

Company: Noble Energy Inc

Well: Five Rivers K09-67-1HN
Field: Wattenberg
County: Weld State: Colorado

County: Weld	USI-LITE		
Field: Wattenberg			
Location: SWNW Sec. 9 T4N R66W			
Well: Five Rivers K09-67-1HN			
Company: Noble Energy Inc	LOCATION		
	Permanent Datum: Log Measured From: Drilling Measured From:	GL KB KB	Elev: K.B. 4730.0 F G.L. 4700.0 F D.F. 4729.0 F
Logging Date	API Serial No. 05-123-39480-0000	Section 9	Township 4N
Run Number	19-Sep-2014		Range 66W
Depth Driller	Run1 USIT		
Schlumberger Depth	7358.0 F		
Bottom Log Interval	7232.0 F		
Top Log Interval	7232.0 F		
Casing Fluid Level	55.0 F		
Salinity	0.0 F		
Density			
Fluid Level	8.40 LB/G		
BIT/CASING/TUBING STRING	0.0 F		
Bit Size	8.750 IN		
From	7232.0 F		
To	-999.2 F		
Casing Size	7.00 IN		
Weight	26.00 LB/F		
Grade	P110		
From	0.0 F		
To	7348.0 F		
Max Recorded Temp	257.9		
Logger on bottom (date)	27-Sep-2014		
Location	Fl. Morgan CO		
Recorded By	Danielle / Kerl		
Witnessed By	Bill Mansfield		

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: 1109 Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: Length: 11800.00000

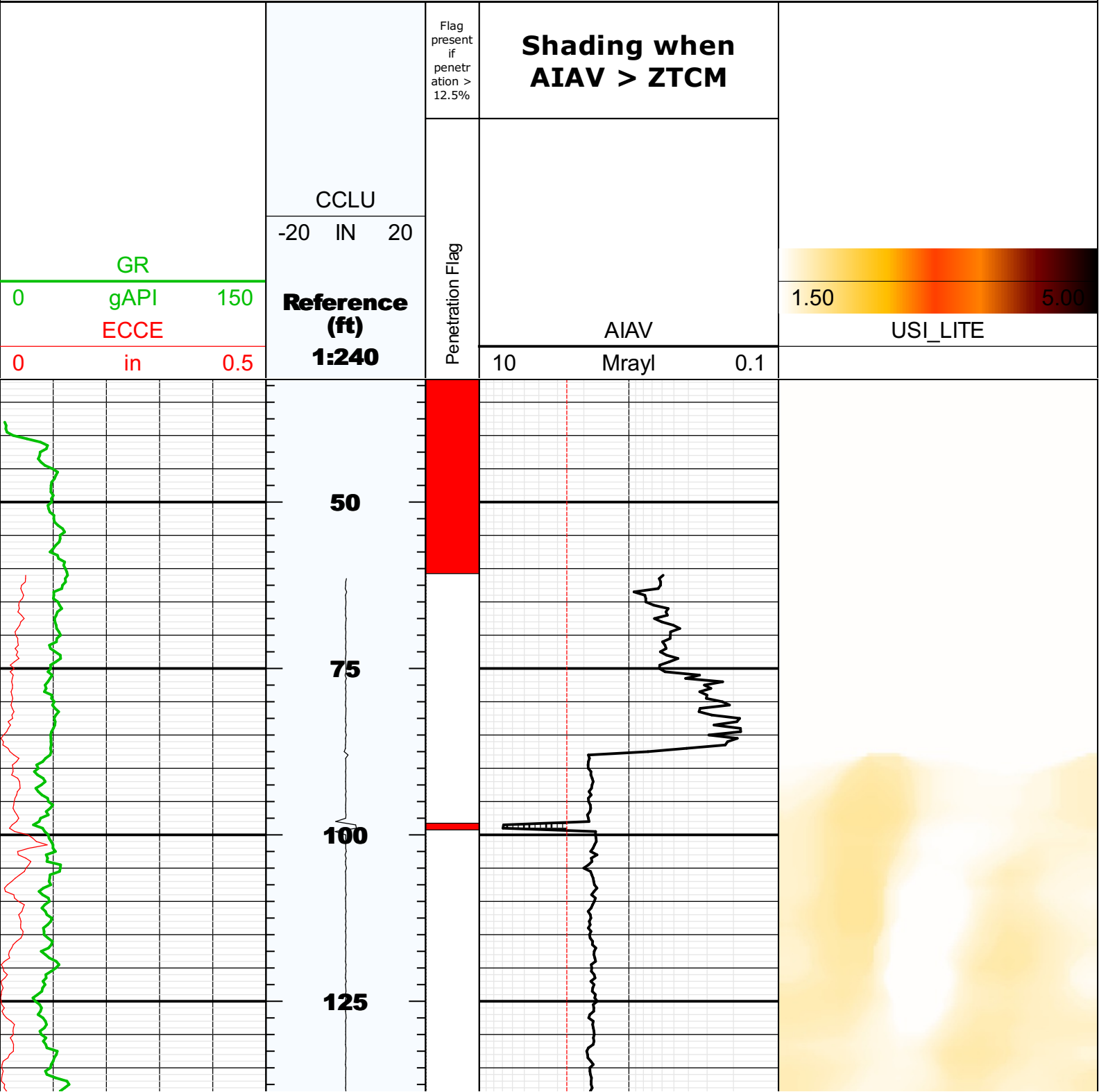
DISCLAIMER

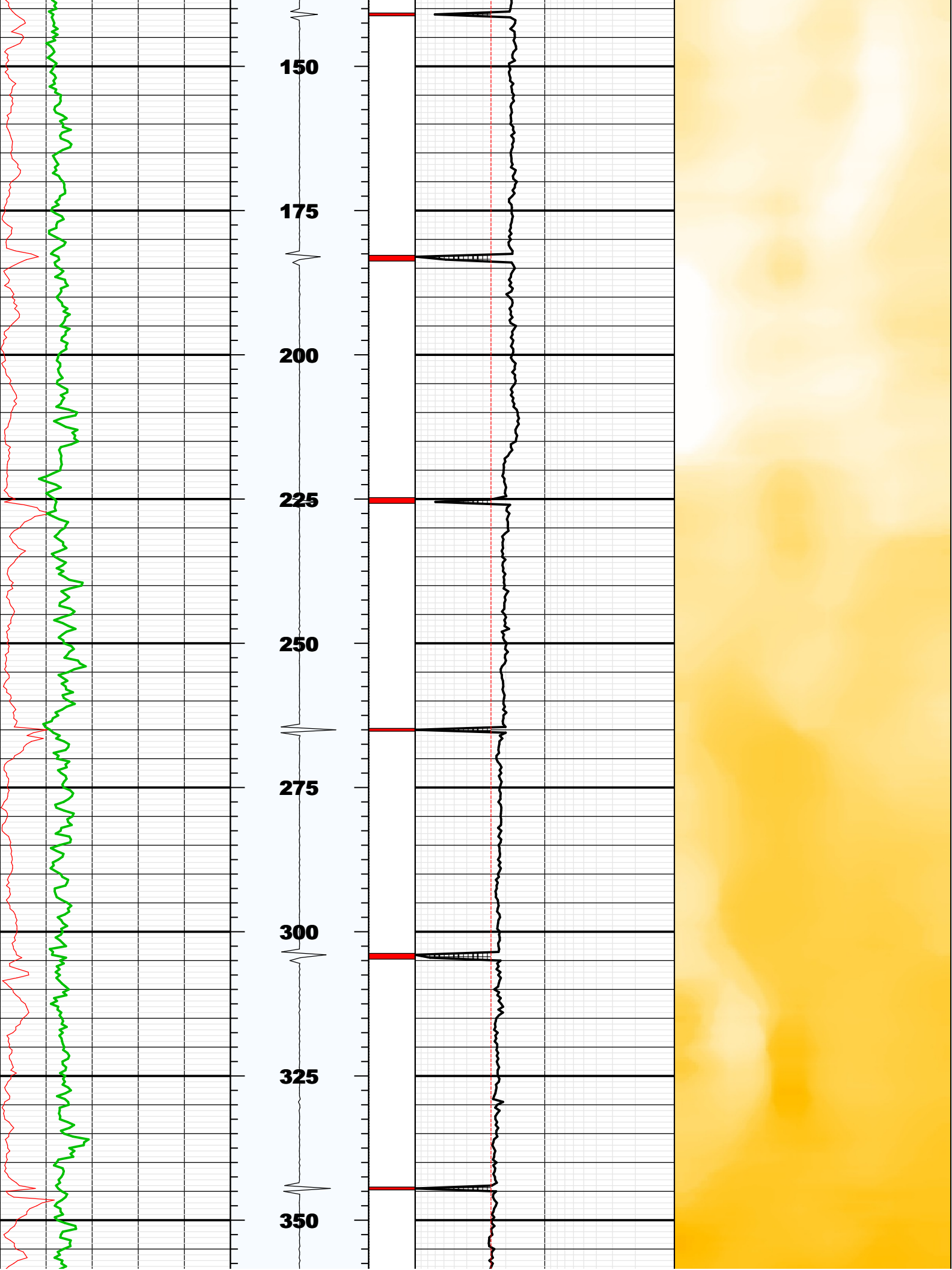
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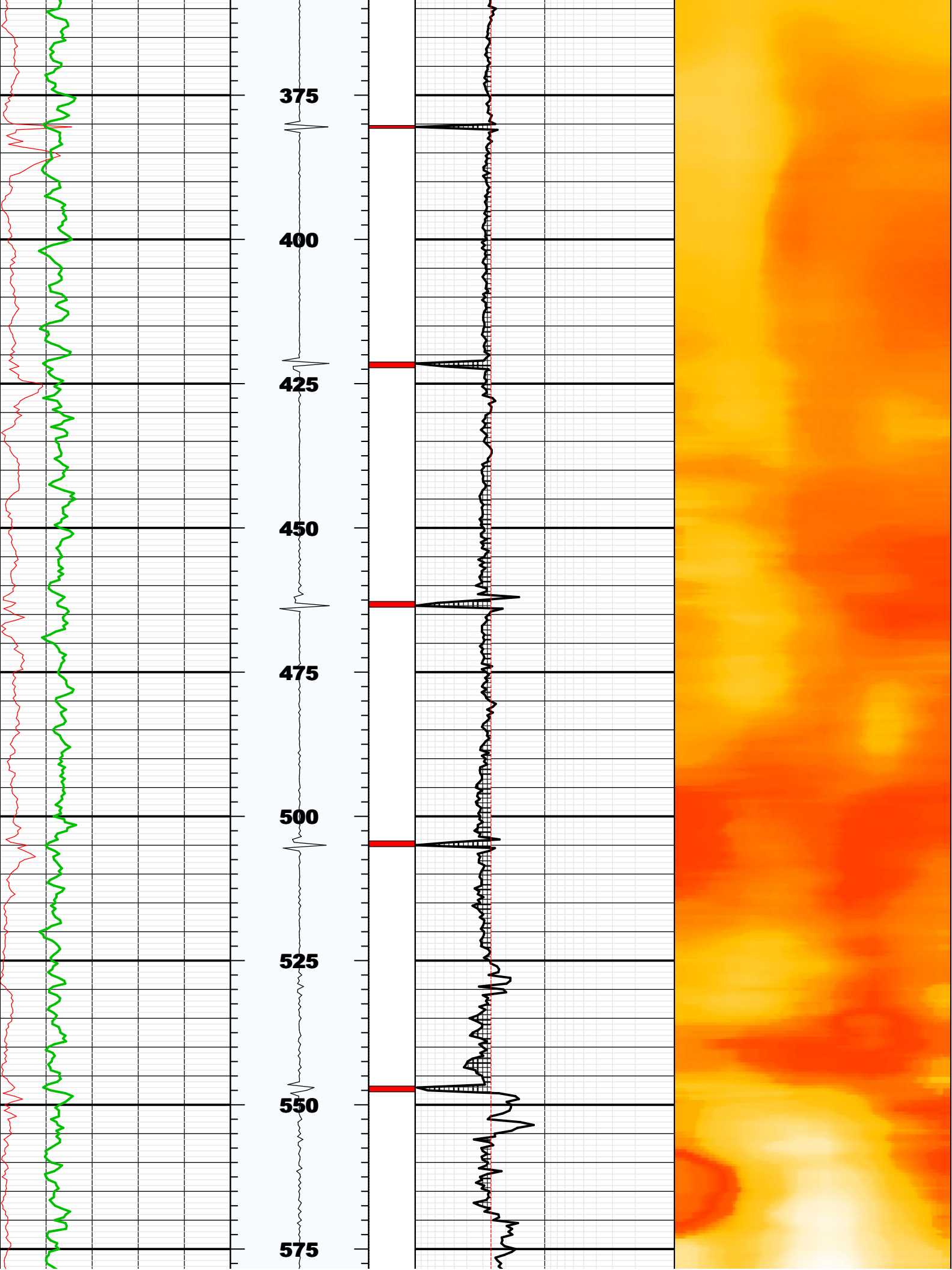
This is the first run in hole
Toolstring run as per tool sketch
12.5 ppg lead cement
13.8 ppg tail cement
0 PSI repeat pass. 4000 PSI main pass.
Plug set 40 feet above liner top. Liner top at 7292.2'.
Bottom log interval at 7232' to maintain distance from plug.
Bottom log temperature 258 degF
Top of cement 345'
Crew Jay Musgrave Jake Jump

