Company: Noble Energy Inc

Well: Brecken LD28-734
Field: Wattenberg
County: Weld **State:** Colorado

County: Weld
Field: Wattenberg
Location: SWSE Sec 28 T9N R58W
Well: Brecken LD28-734
Company: Noble Energy Inc

USI-LITE

LOCATION

Elev: K.B. 4855.0 F
G.L. 4831.0 F
D.F. 4855.0 F

Permanent Datum: GL
Log Measured From: KB
Drilling Measured From: KB

API Serial No.	Section	Township	Range
05-123-41565	28	9N	58W

Logging Date	12-Sep-2015	
Run Number	ONE	
Depth Driller	10544.0 F	
Schlumberger Depth	10544.0 F	
Bottom Log Interval	5945.0 F	
Top Log Interval	55.0 F	
Casing Fluid Level	8.0 F	
Salinity		
Density	8.40 LB/G	
Fluid Level	8.0 F	
BIT/CASING/TUBING STRING		
Bit Size	8.750 IN	
From	1137.4 F	
To	6236.1 F	
Casing Size	7.00 IN	
Weight	26.00 LB/F	
Grade	N/A	
From	0.0 F	
To	6236.1 F	
Max Recorded Temp	202.0	
Logger on bottom (date)	12-Sep-2015	
Location	Fort Morgan CO	
Recorded By	Evan Meadows	
Witnessed By		

DEPTH SUMMARY LISTING

DEPTH SYSTEM EQUIPMENT

Depth Measuring Device

Type:
Serial Number:
Calibration Date:
Calibration Cable Type:
Wheel Correction 1:
Wheel Correction 2:

Tension Device

Type:
Serial Number:
Calibration Date:
Calibrator Serial Number:
Number Of Calibration Points:
Calibration RMS:
Calibration Peak Error:

Logging Cable

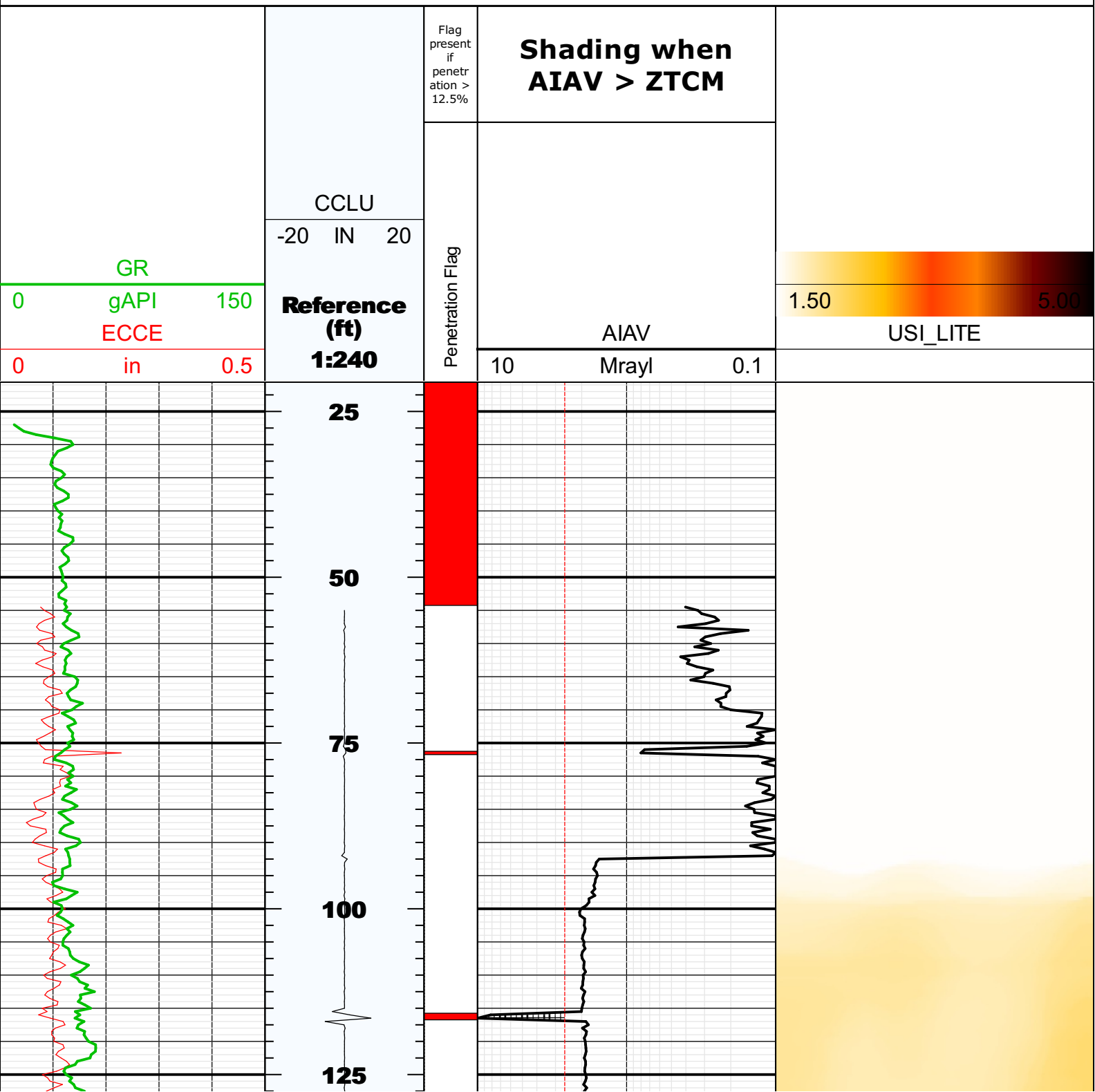
Serial Number:
Length: 24000.00000

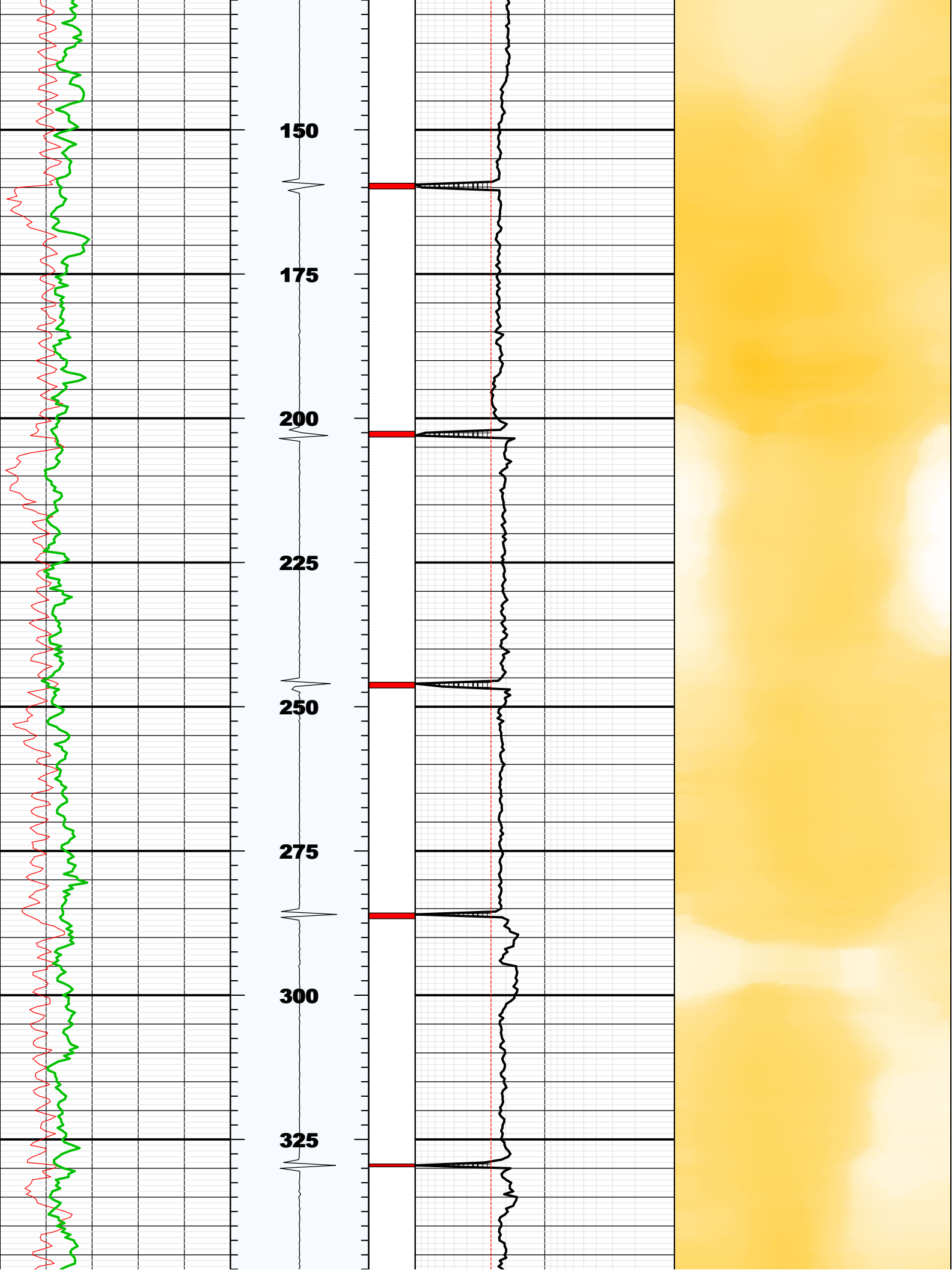
DISCLAIMER

1. TOOL RAN AS PER TOOL SKETCH.
2. REPEAT PASS RECORDED AT 0 PSI MAIN PASS RECORDED AT 2500 PSI
3. BHT 202 DEG F
4. ESTIMATED TOC 1005'

