 Weatherford®				SECUREVIEW UTLRAVIEW / BONDVIEW LOG			
COMPANY WELL FIELD PROVINCE/COUNTY COUNTRY/STATE LOCATION				BONANZA CREEK ENERGY WETCO FARMS A11-4-9 MRLNB WATTENBERG WELD USA / COLORADO 346' FNL 172' FWL			
SEC 4		TWP 4N	RGE 63W	Other Services CALVIEW			
Latitude		Longitude		Permanent Datum GL, Elevation 4570 feet			
API Number		05-123-47807		Permanent Datum		Elevations: KB DF GL	
Log Measured From KB		17.00 feet above Permanent Datum		Drilling Measured From KB		4587.00 4587.00 4570.00	
Date		01-DEC-2018		PERFORATION RECORD			
Run Number		ONE		Shot	Number	Depth From	Depth To
Service Order		18200-230901509		Density	of Shots	feet	feet
Type Log		URS/CBT					
Depth Driller		13657.00					
Depth Logger		6150.00					
Top Log Interval		0.00					
Bottom Log Interval		6150.00					
Hole Fluid Type		WATER					
Hole Fluid Level		56.00					
Restriction ID		4.892					
Max Recorded Temp		207.00		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		14115		9.625	36.00	0.00	1600.00
Equipment Name		WSS-E		5.500	17.00	0.00	13648.00
Base		CASPER					
Recorded By		A LITTLE					
Witnessed By		K DODGE					

CASING / TUBING RECORD						
Type	Grade	TypeJoint	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	J-55	LT&C	9.625	0.00	1600.00	36.00
PRODUCTION	P-110	LT&C	5.500	0.00	13648.00	17.00

REMARKS
LOG CORRELATED TO RIG KB @ 17' ABOVE GL
STANDARD FREE PIPE AMPLITUDE IN 5.5" 17# CASING IS 72MV
BURST PRESSURE CALCULATED USING 5.5" 17# P-110 CASING

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



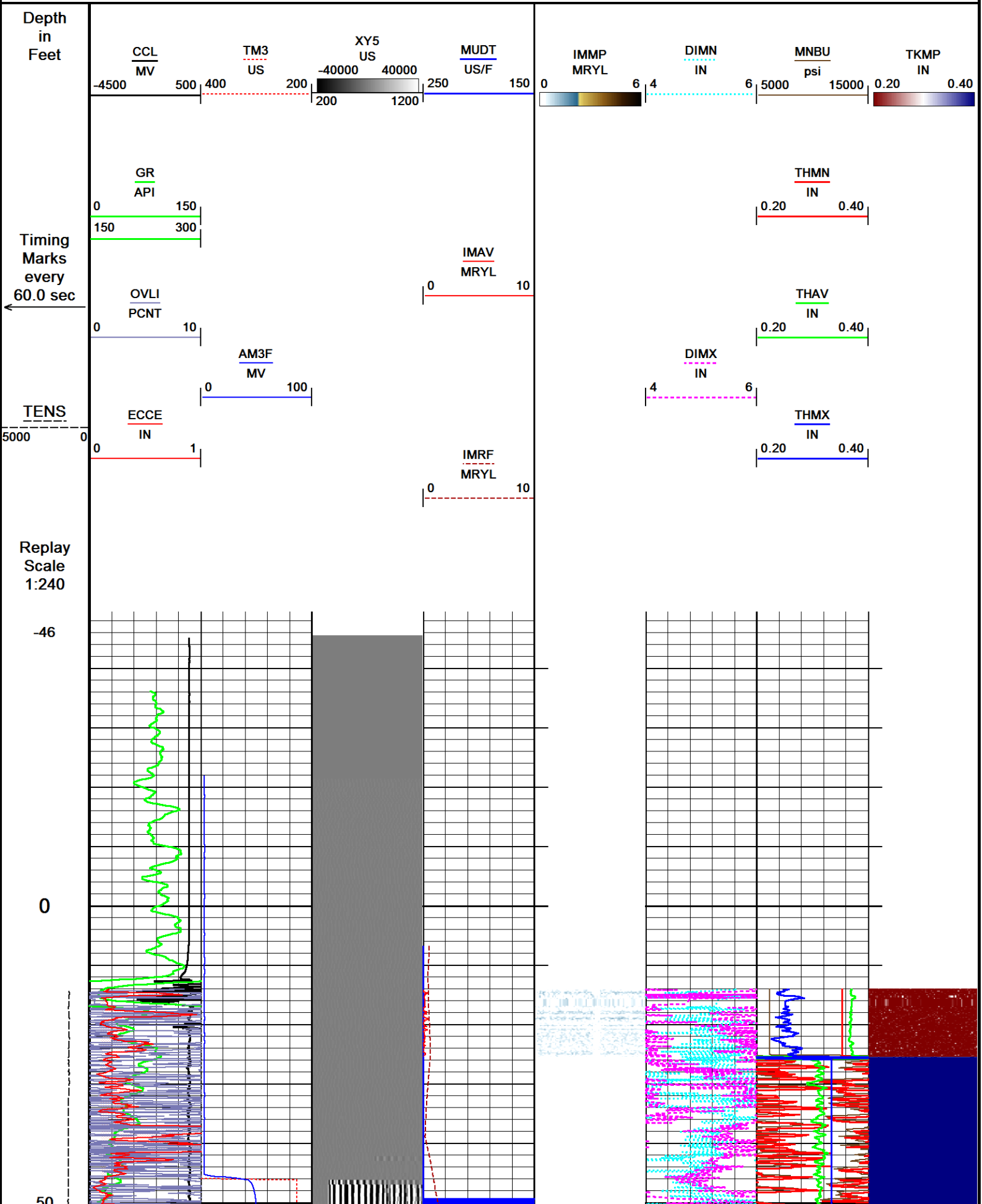
Depth Based Data - Maximum Sampling Increment 2.5cm

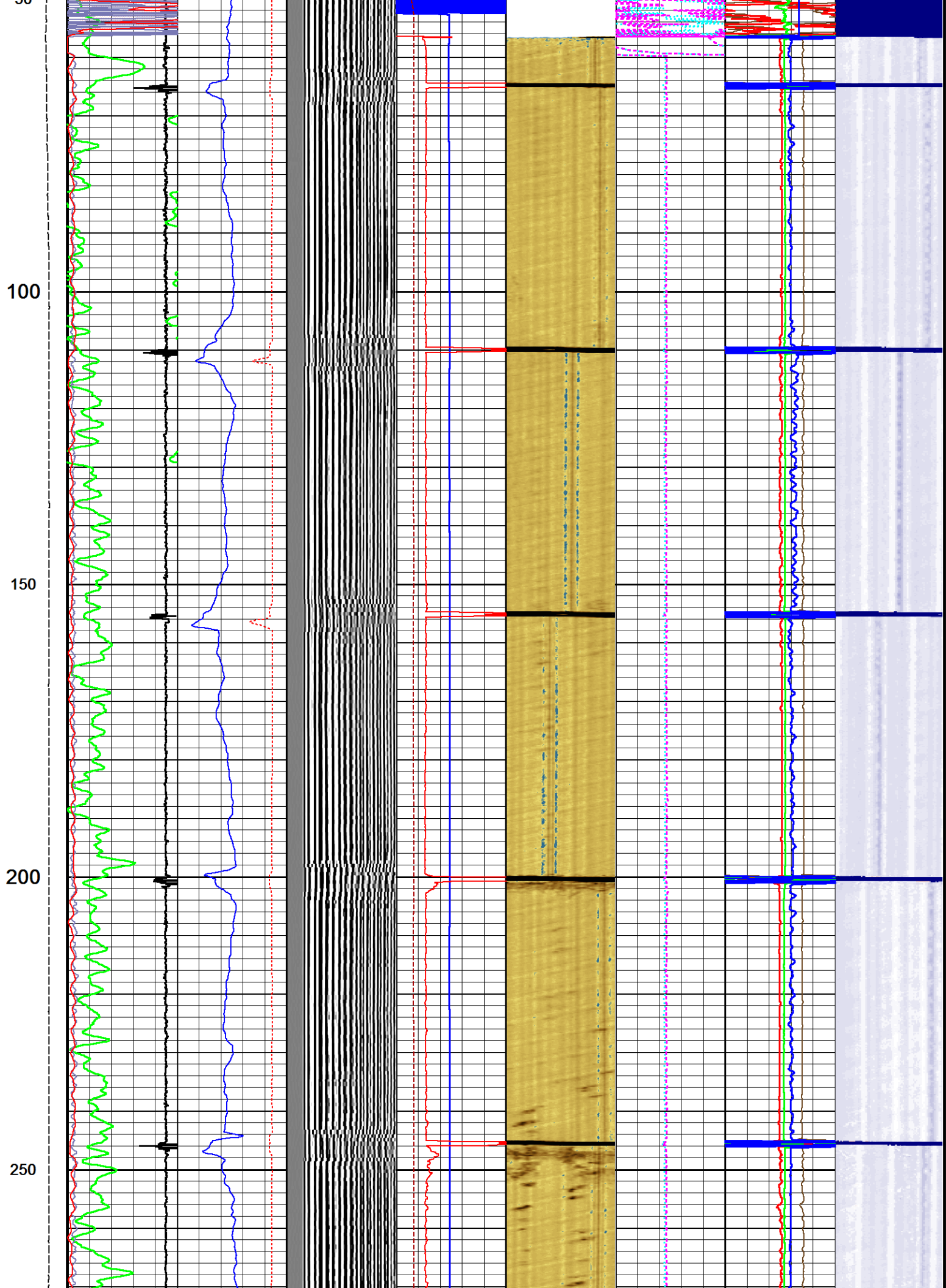
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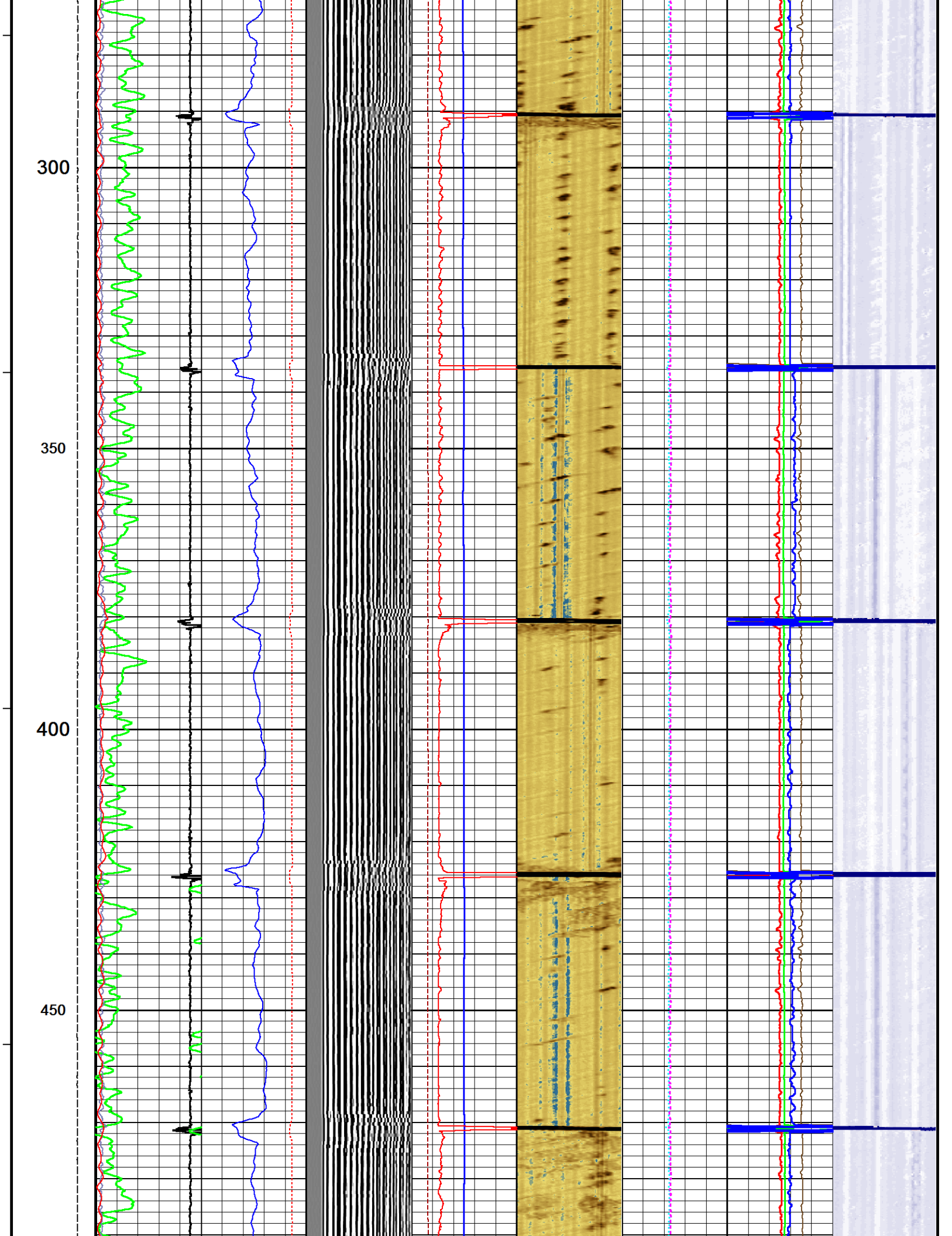
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Recorded on 03-DEC-2018 08:14

System Versions: Logged with 18.05.4364 Processed with 18.03.8633 Plotted with 18.05.4364







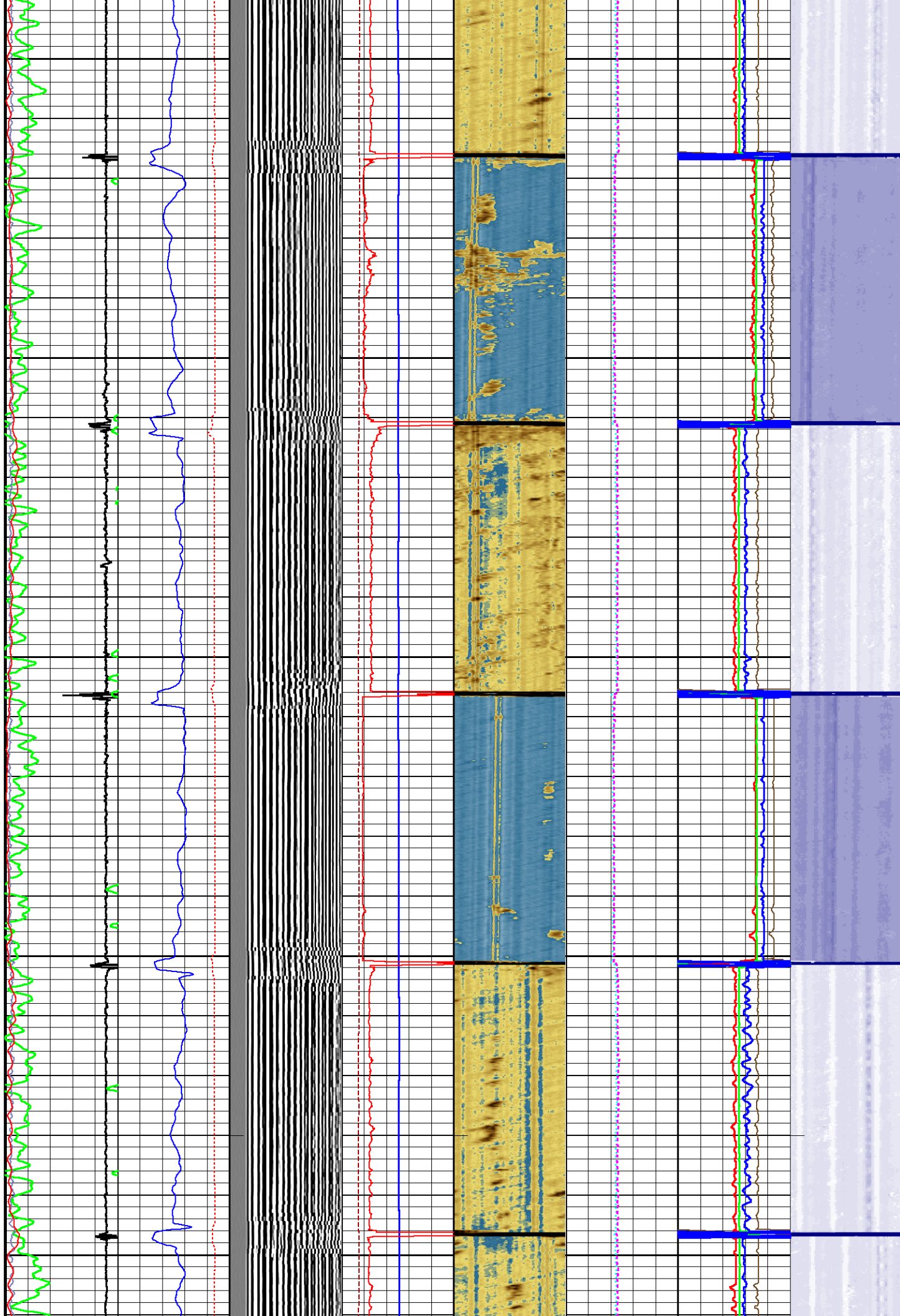
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550

