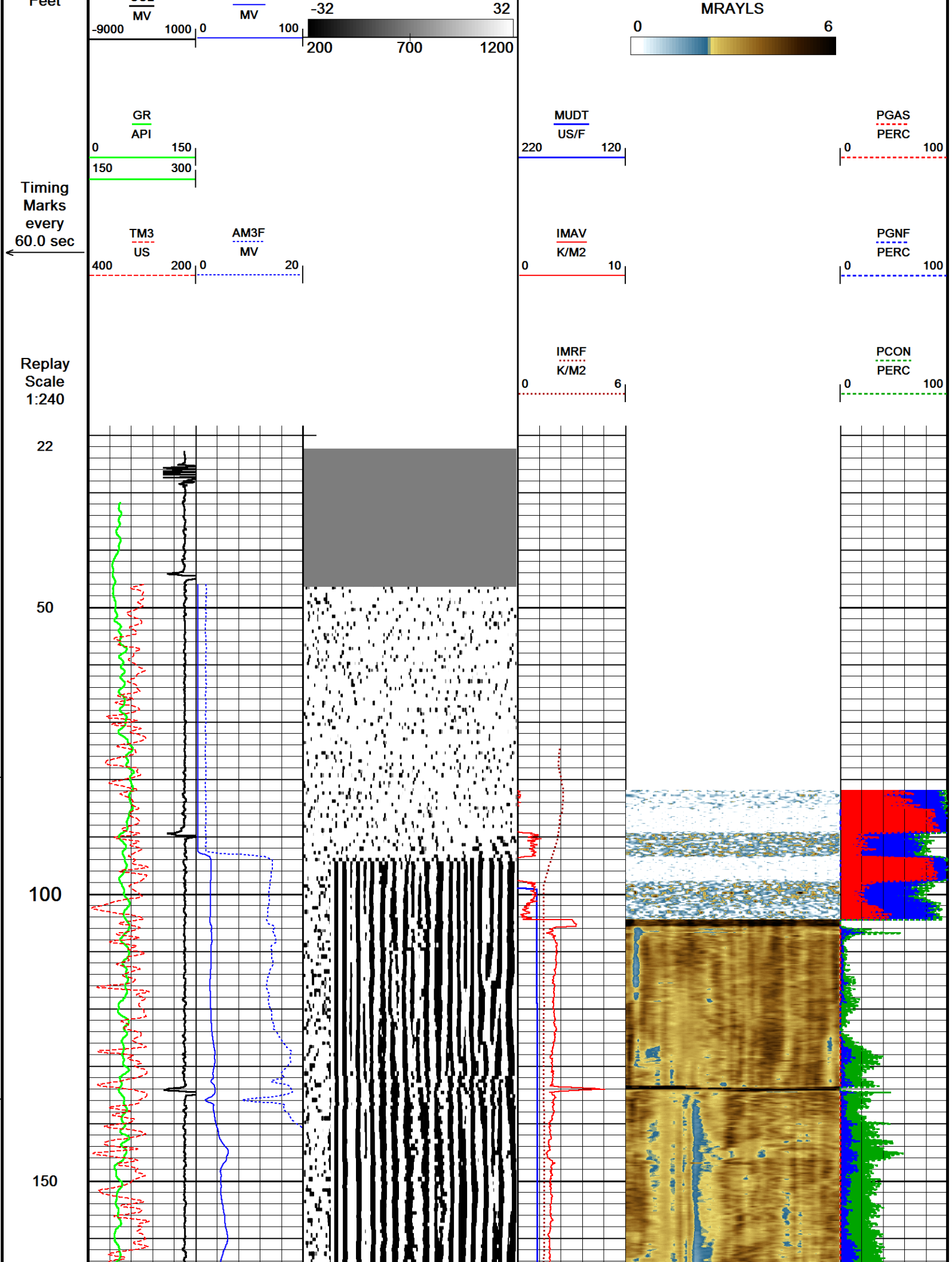
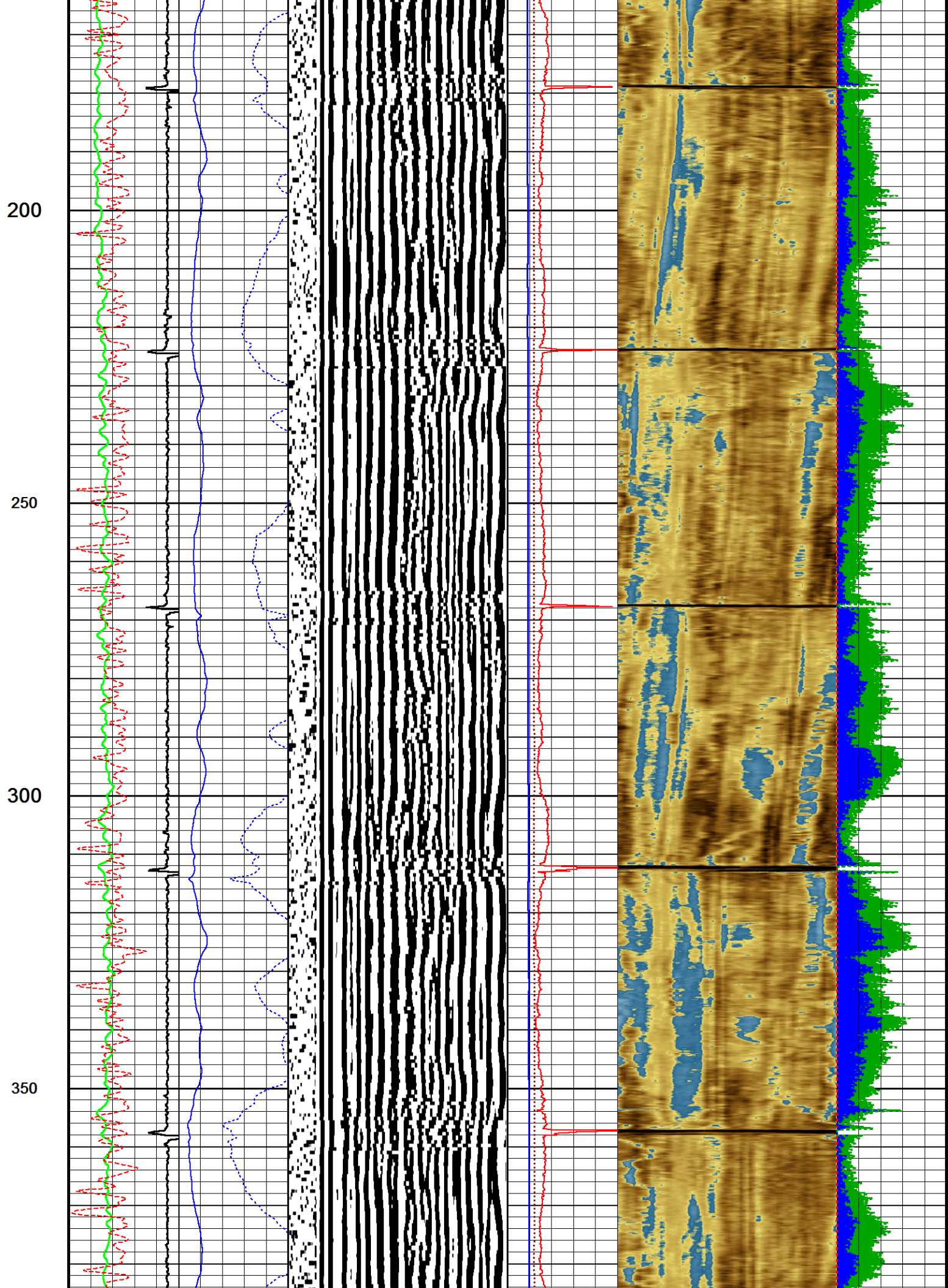
				SECUREVIEW			
Weatherford®				ULTRAVIEW/BONDVIEW			
				CEMENT ANALYSIS			
COMPANY				EXTRACTION OIL & GAS			
WELL				VARRA 2			
FIELD				WATTENBERG			
PROVINCE/COUNTY				WELD			
COUNTRY/STATE				USA / COLORADO			
LOCATION							
SEC 5		TWP 6N	RGE 67W	Other Services			
Latitude		Longitude		Permanent Datum GROUND LEVEL, Elevation 4899 feet Log Measured From KB, 25 feet above Permanent Datum Drilling Measured From KB @ 25'			
API Number		05 123 39982 00					
Date		05-DEC-2016					
Run Number		ONE					
Service Order		168159544		Shot	Number	Depth From	Depth To
Type Log		URS/CBT		Density	of Shots	feet	feet
Depth Driller		16991.00					
Depth Logger		6525.00					
Top Log Interval		0.00					
Bottom Log Interval		6525.00					
Hole Fluid Type		WATER					
Hole Fluid Level		0.00					
Restriction ID		4.767					
Max Recorded Temp				Gun Type			
Well Head Pressure		0.00		Gun Size			
Well Head Equipment				CASING / TUBING RECORD			
Time Well Ready		ROA		Size	Weight	Depth From	Depth To
Time Logger Bottom		SEE LOG		inches	pounds/ft	feet	feet
Unit		14338		9.625	36.00	0.00	1611.00
Equipment Name		WSSE		5.500	20.00	0.00	16991.00
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
SURFACE			9.625	0.00	1611.00	36.00
PRODUCTION			5.500	0.00	16991.00	20.00

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 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.

MAIN PASS		
Depth Based Data - Maximum Sampling Increment 2.5cm		Plotted on 05-DEC-2016 21:45
Filename: C:\Logs\Extraction\VARRA 2\VARRA 2 MAIN PASS.dta		Recorded on 05-DEC-2016 14:45
System Versions: Logged with 16.05.3841 Plotted with 16.05.3841		
Depth in Feet	XY Signature 5FT microseconds	Impd Map
CCI	AM3F	