Main Pass

Company: Noble Energy Inc
Well: Brecken LD28-734
Field: Wattenberg

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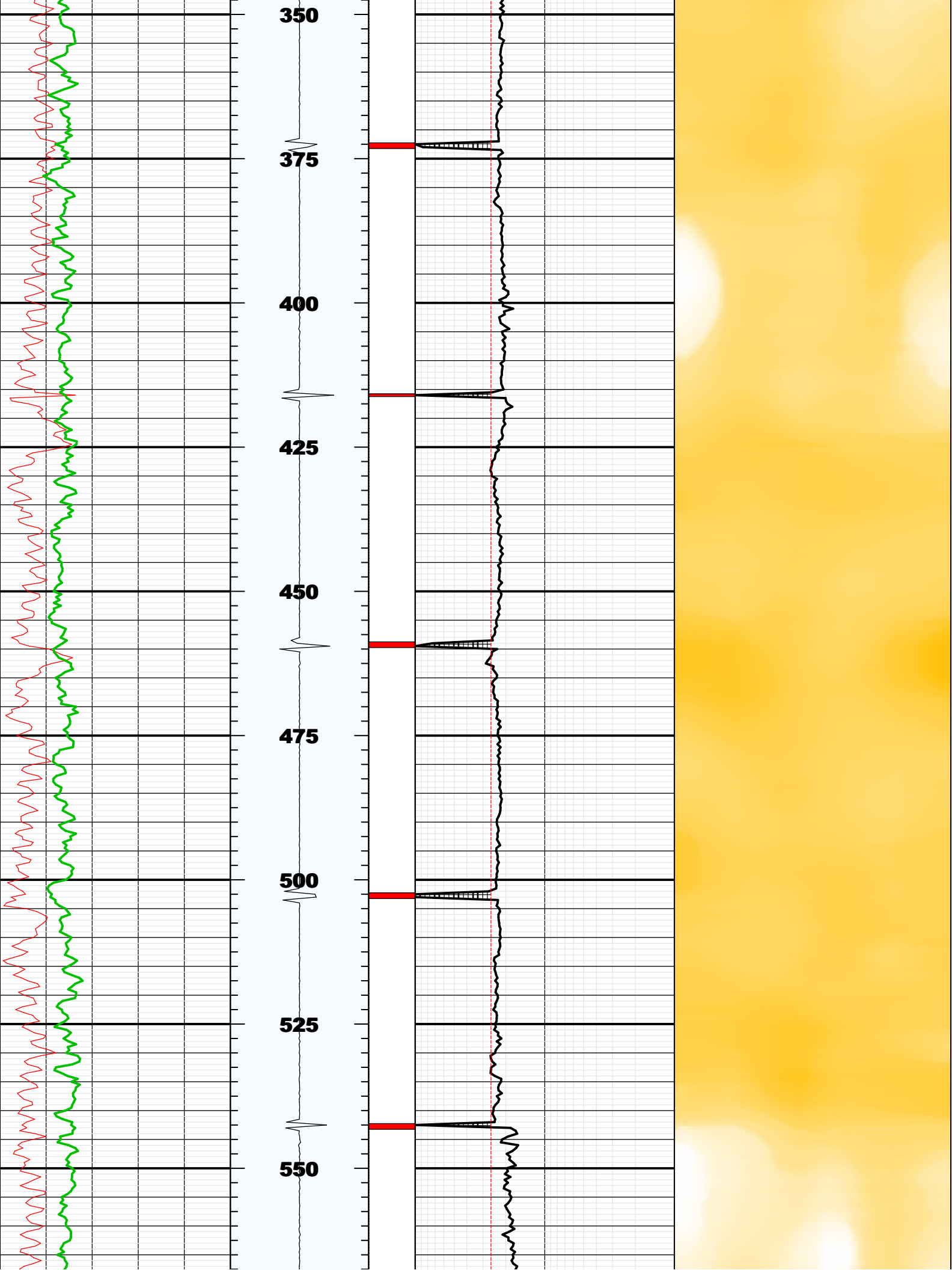
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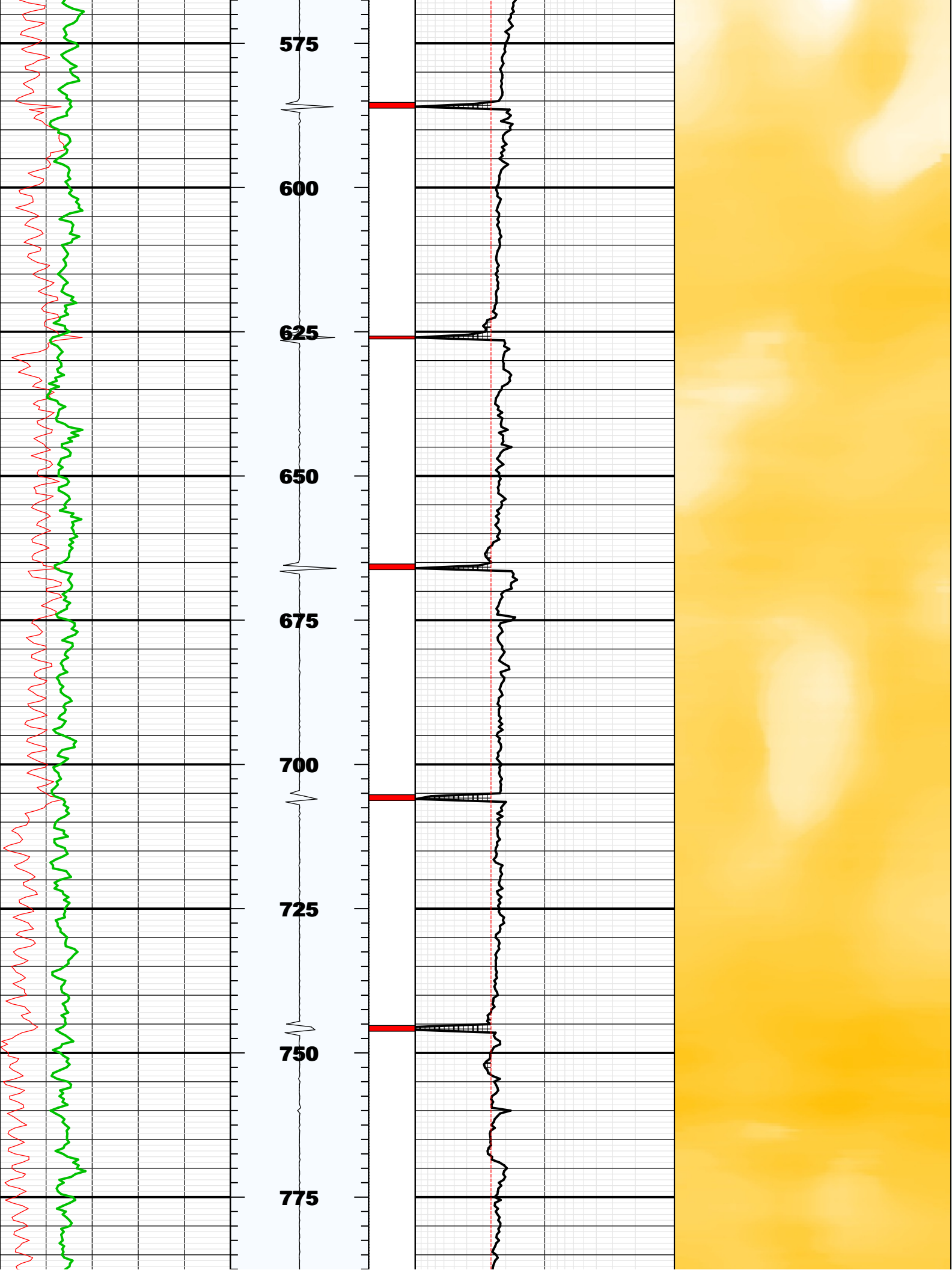
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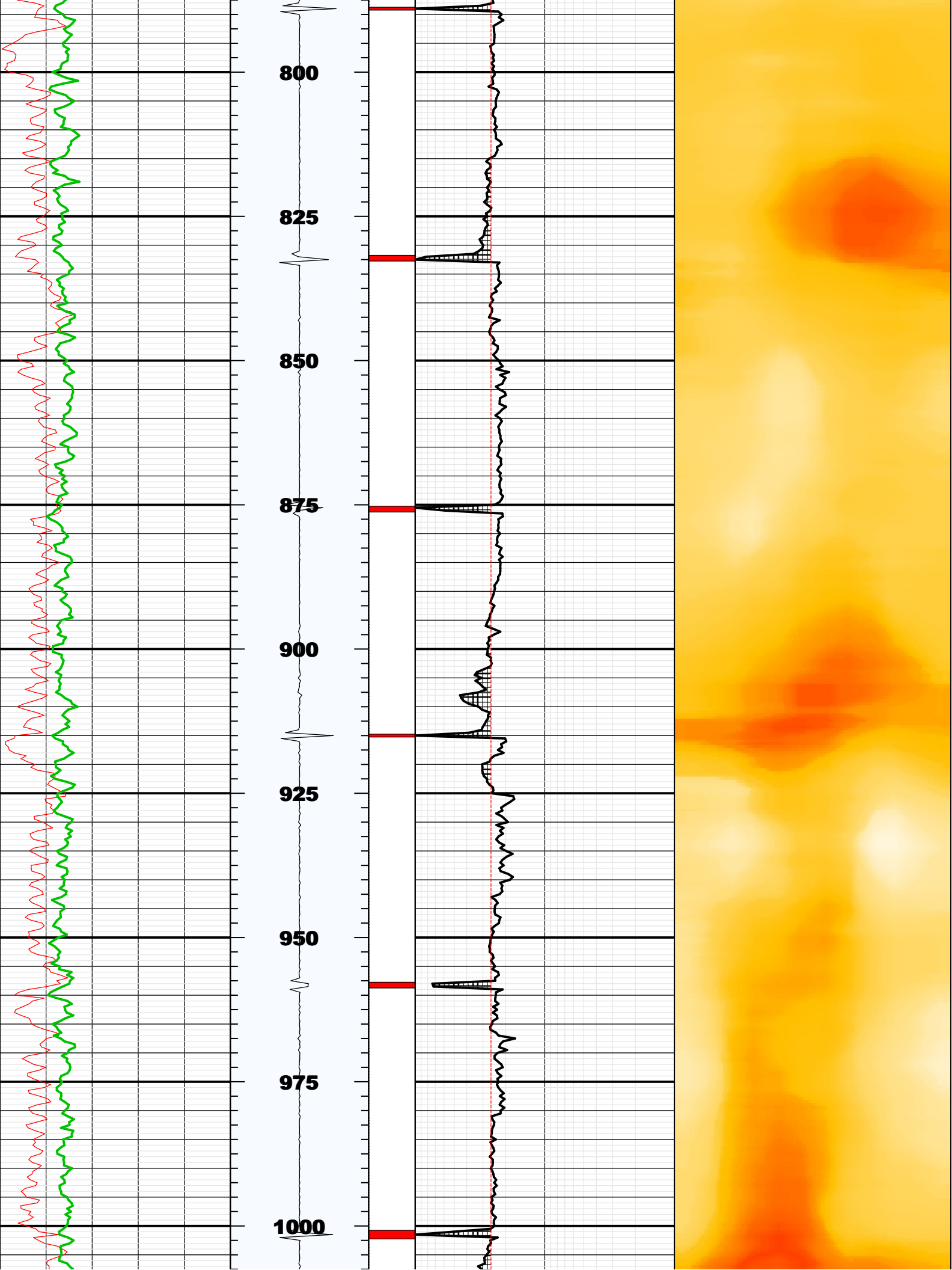
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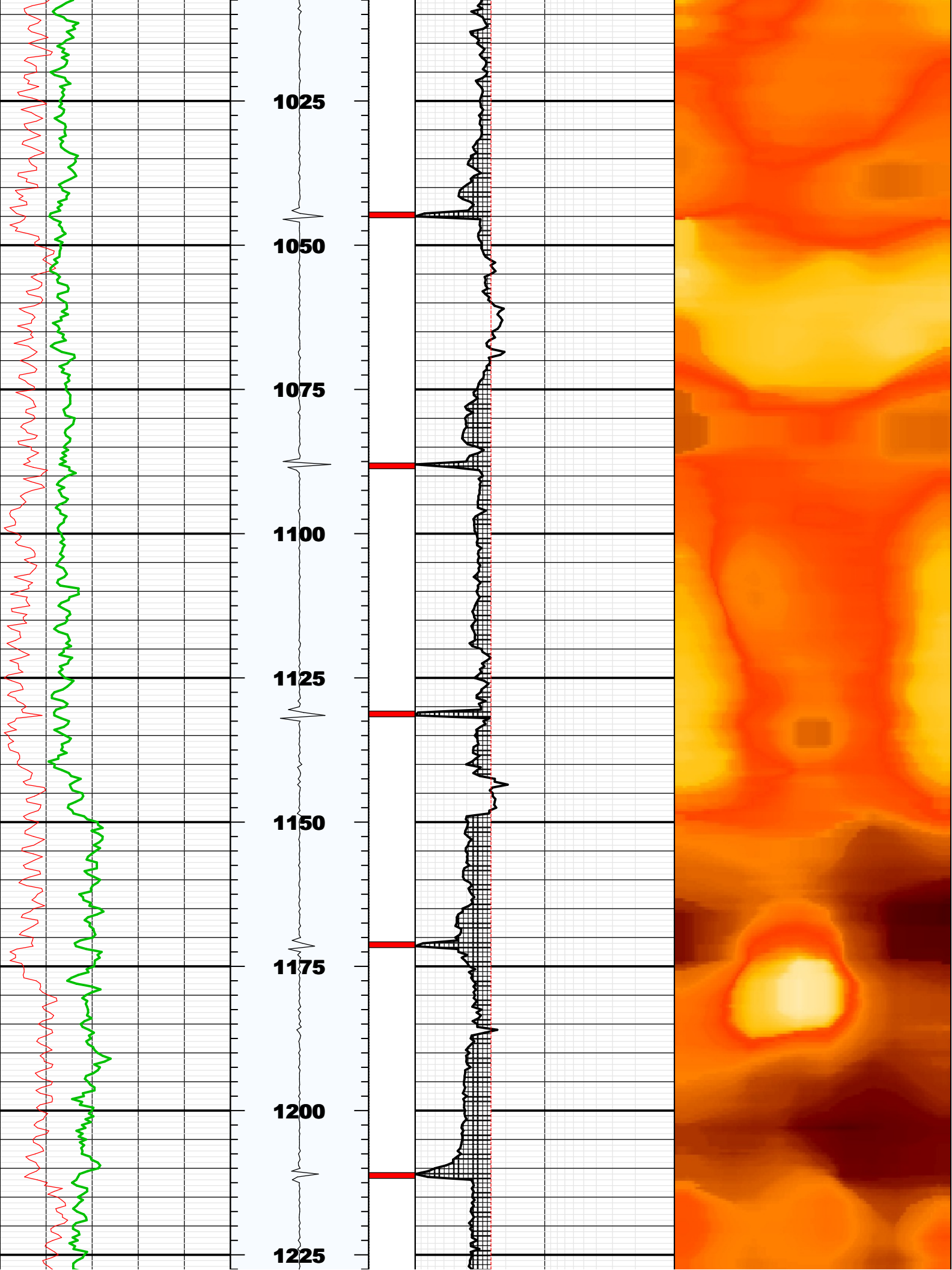
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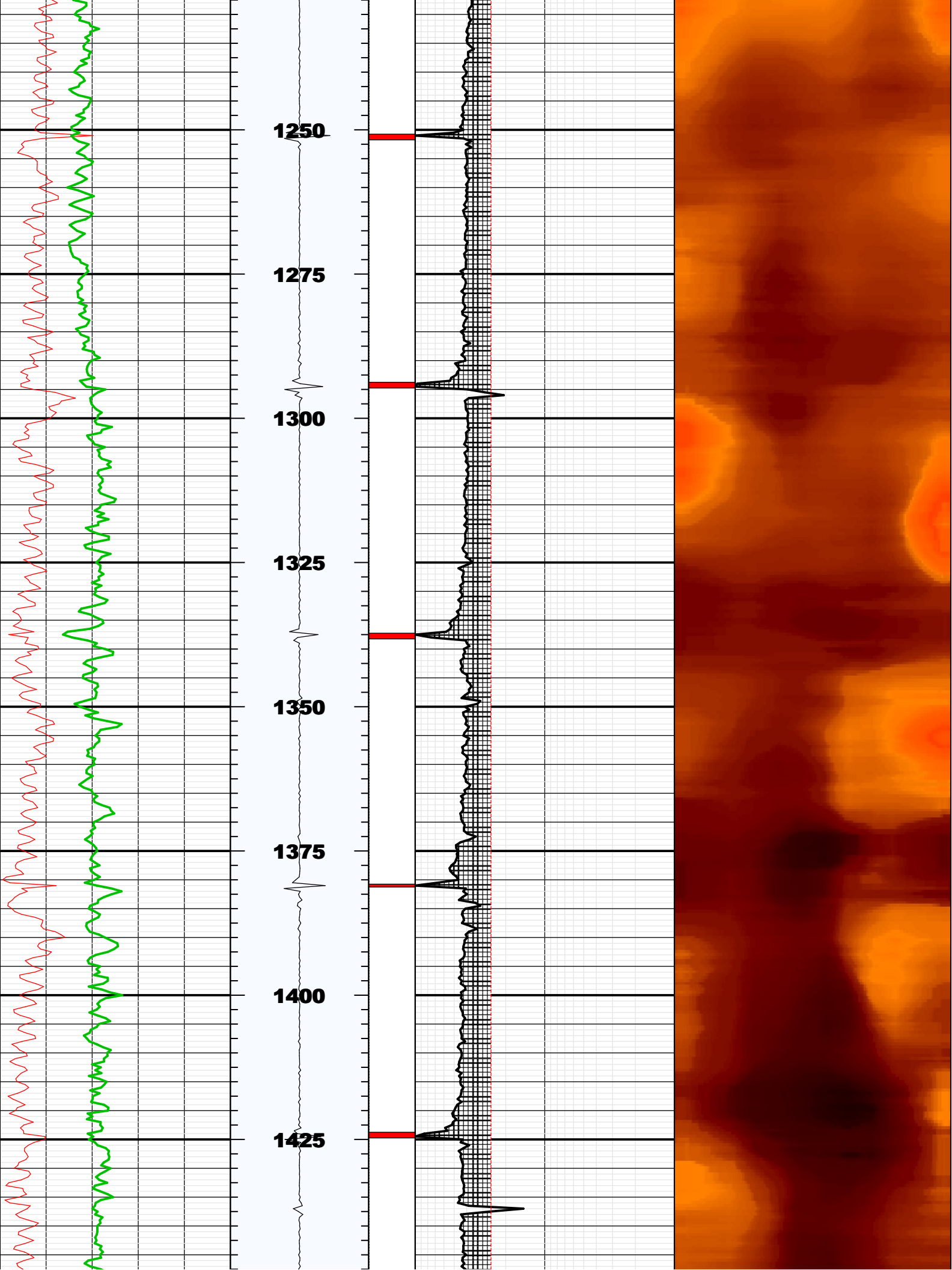
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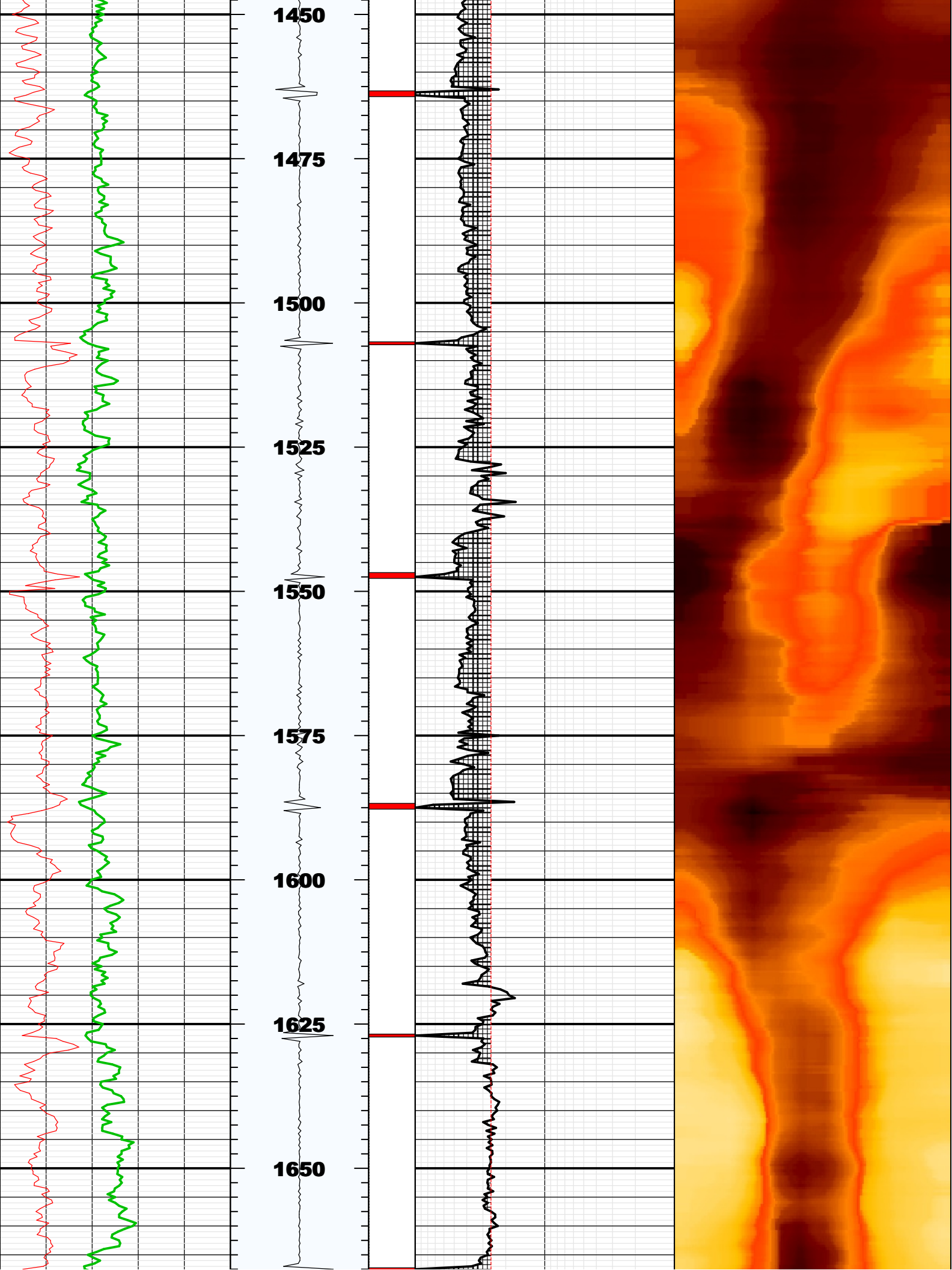
