



WARRIOR
ENERGY SERVICES

RADIAL CEMENT BOND LOG
GAMMA RAY
CCL

Company		Kerr McGee Oil & Gas	
Well		HARKIS 3	
Field		Wattenberg	
County		Weld	
State		CO	
Location:		API # : 05-123-10443	
SHL: 1430' FNL 1650' FWL NW/SE LAT: 40.17020 LONG: -104.63410 SEC 2 TWP 2N RGE 65W		Other Services	
Permanent Datum		GL	Elevation 4843'
Log Measured From		KB 10'	K.B. 4853'
Drilling Measured From		KB	D.F. 4852'
			G.L. 4843'
Date	2-23-15		
Run Number	ONE		
Depth Driller	7820'		
Depth Logger	6708'		
Bottom Logged Interval	6705'		
Top Log Interval	Surface		
Open Hole Size	7 7/8		
Type Fluid	WATER		
Density / Viscosity	1.0		
Max. Recorded Temp.	207		
Estimated Cement Top	482'		
Time Well Ready	NA		
Time Logger on Bottom	NA		
Equipment Number	7770		
Location	GREELEY		
Recorded By	A.STEERMAN		
Witnessed By	R.VIERA		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
		Size	Weight
		From	To
Casing Record	Size	Wgt/Ft	Top
Surface String	8 5/8	24#	0
Prot. String			
Production String	4 1/2	11.6#	0
Liner			

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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

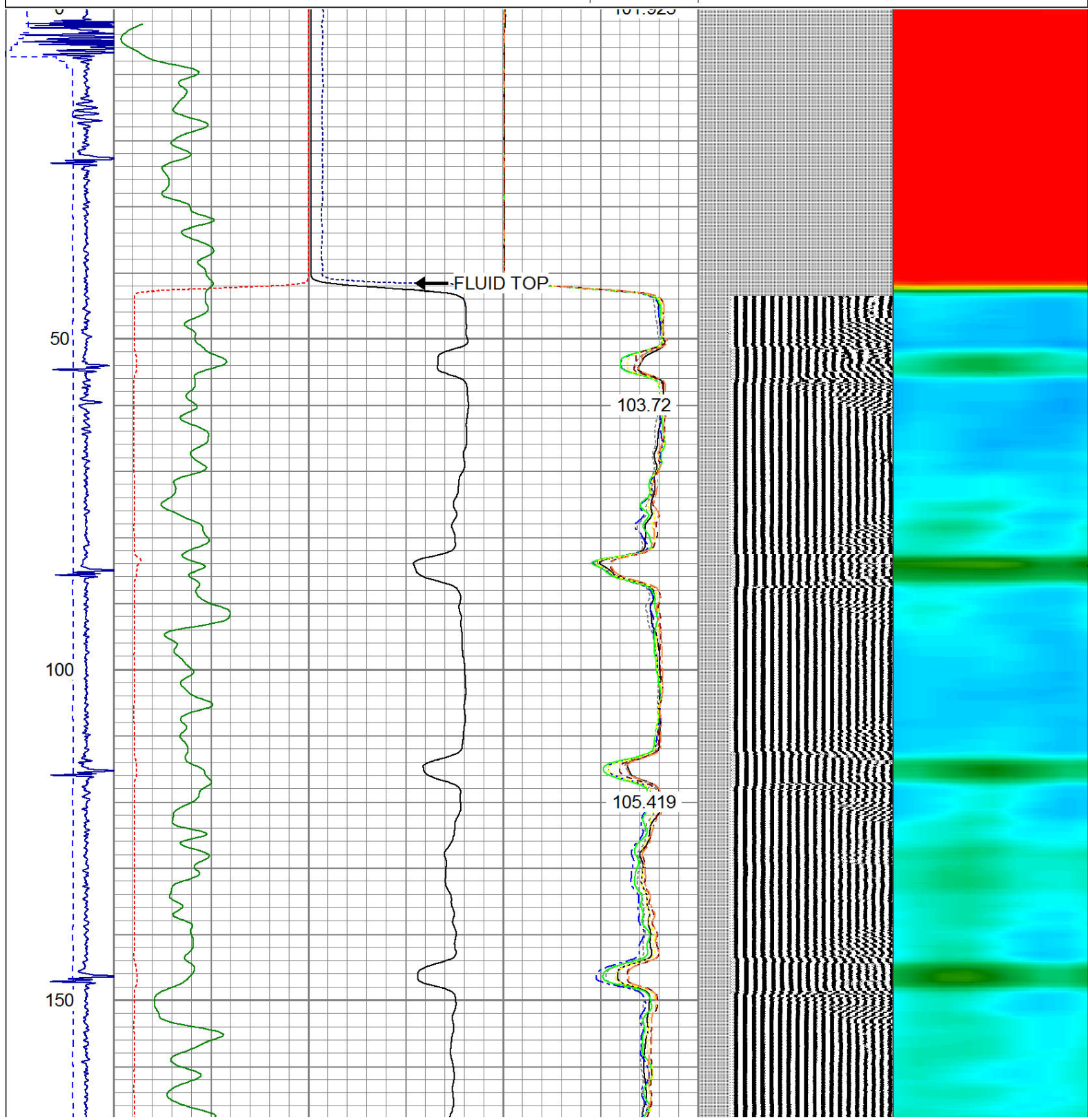
NOT CORROLATED
WELL LOADED AND READY UPON ARRIVAL
RAN CBL TO VERIFY CEMENT.

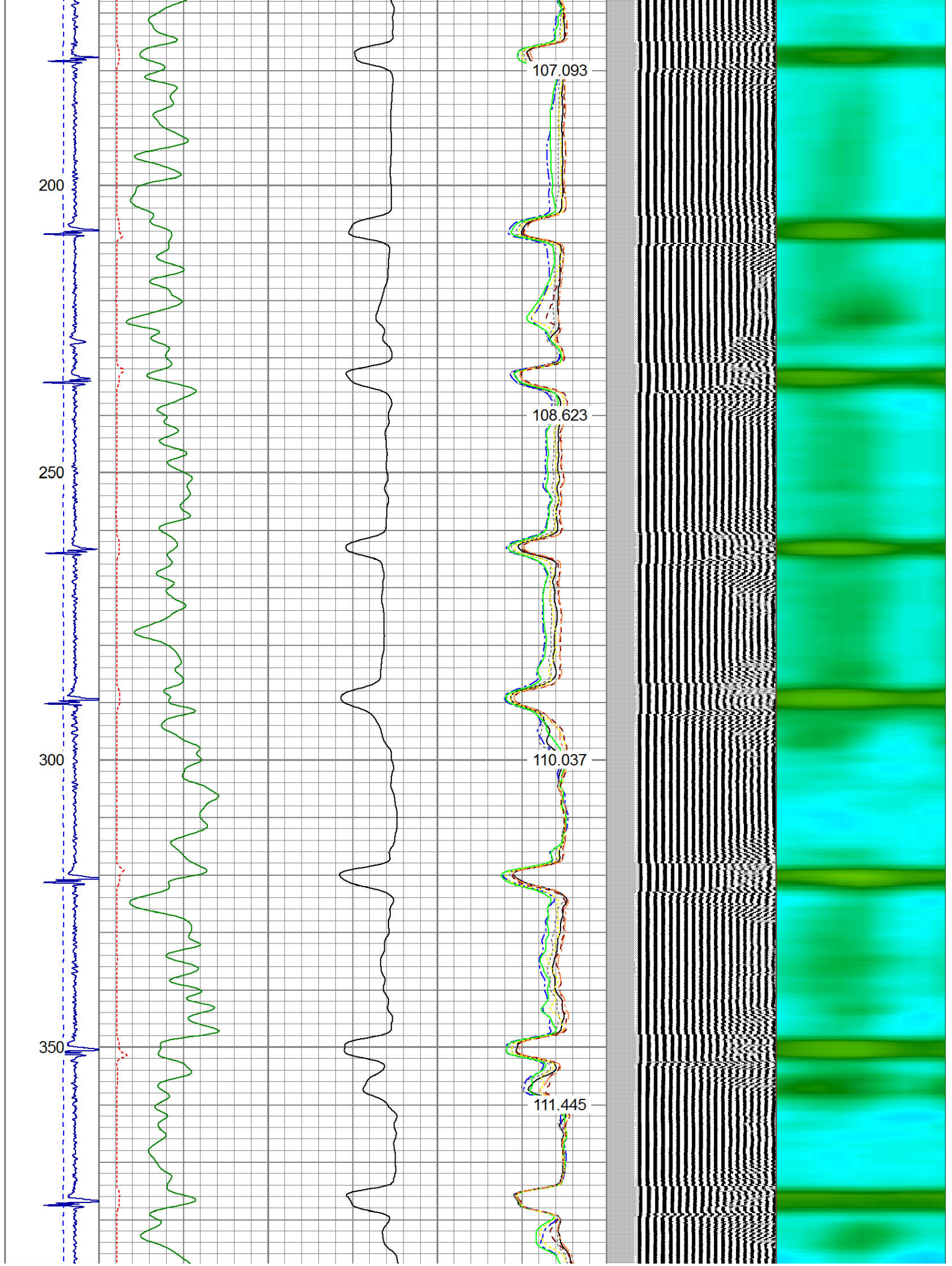
THANK YOU FOR USING WARRIOR ENERGY!

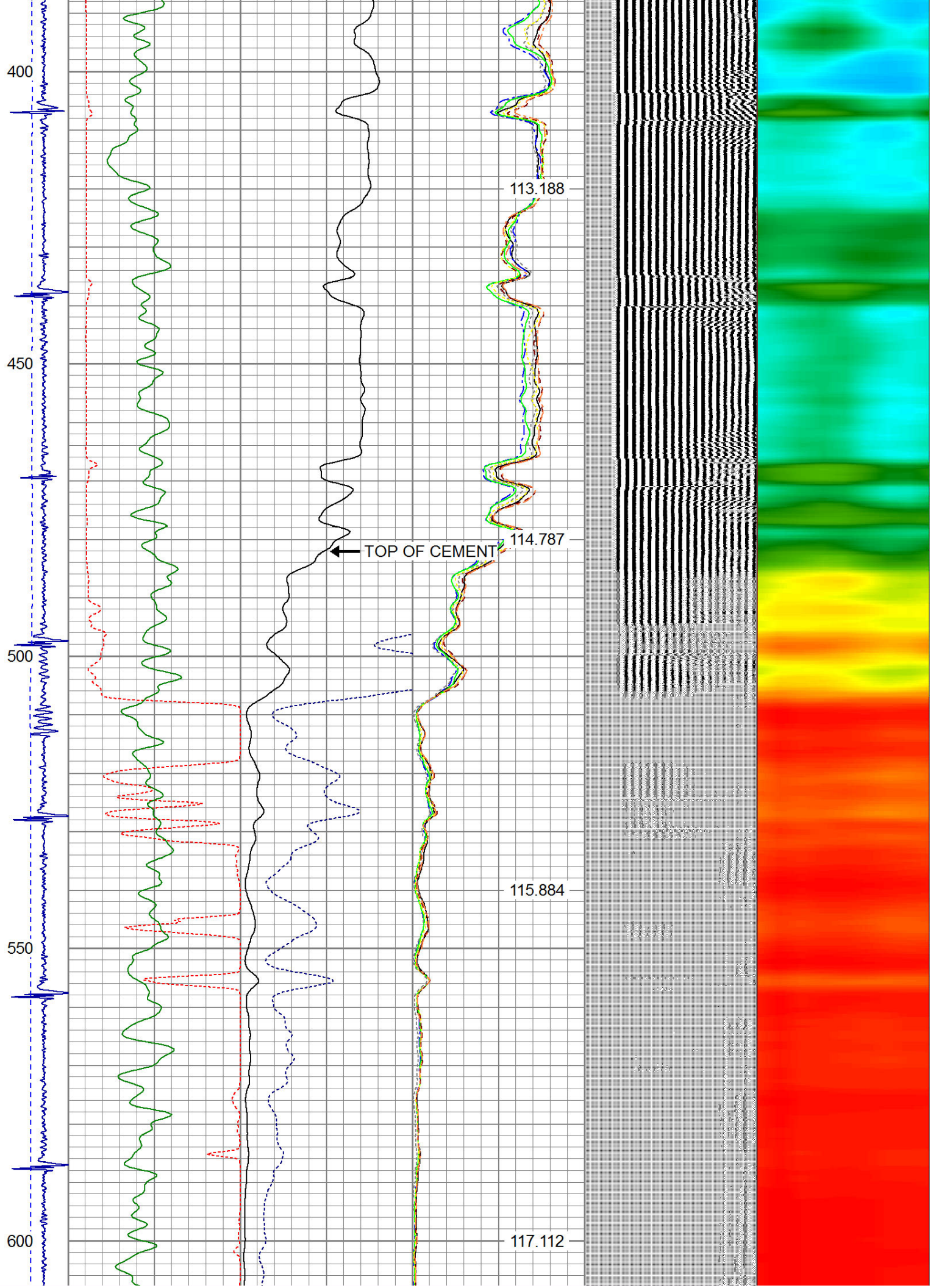
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)

