



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Chevron TR 13-21-597
Field Trail Ridge
County Garfield
State Colorado

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Location: API #: 05-045-23347

711' FSL & 1871' FWL SESW

SEC 21 TWP 5S RGE 97W

Permanent Datum Ground Level Elevation 8292'
Log Measured From Kelly Bushing 24 FT
Drilling Measured From Kelly Bushing

Other Services
PDN
Elevation
K.B. 8316'
D.F. 8315'
G.L. 8292'

Date 27-MAR-2017

Run Number	One
Depth Driller	9857 FT
Depth Logger	9800 FT
Bottom Logged Interval	9800 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	260 °F
Estimated Cement Top	4626 FT
Time Well Ready	ROA
Time Logger on Bottom	---
Equipment Number	HD 329
Location	Grand Junction
Recorded By	J. Donnelly
Witnessed By	C. Applegate

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 & 40	---	Surface	2815 FT
Intermediate #1	4 1/2	11.6	---	Surface	9847 FT
Intermediate #2					
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

Log ran as per customer request
Depth referenced to Kelly Bushing at 24 FT
Ground Level 2 FT below top of cut pipe
Marker joint logged @ 5787 FT - 5808 FT
Log ran from 9800 FT to surface
Recorded with 0 PSI surface induced pressure

Thank you for choosing Reliance Oilfield Services, LLC!!

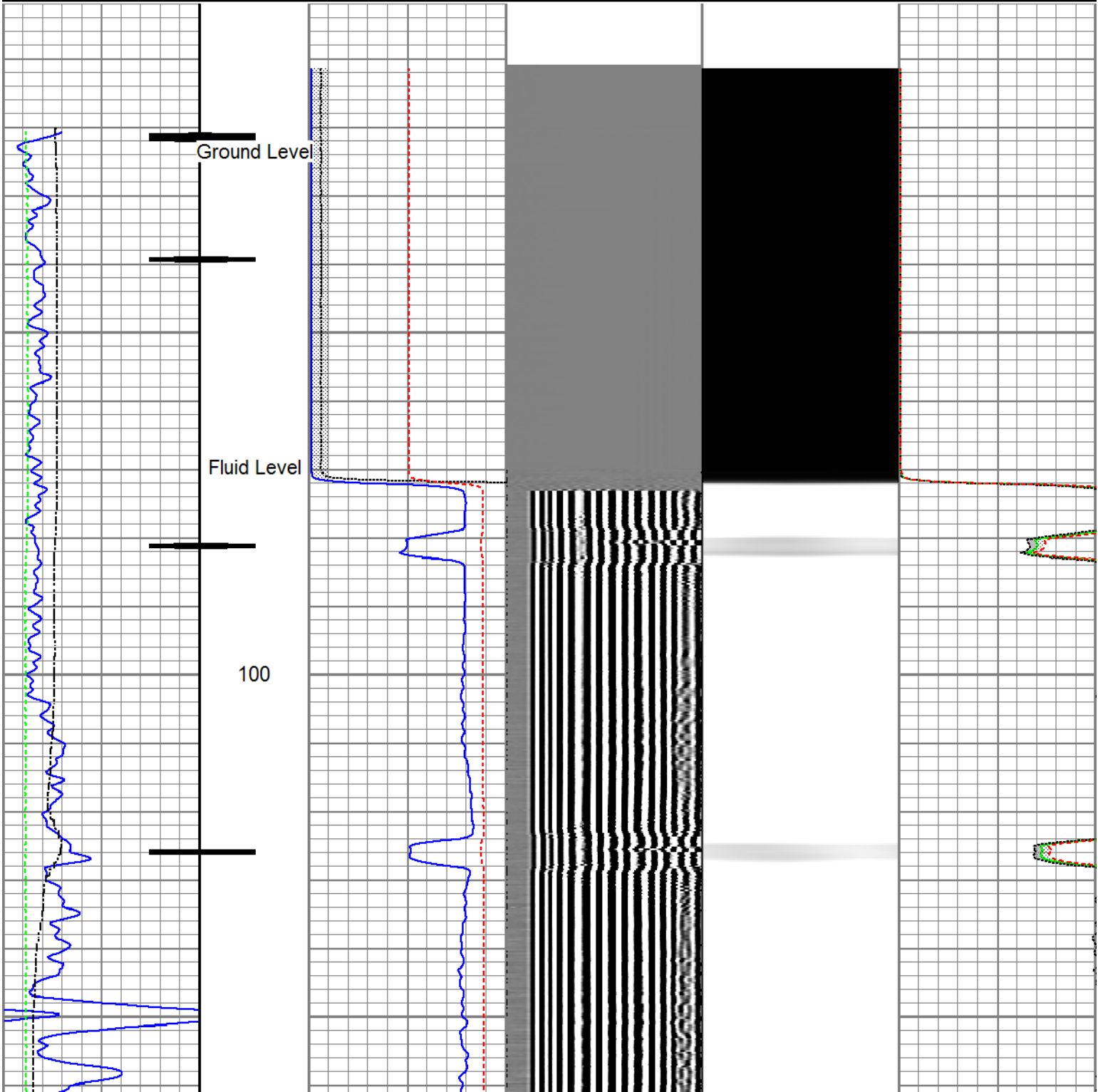


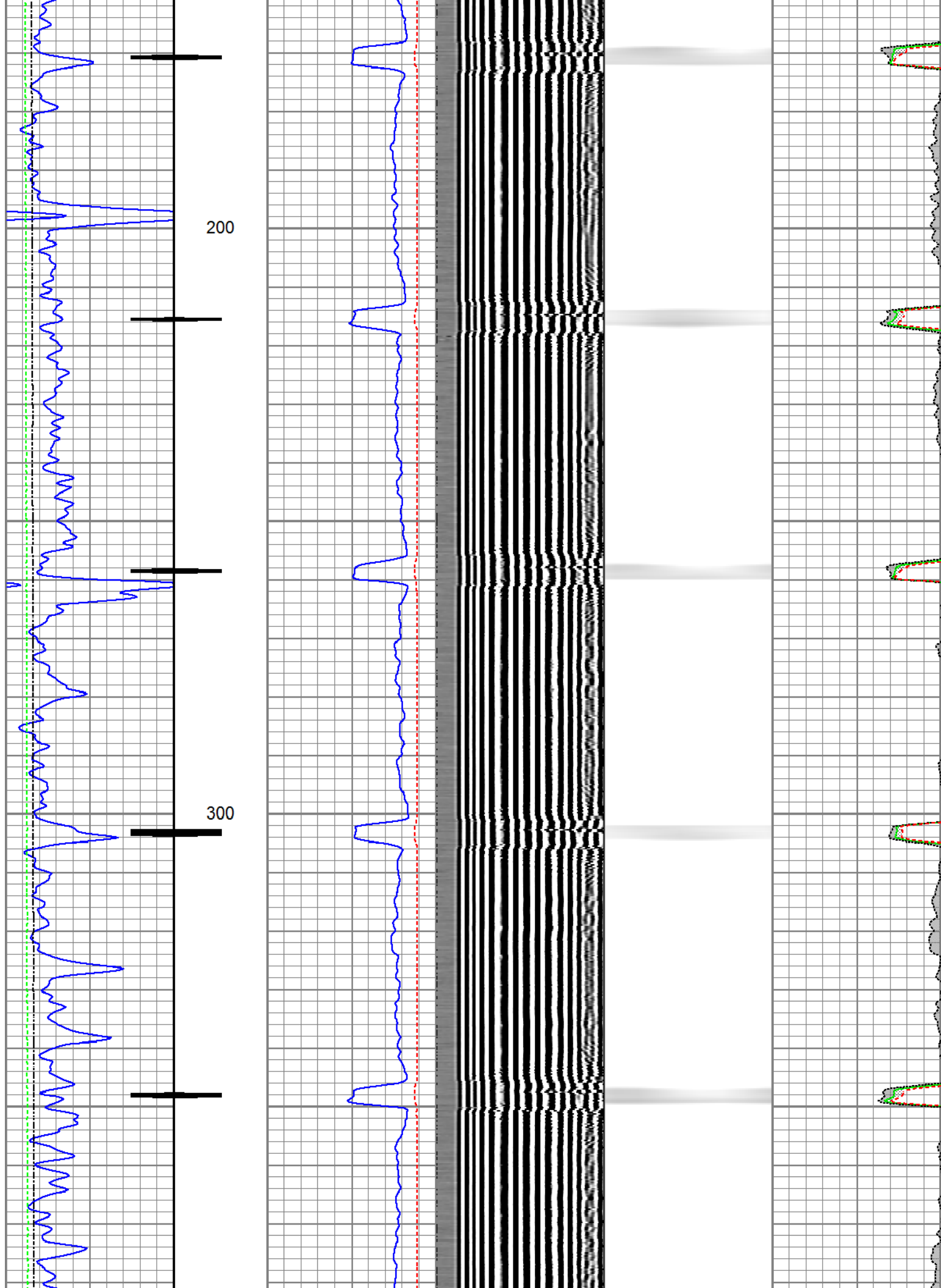
Main Pass

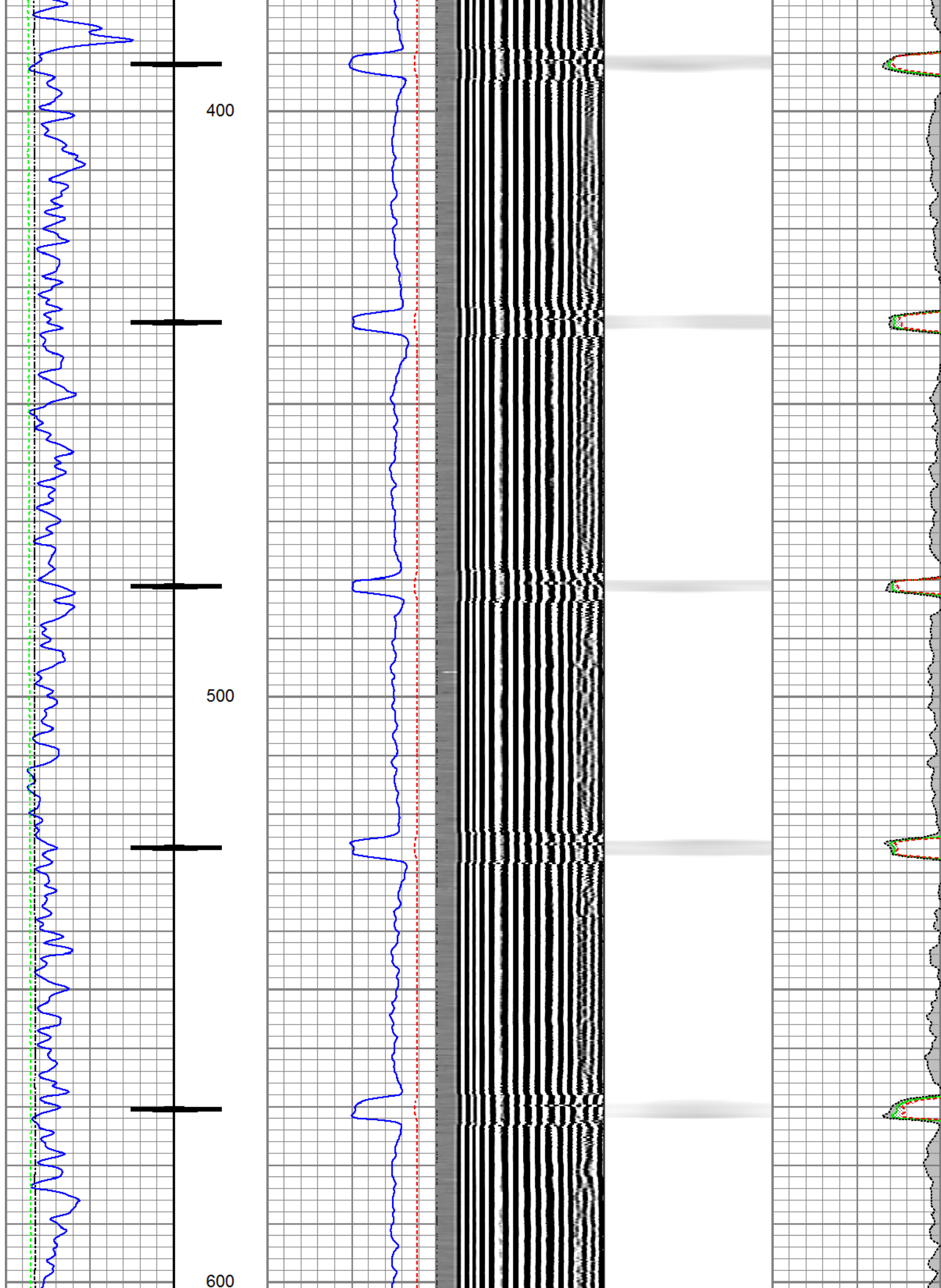
Recorded with 0 PSI Surface Induced Pressure

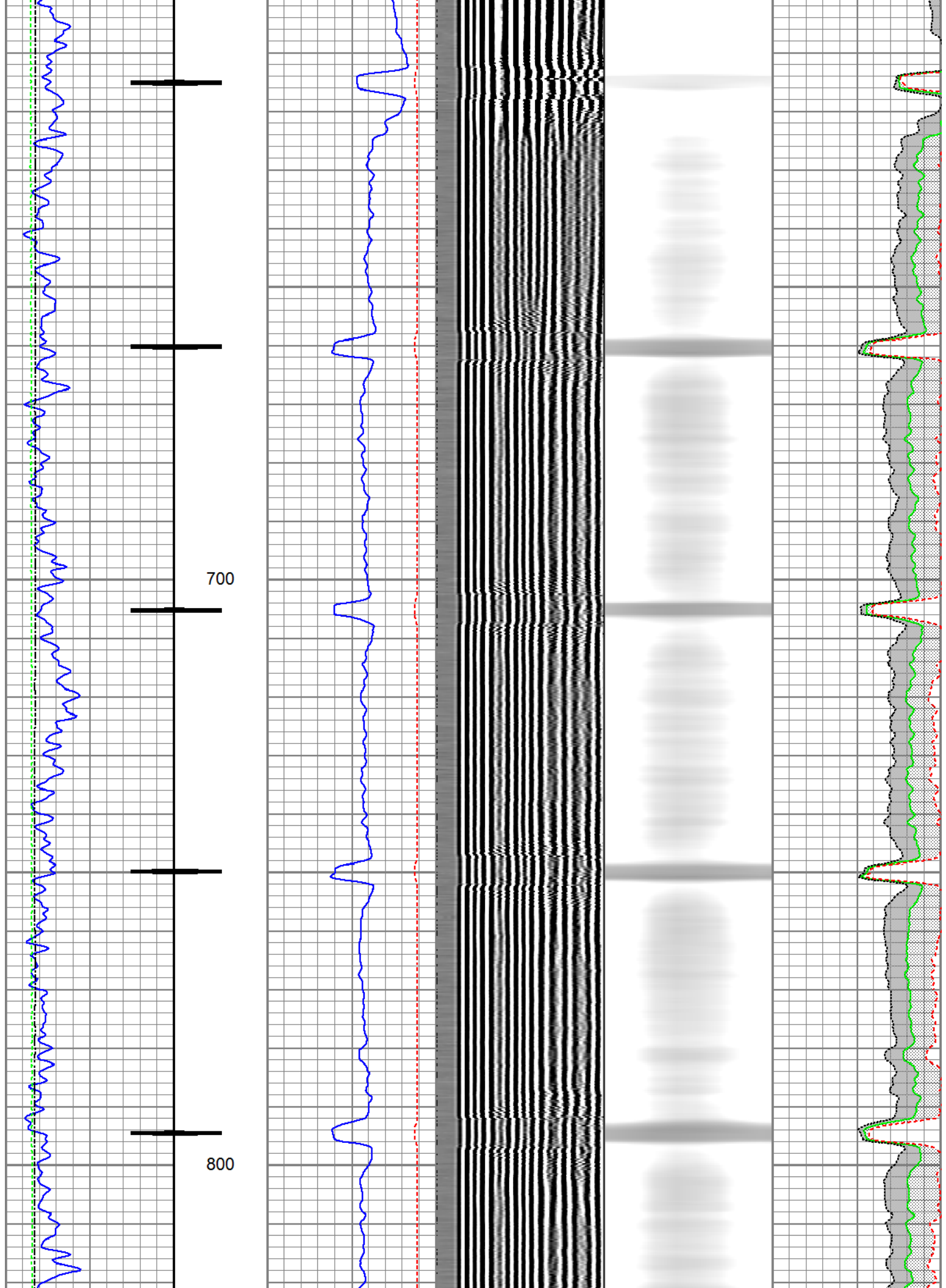
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Dataset Pathname	pass3.1
Presentation Format	ros_rbt004_sx
Dataset Creation	Wed Mar 29 12:16:26 2017
Charted by	Depth in Feet scaled 1:240

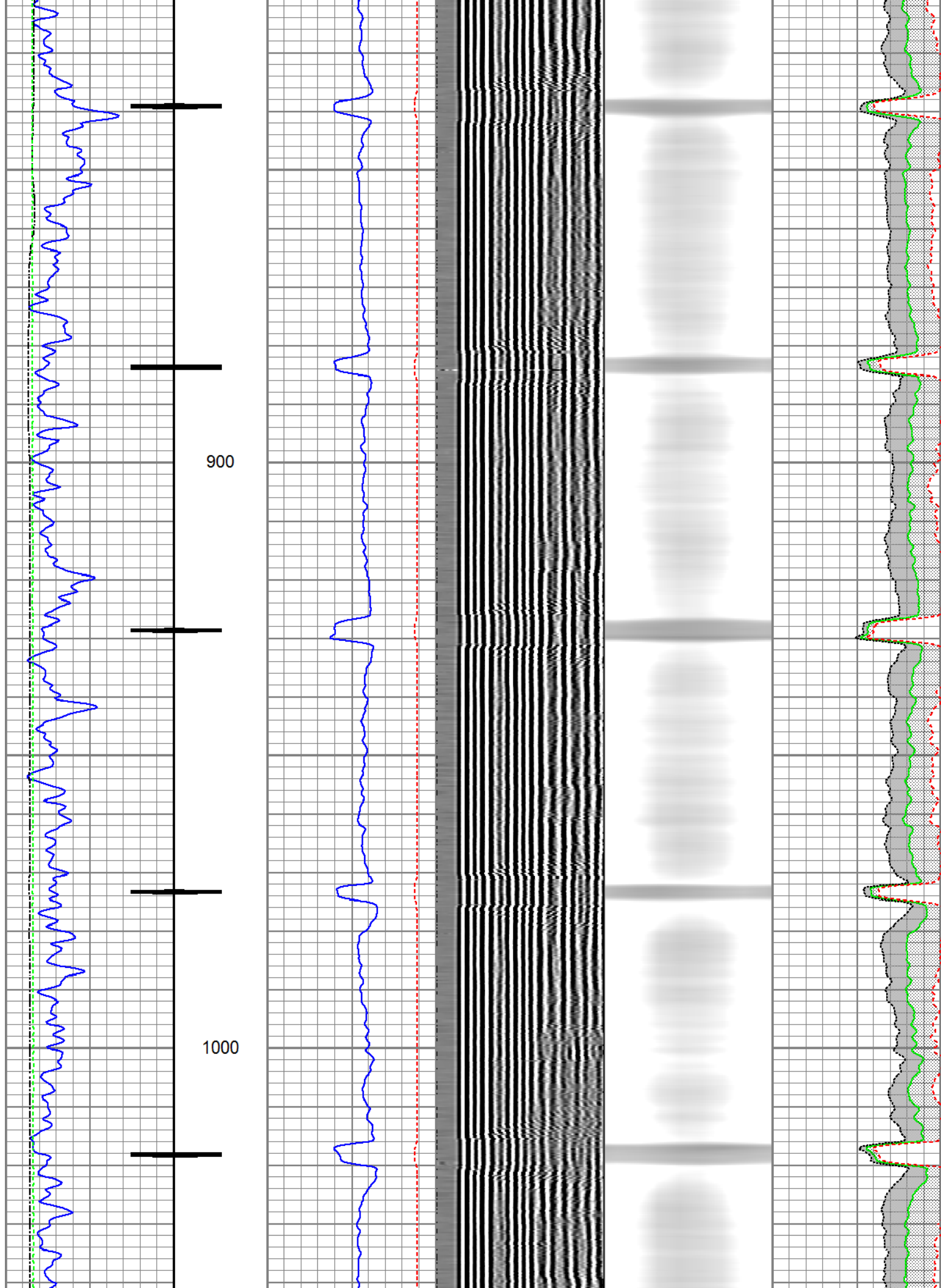
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Minimum Amplitude
	0 (mV) 20			0 100
Line Speed	3' Travel Time			Maximum Amplitude
-150 (ft/min) 150	650 (usec) 150			0 100
Line Tension				
0 (lb) 2500				

