



**SECTOR CEMENT BOND  
GAMMA RAY  
CCL LOG**

Comp. VERDAD RESOURCES  
Well FAWN 2833-04H  
Field WELD COUNTY  
Co. WELD  
State COLORADO

Company **VERDAD RESOURCES**  
Well **FAWN 2833-04H**  
Field **WELD COUNTY**  
County **WELD** State **COLORADO**

Location: API #: 05-123-51848 Other Services  
244' FSL & 2286' FWL  
SEC 22 TWP 1N RGE 65W  
Permanent Datum G.L. Elevation 5104'  
Log Measured From G.L. 0' Above Perm. Datum  
Drilling Measured From N/A

Date of Service	28-MARCH-2023
Run Number	ONE
Depth Driller or PBTD	18250'
Depth Logger	8290'
Bottom Log Interval	8285'
Top Log Interval	SURFACE
Open Hole Size	8.75"
Type Fluid	WATER
Fluid Level	FULL
Fluid Density	8.34 PPG
Max. Recorded Temperature	220 DEG. F.
Max. Wellhead Pressure	0 PSI
Wellhead Connection	7-1/16" 15K
Estimated Cement Top	2278'
Unit Number	1096
Wireline Size	9/32"
Location	BRIGHTON,CO
Recorded By	HARPER
Witnessed By	HANSEN
Surface Casing	Size 9-5/8" WMF# 36# Top SURFACE Bottom 2340'
Production Casing	5.5" 20# SURFACE 18235'
Liner Casing	N/A N/A N/A
Tubing Record	N/A N/A N/A

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All interpretations are opinions based on inferences from electrical or other measurements and Ranger Energy Services cannot and does not guarantee the accuracy or correctness of any interpretation, and Ranger Energy Services 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.  
LOG CORRELATED TO GROUND LEVEL

THANK YOU FOR USING RANGER ENERGY SERVICES! FIELD TICKET #...534576

<b>Your Ranger Energy Services Crew</b>	<b>Tool Data - Services</b>	<b>Serial Number</b>
Engineer: B.HARPER	PROBE RADII BOND	RBT-PROBE-070150
Operator: B.HECHT	GAMMA RAY/CCL	GR-ANALOG 071129
Operator: C.PROBST		
Operator:		

Operator	Offset (ft)	Substrate	Description	Length (ft)	O.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
ErrCt	17.33		Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31	
IntTemp	15.07						
WVFS8	11.82			RBT-Probe (070150) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFS7	11.82						
WVFS6	11.82						
WVFS5	11.82						
WVFS4	11.82						
WVFS3	11.82						
WVFS2	11.82						
WVFS1	11.82						
WVFCAL	11.82						
WVF3FT	11.82						
WVF5FT	10.82						
CCL	6.62						
GR	5.38		GR_analog-GR275B (071129) 275 Gamma-CCL (Pulse) Top Detector	4.57	2.75	55.00	
			Centralizers-8071-275-200 Tekco 2 3/4" Adjustable Centralizer	2.73	2.75	25.00	
			Bull_Plug-1_7/16_GO Titan 1 7/16" Female Bull Plug	0.27	1.44	1.00	

Dataset: verdad\_fawn 2833-04h\_05-123-51848\_03-28-23.db: field/well/run1/pass3  
 Total length: 17.33 ft  
 Total weight: 174.31 lb  
 O.D.: 2.75 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\verdad\_fawn 2833-04h\_05-123-51848\_03-28-23.db  
 Dataset field/well/run1/pass3/\_vars\_

## Top - Bottom

BOREID in 8.75	BOTTEMP degF 221	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 No	PPT usec 261	SRFTEMP degF 40	TDEPTH ft 18250				

## Variable Description

BOREID : Borehole I.D.	CASEWGHT : Casing Weight	PERFS : Perforation Flag
BOTTEMP : Bottom Hole Temperature	MAXAMPL : Maximum Amplitude	PPT : Predicted Pipe Time
CASEOD : Casing O.D.	MINAMPL : Minimum Amplitude	SRFTEMP : Surface Temperature
CASETHCK : Casing Thickness	MINATTN : Minimum Attenuation	TDEPTH : Total Depth

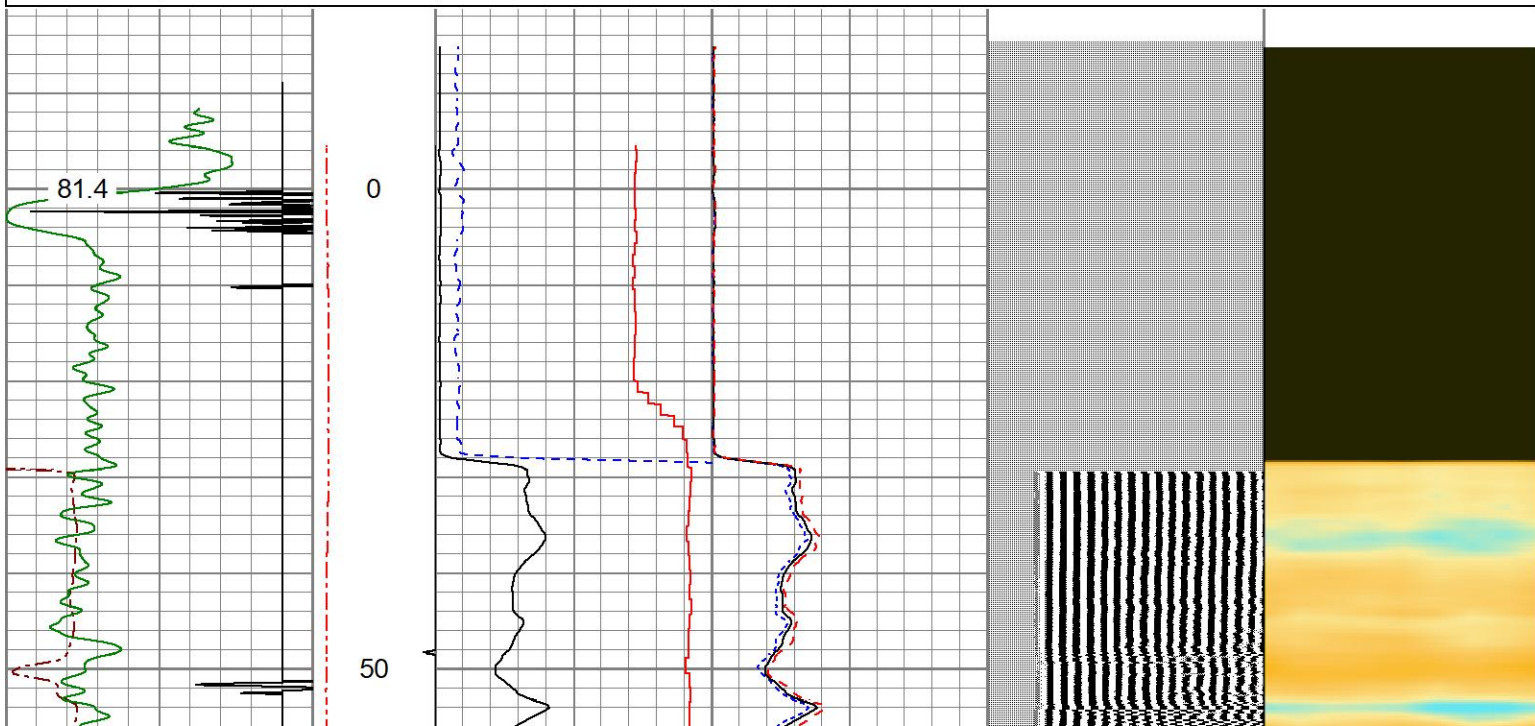


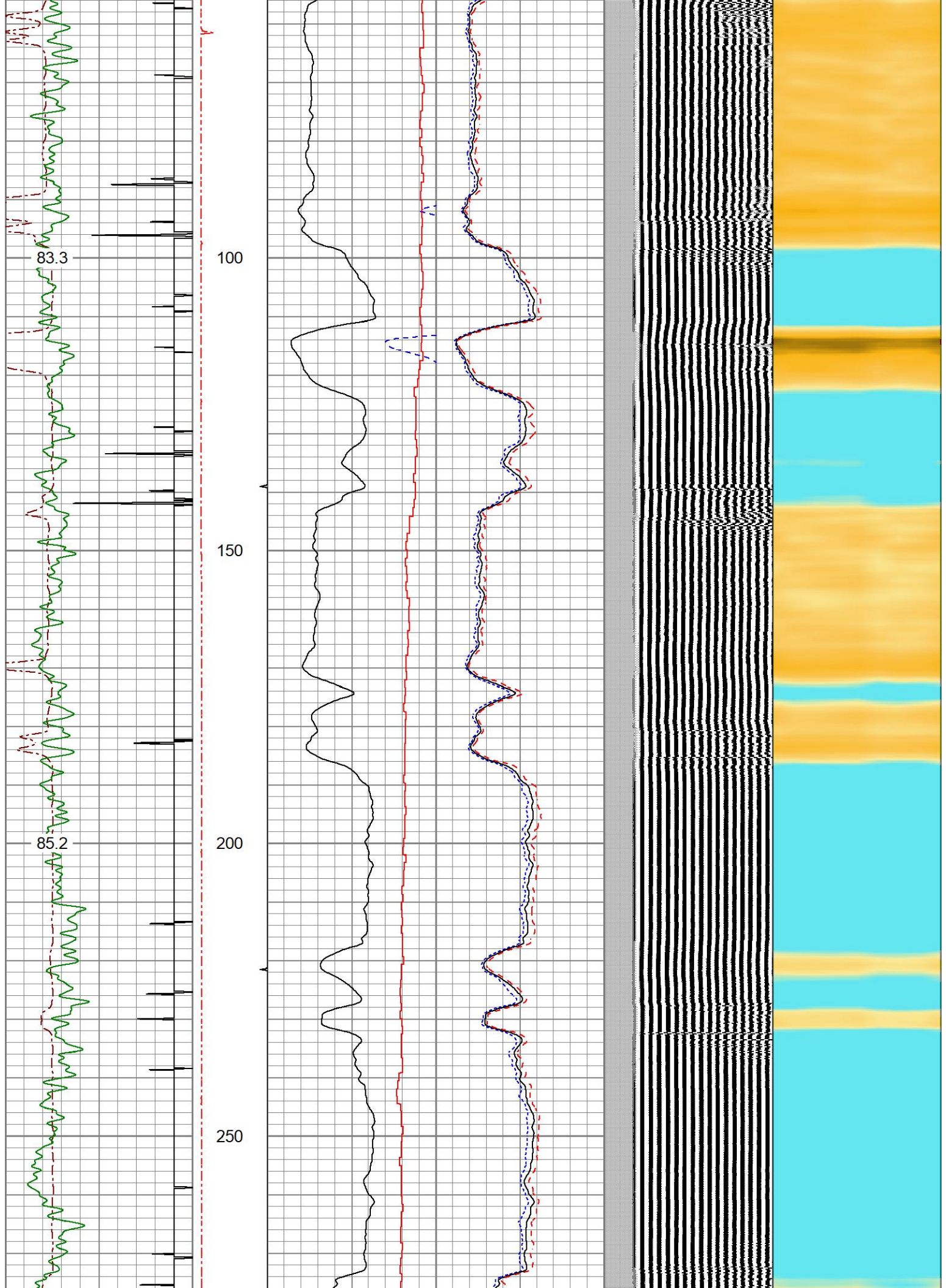
## MAIN PASS

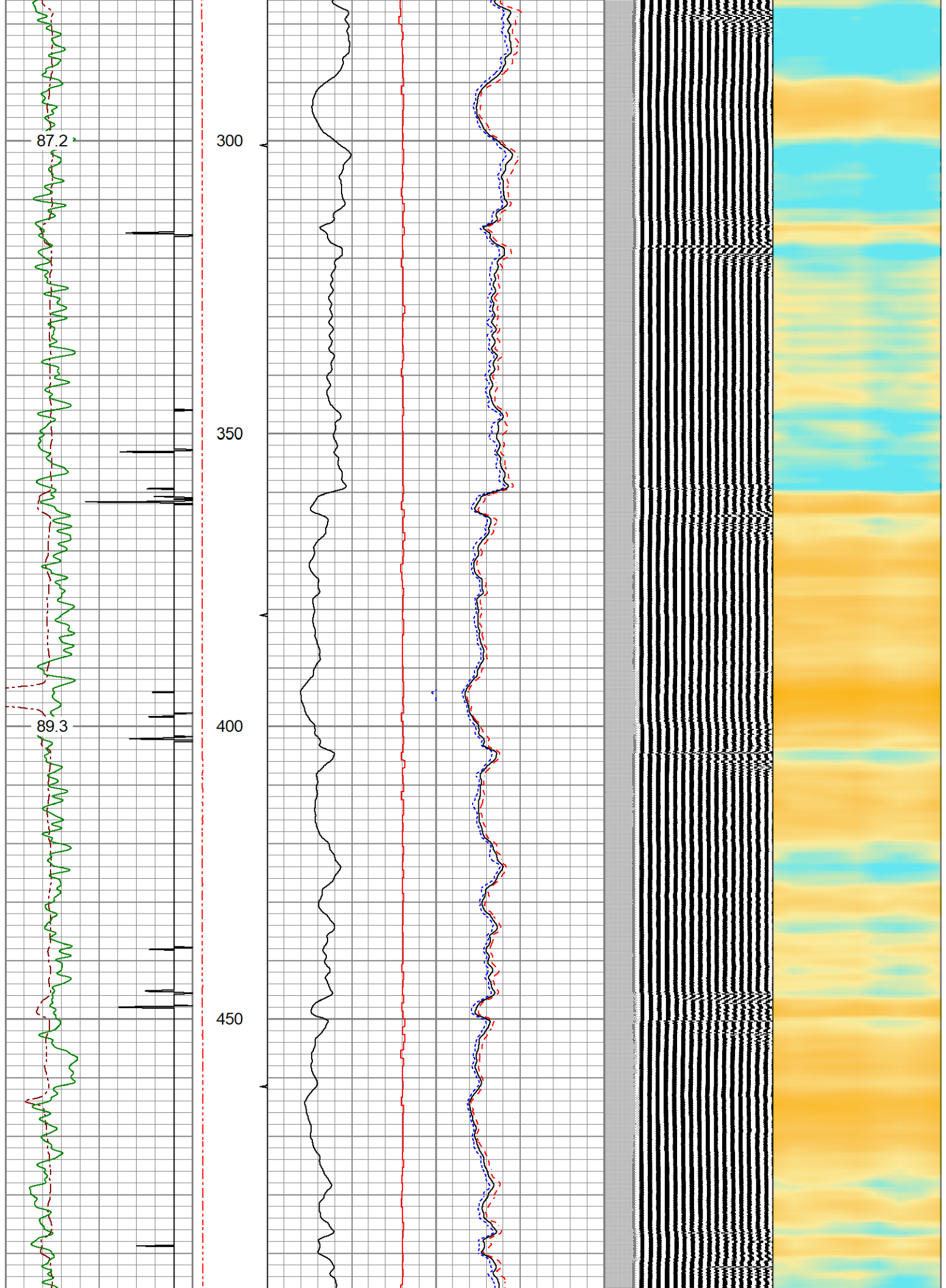
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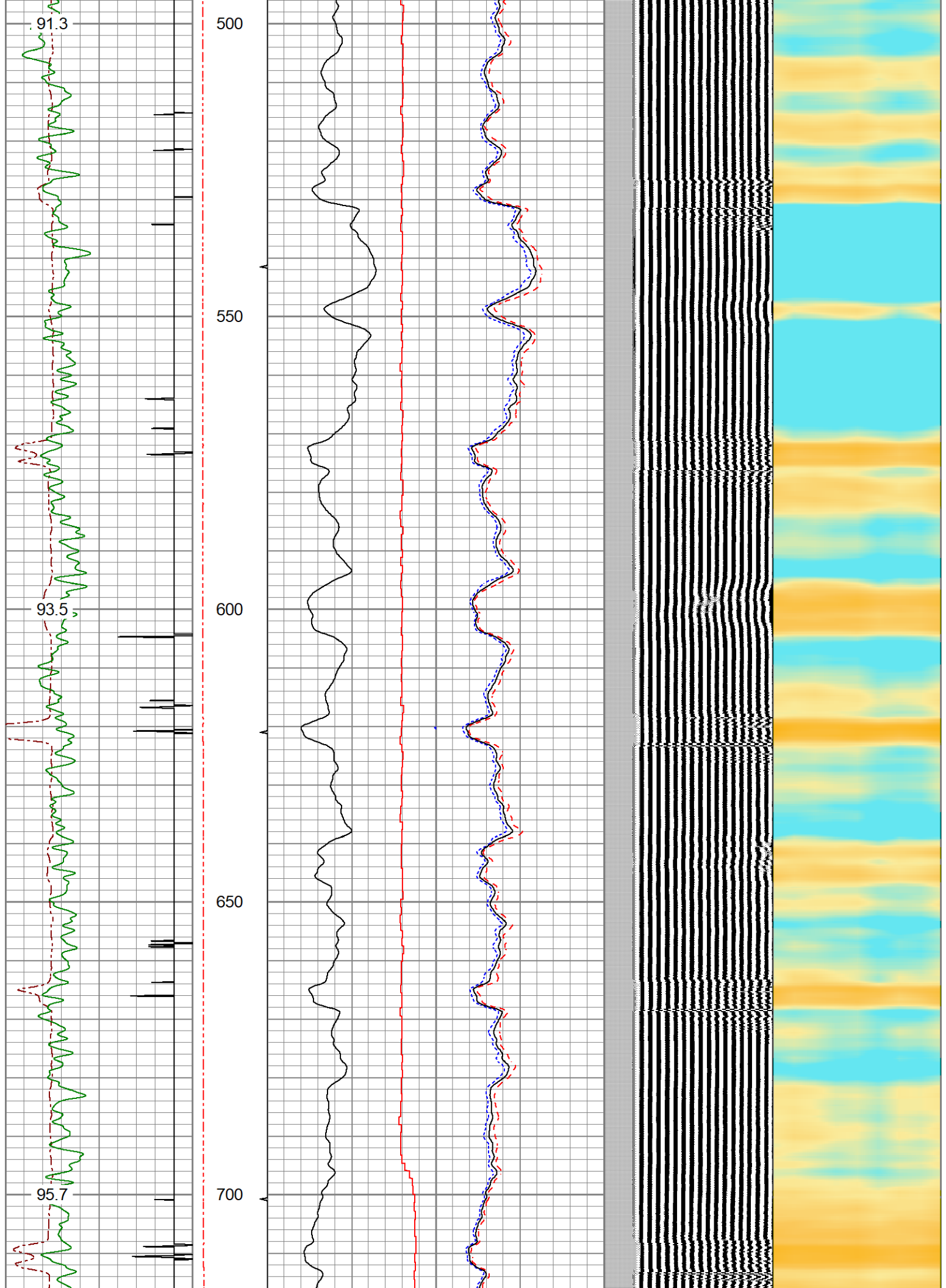
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 Presentation Format: res\_scbl 8sec\_co\_verdad  
 Dataset Creation: Tue Mar 28 15:26:20 2023  
 Charted by: Depth in Feet scaled 1:240

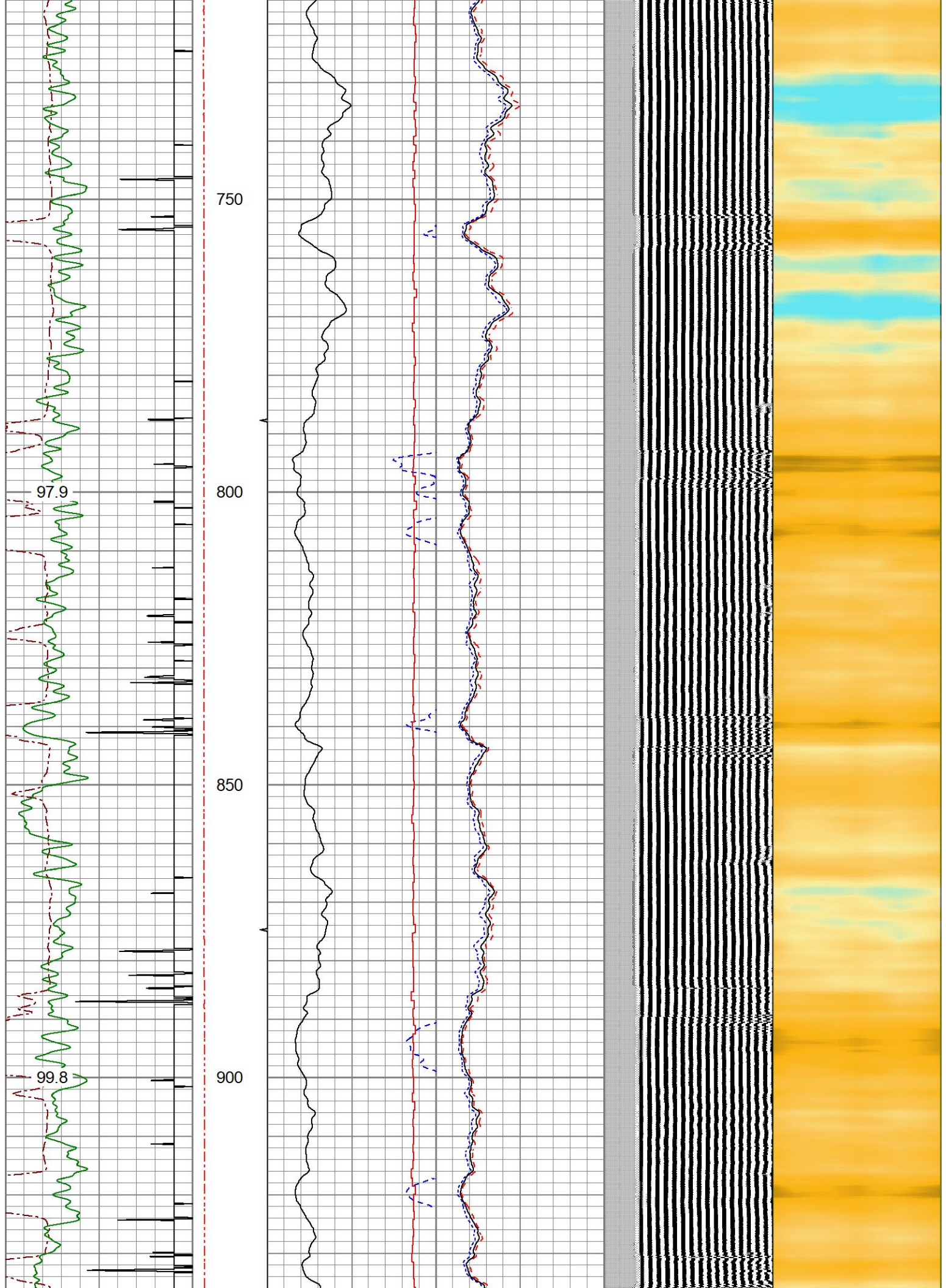
280 3FT TT (usec) 180	LTEN	3' Amplitude	0 Sector Min Amp 150	200 VDL (usec) 1200	1 Sector Map 8
-9 Collar Locator 1	(lb)	(mV) 100	Sector Avg Amp		
Gamma Ray	0 2000	3' Amplified	0 150		
0 (GAPI) 150	MINMK	Amplitude X 5	Sector Max Amp		
TEMP	10 0 0	(mV) 20	0 150		
(degF)		0 LSPD (ft/min)-100			