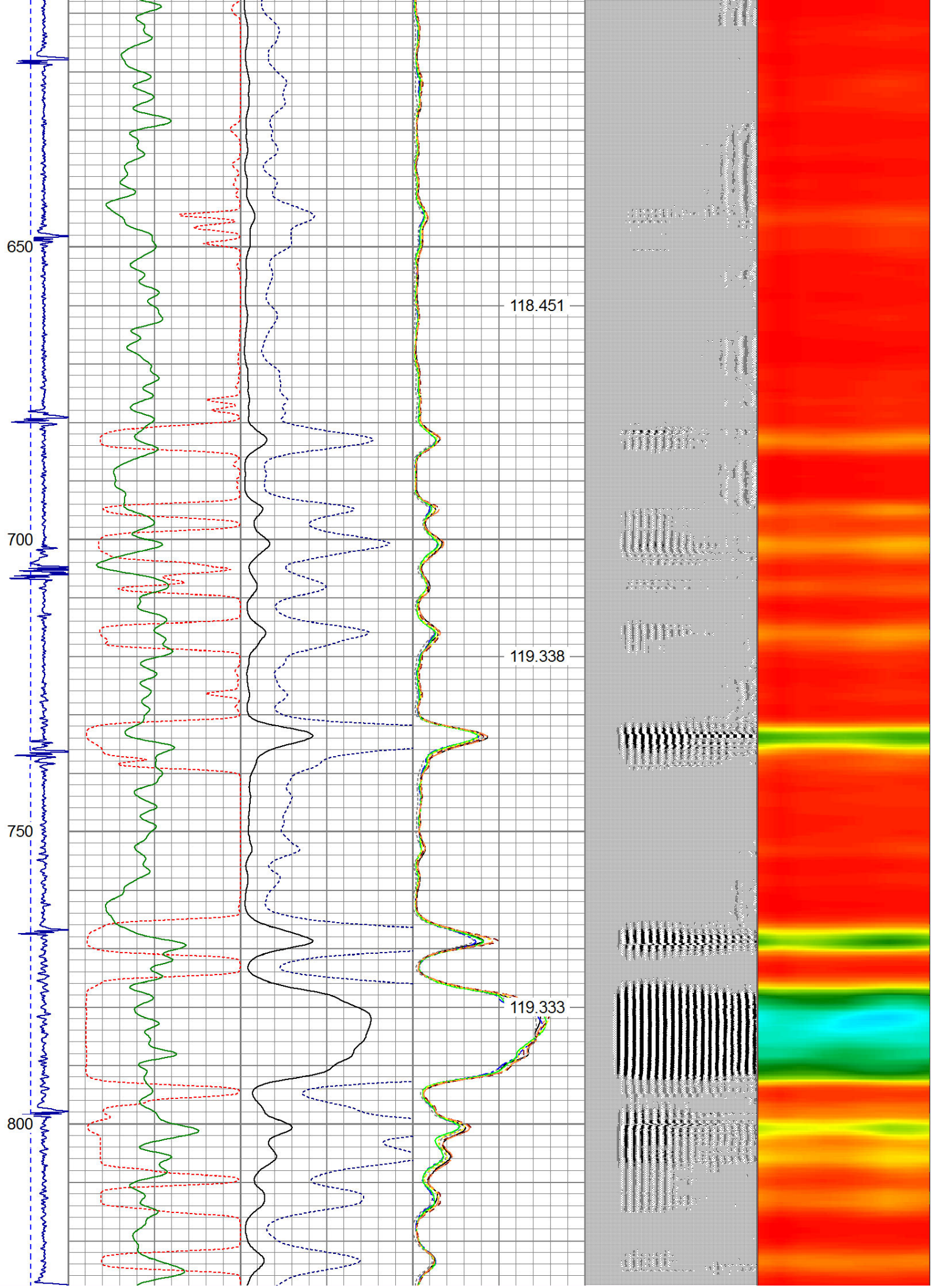
			CENT #2 -Probe (PTS_MONO)	3.00	2.75	35.00
HEADVOLT	16.25					
IntTemp	14.83					
WVF3FT	11.58		RBT-Probe (Base)	8.92	2.75	90.00
WVFCAL	11.58		Probe Radii Bond Tool with Digital Telemetry			
WVFS1	11.58					
WVFS2	11.58					
WVFS3	11.58					
WVFS4	11.58					
WVFS5	11.58					
WVFS6	11.58					
WVFS7	11.58					
WVFS8	11.58					
WVF5FT	10.58					
			CENT-Probe (PT_MONO2)	3.00	2.75	35.00
CCL	3.64					
			GR-Probe (275)	4.33	2.75	30.00
GR	0.90		Probe 2.75"			
Dataset: viera.db: field/well/run1/pass2 Total Length: 19.25 ft Total Weight: 190.00 lb O.D. 2.75 in						

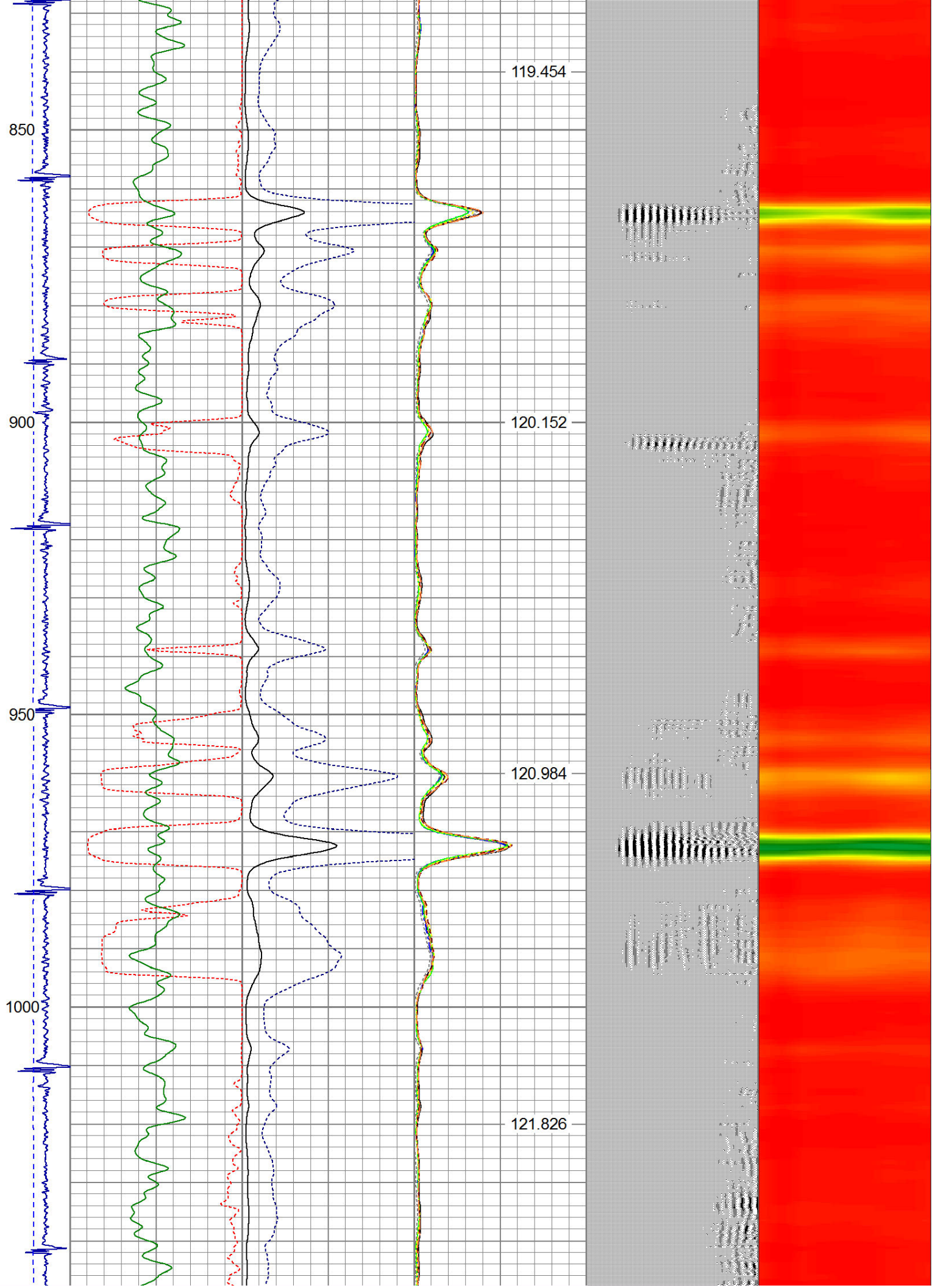
-9	CCL	3	200	TT (usec)	800	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
LSPD			0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100				1		100
(ft/min)			200	GR (GAPI)	400				0	AMPS4	100						
0	-250								0	AMPS5	100						
									0	AMPS6	100						
									0	AMPS7	100						
									0	AMPS8	100						
										IntTemp							
										(degF)							

