



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

Company	Noble Energy	Company	Noble Energy
Well	ROHN State LD04-64HN	Well	ROHN State LD04-64HN
Field	Wattenberg	Field	Wattenberg
County	Weld	County	Weld
State	Colorado	State	Colorado
Location:		API # : 05-123-37463	Other Services
SEC 4 TWP 9 N RGE 58 W		1980' FSL & 660' FWL	
Permanent Datum	Ground Level	Elevation	4706'
Log Measured From	Kelly Bushing	24' APD	
Drilling Measured From	Kelly Bushing		
Date		10th October, 2013	
Run Number	One		
Depth Driller	9461'		
Depth Logger	5980'		
Bottom Logged Interval	5966'		
Top Log Interval	Surface		
Open Hole Size	8 3/4"		
Type Fluid	Fresh Water		
Density / Viscosity	8.34		
Max. Recorded Temp.	207 °F		
Estimated Cement Top	1000'		
Time Well Ready	1030		
Time Logger on Bottom	1100		
Equipment Number	12029		
Location	Brighton, CO		
Recorded By	R.Grisson		
Witnessed By	Bill Mansfield		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
1	26"	Surface	124'
2	13.75"	124'	1222'
3	8.75"	1222'	6043'
4	6.125"	6043'	6476'
Casing Record	Size	Wgt/Ft	Top
Surface String	9 5/8"	36#	Surface
Prot. String			
Production String	7"	26#	Surface
Liner	4.5"	11 6#	5962.9
Short Joint			4672'

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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

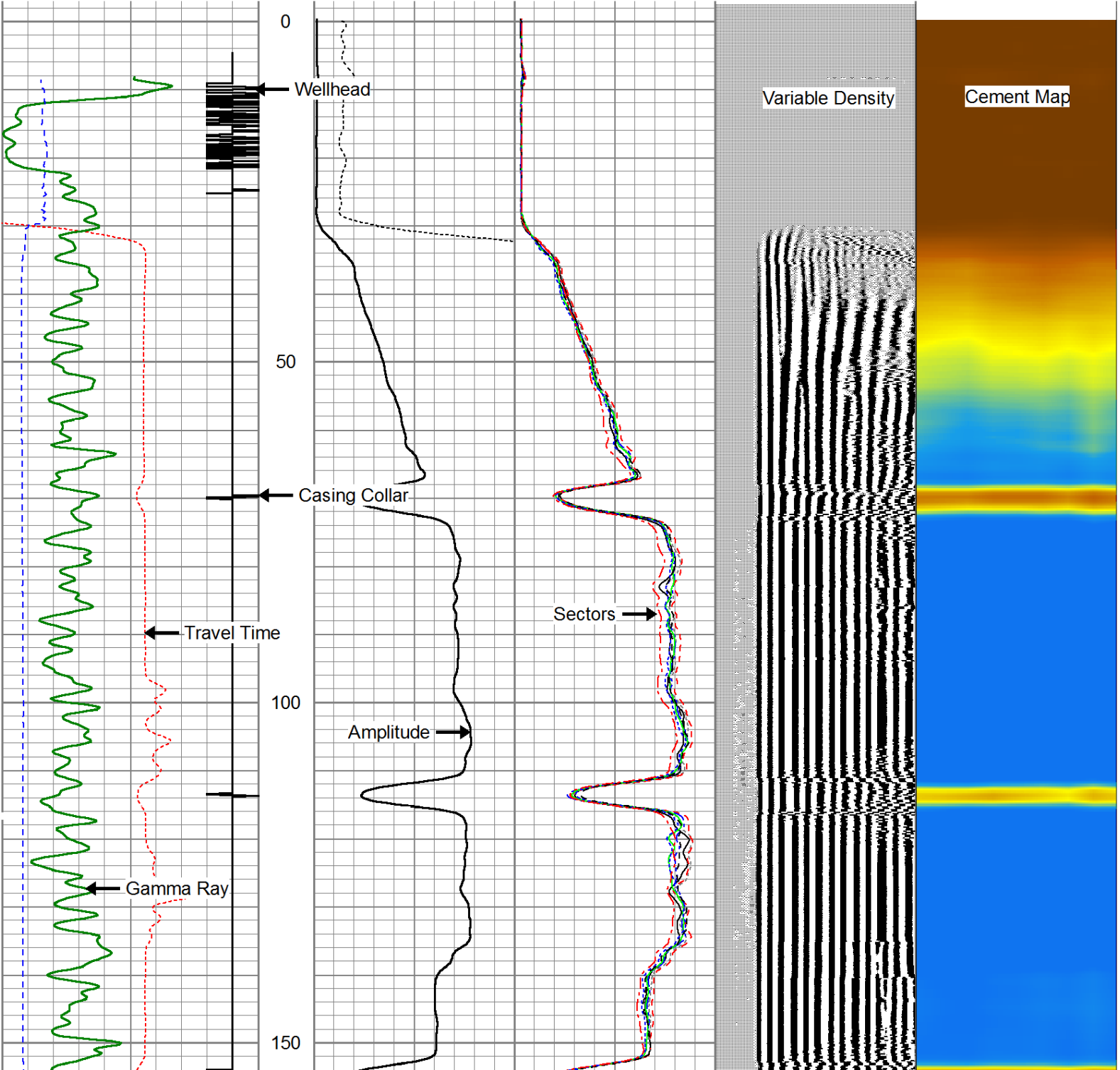
(303) 659-4609

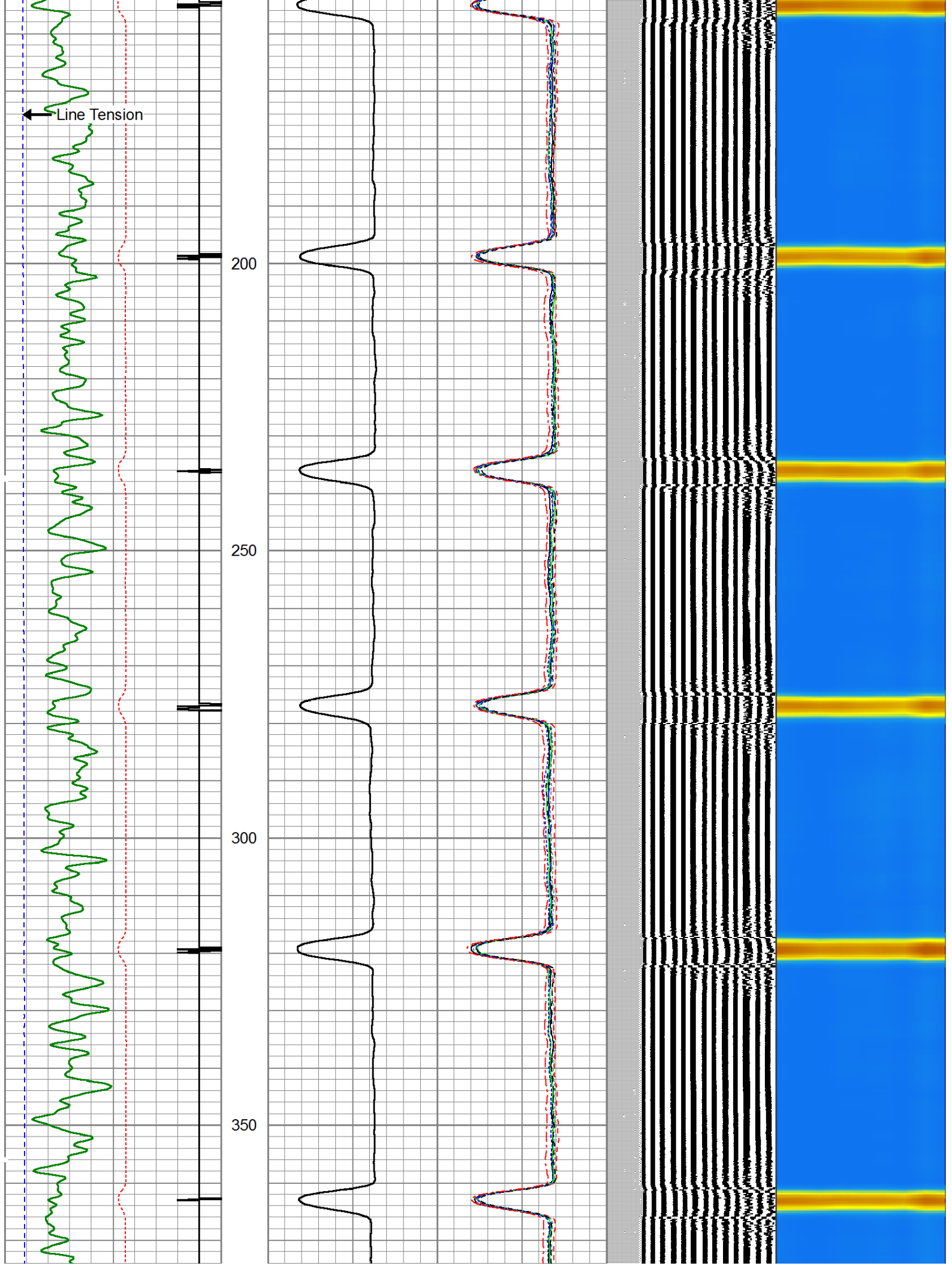


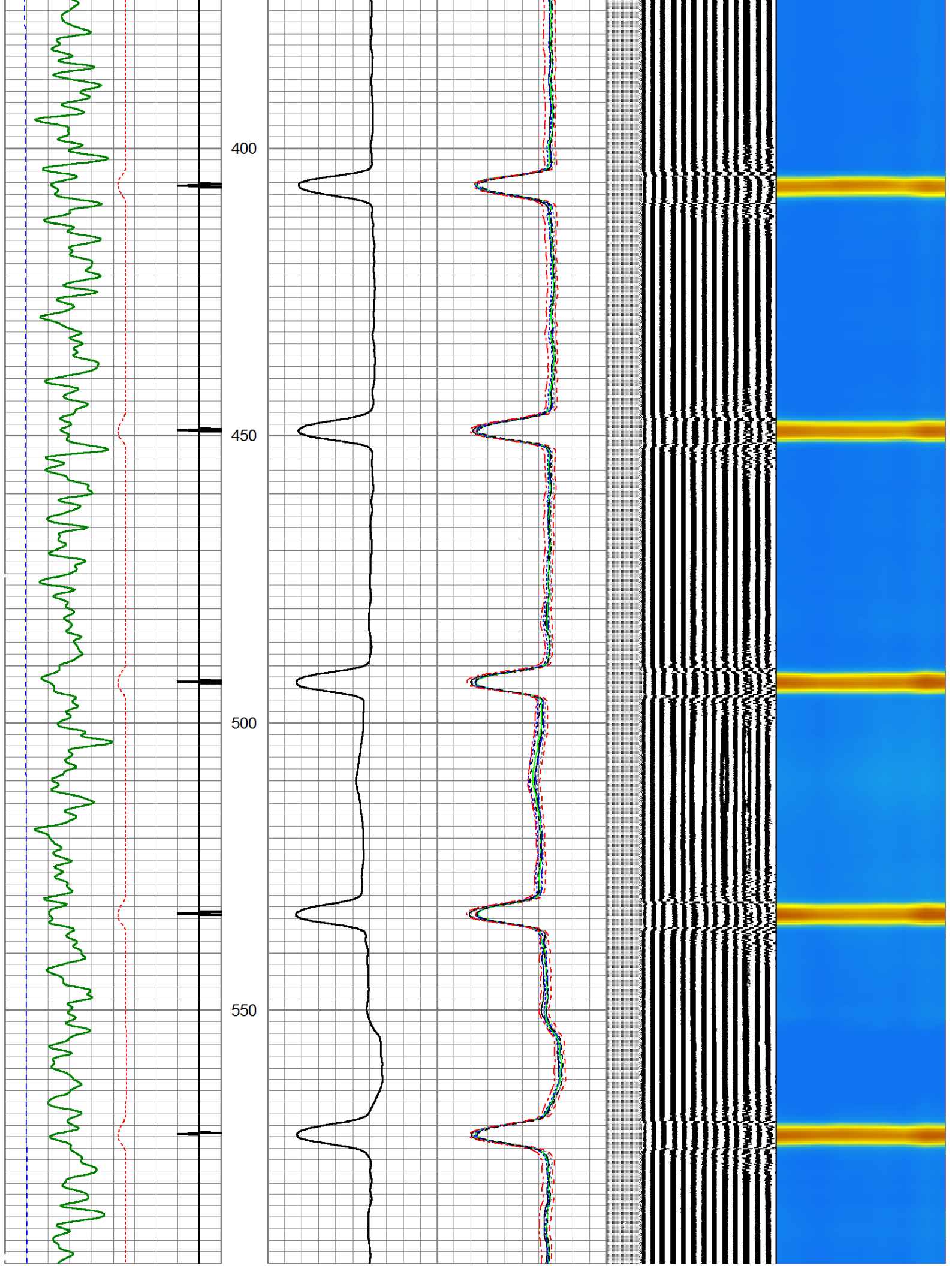
Main Pass (0 PSI)

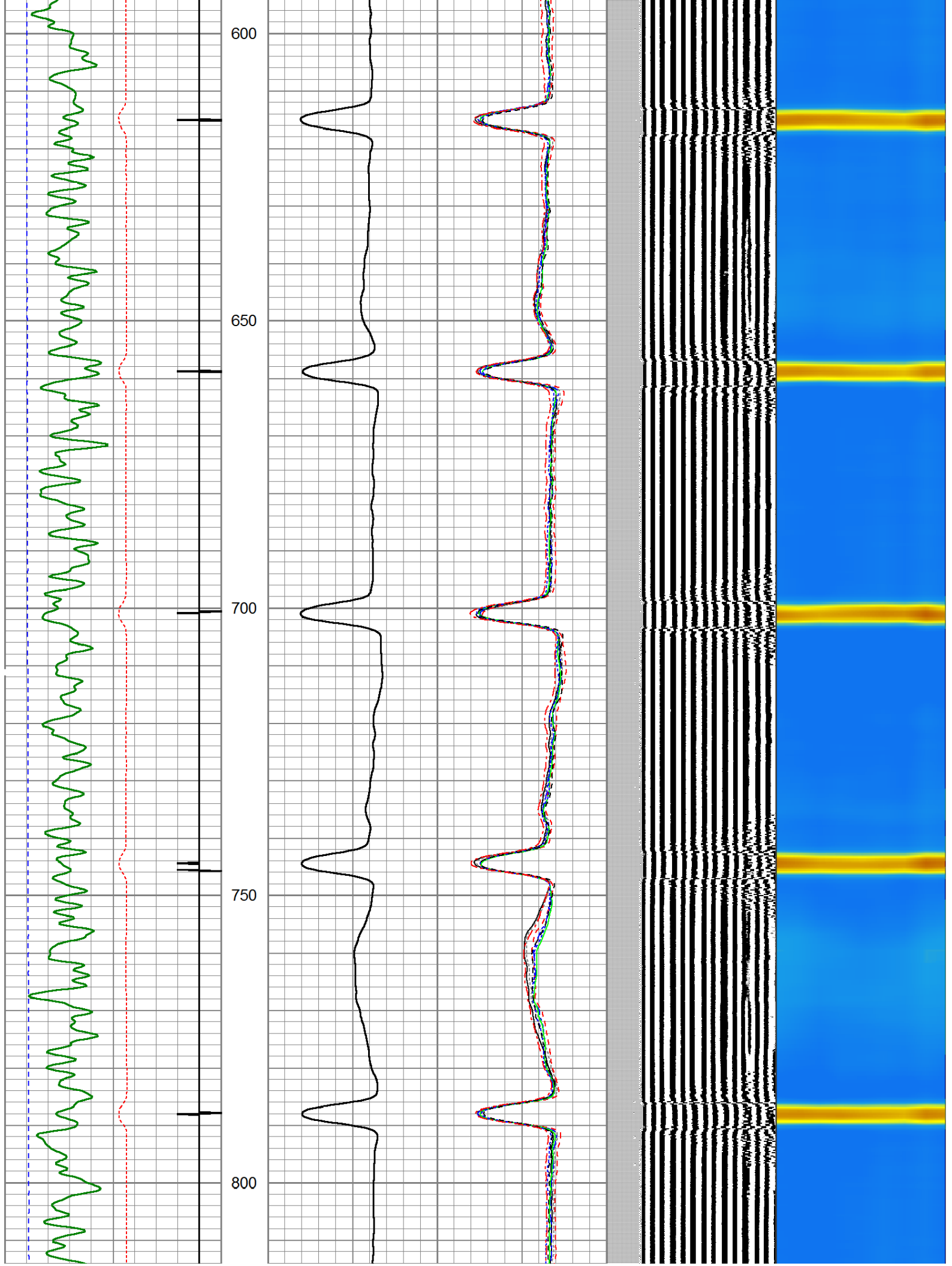
Database File: noble energy rohn state ld04-64hn_cbl.db
Dataset Pathname: pass5.1
Presentation Format: scbl03
Dataset Creation: Thu Oct 10 12:40:44 2013 by Calc SCH 120126
Charted by: Depth in Feet scaled 1:240

