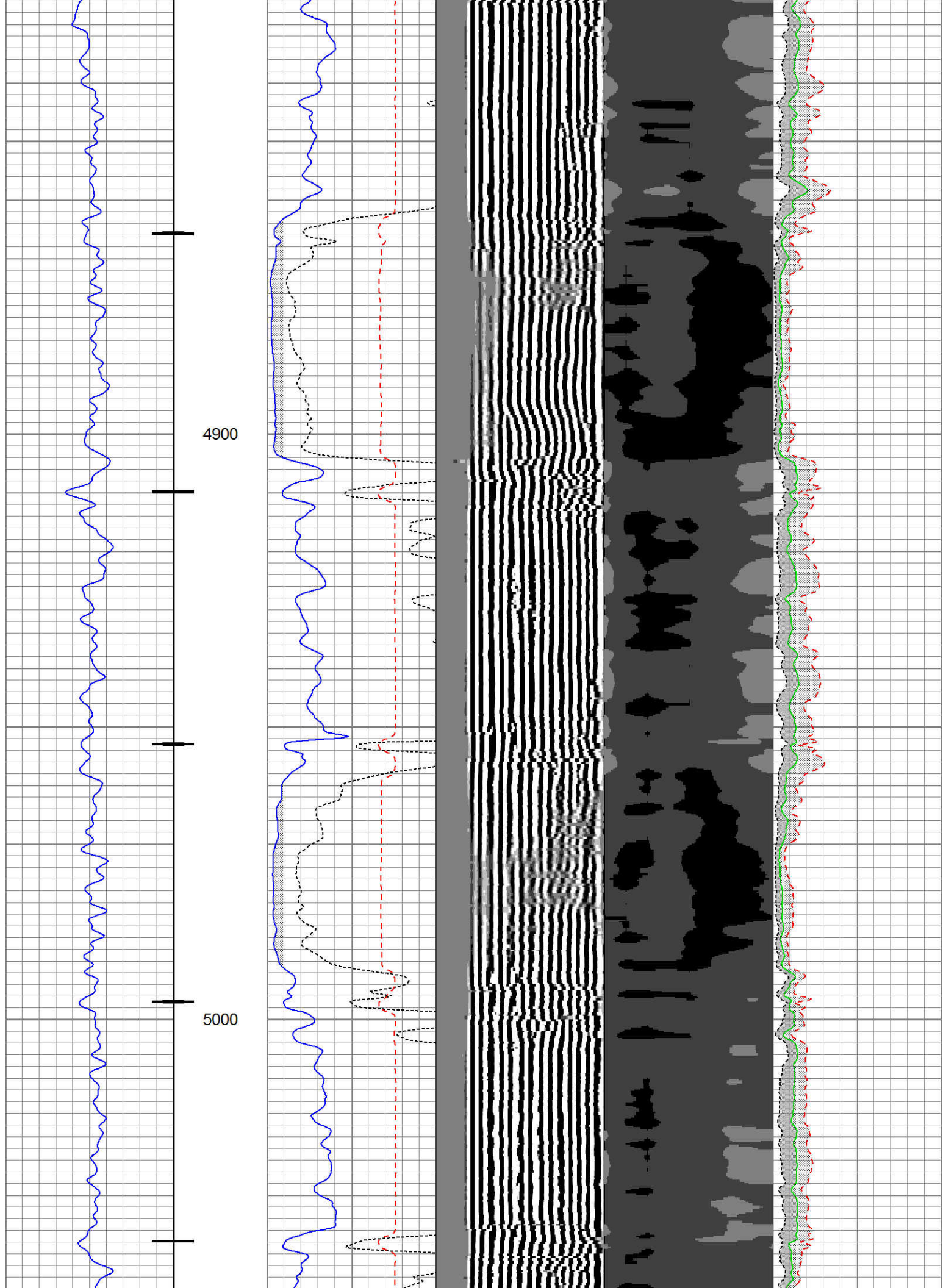


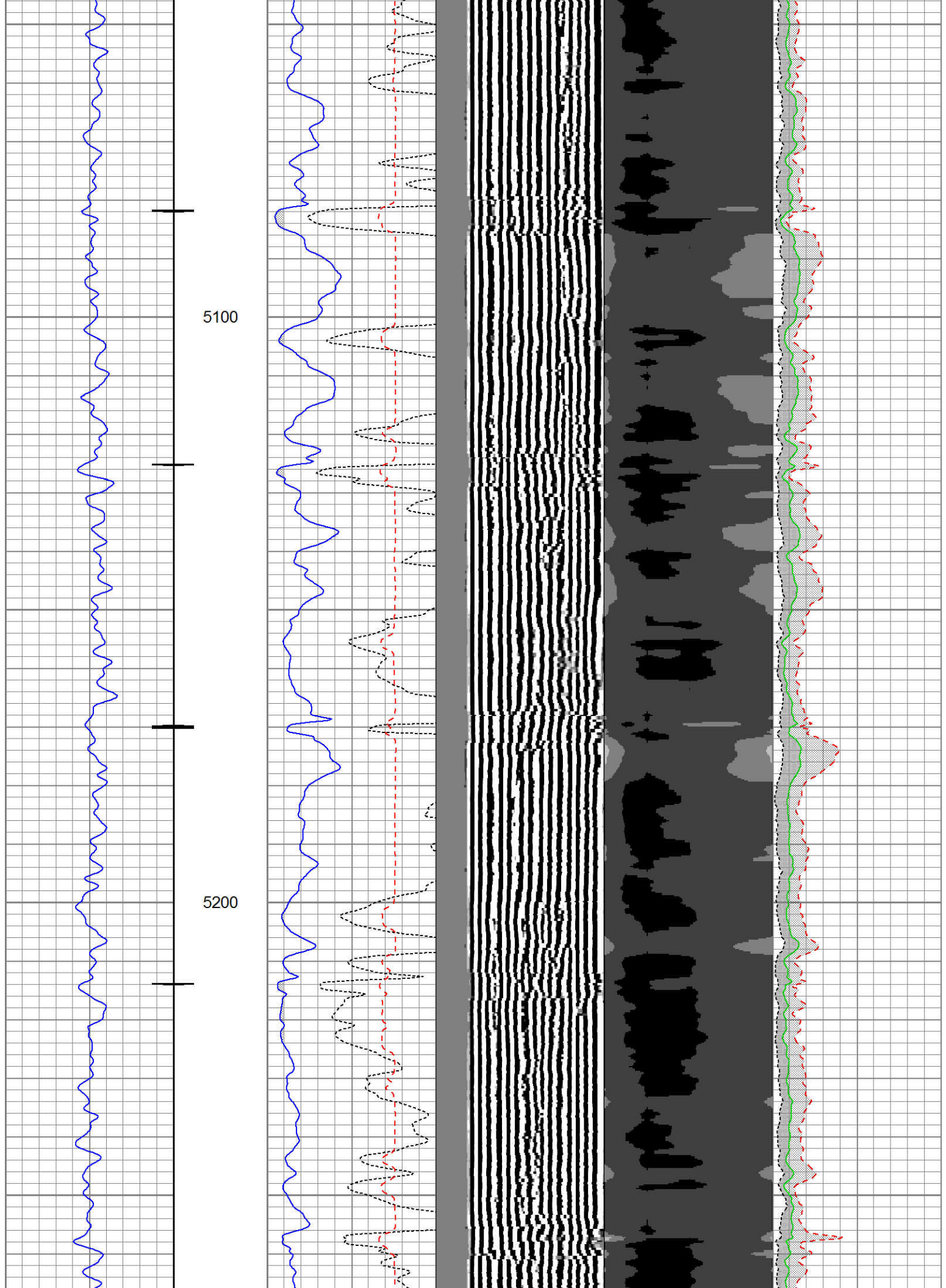


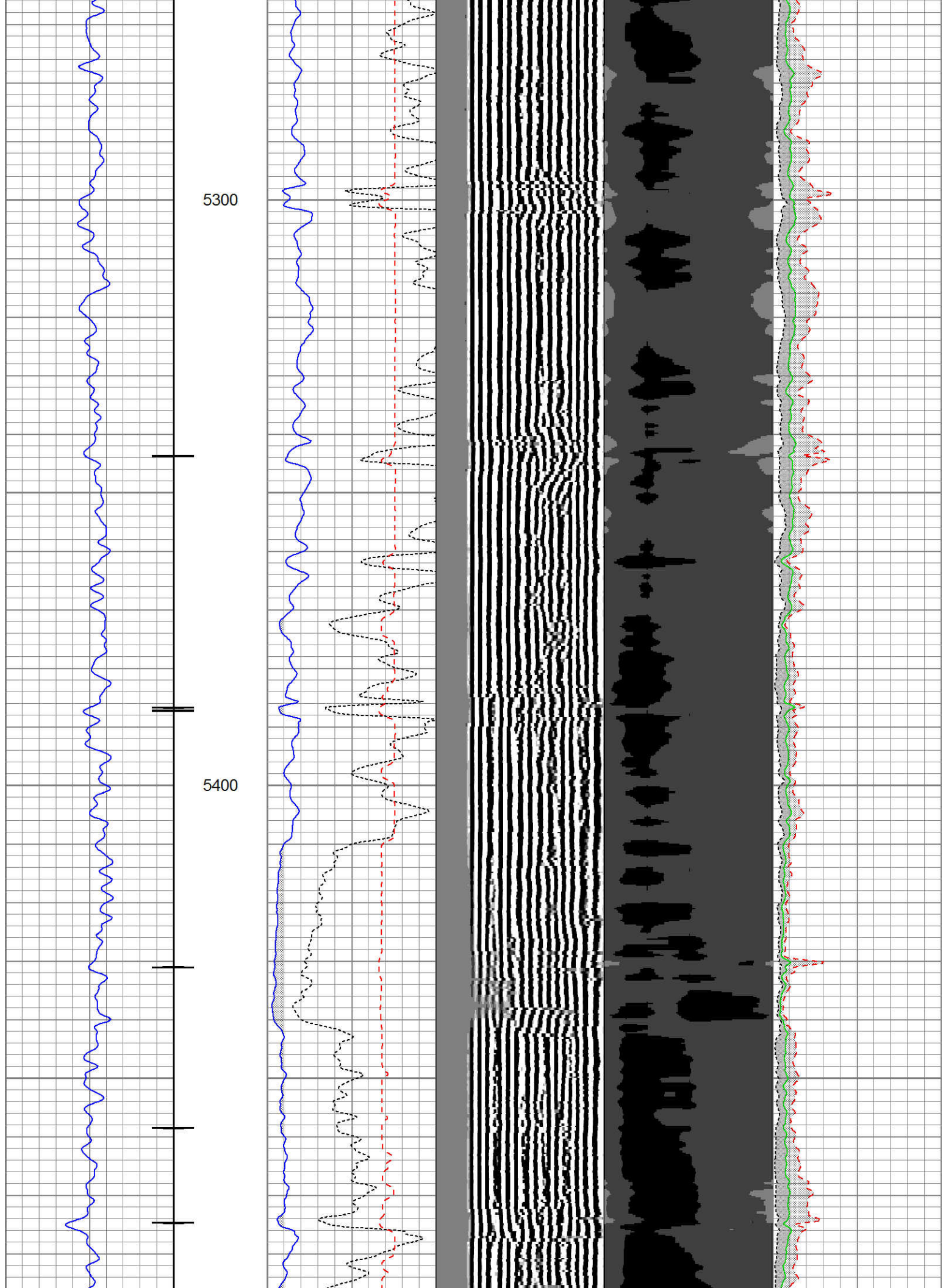


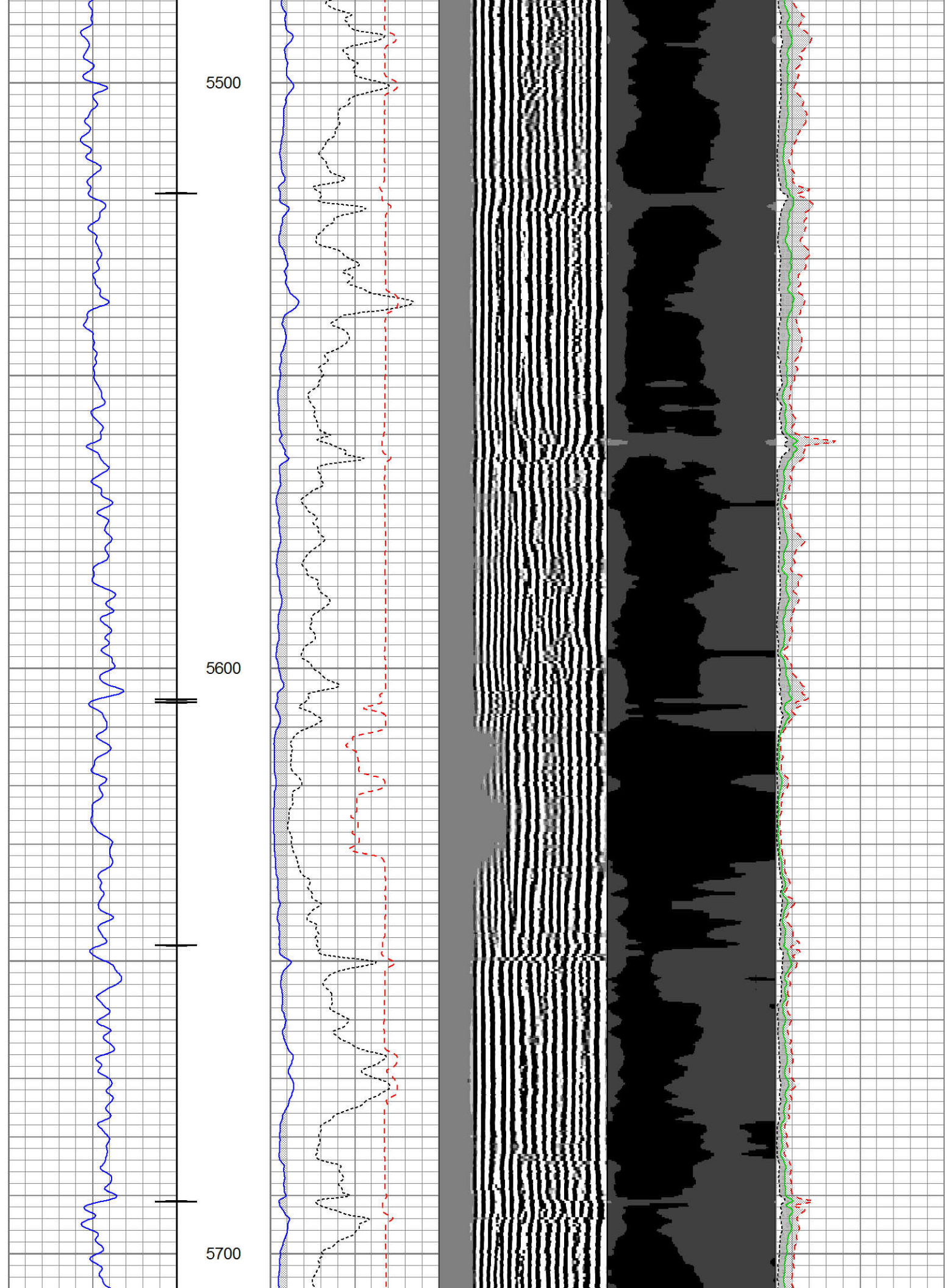


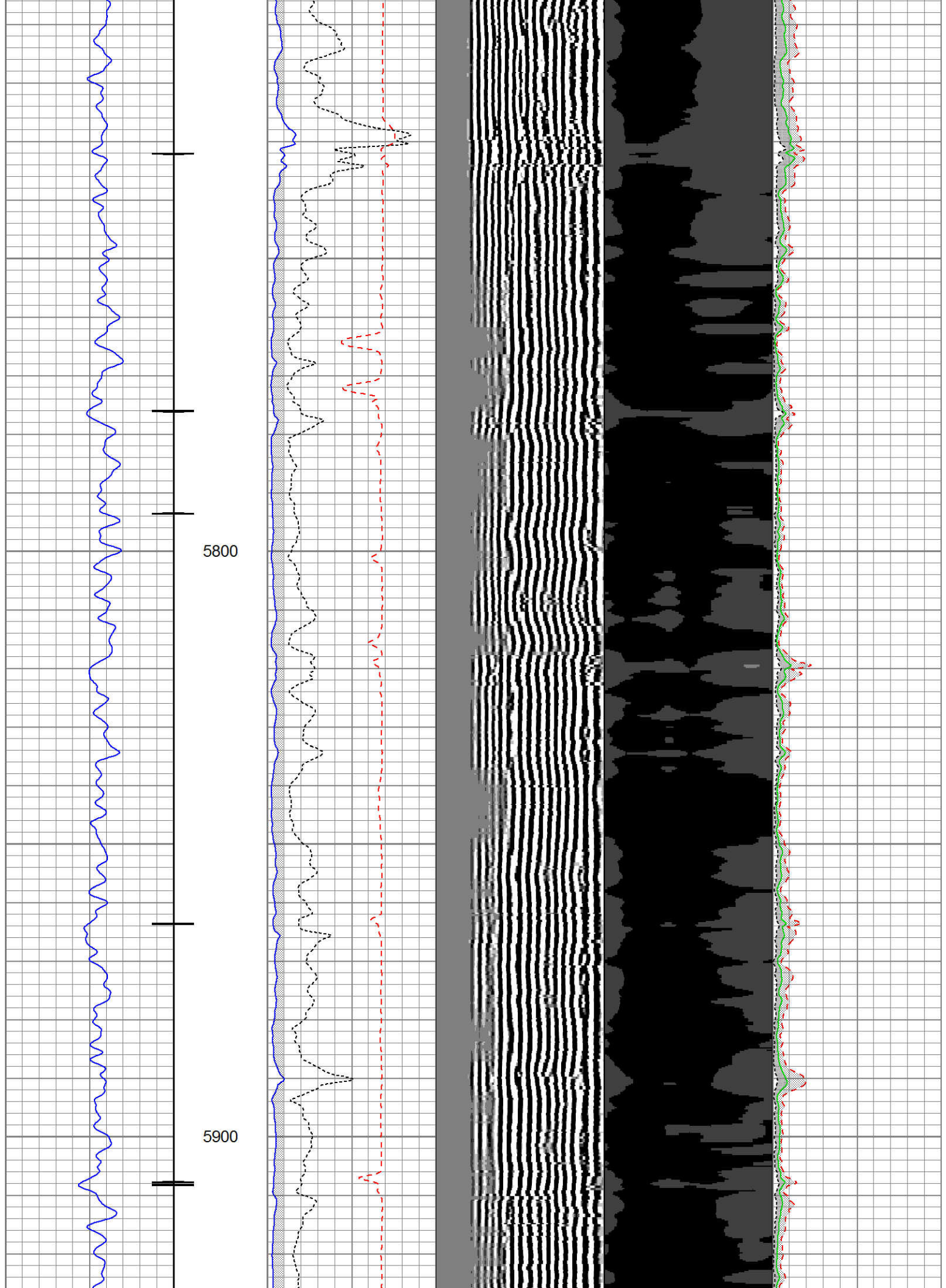


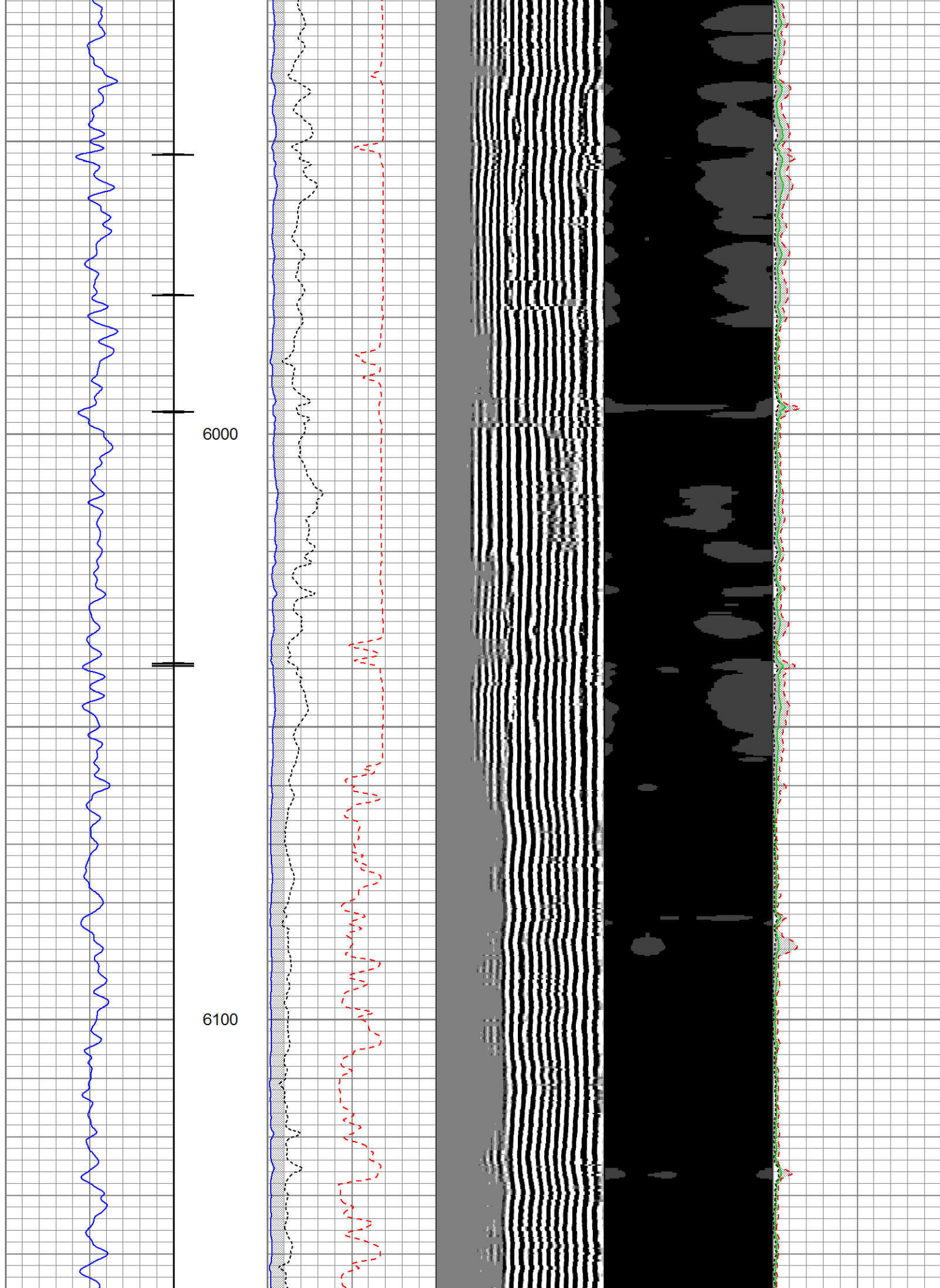


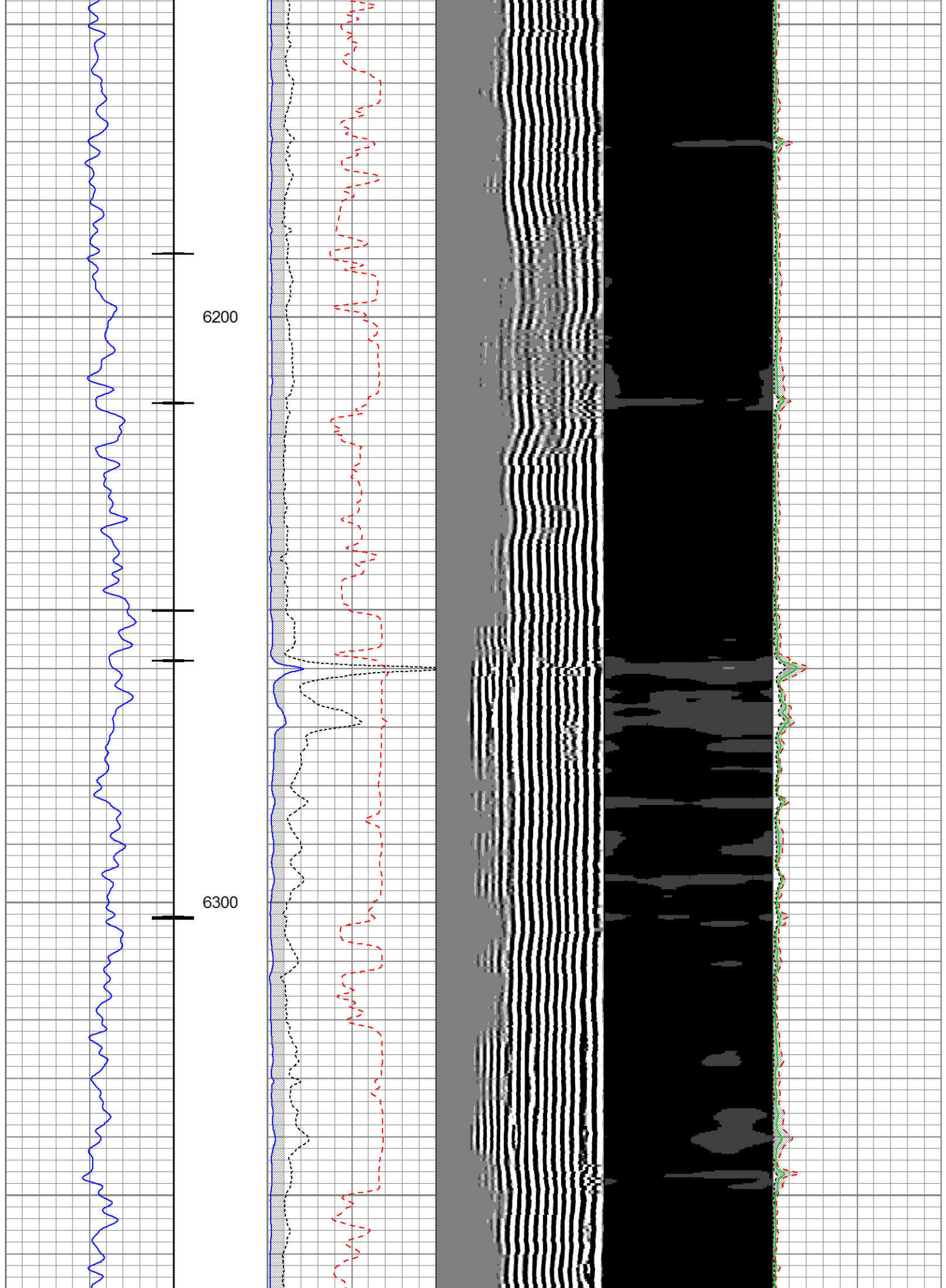


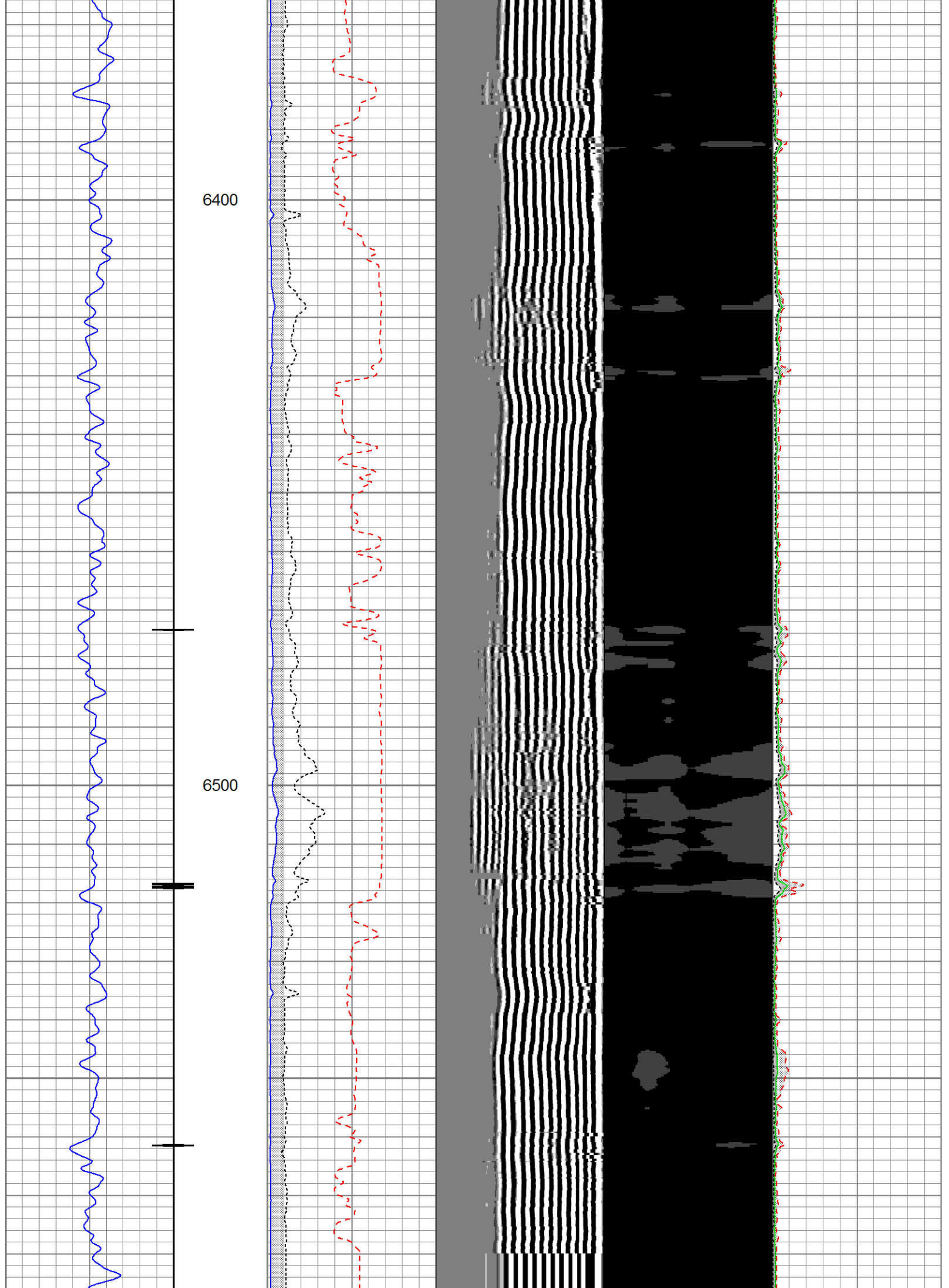