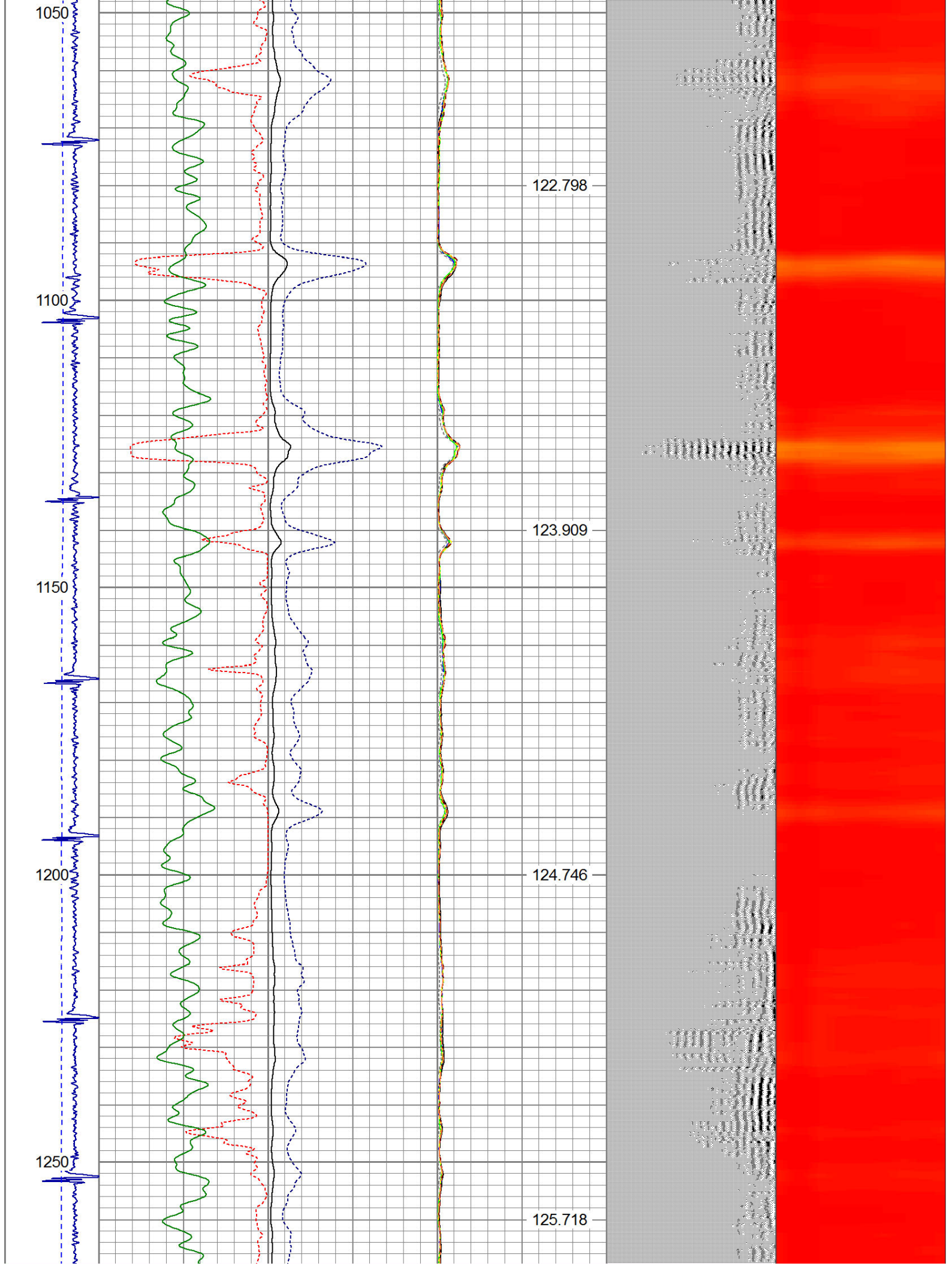












1300

1350

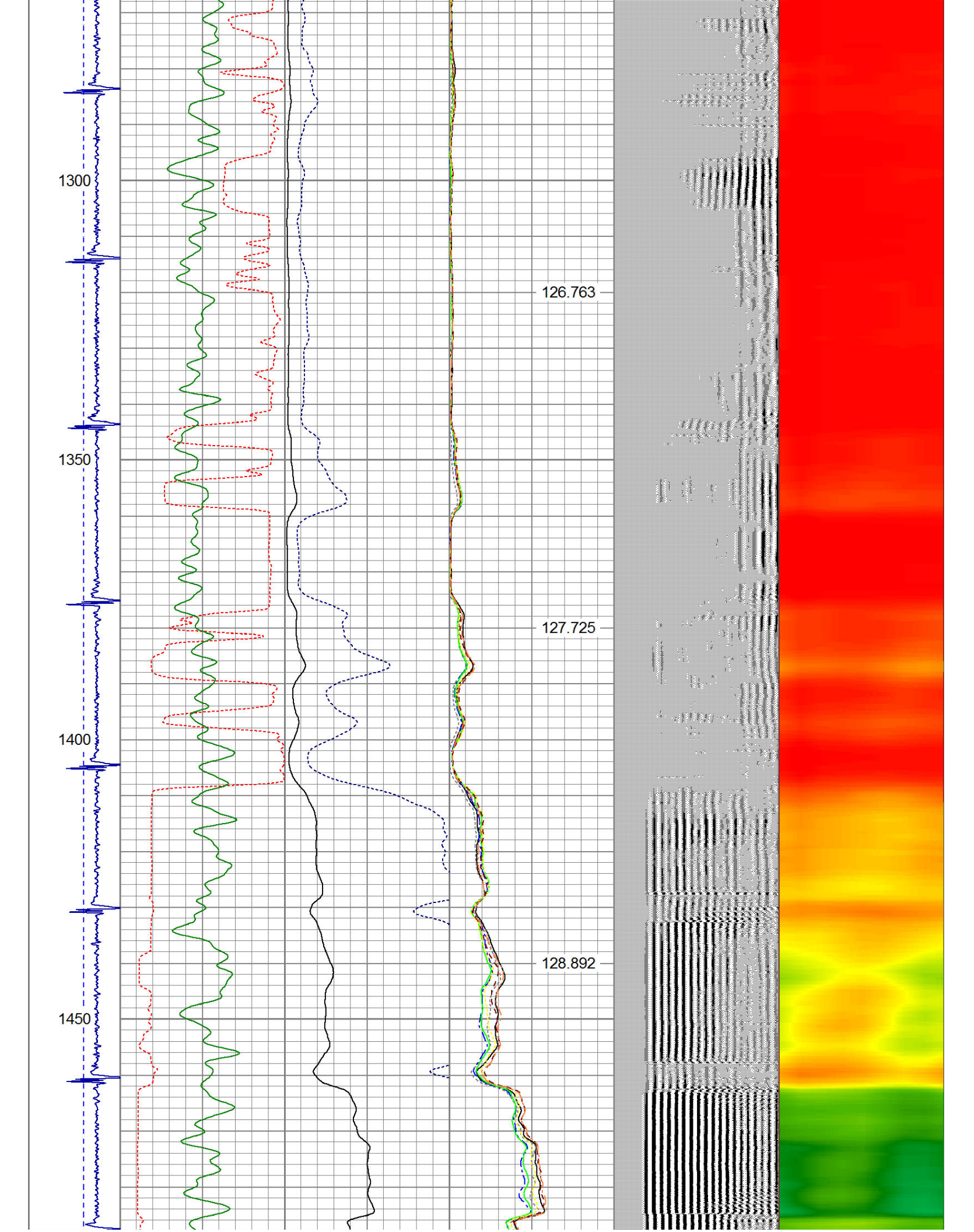
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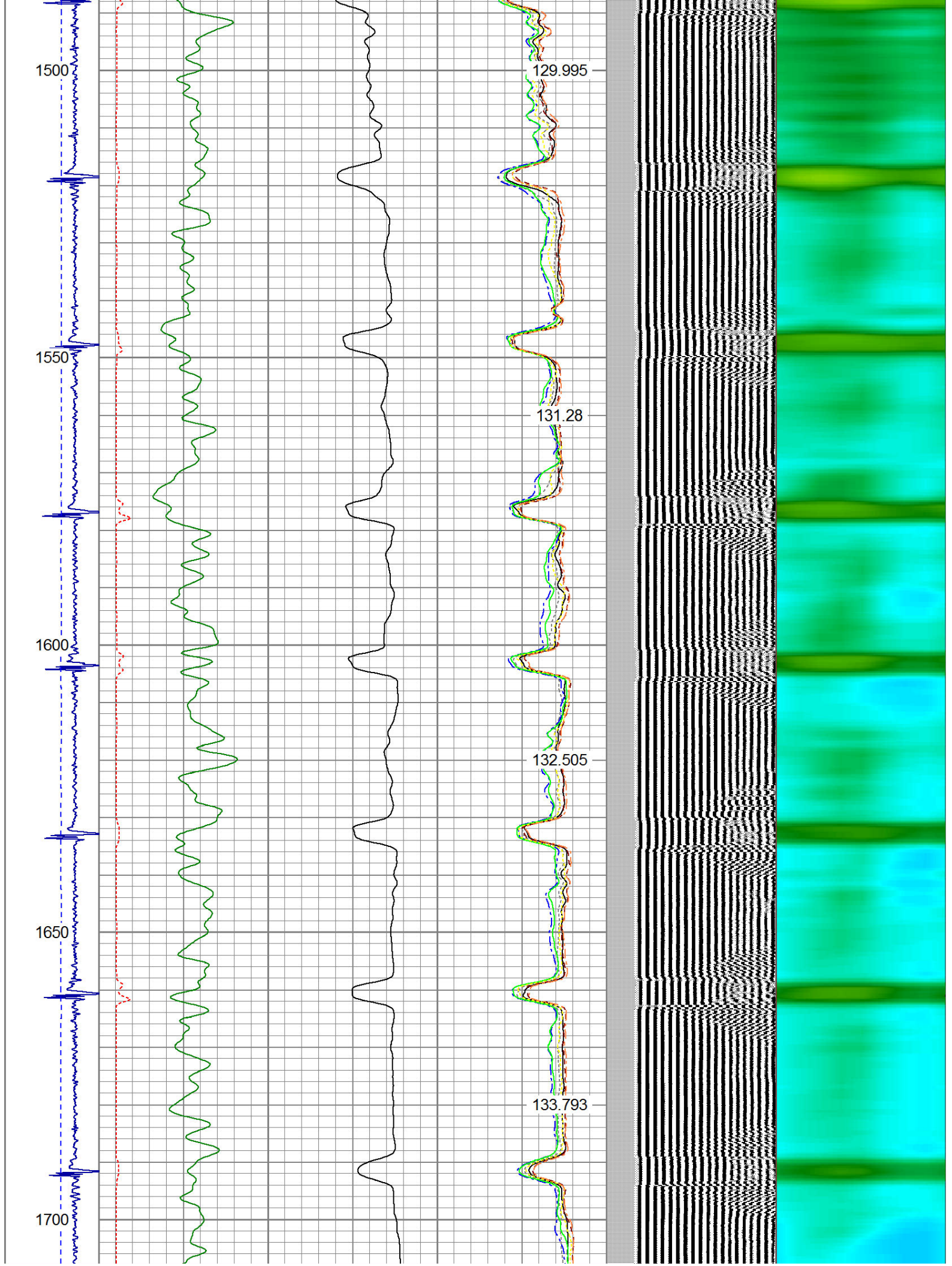
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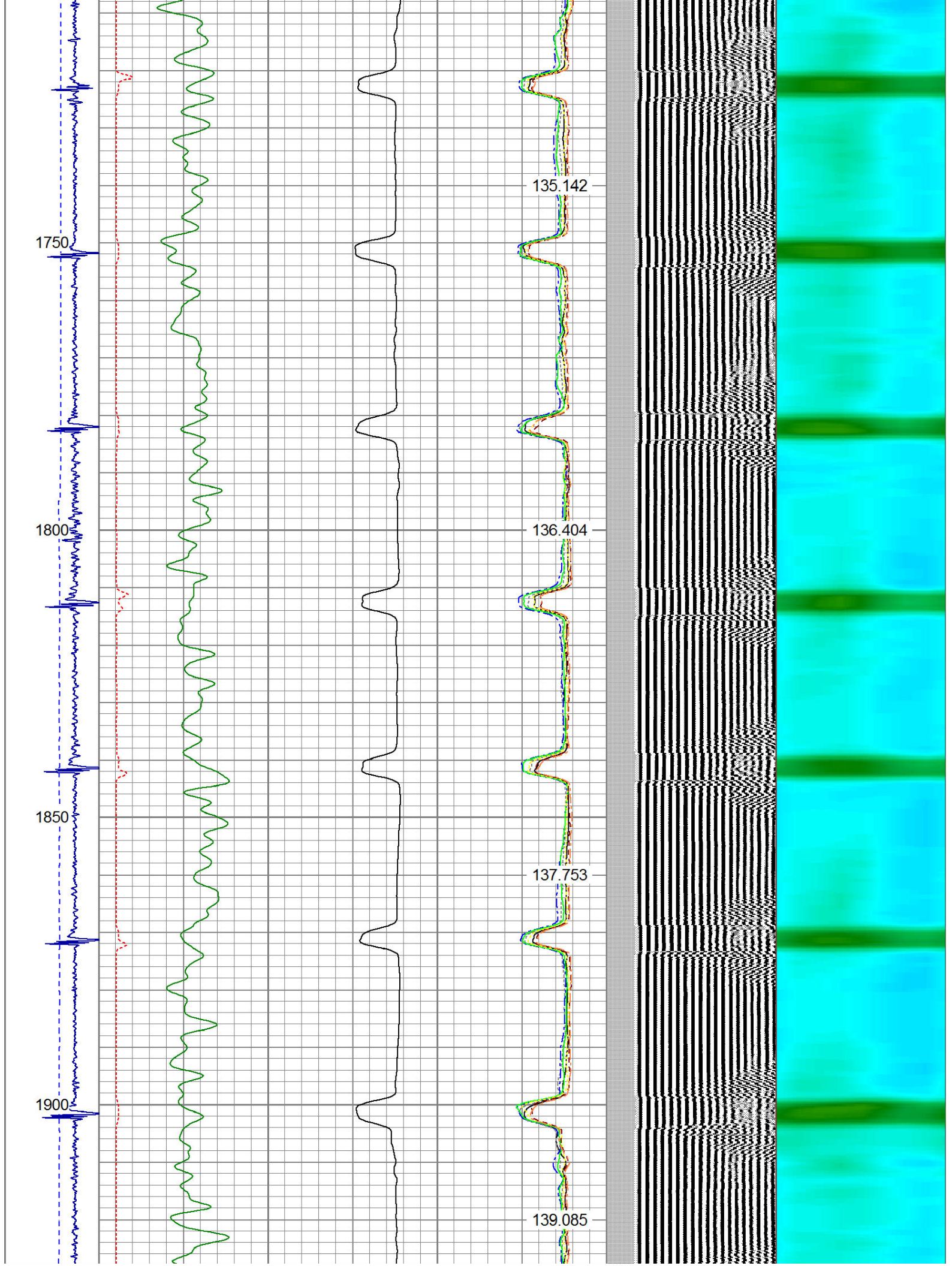
126.763

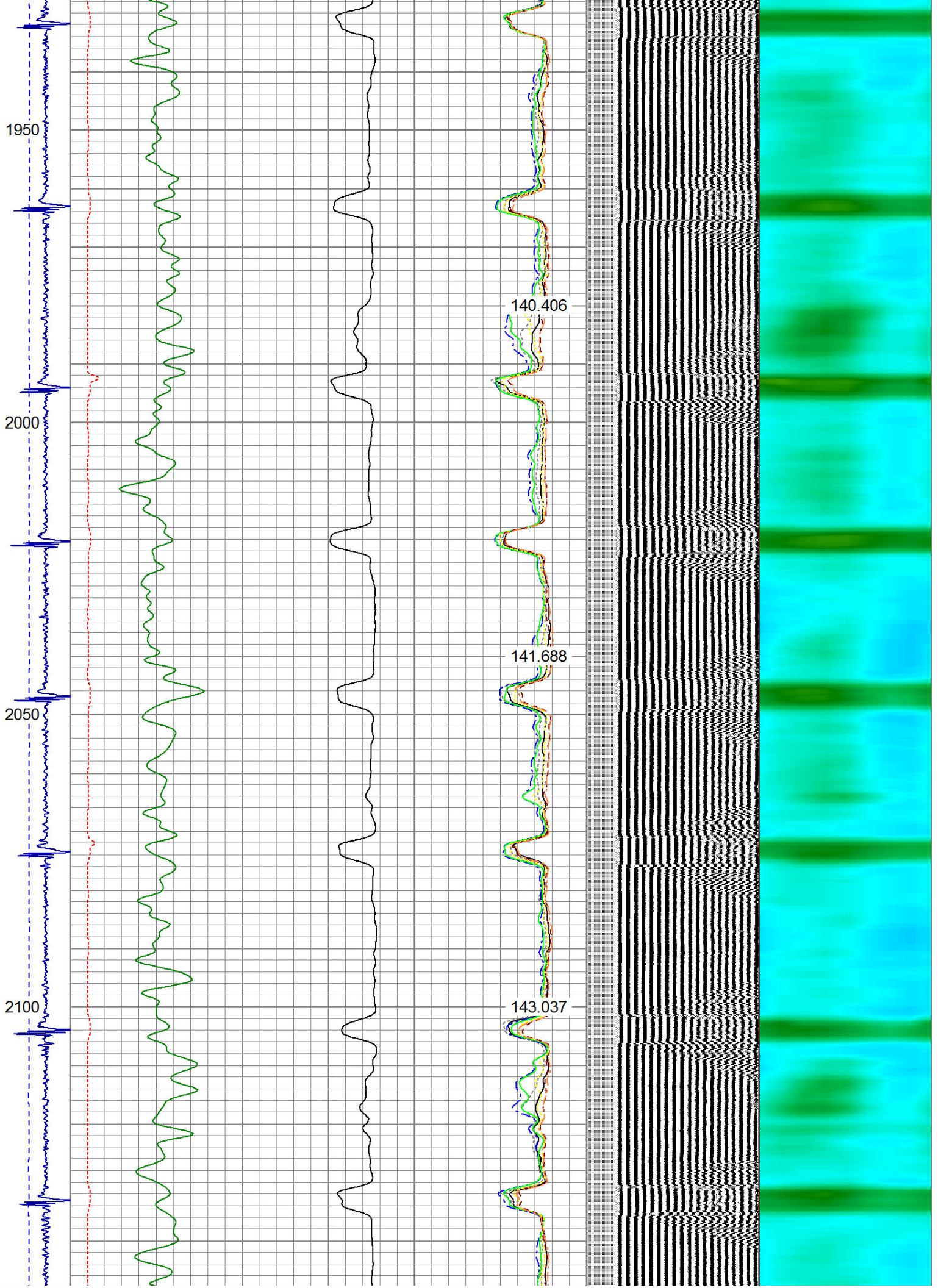
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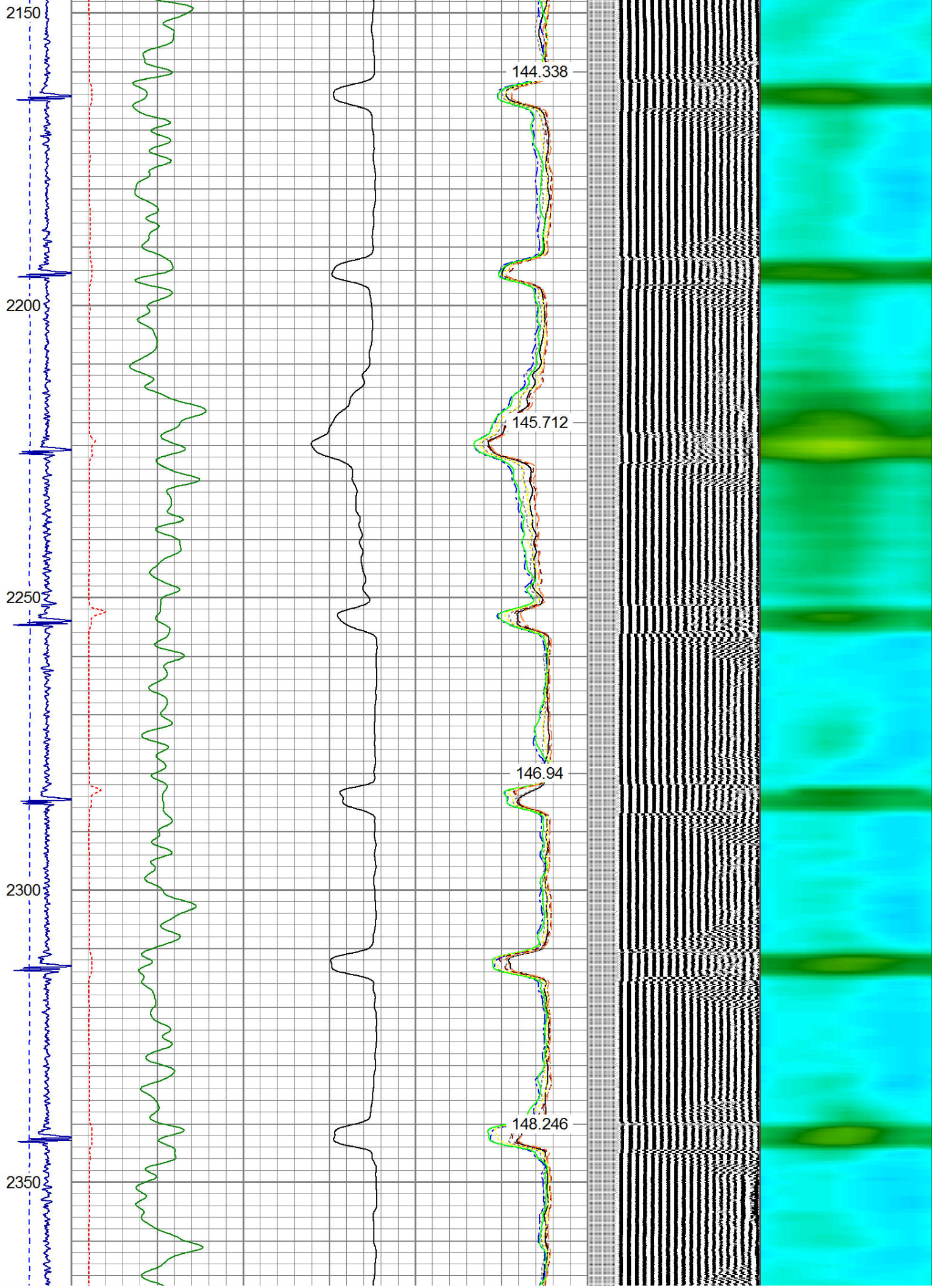
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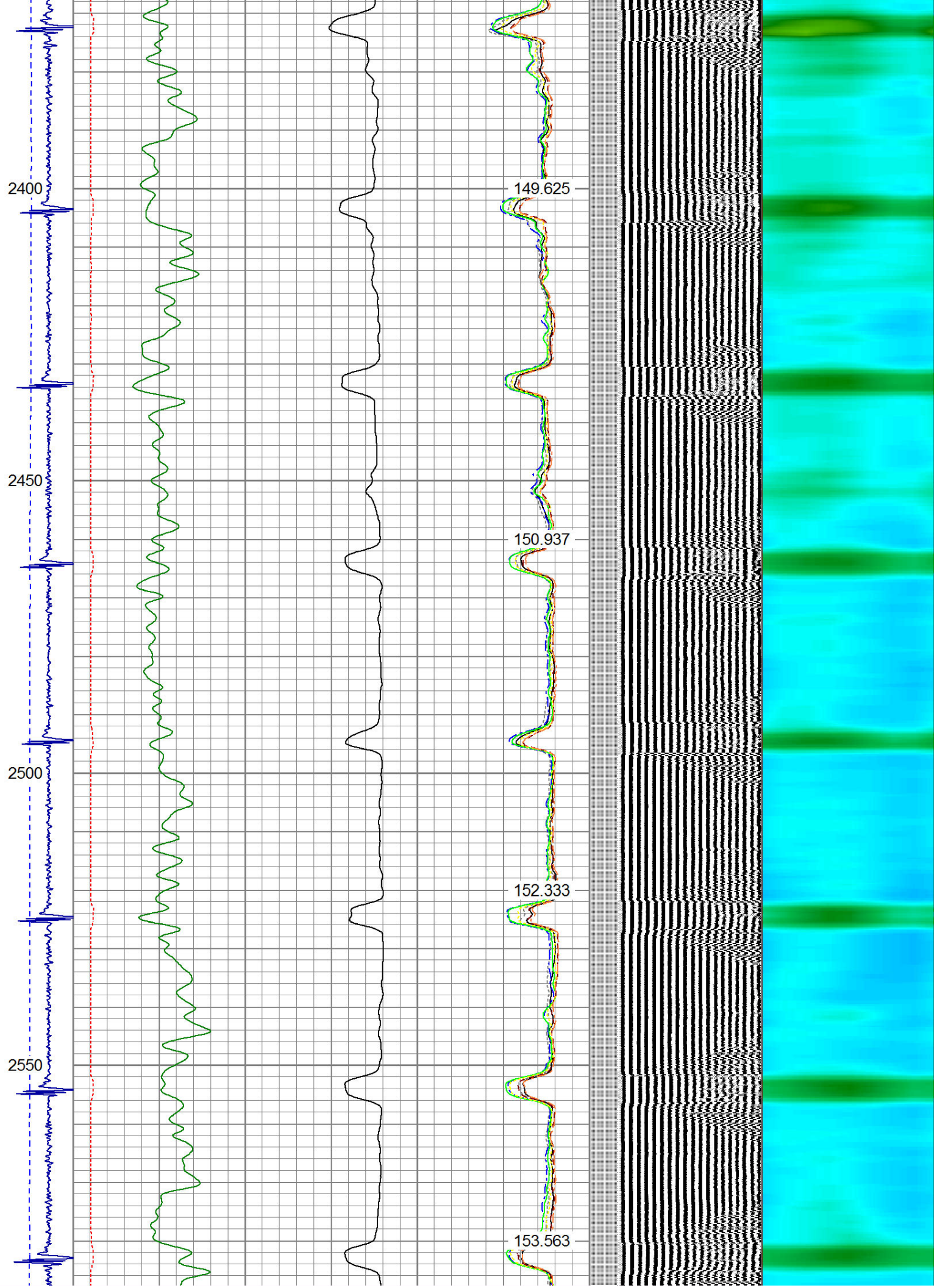