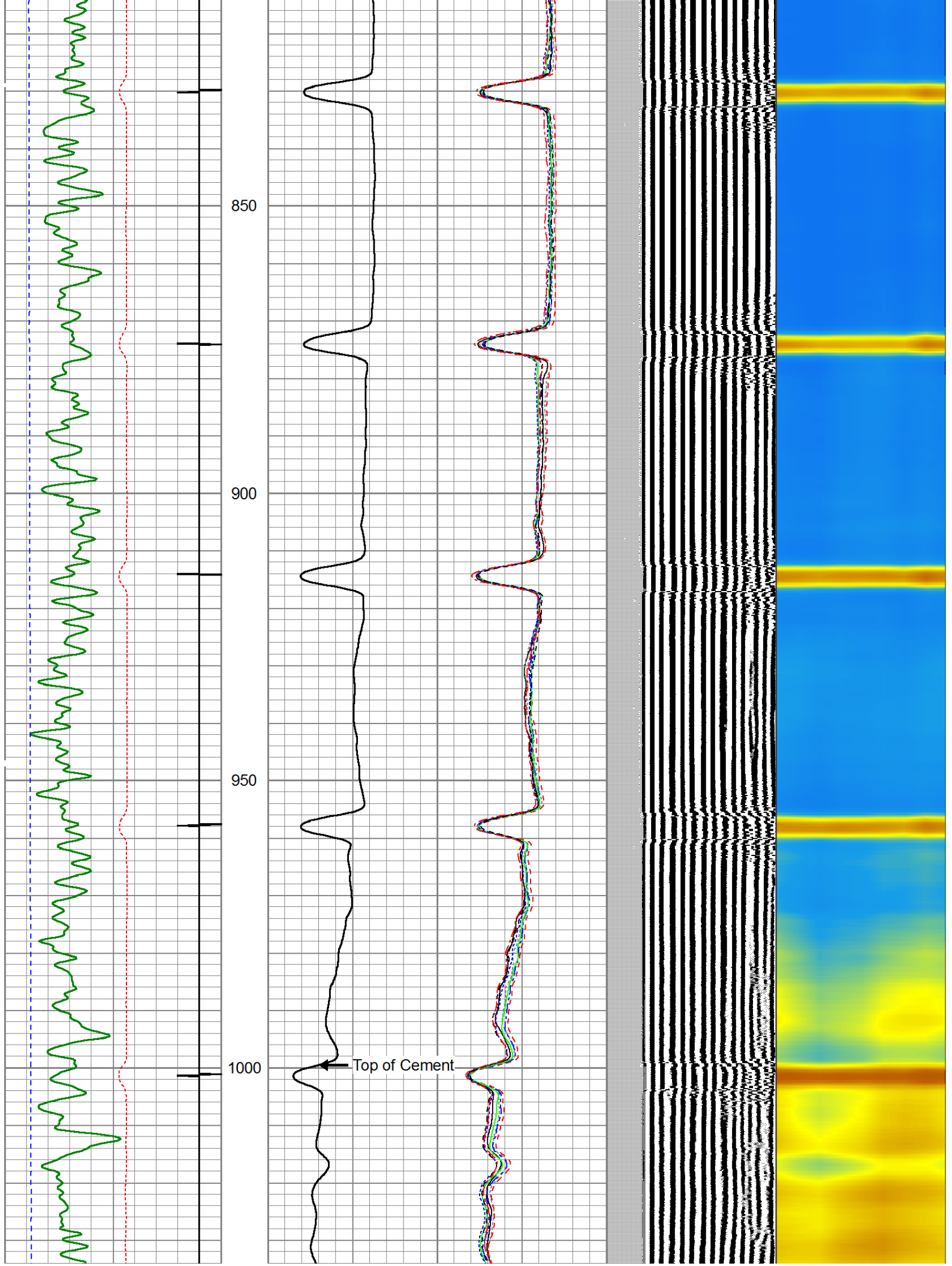
400	Travel Time (usec)	200	0	Amplitude (mV)	100	-5	AMPS1	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1		Amplified Amplitude		-5	AMPS2	150	200	1200	0	100
0	Gamma Ray (GAPI)	150	0	(mV)	10	-5	AMPS3	150				
0	Line Tension (lb)	2500				-5	AMPS4	150				
						-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				

