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Office of Oil and Gas

DCT 27 2023

WV Department of
Environmental Protection



Radial Cement Bond
Gamma Ray CCL
Temperature Log

Company		Antero Resources Corporation	
Well	Jenkins Unit 2H		
Field	White Oak		
County	Doddridge		
State	WV		
Company	Antero Resources Corporation	Well	Jenkins Unit 2H
Field	White Oak	County	Doddridge
State	WV	Location (LAT, LON):	39.177575, -80.833617
API # :	47-017-06943-00-00	Township:	N/A
AFE # :	A12508-C	Permanent Datum	Ground Level
Location (LAT, LON):	39.177575, -80.833617	Log Measured From	KB = 30' above GL
Drilling Measured From	KB	Elevation	1100'
Other Services	None		
Elevation	K.B. 1130' D.F. 1130' G.L. 1100'		
Date	10 JUNE 2023		
Run Number	One		
Depth Driller (ft)	16754		
Depth Logger (ft)	7190		
Bottom Logged Interval (ft)	7181		
Top Log Interval	Surface		
Open Hole Size (in)	8.5		
Type Fluid	Water		
Density / Viscosity (lb/gal)	8.4		
Max. Recorded Temp. (°F)	147.6		
Estimated Cement Top (ft)	1400		
Time Well Ready	12:00 AM		
Time Logger on Bottom	03:06 AM		
Equipment Number	8018		
Location	Smithton, PA		
Recorded By	T. Trump		
Witnessed By	R. Reed		
Casing Record	Size (in)	Weight (lb/ft)	Top (ft)
Conductor String	20	91.59	Surface
Surface String	13.375	54.5	Surface
Intermediate String	9.625	36	Surface
Production String	5.5	23	Surface
Bottom (ft)	16714		
Inclination Information (Approximated Values from Directional Survey)			
KOP	30°	60°	90°
1200'	6530'	6890'	7300'

THANK YOU FOR USING GR ENERGY SERVICES

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

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

Log Correlated to Bottom Log Marker Joint
Log Adjusted -2.2'

Marker Joint Located @ 5763' - 5772'

Maximum Temperature Recorded was 147.6°F
Maximum Tension was 1137 lbs

Estimated Top of Cement @ 1400'

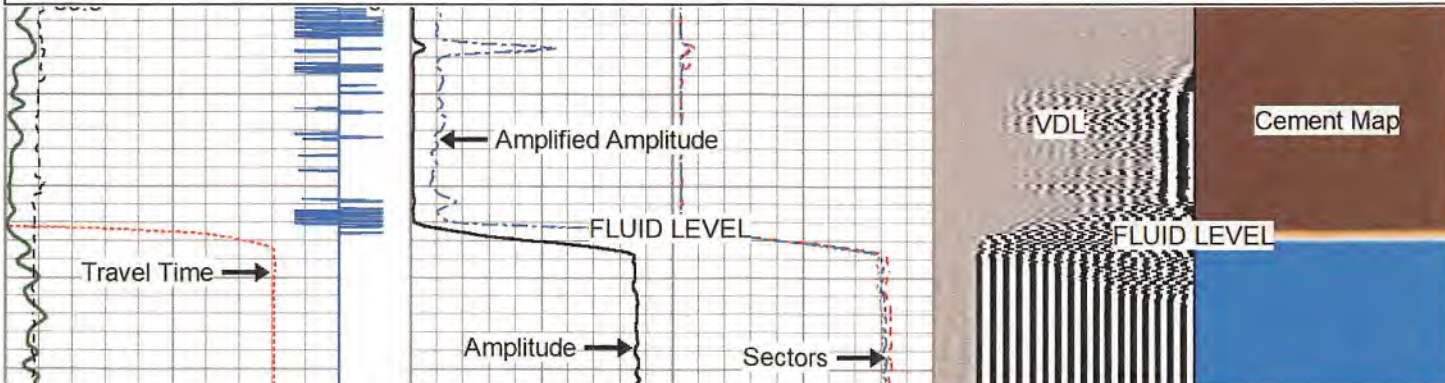


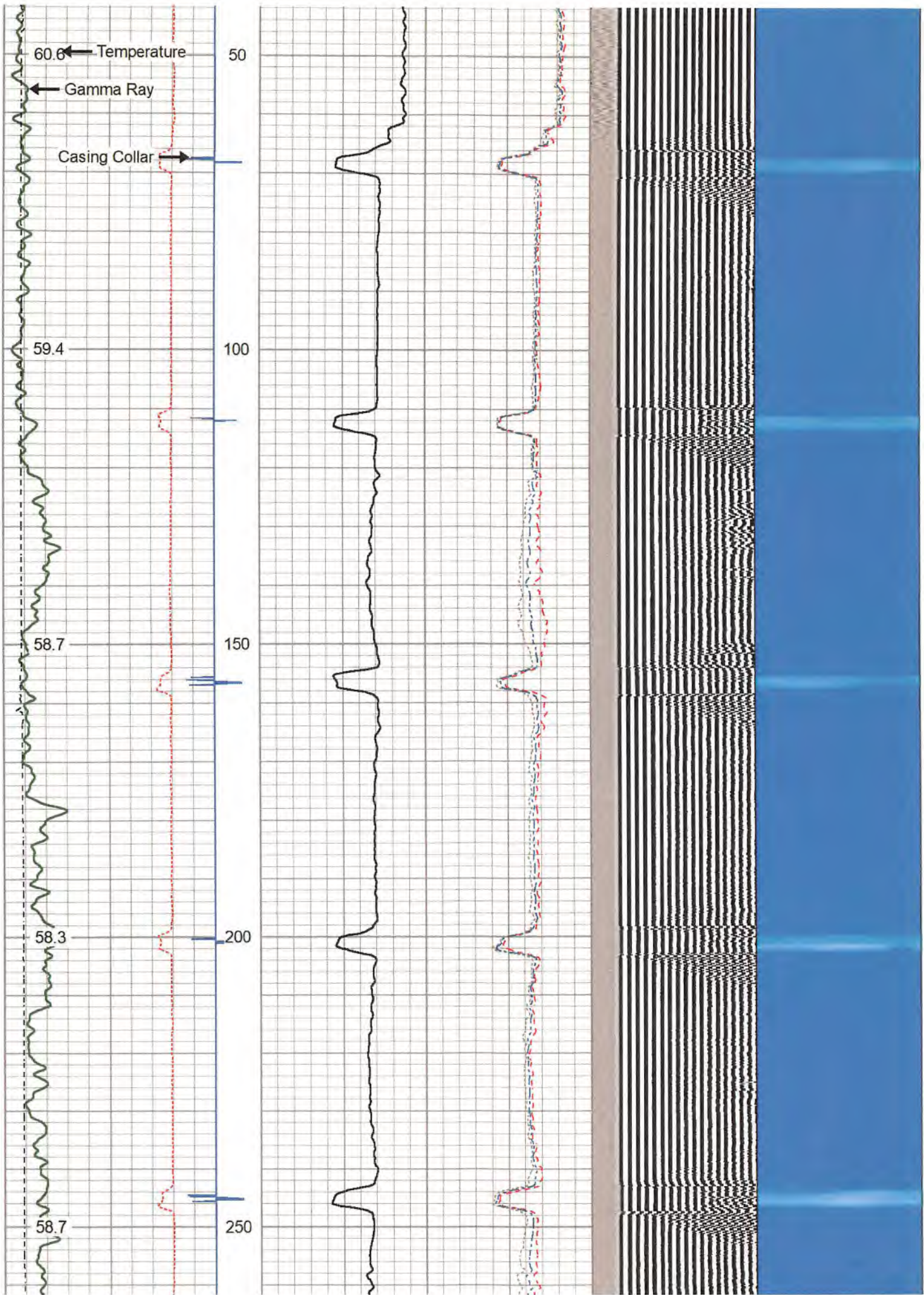
Main Pass

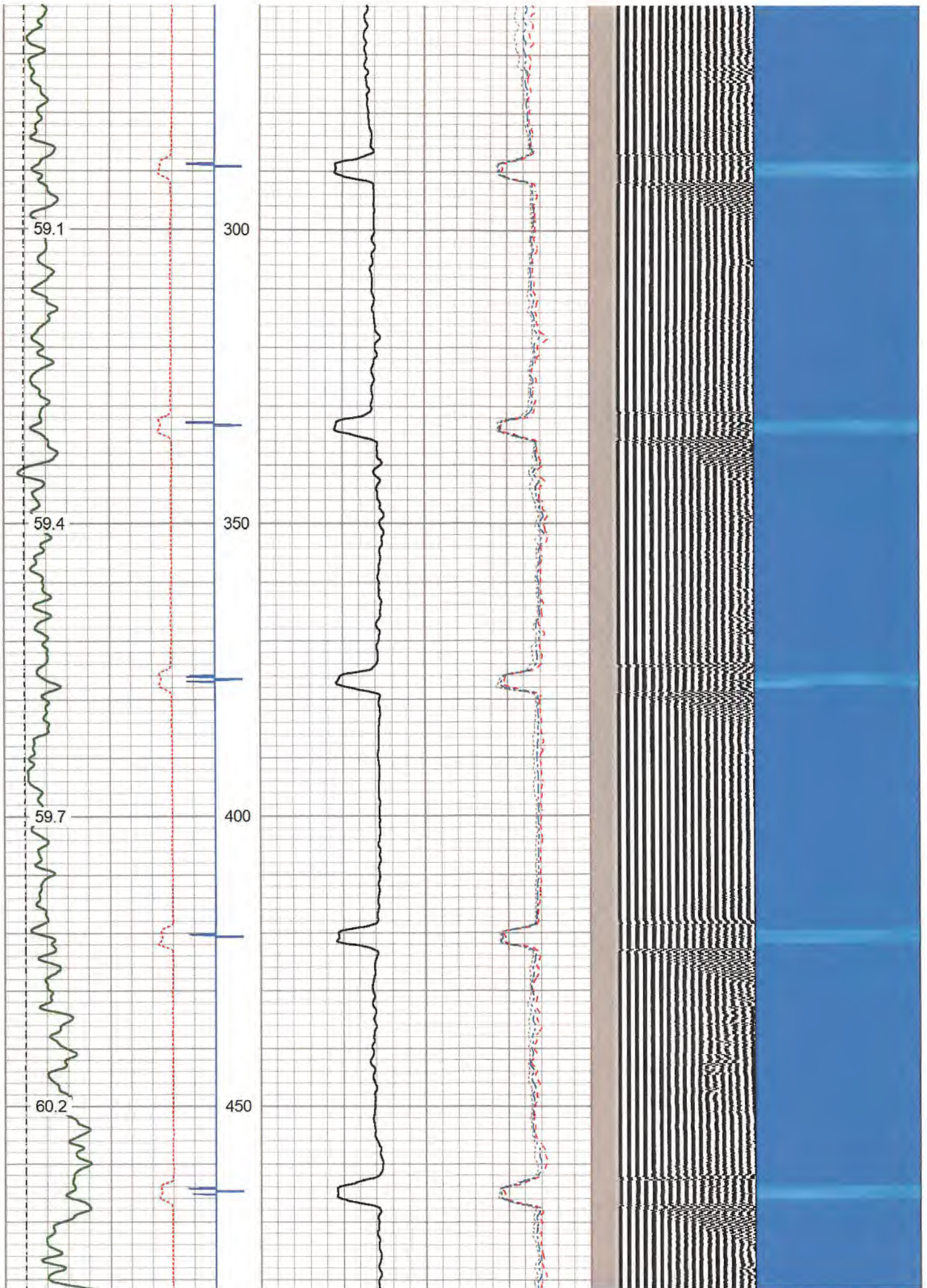
(1500 PSI)

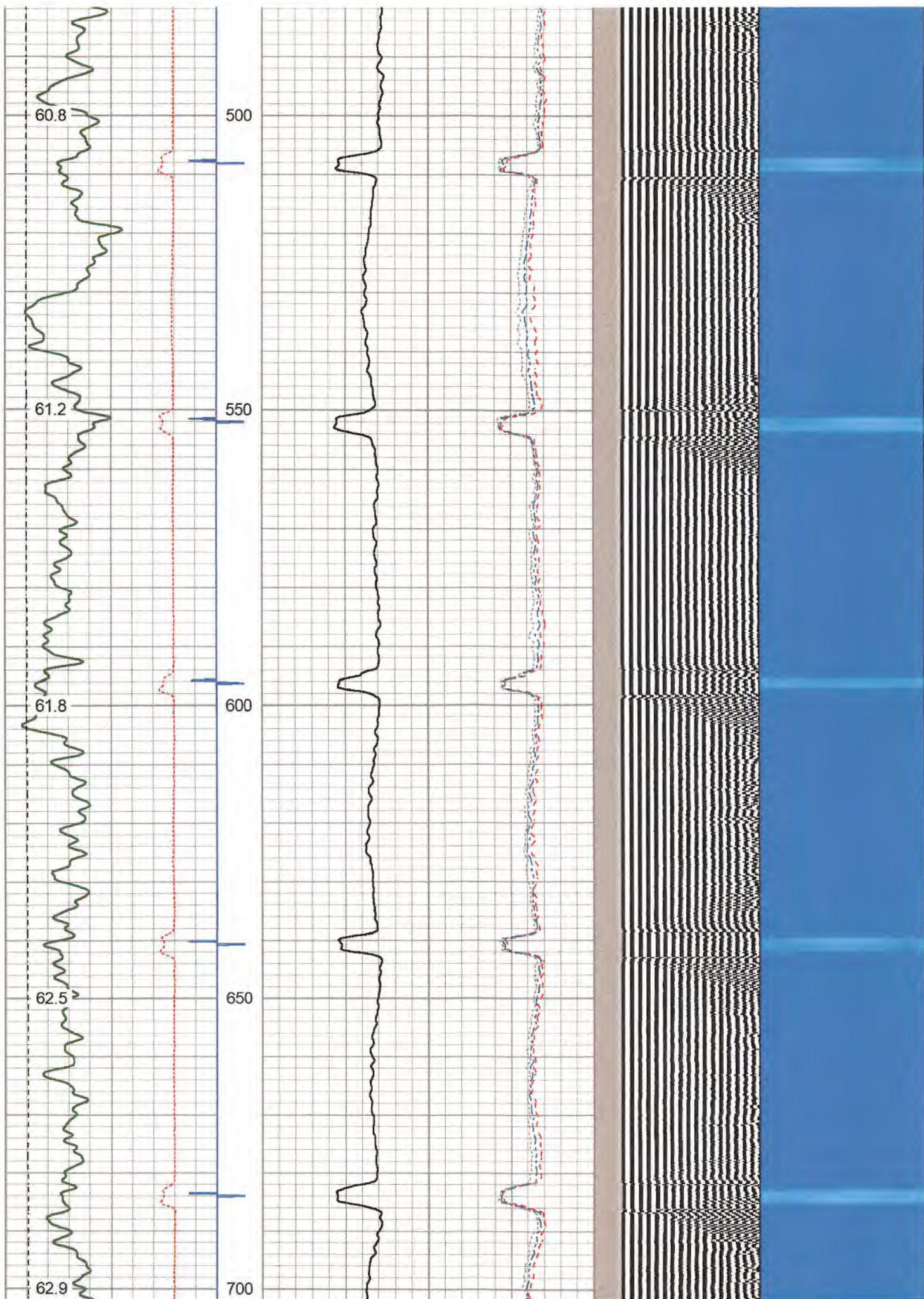
Database File c:\users\logbox\desktop\antero\antero_jenkins_2h.db
 Dataset Pathname rcb/pass4
 Presentation Format rcb_std_bw_tt
 Dataset Creation Sat Jun 10 03:14:40 2023
 Charted by Depth in Feet scaled 1:240

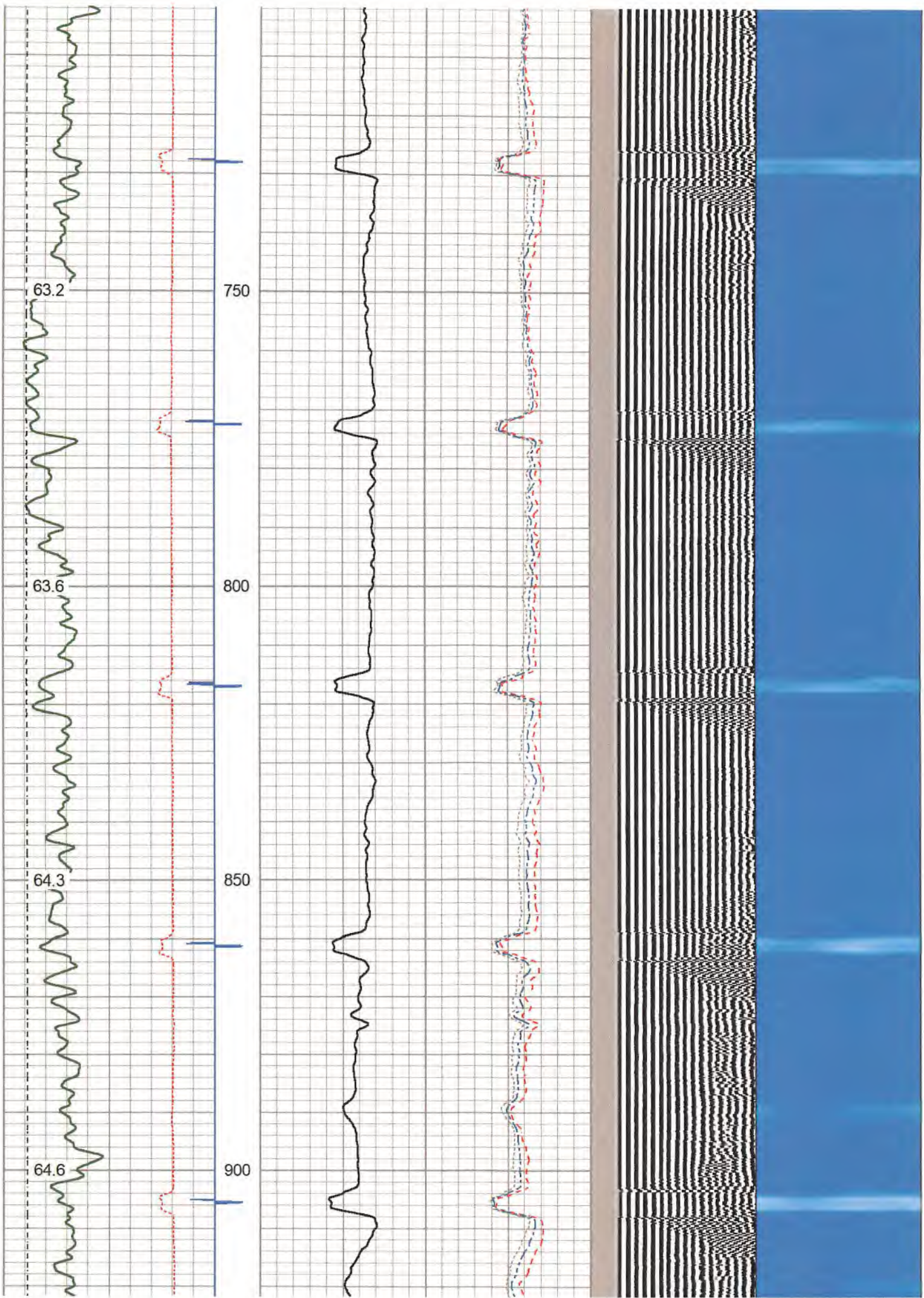
340	TT (usec)	240	Amplitude	-5	AMPMin	150	200	VDL (usec)	1200	Cement Map
0	GR (GAPI)	150	(mV)	100	-5	AMPMax	150			
0	LTEN (lb)	3000	Amplified Amplitude	-5	AMPAvg	150				
TEMP		CCL	(mV)	10						
(degF)										