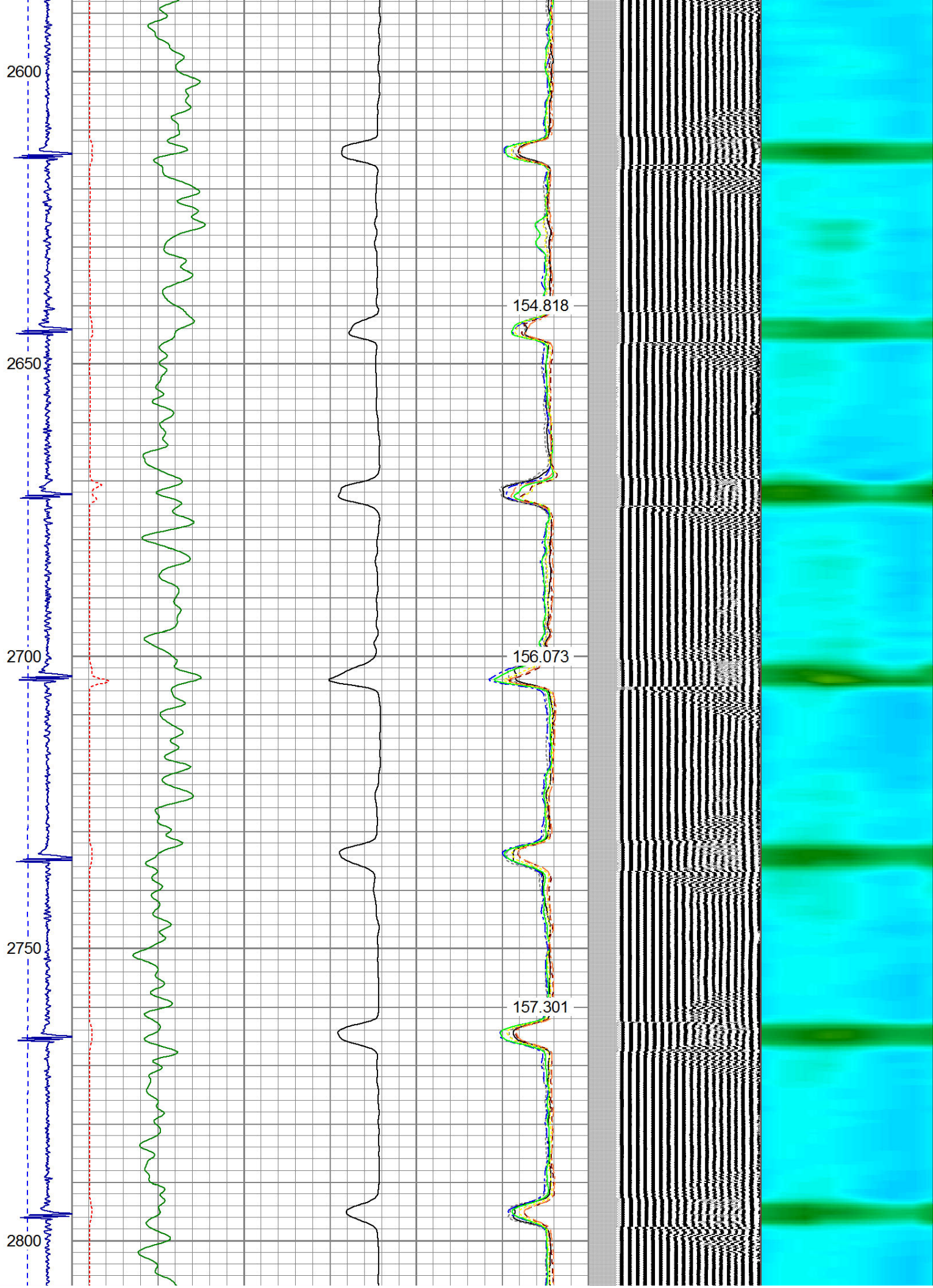


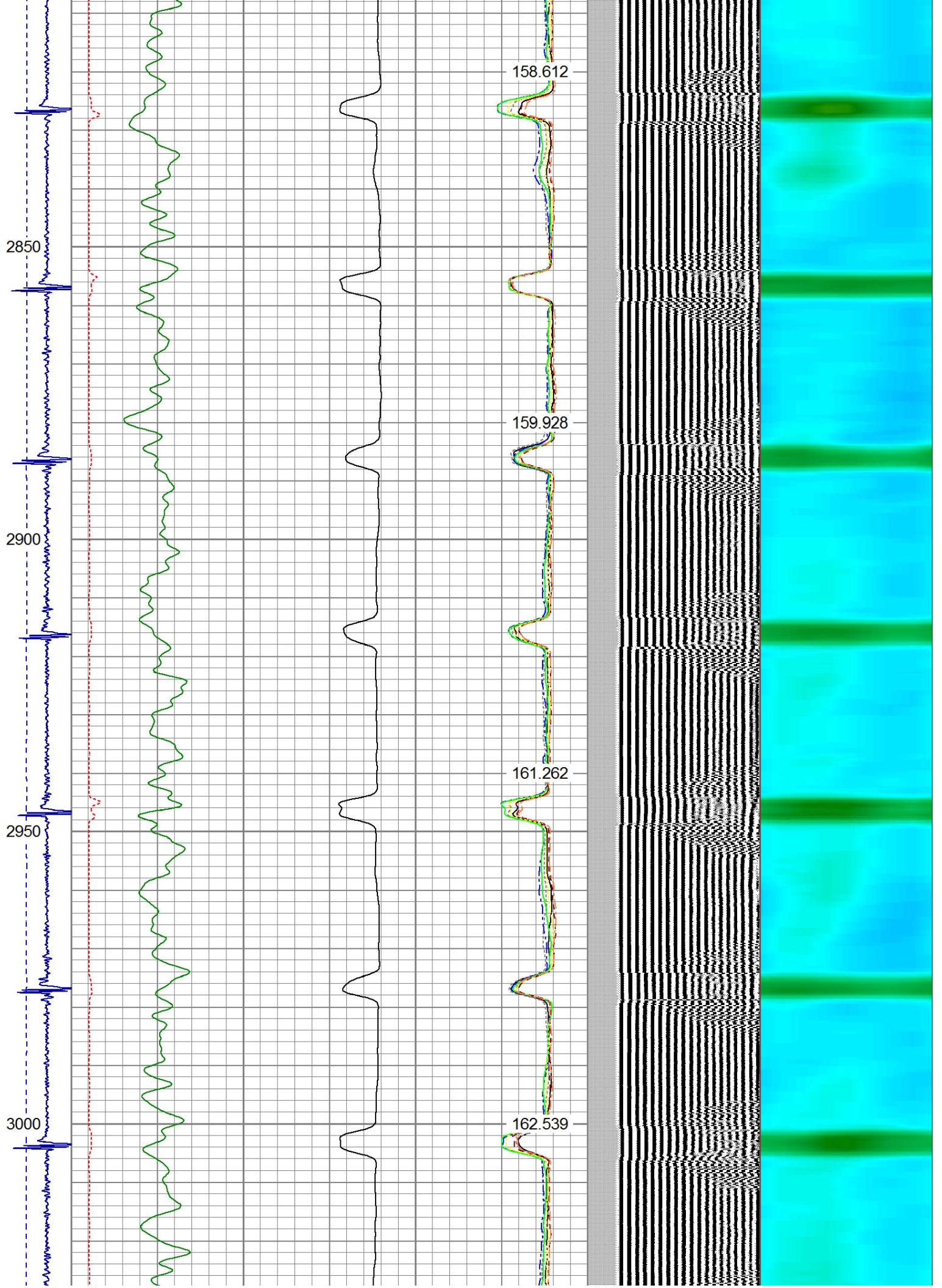


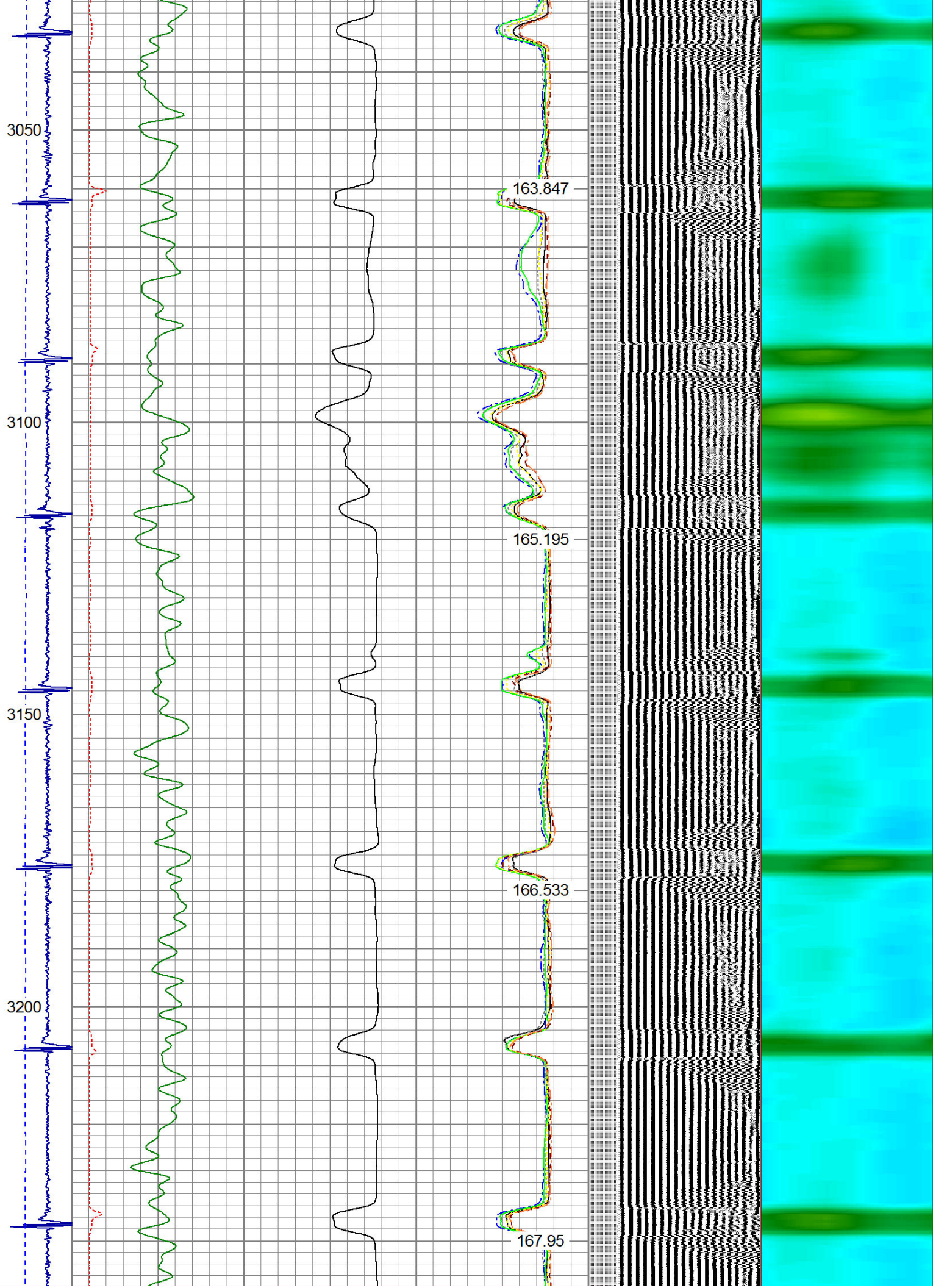


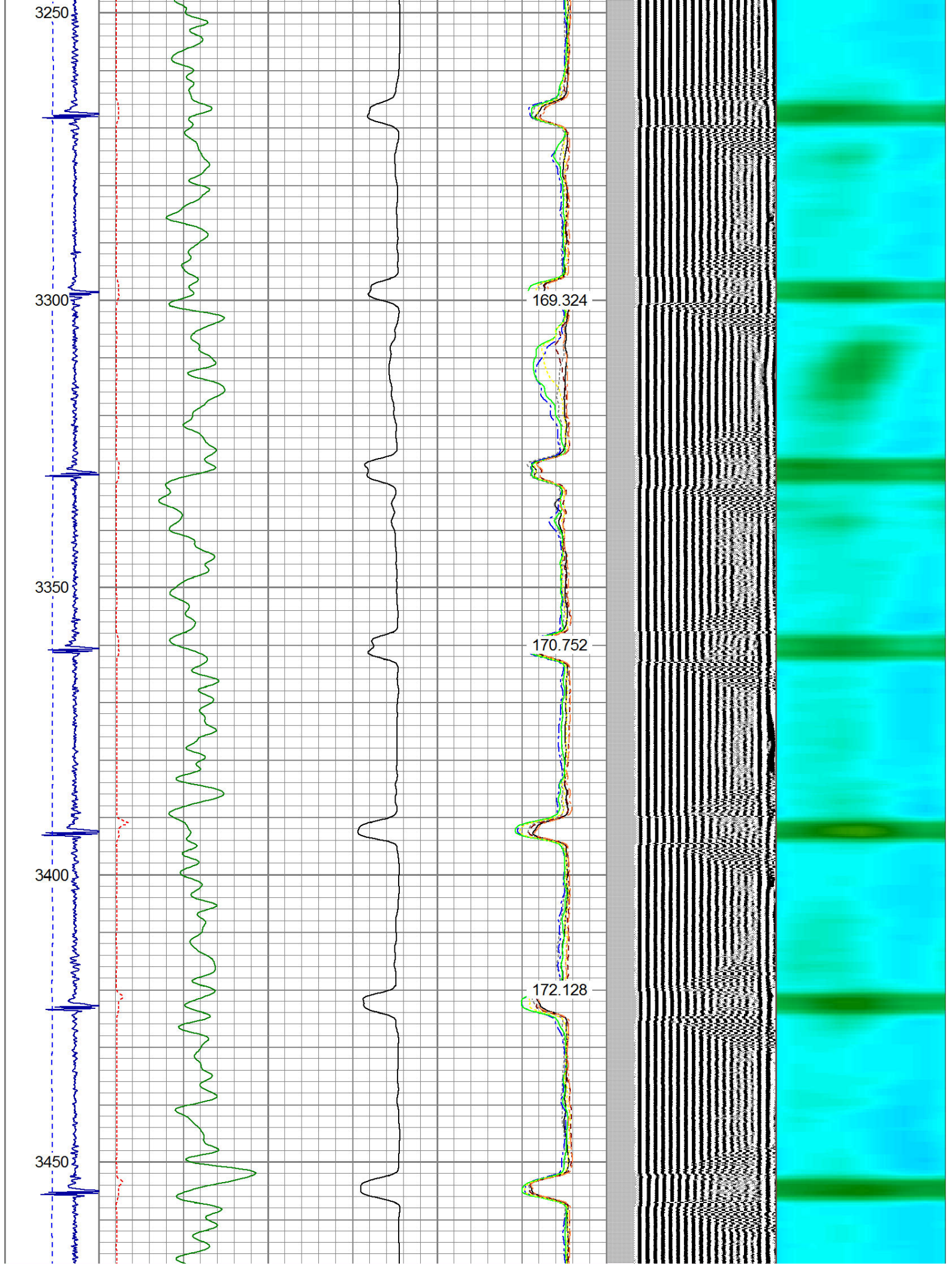


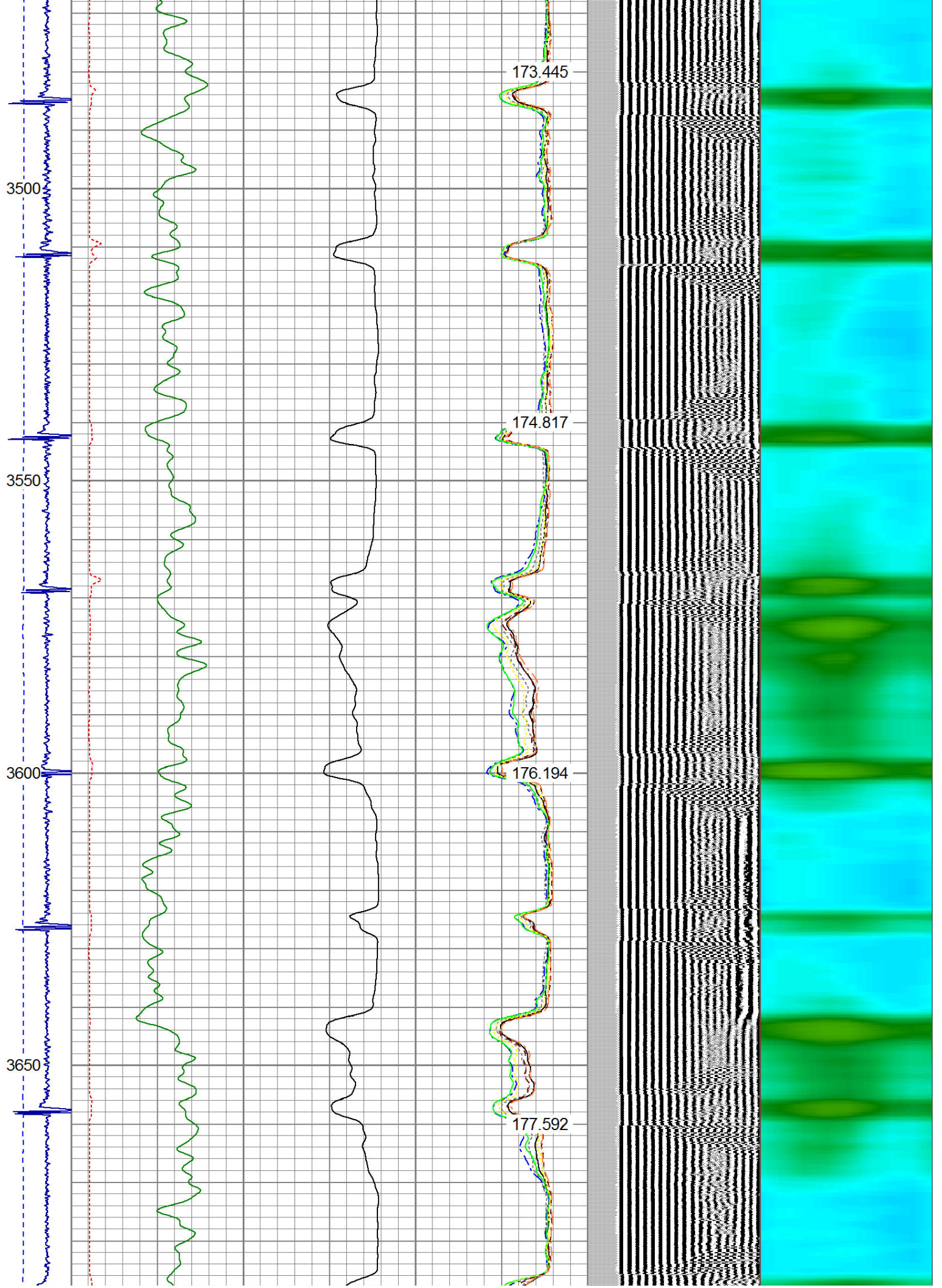


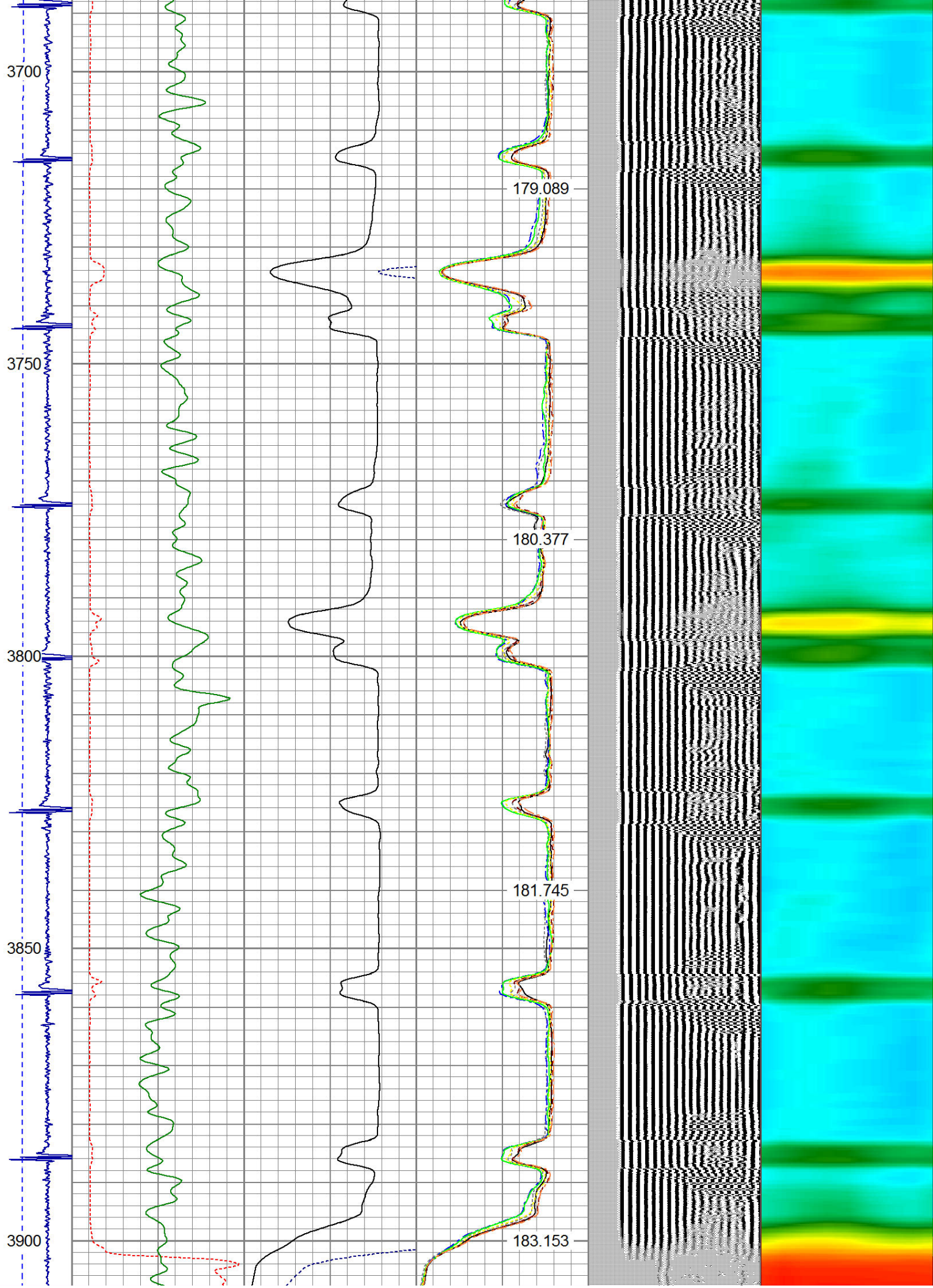












3950

4000

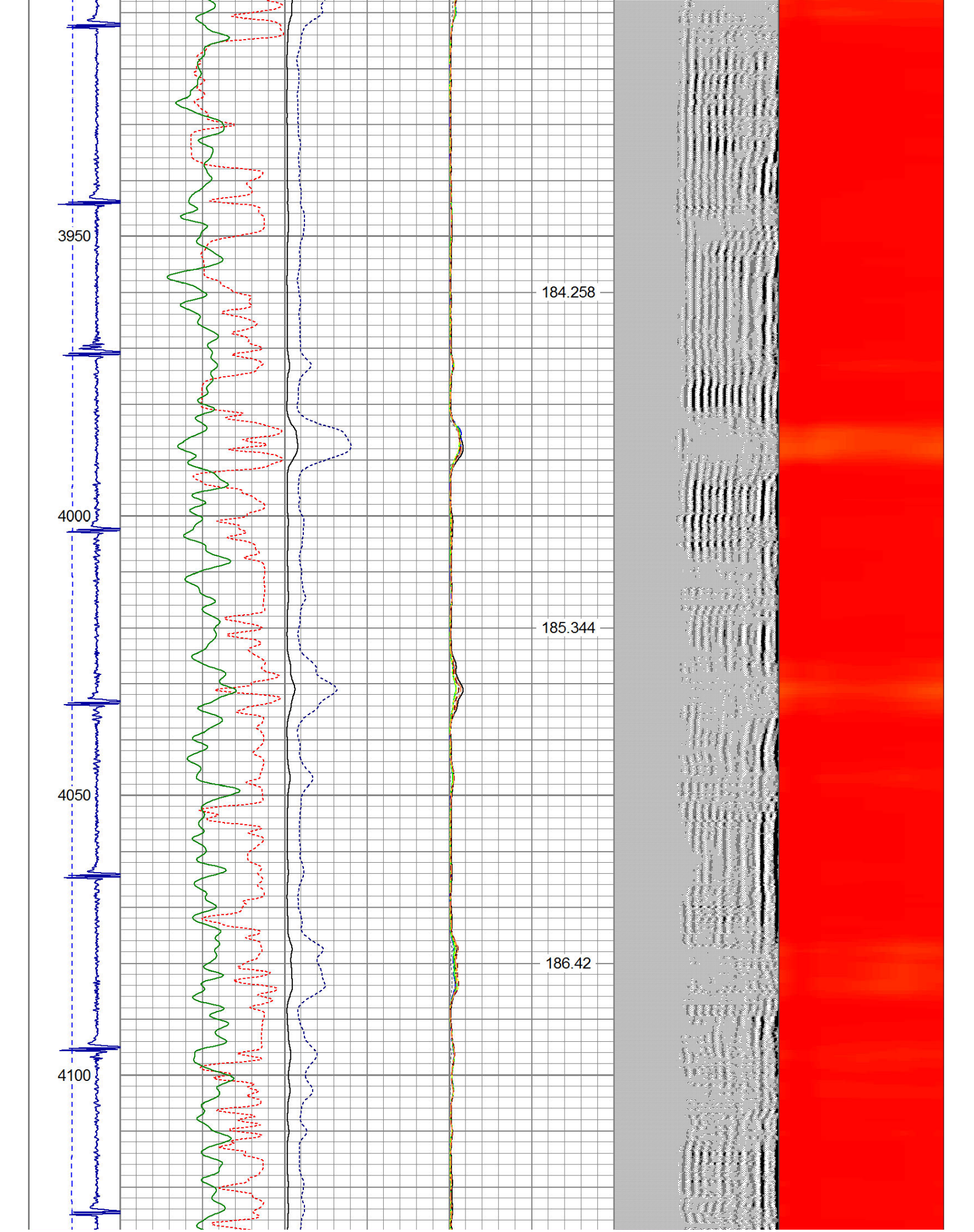