600

650

700

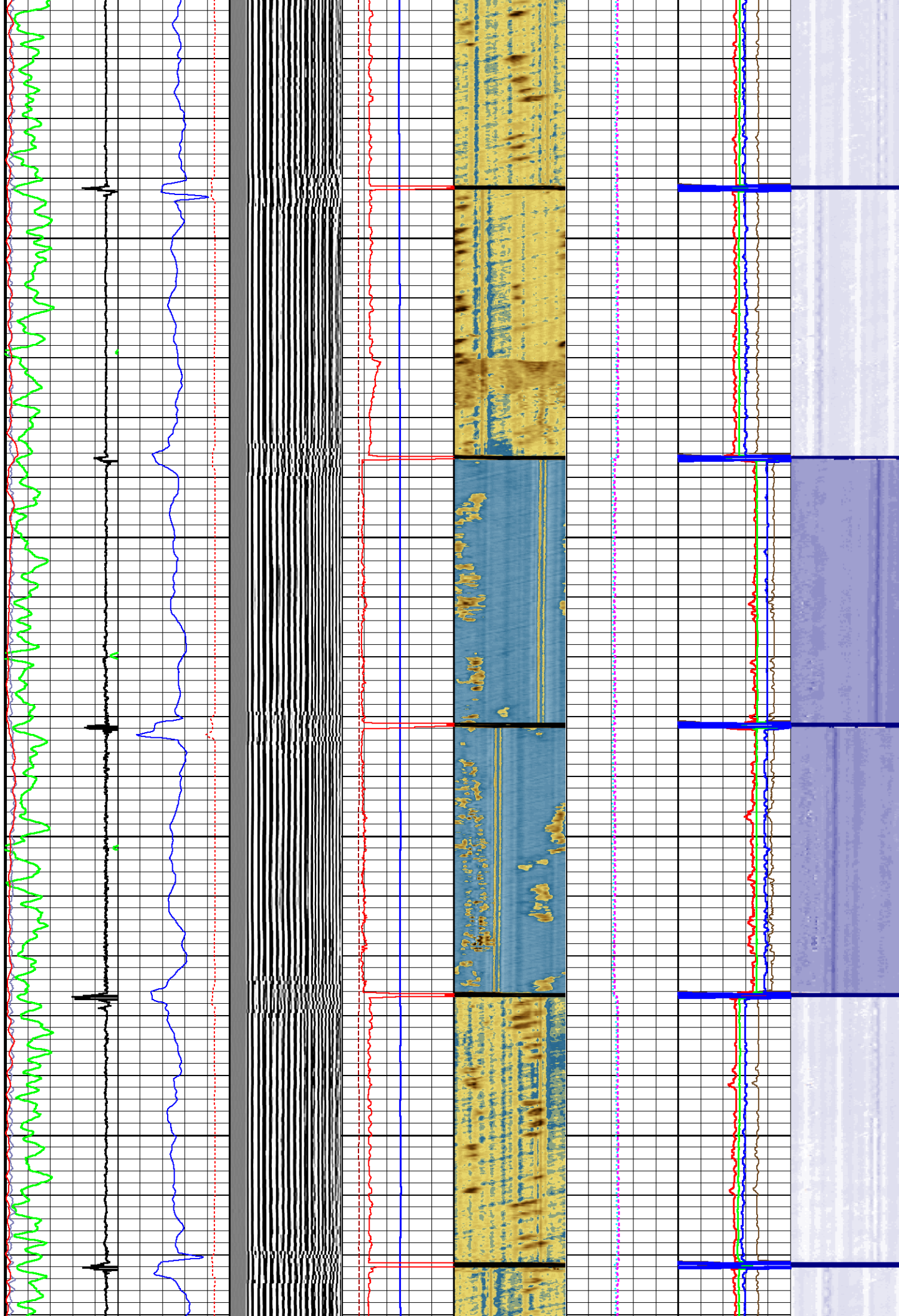


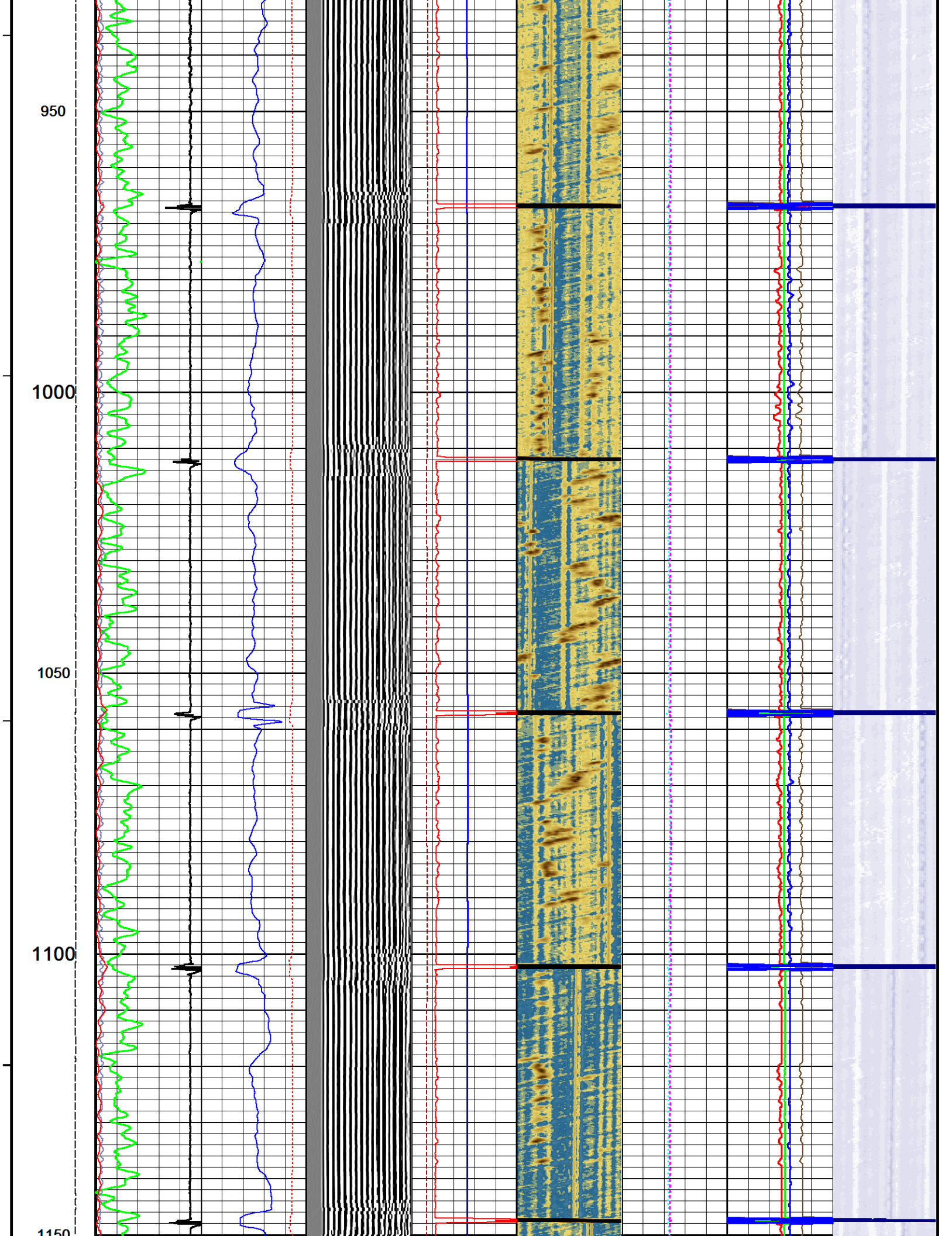
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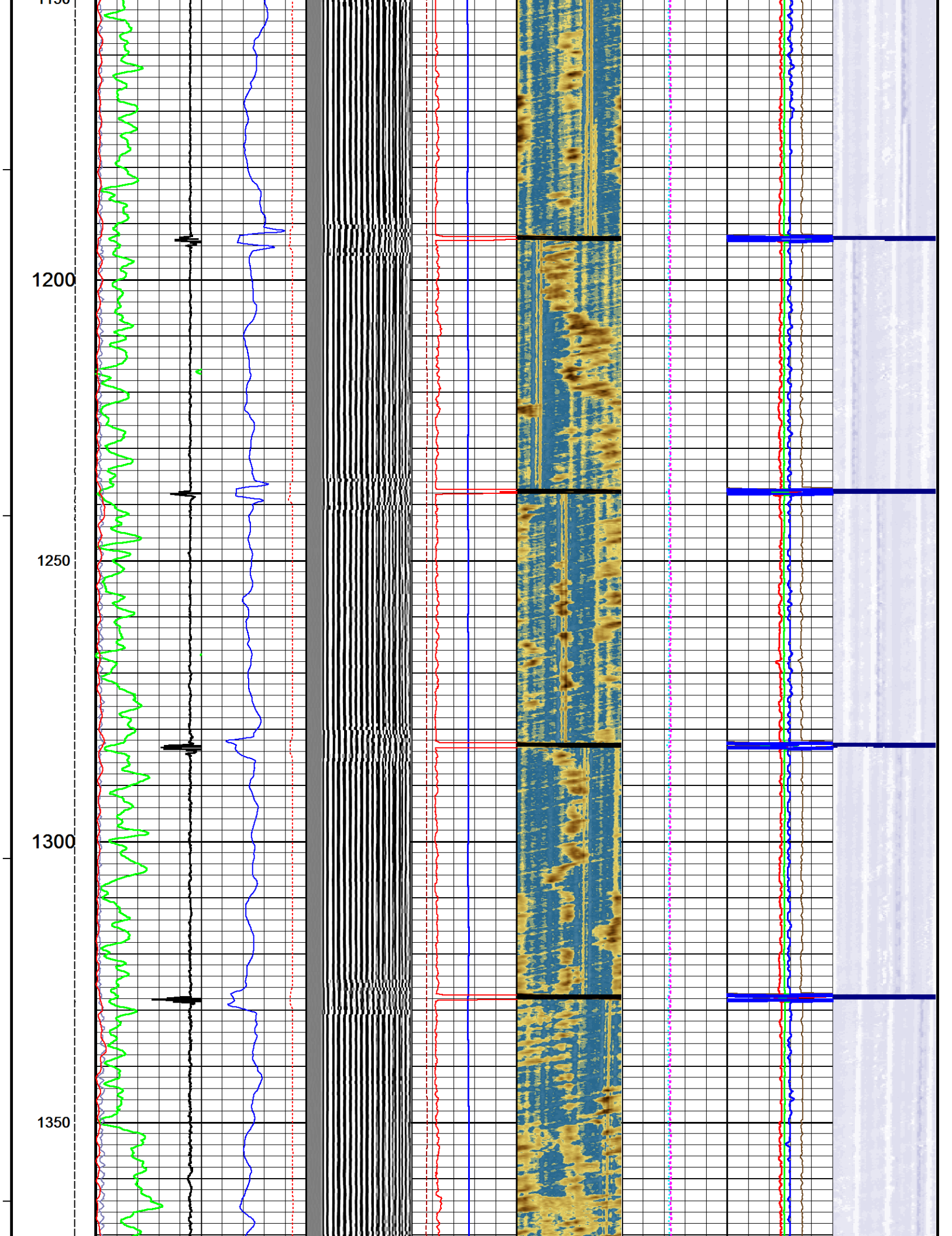
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