



PIONEER

Pioneer Energy Services

**RADIAL BOND LOG
WITH GAMMA RAY**

Company		VERDAD RESOURCES			
Well		TIMBRO 9-59 #8B-9-4			
Field		WILDCAT			
County		WELD		State	
State		COLORADO			
Location:		API # : 05-123-47581		Other Services	
SEC 8		TWP 9N		RGE 59W	
Permanent Datum		GL		Elevation 5045'	
Log Measured From		KB 24'		Above Perm. Datum	
Drilling Measured From		KB		K.B. 5069'	
				D.F. N/A	
				G.L. 5044'	
Date of Service		06 JULY 2019			
Run Number		ONE			
Depth Driller or P8TD		16242'			
Depth Logger		6430'			
Bottom Log Interval		6430'			
Top Log Interval		SURFACE			
Open Hole Size		8.5"			
Type Fluid		WATER			
Fluid Level		FULL			
Fluid Density		N/A			
Max. Recorded Temperature		N/A			
Max. Wellhead Pressure		ZERO			
Wellhead Connection		5.125" 10K			
Estimated Cement Top		2660'			
Unit Number		P-57			
Wireline Size		9/32"			
Location		FORT MORGAN			
Recorded By		SCHOENROGGE			
Witnessed By		MR. DAMIRON			
Size		Wt/Ft		Top	
Bottom					
Tubing Record					
Surface Casing		9.625"		36#	
Production Casing		5.5"		20#	
Liner Record					

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
CORRELATED TO CUSTOMER MARKER JOINT

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew		Tool Data - Services	Serial Number
Engineer: SCHOENROGGE Operator: COOPER Operator: YUNG Operator:		SEE DIAGRAM PLUS OVERBODIES	



Top - Bottom

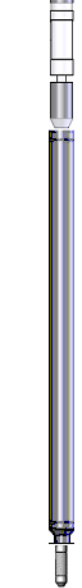
BOREID in 8.5	BOTTEMP degF 200	CASEOD in 5.5	CASETHCK in 0.361	CASEWGHT lb/ft 20	MAXAMPL mV 71.9	MINAMPL mV 2.2
MINATTN db/ft 0.8	PERFS 0	PPT usec 261	SRFTEMP degF 50	TDEPTH ft 6500		


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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CCL	13.13		Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00
			CCL_Logging-275 TekCo_2 (TekCo-275) 2 3/4"	1.83	2.75	15.00
WVFS8	7.88		PROBE-RBT-DIGITAL-RBL-DC (FW1304-38.75) Probe 2 3/4" Radii Bond-Corrosion Package	38.75	2.75	100.00
WVFS7	7.88					
WVFS6	7.88					
WVFS5	7.88					
WVFS4	7.88					
WVFS3	7.88					
WVFS2	7.88					
WVFS1	7.88					
WVFCAL	7.88					
WVF3FT	7.88					
WVF5FT	6.88					

HEADVOLT	3.69					
			GR-275 Probe (080630) Probe 2.75" Gamma Ray	3.36	2.75	40.00
GR	1.15					
			Bullnose-PROBE Probe Go Pin Pressure Cap	0.33	1.38	1.00
Dataset: verdad_timbro9-59#8b-9-4_0512347581_20190706_scbl.db: field/well/run1/pass7						
Total length: 15.31 ft						
Total weight: 158.00 lb						
O.D.: 2.75 in						

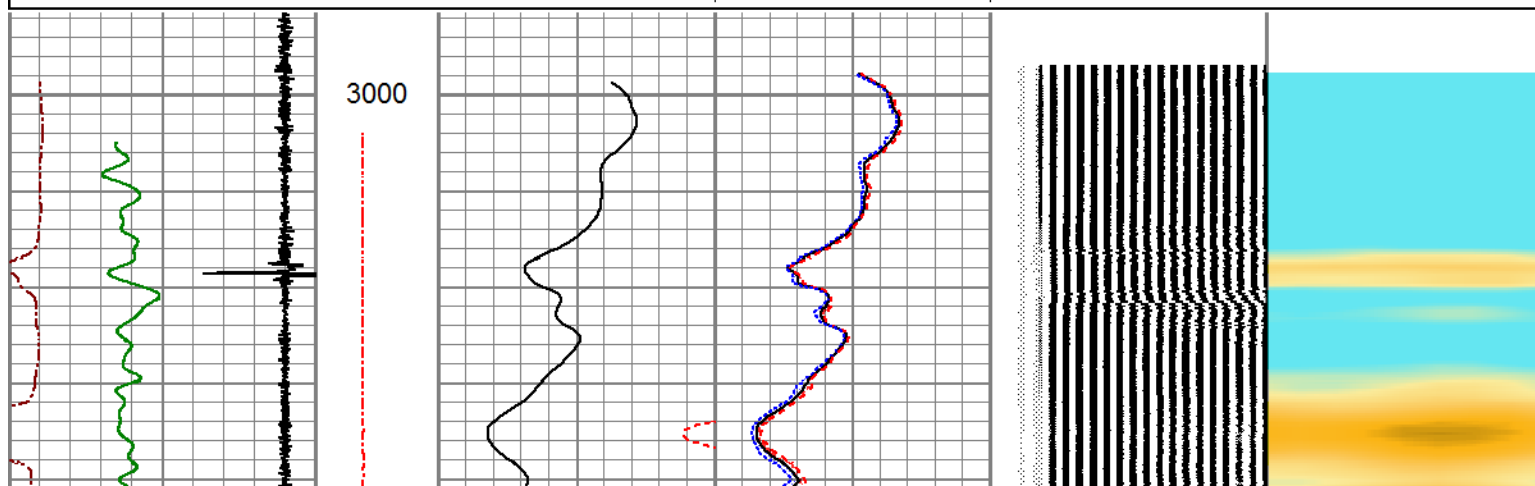


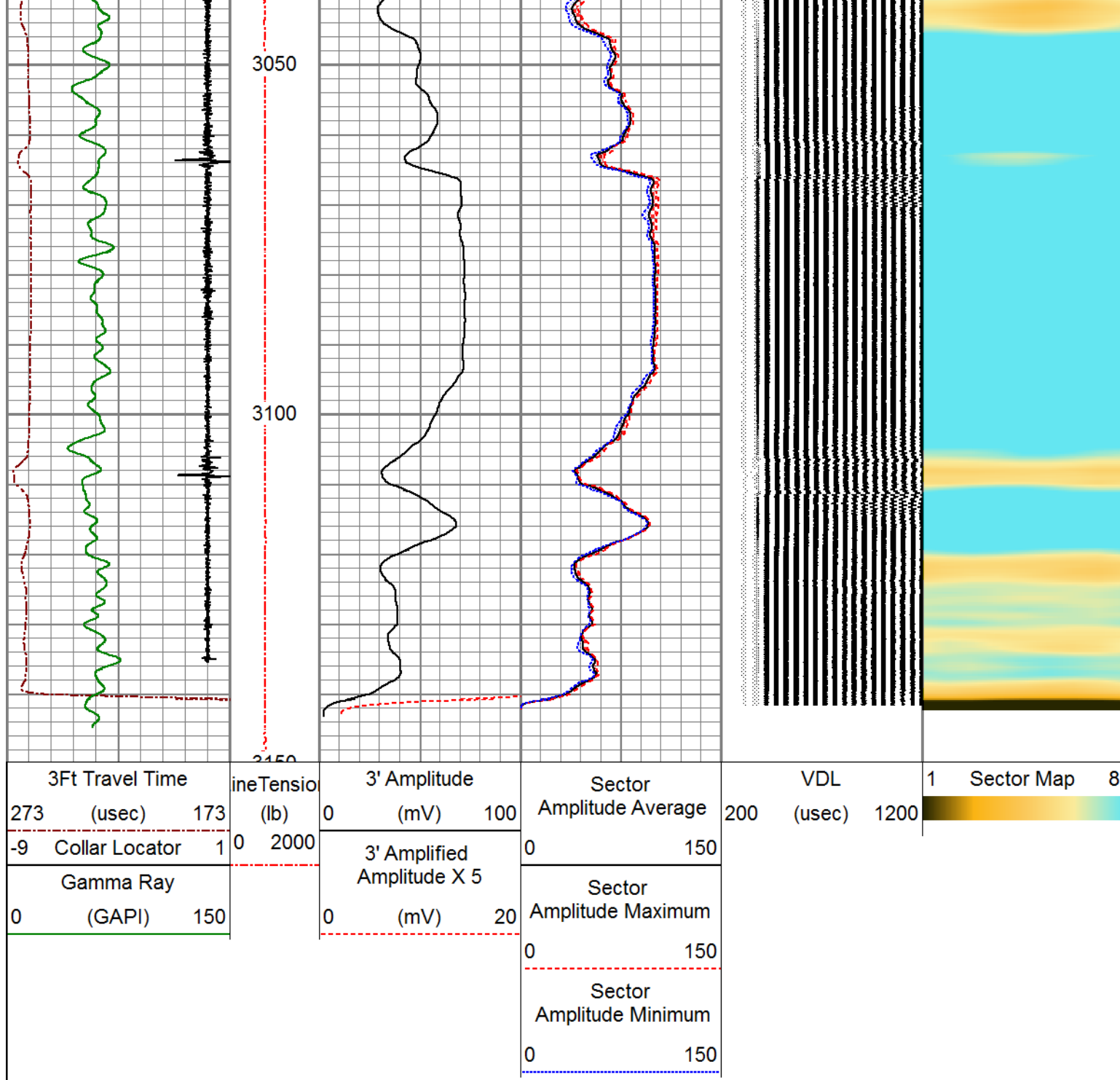
FREE PIPE SECTION


ZERO PSI APPLIED AT SURFACE

Database File	verdad_timbro9-59#8b-9-4_0512347581_20190706_scbl.db
Dataset Pathname	pass2
Presentation Format	pinr_scbl
Dataset Creation	Sat Jul 06 13:10:56 2019
Charted by	Depth in Feet scaled 1:240

3Ft Travel Time	ineTensio	3' Amplitude	Sector	VDL	1	Sector Map	8
273 (usec) 173	(lb)	0 (mV) 100	Amplitude Average	200 (usec) 1200			
-9 Collar Locator 1	0 2000	3' Amplified Amplitude X 5	0 150				
Gamma Ray		0 (mV) 20	Sector Amplitude Maximum				
0 (GAPI) 150			0 150				
			Sector Amplitude Minimum				
			0 150				





		<h1>MAIN LOG</h1> <h2>ZERO PSI APPLIED AT SURFACE</h2>			
Database File	verdad_timbro9-59#8b-9-4_0512347581_20190706_scbl.db				
Dataset Pathname	pass7				
Presentation Format	pinr_scbl				
Dataset Creation	Sat Jul 06 14:31:21 2019				
Charted by	Depth in Feet scaled 1:240				

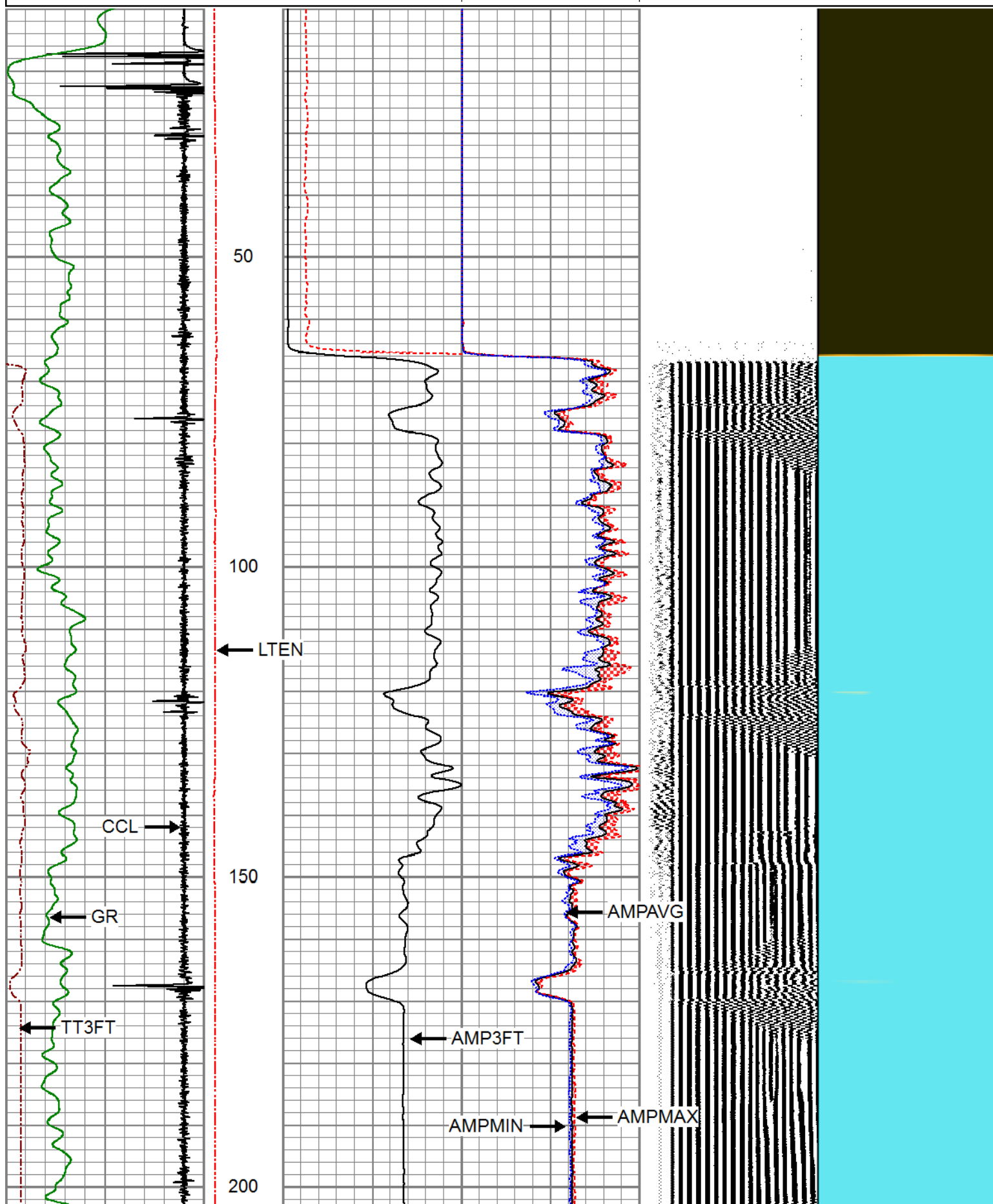
3Ft Travel Time 273 (usec) 173	Line Tension (lb) 0 2000	3' Amplitude (mV) 0 100	Sector Amplitude Average 0 150	VDL (usec) 200 1200	1 Sector Map 8
-9 Collar Locator 1		3' Amplified Amplitude X 5	Sector		
Gamma Ray					

