



PIONEER

Pioneer Energy Services

RADIAL BOND LOG WITH GAMMA RAY

Comp. VERDAD RESOURCES
Well TIMBRO 9-59 #8B-9-9
Field DJ HORIZONTAL NIOBRARA
Co. WELD
State COLORADO

Company **VERDAD RESOURCES**
Well **TIMBRO 9-59 #8B-9-9**
Field **DJ HORIZONTAL NIOBRARA**
County **WELD** State **COLORADO**

Location: API #: 05-123-47578
1368' FSL & 600' FWL
SW SW
SEC 8 TWP 9N RGE 59W
Permanent Datum GL Elevation 5046'
Log Measured From KB 24' Above Perm. Datum
Drilling Measured From KB
Other Services
NONE
Elevation
K.B. 5070'
D.F. N/A
G.L. 5046'

Date of Service	06 JULY 2019		
Run Number	ONE		
Depth Driller or P8TD	15282'		
Depth Logger	6660'		
Bottom Log Interval	6660'		
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	1430'		
Unit Number	P-57		
Wireline Size	9/32"		
Location	FORT MORGAN		
Recorded By	SCHOENROGGE		
Witnessed By	MR. DAMRON		
	Size	Wt/Ft	Top
Tubing Record			Bottom
Surface Casing	9.625"	36#	SURFACE
Production Casing	5.5"	20#	SURFACE
Liner Record			

<<< 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.
CORRELATED TO CUSTOMER MARKER JOINT
NO FREE PIPE PASS. CALIBRATIONS FROM PREVIOUS WELL ON PAD.

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew

Engineer: SCHOENROGGE
Operator: COOPER
Operator: YUNG
Operator:

Tool Data - Services

SEE DIAGRAM
PLUS OVERBODIES

Serial Number



Top - Bottom

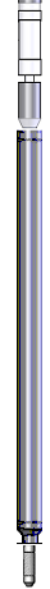
BOREID in 8.5	BOTTEMP degF 200	CASEOD in 5.5	CASETHCK in 0.361	CASEWGHT lb/ft 20	MAXAMPL mV 71.9	MINAMPL mV 2.2
MINATTN db/ft 0.8	PERFS 0	PPT usec 261	SRFTEMP degF 50	TDEPTH ft 6500		


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					

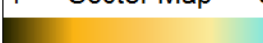
HEADVOLT	3.69					
			GR-275 Probe (080630) Probe 2.75" Gamma Ray	3.36	2.75	40.00
GR	1.15		Bullnose-PROBE Probe Go Pin Pressure Cap	0.33	1.38	1.00
Dataset:		verdad_timbro9-59#8b-9-9_0512347578_20190706_scbl.db: field/well/run1/pass3				
Total length:		15.31 ft				
Total weight:		158.00 lb				
O.D.:		2.75 in				



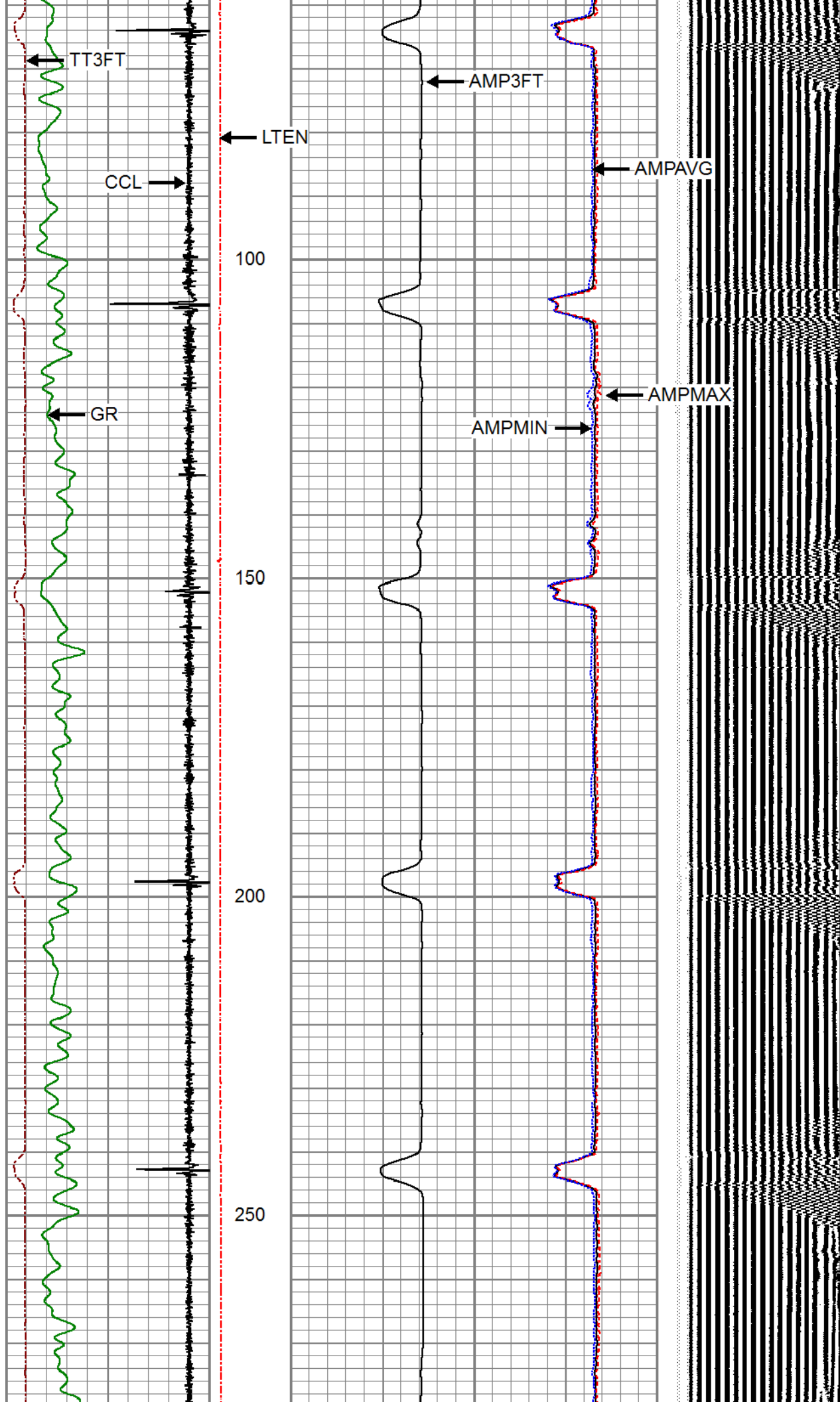
MAIN LOG

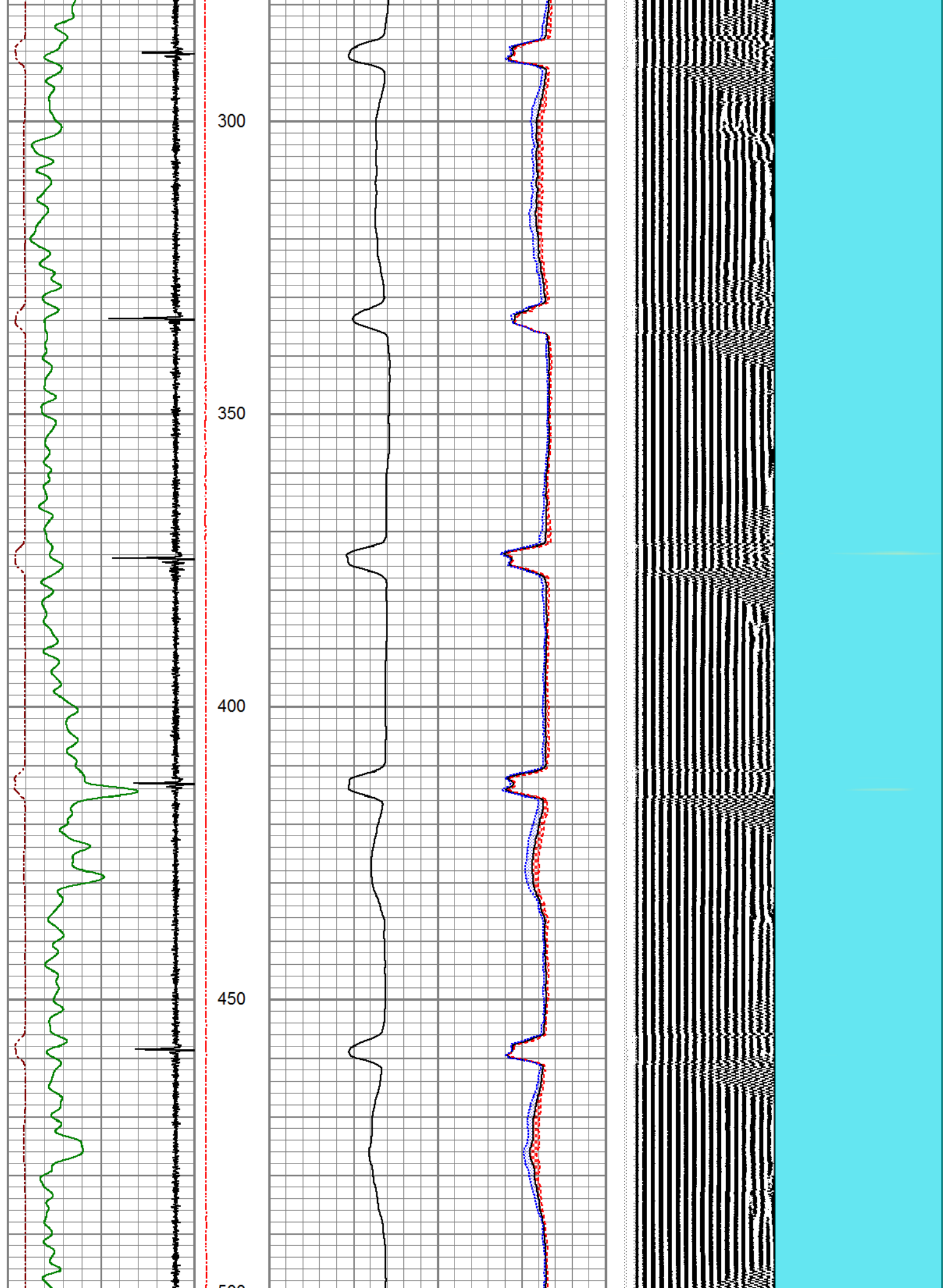
ZERO PSI APPLIED AT SURFACE

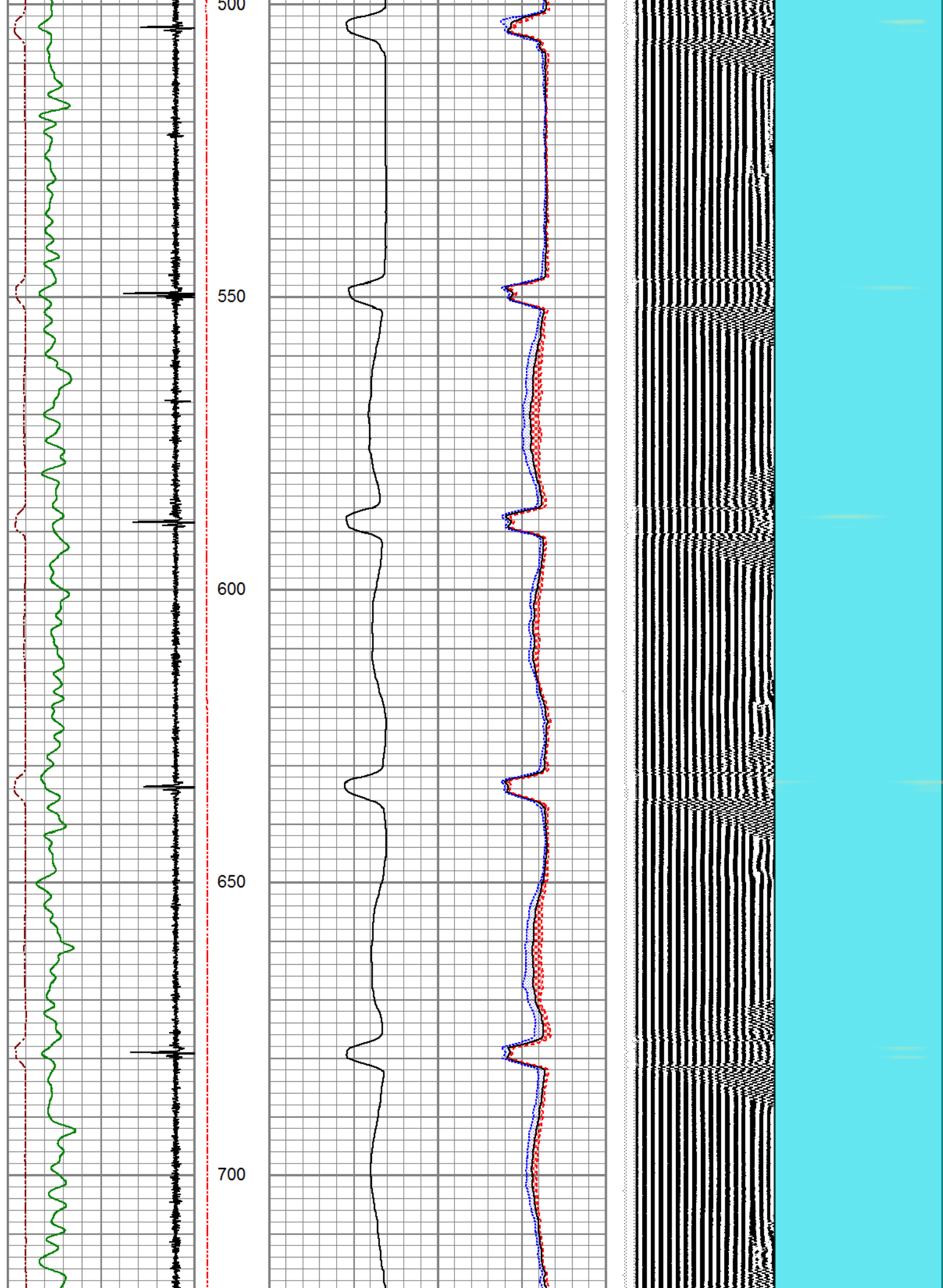
Database File	verdad_timbro9-59#8b-9-9_0512347578_20190706_scbl.db
Dataset Pathname	pass3
Presentation Format	pinr_scbl
Dataset Creation	Sat Jul 06 18:09:09 2019
Charted by	Depth in Feet scaled 1:240

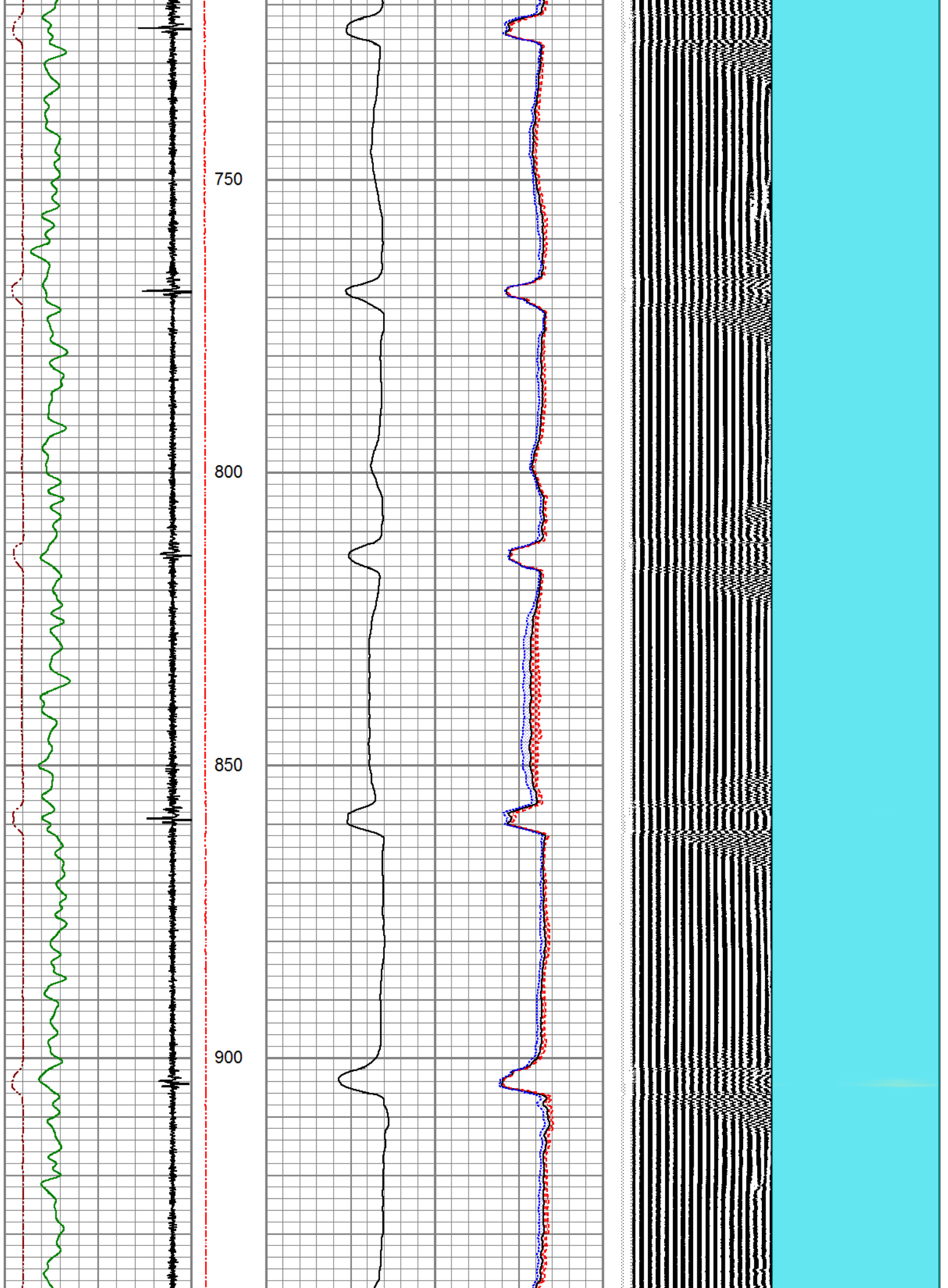
3Ft Travel Time	ineTensio	3' Amplitude	Sector	VDL	1	Sector Map	8
274 (usec) 174	(lb)	0 (mV) 100	Amplitude Average	200 (usec) 1200			
-9 Collar Locator 1	0 2000	3' Amplified Amplitude X 5	0 150				
Gamma Ray		0 (mV) 20	Sector Amplitude Maximum				
0 (GAPI) 150			0 150				
			Sector Amplitude Minimum				
			0 150				