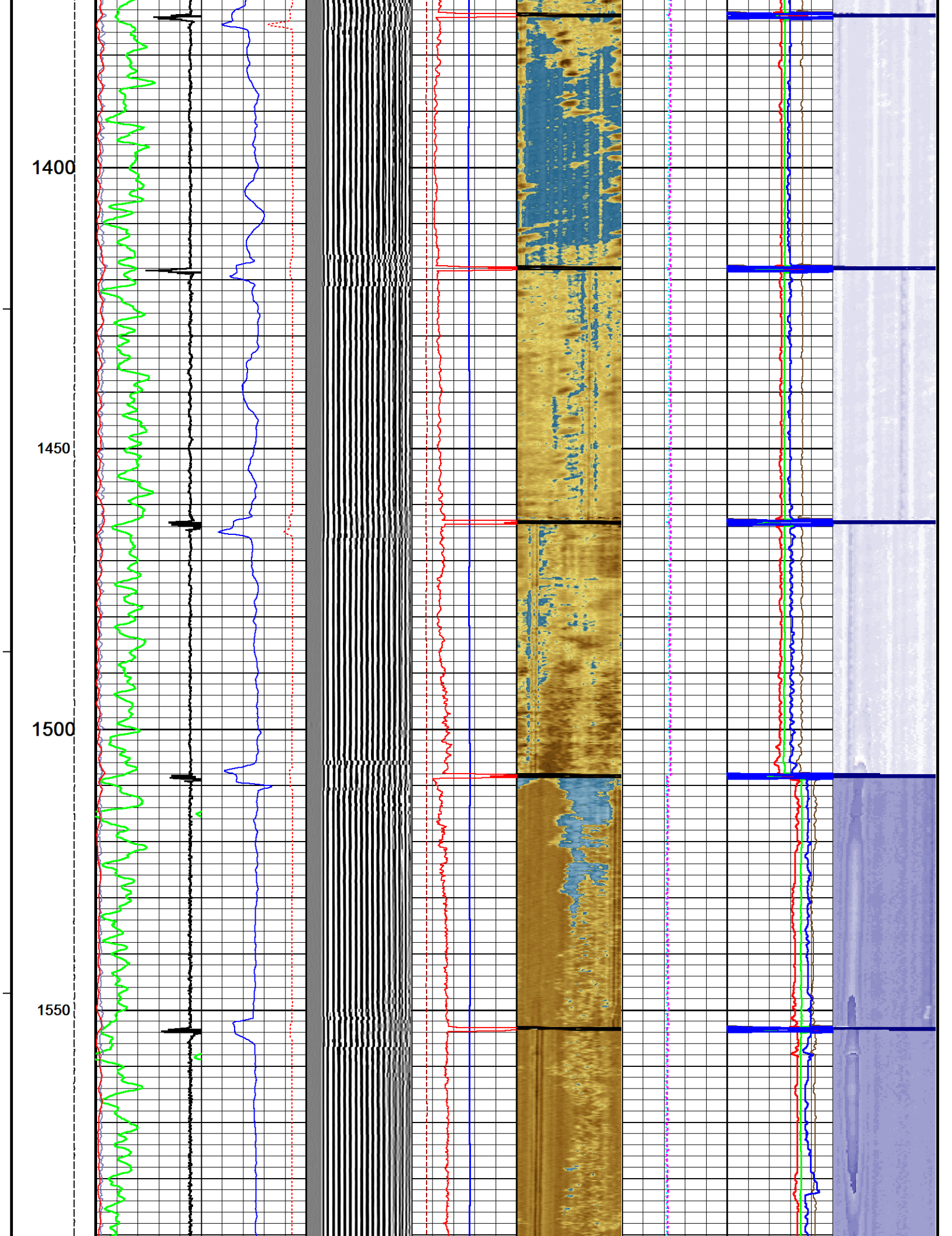
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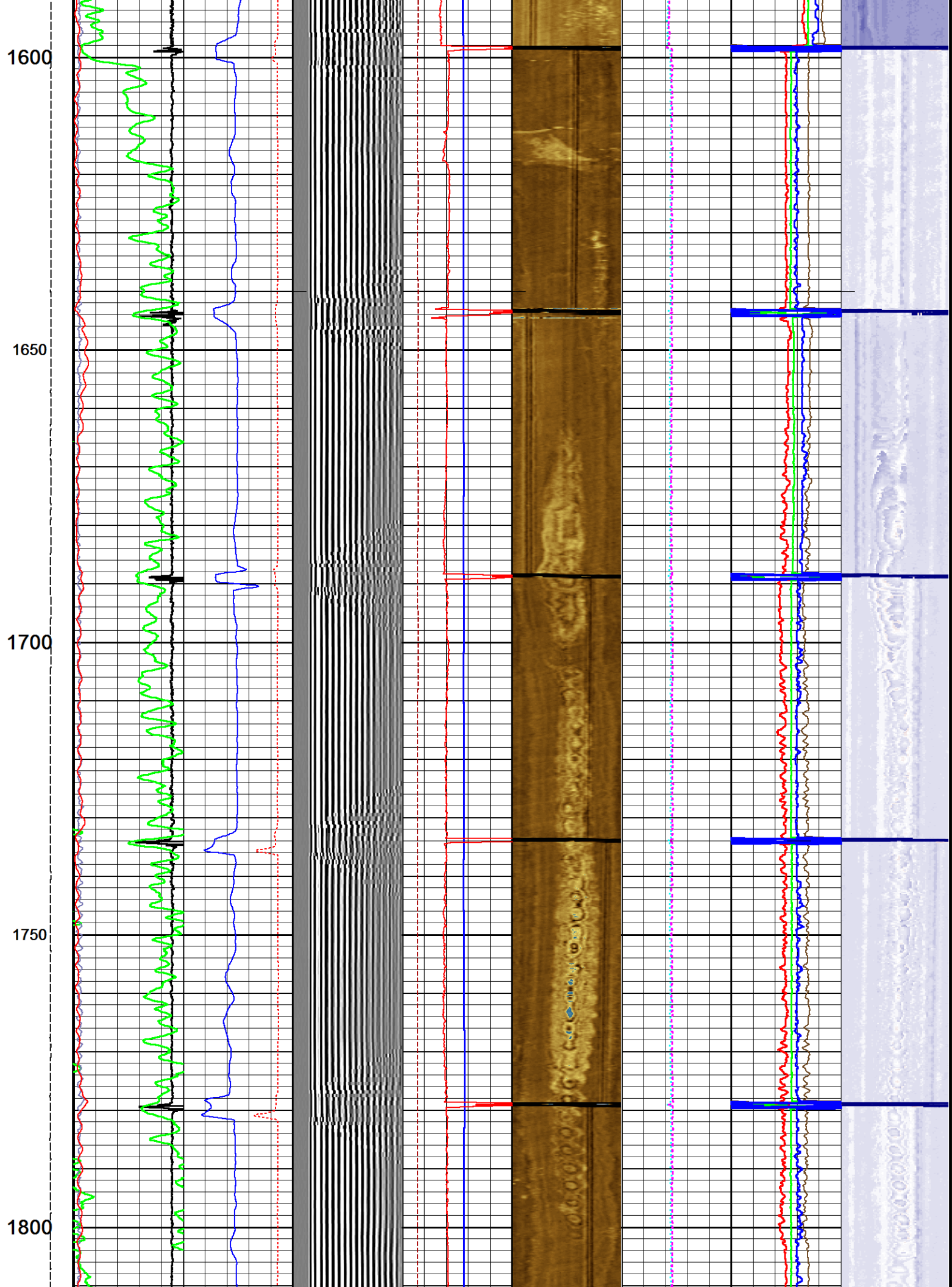
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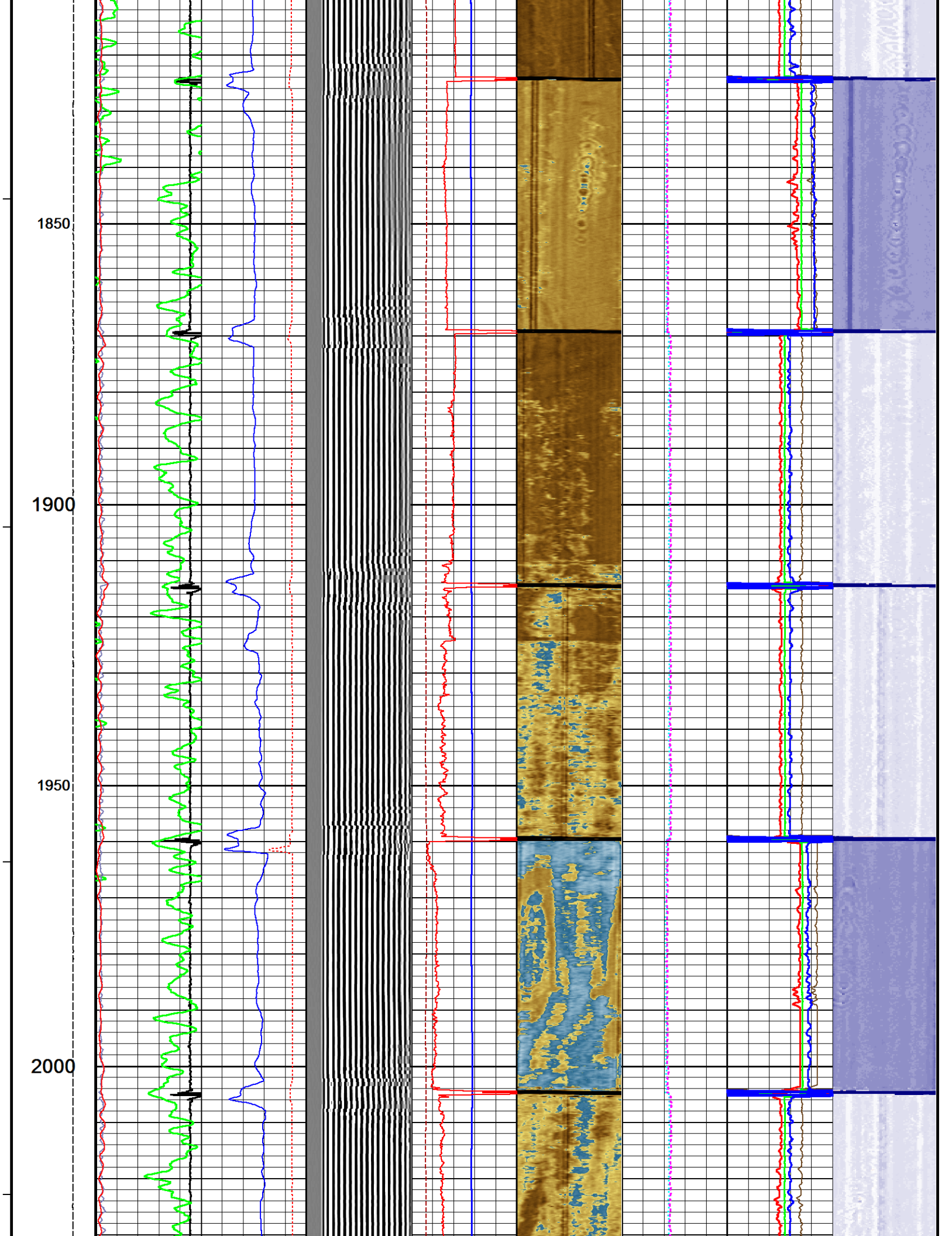