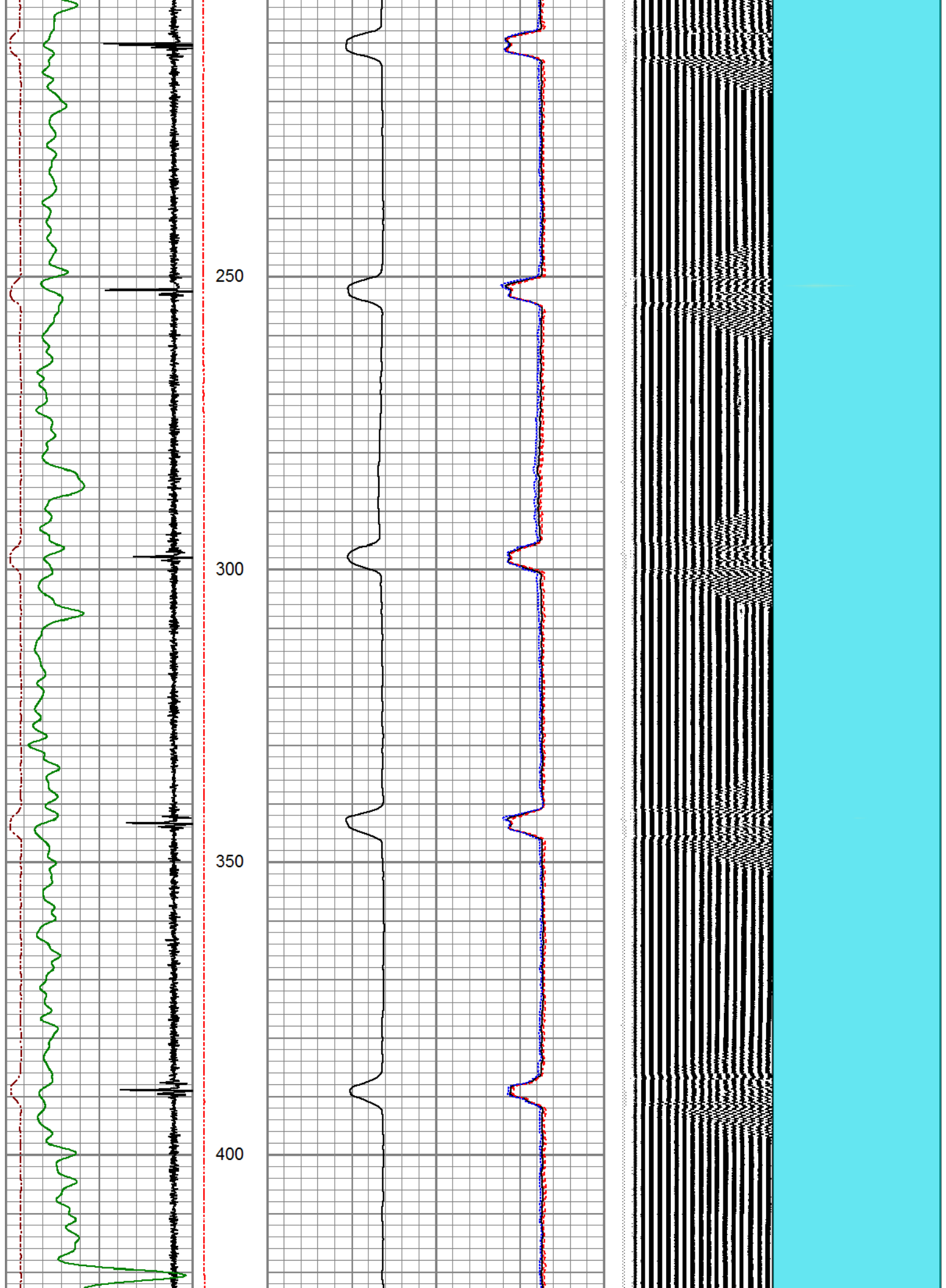
0 (GAPI) 150

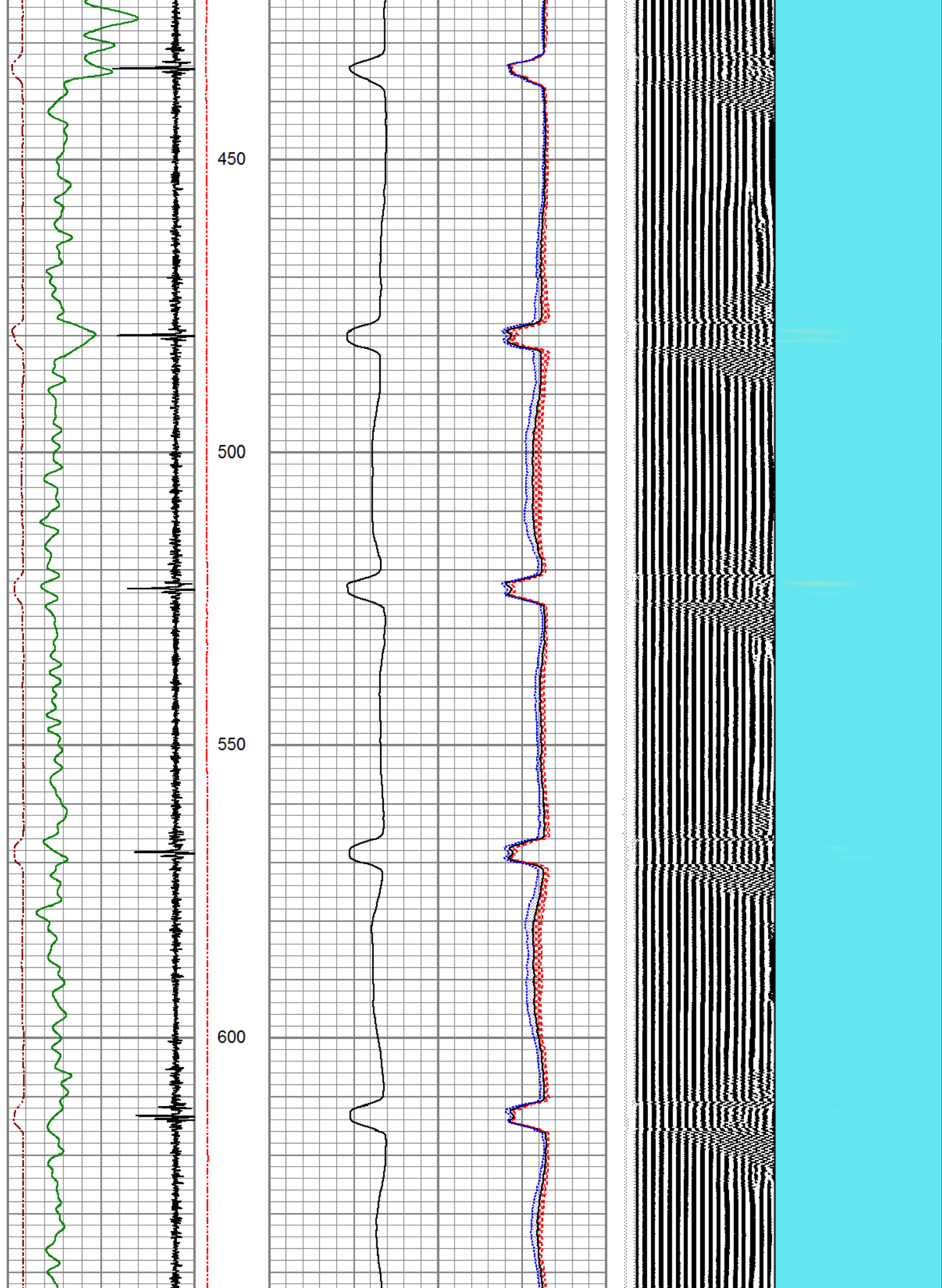
0 (mV) 20

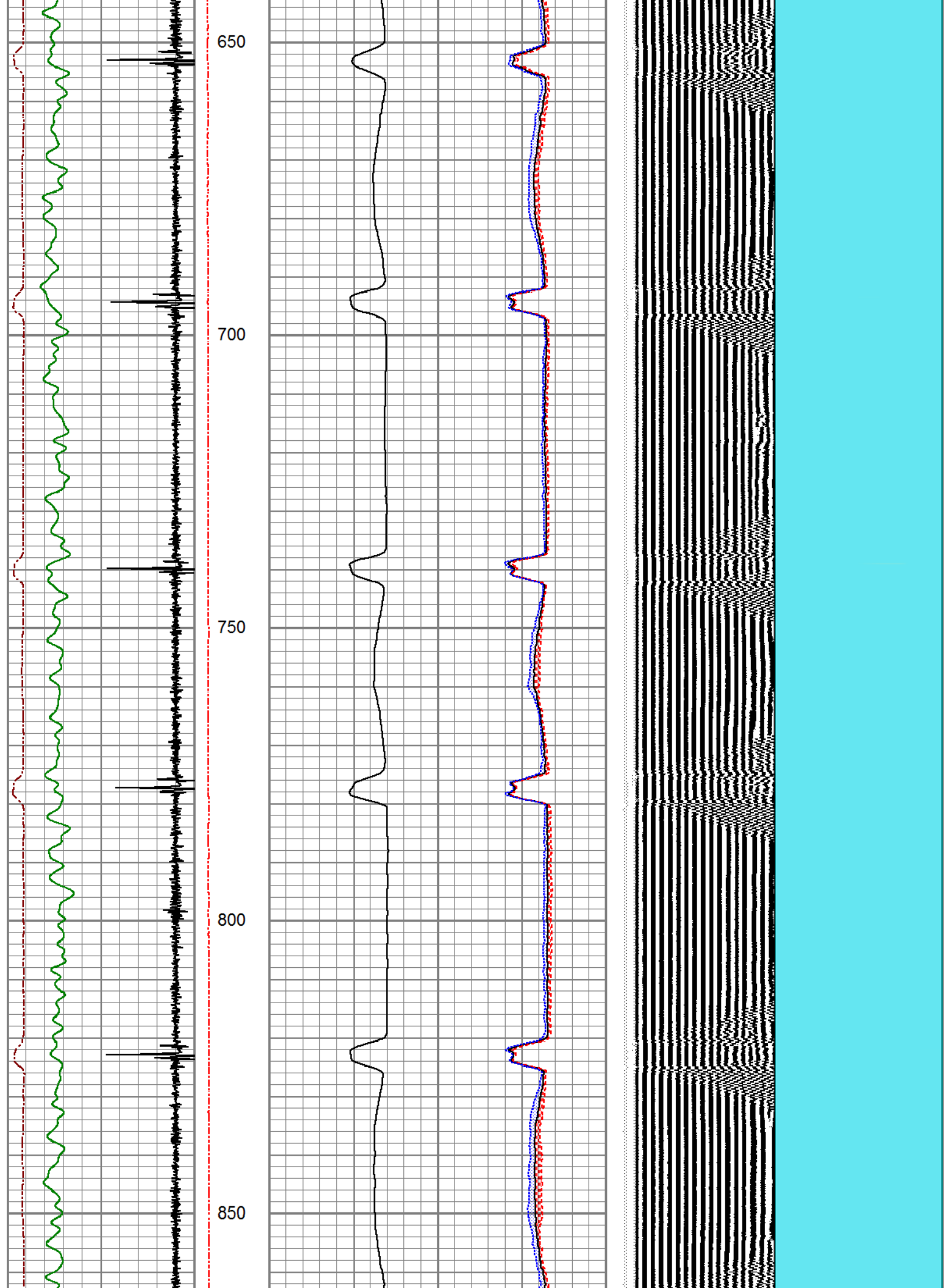
Amplitude Maximum
0 150

Sector
Amplitude Minimum
0 150

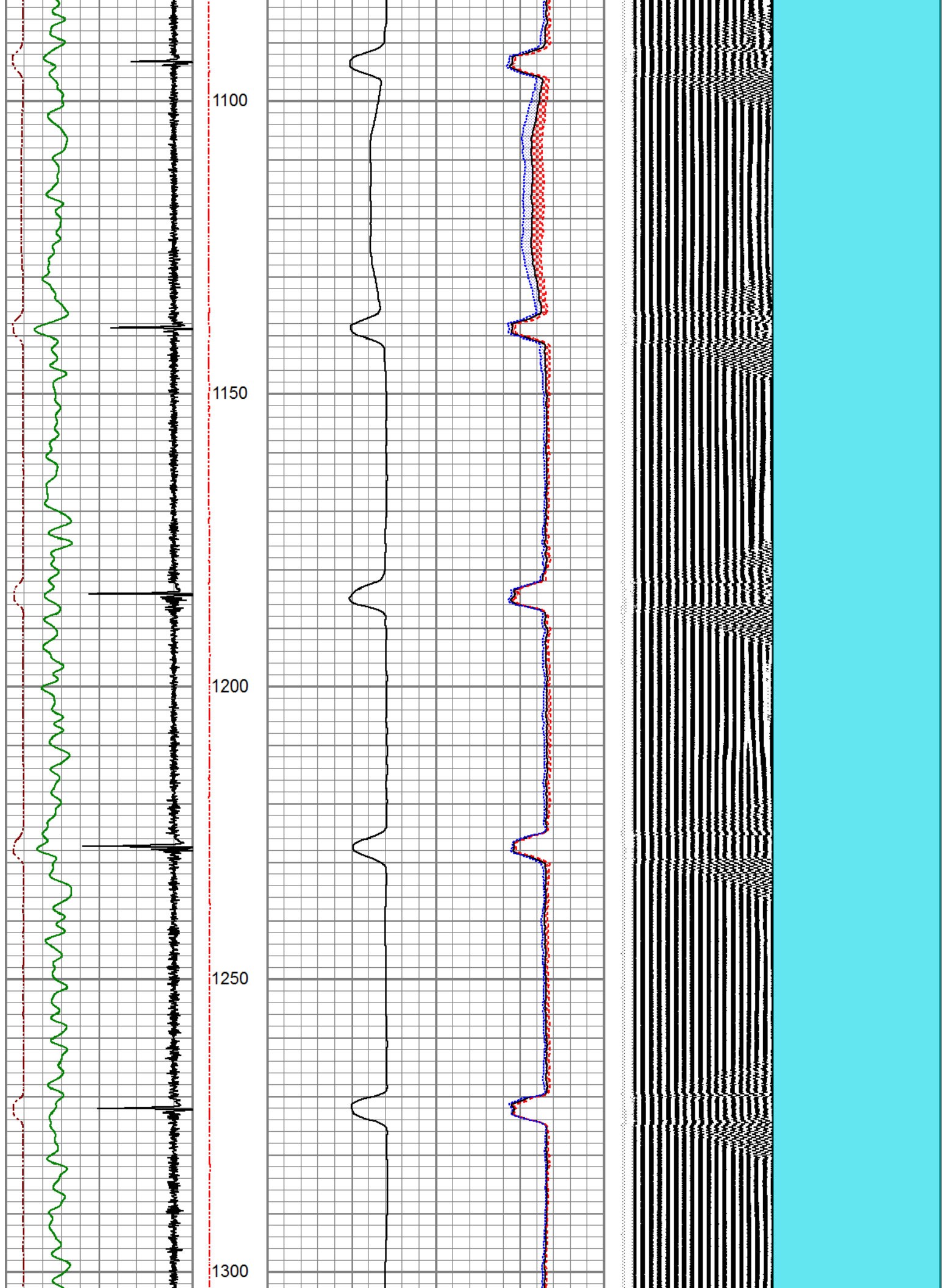


