



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

Company		Noble Energy	
Well		Leeroy B11-79HNM	
Field		Wattenburg	
County		Weld	
State		Colorado	
Location:		API # : 05-123-37192	
SEC 11 TWP 6N RGE 64W		535' FNL & 74' FWL	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing 24' APD	
Drilling Measured From		Kelley Bushing	
Other Services		None	
Elevation		K.B. 4627'	
		D.F. 4626'	
		G.L. 4603'	
Date		28-June-2013	
Run Number		1	
Depth Driller		14095'	
Depth Logger		6925'	
Bottom Logged Interval		6913'	
Top Log Interval		Surface	
Open Hole Size		8.125	
Type Fluid		Fresh Water	
Density / Viscosity		8.33	
Max. Recorded Temp.		230	
Estimated Cement Top		NA	
Time Well Ready		7.00	
Time Logger on Bottom		1000	
Equipment Number		13033	
Location		Brighton	
Recorded By		R.Grissom	
Witnessed By		B. Mansfield	
L. Hobbs			
Borehole Record		Tubing Record	
Run Number		Bit	
One		13.75"	
Two		8.75"	
Three		6.125"	
Casing Record		Size	
Surface String		9.625"	
Prot. String		7"	
Production String		4.5"	
Liner		Short Joint	

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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 and Repeat Pass logged under zero pressure on surface.

Your Crew for today: R.Grissom, L. Hobbs, E. Soto, B. Monroe

Thank You for using Allied Wireline.

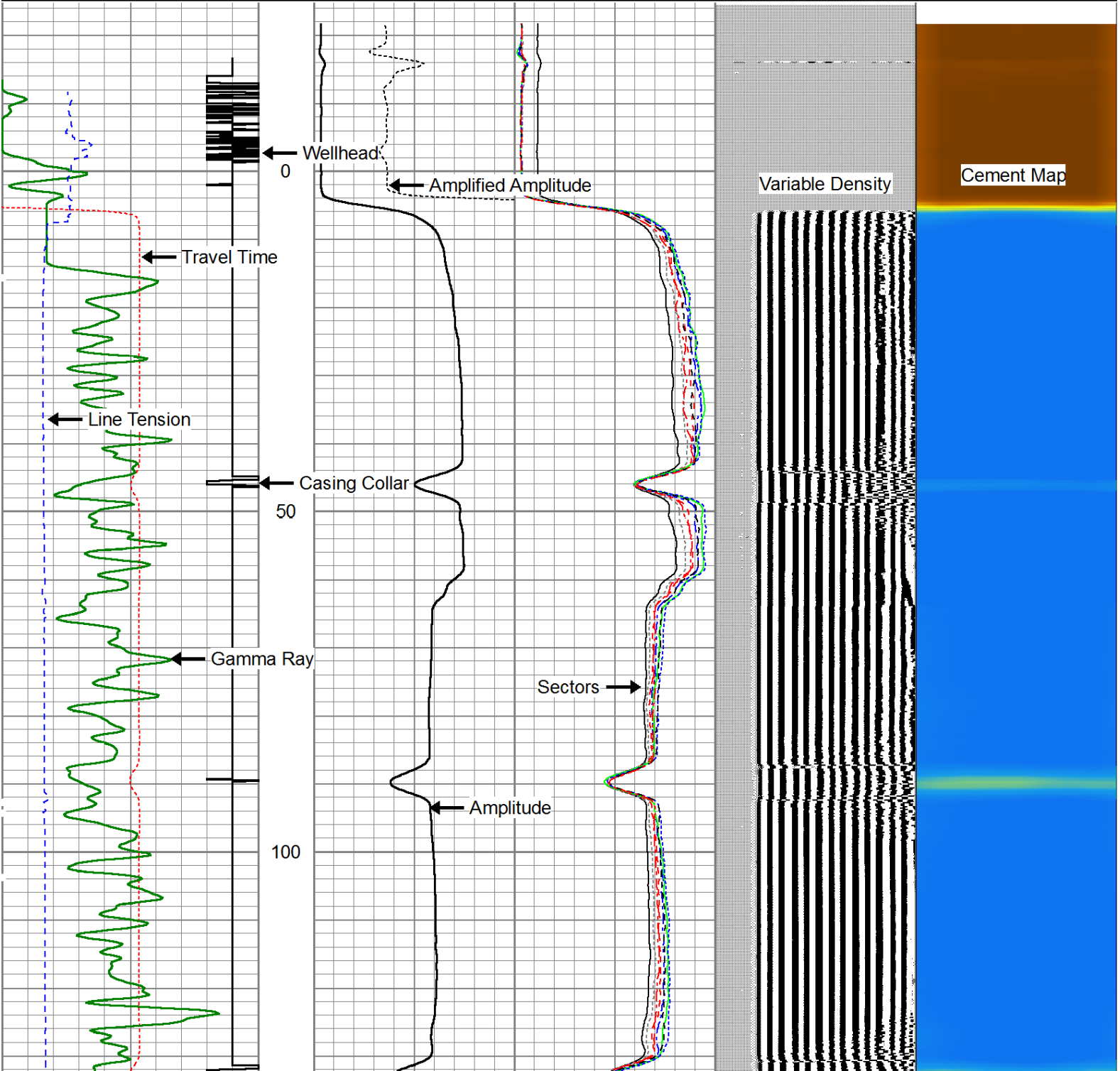
(303) 659-4609

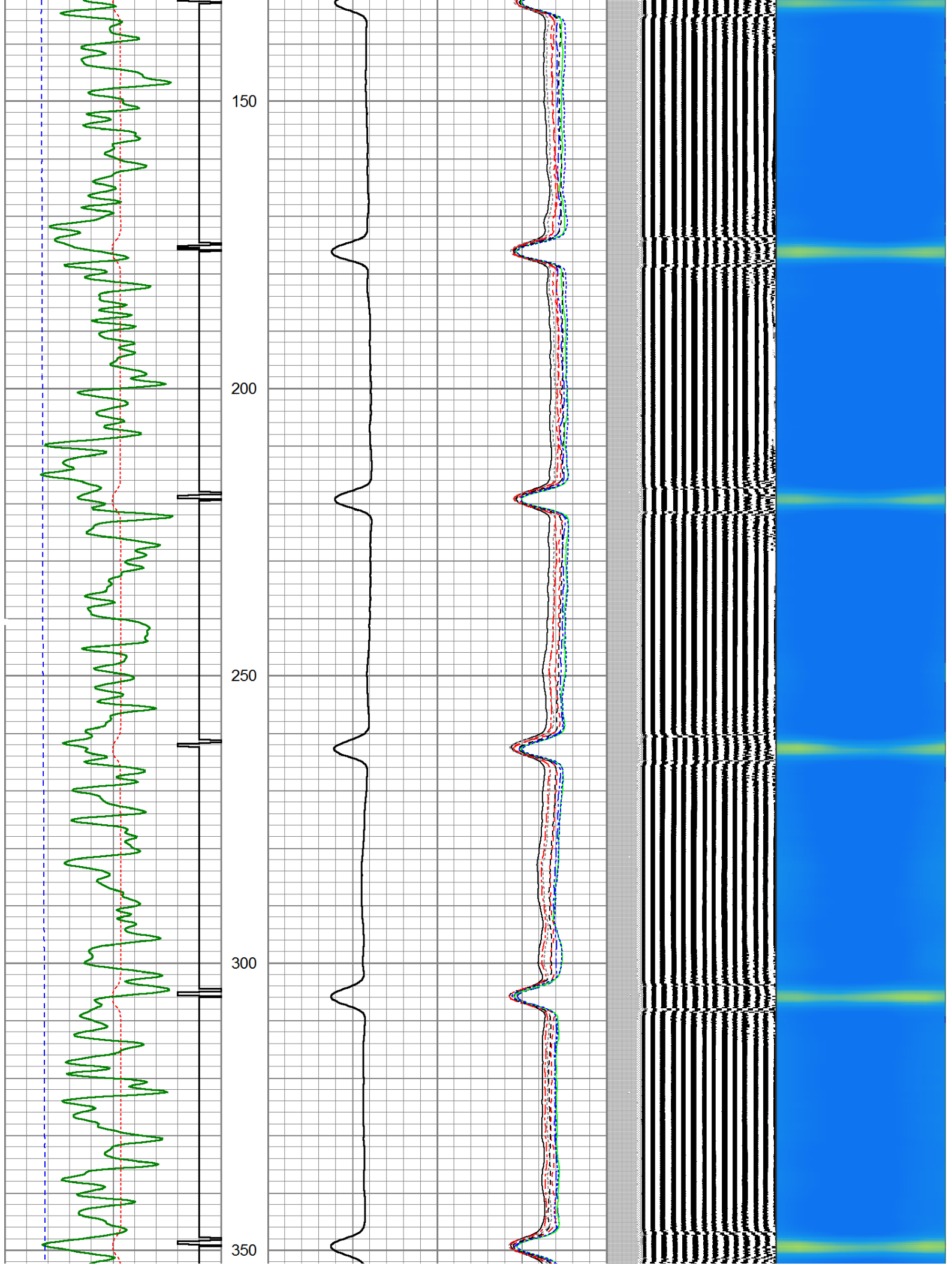


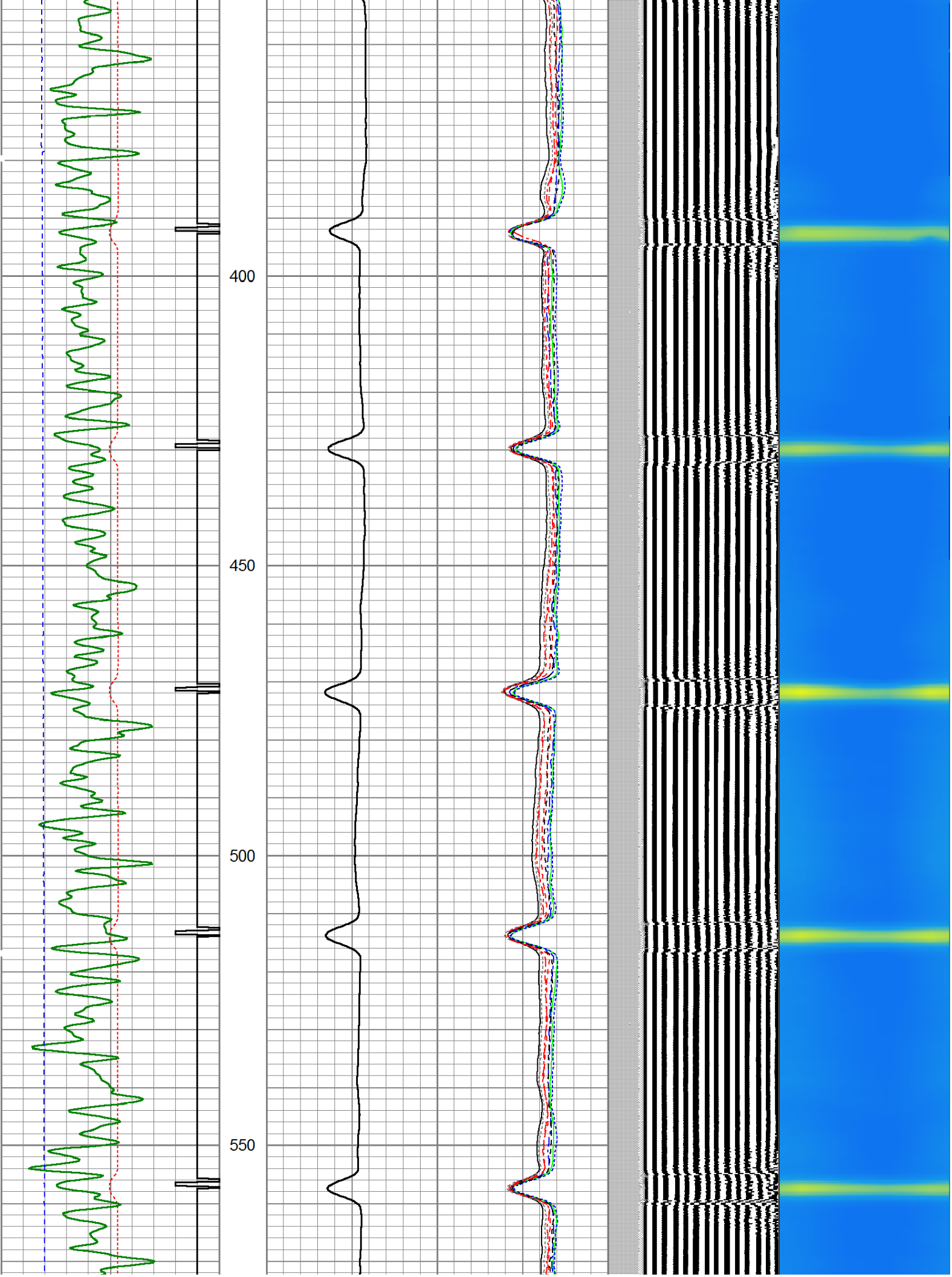
Main Pass (0 PSI)

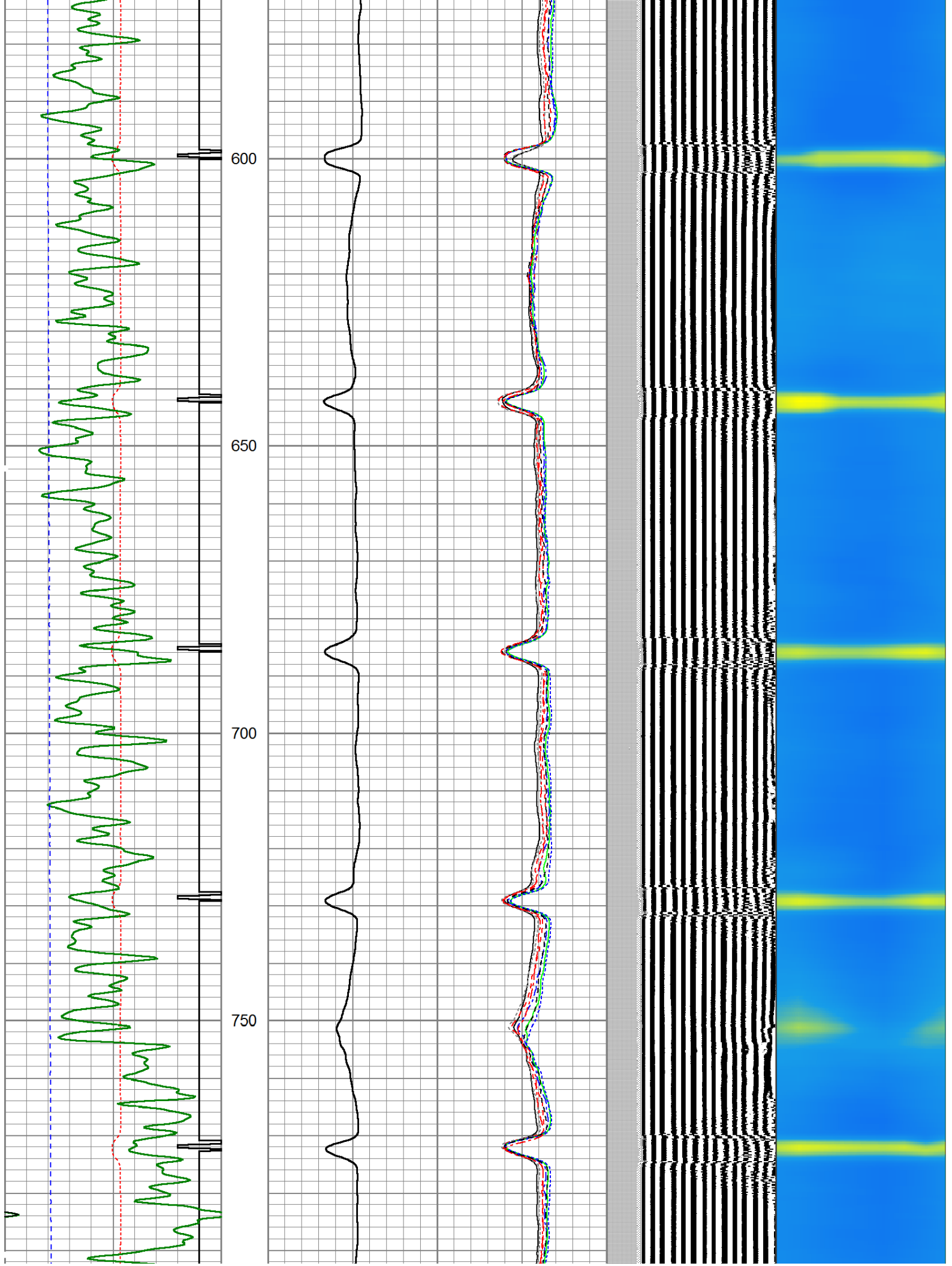
Database File: noble_leeroy_b11_79hnm_rcbl.db
Dataset Pathname: pass13
Presentation Format: scbl03
Dataset Creation: Fri Jun 28 11:01:40 2013 by Calc 0
Charted by: Depth in Feet scaled 1:240