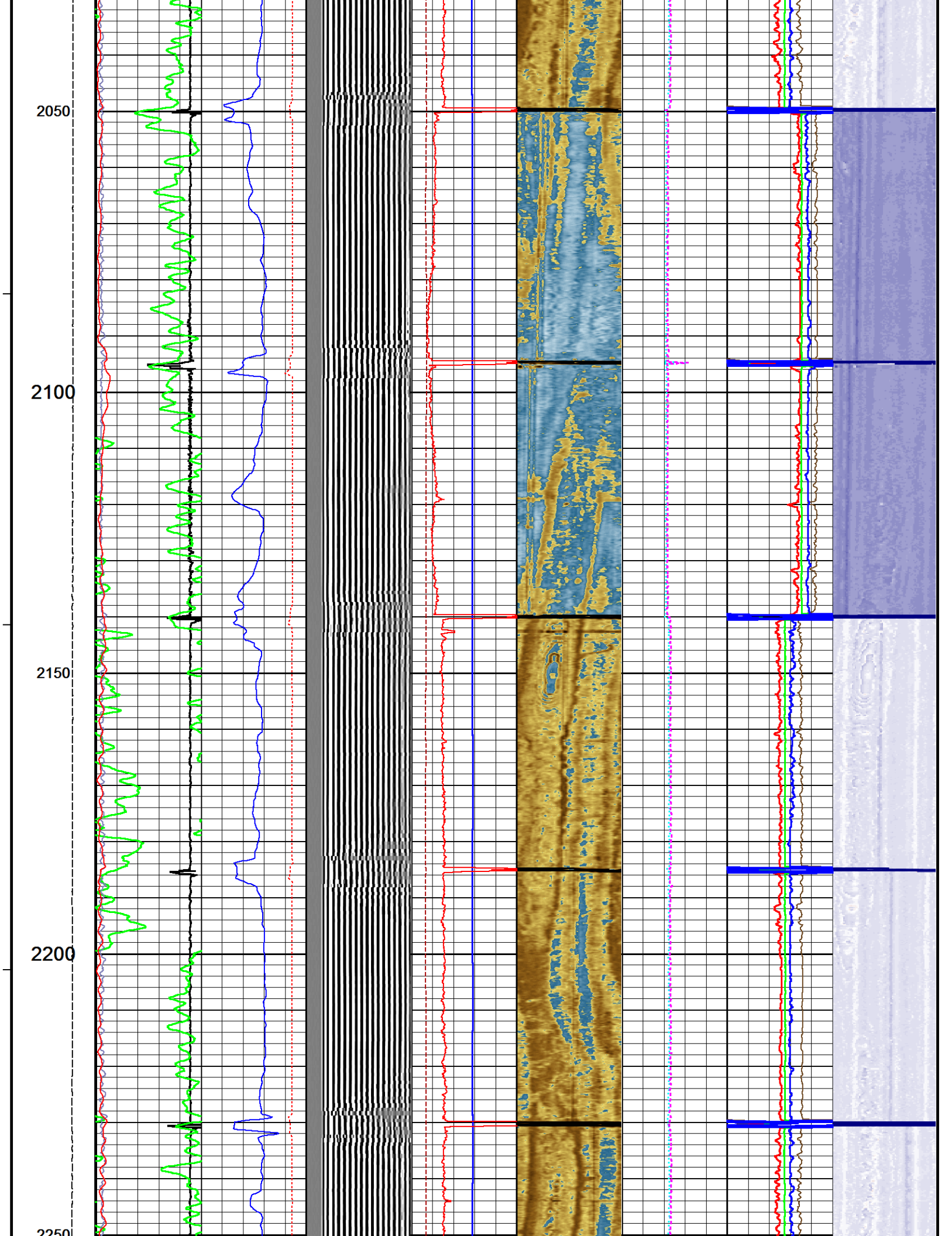


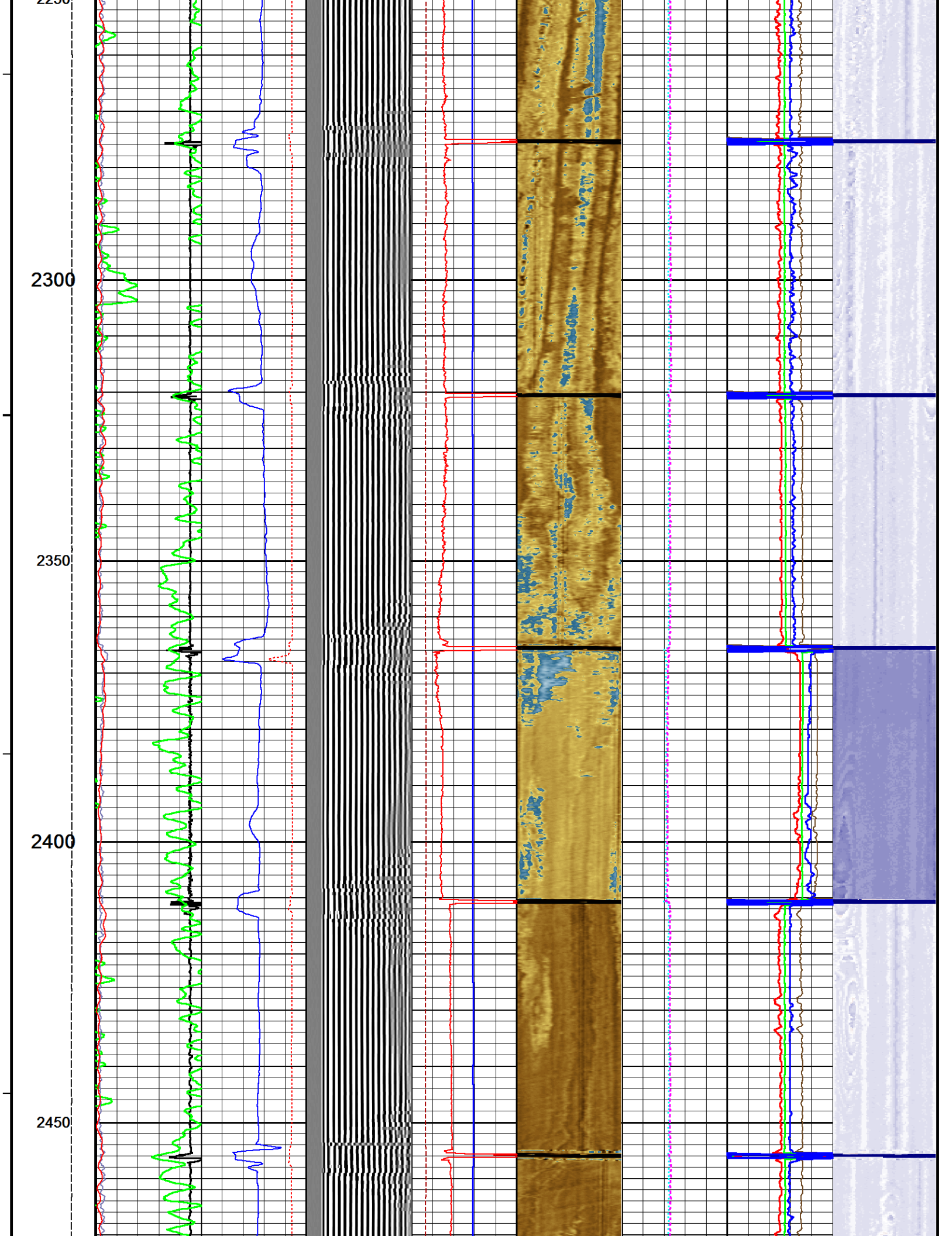


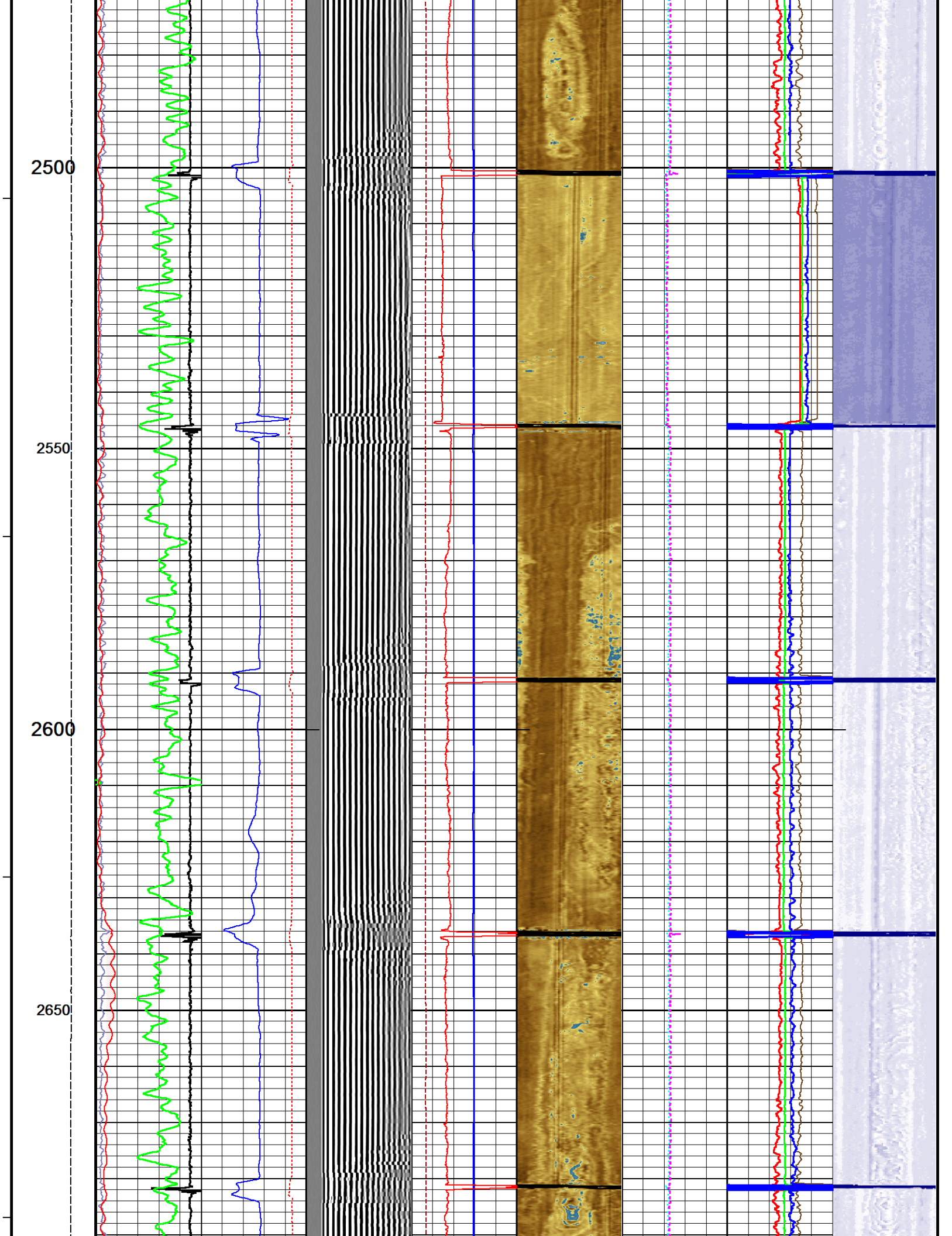


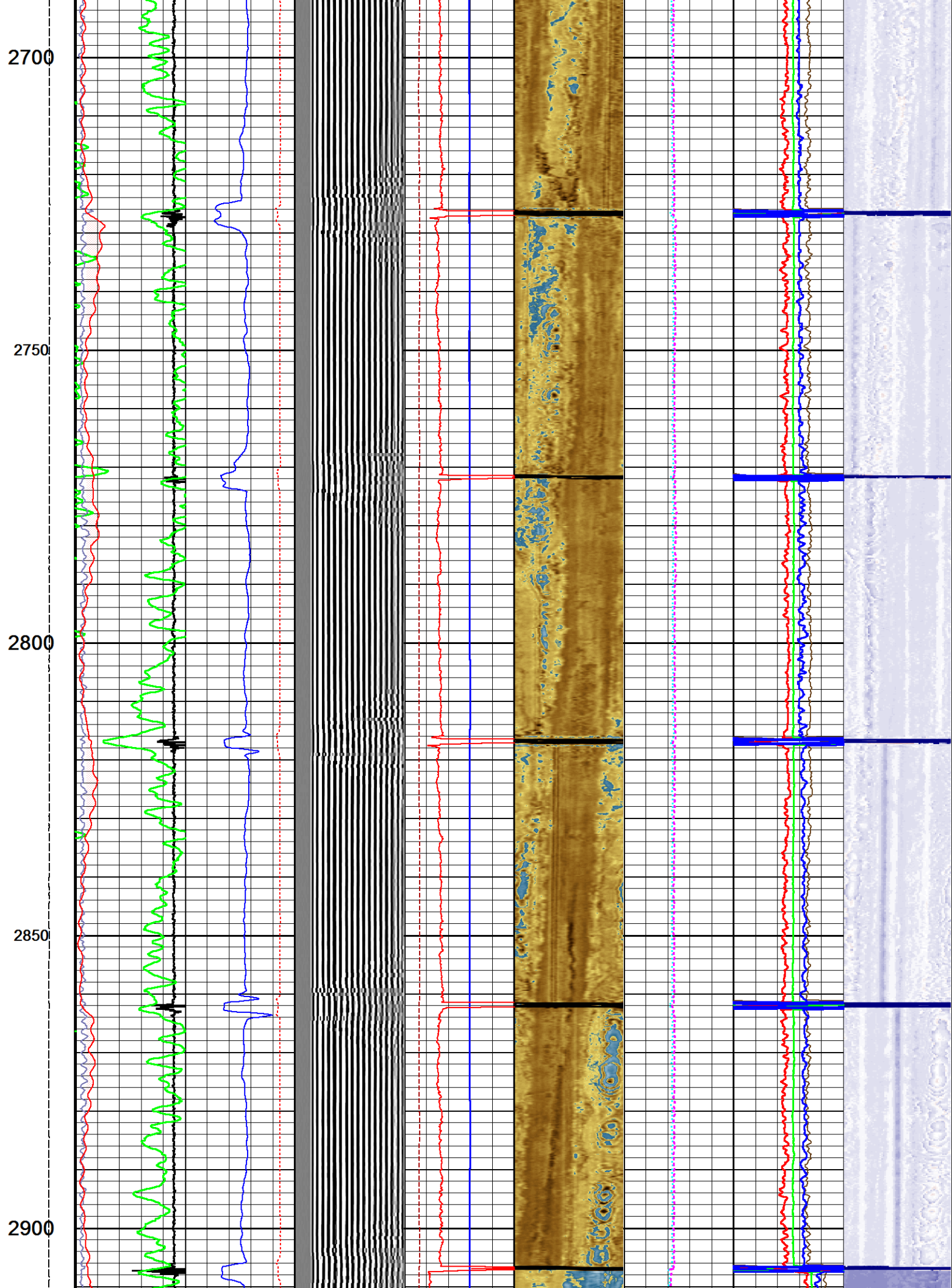


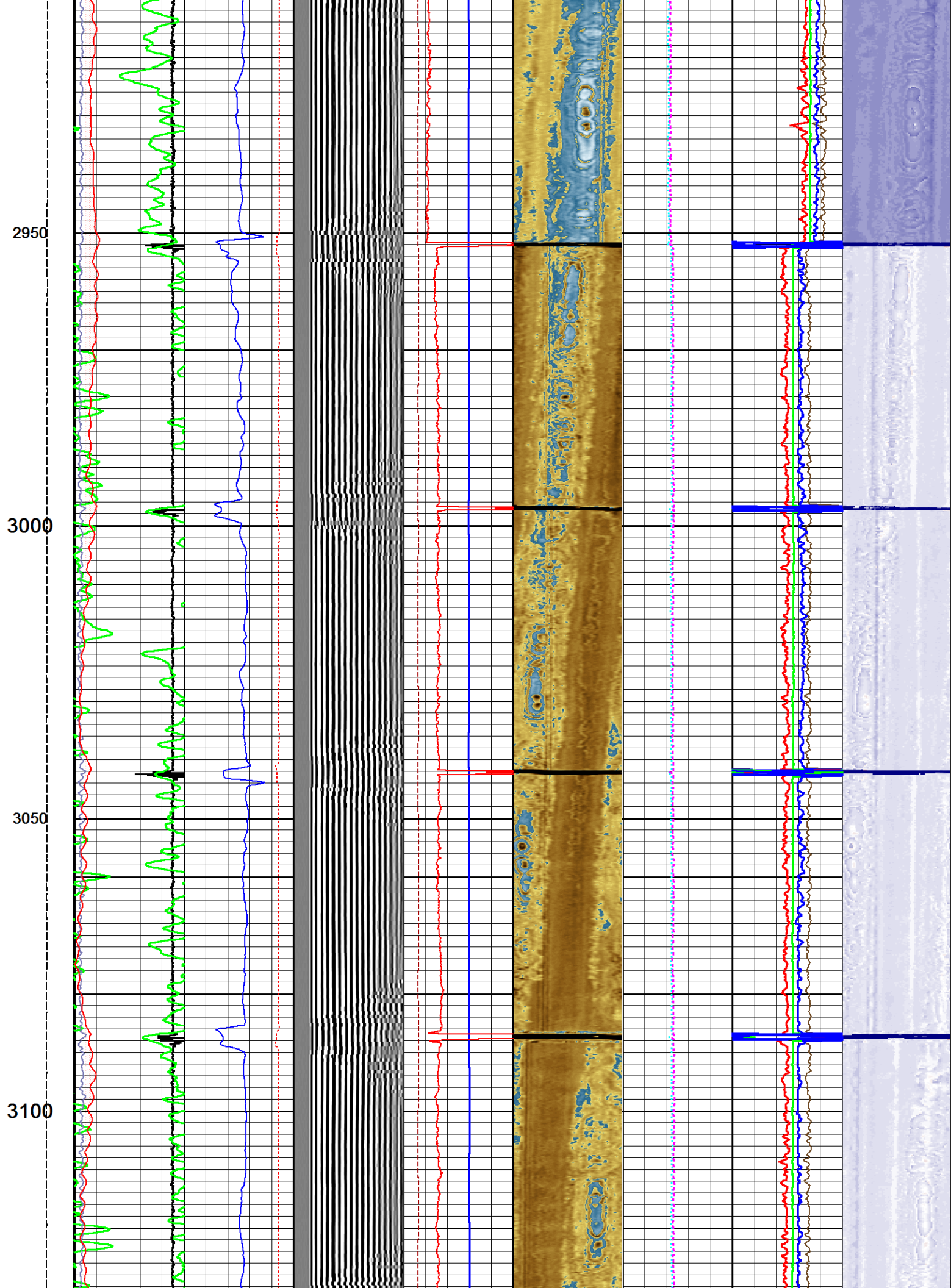


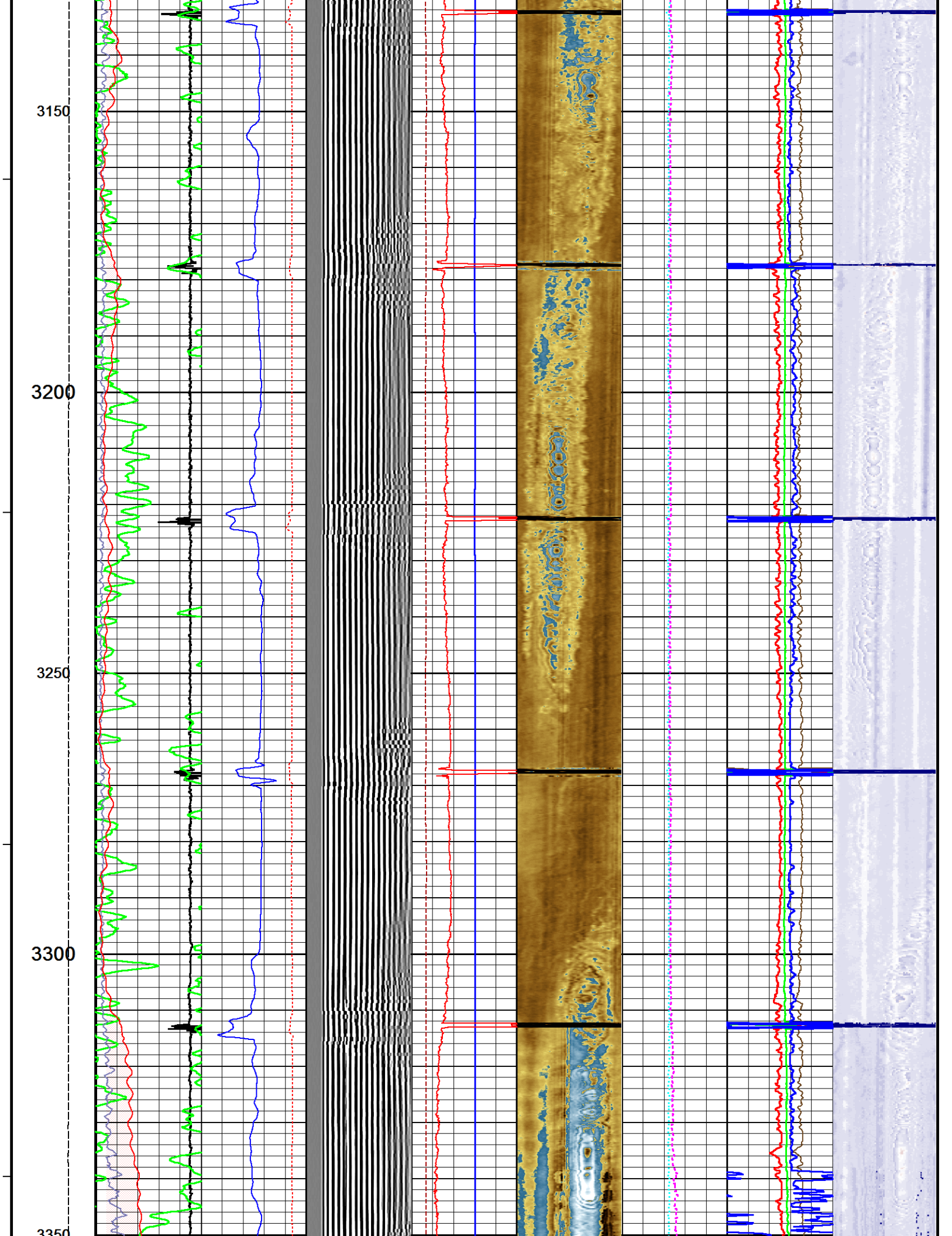


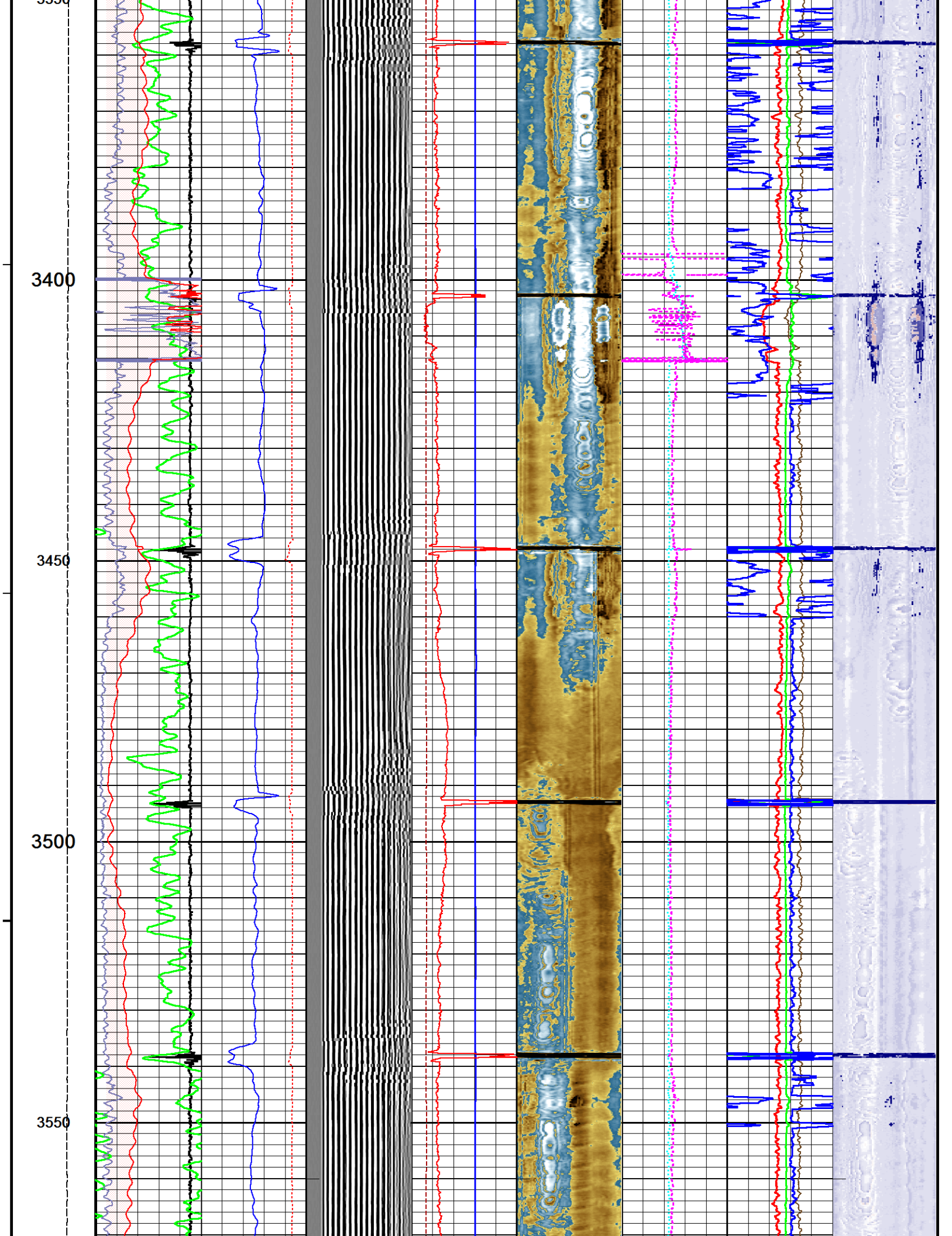