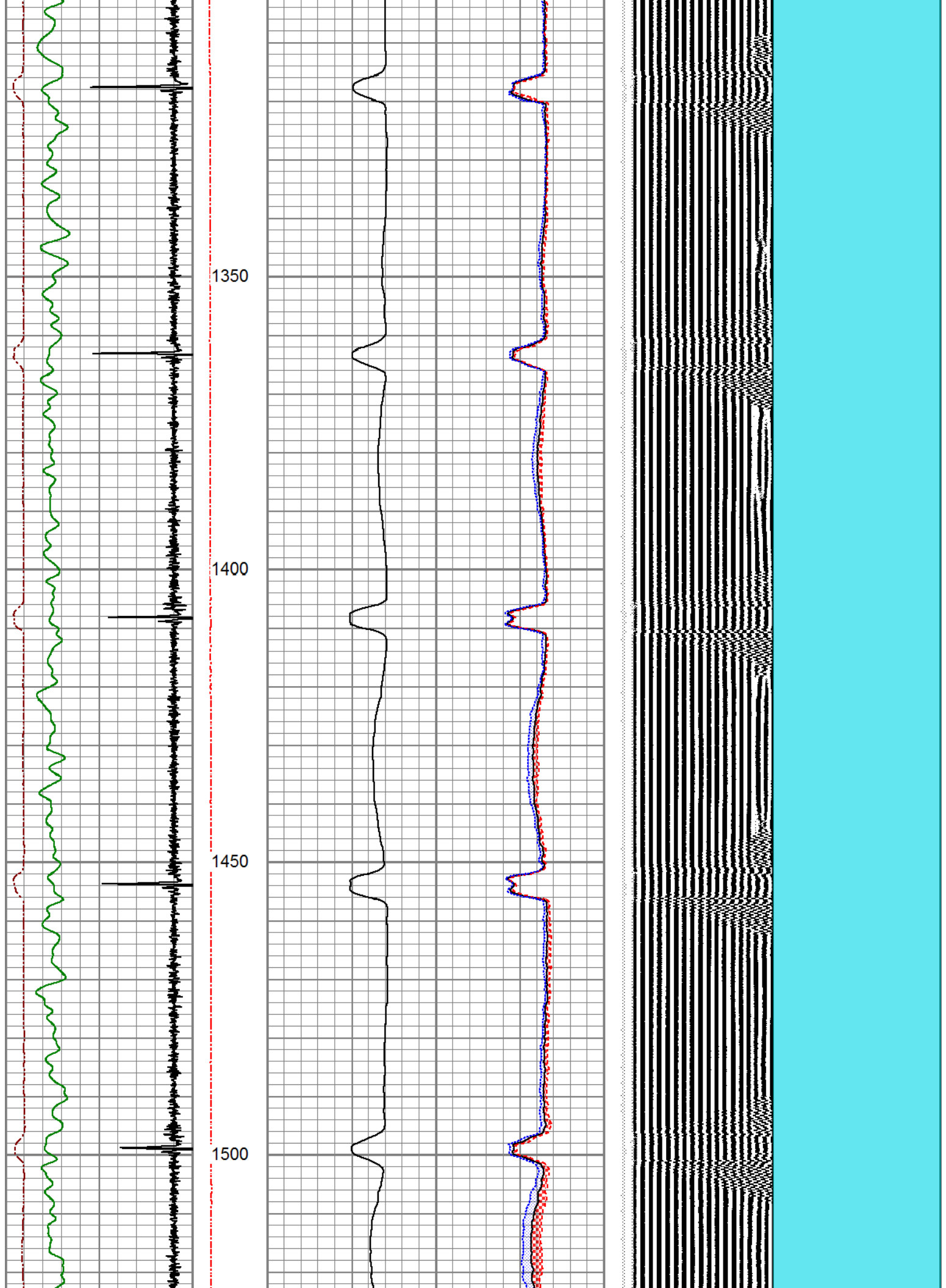


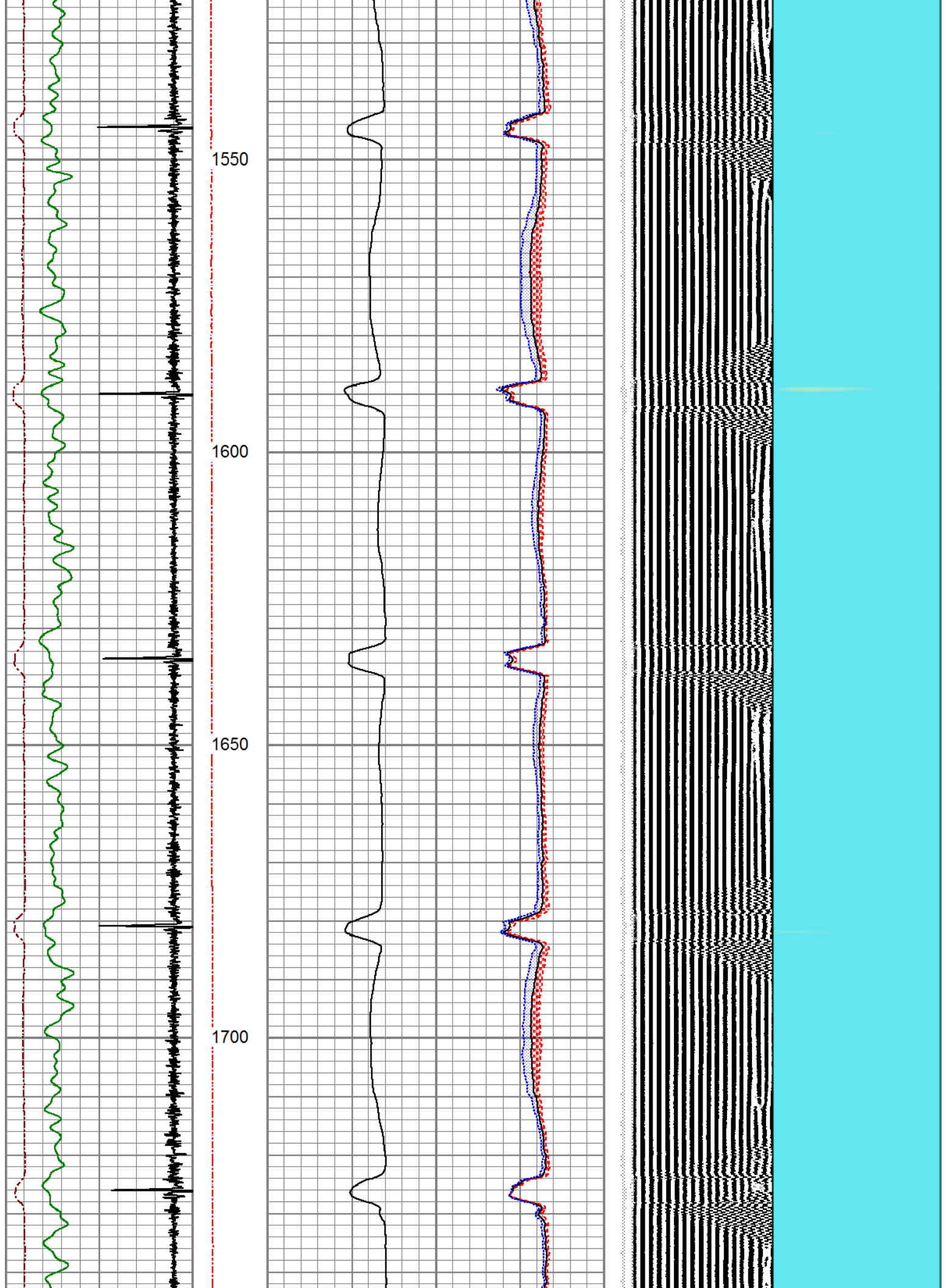


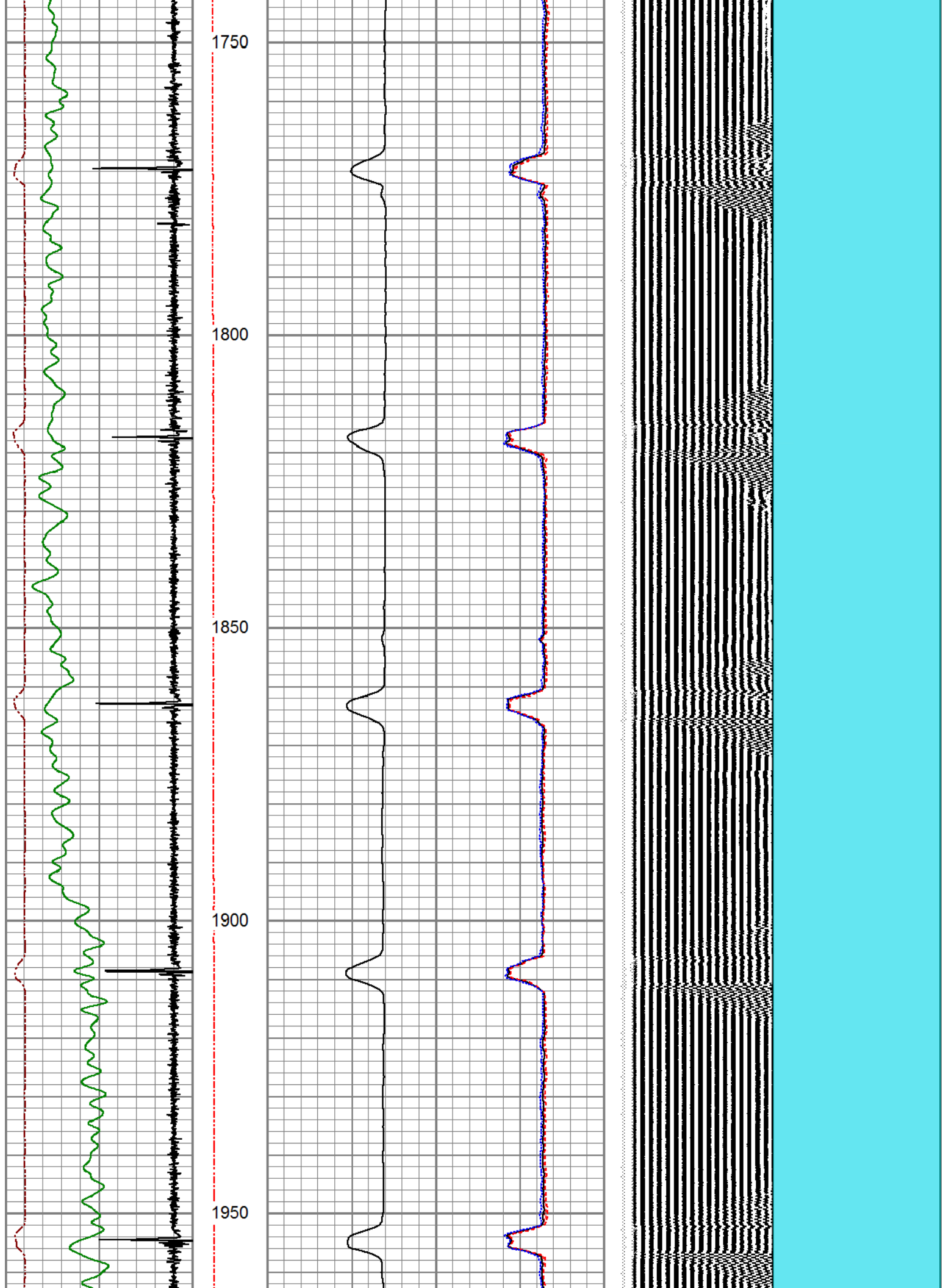


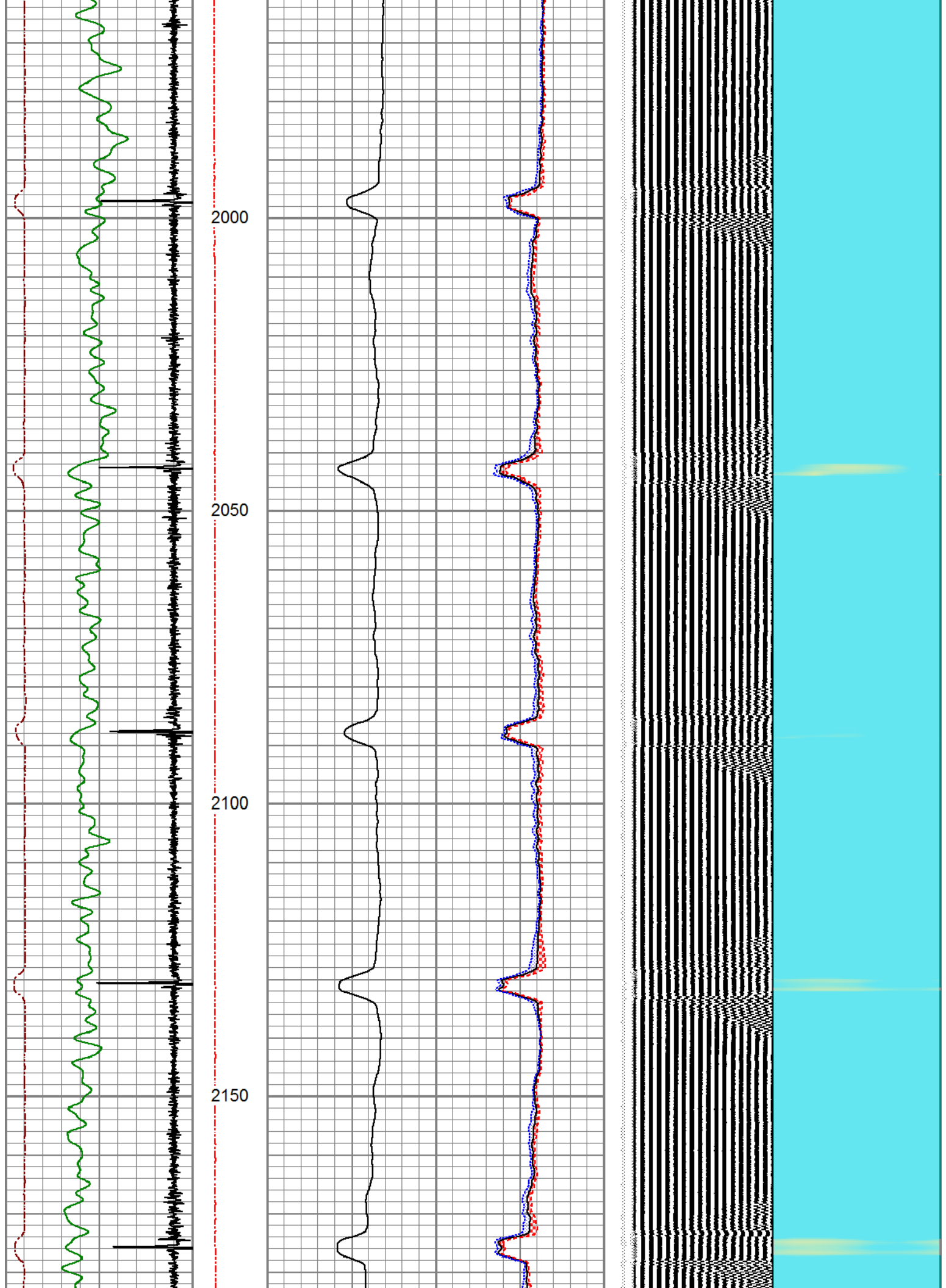


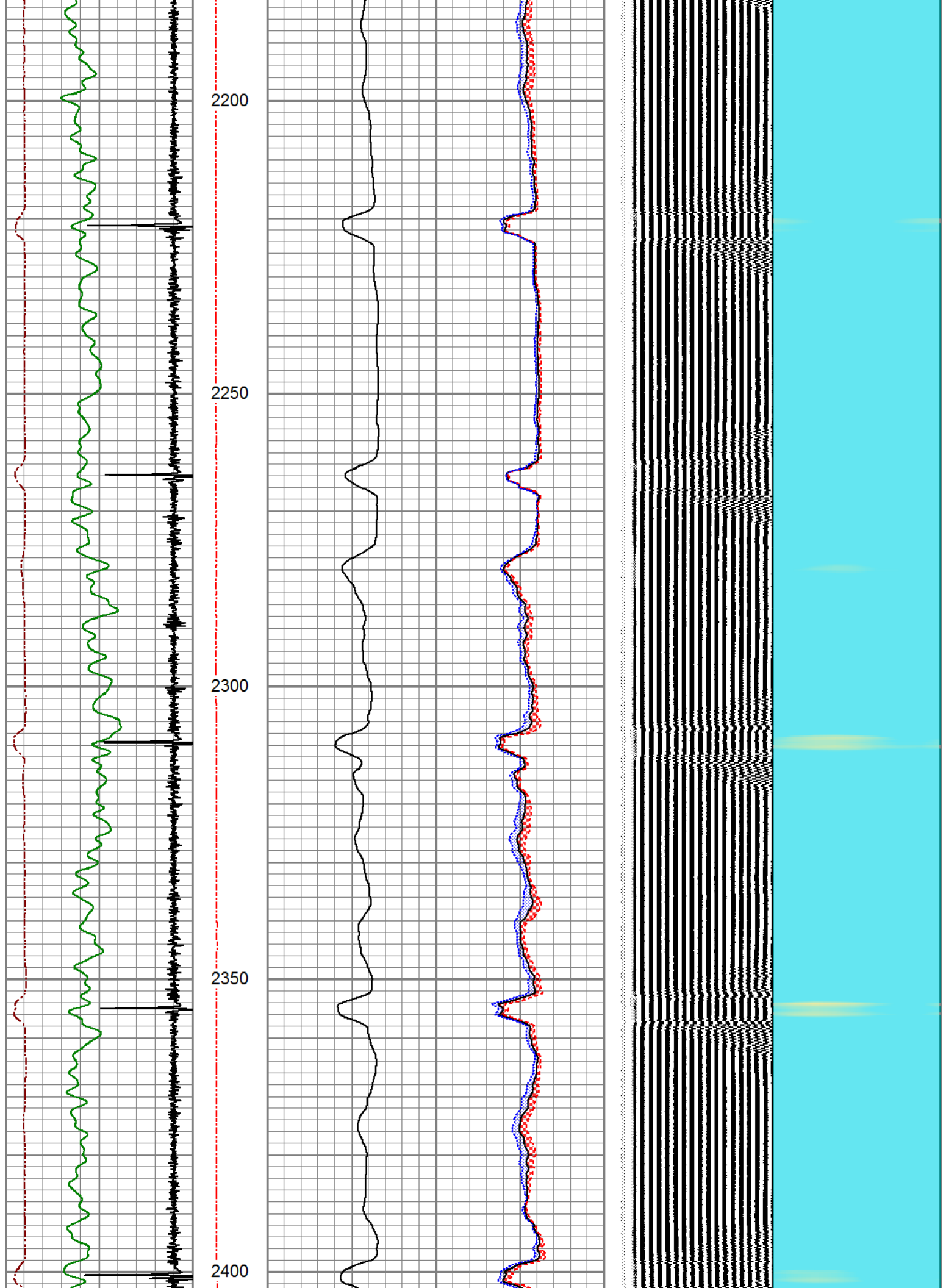