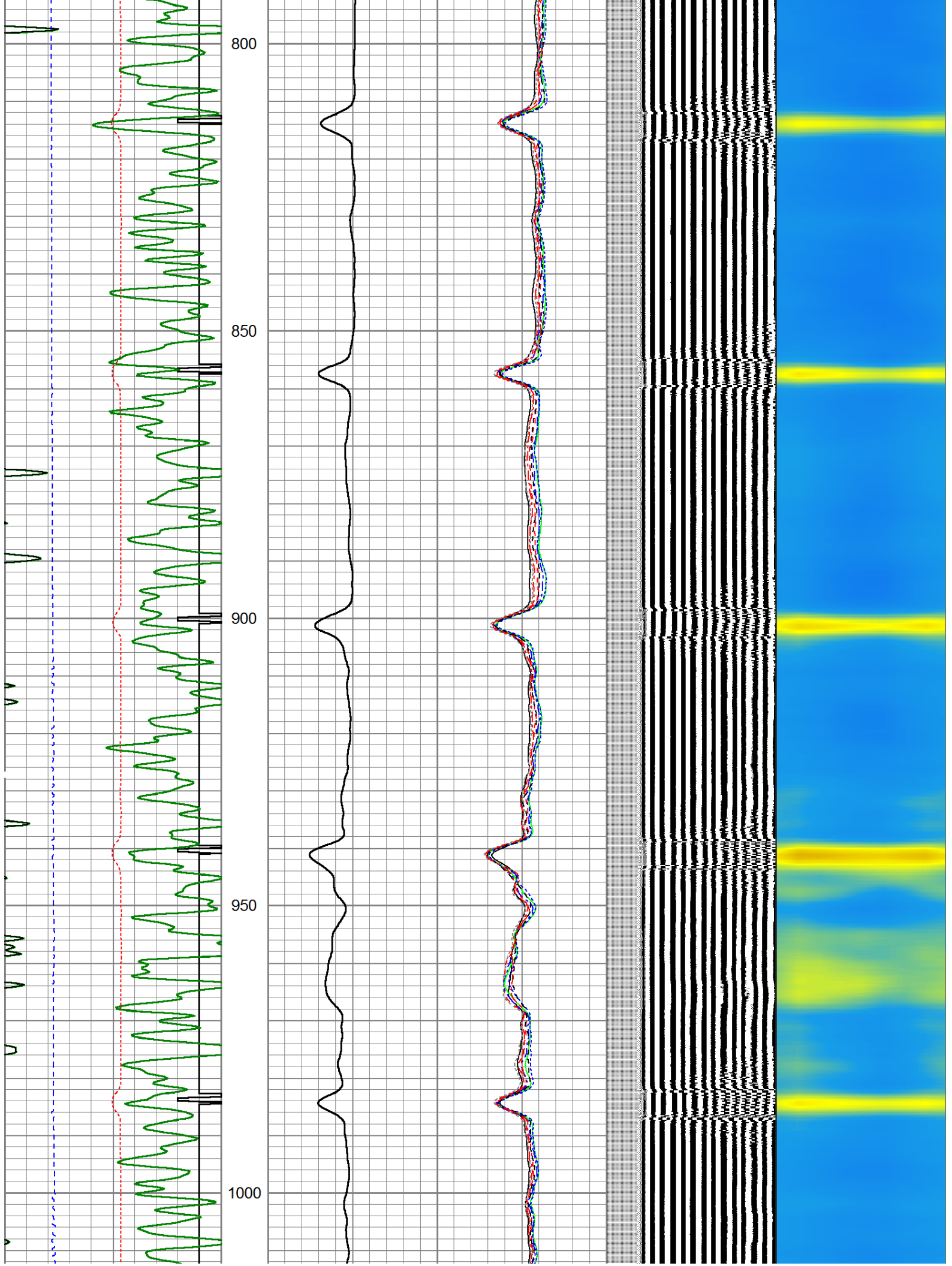
400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1		Amplified Amplitude		-5	AMPS2	150	200	1200	0	100
0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150				
0	Line Tension (lb)	2000				-5	AMPS4	150				
						-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				

