



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

Company Antero Resources Well Journeyman Welder 1H Field Utica County Wetzel State WV	Company Antero Resources		Well Journeyman Welder 1H		Field Utica		County Wetzel		State WV	
	Location:				API #: 4710303461		Other Services			
	SEC		TWP		RGE		Elevation			
	Permanent Datum		Ground Level		Elevation		K.B.			
Log Measured From		Kelly Bushing 30' A.P.D.				D.F.				
Drilling Measured From		Kelly Bushing				G.L.				
Date	07-May-2022									
Run Number	One									
Depth Driller										
Depth Logger	7,360'									
Bottom Logged Interval	7,370'									
Top Log Interval	Surface									
Open Hole Size										
Type Fluid	Water									
Density / Viscosity										
Max. Recorded Temp.	145 Deg.F.									
Estimated Cement Top										
Time Well Ready	12:40									
Time Logger on Bottom	13:10									
Equipment Number	104 (P2)(G1)									
Location	Charleroi, PA									
Recorded By	Matt McNally									
Witnessed By	Keith									
Borehole Record					Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To			
Casing Record		Size	Wgt/Ft	Top	Bottom					
Conductor String										
Surface String										
Intermediate String										
Intermediate String										
Production String		5 1/2"	23#	Surface						

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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

Log Correlated to Kelly Bushing 30' Above Ground Level  
 Marker Joint at 6,369'-6,379'

100 % Free Pipe= 71.9 mv  
 100 % Cement =3.4mv

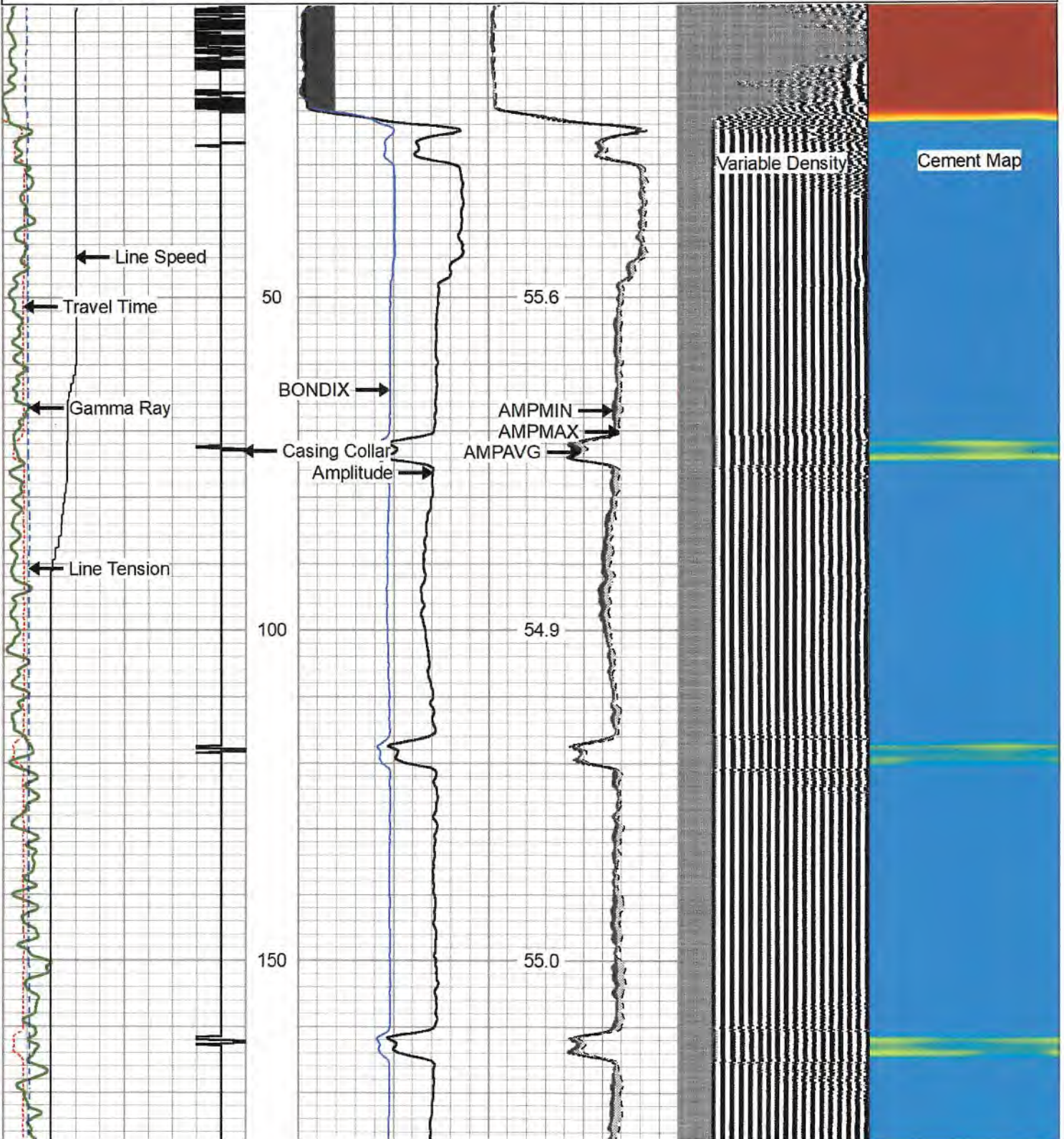
Thank You For Choosing Nine Energy Service. Charleroi, PA

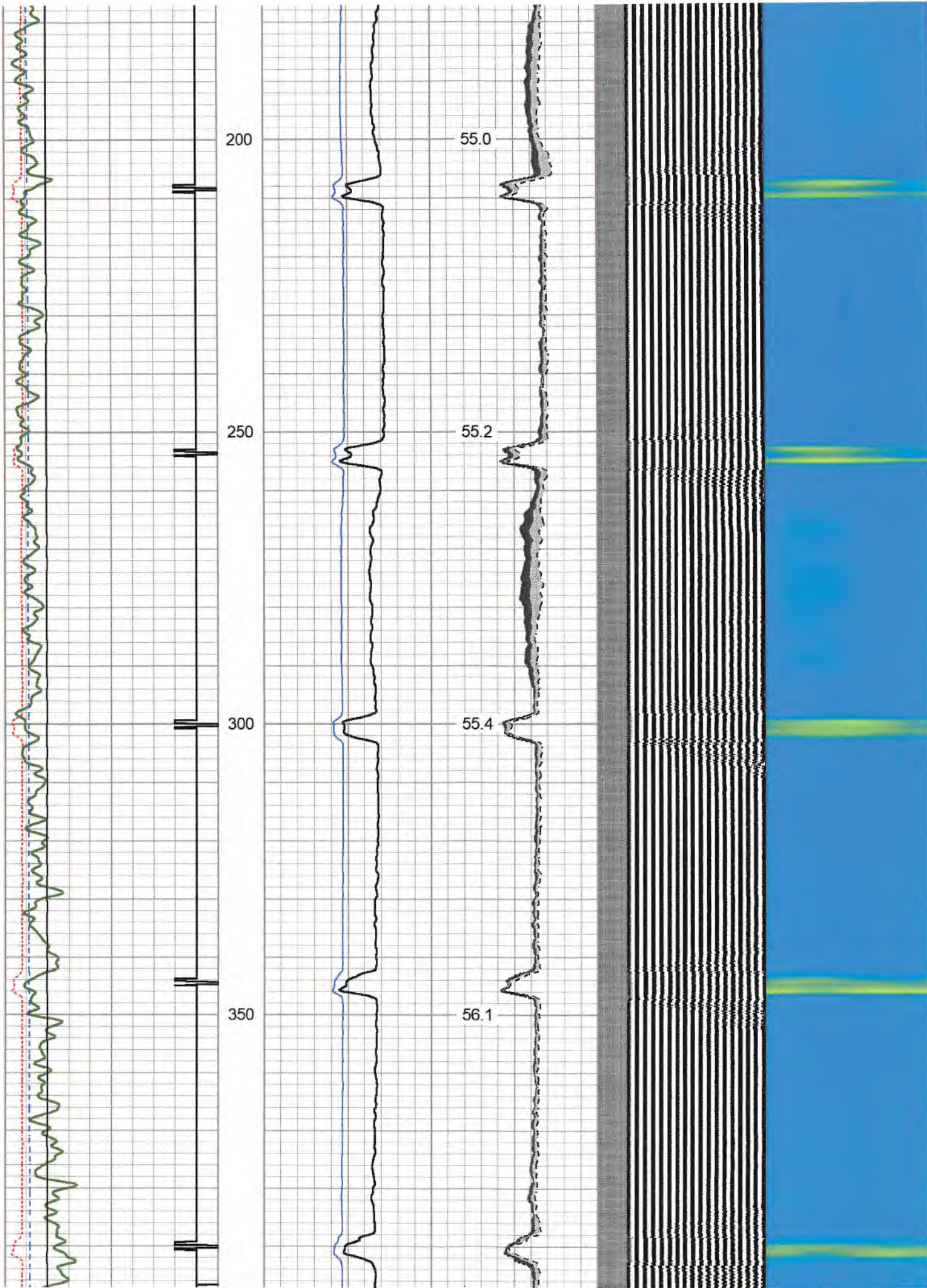


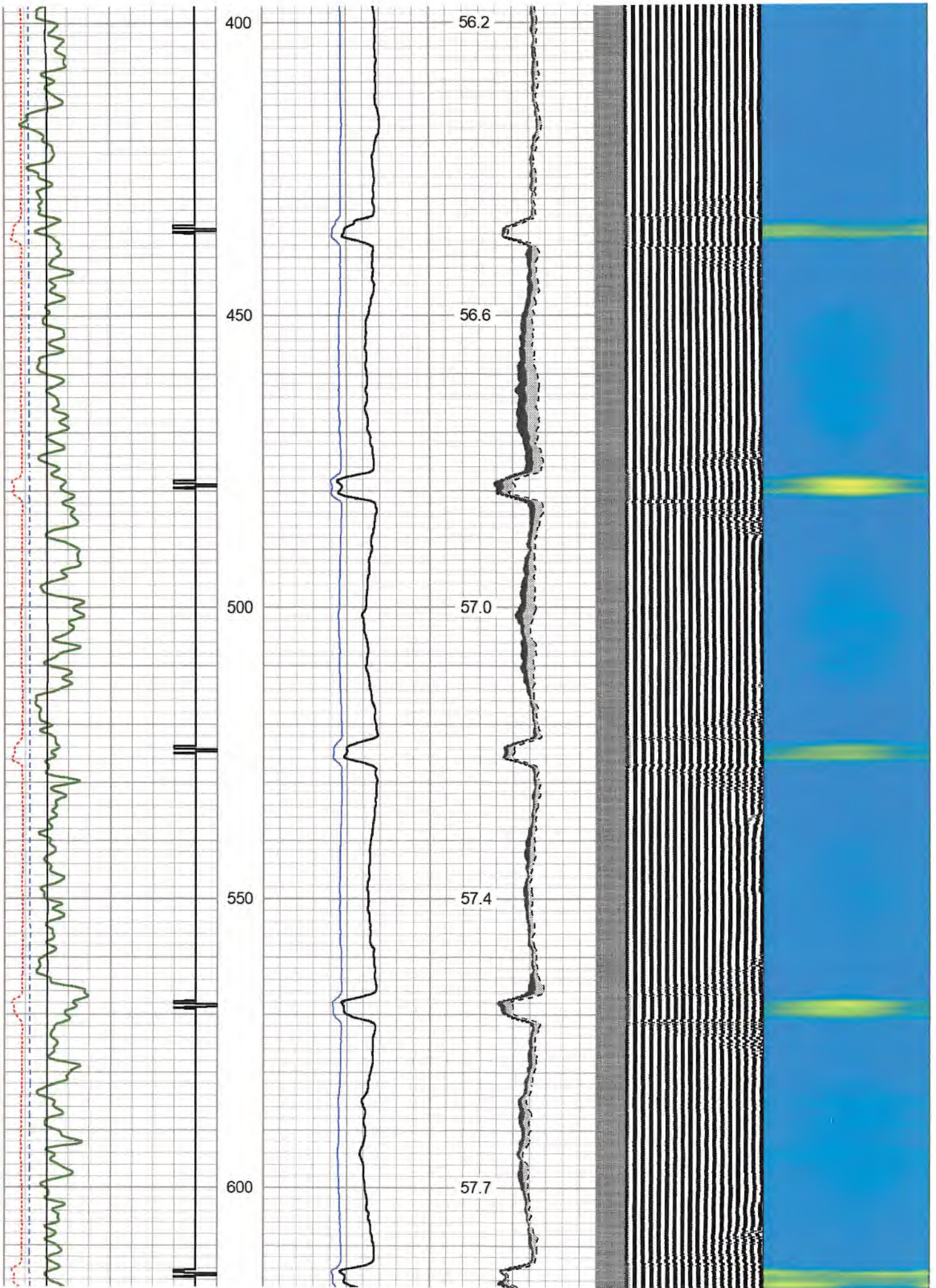
Main Pass 1,500 PSI

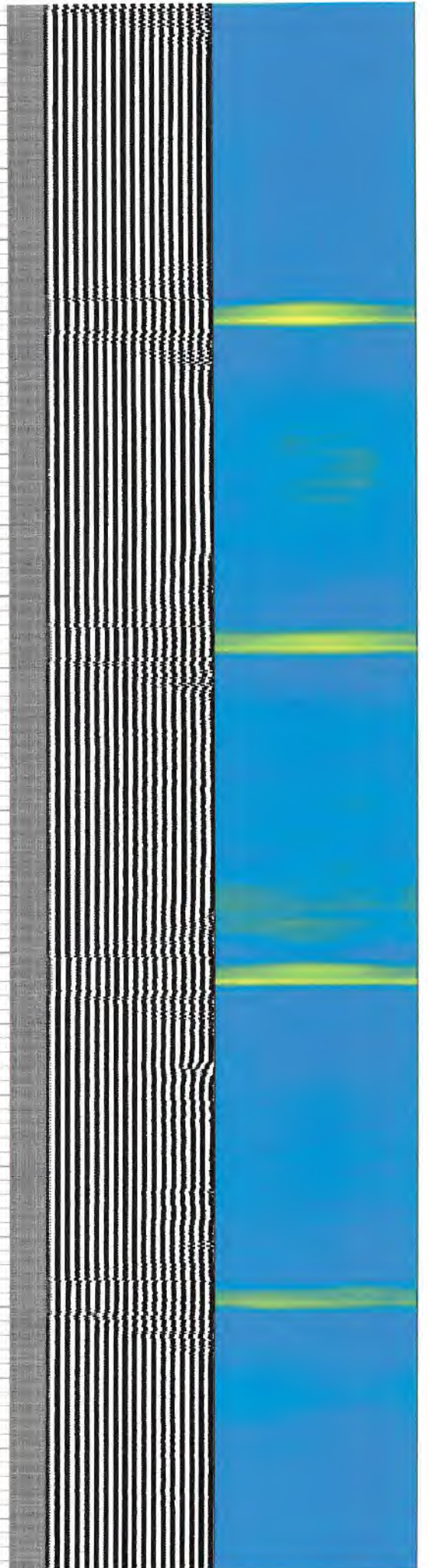
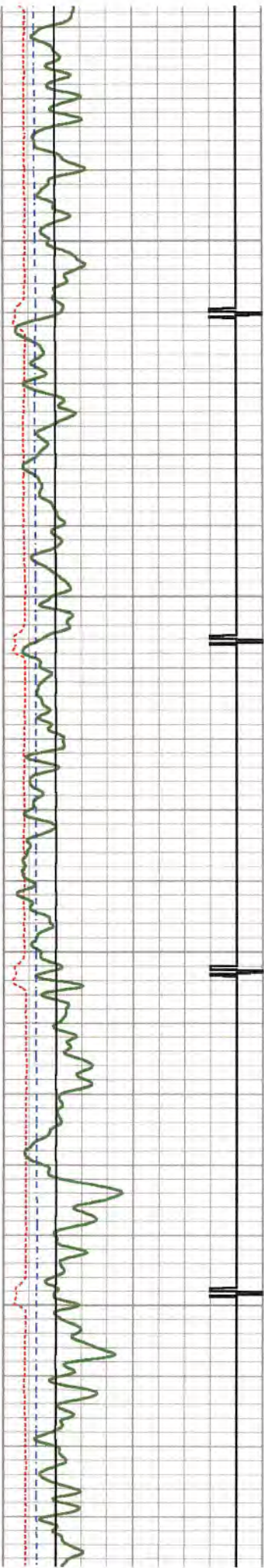
Database File c:\users\warrior\desktop\antero journeyman rcbls 7-may-22\antero welder 1h rcbl 7-may-2022\antero\_weld  
 Dataset Pathname welder1h/run1/pass4  
 Presentation Format rcbl-bond index 1020  
 Dataset Creation Sat May 07 13:04:26 2022  
 Charted by Depth in Feet scaled 1:240