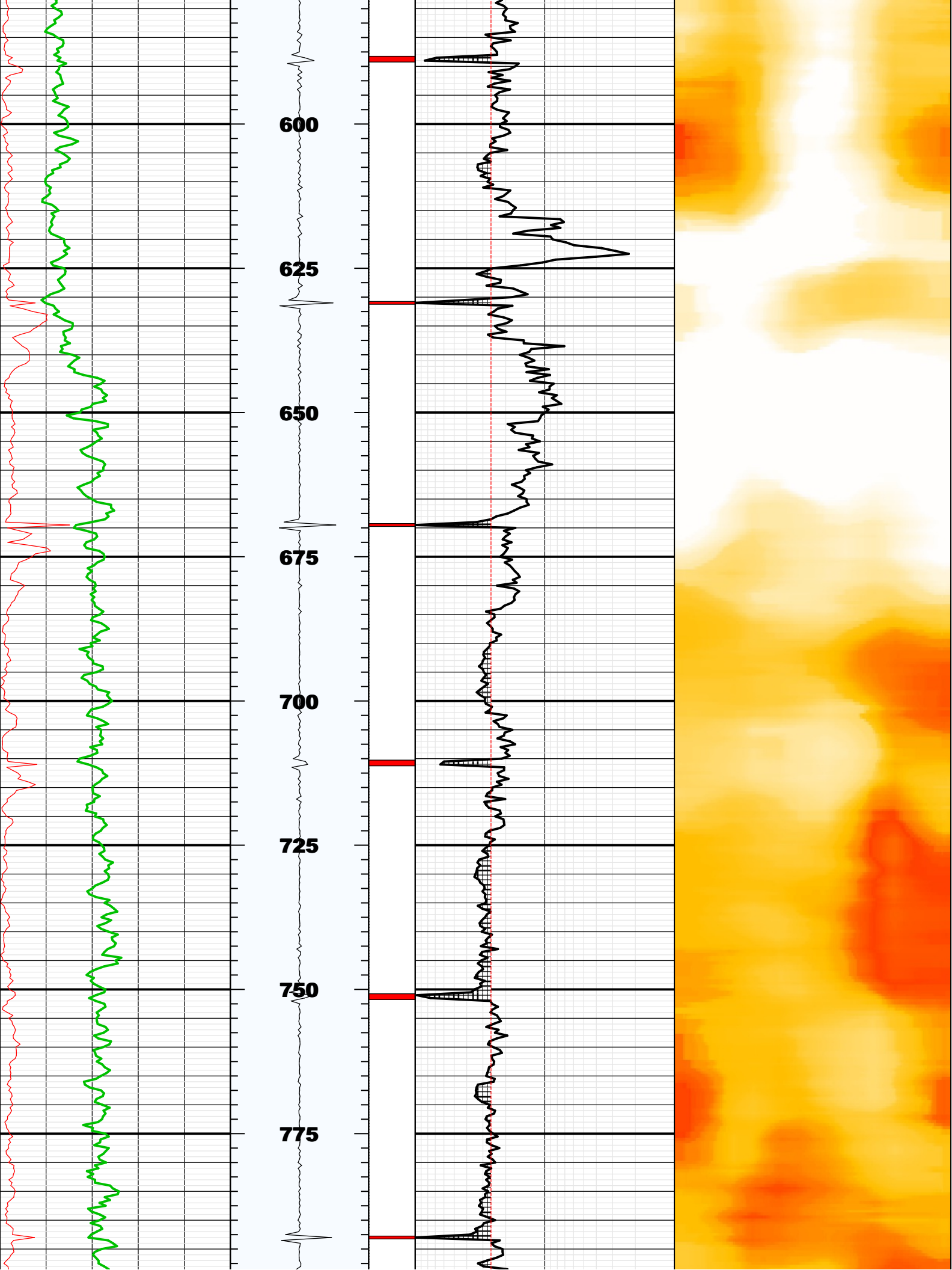
Main Pass

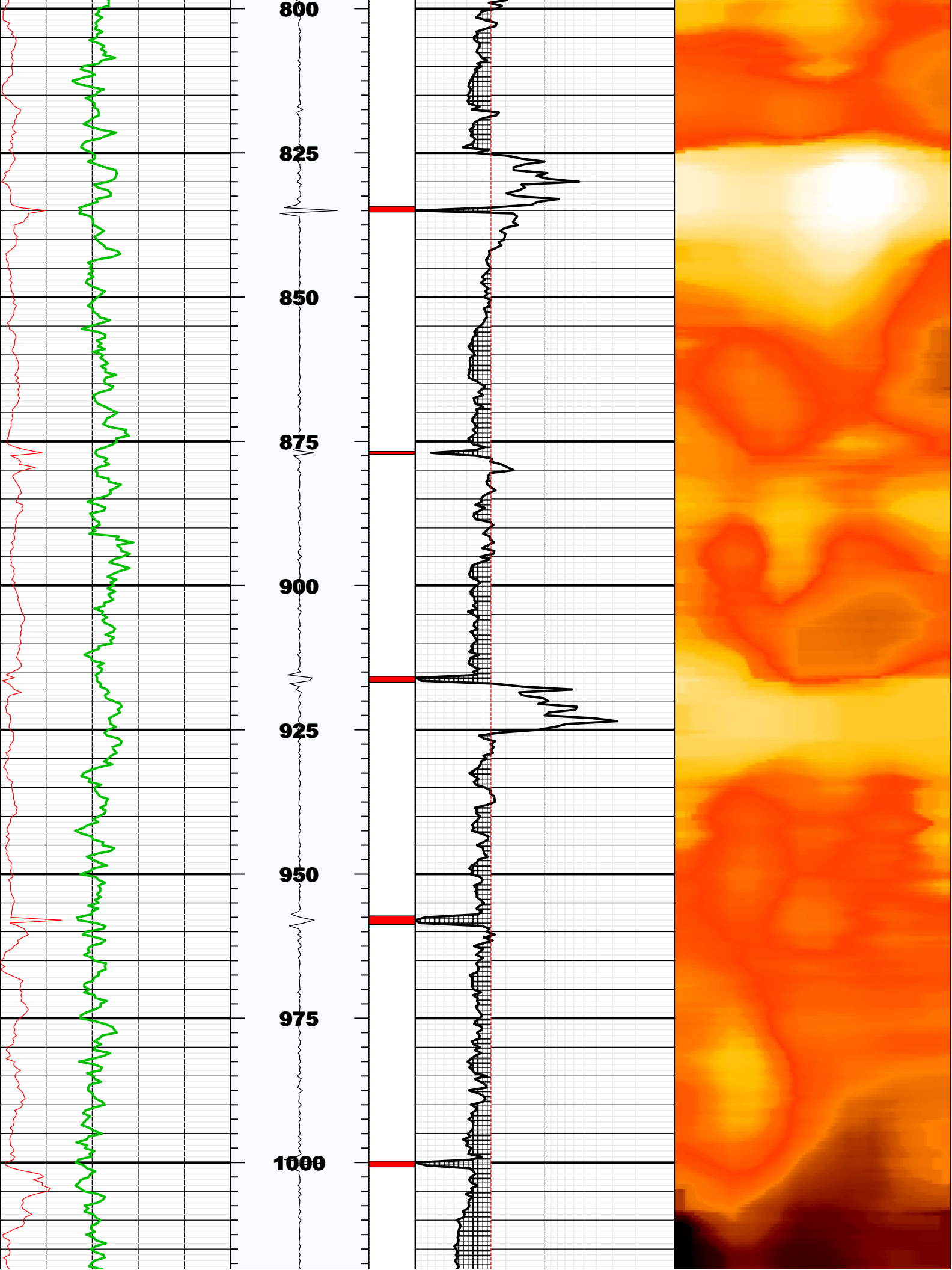
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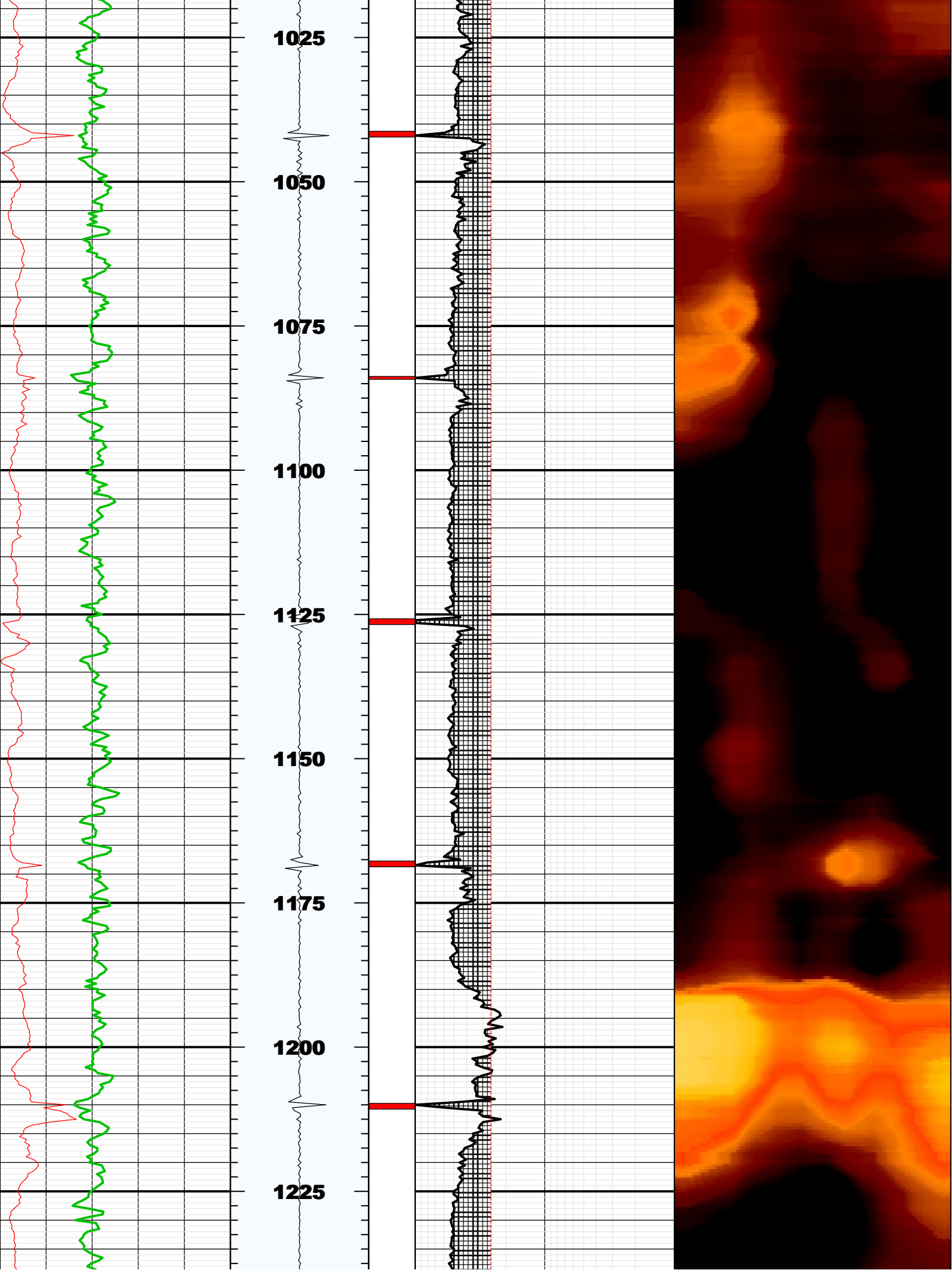