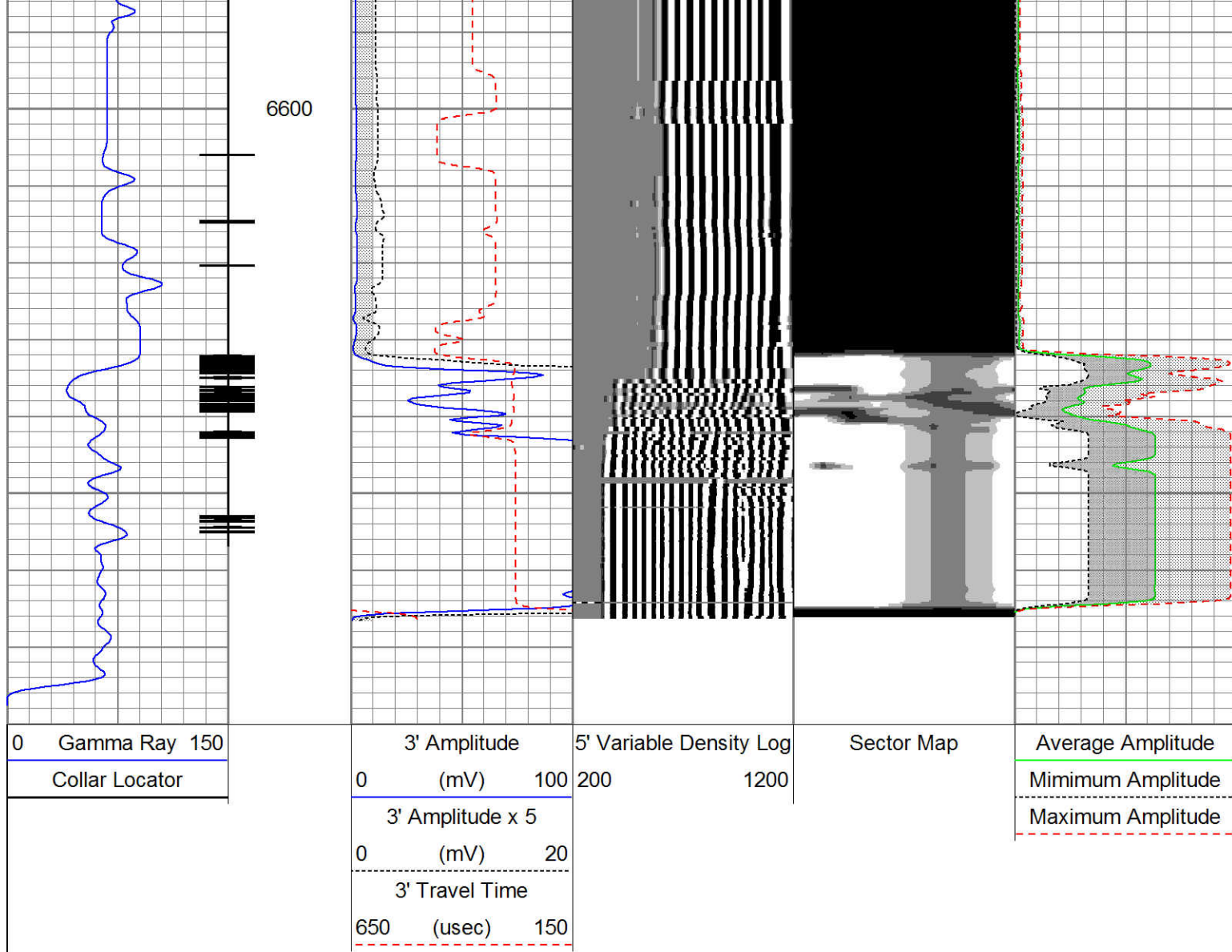












Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	22.06		AES1563 Applied Science 1-7/16" cablehead with 1" fishing neck	1.04	1.56	2.00
			CCL_LOG-TypeA (AAAA) Comprobe 2-3/4" Logging CCL with short body	1.53	2.75	26.00
			Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
TEMP	15.84					
WVFS1	14.47					