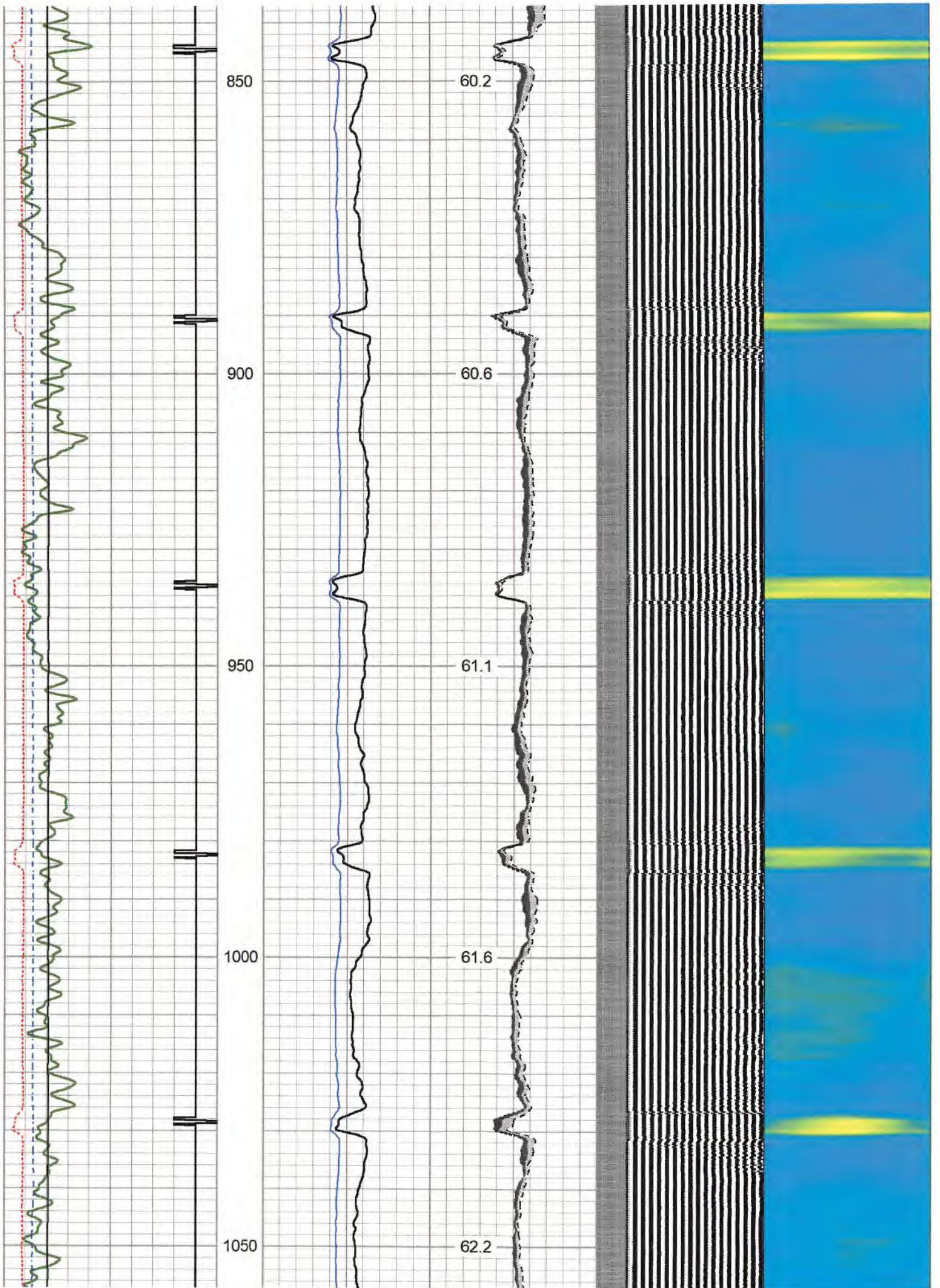
270	Travel Time (usec)	160	0	Amplitude (mV)100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150			
	Line Speed						TEMP				
-200	(ft/min)	200					(degF)				
0	Line Tension (lb)	3000									

