



Radial Cement Bond
Gamma Ray CCL
Temperature Log

Company Antero Resources Corporation Well Mule Unit 2H Field South Canton County Doddridge State WV	Company Antero Resources Corporation Well Mule Unit 2H Field South Canton County Doddridge State WV			
	API # : 47-017-06917-00-00 AFE # : A11783 Location (LAT,LON): 39.314538, -80.762889 Township: West Union			Other Services None
	Permanent Datum Ground Level Elevation 1216' Log Measured From KB = 30' Drilling Measured From KB			Elevation K.B. 1246' D.F. 1246' G.L. 1216'
	Date 17 JUL 2022			
Run Number One				
Depth Driller (ft) 16371				
Depth Logger (ft) 7617				
Bottom Logged Interval (ft) 7605				
Top Log Interval Surface				
Open Hole Size (in) 6.75				
Type Fluid Water				
Density / Viscosity (lb/gal) 8.4				
Max. Recorded Temp. (°F) 150.3				
Estimated Cement Top (ft) 1670				
Time Well Ready 09:00 AM				
Time Logger on Bottom 03:43 PM				
Equipment Number 8018				
Location Delmont, PA				
Recorded By T. Trump				
Witnessed By D. Fenstermaker				
Casing Record	Size (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)
Conductor String	16	62.64	Surface	130
Surface String	10.75	40.5	Surface	335
Intermediate String	7.625	26.4	Surface	2698
Production String	5	18	Surface	16351
Inclination Information (Approximated Values from Directional Survey)				
KOP	30°	60°	90°	
850'	6810'	7420'	7830'	
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 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 +3.25'
Marker Joint Located @ 6362' - 6372'

Maximum Temperature Recorded was 150.3°F
Maximum Tension 1653 lbs

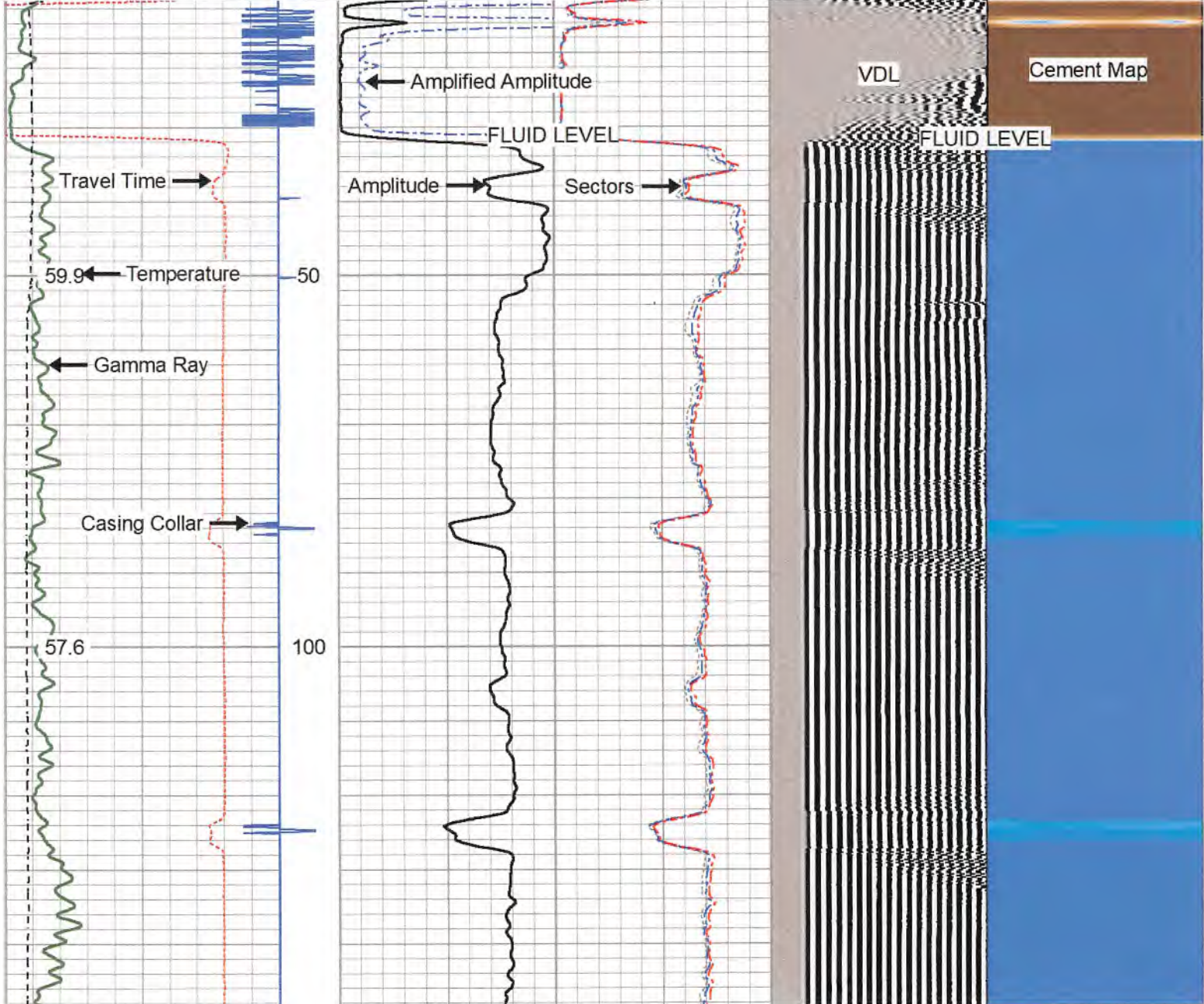
Estimated Top of Cement @ 1670'

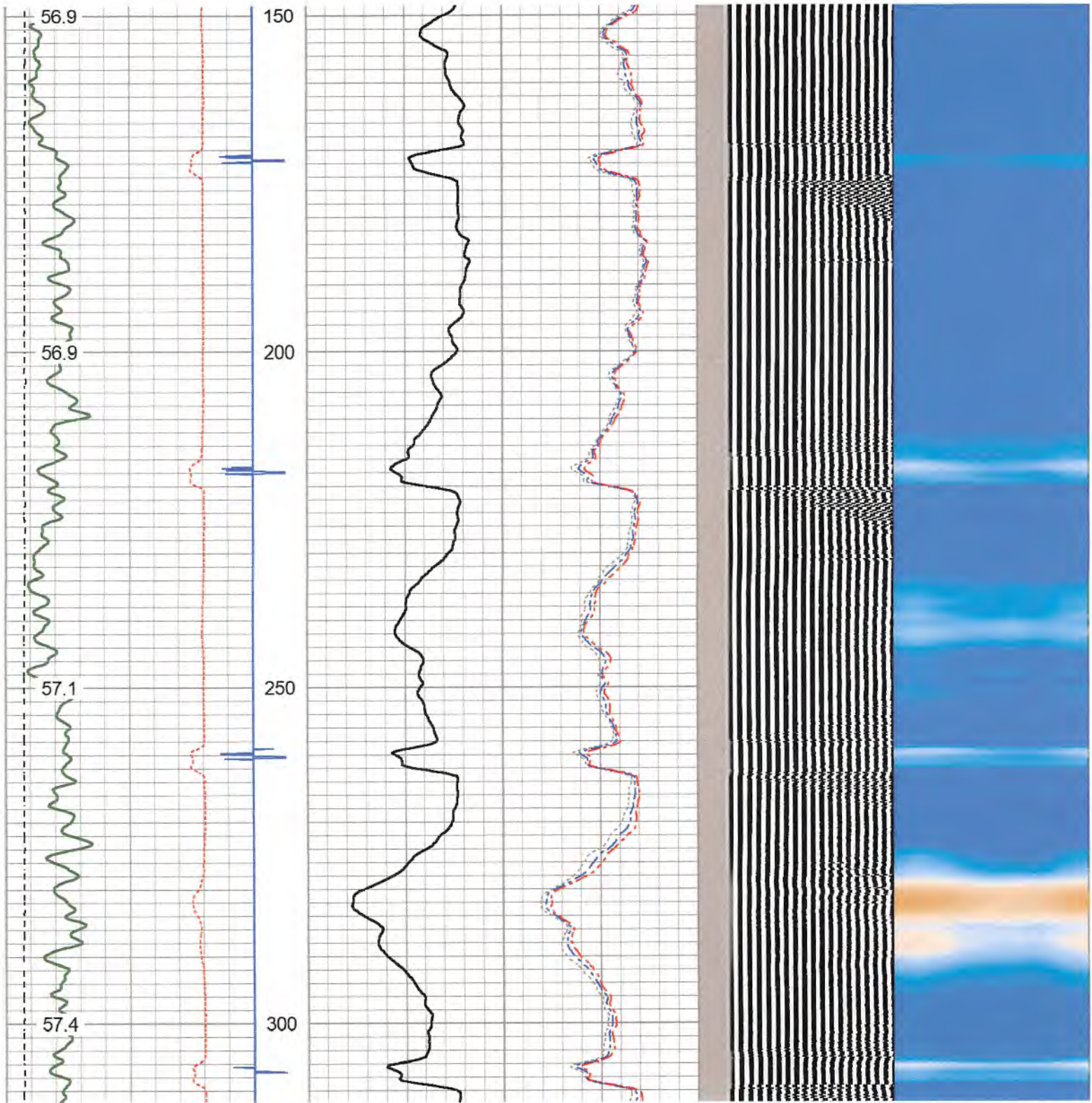


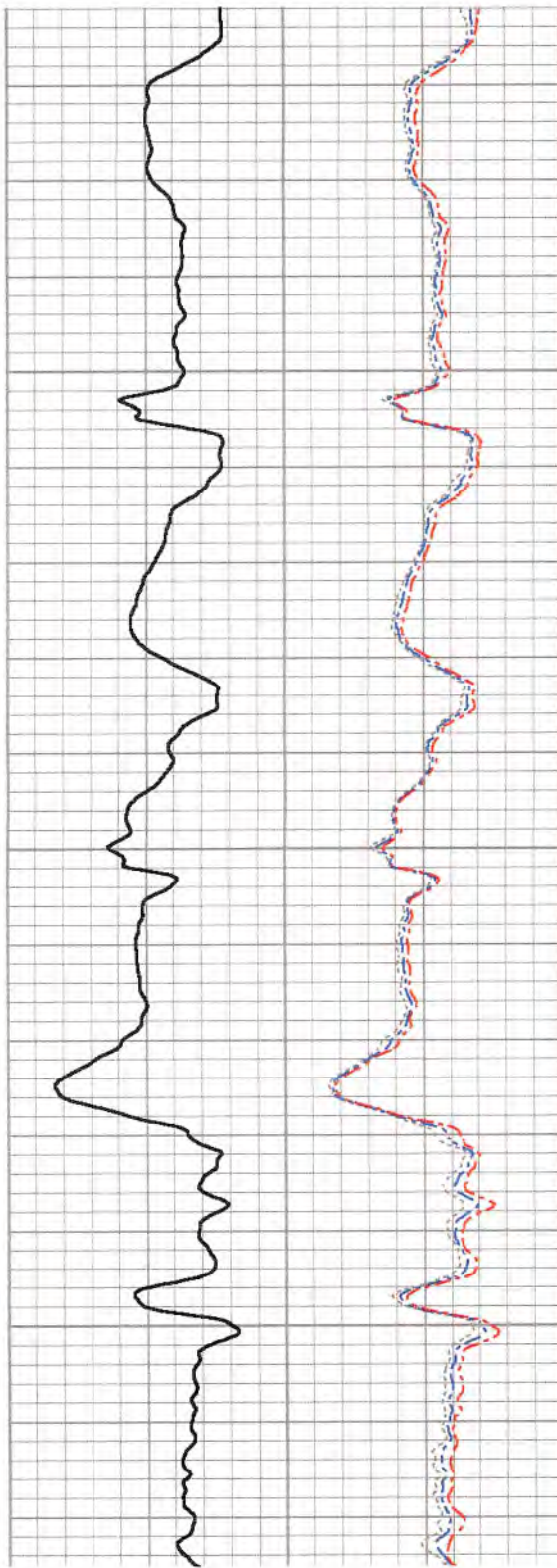
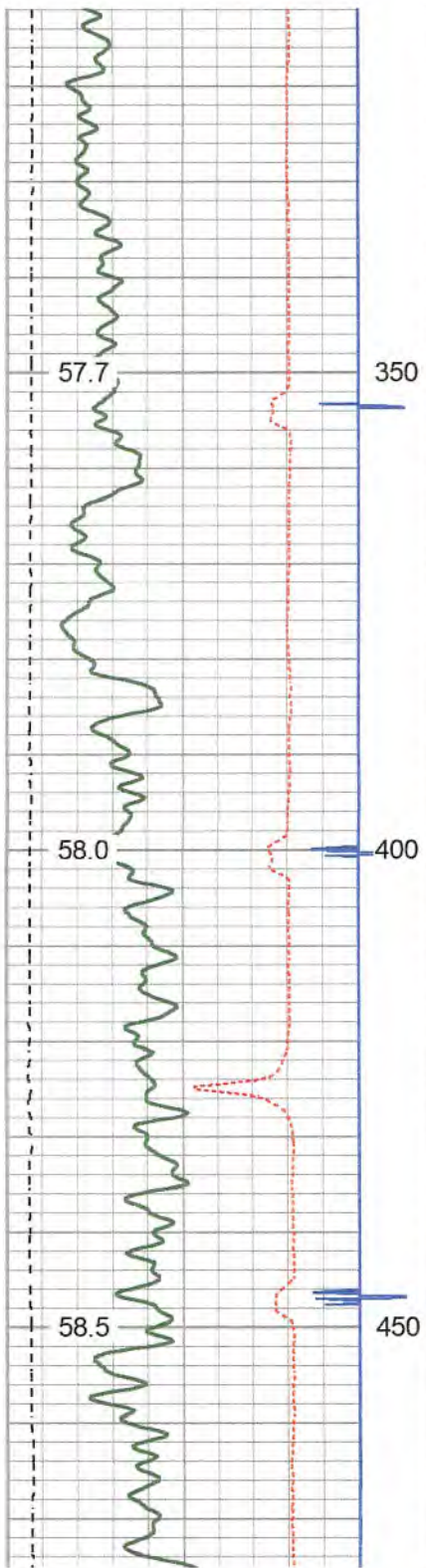
Main Pass (1500 PSI)

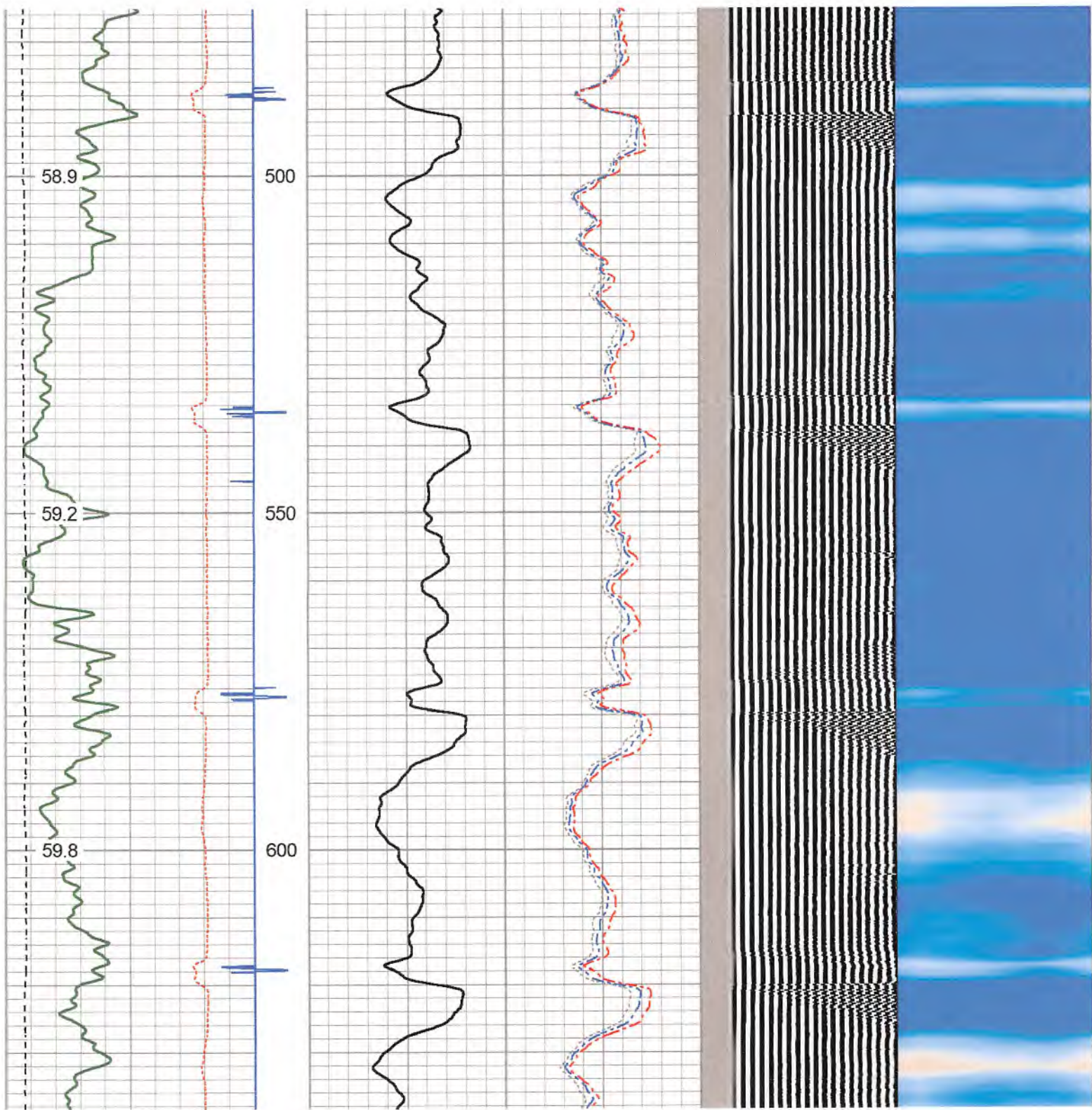
Database File	c:\users\logbox\desktop\antero gaspar\ant_gaspar_mule_2h.db
Dataset Pathname	rcbl/pass4
Presentation Format	tt_rcbl_std_bw
Dataset Creation	Sun Jul 17 15:35:08 2022
Charted by	Depth in Feet scaled 1:240

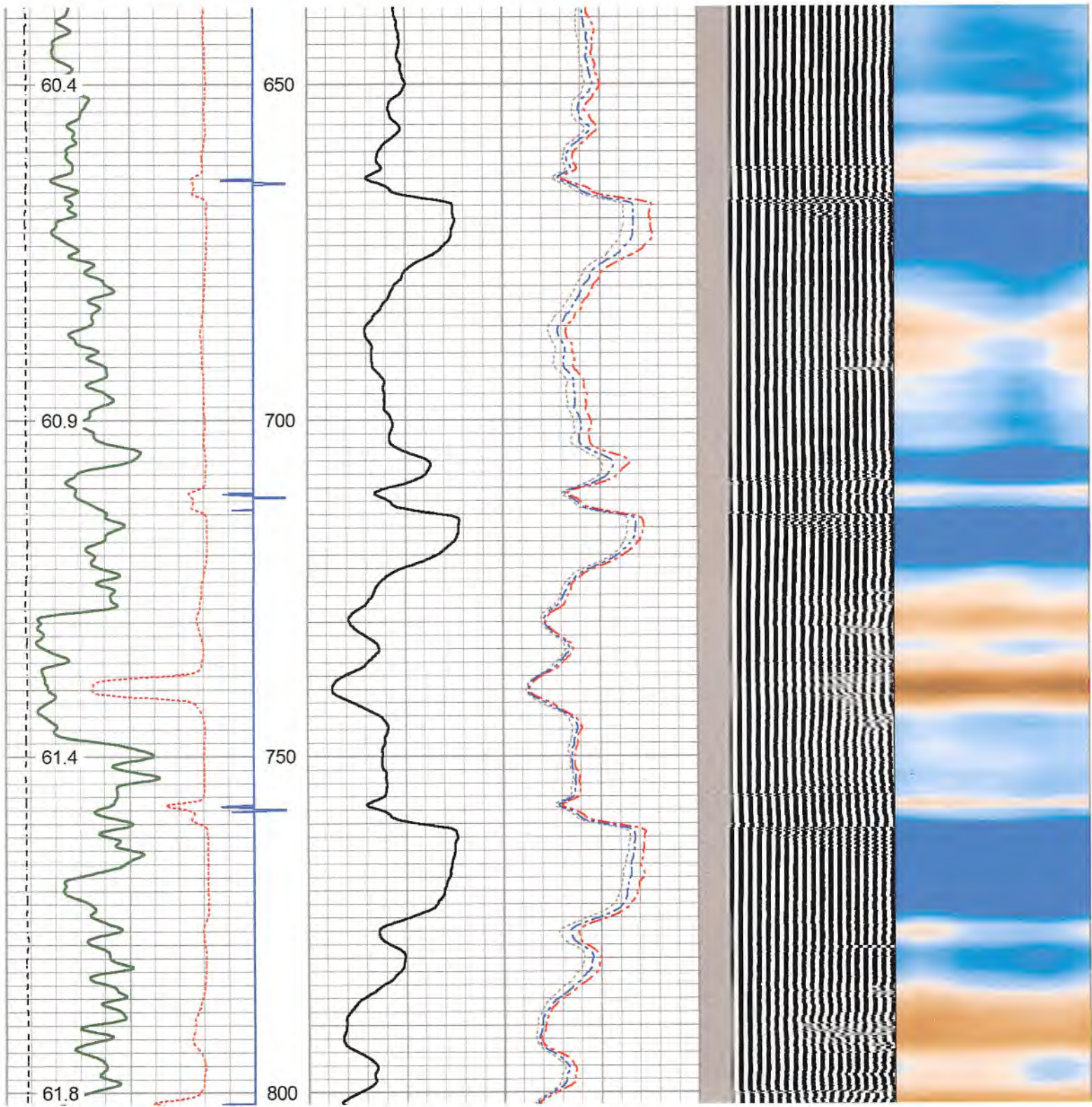
333	Travel Time (usec)	233	0	Amplitude (mV)	100	-5	AMPMin	150	200	VDL (usec)	1200	Cement Map
0	Gamma Ray (GAPI)	150		Amplified Amplitude		-5	AMPAvg	150				
0	Line Tension (lb)	3000	0	(mV)	10	-5	AMPMax	150				
TEMP (degF)		CCL										

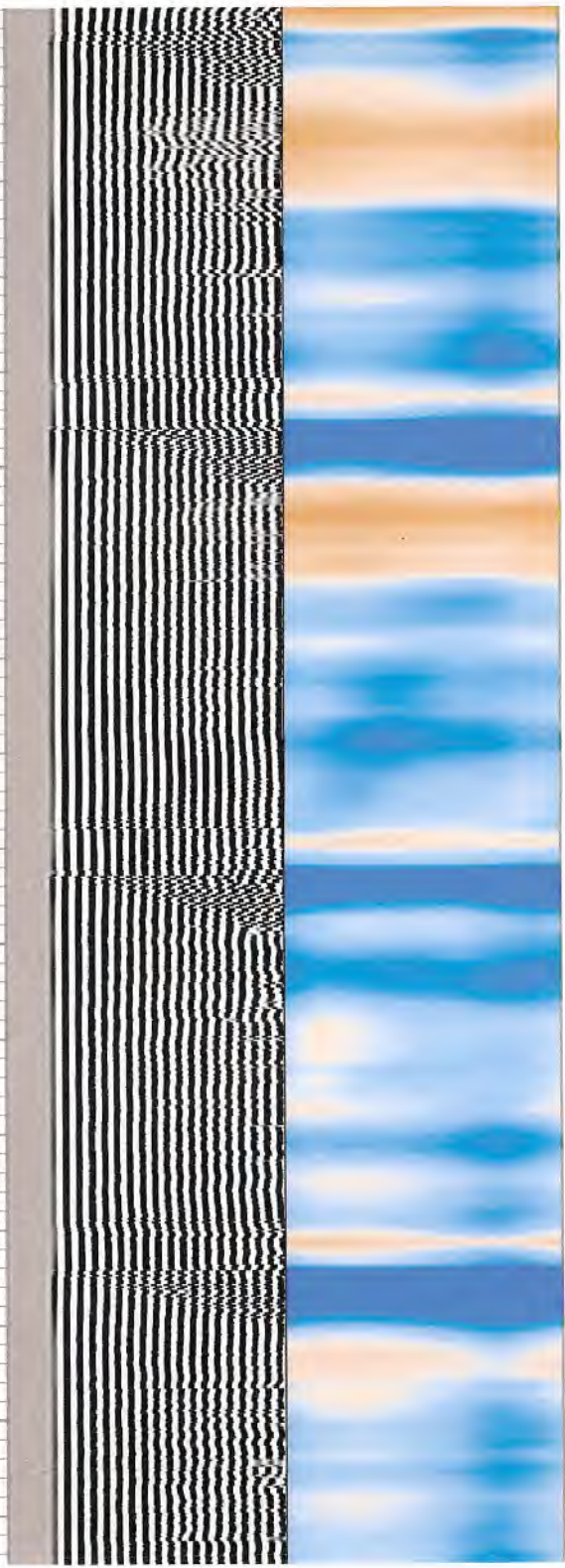
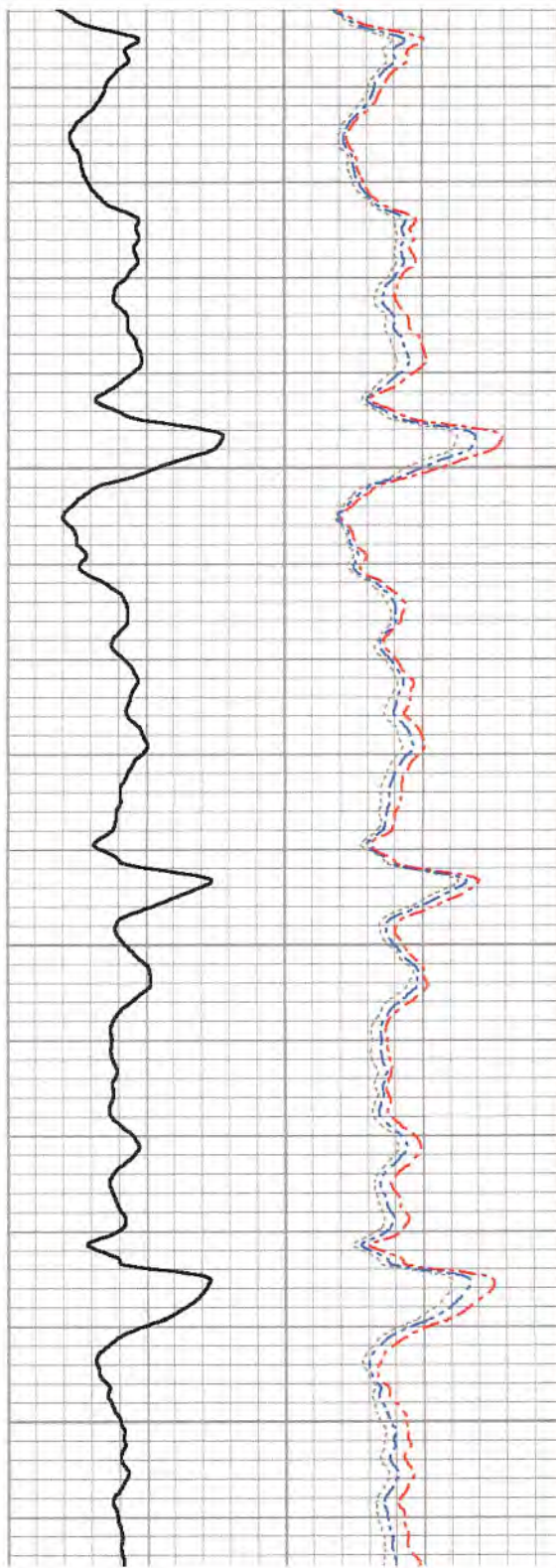
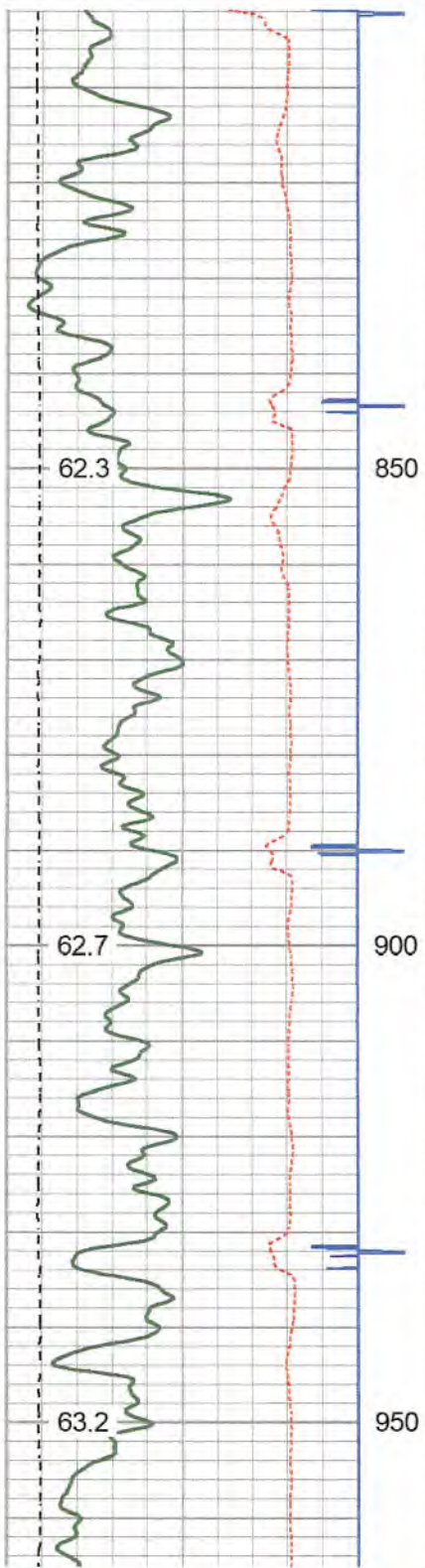