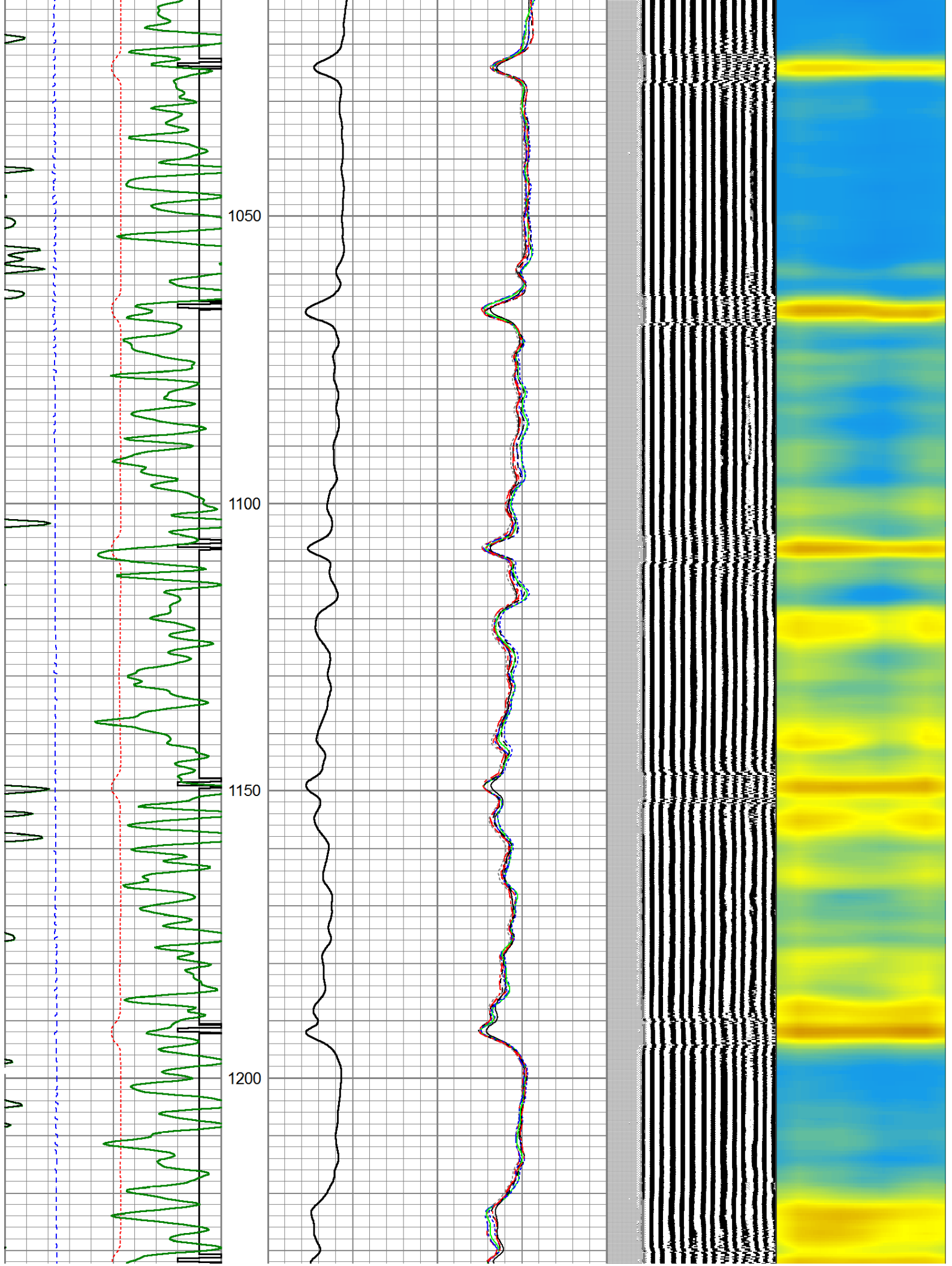


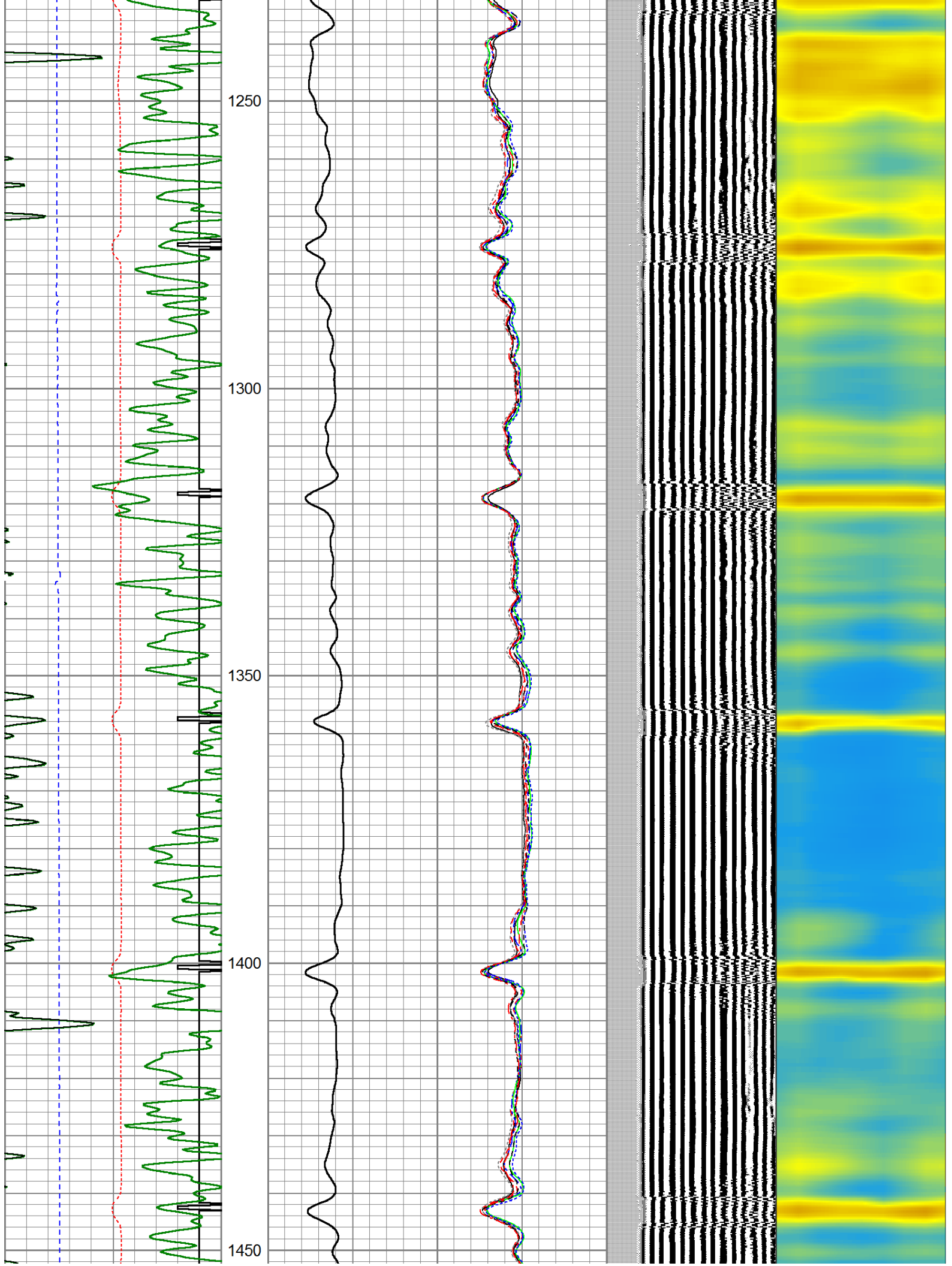


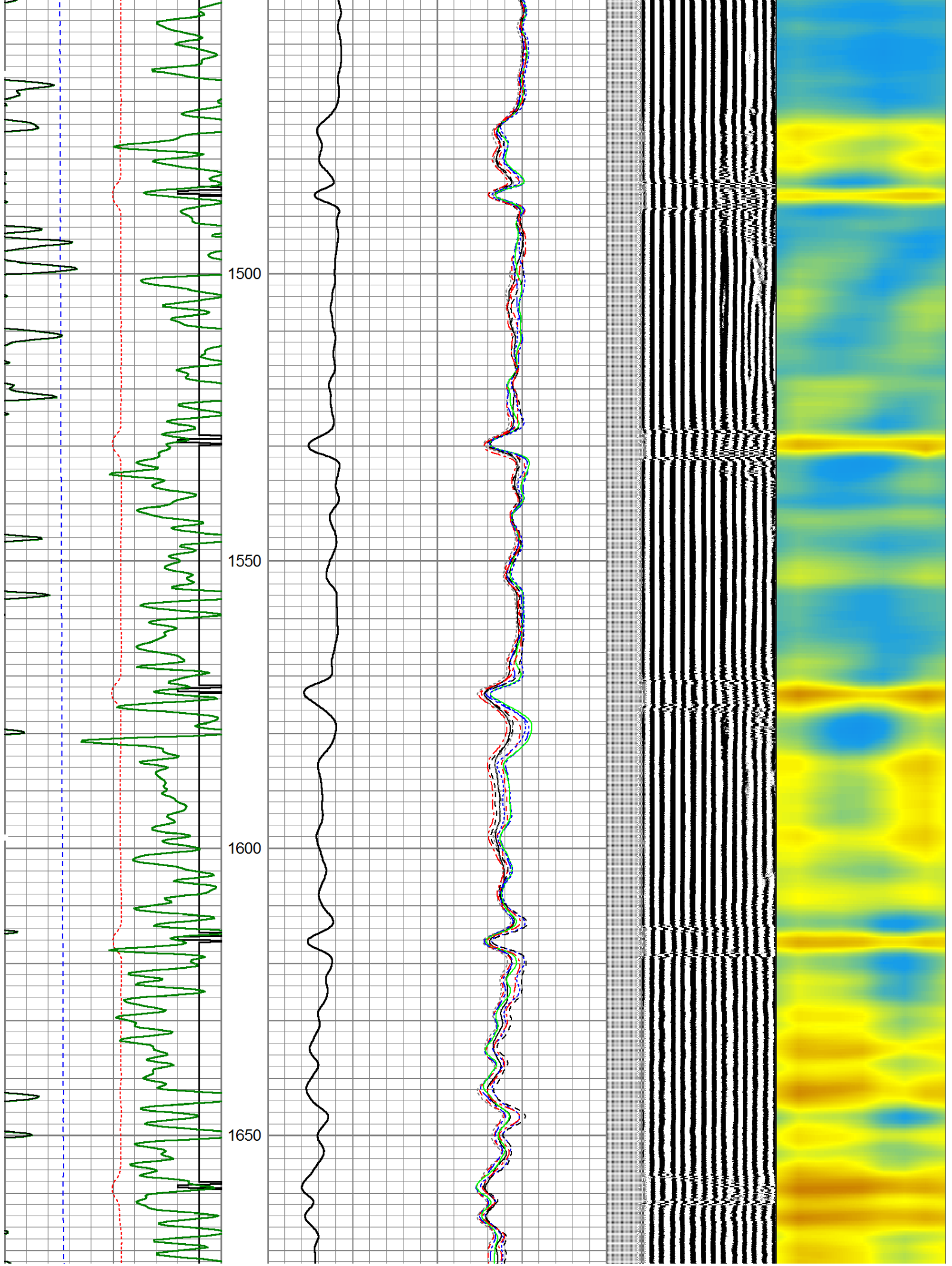


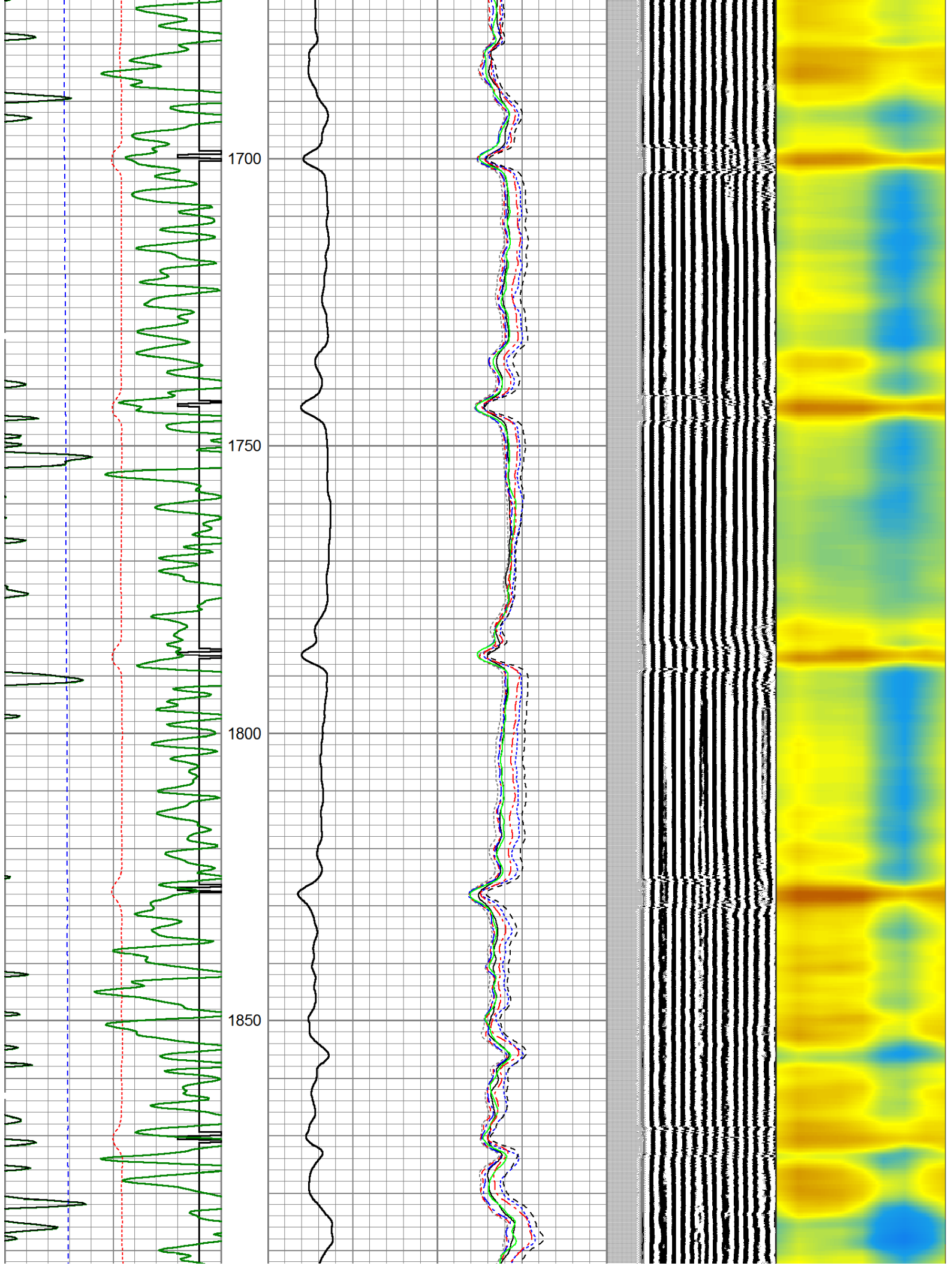


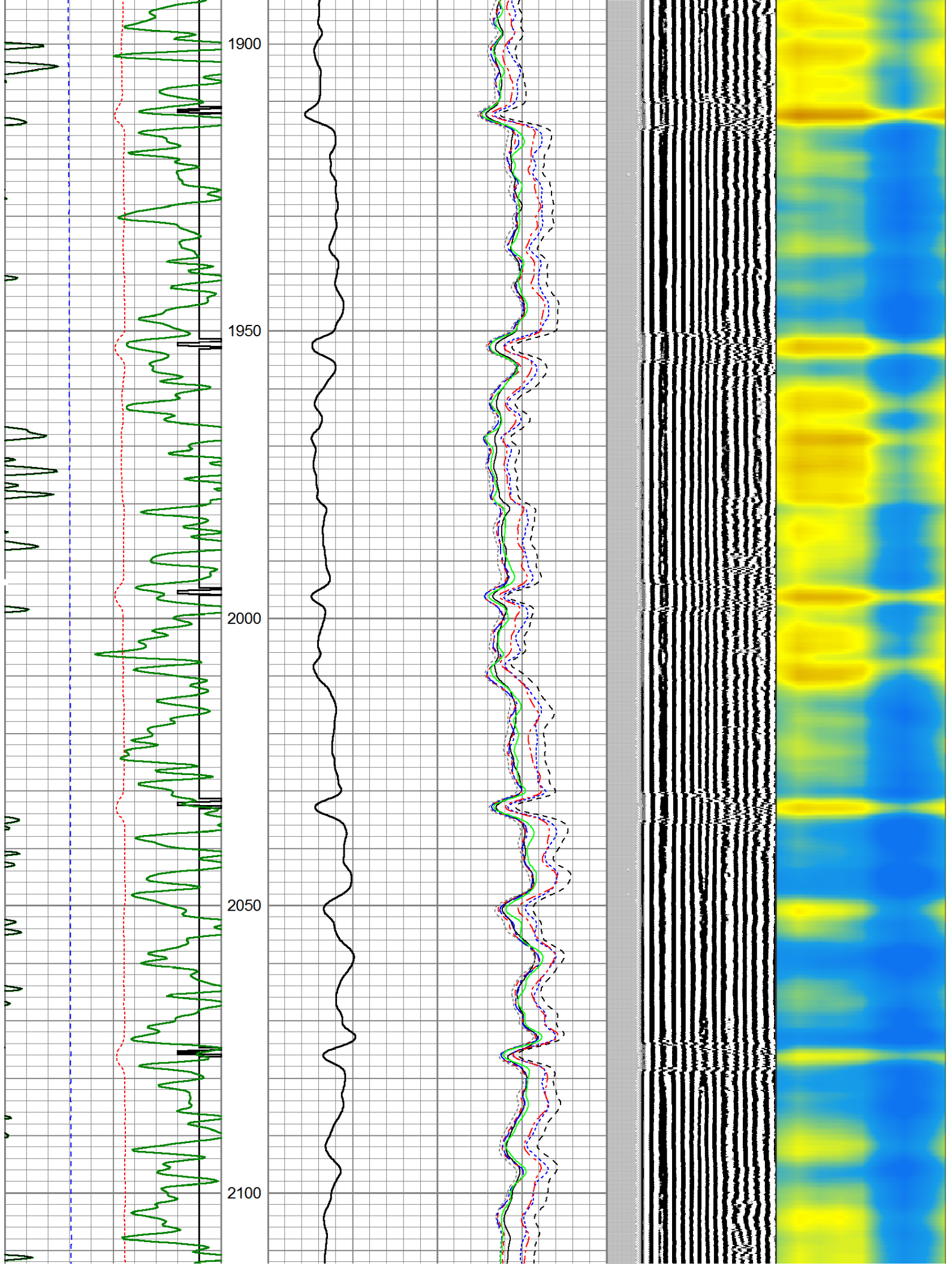


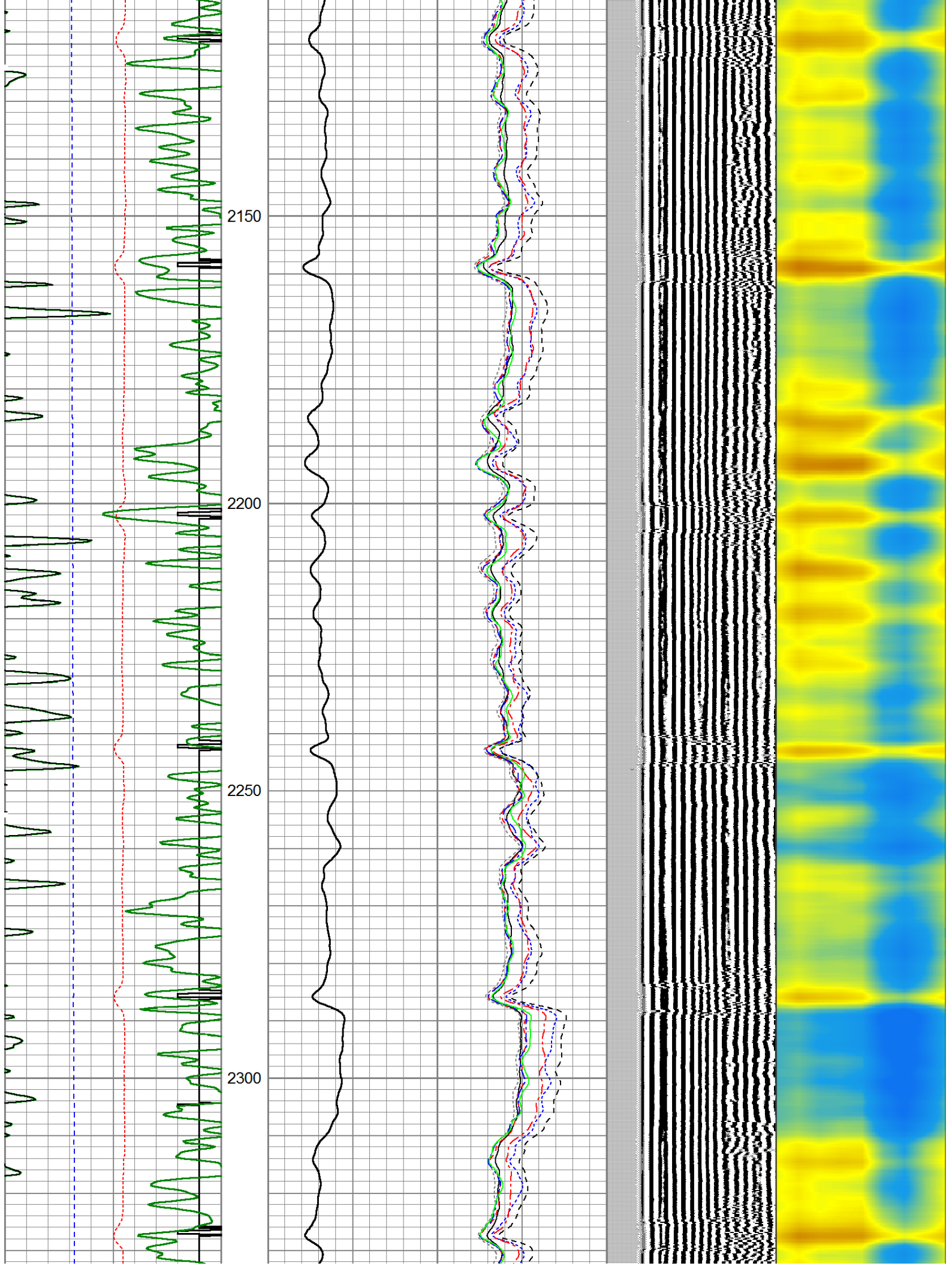