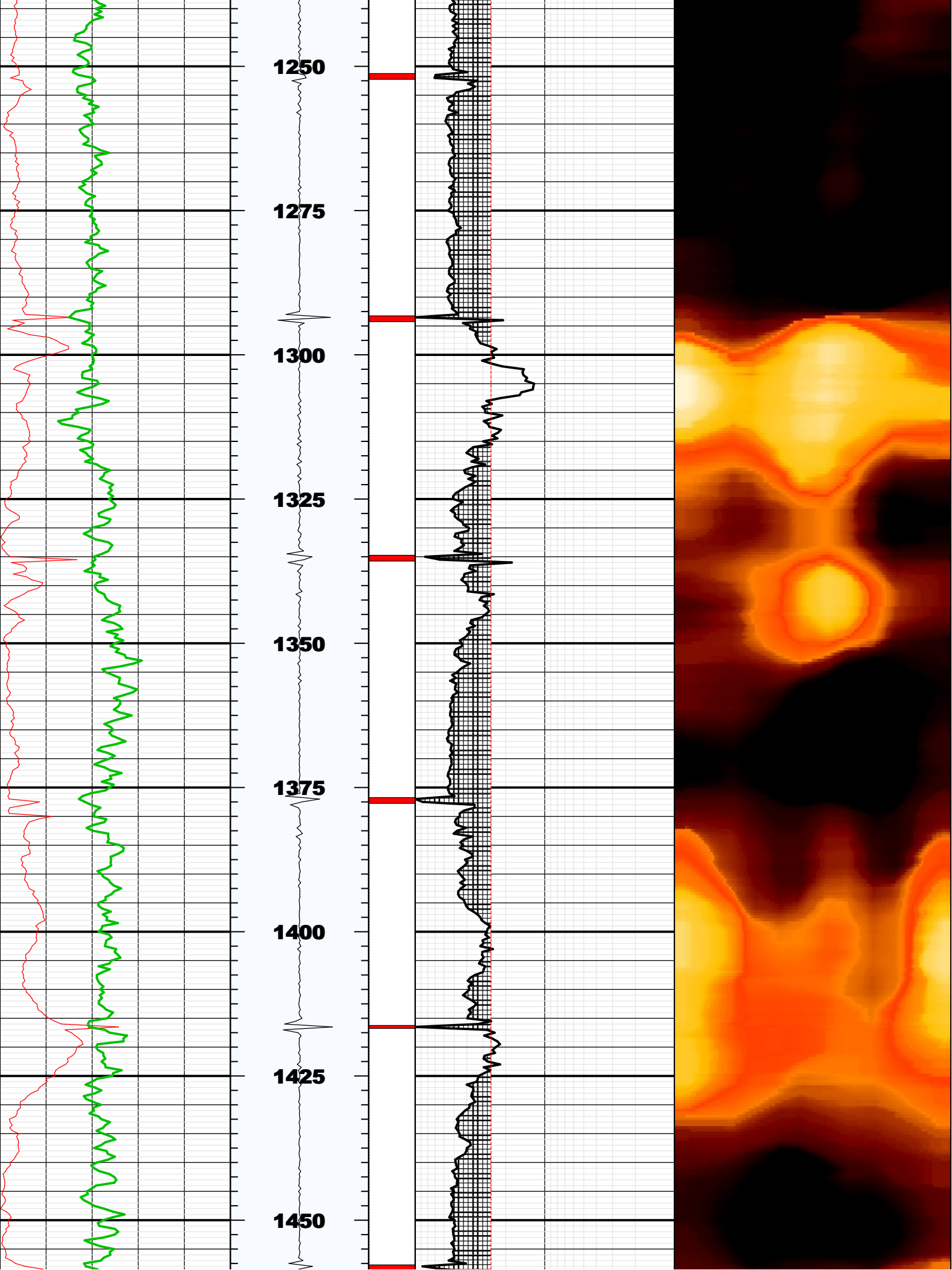


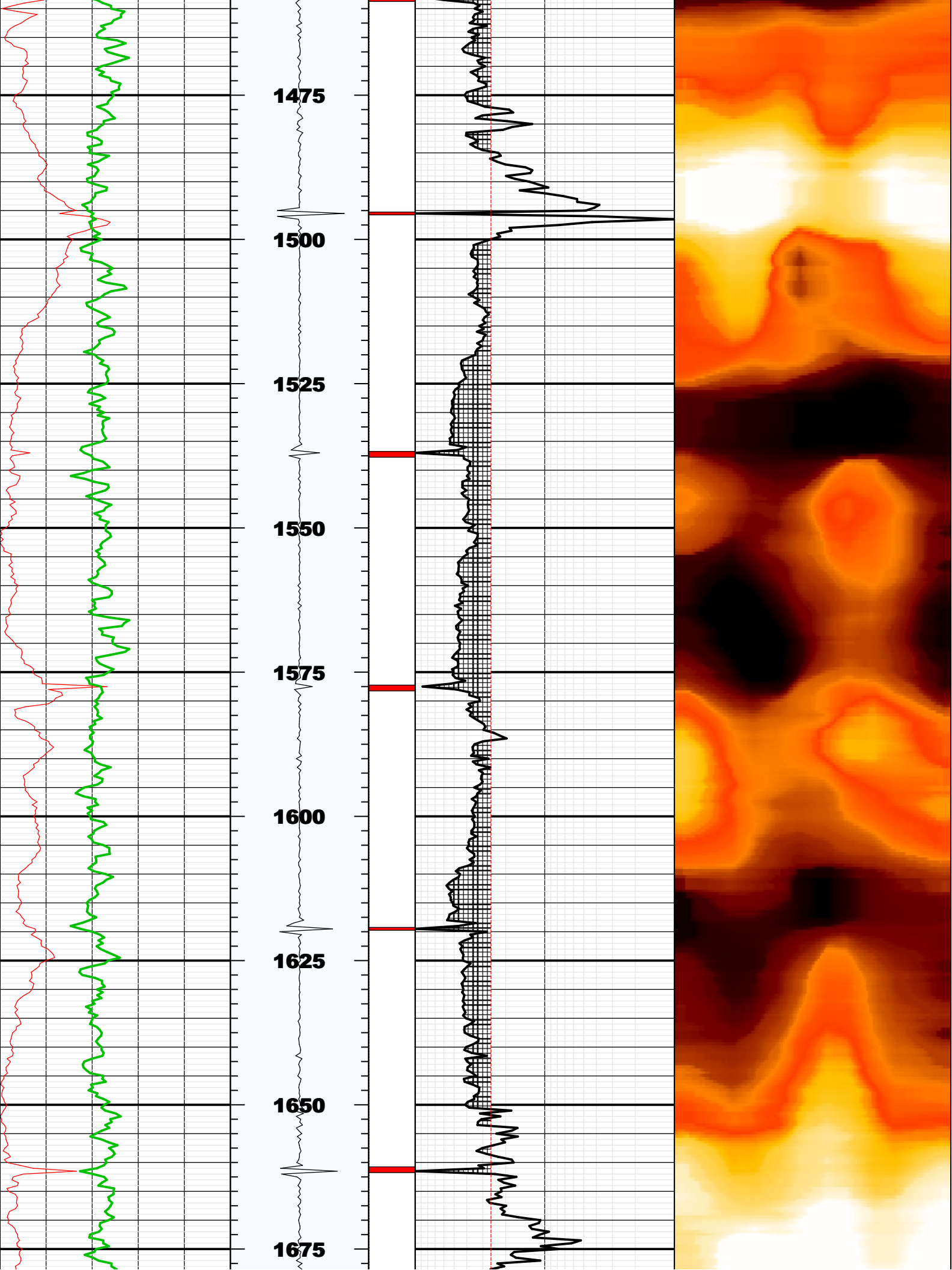


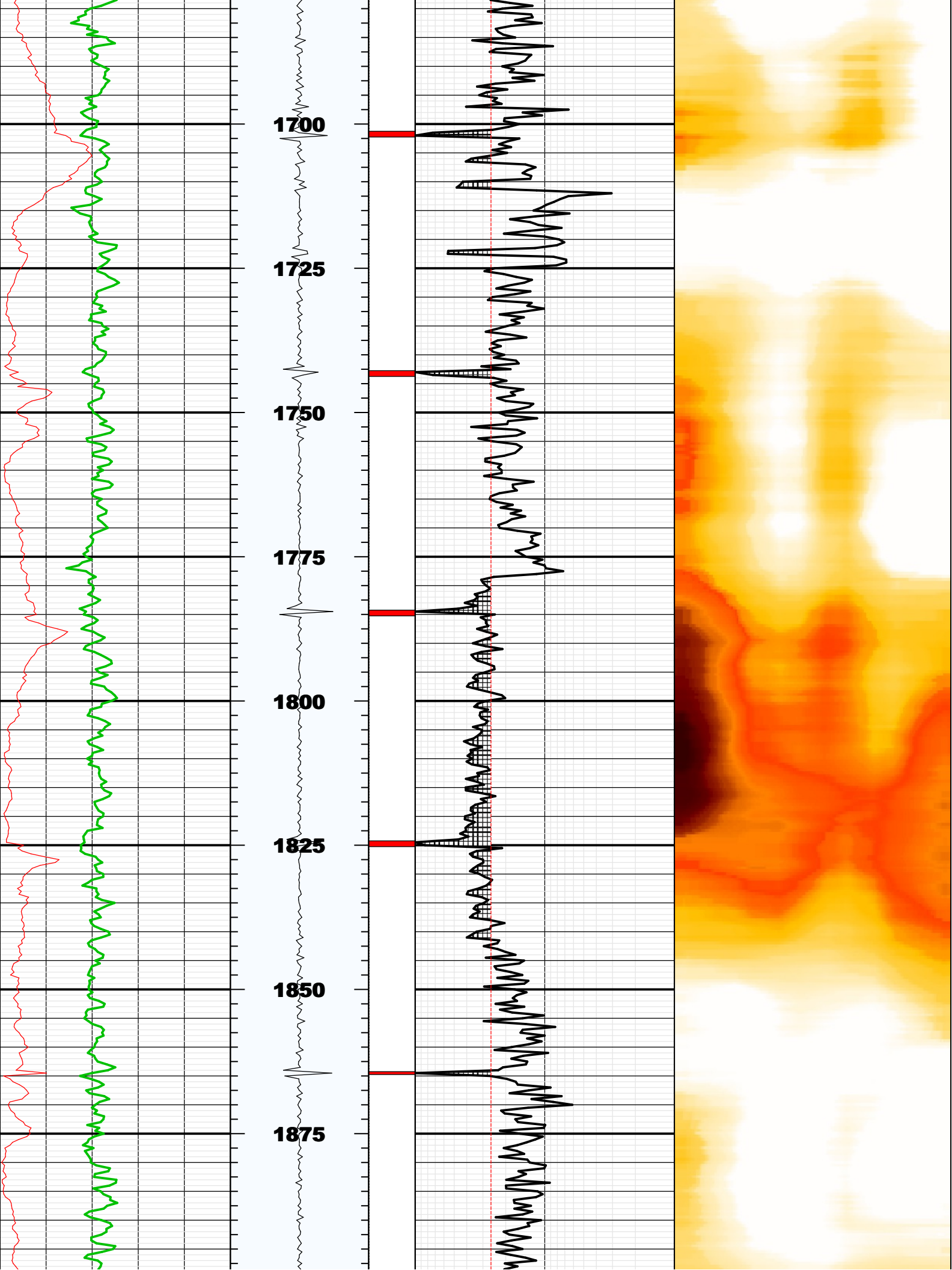


