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Contractor does not warrant the accuracy of log data, including but not limited to the accuracy of log data transmitted by electronic process, and Contractor shall have no liability for the accidental or intentional interception of such data by third parties. In making any interpretation of logs, Contractor's personnel will give Operator the benefit of their judgment as to the correct interpretation, however, Contractor disclaims any warranty or guarantee of interpretations of data provided by Contractor's personnel; these are opinions only and Operator assumes full responsibility for the use of such opinions. Under no circumstances should any interpretation or recommendation of Contractor's personnel be relied upon as any part of the basis for any drilling, completion, well treatment or production decision or any procedure including any risk to the safety of any drilling venture, drilling contractor or its crew or any other individual, except as is otherwise expressly provided pursuant to the terms of the contract, contractor makes no warranty of any kind, express or implied (including, without limitation, implied warranties of merchantability or fitness for a particular purpose), regarding the equipment, goods and services it furnishes hereunder.

## Comments

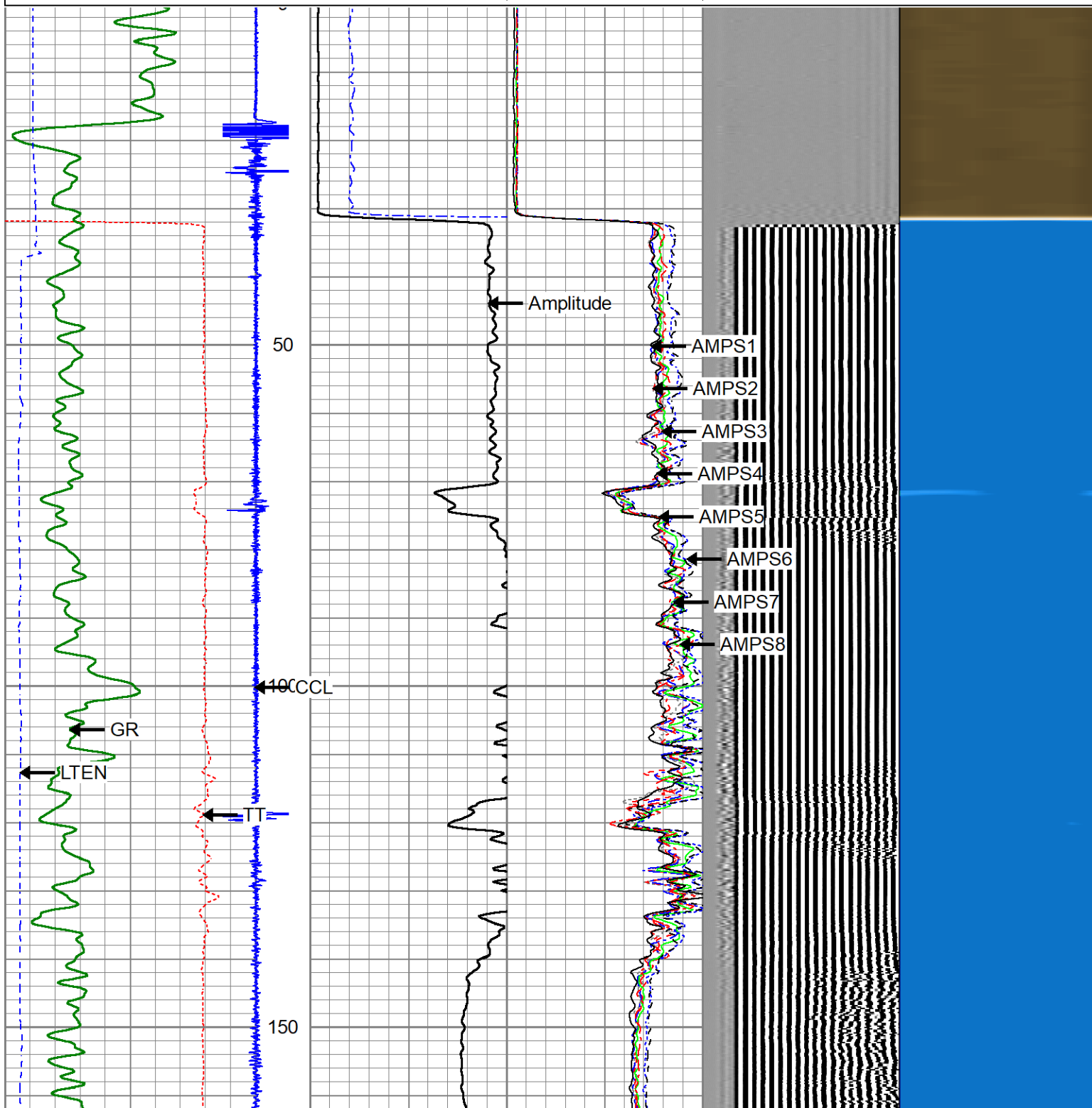
LOG WAS MEASURED FROM KB 23' ABOVE GL  
WELL WAS LOGGED WITH 0 PSI AT THE WELL HEAD

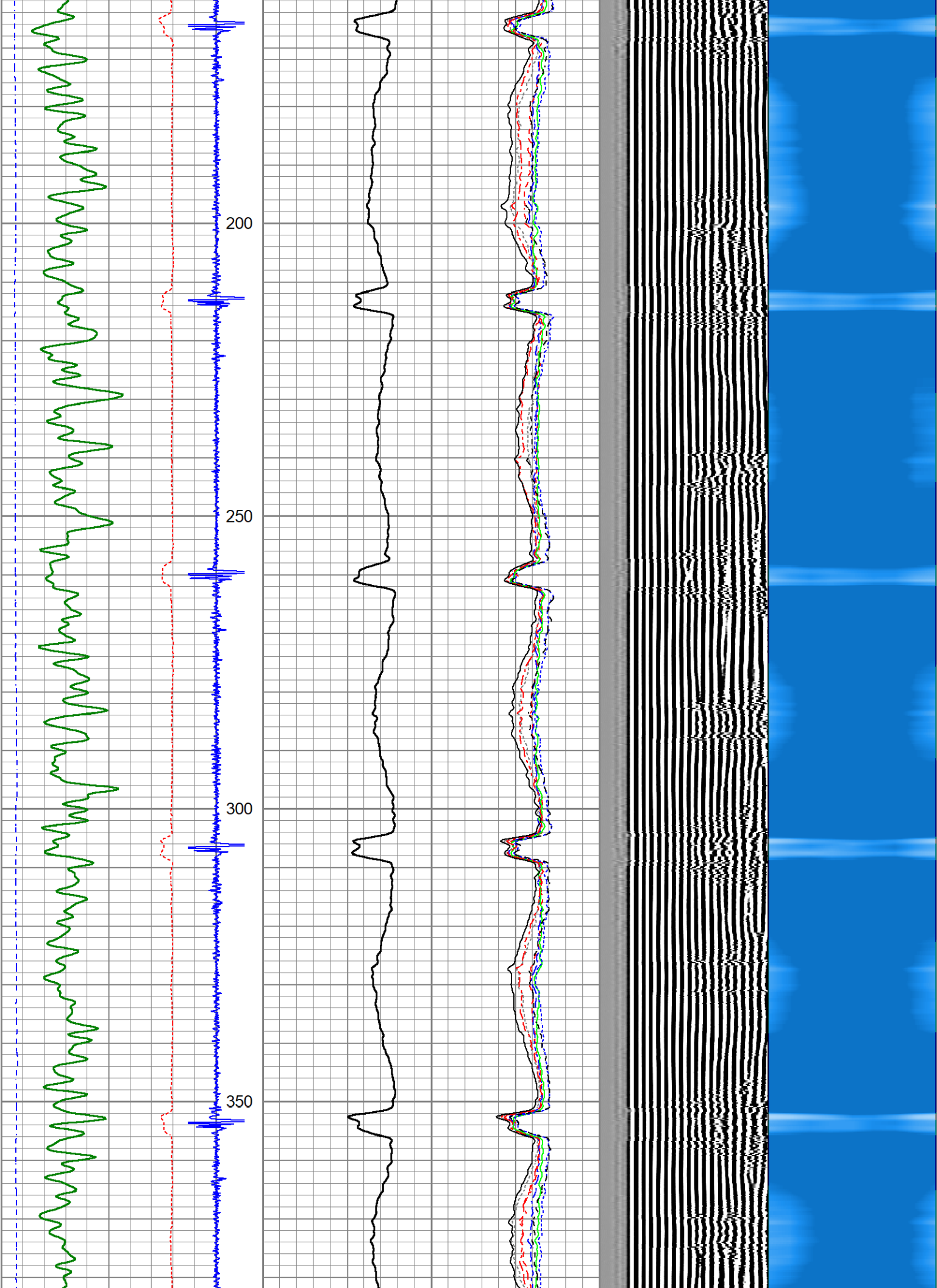
## MAIN PASS

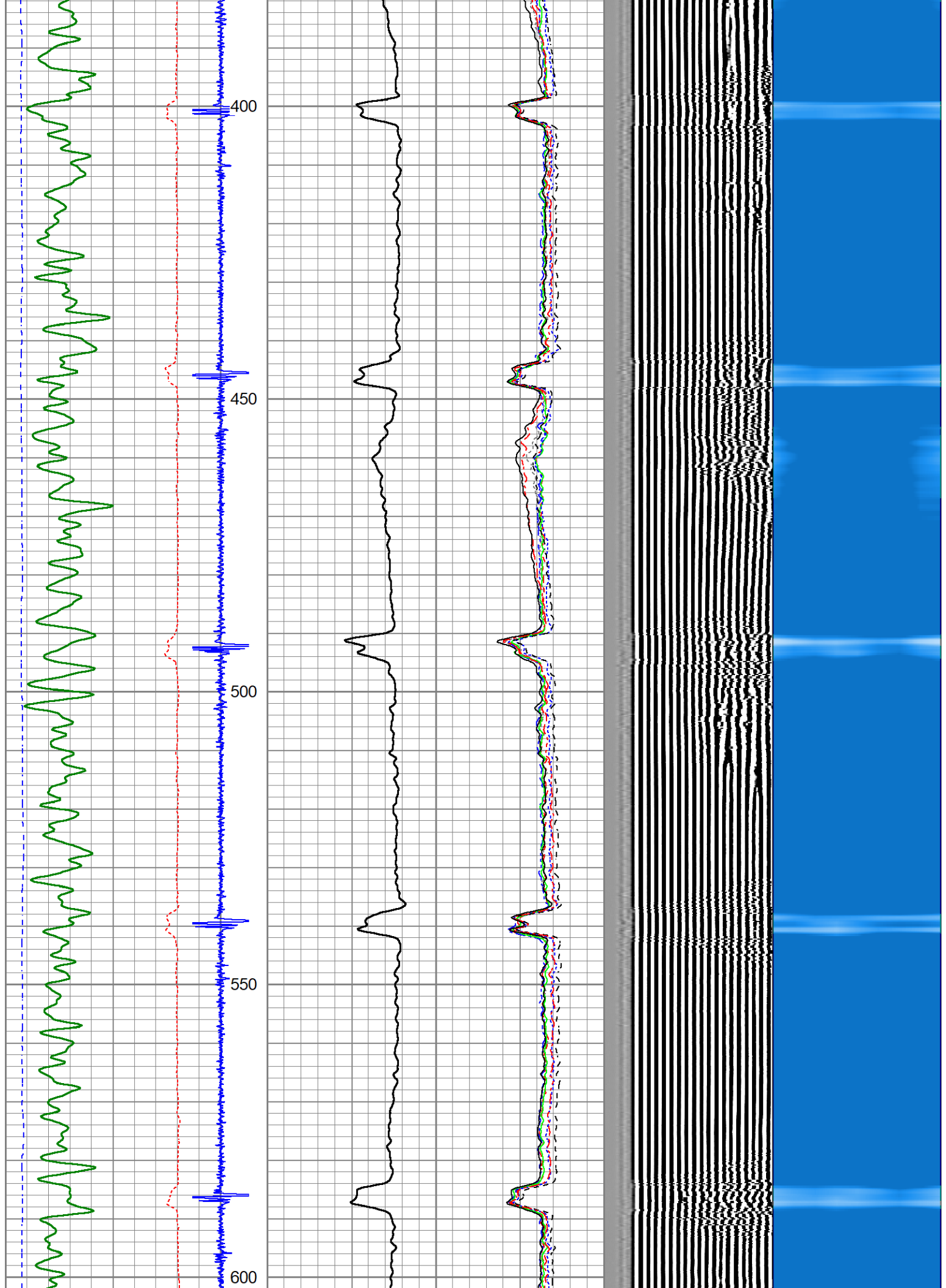


Database File hp\_rsuanstfed\_04-62-11-0108c\_cbl\_11oct2018.db  
Dataset Pathname pass4  
Presentation Format scbl5\_5  
Dataset Creation Thu Oct 11 17:08:50 2018  
Charted by Depth in Feet scaled 1:240

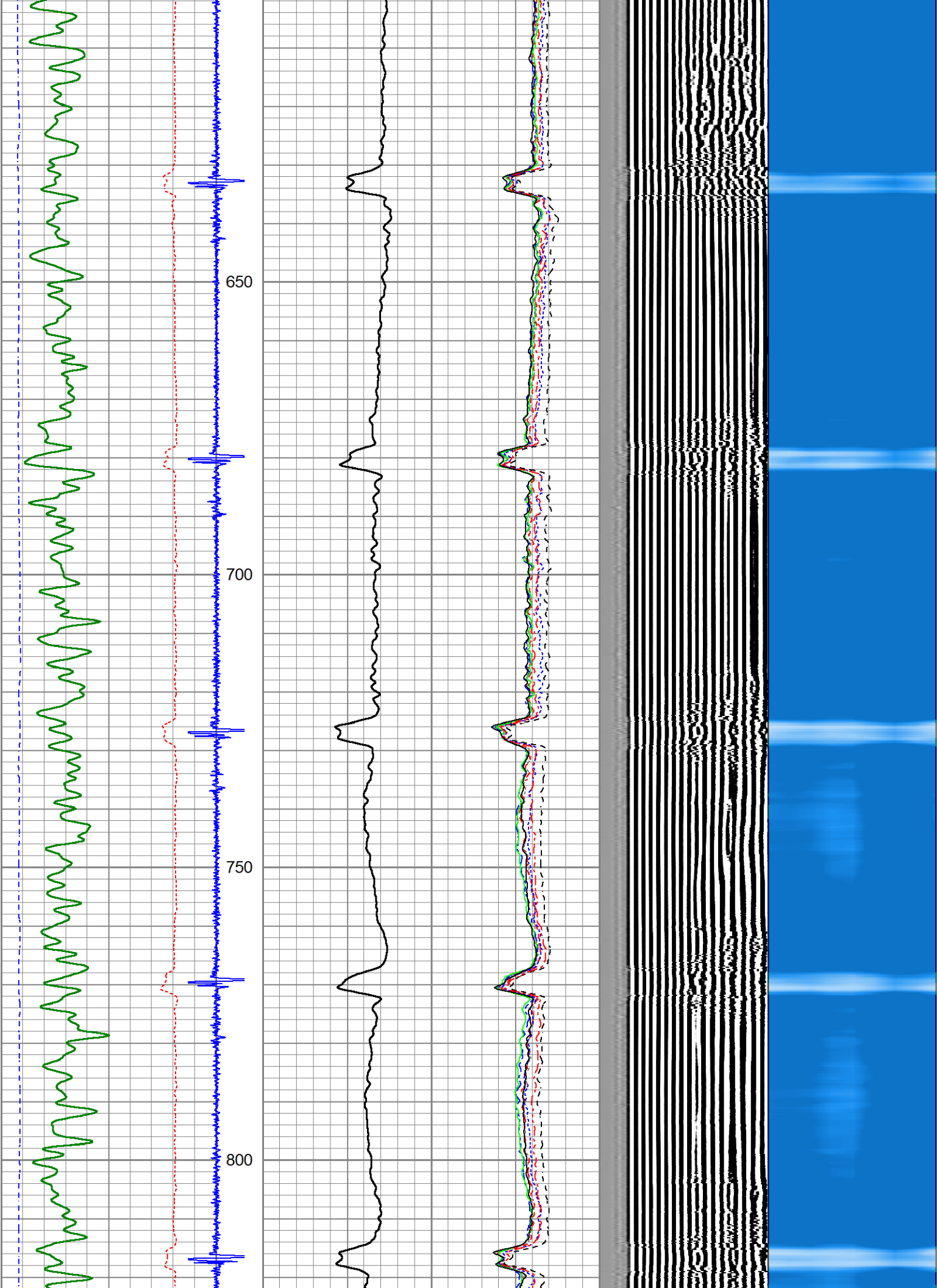
327	TT (usec)	227	0	Amplitude (mV)	100	-5	AMPS2	150	200	VDL (usec)	1200	Cement Map
0	GR (GAPI)	150		Amplified Amplitude		-5	AMPS3	150				
0	LTEN (lb)	4000	0	(mV)	20	-5	AMPS4	150				
						-5	AMPS5	150				
						-5	AMPS6	150				
						-5	AMPS7	150				
						-5	AMPS8	150				
						-5	AMPS1	150				

