



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

Company	Noble Energy	Company	Noble Energy
Well	Timbro Federal LD17-76HN	Well	Timbro Federal LD17-76HN
Field	Wattenberg	Field	Wattenberg
County	Weld	County	Weld
State	Colorado	State	Colorado
Location:		API # : 05-123-33087	Other Services
660' FNL & 1980' FWL		None	
Permanent Datum	SEC 17 TWP 9 N RGE 58 W	Elevation	
Log Measured From	Ground Level	Elevation	4898'
Drilling Measured From	Kelly Bushing 30' APD	Elevation	K.B. 5028'
	Kelly Bushing	Elevation	D.F. 5029'
		Elevation	G.L. 4898'
Date	01-March-2013		
Run Number	One		
Depth Driller	10236'		
Depth Logger	5994'		
Bottom Logged Interval	5993'		
Top Log Interval	Surface		
Open Hole Size	8 3/4"		
Type Fluid	Water		
Density / Viscosity	-		
Max. Recorded Temp.	-		
Estimated Cement Top	428'		
Time Well Ready	0830		
Time Logger on Bottom	1443		
Equipment Number	Truck # 12029		
Location	Brighton, CO		
Recorded By	R.Grisson		
Witnessed By	Bill Mansfield		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
1	26"	Surface	130'
2	13.75"	130'	673'
3	8.75"	673'	6393'
4	6.125"	6393'	10251'
Casing Record	Size	Wgt/Ft	Top
Surface String	9 5/8"	36#	Surface
Prot. String			663'
Production String	7"	26#	Surface
Liner	4.5"	11 6#	Surface
Short Joint			6387'
			10236'
			5046'

<<< Fold Here >>>

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 30' KB

Main Pass and Repeat Pass logged with zero pressure on surface.

Your Crew For Today: Grissom, Rall, Medina

Thank You for choosing Allied Wireline...!!!!

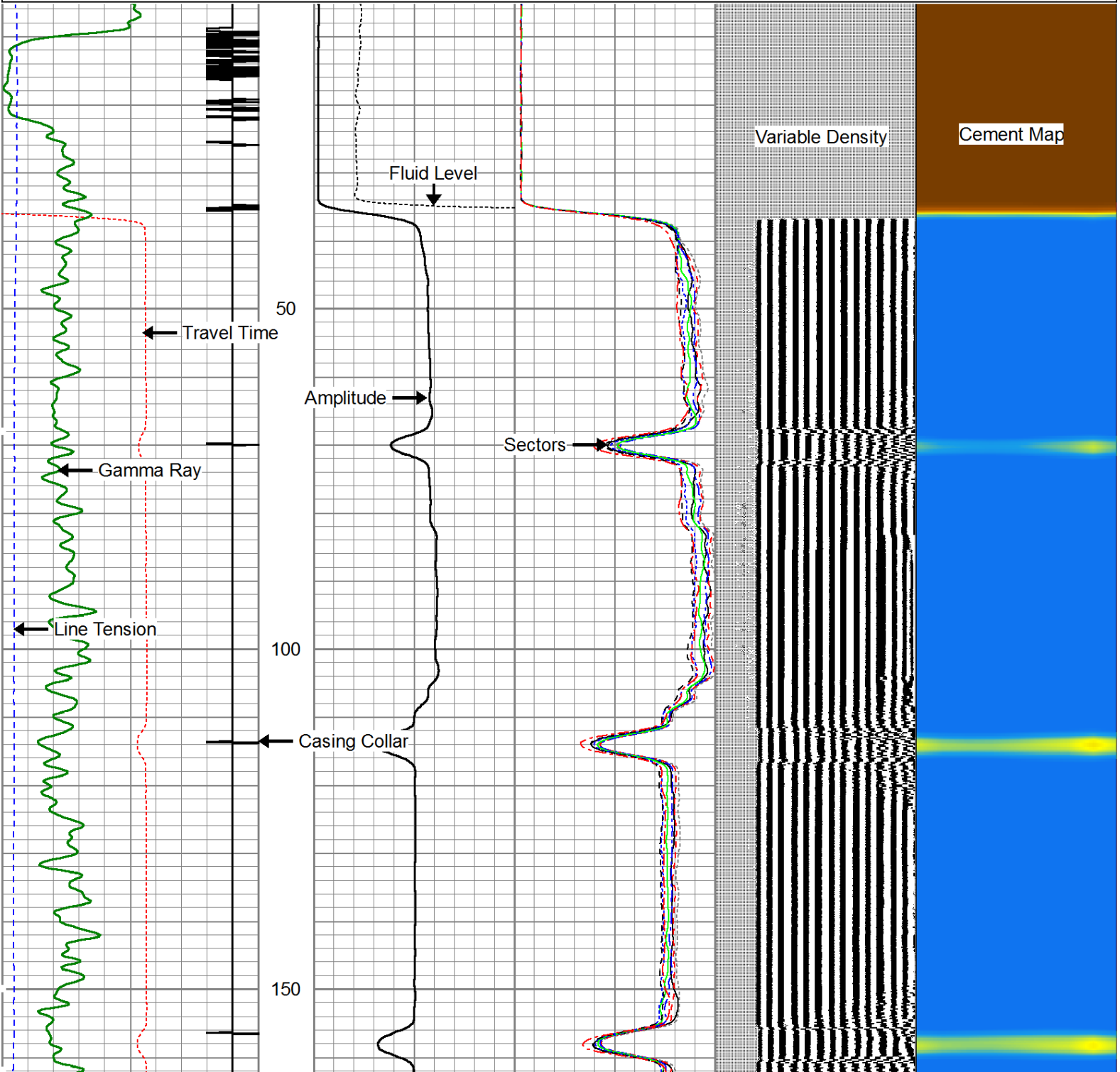
(303) 659-4609

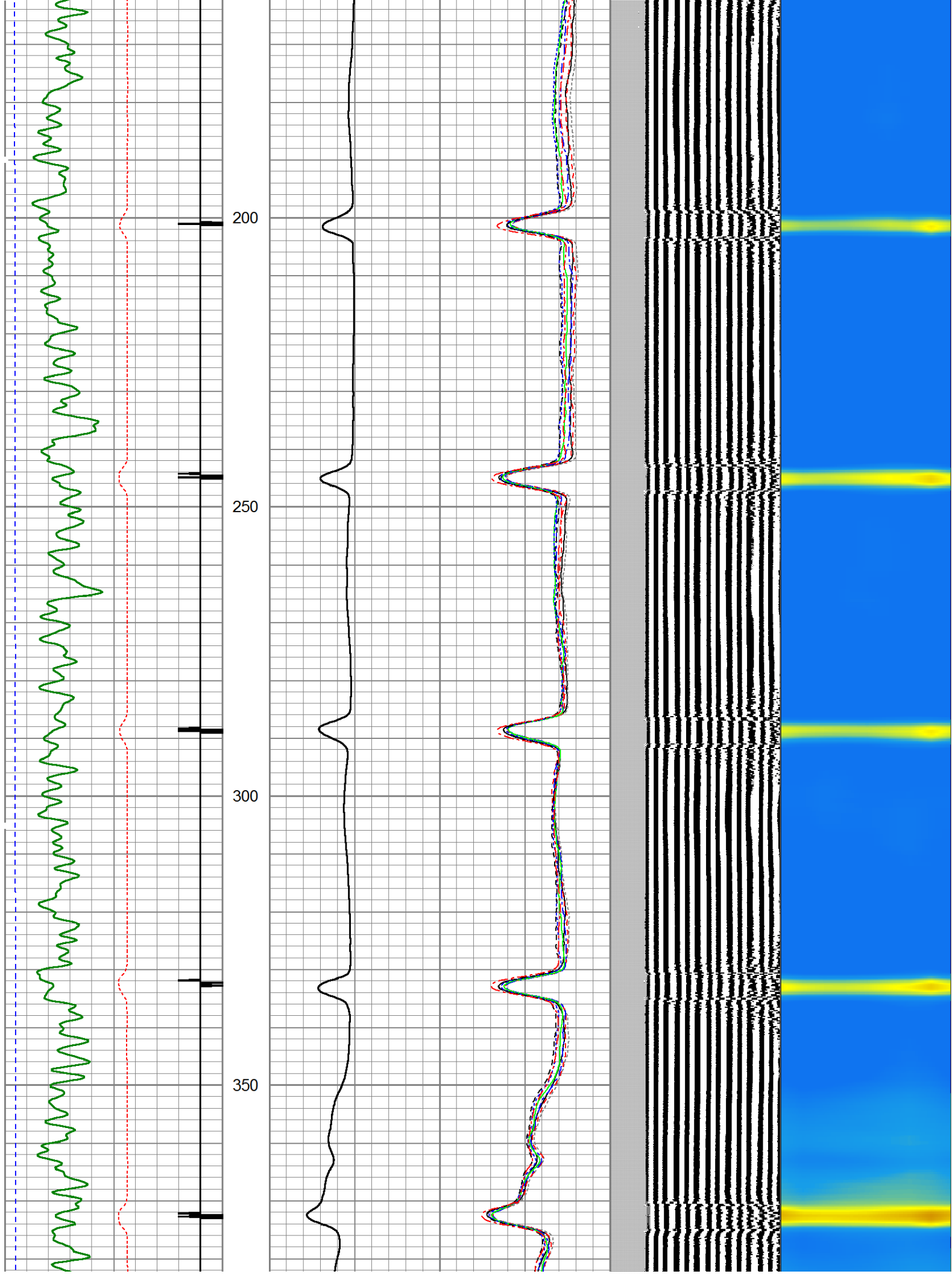


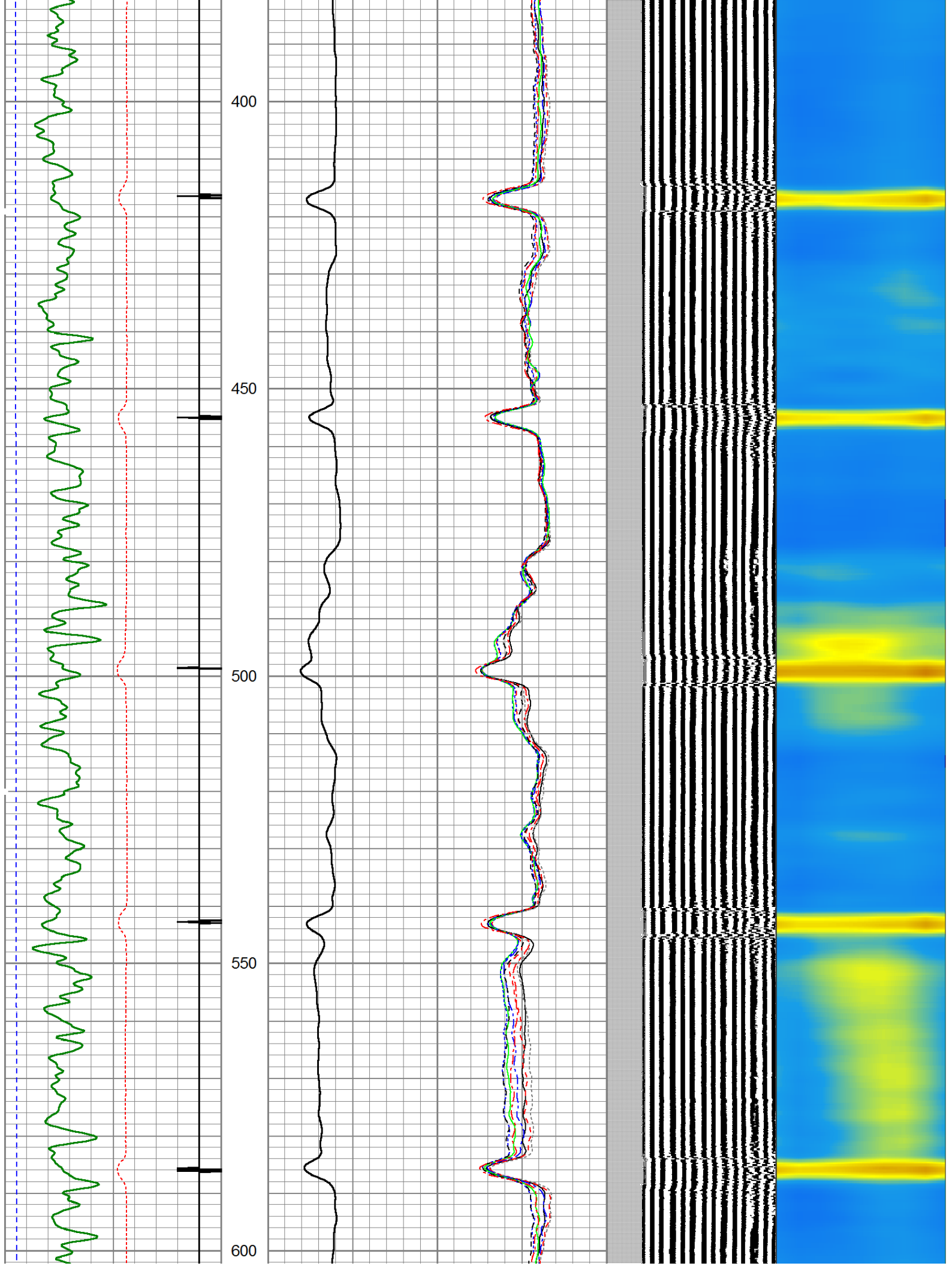
Main Pass (0 PSI)

