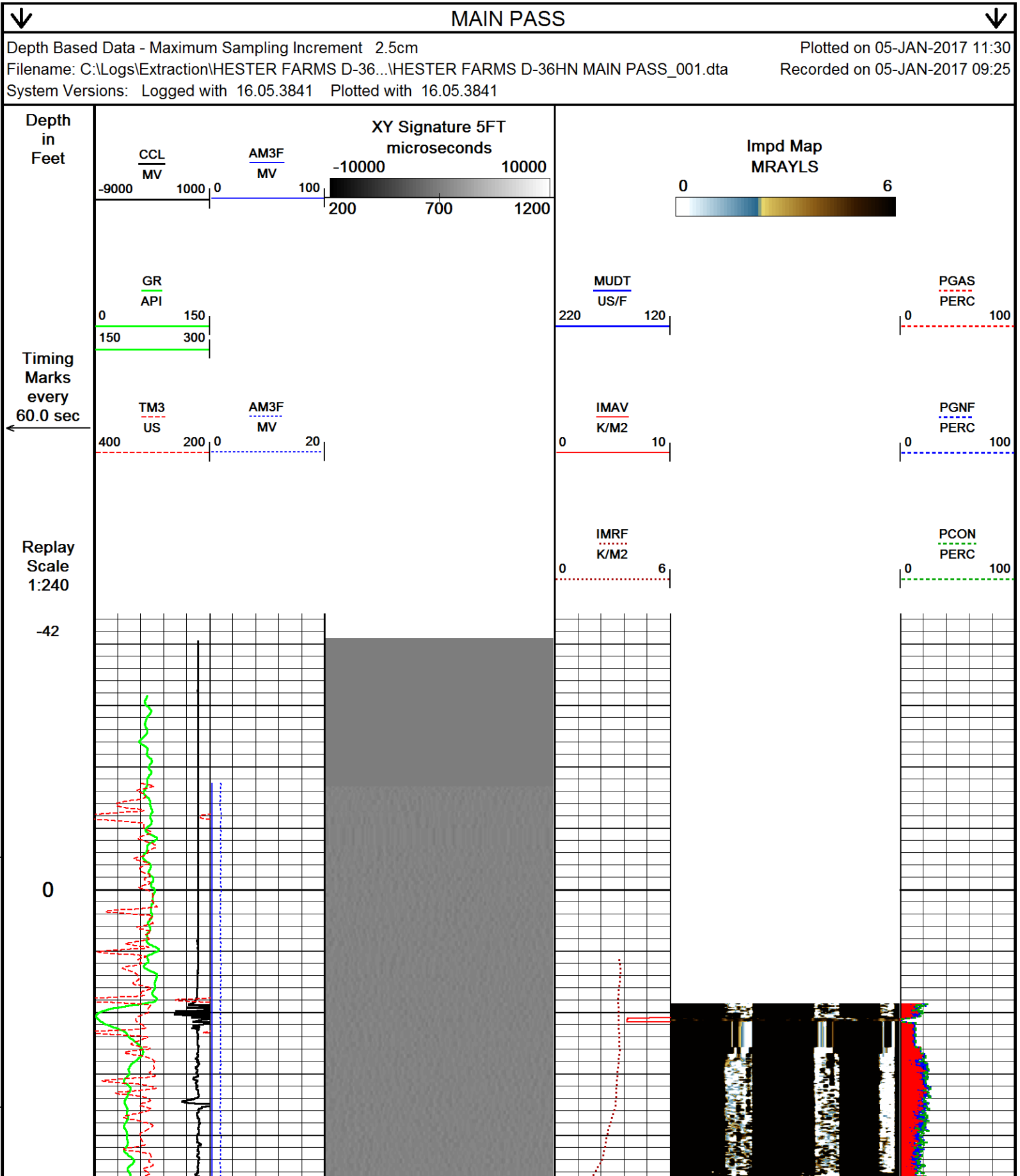
				<div>SECUREVIEW</div> <div>ULTRAVIEW/BONDVIEW</div> <div>CEMENT ANALYSIS</div>			
COMPANY				EXTRACTION OIL & GAS			
WELL				HESTER FARMS D36-HN			
FIELD				WATTENBERG			
PROVINCE/COUNTY				WELD			
COUNTRY/STATE				USA / COLORADO			
LOCATION							
SEC 31	TWP 7N	RGE 66W	Other Services				
Latitude			Permanent Datum GROUND LEVEL, Elevation 4888 feet Log Measured From KB, 28 feet above Permanent Datum Drilling Measured From KB @ 28'				
Longitude							
API Number							
05-123-41994-00			Elevations: KB 4916.00 DF 4916.00 GL 4888.00				
Date			30-DEC-2016				
Run Number	ONE		PERFORATION RECORD				
Service Order	170347915		Shot	Number	Depth From	Depth To	
Type Log	URS/CBT		Density	of Shots	feet	feet	
Depth Driller	11865.00						
Depth Logger	6400.00						
Top Log Interval	0.00						
Bottom Log Interval	6400.00						
Hole Fluid Type	WATER						
Hole Fluid Level	0.00		feet				
Restriction ID	4.767		inches	Gun Type			
Max Recorded Temp				Gun Size			
Well Head Pressure	0.00		psi	CASING / TUBING RECORD			
Well Head Equipment			Size	Weight	Depth From	Depth To	
Time Well Ready	ROA		inches	pounds/ft	feet	feet	
Time Logger Bottom	SEE LOG		9.625	36.00	0.00	1550.00	
Unit	14338		5.500	20.00	0.00	11865.00	
Equipment Name	WSSE						
Base	CASPER						
Recorded By	P. MAZUR						
Witnessed By	NOT WITNESSED						

CASING / TUBING RECORD						
Type	Grade	TypeJoint	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
			9.625	0.00	1550.00	36.00
			5.500	0.00	11865.00	20.00

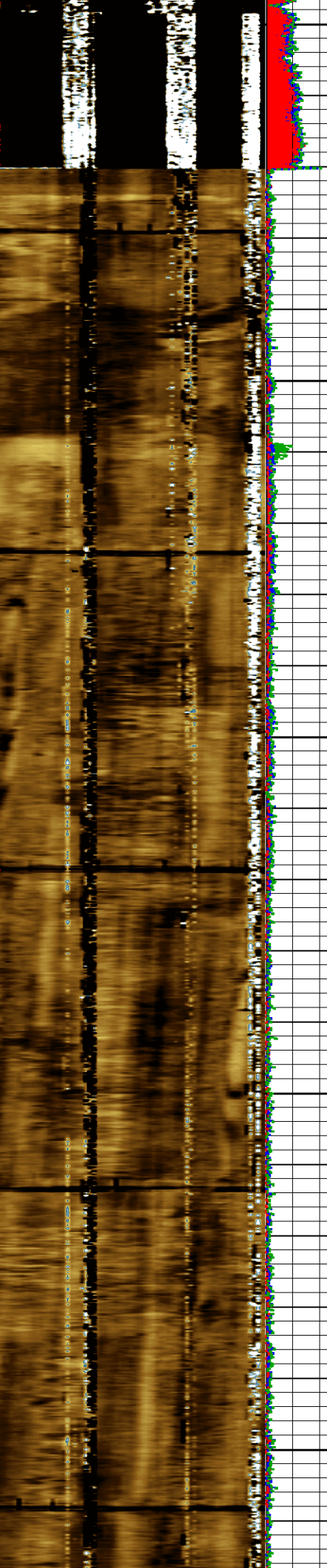
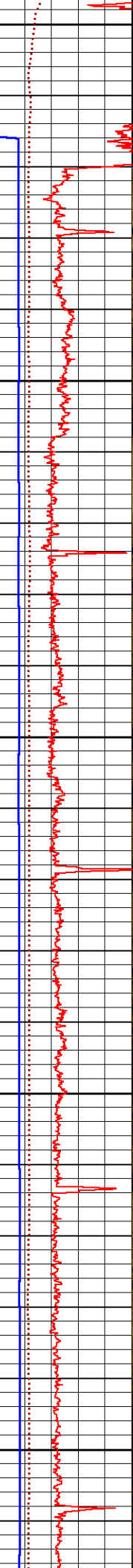
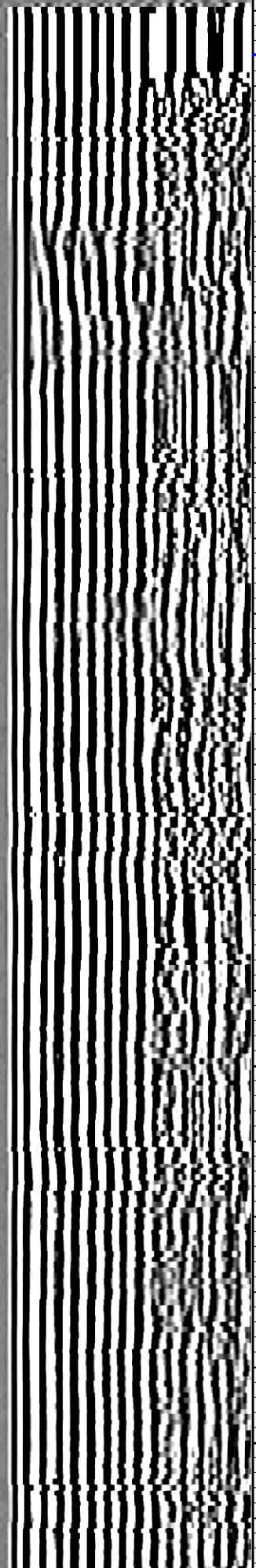
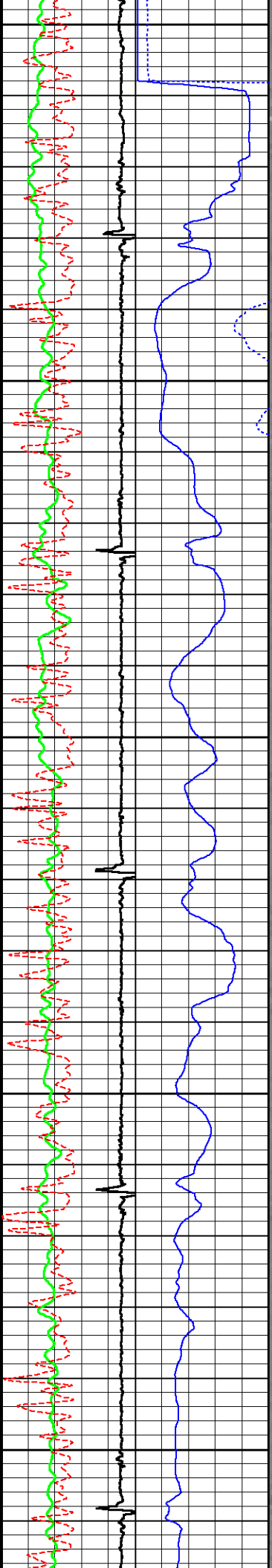
REMARKS
ULTRASONIC RADIAL SCANNER LOG CORRELATED TO RIG KB @ 28 FT ABOVE GROUND LEVEL  BELOW SURFACE CASING THE TOOL HAD MANY AREAS WHERE IT EXPERIENCED DECENTRALIZATION DUE TO DEVIATION AND DOG LEGS IN THE CASING. IT SHOULD BE NOTED THAT THIS DECENTRALIZATION OF THE TOOL GREATLY AFFECTS THE READINGS RECORDED OVER THESE INTERVALS  ECCENTERICITY IS IN TRACK 1 AND REFLECTED BY FOUR STRIPES ALTERNATING LIGHT AND DARK IN THE AMPLITUDE AND IMPDEANCE MAPS. AT THESE POINTS THE READS ARE INVALID.  ALSO THE CASING SHOWED SIGNS OF BEING IN DIRCT CONTACT WITH THE FORMATION WHICH LEADS TO SPIKING IN THE THICKNESS CURVES  THE DEPTH OF LOGGING WAS STARTED AT THE POINT AT WHICH THE TOOL WAS DEVIATED ENOUGH THAT IT CAUSED THE HEAD ON THE ULTRASONIC TOOL TO STOP ROTATING

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY

assumptions are not malice, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.