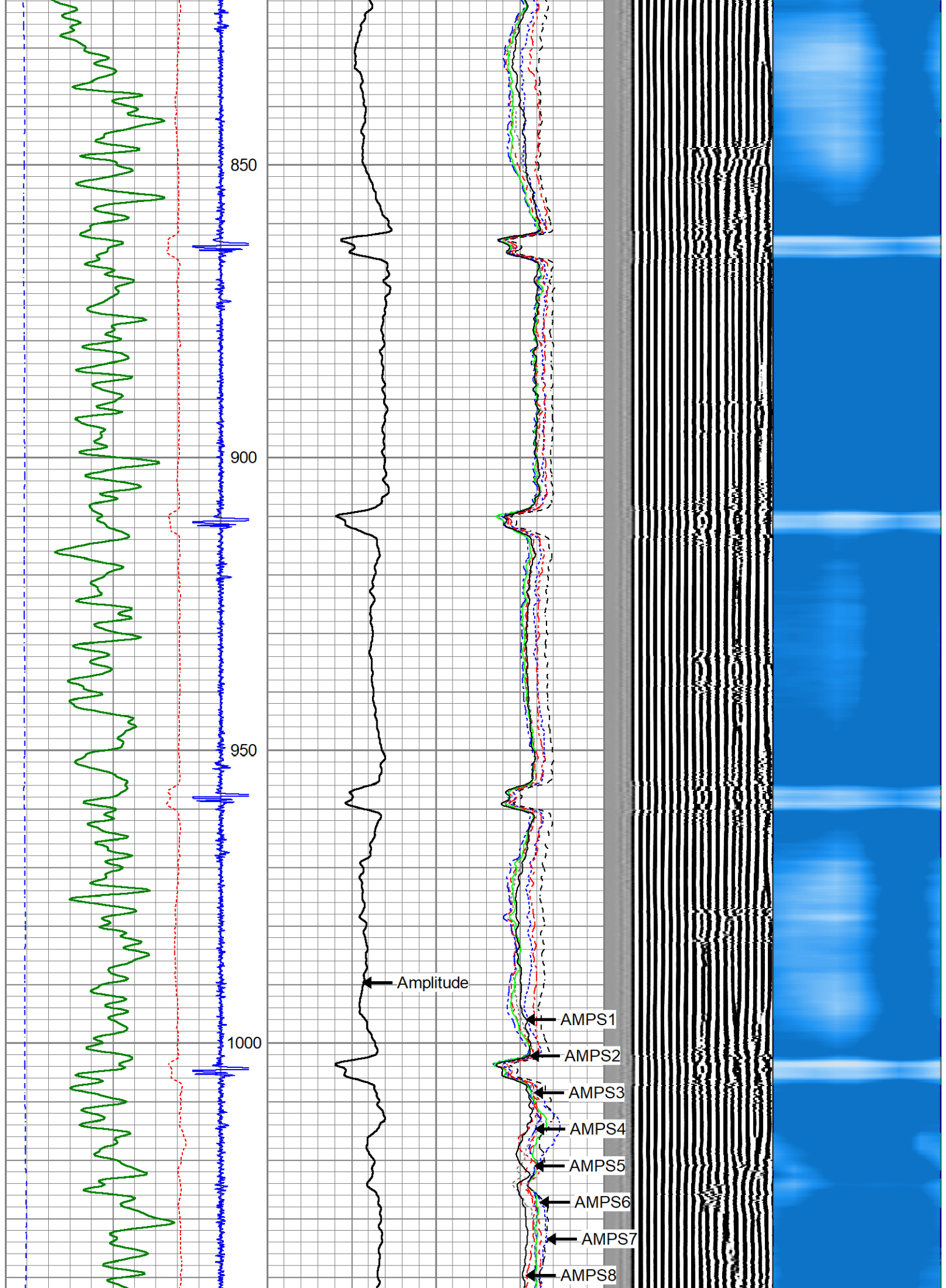


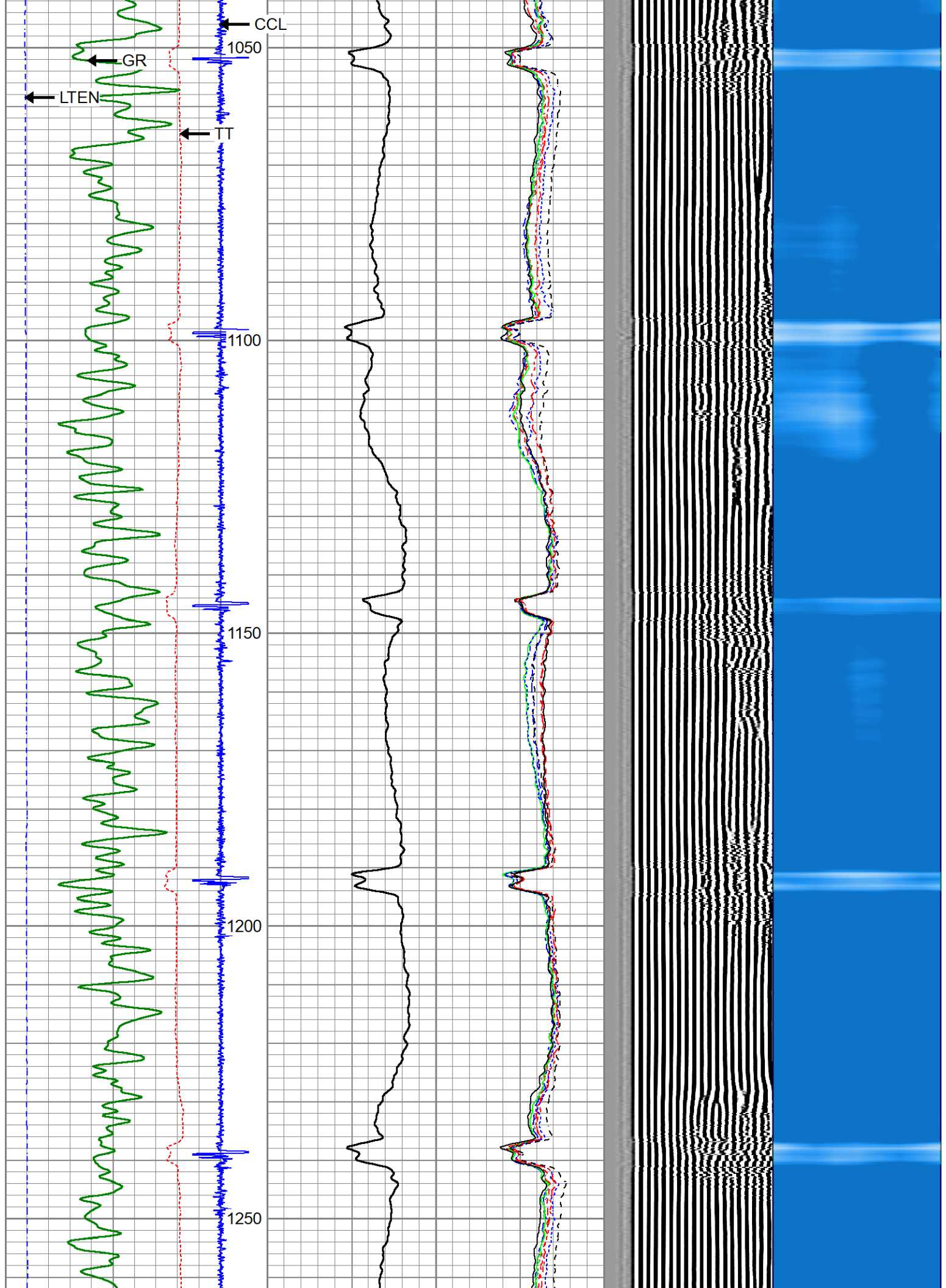


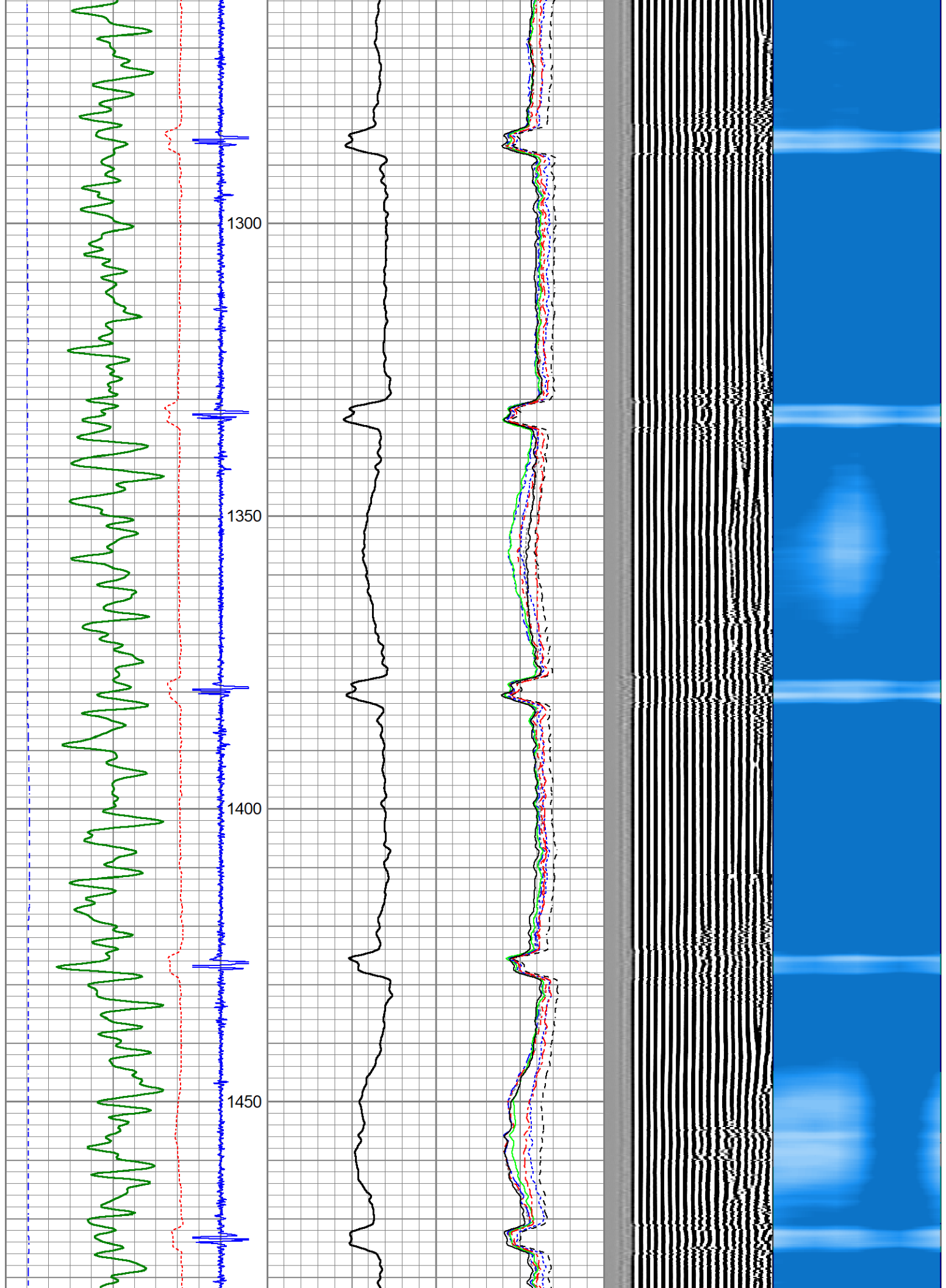


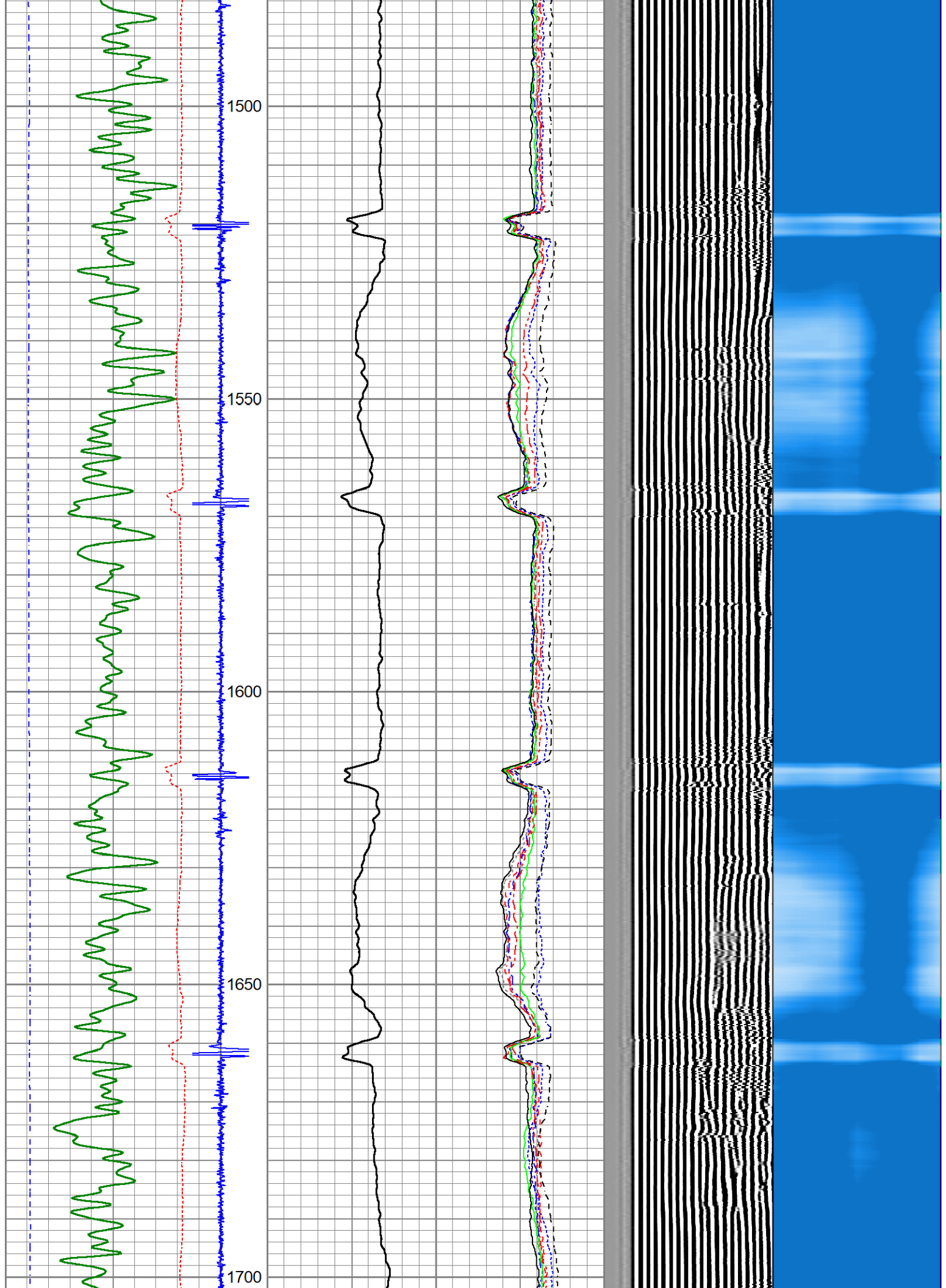




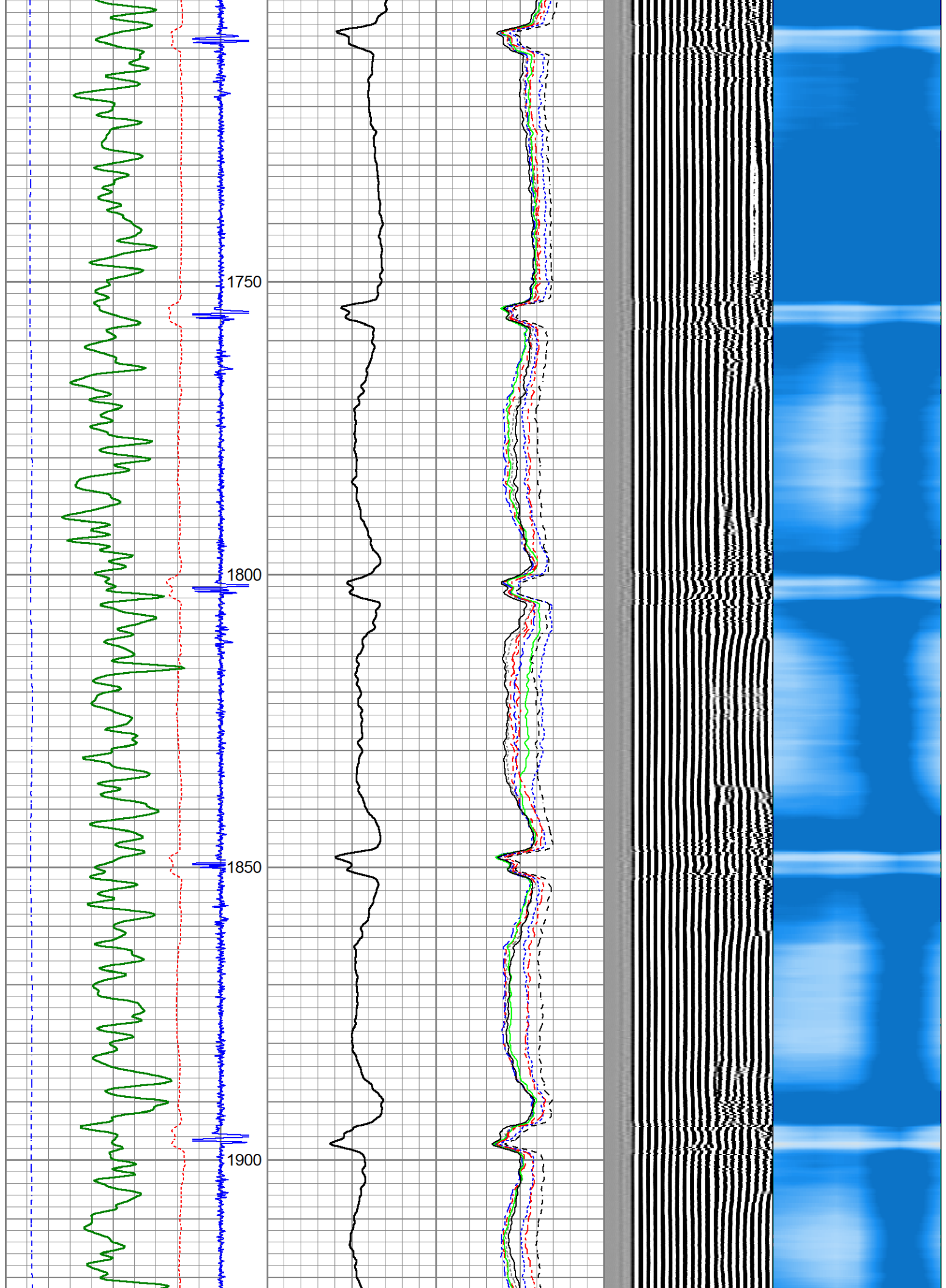


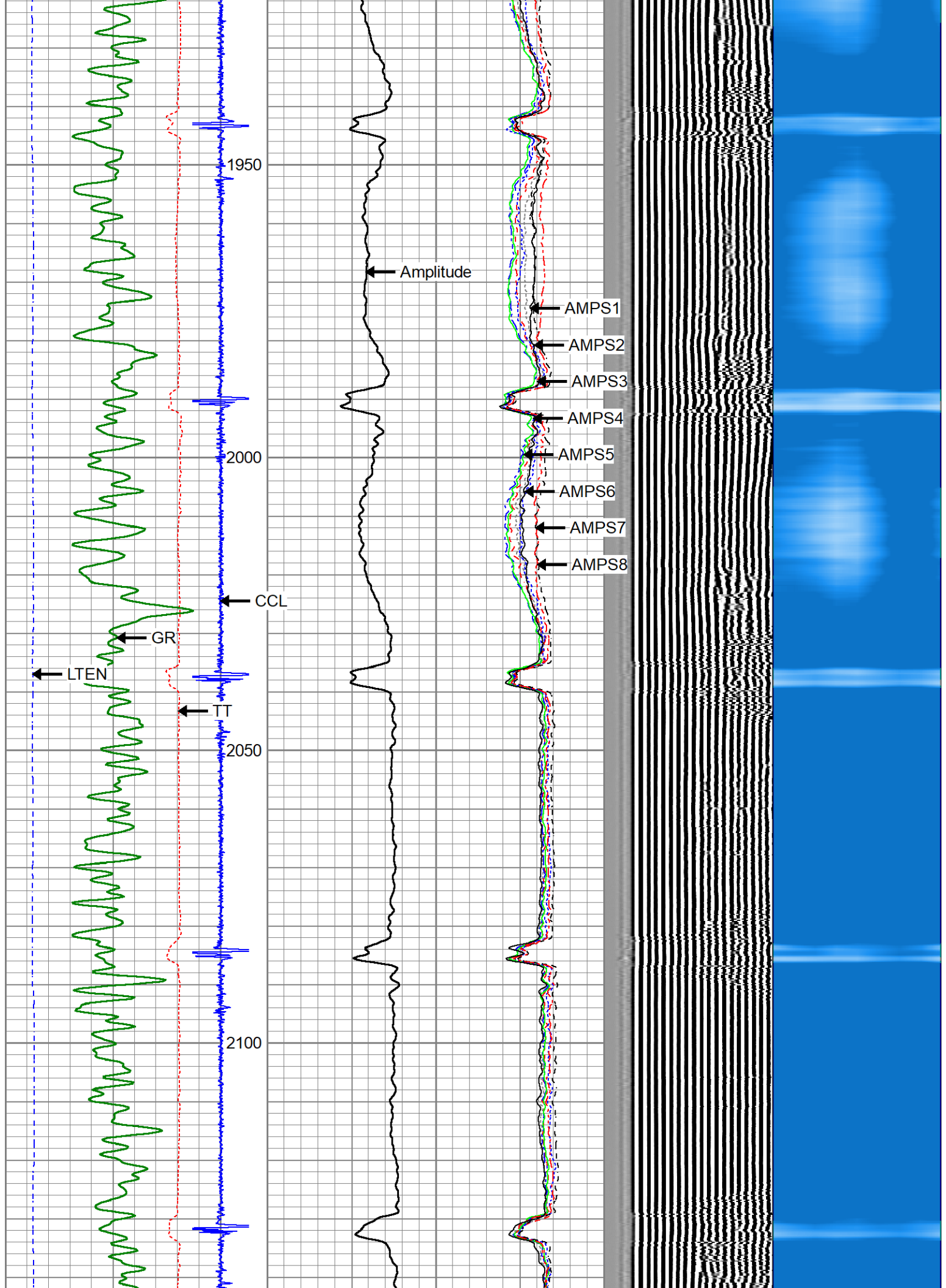


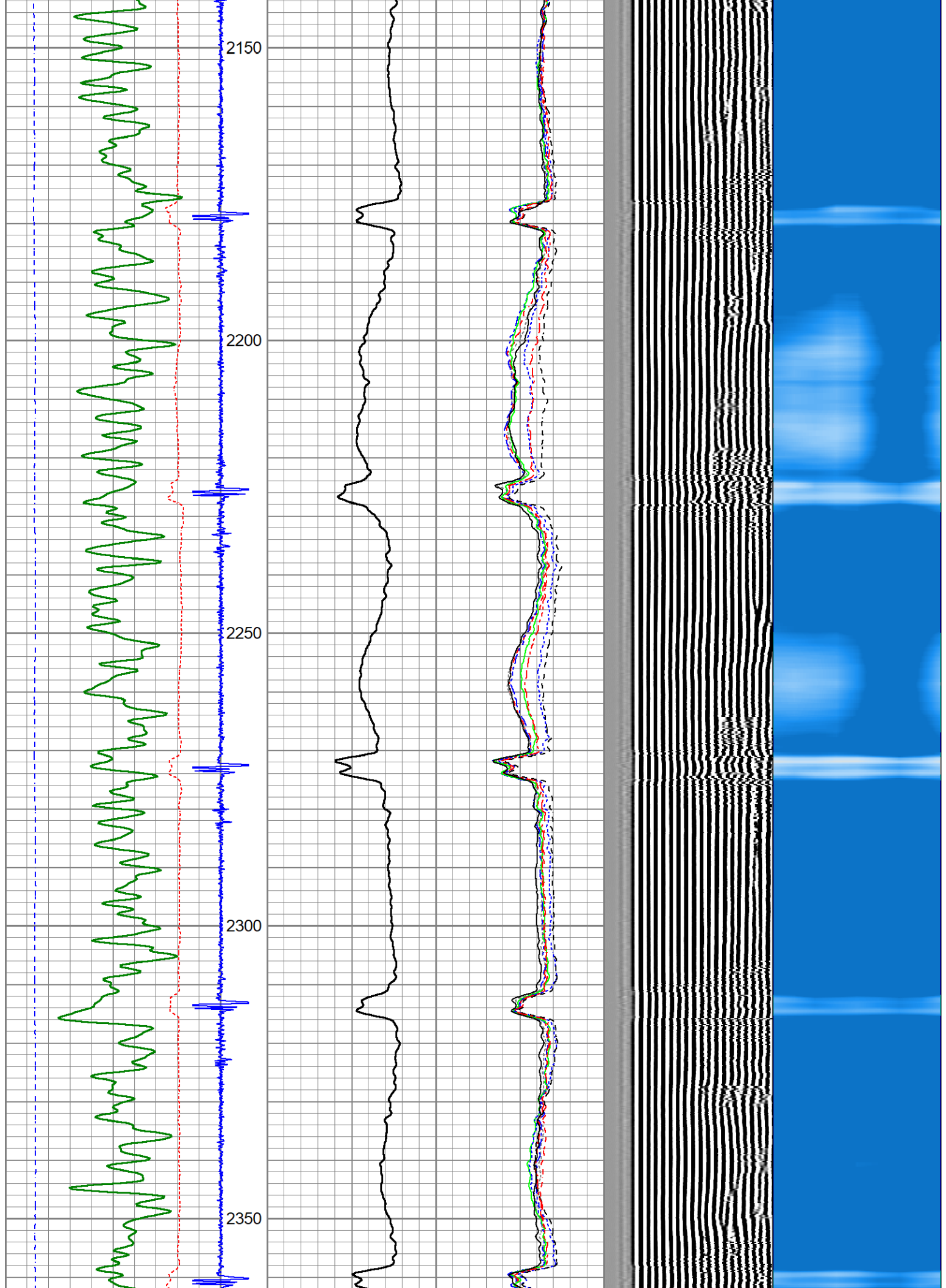


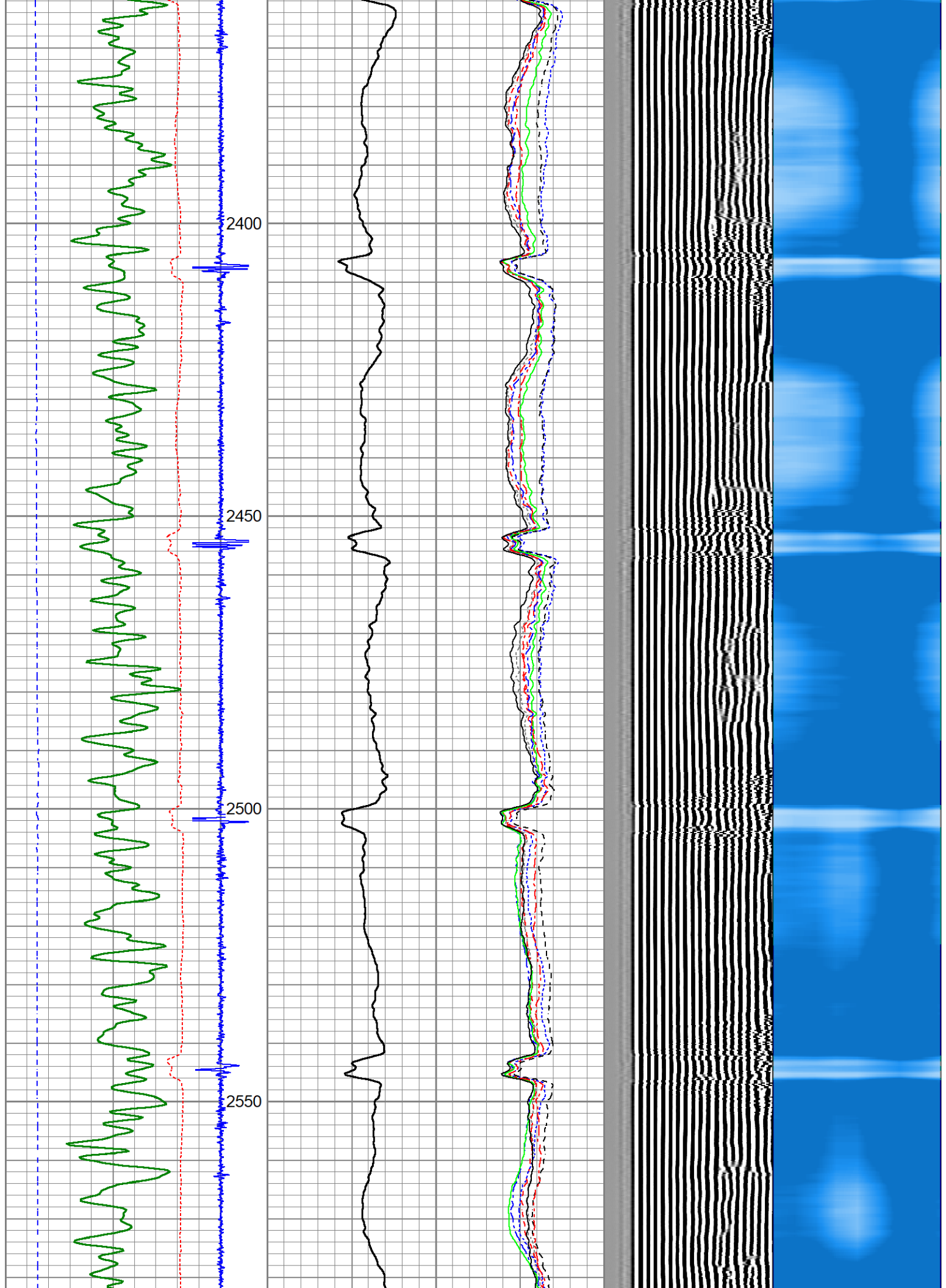




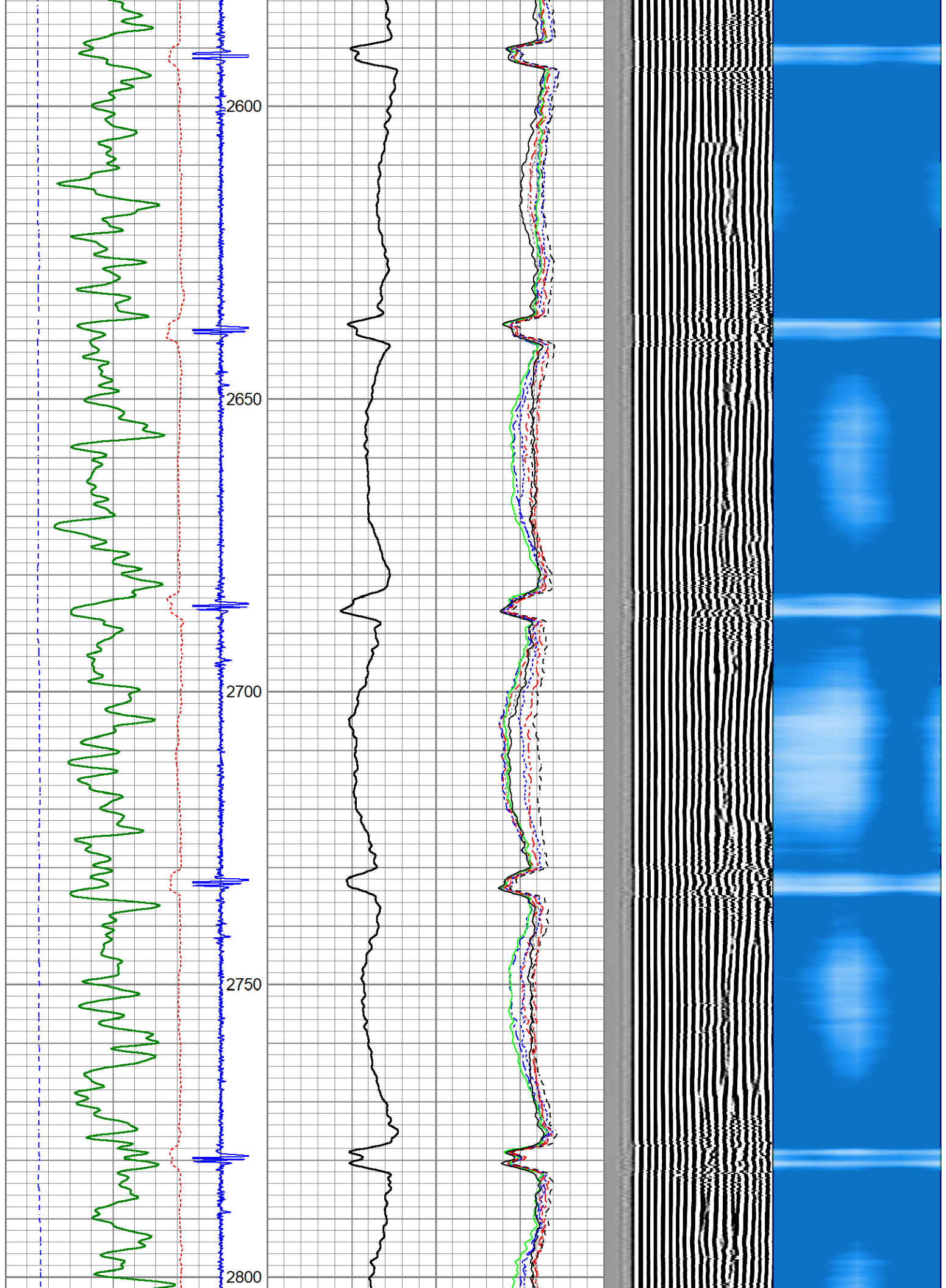




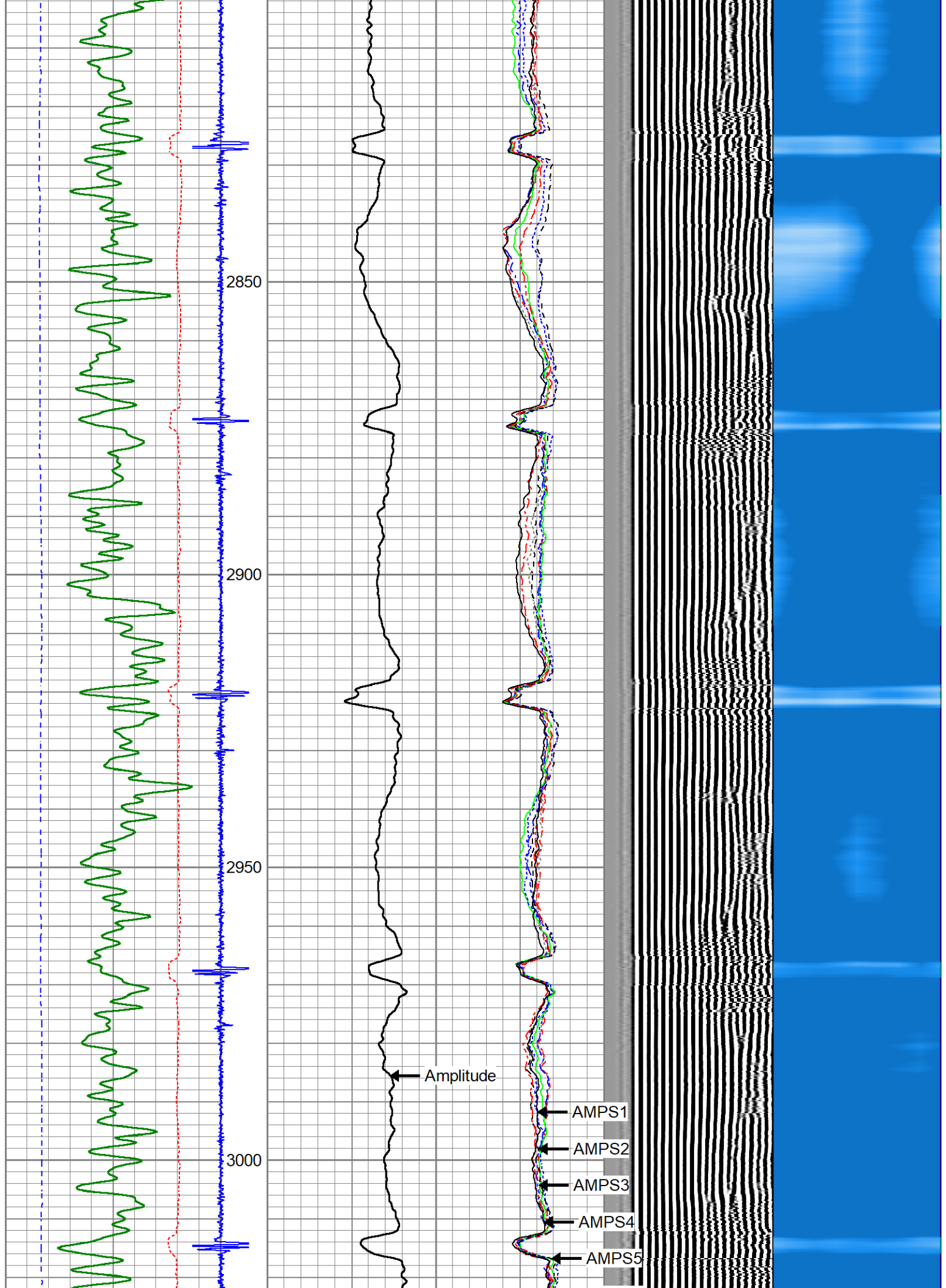


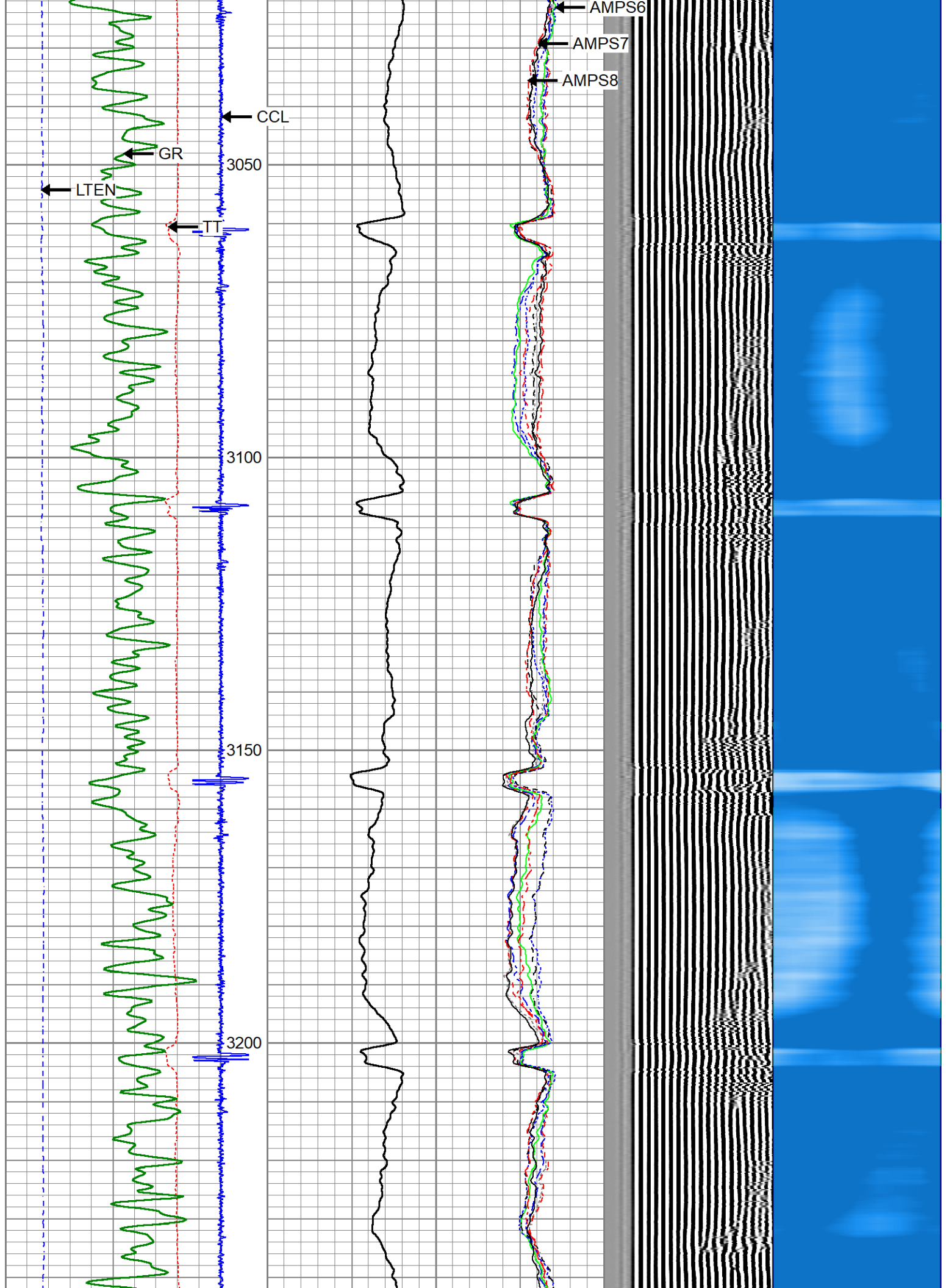


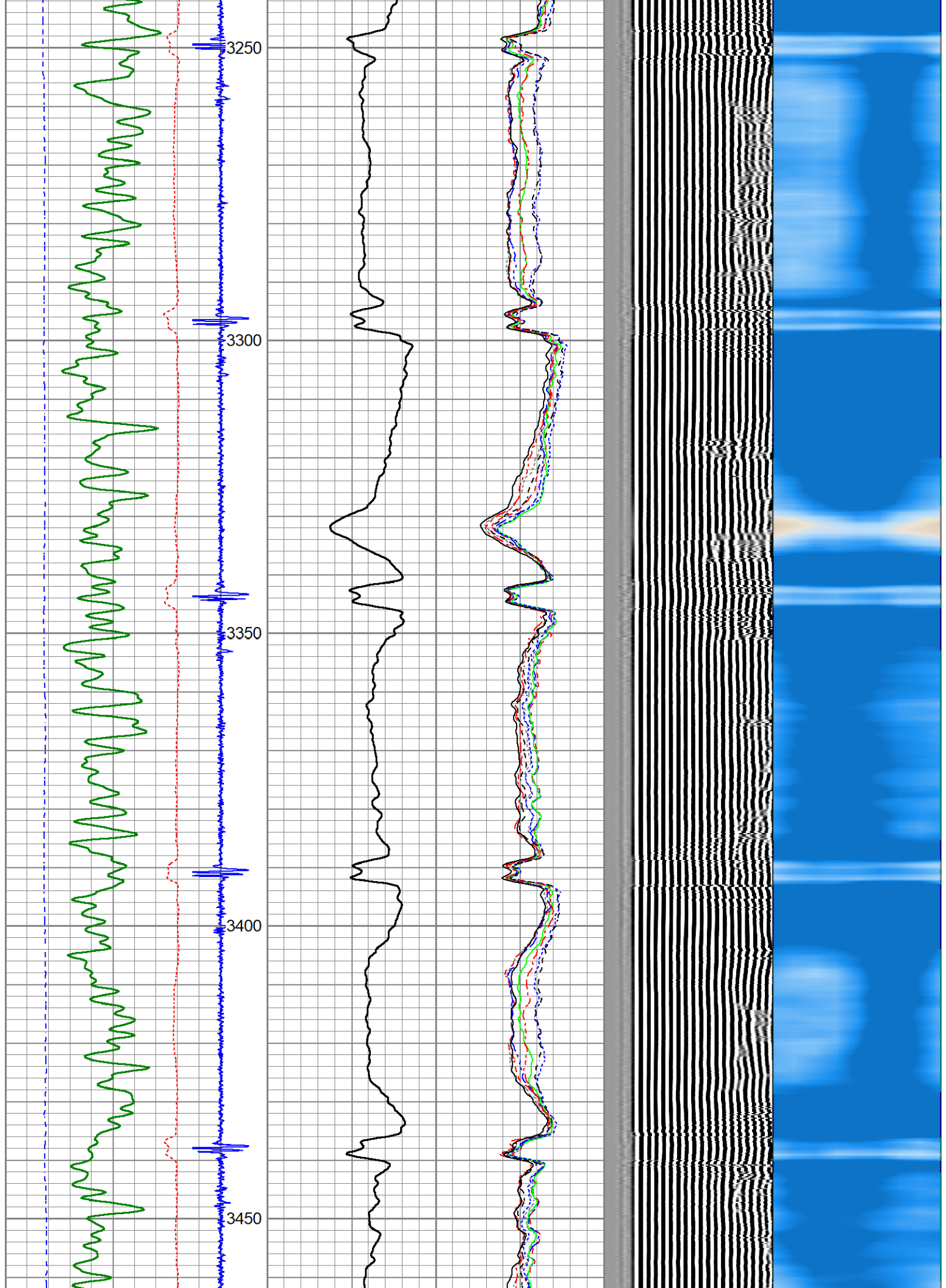


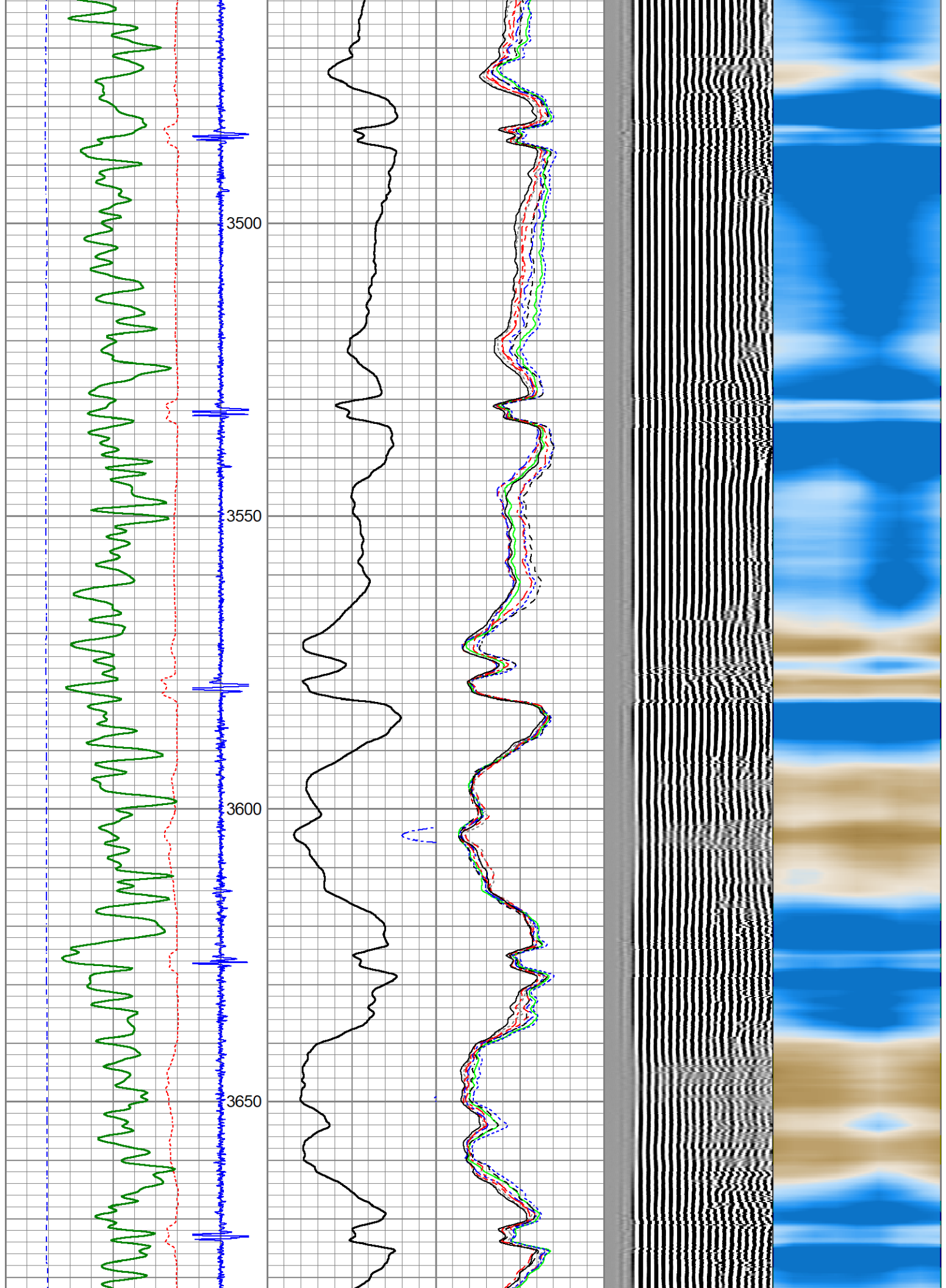




