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Office of Oil and Gas

OCT 27 2023

WV Department of
Environmental Protection



Radial Cement Bond
Gamma Ray CCL
Temperature Log

Company		Antero Resources Corporation	
Well		Jenkins Unit 3H	
Field		White Oak	
County		Doddridge	
State		WV	
API #:	47-017-06944-00-00	Location (LAT,LON):	39.177608, -80.833583
AFE #:	A12506-C	Township:	N/A
Permanent Datum	Ground Level	Elevation	1100'
Log Measured From	KB = 30' above GL		
Drilling Measured From	KB		
Other Services	None		
Elevation	K.B. 1130' D.F. 1130' G.L. 1100'		
Date	10 JUNE 2023		
Run Number	One		
Depth Driller (ft)	16998		
Depth Logger (ft)	7446		
Bottom Logged Interval (ft)	7434		
Top Log Interval	Surface		
Open Hole Size (in)	8.5		
Type Fluid	Water		
Density / Viscosity (lb/gal)	8.4		
Max. Recorded Temp. (°F)	146.9		
Estimated Cement Top (ft)	1162		
Time Well Ready	12:00 AM		
Time Logger on Bottom	05:21 AM		
Equipment Number	8018		
Location	Smithton, PA		
Recorded By	T. Trump		
Witnessed By	R. Rivera		
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
Inclination Information (Approximated Values from Directional Survey)			
KOP	30°	60°	90°
890'	1600' / 6740'	7120'	7590'

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'

Marker Joint Located @ 6150' - 6160'

Maximum Temperature Recorded was 146.9°F
Maximum Tension was 1437 lbs

Estimated Top of Cement @ 1162'

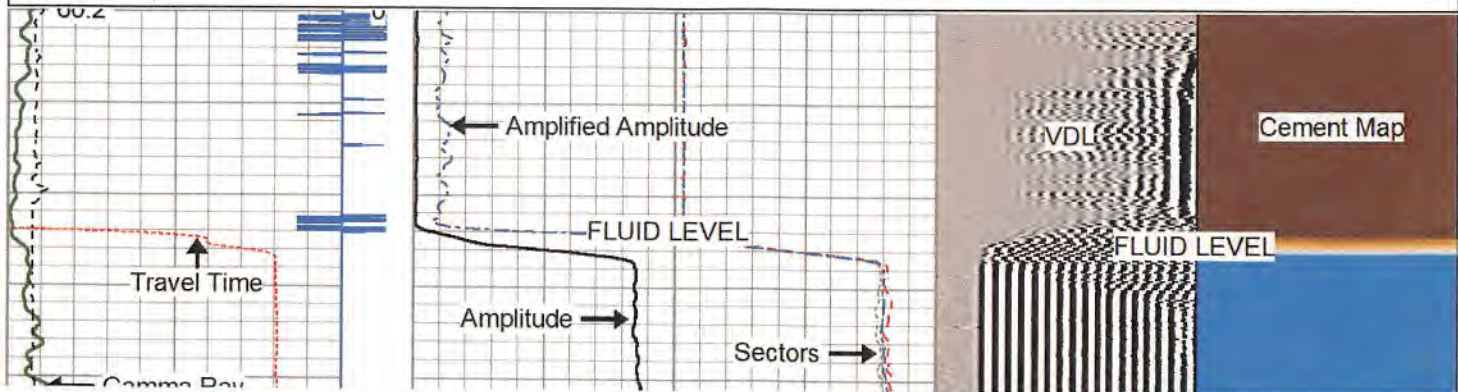


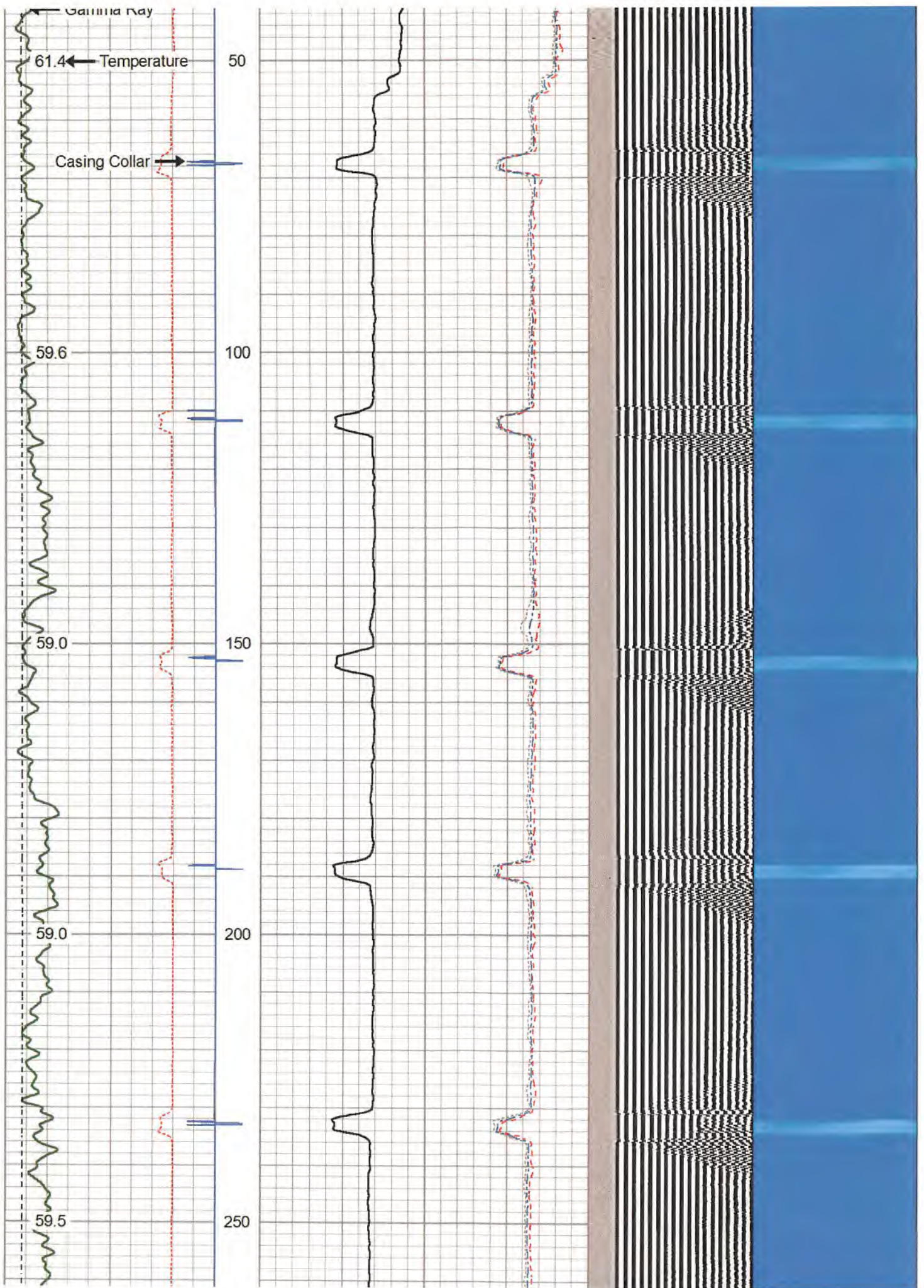
Main Pass

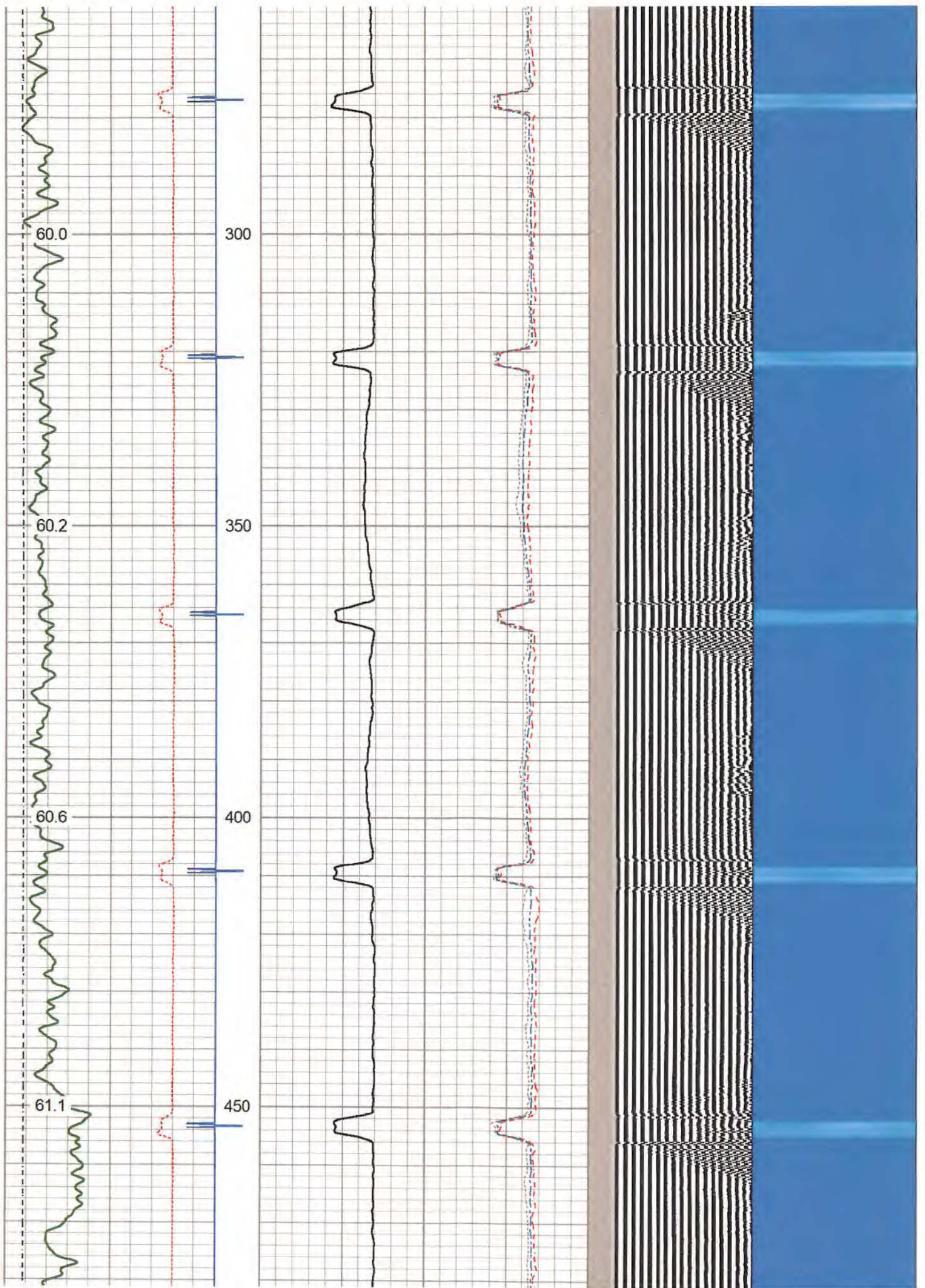
(1500 PSI)

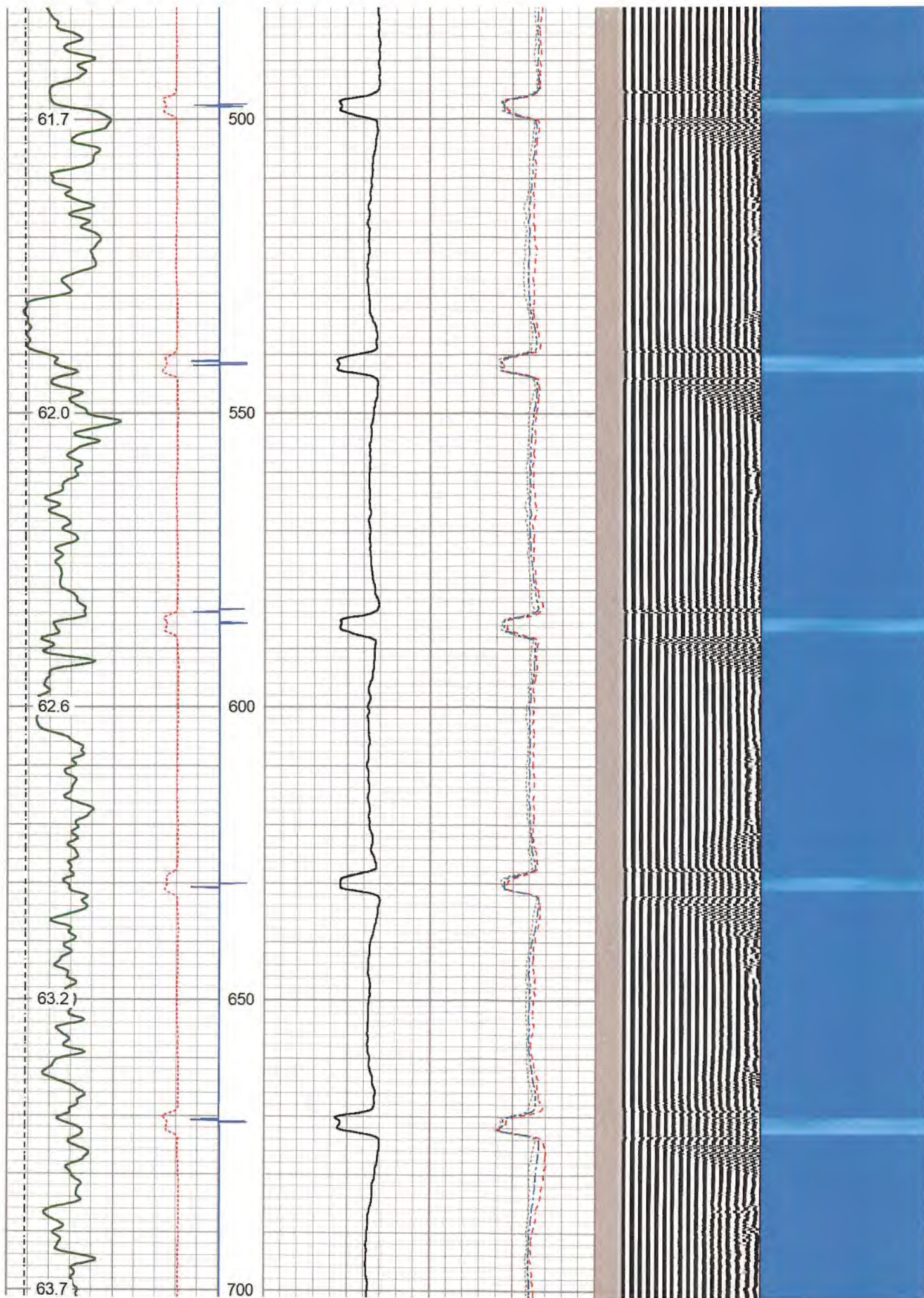
Database File c:\users\logbox\desktop\antero\antero_jenkins_3h.db
 Dataset Pathname rcb\pass4
 Presentation Format rcb_std_bw_tt
 Dataset Creation Sat Jun 10 05:28:46 2023
 Charted by Depth in Feet scaled 1:240

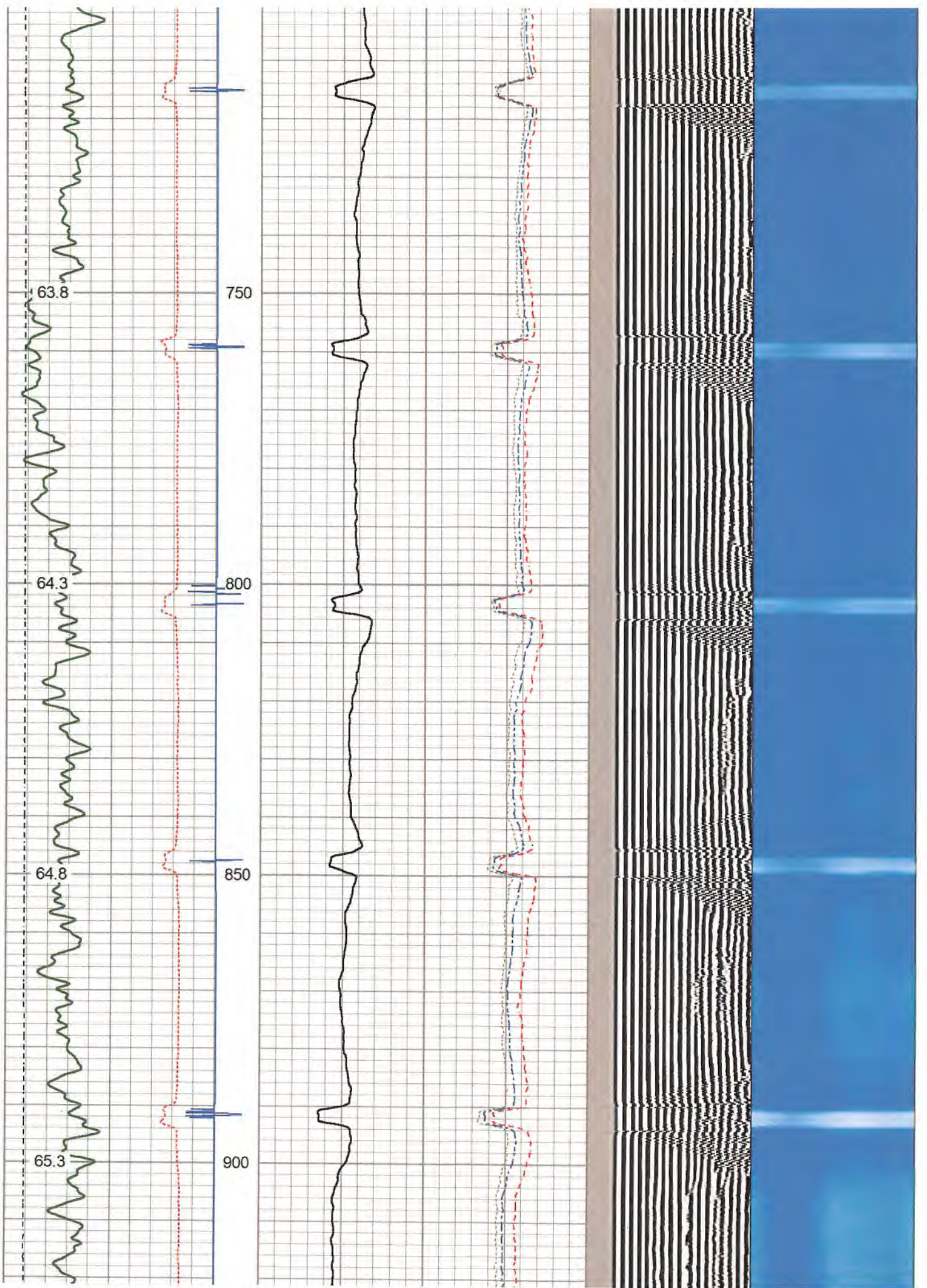
340	TT (usec)	240	Amplitude	-5	AMPMin	150	200	VDL (usec)	1200	Cement Map
0	GR (GAPI)	150	(mV)	100	-5	AMPMax	150	(V)		
0	LTEN (lb)	3000	Amplified Amplitude	-5	AMPAvg	150				
TEMP		CCL	(mV)	10						
(degF)										