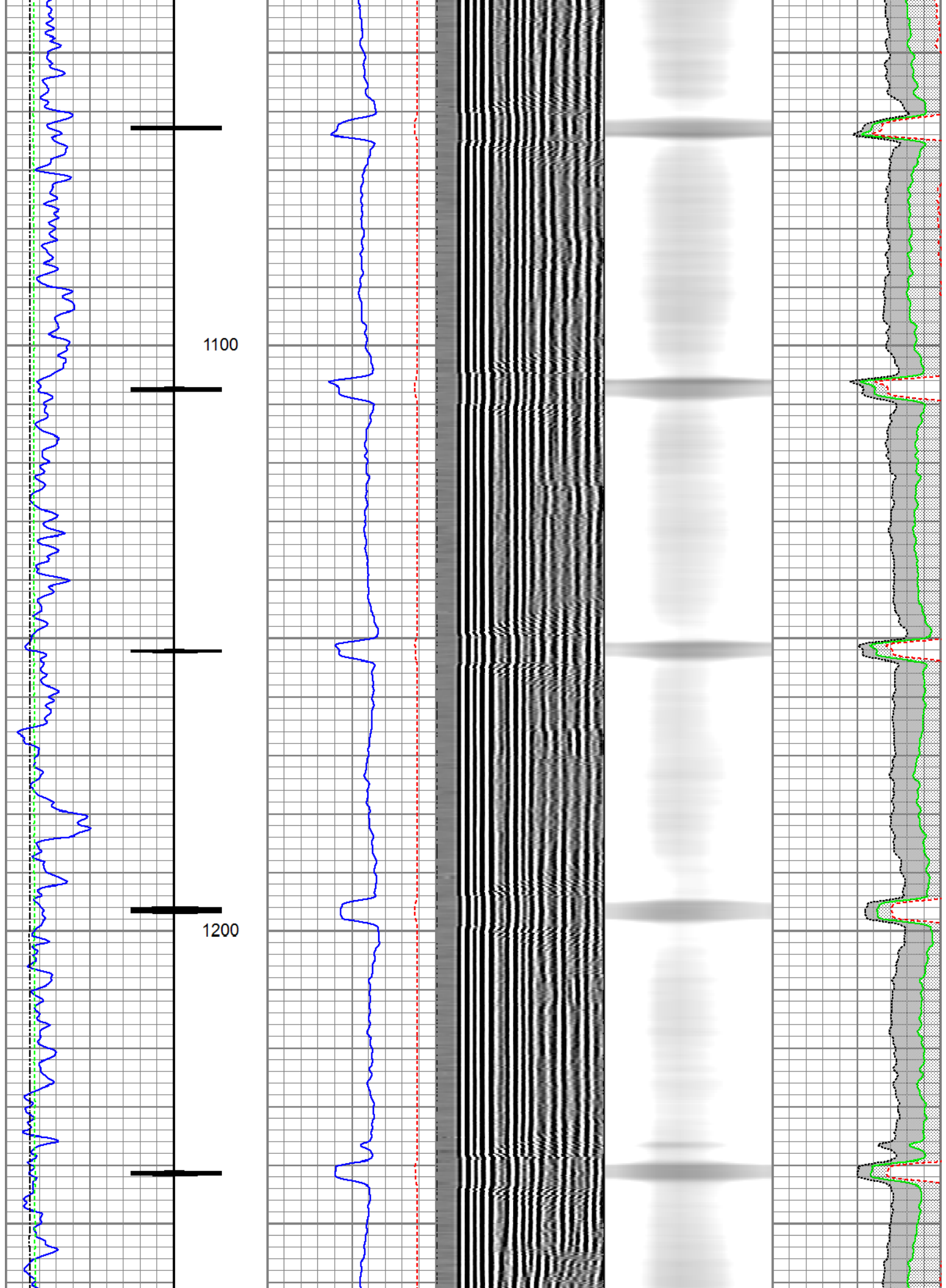


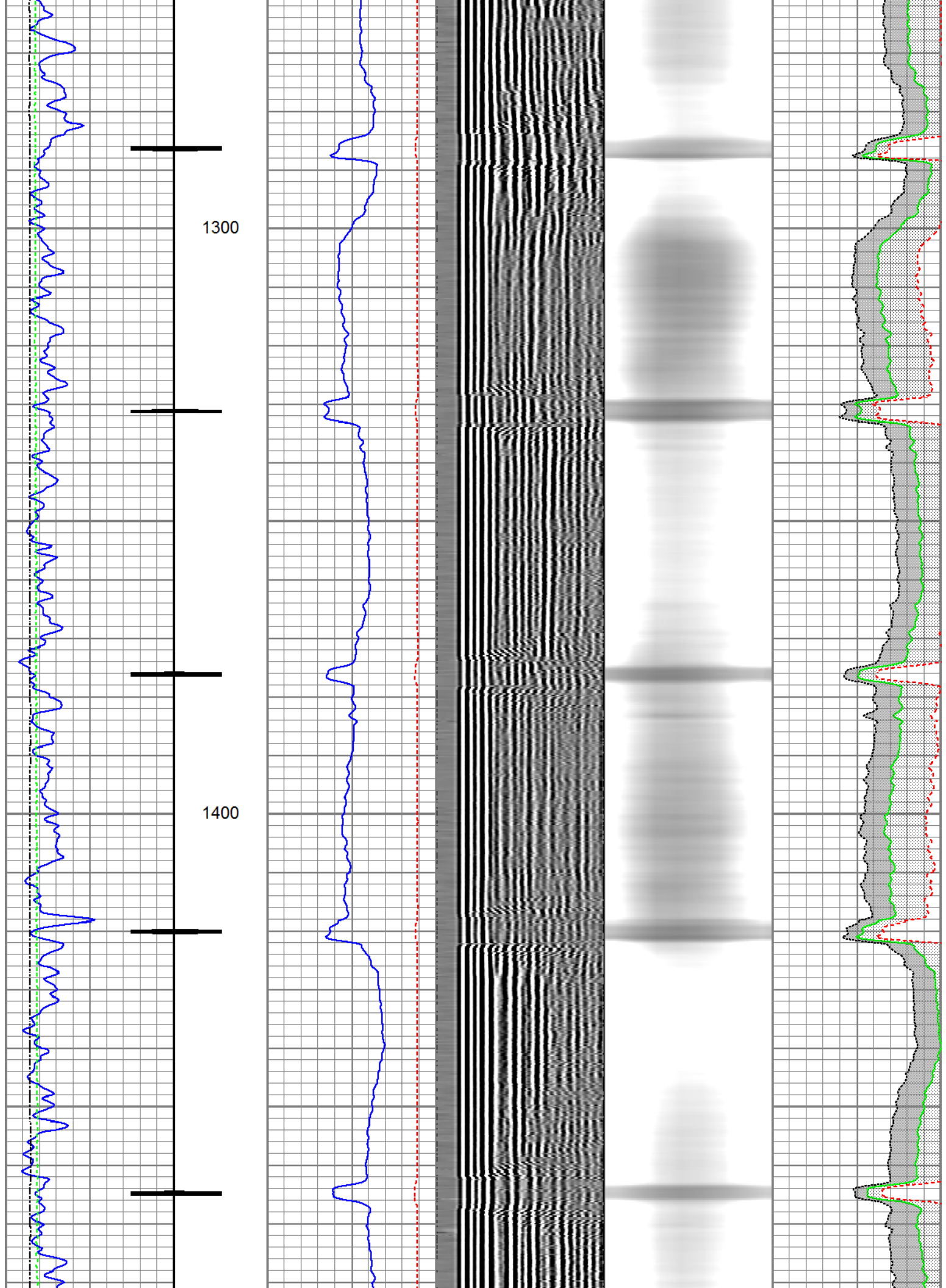


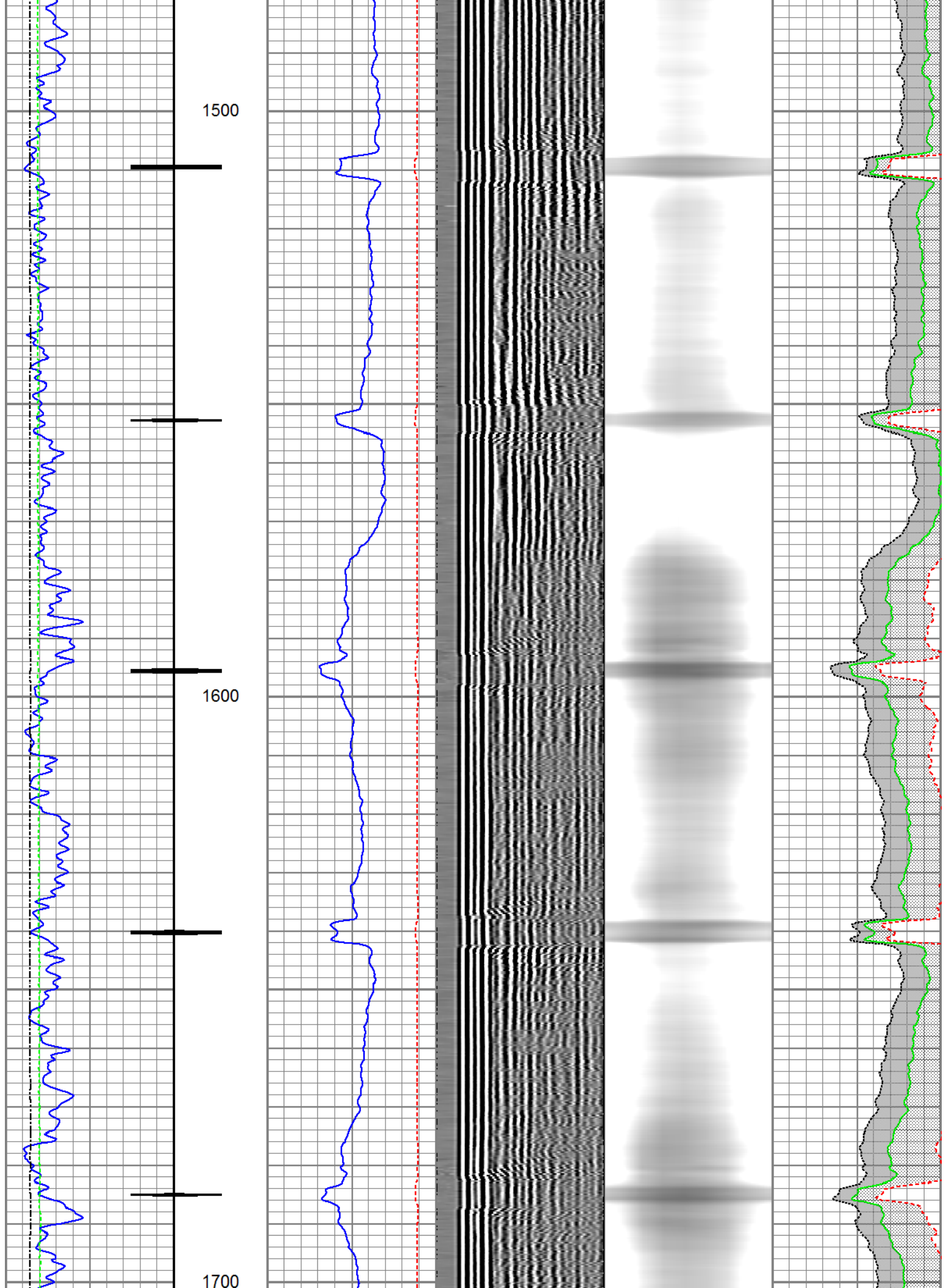


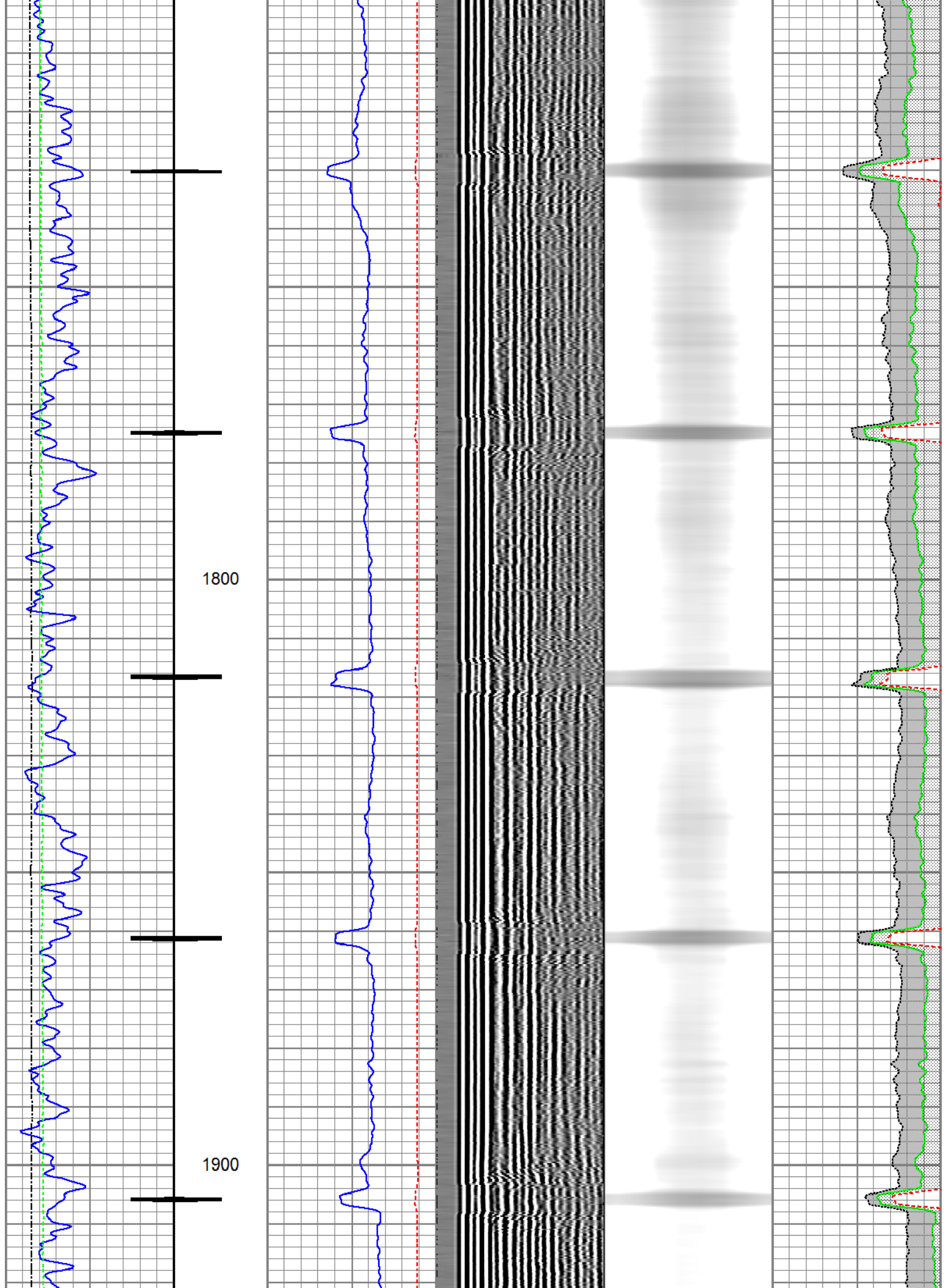


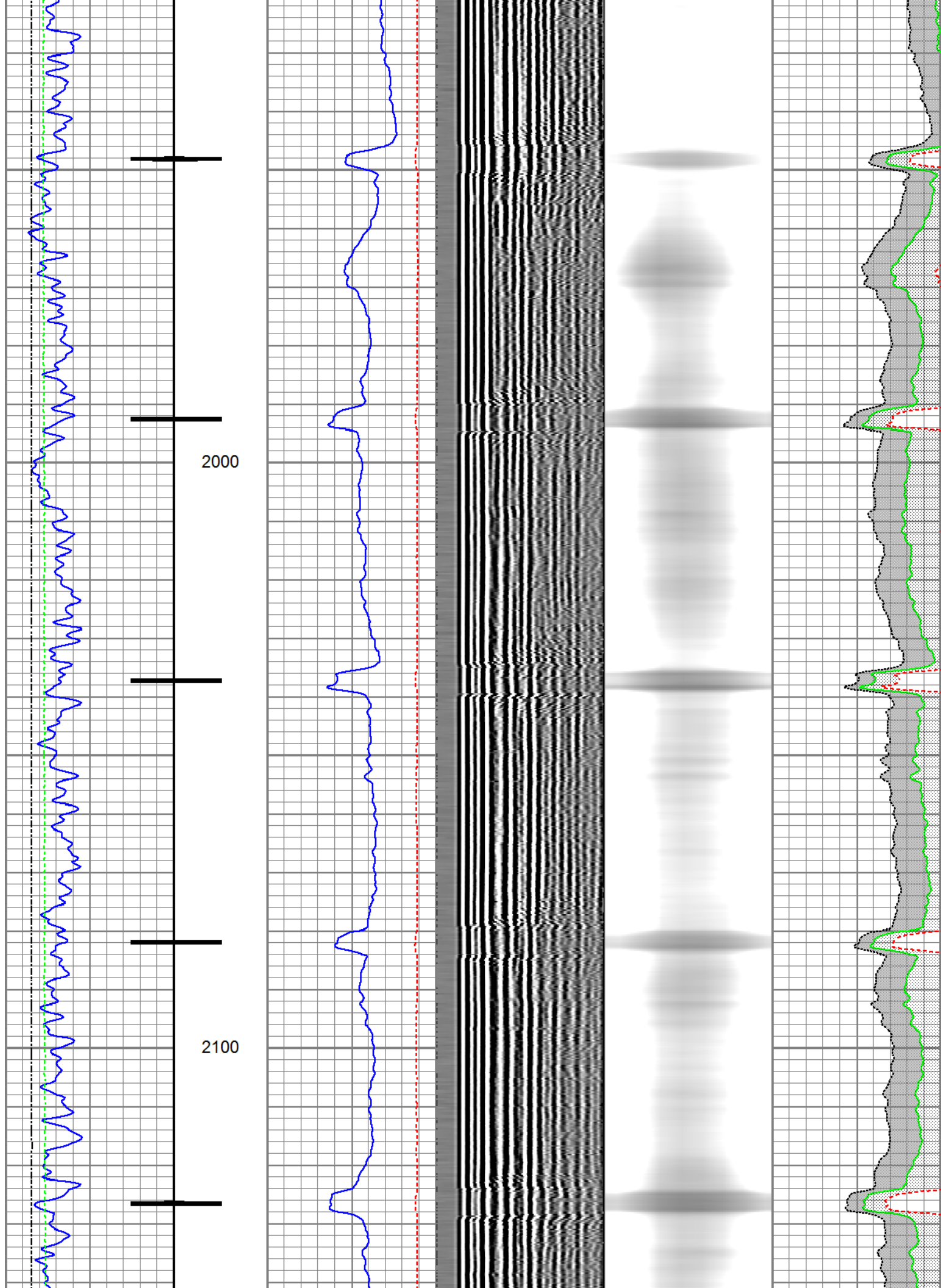


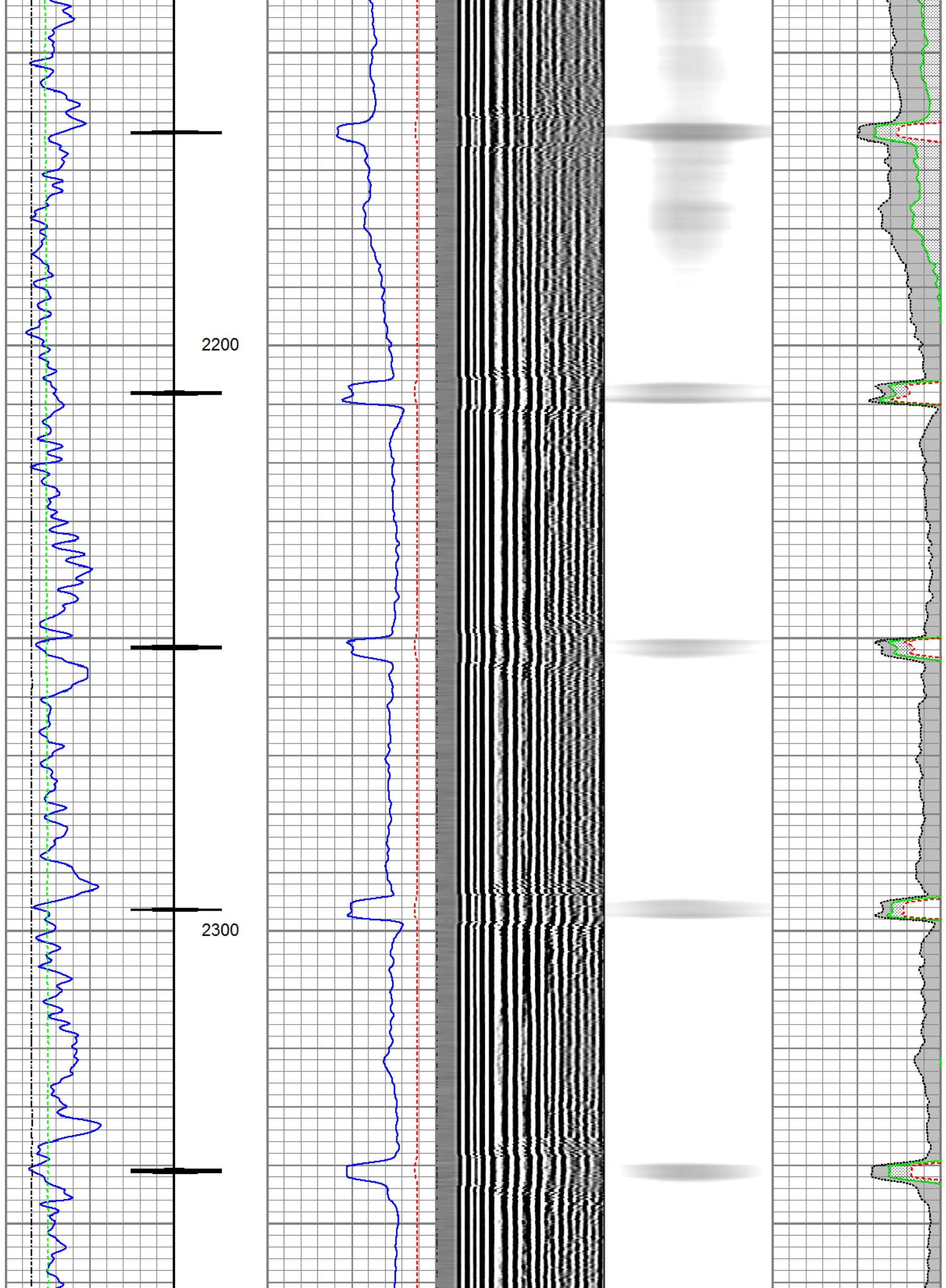


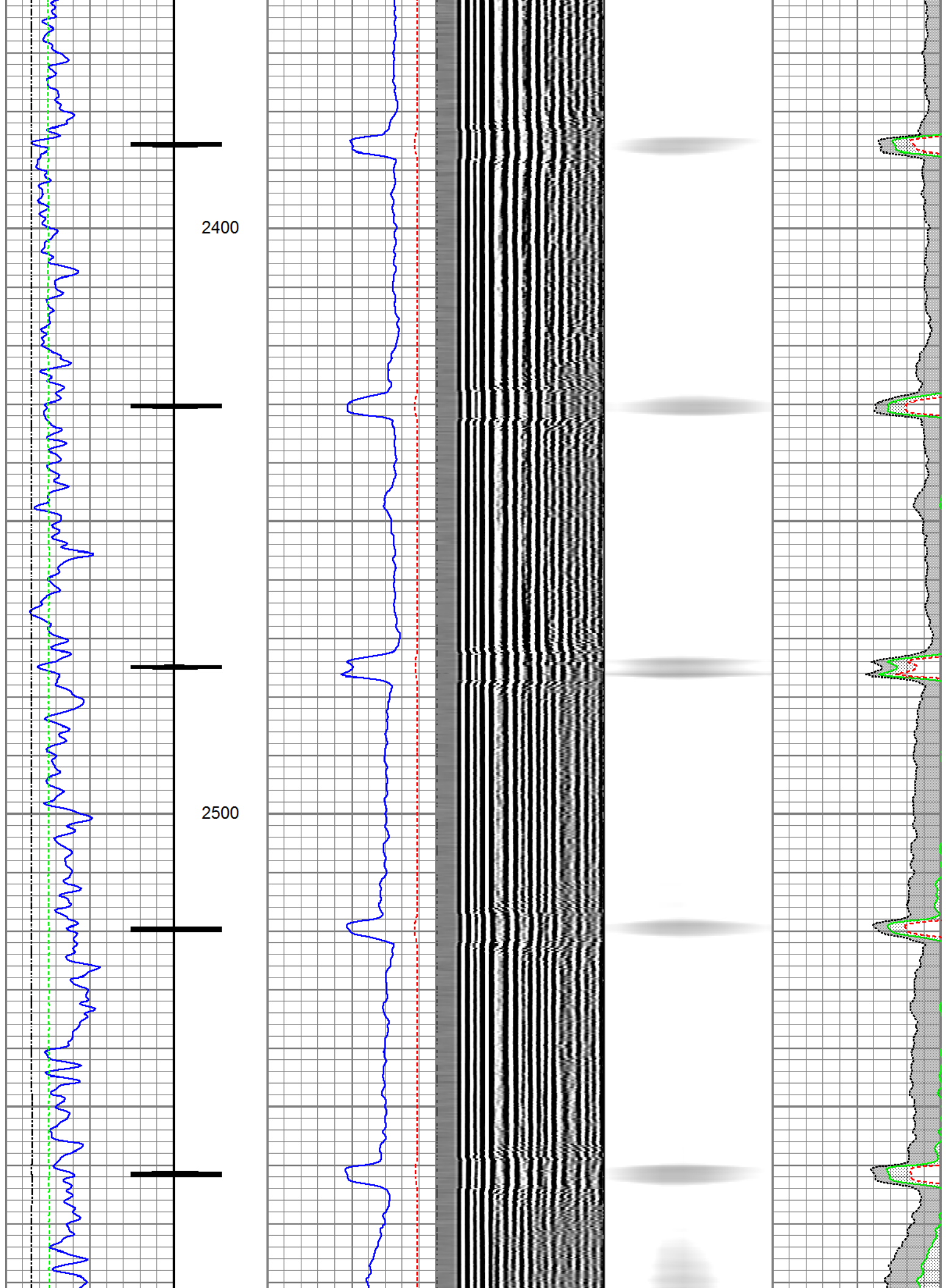


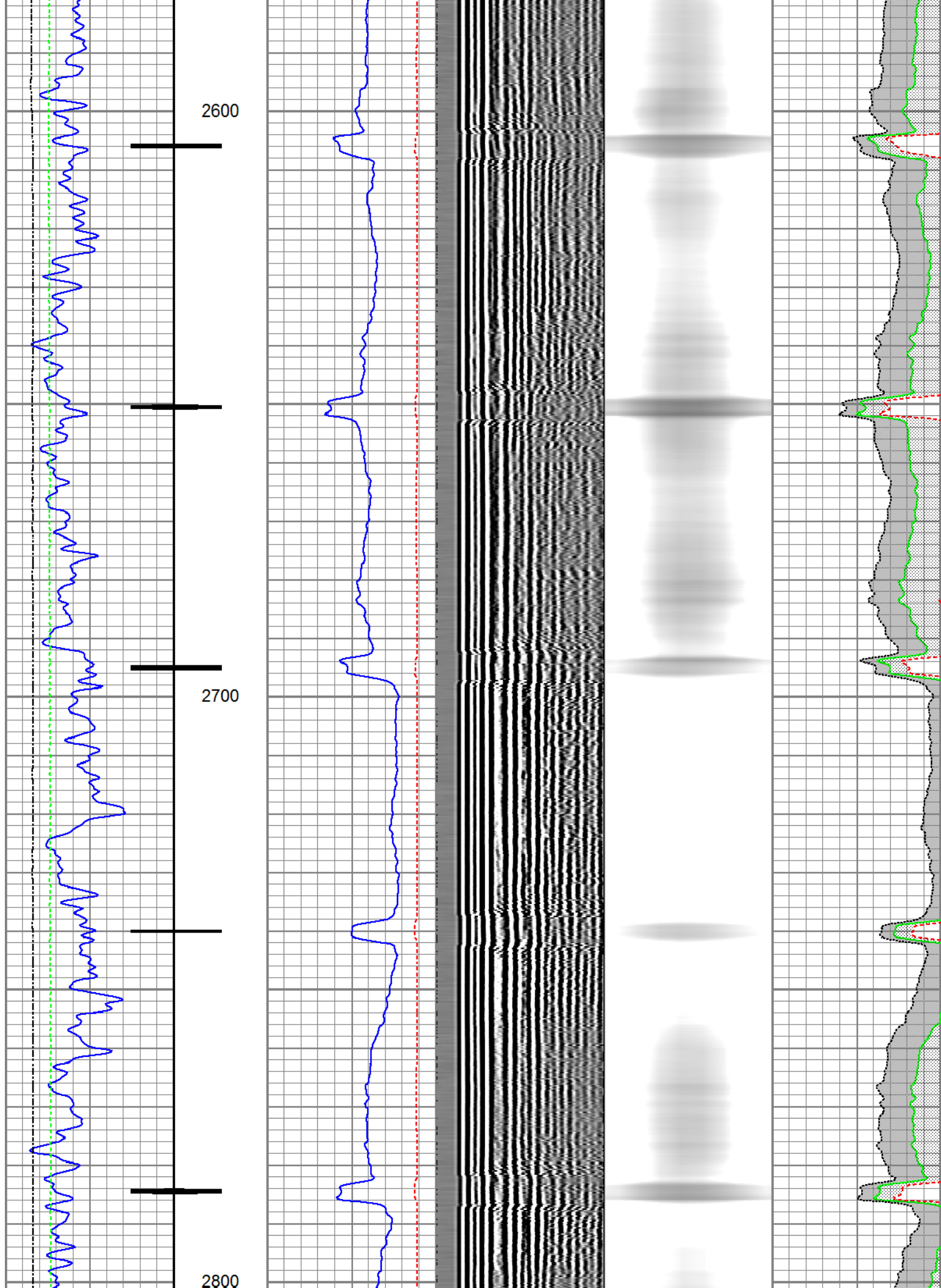


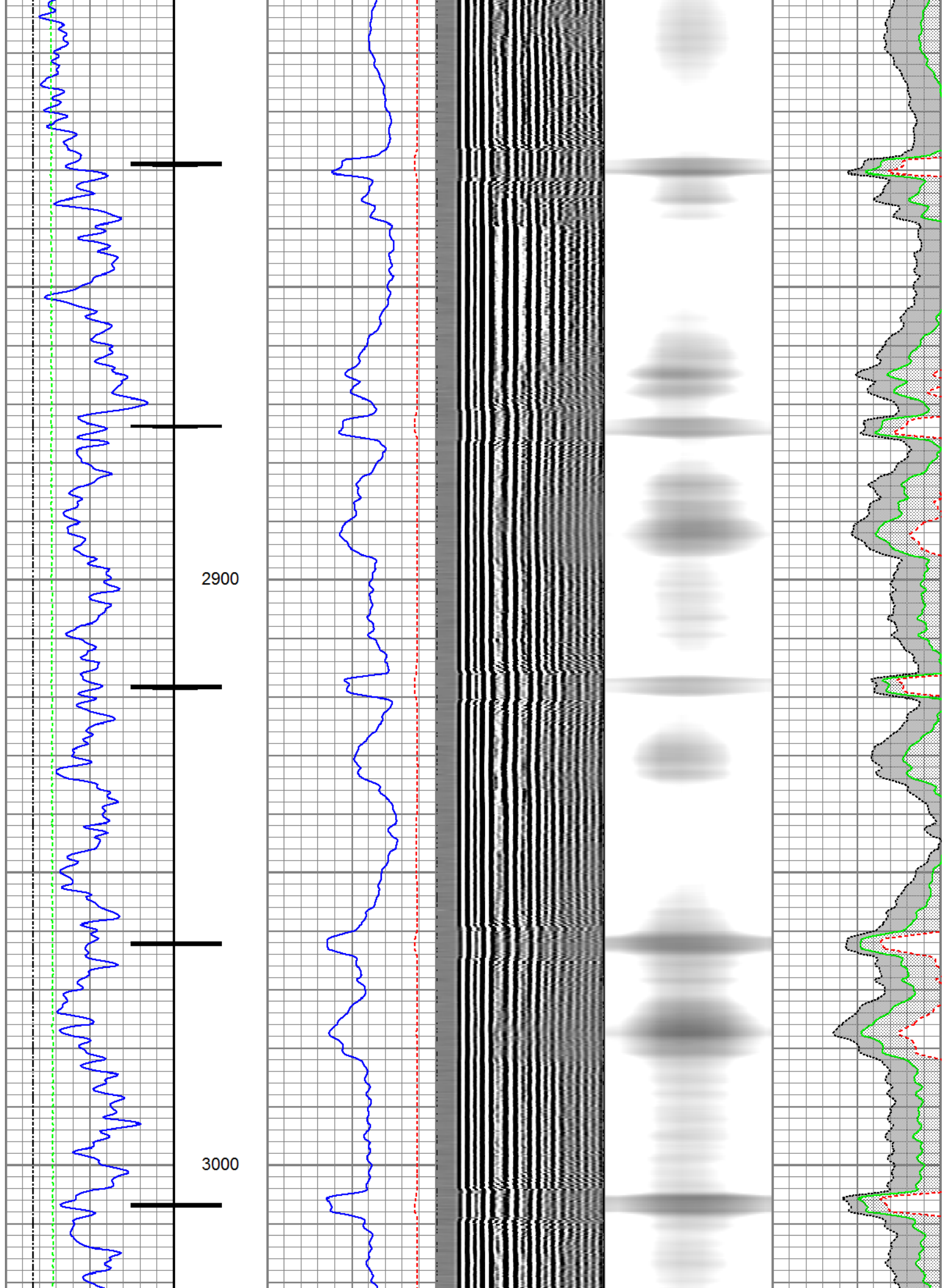


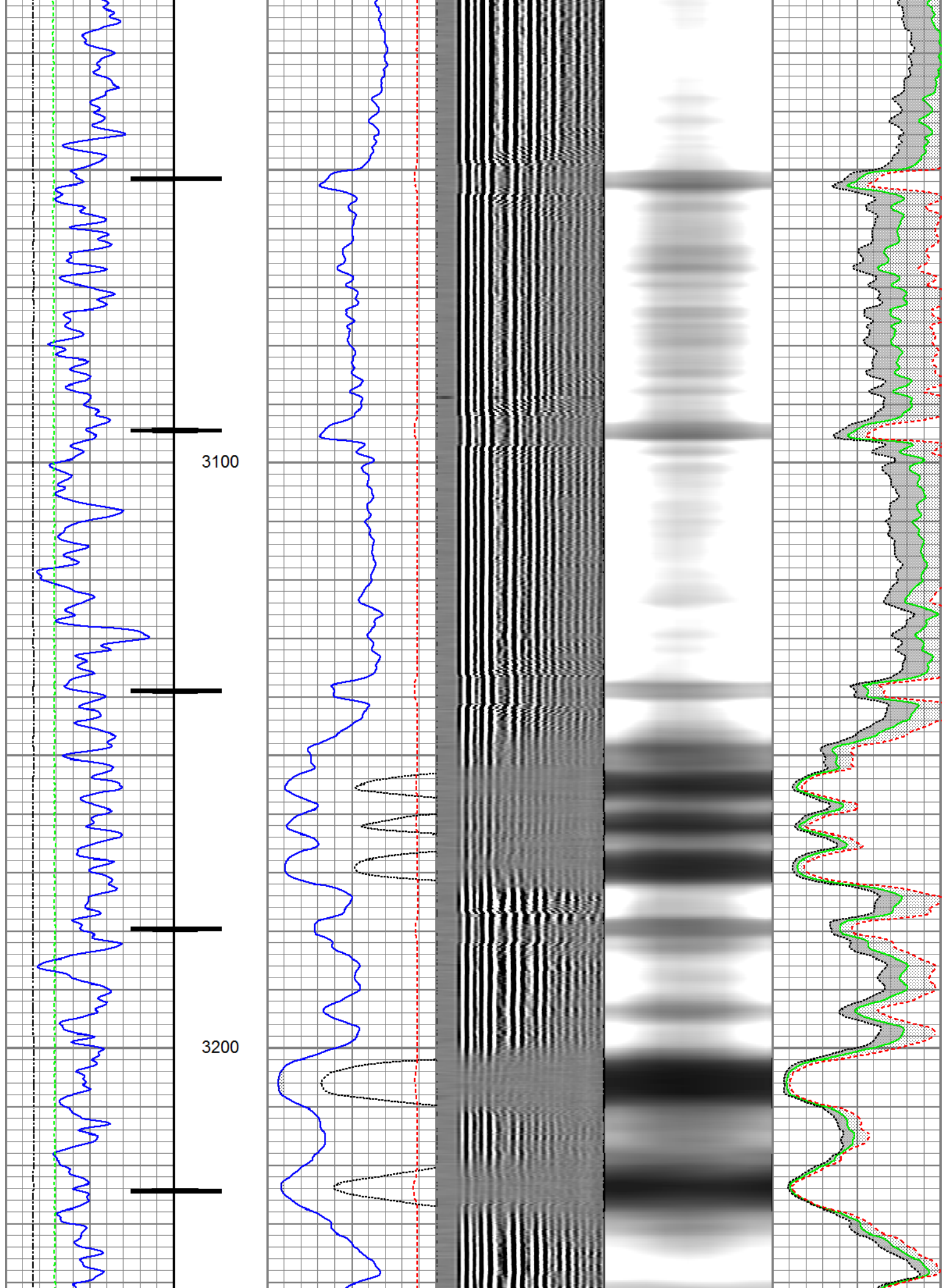


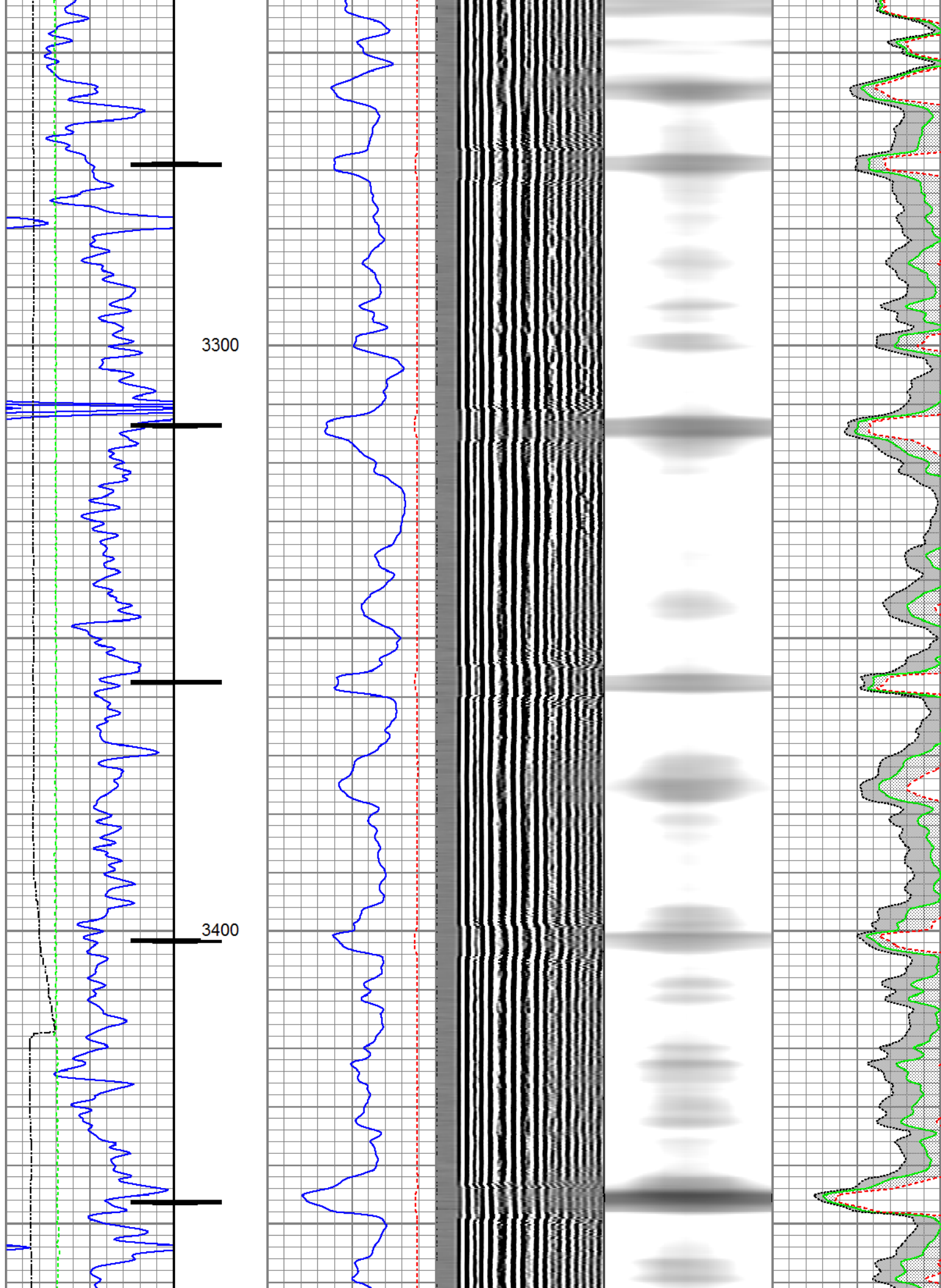


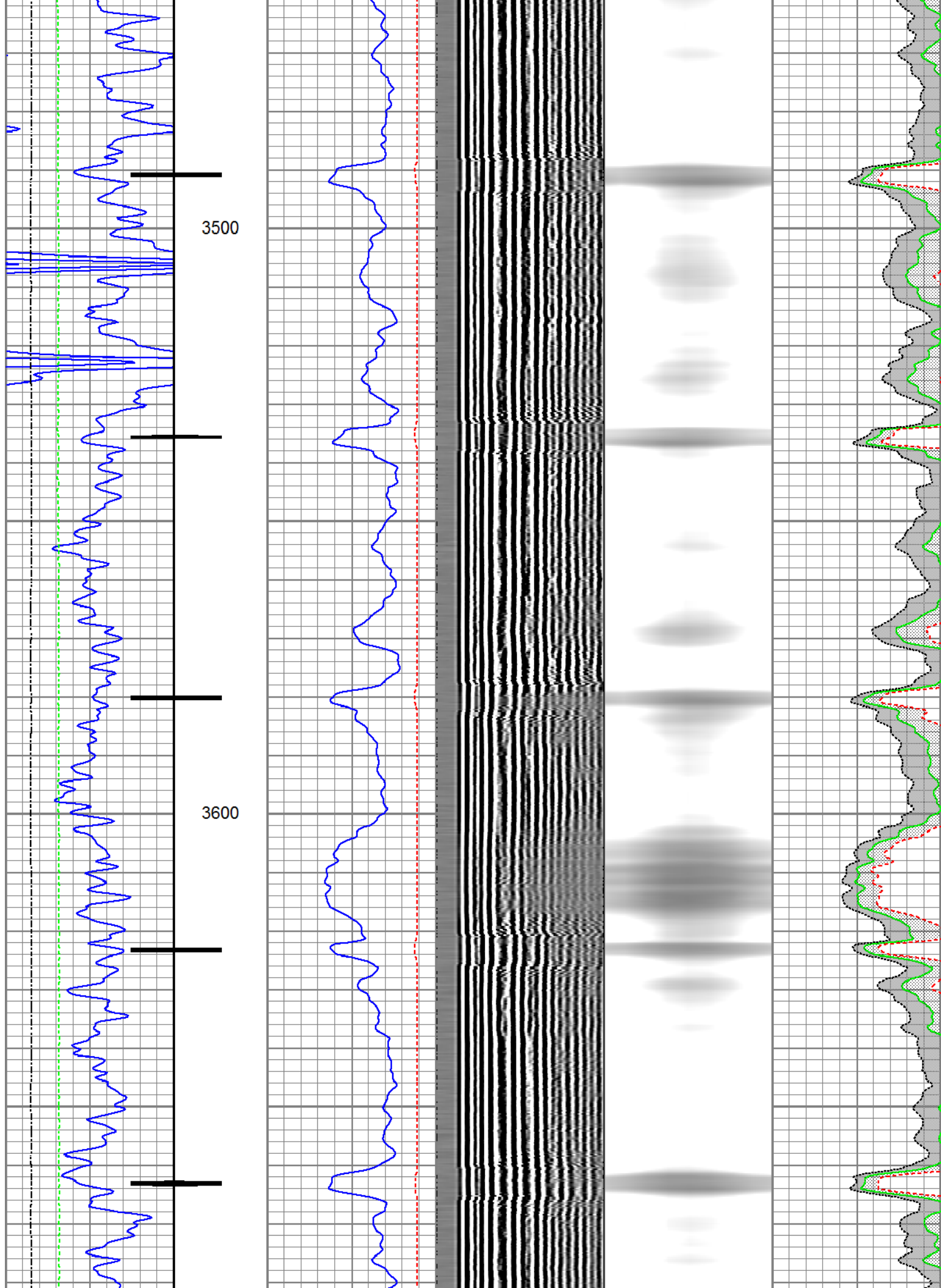


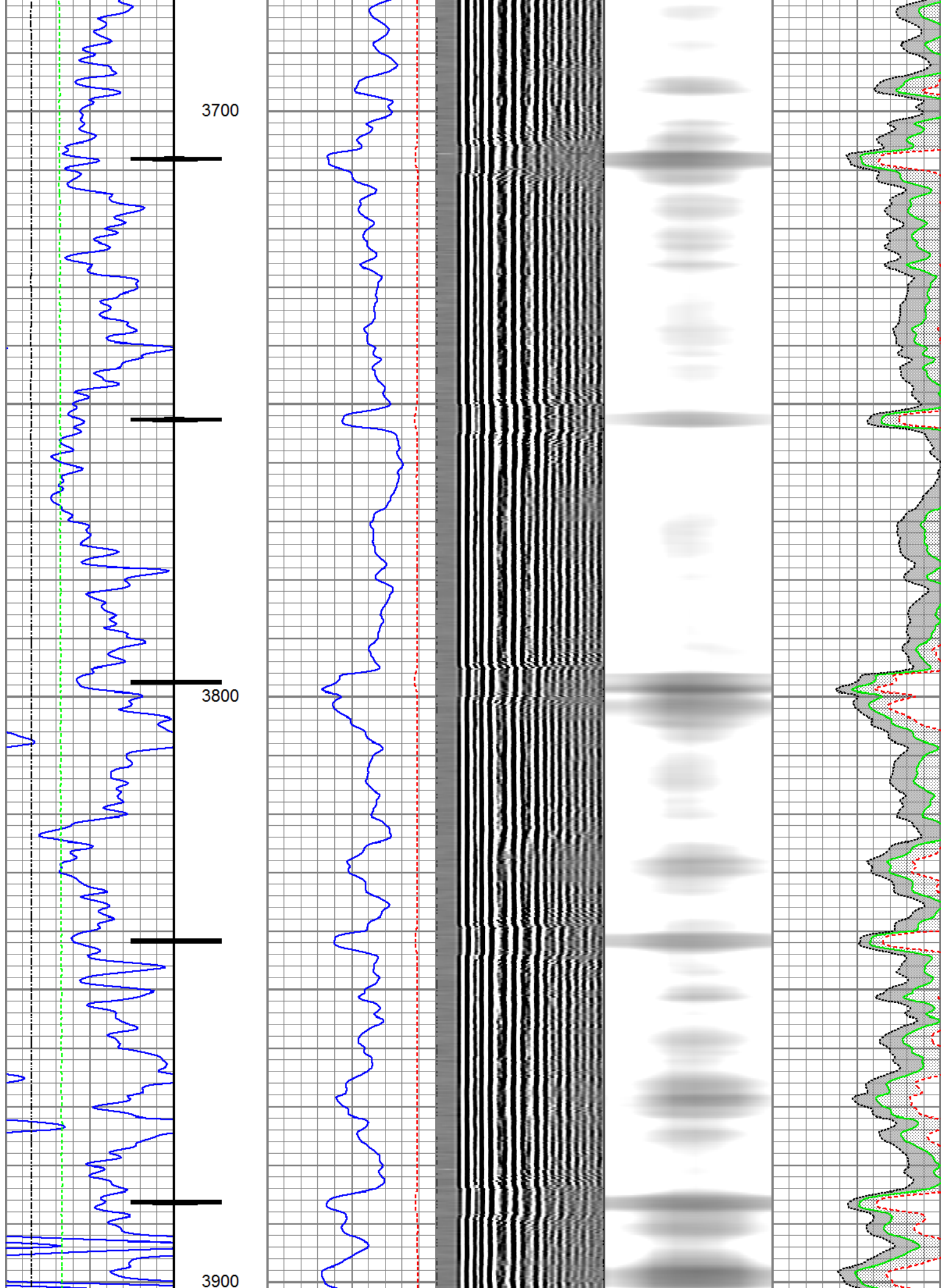


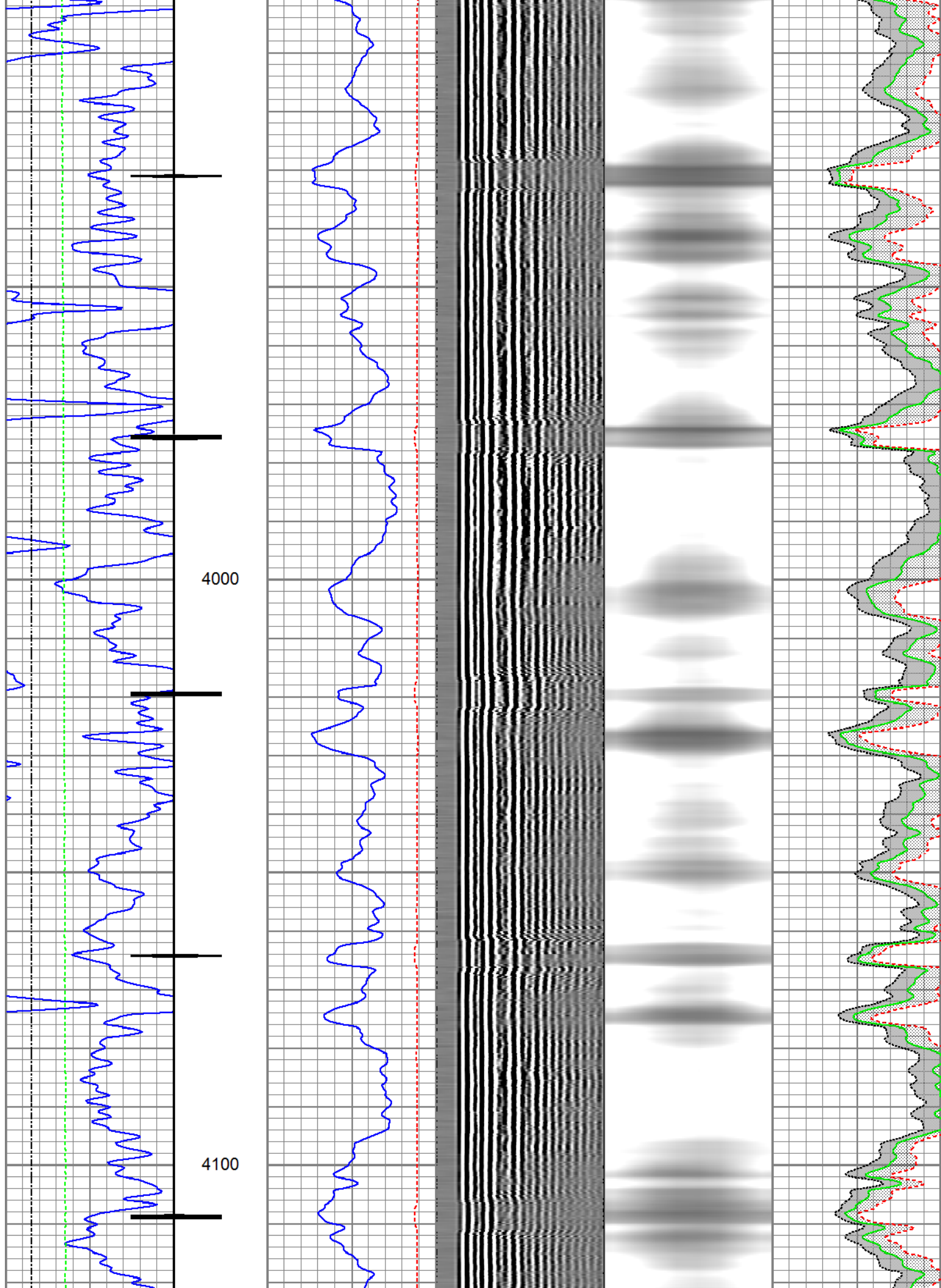


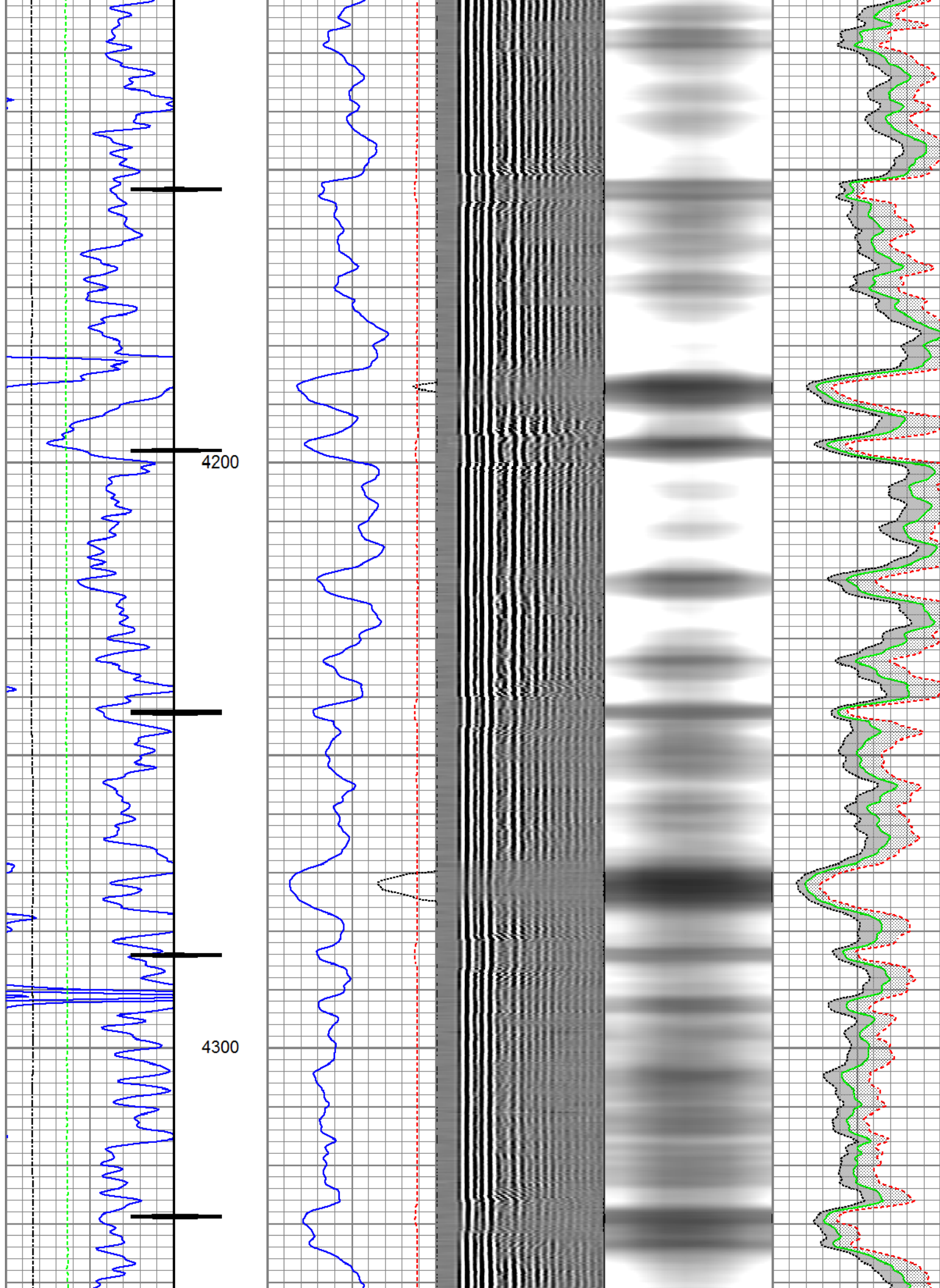


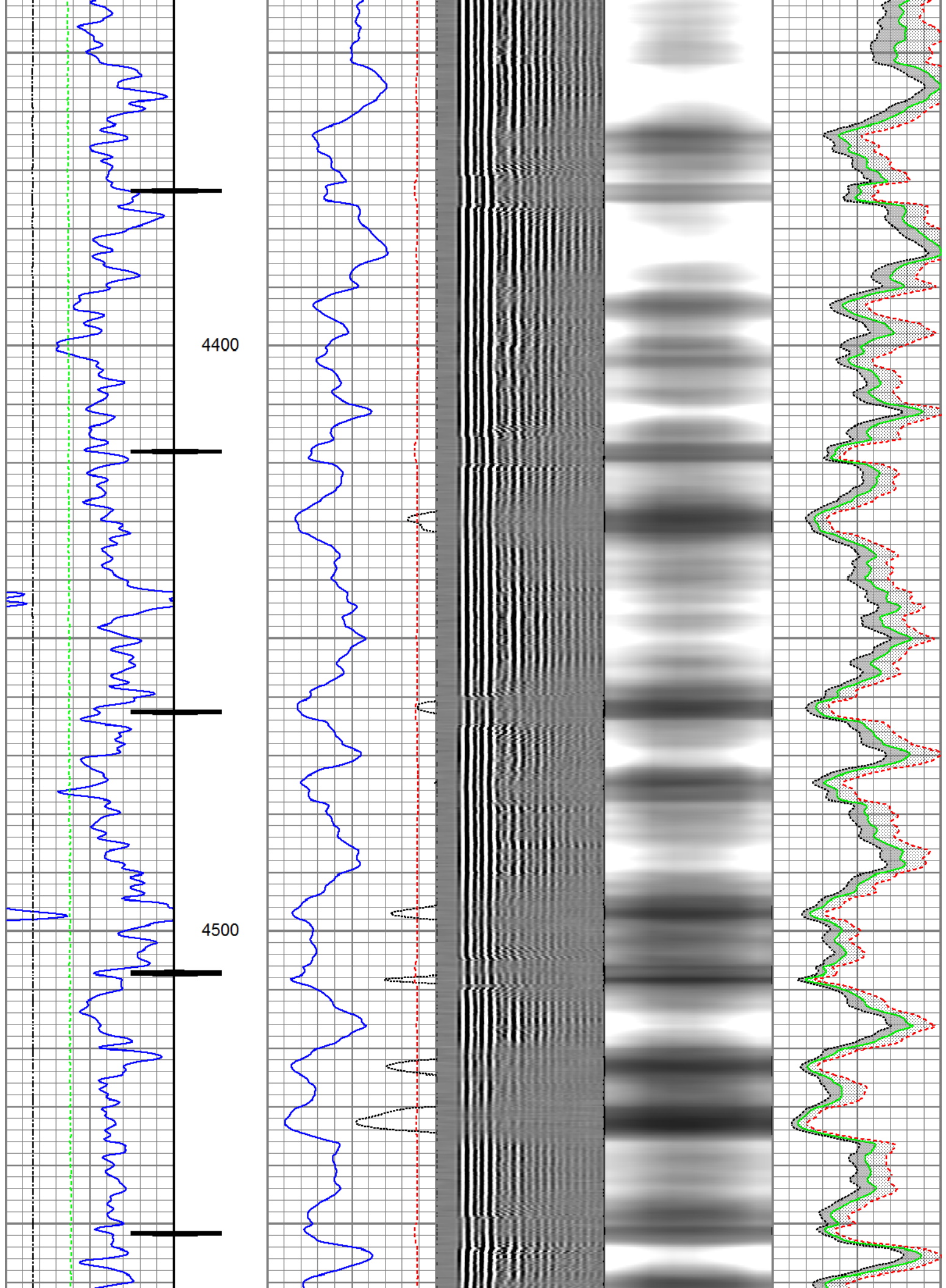