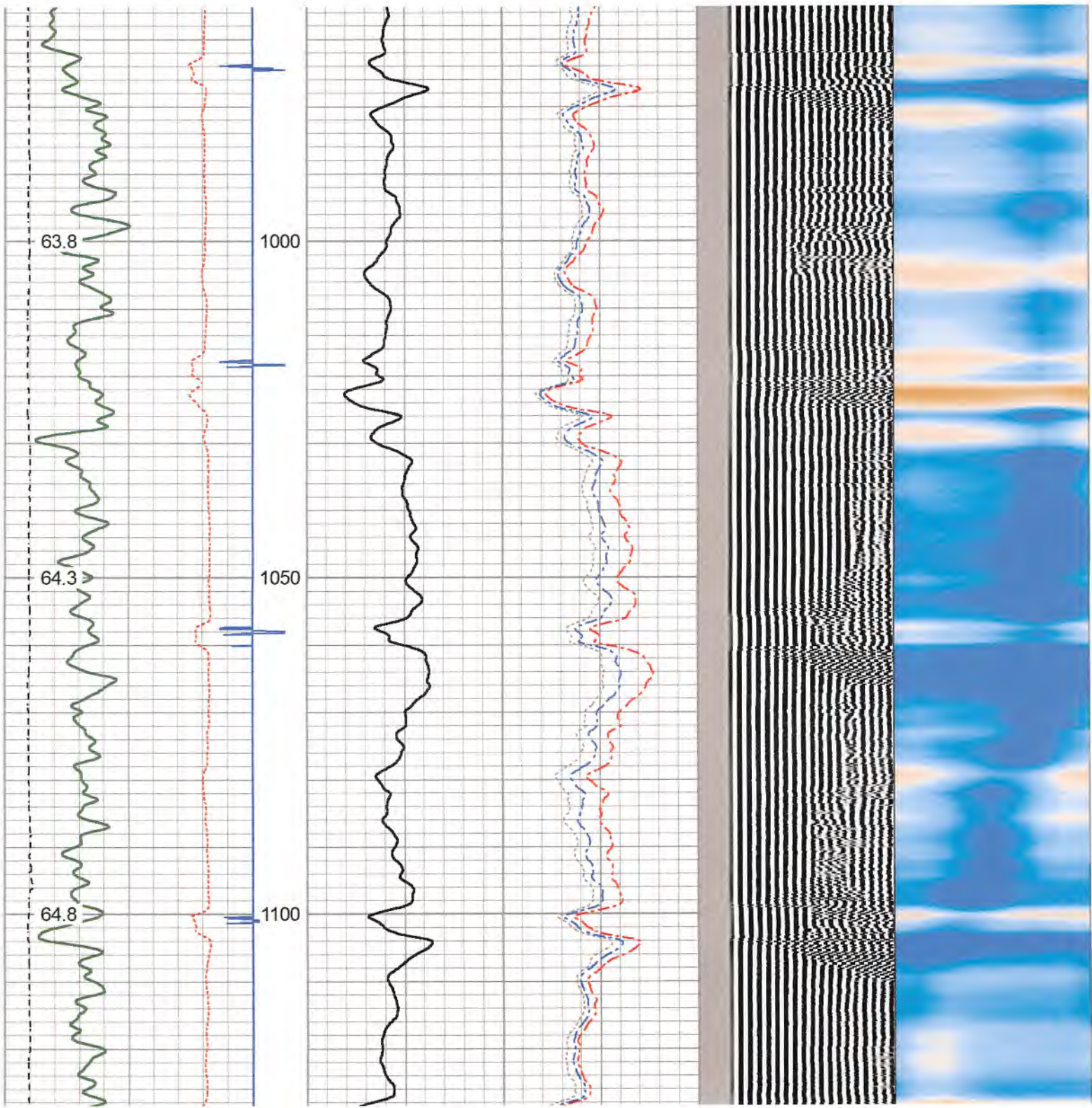


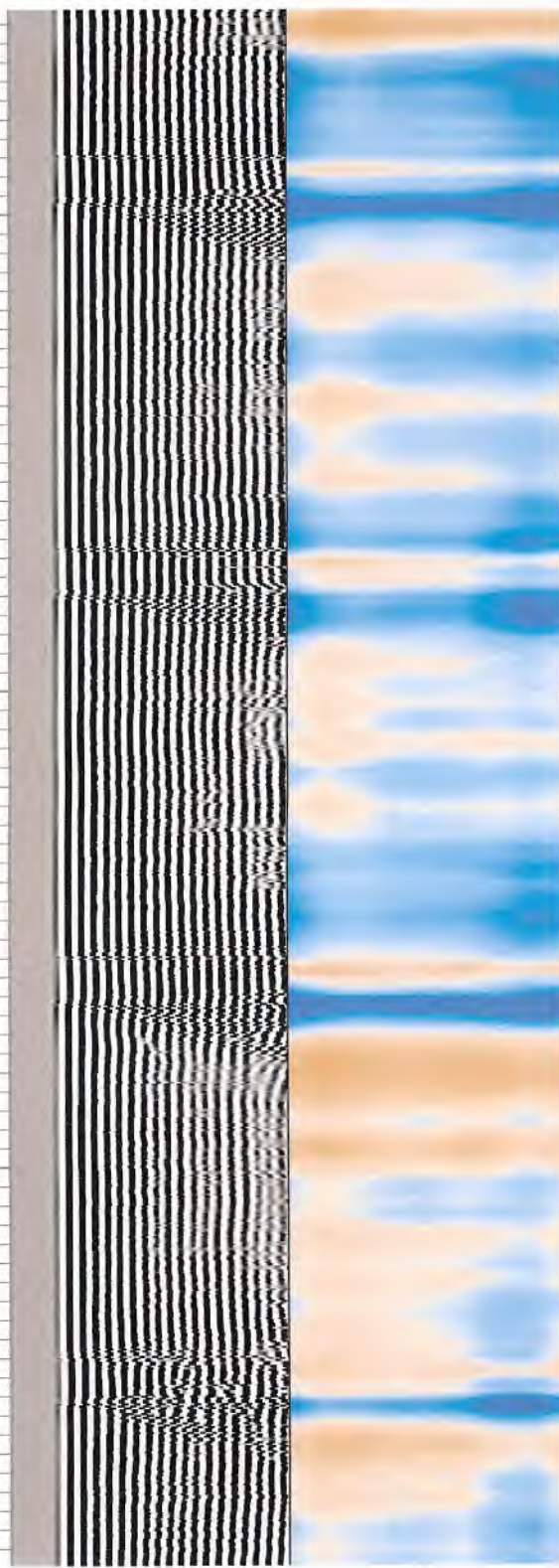
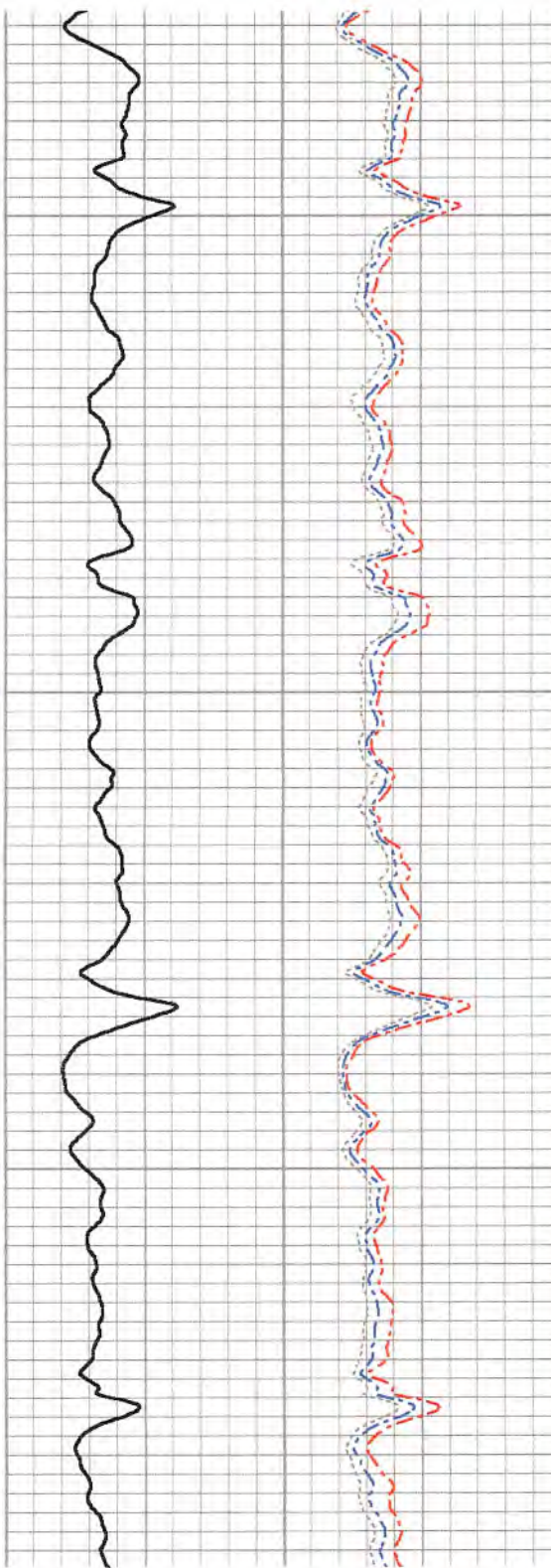
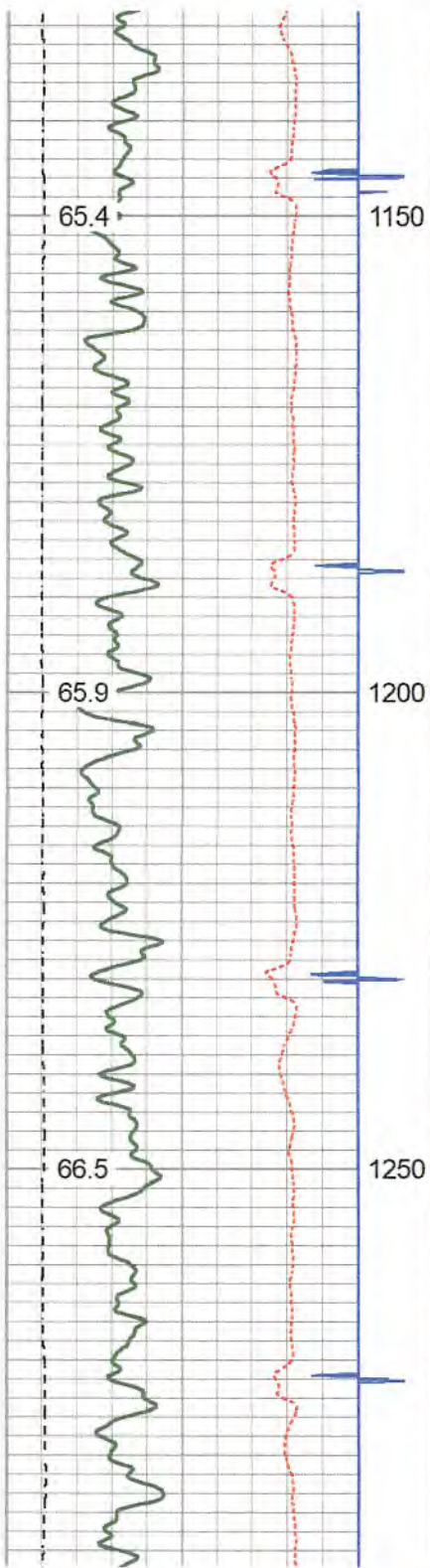