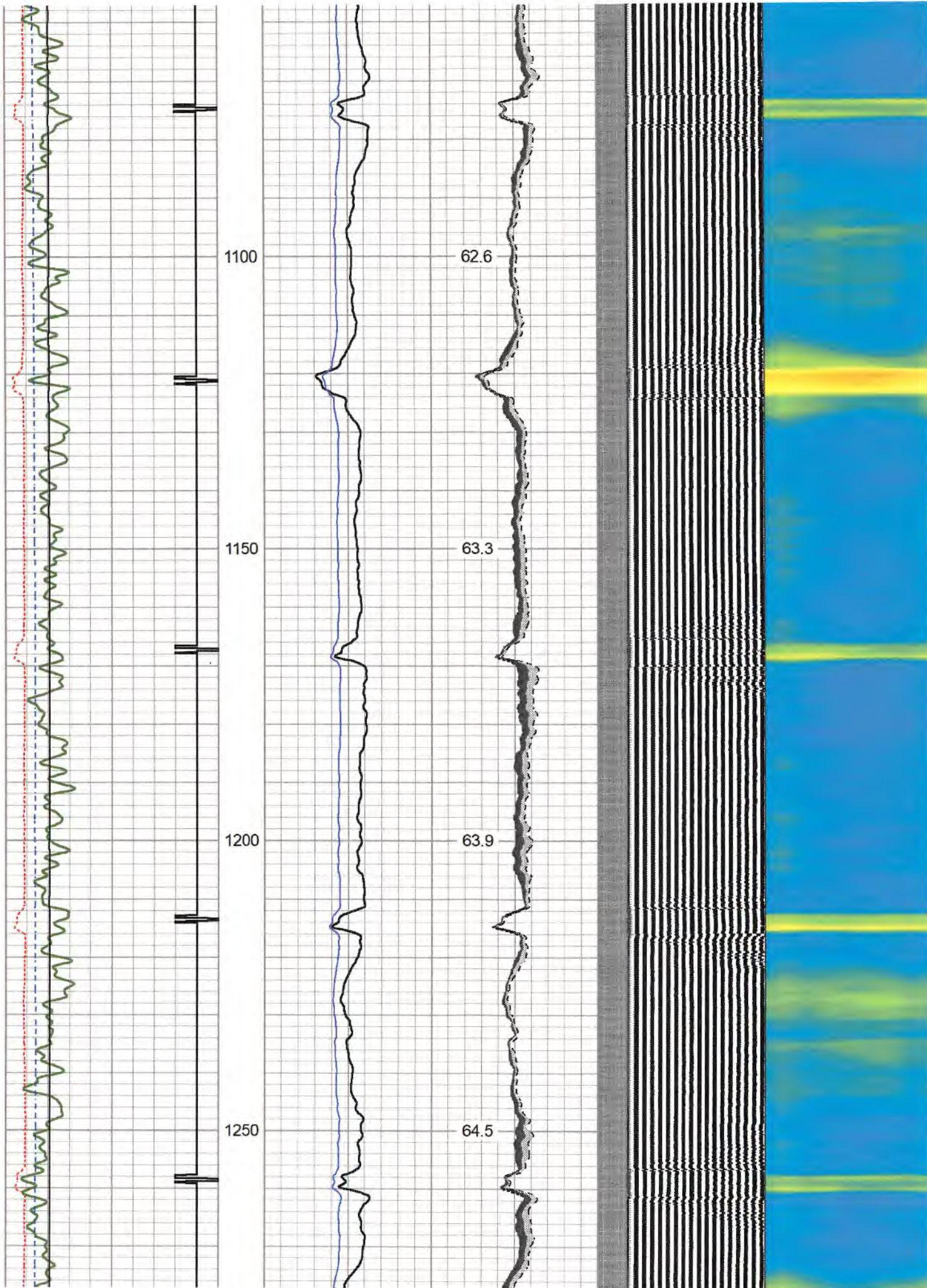


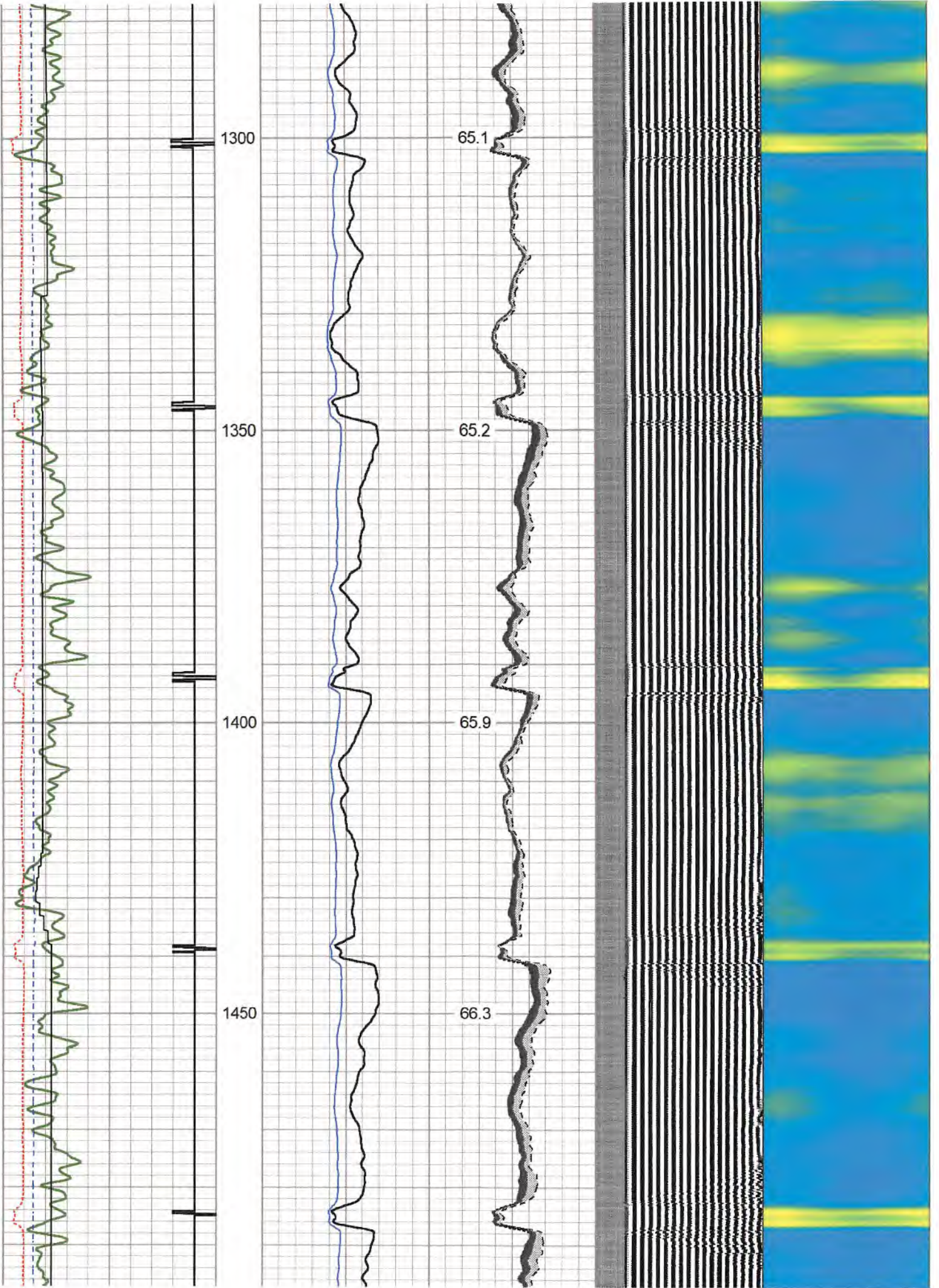




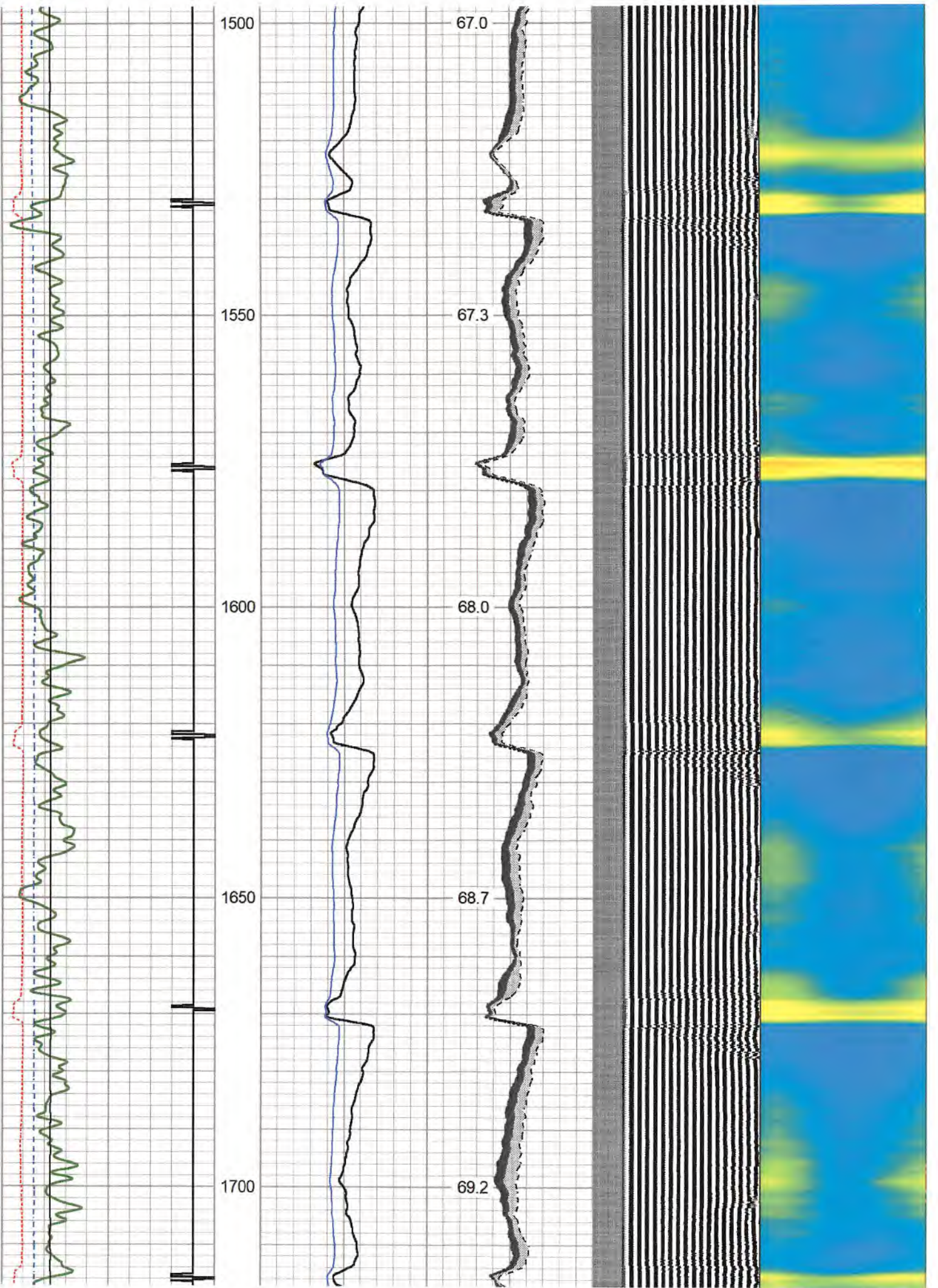


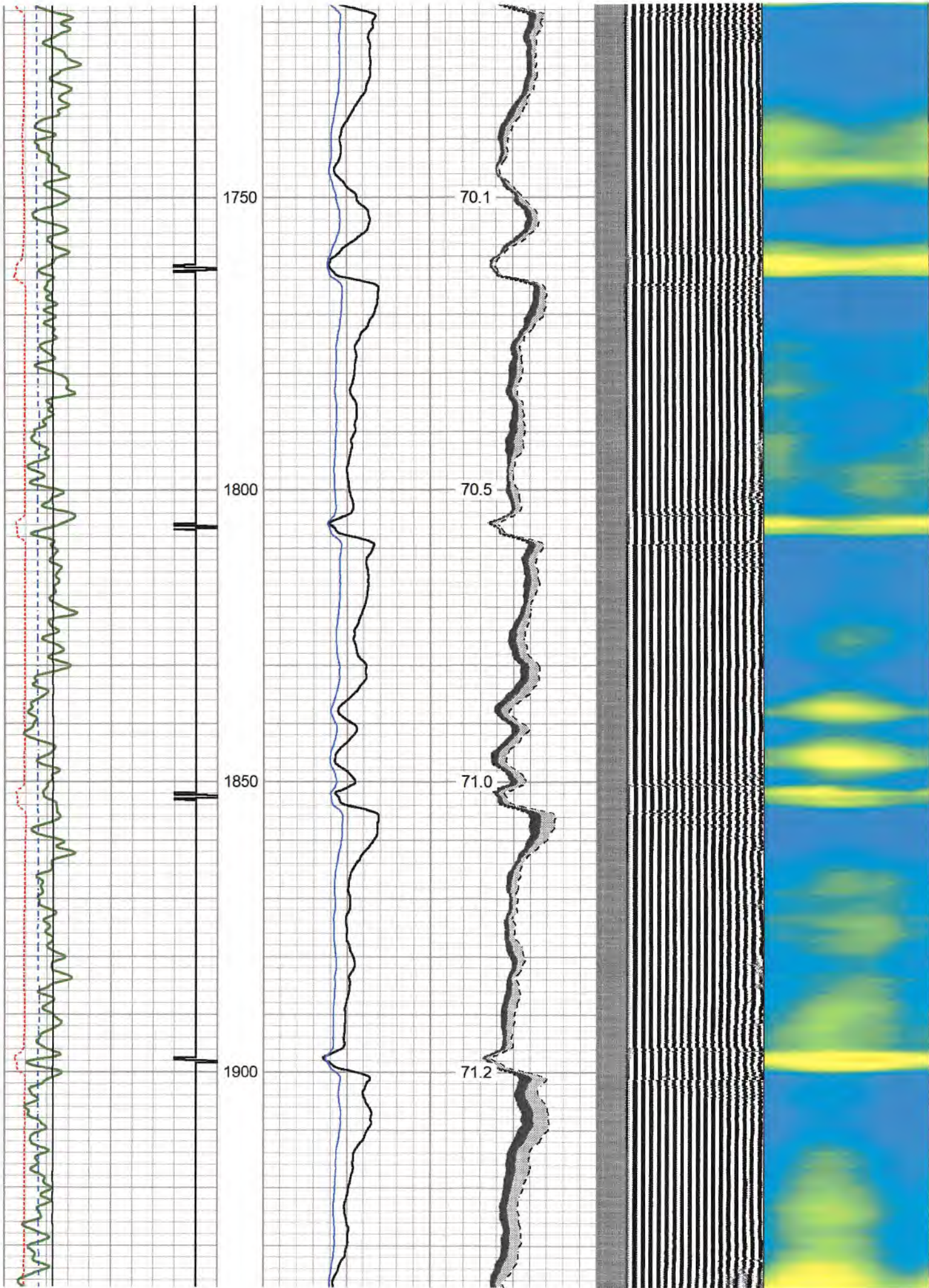


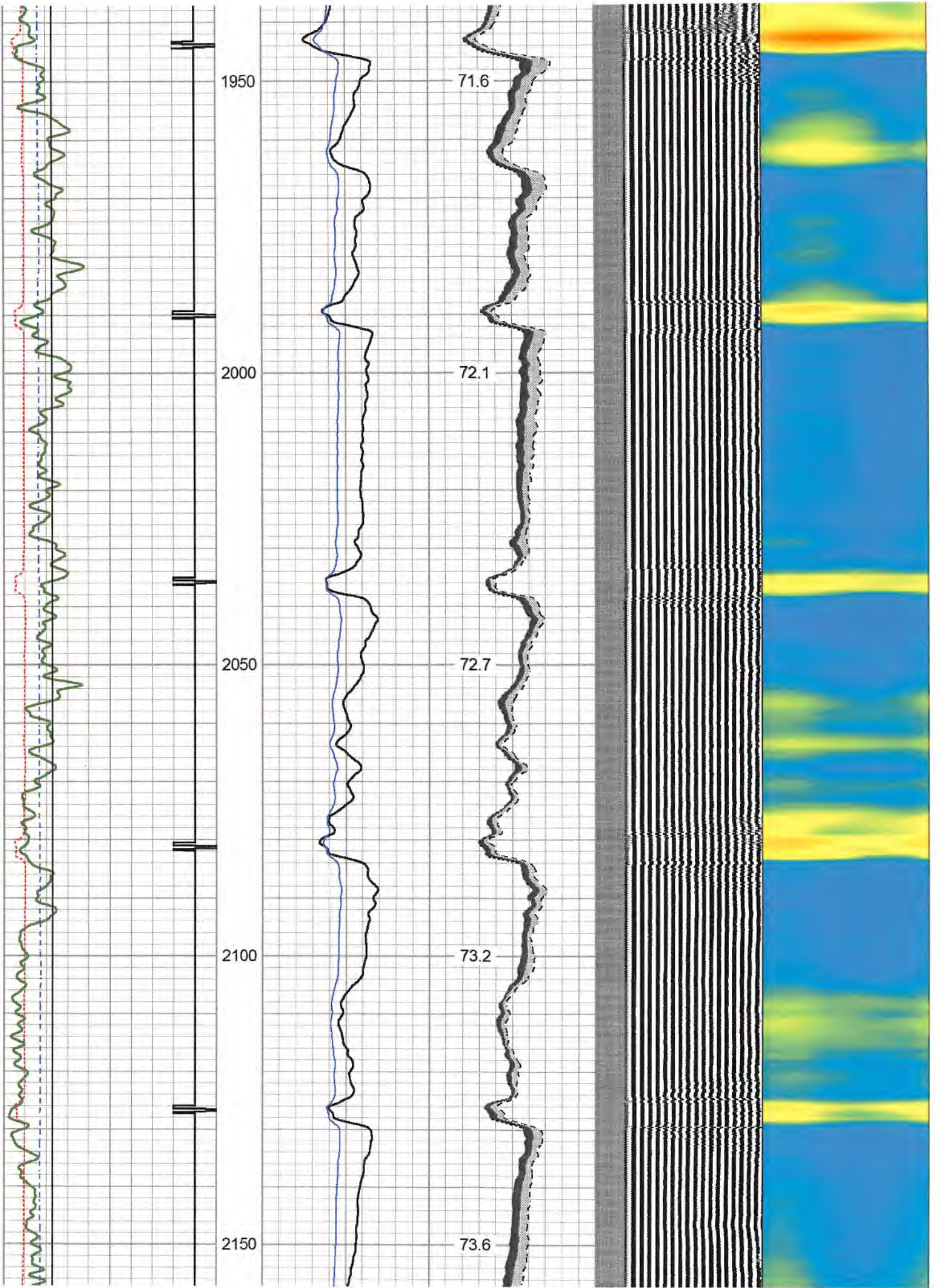


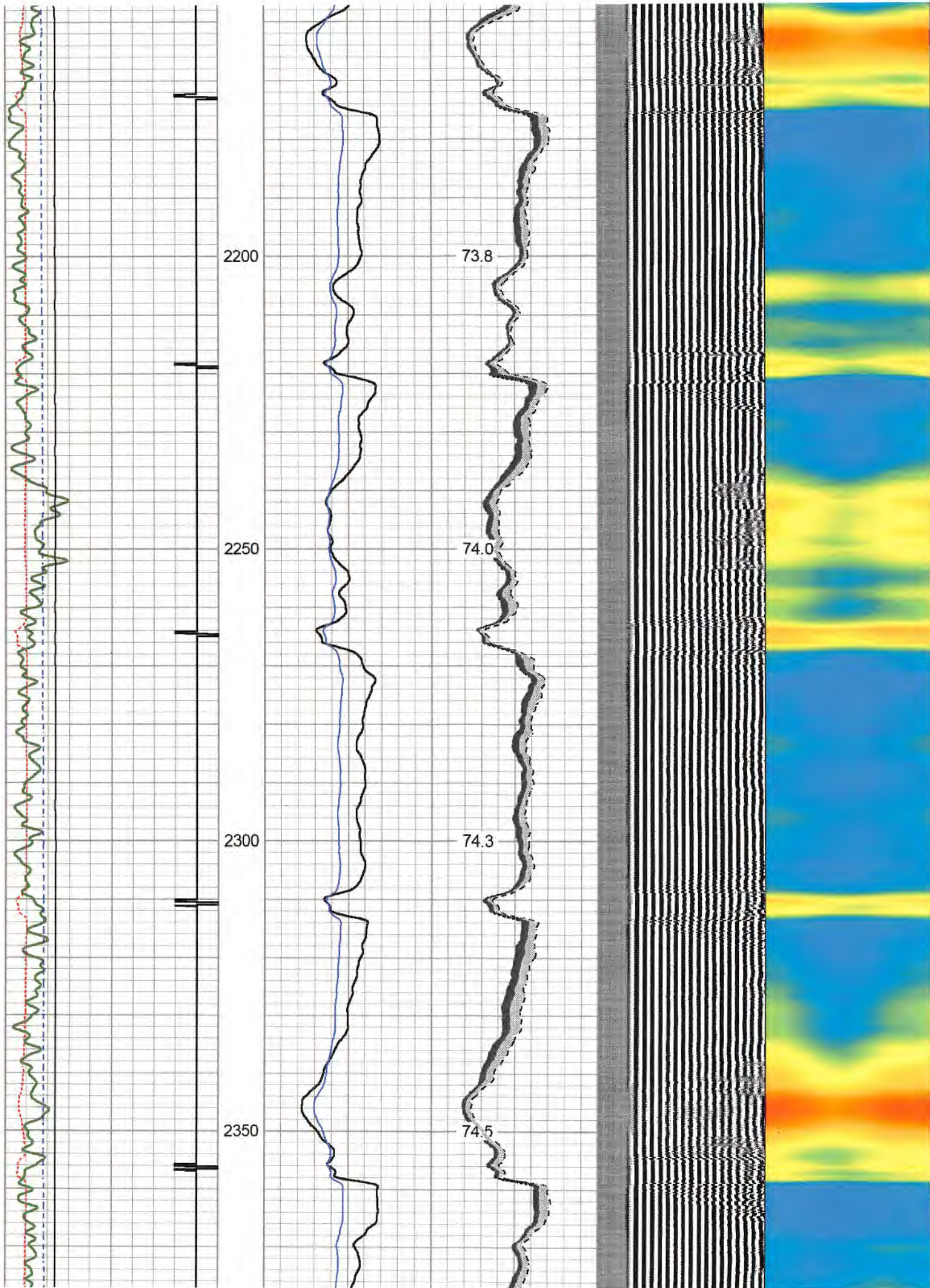


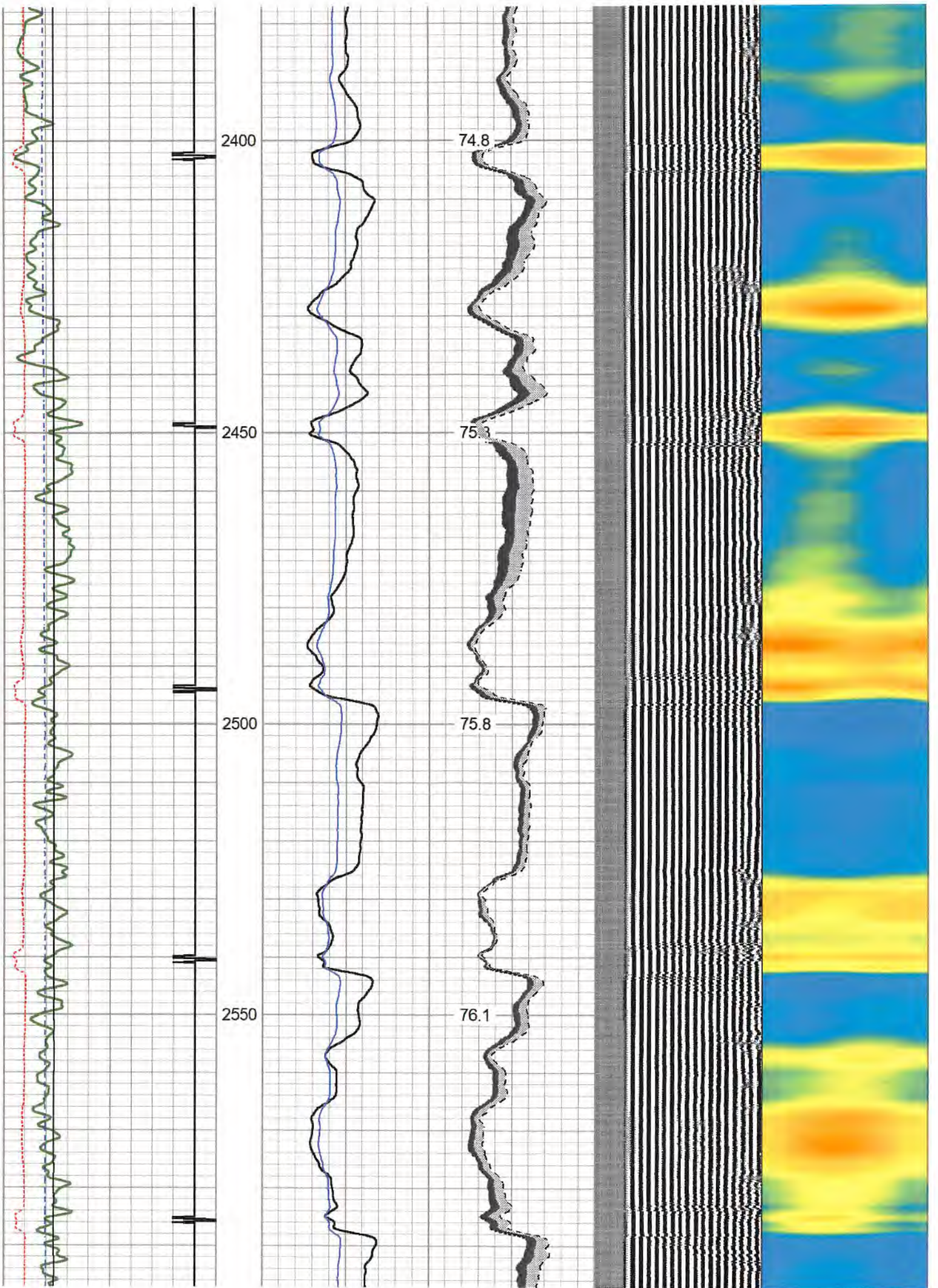


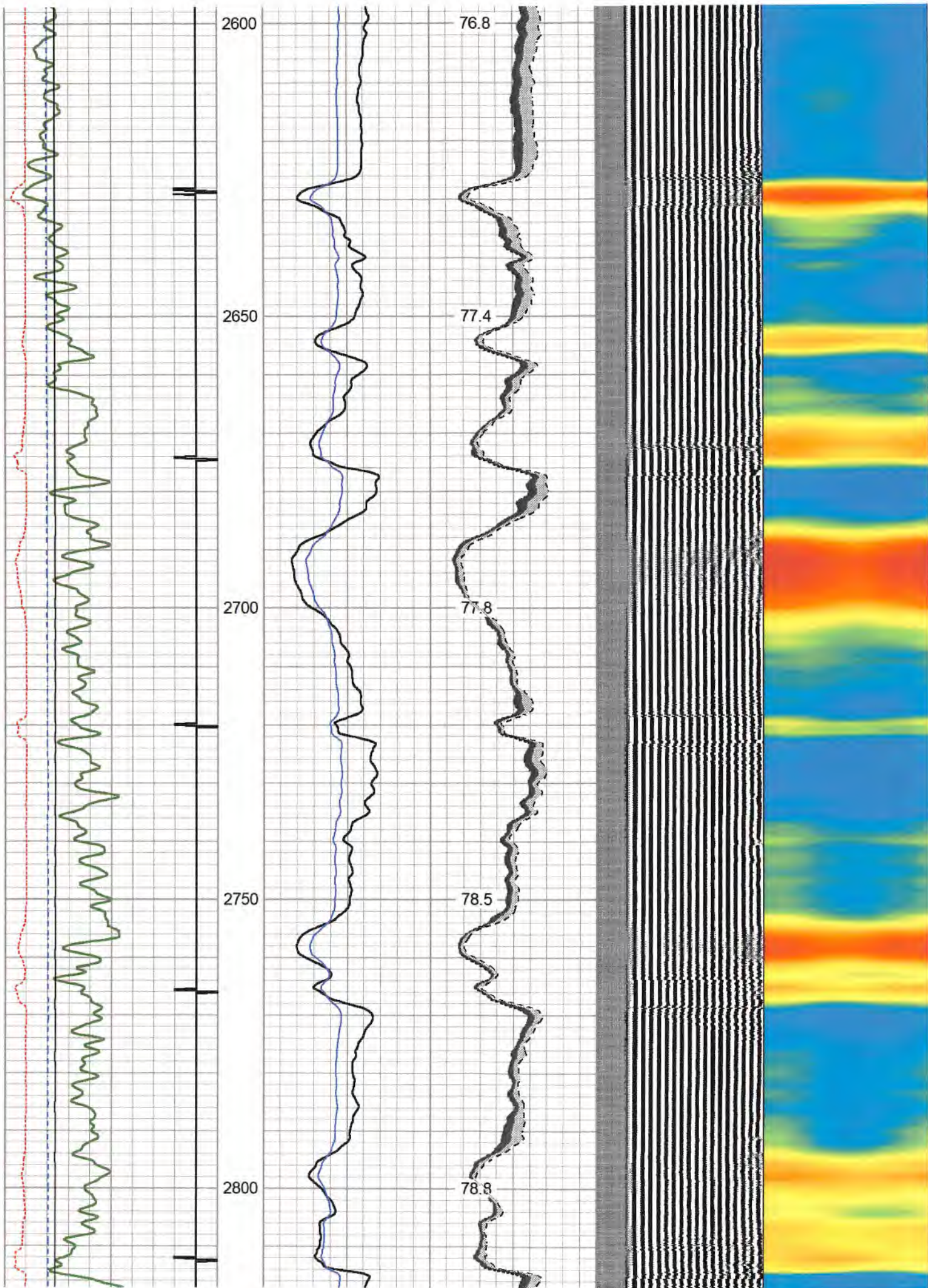


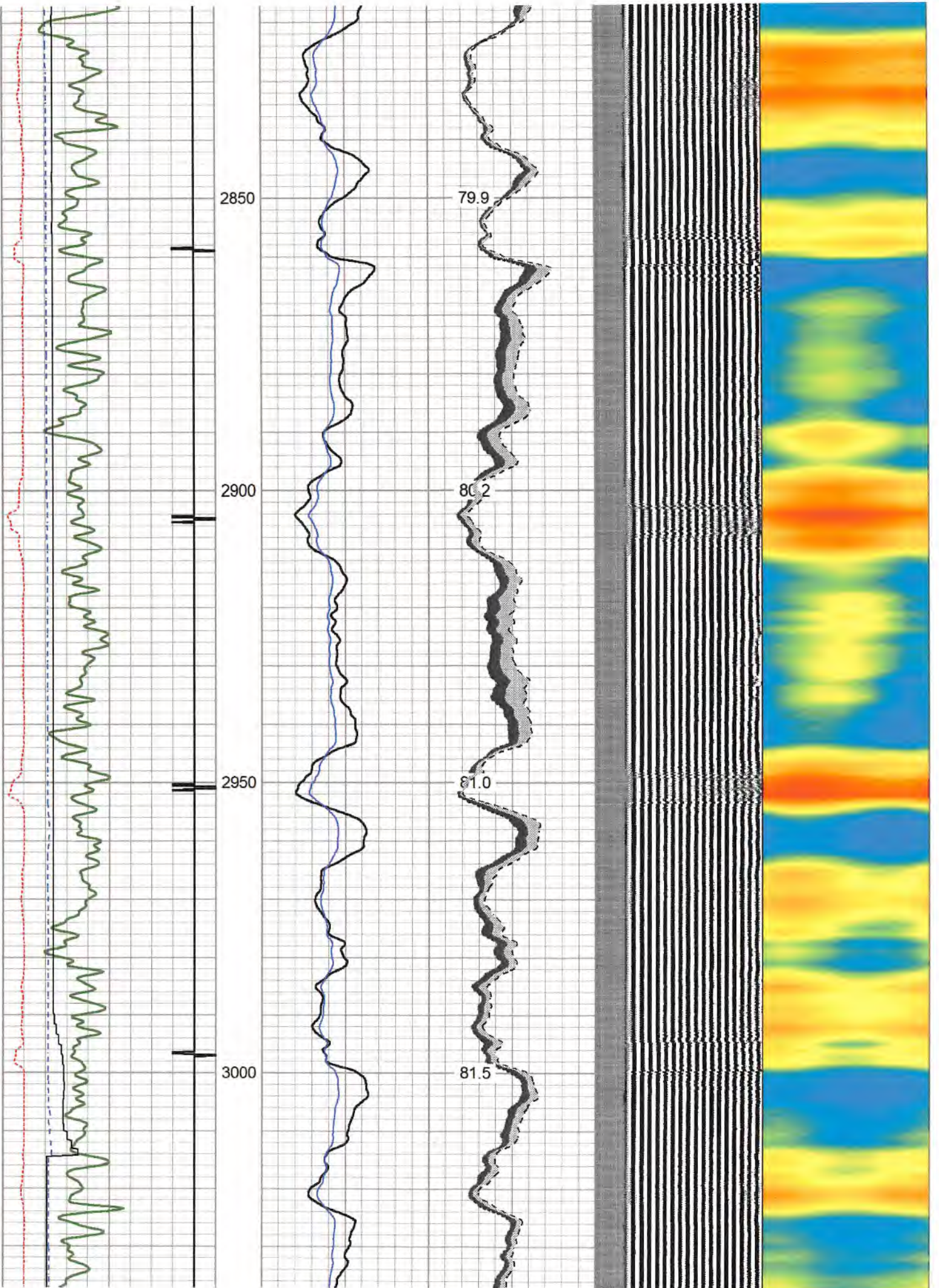


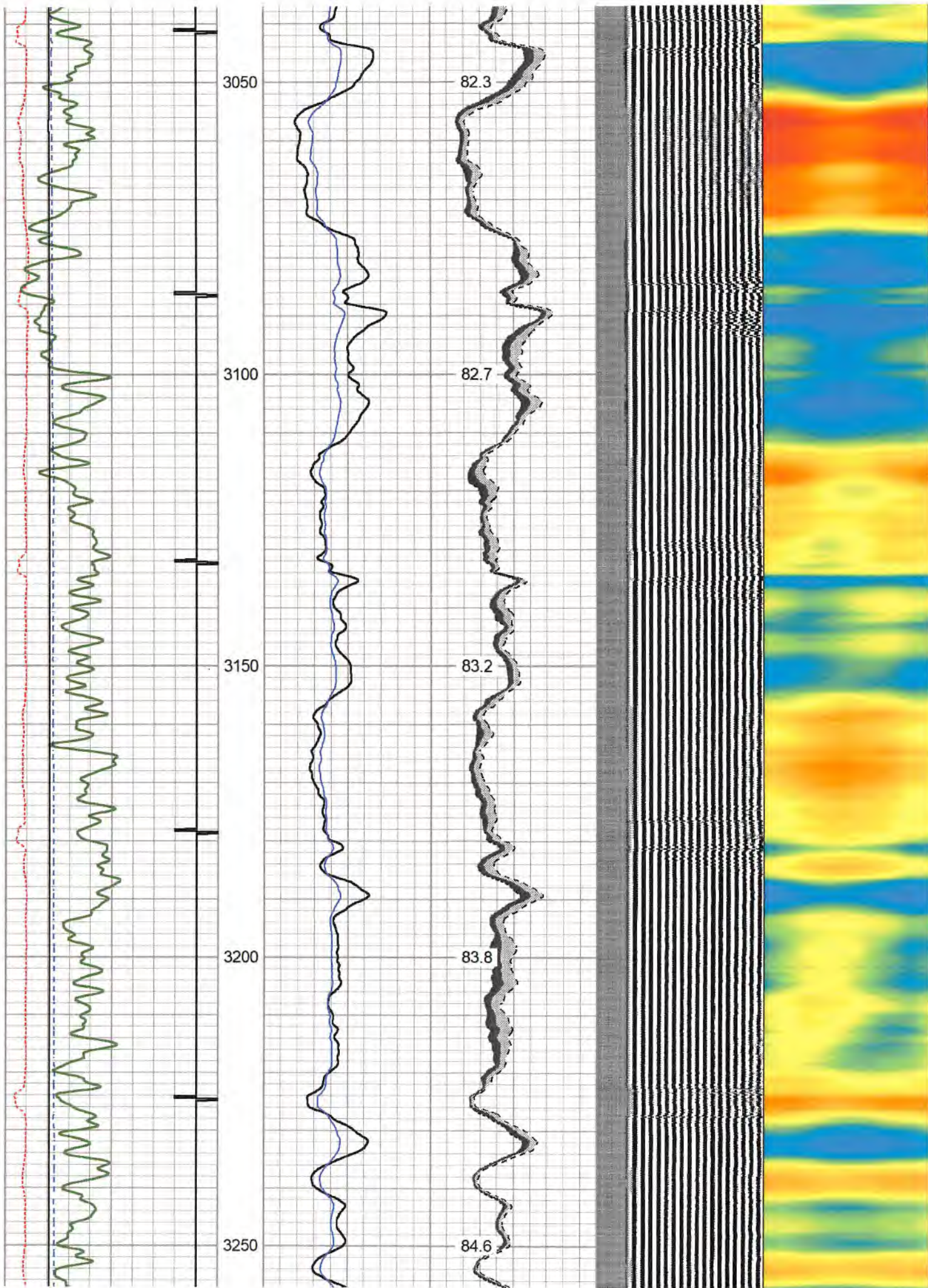




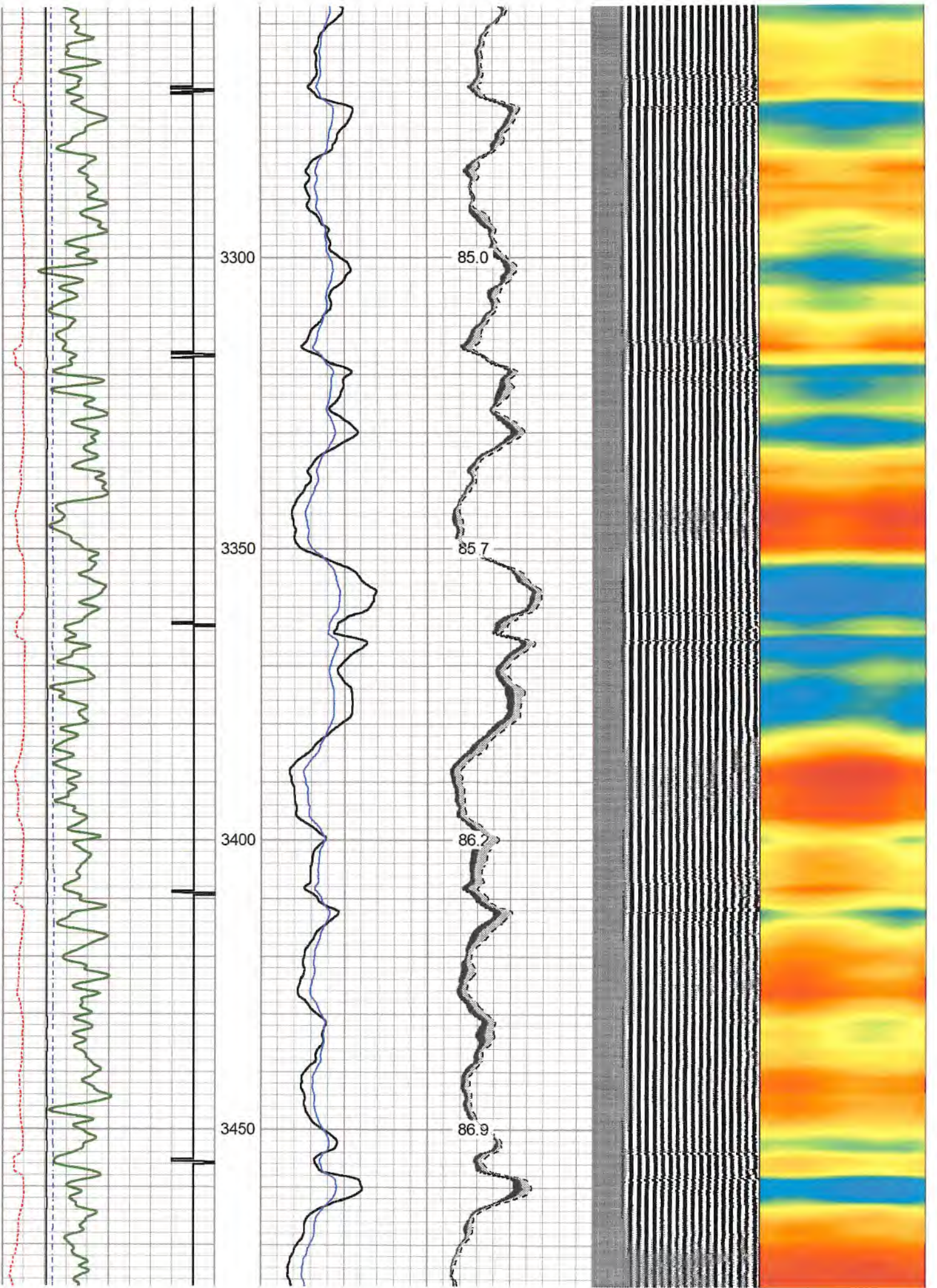


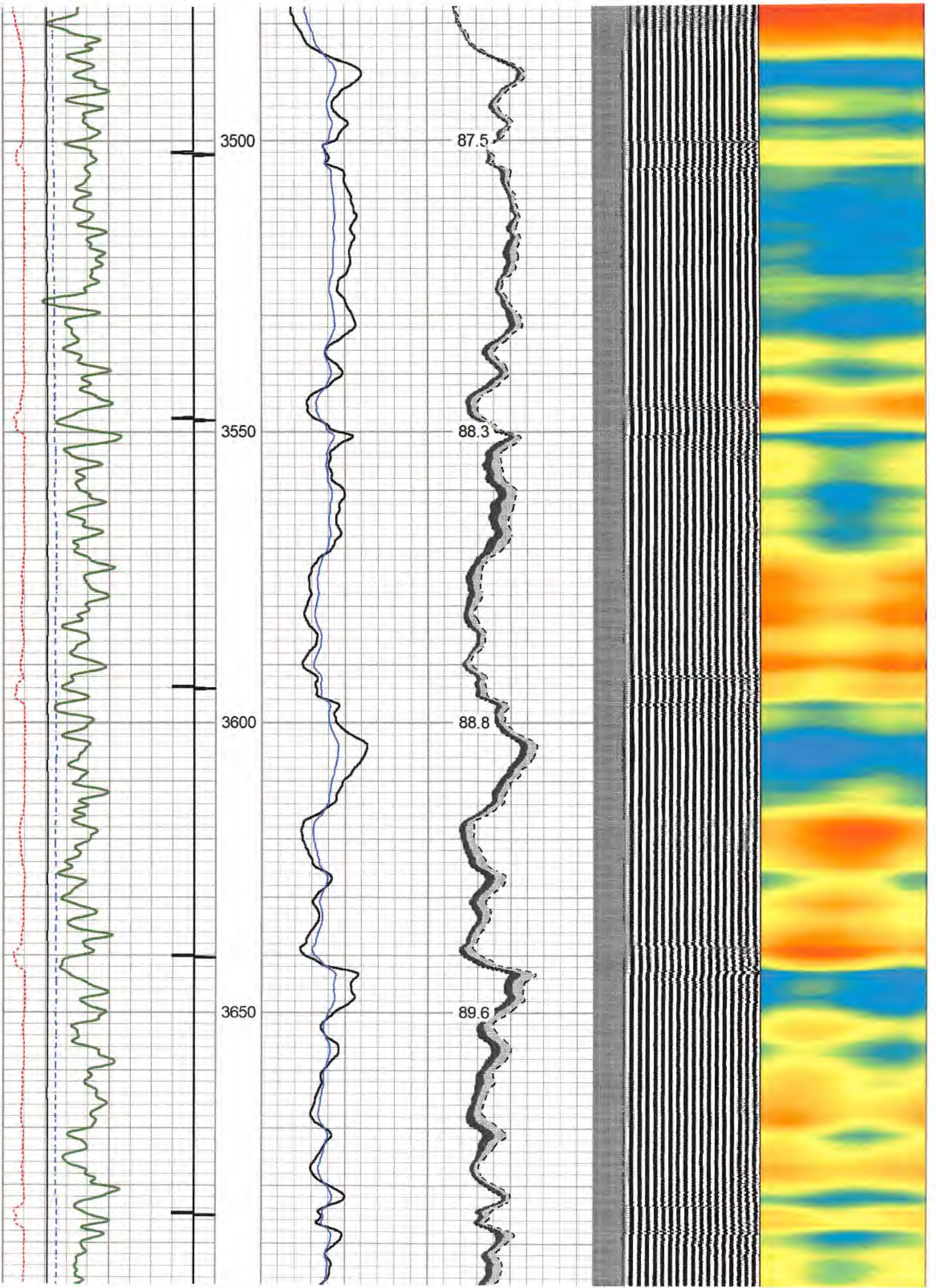


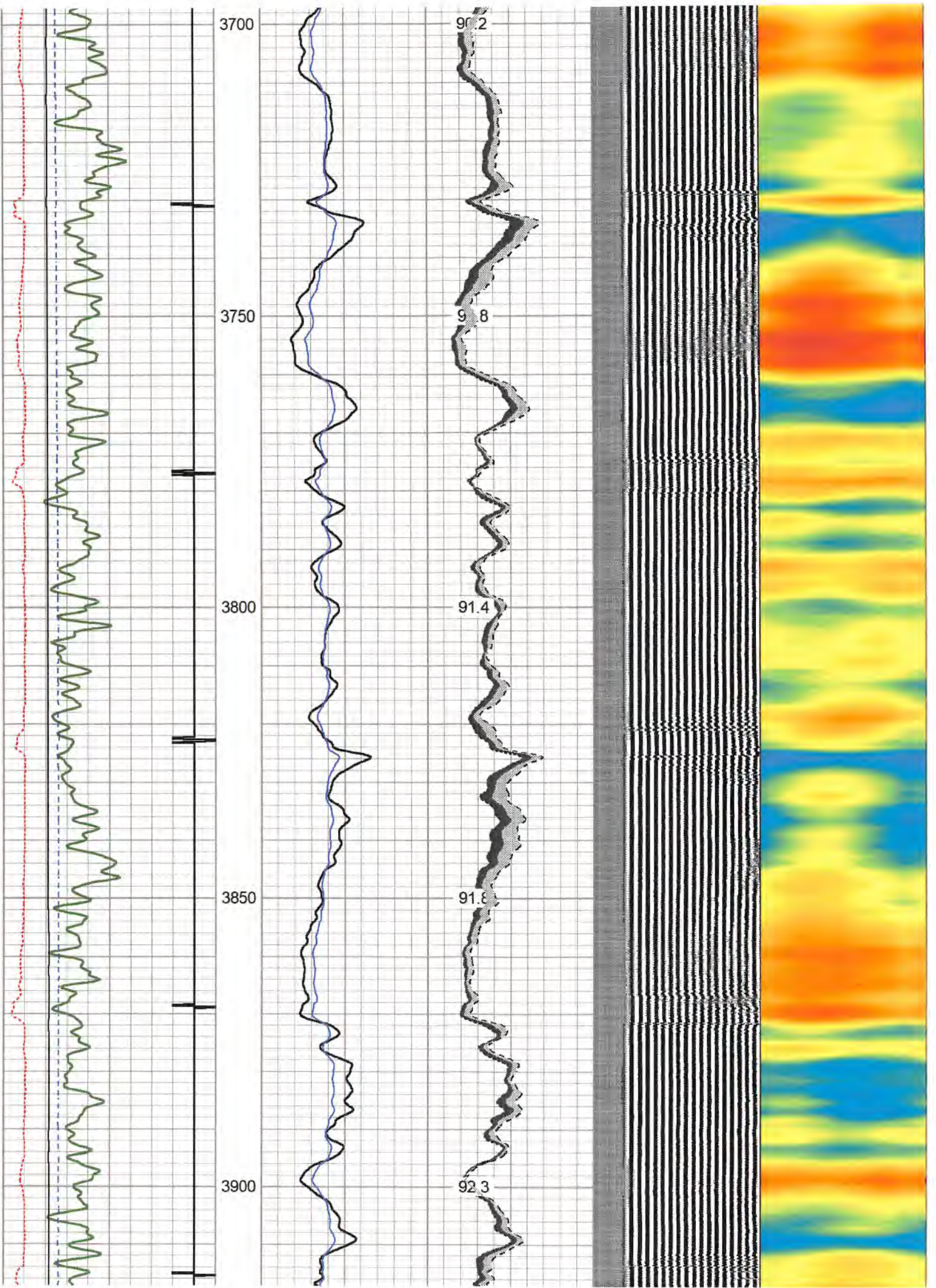


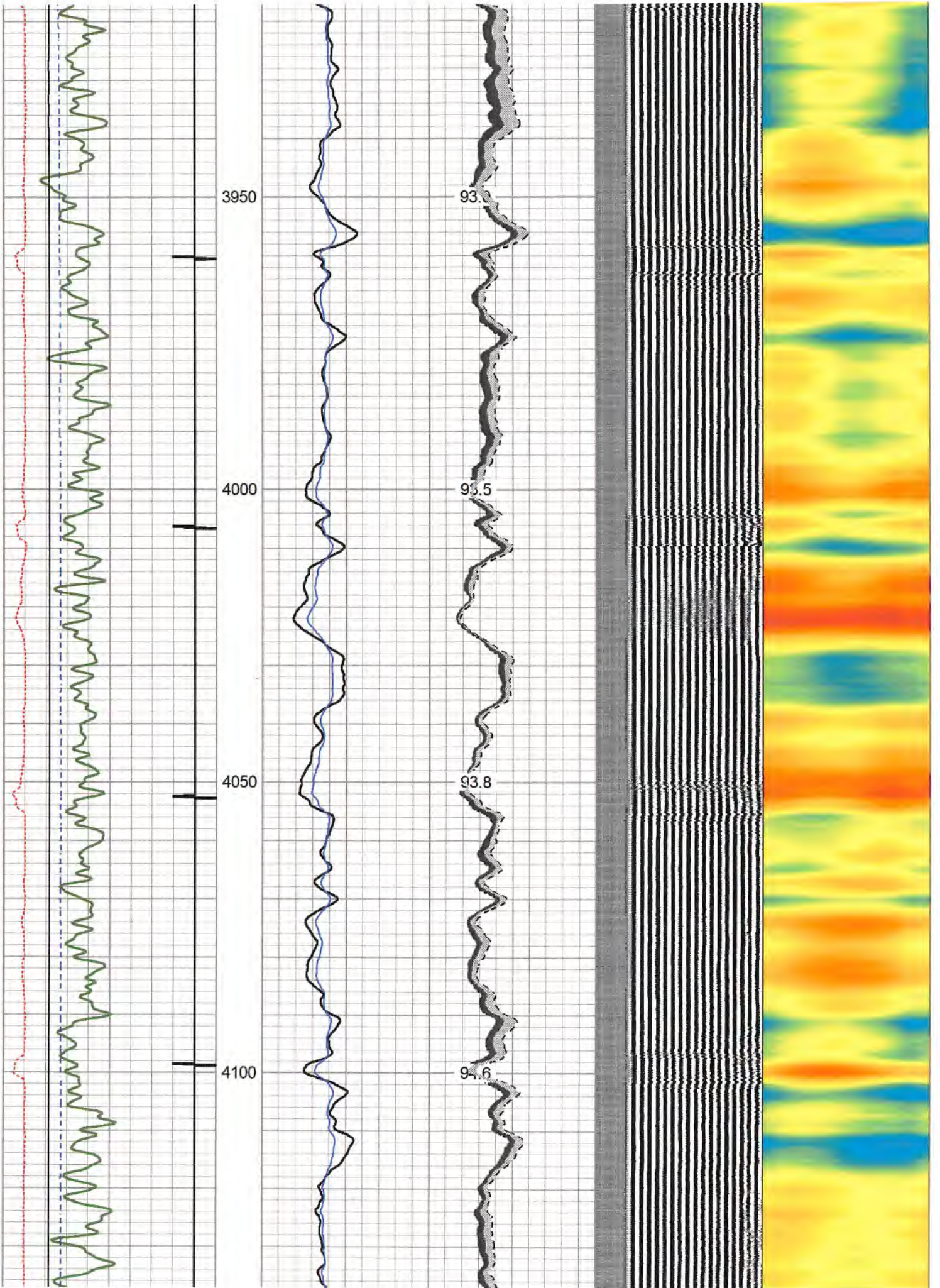


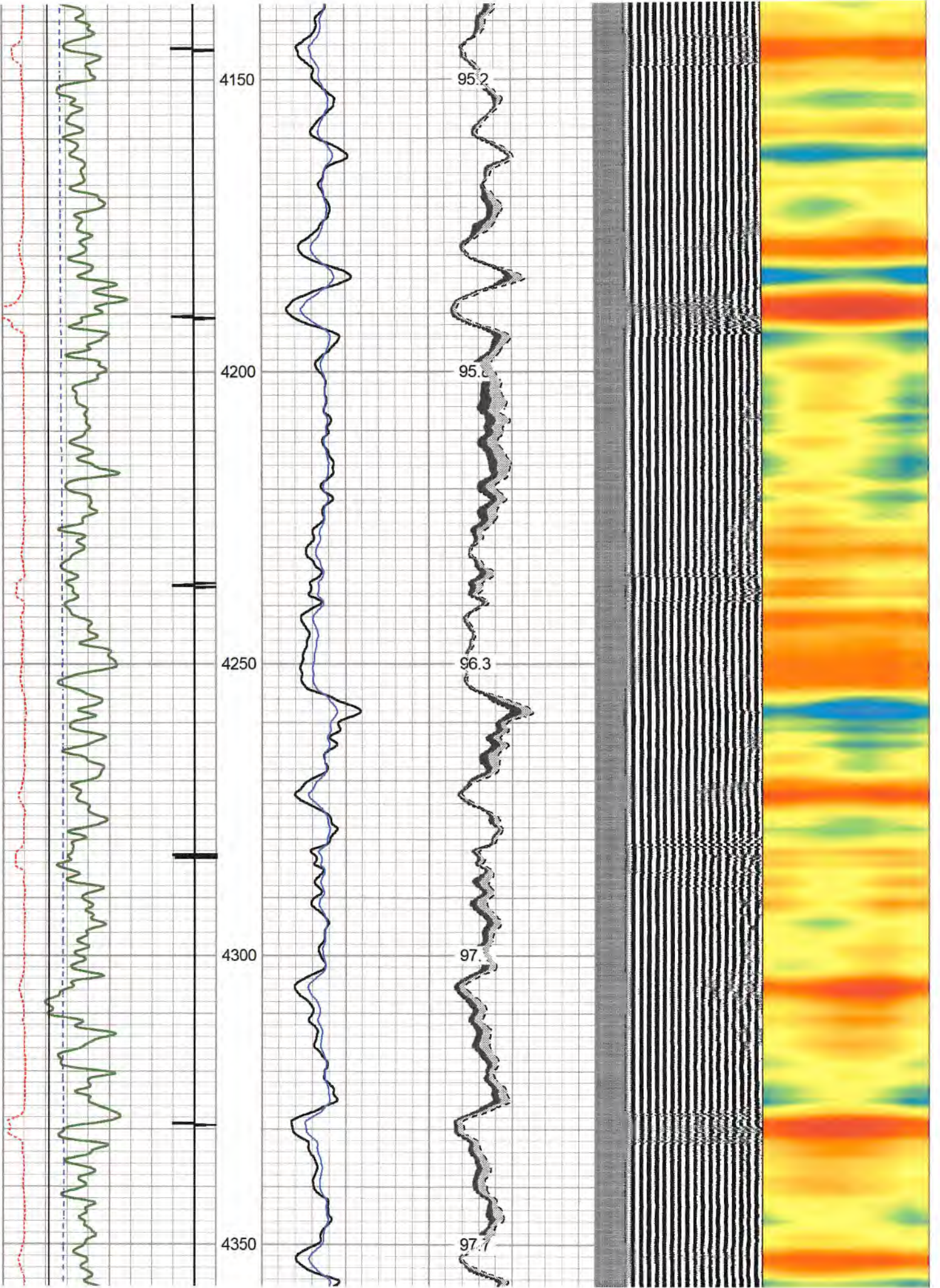


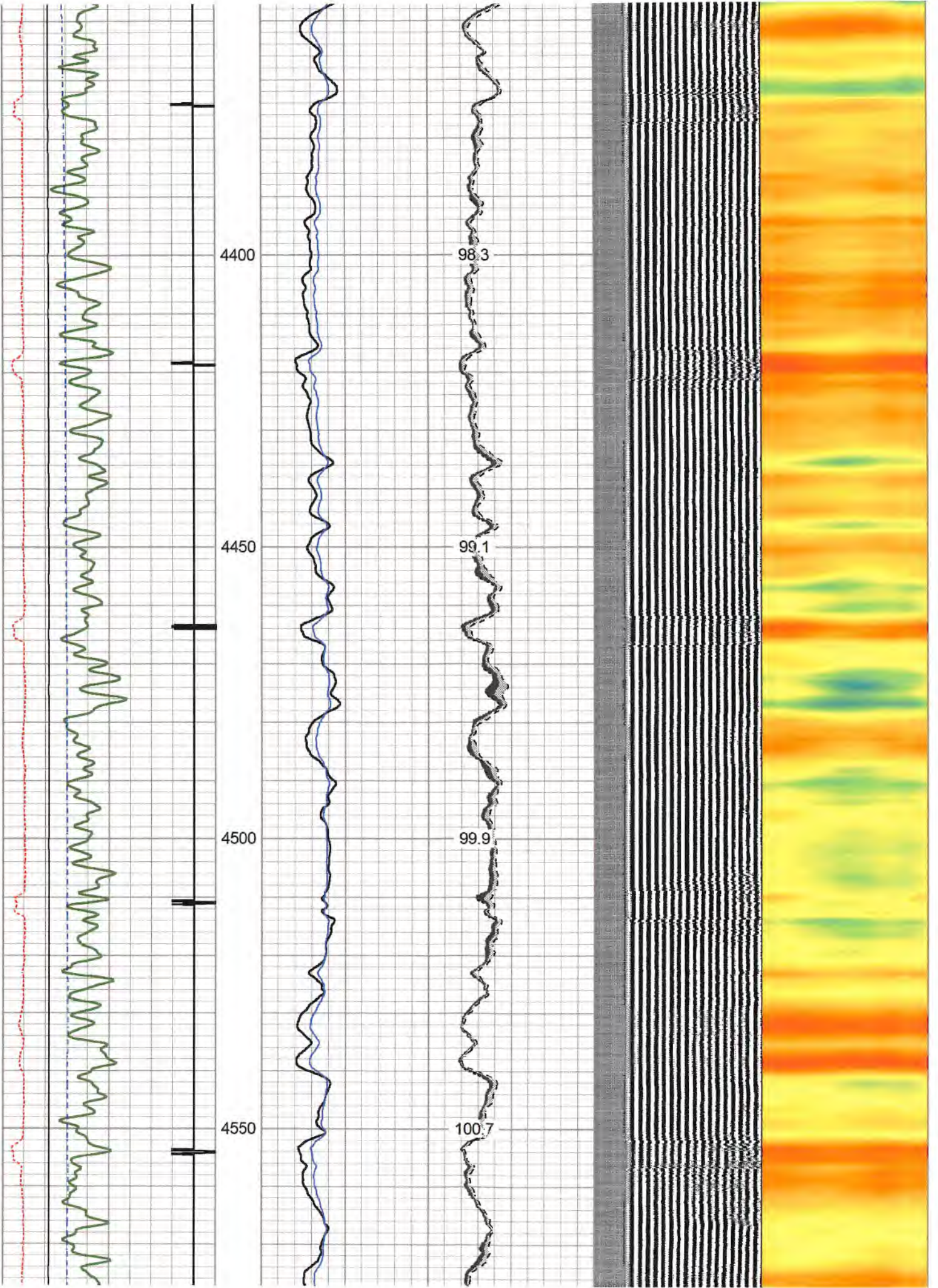


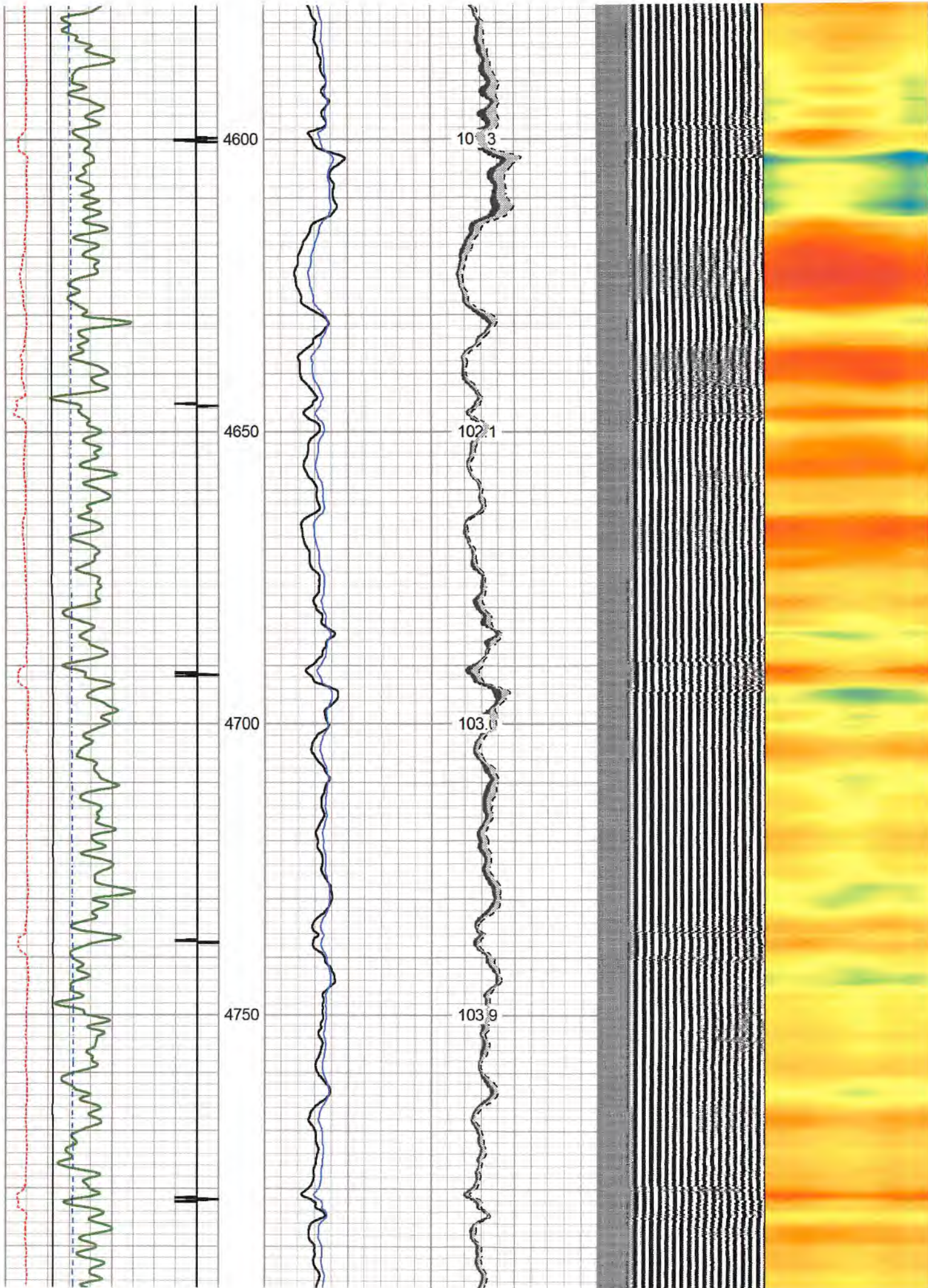