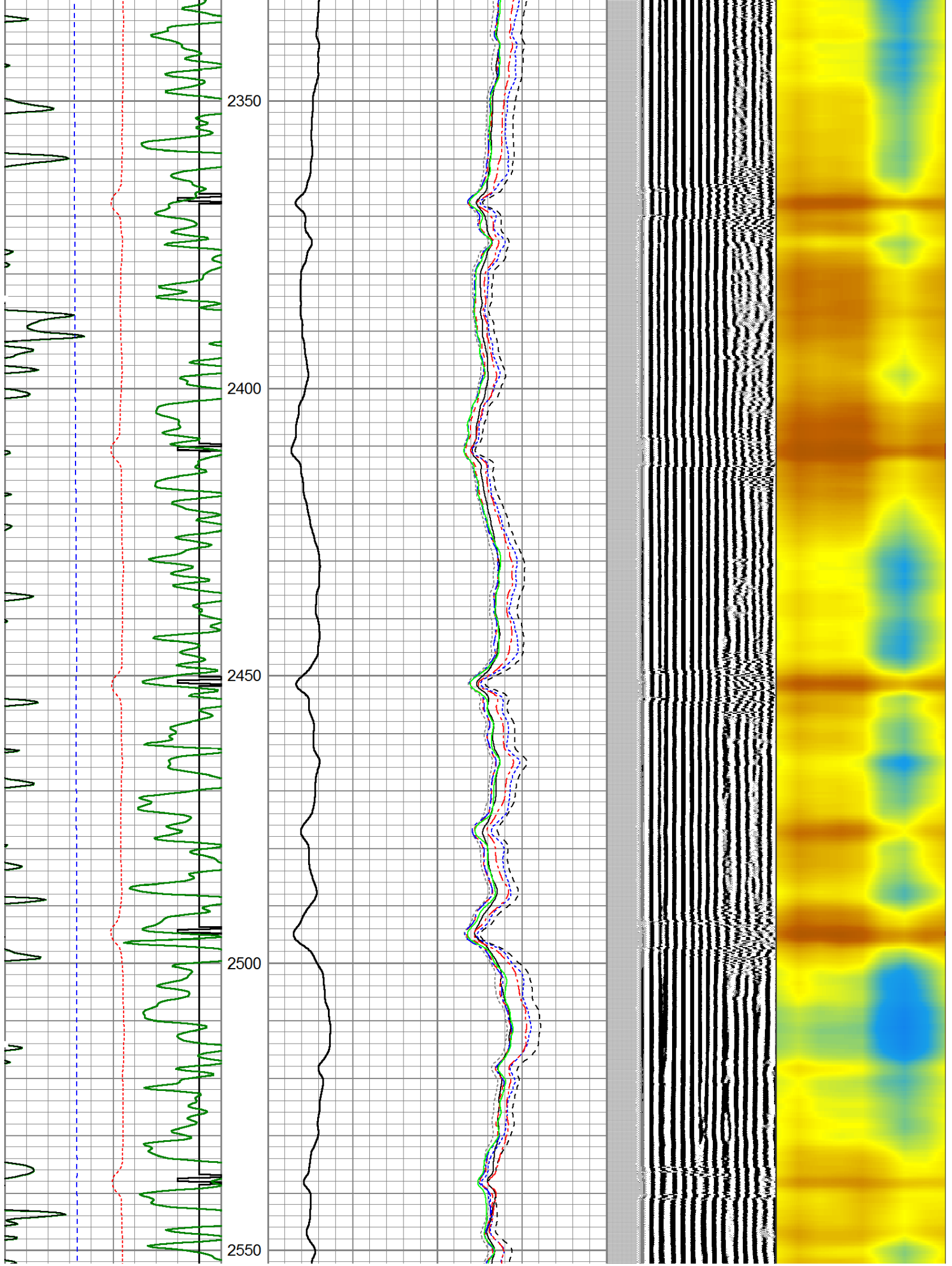


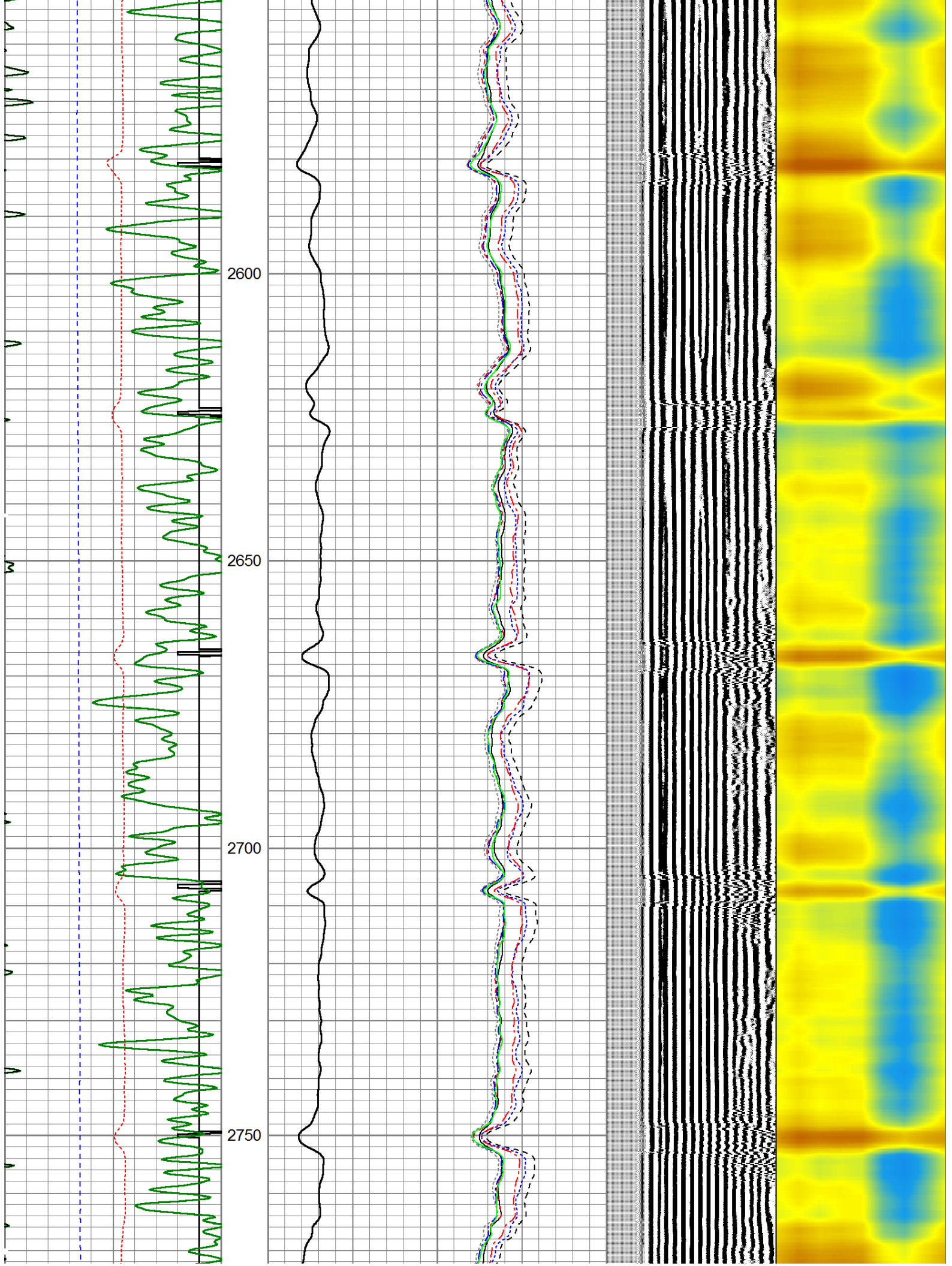


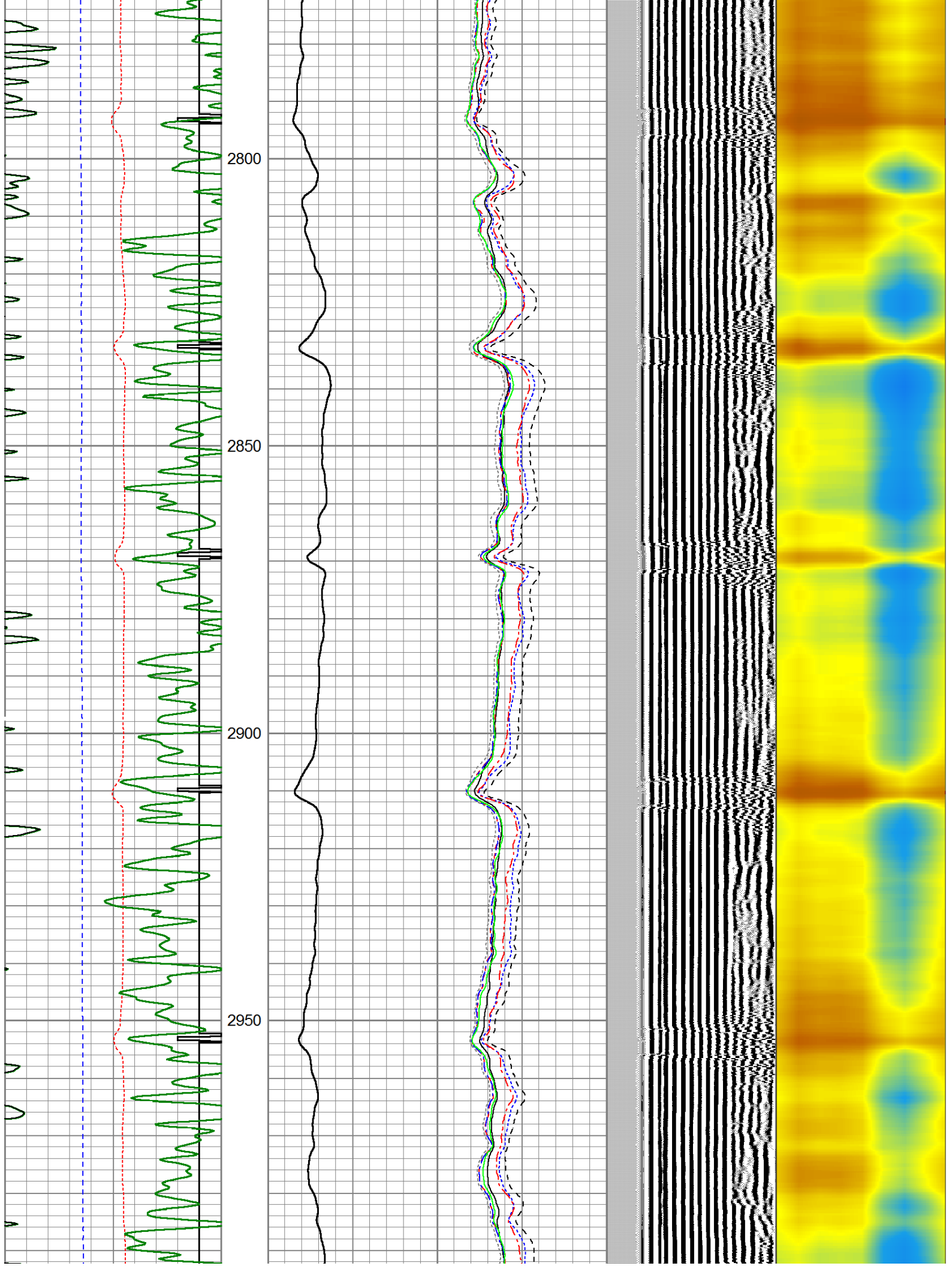


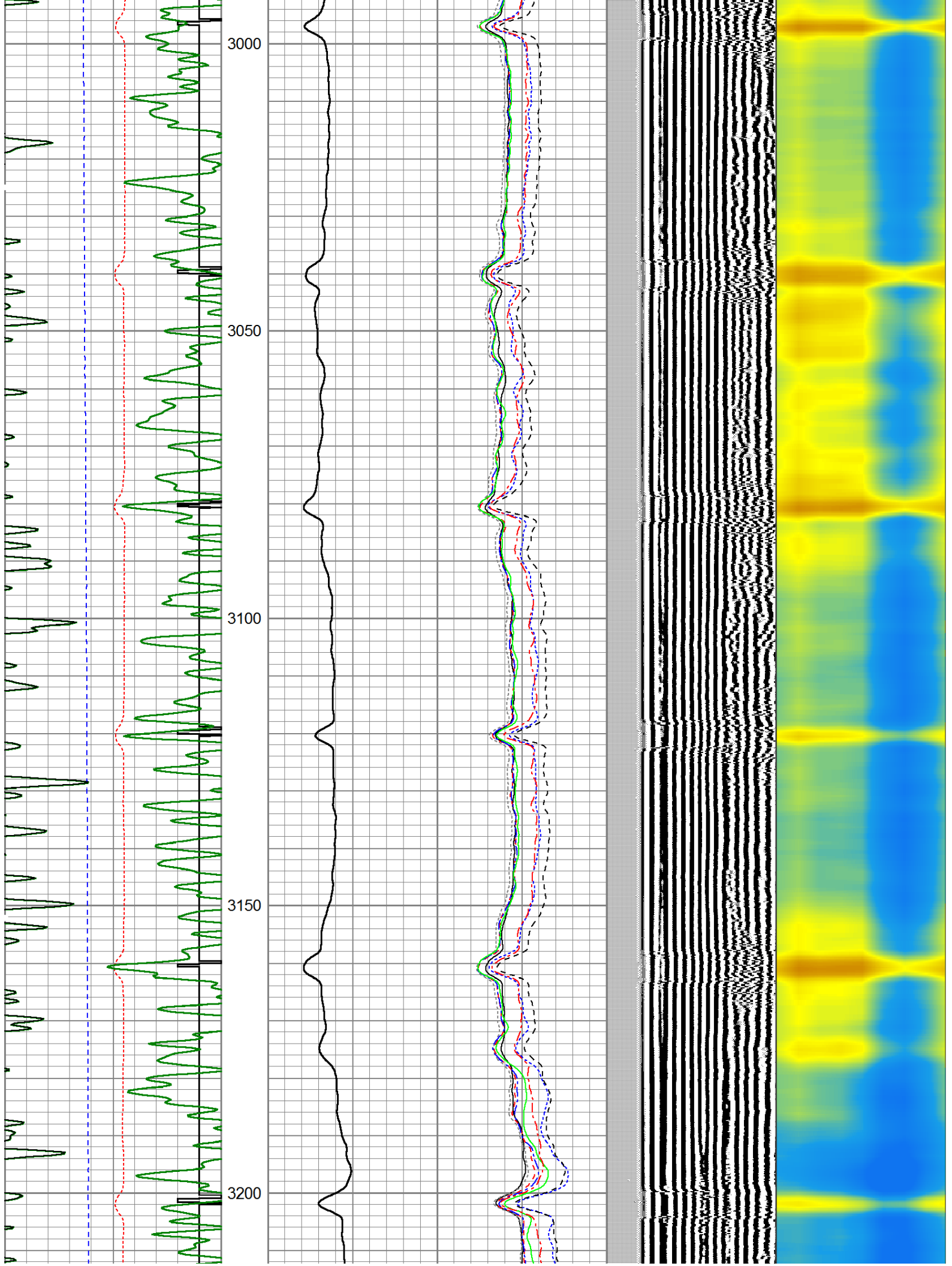


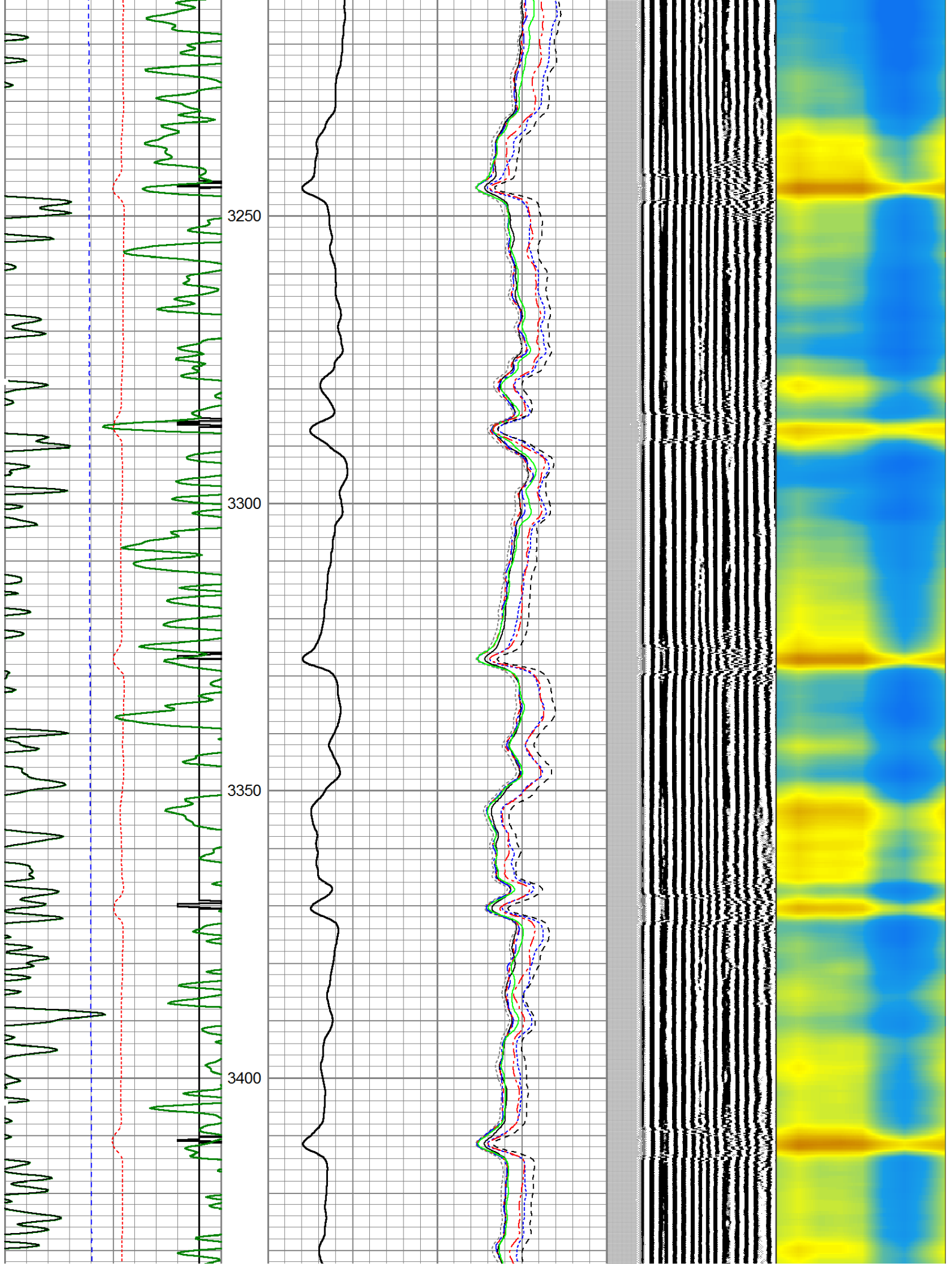


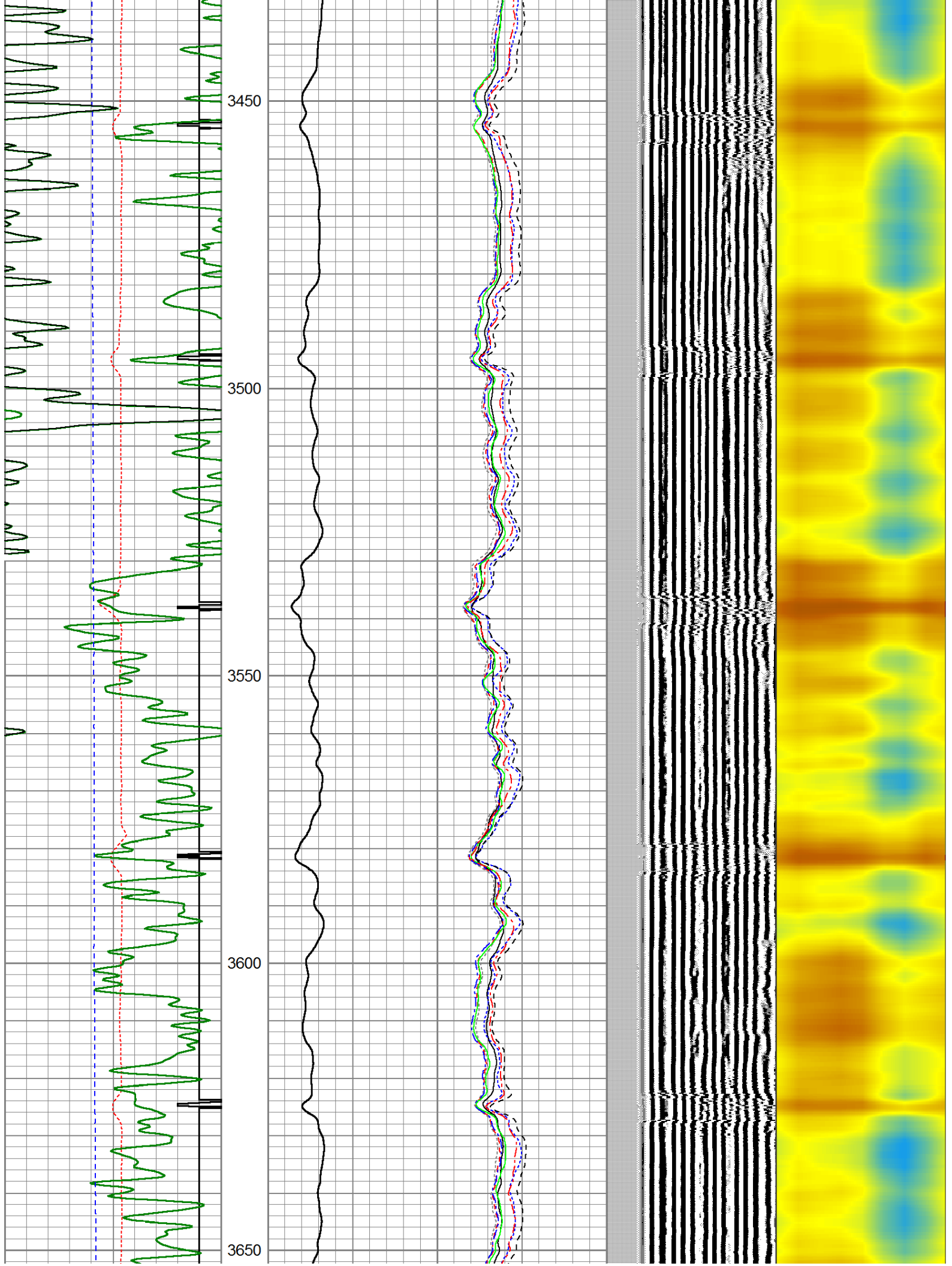