50  
100  
150  
200  
250



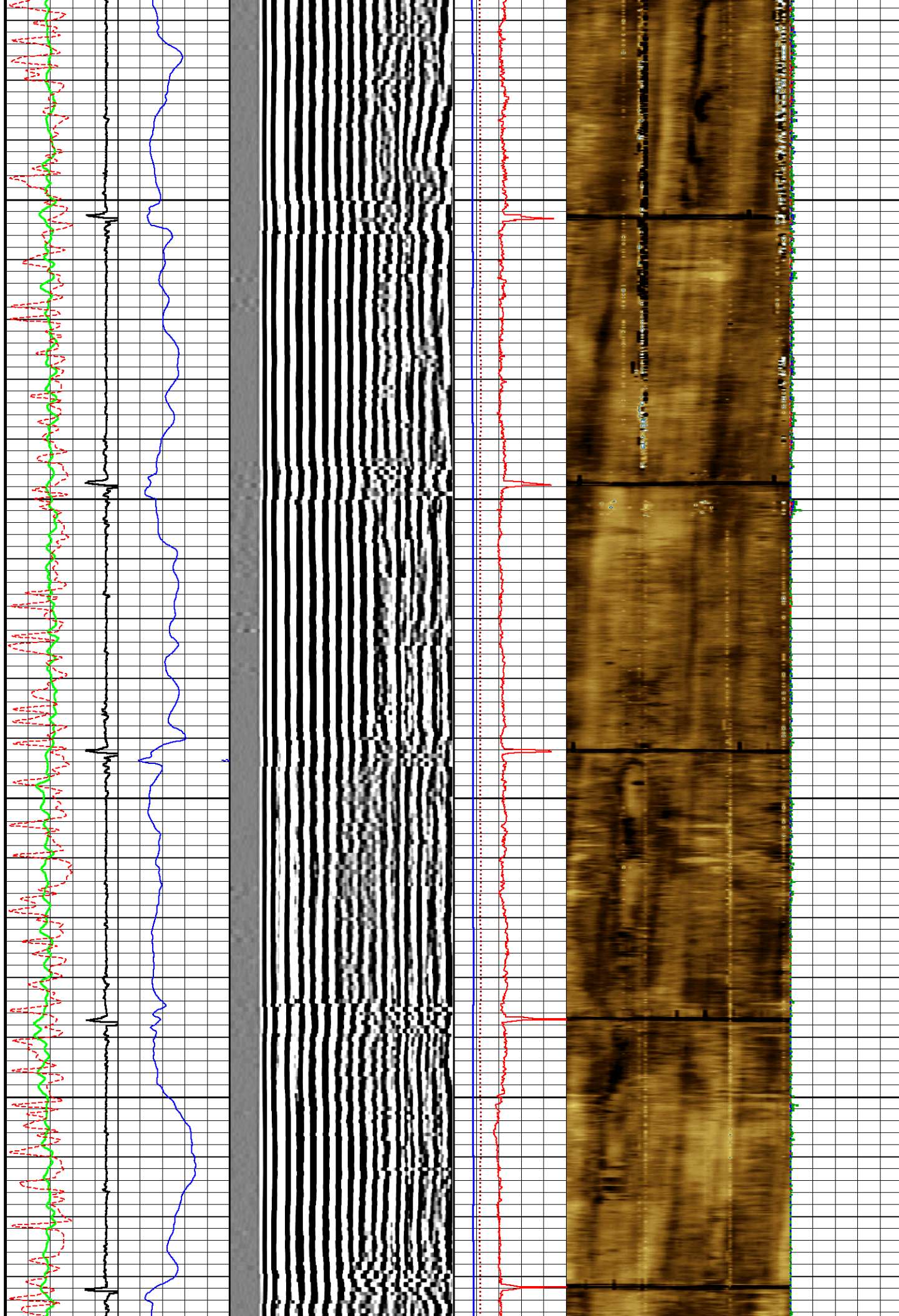


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350

400

450





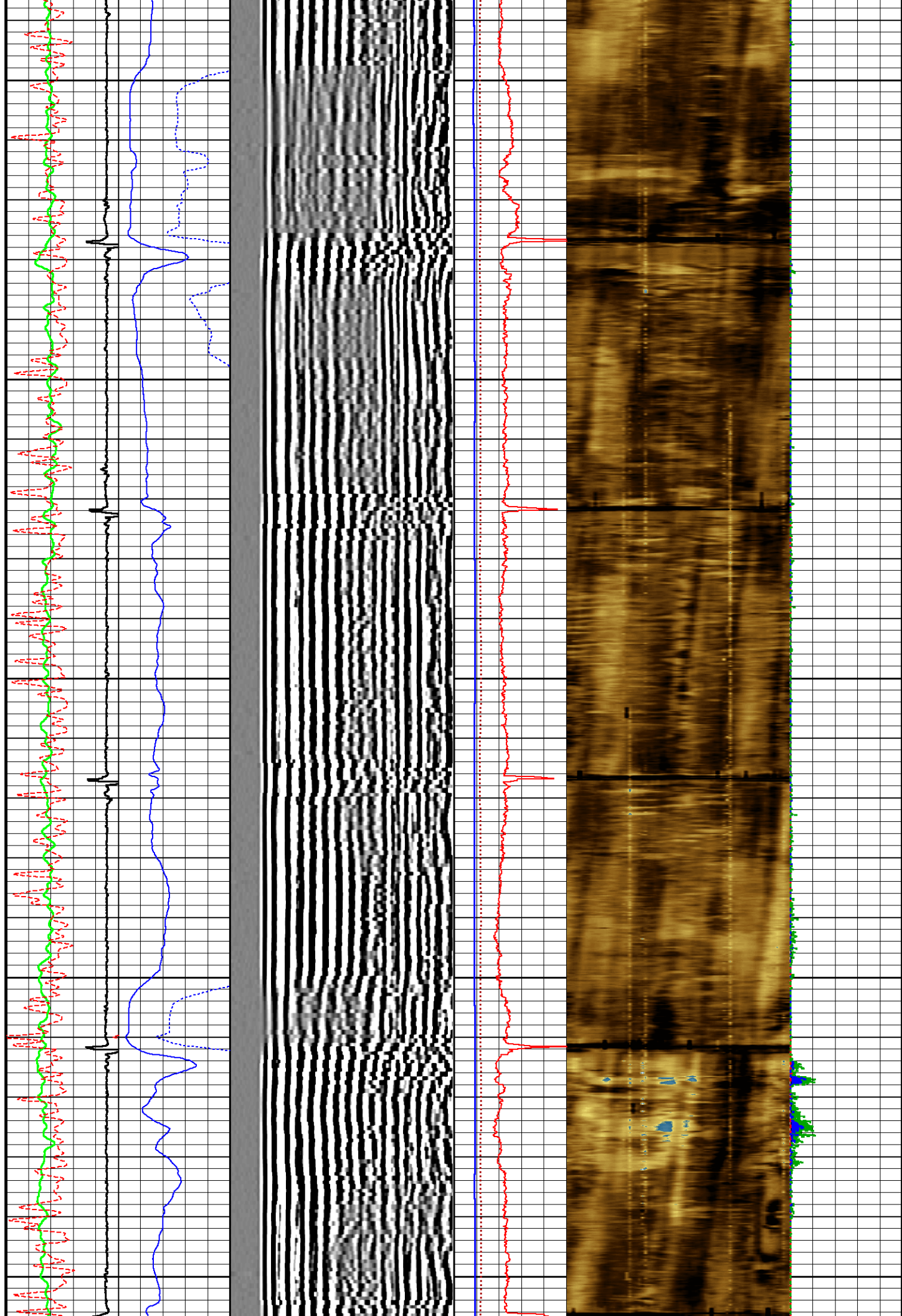
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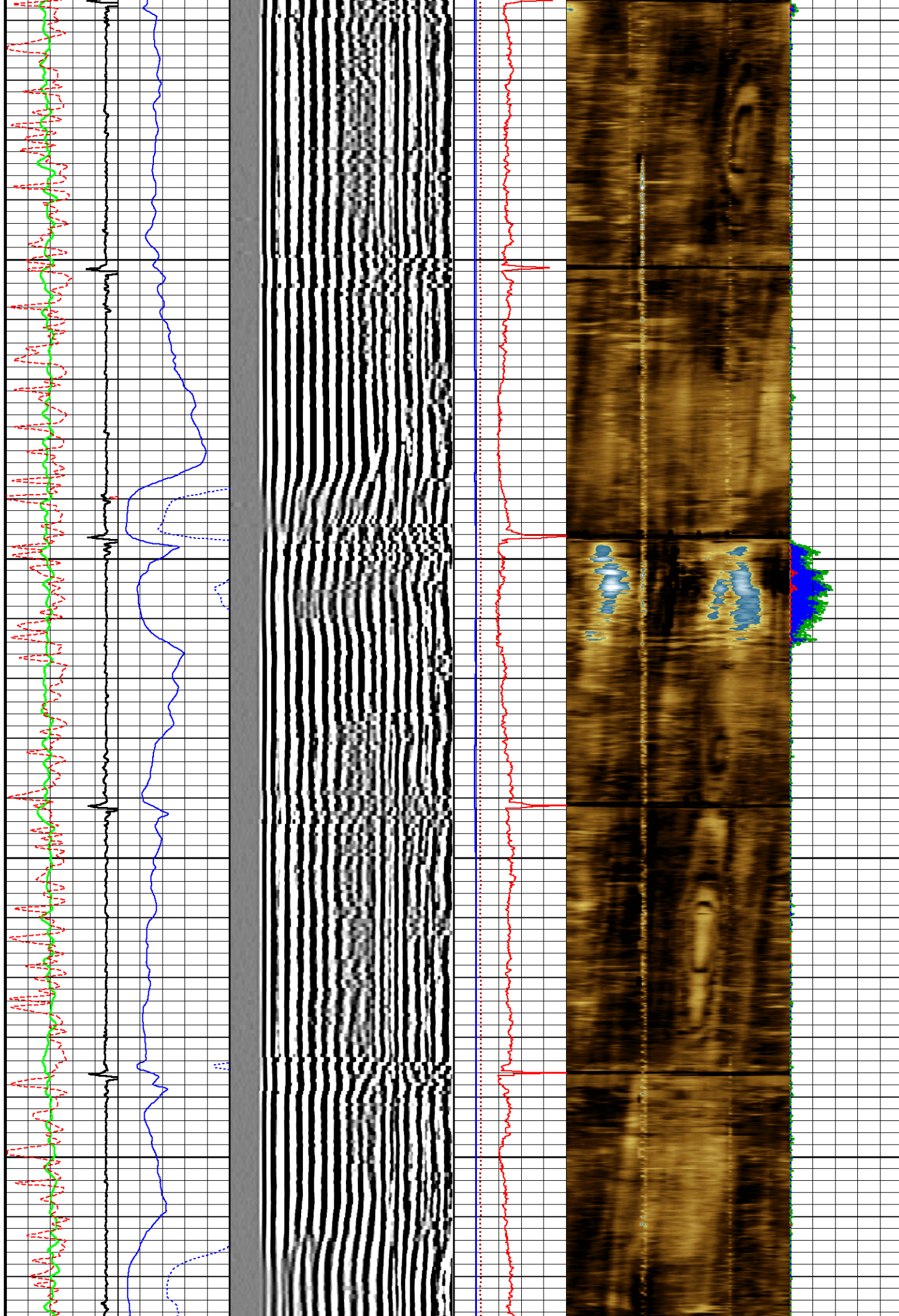


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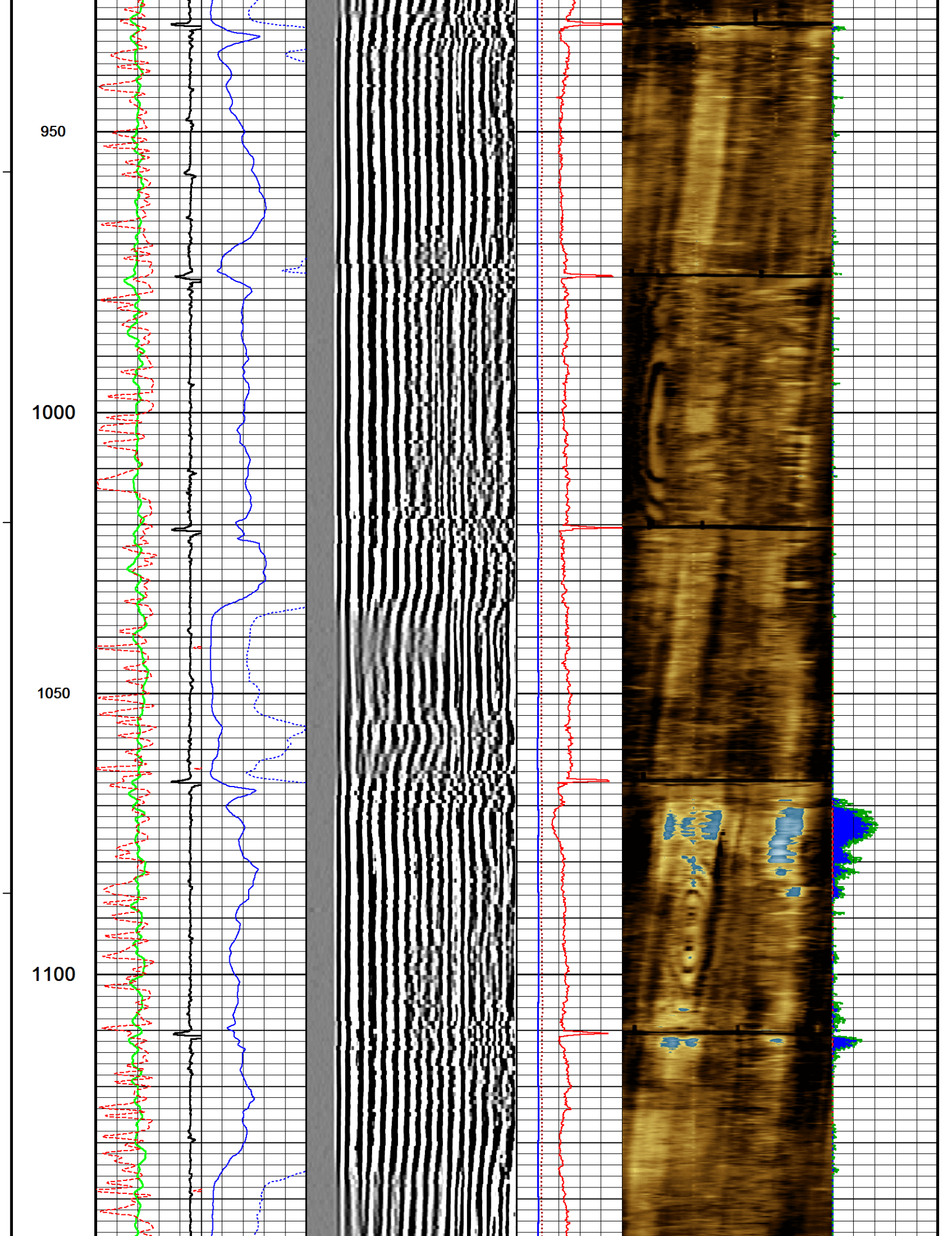
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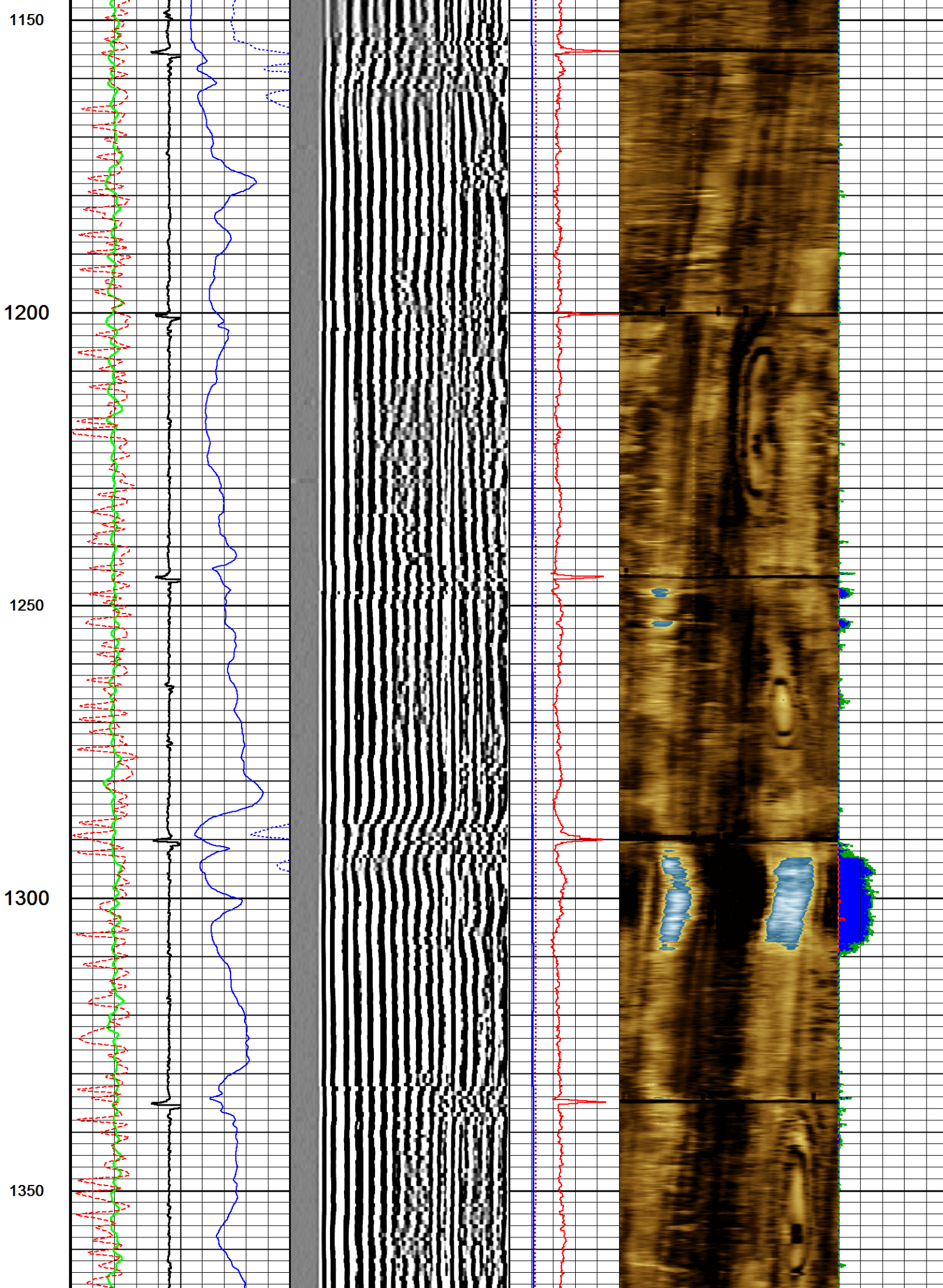
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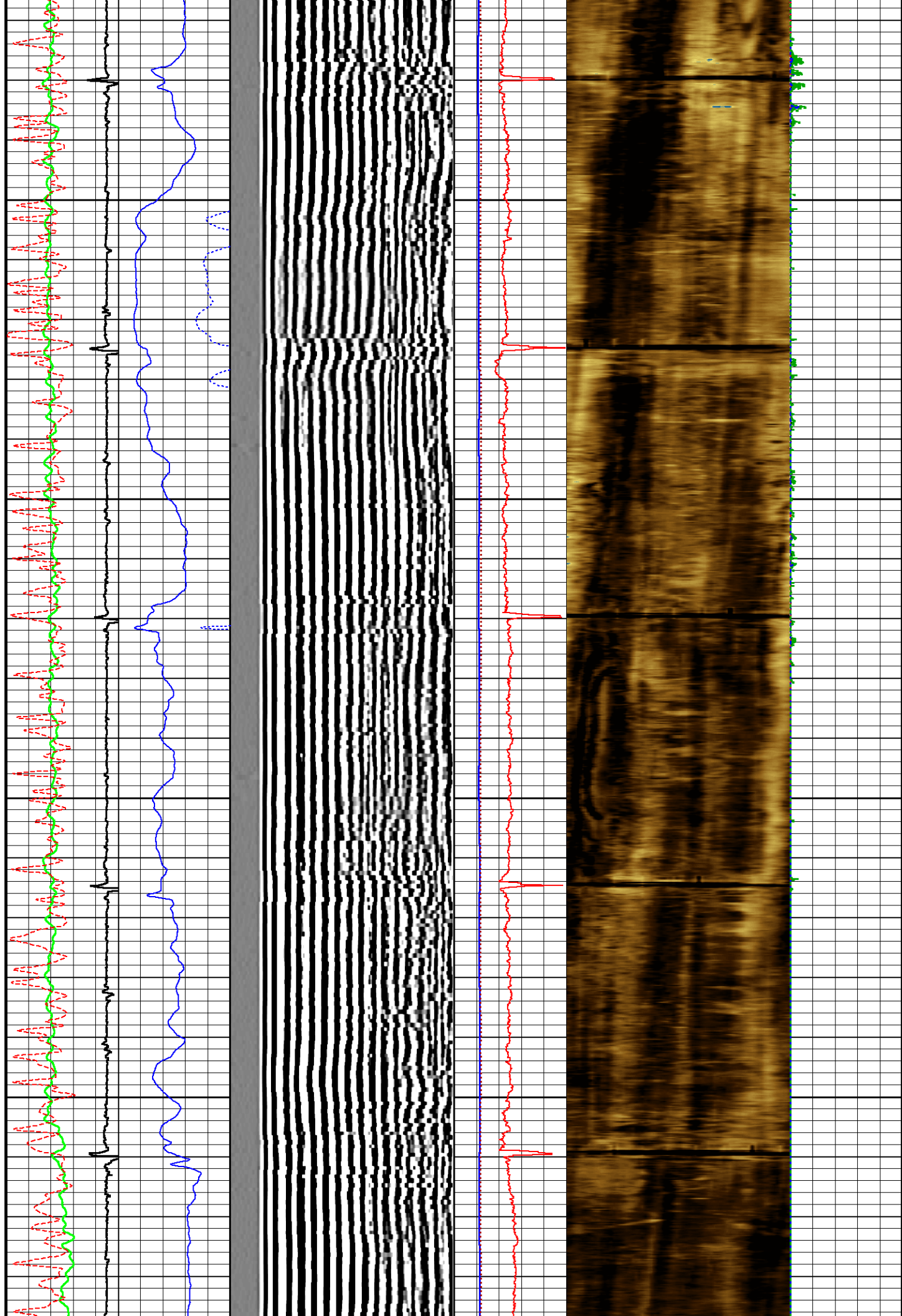