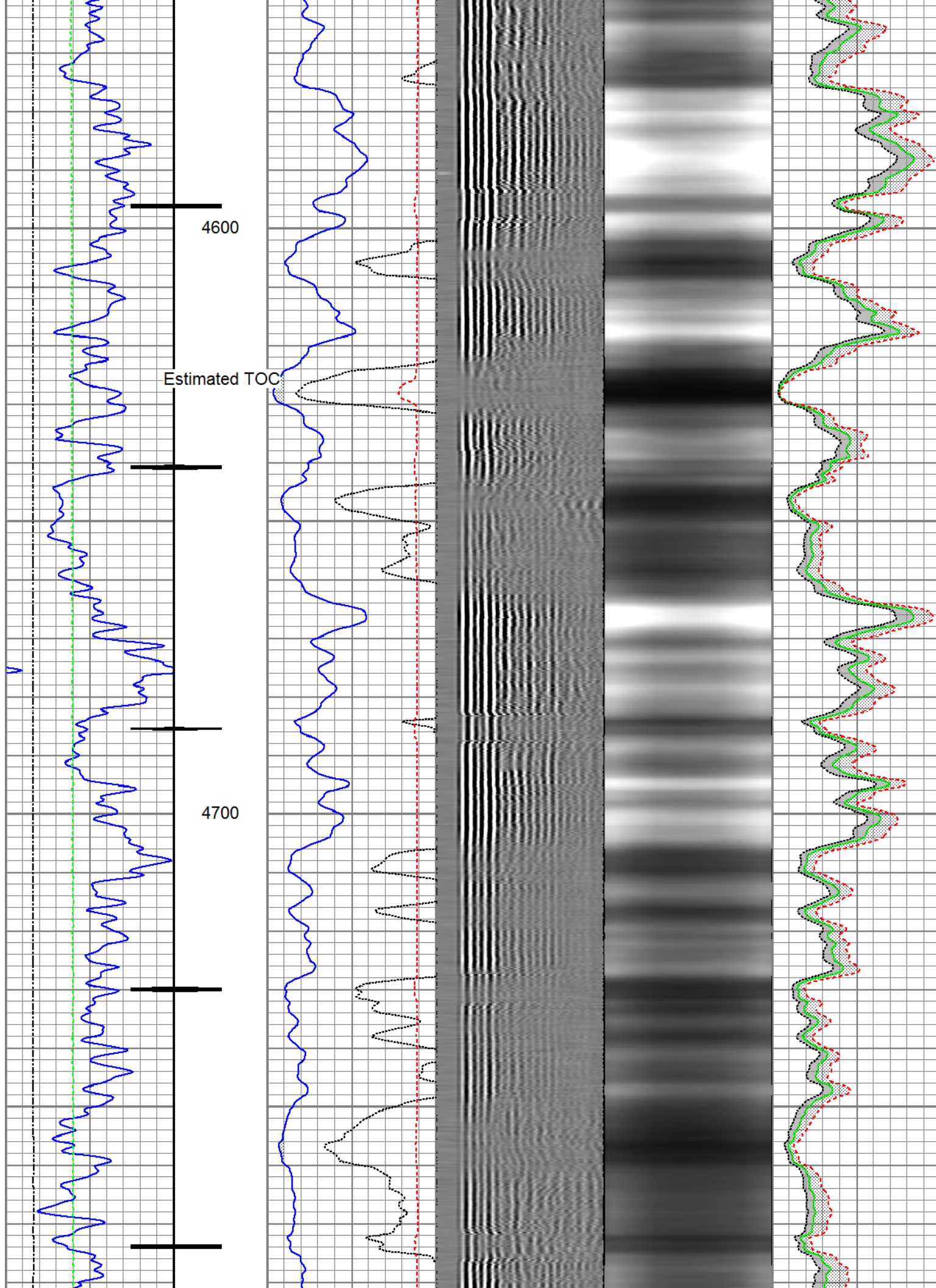


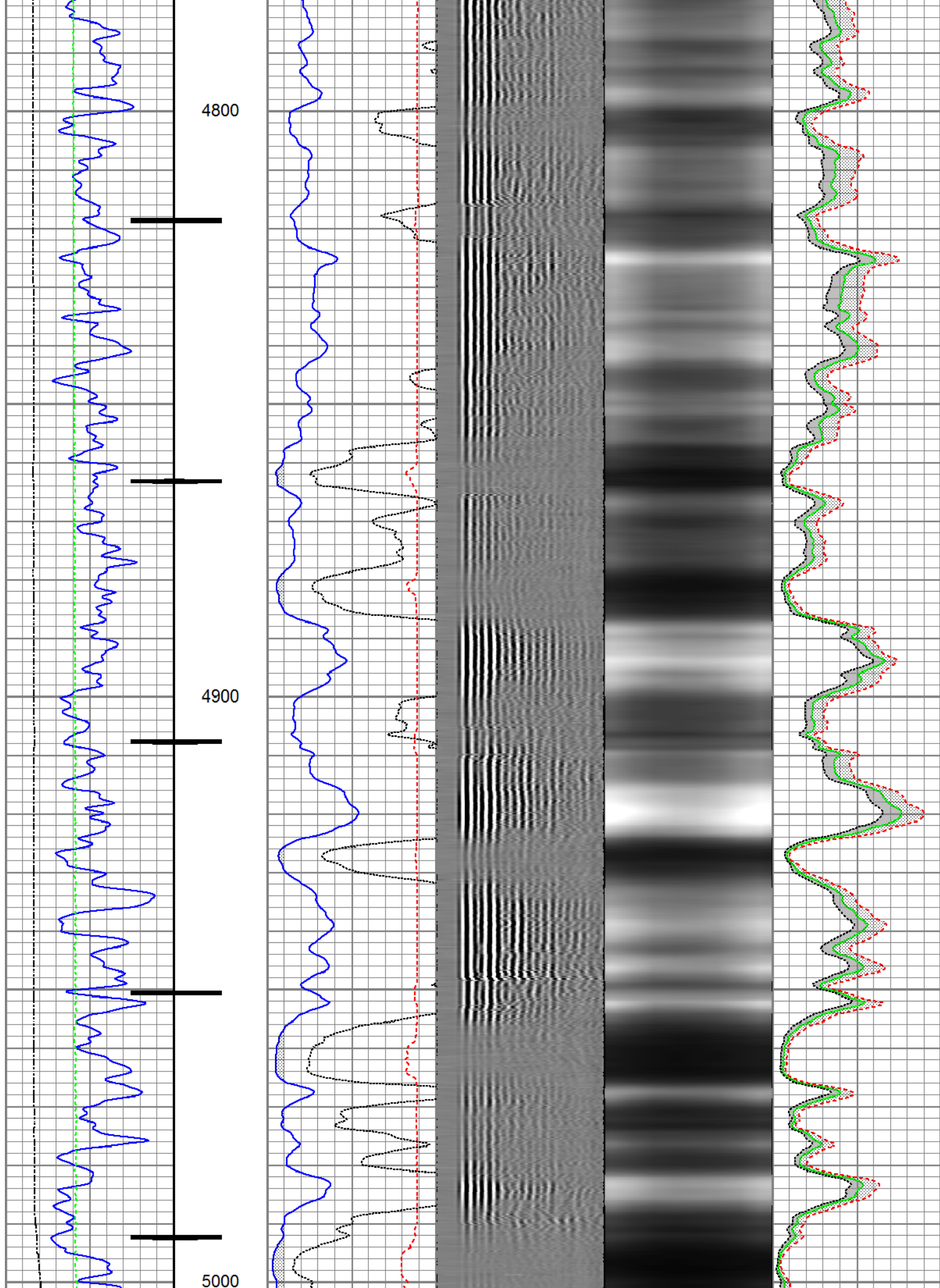


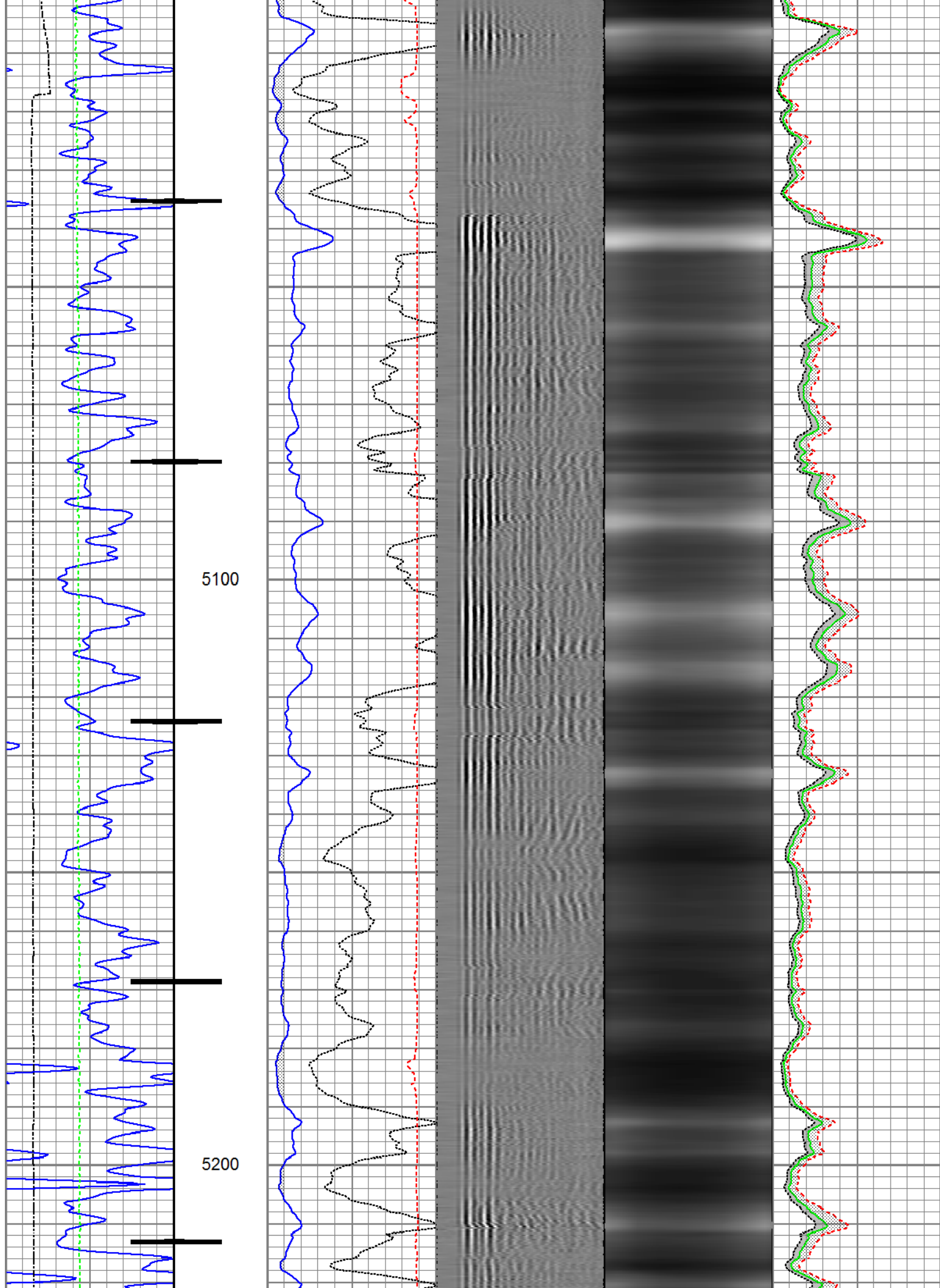


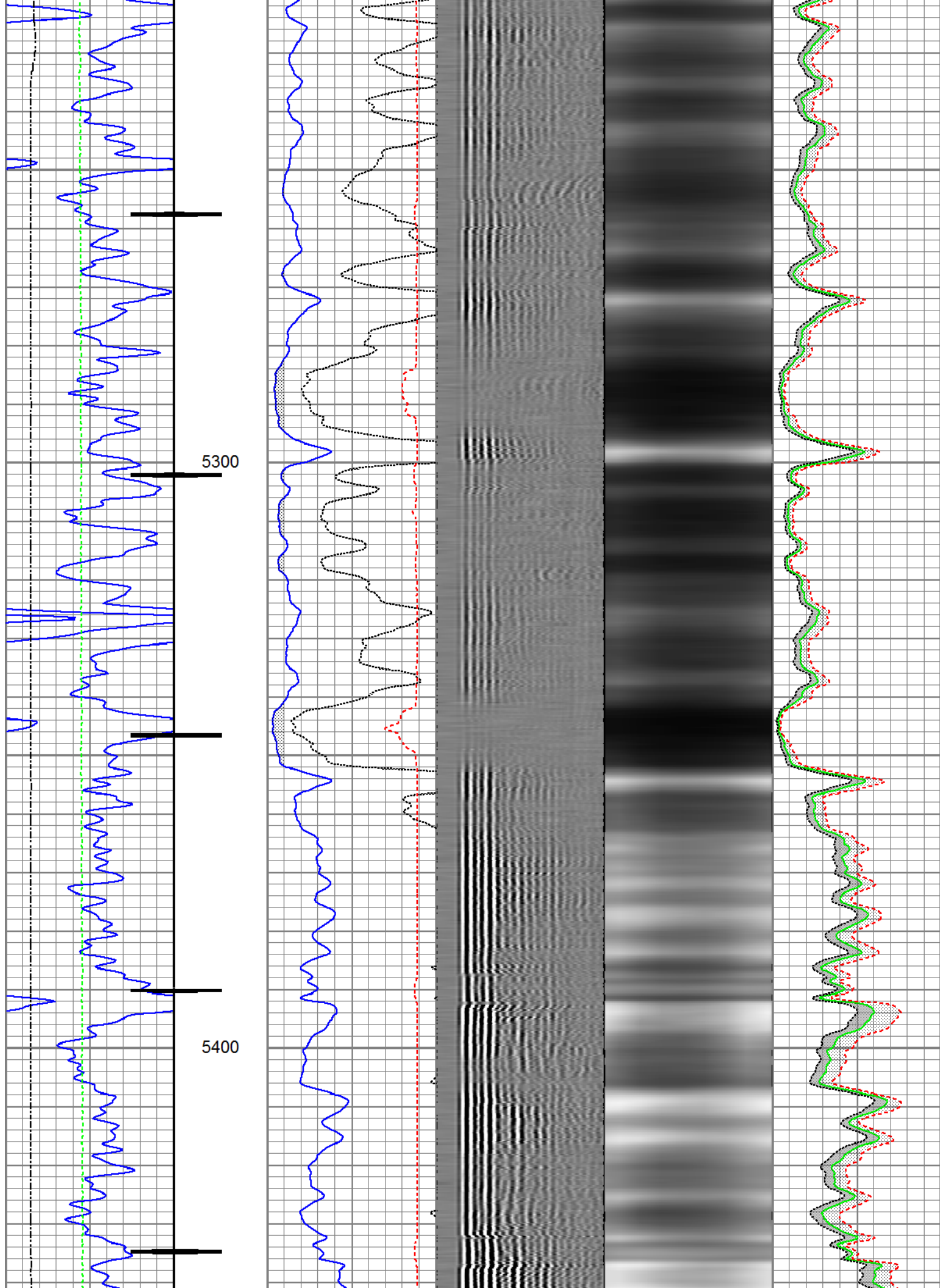


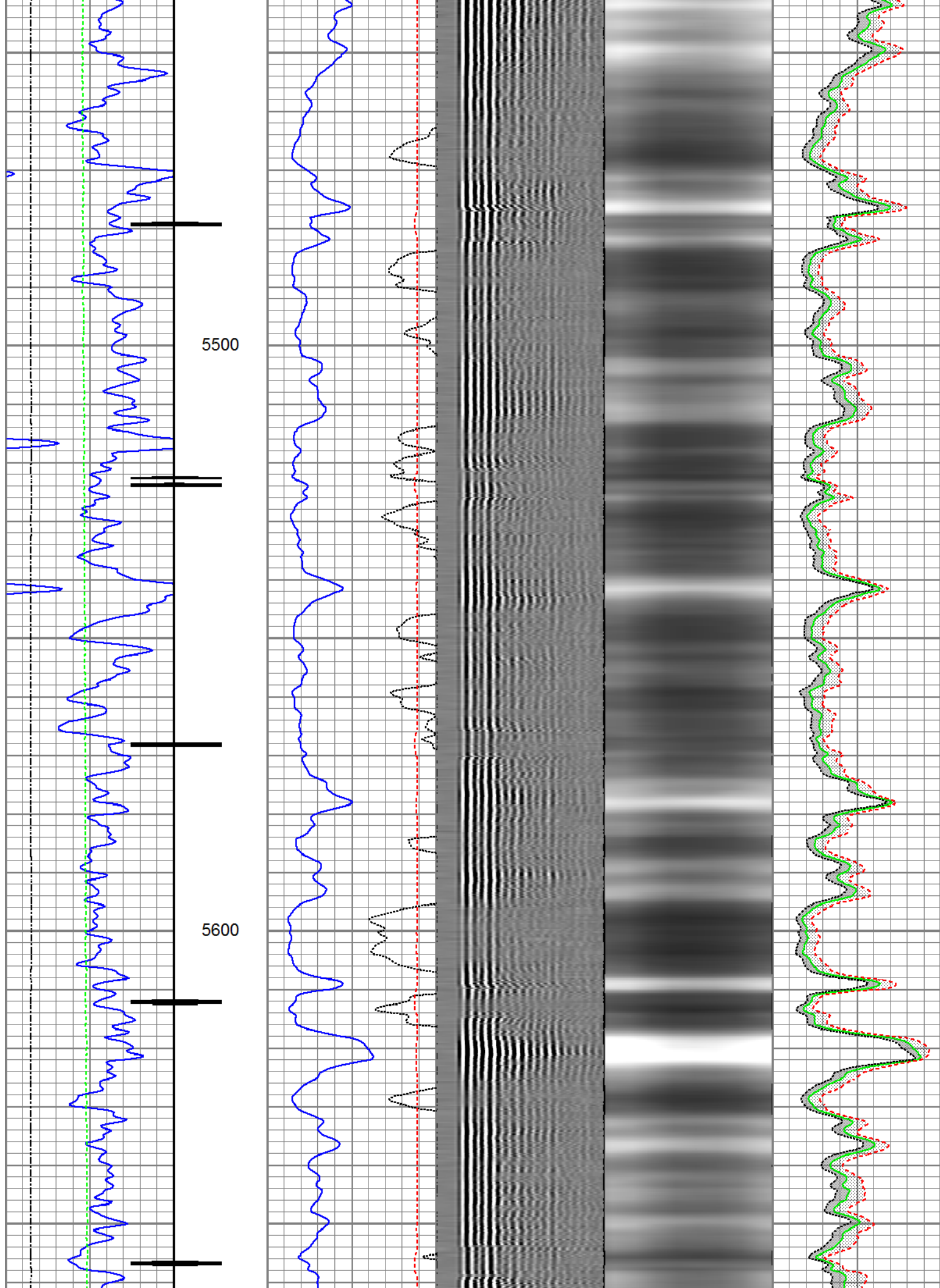


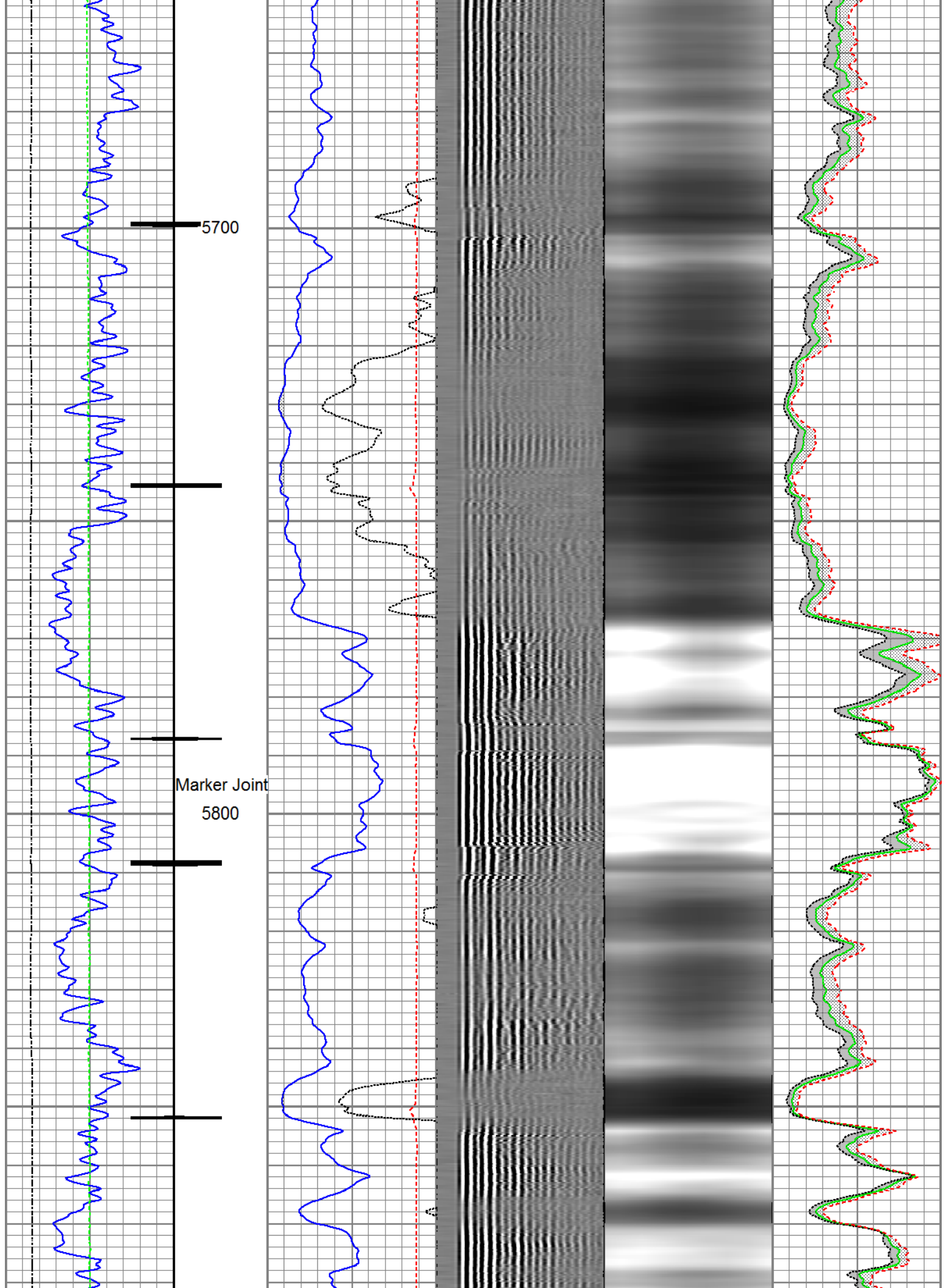


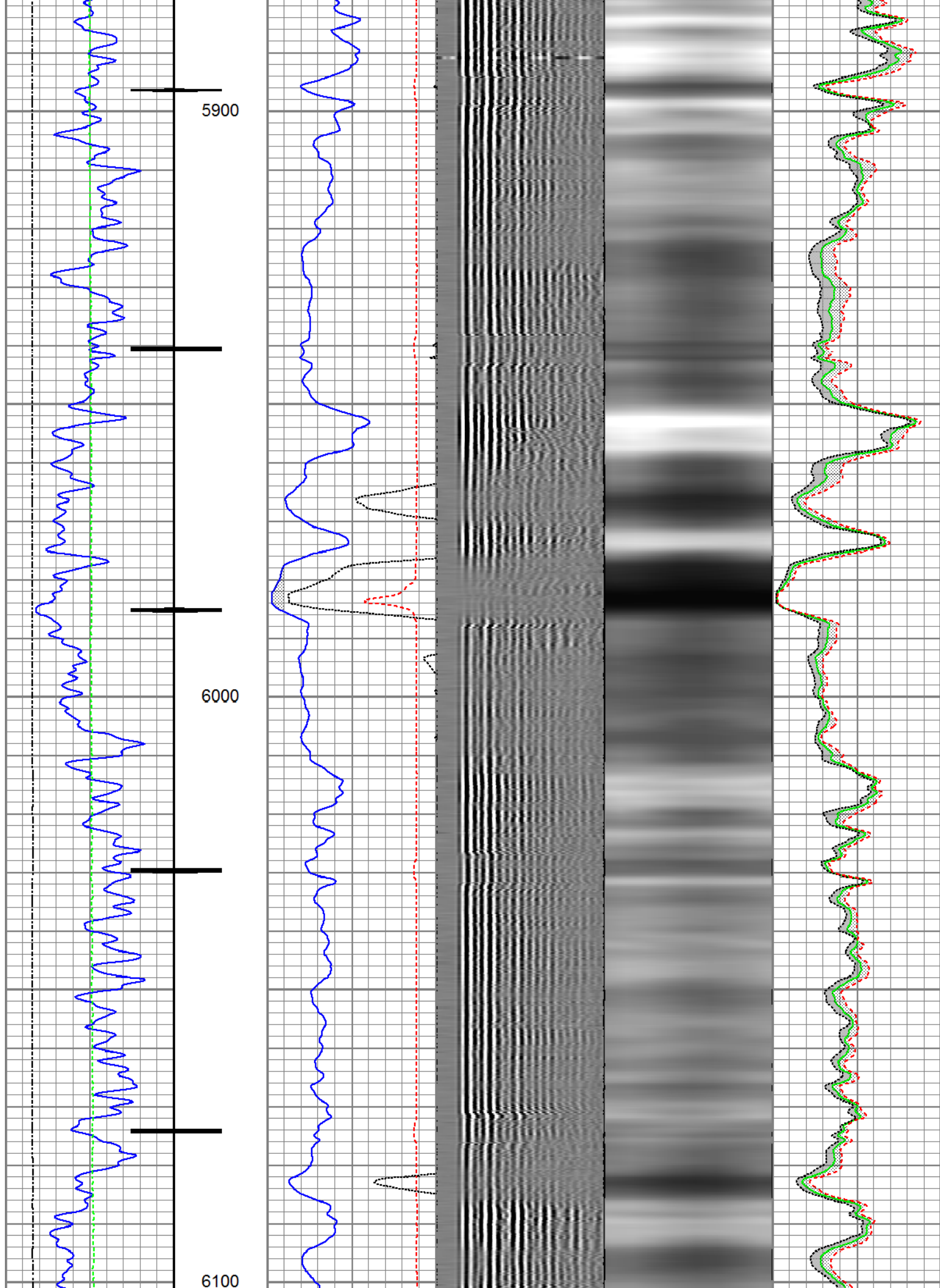


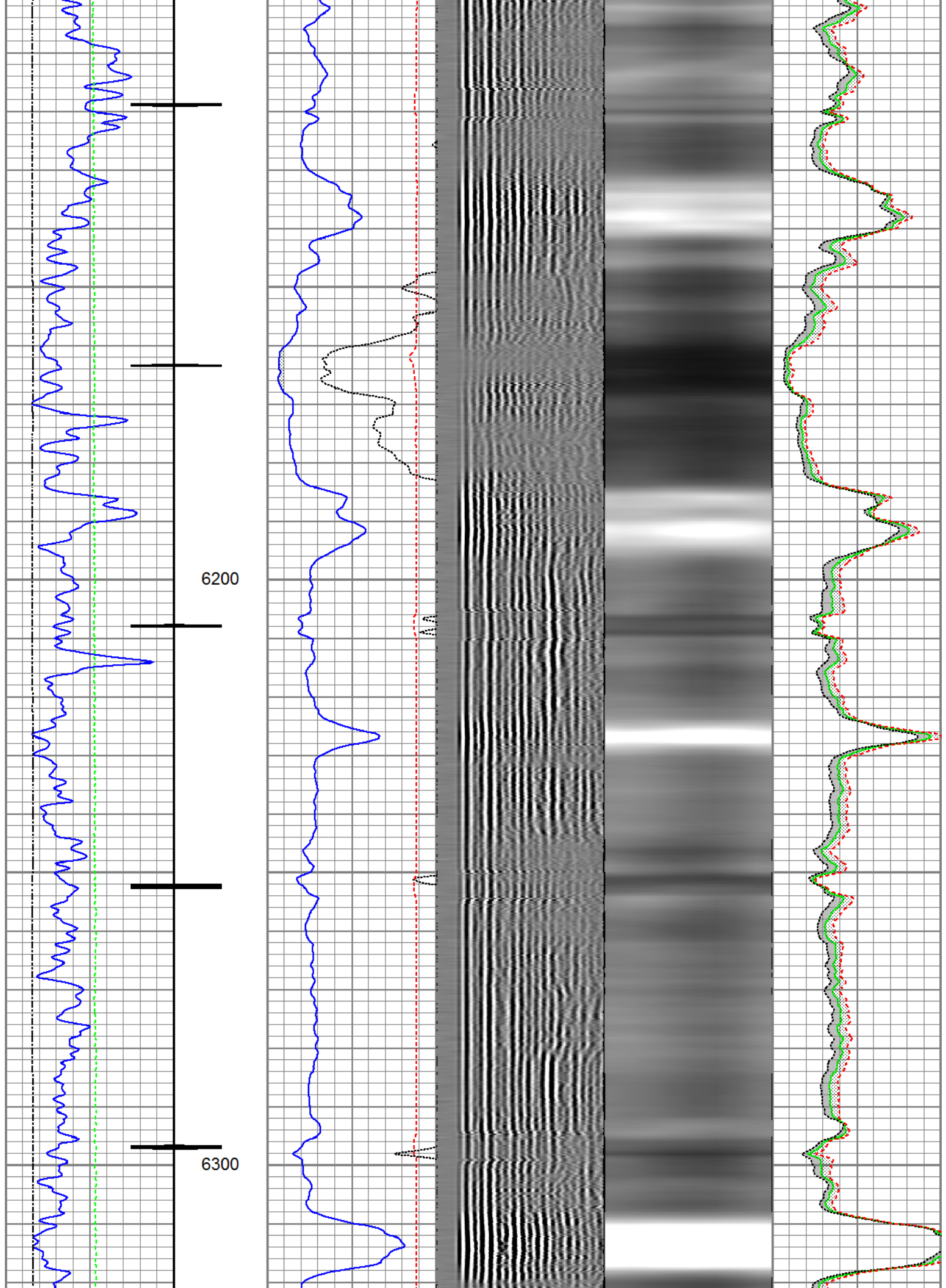


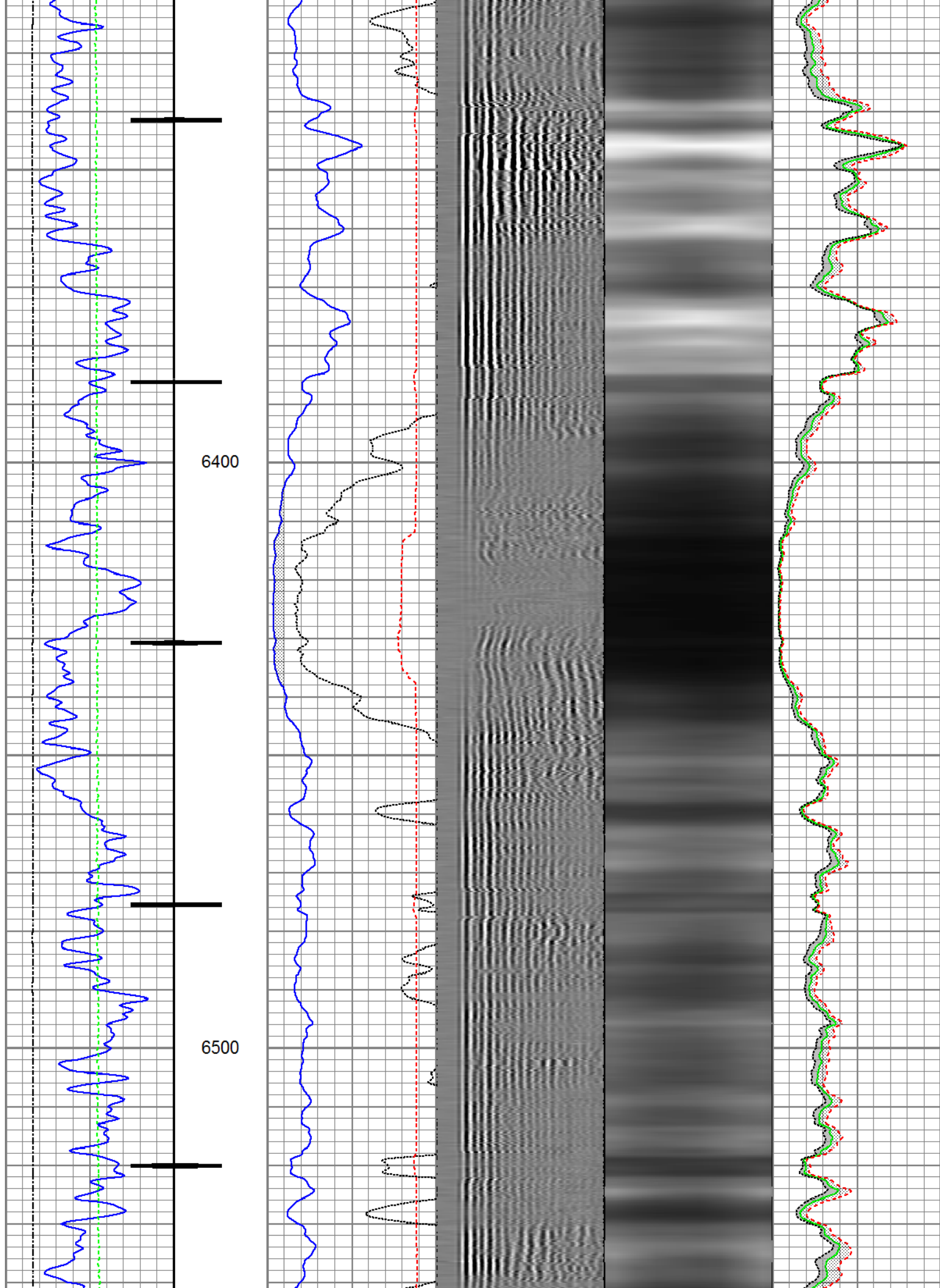


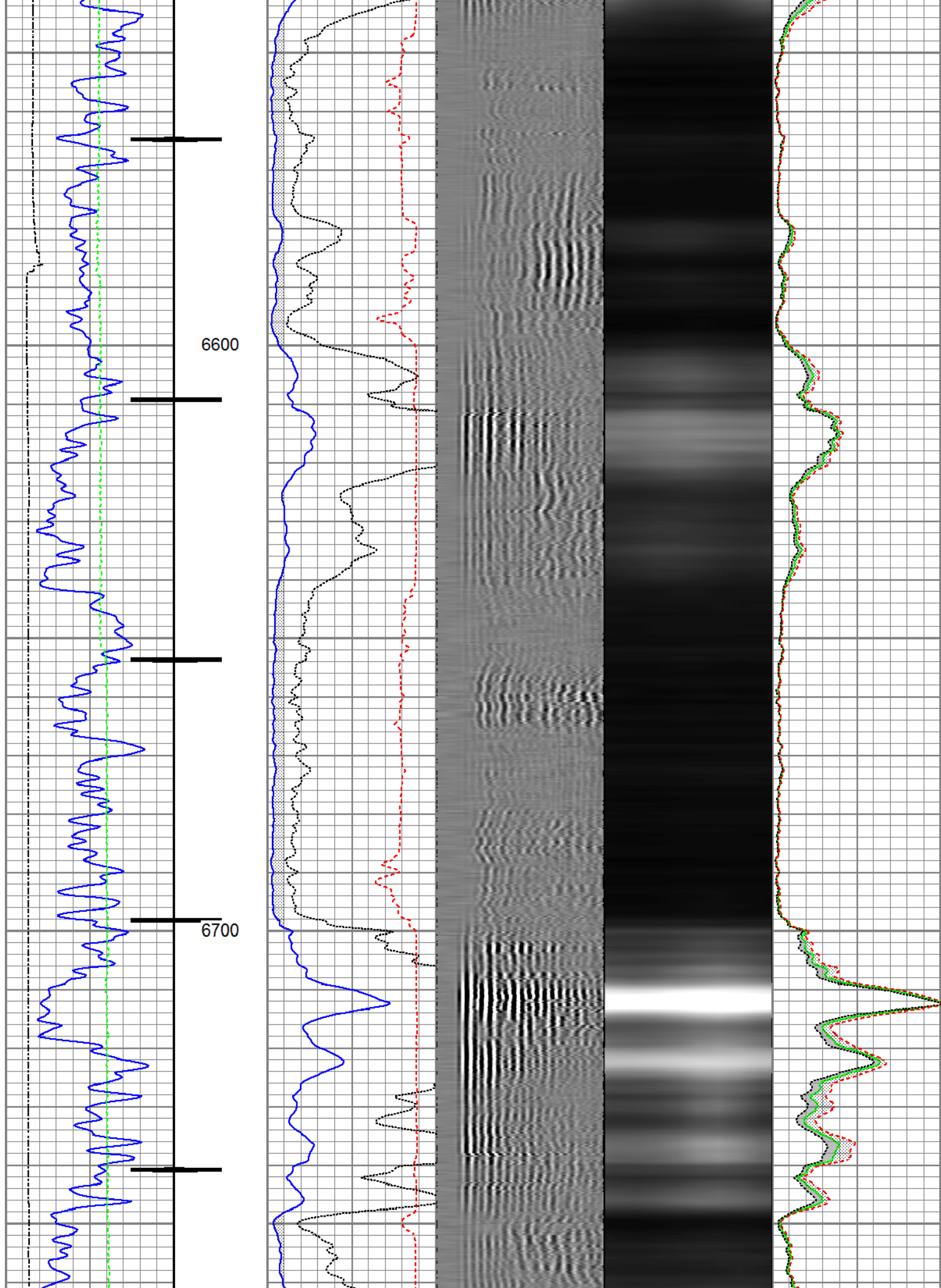


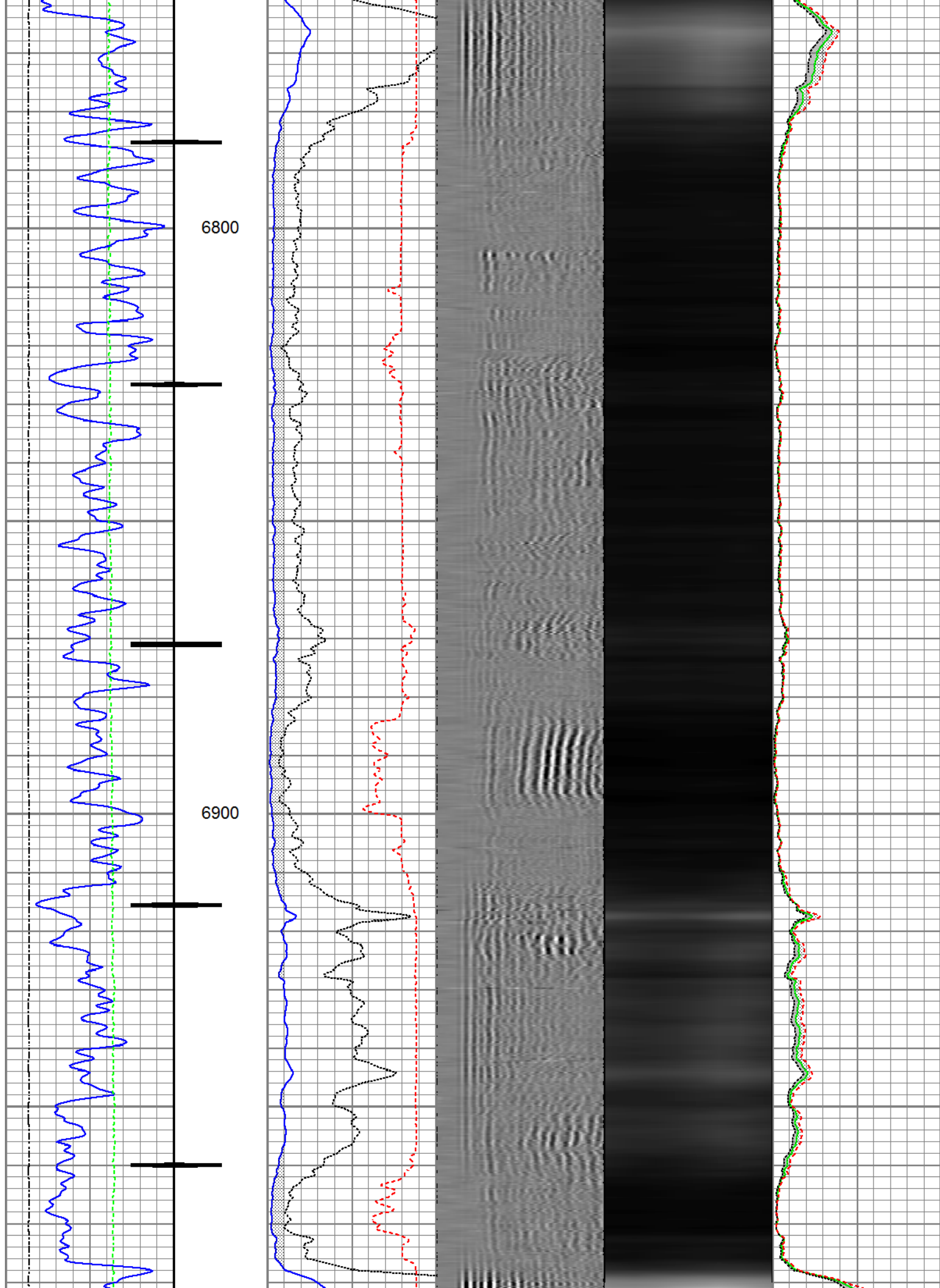


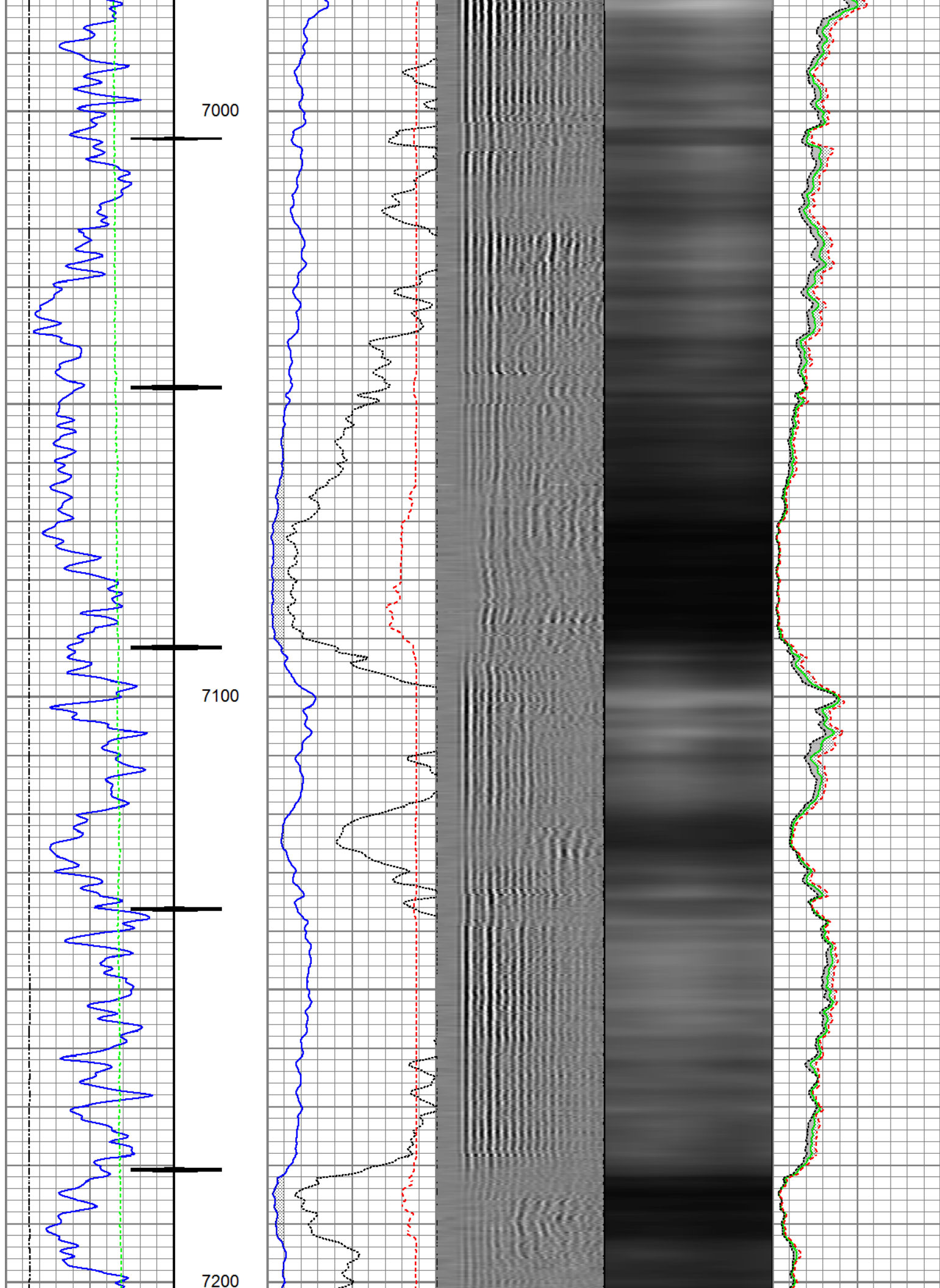


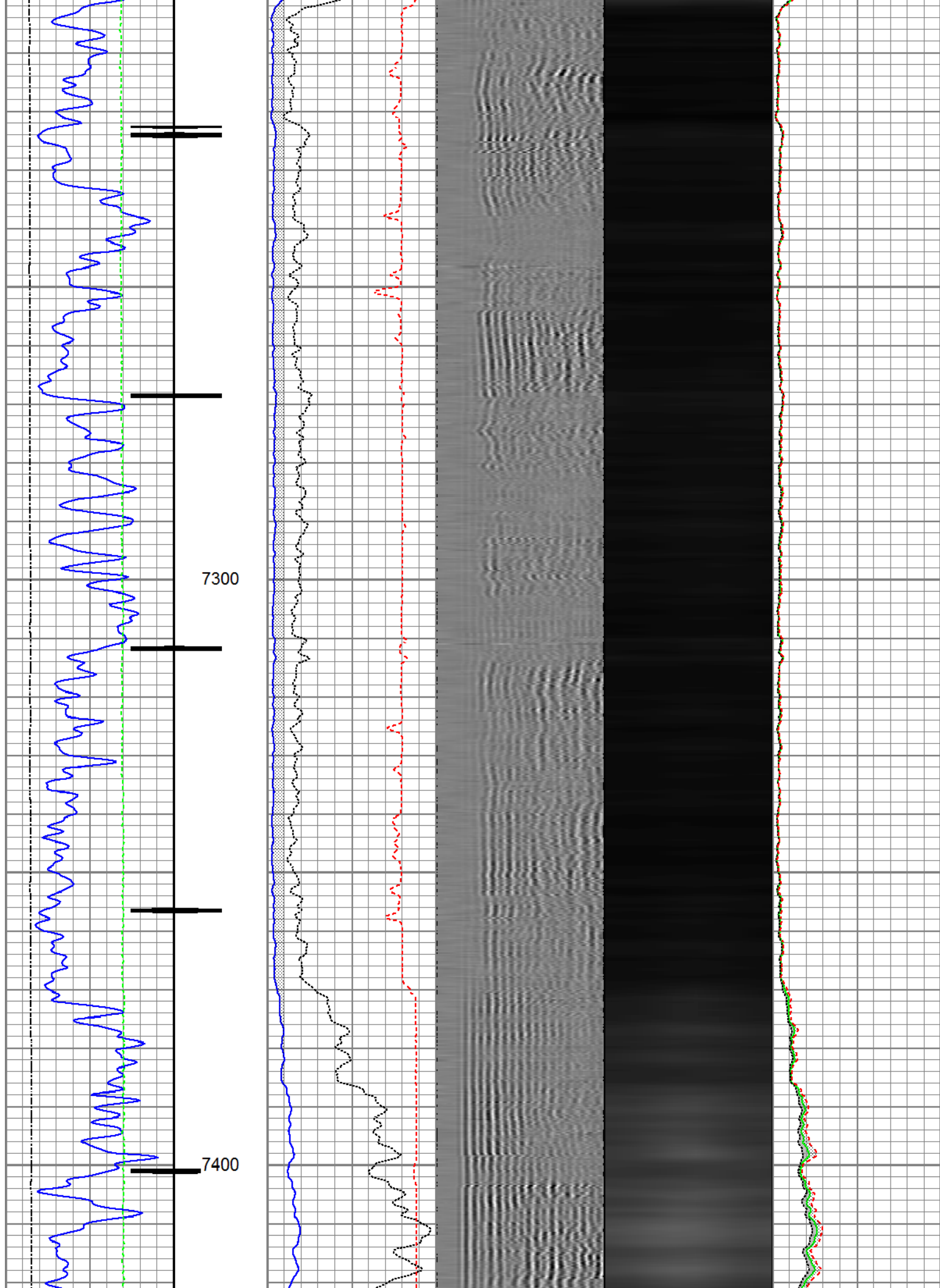


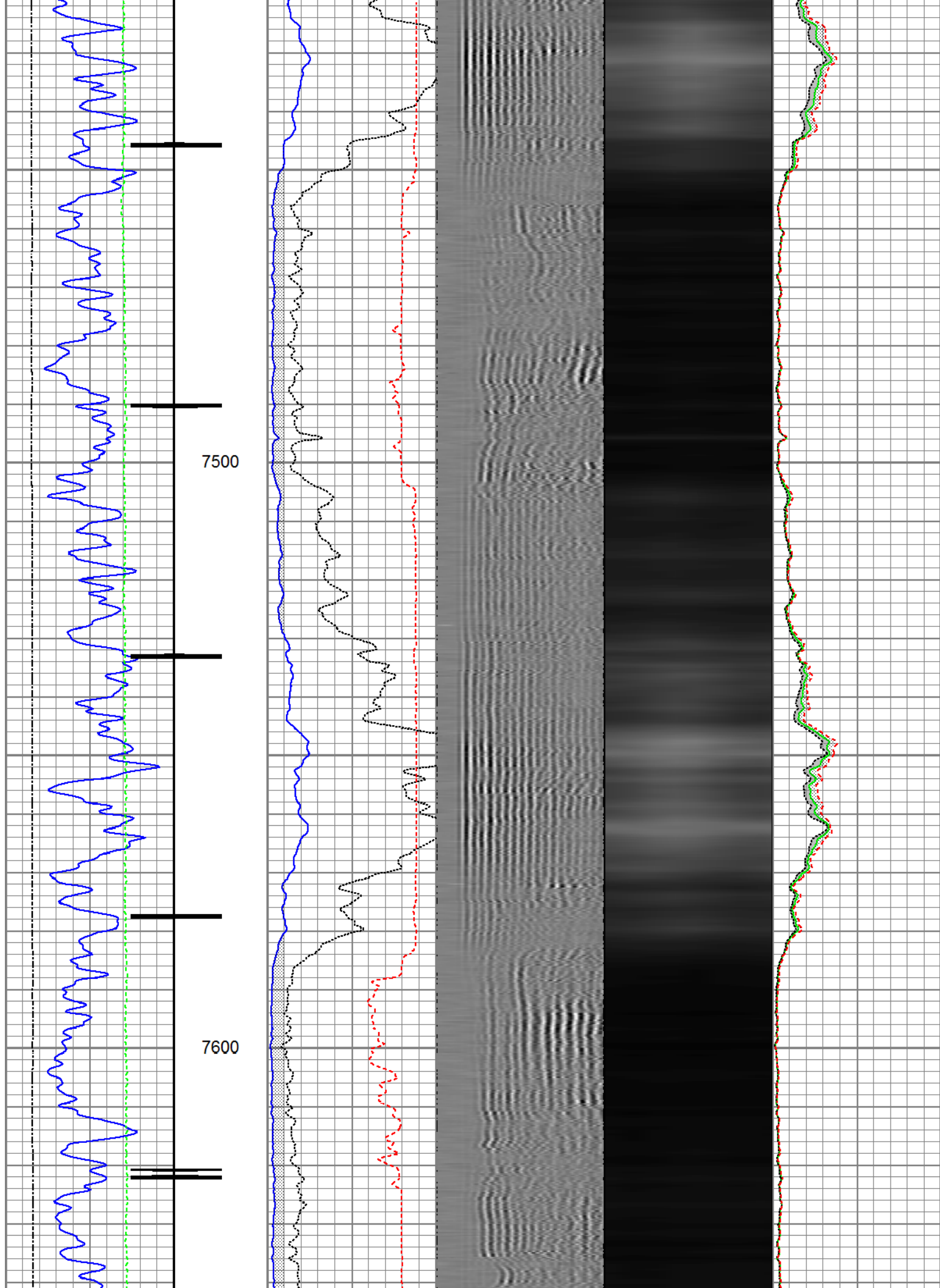


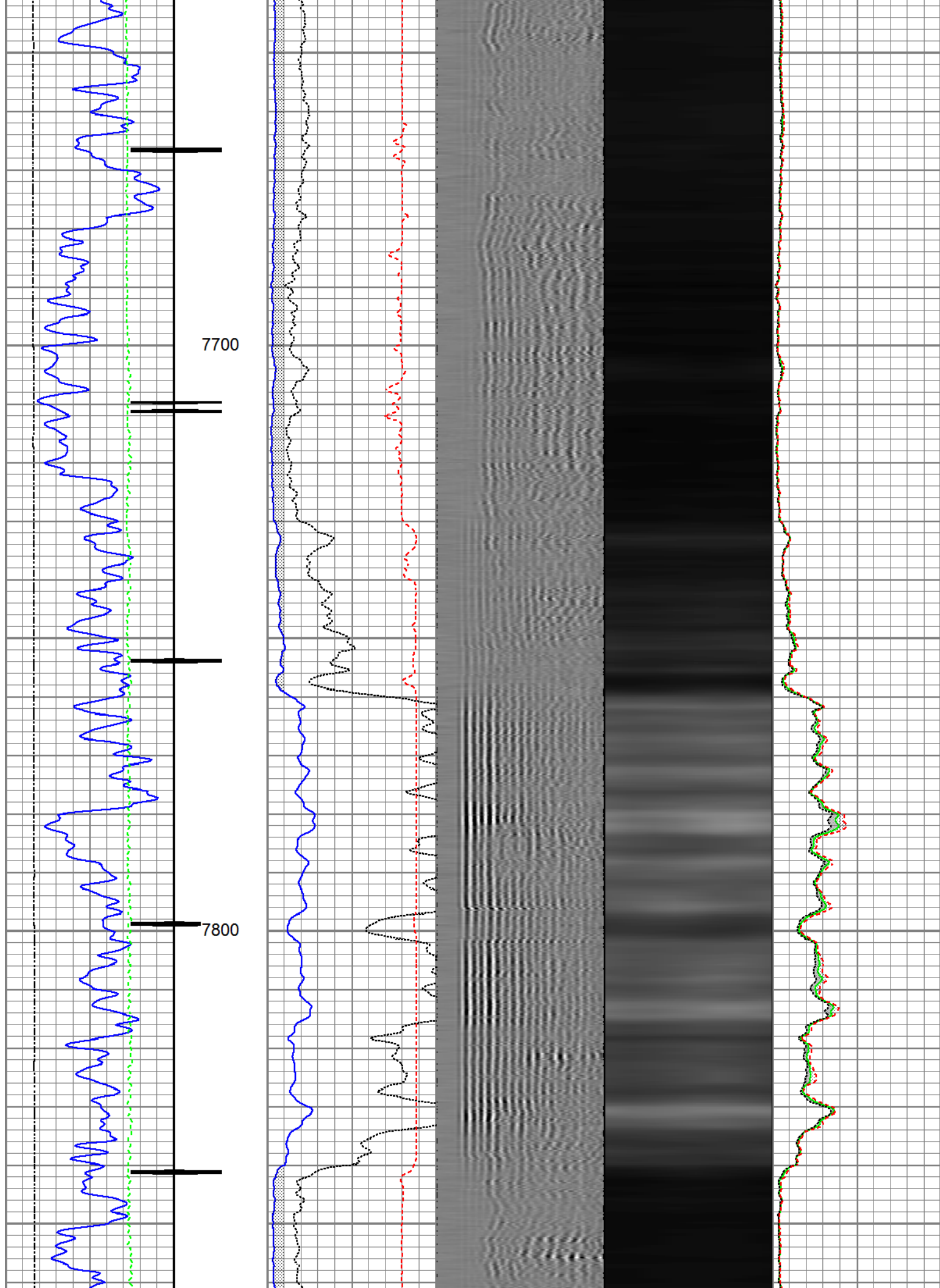


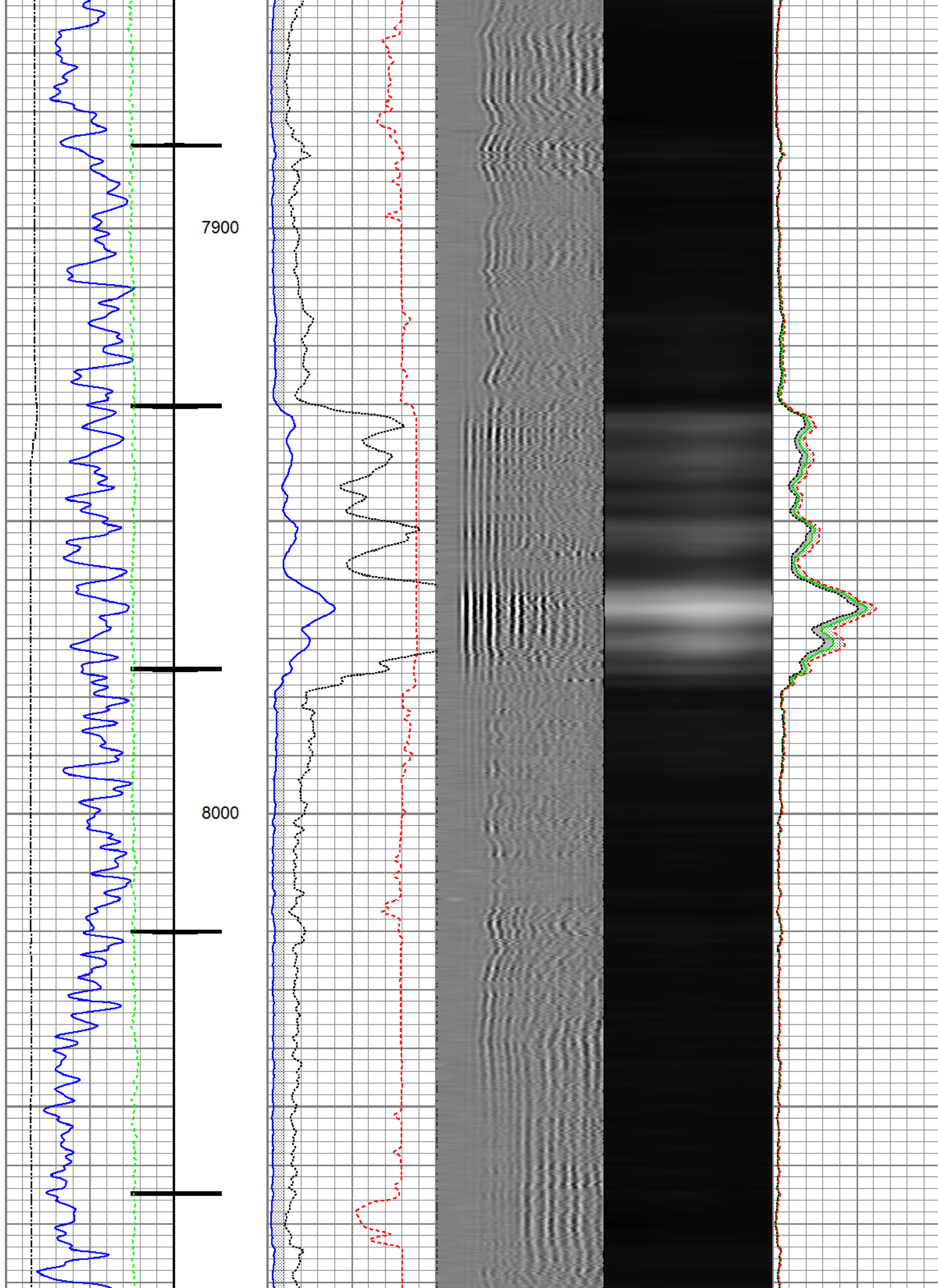