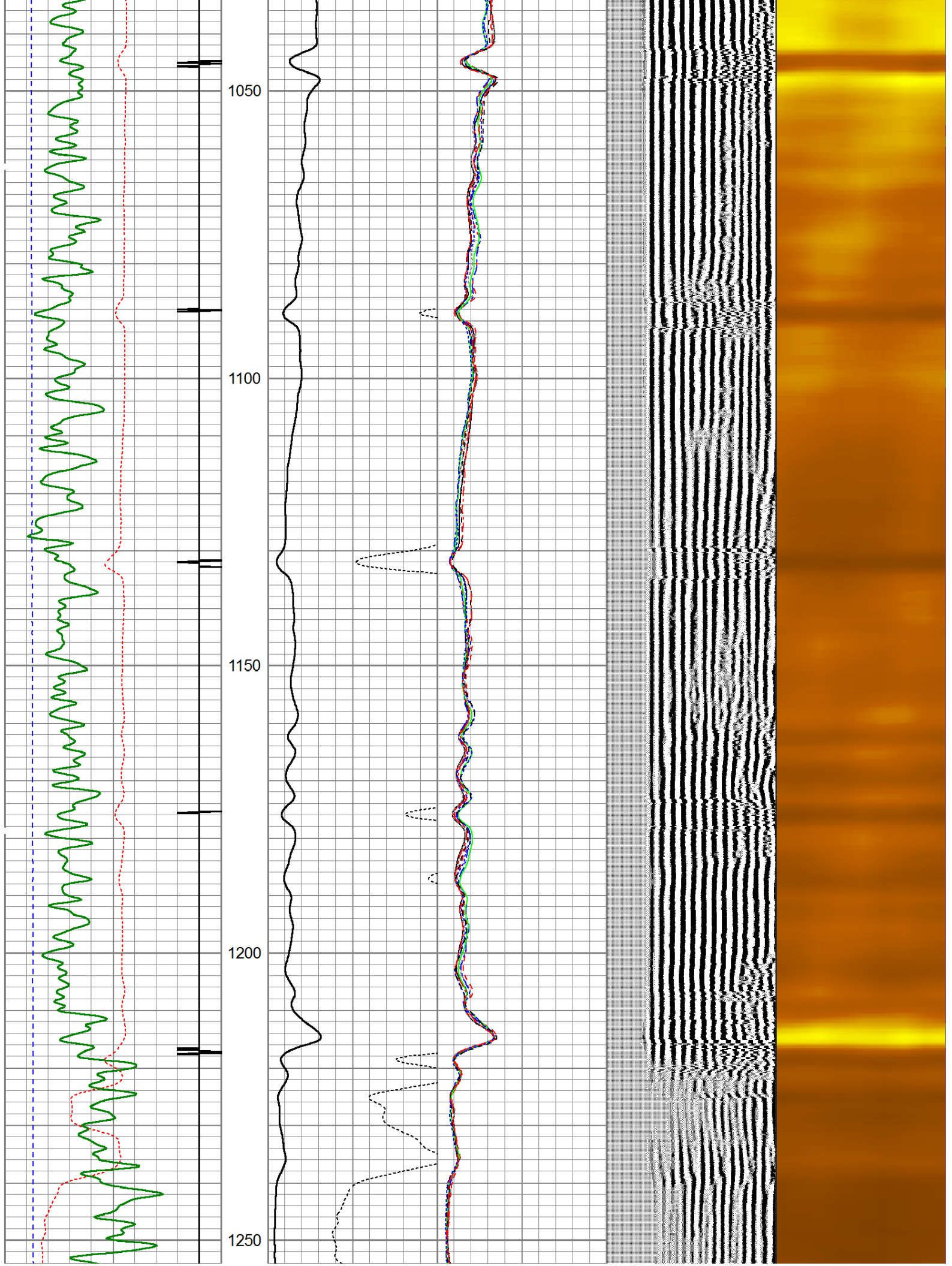


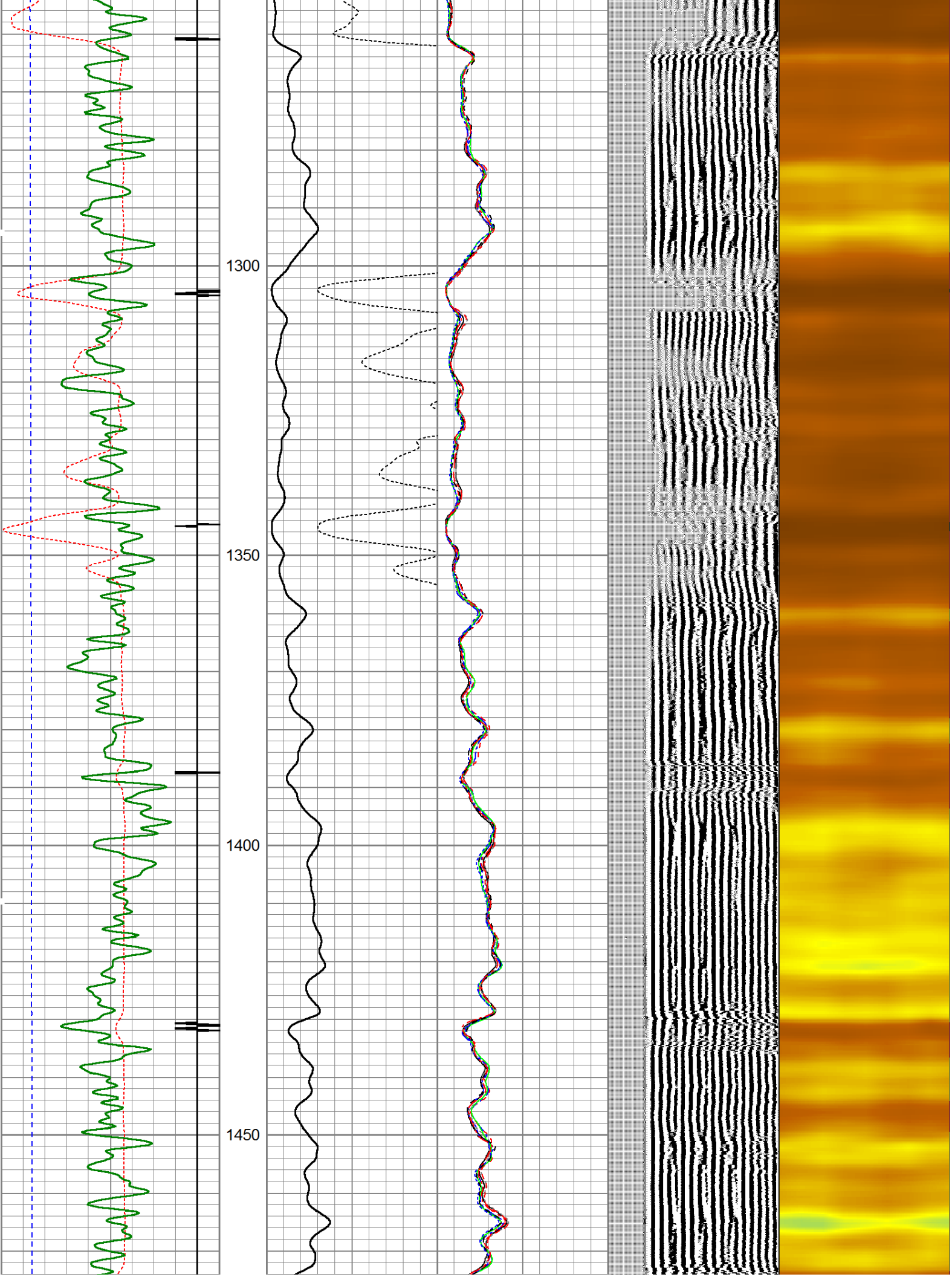


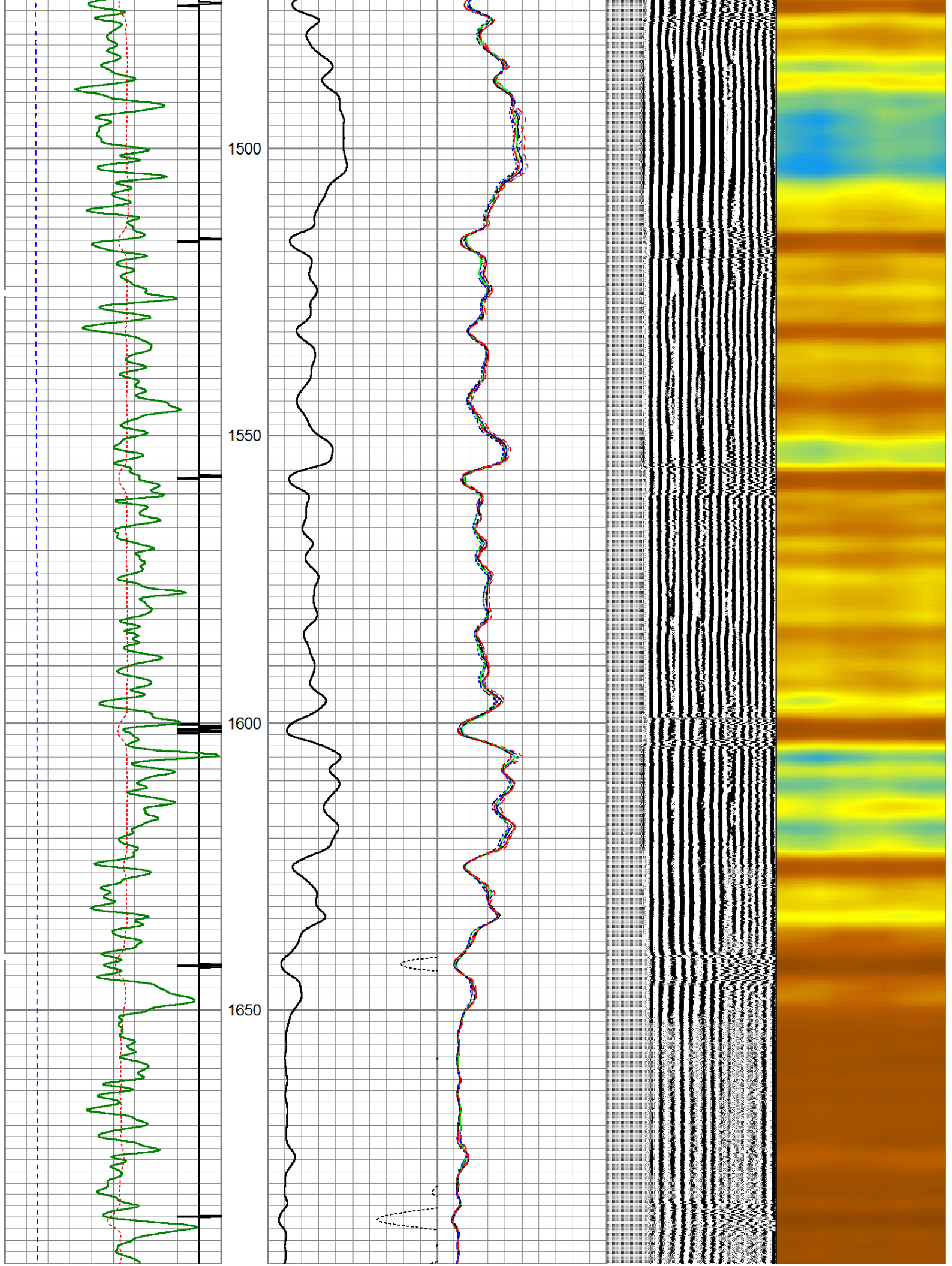


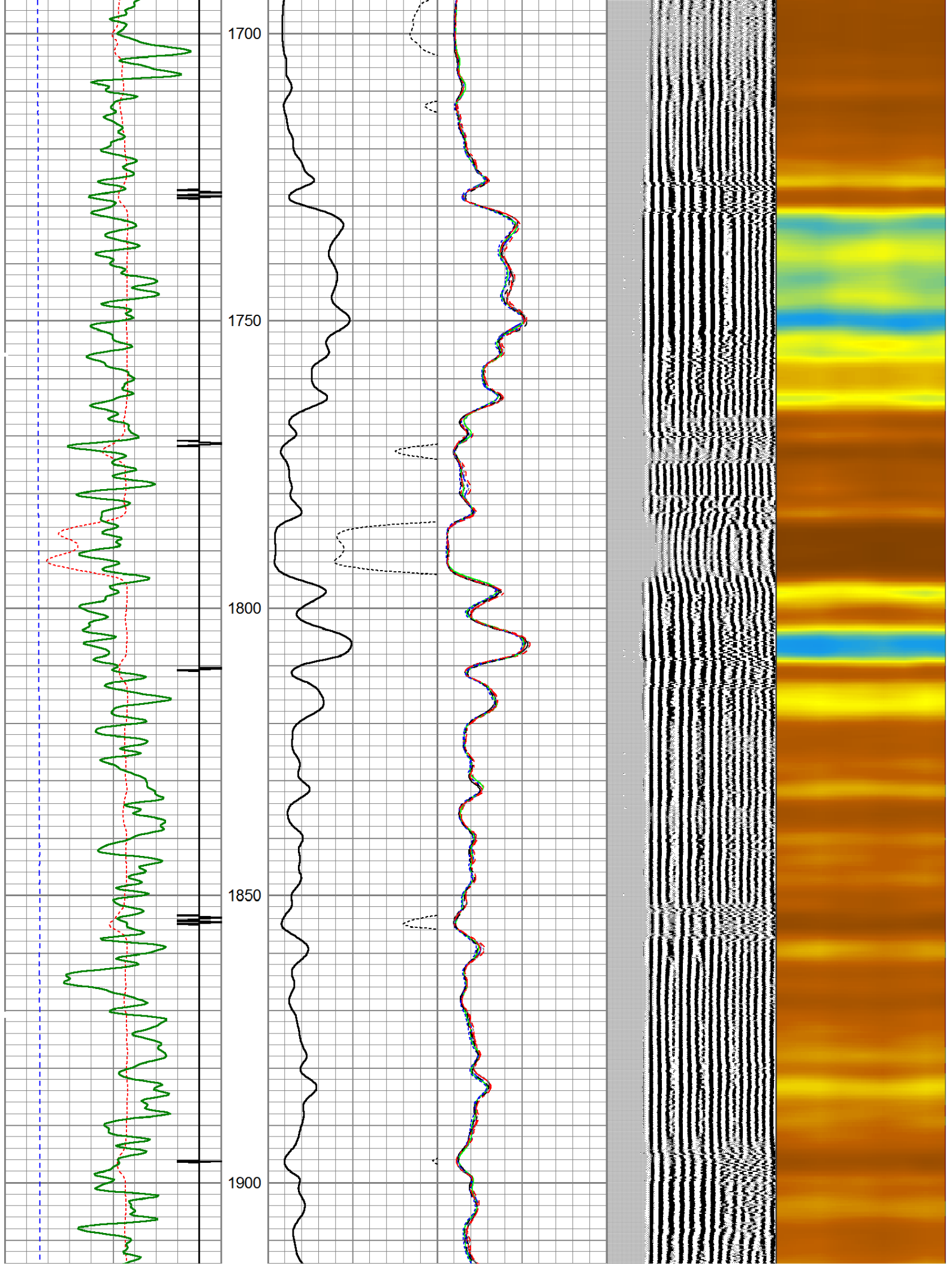


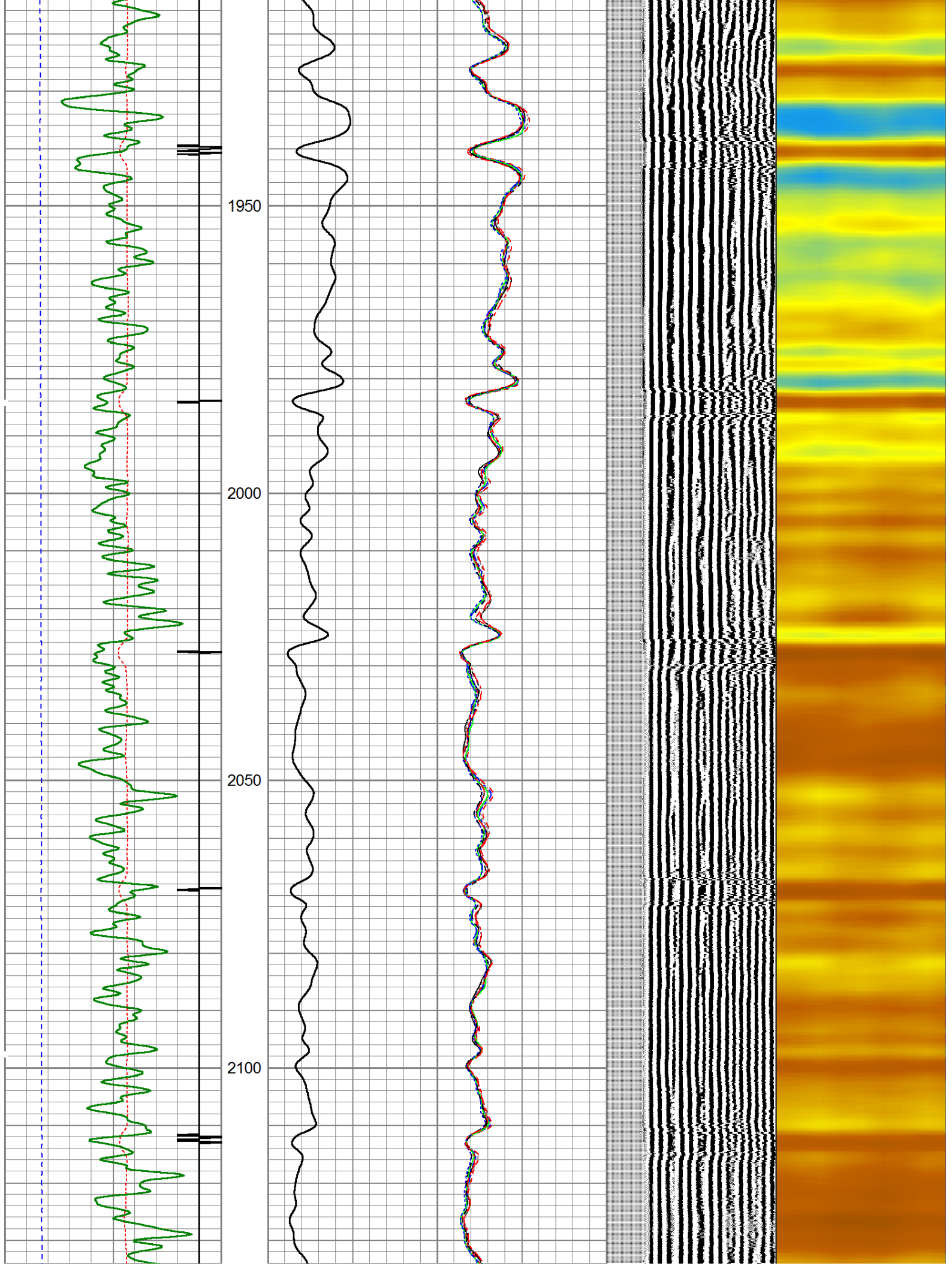


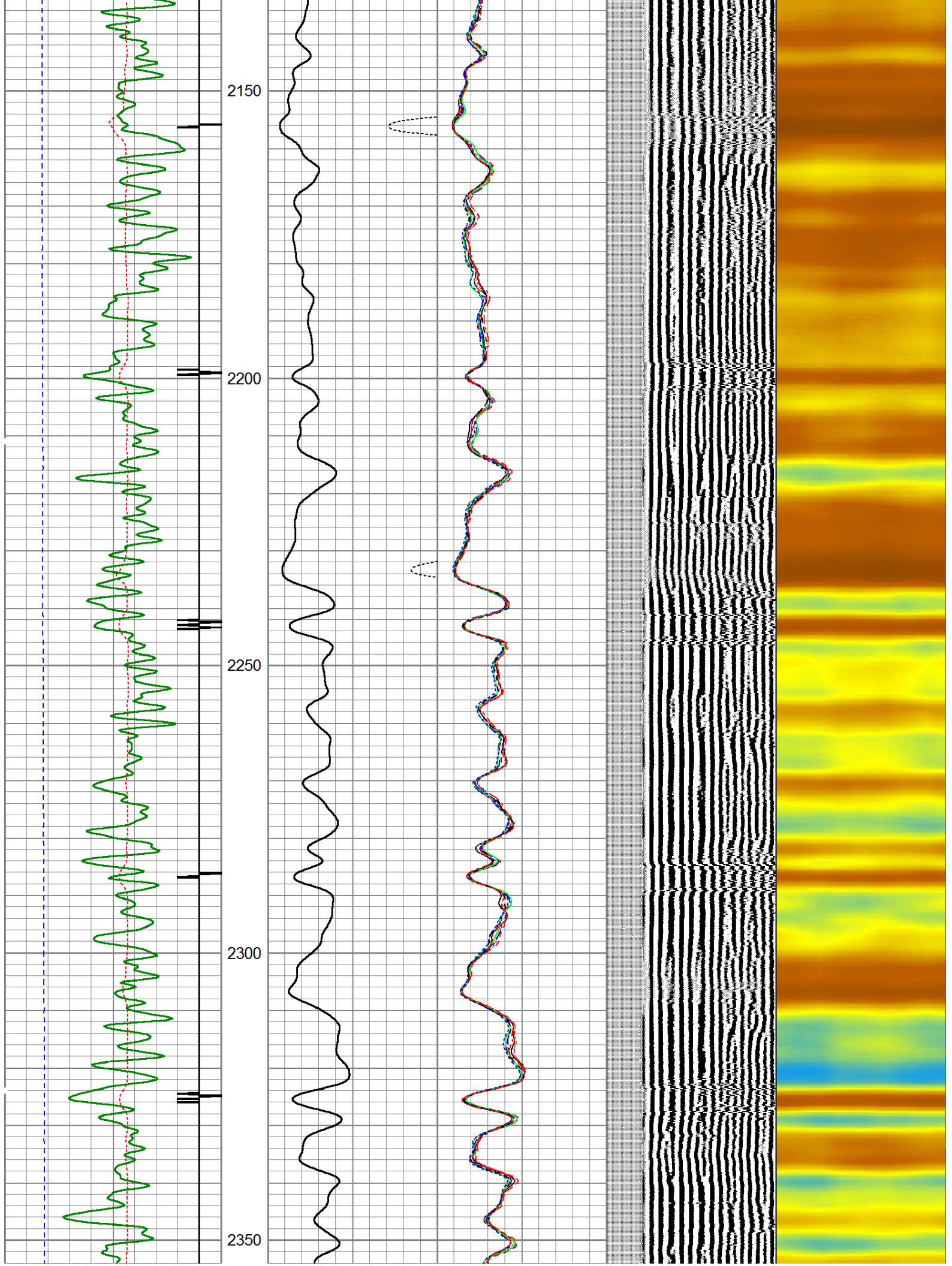


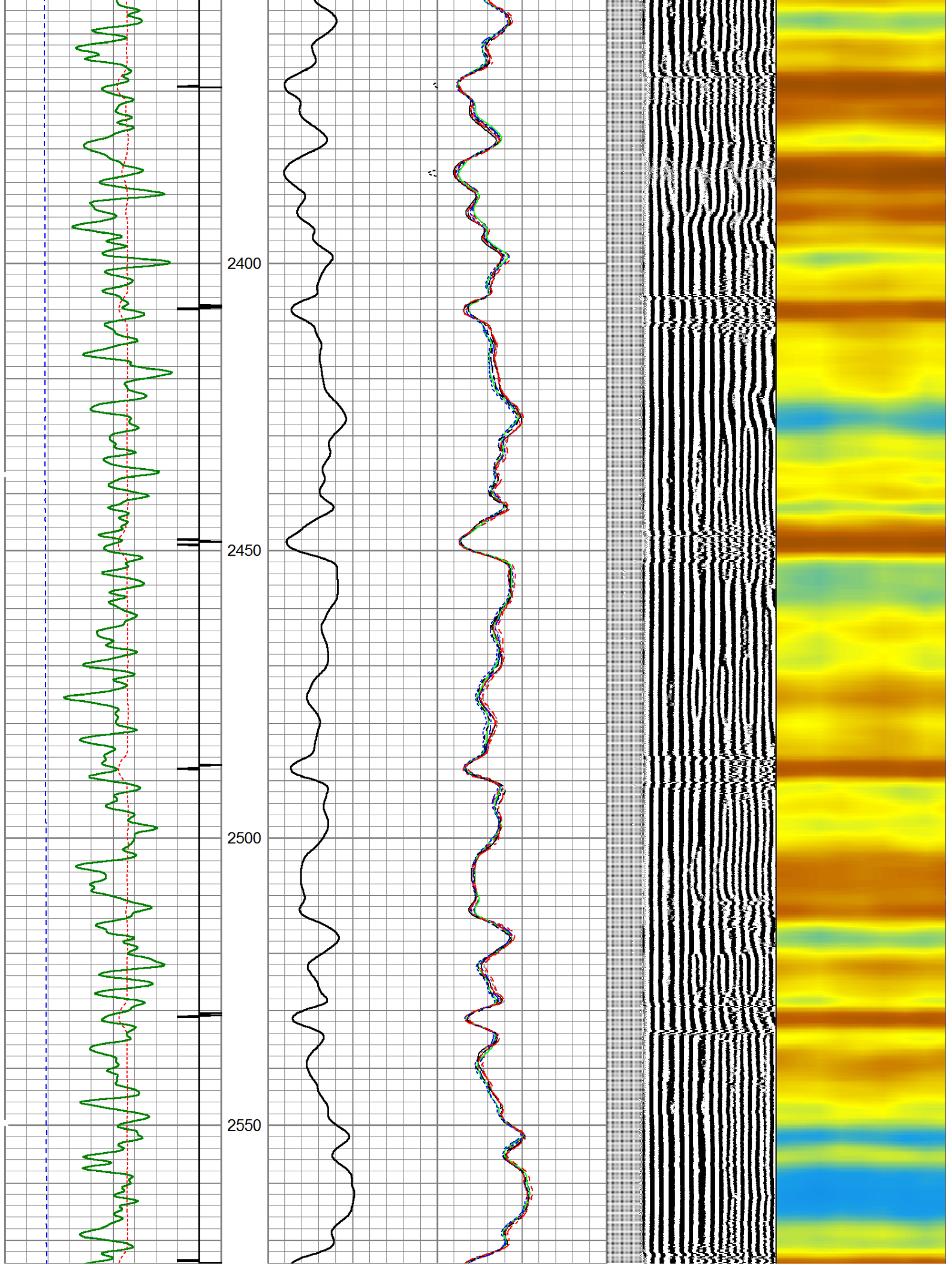


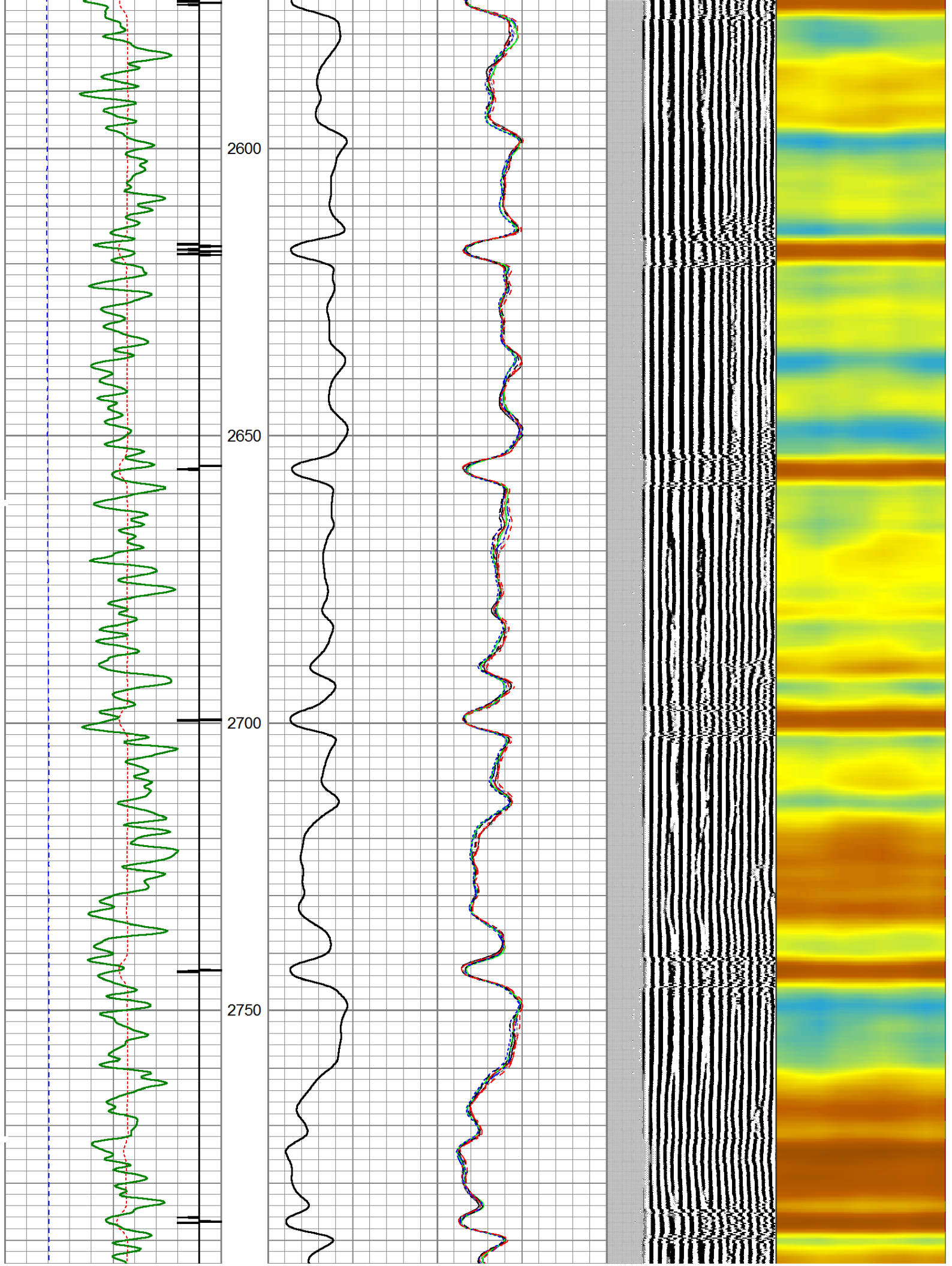


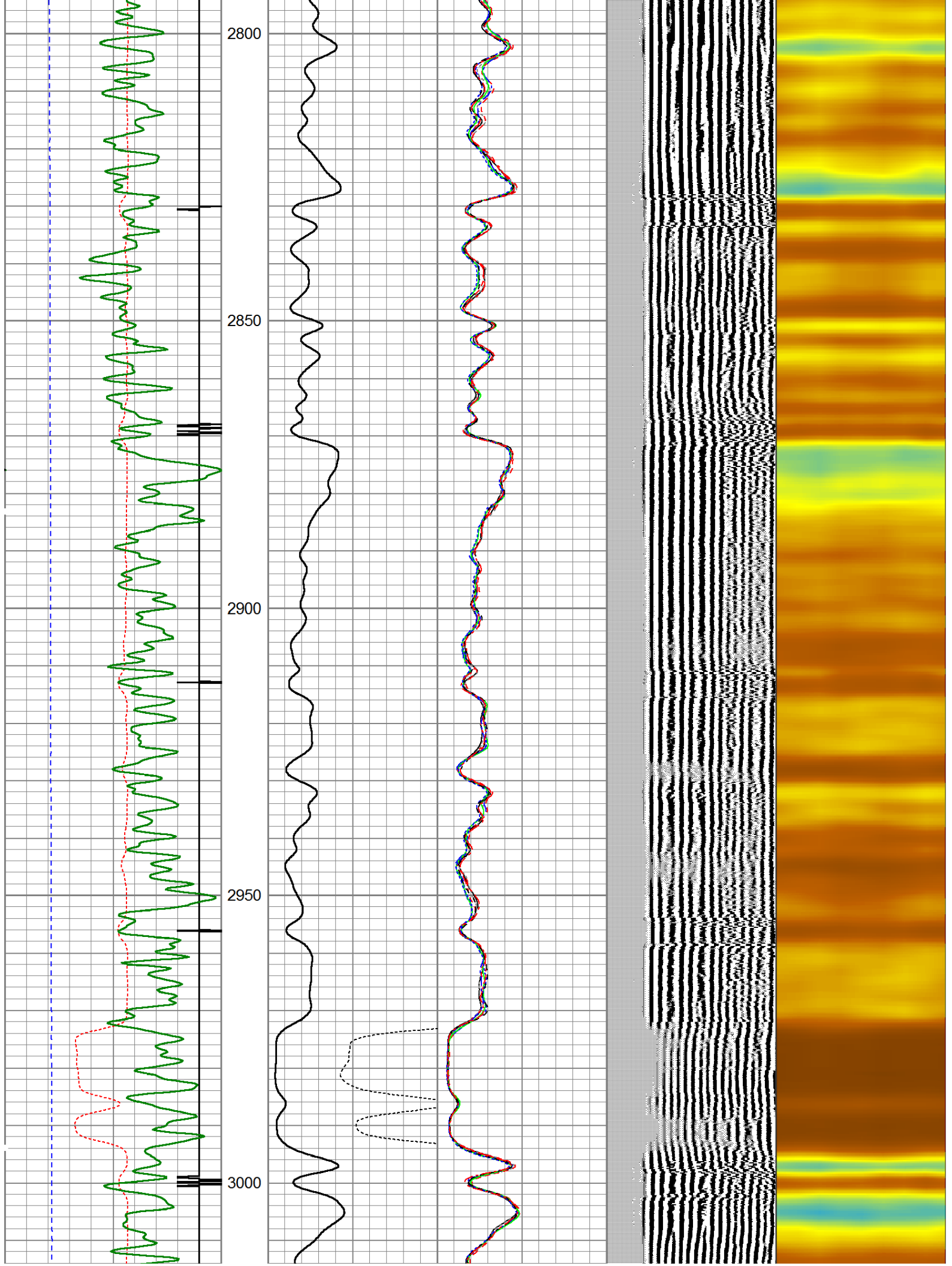


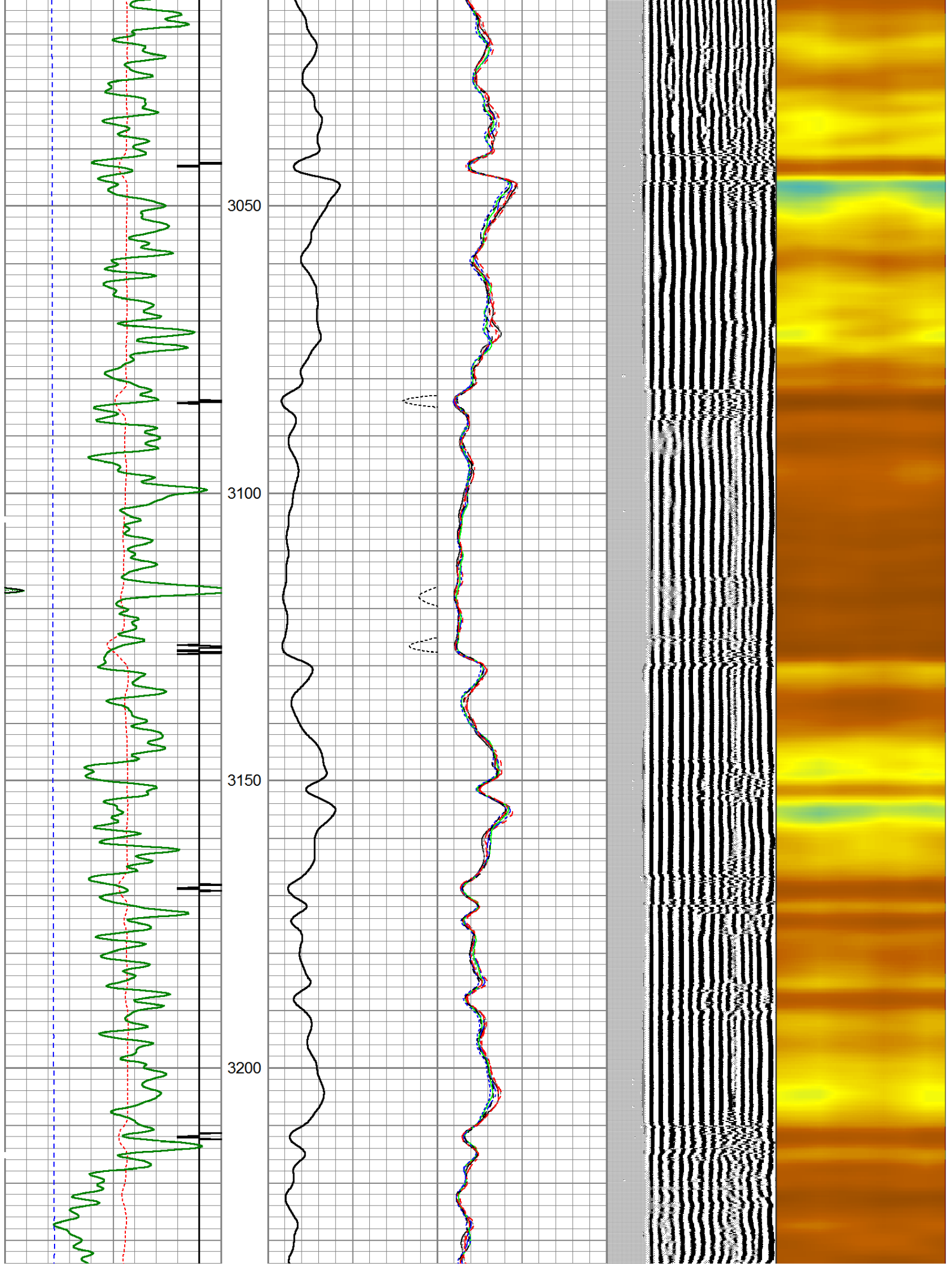


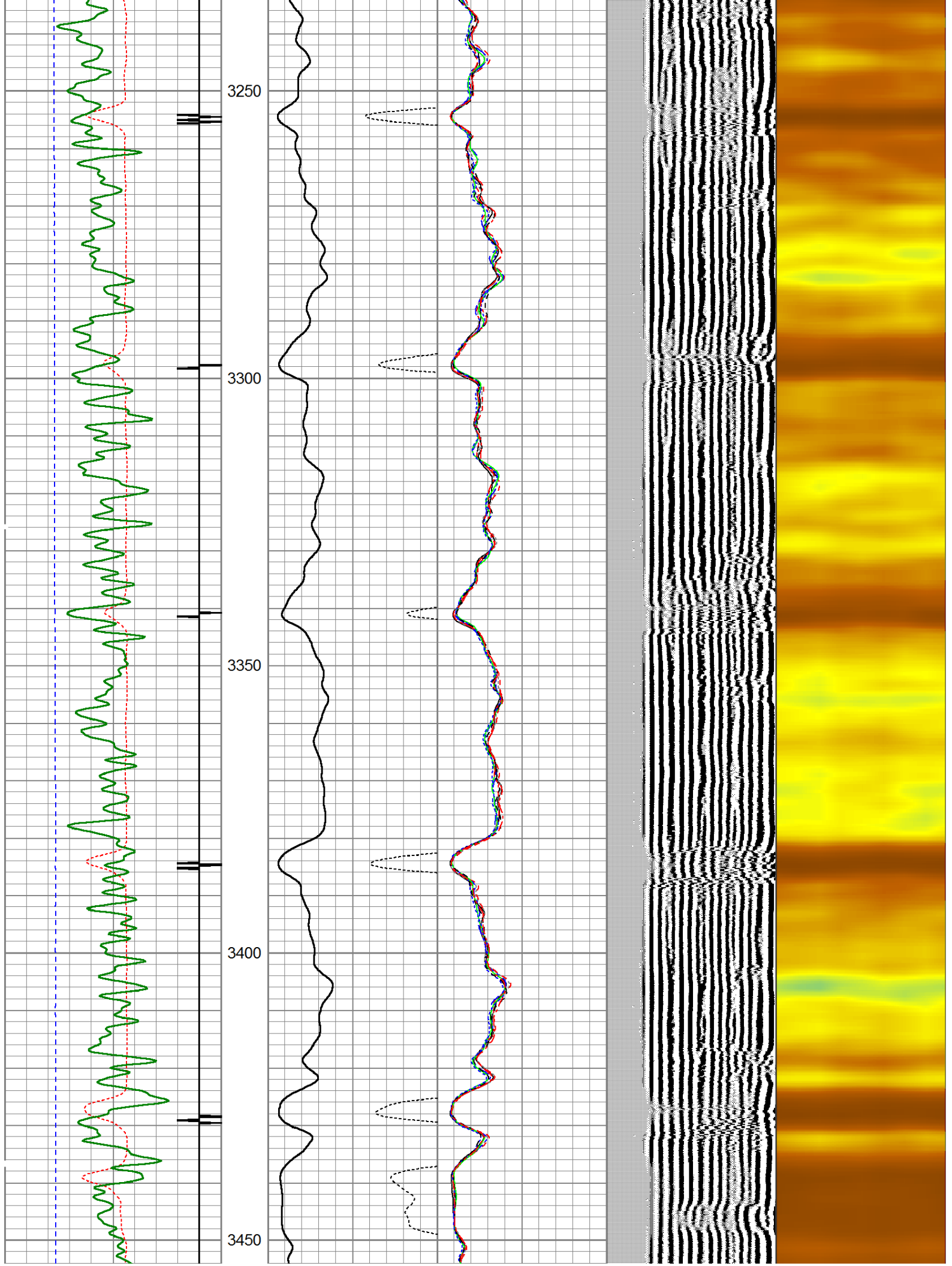


