
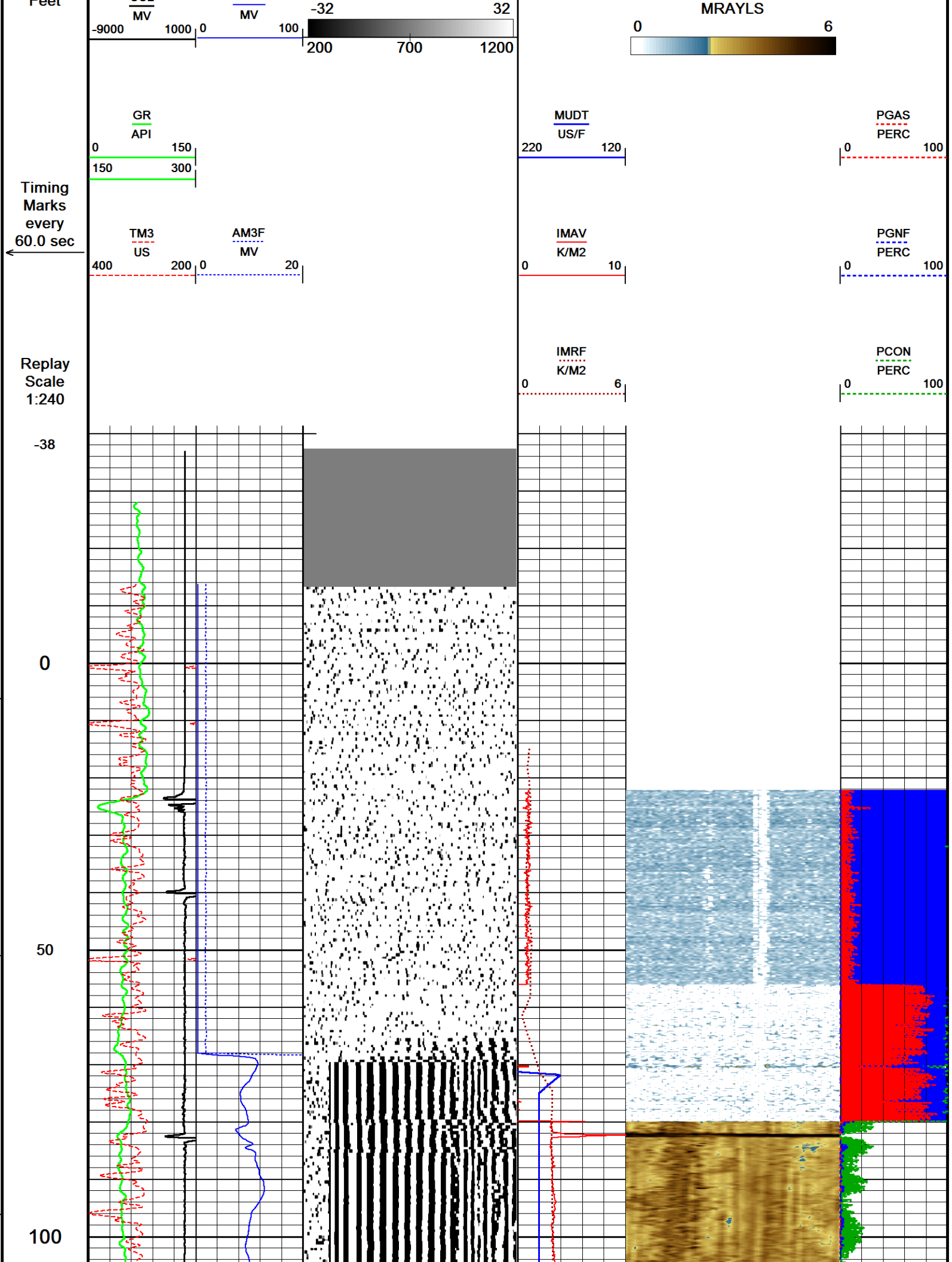


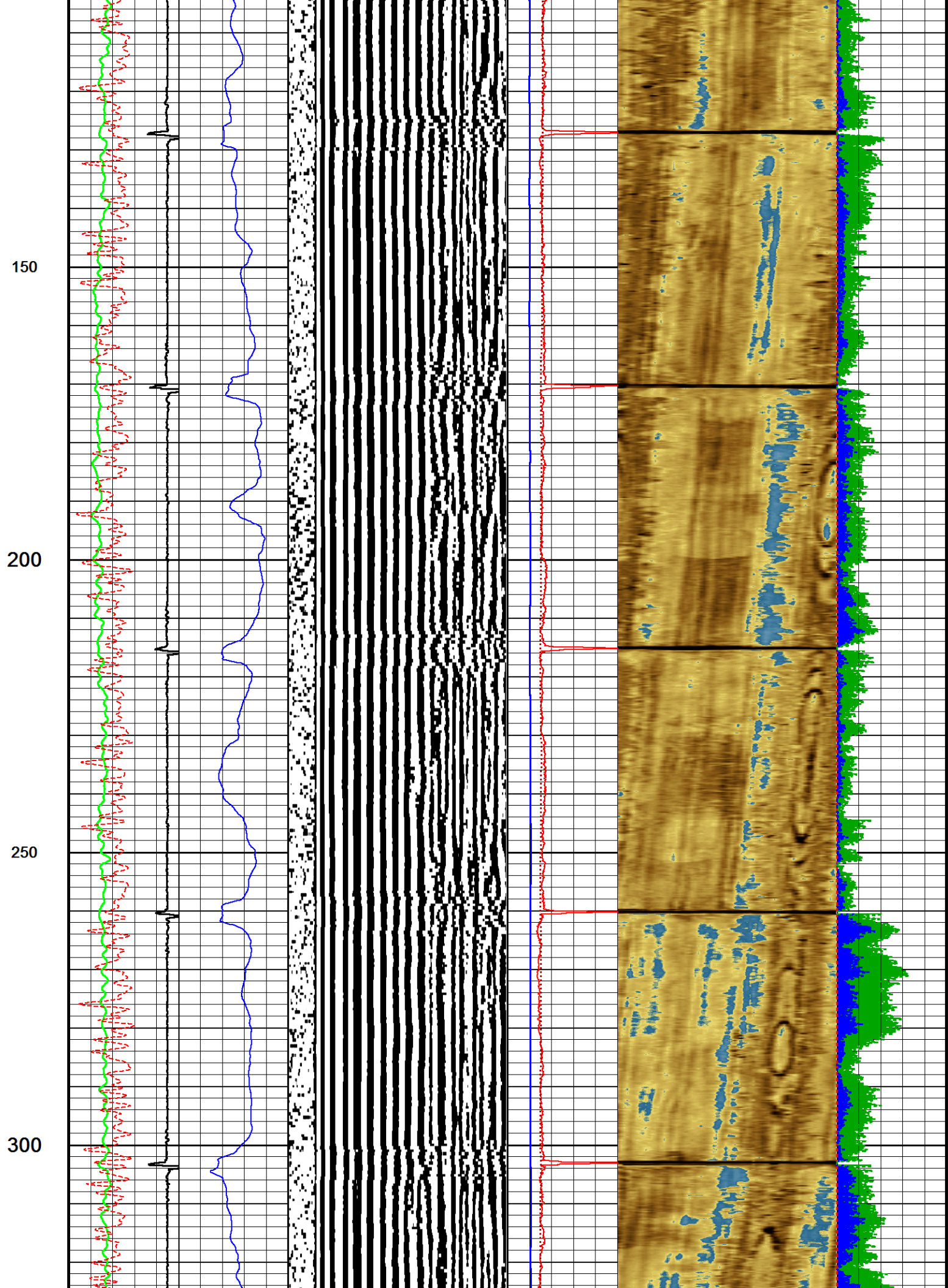
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|--|---------------|--------------------|------------------------|------------------|----------|
|  | | | SECUREVIEW | | |
| Weatherford® | | | ULTRAVIEW/BONDVIEW | | |
| | | | CEMENT ANALYSIS | | |
| COMPANY | | | EXTRACTION OIL & GAS | | |
| WELL | | | VARRA 12 | | |
| FIELD | | | WATTENBERG | | |
| PROVINCE/COUNTY | | | WELD | | |
| COUNTRY/STATE | | | USA / COLORADO | | |
| LOCATION | | | | | |
| SEC 5 | TWP 6N | RGE 67W | Other Services | | |
| Latitude | | | | | |
| Longitude | | | | | |
| API Number | | 05 123 39992 00 | | | |
| Permanent Datum GROUND LEVEL, Elevation 4899 feet | | | | Elevations: feet | |
| Log Measured From KB, 25 feet above Permanent Datum | | | | KB 4924.00 | |
| Drilling Measured From KB @ 25' | | | | DF 4924.00 | |
| | | | | GL 4899.00 | |
| Date | 02-DEC-2016 | PERFORATION RECORD | | | |
| Run Number | ONE | Shot | Number | Depth From | Depth To |
| Service Order | 167916767 | Density | of Shots | feet | feet |
| Type Log | URS/CBT | | | | |
| Depth Driller | 17369.00 | | | | |
| Depth Logger | 6600.00 | | | | |
| Top Log Interval | 0.00 | | | | |
| Bottom Log Interval | 6600.00 | | | | |
| 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 | 1529.00 |
| Unit | 14338 | 5.500 | 20.00 | 0.00 | 17369.00 |
| Equipment Name | WSSE | | | | |
| Base | CASPER | | | | |
| Recorded By | P. MAZUR | | | | |
| Witnessed By | NOT WITNESSED | | | | |

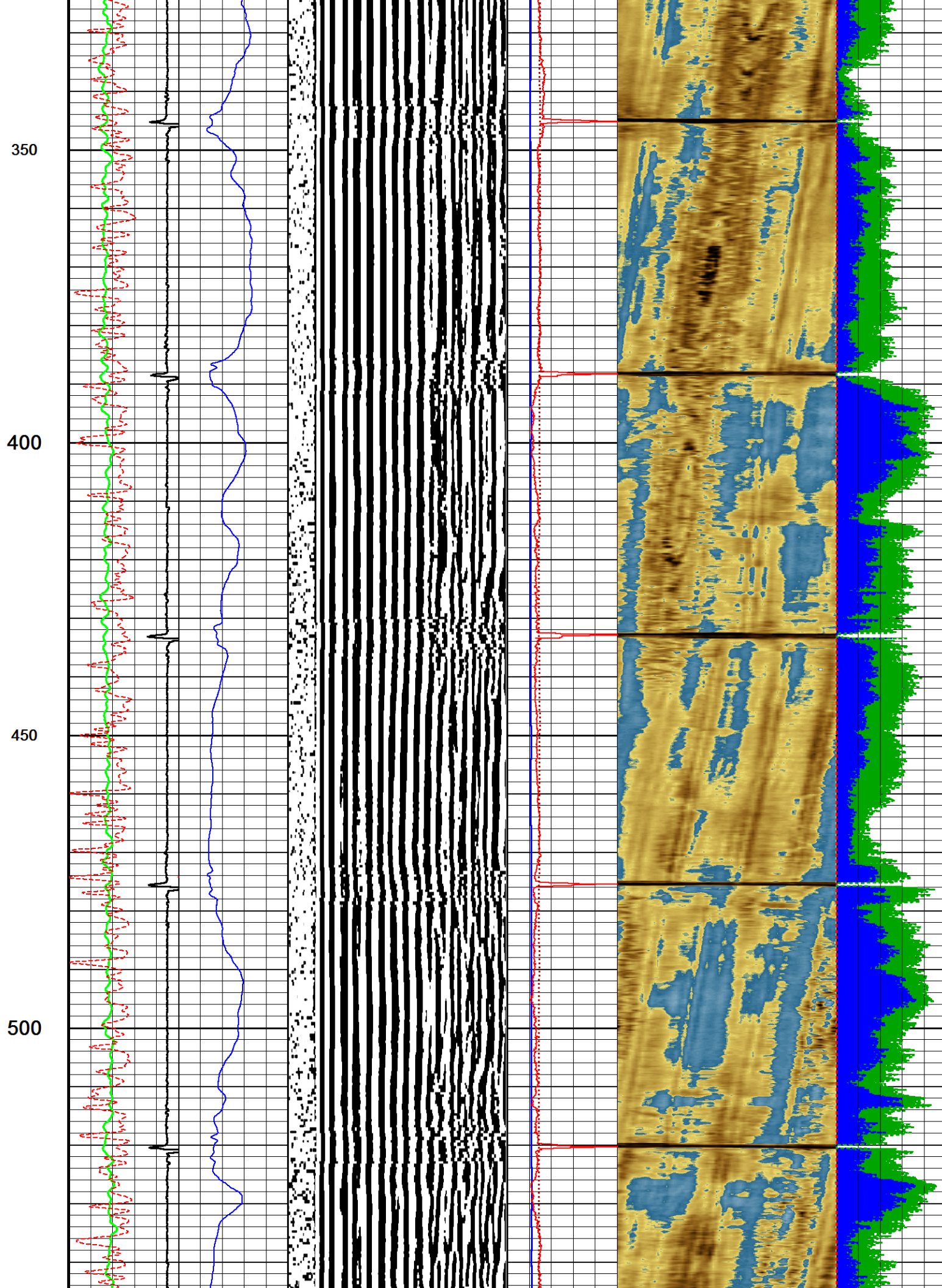
| CASING / TUBING RECORD | | | | | | |
|------------------------|-------|-----------|----------------|--------------------|--------------------|---------------------|
| Type | Grade | TypeJoint | Size inches | Depth From feet | Shoe Depth feet | Weight pounds/ft |
| SURFACE | | | 9.625 | 0.00 | 1529.00 | 36.00 |
| PRODUCTION | | | 5.500 | 0.00 | 17369.00 | 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 02-DEC-2016 19:51 | |
| Filename: C:\Logs\Extraction\VARRA 12\VARRA 12 MAIN PASS.dta | | Recorded on 02-DEC-2016 09:27 | |
| System Versions: Logged with 16.05.3841 Plotted with 16.05.3841 | | | |
| Depth in Feet | CC1 | XY Signature 5FT microseconds | Impd Map |
| | AM3F | | |