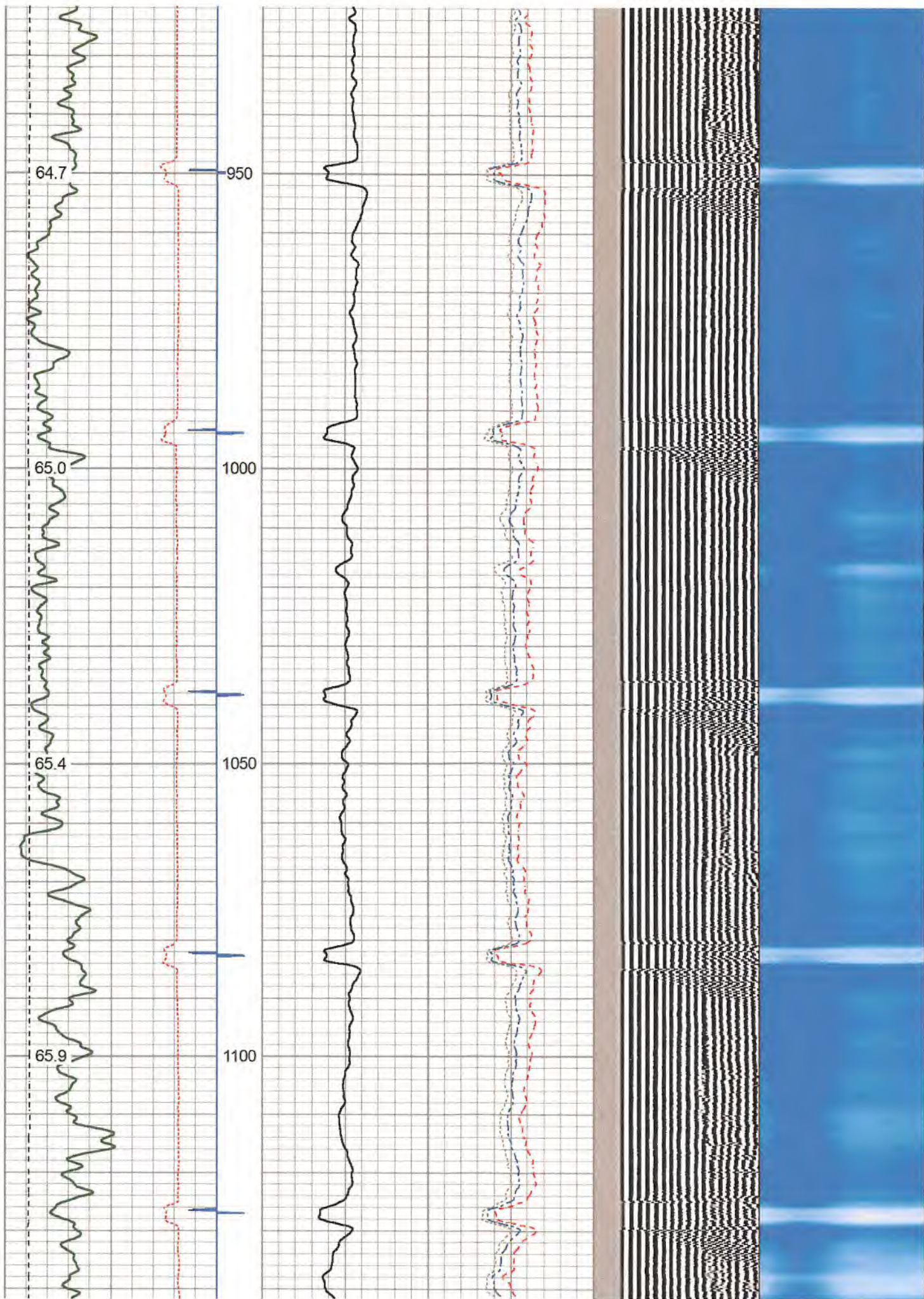


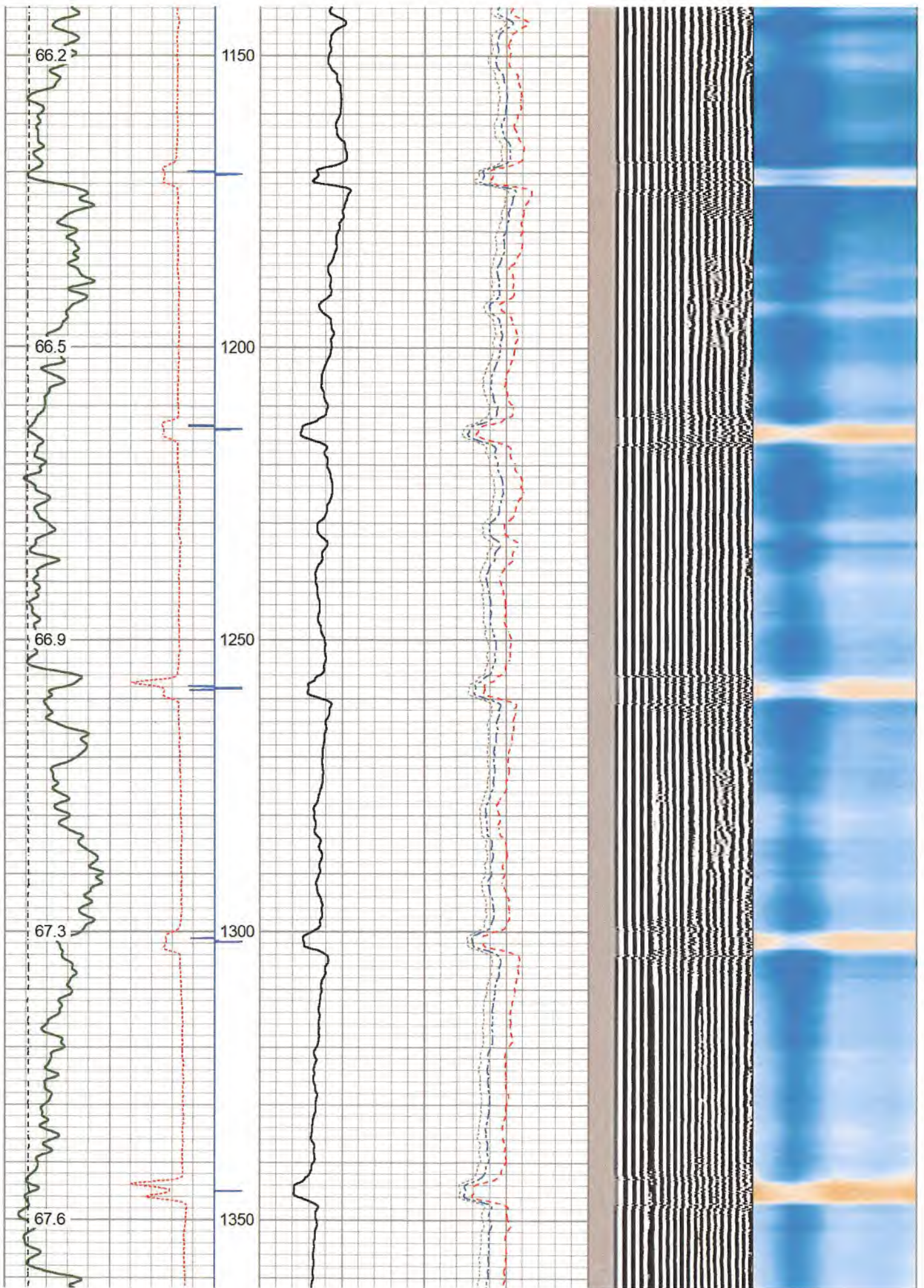


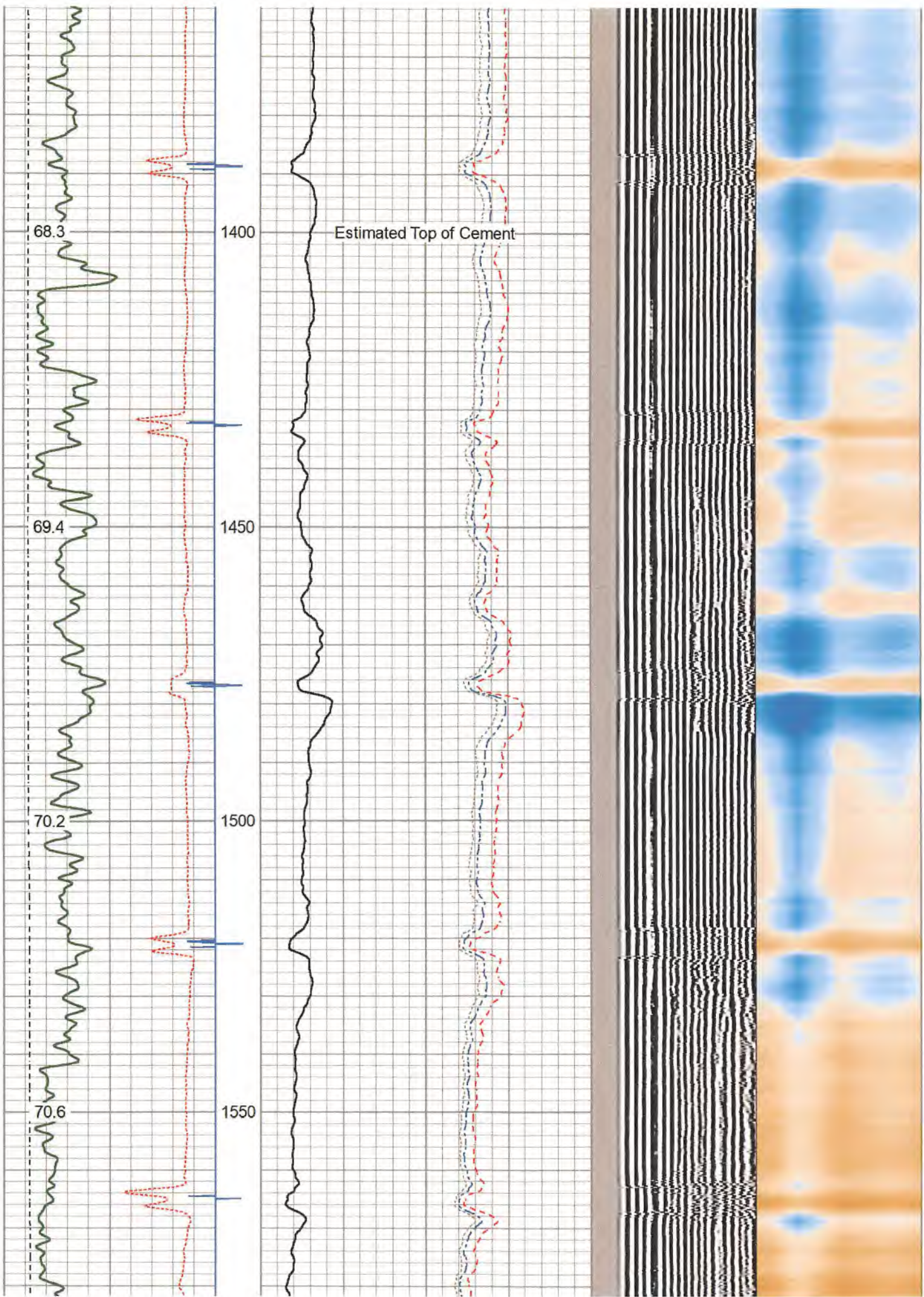


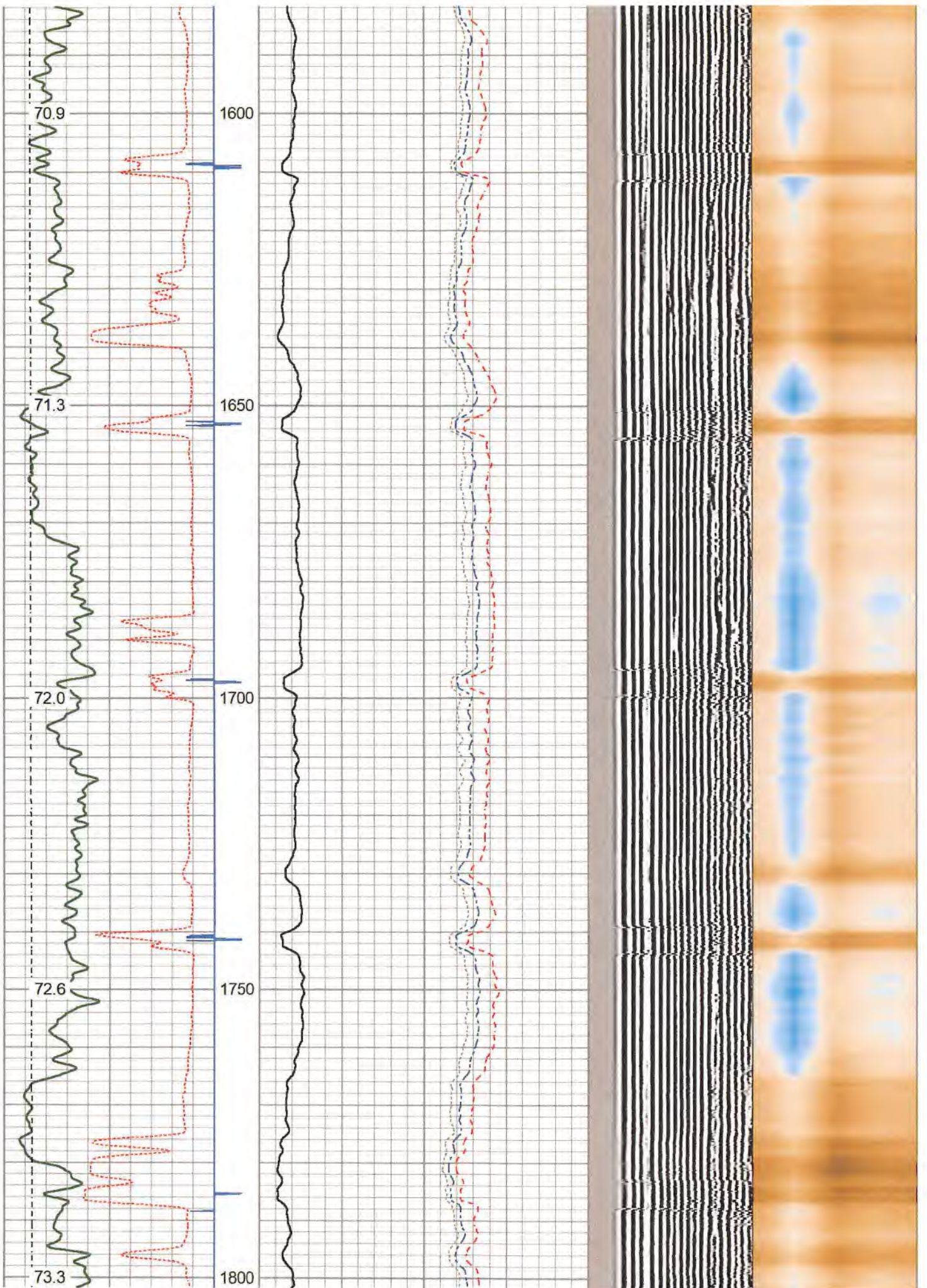


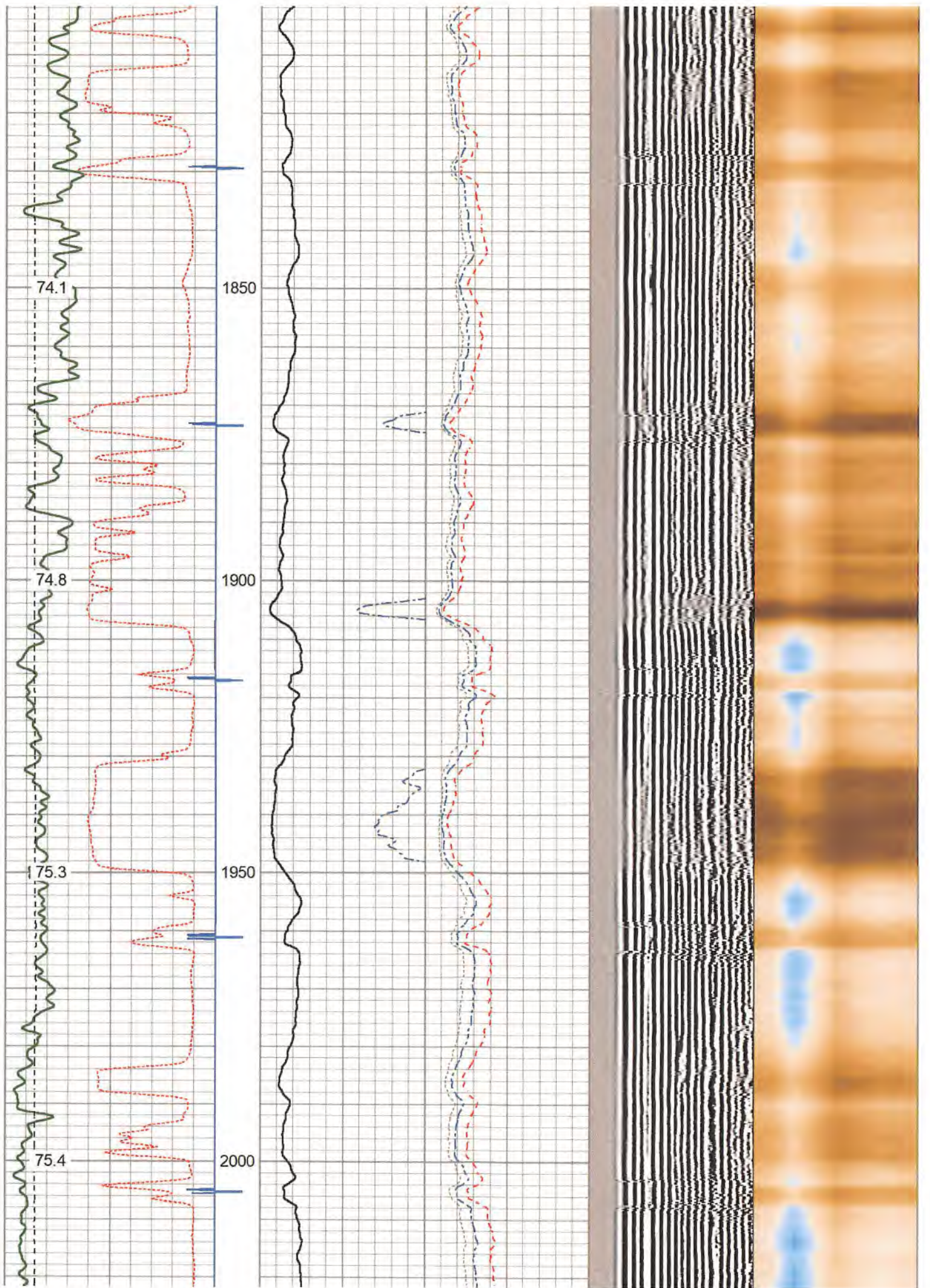


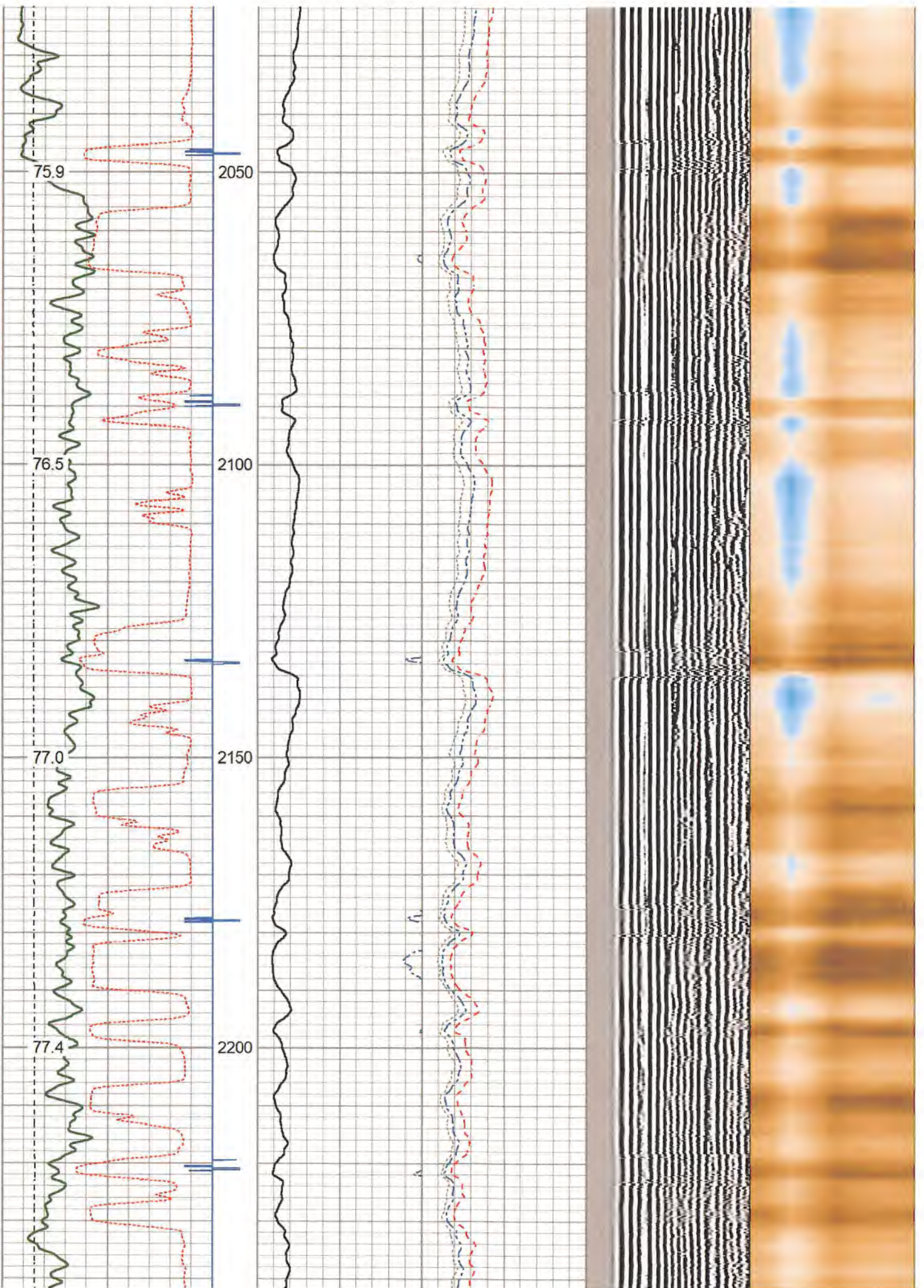


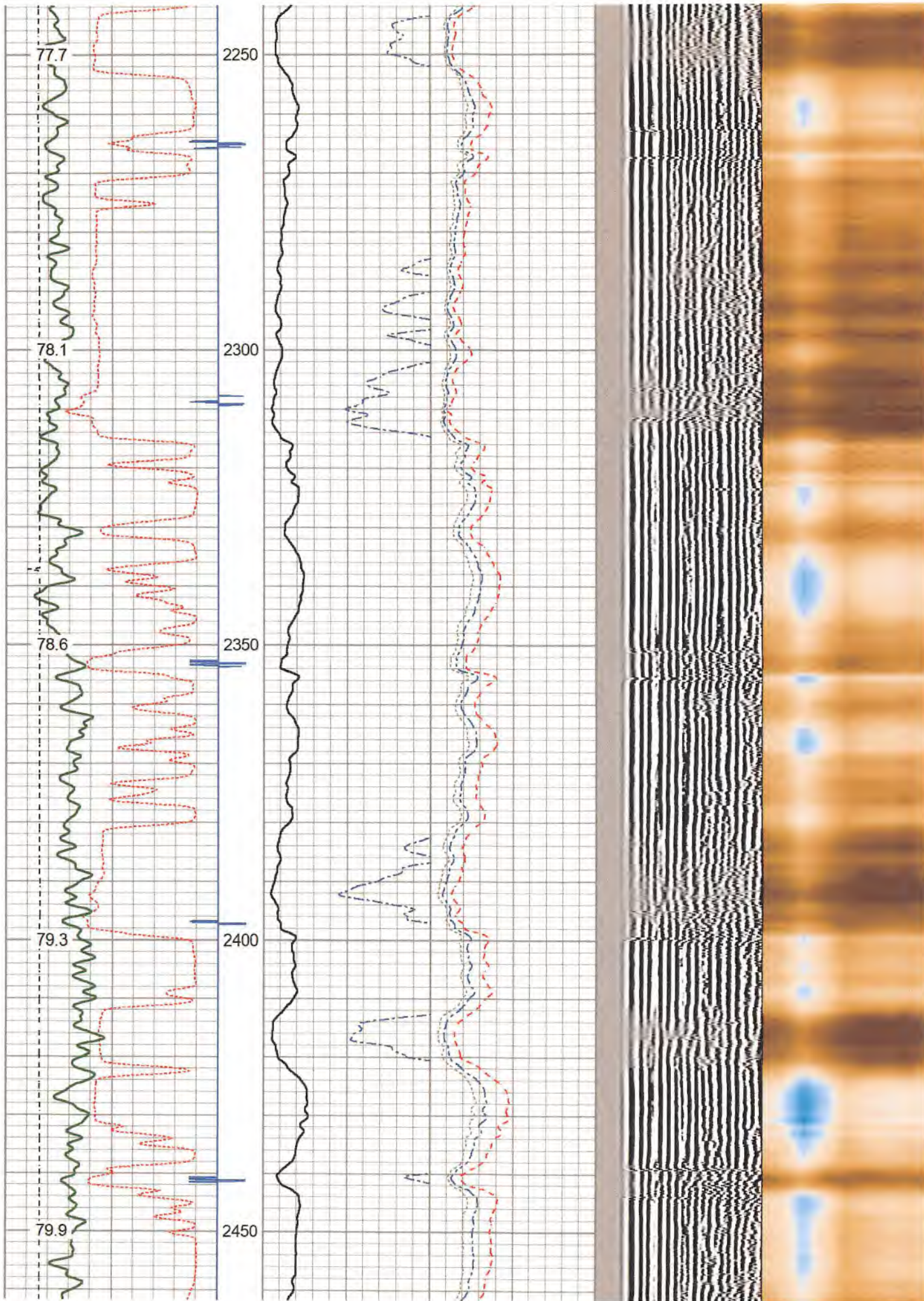


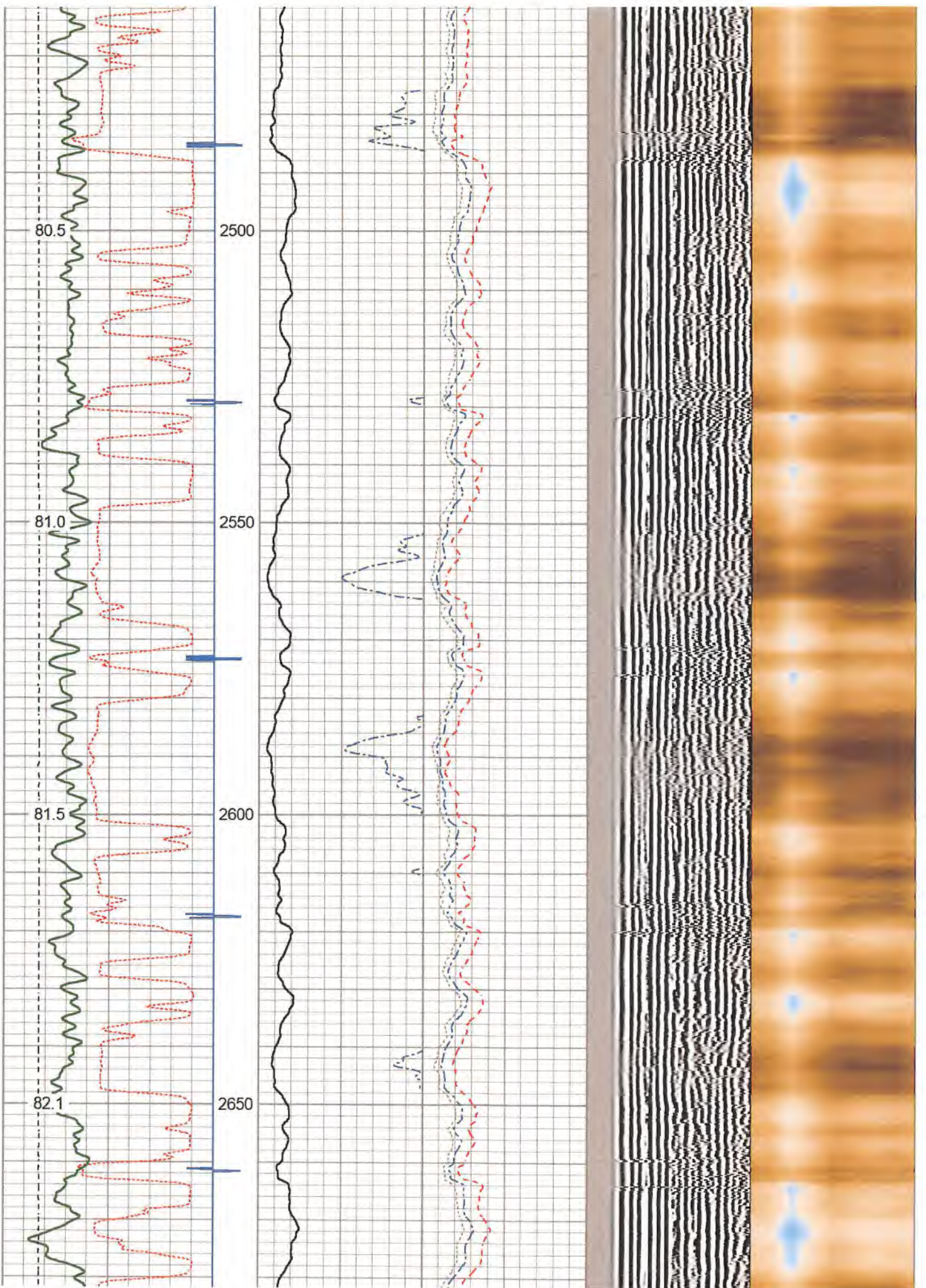


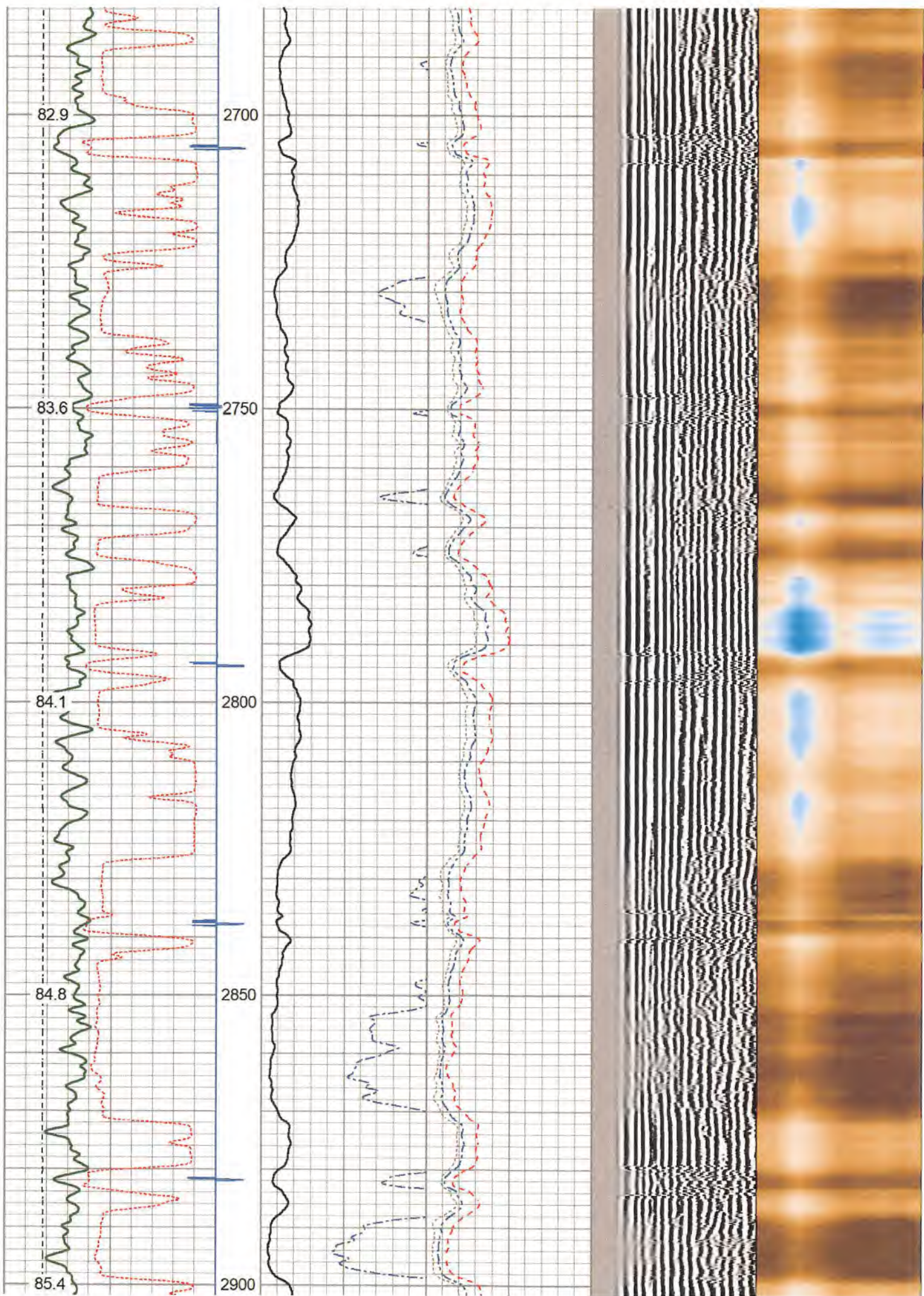


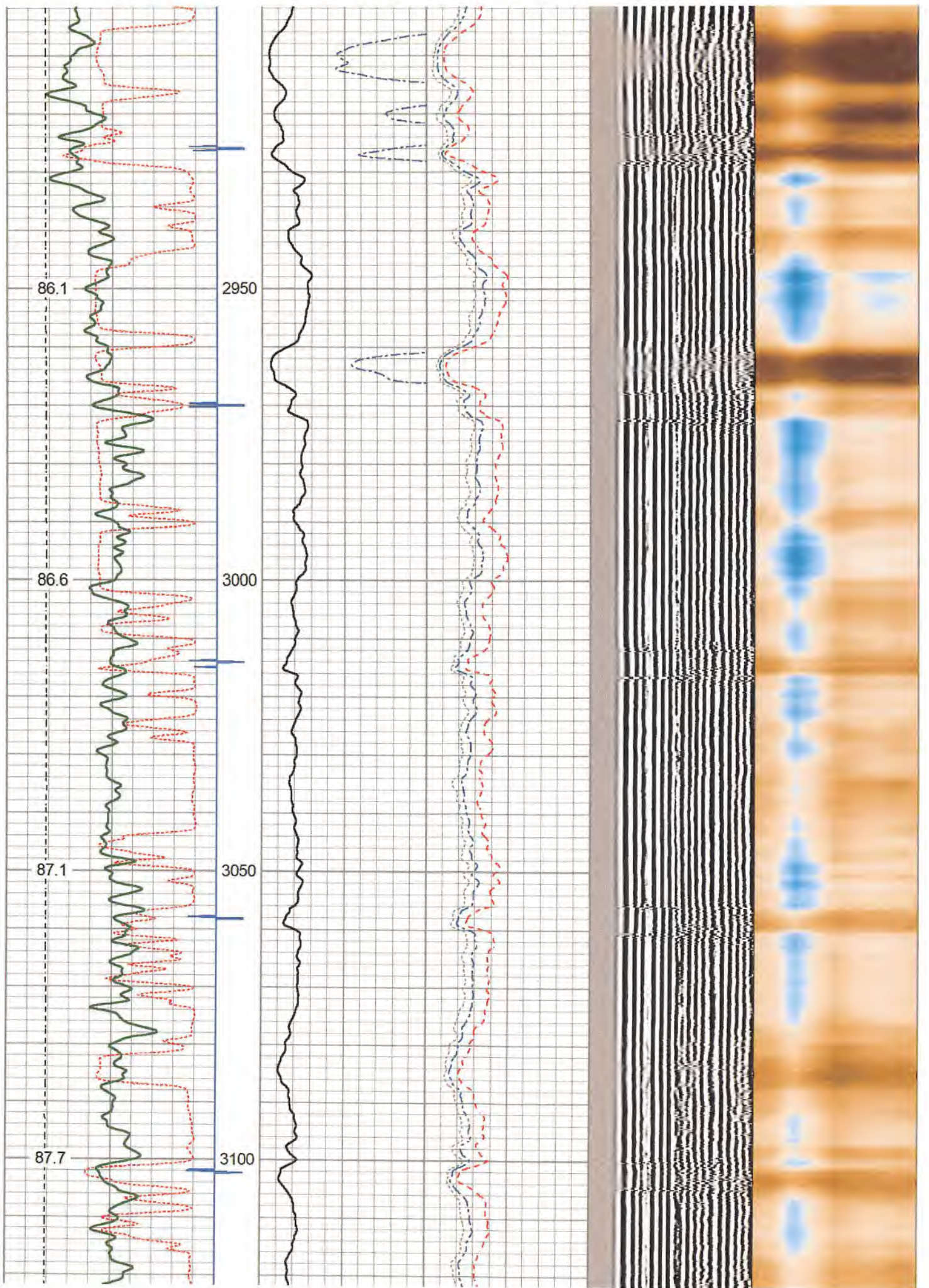


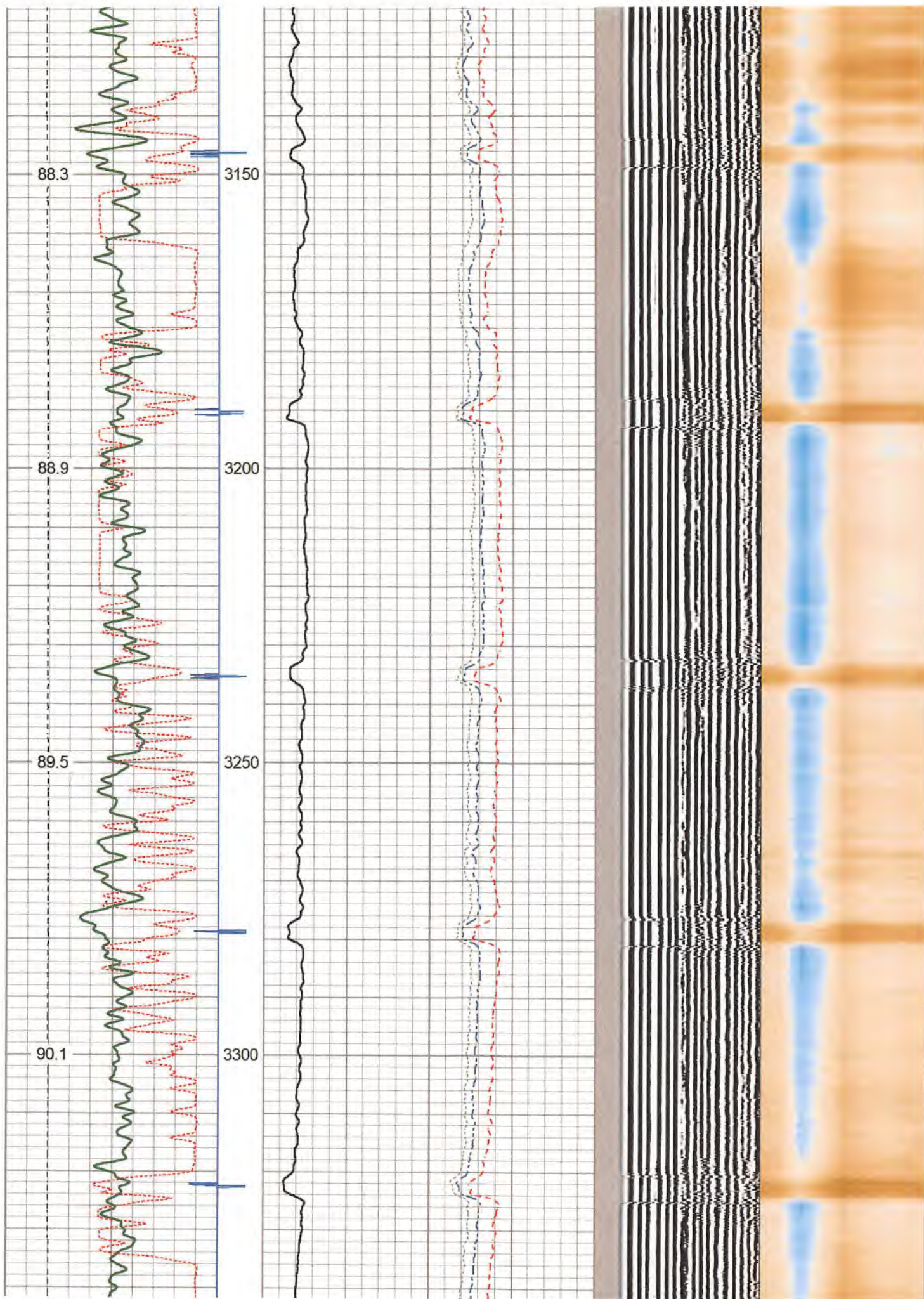


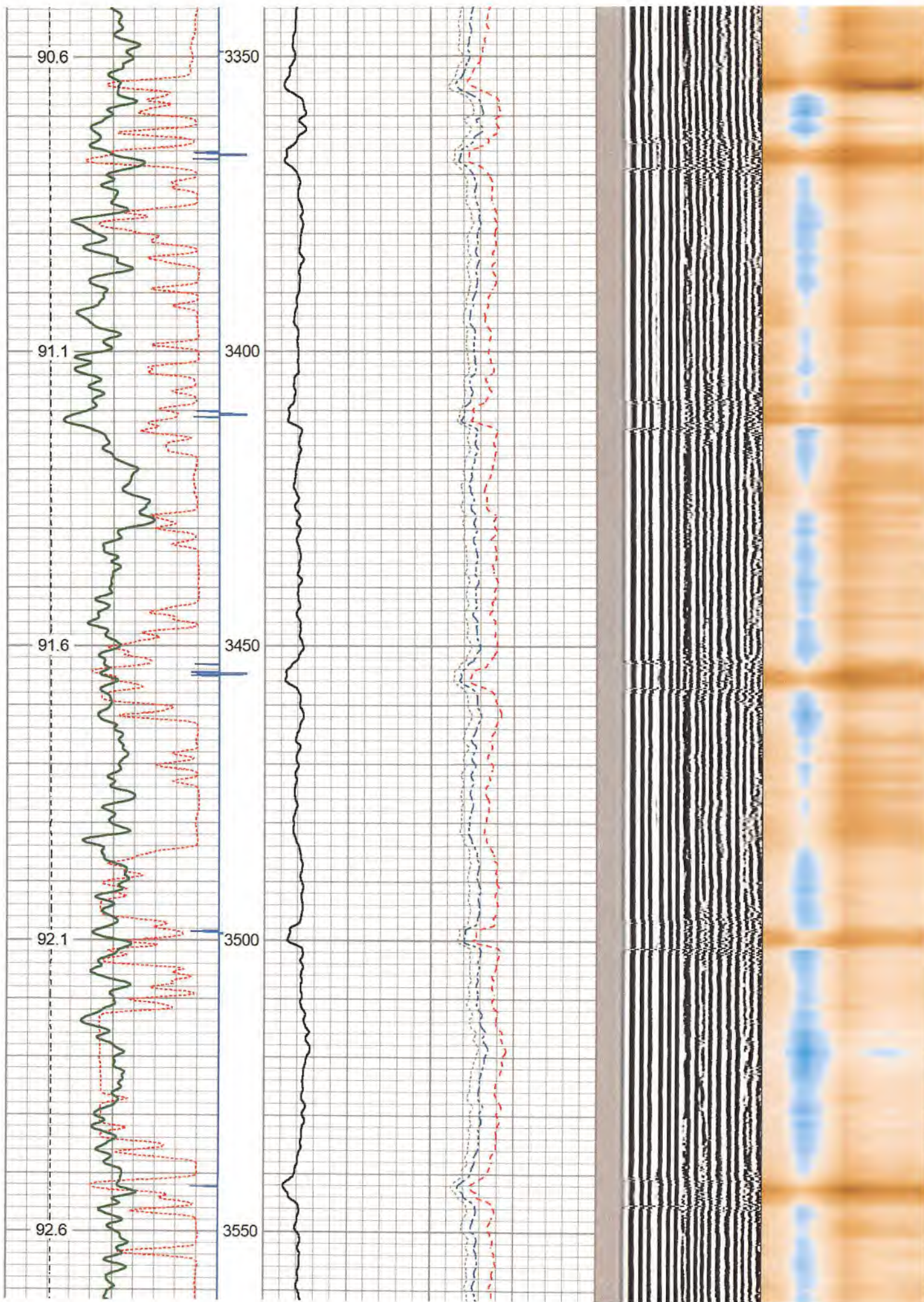


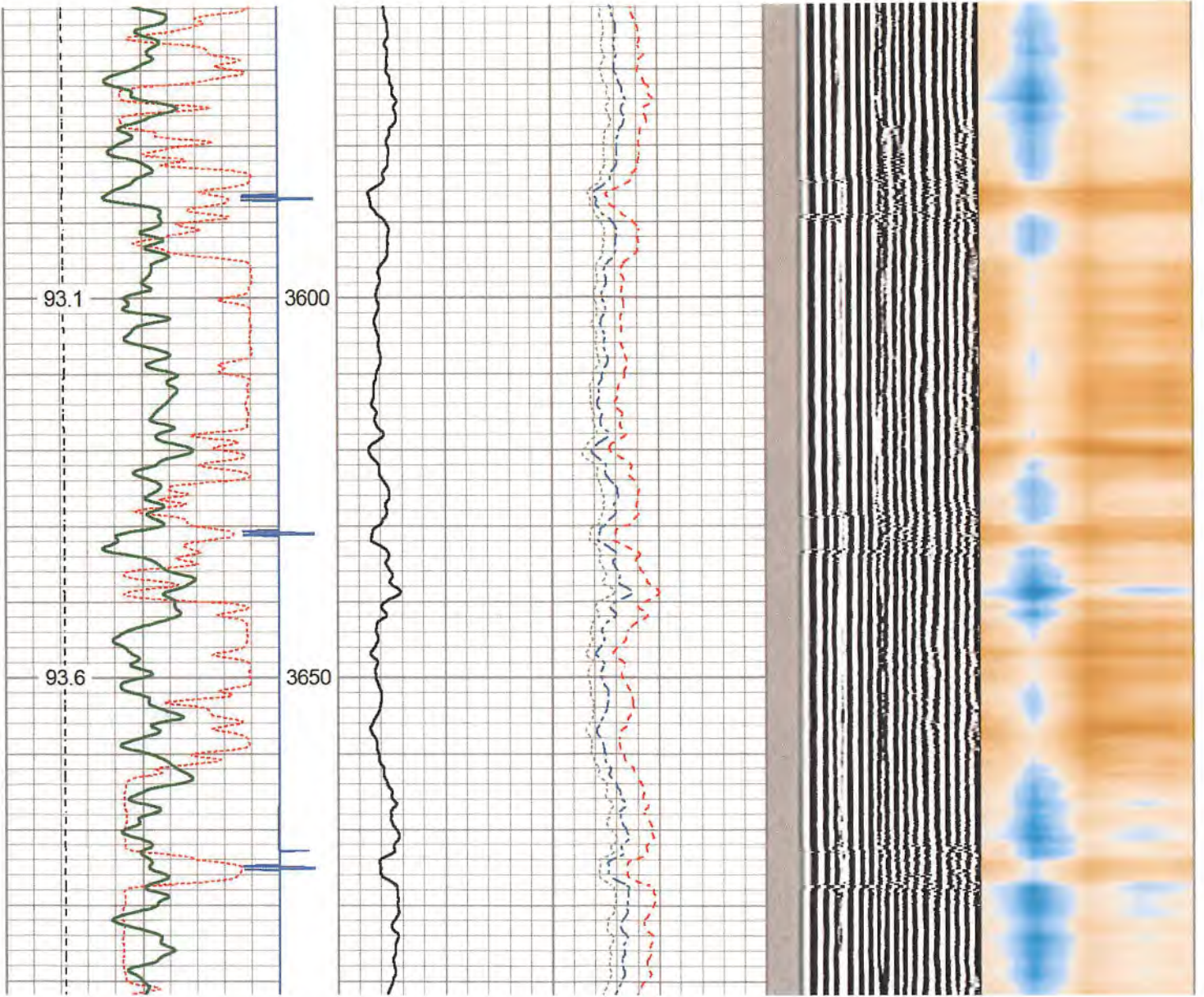


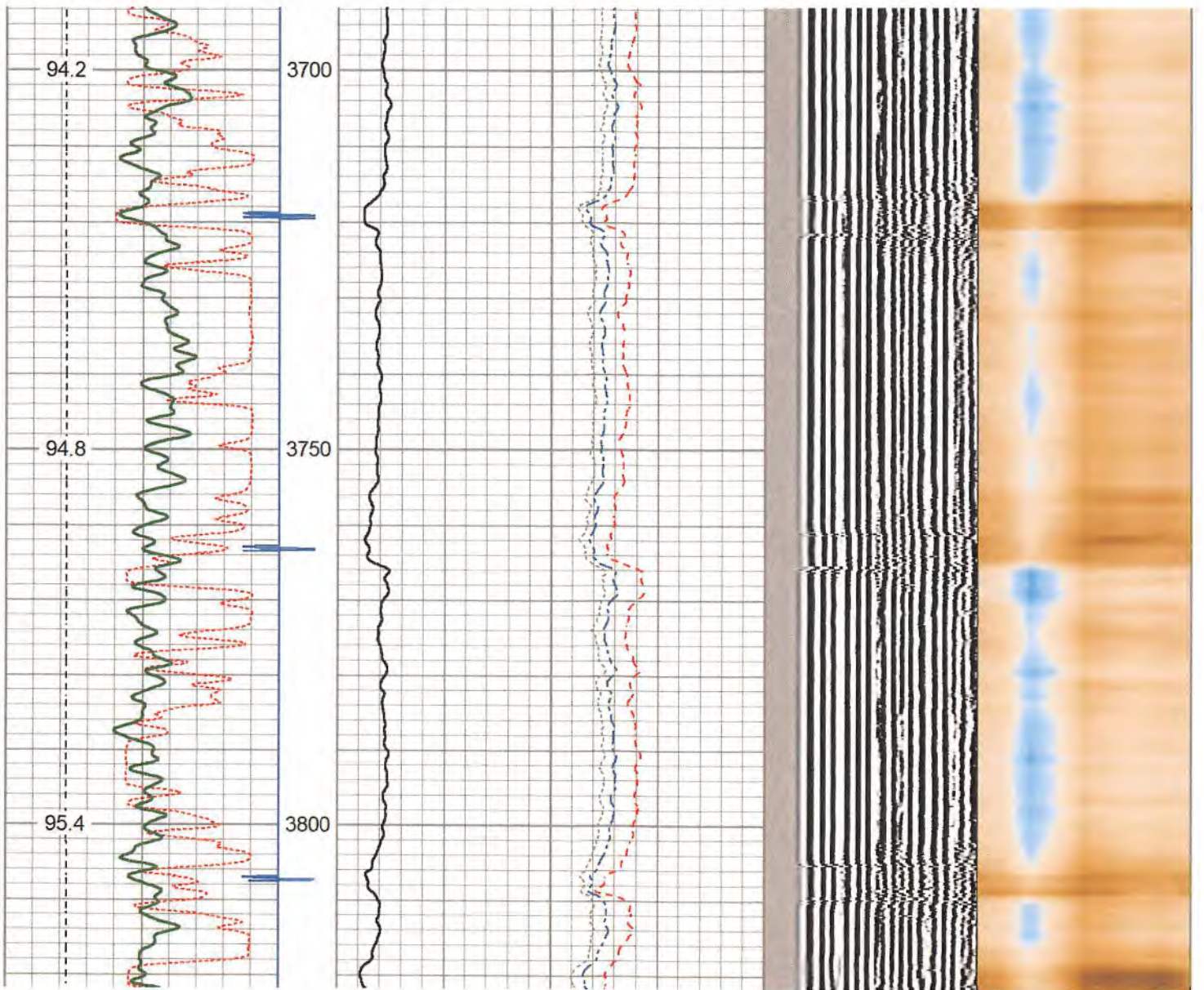


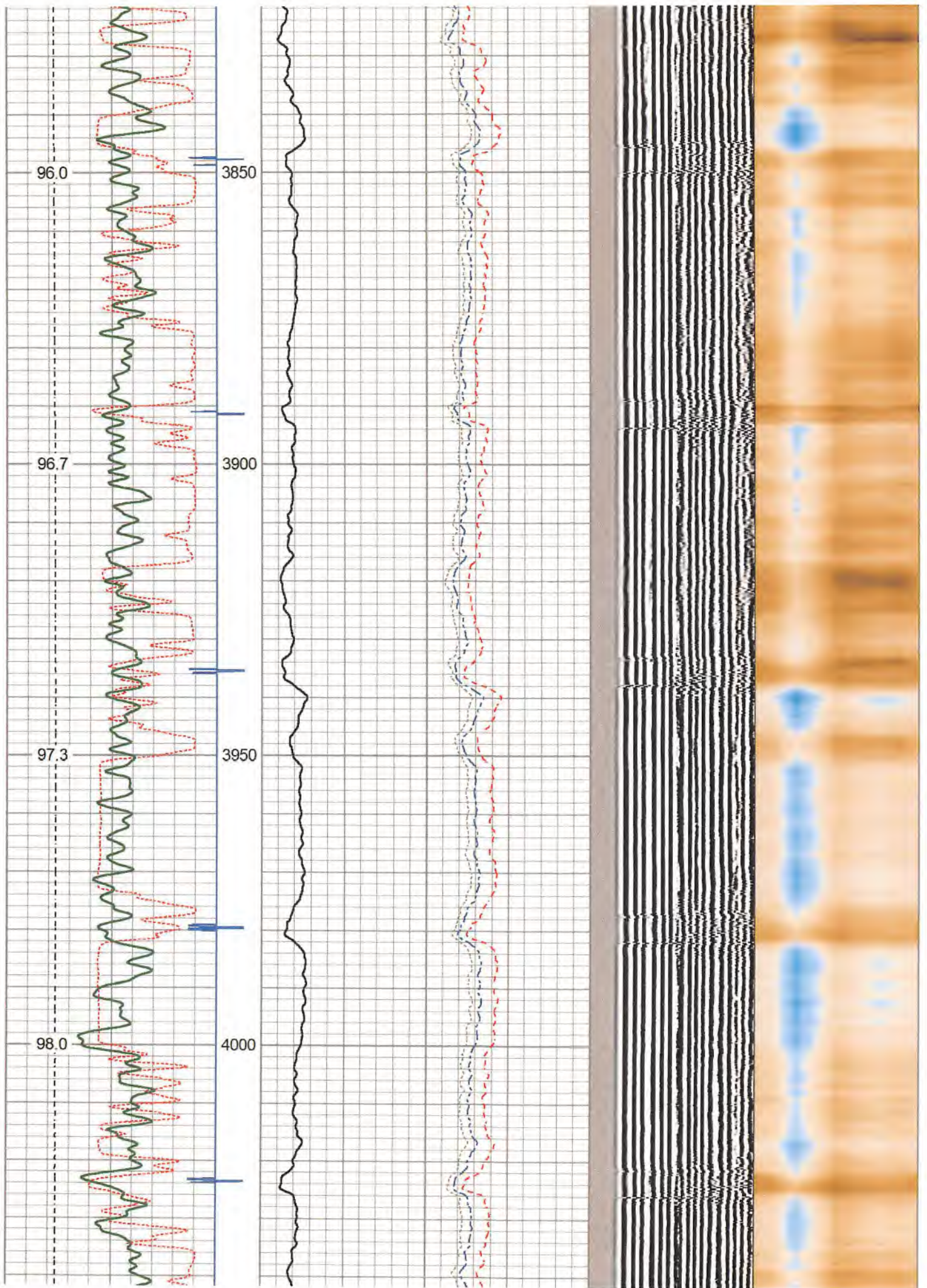


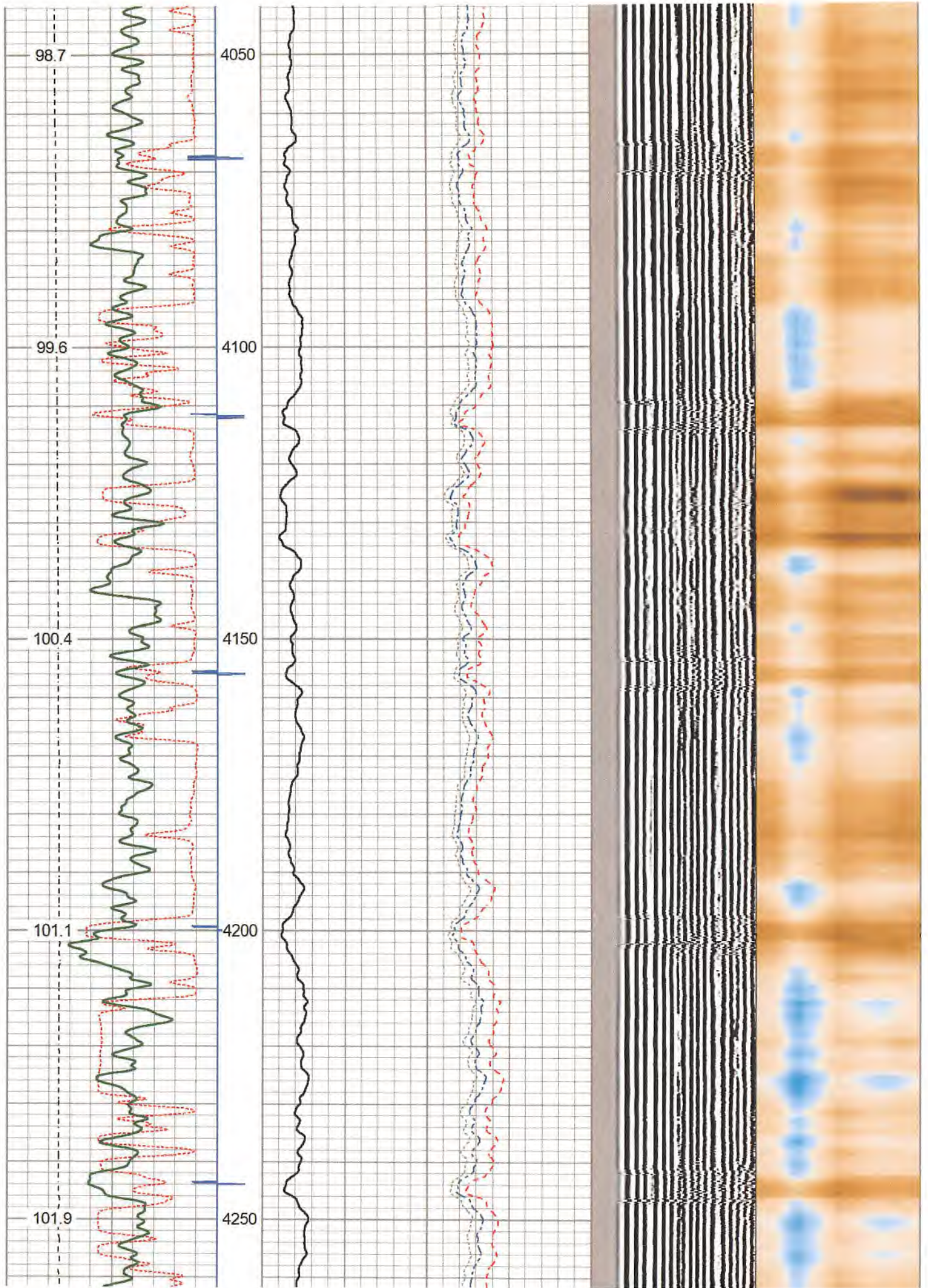


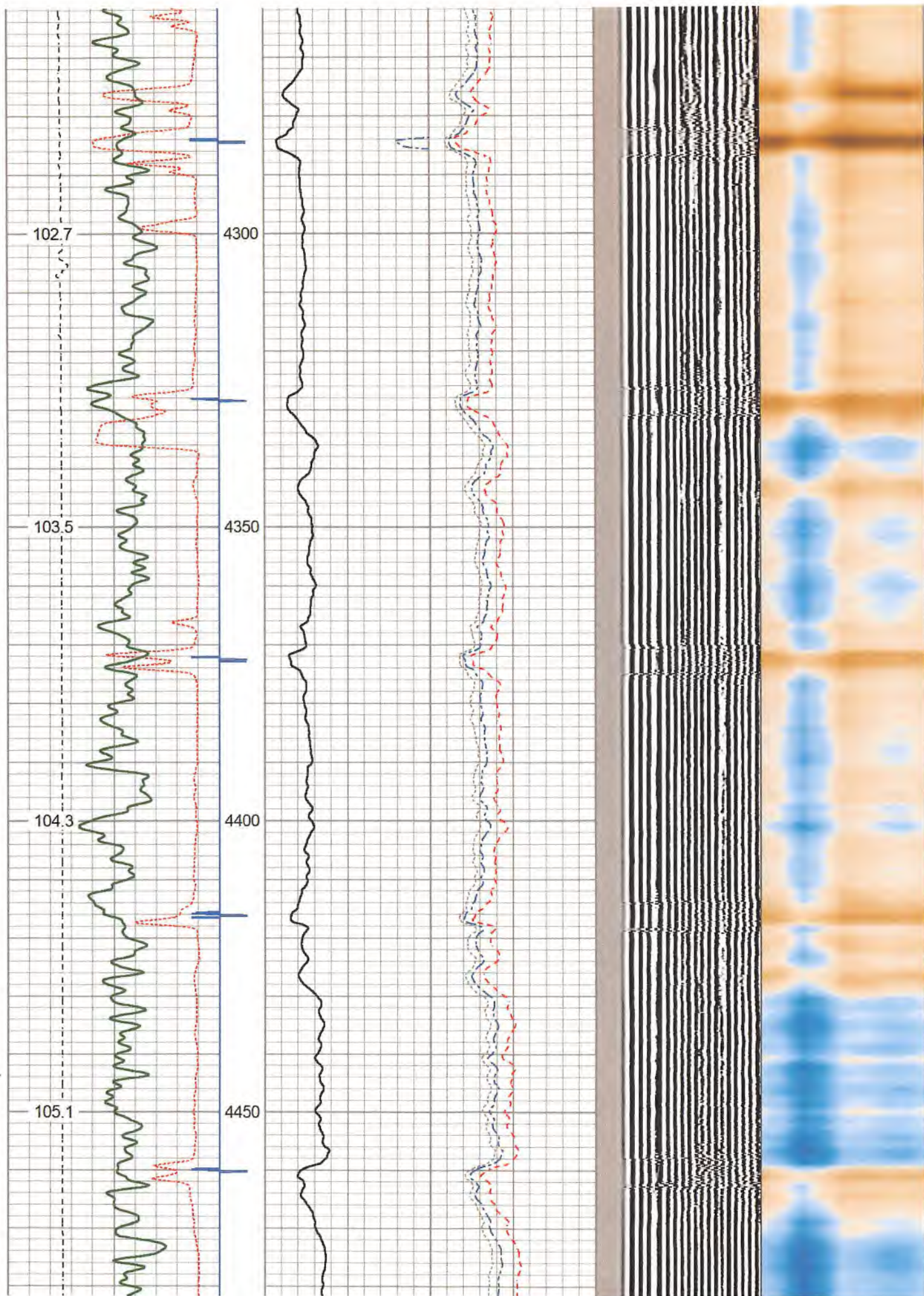


