



Radial Cement Bond  
Variable Density Log  
W/Gamma Ray/CCL

Company		Noble Energy							
Well		Bulleit Federal PC LG04-62HN							
Field		Wattenberg							
County		Weld							
State		Colorado							
Location:		API # : 05-123-38758							
SEC 4 TWP 8N RGE 59W		Other Services Temp							
Permanent Datum		Ground Level		Elevation					
Log Measured From		24' Kelly Bushing		4814'					
Drilling Measured From		Kelly Bushing		Elevation					
Date		March 10, 2014		K.B. 4838'					
Run Number		1		D.F. 4837'					
Depth Driller		10292'		G.L. 4814'					
Depth Logger		6285'							
Bottom Logged Interval		6272'							
Top Log Interval		Surface							
Open Hole Size		8.75							
Type Fluid		Fresh Water							
Density / Viscosity		8.33							
Max. Recorded Temp.		221 Deg F							
Estimated Cement Top		2418'							
Time Well Ready		14:02							
Time Logger on Bottom		14:35							
Equipment Number		13033							
Location		Brighton							
Recorded By		Cody Rall							
Witnessed By		B. Mansfield							
Run Number		Bit		From	To	Size	Weight	From	To
One									
Two									
Three									
Four									
Casing Record		Size		Wgt/Ft		Top		Bottom	
Surface String		9 5/8		36#		Surface		1516'	
Prot. String									
Production String		7		26#		Surface		6429'	
Liner		4 1/2		11 6#		Surface		10292'	
Short Joint						5040'		5054'	

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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

Primary Log on Well. Well Logged using 24' KB.

Main Pass & Repeat Pass logged w/o PSI

Estimated Top Of Cement @ 2418'  
Short Joint @ 5040' to 5054'

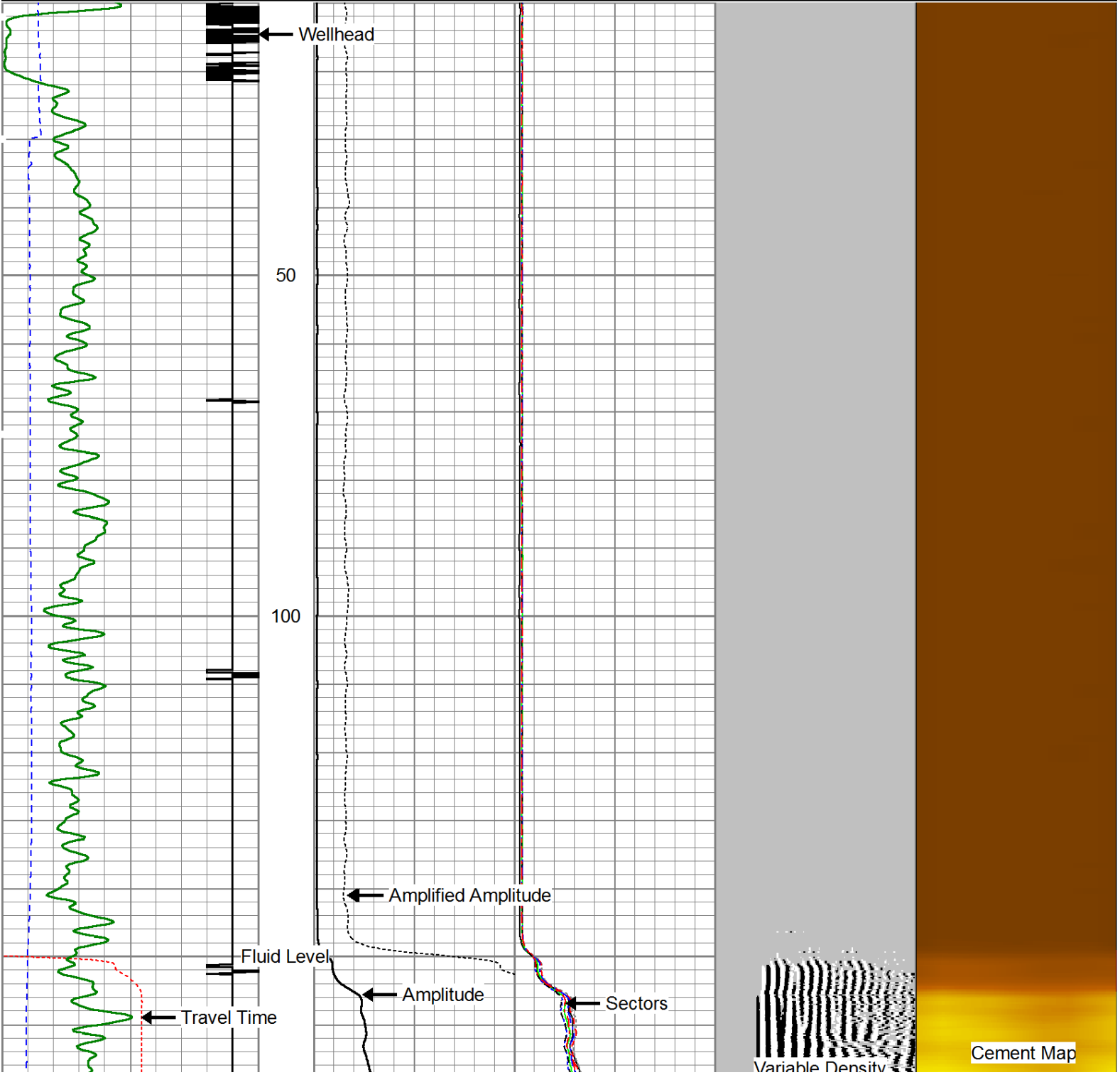
Logging Speed Requested By Company Representative  
Thank you for using Allied Wireline  
(303)659-4609

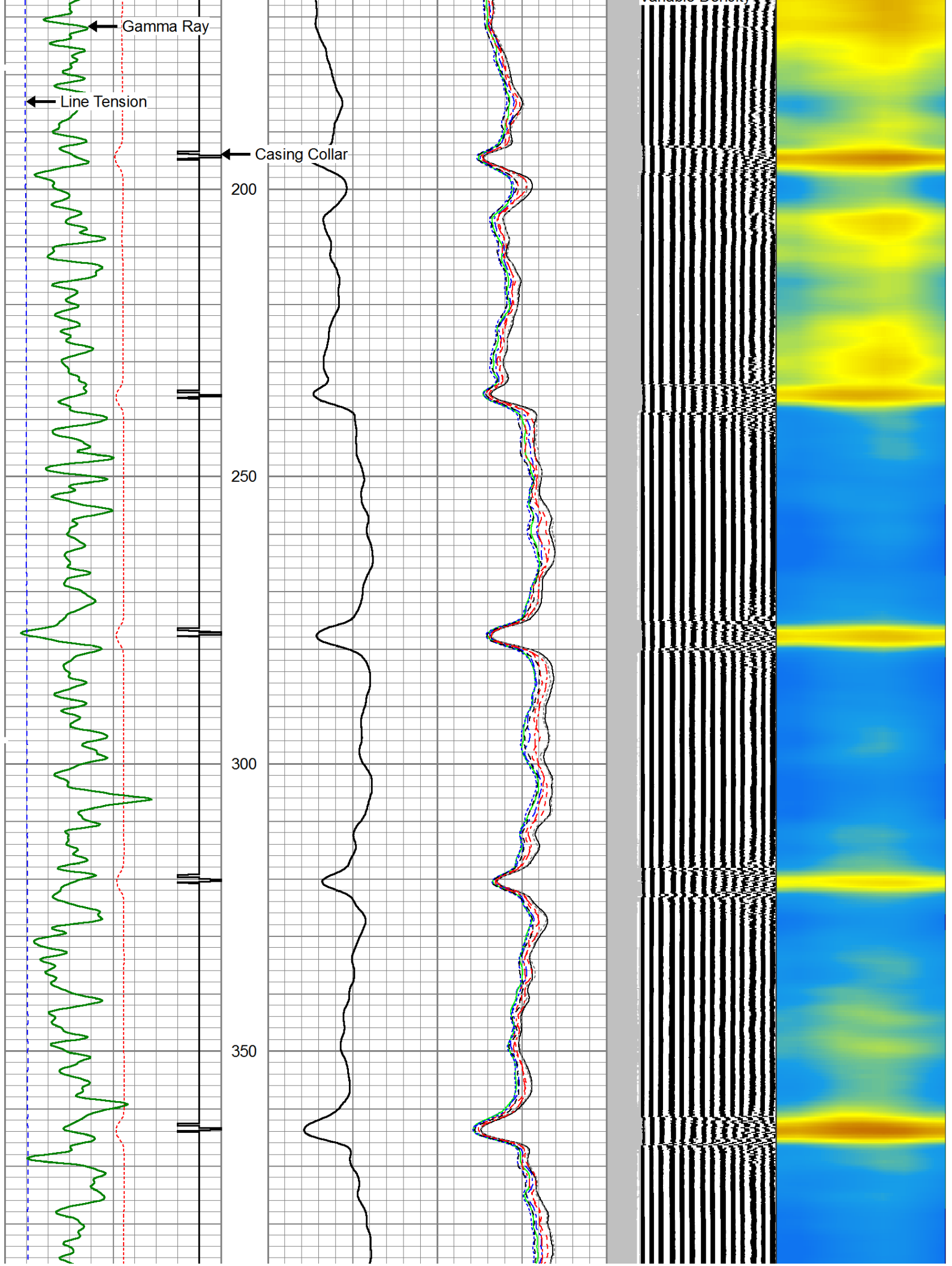


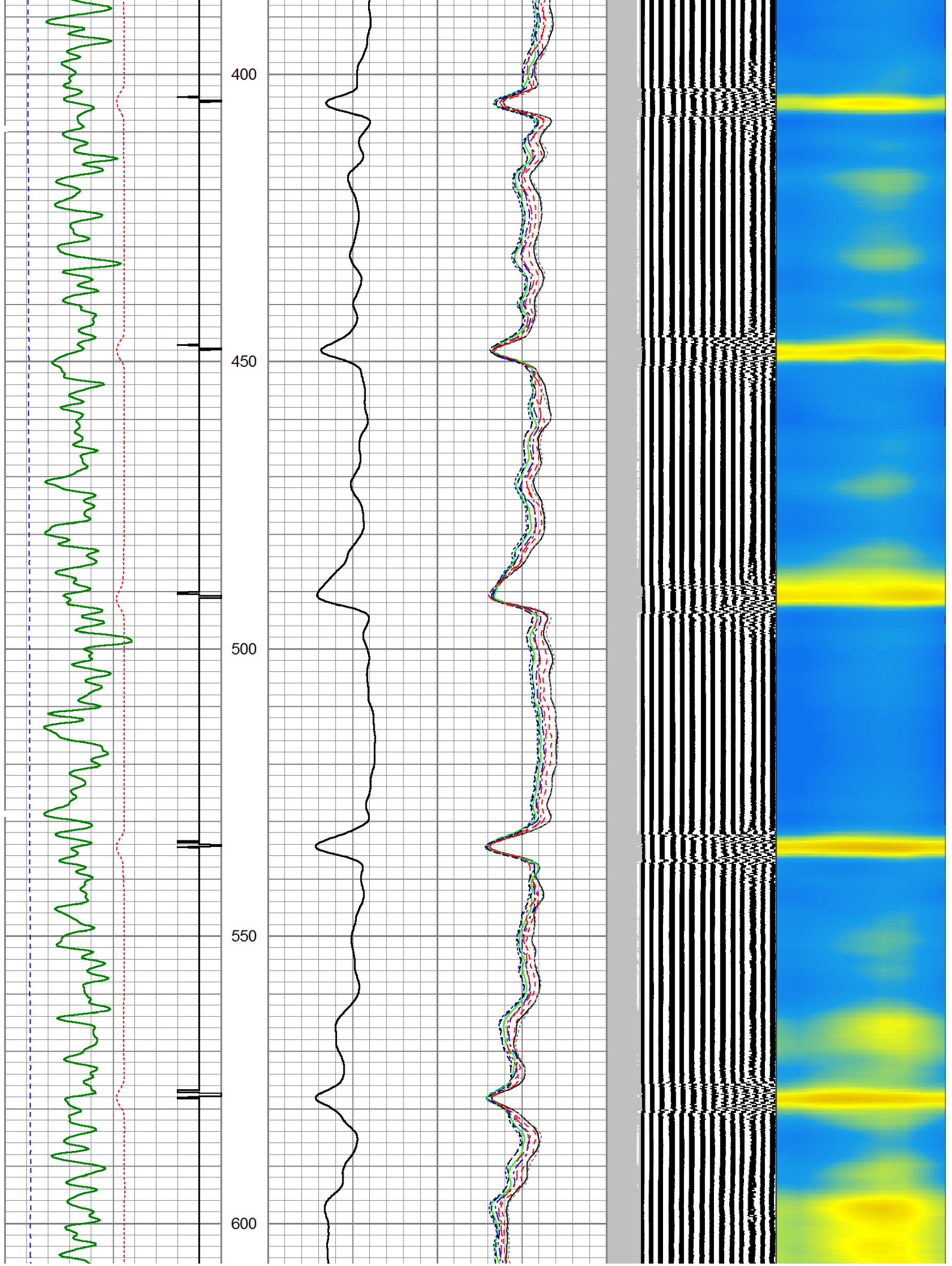
Main Pass ( 0 PSI )

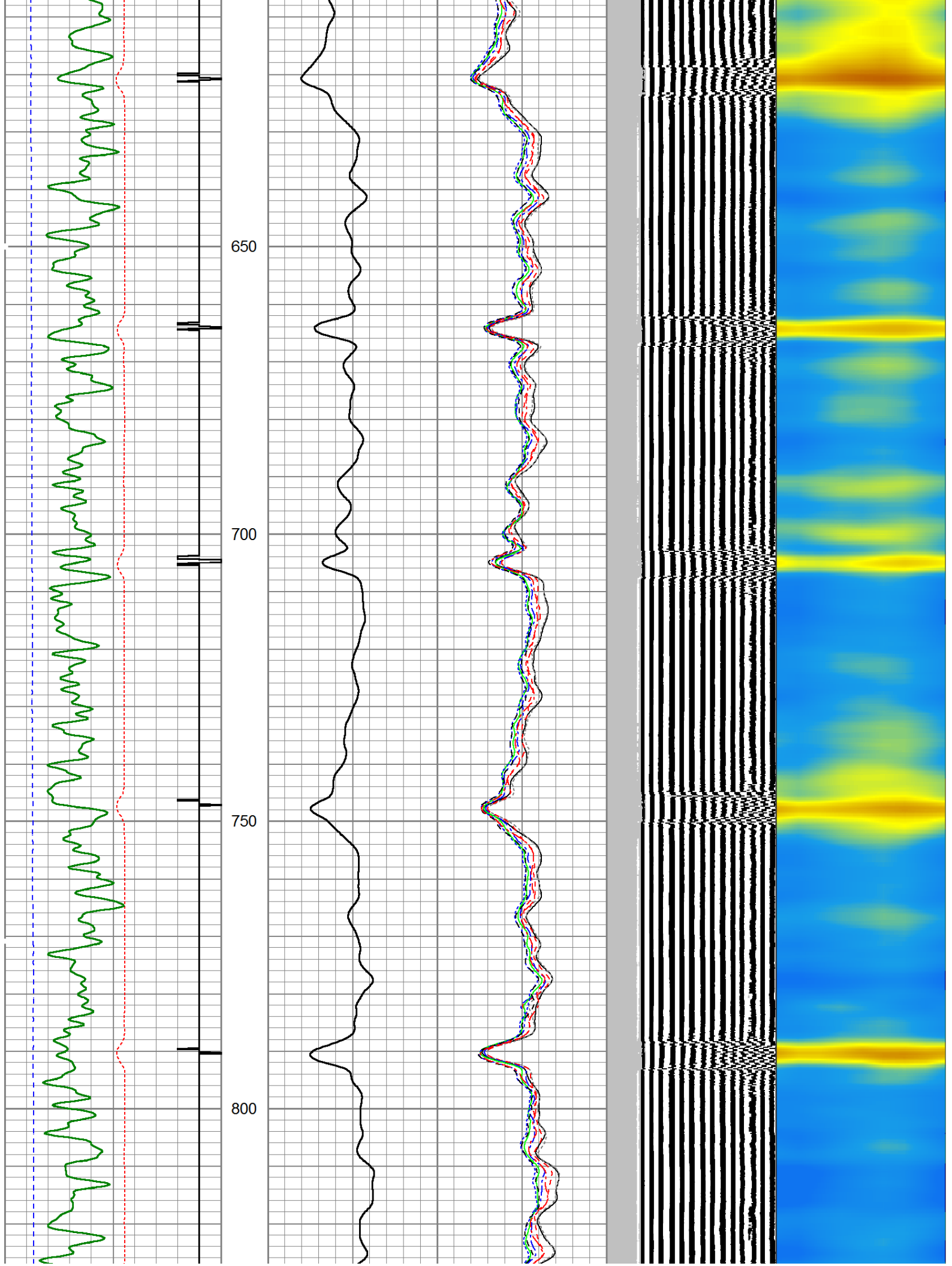
Database File: noble energy bulleit federal pc lg04-62hn\_rcbl.db  
Dataset Pathname: pass5.1  
Presentation Format: scbl03  
Dataset Creation: Mon Mar 10 15:48:26 2014 by Calc 0  
Charted by: Depth in Feet scaled 1:240