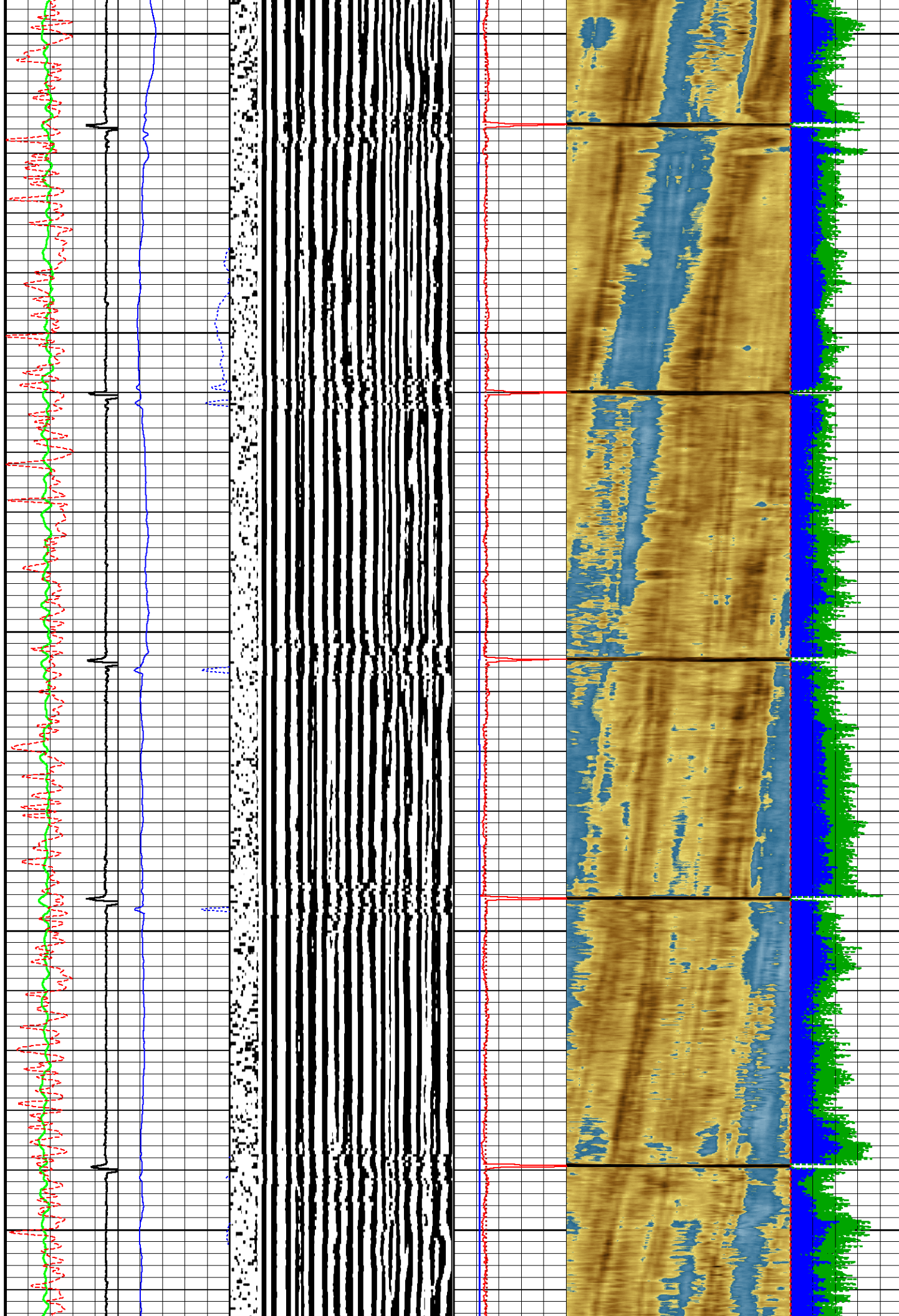
550

600

650

700

750

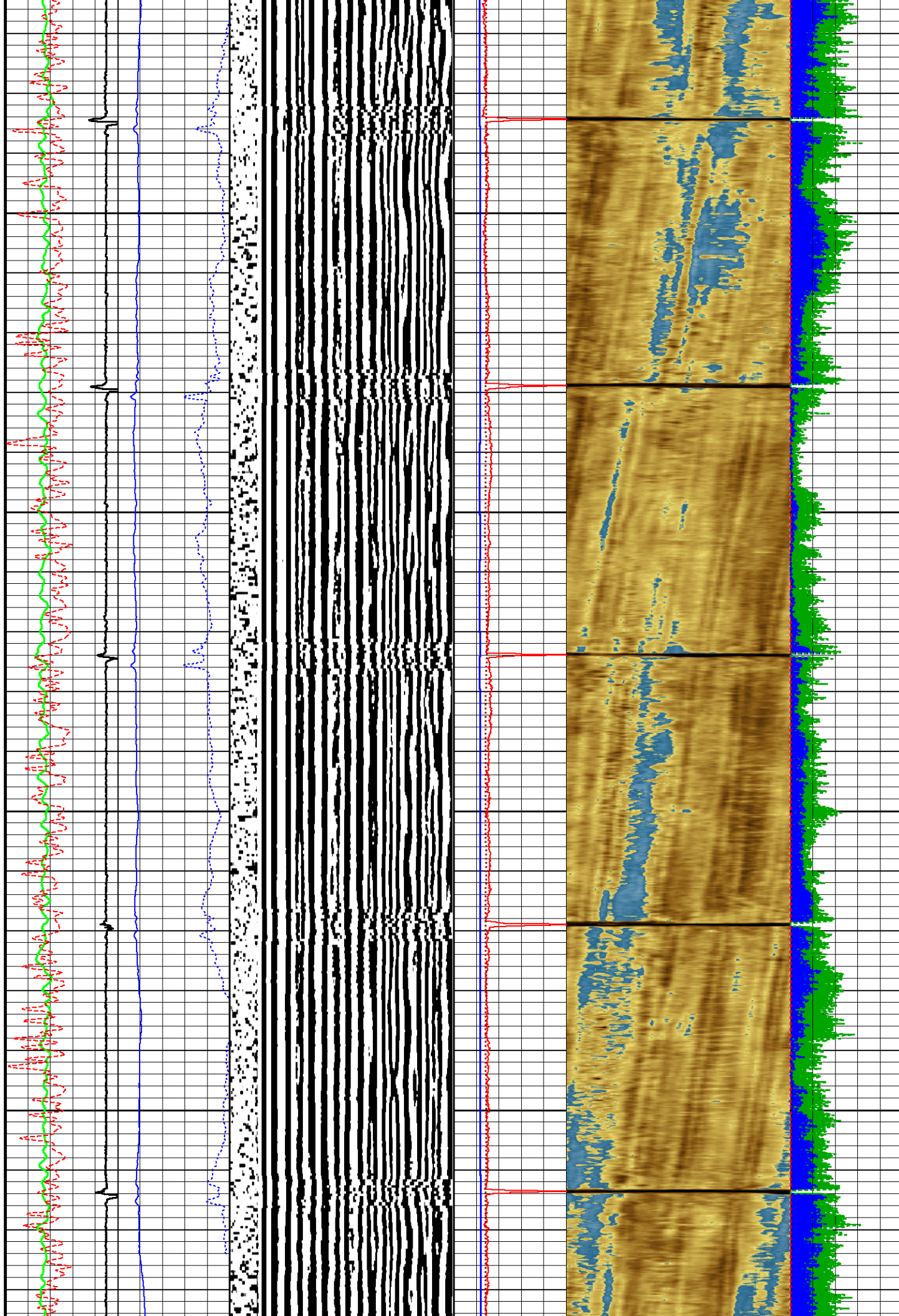


800

850

900

950



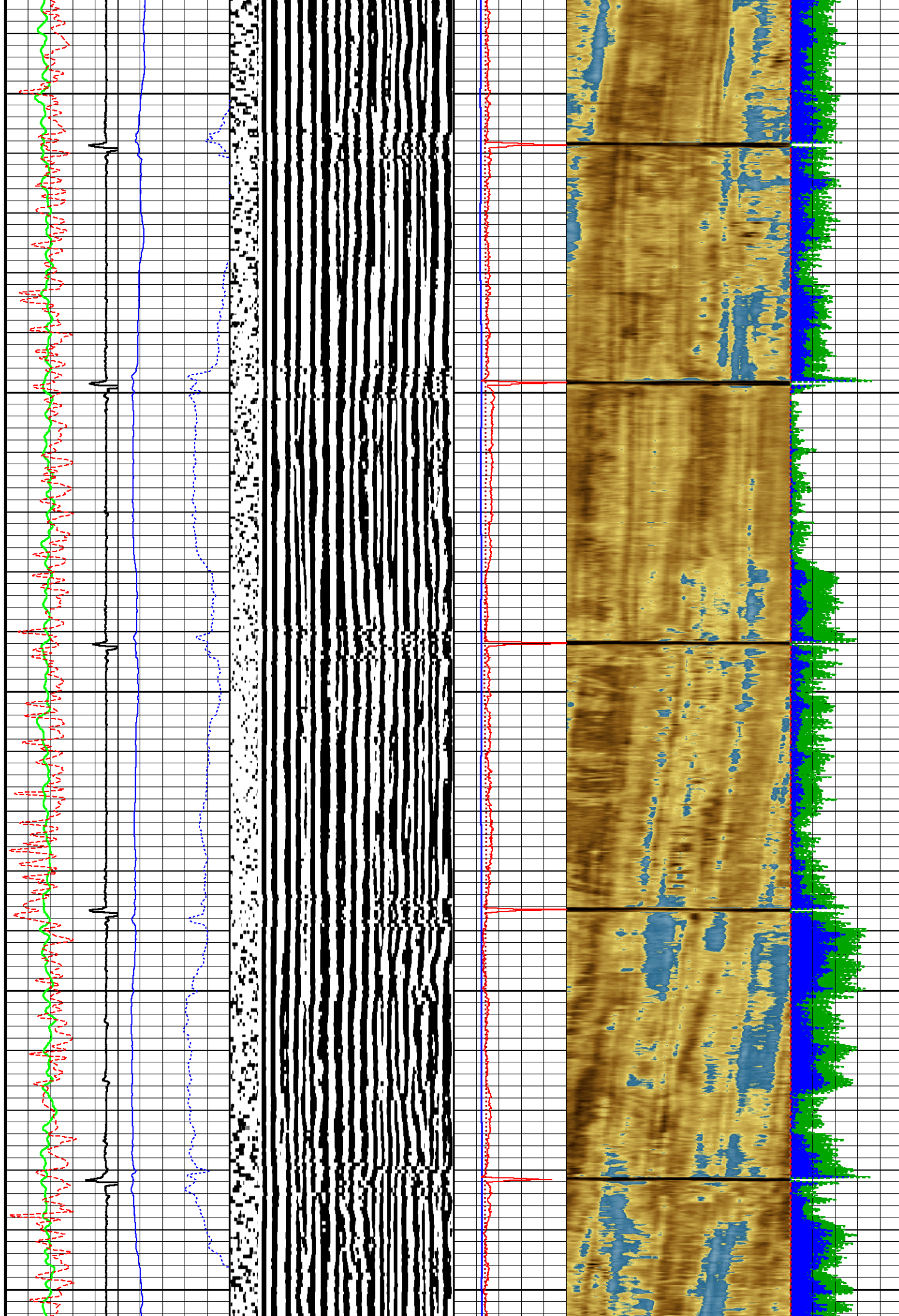
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1050