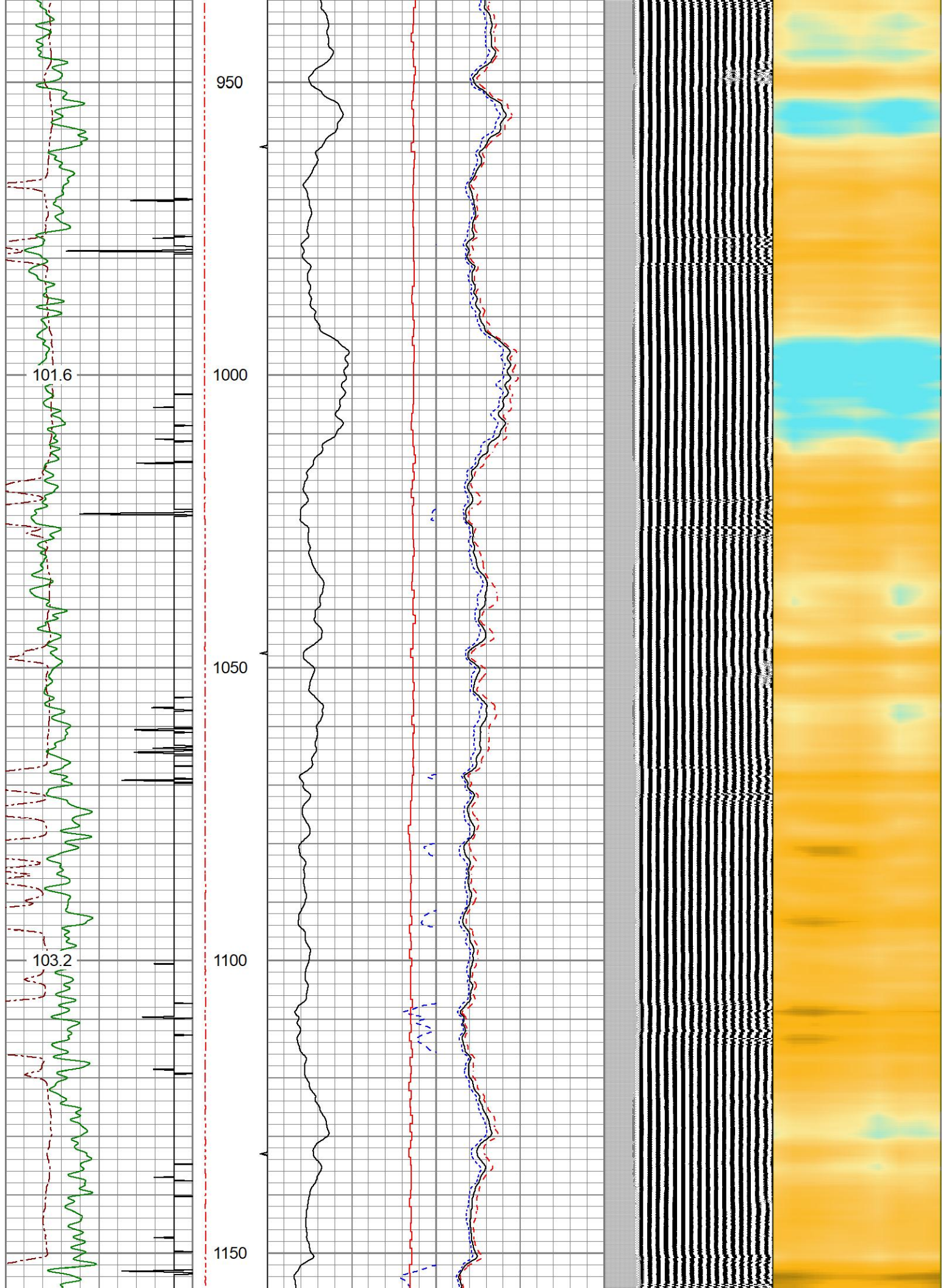


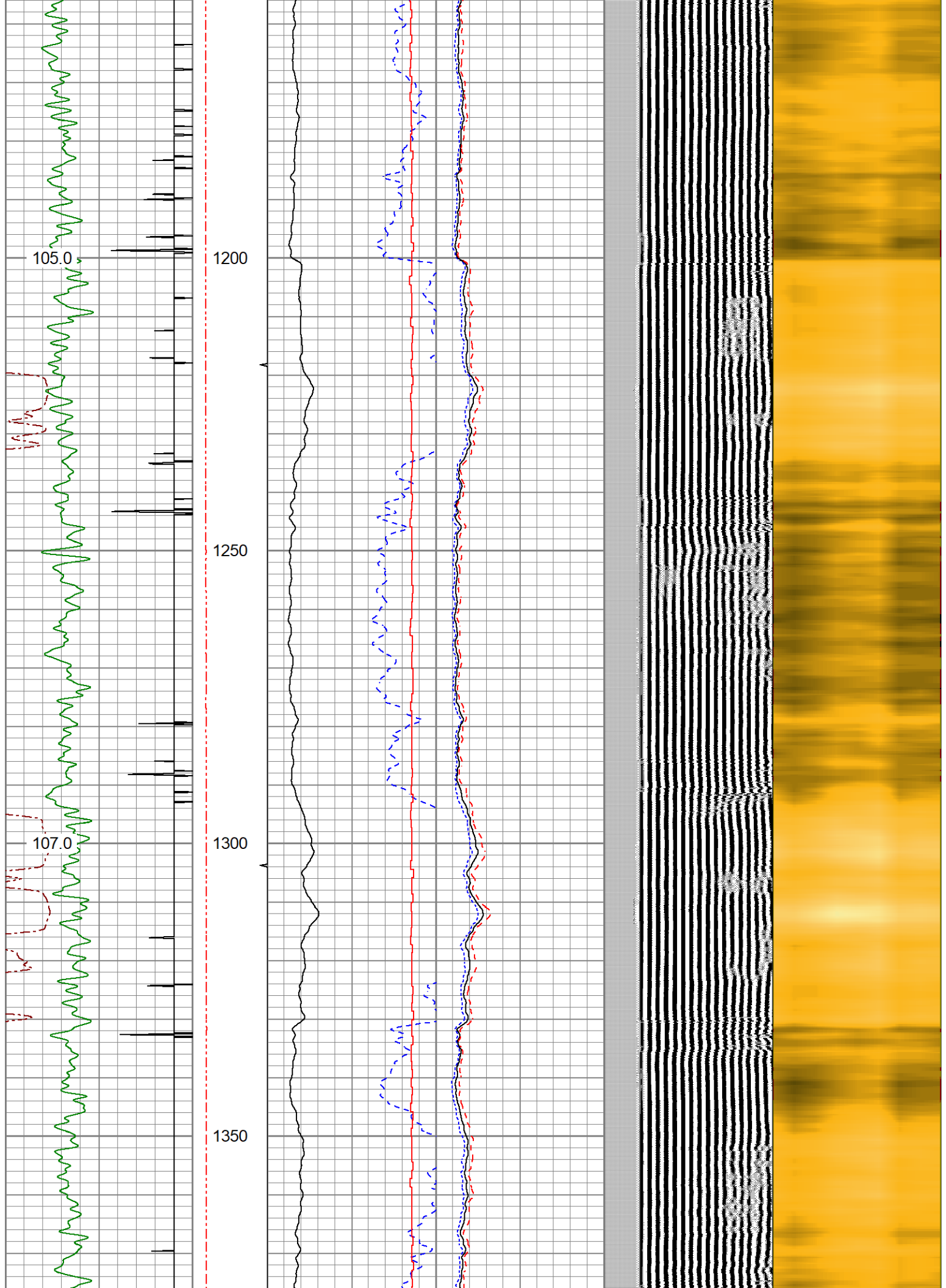


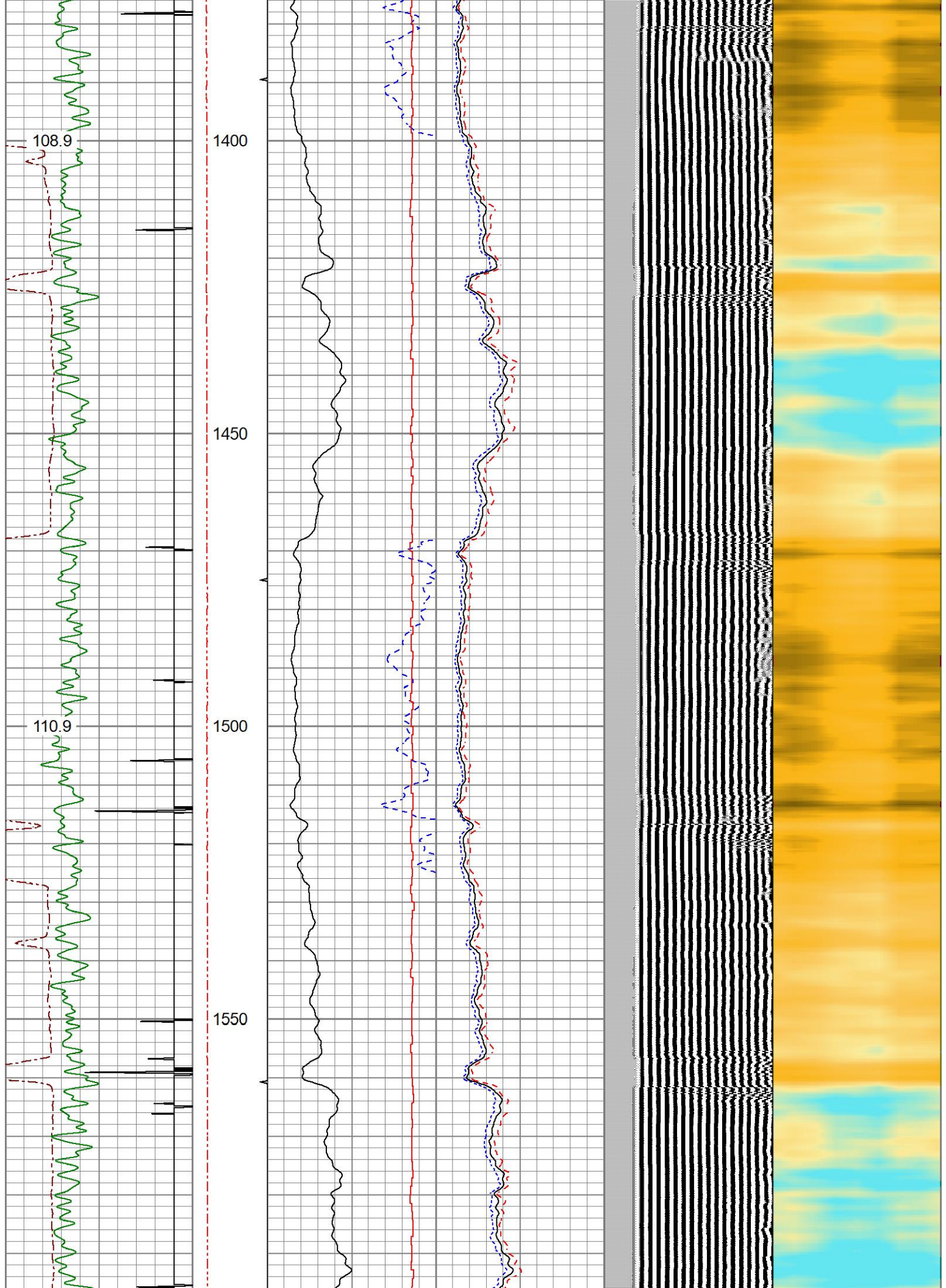


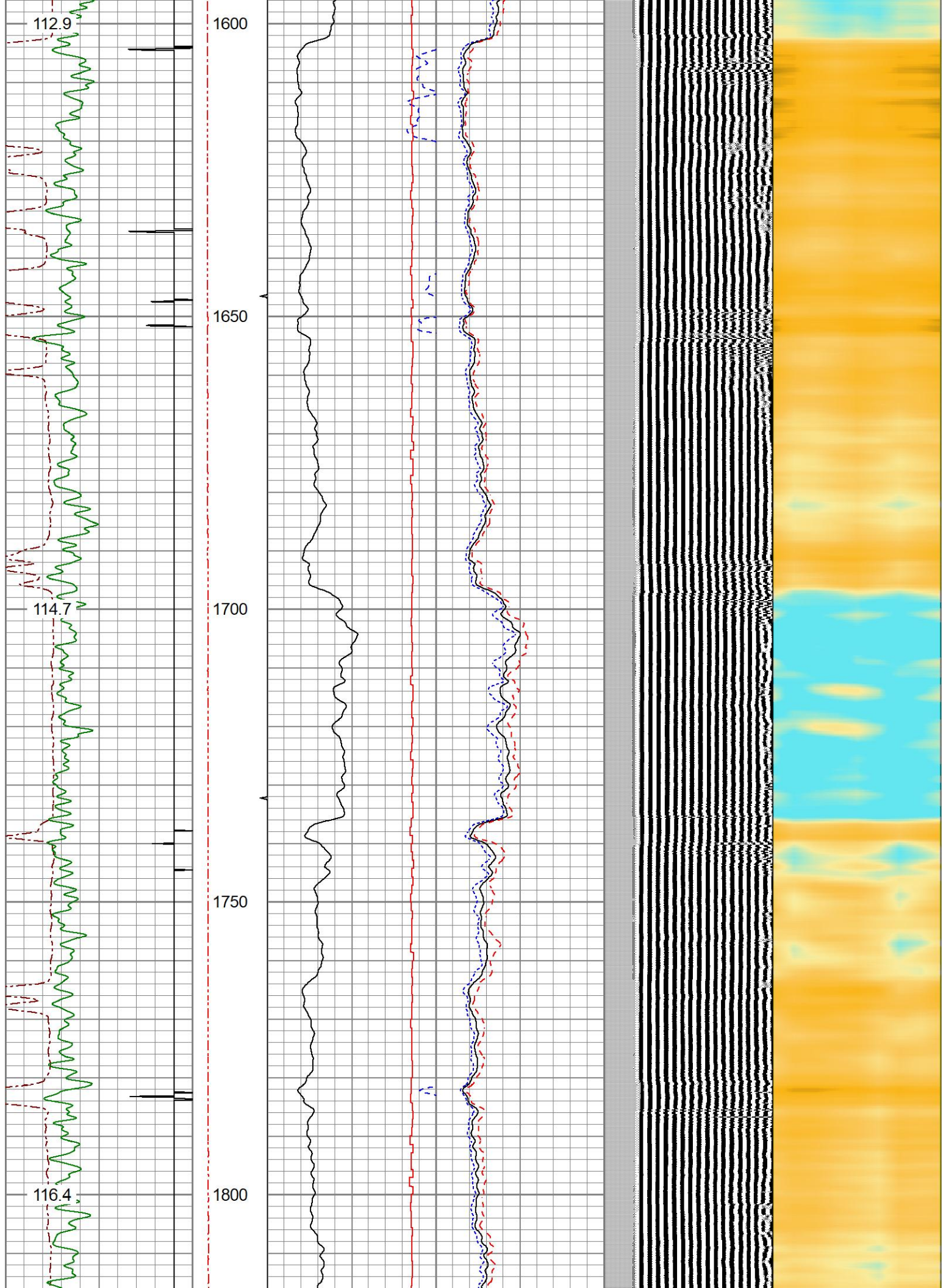


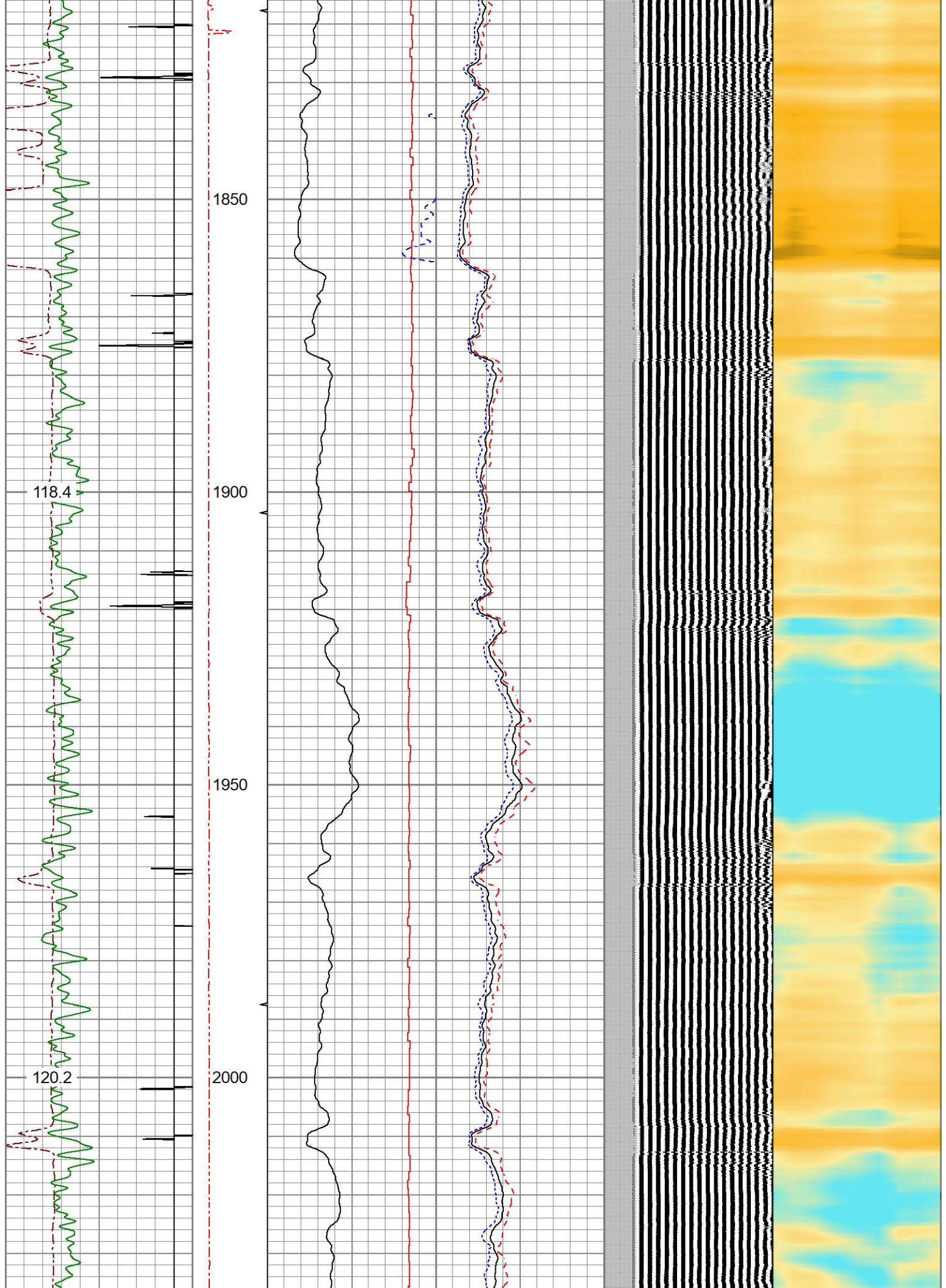


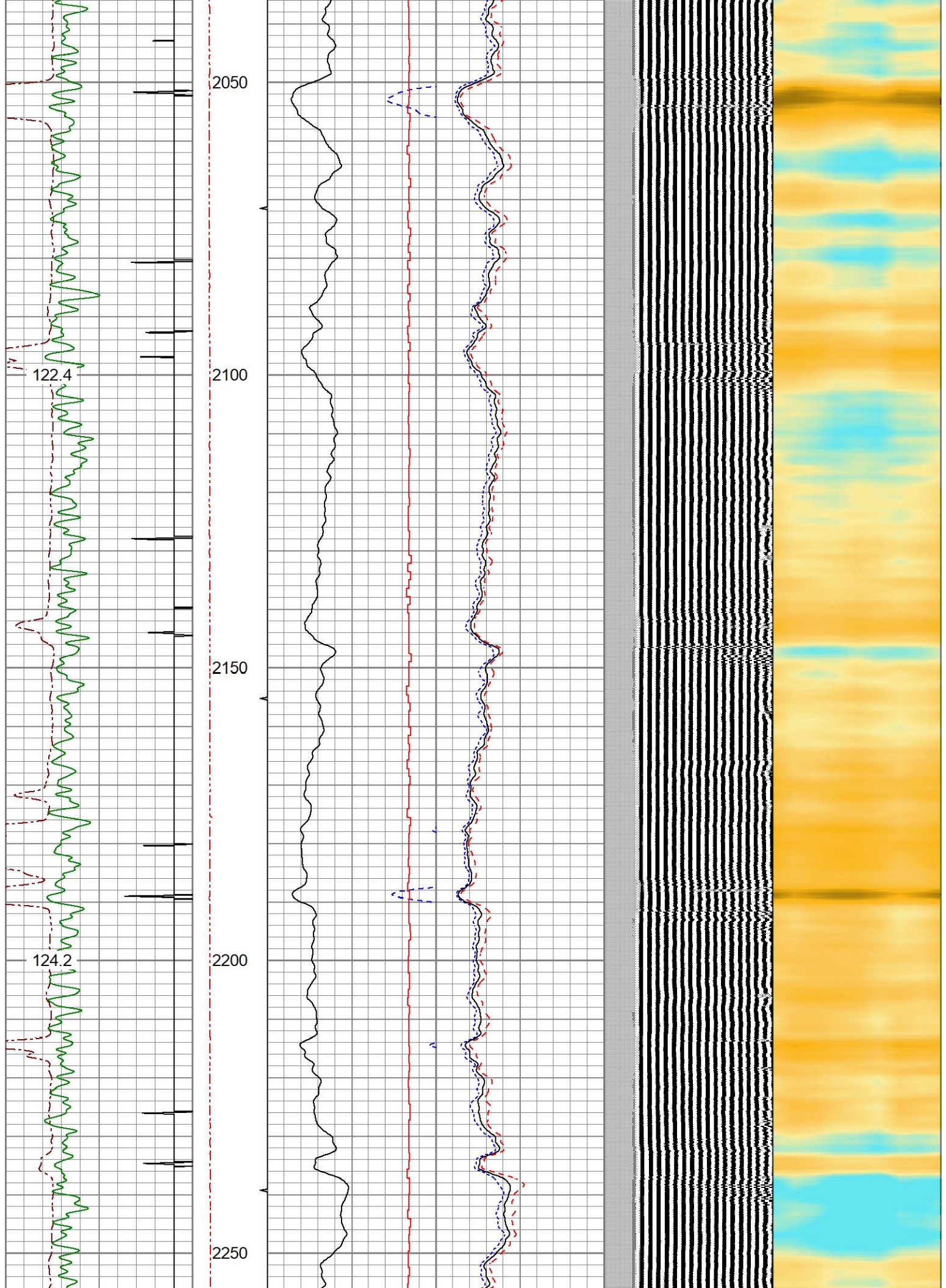


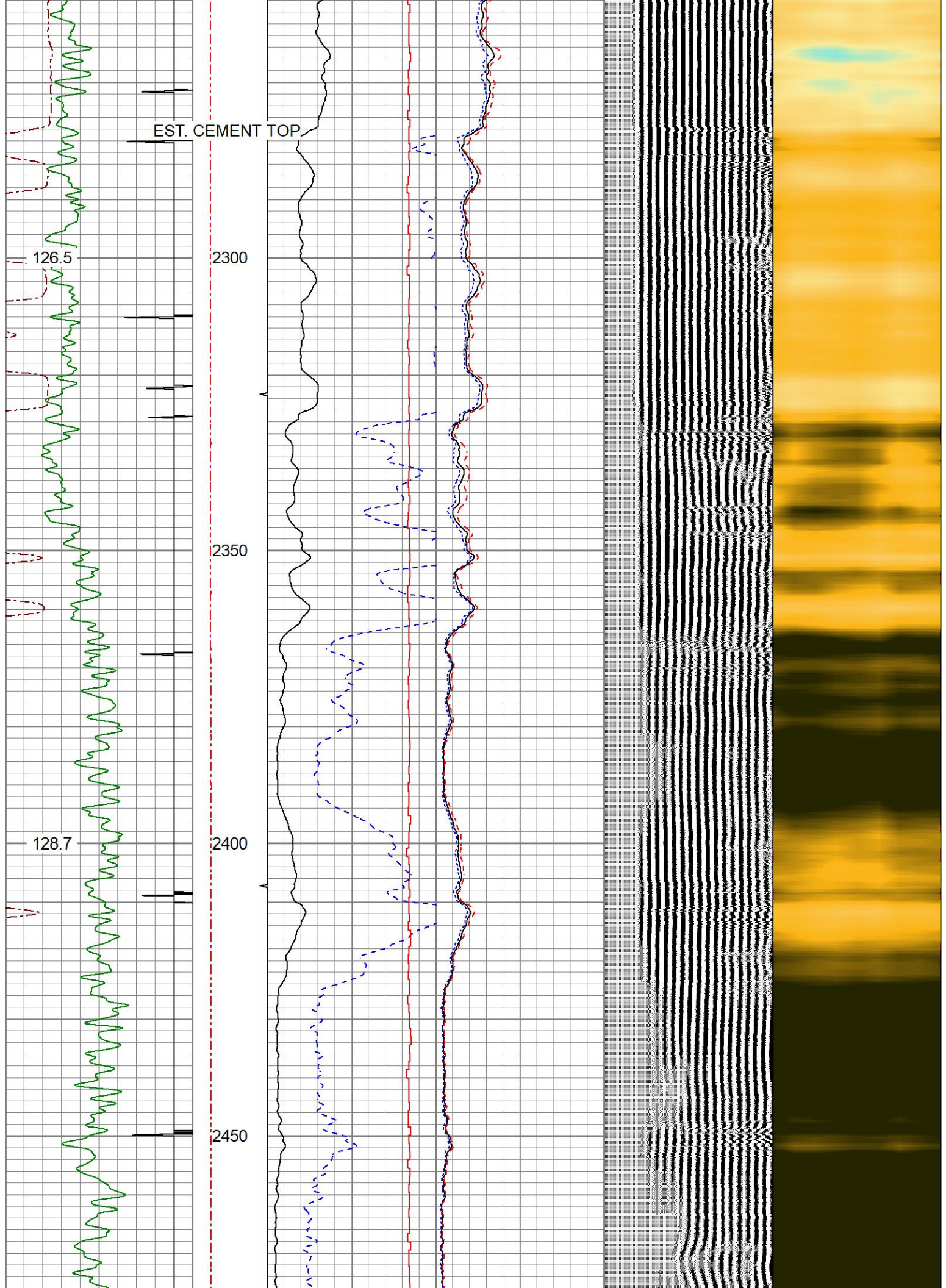


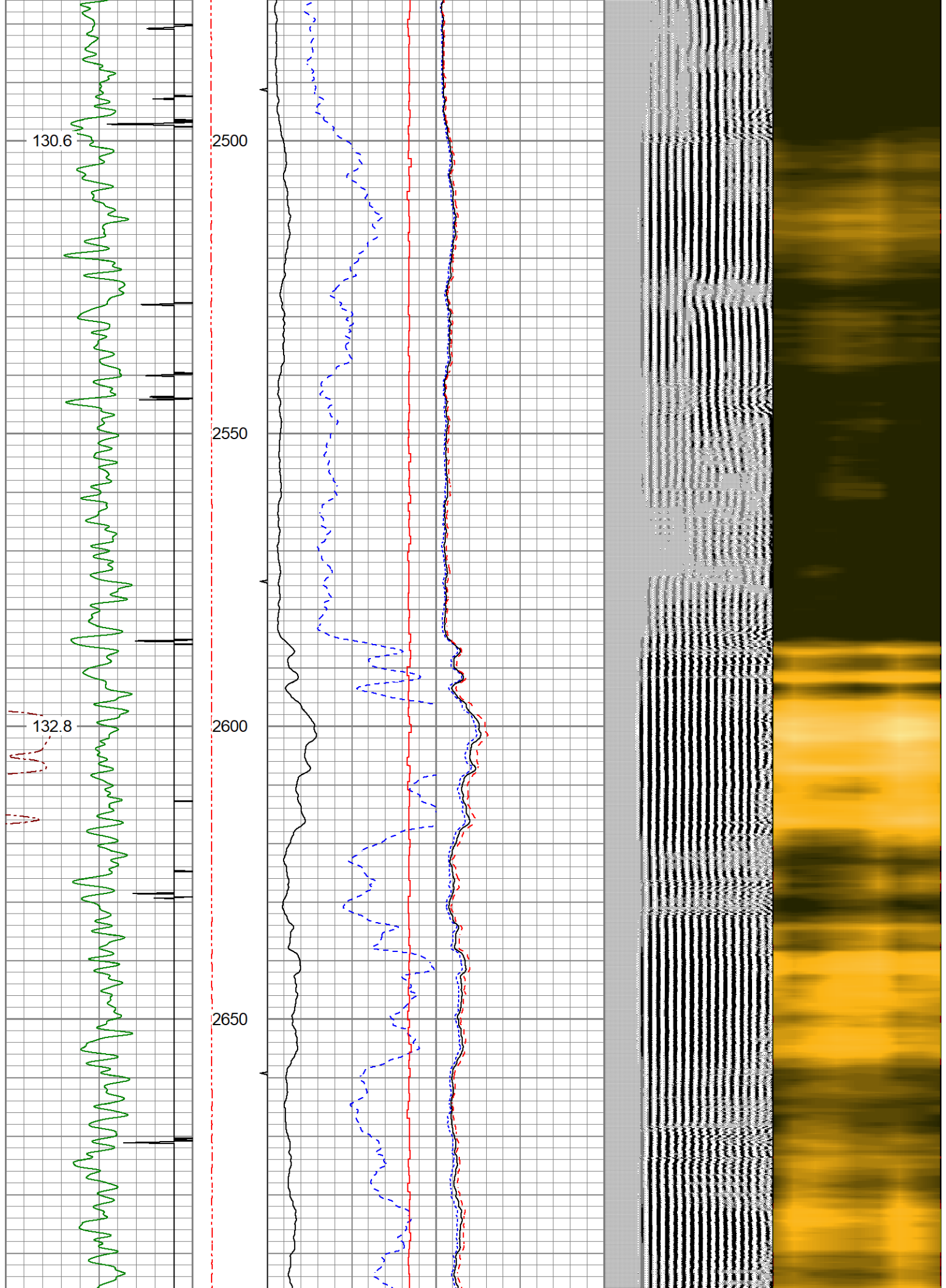


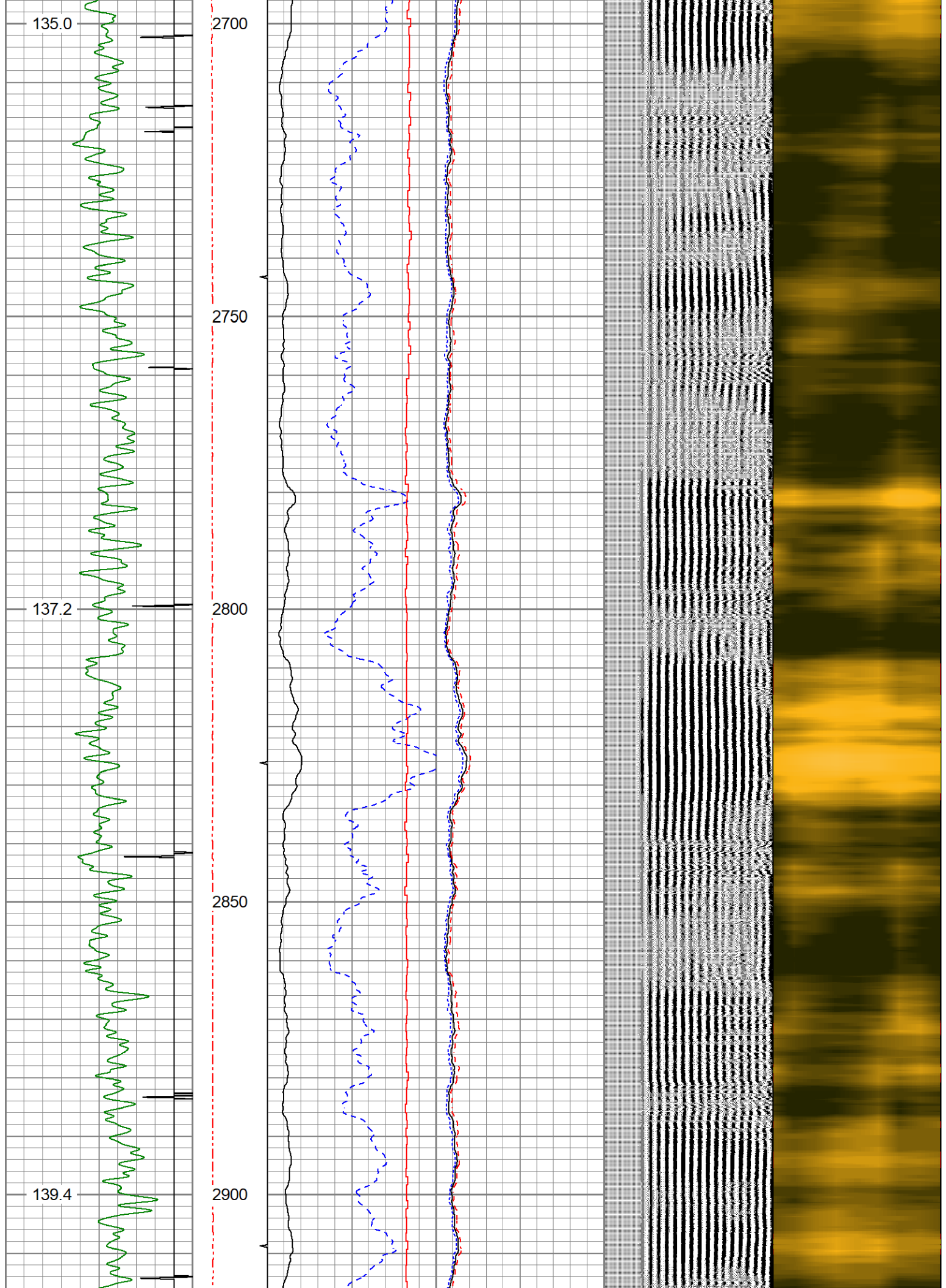


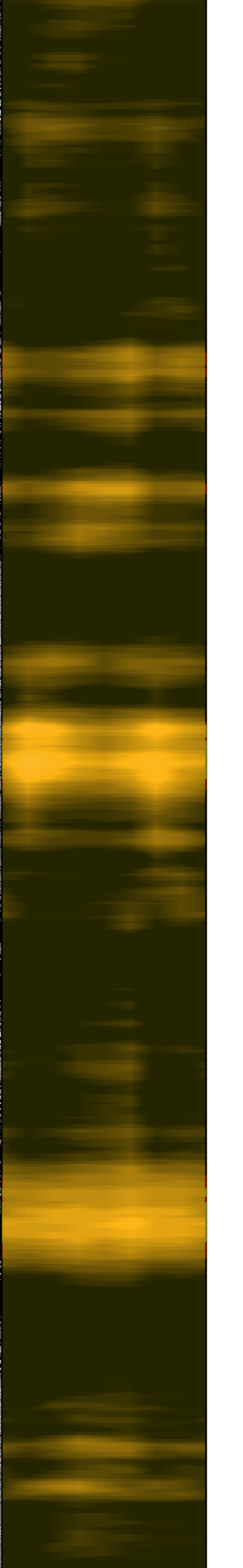
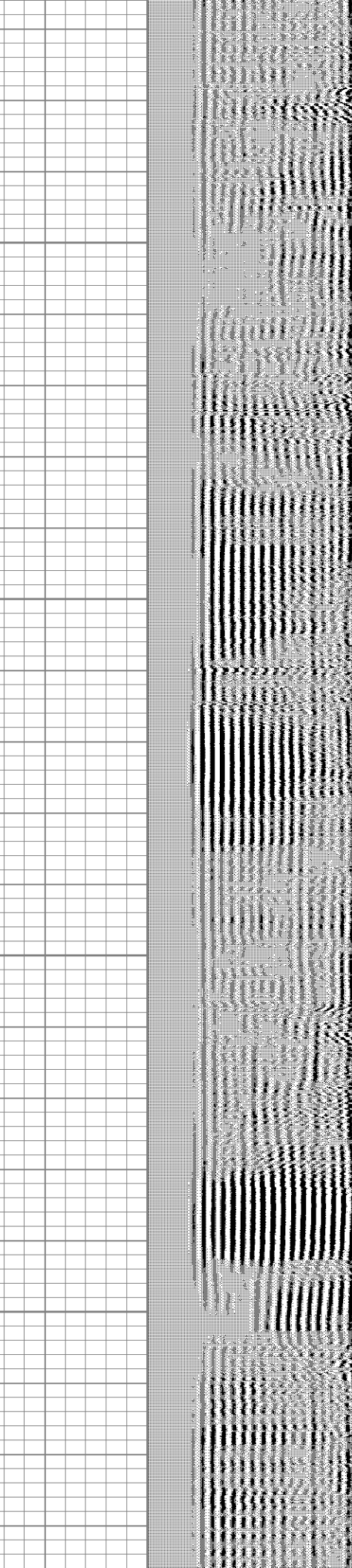
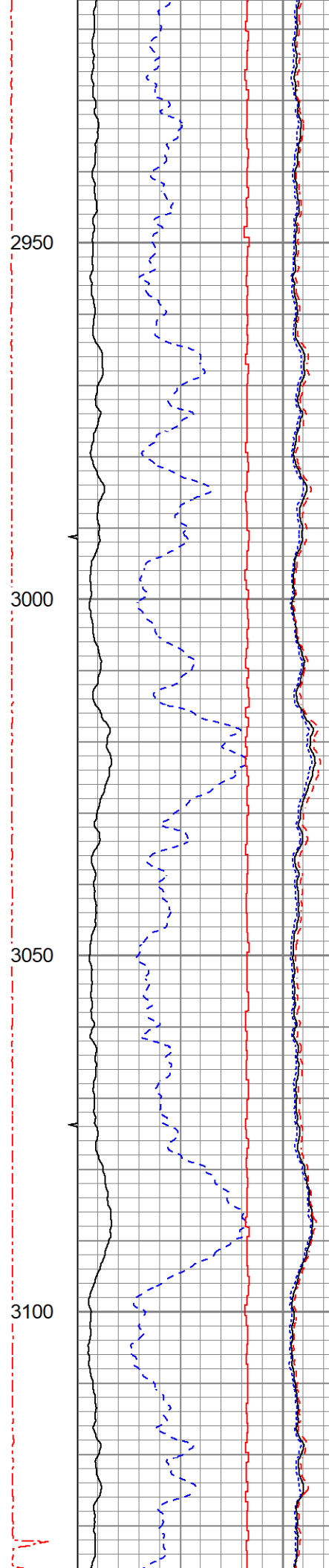
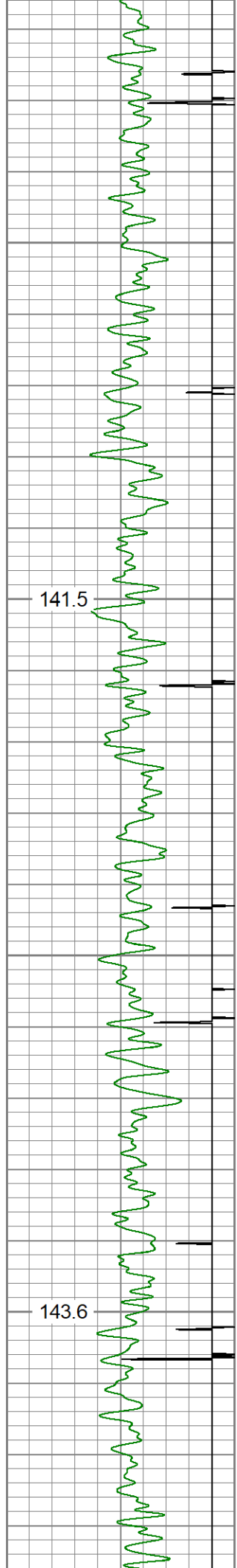