4050

4100

184.258

185.344

186.42



4150

4200

4250

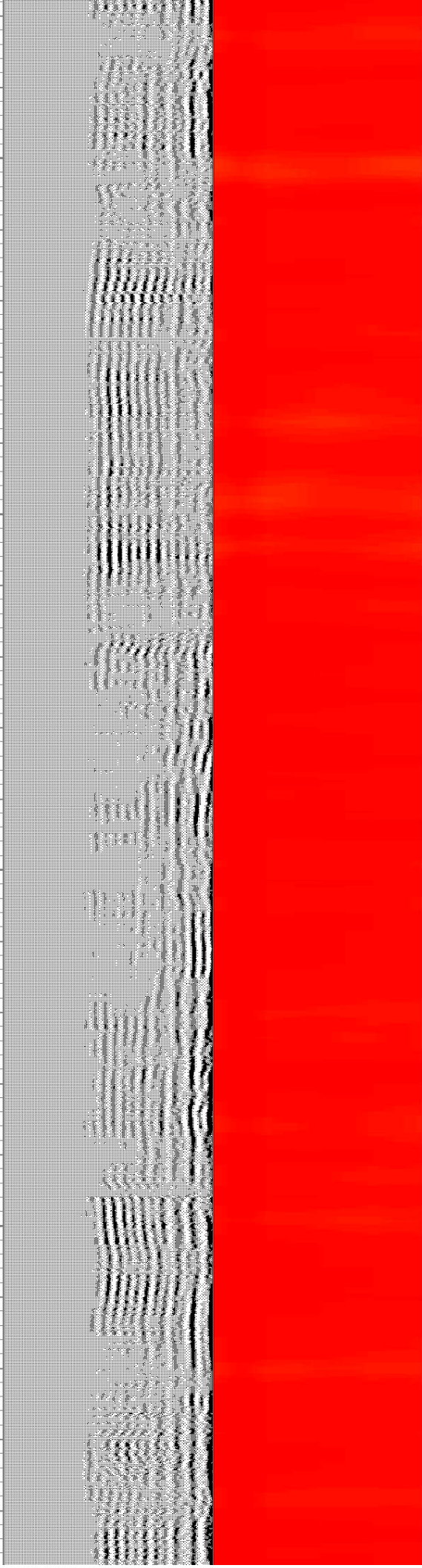
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187.408

188.446

189.325

190.18



4350

4400

4450

4500

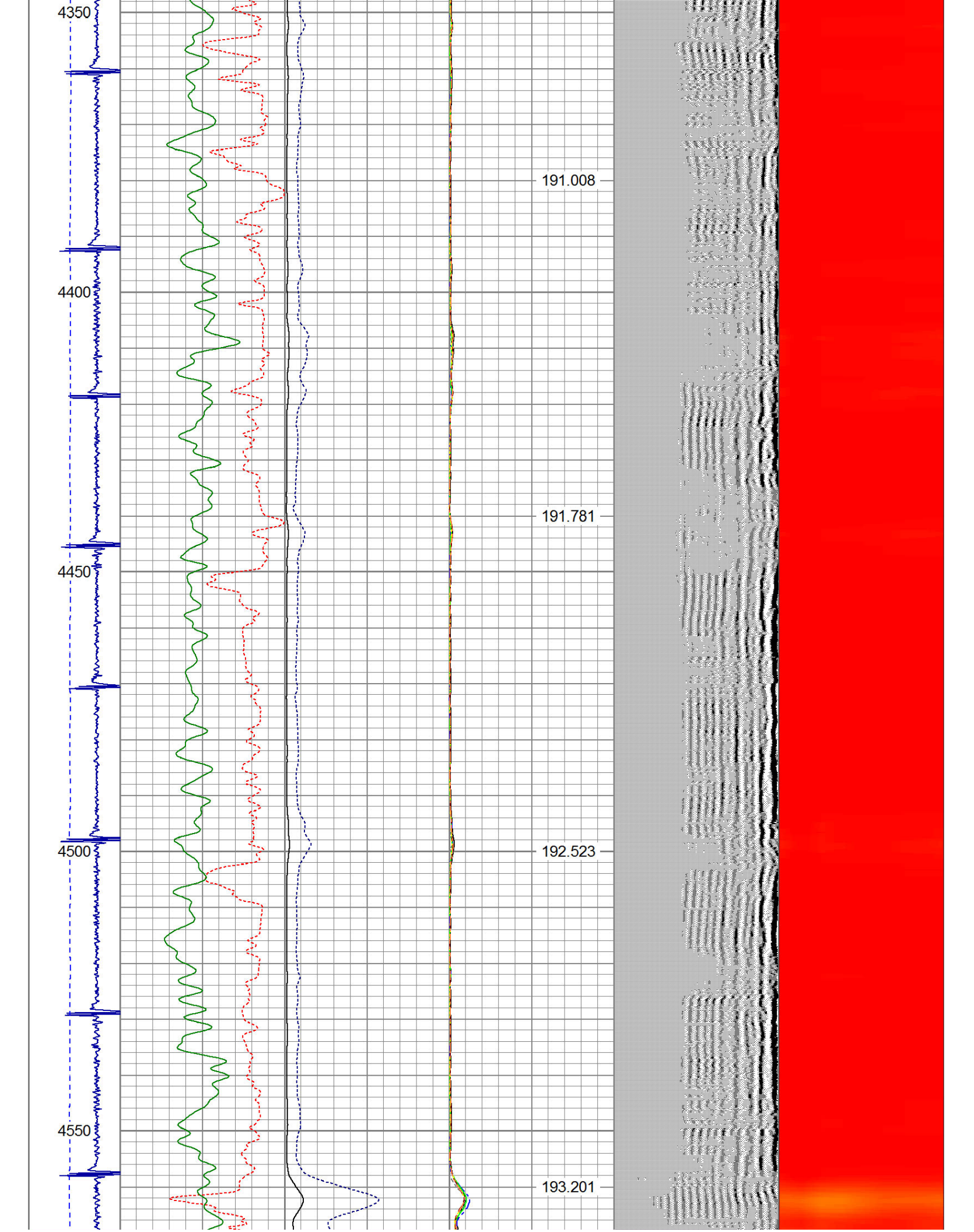
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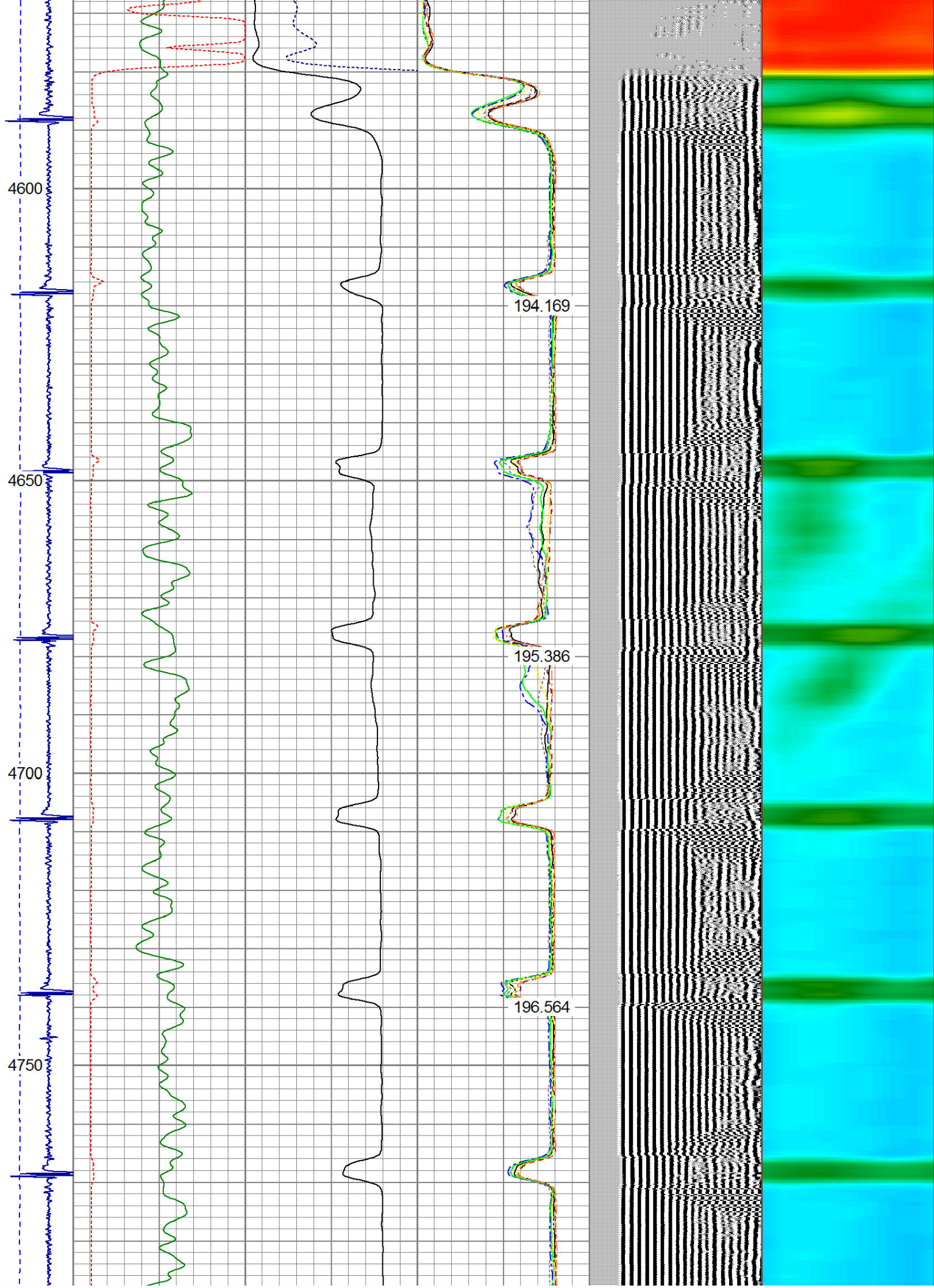