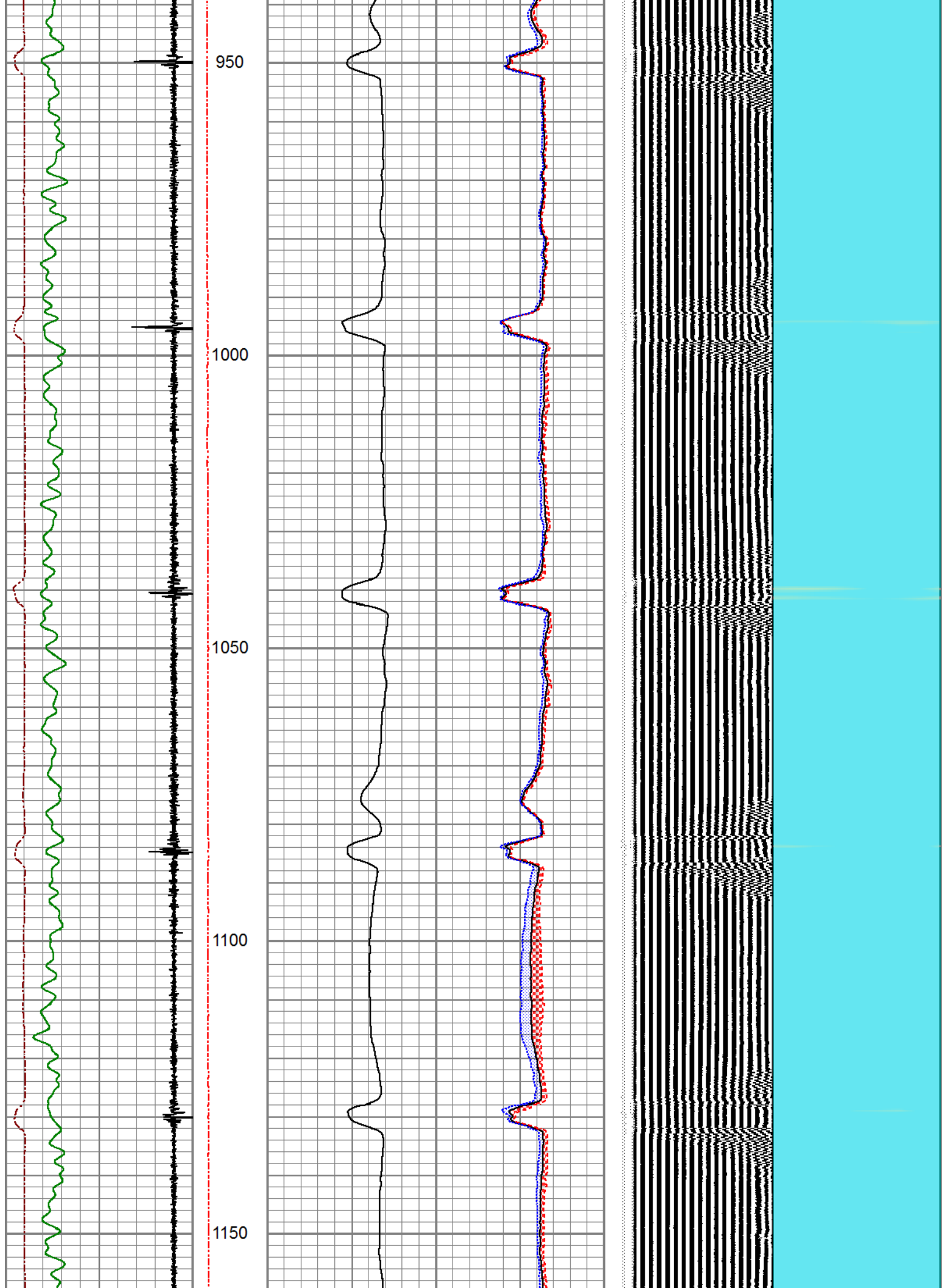


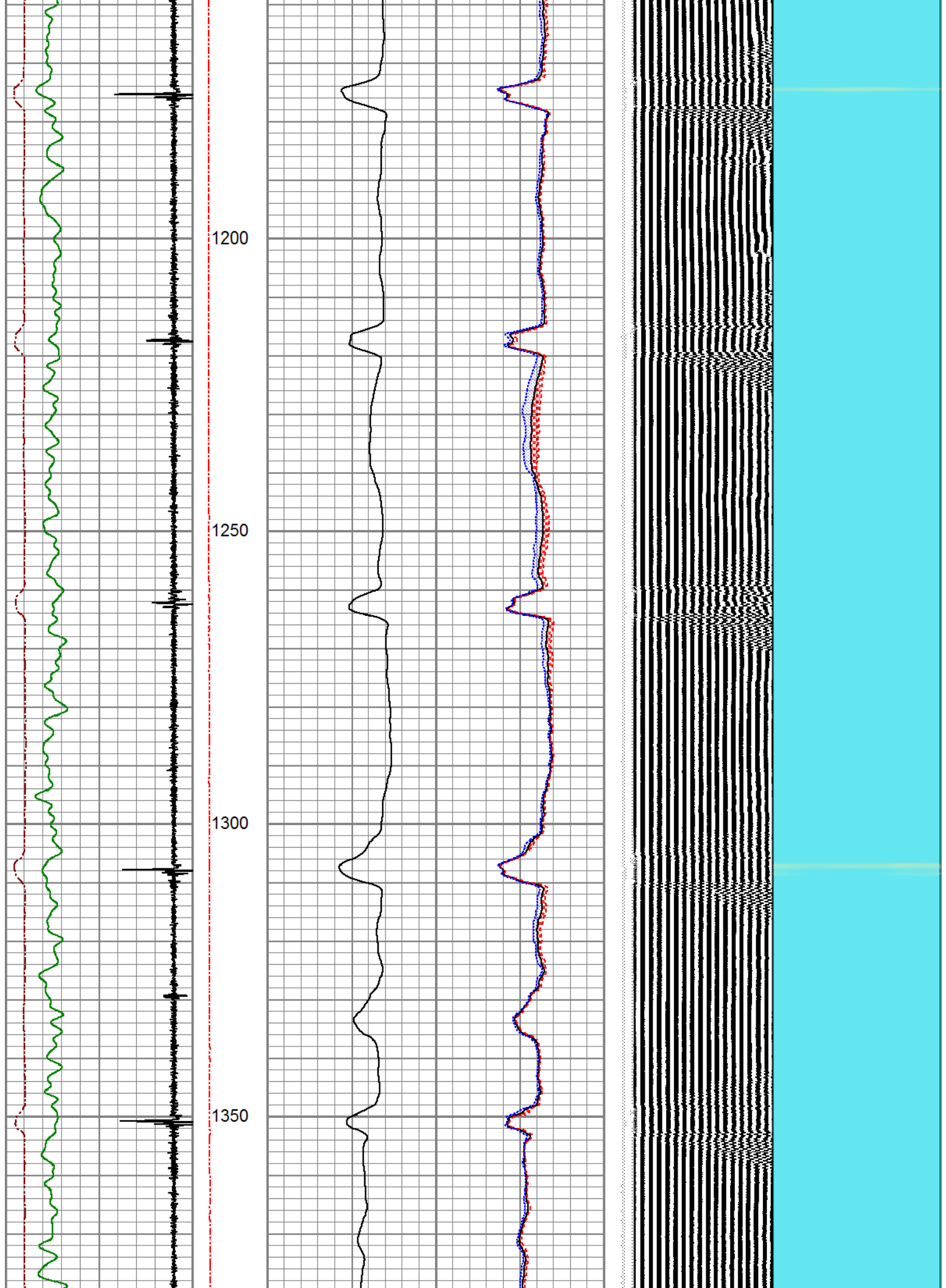


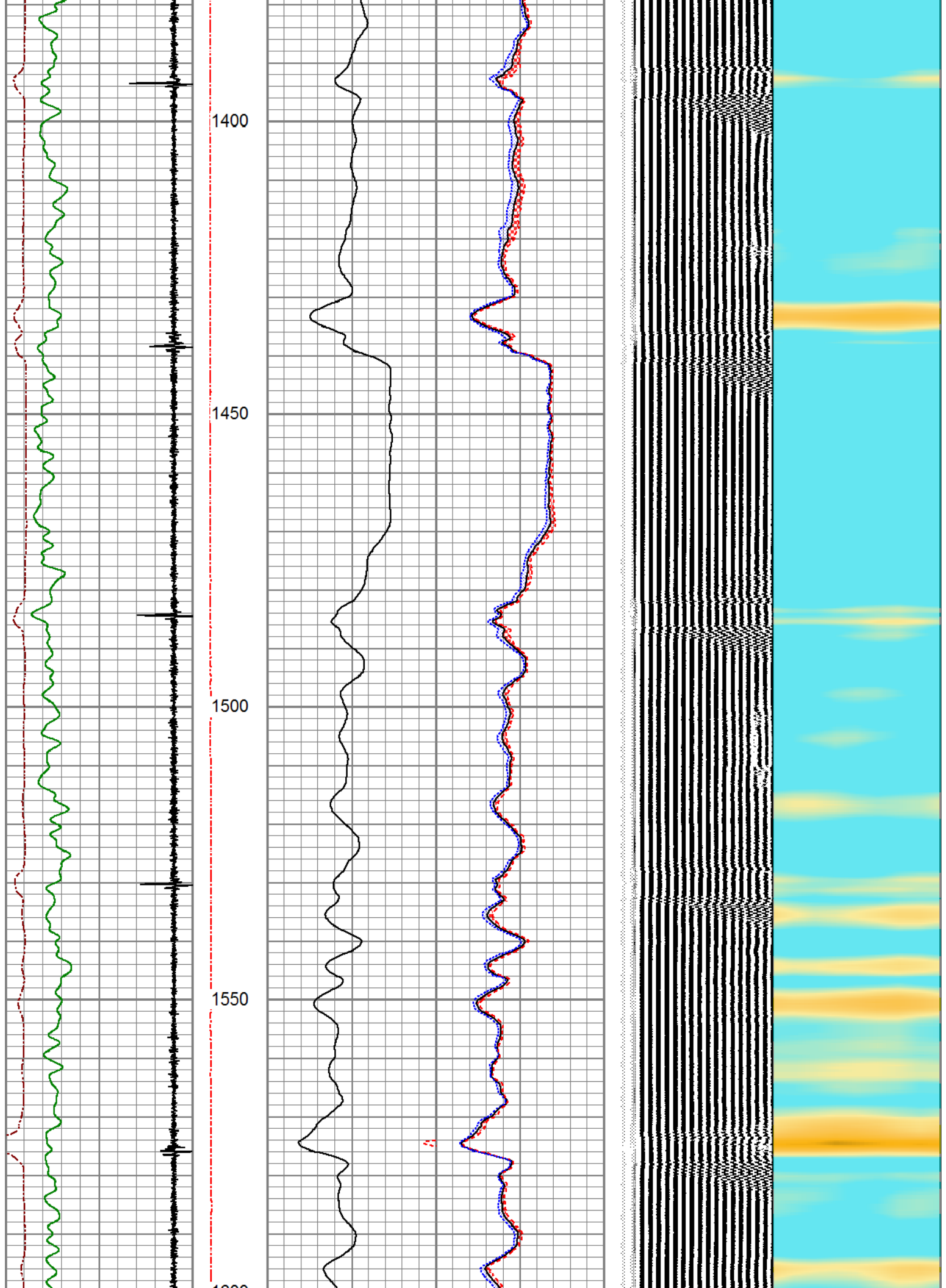


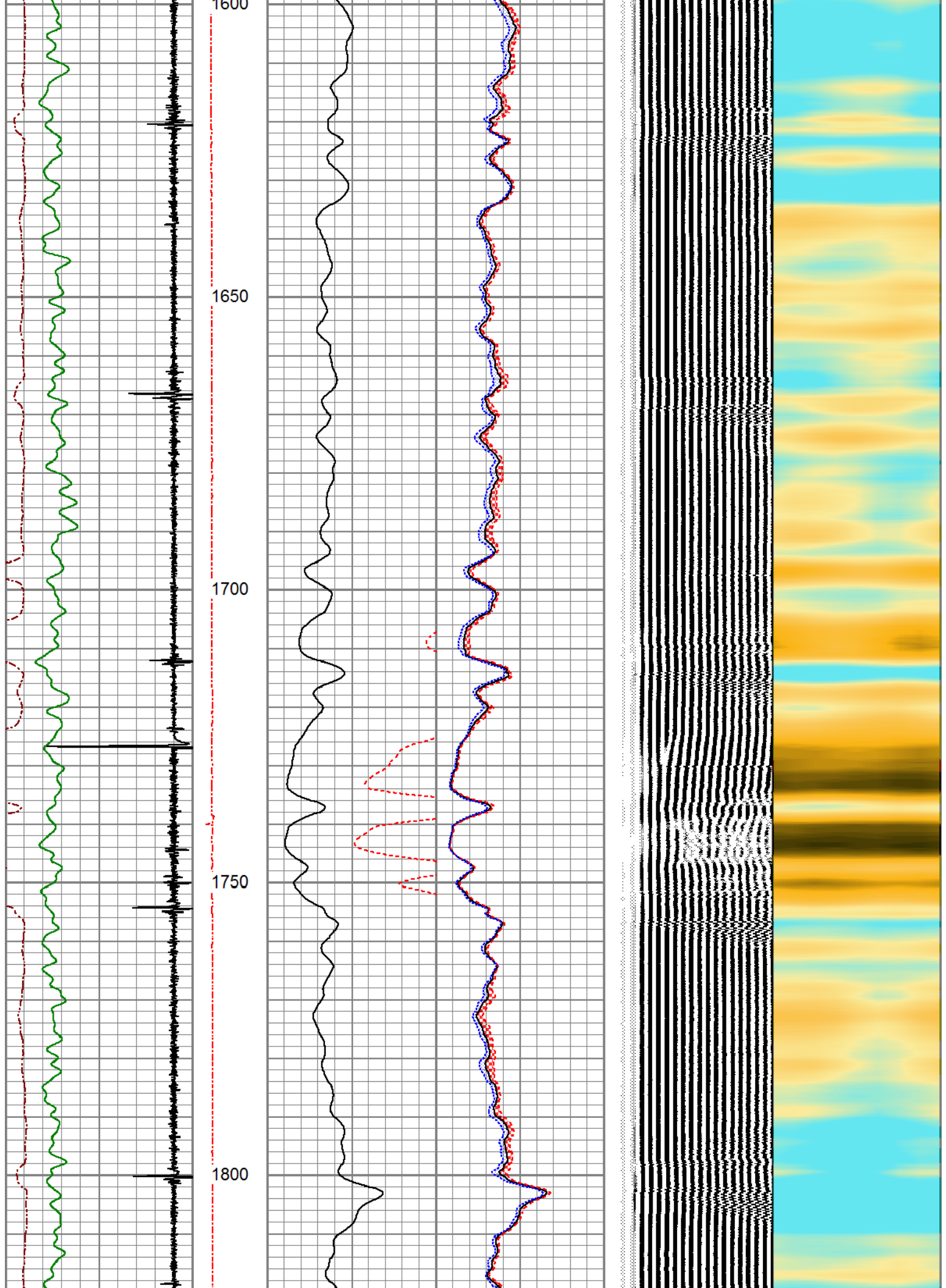


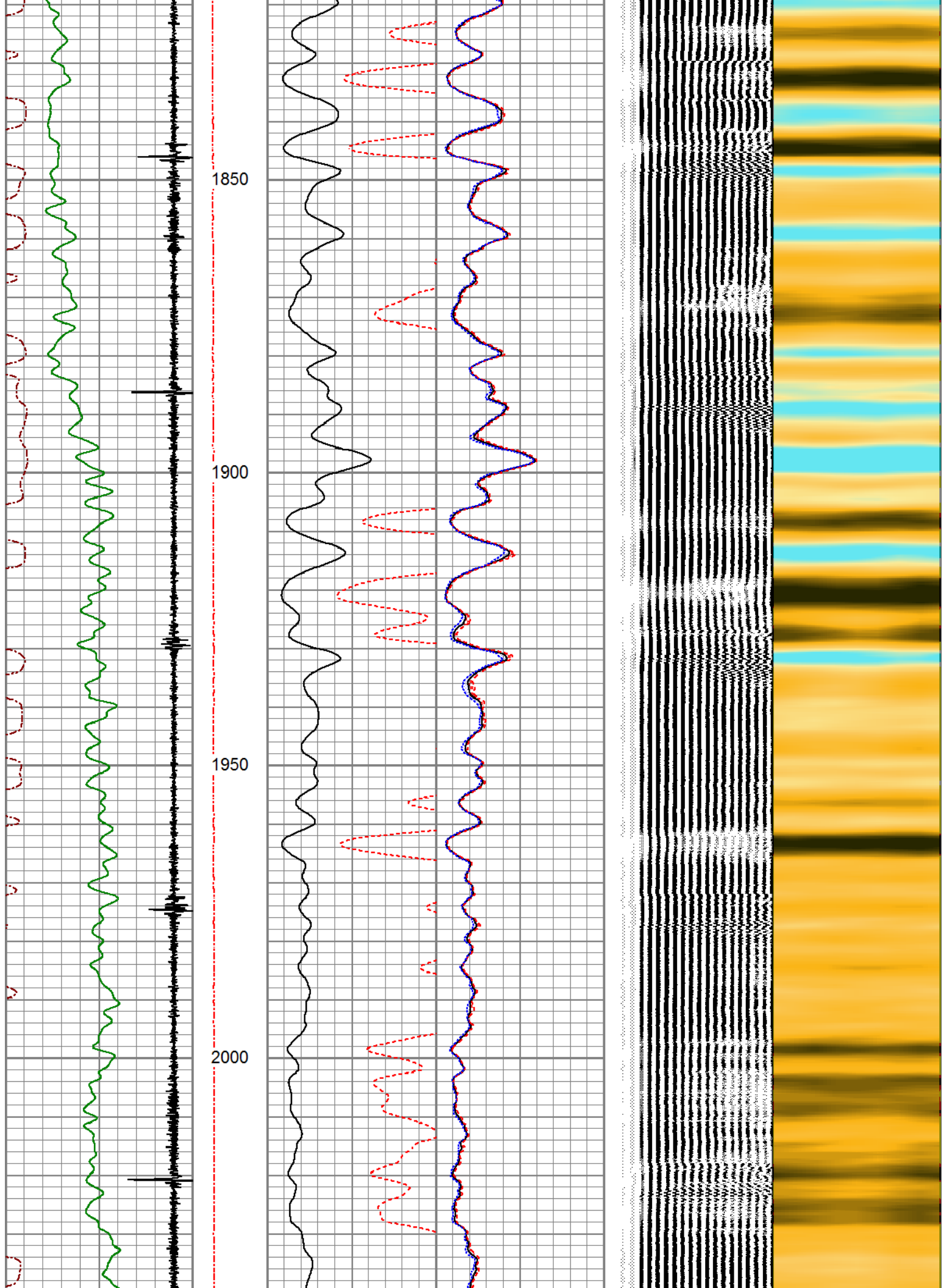


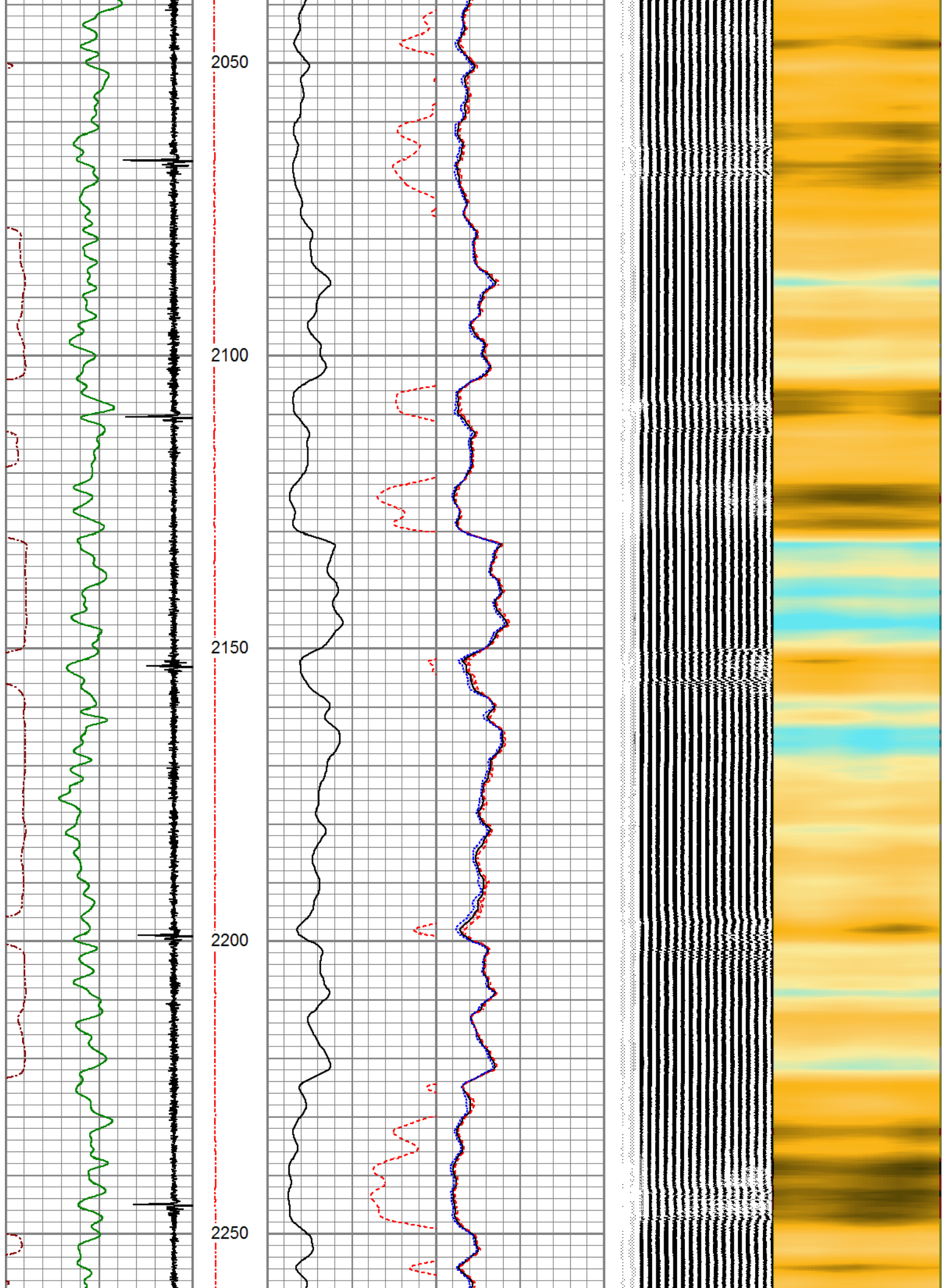