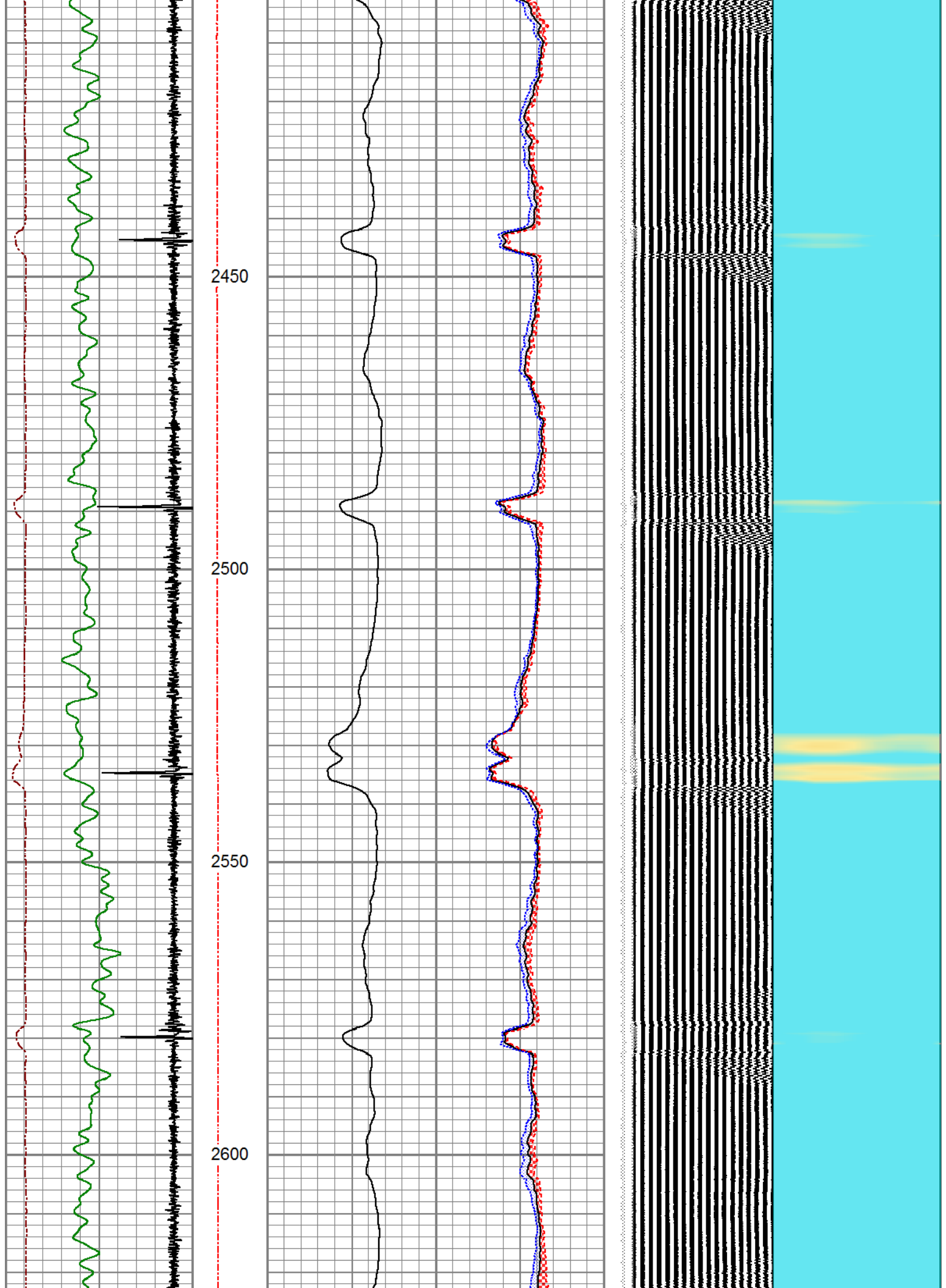


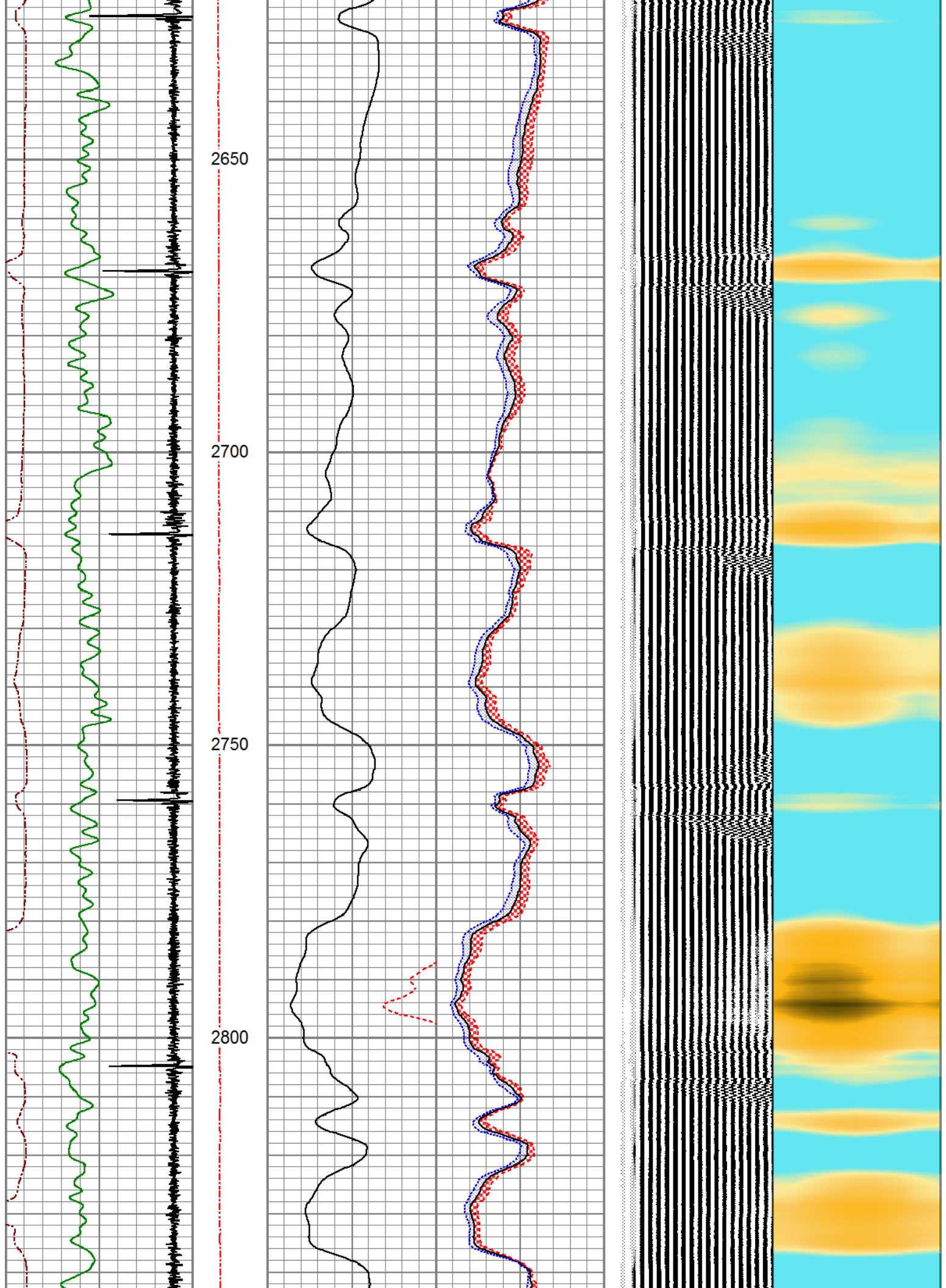


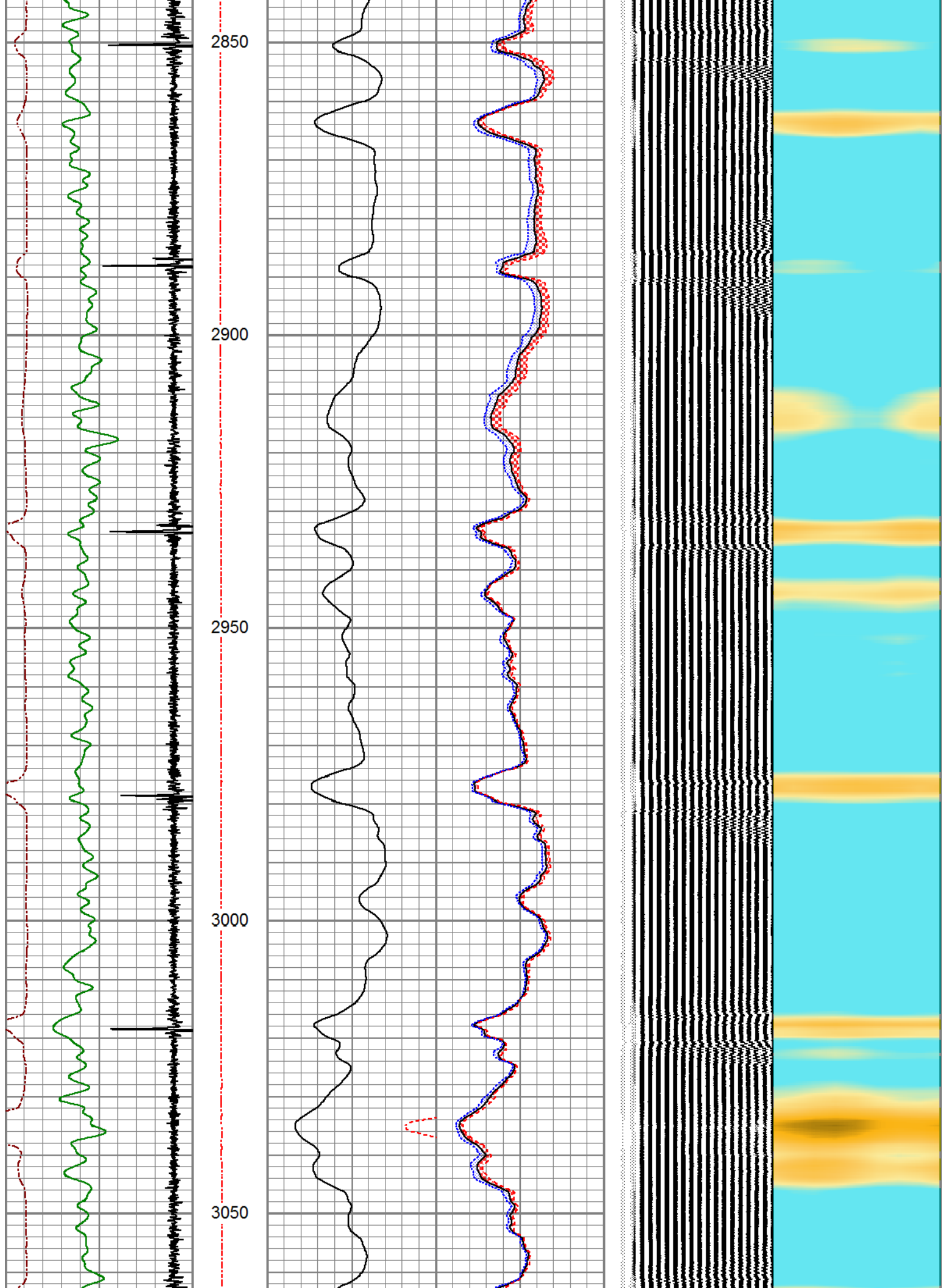


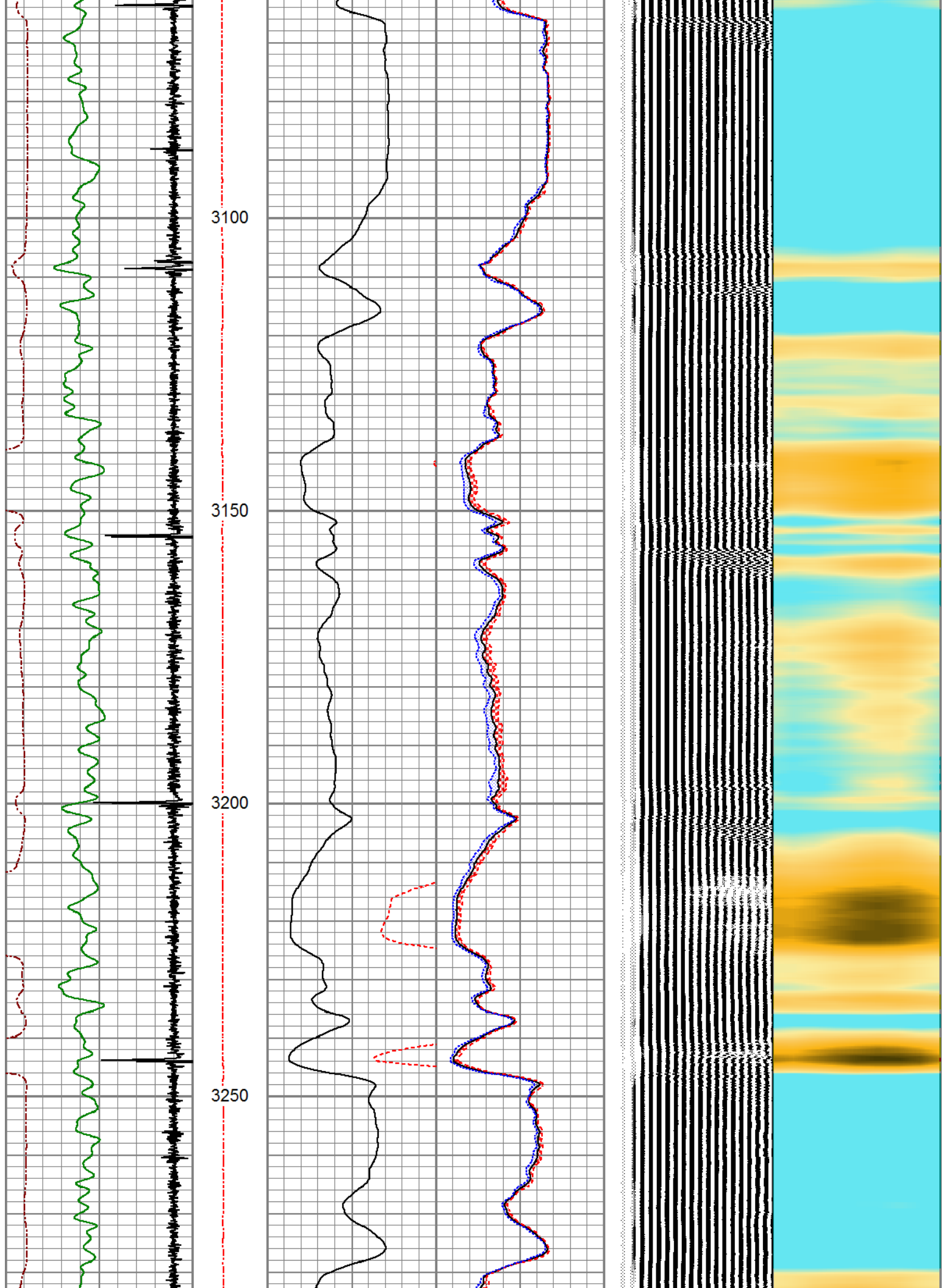


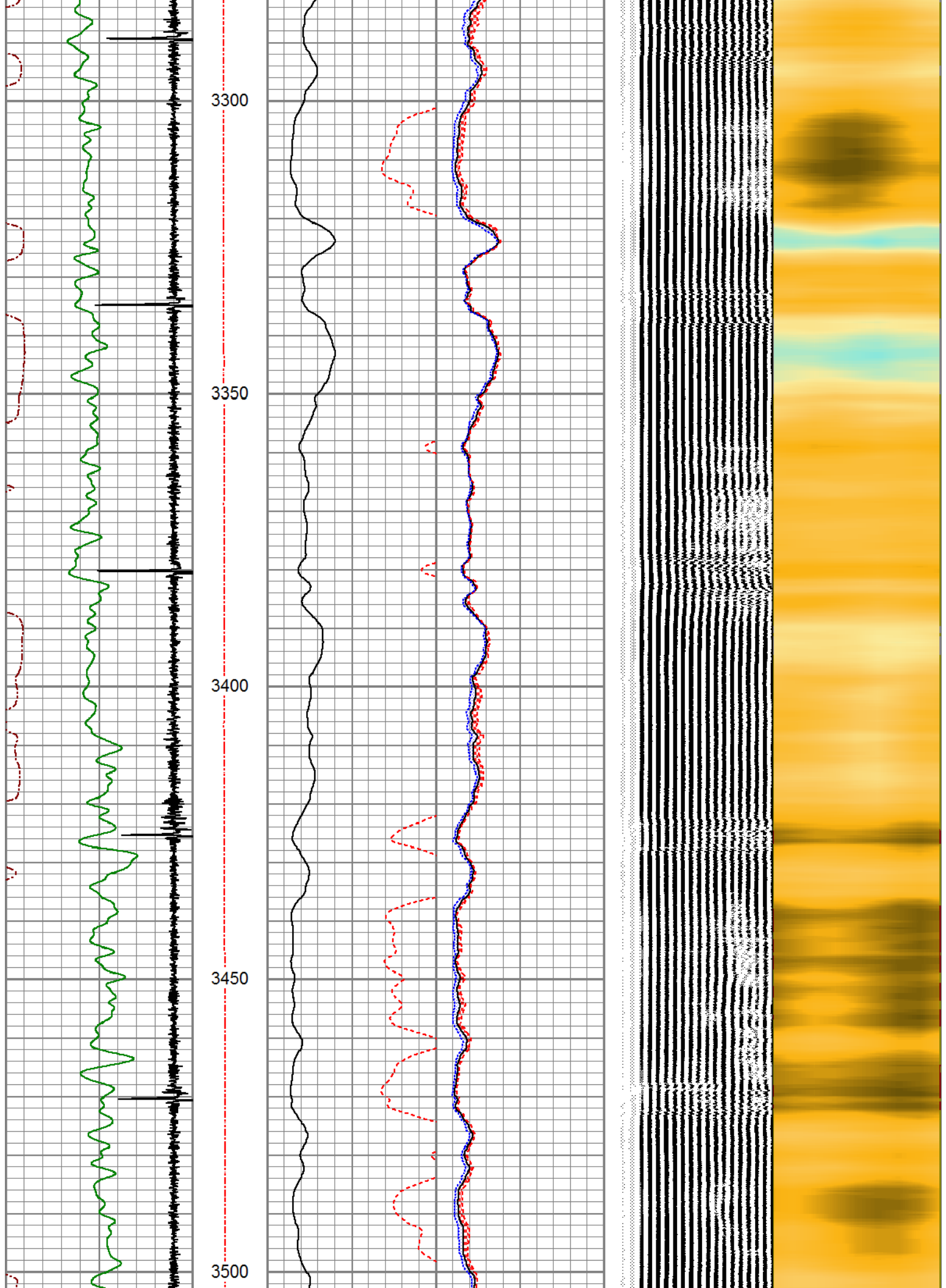