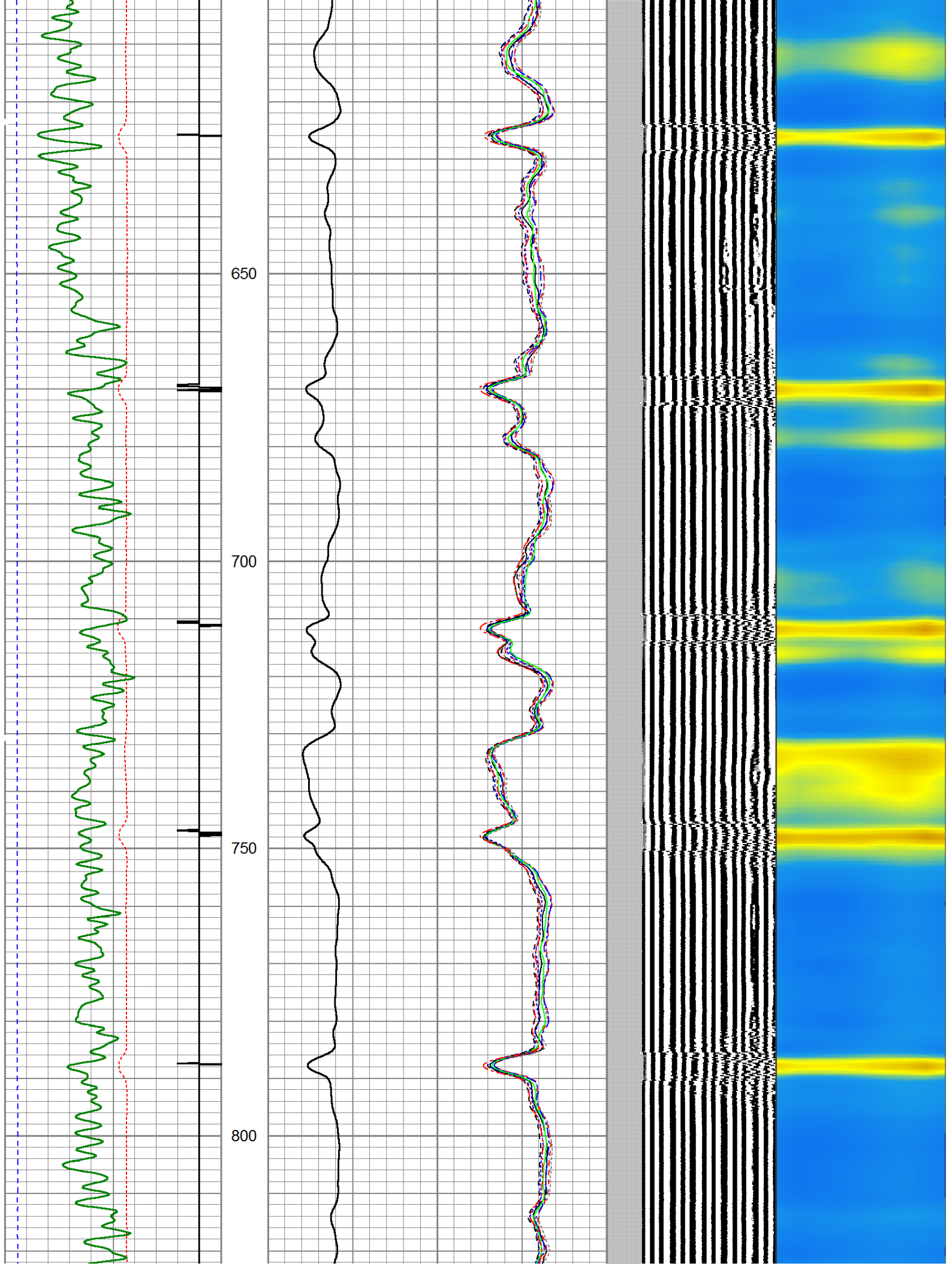
Database File: noble_timbro_fed_Id17_76hn_rcbl.db
Dataset Pathname: pass10
Presentation Format: scbl03
Dataset Creation: Fri Mar 01 14:43:58 2013 by Calc SCH 120126
Charted by: Depth in Feet scaled 1:240

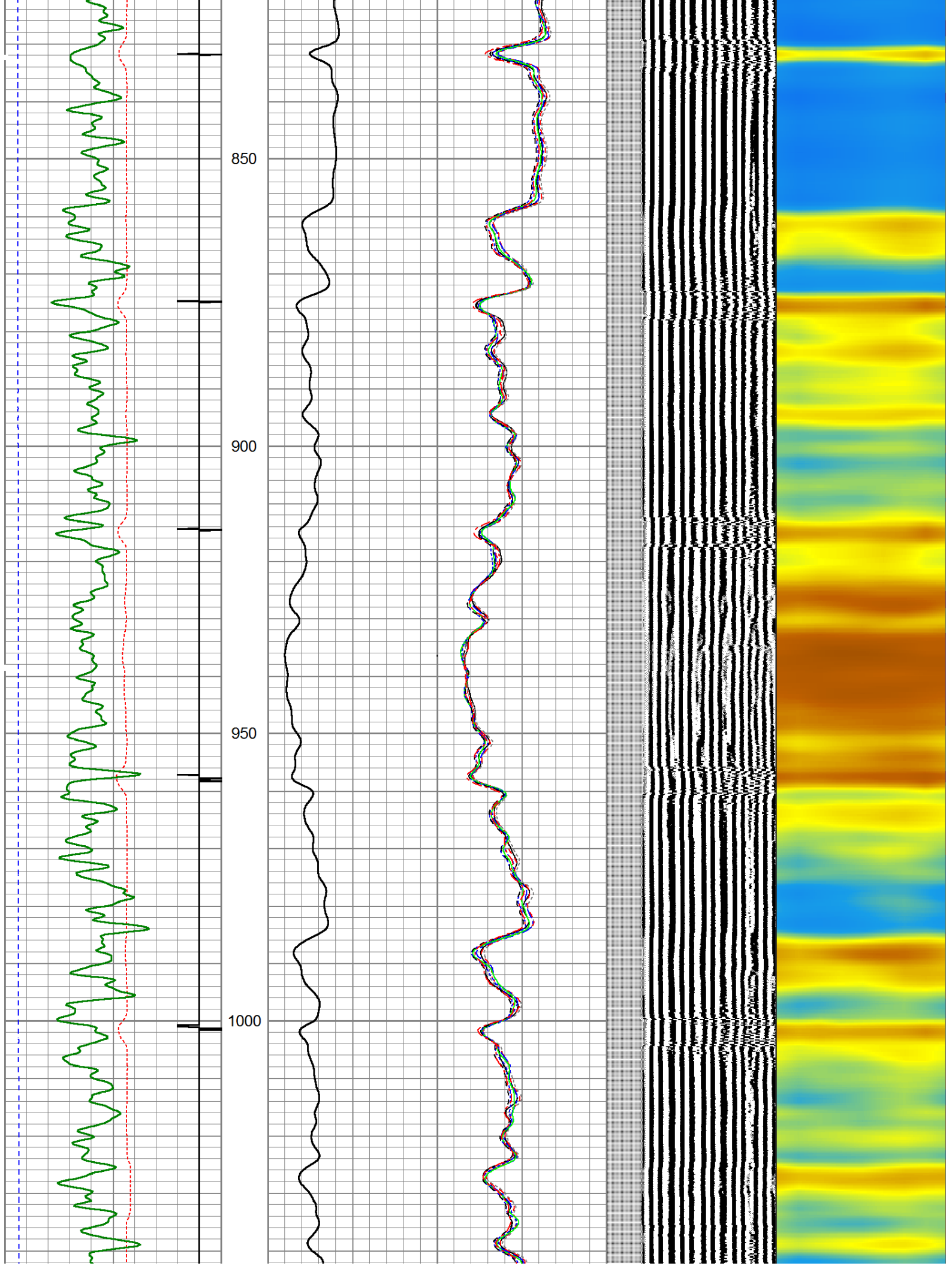
400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1		Amplified Amplitude		-5	AMPS2	150	200	1200	0	100
0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150				
0	Line Tension (lb)	5000				-5	AMPS4	150				
						-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				