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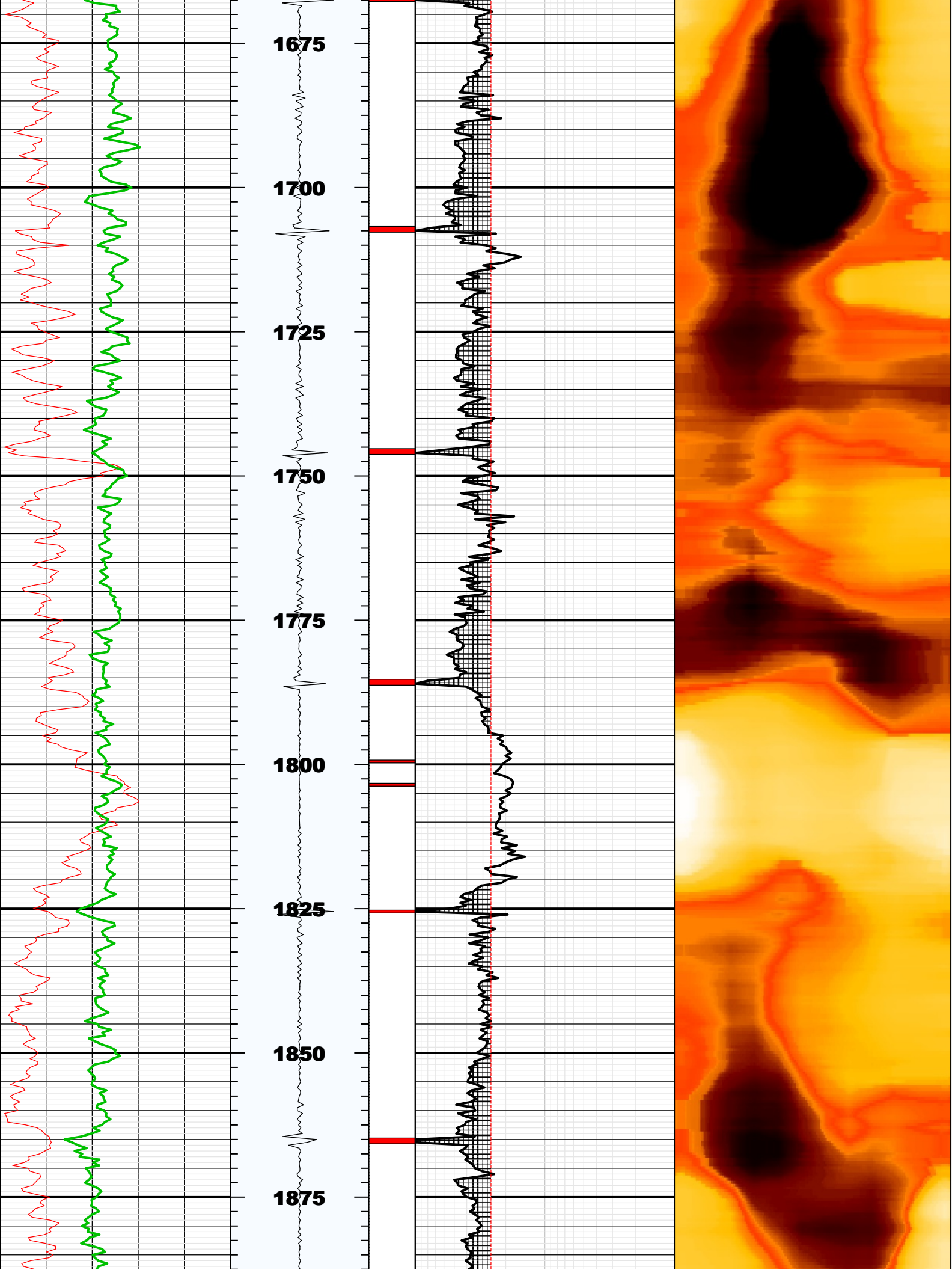
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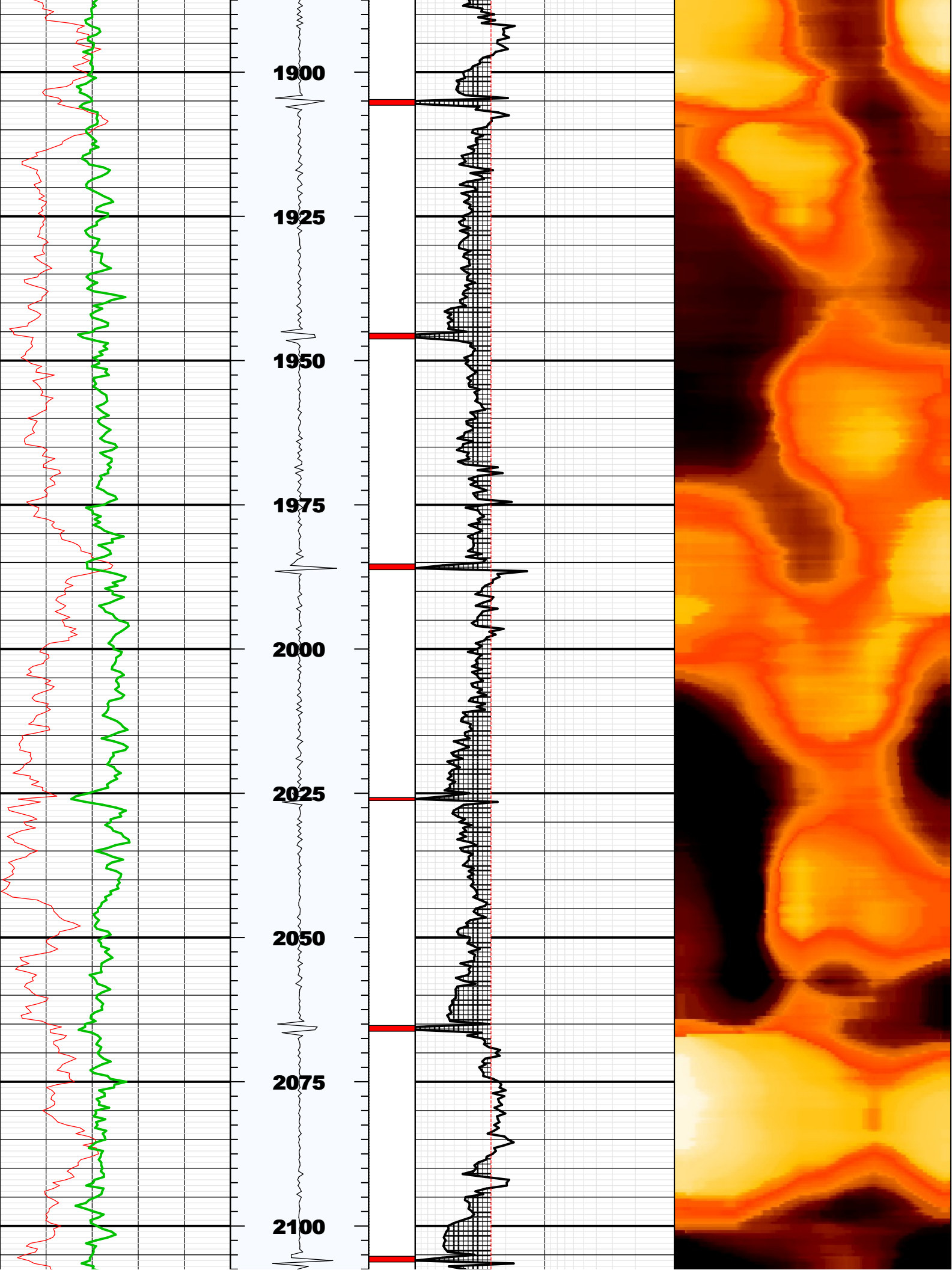
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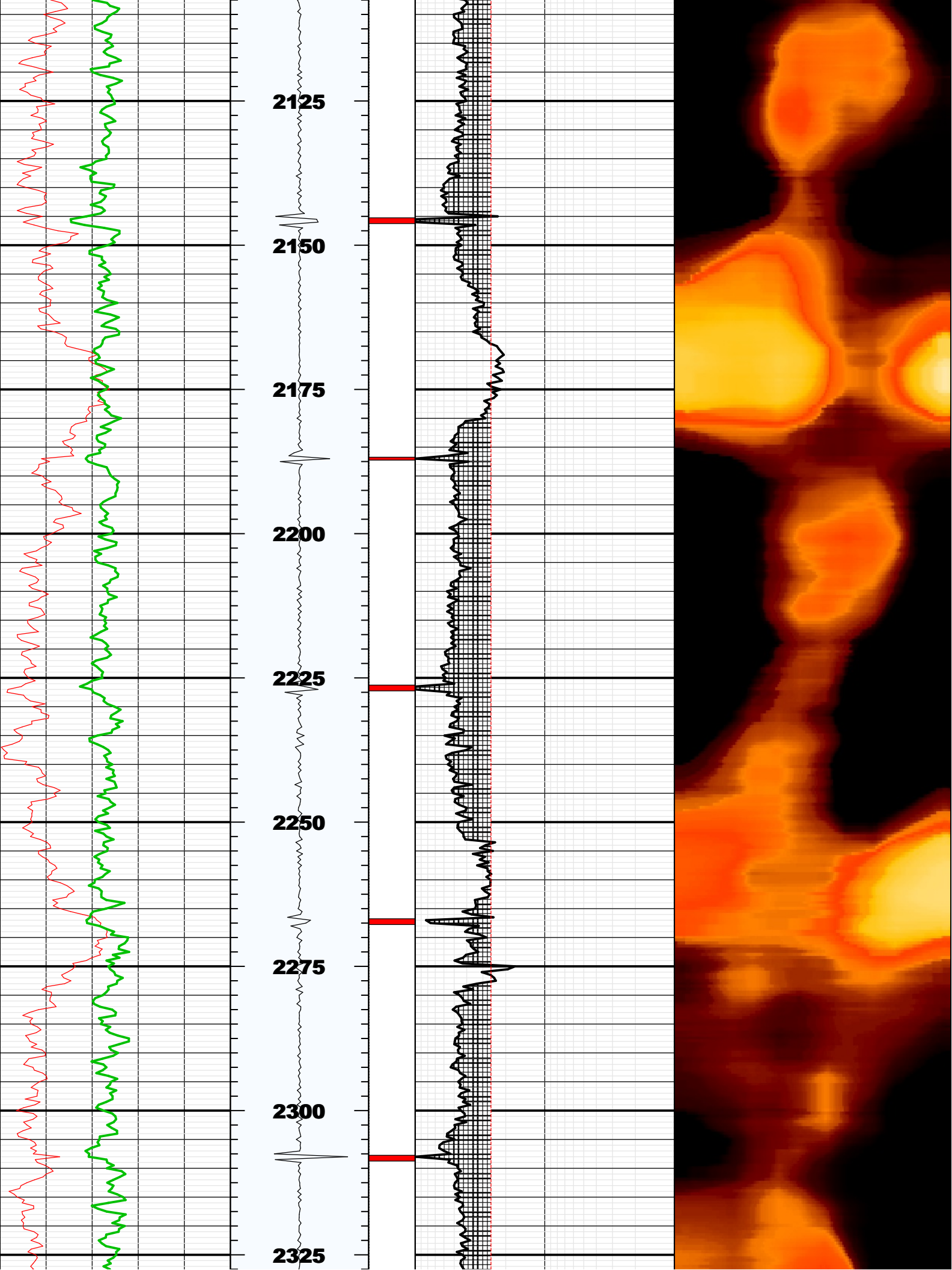
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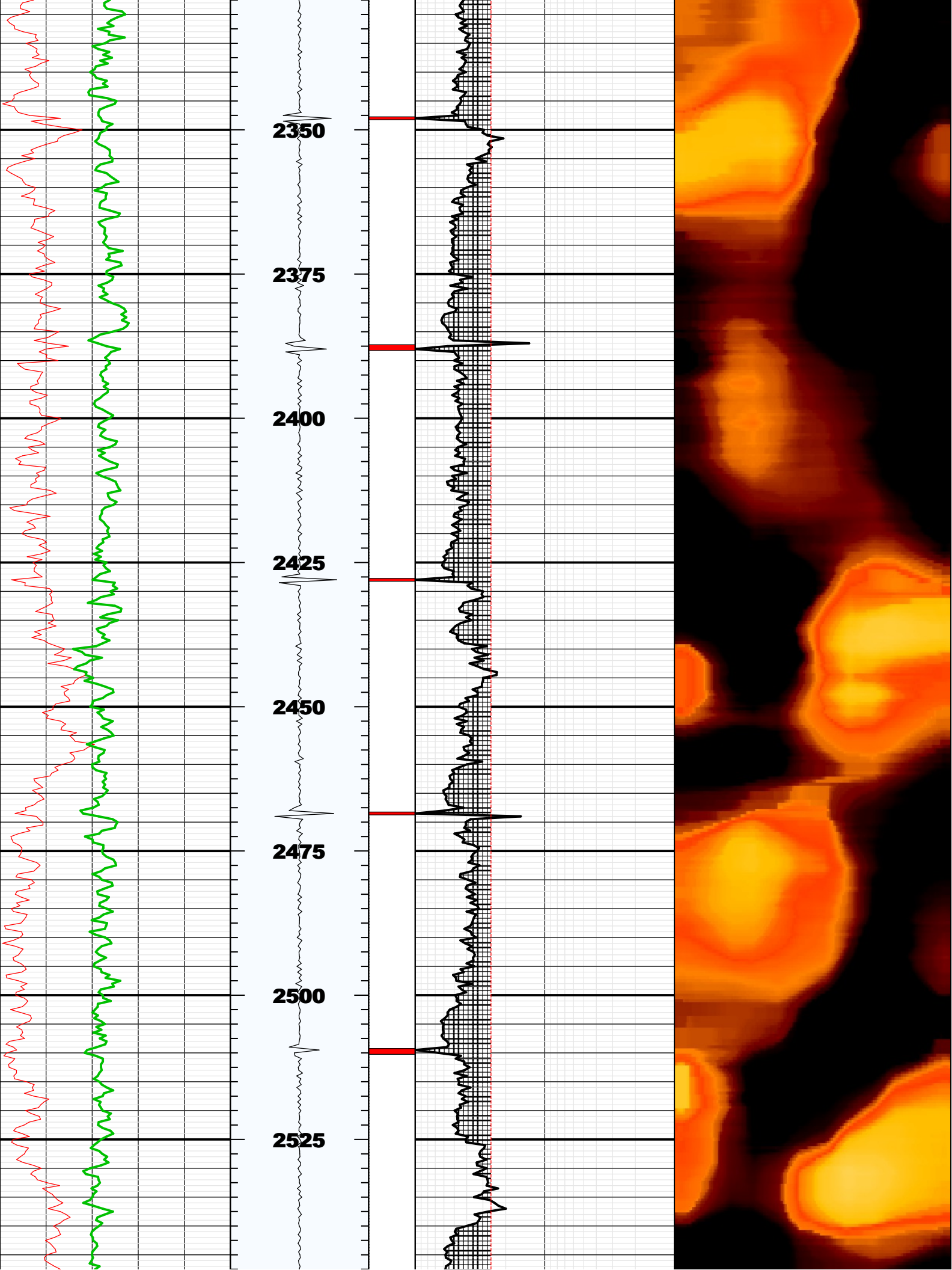
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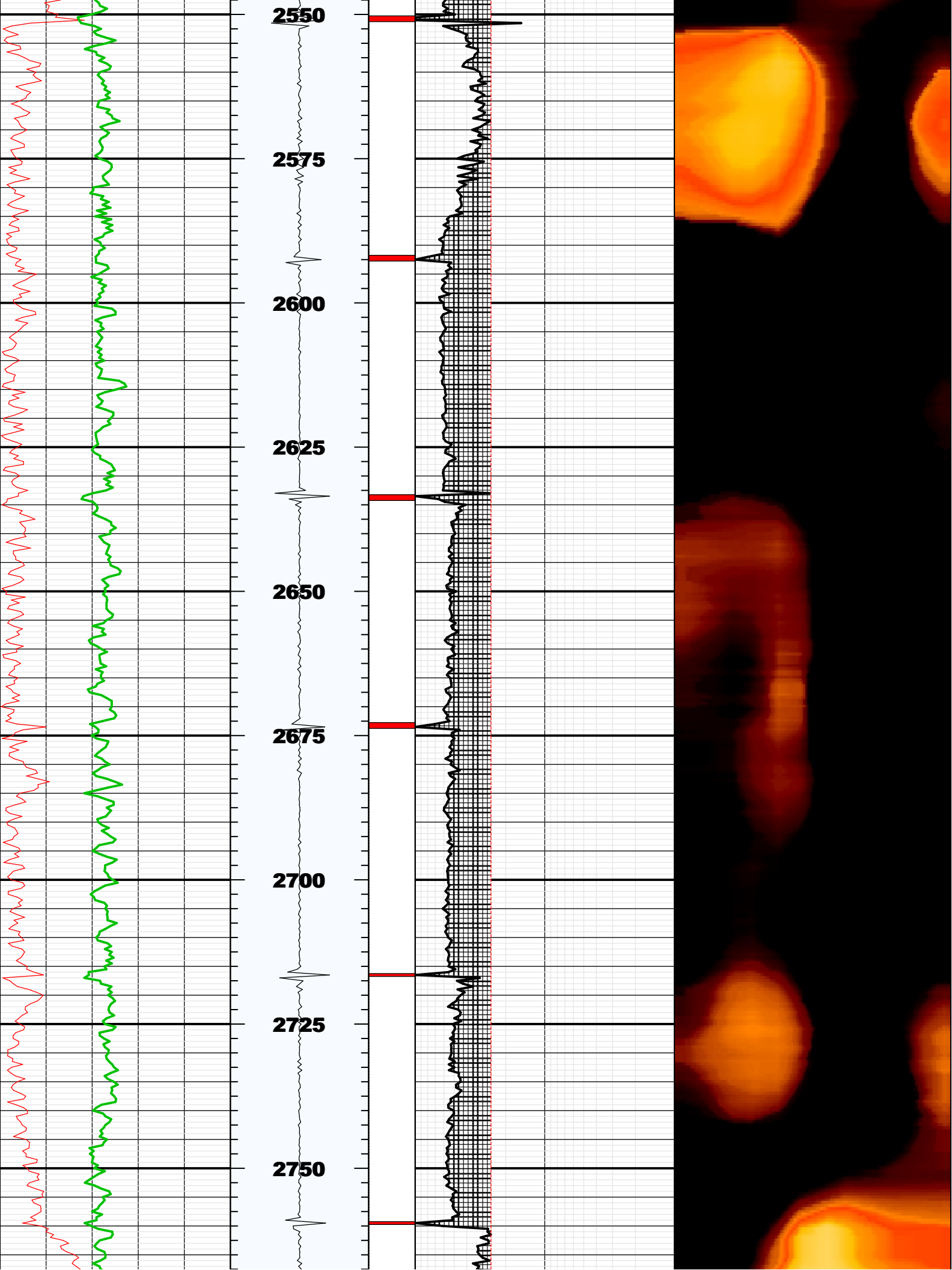
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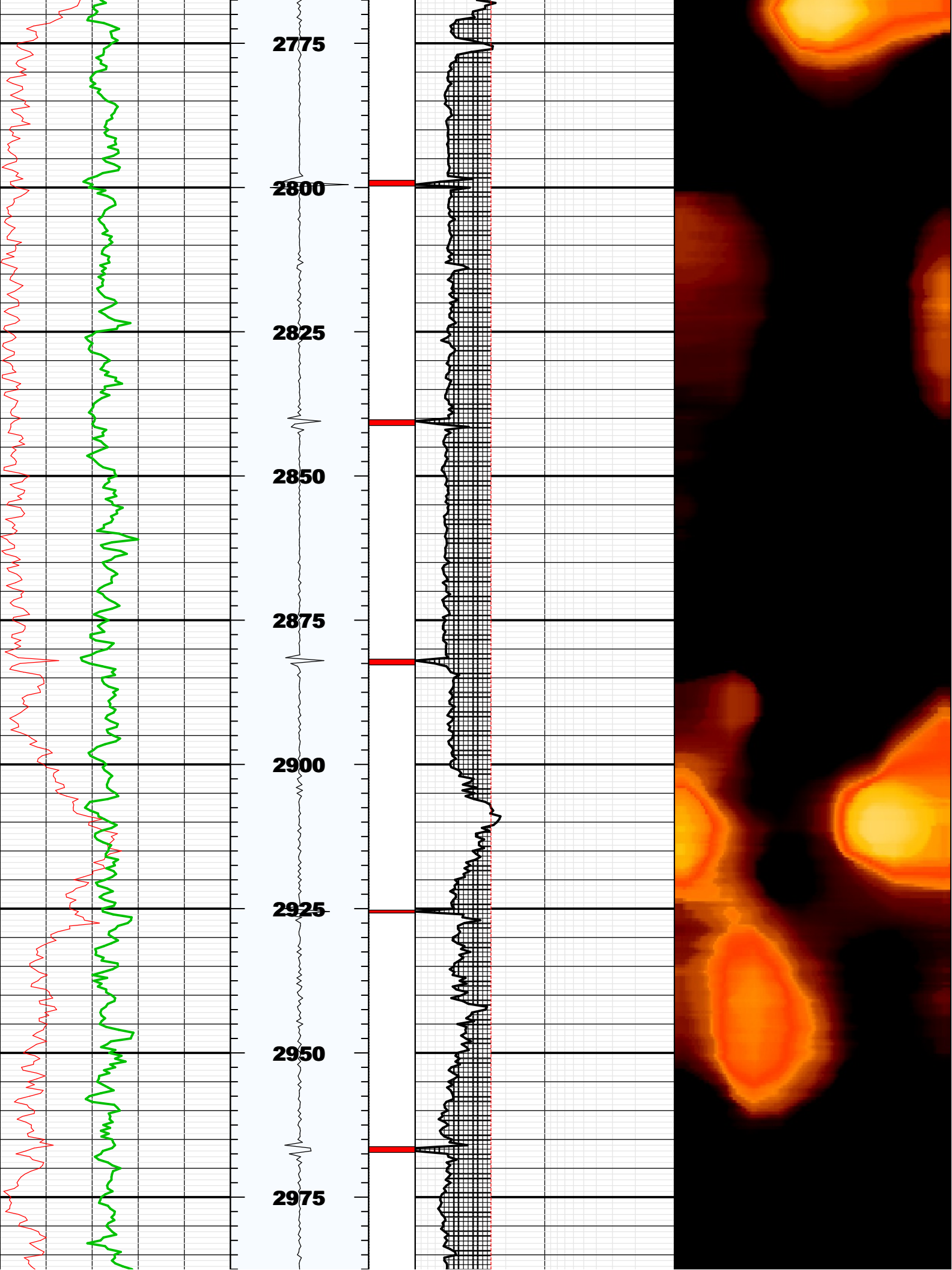
