



Radial Cement Bond Log

Company Kerr-McGee Oil & Gas Onshore, LP				Company Kerr-McGee Oil & Gas Onshore, LP				
Well Gobbler 28N-23HZ				Well Gobbler 28N-23HZ				
Field Wattenberg				Field Wattenberg				
County Weld				County Weld				
State Colorado				State Colorado				
Location:				API # : 05-123-35999		Other Services		
SHL: SWSE 240' FSL 2074' FEL				CIL				
SEC 23 TWP 2N RGE 66W				Elevation				
Permanent Datum		Ground Level		Elevation		5101'		
Log Measured From		Kelly Bushing @ 13 FT		K.B. 5114'		D.F. 5113'		
Drilling Measured From		Kelly Bushing		G.L. 5101'				
Date		26-JUL-2013						
Run Number		One						
Depth Driller		11.881 FT						
Depth Logger		6912 FT						
Bottom Logged Interval		6912 FT						
Top Log Interval		40 FT						
Open Hole Size		8.750"						
Type Fluid		Water						
Density / Viscosity		8.34 lbm/gal						
Max. Recorded Temp.		----						
Estimated Cement Top		52 FT						
Time Well Ready		ROA						
Time Logger on Bottom		18:00						
Equipment Number		HD-0134						
Location		Ft. Lupton, Colorado						
Recorded By		J. Raby						
Witnessed By		T.J. Yates						
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		9.625	36	---	Surface	1076 FT		
Intermediate #1		7	26	---	Surface	7379 FT		
Intermediate #2								
Liner		4.5	11.6	---	6770 FT	11,866 FT		

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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

Log Was Correlated To The Liner Top @ 6770'
Estimated Cement Top 40'

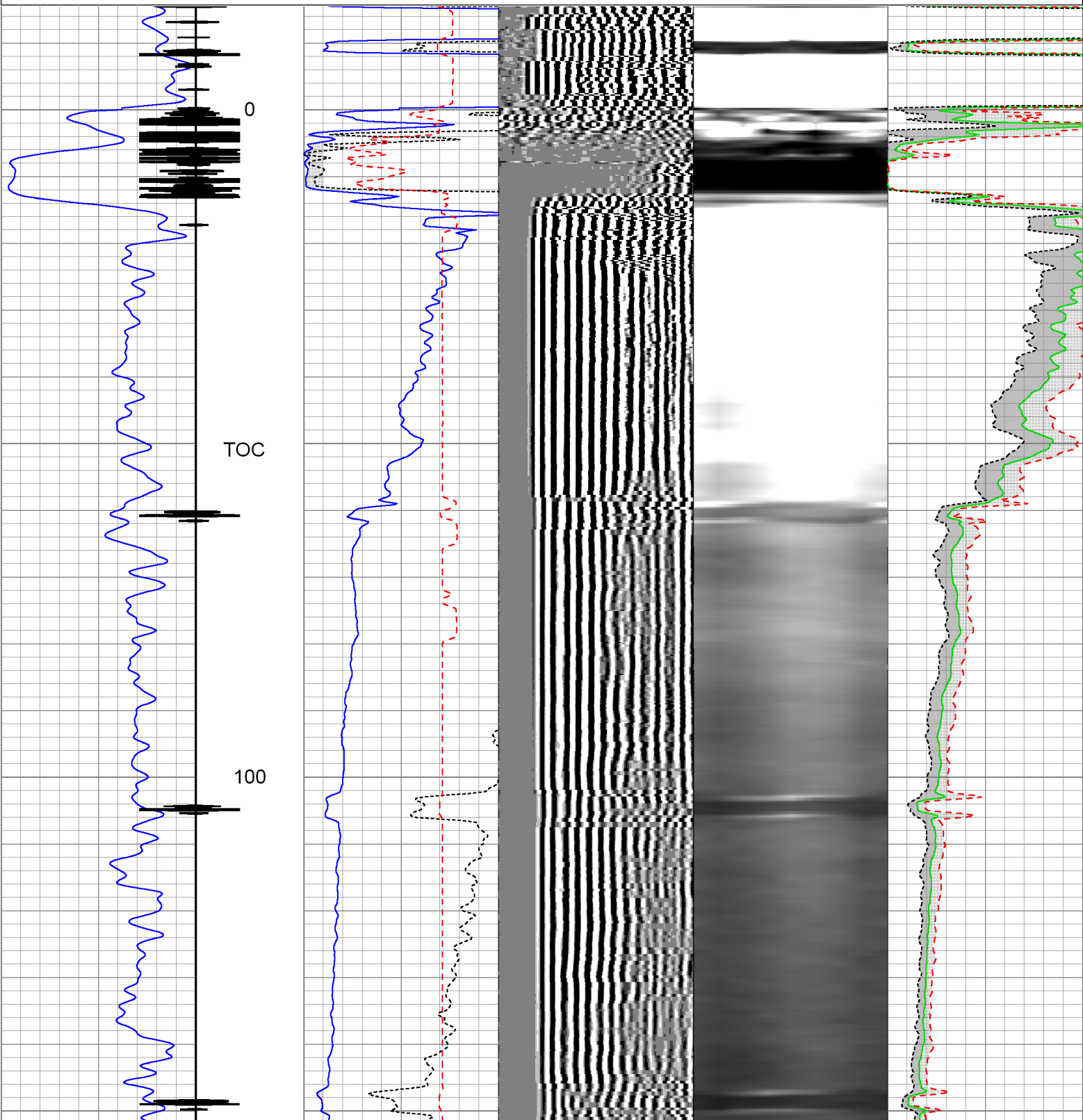
Thank You for choosing FMC Technologies Completion Services, Inc.

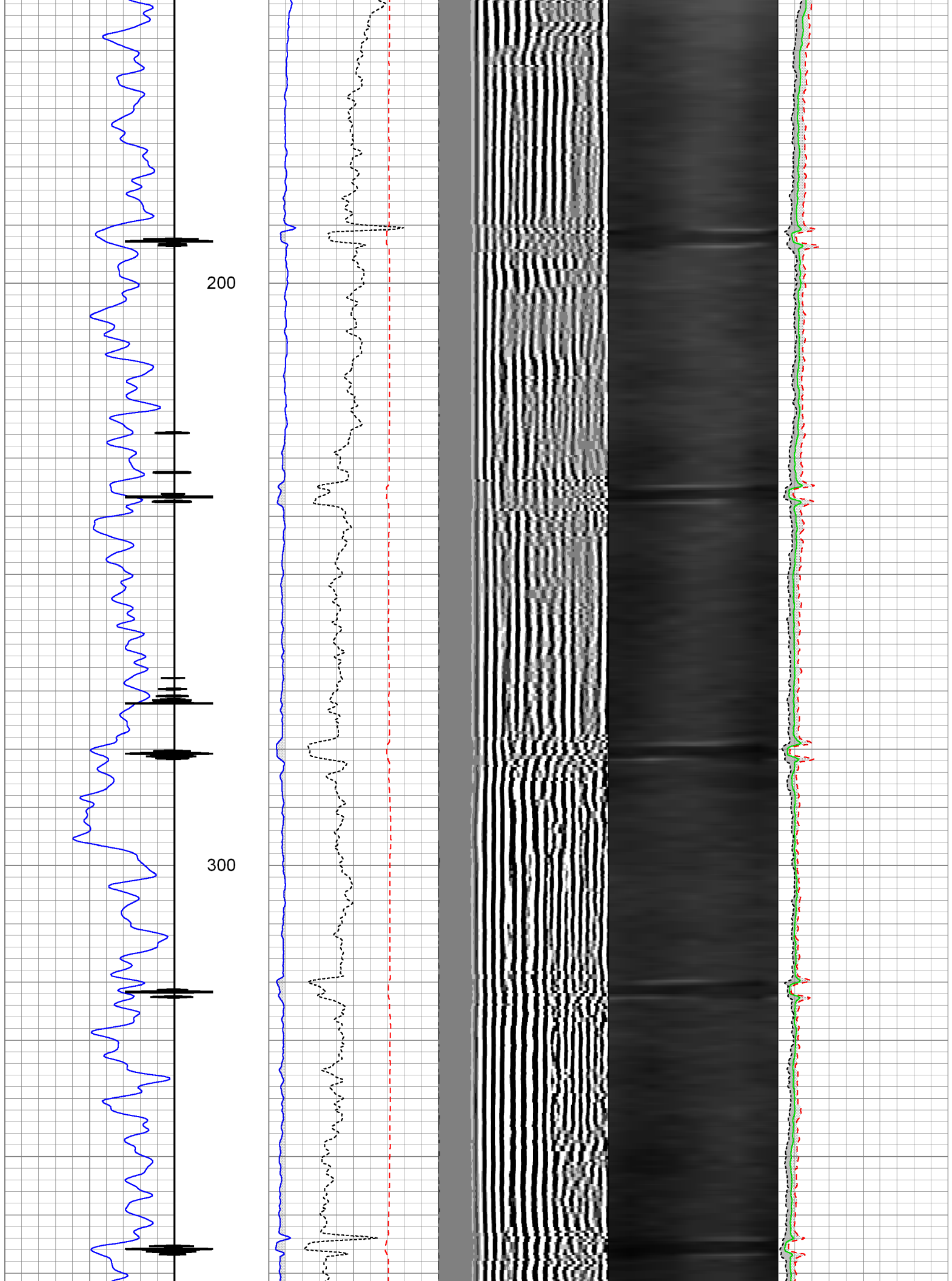


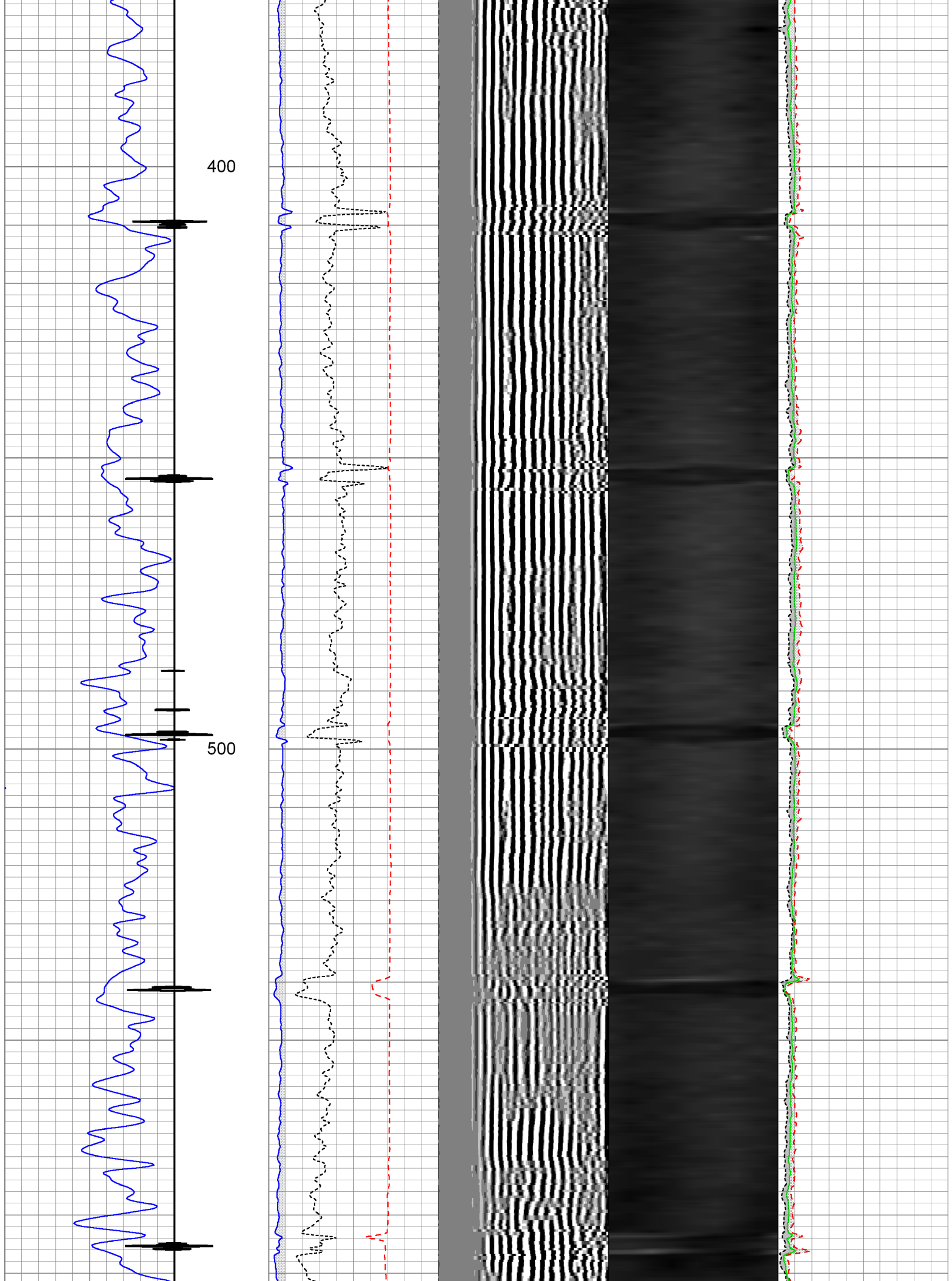
Main Pass 2700 PSI

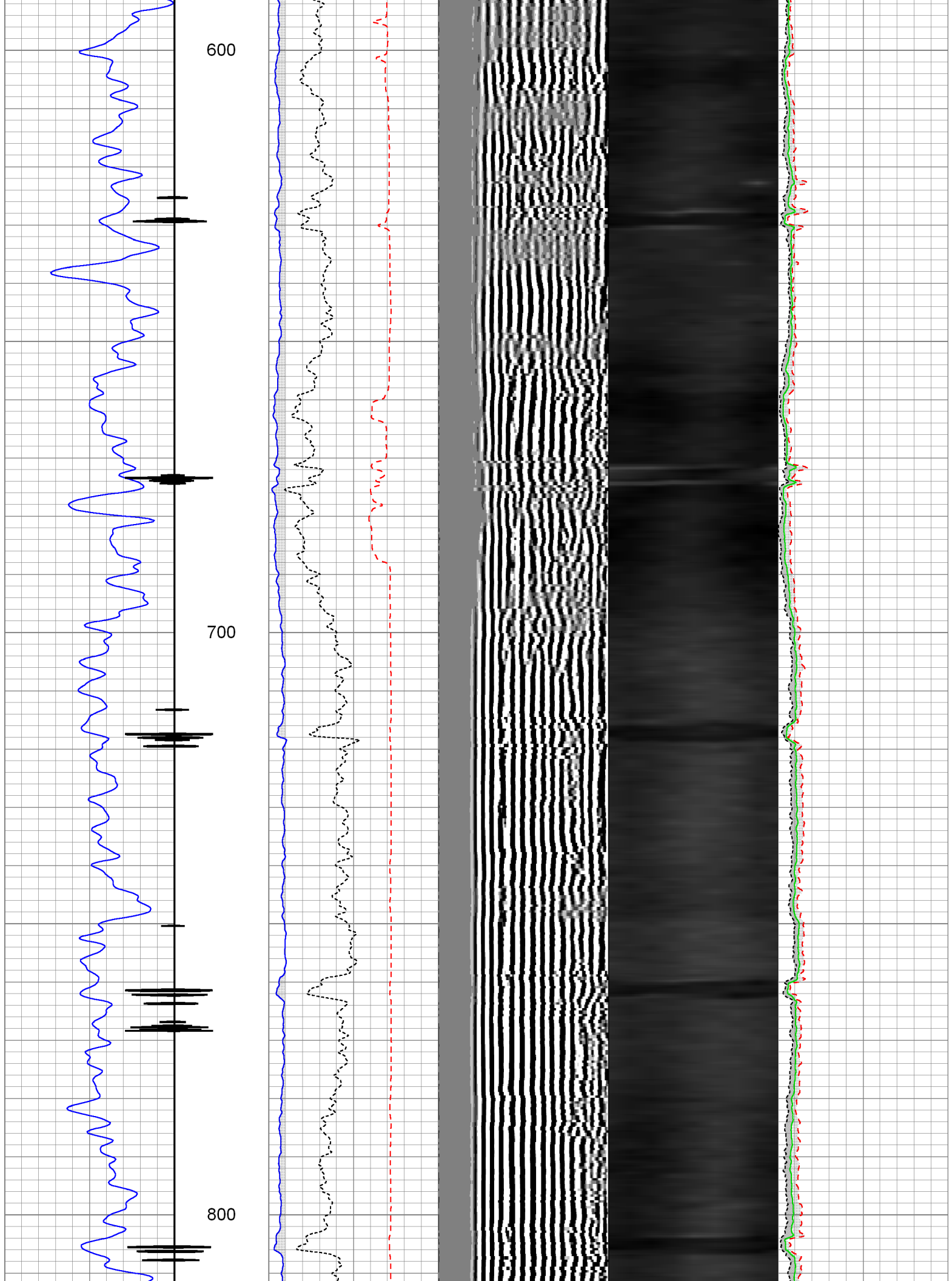
Database File: 0512335999_anadarko_gobbler_28n23hz.db
Dataset Pathname: pass8.33
Presentation Format: rcblusa
Dataset Creation: Sat Jul 27 22:15:16 2013 by Calc Sondex V7.03
Charted by: Depth in Feet scaled 1:240