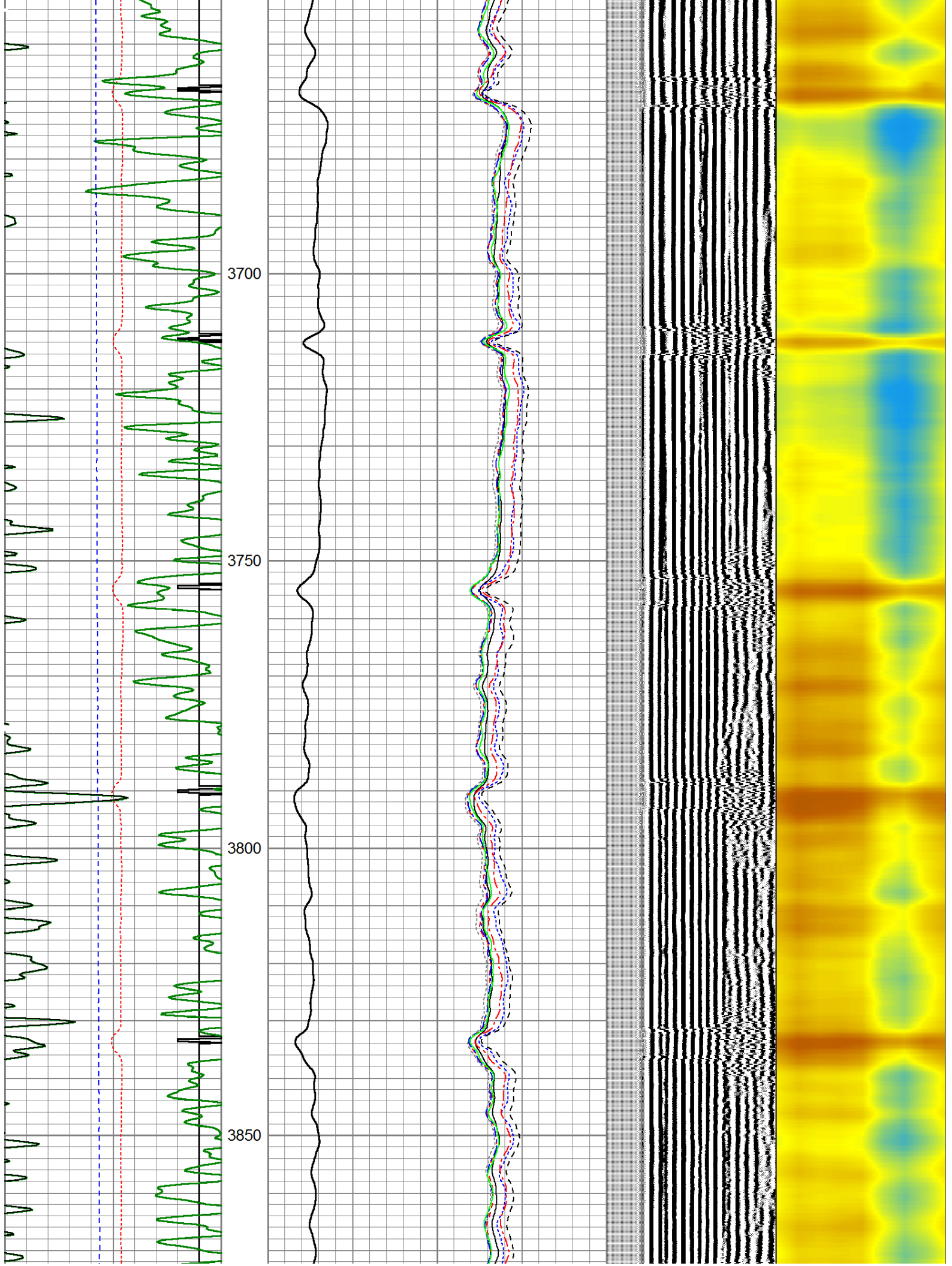


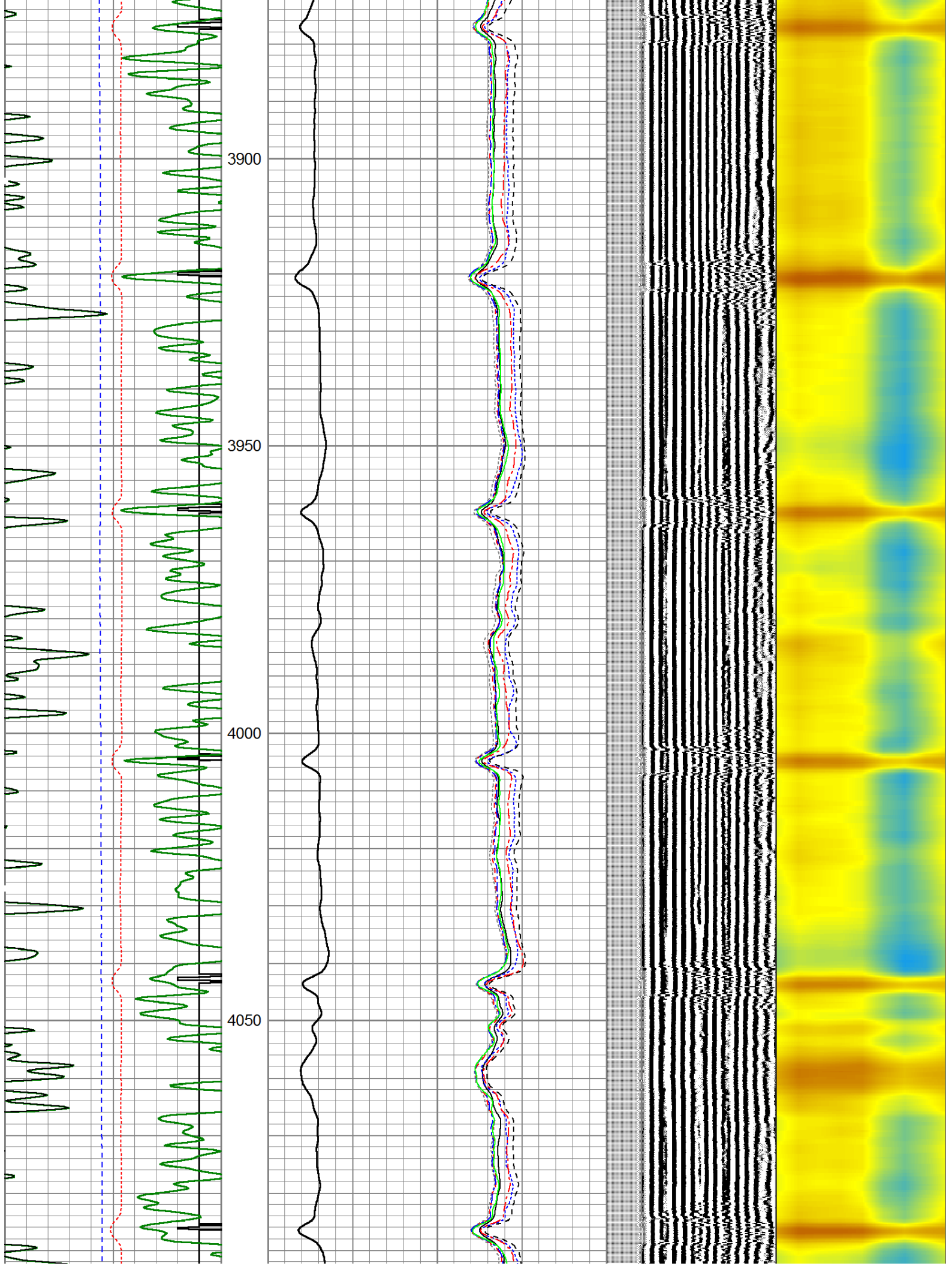


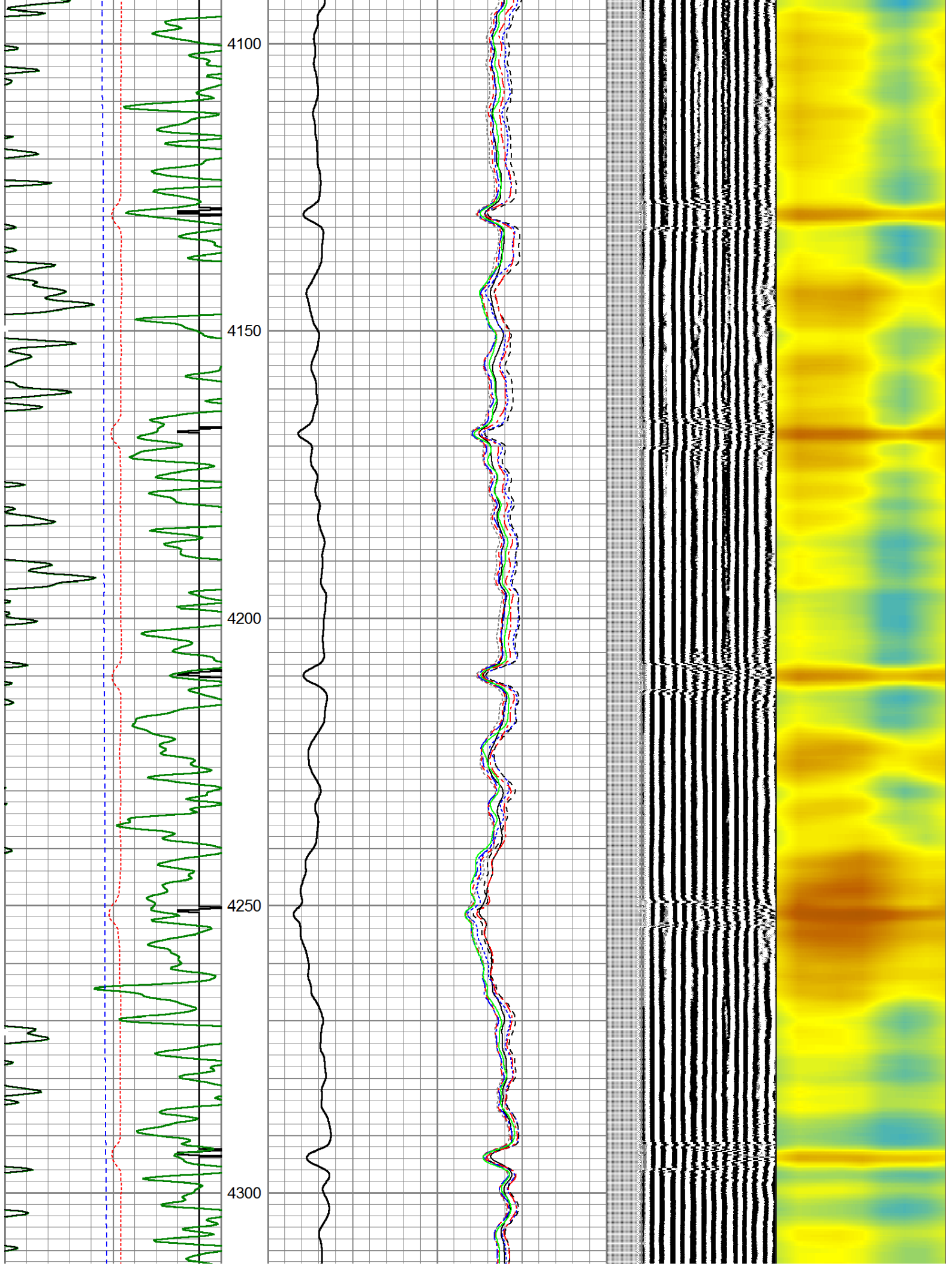


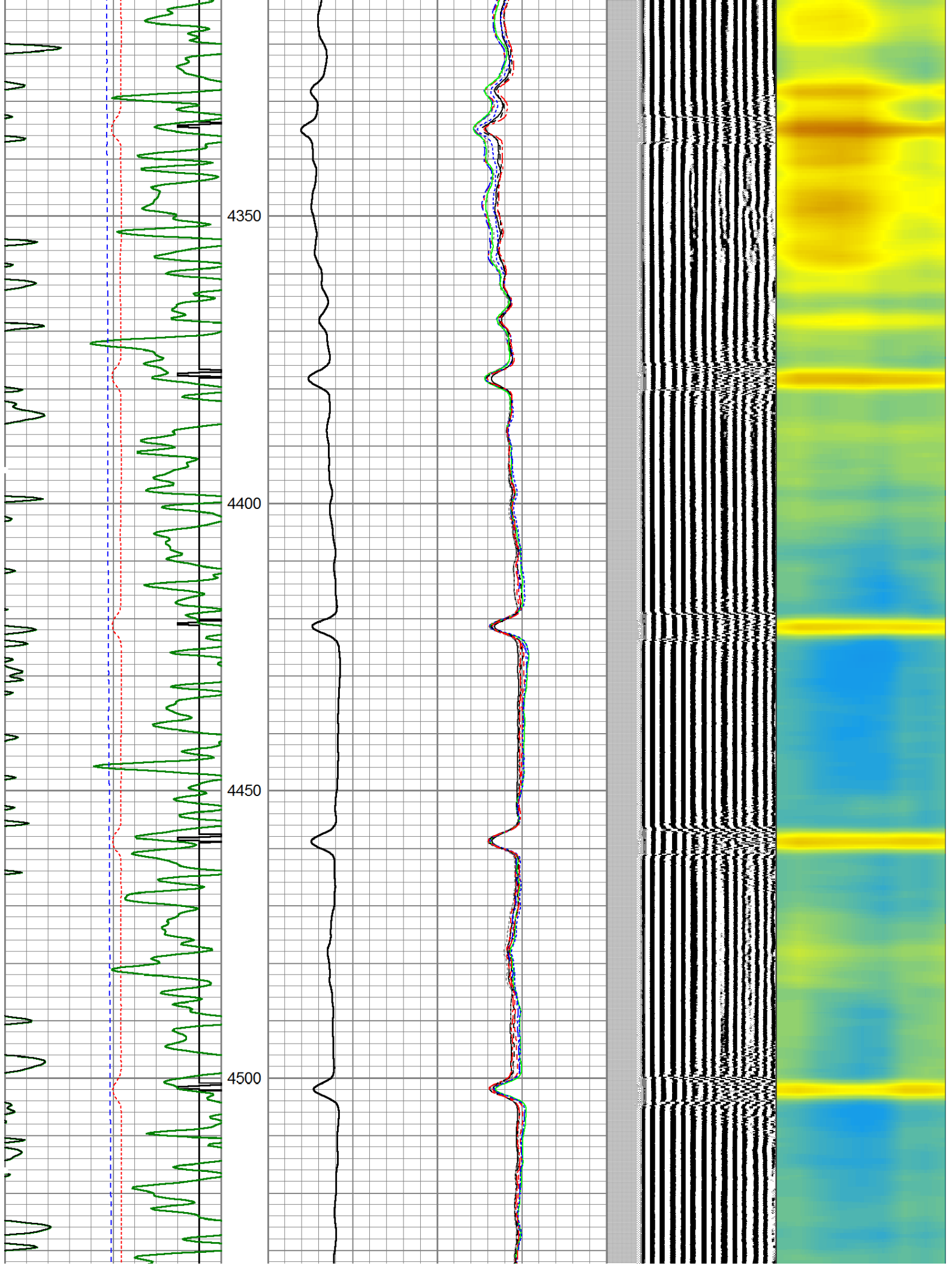


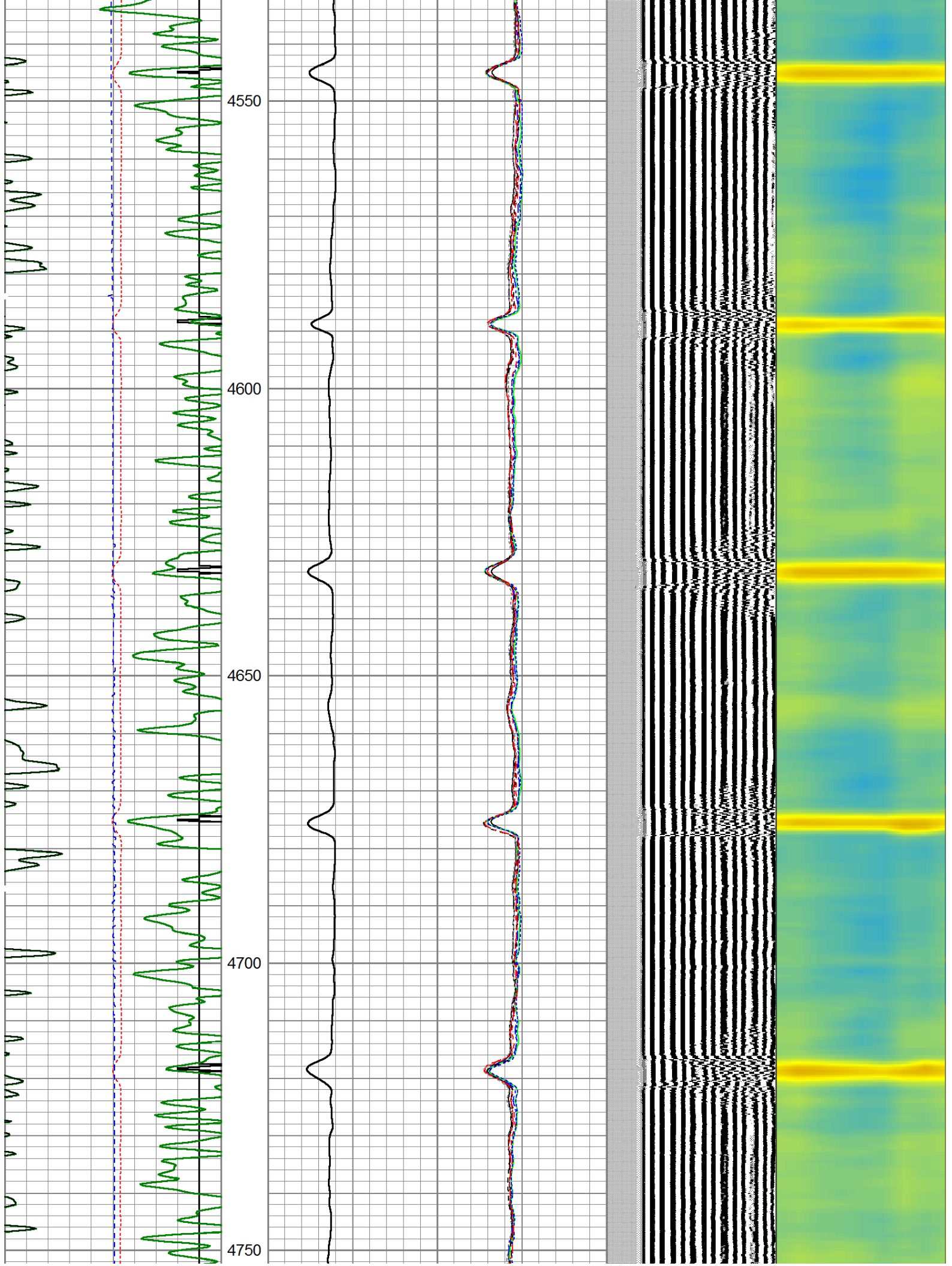


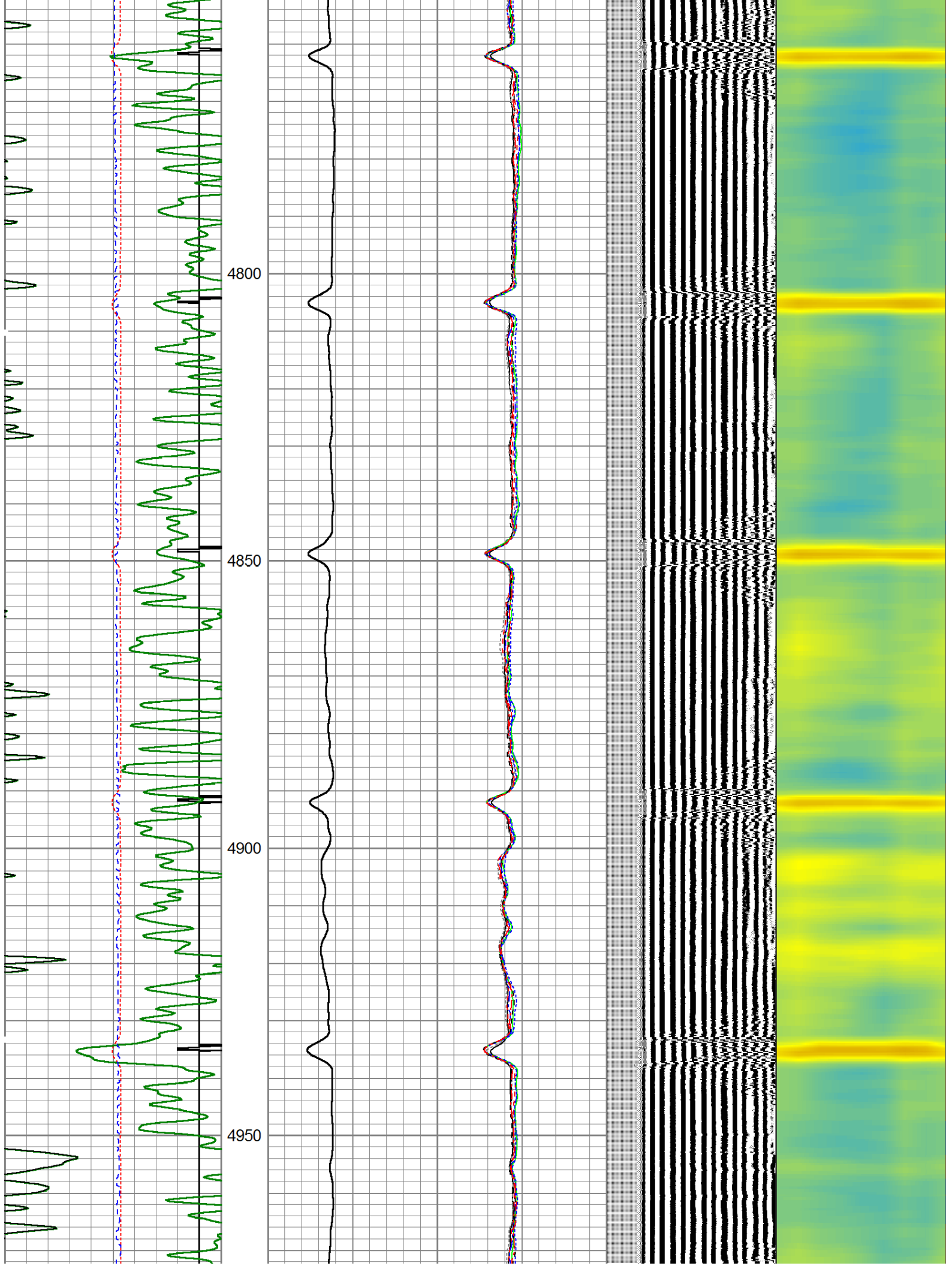