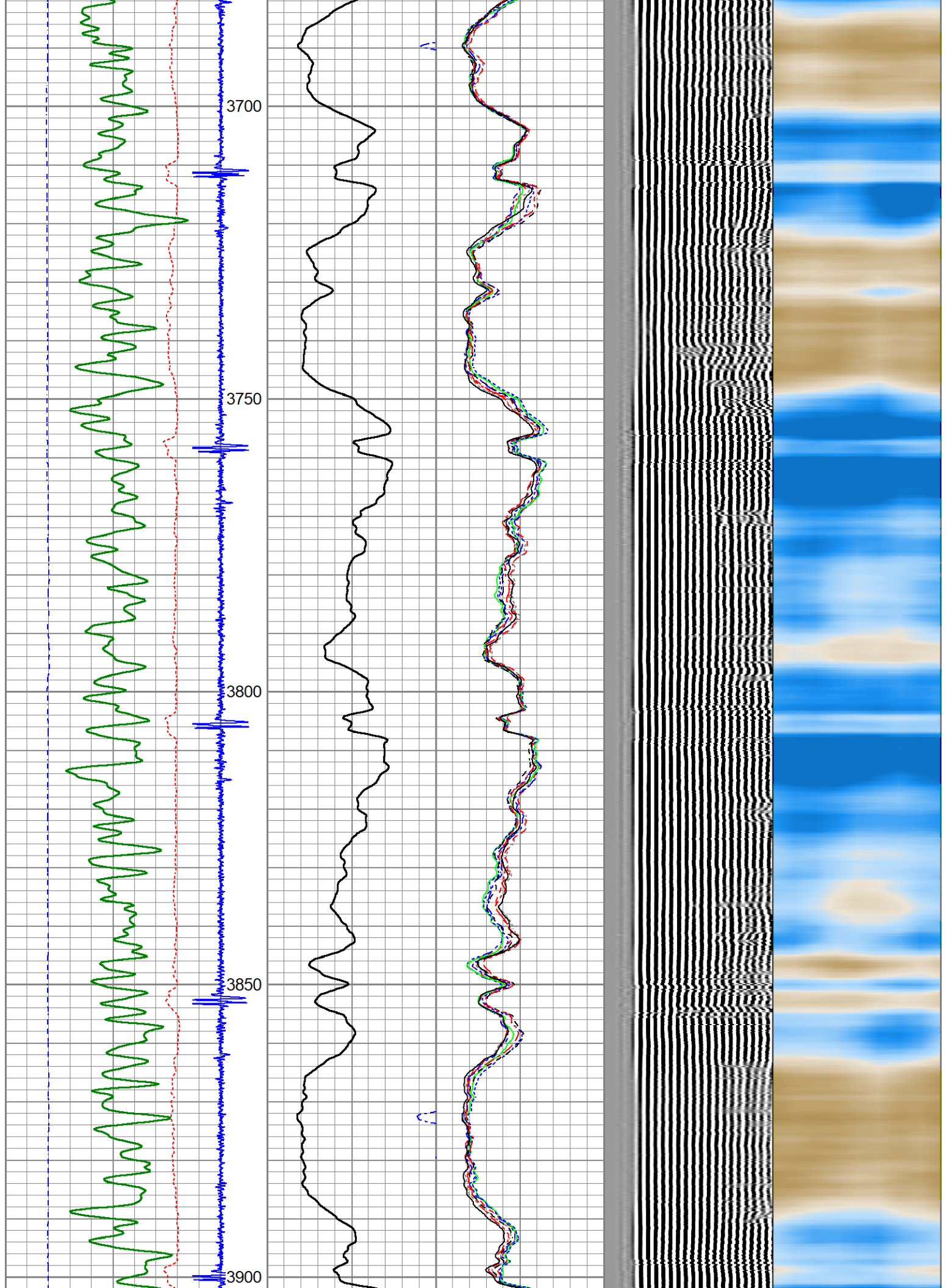




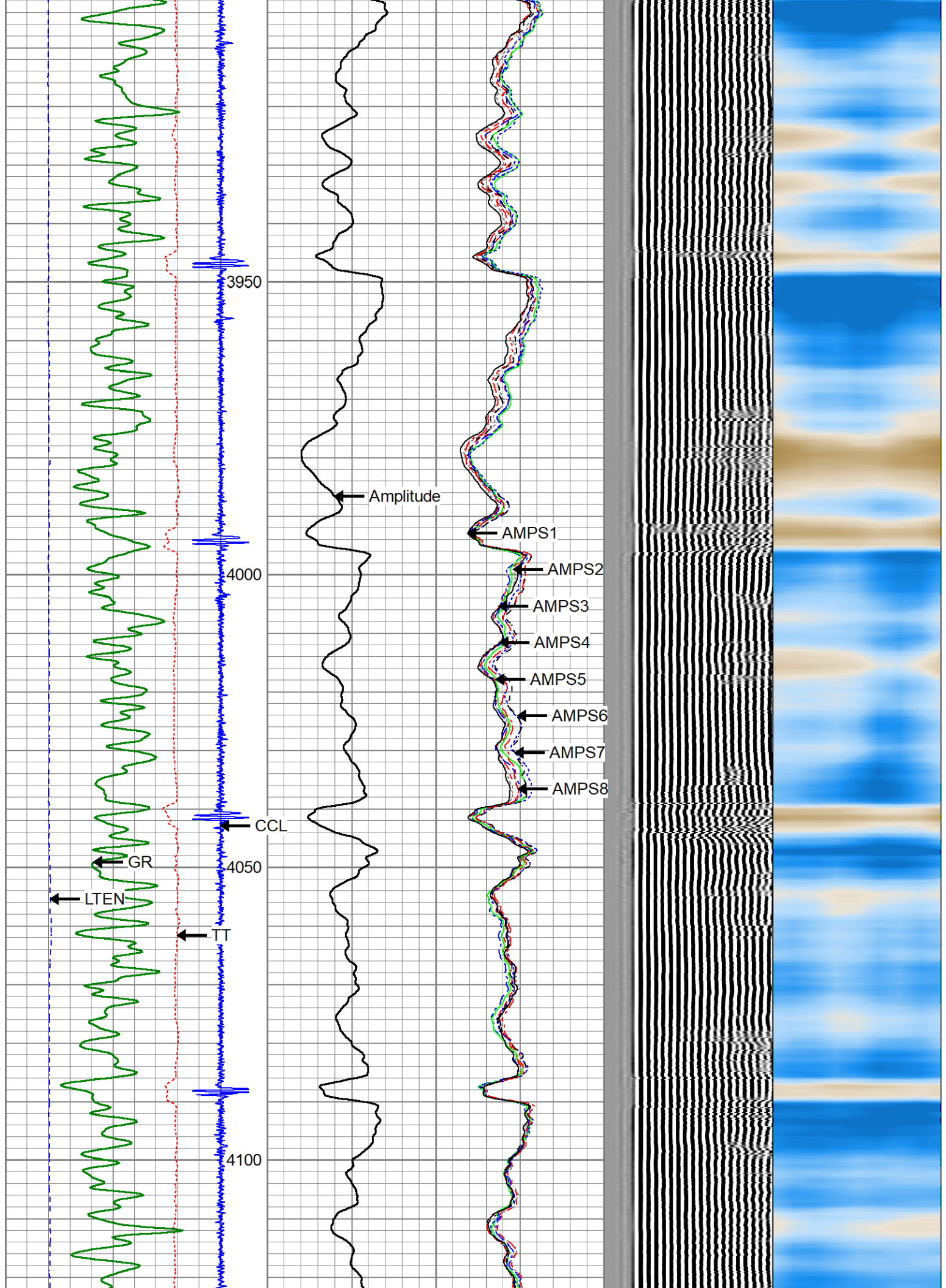


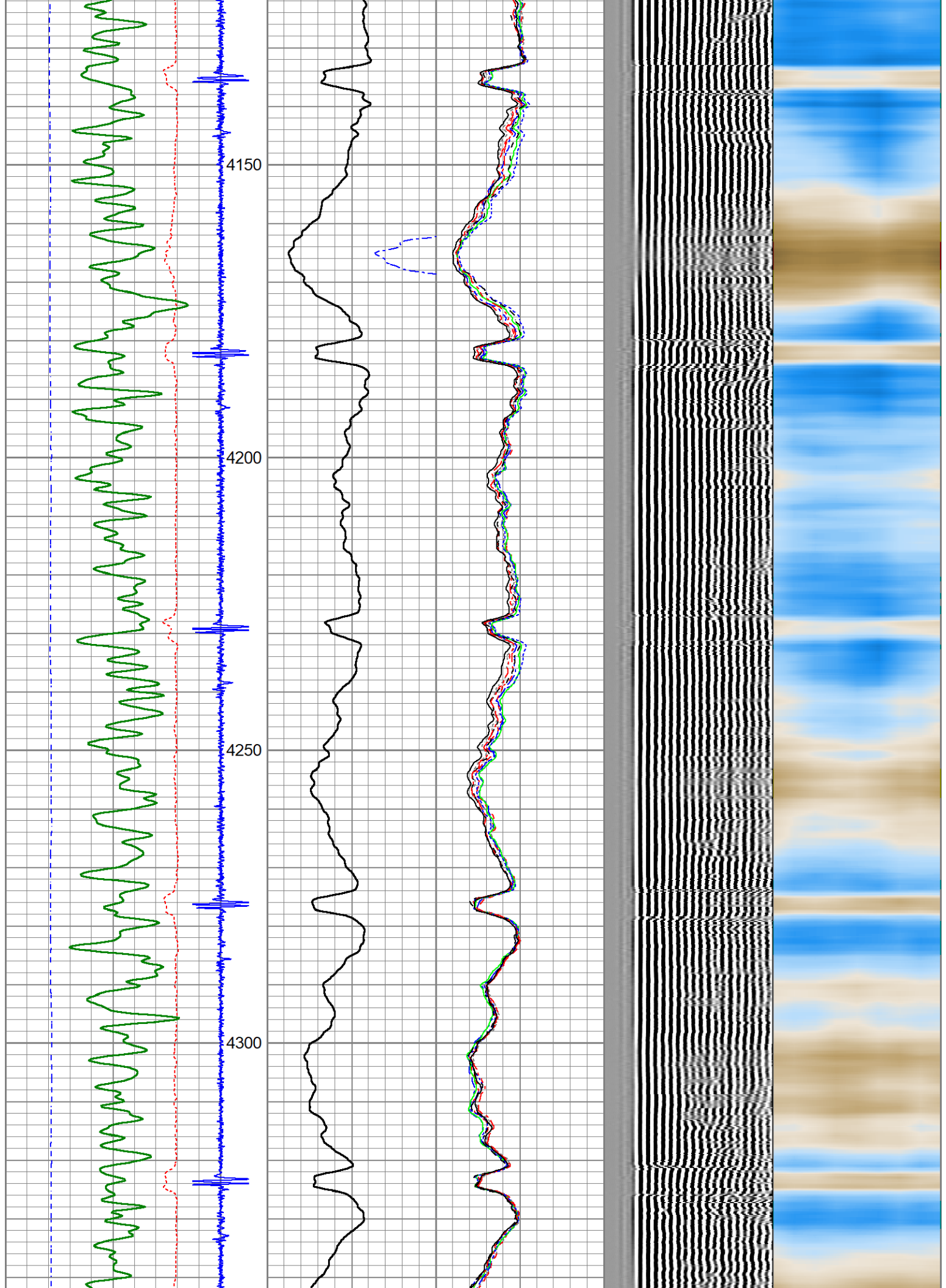


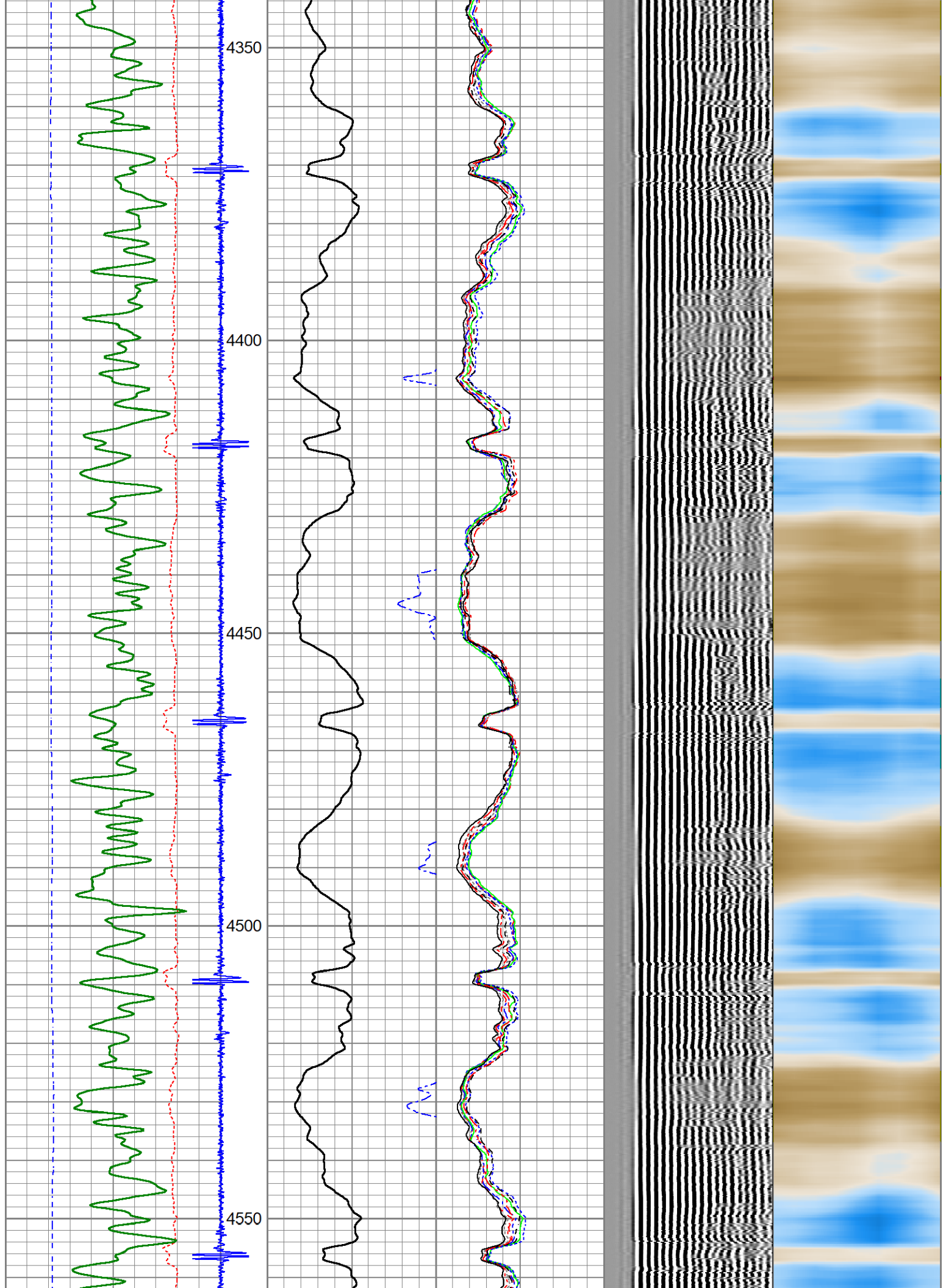




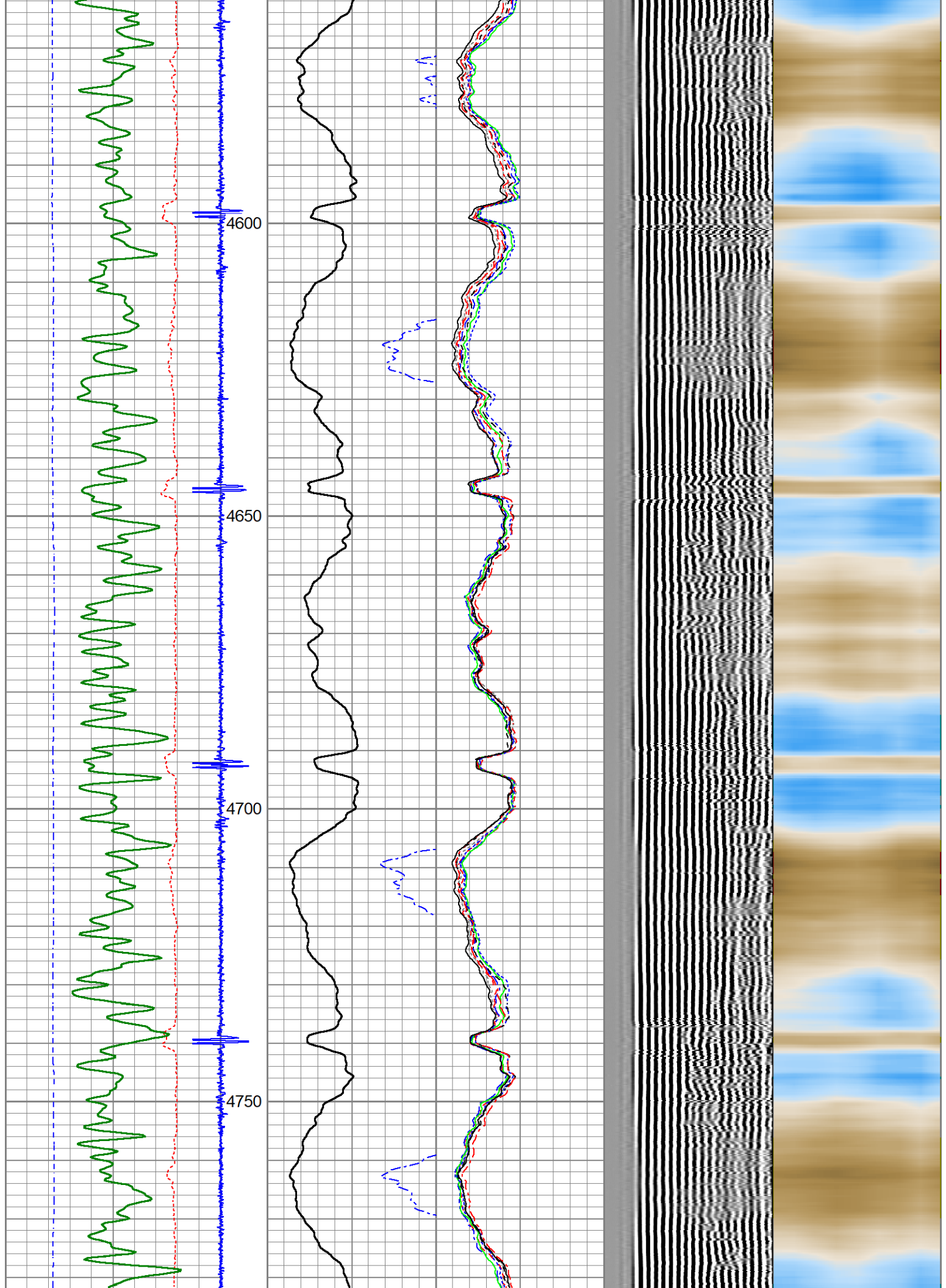


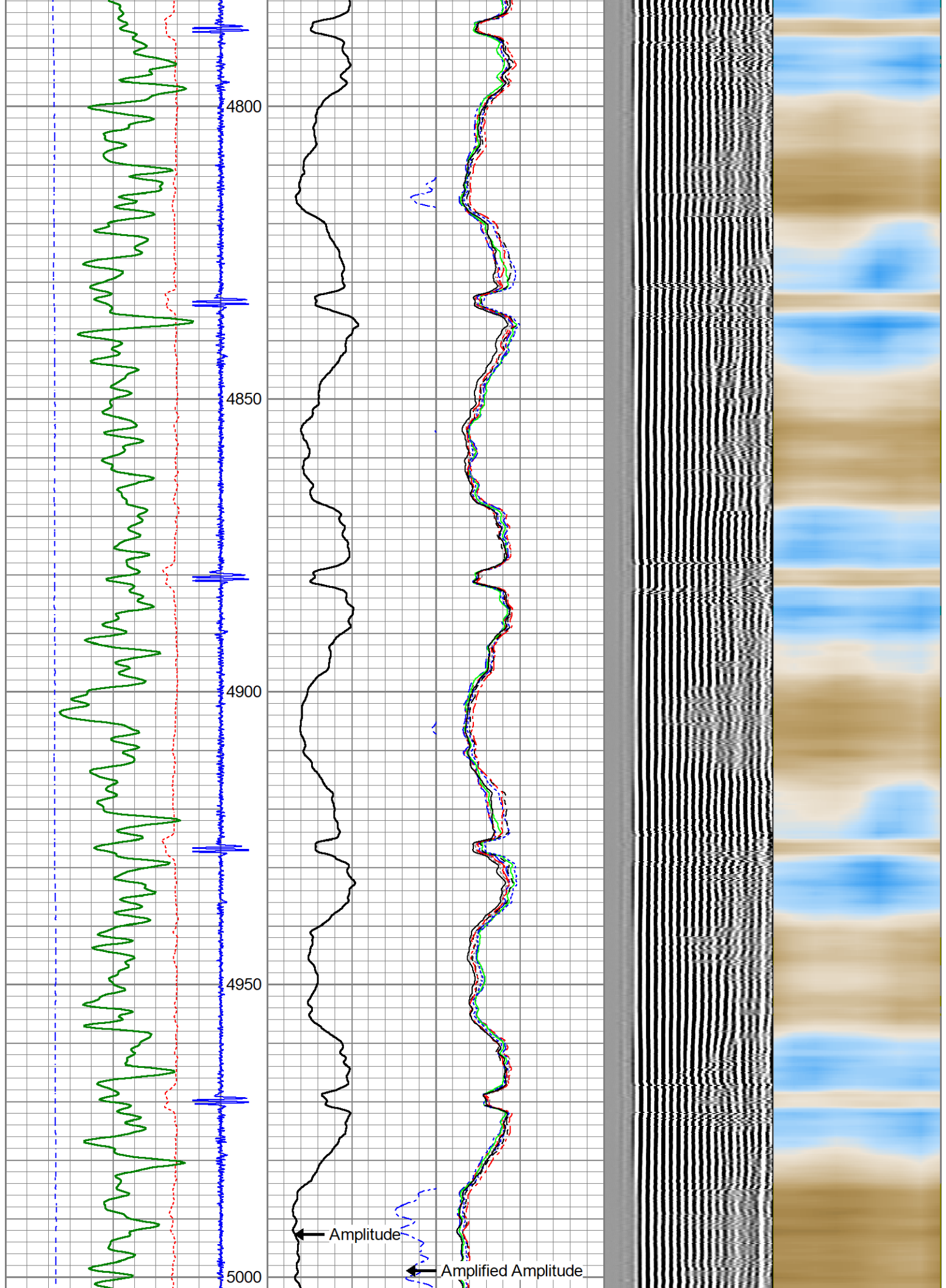




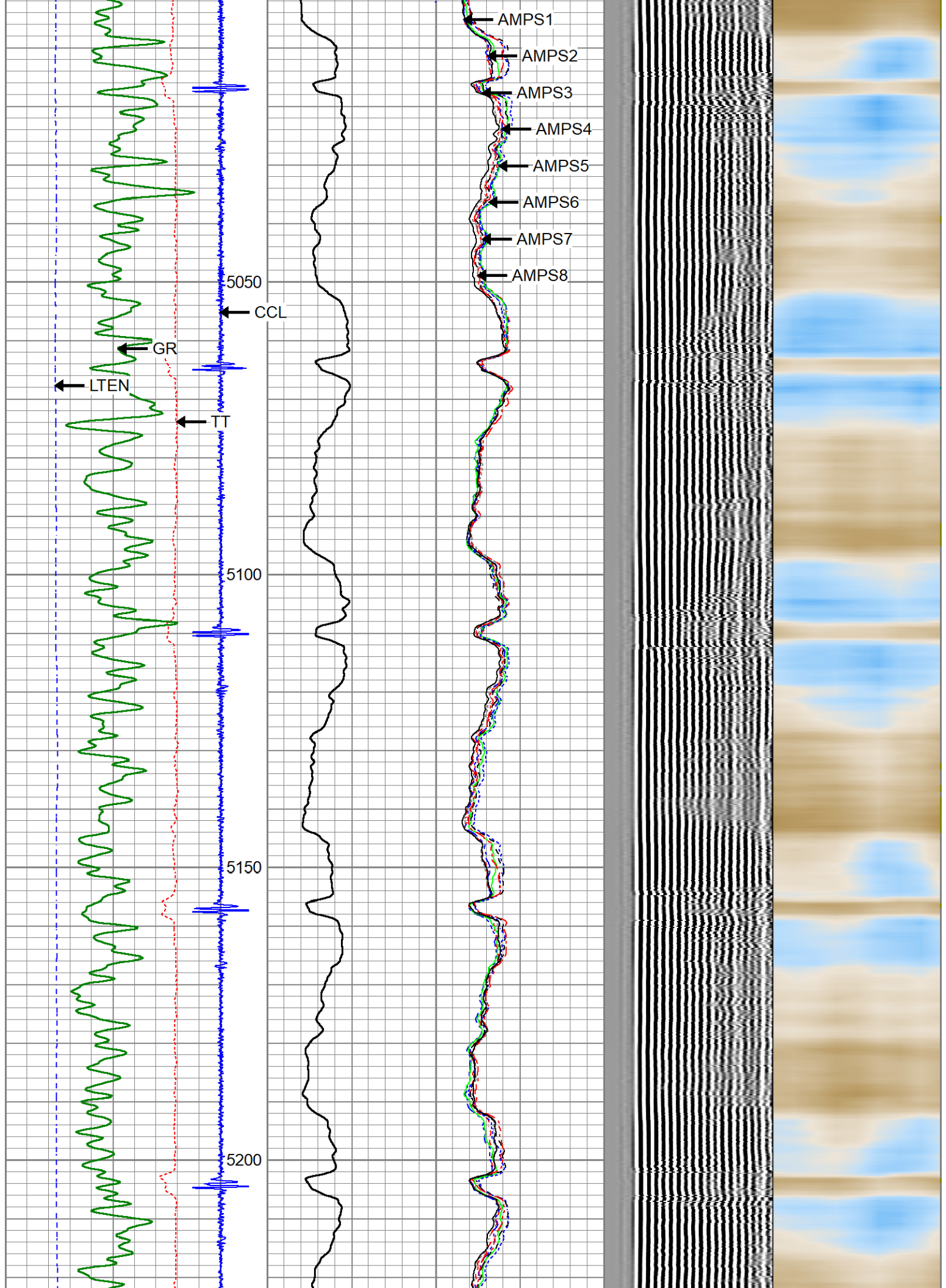


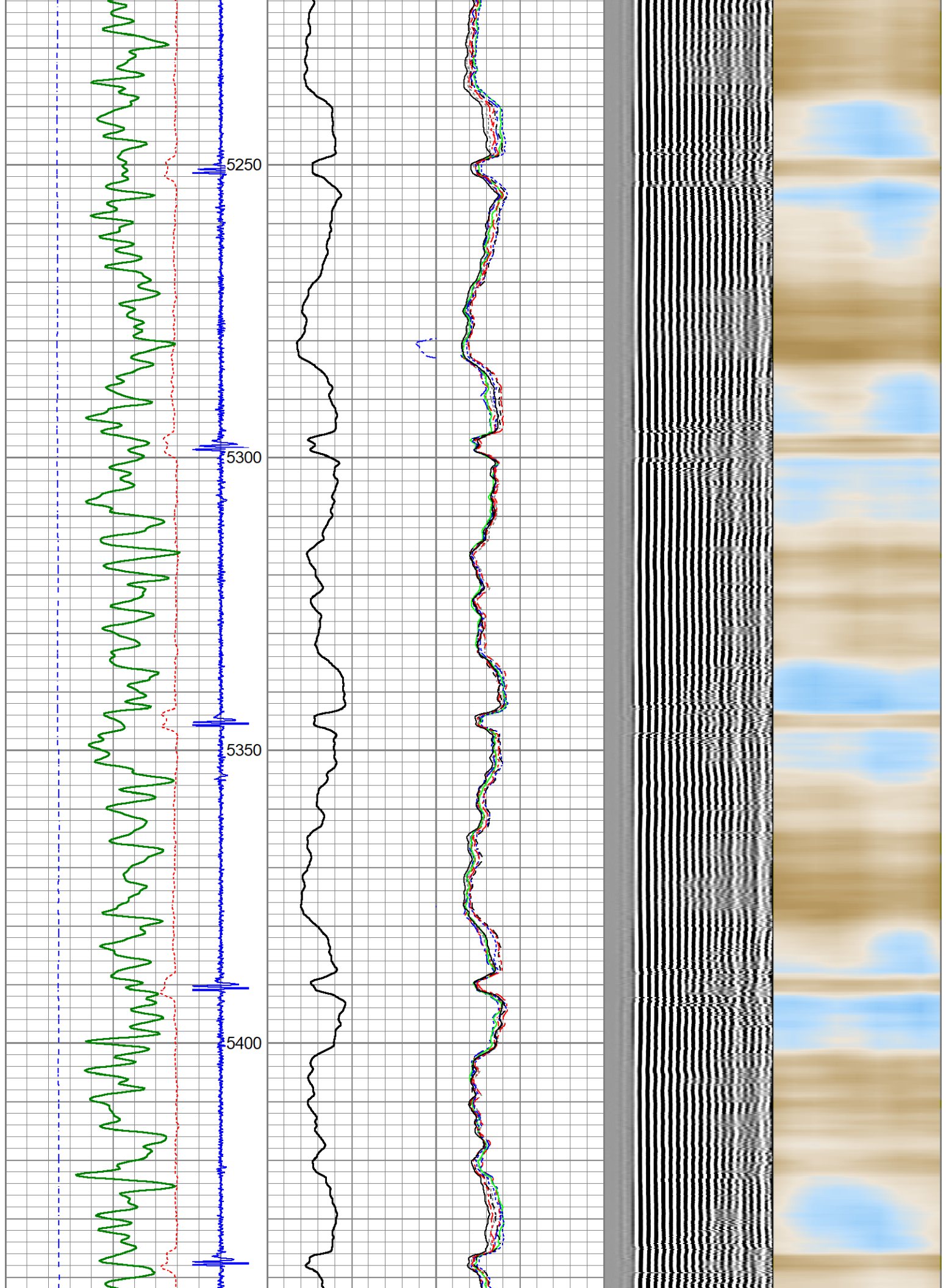


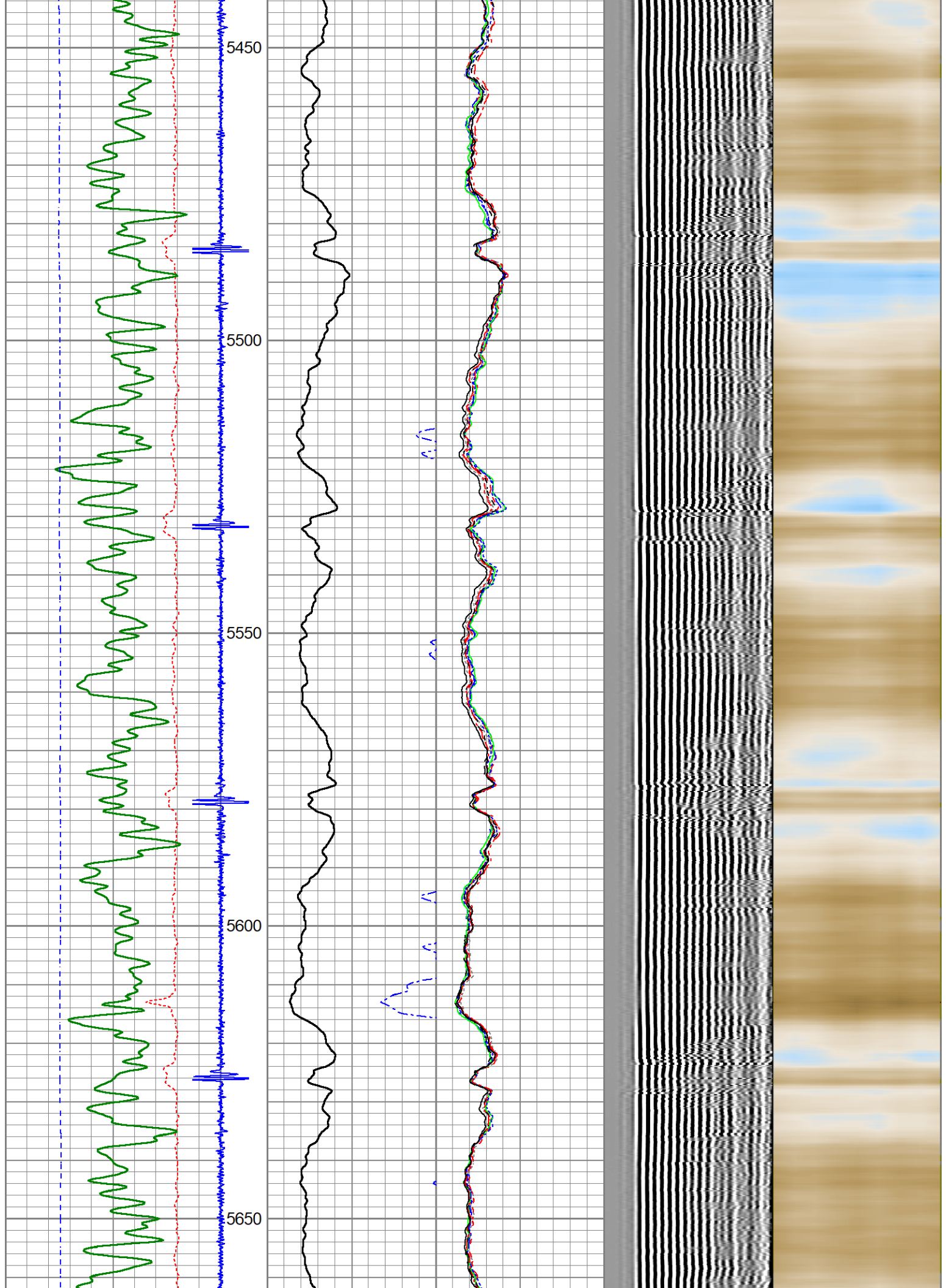




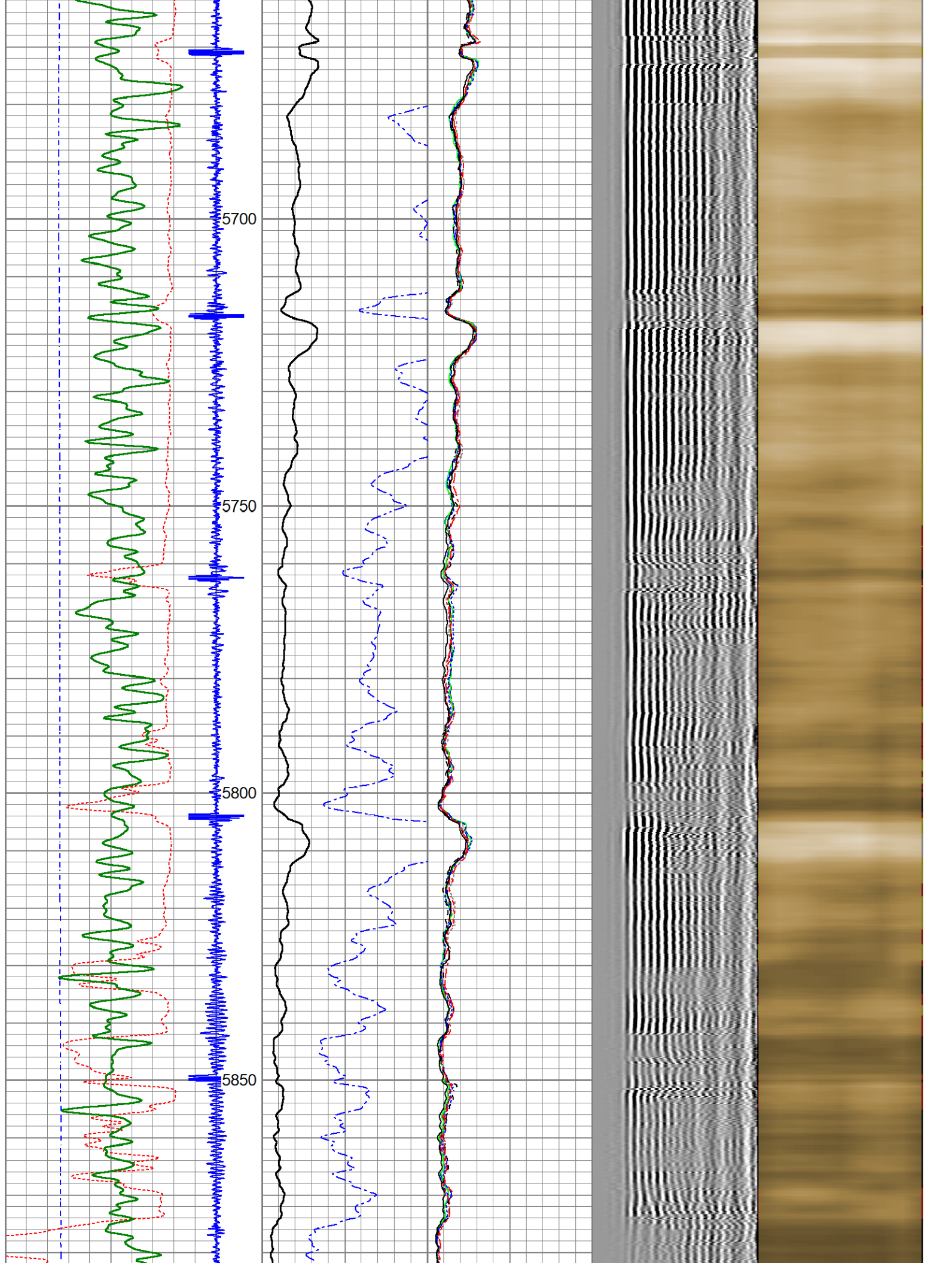




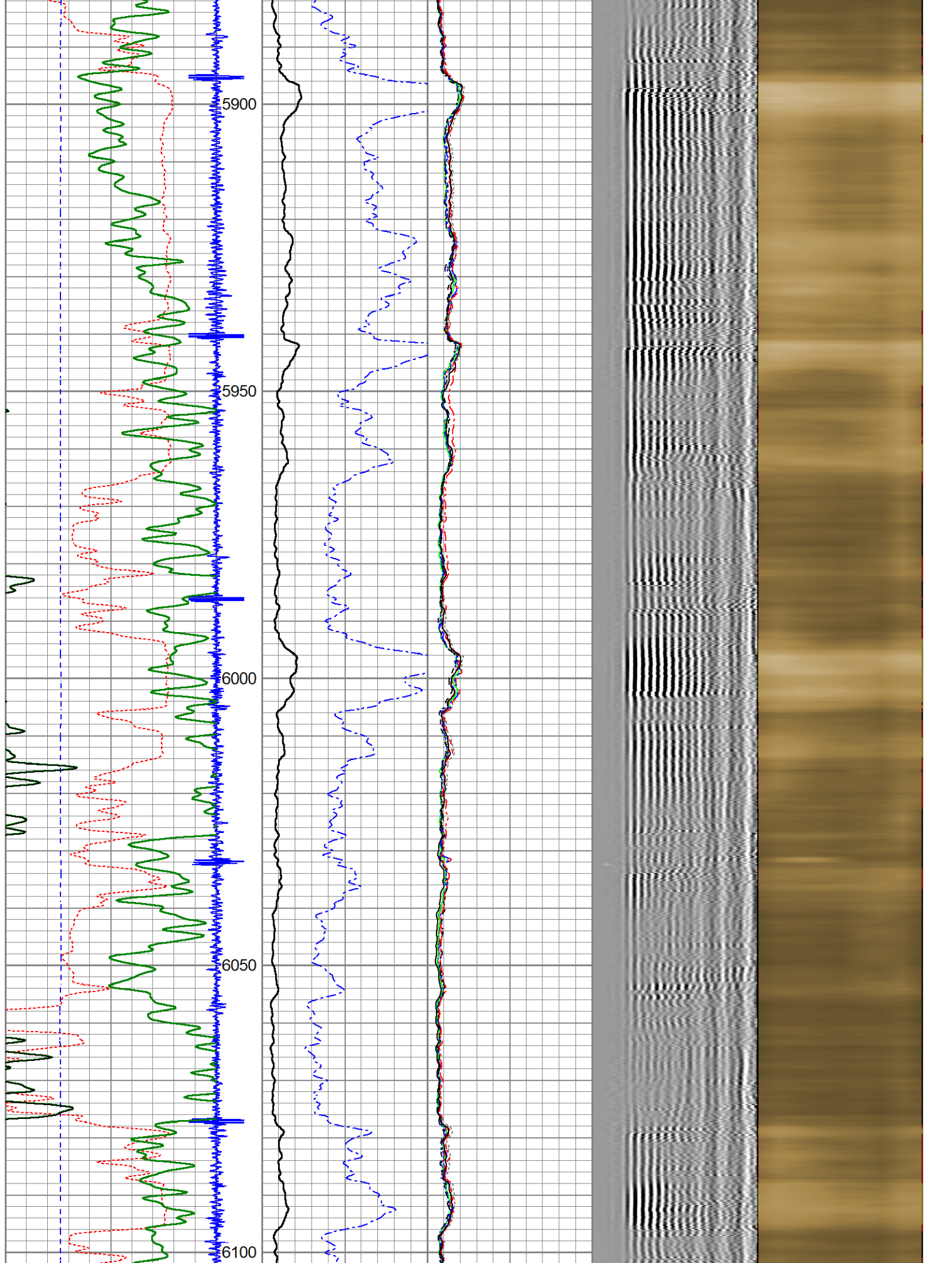


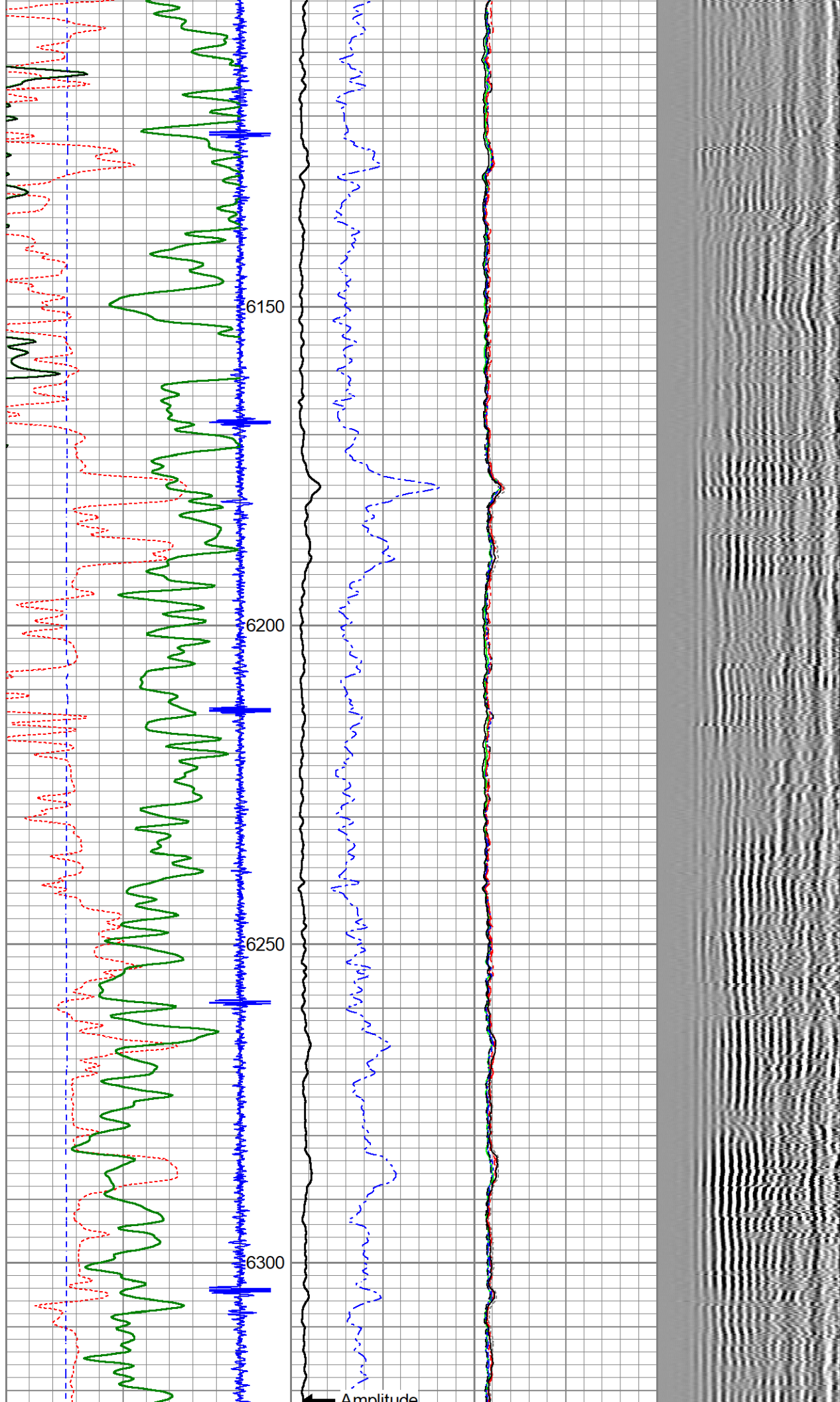


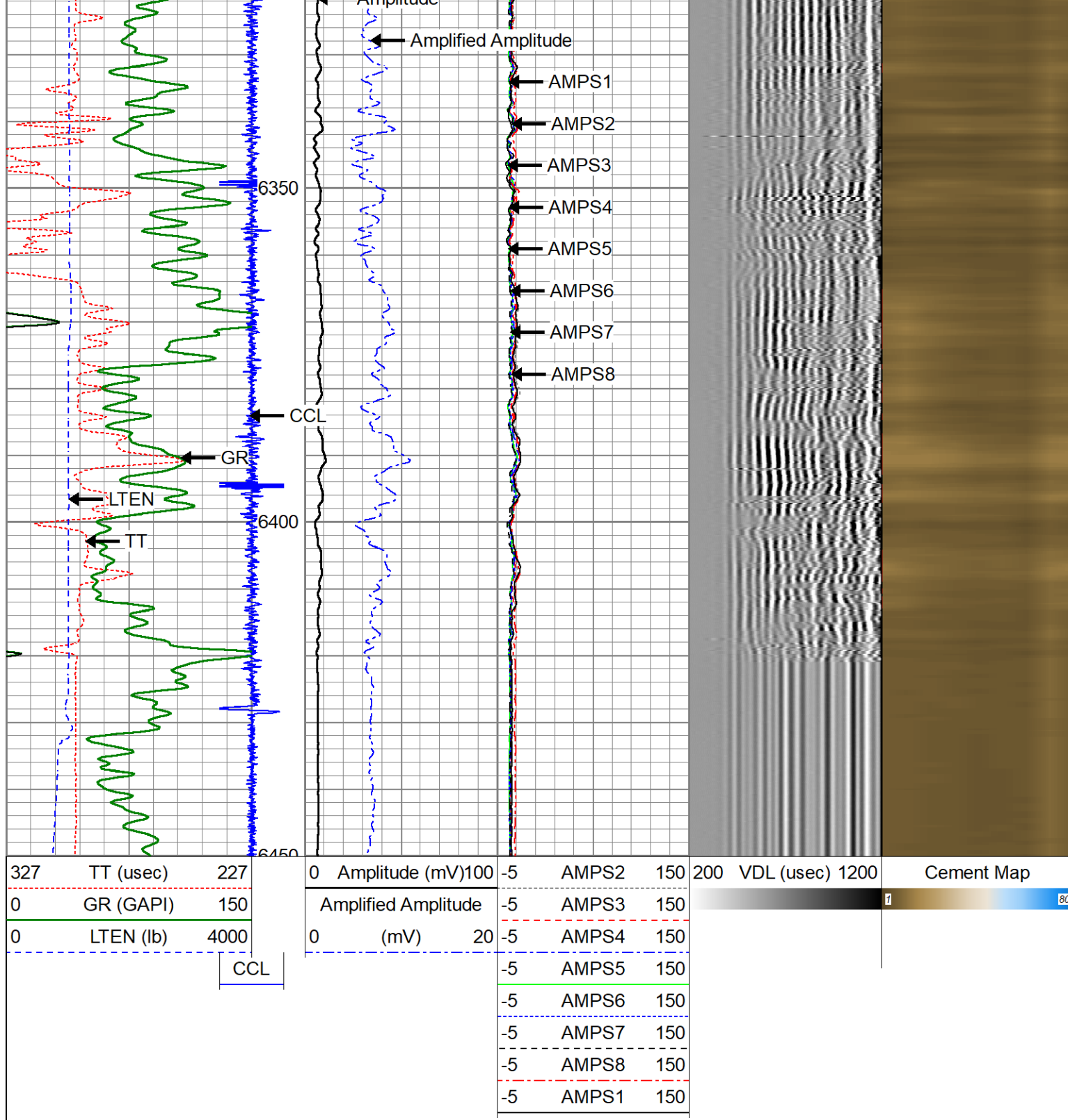