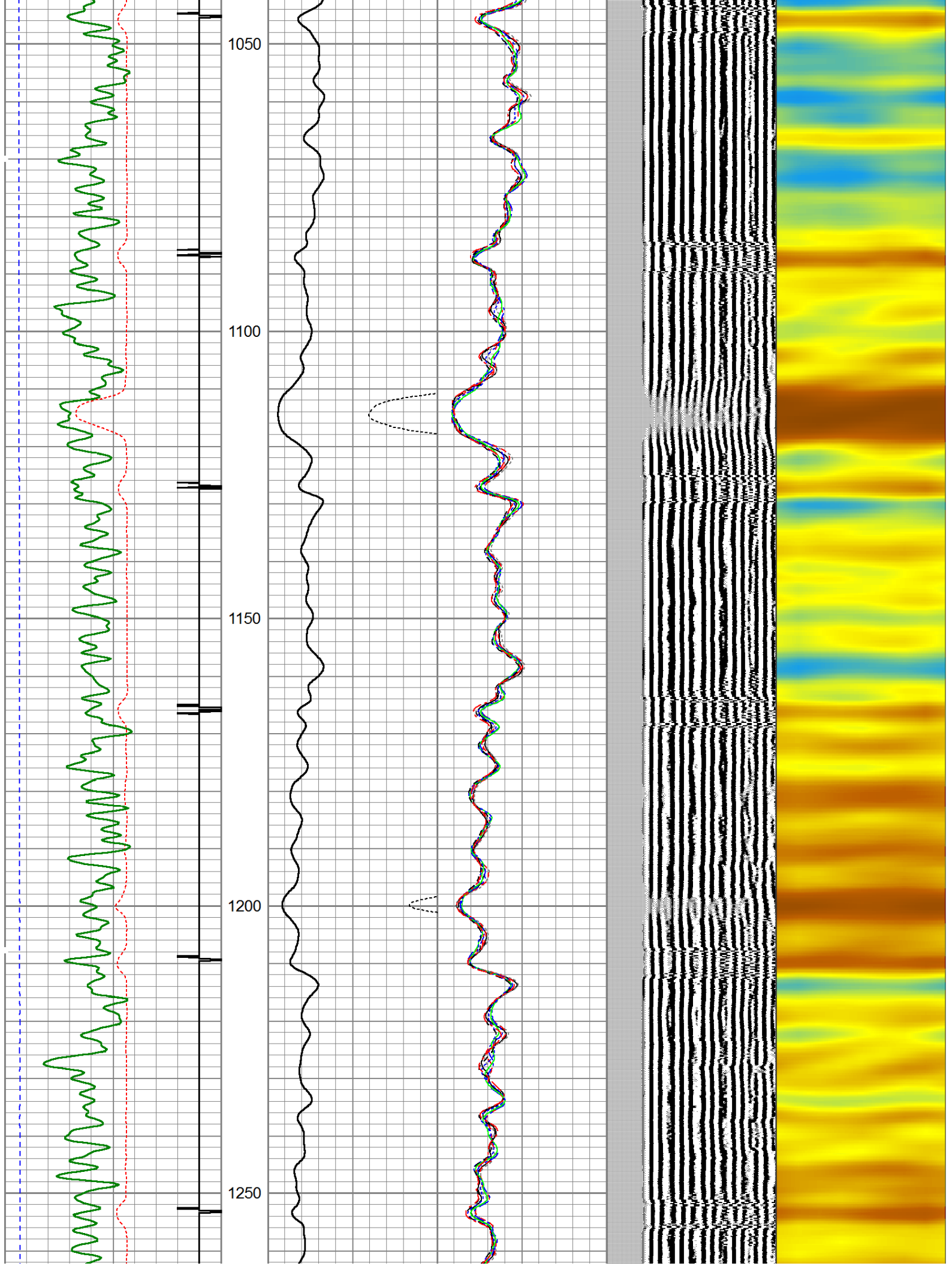


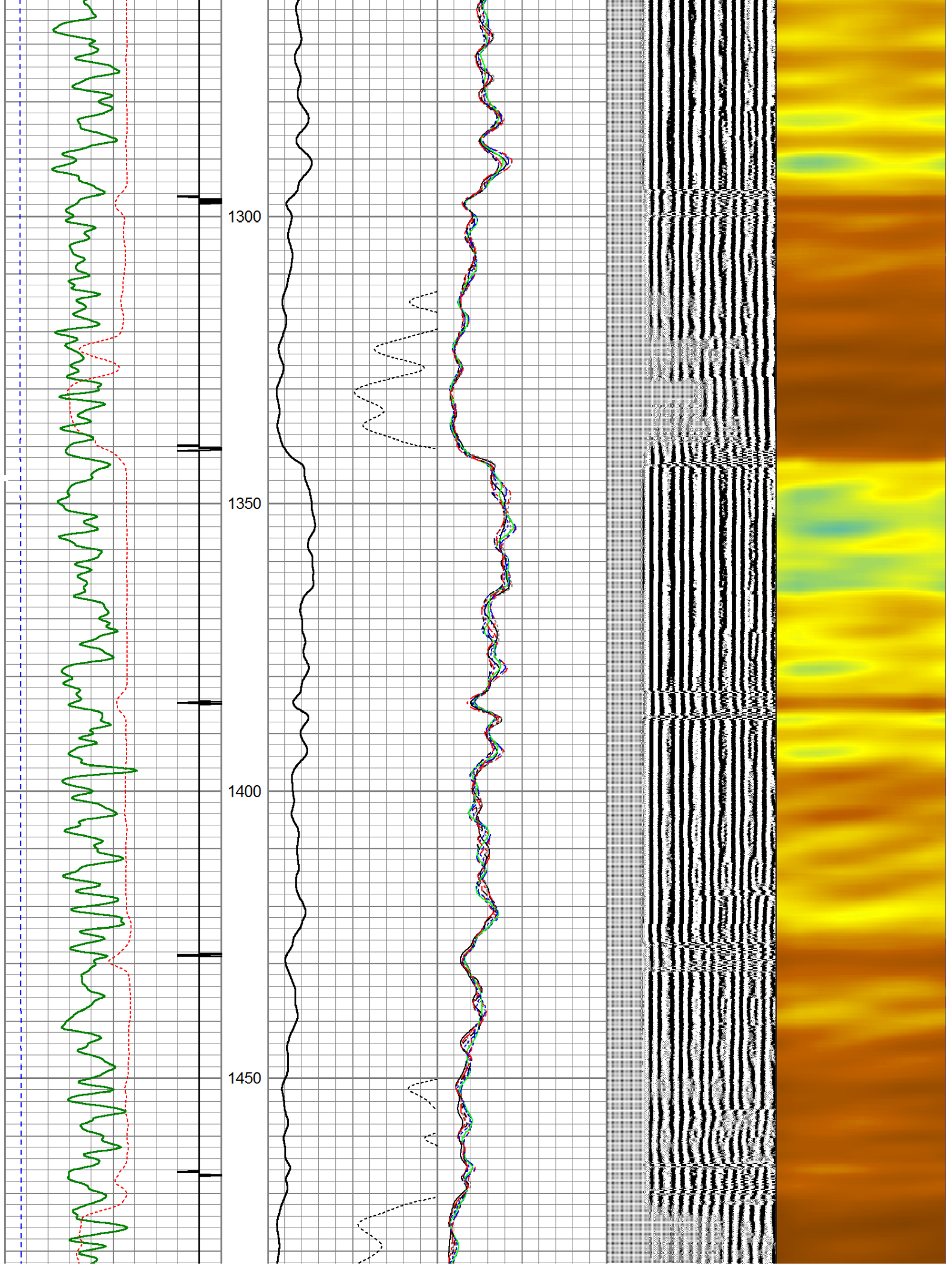


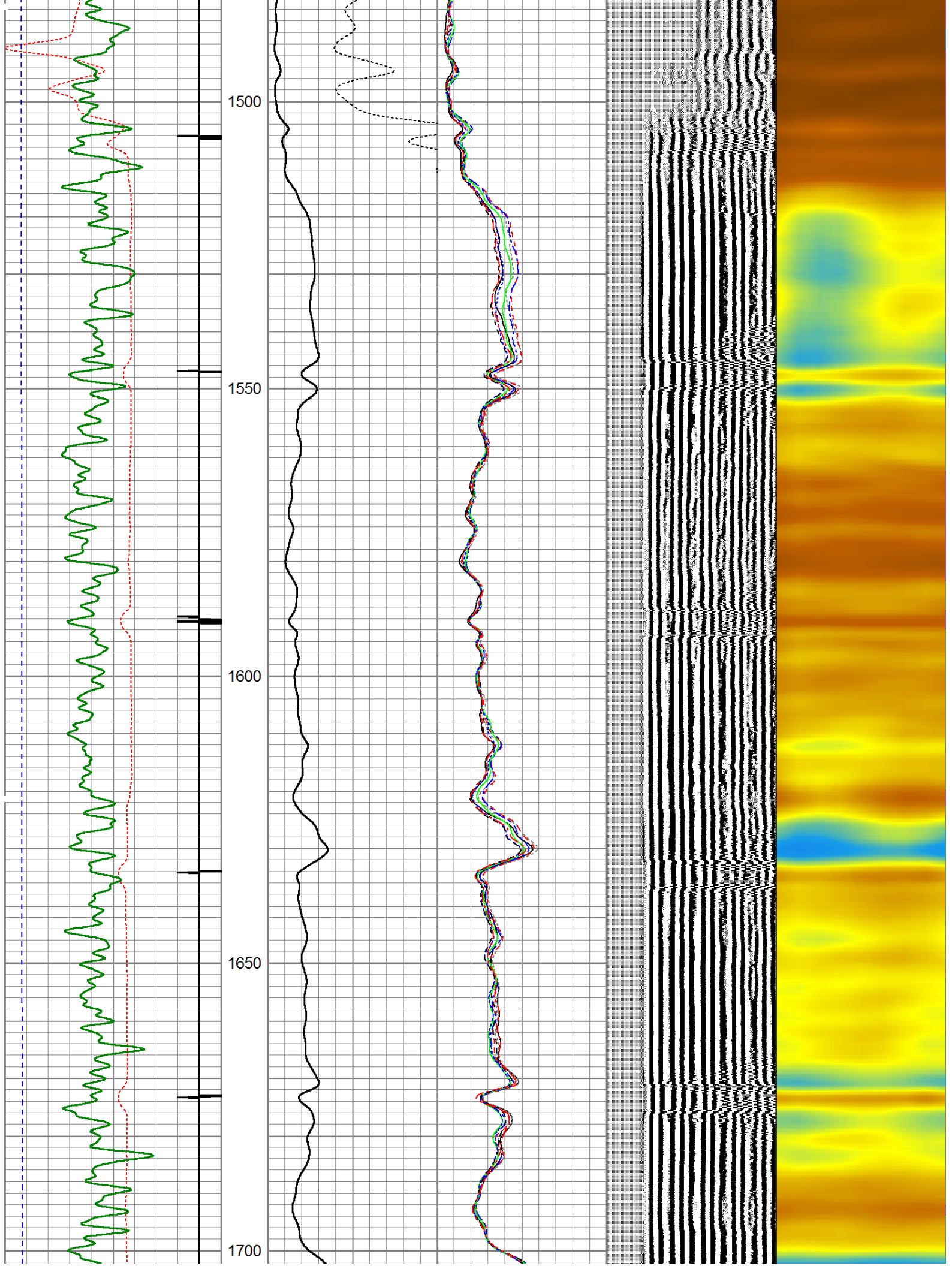


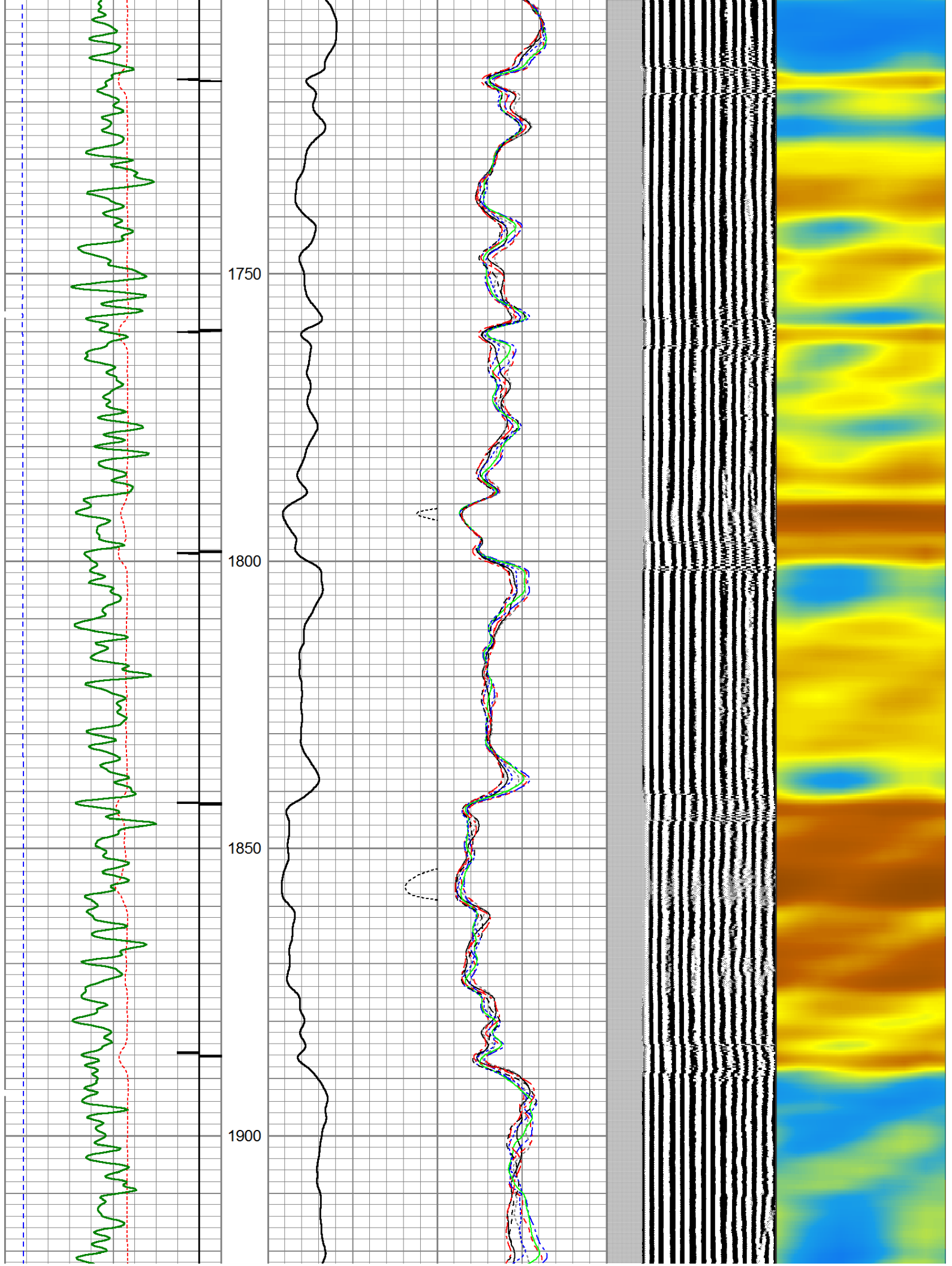


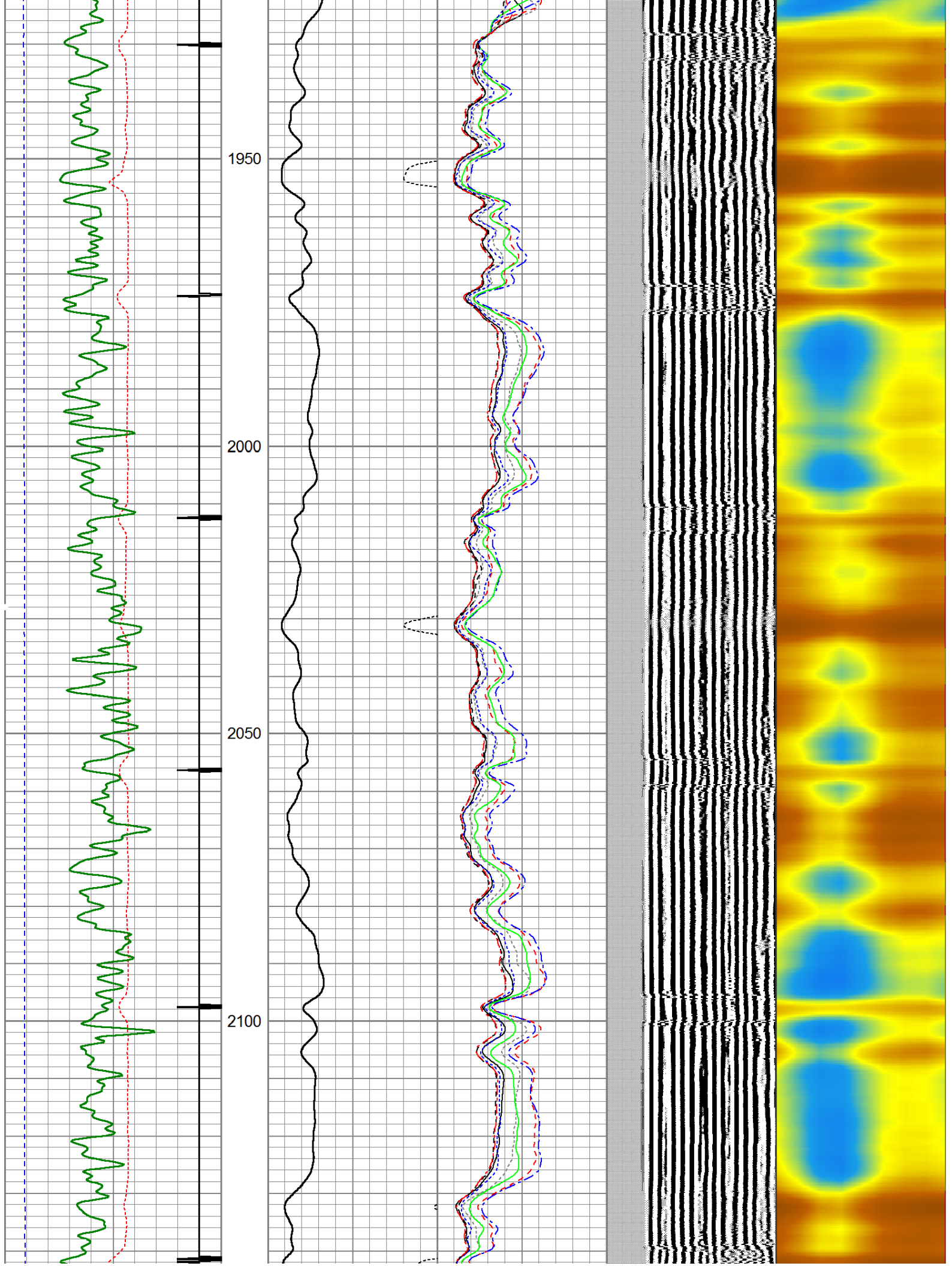


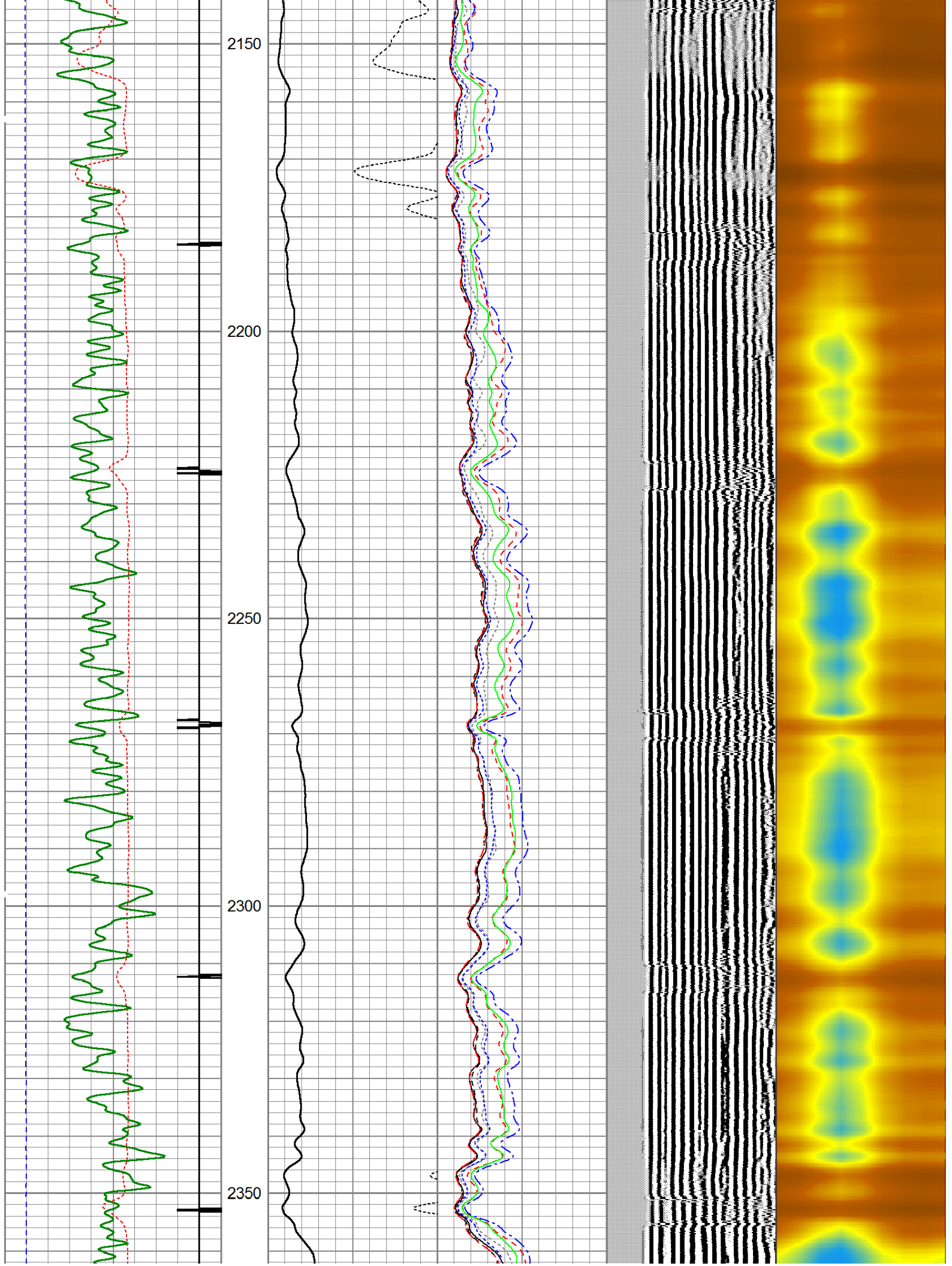


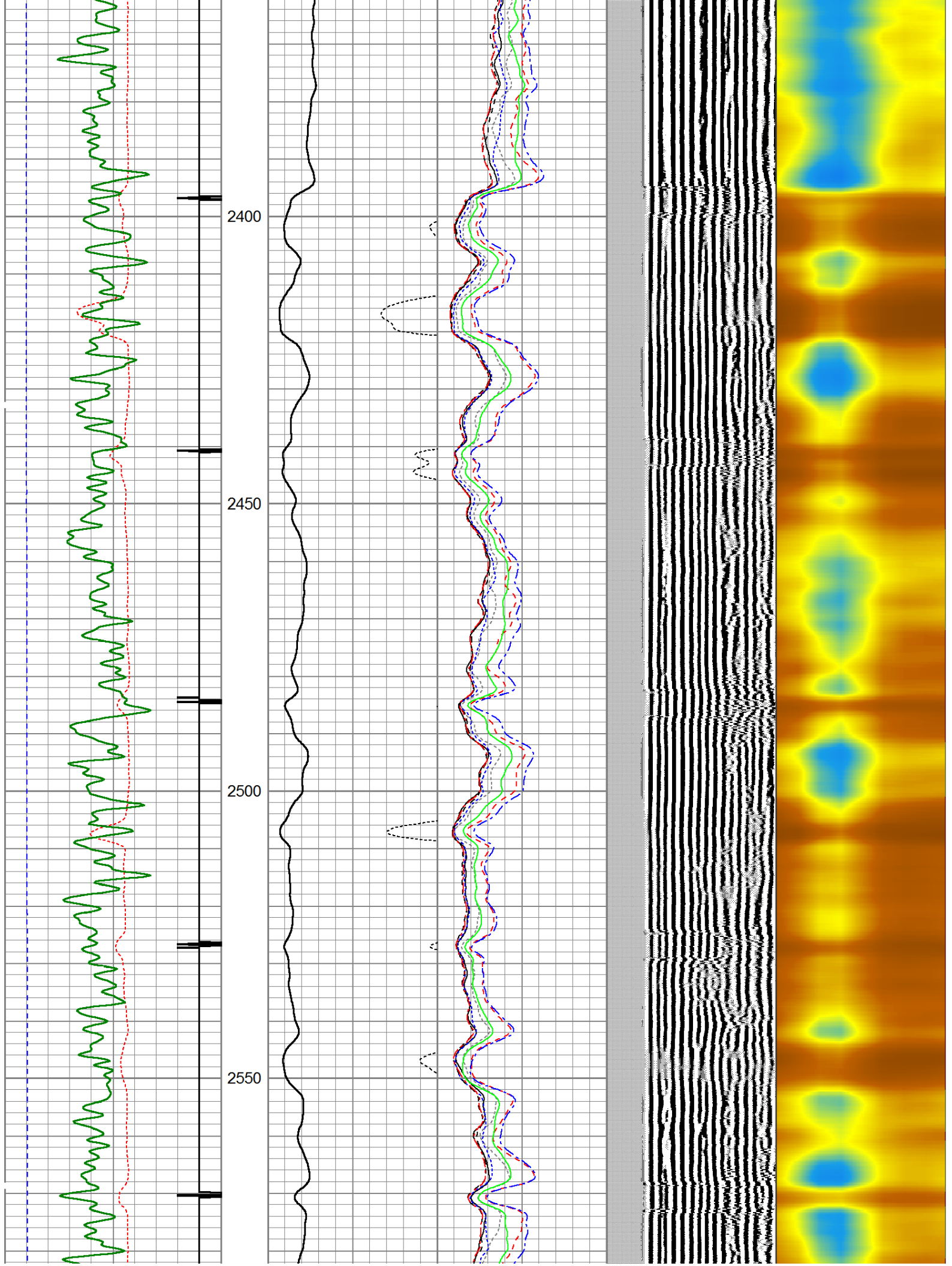


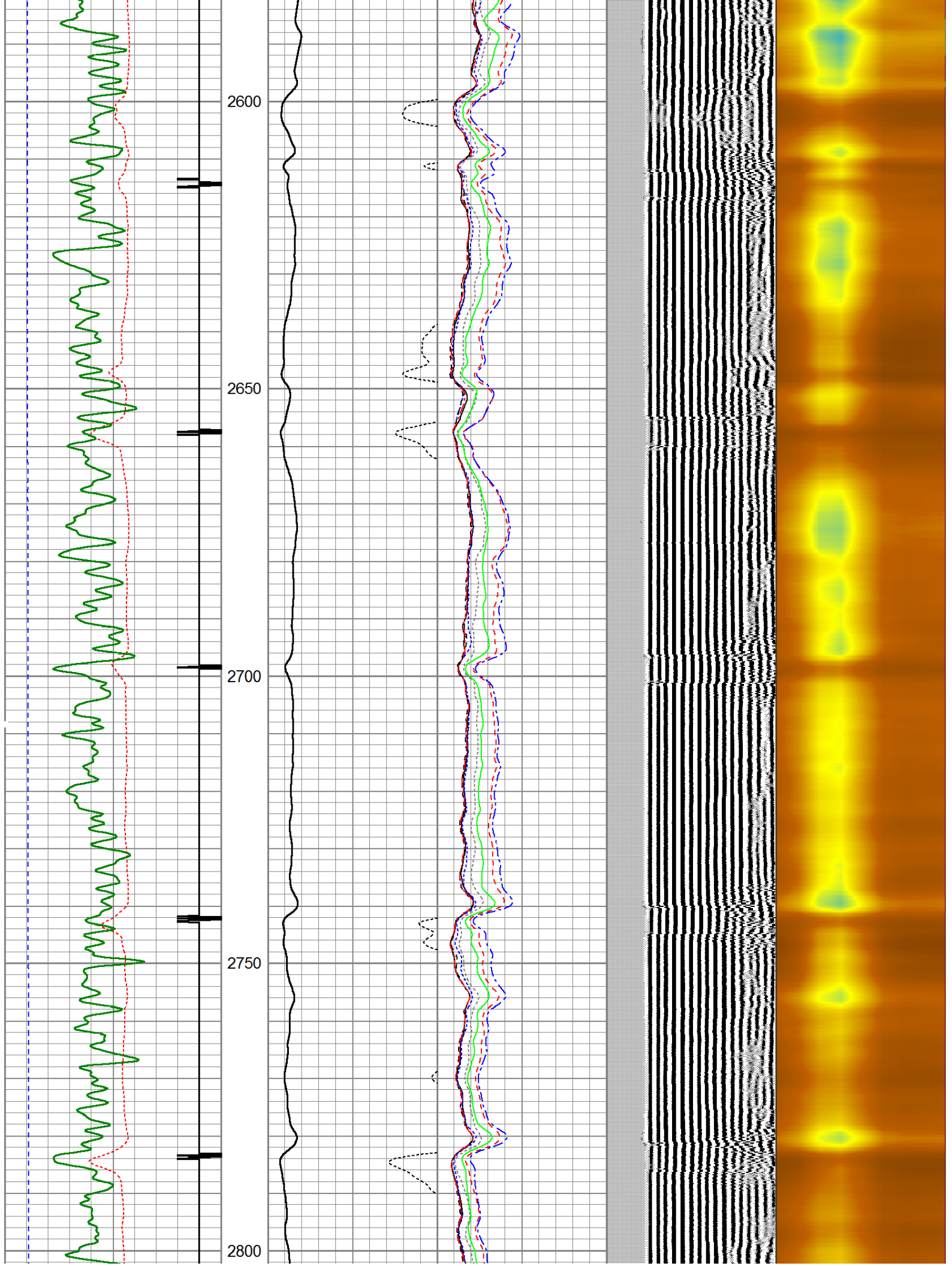


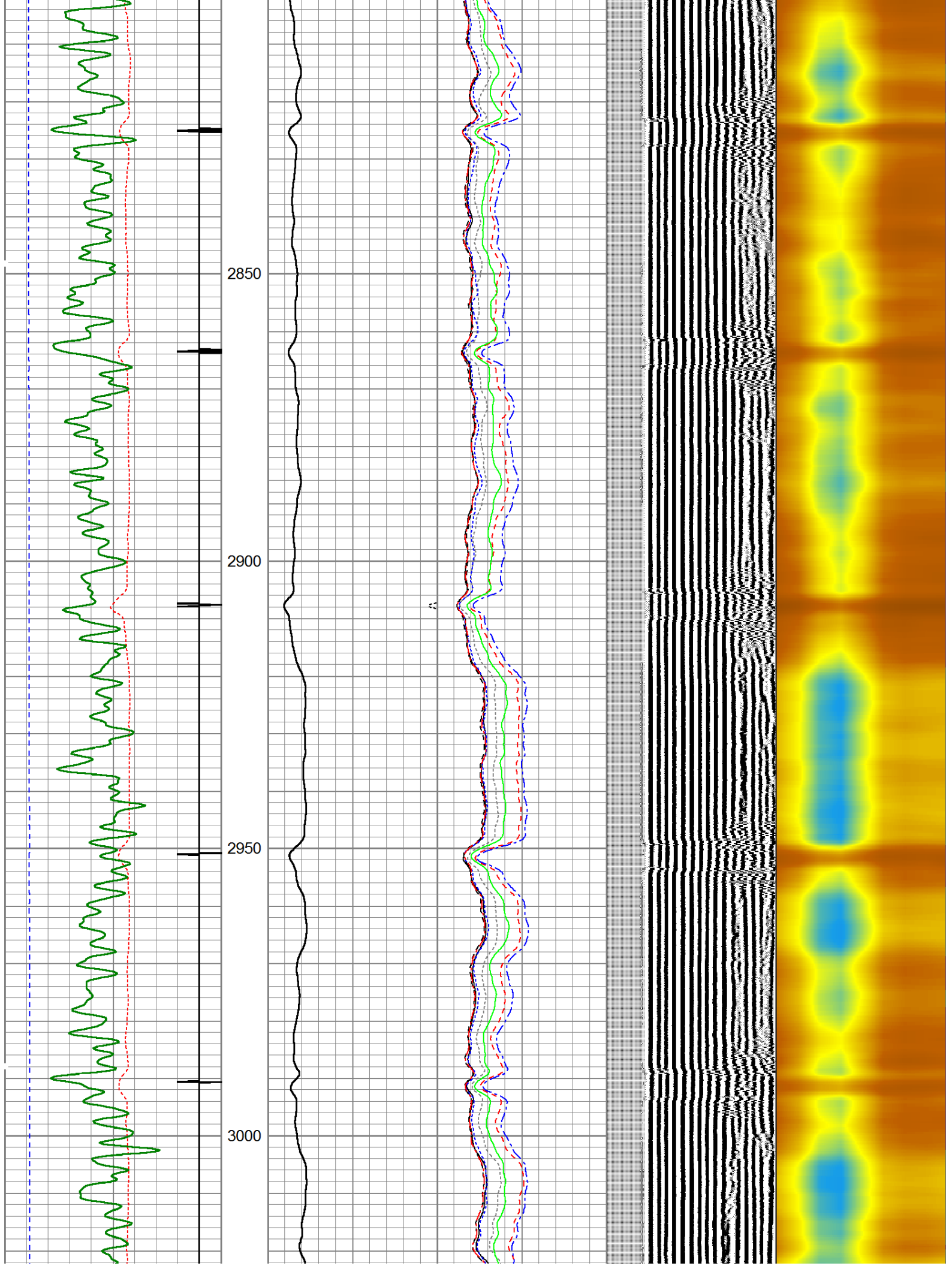


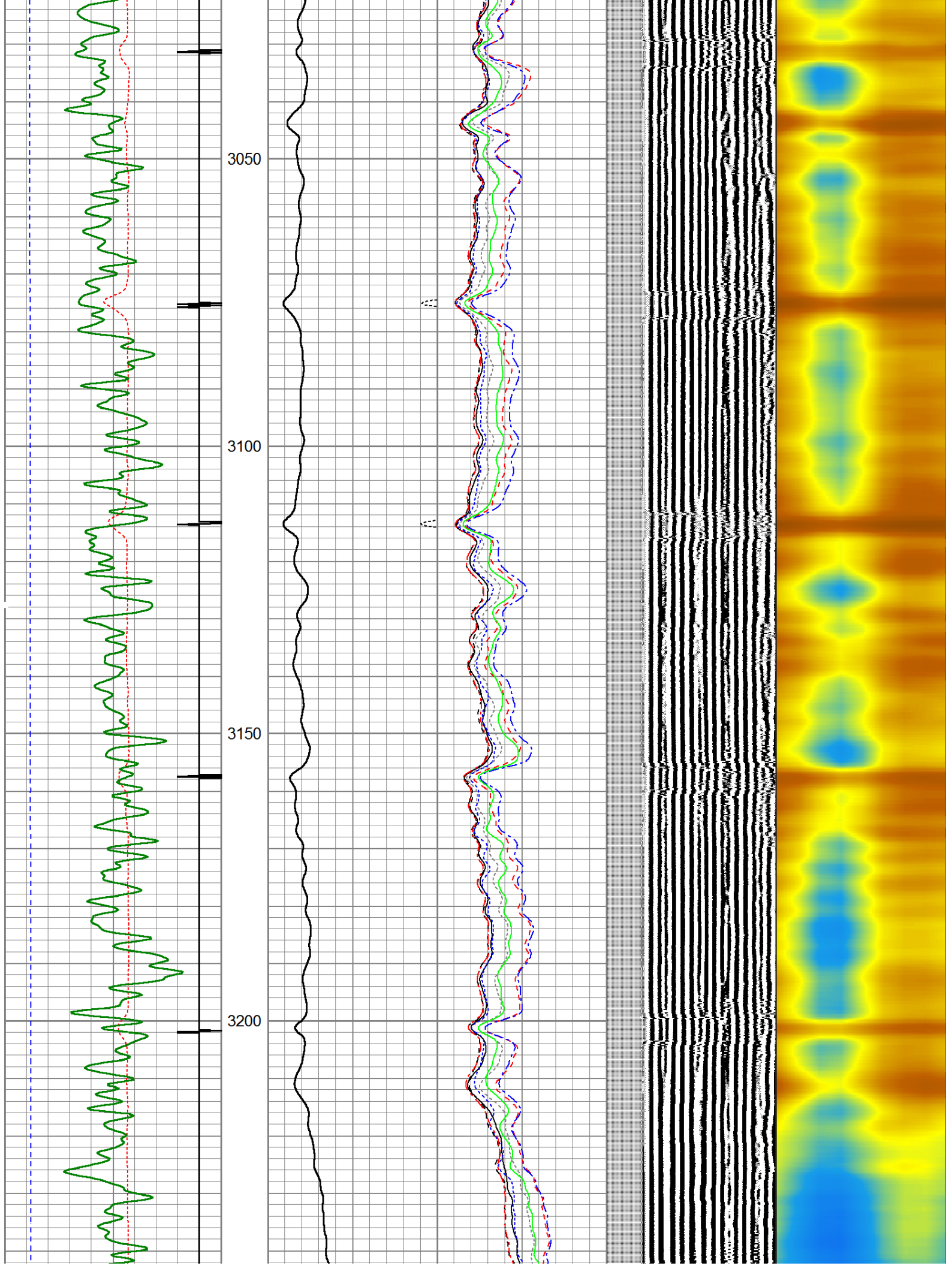


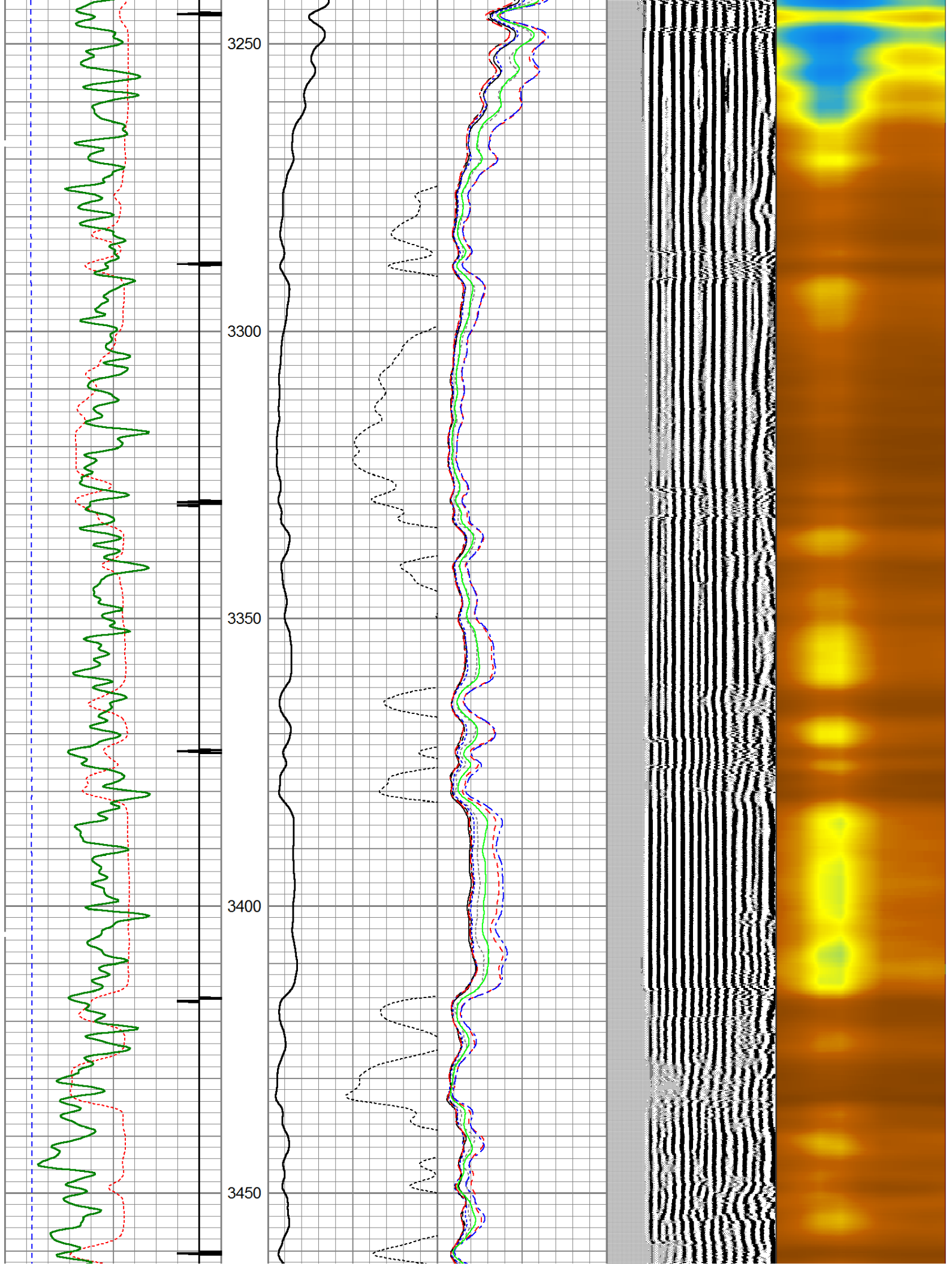


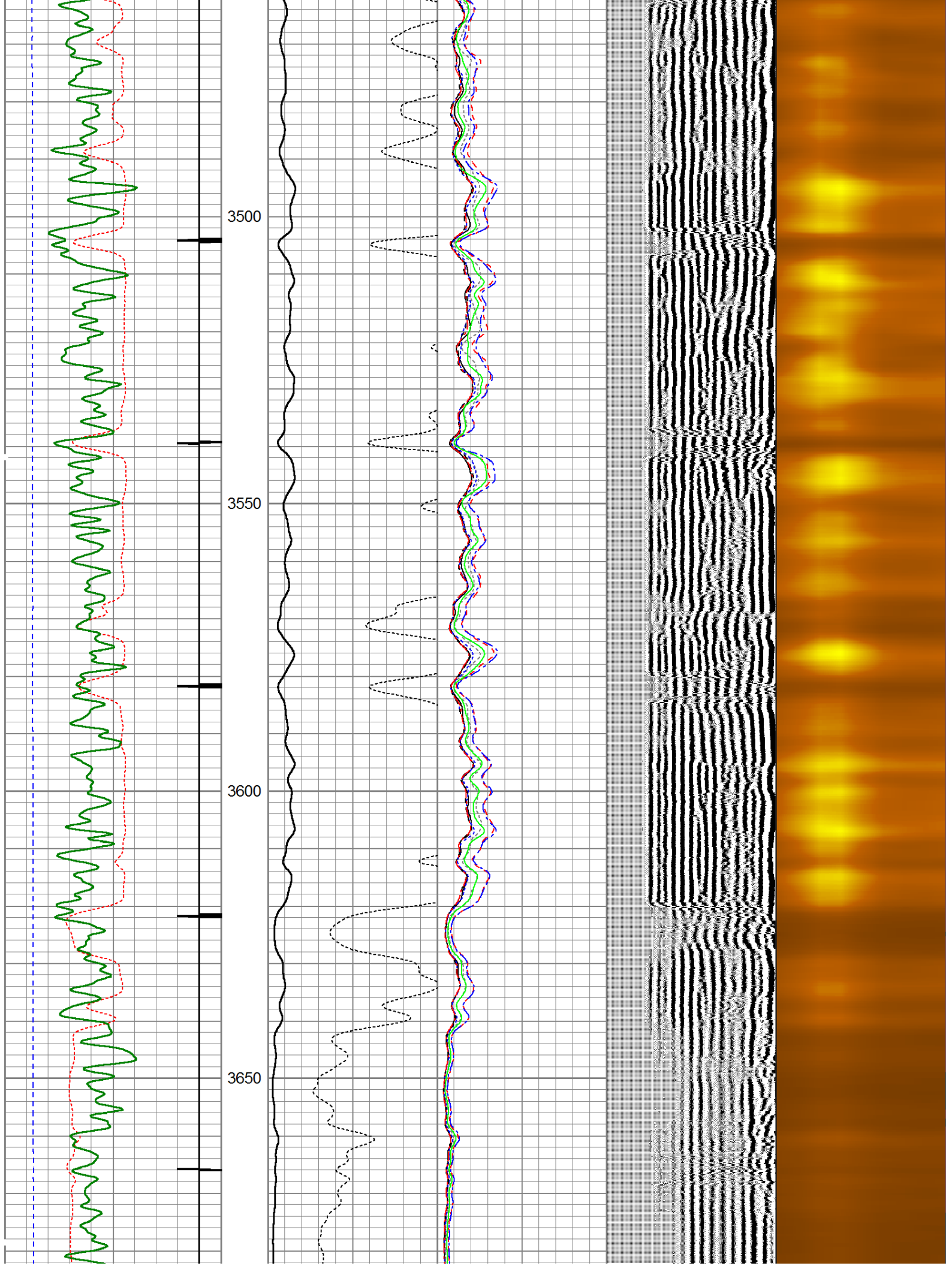


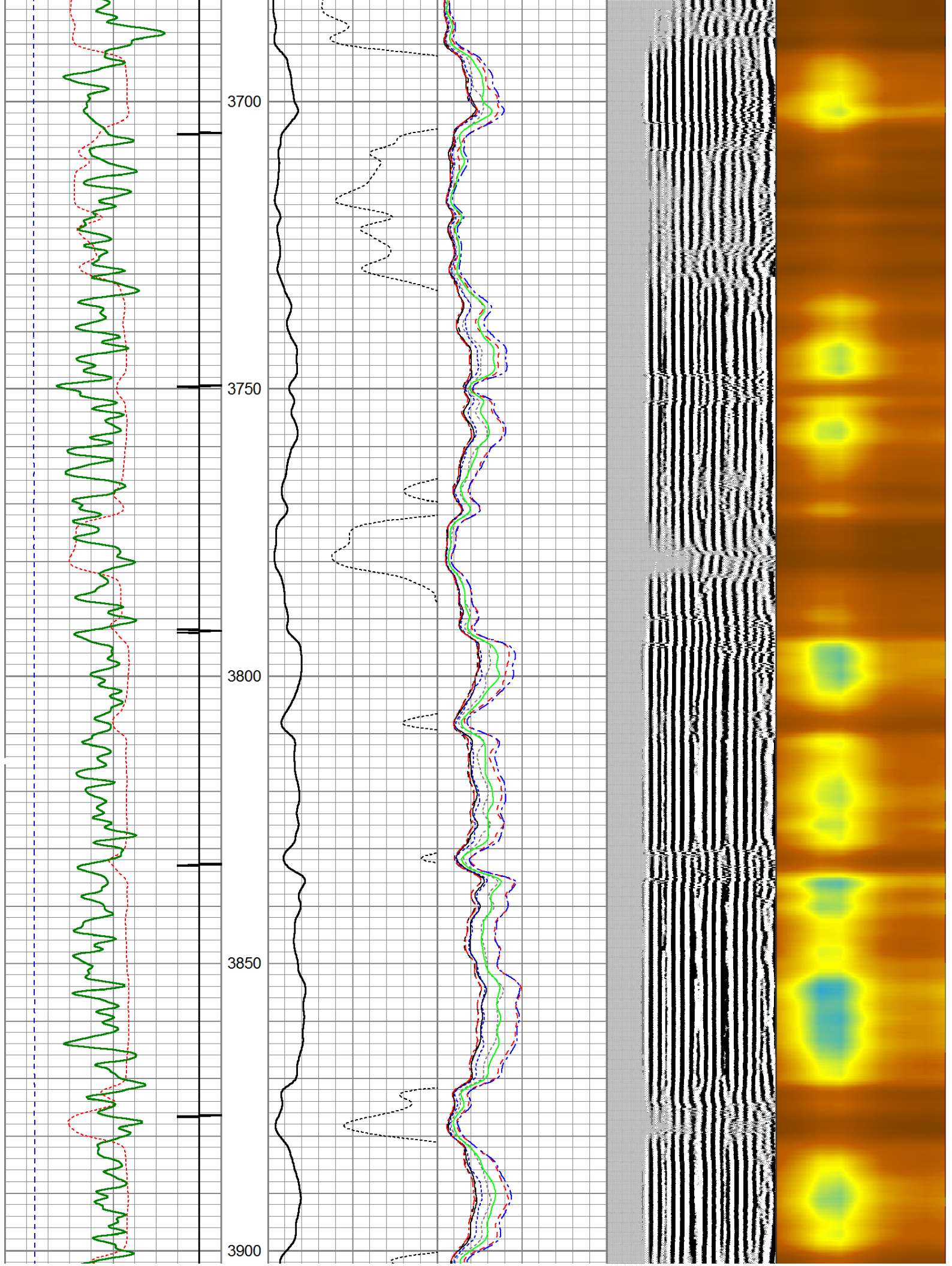