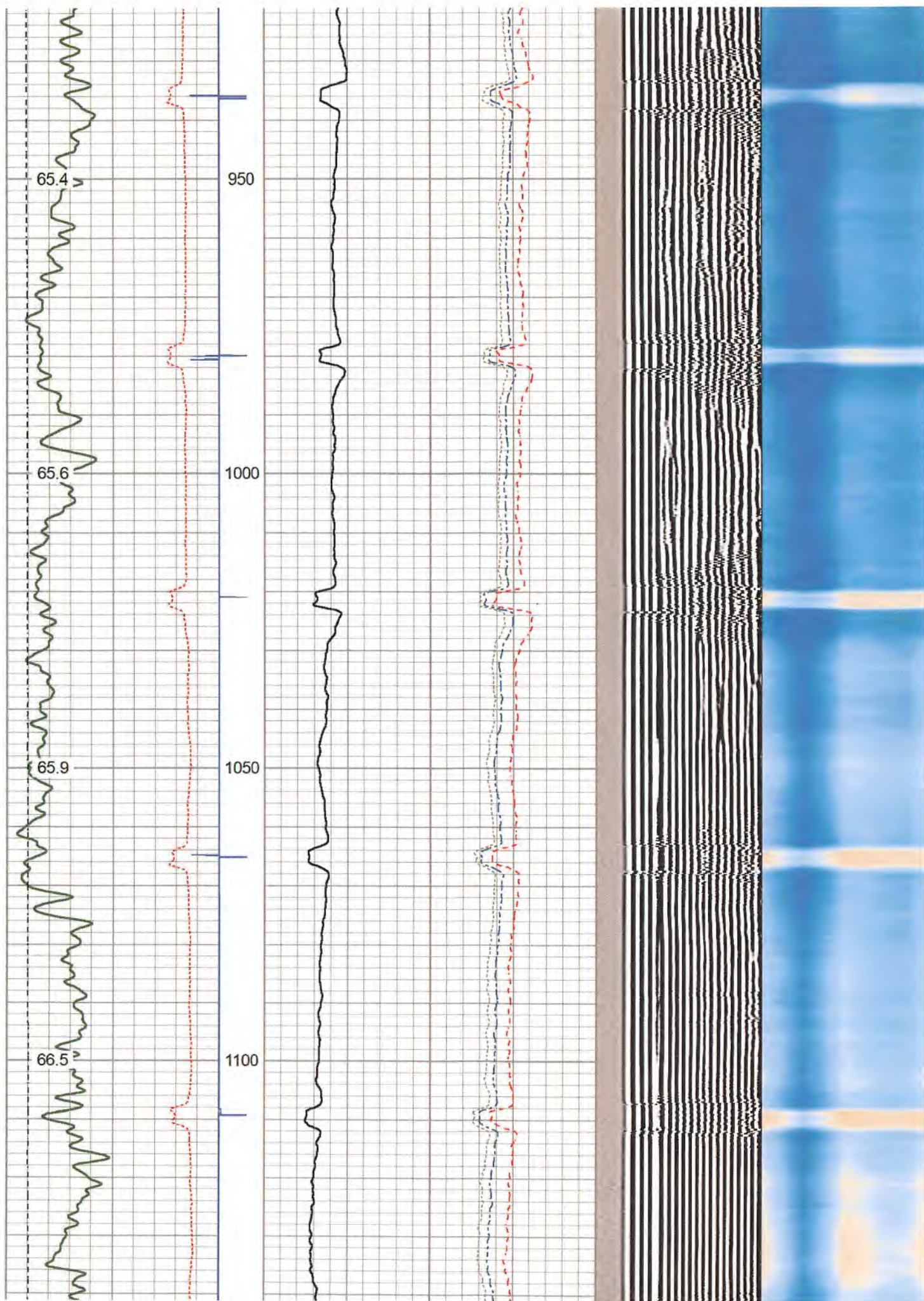


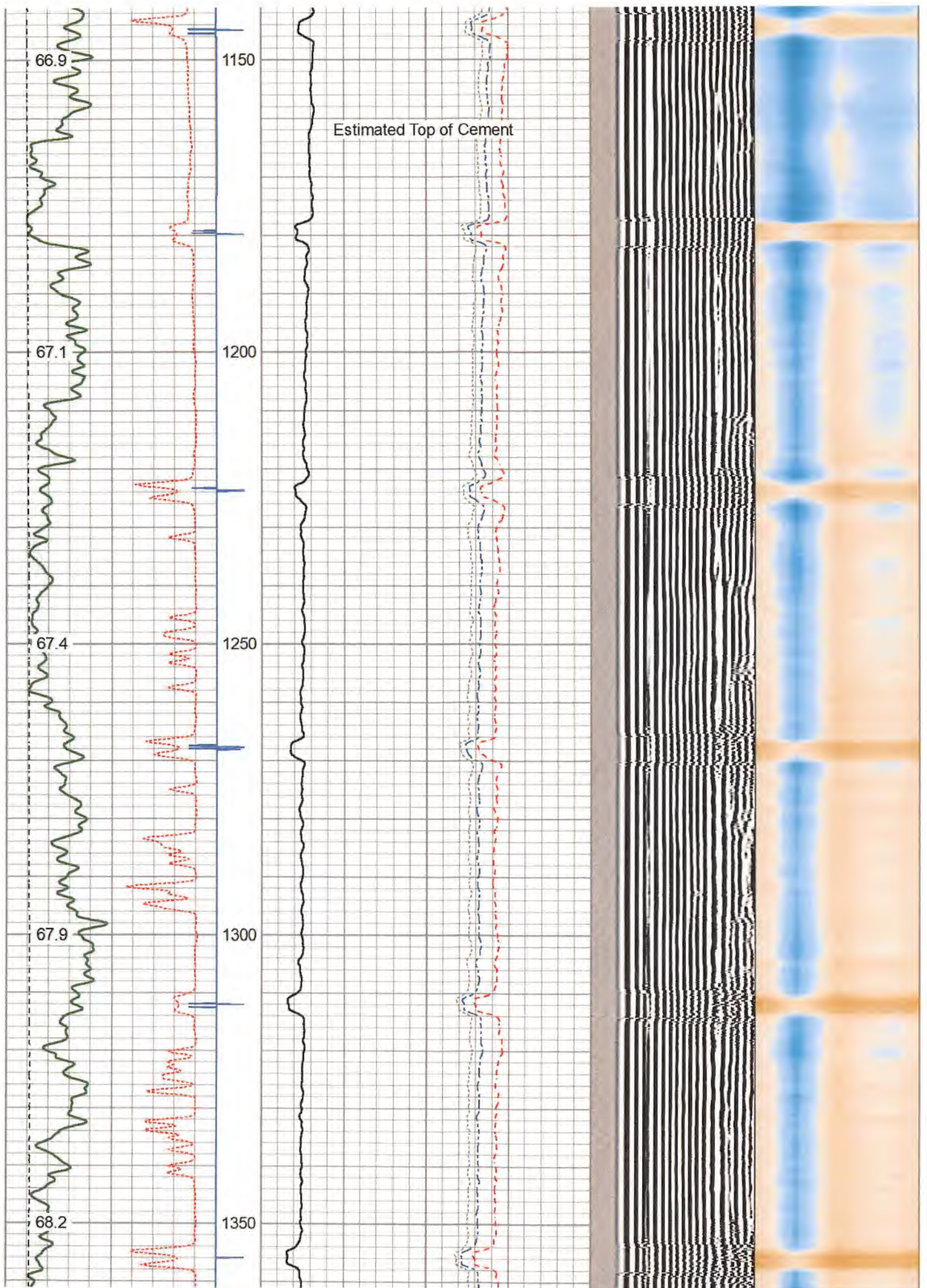


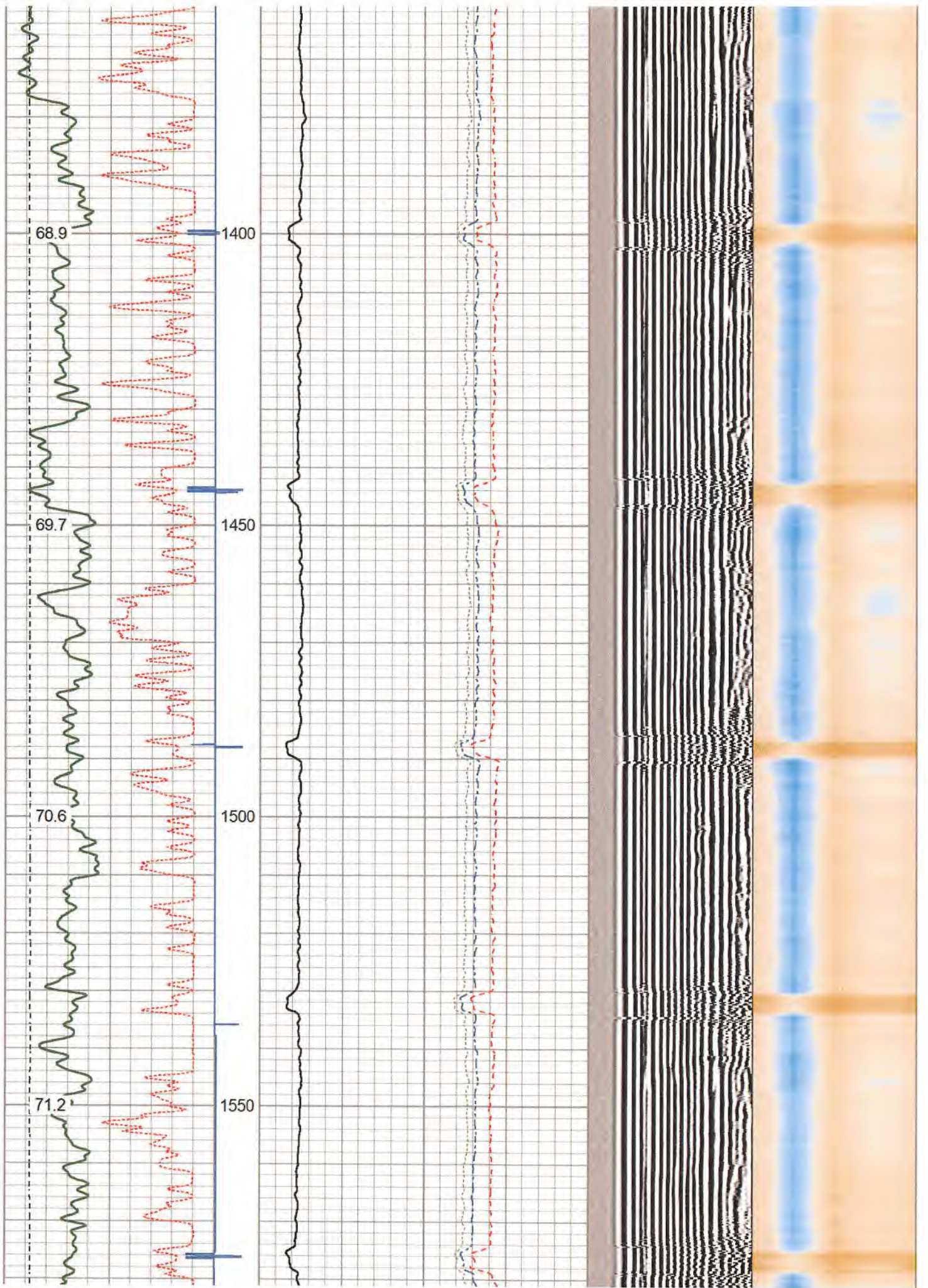


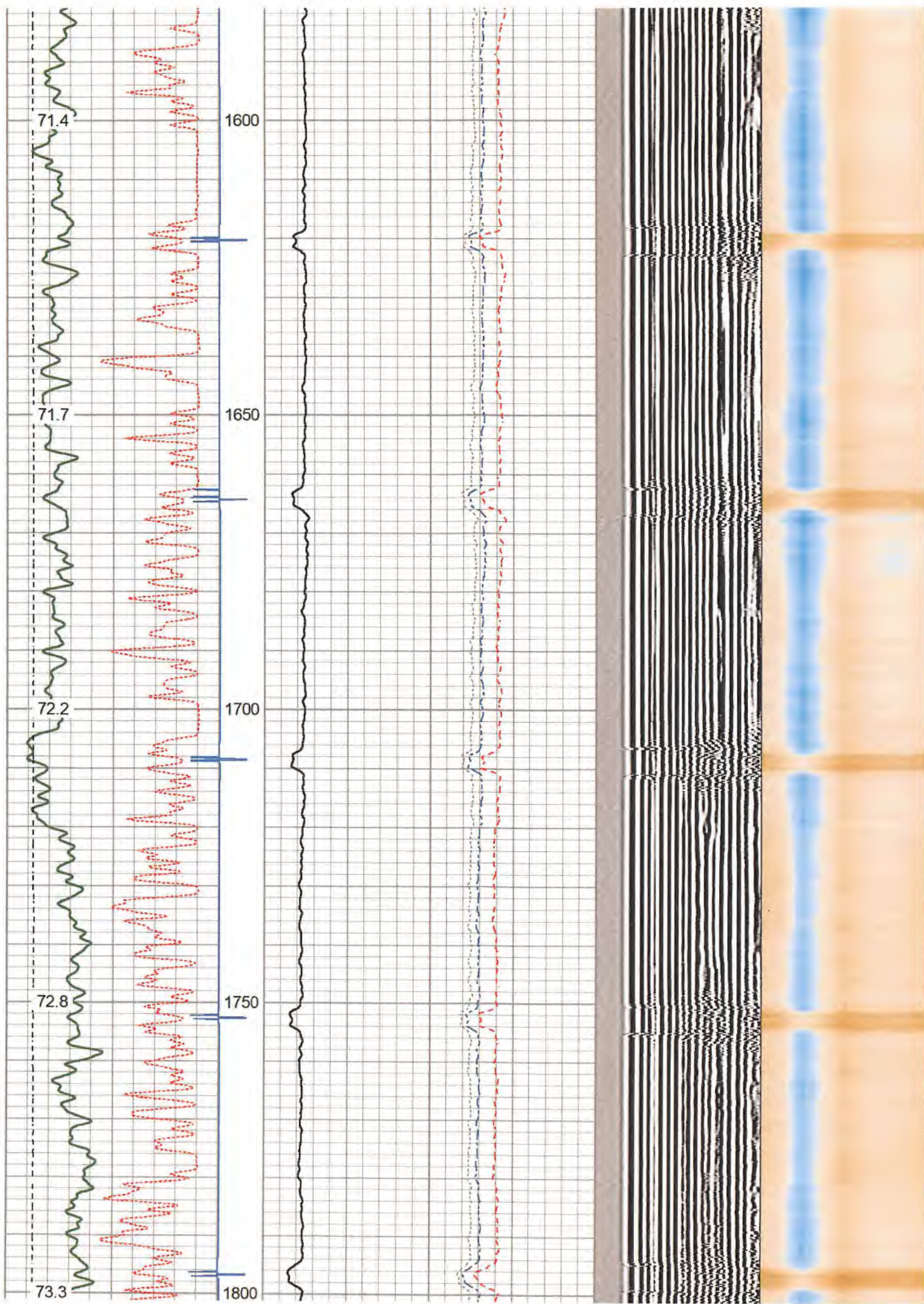


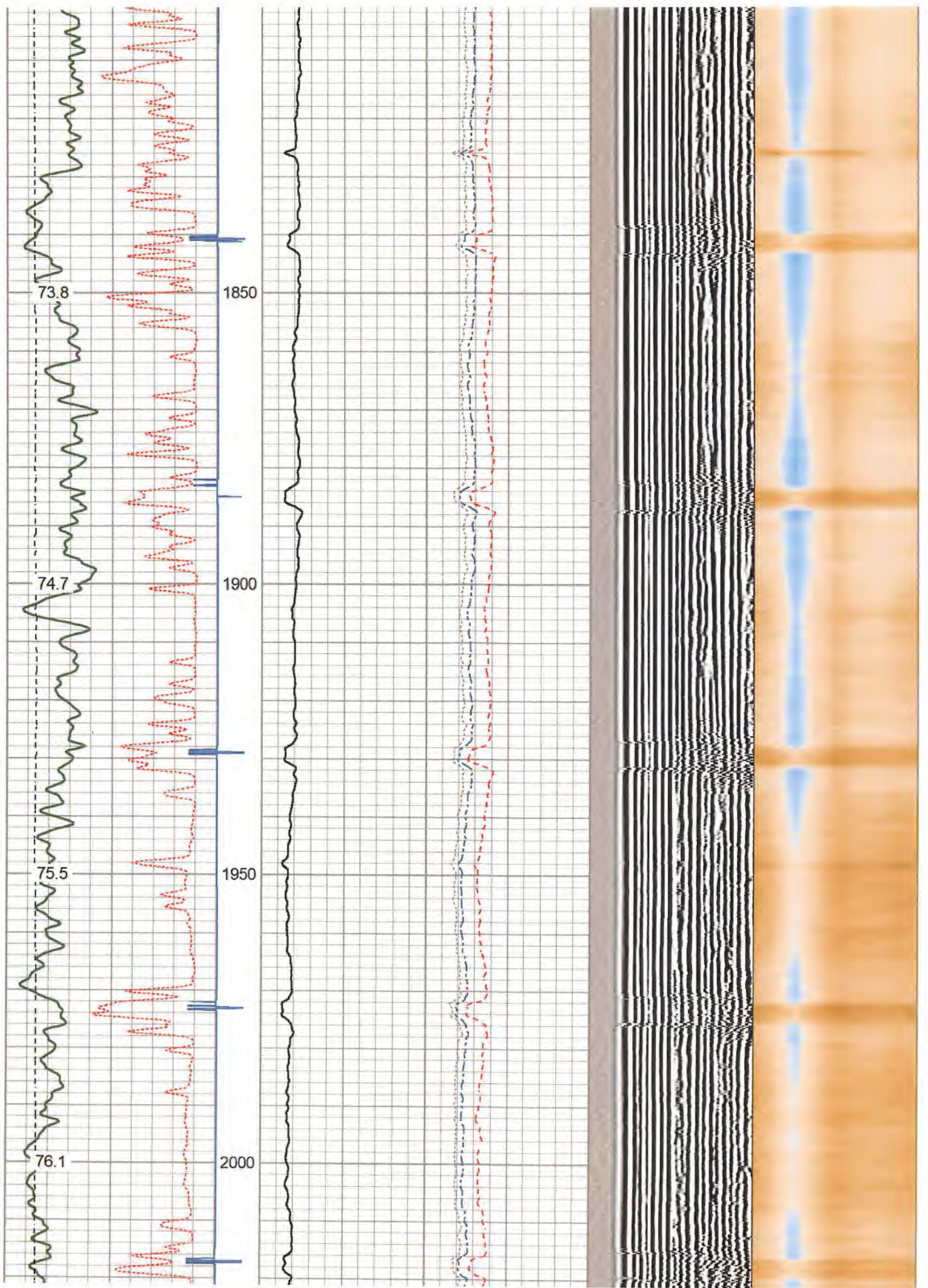