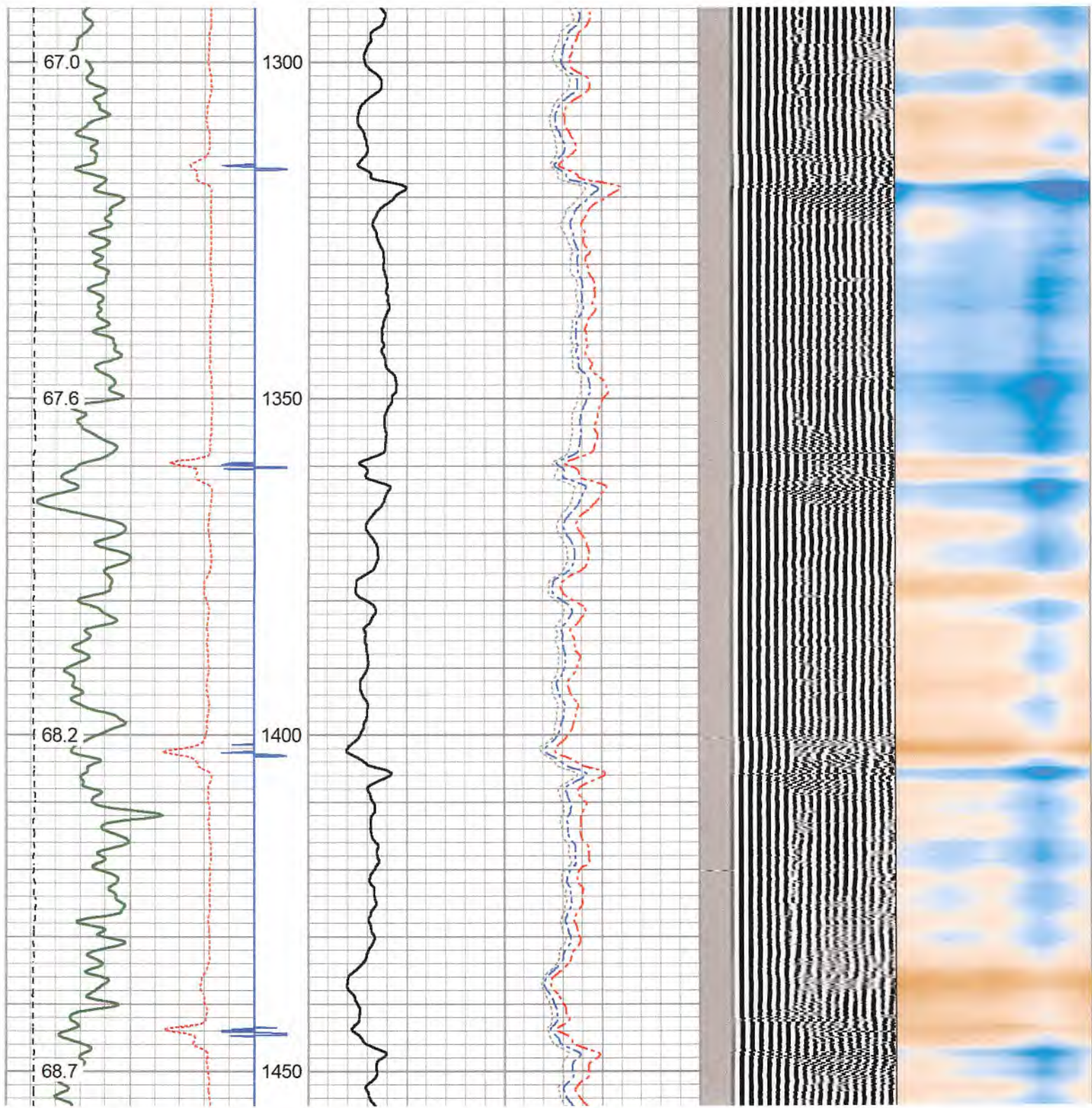


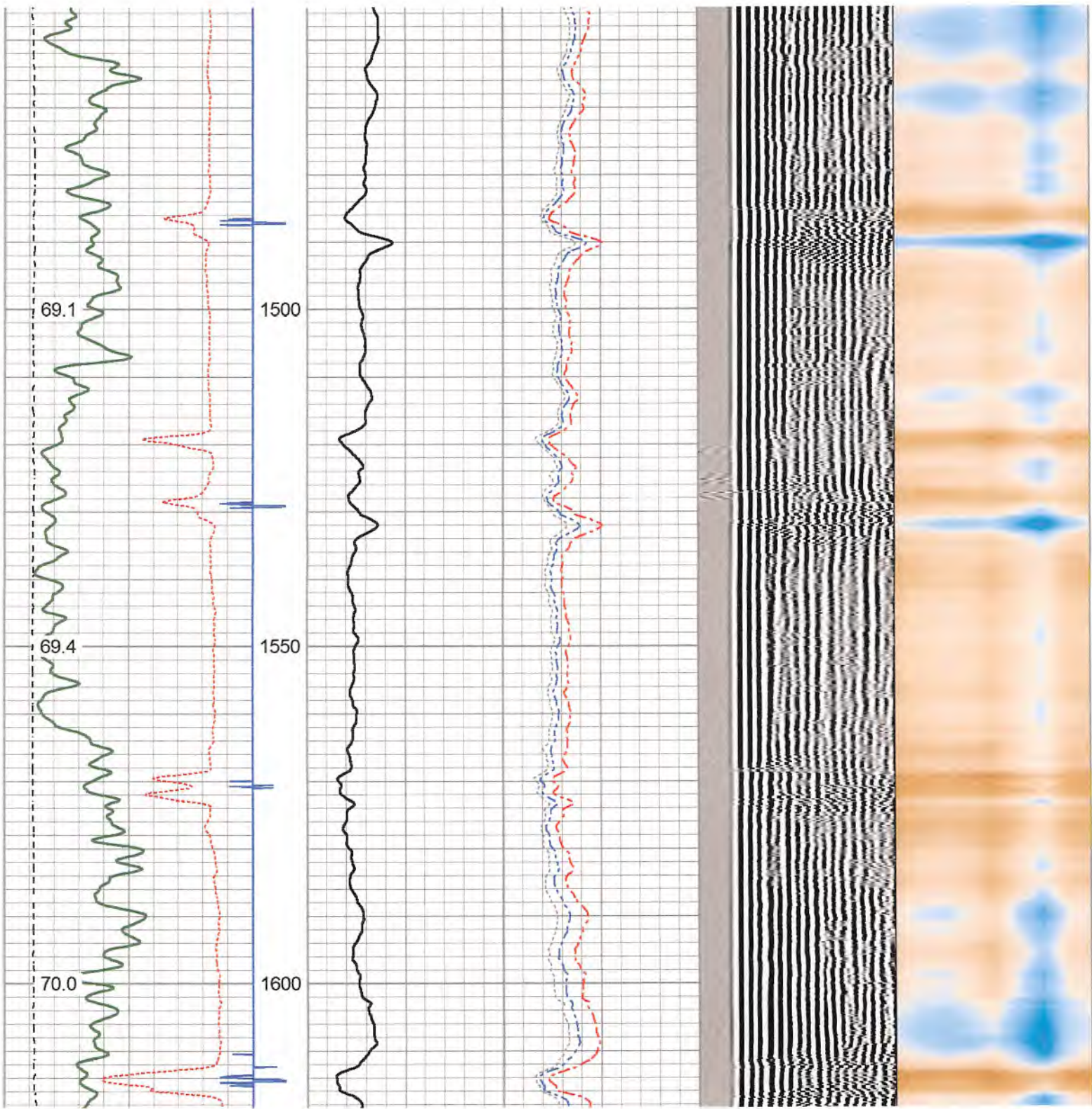


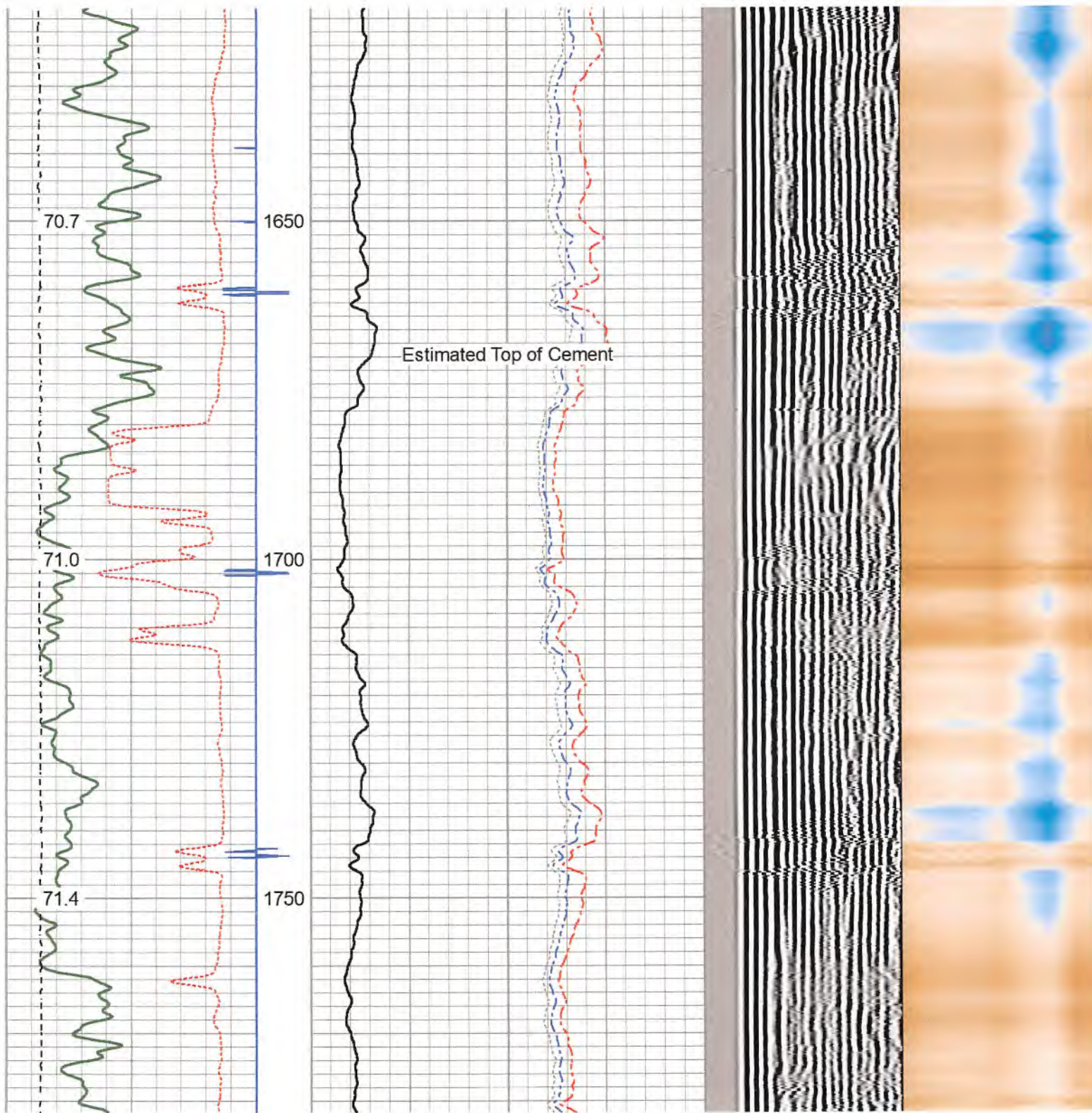


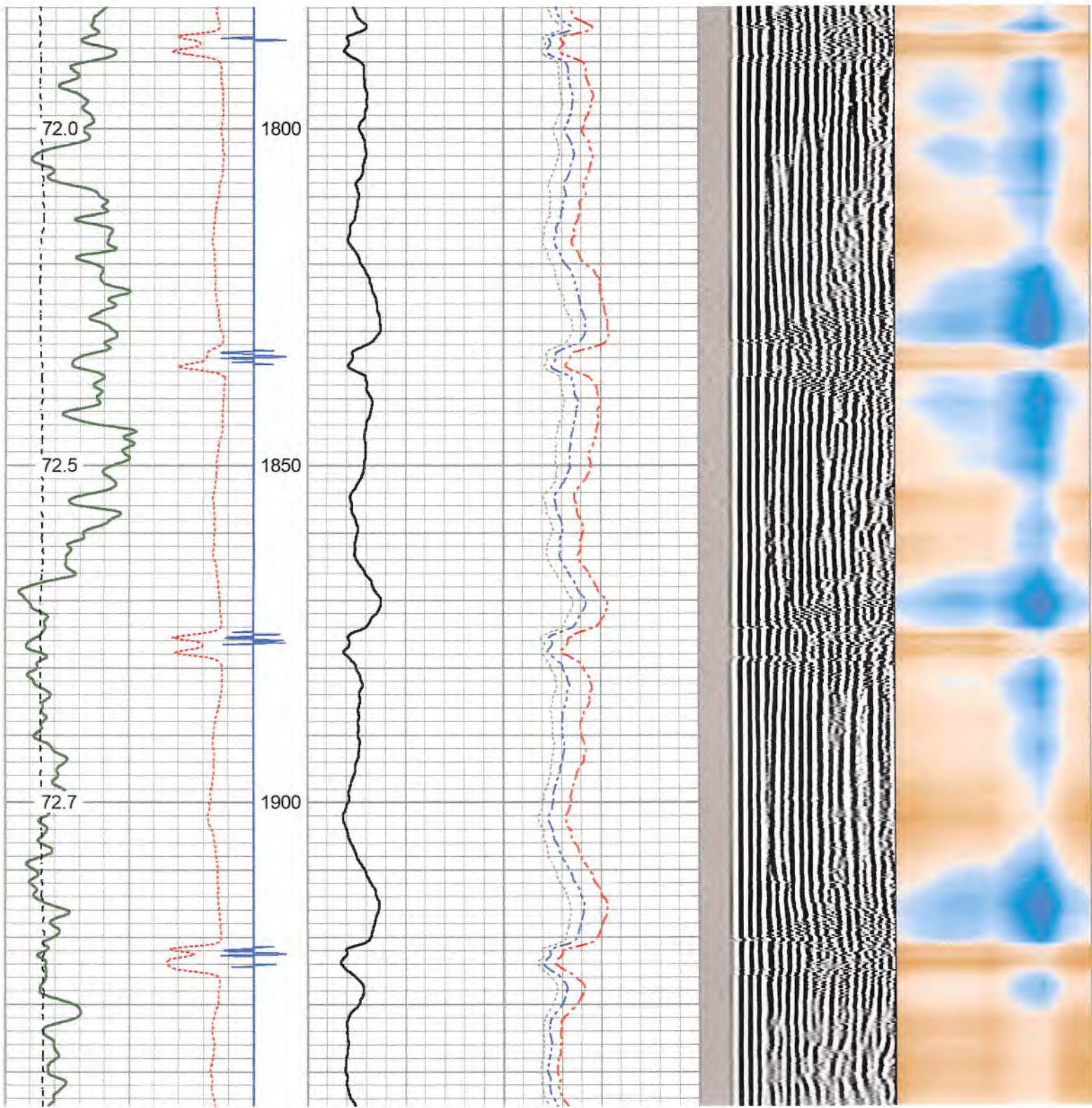


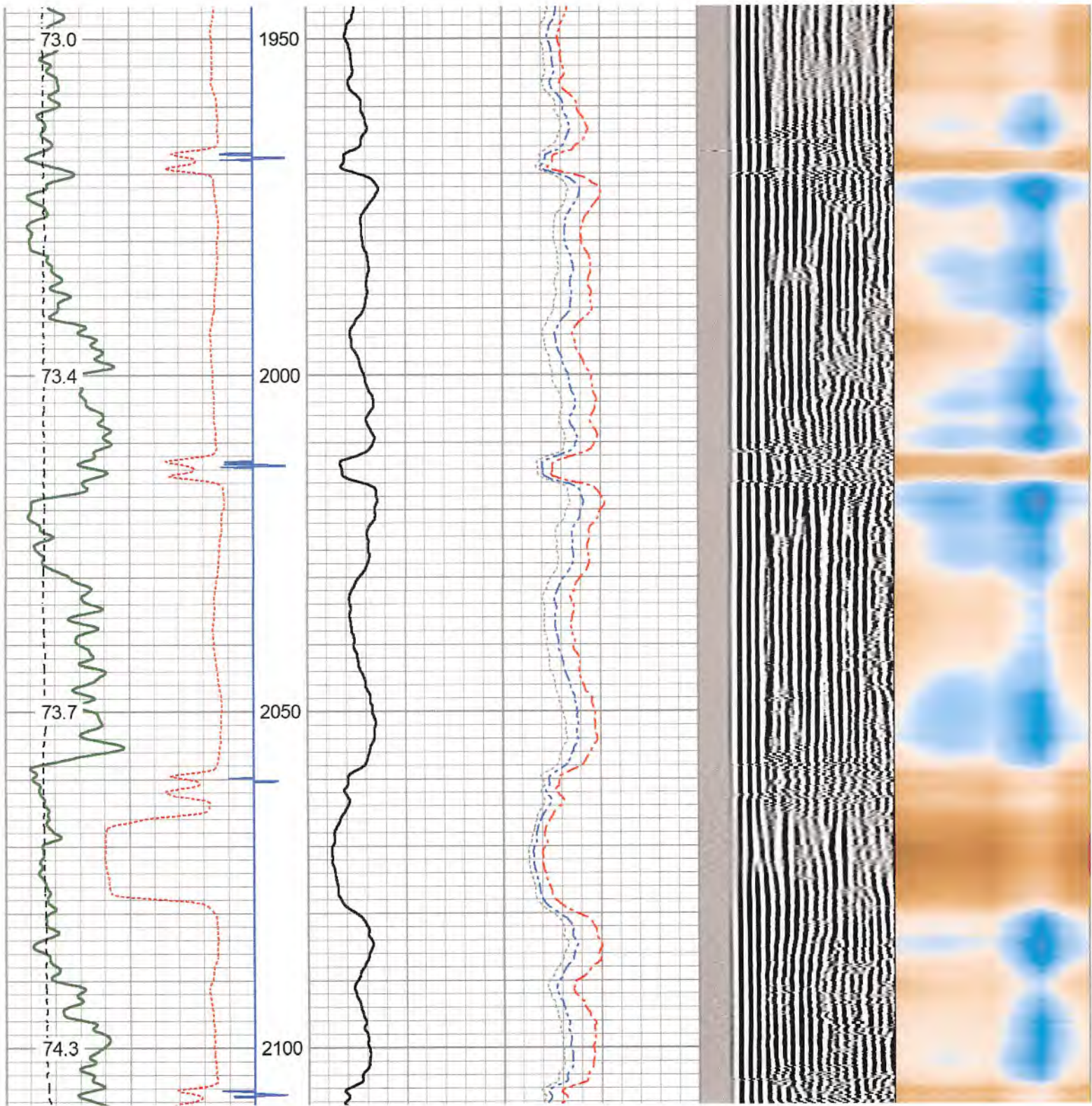


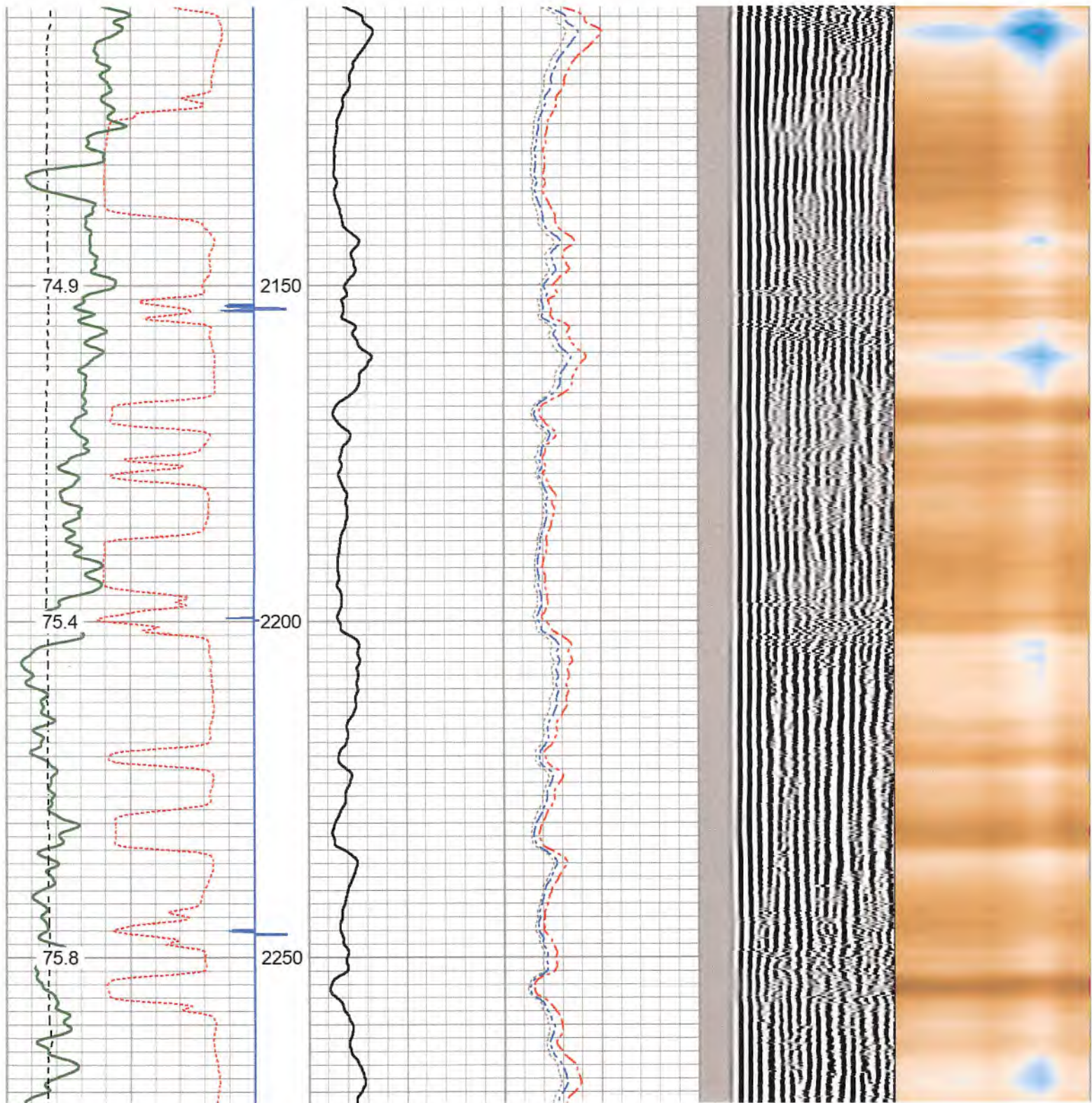


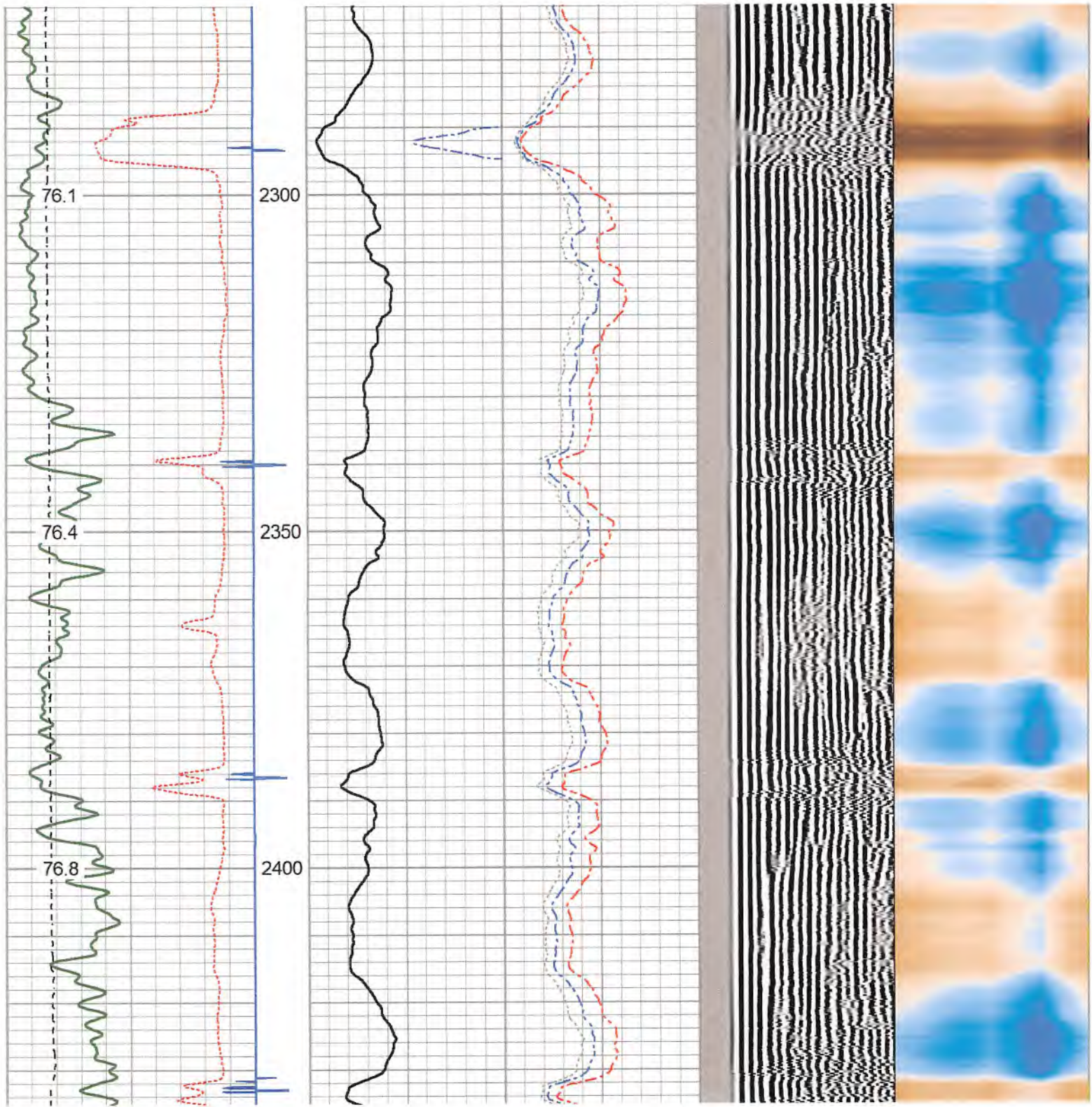