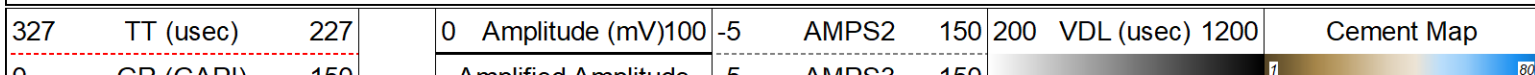




GR Energy Services

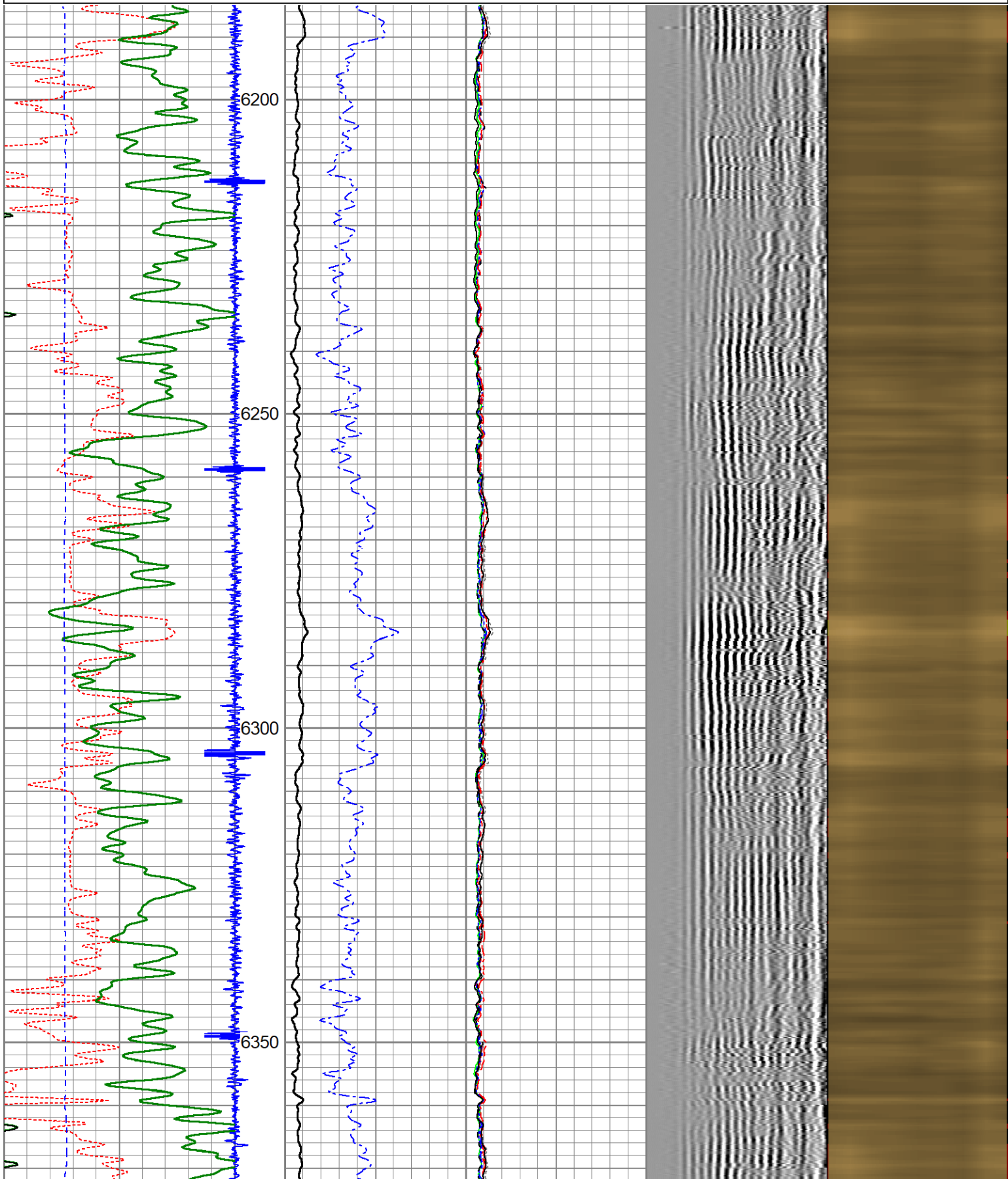
REPEAT PASS

Database File hp\_rsuanfed\_04-62-11-0108c\_cbl\_11oct2018.db  
 Dataset Pathname pass2  
 Presentation Format scbl5\_5  
 Dataset Creation Thu Oct 11 17:03:34 2018  
 Charted by Depth in Feet scaled 1:240

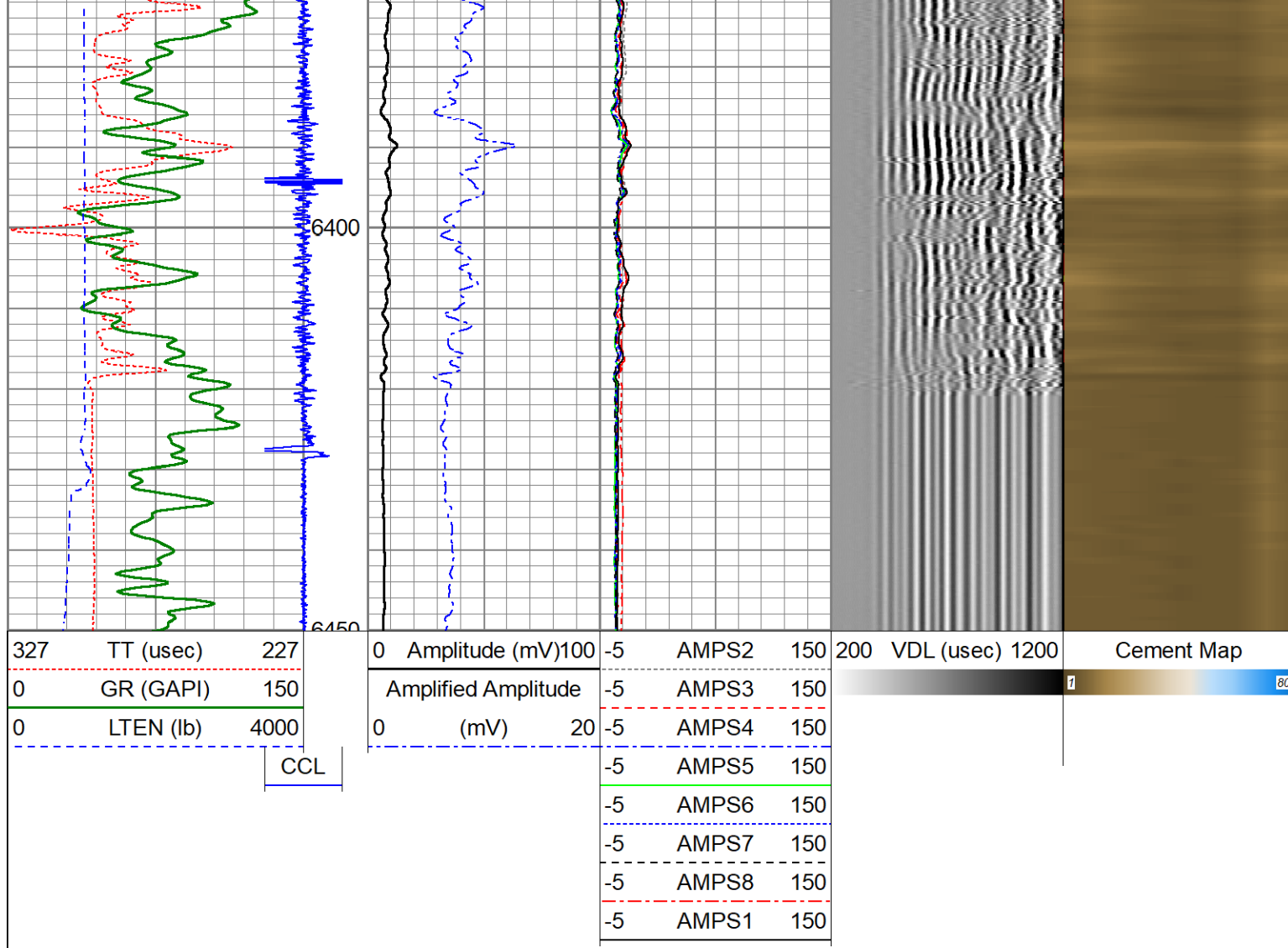




GR (GAPI)		150	Amplified Amplitude		-5	AMPS3	150	
0	LTEN (lb)	4000	0	(mV)	20	-5	AMPS4	150
		CCL			-5	AMPS5	150	
					-5	AMPS6	150	
					-5	AMPS7	150	
					-5	AMPS8	150	
					-5	AMPS1	150	