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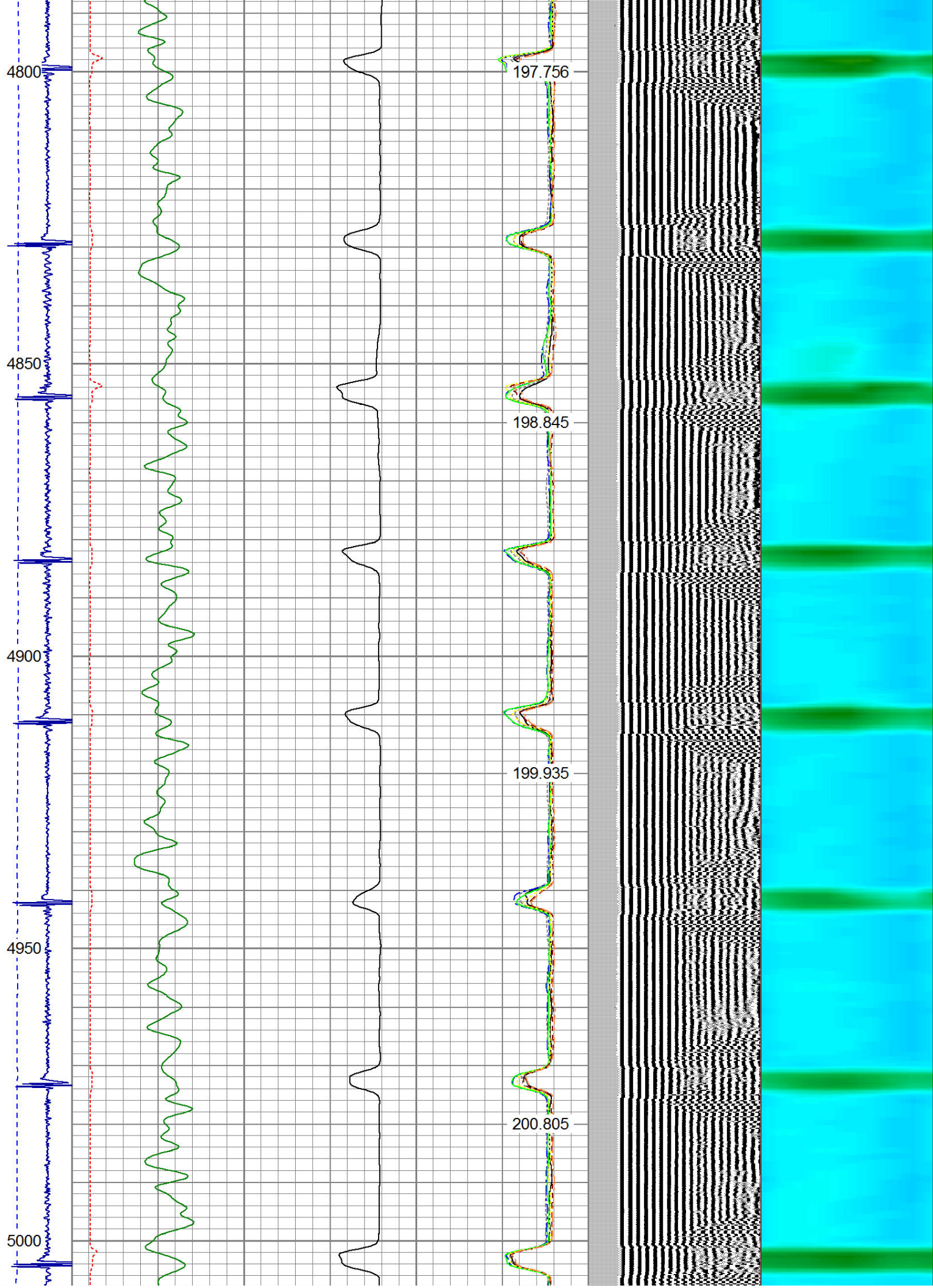
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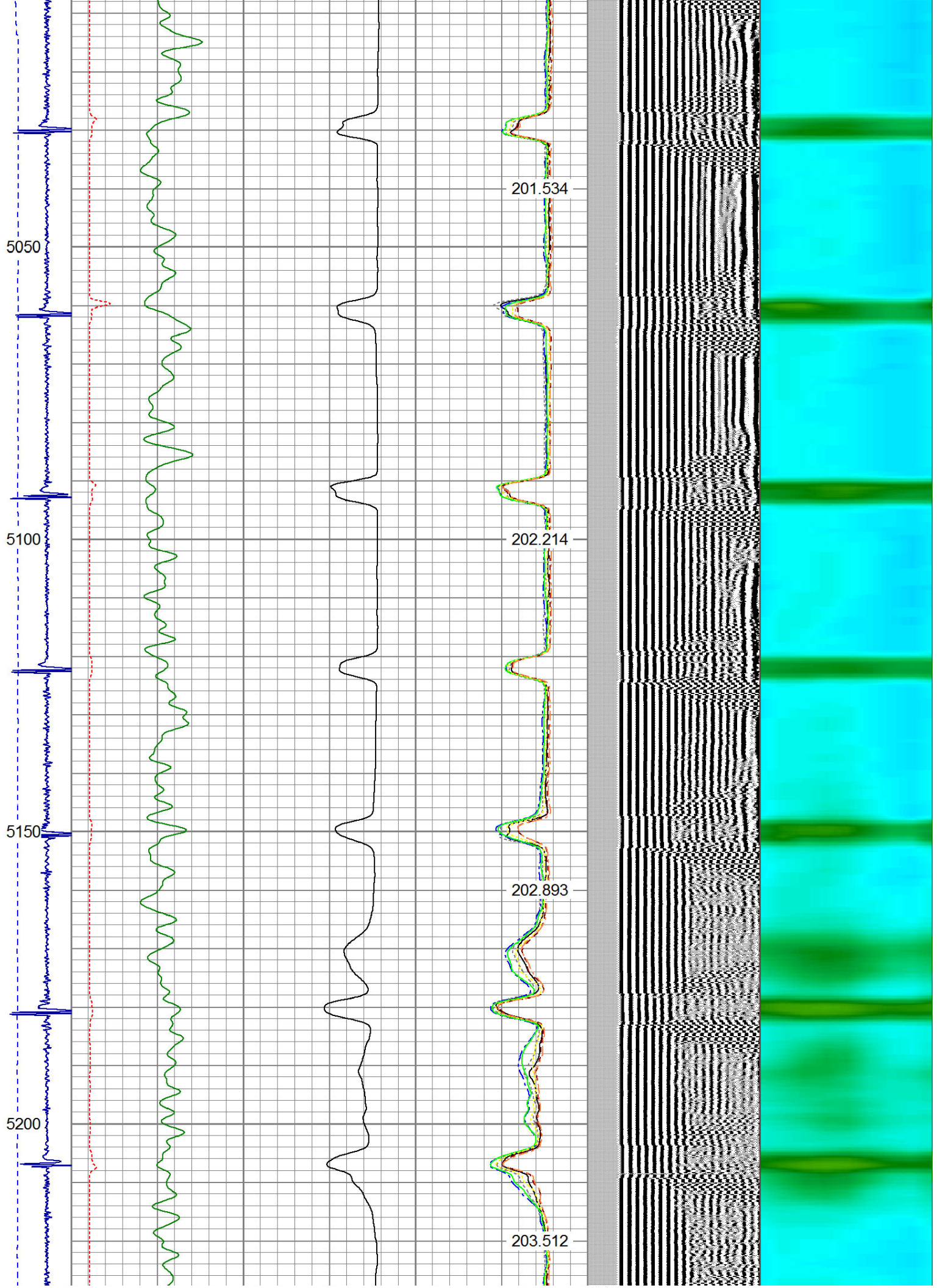
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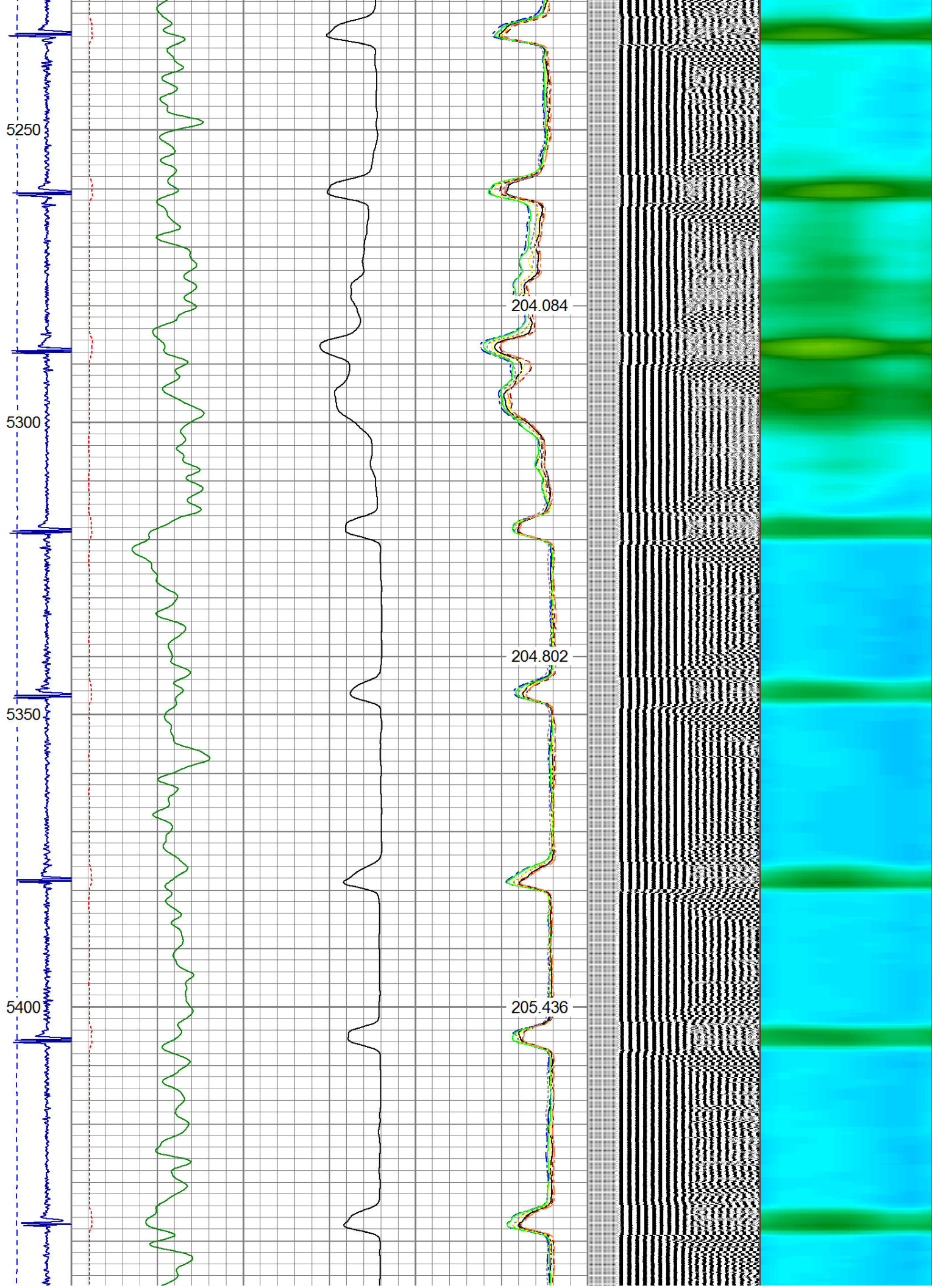
193.201