WVFS2	14.47					
WVFS3	14.47					
			TekCo_RIB-Type_A (AAAA)	9.56	2.75	123.00

WVFS3	14.47			TekCo 2-3/4" Radial Incremental Bond with piston compensator (with Temp)			
WVFS4	14.47						
WVFS5	14.47						
WVFS6	14.47						
WVFS7	14.47						
WVFS8	14.47						
WVF3FT	13.72						
WVF5FT	12.72						
WVFCAL	8.93						
WVFTEMP	8.93						
WVFSYNC	8.93			Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
GR	3.78			GR-TypeA (AAAA) Comprobe 2-3/4" Scintillating Gamma Ray (Low Temp)	3.45	2.75	38.00
				Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
Dataset: powers 30c-27hz.db: field/well/run1/proc.1 Total Length: 23.80 ft Total Weight: 249.00 lb O.D. 2.75 in							

Calibration Report			
Database File:	powers 30c-27hz.db		
Dataset Pathname:	proc.1		
Dataset Creation:	Wed Mar 13 11:55:12 2013 by Calc SCH 120126		
Gamma Ray Calibration Report			
Serial Number:	AAAA		
Tool Model:	TypeA		
Performed:	Sun Feb 10 14:09:25 2013		
Calibrator Value:	1.0		
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.5000	/cps	
Segmented Cement Bond Log Calibration Report			