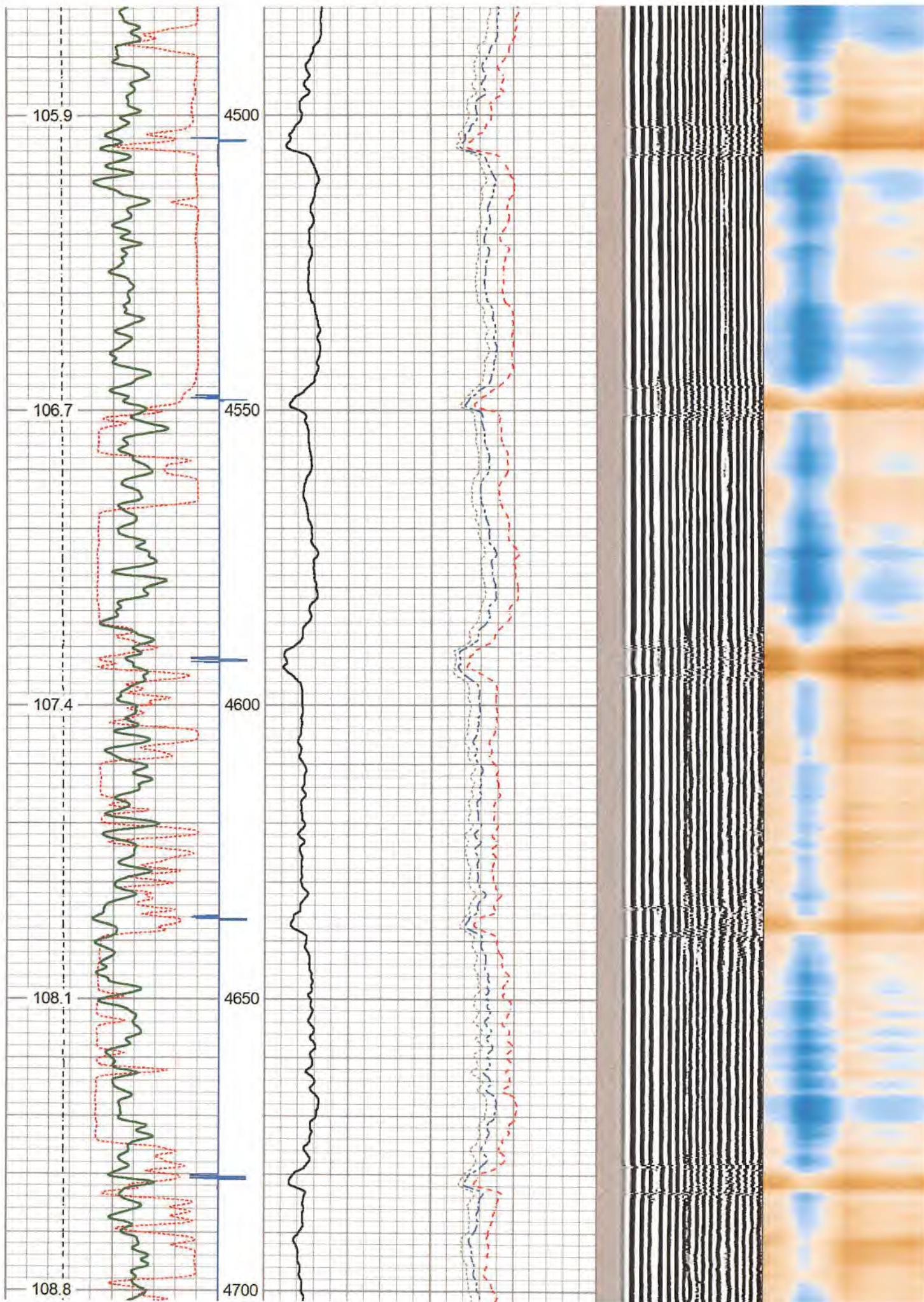


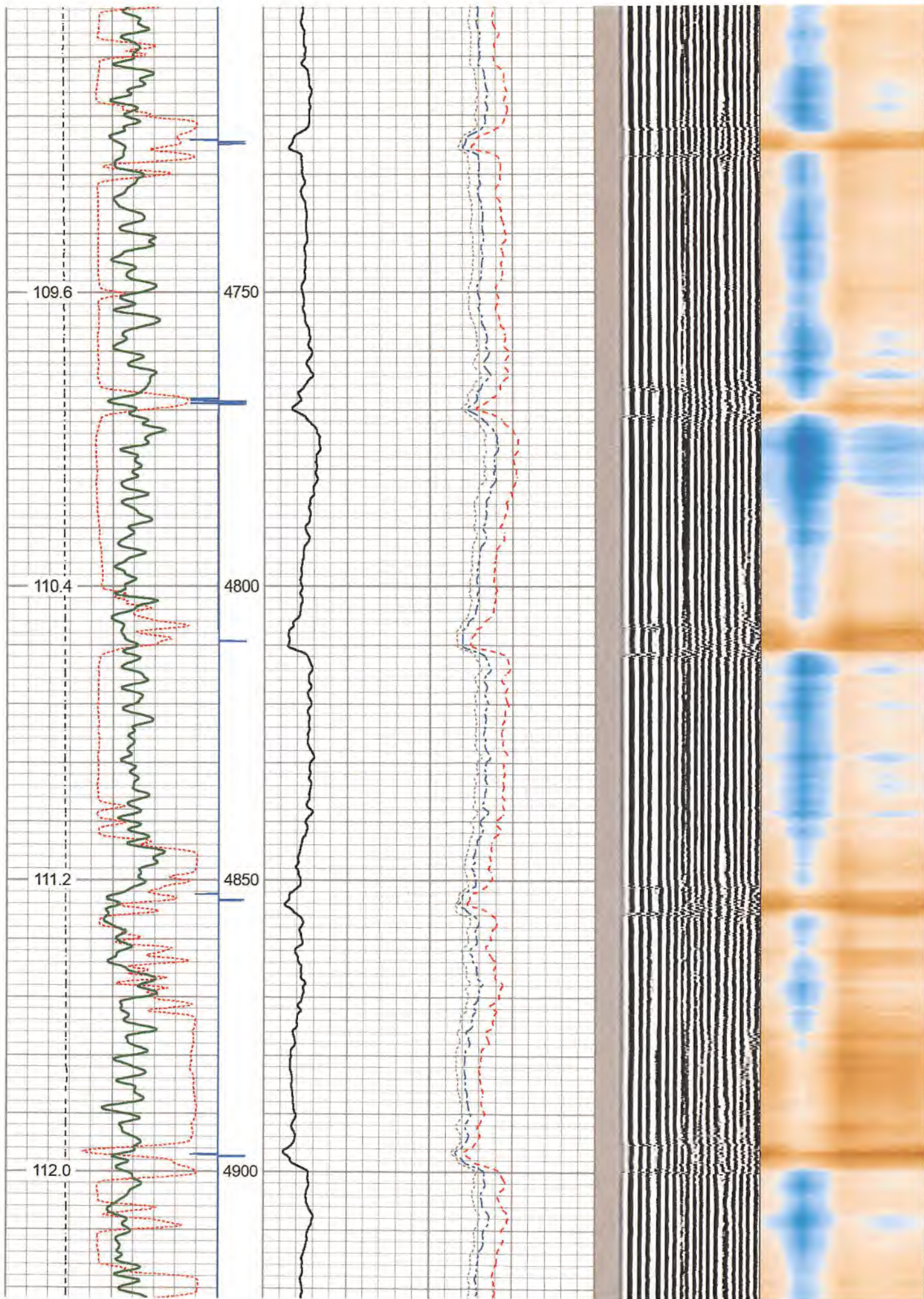


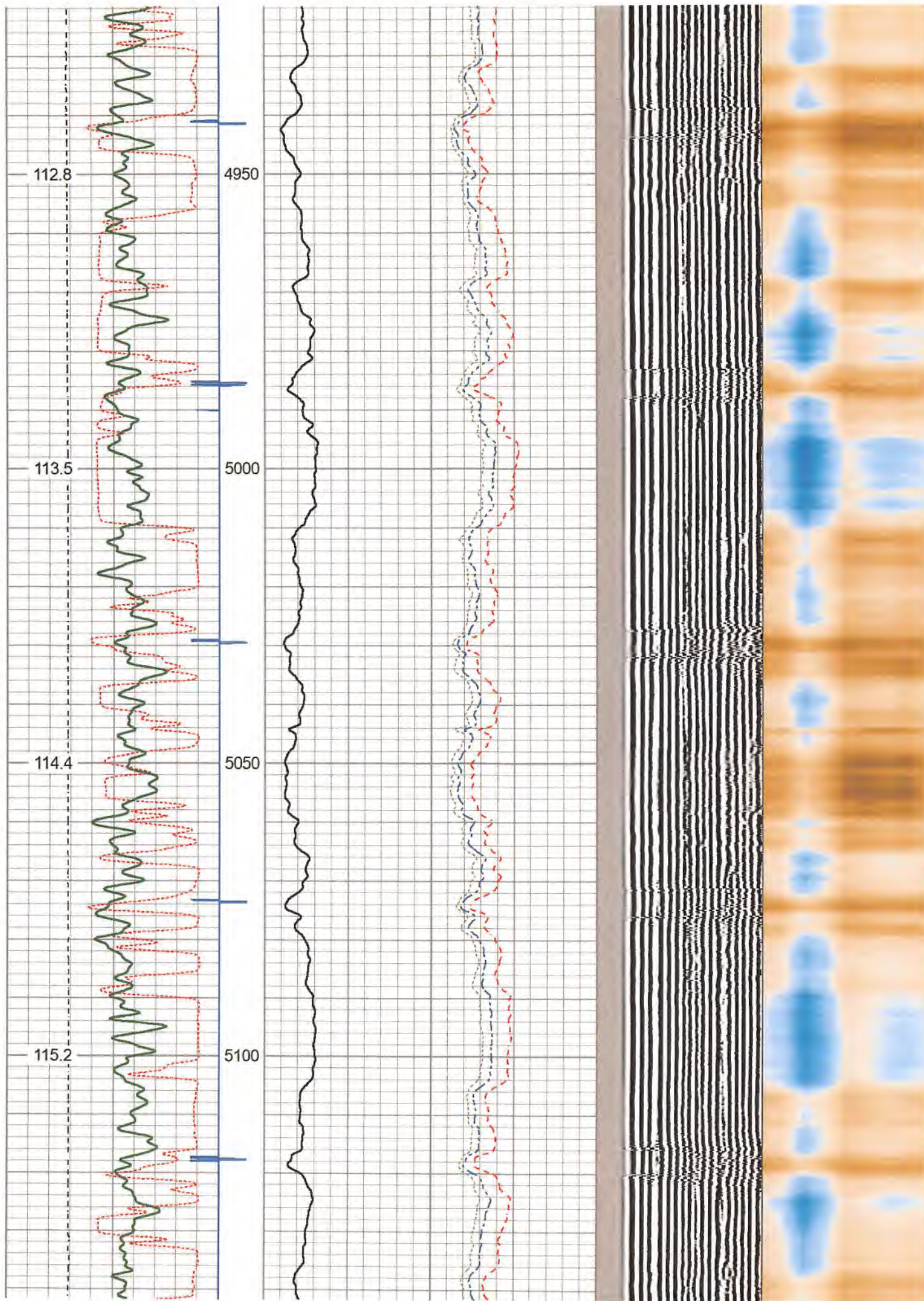


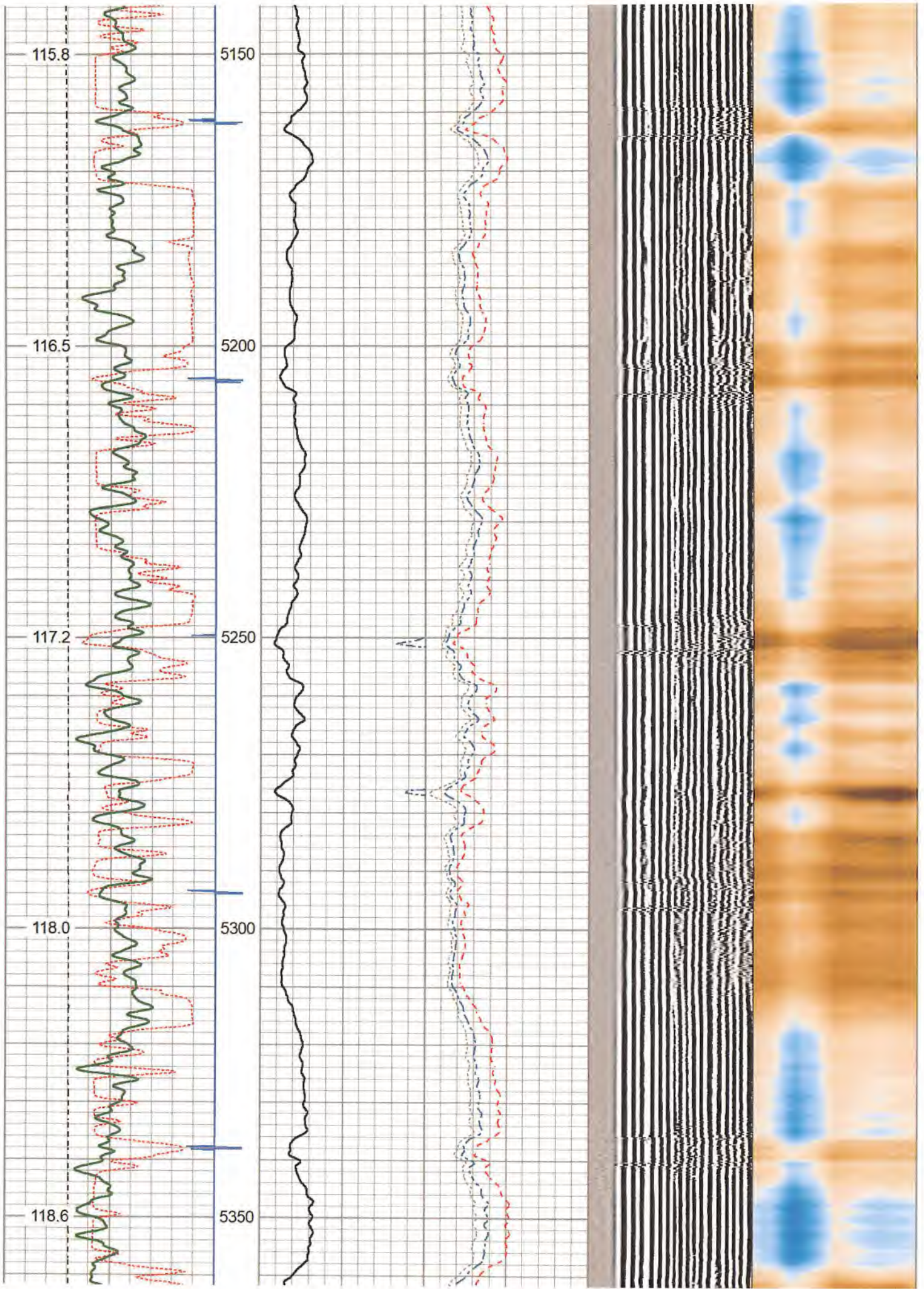


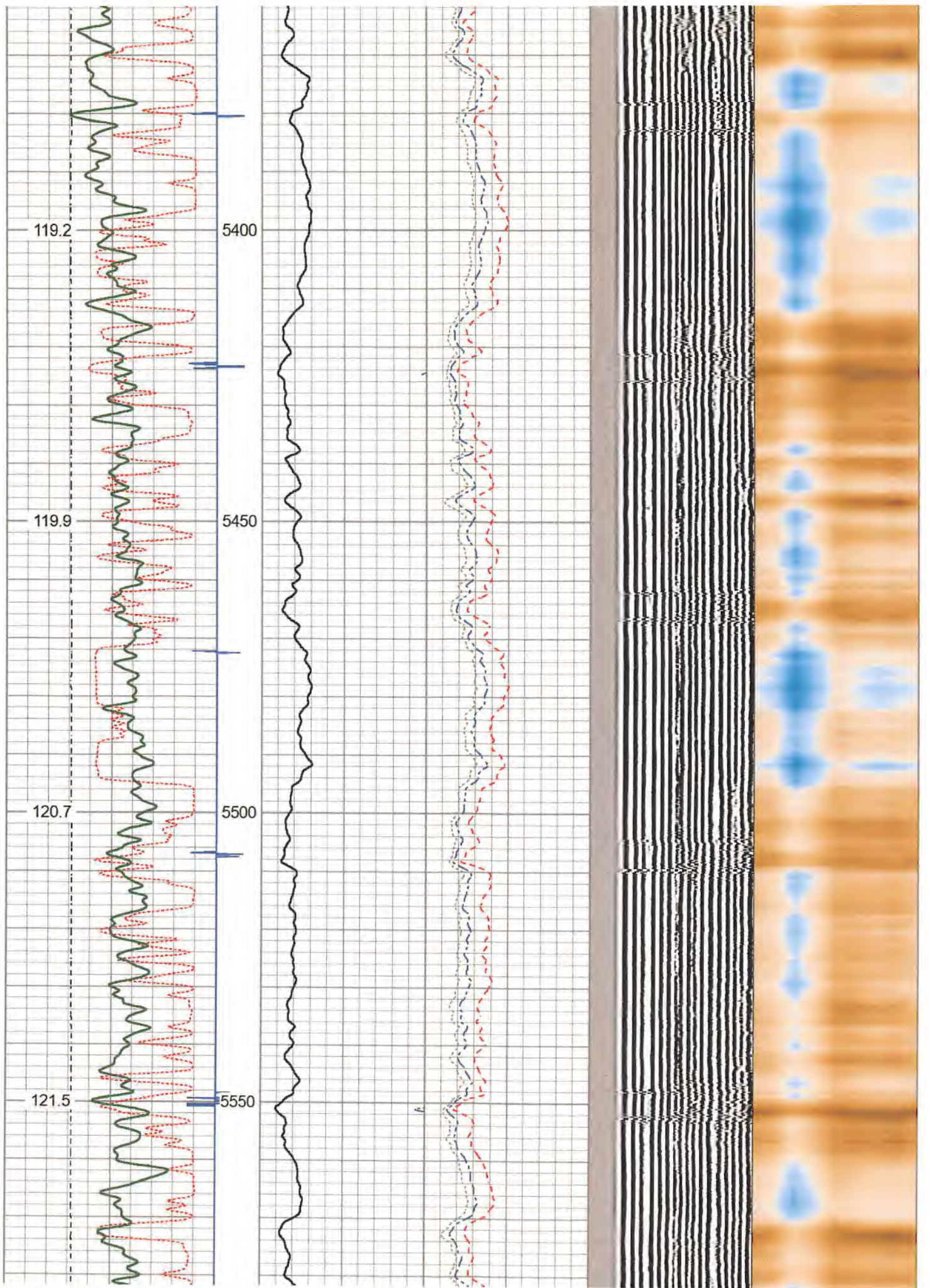


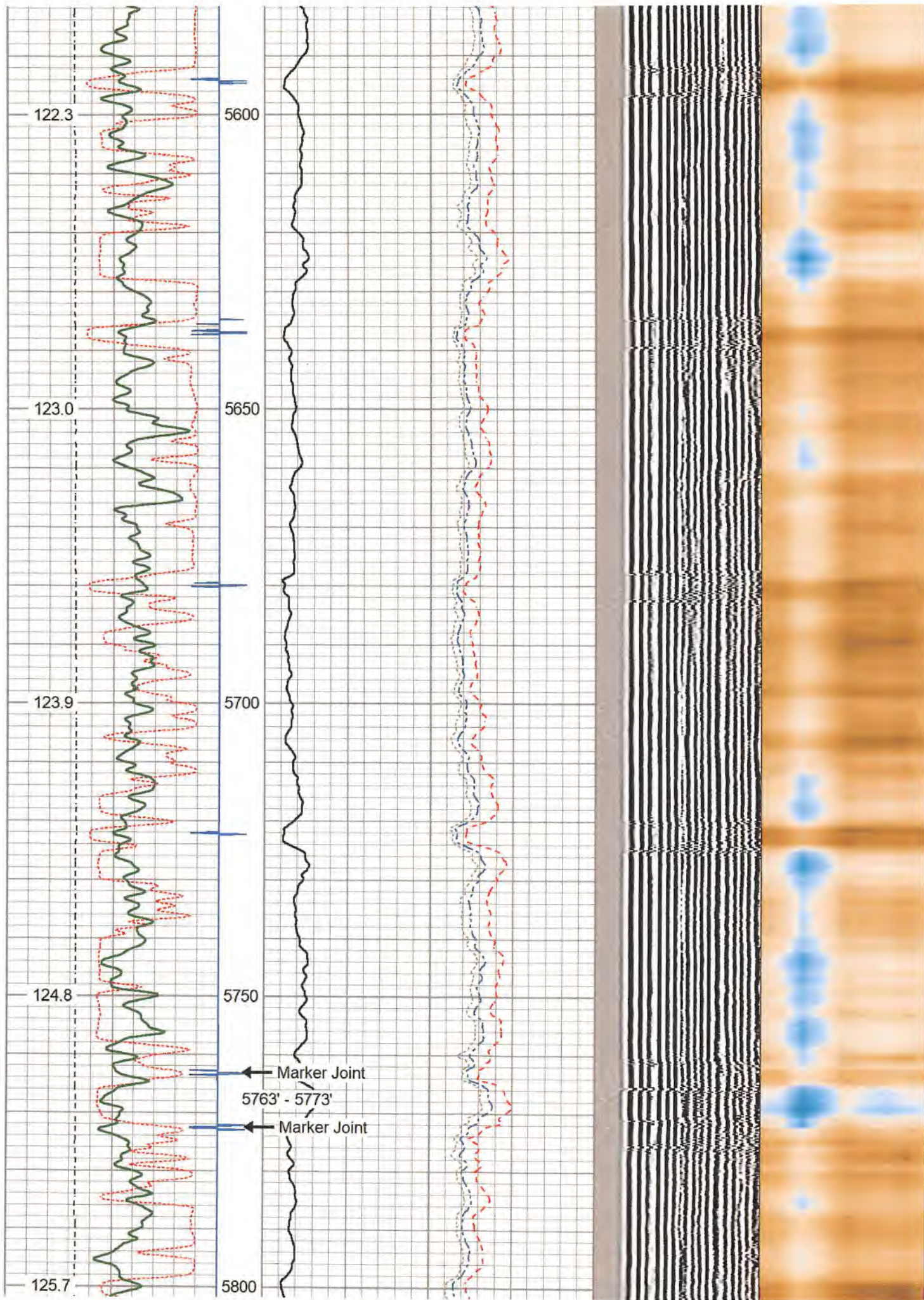


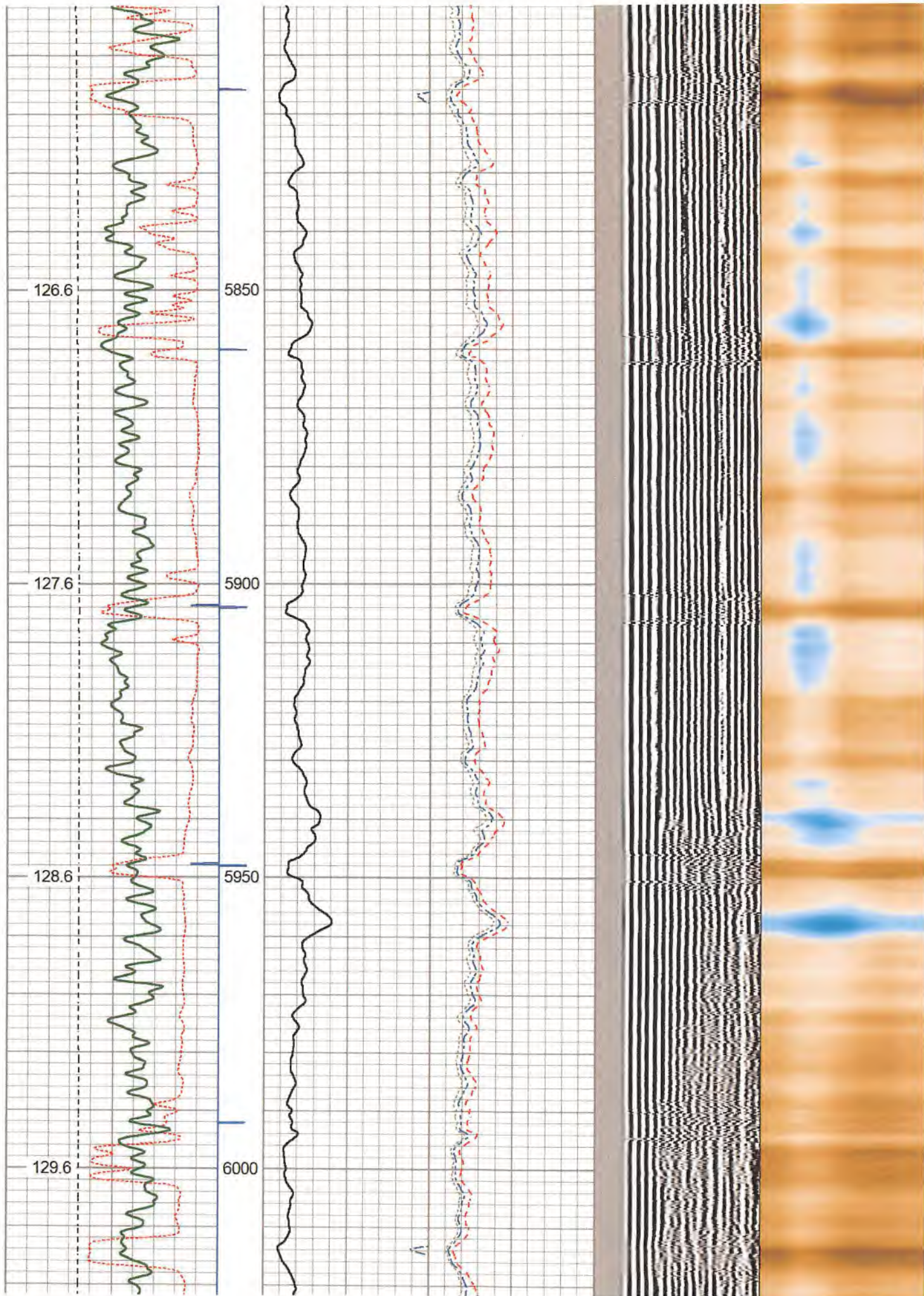


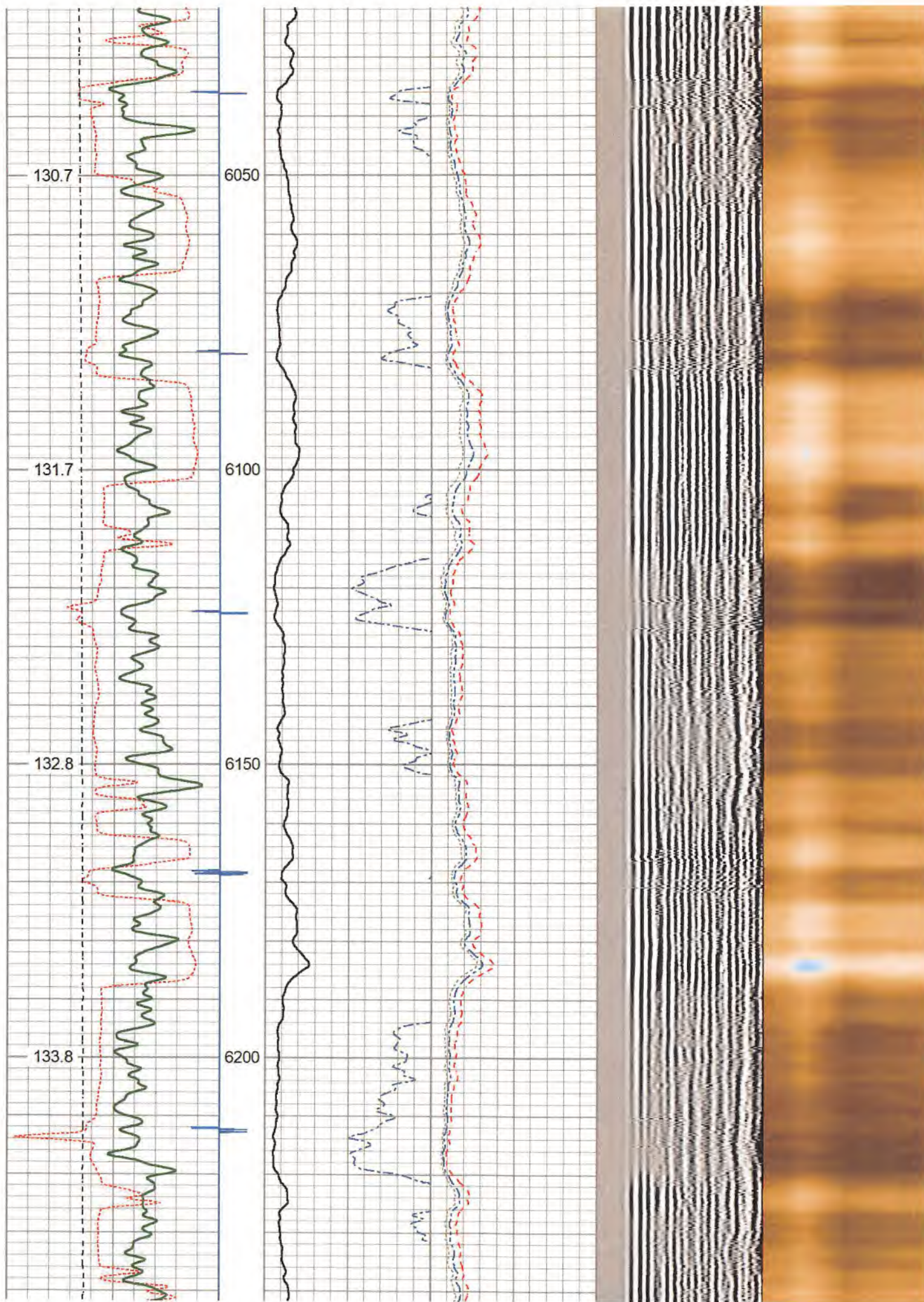


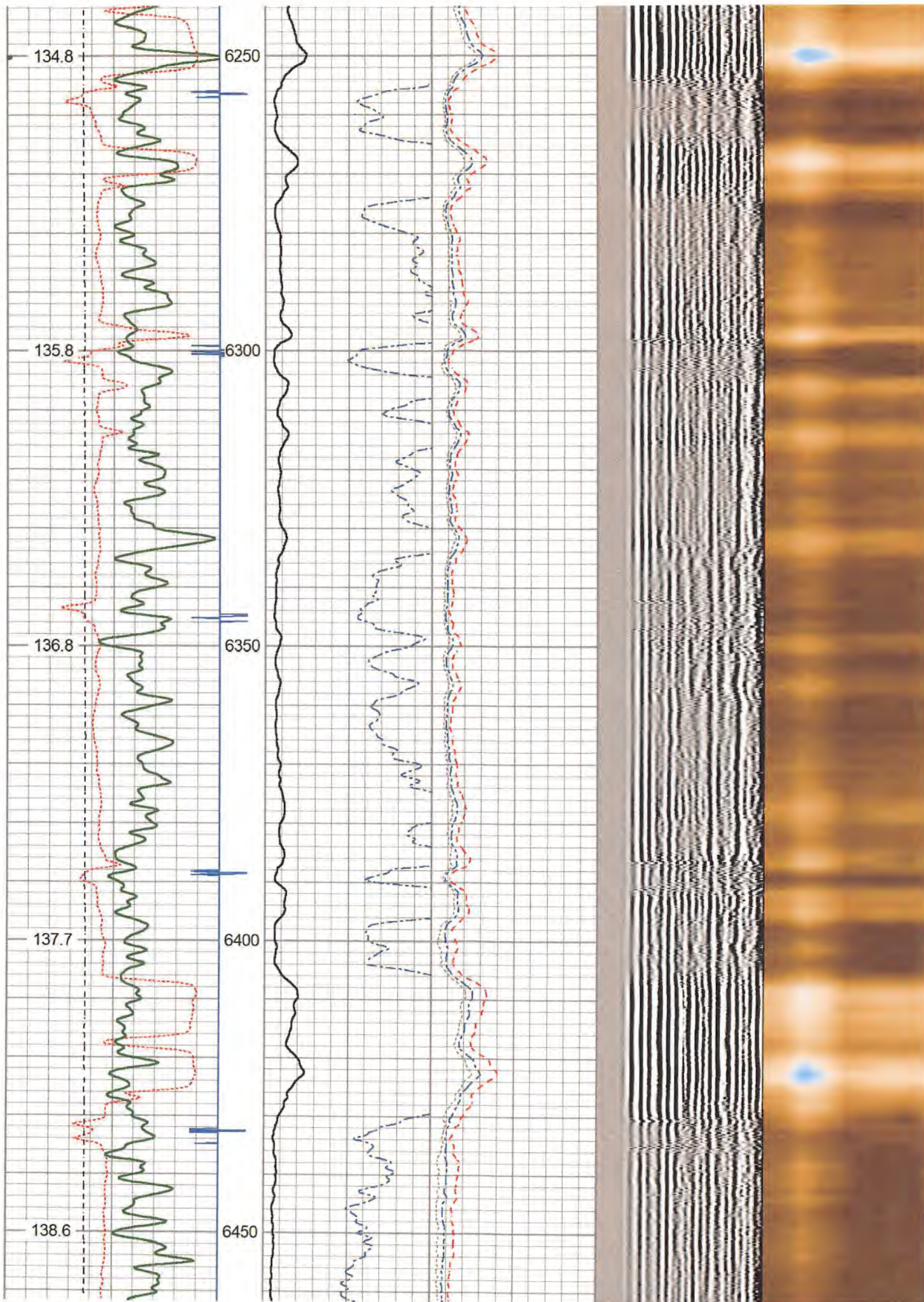


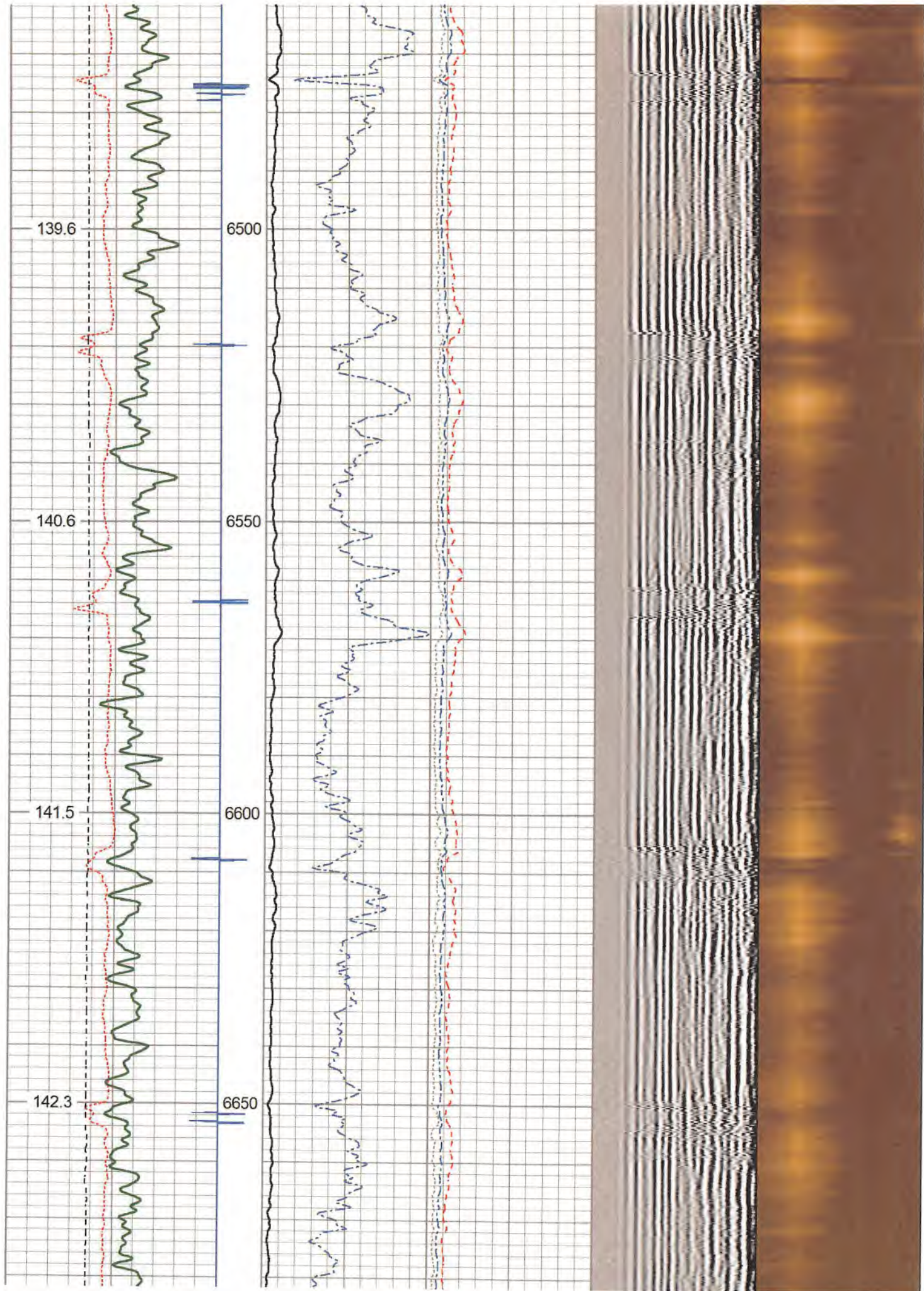


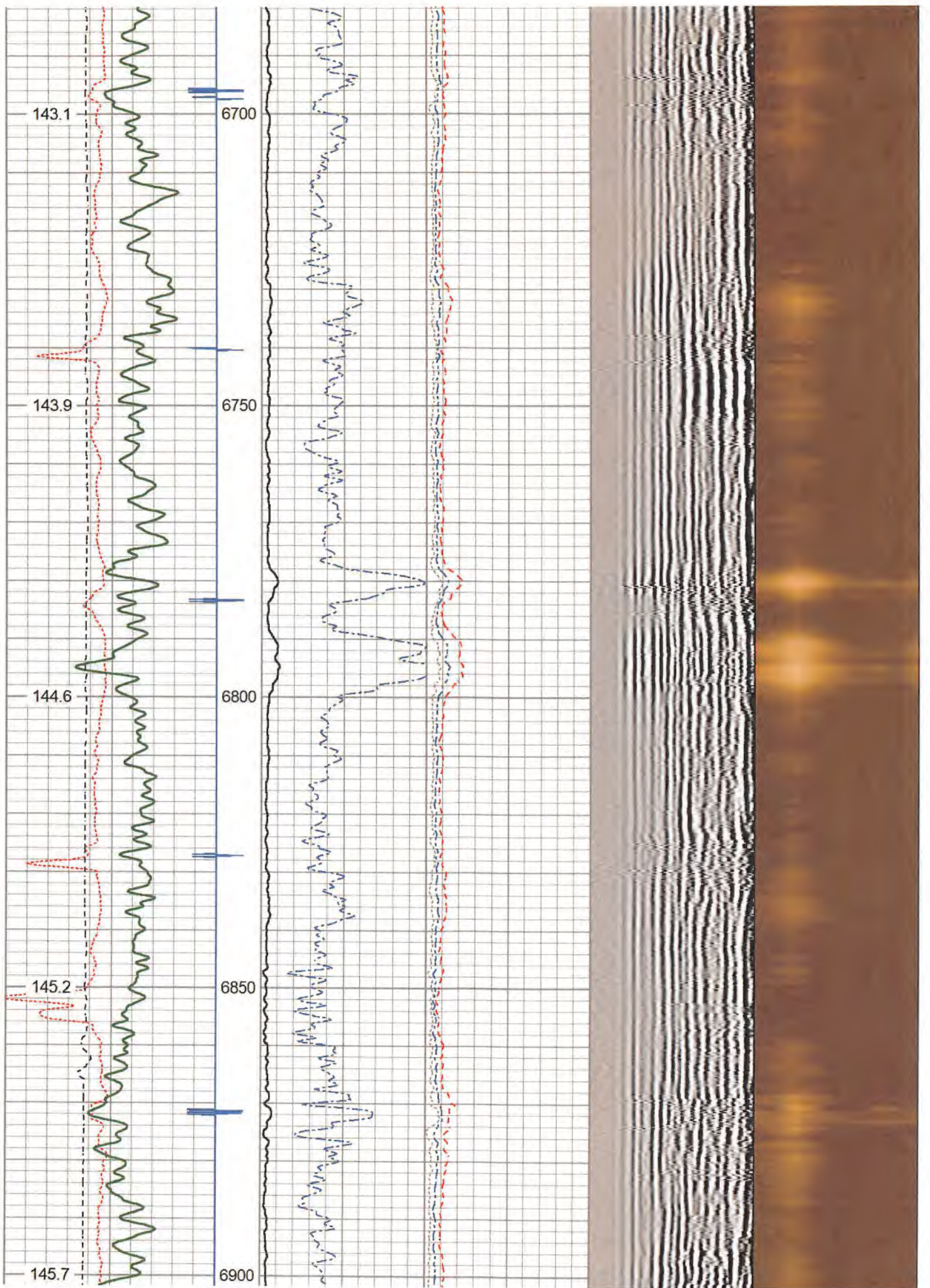


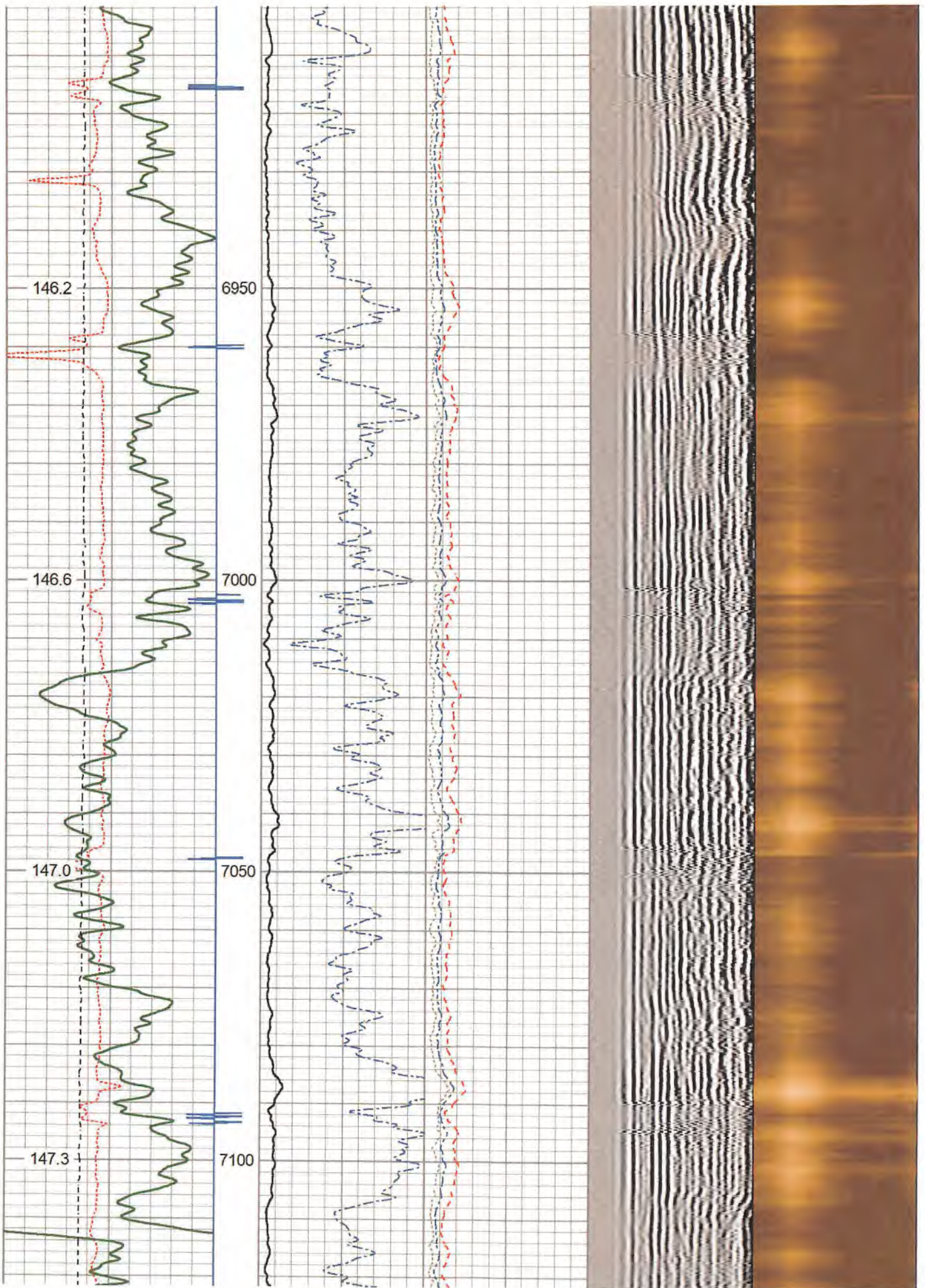


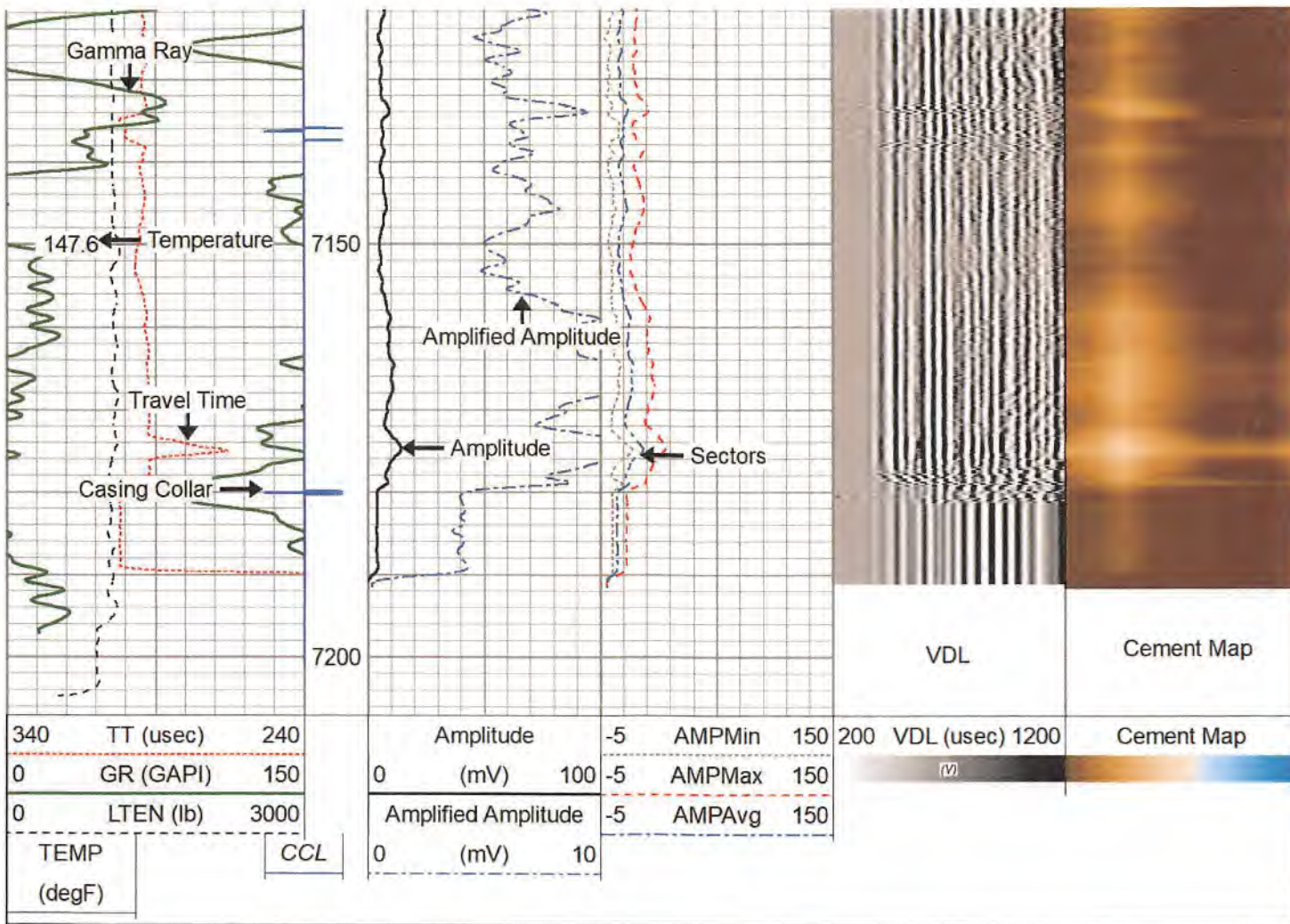










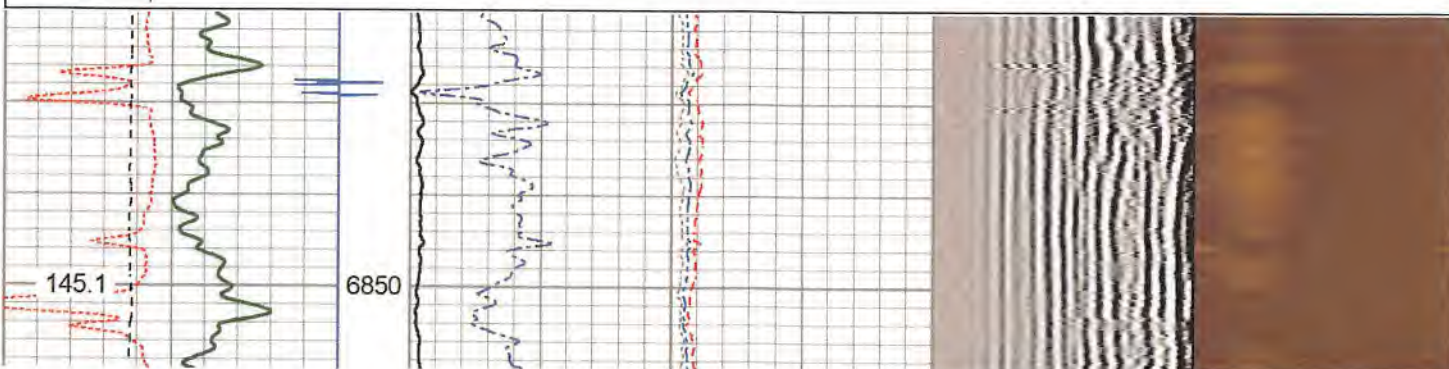
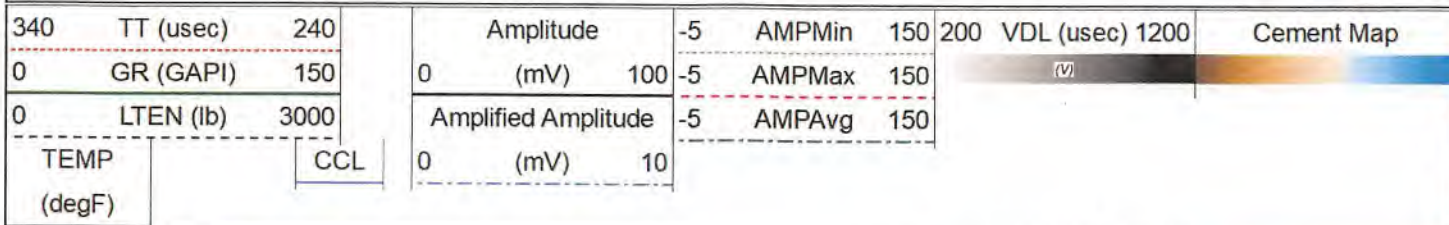


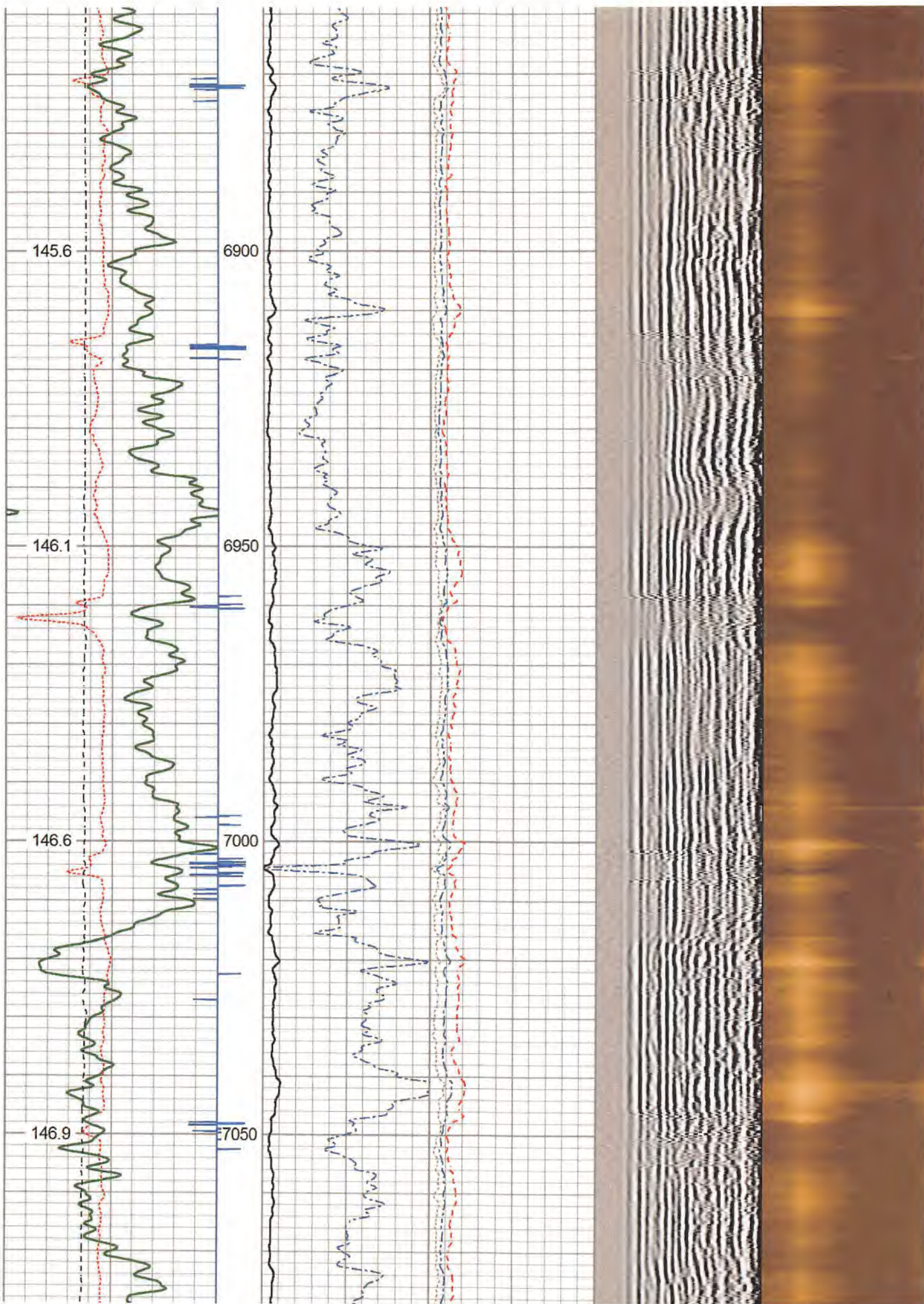
GR Energy Services

