



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

Company		Noble Energy													
Well		ROHN State LD04-64-1HN													
Field		Wattenberg													
County		Weld													
State		Colorado													
Location:		API # : 05-123-37482													
SEC 4 TWP 9 N RGE 58 W		Other Services													
Permanent Datum		Ground Level		Elevation											
Log Measured From		Kelly Bushing 24' APD		K.B. 4732'											
Drilling Measured From		Kelly Bushing		D.F. 4731'											
				G.L. 4708'											
Date		10th October, 2013													
Run Number		One													
Depth Driller		9556'													
Depth Logger		5924'													
Bottom Logged Interval		5900'													
Top Log Interval		Surface													
Open Hole Size		8 3/4"													
Type Fluid		Fresh Water													
Density / Viscosity		8.34													
Max. Recorded Temp.		208 °F													
Estimated Cement Top		700'													
Time Well Ready		1230													
Time Logger on Bottom		0315													
Equipment Number		12029													
Location		Brighton, CO													
Recorded By		R.Grisson													
Witnessed By		Bill Mansfield													
Borehole Record		Tubing Record													
Run Number		Bit		From		To		Size		Weight		From		To	
1		26"		Surface		124'									
2		13.75"		124'		1230'									
3		8.75"		1230'		6018'									
4		6.125"		6018'		9566'									
Casing Record		Size		Wgt/Ft		Top		Bottom							
Surface String		9 5/8"		36#		Surface		1220.8'							
Prot. String															
Production String		7"		26#		Surface		6008.5'							
Liner		4.5"		11 6#		5894.4'		9556'							
Short Joint						4637'		4652'							

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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

Well logged using 24' KB

Your Crew for Today. T.Canfarelli, M. Bingaman

Main Pass and Repeat Pass logged with zero pressure on surface

Thank You for using Allied Wireline

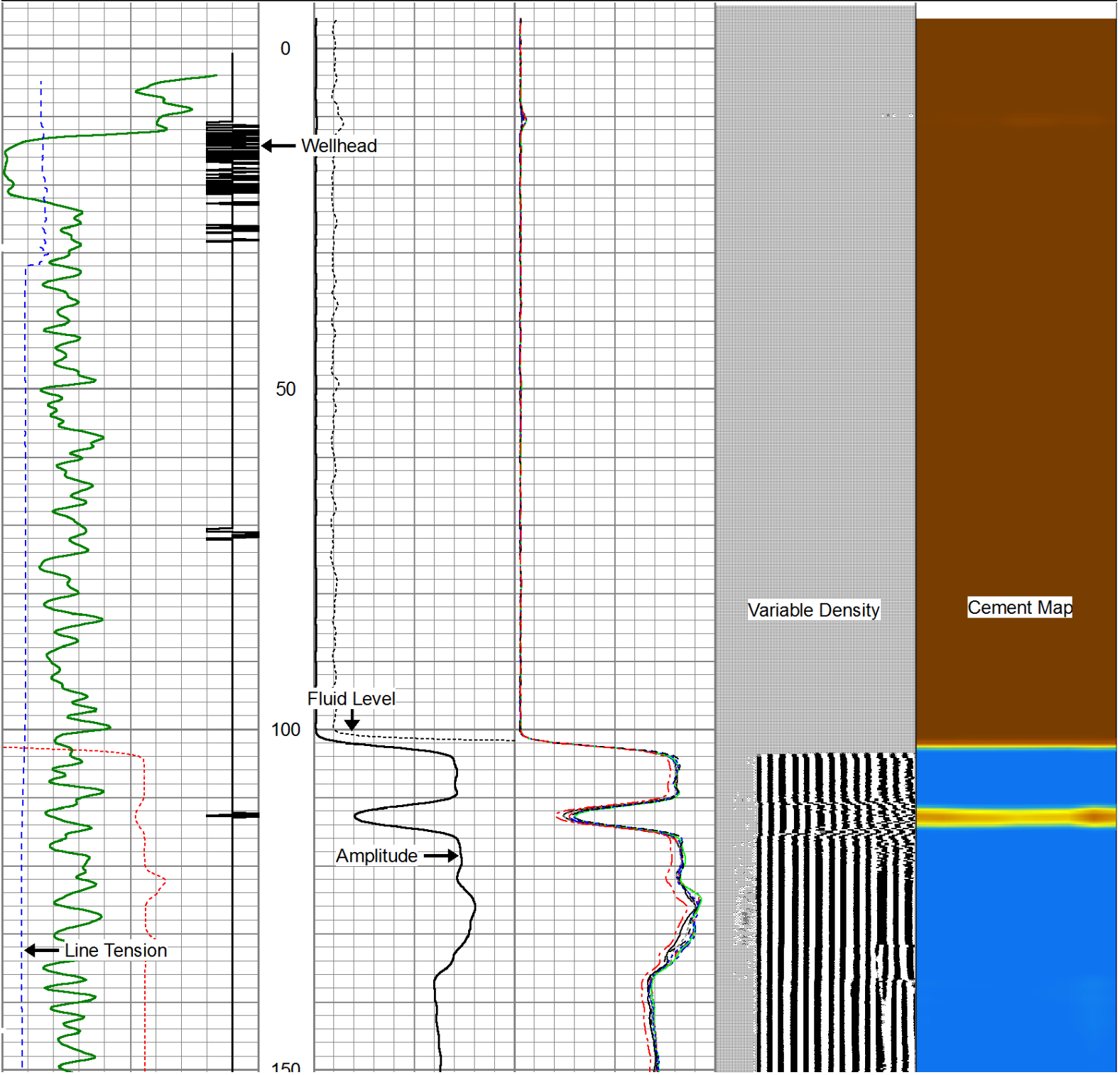
(303) 659-4609

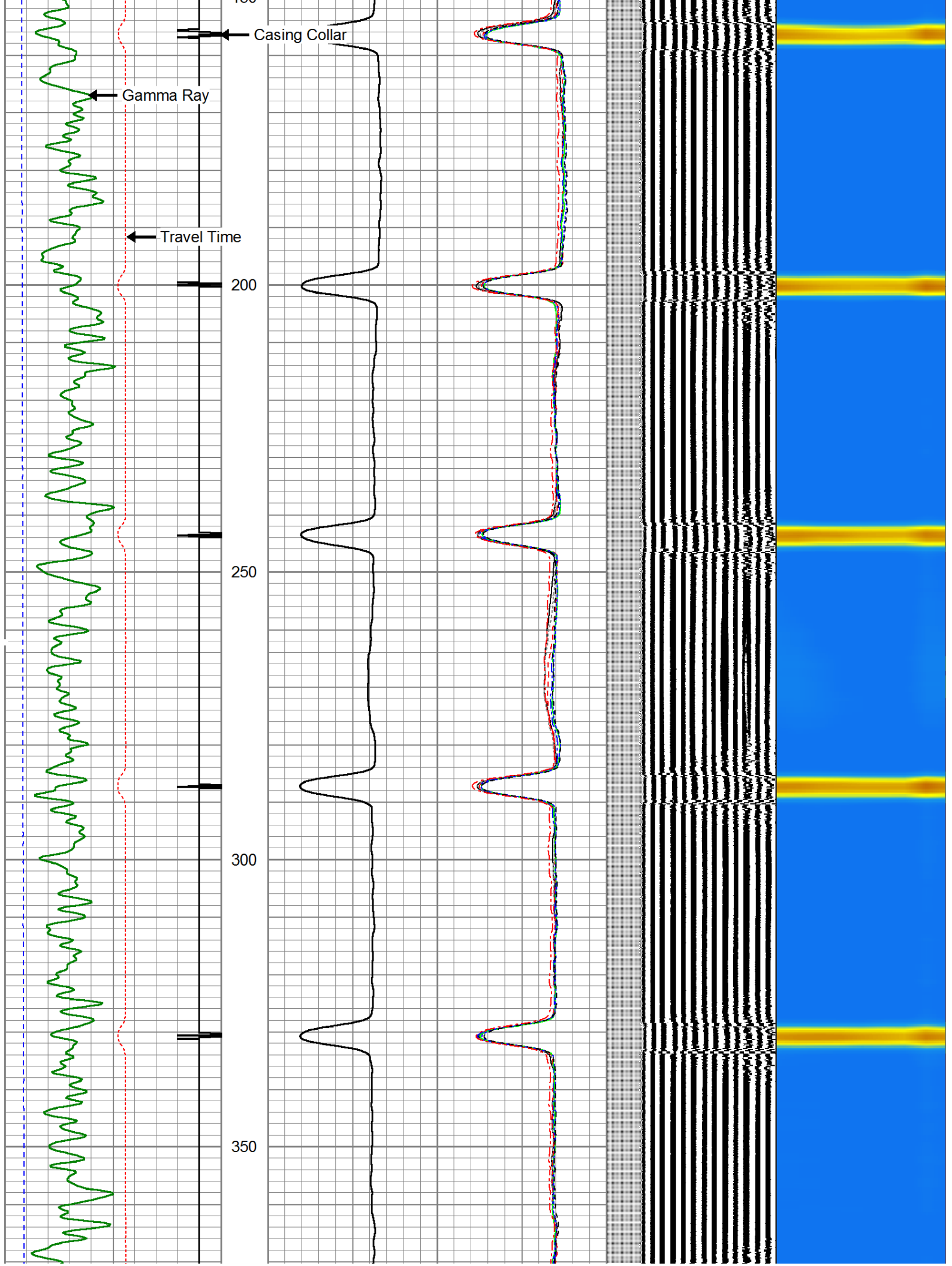


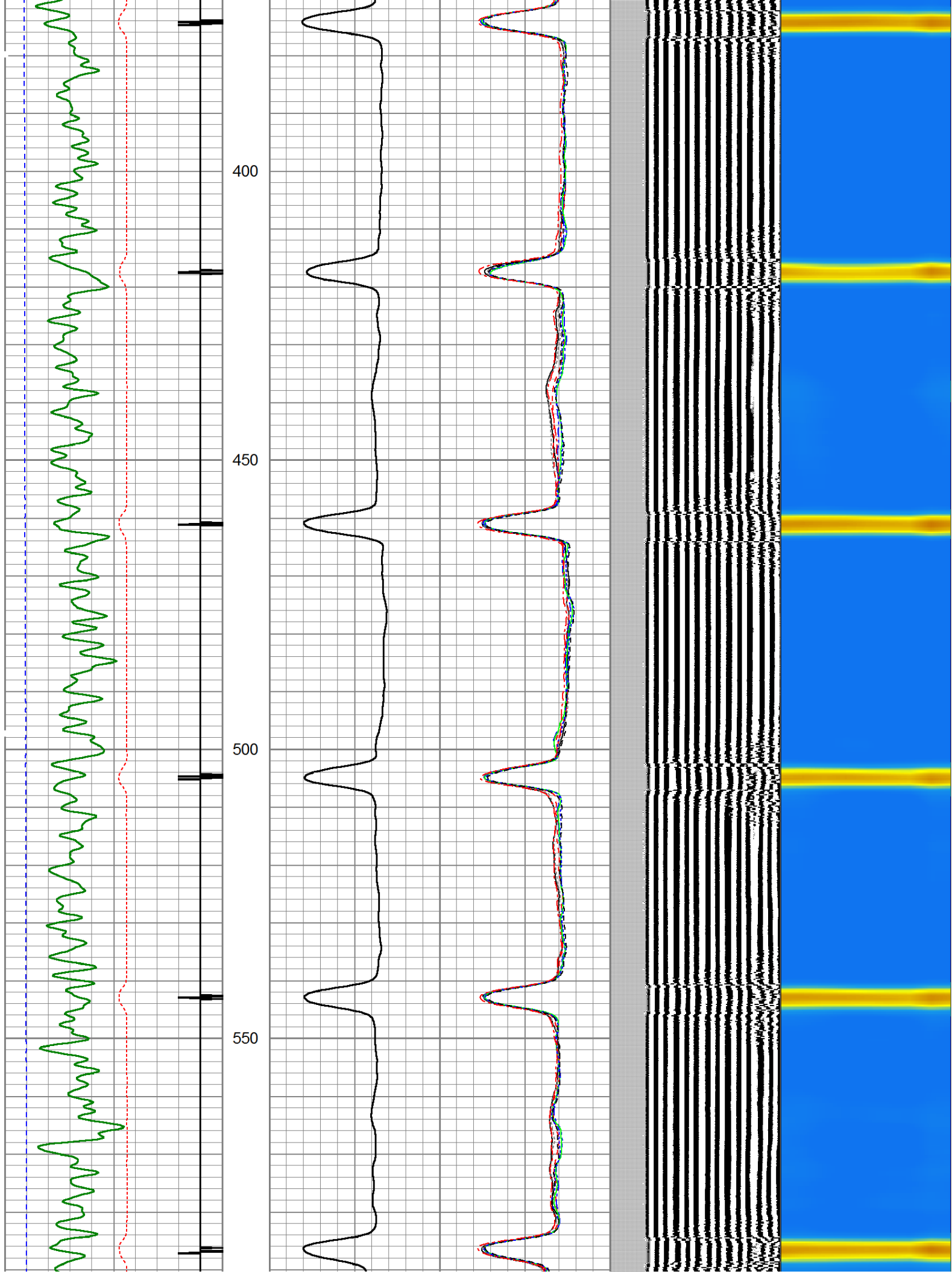
Main Pass (0 PSI)

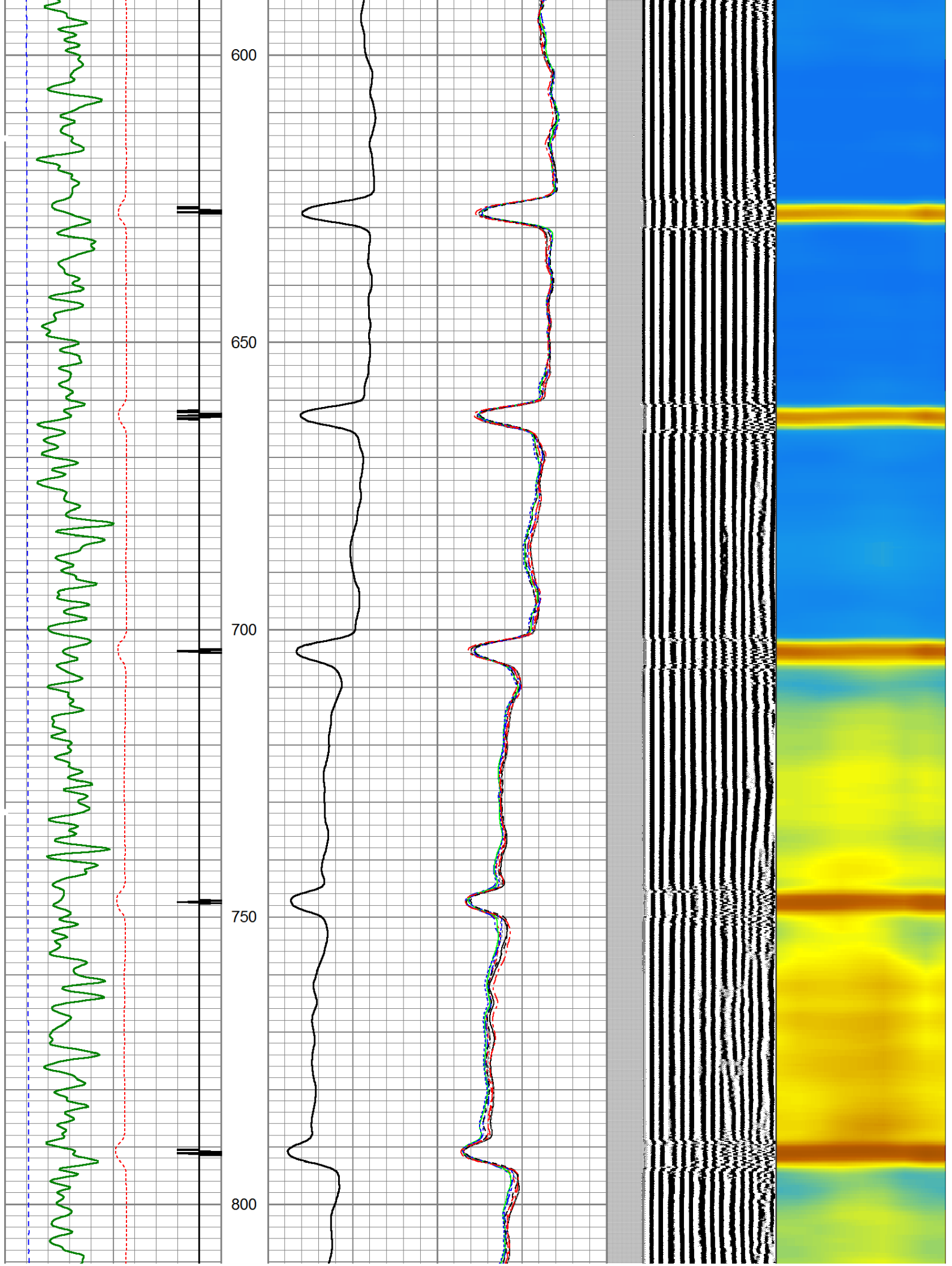
Database File: noble energy rohn state ld04-64-1hn_cbl.db
Dataset Pathname: pass4
Presentation Format: scbl03
Dataset Creation: Thu Oct 10 13:18:41 2013 by Log SCH 120126
Charted by: Depth in Feet scaled 1:240