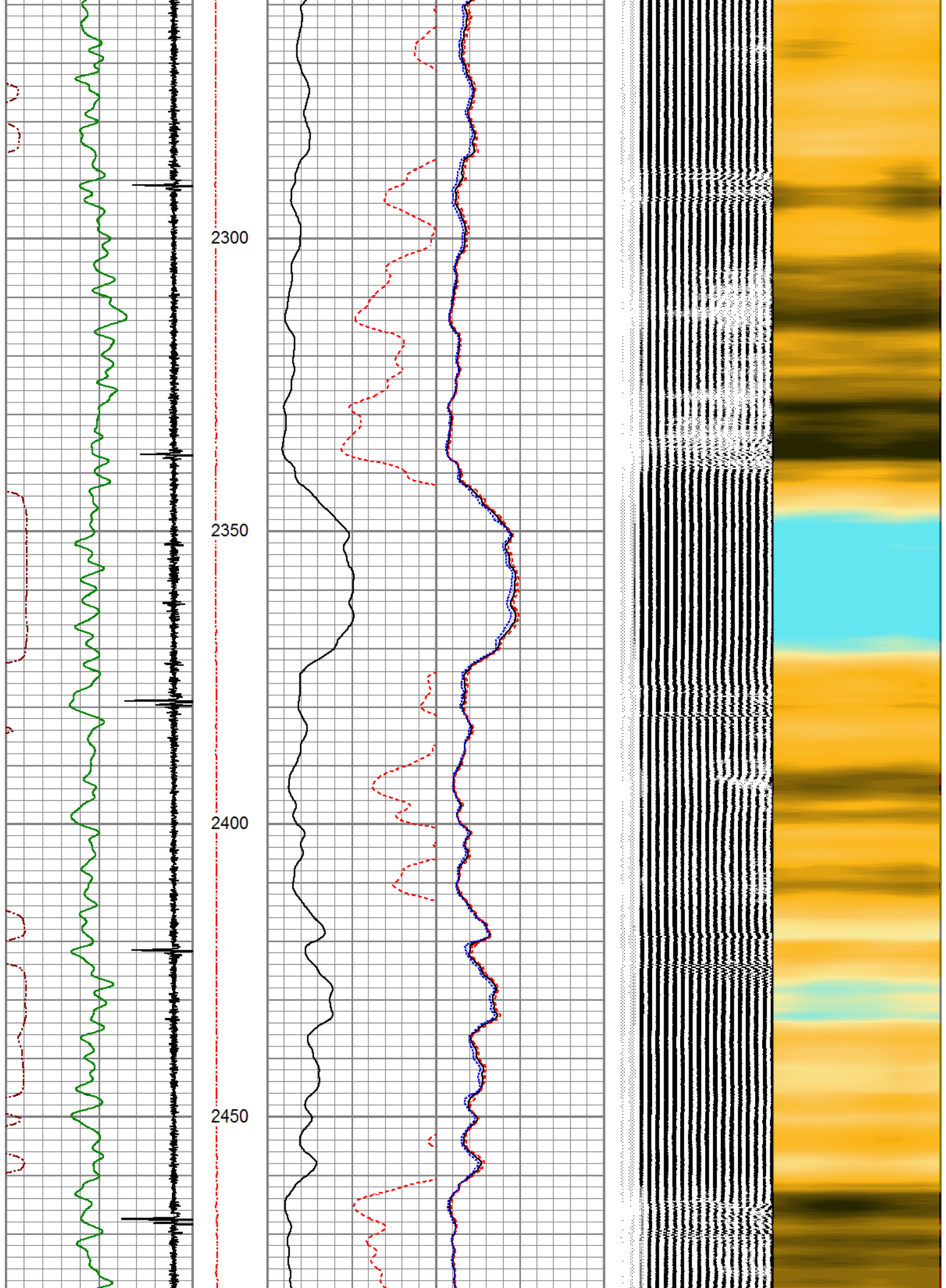


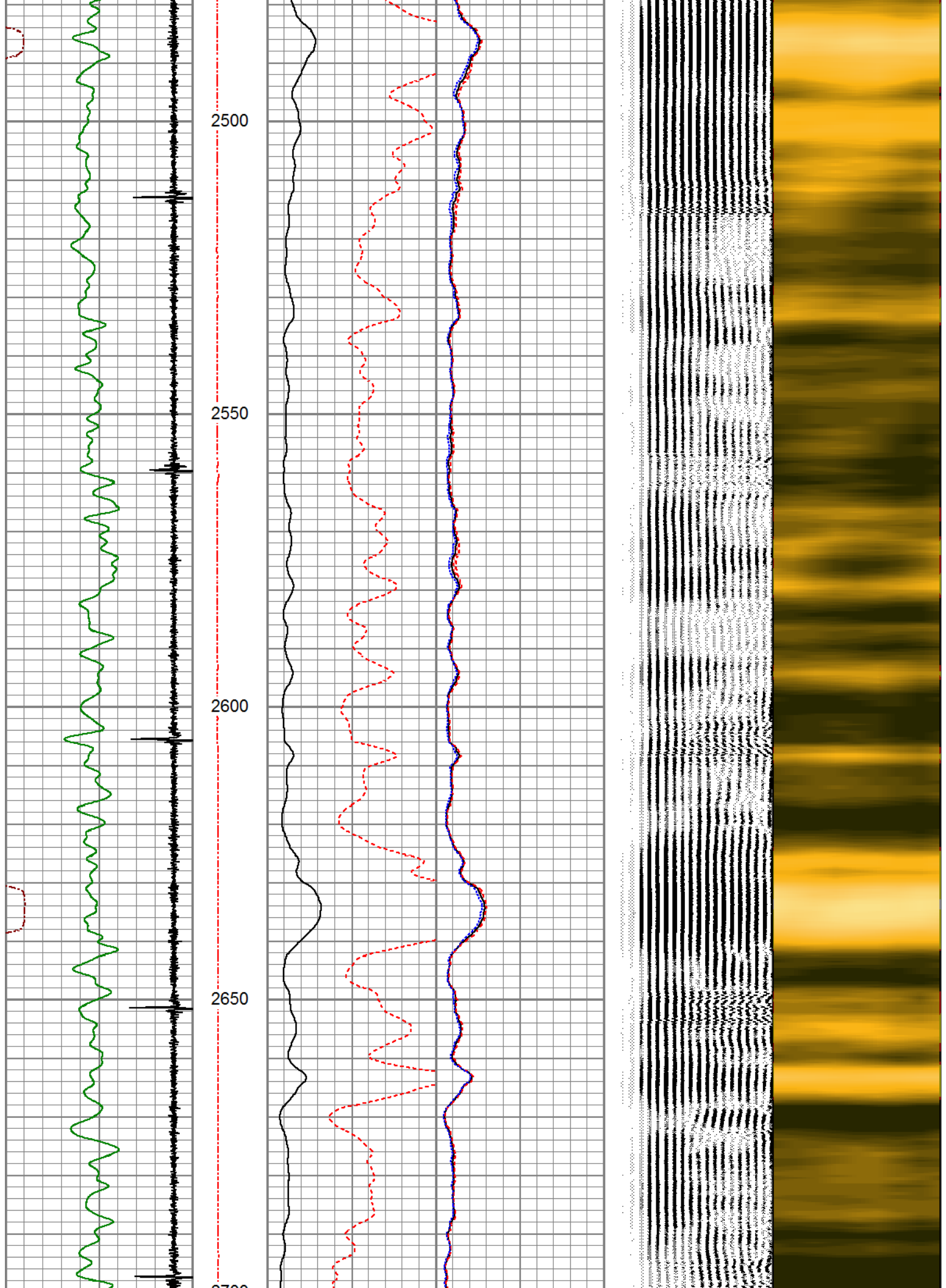


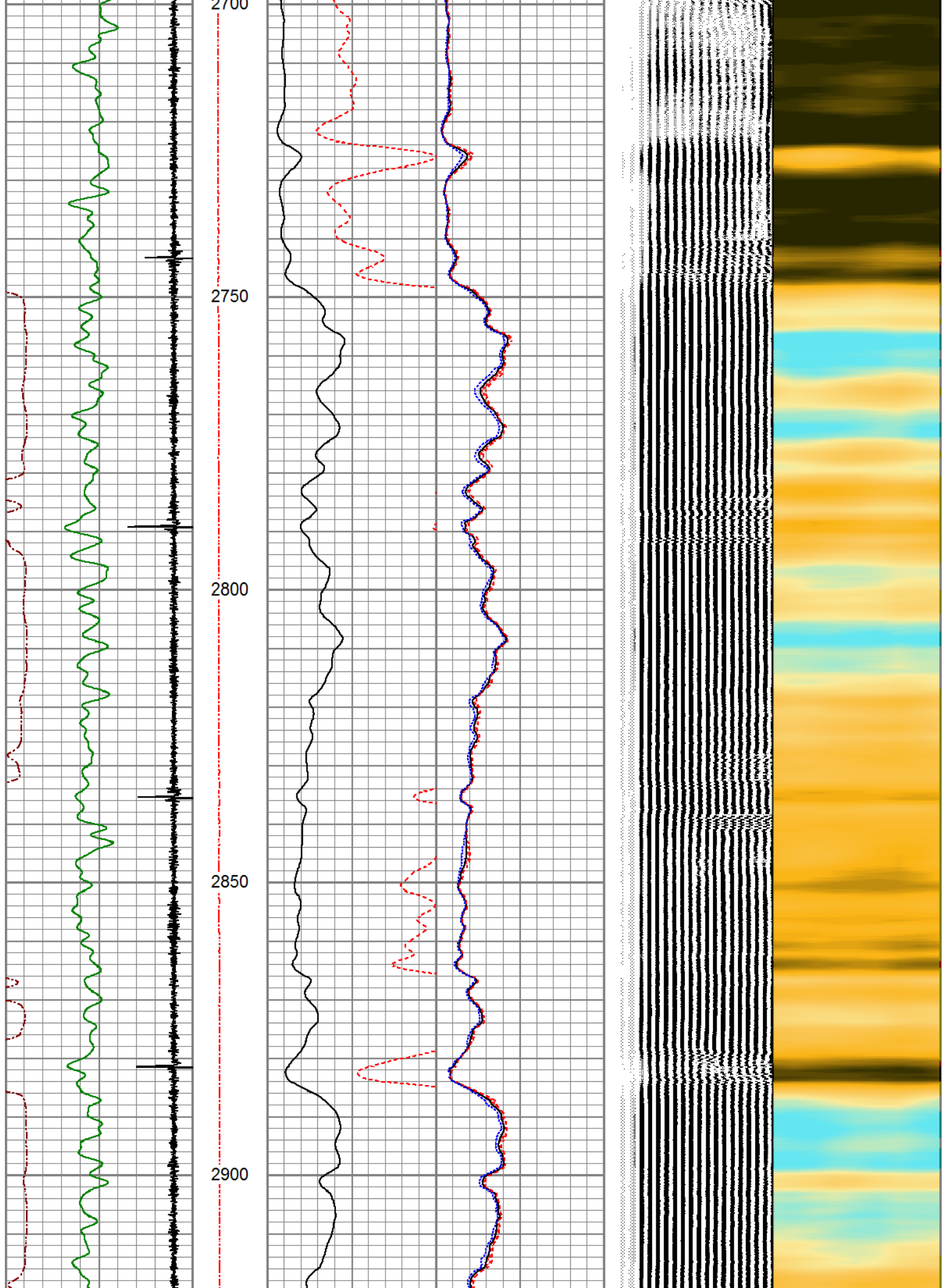


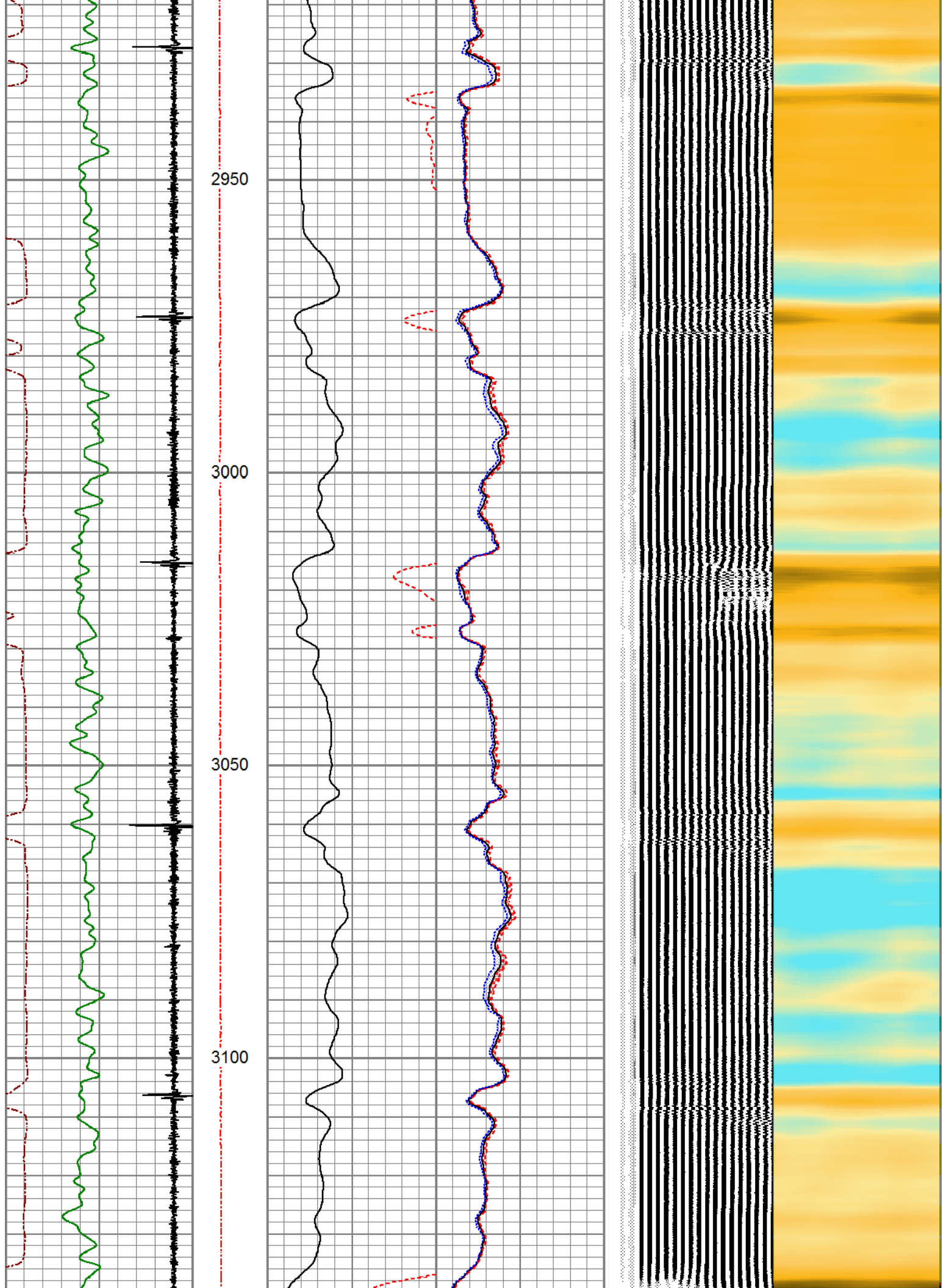


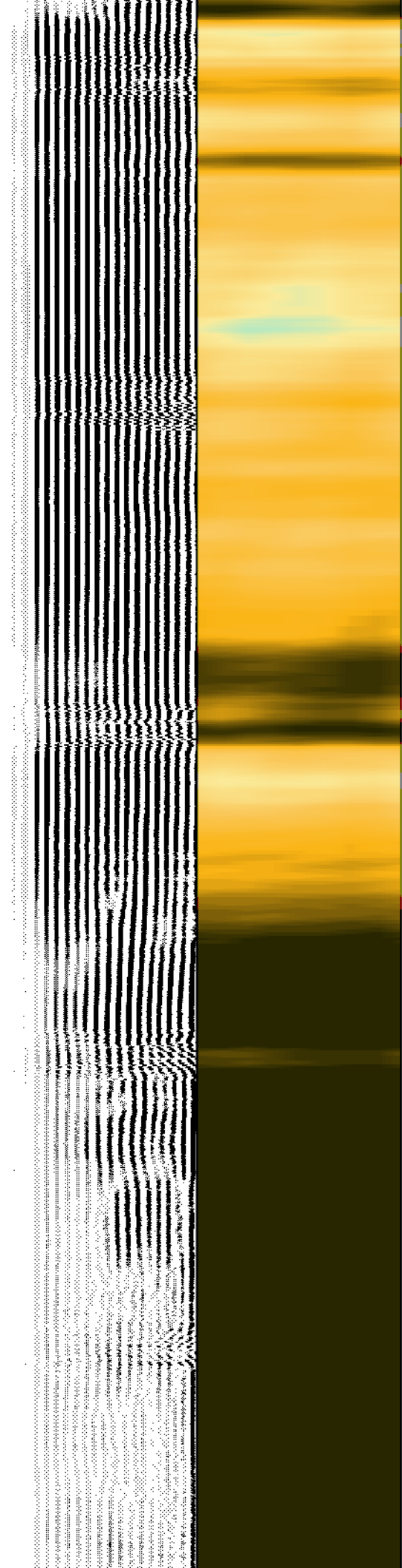