Calibration Report		
Database File	hp_rsunsfed_04-62-11-0108c_cbl_11oct2018.db	
Dataset Pathname	pass4	
Dataset Creation	Thu Oct 11 17:08:50 2018	

Gamma Ray Calibration Report		
Serial Number:	FW 1805-028	
Tool Model:	10227Digital	
Performed:	(Not Performed)	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Temperature Calibration Report		
Serial Number:	FW 1805-028	
Tool Model:	10227Digital	
Performed:	(Not Performed)	
	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF
Gain:	1.00	

Gain: 1.00  
Offset: 0.00  
Delta Spacing: 1

### Segmented Cement Bond Log Calibration Report

Serial Number: FW 1804-082  
Tool Model: 10627  
  
Calibration Casing Diameter: 4.500 in  
Calibration Depth: 2134.192 ft

Master Calibration, performed Thu Oct 11 09:53:16 2018:

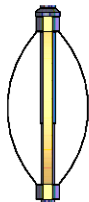
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	0.478	1.000	81.196	170.703	-0.329
CAL	0.012	0.780				
5'	0.021	0.398	1.000	81.196	212.315	-3.354
SUM						
S1	0.004	0.487	1.800	100.000	203.350	0.944
S2	0.007	0.471	1.800	100.000	211.643	0.389
S3	0.007	0.456	1.800	100.000	218.846	0.272
S4	0.007	0.451	1.800	100.000	221.162	0.245