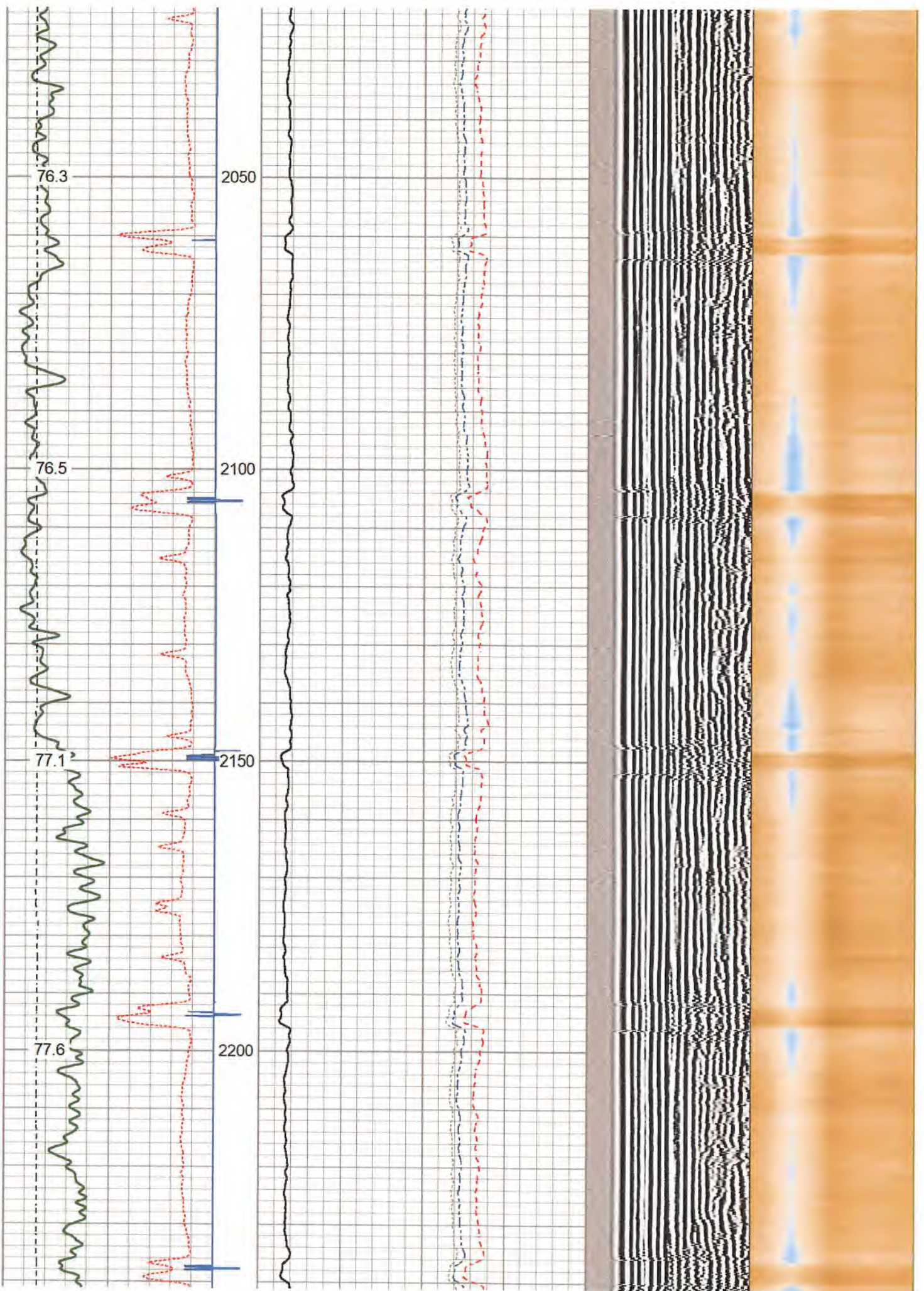


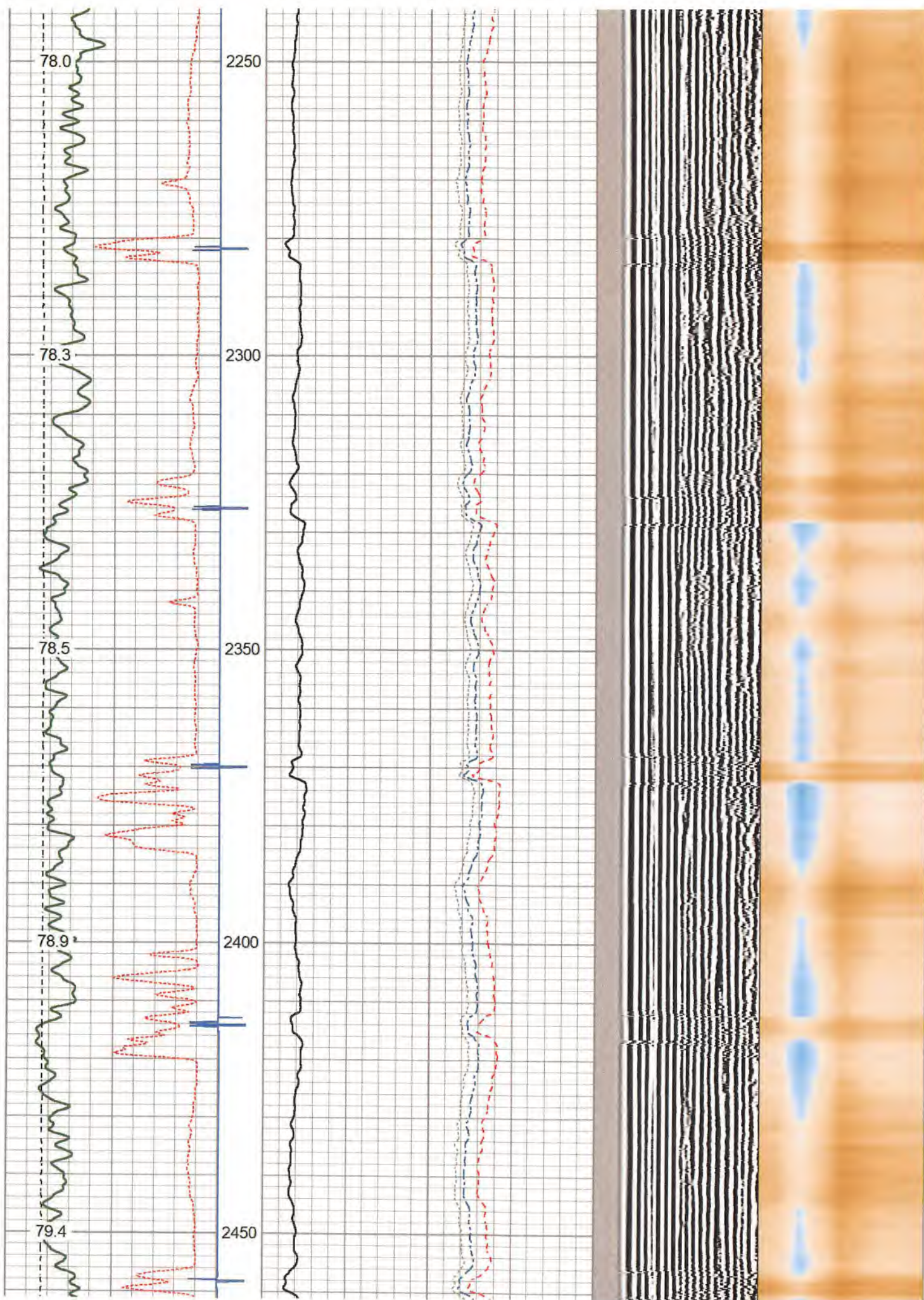


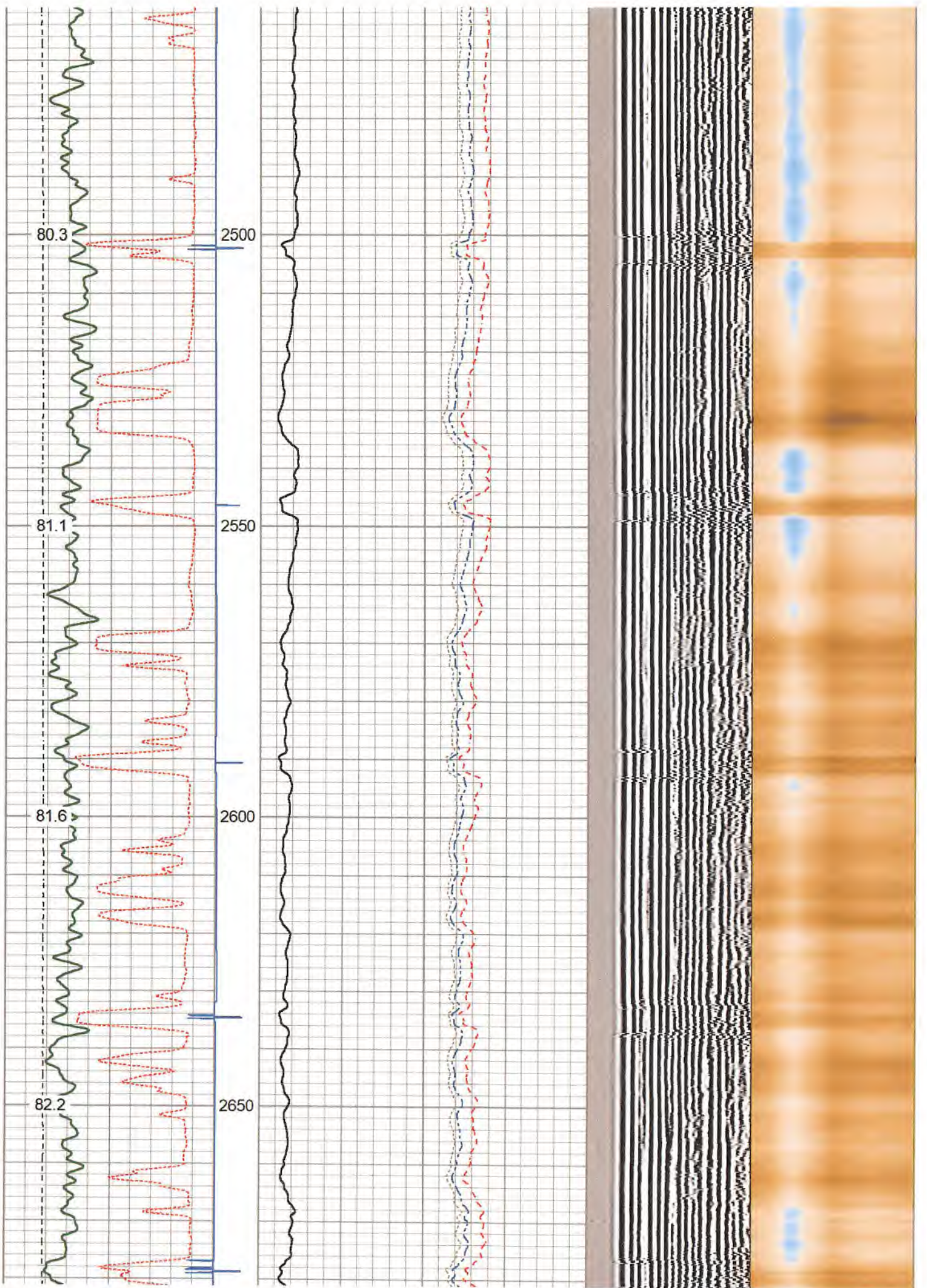


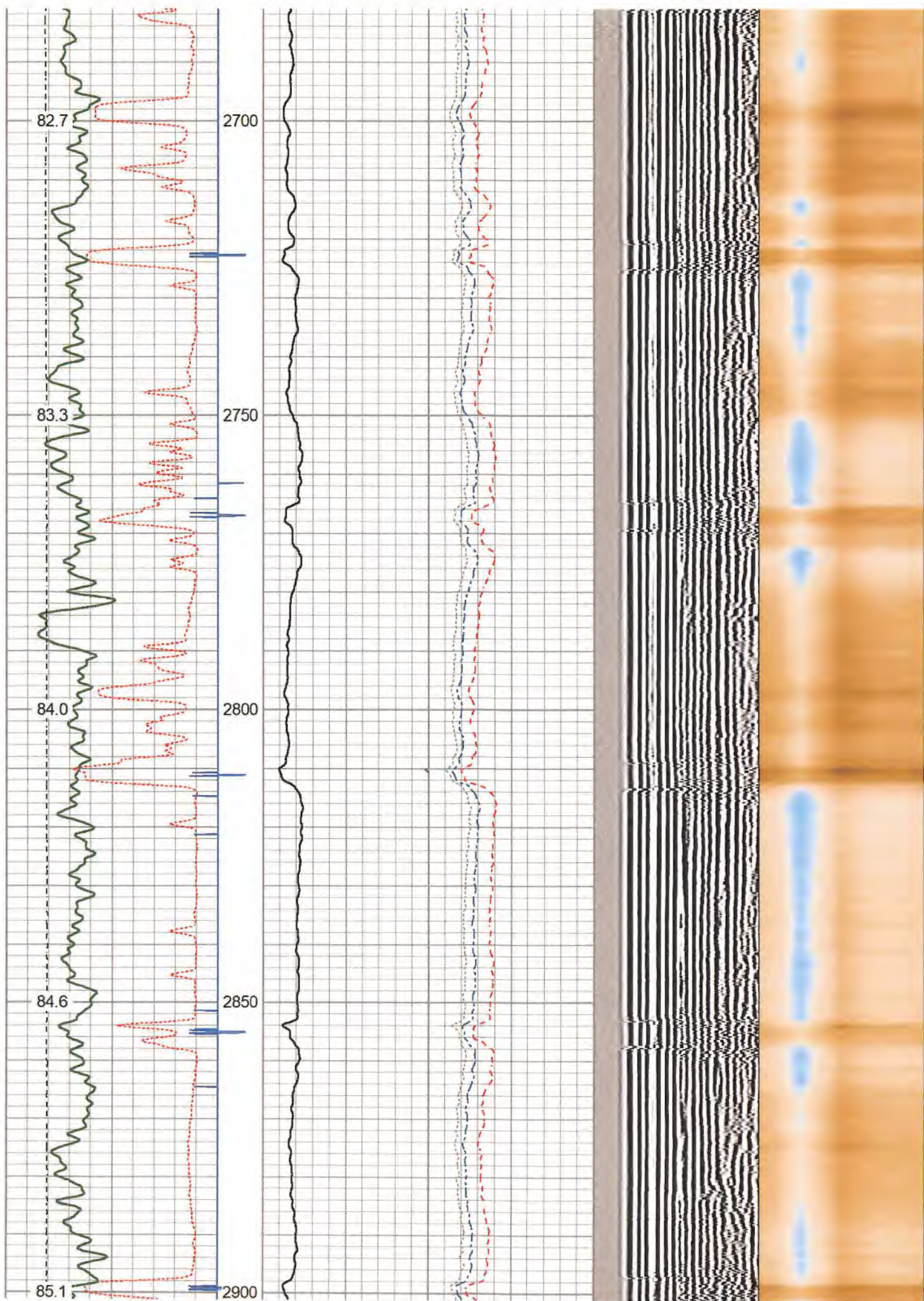


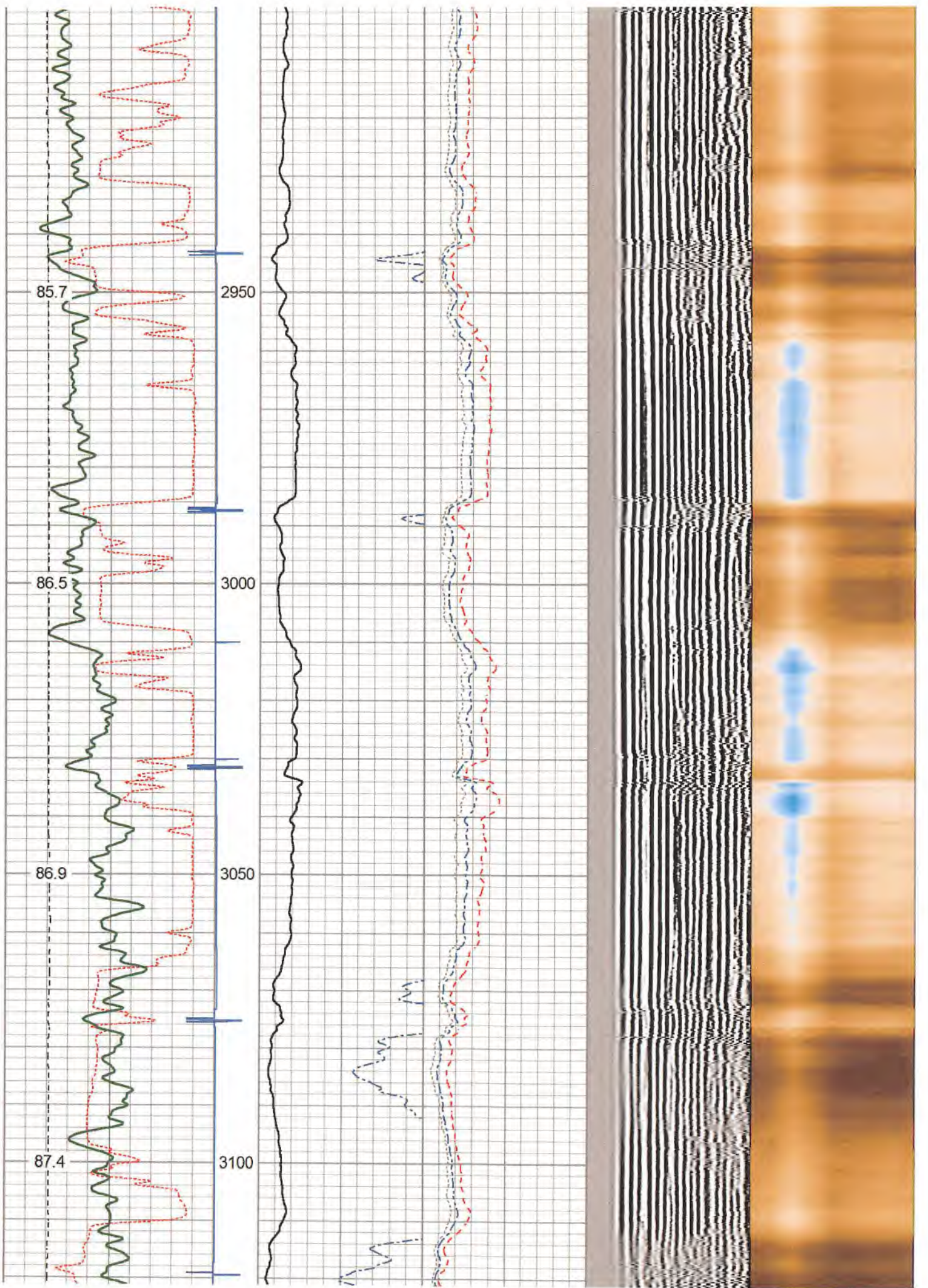