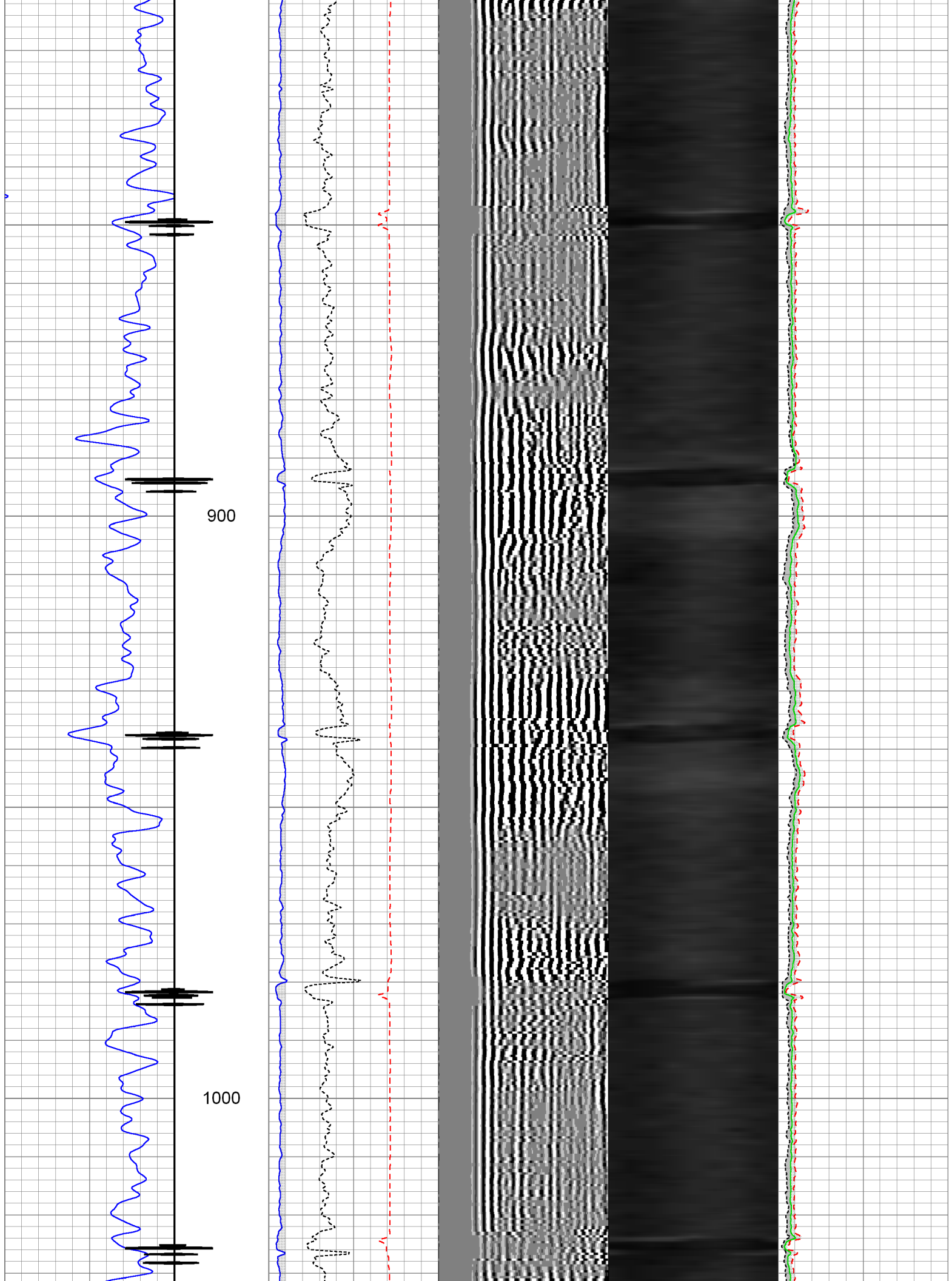
0	Gamma Ray 120	3' Amplitude	5' Variable Density Log	Cement Map	Average Amplitude
Casing Collar Locator		0 (mV) 100	200 1200		0 100
		3' Amplitude x 5			Minimum Amplitude
		0 (mV) 20			0 100
		3' Travel Time			Maximum Amplitude
		650 (usec) 150			0 100