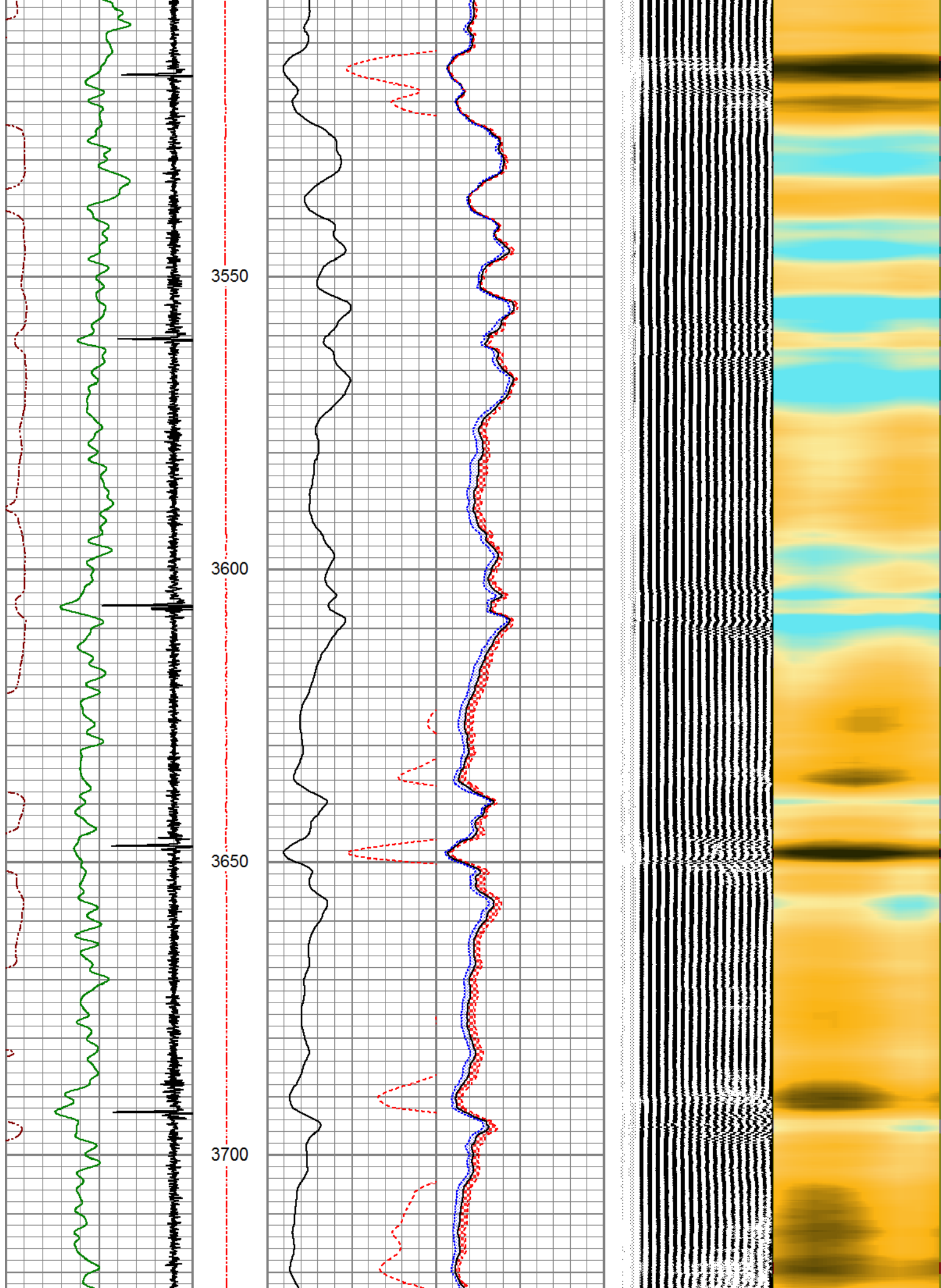


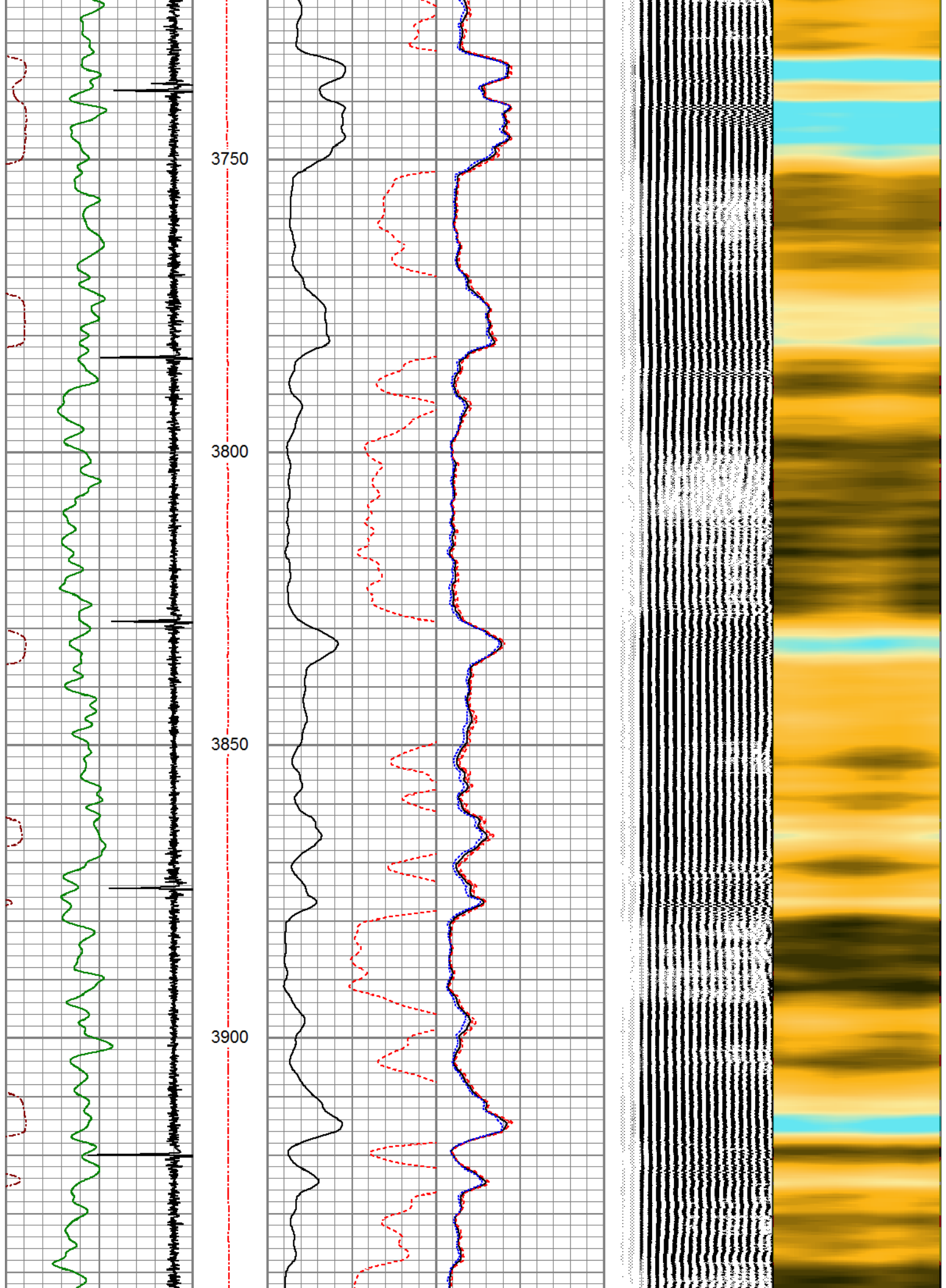


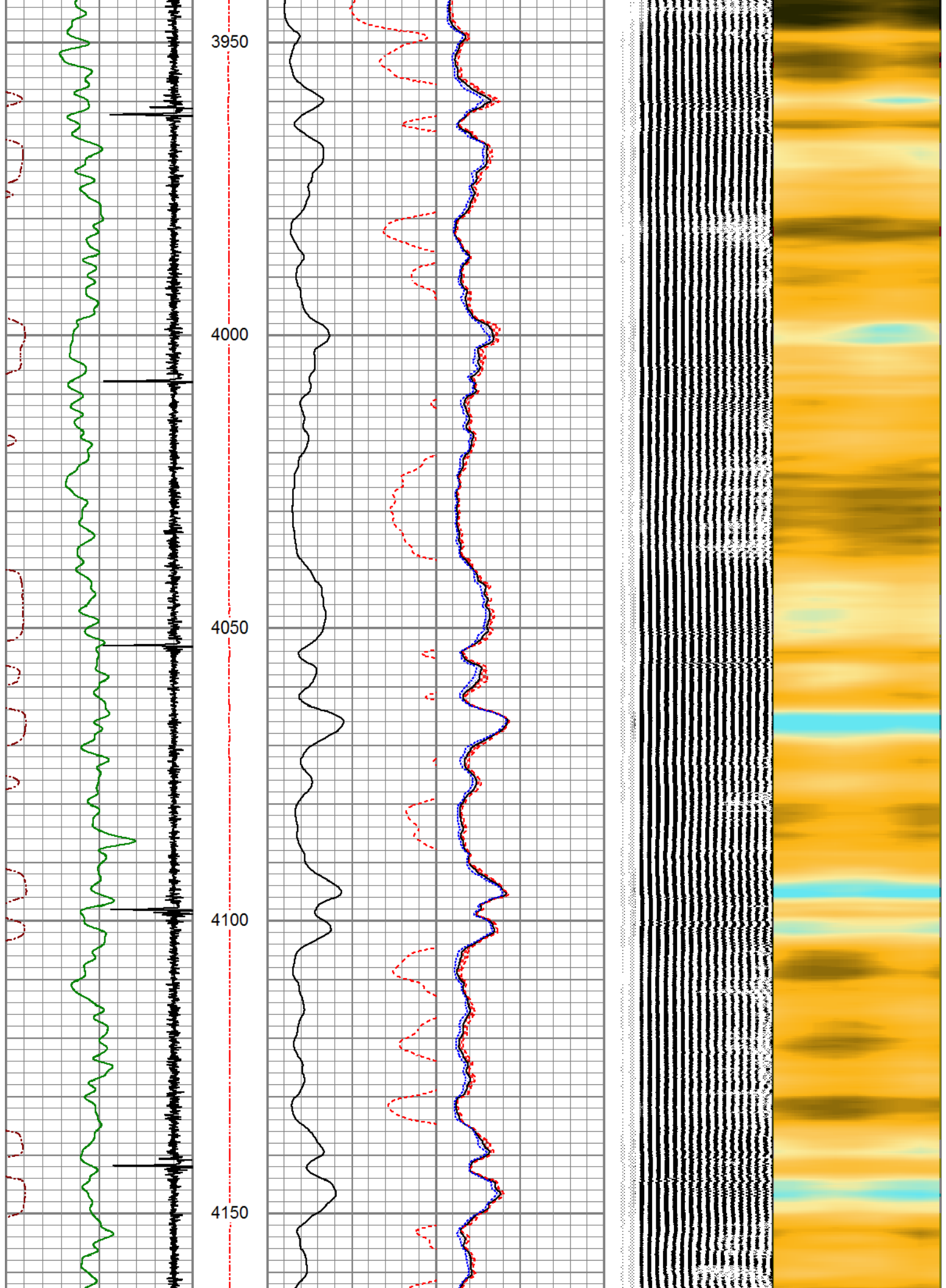


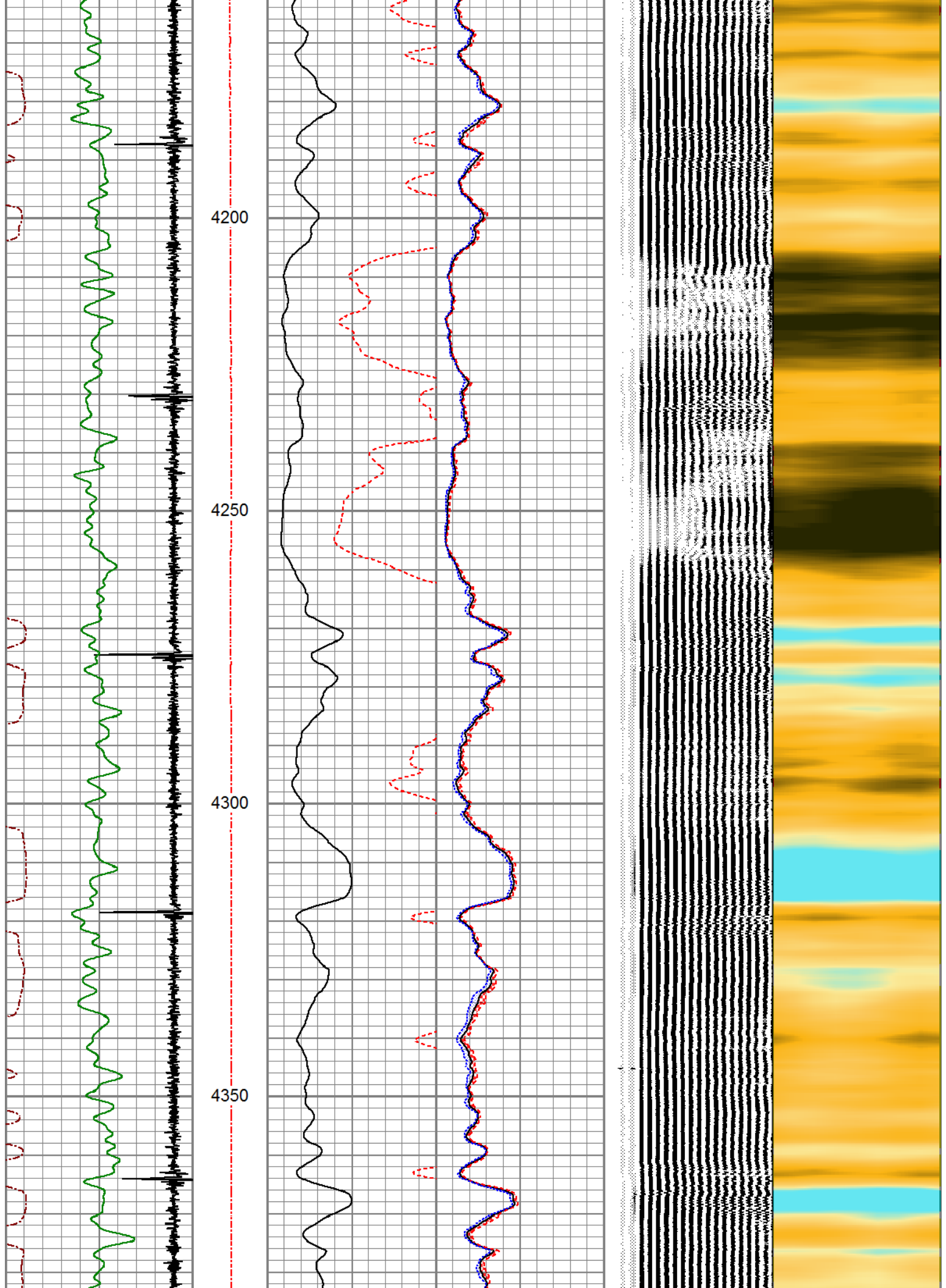


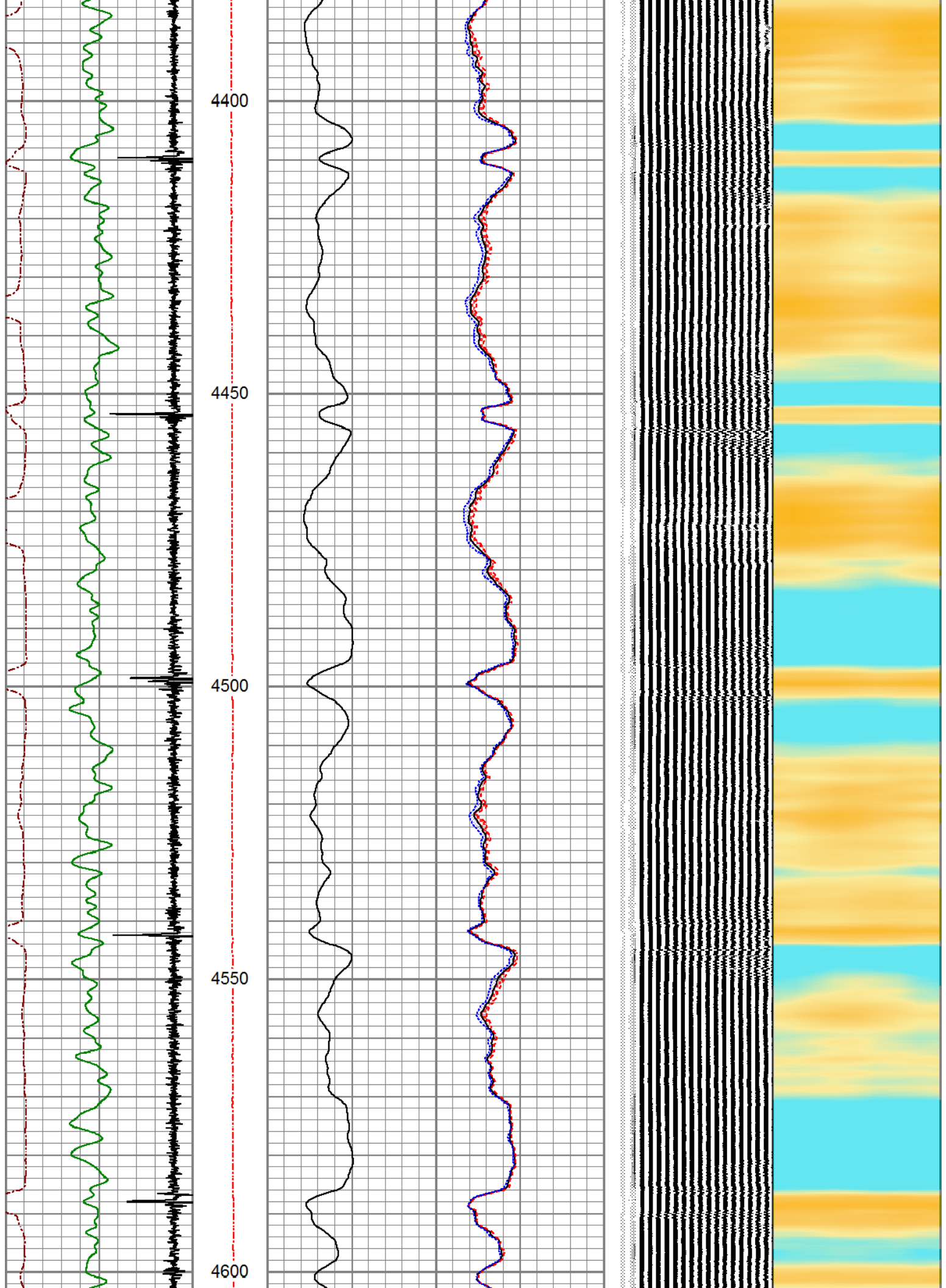


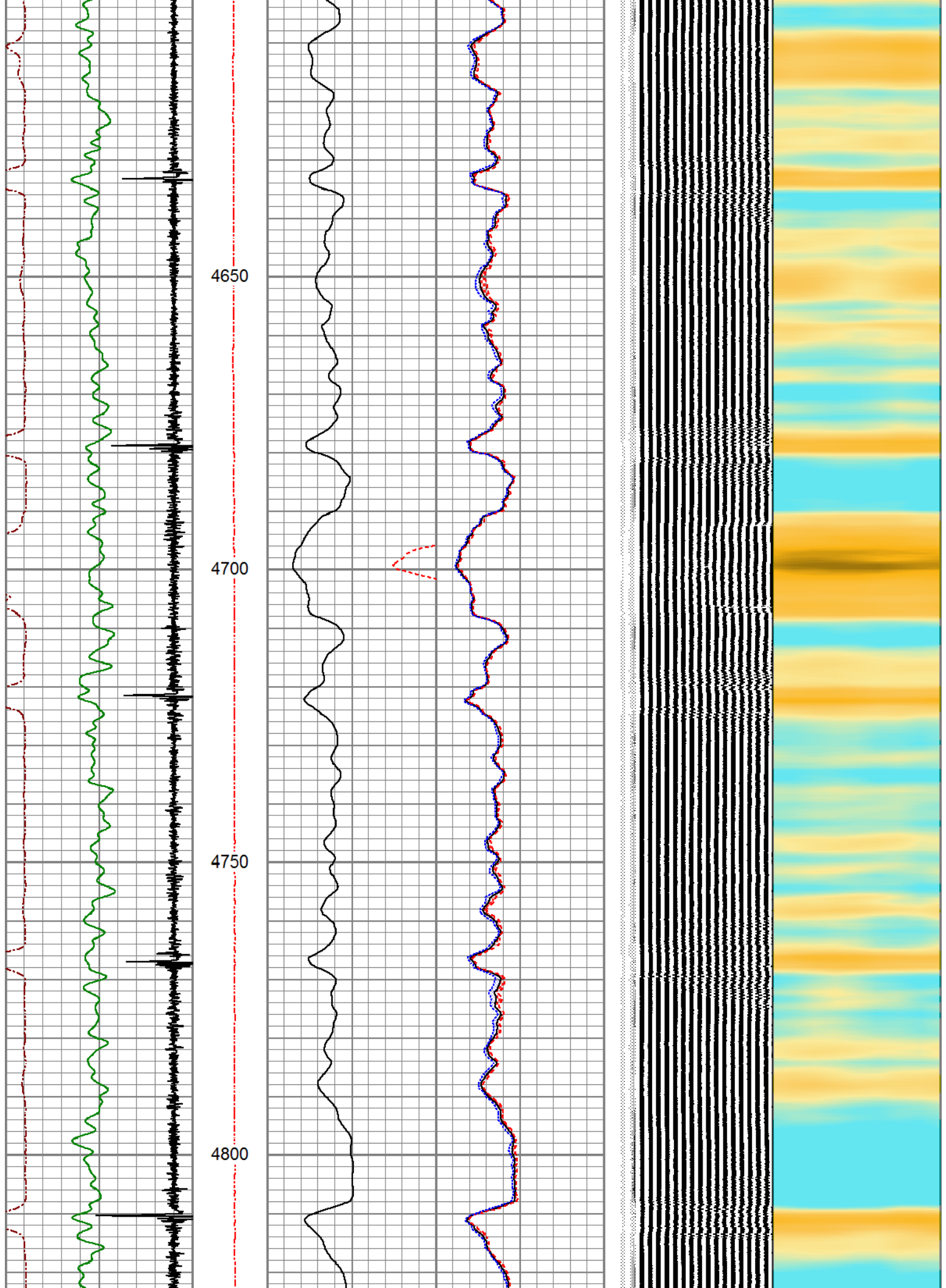