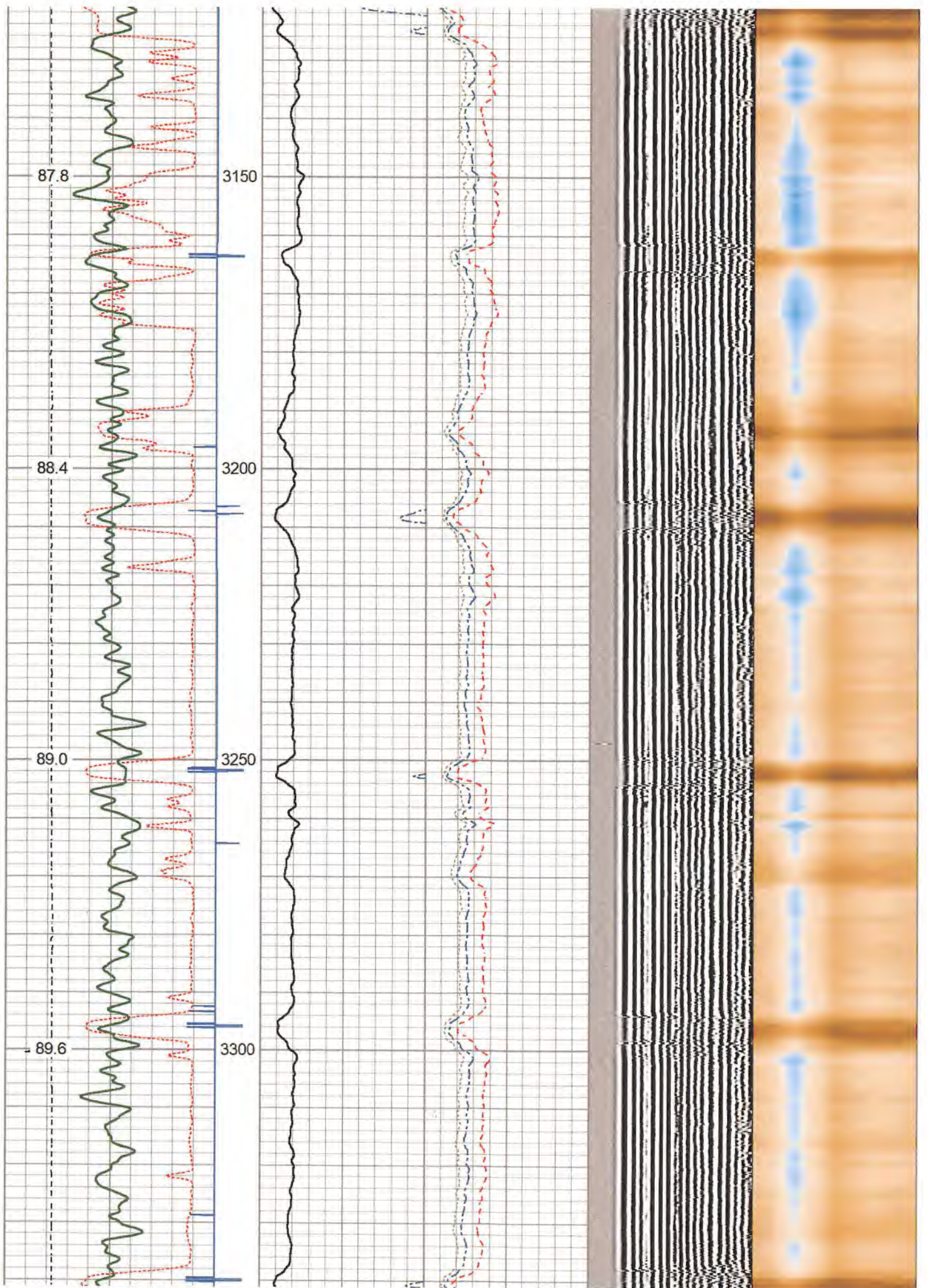


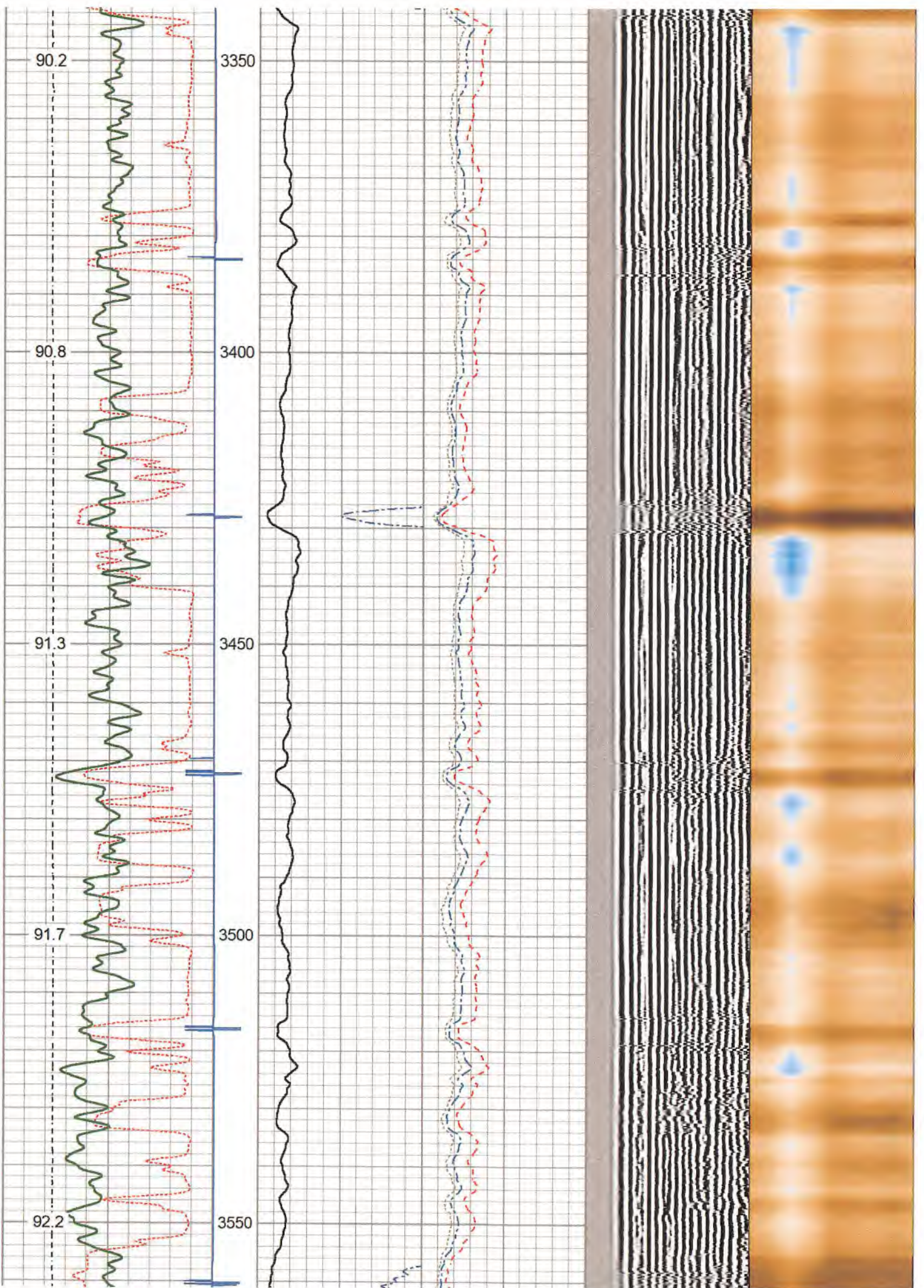


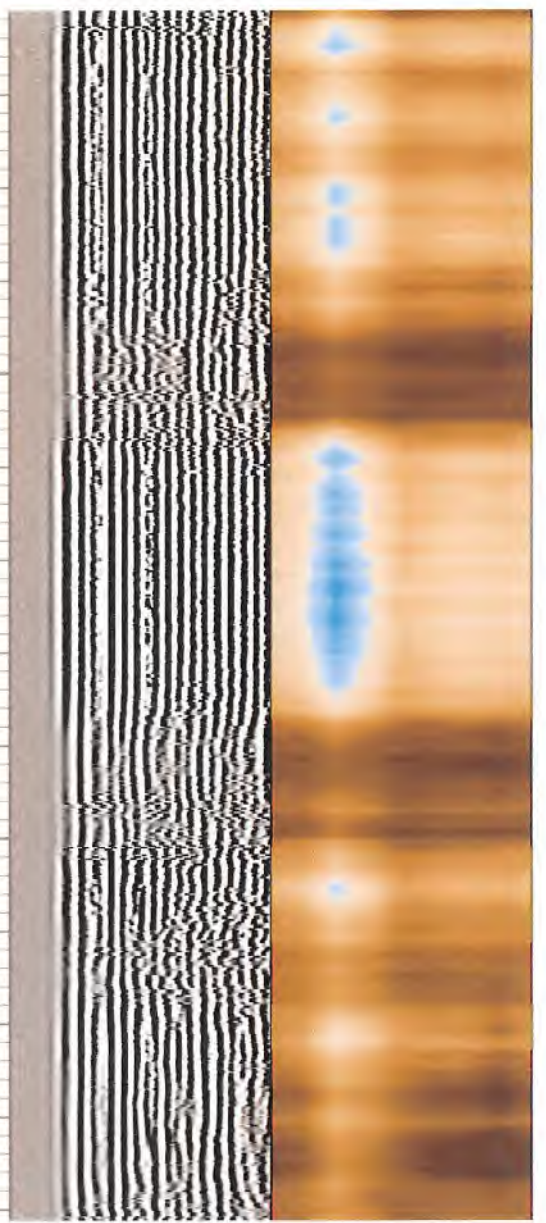
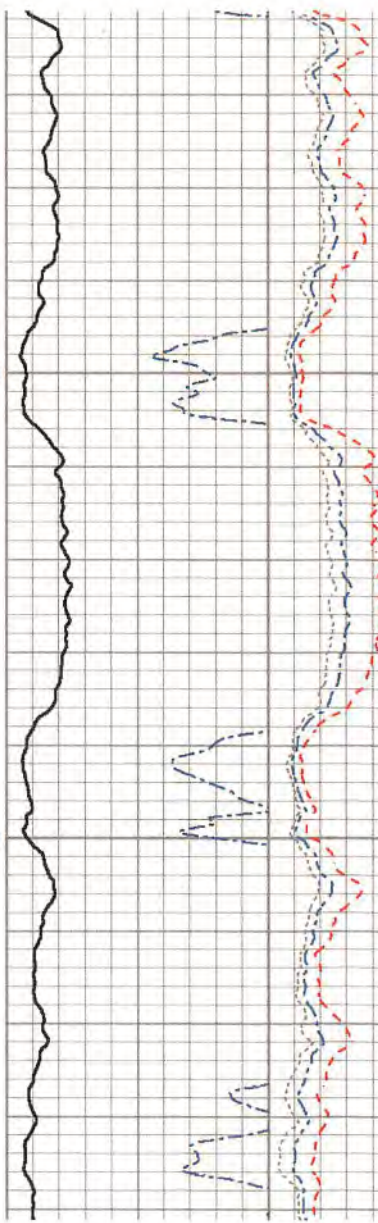
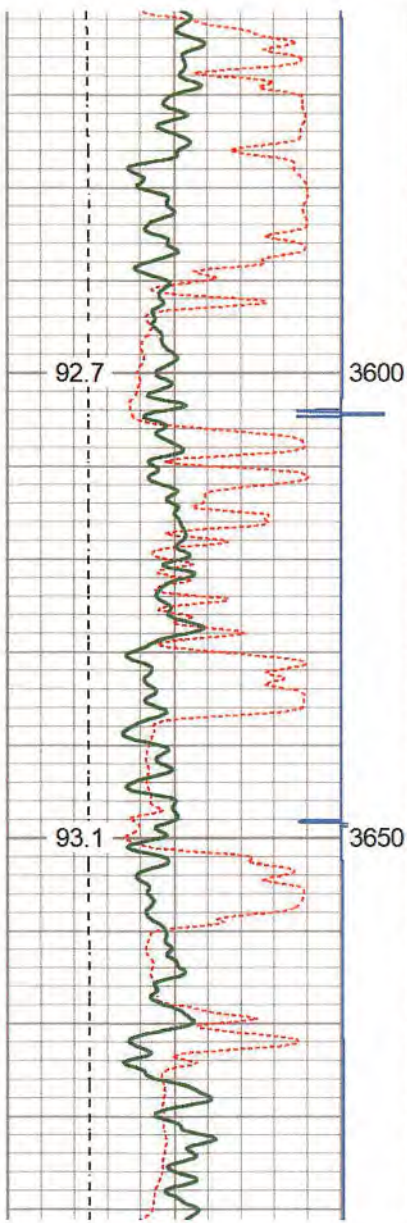