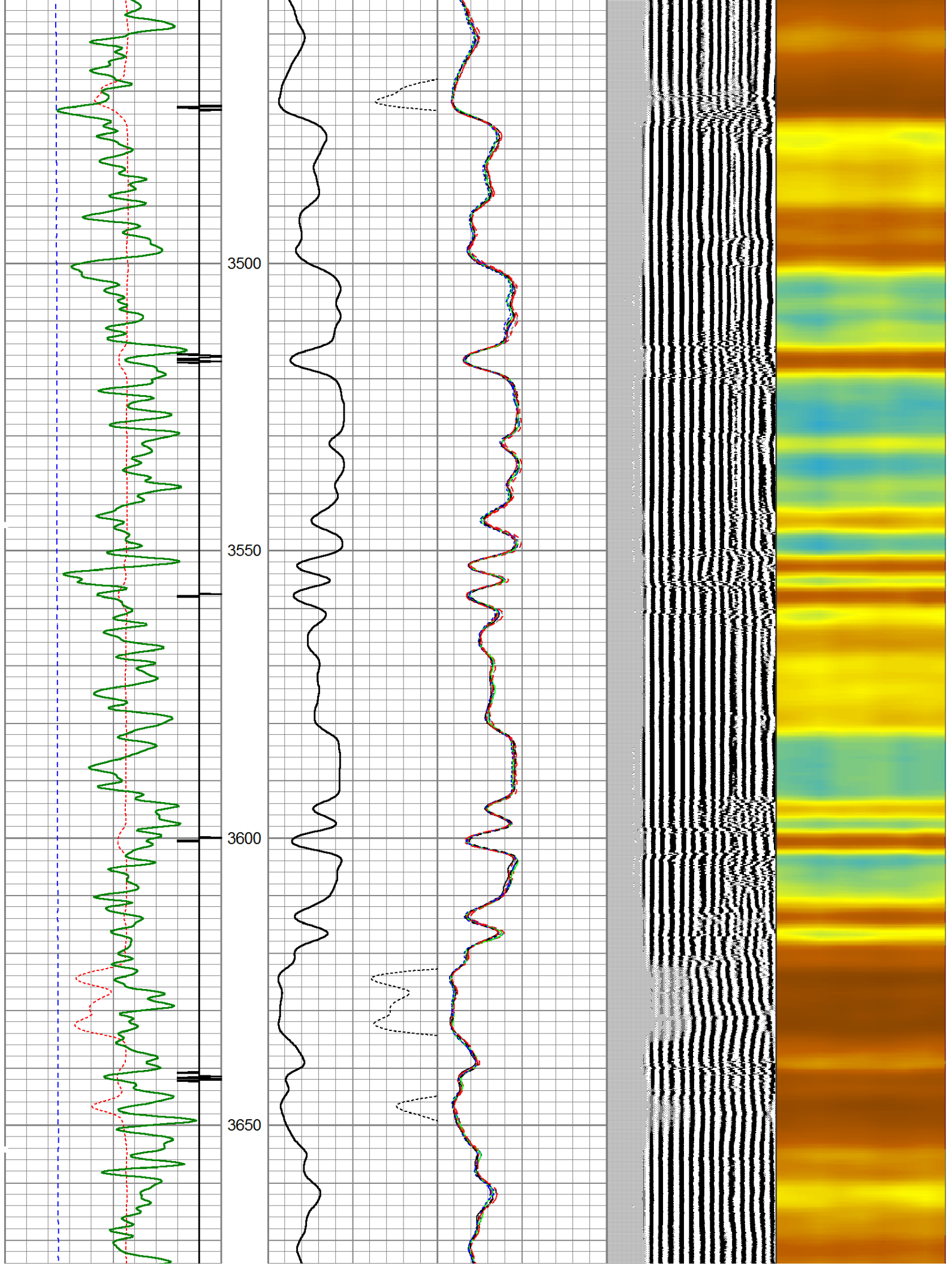


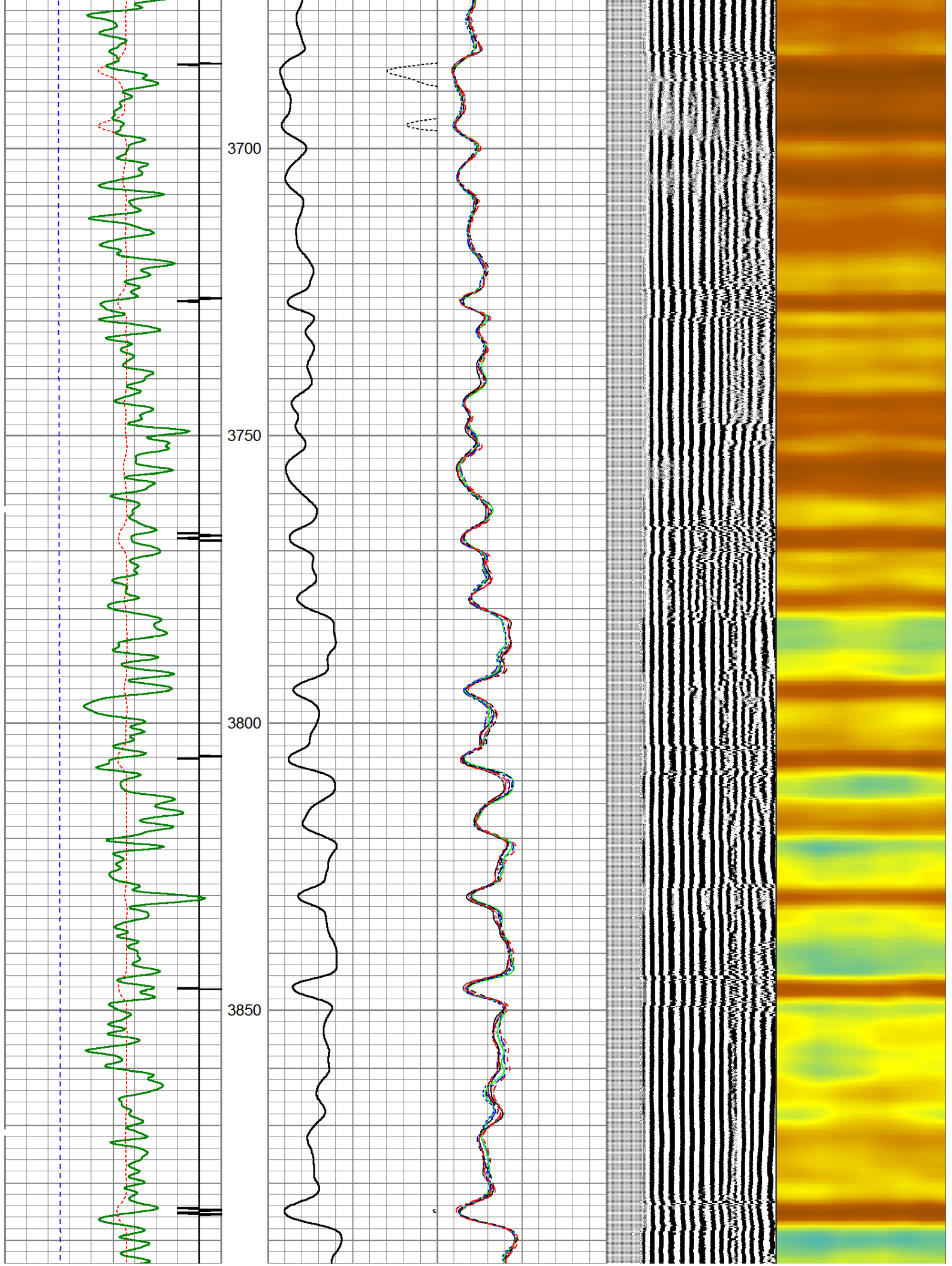


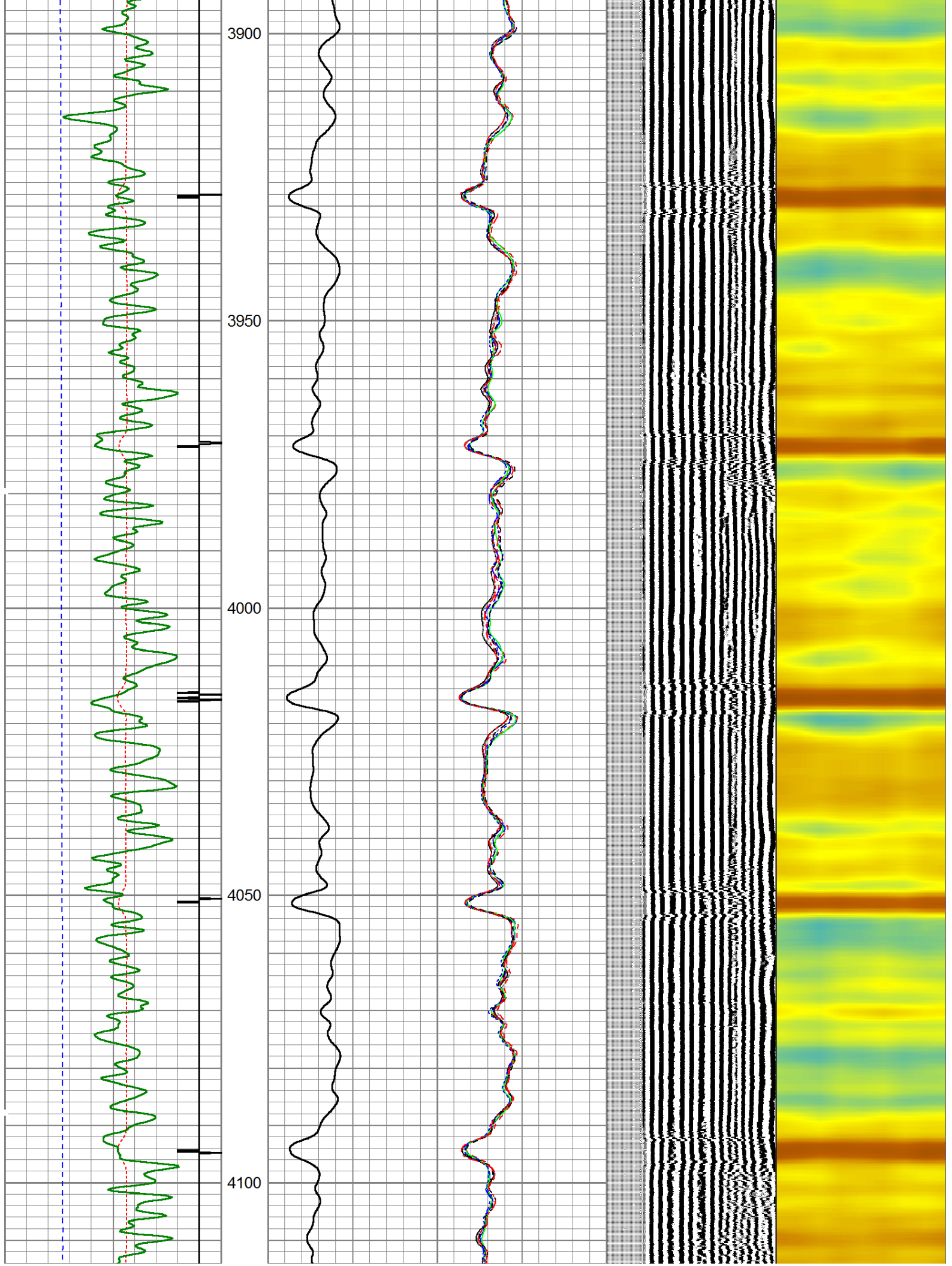


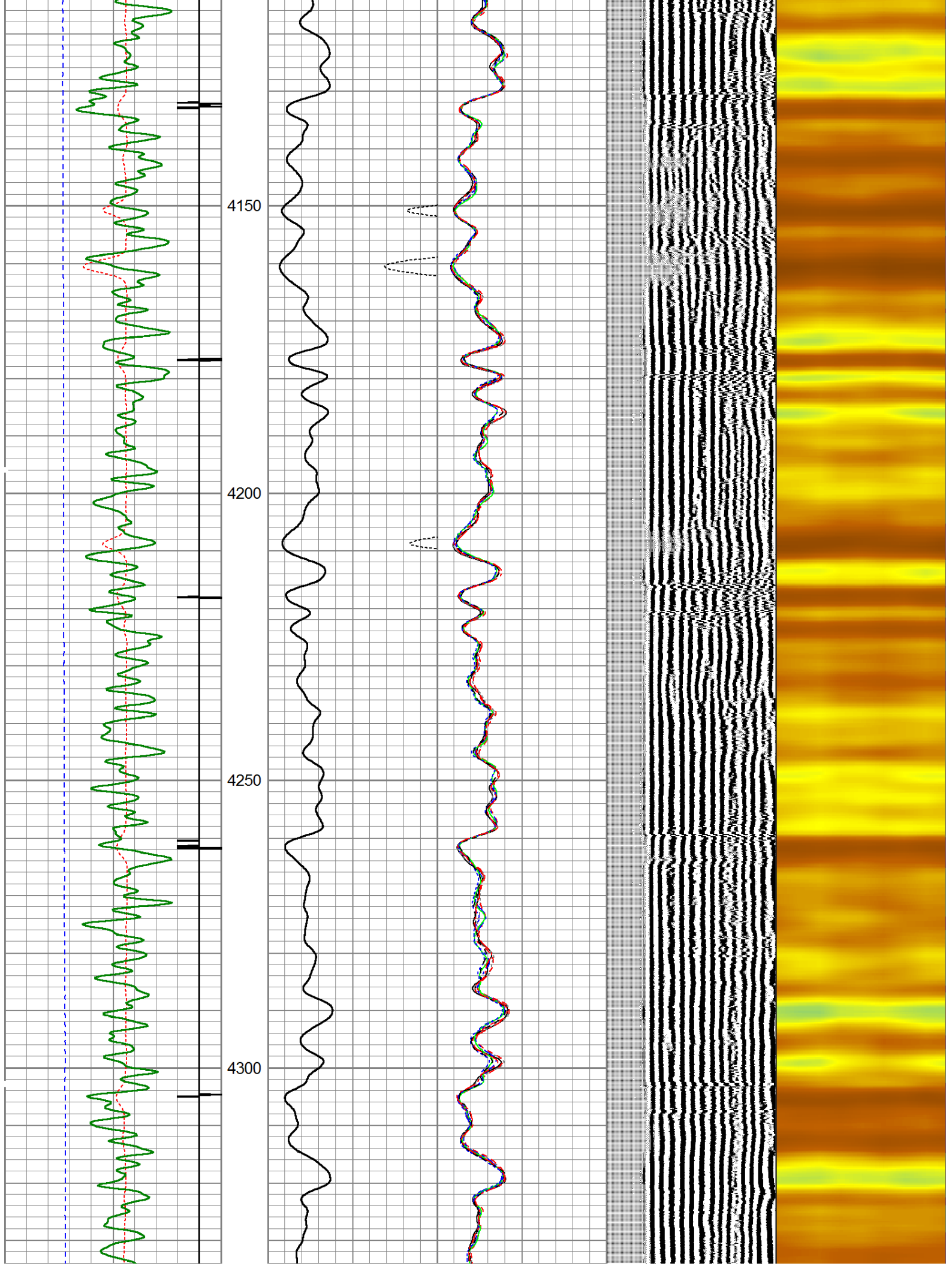


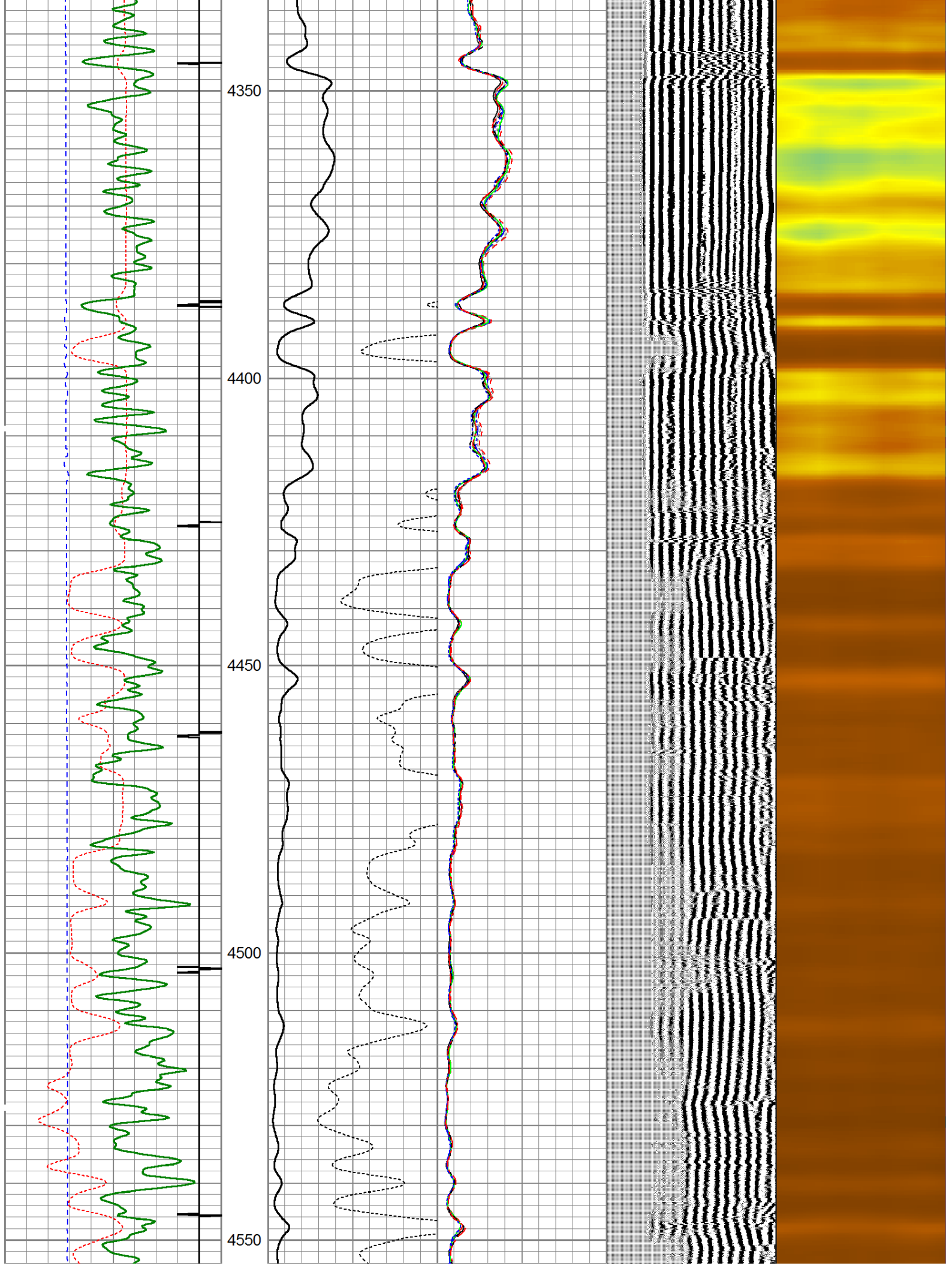


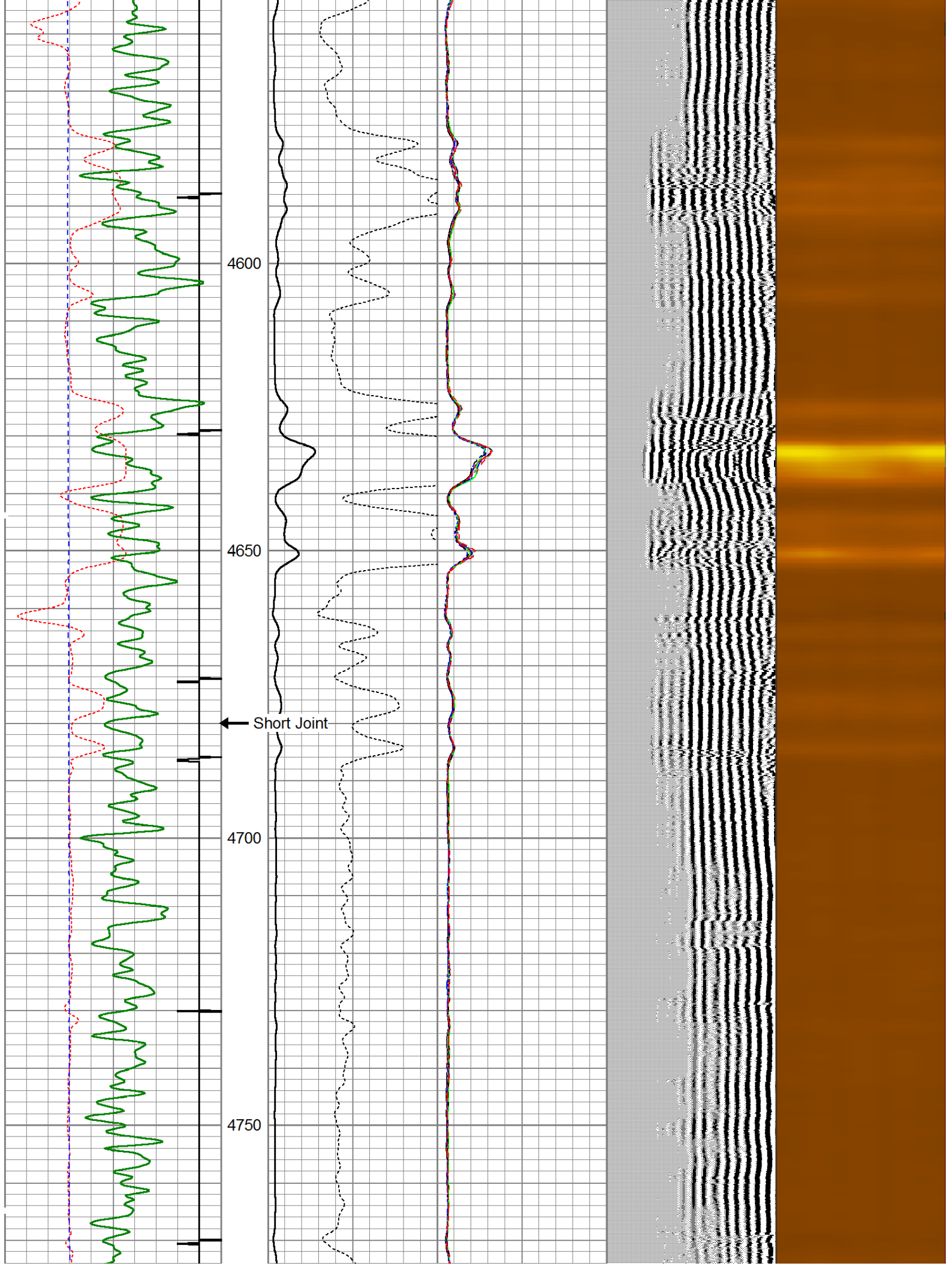


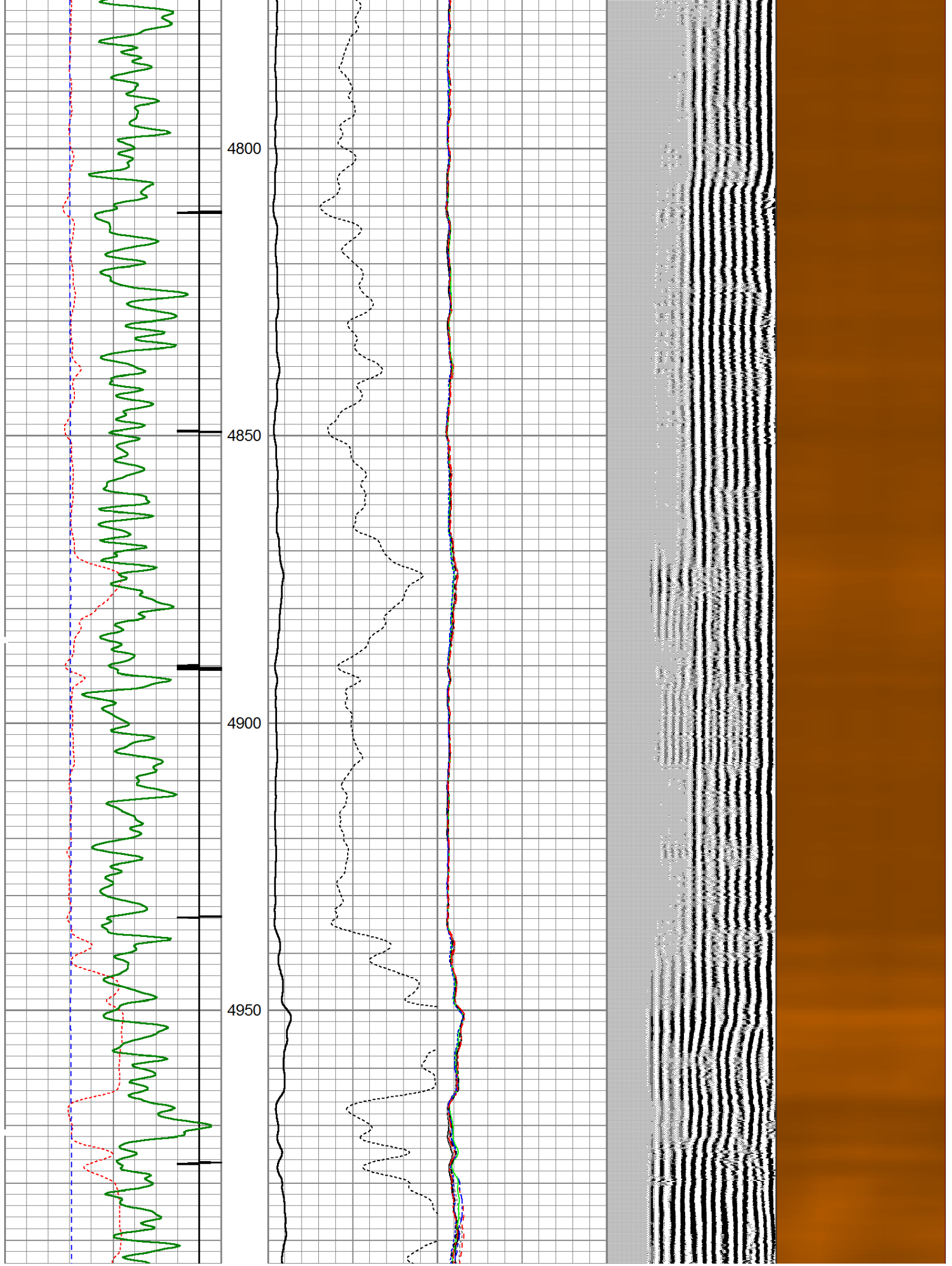


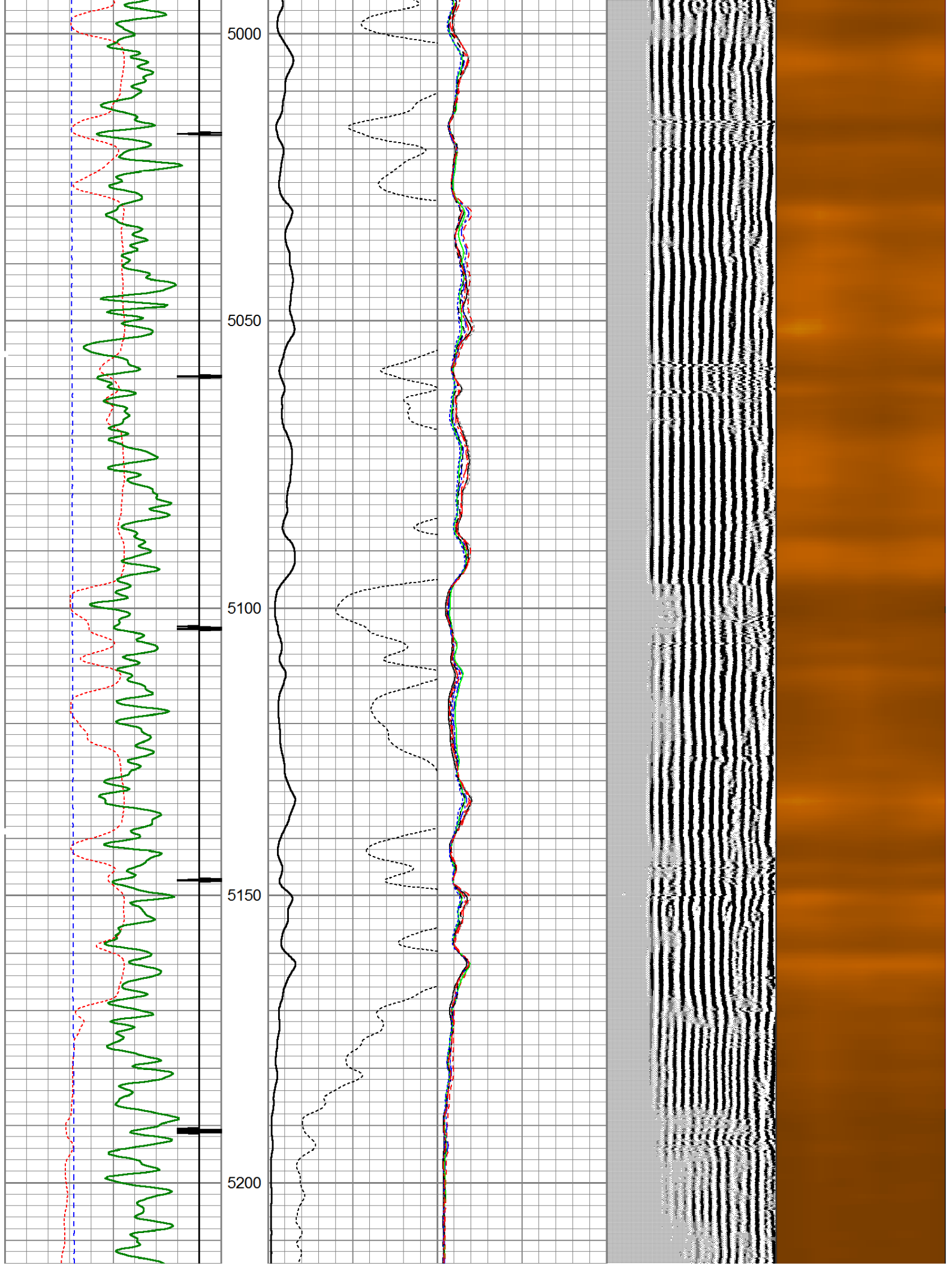




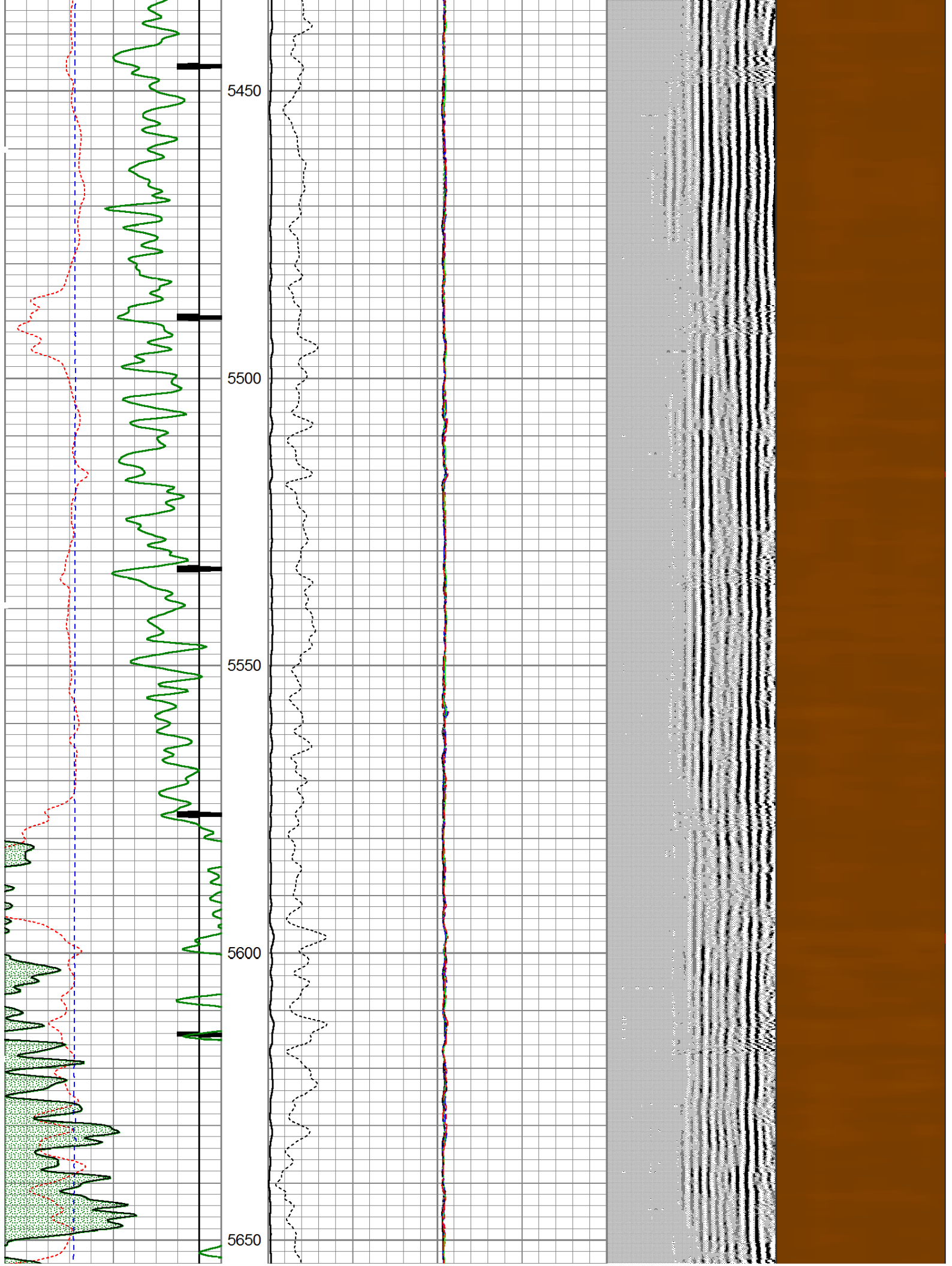


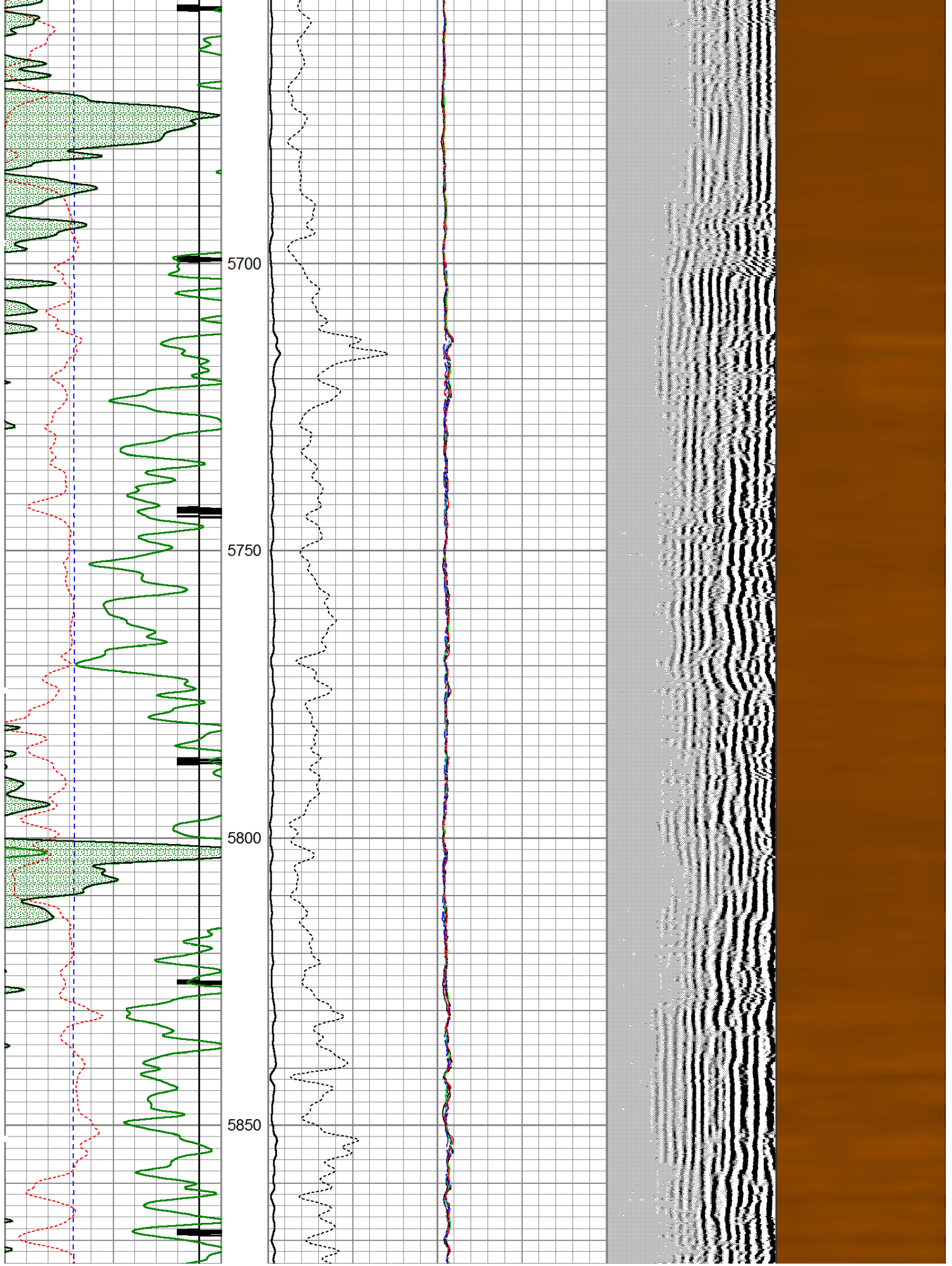


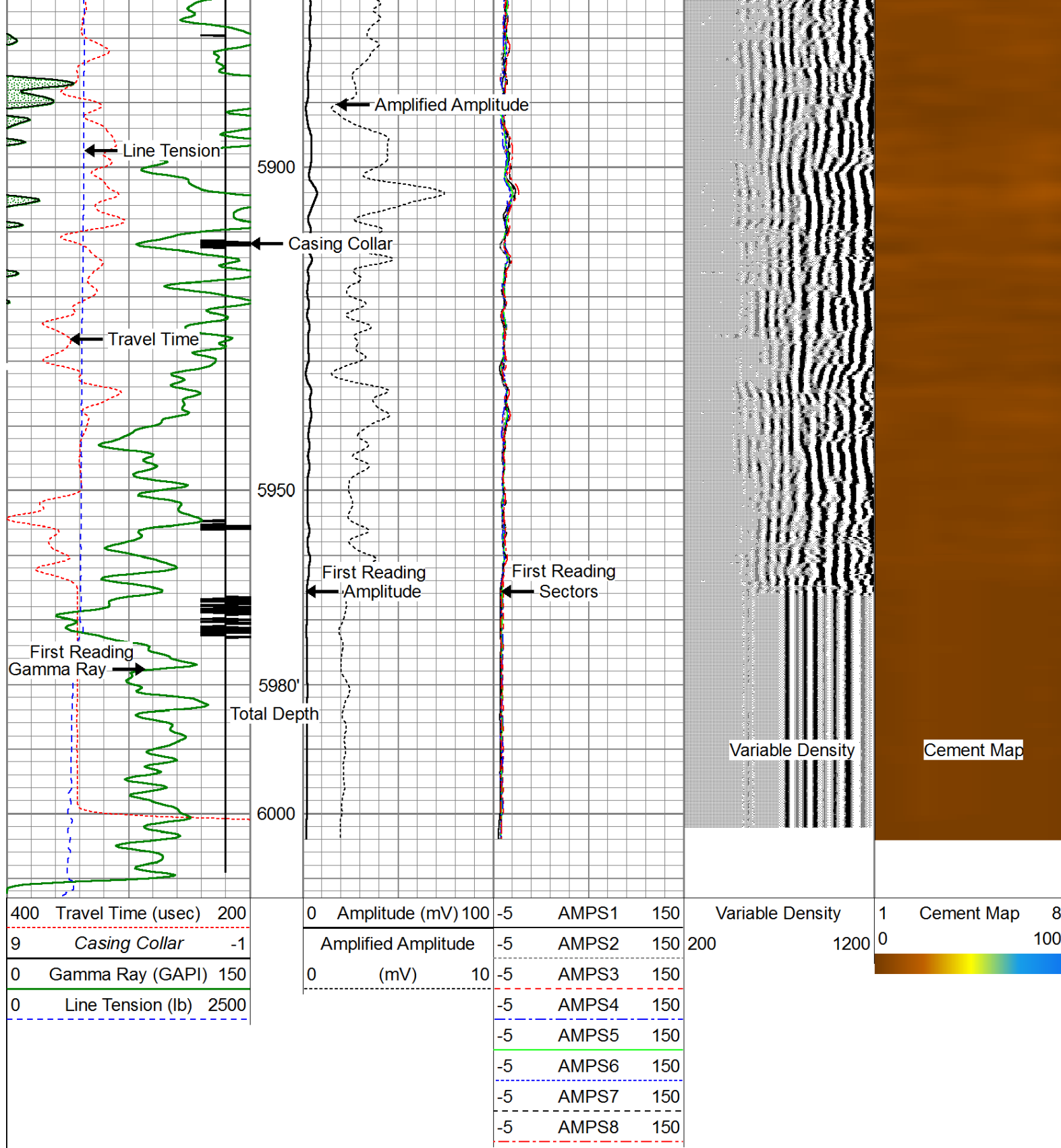