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1450

1500

1550





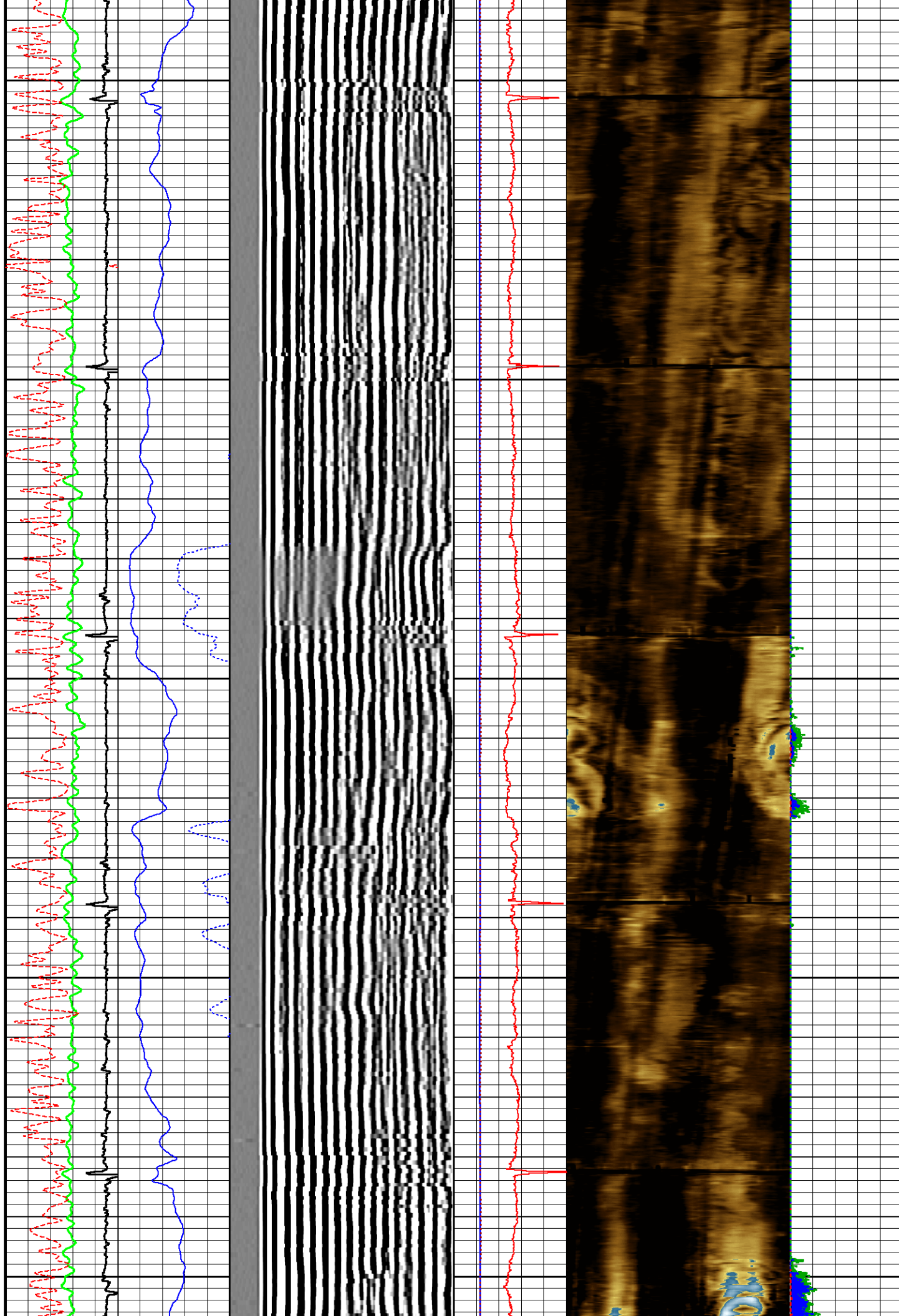
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1650

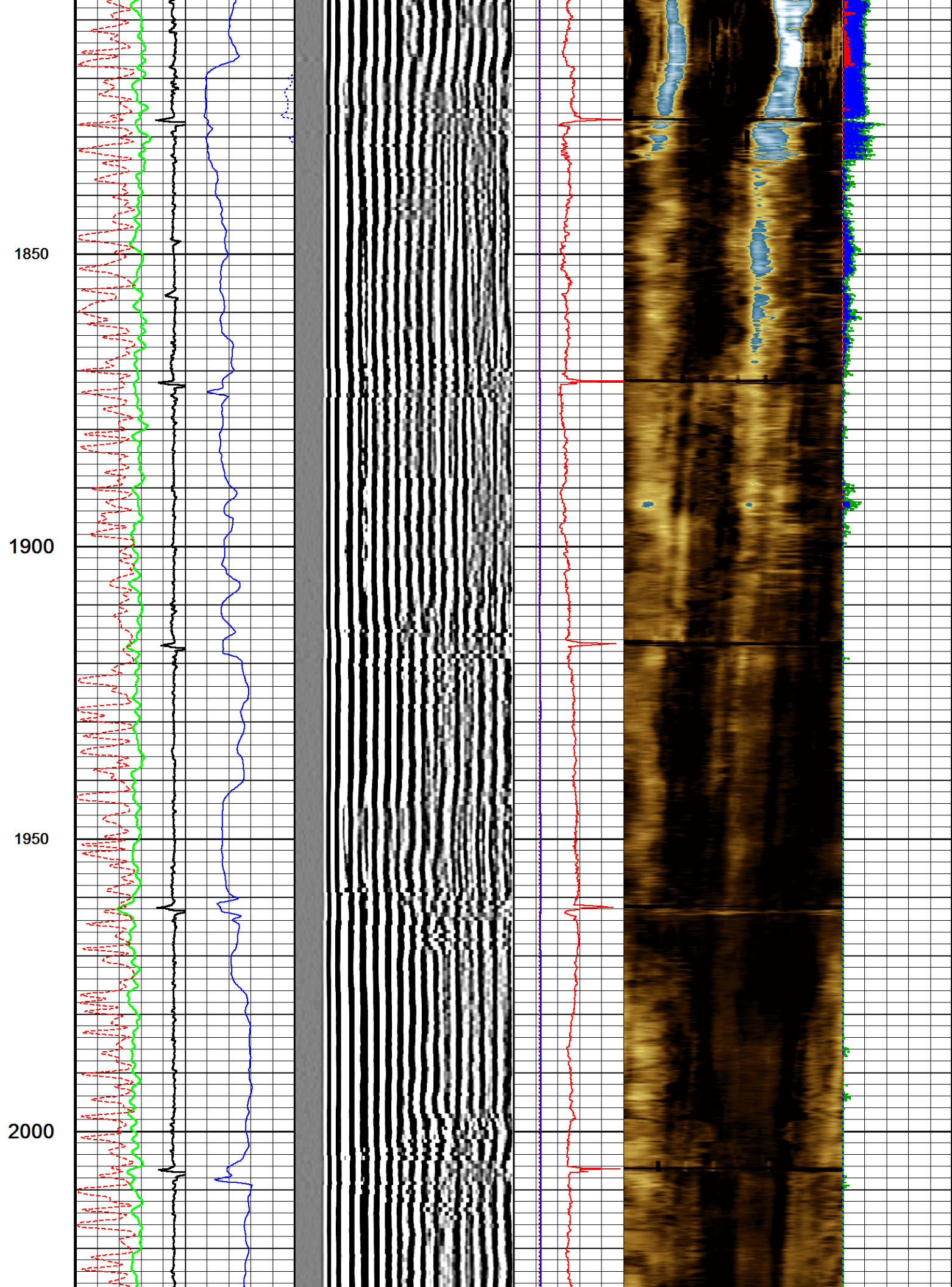
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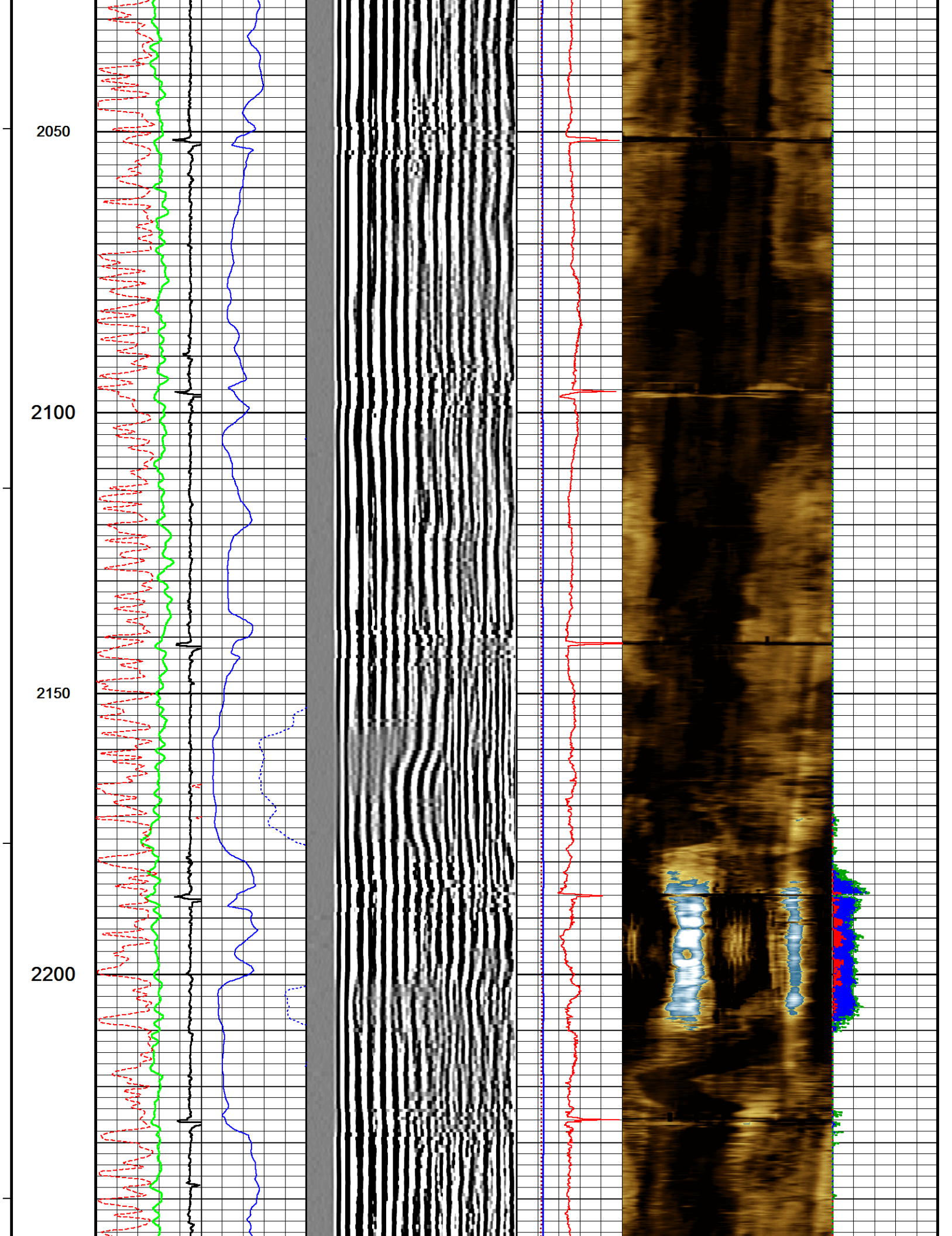
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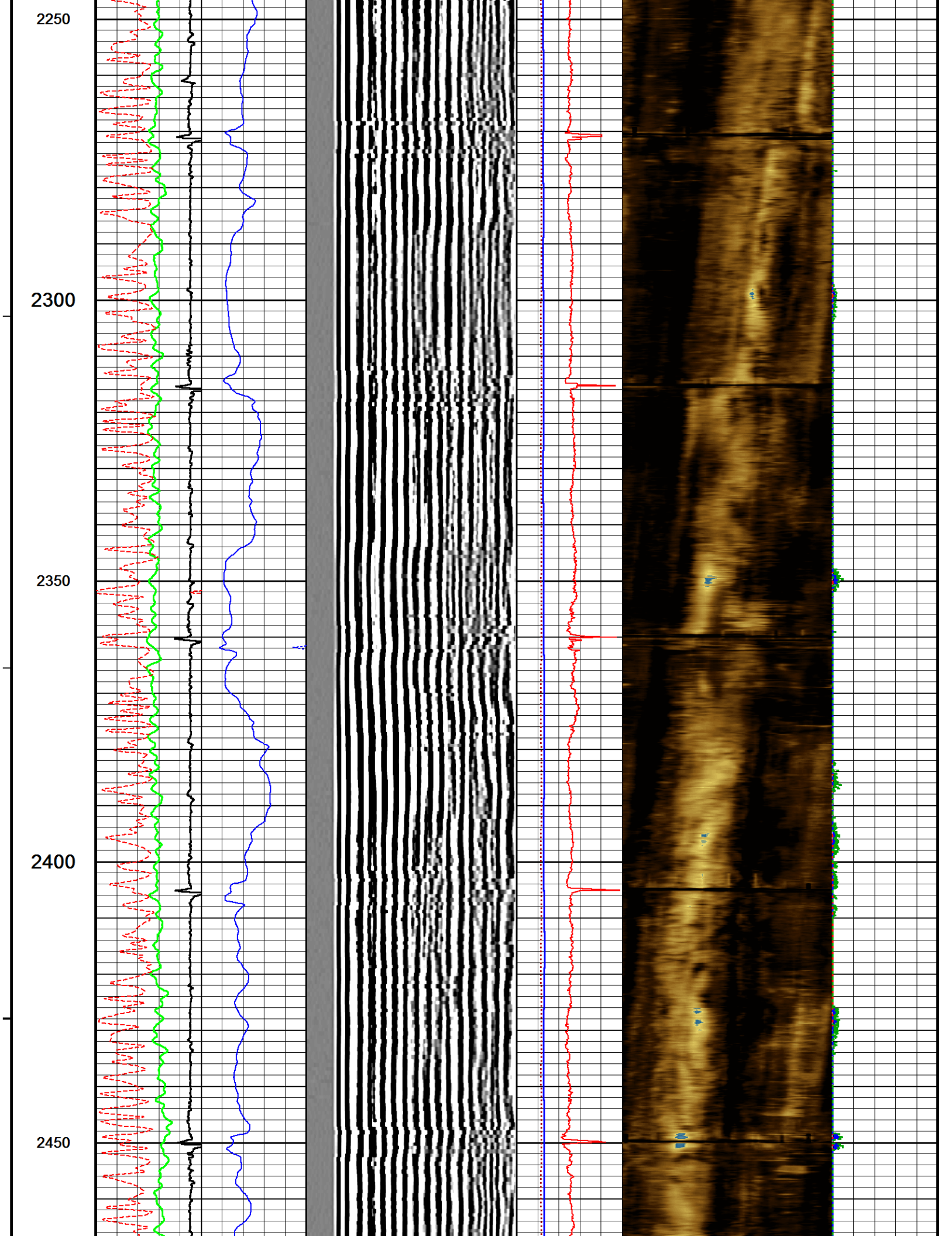