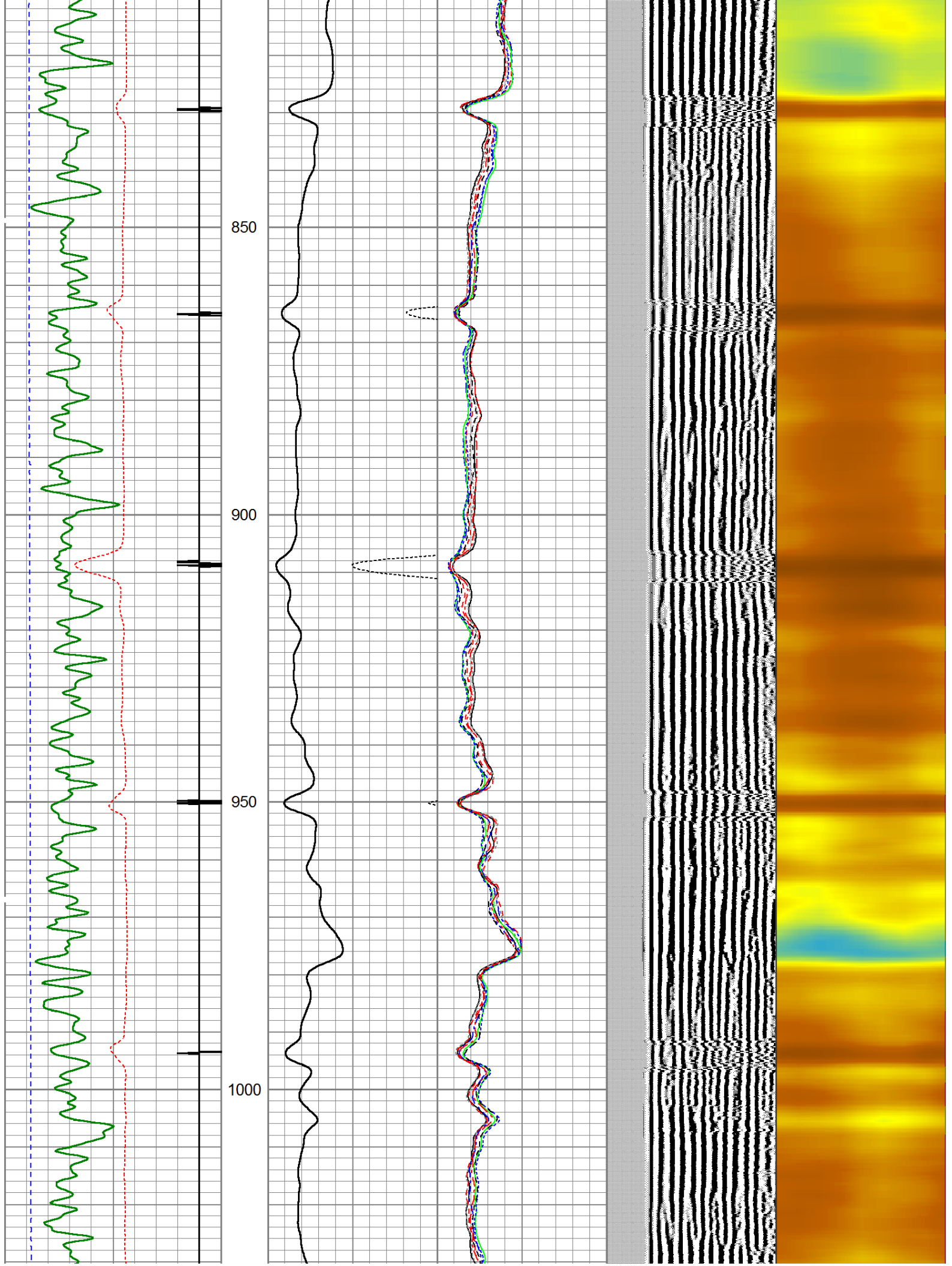
400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1		Amplified Amplitude		-5	AMPS2	150		0		100
0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150				
0	Line Tension (lb)	2500				-5	AMPS4	150				
						-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				