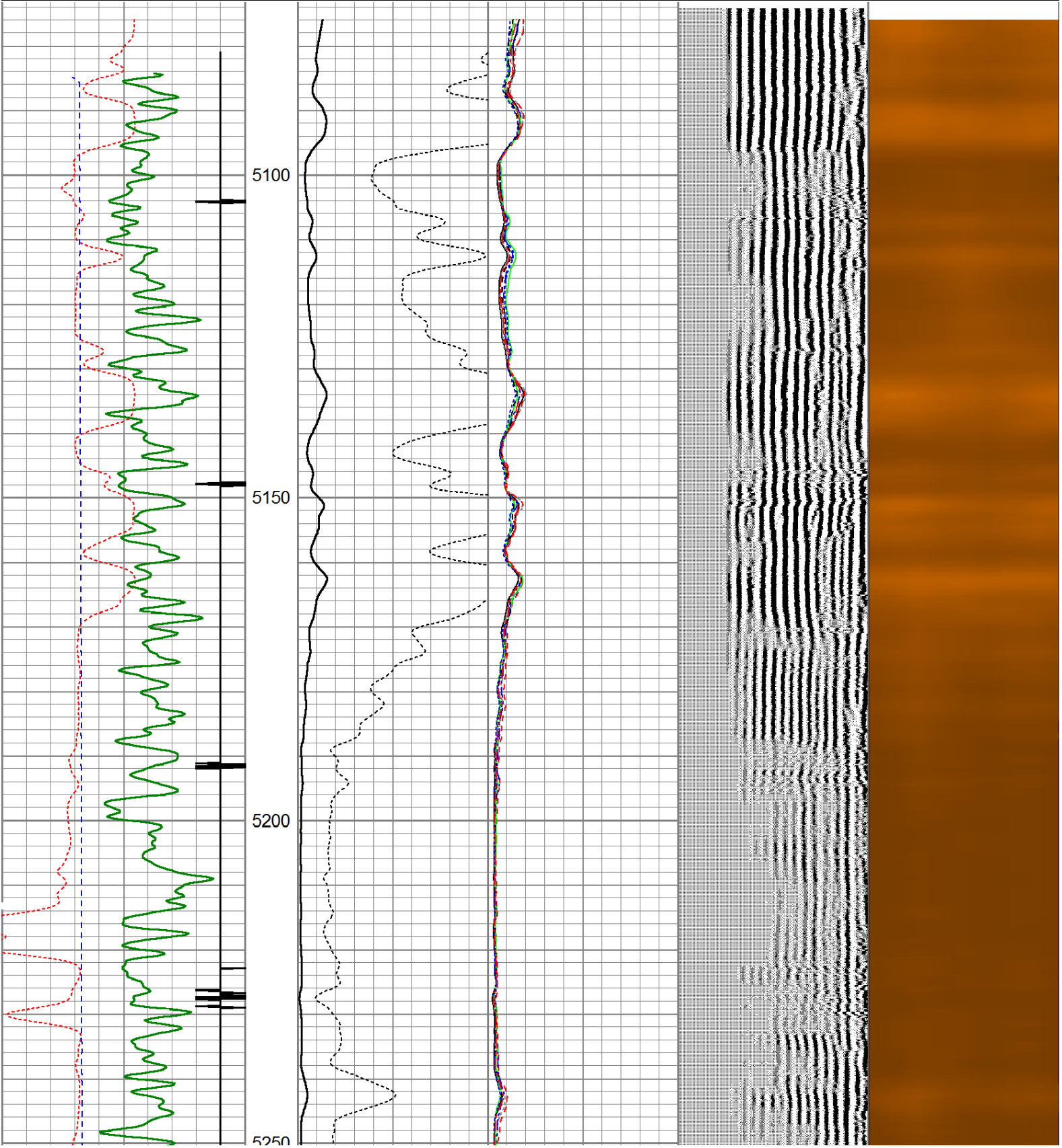


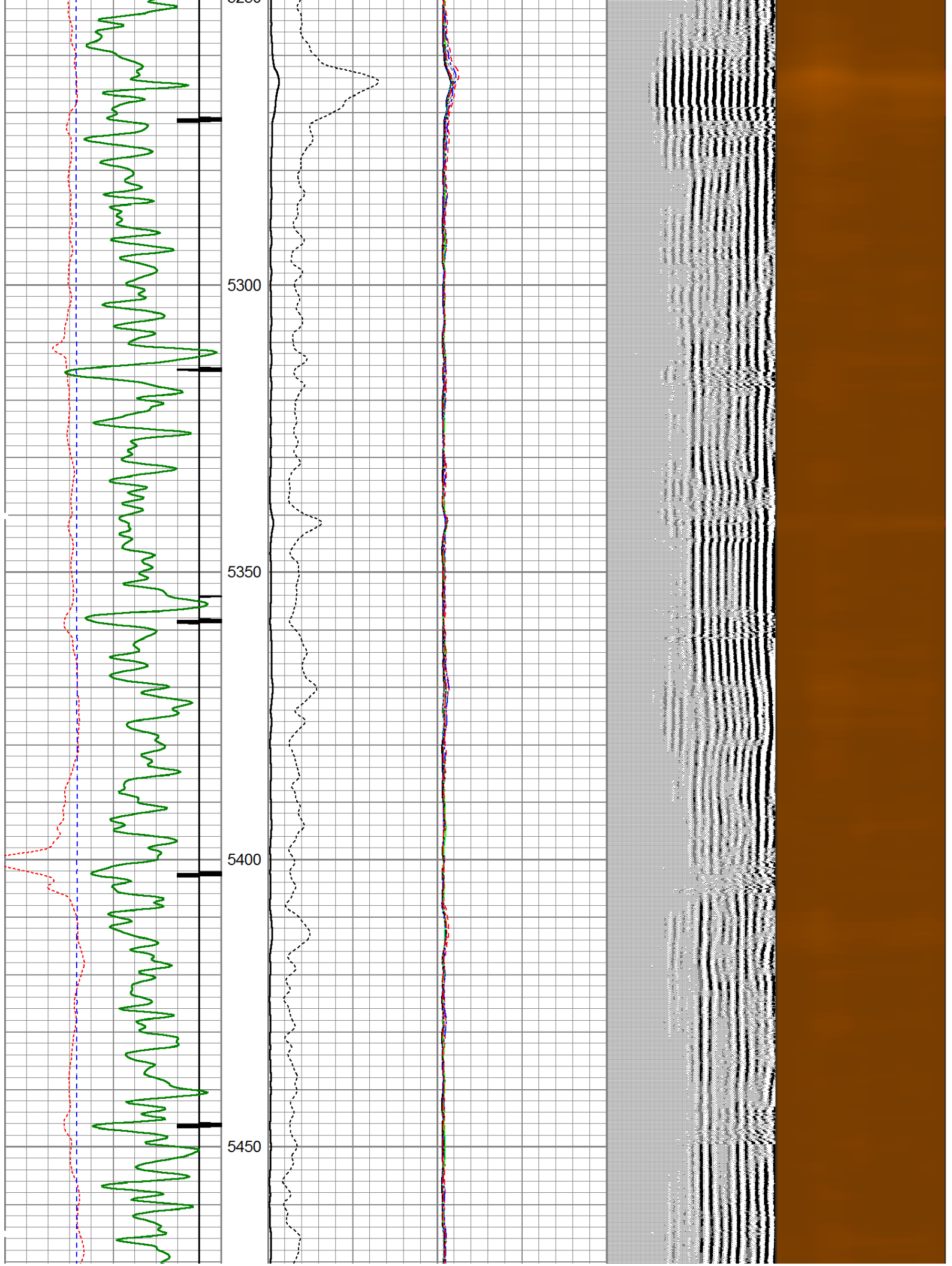


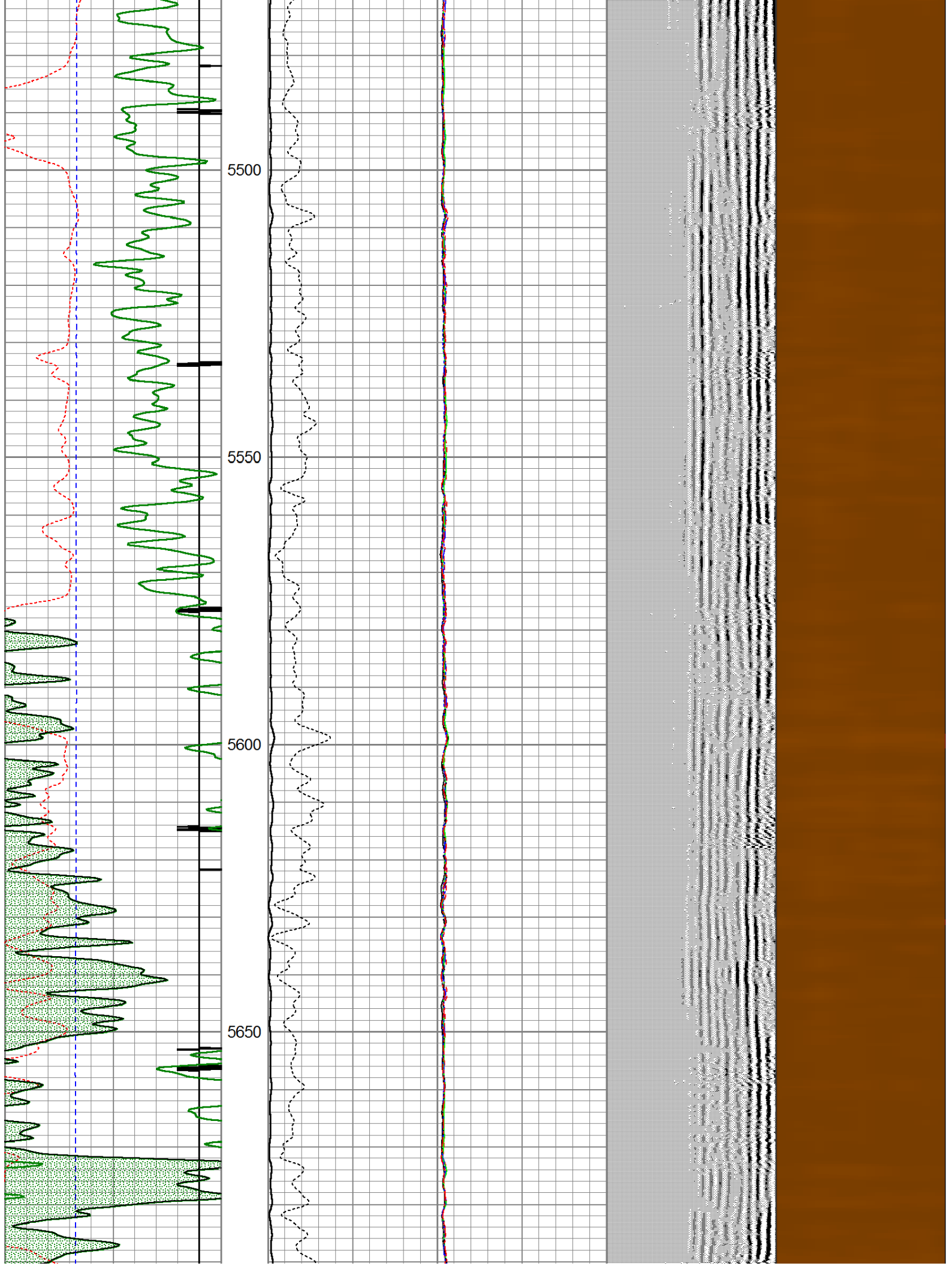
Repeat Pass (0 PSI)

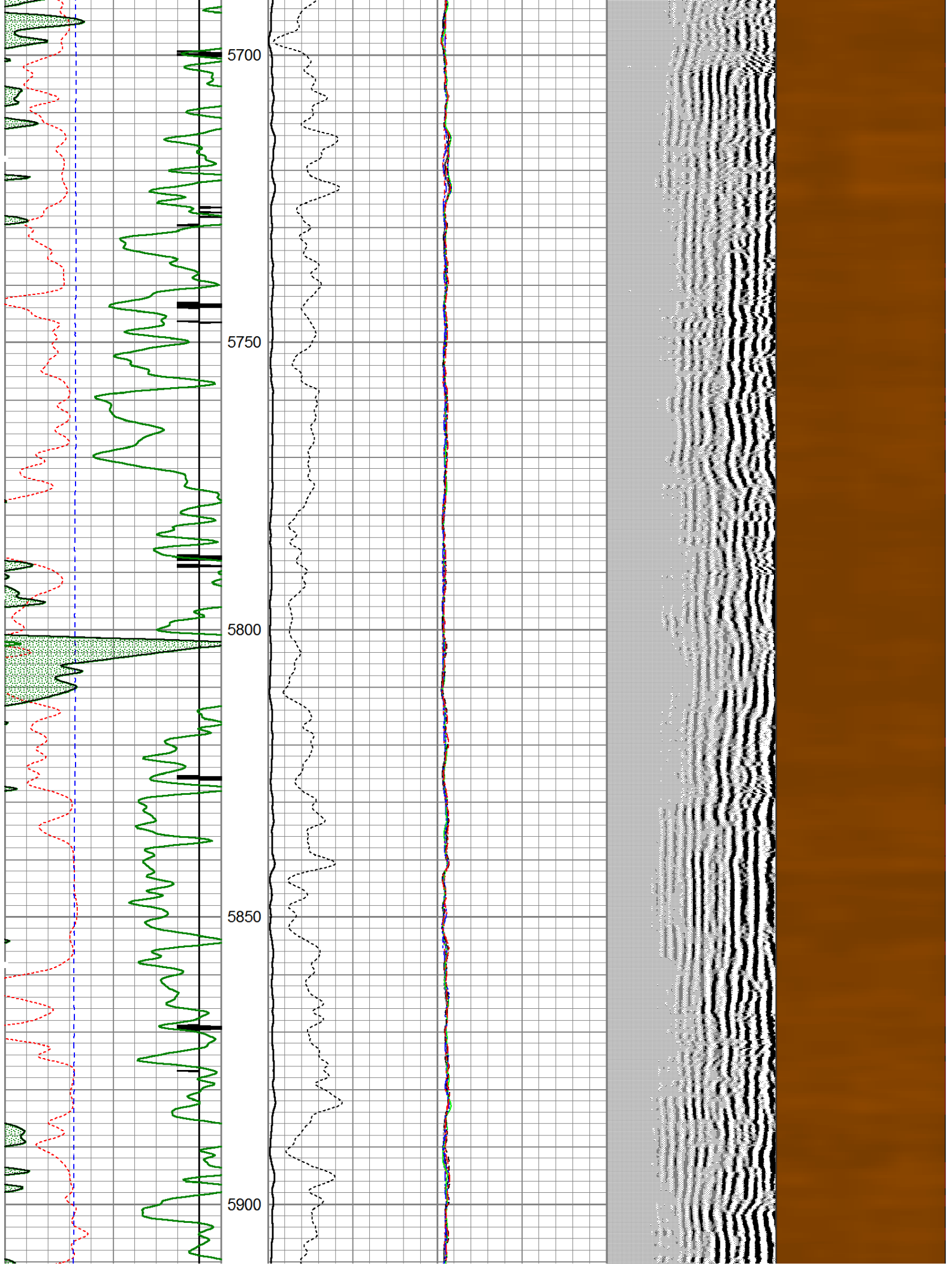
Database File: noble energy rohn state ld04-64hn_cbl.db
 Dataset Pathname: pass3
 Presentation Format: scbl03
 Dataset Creation: Thu Oct 10 11:05:52 2013 by Log SCH 120126
 Charted by: Depth in Feet scaled 1:240

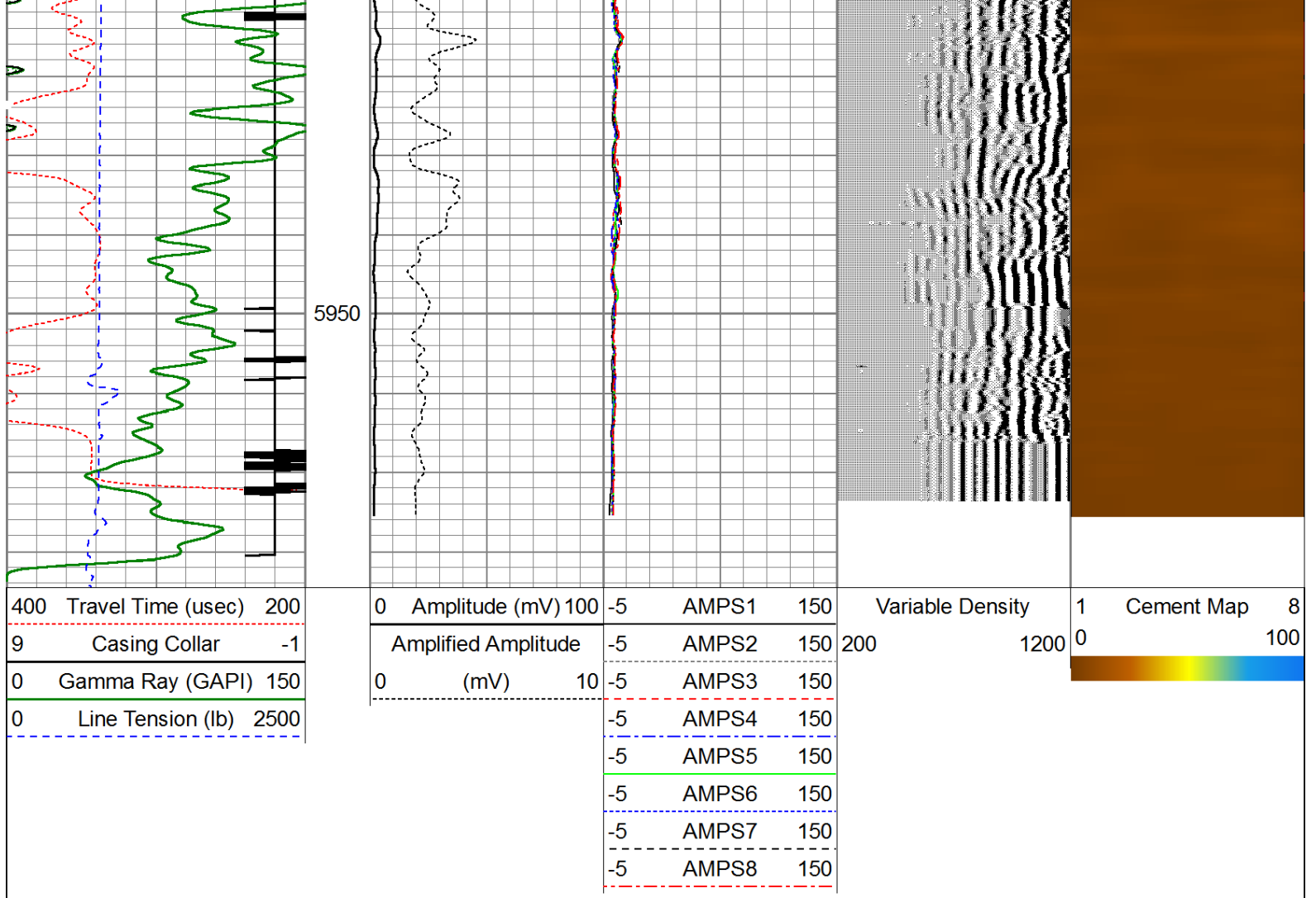