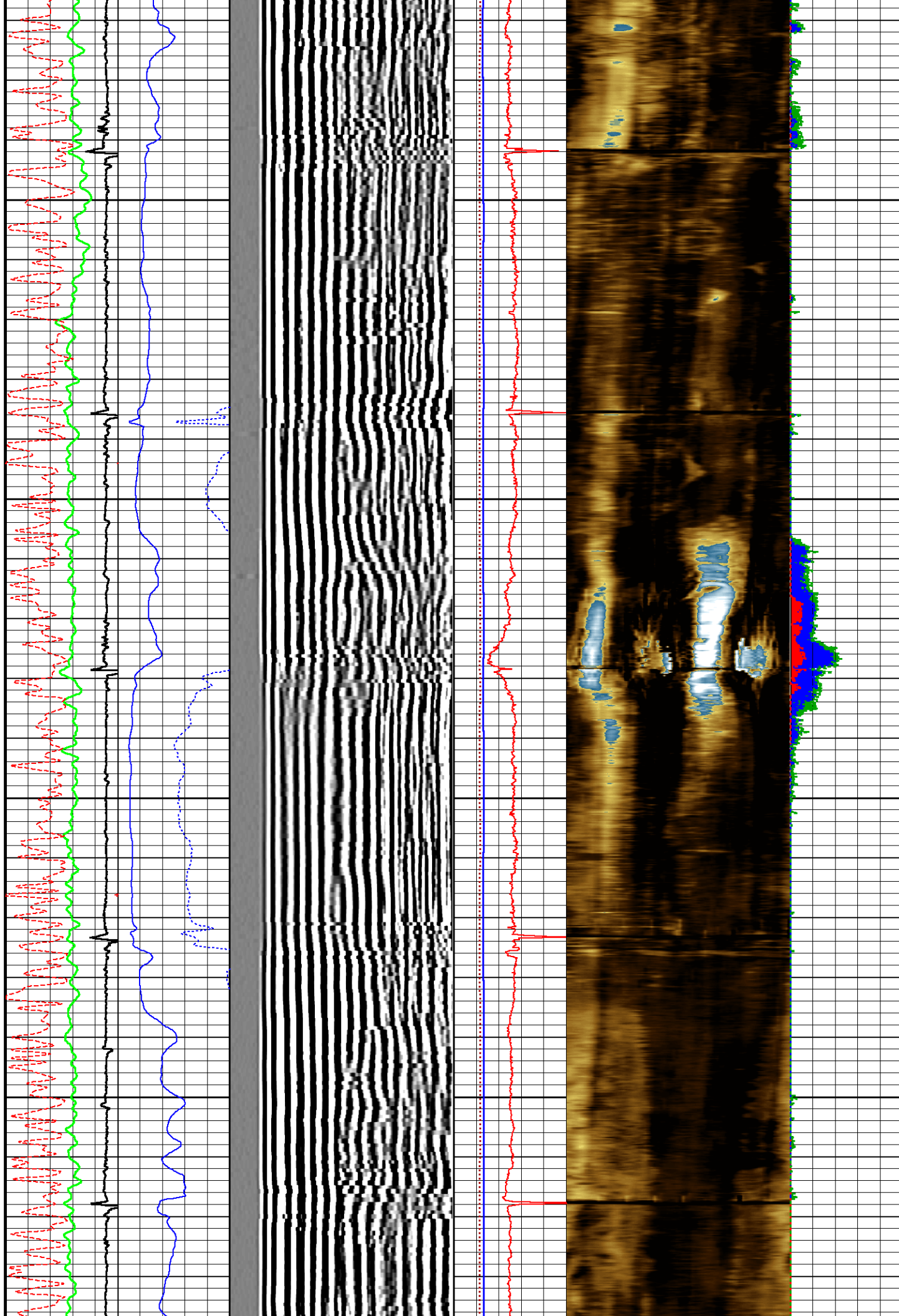


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2600

2650



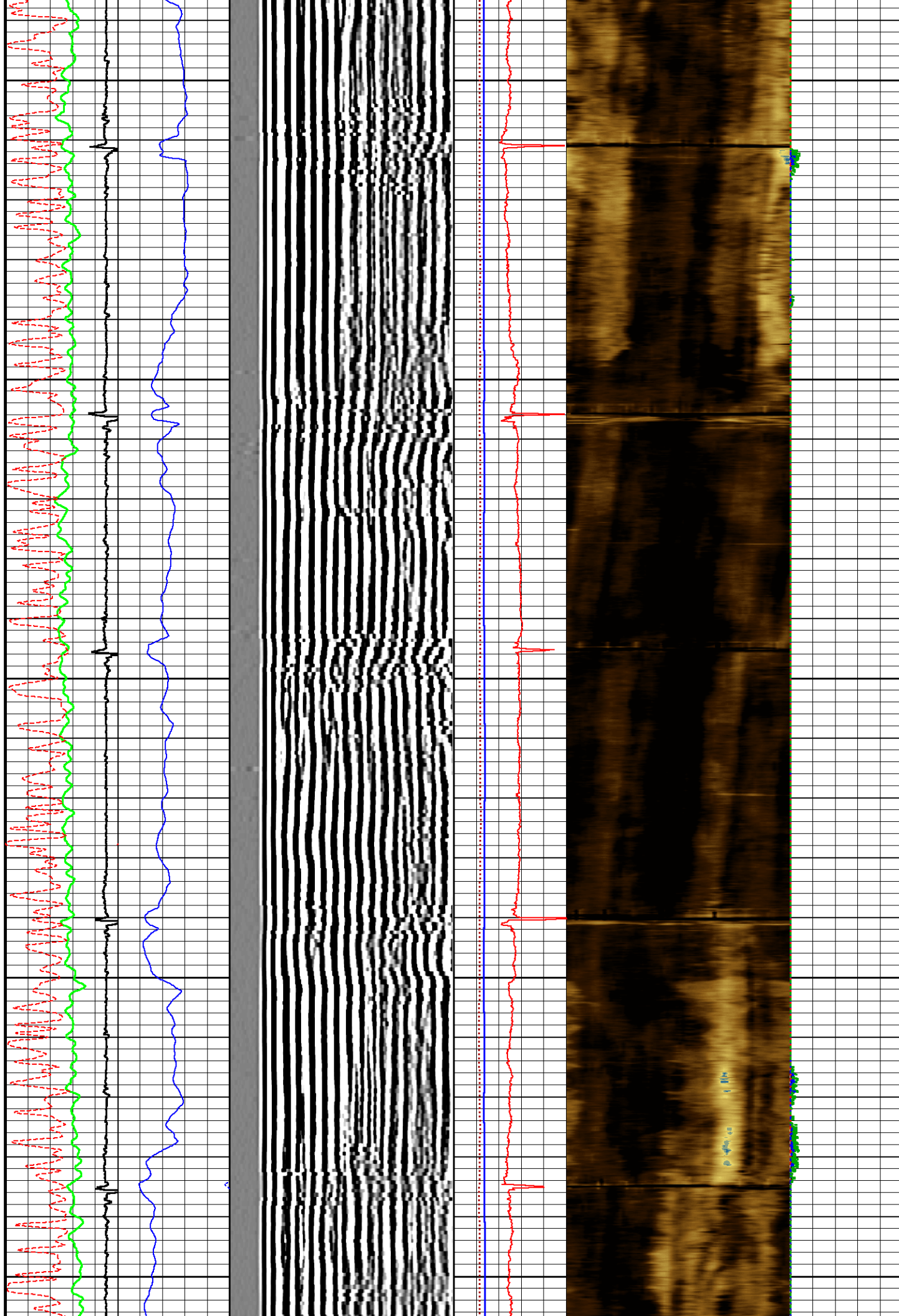
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2850

2900



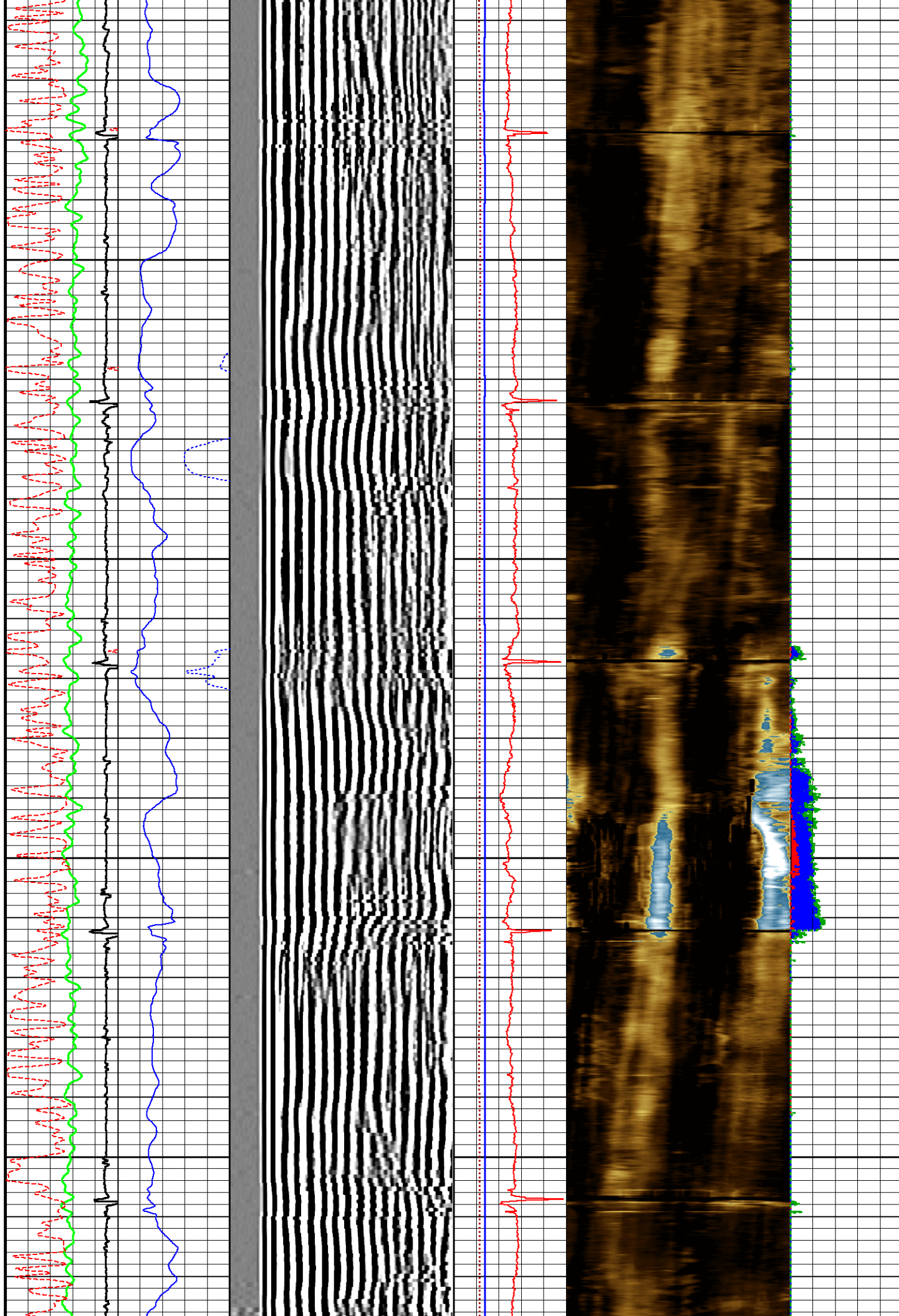


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3000

3050

3100



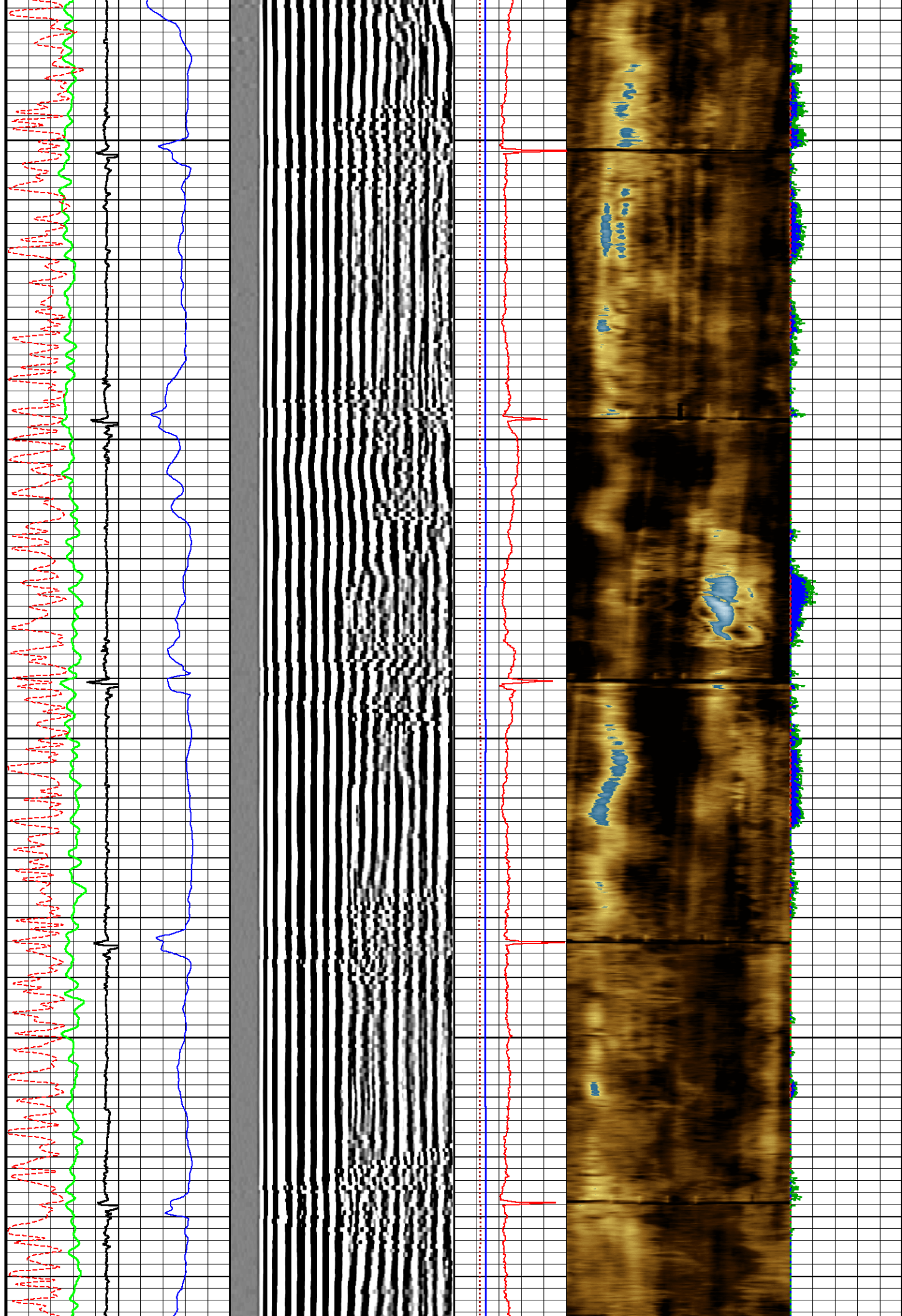


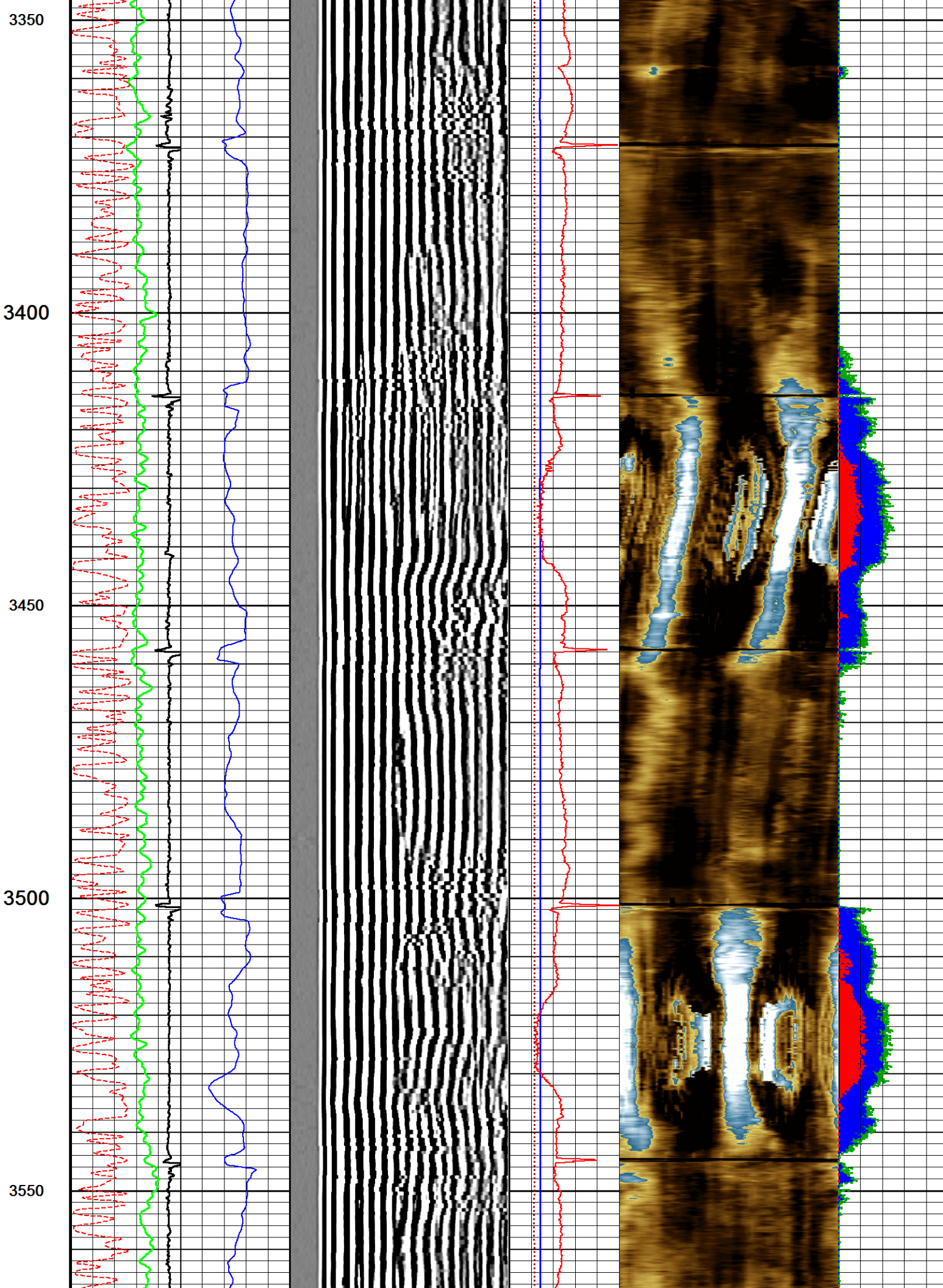
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3200