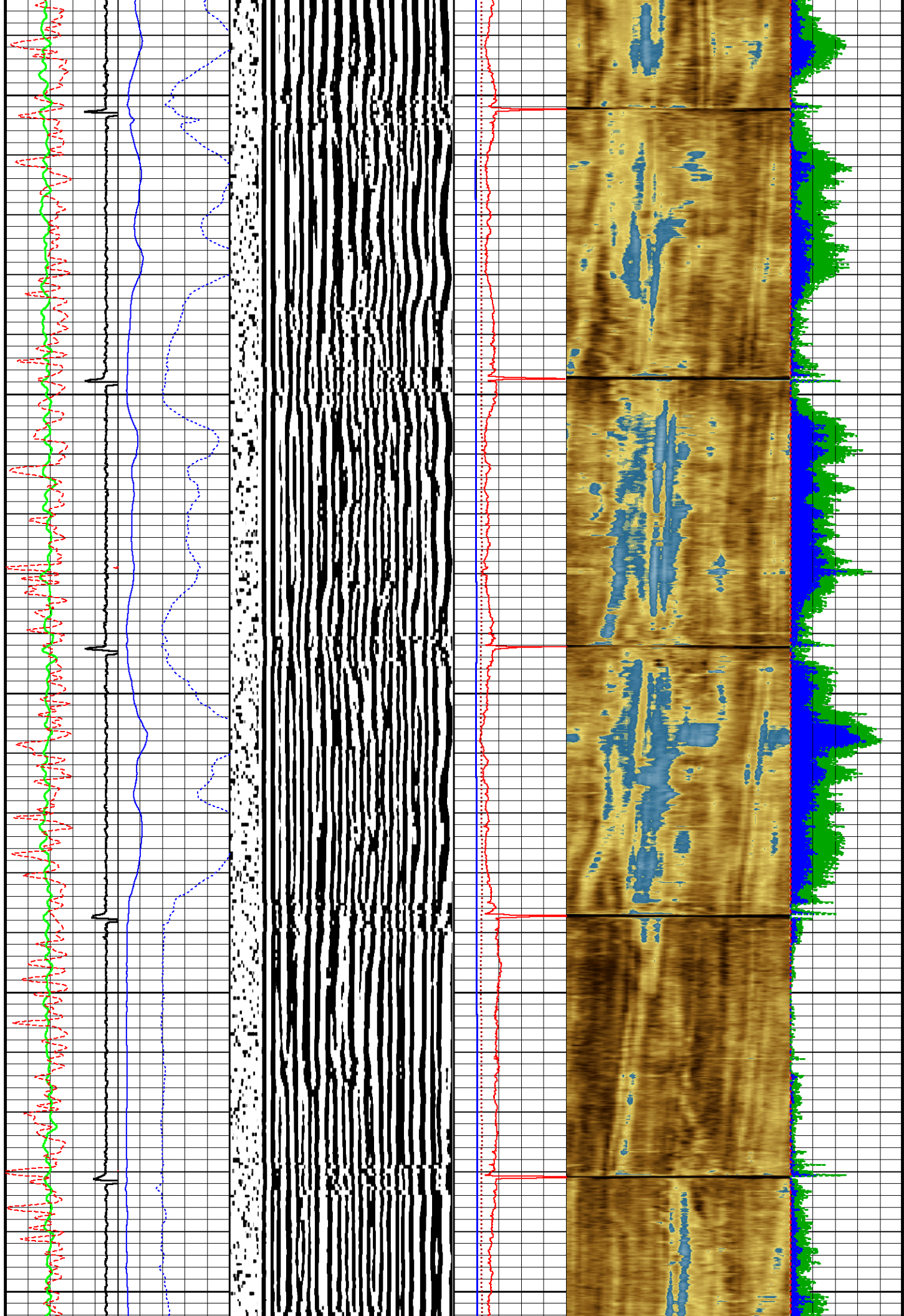
400

450

500

550

600

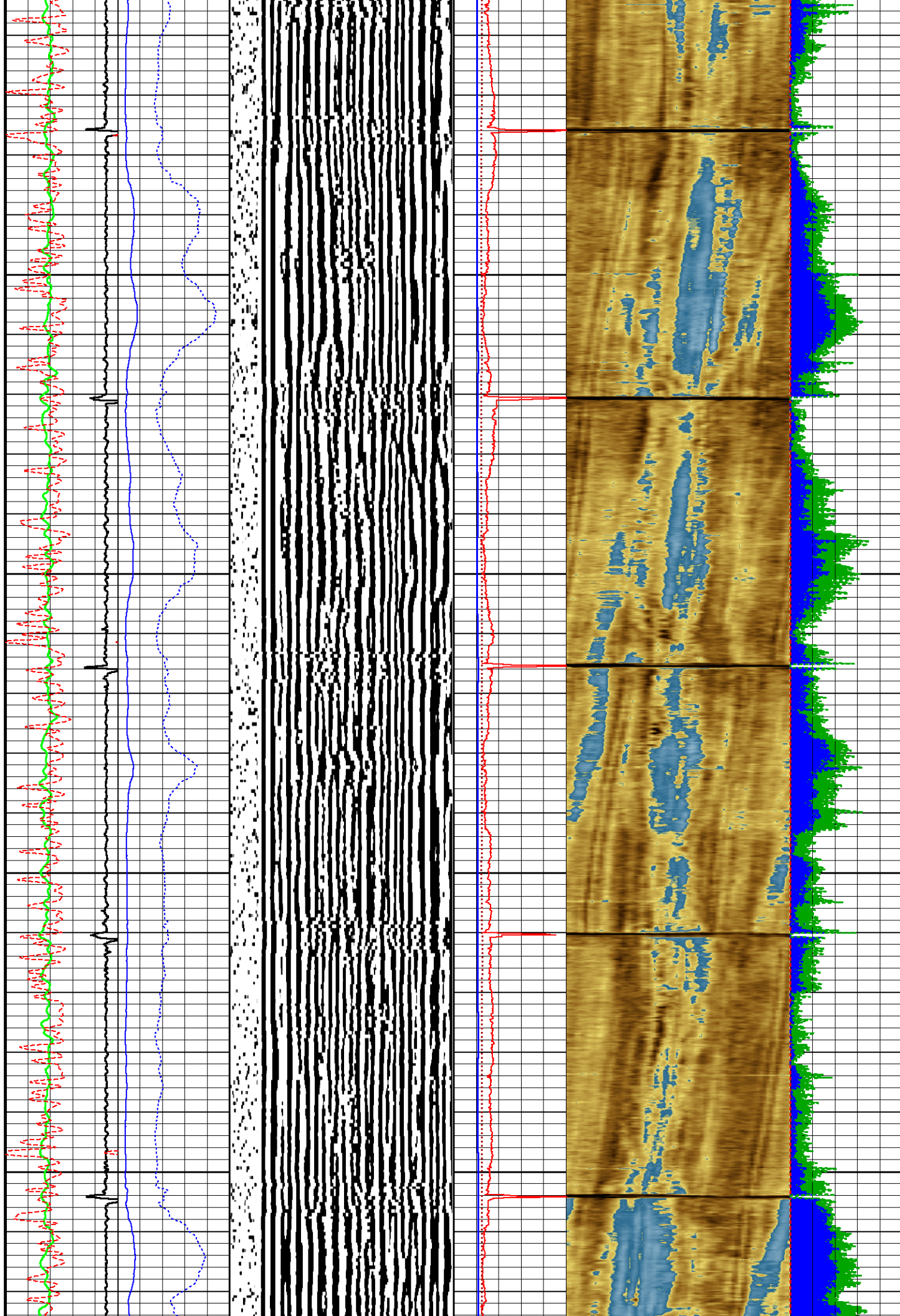


650

700

750

800

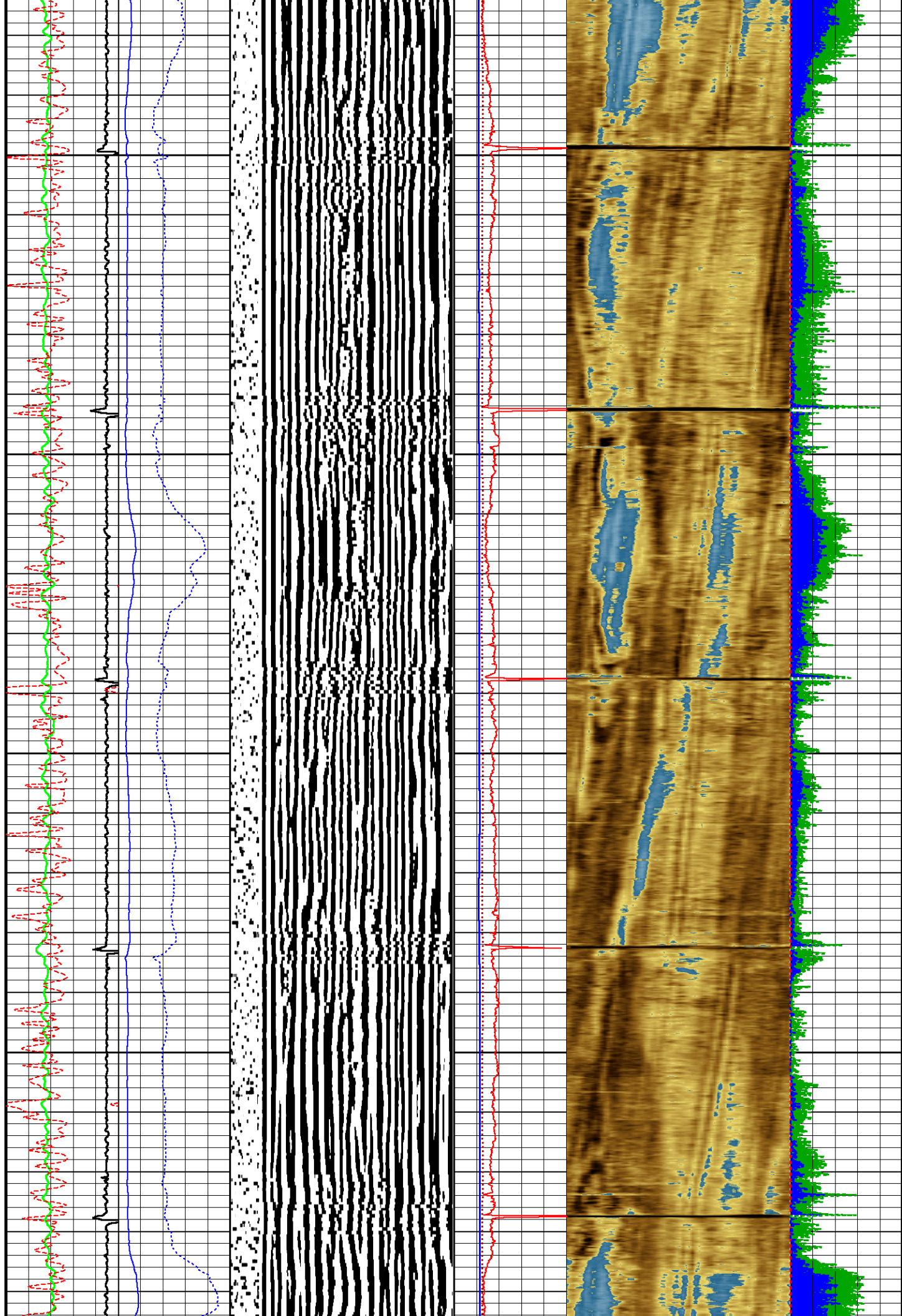


850

900

950

1000



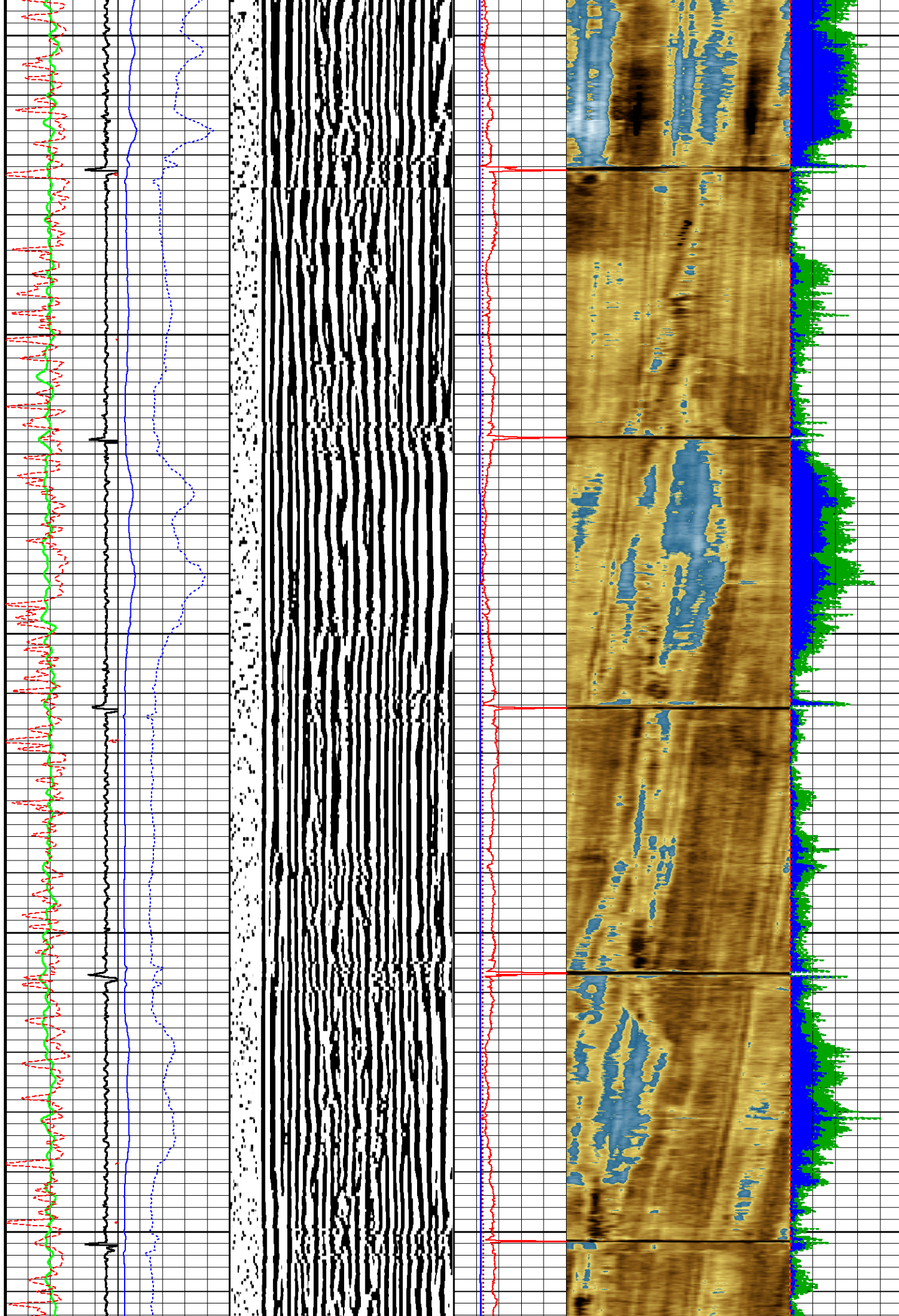
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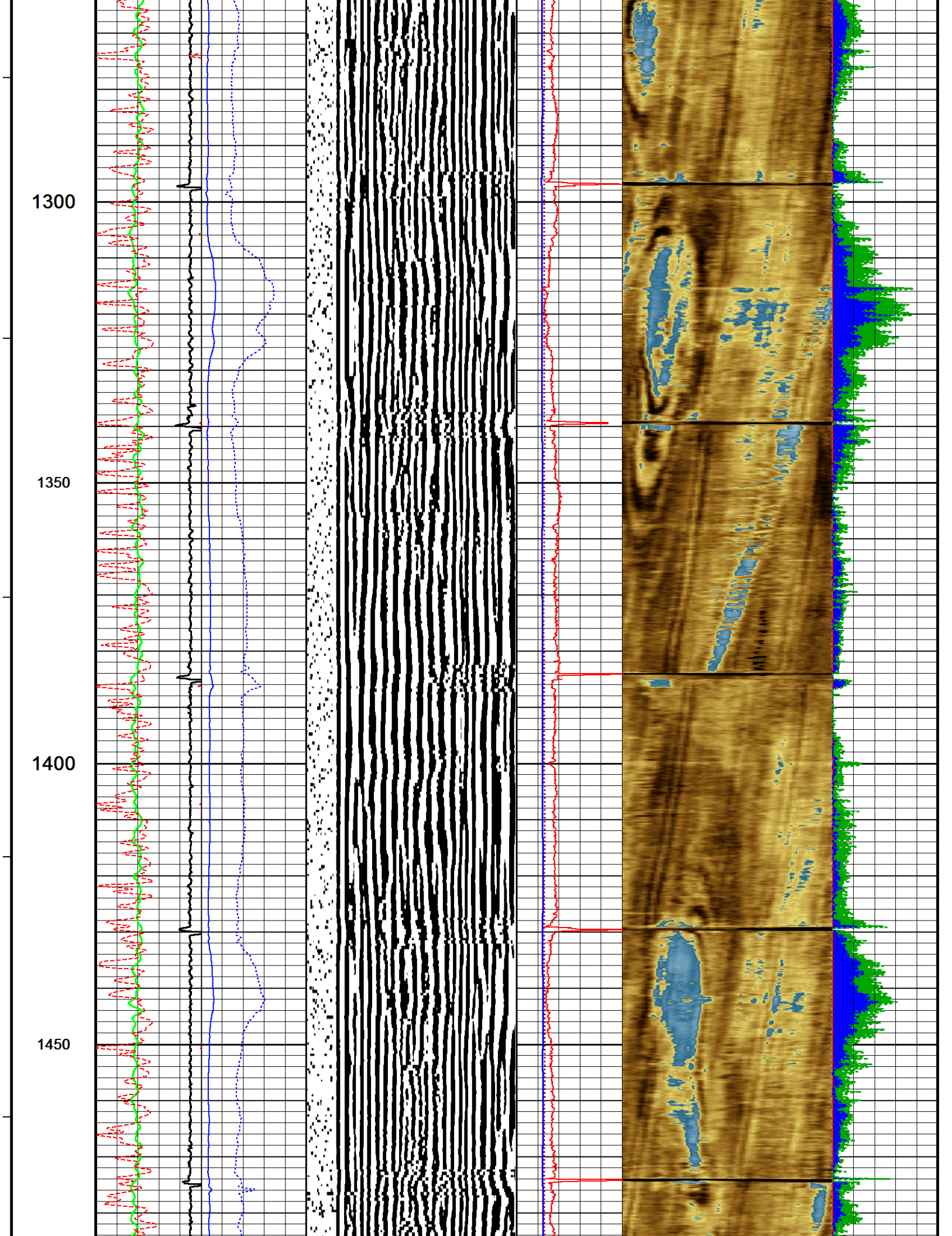
1100