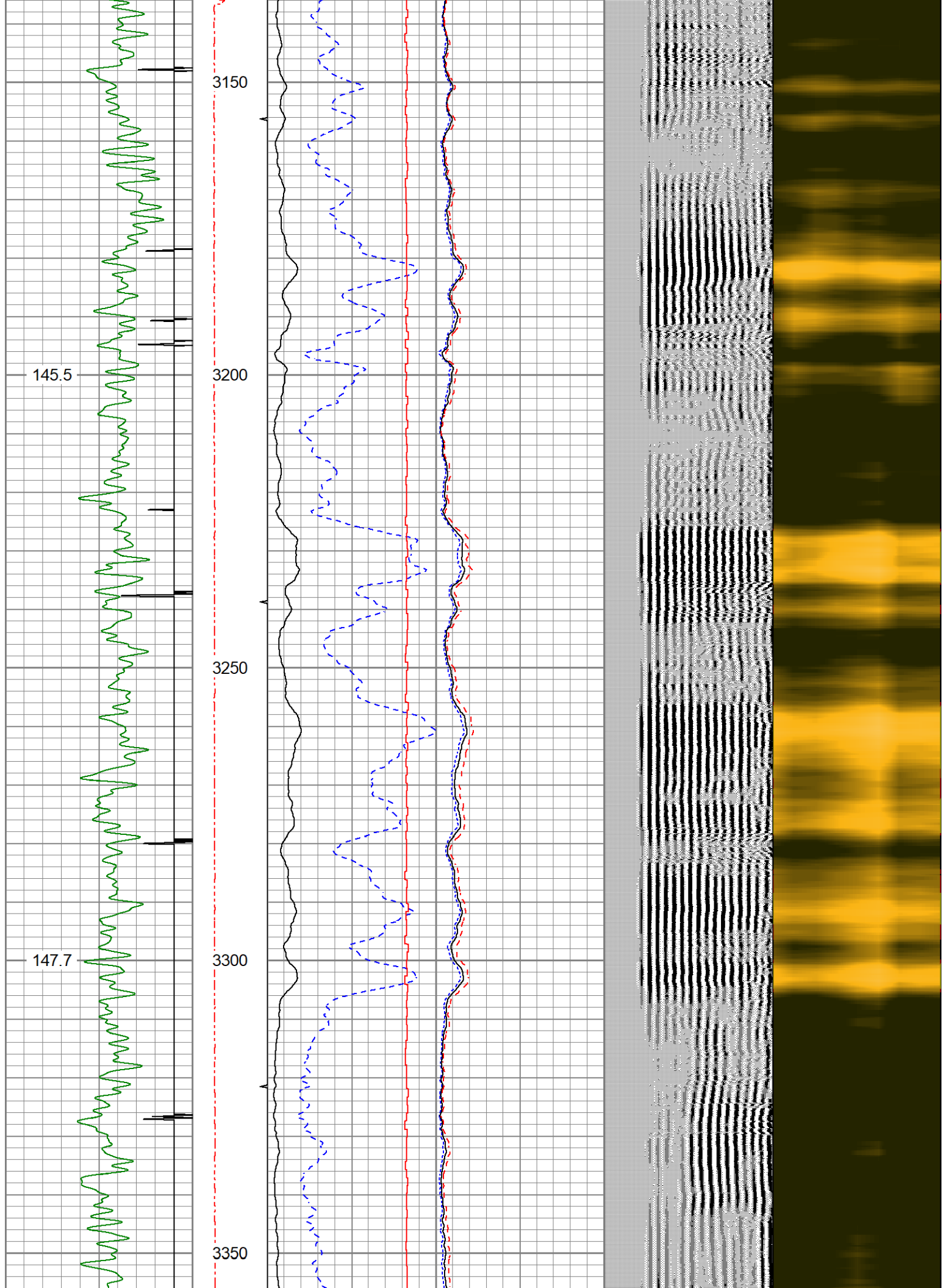


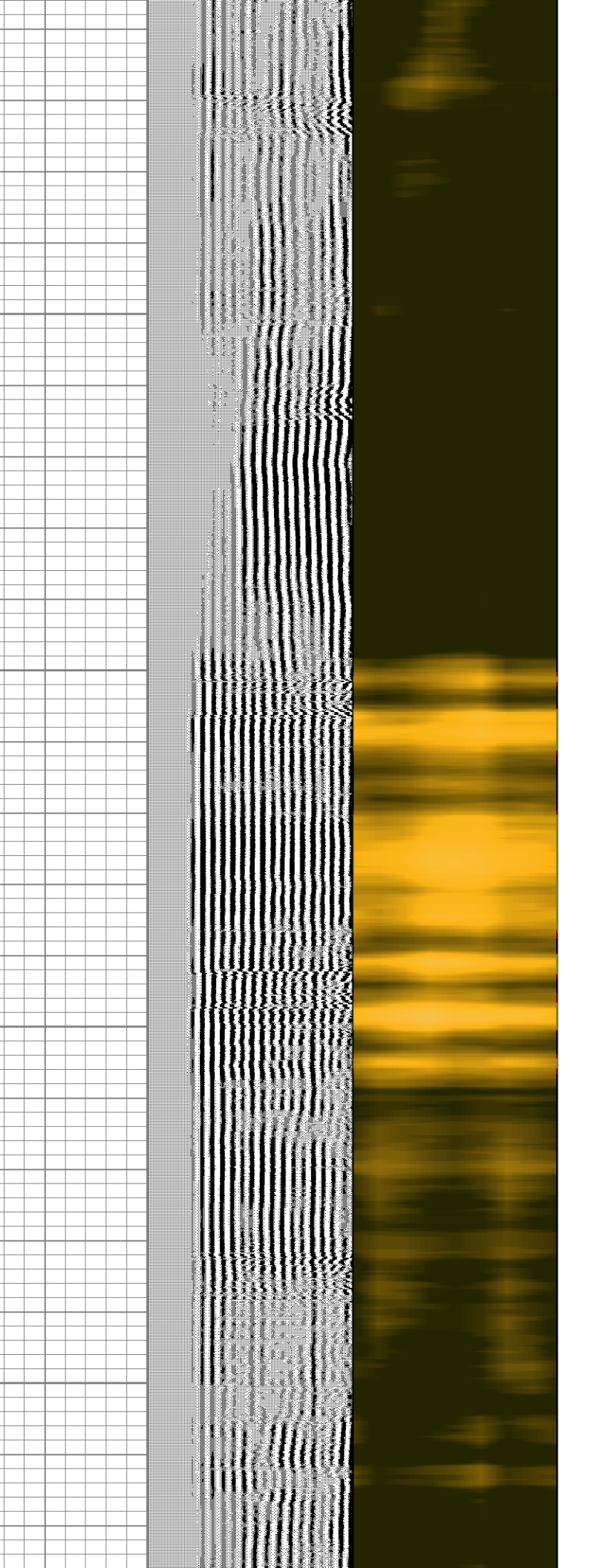
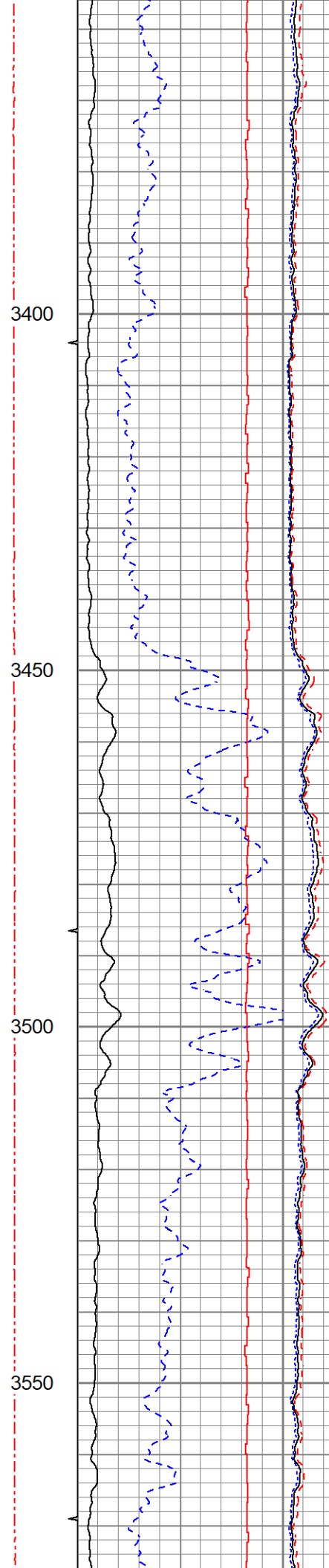
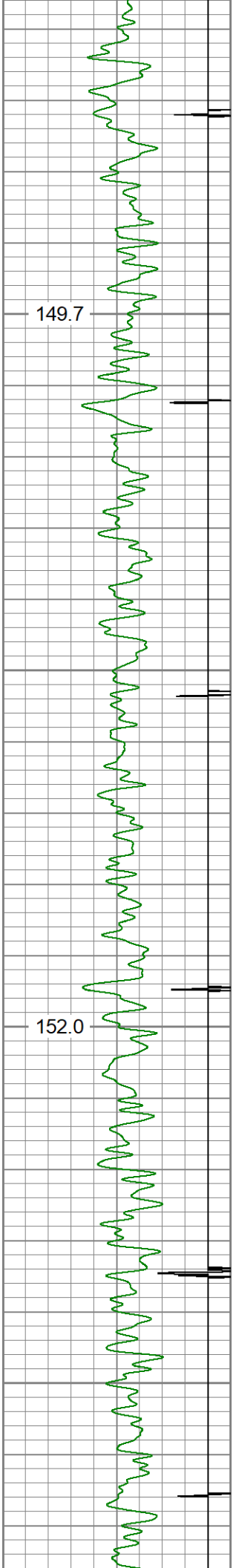