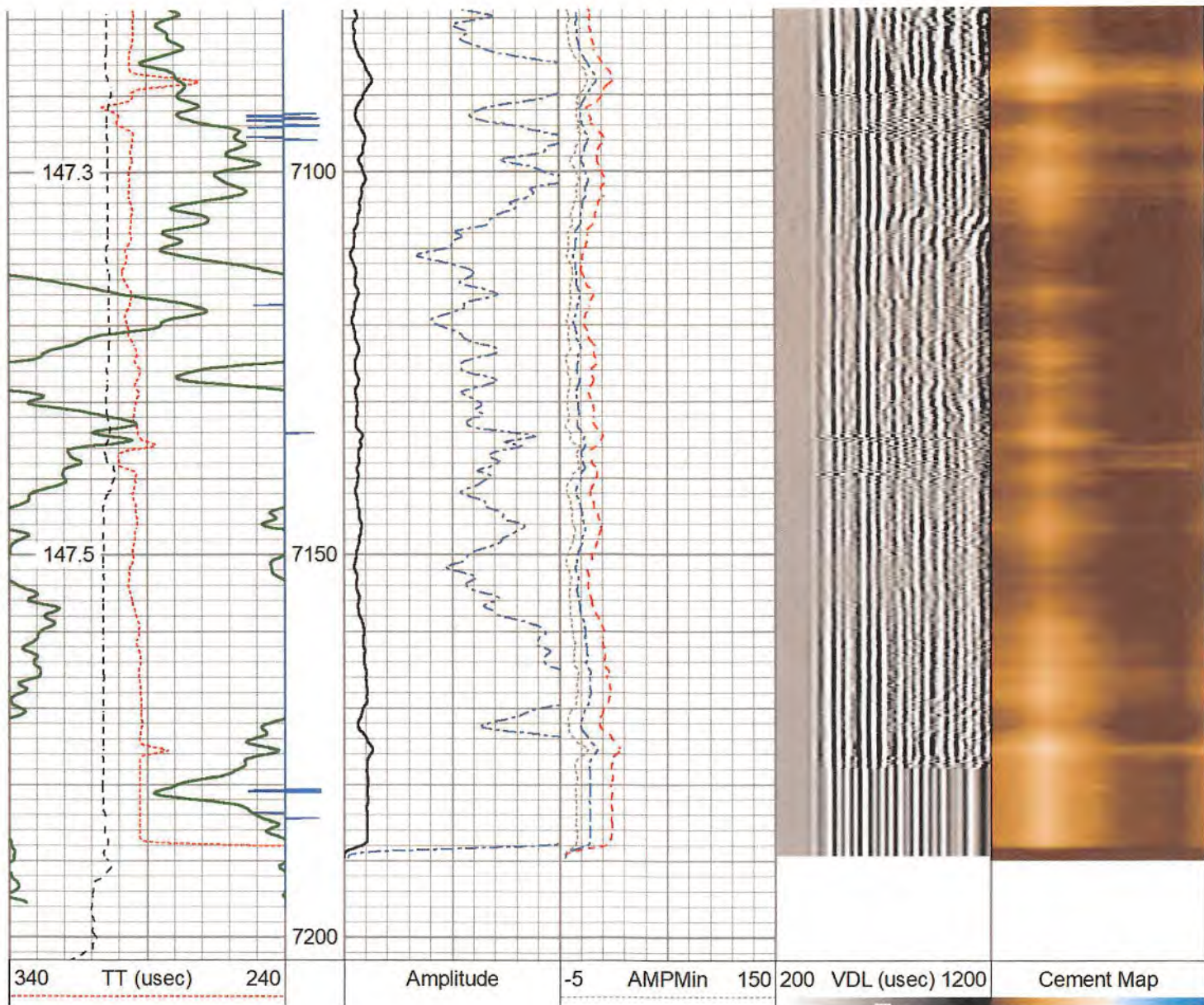
Repeat Pass

(1500 PSI)

Database File c:\users\logbox\desktop\antero\antero_jenkins_2h.db
 Dataset Pathname rcbl/pass2
 Presentation Format rcbl_std_bw_tt
 Dataset Creation Sat Jun 10 03:07:18 2023
 Charted by Depth in Feet scaled 1:240








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0	GR (GAPI)	150	0	(mV)	100	-5	AMPMax	150	
0	LTEN (lb)	3000	Amplified Amplitude		-5	AMPAvg	150		
TEMP		CCL	0	(mV)	10				
(degF)									

Log Variables

Database: c:\users\logbox\desktop\antero\antero_jenkins_2h.db
Dataset field/well/rcbl/pass4/_vars_

Top - Bottom

BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL	MINATTN
in	degF	in	in	lb/ft	mV	mV	db/ft
8.5	147.6	5.5	0.42	23	72	1	0.8