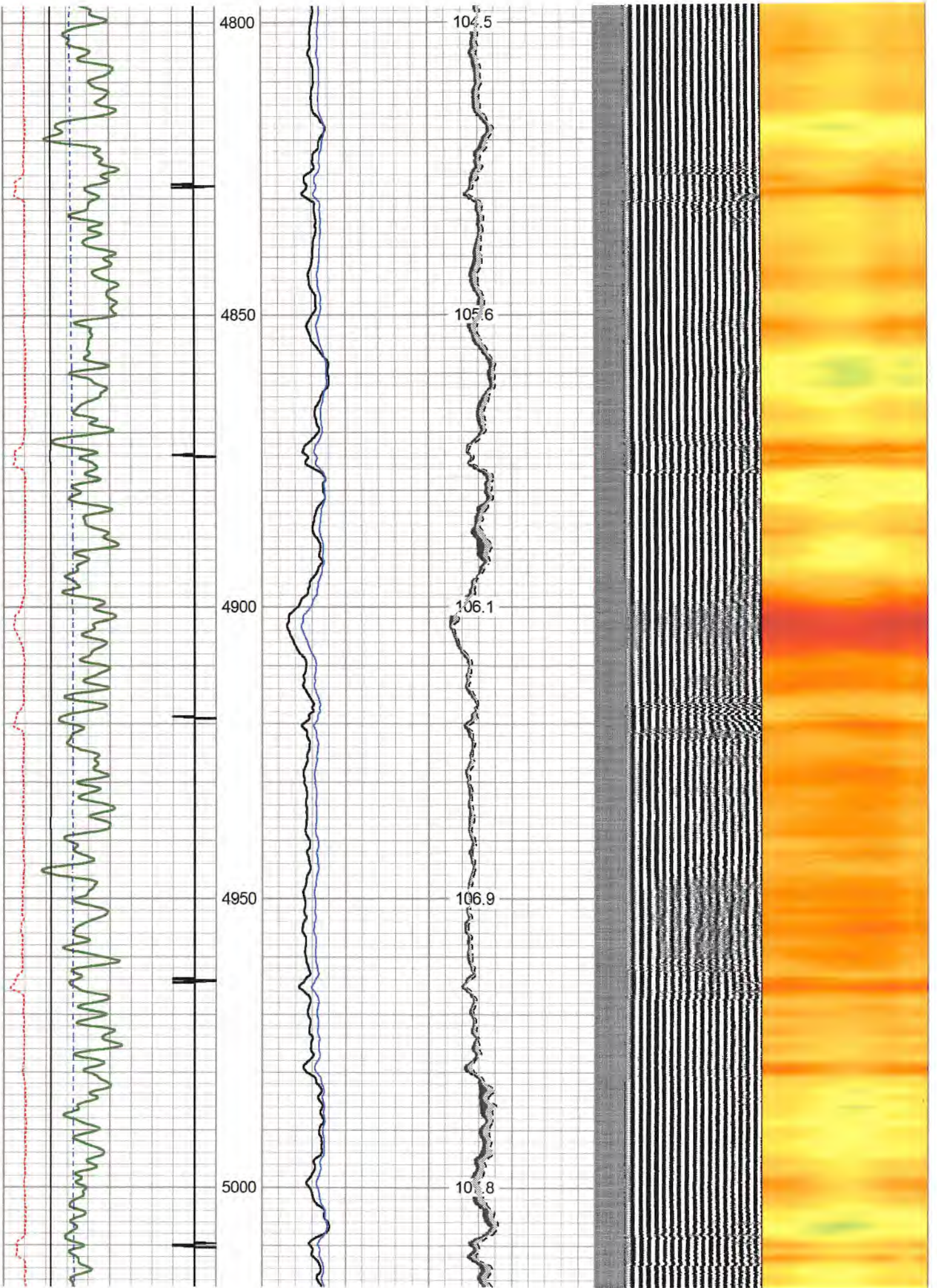




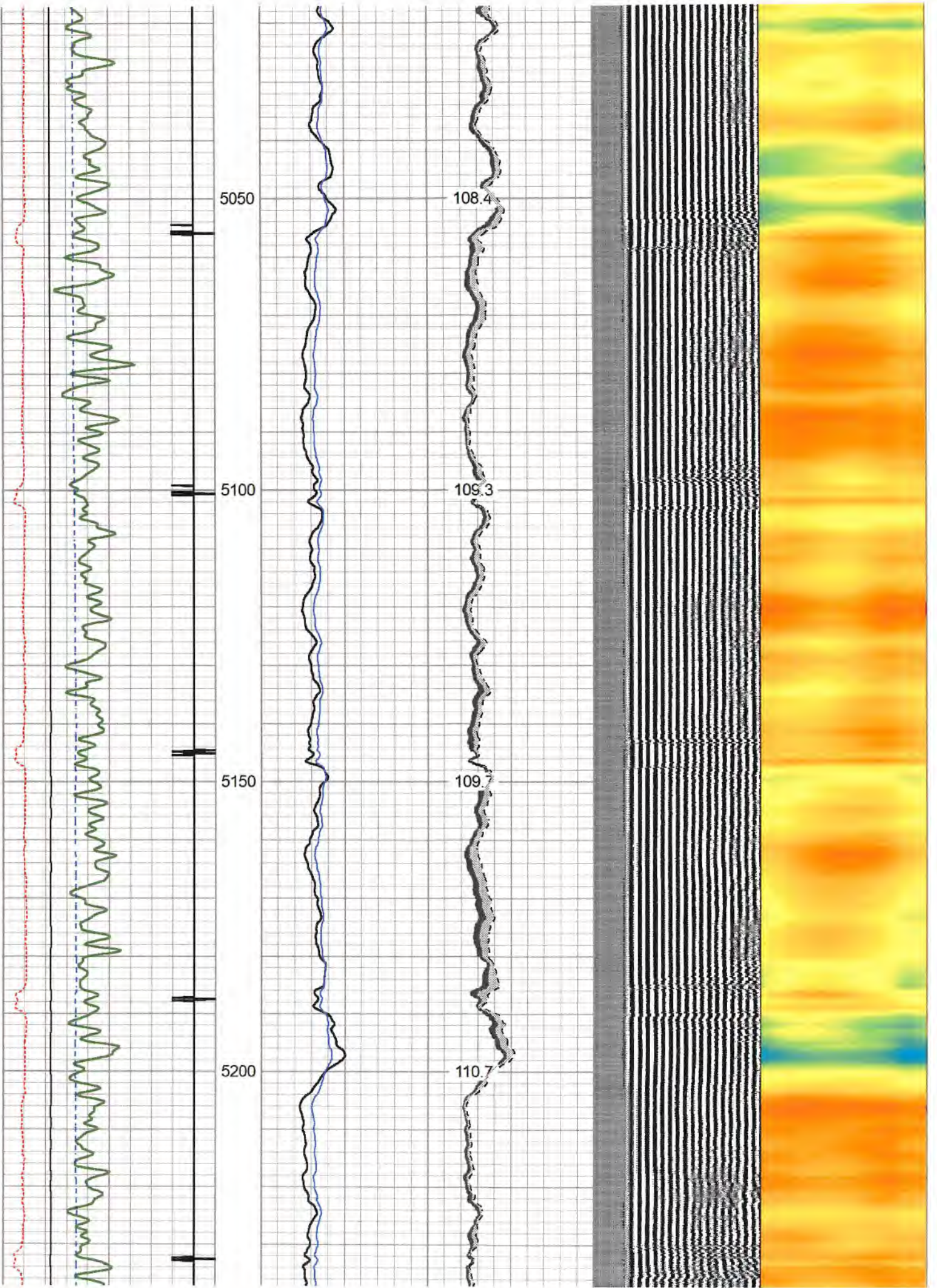


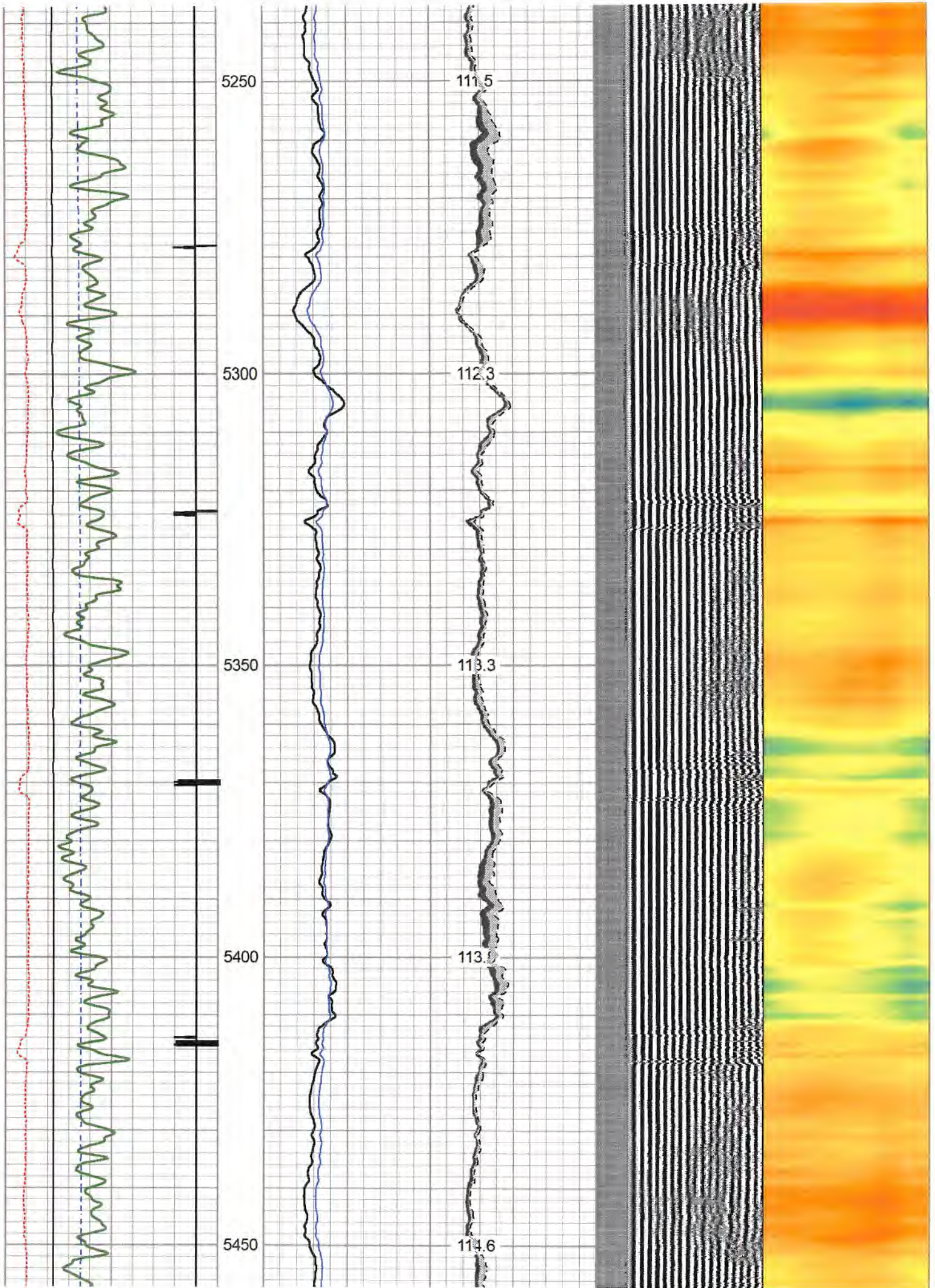


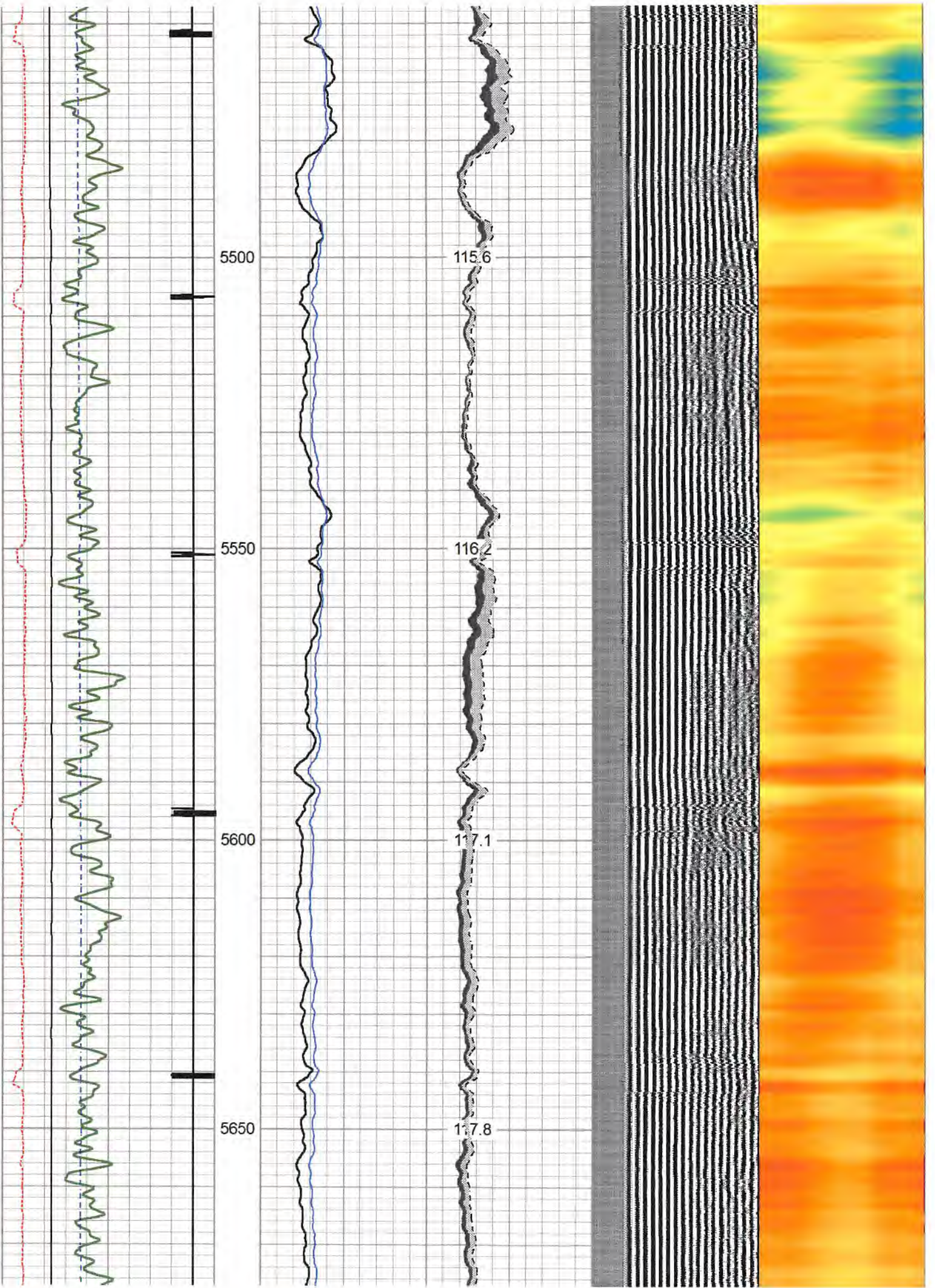


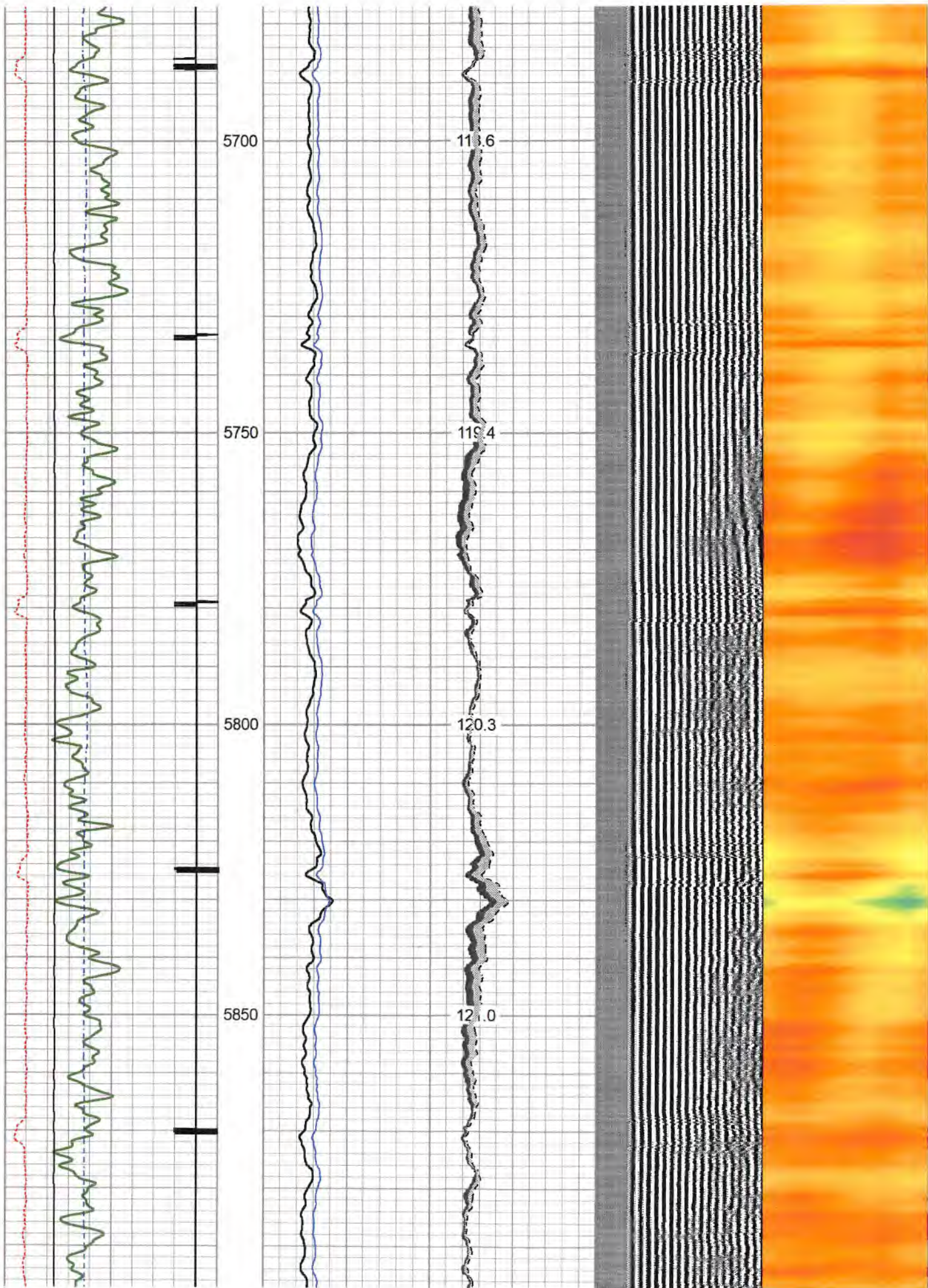


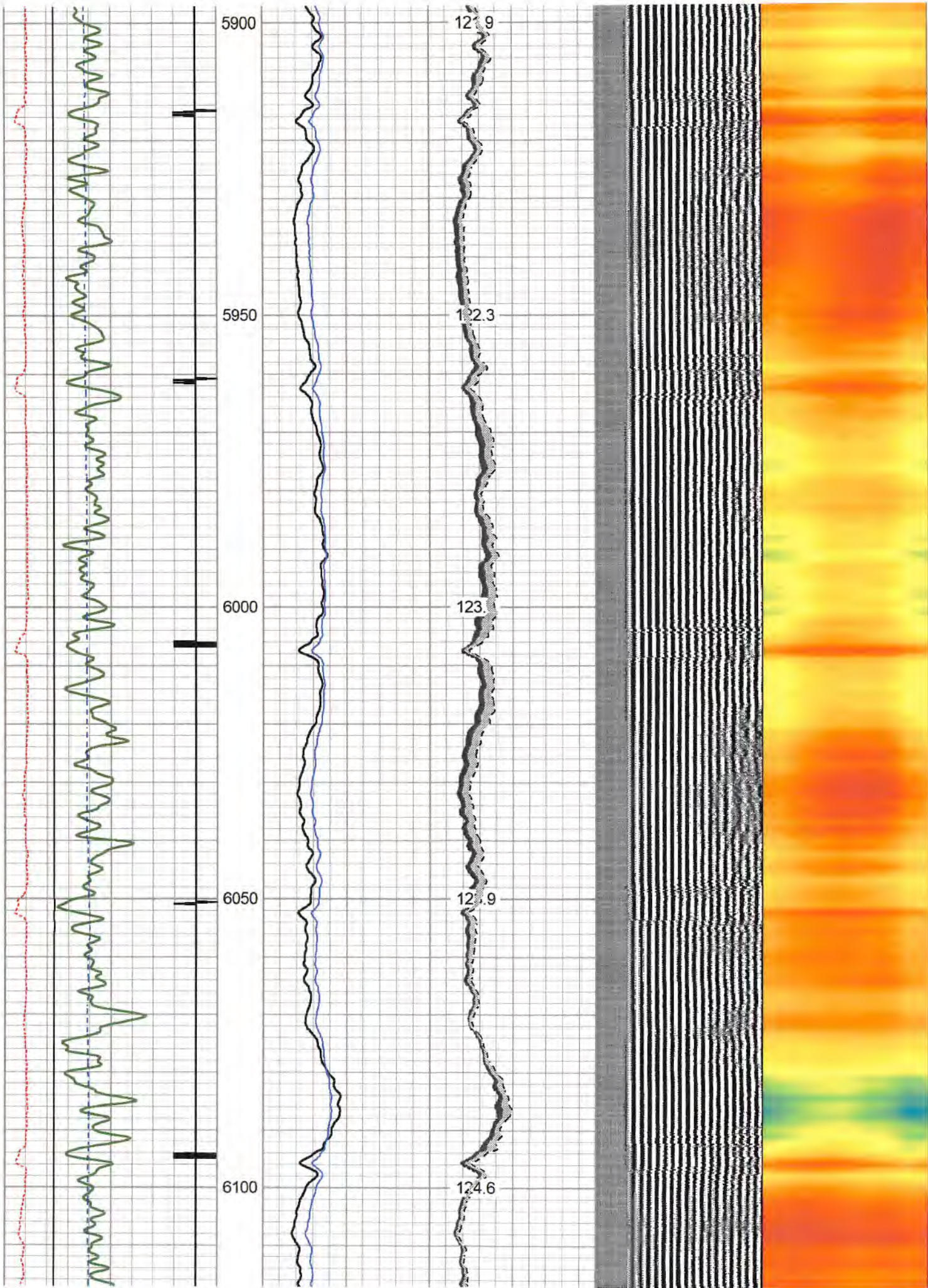


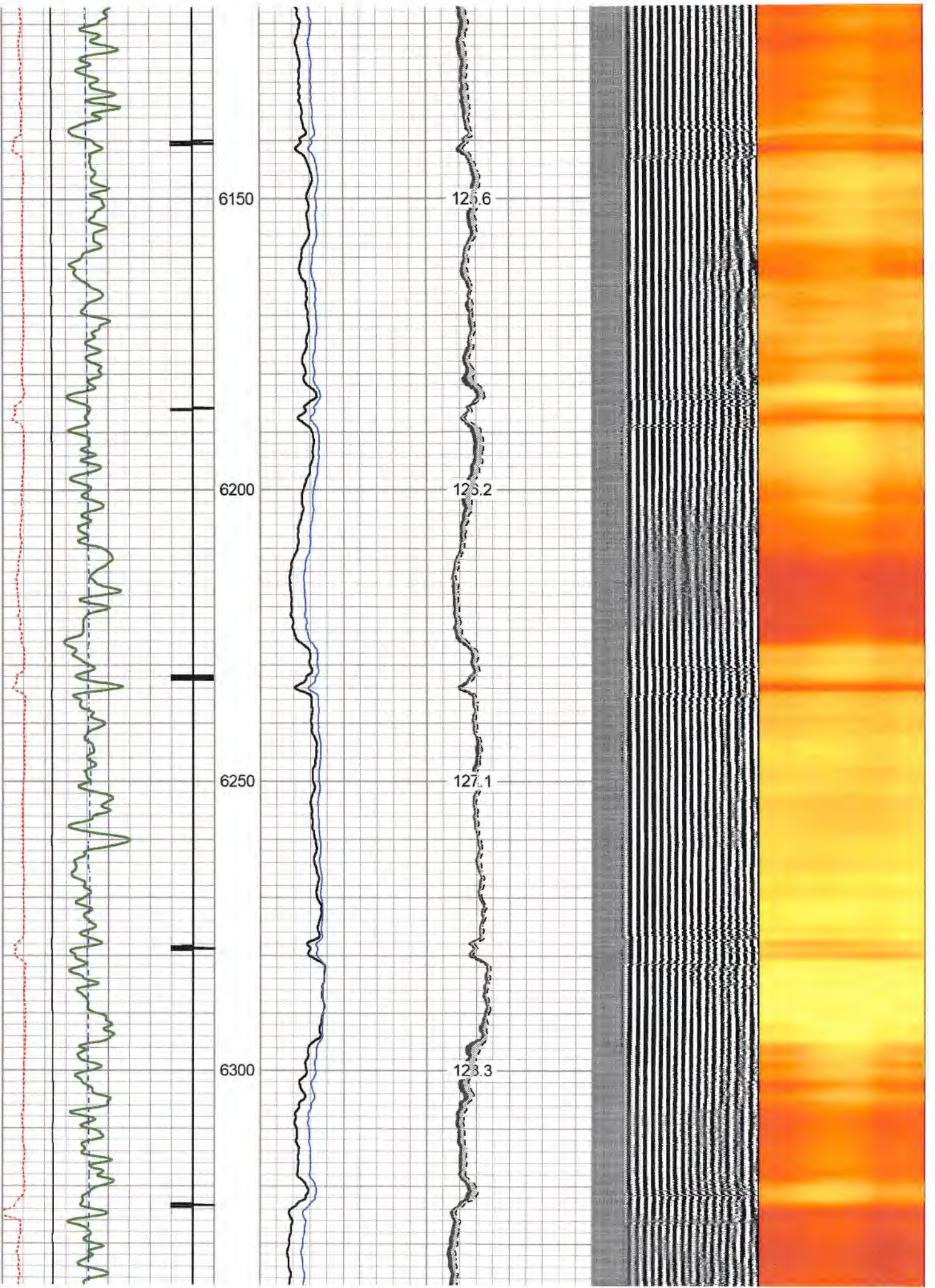


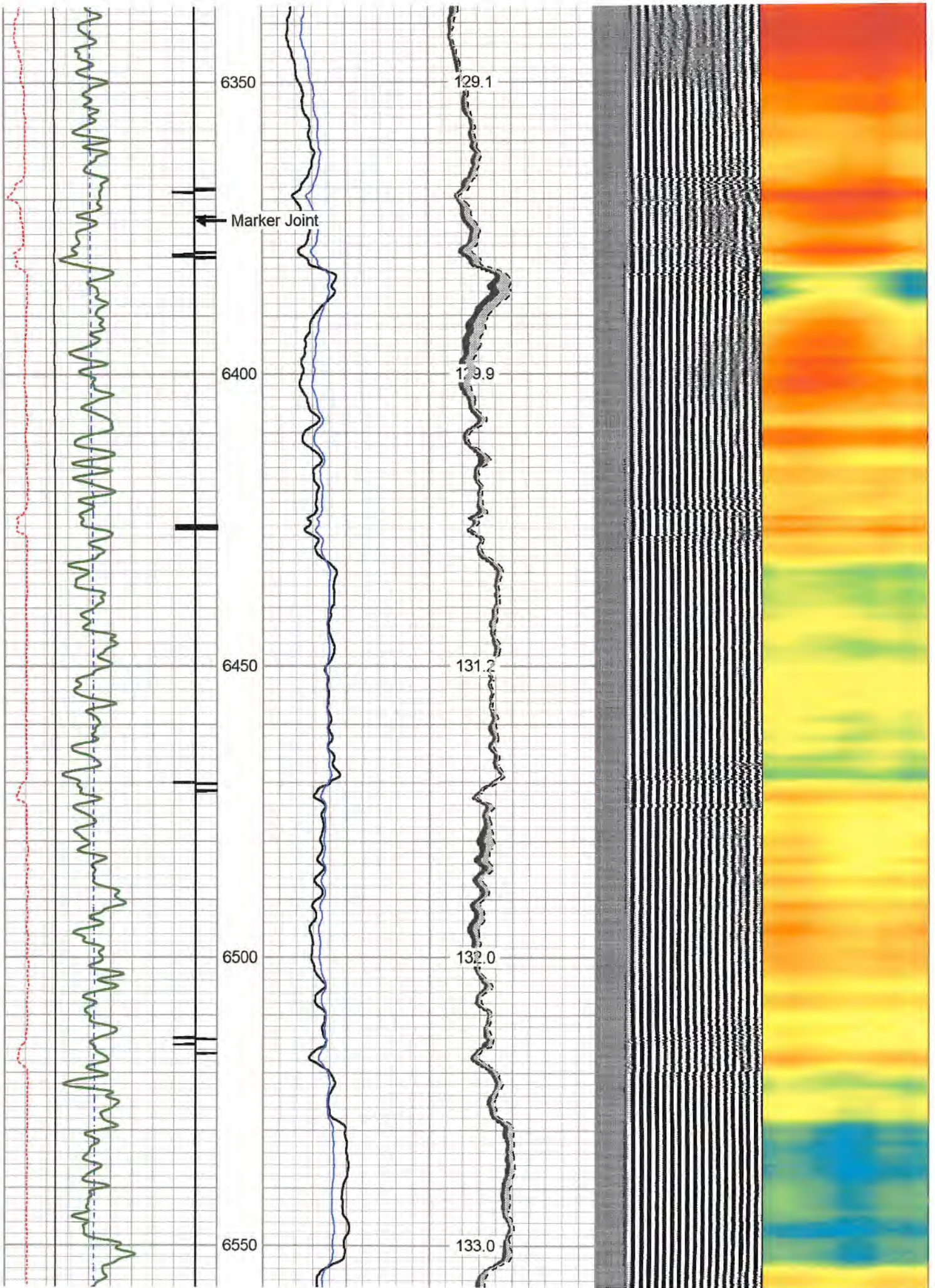


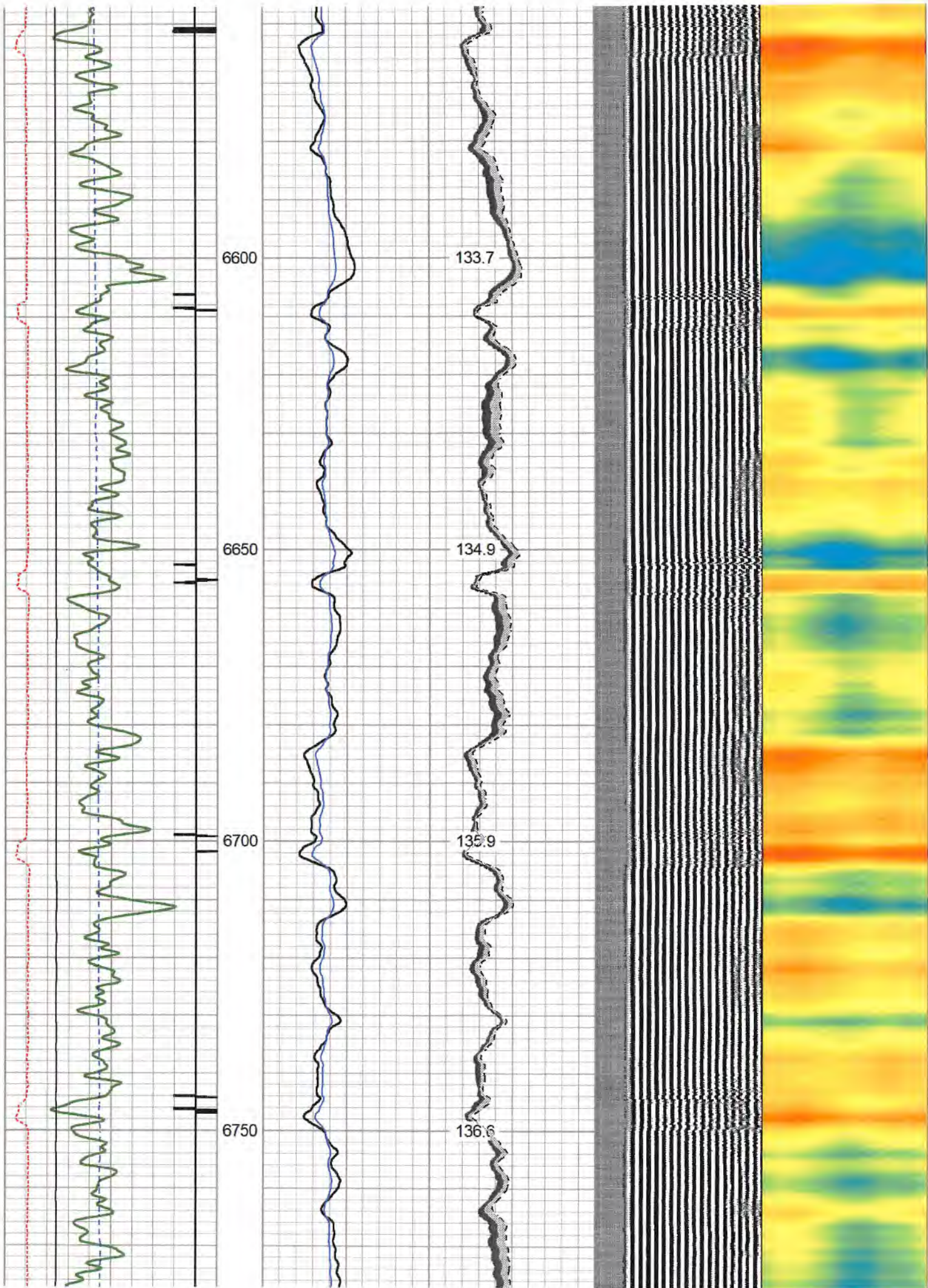




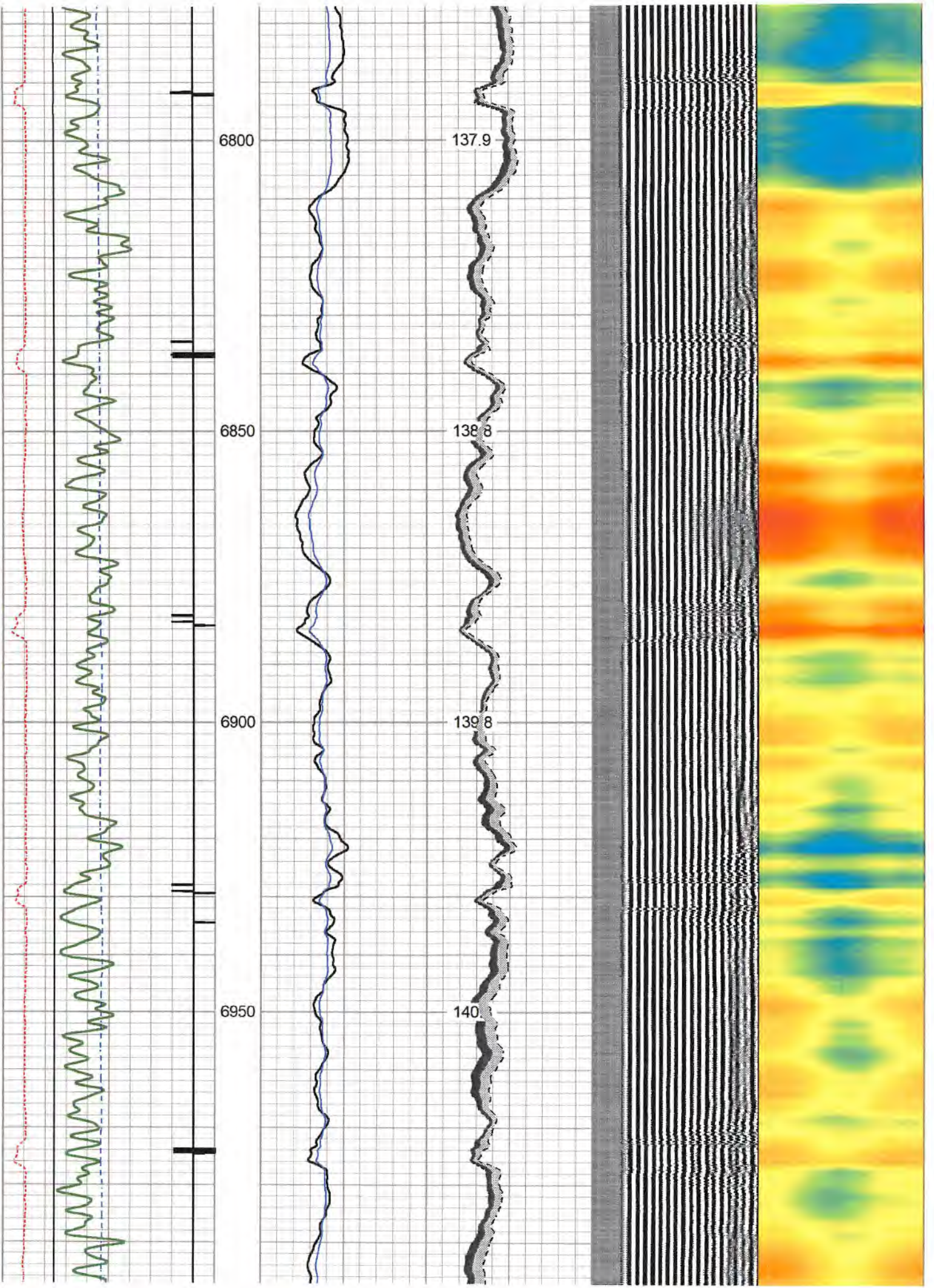


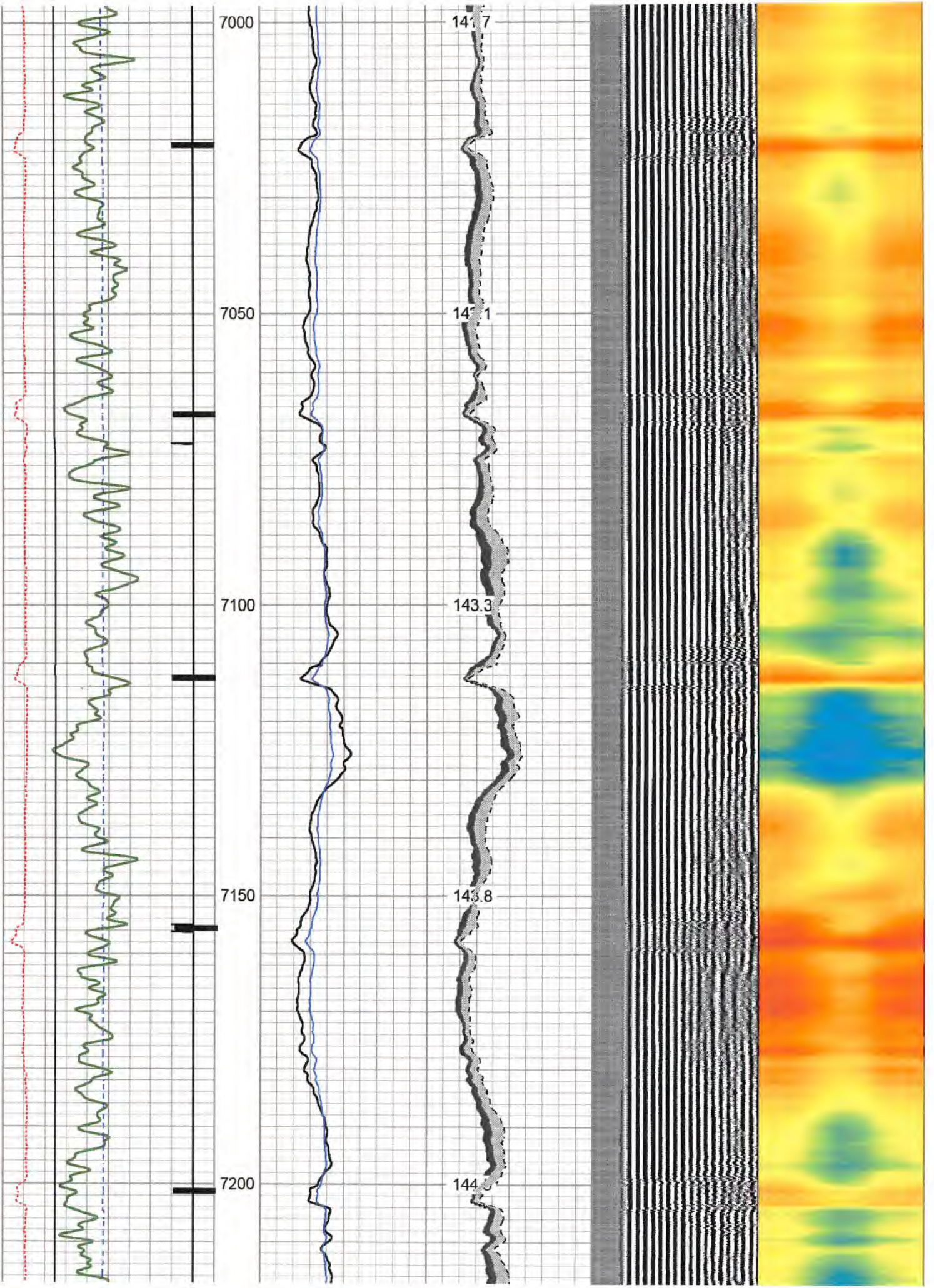


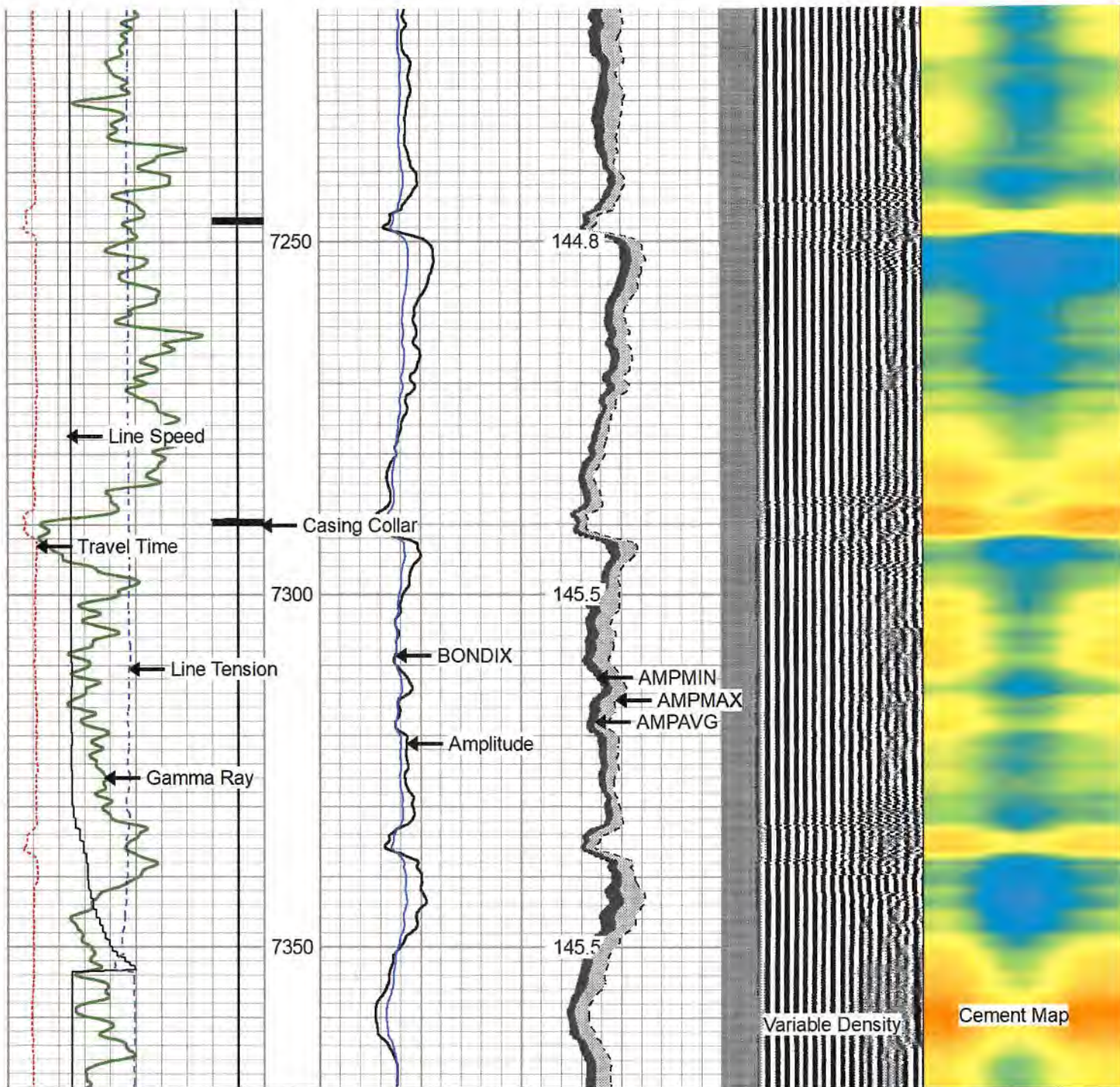












270	Travel Time (usec)	160	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	3000										



# Repeat Pass 0 PSI

Database File c:\users\warrrior\desktop\antero journeyman rcbls 7-may-22\antero welder 1h rcbl 7-may-2022\antero\_weld  