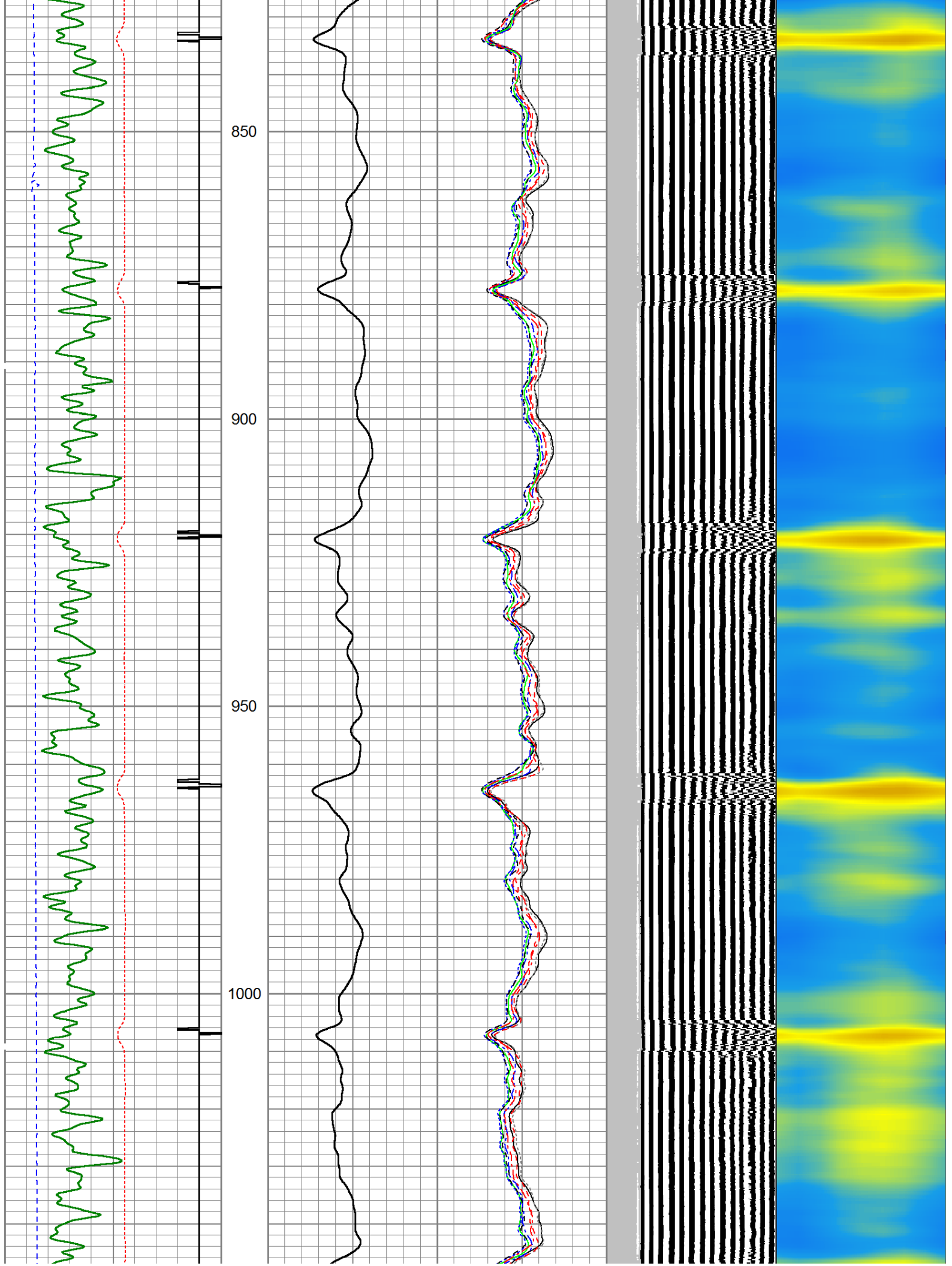
400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density		1	Cement Map	8
9	Casing Collar	-1		Amplified Amplitude		-5	AMPS2	150			0		100
0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150					
0	Line Tension (lb)	2000				-5	AMPS4	150					
						-5	AMPS5	150					
						-5	AMPS6	150					
						-5	AMPS7	150					
						-5	AMPS8	150					