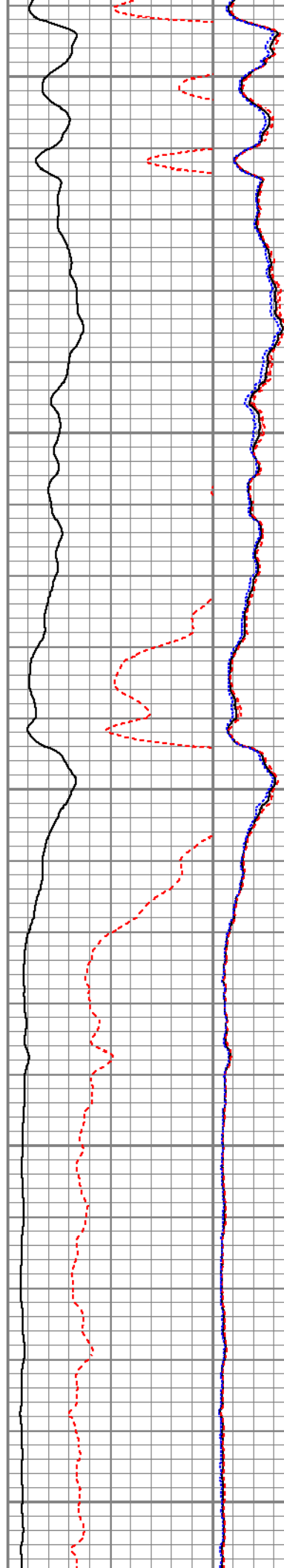
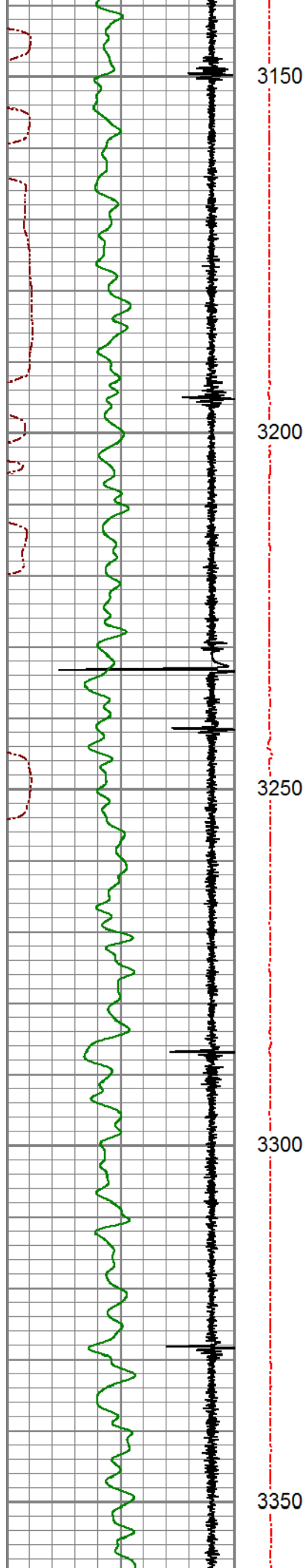


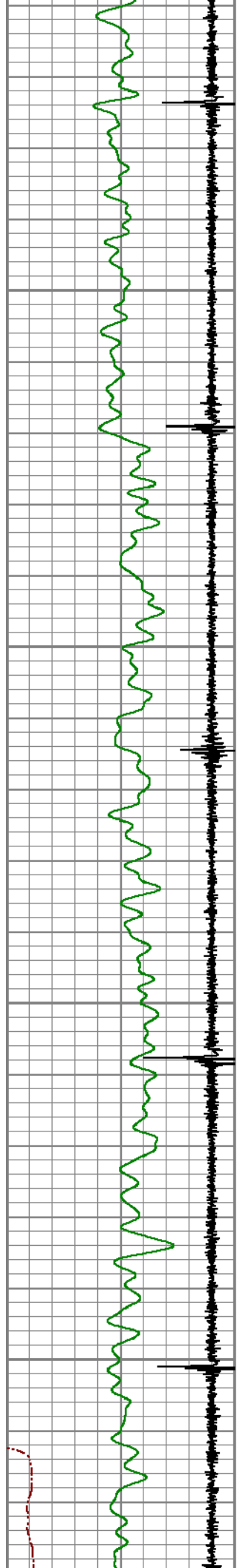










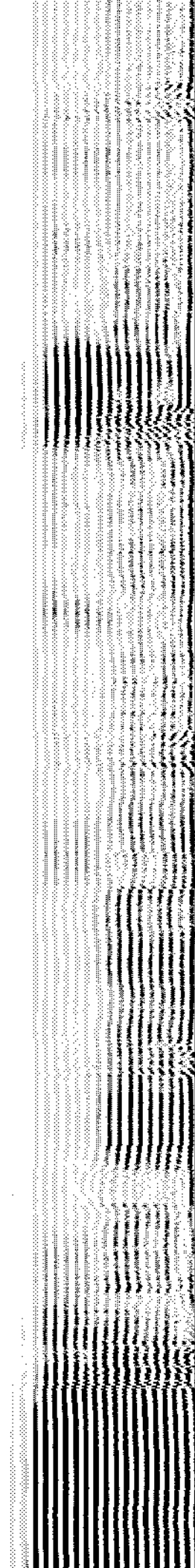
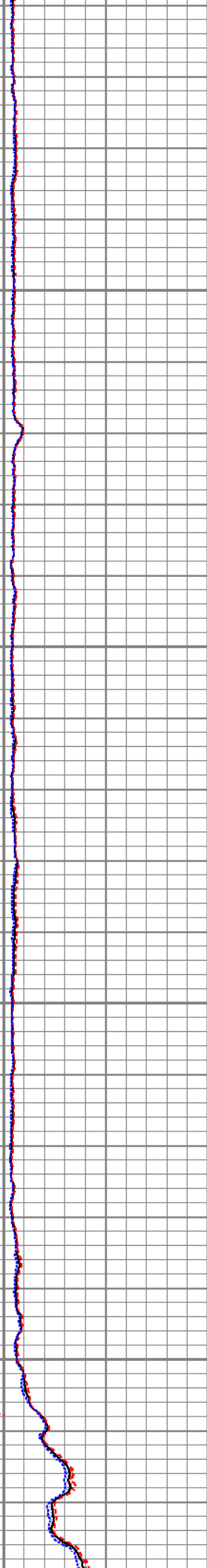
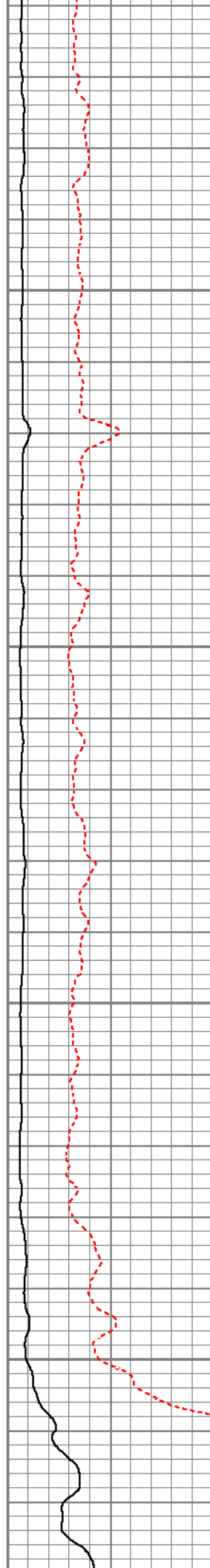