 Dataset Pathname welder1h/run1/pass2  
 Presentation Format rcbl-bond index 1020

Dataset Creation  
Charted by

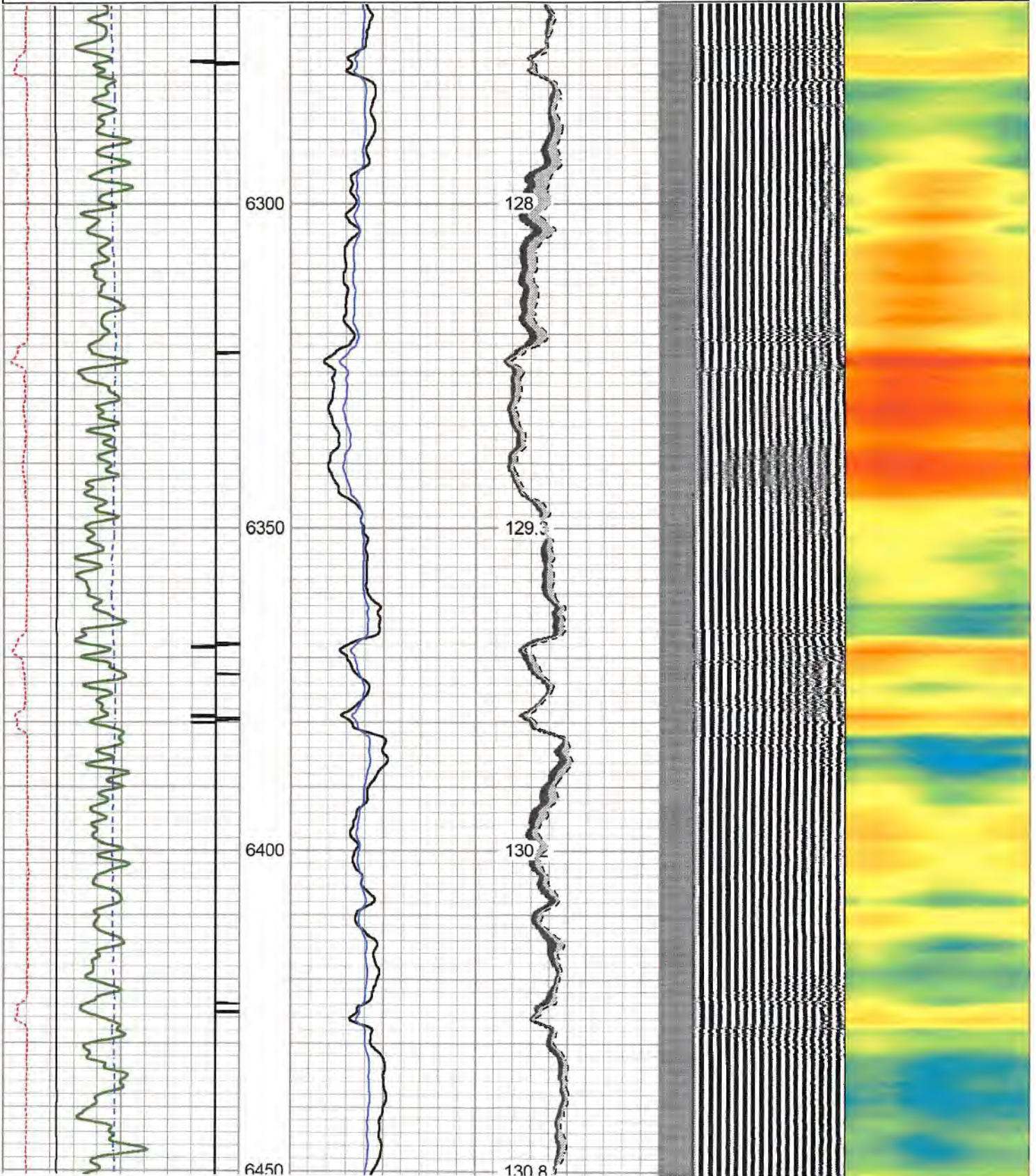
Sat May 07 12:57:31 2022  
Depth in Feet scaled 1:240

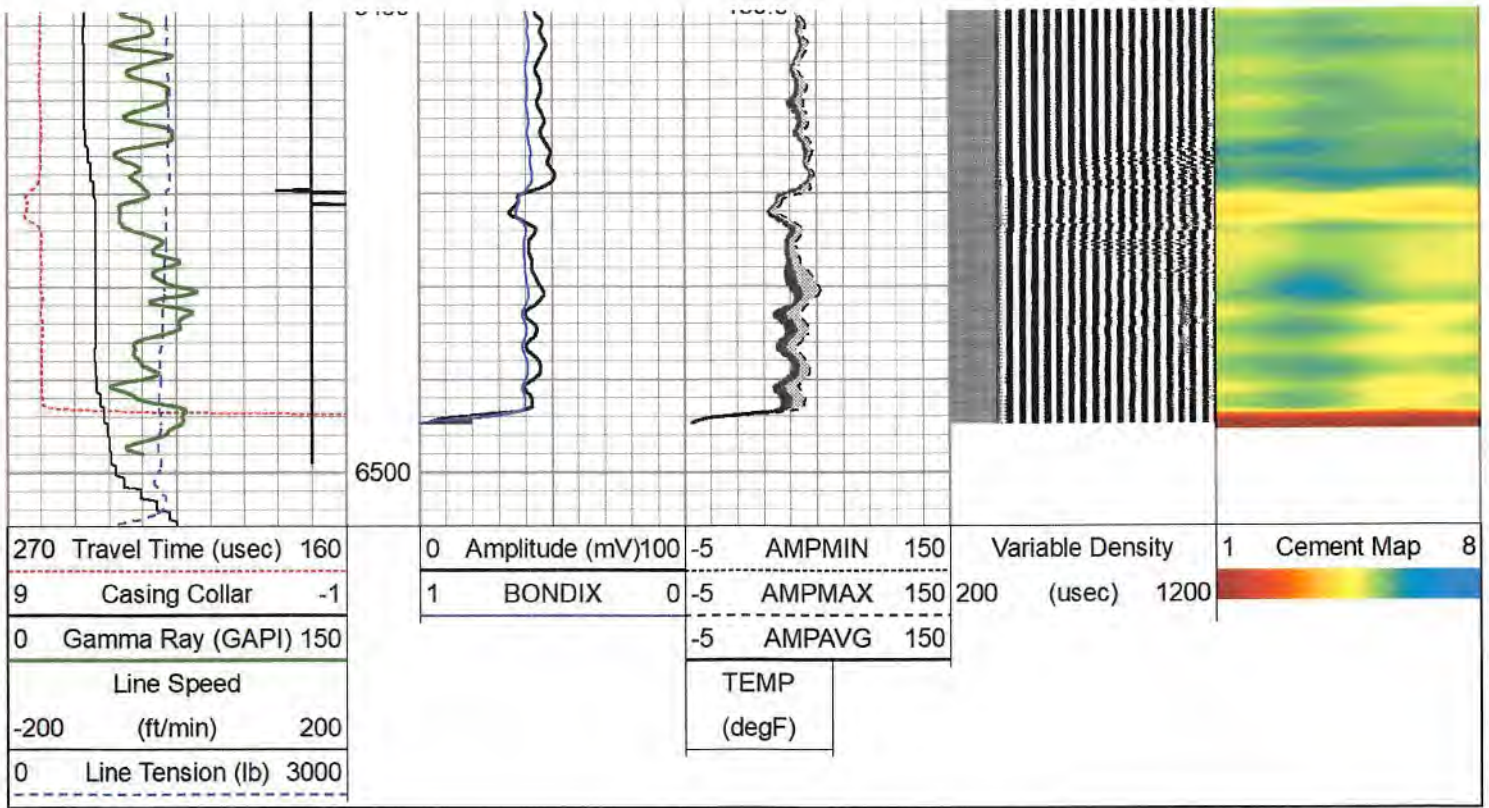
270 Travel Time (usec) 160  
9 Casing Collar -1  
0 Gamma Ray (GAPI) 150  
Line Speed  
-200 (ft/min) 200  
0 Line Tension (lb) 3000

0 Amplitude (mV)100  
1 BONDIX 0  
-5 AMPMIN 150  
-5 AMPMAX 150  
-5 AMPAVG 150  
TEMP  
(degF)

Variable Density  
200 (usec) 1200

1 Cement Map 8





**Log Variables** DatabaseC:\Users\Warrior\Desktop\Antero Journeyman rcbls 7-May-22\Antero Welder 1H RCBL 7-May-22\Antero