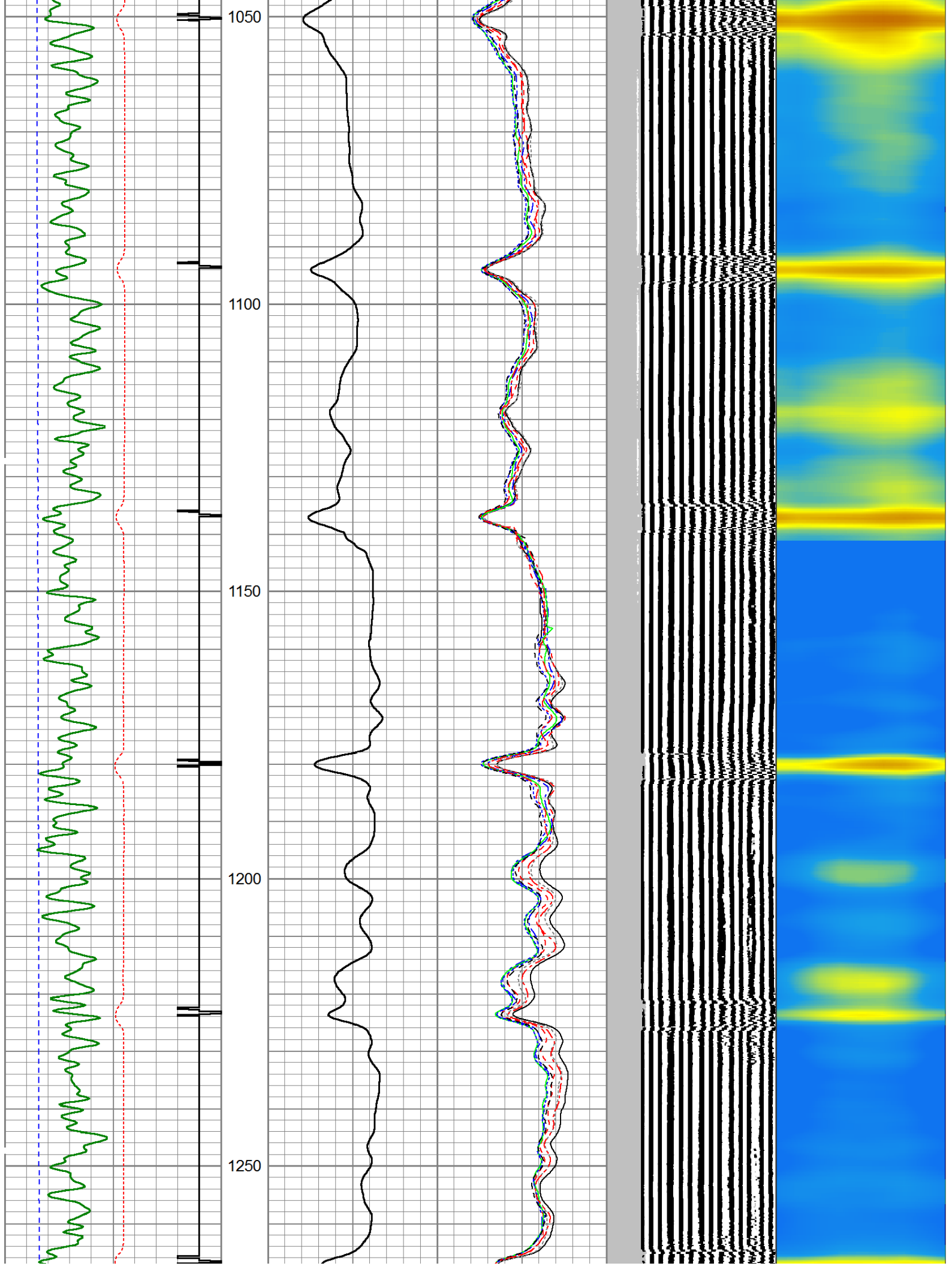


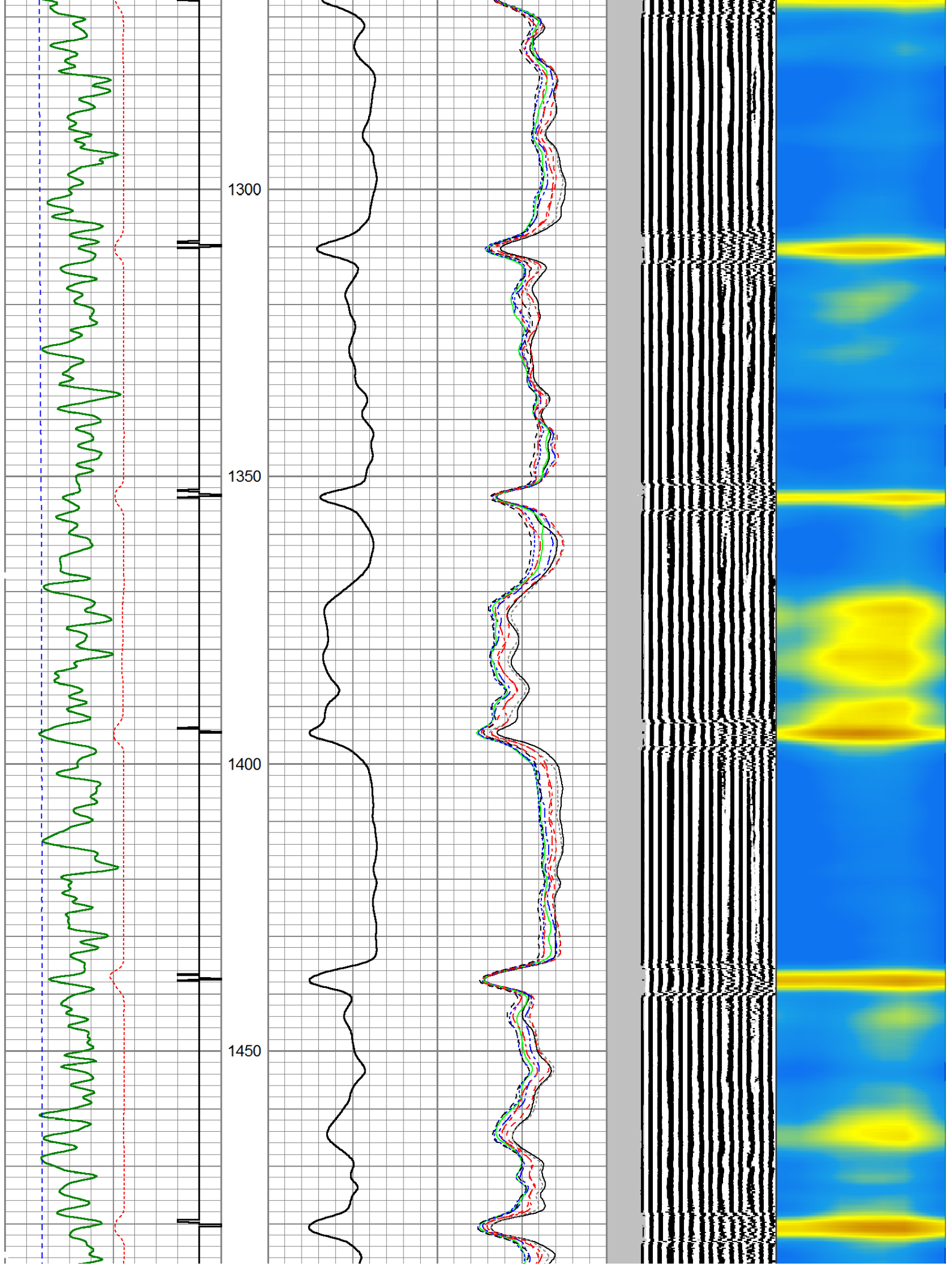




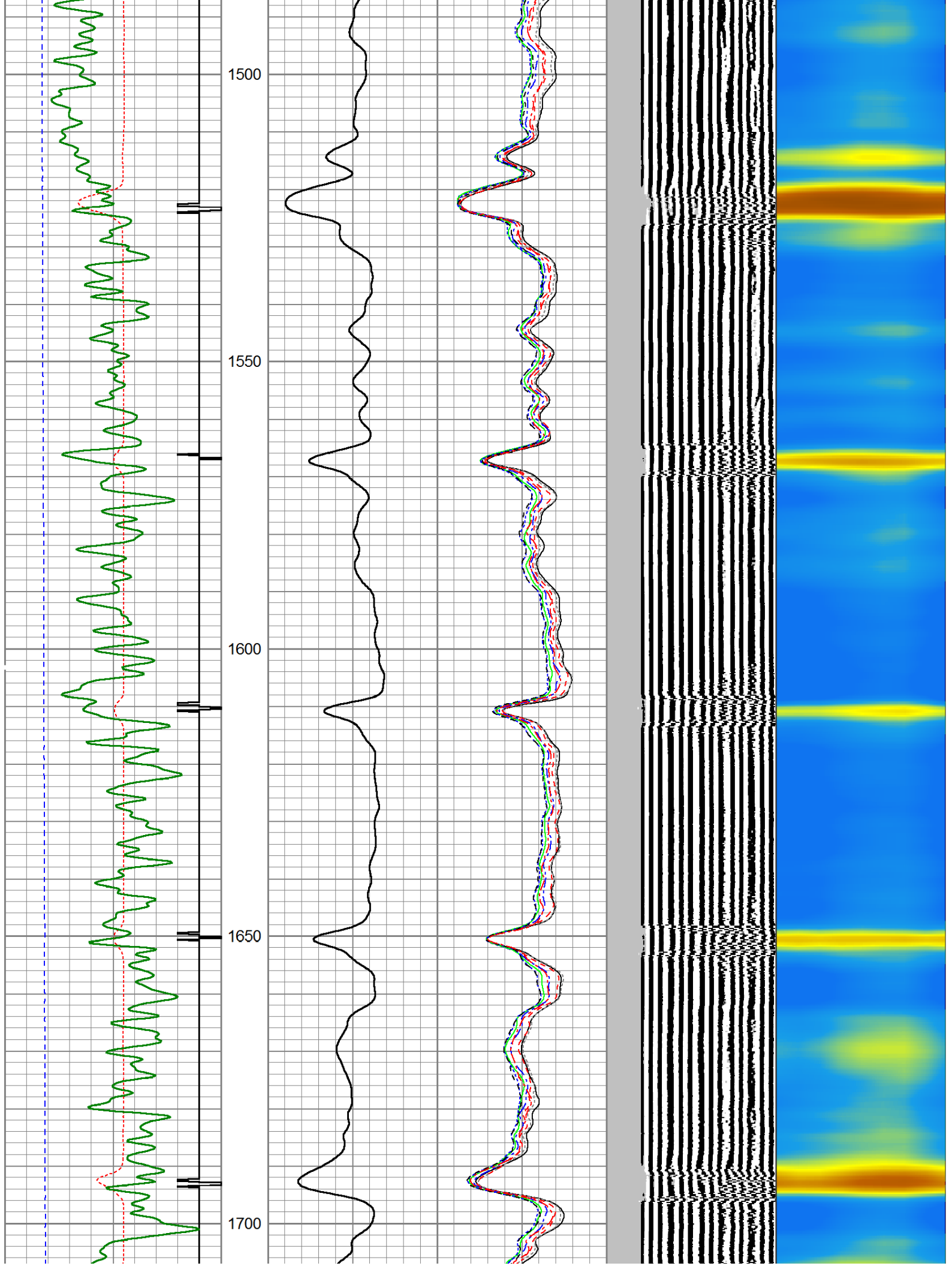


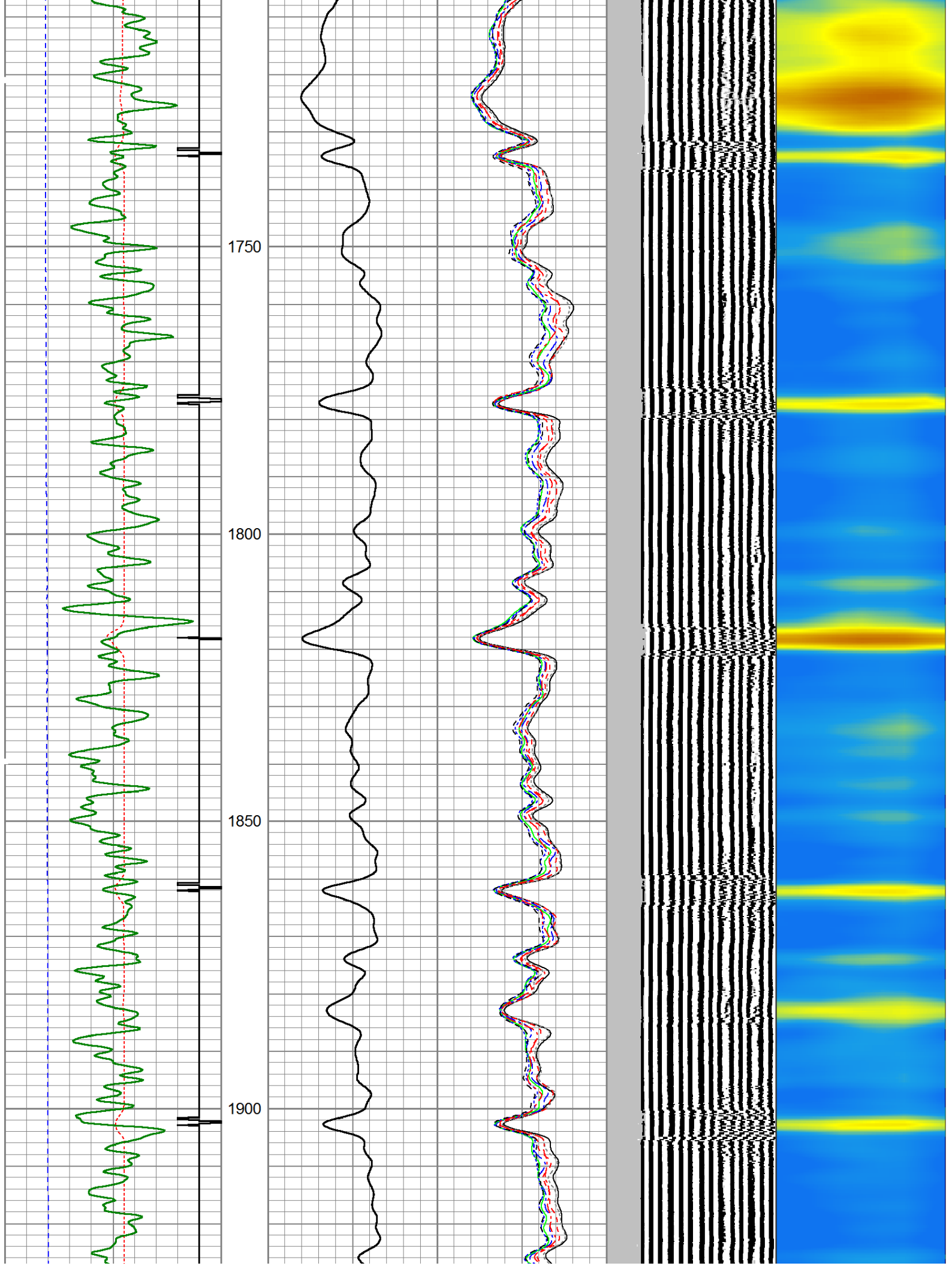


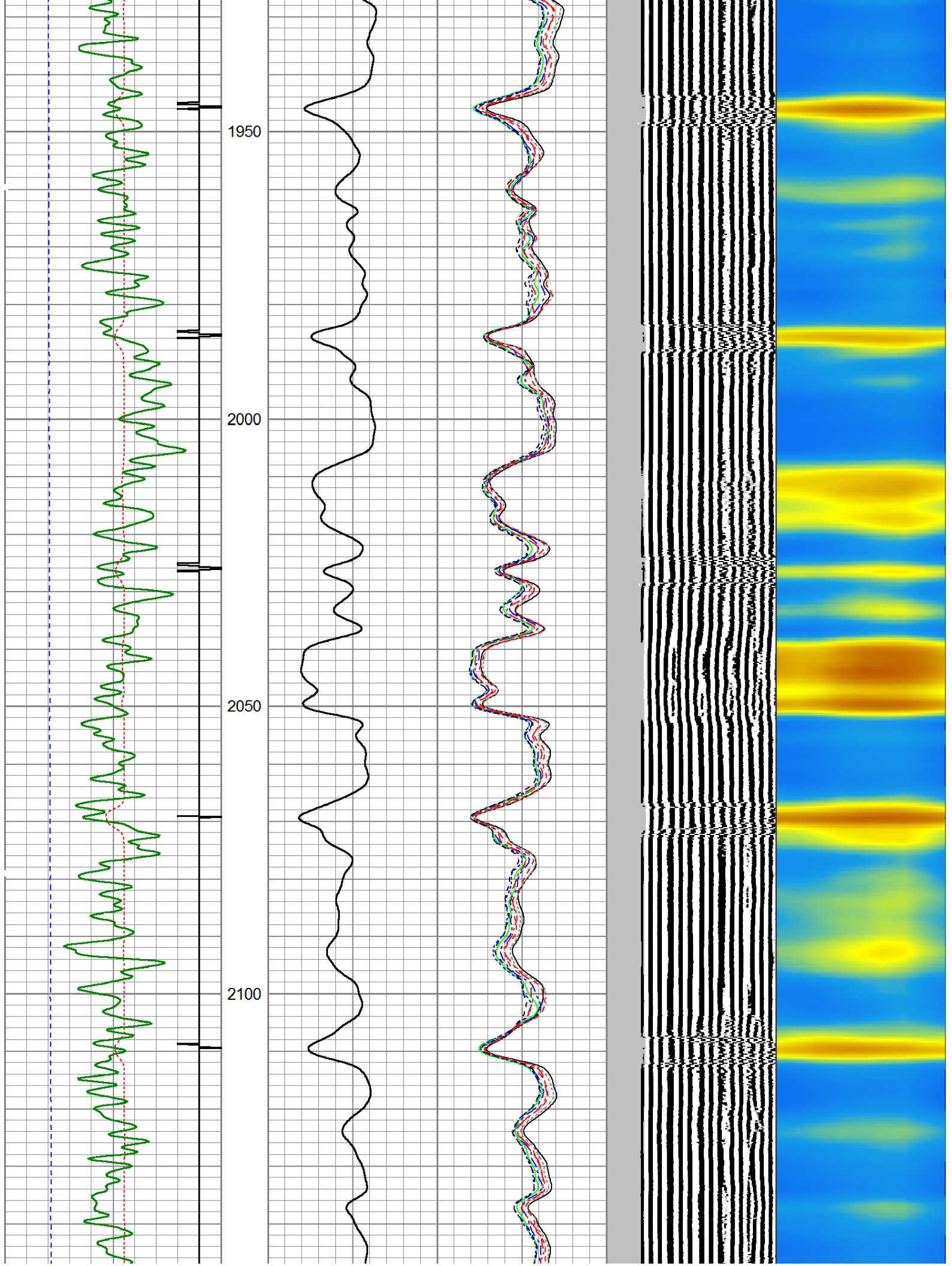


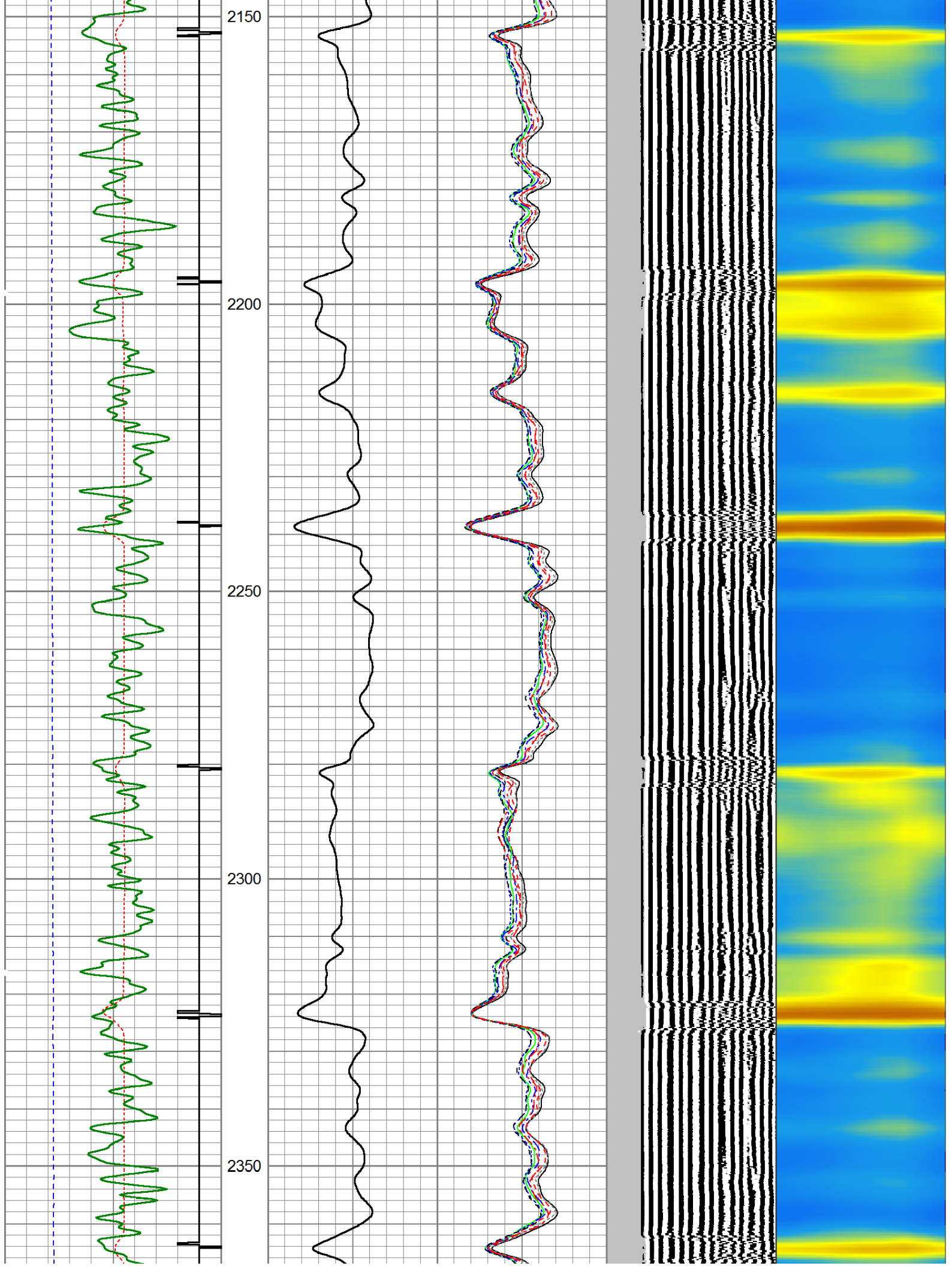


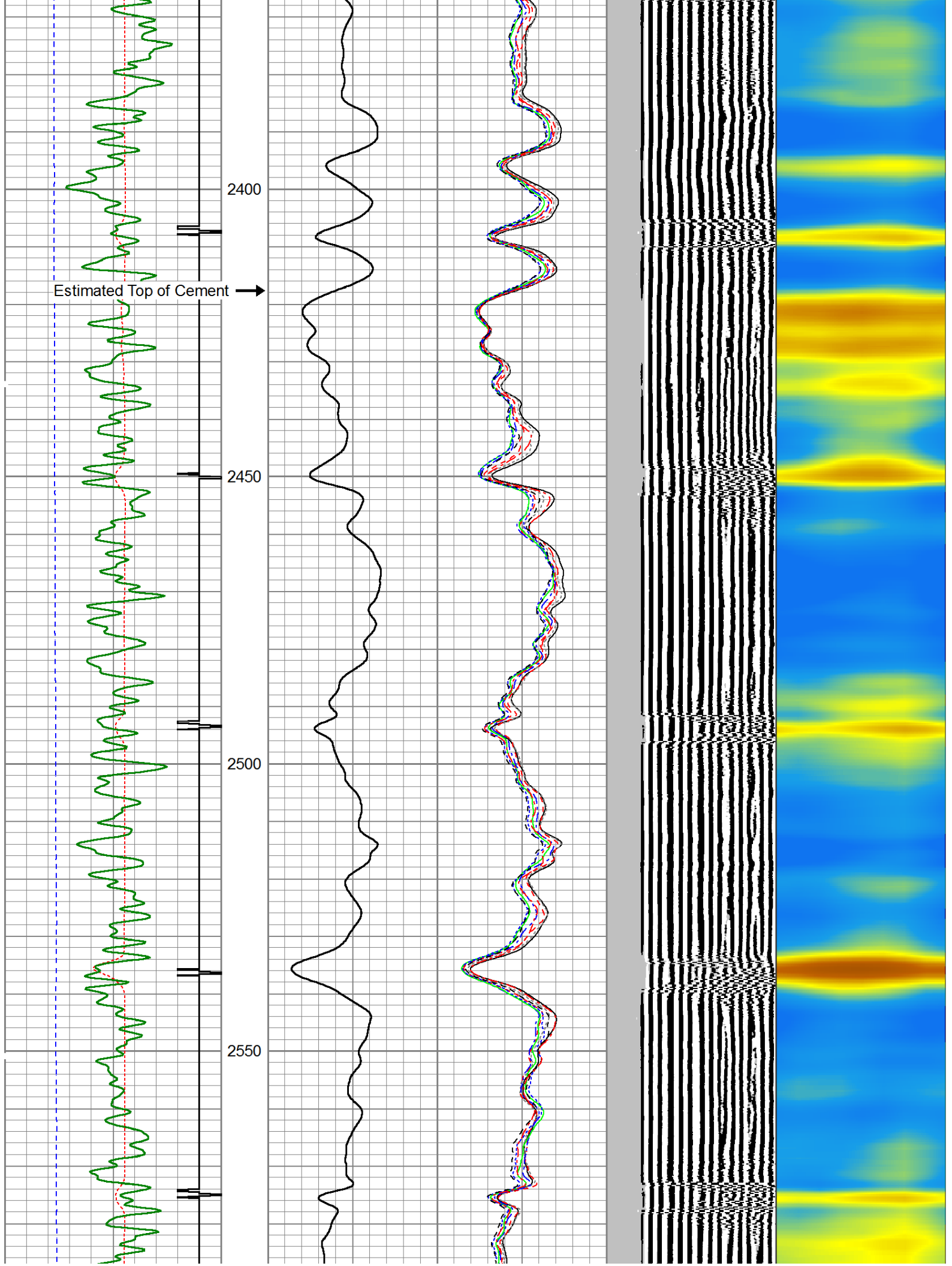




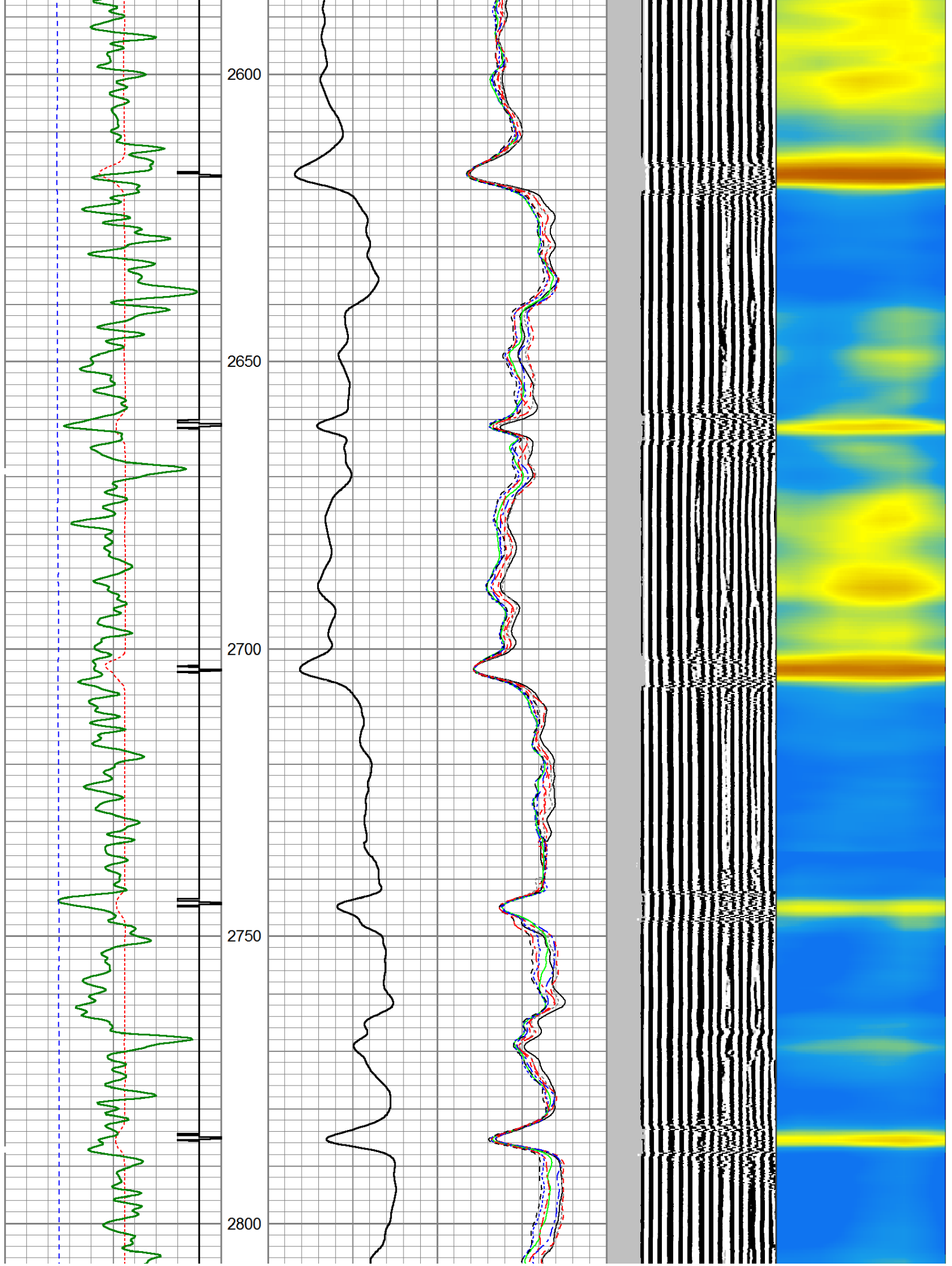




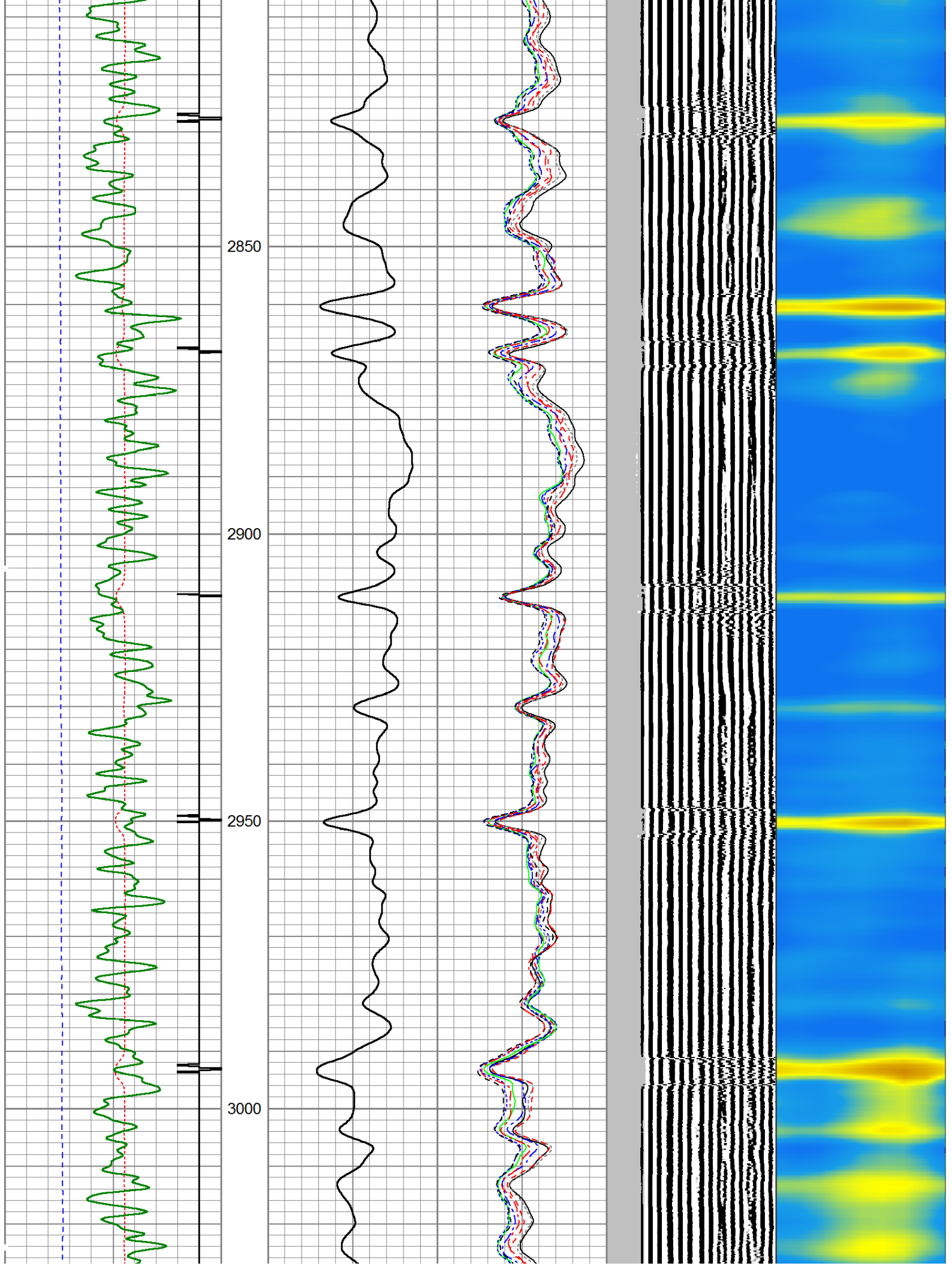


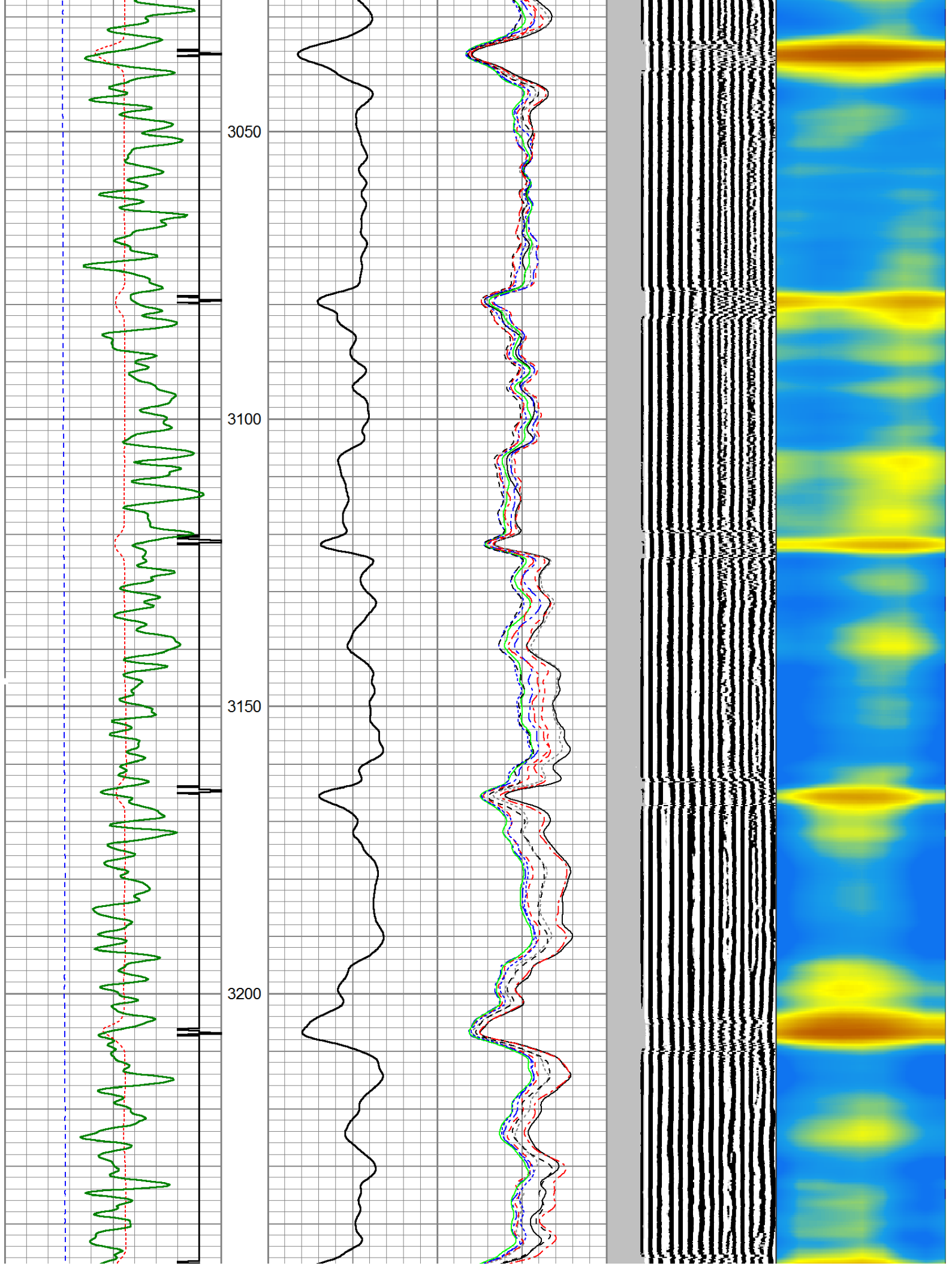


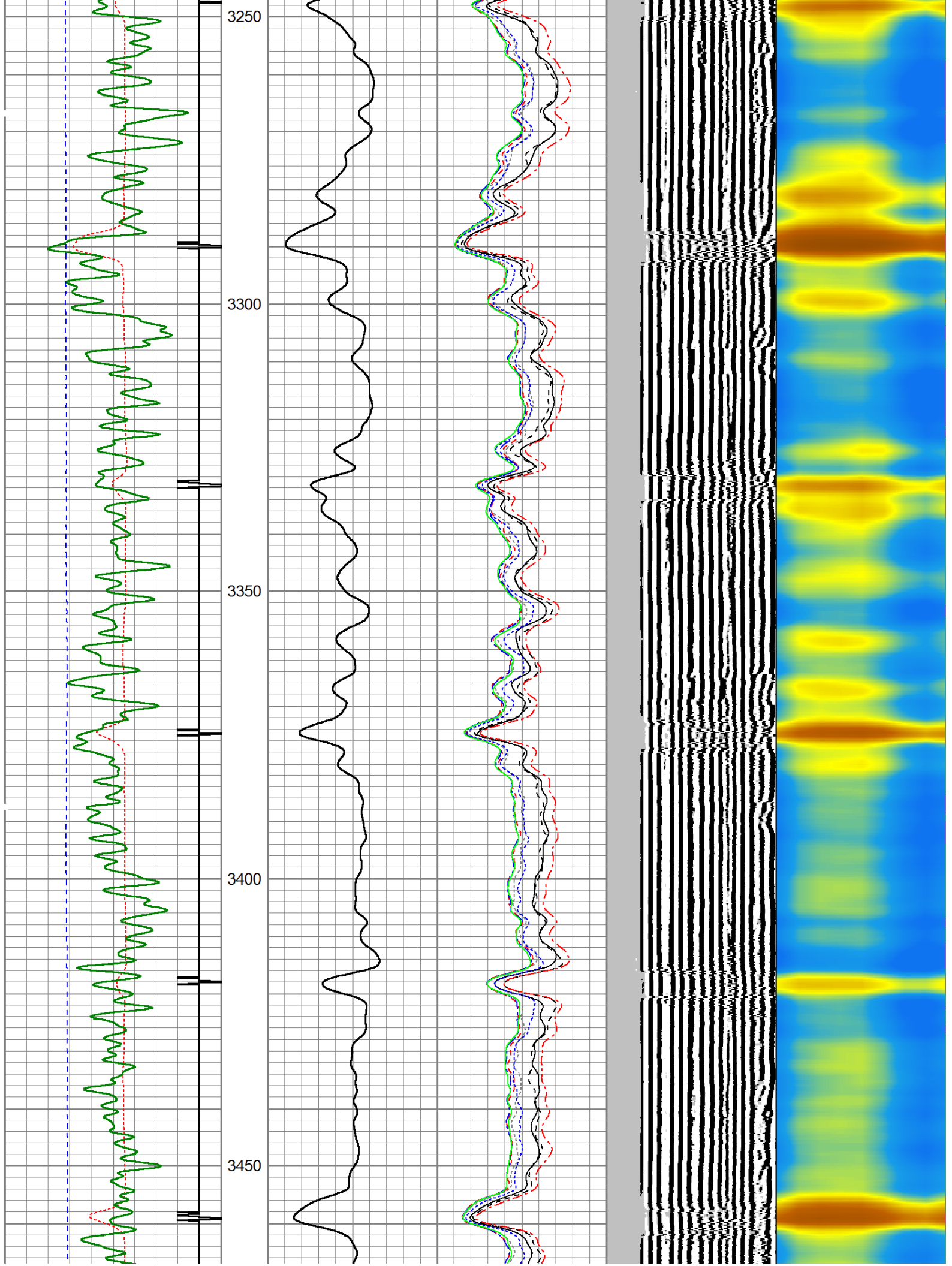


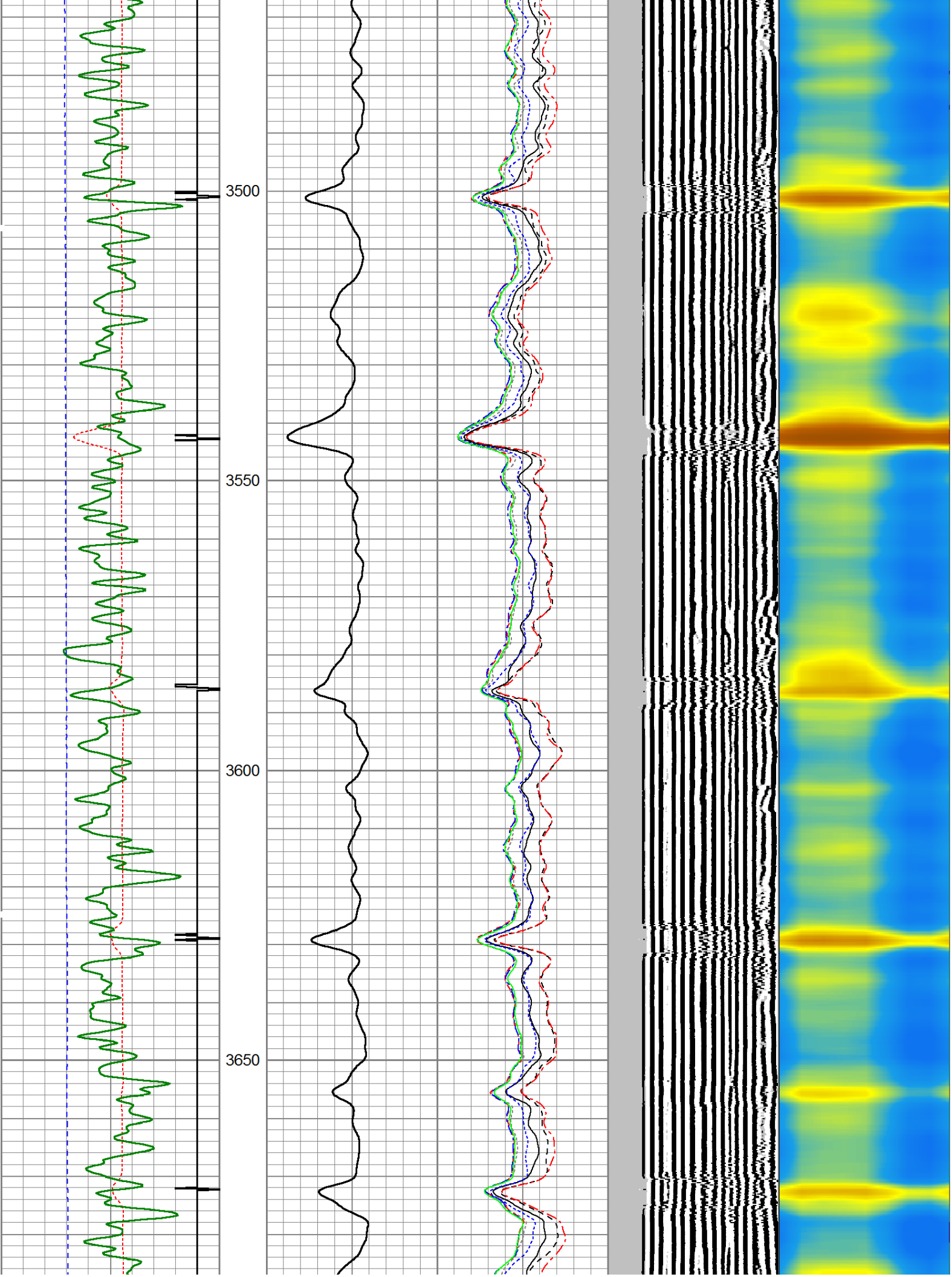




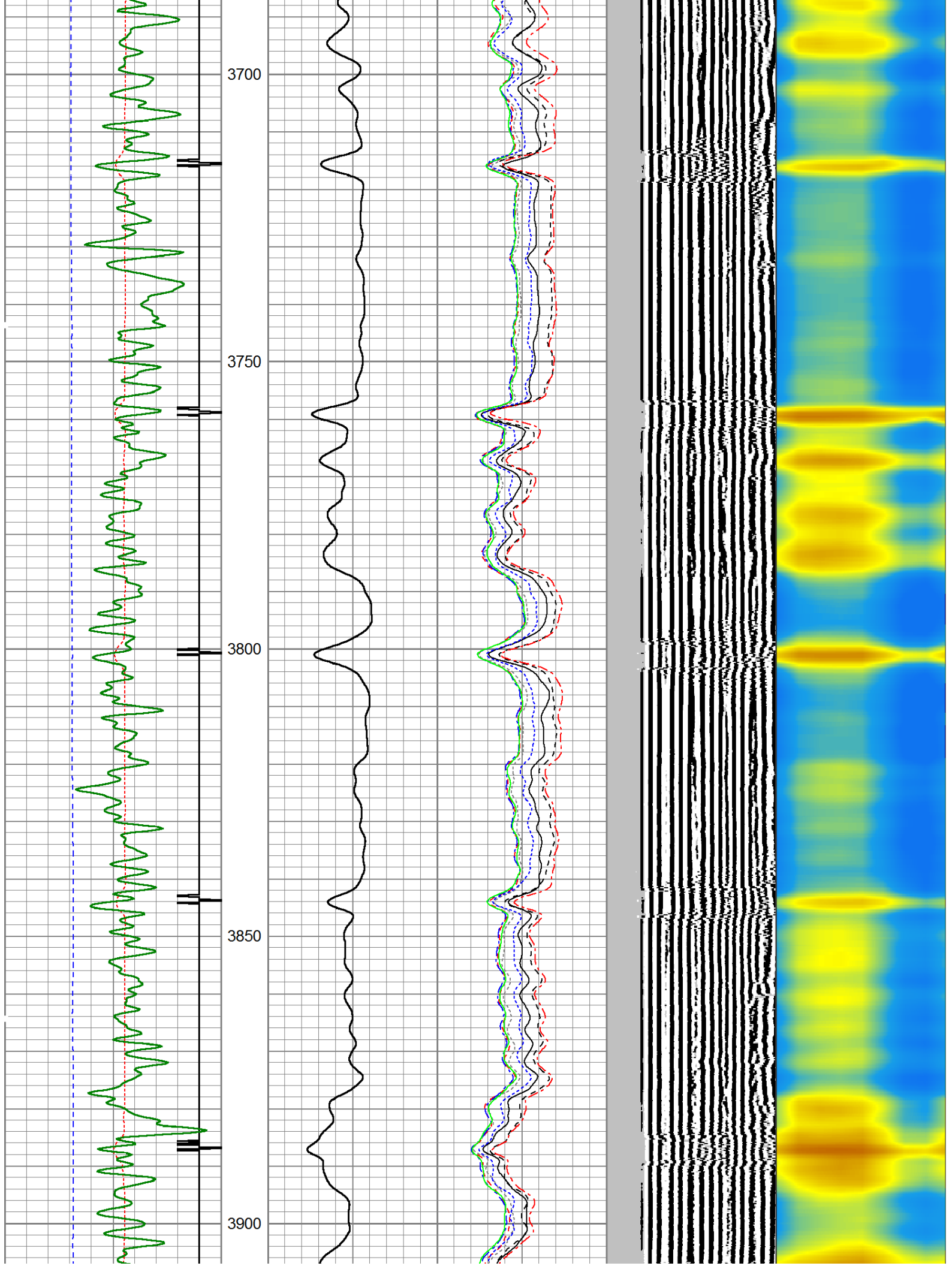


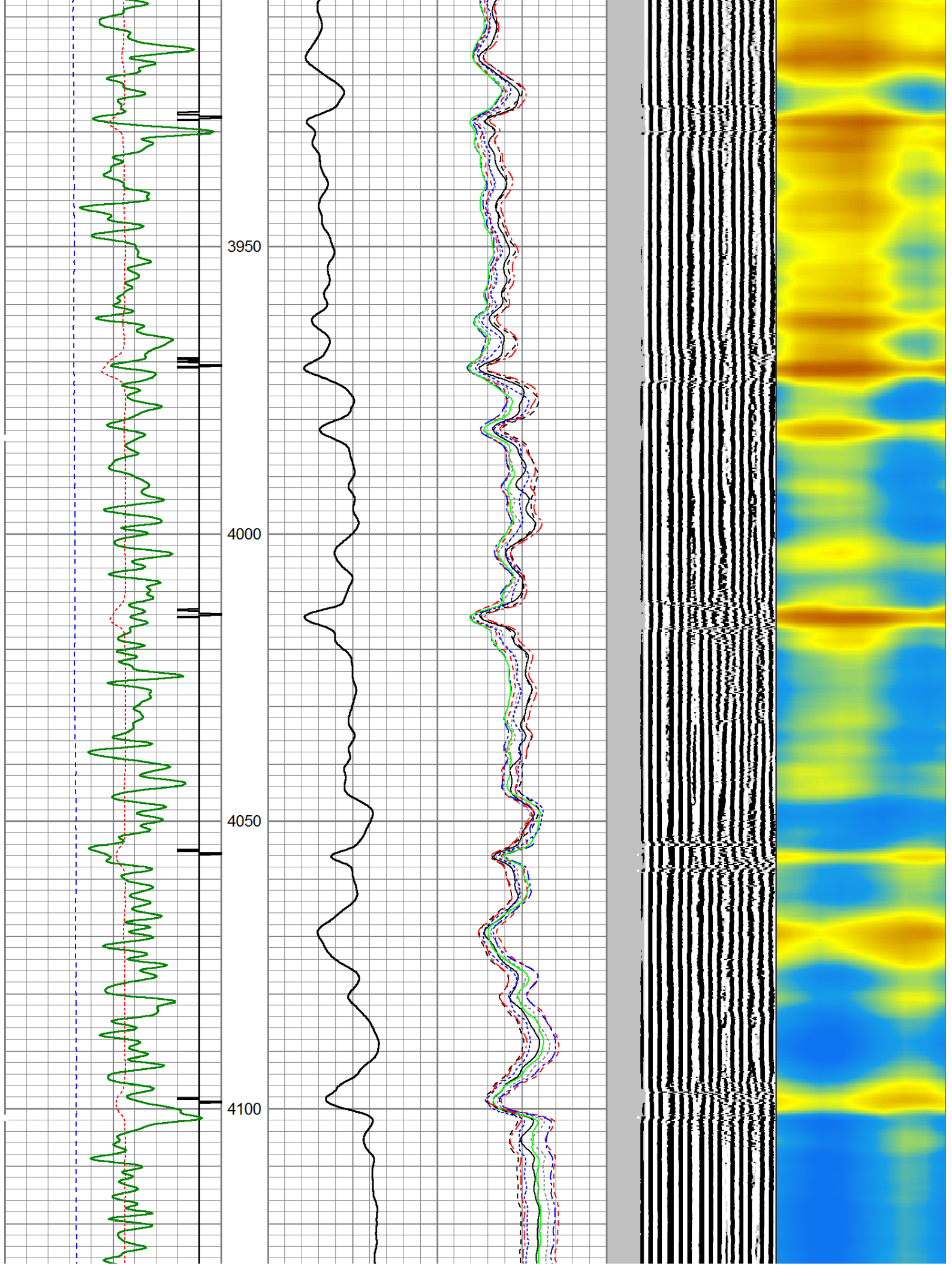




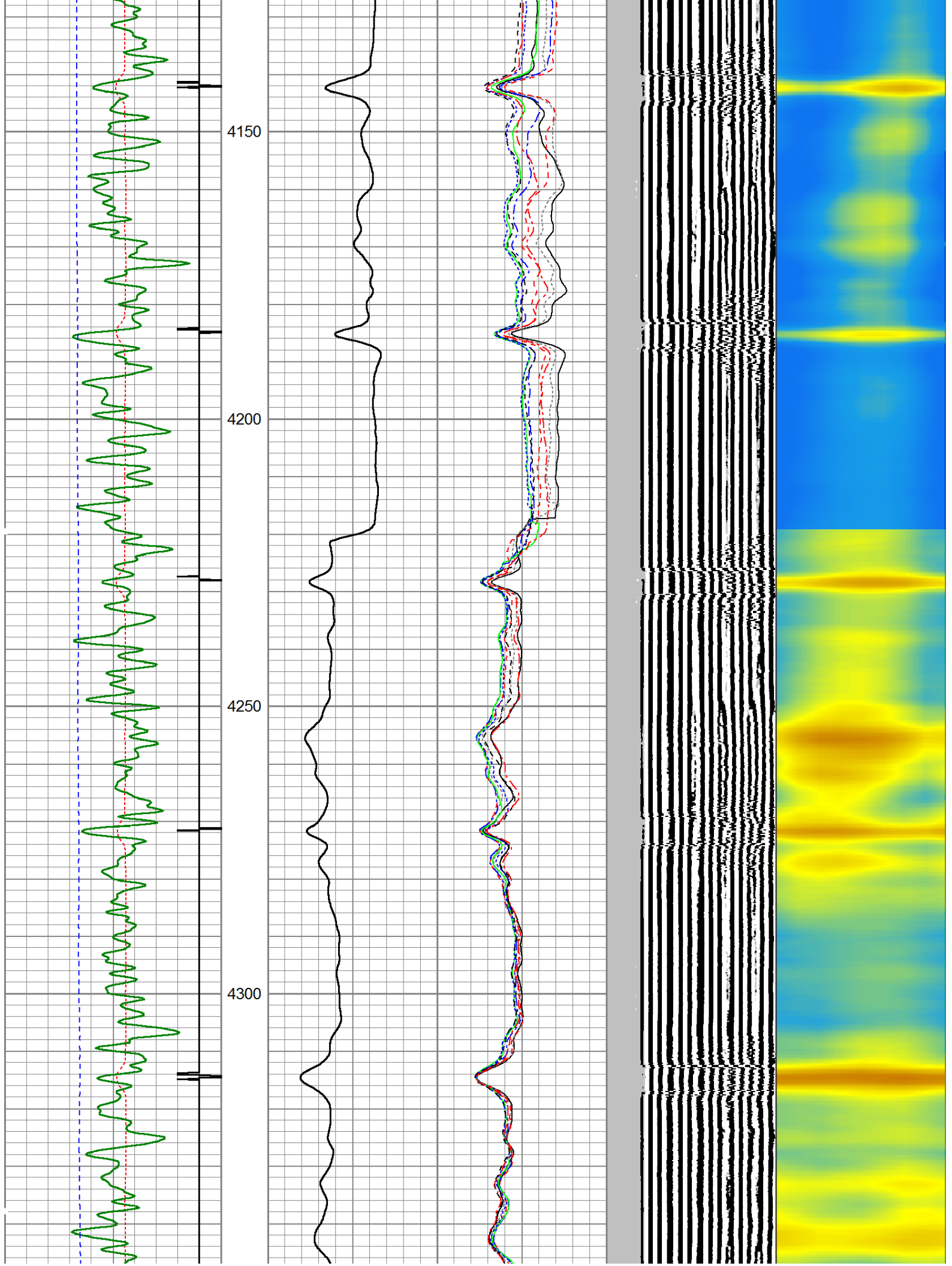


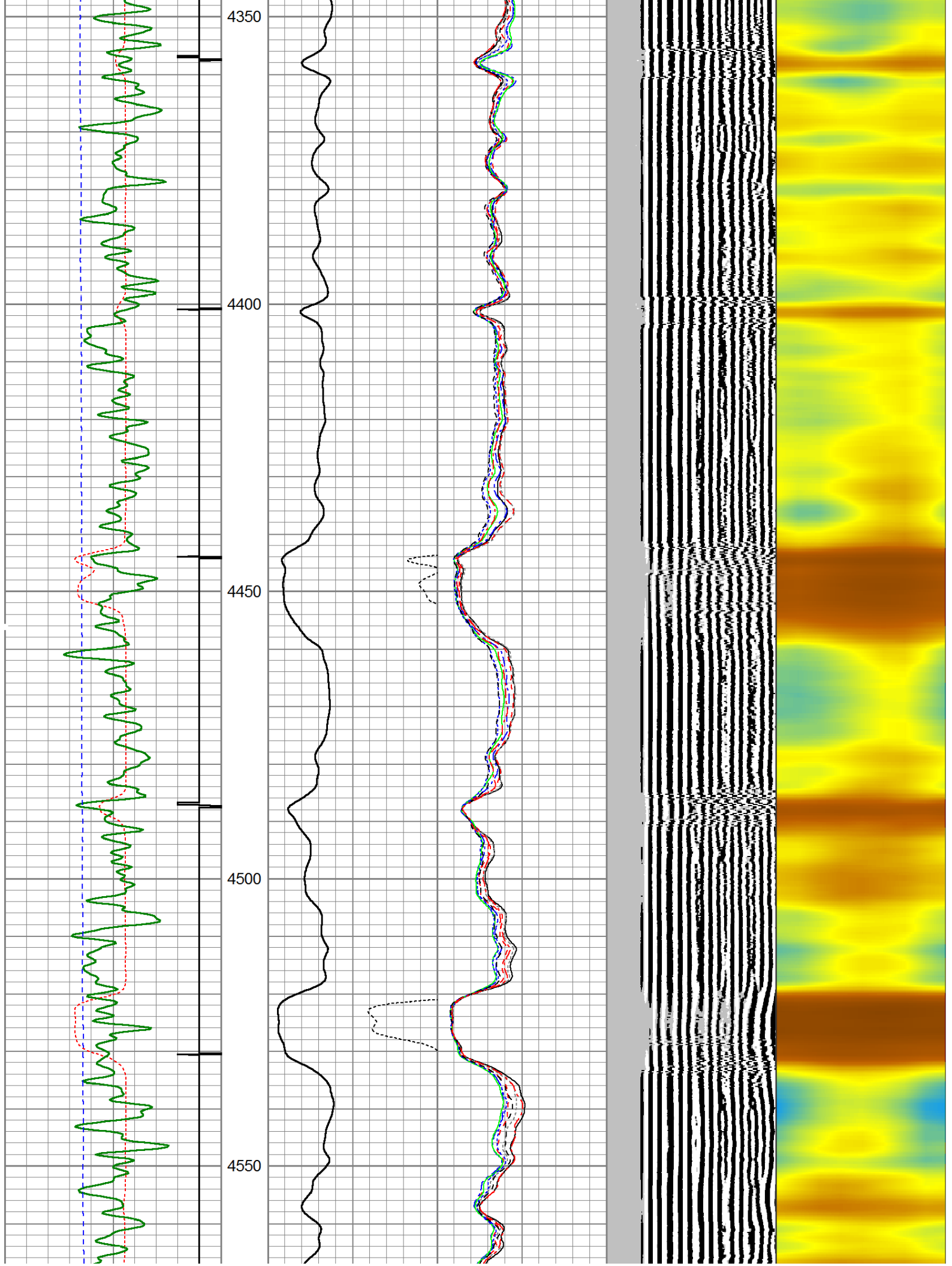


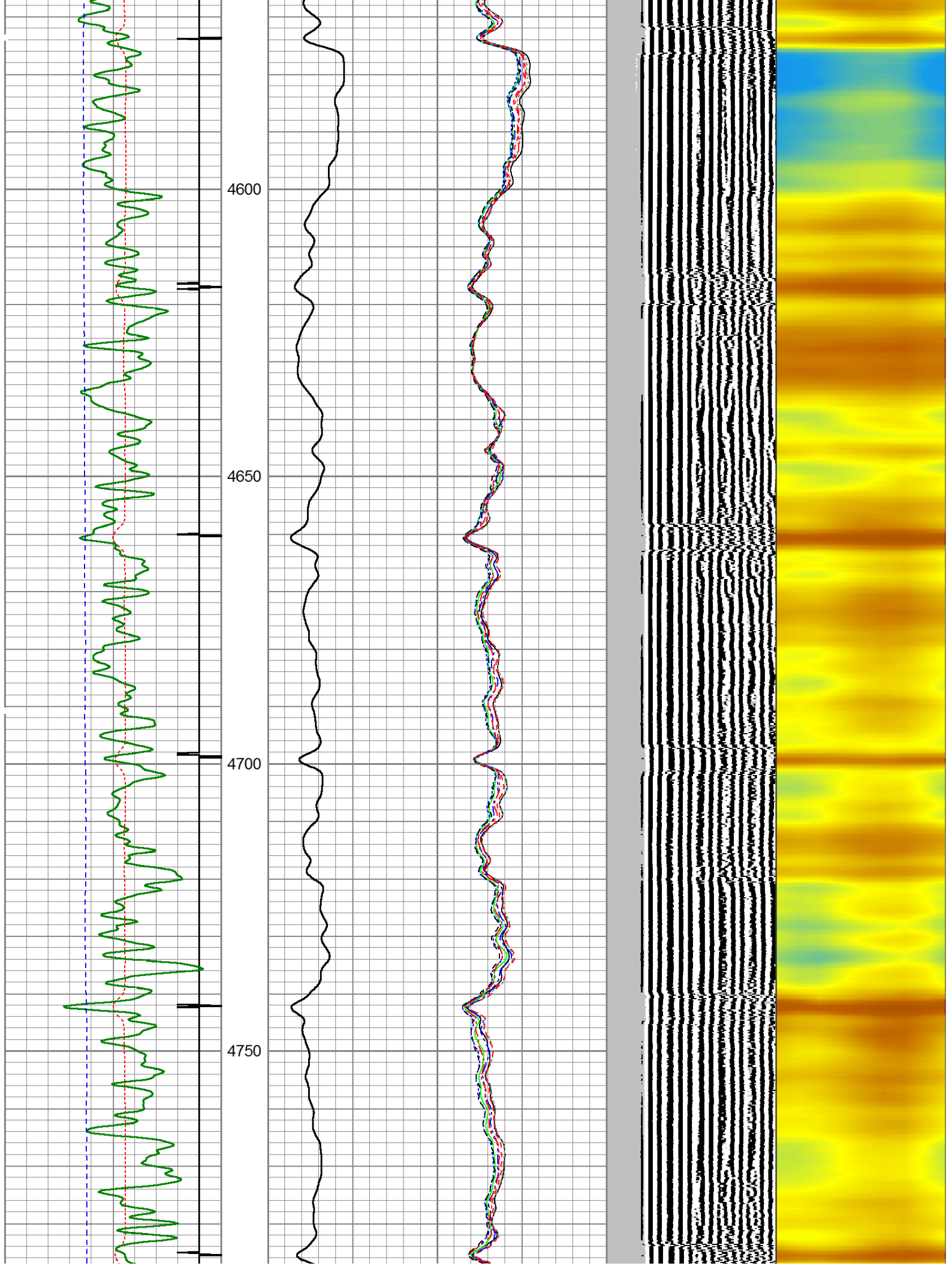