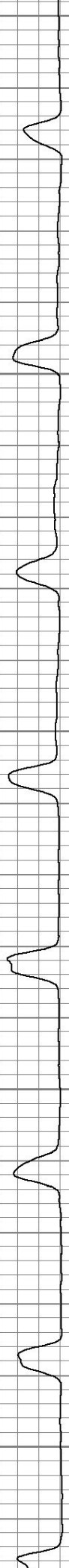
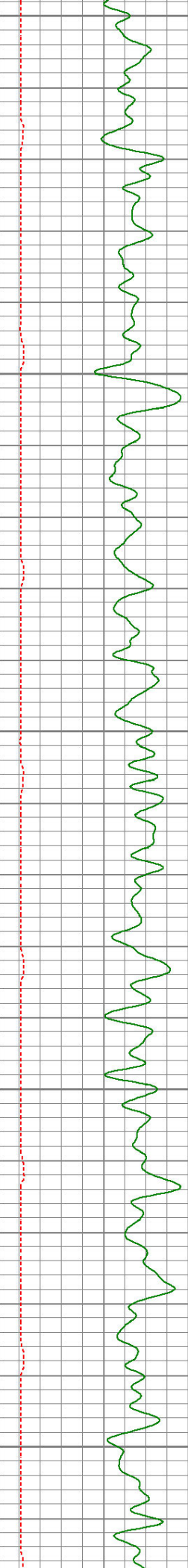




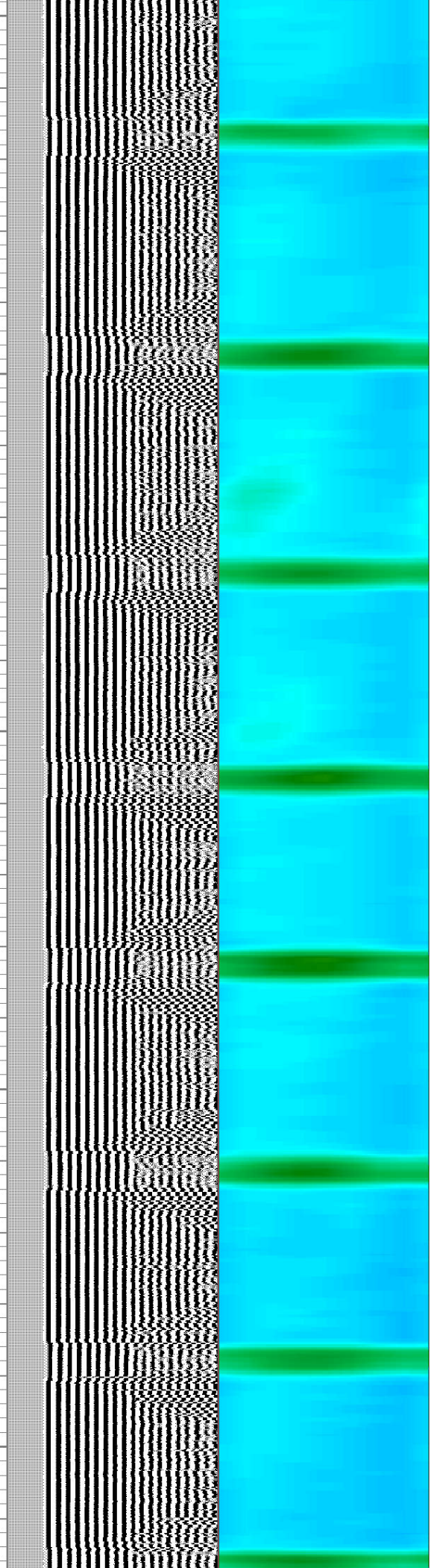
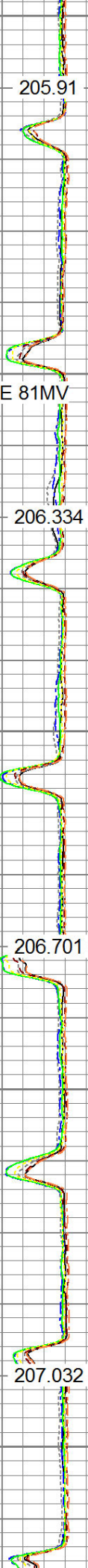