1100

1150

1200

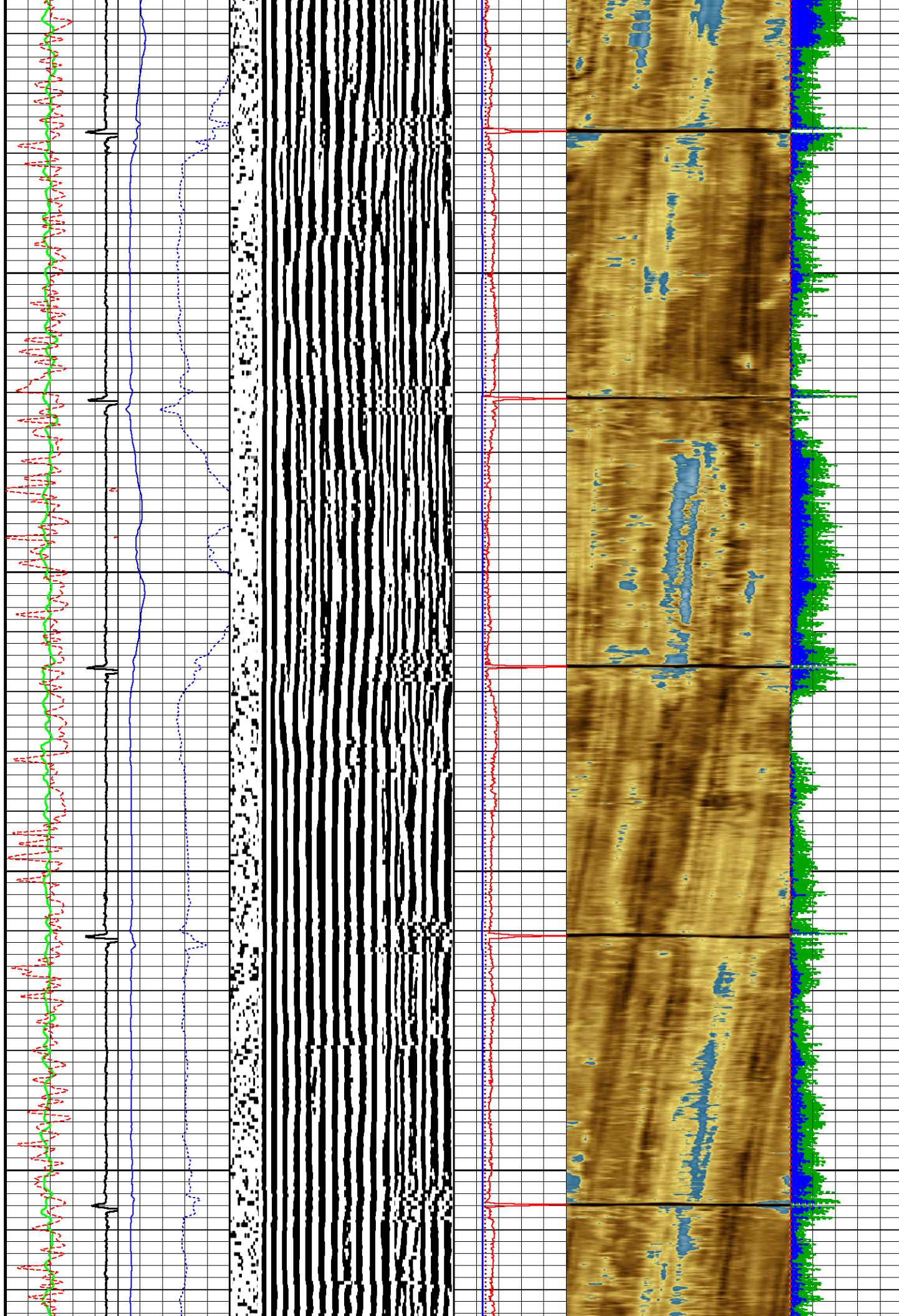


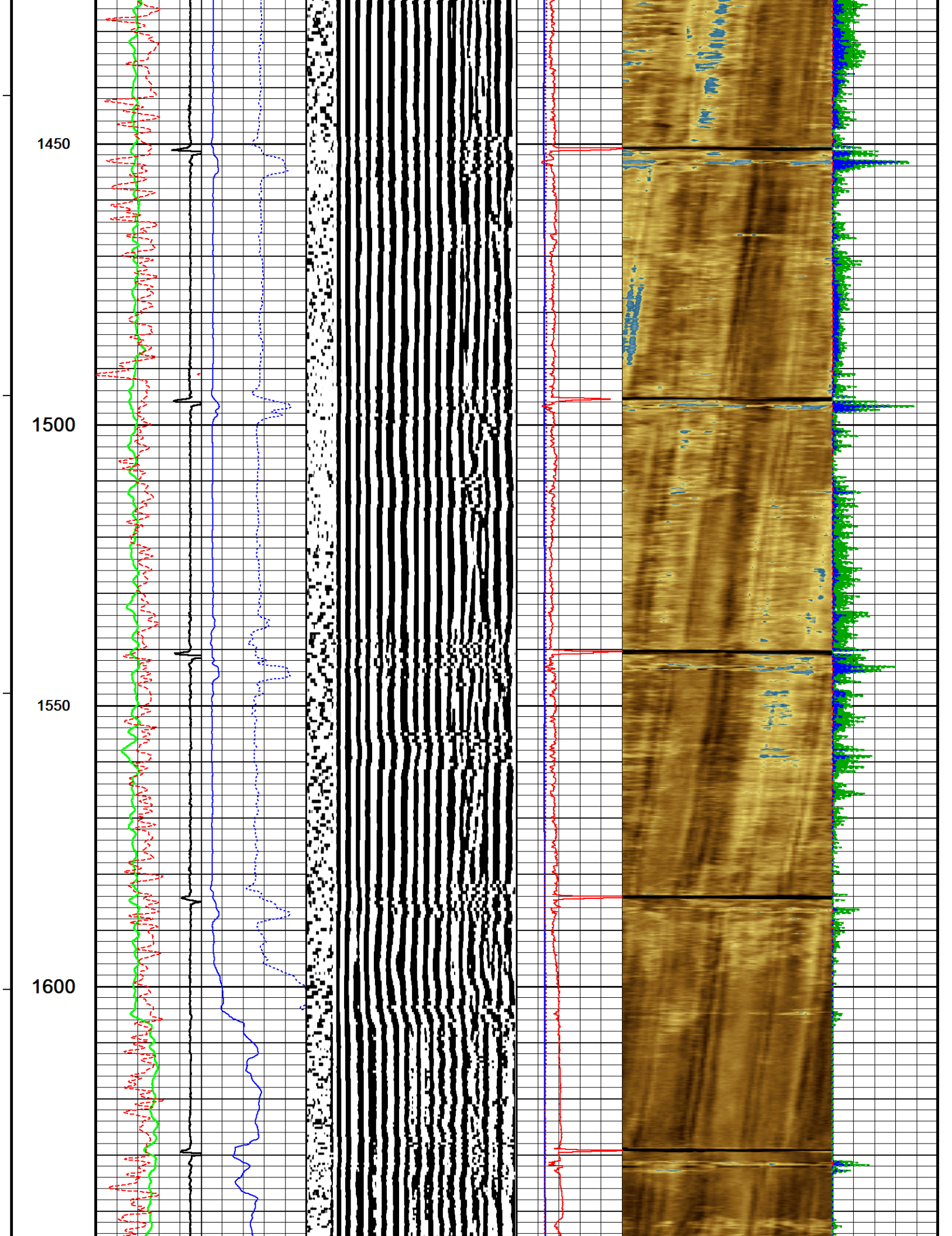
1250

1300

1350

1400





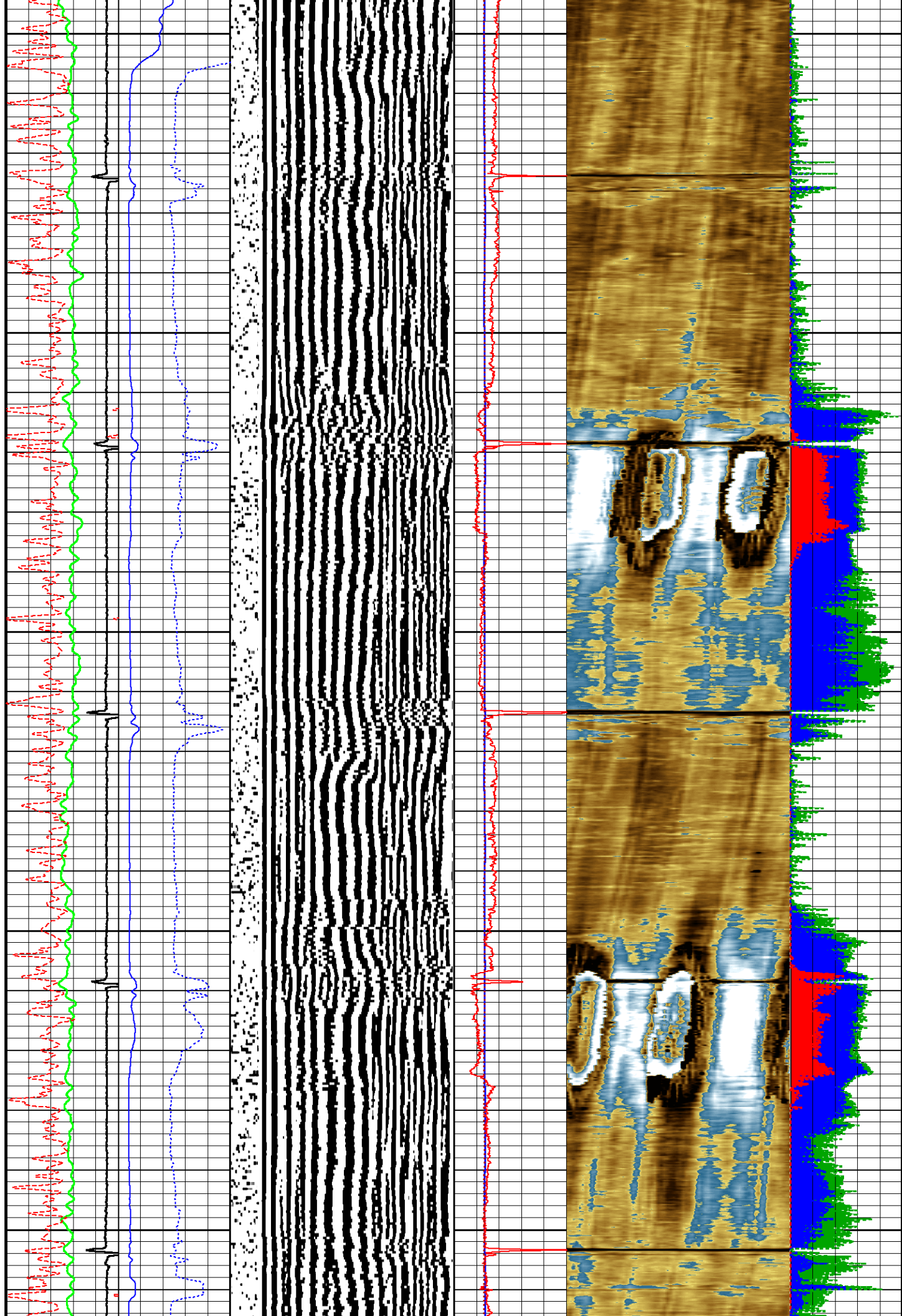
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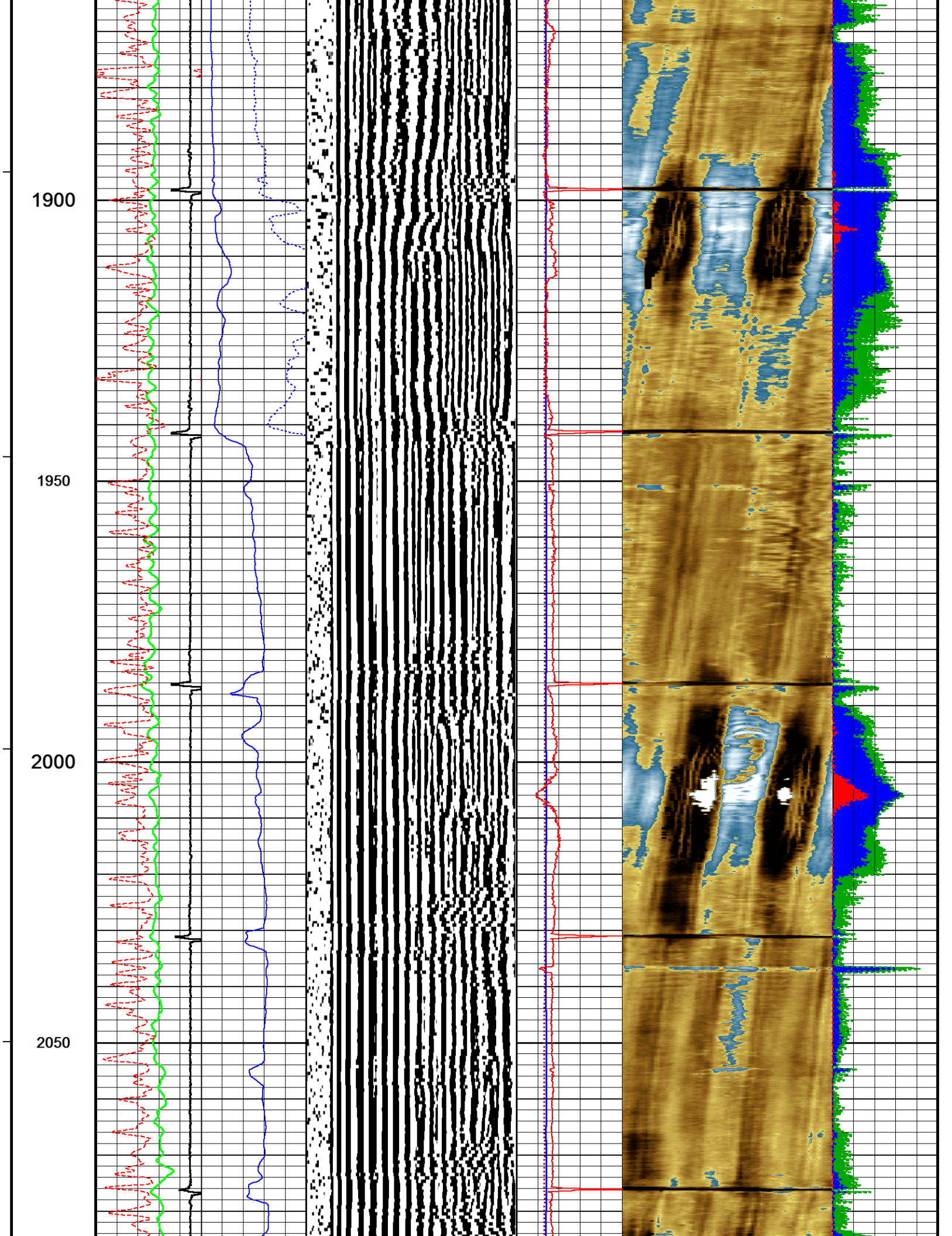
1700

1750

1800

1850





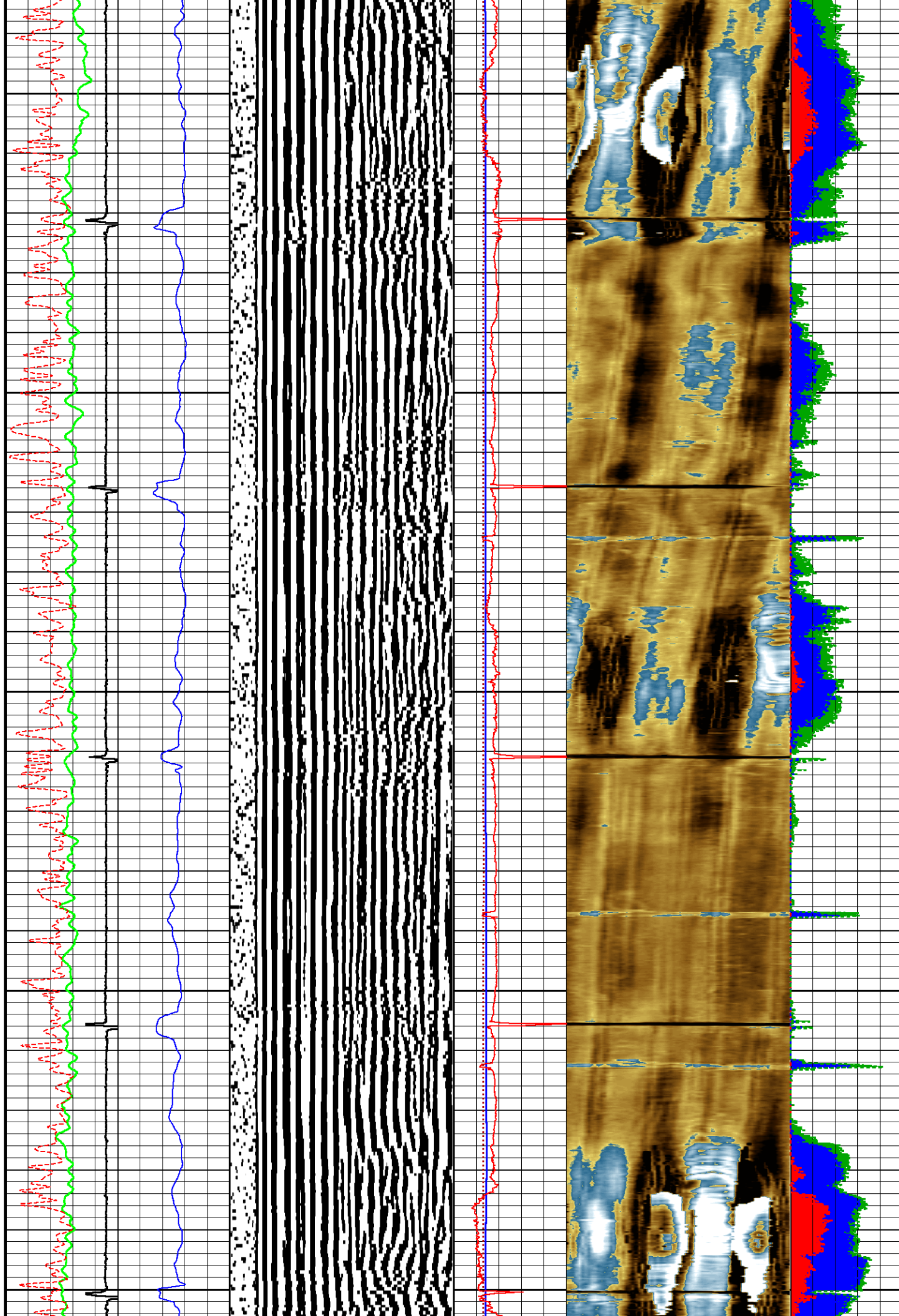
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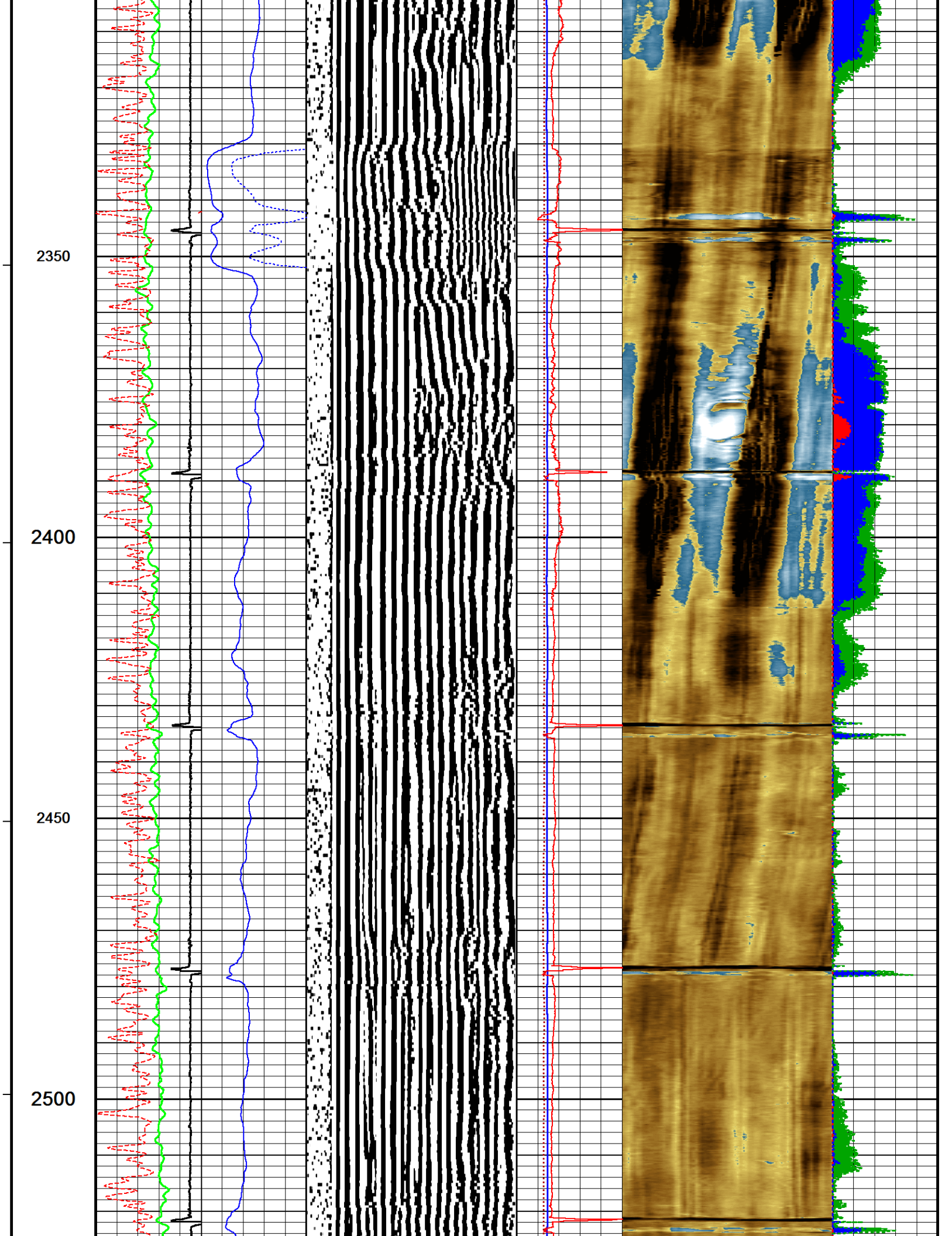
2150

2200

2250

2300



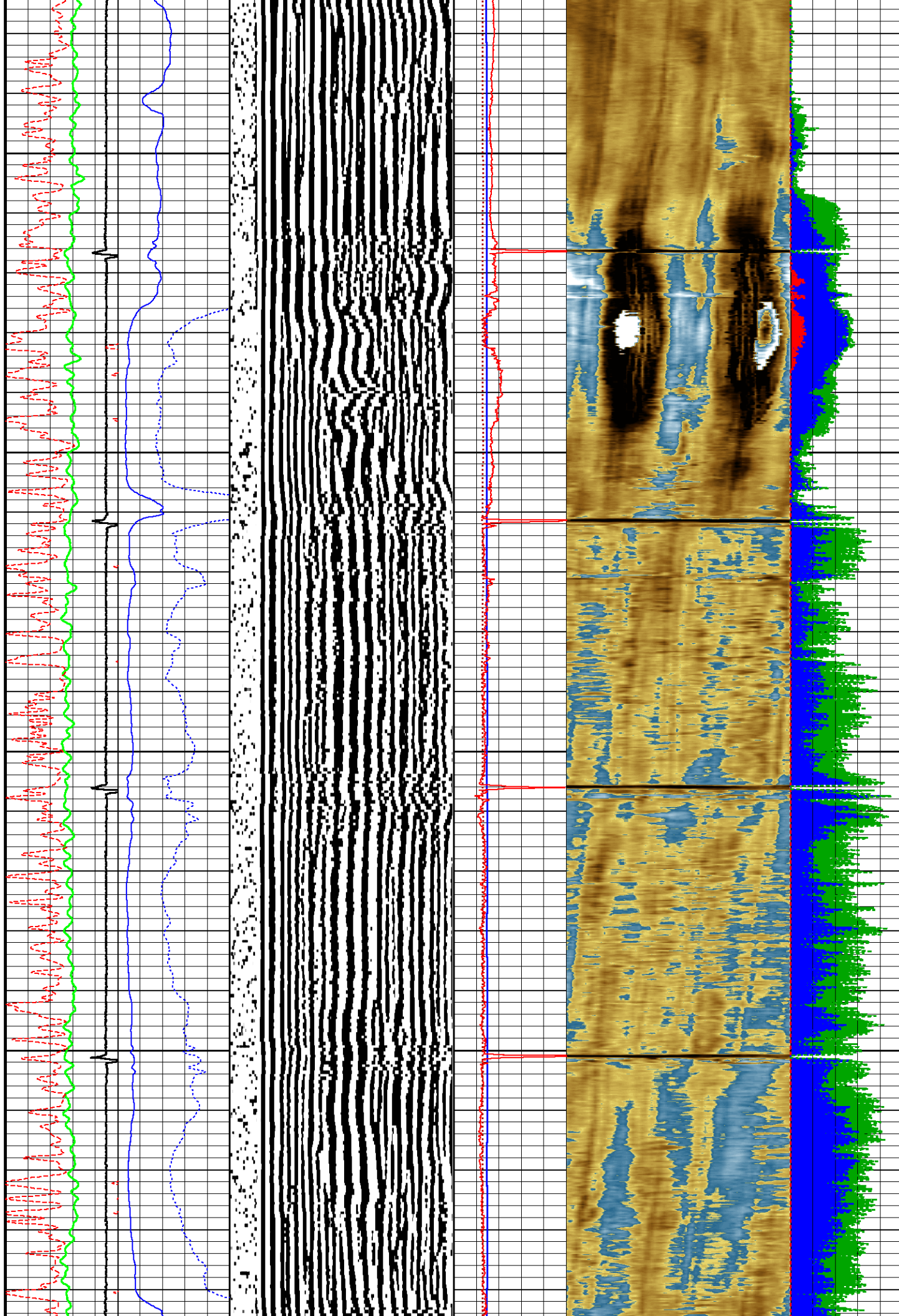


2550

2600

2650

2700



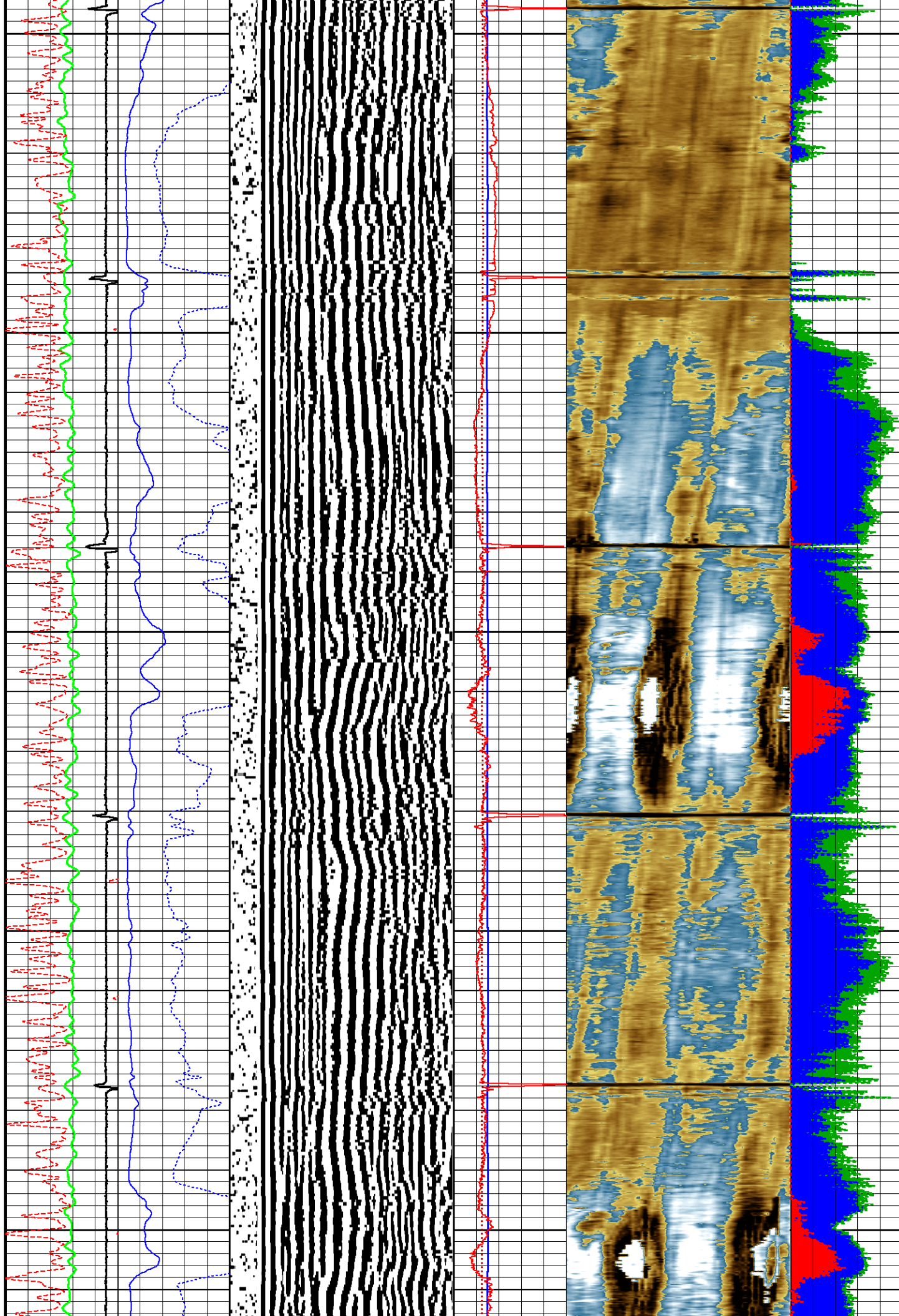
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2800