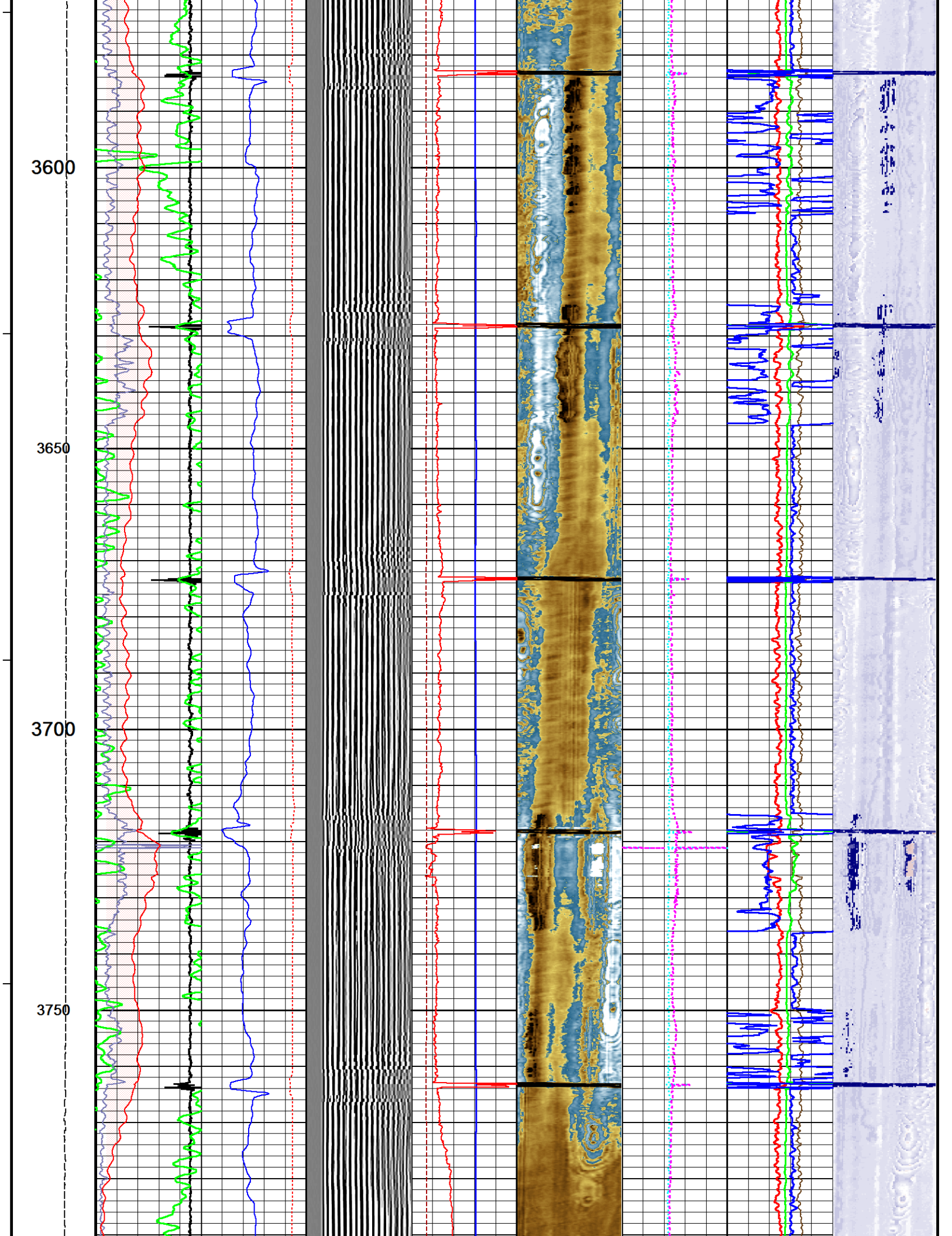












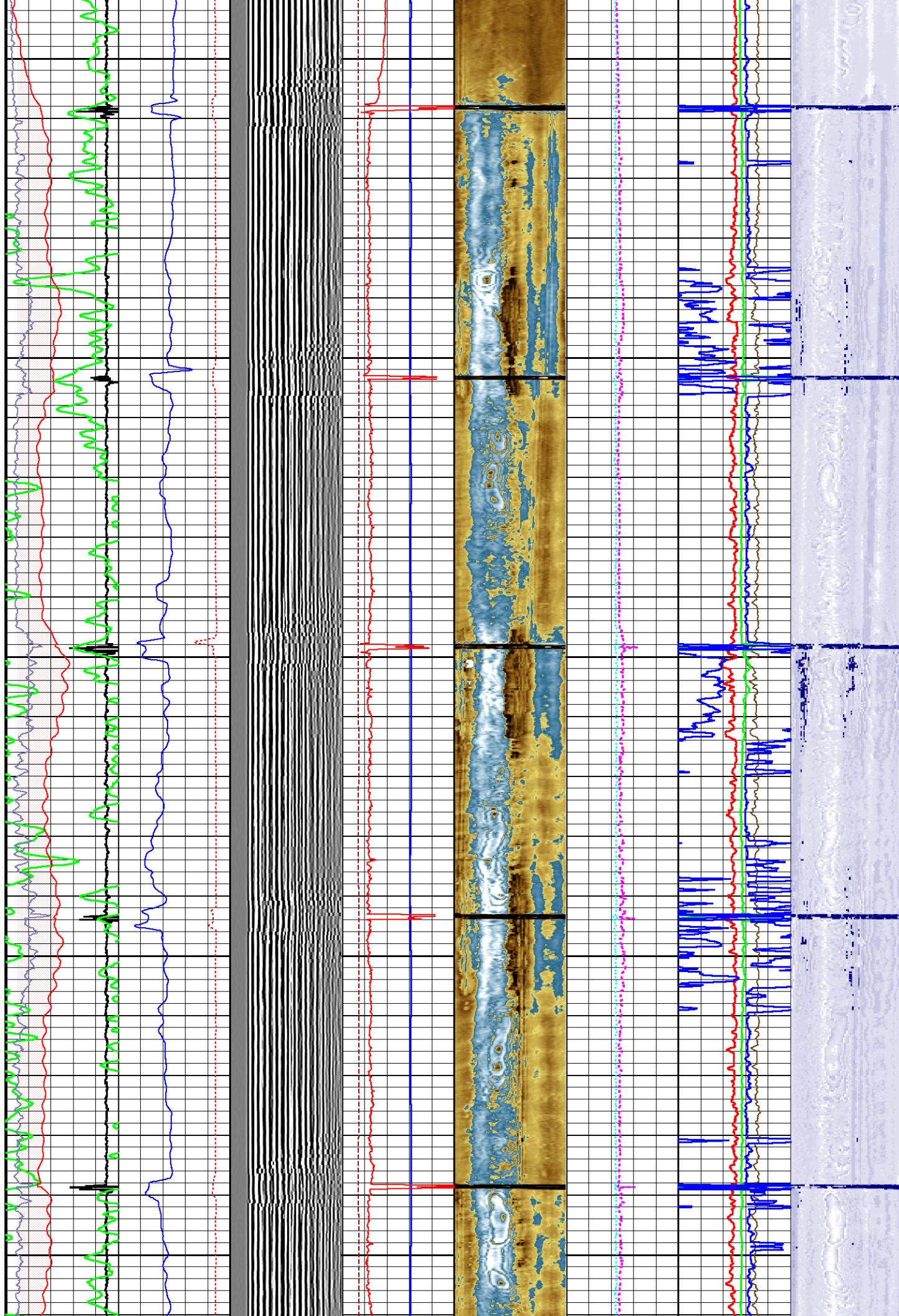
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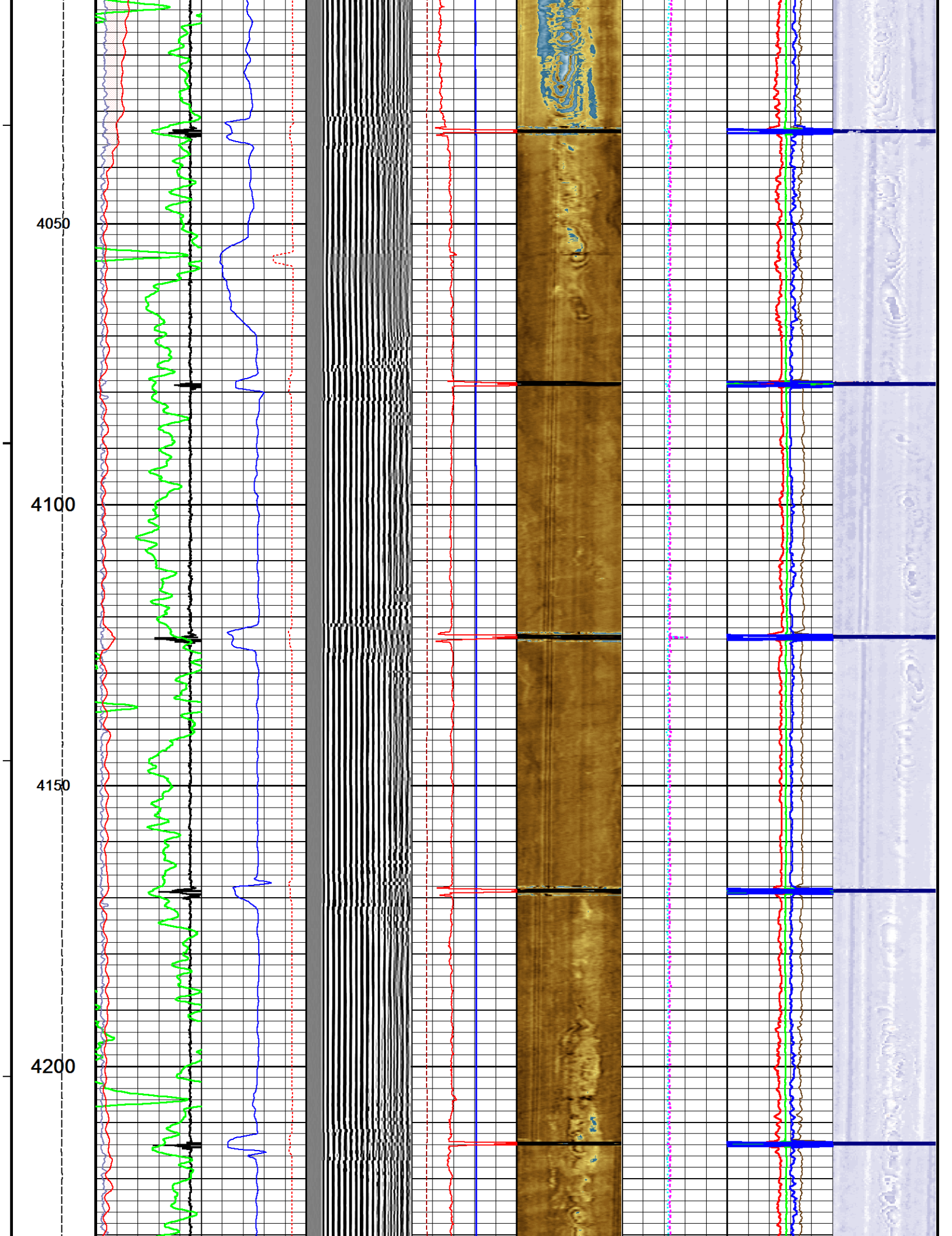
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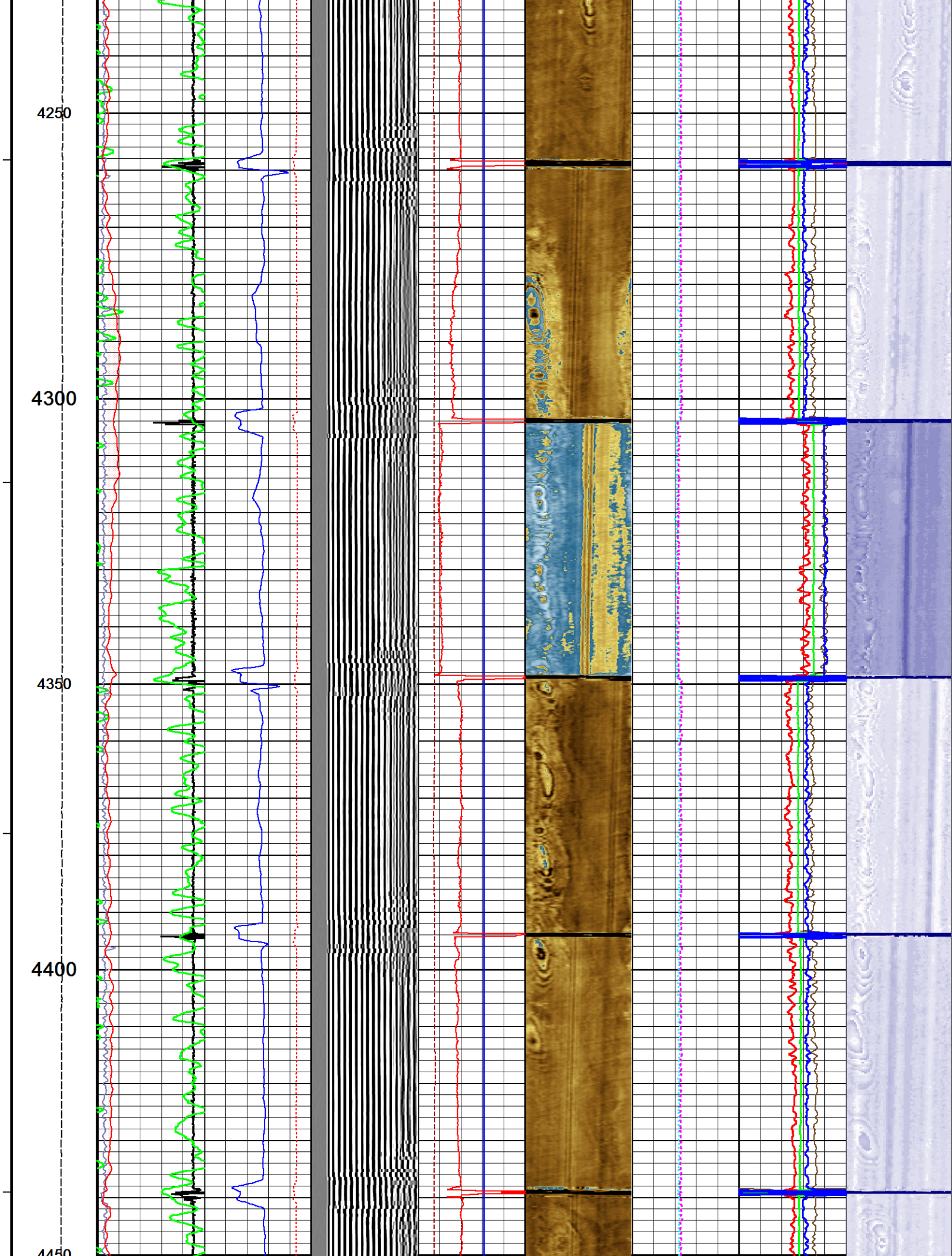