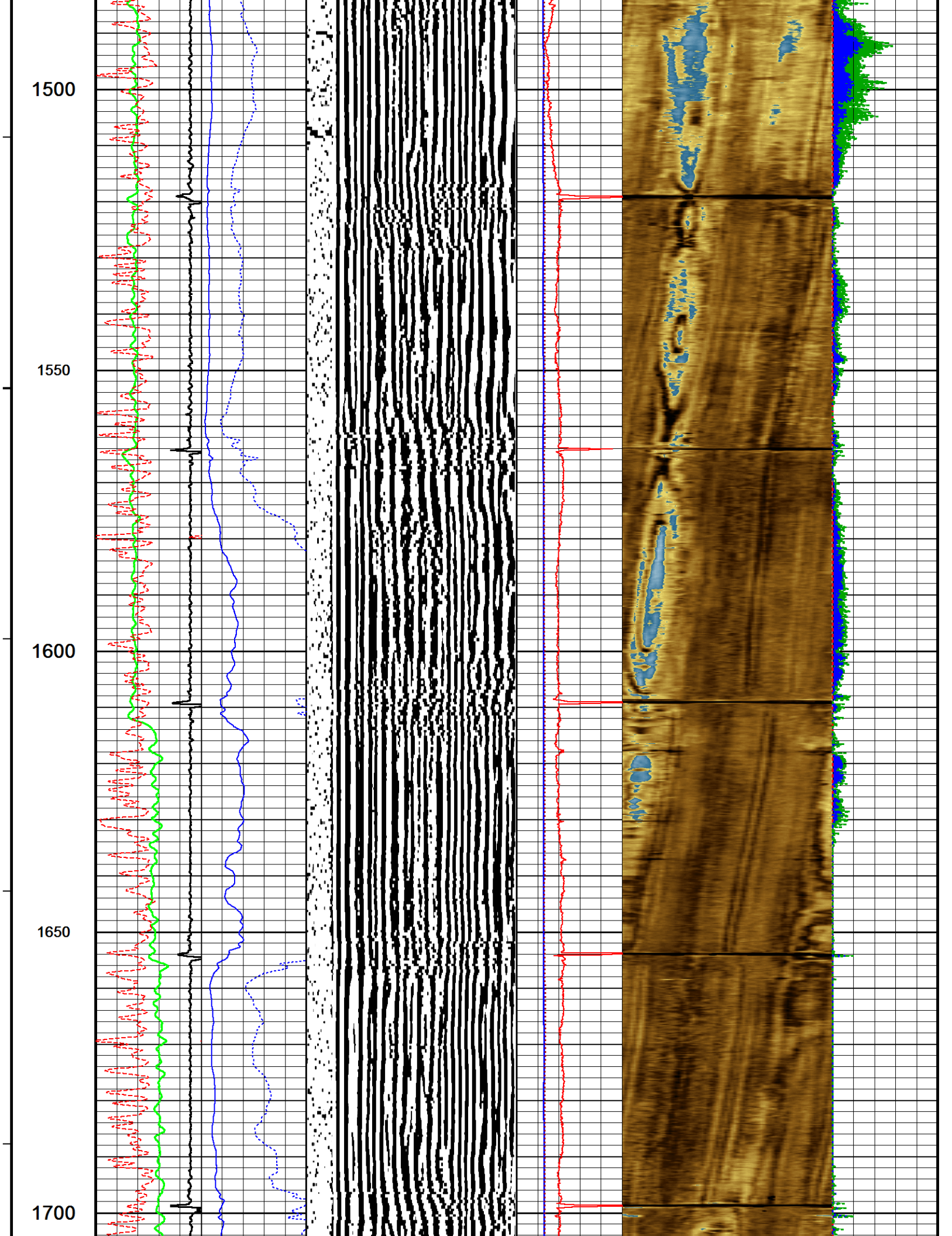
1150

1200

1250





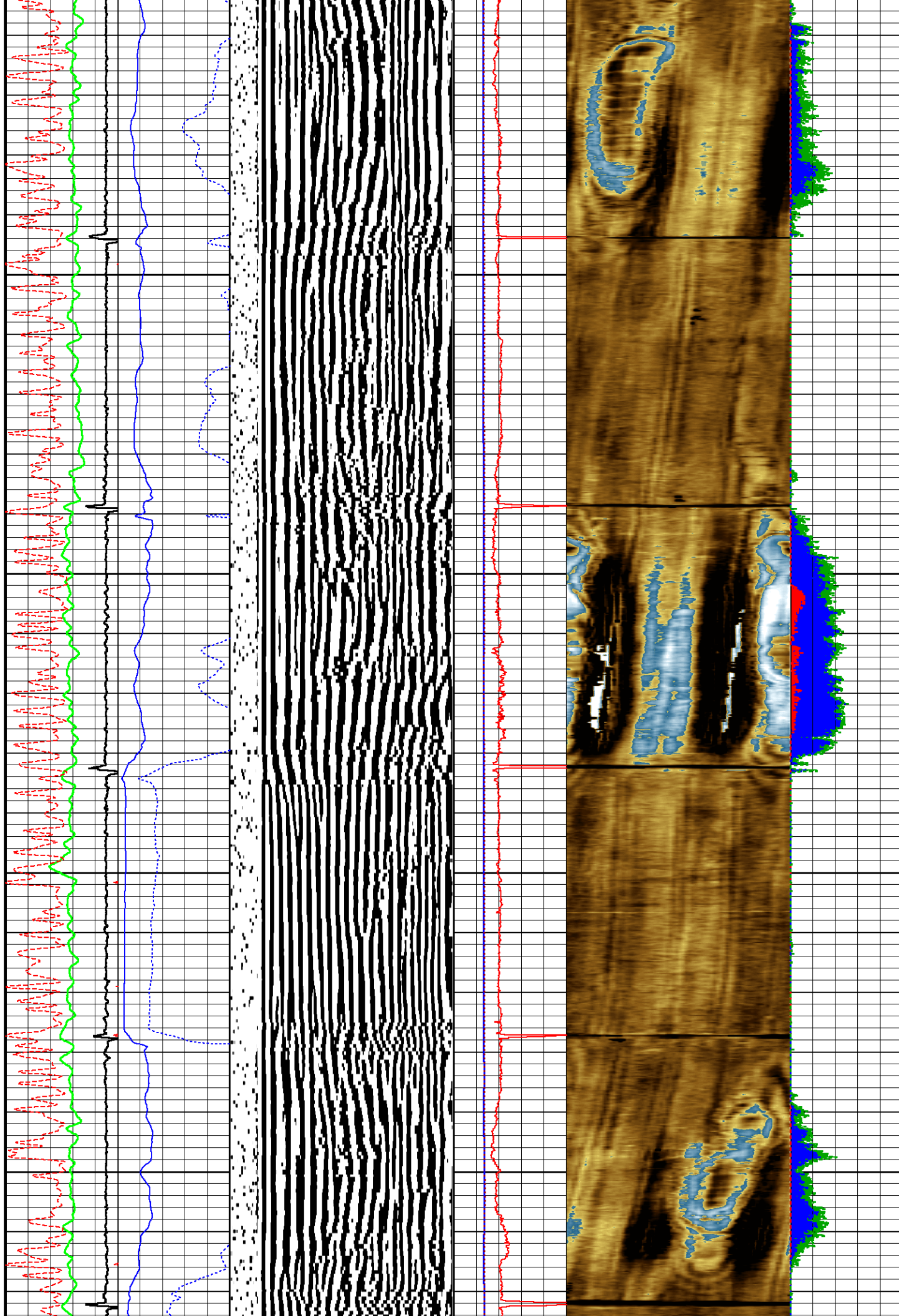


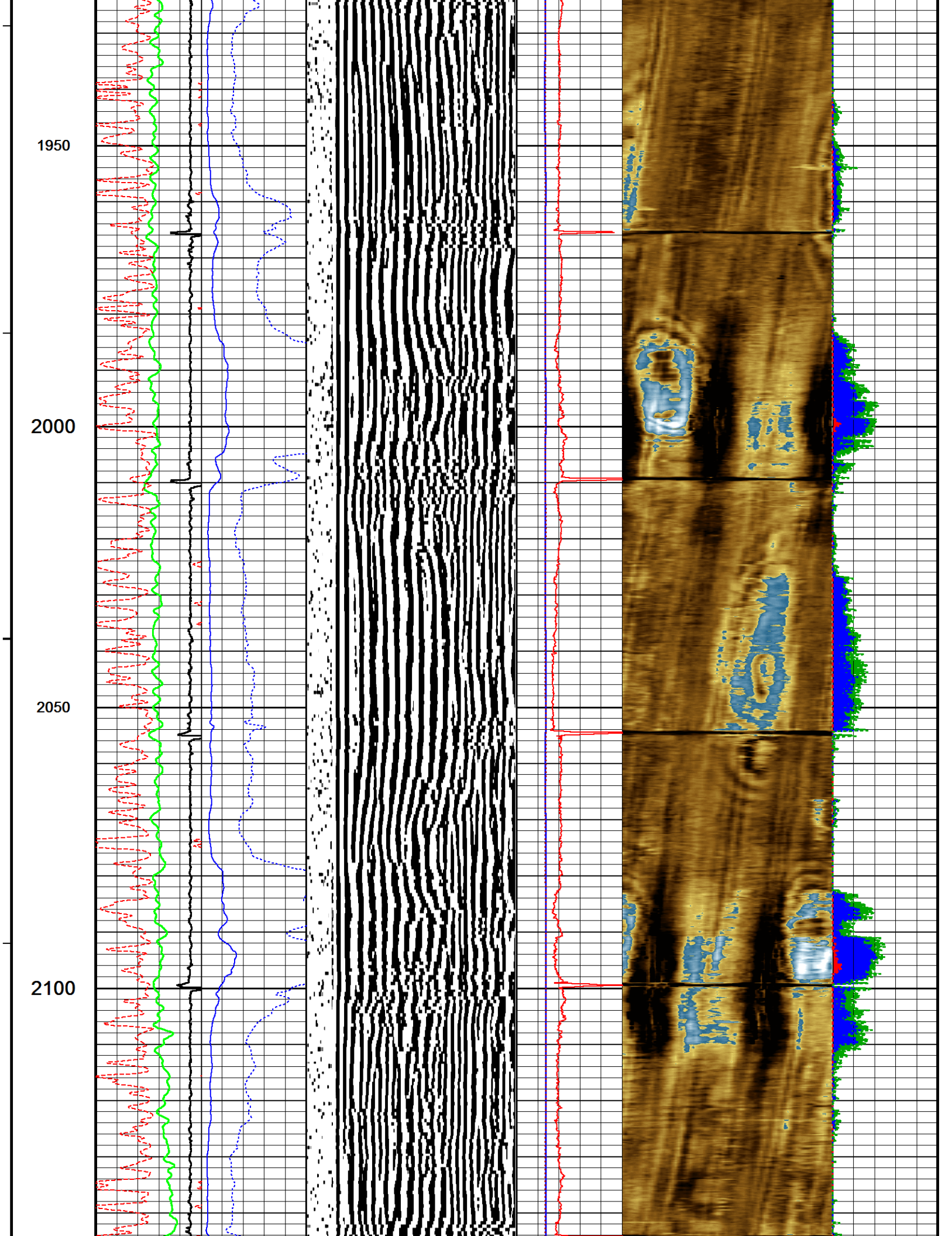
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1800