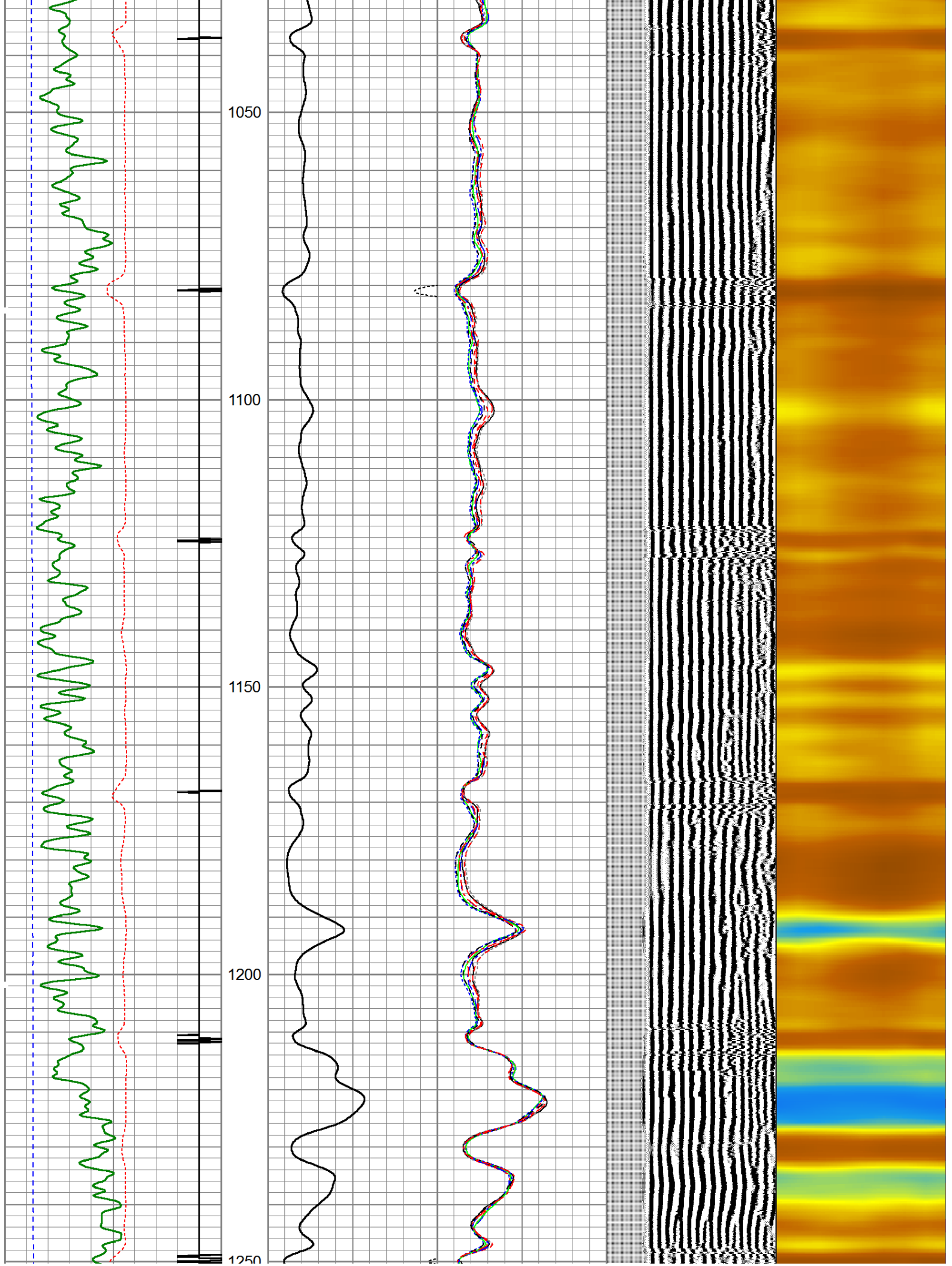


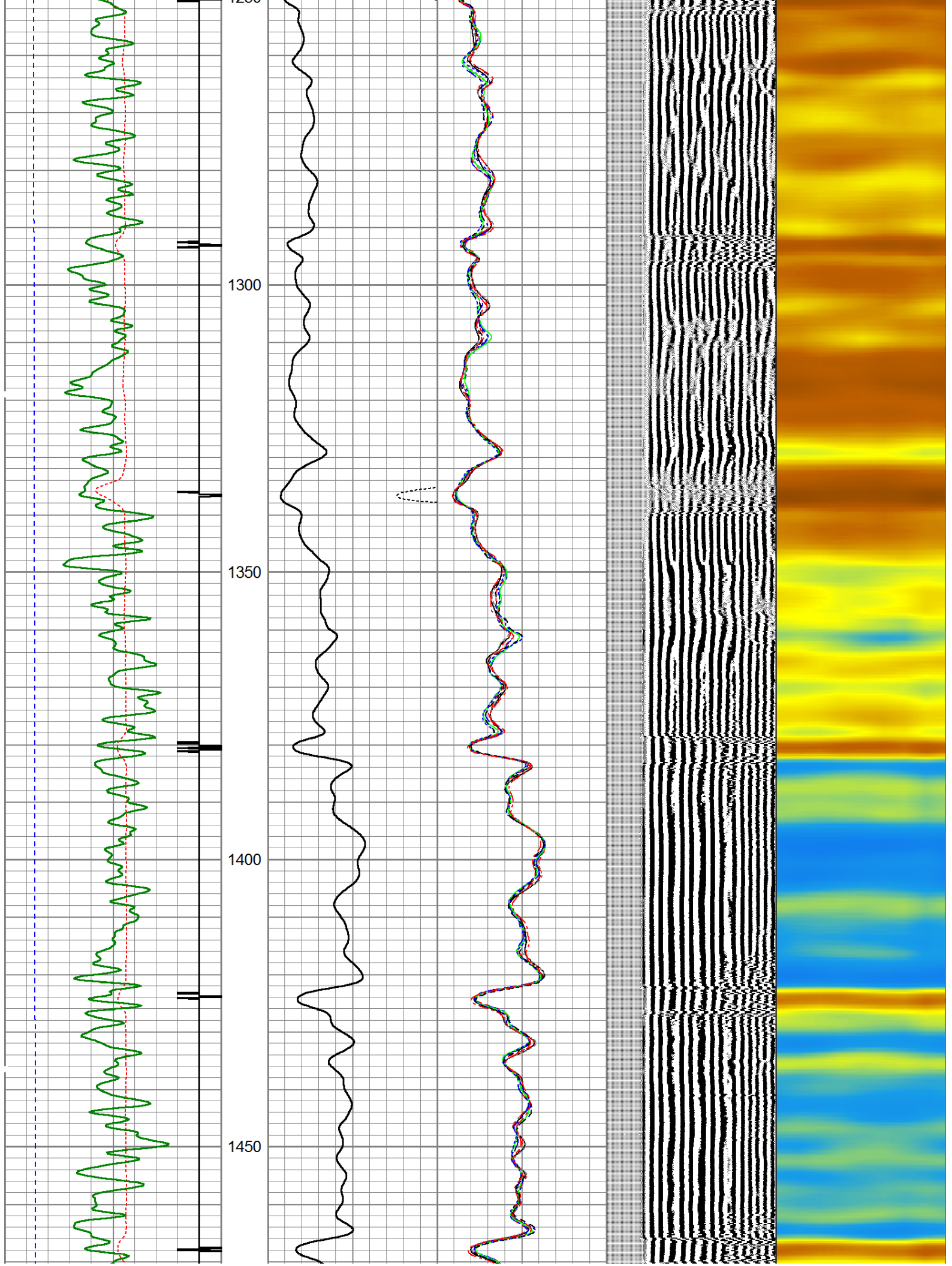


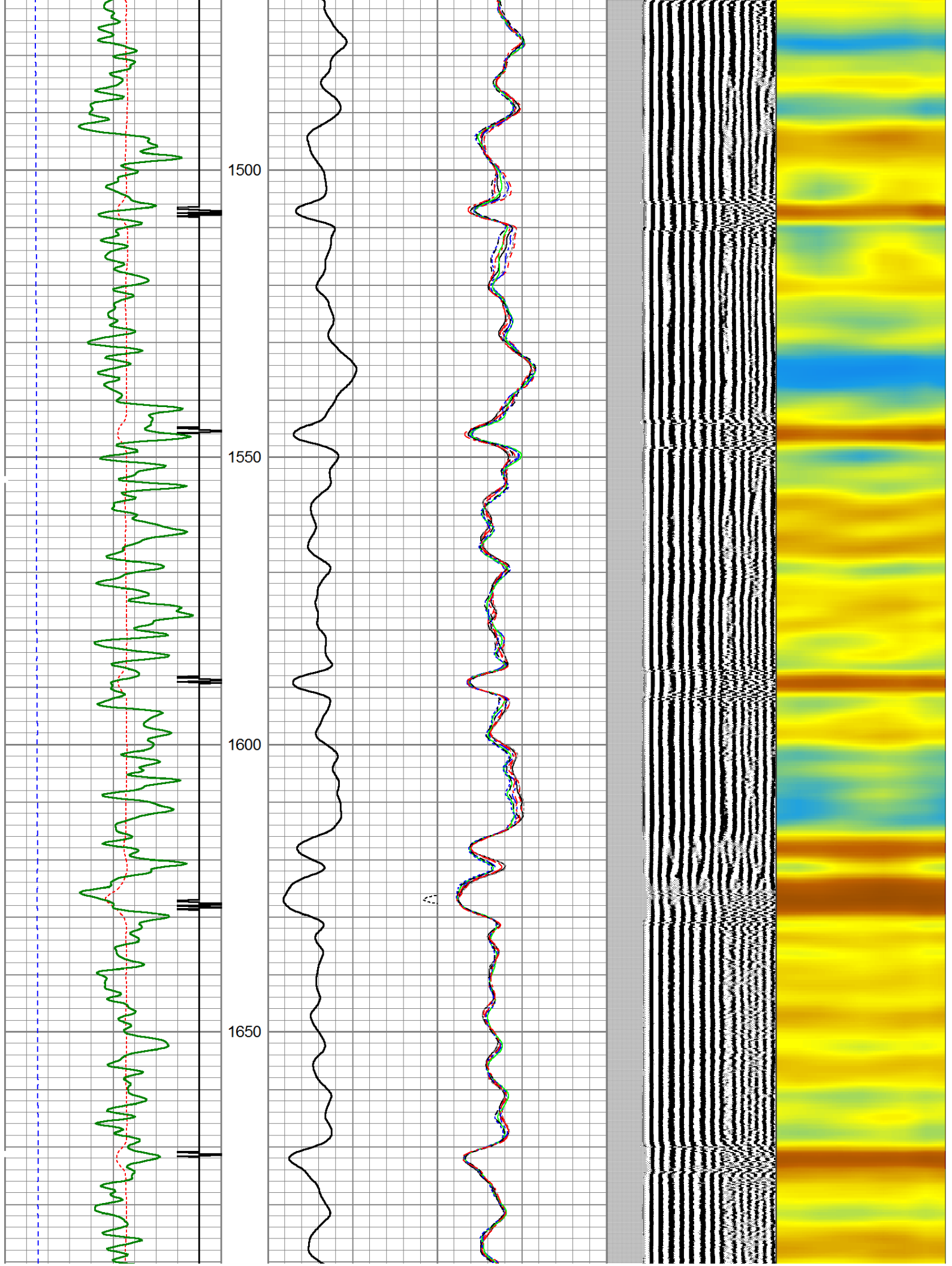


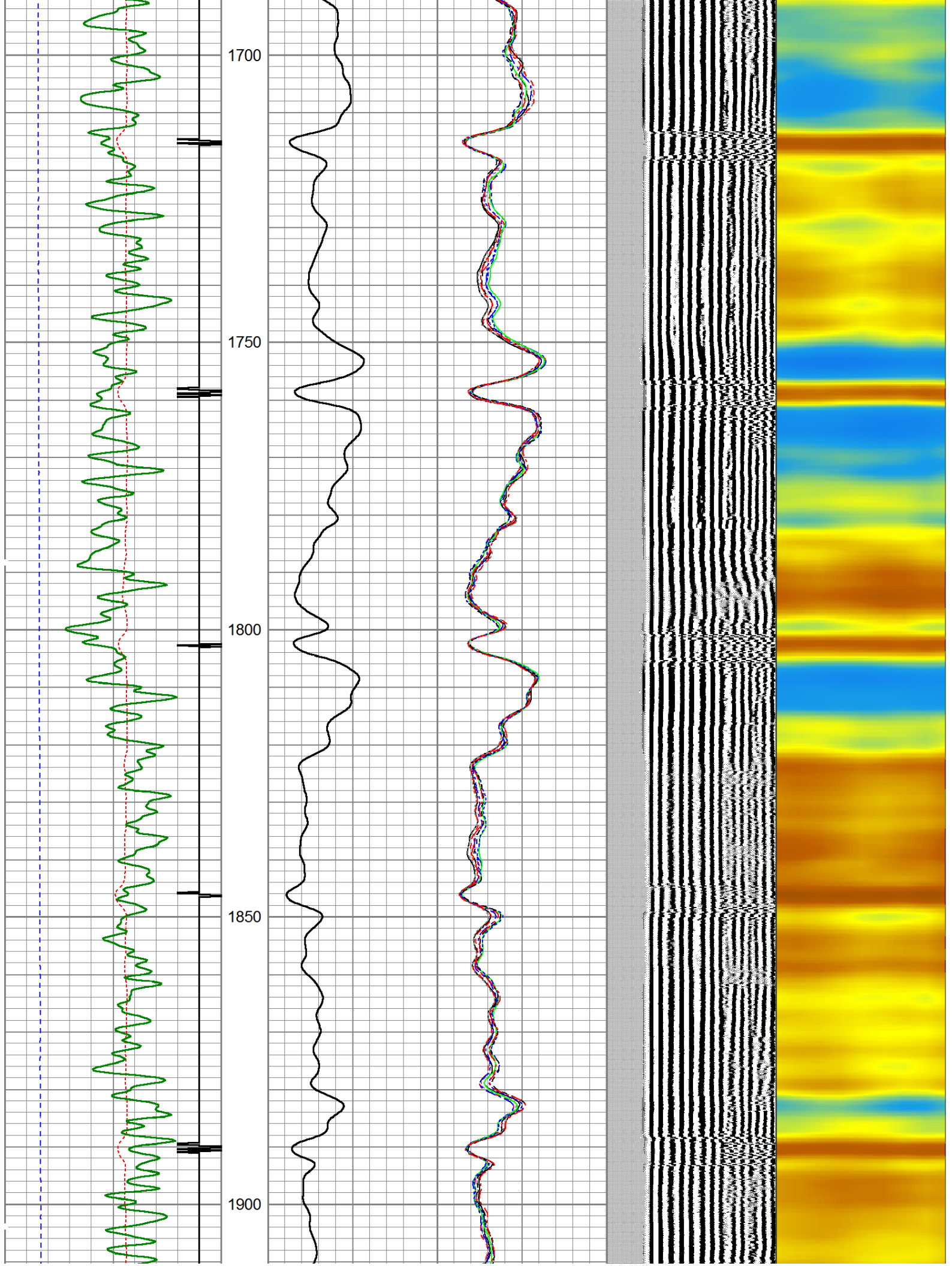


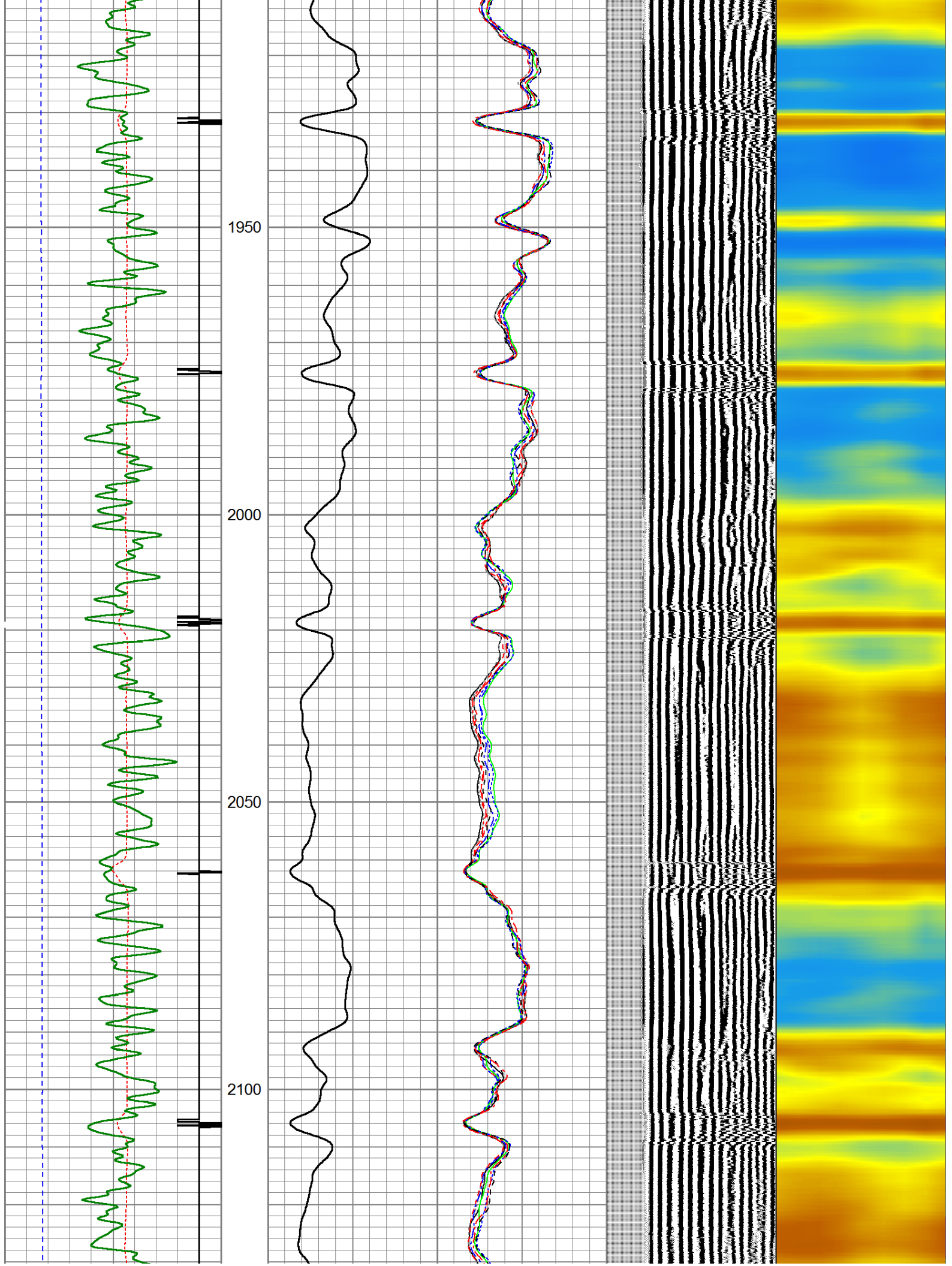


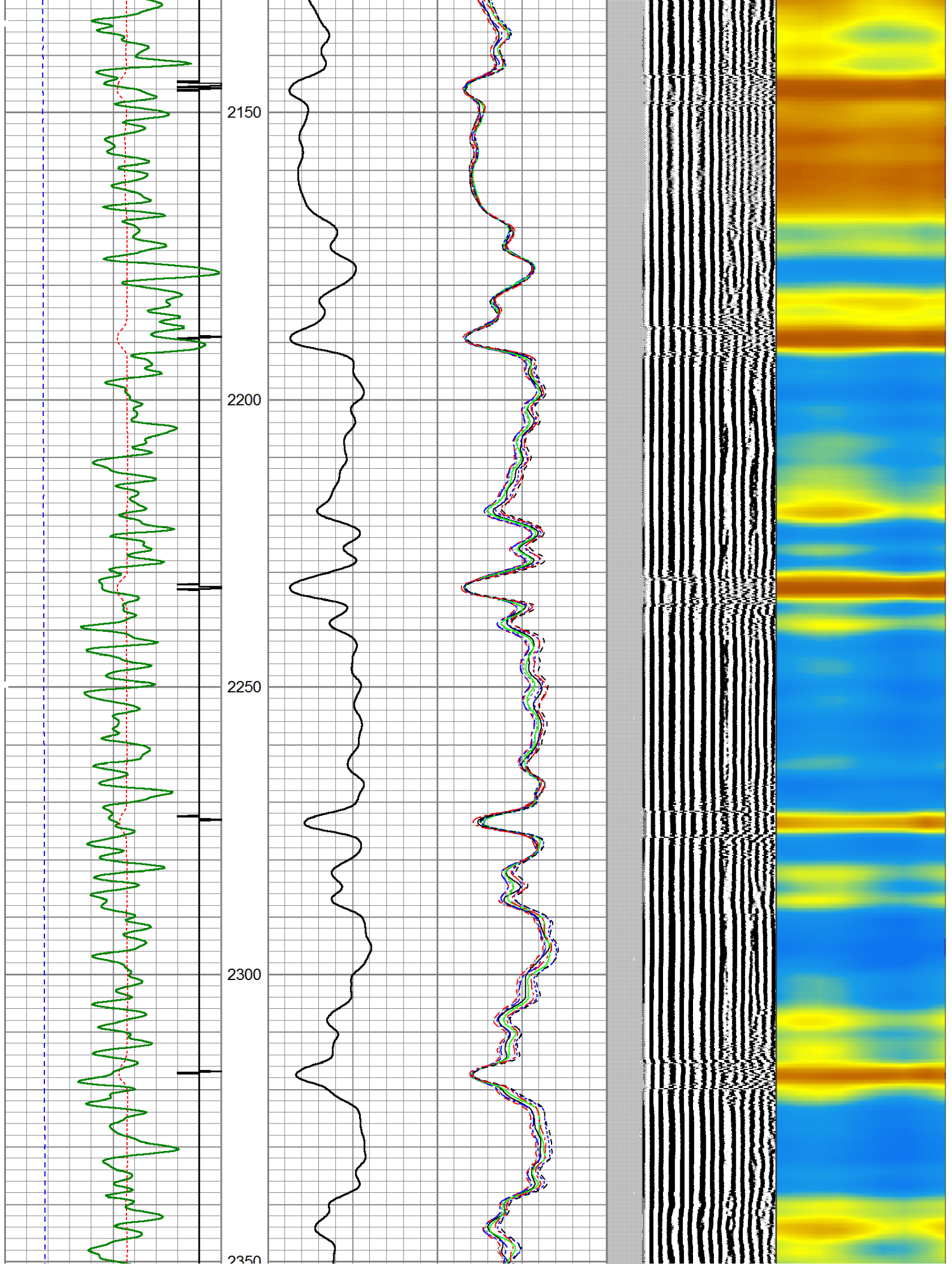


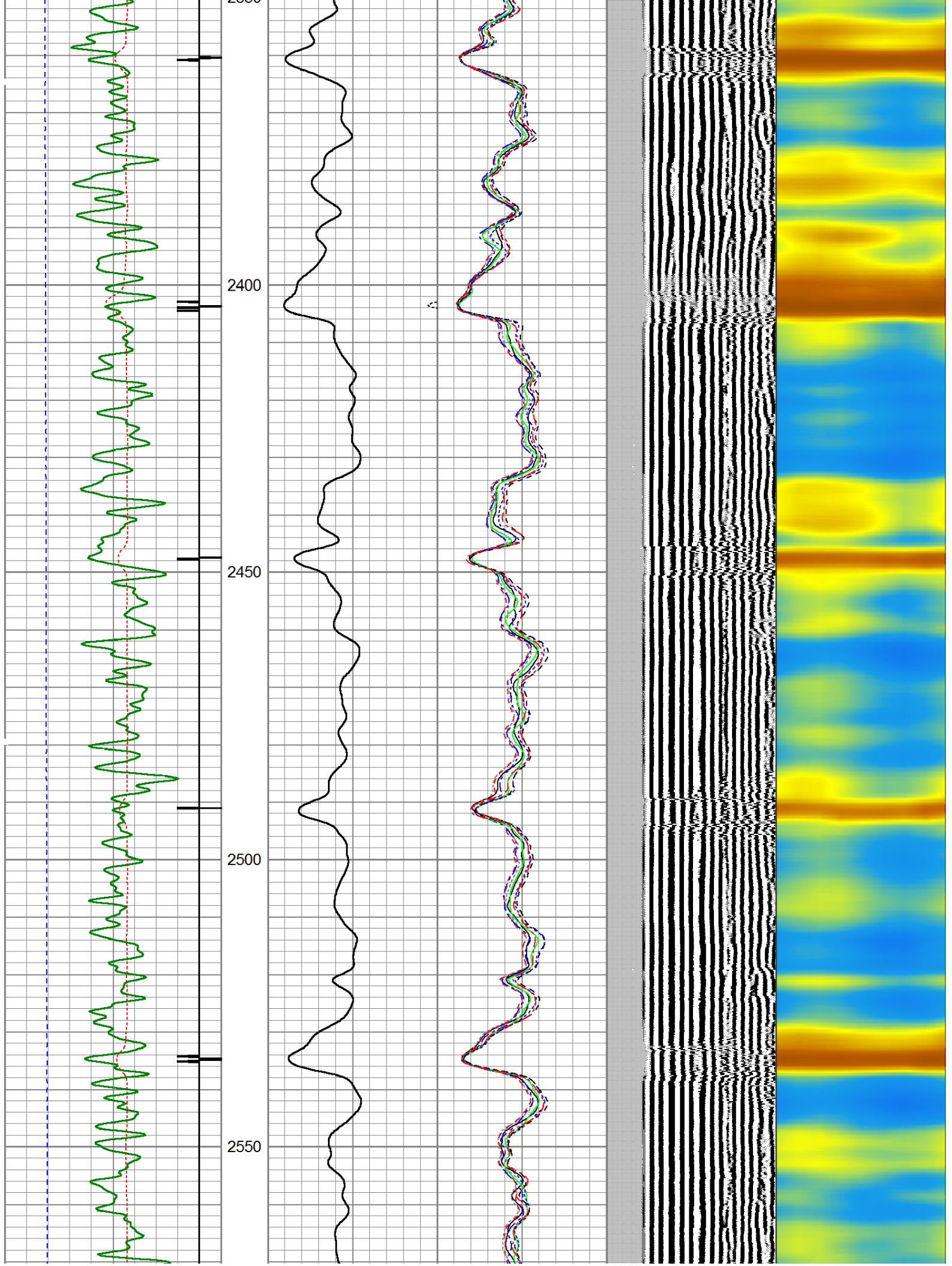


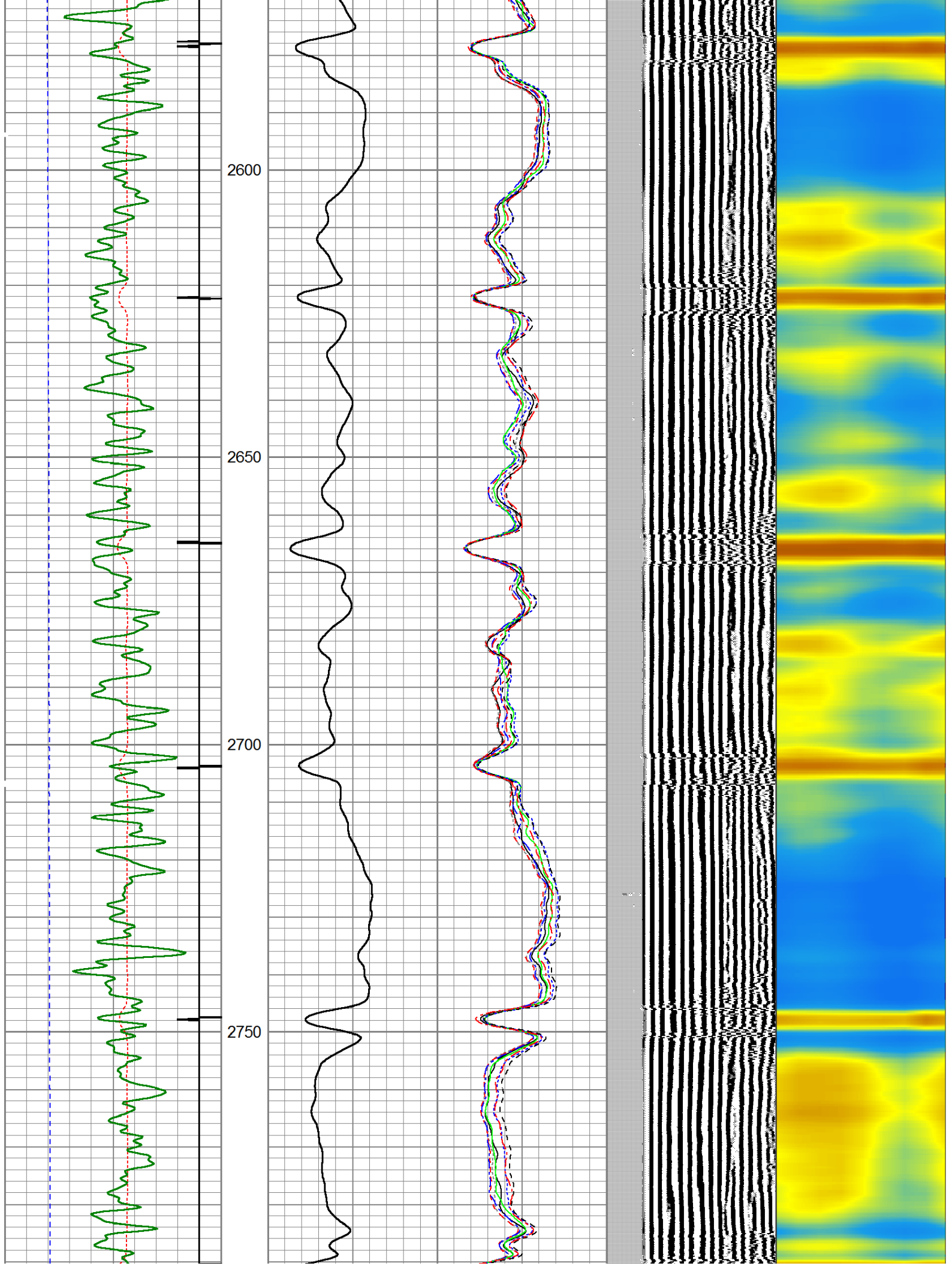


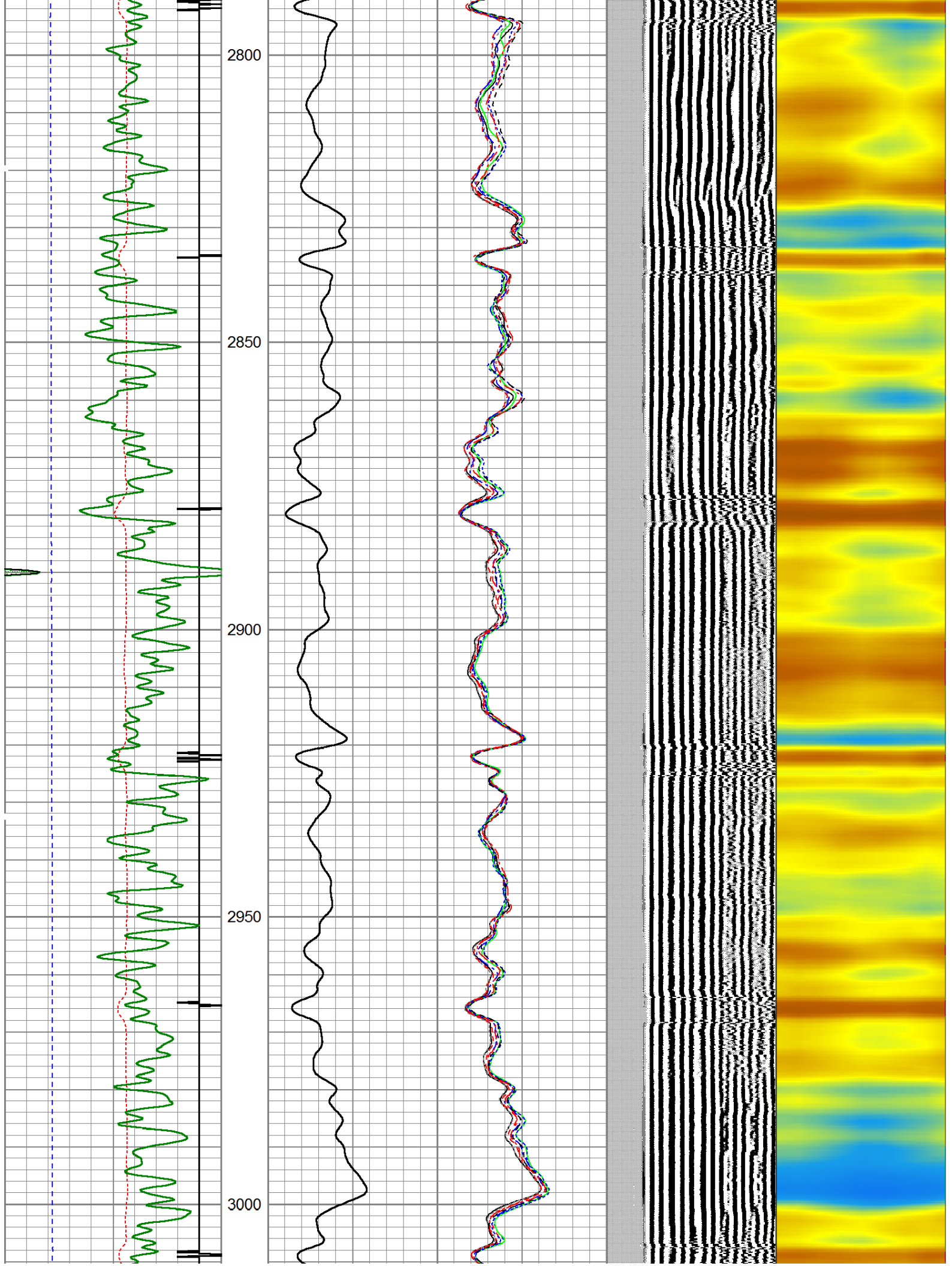


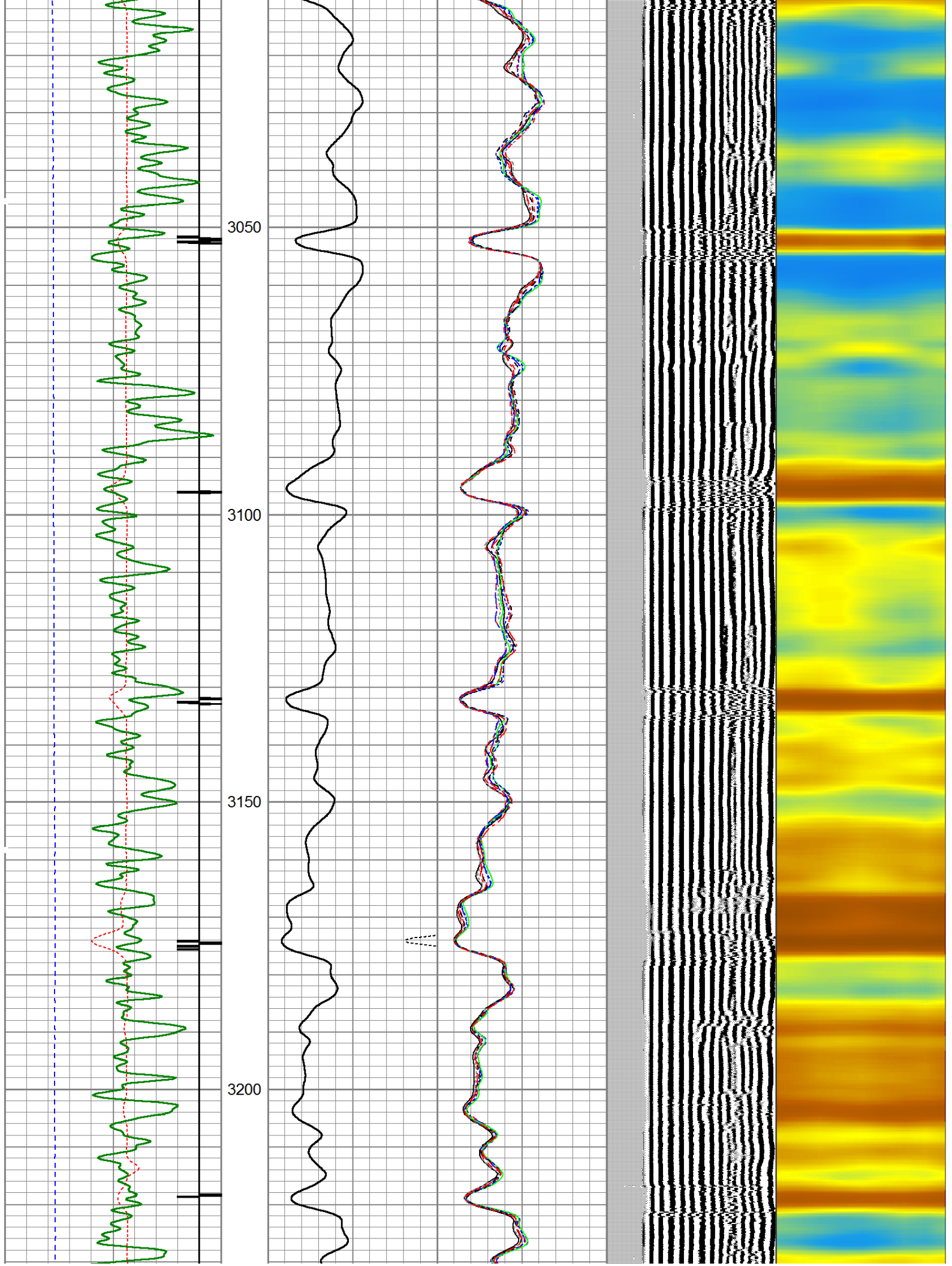


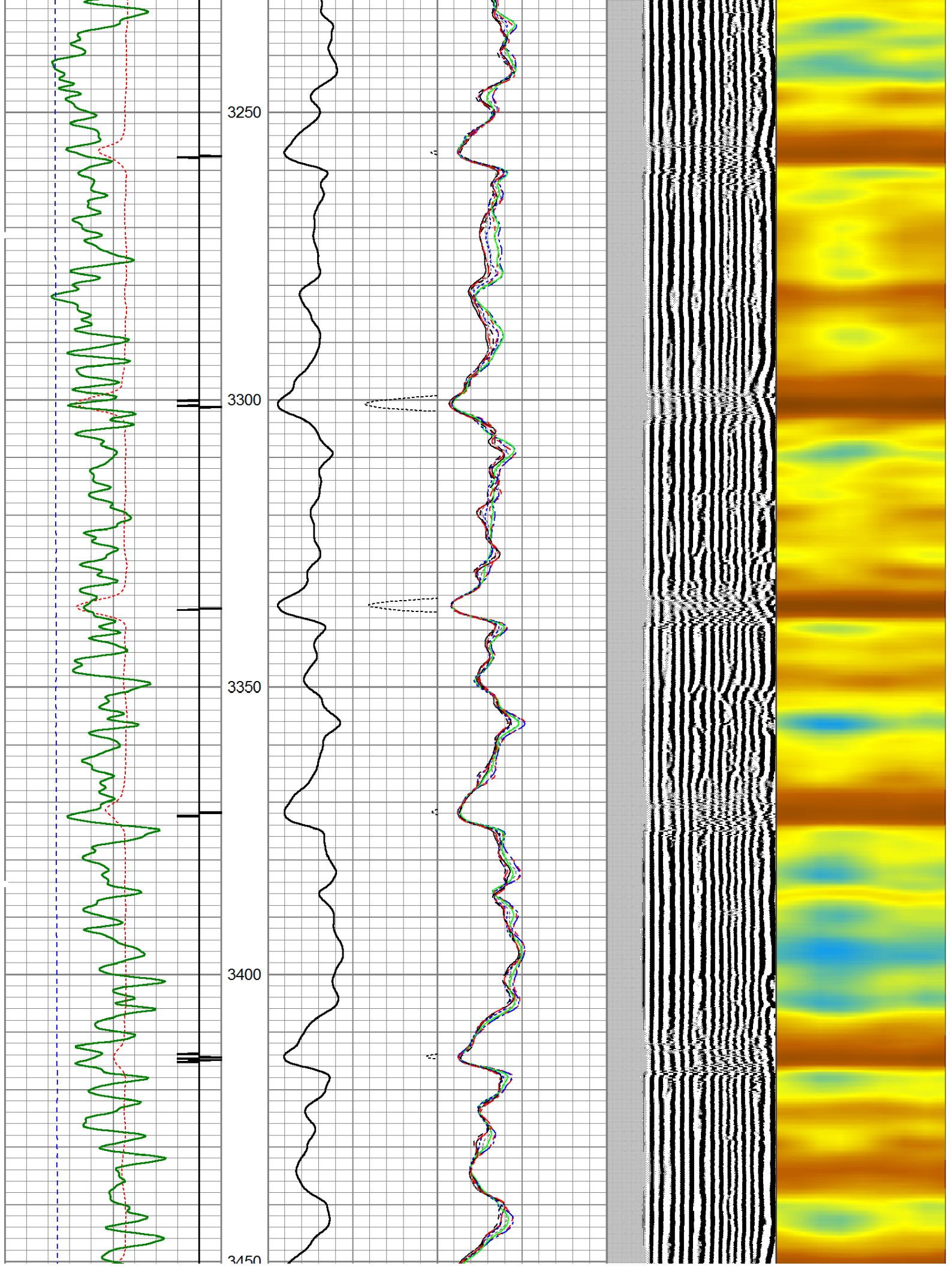


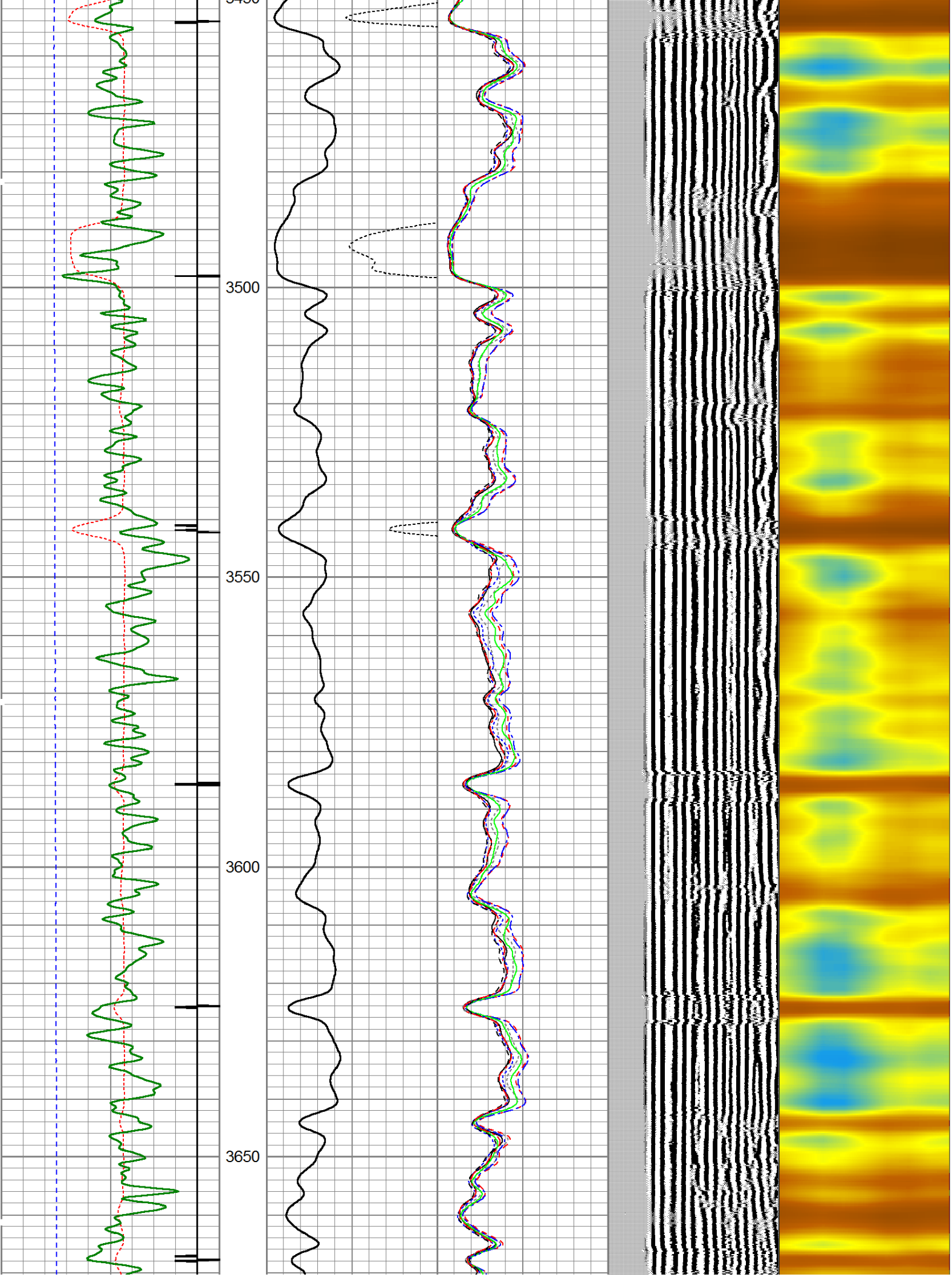


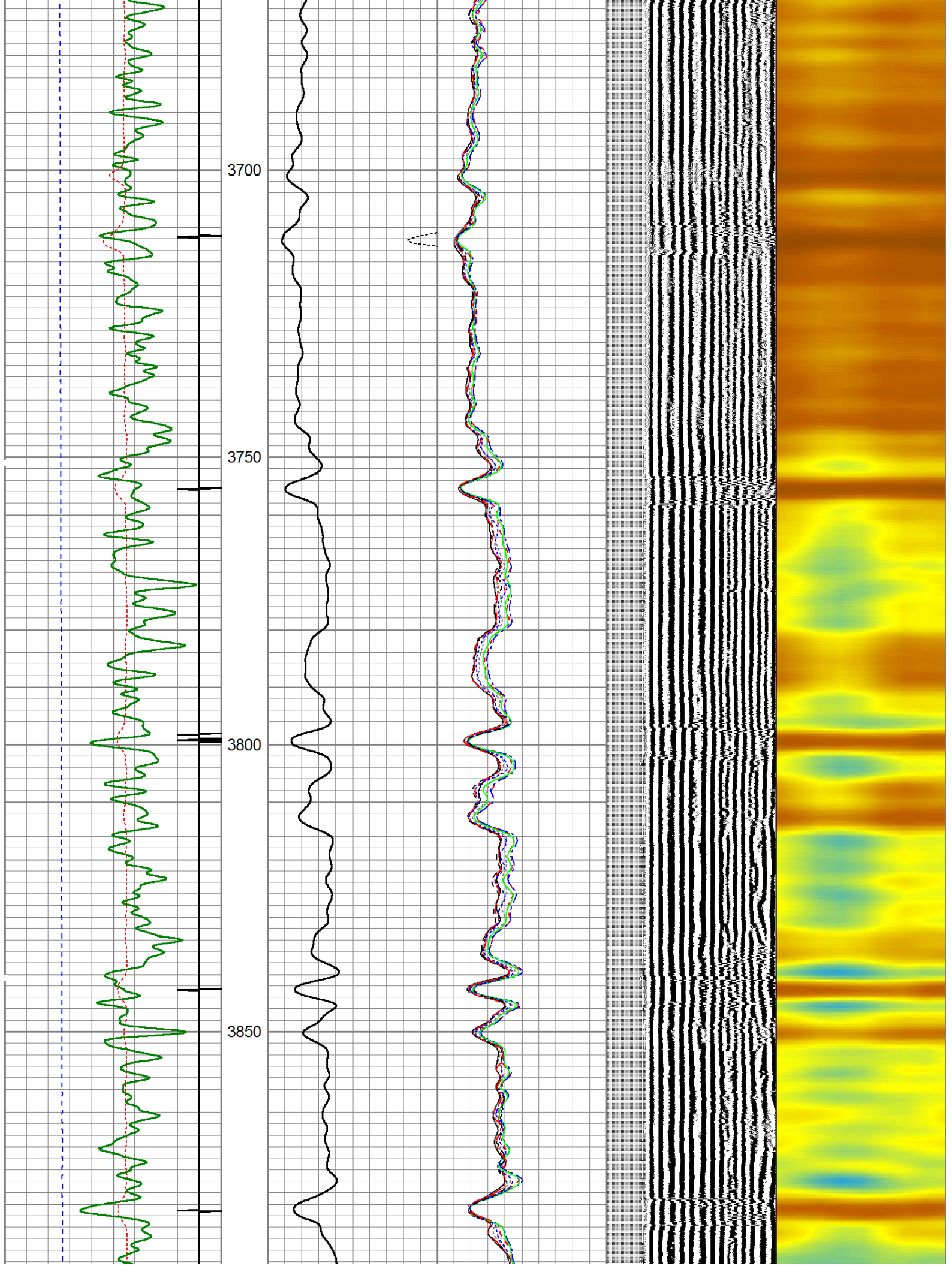


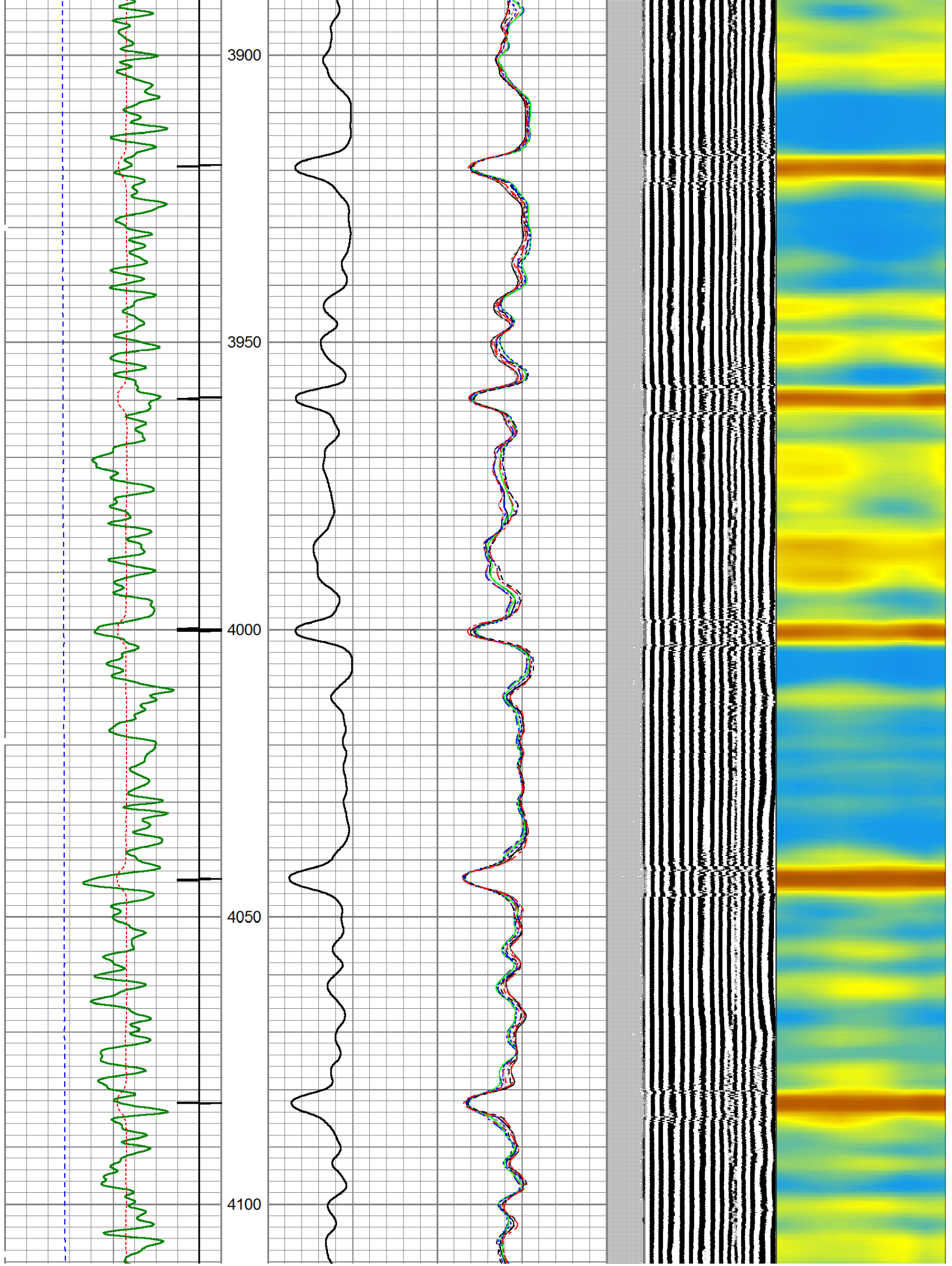


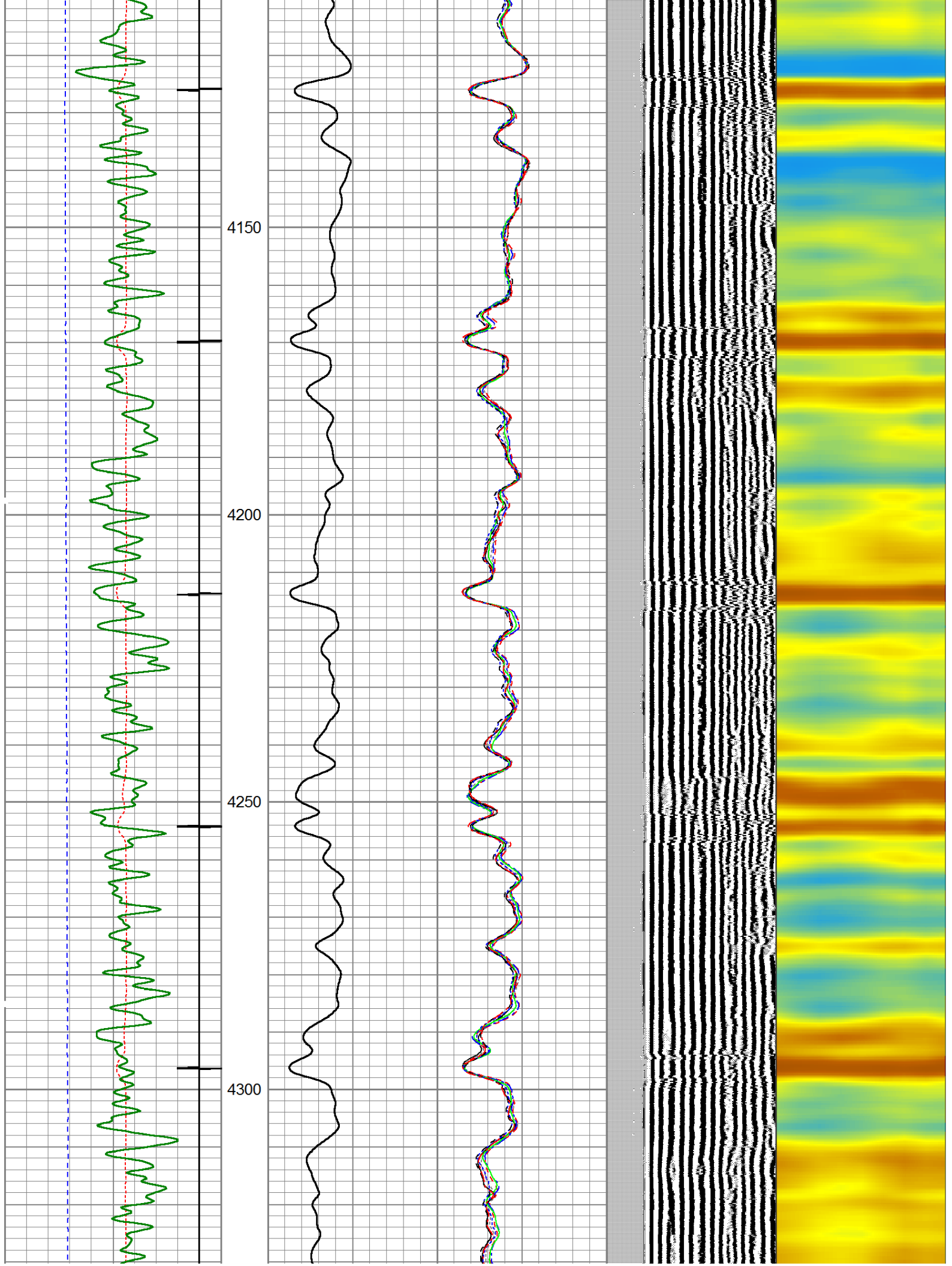


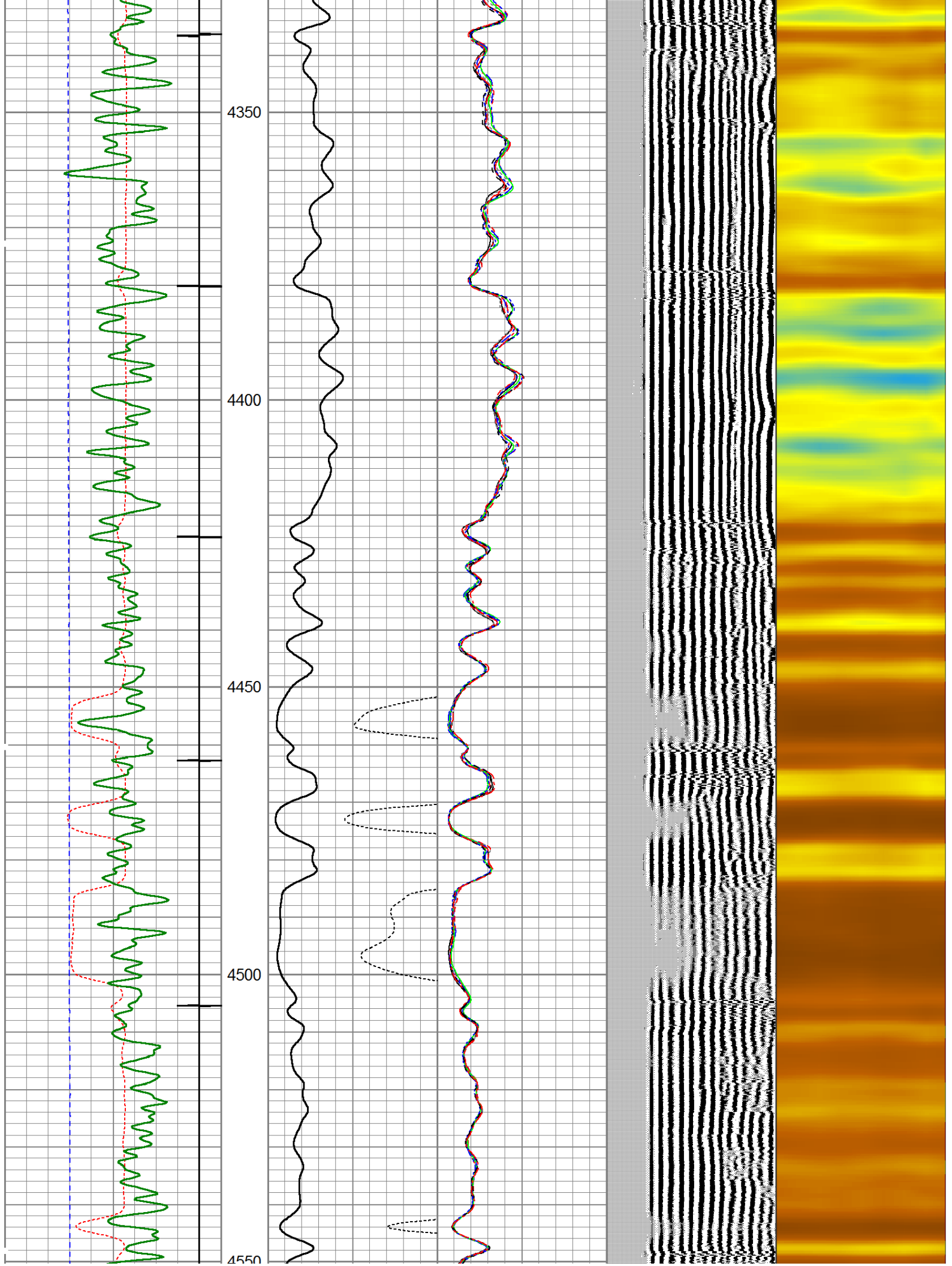