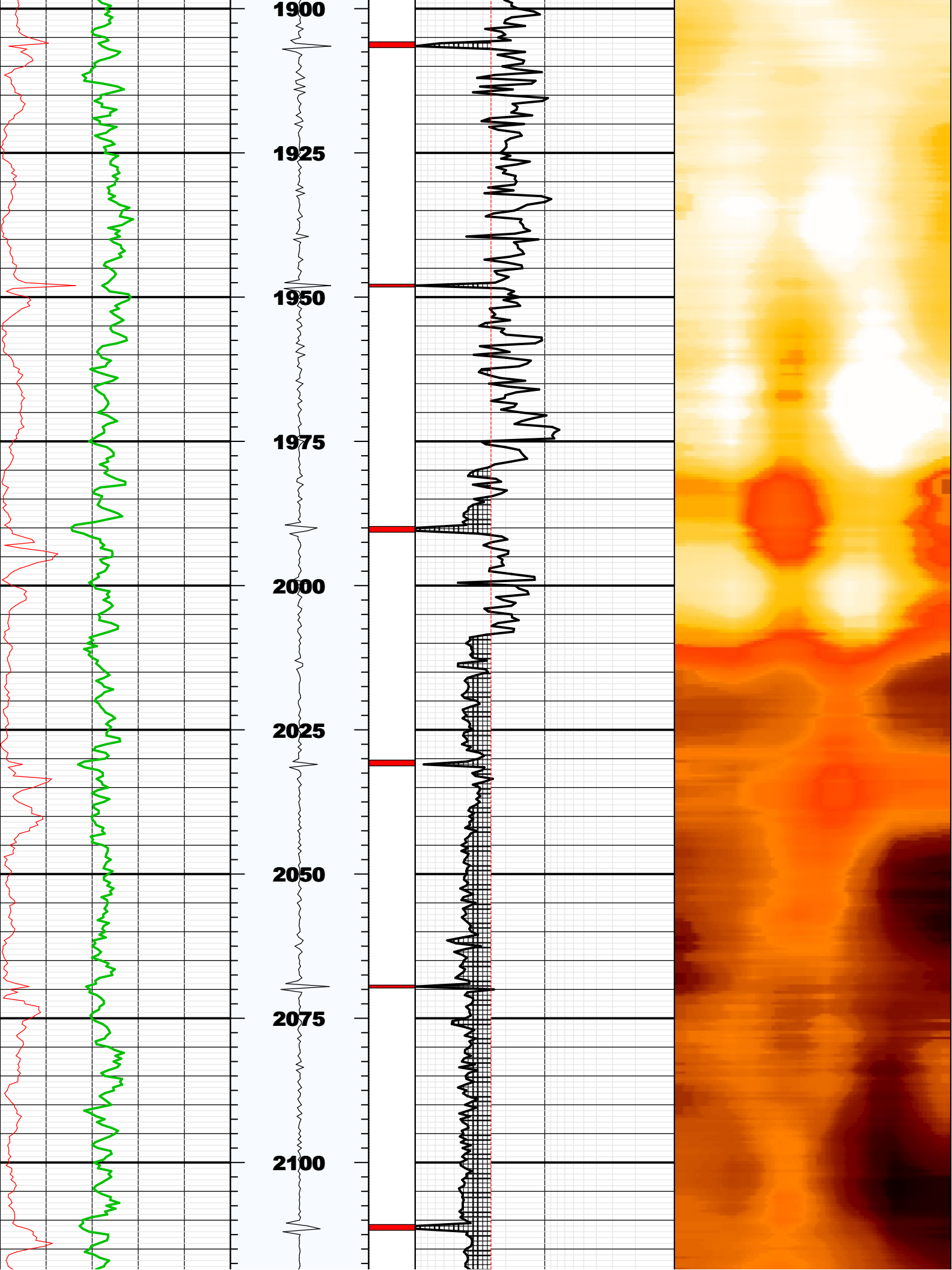


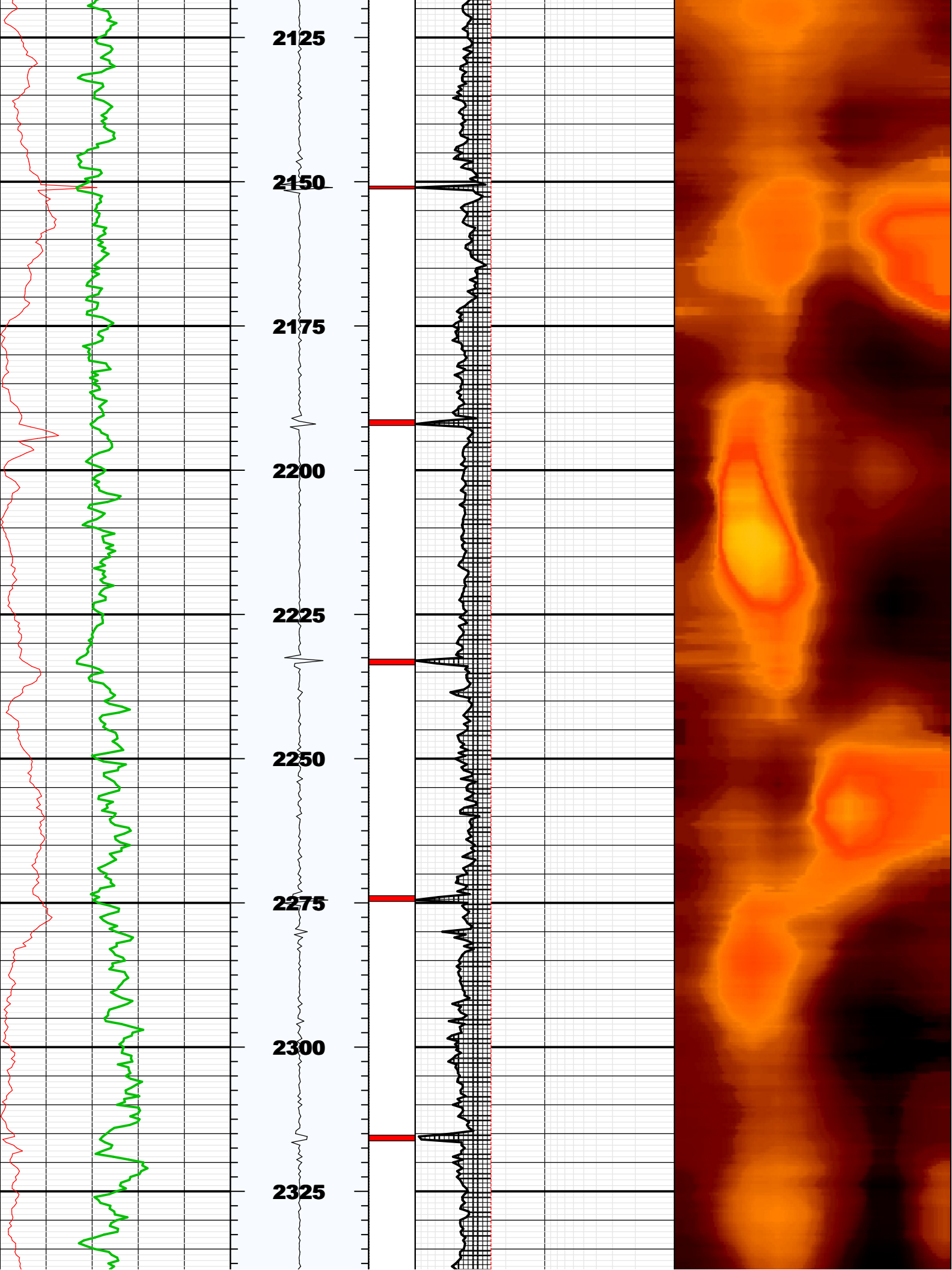


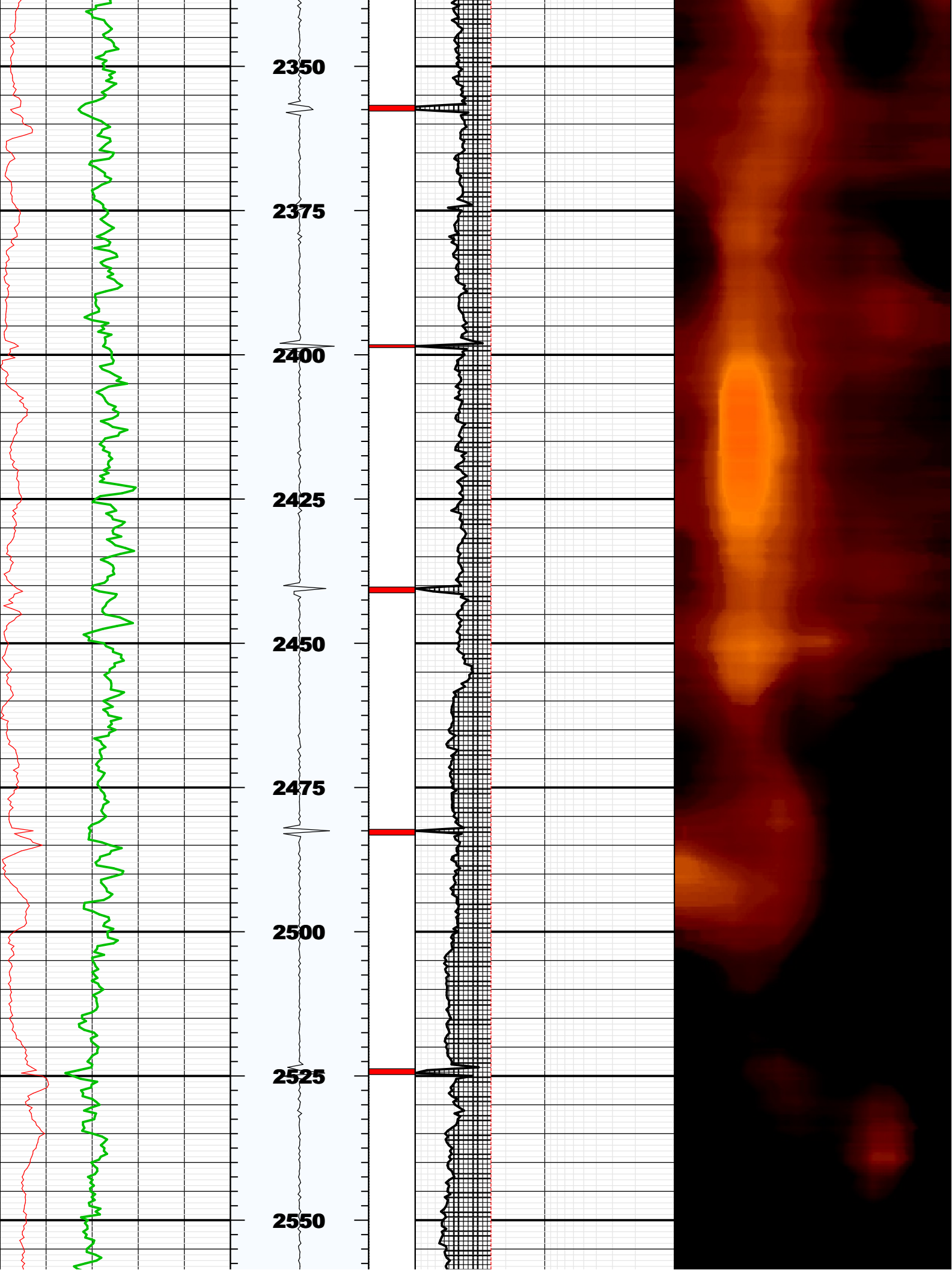