3250

3300





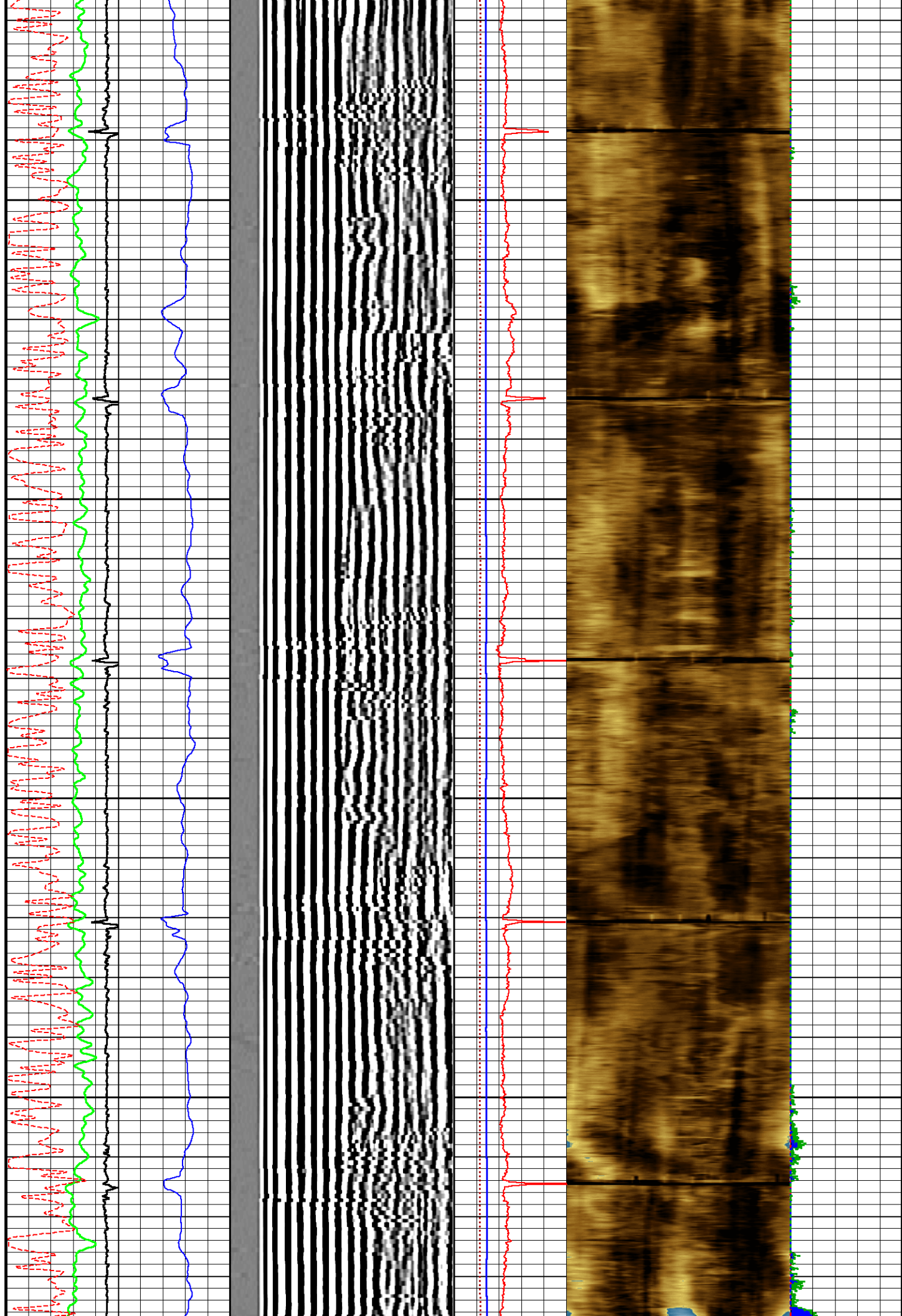


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3650

3700

3750



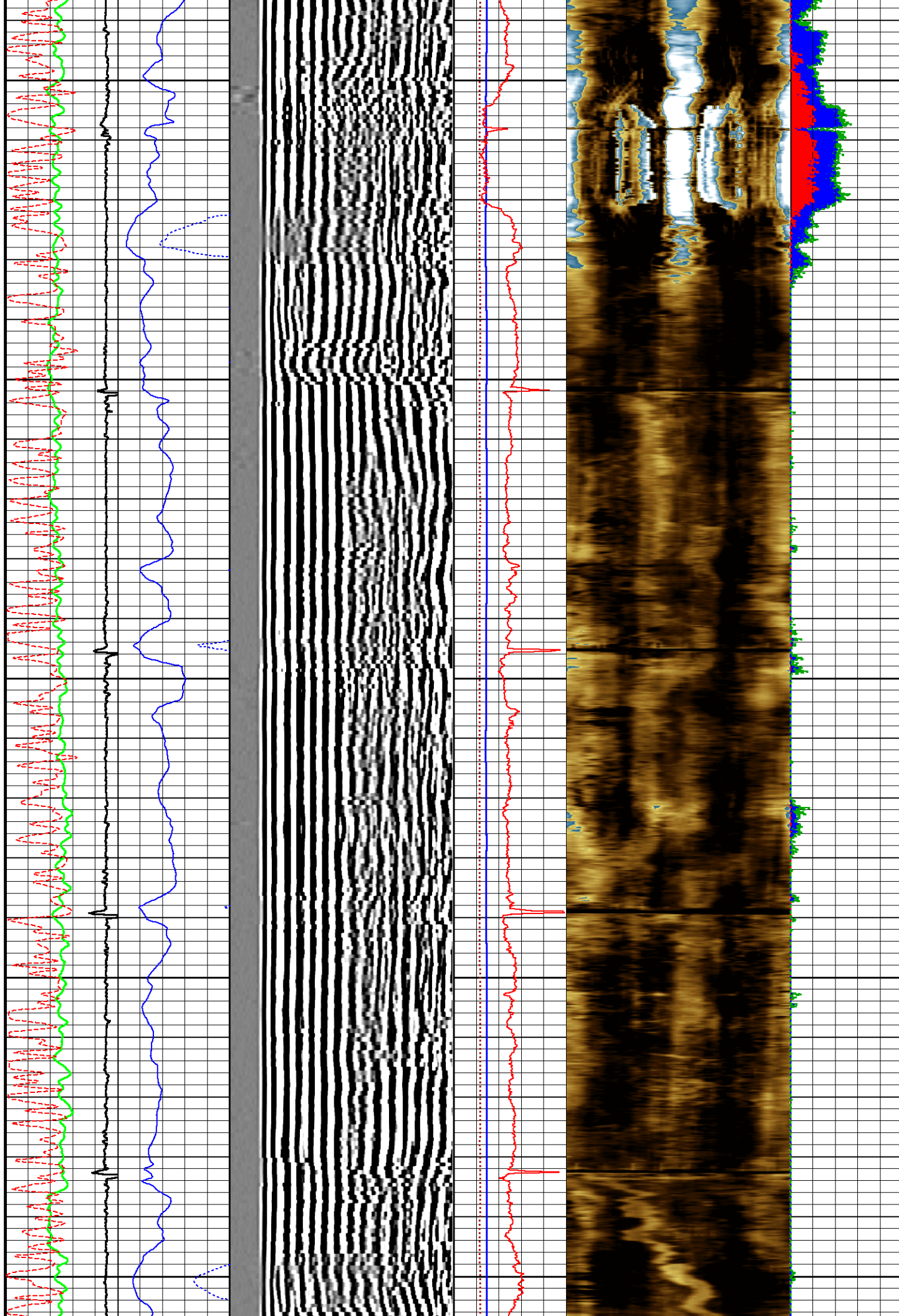
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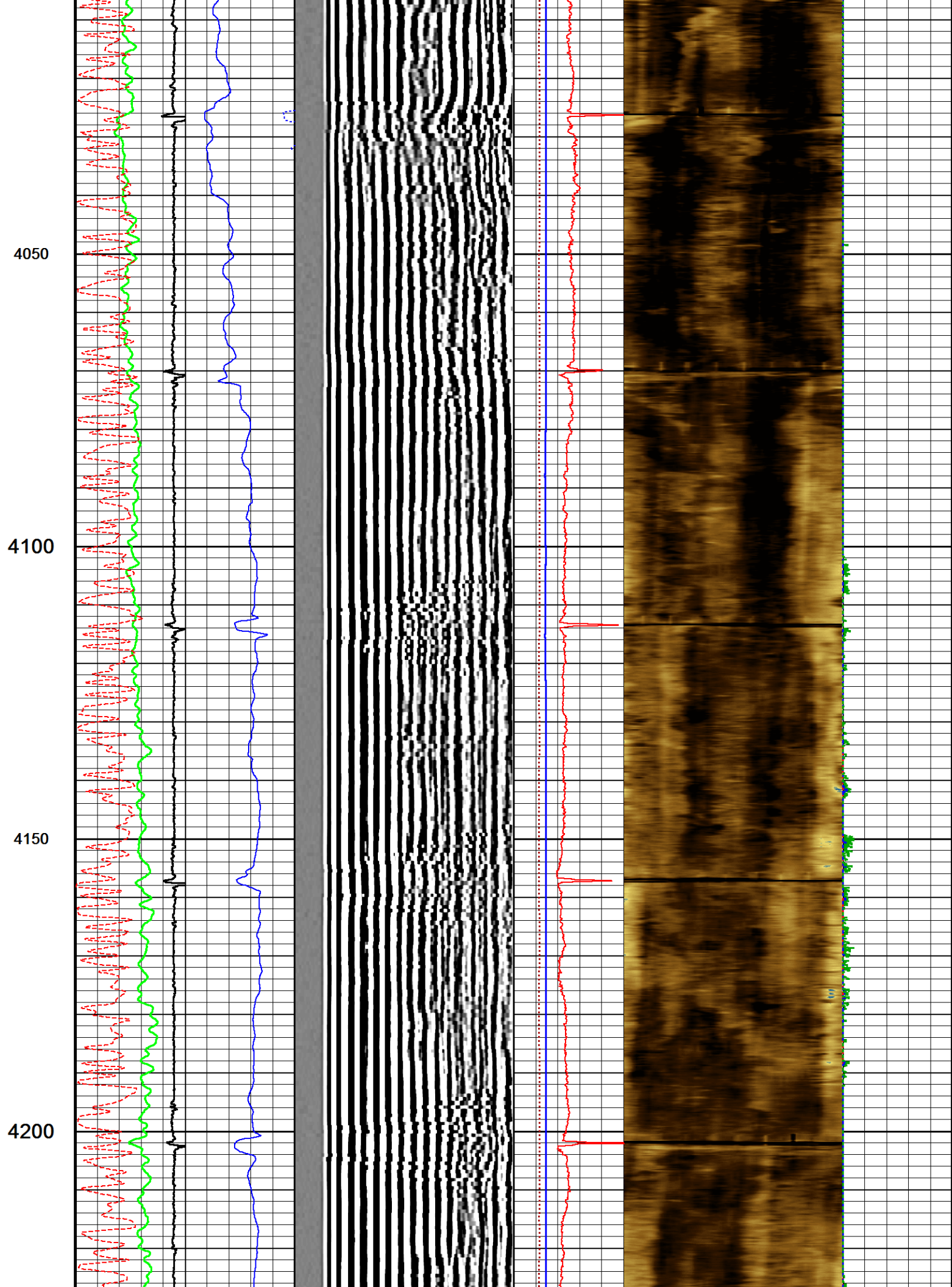
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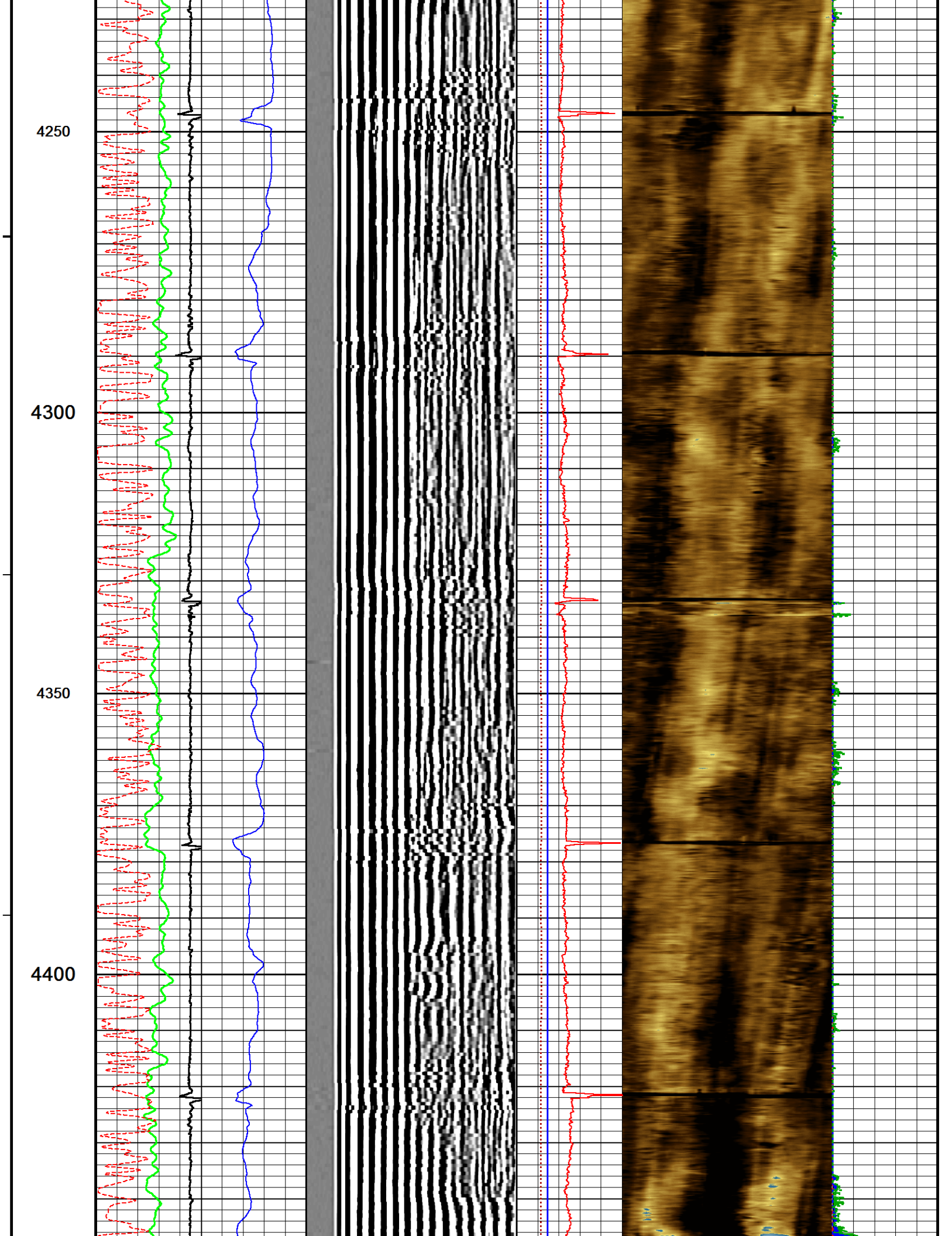
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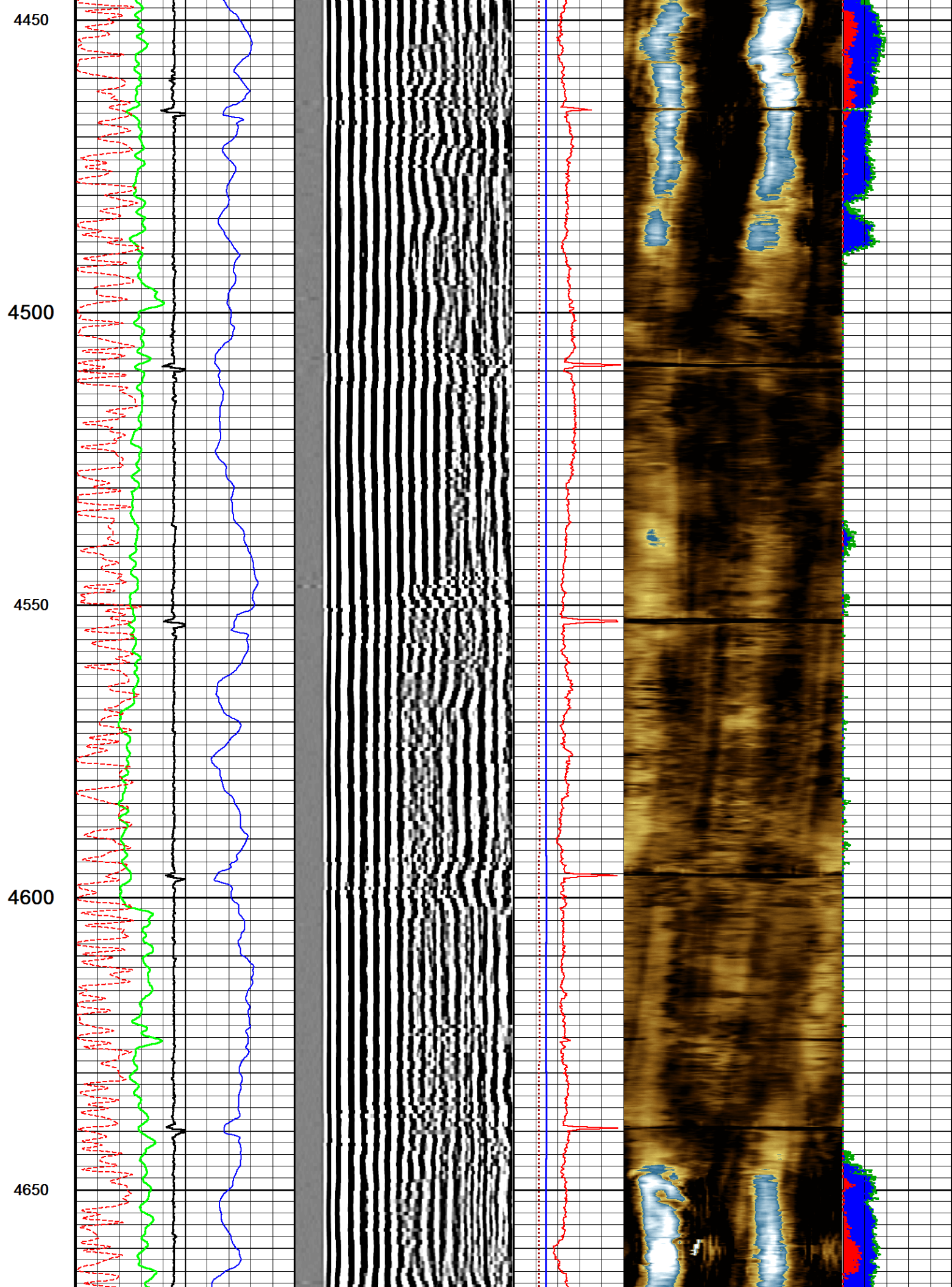