Serial Number:	AAAA		
Tool Model:	Type_A		
Calibration Casing Diameter:	7.000	in	
Calibration Depth:	1097.161	ft	

Master Calibration, performed Mon Mar 04 13:01:37 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	1.465	0.800	62.165	41.886	0.800
CAL	0.000	1.917				
5'	0.000	2.500	0.800	62.165	24.546	0.800
SUM						
S1	0.000	0.972	0.000	100.000	102.890	0.000
S2	0.000	0.562	0.000	100.000	96.360	0.000
S3	0.000	0.494	0.000	100.000	102.220	0.000
S4	0.000	0.851	0.000	100.000	117.492	0.000
S5	0.000	1.666	0.000	100.000	60.021	0.000
S6	0.000	2.429	0.000	100.000	41.166	0.000
S7	0.000	2.480	0.000	100.000	40.327	0.000
S8	0.000	1.898	0.000	100.000	52.677	0.000

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	1.917	1.000	0.000

Air Zero Calibration, performed Wed Feb 20 09:51:00 2013:

	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: AAAA
Tool Model: Type_A
Performed: Thu Nov 01 16:27:48 2012

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

Gain: 0.33
Offset: -24.29
Delta Spacing: 1

Company: Kerr McGee Oil & Gas Onshore LP

Well: Powers 30C-27HZ