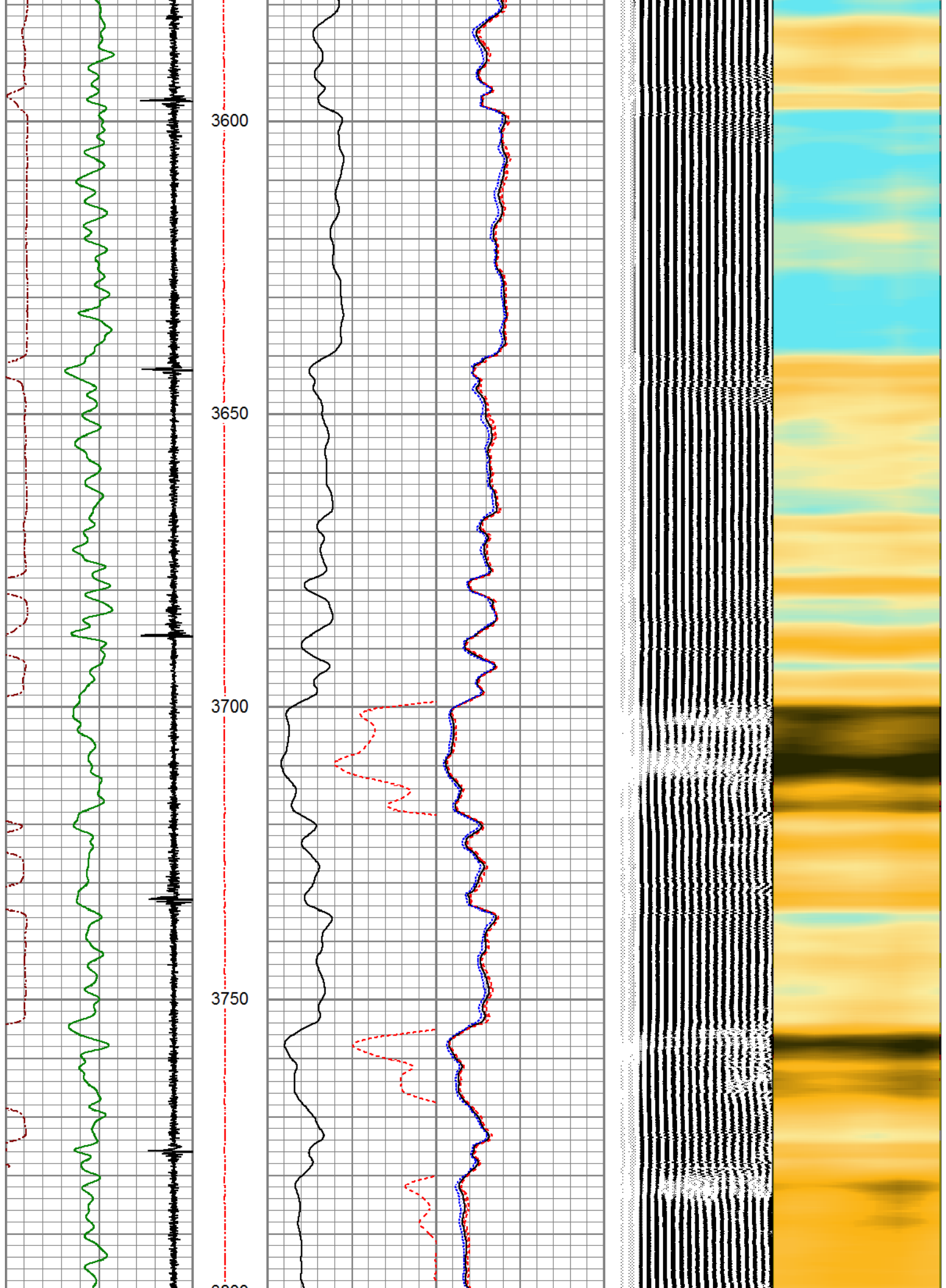
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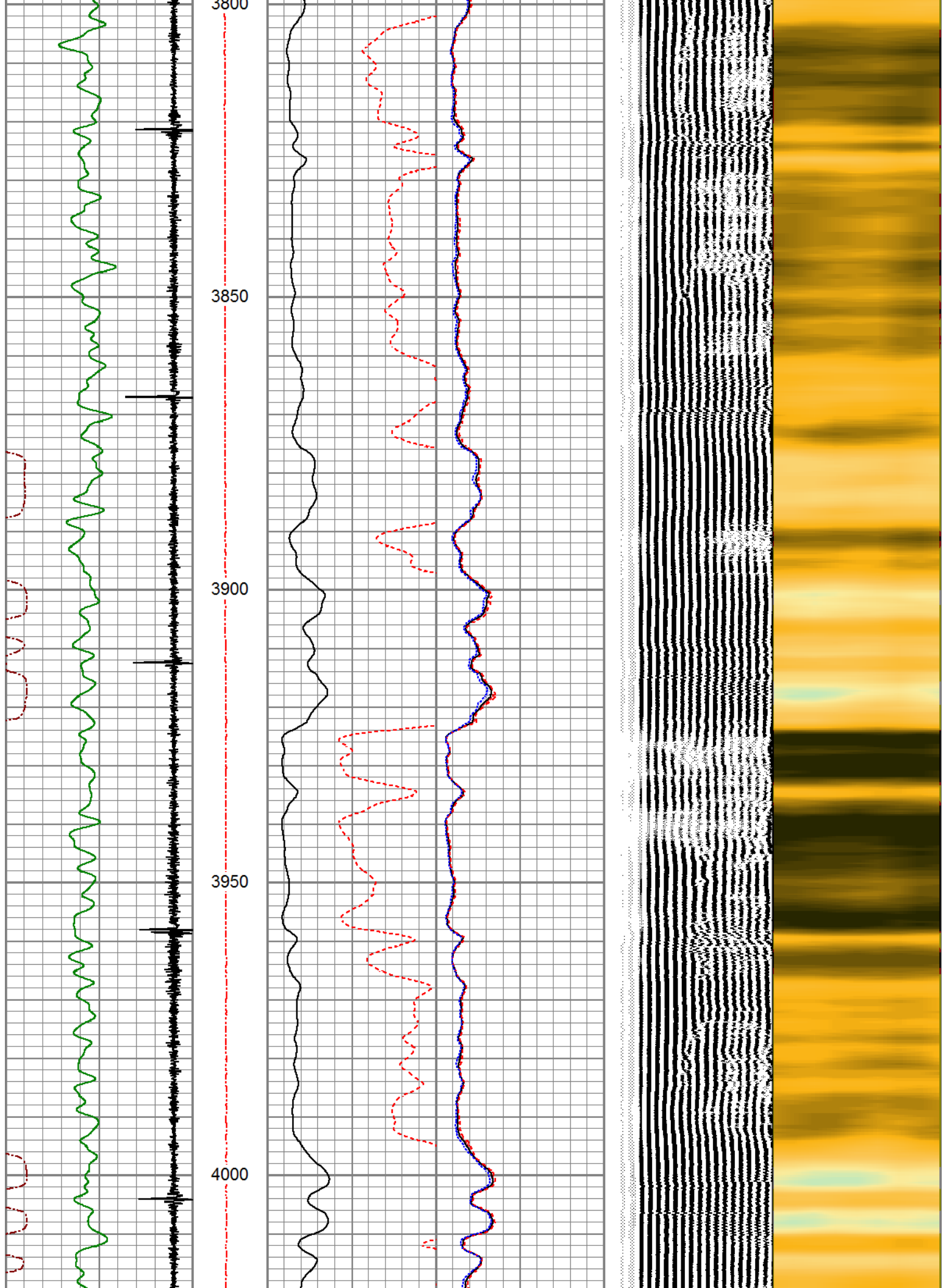
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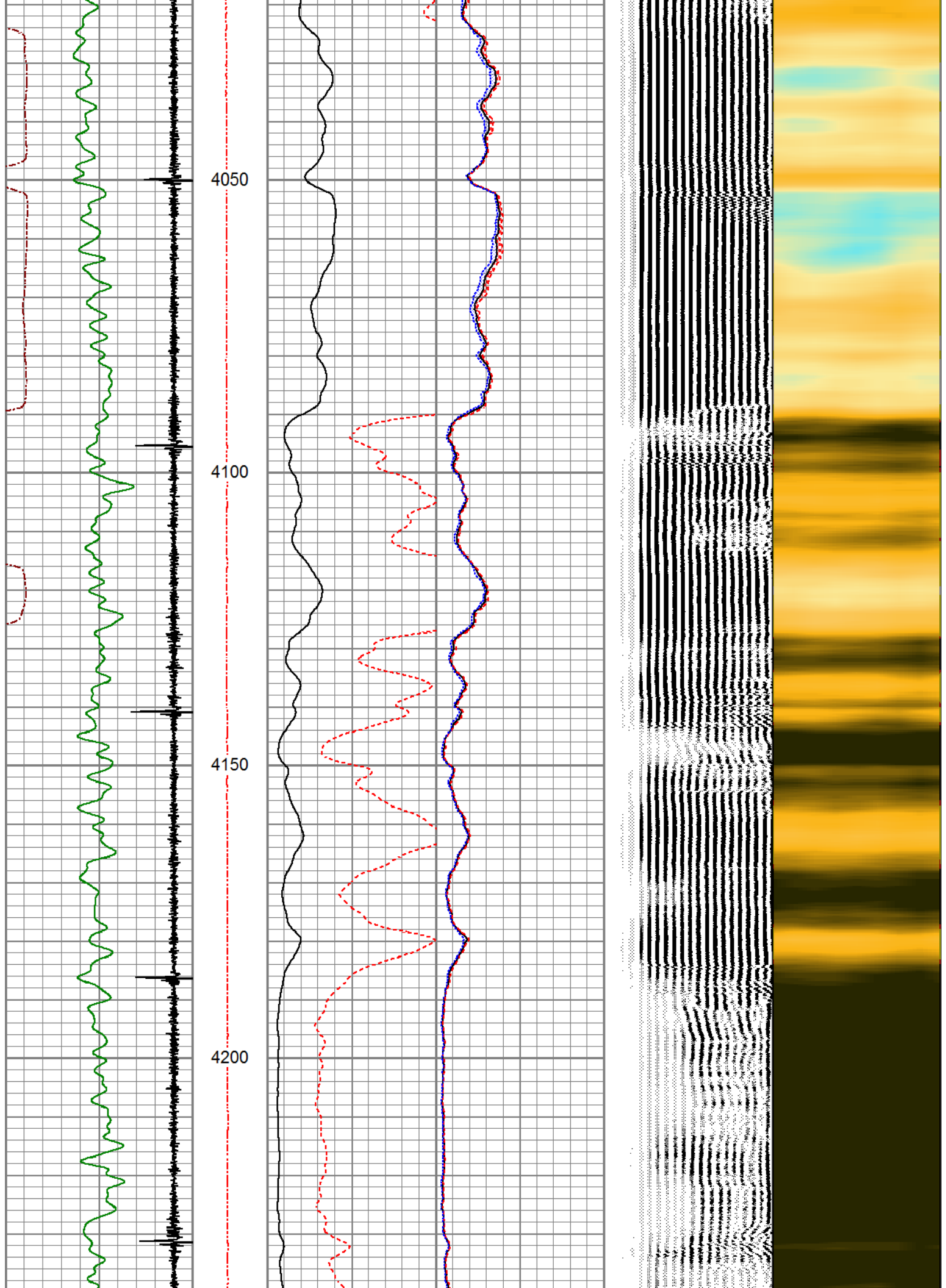
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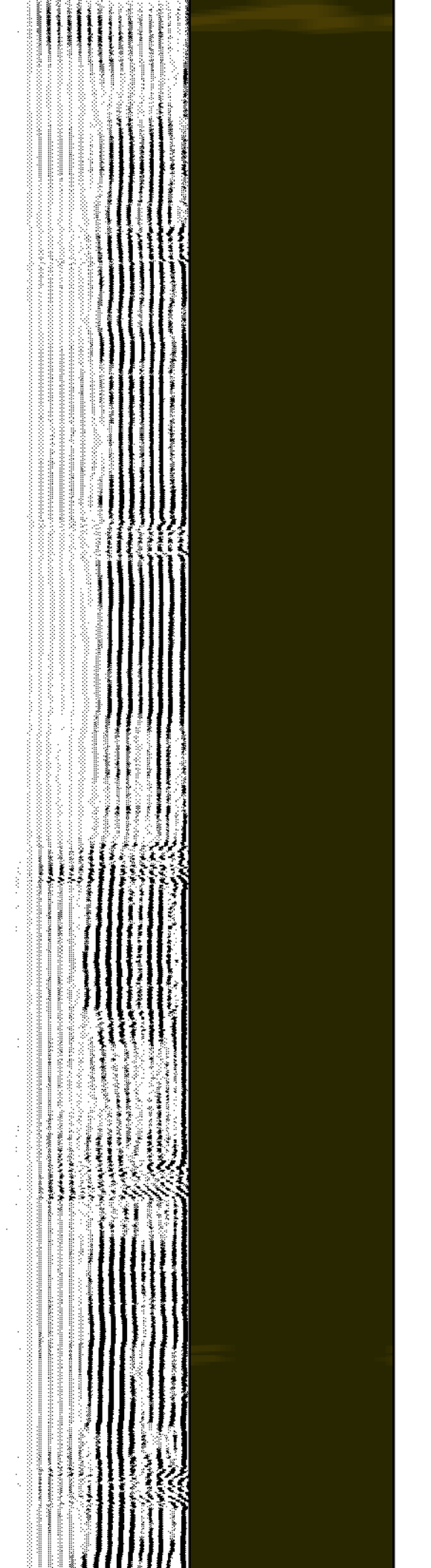
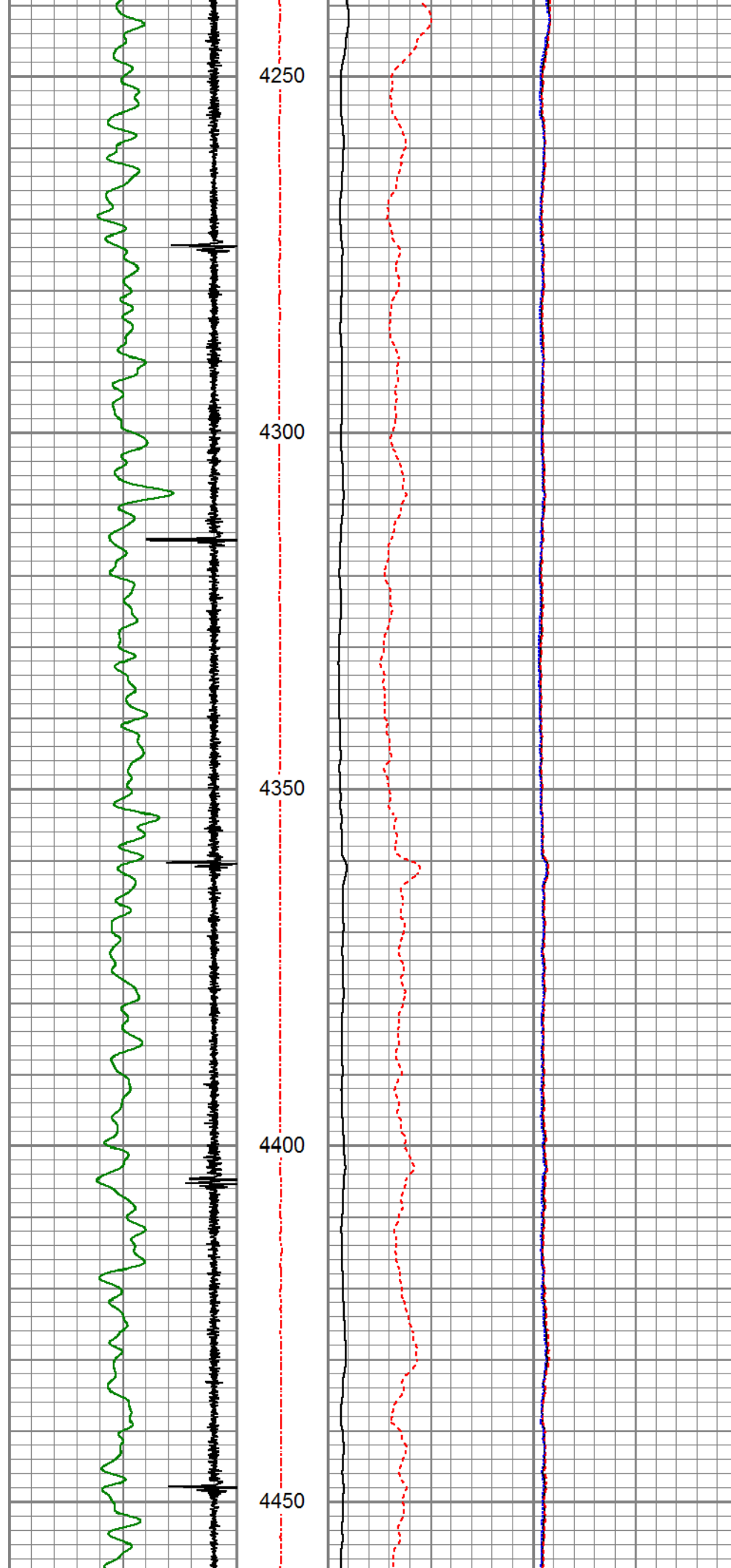
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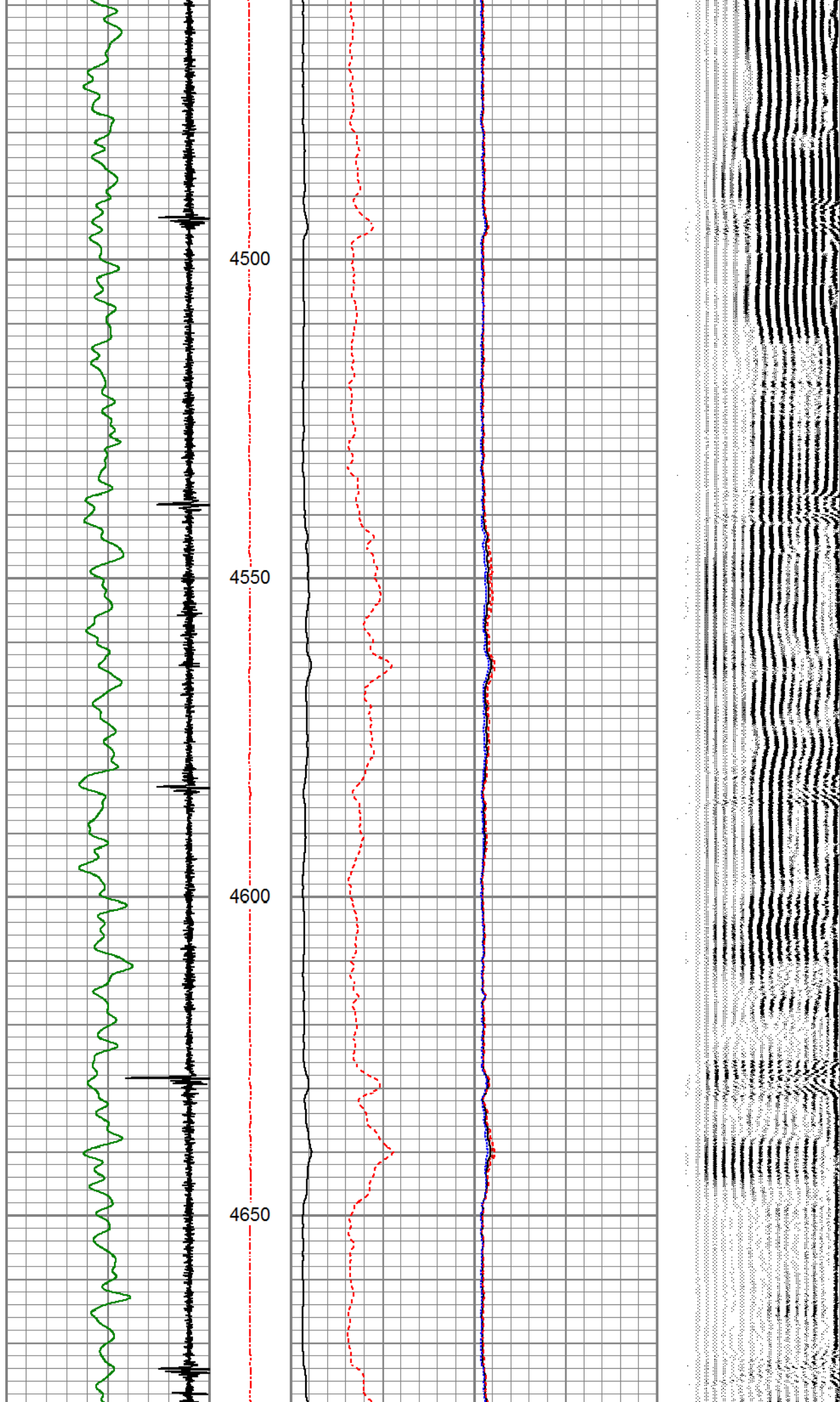