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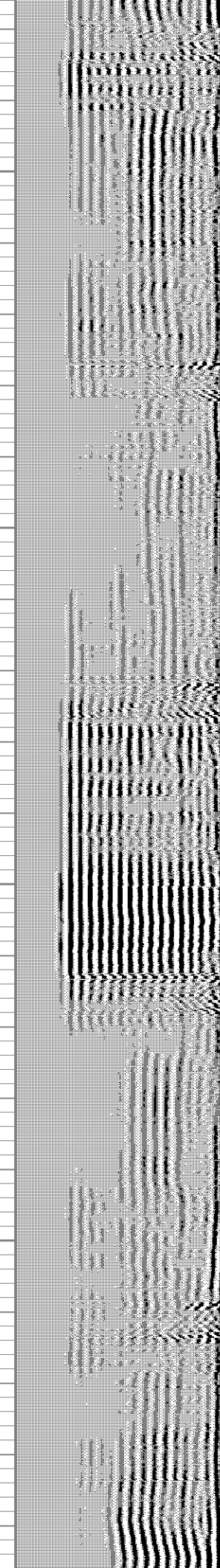
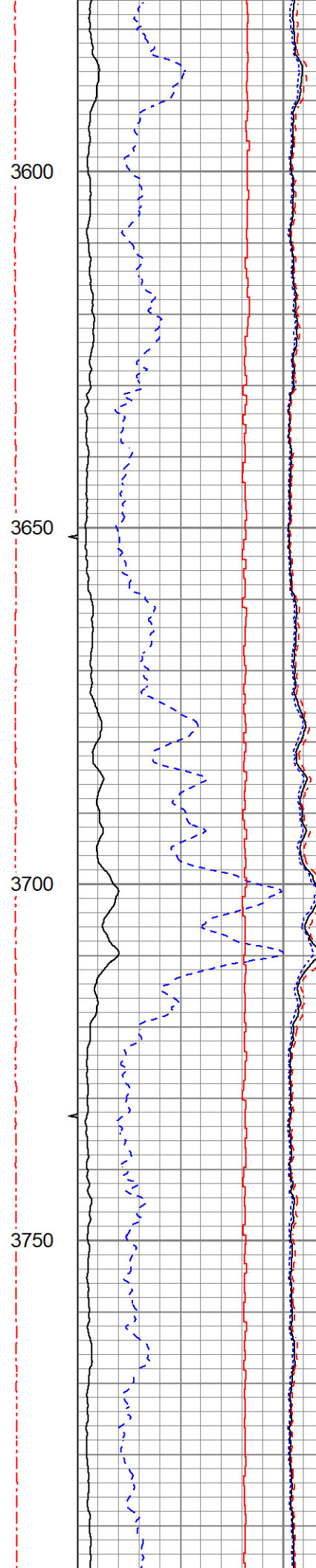
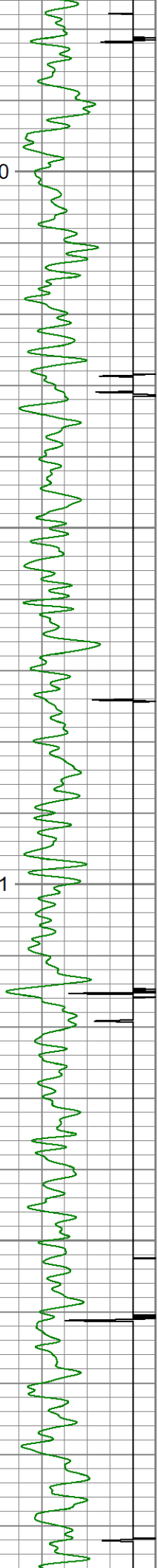
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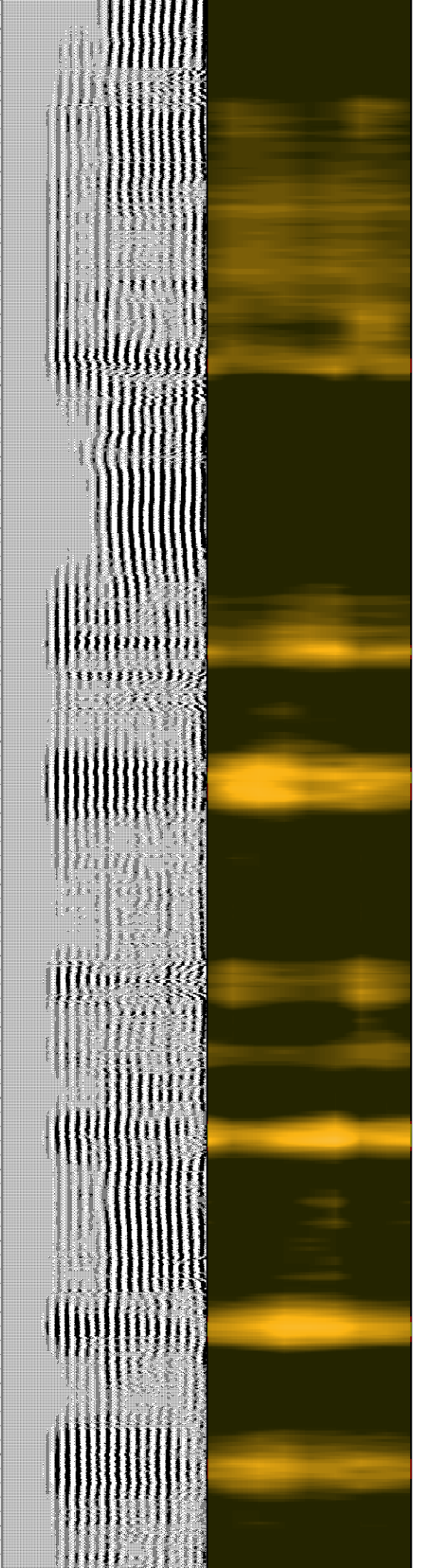
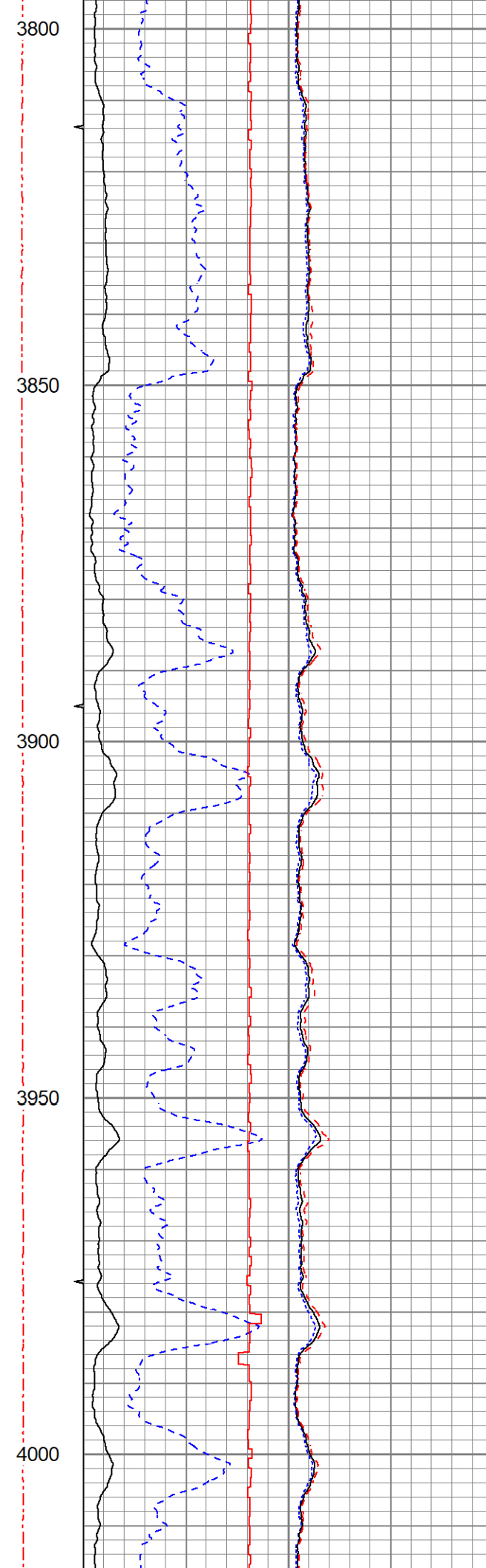
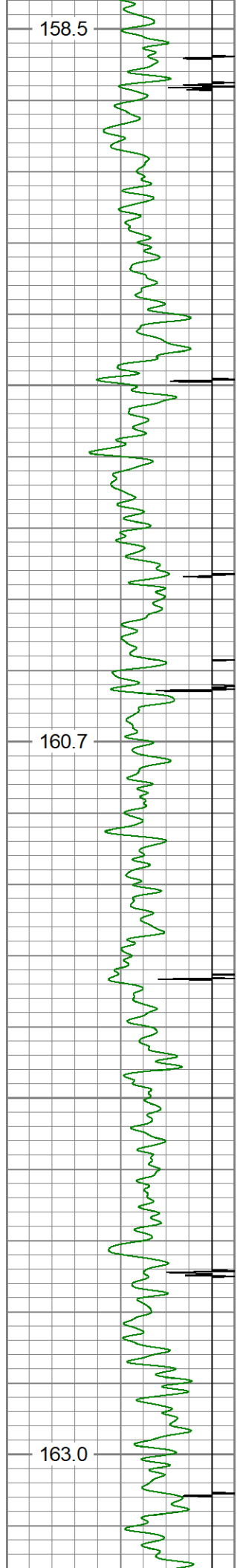
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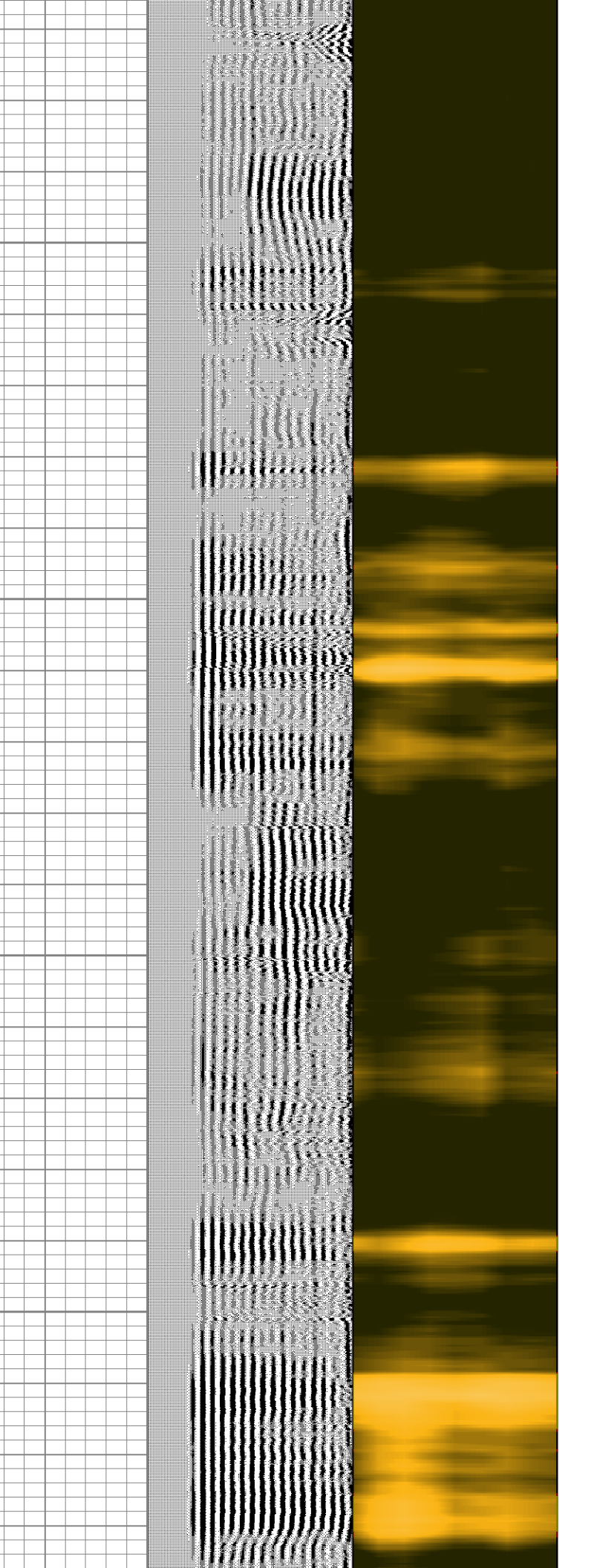
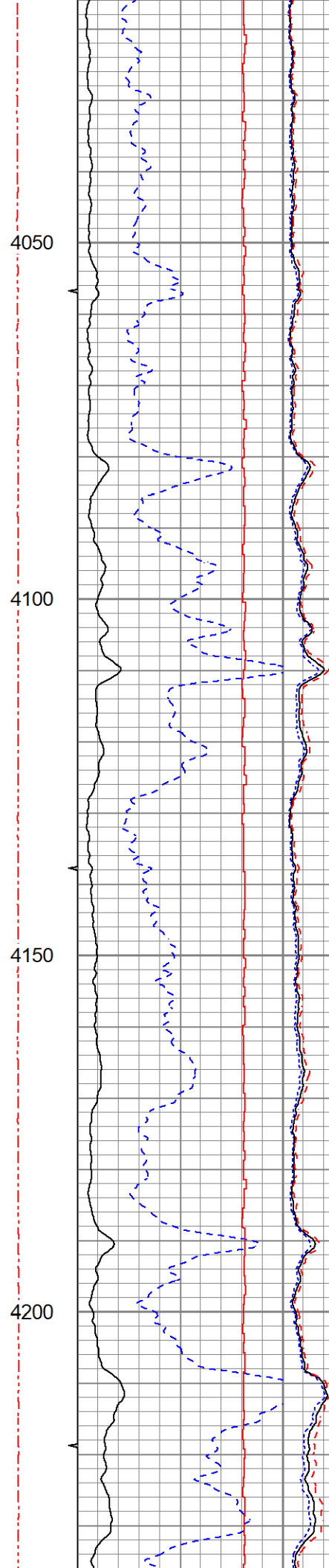
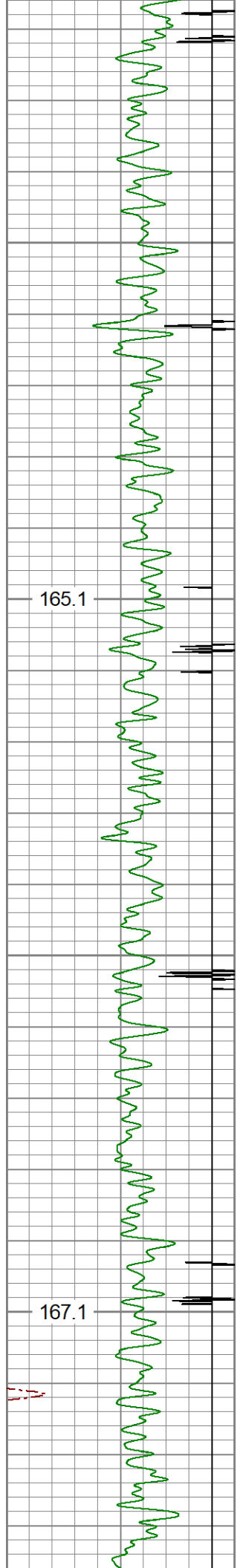
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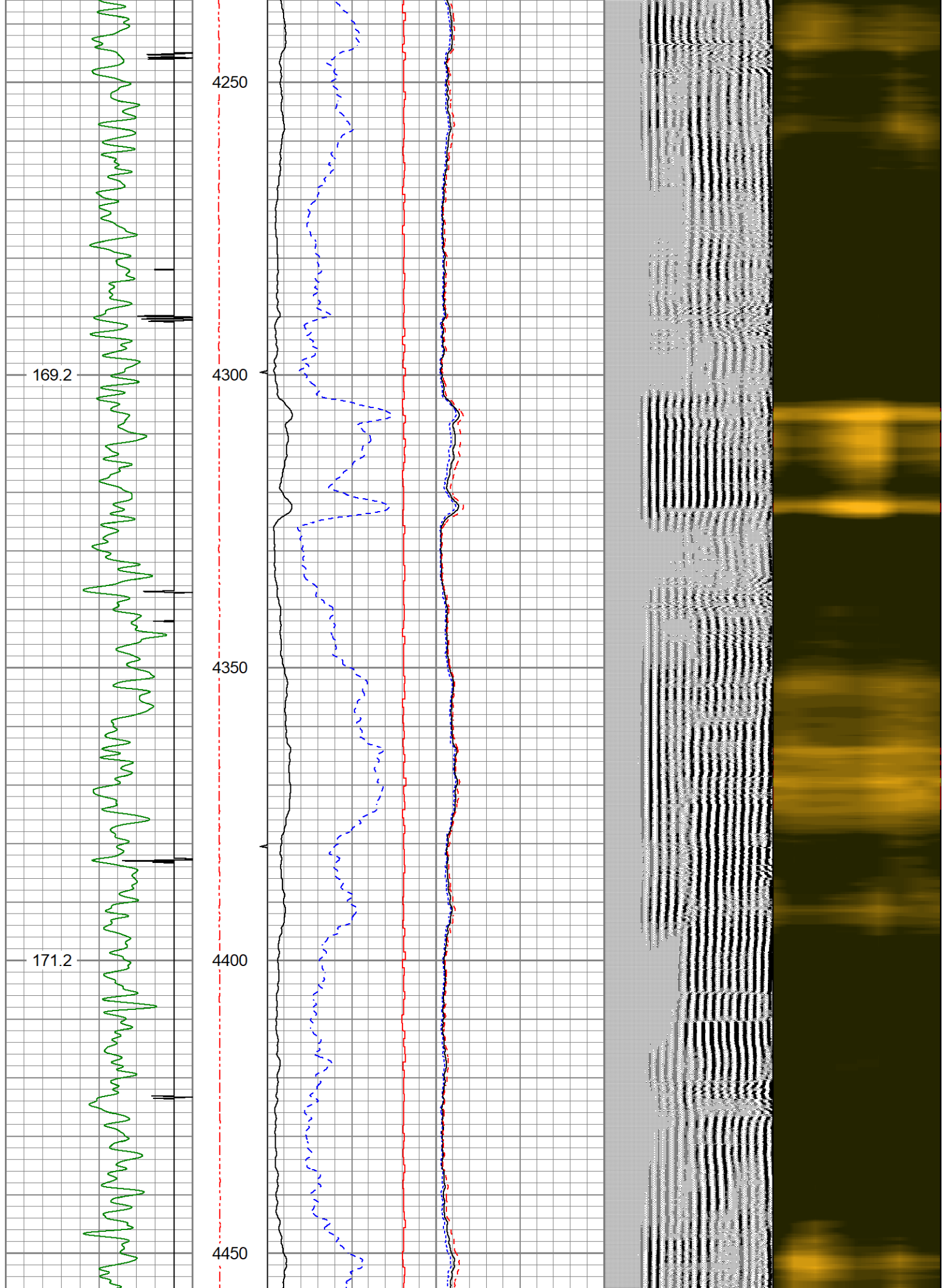