PERFS	PPT	SRFTEMP	TDEPTH				
No	usec	degF	ft				
	368	65	7190				

Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Calibration Report

Database File c:\users\logbox\desktop\antero\antero_jenkins_2h.db
Dataset Pathname rcbl/pass4
Dataset Creation Sat Jun 10 03:14:40 2023

Gamma Ray Calibration Report

Serial Number: GCT275-0000_base
 Tool Model: GCT275-0000
 Performed: Wed May 29 12:12:35 2019

Calibrator Value: 1094.2 GAPI

Background Reading: 55.7 cps
 Calibrator Reading: 1704.2 cps

Sensitivity: 0.6638 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: RBT275C_Base
 Tool Model: RADII-275C

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 106.308 ft

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Master Calibration, performed Fri Jun 9 13:58:16 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	0.656	1.000	71.921	109.366	0.156
CAL	0.007	0.896				
5'	0.006	0.602	1.000	71.921	119.005	0.253
SUM						
S1	0.005	0.650	0.000	100.000	155.187	-0.816
S2	0.008	0.640	0.000	100.000	158.318	-1.343
S3	0.008	0.628	0.000	100.000	161.266	-1.230
S4	0.006	0.620	0.000	100.000	162.908	-0.992
S5	0.008	0.622	0.000	100.000	162.808	-1.238
S6	0.009	0.637	0.000	100.000	159.164	-1.354
S7	0.007	0.650	0.000	100.000	155.526	-1.088
S8	0.006	0.660	0.000	100.000	153.001	-0.945

Internal Reference Calibration, performed Mon Apr 17 11:08:13 2023:

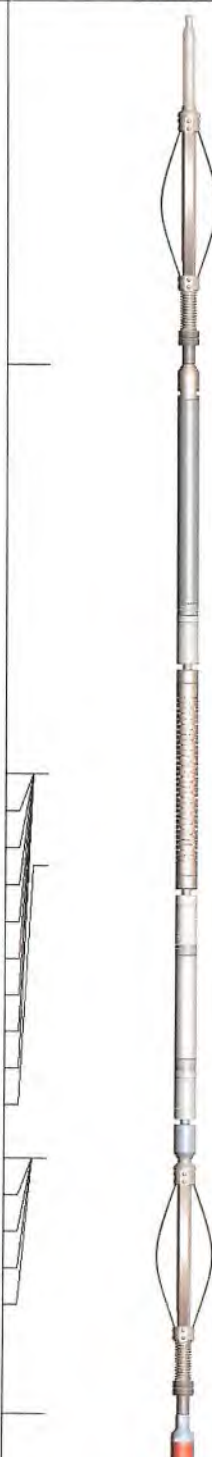
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	0.896	1.000	0.000