2850

2900

2950

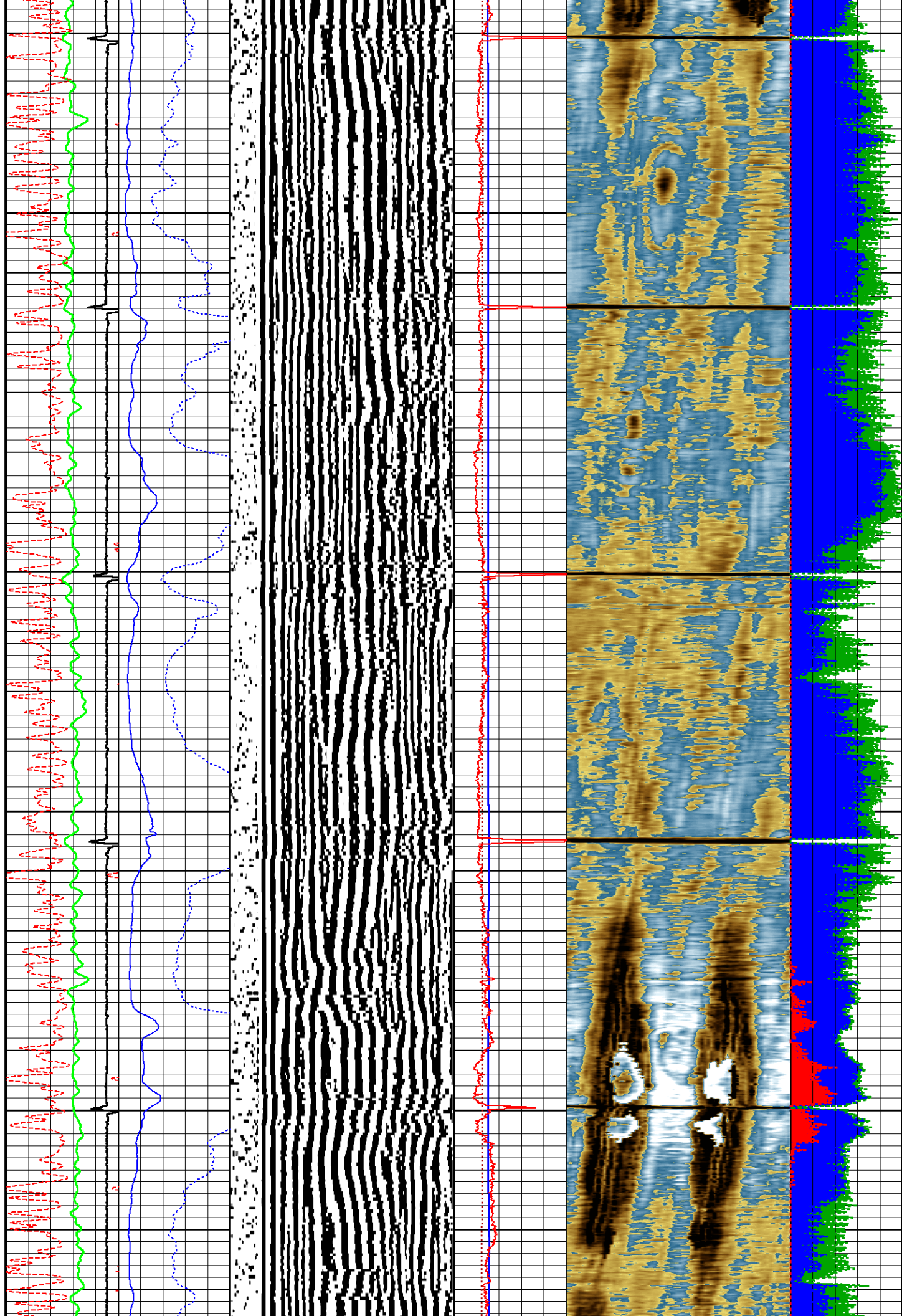


3000

3050

3100

3150



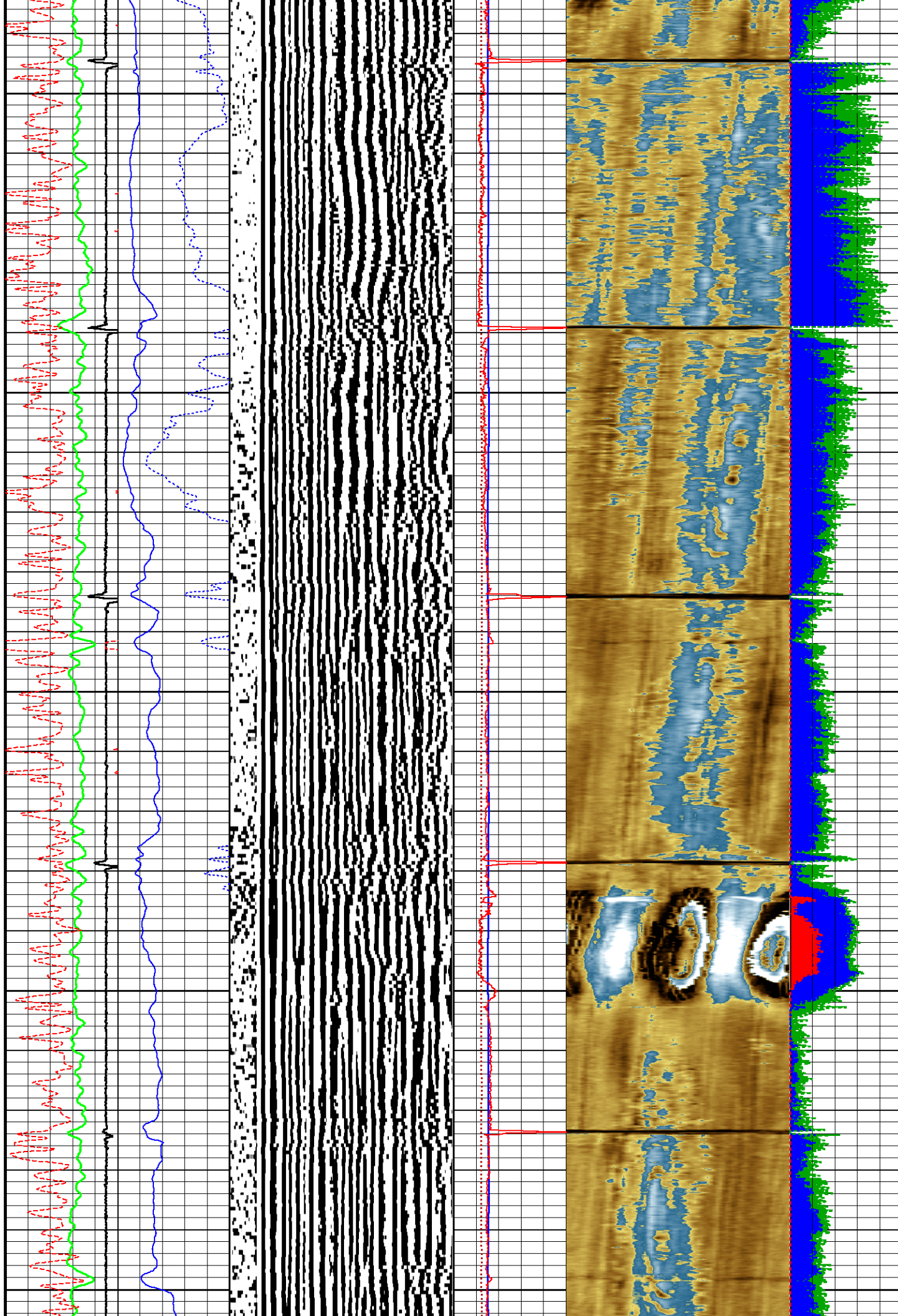
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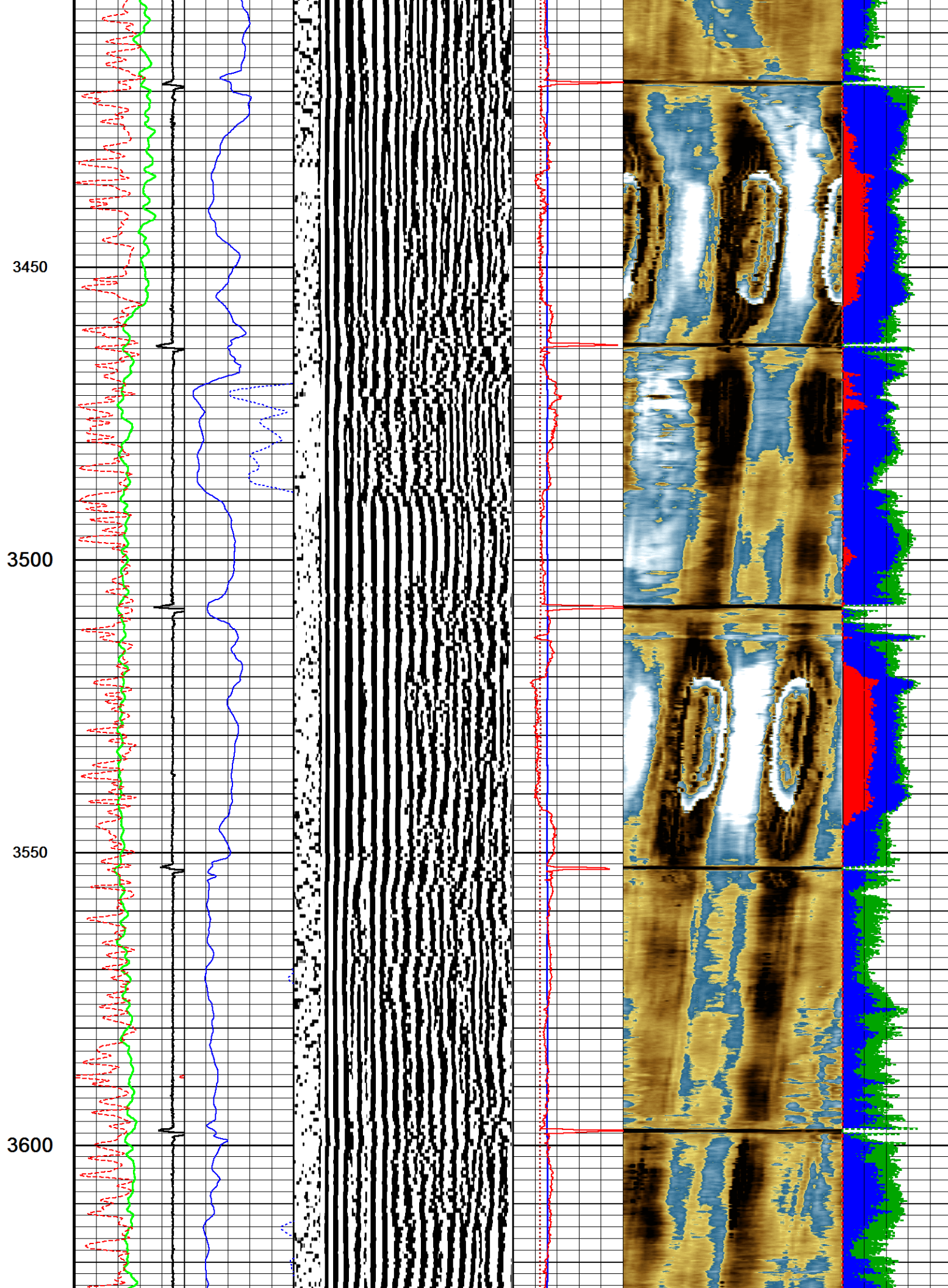
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3300