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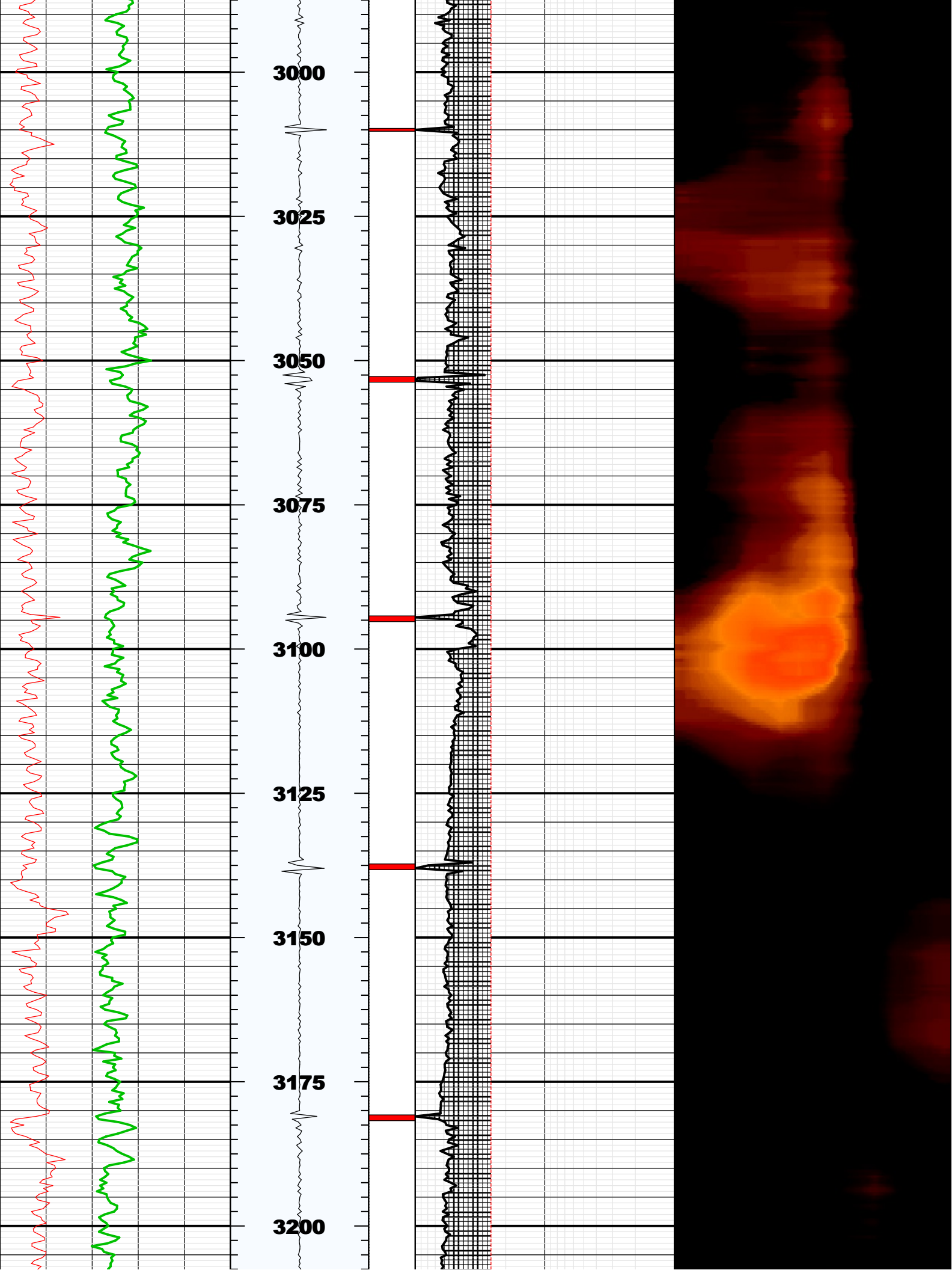
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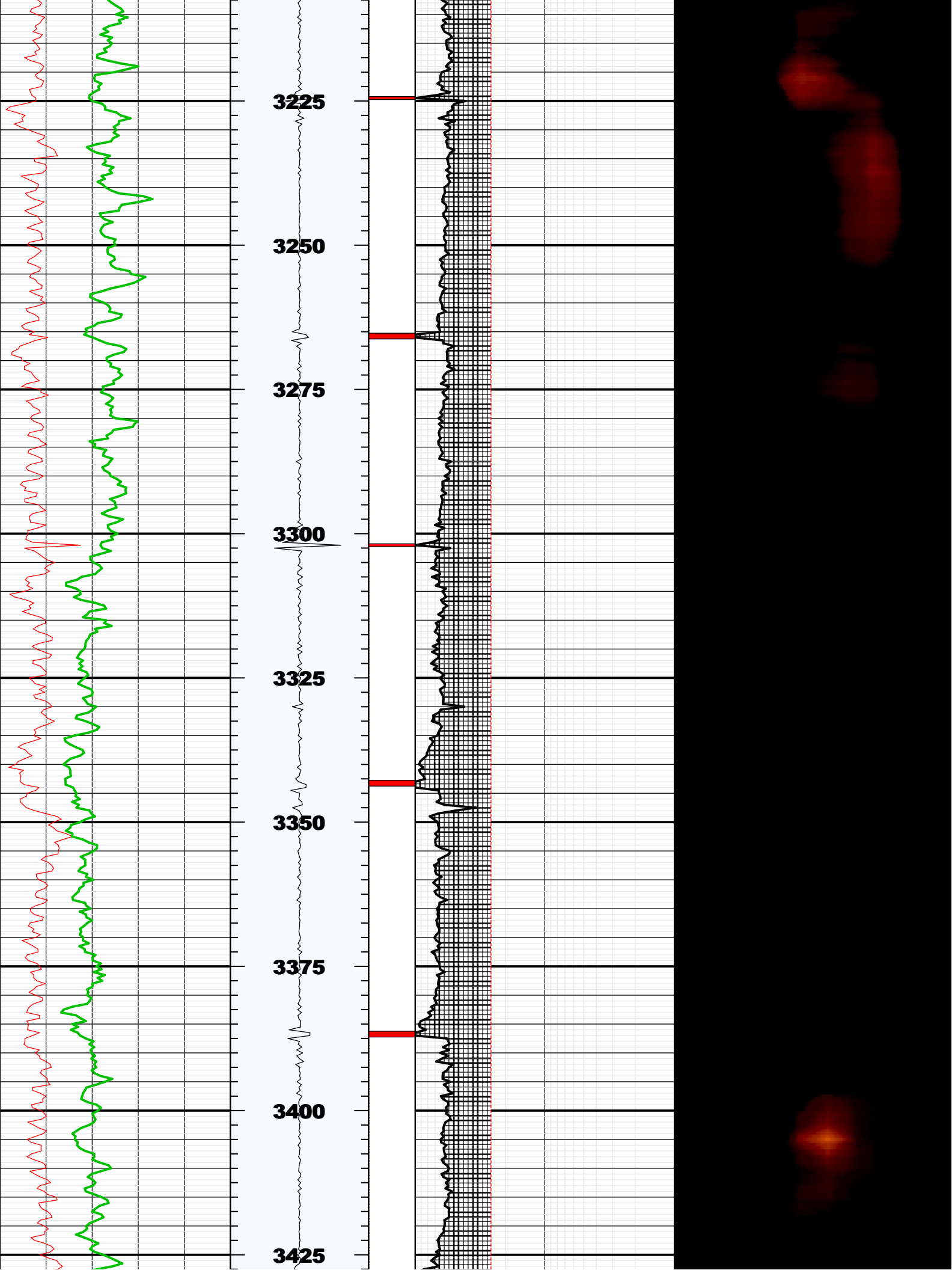
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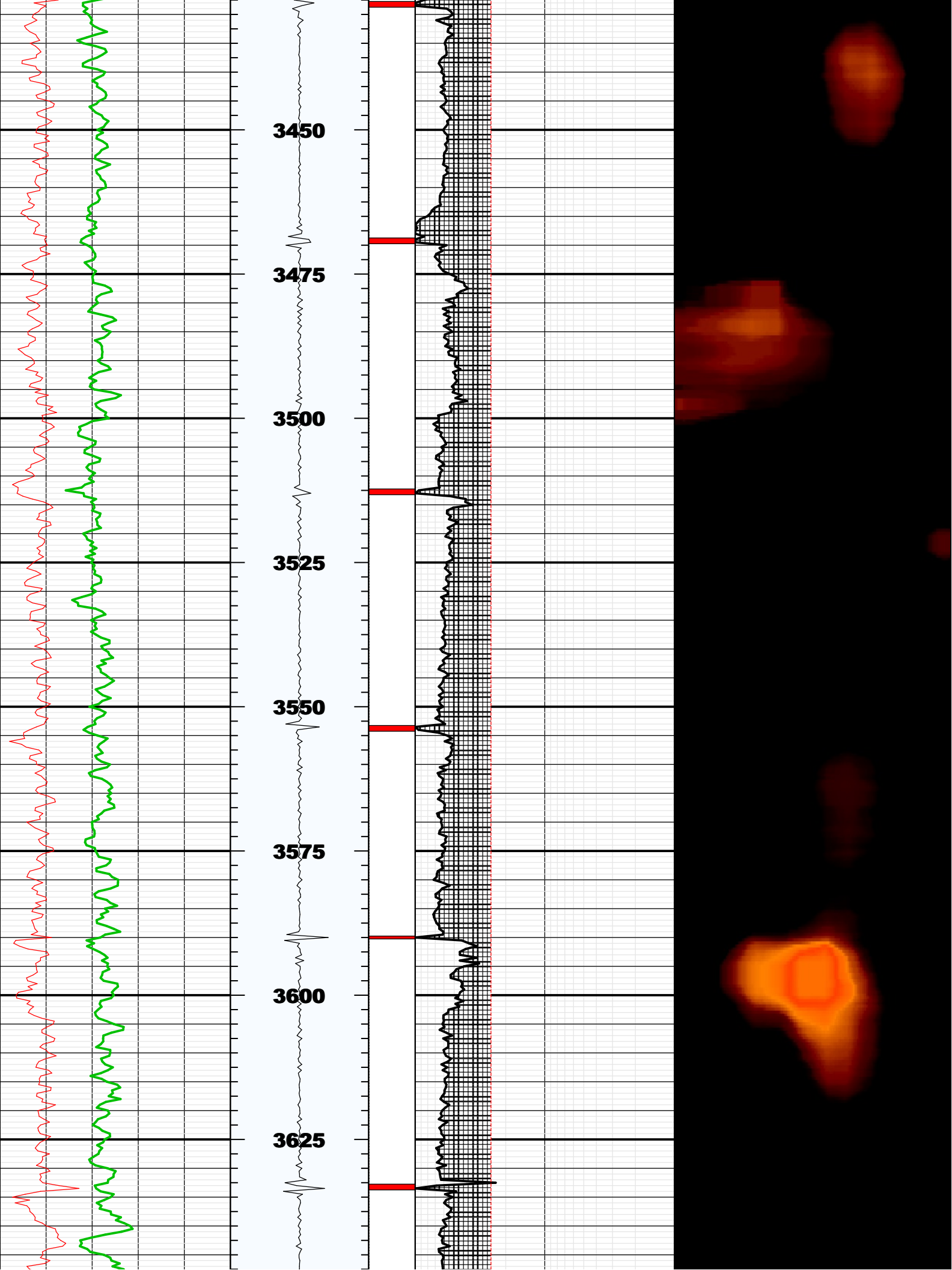
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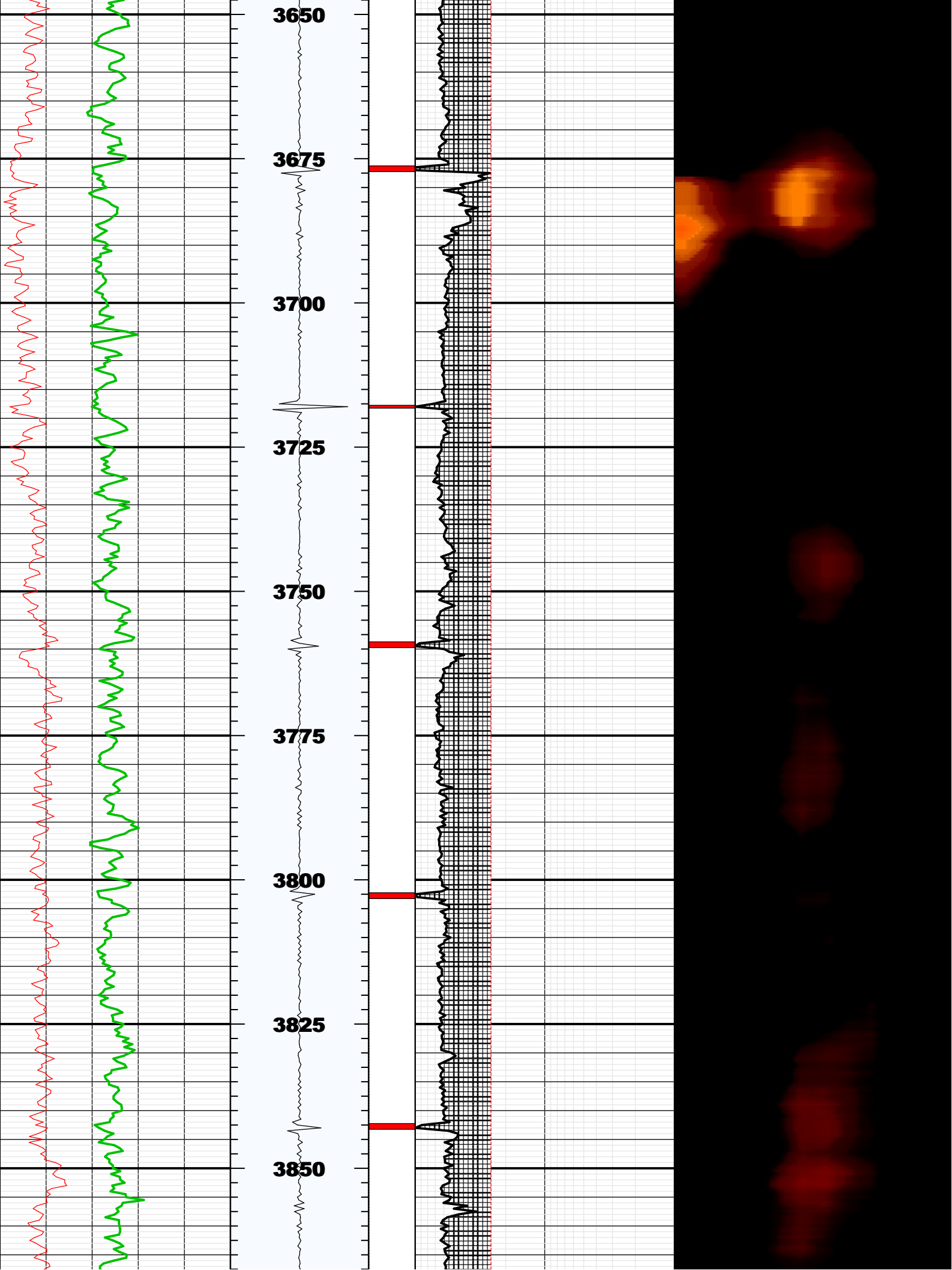
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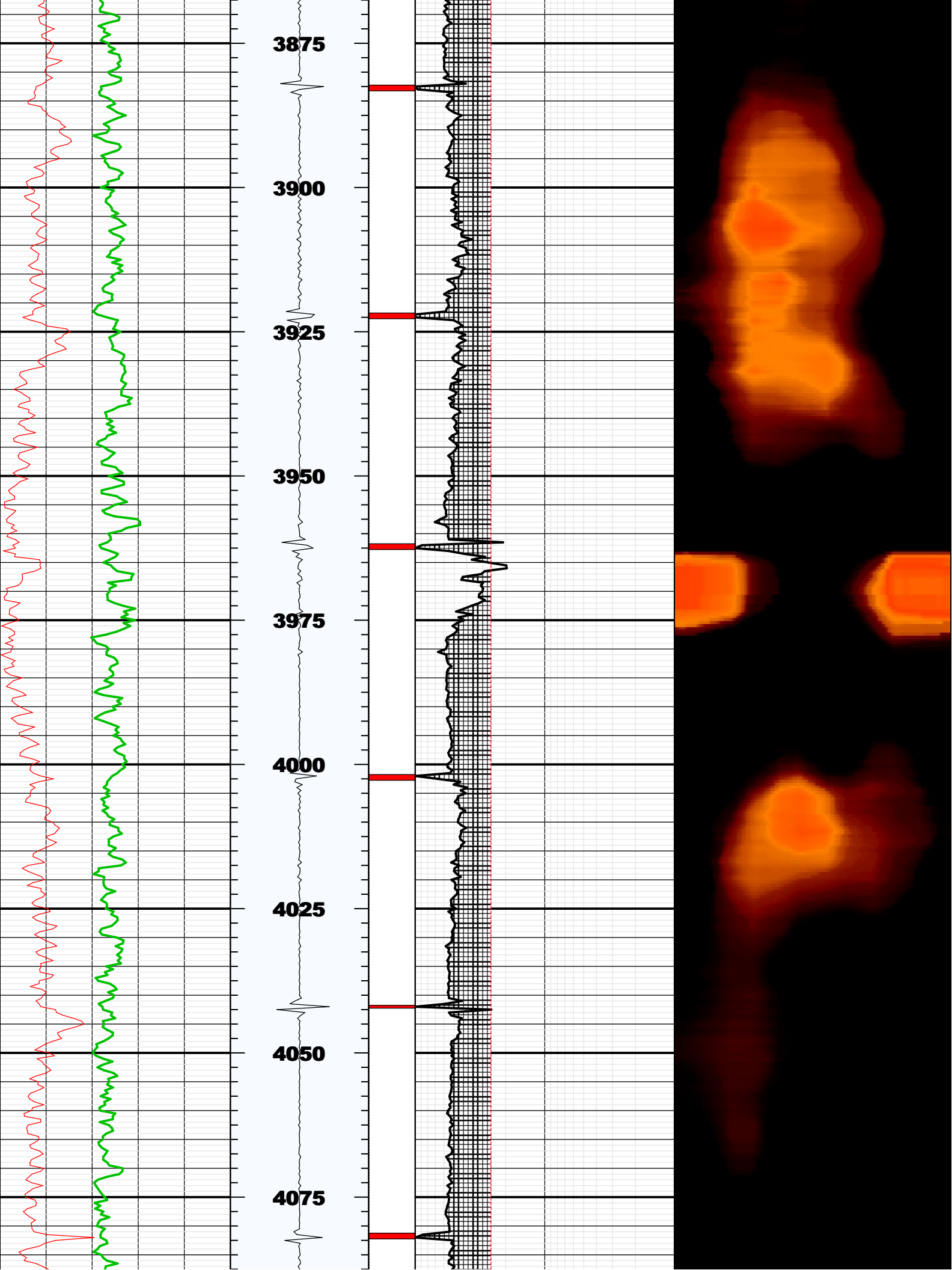
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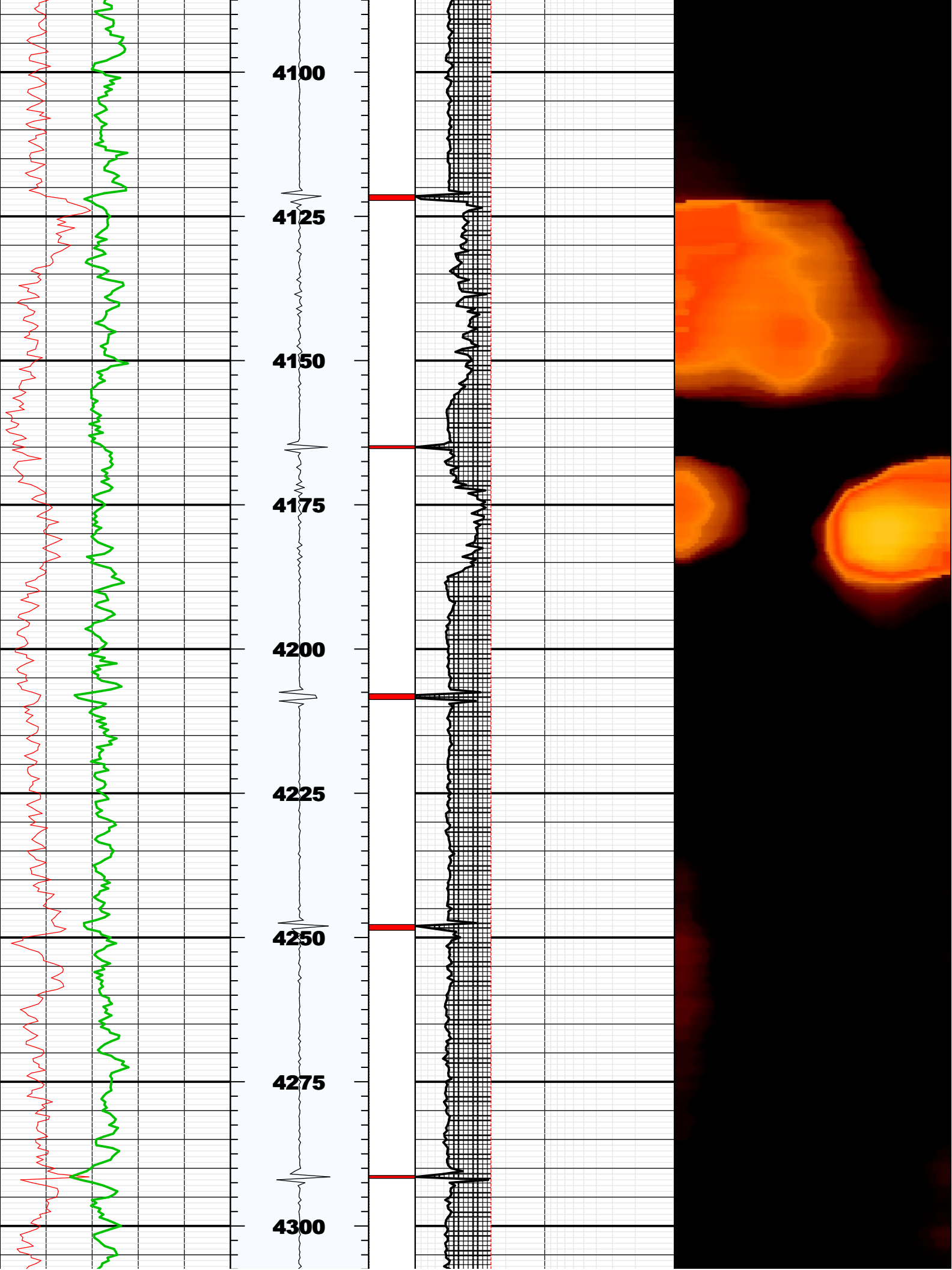