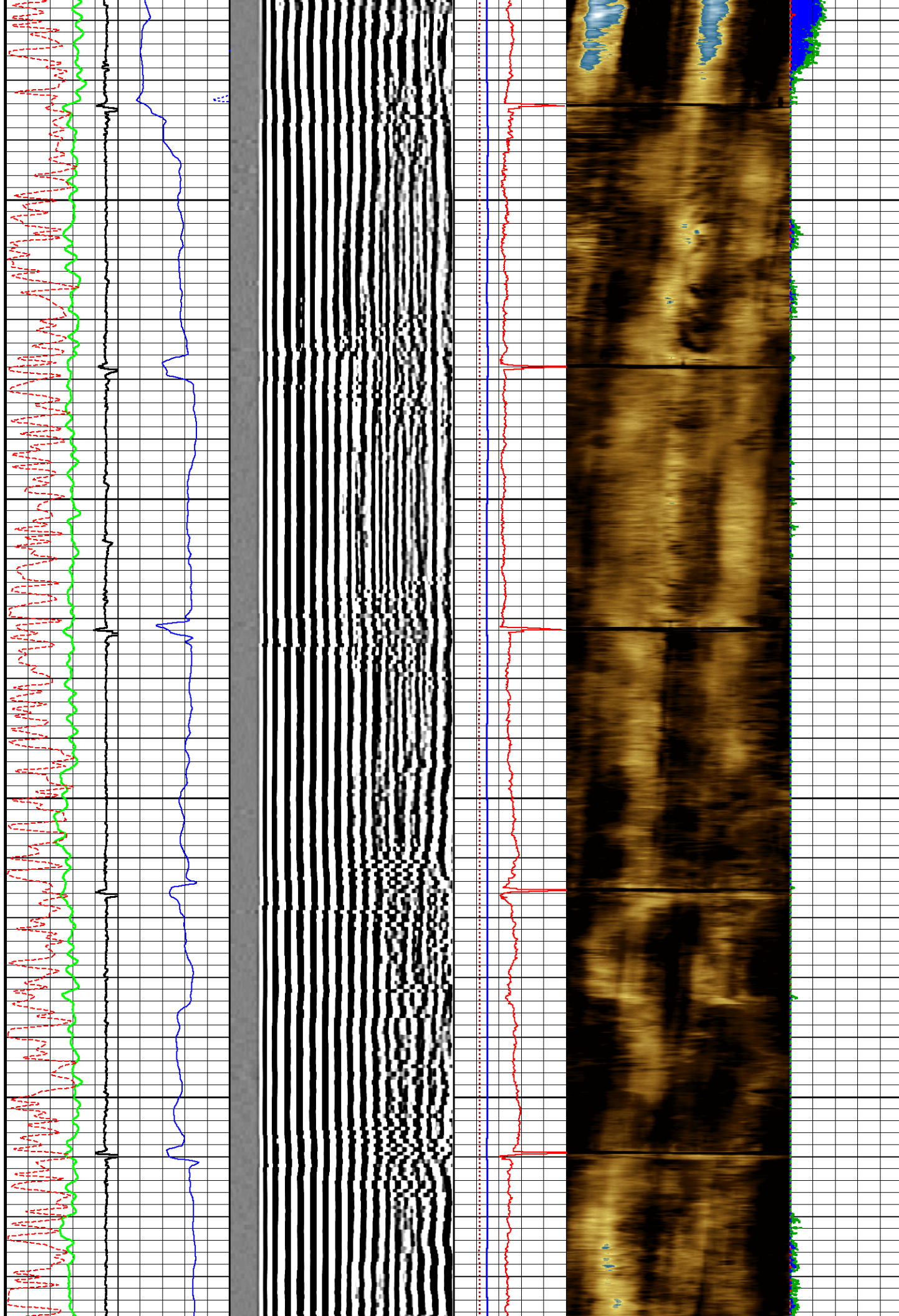


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4800

4850





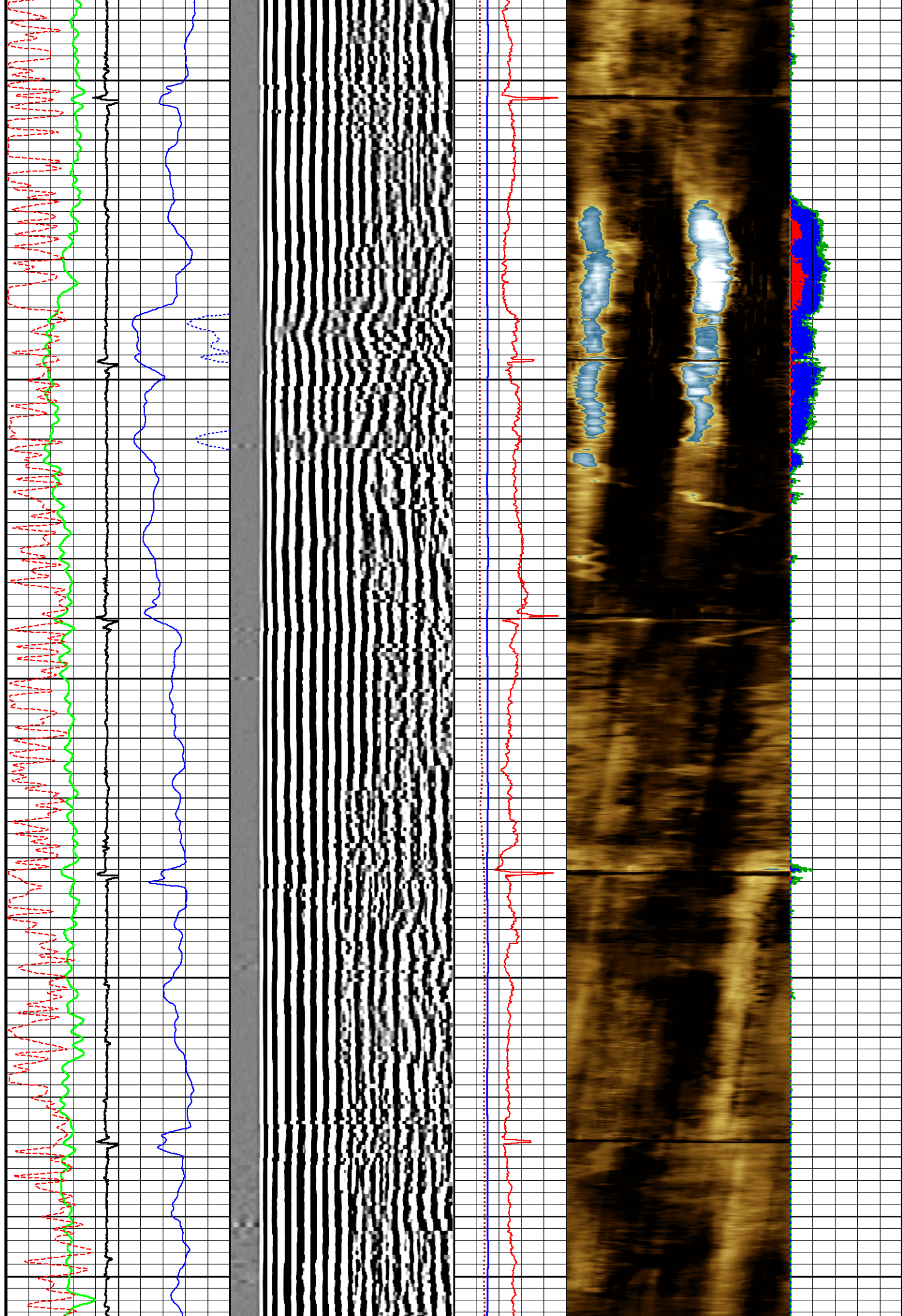
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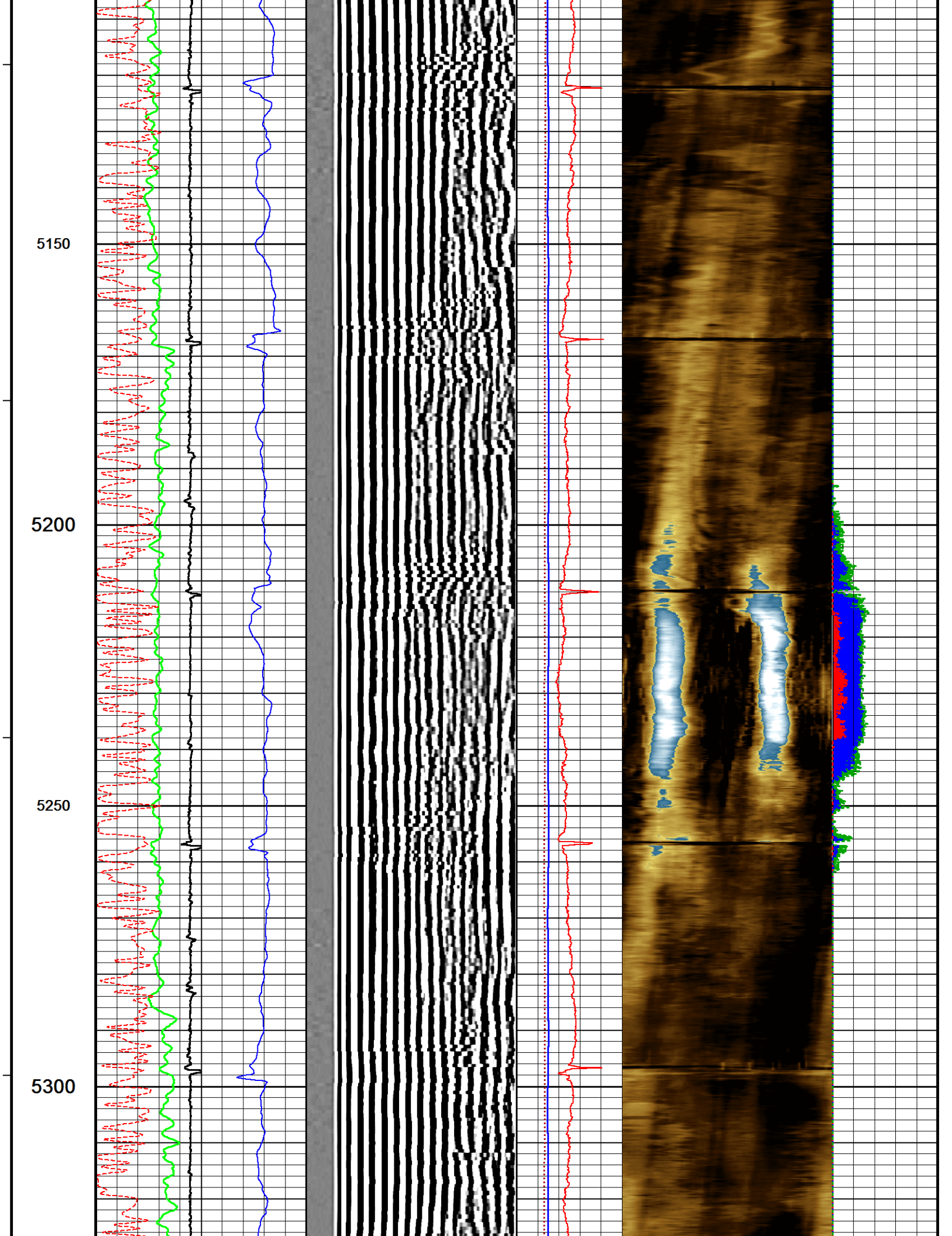
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5100