3350

3400



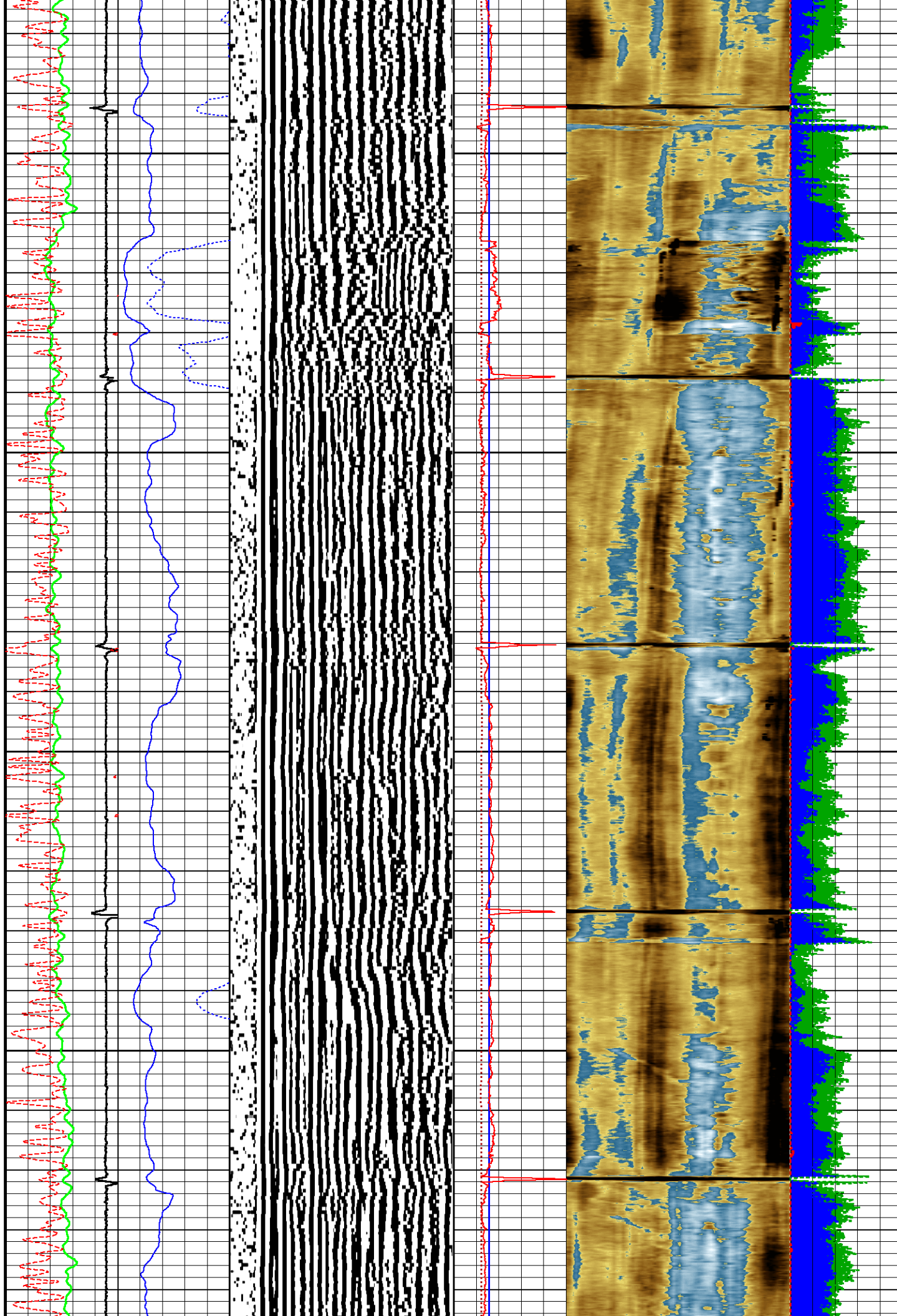


3650

3700

3750

3800



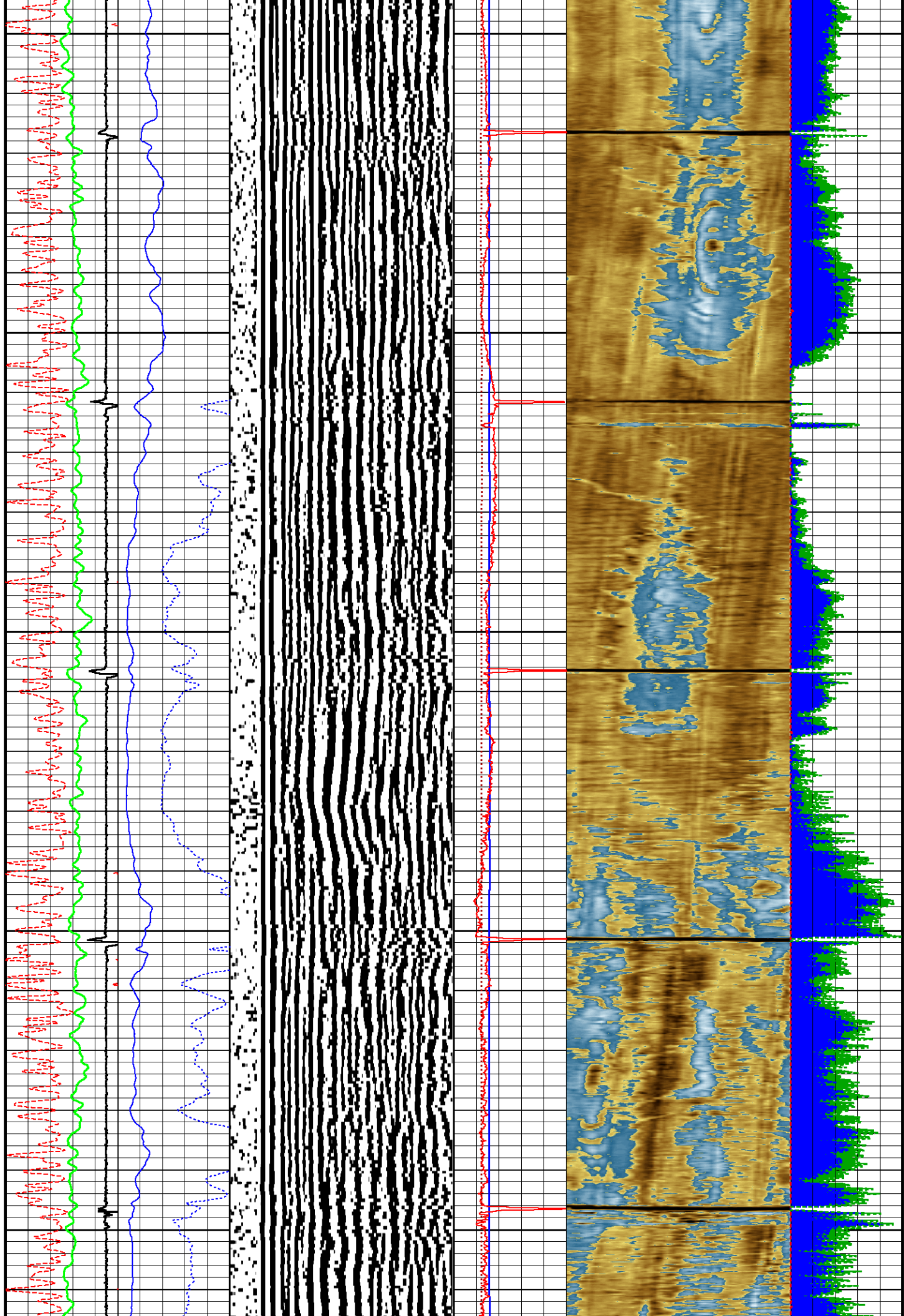
3850

3900

3950

4000

4050

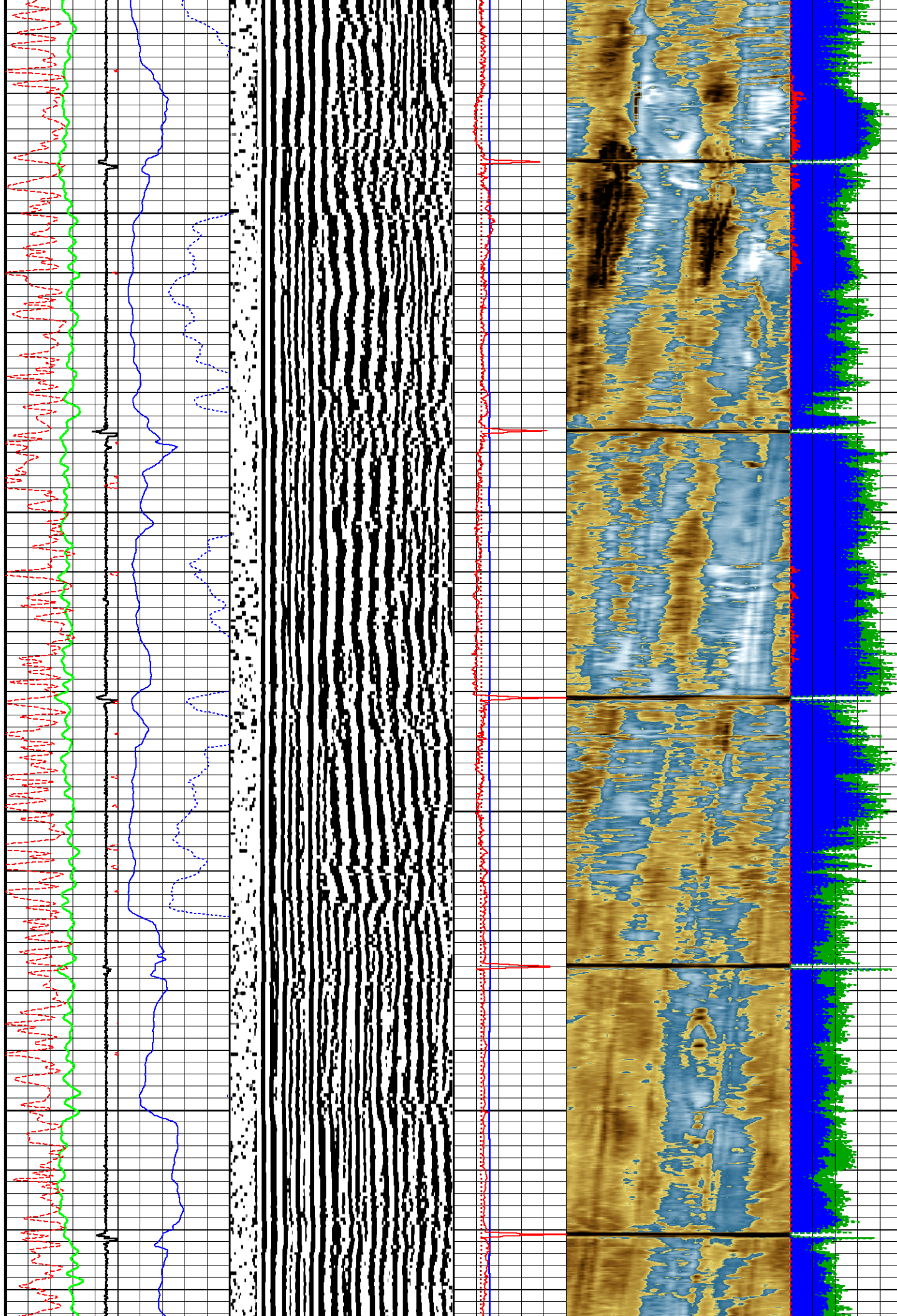


4100

4150

4200

4250



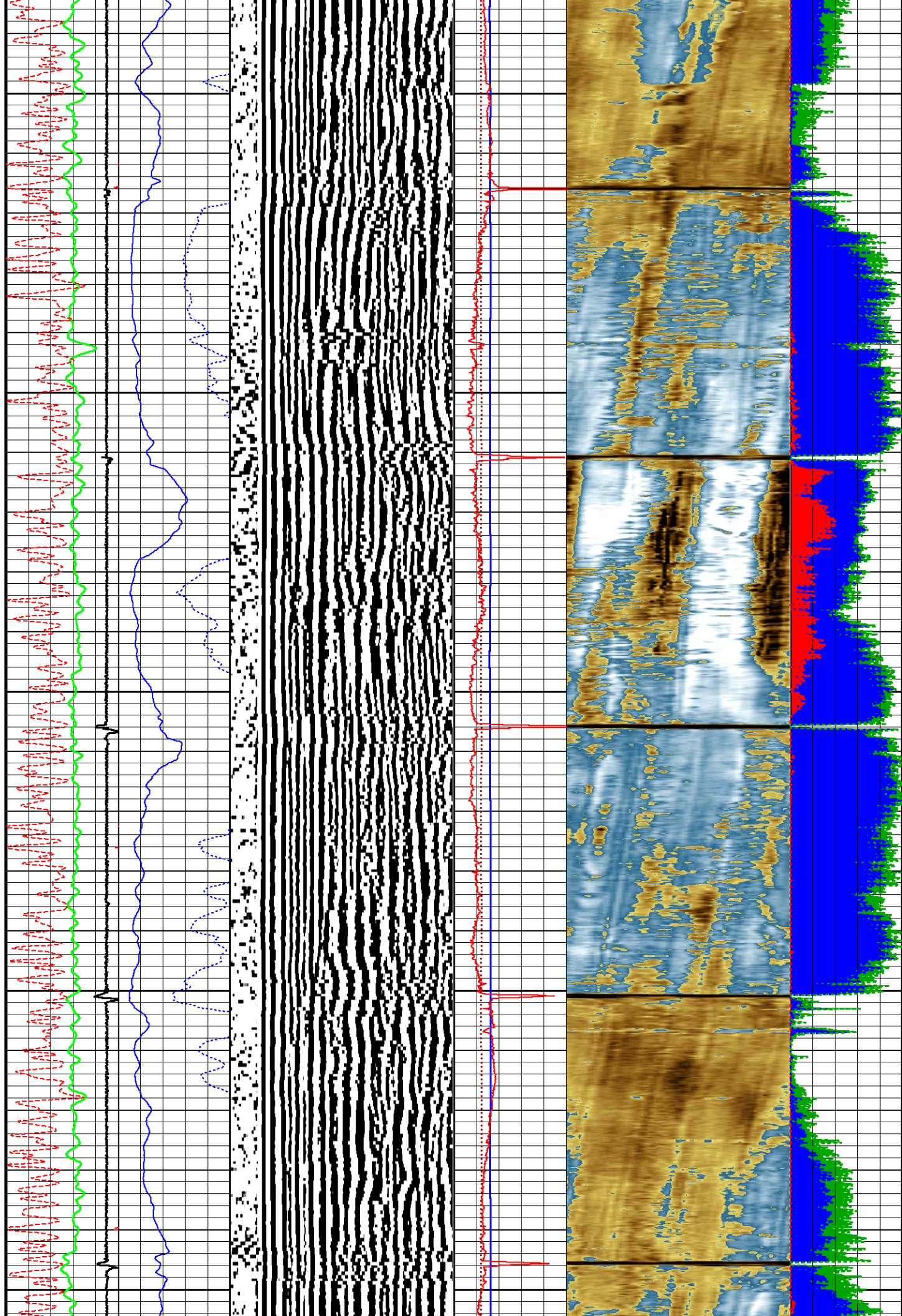
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4350