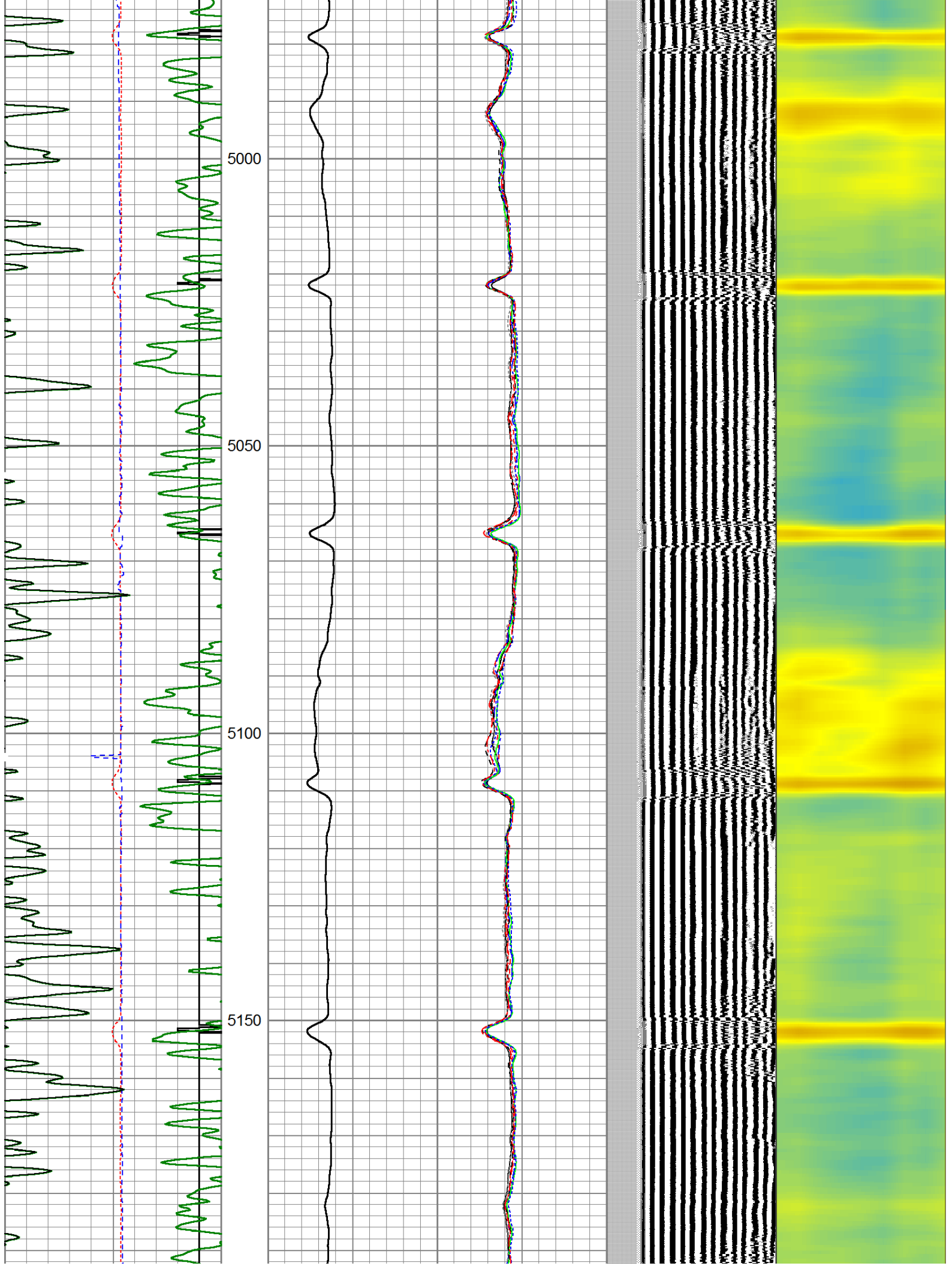


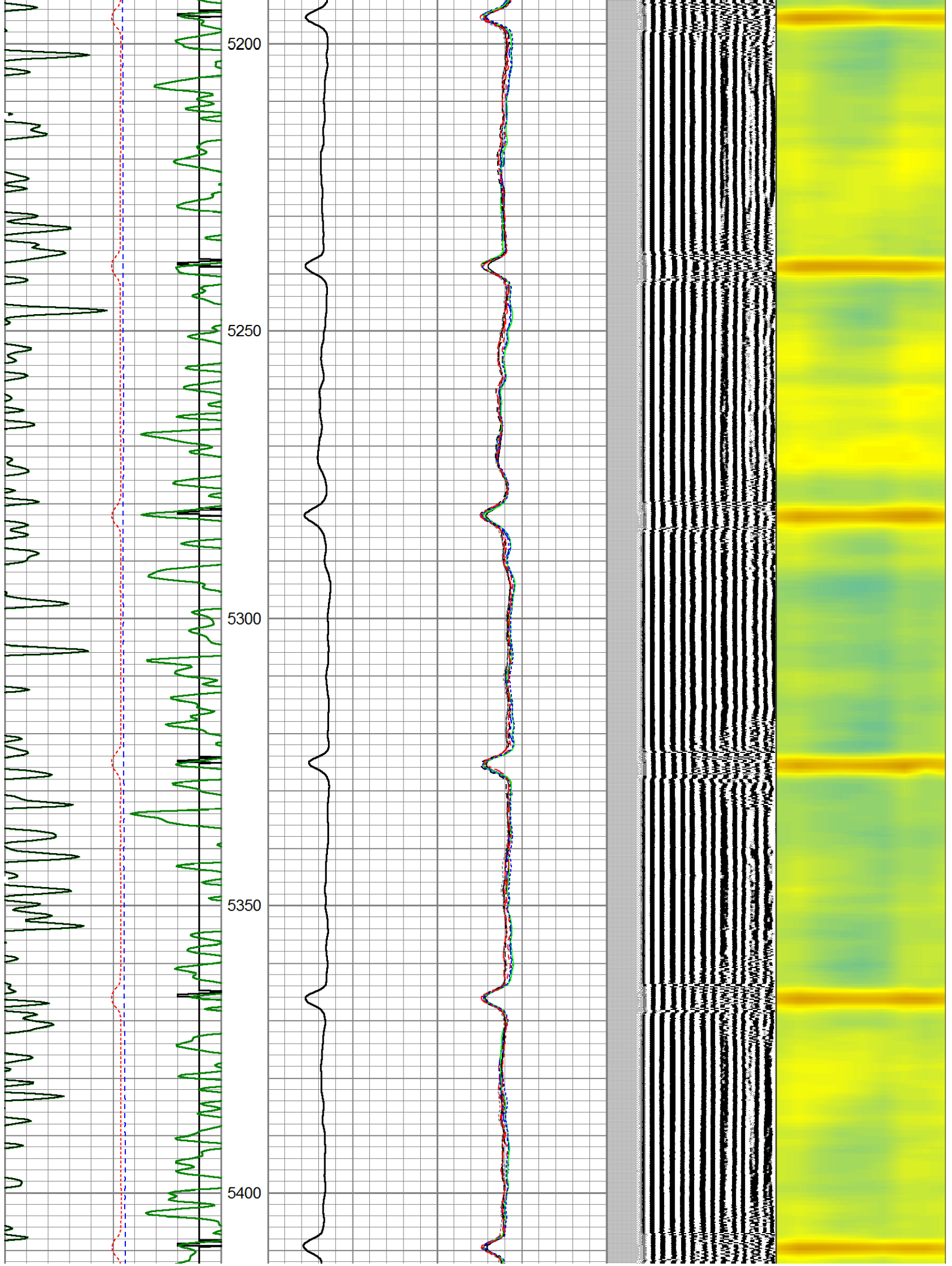


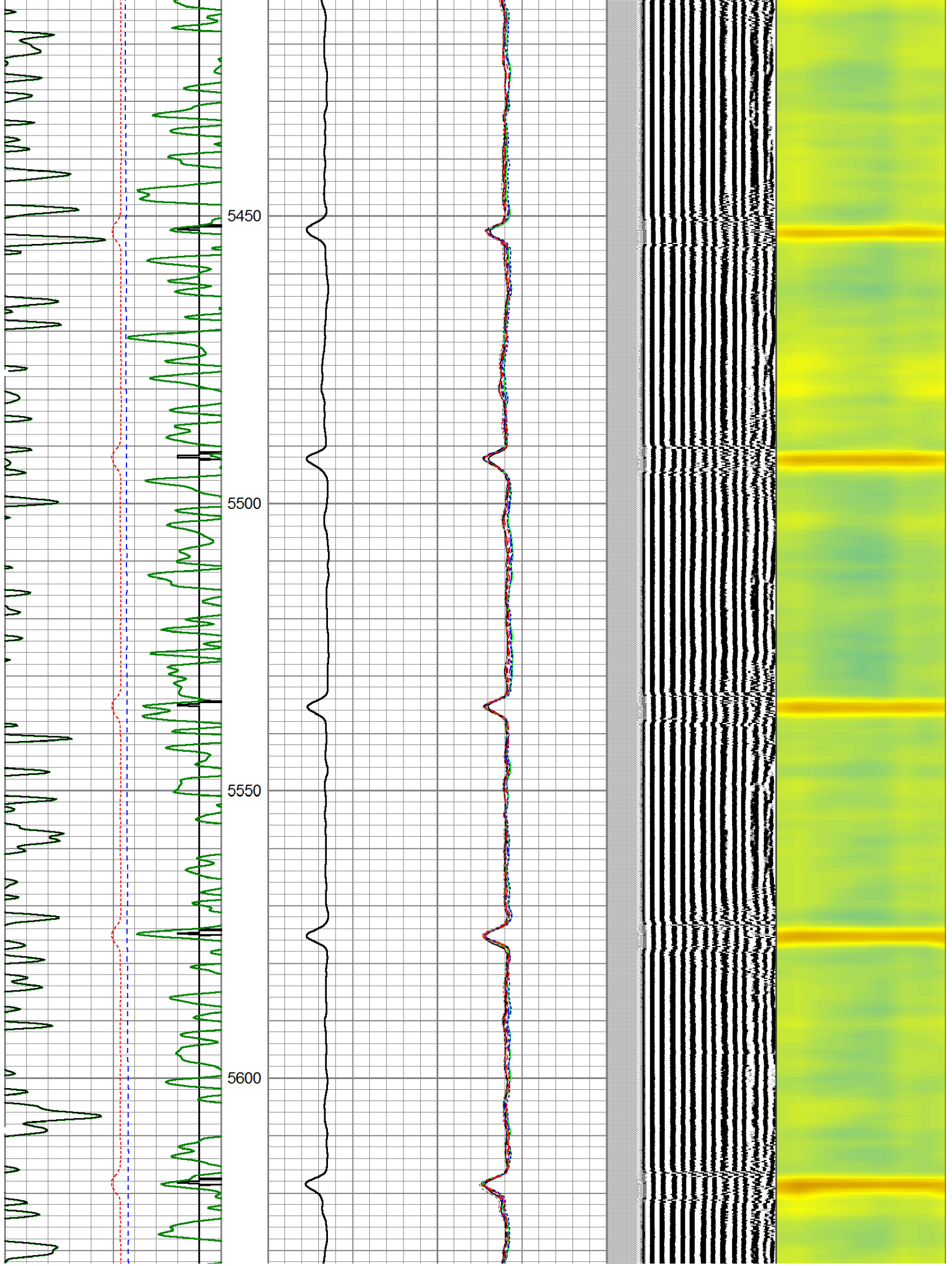


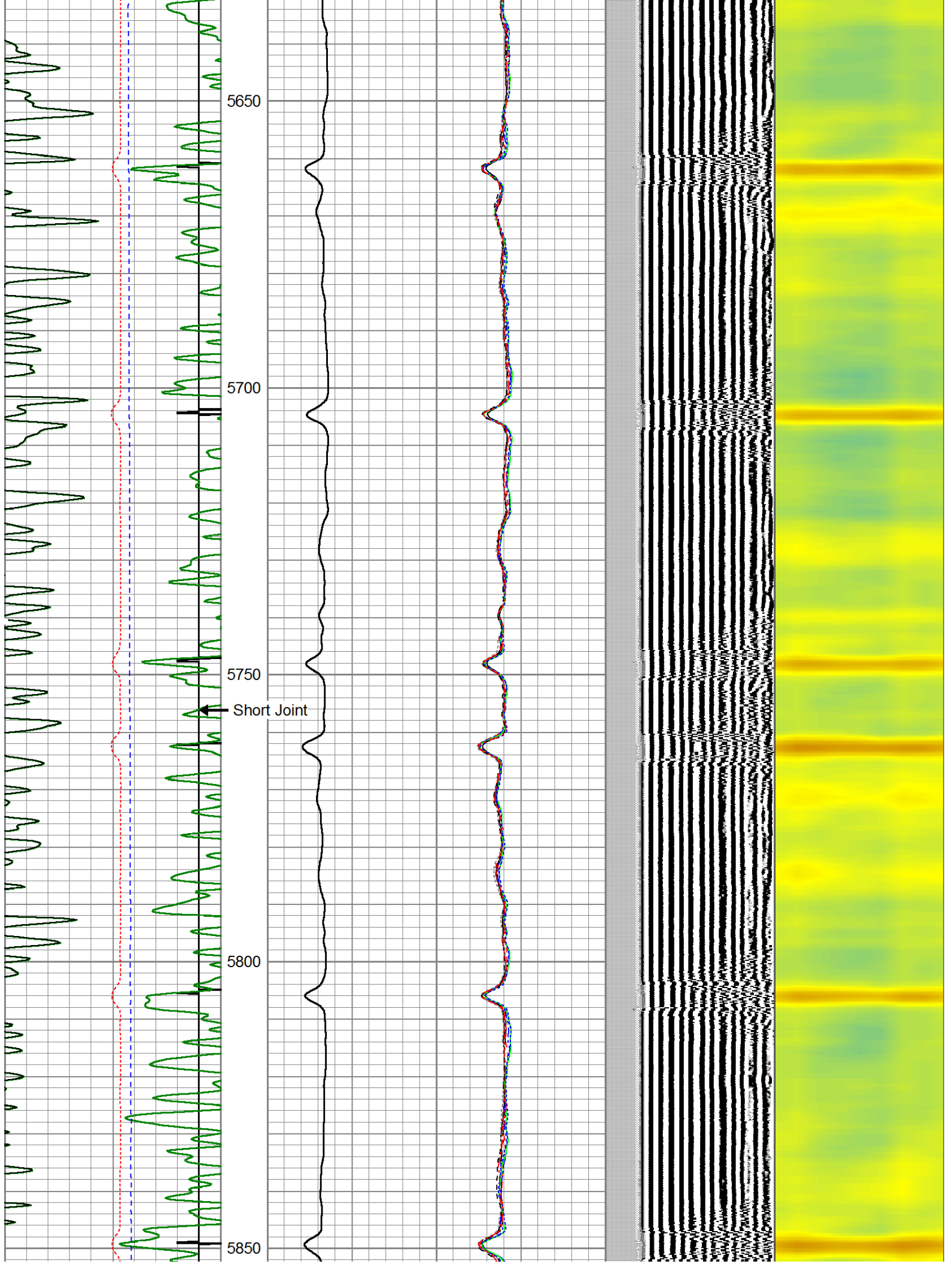


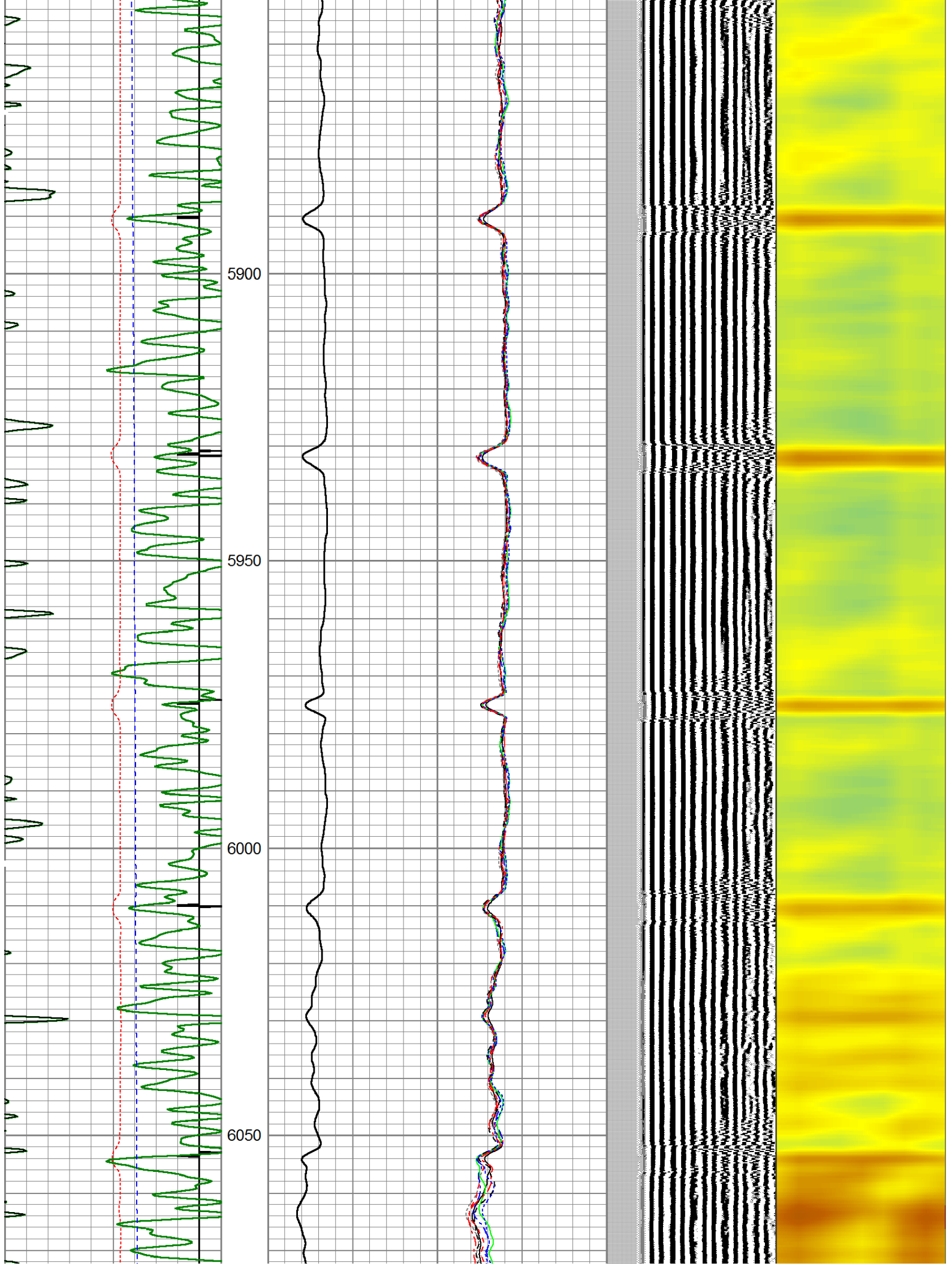


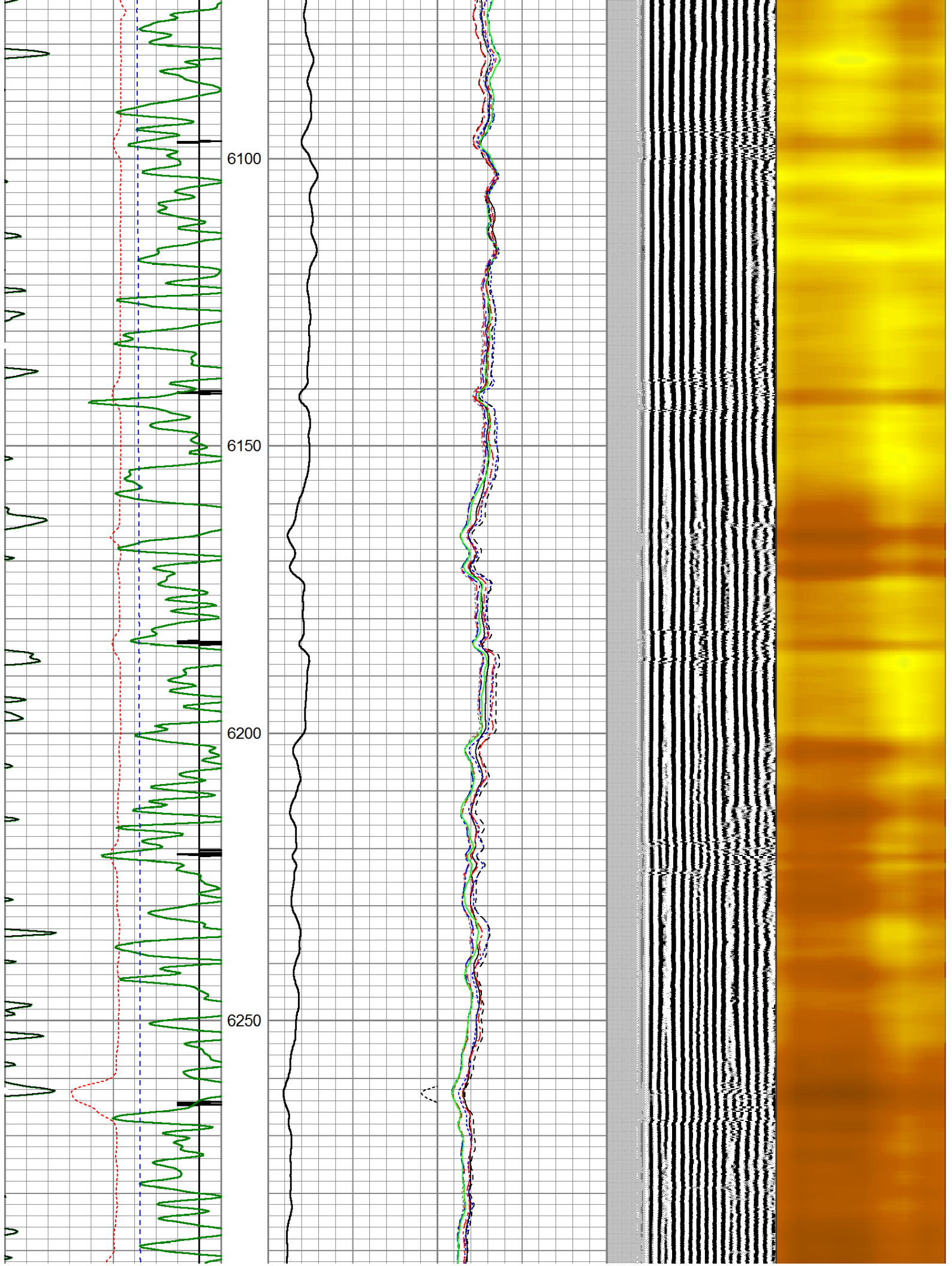


