



PIONEER

Pioneer Energy Services

RADIAL BOND LOG WITH GAMMA RAY

Comp. VERDAD RESOURCES		Company	VERDAD RESOURCES	
Well ROHN 9-60 #14A-23-1		Well	ROHN 9-60 #14A-23-1	
Field WILDCAT		Field	WILDCAT	
Co. WELD		County	WELD	
State COLORADO		State	COLORADO	
Location:		API # : 05-123-47781		Other Services
2019' FSL & 2519' FEL		NW SE		NONE
SEC 14 TWP 9N RGE 60W		Permanent Datum GL		Elevation 4987'
Log Measured From KB		24'		Above Perm. Datum
Drilling Measured From KB		K.B. 5011'		D.F. N/A
G.L. 4987'		Date of Service		19 MAY 2019
Run Number		ONE		
Depth Driller or P8TD		N/A		
Depth Logger		6831'		
Bottom Log Interval		6831'		
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		1920'		
Unit Number		P-81		
Wireline Size		9/32"		
Location		FORT MORGAN		
Recorded By		SCHOENROGGE		
Witnessed By		MR. DAMRON		
Size		WV/Ft		Top
Tubing Record				Bottom
Surface Casing		9.625"		36#
Production Casing		5.5"		20#
Liner Record				SURFACE
				SURFACE
				1874'
				14075'

<<< Fold Here >>>

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.
DEPTHS ARE WIRELINE

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew		Tool Data - Services	Serial Number
Engineer: SCHOENROGGE		SEE DIAGRAM	
Operator: ELSENPETER			
Operator: CHOOCH			
Operator:			

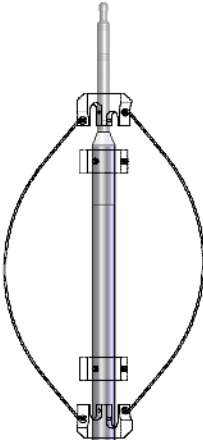

Top - Bottom


BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL
TEMP	in	degF	in	in	lb/ft	mV
	8.5	220	5.5	0.361	20	71.9
MINAMPL	MINATTN	PERFS	PPT	SRFTEMP	TDEPTH	
mV	db/ft		usec	degF	ft	
2.2	0.8	0	261	50	6800	


Variable Description

BHTEMP_Src : BHTEMP Input Source Selector
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)
			Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31
			Centralizer-275 OverBody 2 3/4" Over Body Centralizer	2.73	3.75	20.00
			PROBE-RBT-DIGITAL-RBL-DC (FW1304-38.75 Probe 2 3/4" Radii Bond-Corrosion Package	38.75	2.75	100.00
WVFS8	9.27					
WVFS7	9.27					
WVFS6	9.27					
WVFS5	9.27					
WVFS4	9.27					
WVFS3	9.27					
WVFS2	9.27					
WVFS1	9.27					
WVFCAL	9.27					
WVF3FT	9.27					
WVF5FT	8.27					
HEADVOLT	5.08					

CCL	4.20					
GCT_TEMP	3.41					
GR	2.83					
			PROBE-GR/CCL-DIGITAL-275 Probe GCT 4.75608) Probe 2 3/4" Gamma Ray/Temp/CCL	2.75	60.00	
			Bullnose-PROBE Probe Go Pin Pressure Cap	0.33	1.38	1.00
Dataset: verdad_rohn 14a-23-1_0512347781_20190519_scbl.db: field/well/run1/pass5 Total length: 14.85 ft Total weight: 184.31 lb O.D.: 3.75 in						

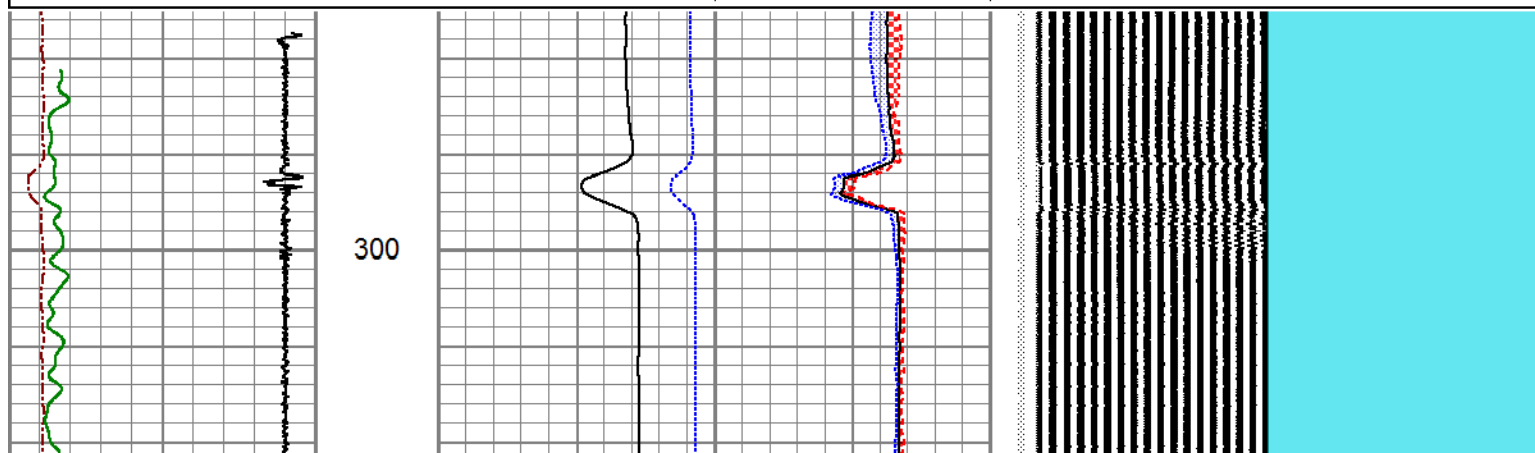


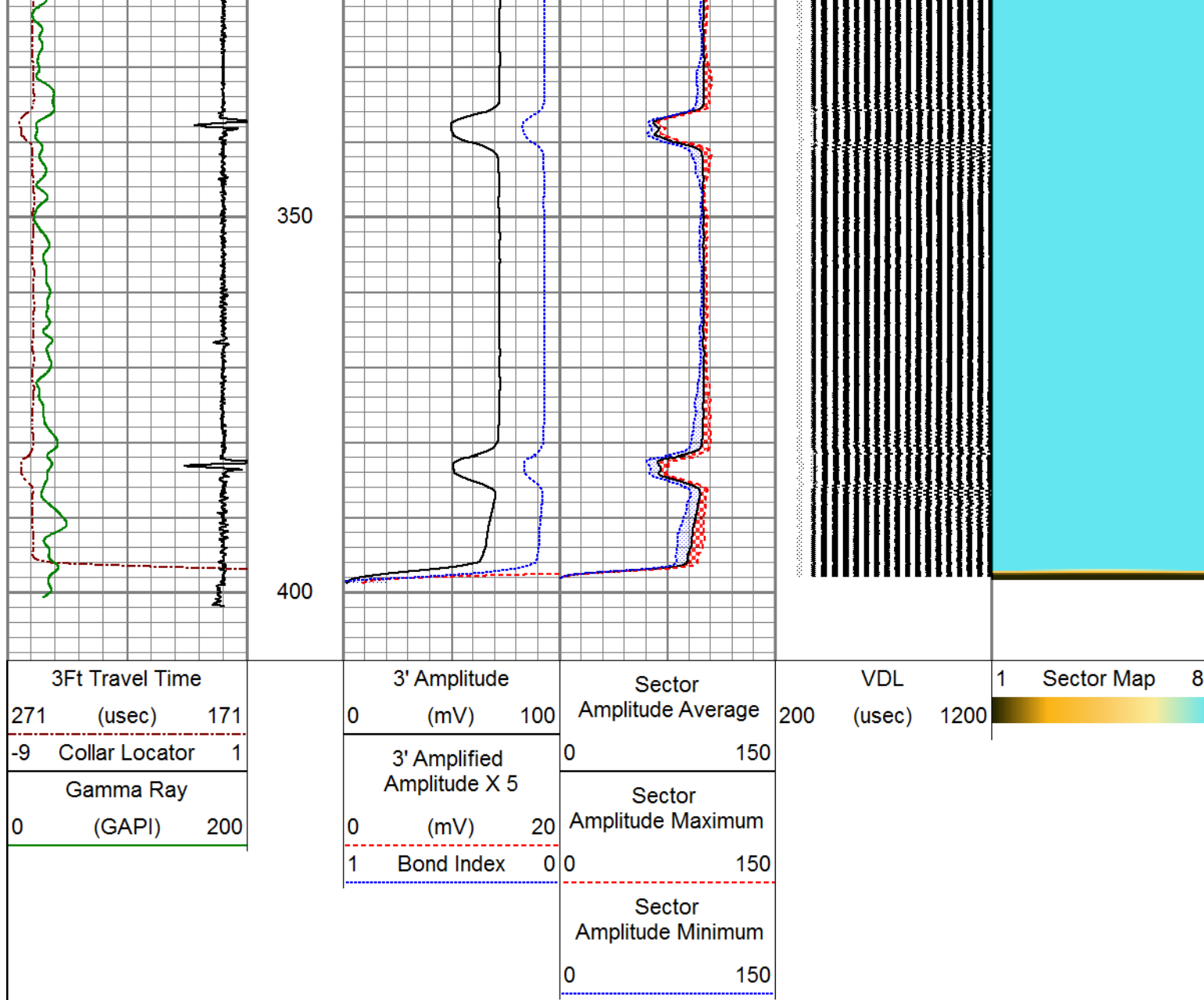
FREE PIPE SECTION


ZERO PSI APPLIED AT SURFACE

Database File	verdad_rohn 14a-23-1_0512347781_20190519_scbl.db
Dataset Pathname	pass2
Presentation Format	pinr_scbl
Dataset Creation	Sun May 19 08:28:55 2019
Charted by	Depth in Feet scaled 1:240

3Ft Travel Time	3' Amplitude	Sector	VDL	Sector Map
271 (usec) 171	0 (mV) 100	Amplitude Average	200 (usec) 1200	1 8
-9 Collar Locator 1	3' Amplified Amplitude X 5	0 150		
Gamma Ray	0 (mV) 20	Sector Amplitude Maximum		
0 (GAPI) 200	1 Bond Index 0	0 150		
		Sector Amplitude Minimum		
		0 150		





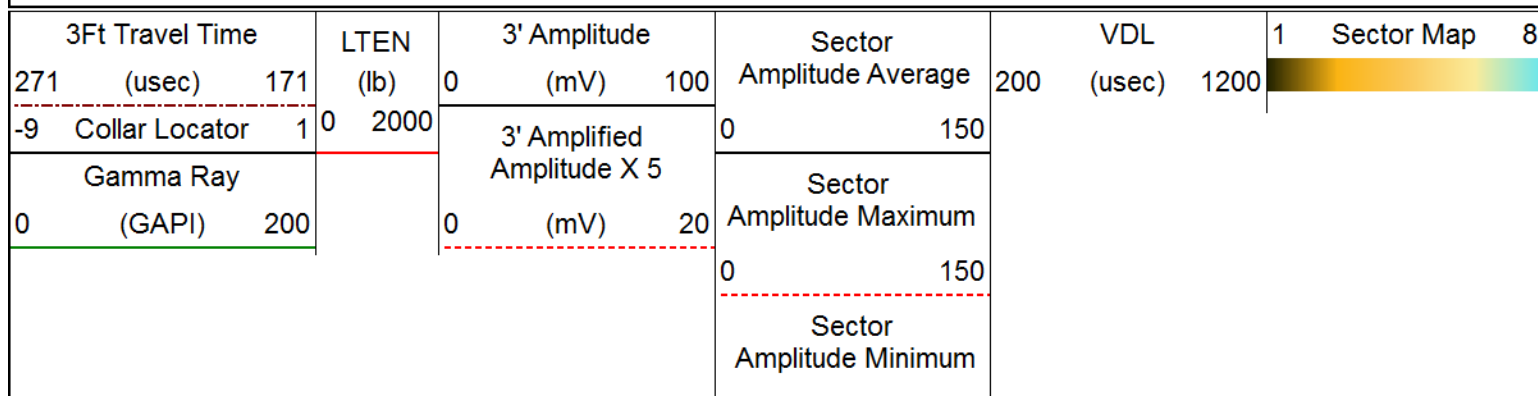


PIONEER
Pioneer Energy Services

MAIN LOG

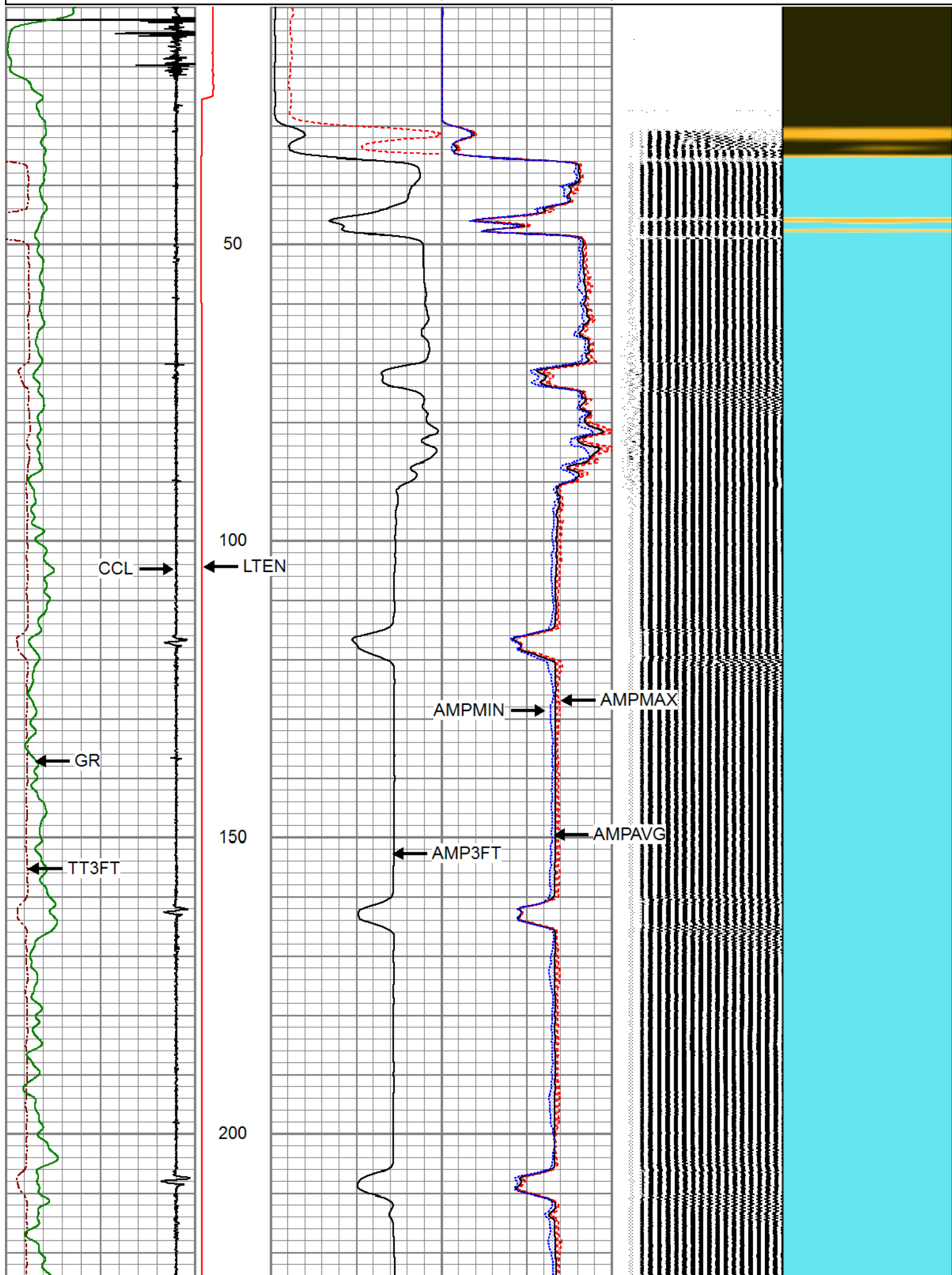
ZERO PSI APPLIED AT SURFACE

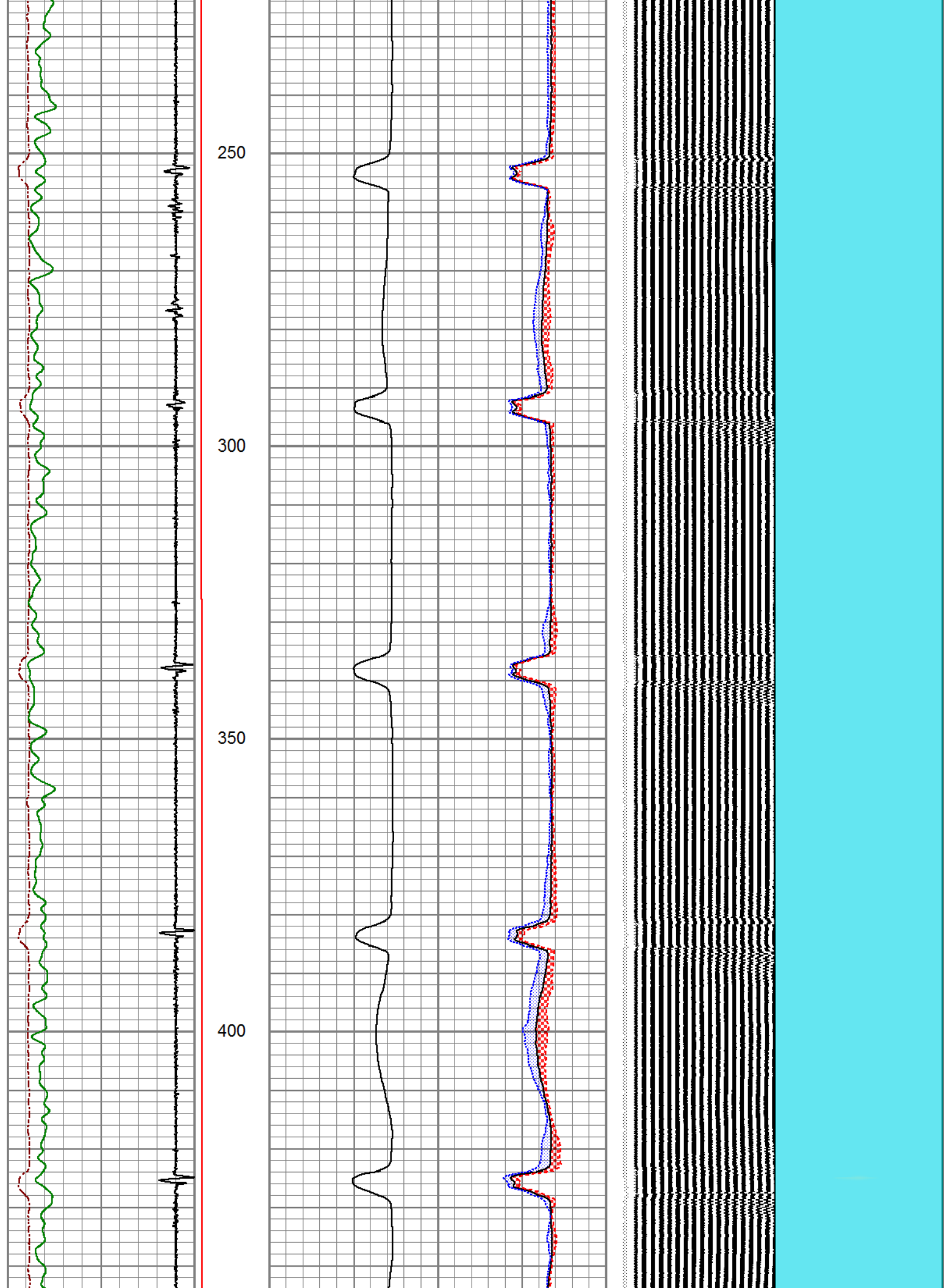
Database File	verdad_rohn 14a-23-1_0512347781_20190519_scbl.db
Dataset Pathname	pass5
Presentation Format	pinr_scbl
Dataset Creation	Sun May 19 09:03:43 2019
Charted by	Depth in Feet scaled 1:240