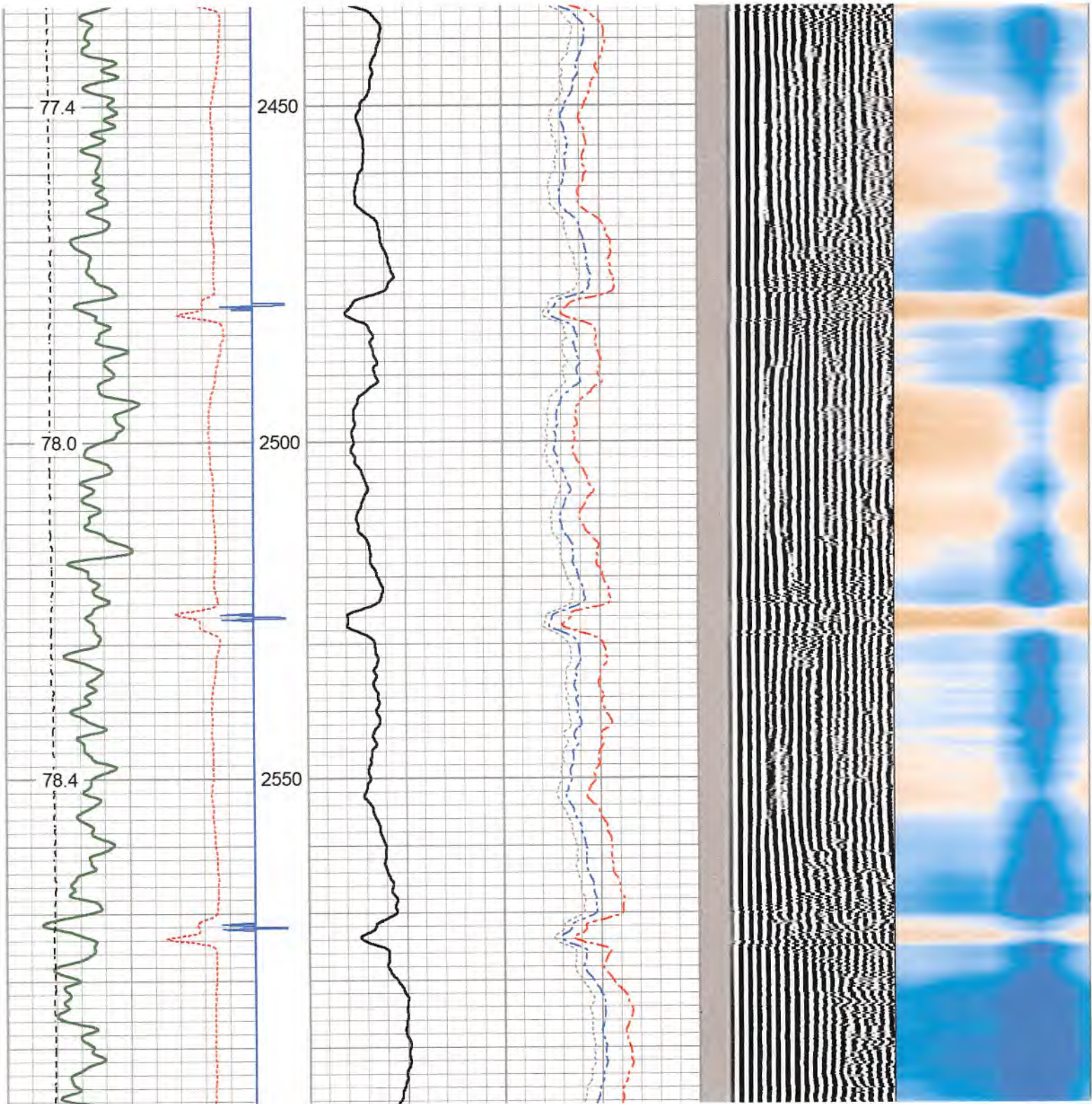


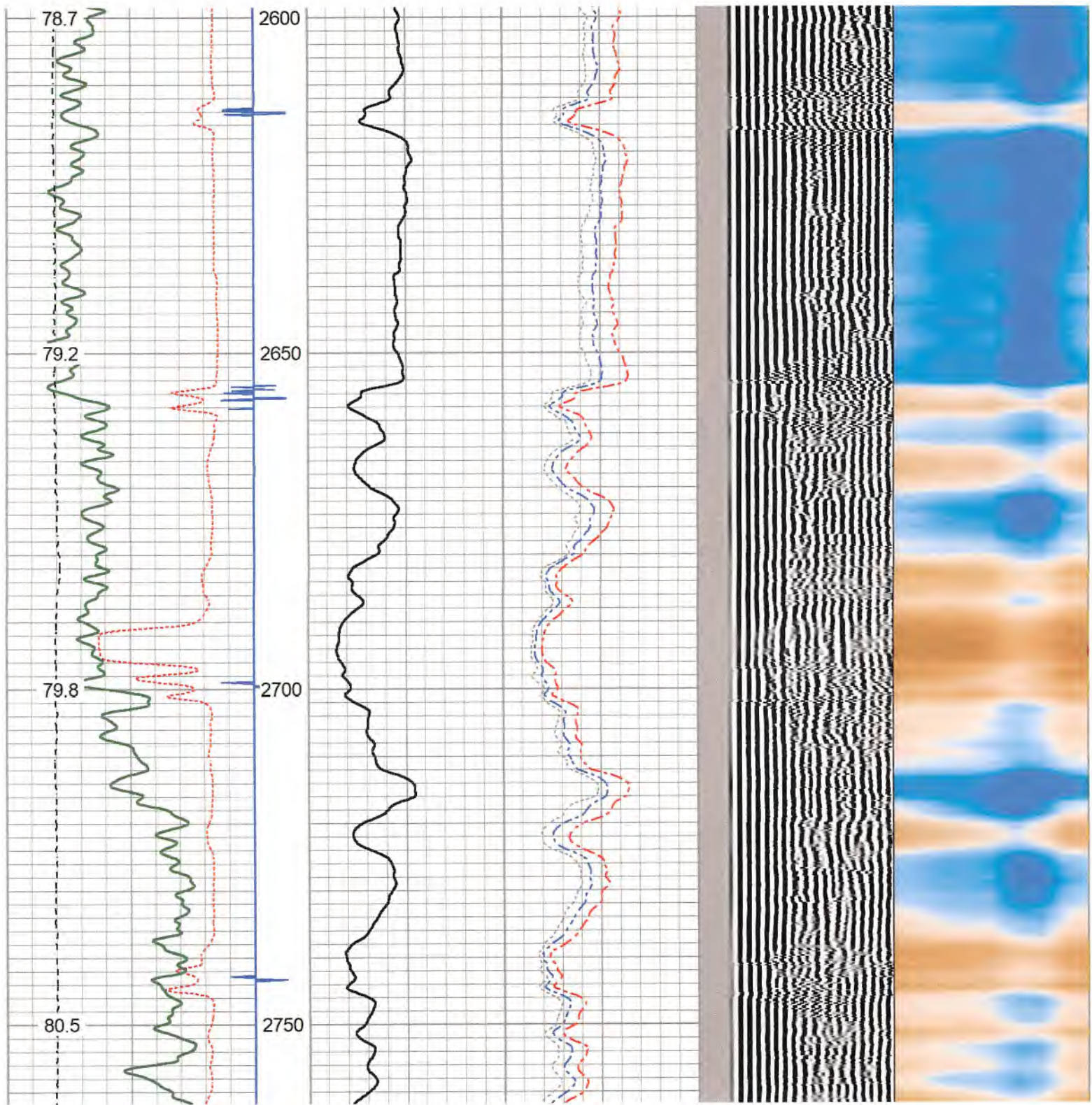


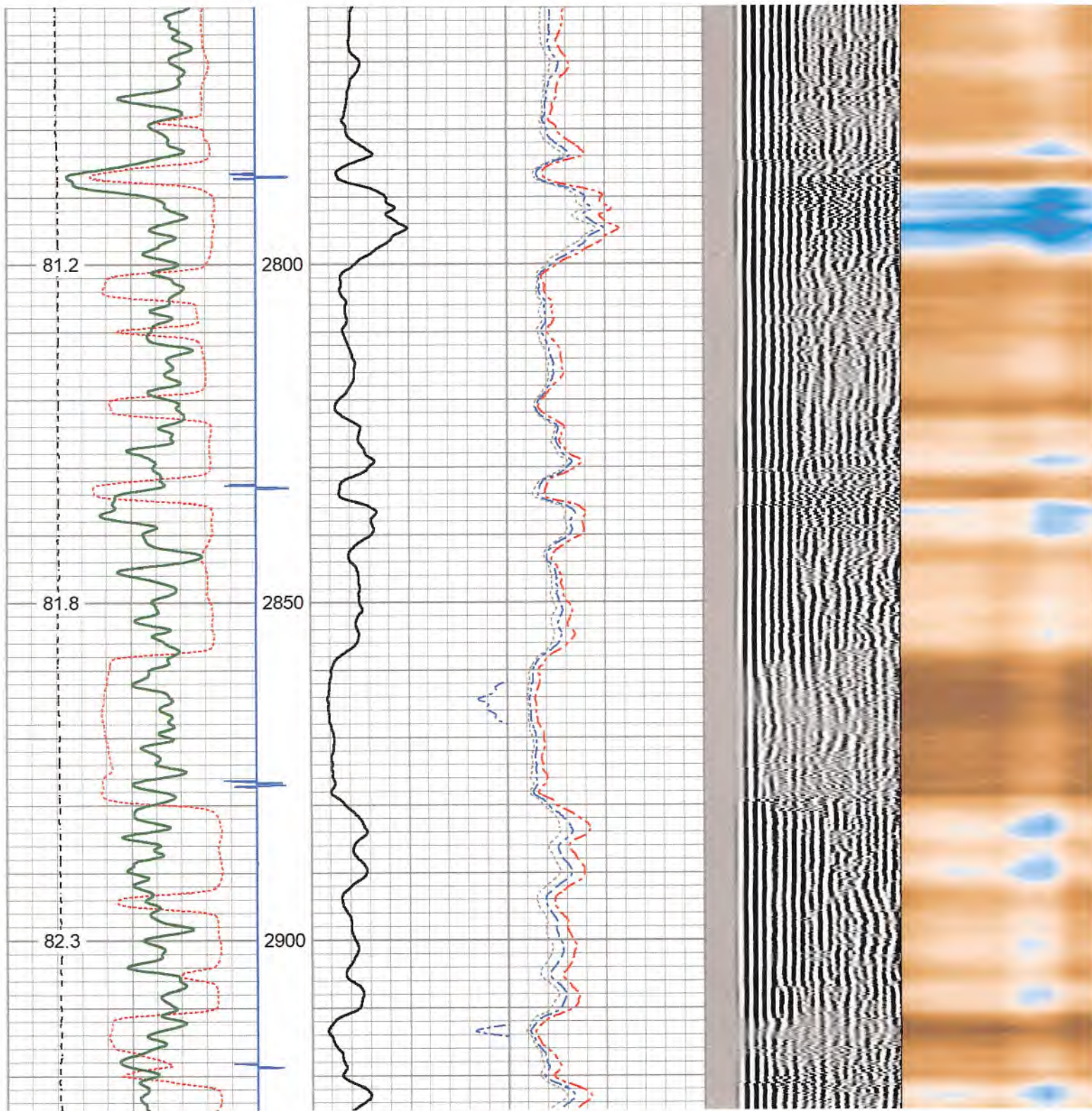


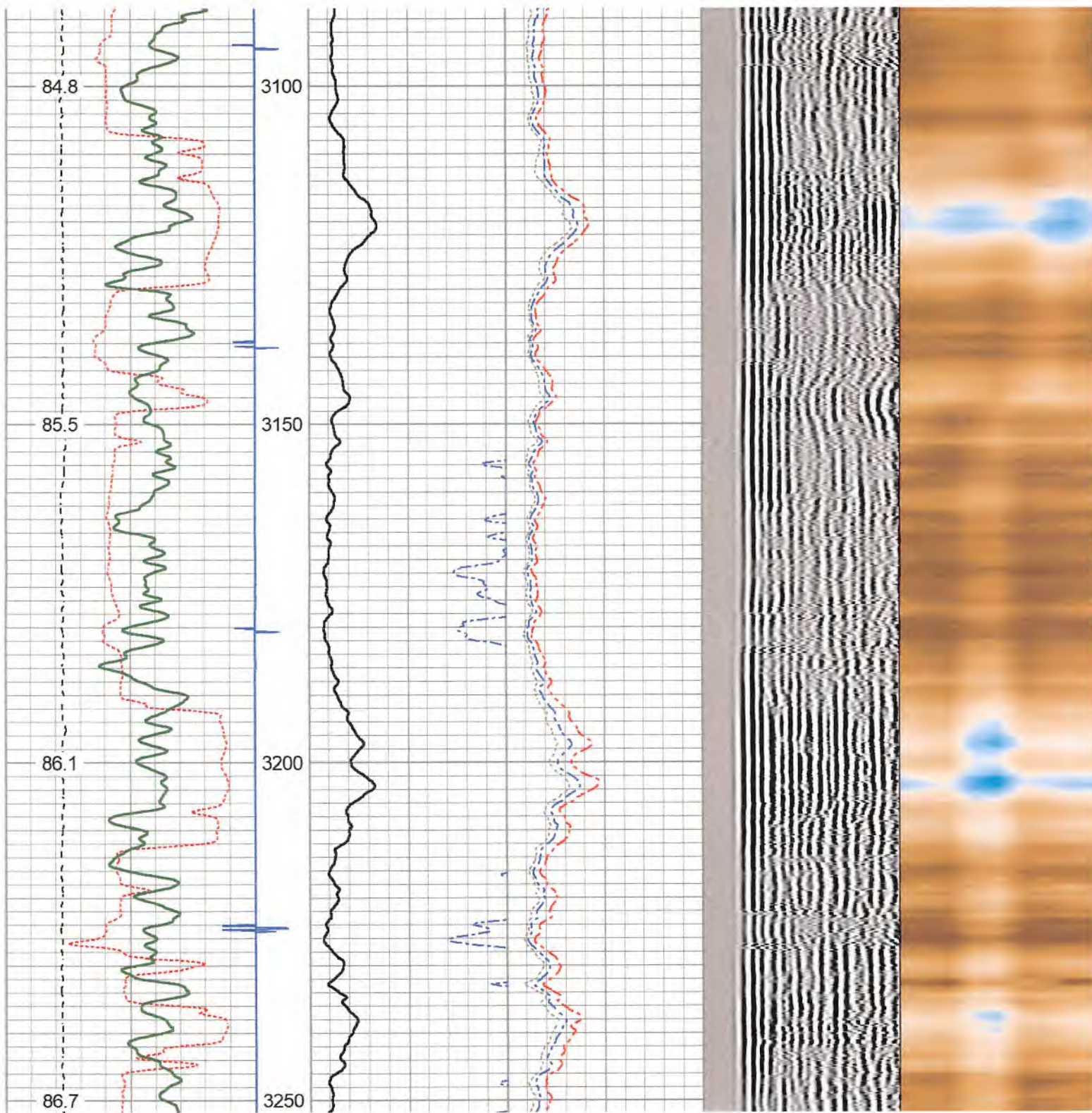


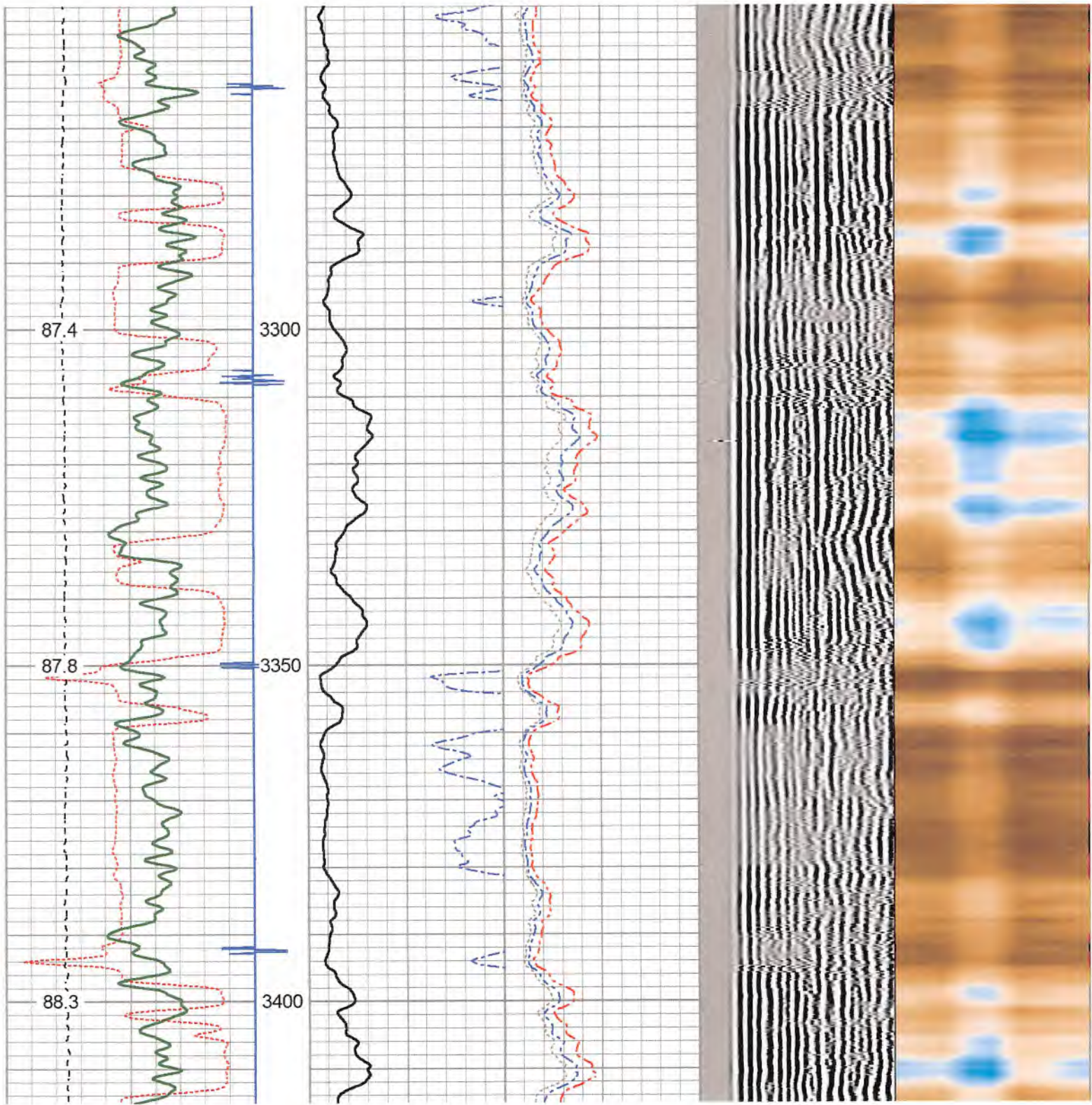


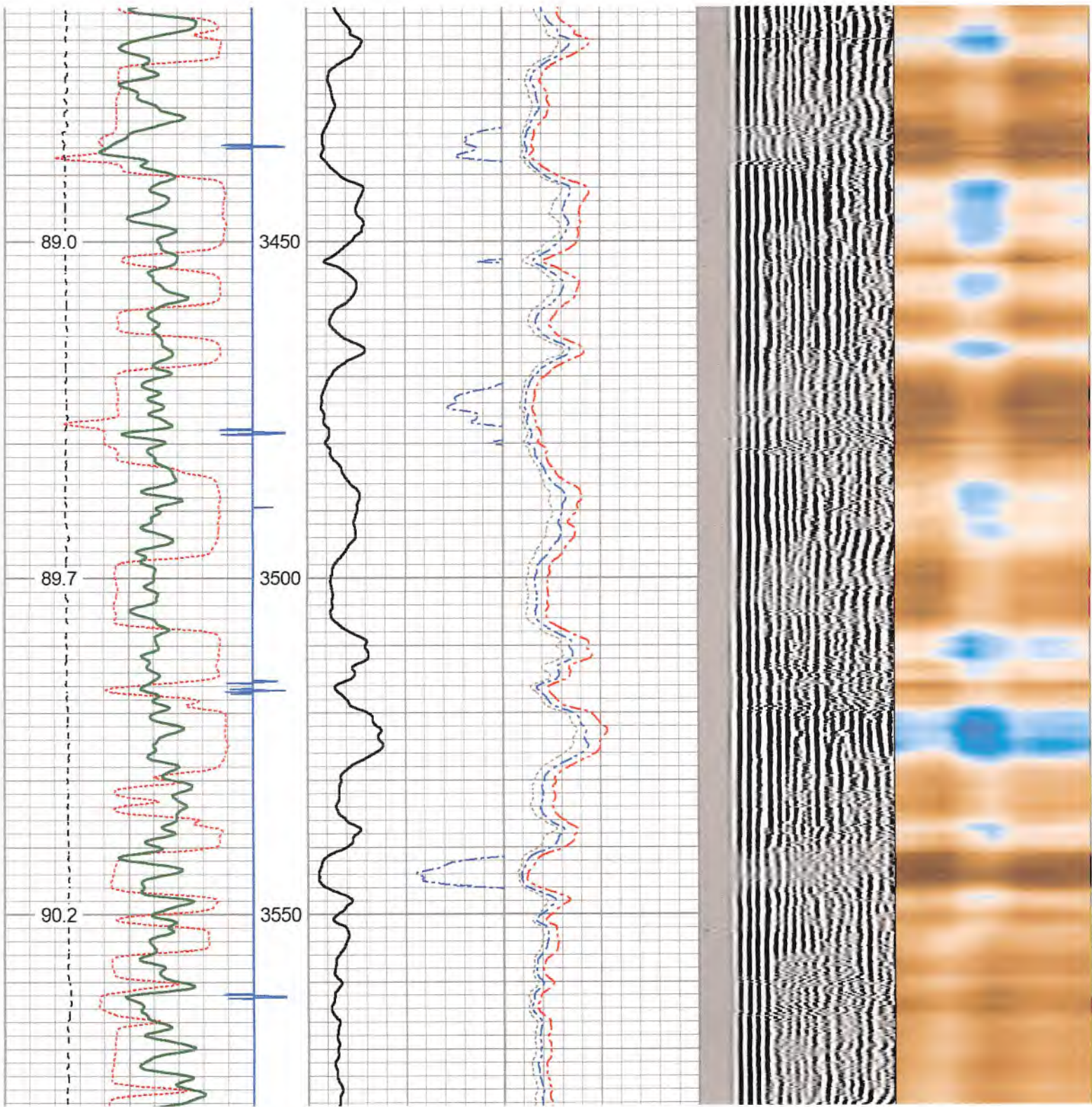


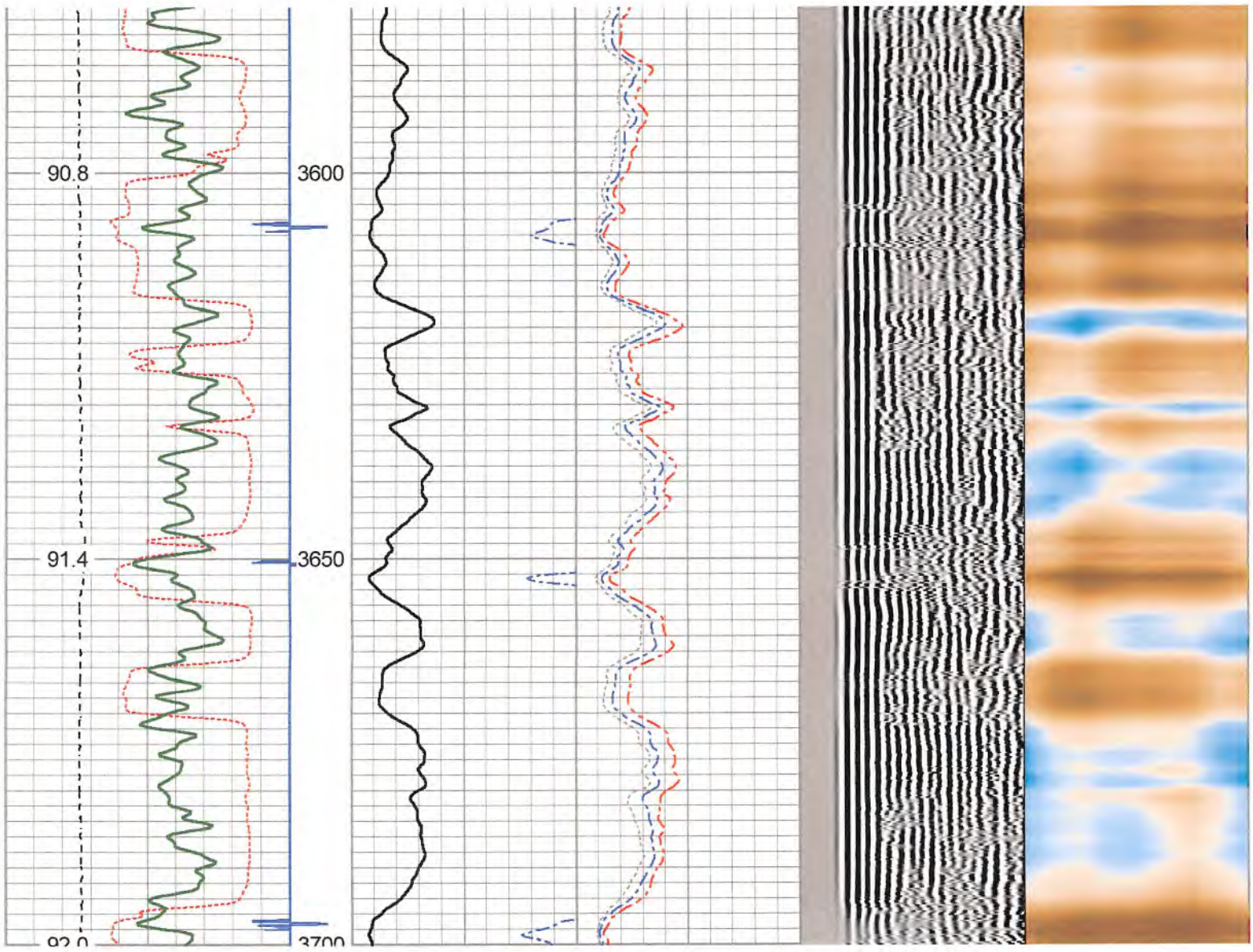


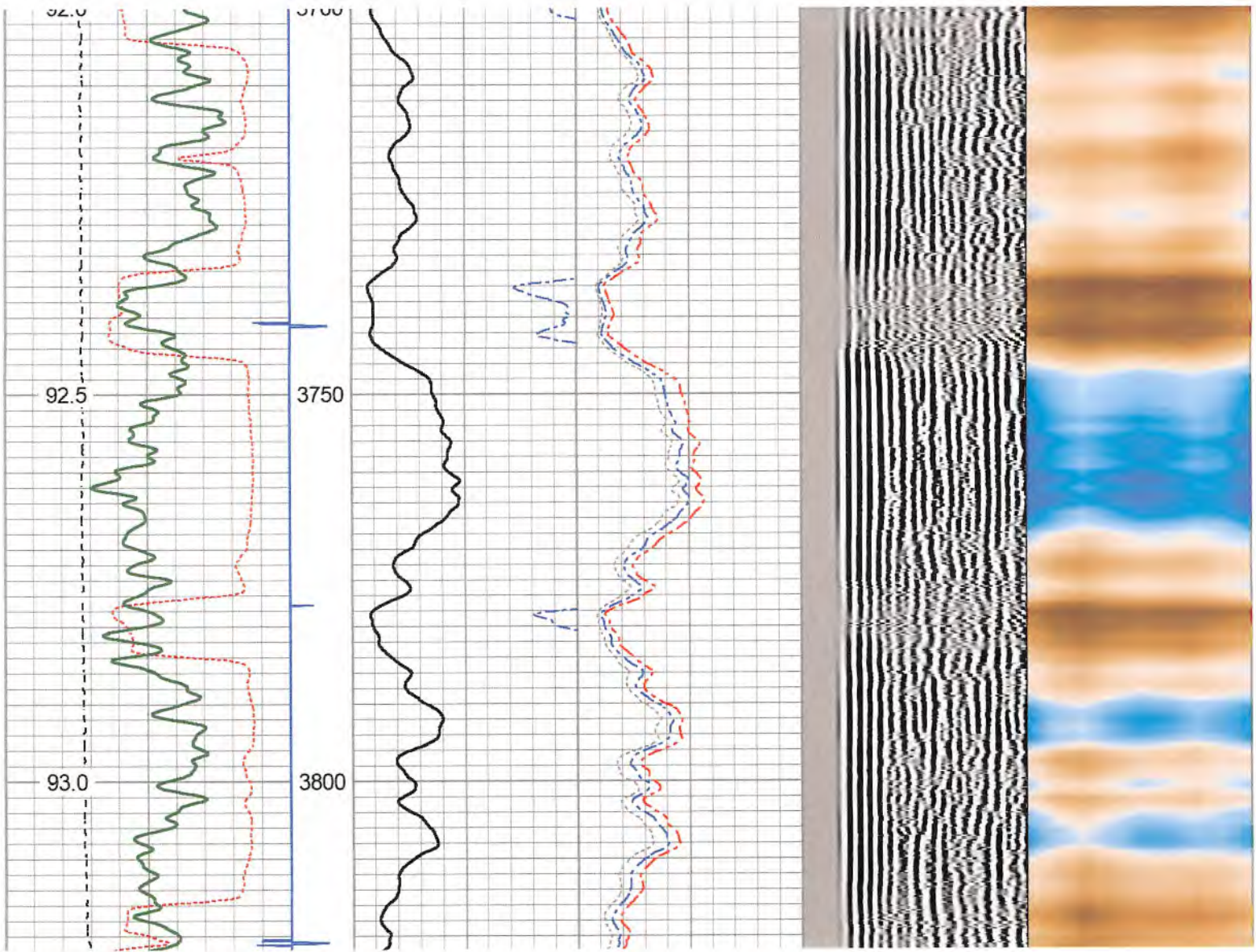