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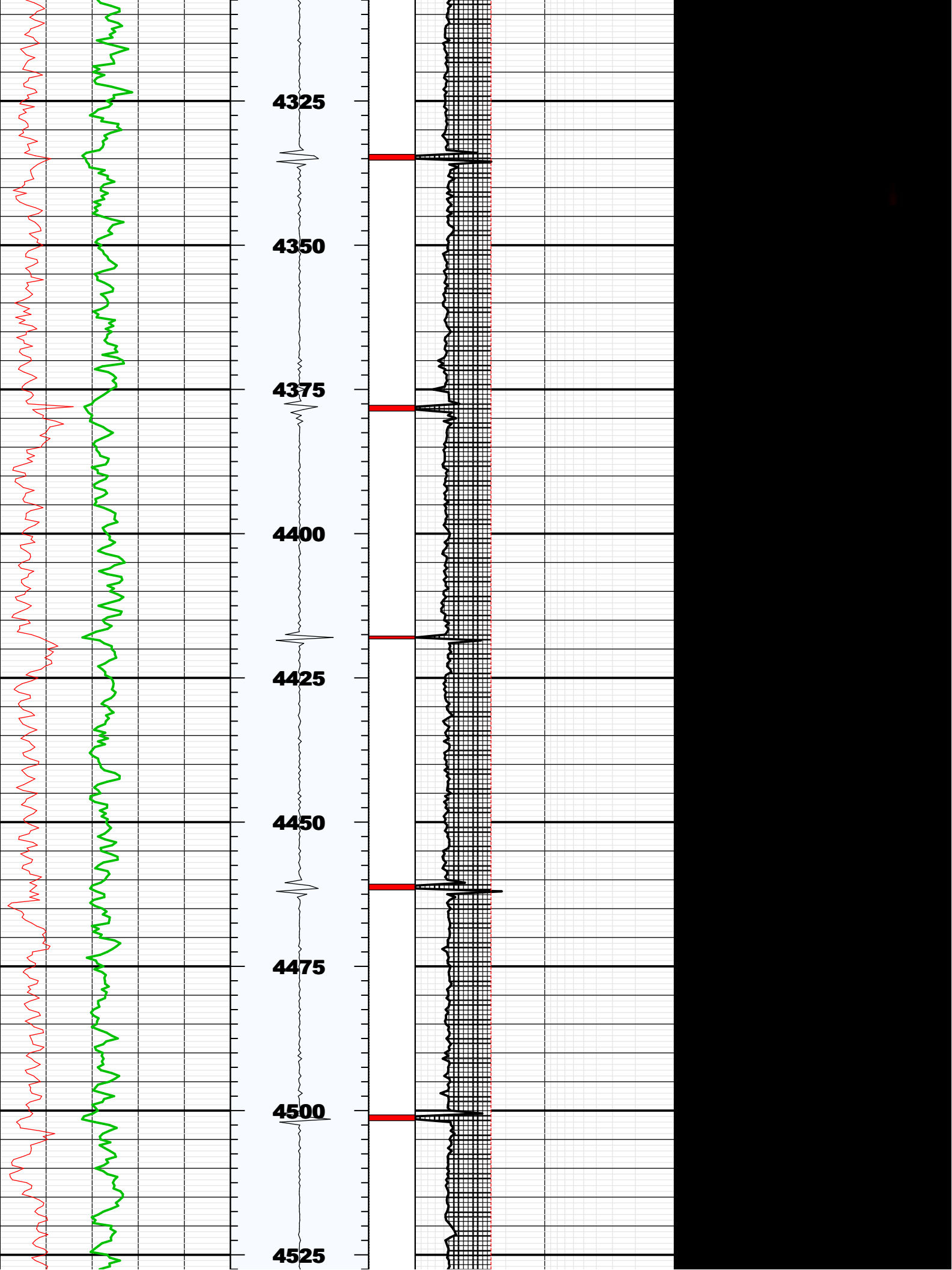
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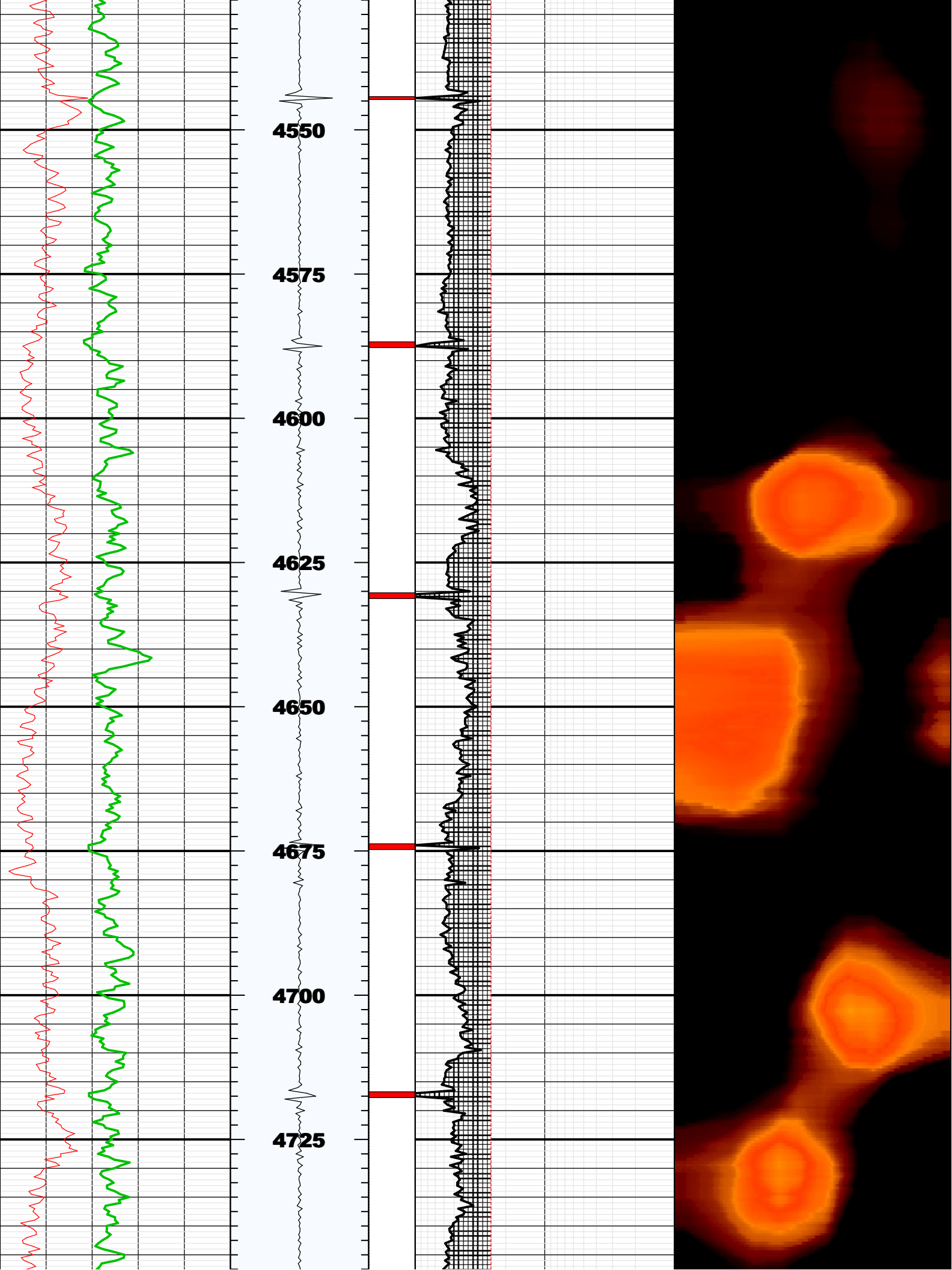
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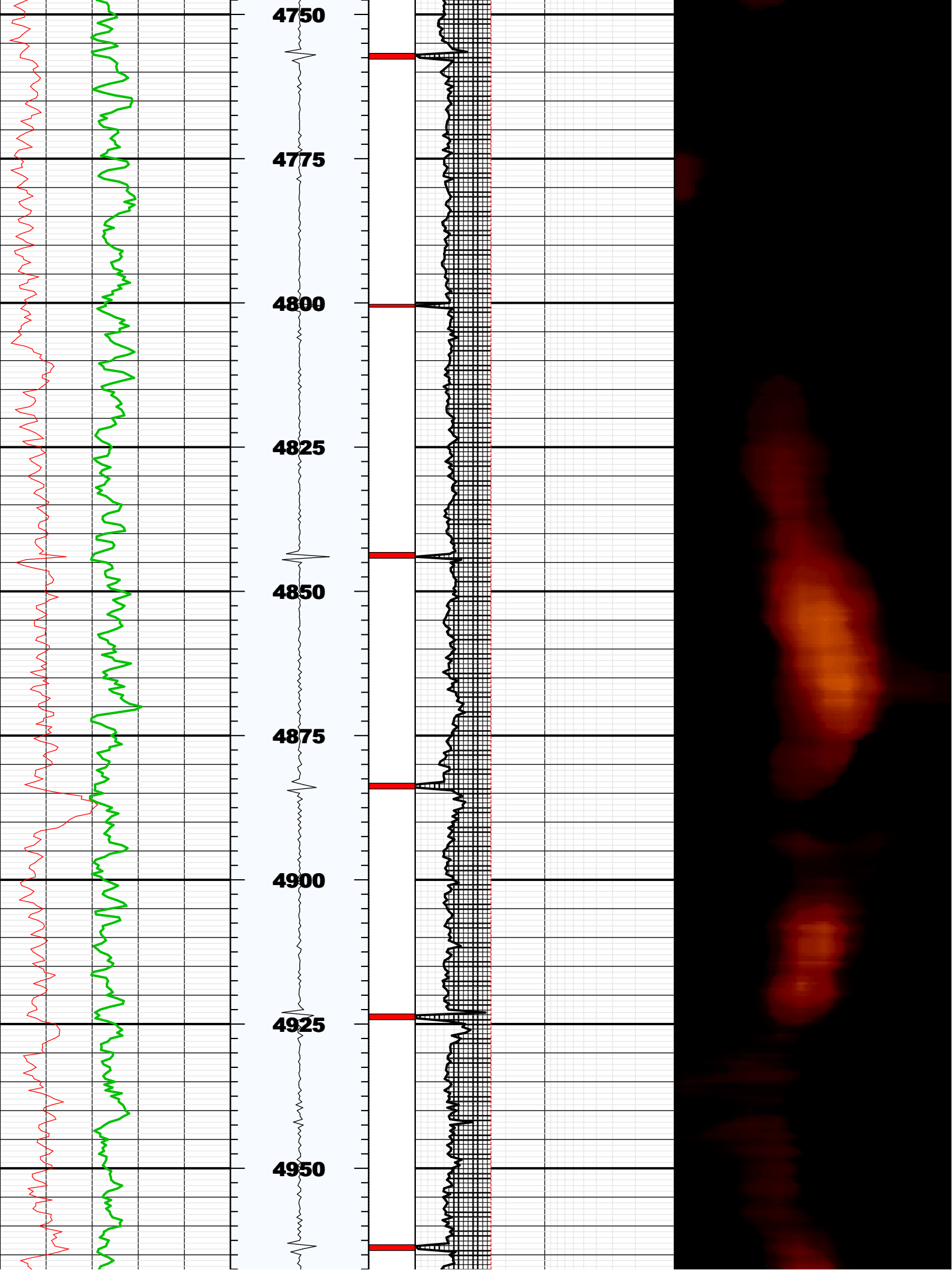
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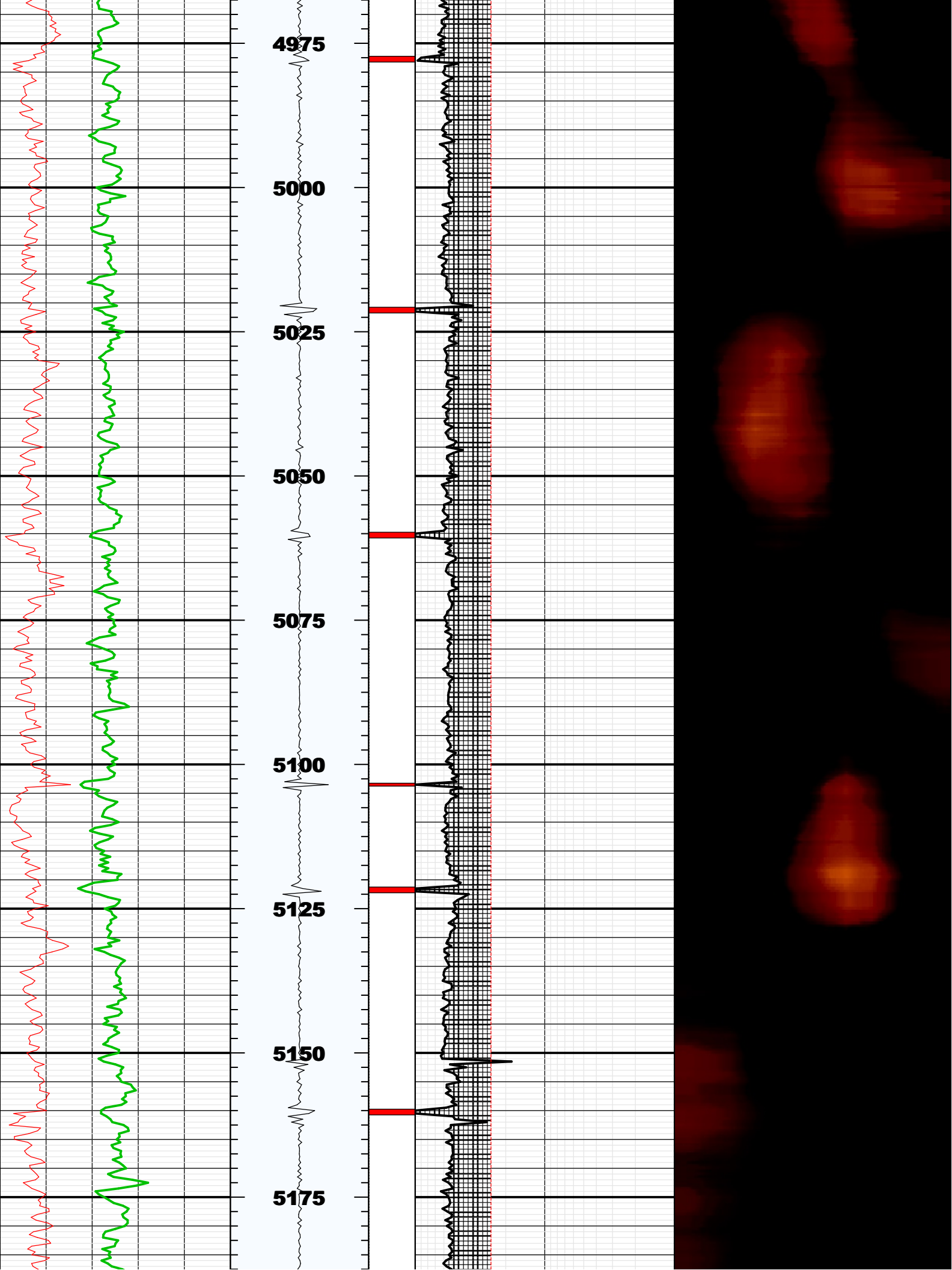
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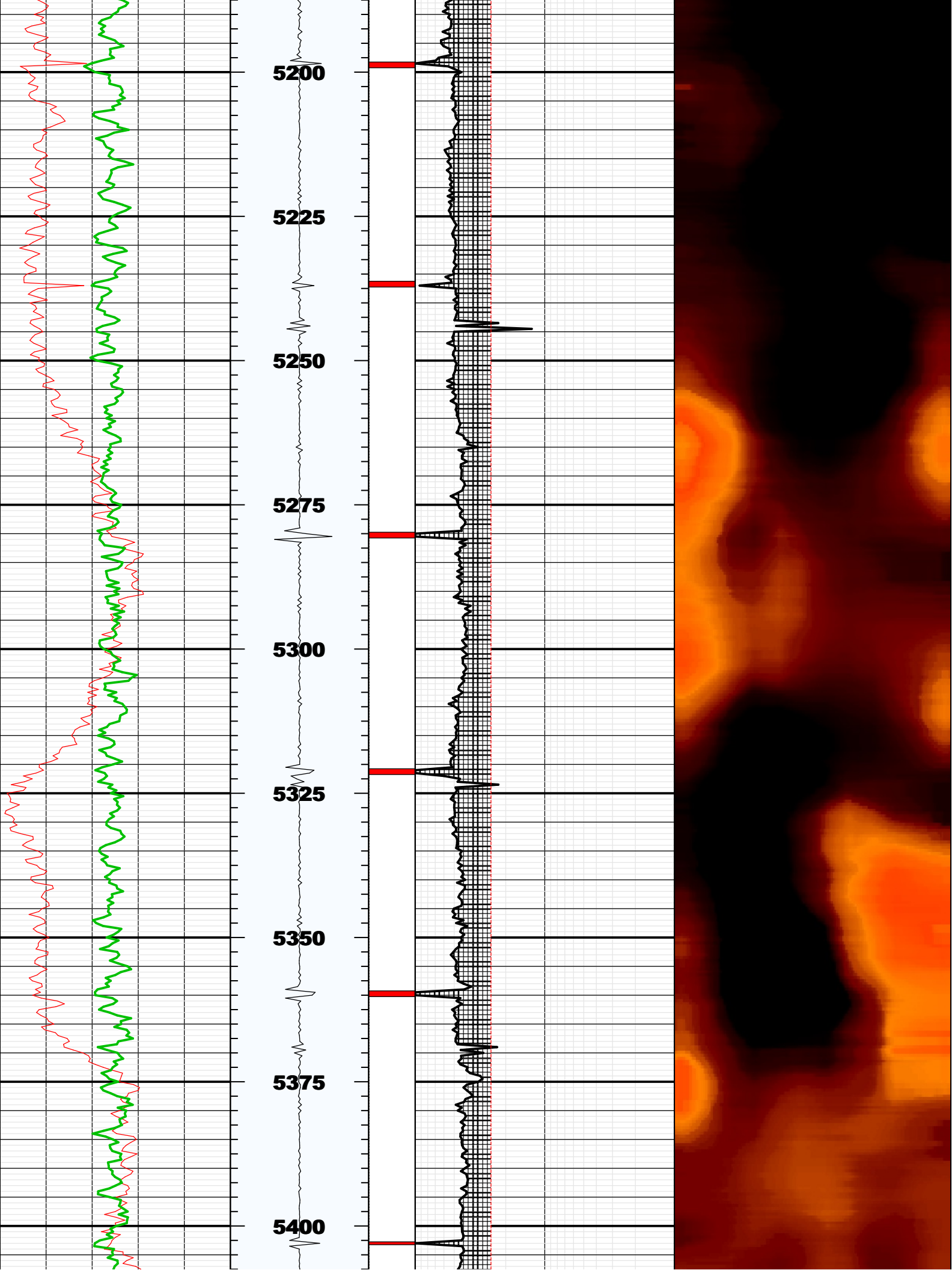
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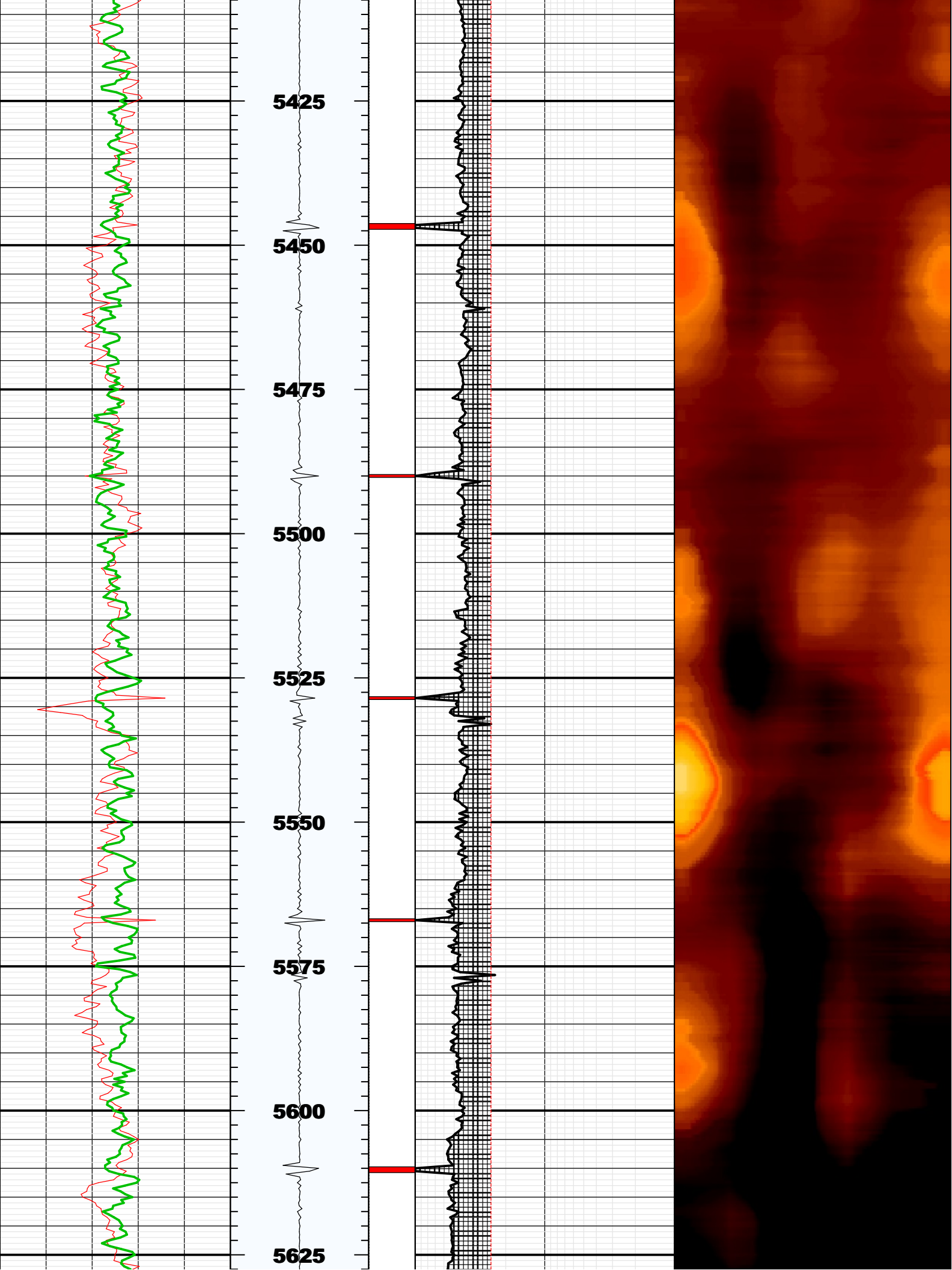
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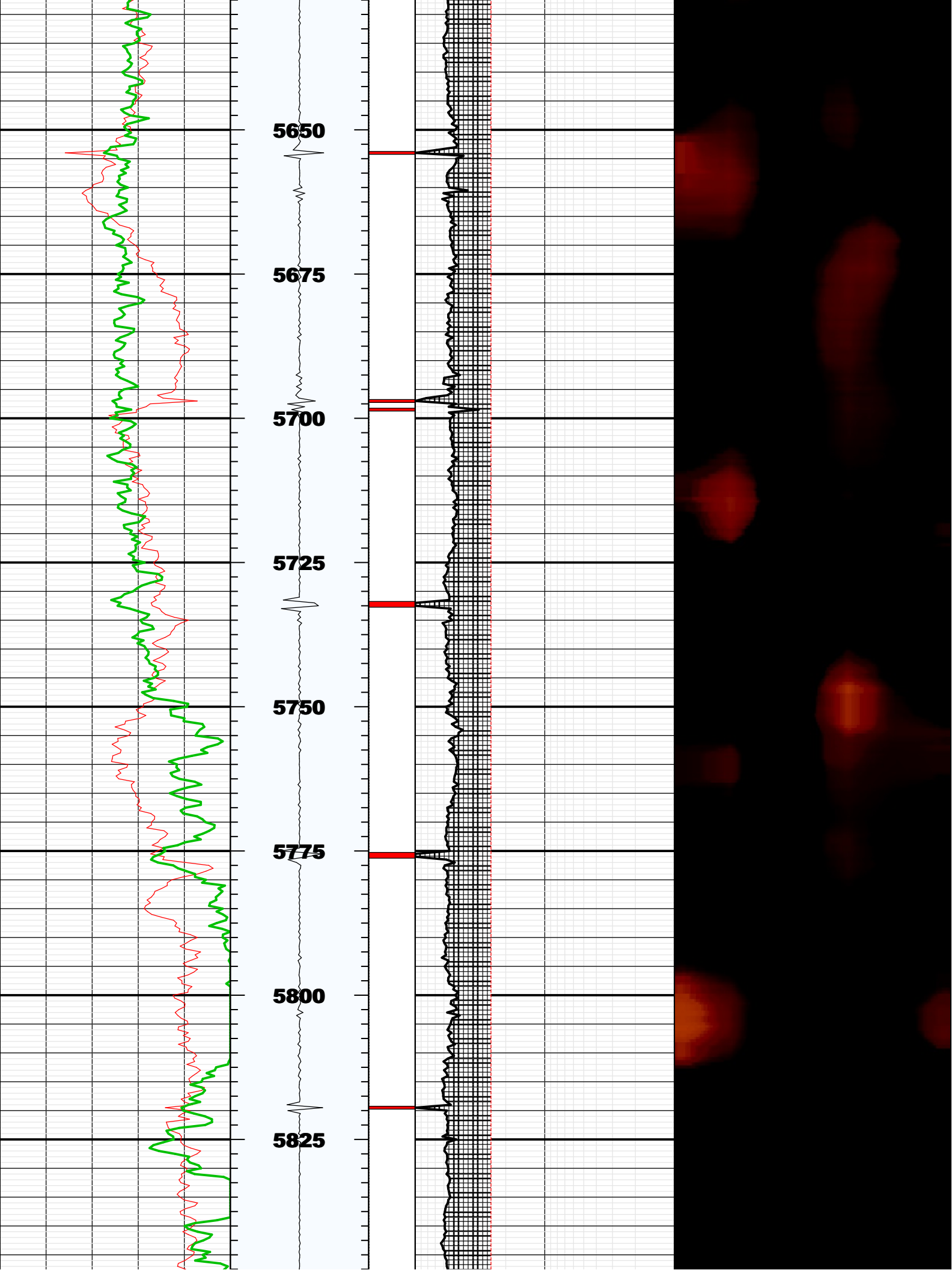