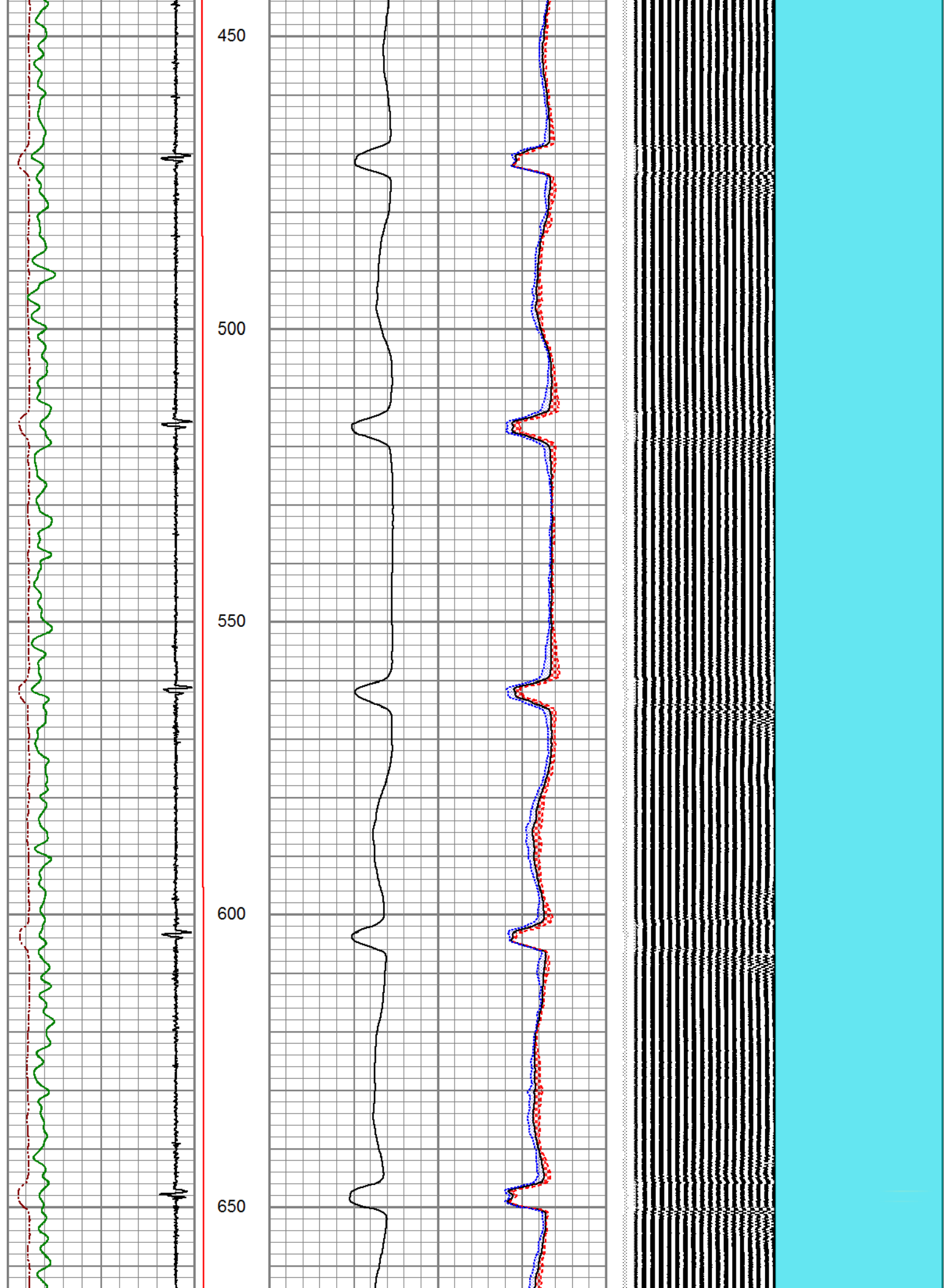


0

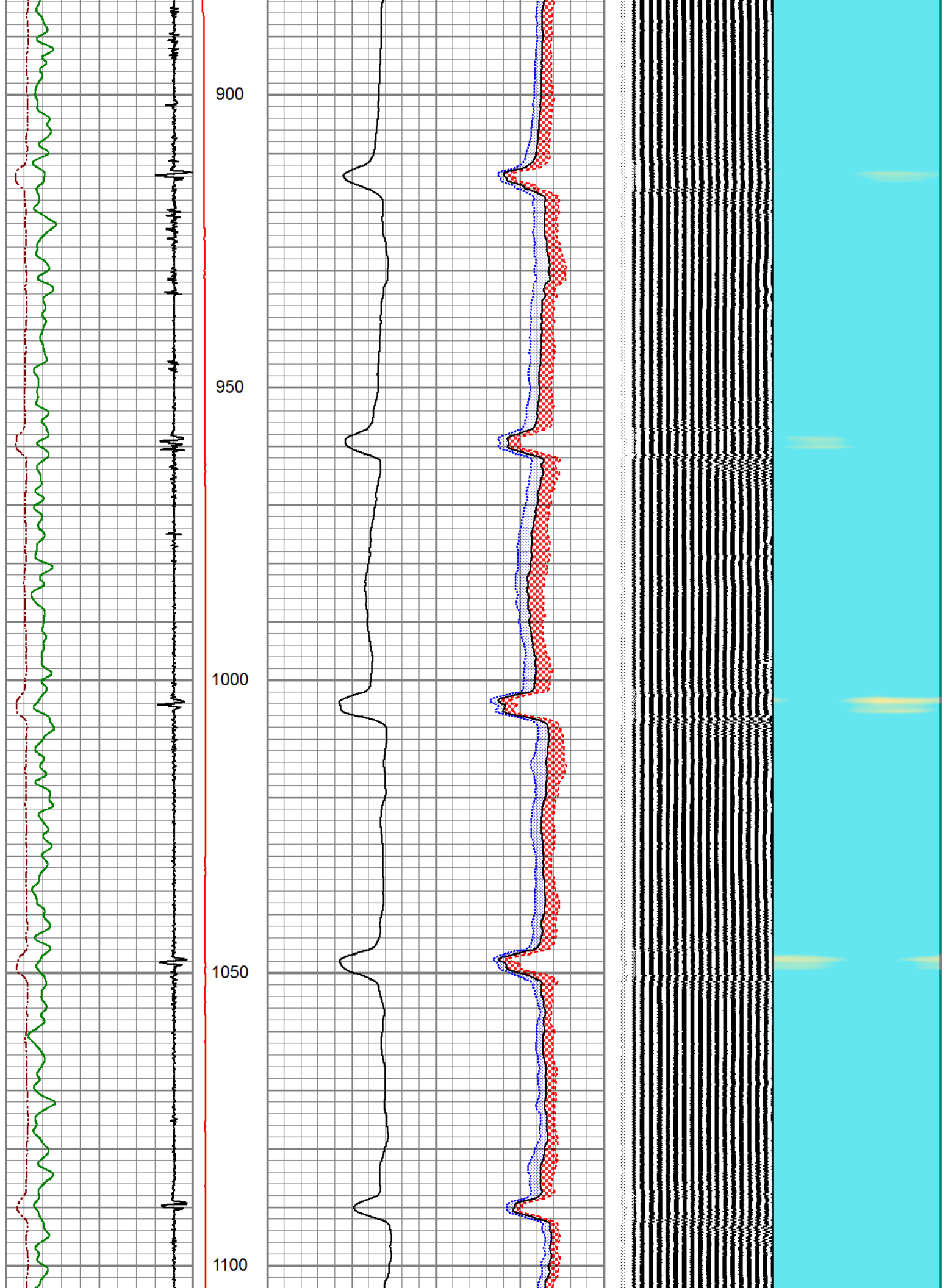
150

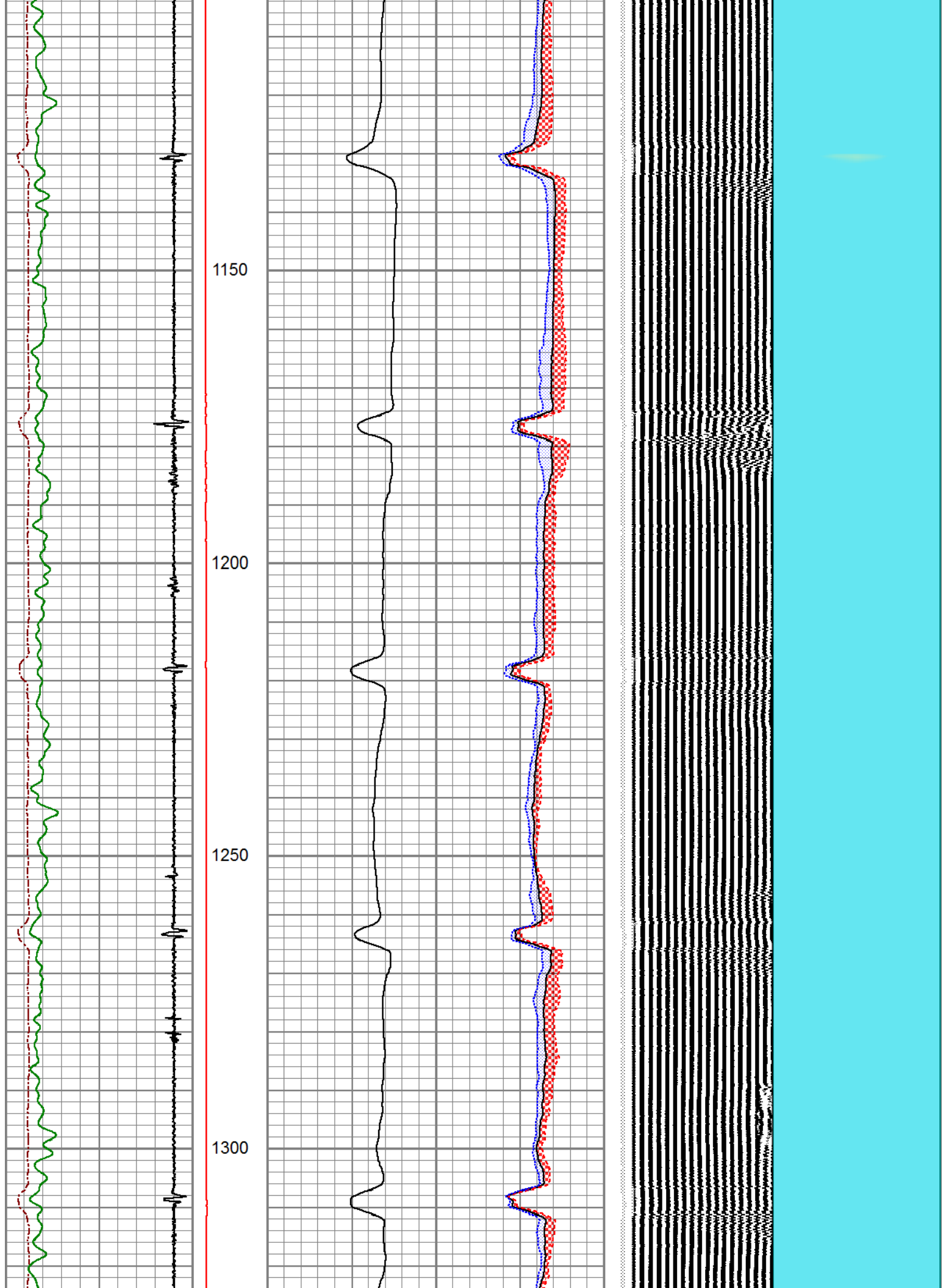


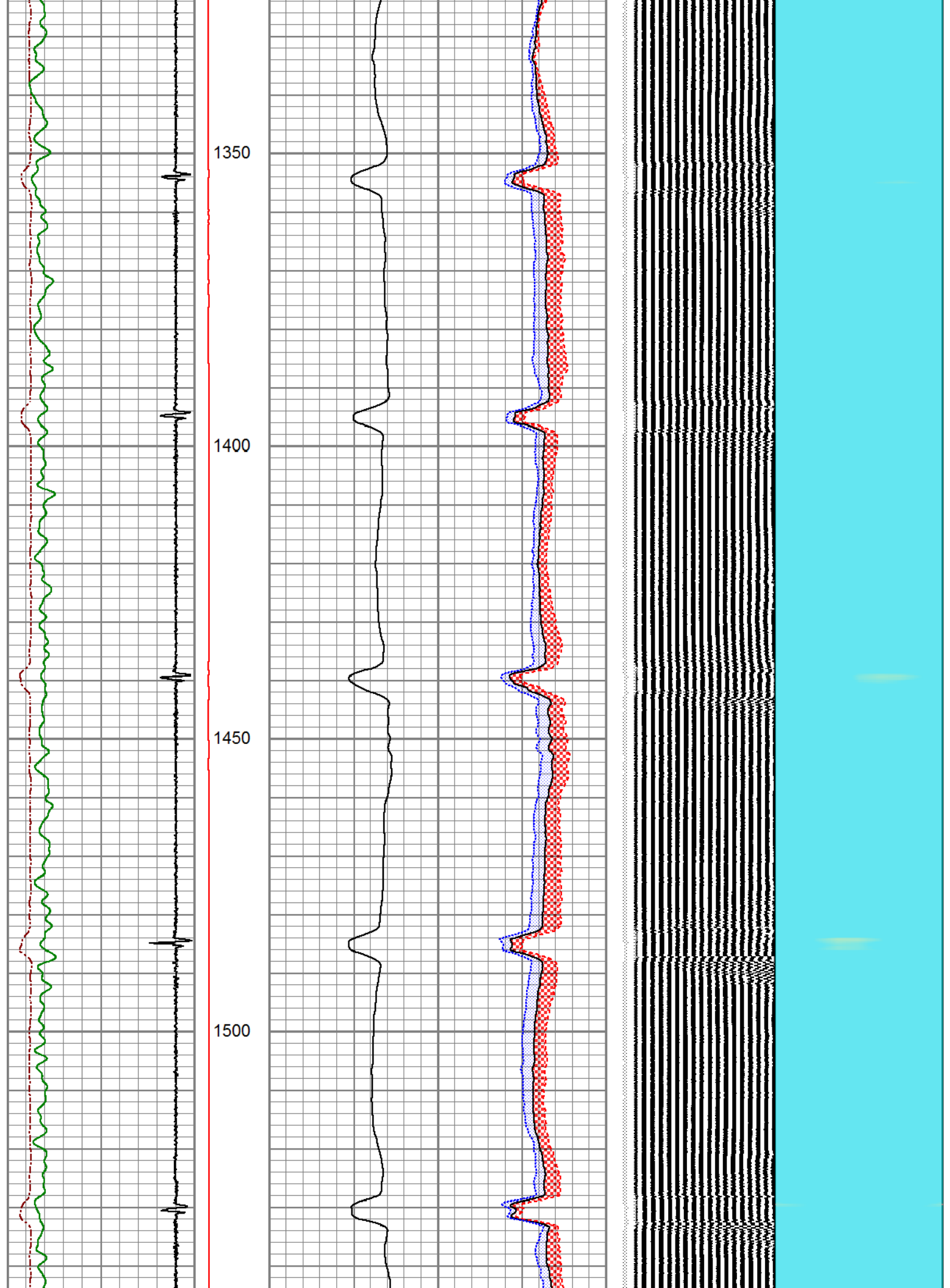


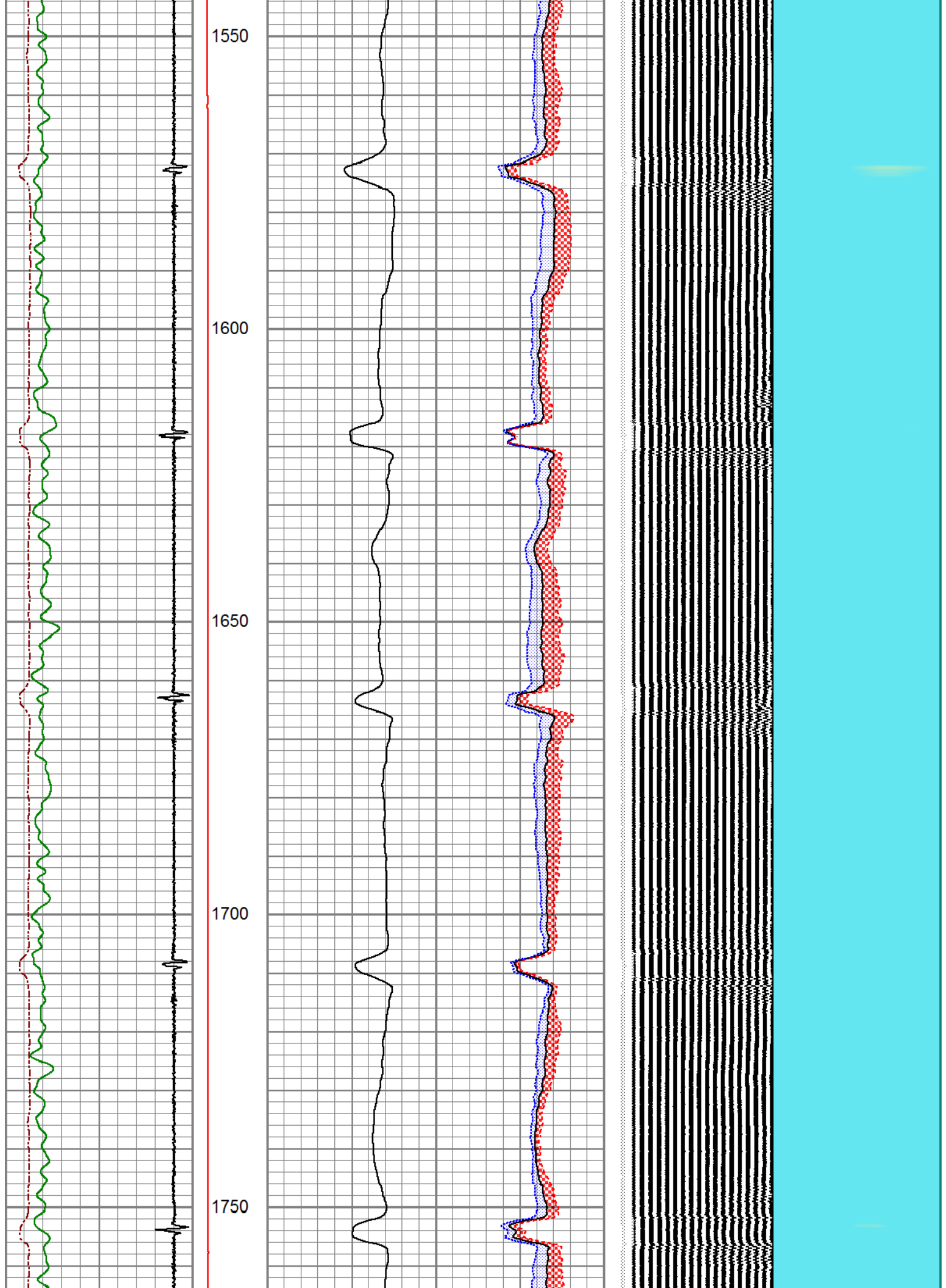


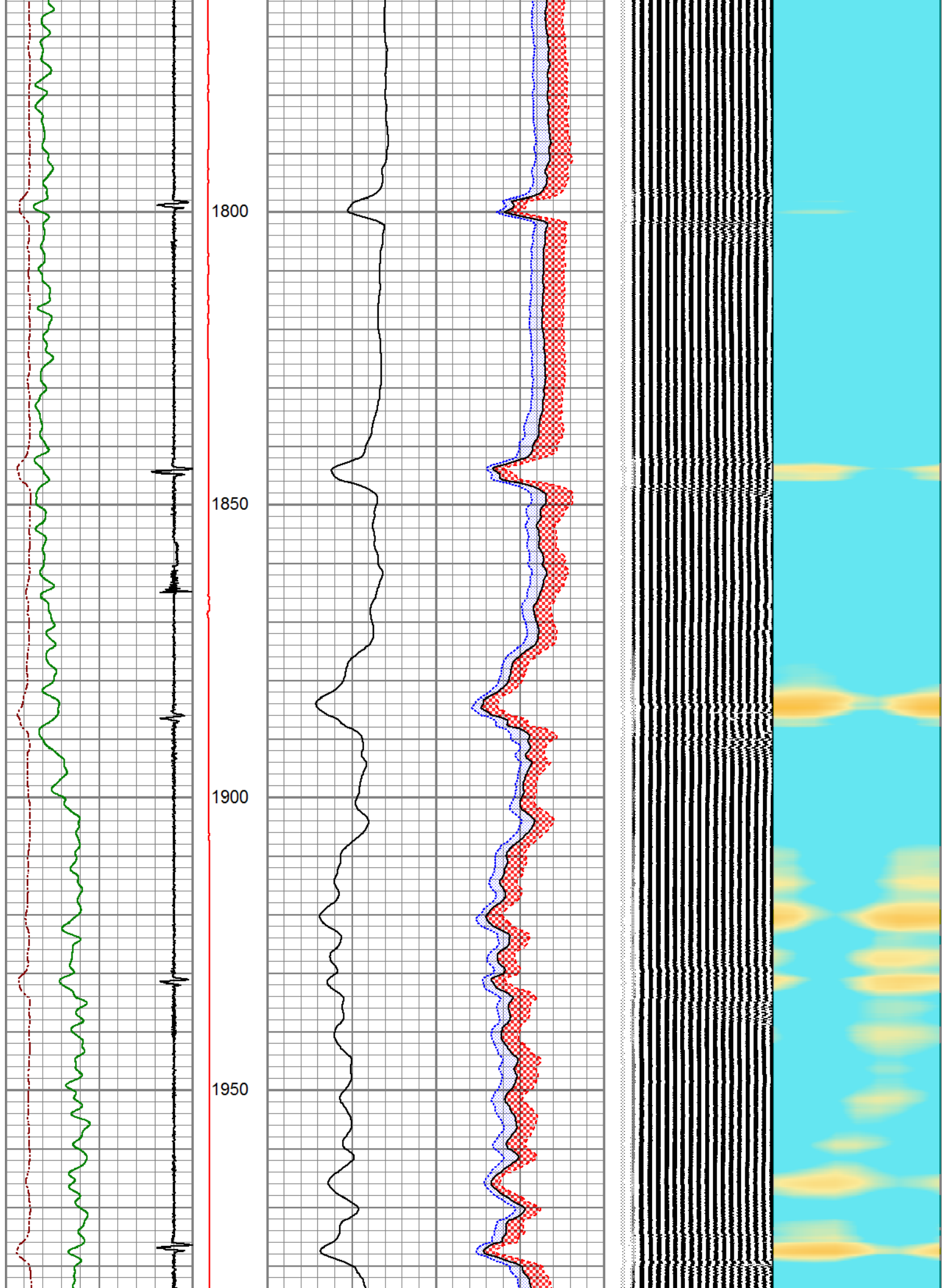