1850

1900





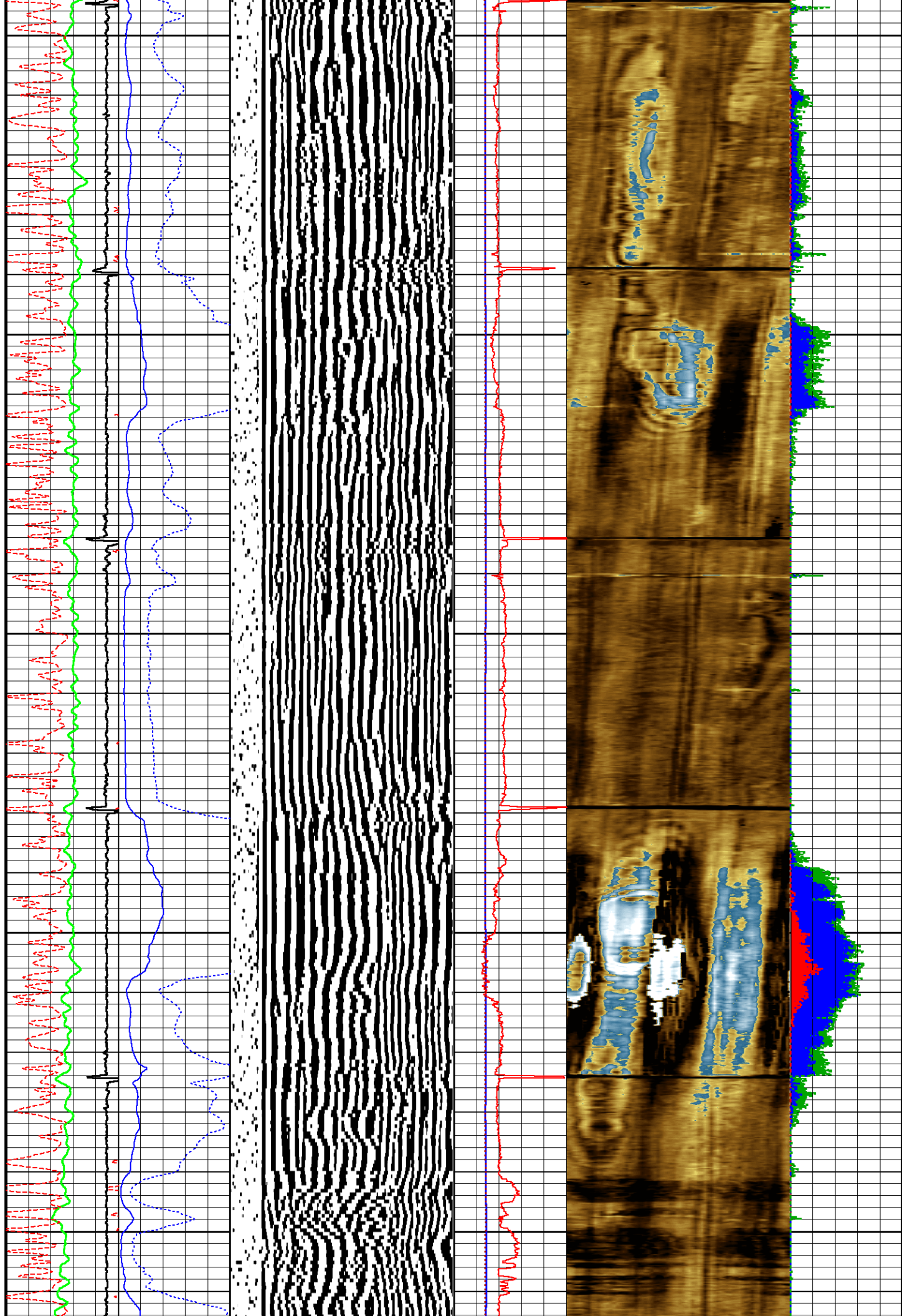
2150

2200

2250

2300

2350

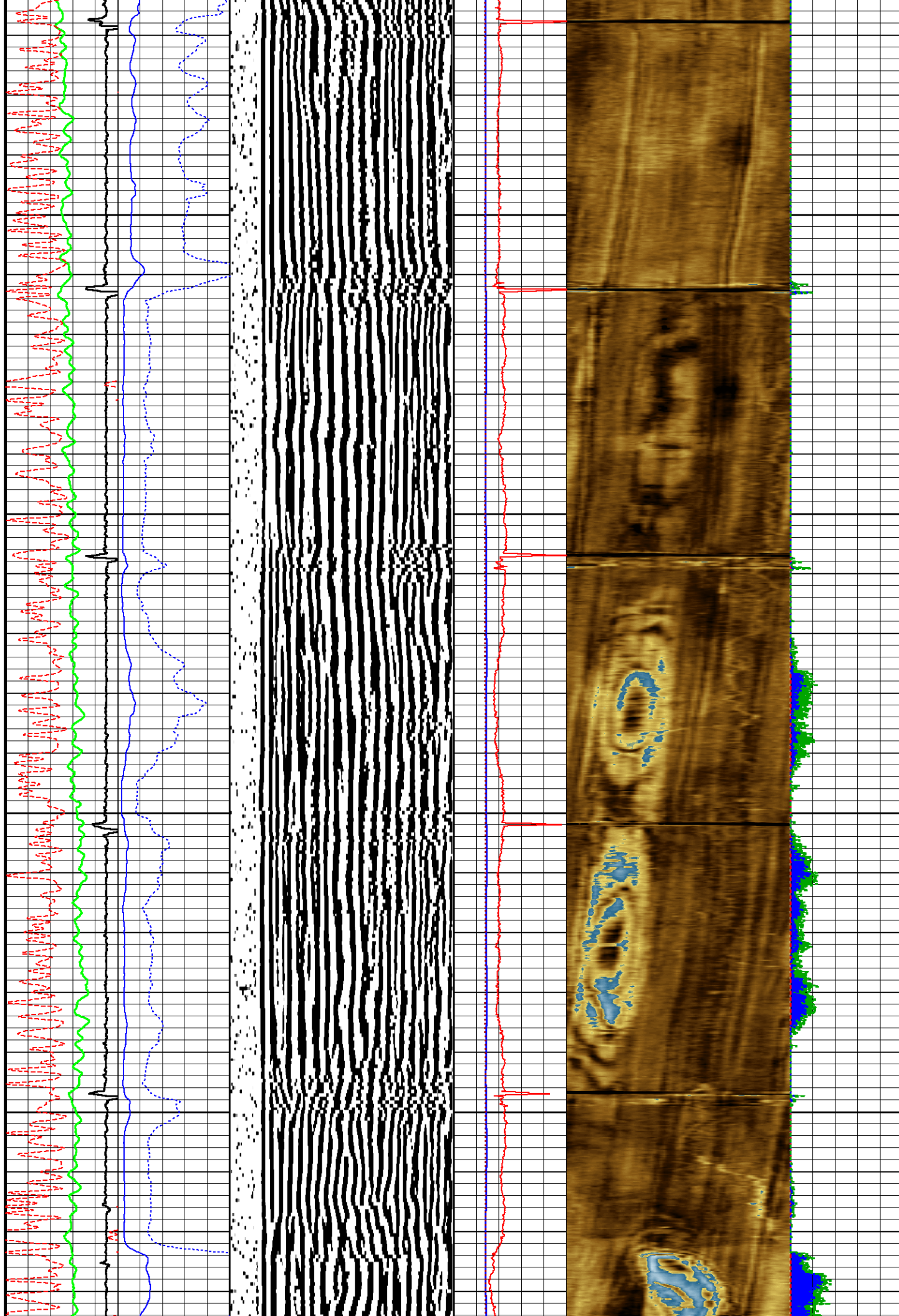


2400

2450

2500

2550



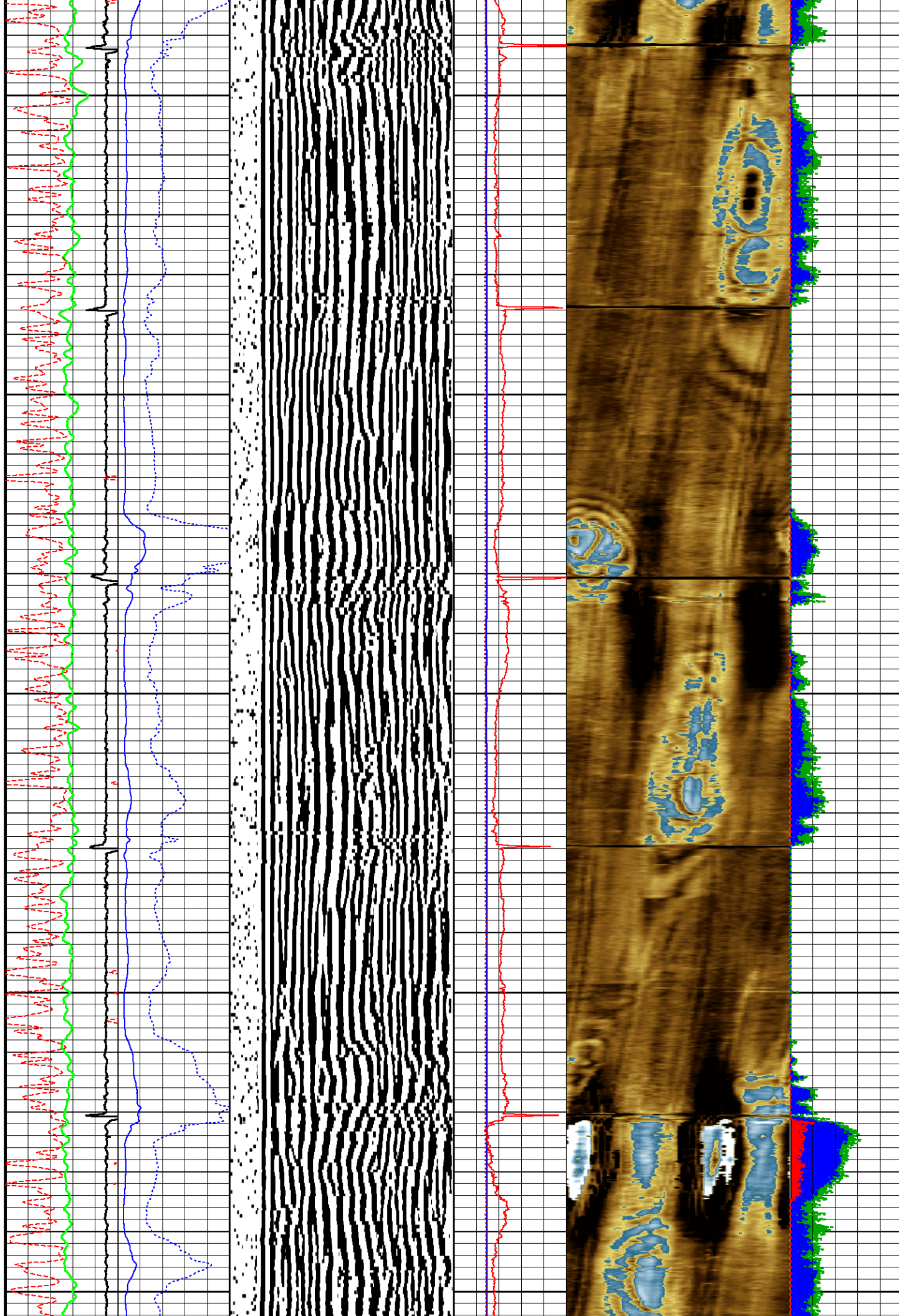
2600

2650

2700

2750

2800

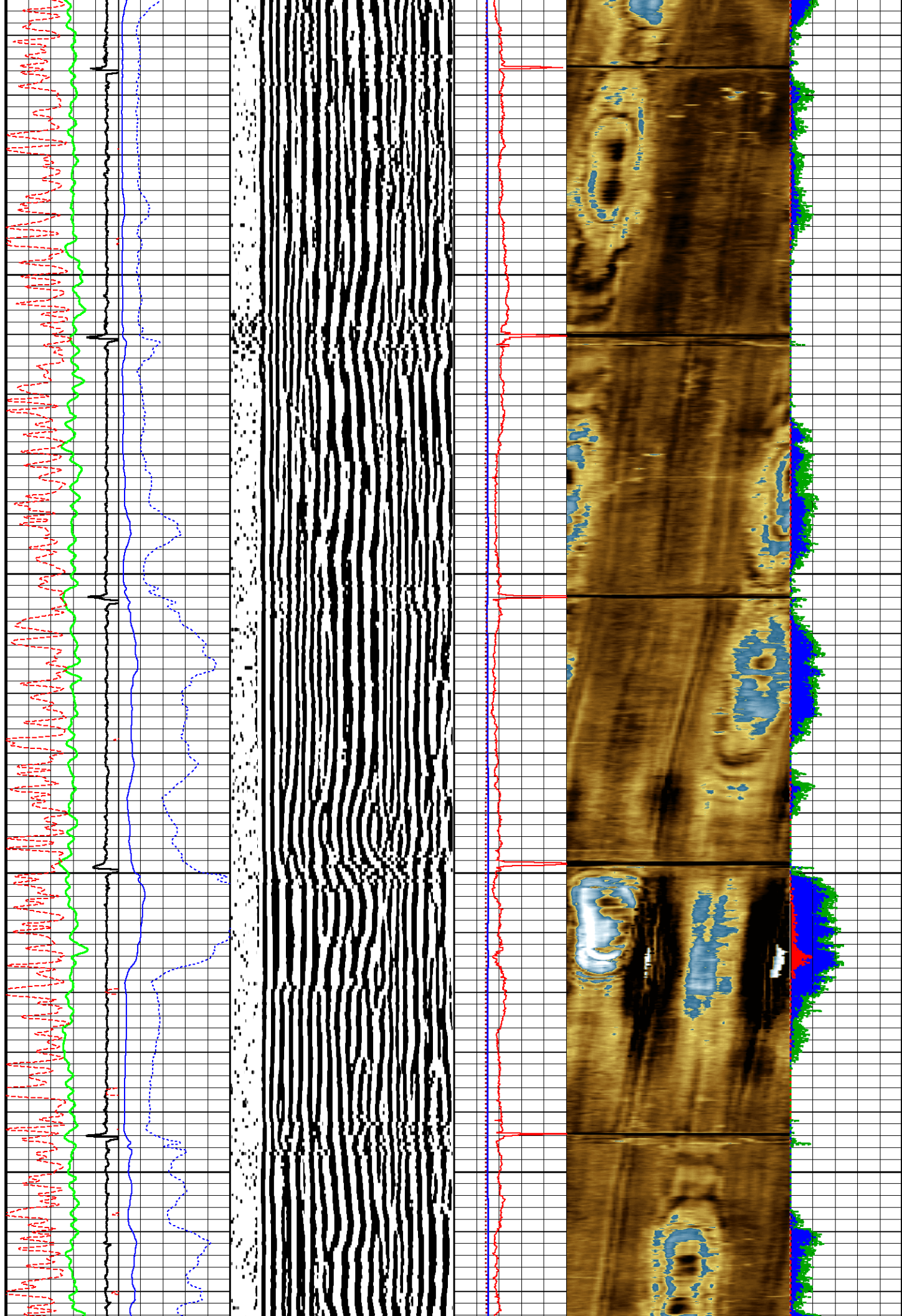


2850

2900

2950

3000

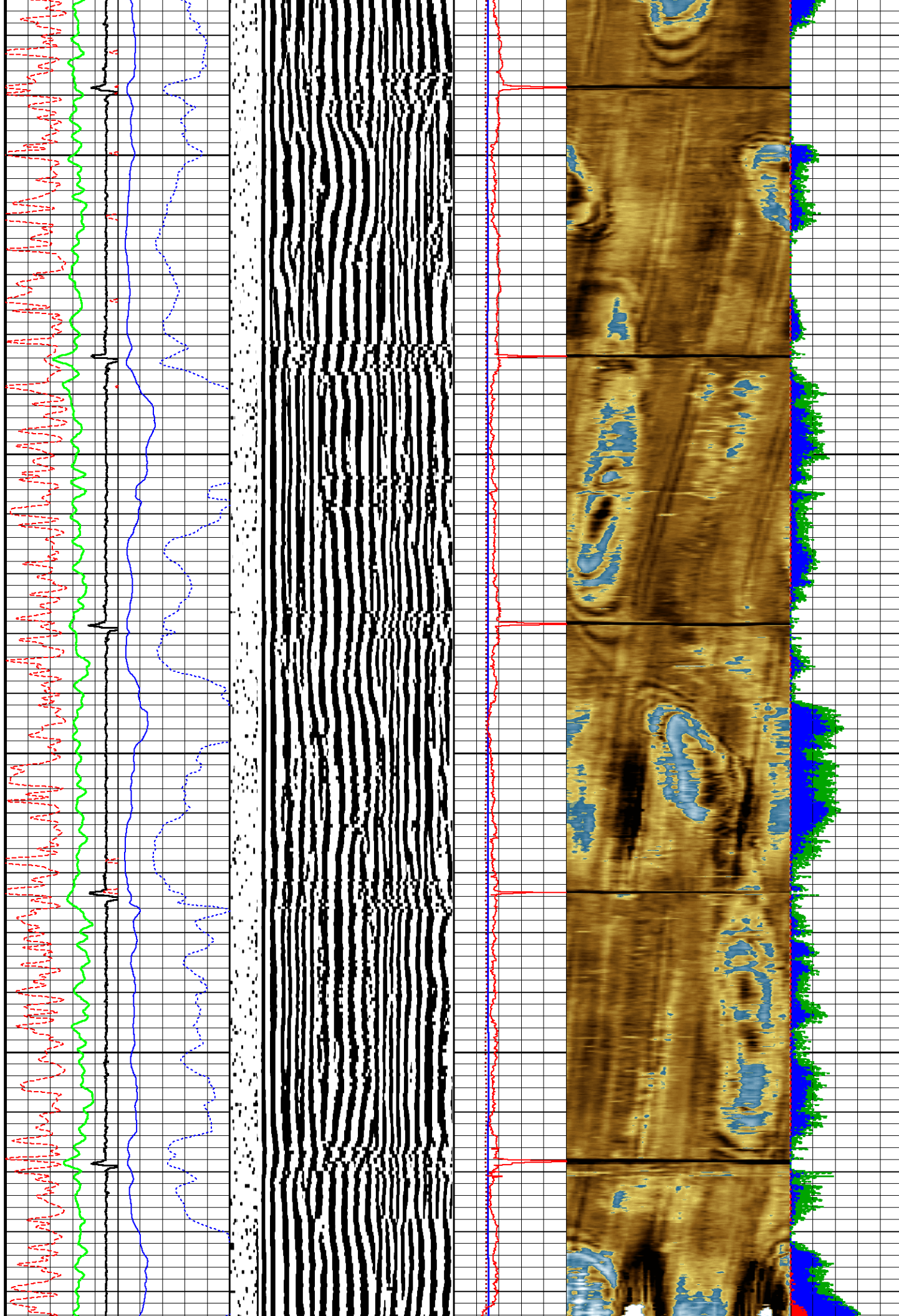


3050

3100

3150

3200



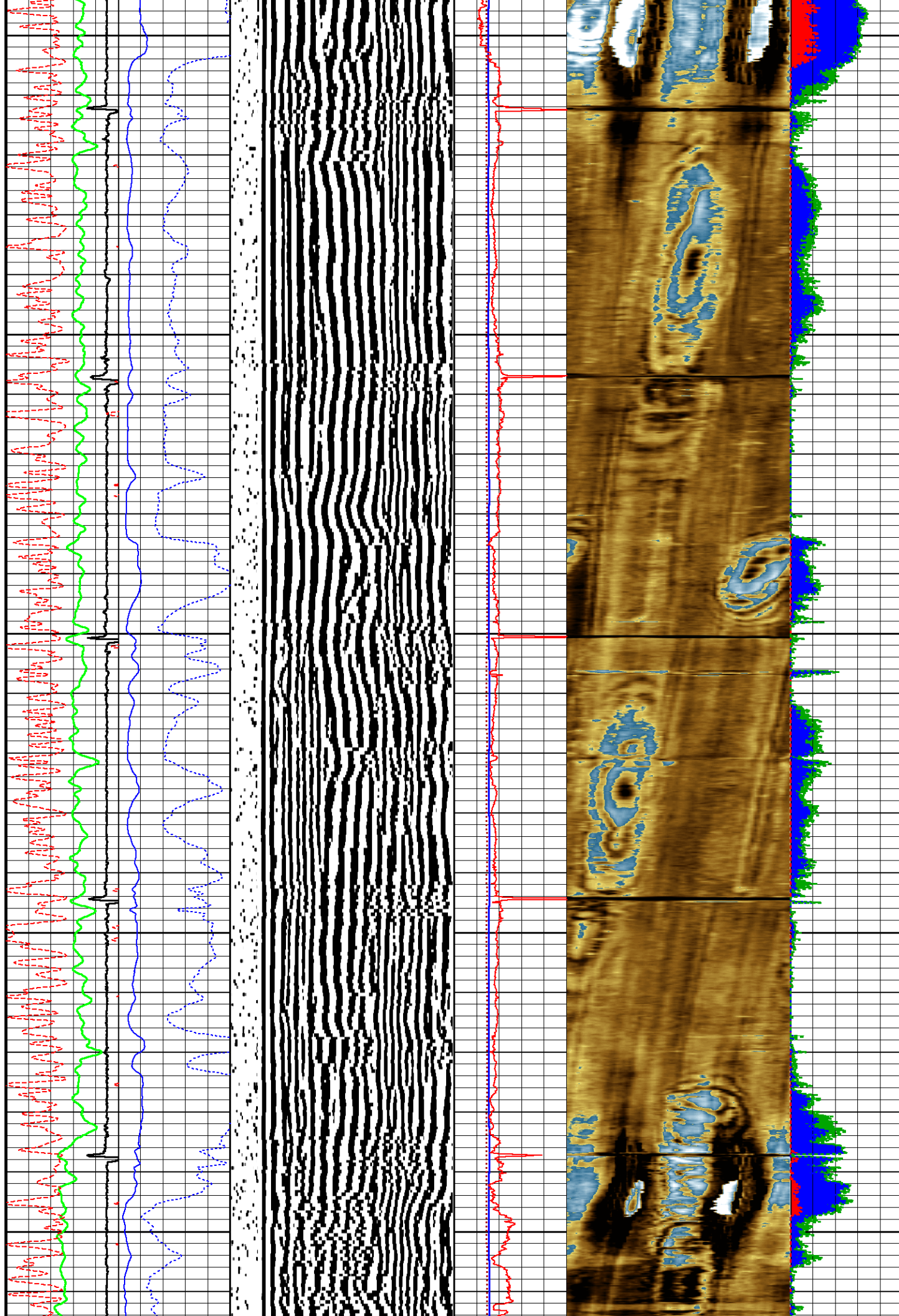
3250

3300

3350