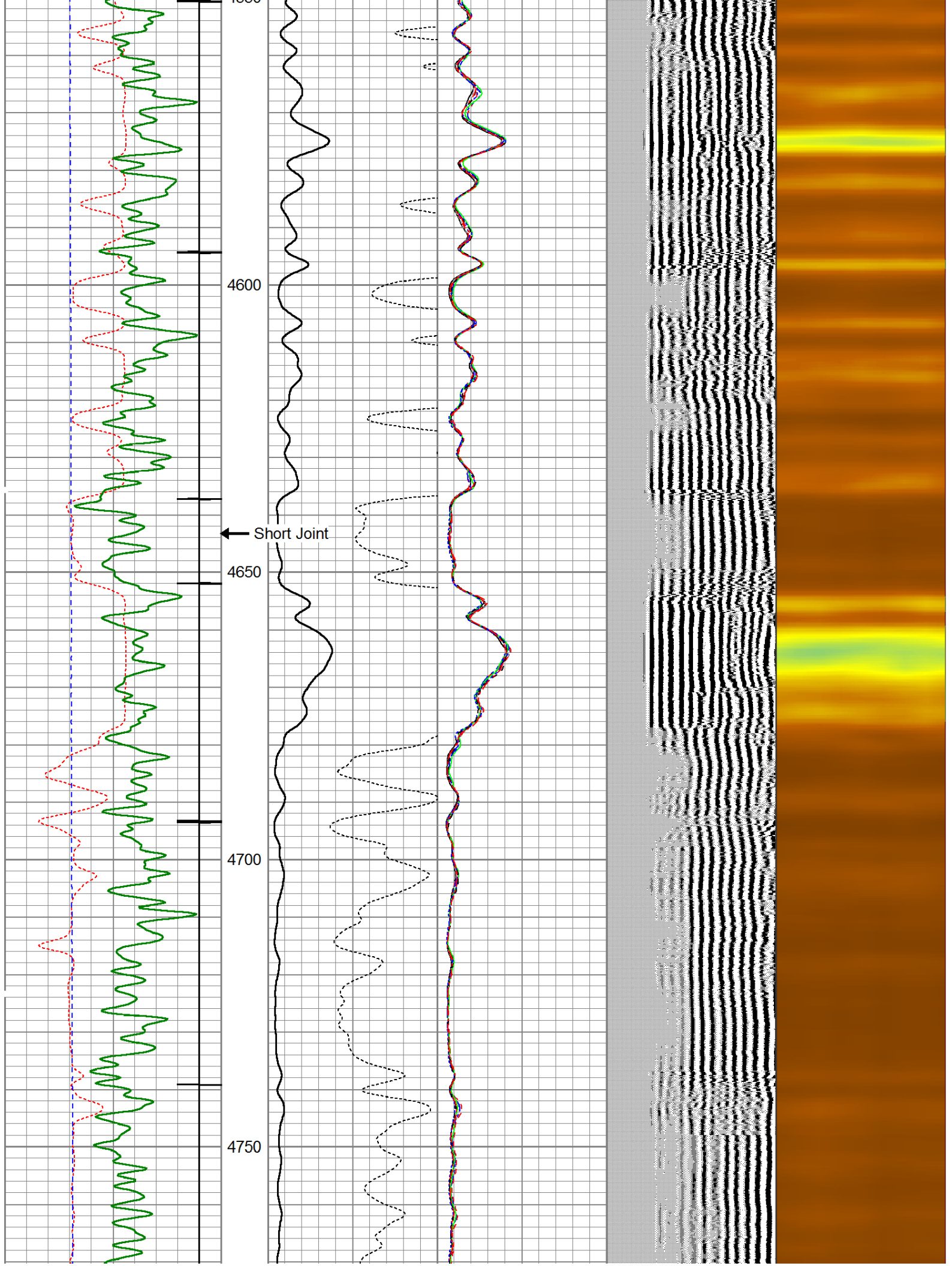


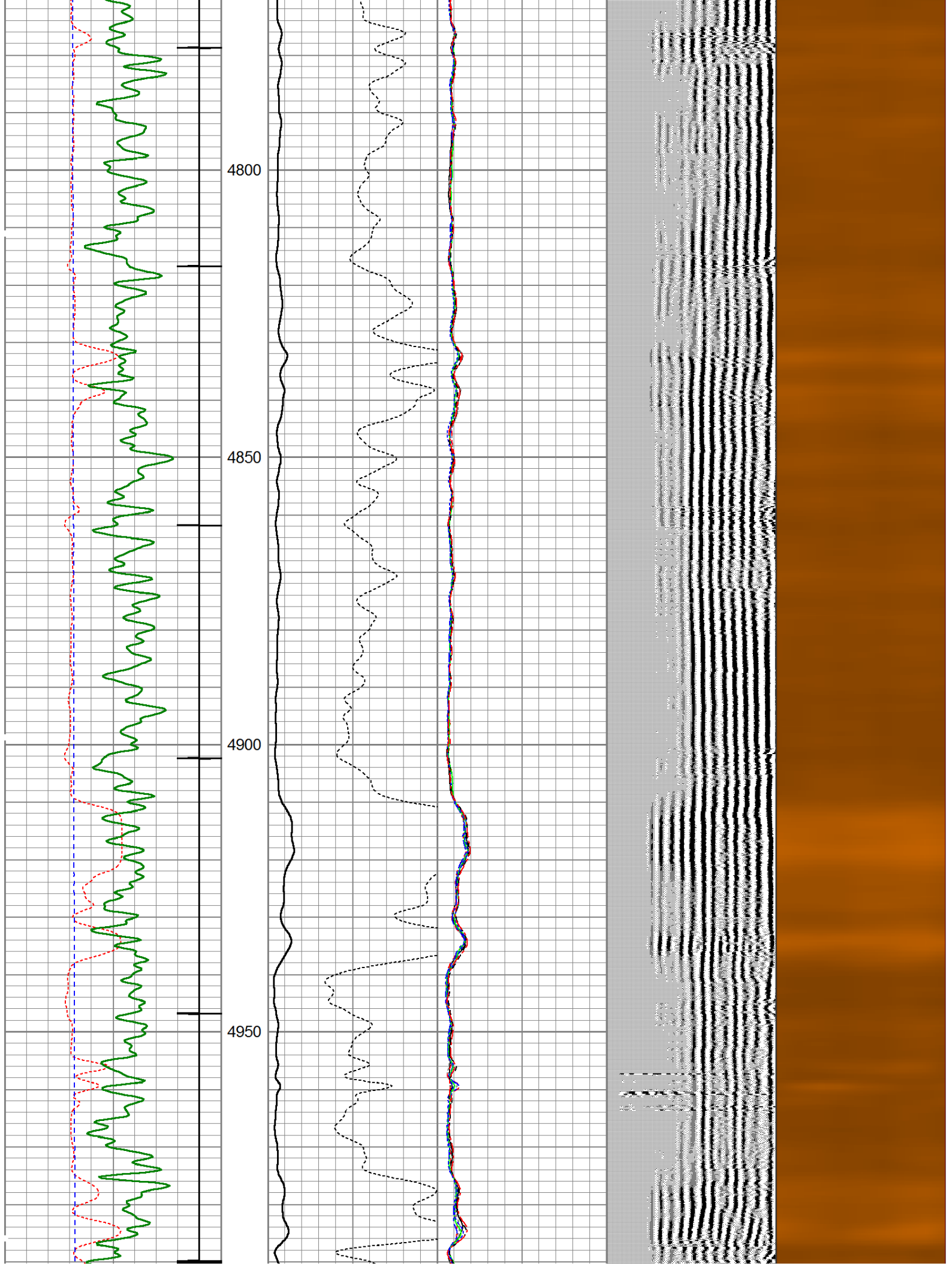


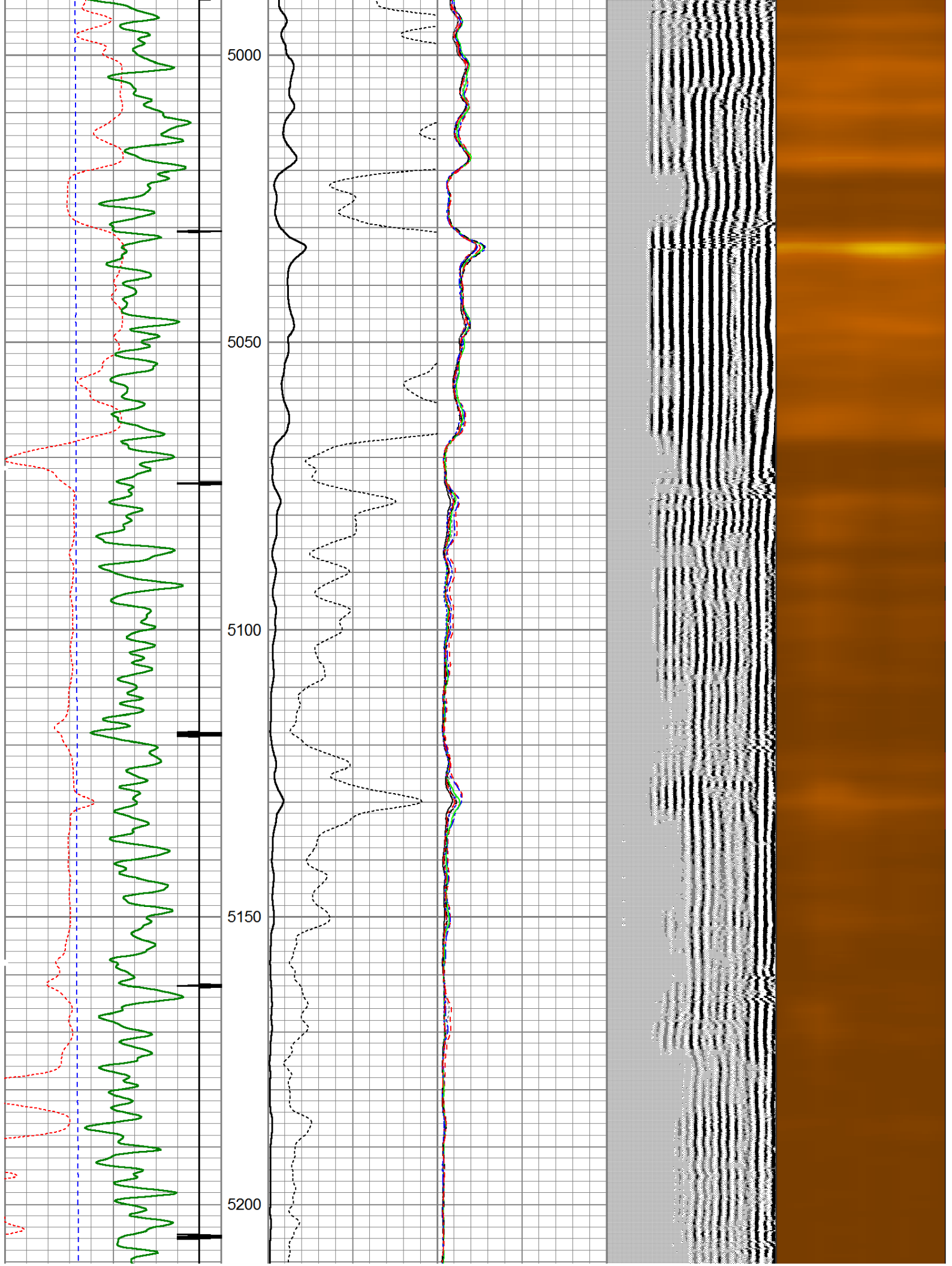


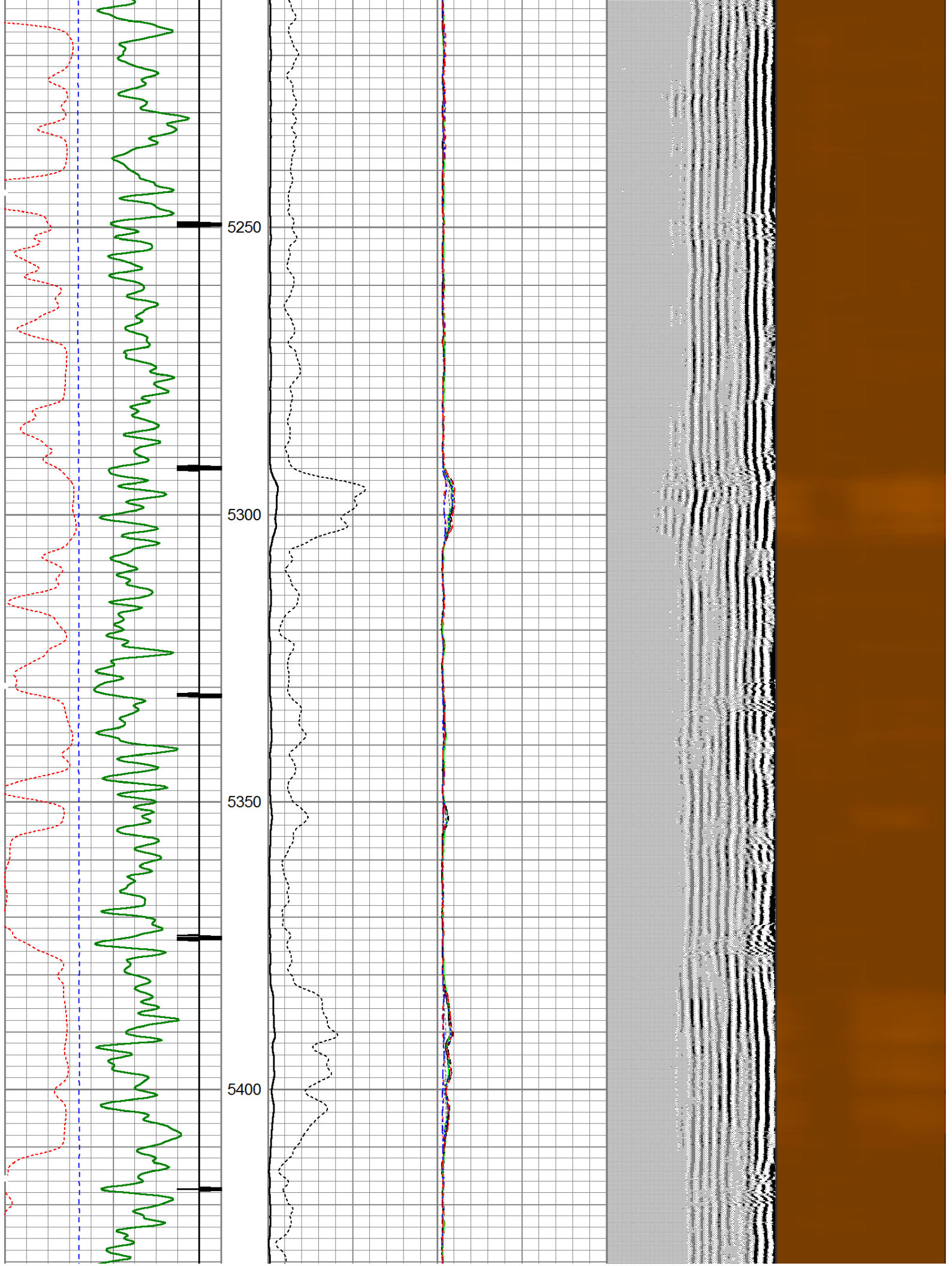


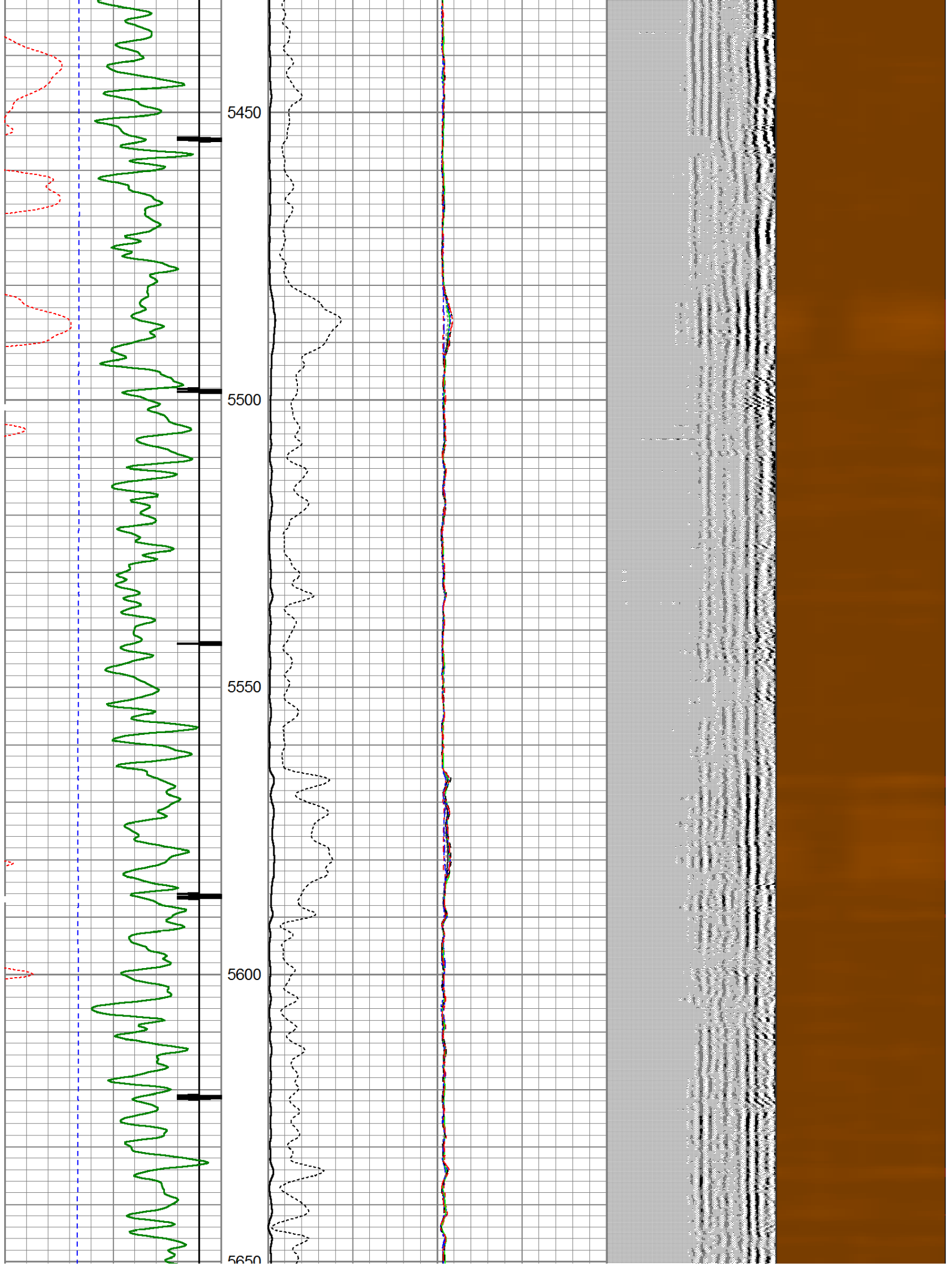


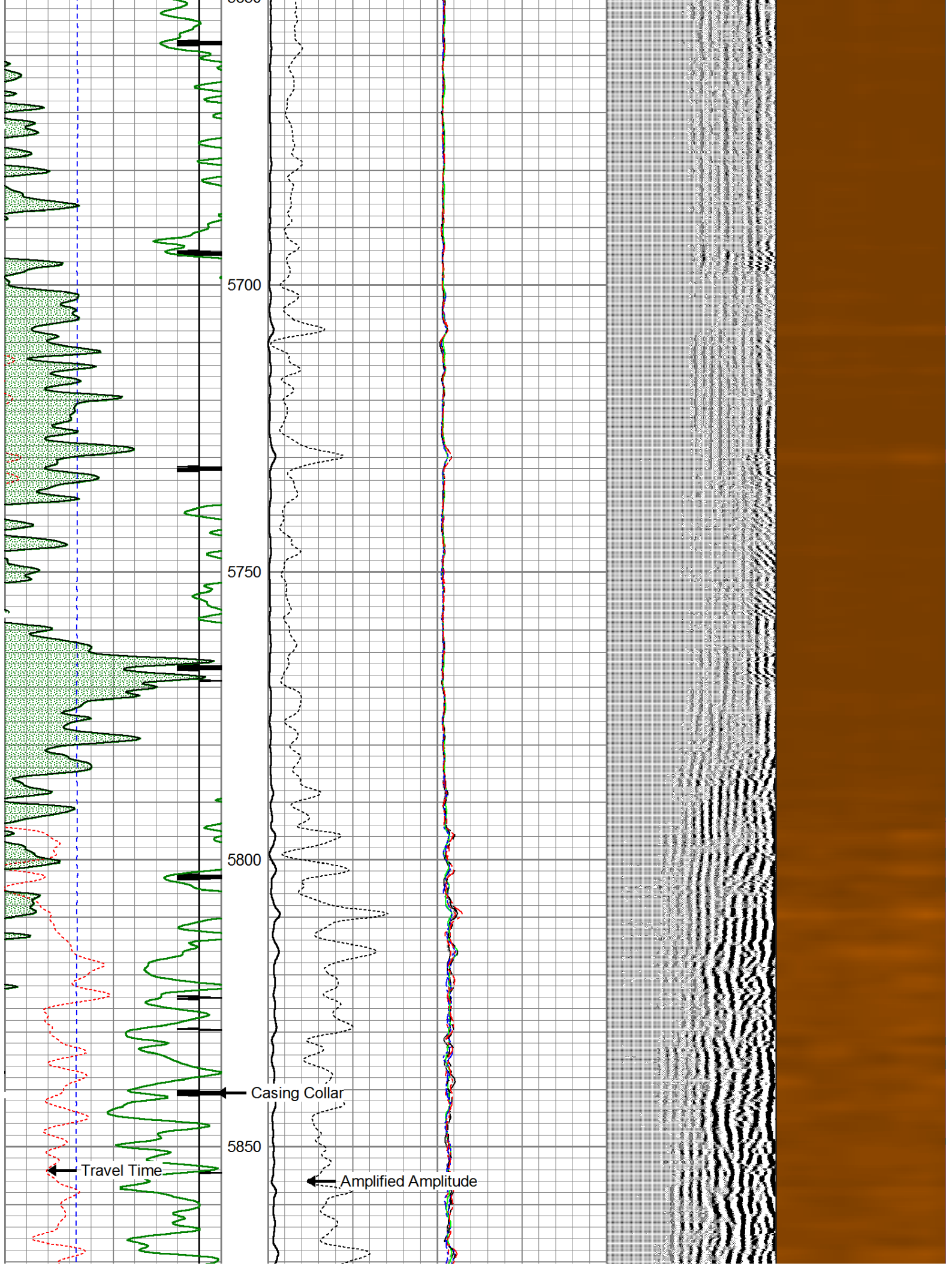


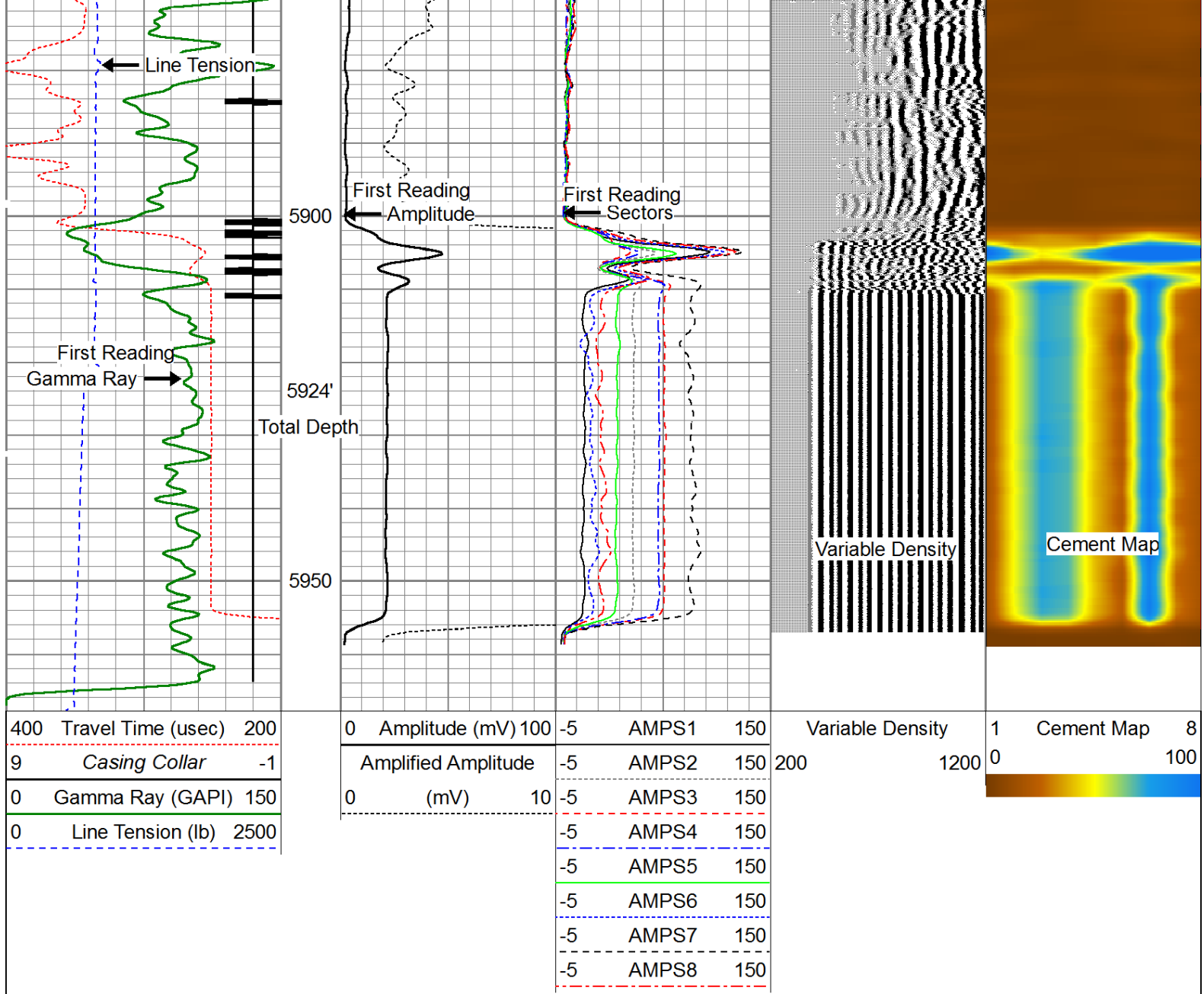






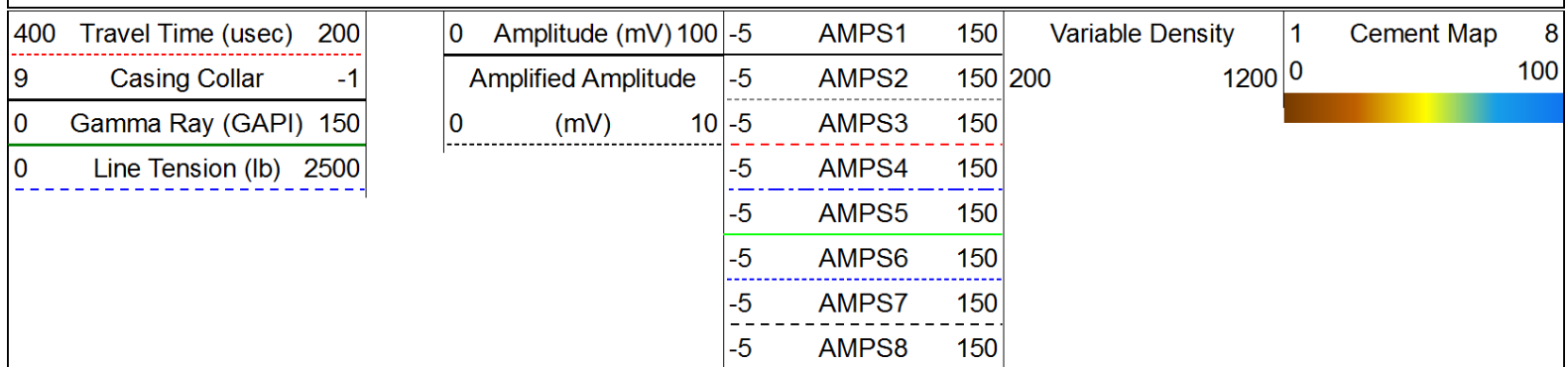


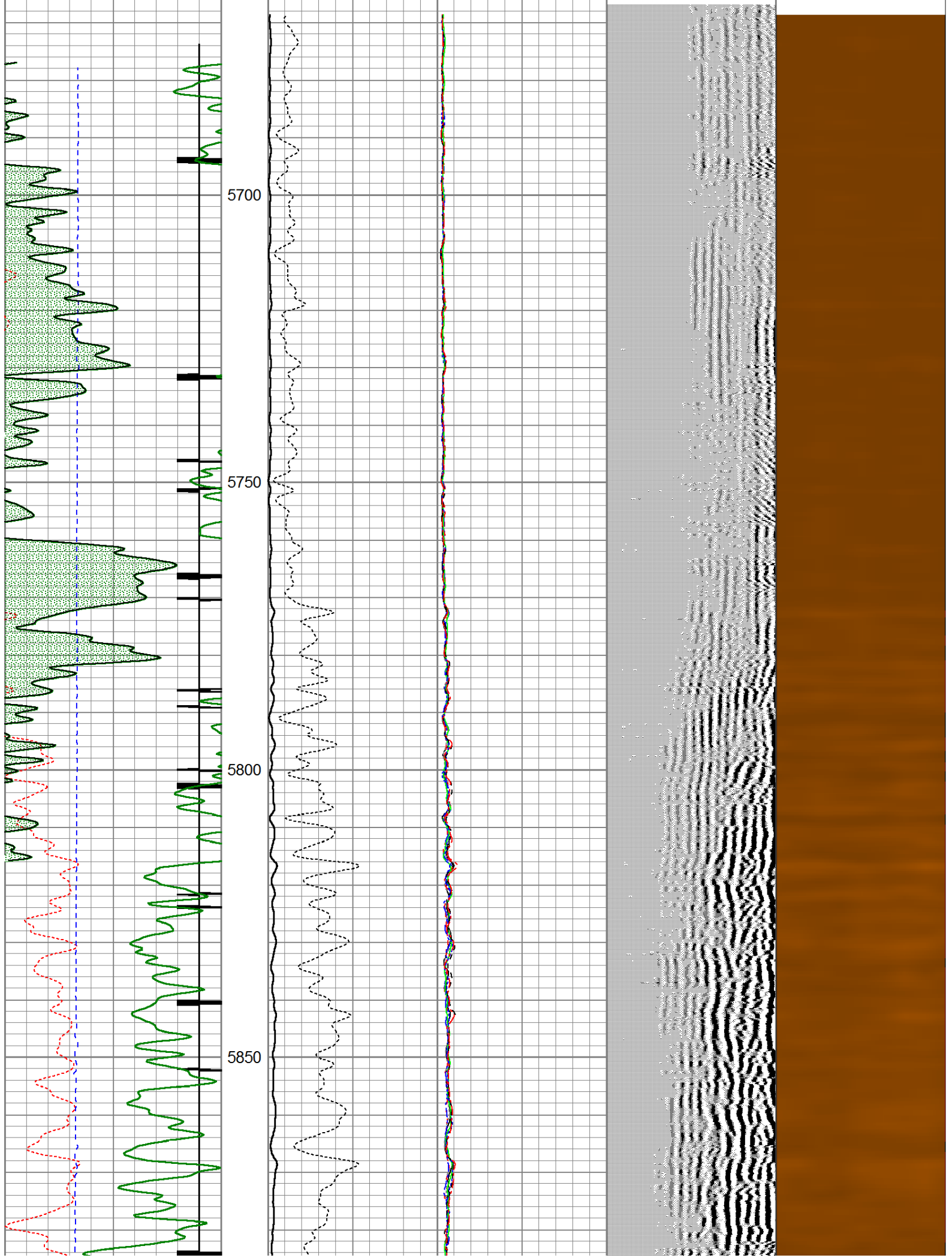


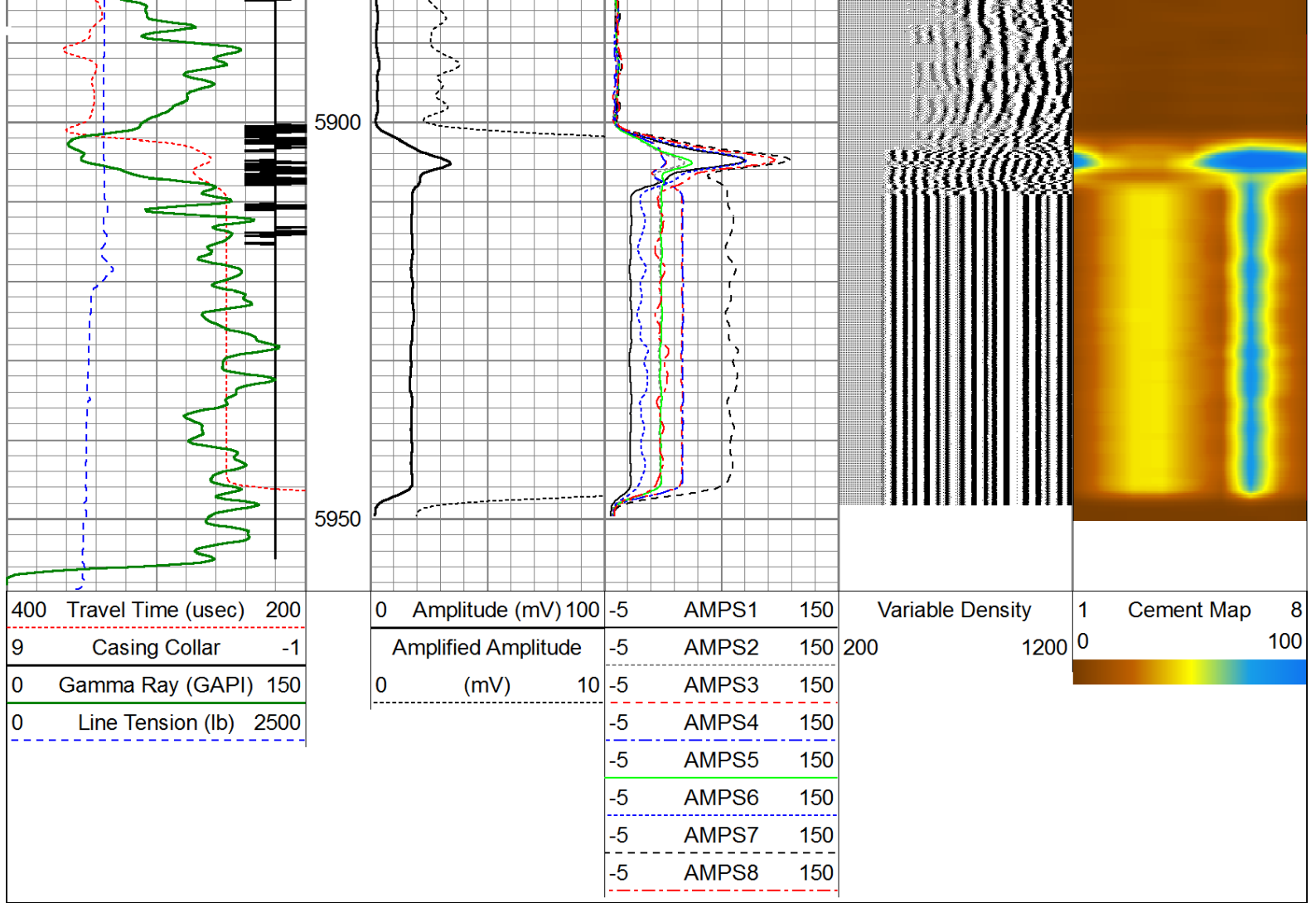


Repeat Pass (0 PSI)

Database File: noble energy rohn state ld04-64-1hn_cbl.db
 Dataset Pathname: pass3
 Presentation Format: scbl03
 Dataset Creation: Thu Oct 10 13:12:16 2013 by Log SCH 120126
 Charted by: Depth in Feet scaled 1:240







