

Company: Noble Energy Inc

Well: Rohn State LD10-69HN
Field: Wildcat
County: Weld State: Colorado

County: Weld		USI-LITE (2500 psi)					
Field: Wildcat							
Location: NESE Sec. 4 T9N R58W							
Well: Rohn State LD10-69HN							
Company: Noble Energy Inc							
LOCATION		Permanent Datum: Log Measured From: Drilling Measured From:	GL KB KB	Elev: K.B. G.L. D.F. 4731.0 F 4707.0 F 4730.0 F			
API Serial No. 05-123-37476-0000					Section 4	Township 9N	Range 58W
Logging Date 16-Oct-2014							
Run Number Run 1							
Depth Driller		6189.0 F					
Schlumberger Depth		6035.0 F					
Bottom Log Interval		6035.0 F					
Top Log Interval		50.0 F					
Casing Fluid Level		8.0 F					
Salinity							
Density		8.70 LB/G					
Fluid Level		8.0 F					
BIT/CASING/TUBING STRING							
Bit Size		8.750 IN					
From		6035.0 F					
To		-999.2 F					
Casing Size		7.00 IN					
Weight		26.00 LB/F					
Grade		P110					
From		24.0 F					
To		6179.3 F					
Max Recorded Temp		219.0					
Logger on bottom (date)		16-Oct-2014					
Location		Ft Morgan CO					
Recorded By		MK Henrikson/K Ondrus					
Witnessed By							

DEPTH SUMMARY LISTING

DEPTH SYSTEM EQUIPMENT

Depth Measuring Device	Tension Device	Logging Cable
Type: Serial Number: Calibration Date: Calibration Cable Type: Wheel Correction 1: Wheel Correction 2:	Type: Serial Number: 2858 Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: F713711 Length: 17300.00000

DISCLAIMER

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11.5 PPG spacer 12.5 PPG lead cement and 13 PPG tail cement
Estimated TOC @ 1045'. Expected TOC @ 606'.

0 PSI repeat pass and 2500 PSI main pass

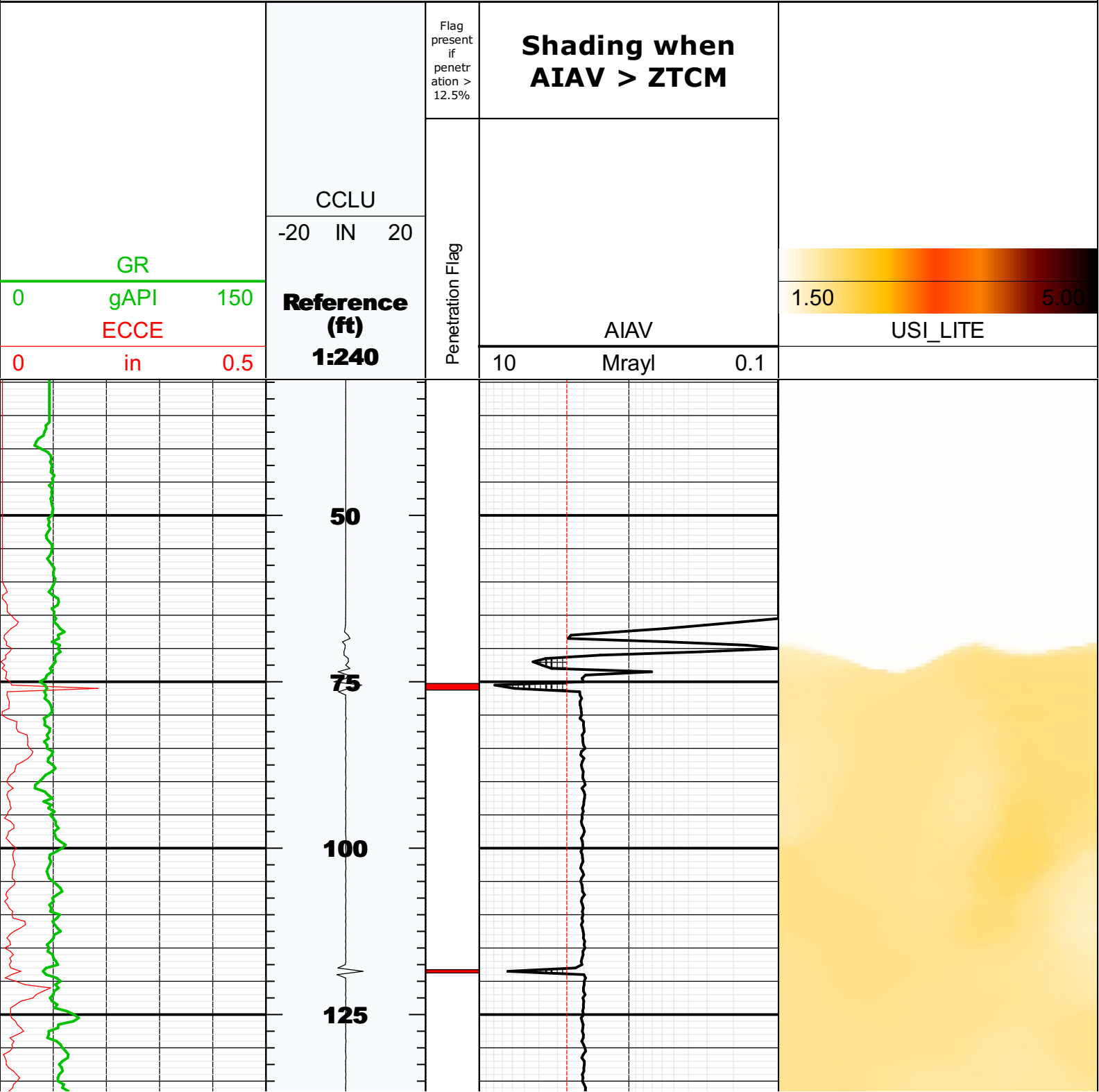
Top of 4.5 liner at 6046.0'.

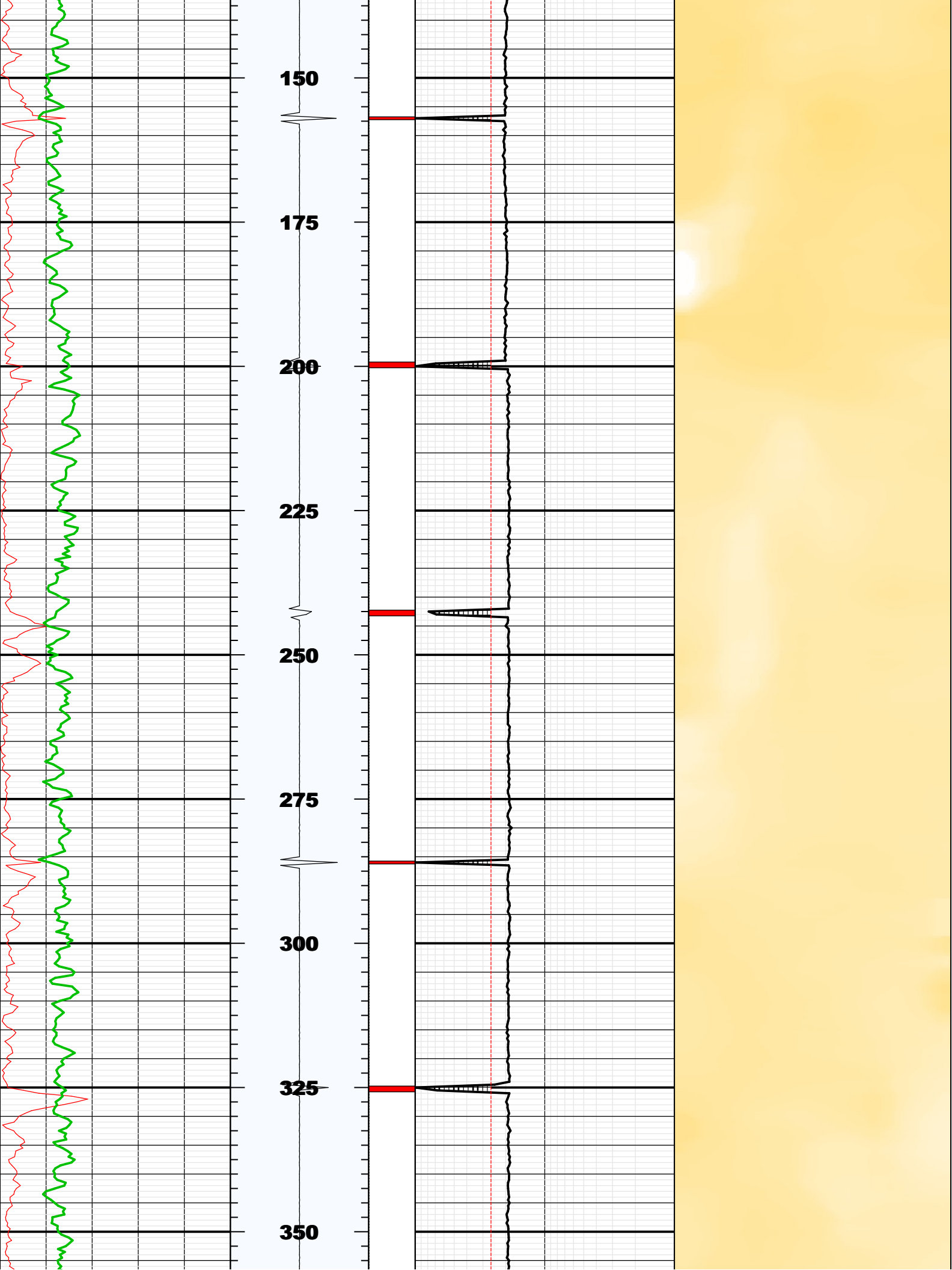
Bottom log interval at 6035' to maintain distance from liner top.