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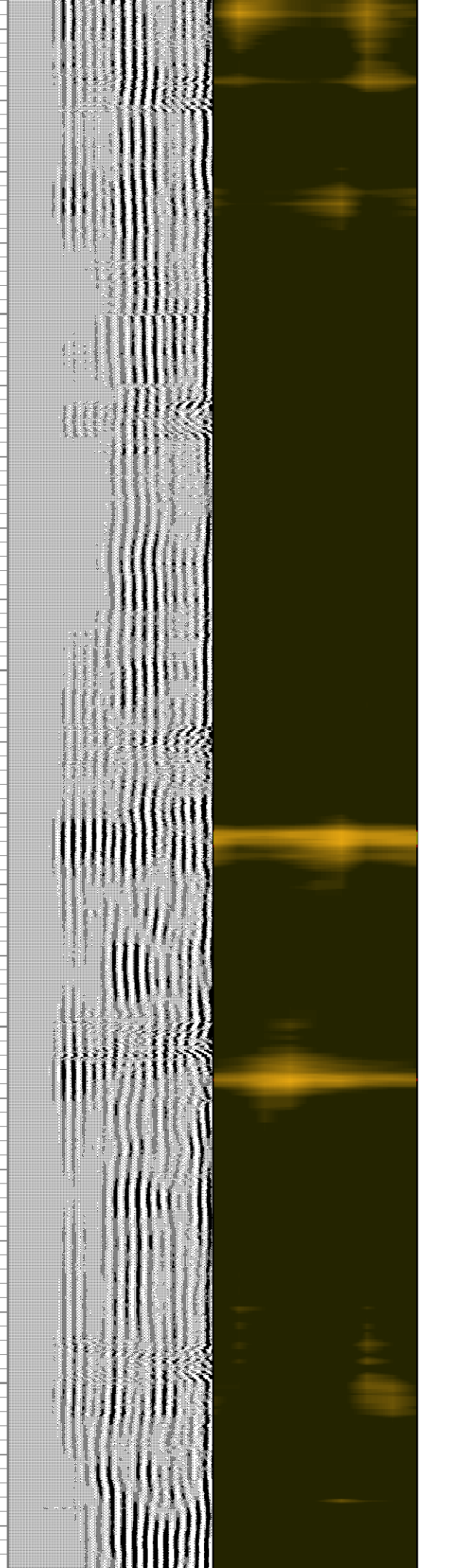
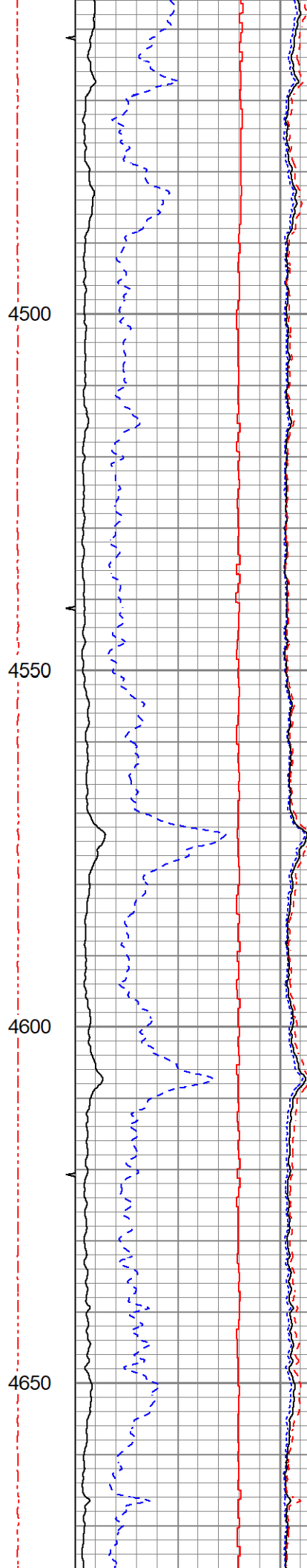
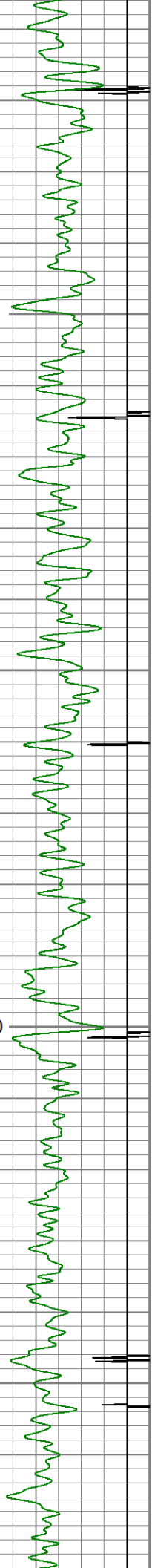
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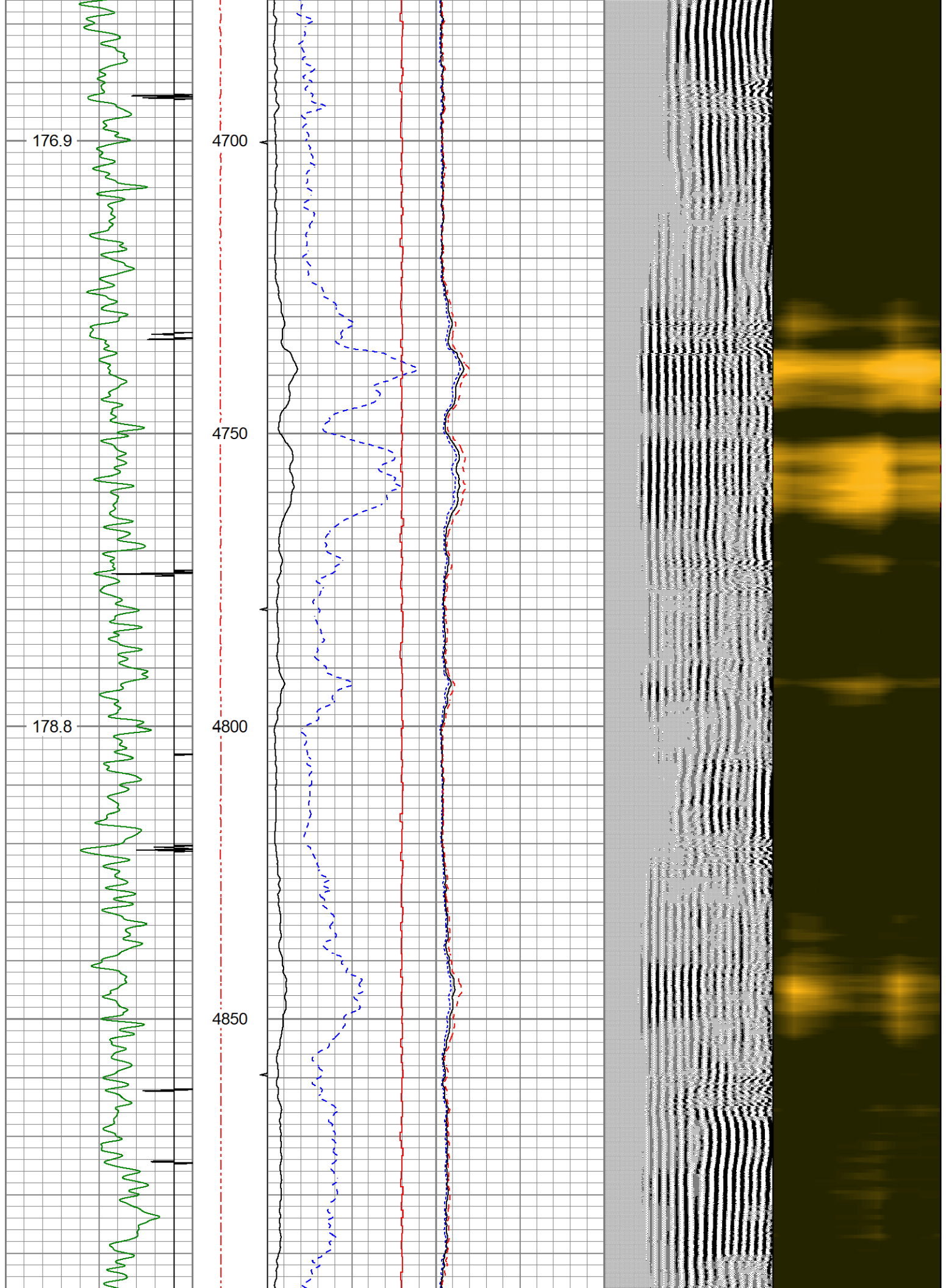
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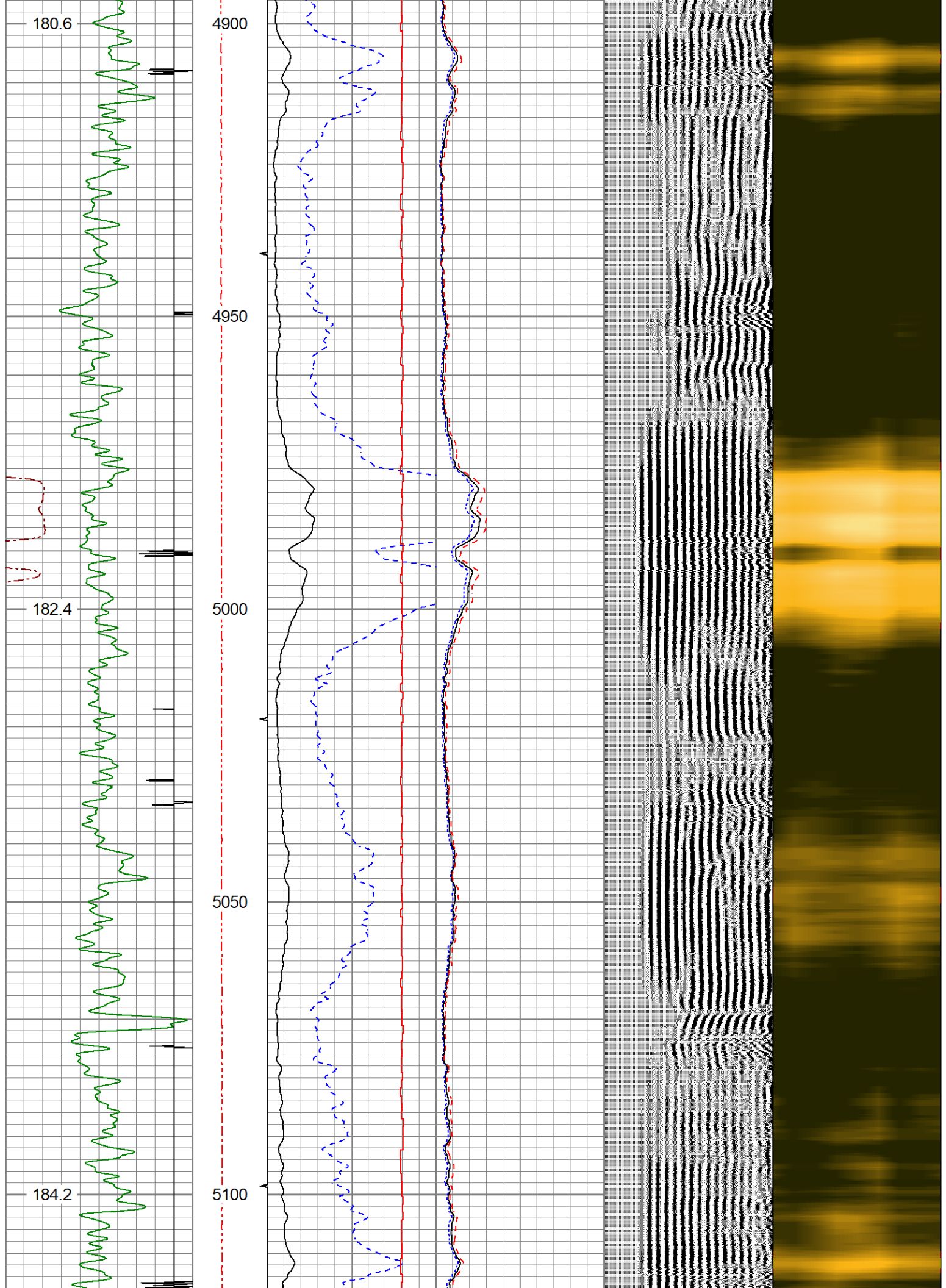
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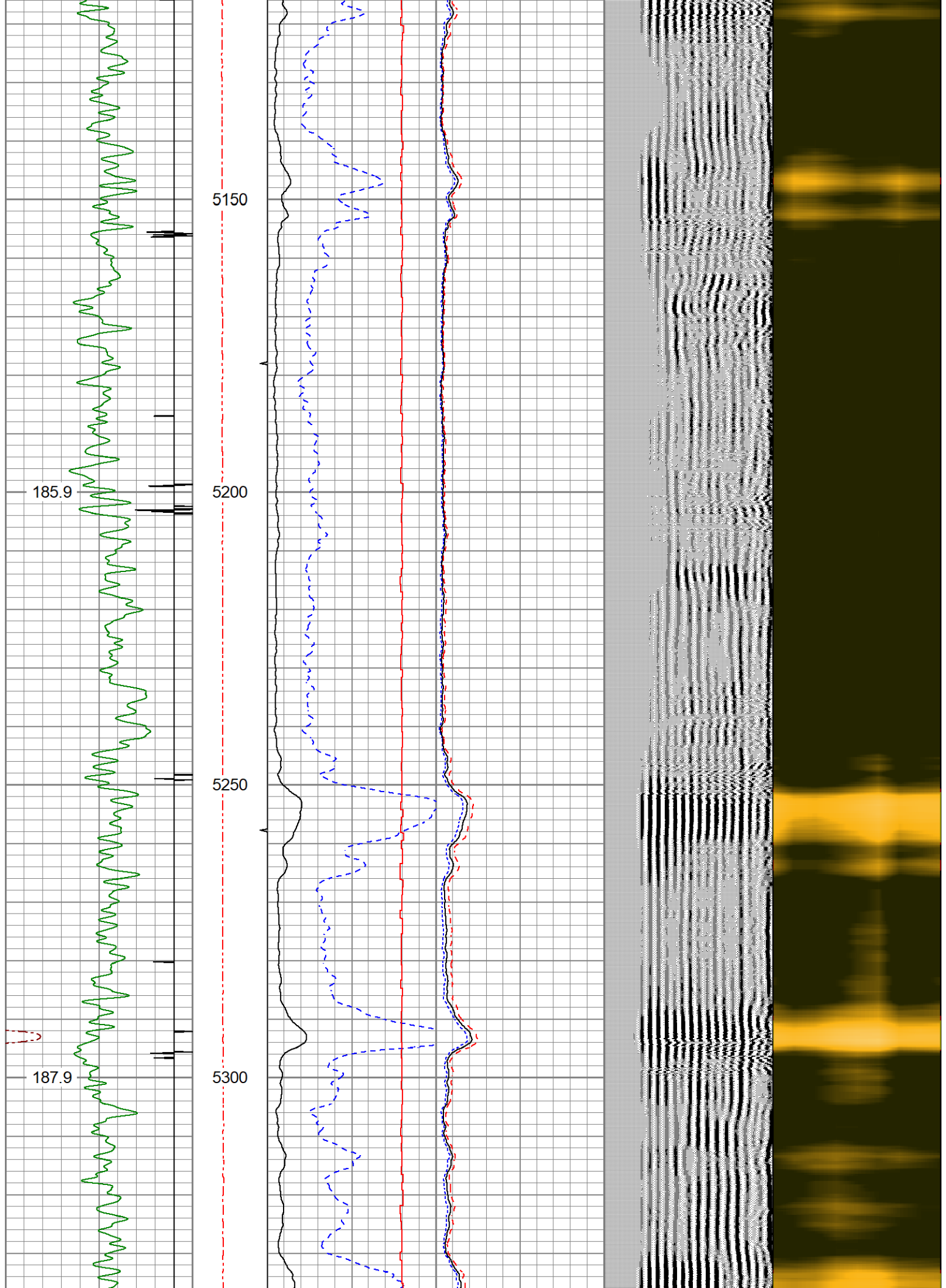
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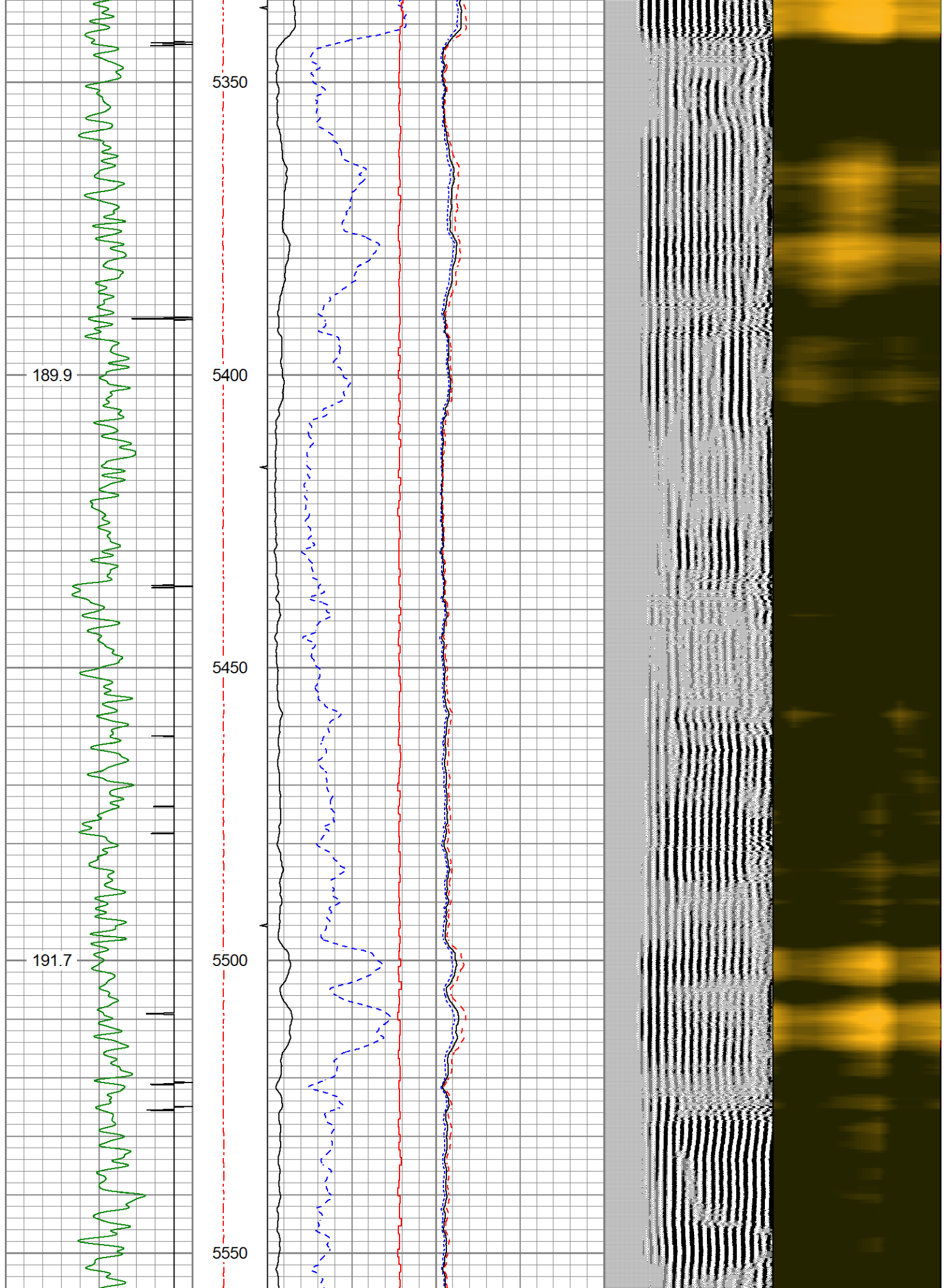
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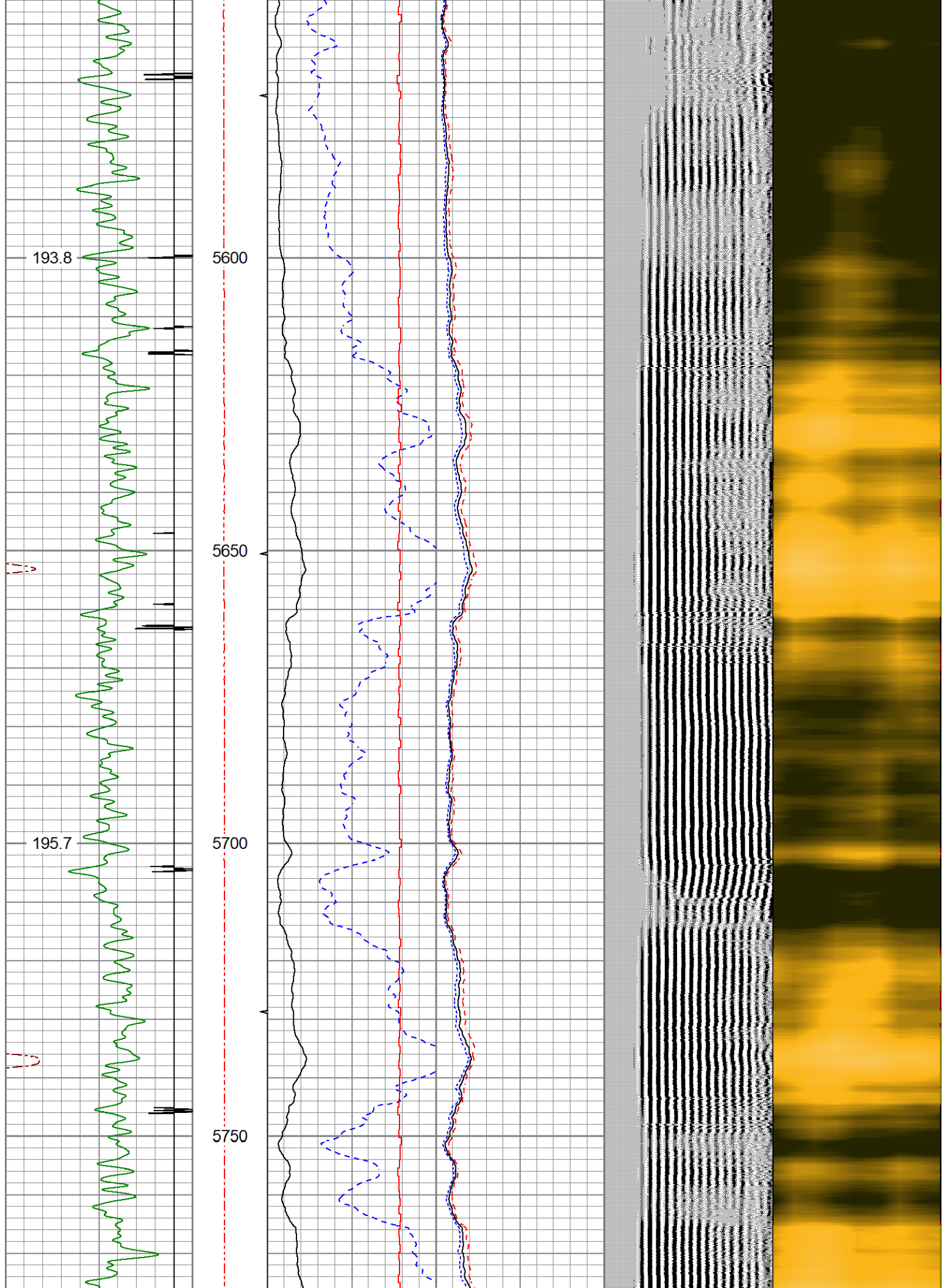