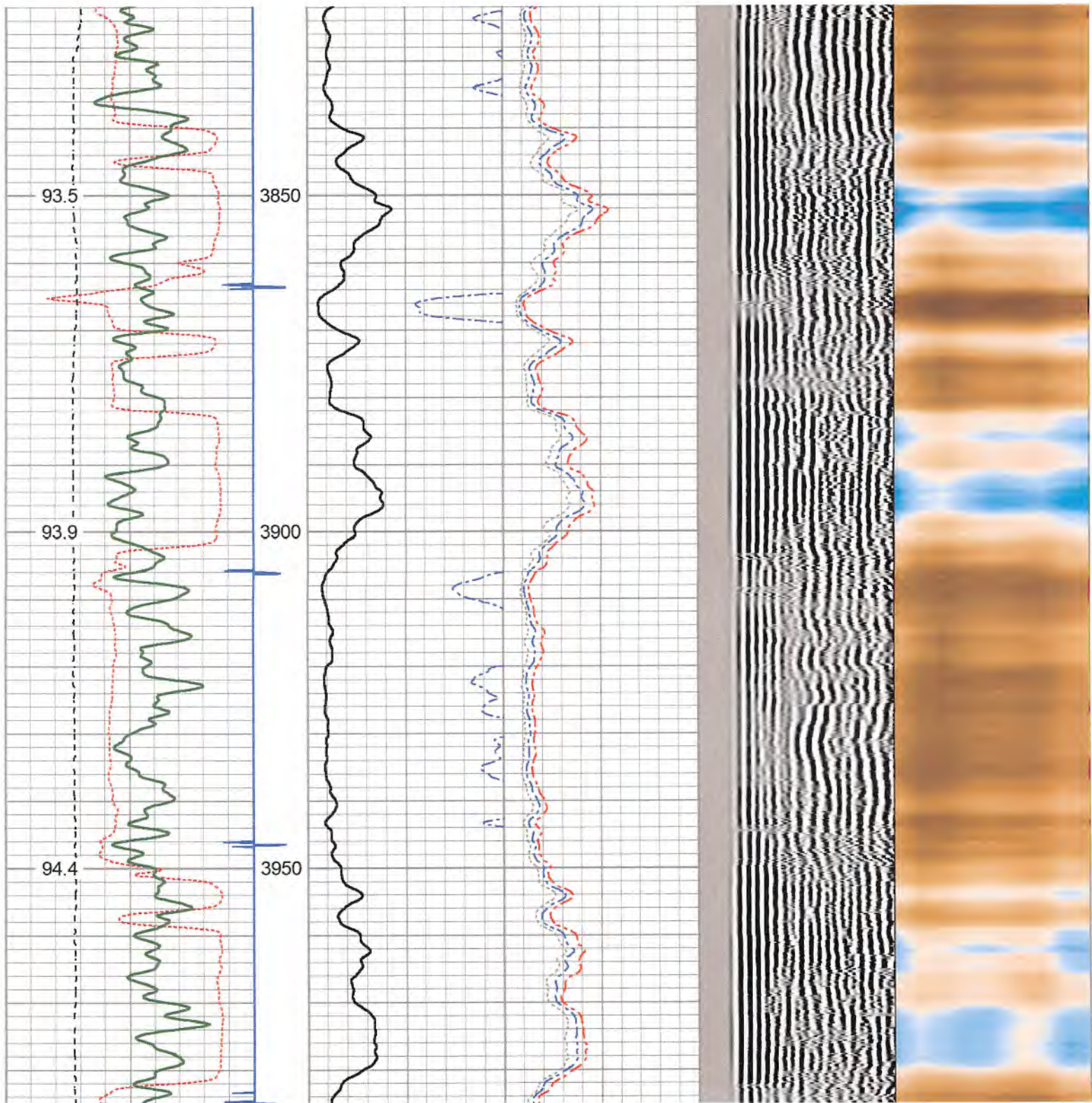


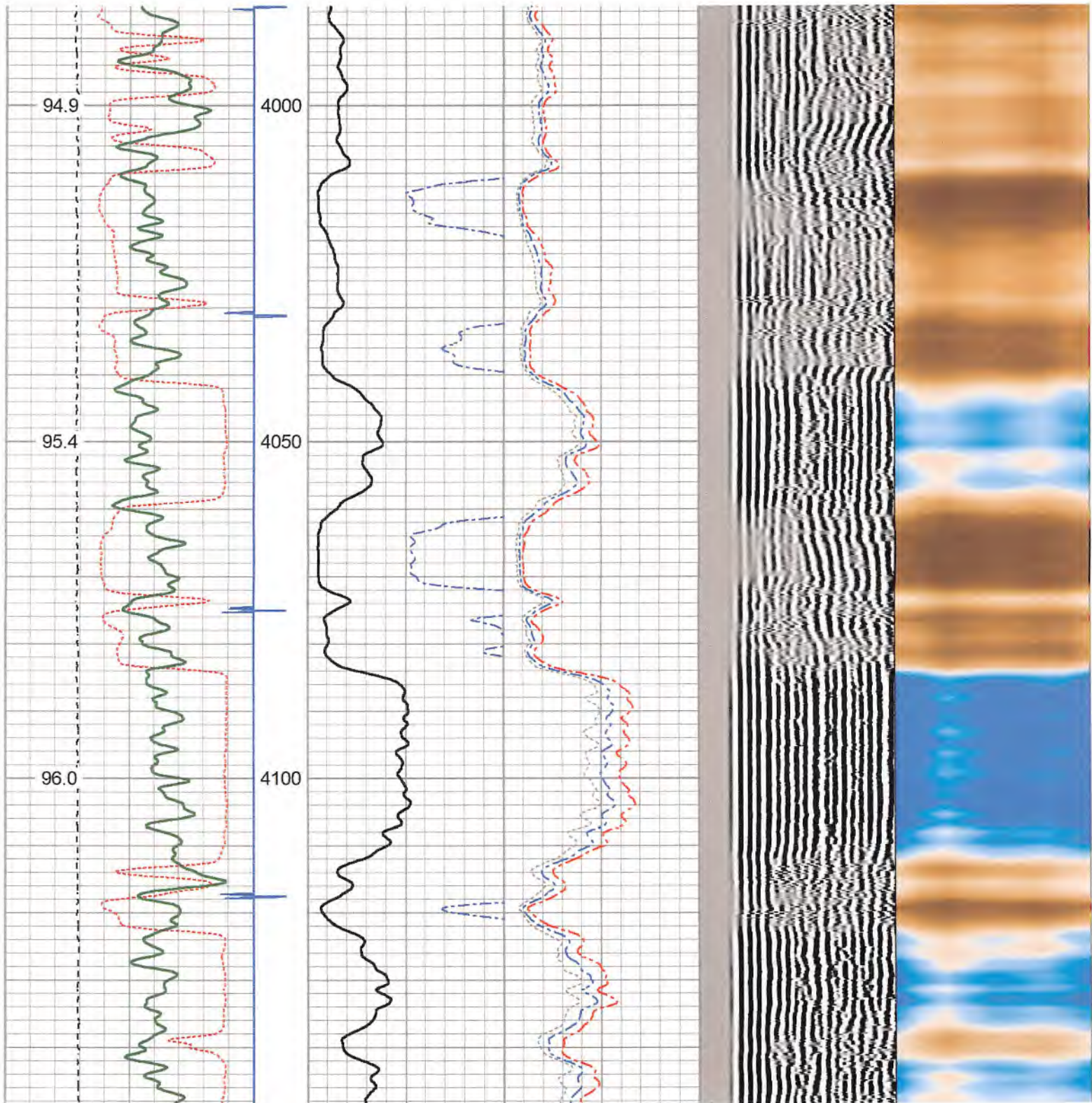


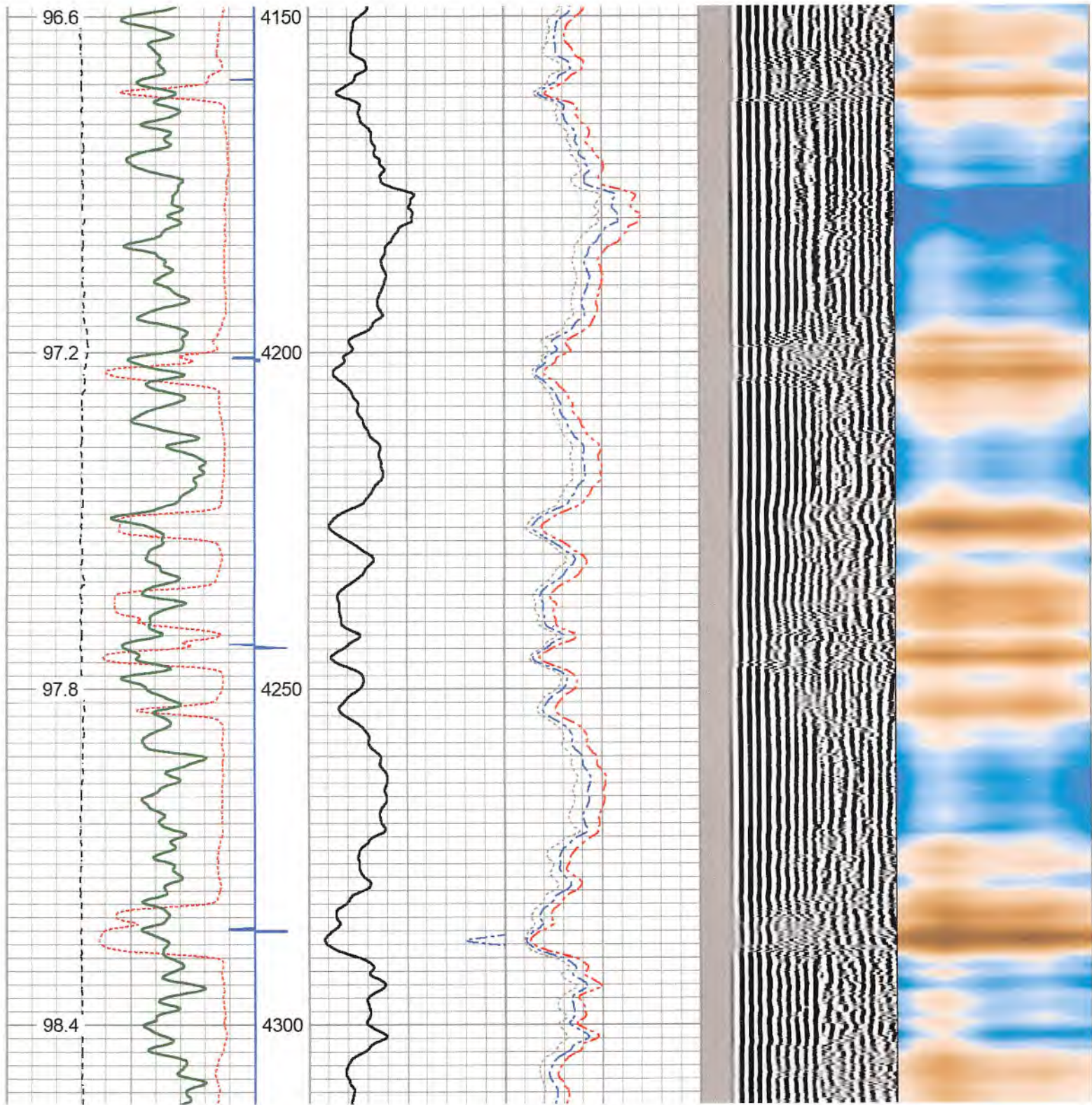


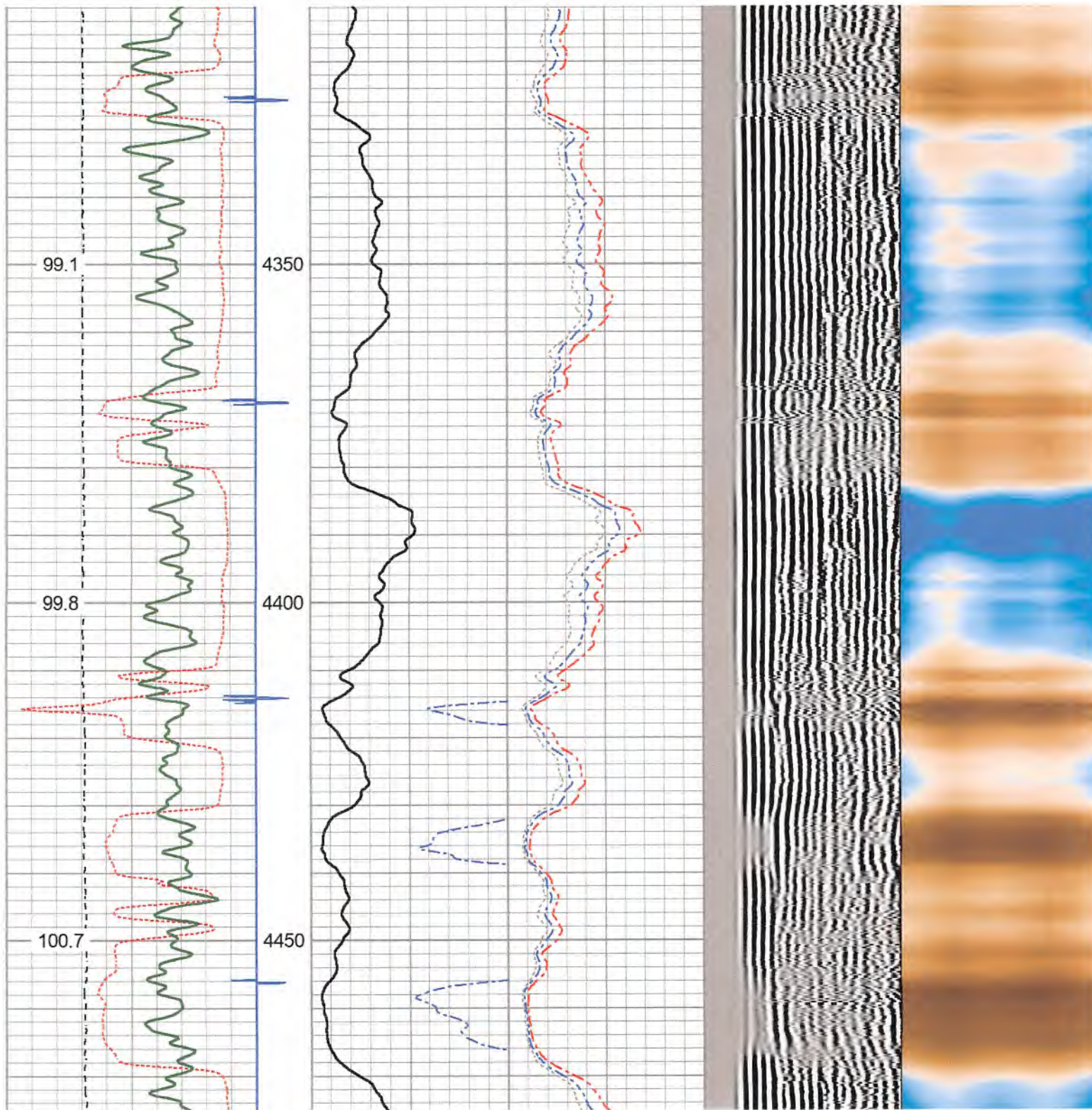


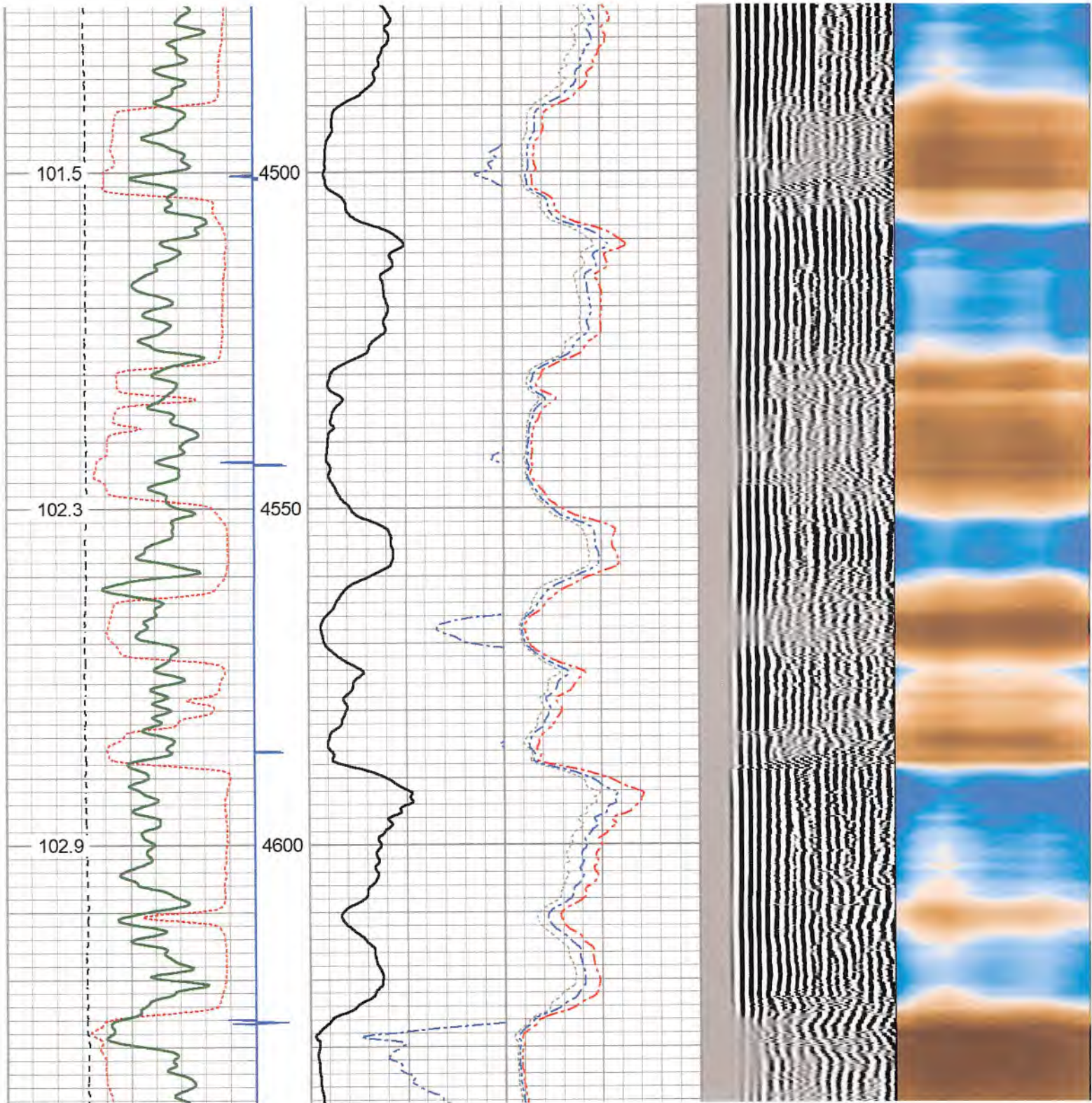


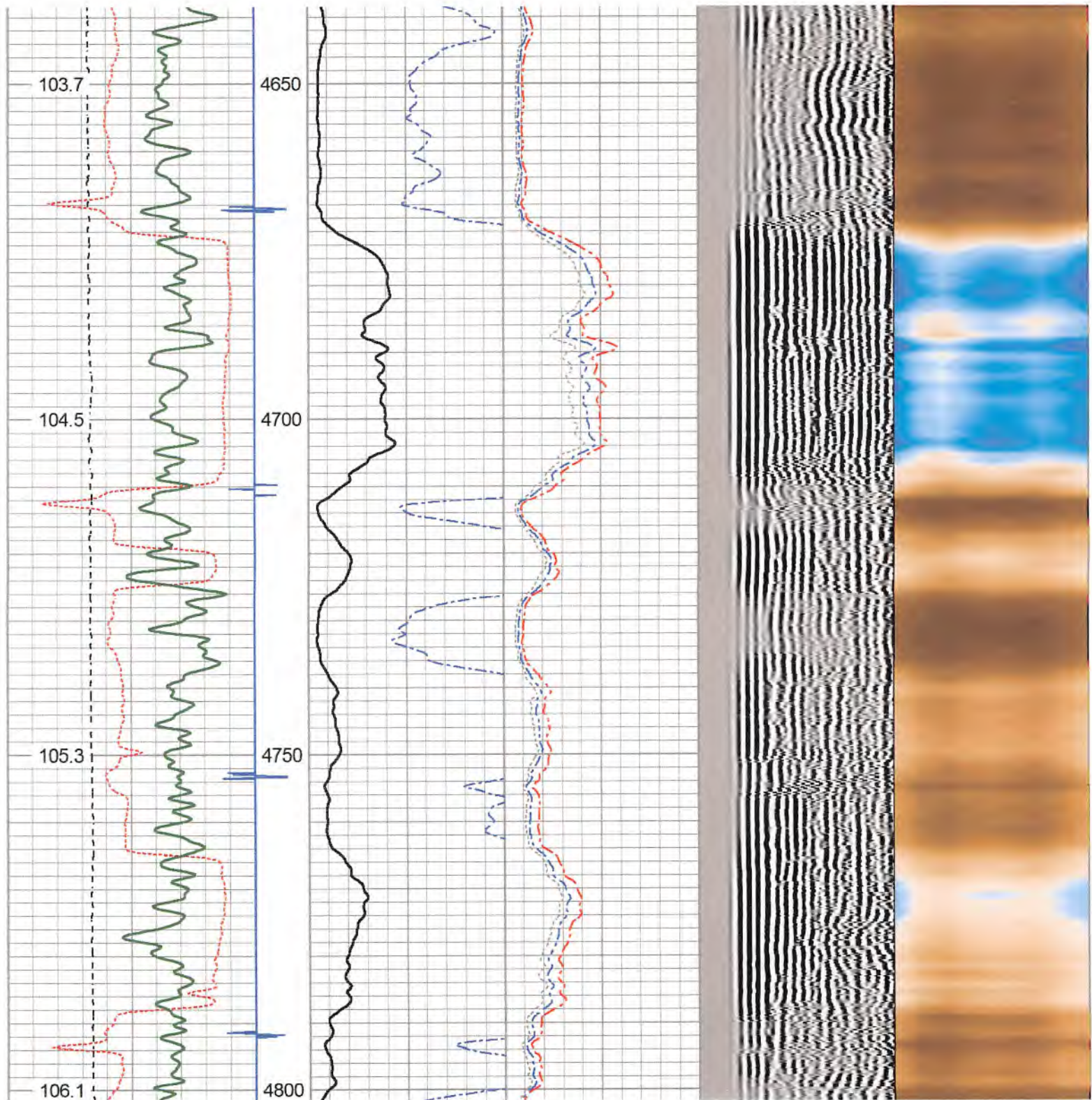


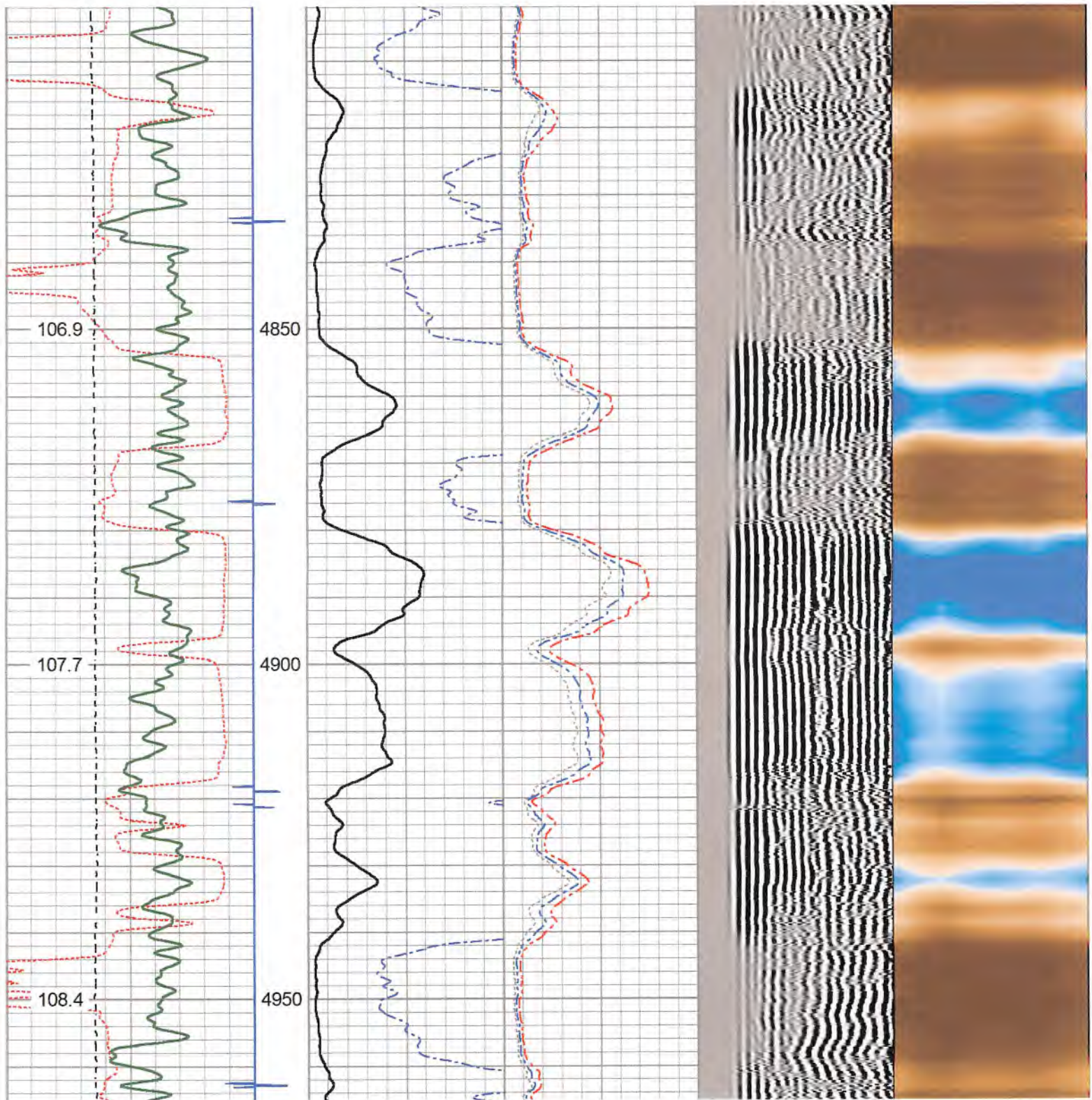