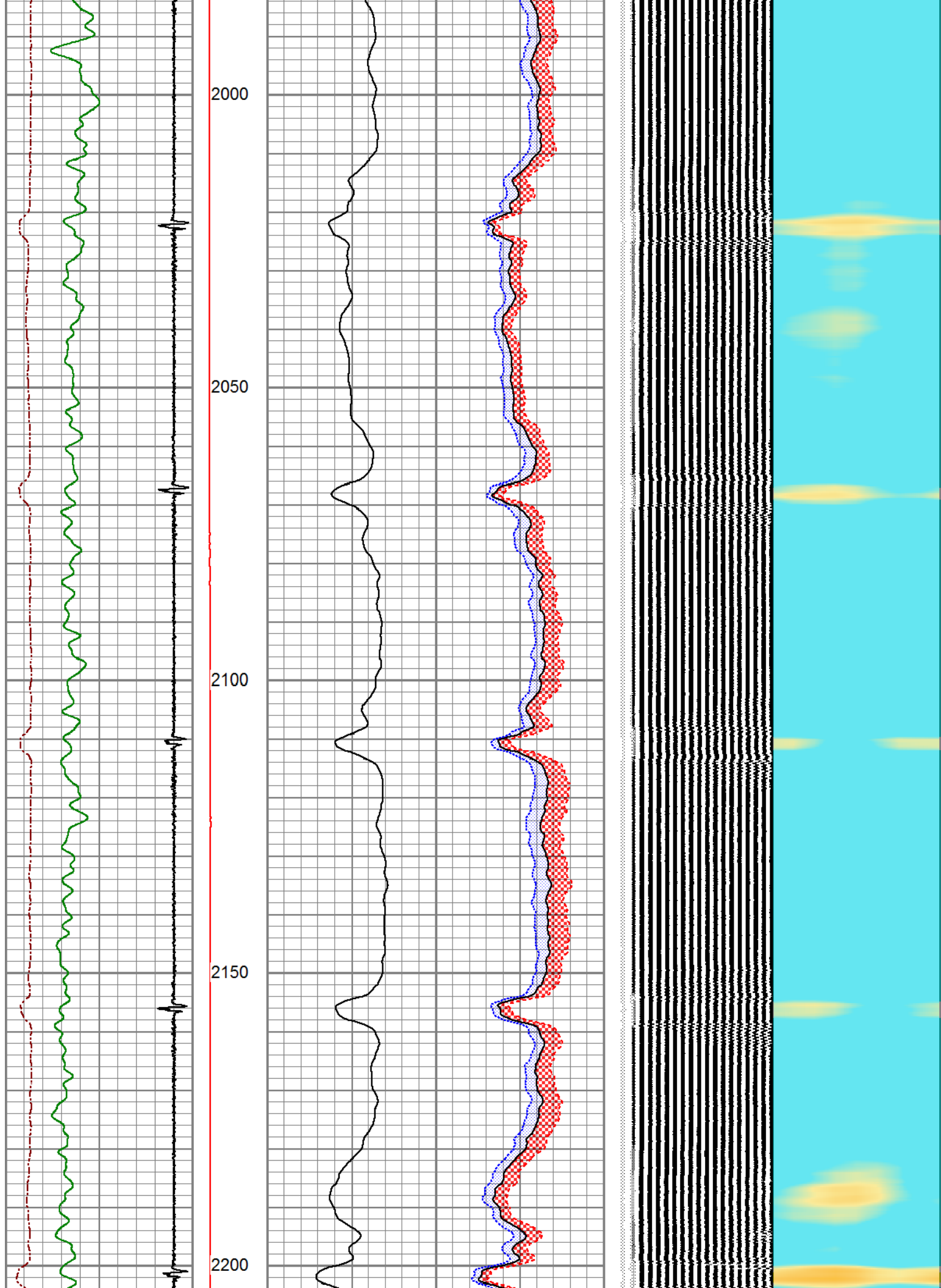


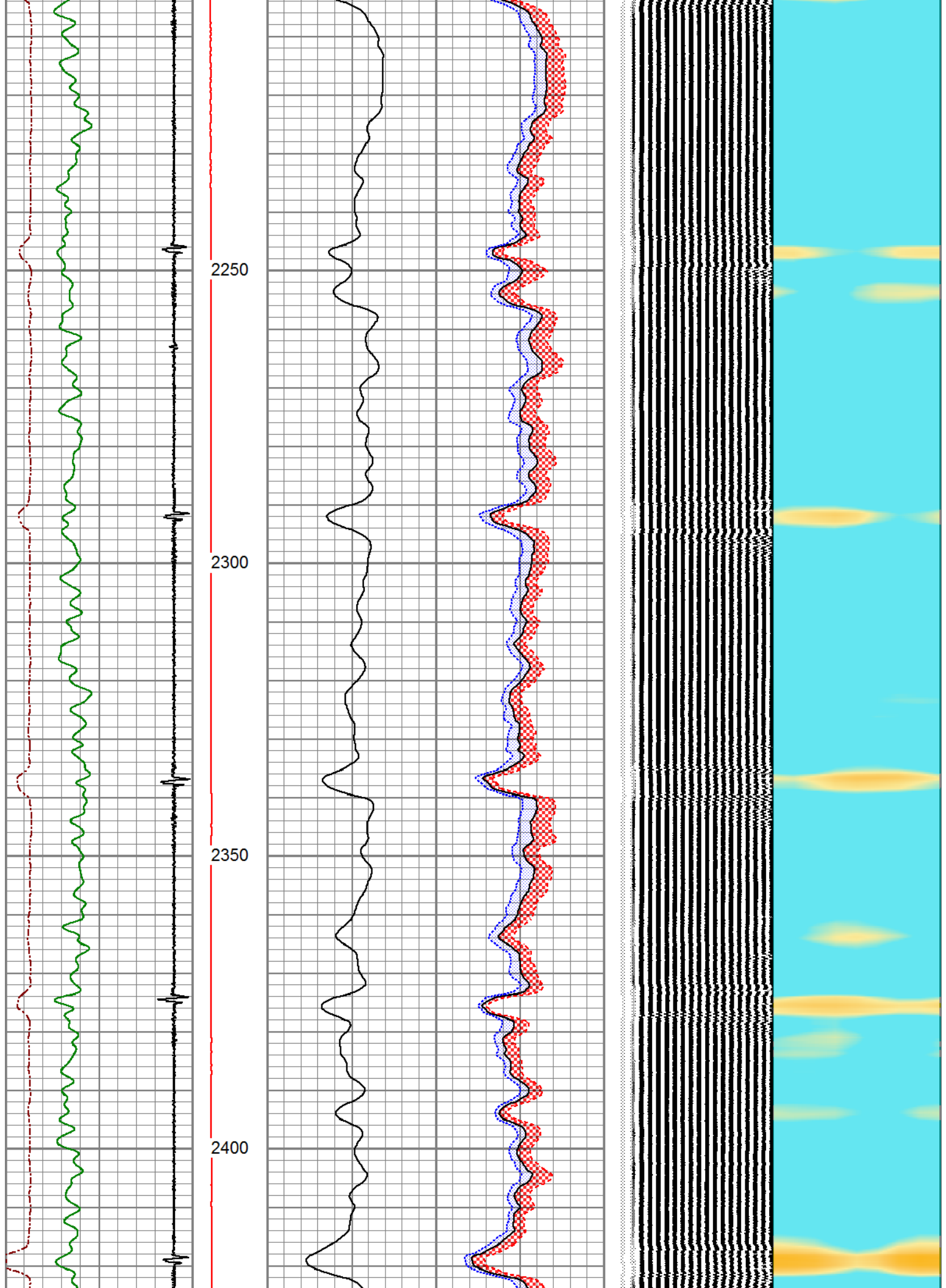


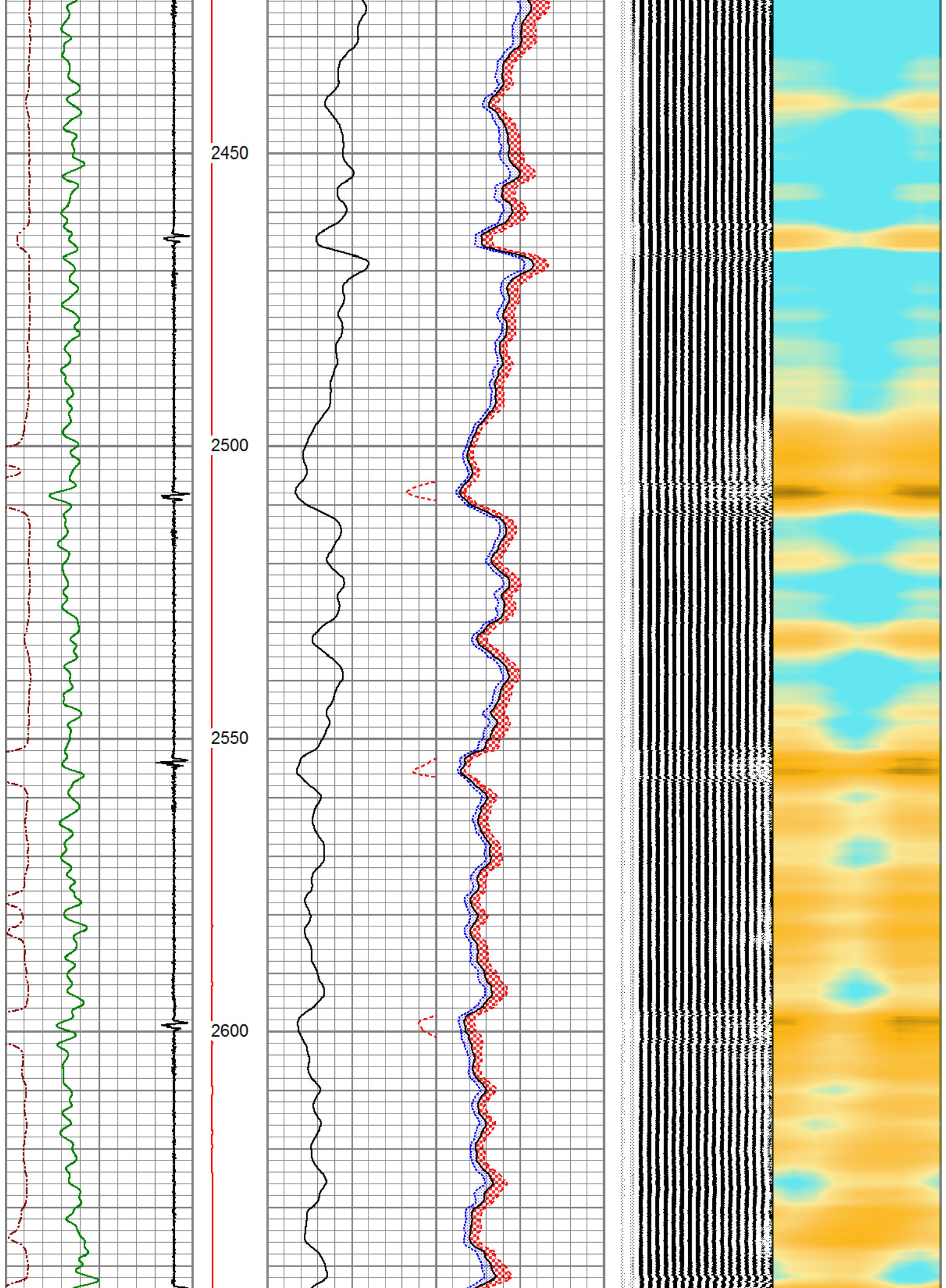


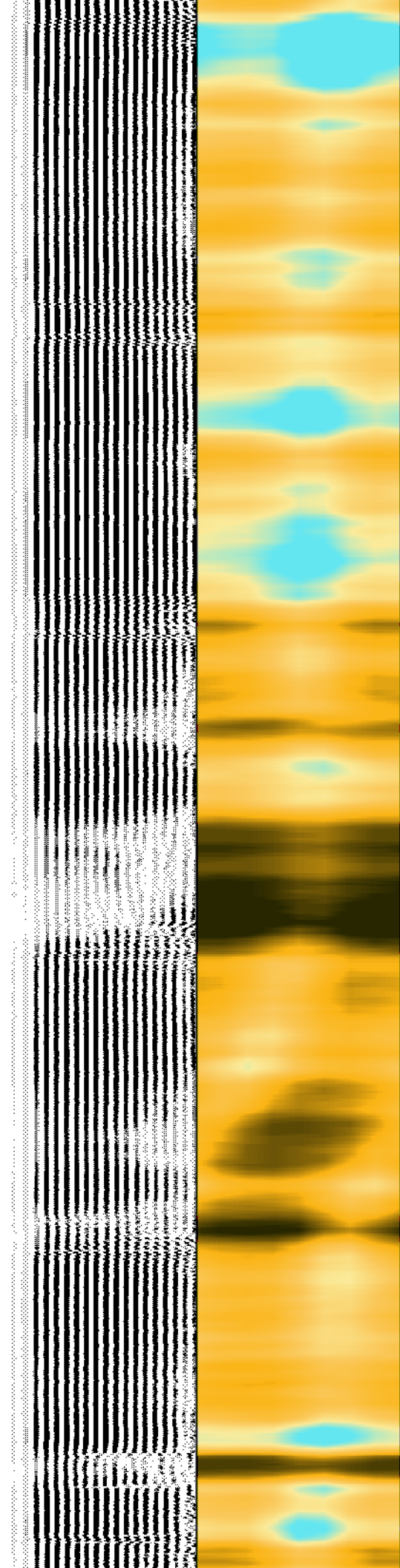
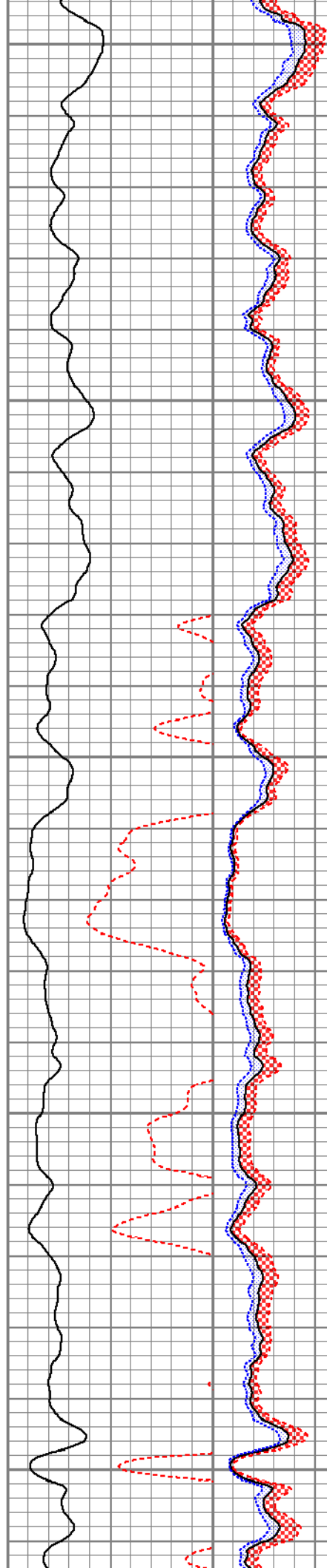
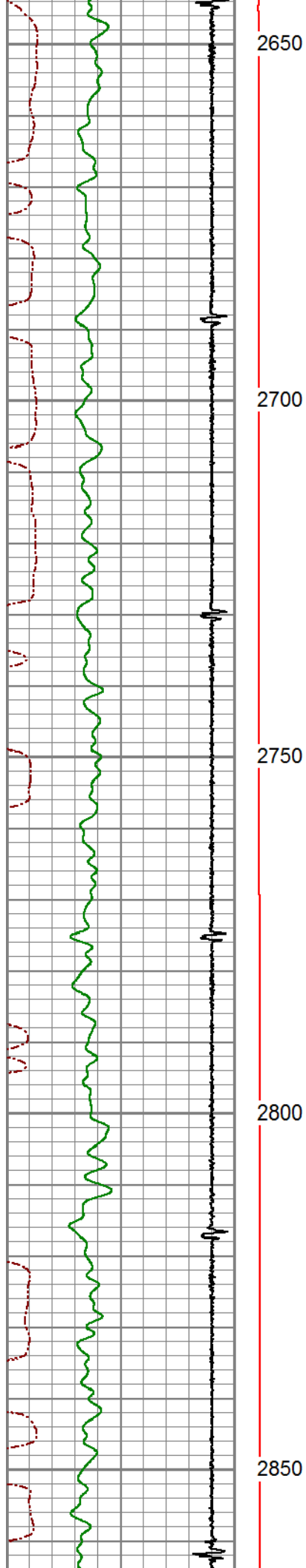