Air Zero Calibration, performed Fri Jun 9 09:32:12 2023:


	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	

Inclinometer Calibration Report


Performed:	(Not Performed)				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	0.00	1.00	0.00	1.00	gee
Y Accelerometer	0.00	1.00	0.00	1.00	gee
Z Accelerometer	0.00	1.00	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31	
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00	
RBT_HV	19.19						
WVFS2	14.69			RBT8-RADII-275C (RBT275C_Base) Probe 2.75" RADII 8 Sector Bond Tool	8.75	2.75	130.00
WVFS1	14.69						
WVFS8	14.69						
WVFS7	14.69						
WVFS6	14.69						
WVFS5	14.69						
WVFS4	14.69						
WVFS3	14.69						
WVF3FT	14.69						
WVF5FT	13.69						
RBT_ACCZ	10.44						
RBT_ACCY	10.44						
RBT_ACCX	10.44						
WVFSYNC	10.44						
WVFCAL	10.44		CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00	
GCT_HV	7.60						

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CCL\$2	6.64		GC-GCT275-0000 (GCT275-0000_base) Probe Gamma Ray - CCL w/ Temp	4.77	2.75	55.00
CCL\$1	6.64					
GCT_Temp	6.09					
GR	5.22					
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00

Dataset: antero_jenkins_2h.db: field/well/rcbl/pass4
 Total length: 23.04 ft
 Total weight: 260.31 lb
 O.D.: 2.75 in

	Company	Antero Resources Corporation	
	Well	Jenkins Unit 2H	
	Field	White Oak	
	County	Doddridge	
	State	WV	Country

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