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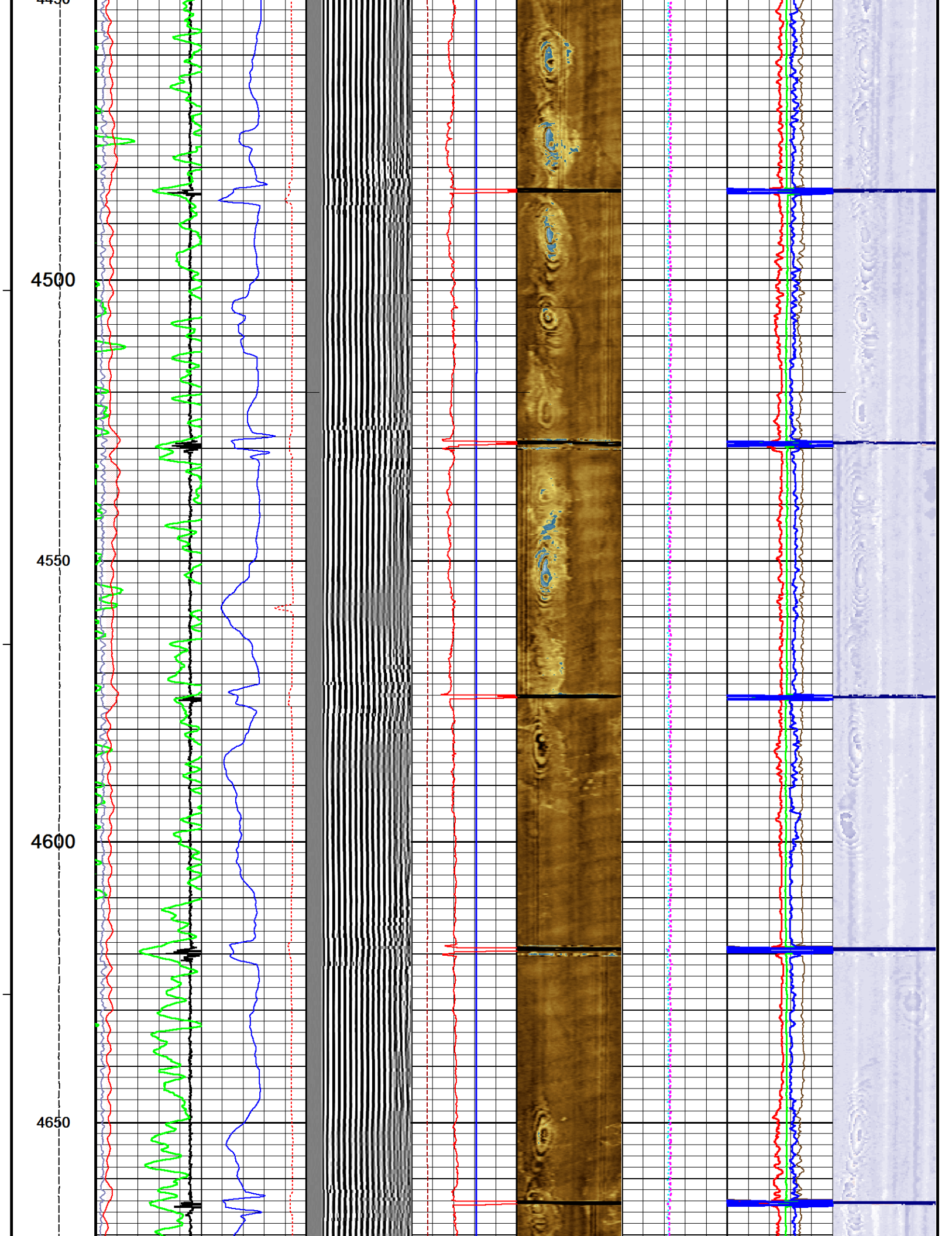
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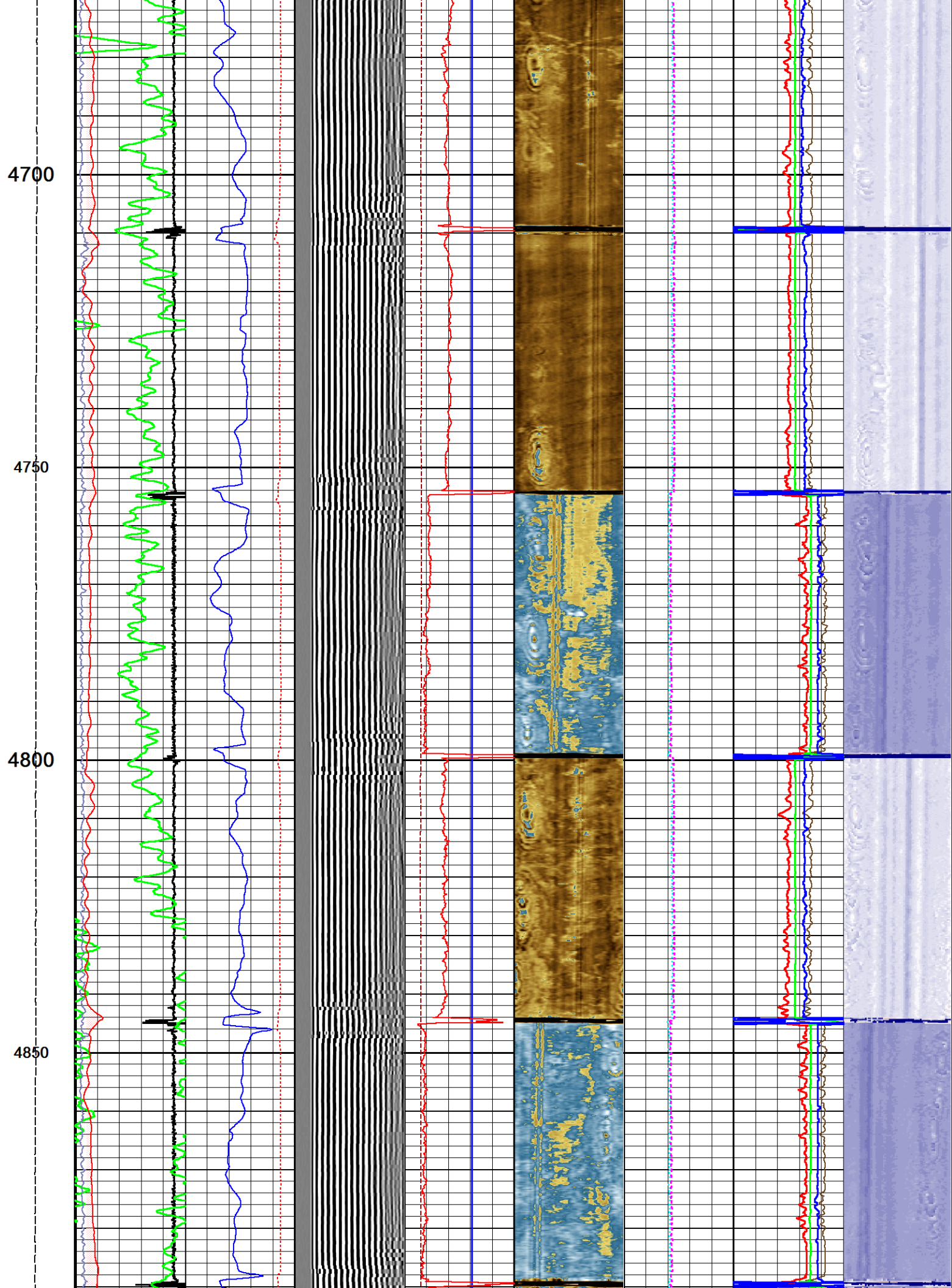
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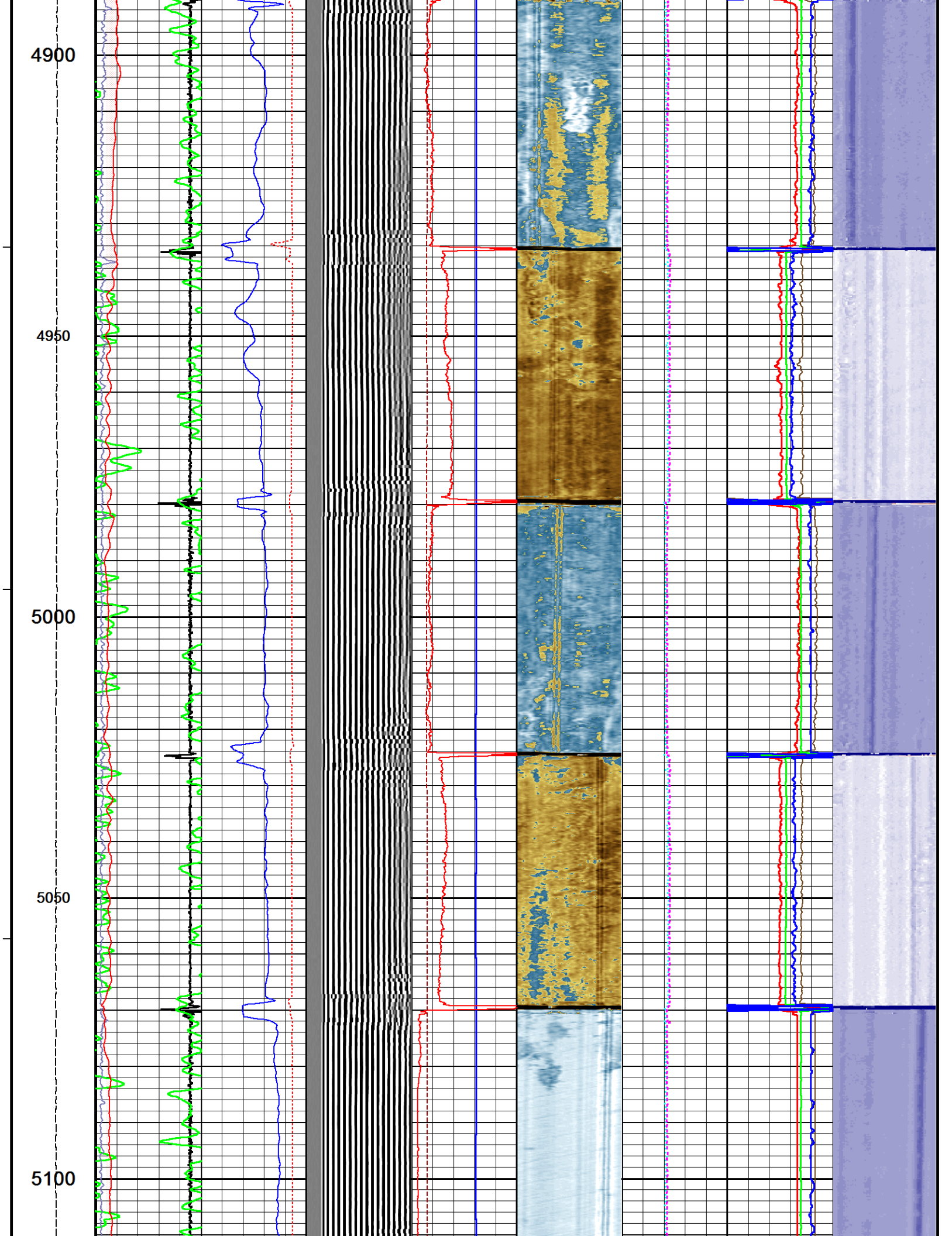