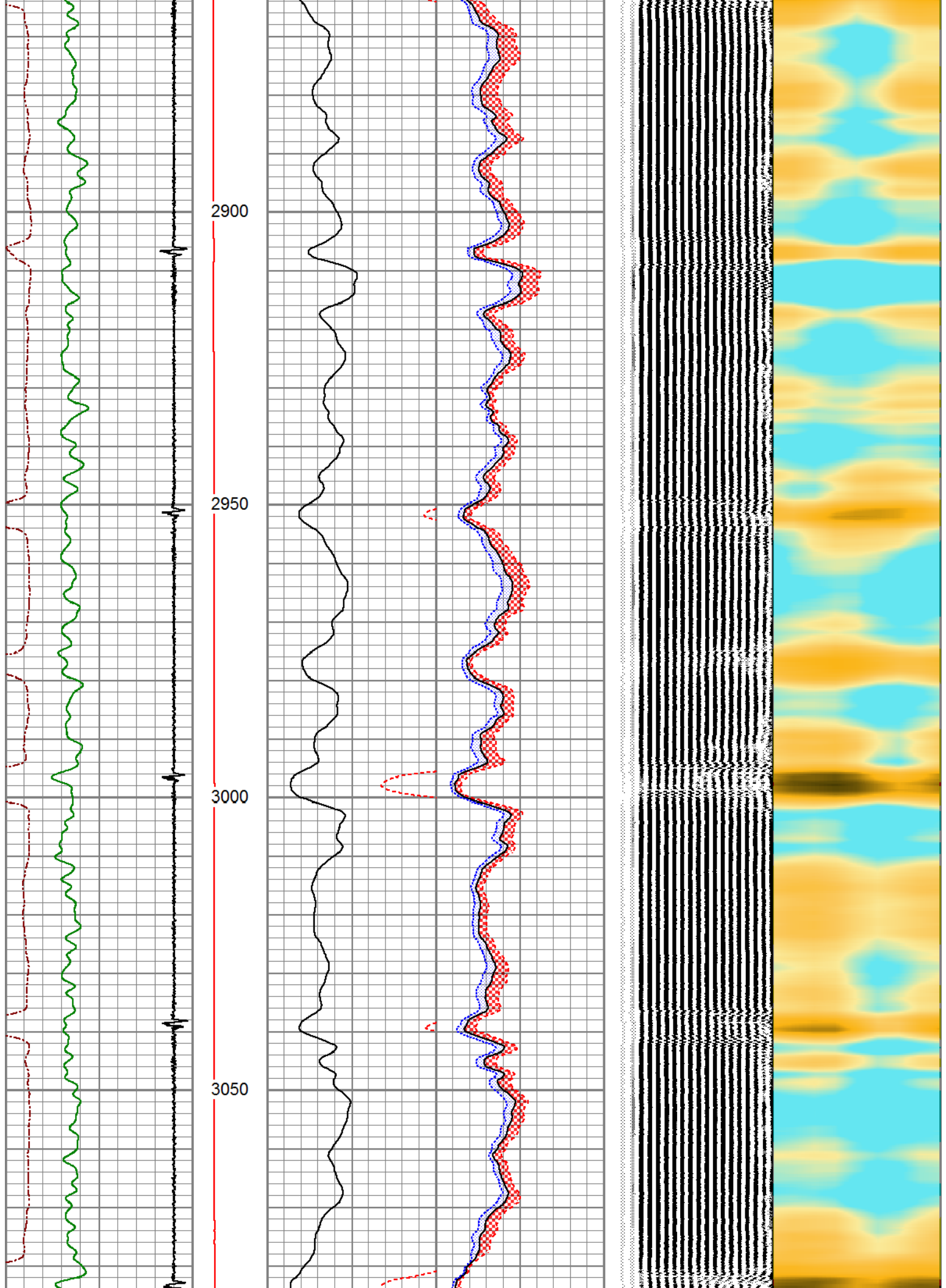


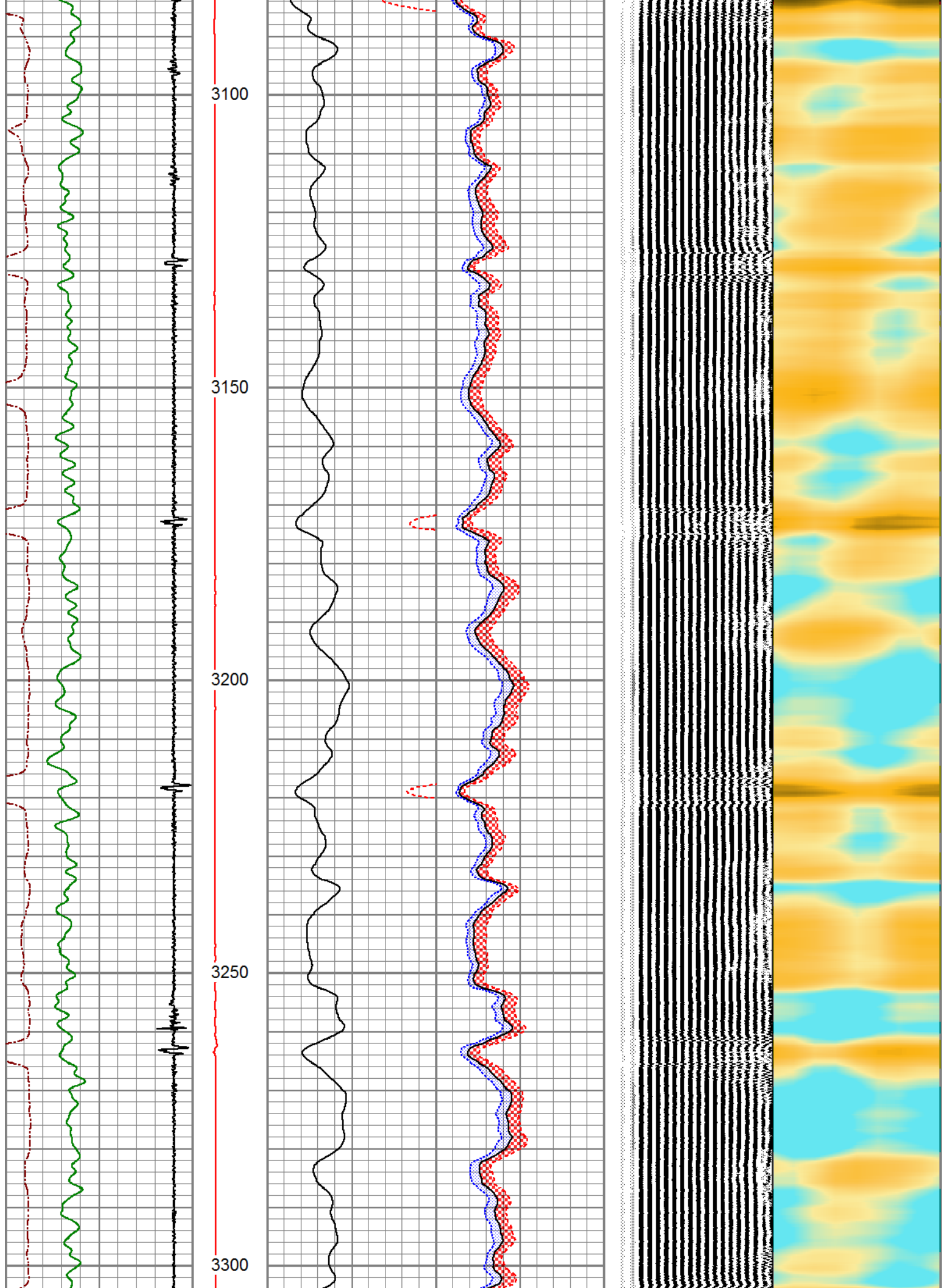


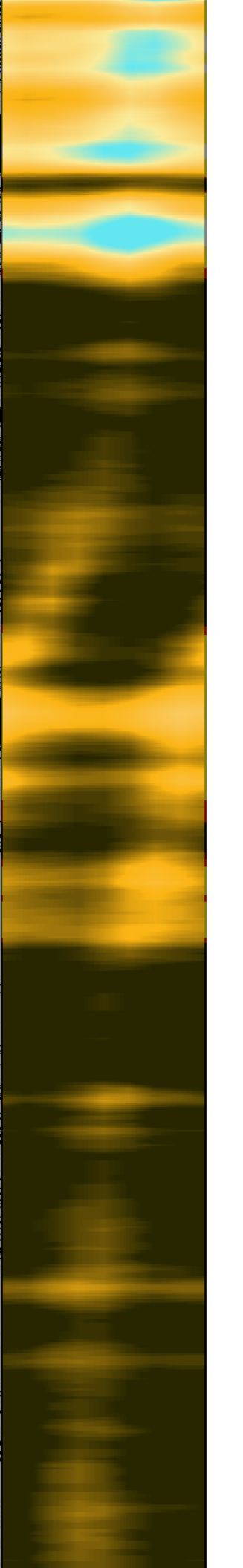
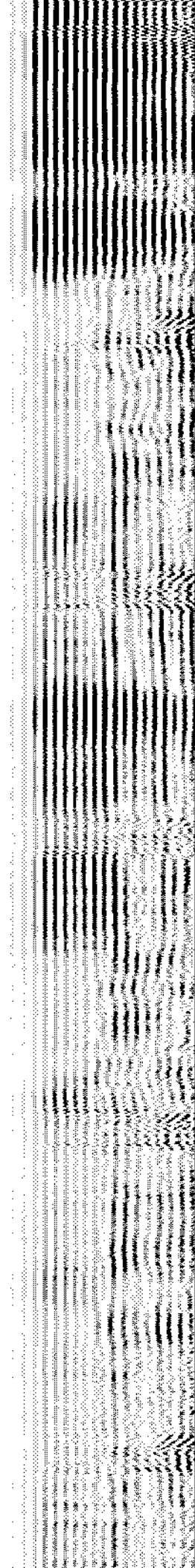
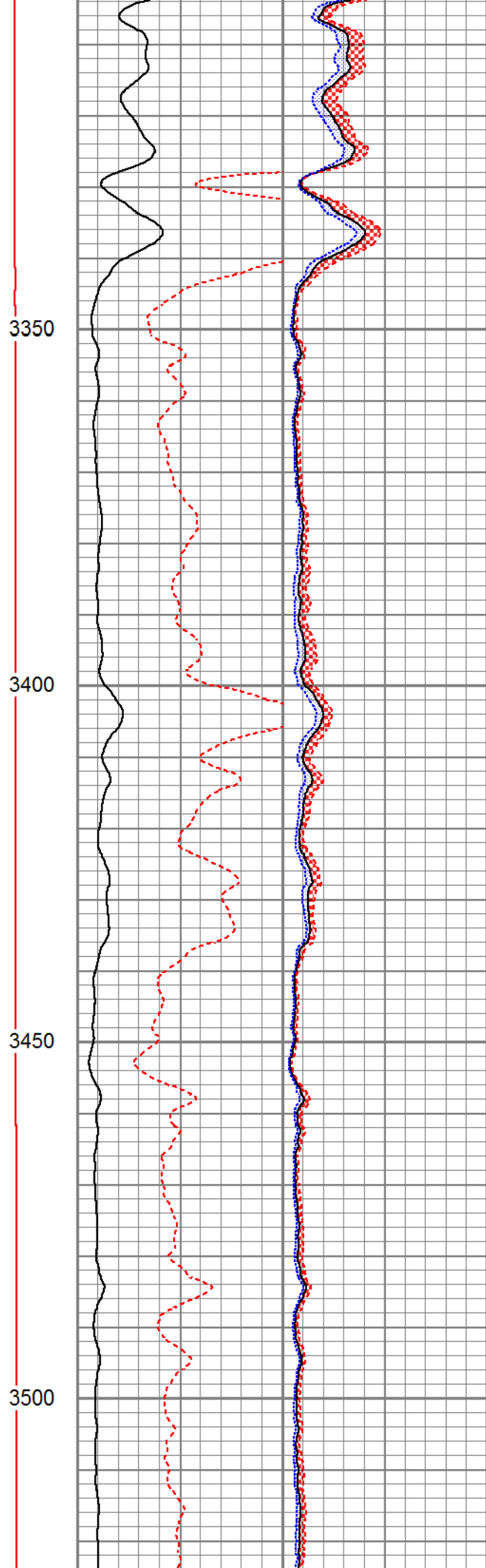
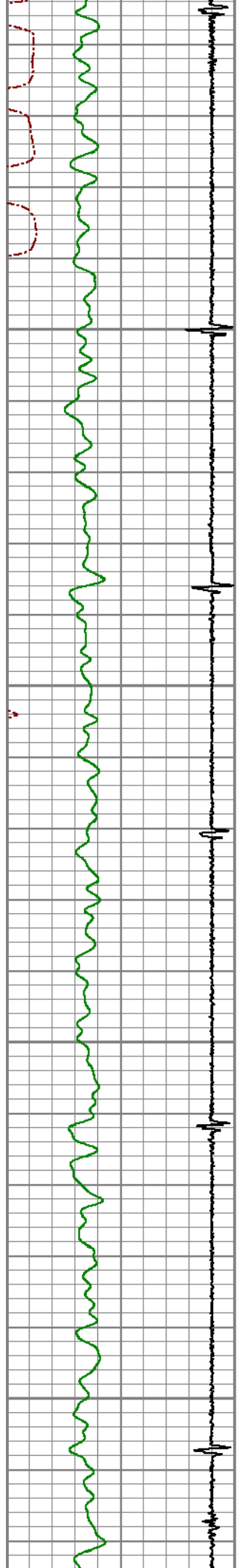