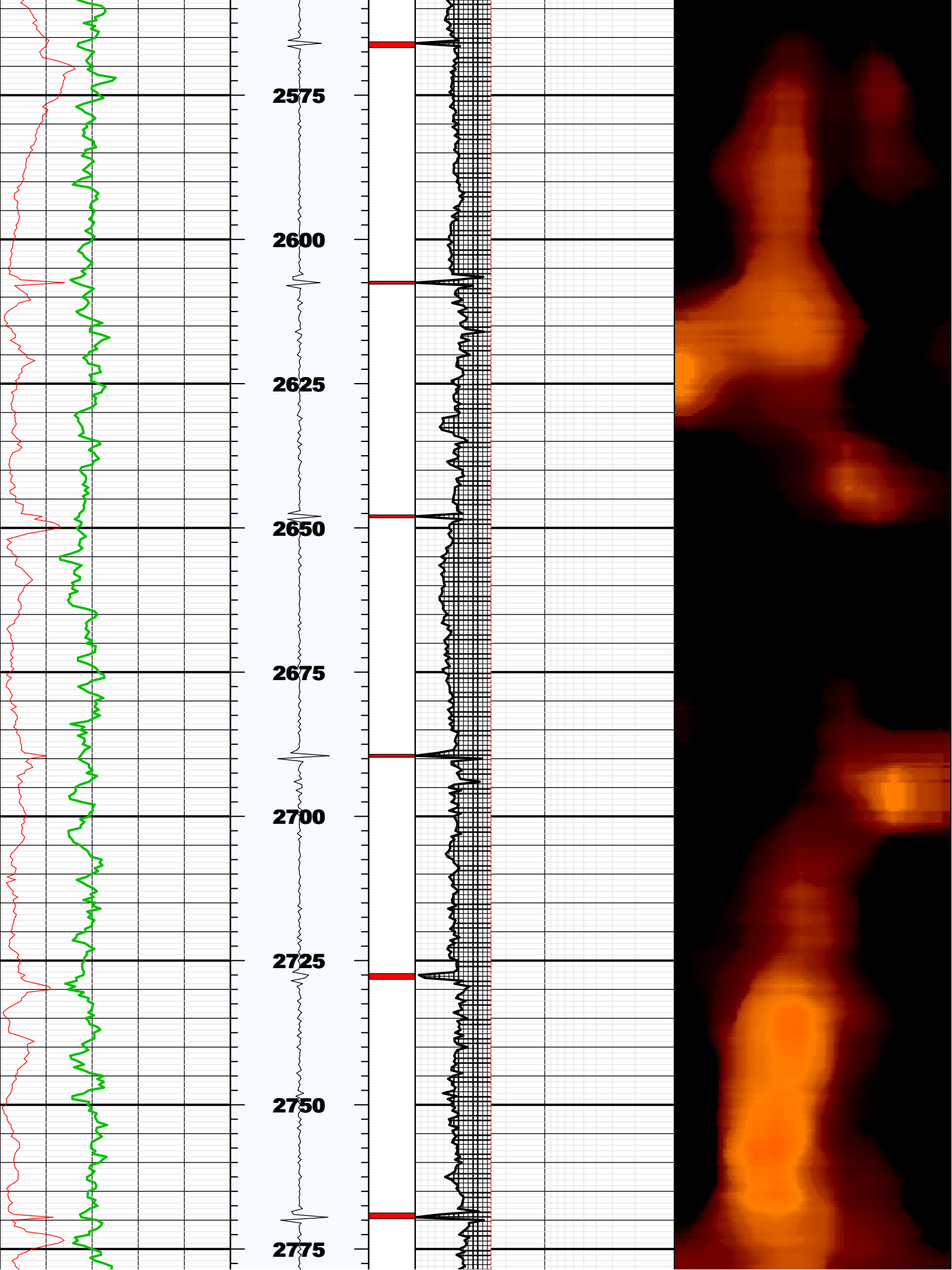


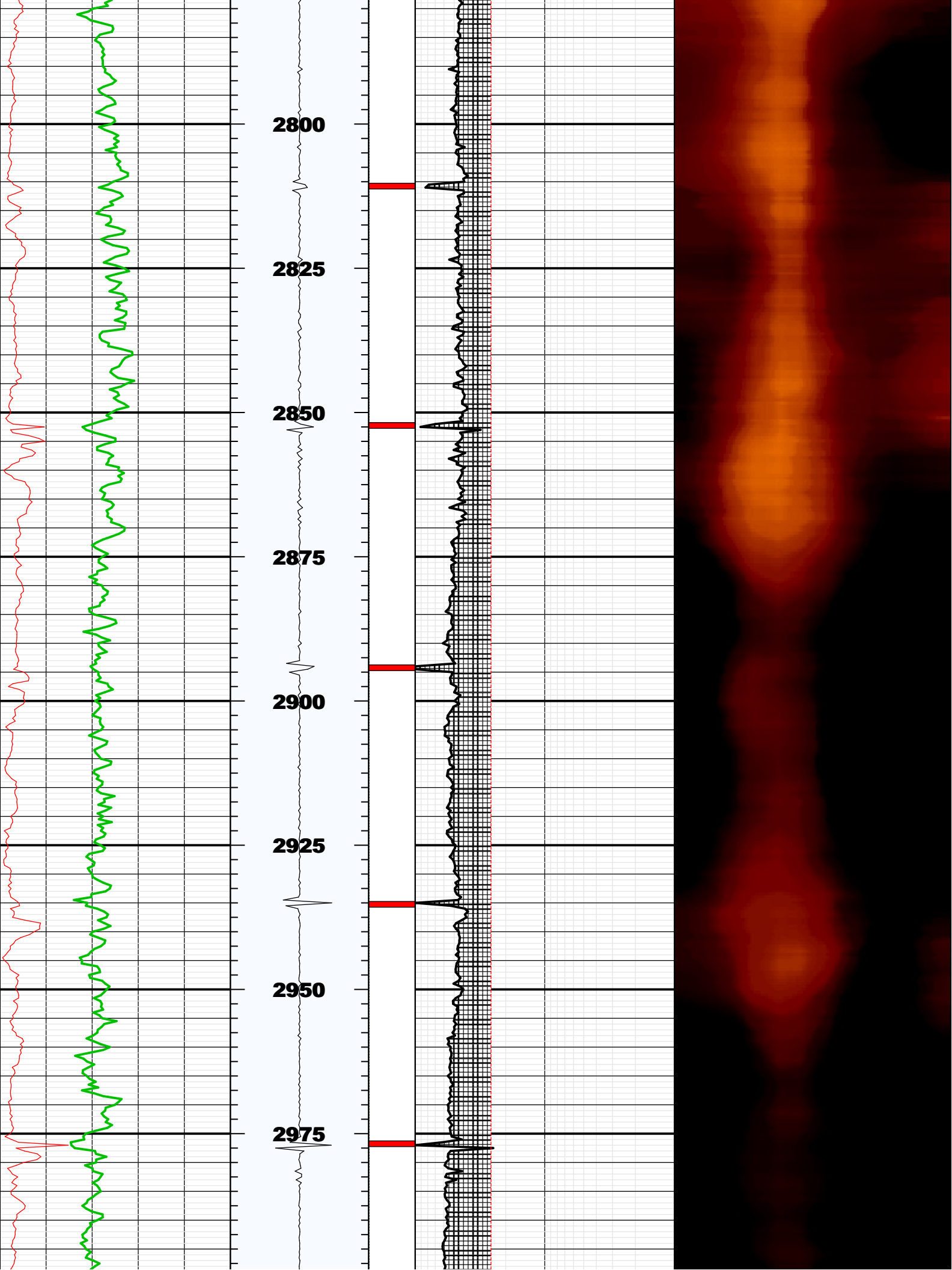


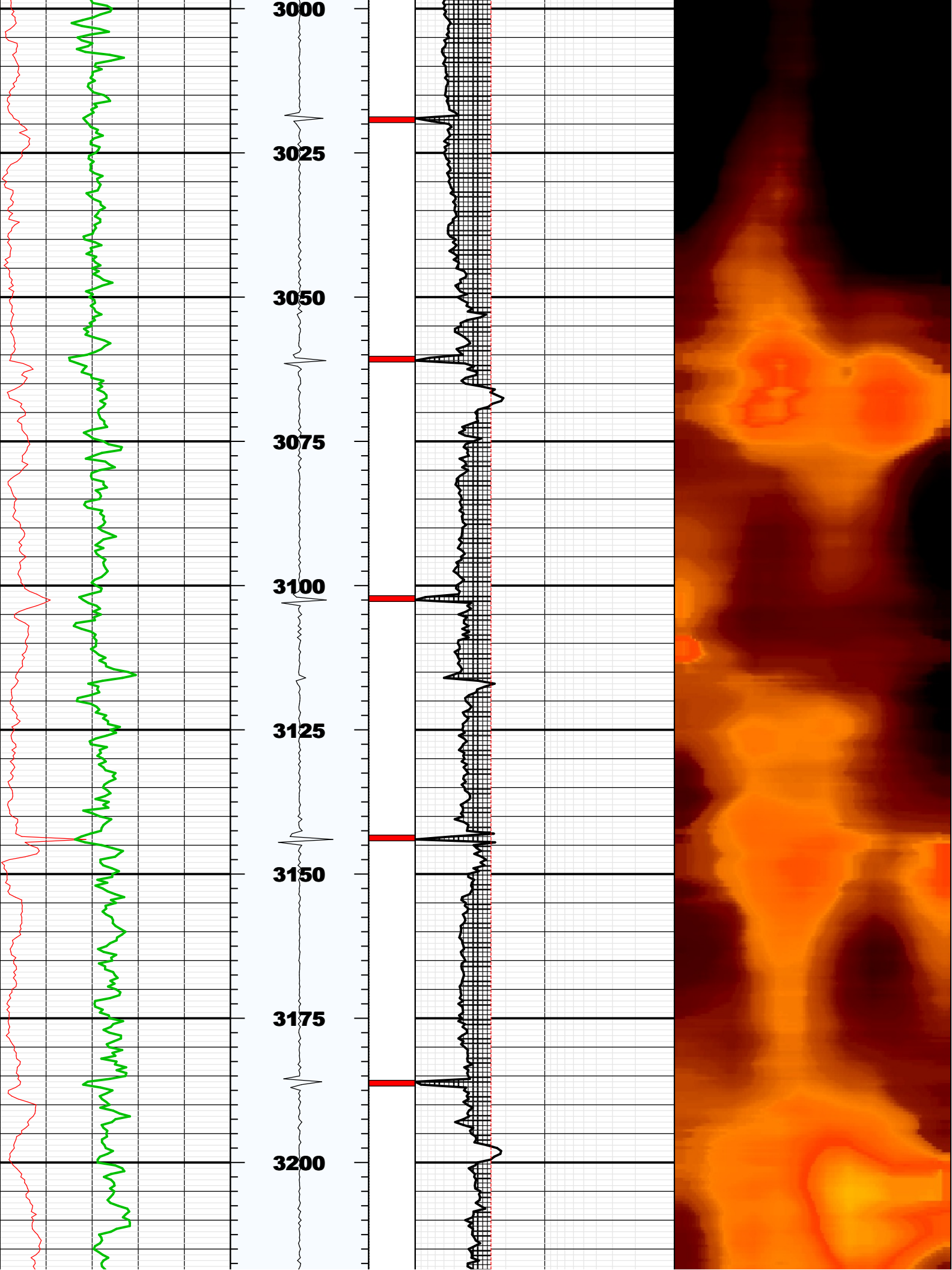