S5	0.009	0.452	1.800	100.000	221.998	-0.246
S6	0.007	0.488	1.800	100.000	204.259	0.366
S7	0.005	0.529	1.800	100.000	187.335	0.821
S8	0.007	0.543	1.800	100.000	183.218	0.447

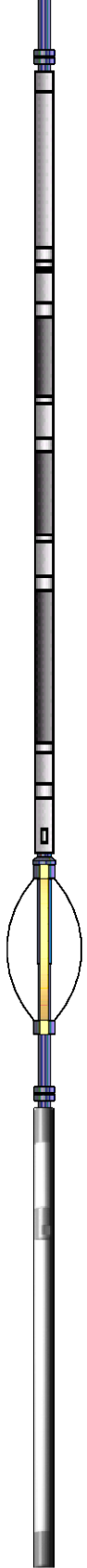
Internal Reference Calibration, performed Fri Jul 20 08:35:42 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.012	0.780	1.000	0.000

Air Zero Calibration, performed Thu Jul 26 10:13:44 2018:

	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	Length (ft)	O.D. (in)	Weight (lb)
			CENT-PTS275	2.83	2.75	24.00

WVFS8	12.29		RBT-10627 (FW 1804-082) (10627) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFS7	12.29					
WVFS6	12.29					
WVFS5	12.29					
WVFS4	12.29					
WVFS3	12.29					
WVFS2	12.29					
WVFS1	12.29					
WVFCAL	12.29					
WV3FT	12.29					
WV5FT	11.21					
			CENT-PTS275	2.83	2.75	24.00
CCL	3.64					
TEMP	3.50					
GR	2.30		GR-10227Digital (FW 1805-028) (10227) Probe 2.75" 4 Channel Digital Gamma Ray	5.13	2.75	30.00
Dataset: hp_rsuanfed_04-62-11-0108c_cbl_11oct2018.db: field/well/run1/pass4 Total length: 19.54 ft Total weight: 168.00 lb O.D.: 2.75 in						

	County	WELD	
	State	COLORADO	Country