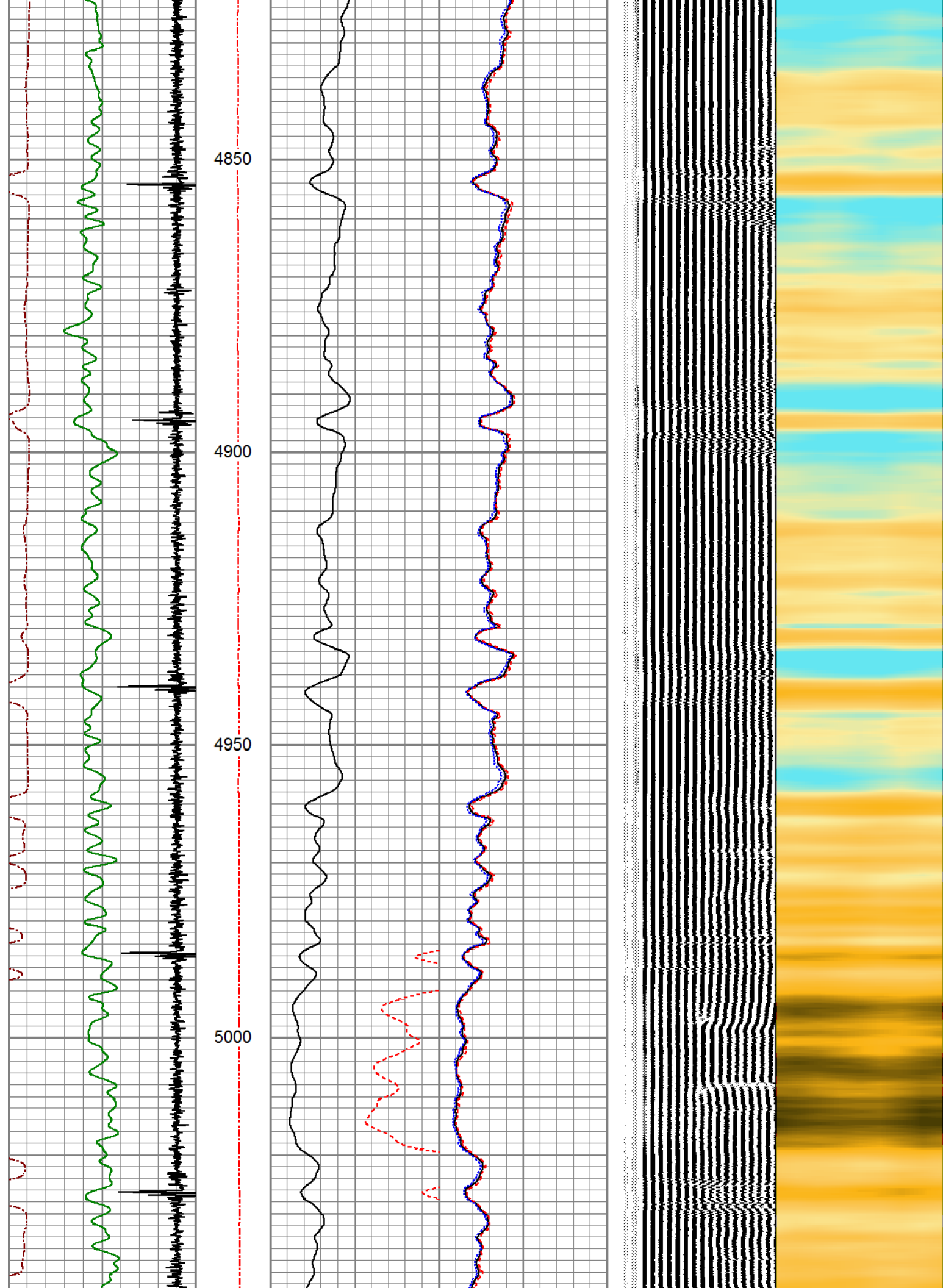


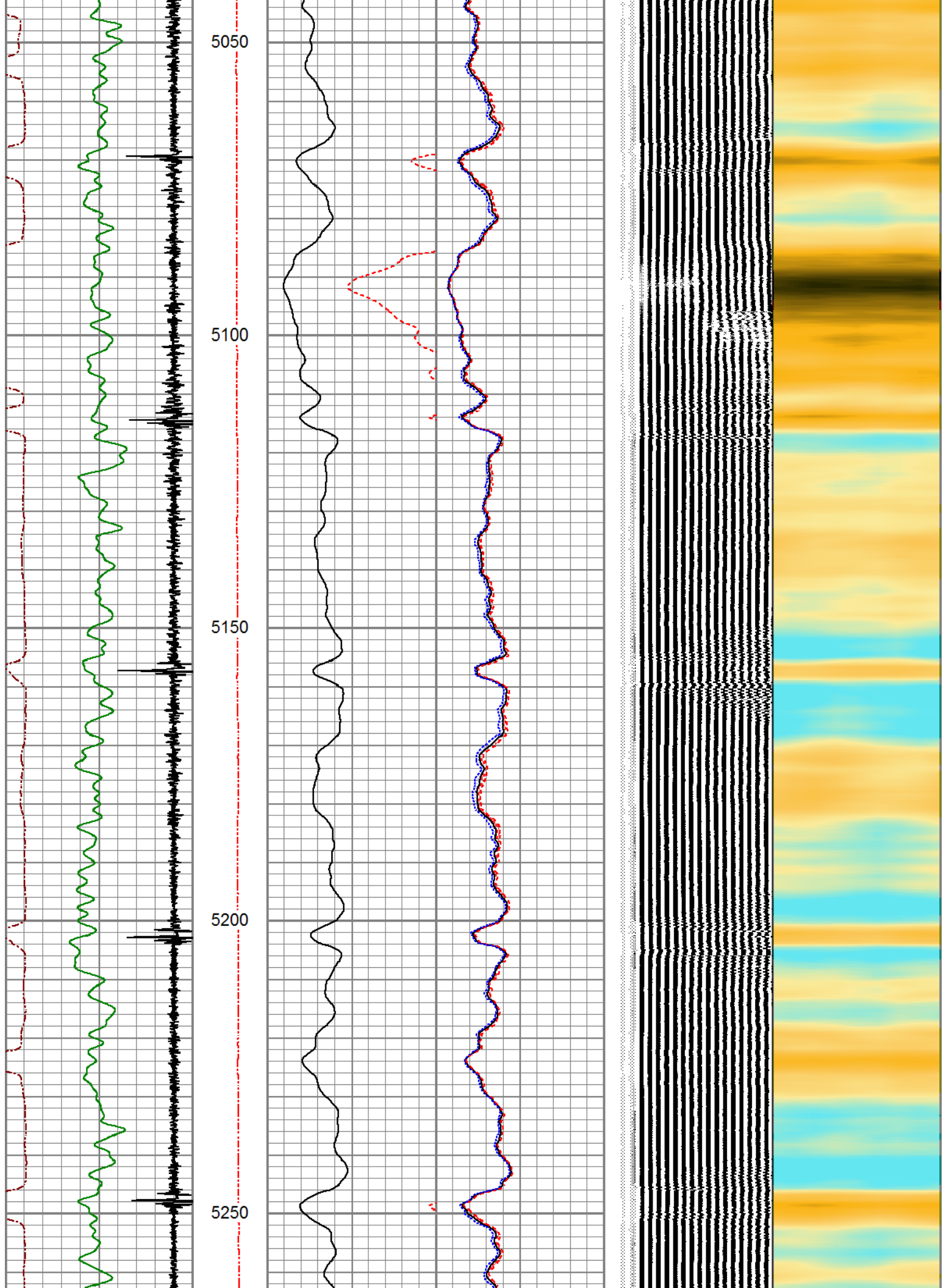


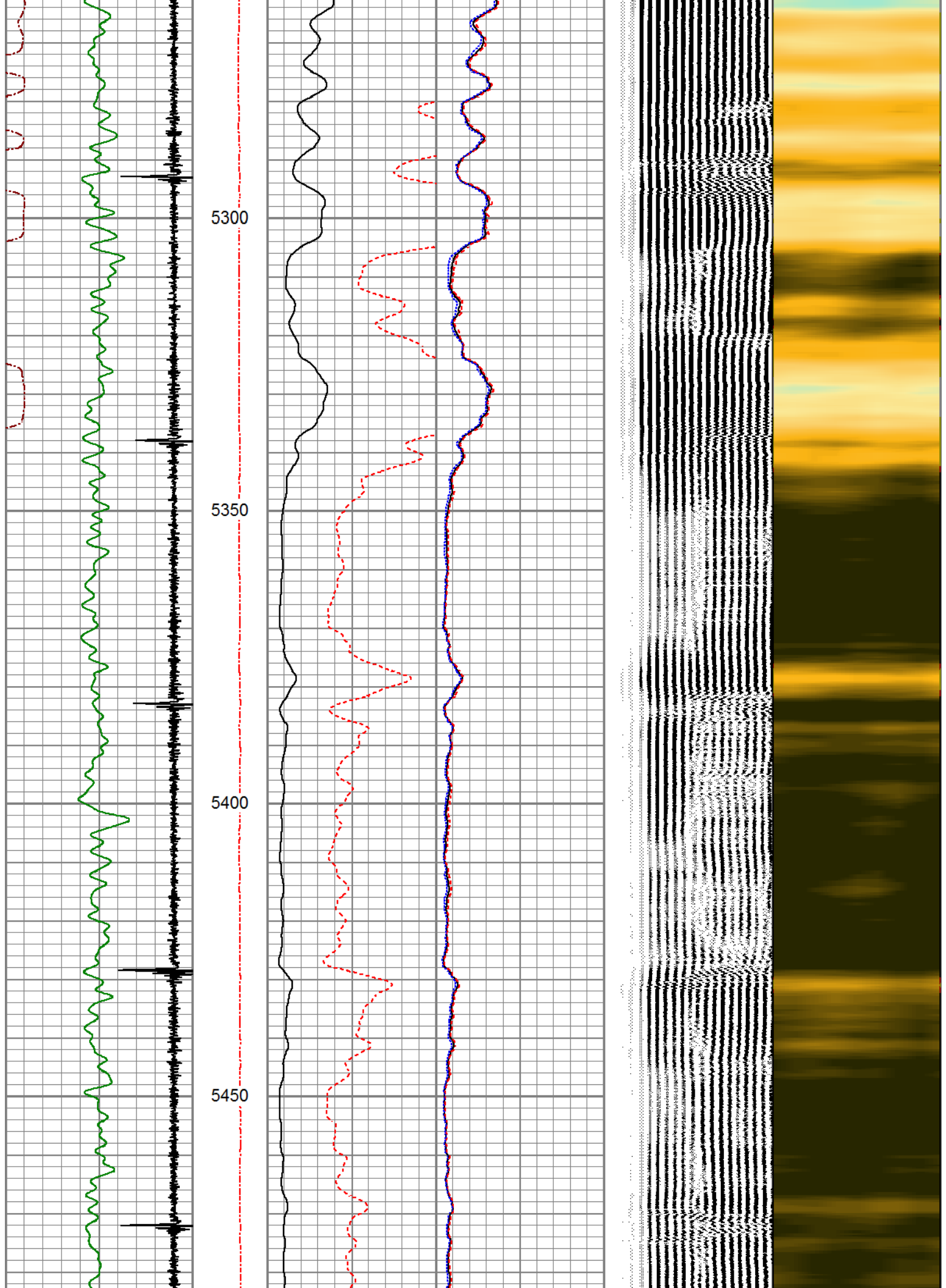


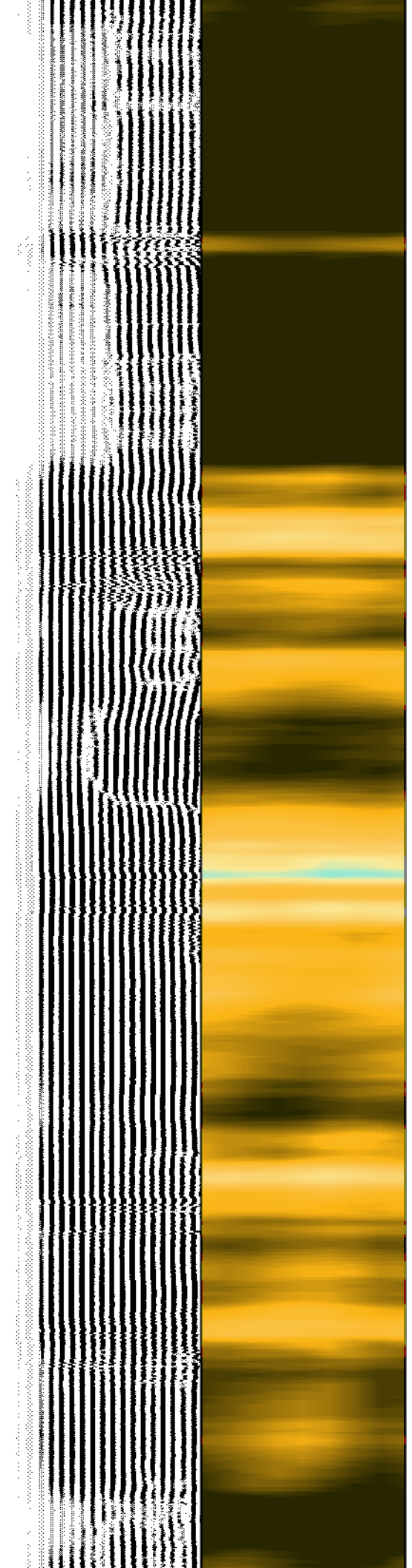
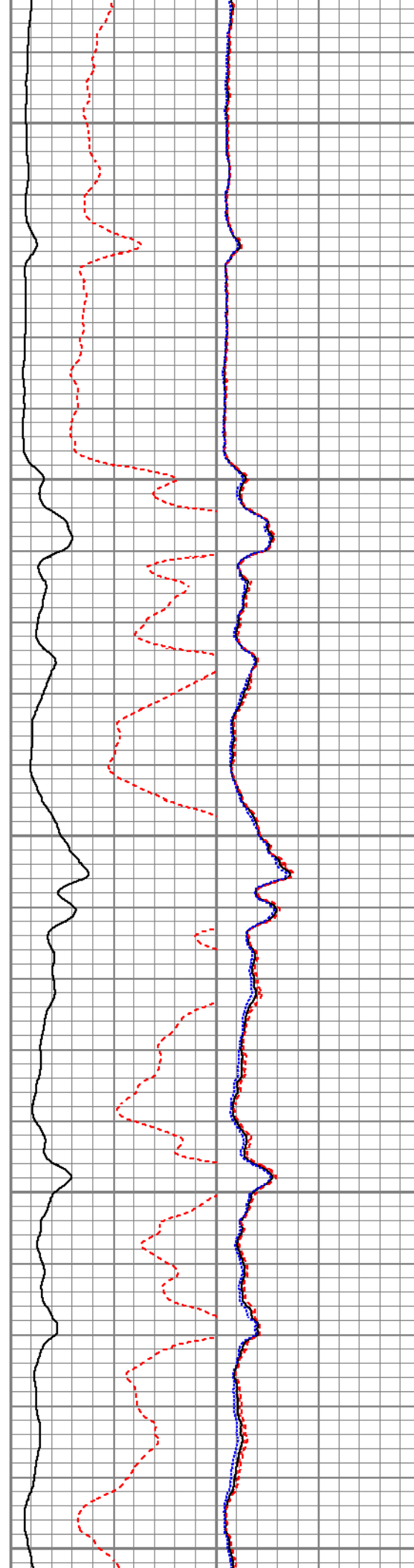