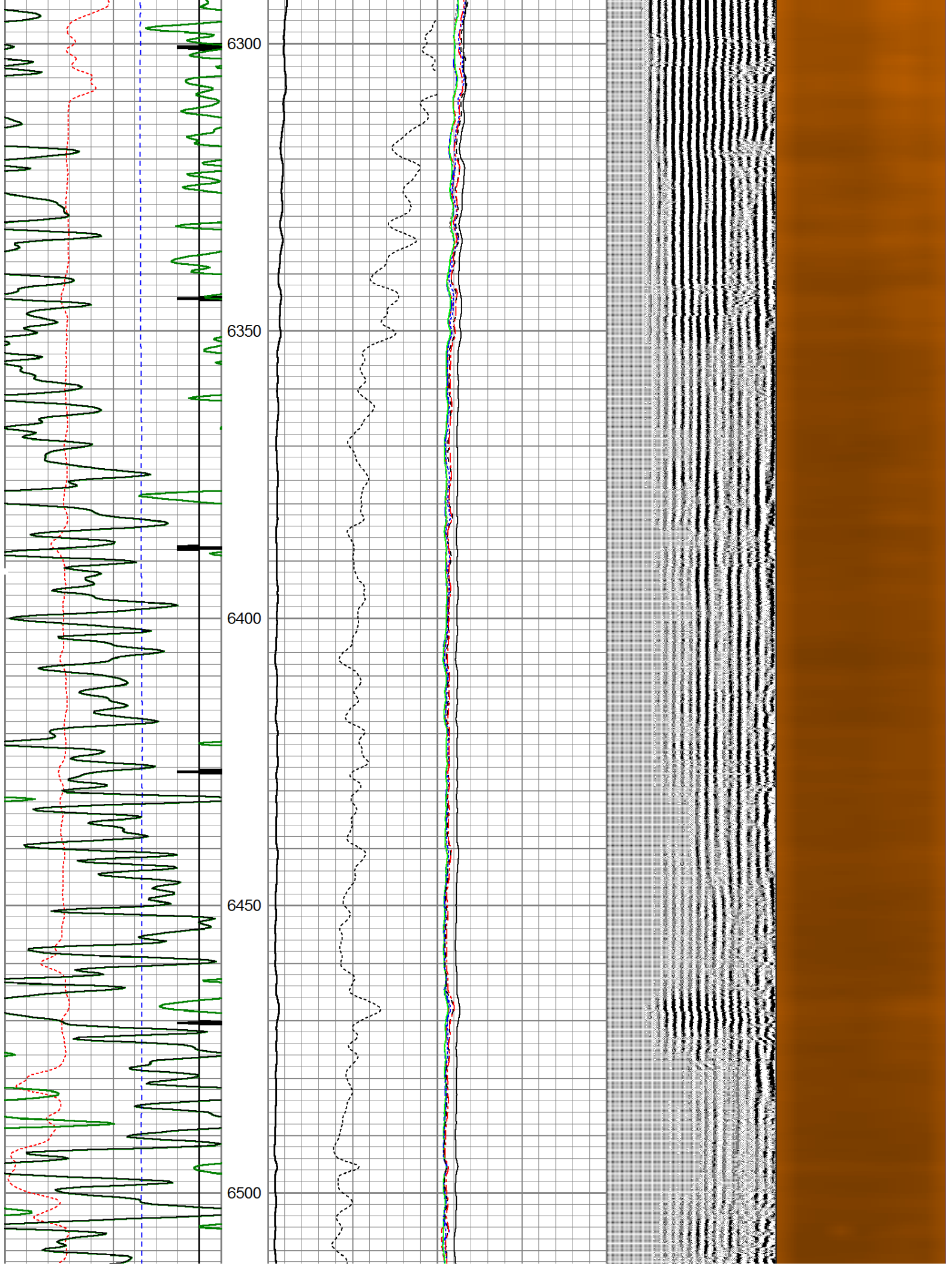


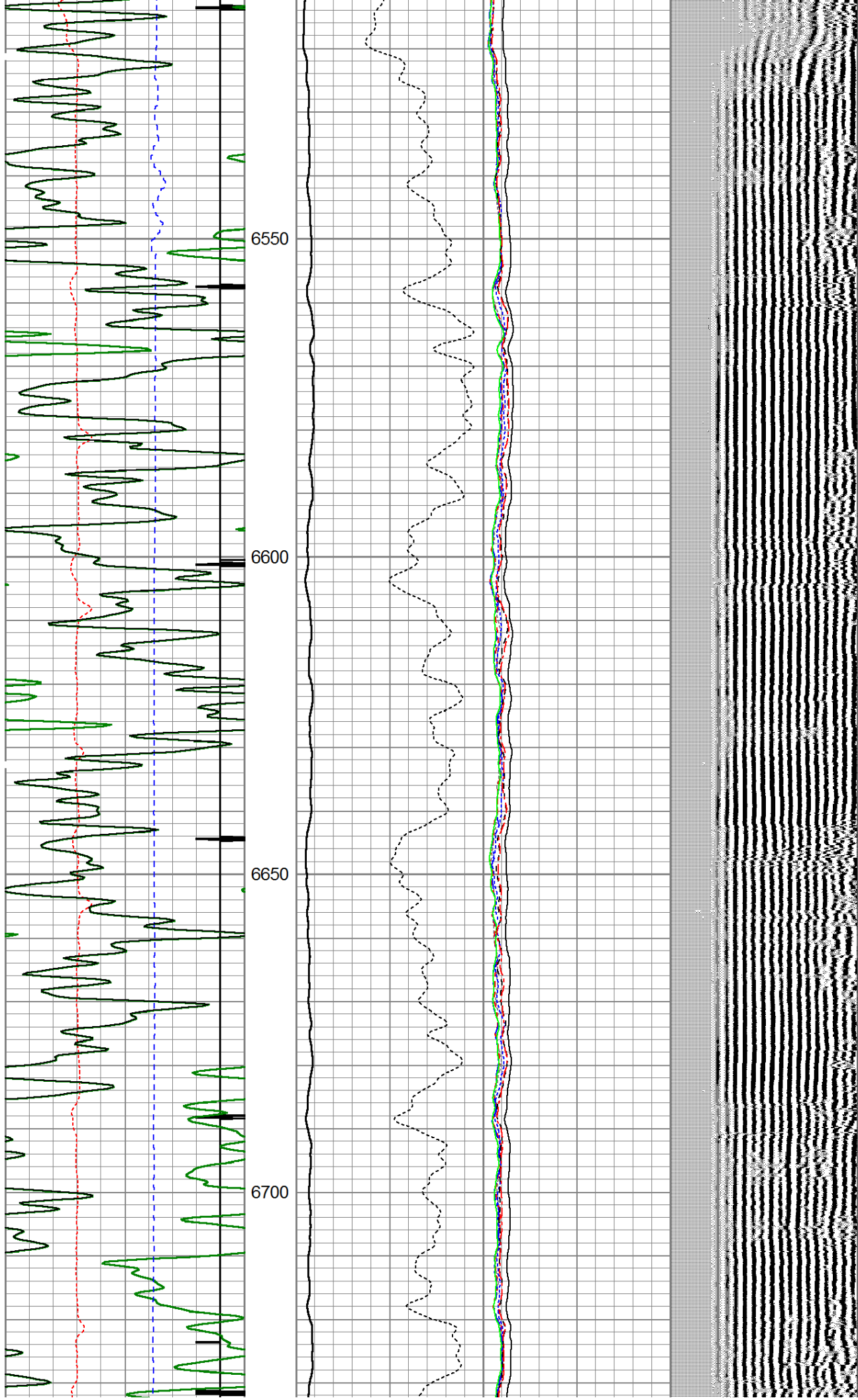


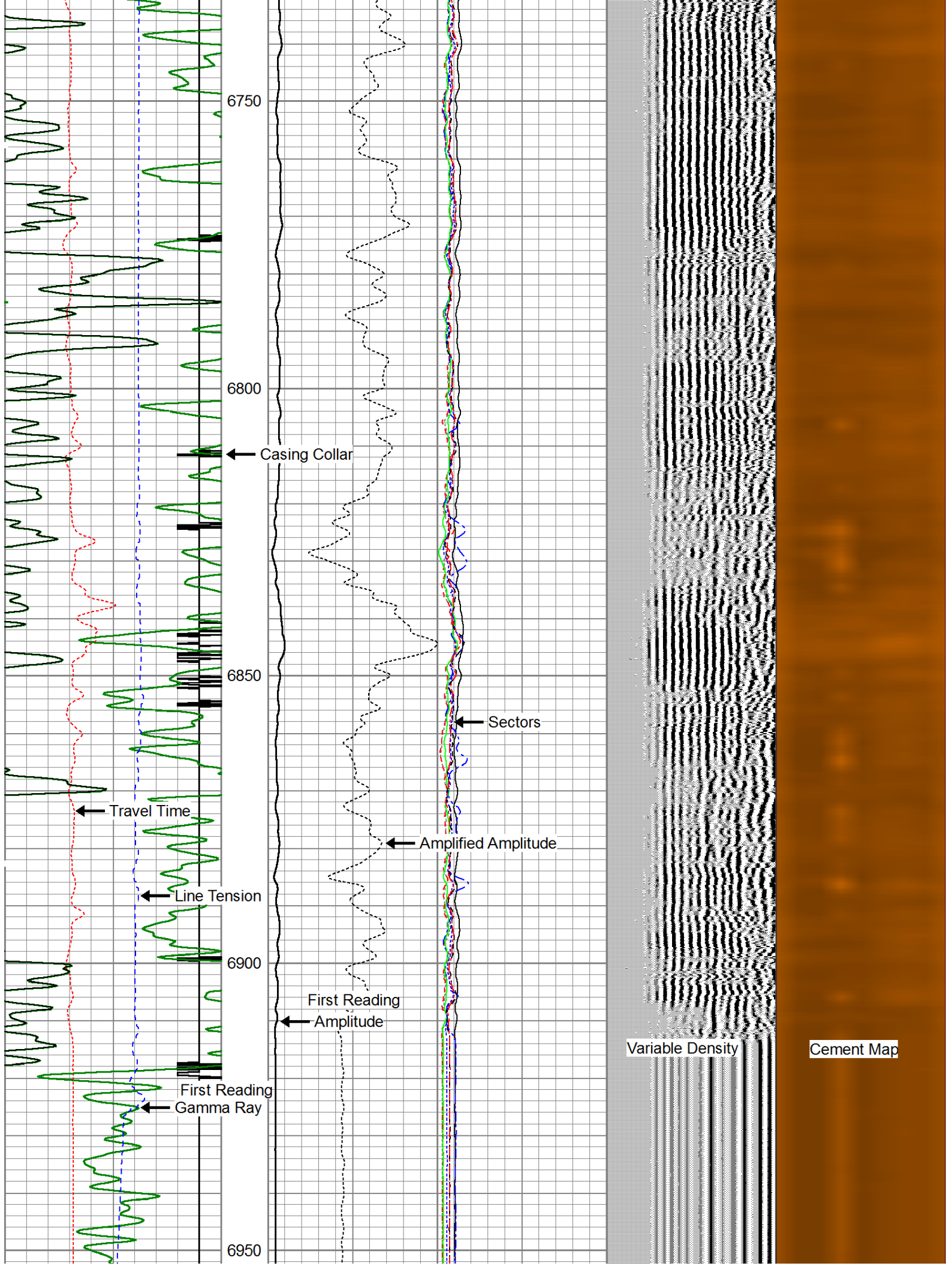


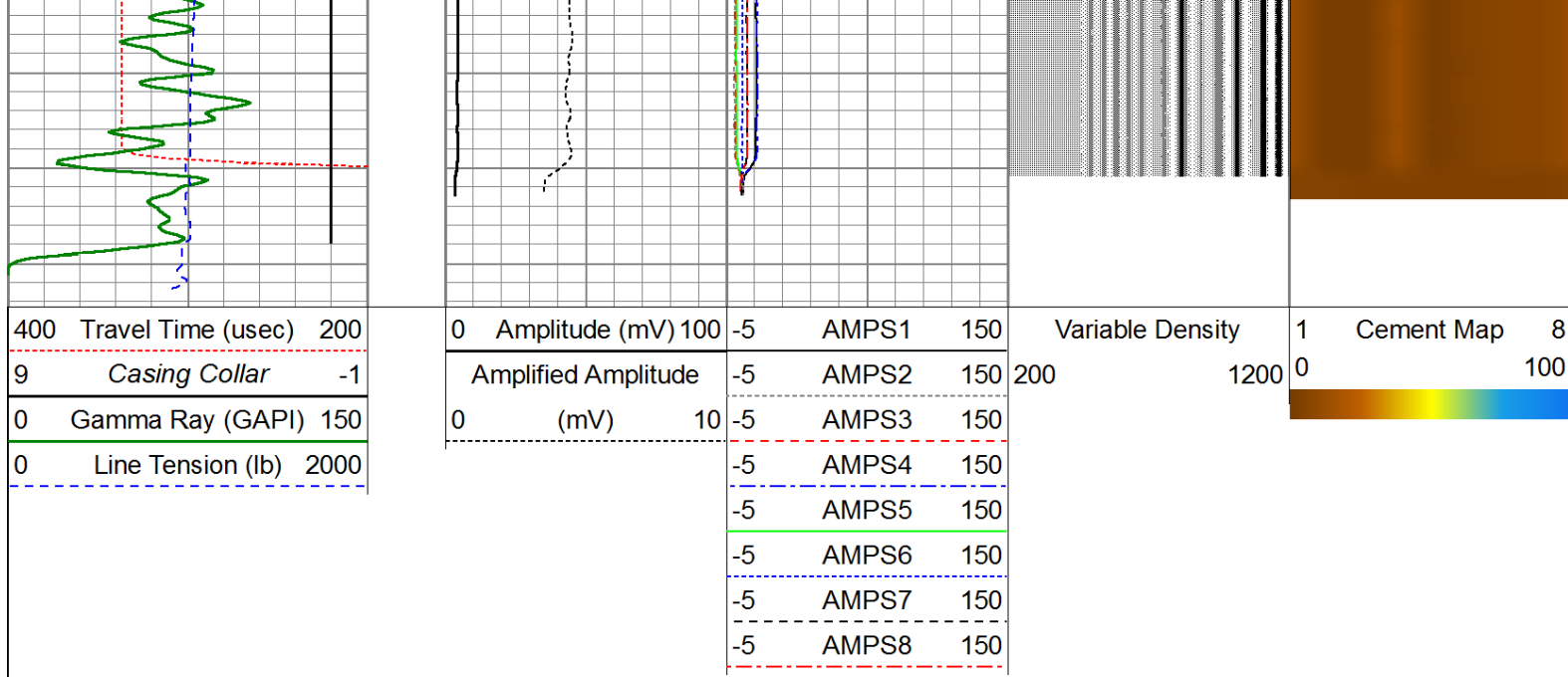






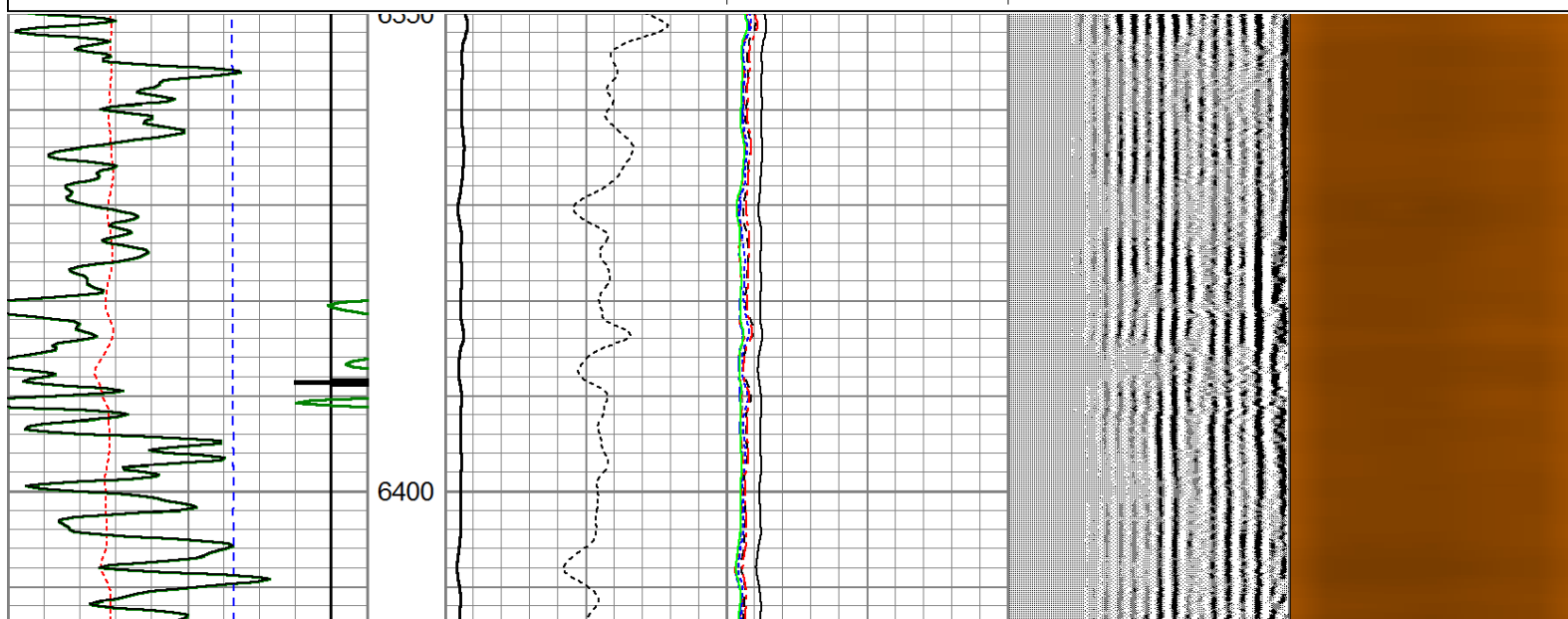
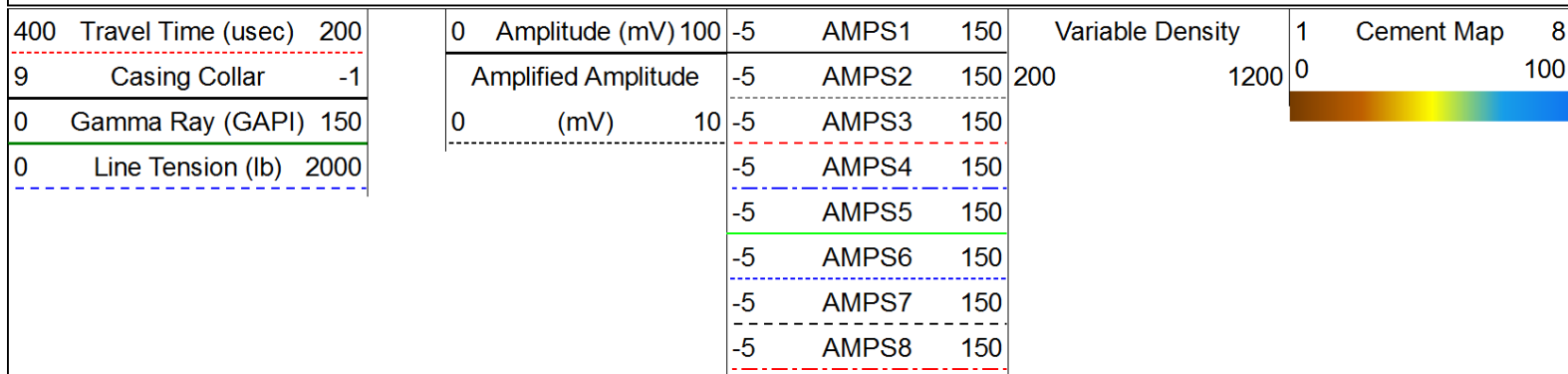