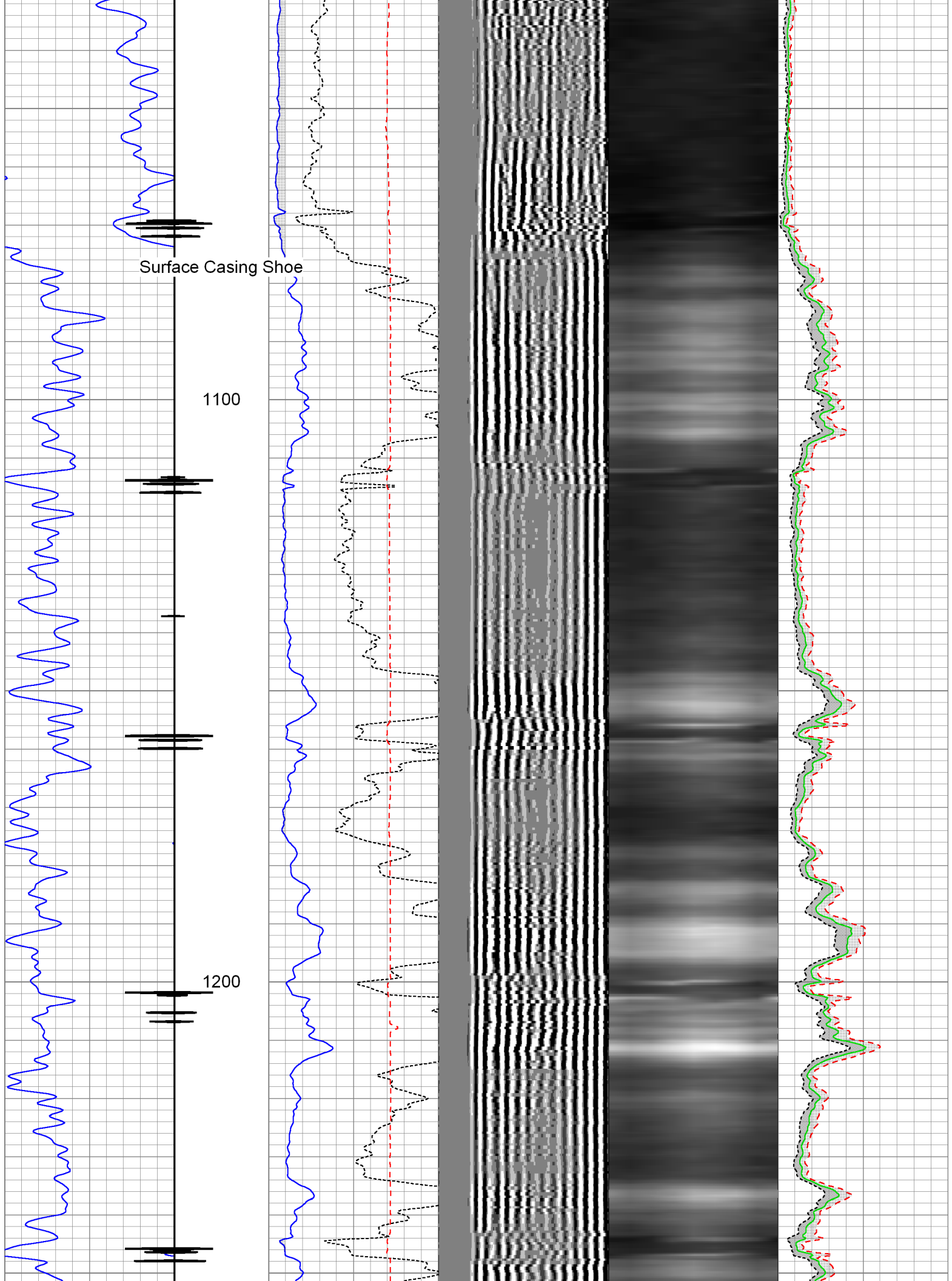


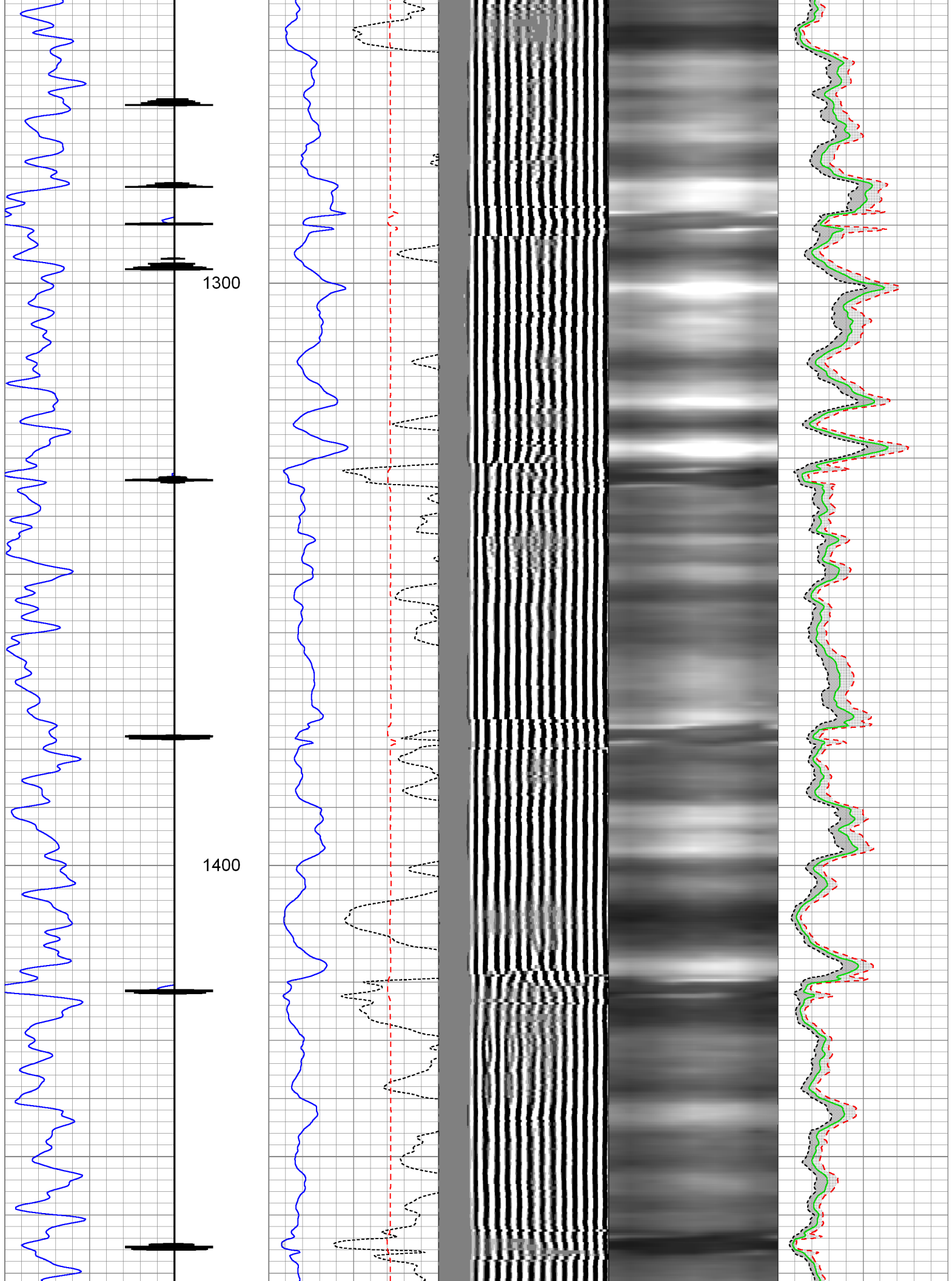


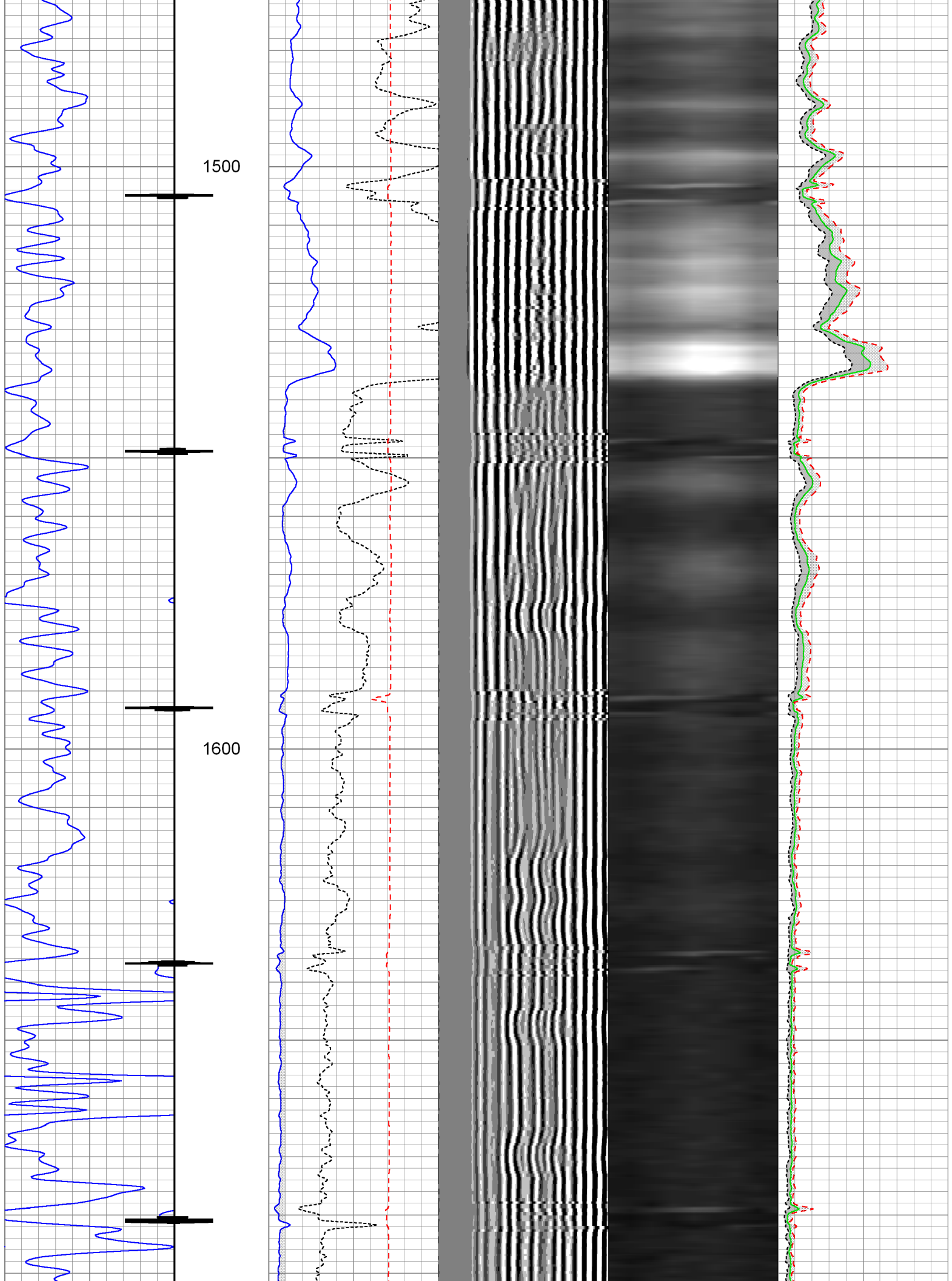


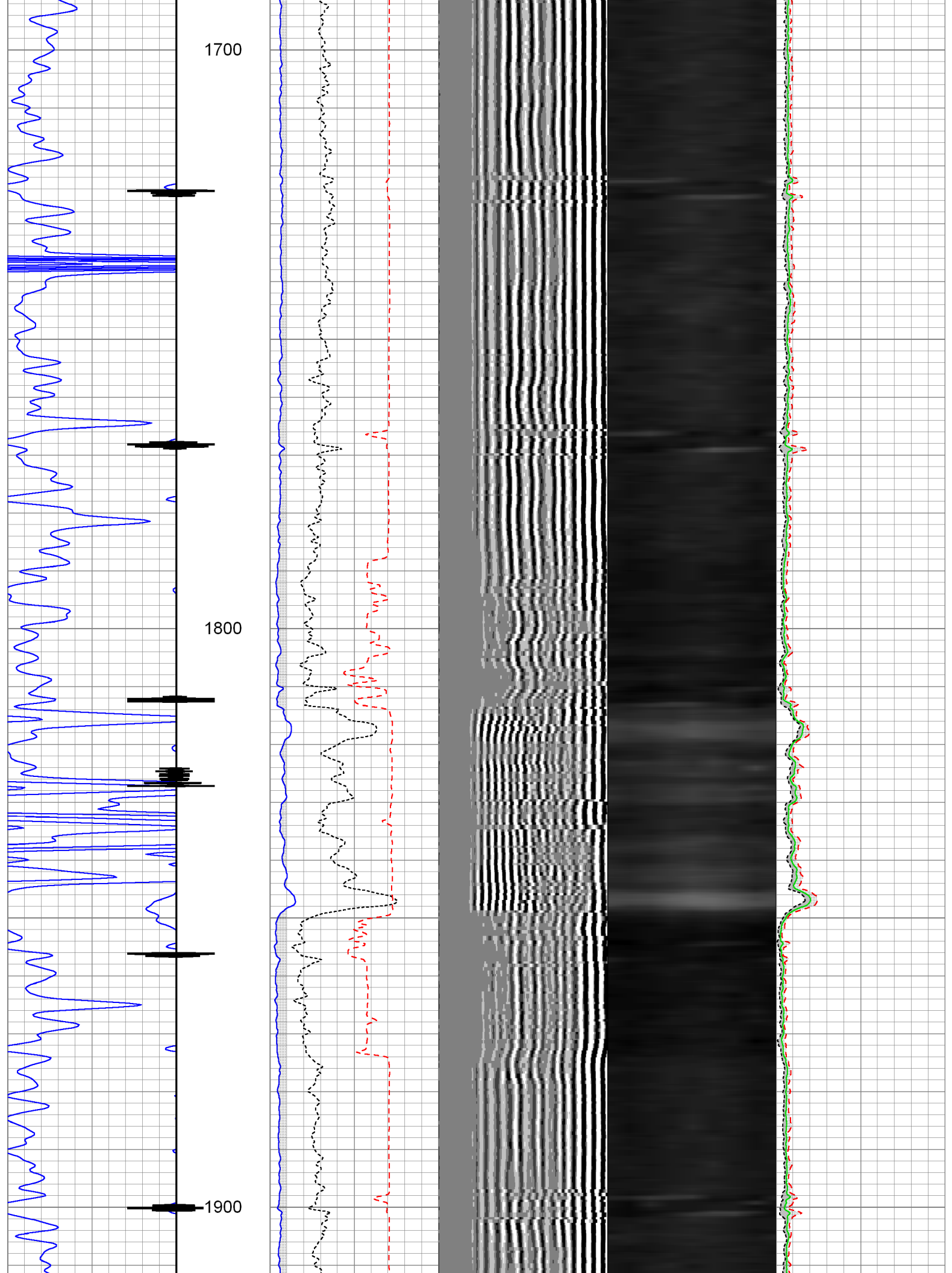


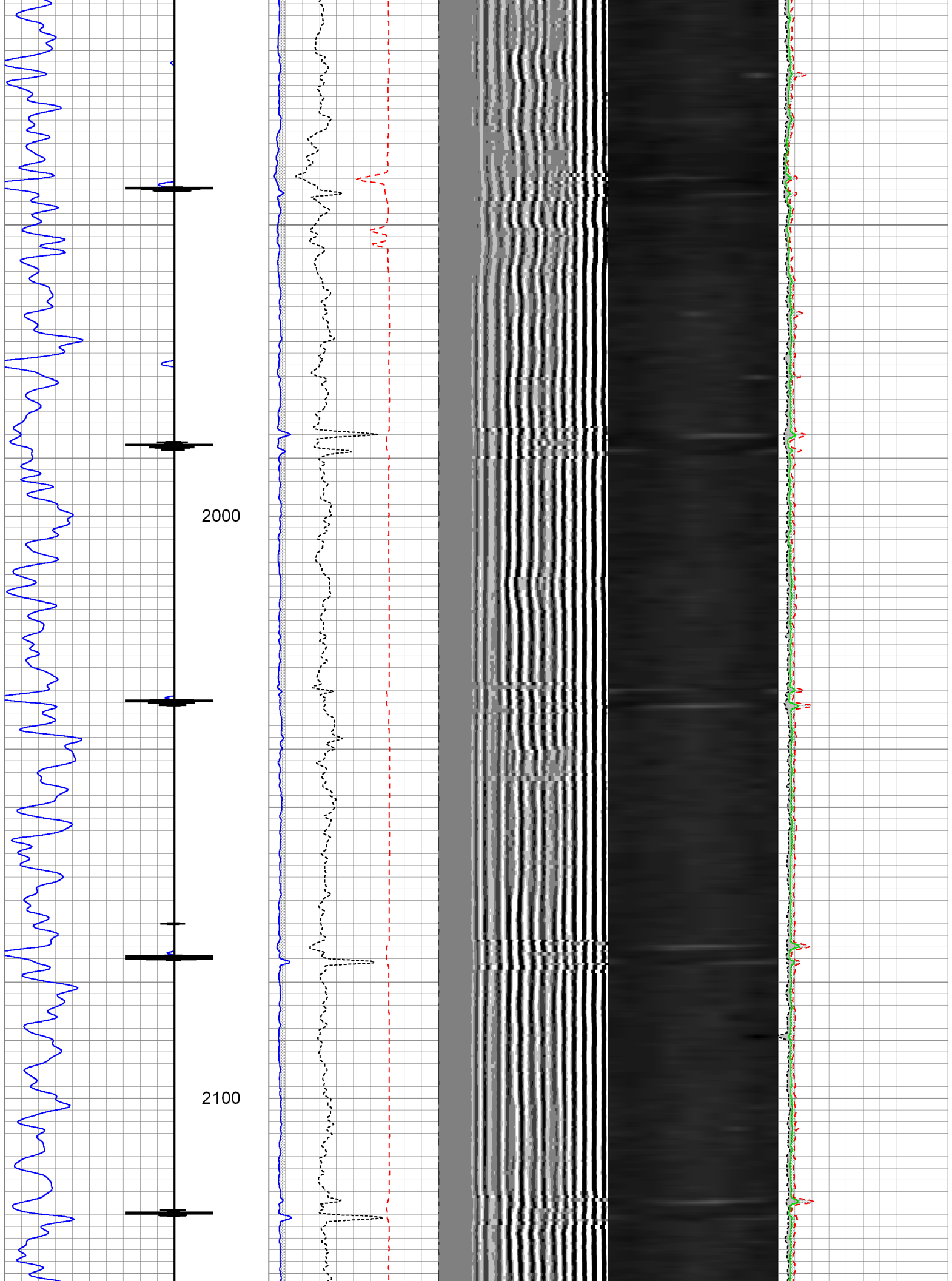


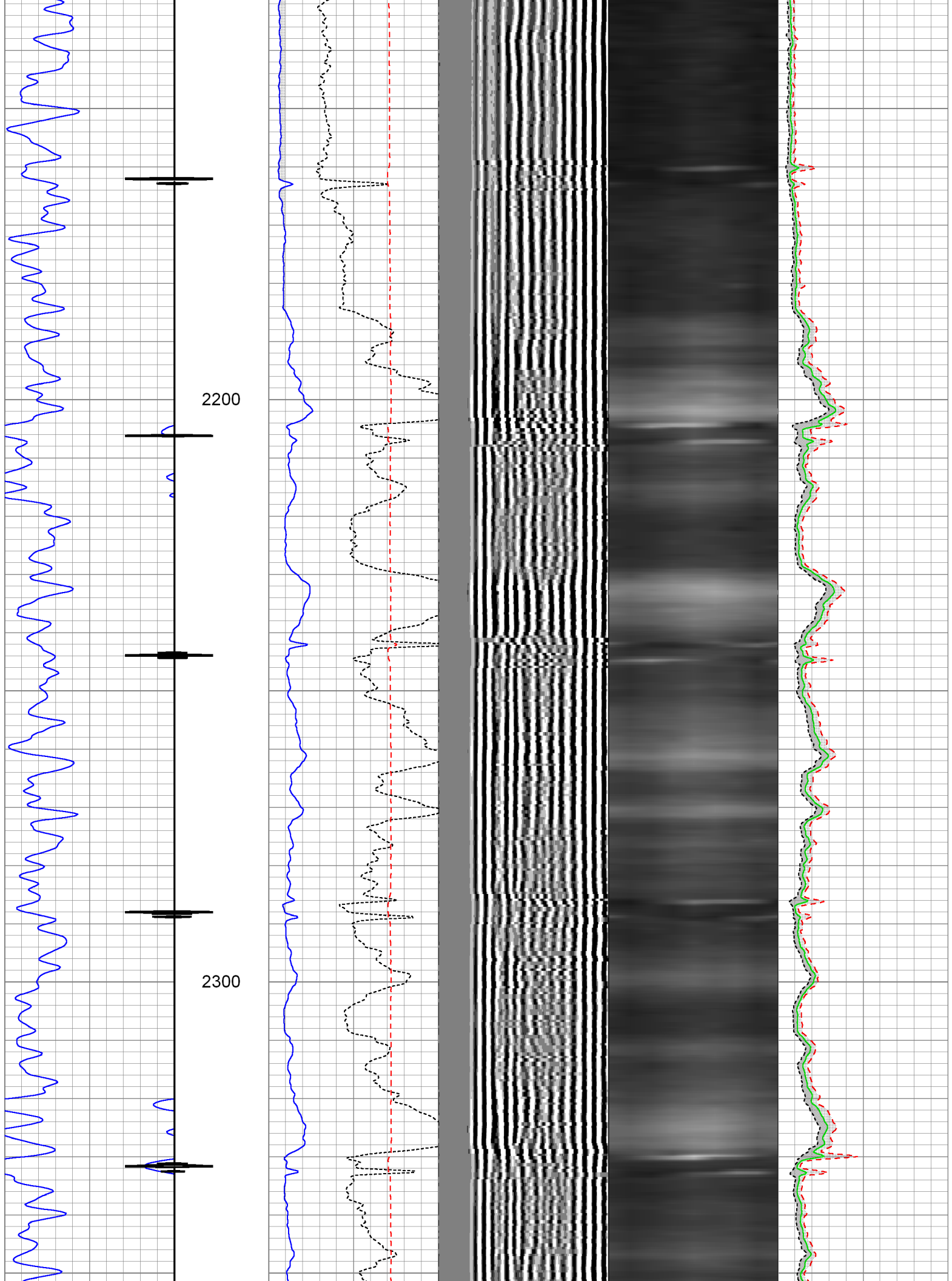


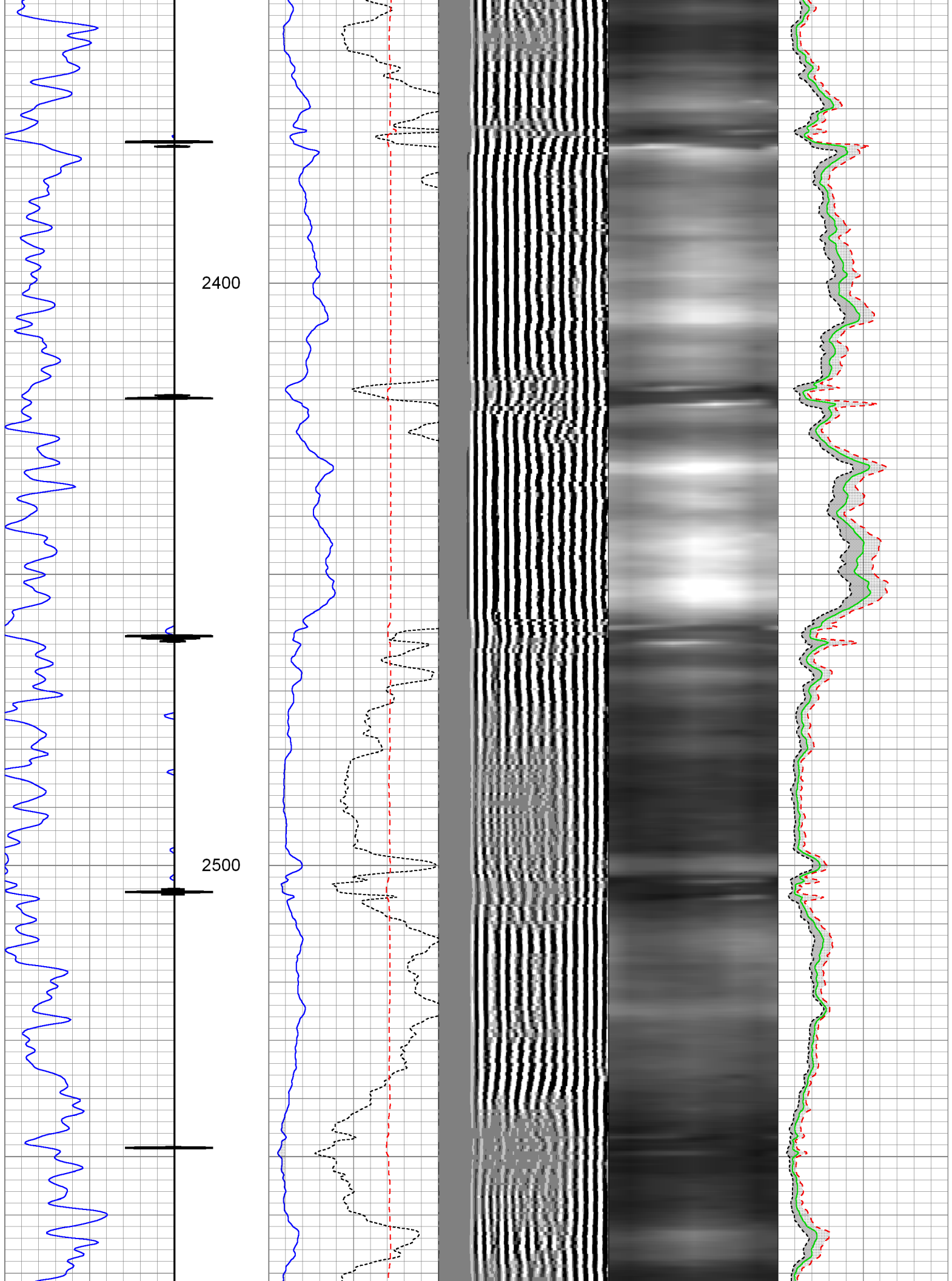


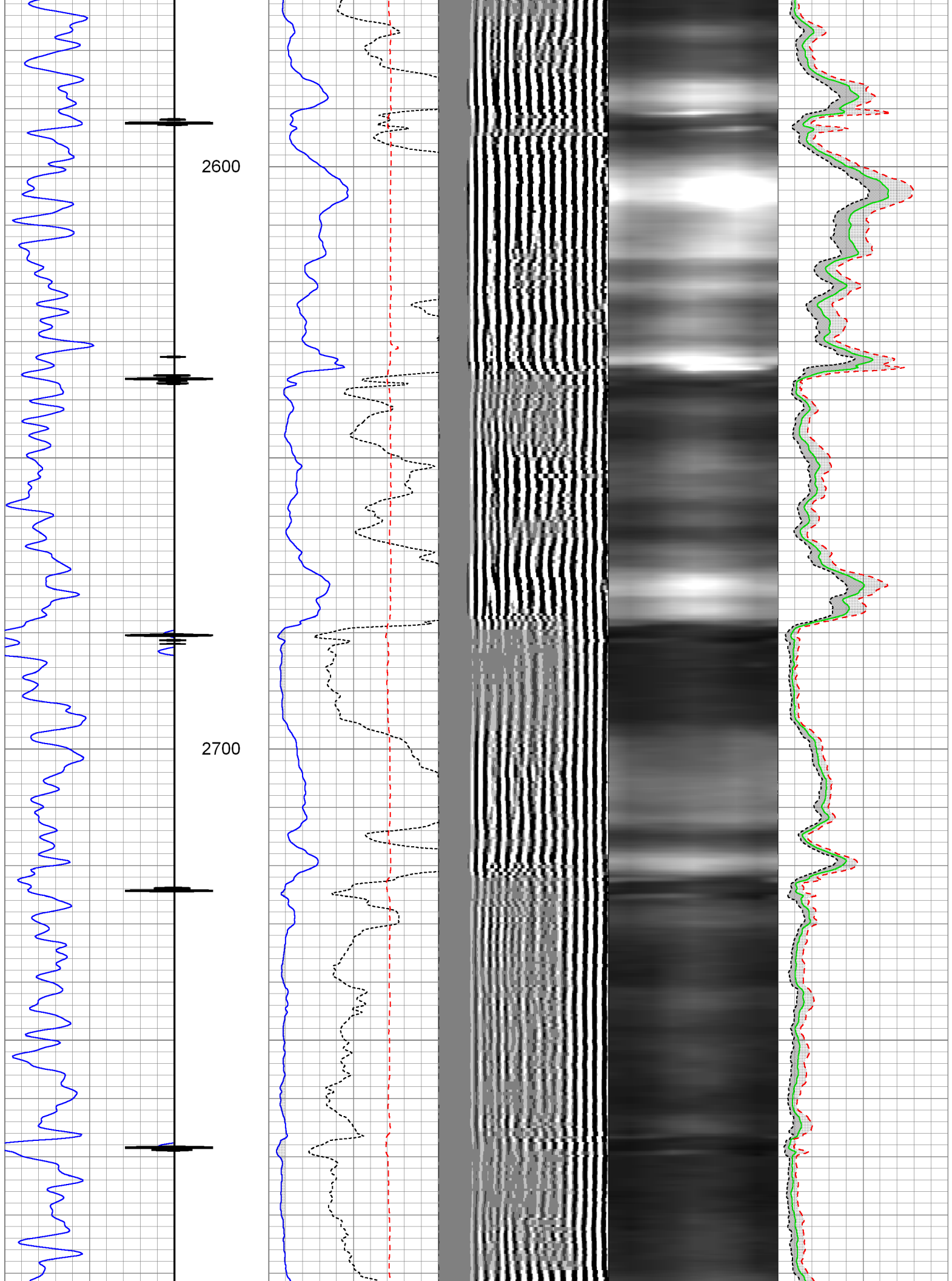


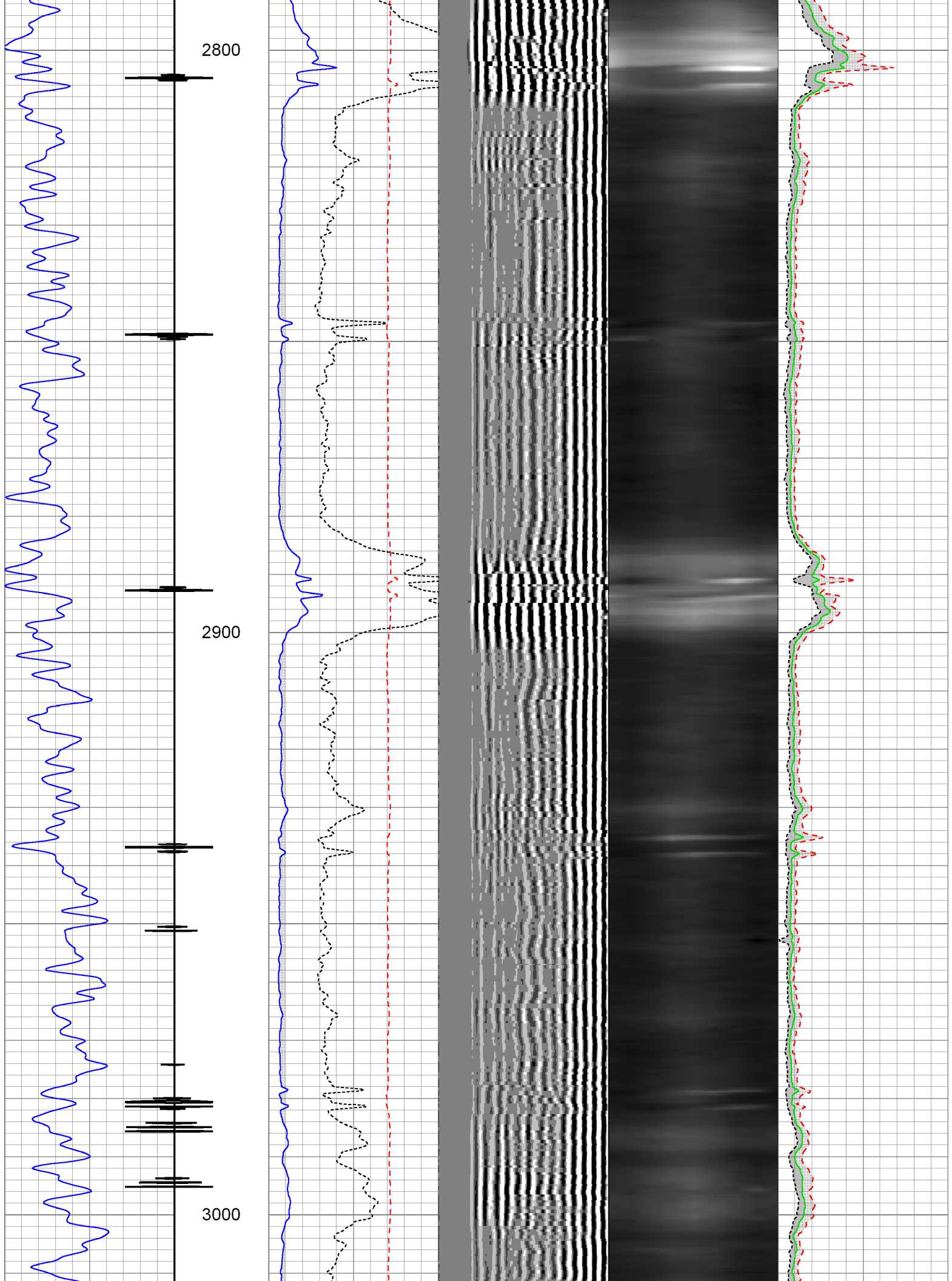


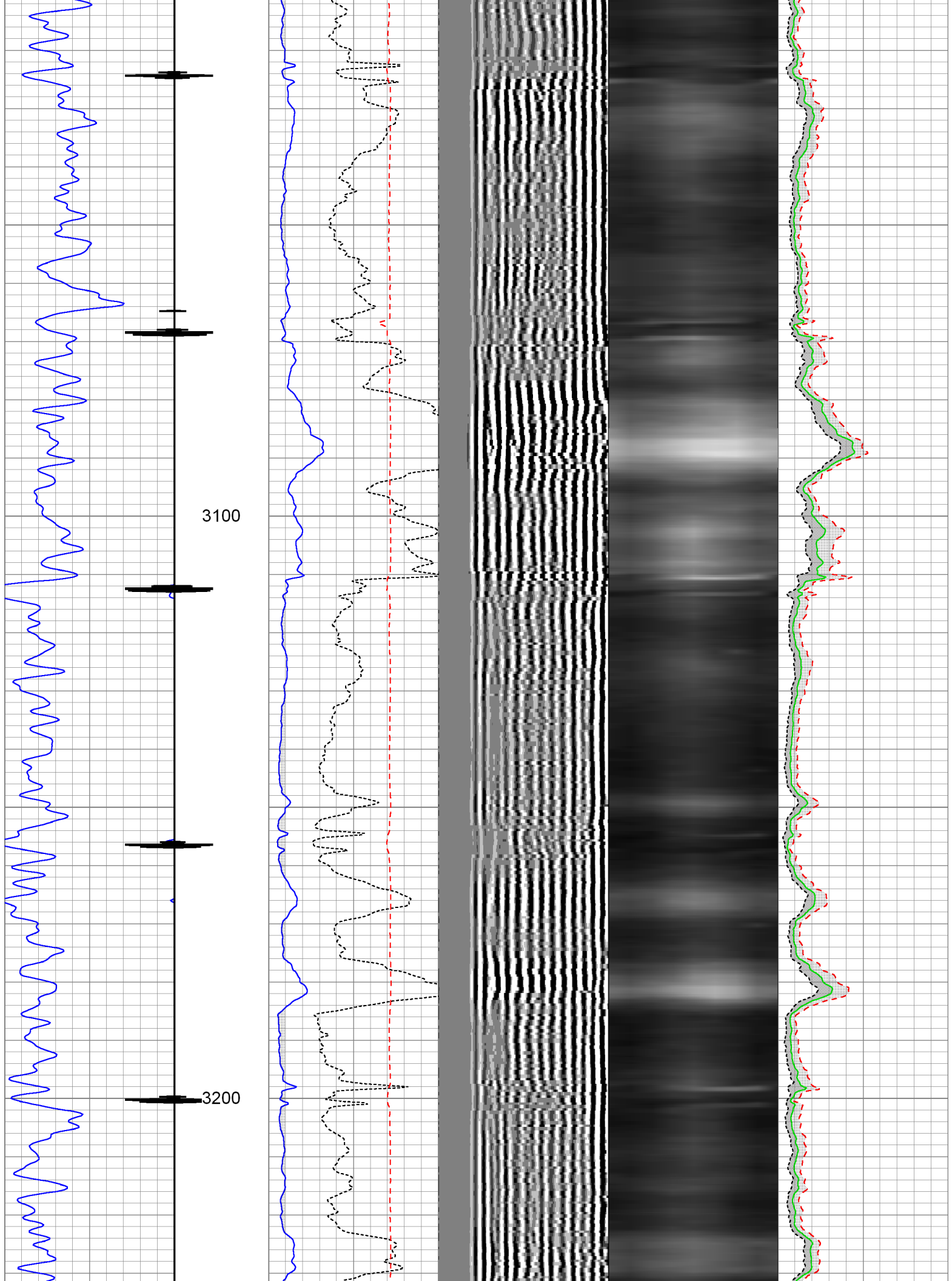


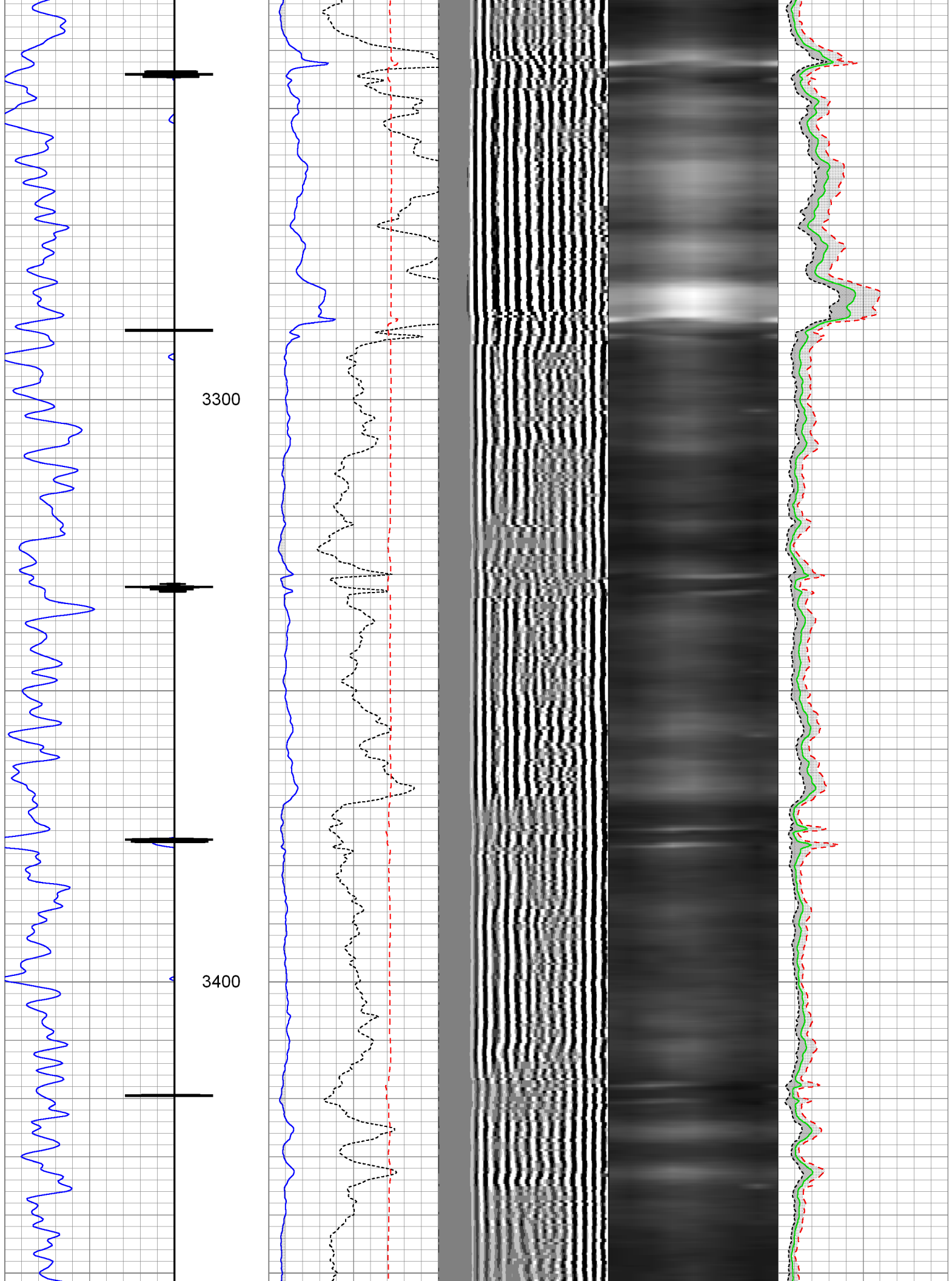


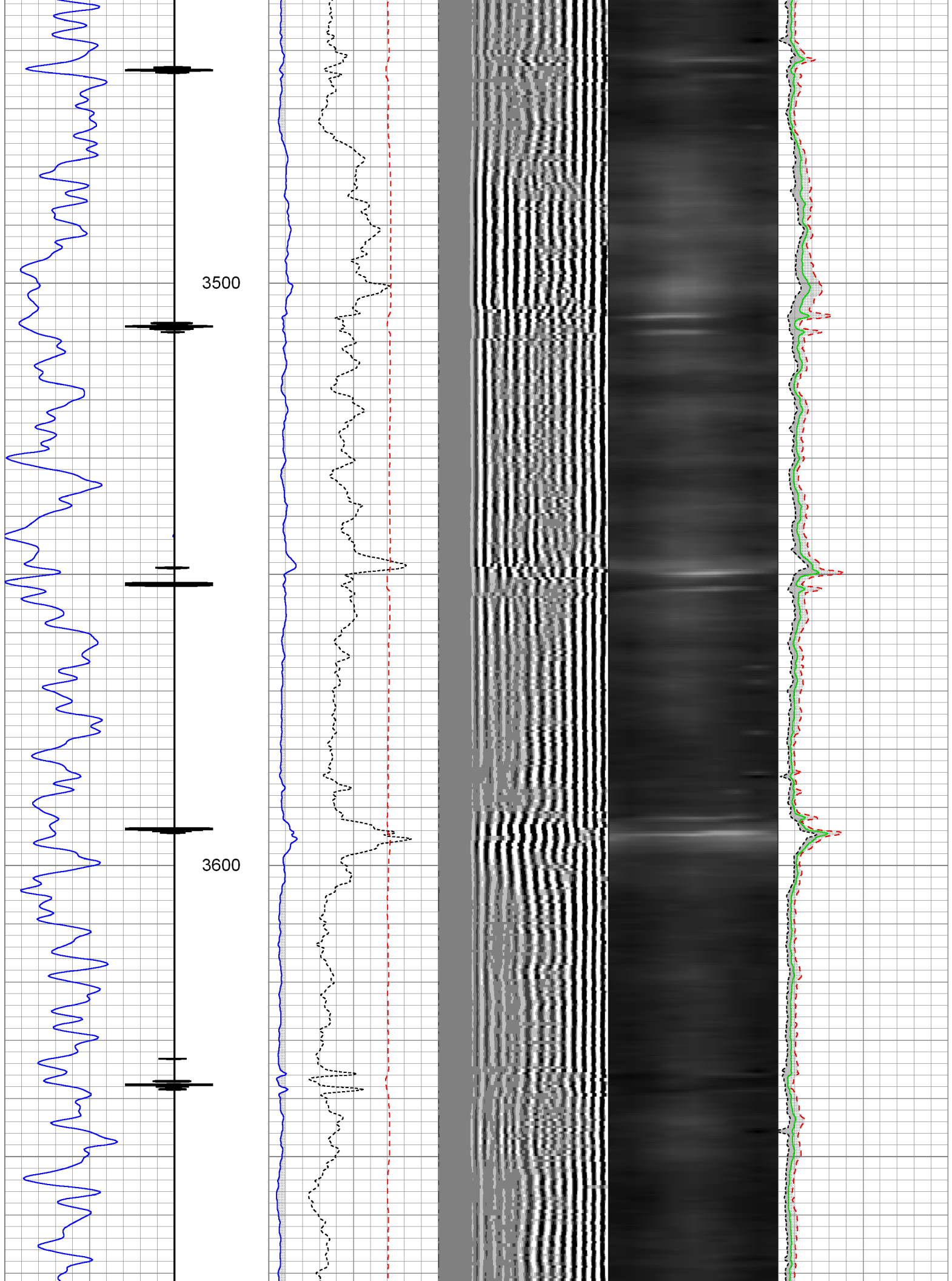


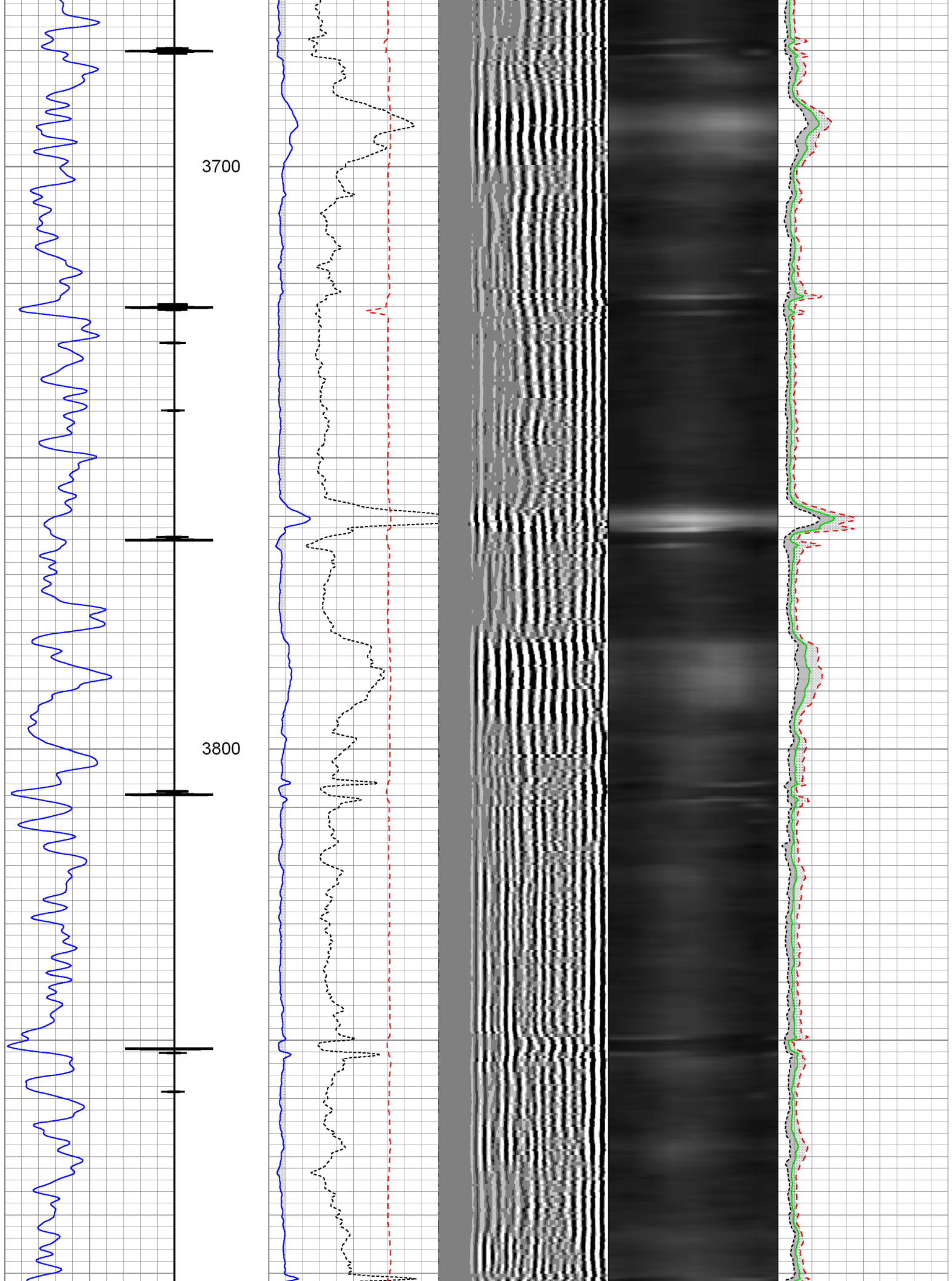


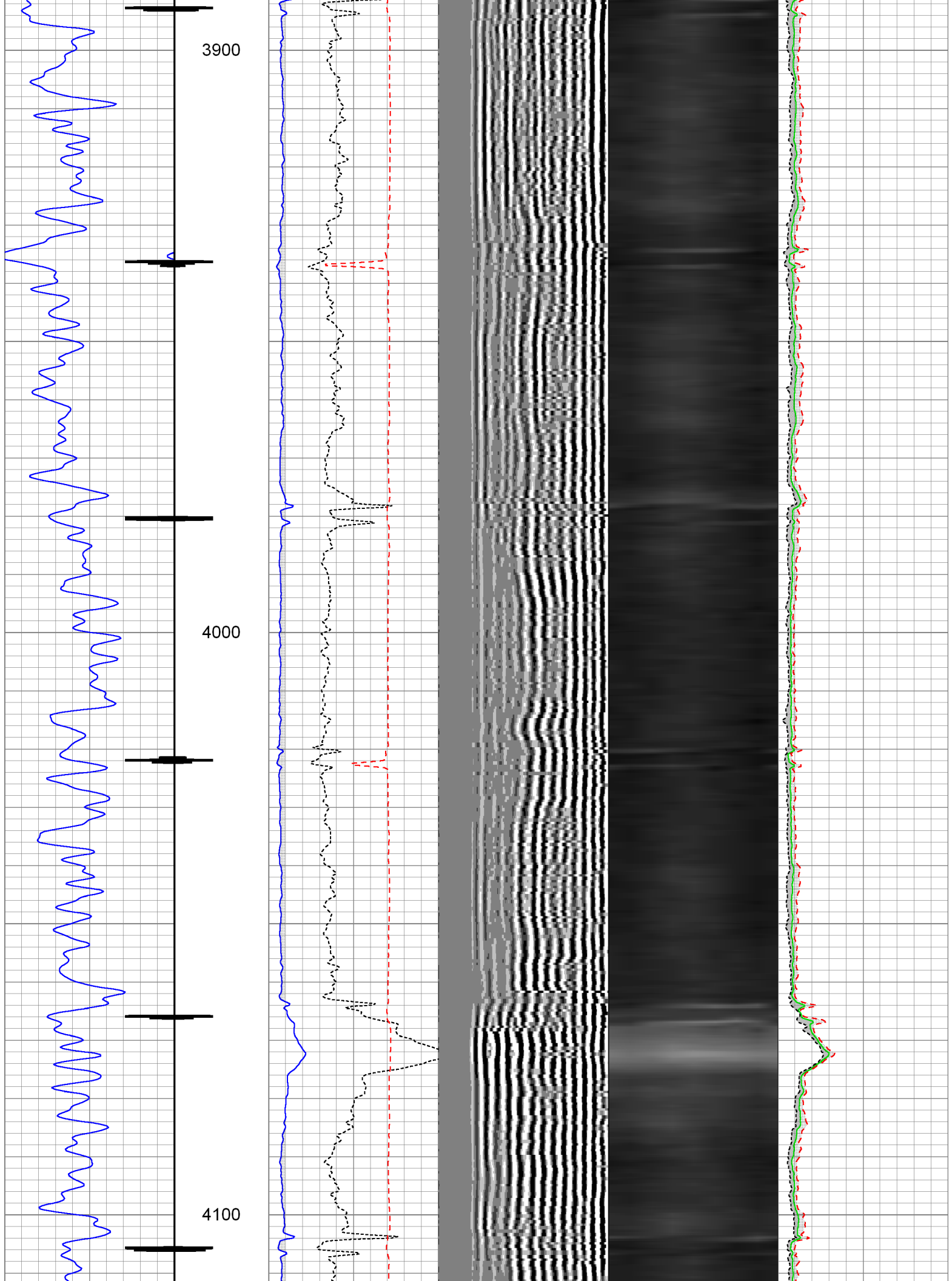


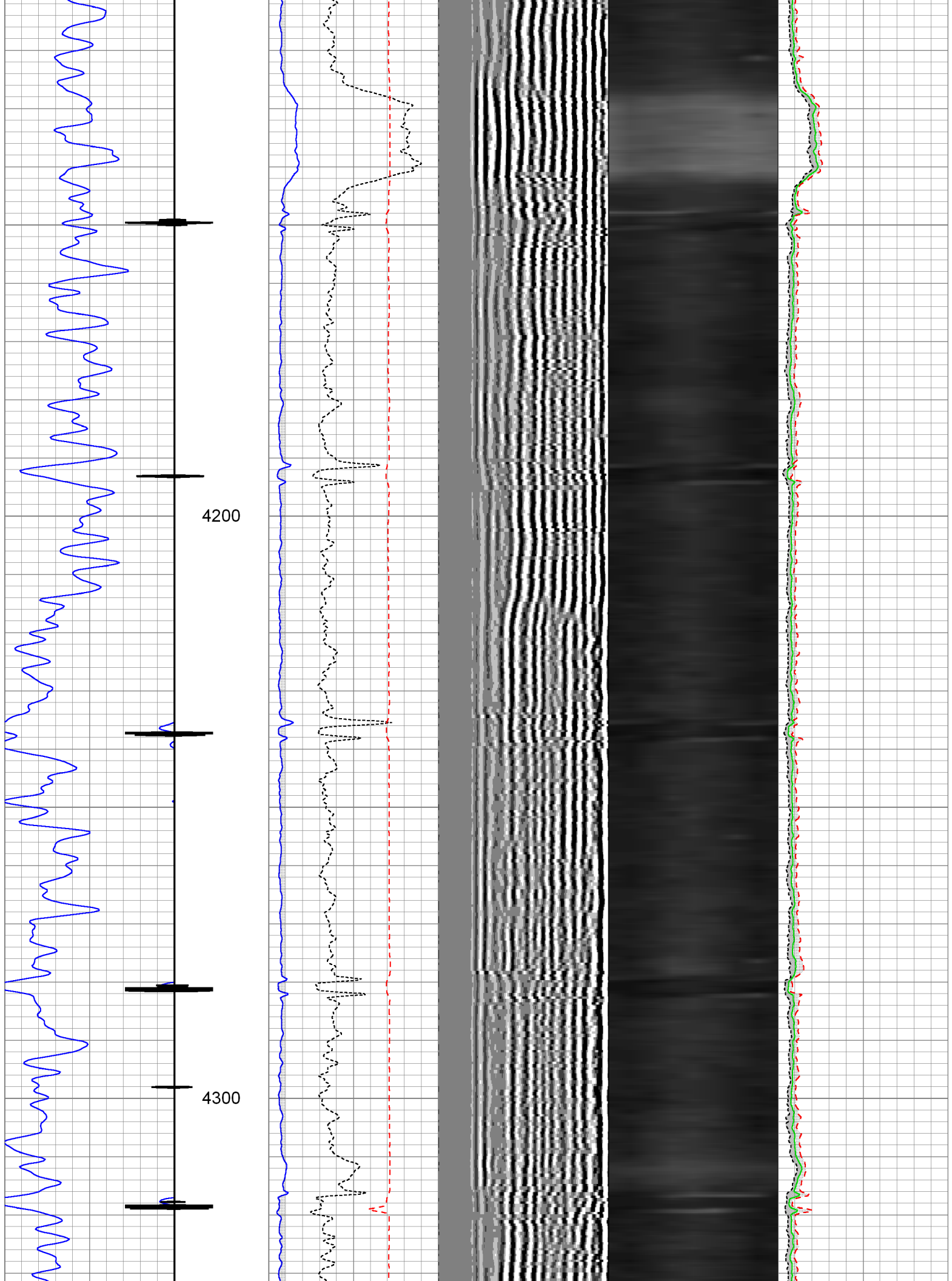