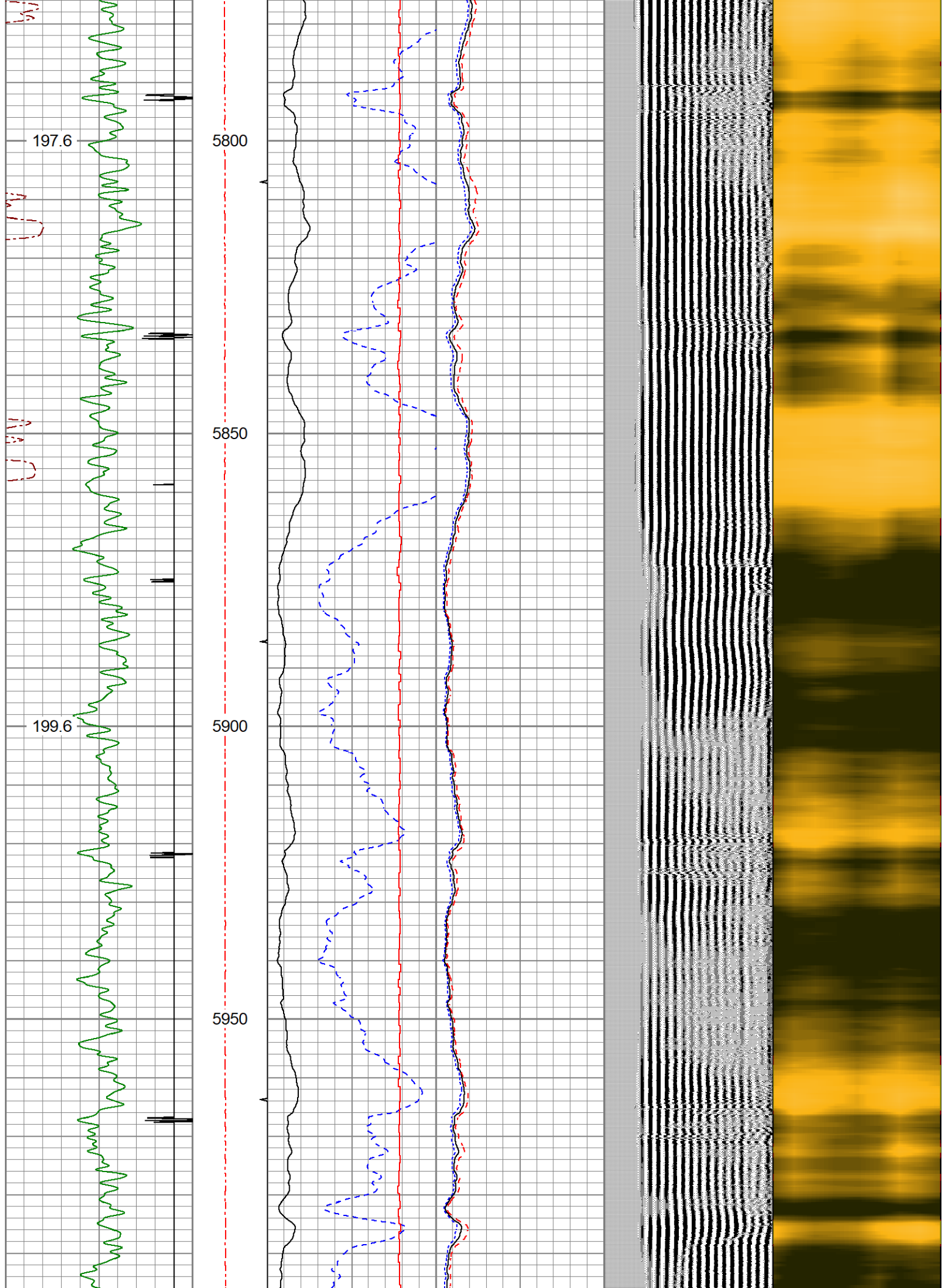


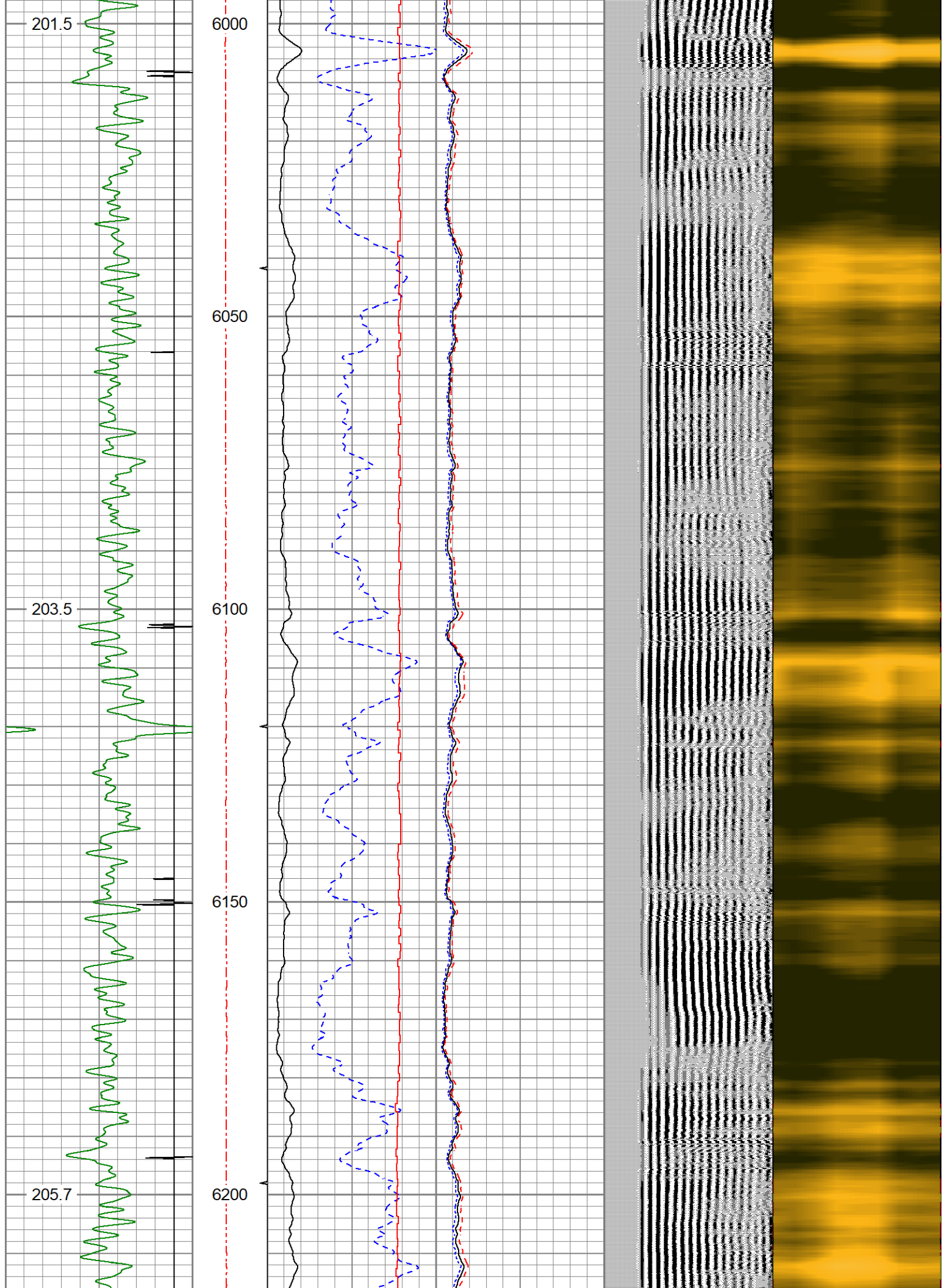


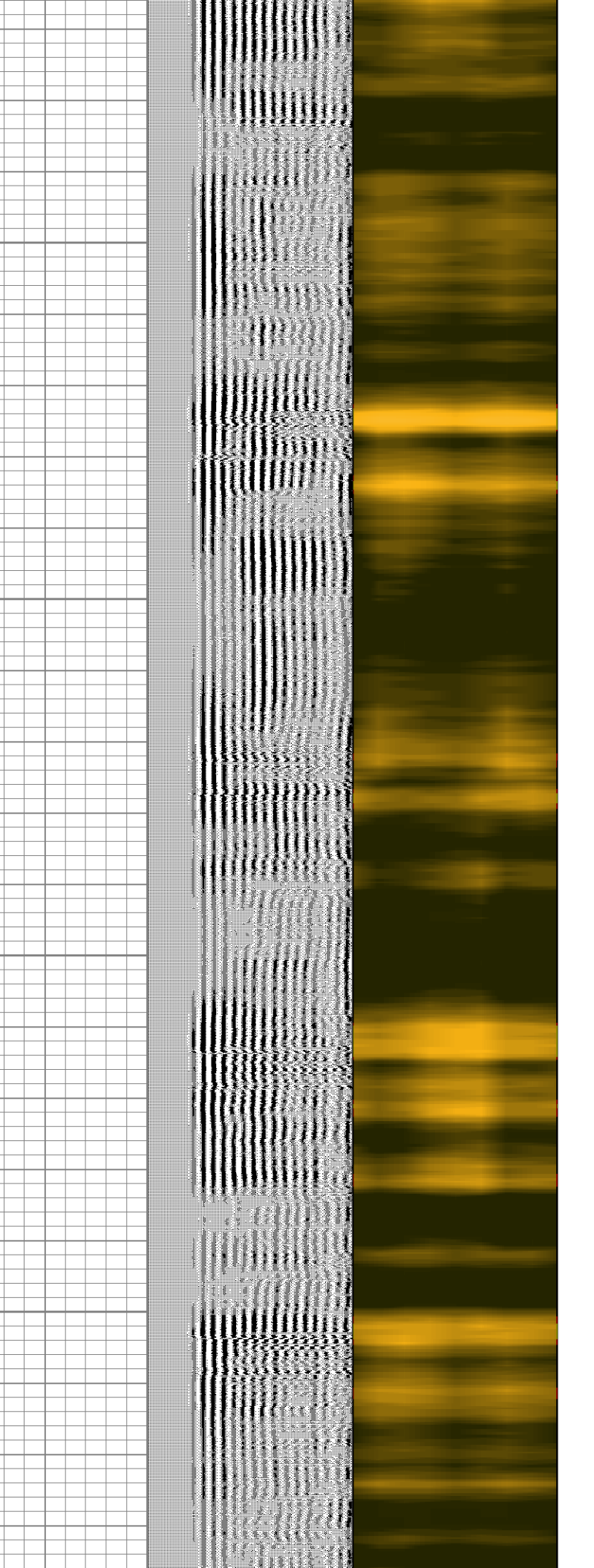
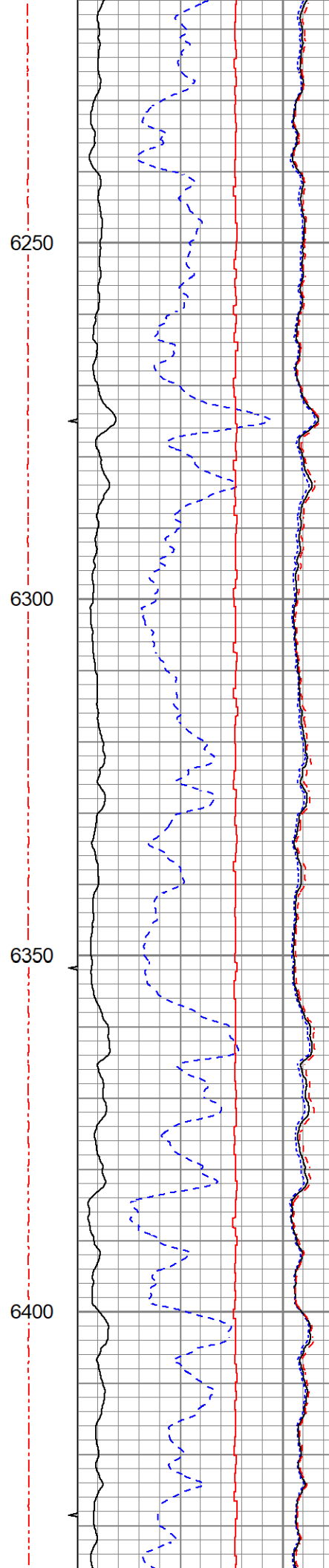
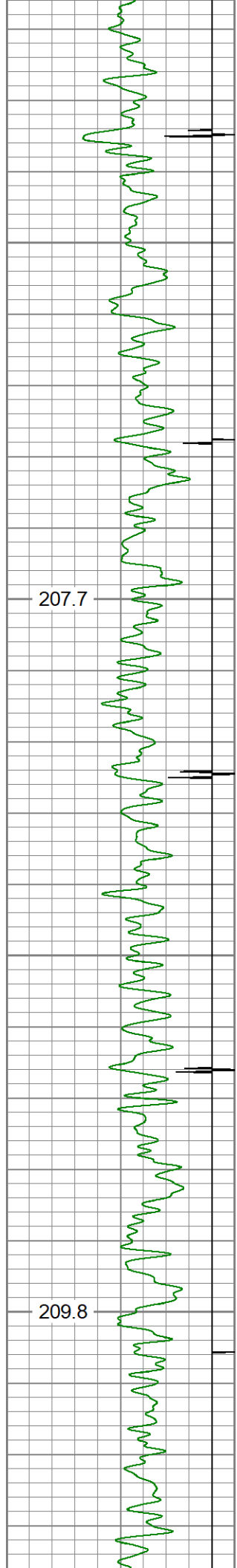