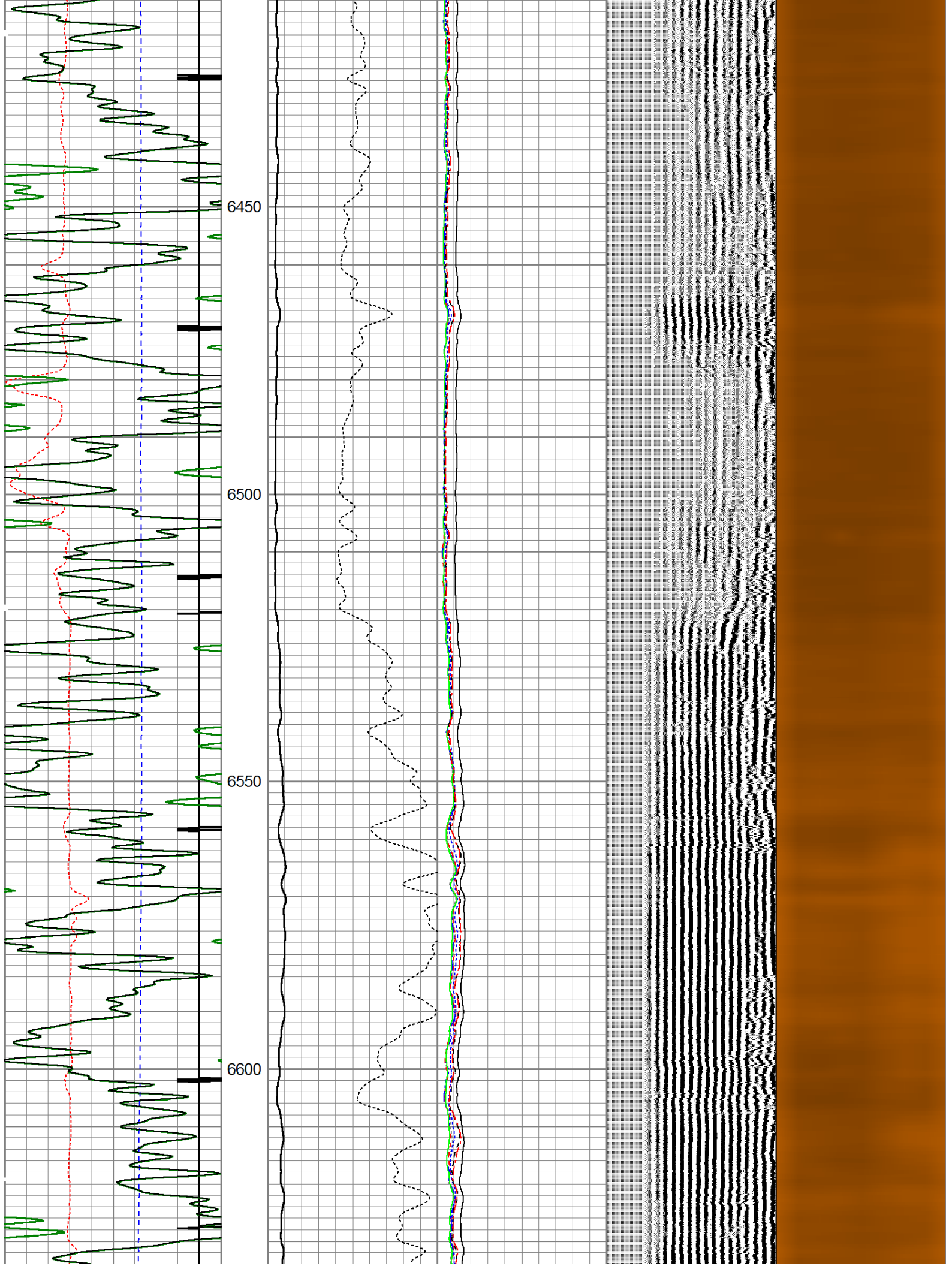


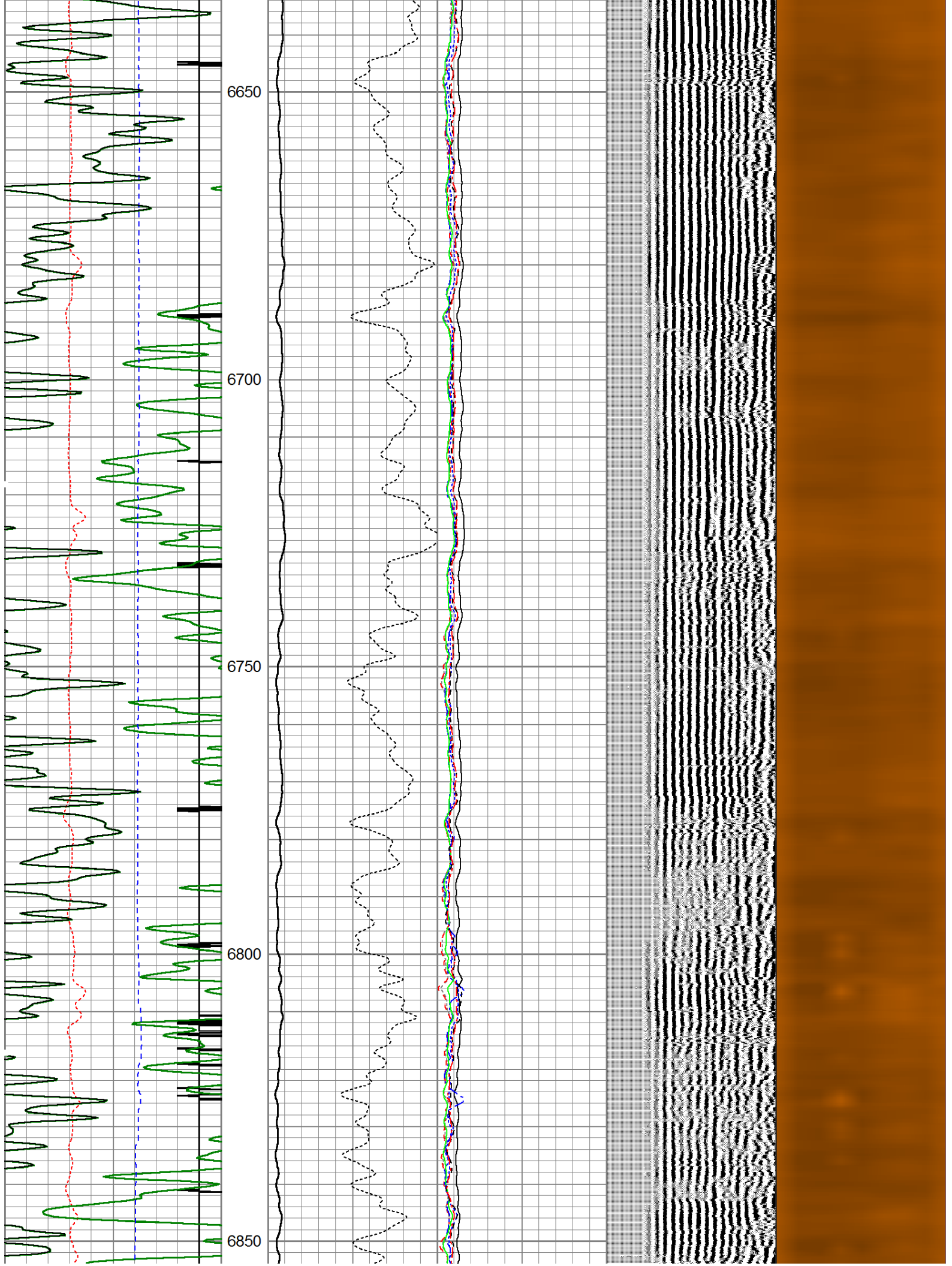


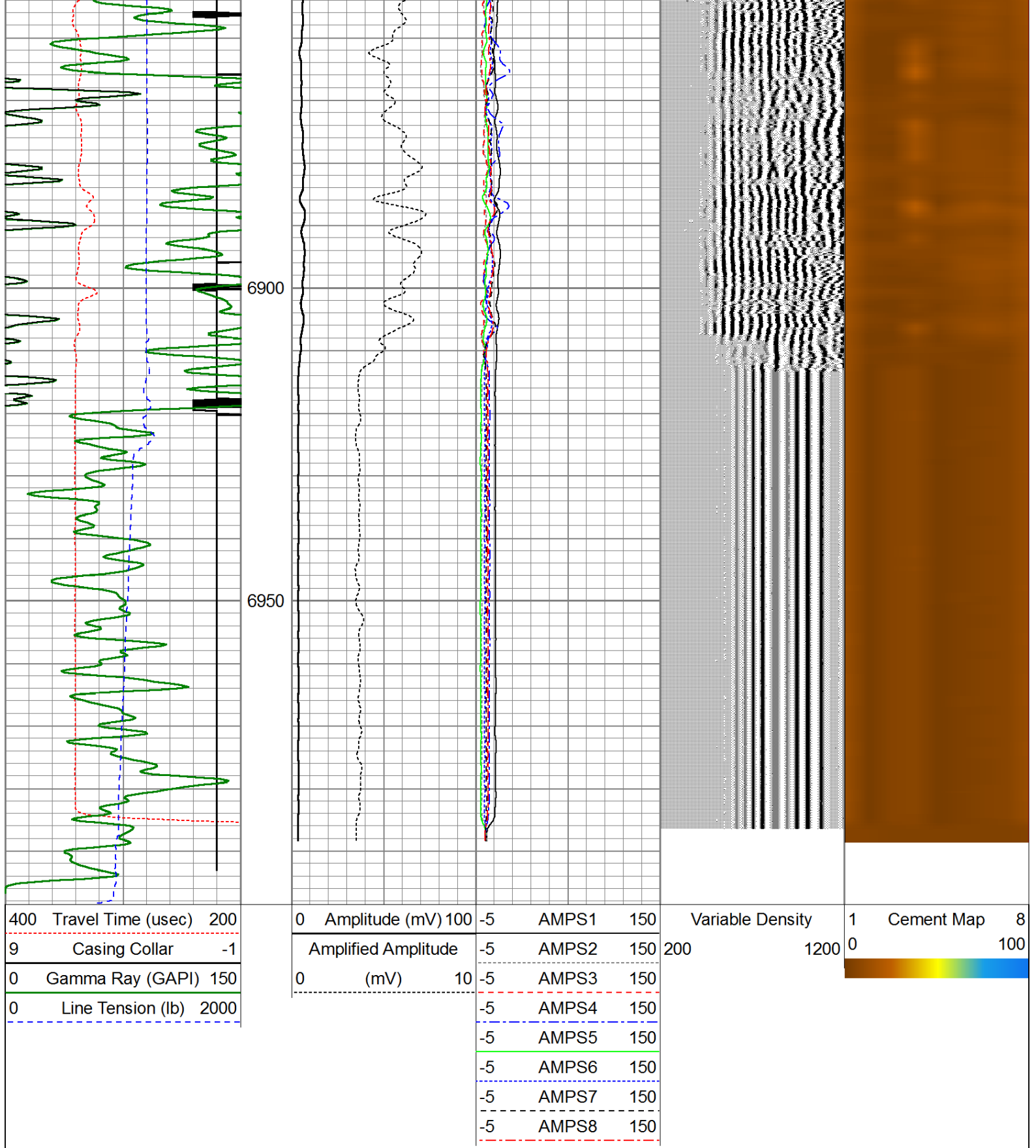
Repeat Pass (0 PSI)

Database File: noble_leeroy_b11_79hnm_rcbl.db
 Dataset Pathname: pass9
 Presentation Format: scbl03
 Dataset Creation: Fri Jun 28 09:44:24 2013 by Log 0
 Charted by: Depth in Feet scaled 1:240









Calibration Report

Database File: noble_leeroy_b11_79hnm_rcbl.db
 Dataset Pathname: pass13
 Dataset Creation: Fri Jun 28 11:01:40 2013 by Calc 0

Temperature Calibration Report

Serial Number: 101234
 Tool Model: 1.375TEMP

Performed: Tue Apr 30 07:40:44 2013

	Reference	Reading
Low Reference:	1.00 degF	10.00 cps
High Reference:	1.00 degF	10.00 cps
Gain:	0.10	
Offset:	0.00	
Delta Spacing	2	

Gamma Ray Calibration Report

Serial Number:	110108-Dig
Tool Model:	Probe275
Performed:	Tue Jun 25 14:37:46 2013
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	1.3000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	120424
Tool Model:	Probe
Calibration Casing Diameter:	7.000 in
Calibration Depth:	402.083 ft

Master Calibration, performed Fri Jun 28 09:20:05 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.022	0.631	1.500	62.165	83.956	3.538
CAL	-0.012	1.278				
5'	-0.005	0.660	1.500	62.165	91.135	1.998
SUM						
S1	-0.059	0.750	0.000	100.000	123.548	4.348
S2	-0.033	0.646	0.000	100.000	147.420	4.834
S3	-0.020	0.620	0.000	100.000	156.112	3.186
S4	-0.022	0.598	0.000	100.000	161.292	3.617
S5	-0.023	0.596	0.000	100.000	161.654	3.639
S6	-0.023	0.615	0.000	100.000	156.749	3.530
S7	-0.023	0.644	0.000	100.000	149.798	3.456
S8	-0.022	0.680	0.000	100.000	142.371	3.135

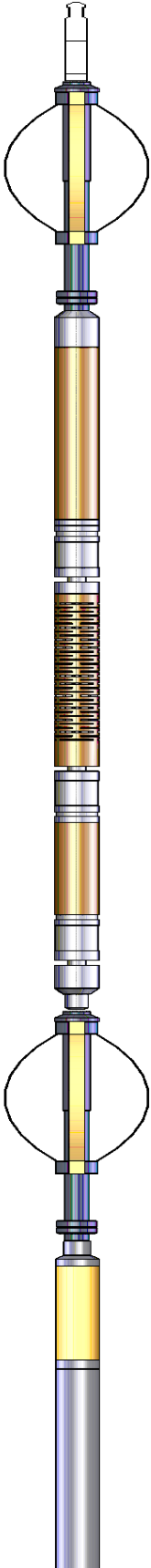
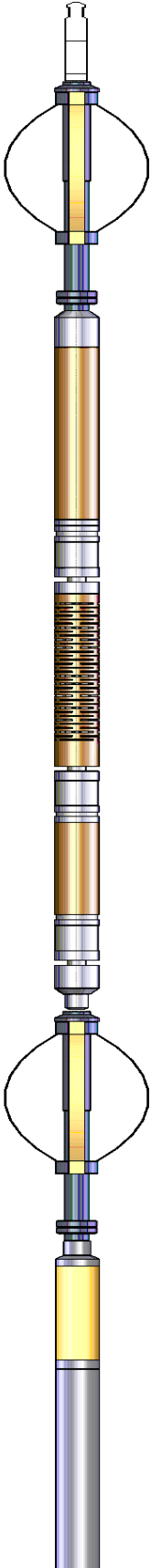
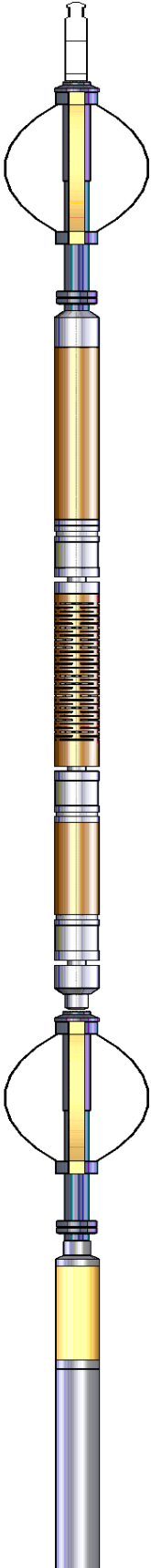
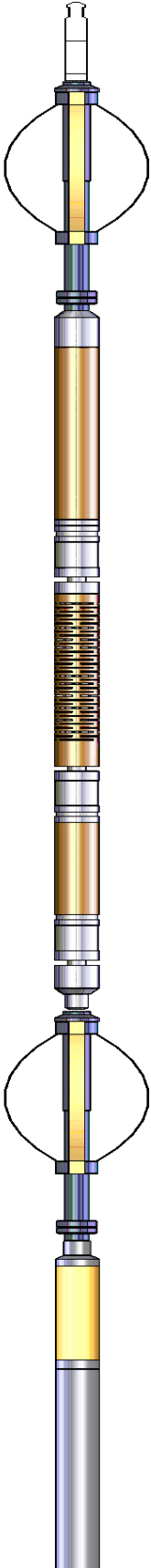
Internal Reference Calibration, performed Mon Oct 10 09:42:03 2005:


	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.012	1.278	1.000	0.000

Air Zero Calibration, performed Fri Jun 28 08:15:59 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
WVF3FT	13.09		RBT-Probe (120424) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFCAL	13.09					
WVFS1	13.09					
WVFS2	13.09					
WVFS3	13.09					
WVFS4	13.09					
WVFS5	13.09					
WVFS6	13.09					
WVFS7	13.09					
WVFS8	13.09					
WVF5FT	12.09					
			Probe275 2.75" Centralizer	2.88	2.75	20.00
CCL	5.13					
GR	3.79		GR-Probe275 (110108-Dig) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00

TEMP	0.08		Temp-1.375TEMP (101234) Temperature Tool	1.25	1.38	30.00
<p> Dataset: noble_leeroy_b11_79hnm_rcbl.db: field/well/run1/pass13 Total Length: 21.53 ft Total Weight: 227.00 lb O.D.: 2.75 in </p>						