4400

4450

4500

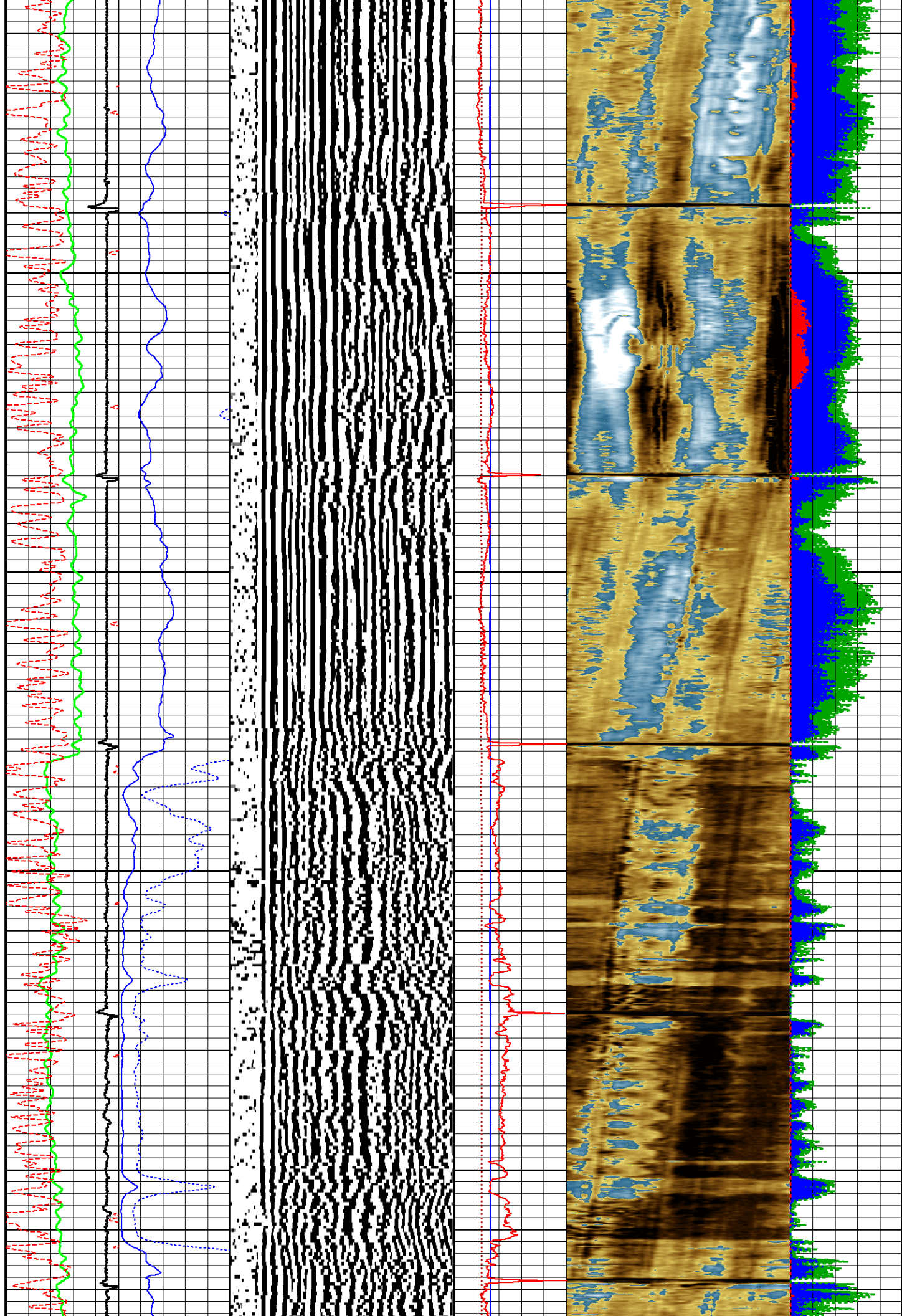


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4600

4650

4700

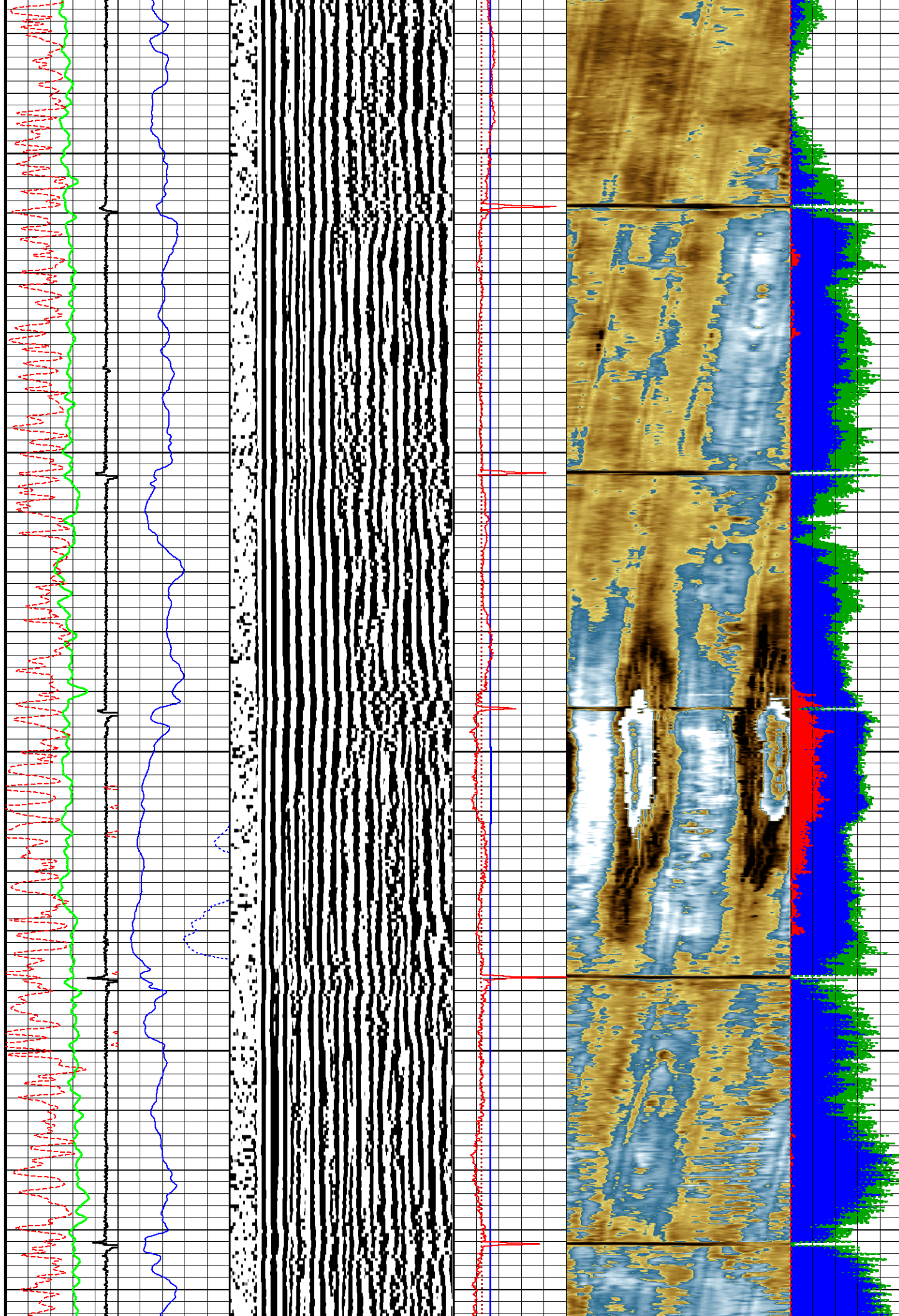


4750

4800

4850

4900



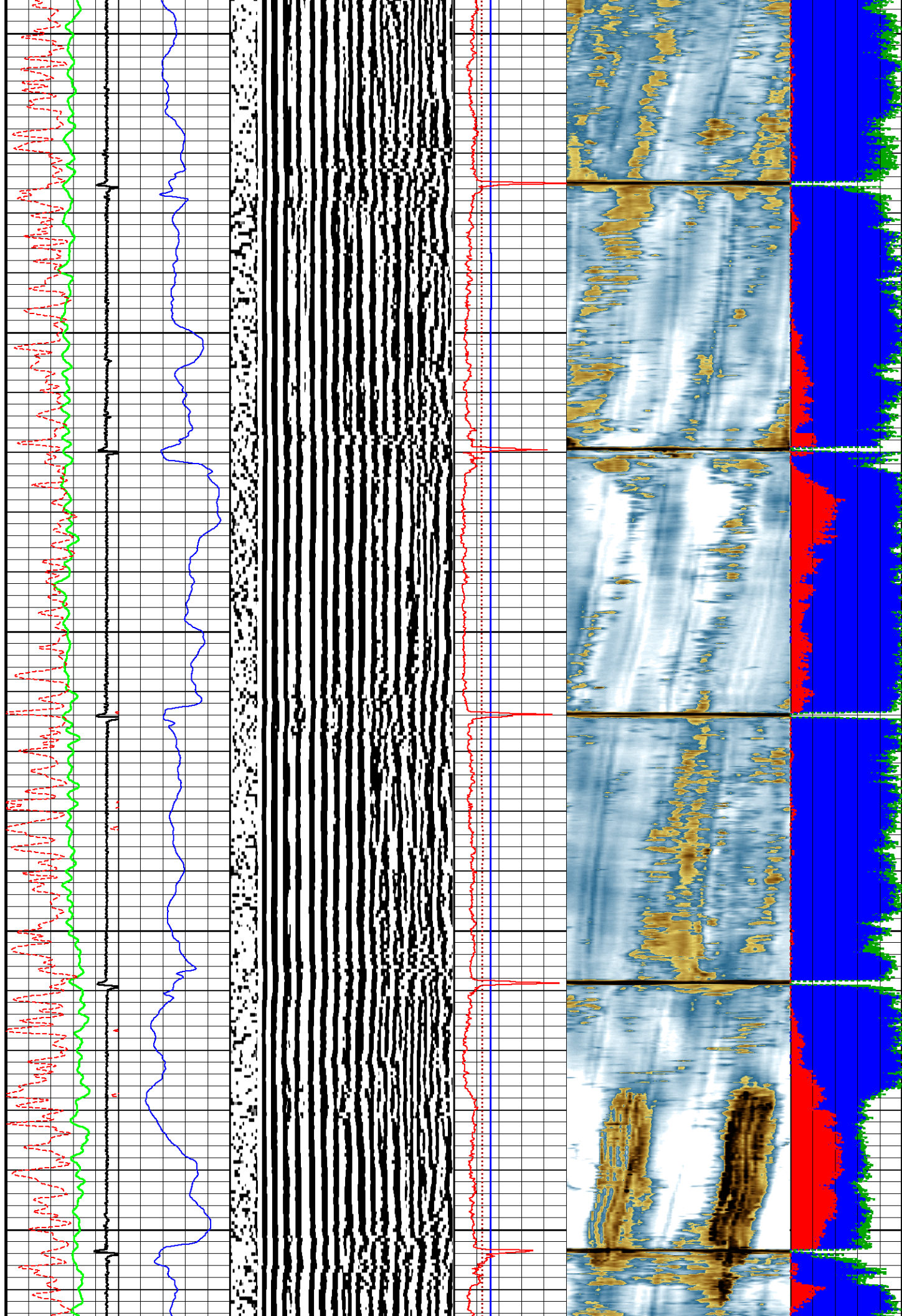
4950

5000

5050

5100

5150

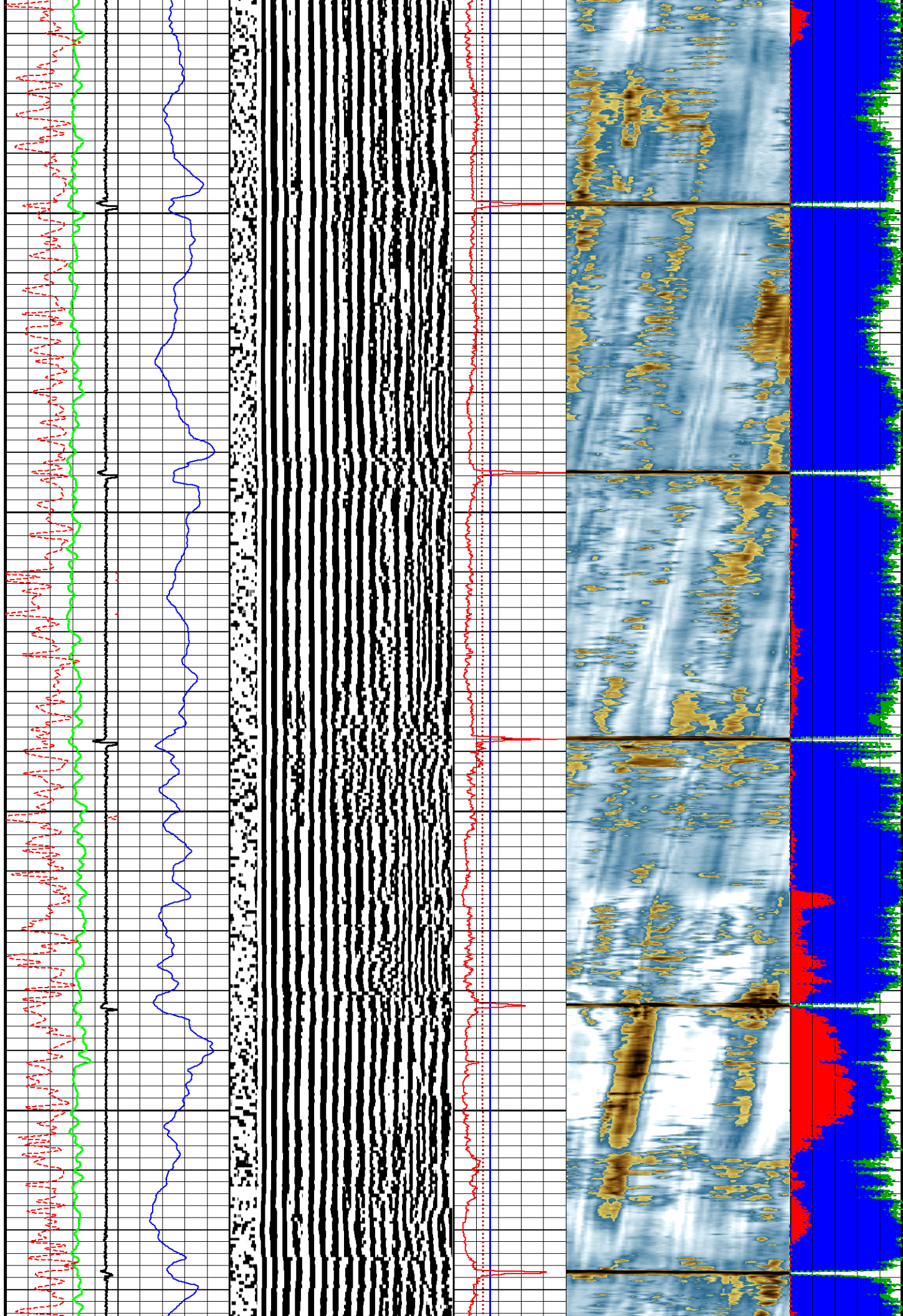


5200

5250

5300

5350



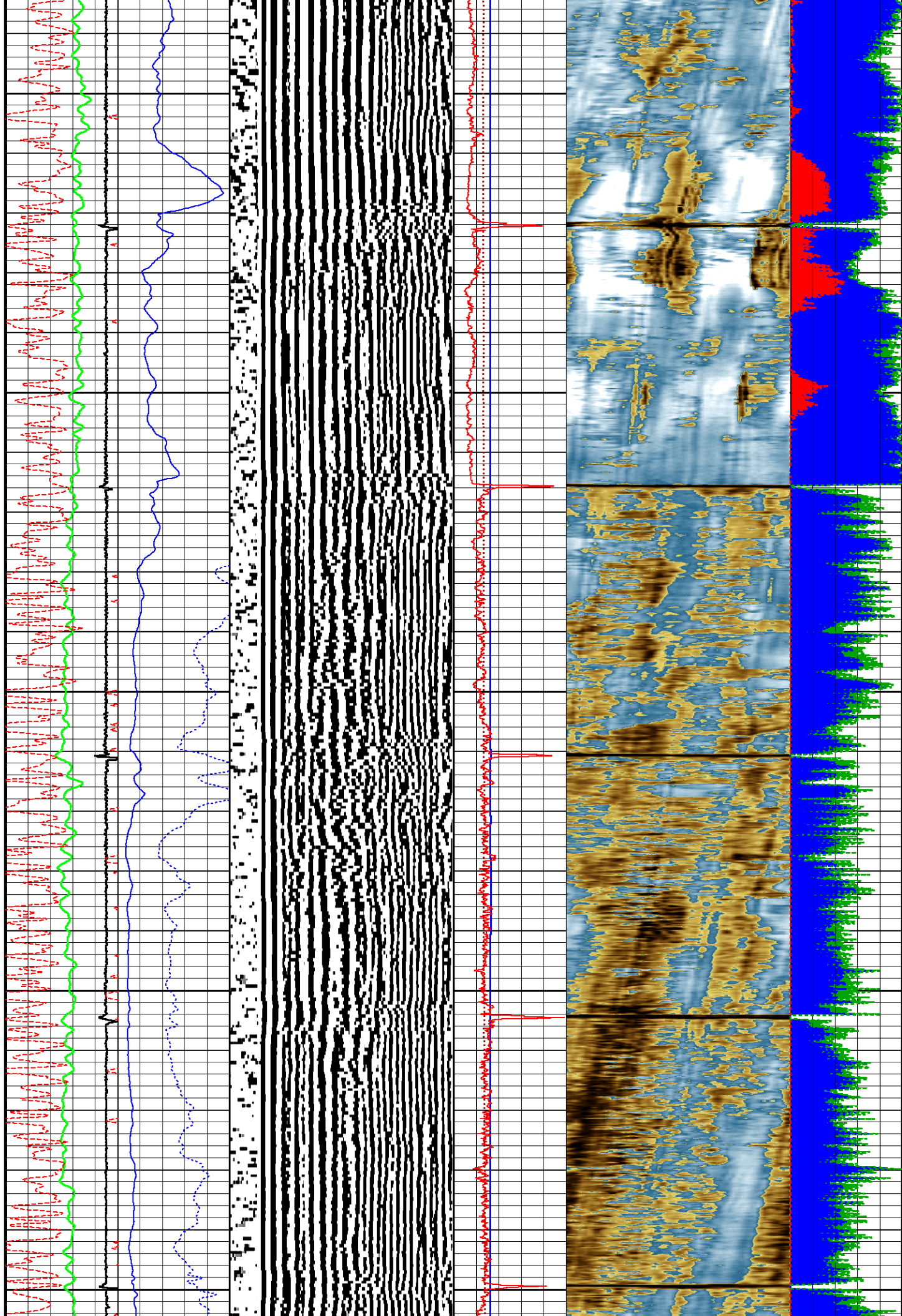
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5450