Charted by: Depth in Feet scaled 1:210			0 Amplitude (mV) 100			Variable Density		1 Cement Map	8
400	Travel Time (usec)	200	Amplified Amplitude			200	1200	0	100
9	Casing Collar	-1	(mV)						
0	Gamma Ray (GAPI)	150	0	10	-5	AMPS1	150		
0	Line Tension (lb)	2500				-5	AMPS4	150	
						-5	AMPS5	150	
						-5	AMPS6	150	
						-5	AMPS7	150	
						-5	AMPS8	150	











Calibration Report					
Database File:	noble energy rohn state ld04-64hn_cbl.db				
Dataset Pathname:	pass3				
Dataset Creation:	Thu Oct 10 11:05:52 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				
Delta Reading:	1				

Segmented Cement Bond Log Calibration Report

Serial Number: 111107
 Tool Model: Probe
 Calibration Casing Diameter: 7.000 in
 Calibration Depth: 607.379 ft

Master Calibration, performed Thu Oct 10 08:58:15 2013:

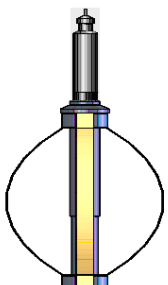
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.010	0.615	1.000	62.165	97.918	1.993
CAL	-0.017	0.861				
5'	-0.010	0.448	1.000	62.165	133.589	2.318
SUM						
S1	0.002	0.648	0.000	100.000	154.841	-0.363
S2	-0.004	0.696	0.000	100.000	142.875	0.624
S3	-0.009	0.696	0.000	100.000	141.887	1.247
S4	-0.008	0.664	0.000	100.000	140.640	1.230
S5	-0.010	0.610	0.000	100.000	151.203	1.637
S6	-0.010	0.571	0.000	100.000	162.322	1.639
S7	-0.011	0.555	0.000	100.000	176.693	1.900
S8	-0.011	0.550	0.000	100.000	178.133	1.944

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	0.861	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