Calibration Report					
Database File:	noble energy rohn state ld04-64-1hn_cbl.db				
Dataset Pathname:	pass4				
Dataset Creation:	Thu Oct 10 13:18:41 2013 by Log SCH 120126				
Gamma Ray Calibration Report					
Serial Number:	110108-Dig				
Tool Model:	Probe275				
Performed:	Wed Jul 10 19:14:22 2013				
Calibrator Value:	1.0	GAPI			
Background Reading:	0.0	cps			
Calibrator Reading:	1.0	cps			
Sensitivity:	0.8500	GAPI/cps			
Temperature Calibration Report					
Serial Number:	110108-Dig				
Tool Model:	Probe275				
Performed:	Sun Sep 29 11:21:21 2013				
	Reference		Reading		
Low Reference:	0.00	degF	0.00	cps	
High Reference:	1.00	degF	1.00	cps	
Gain:	1.00				
Offset:	0.00				
Gain Coefficient:	1.00				

Segmented Cement Bond Log Calibration Report

Serial Number: 111107
 Tool Model: Probe
 Calibration Casing Diameter: 7.000 in
 Calibration Depth: 660.011 ft

Master Calibration, performed Thu Oct 10 12:49:52 2013:

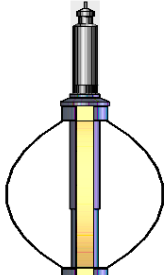
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.010	0.615	1.000	62.165	97.836	1.992
CAL	-0.017	1.041				
5'	-0.010	0.490	1.000	62.165	122.306	2.206
SUM						
S1	0.002	0.634	0.000	100.000	158.312	-0.371
S2	-0.004	0.695	0.000	100.000	142.952	0.625
S3	-0.009	0.711	0.000	100.000	138.965	1.221
S4	-0.008	0.689	0.000	100.000	143.360	1.186
S5	-0.010	0.632	0.000	100.000	155.827	1.583