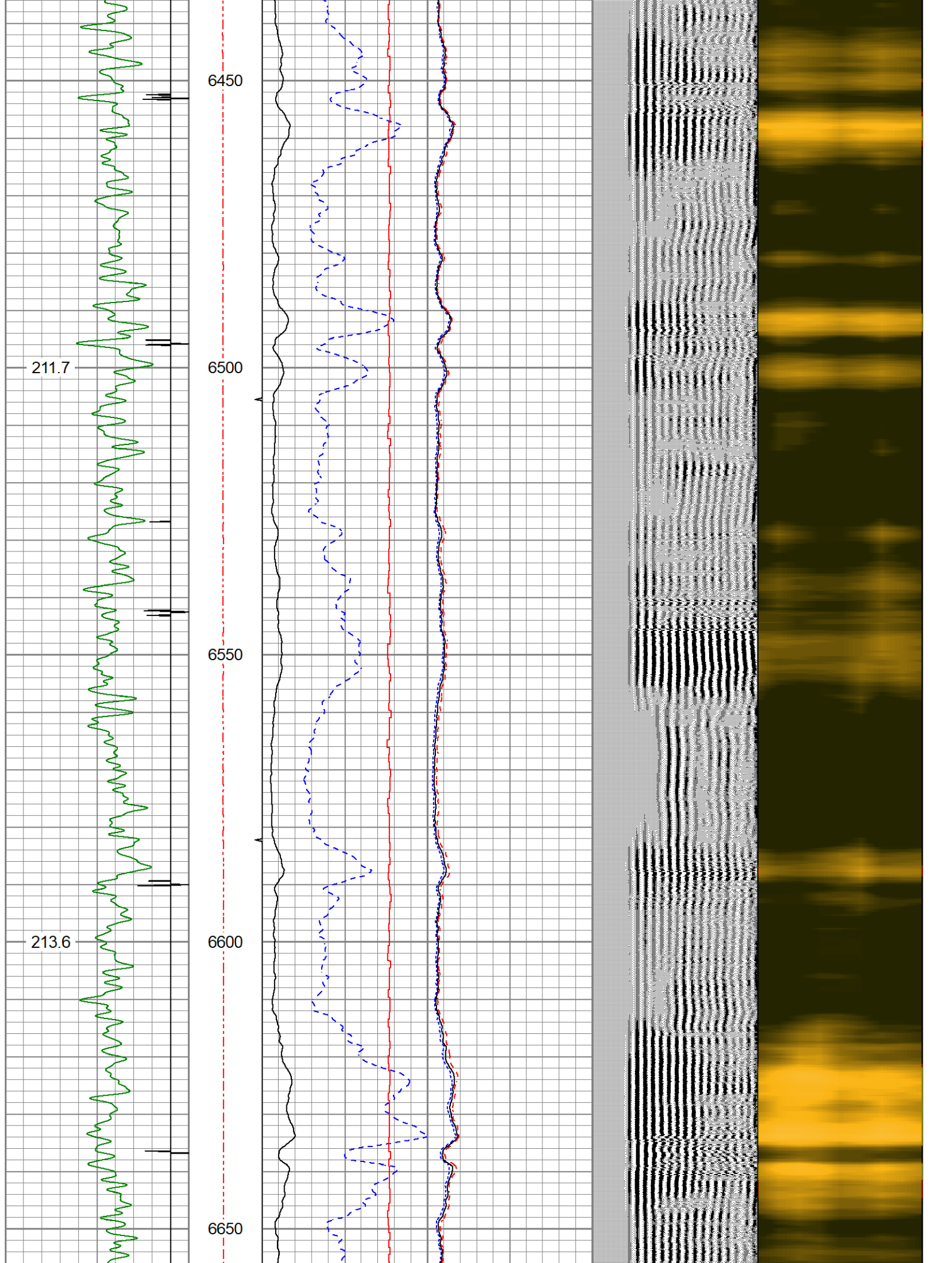


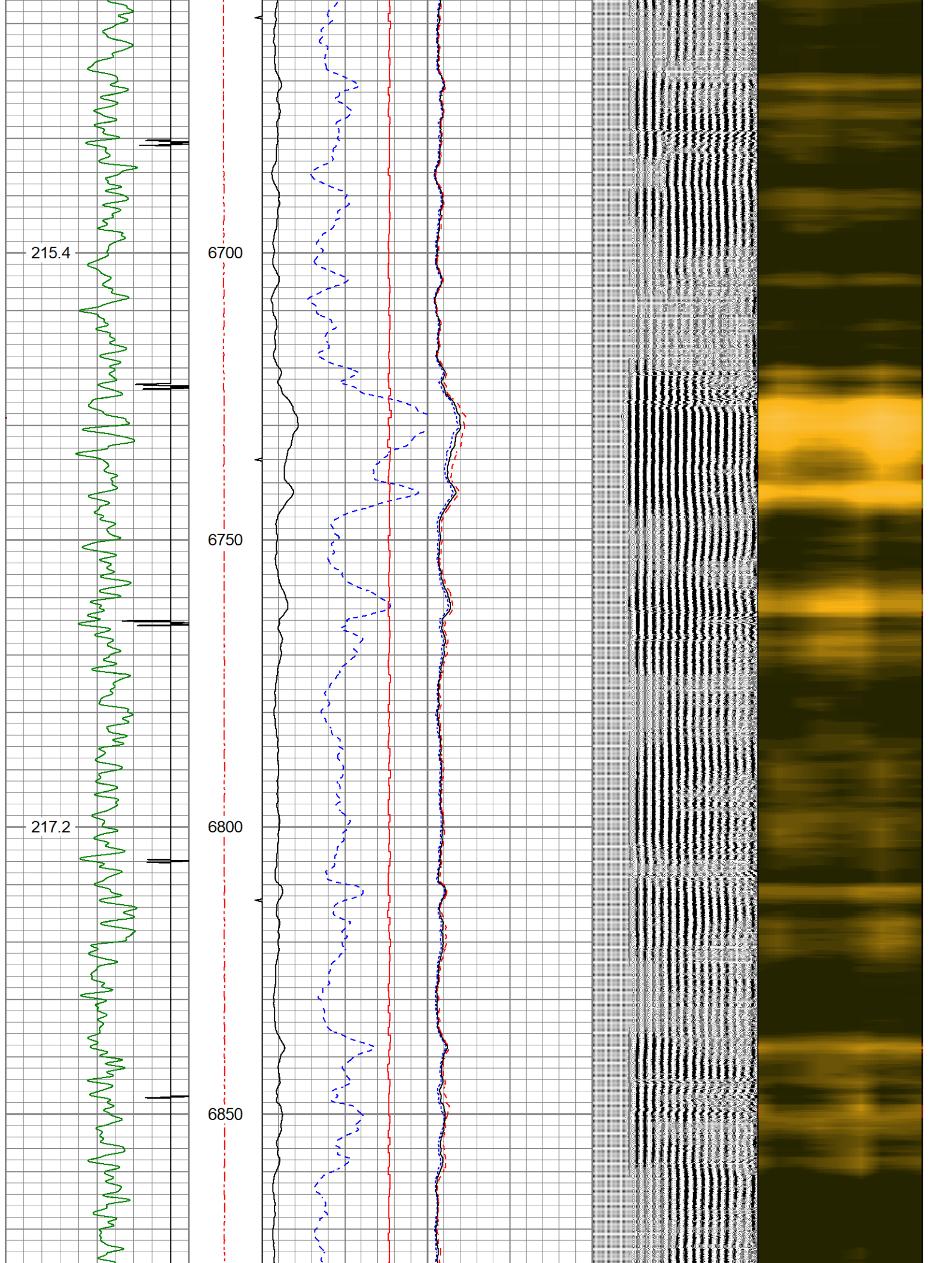


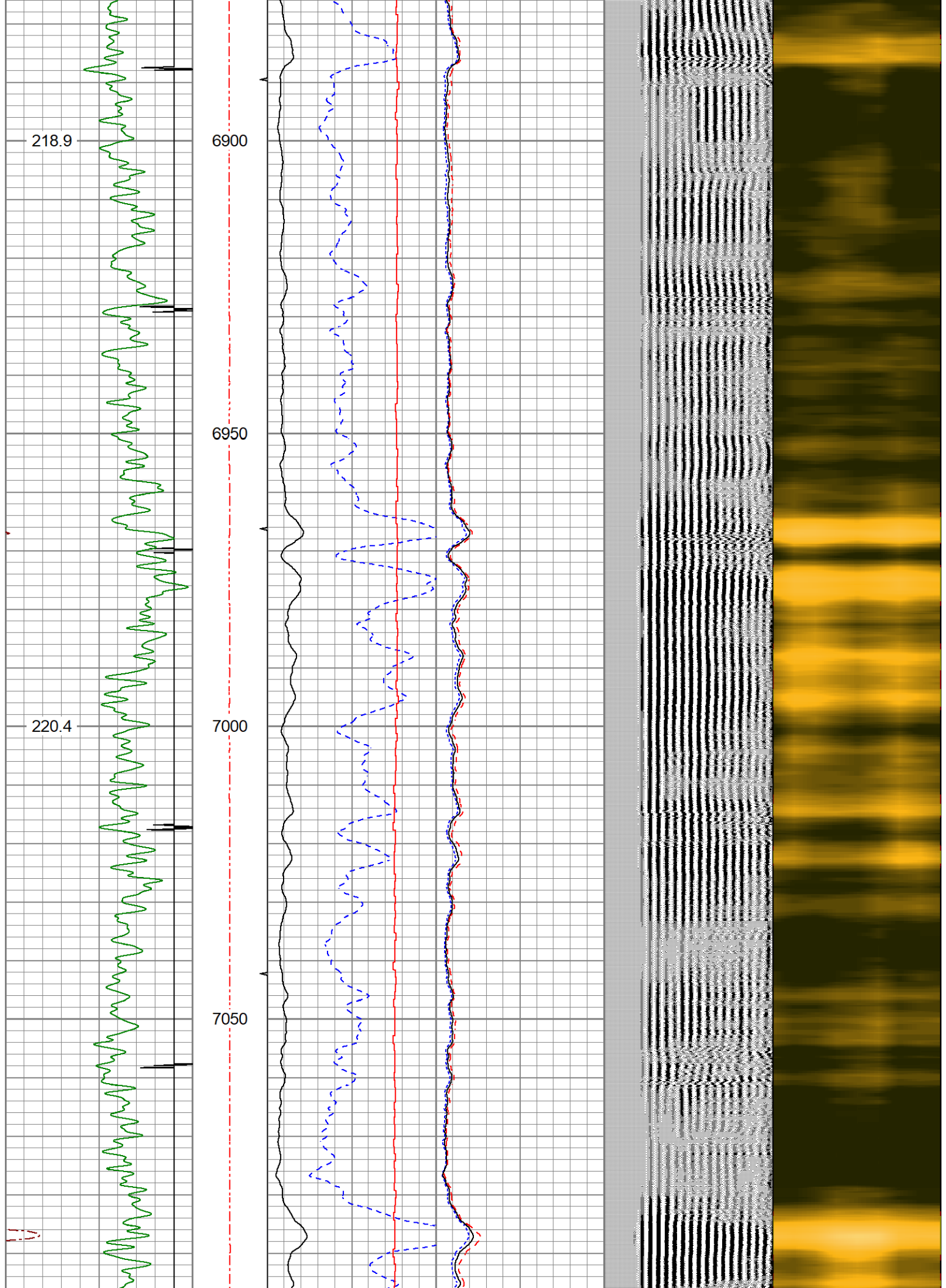


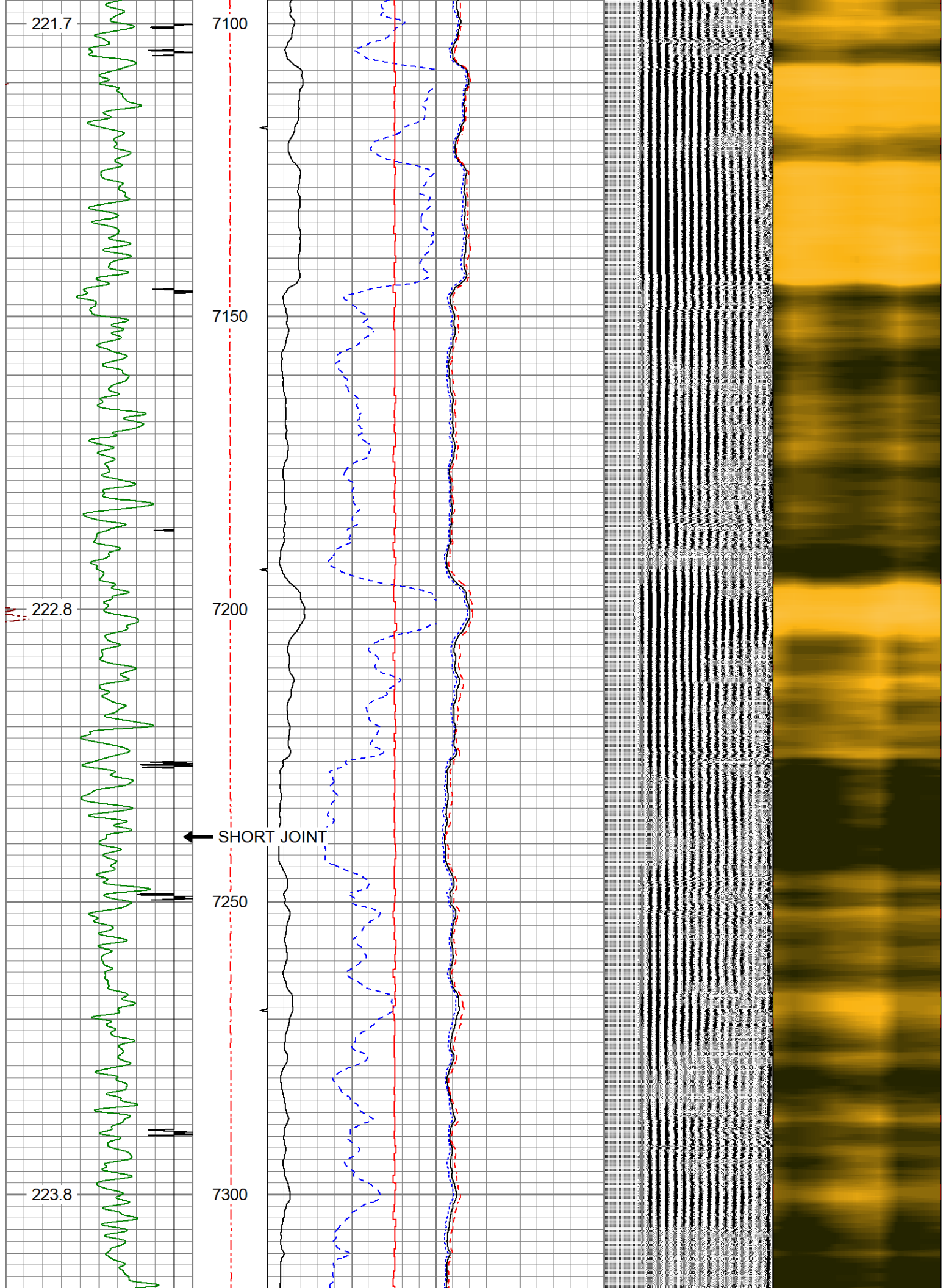


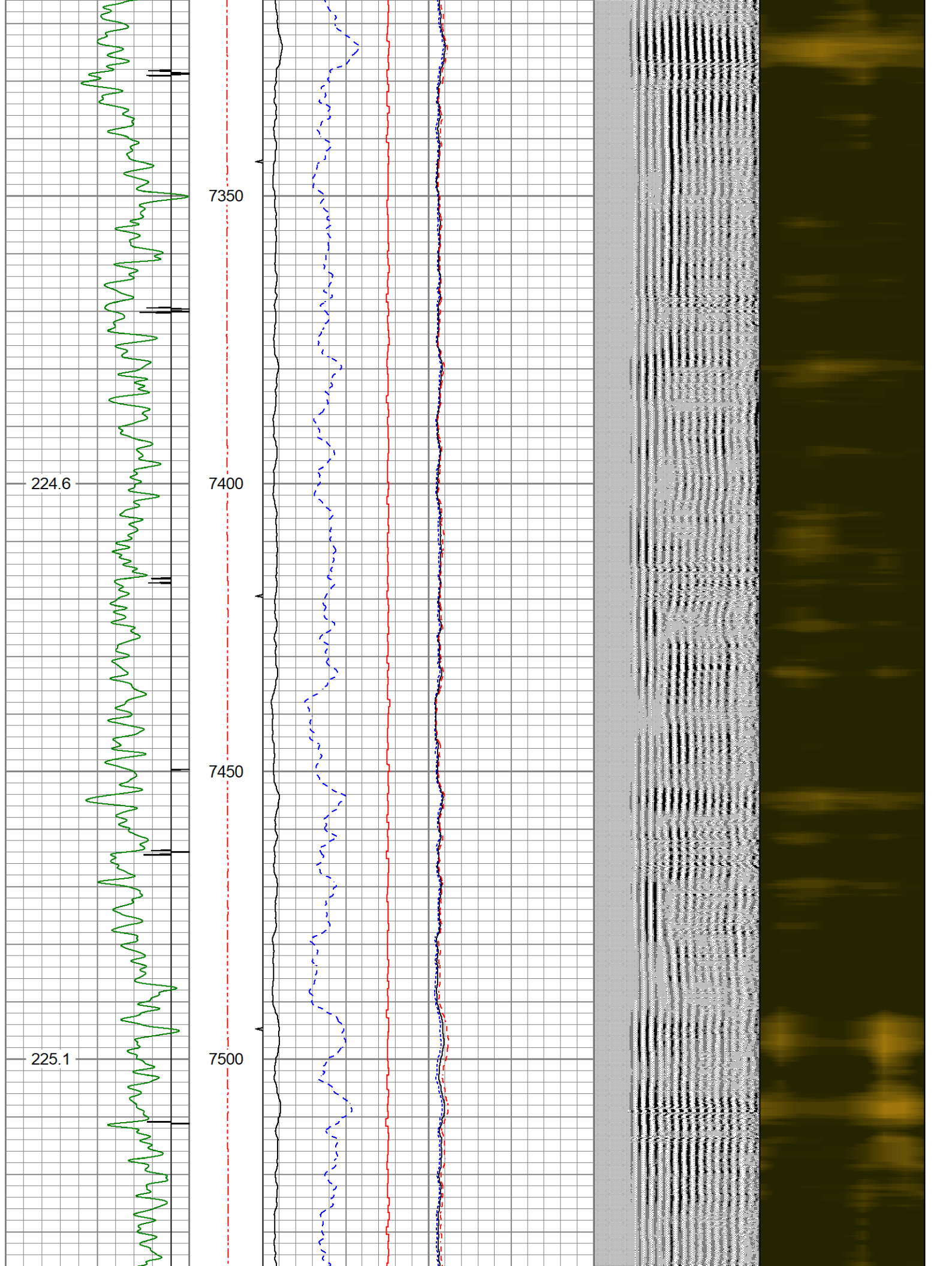


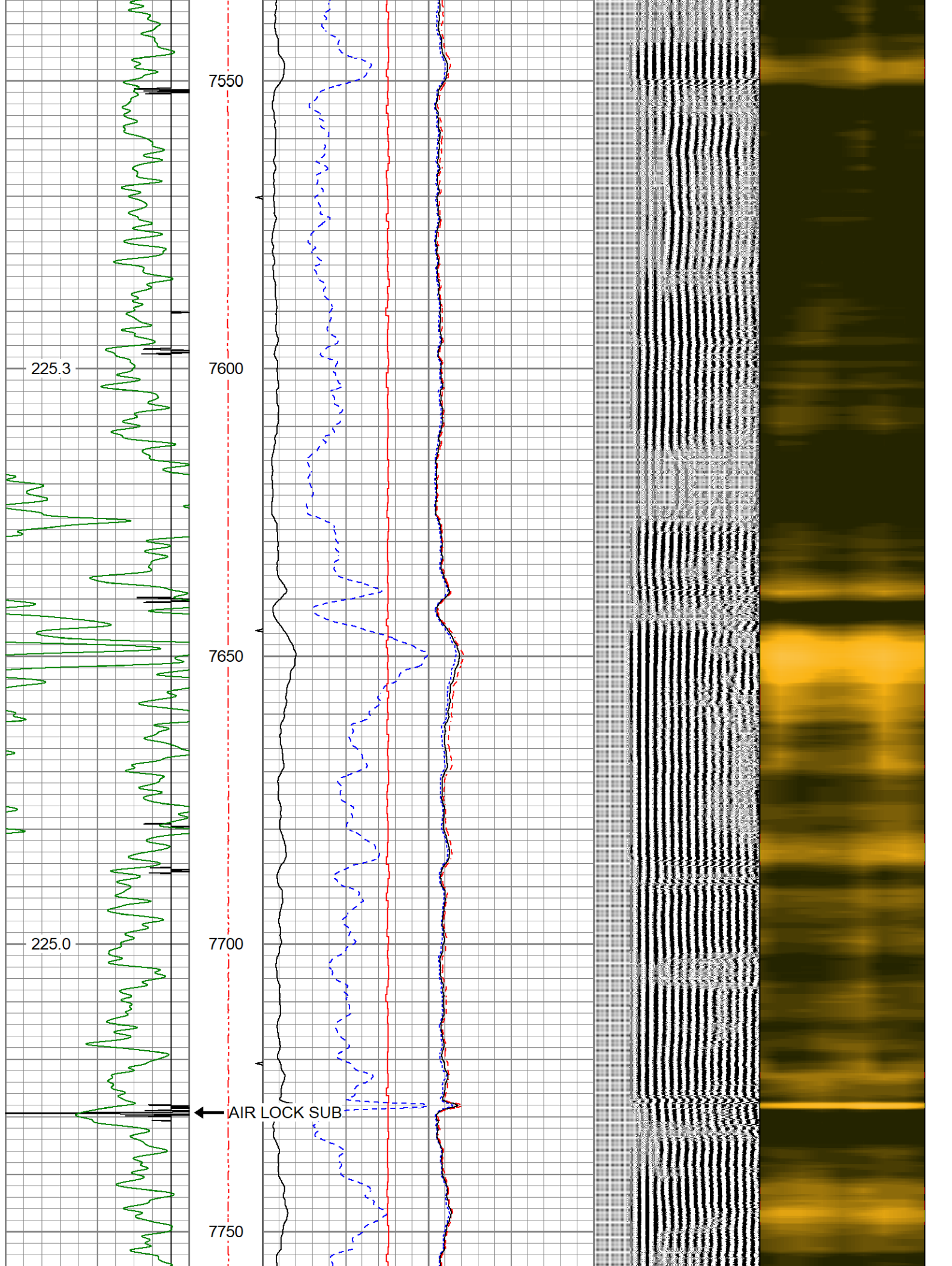


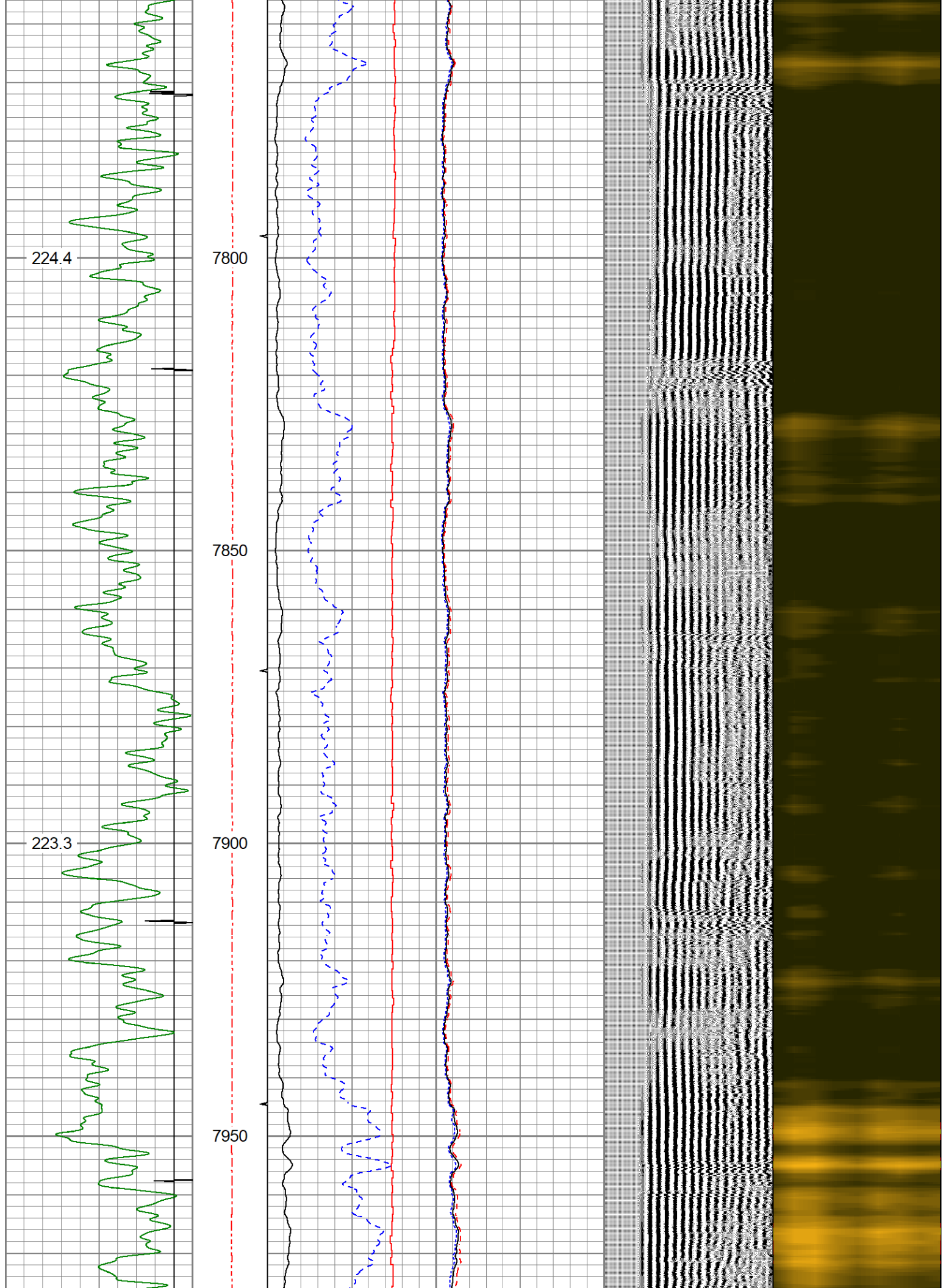


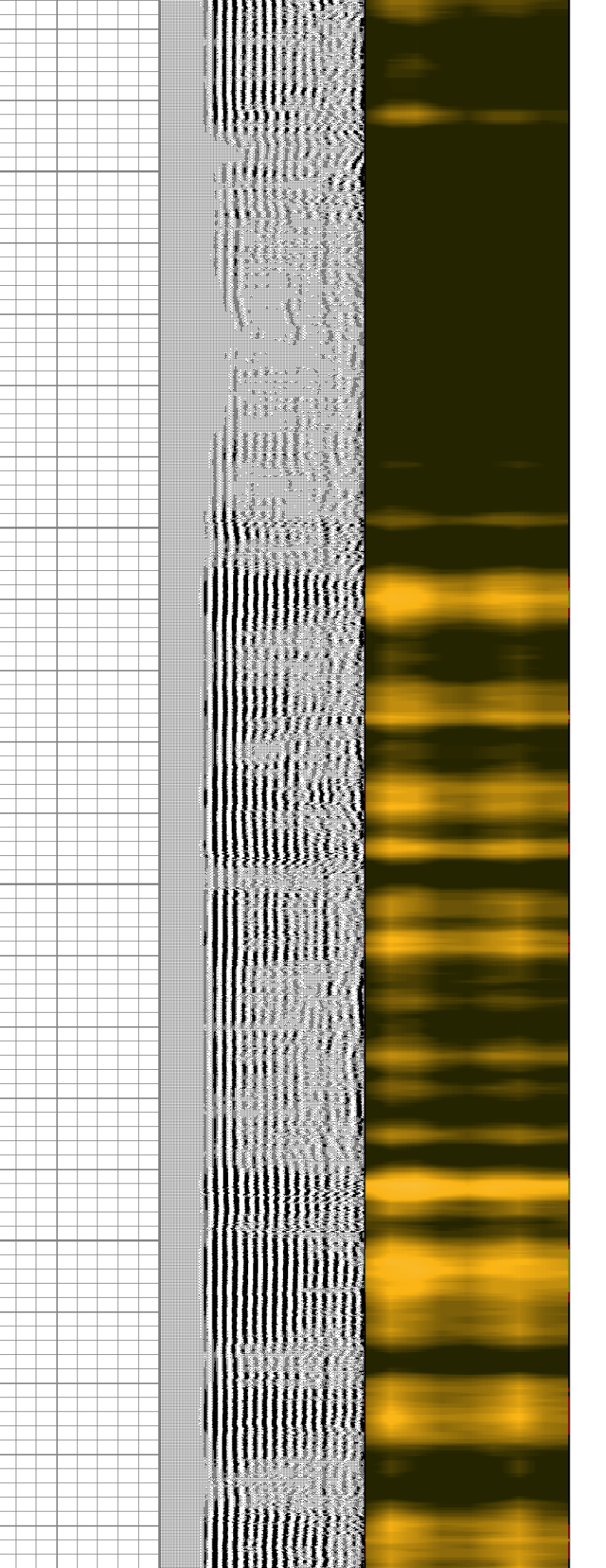
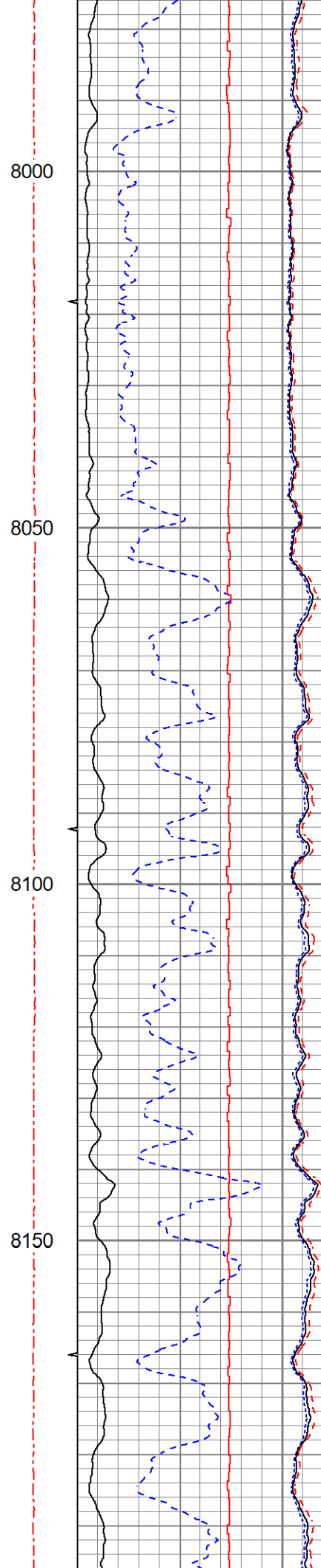
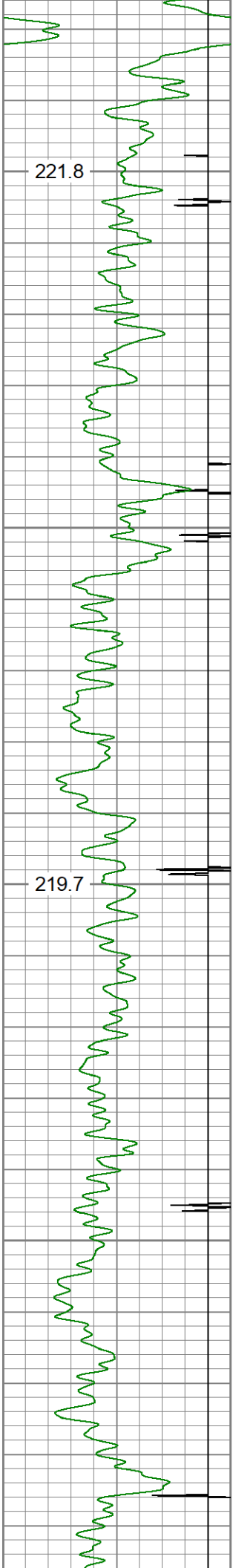


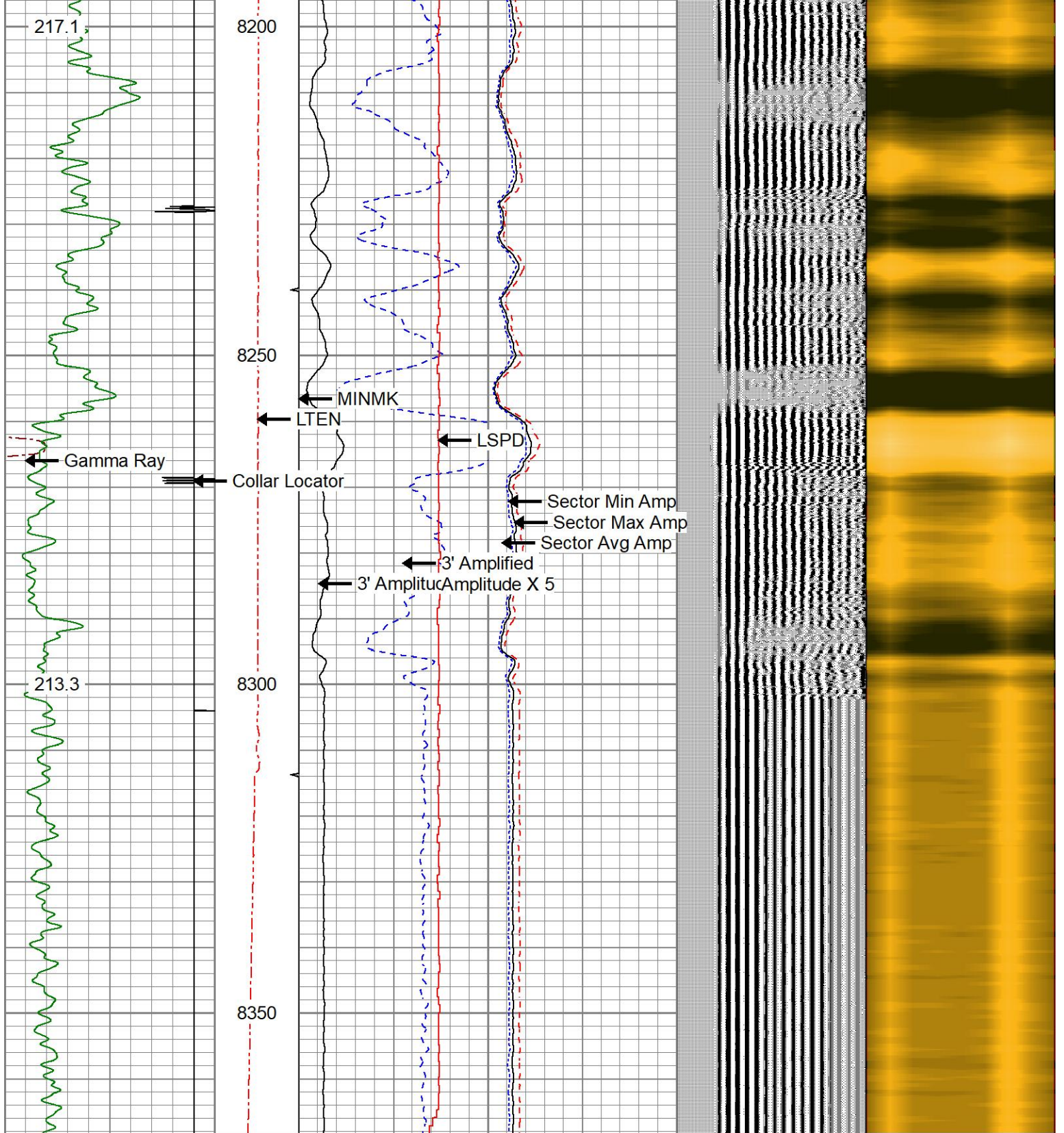












280	3FT TT (usec)	180	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
-9	Collar Locator	1	(lb)	(mV)	100	Sector Avg Amp							
	Gamma Ray		0	2000		0	150						
0	(GAPI)	150	MINMK	3' Amplified		Sector Max Amp							
	TEMP		10	0	0	(mV)	20	0					
	(degF)		0	0	0	LSPD (ft/min)-100							



MAIN PASS

0 PSI APPLIED AT SURFACE

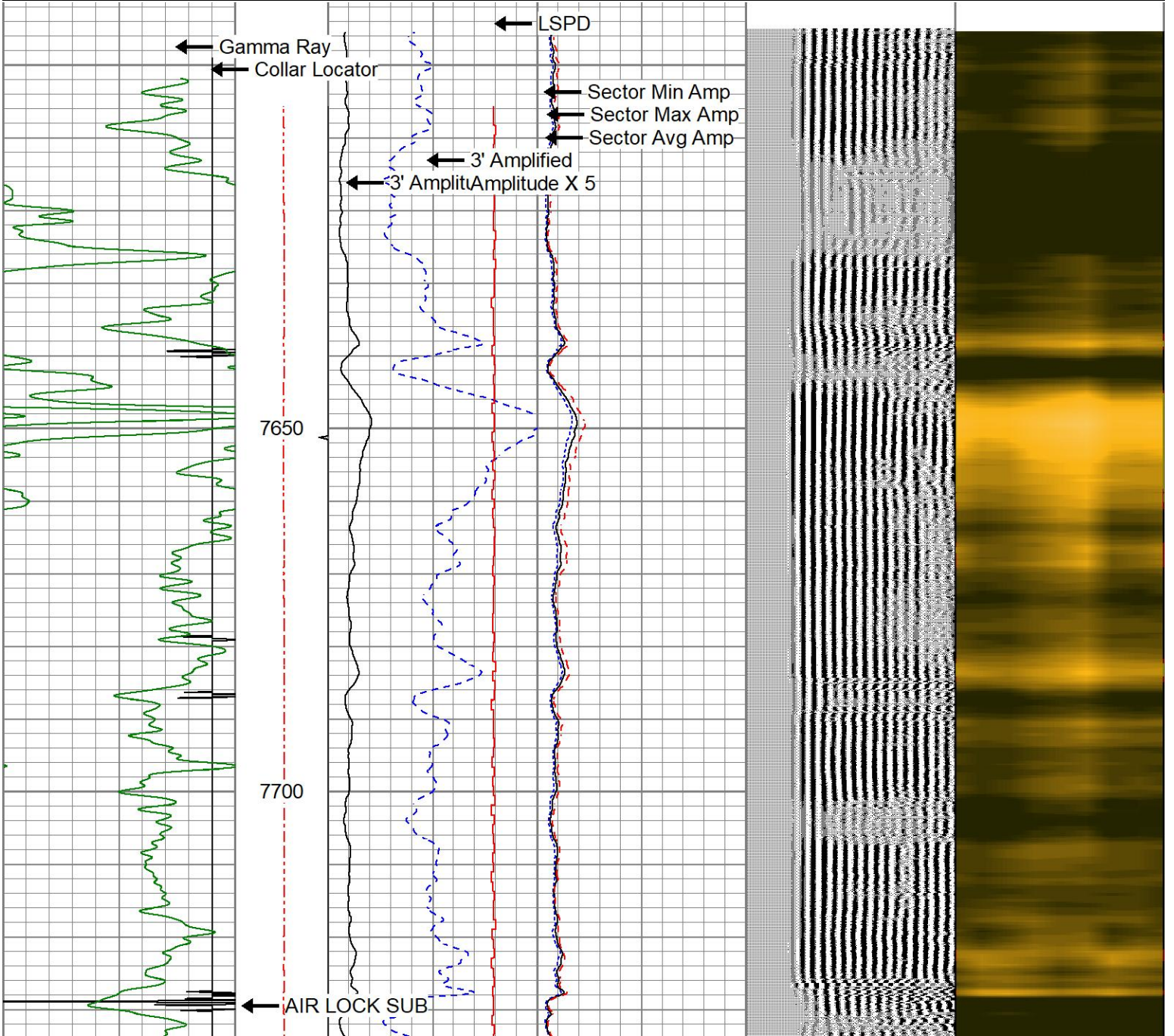


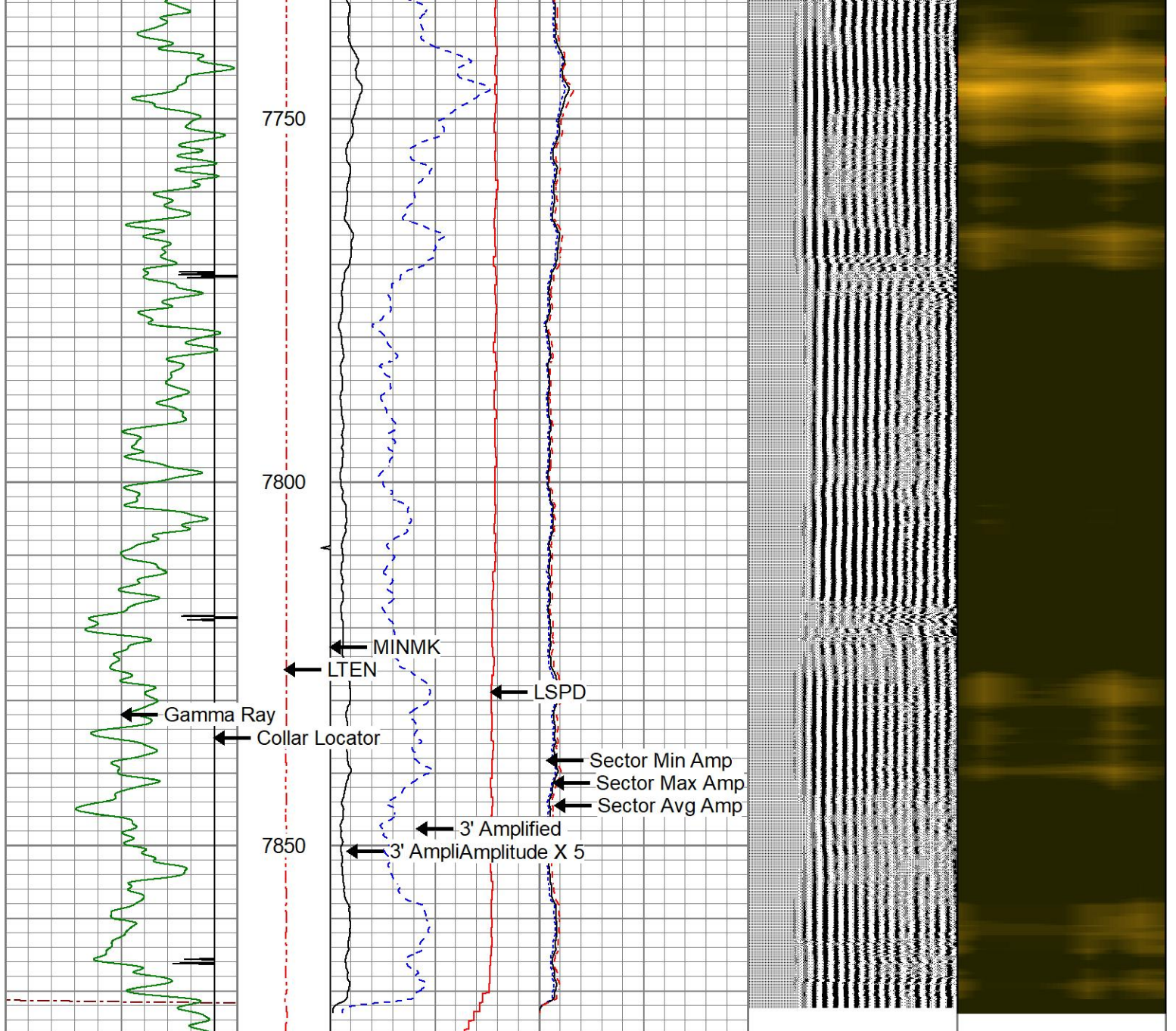
# REPEAT PASS

0 PSI APPLIED AT SURFACE

Database File: verdad\_fawn 2833-04h\_05-123-51848\_03-28-23.db  
 Dataset Pathname: pass2  
 Presentation Format: res\_scbl 8sec\_co\_verdad  
 Dataset Creation: Tue Mar 28 15:20:07 2023  
 Charted by: Depth in Feet scaled 1:240

250	3FT TT (usec)	150	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
-9	Collar Locator	1	(lb)	0	(mV)	100	Sector Avg Amp						
	Gamma Ray		0	2000	3' Amplified		0	150					
0	(GAPI)	150	MINMK	3' Amplified	Amplitude X 5		Sector Max Amp						
			10	0	(mV)	20	0	150					
			0	LSPD (ft/min)	-100								





250	3FT TT (usec)	150	LTEN	3' Amplitude	0	Sector Min Amp	150	200	VDL (usec)	1200	1	Sector Map	8