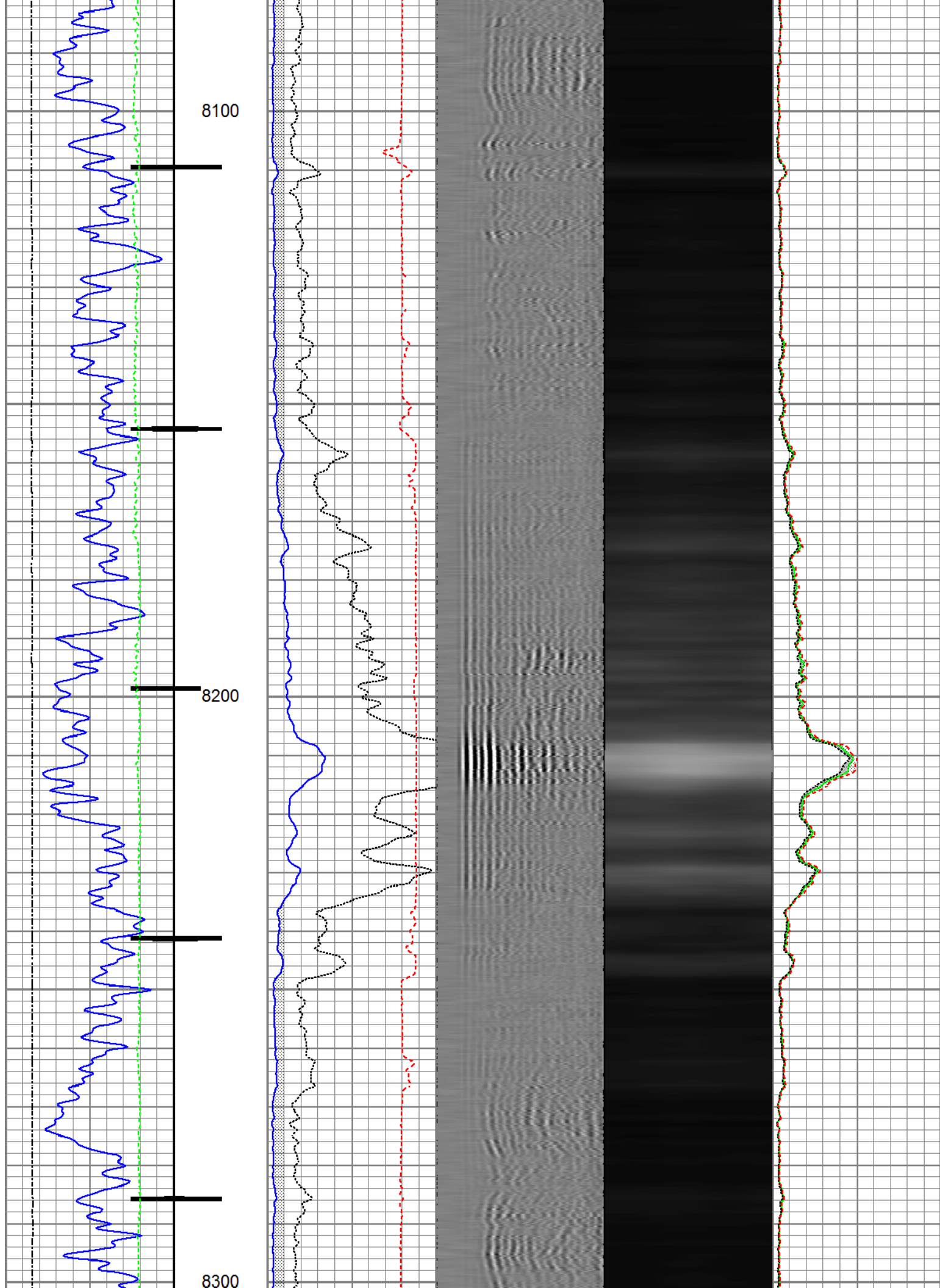


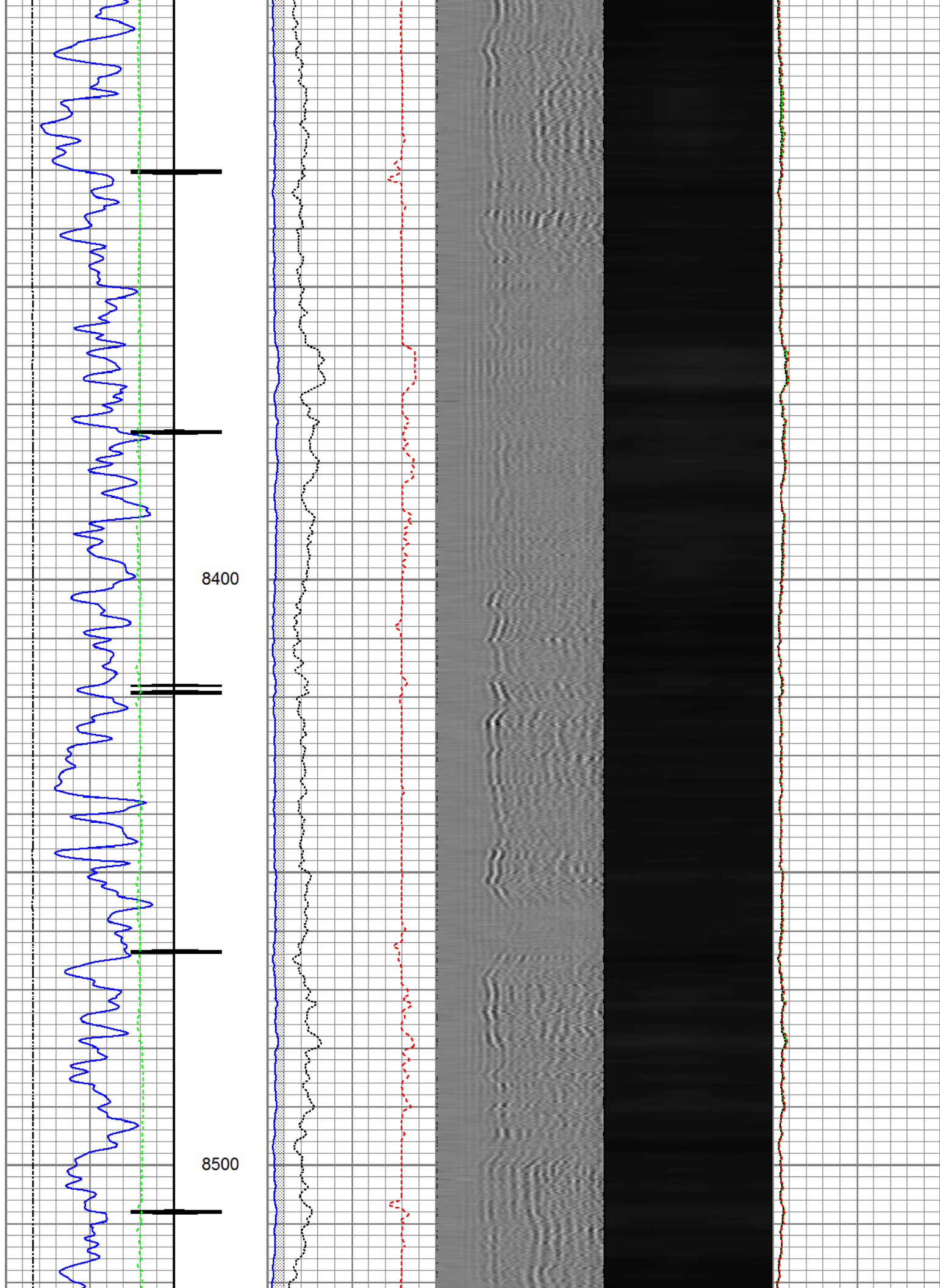


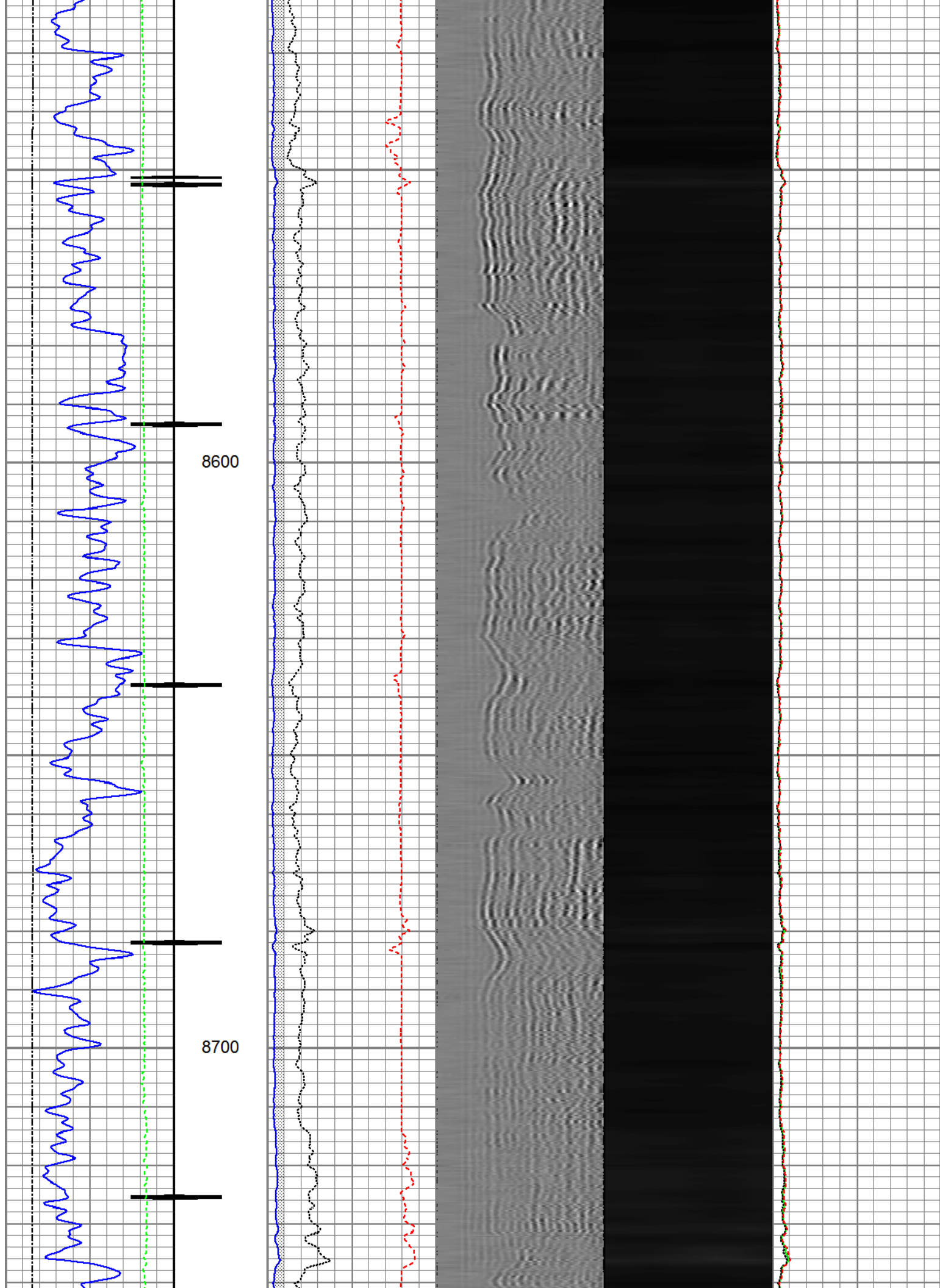


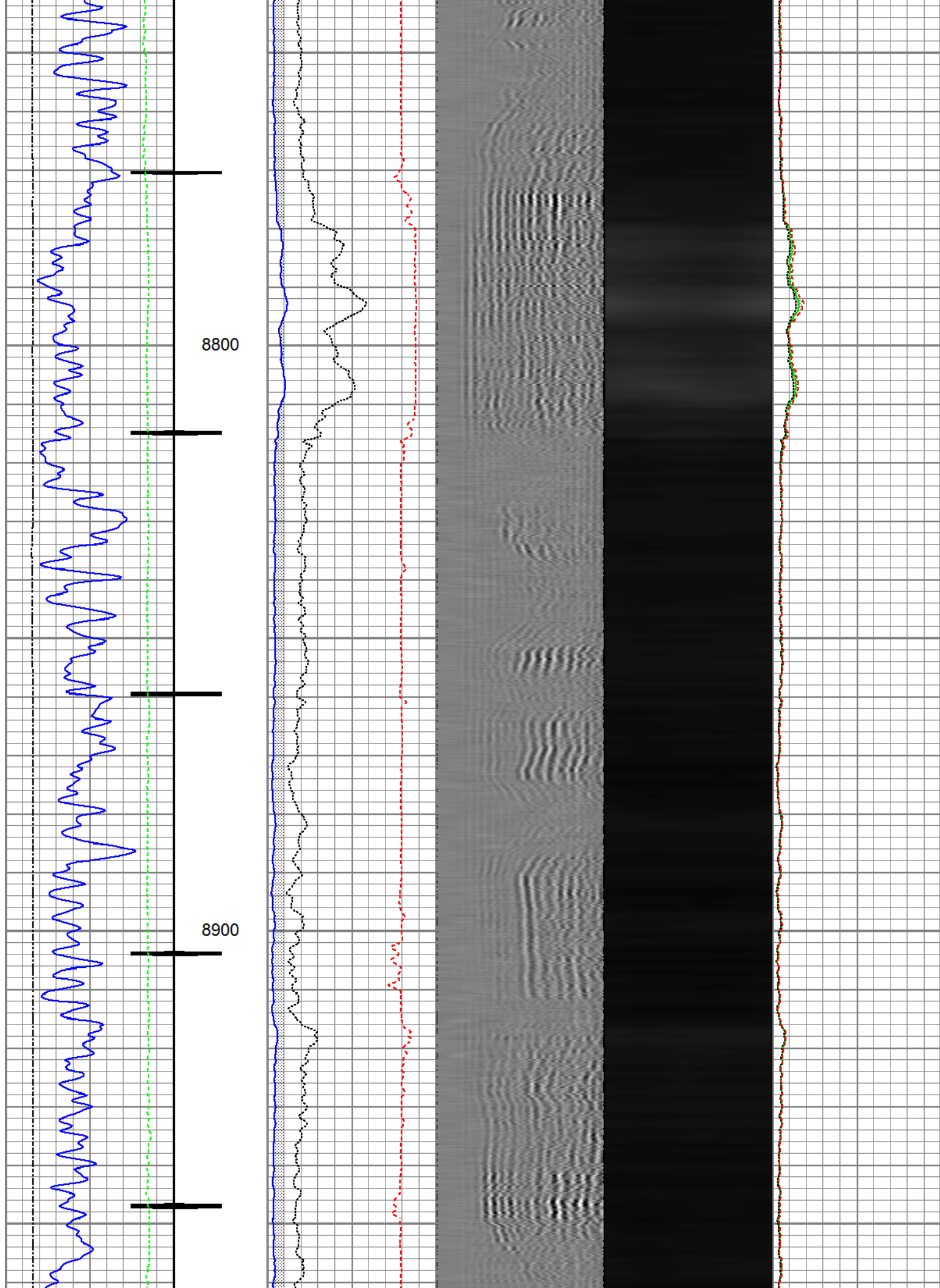


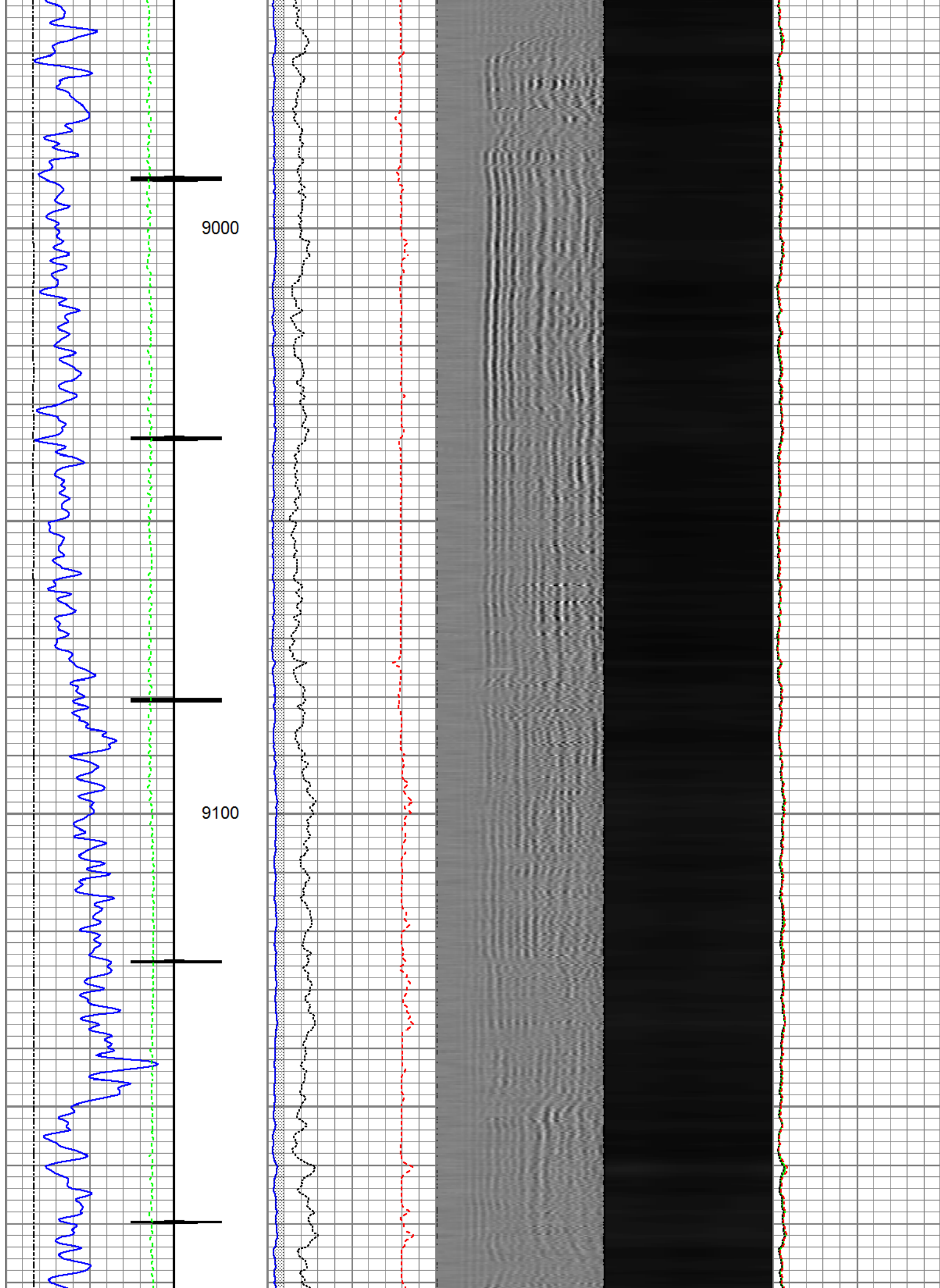


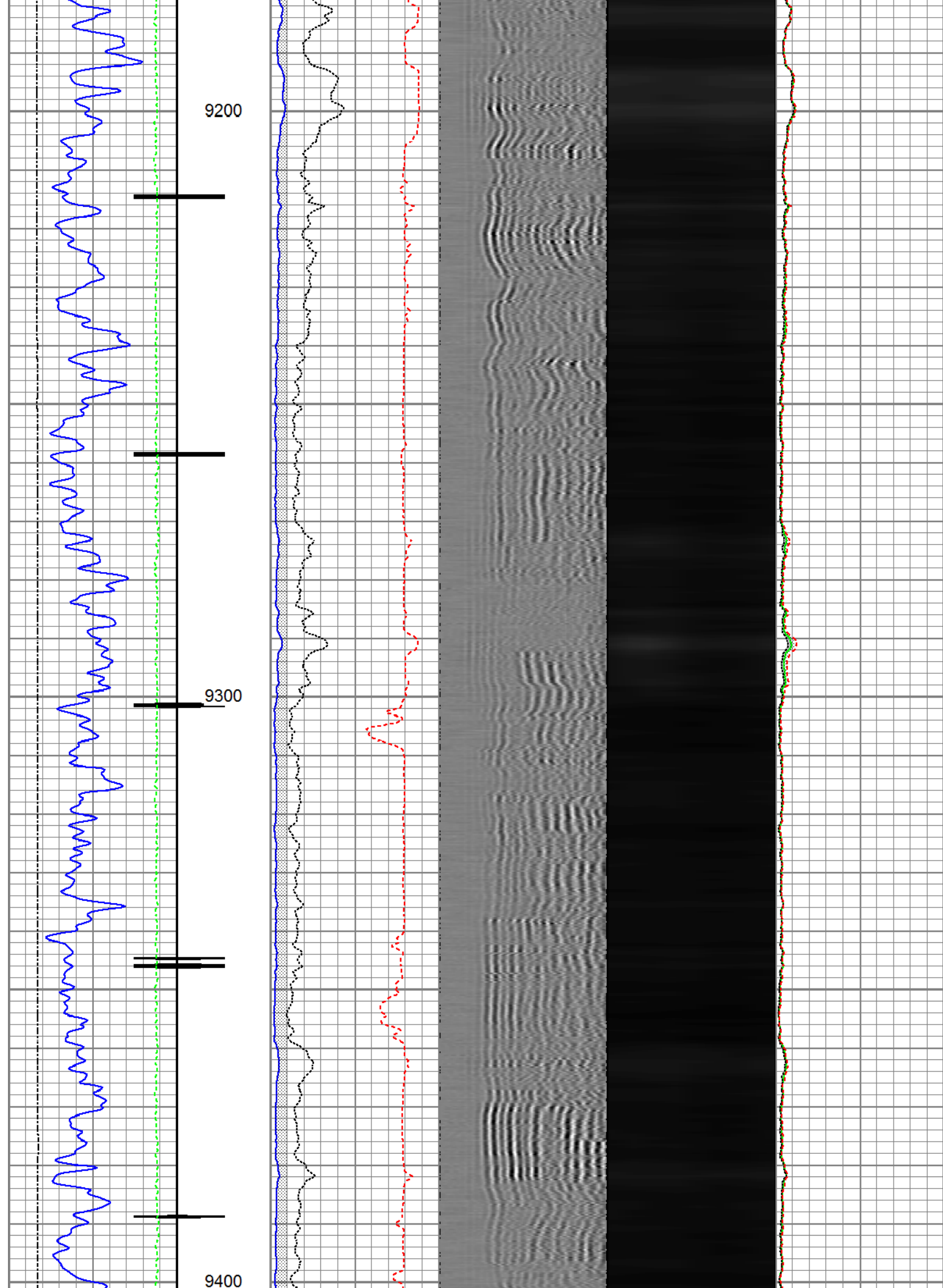


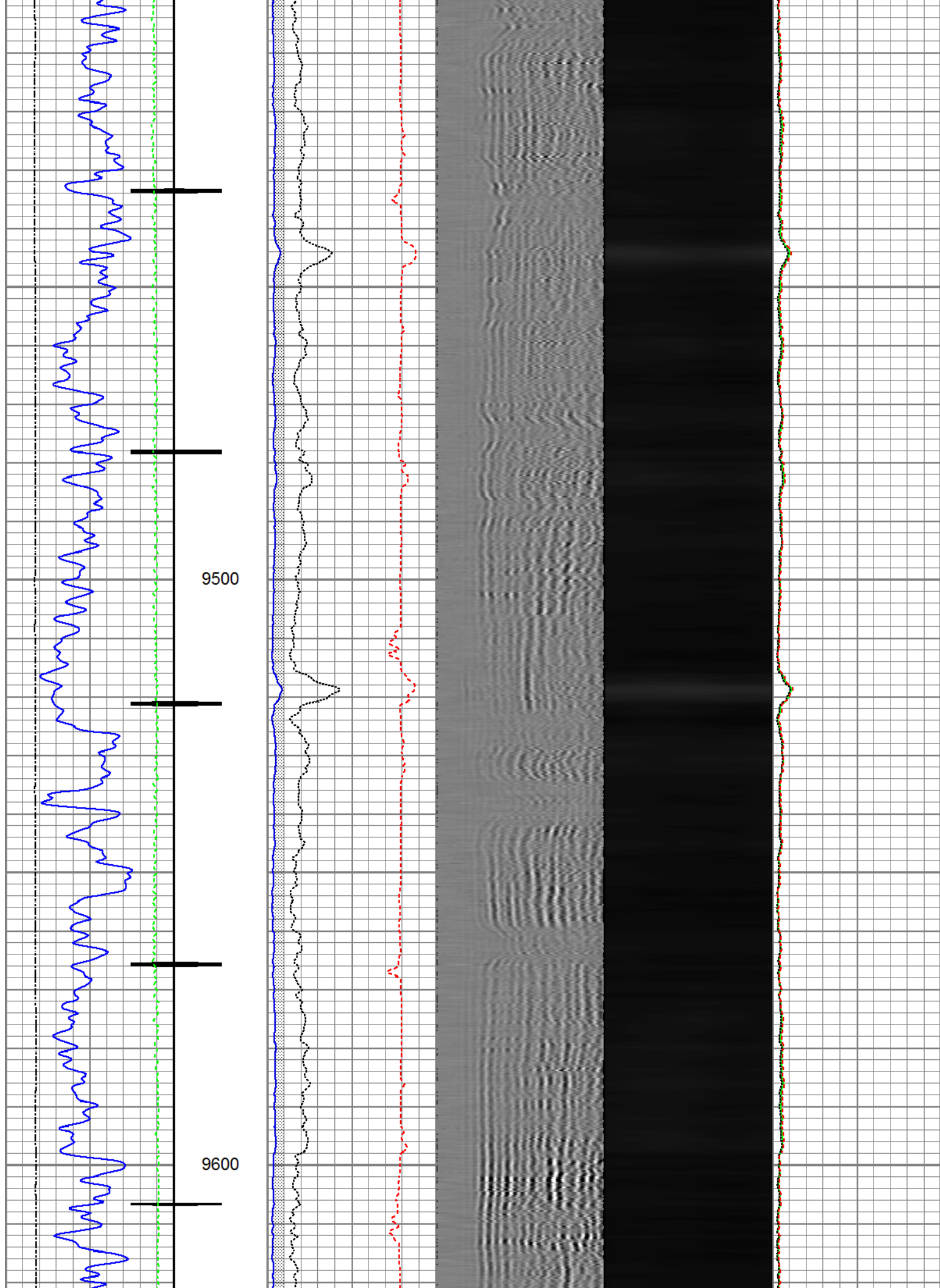


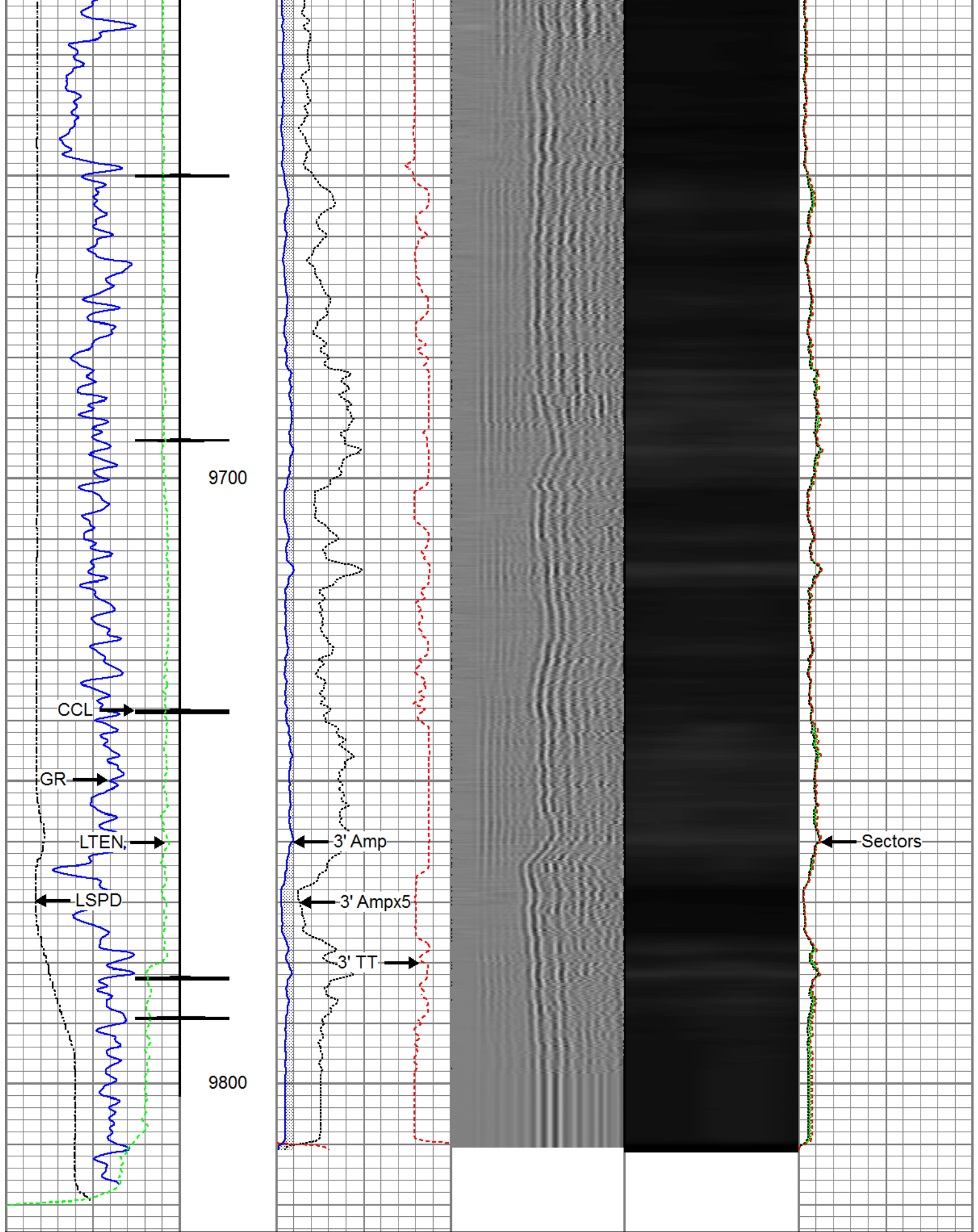












Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Minimum Amplitude
	0 100			0 100

Line Speed			3' Travel Time			Maximum Amplitude		
-150	(ft/min)	150	650	(usec)	150	0		100
Line Tension								
0	(lb)	2500						

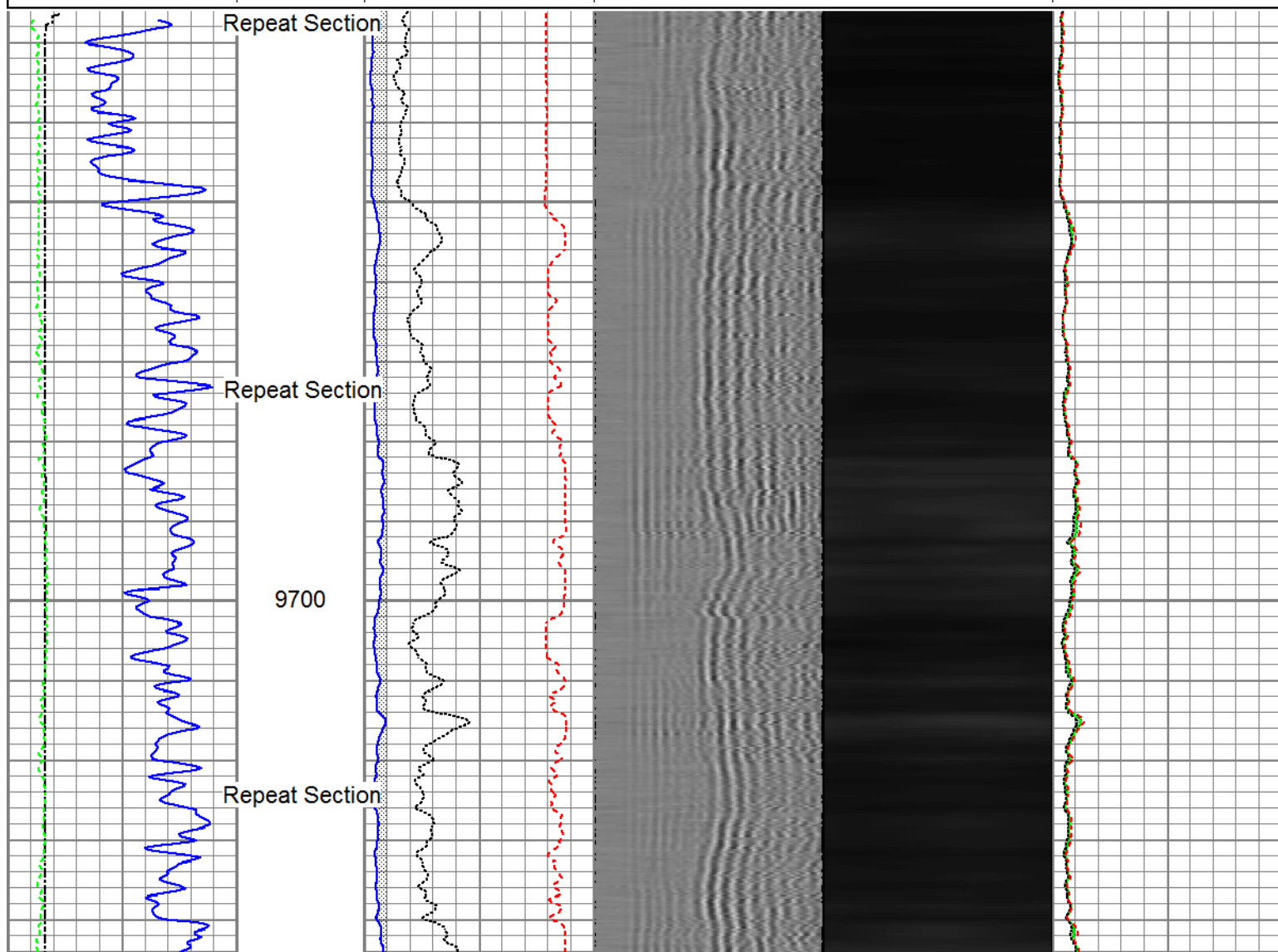


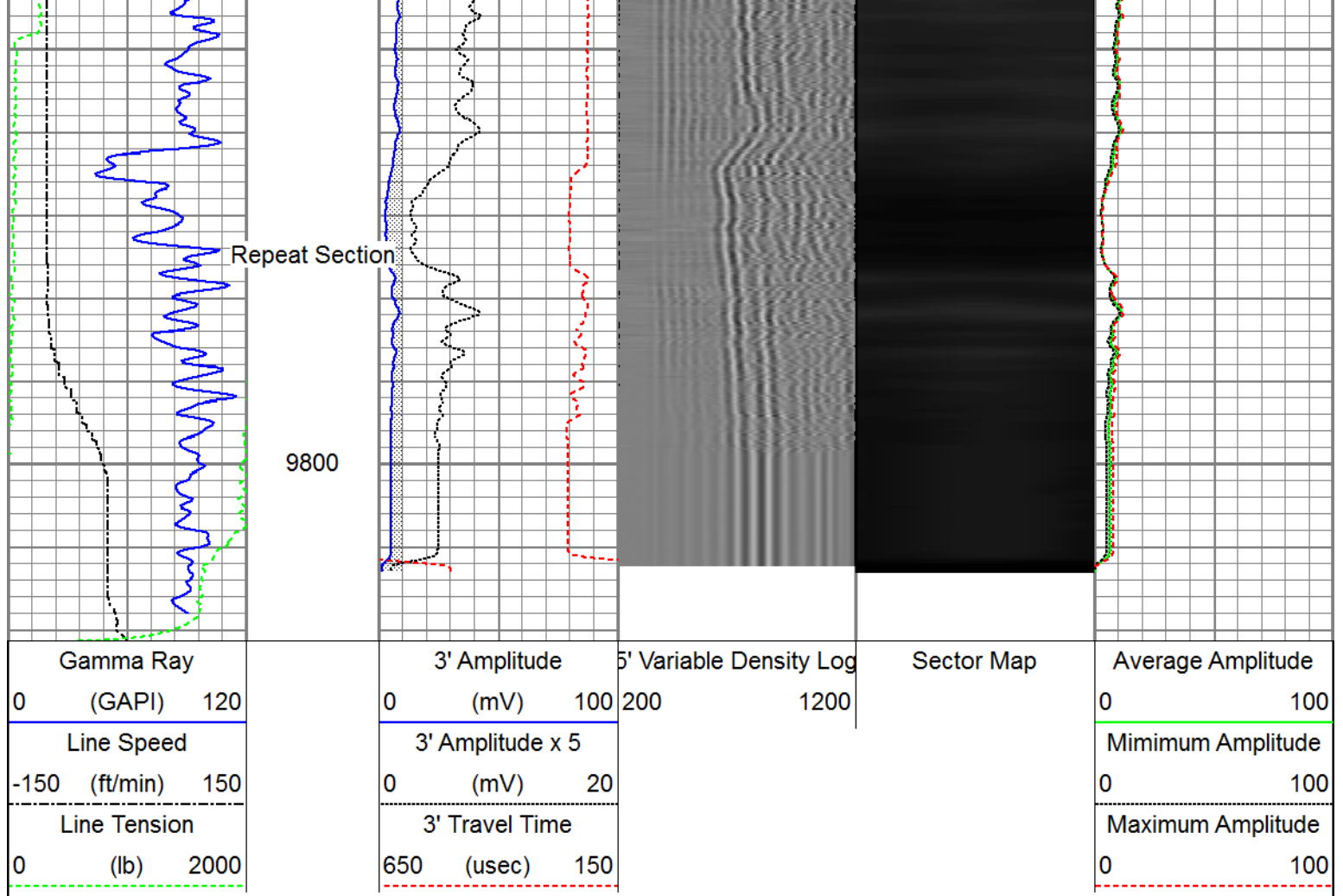
Repeat Pass

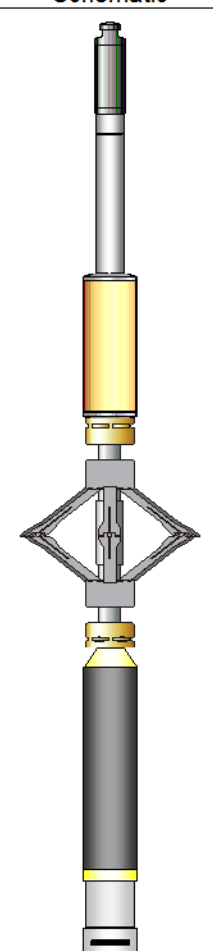