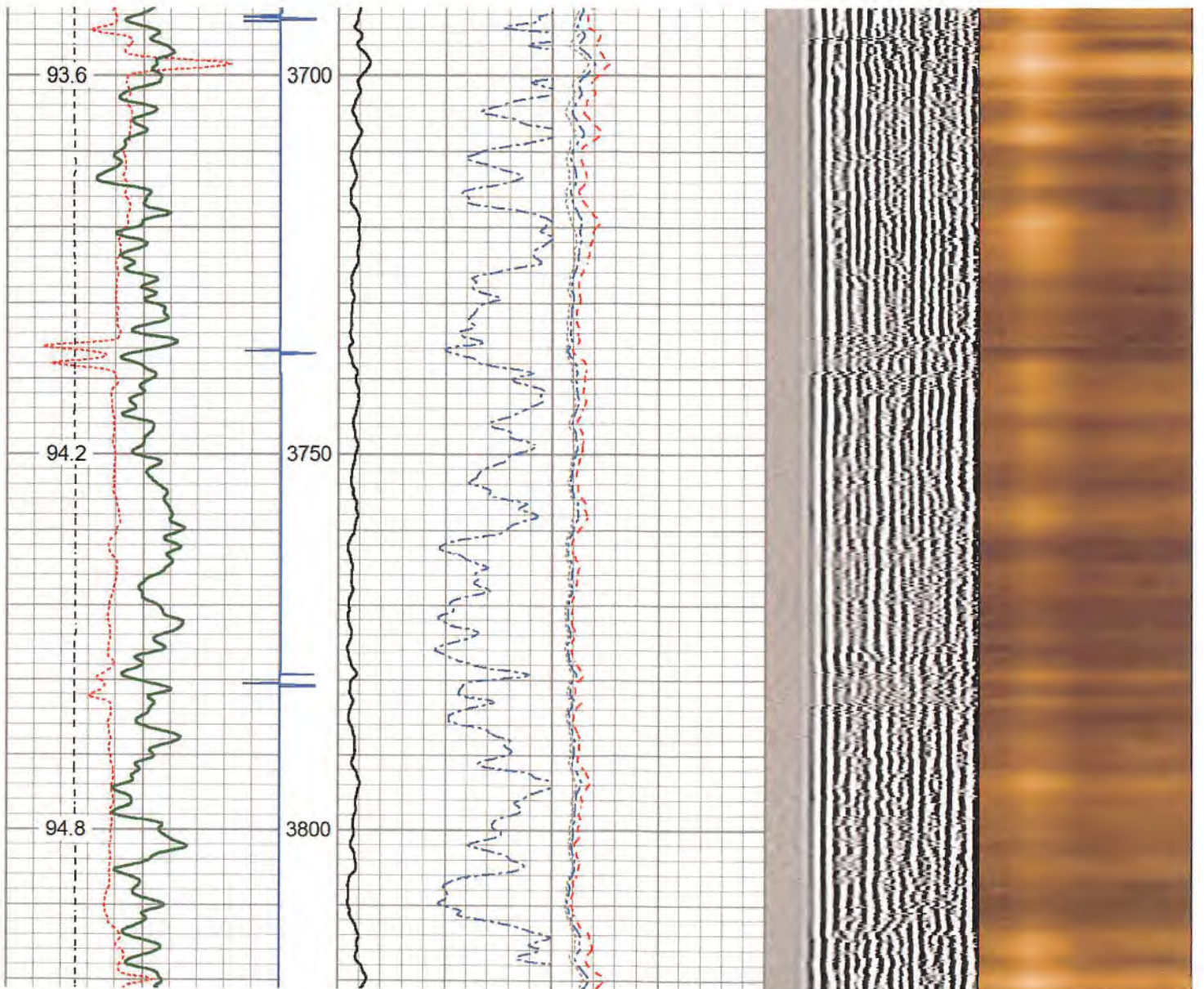


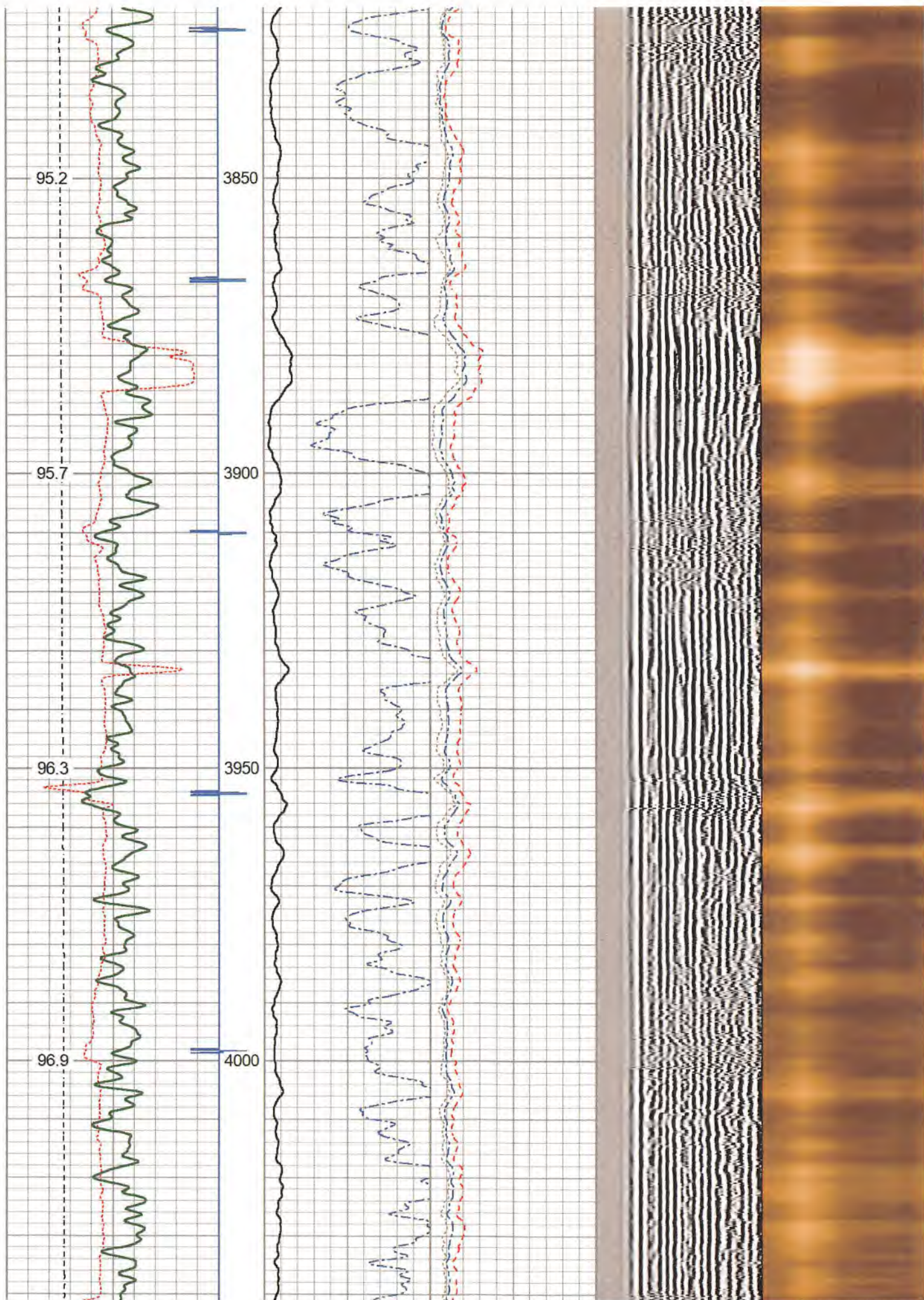


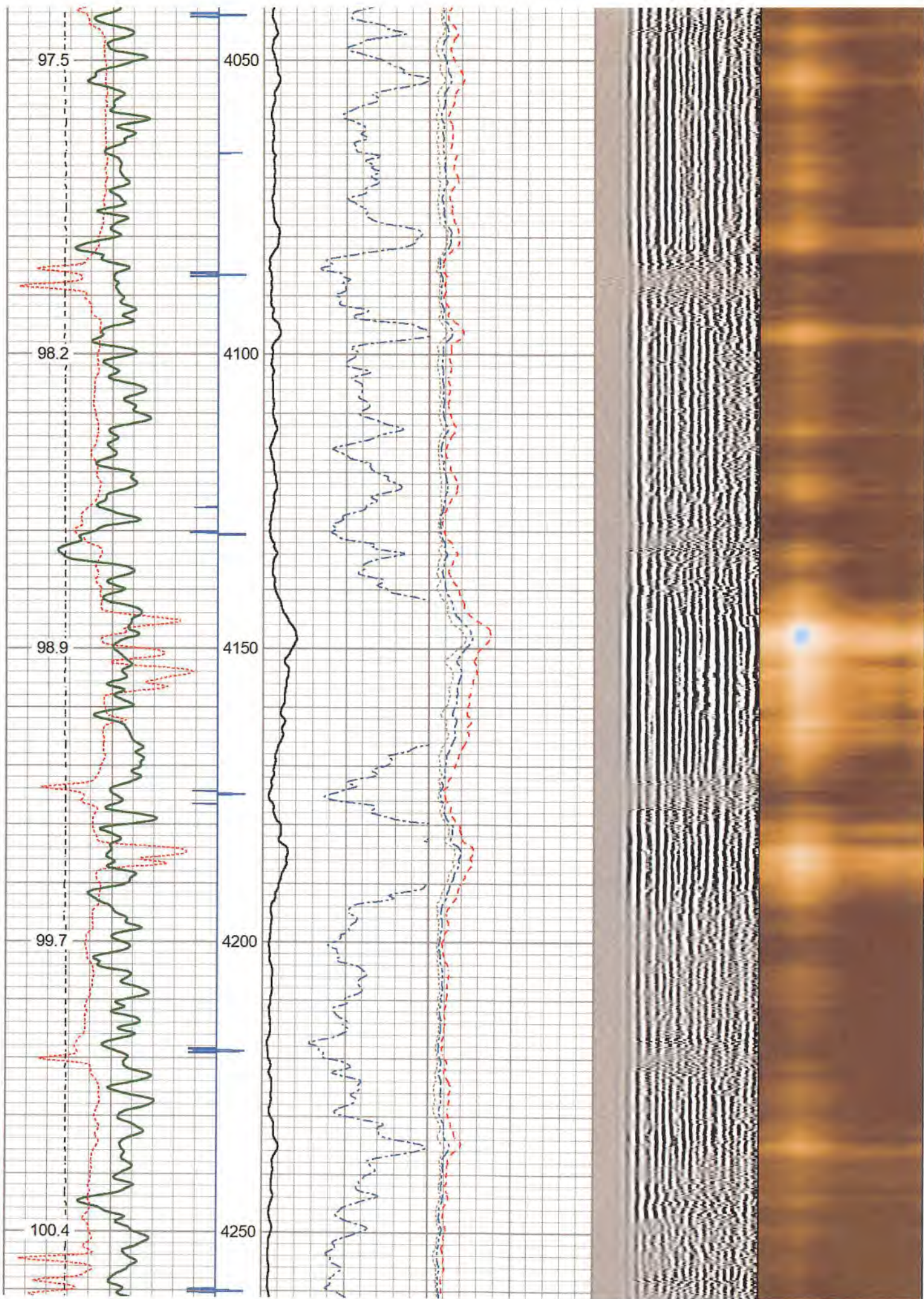


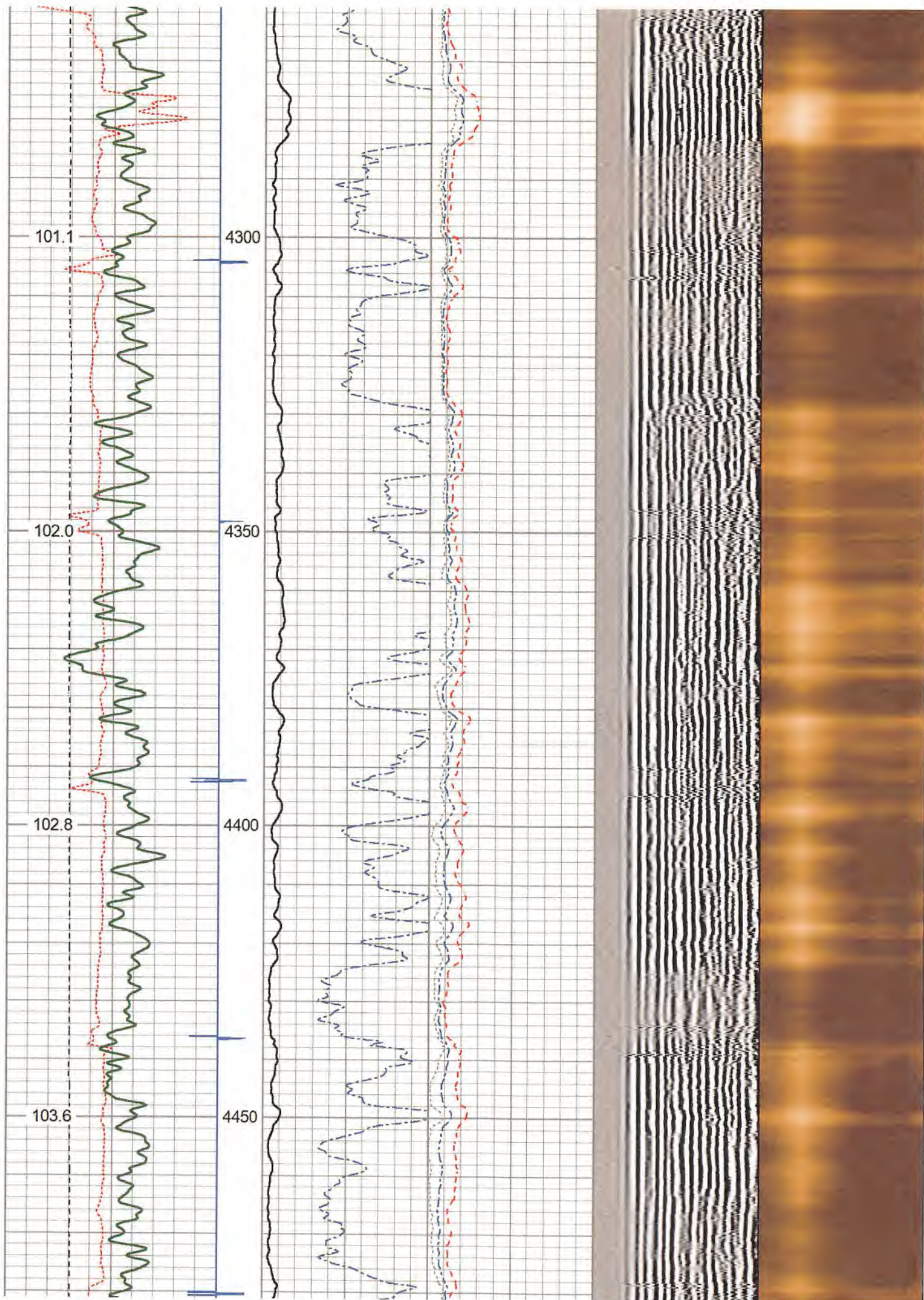


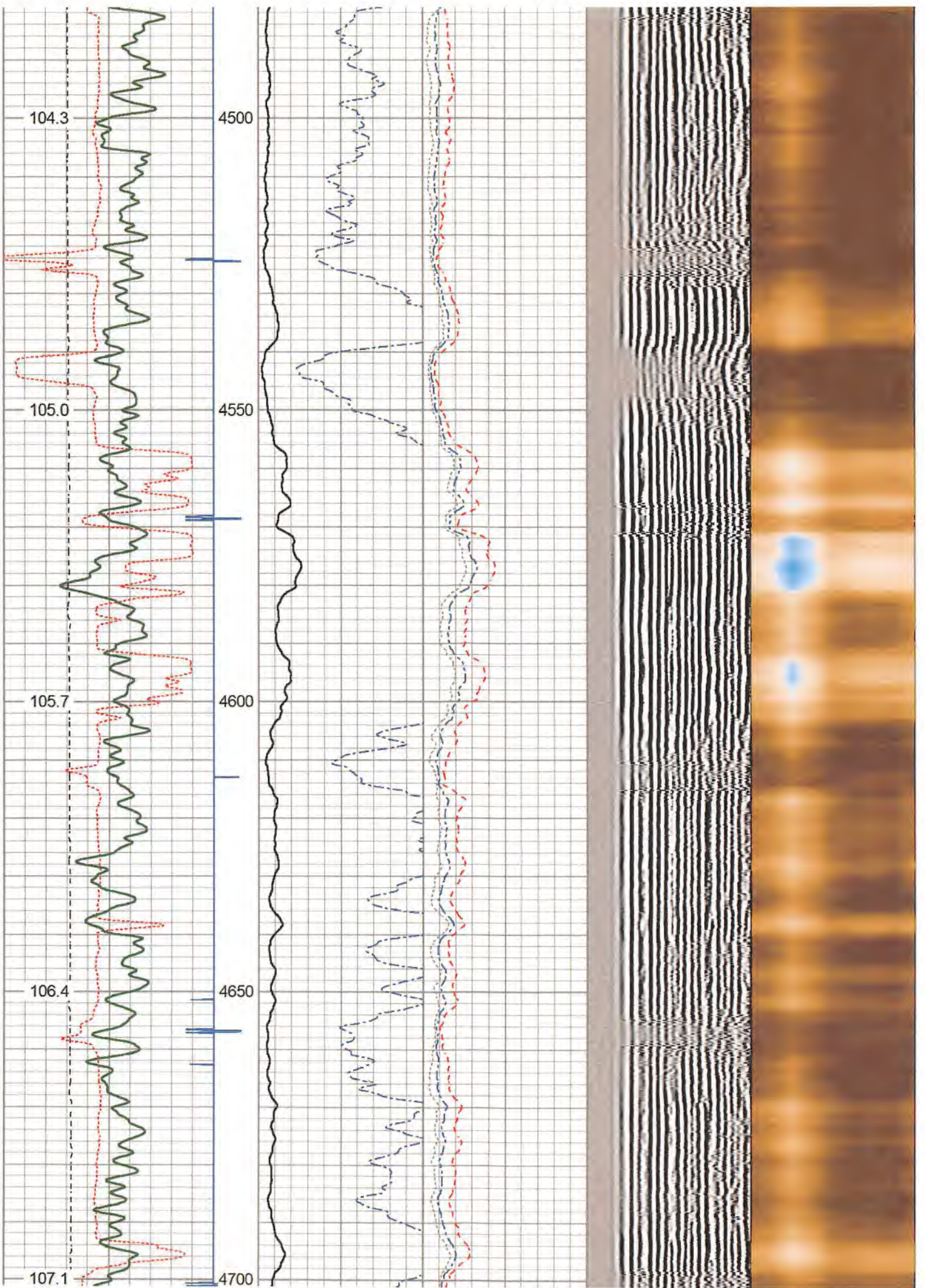


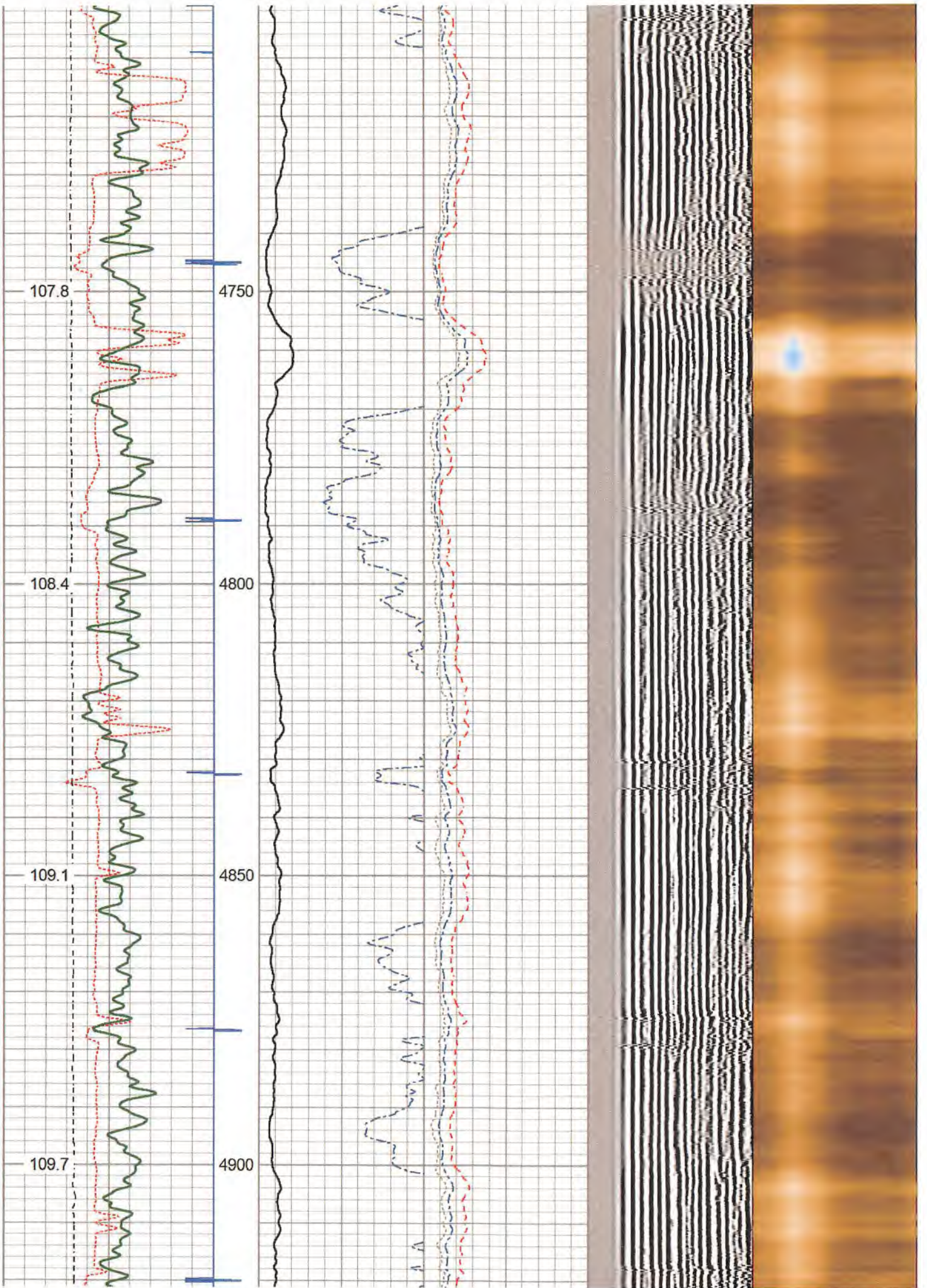


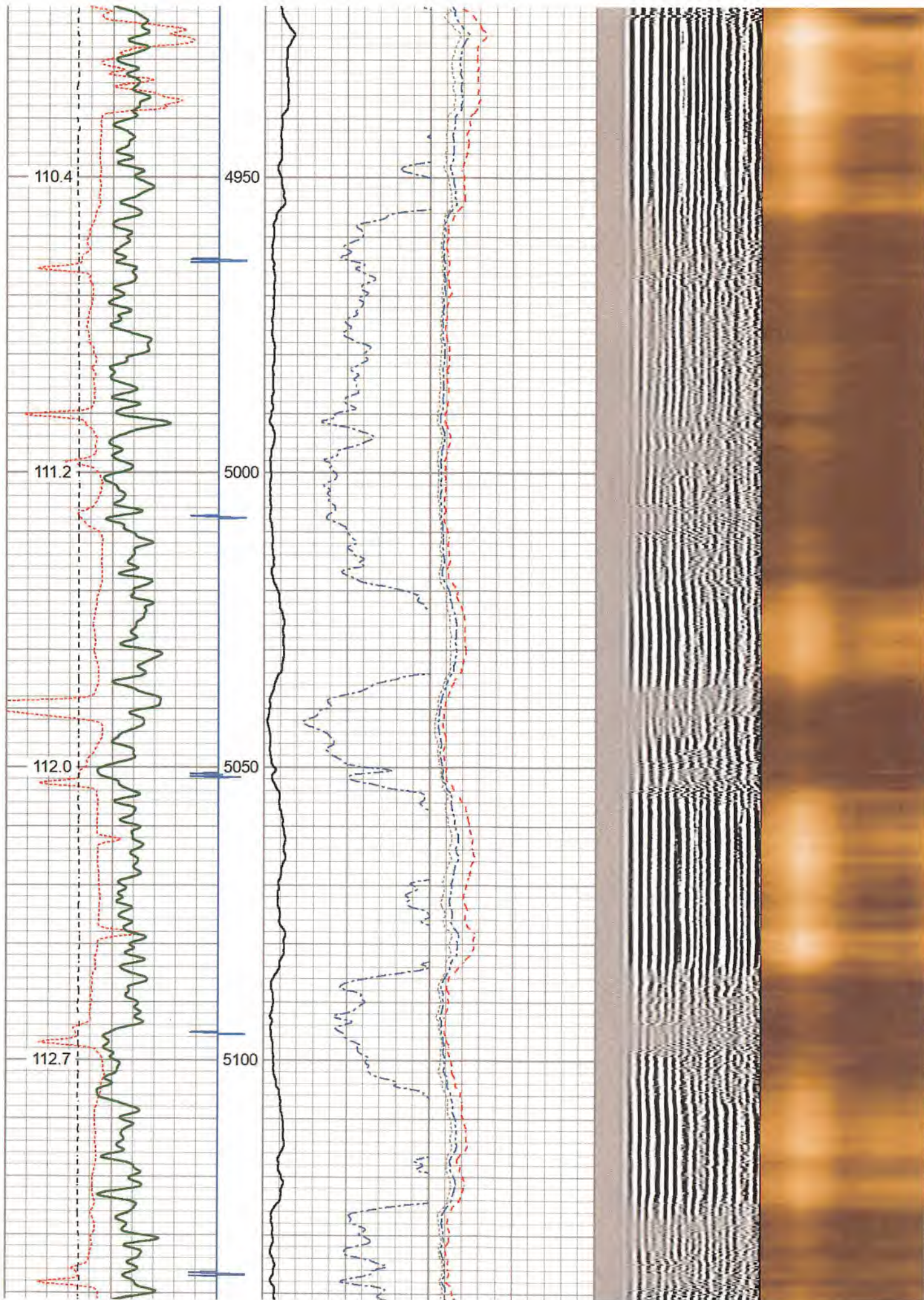


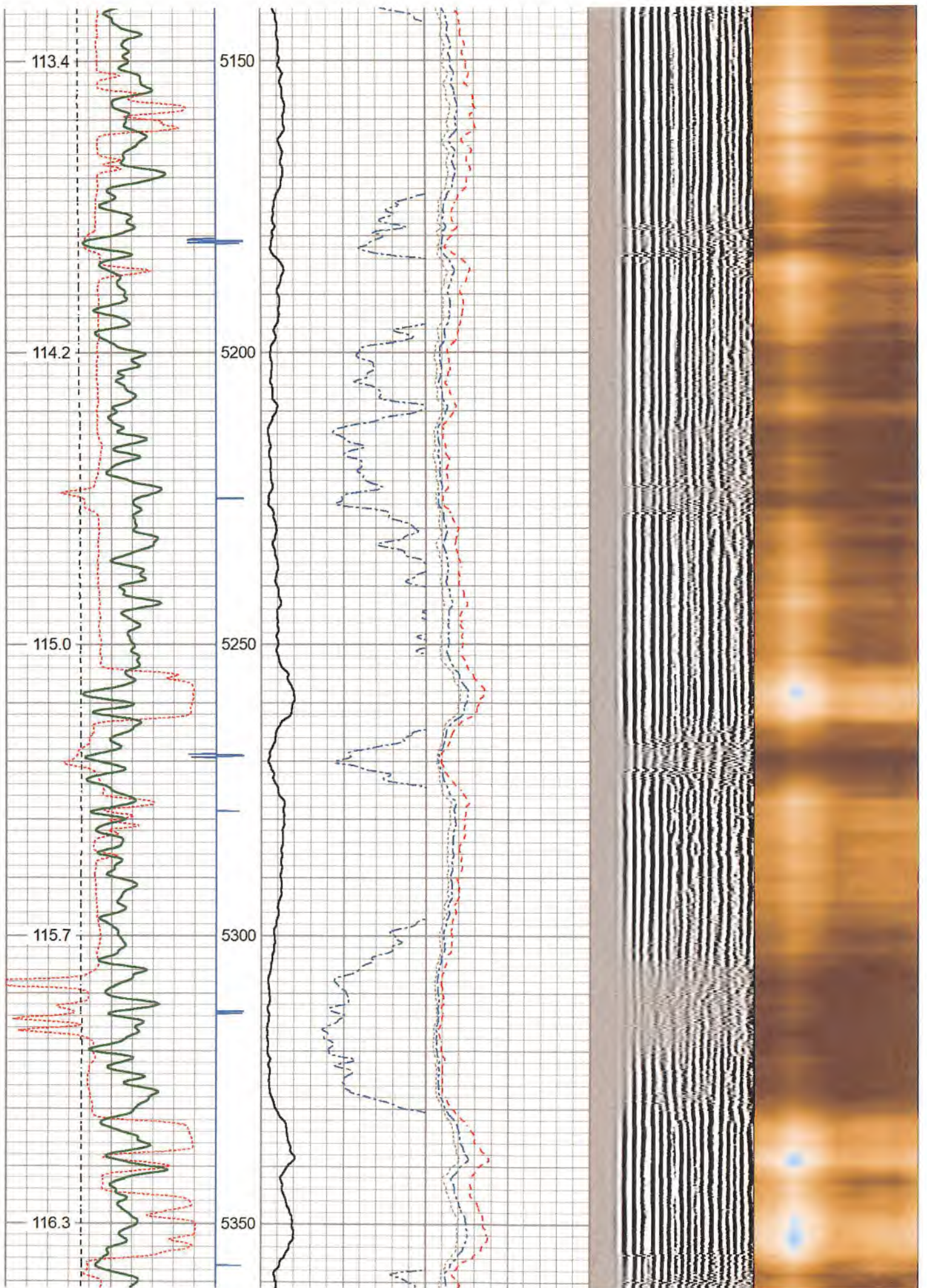


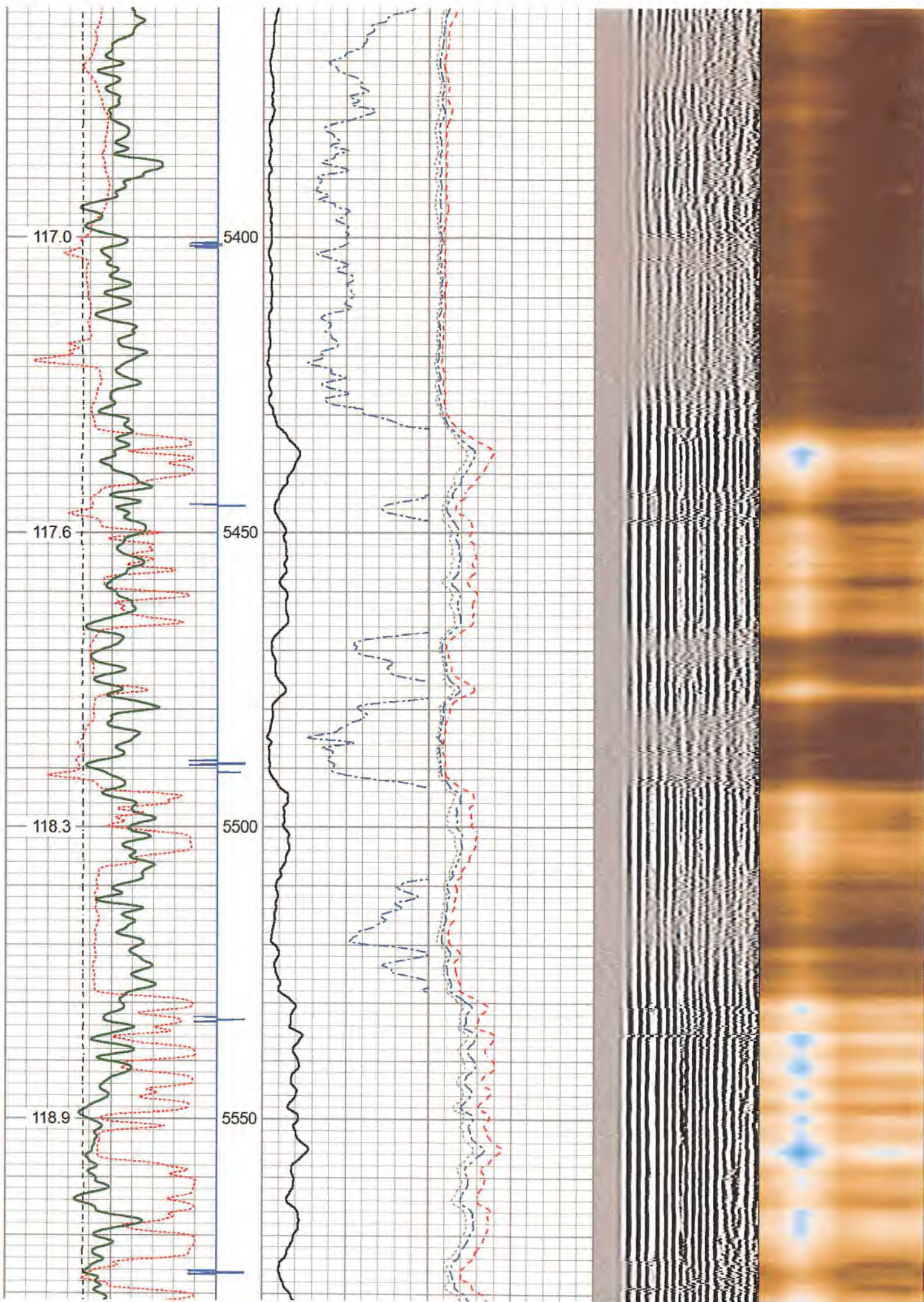


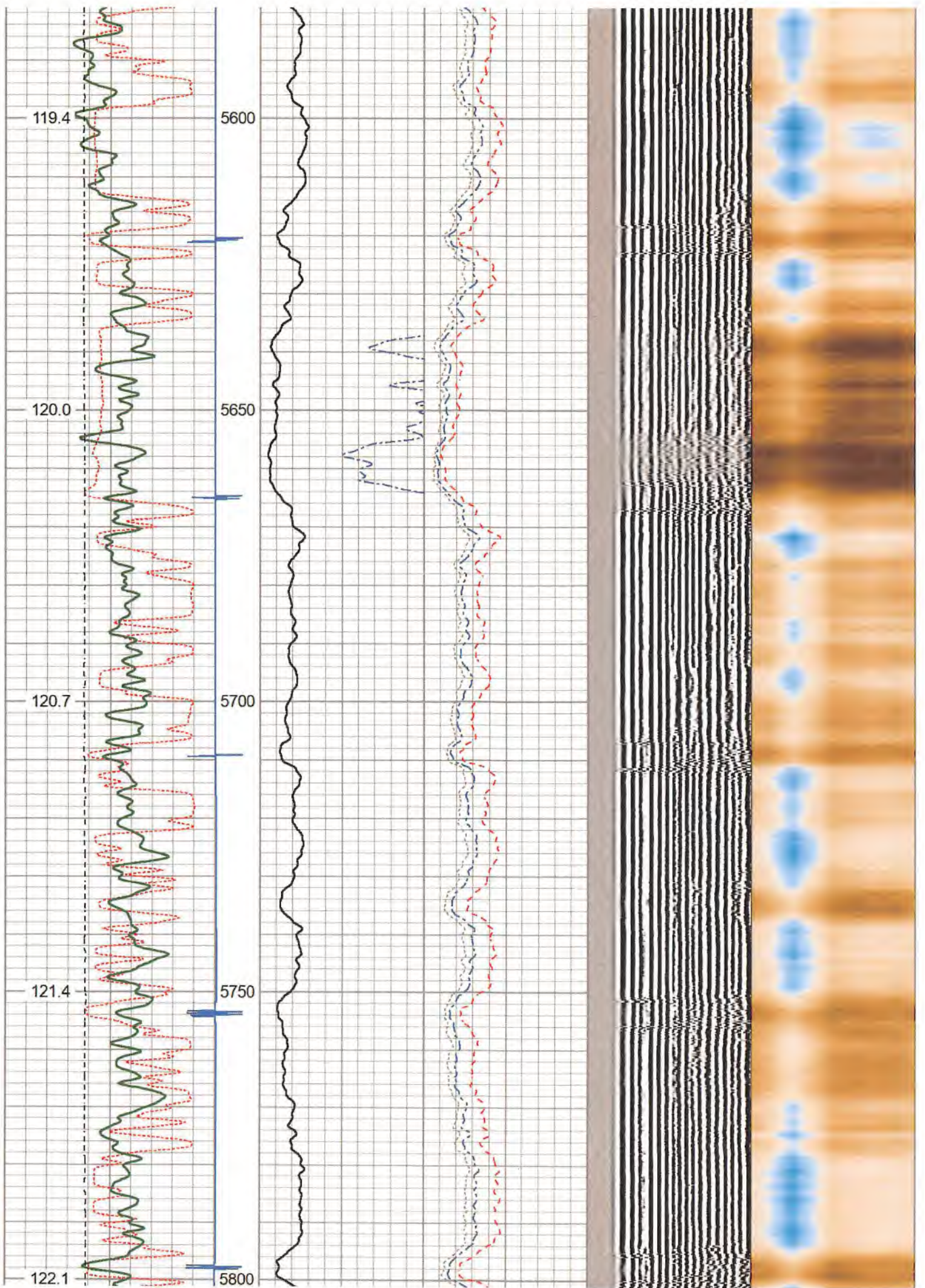


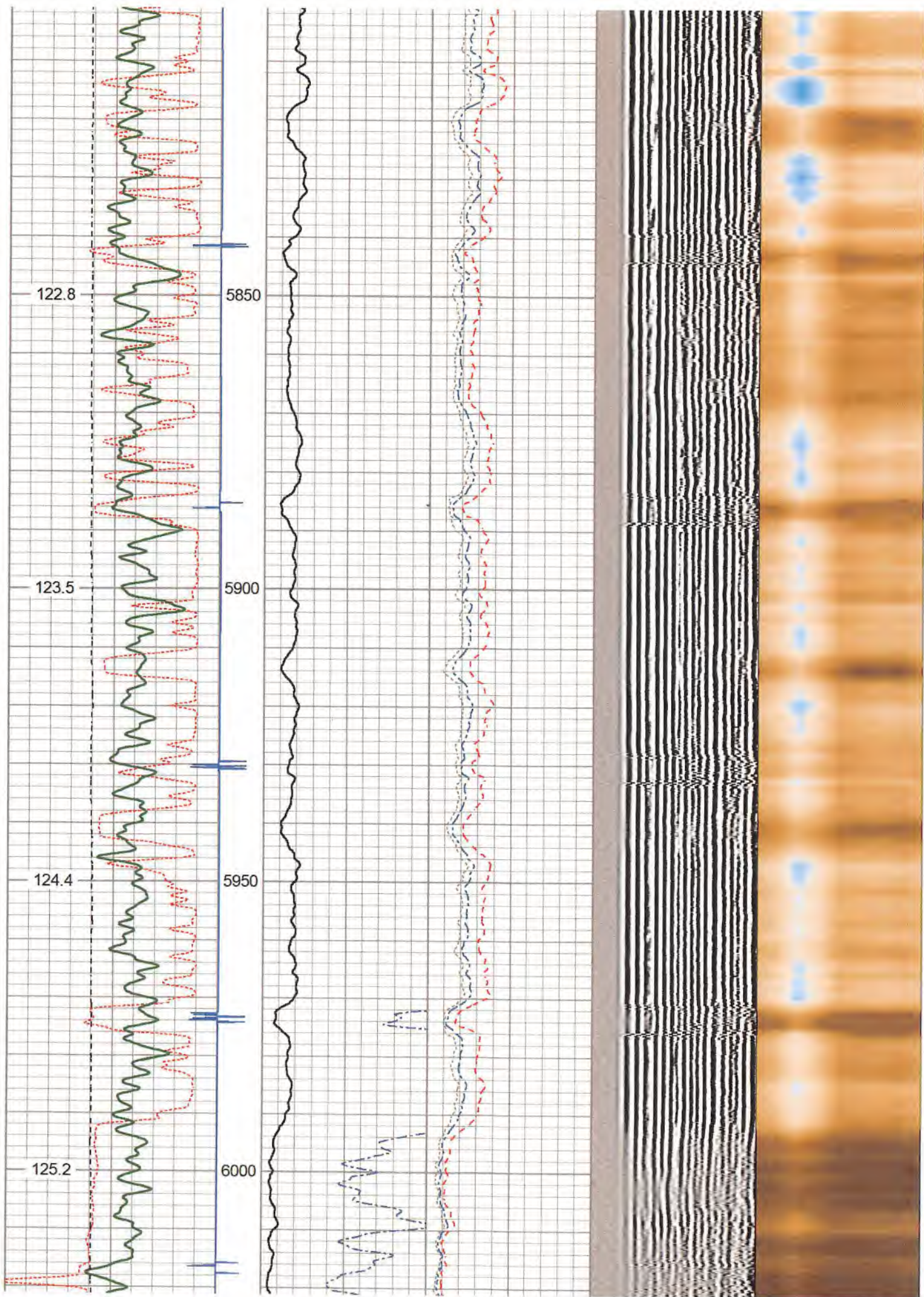


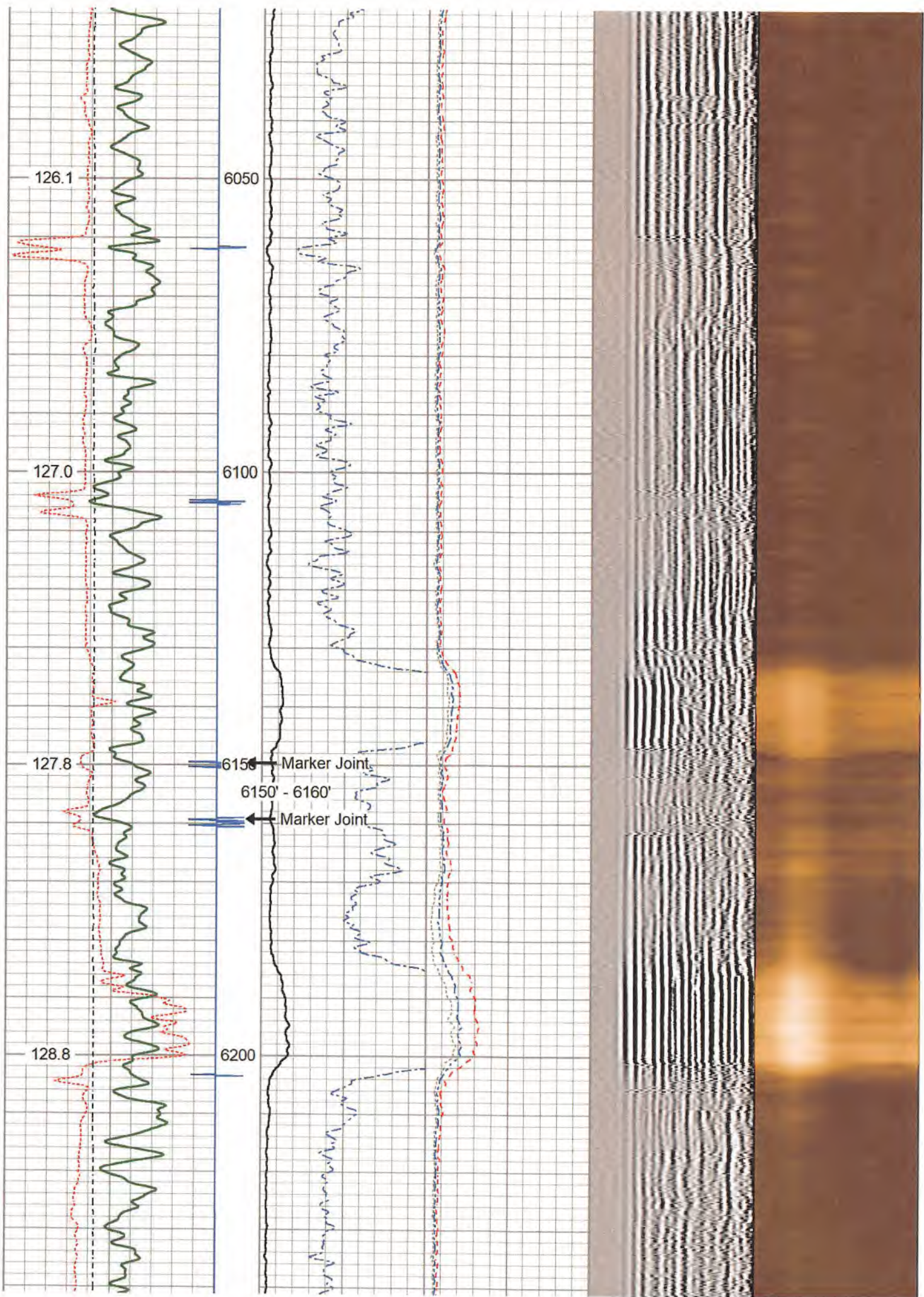


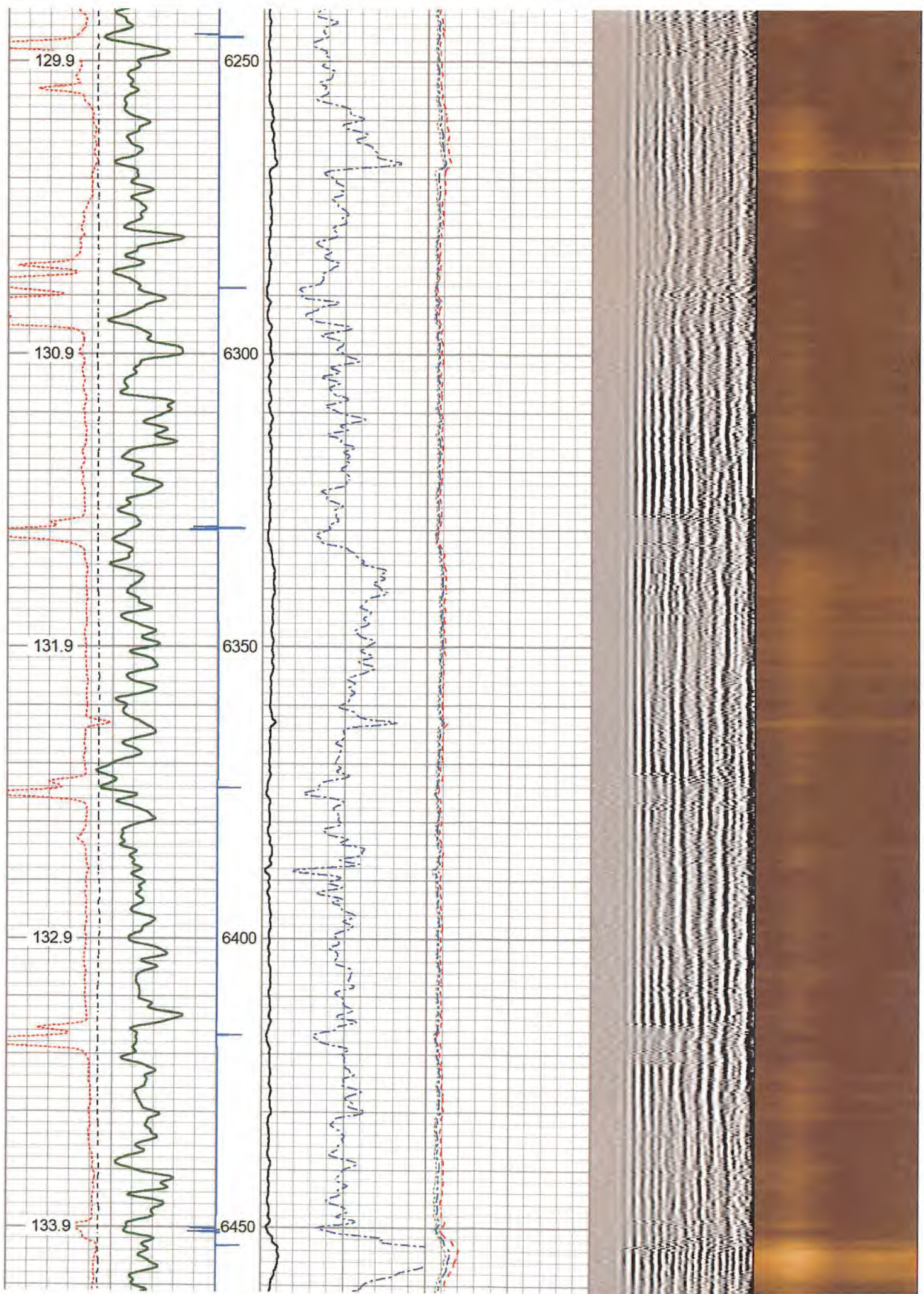


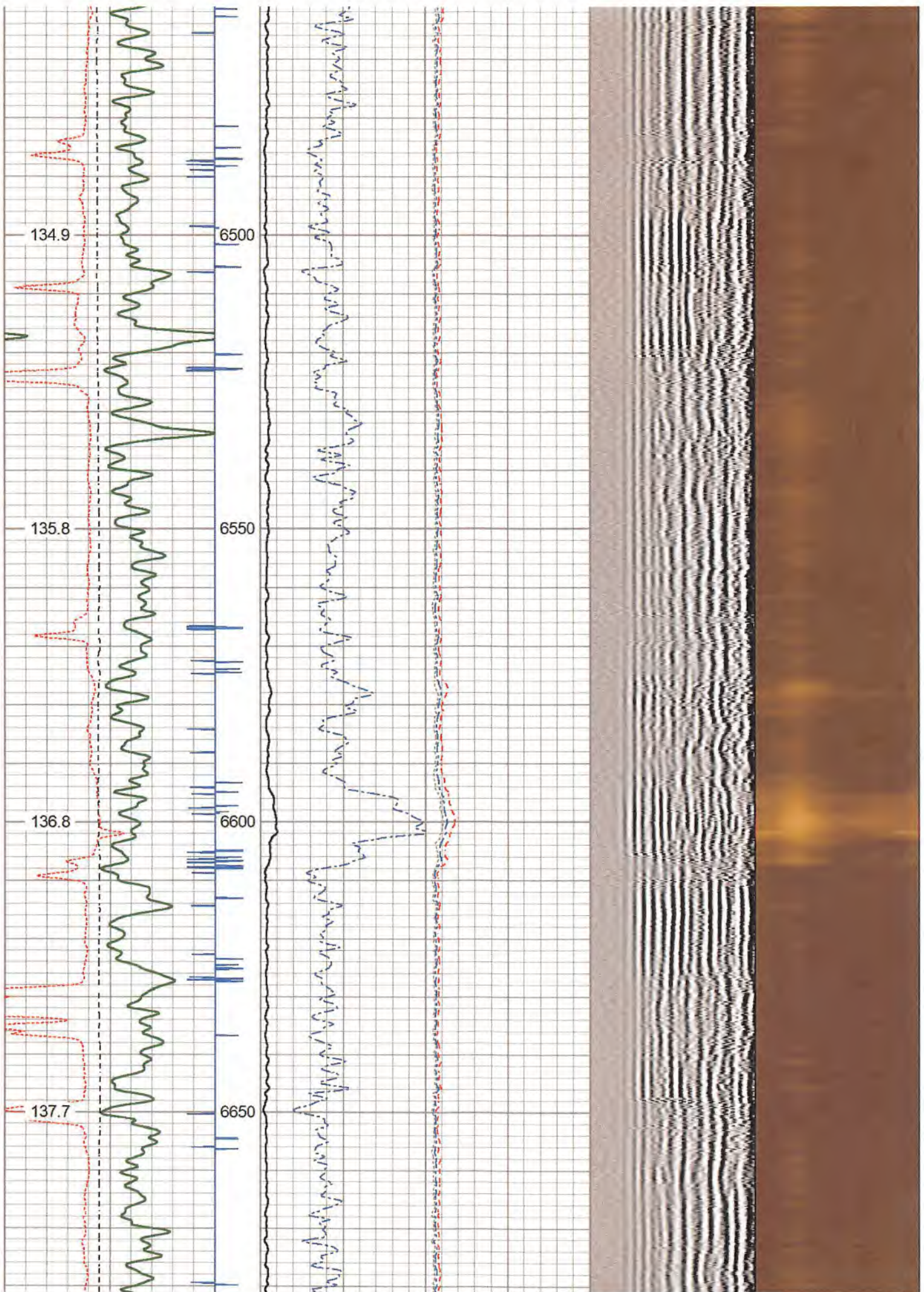


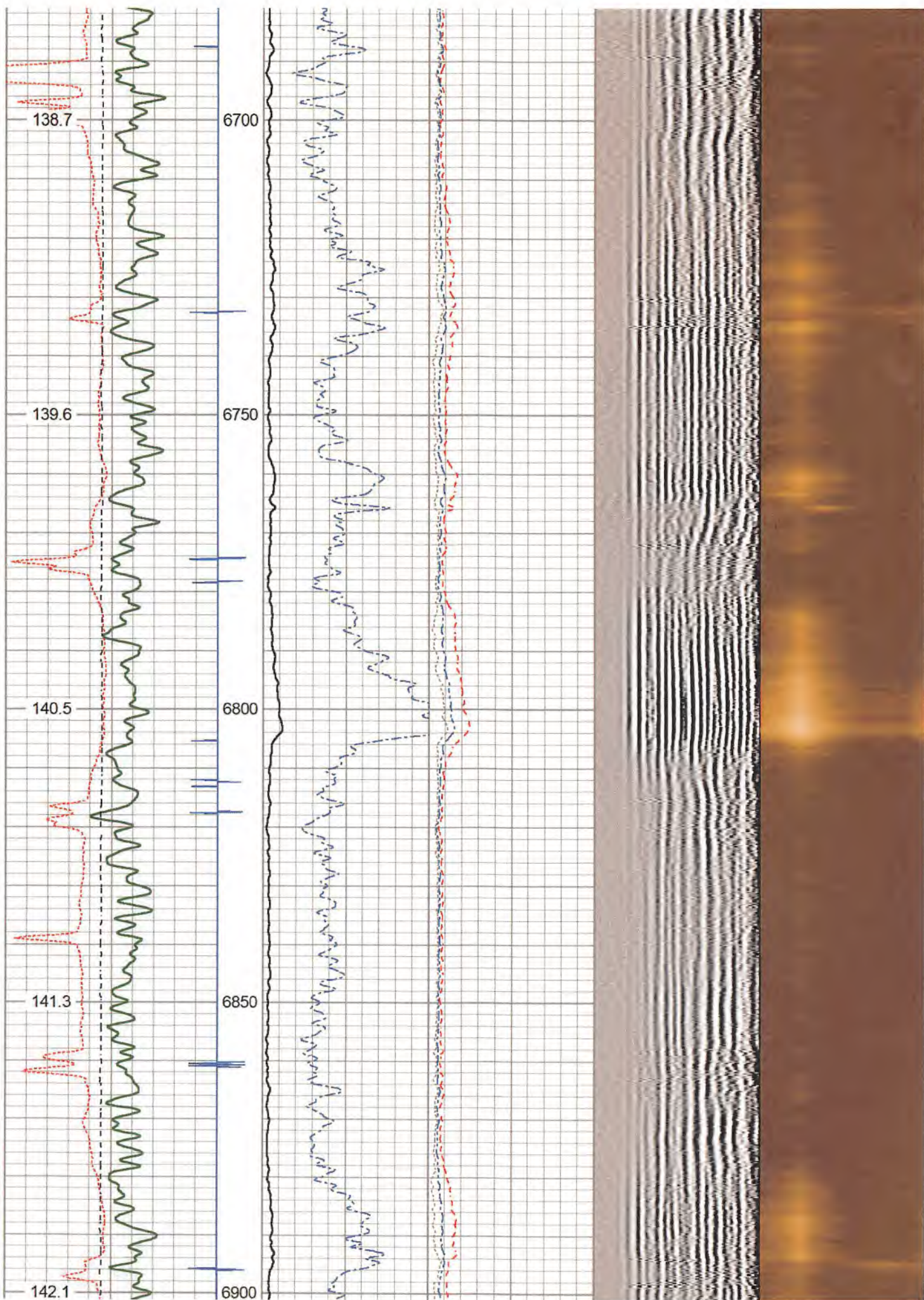