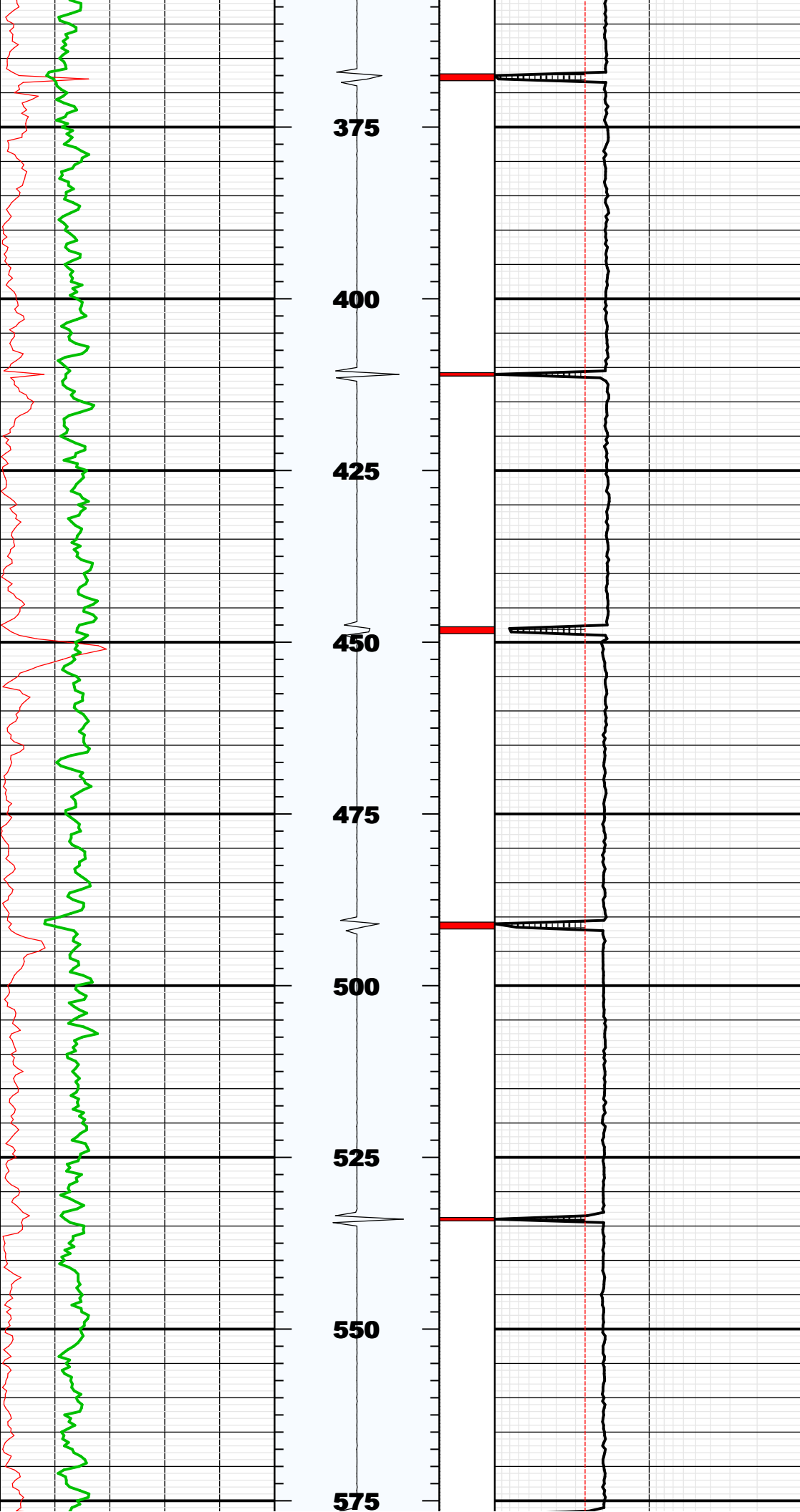
Bottom hole temperature was 219.07 degF

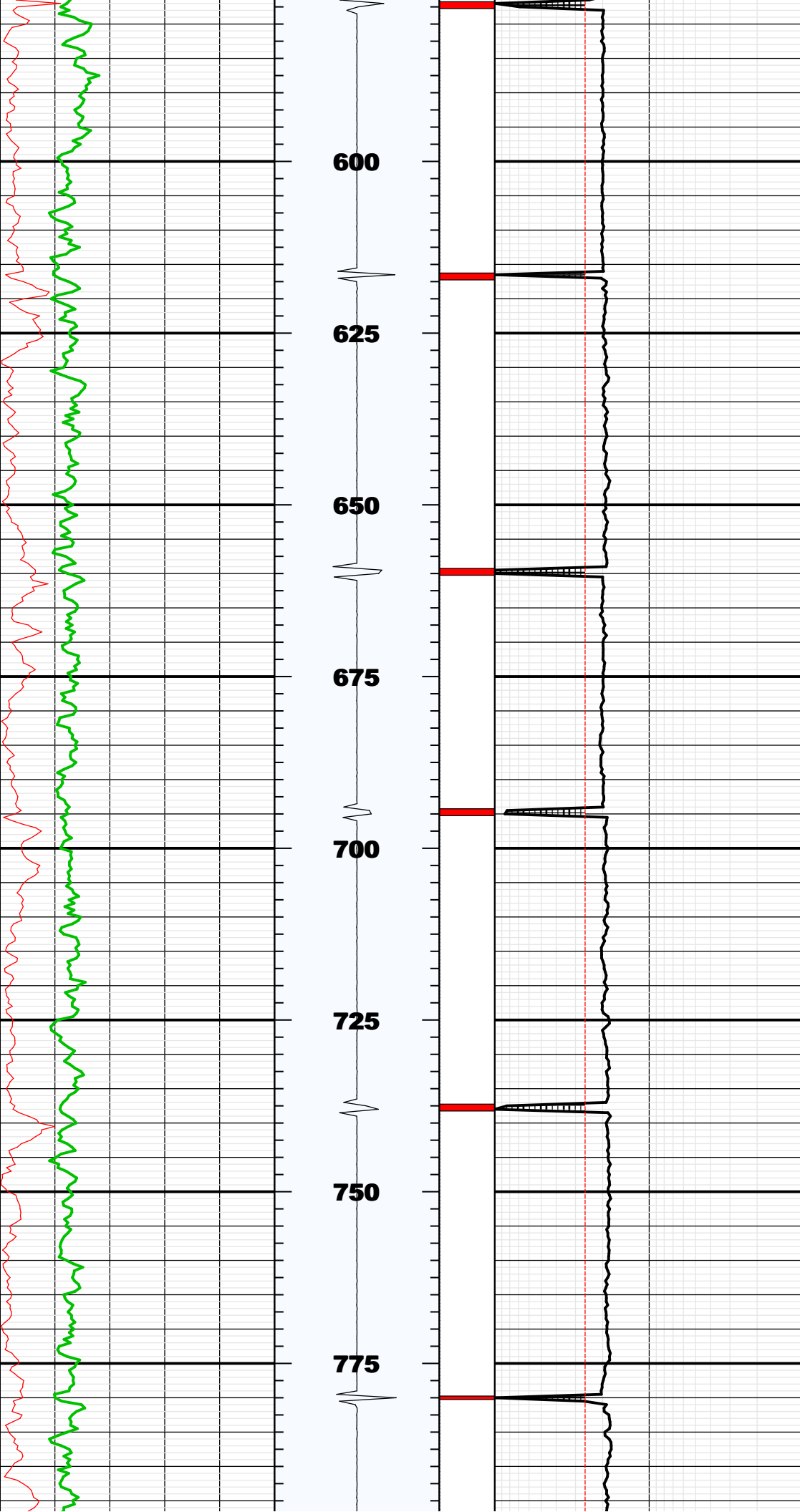
Main Pass

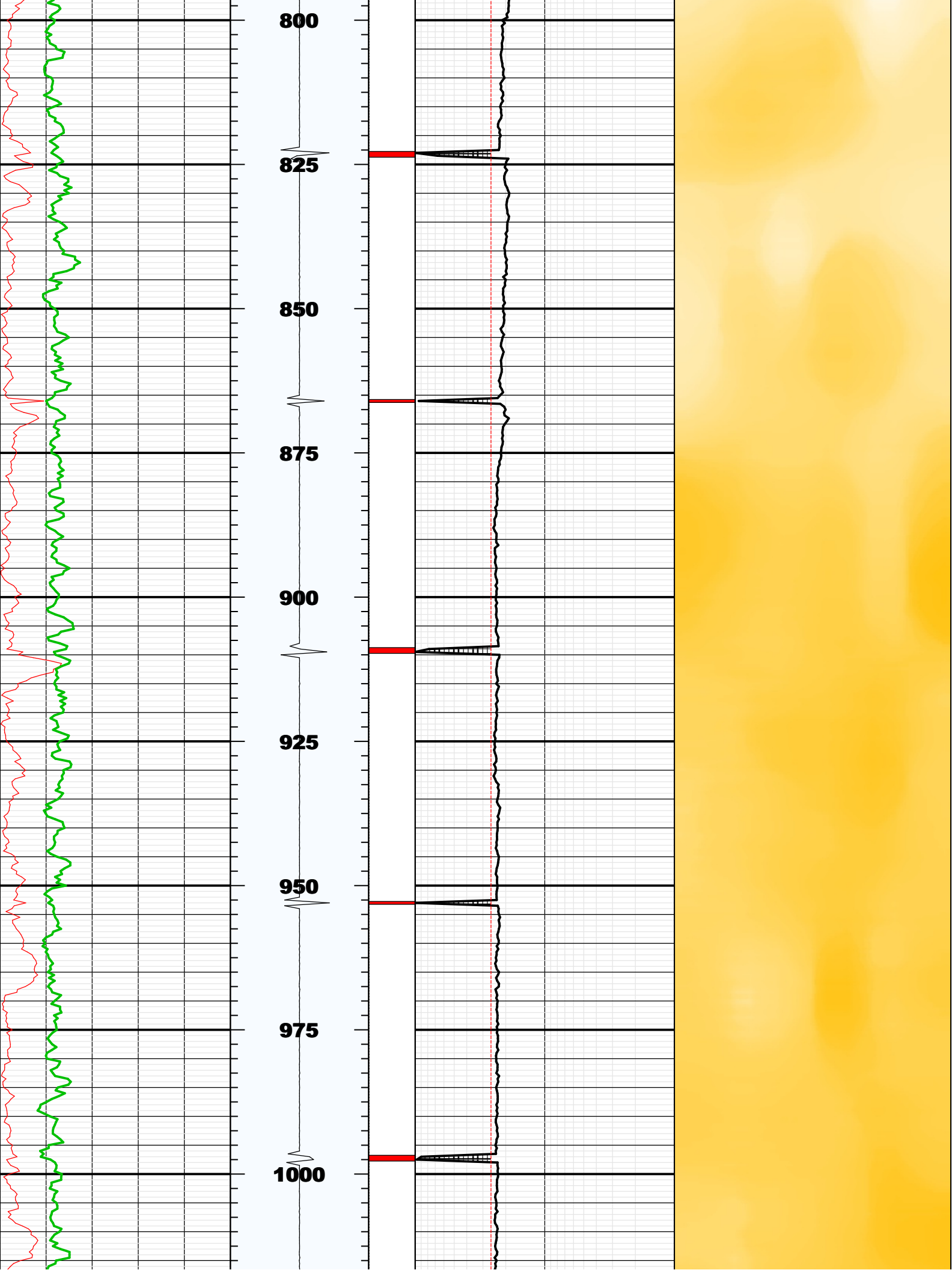
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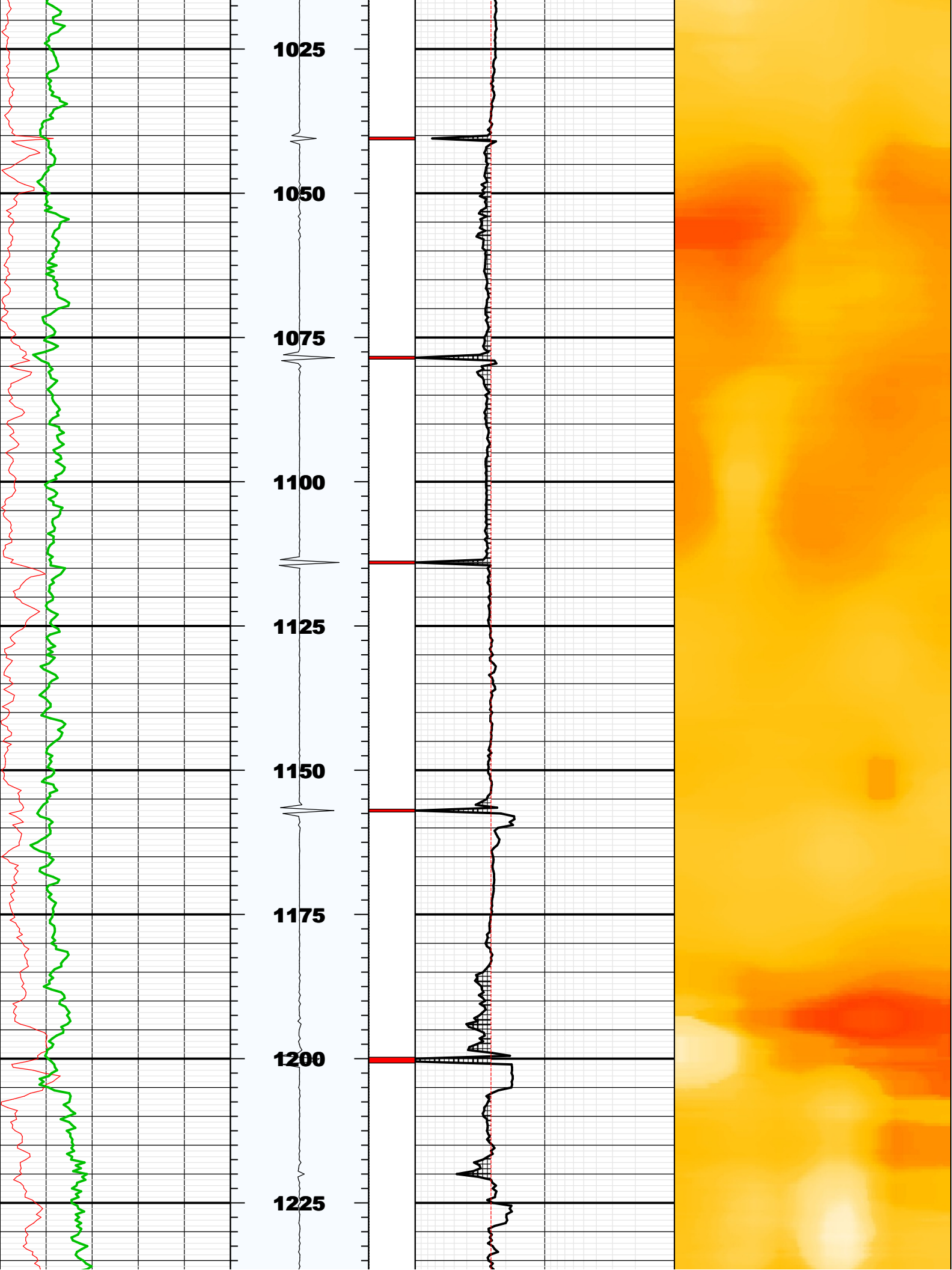