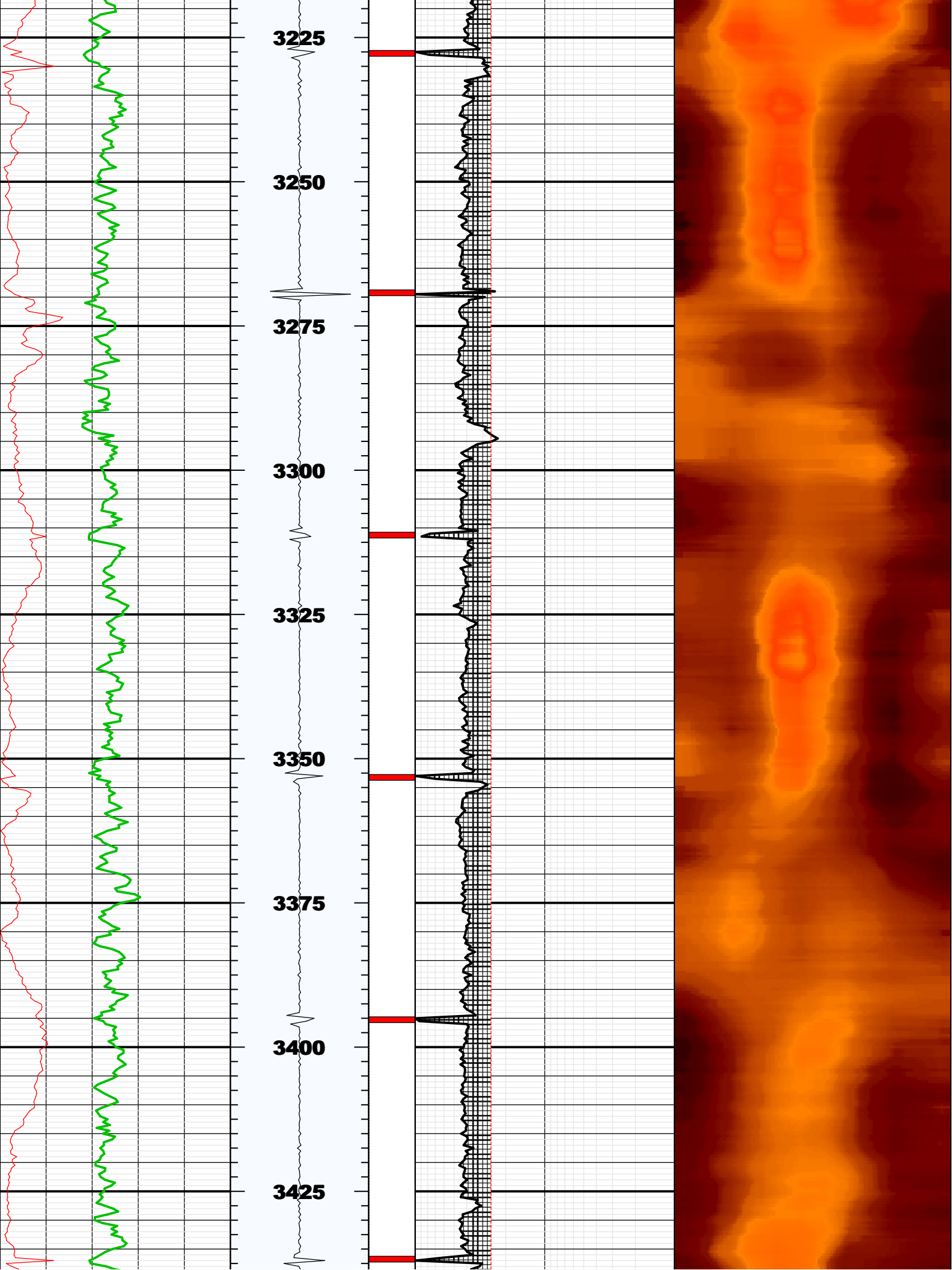


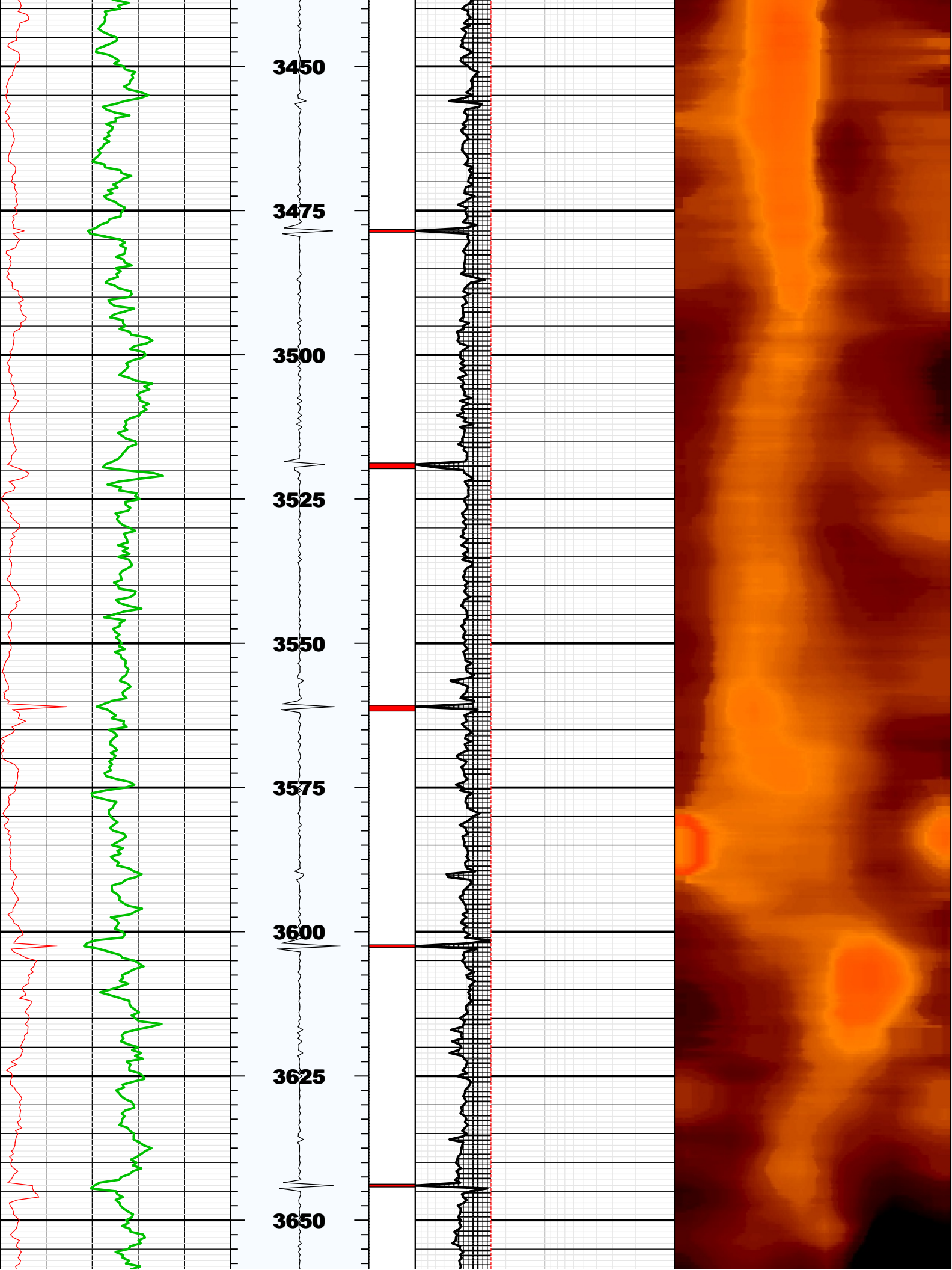


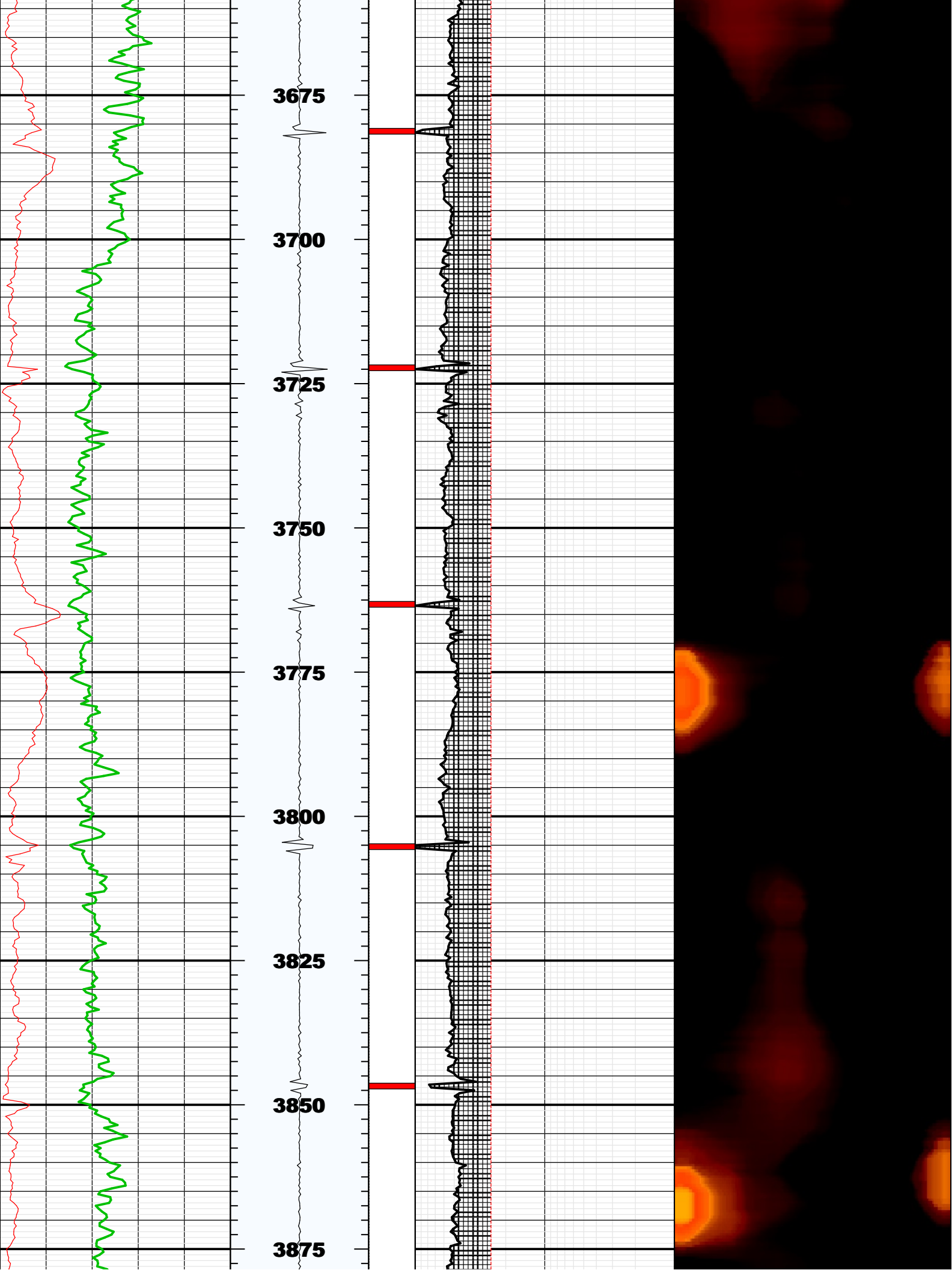