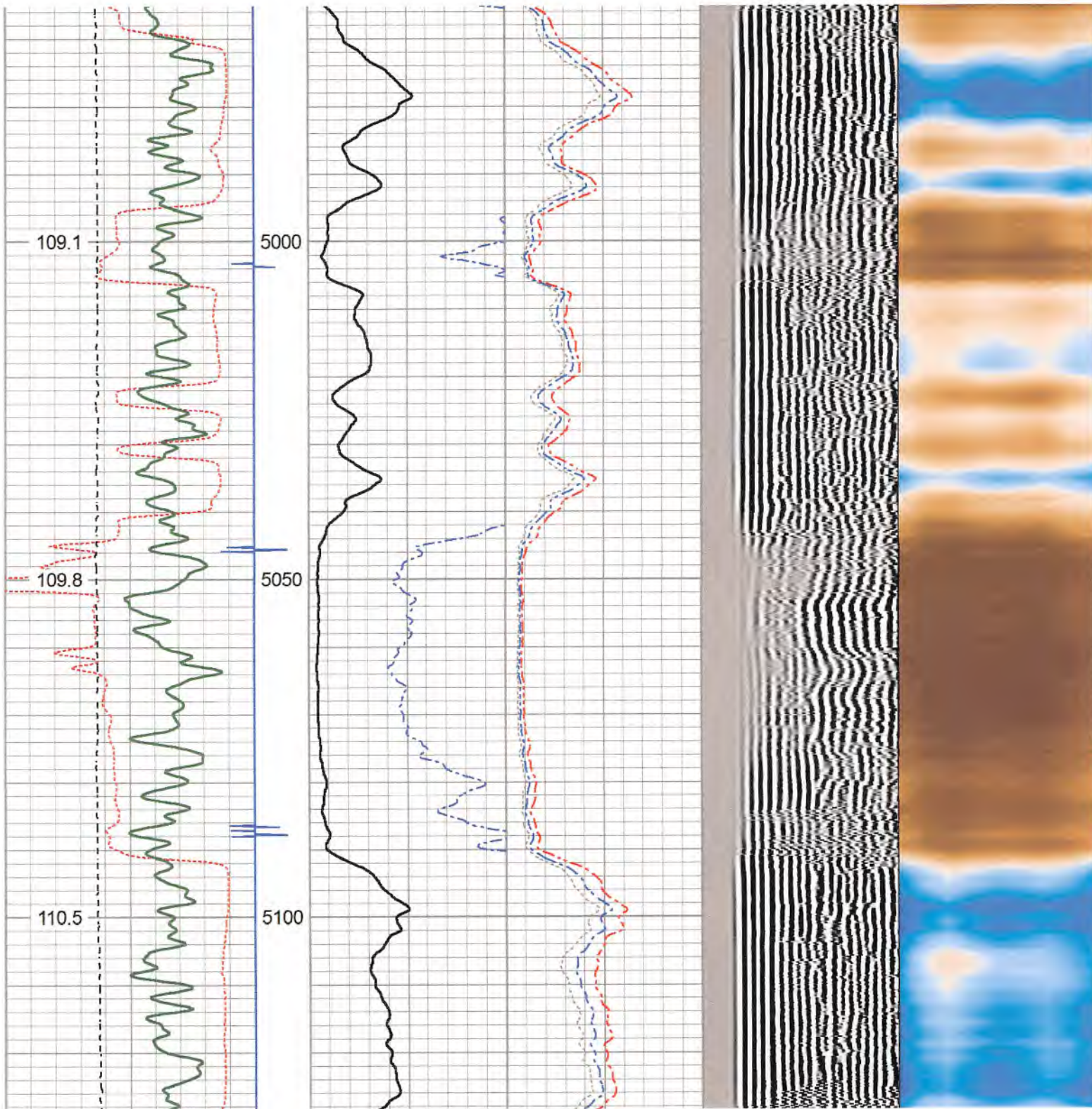


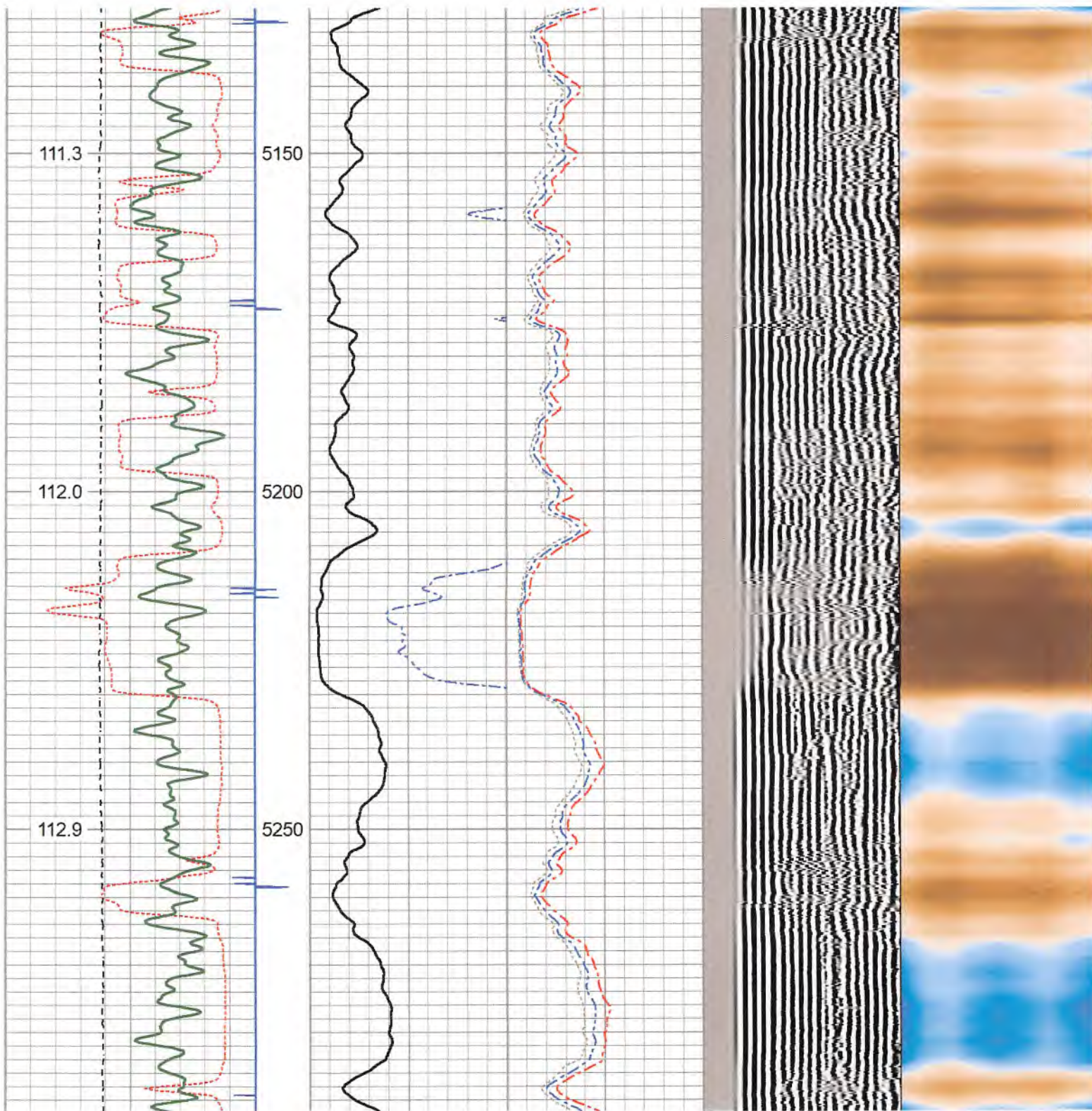


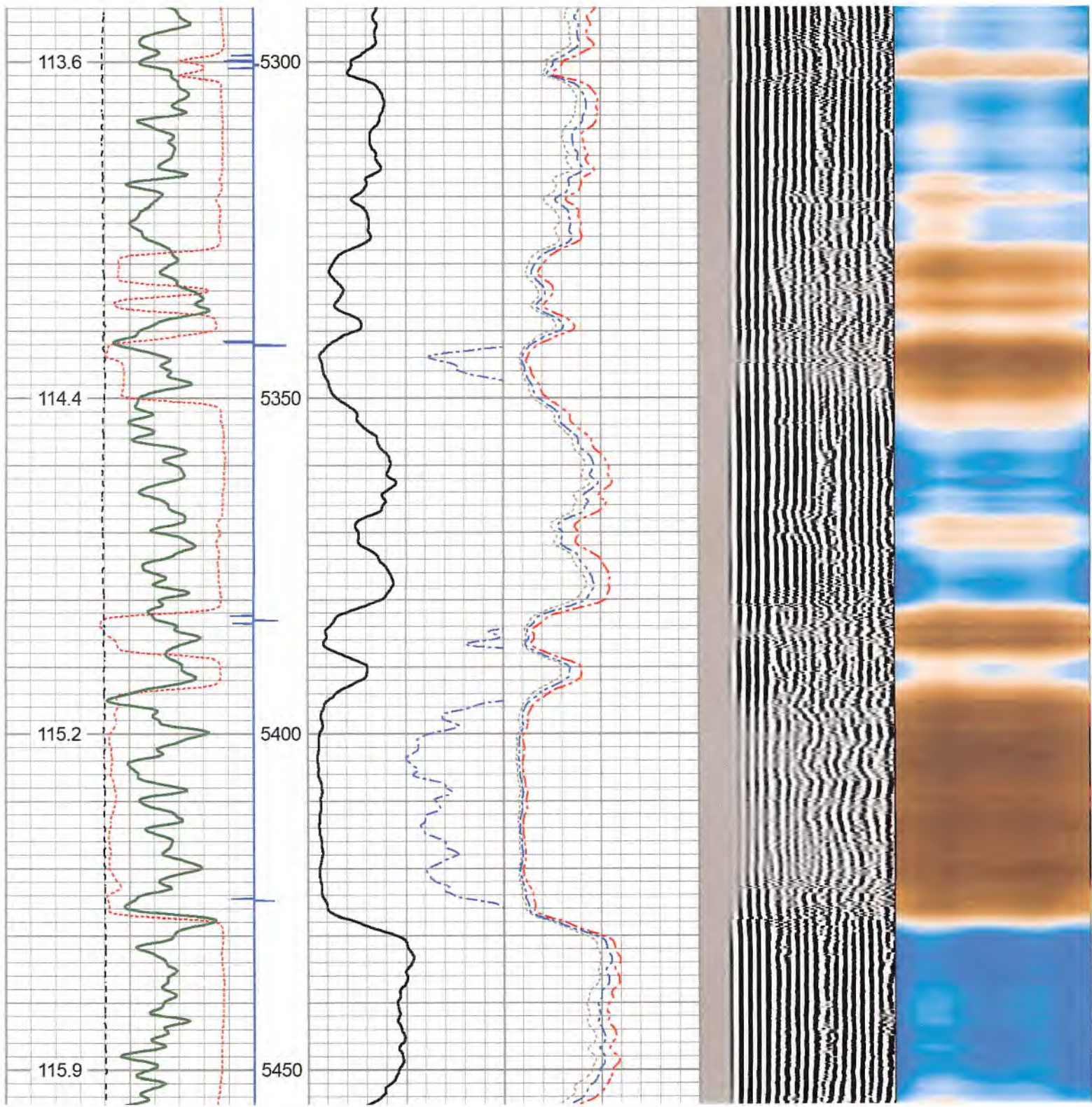


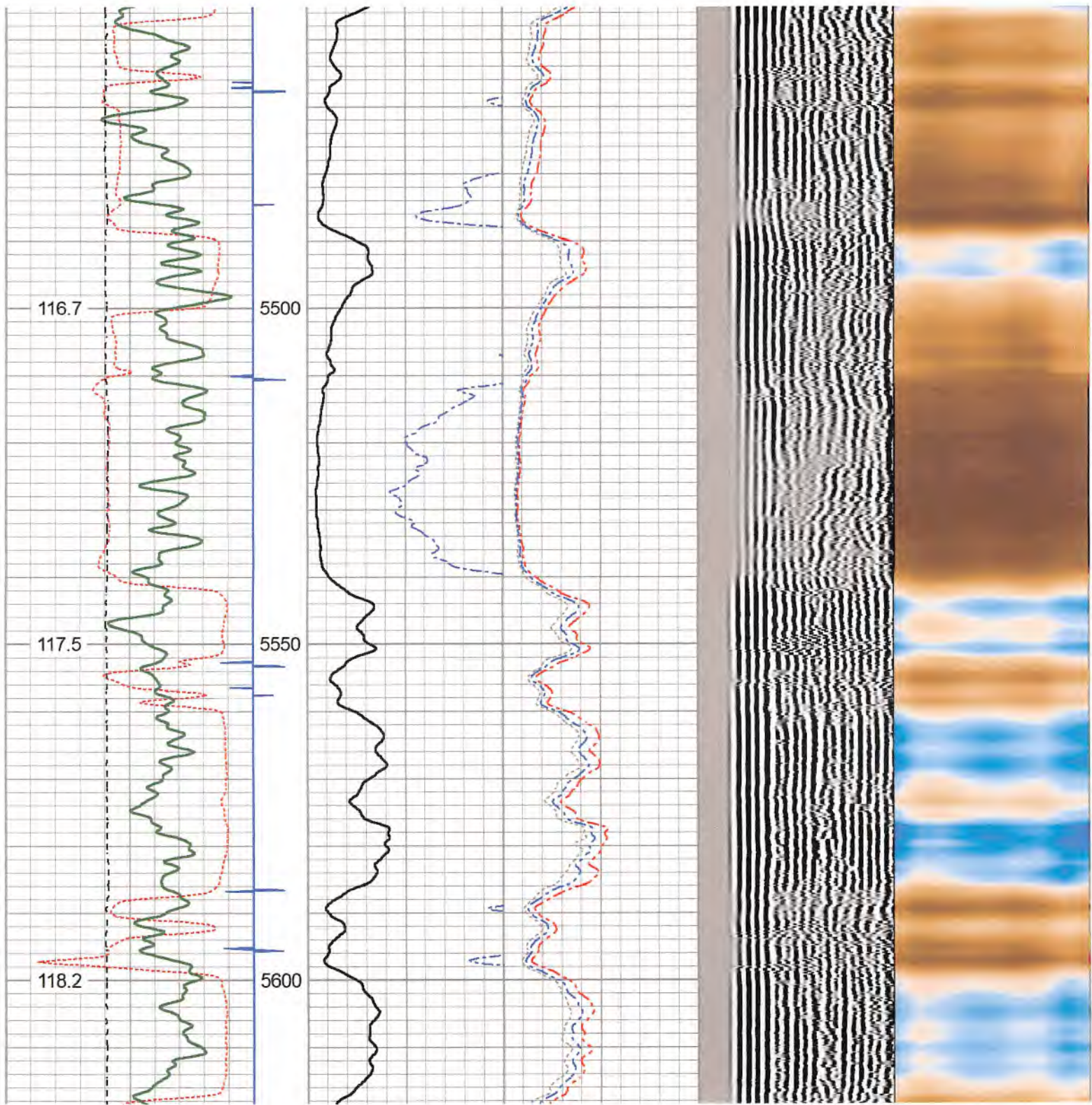


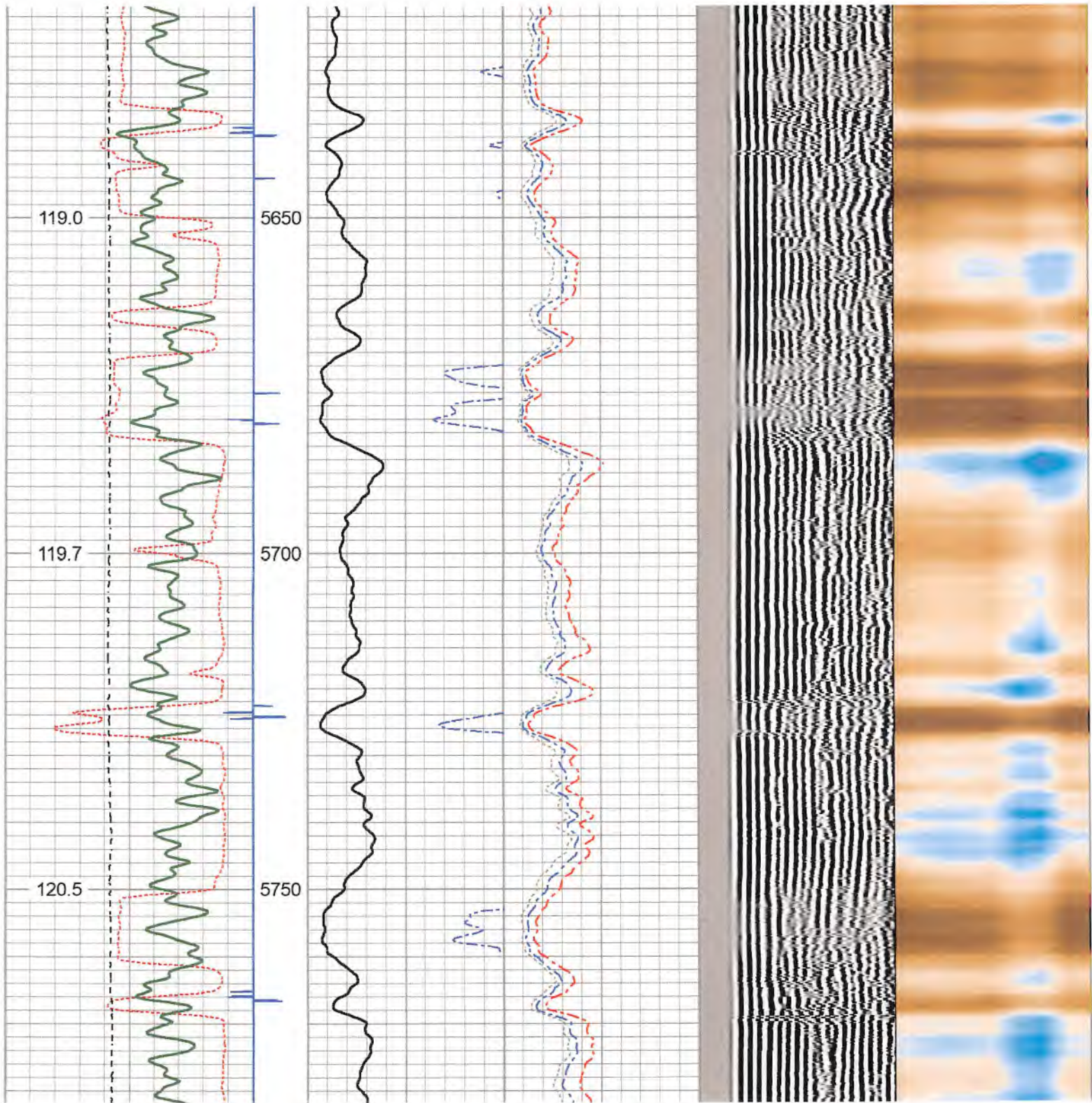


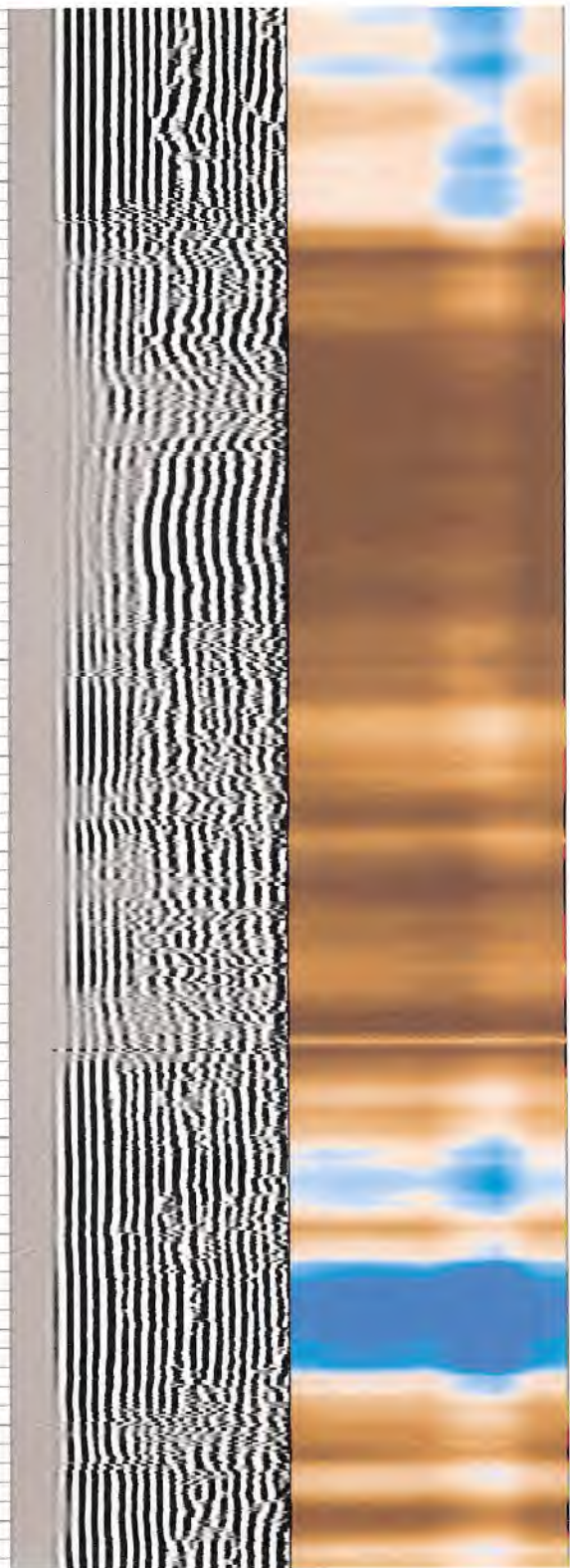
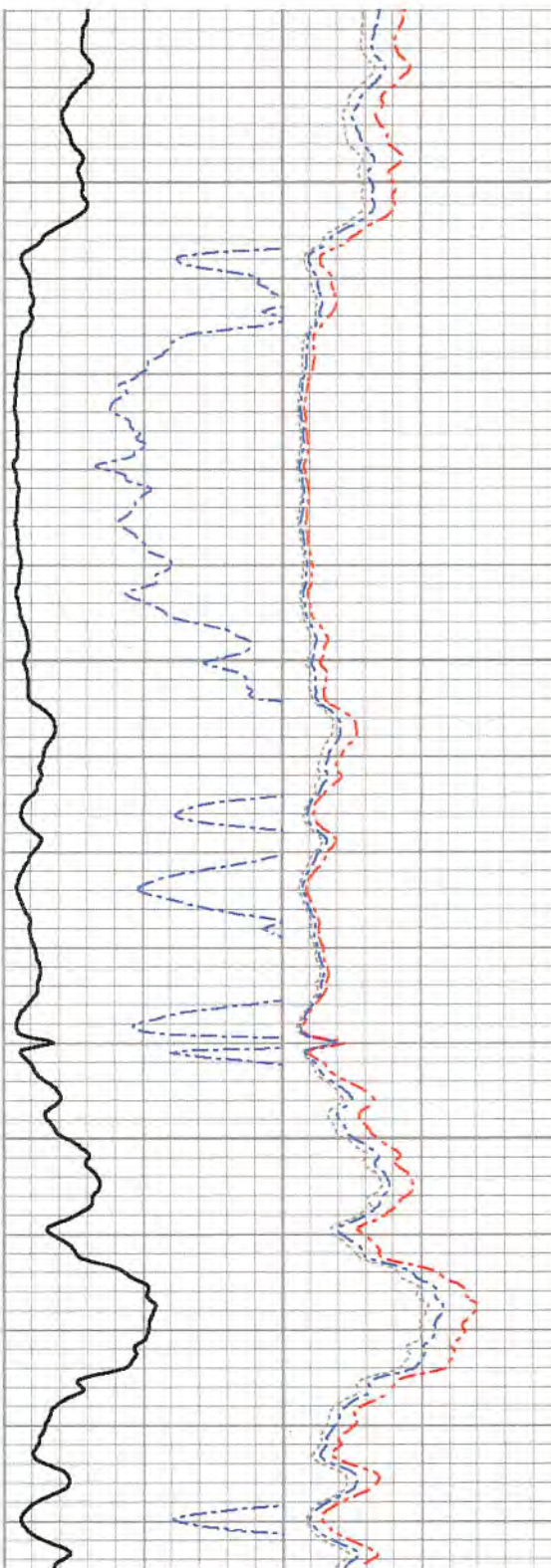
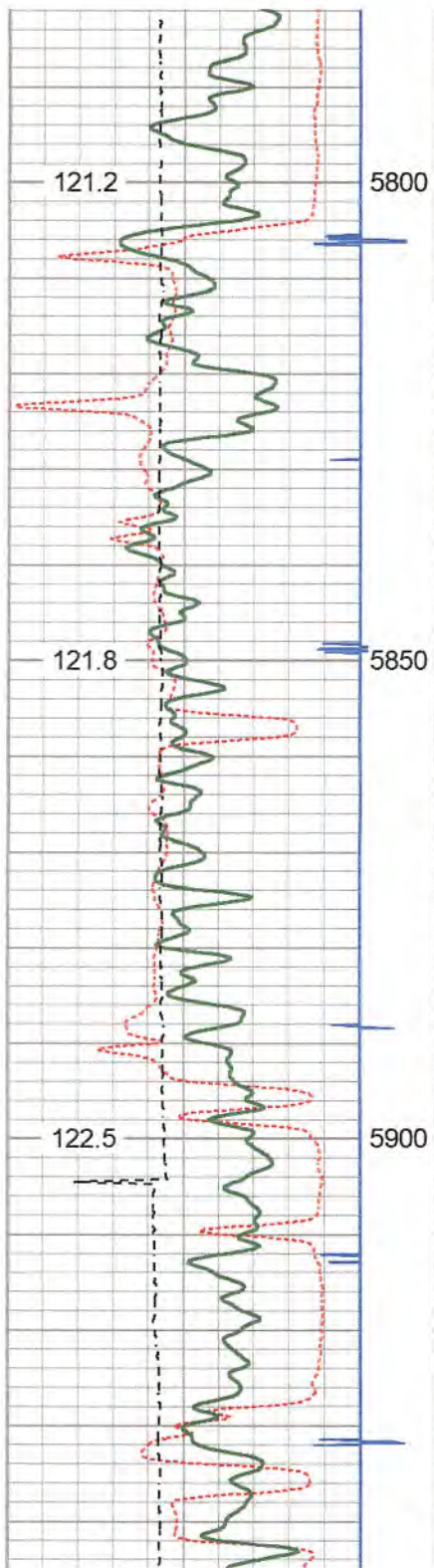