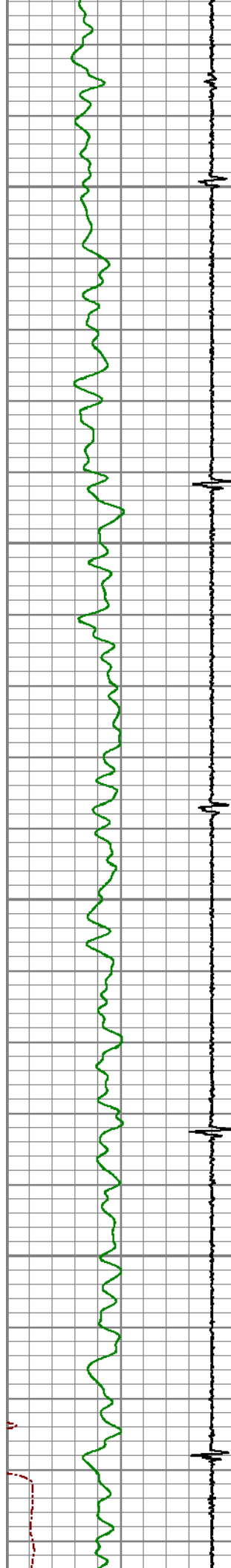










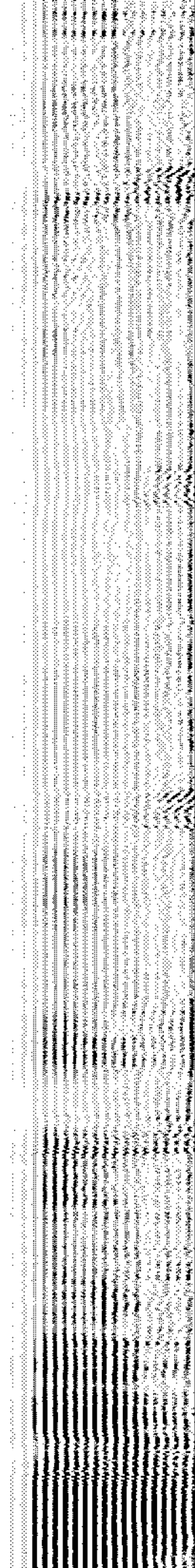


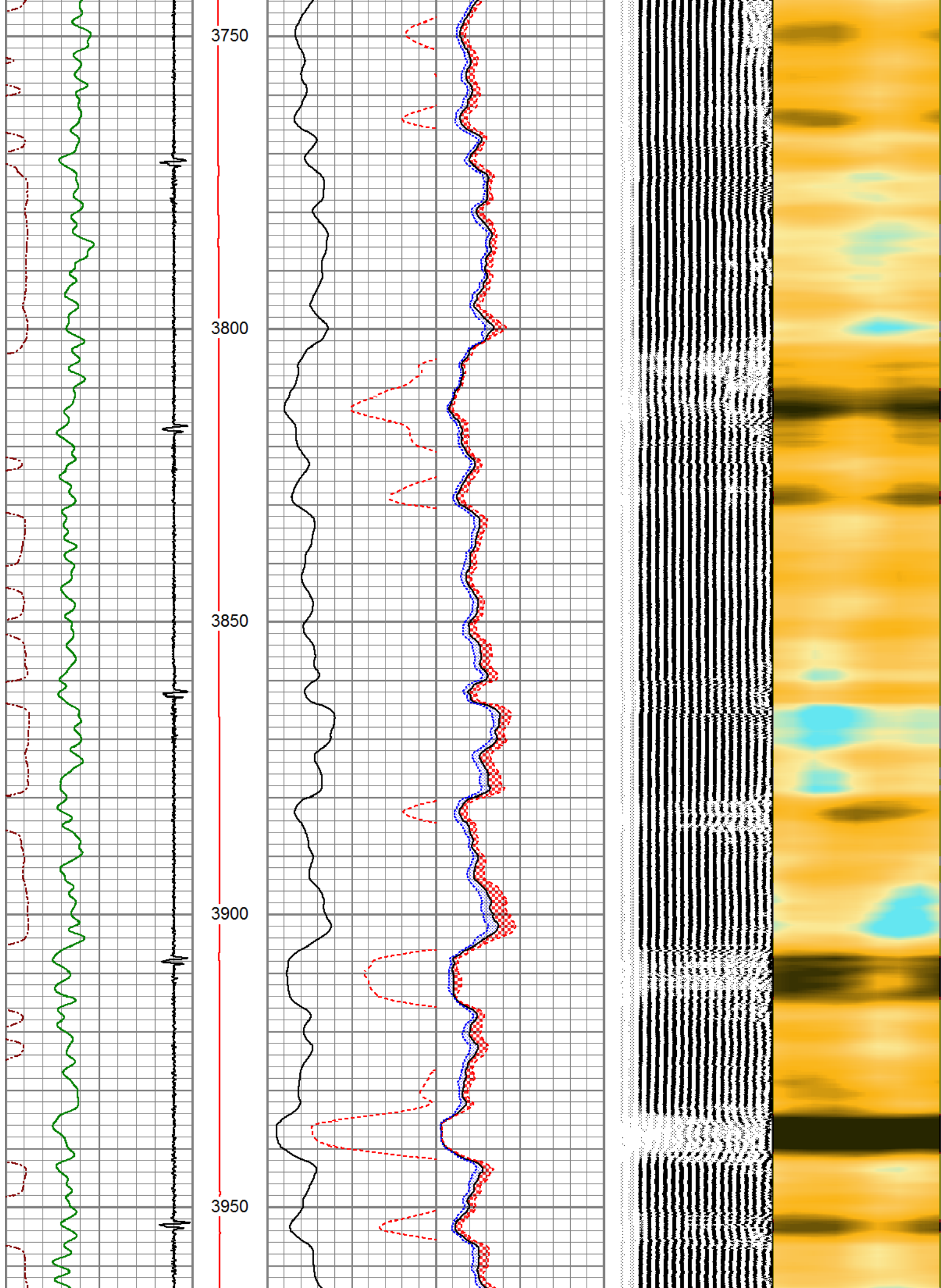
3550

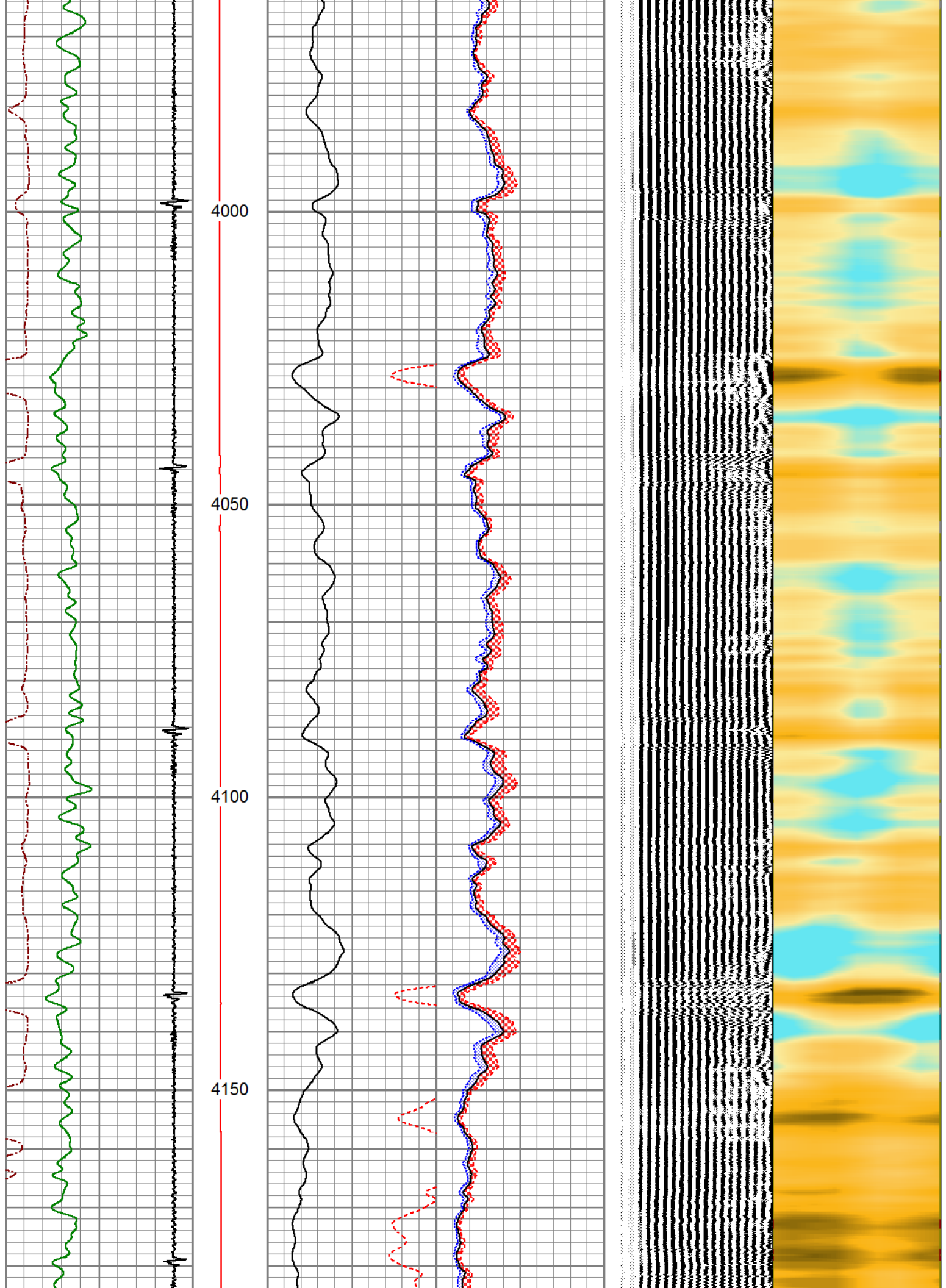
3600

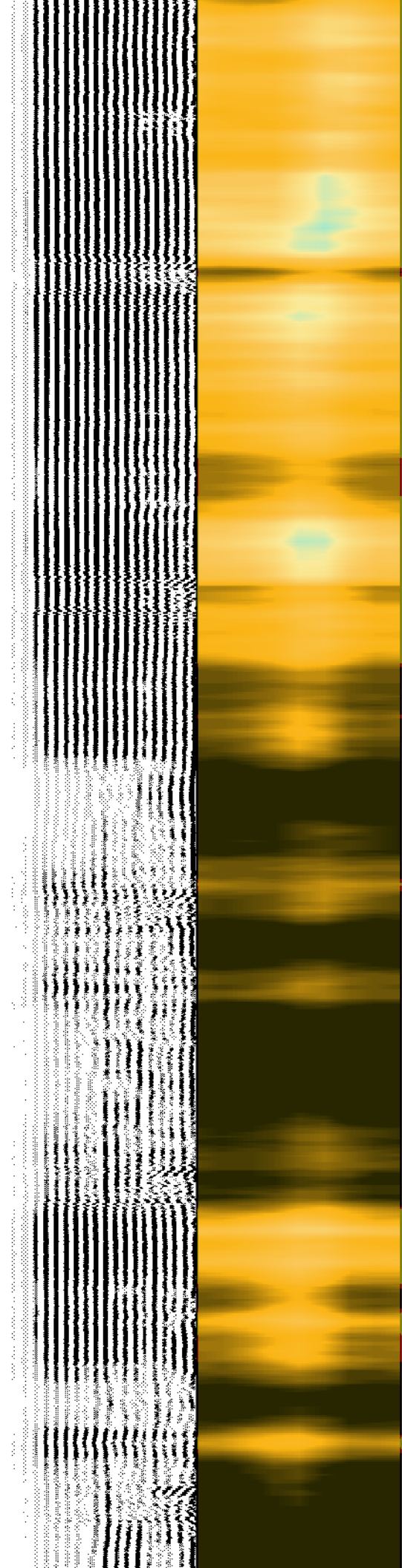
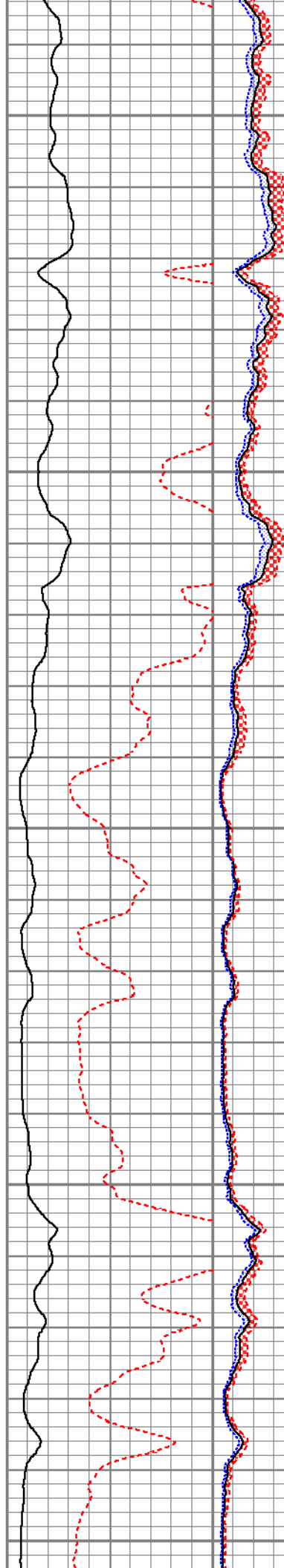
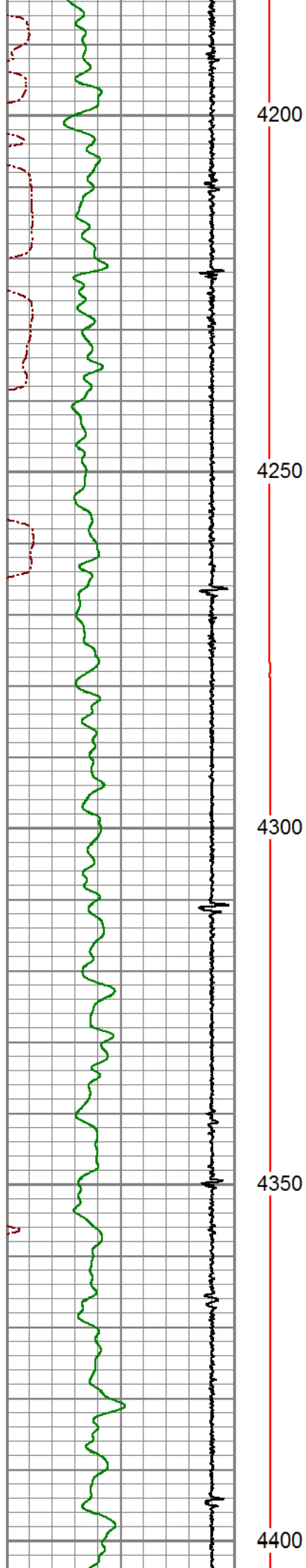
3650

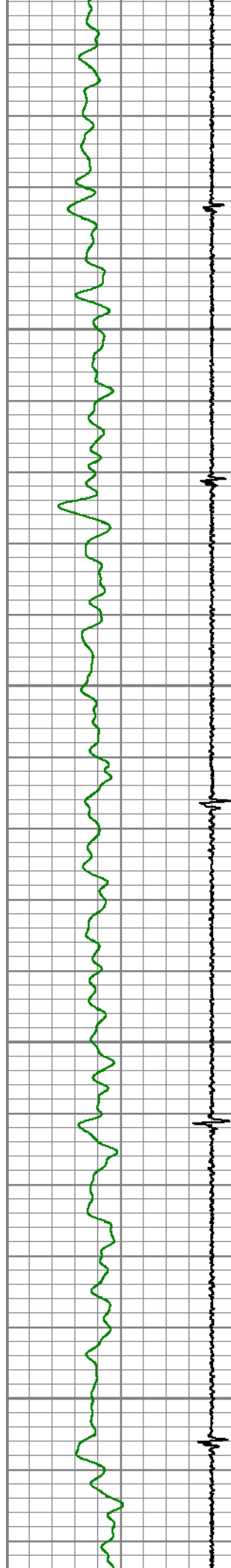
3700









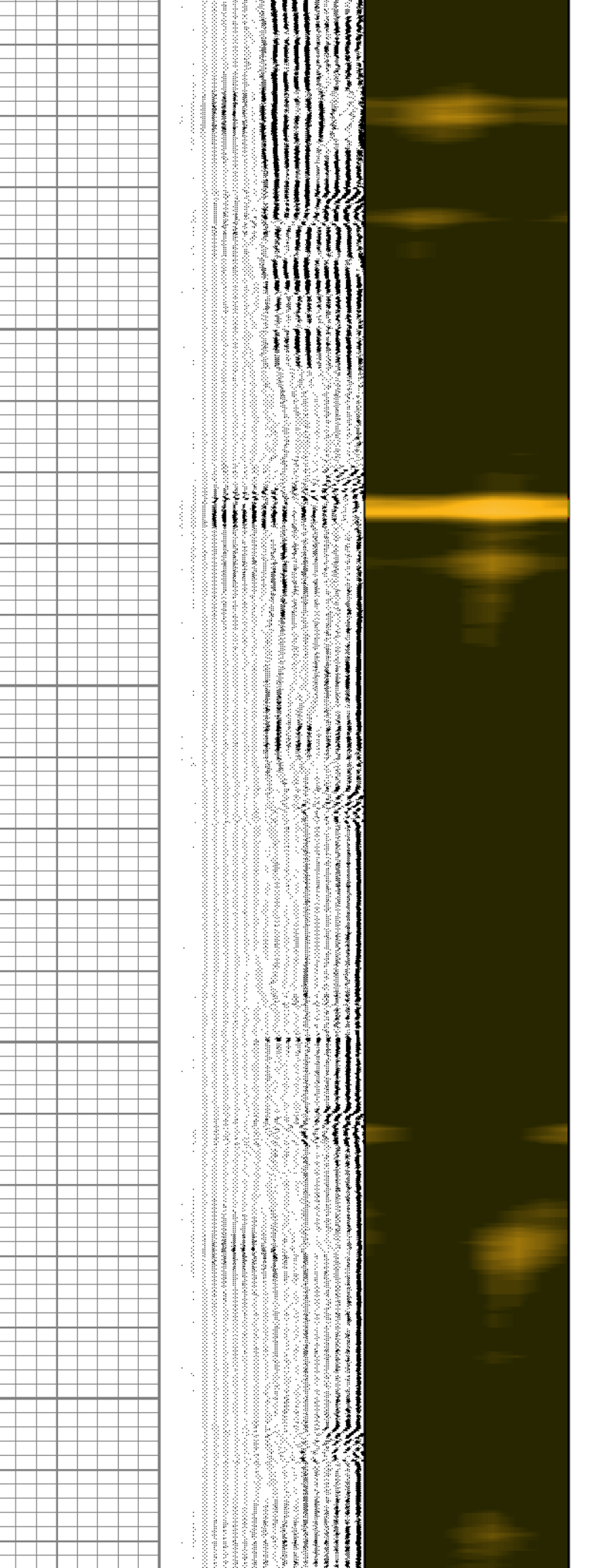
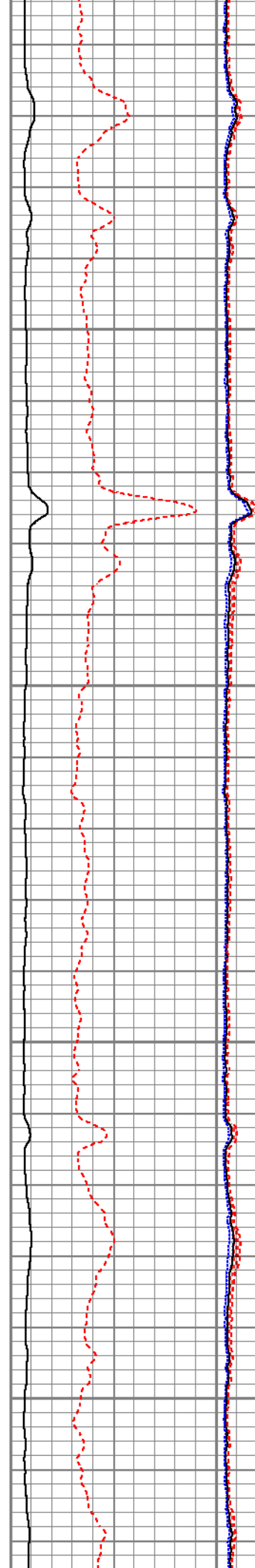