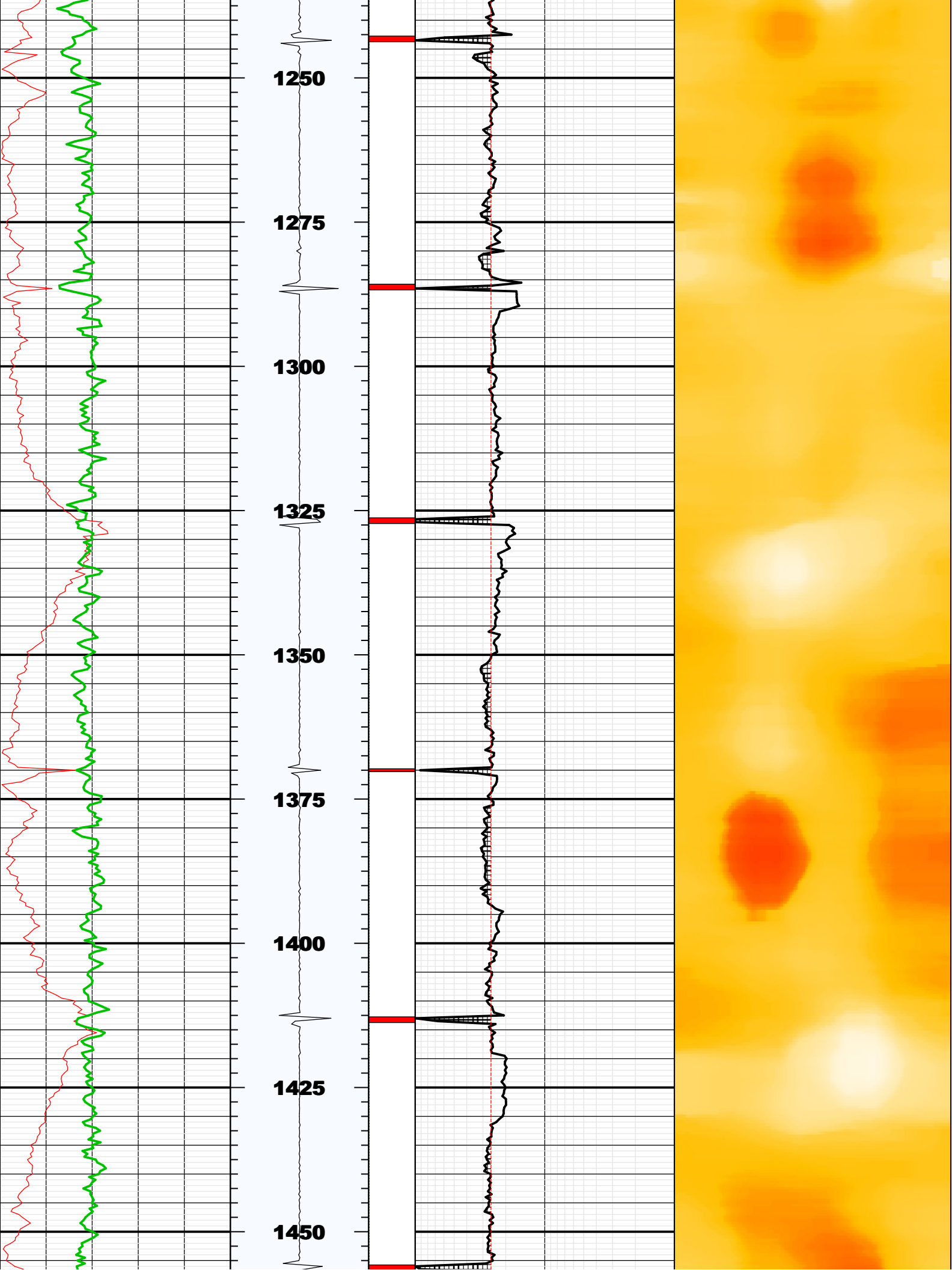


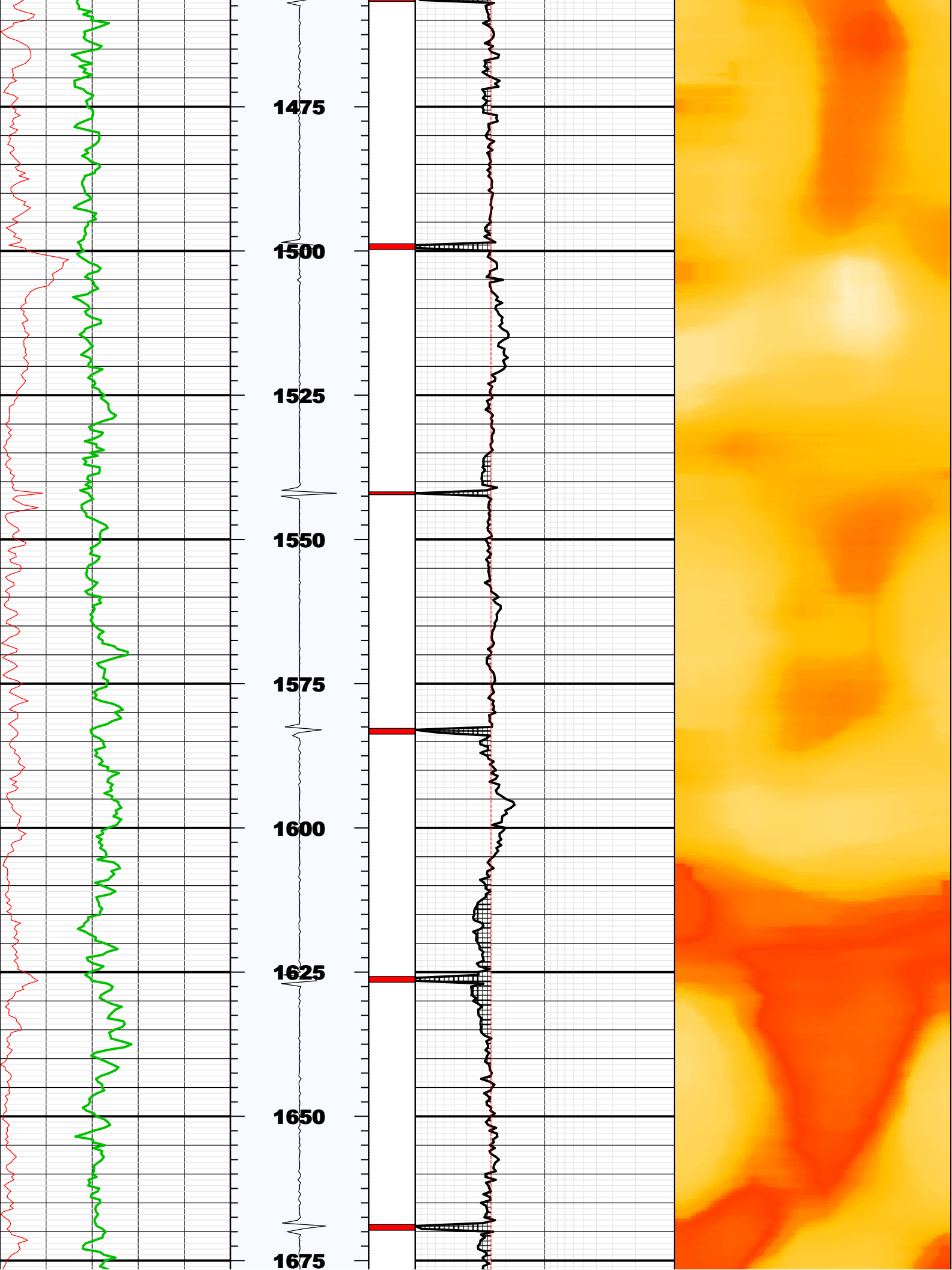


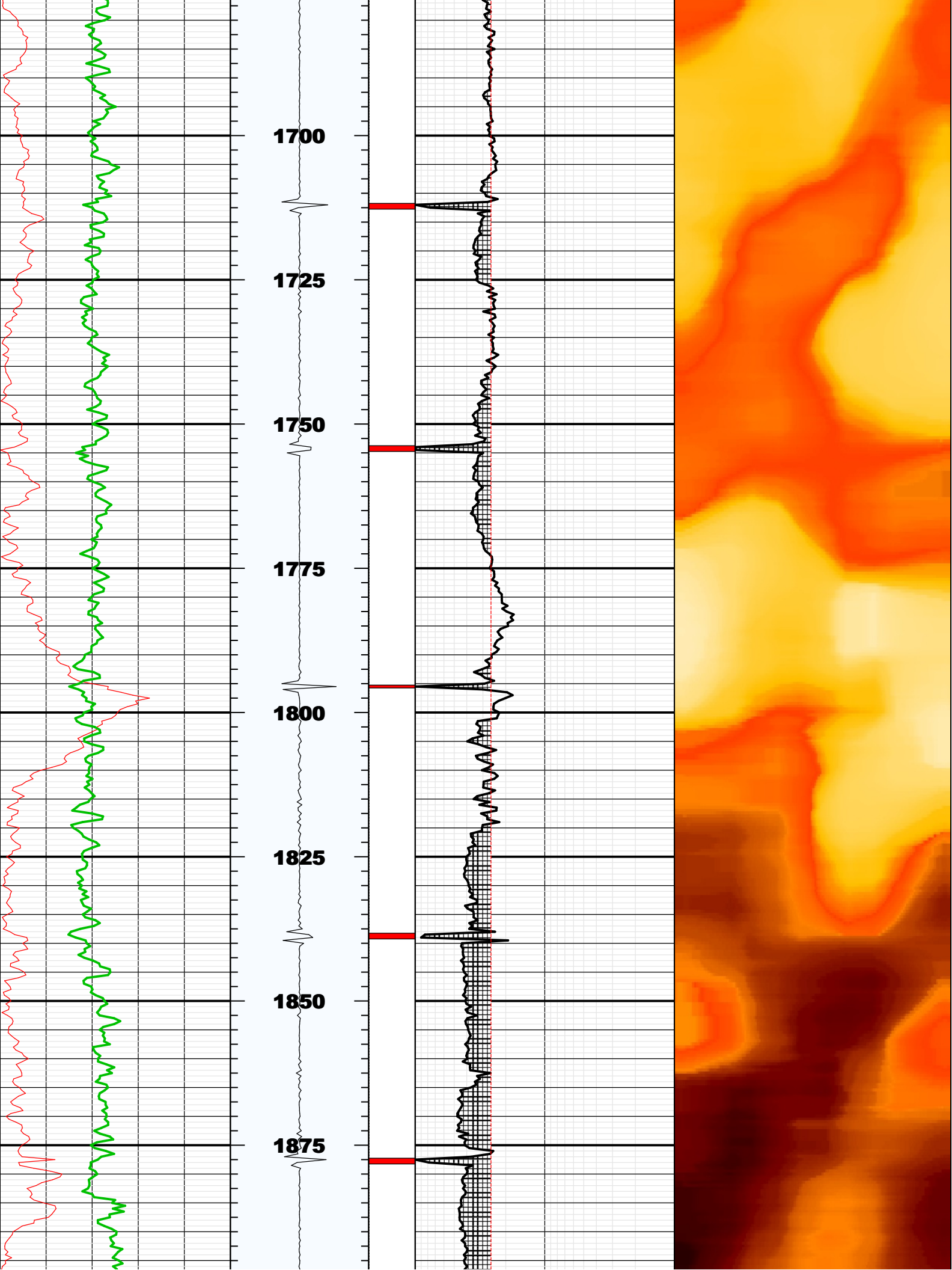


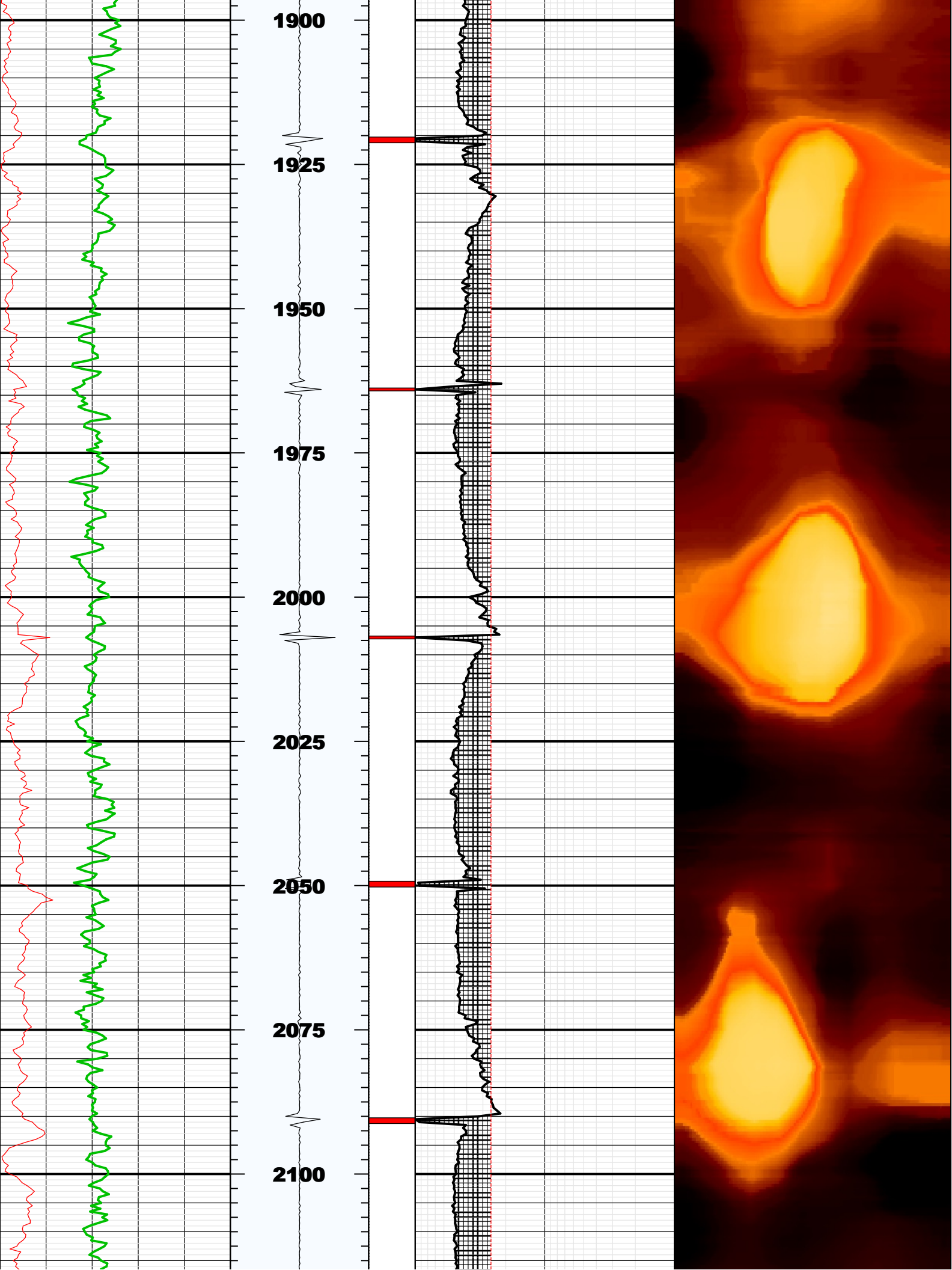


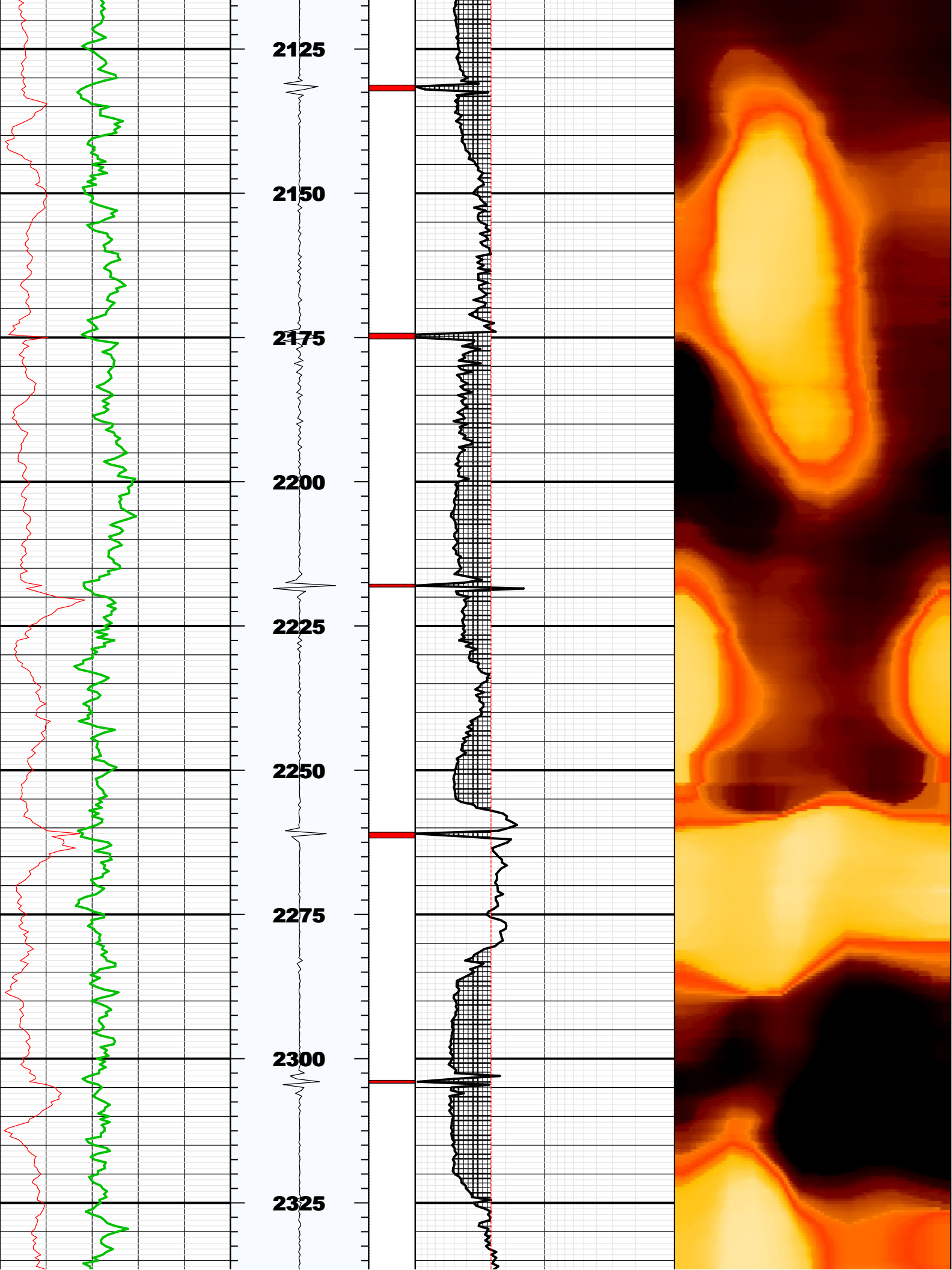


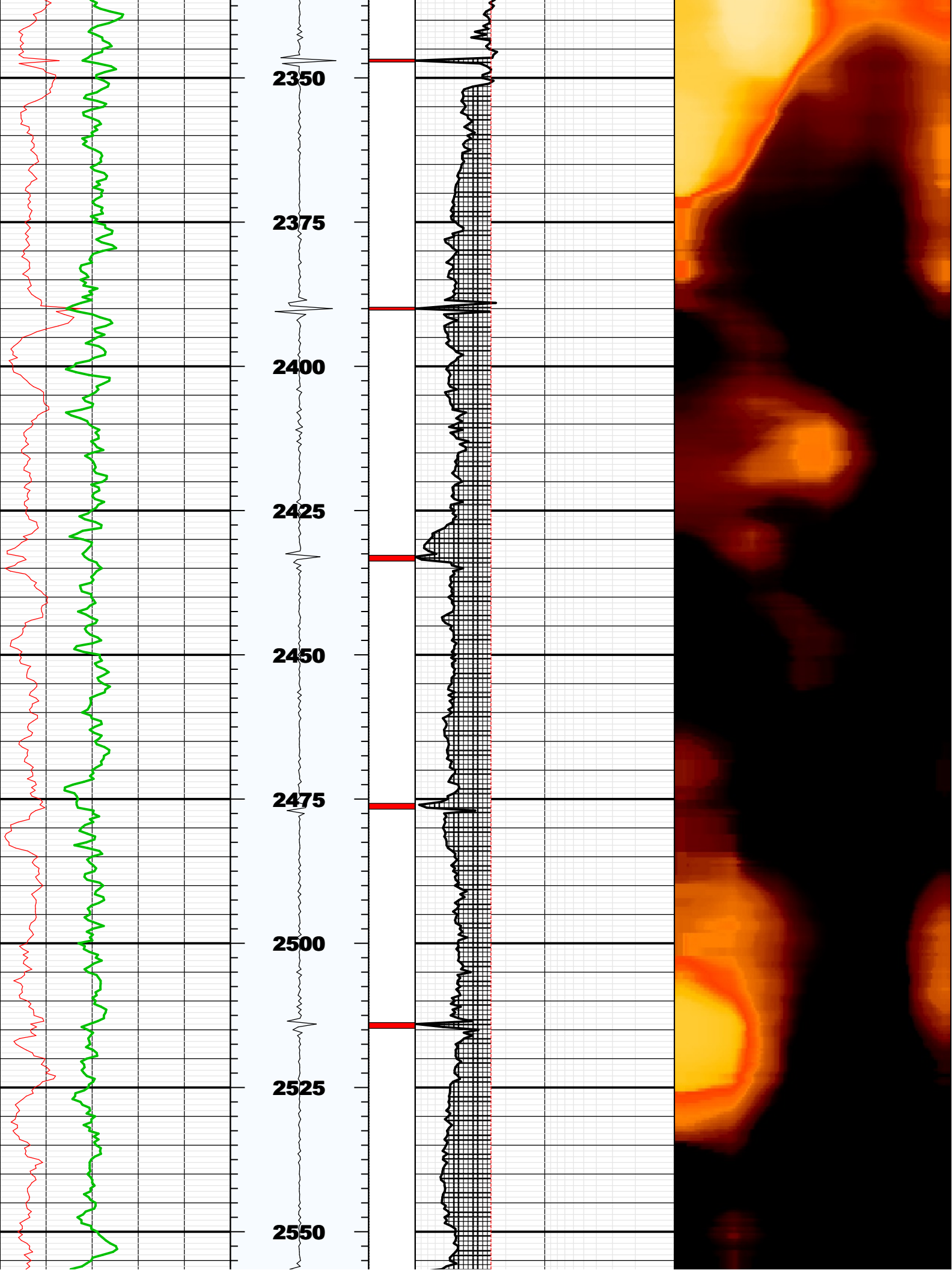


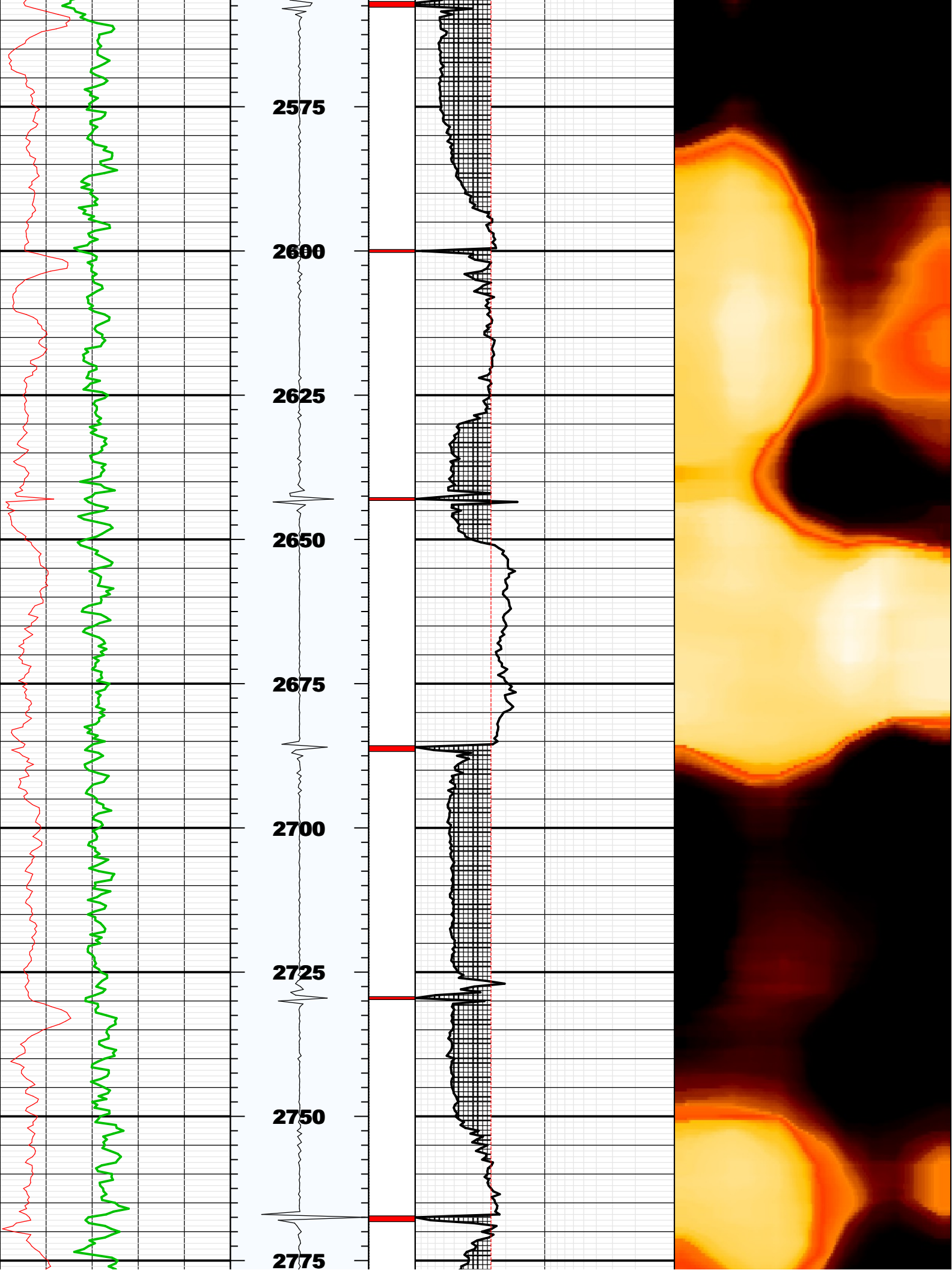