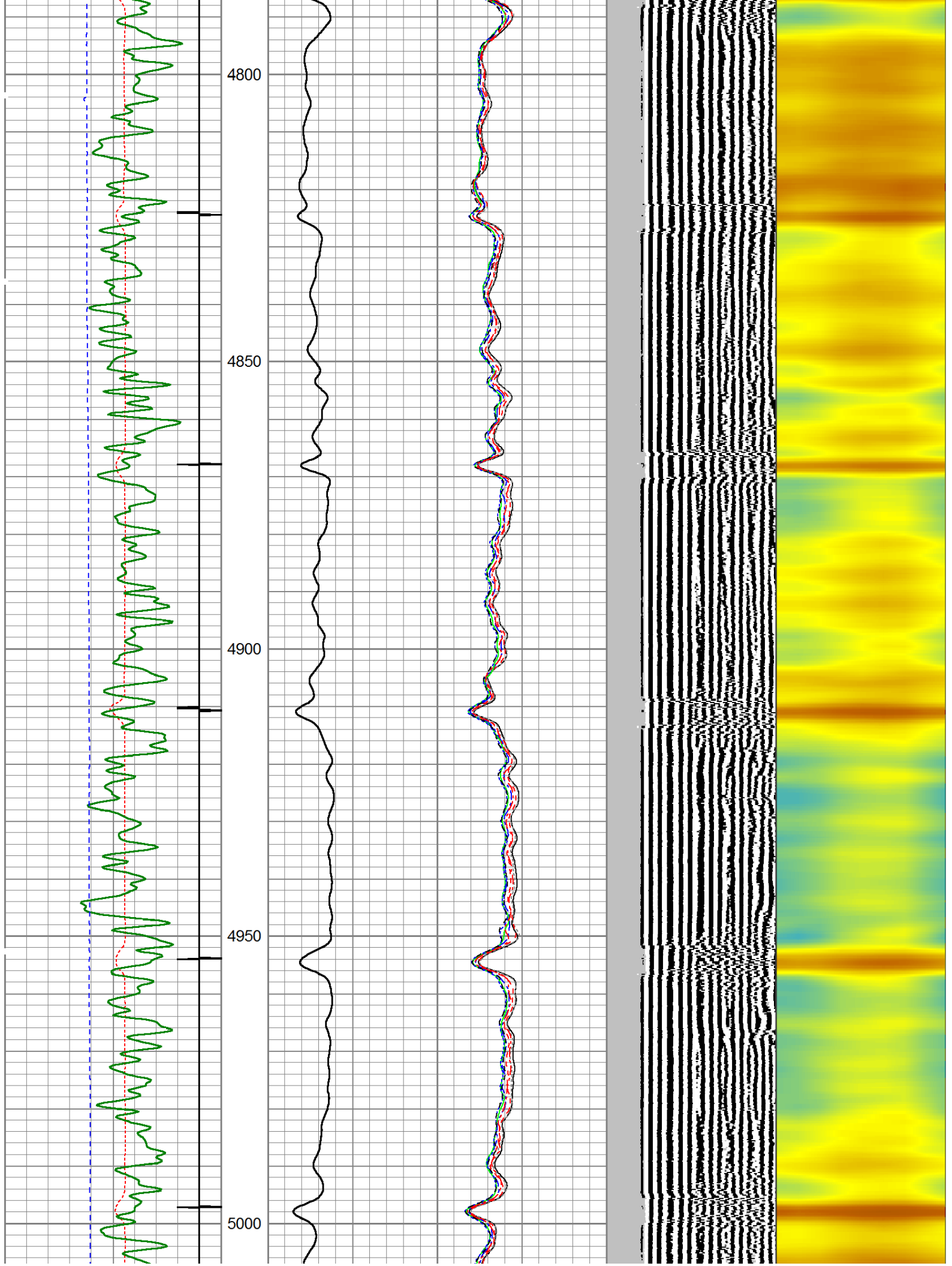


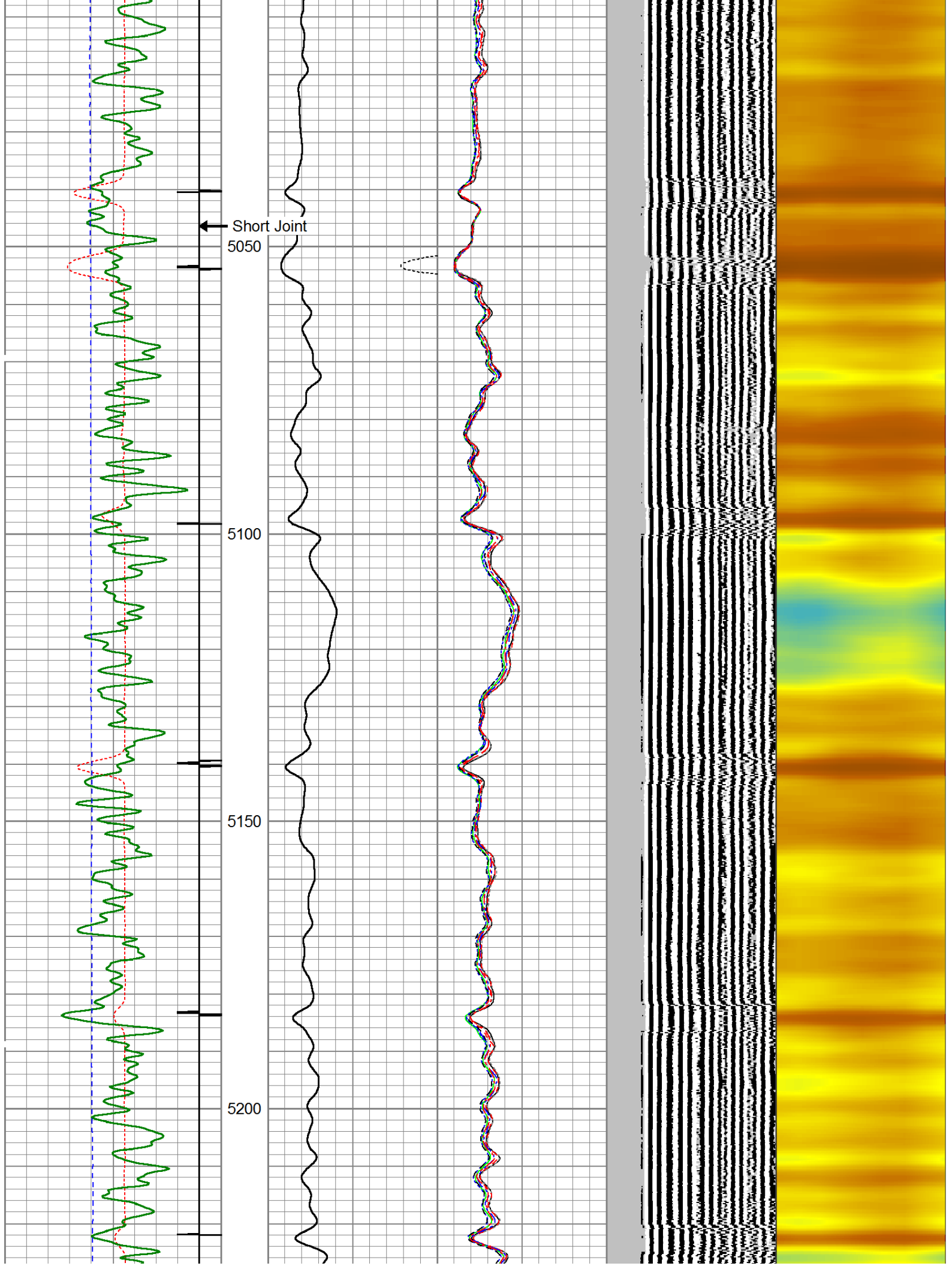




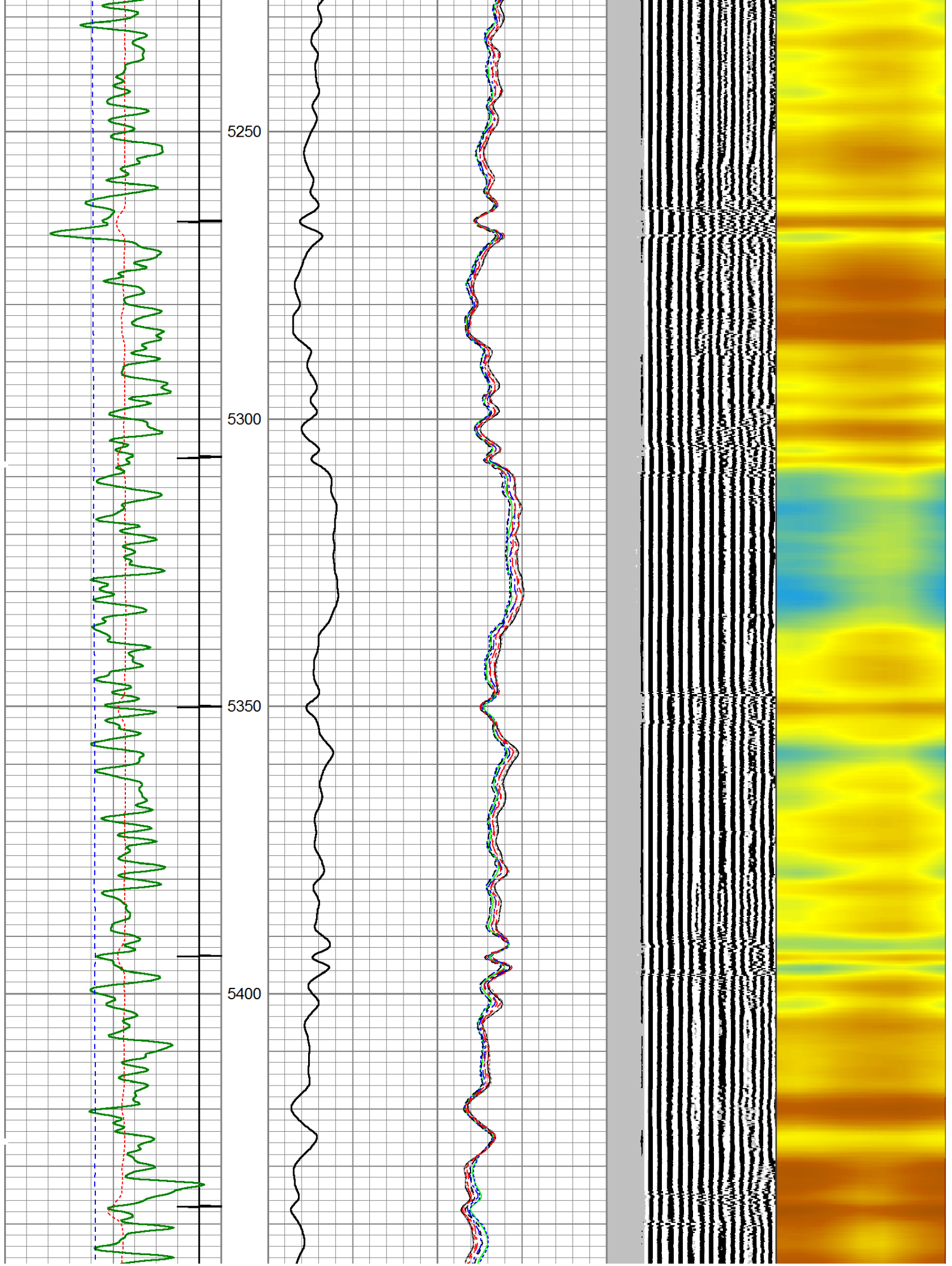




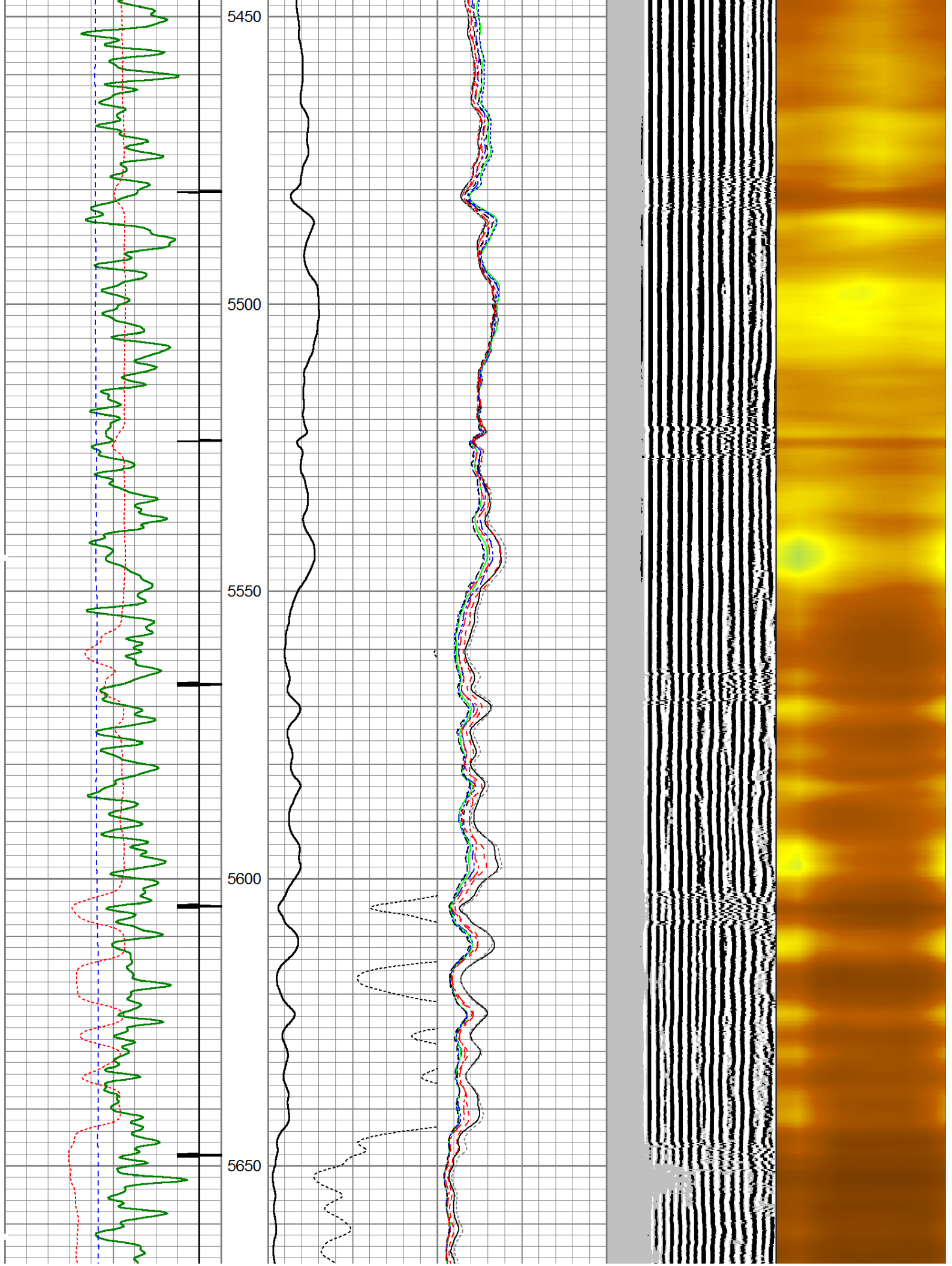


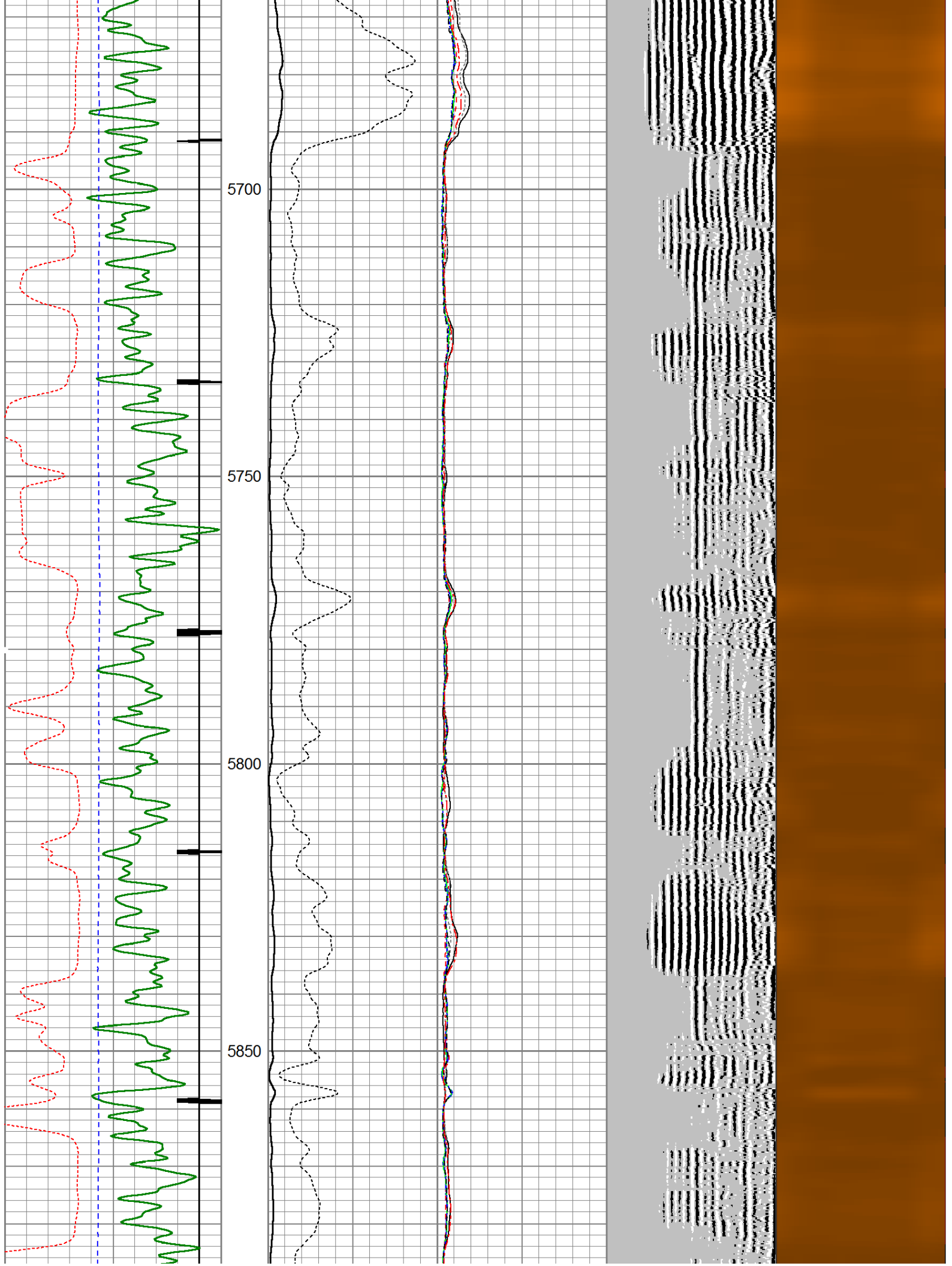


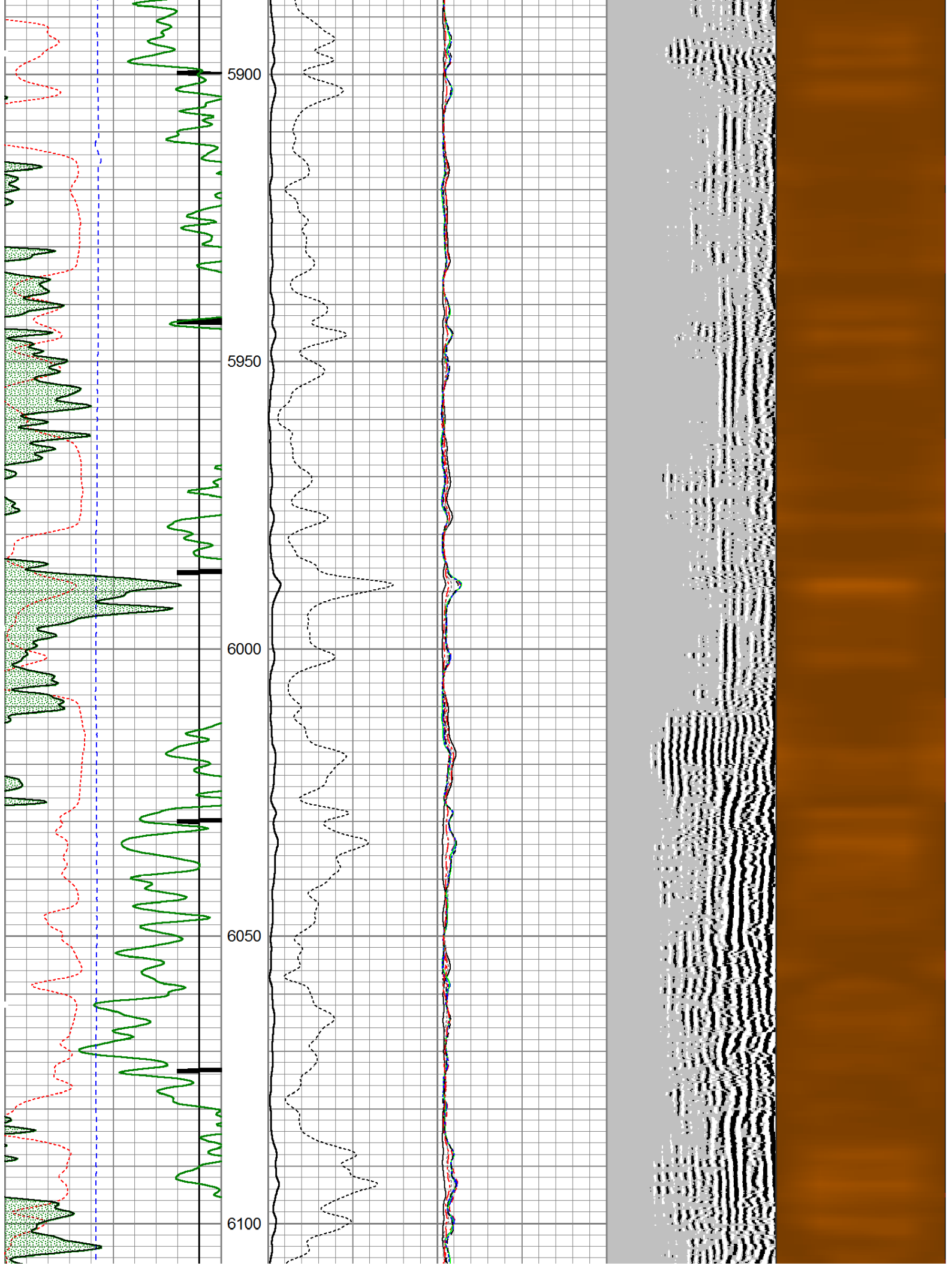


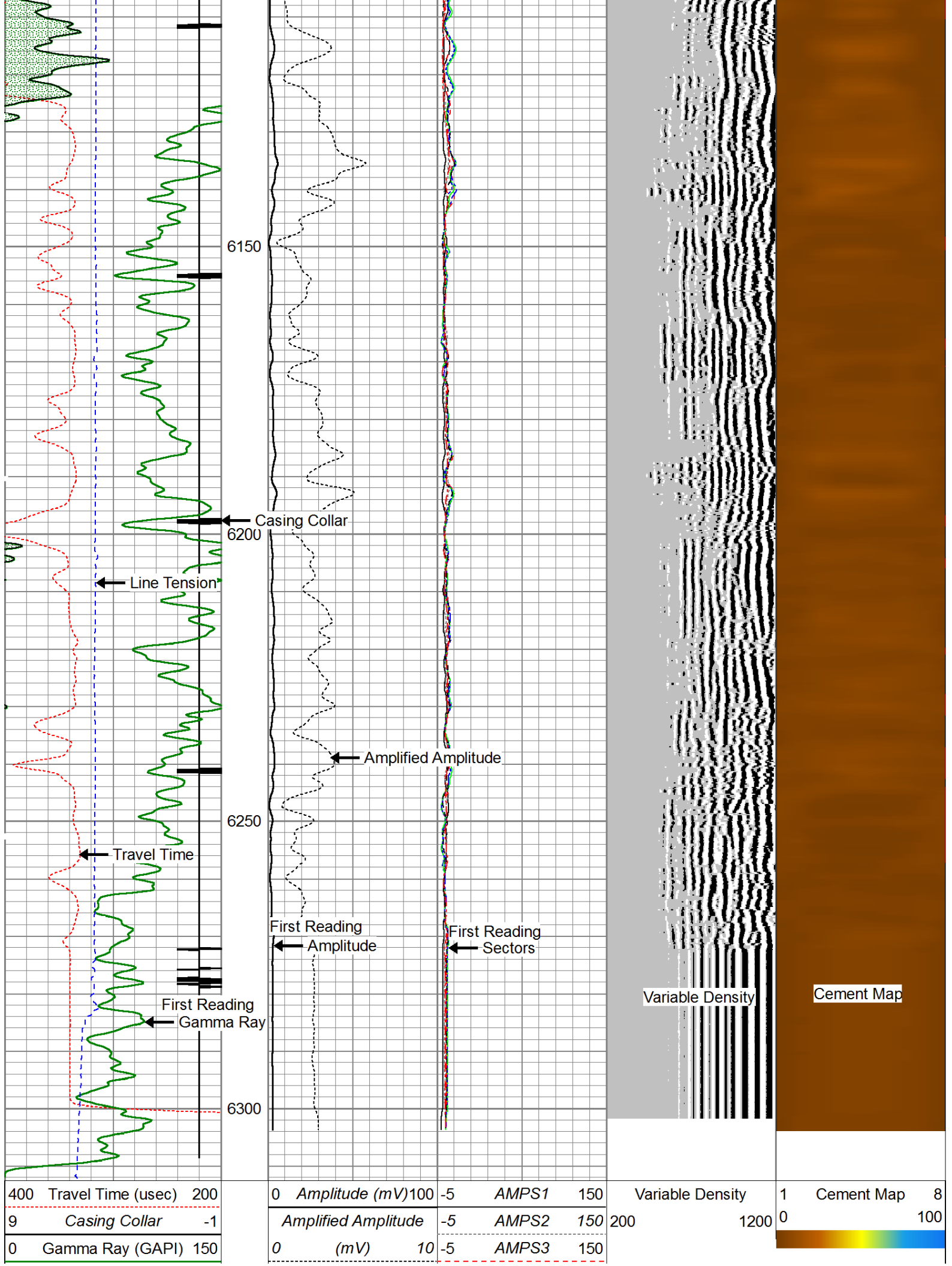












0 Line Tension (lb) 2000

-5	AMPS4	150
-5	AMPS5	150
-5	AMPS6	150
-5	AMPS7	150
-5	AMPS8	150



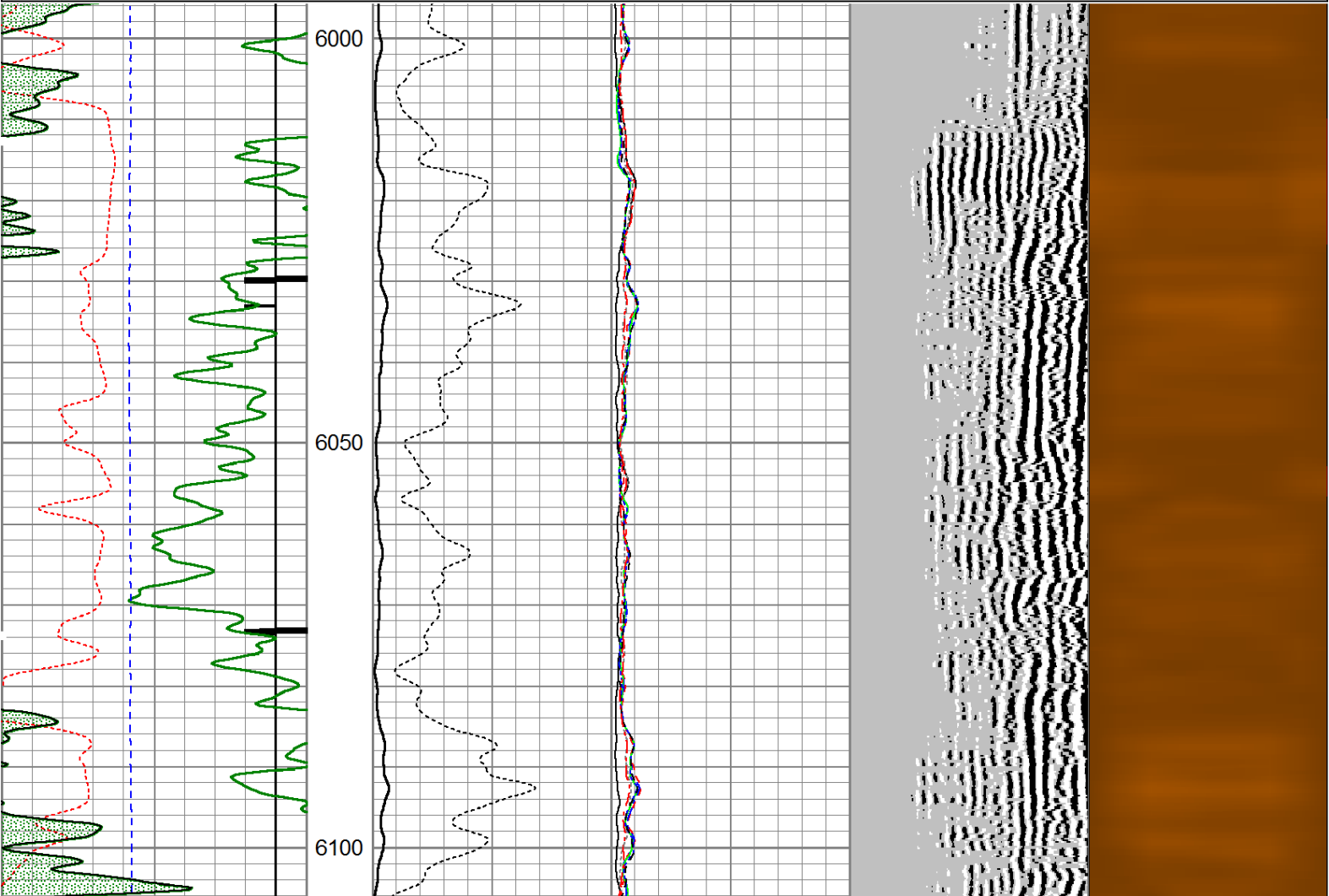
# Repeat Pass ( 0 PSI )

Database File: noble energy bulleit federal pc lg04-62hn\_rcbl.db  
Dataset Pathname: pass3  
Presentation Format: scbl03  
Dataset Creation: Mon Mar 10 14:40:29 2014 by Log 0  
Charted by: Depth in Feet scaled 1:240

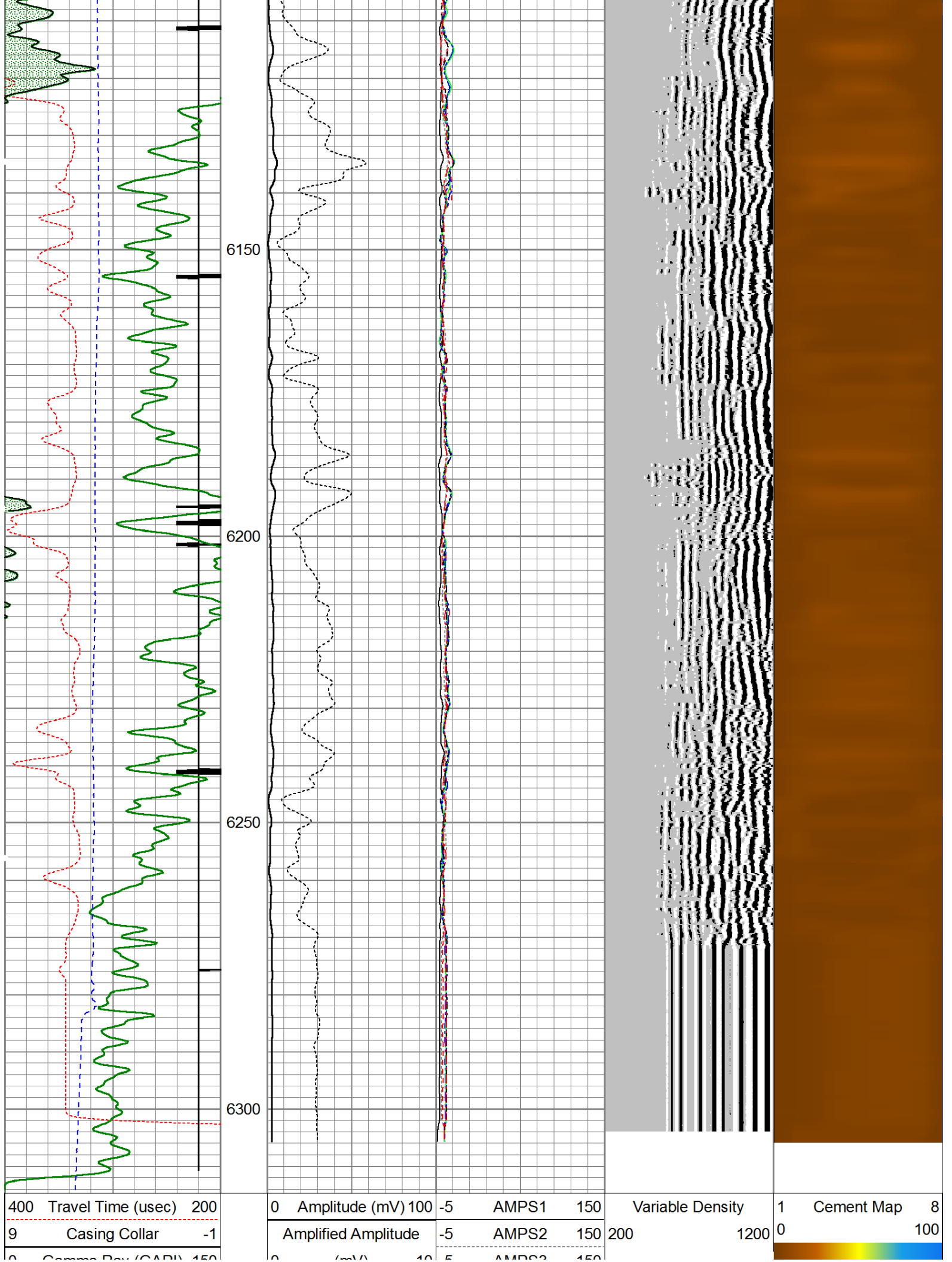