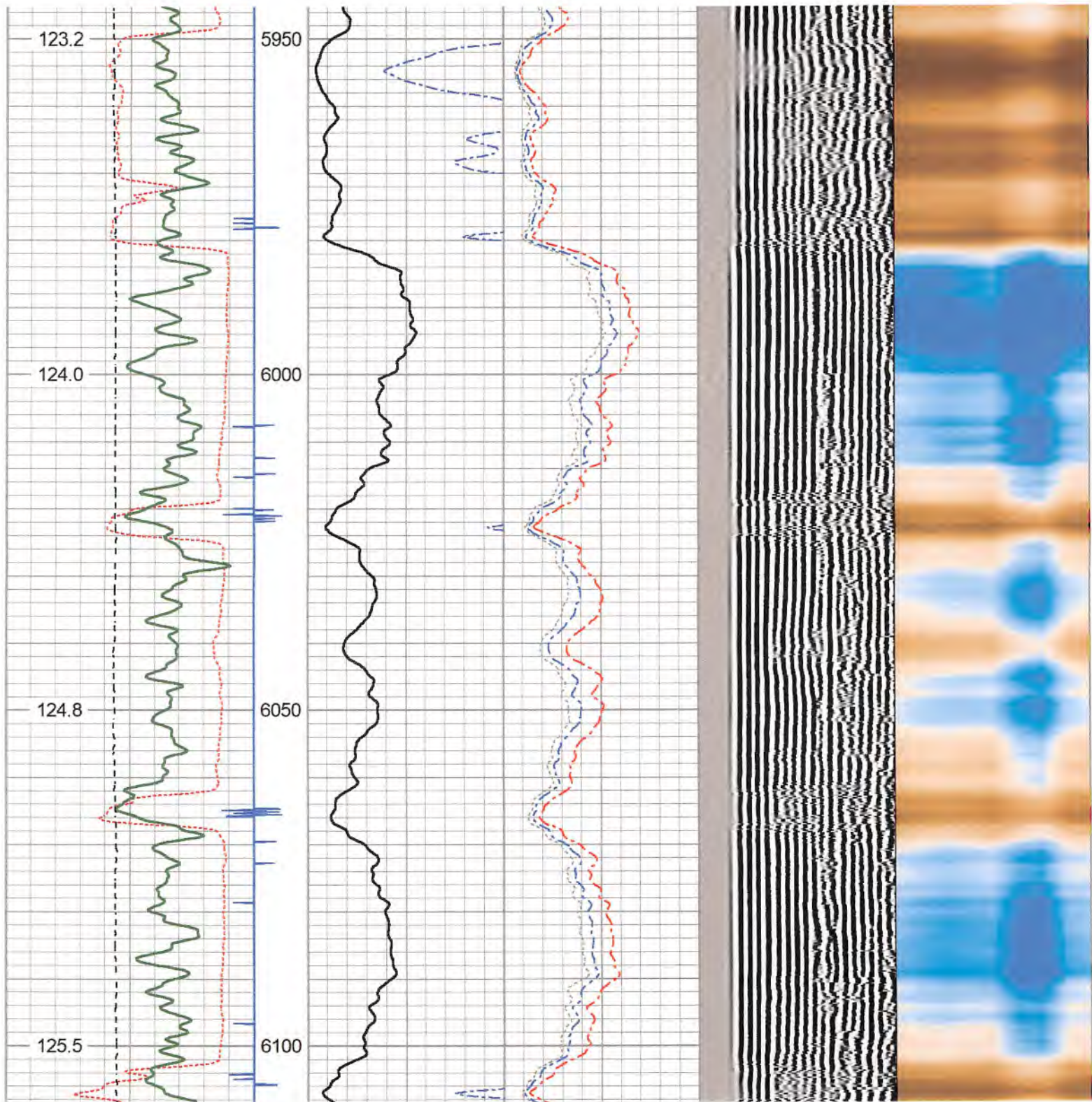


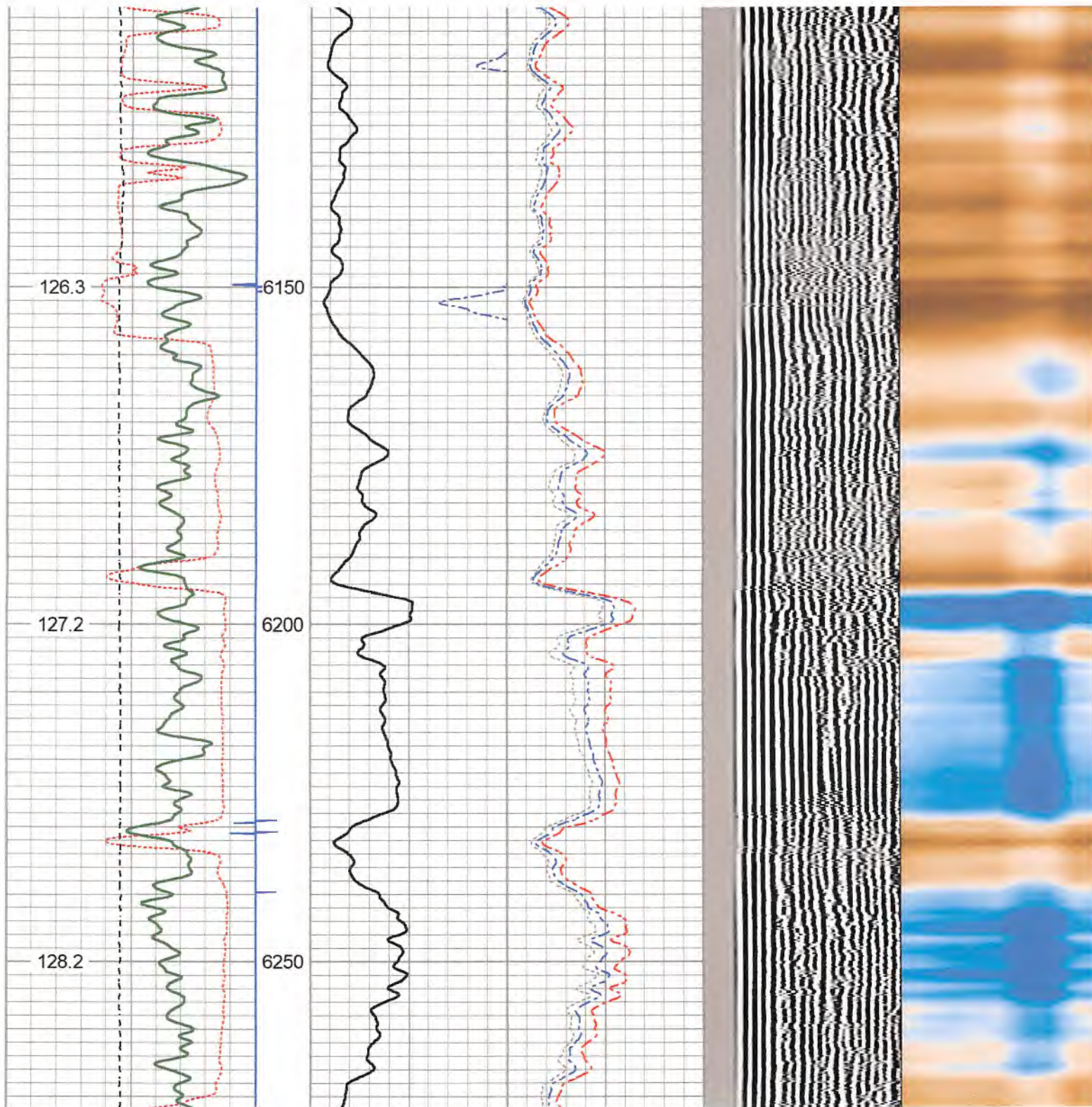


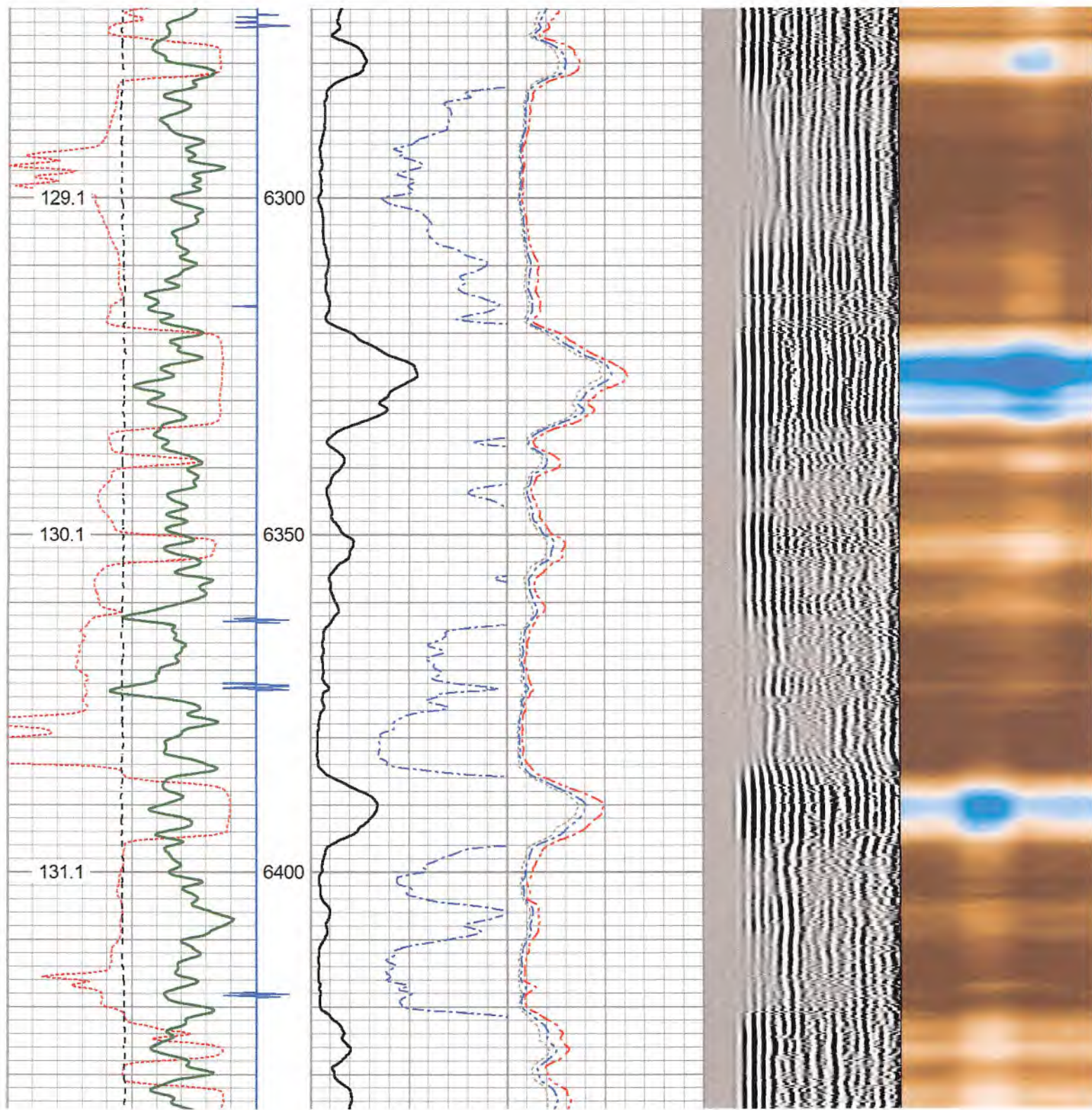


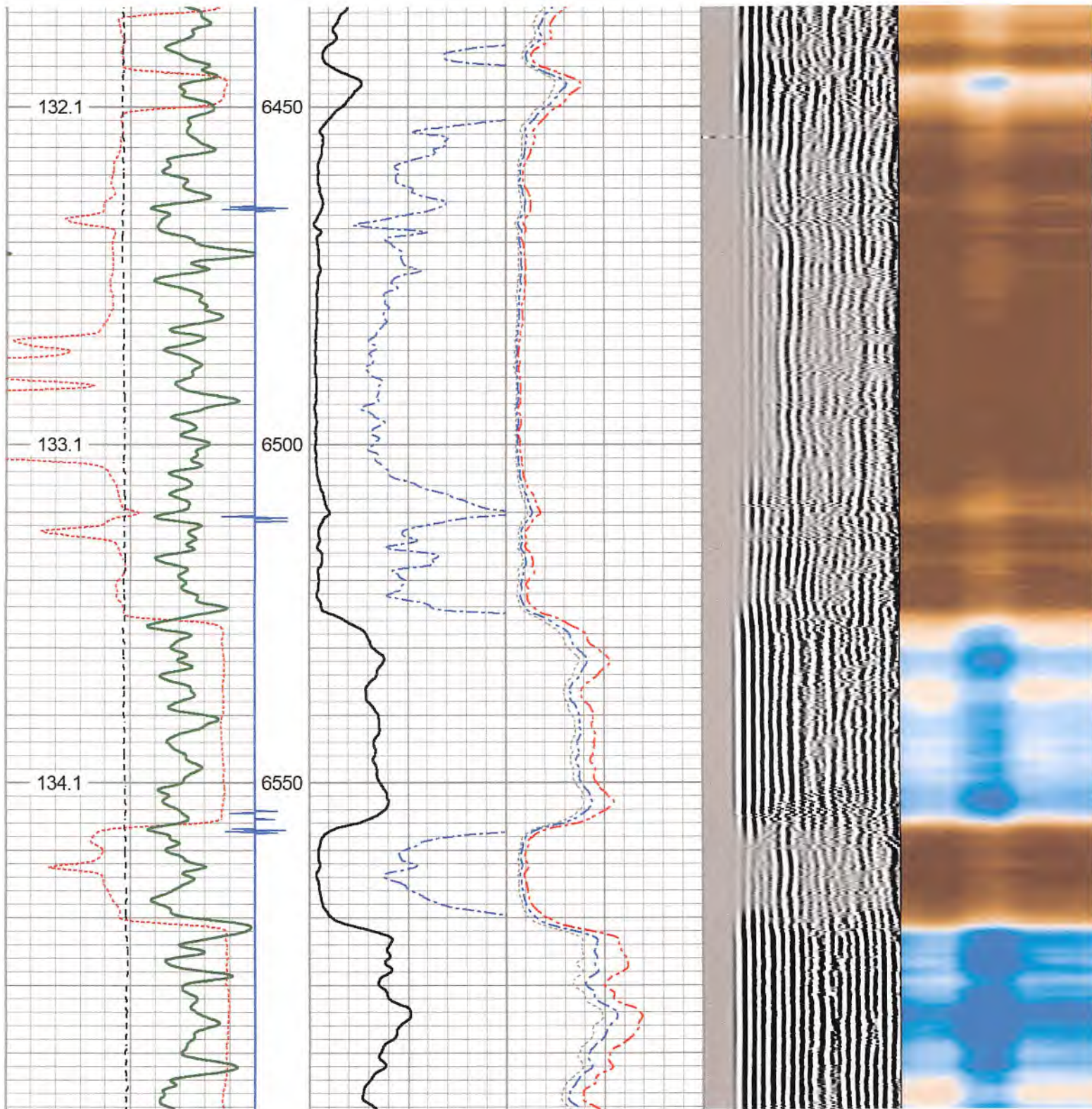


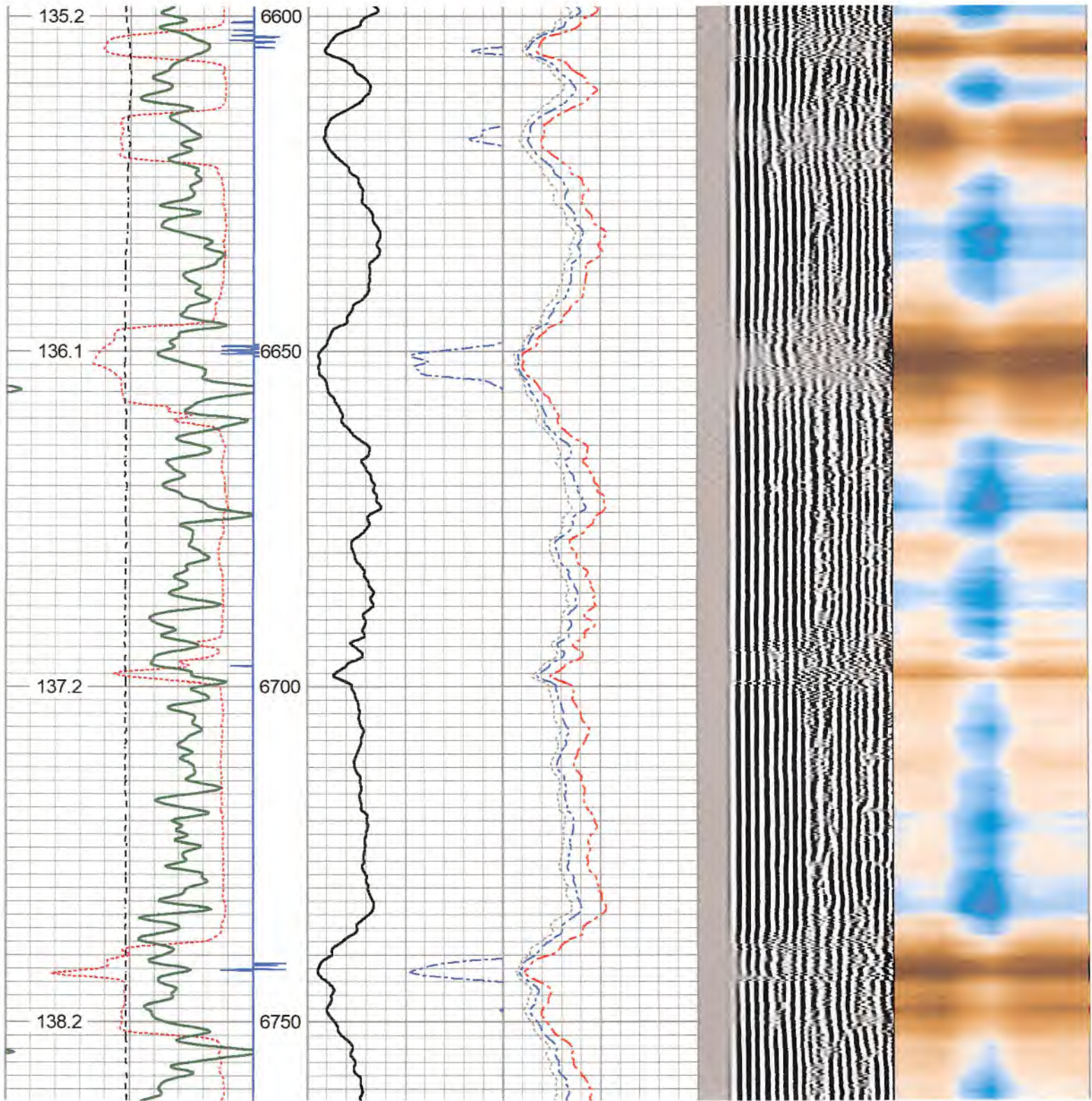


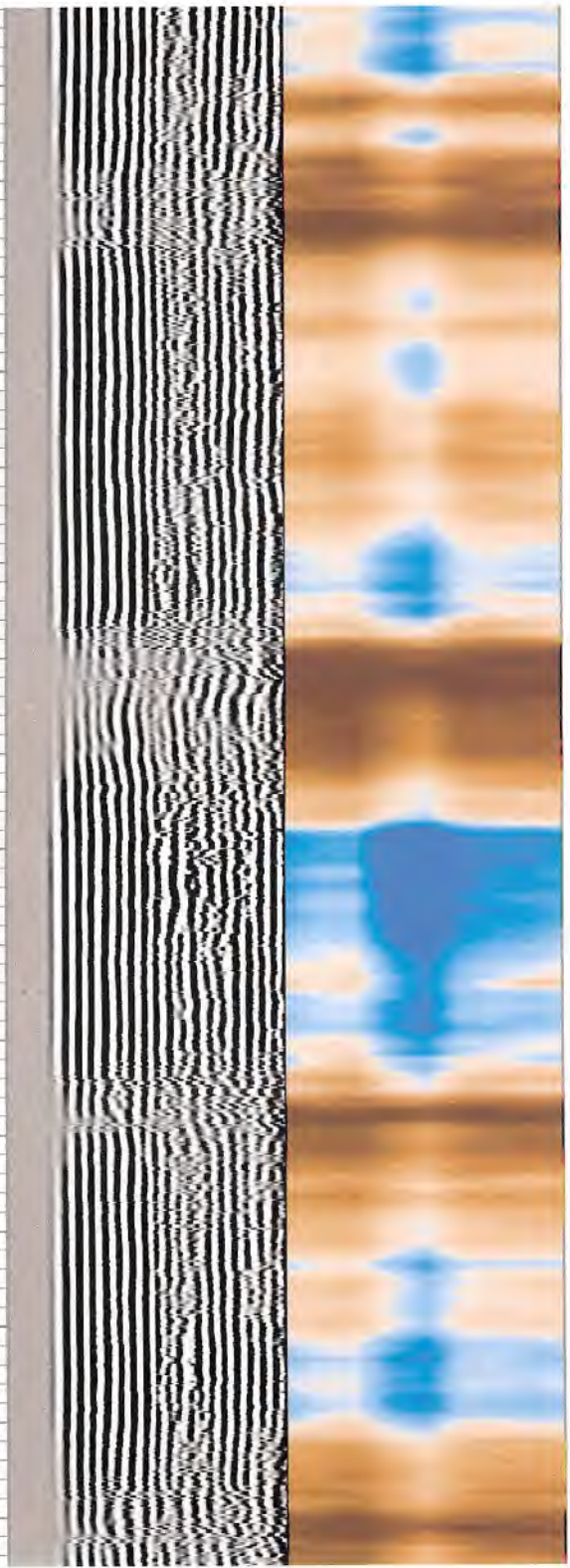
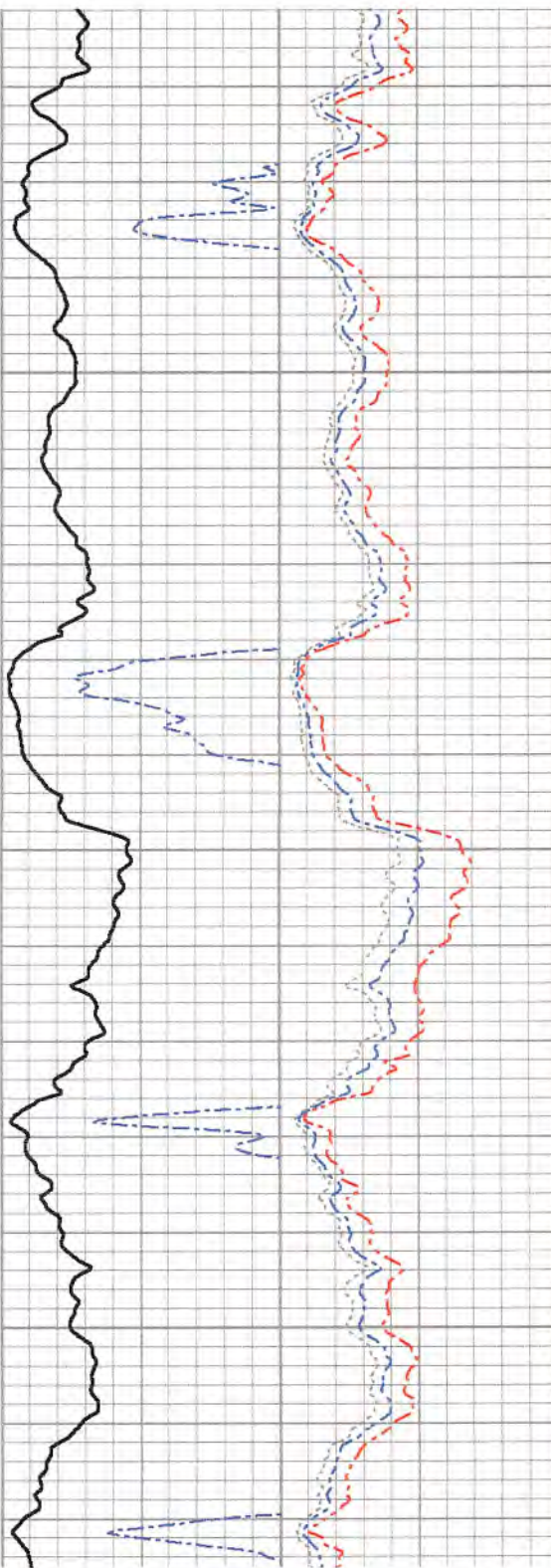
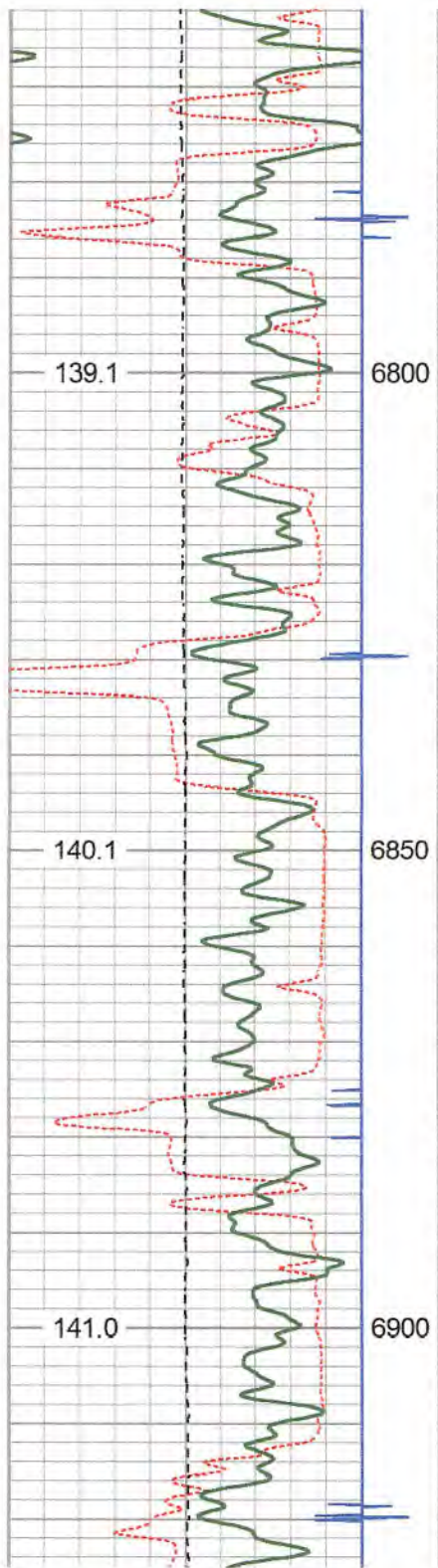