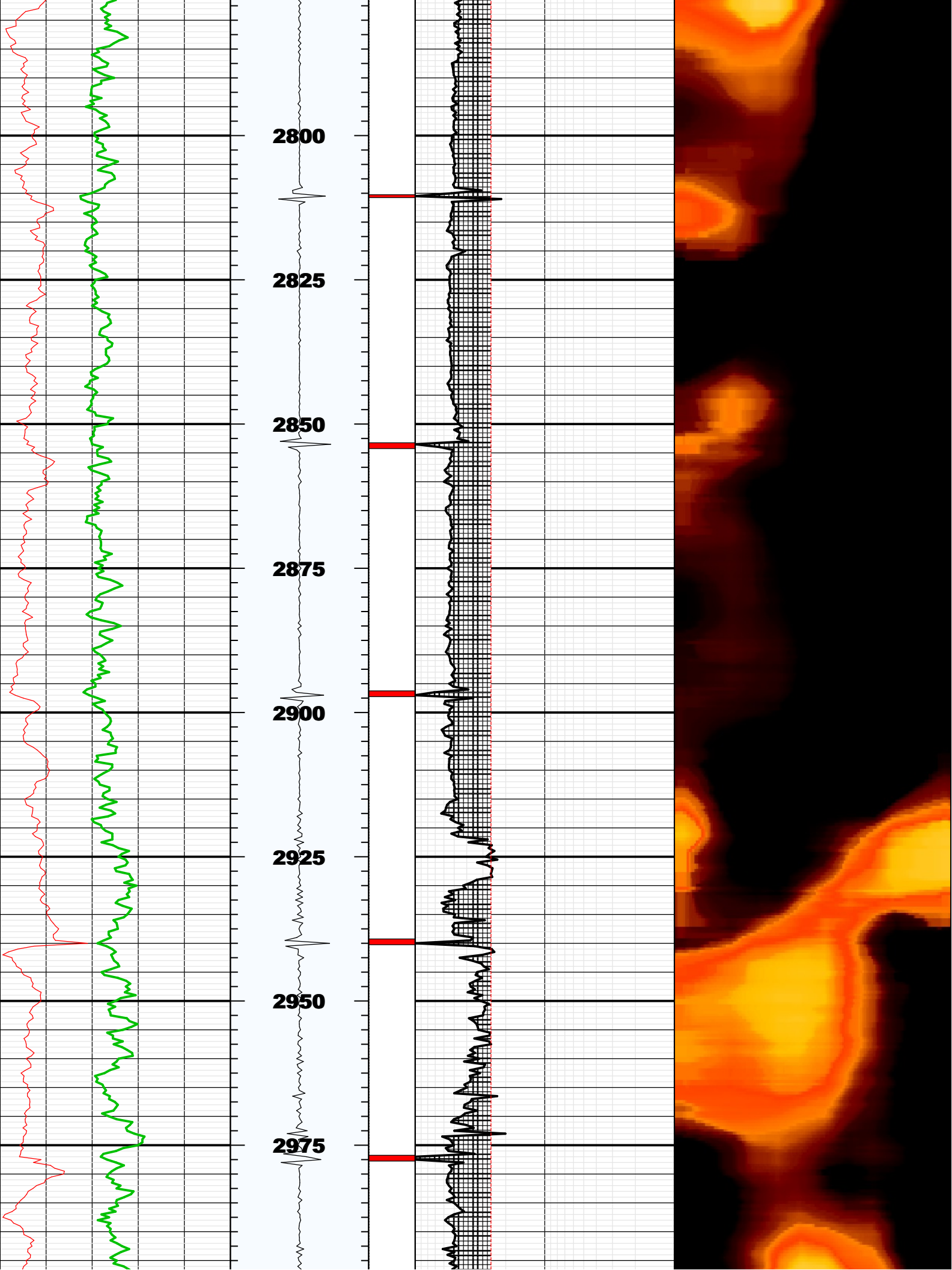


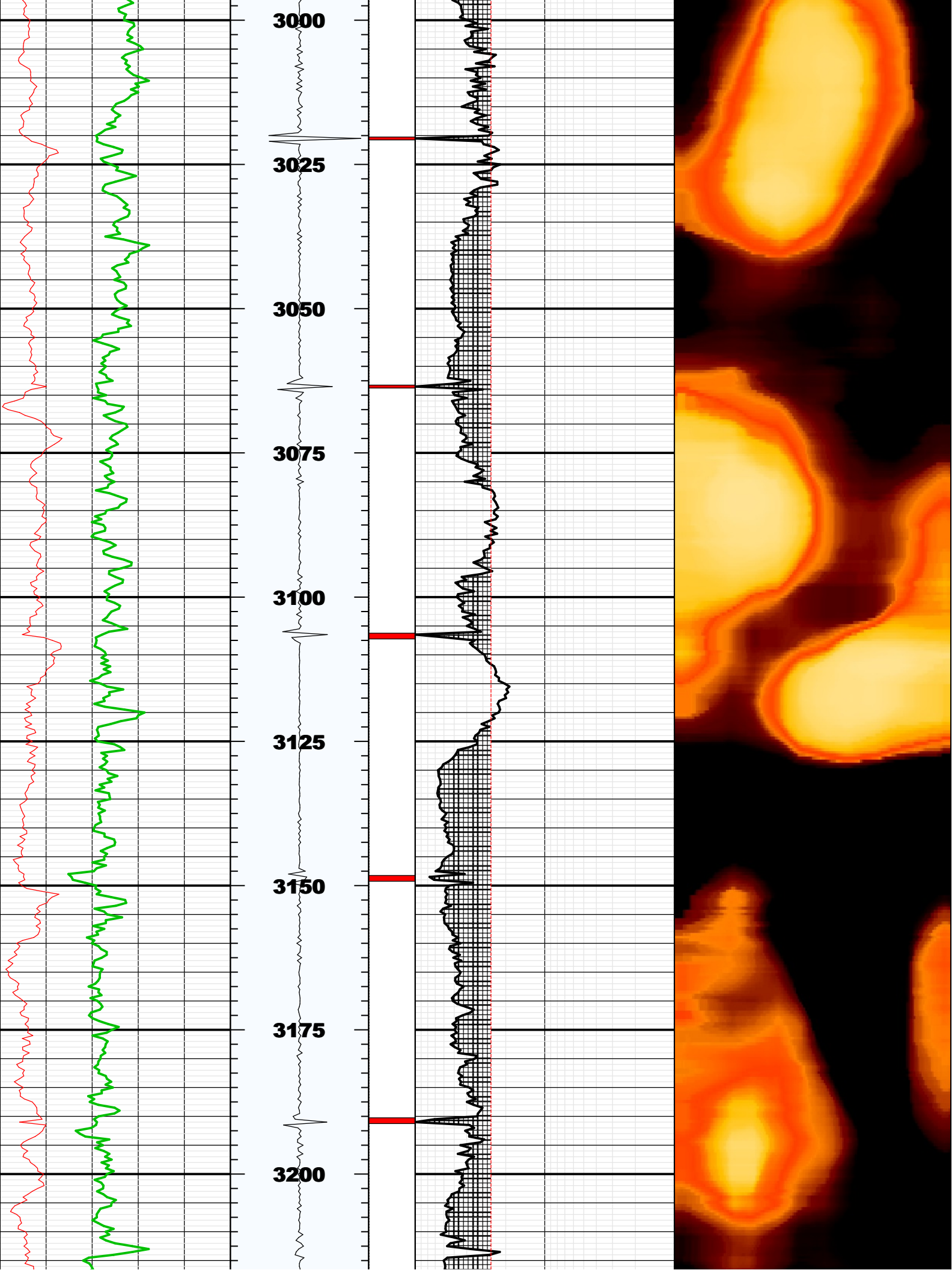


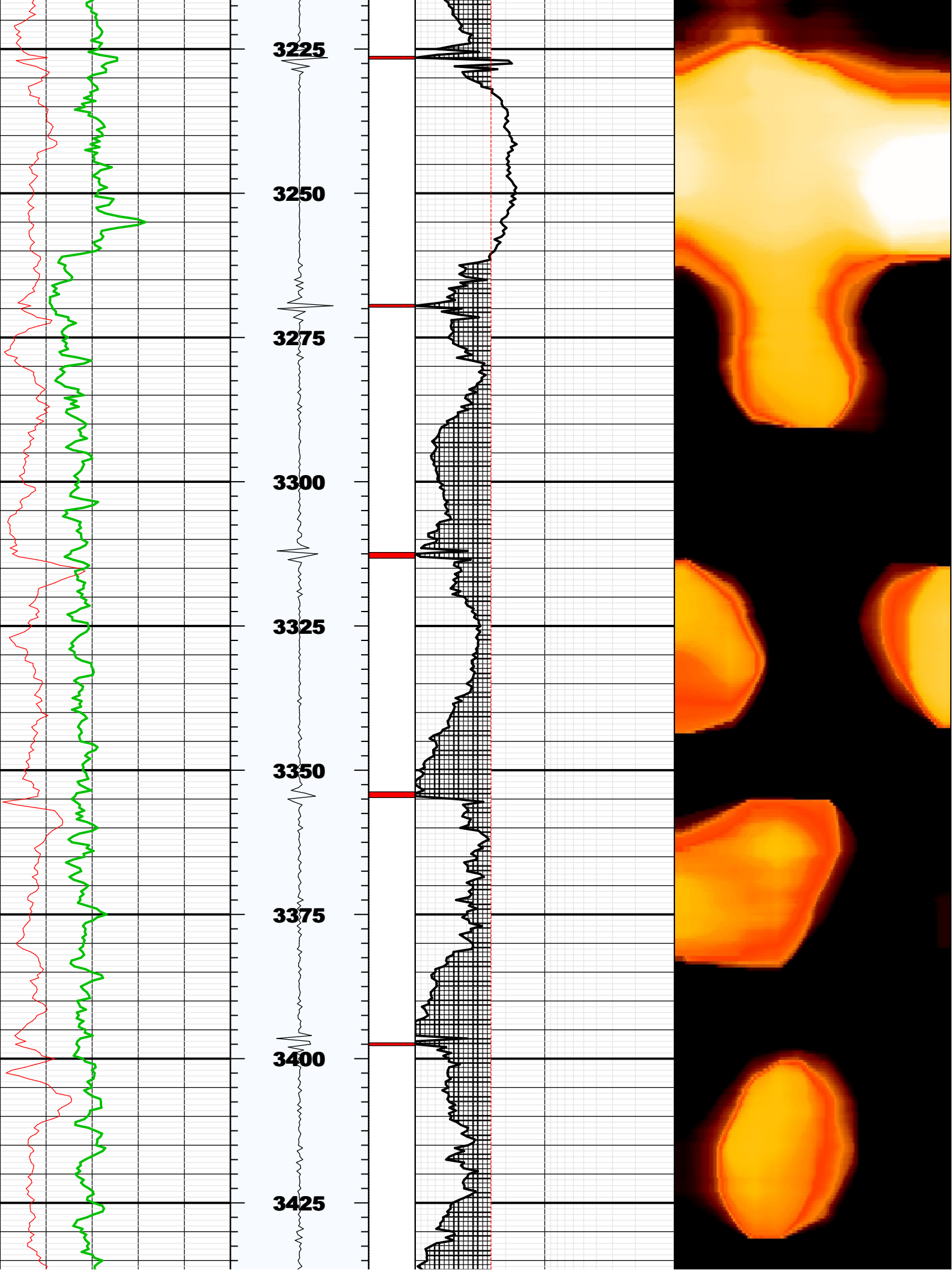


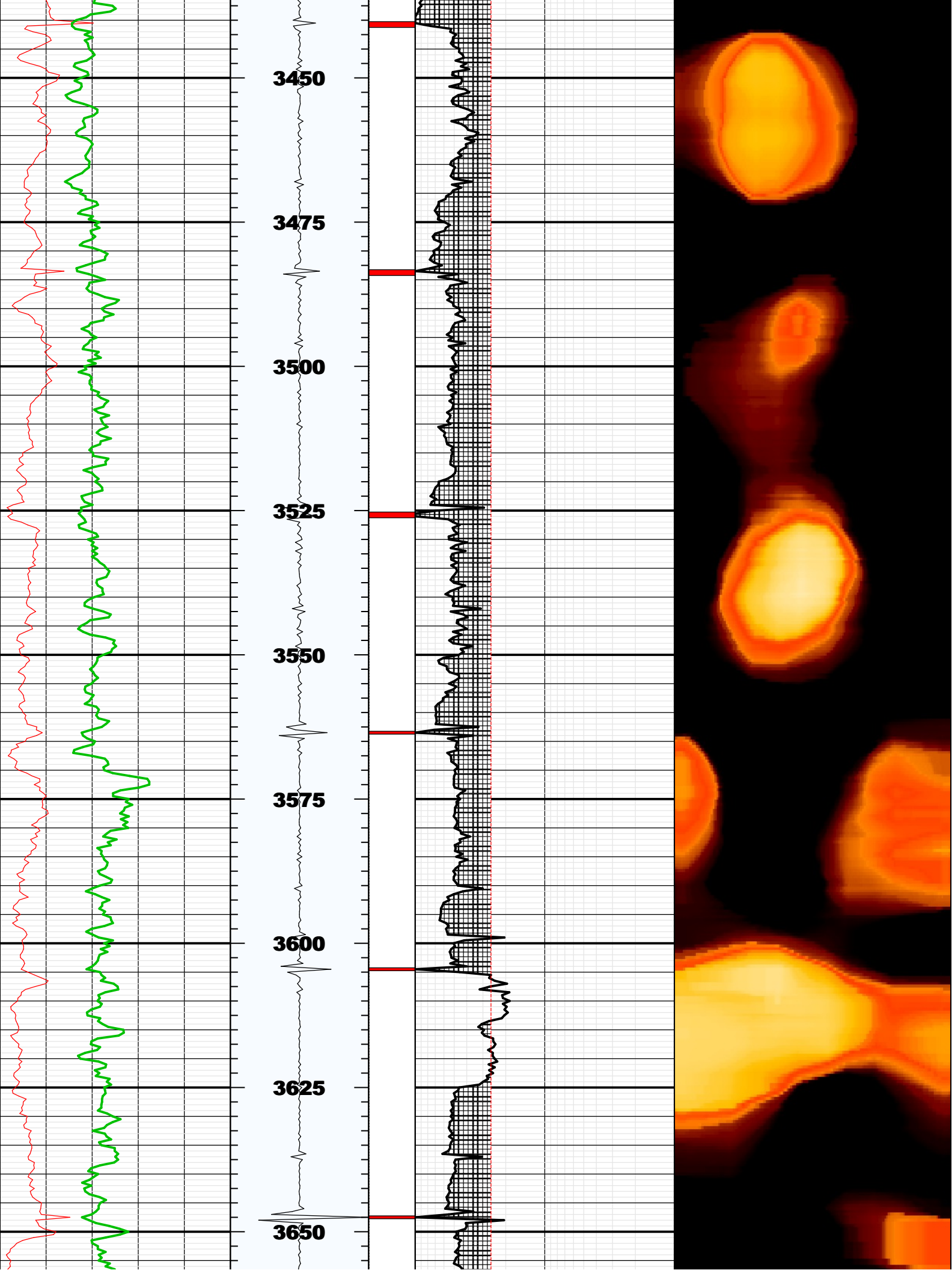


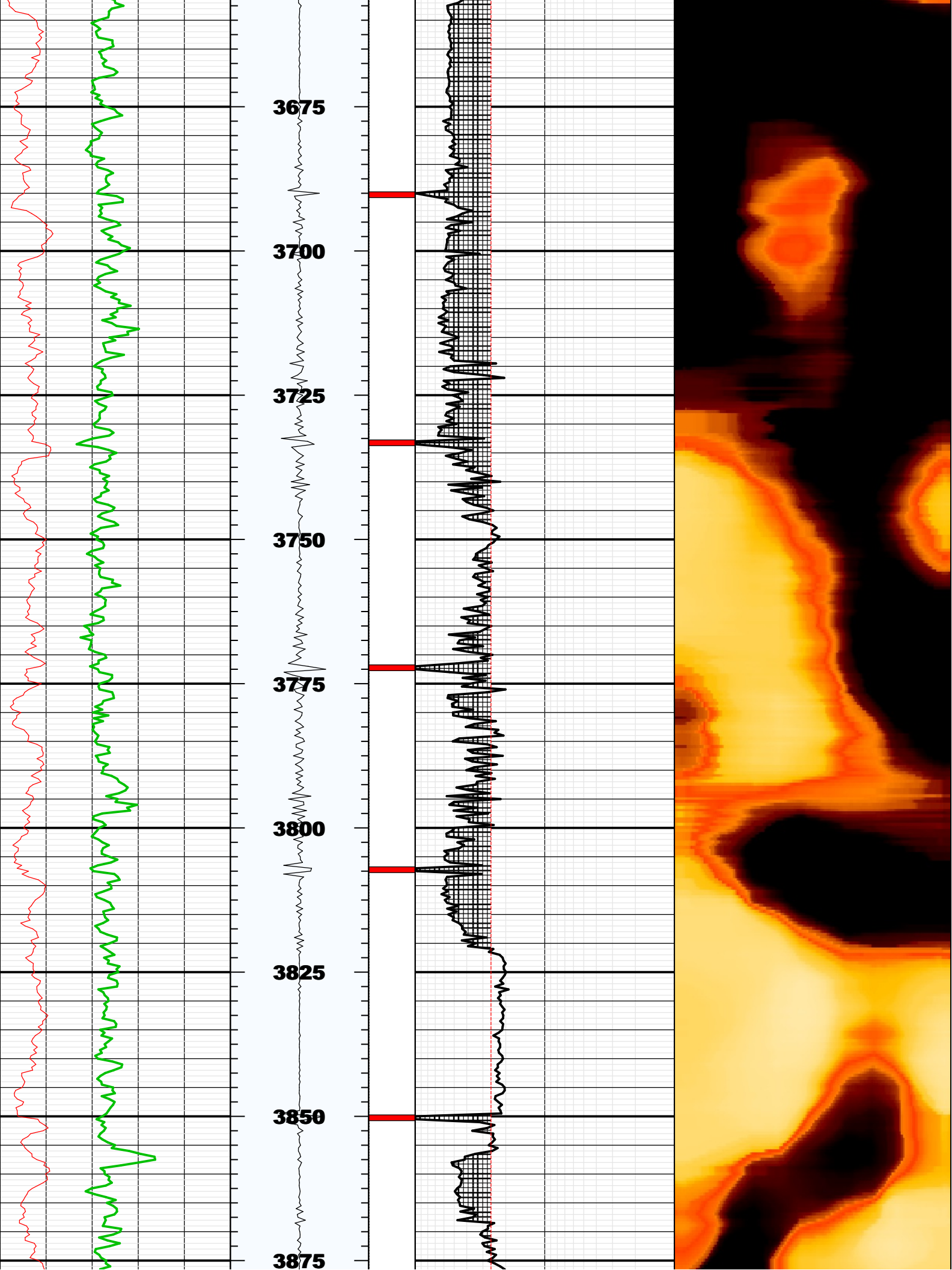


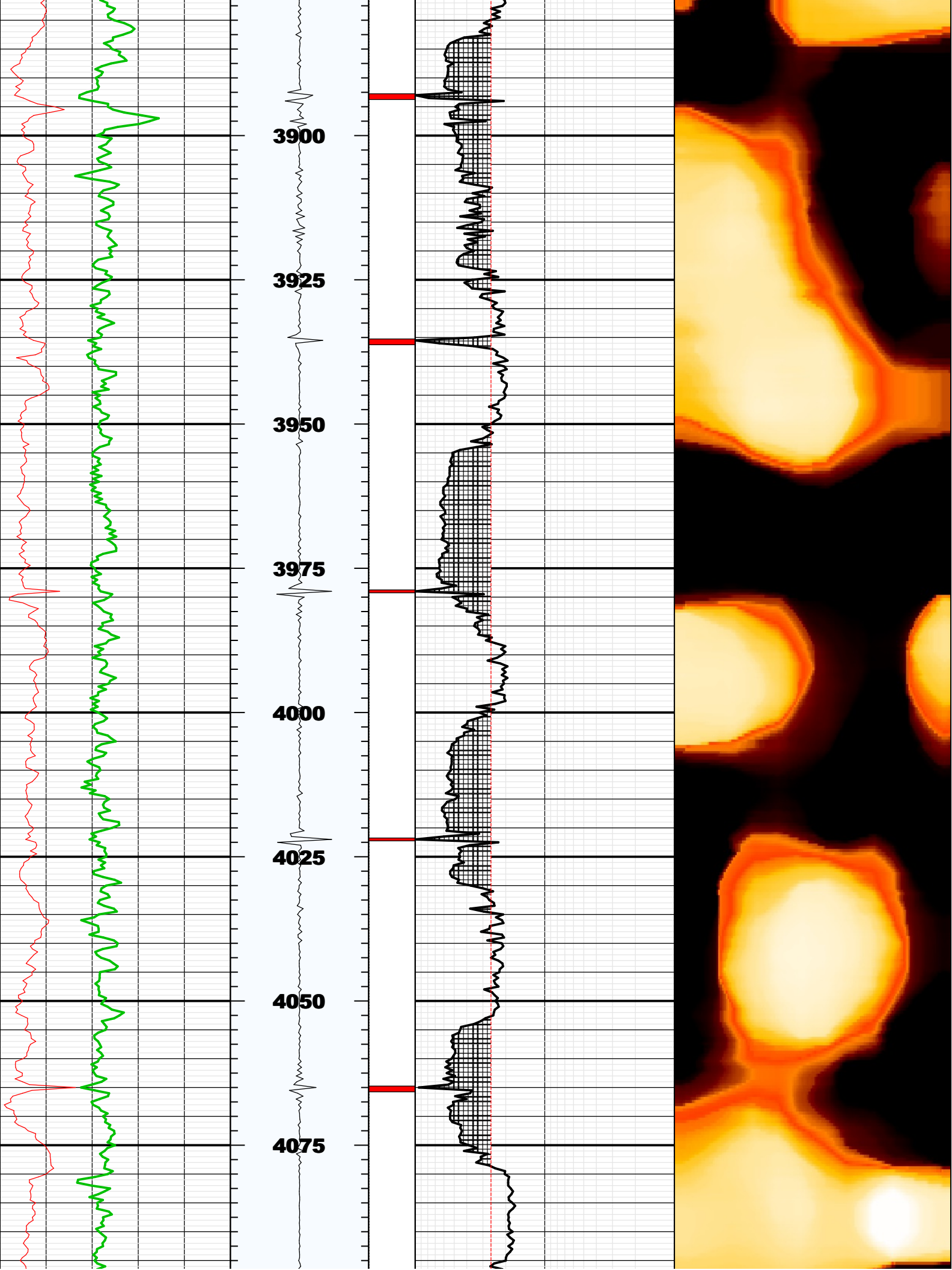