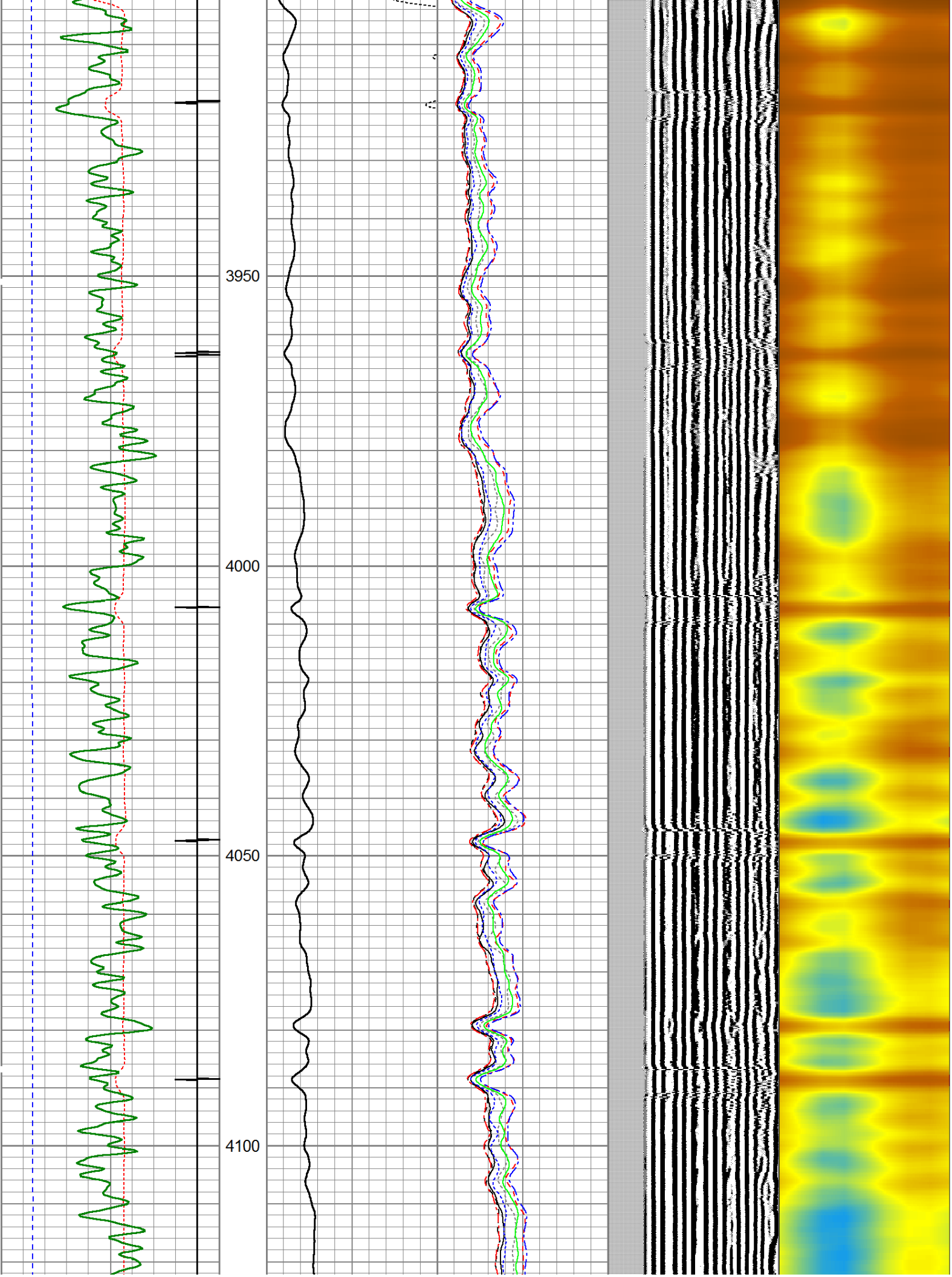


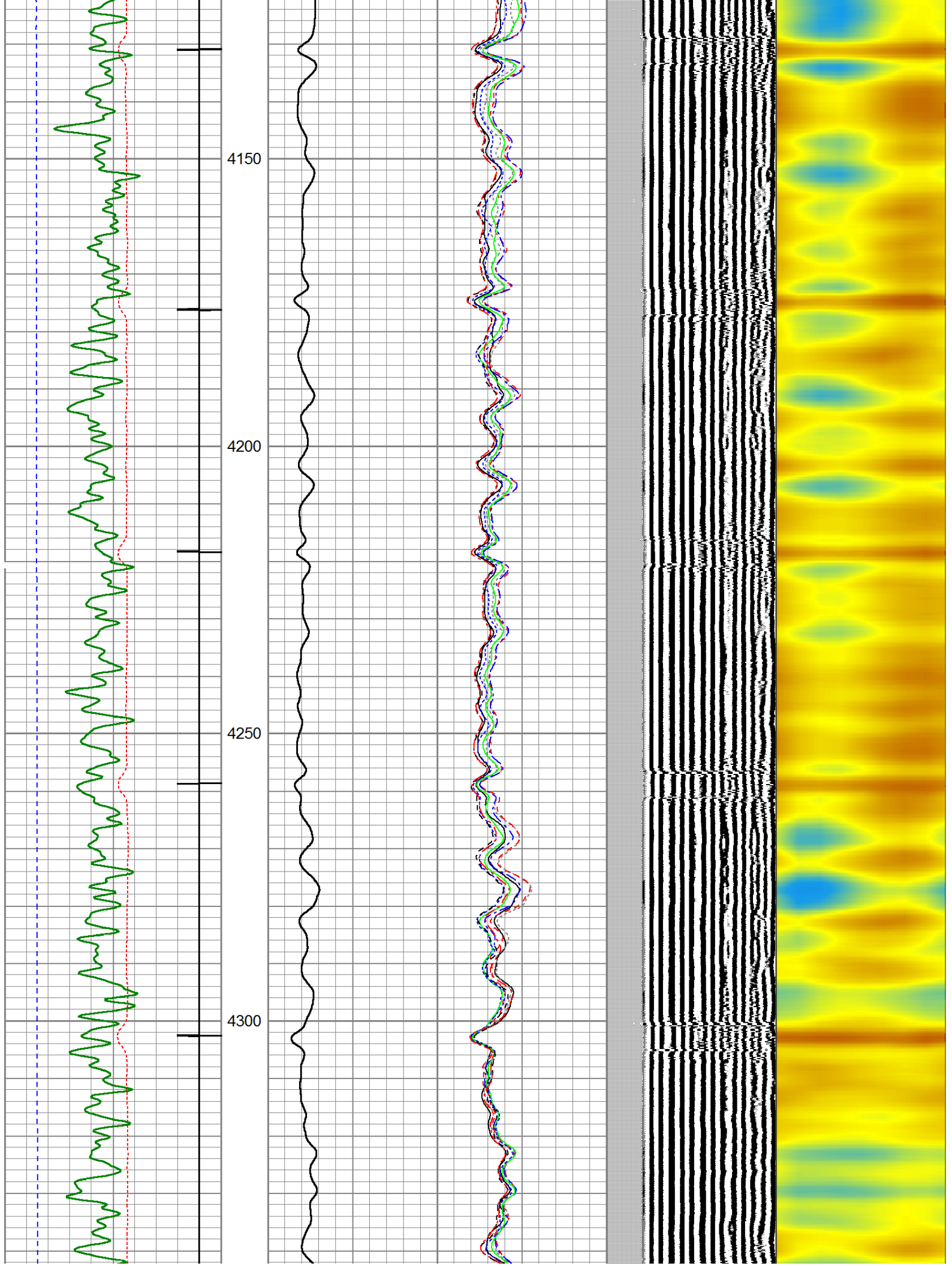


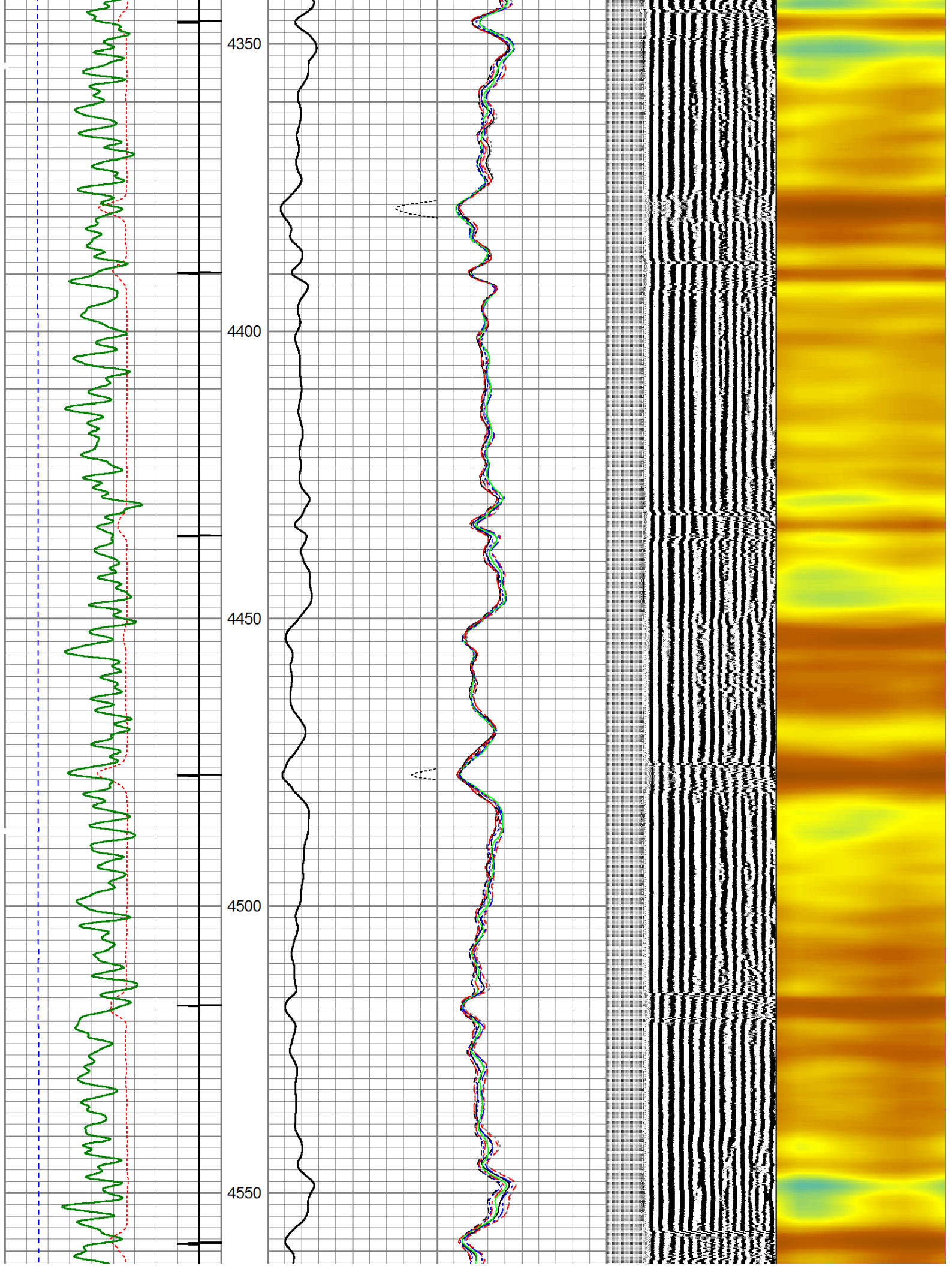


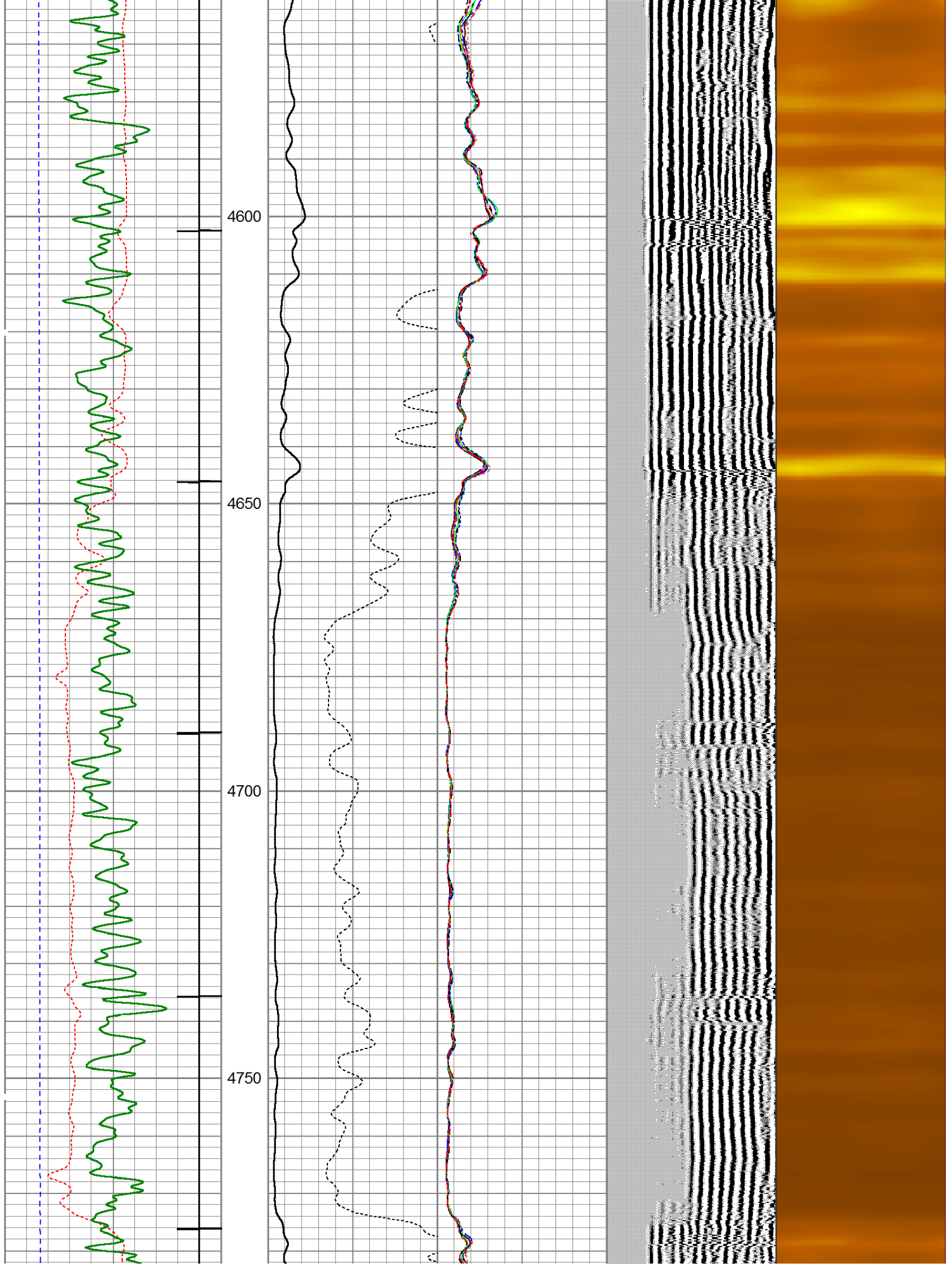


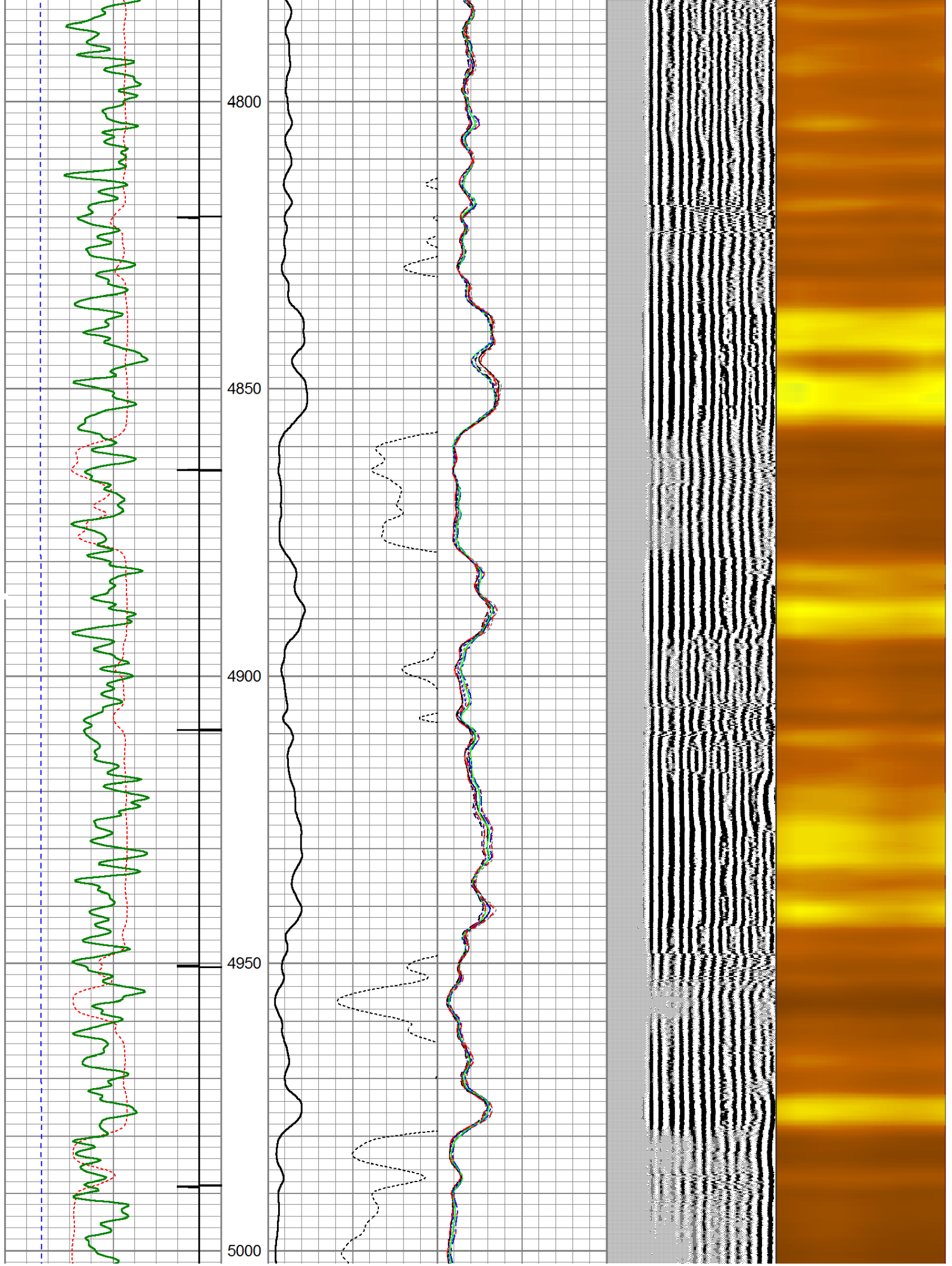


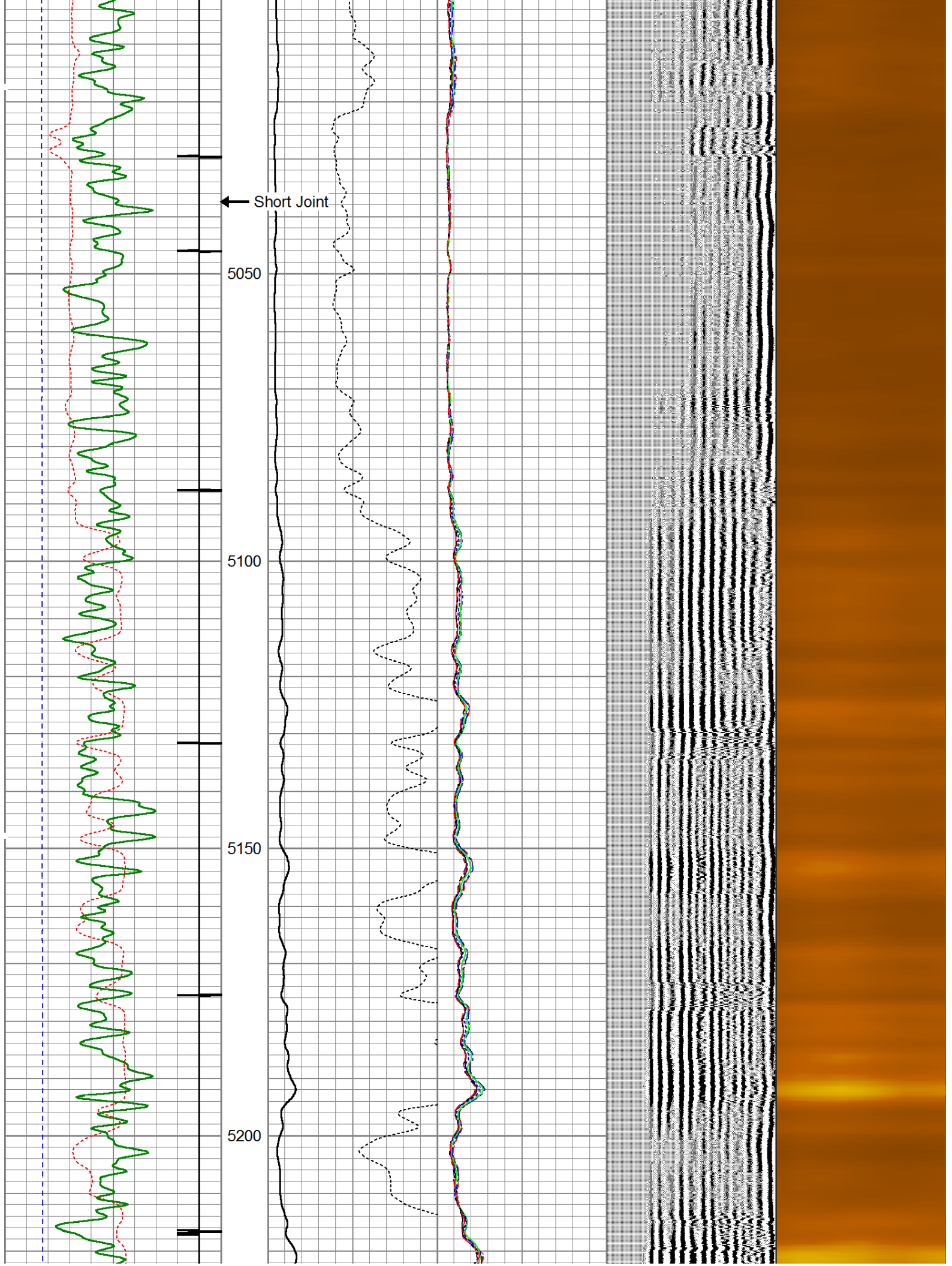


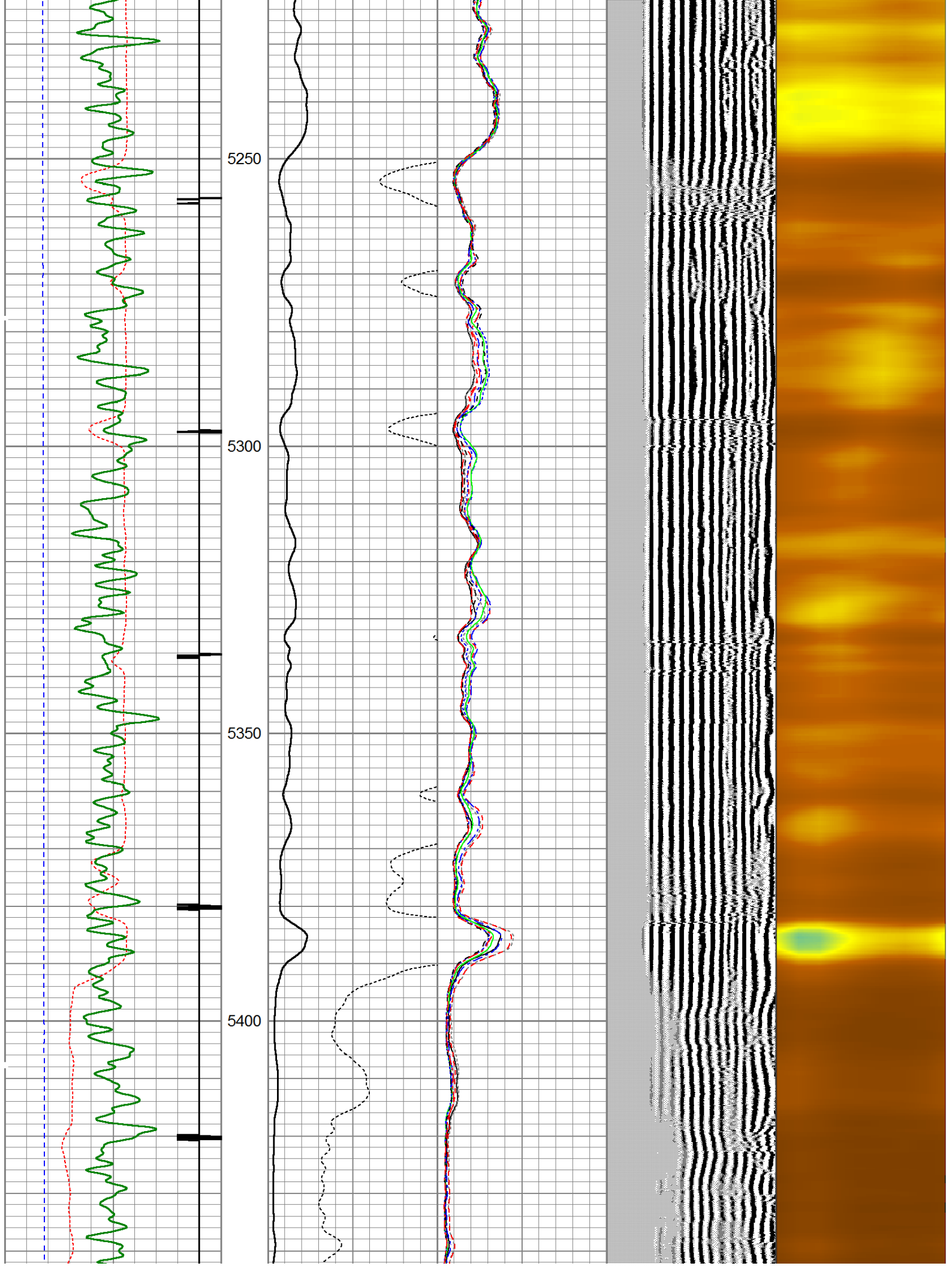


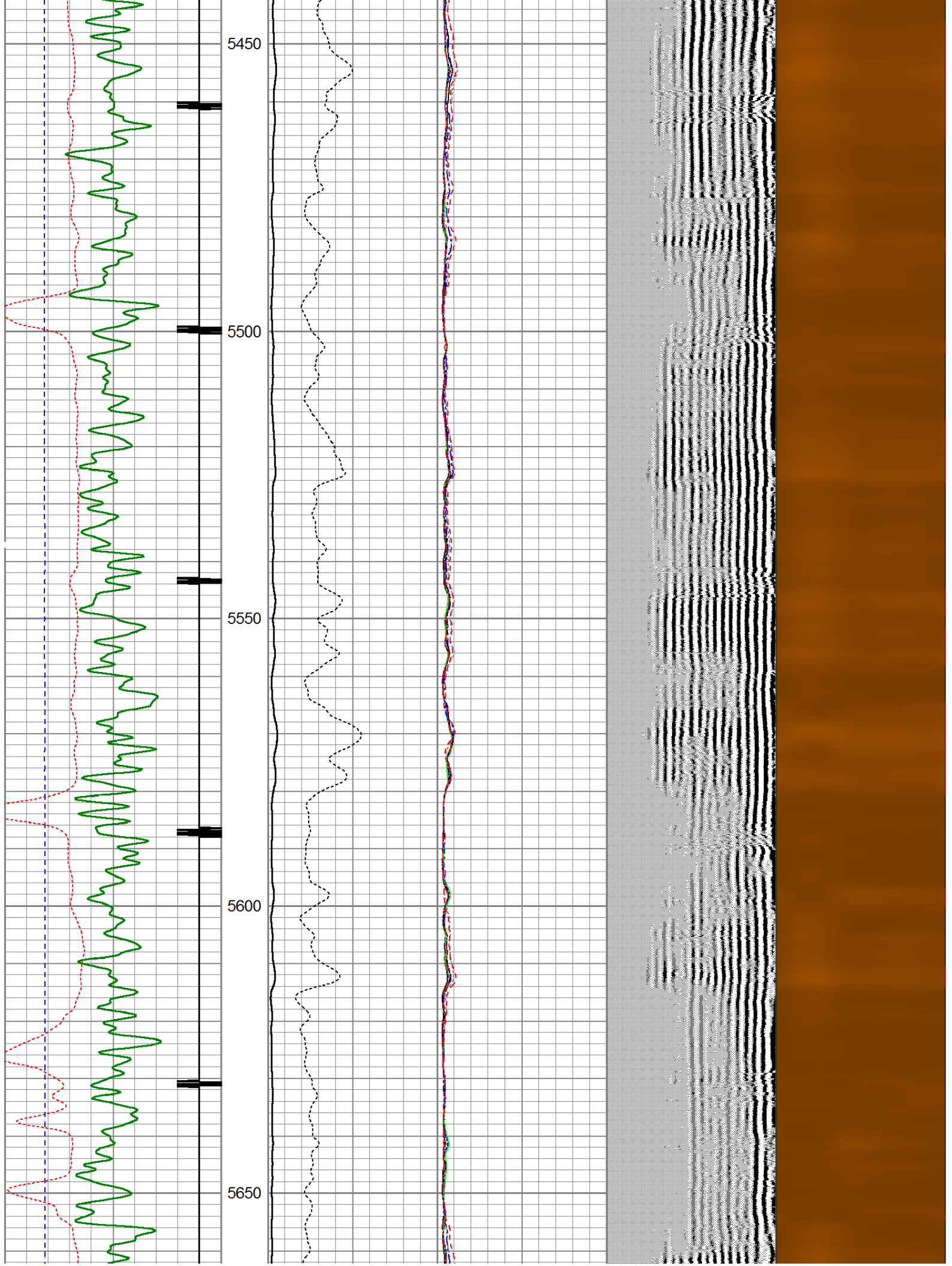


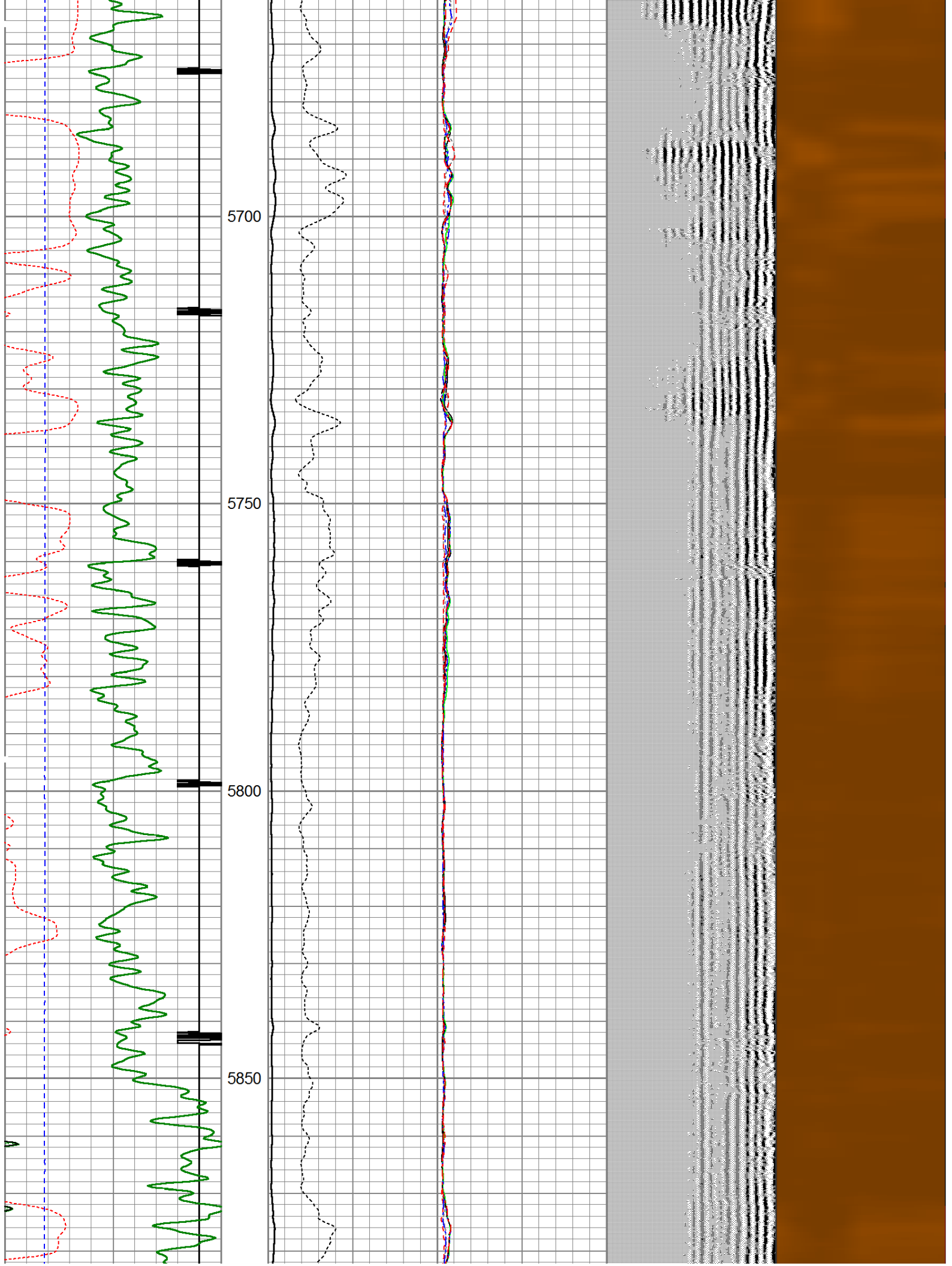


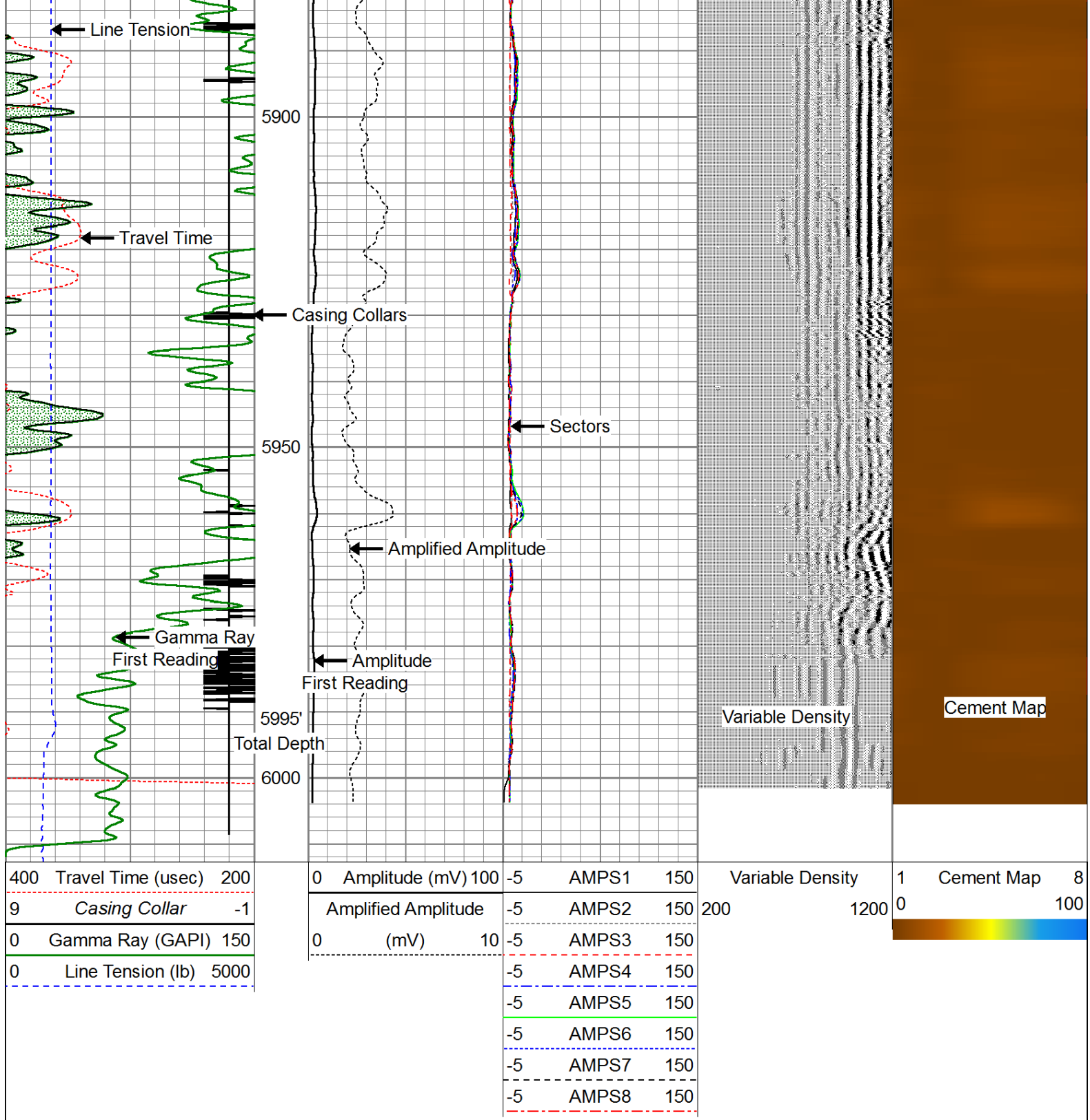












Repeat Pass (0 PSI)

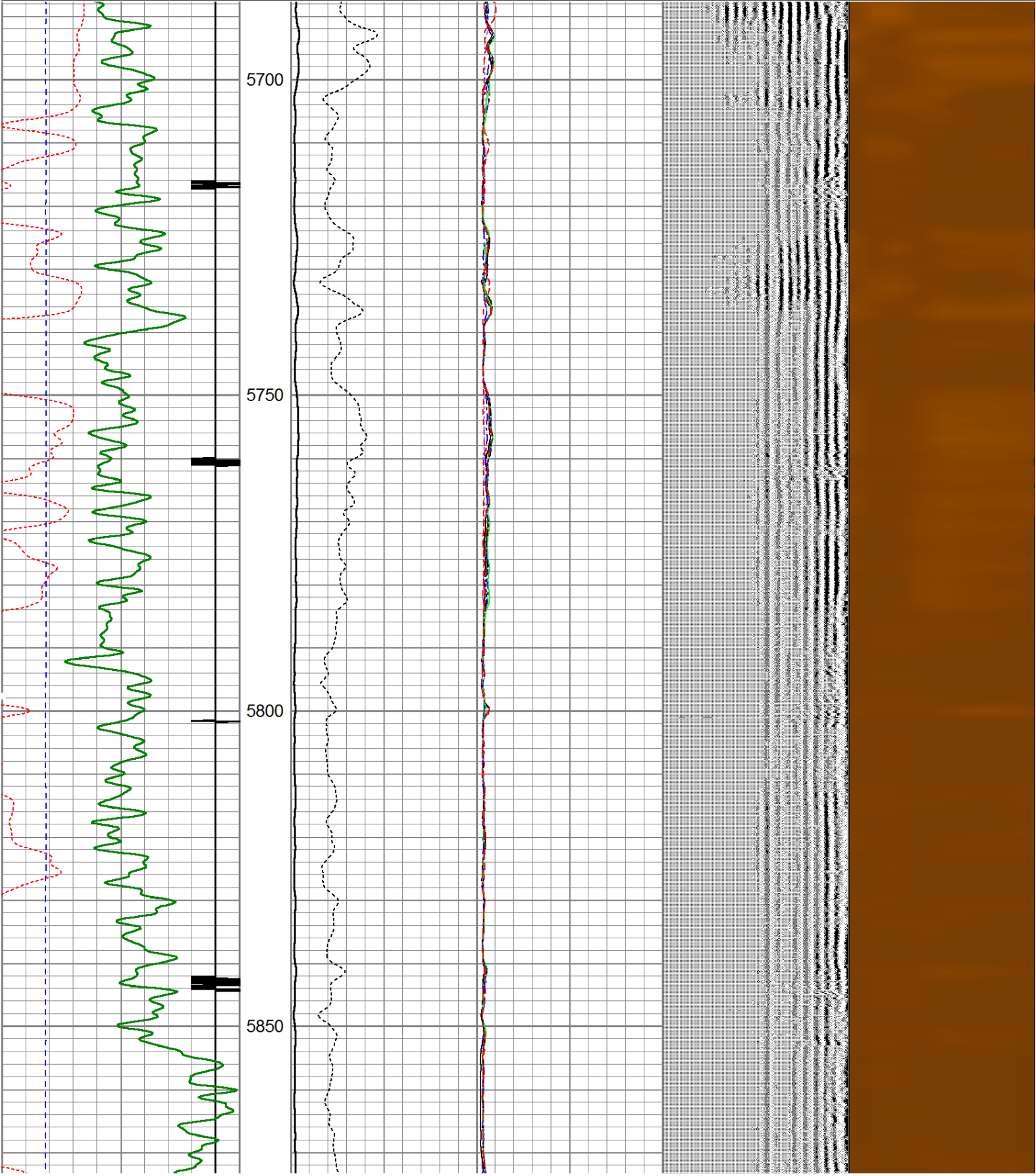
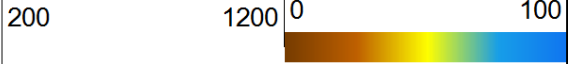