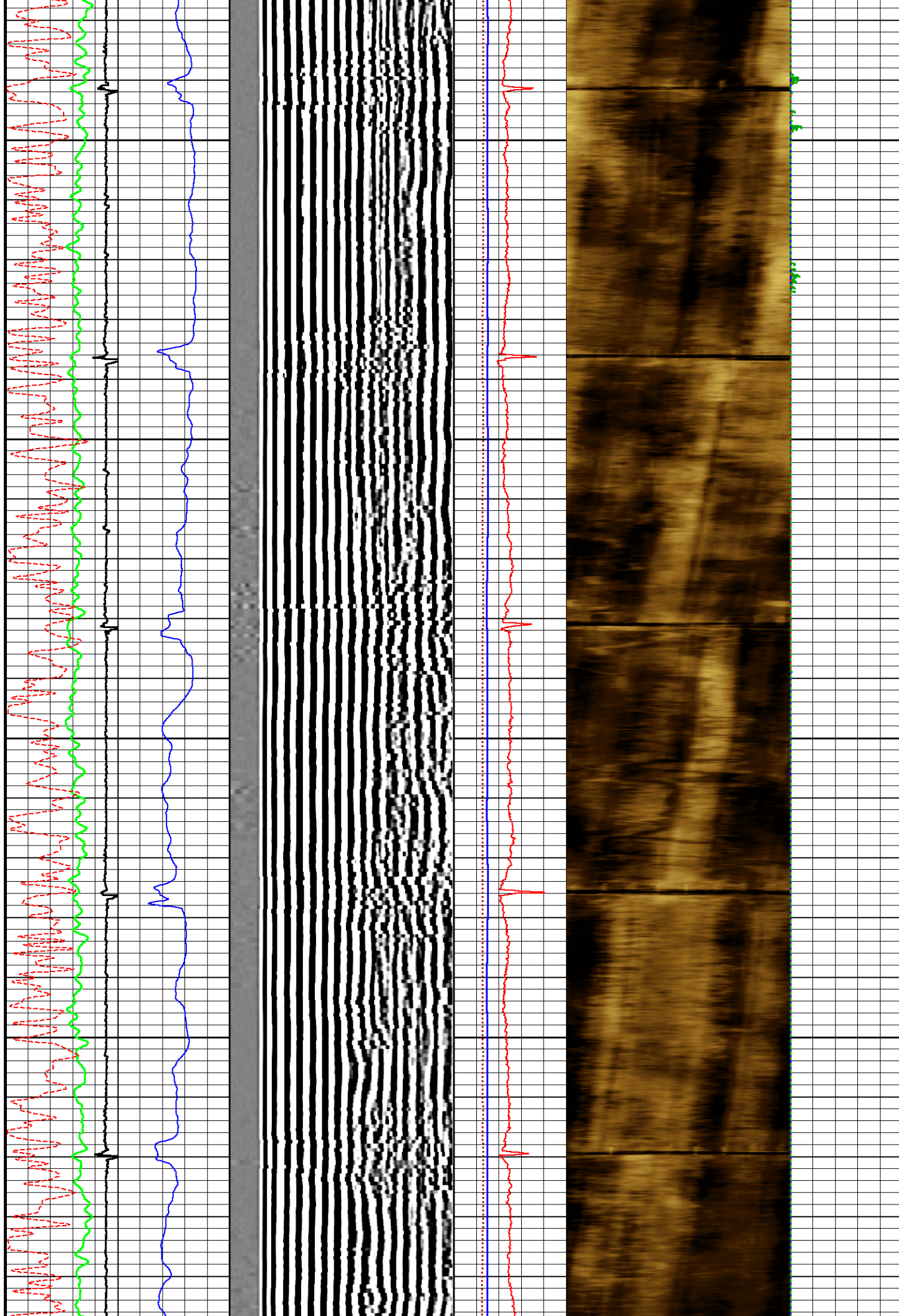


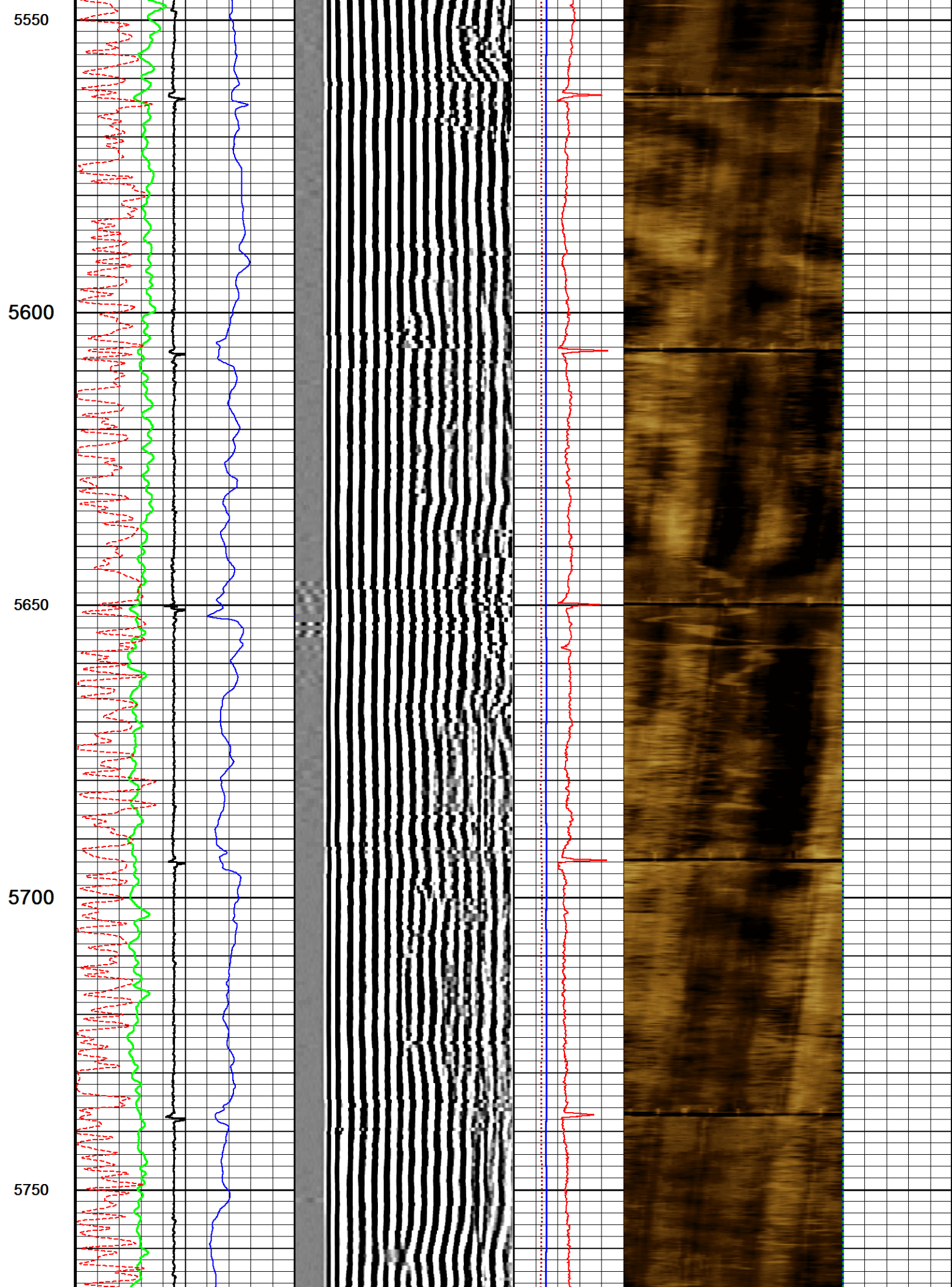
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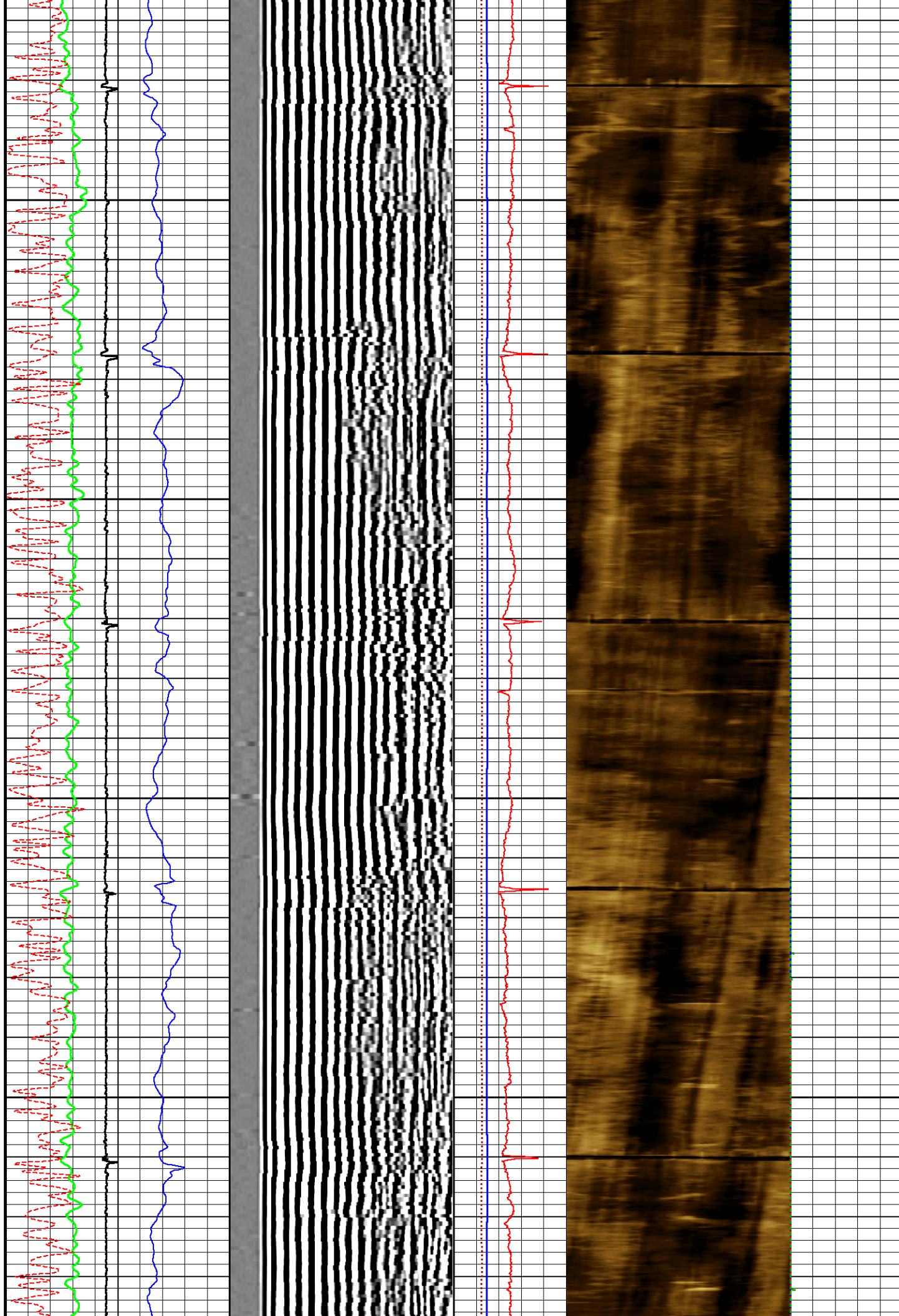


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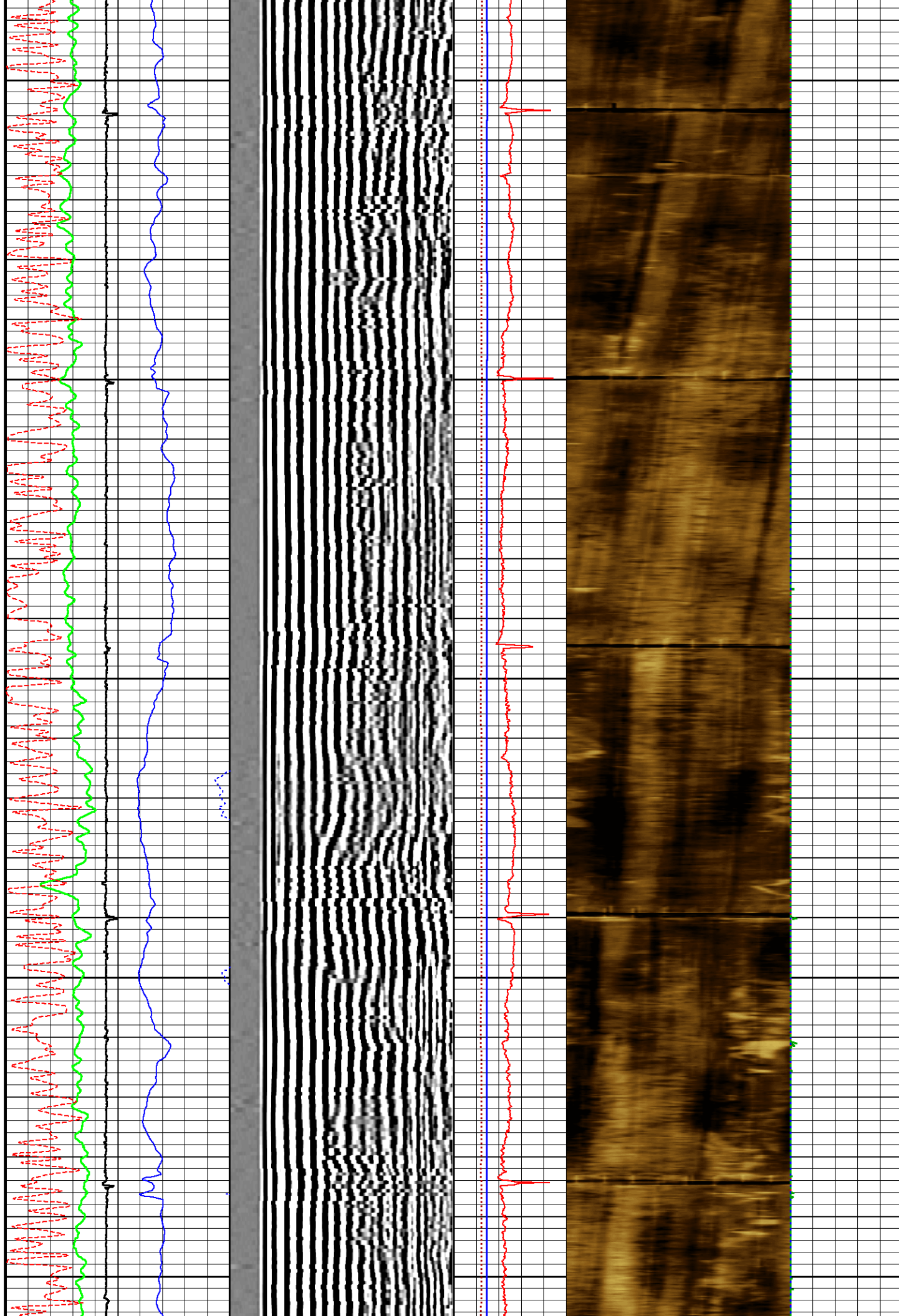
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6200





6250

6300

6350

6400

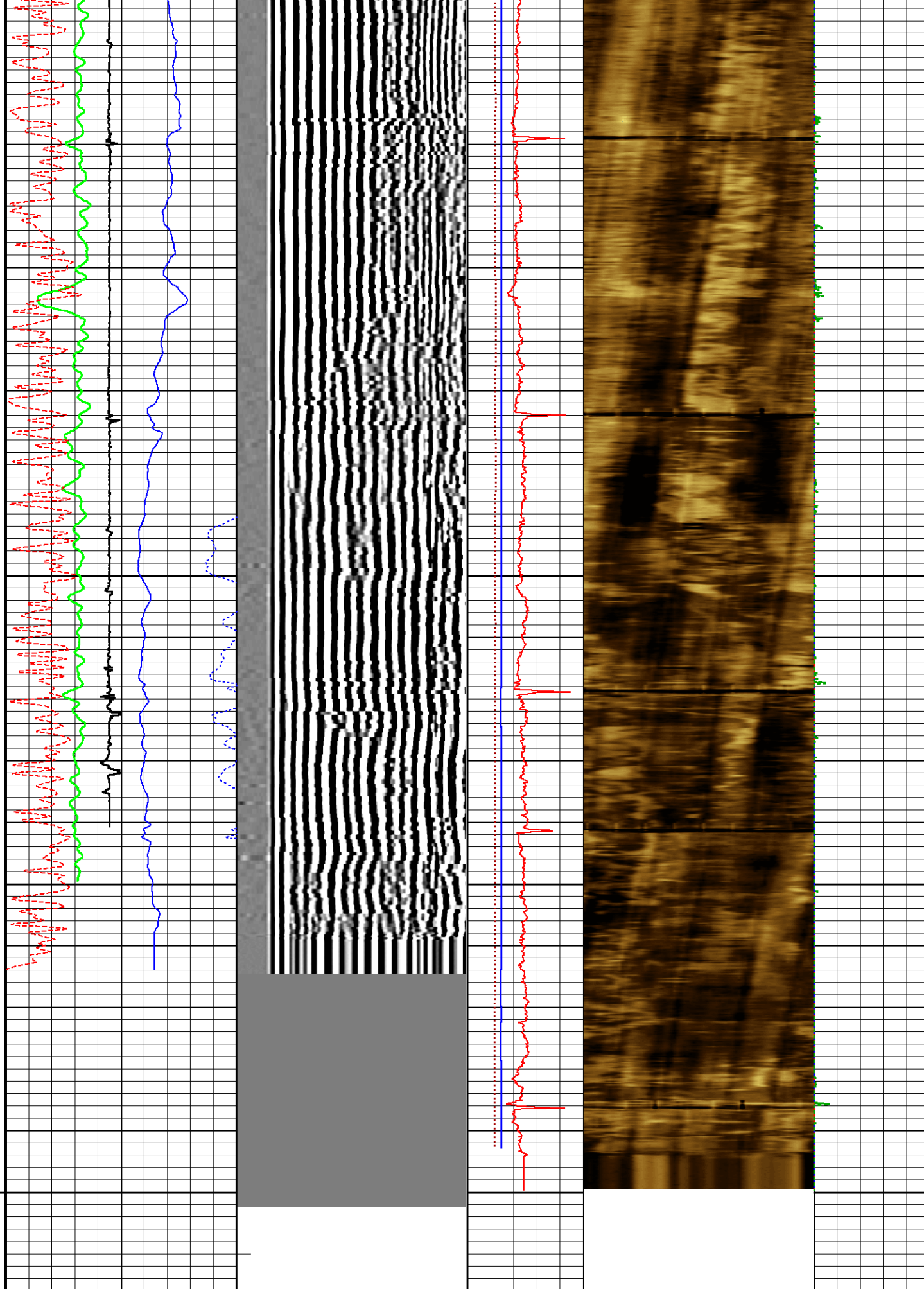
Depth  
in  
Feet

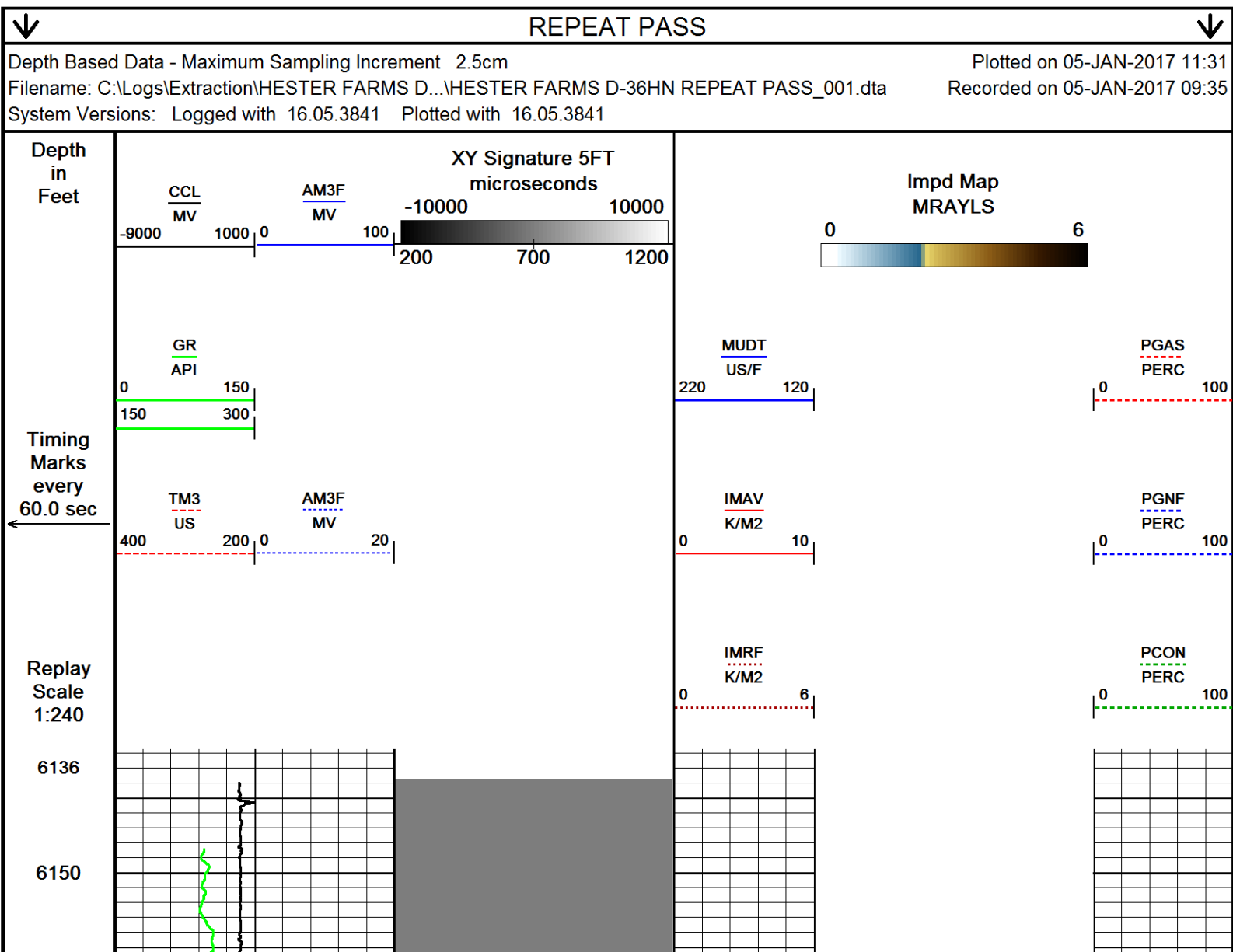
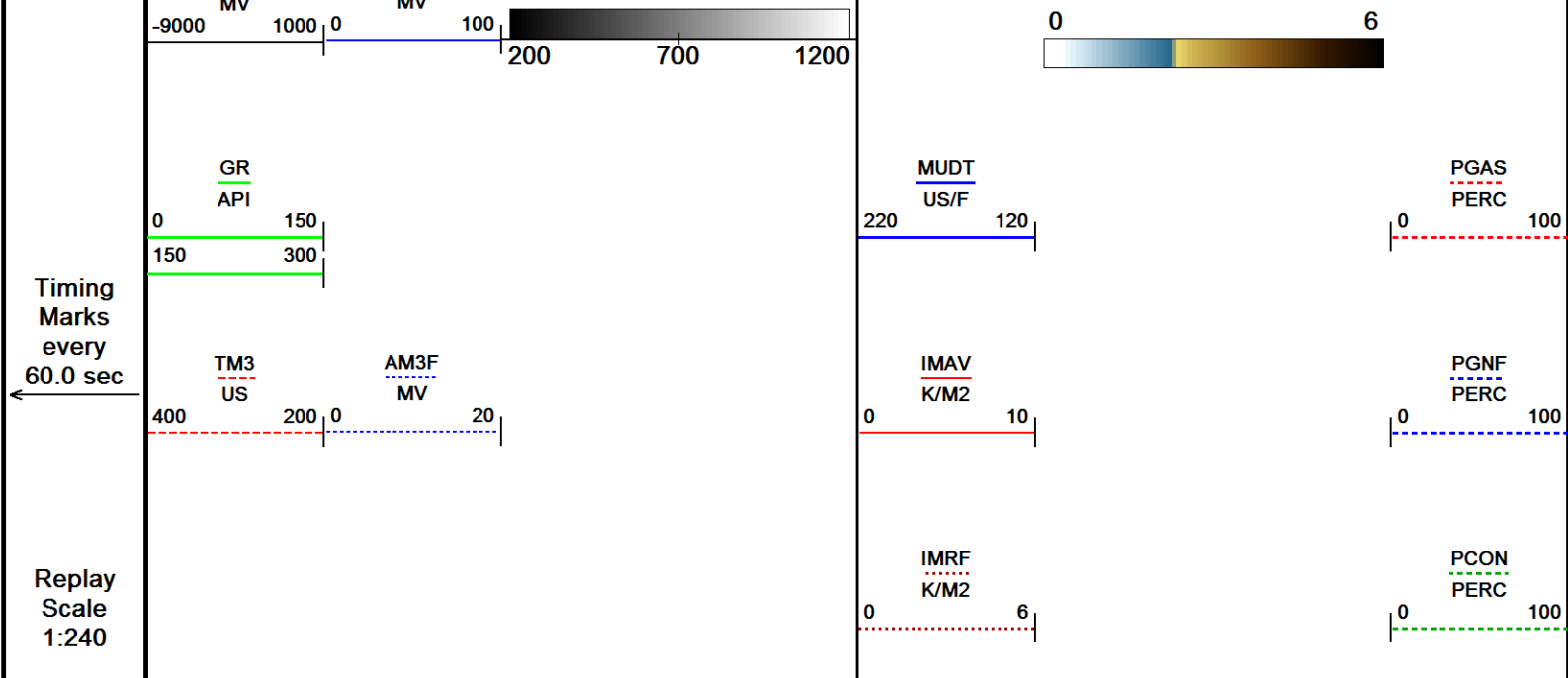
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MV