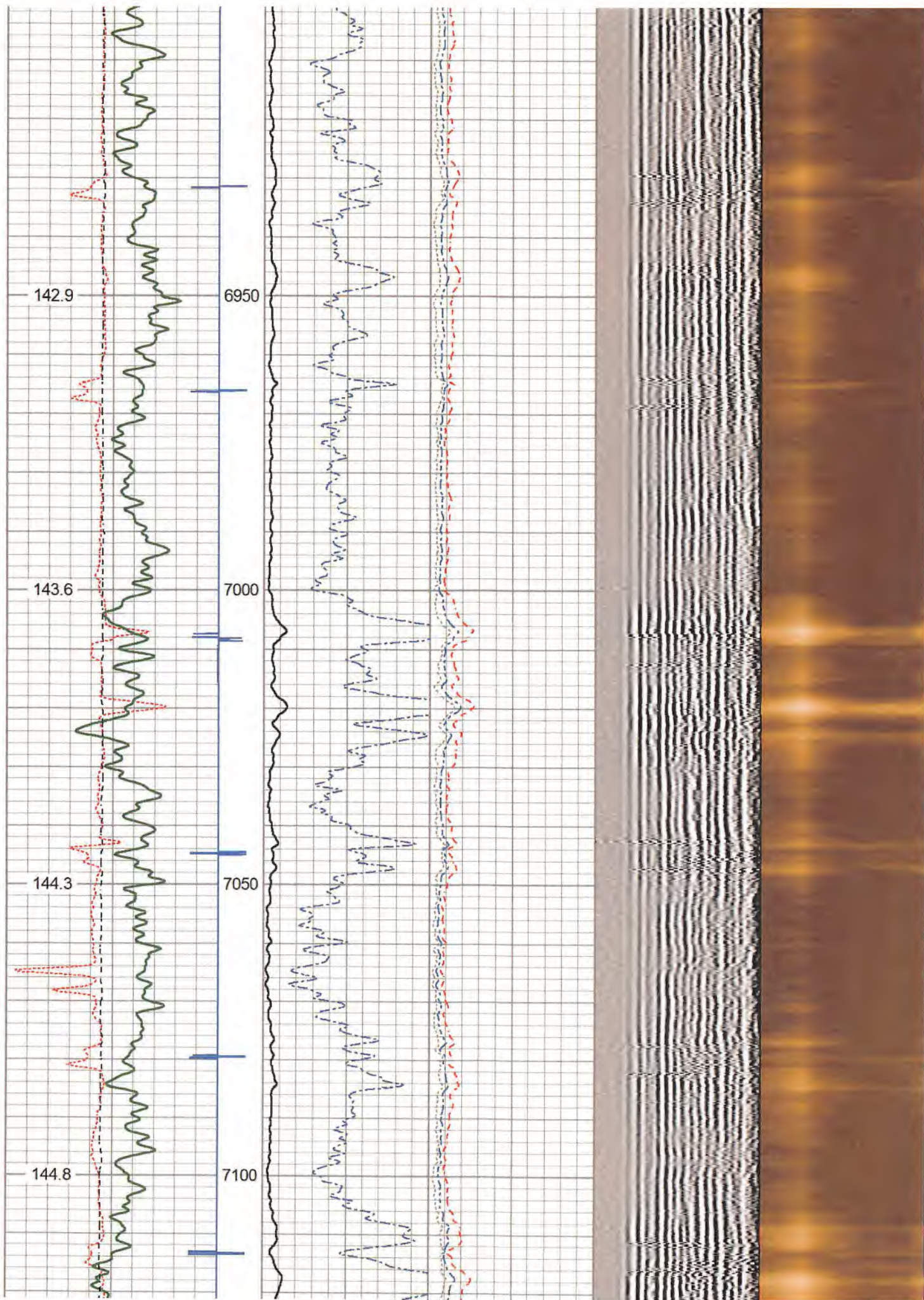


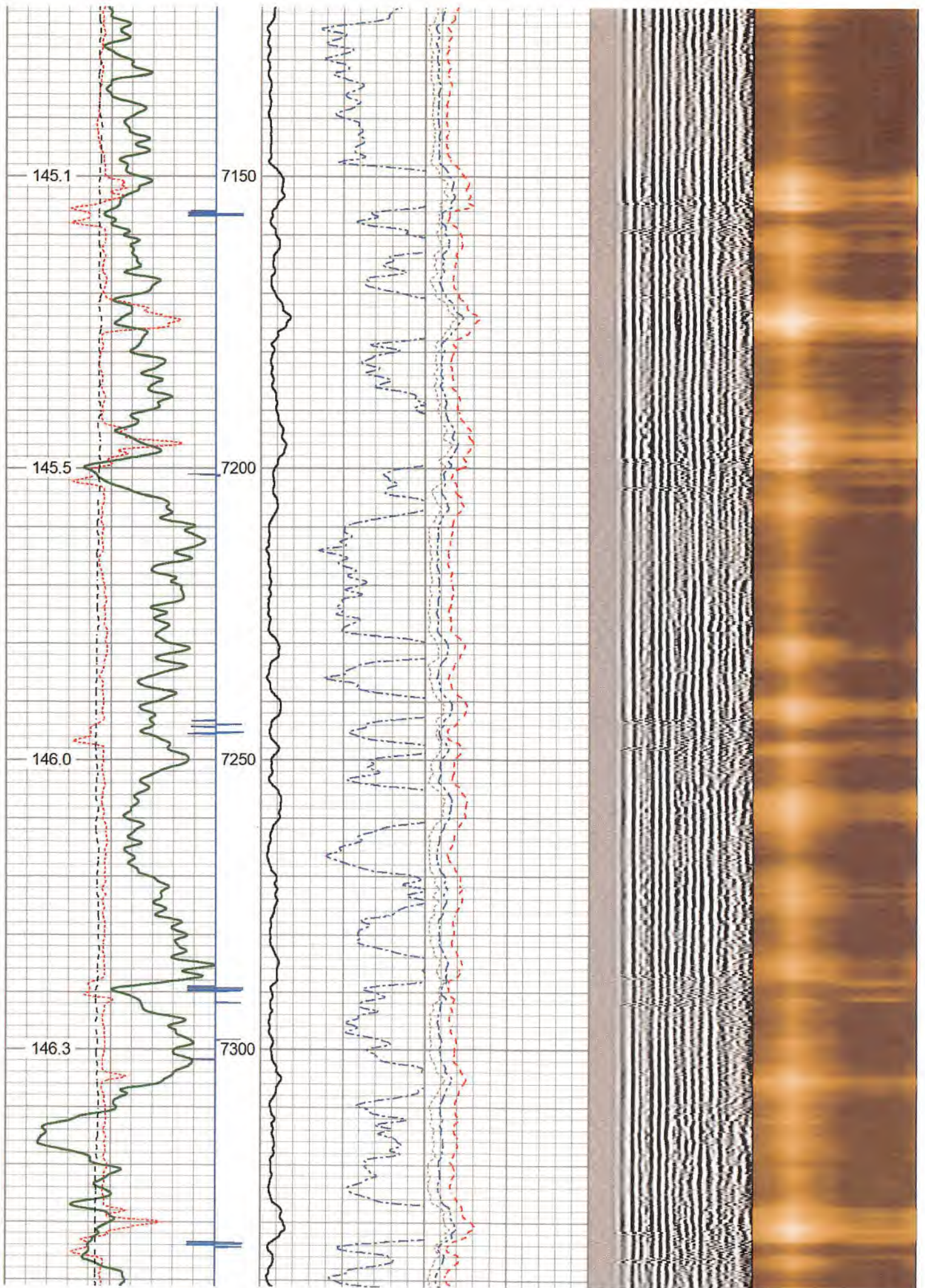


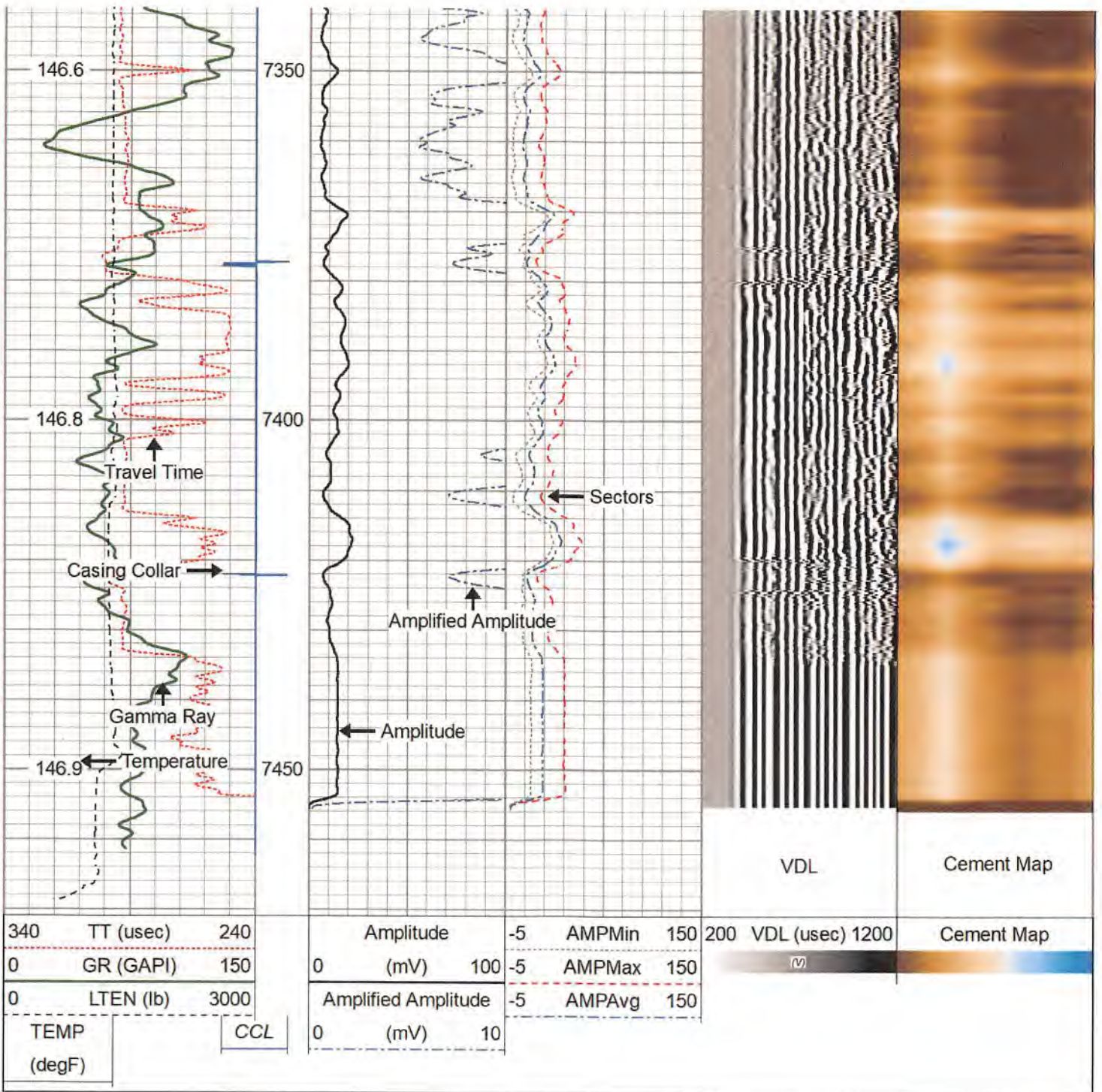















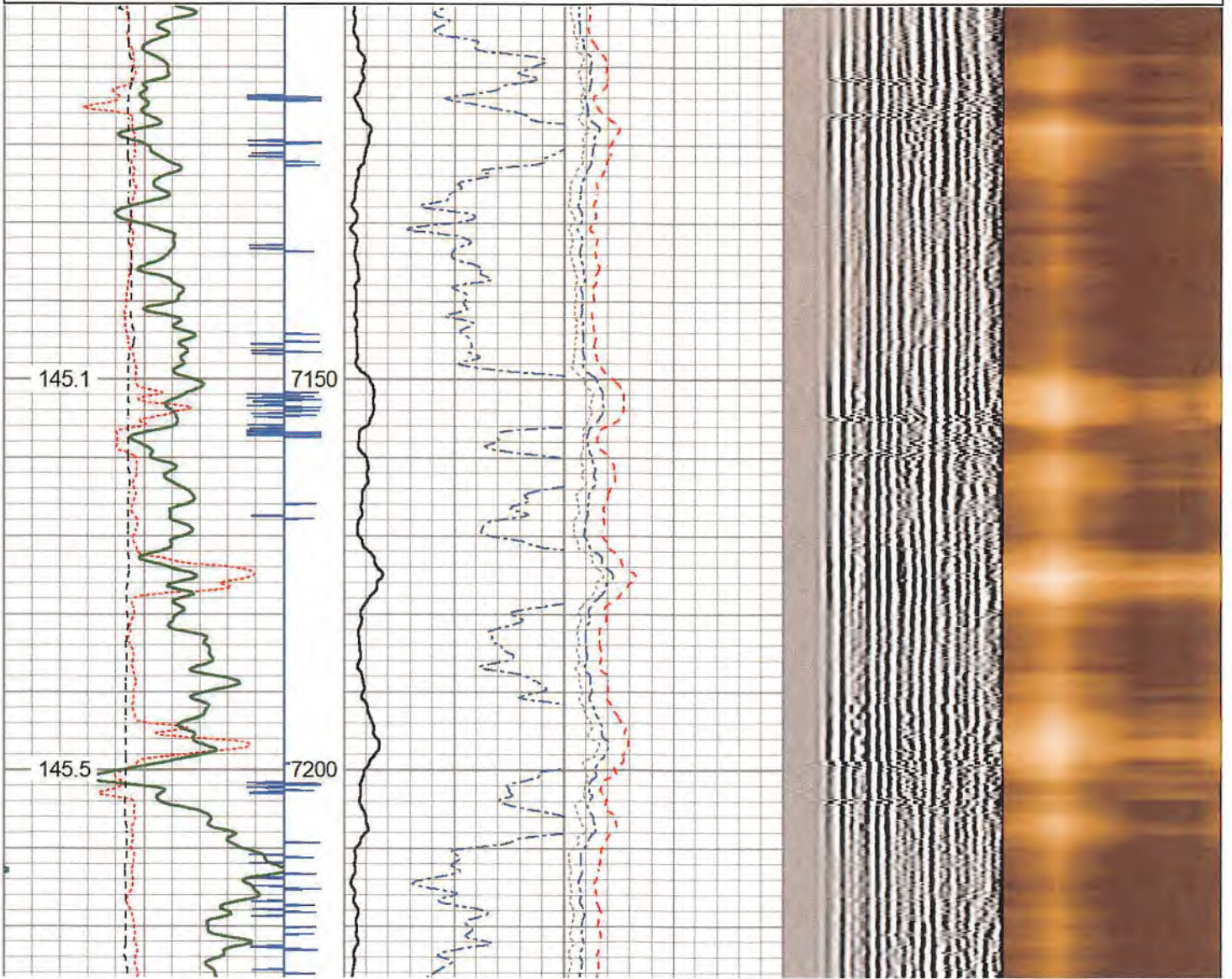
Repeat Pass

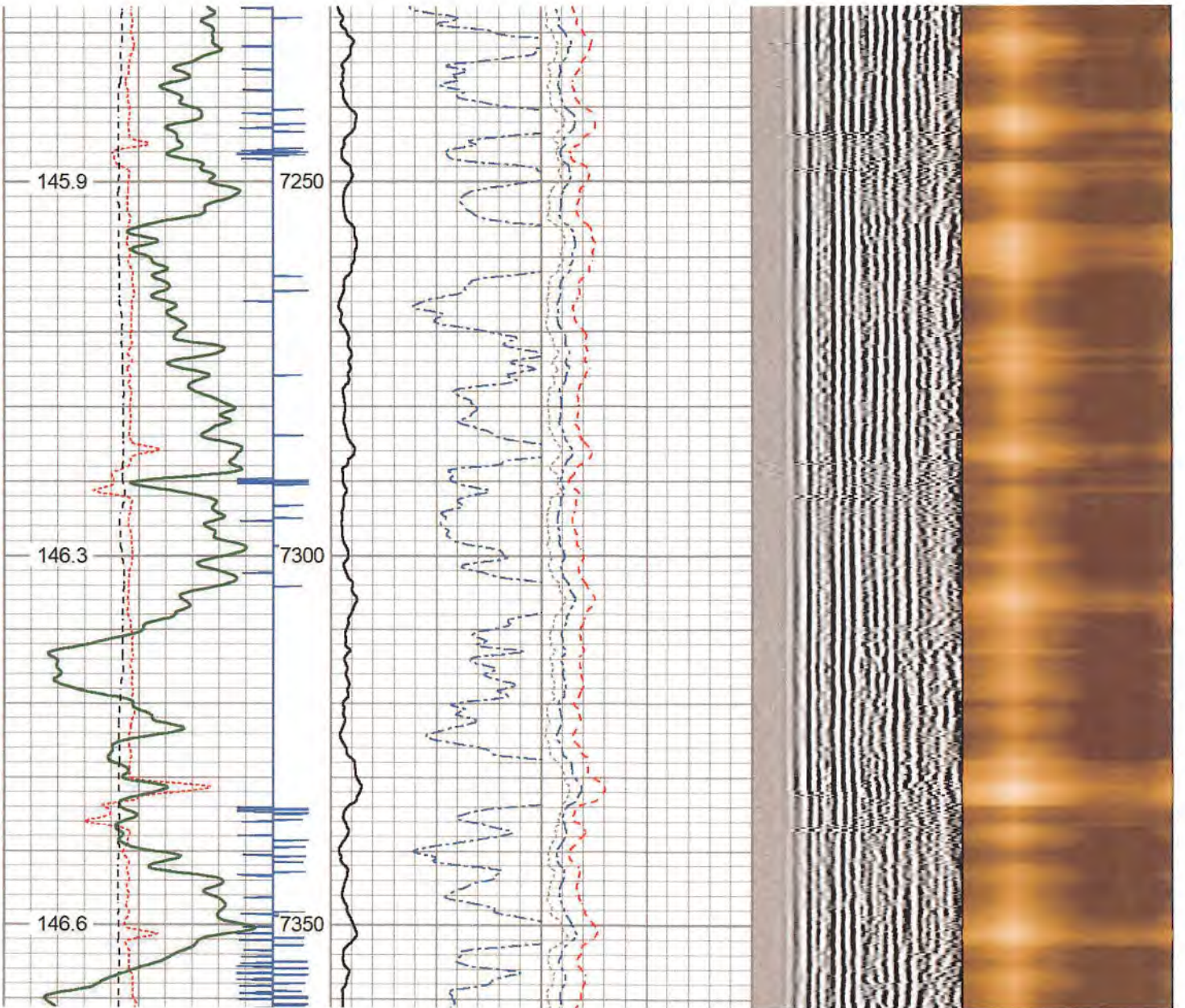
(1500 PSI)

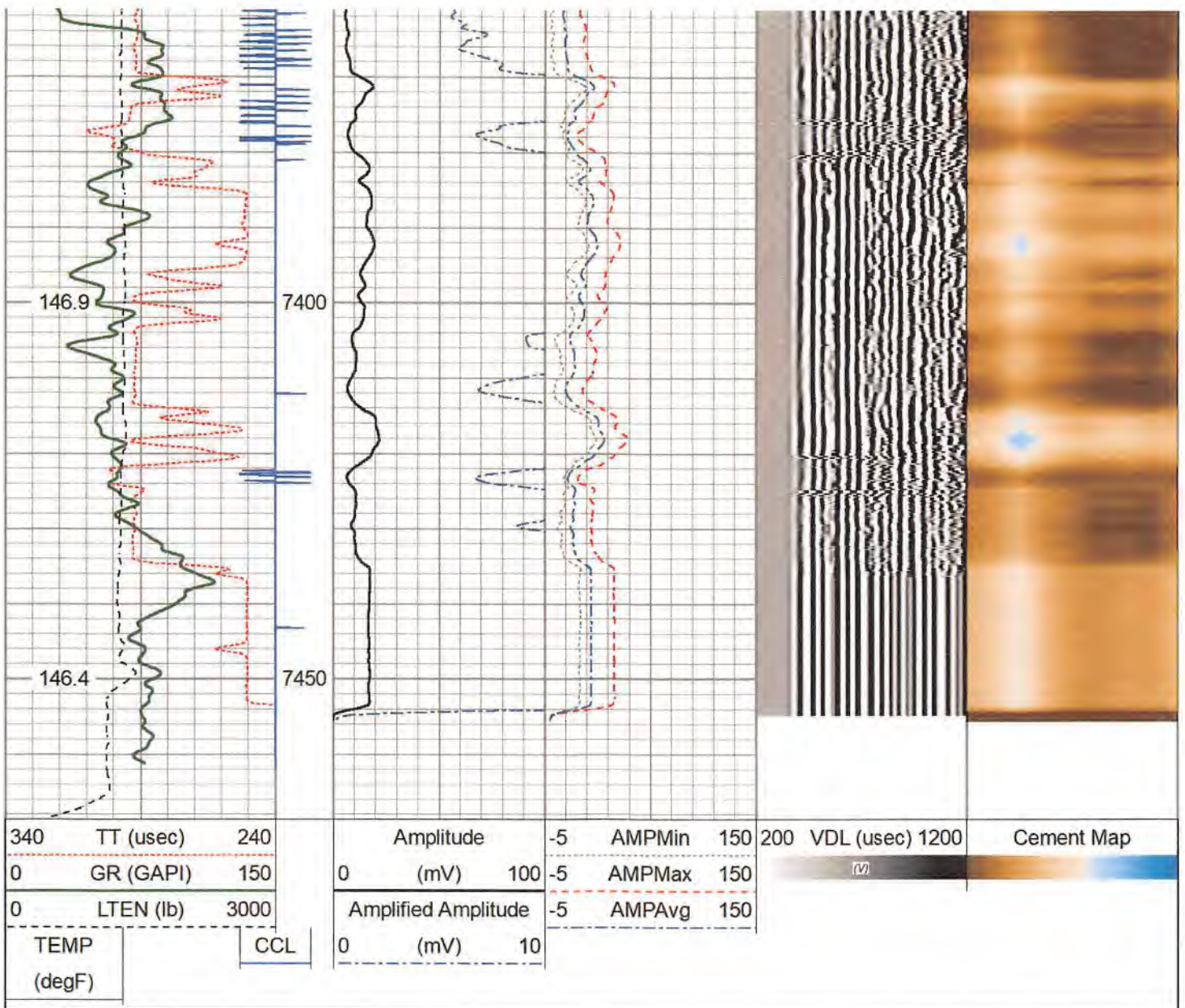
Database File: c:\users\logbox\desktop\antero\antero_jenkins_3h.db
 Dataset Pathname: rcbl/pass2
 Presentation Format: rcbl_std_bw_tt
 Dataset Creation: Sat Jun 10 05:20:57 2023
 Charted by: Depth in Feet scaled 1:240

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 (degF)		(mV)	10						
		CCL								

(degF)







Log Variables		Database: \users\logbox\desktop\antero\antero_jenkins_3h.db							