3400

3450

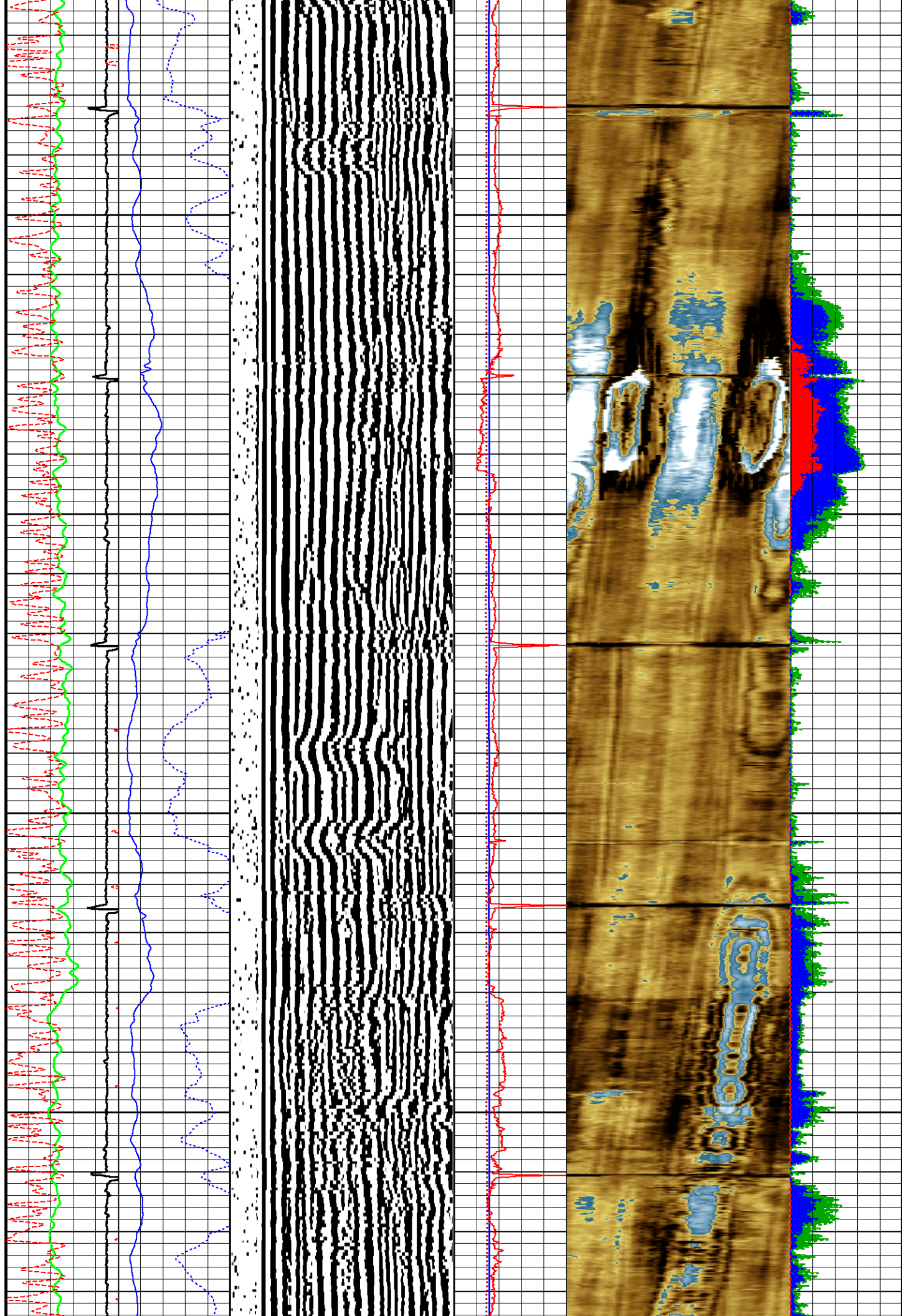


3500

3550

3600

3650



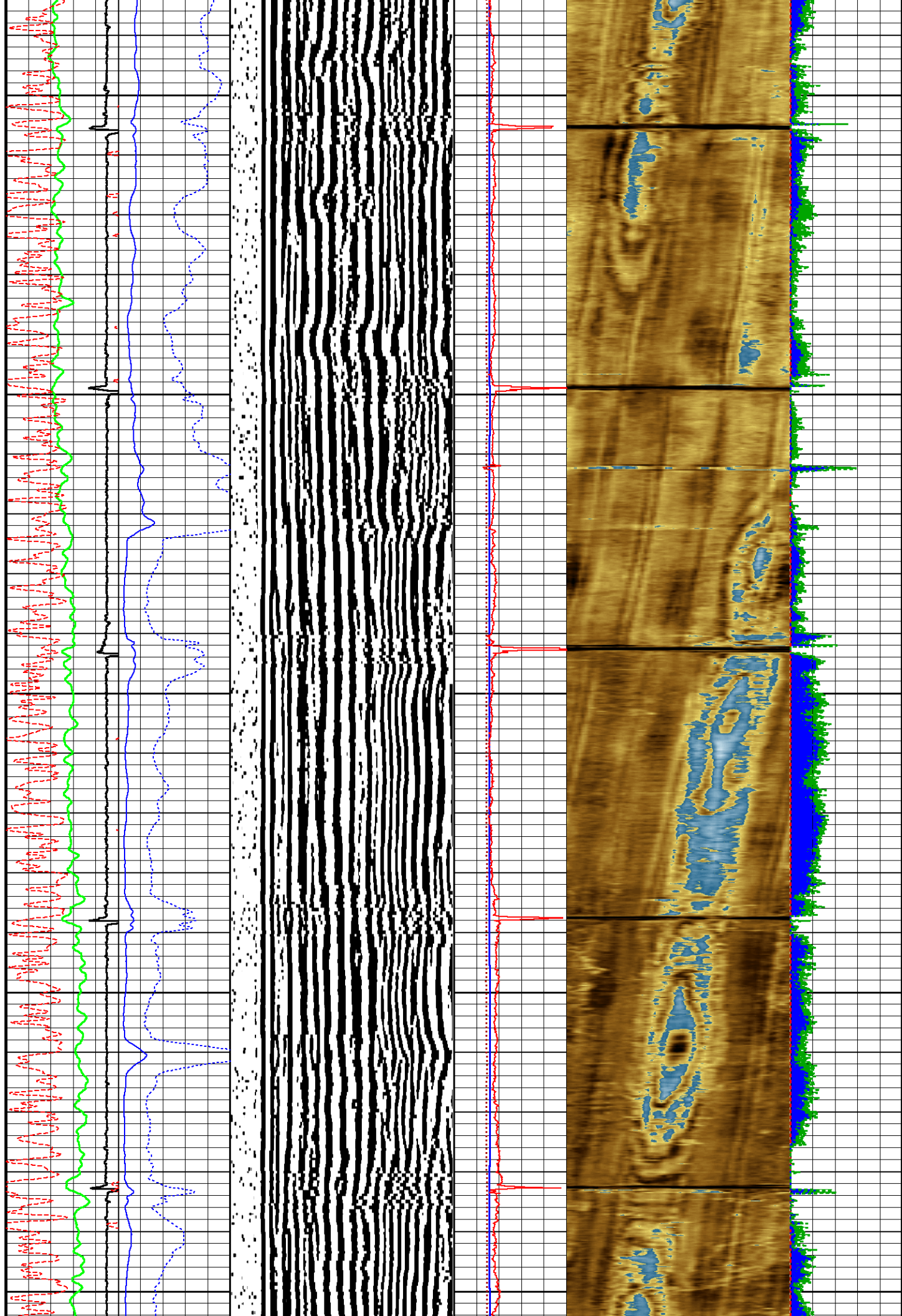
3700

3750

3800

3850

3900

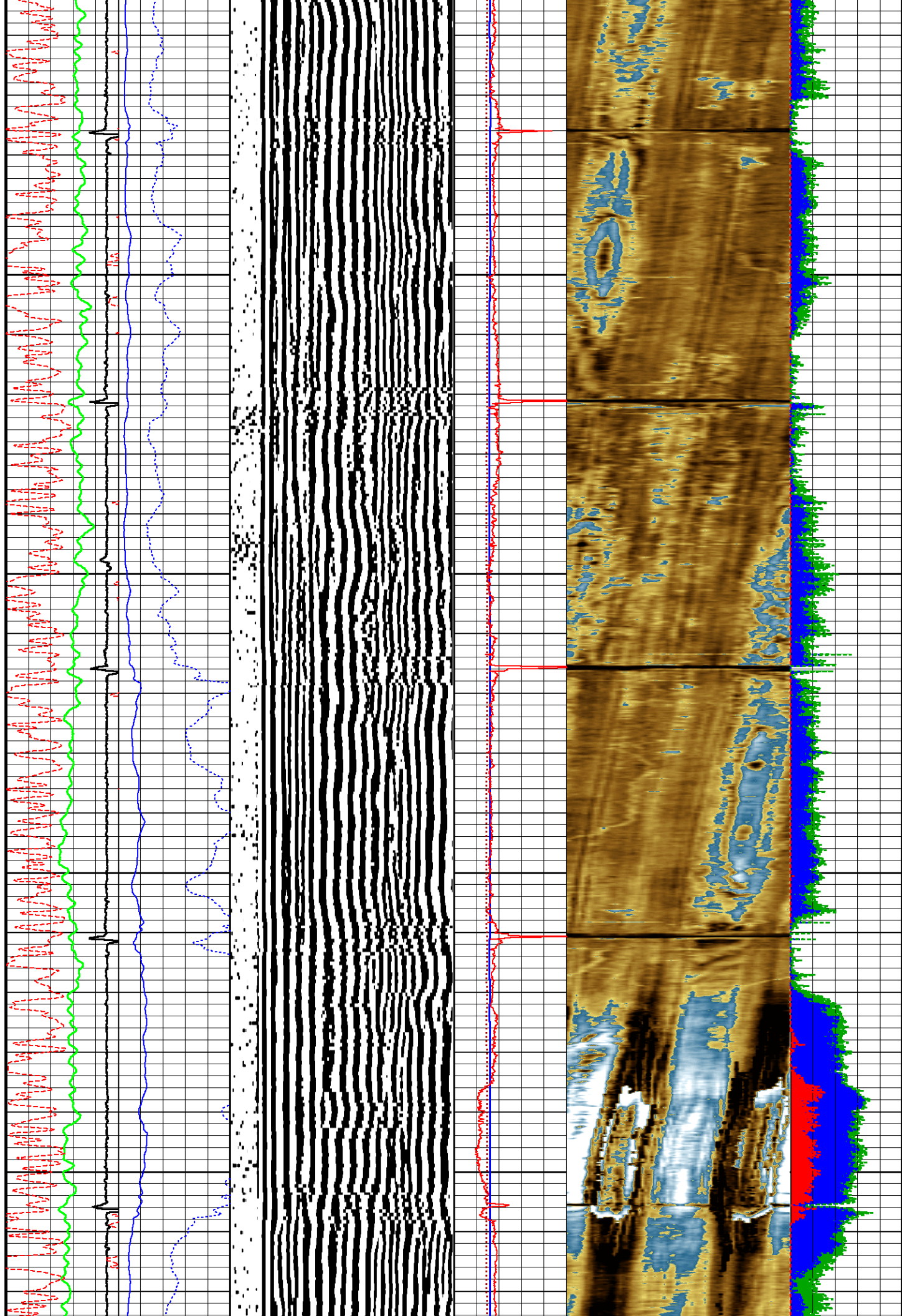


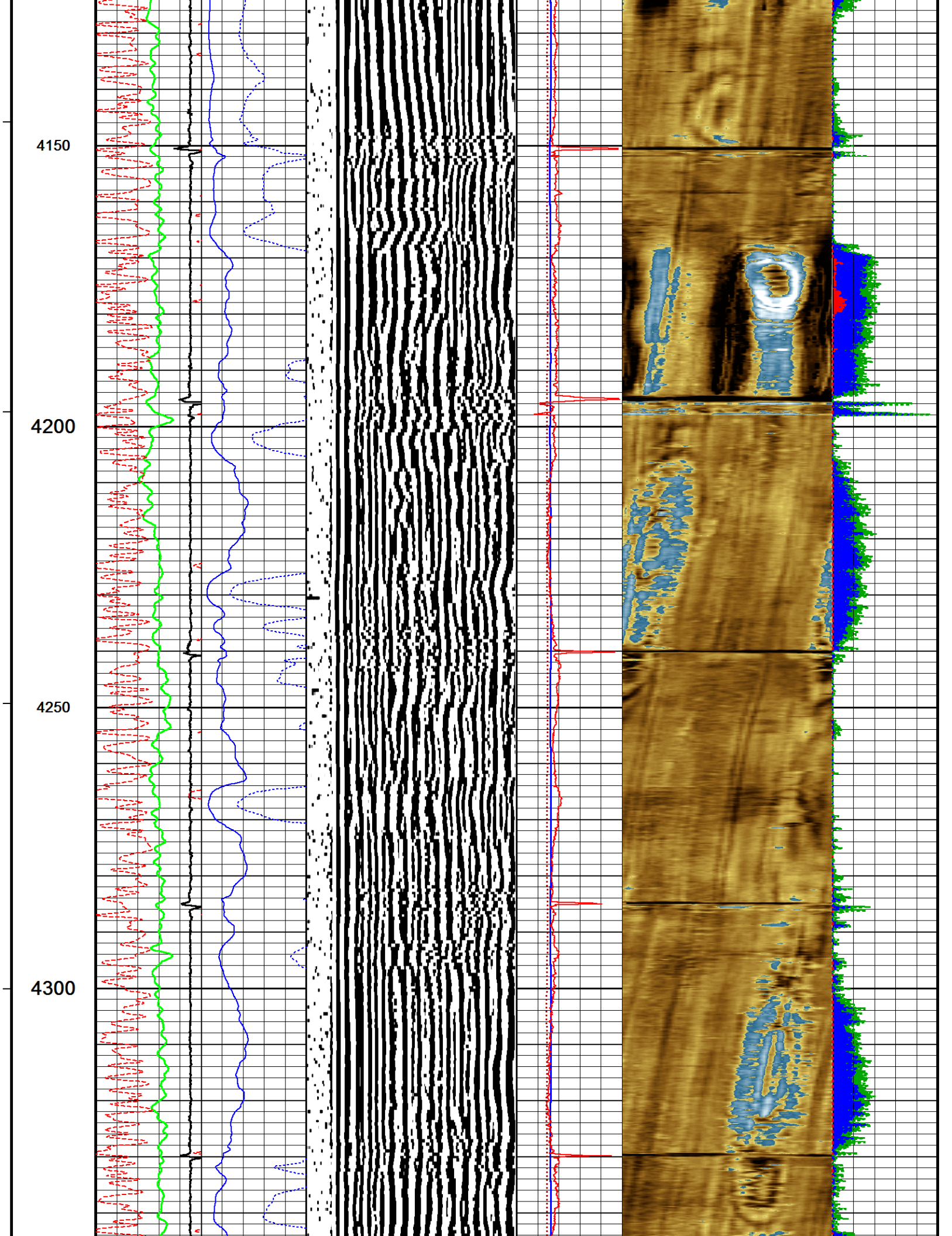
3950

4000

4050

4100





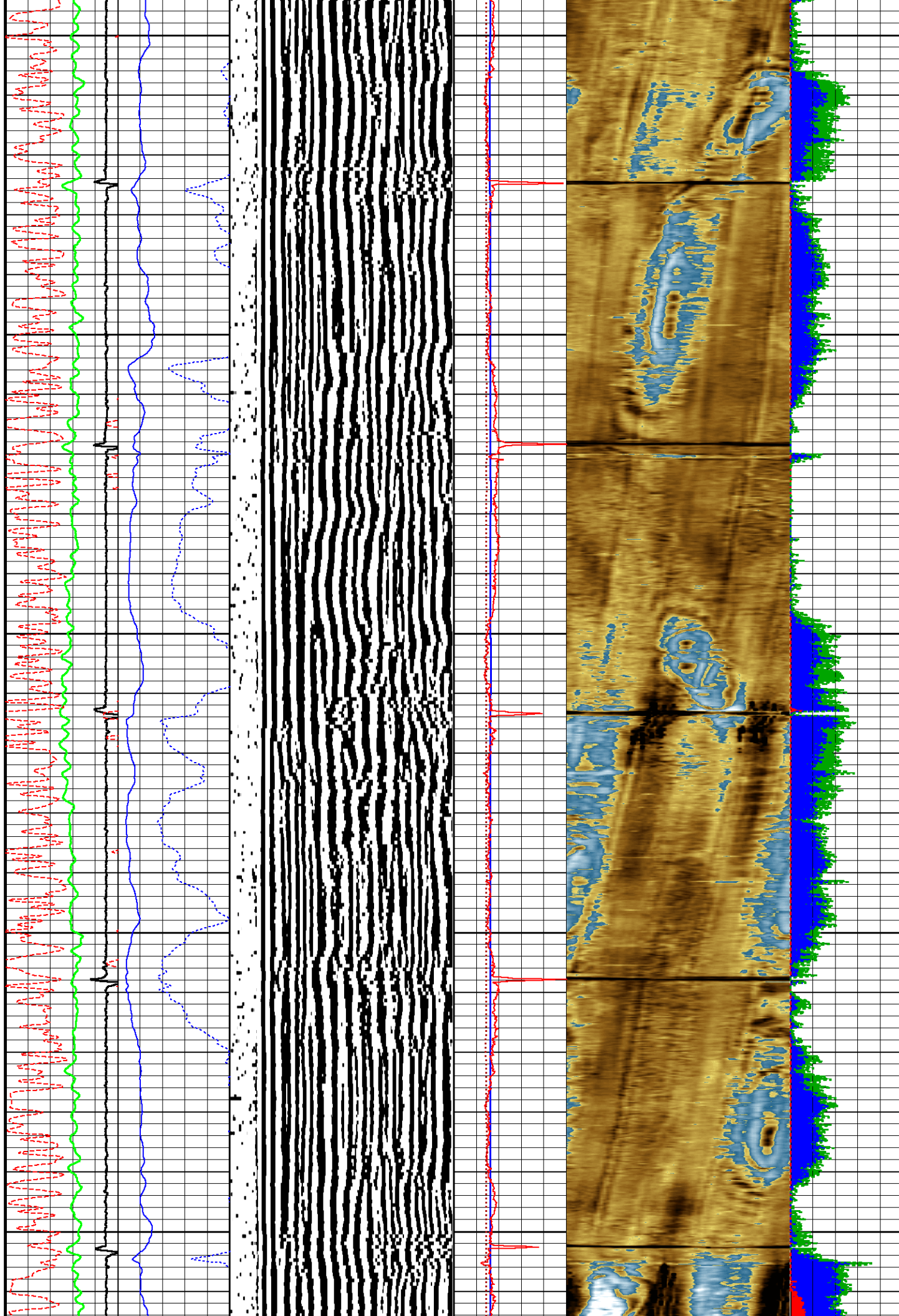
4350

4400

4450

4500

4550

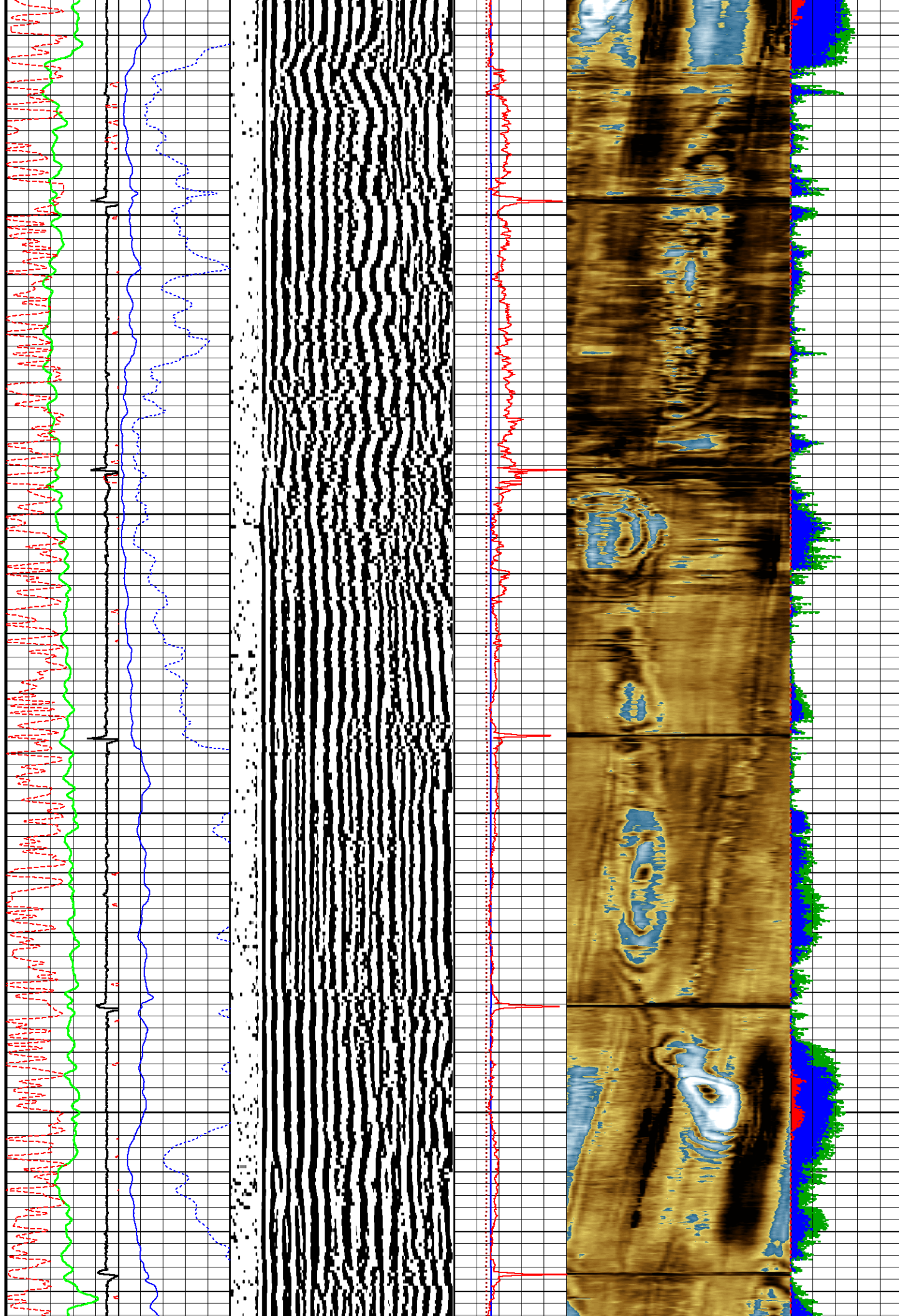


4600

4650

4700

4750



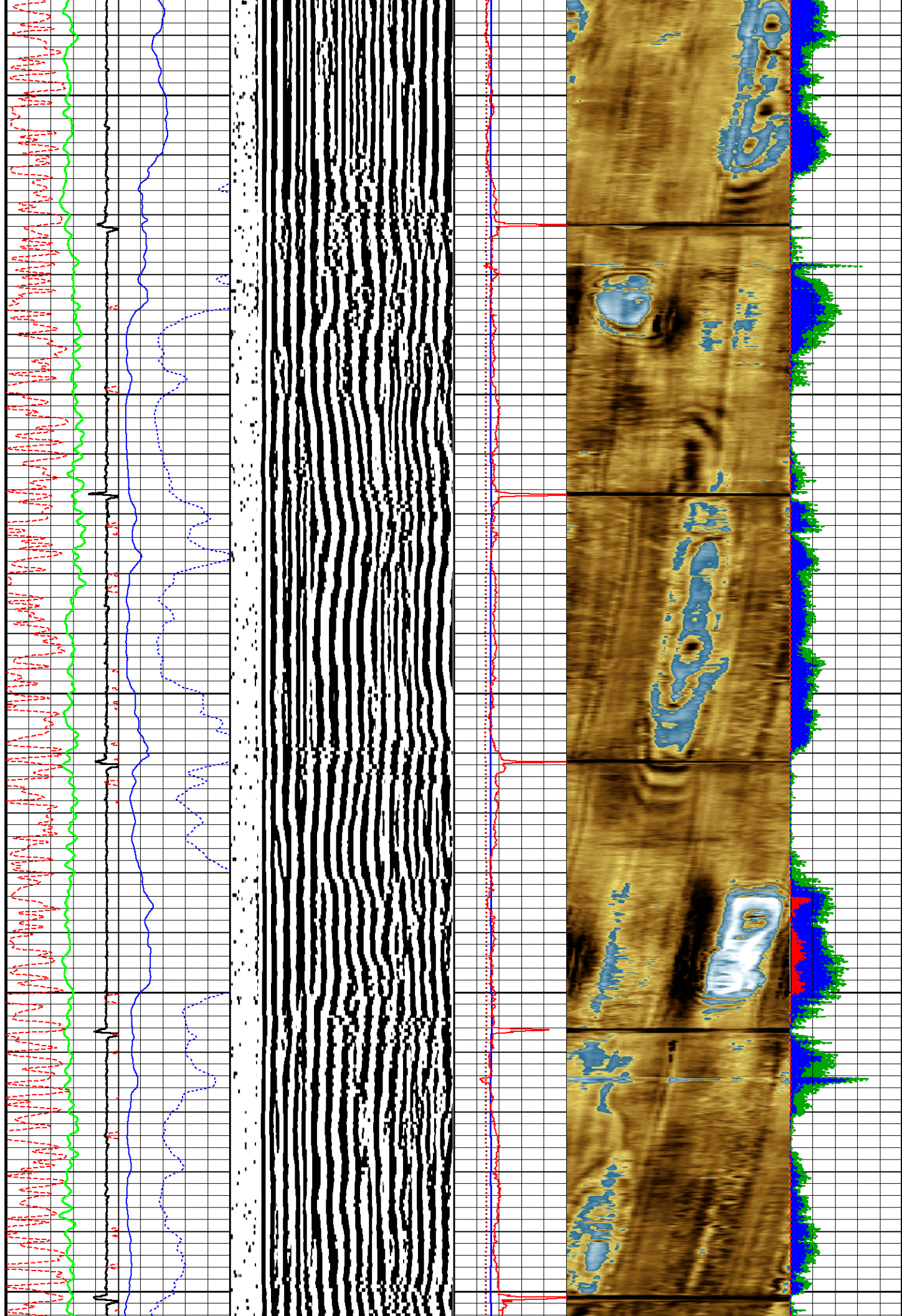