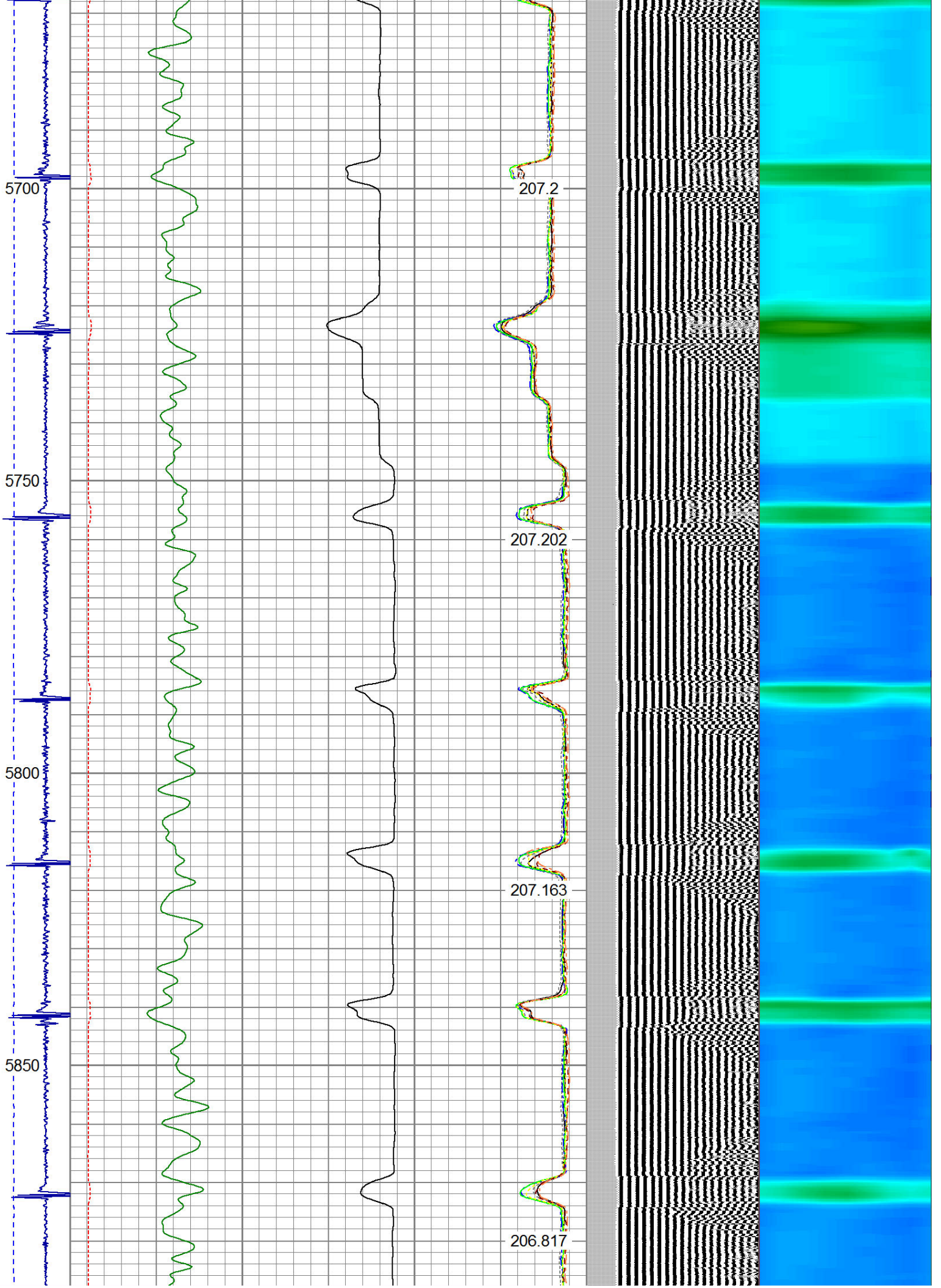


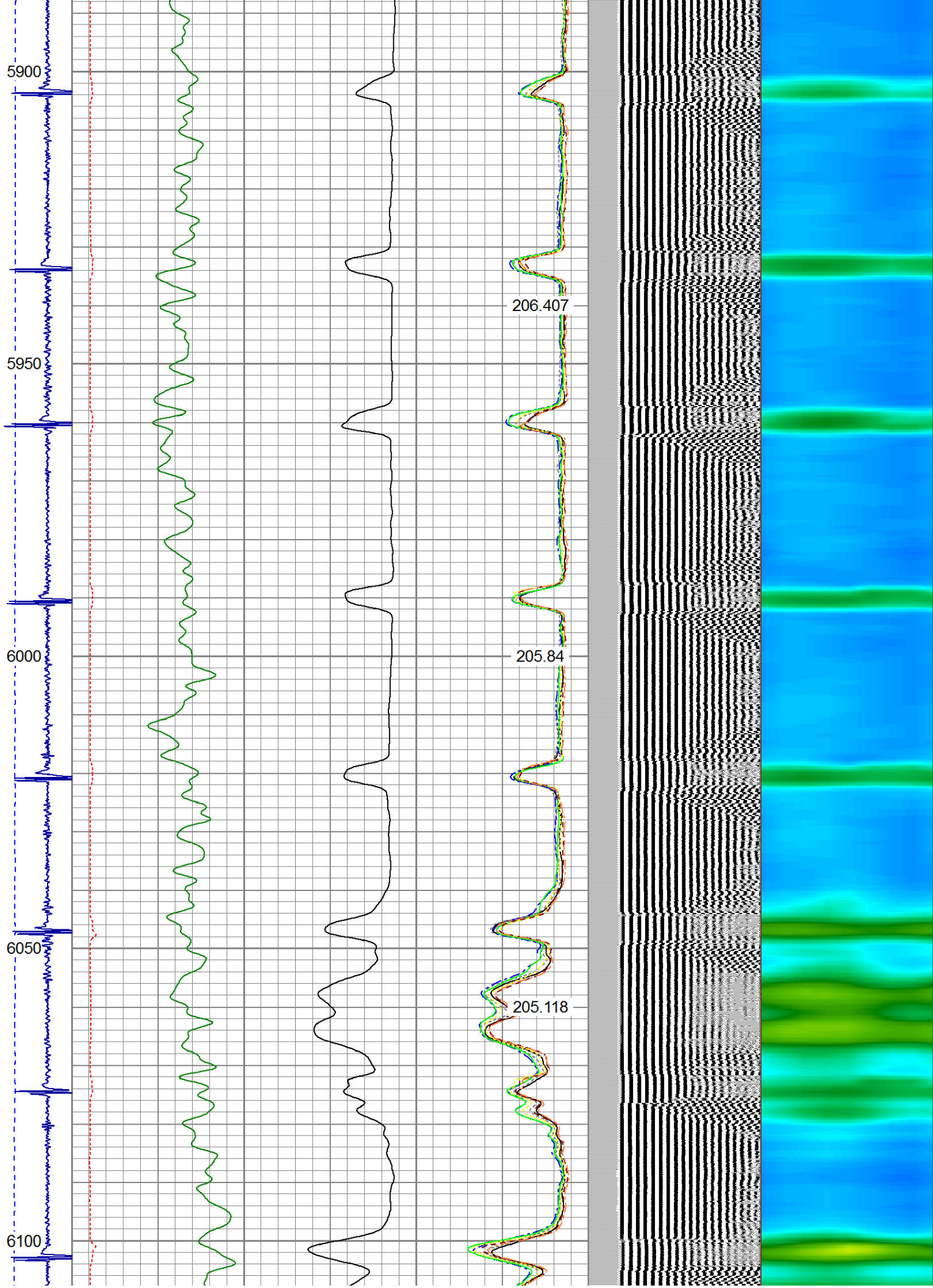
5450
5500
5550
5600
5650

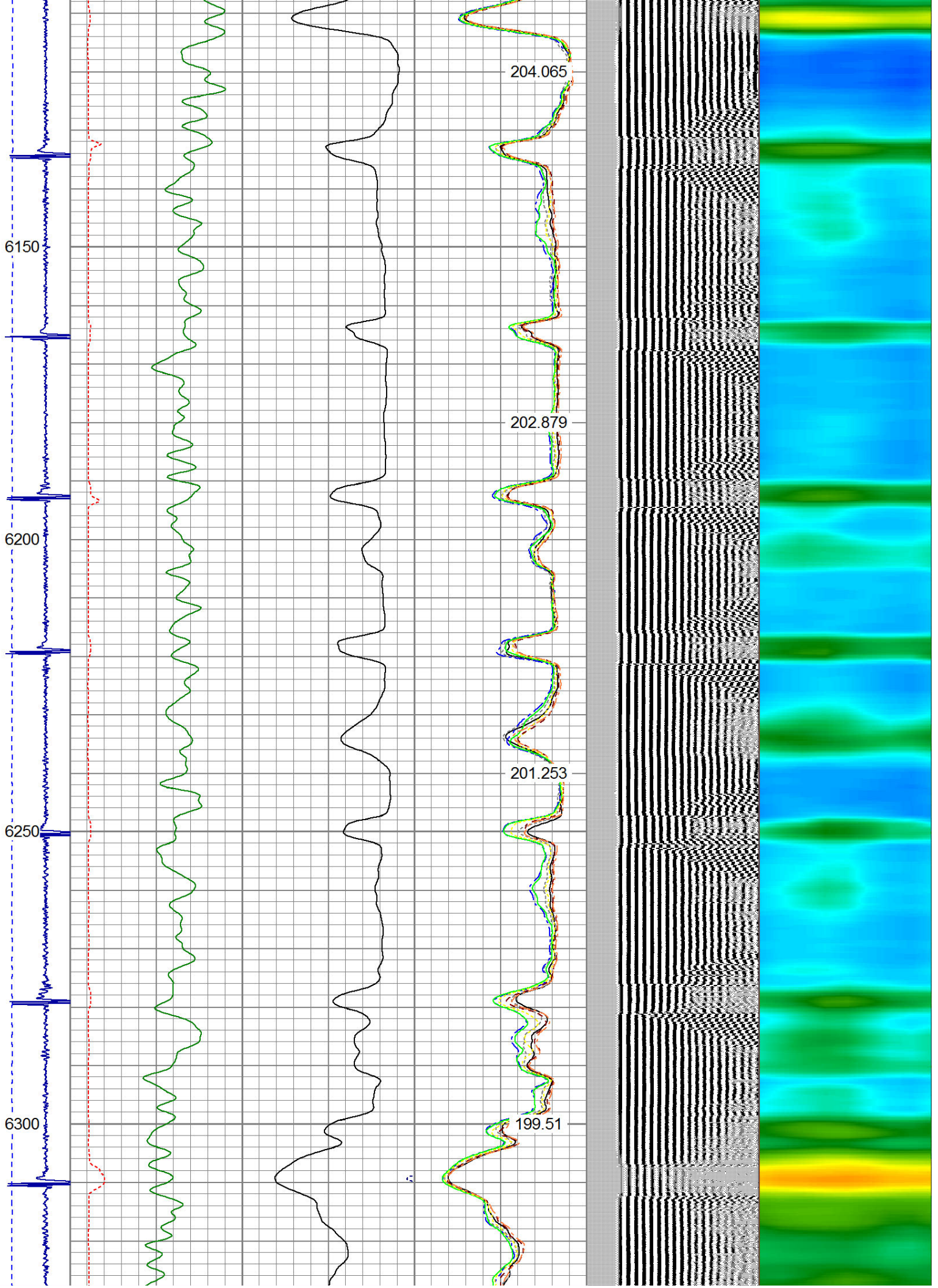


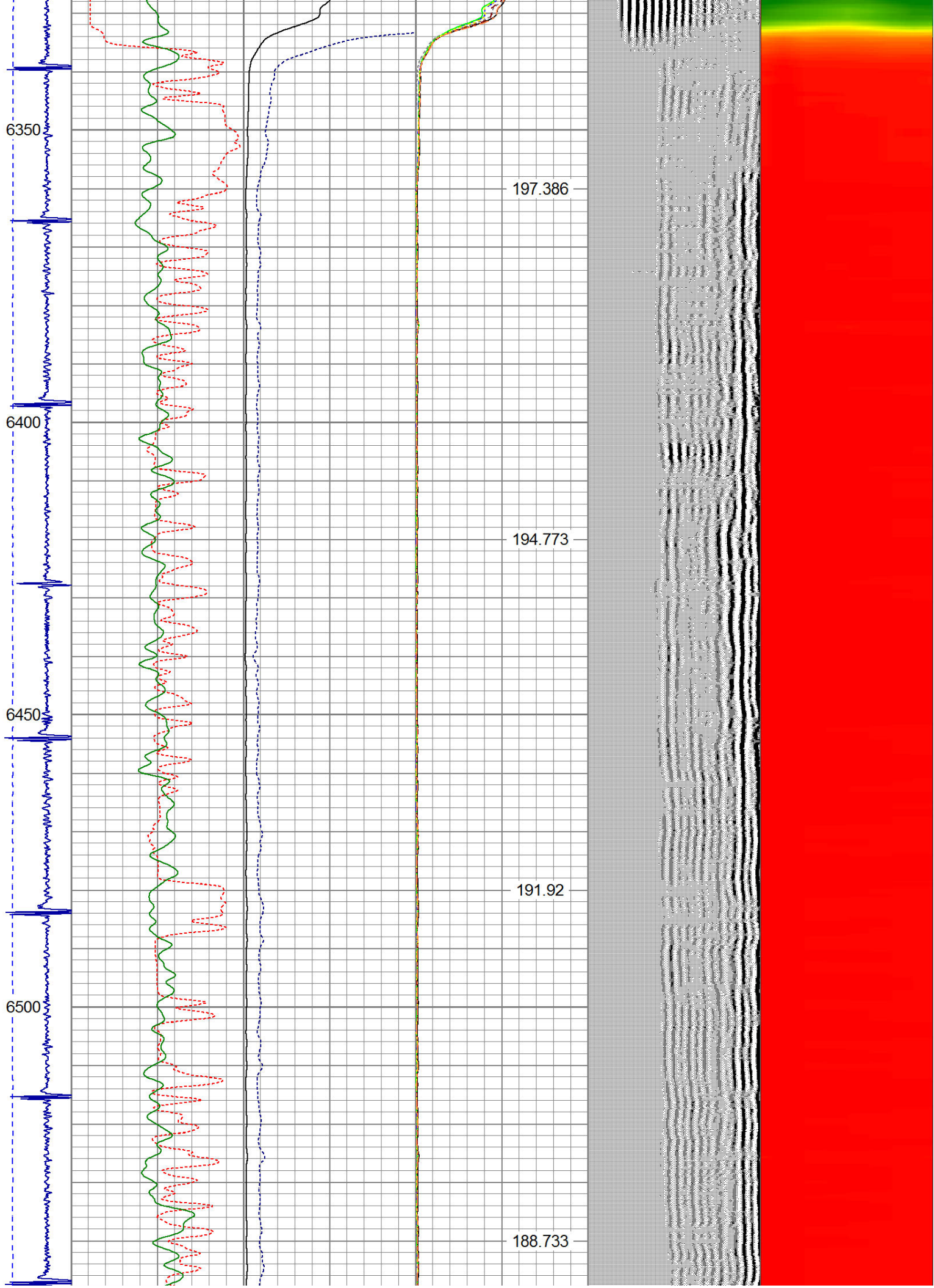
← FREE PIPE 81MV

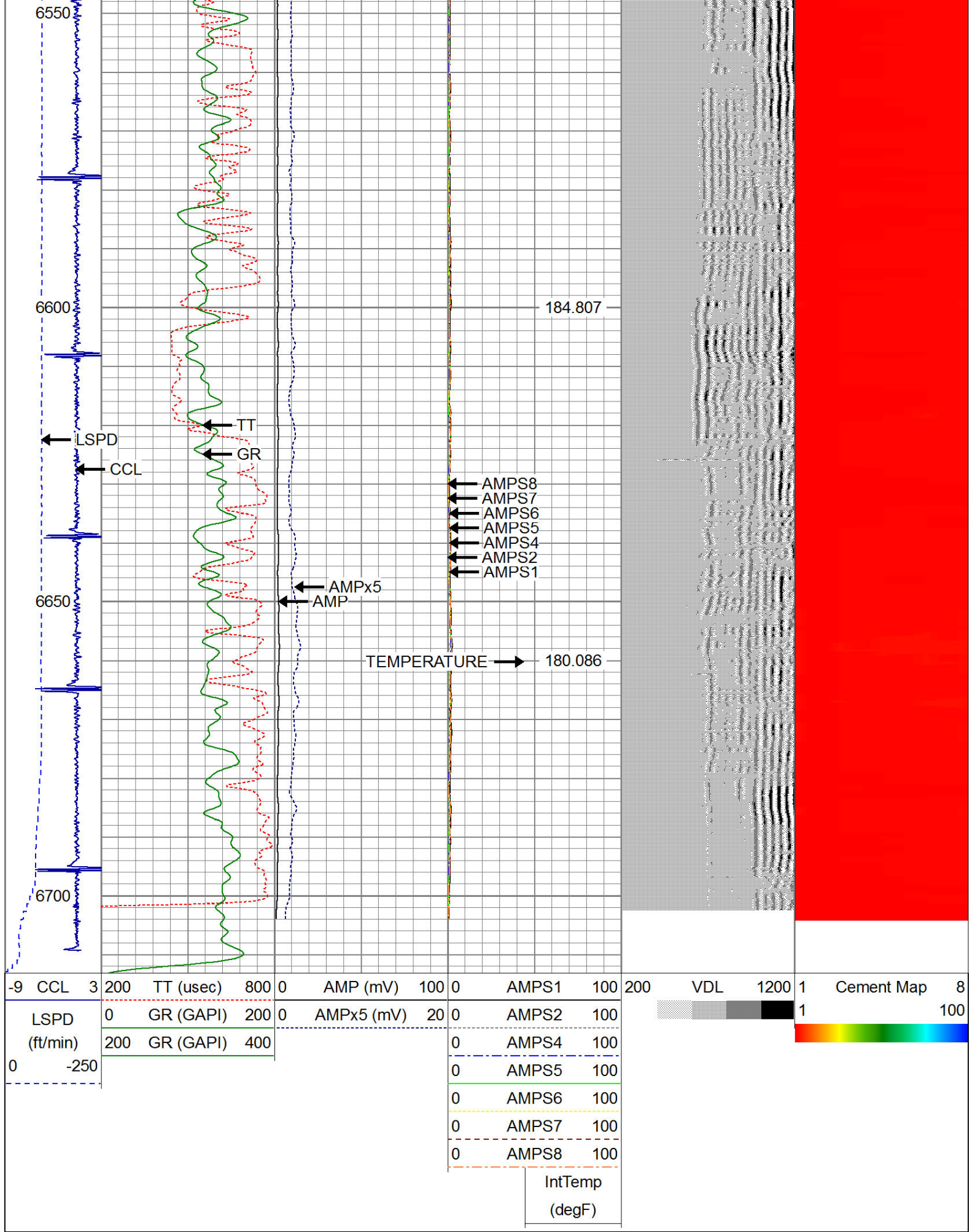














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