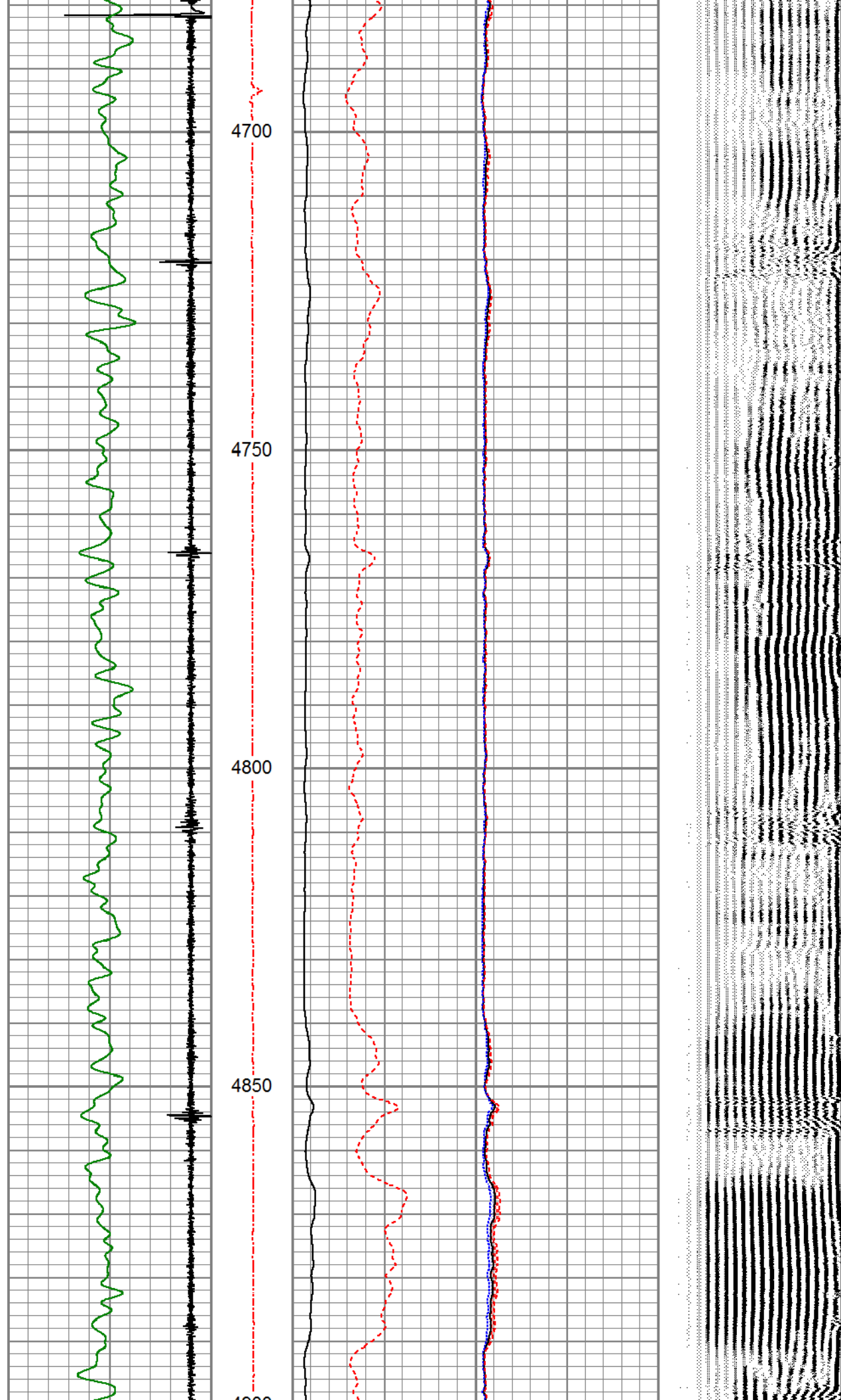


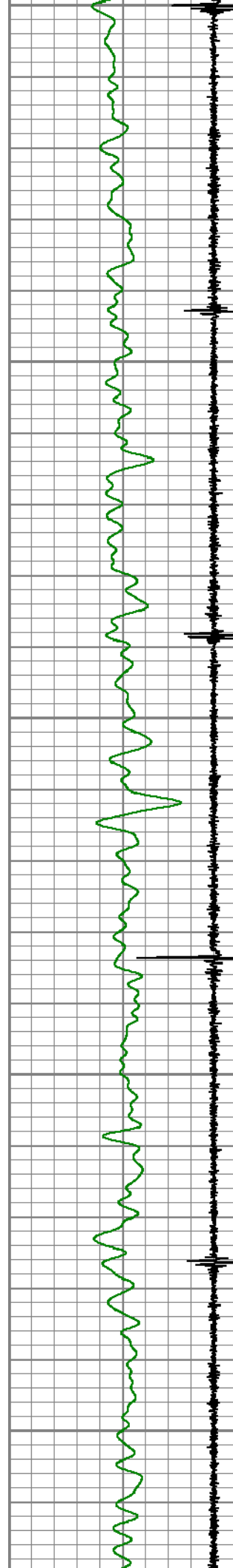




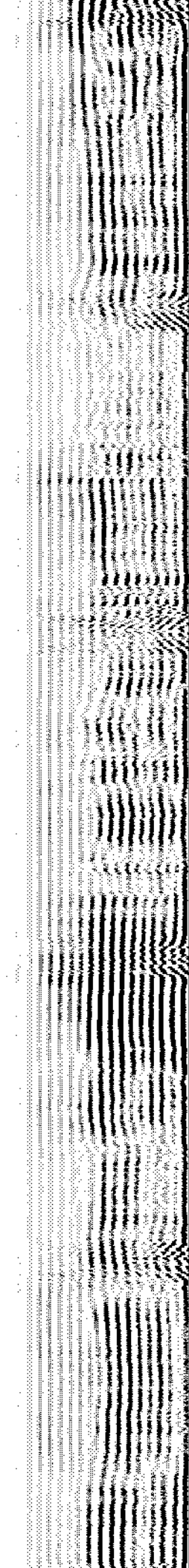
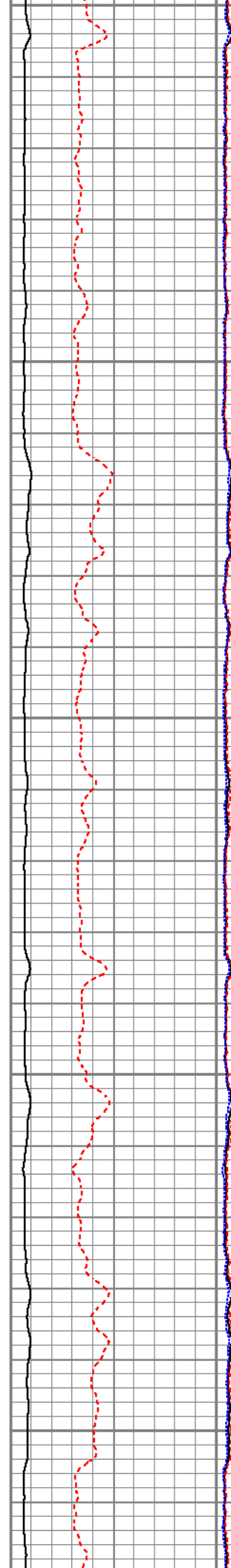