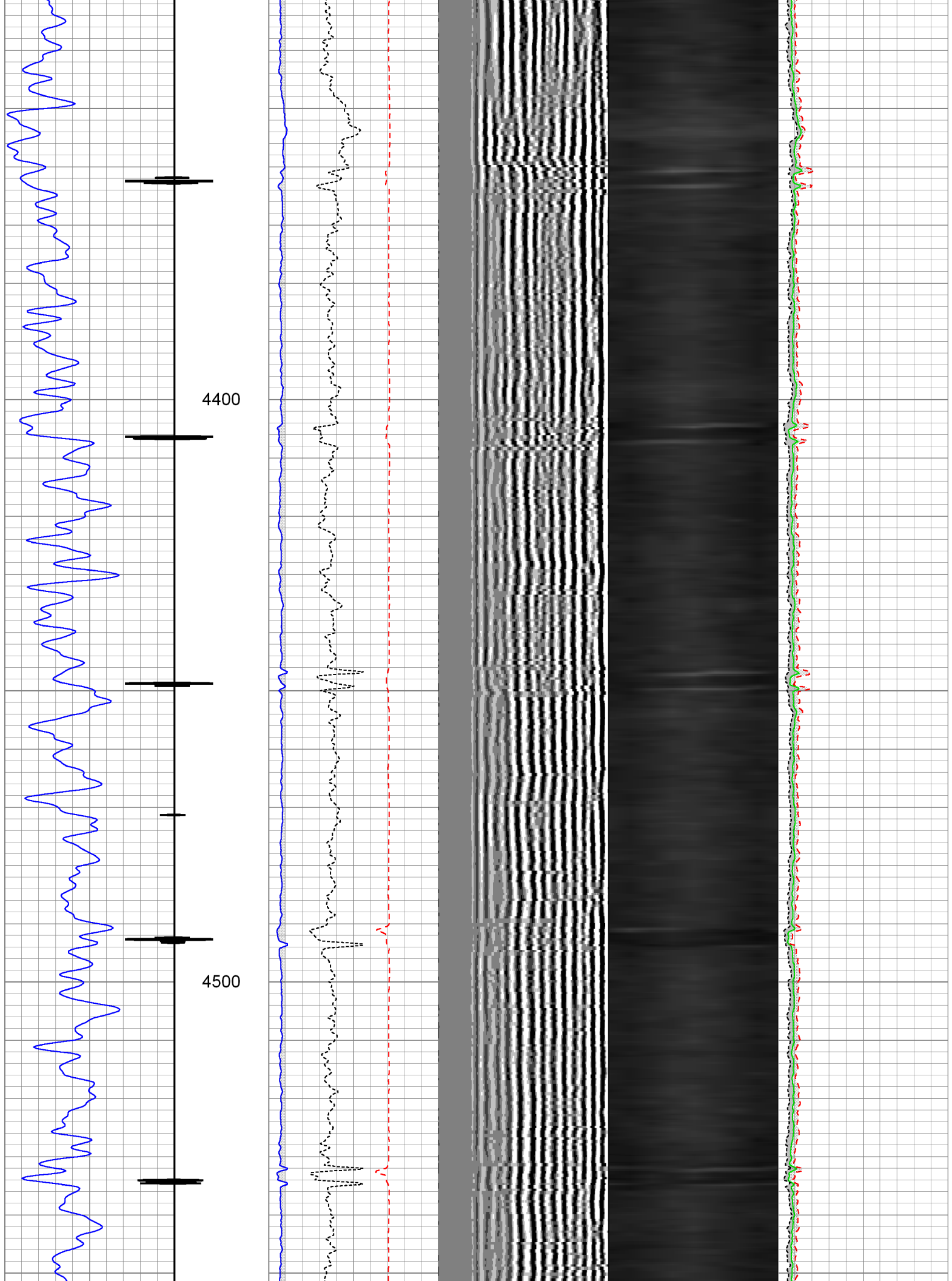


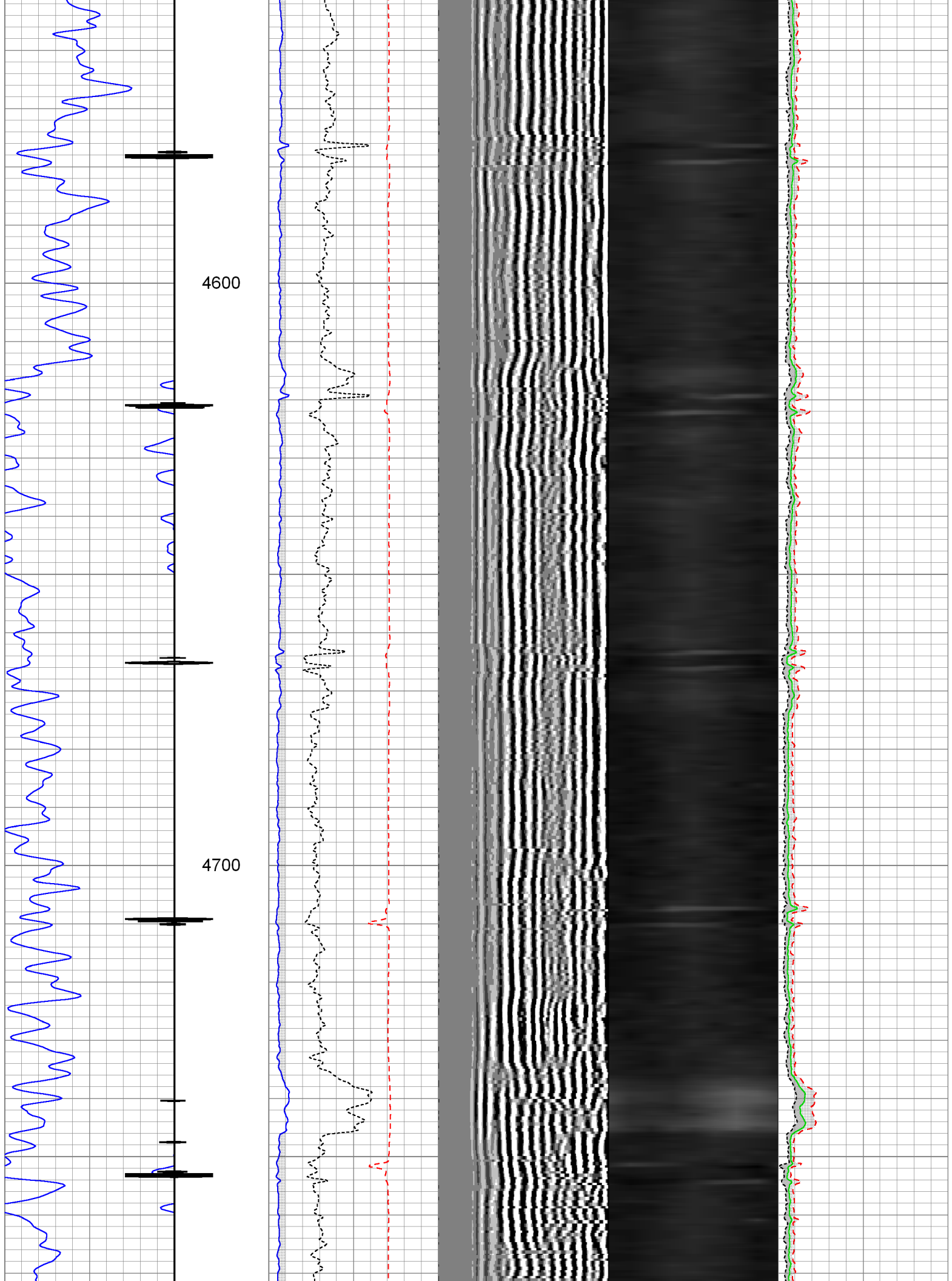


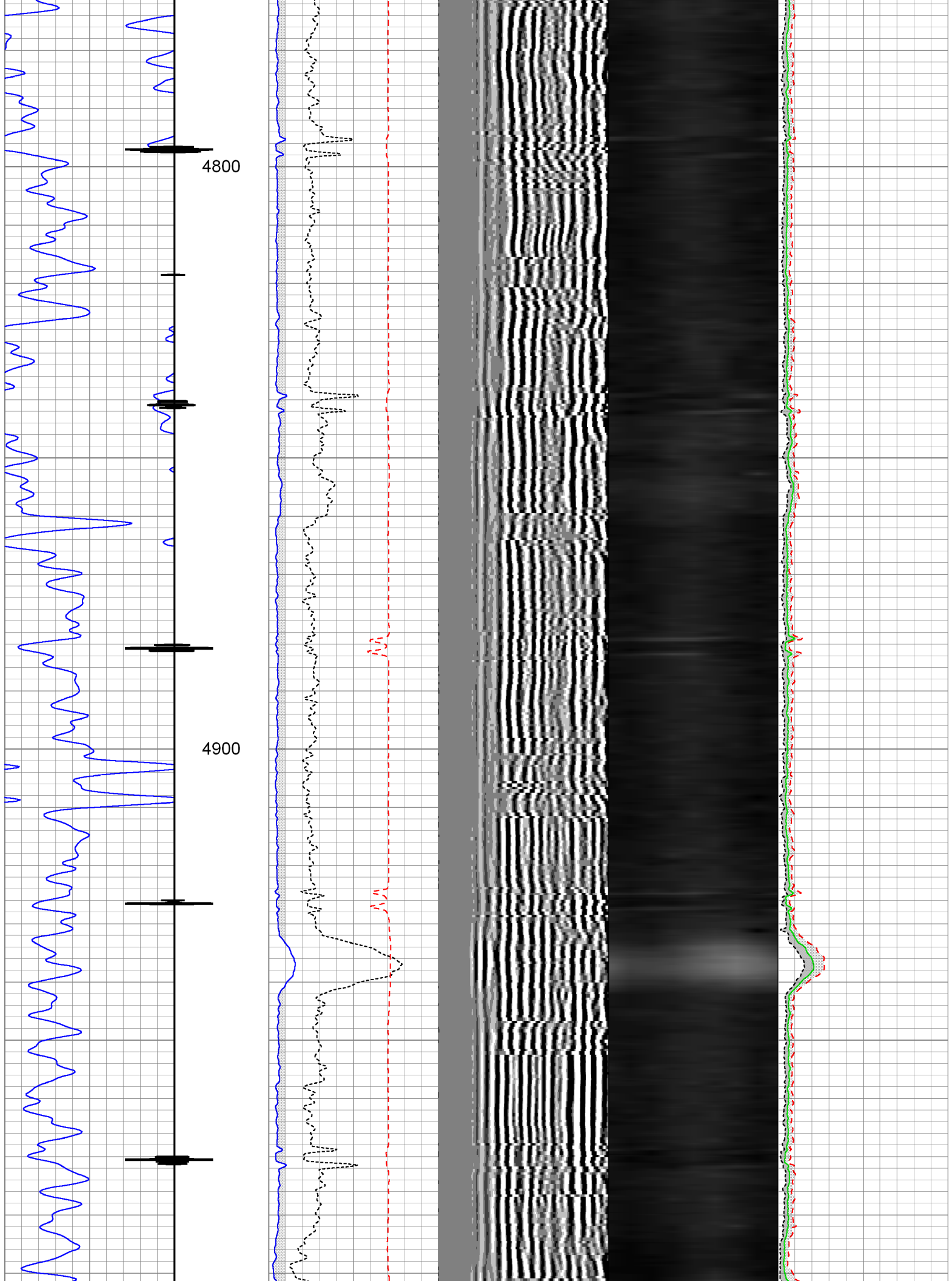


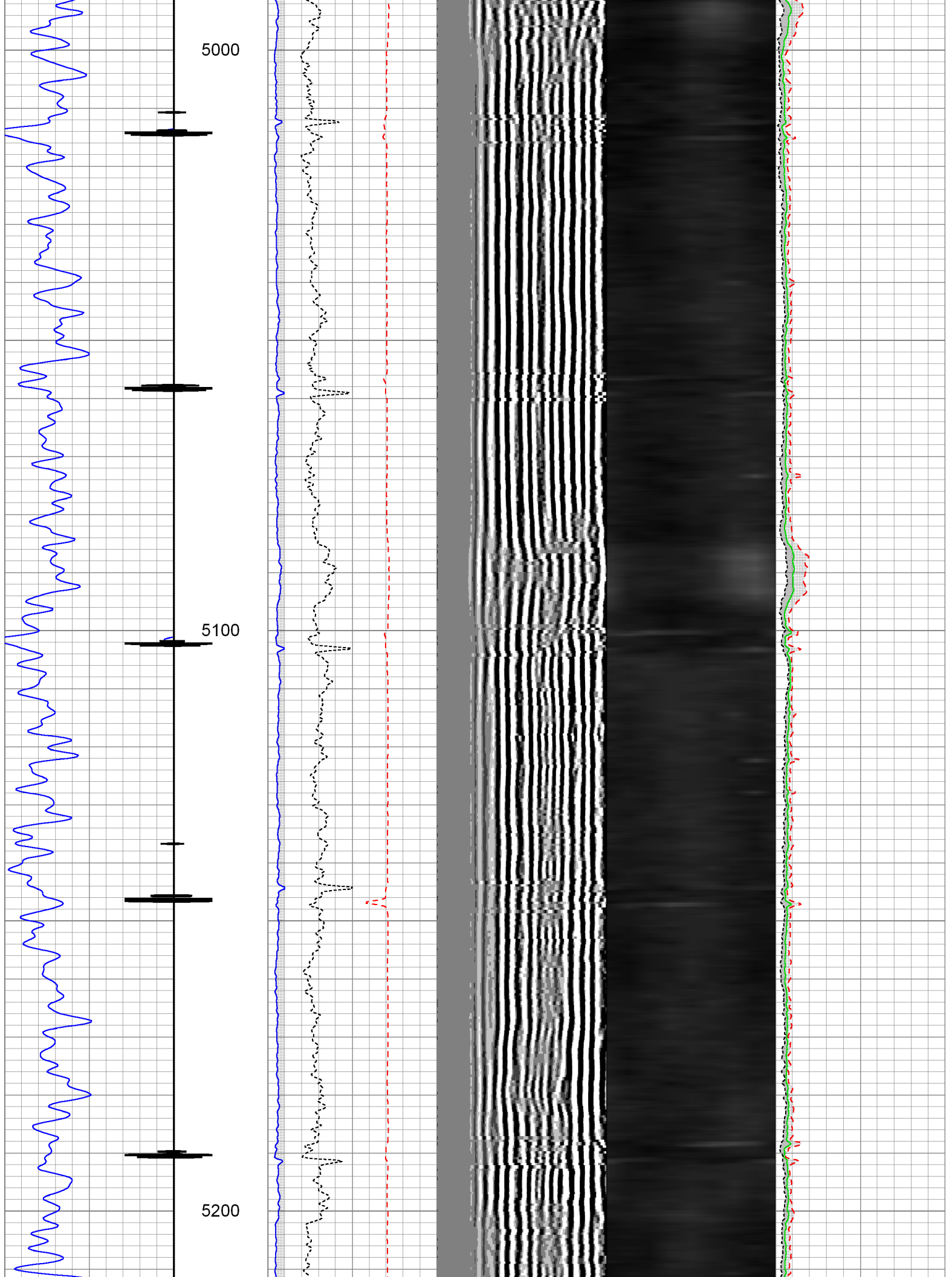


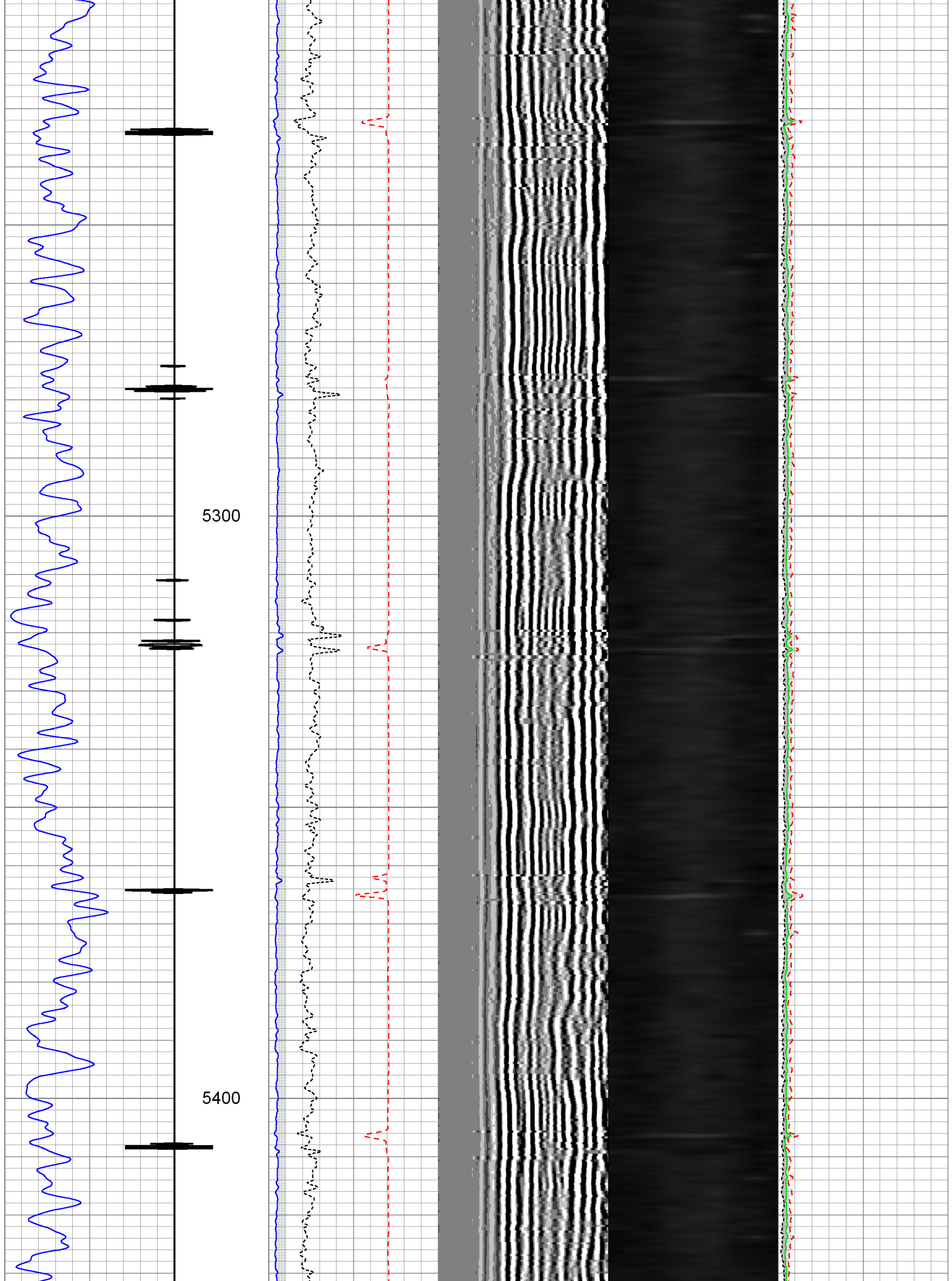


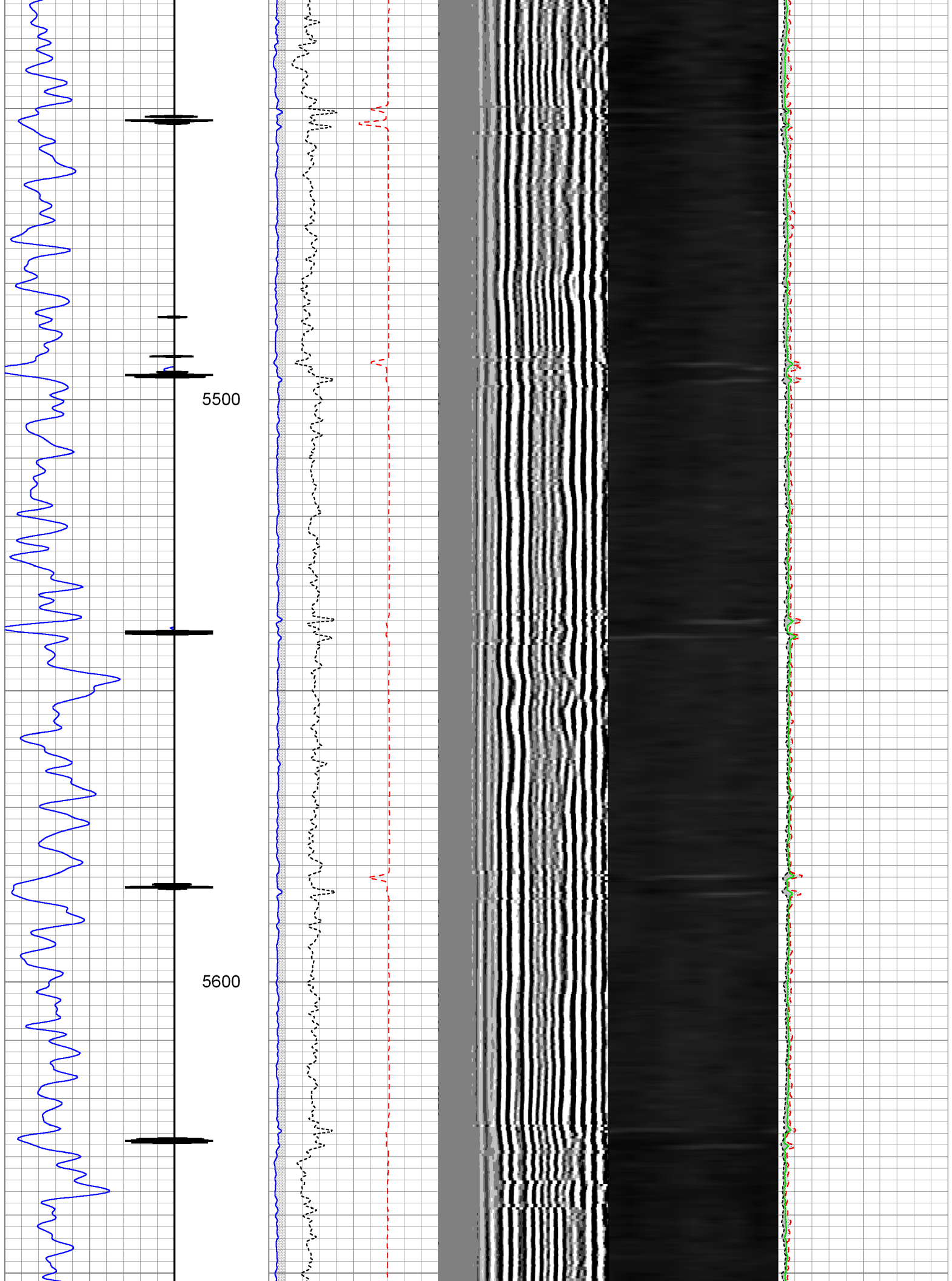


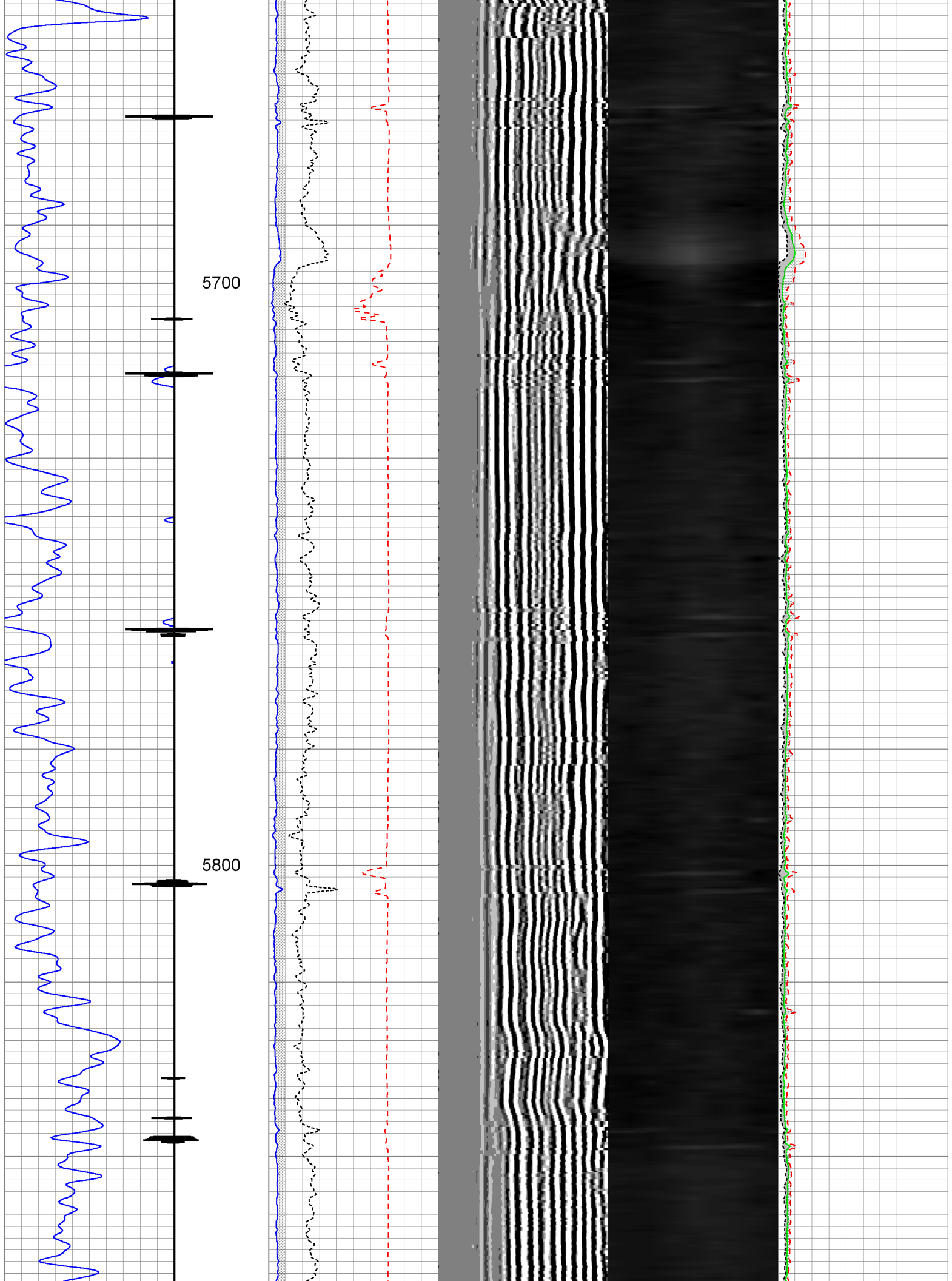


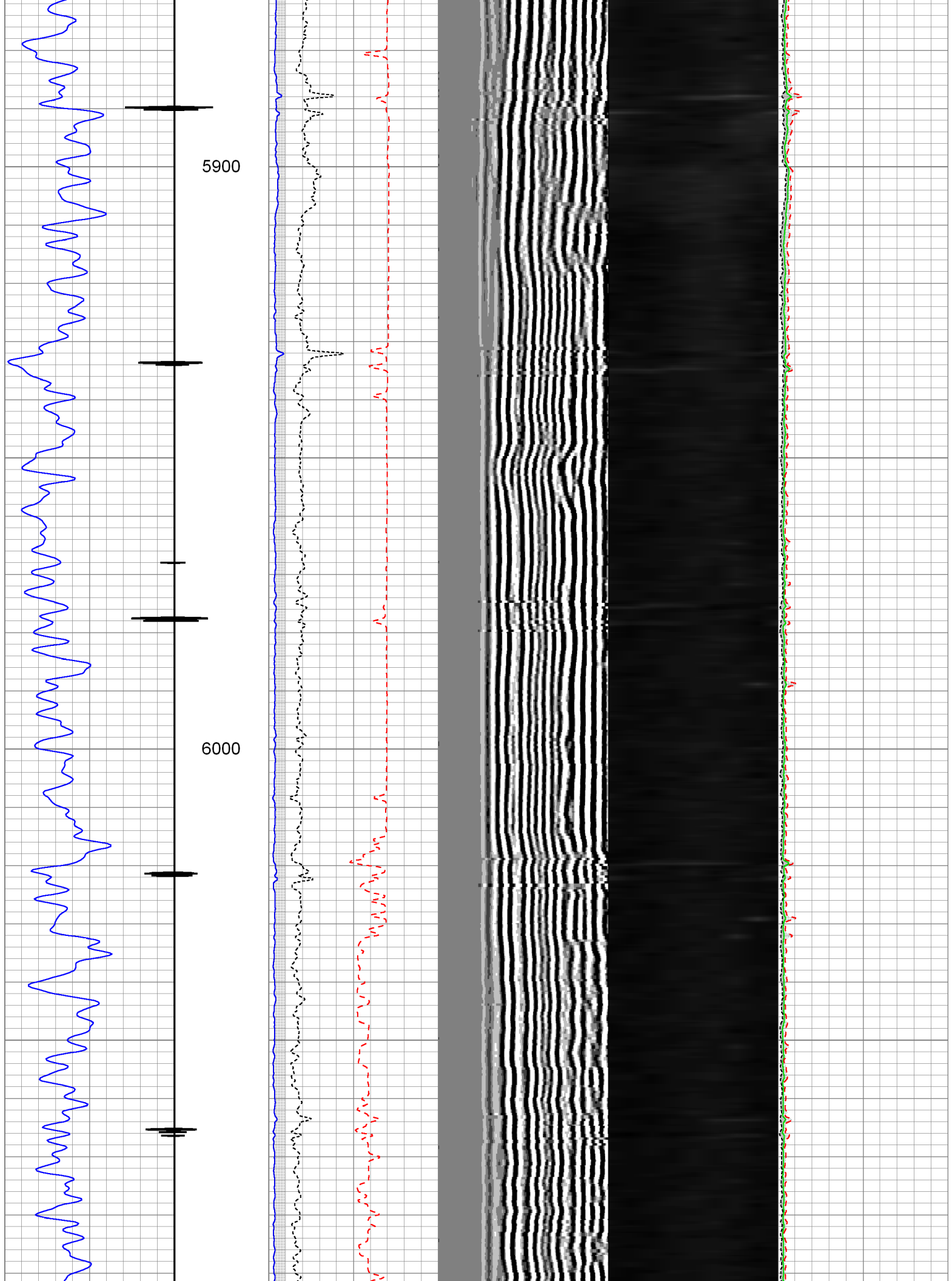


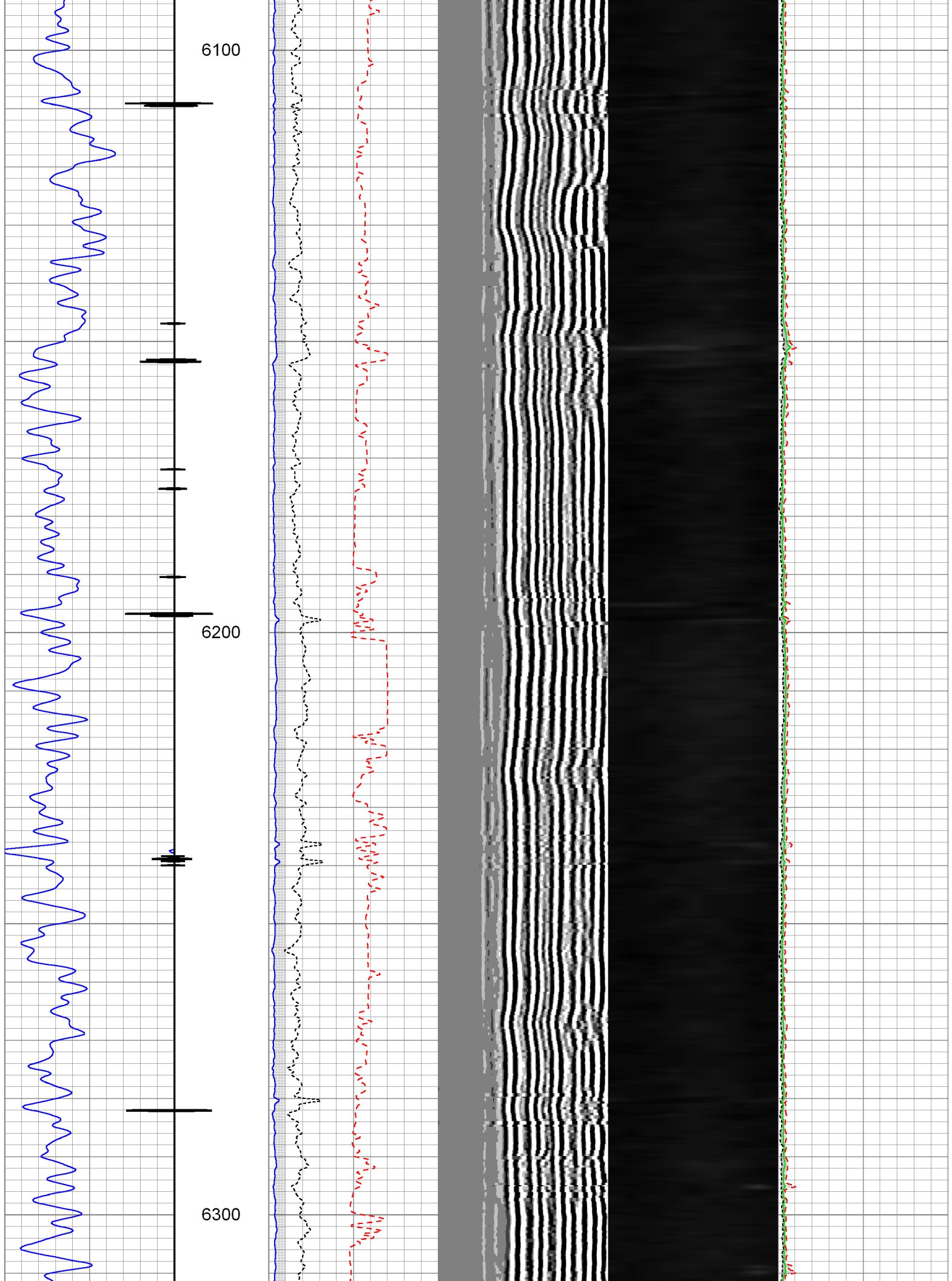


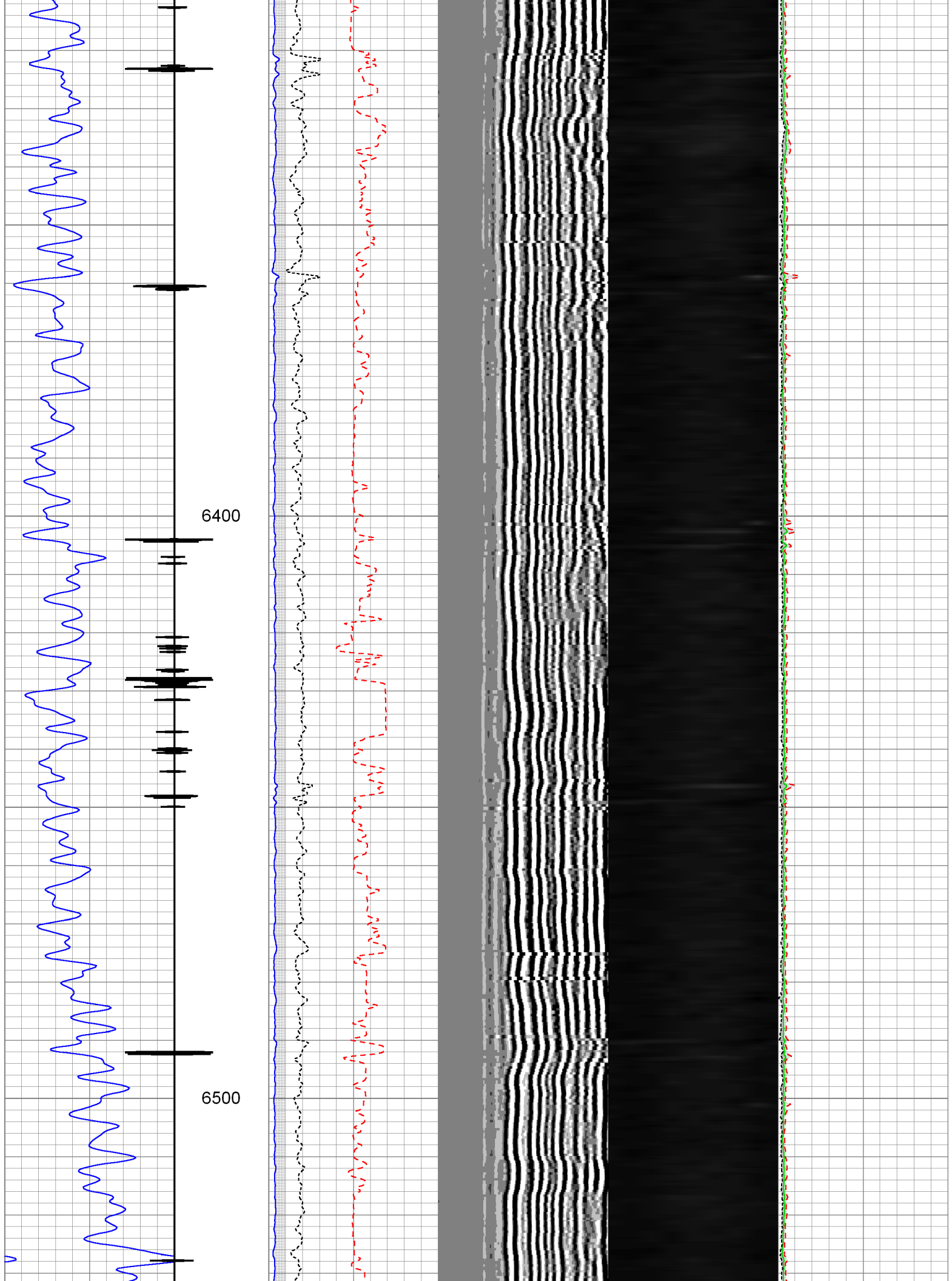


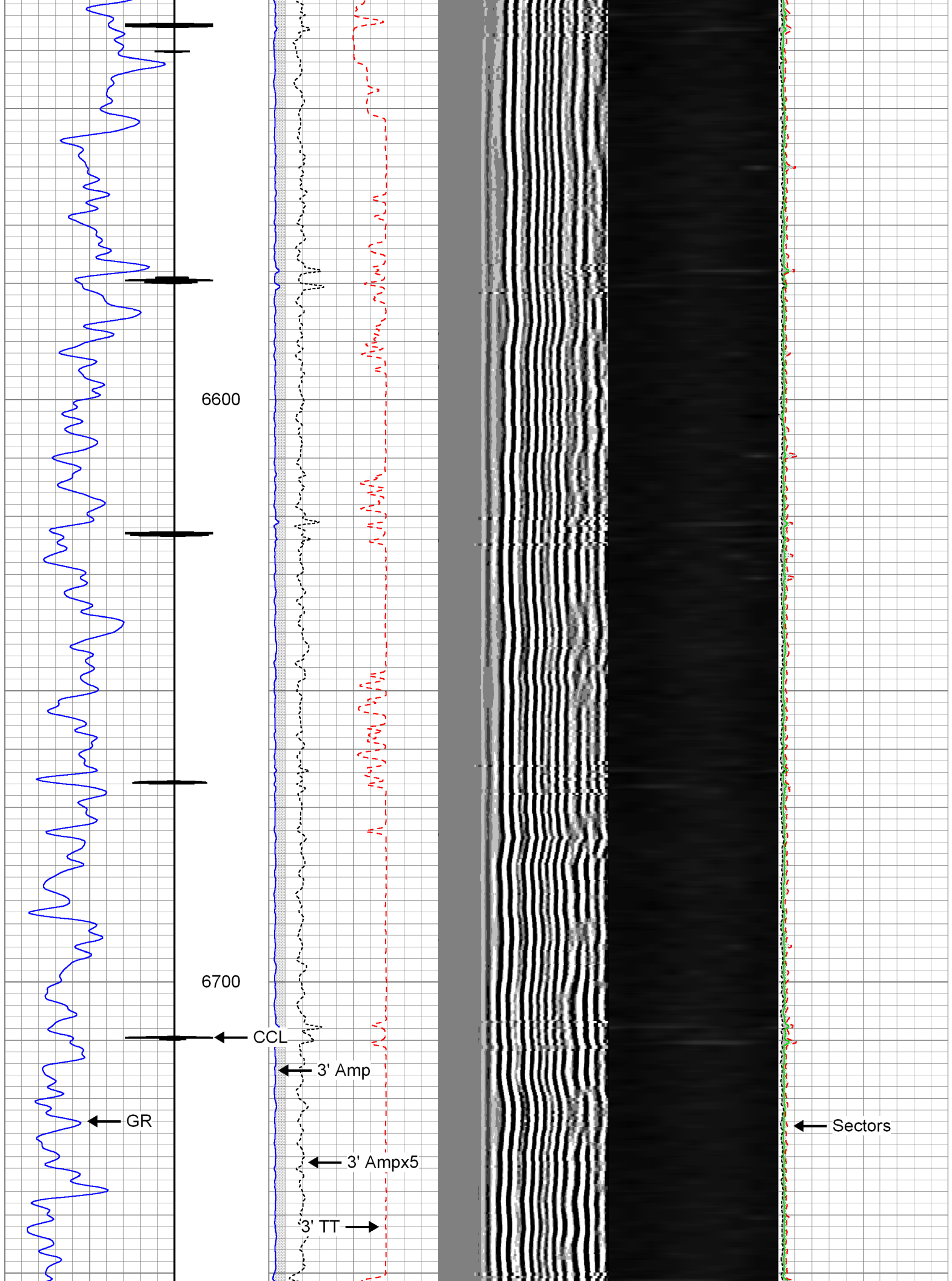


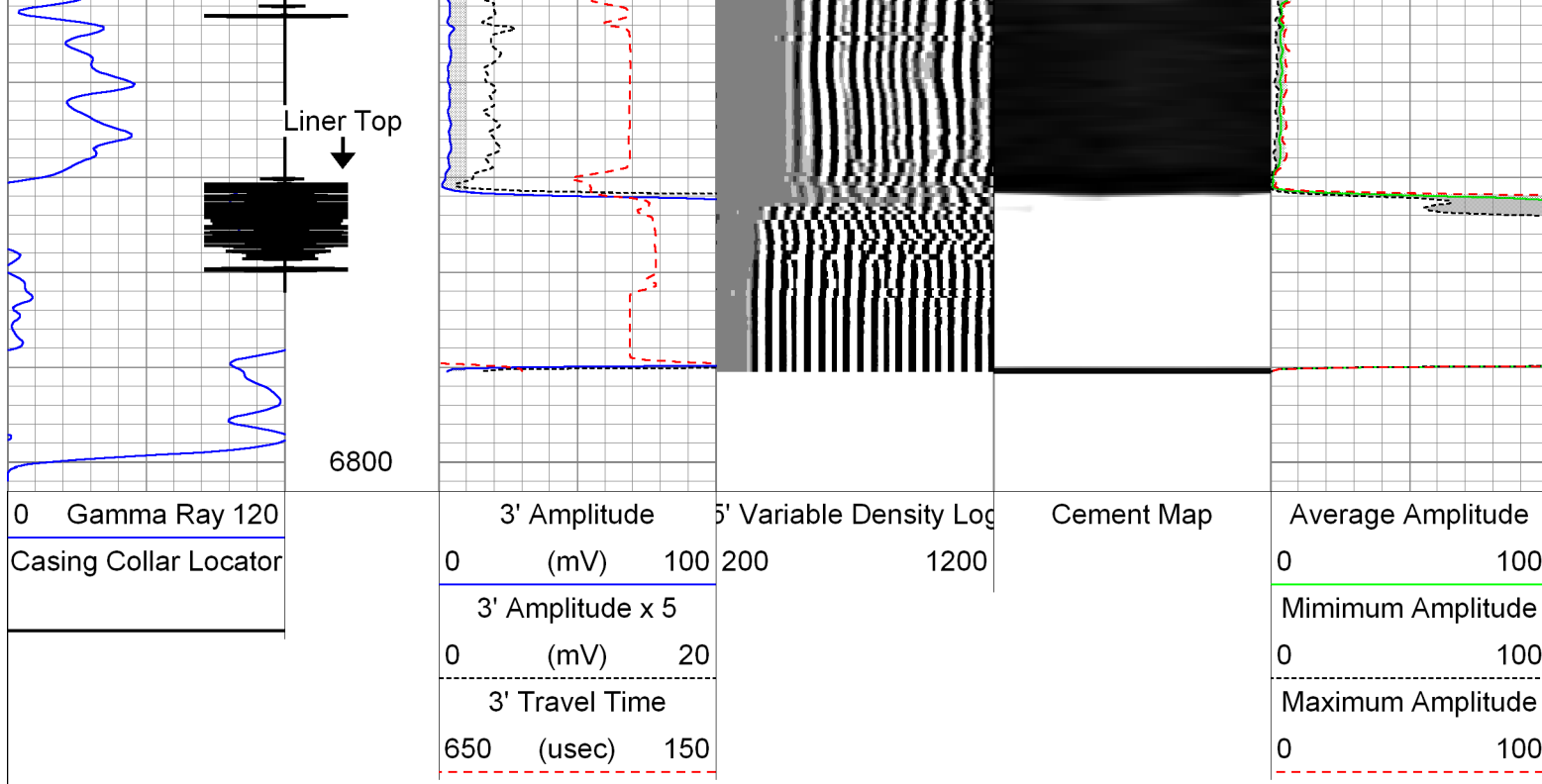






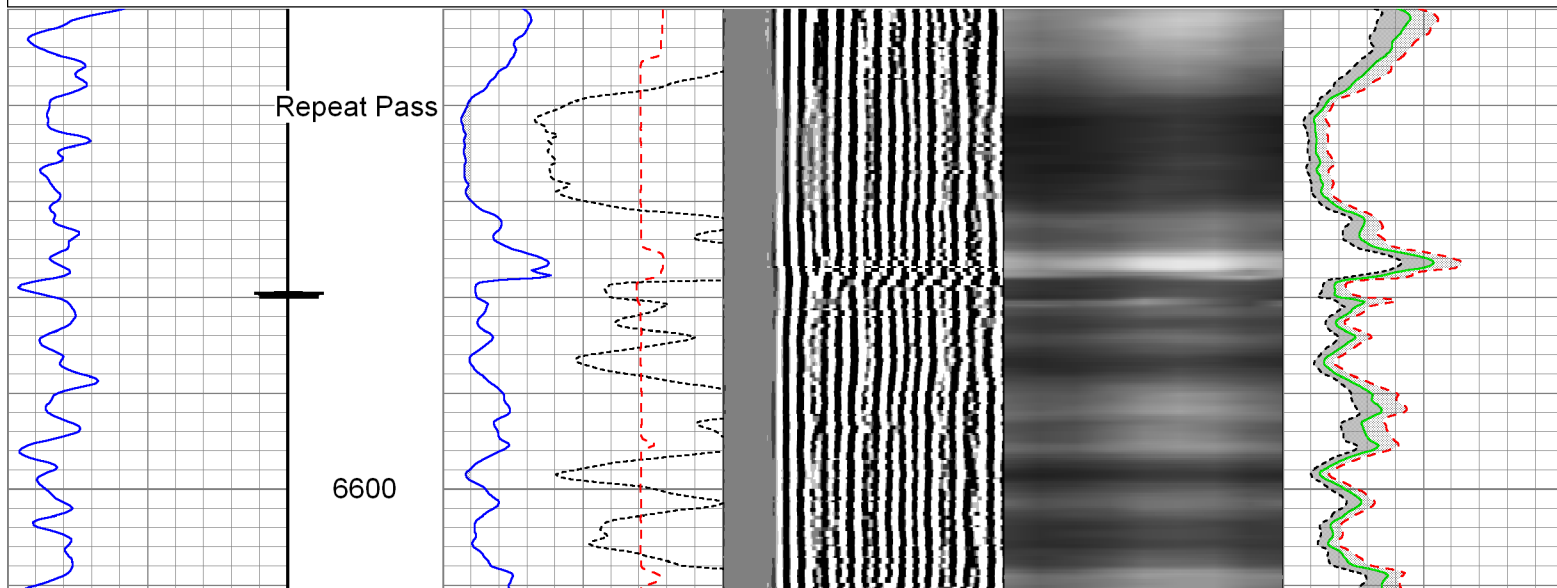
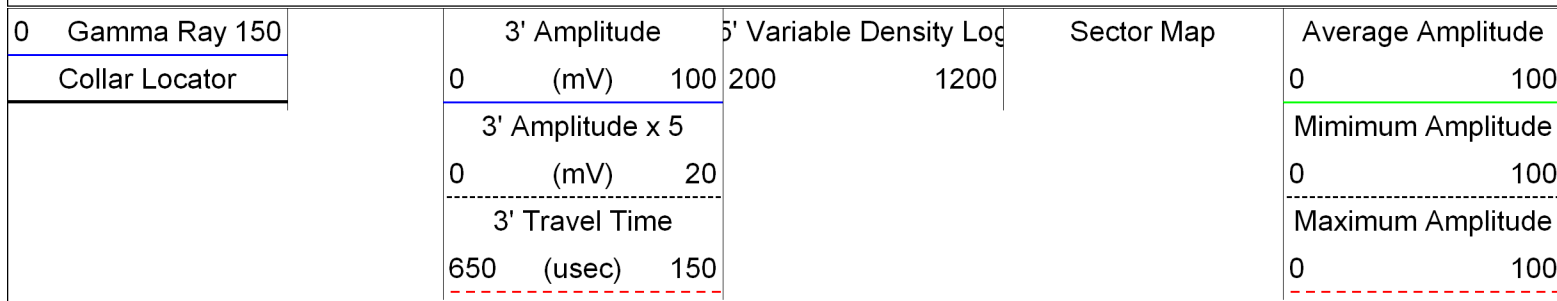