5500

5550

5600

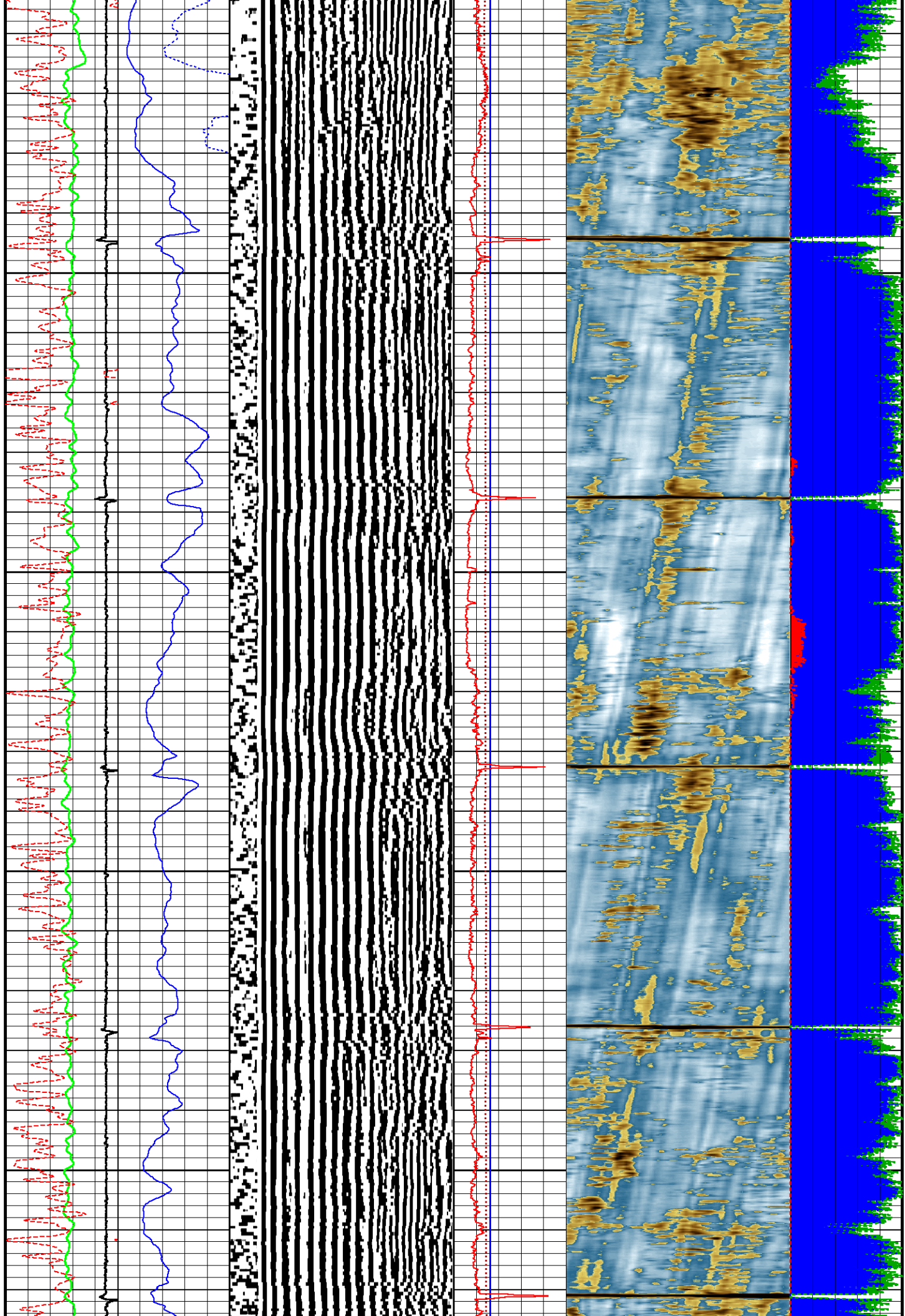


5650

5700

5750

5800

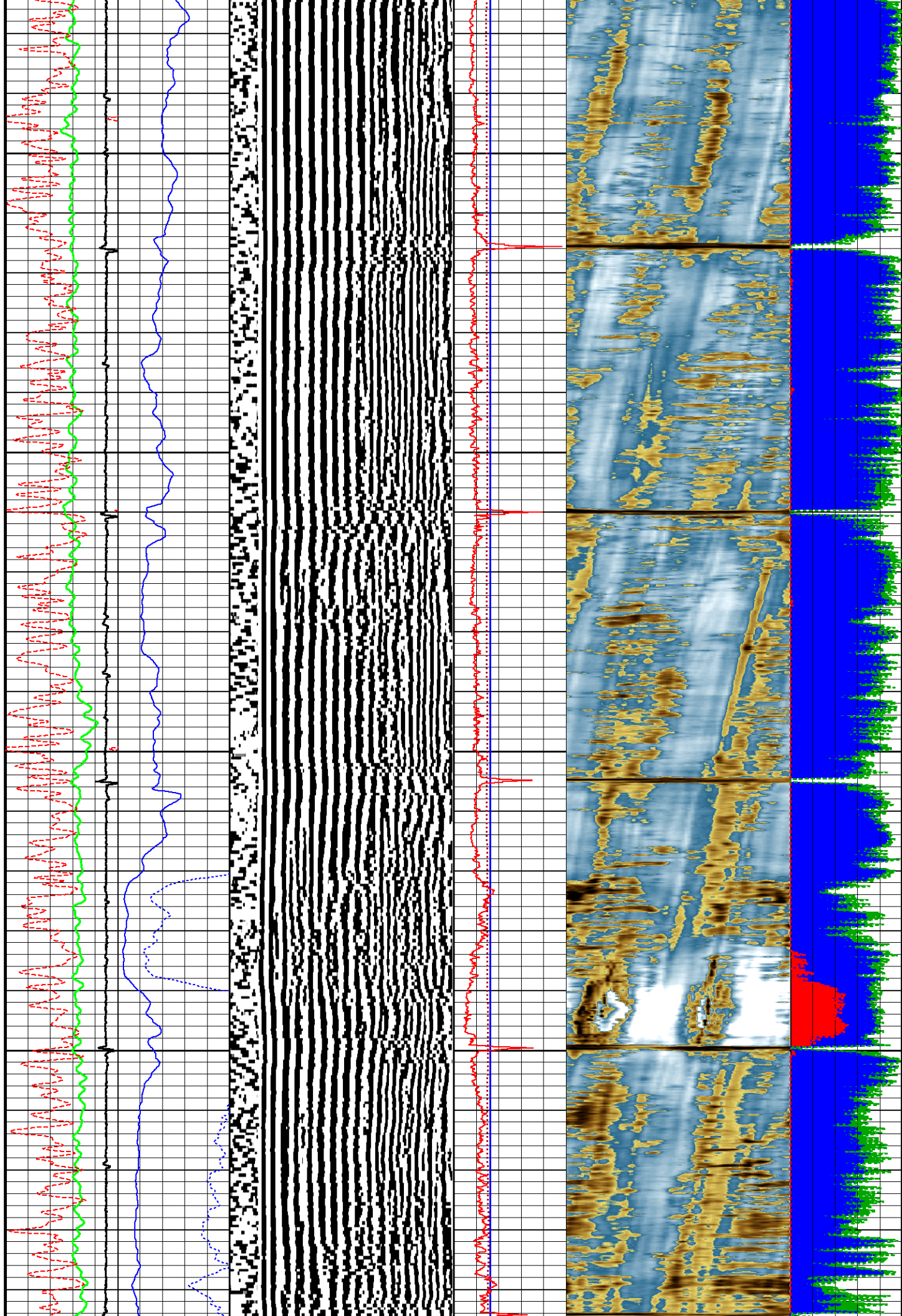


5850

5900

5950

6000



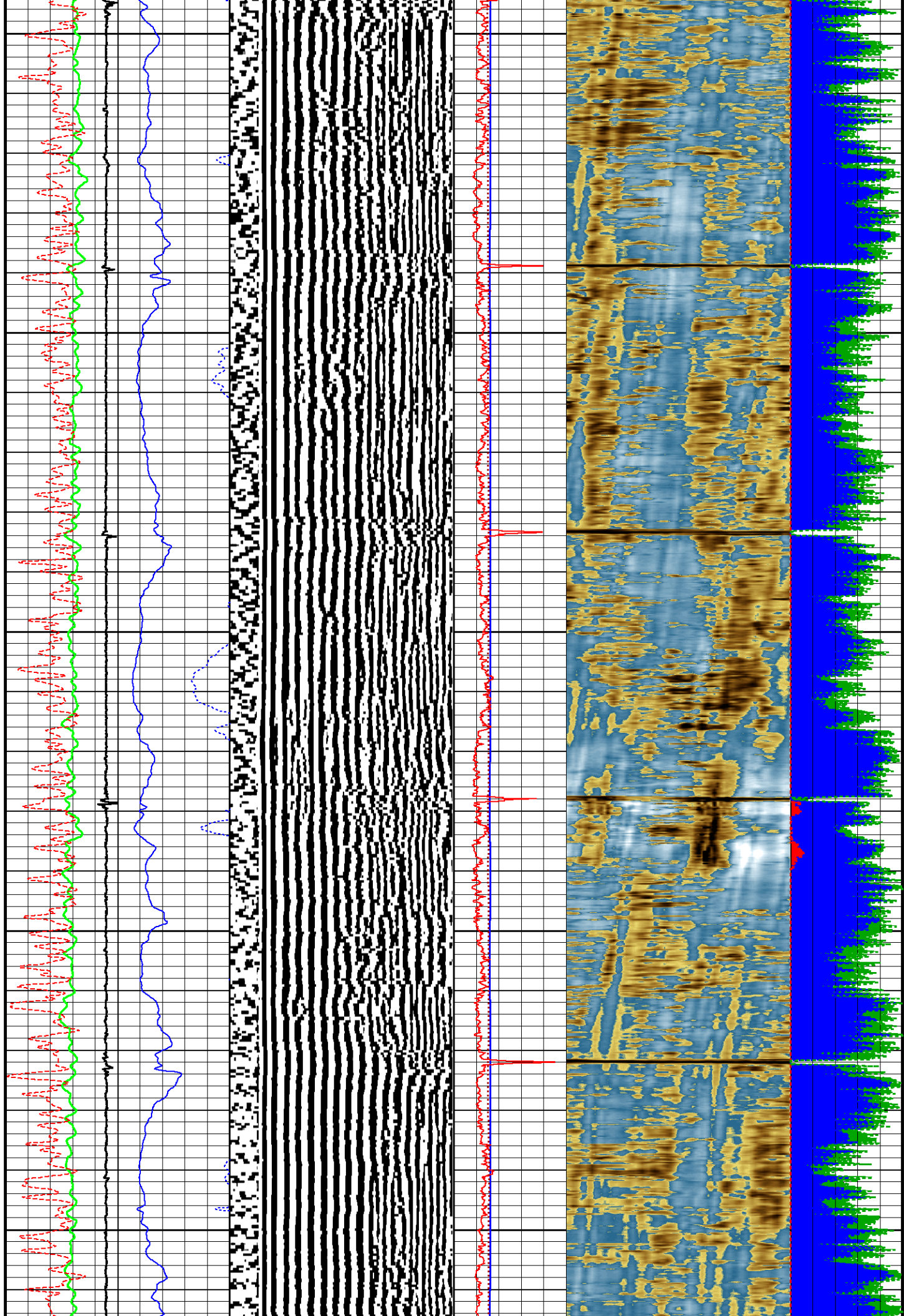
6050

6100

6150

6200

6250

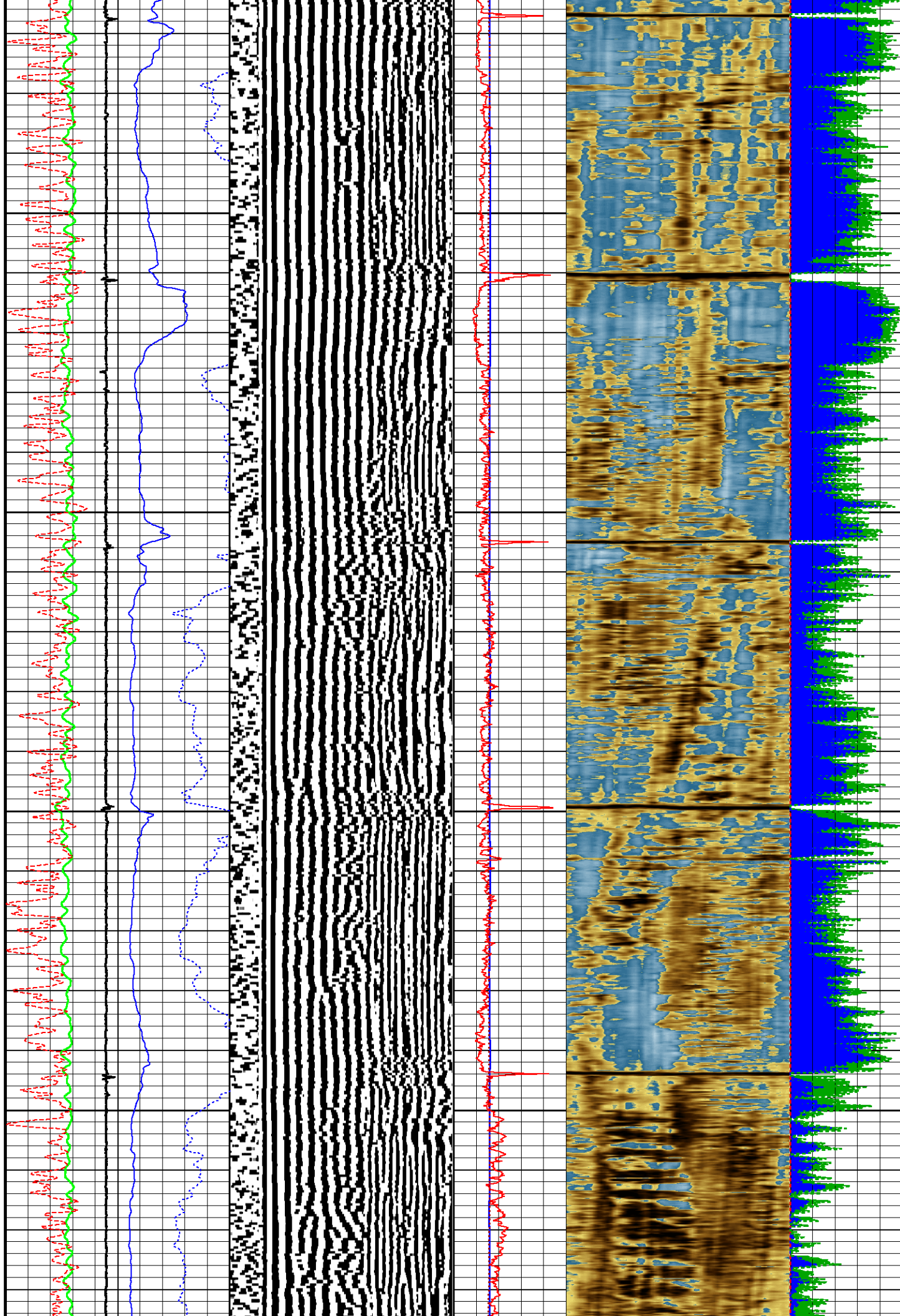


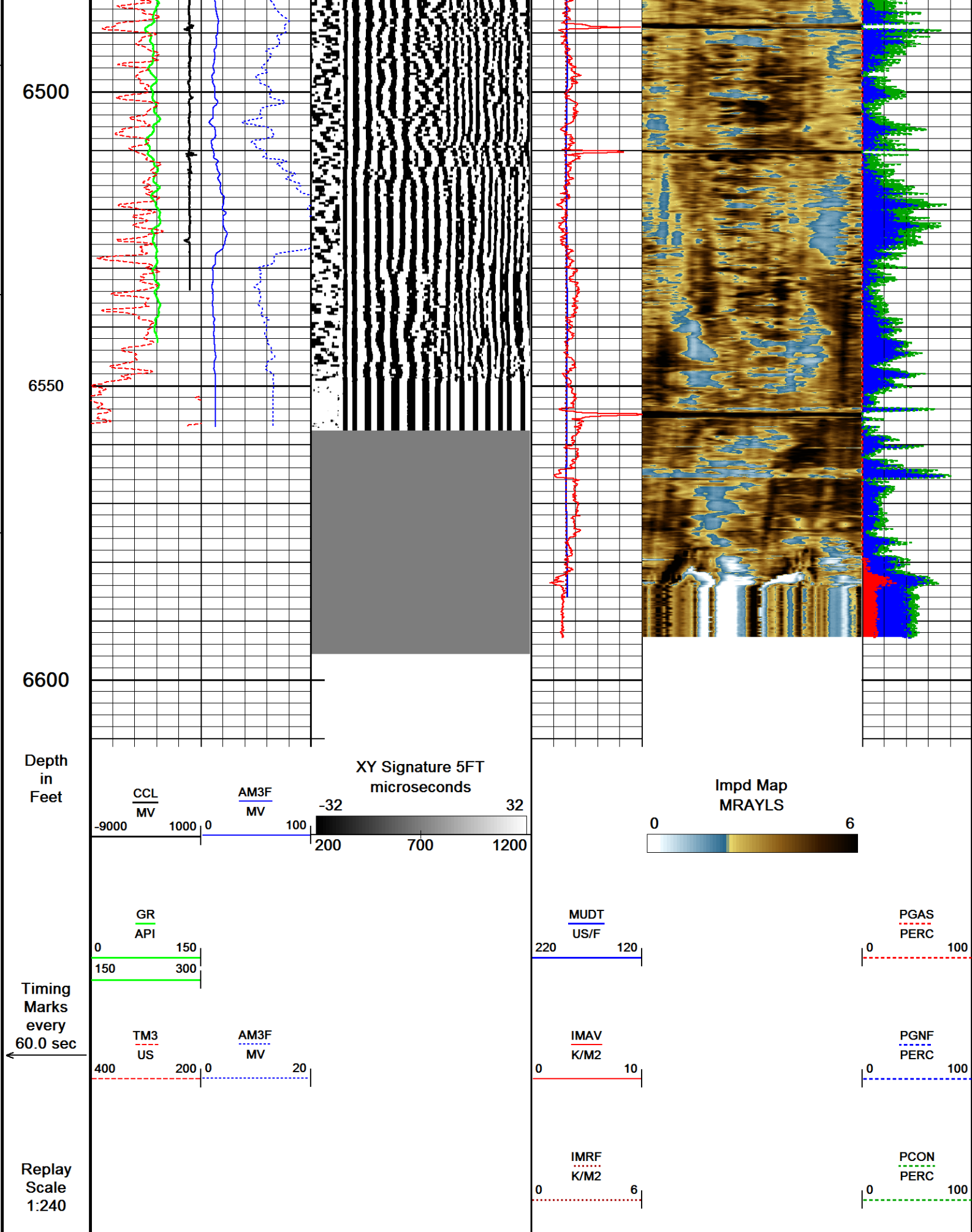
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6350

6400

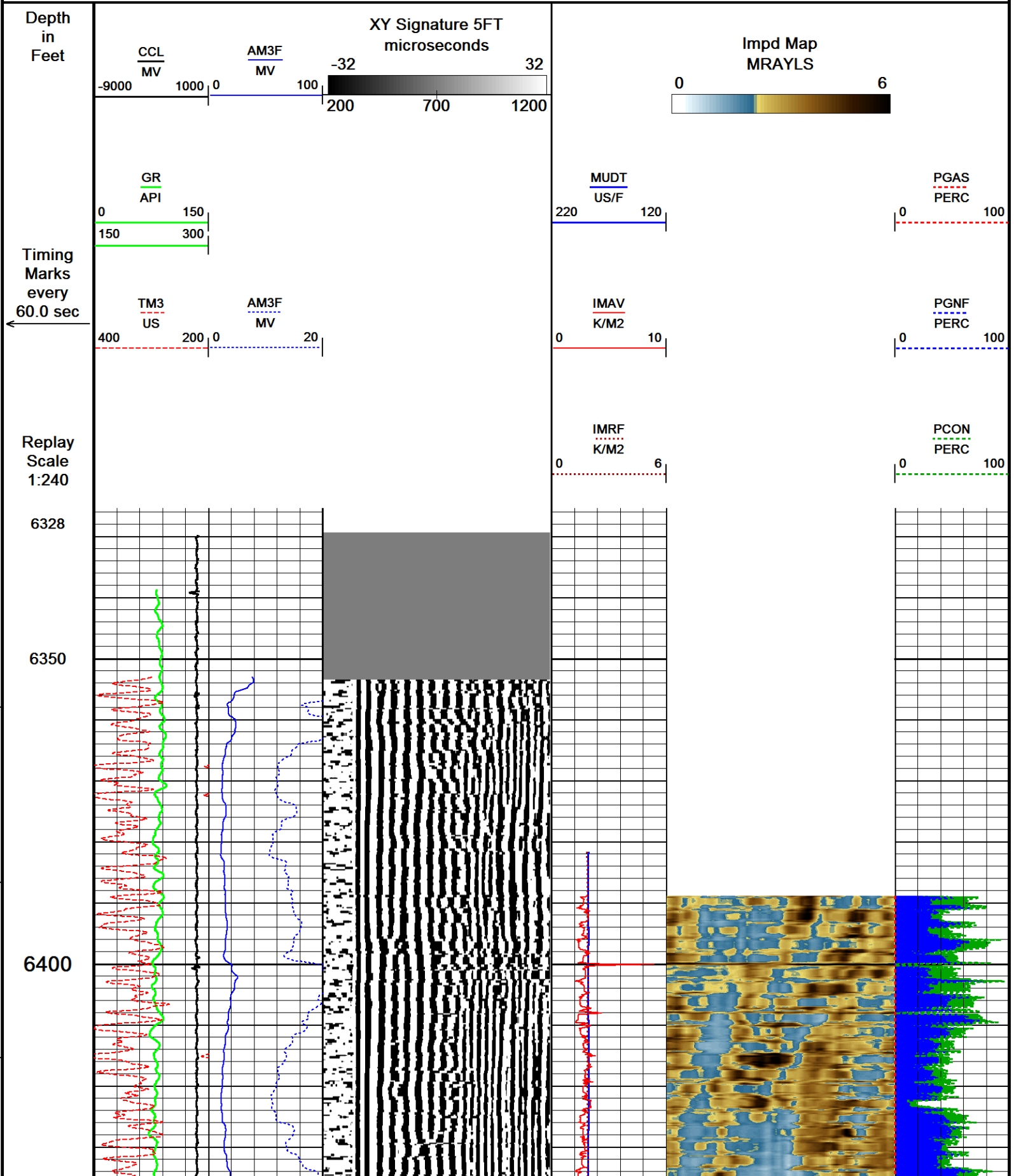
6450





Depth Based Data - Maximum Sampling Increment 2.5cm
Filename: C:\Logs\Extraction\VARRA 12\VARRA 12 REPEAT PASS.dta
System Versions: Logged with 16.05.3841 Plotted with 16.05.3841