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4850

4900

4950

5000

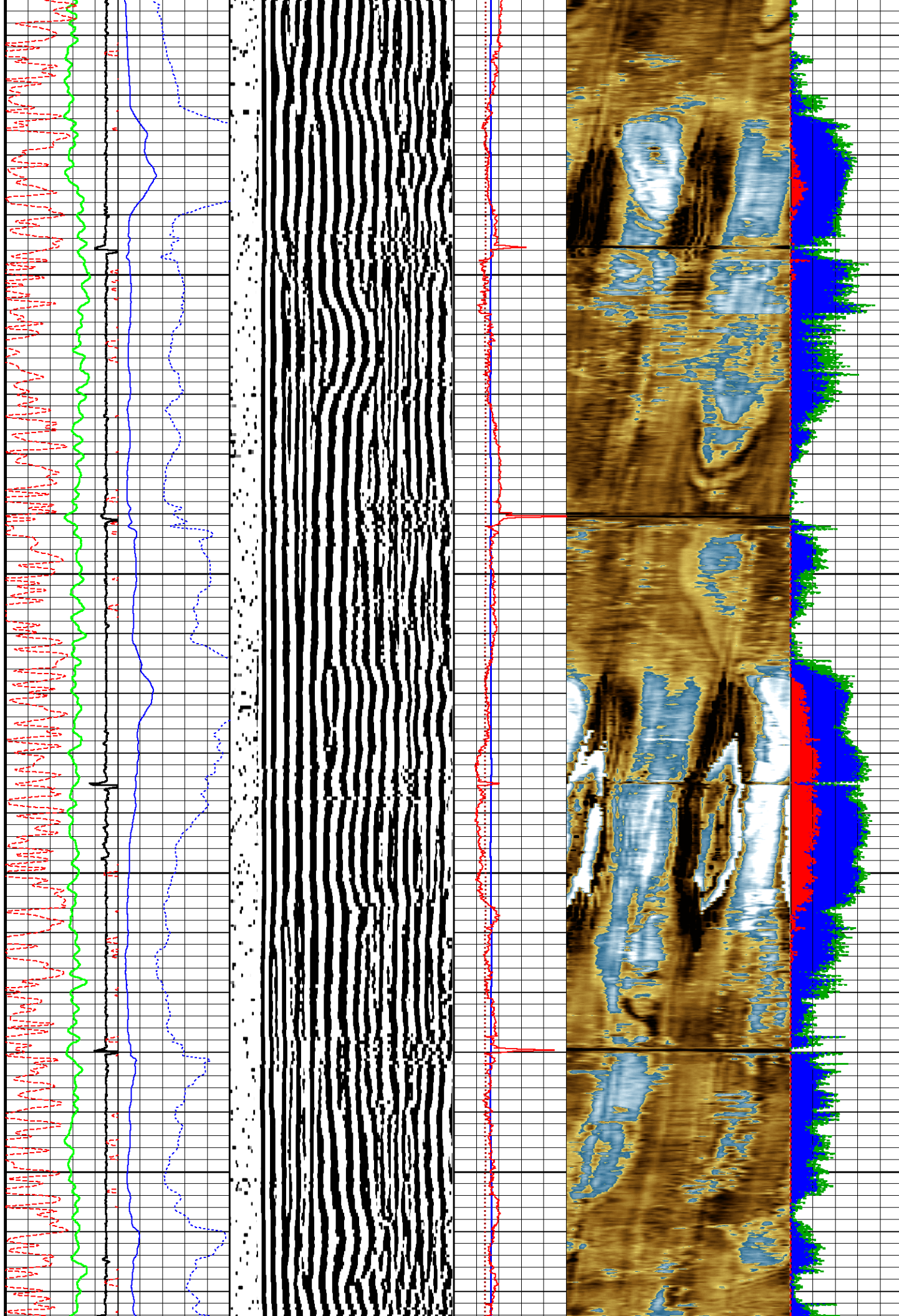


5050

5100

5150

5200

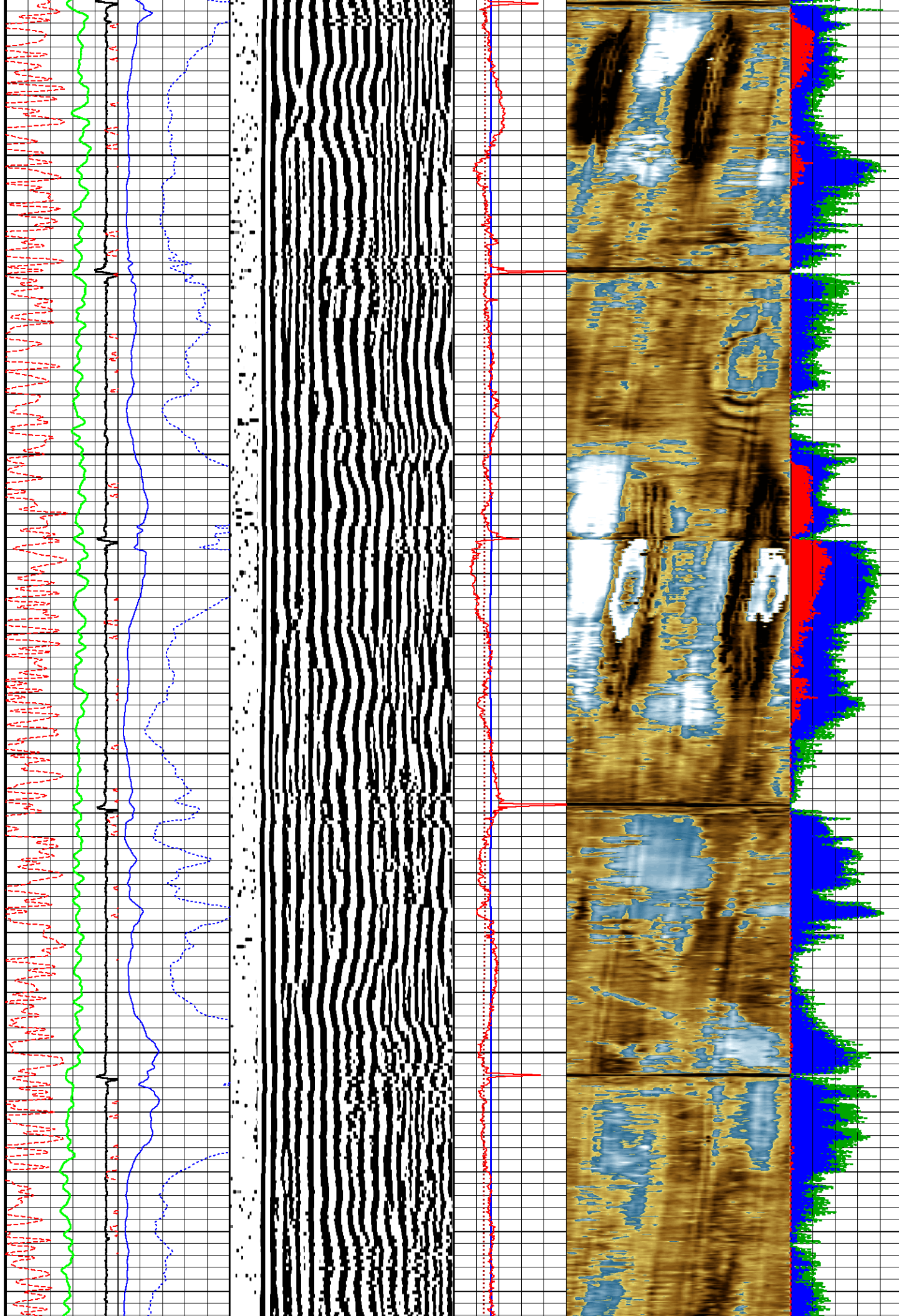


5250

5300

5350

5400



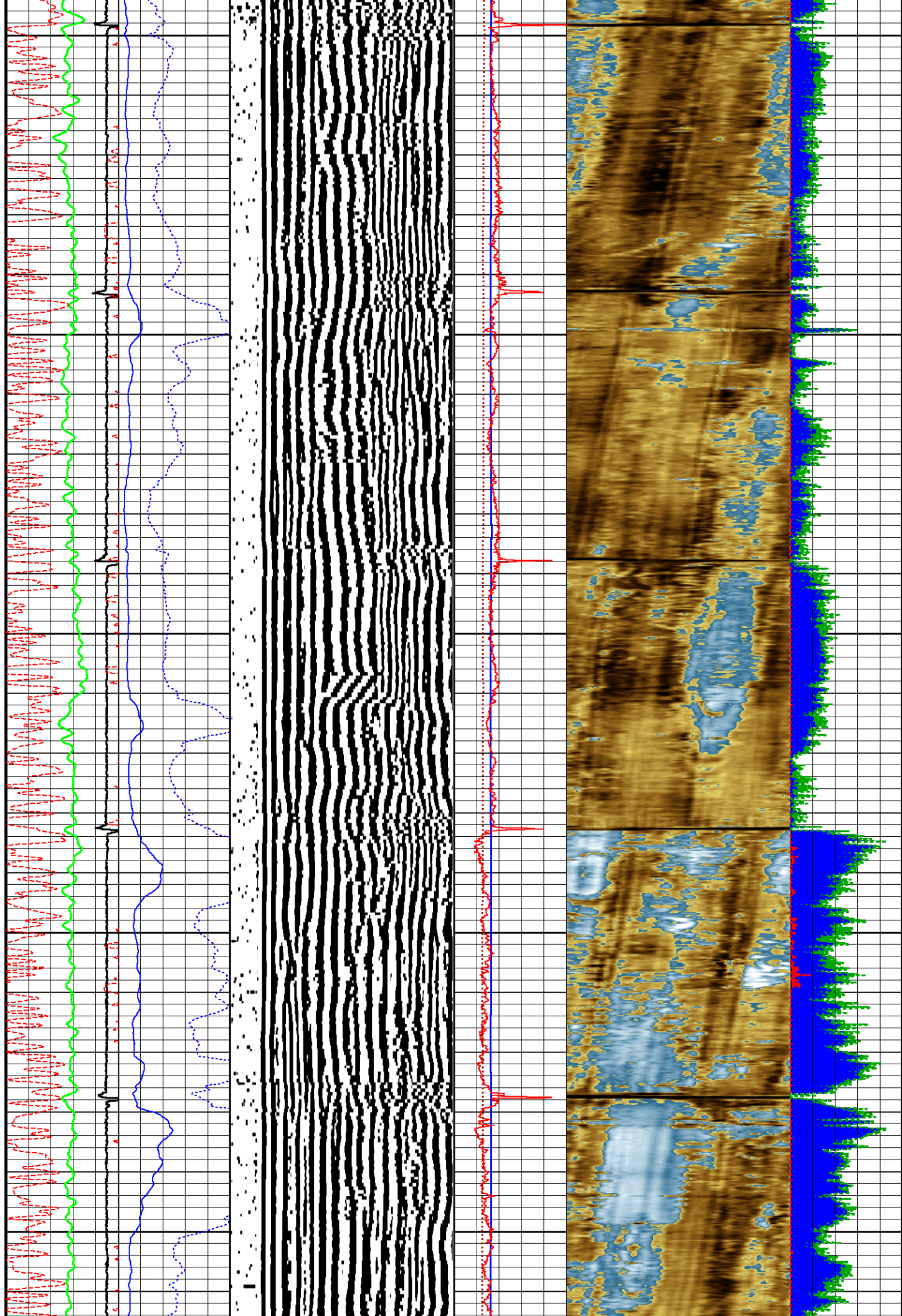
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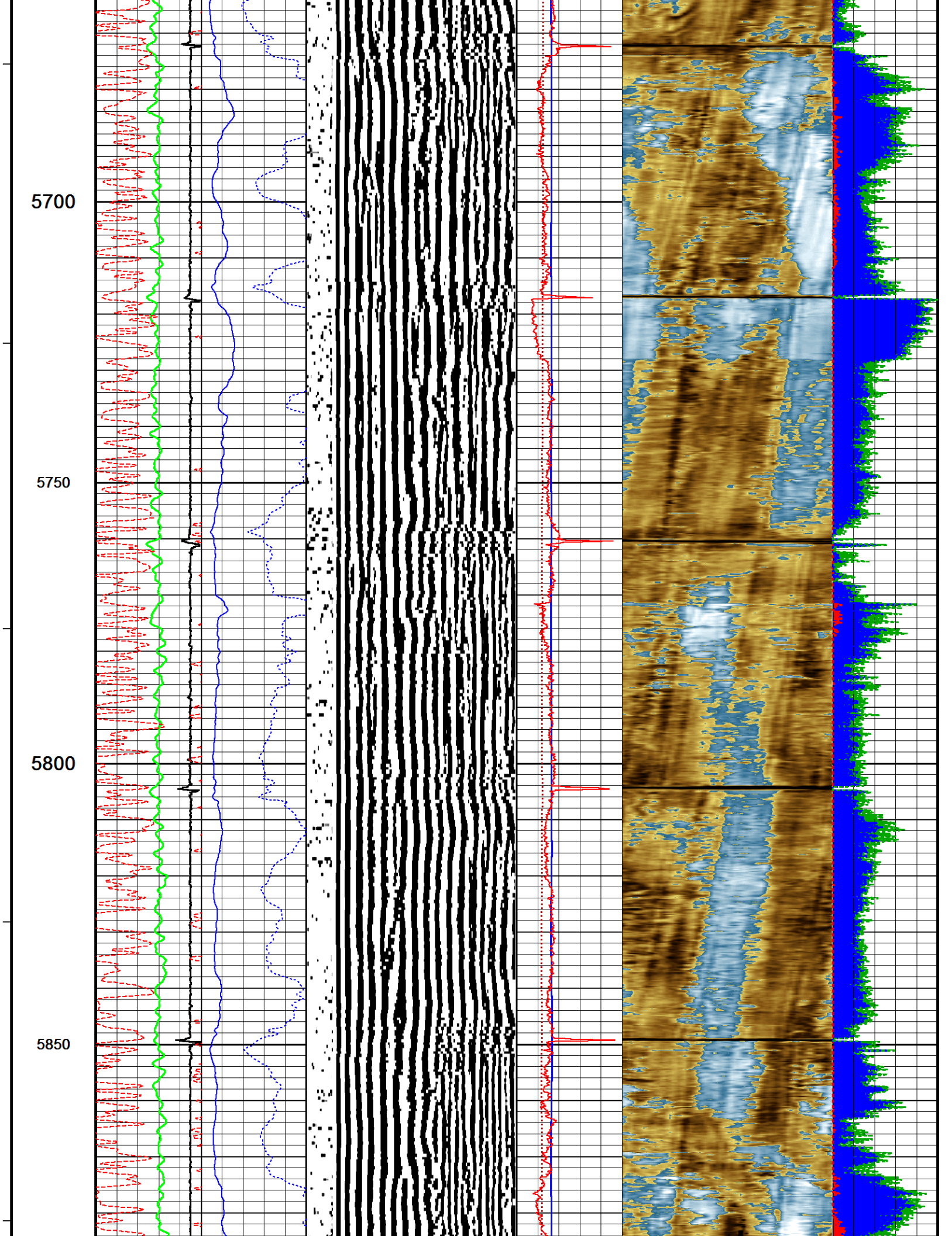
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5550