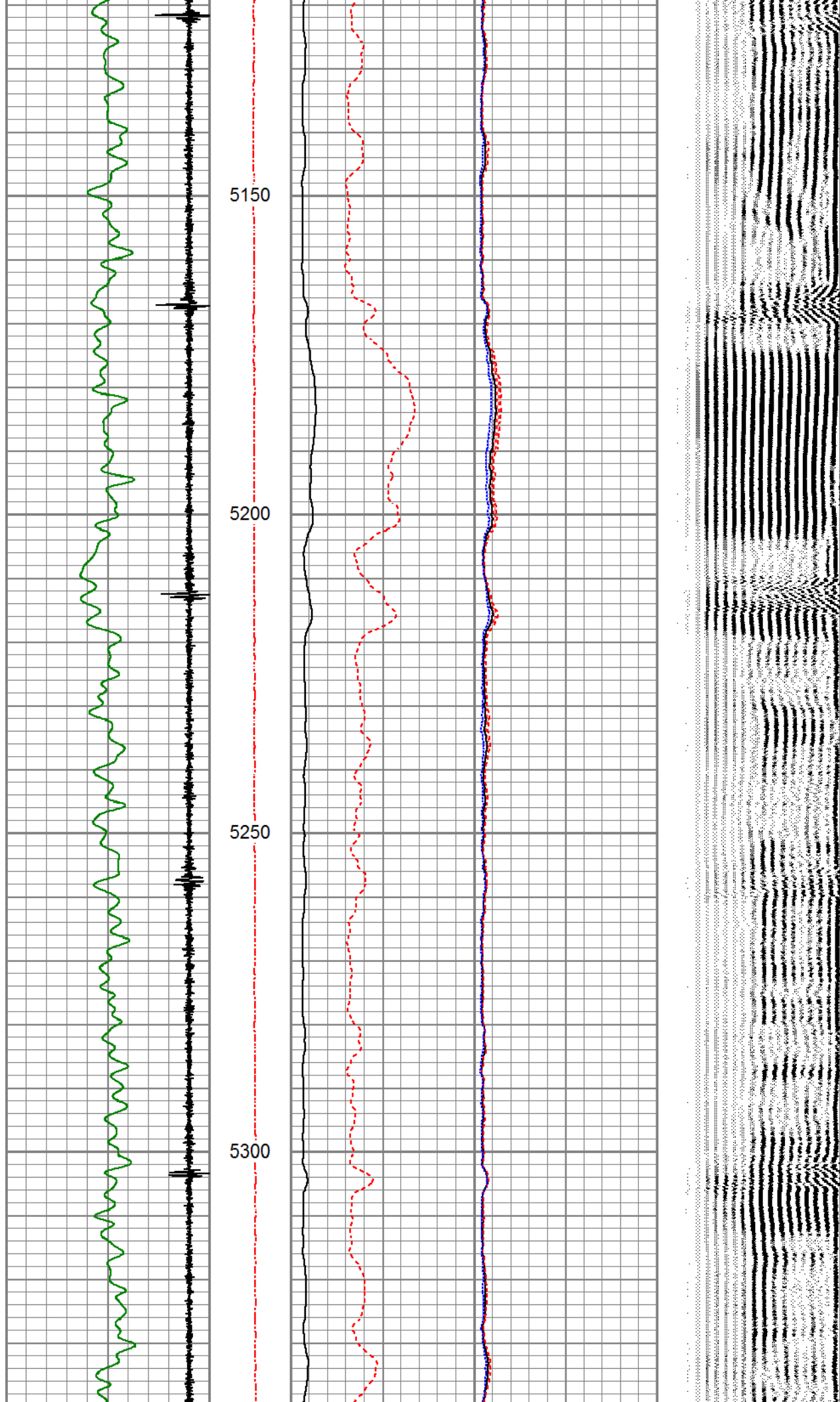


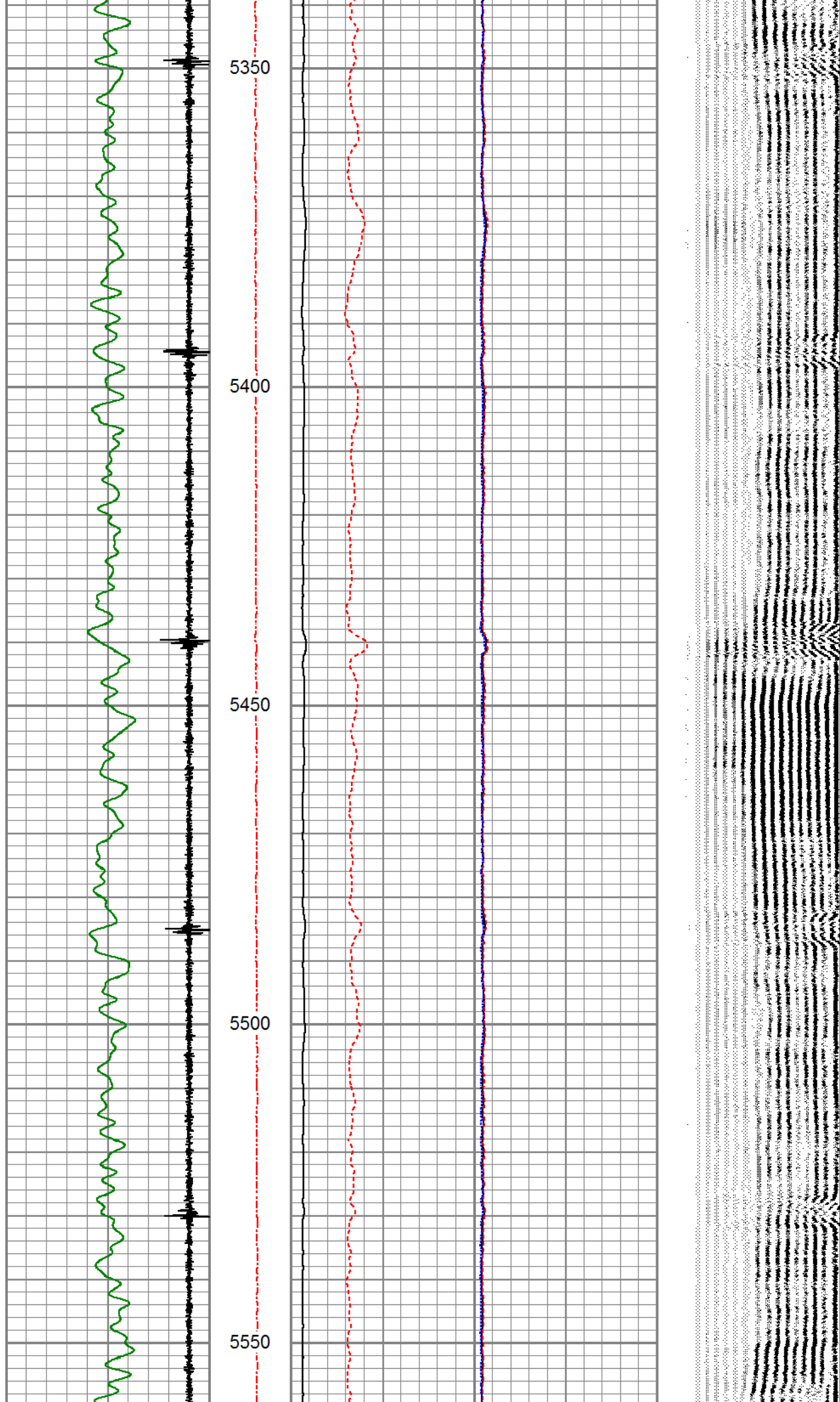


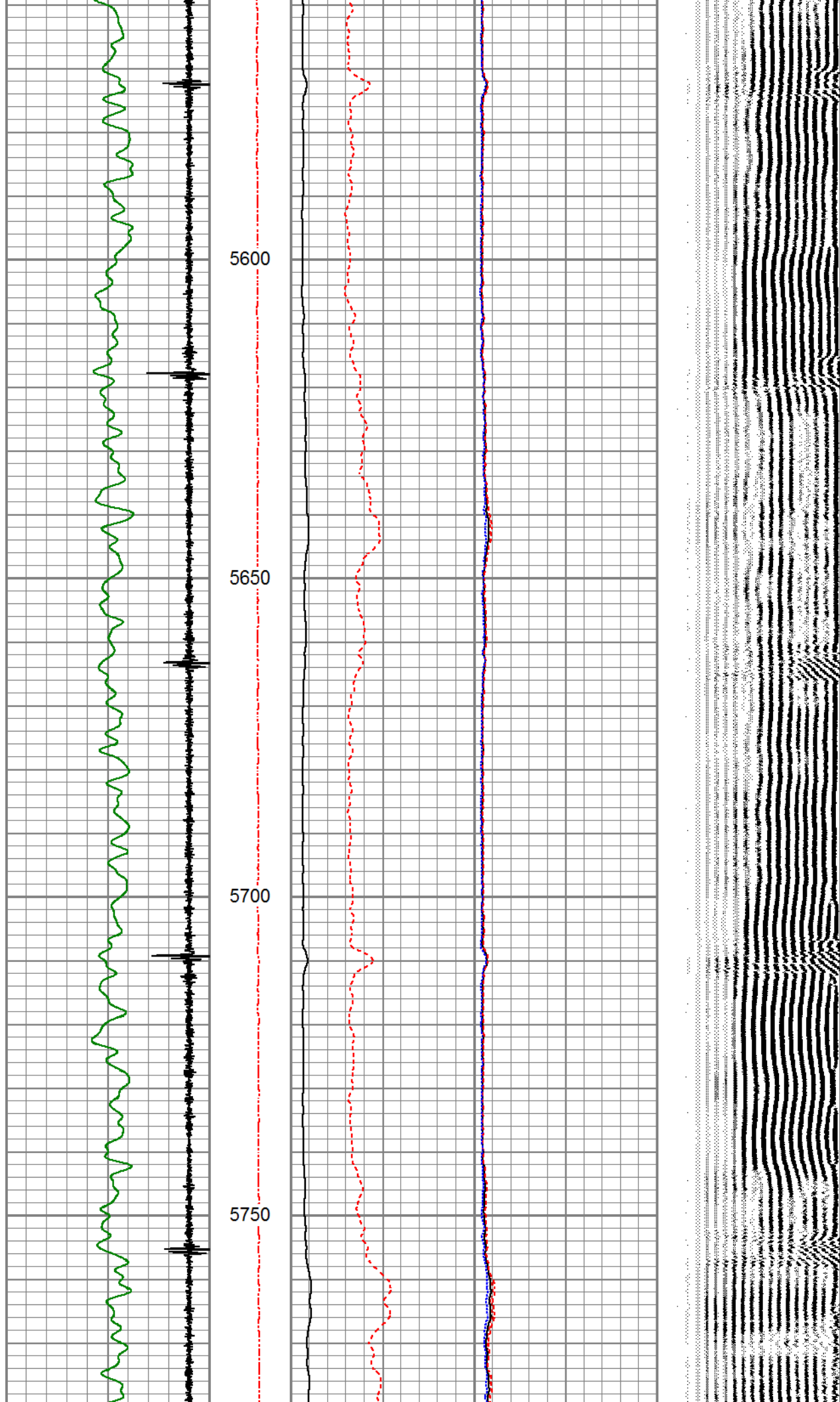


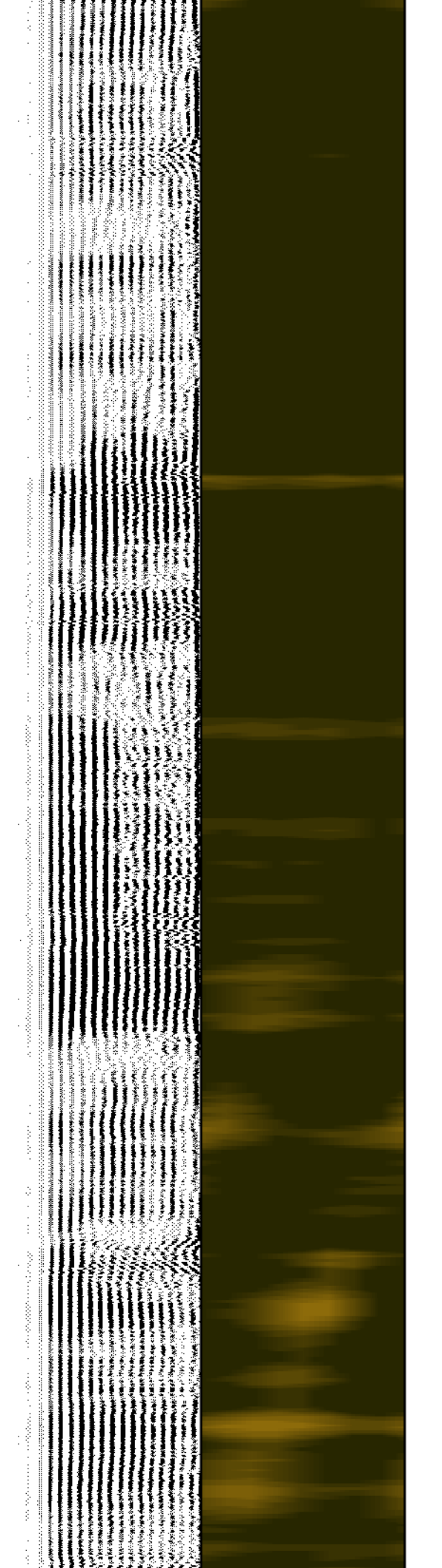
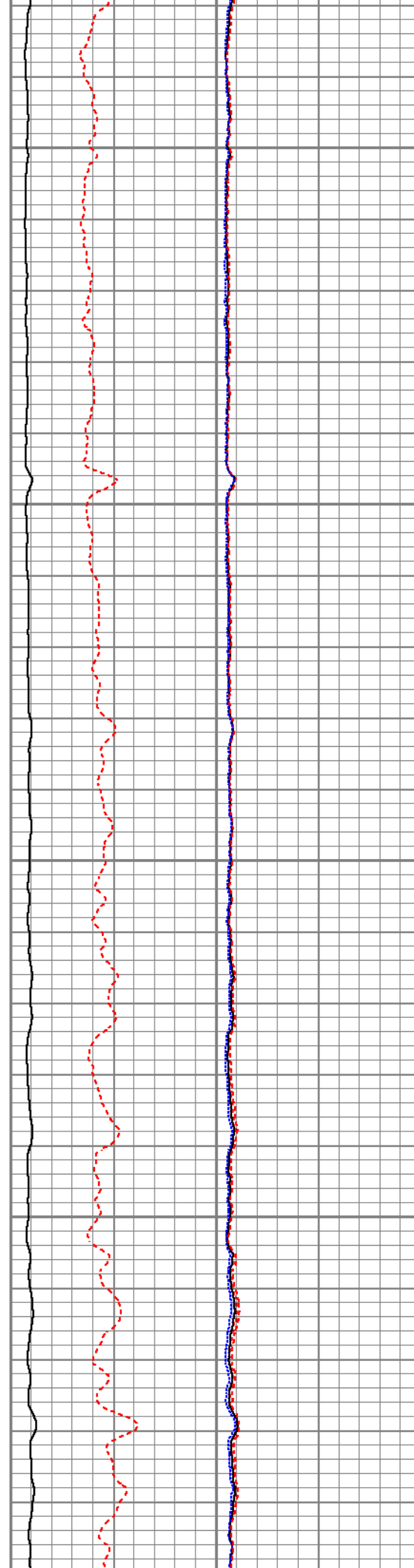
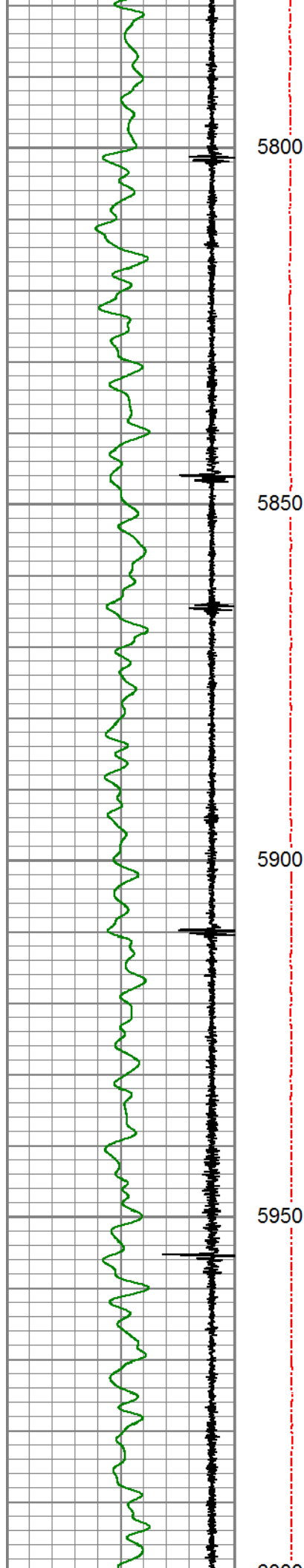
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4950
5000
5050
5100

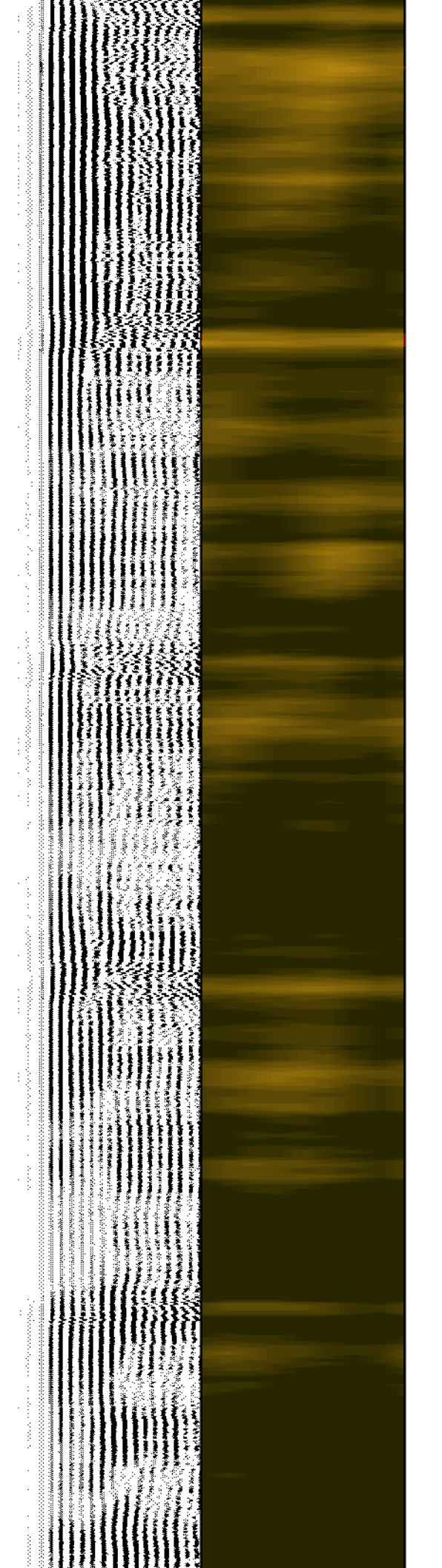
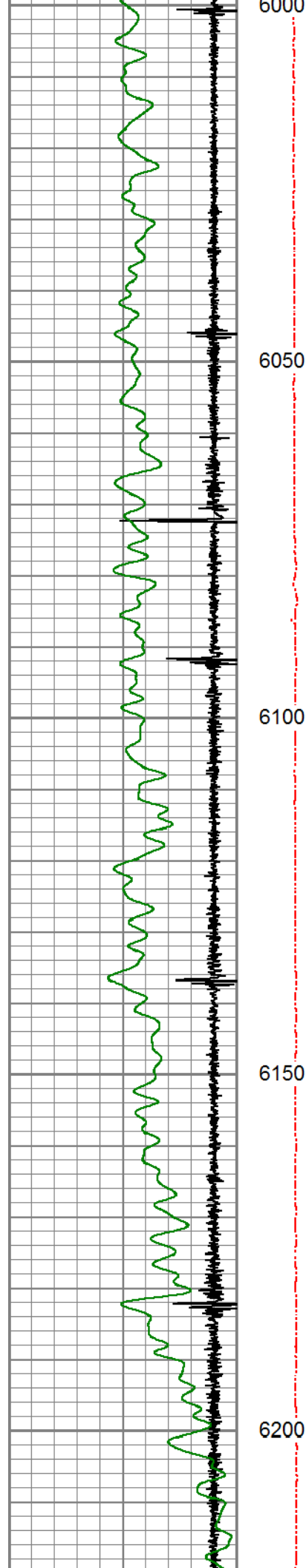


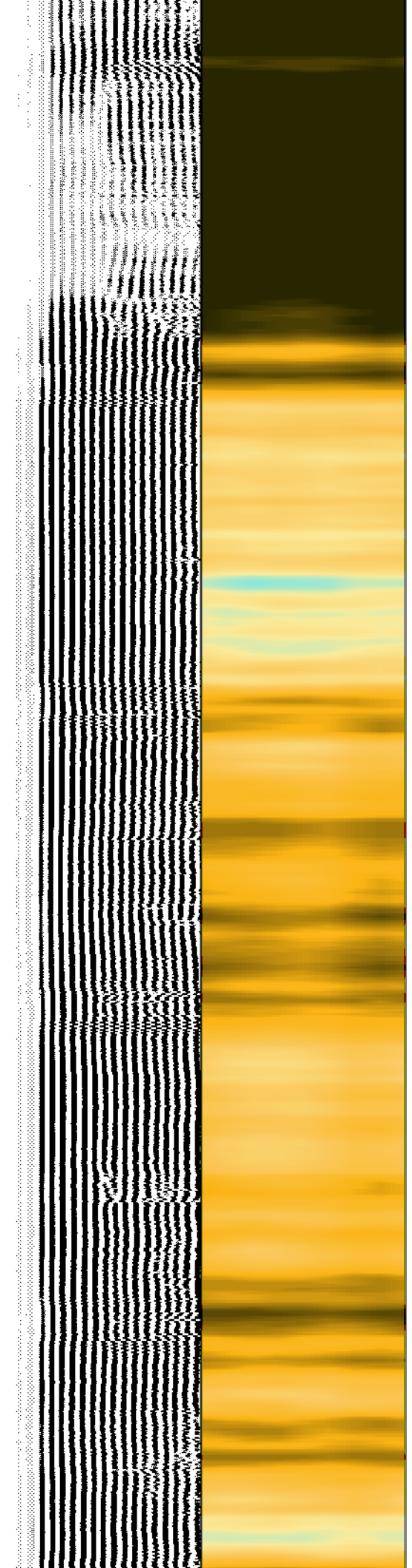
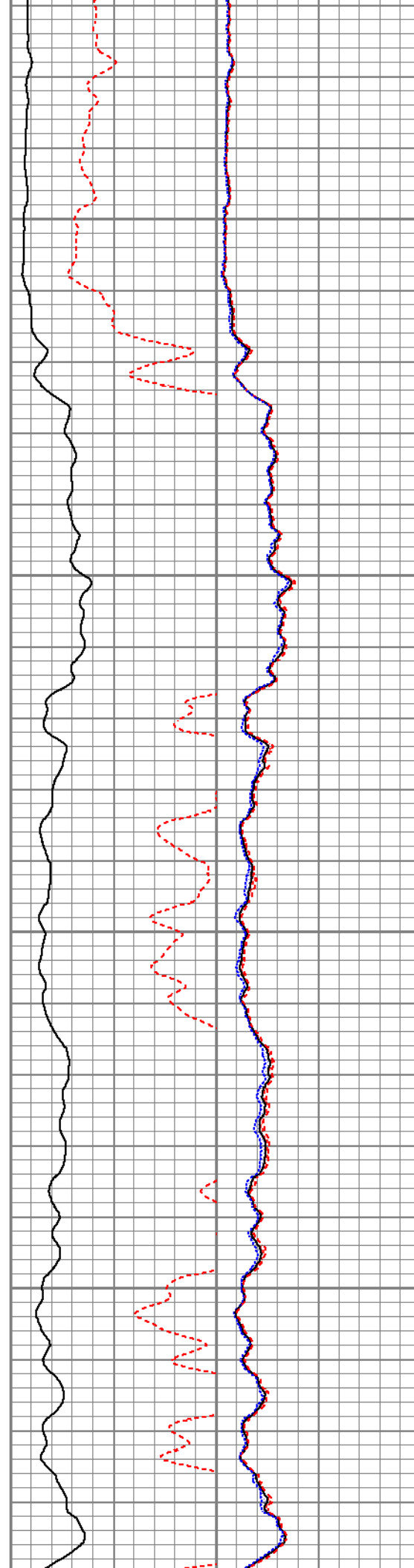
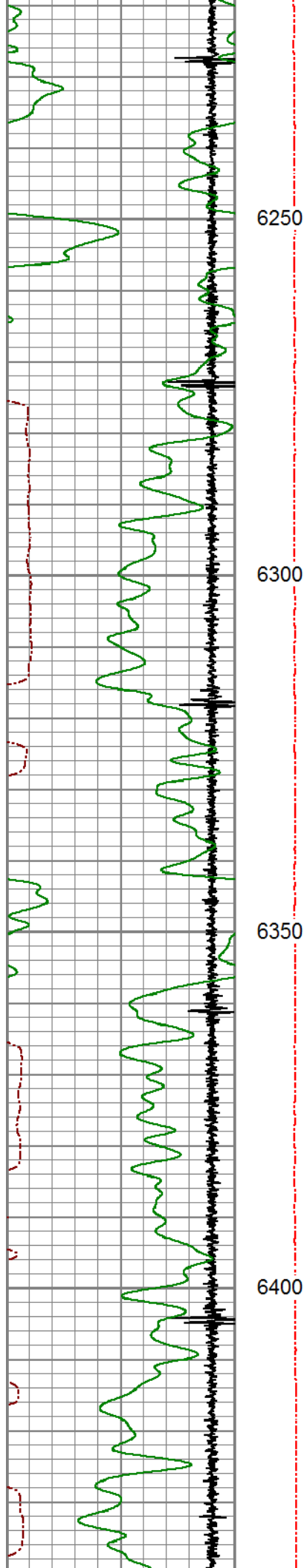