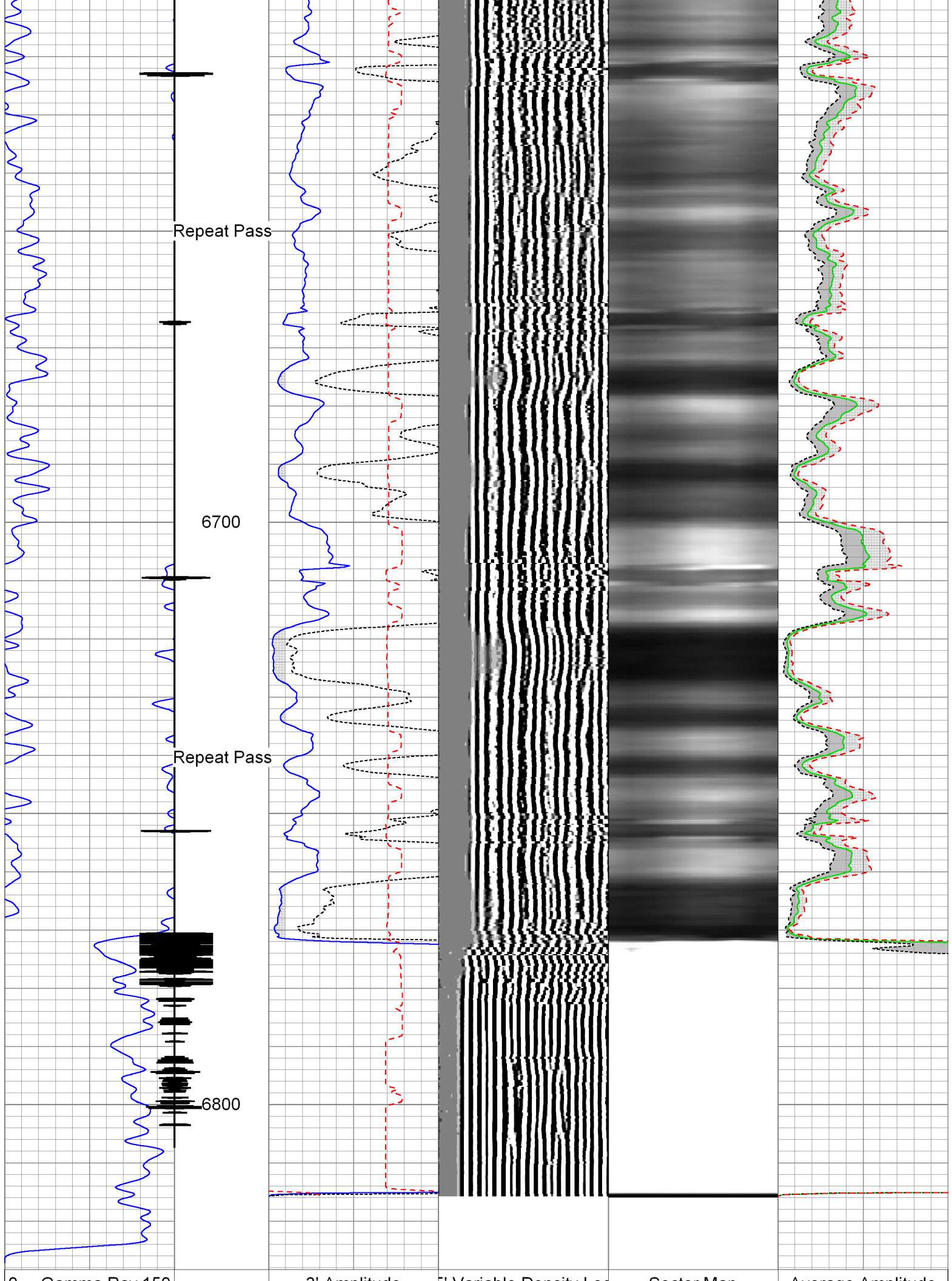




Repeat Pass 0 PSI

Database File: 0512335999_anadarko_gobbler_28n23hz.db
 Dataset Pathname: pass6
 Presentation Format: rbt007
 Dataset Creation: Fri Jul 26 14:42:56 2013 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240





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

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	20.91		AES1563 Applied Science 1-7/16" cablehead with 1" fishing neck	1.04	1.56	2.00
			CCL_LOG-TypeE (EEEE) Titan 3-1/8" Logging CCL	1.64	3.13	35.00
			Titan_Slim6_IL_Cent Titan Slim 3 arm bowspring inline electrical centralizer	2.21	1.69	9.00