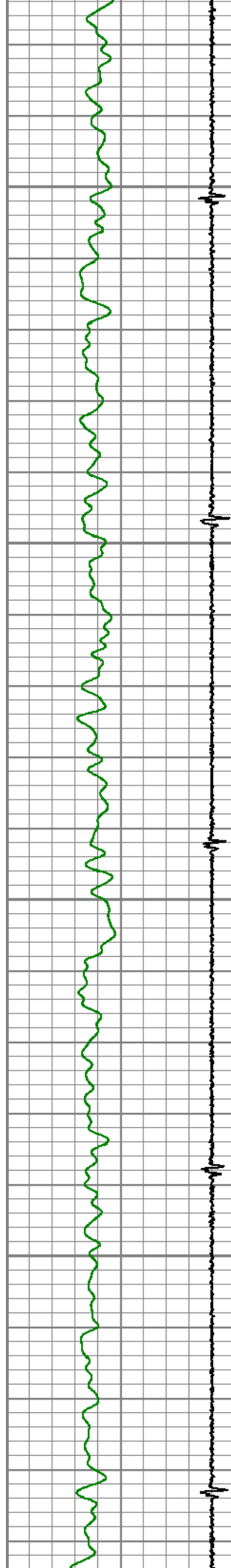
4450

4500

4550

4600



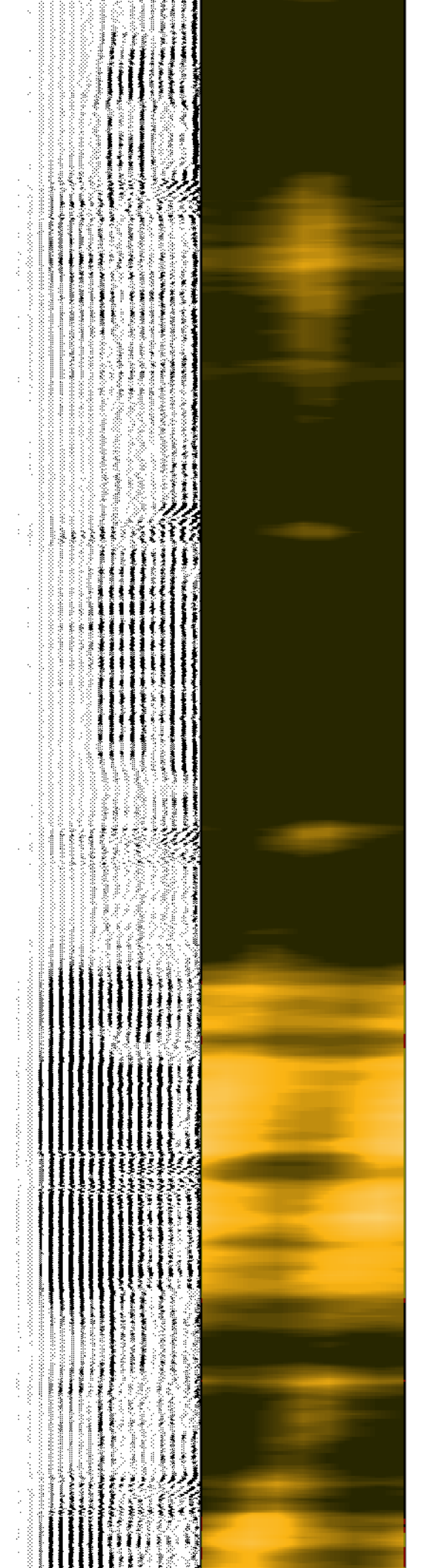


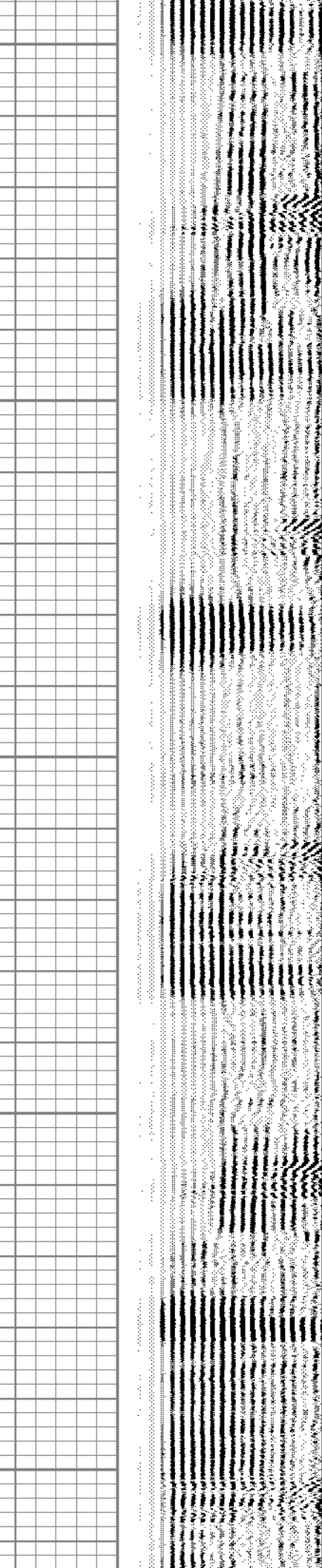
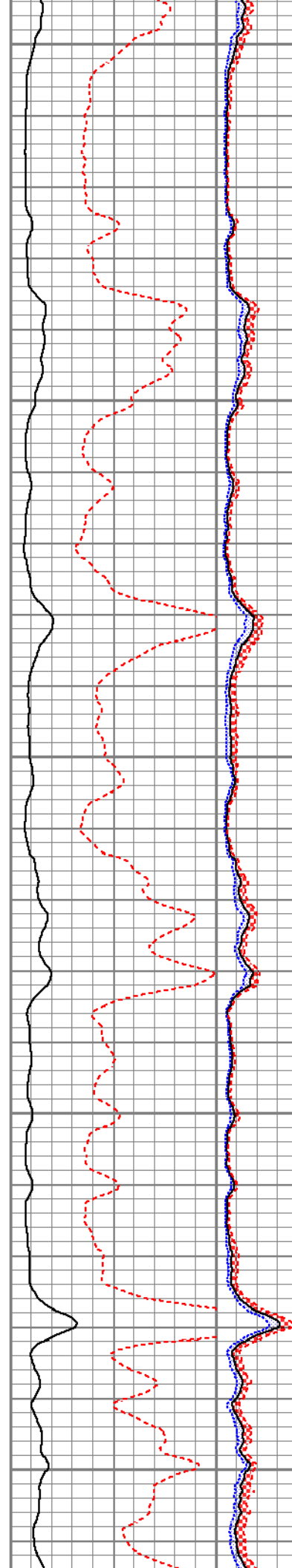
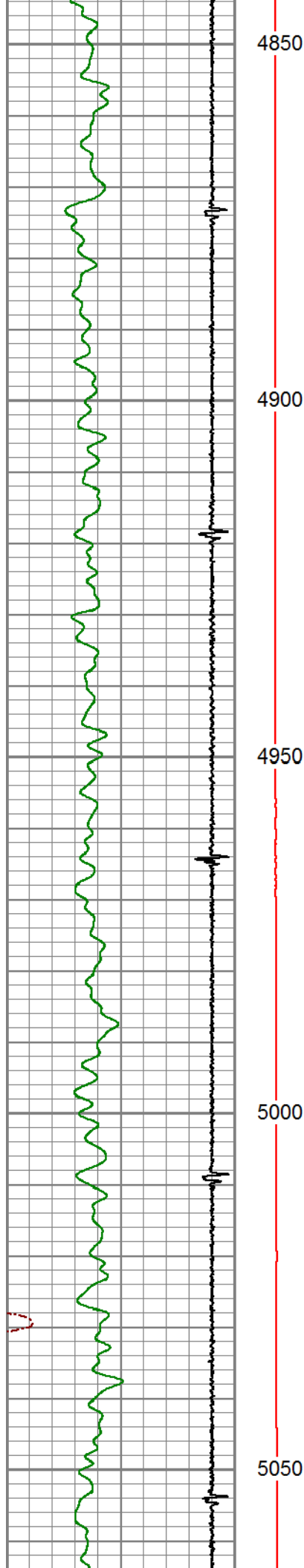
4650

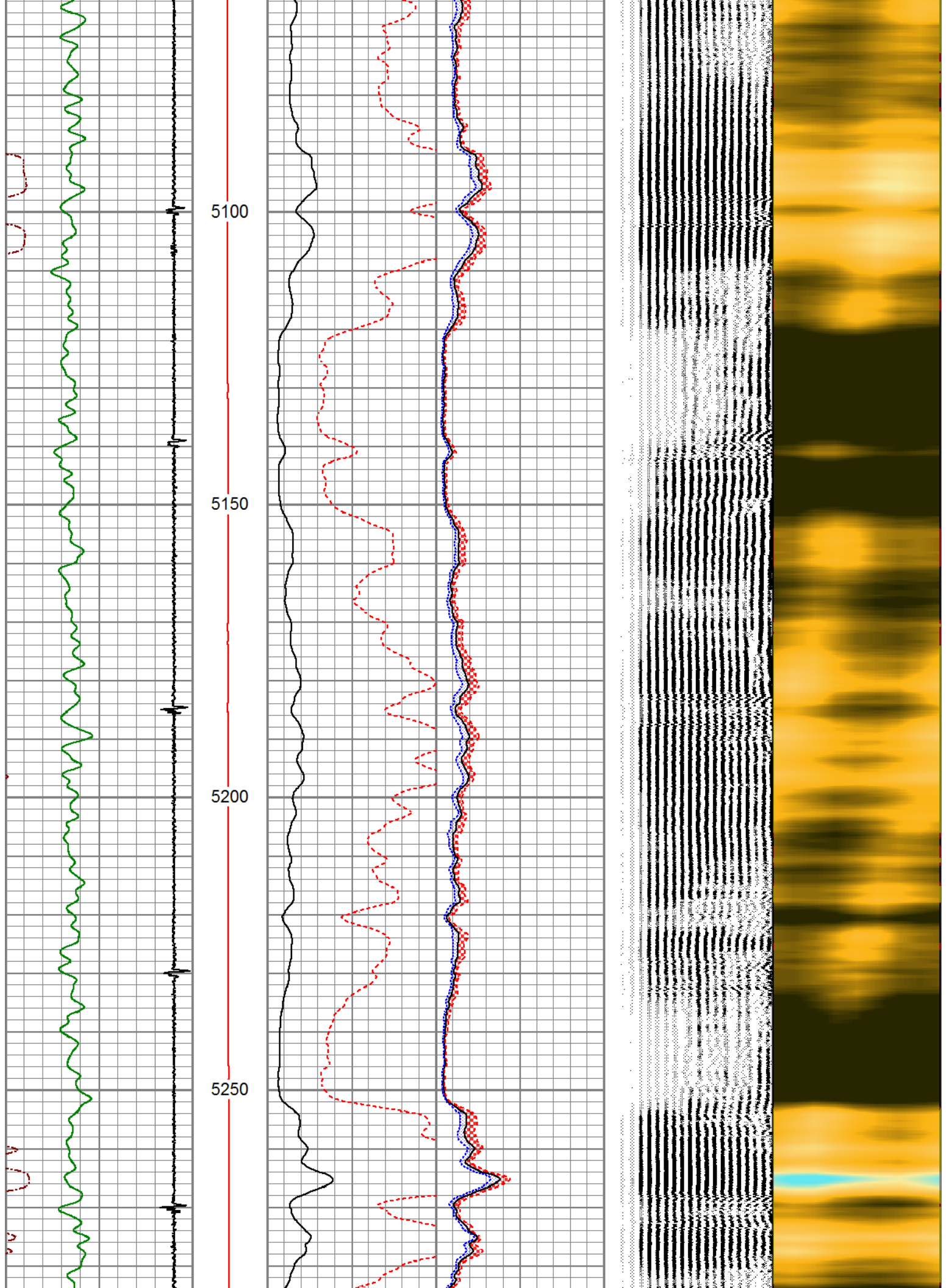
4700

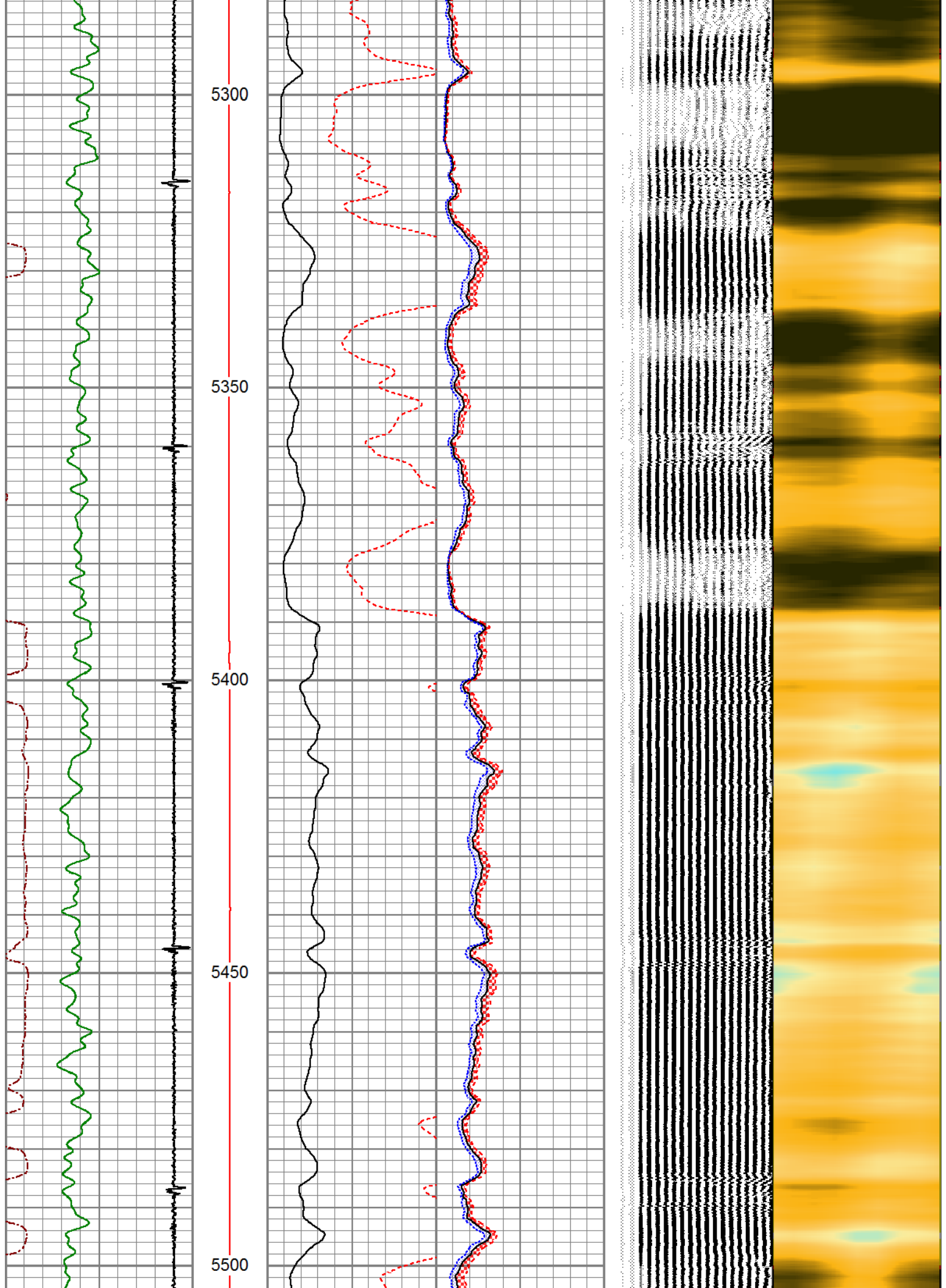
4750

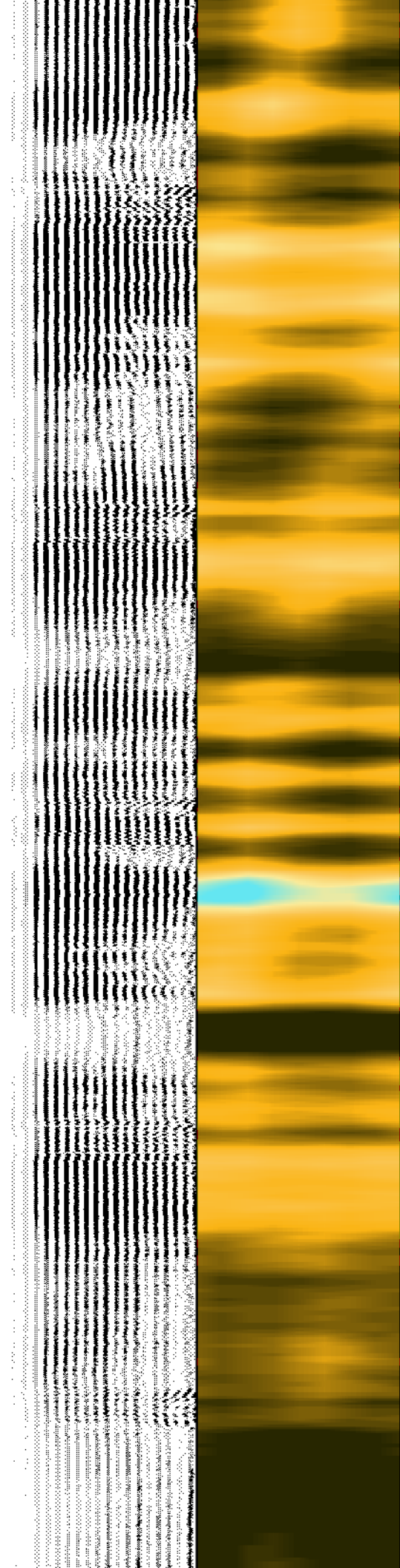
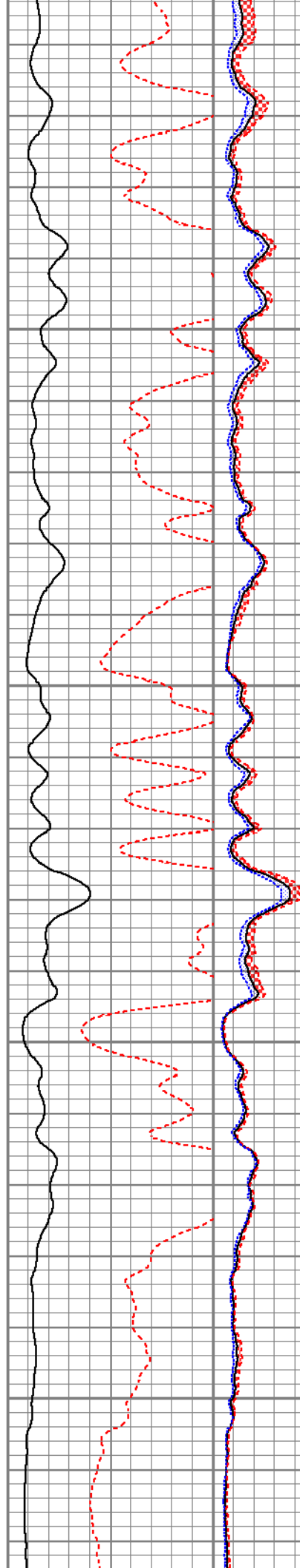
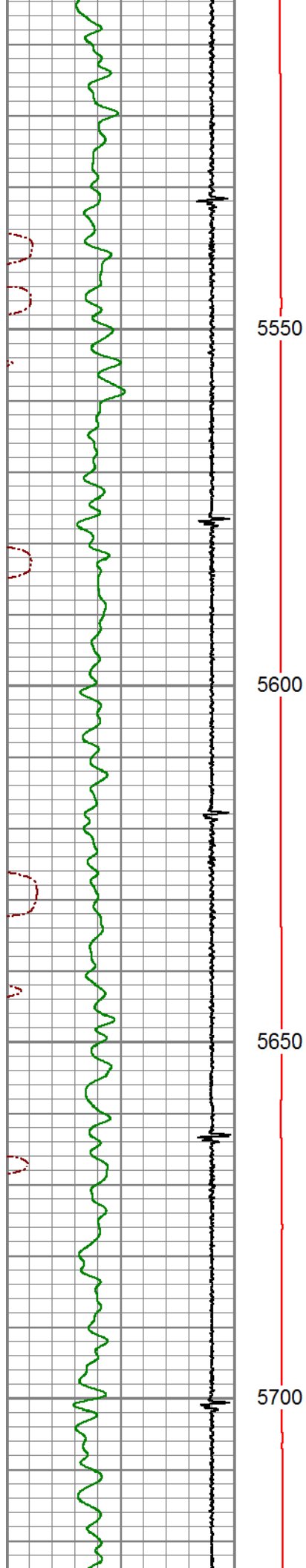
4800