5600

5650





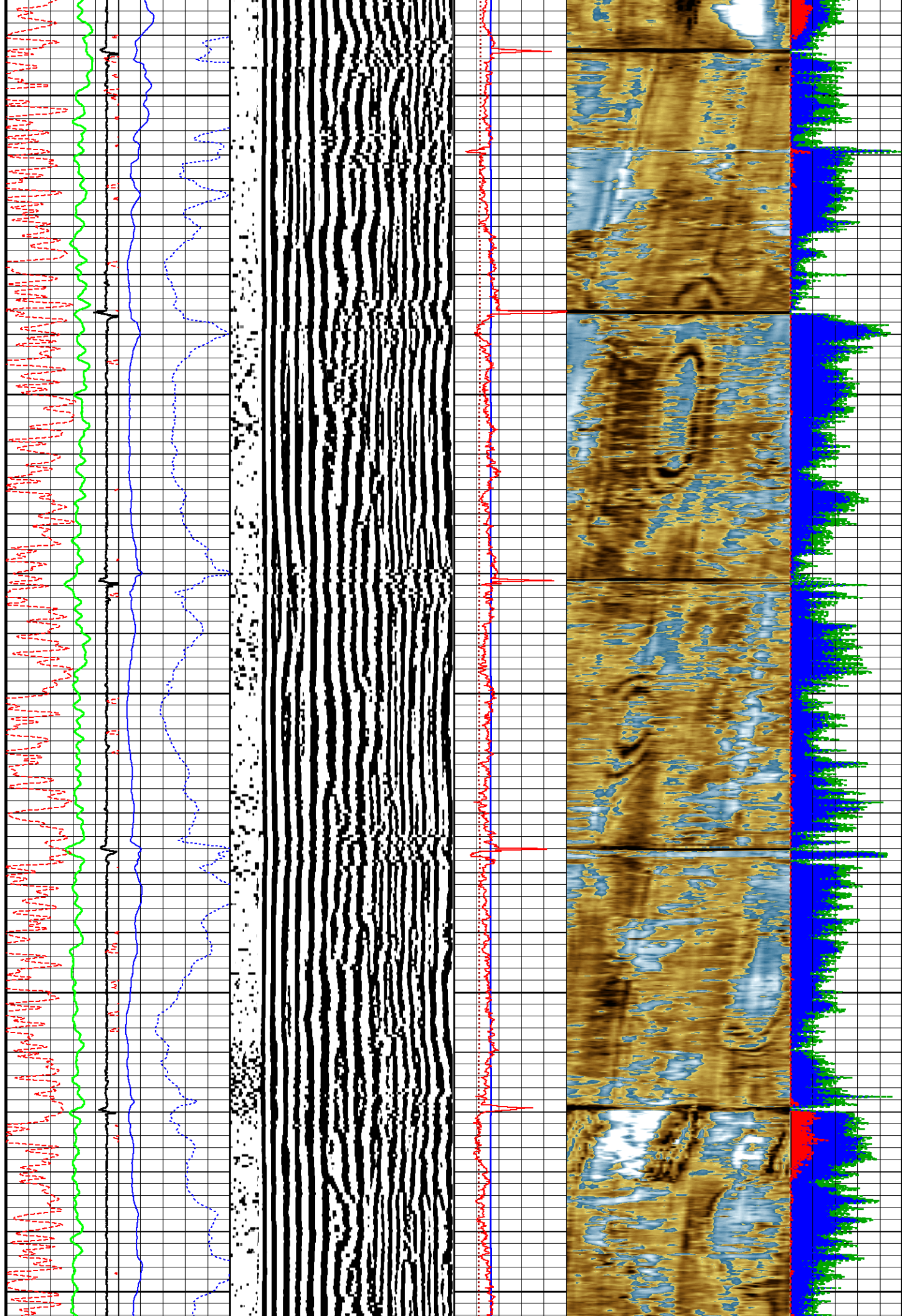
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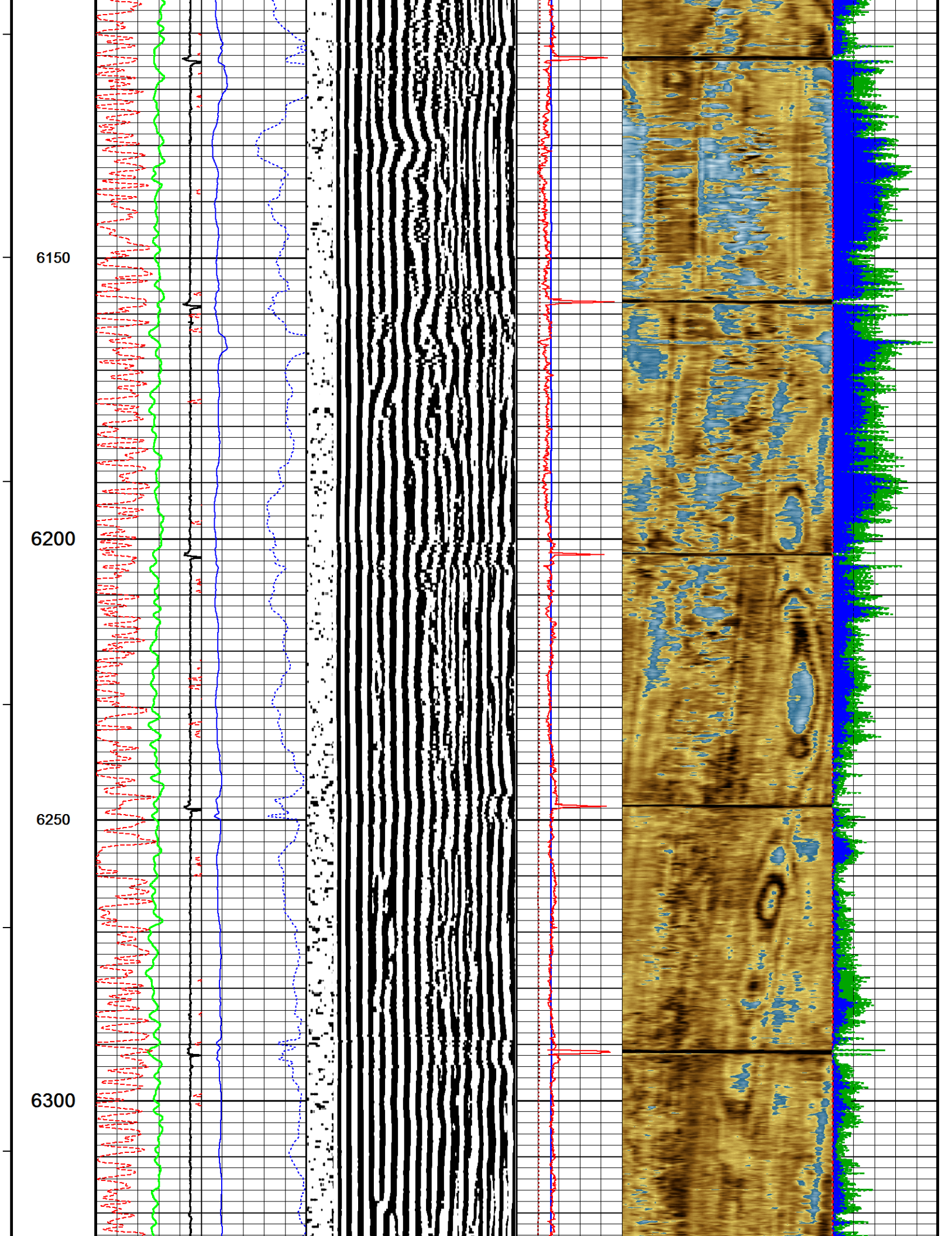
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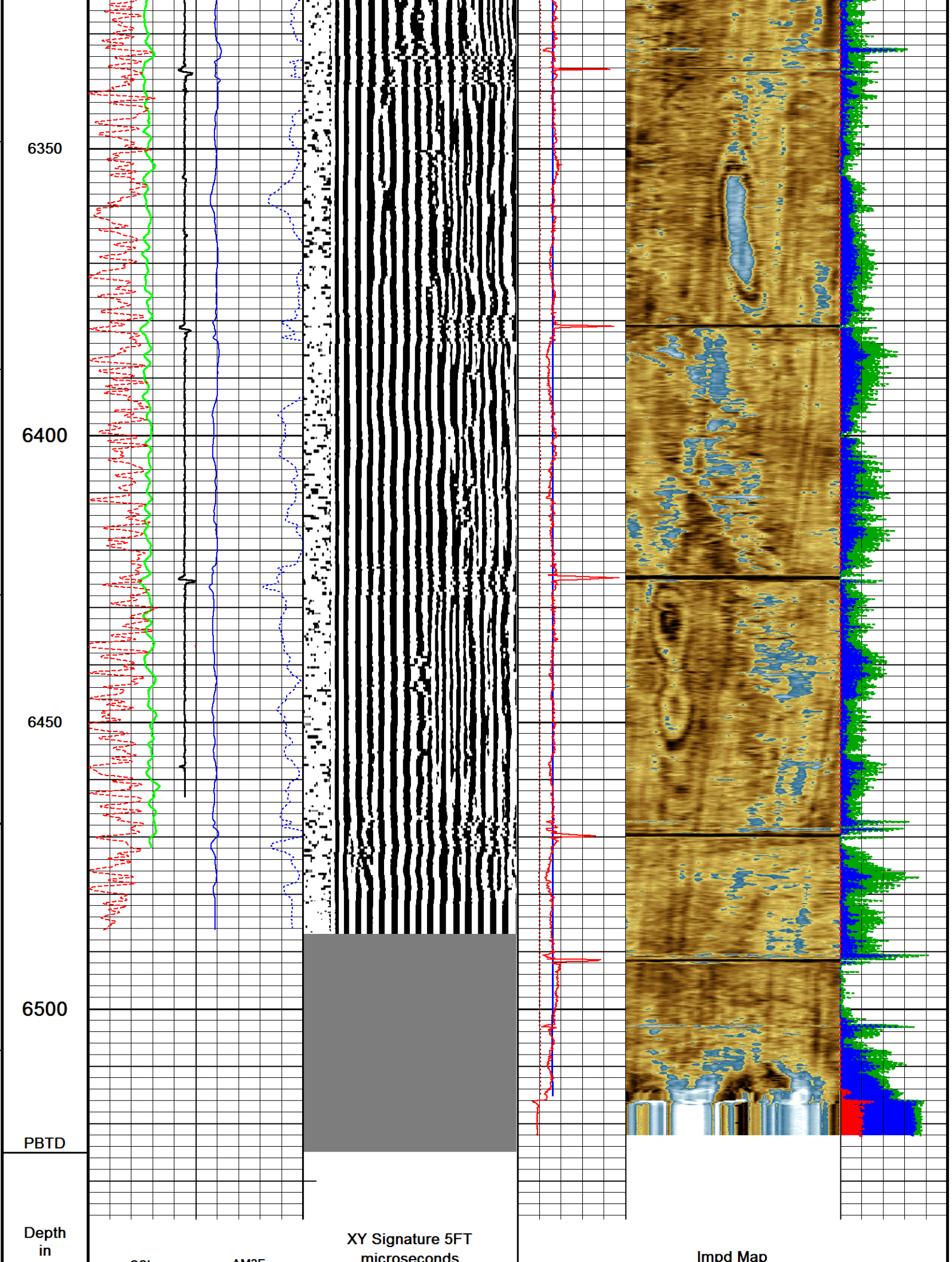
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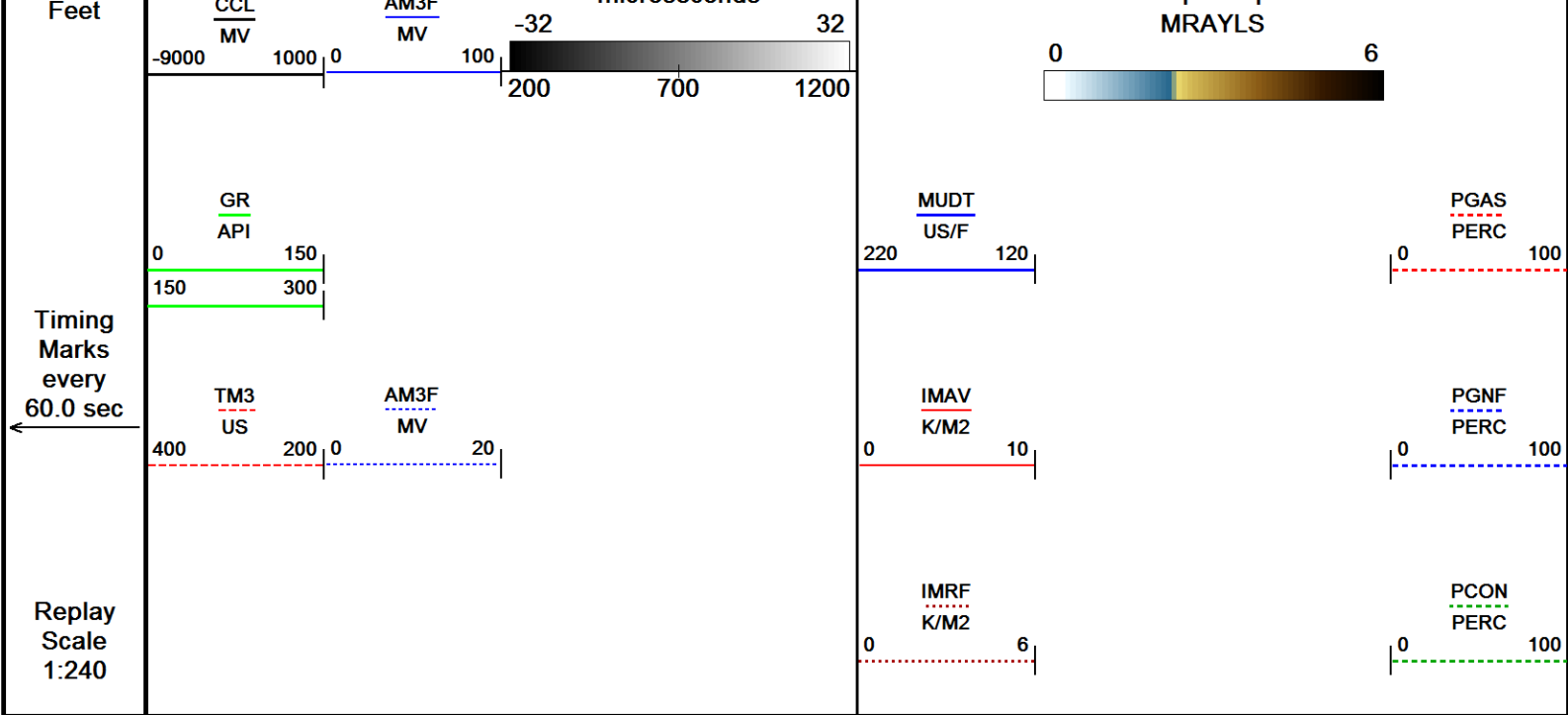
6050