Recorded with 0 PSI Surface Induced Pressure

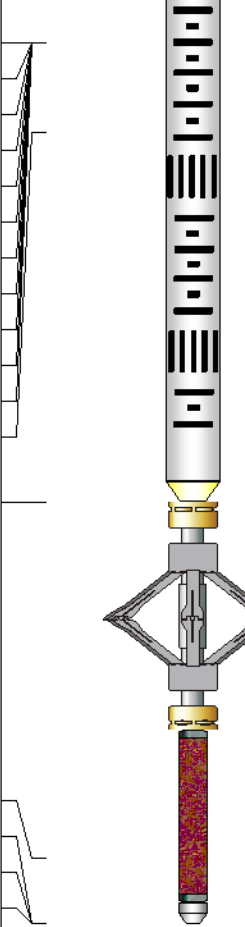
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Dataset Pathname pass2.1
Presentation Format ros_rbt004_sx
Dataset Creation Wed Mar 29 12:35:00 2017
Charted by Depth in Feet scaled 1:240

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






Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CCL	17.22		Titan_Electric_Cable_Heads-Titan_1-11/16" Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
			UW_AGS-UW_AGS_001 (219135) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW_XTU-UW_XTU_002 (10012277) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
			UW_CCL-UW_CCL_028 (10025621) 3-1/8" Ultrawire Casing Collar Locator	1.61	3.13	36.00
			UW_PRC-DSS_RAC 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00

CBLROT	9.83		UW_RBT-UW_RBT_004 (10012639) Sondex Ultrawire 3-1/8" Radial Bond Tool	9.48	3.13	140.00
CBLTEMP	9.83					
WVFS8	9.83					
WVFS7	9.83					
WVFS6	9.83					
WVFS5	9.83					
WVFS4	9.83					
WVFS3	9.83					
WVFS2	9.83					
WVFS1	9.83					
WVF3FT	9.83					
WVF5FT	8.83					
CBLTEMP	4.69					
			UW_PRC-DSS_RAC 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
GR	0.72		UW_PGR-UW_PGR_020 (10019371) Production Gamma Ray	1.92	1.69	9.50
HVOLTX	0.00					
ITEMPX	0.00		UW_BUL-UW_BUL_006 (031422) Sondex Ultrawire Bullnose Terminator	0.22	1.69	1.20
TSTAMP	0.00					