400	Travel Time (usec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	2000

0	Amplitude (mV)	100	-5	AMPS1	150
	Amplified Amplitude		-5	AMPS2	150
0	(mV)	10	-5	AMPS3	150
			-5	AMPS4	150
			-5	AMPS5	150
			-5	AMPS6	150
			-5	AMPS7	150
			-5	AMPS8	150

Variable Density	1	Cement Map	8
200	1200	0	100







0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150
0	Line Tension (lb)	2000				-5	AMPS4	150
						-5	AMPS5	150
						-5	AMPS6	150
						-5	AMPS7	150
						-5	AMPS8	150

Calibration Report		
Database File:	noble energy bulleit federal pc lg04-62hn_rcbl.db	
Dataset Pathname:	pass5.1	
Dataset Creation:	Mon Mar 10 15:48:26 2014 by Calc 0	

Gamma Ray Calibration Report
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Serial Number:	111111	
Tool Model:	Probe275	
Performed:	Tue Feb 11 08:37:44 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8500	GAPI/cps

Temperature Calibration Report
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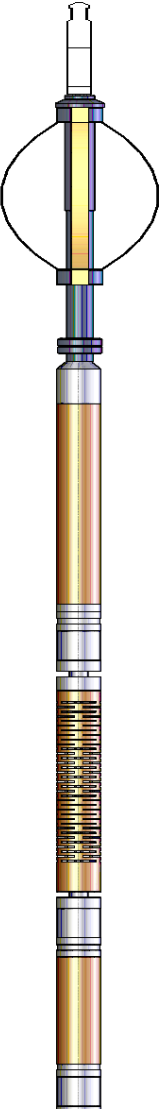
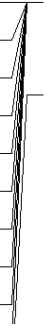
Serial Number:	111111	
Tool Model:	Probe275	
Performed:	Sun Jun 13 13:33:21 1993	
	Reference	Reading
Low Reference:	0.00 degF	0.00 cps
High Reference:	1.00 degF	1.00 cps
Gain:	1.00	
Offset:	0.00	
Delta Spacing	2	

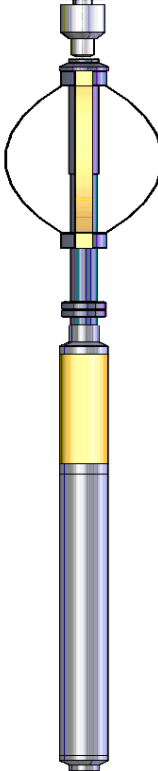
Segmented Cement Bond Log Calibration Report
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Serial Number:	101224	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	999.005	ft