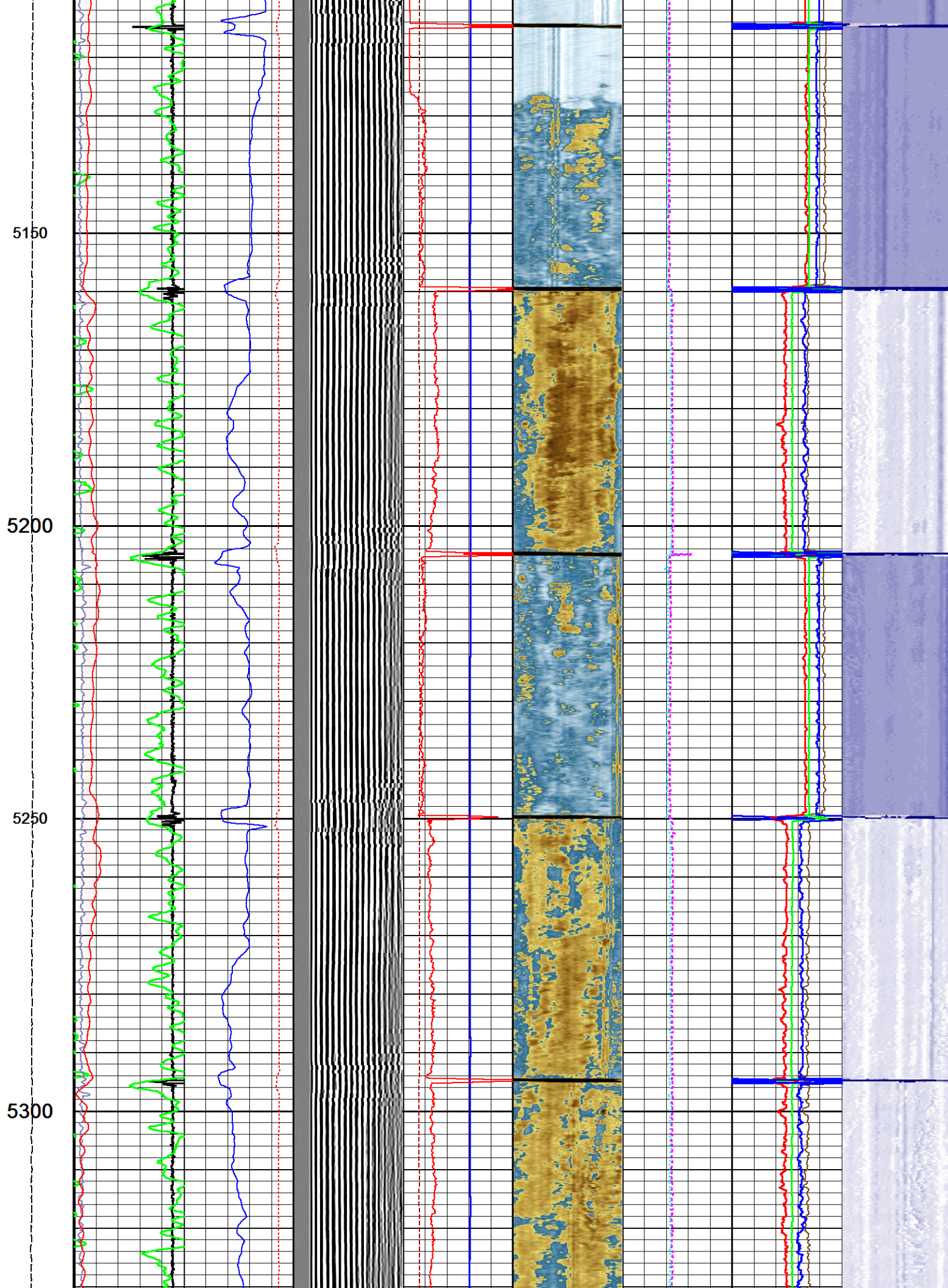


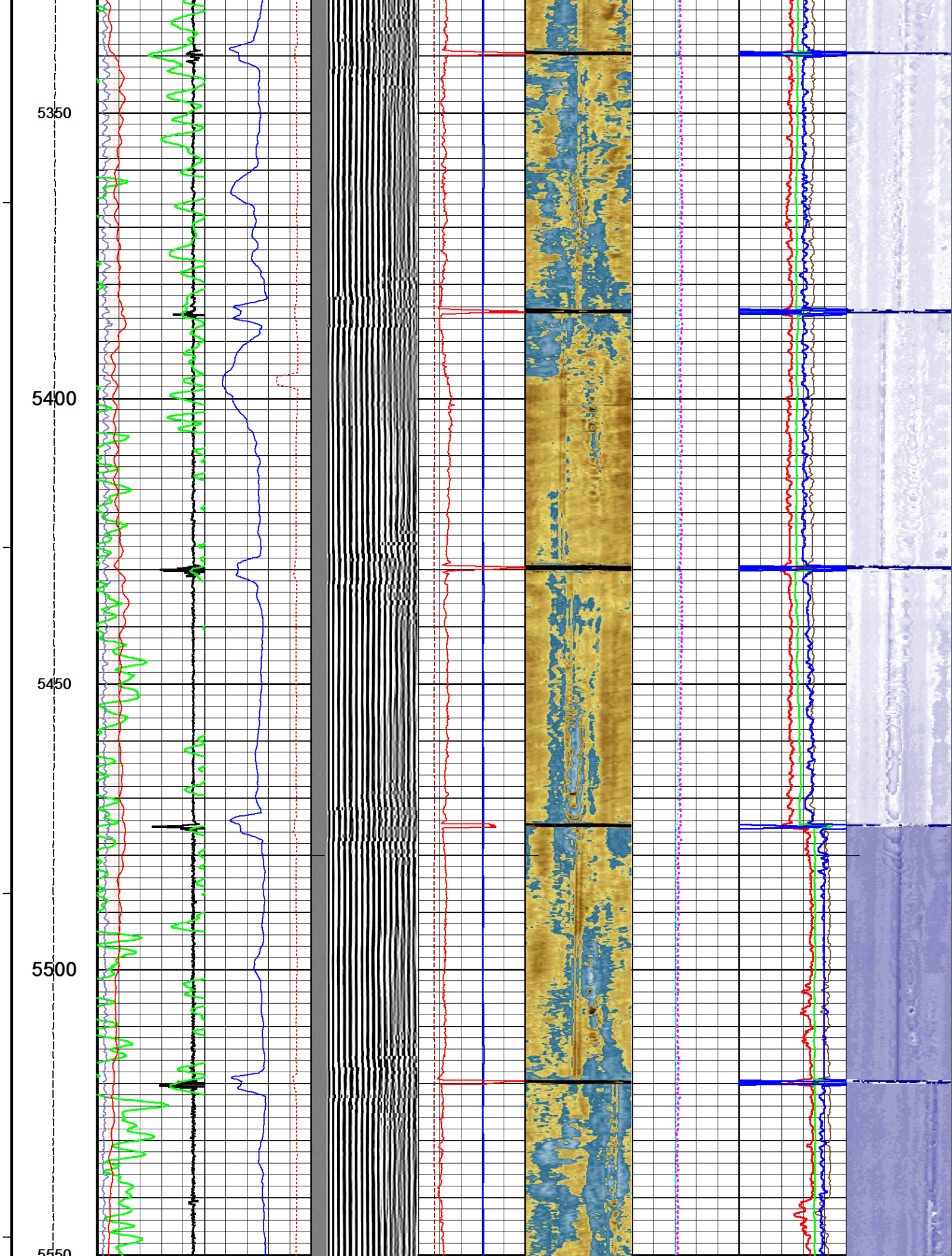


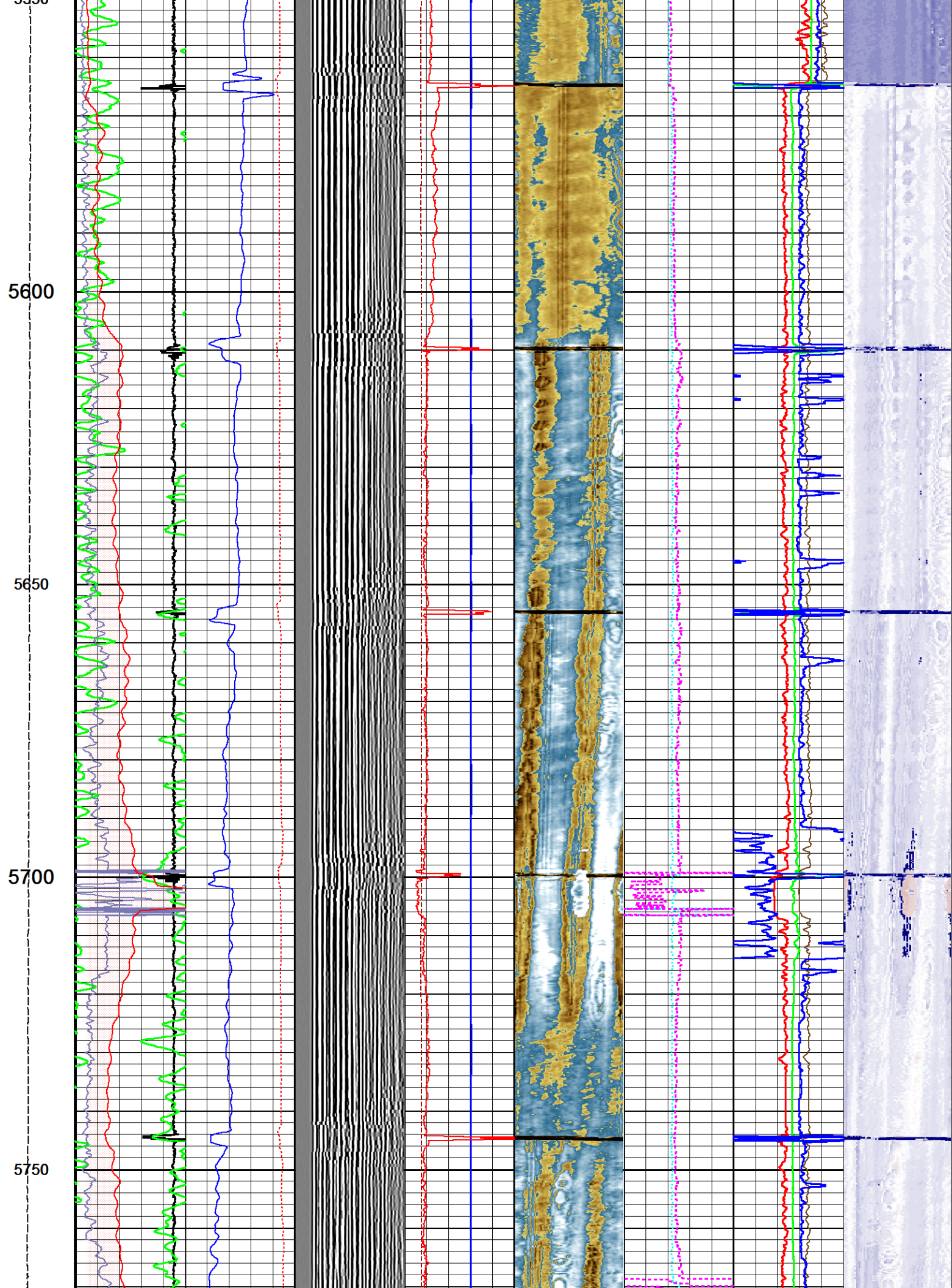


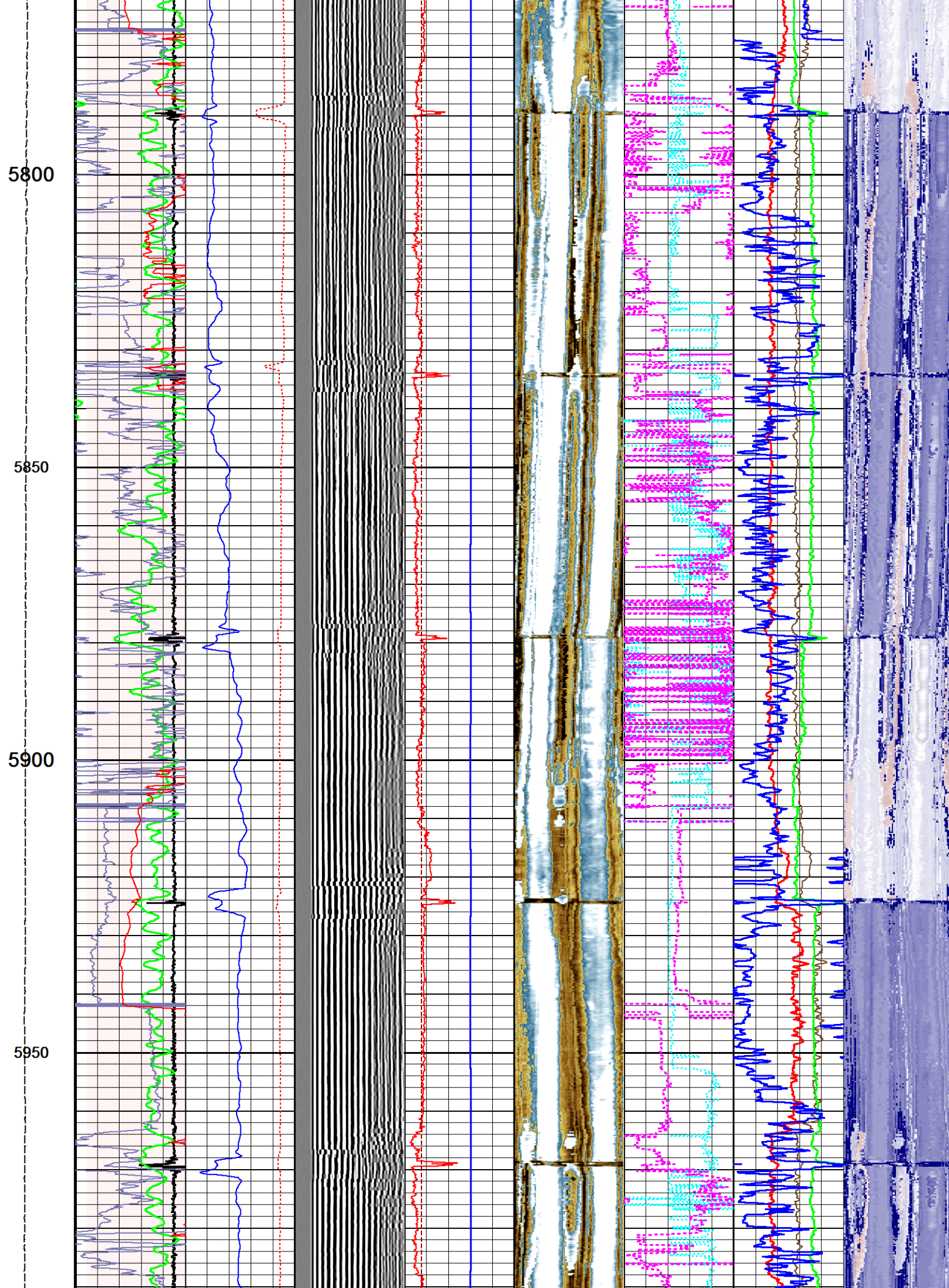












6000

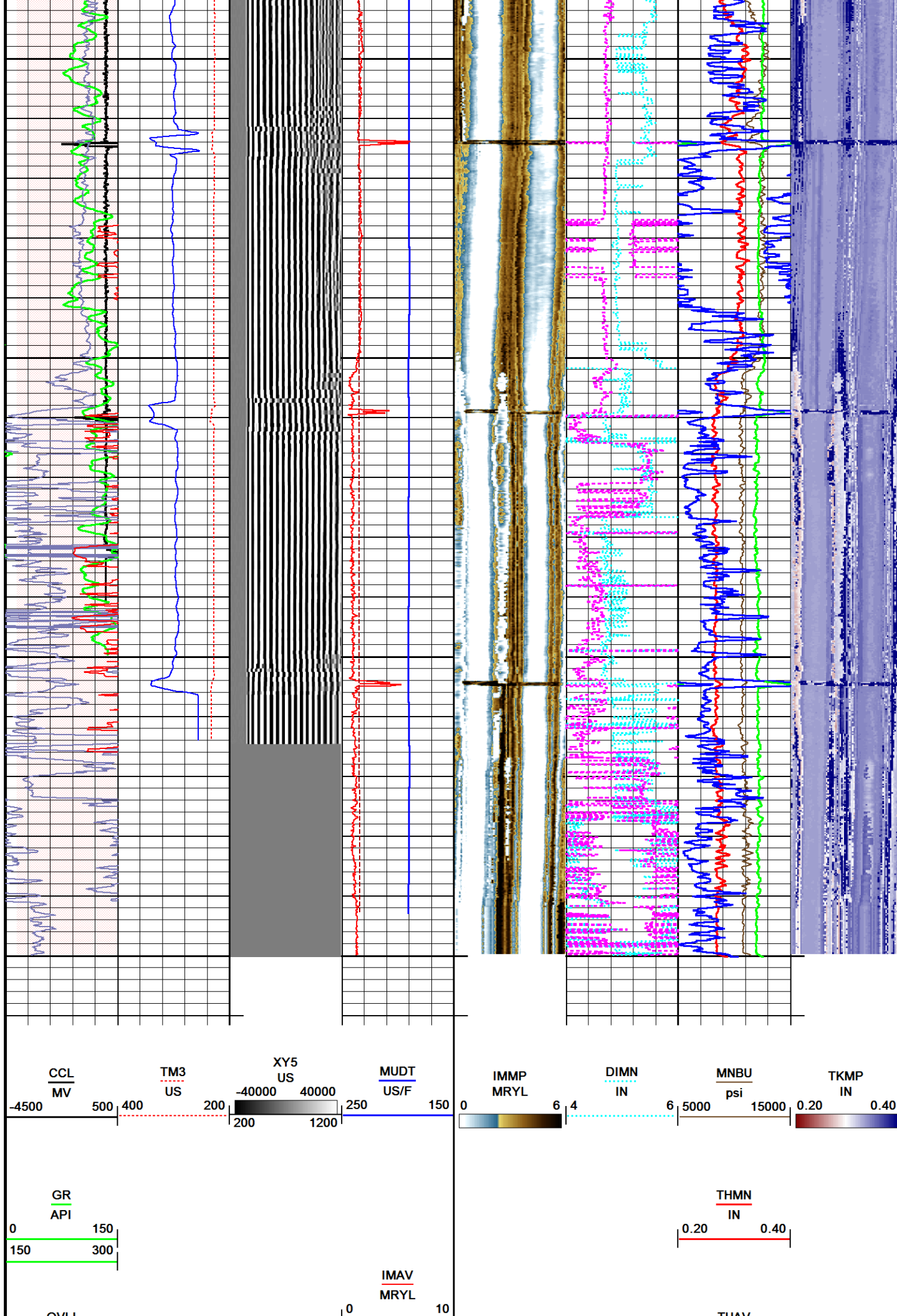
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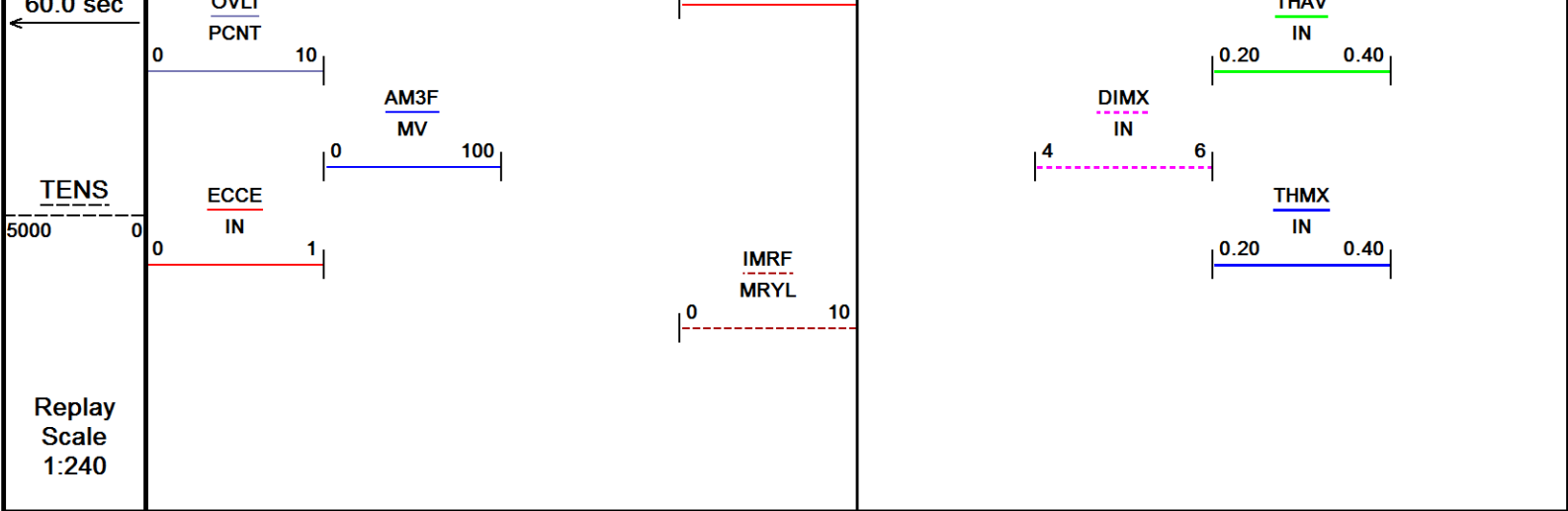
6100