Database File: noble_timbro_fed_ld17_76hn_rcbl.db
 Dataset Pathname: pass9
 Presentation Format: scbl03
 Dataset Creation: Fri Mar 01 14:43:36 2013 by Calc SCH 120126
 Charted by: Depth in Feet scaled 1:240

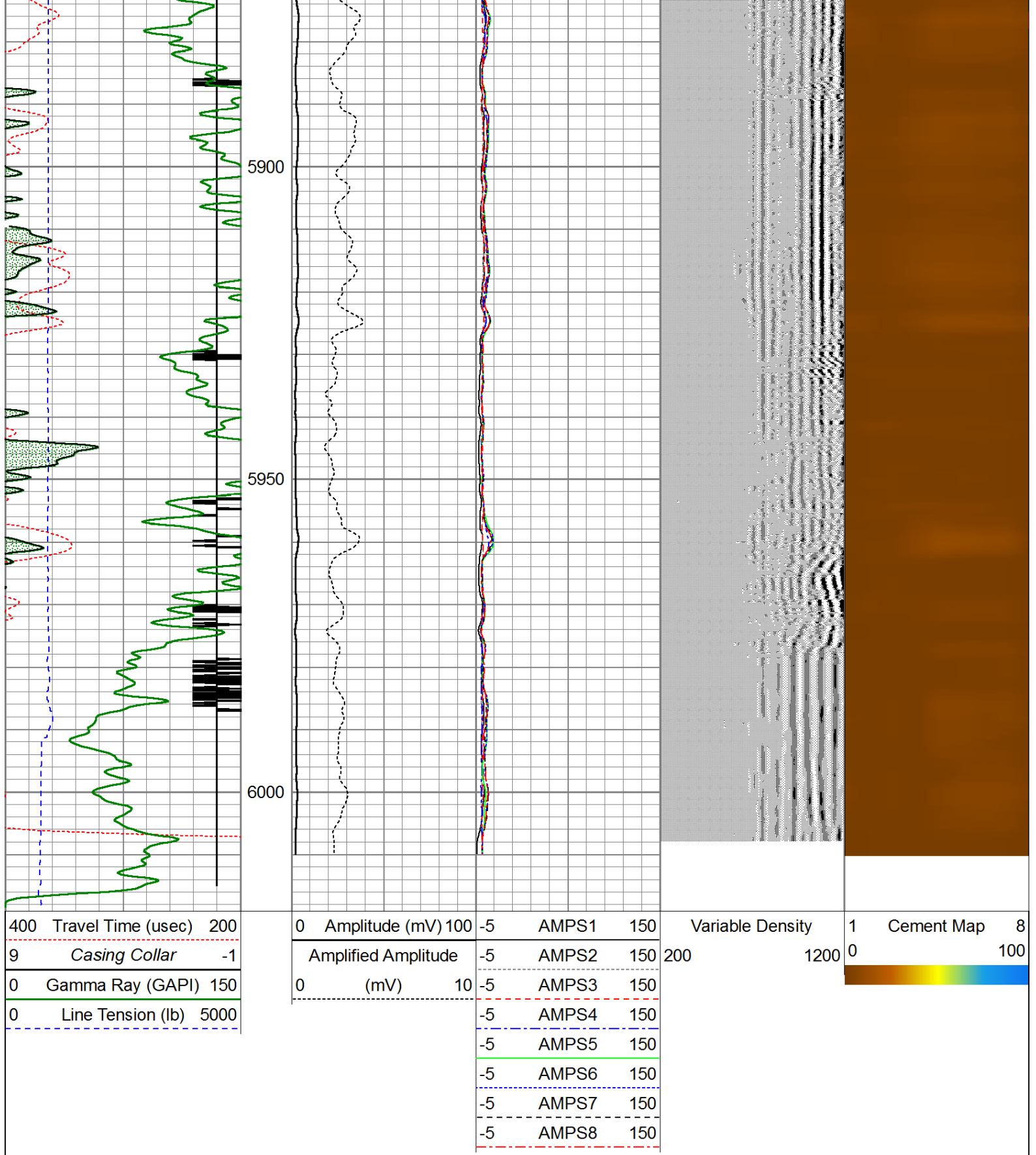
400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density	1	Cement Map	8
-----	--------------------	-----	---	----------------	-----	----	-------	-----	------------------	---	------------	---

9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	5000

Amplified Amplitude
(mV)

-5	AMPS2	150
-5	AMPS3	150
-5	AMPS4	150