Master Calibration, performed Mon Mar 10 14:19:00 2014:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.021	0.636	1.000	62.165	70.451	2.985
CAL	-0.021	1.055				
5'	-0.020	0.621	1.000	62.165	95.445	2.864
SUM						
S1	0.034	0.677	0.000	100.000	111.088	-1.292
S2	-0.023	0.622	0.000	100.000	111.456	3.581
S3	-0.021	0.626	0.000	100.000	109.653	3.222
S4	-0.022	0.630	0.000	100.000	108.485	3.324
S5	-0.022	0.646	0.000	100.000	106.485	3.260
S6	-0.022	0.678	0.000	100.000	100.655	3.106
S7	-0.022	0.695	0.000	100.000	99.640	3.017

S7	0.022	0.095	0.000	100.000	99.040	5.017
S8	-0.021	0.697	0.000	100.000	99.459	2.977
Internal Reference Calibration, performed Mon Oct 10 09:42:03 2005:						
Raw (v)		Calibrated (v)		Results		
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.021	1.055	1.000	0.000
Air Zero Calibration, performed Sun Oct 27 20:29:00 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	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Titan Cable_head	1.00	1.44	10.00
			Probe275 2.75" Centralizer	2.88	2.75	20.00
WVFS3FT	11.84		RBT-Probe (101224) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFCAL	11.84					
WVFS1	11.84					
WVFS2	11.84					
WVFS3	11.84					
WVFS4	11.84					
WVFS5	11.84					
WVFS6	11.84					
WVFS7	11.84					

WVFS8	11.84				
WVF5FT	10.84				
CCL	3.88				
TEMP	3.00				
GR	2.54				
Dataset:		noble energy bullet federal pc lg04-62hn_rcbl.db: field/well/run1/pass5.1			
Total Length:		20.28 ft			
Total Weight:		197.00 lb			
O.D.		2.75 in			