Dataset:		PROCESSED_TEP_Chevron TR 13-21-597_03-27-17_RBL_REVISED.db: field/well/run1/pass3				
Total length:		21.14 ft				
Total weight:		263.60 lb				
O.D.:		3.13 in				

Calibration Report		
Database File	c:\programdata\warrior\data\tep_chevron tr 13-21-597_03-27-17_rbl\processed_tep_chevron tr 13-21-	
Dataset Pathname	pass3.1	
Dataset Creation	Wed Mar 29 12:16:26 2017	
Gamma Ray Calibration Report		
Serial Number:	10019371	
Tool Model:	UW_PGR_020	
Performed:	(Not Performed)	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps
Segmented Cement Bond Log Calibration Report		
Serial Number:	10012639	
Tool Model:	UW_RBT_004	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	267.879	ft
Master Calibration, performed Mon Mar 27 10:30:35 2017:		
Raw (v)	Calibrated (mv)	Results

	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.002	1.009	0.800	81.196	70.381	0.957
5FT	-0.003	0.789	0.800	81.196	89.745	1.117
S1	-0.002	0.961	0.000	100.000	103.890	0.201
S2	-0.003	0.927	0.000	100.000	107.468	0.339
S3	-0.003	0.946	0.000	100.000	105.340	0.359
S4	-0.003	0.992	0.000	100.000	100.416	0.344
S5	-0.002	1.031	0.000	100.000	96.830	0.192
S6	-0.003	1.065	0.000	100.000	93.584	0.300
S7	-0.003	1.040	0.000	100.000	95.865	0.260
S8	-0.002	0.994	0.000	100.000	100.355	0.239

	Company	TEP Rocky Mountain LLC
	Well	Chevron TR 13-21-597
	Field	Trail Ridge
	County	Garfield
	State	Colorado