-5	AMPS5	150
-5	AMPS6	150
-5	AMPS7	150
-5	AMPS8	150





Calibration Report

Database File: noble_timbro_fed_Id17_76hn_rcbl.db
 Dataset Pathname: pass10
 Dataset Creation: Fri Mar 01 14:43:58 2013 by Calc SCH 120126

Gamma Ray Calibration Report

Serial Number: 101230-Dig
 Tool Model: Probe275

Performed:	Fri Jun 11 16:02:47 2004	
Calibrator Value:	138.0	GAPI
Background Reading:	37.7	cps
Calibrator Reading:	241.8	cps
Sensitivity:	0.6763	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	120424	
Tool Model:	Probe	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	6171.261	ft

Master Calibration, performed Fri Mar 01 12:22:29 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.005	0.460	1.200	71.921	56.644	2.404
CAL	0.716	0.716				
5'	-0.004	0.437	1.200	71.921	62.754	1.804
SUM						
S1	0.009	0.483	0.000	100.000	131.825	-1.877
S2	-0.004	0.447	0.000	100.000	139.834	0.958
S3	-0.006	0.441	0.000	100.000	139.871	1.251
S4	-0.006	0.442	0.000	100.000	139.539	1.275
S5	-0.005	0.446	0.000	100.000	138.553	1.196
S6	-0.005	0.456	0.000	100.000	135.413	1.143
S7	-0.005	0.470	0.000	100.000	131.647	0.959
S8	-0.003	0.474	0.000	100.000	131.042	0.717

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	0.716	0.716	1.000	0.000

Air Zero Calibration, performed Fri Mar 01 07:56:15 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	-0.004		0.000		-0.001	
5'	-0.004		0.000		-0.000	
SUM						
S1	0.025		0.000		-0.016	
S2	-0.002		0.000		-0.002	
S3	-0.002		0.000		-0.004	
S4	-0.002		0.000		-0.004	
S5	-0.002		0.000		-0.003	
S6	-0.003		0.000		-0.002	
S7	-0.002		0.000		-0.002	
S8	-0.003		0.000		-0.000	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Titan	1.00	1.44	10.00