-9	Collar Locator	1	(lb)	(mV)	100	Sector Avg Amp							
	Gamma Ray		0	3' Amplified		0	150						
0	(GAPI)	150	MINMK	Amplitude X 5		Sector Max Amp							
			10	(mV)	20	0	150						
			0	LSPD (ft/min)-100									



REPEAT PASS

0 PSI APPLIED AT SURFACE

Calibration Report

Database File: verdad\_fawn 2833-04h\_05-123-51848\_03-28-23.db  
 Dataset Pathname: pass3  
 Dataset Creation: Tue Mar 28 15:26:20 2023

Serial Number: 071129  
 Tool Model: GR275B  
 Performed: Tue Mar 28 08:37:24 2023

Calibrator Value: 250.0 GAPI

Background Reading: 34.9 cps  
 Calibrator Reading: 302.3 cps

Sensitivity: 0.8500 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 070150  
 Tool Model: Probe

Calibration Casing Diameter: 5.500 in  
 Calibration Depth: 3.267 ft

Master Calibration, performed Tue Mar 28 08:37:30 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.002	1.012	1.000	71.921	69.935	1.128
CAL	-0.002	1.002				
5'	-0.002	0.945	1.000	71.921	74.897	1.145
SUM						
S1	-0.001	0.993	0.000	100.000	100.597	0.142
S2	-0.002	1.008	0.000	100.000	99.015	0.198
S3	-0.002	1.002	0.000	100.000	99.653	0.151
S4	-0.002	1.000	0.000	100.000	99.829	0.180
S5	-0.002	1.015	0.000	100.000	98.336	0.186
S6	-0.002	0.999	0.000	100.000	99.871	0.202
S7	-0.002	1.010	0.000	100.000	98.891	0.170
S8	-0.001	1.008	0.000	100.000	99.029	0.144

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.002	1.002	1.000	0.000

Air Zero Calibration, performed Wed Jul 20 11:36:42 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



Company

**VERDAD RESOURCES**

Well

**FAWN 2833-04H**

Field

**WATTENBERG**

County

**WELD**

State

**COLORADO**