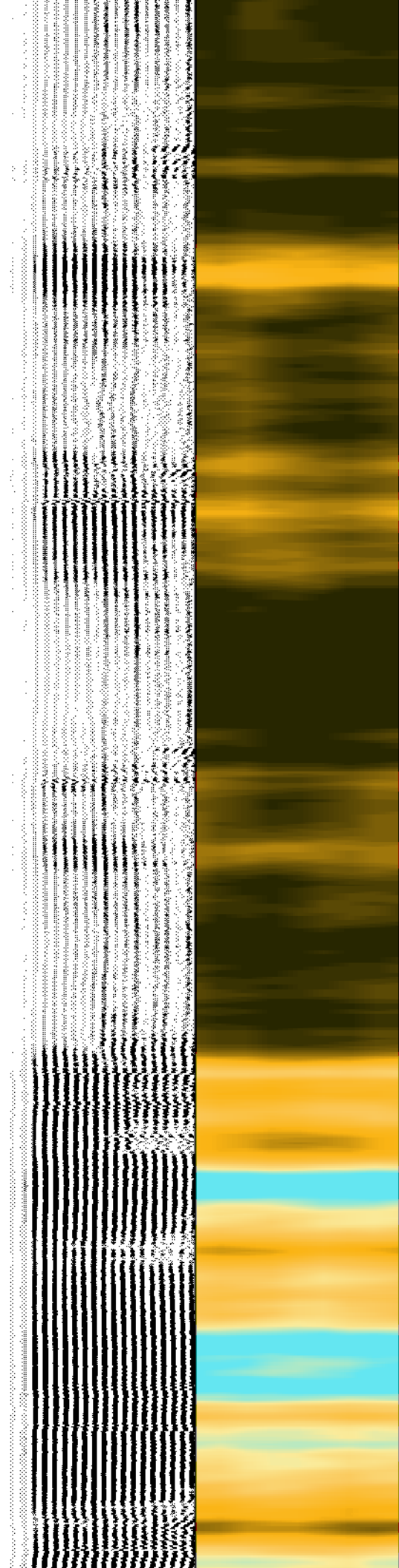
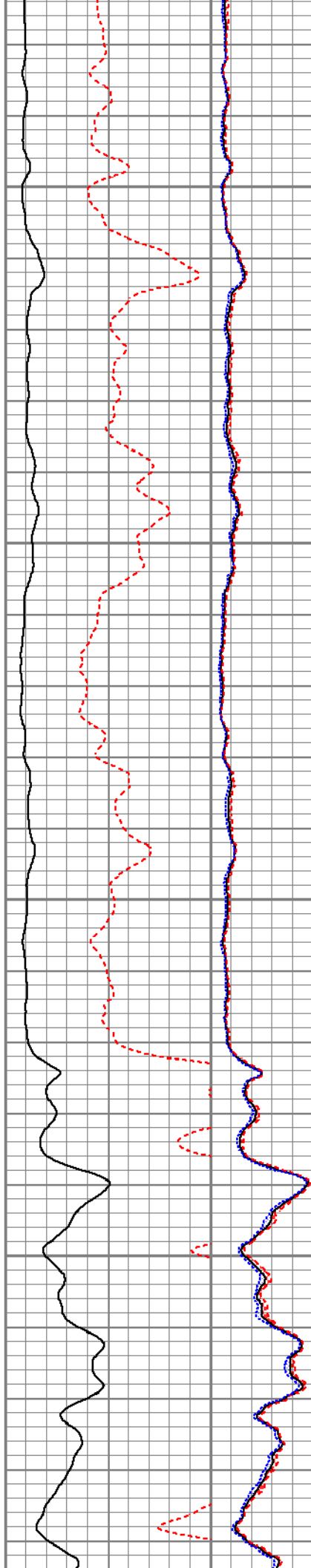
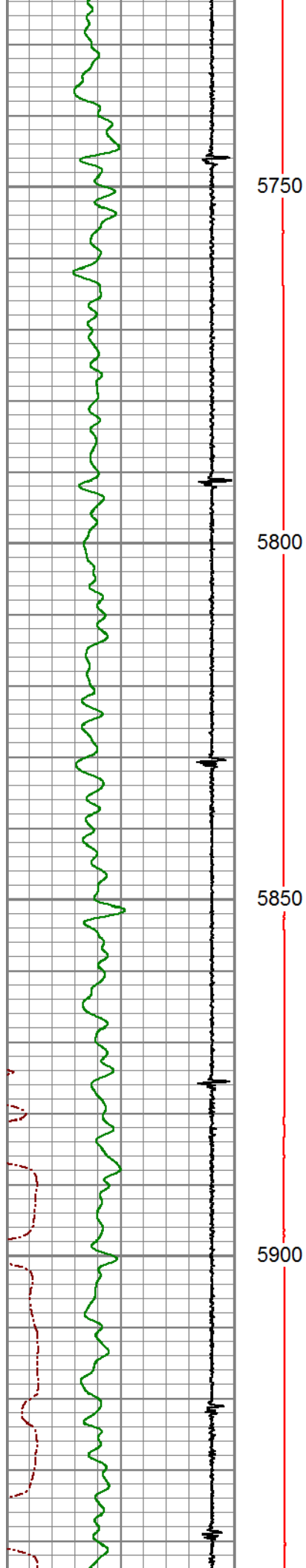


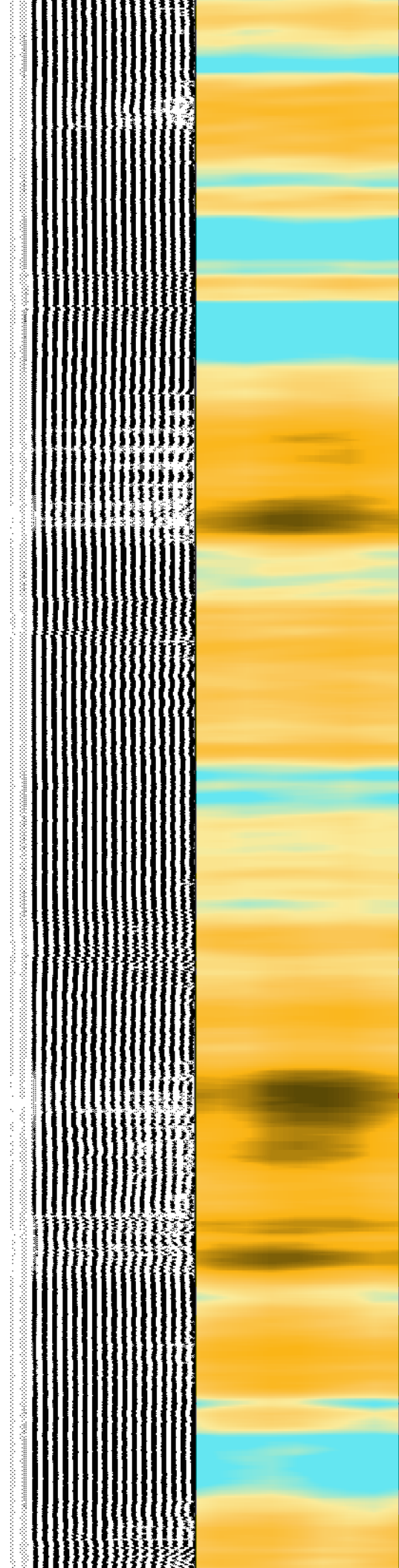
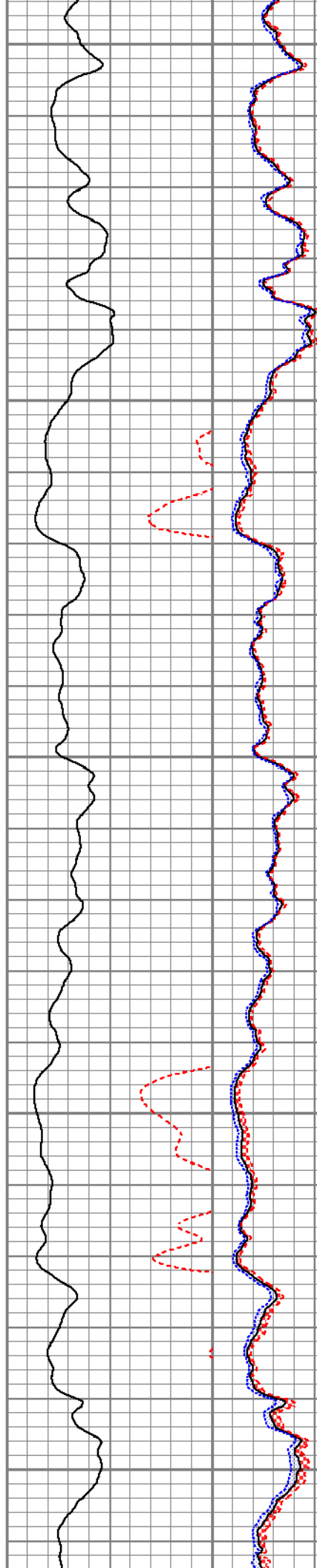
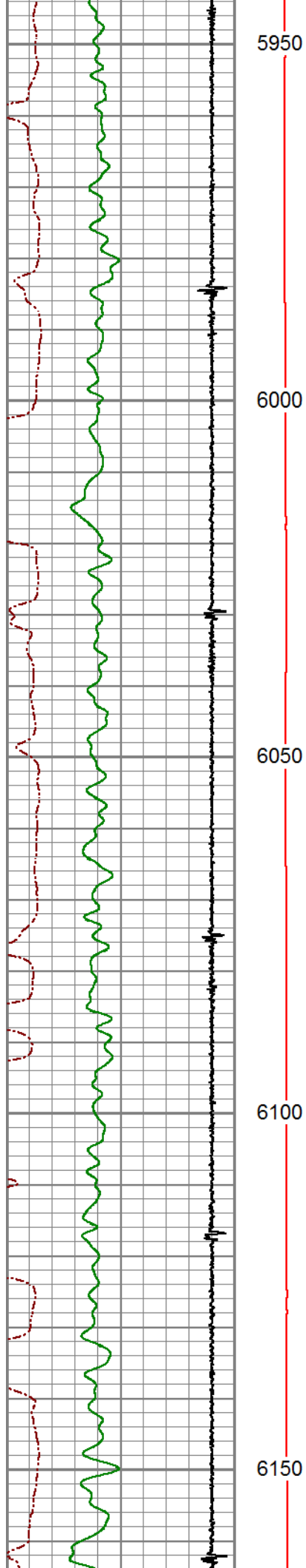


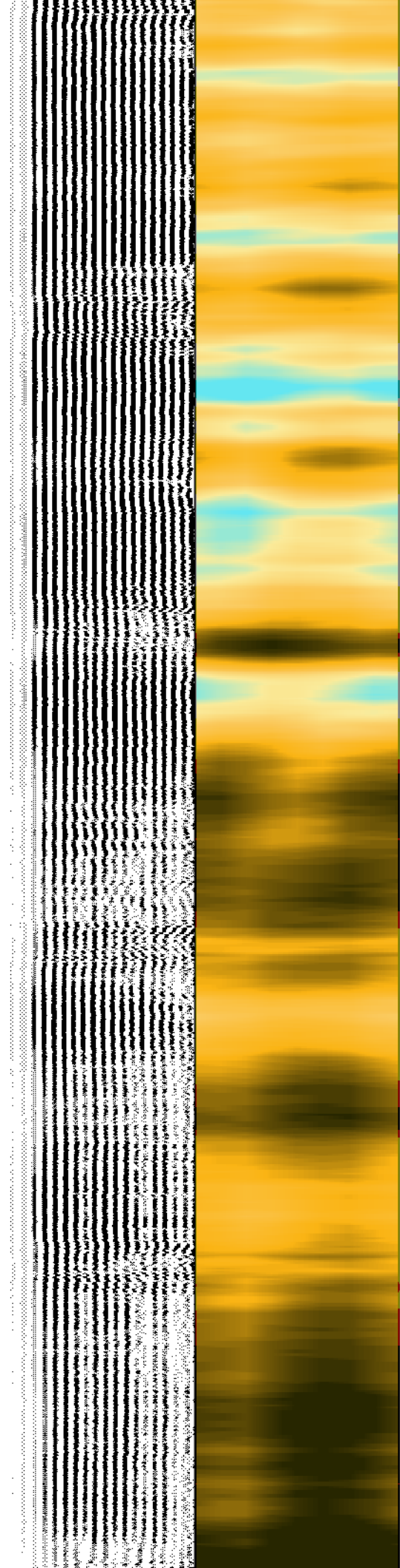
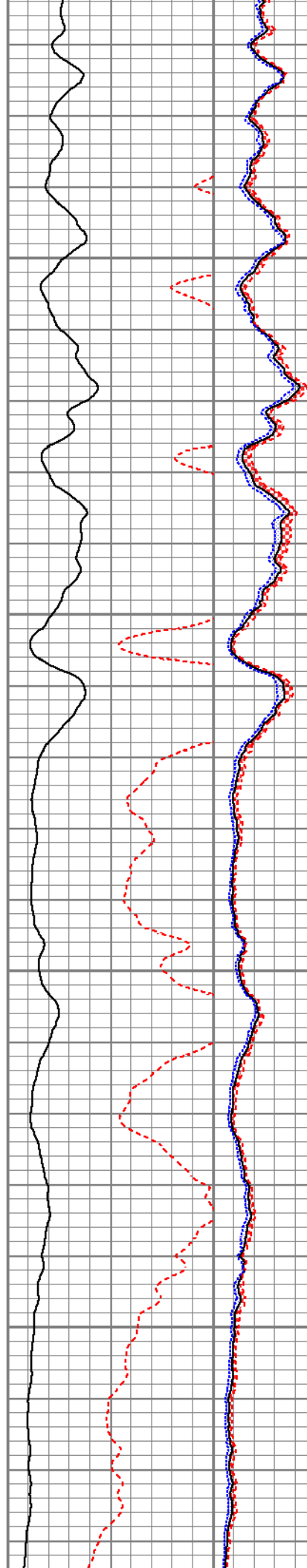
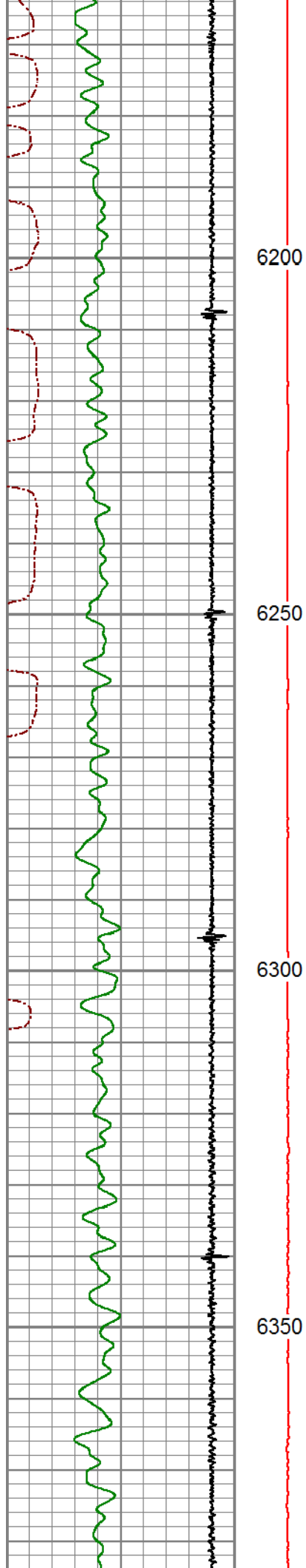


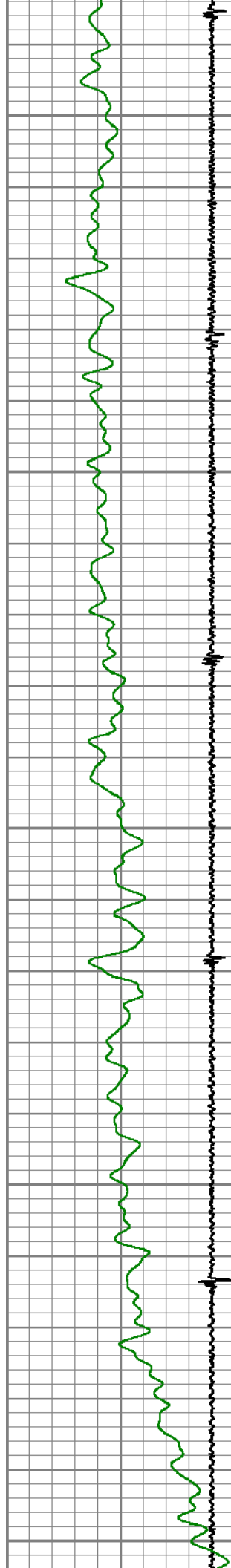












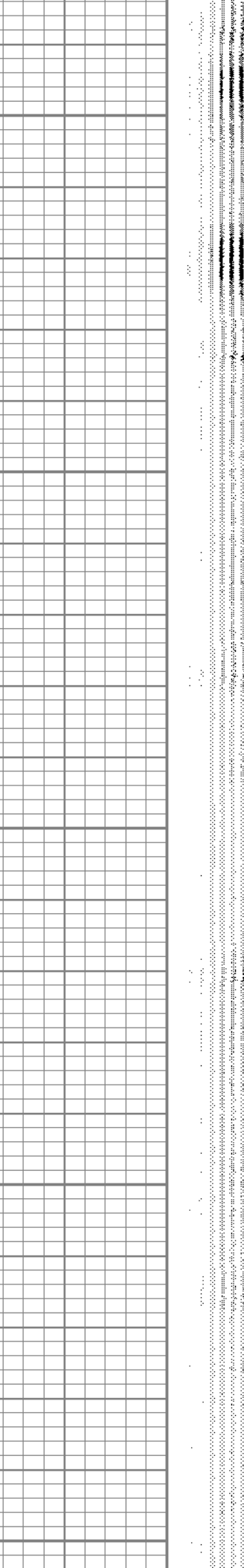
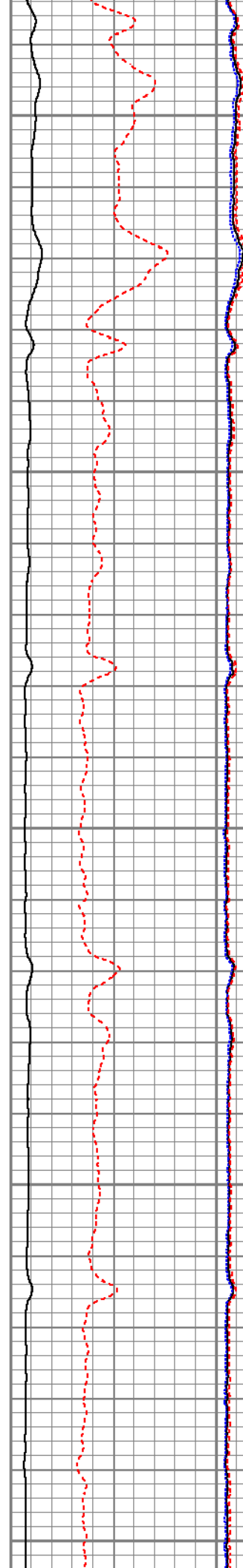
6400