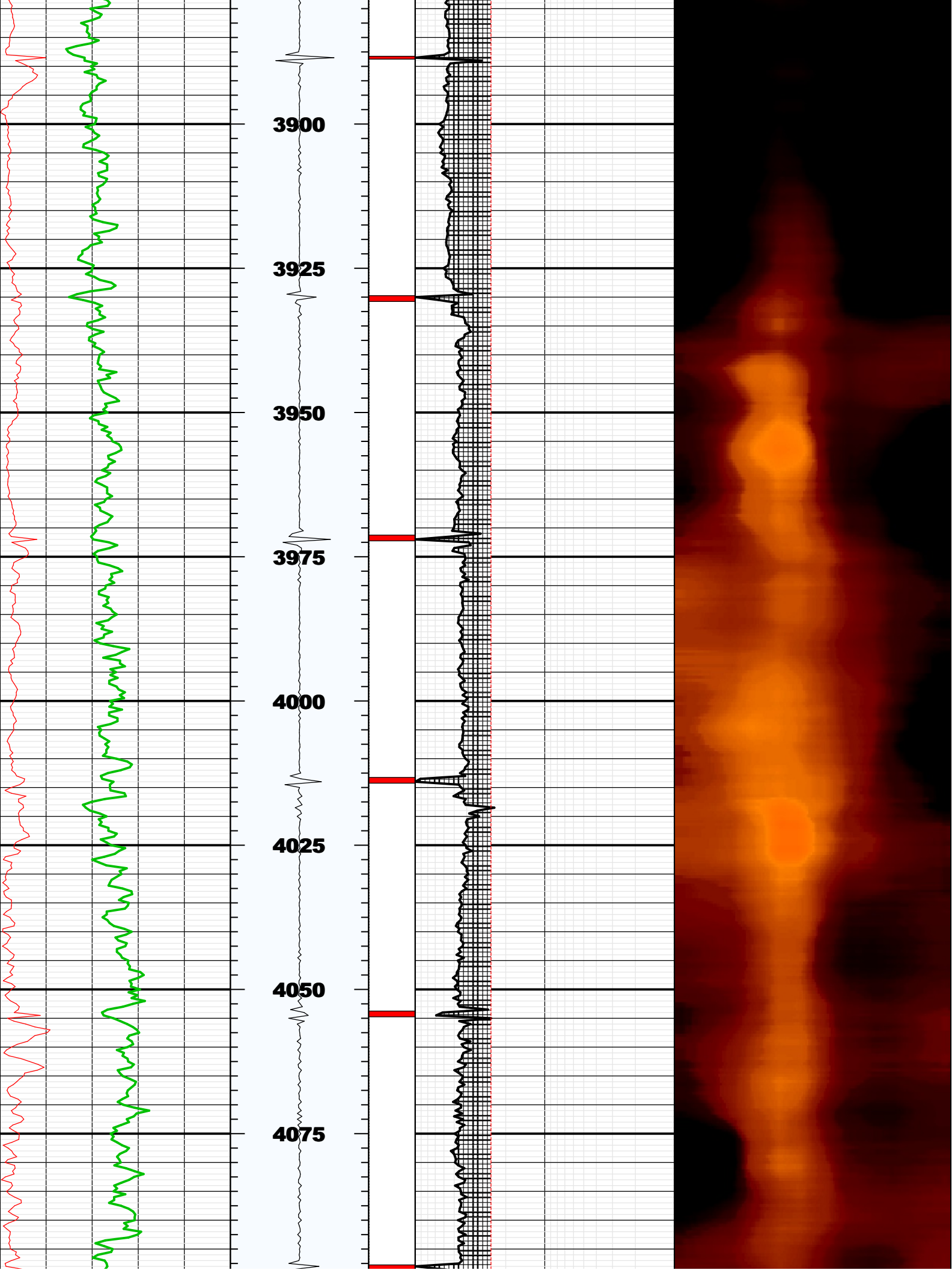


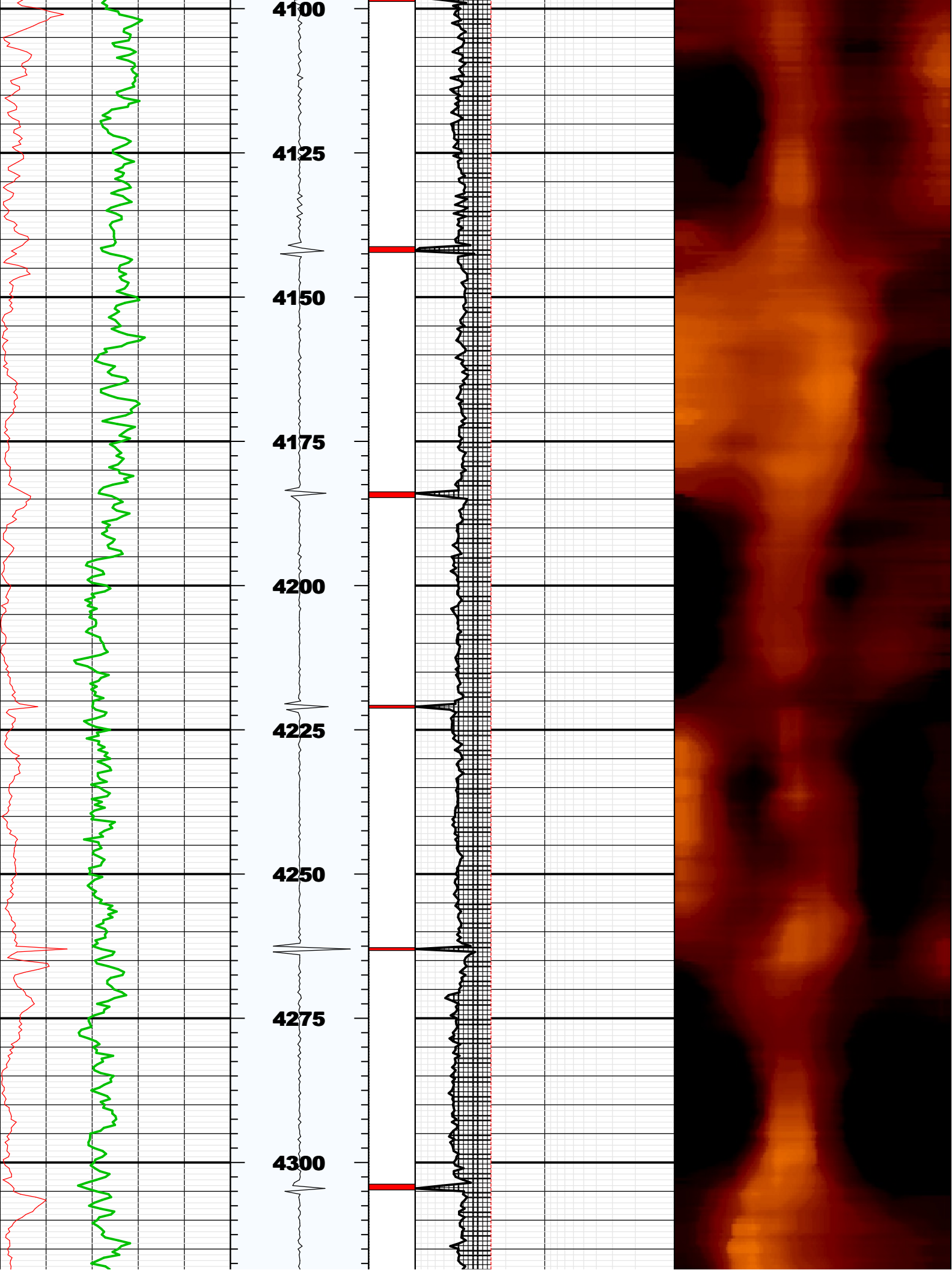


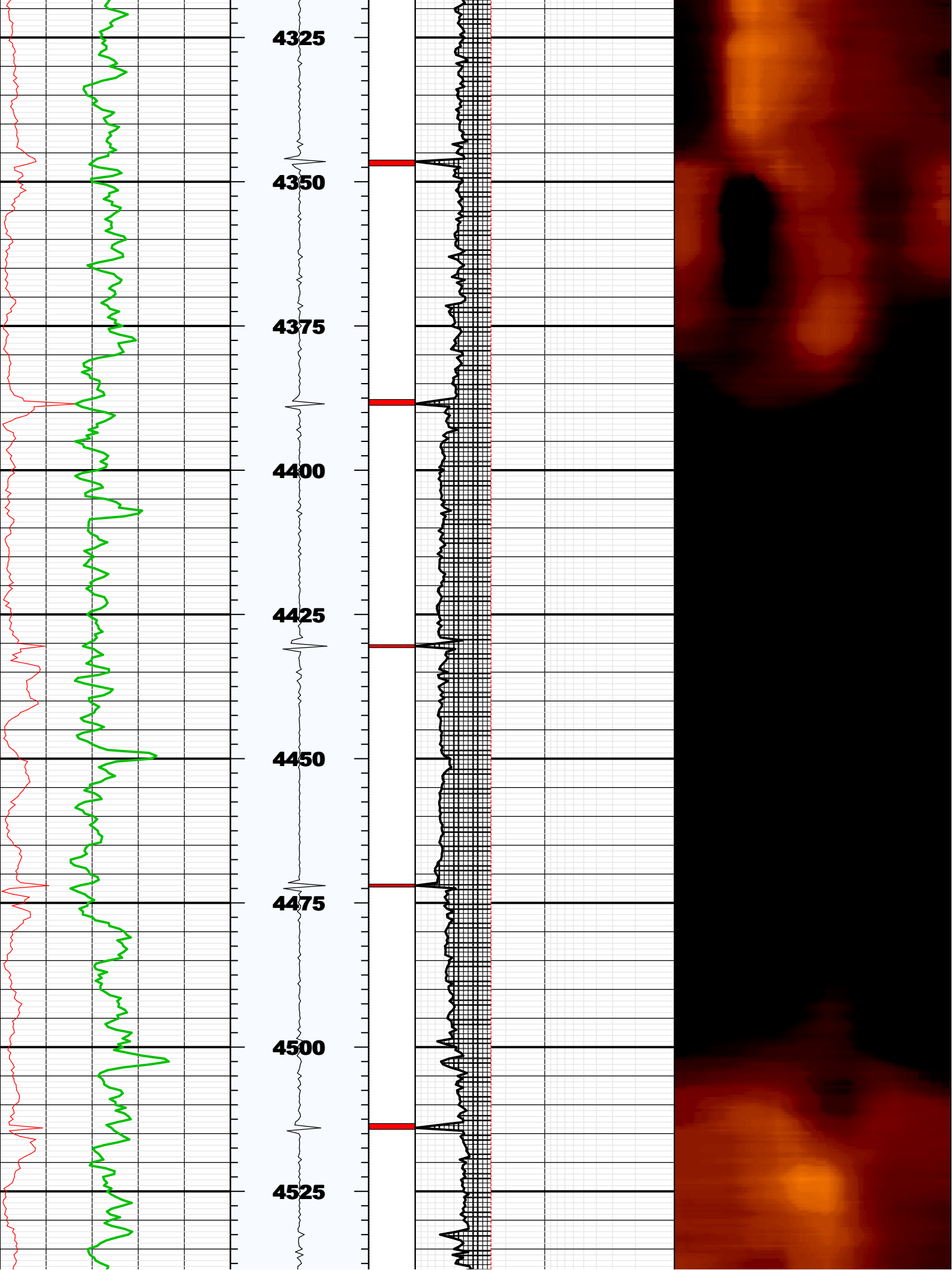