S6	-0.010	0.574	0.000	100.000	171.237	1.628
S7	-0.011	0.537	0.000	100.000	182.430	1.962
S8	-0.011	0.531	0.000	100.000	184.509	2.014

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

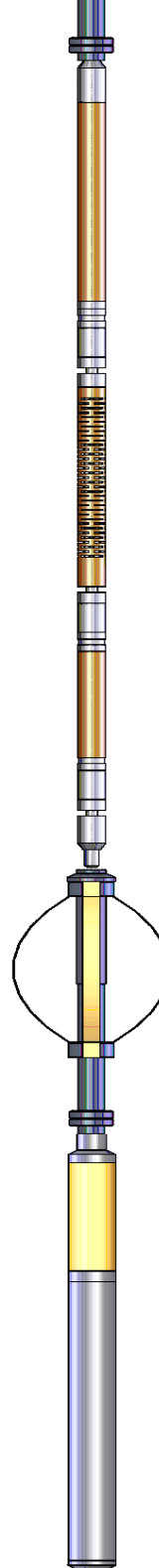
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.017	1.041	1.000	0.000

Air Zero Calibration, performed Wed Oct 09 08:37:09 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)
CHD	20.28		Titan Cable_head	1.00	1.44	10.00
CENT	19.28		Probe275 2.75" Centralizer	2.88	2.75	20.00

Tool Name	Start Depth (ft)	End Depth (ft)	Length (ft)	Weight (lb)	O.D. (in)
WVF3FT	11.84	11.84	0.00	0.00	0.00
WVFCAL	11.84	11.84	0.00	0.00	0.00
WVFS1	11.84	11.84	0.00	0.00	0.00
WVFS2	11.84	11.84	0.00	0.00	0.00
WVFS3	11.84	11.84	0.00	0.00	0.00
WVFS4	11.84	11.84	0.00	0.00	0.00
WVFS5	11.84	11.84	0.00	0.00	0.00
WVFS6	11.84	11.84	0.00	0.00	0.00
WVFS7	11.84	11.84	0.00	0.00	0.00
WVFS8	11.84	11.84	0.00	0.00	0.00
WVF5FT	10.84	11.84	1.00	0.00	0.00
CENT	7.66	11.84	4.18	0.00	0.00
GR	4.78	11.84	7.06	0.00	0.00
TEMP	4.00	11.84	7.84	0.00	0.00
CCL	3.88	11.84	7.96	0.00	0.00
GR	2.54	11.84	9.30	0.00	0.00



RBT-Probe (111107)
Probe Radii Bond Tool with Digital Telemetry

Probe275
2.75" Centralizer

GR-Probe275 (110108-Dig)
Probe 2 3/4" Logging Gamma Ray

Dataset:	noble energy rohn state ld04-64-1hn_cbl.db: field/well/run1/pass4
Total Length:	20.28 ft
Total Weight:	197.00 lb
O.D.:	2.75 in