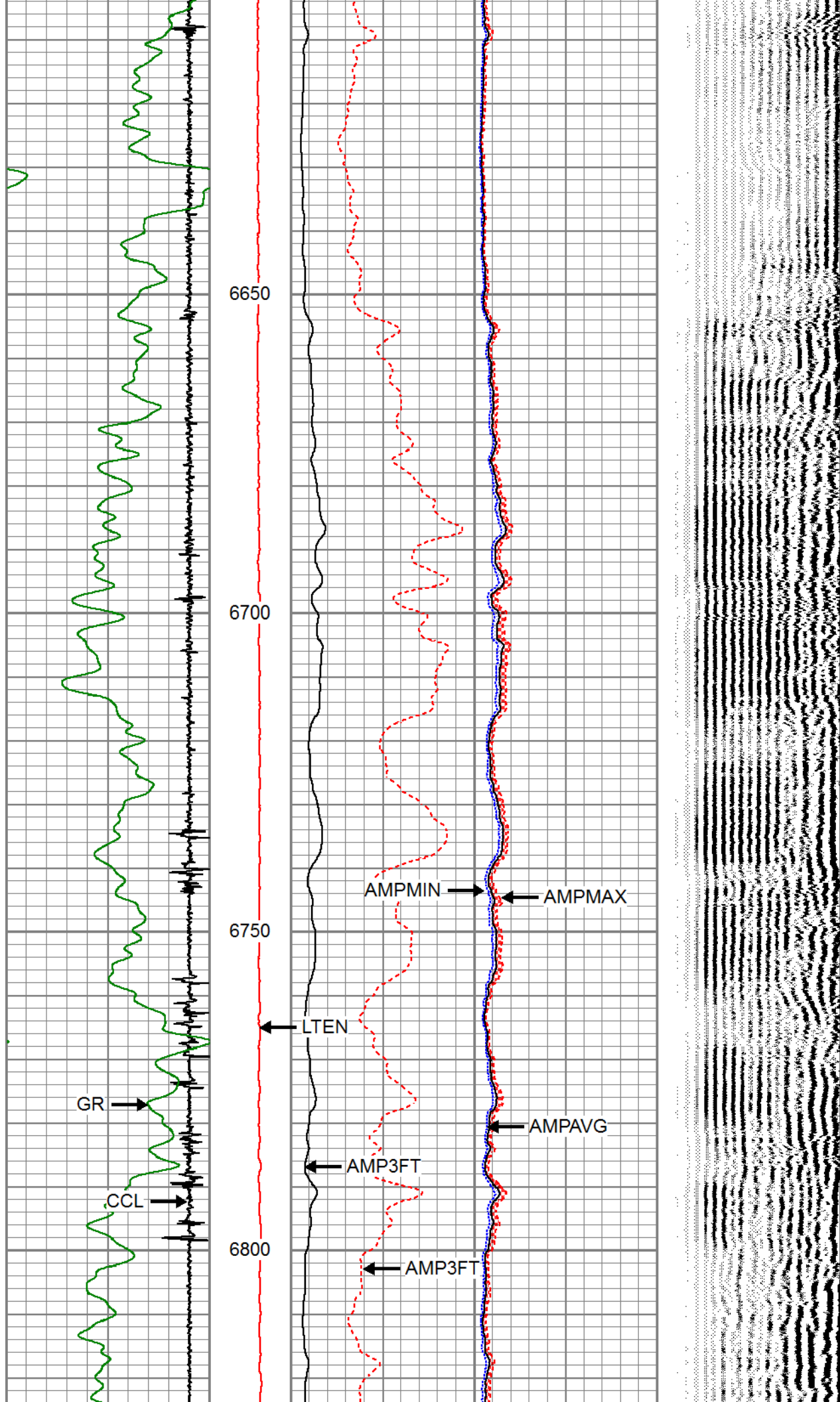
6450

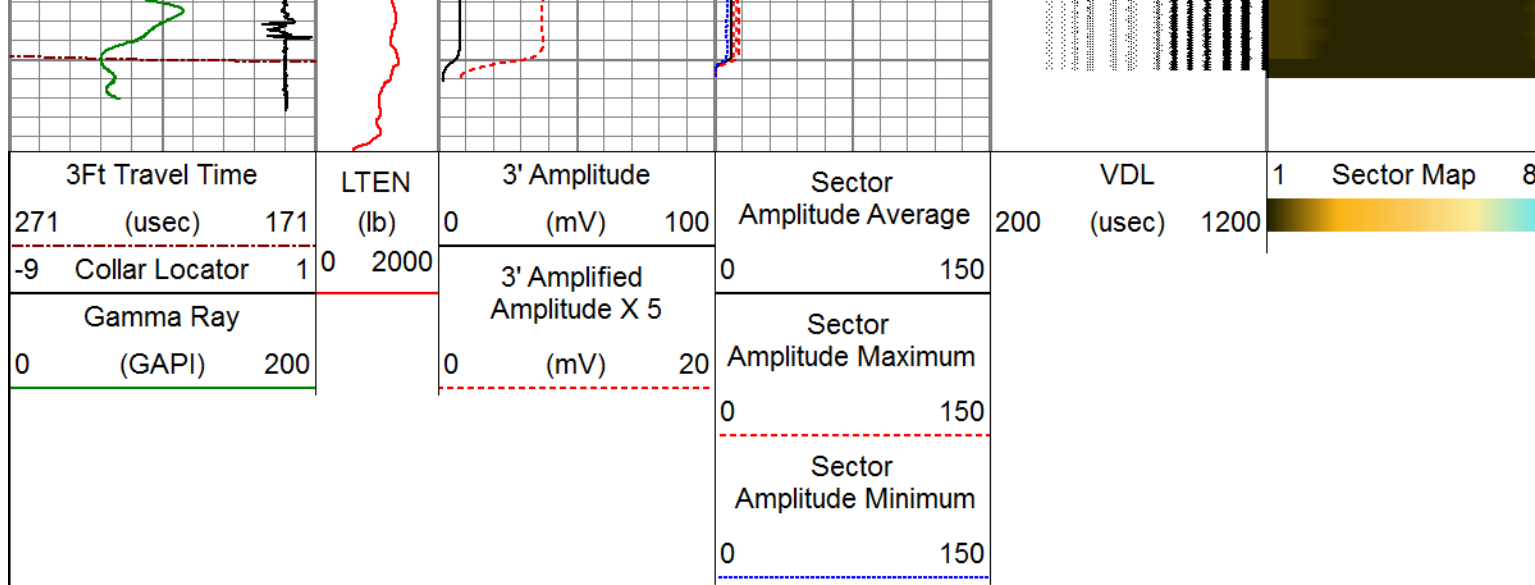
6500


6550

6600










MAIN LOG

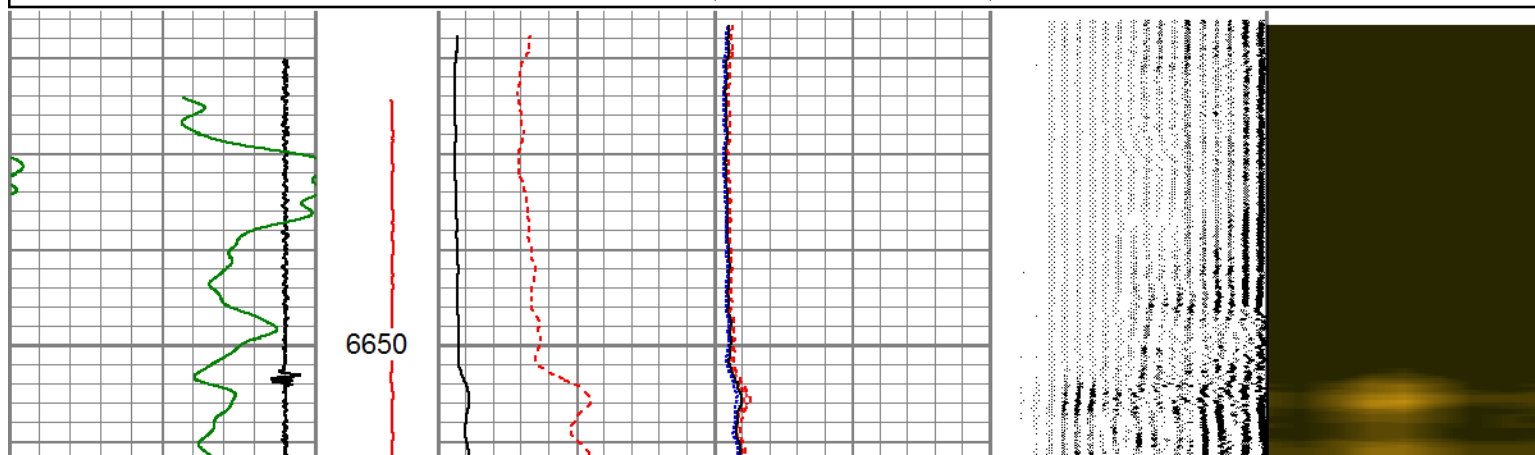
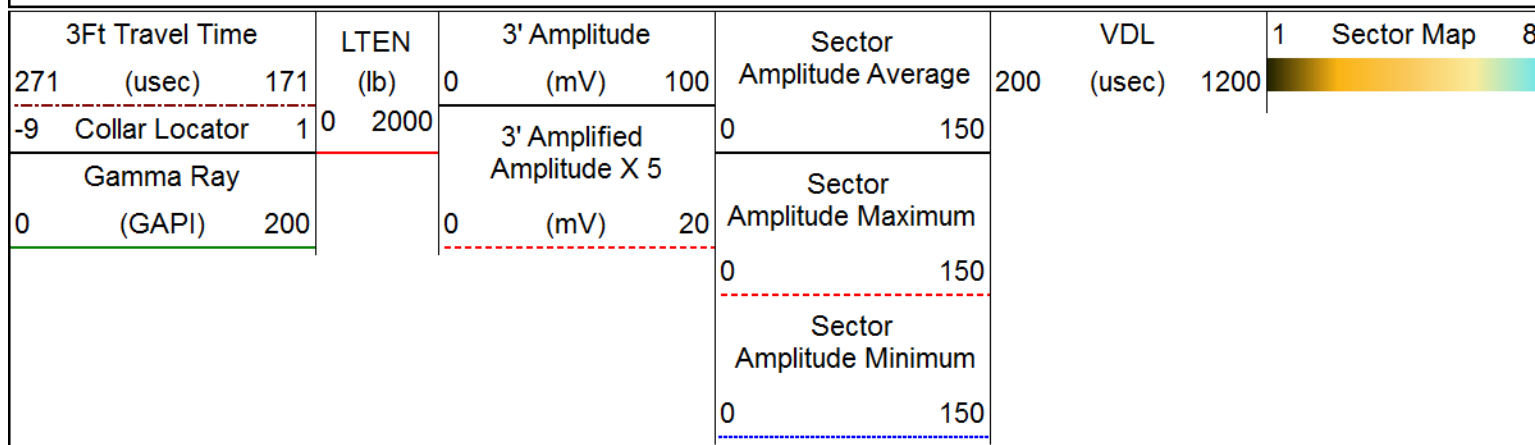
ZERO PSI APPLIED AT SURFACE

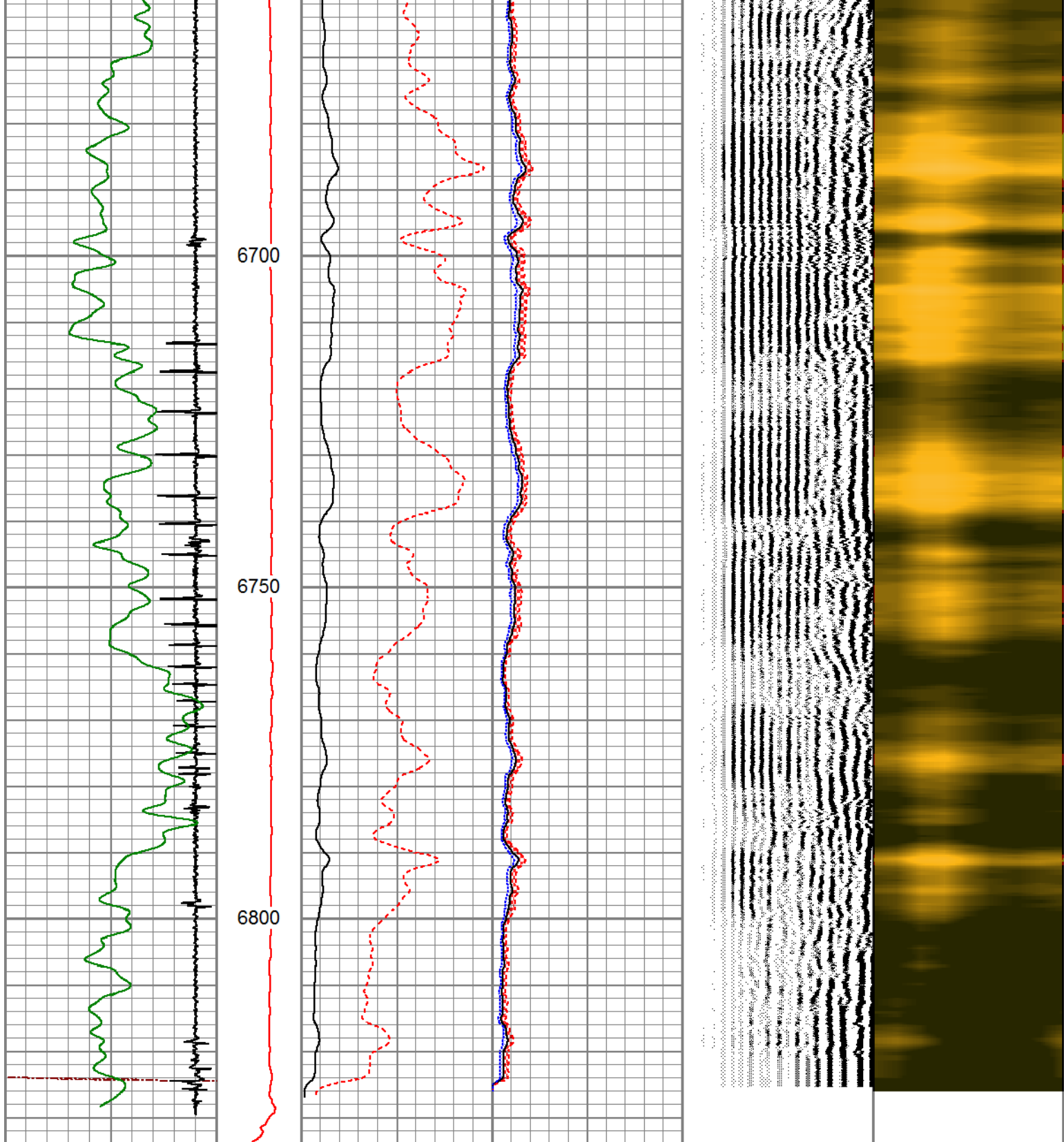


REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File	verdad_rohn 14a-23-1_0512347781_20190519_scbl.db
Dataset Pathname	pass4
Presentation Format	pinr_scbl
Dataset Creation	Sun May 19 08:59:34 2019
Charted by	Depth in Feet scaled 1:240





3Ft Travel Time			LTEN	3' Amplitude		Sector	VDL		1	Sector Map	8
271	(usec)	171		0	(mV)	100	Amplitude Average	200	(usec)		
-9	Collar Locator	1	0	2000	3' Amplified Amplitude X 5		0	150			
Gamma Ray					Sector						
0	(GAPI)	200	0	(mV)	20	Amplitude Maximum					
						0	150				
						Sector Amplitude Minimum					
						0	150				

Calibration Report

Database File verdad_rohn 14a-23-1_0512347781_20190519_scbl.db
 Dataset Pathname pass4
 Dataset Creation Sun May 19 08:59:34 2019

Gamma Ray Calibration Report

Serial Number: 130608
 Tool Model: 275 Probe GCT
 Performed: Wed May 08 09:42:11 2019

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.7000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1304-34-T
 Tool Model: RBL-DC

Calibration Casing Diameter: 5.500 in
 Calibration Depth: 374.185 ft

Master Calibration, performed Sun May 19 08:28:29 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	1.240	2.200	71.921	56.752	1.538
CAL	0.014	1.495				
5'	0.016	1.337	2.200	71.921	52.811	1.334
SUM						
S1	0.003	1.192	0.000	100.000	84.087	-0.235
S2	0.009	1.251	0.000	100.000	80.506	-0.686
S3	0.008	1.273	0.000	100.000	79.039	-0.598
S4	0.008	1.350	0.000	100.000	74.537	-0.604
S5	0.007	1.376	0.000	100.000	73.090	-0.545
S6	0.007	1.317	0.000	100.000	76.369	-0.567
S7	0.008	1.262	0.000	100.000	79.748	-0.632
S8	0.008	1.196	0.000	100.000	84.158	-0.651

Air Zero Calibration, performed Sun May 19 08:04:19 2019:

	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



Company	VERDAD RESOURCES
Well	ROHN 9-60 #14A-23-1
Field	WATTENBERG
County	WELD
State	COLORADO