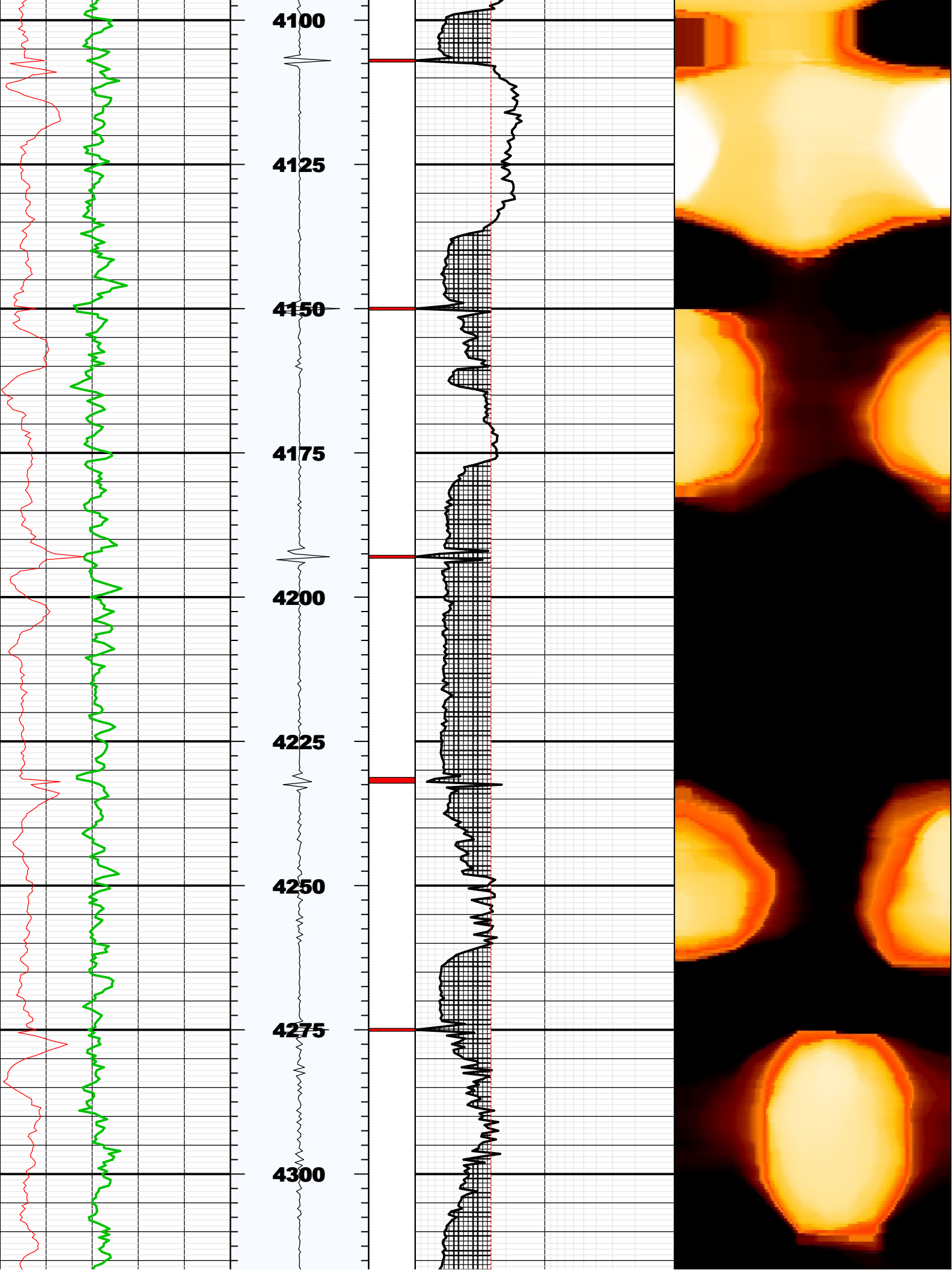


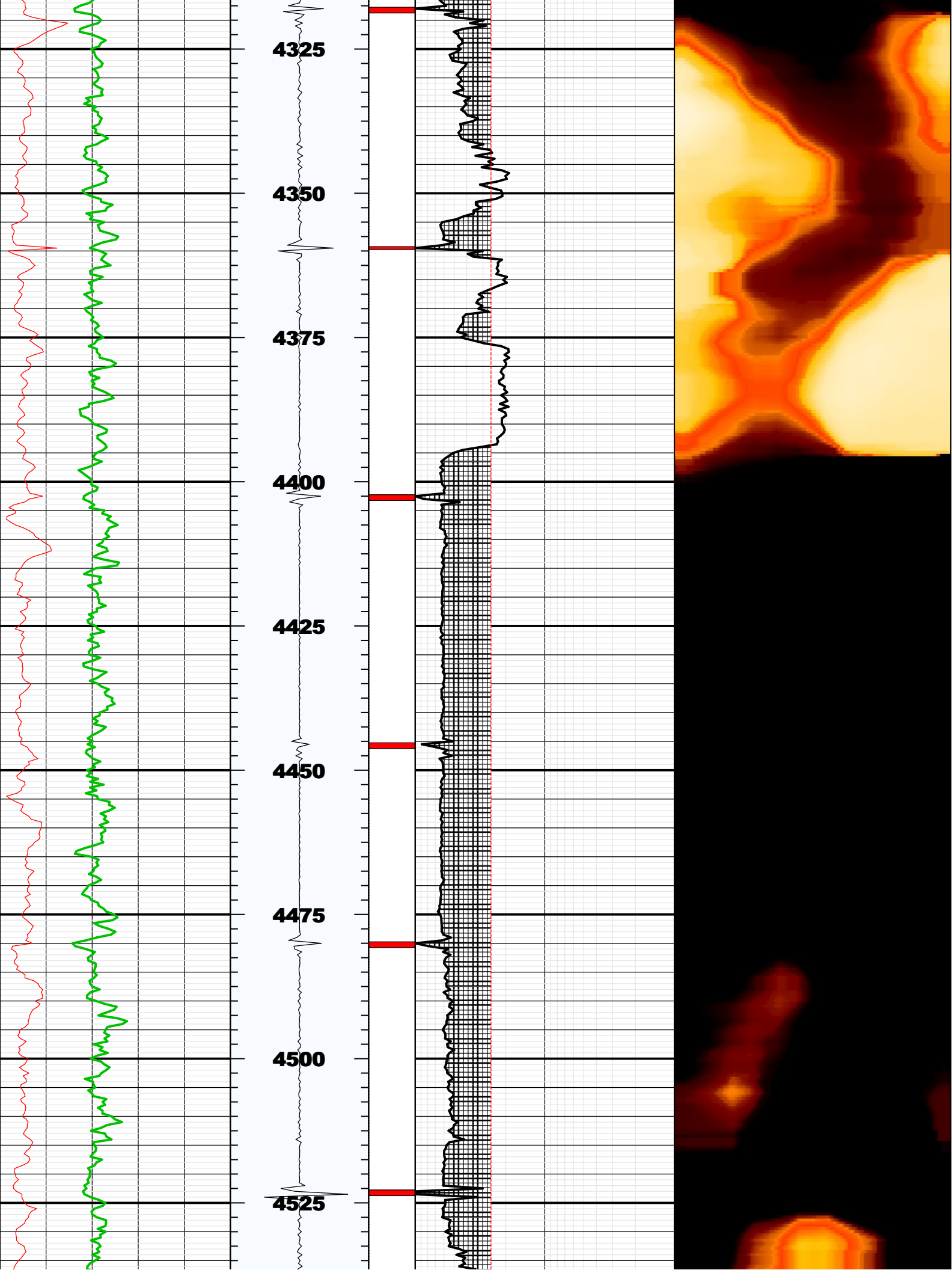


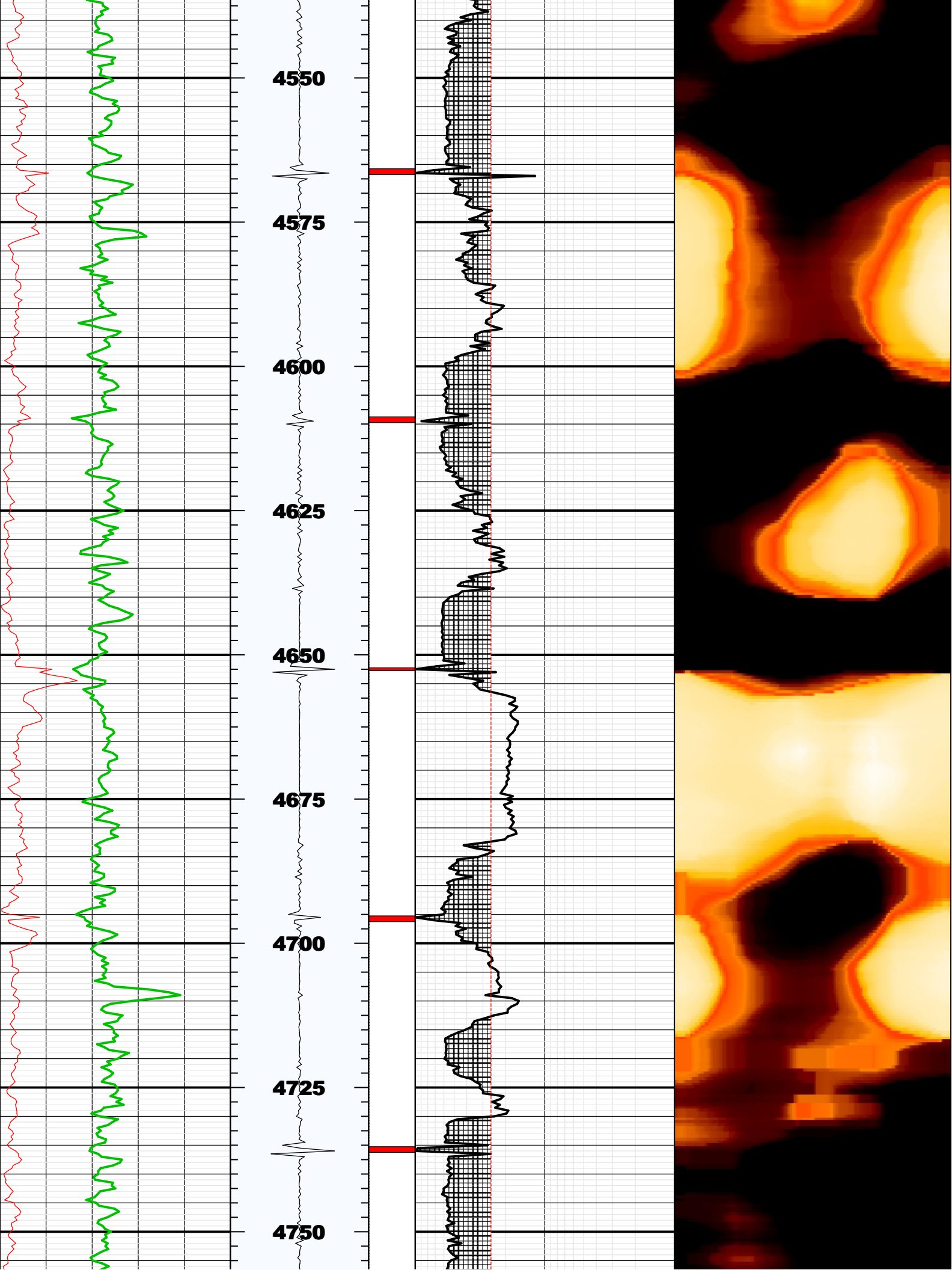


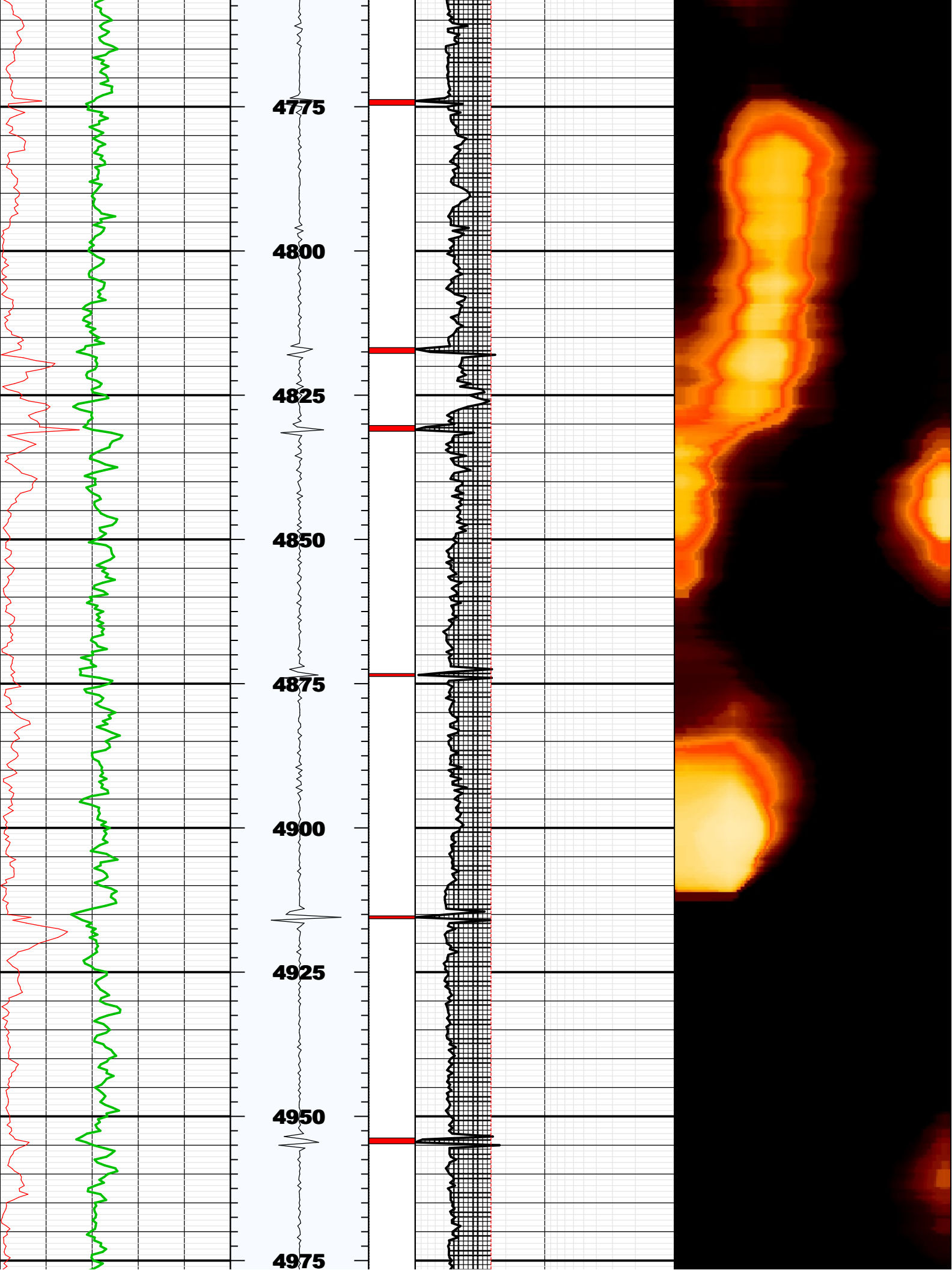


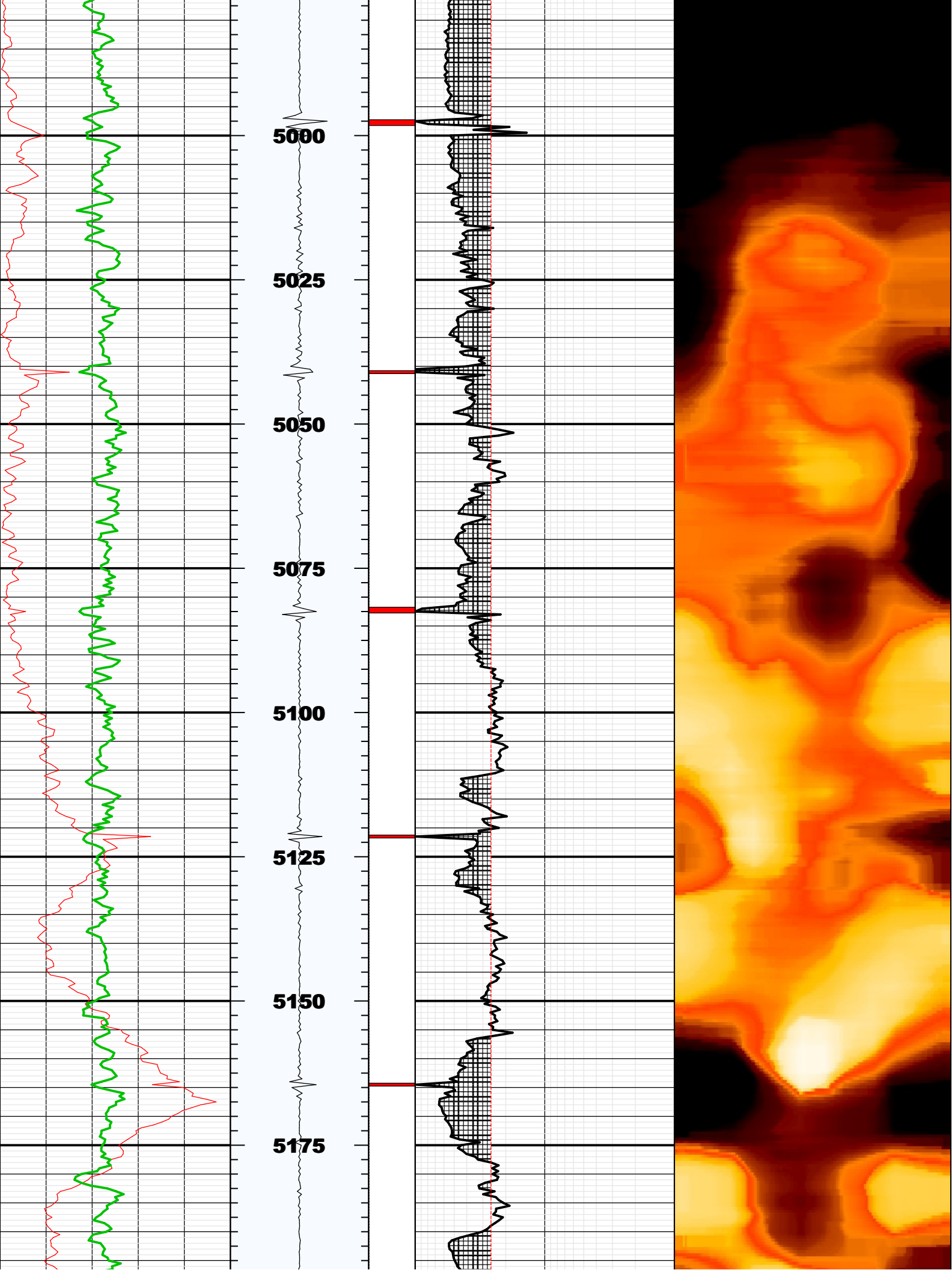


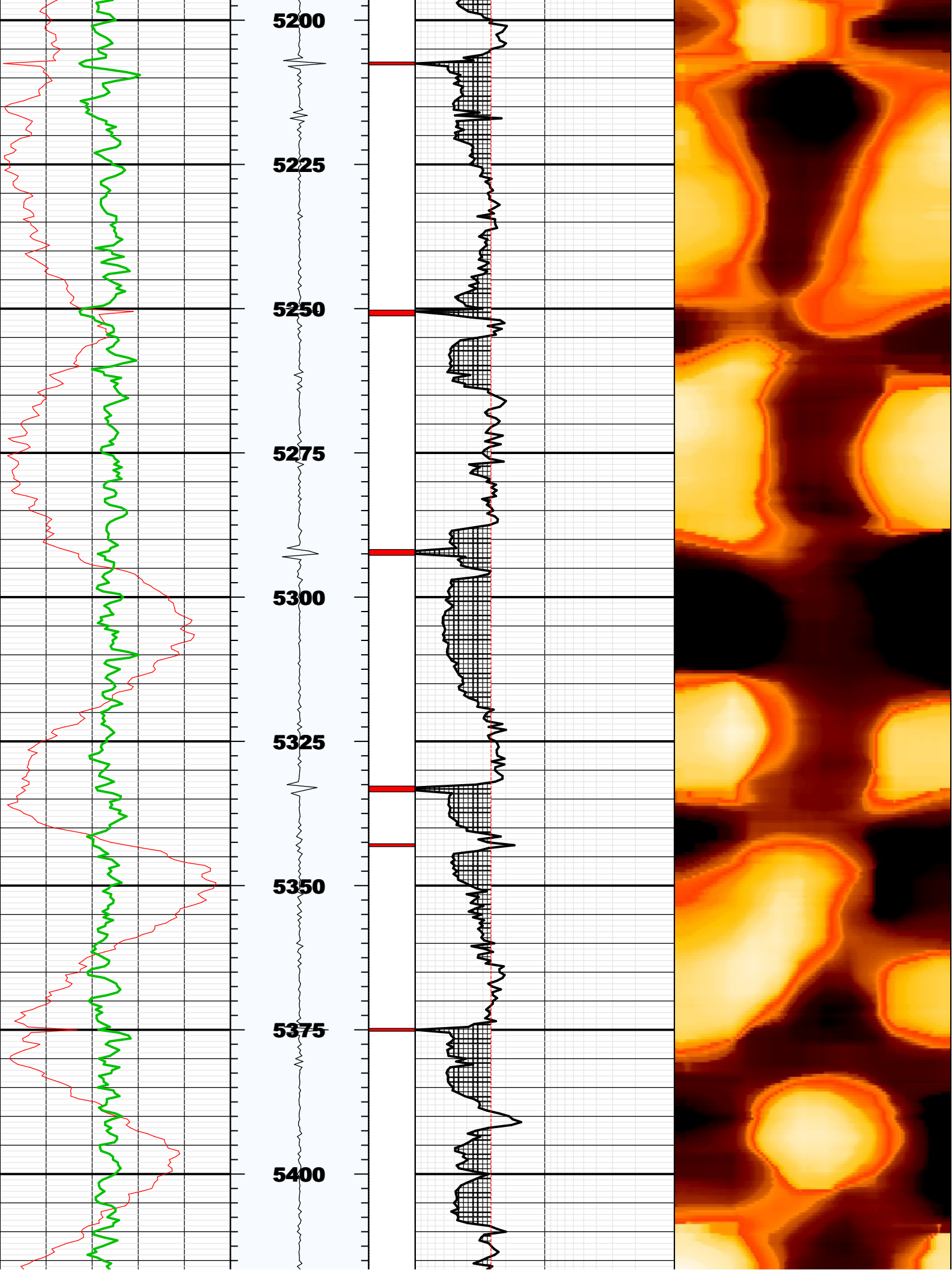


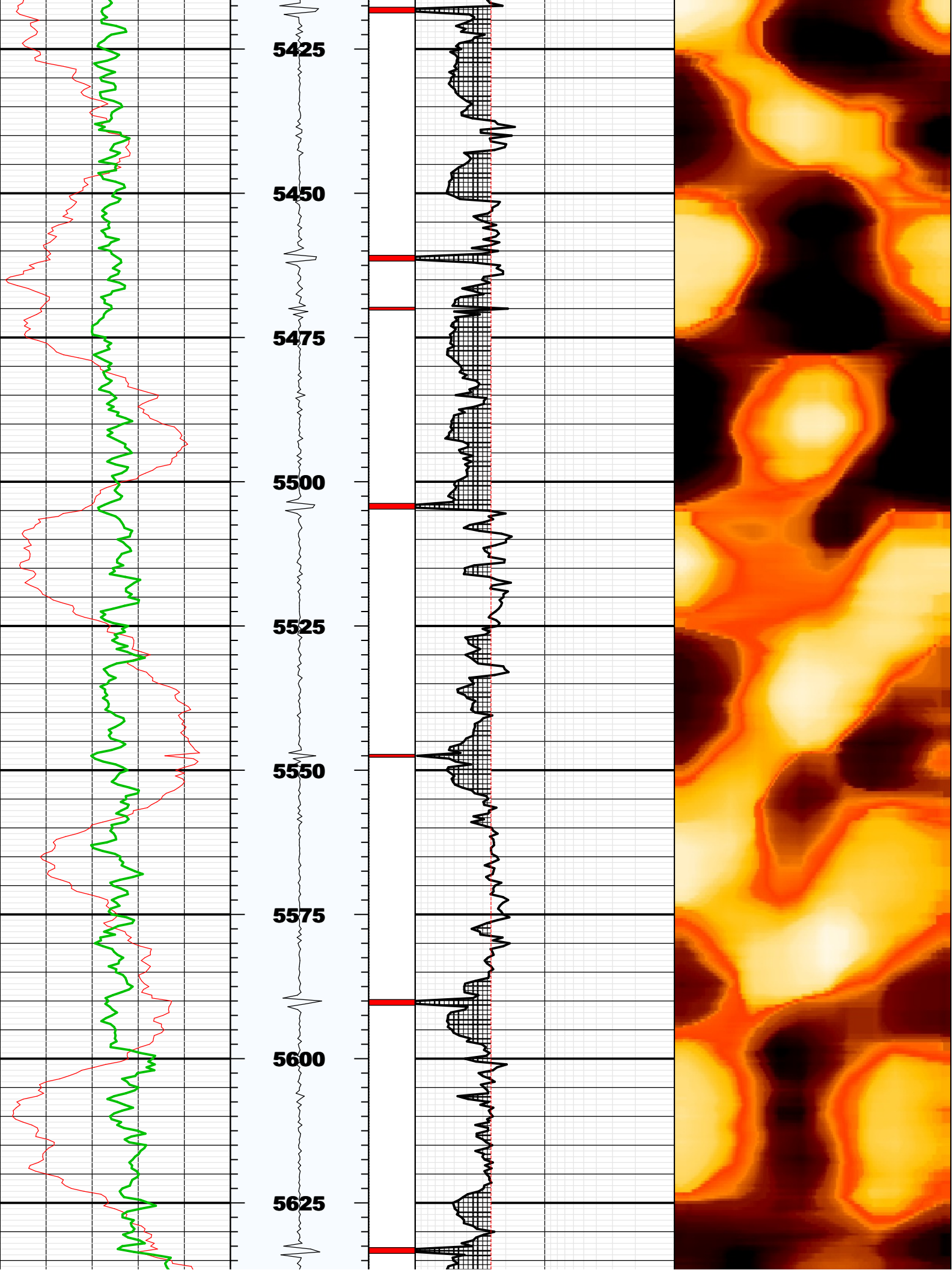