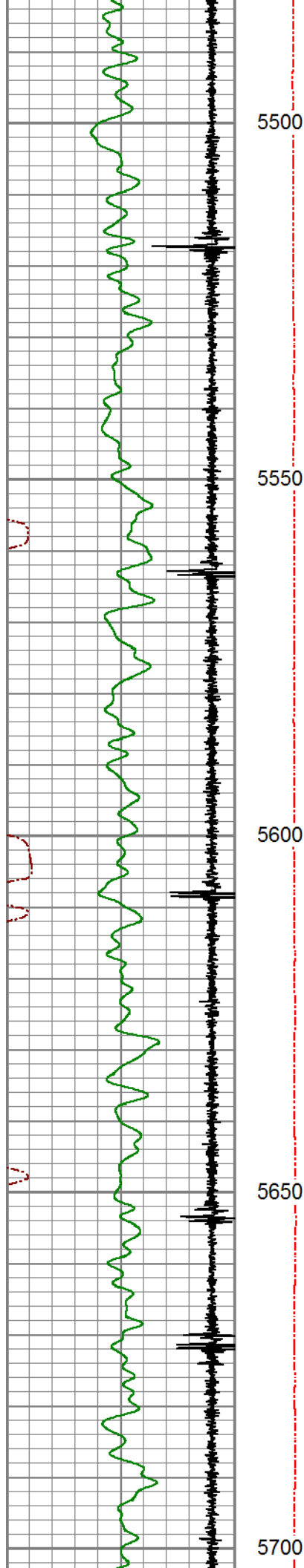


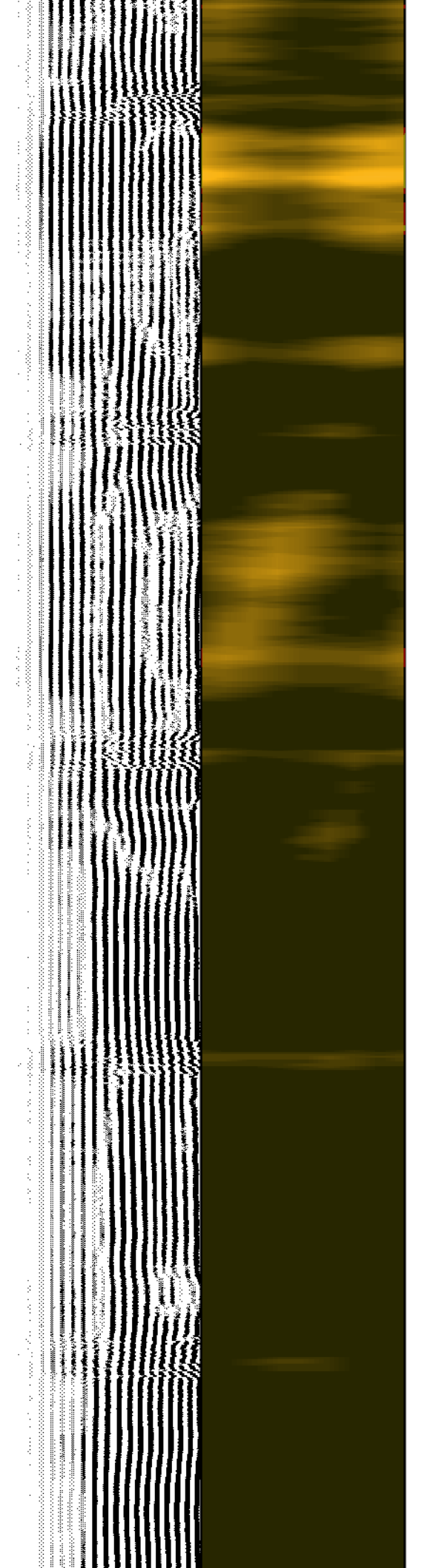
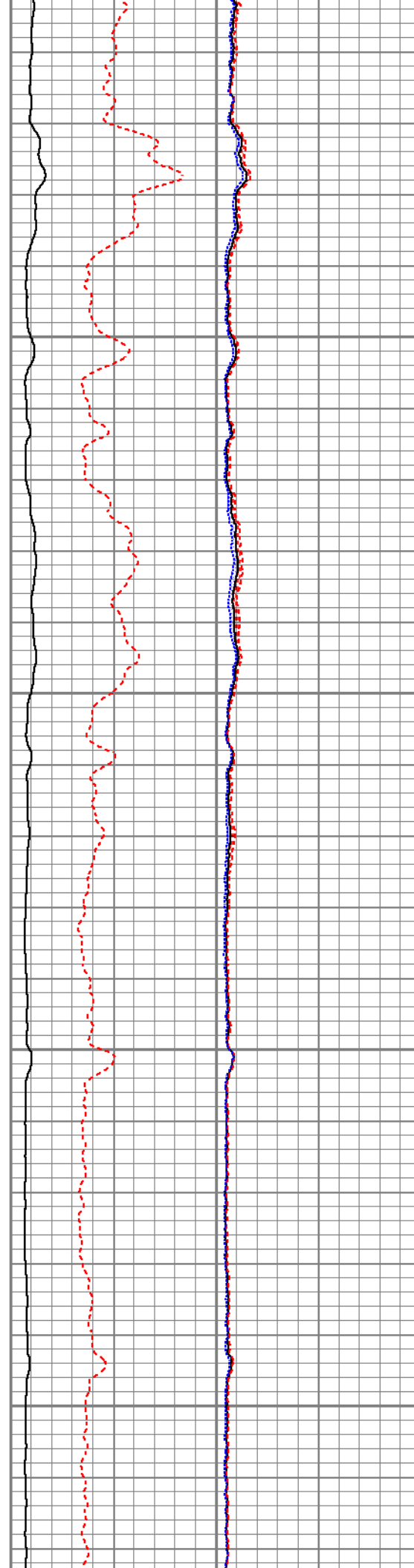
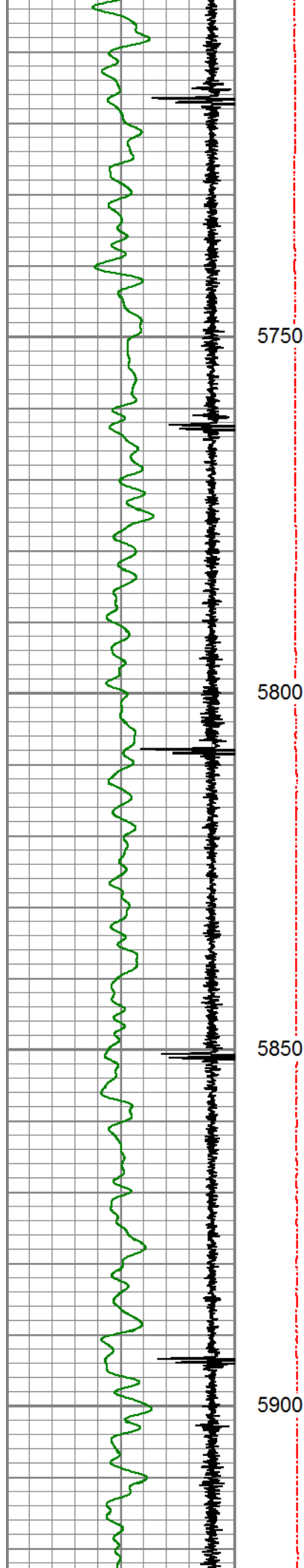


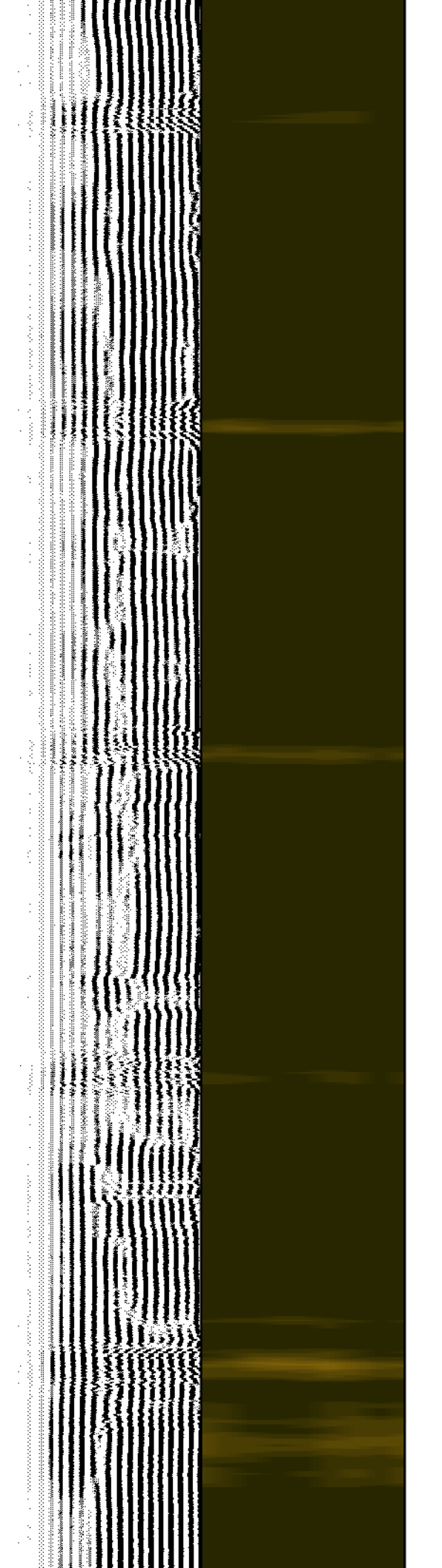
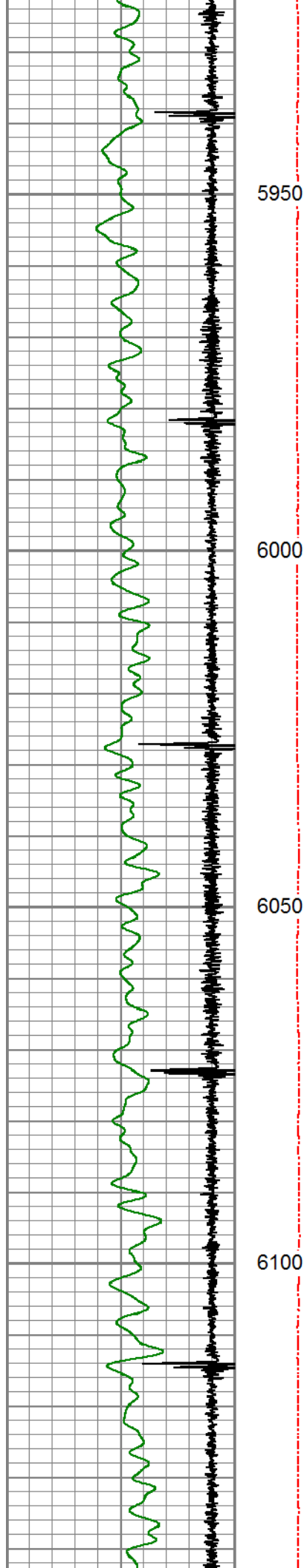