		Dataset field/well/rcbl/pass4/_vars_							
Top - Bottom									
BOREID in 8.5	BOTTEMP degF 146.9	CASEOD in 5.5	CASETHCK in 0.42	CASEWGHT lb/ft 23	MAXAMPL mV 72	MINAMPL mV 1	MINATTN db/ft 0.8		
PERFS No	PPT uSec 368	SRFTEMP degF 65	TDEPTH ft 7446					RECEIVED Office of Oil and Gas OCT 27 2023	
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				WV Department of Environmental Protection	

Calibration Report

Database File c:\users\logbox\desktop\antero\antero_jenkins_3h.db
 Dataset Pathname rcb/pass4
 Dataset Creation Sat Jun 10 05:28:46 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)
RBT_HV	19.19		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
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		CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
RBT_ACCY	10.44					
RBT_ACCX	10.44					
WVFSYNC	10.44					
WVFCAL	10.44					

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GCT_HV	7.60				
CCL\$2	6.64				
CCL\$1	6.64				
GCT_Temp	6.09				
GR	5.22		GC-GCT275-0000 (GCT275-0000_base) Probe Gamma Ray - CCL w/ Temp	4.77	2.75
		CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00

Dataset: antero_jenkins_3h.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 3H	
Field	White Oak	
County	Doddridge	
State	WV	Country USA

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