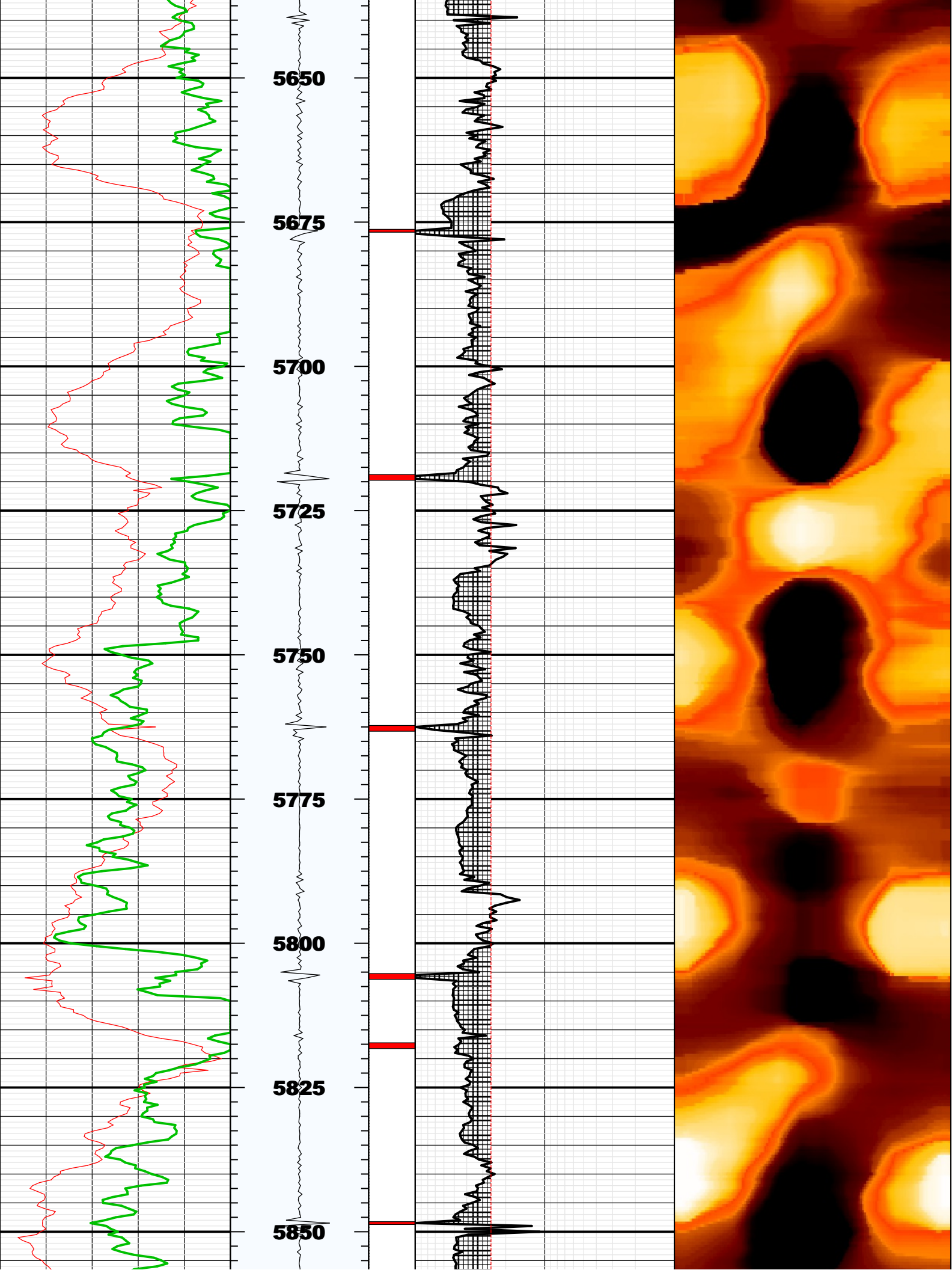


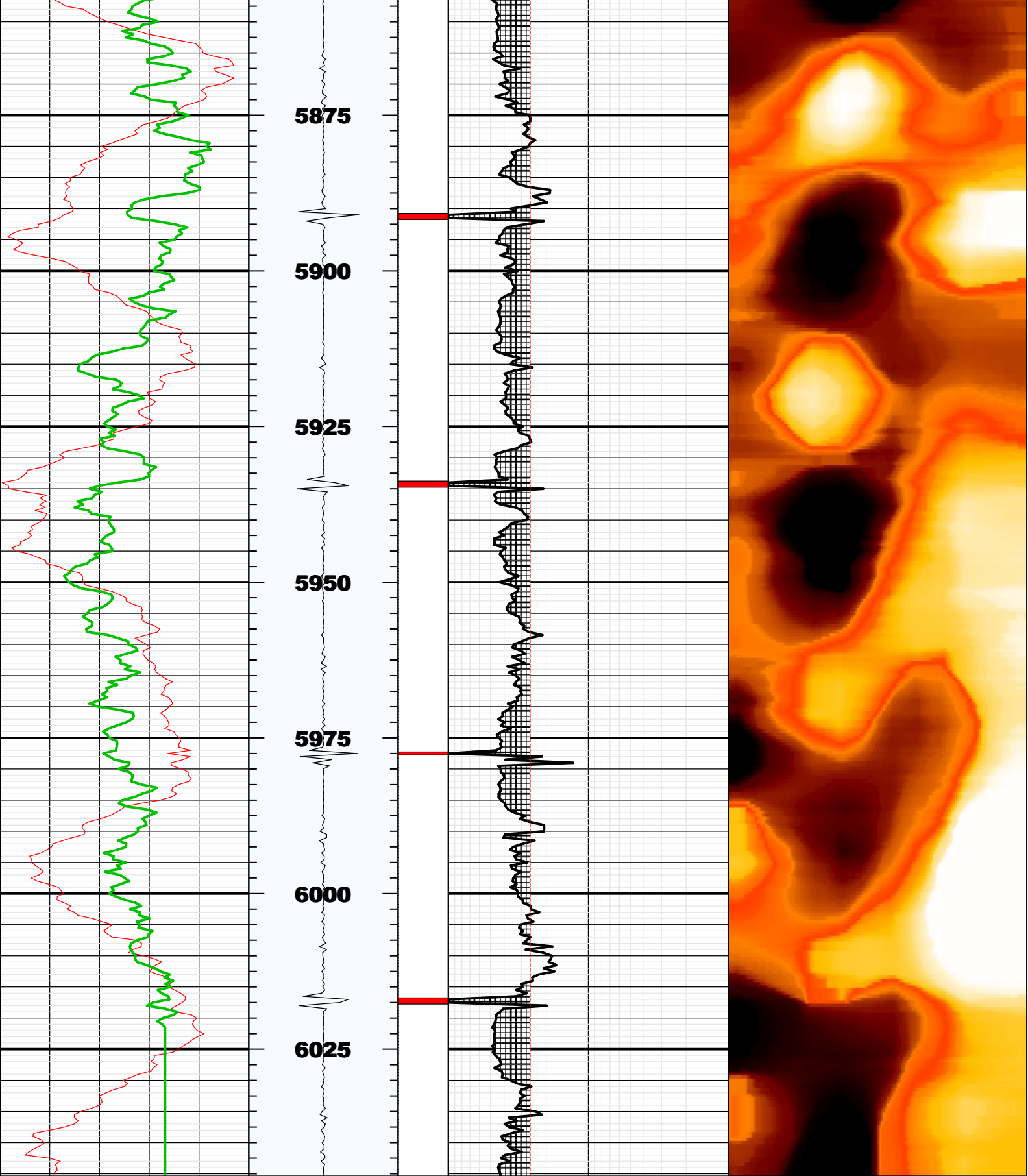








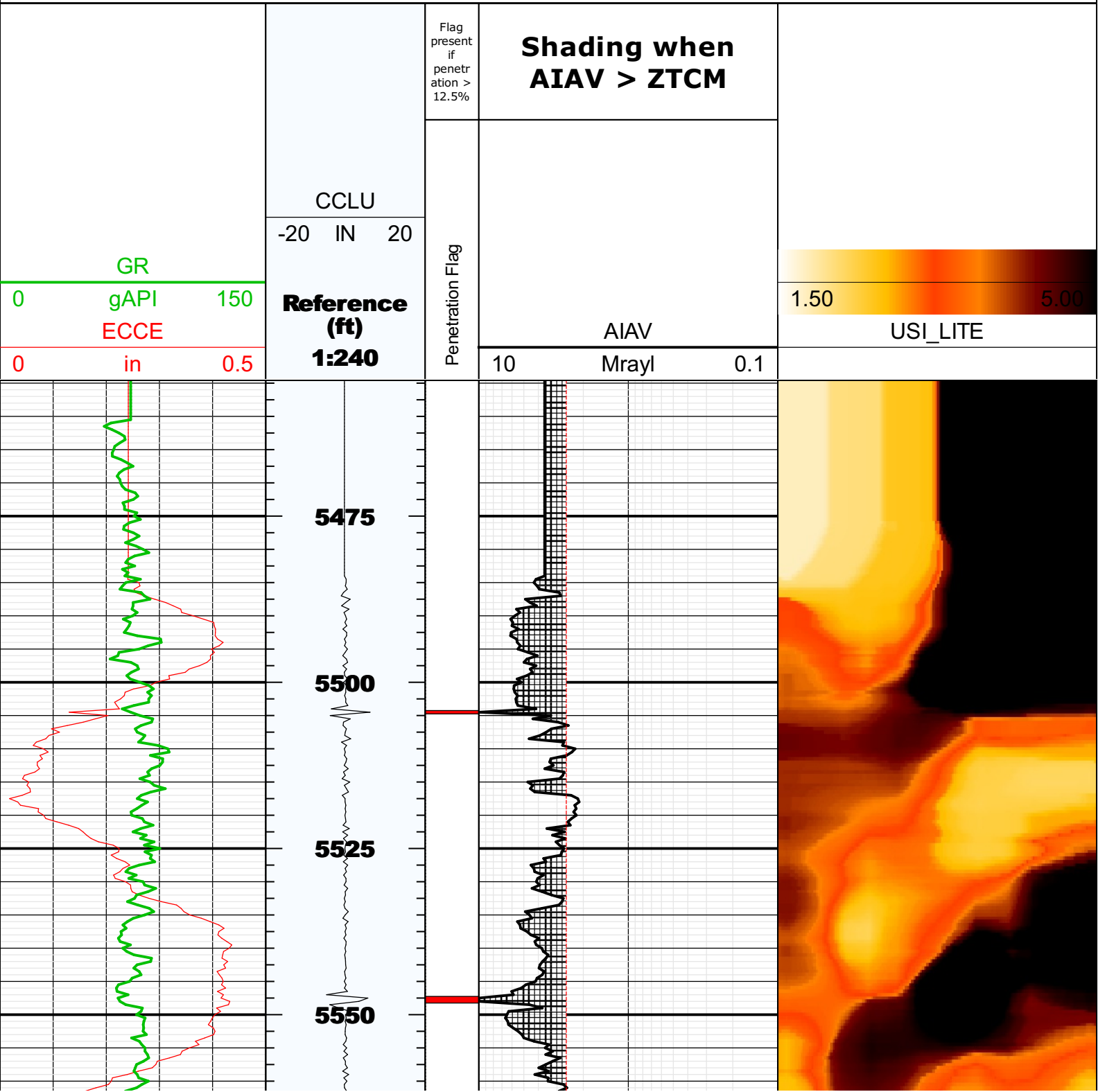


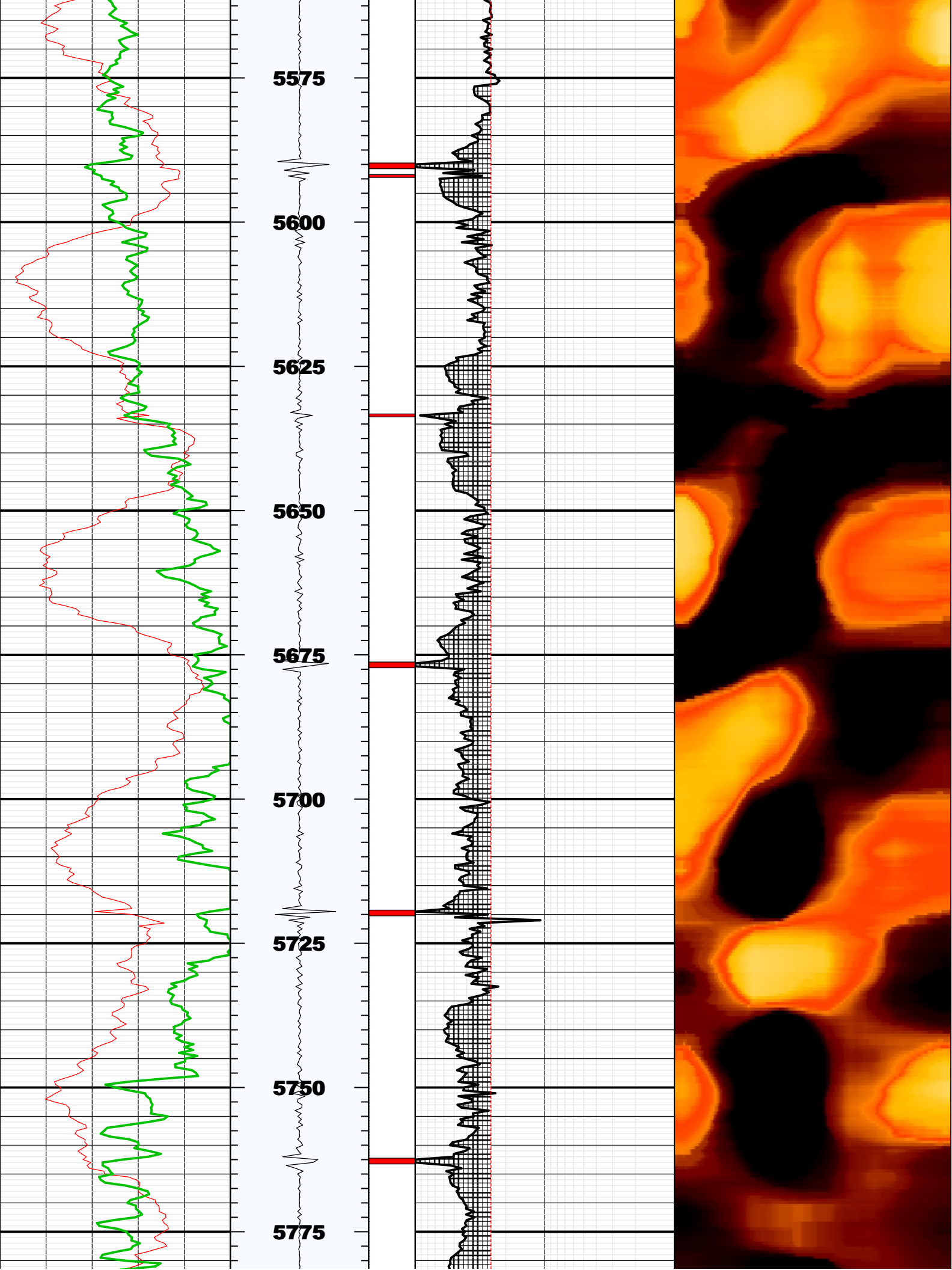


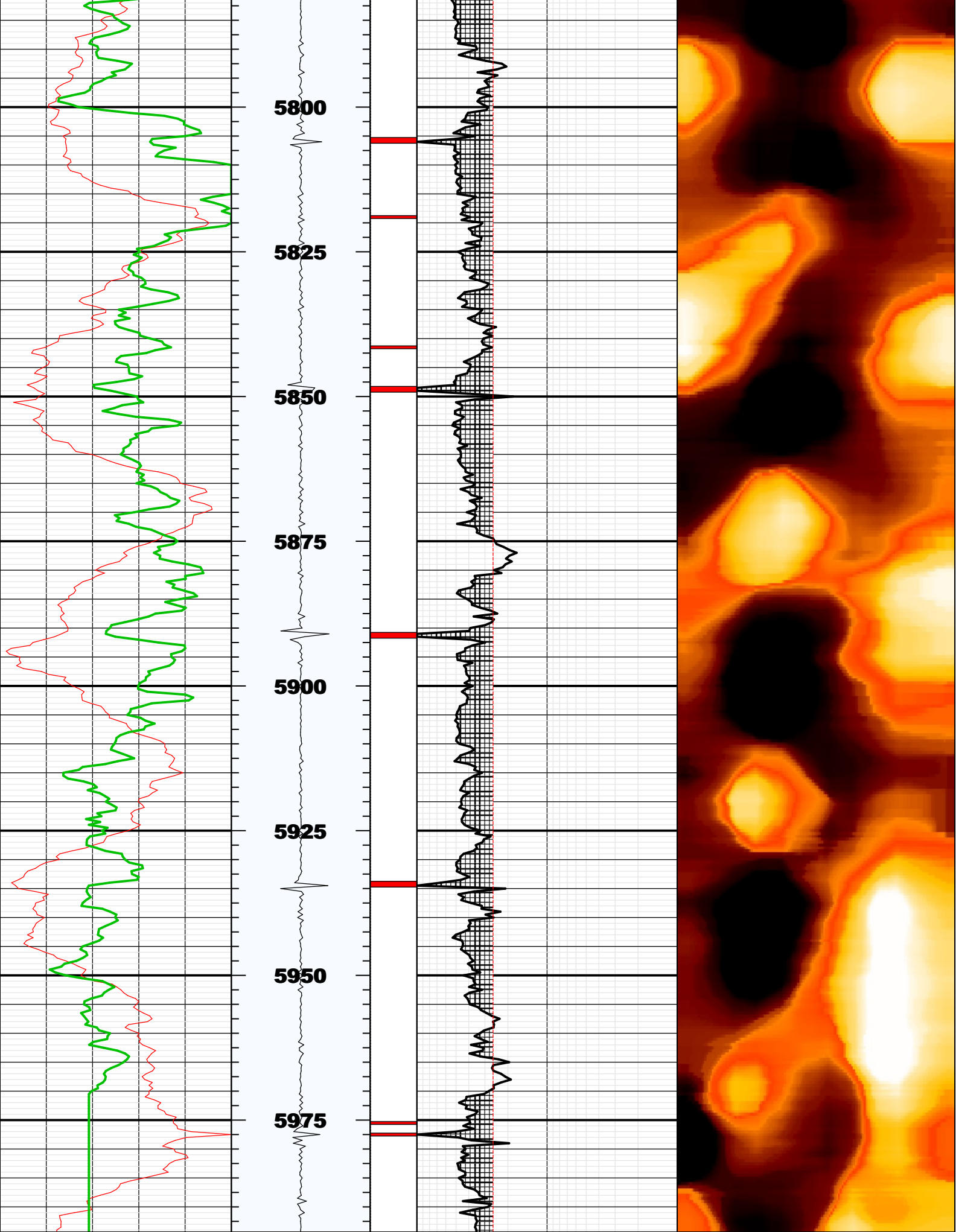
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.70000	LB/G	Drilling Fluid Density
DFVL	206.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	70	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	WRM		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	32.79592	US	Window Begin Time
WINE	77.79464	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.76000	MRAY	Acoustic Impedance of Mud
ZTCM	2.60000	MRAY	Acoustic Impedance Threshold for Cement
ZTGS	0.30000	MRAY	Acoustic Impedance Threshold for Gas
WLEN	22.50350	US	T ³ Processing Length

Repeat Pass

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Fluid Properties Used for Main Pass