AM3F  
MV

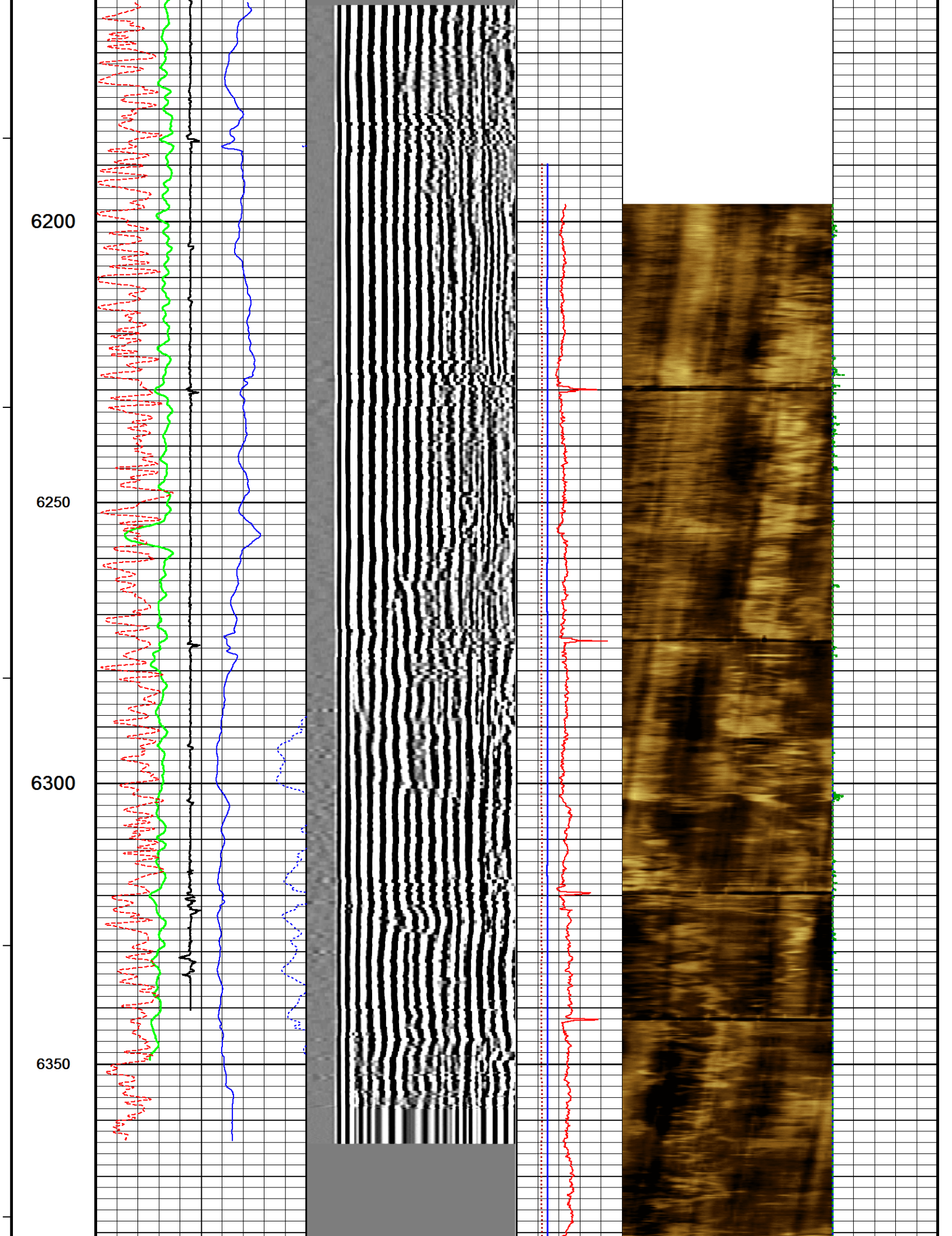
XY Signature 5FT  
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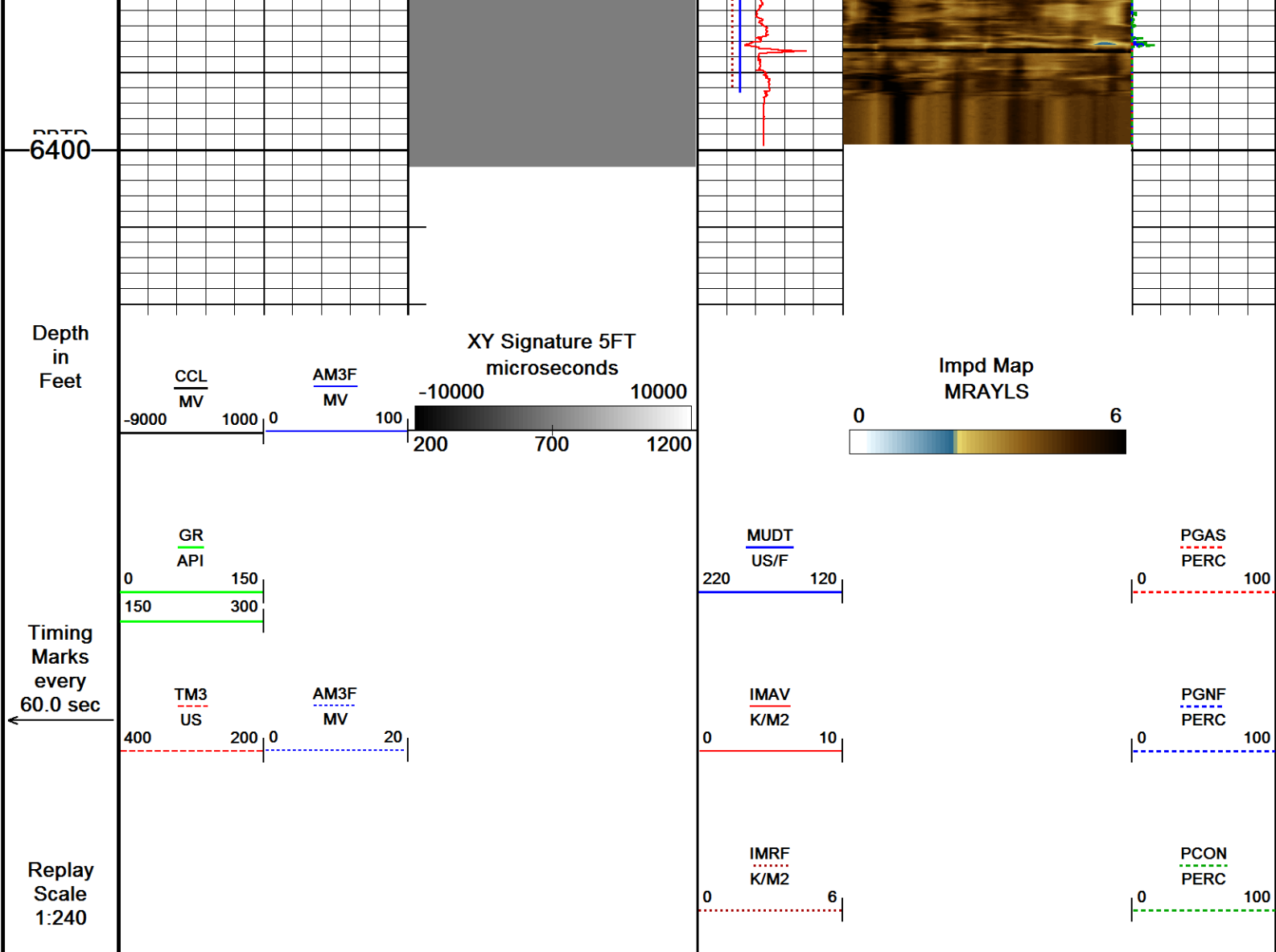
Impd Map  
MRAYLS











Depth Based Data - Maximum Sampling Increment 2.5cm

Filename: C:\Logs\Extraction\HESTER FARMS D-36HN REPEAT PASS\_001.dta

System Versions: Logged with 16.05.3841 Plotted with 16.05.3841

Plotted on 05-JAN-2017 11:31

Recorded on 05-JAN-2017 09:35

REPEAT PASS

### DOWNHOLE EQUIPMENT

C:\Logs\Extraction\HESTER FARMS D-36HN\HESTER FARMS D-36HN MAIN PASS\_001.dta

Mono-Cablehead  
MCH-AA 0 LG: 1.03 ft WT: 2.2 lb OD: 1.457 in

Crossover 11-pin to 55-pin  
XOV-KA 125 LG: 1.46 ft WT: 13.2 lb OD: 3.386 in

Swivel Head 55 pin  
SWH-CC 173 LG: 2.72 ft WT: 77.2 lb OD: 3.346 in

Casing Collar Locator, 55 pin  
CCL-WA 142 LG: 3.01 ft WT: 19.8 lb OD: 2.756 in

59.48 ft CCL - Collar Locator



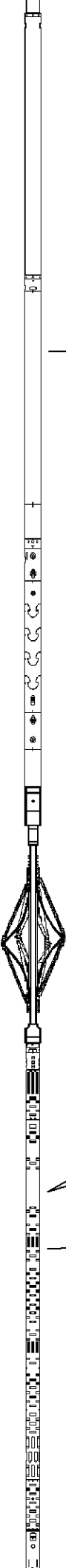
Communication Cartridge 55pin 3-3/8in  
WCC-DA 125 LG: 4.60 ft WT: 63.9 lb OD: 3.386 in

Gamma Ray  
UGR-JD 223 LG: 4.60 ft WT: 81.6 lb OD: 3.386 in

Flexible Joint, URS, 55 Pin  
FTP-FA 131 LG: 4.35 ft WT: 90.4 lb OD: 3.386 in

55 pin Roller Centralizer  
CEN-XA 185 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

Cement Bond Tool  
CBT-AA 101 LG: 10.75 ft WT: 163.1 lb OD: 3.386 in



51.39 ft GR - Gamma Ray

36.70 ft AM3F - Amplitude 3FT  
36.70 ft TM3 - Travel Time 3FT

35.70 ft XY5 - XY Signature 5FT

55 pin Roller Centralizer  
CEN-XA 203 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

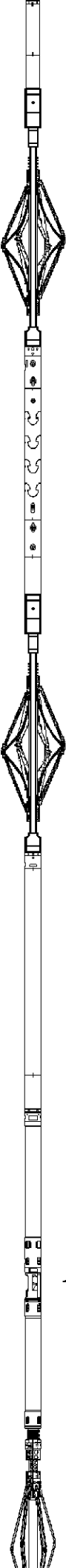
Flexible Joint, URS, 55 Pin  
FTP-FA 182 LG: 4.35 ft WT: 90.4 lb OD: 3.390 in

55 pin Roller Centralizer  
CEN-XA 215 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

URS Electronics Cartridge  
UCC-AA 194 LG: 4.51 ft WT: 79.4 lb OD: 3.386 in

URS Sonde Section  
USS-AB 178 LG: 9.65 ft WT: 167.6 lb OD: 3.386 in

Ultrasonic Radial Scanner Head A  
USH-AB 136 LG: 1.03 ft WT: 13.2 lb OD: 3.386 in



7.65 ft IMRF - Mud Impedance  
7.65 ft MUDT - Mud Slowness



Total Length: 65.54 ft Weight: 1119.9 lb



All measurements relative to tool zero.

## SHOP AND FIELD CALIBRATIONS

C:\Logs\Extraction\HESTER FARMS D-36HN\HESTER FARMS D-36HN MAIN PASS\_001.dta

UGR Field Survey Cal UGR-JD 223

Field calibration on 03-NOV-2016 11:17

### Gamma Ray Field Survey Calibration

Tool Type: UGR-JD  
Calibrator No: TH 047

Serial No: 223

Background	Calibrator	Standard	Units
89.3	548.2	155.0	CPS

Delta Counts Per Sec: 458.9

CPS/API = 2.961

CBT Field Calibration CBT-AA 101

Field calibration on 08-NOV-2016 08:11

### Cement Bond Tool Amplitude Field Calibration

Tool Type	CBT-AA	Serial No	101
-----------	--------	-----------	-----

### Free Pipe Depth

Sensor	Description	Standard(mv)	Measured(mv)
AMP 3 FT	100 % Bond	1.80	0.00
	Free Pipe	55.00	444.54
AMP 5 FT	100 % Bond	1.20	0.00
	Free Pipe	36.00	408.30

CBT Constants CBT-AA 101

Last Edited on 05-JAN-2017 09:25

Min Ampl 100% Bond	2.00 MV
Max Ampl 0% Bond	90.00 MV
Cement Cmpr Strength	580 PSI
Casing Size	5.50 IN
Casing Weight	20.0 LB/F
Casing Velocity	57.00 US/F
DT Fluid	187.0 US/F
Maximum Attenuation	12.00 DB/F
3' TT Correction	0.0 US
Cement Weight	0.00 LB/G

	Measured	Minimum	Maximum	
Free Pipe	-999.250	0.000	0.000	K/M2
Mud Impedance	1.500	0.000	0.000	K/M2

URS Constants USH-AB 136

Last Edited on 05-JAN-2017 09:25

\*\*\* Well Information \*\*\*

\*\* NOTE \*\*

If `Use General Settings` is set to `OFF`, the `ZHead Cal` and `ZMud Cal` values will be obtained from `Depth Specific Settings` entry

\*\* General Settings \*\*

Use General Settings

ON

ZHead Cal Area Ratio

3.85

ZMud Cal Area Ratio

3.90

\*\* Depth Specific Settings \*\*

Dpth Intvl Min(F)	Dpth Intvl Max(F)	Cs Sz (IN)	Cs WT (LB/G)	ZHd Cal ARatio	ZMd Cal ARatio	Thk (IN)	Harmnc K Factor
0.00	1550.00	5.50	36.00	1.50	1.50	0.36	1.00
0.00	11865.00	5.50	20.00	1.50	1.50	0.36	1.00

\*\* Constants \*\*

Thickness Calculated from

ADA

Radius Offset

0.00

Mud Slowness Offset

0.00 US/F

Mud Chamber Equation

Titanium Air Backed

Z\_mud at Calibration

1.60 K/M2

Z\_mud Outside

1.70 K/M2

Gas Impedance Cutoff

0.38 K/M2

Fluid Impedance Cutoff

2.30 K/M2

Contam Impedance Cutoff

2.70 K/M2

Relative Bearing Rotate

OFF


RB Offset Angle

0.00 DEG

Cement Density

14.00 LB/G



WELL			HESTER FARMS D36-HN		
FIELD			WATTENBERG		
PROVINCE/COUNTY			WELD		
COUNTRY/STATE			USA / COLORADO		
Elevation Kelly Bushing	4916	feet	Bottom Log Interval	6400.00	feet
Elevation Drill Floor	4916	feet	Depth Driller	11865.00	feet
Elevation Ground Level	4888	feet	Depth Logger	6400.00	feet
			SECUREVIEW		
			ULTRAVIEW/BONDVIEW		
			CEMENT ANALYSIS		