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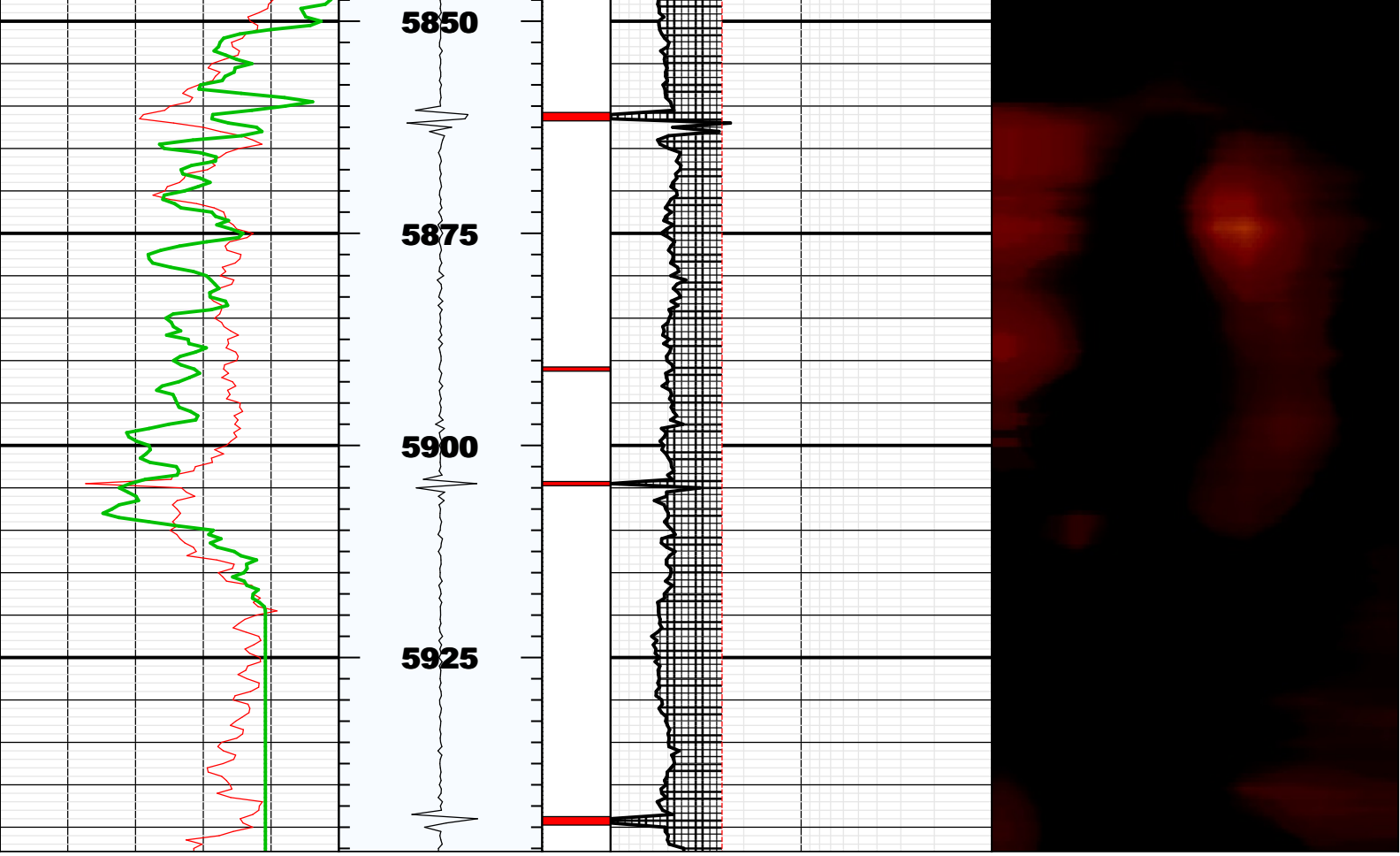
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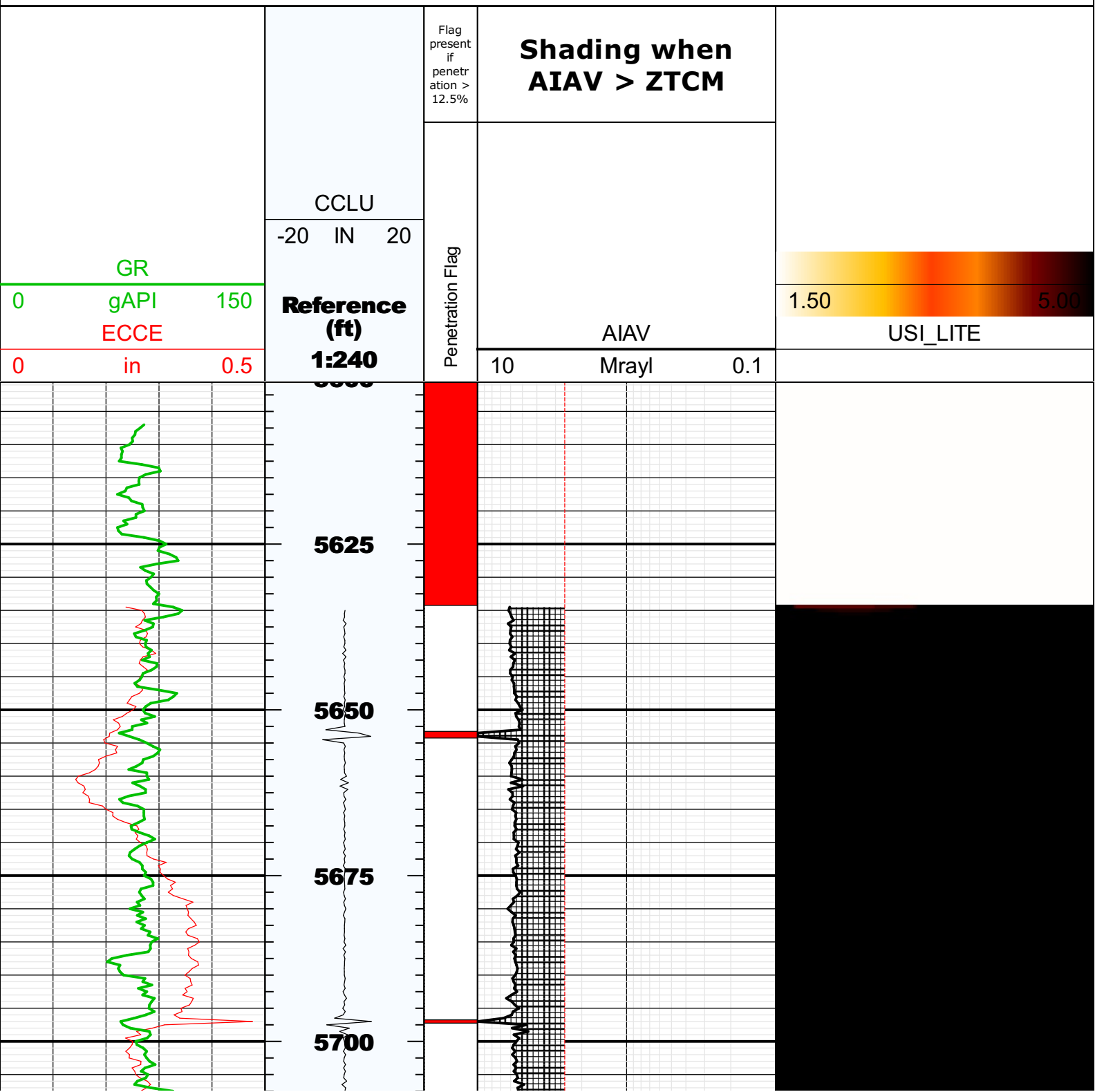
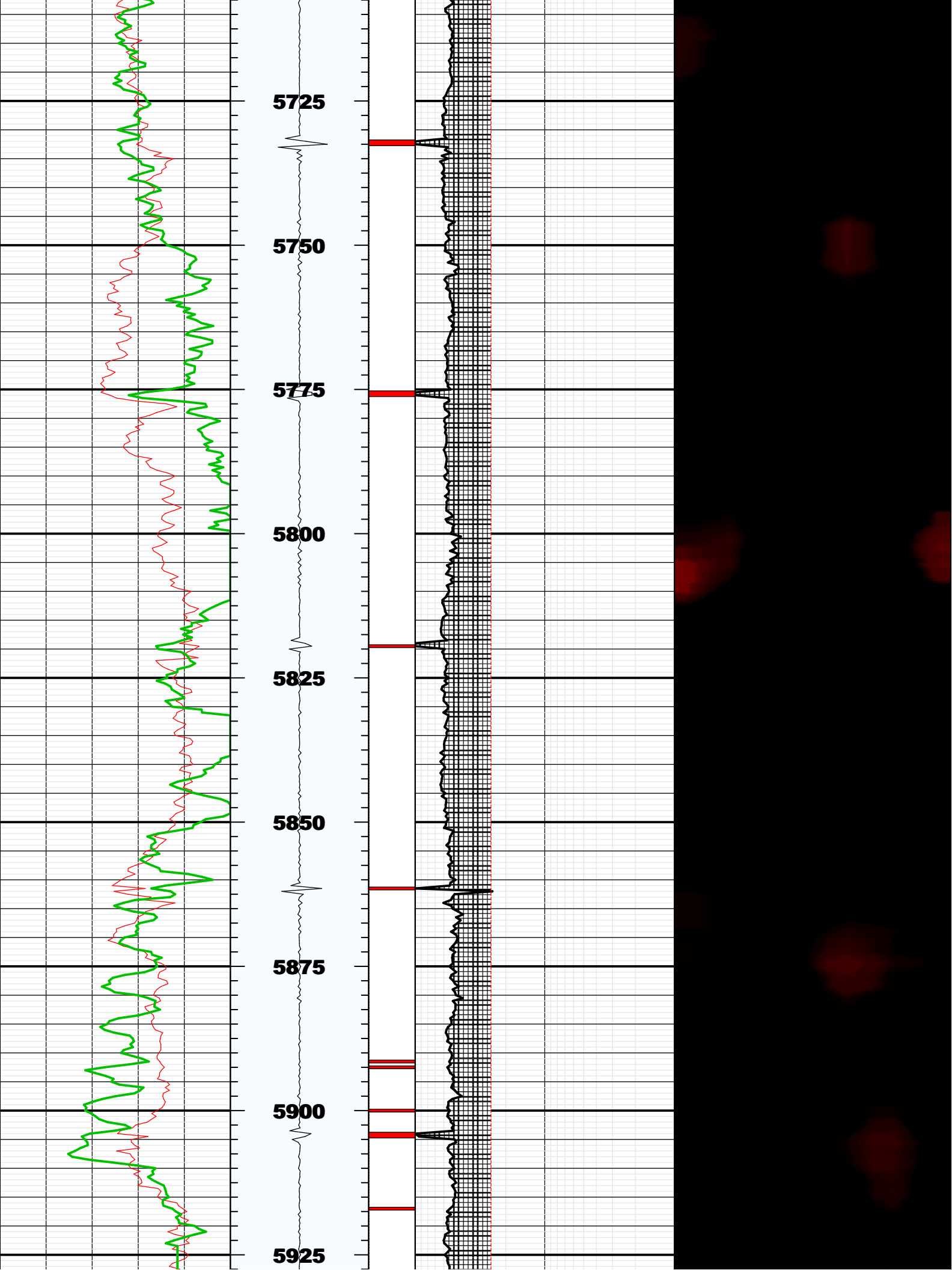
BS	8.75000	IN	Bit Size
CASG	N/A		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	50	V	EMEX Voltage
FDII	0.00000	F	FPM Data Interpolation Interval
FSOD	0_OFF		Fluid Slowness Fits Casing Outer Diameter
LOGMODE			
PP			
STEP	-0.5	F	STEP
THDH	130.00000	%	Maximum Search Thickness (percentage of nominal)
THDL	70.00000	%	Minimum Search Thickness (percentage of nominal)
THDP	Fundamental		Thickness Detection Policy
THNO	0.36200	IN	Nominal Thickness of Casing
TMUC	BRINE		Type of Mud
U-USIT_DT3P			
UPAT	375K		Emission Pattern
USUB	7INC		USIT Sub Identifier
UWKM	D603010L		Working Mode
VCAS	51.40000	US/F	Ultrasonic Transversal Velocity in Casing
WINB	33.86500	US	Window Begin Time
WINE	73.86501	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.78000	MRAY	Acoustic Impedance of Mud
ZTCM	2.60000	MRAY	Acoustic Impedance Threshold for Cement
ZTGS	0.20000	MRAY	Acoustic Impedance Threshold for Gas
WLEN	22.50350	US	T^3 Processing Length