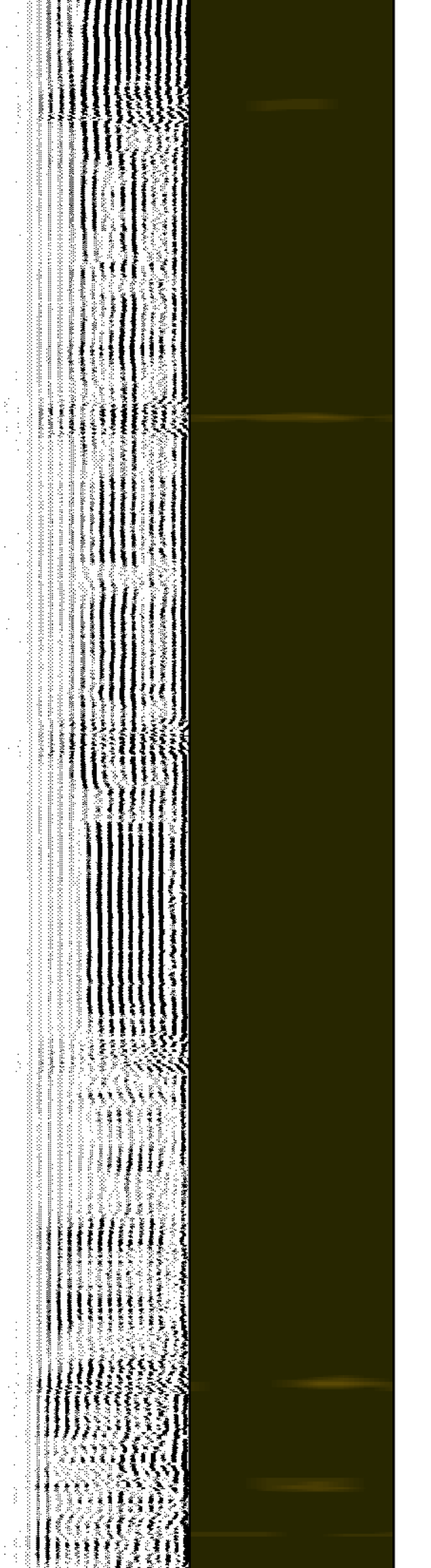
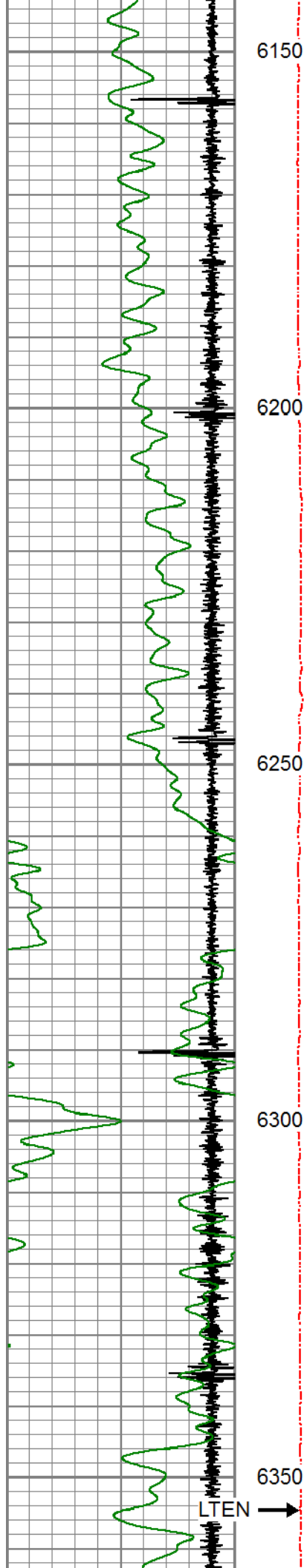


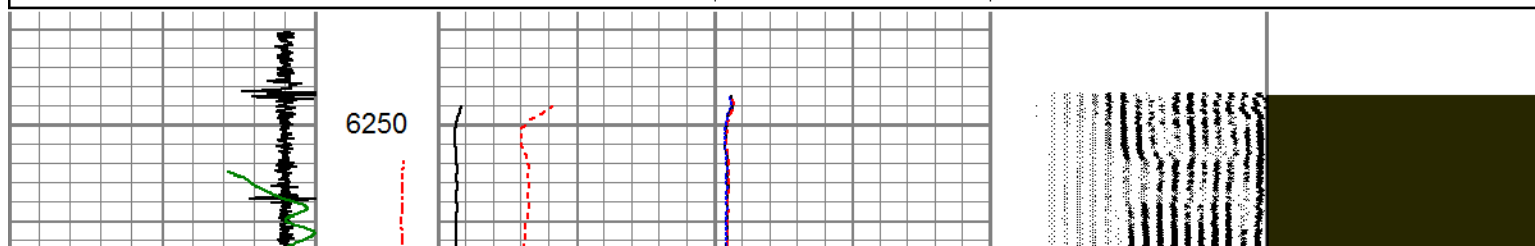
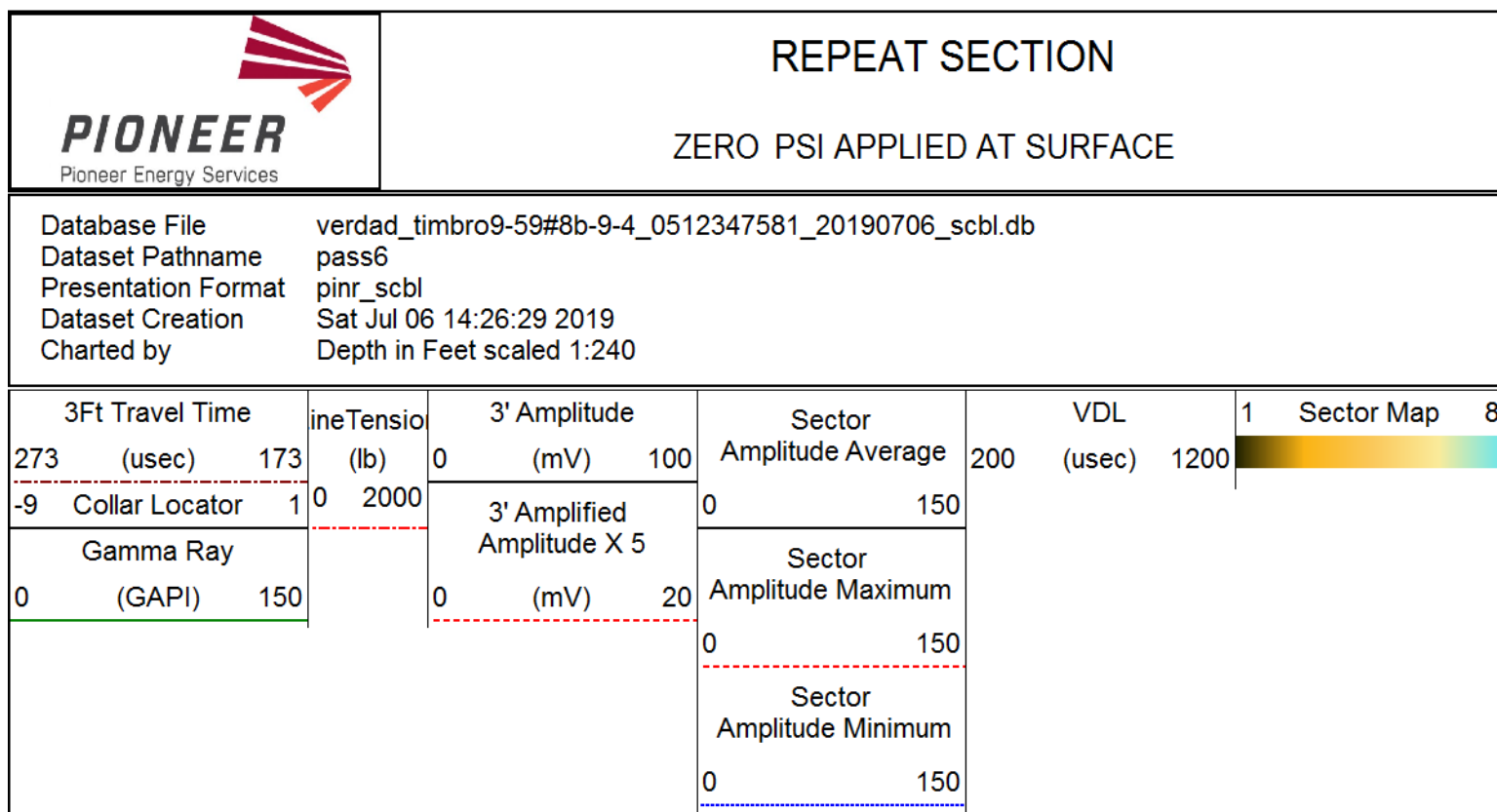
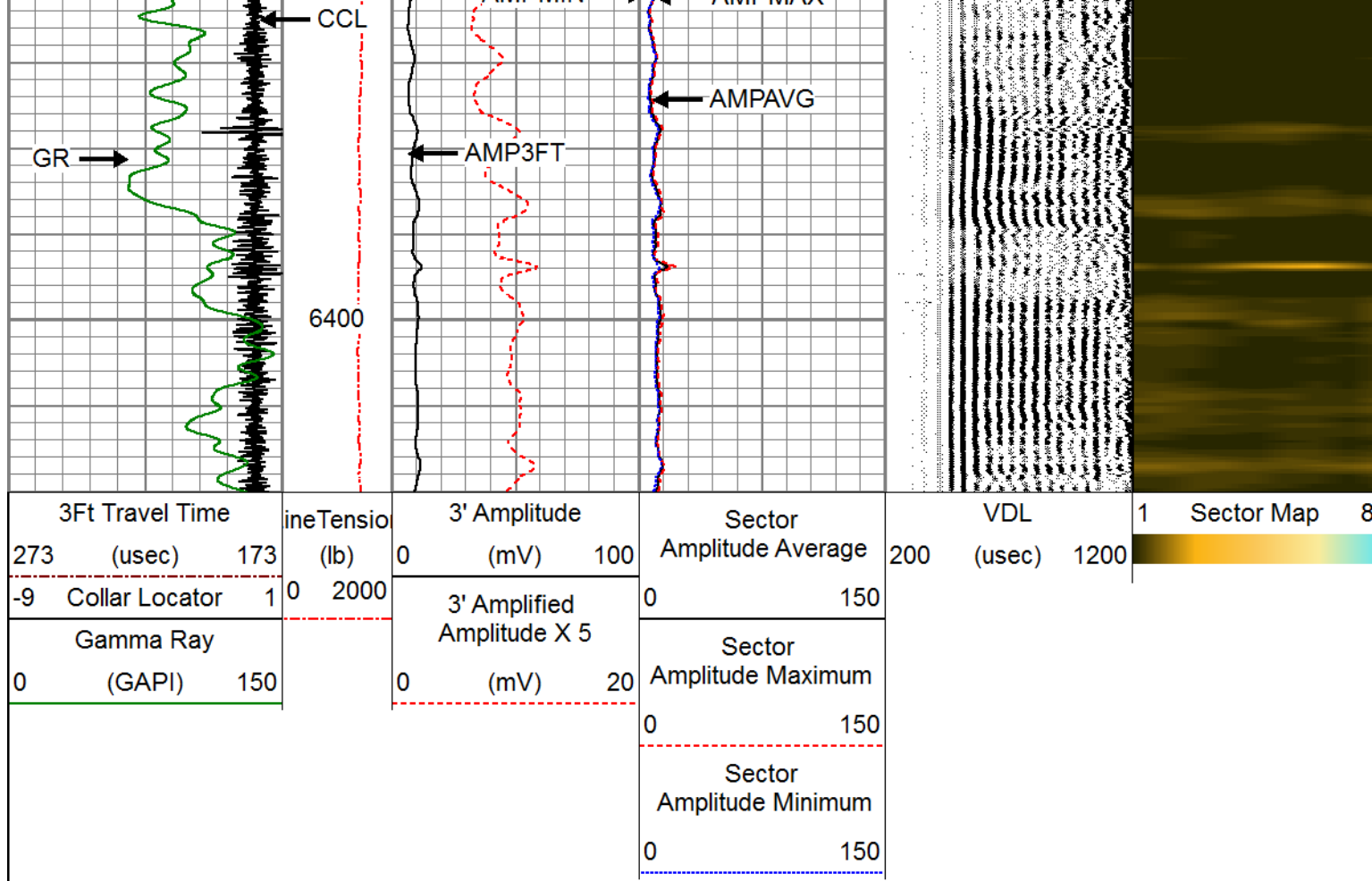


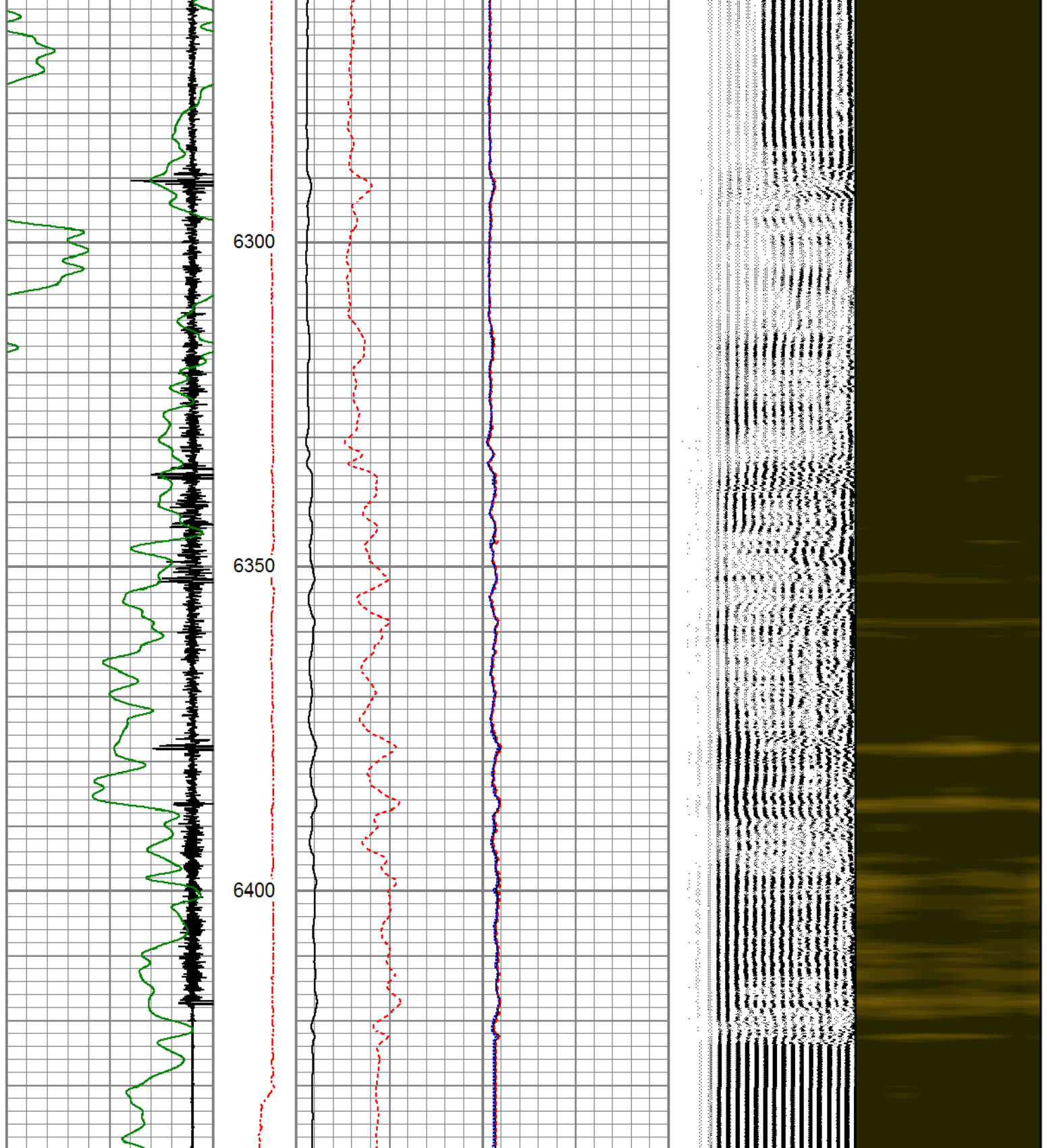












3Ft Travel Time			ineTension (lb)	3' Amplitude		Sector		VDL		1	Sector Map	8		
273	(usec)	173		0	(mV)	100	Amplitude Average		200				(usec)	1200
-9	Collar Locator	1		0	2000	3' Amplified Amplitude X 5		0	150					
Gamma Ray				0		(mV)	20	Sector Amplitude Maximum						
0	(GAPI)	150					0	150						
							Sector Amplitude Minimum							
							0	150						

Calibration Report

Database File verdad_timbro9-59#8b-9-4_0512347581_20190706_scbl.db
 Dataset Pathname pass6
 Dataset Creation Sat Jul 06 14:26:29 2019

Gamma Ray Calibration Report

Serial Number: 080630
 Tool Model: 275 Probe
 Performed: Sat Jul 06 08:52:43 2019

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.7100 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1304-33-T
 Tool Model: RBL-DC

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 3097.186 ft

Master Calibration, performed Sat Jul 06 13:09:06 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	1.411	2.200	71.921	49.439	2.138
CAL	0.001	1.483				
5'	0.012	1.322	2.200	71.921	53.221	1.566
SUM						
S1	-0.003	1.341	0.000	100.000	74.400	0.210
S2	0.007	1.439	0.000	100.000	69.809	-0.458
S3	0.007	1.411	0.000	100.000	71.225	-0.466
S4	0.006	1.424	0.000	100.000	70.541	-0.437
S5	0.007	1.384	0.000	100.000	72.598	-0.508
S6	0.006	1.360	0.000	100.000	73.875	-0.470
S7	0.006	1.281	0.000	100.000	78.431	-0.451
S8	0.009	1.357	0.000	100.000	74.175	-0.640

Air Zero Calibration, performed (Not Performed):

	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



PIONEER

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Company	VERDAD RESOURCES
Well	TIMBRO 9-59 #8B-9-4
Field	WILDCAT
County	WELD
State	COLORADO