6100









Depth Based Data - Maximum Sampling Increment 2.5cm

Plotted on 05-DEC-2016 21:45

Filename: C:\Logs\Extraction\VARRA 2\VARRA 2 MAIN PASS.dta

Recorded on 05-DEC-2016 14:45

System Versions: Logged with 16.05.3841 Plotted with 16.05.3841

MAIN PASS

REPEAT PASS

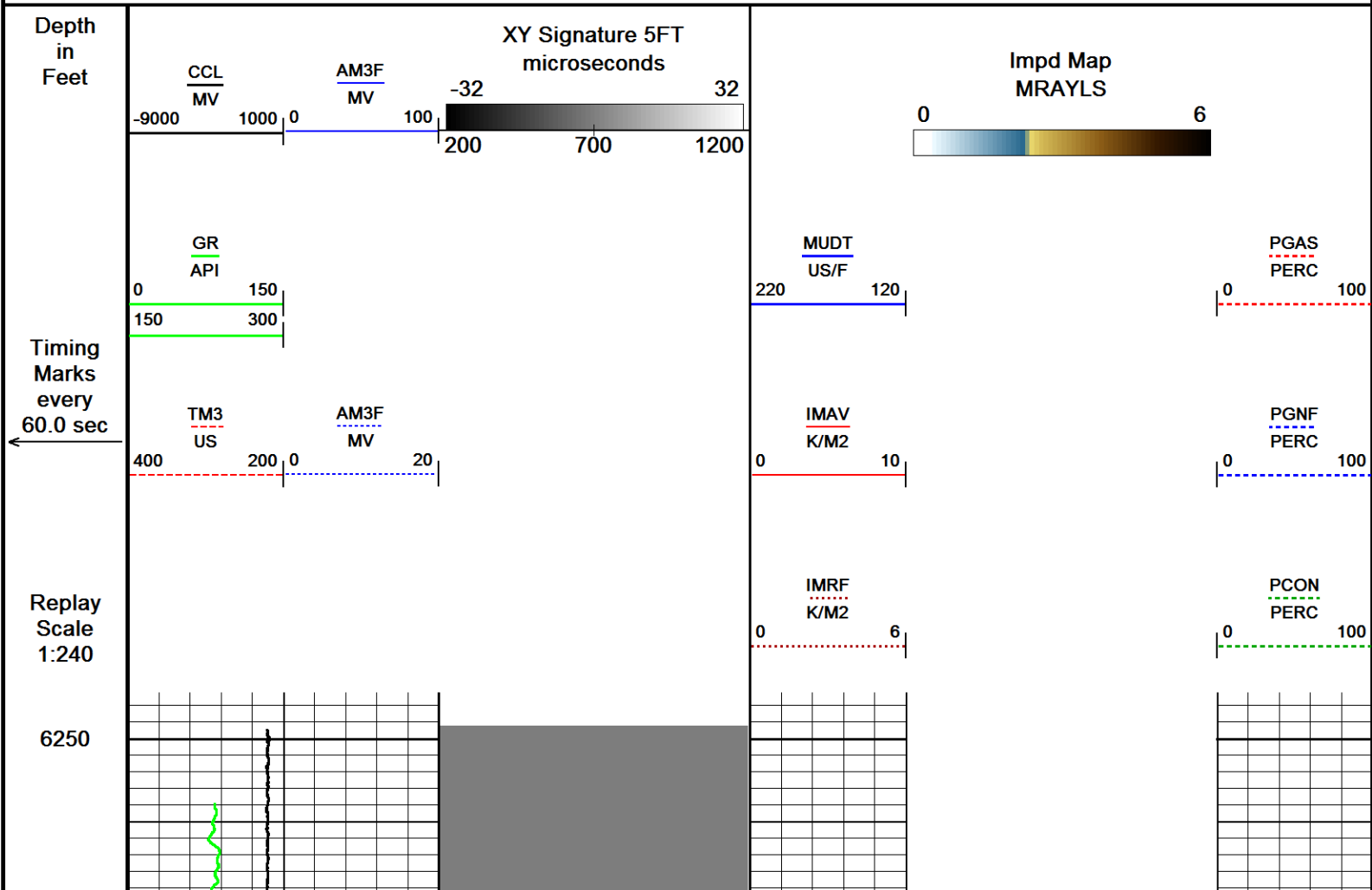
Depth Based Data - Maximum Sampling Increment 2.5cm

Plotted on 05-DEC-2016 21:45

Filename: C:\Logs\Extraction\VARRA 2\VARRA 2 REPEAT PASS.dta

Recorded on 05-DEC-2016 14:35

System Versions: Logged with 16.05.3841 Plotted with 16.05.3841

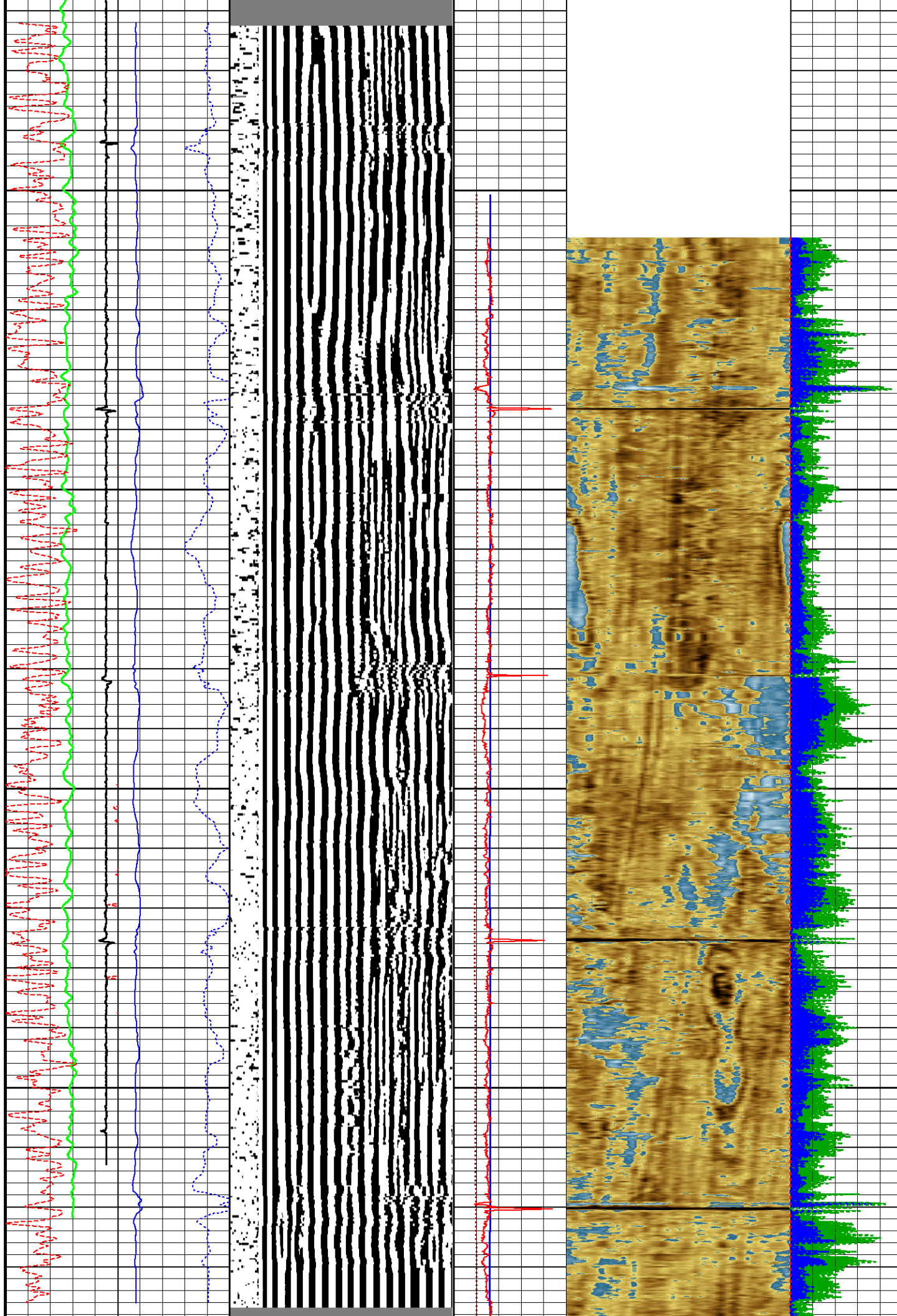


6300

6350

6400

6450



6500

Depth  
in  
FeetXY Signature 5FT  
microsecondsImpd Map  
MRAYLSTiming  
Marks  
every  
60.0 secReplay  
Scale  
1:240CCL  
MVAM3F  
MV

-32

32

-9000 1000 0 100 200 700 1200

0

6

GR  
API0 150  
150 300MUDT  
US/F

220 120

PGAS  
PERC

0 100

TM3  
US

400 200 0 20

AM3F  
MVIMAV  
K/M2

0 10

PGNF  
PERC

0 100

IMRF  
K/M2

0 6

PCON  
PERC

0 100

Depth Based Data - Maximum Sampling Increment 2.5cm

Filename: C:\Logs\Extraction\VARRA 2\VARRA 2 REPEAT PASS.dta

Plotted on 05-DEC-2016 21:45

Recorded on 05-DEC-2016 14:35

System Versions: Logged with 16.05.3841 Plotted with 16.05.3841



REPEAT PASS



## DOWNHOLE EQUIPMENT

C:\Logs\Extraction\VARRA 2\VARRA 2 MAIN PASS.dta

Mono-Cablehead

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

Crossover 1-pin to 55-pin for WCC-D

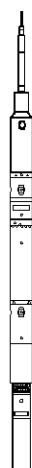
XOV-WC 128 LG: 1.05 ft WT: 15.4 lb OD: 3.386 in

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

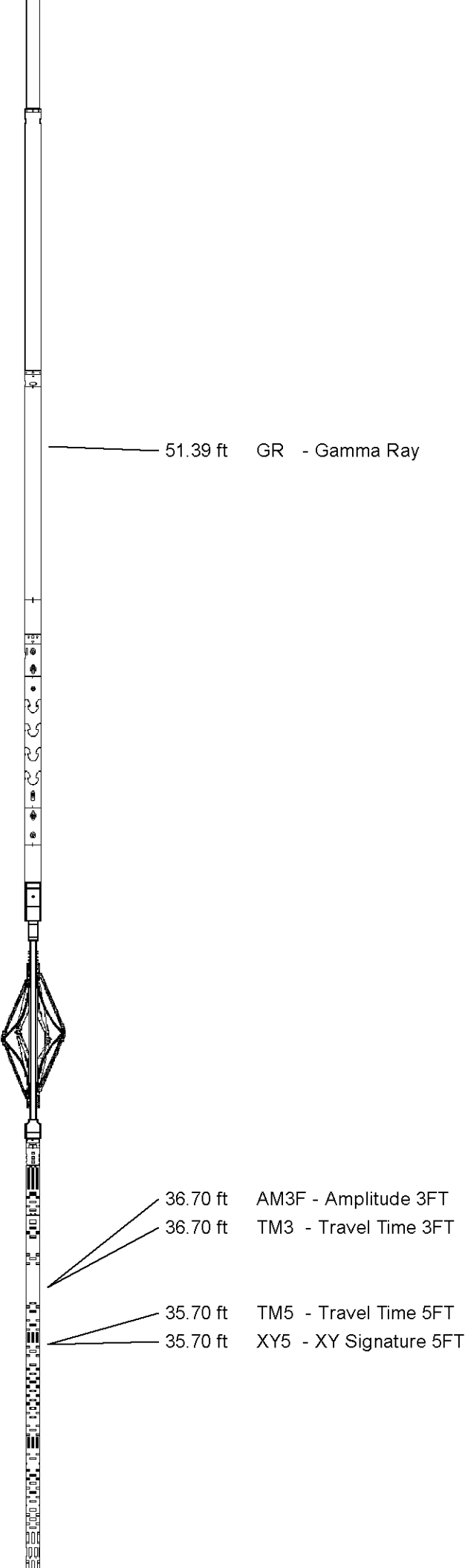
Communication Cartridge 55pin 3-3/8in  
WCC-DA 125 LG: 4.60 ft WT: 63.9 lb OD: 3.386 in

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 162 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



55 pin Roller Centralizer  
CEN-XA 222 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

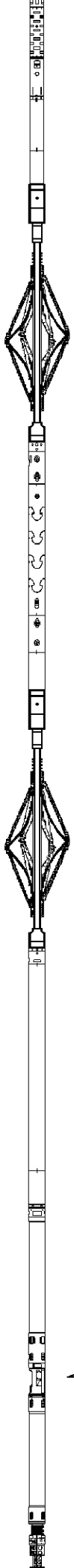
55 pin Roller Centralizer  
CEN-XA 221 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

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

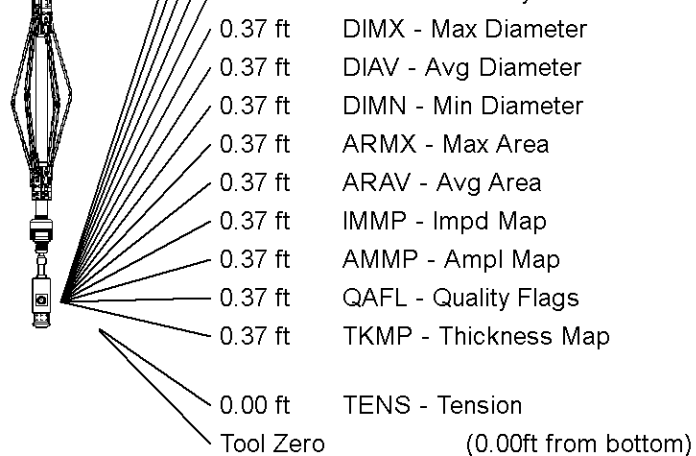
Ultrasonic Radial Scanner Head A  
USH-AB 136 LG: 1.03 ft WT: 13.2 lb OD: 3.386 in

Total Length: 65.13 ft Weight: 1122.2 lb



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

0.37 ft IMM - Max Impedance  
0.37 ft IMAV - Avg Impedance  
0.37 ft IMM - Min Impedance  
0.37 ft ECCE - Eccentering  
0.37 ft OVLI - ID Ovality



All measurements relative to tool zero.

## SHOP AND FIELD CALIBRATIONS

C:\Logs\Extraction\VARRA 2\VARRA 2 MAIN PASS.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	444.52
AMP 5 FT	100 % Bond	1.20	0.00
	Free Pipe	36.00	408.30

CBT Constants CBT-AA 101

Last Edited on 05-DEC-2016 14:45

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
PT Fluid	187.0 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

Ultrasonic Radial Scanner Before Cal USH-AB 136

Field Calibration on 15-NOV-2016 08:41

Ultrasonic Radial Scanner Before Calibration

Tool Type USH-AB Serial No 136

	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-DEC-2016 14:45

\*\*\* 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	3.75
ZMud Cal Area Ratio	4.00

\*\* 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	1611.00	5.50	36.00	1.50	1.50	0.36	1.00
0.00	16991.00	5.50	20.00	1.50	1.50	0.36	1.00


\*\* Constants \*\*

Thickness Calculated from	Tool
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

COMPANY	EXTRACTION OIL & GAS
WELL	VARRA 2
FIELD	WATTENBERG
PROVINCE/COUNTY	WELD
COUNTRY/STATE	USA / COLORADO

Elevation Kelly Bushing	4924	feet	Bottom Log Interval	6525.00	feet
Elevation Drill Floor	4924	feet	Depth Driller	16991.00	feet
Elevation Ground Level	4899	feet	Depth Logger	6525.00	feet



SECUREVIEW

ULTRAVIEW/BONDVIEW

CEMENT ANALYSIS