WVFS3FT	13.58		Sondex_RBT007-RBT_007 (1234) Sondex 3-1/8" Analog Radial Bond Tool Model RBT007	9.47	3.13	119.00
WVFS1	13.58					
WVFS2	13.58					
WVFS3	13.58					
WVFS4	13.58					
WVFS5	13.58					
WVFS6	13.58					
WVFS7	13.58					
WVFS8	13.58					
WVFS5FT	12.58					
GR	3.49	Titan_Slim3_IL_Cent Titan Slim 3 arm bowspring inline electrical centralizer	2.21	1.69	9.00	
		GR-TypeC (CCCC) Titan 2-3/4" Scintillating Gamma Ray	4.02	2.75	46.00	
		Titan_Slim6_IL_Cent Titan Slim 3 arm bowspring inline electrical centralizer	2.21	1.69	9.00	
Dataset:		0512335999_anadarko_gobbler_28n23hz.db: field/well/run1/pass8.33				
Total Length:		22.80 ft				
Total Weight:		229.00 lb				
O.D.		3.13 in				

Calibration Report	
Database File:	0512335999_anadarko_gobbler_28n23hz.db
Dataset Pathname:	pass8.33
Dataset Creation:	Sat Jul 27 22:15:16 2013 by Calc Sondex V7.03

Gamma Ray Calibration Report

Serial Number: CCCC
 Tool Model: TypeC
 Performed: Sun Jun 13 13:33:21 1993

 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: RBT_007

 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 0.000 ft

Master Calibration, performed Fri Jul 26 15:45:16 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.015	0.509	0.000	100.000	191.014	2.865
CAL						
5'	0.000	0.433	0.000	100.000	231.177	0.000
SUM						
S1	0.000	0.372	0.000	100.000	268.502	0.000
S2	0.000	0.403	0.000	100.000	247.927	0.000
S3	0.000	0.400	0.000	100.000	249.992	0.000
S4	0.000	0.393	0.000	100.000	254.386	0.000
S5	0.000	0.381	0.000	100.000	262.530	0.000
S6	0.000	0.377	0.000	100.000	264.942	0.000
S7	0.000	0.368	0.000	100.000	271.474	0.000
S8	0.000	0.376	0.000	100.000	265.664	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						

Air Zero Calibration, performed Mon Sep 11 12:40:00 2006:

	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

	Company	Kerr-McGee Oil & Gas Onshore, LP
	Well	Gobbler 28N-23HZ
	Field	Wattenberg
	County	Weld
	State	Colorado