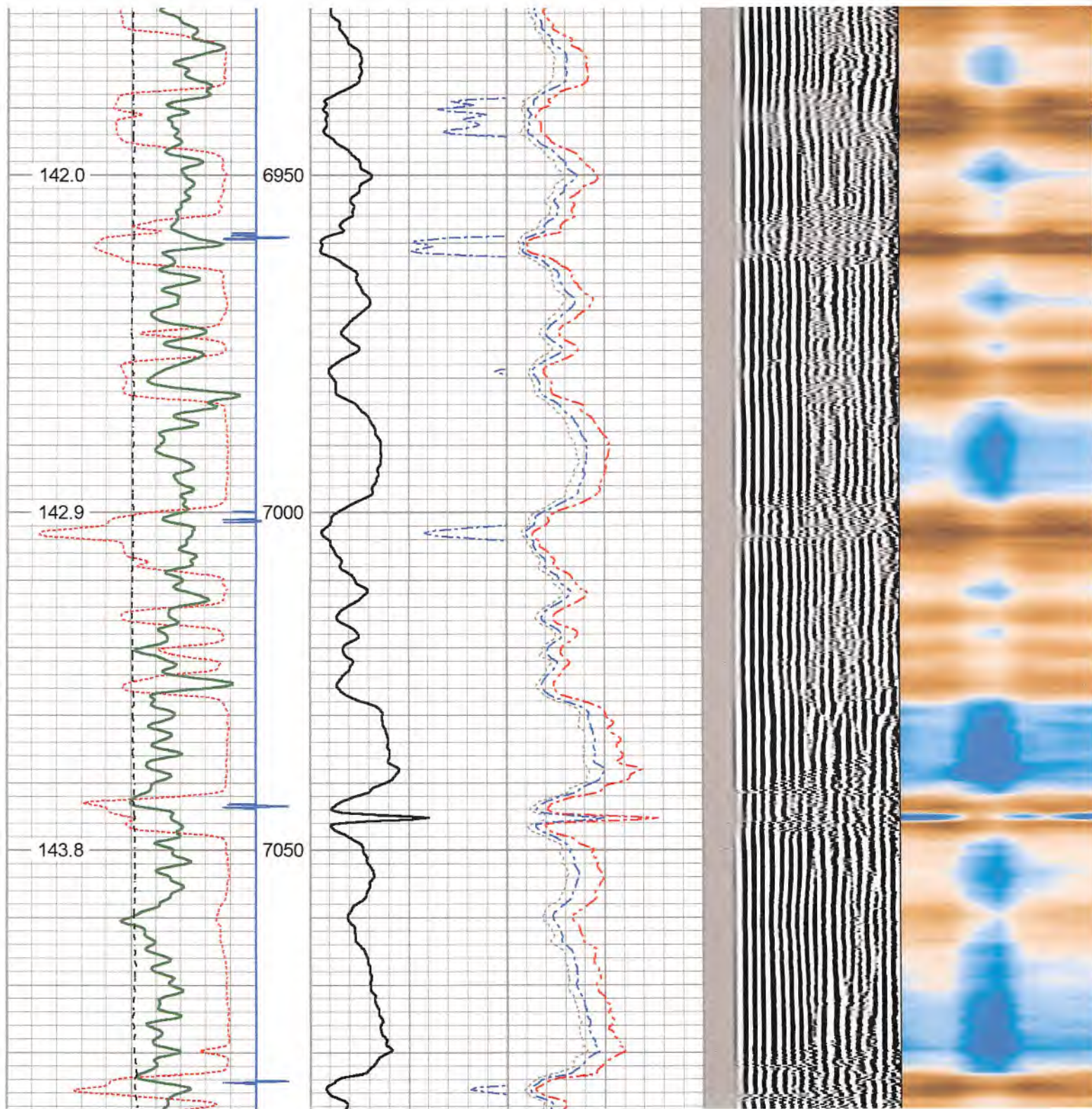


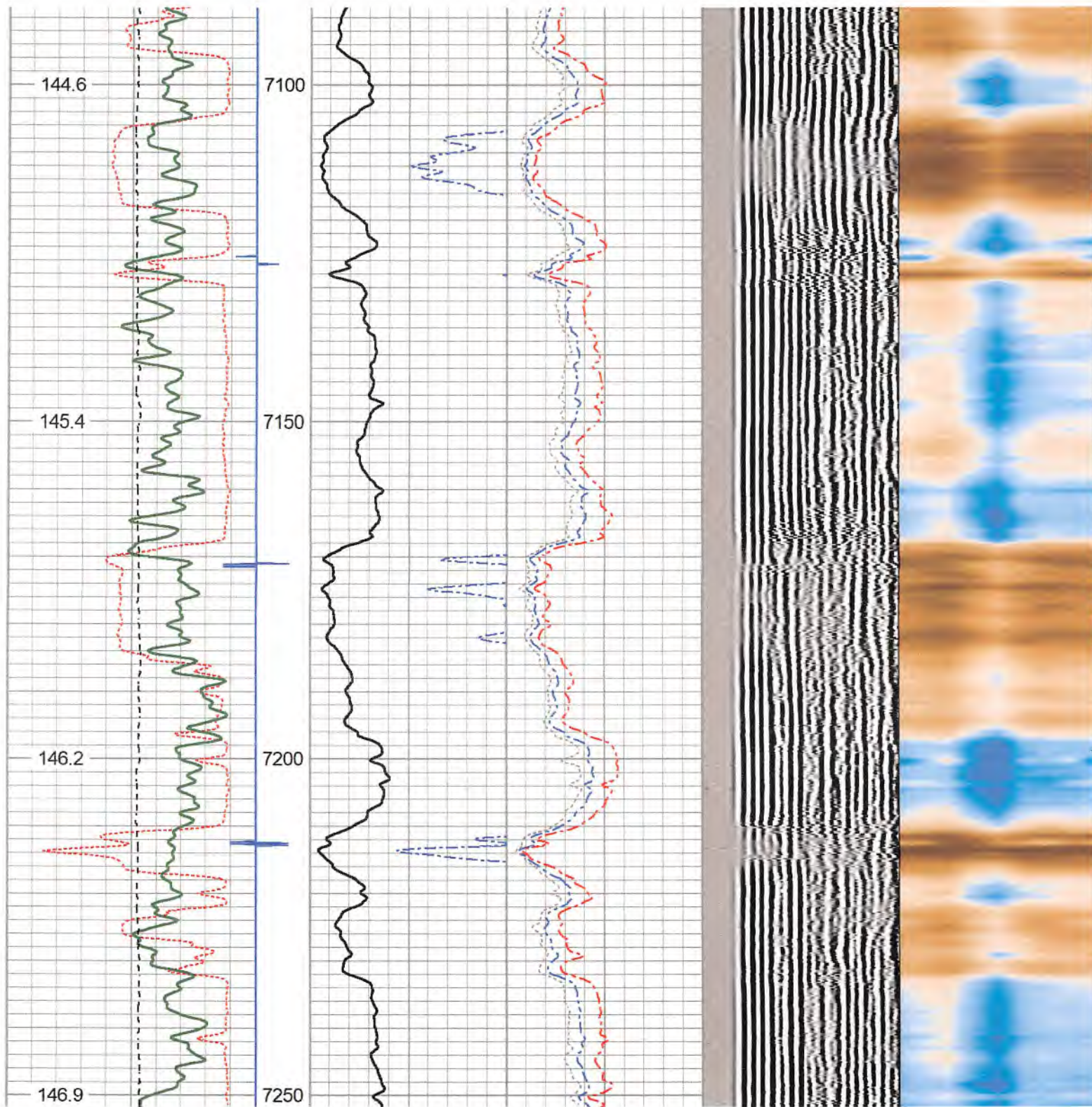


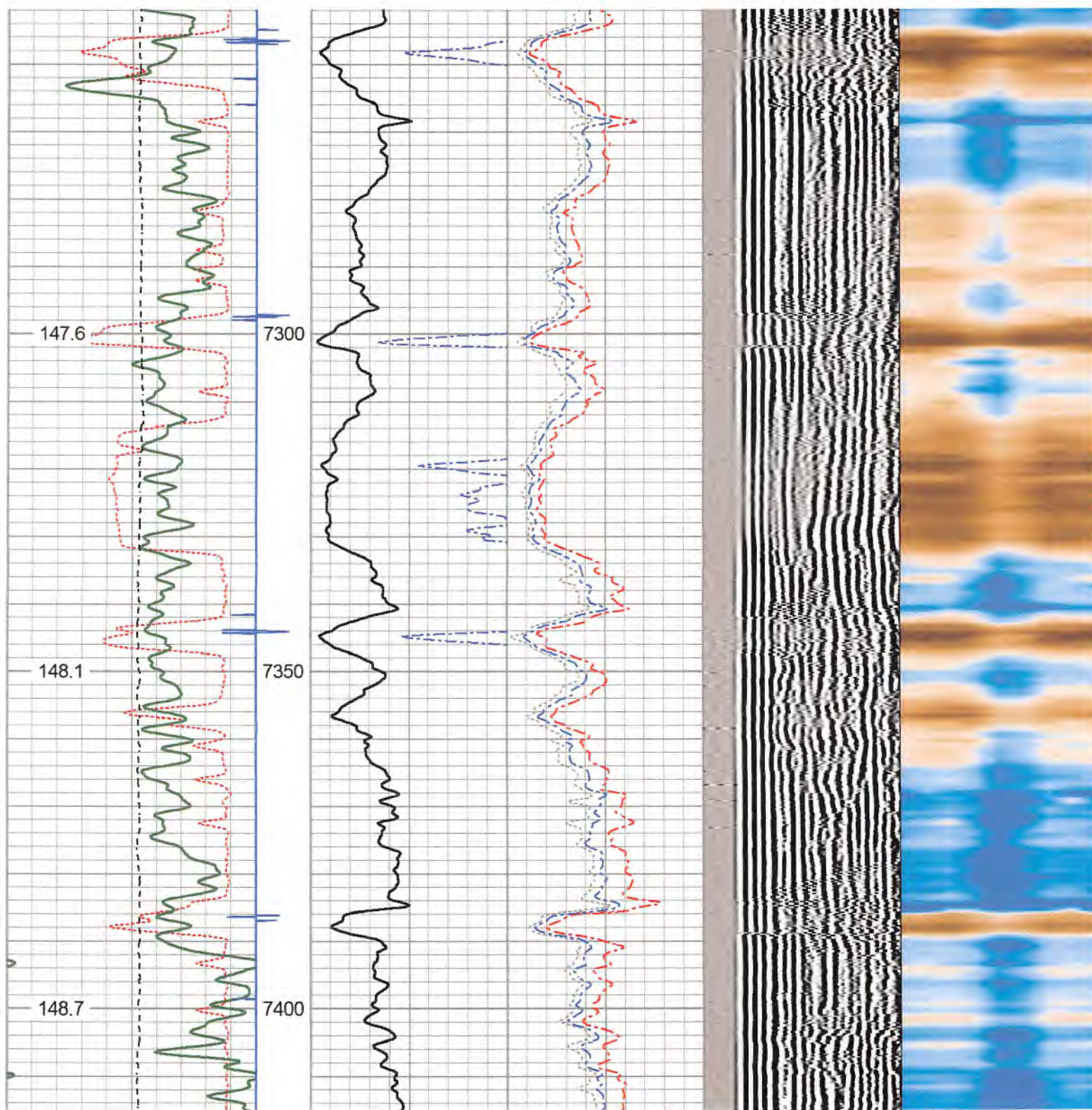


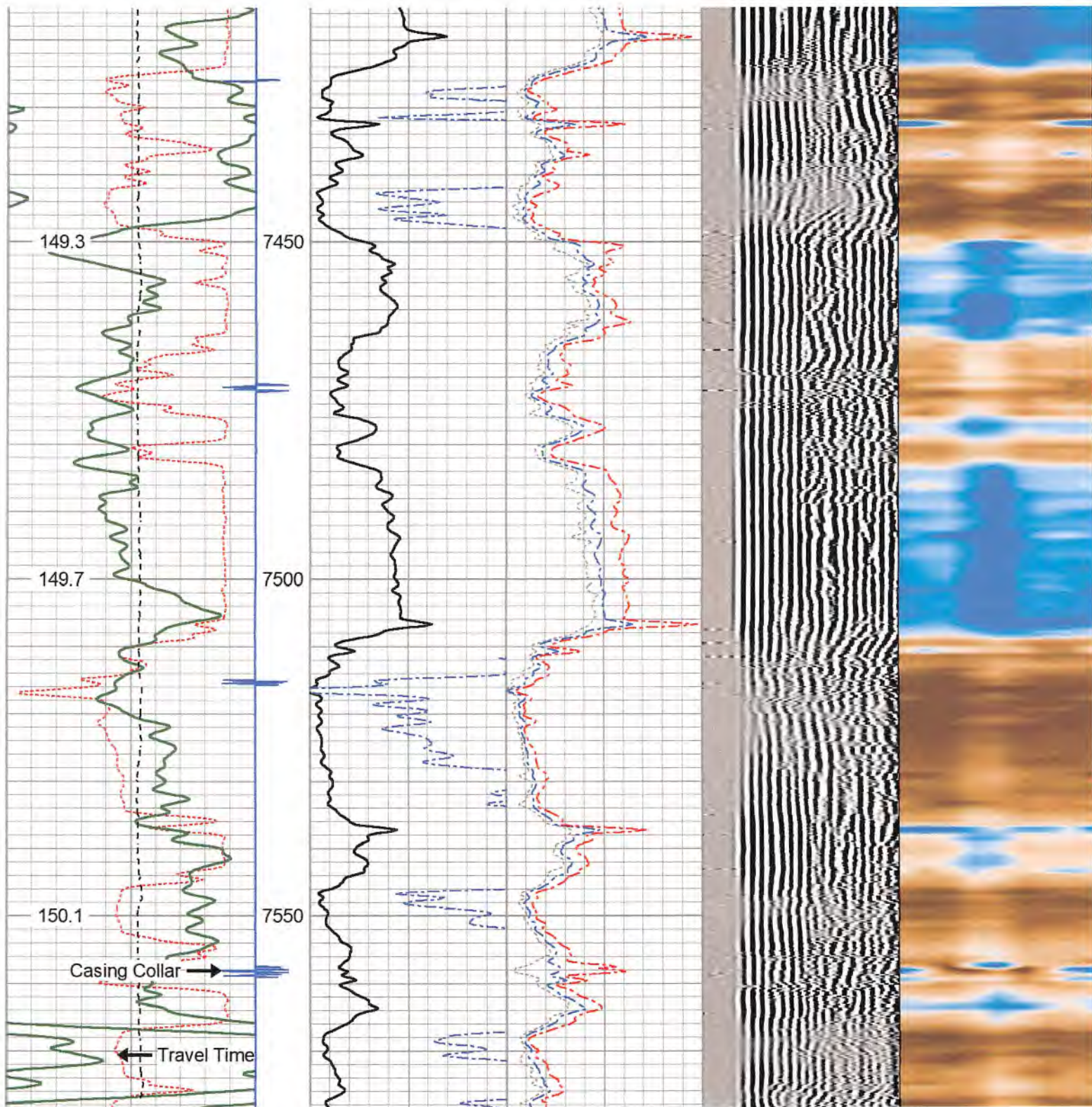


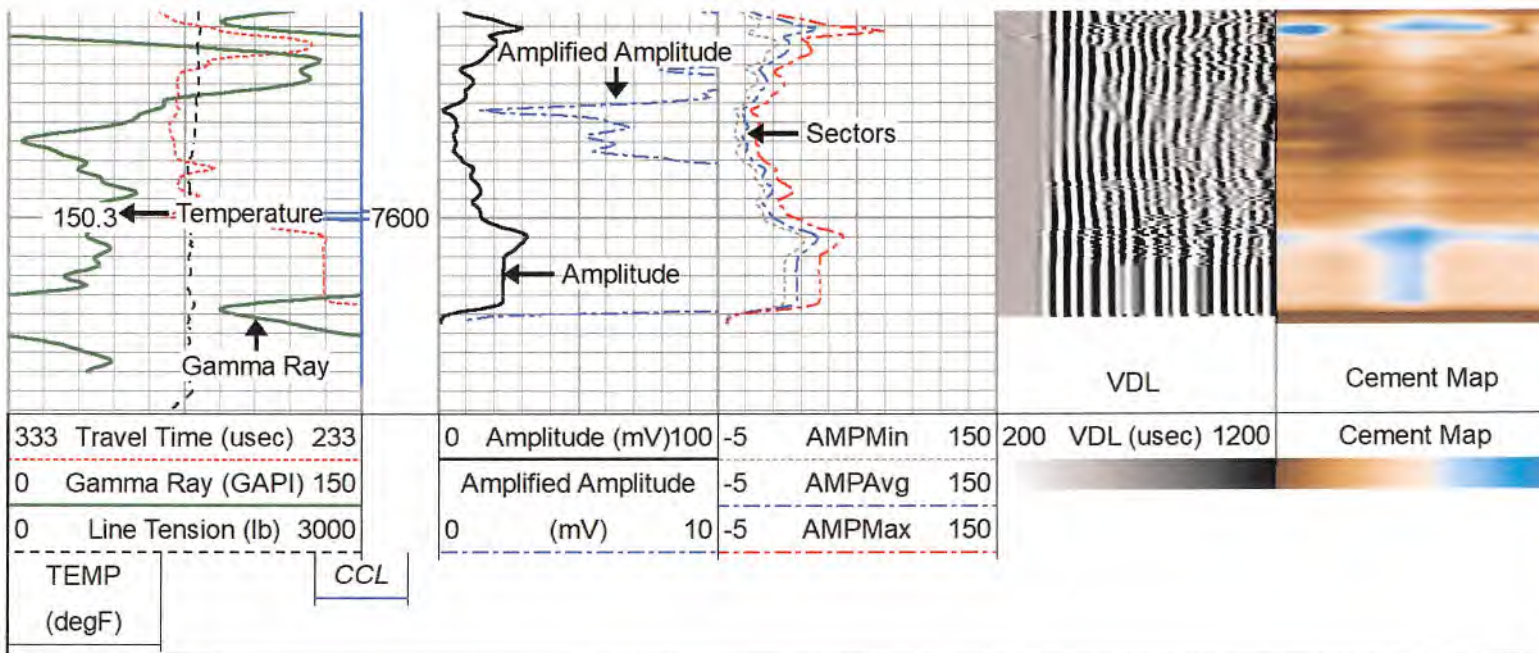








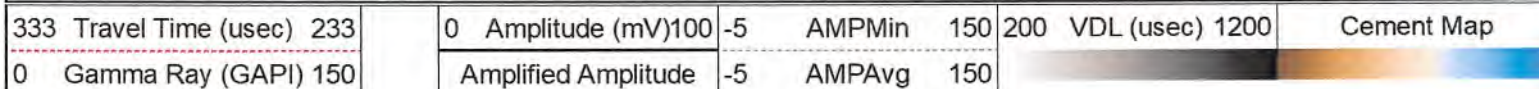




GR Energy Services

Repeat Pass (0 PSI)

Database File c:\users\logbox\desktop\lantero gaspar\ant_gaspar_mule_2h.db
 Dataset Pathname rcb/pass2
 Presentation Format tt_rcbl_std_bw
 Dataset Creation Sun Jul 17 15:28:37 2022
 Charted by Depth in Feet scaled 1:240

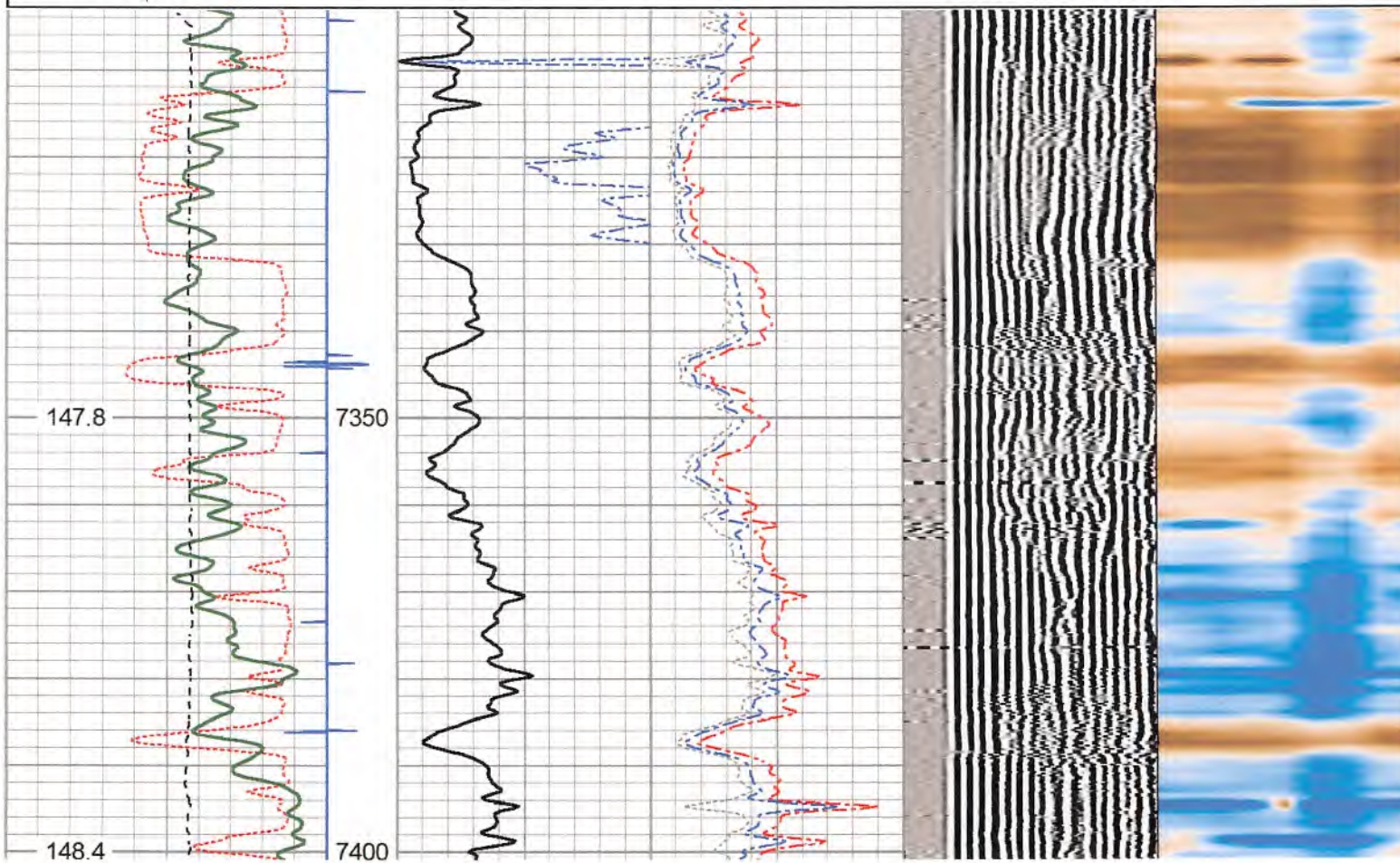


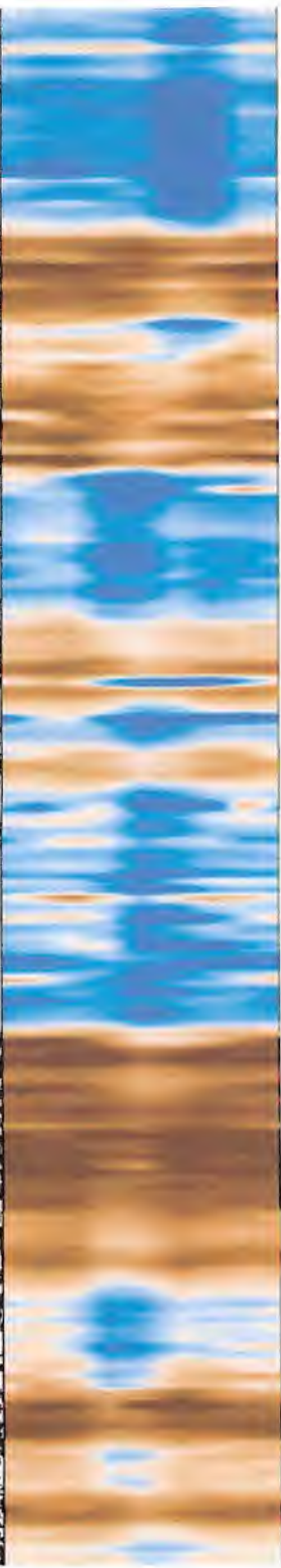
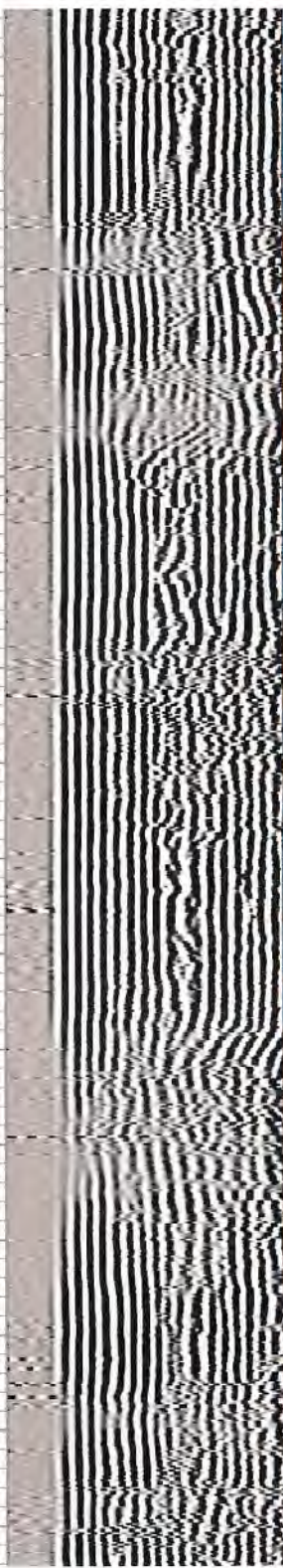
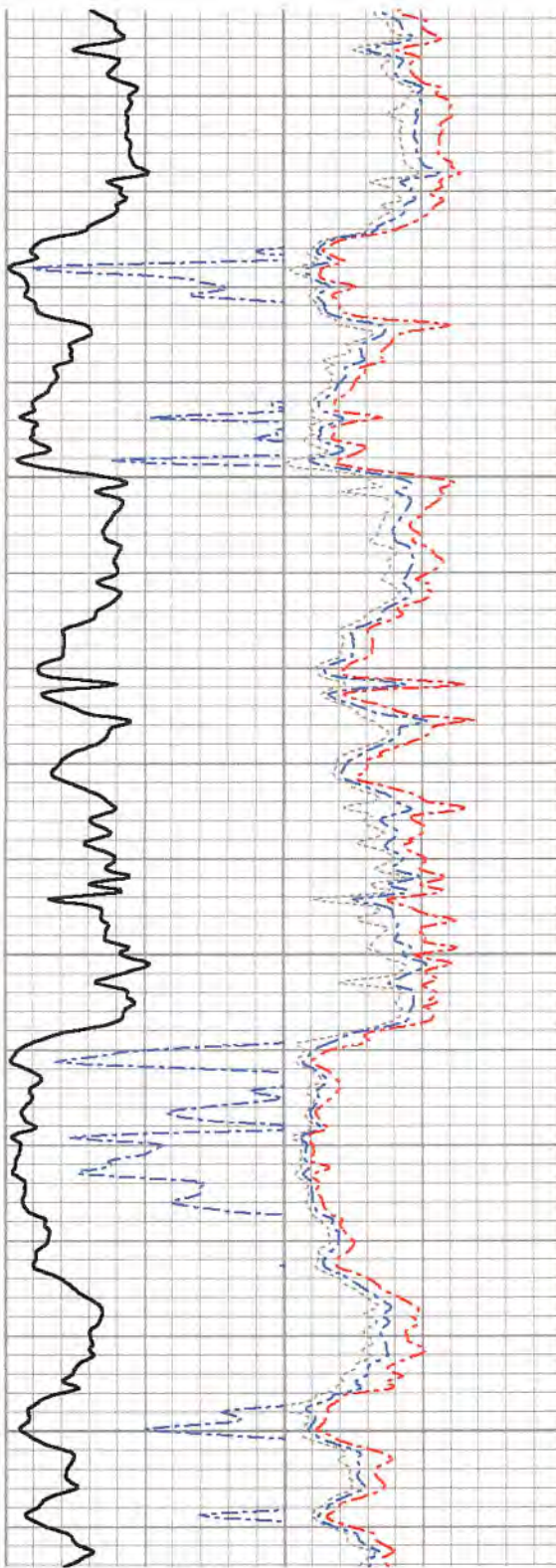
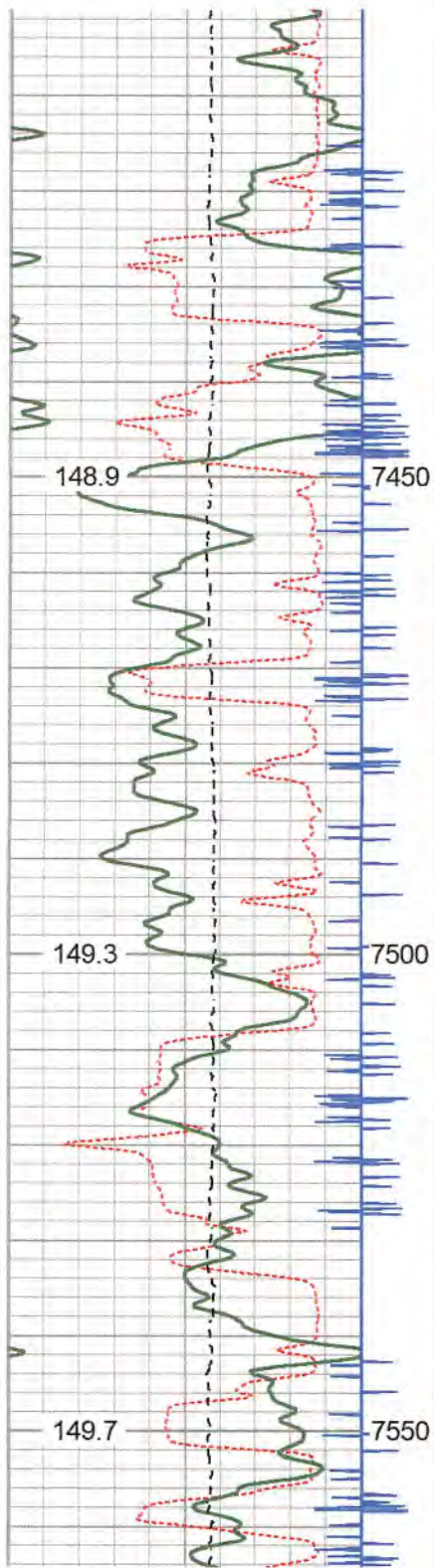
0 Line Tension (lb) 3000

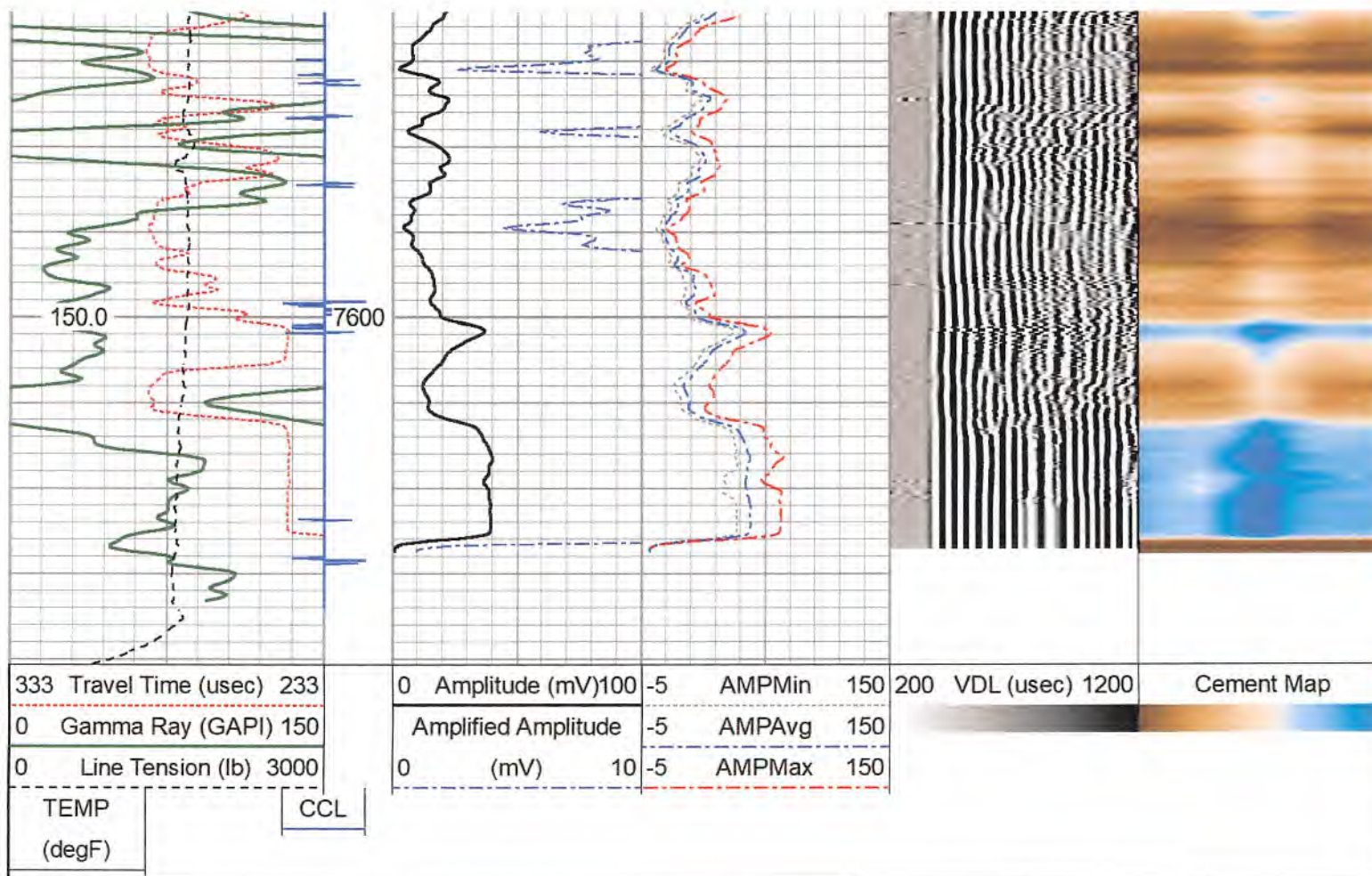
0 (mV) 10 -5 AMPMax 150

TEMP
(degF)

CCL







Log Variables

Database: \users\logbox\desktop\antero gaspar\ant_gaspar_mule_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
6.75	150.3	5	0.362	18	76	1	0.8
PERFS	PPT	SRFTEMP	TDEPTH				
No	uSec	degF	ft				
	362	76	7617				

Variable Description

BOREID : Borehole I.D.

CASEWGHT : Casing Weight

PERFS : Perforation Flag

BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness

MAXAMPL : Maximum Amplitude
MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation

PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Calibration Report

Database File c:\users\logbox\desktop\antero gaspar\ant_gaspar_mule_2h.db
Dataset Pathname rcbl/pass4
Dataset Creation Sun Jul 17 15:35:08 2022

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: 5.000 in
Calibration Depth: 320.292 ft

Master Calibration, performed Sun Jul 17 09:21:56 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.601	1.000	75.921	124.777	0.942
CAL	-0.000	0.866				
5'	0.000	0.568	1.000	75.921	131.851	0.982
SUM						
S1	-0.005	0.636	0.000	100.000	156.106	0.720
S2	0.002	0.634	0.000	100.000	158.147	-0.239
S3	0.001	0.601	0.000	100.000	166.779	-0.208
S4	-0.000	0.567	0.000	100.000	176.373	0.022
S5	0.000	0.556	0.000	100.000	179.854	-0.024
S6	0.001	0.572	0.000	100.000	175.114	-0.201
S7	-0.000	0.594	0.000	100.000	168.176	0.053
S8	0.000	0.651	0.000	100.000	153.693	-0.047

Internal Reference Calibration, performed Sat Jul 16 09:45:49 2022:


	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.000	0.866	1.000	0.000

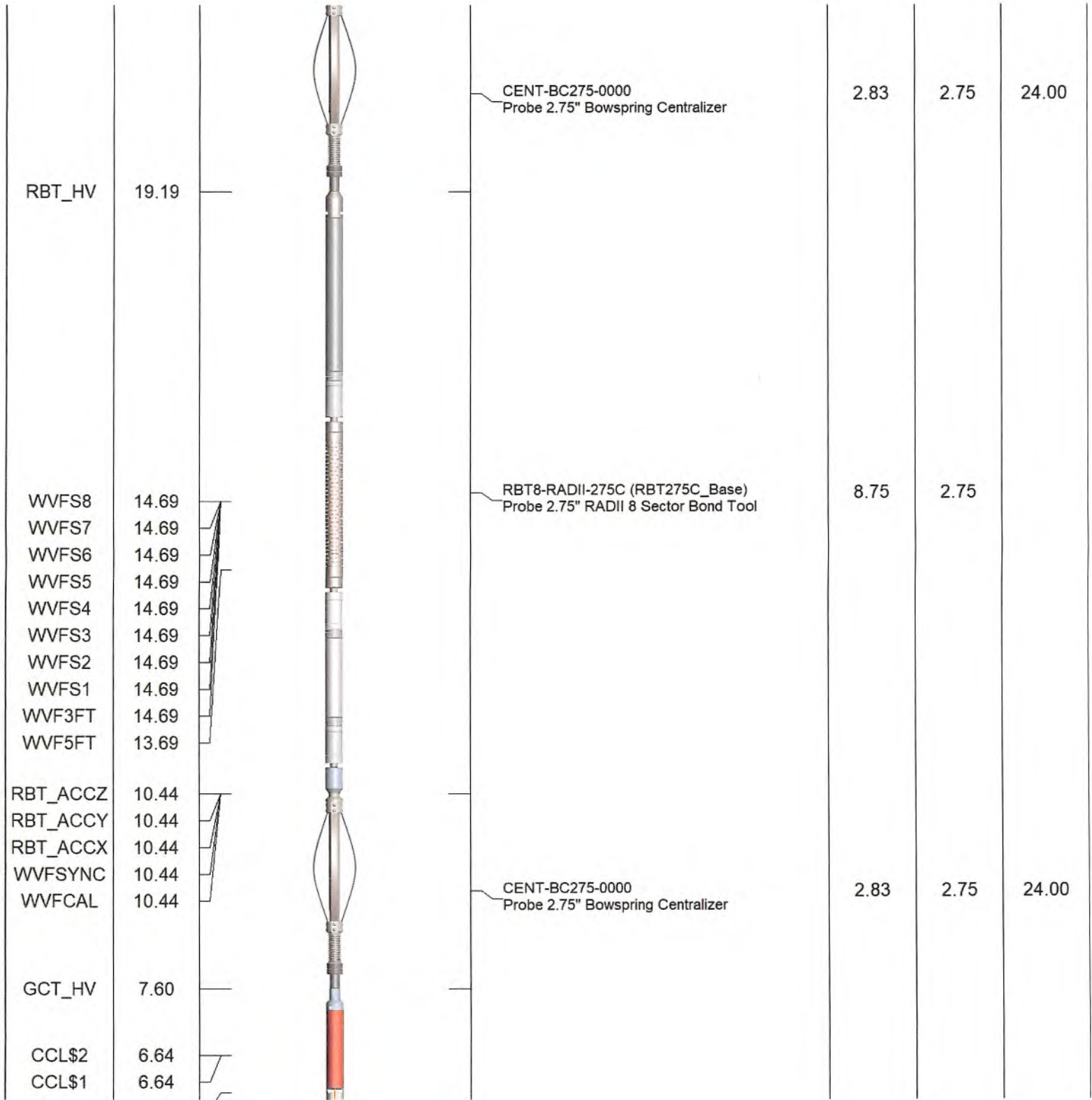
Air Zero Calibration, performed Sun Jul 17 08:48:10 2022:

	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	

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



RBT_HV 19.19

CENT-BC275-0000
Probe 2.75" Bowspring Centralizer

2.83 2.75 24.00

WVFS8 14.69
WVFS7 14.69
WVFS6 14.69
WVFS5 14.69
WVFS4 14.69
WVFS3 14.69
WVFS2 14.69
WVFS1 14.69
WVF3FT 14.69
WVF5FT 13.69

RBT8-RADII-275C (RBT275C_Base)
Probe 2.75" RADII 8 Sector Bond Tool

8.75 2.75


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

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	55.00
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
Dataset: ant_gaspar_mule_2h.db: field/well/rcbl/pass4 Total length: 23.04 ft Total weight: 130.31 lb O.D.: 2.75 in						

	Company	Antero Resources Corporation		
	Well	Mule Unit 2H		
	Field	South Canton		
	County	Doddridge		
	State	WV	Country	USA