Repeat Pass

Company: Noble Energy Inc
Well: Brecken LD28-734
Field: Wattenberg

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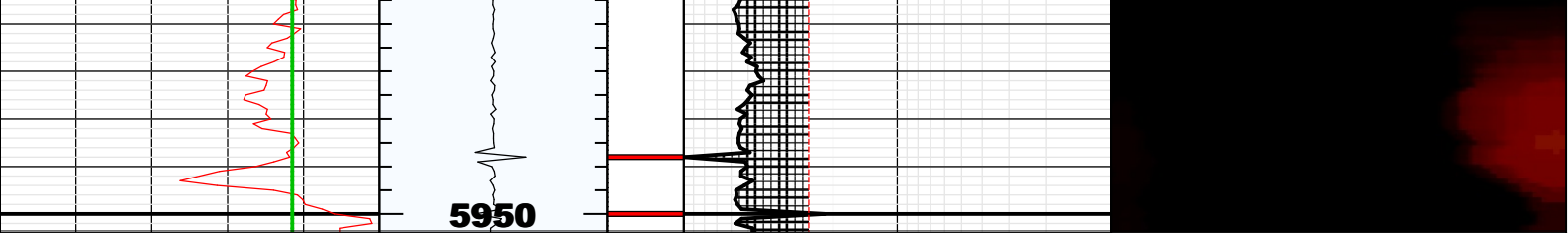
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Fluid Properties Used for Main Pass