Plotted on 02-DEC-2016 19:51
Recorded on 02-DEC-2016 09:16



6450

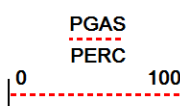
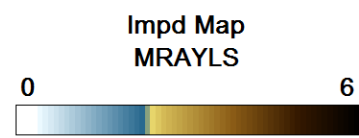
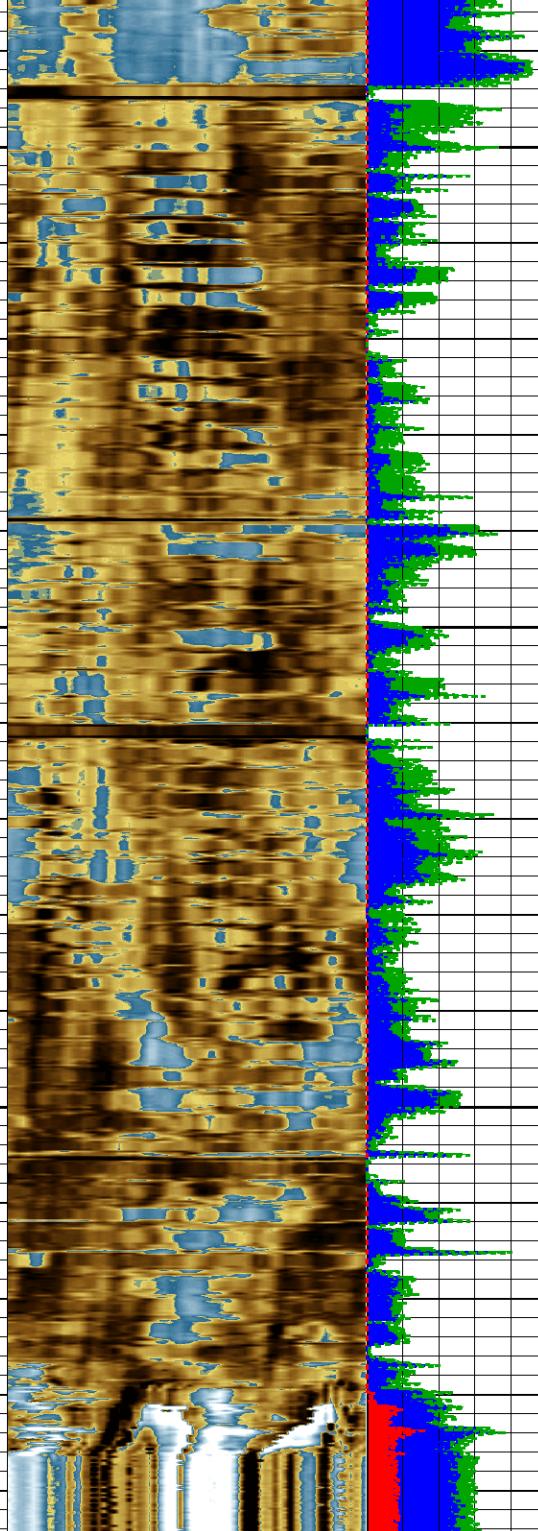
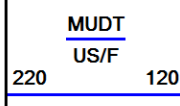
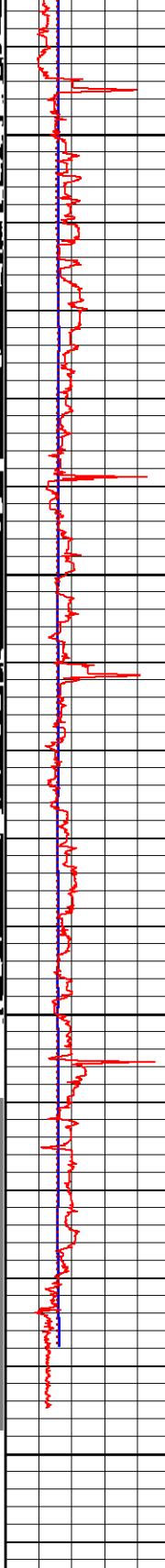
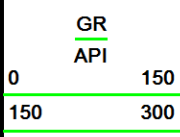
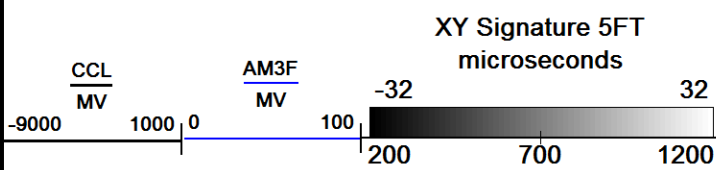
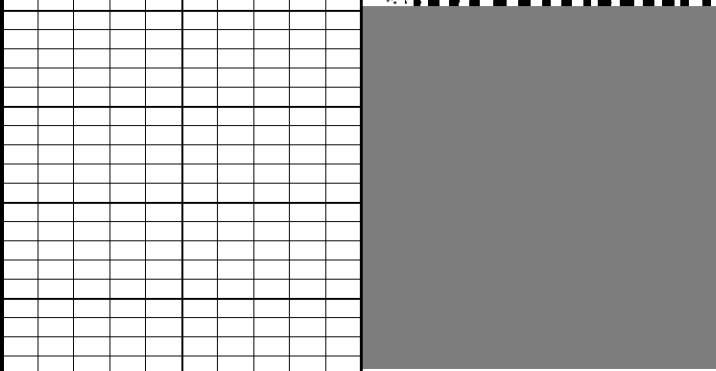
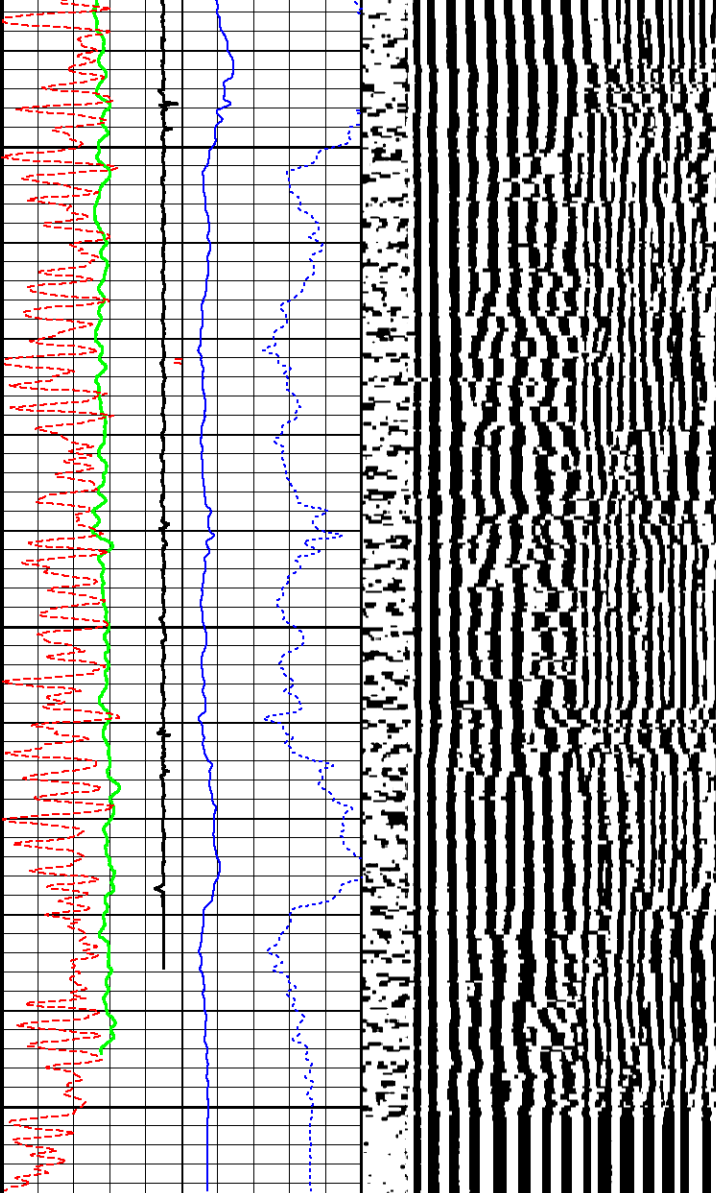
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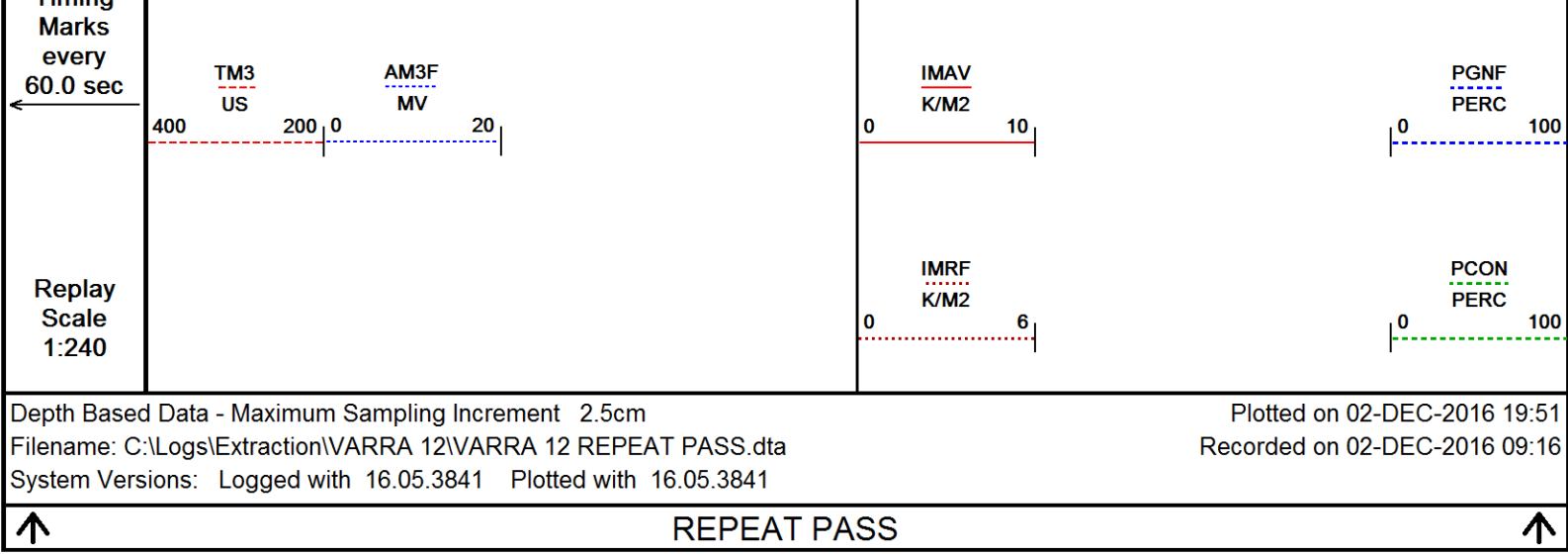
6550

6600

Depth
in
Feet

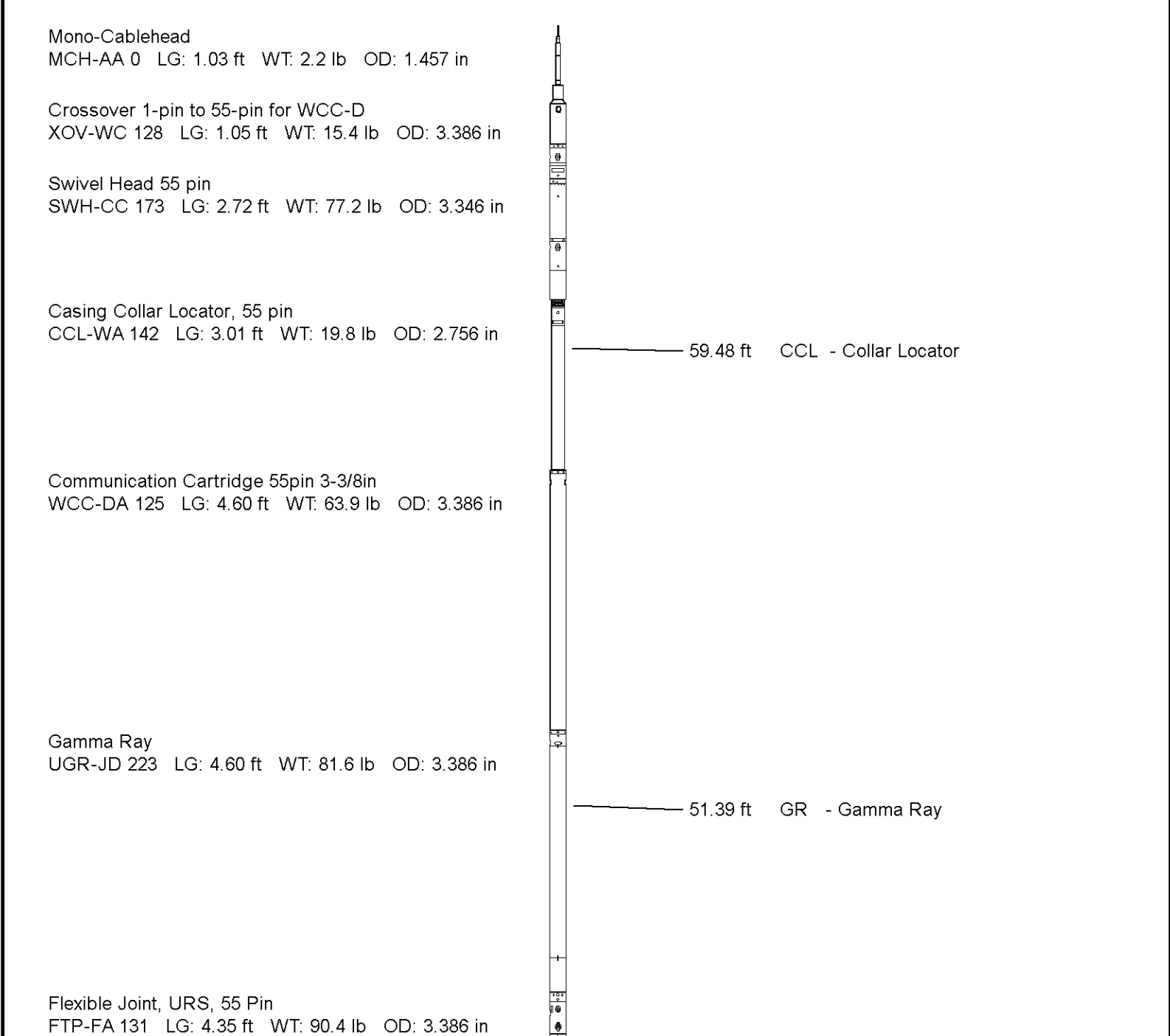
Timing





DOWNHOLE EQUIPMENT

C:\Logs\Extraction\VARRA 12\VARRA 12 MAIN PASS.dta

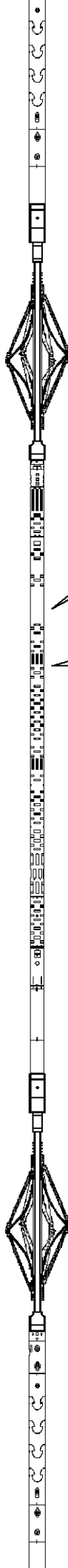


55 pin Roller Centralizer
CEN-XA 162 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

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



36.70 ft AM3F - Amplitude 3FT

36.70 ft TM3 - Travel Time 3FT

35.70 ft TM5 - Travel Time 5FT

35.70 ft XY5 - XY Signature 5FT

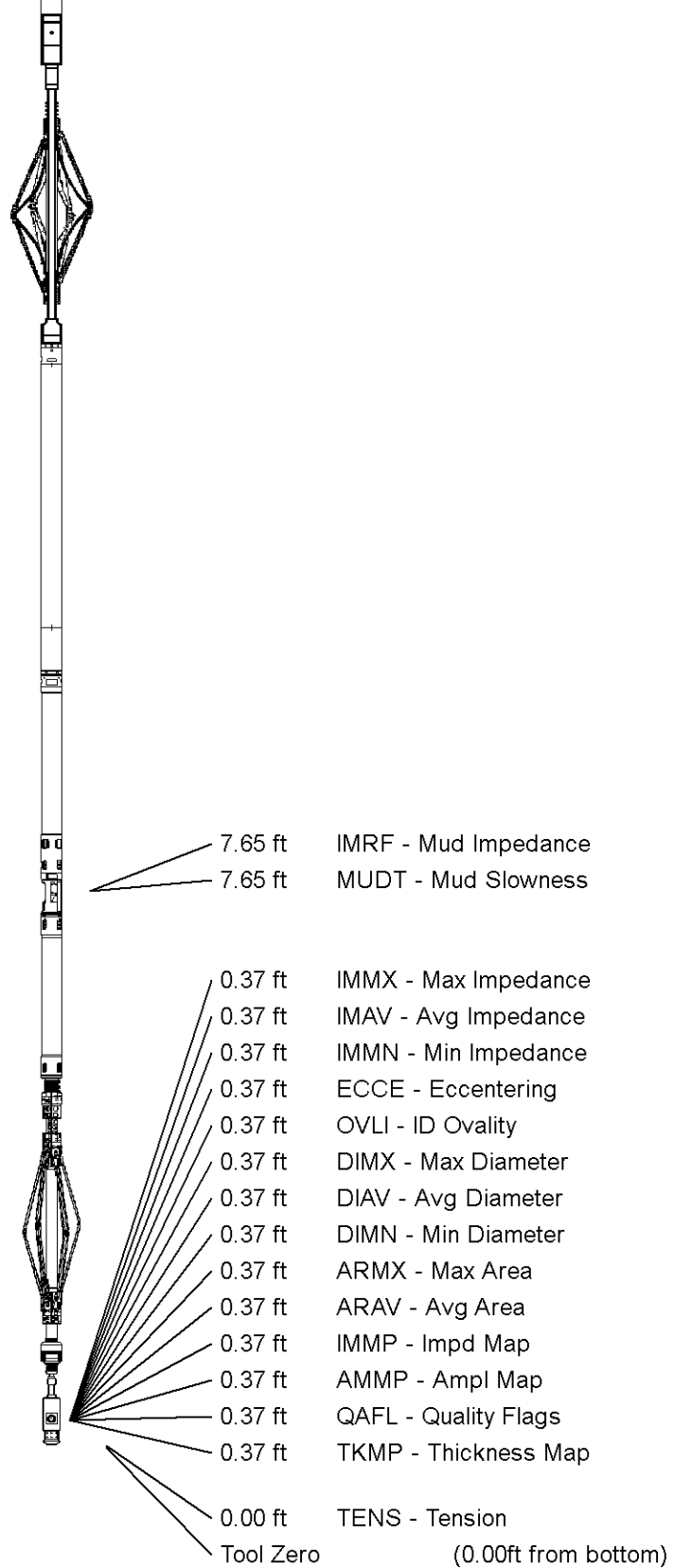
55 pin Roller Centralizer
CEN-XA 221 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

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



All measurements relative to tool zero.

SHOP AND FIELD CALIBRATIONS

C:\Logs\Extraction\VARRA 12\VARRA 12 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

Serial No: 223

Calibrator No: TH 047

| 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 02-DEC-2016 09:26

| | |
|----------------------|------------|
| 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 |

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 02-DEC-2016 09:26

*** Well Information ***

** NOTE **

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

Mud Plate

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 12 | | | | |
| FIELD | WATTENBERG | | | | |
| PROVINCE/COUNTY | WELD | | | | |
| COUNTRY/STATE | USA / COLORADO | | | | |
| Elevation Kelly Bushing | 4924 | feet | Bottom Log Interval | 6600.00 | feet |
| Elevation Drill Floor | 4924 | feet | Depth Driller | 17369.00 | feet |
| Elevation Ground Level | 4899 | feet | Depth Logger | 6600.00 | feet |
| <div><div> Weatherford[®]</div><div>SECUREVIEW ULTRAVIEW/BONDVIEW CEMENT ANALYSIS</div></div> | | | | | |