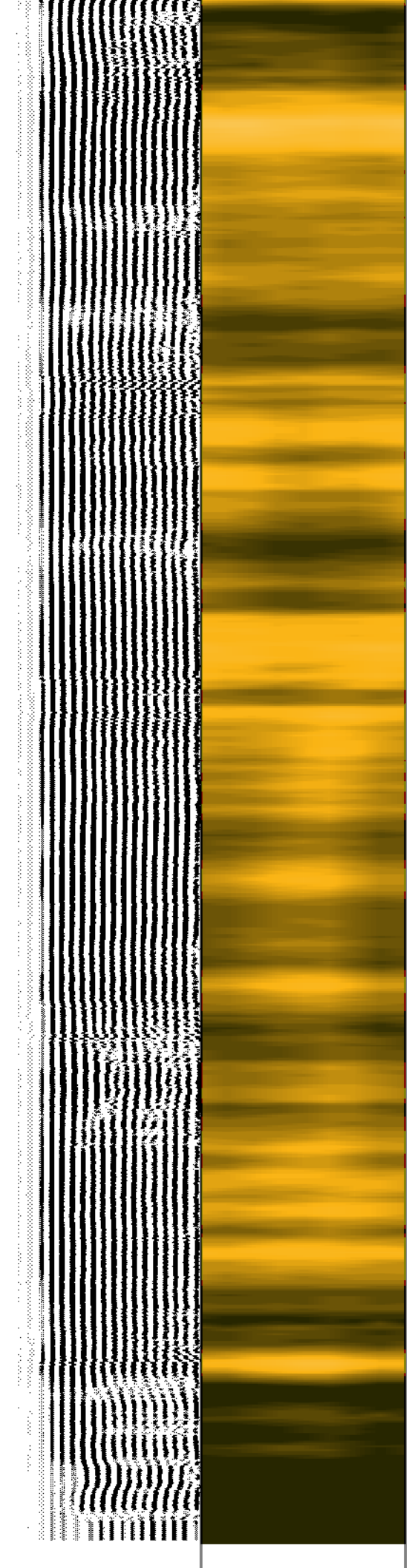
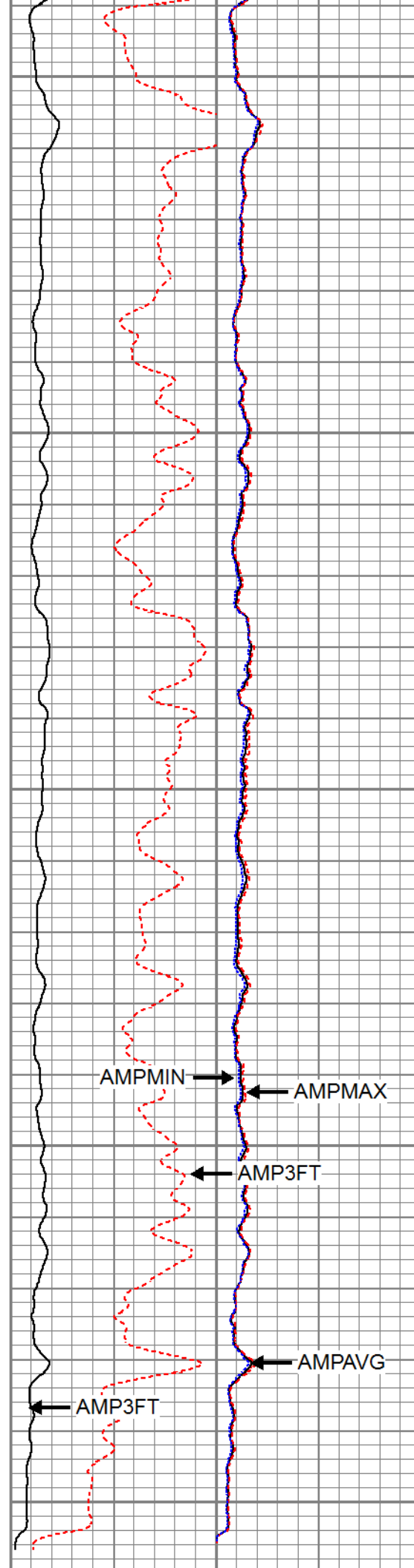
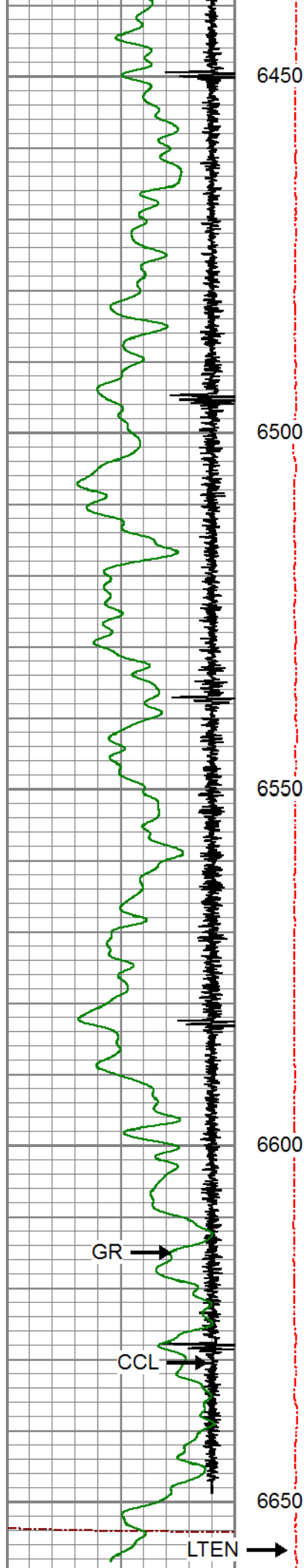












3Ft Travel Time			ineTension (lb)	3' Amplitude		Sector		VDL		1	Sector Map	8		
274	(usec)	174		0	(mV)	100	Amplitude Average		200				(usec)	1200
-9	Collar Locator	1		0	2000	3' Amplified Amplitude X 5		0	150					
Gamma Ray				0		(mV)		20	Sector Amplitude Maximum					
0	(GAPI)	150					0	150						
							Sector Amplitude Minimum							
							0	150						



MAIN LOG

ZERO PSI APPLIED AT SURFACE

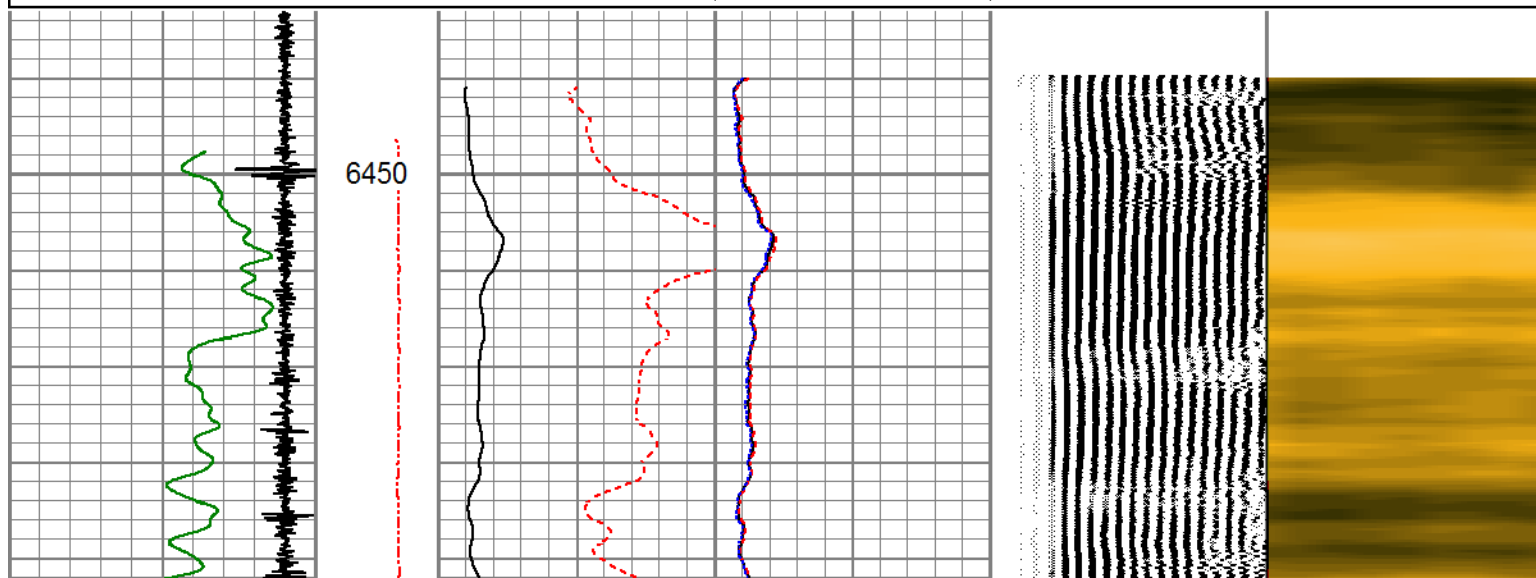


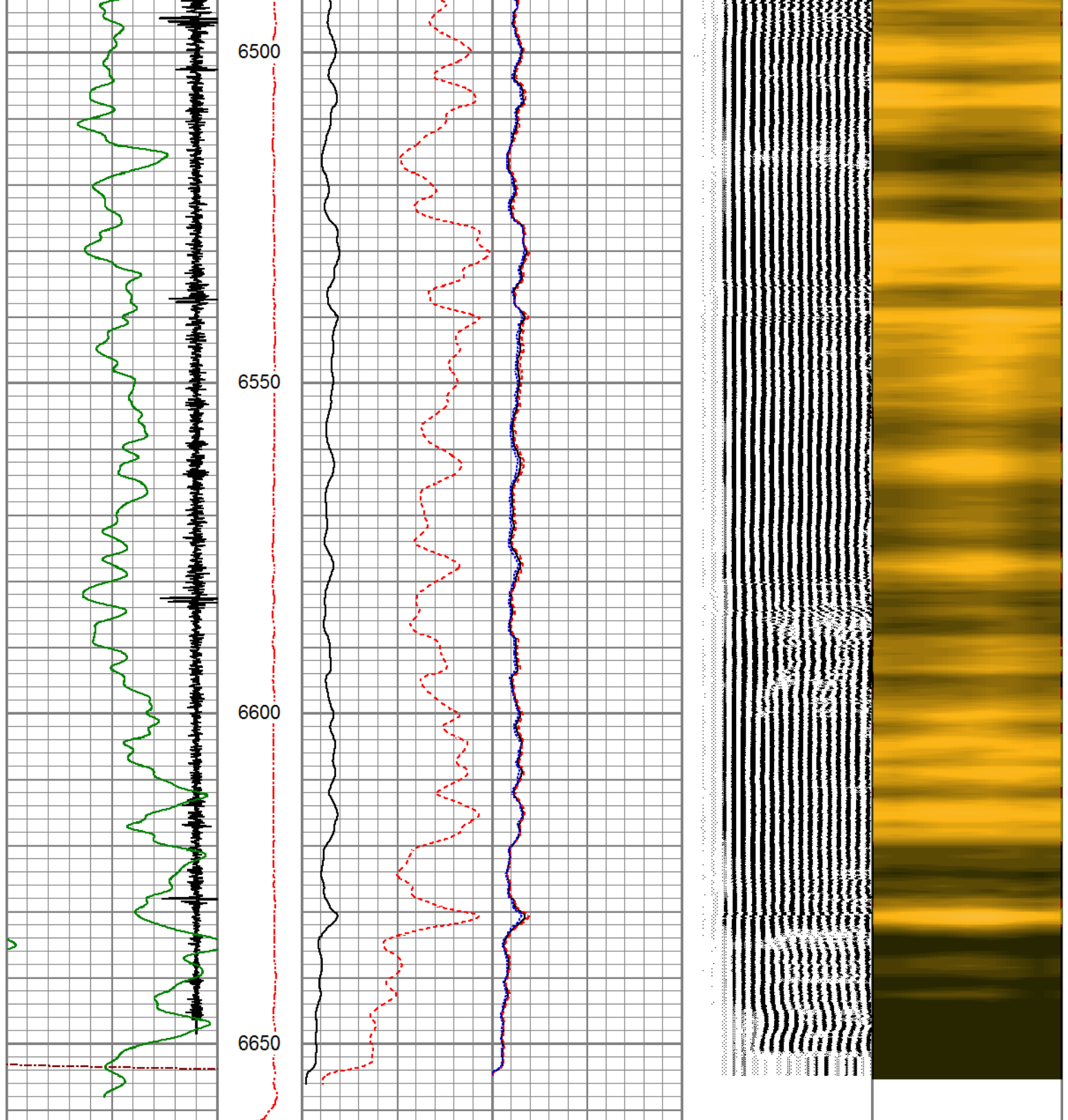
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File: verdad_timbro9-59#8b-9-9_0512347578_20190706_scbl.db
Dataset Pathname: pass2
Presentation Format: pinr_scbl
Dataset Creation: Sat Jul 06 18:05:19 2019
Charted by: Depth in Feet scaled 1:240

3Ft Travel Time			ineTension (lb)	3' Amplitude		Sector Amplitude Average	VDL		1	Sector Map	8		
274	(usec)	174		0	(mV)		100	200				(usec)	1200
-9	Collar Locator	1		0	2000		0	150					
Gamma Ray				3' Amplified Amplitude X 5									
0	(GAPI)	150		0	(mV)	20	Sector Amplitude Maximum						
						0	150						
							Sector Amplitude Minimum						
						0	150						





3Ft Travel Time	ineTensio	3' Amplitude	Sector	VDL	1	Sector Map	8
274 (usec) 174	(lb)	(mV) 100	Amplitude Average	200 (usec) 1200			
-9 Collar Locator 1	0 2000	0 100	0 150				
Gamma Ray		3' Amplified	Sector				
0 (GAPI) 150		Amplitude X 5	Amplitude Maximum				
		(mV) 20	0 150				
			Sector				
			Amplitude Minimum				
			0 150				

Calibration Report

Database File verdad_timbro9-59#8b-9-9_0512347578_20190706_scbl.db
 Dataset Pathname pass2
 Dataset Creation Sat Jul 06 18:05:19 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: 420.797 ft

Master Calibration, performed Sat Jul 06 15:59:00 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	1.363	2.200	71.921	51.195	2.136
CAL	0.001	1.486				
5'	0.012	1.378	2.200	71.921	51.019	1.592
SUM						
S1	-0.003	1.290	0.000	100.000	77.322	0.218
S2	0.007	1.353	0.000	100.000	74.247	-0.488
S3	0.007	1.313	0.000	100.000	76.559	-0.501
S4	0.006	1.339	0.000	100.000	75.036	-0.464
S5	0.007	1.328	0.000	100.000	75.693	-0.529
S6	0.006	1.338	0.000	100.000	75.079	-0.477
S7	0.006	1.286	0.000	100.000	78.091	-0.449
S8	0.009	1.329	0.000	100.000	75.710	-0.653

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

Pioneer Energy Services

Company	VERDAD RESOURCES
Well	TIMBRO 9-59 #8B-9-9
Field	DJ HORIZONTAL NIOBRARA
County	WELD
State	COLORADO