6150

6160
Depth
in
Feet

Timing
Marks
every
60.0 sec





Depth Based Data - Maximum Sampling Increment 2.5cm

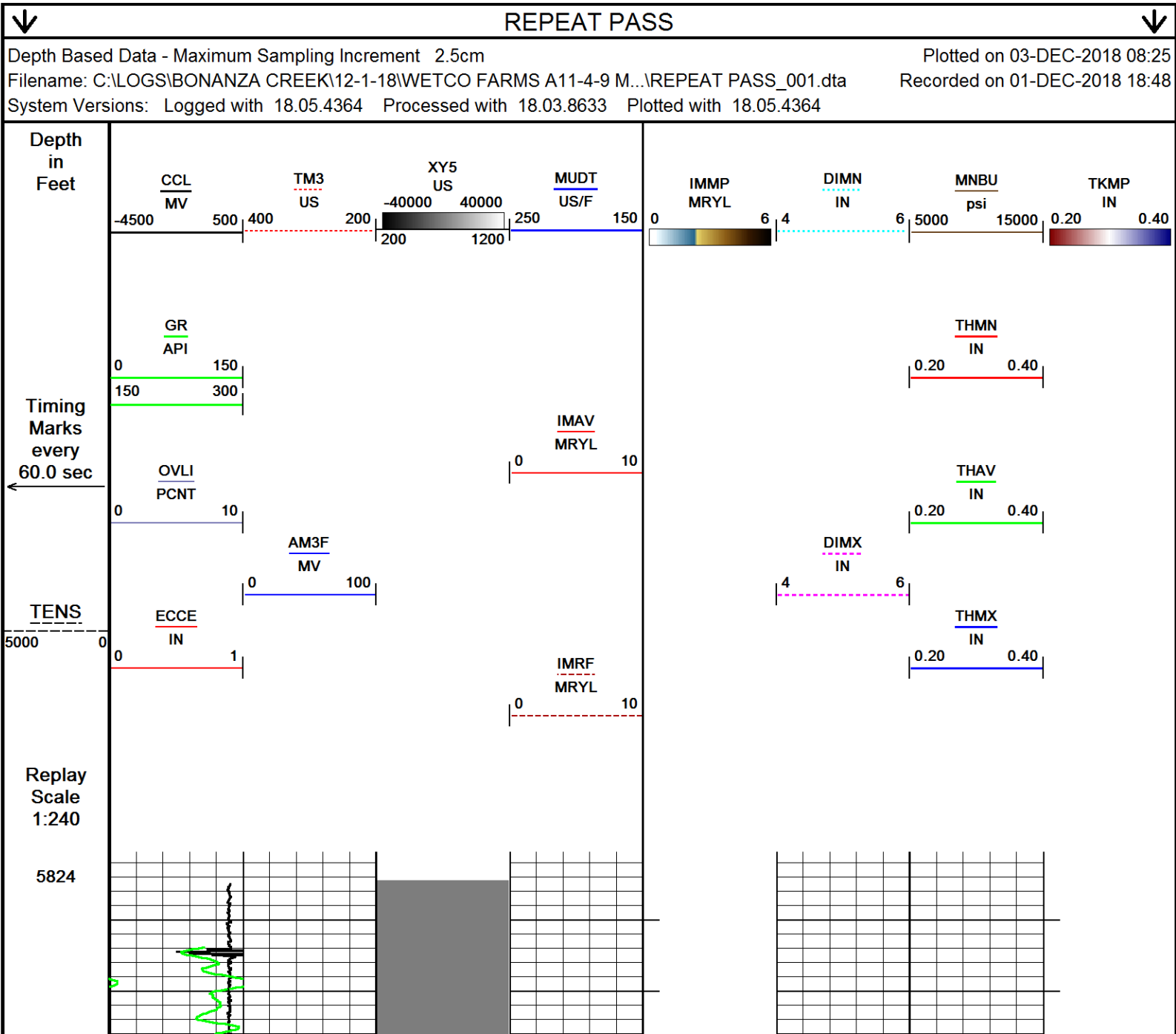
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Filename: C:\LOGS\BONANZA CREEK\12-1-18\WETCO FARMS A11-4-9 MRLNB\MAIN_005.dta

Recorded on 03-DEC-2018 08:14

System Versions: Logged with 18.05.4364 Processed with 18.03.8633 Plotted with 18.05.4364

MAIN PASS



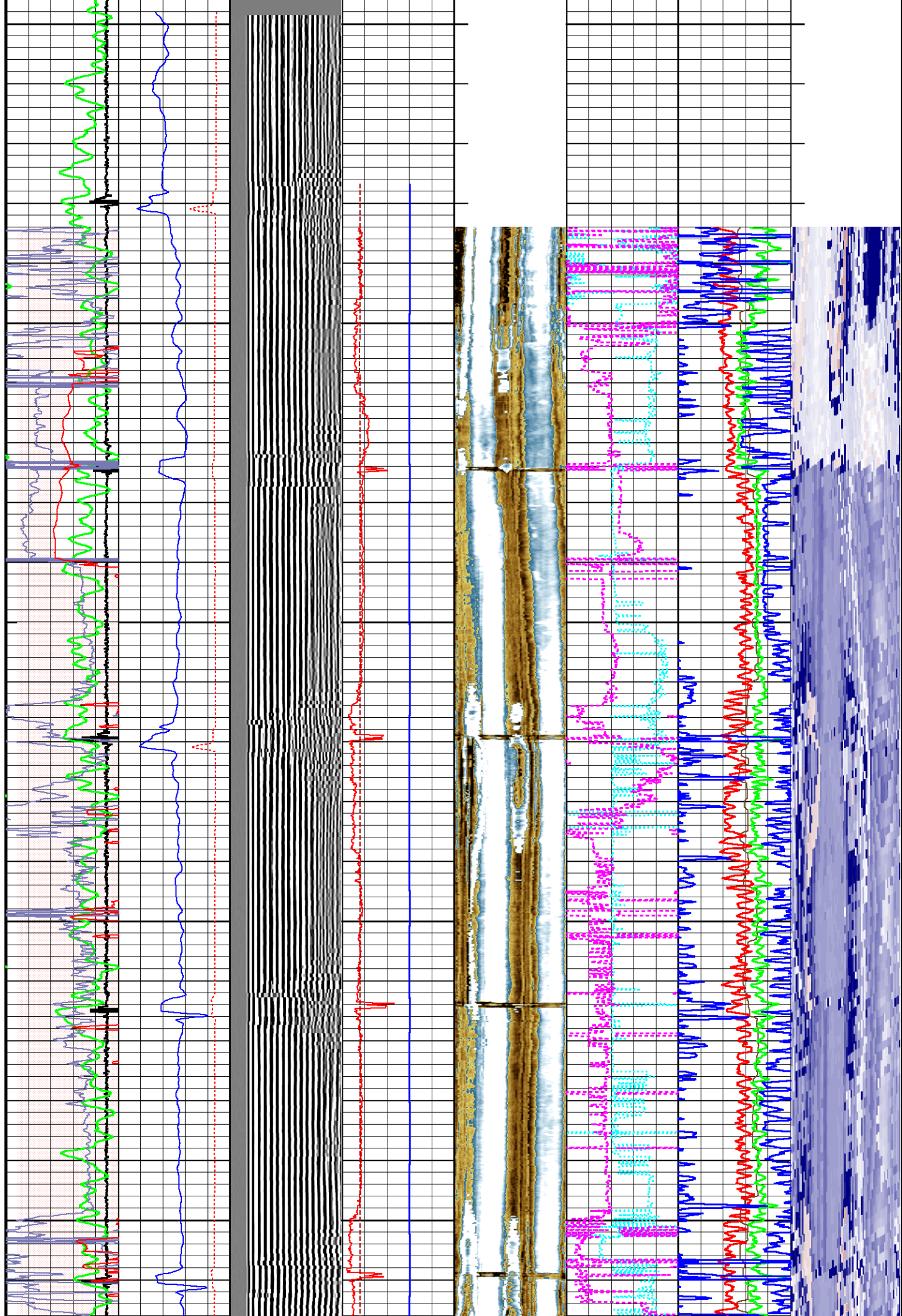
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5900

5950

6000

6050



SHOP AND FIELD CALIBRATIONS

C:\LOGS\BONANZA CREEK\12-1-18\WETCO FARMS A11-4-9 MRLNB\MAIN_005.dta

UGR Field Survey Cal UGR-JD 135

Field calibration on 00-JAN-1988 00:00

Gamma Ray Field Survey Calibration

Tool Type: UGR-JD Serial No: 135
Calibrator No:

Background	Calibrator	Standard	Units
0.0	140.0	140.0	CPS

Delta Counts Per Sec: 140.0 CPS/API = 1.000

CBT Field Calibration CBT-AA 115

Field calibration on 01-DEC-2018 13:16

Cement Bond Tool Amplitude Field Calibration

Tool Type CBT-AA Serial No 115

Free Pipe Depth

Sensor	Description	Standard(mv)	Measured(mv)
AMP 3 FT	100 % Bond	3.10	1.45
	Free Pipe	72.00	647.70
AMP 5 FT	100 % Bond	0.30	1.56
	Free Pipe	48.00	653.66

CBT Constants CBT-AA 115

Last Edited on 01-DEC-2018 20:36

Min Ampl 100% Bond	3.06 MV
Max Ampl 0% Bond	71.77 MV
Cement Cmpr Strength	1000 PSI
Casing Size	5.50 IN
Casing Weight	17.0 LB/F
Casing Velocity	57.00 US/F
DT Fluid	200.0 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 01-DEC-2018 13:18

Ultrasonic Radial Scanner Before Calibration

Tool Type USH-AB Serial No 136

	Measured	Minimum	Maximum	
Free Pipe	-999.250	0.000	0.000	MRYL
Mud Impedance	3.930	0.000	0.000	MRYL

URS Constants USH-AB 136

Last Edited on 01-DEC-2018 20:36

*** 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	3.40
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	1600.00	5.50	36.00	1.50	1.50	0.30	1.00
0.00	13648.00	5.50	17.00	2.27	3.93	0.30	1.00

** Constants **

Thickness calculated from	Tool
Radius Offset	-0.76
Mud slowness Offset	0.00 US/F
Mud Chamber Equation	Mud Plate
Z_mud at Calibration	1.50 MRYL
Z_mud outside	1.50 MRYL
Gas Impedance Cutoff	0.38 MRYL
Fluid Impedance Cutoff	2.30 MRYL
Contam Impedance Cutoff	2.70 MRYL
Relative Bearing Rotate	OFF
RB Offset Angle	0.00 DEG
Cement Density	14.00 LB/G

DOWNHOLE EQUIPMENT

C:\LOGS\BONANZA CREEK\12-1-18\WETCO FARMS A11-4-9 MRLNB\MAIN.dta

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



59.48 ft CCL - Collar Locator

Crossover 1-pin to 55-pin for WCC-D
XOV-WC 125 LG: 1.05 ft WT: 15.4 lb OD: 3.386 in

Casing Collar Locator, 55 pin
CCL-WA 198 LG: 3.01 ft WT: 19.8 lb OD: 2.756 in

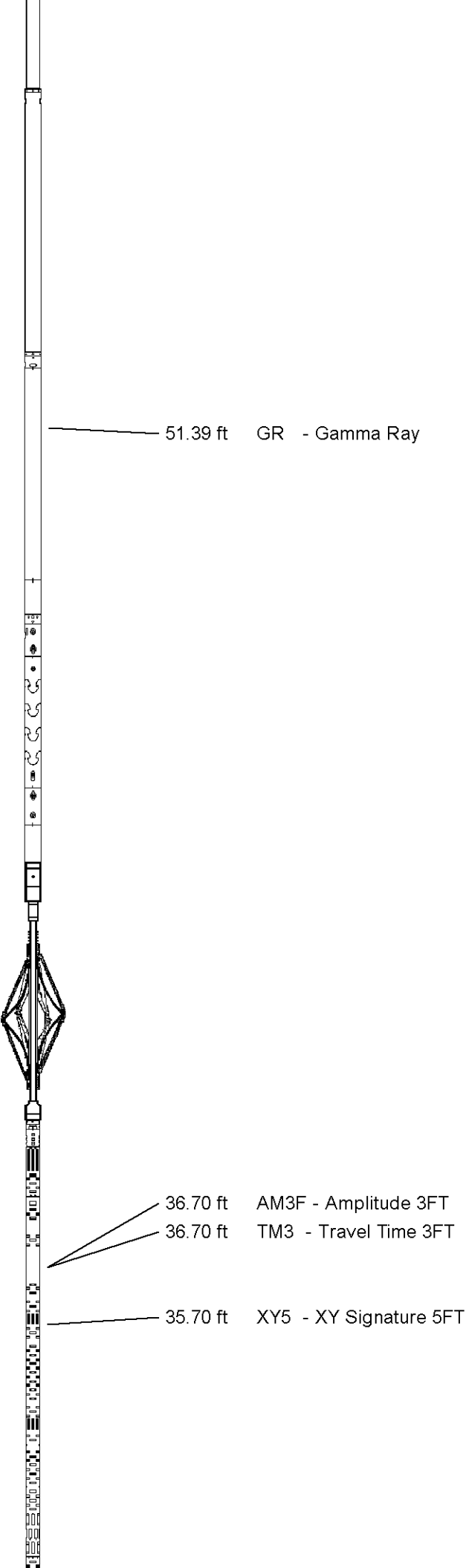
Communication Cartridge 55pin 3-3/8in
WCC-DA 119 LG: 4.60 ft WT: 63.9 lb OD: 3.386 in

Gamma Ray
UGR-JD 135 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 196 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

Cement Bond Tool
CBT-AA 115 LG: 10.75 ft WT: 163.1 lb OD: 3.386 in



55 pin Roller Centralizer
CEN-XA 213 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

Flexible Joint, URS, 55 Pin
FTP-FA 132 LG: 4.35 ft WT: 90.4 lb OD: 3.386 in

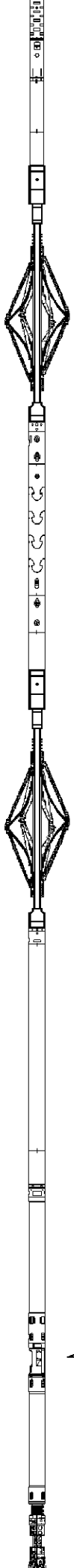
55 pin Roller Centralizer
CEN-XA 225 LG: 4.49 ft WT: 86.0 lb OD: 3.386 in

URS Electronics Cartridge
UCC-AA 132 LG: 4.51 ft WT: 79.4 lb OD: 3.386 in

URS Sonde Section
USS-AB 189 LG: 9.65 ft WT: 167.6 lb OD: 3.386 in

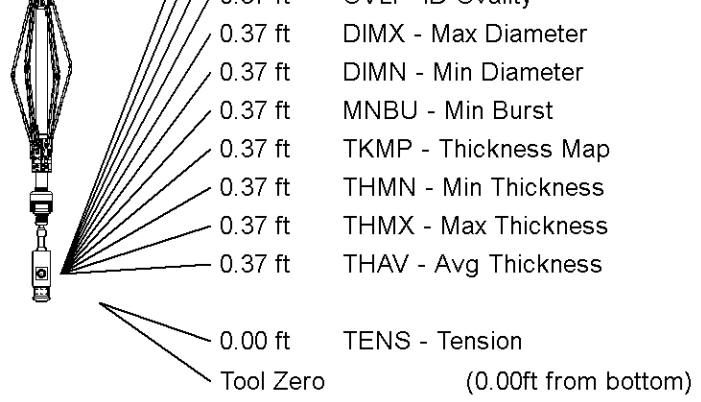
Ultrasonic Radial Scanner Head A
USH-AB 136 LG: 1.03 ft WT: 13.2 lb OD: 3.386 in

Total Length: 62.40 ft Weight: 1045.0 lb




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

0.37 ft IMMP - Impd Map
0.37 ft IMAV - Avg Impedance
0.37 ft ECCE - Eccentering
0.37 ft QVLI - ID Quality



All measurements relative to tool zero.

COMPANY		BONANZA CREEK ENERGY			
WELL		WETCO FARMS A11-4-9 MRLNB			
FIELD		WATTENBERG			
PROVINCE/COUNTY		WELD			
COUNTRY/STATE		USA / COLORADO			
Elevation Kelly Bushing	4587	feet	Bottom Log Interval	6150.00	feet
Elevation Drill Floor	4587	feet	Depth Driller	13657.00	feet
Elevation Ground Level	4570	feet	Depth Logger	6150.00	feet
		SECUREVIEW			
		UTLRAVIEW / BONDVIEW			
		LOG			