Dataset field/welder1h/run1/pass4/\_vars\_

**Top - Bottom**

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
TEMP	in	degF	in	in	lb/ft	mV	mV
	7.875	145	5.5	0.415	23	71.9	3.4
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
db/ft		uSec	degF	ft			
9.6	No	260	50	7360			

**Variable Description**

BHTEMP_Src : BHTEMP Input Source Selector	MINAMPL : Minimum Amplitude
BOREID : Borehole I.D.	MINATTN : Minimum Attenuation
BOTTEMP : Bottom Hole Temperature	PERFS : Perforation Flag
CASEOD : Casing O.D.	PPT : Predicted Pipe Time
CASETHCK : Casing Thickness	SRFTEMP : Surface Temperature
CASEWGHT : Casing Weight	TDEPTH : Total Depth
MAXAMPL : Maximum Amplitude	

**Calibration Report**

Database File	C:\Users\Warrior\Desktop\Antero Journeyman rcbls 7-May-22\Antero Welder 1H RCBL 7-May-2022\antero_
Dataset Pathname	welder1h/run1/pass4
Dataset Creation	Sat May 07 13:04:26 2022

**Gamma Ray Calibration Report**

Serial Number:	FW1211-86
Tool Model:	Probe
Performed:	Fri Apr 22 08:17:13 2022
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps

Calibrator Reading: 1.0 cps

Sensitivity: 0.5000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1312-32  
 Tool Model: Probe275T  
 Calibration Casing Diameter: 5.500 in  
 Calibration Depth: 148.683 ft

Master Calibration, performed Sat May 07 10:24:54 2022:




	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.795	3.400	71.921	86.746	2.993
CAL	0.089	1.109				
5'	0.003	0.818	3.400	71.921	84.022	3.170
SUM						
S1	0.004	0.743	0.000	100.000	135.345	-0.542
S2	0.004	0.764	0.000	100.000	131.660	-0.579
S3	0.005	0.789	0.000	100.000	127.423	-0.576
S4	0.004	0.815	0.000	100.000	123.338	-0.530
S5	0.004	0.832	0.000	100.000	120.835	-0.541
S6	0.005	0.830	0.000	100.000	121.153	-0.572
S7	0.014	0.800	0.000	100.000	127.280	-1.832
S8	0.004	0.759	0.000	100.000	132.606	-0.586

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.089	1.109	1.000	0.000

Air Zero Calibration, performed Sat May 07 10:01:22 2022:

	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)
CHD	18.05		CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00
RBT	17.03					
HeadVolt	16.97					





# INine

County

wetzel

State

WV