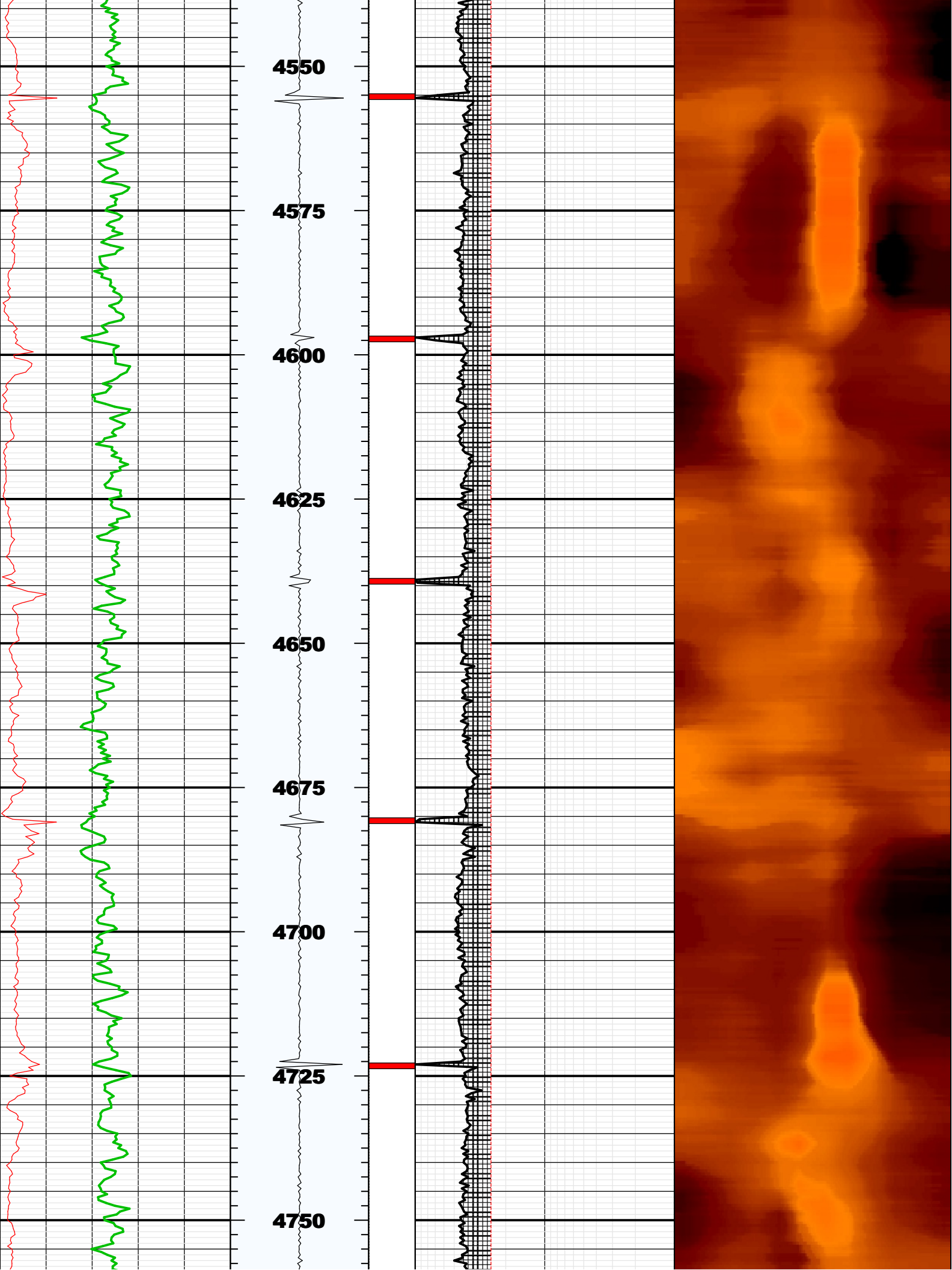


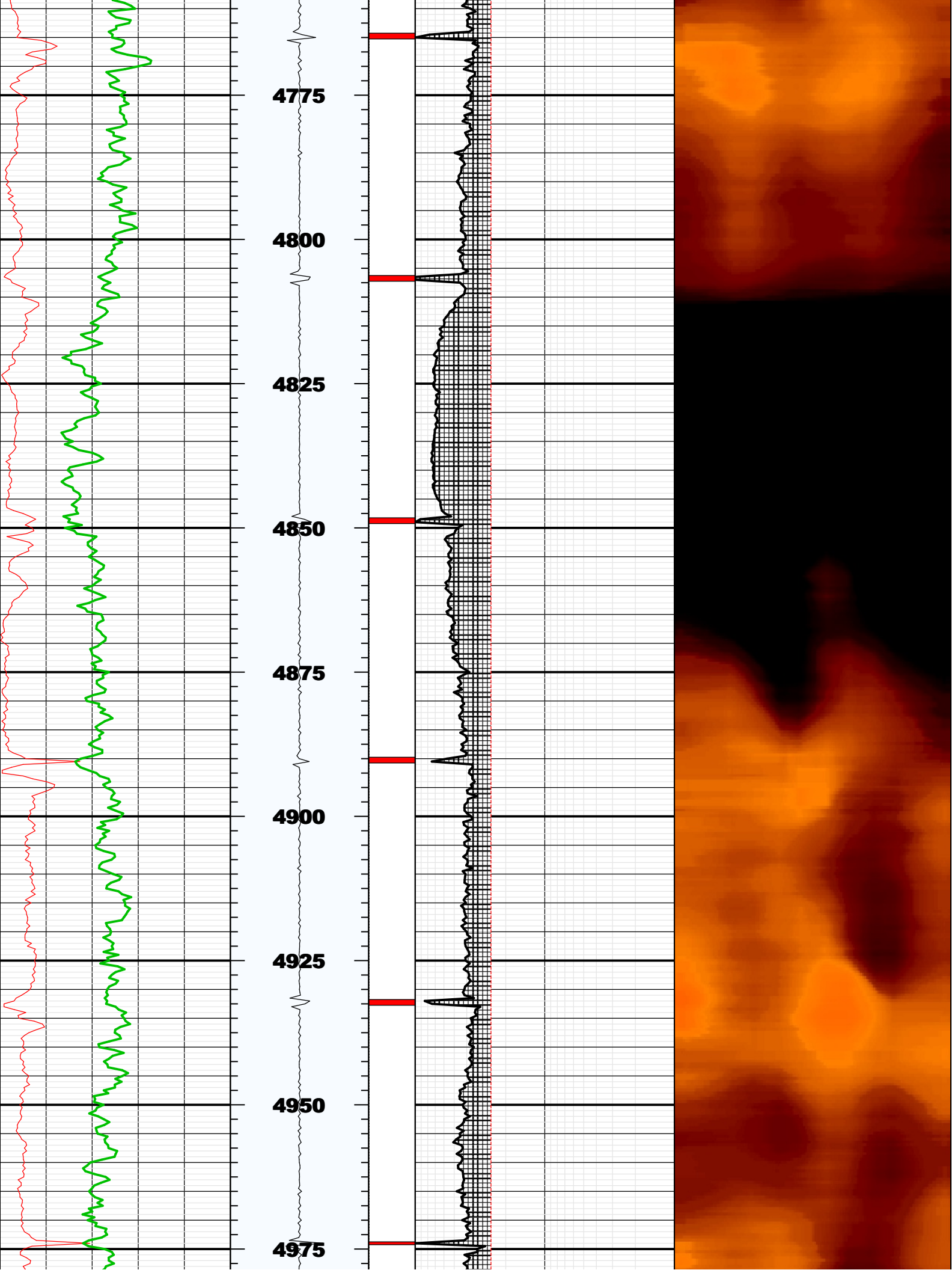


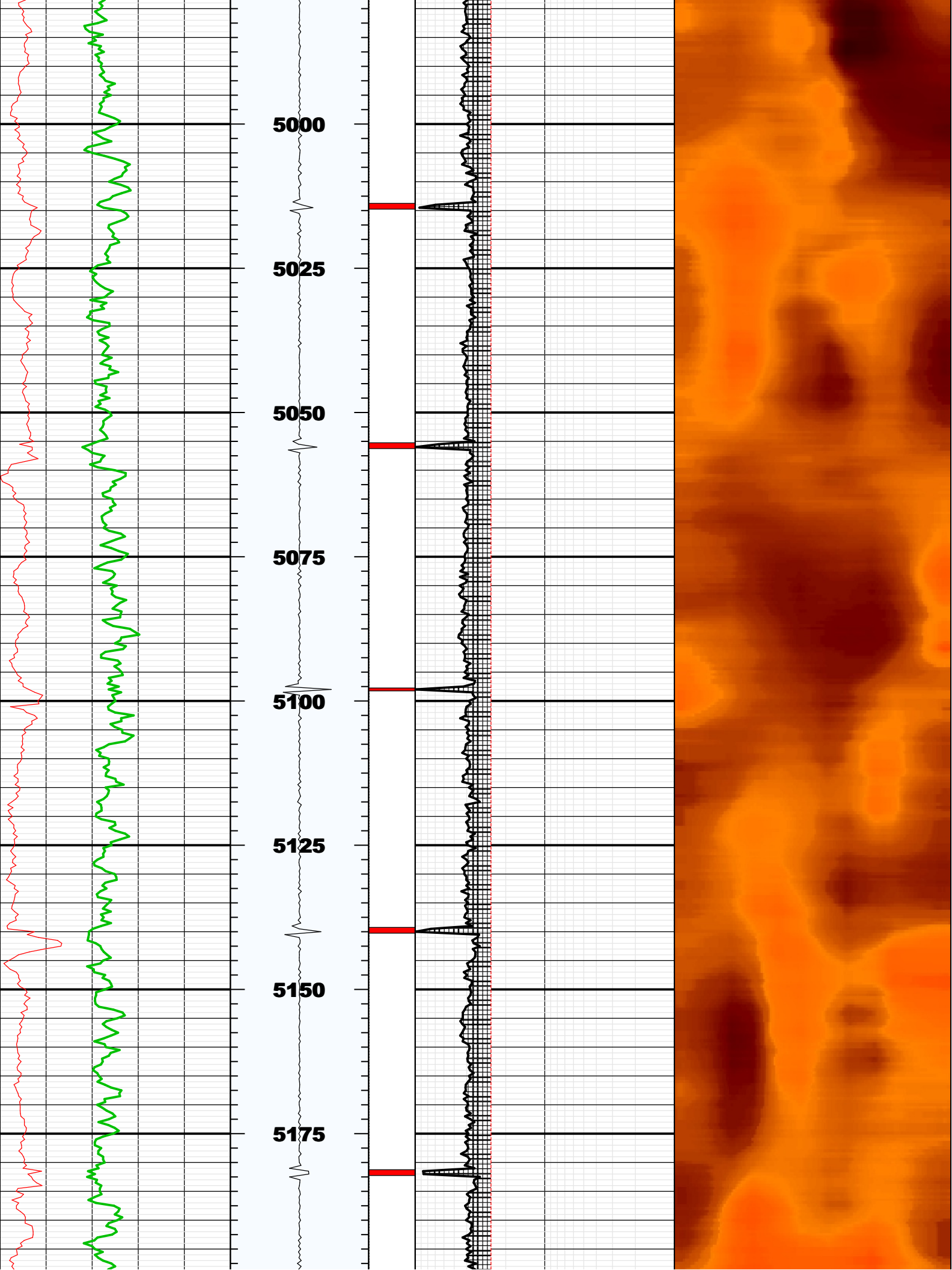


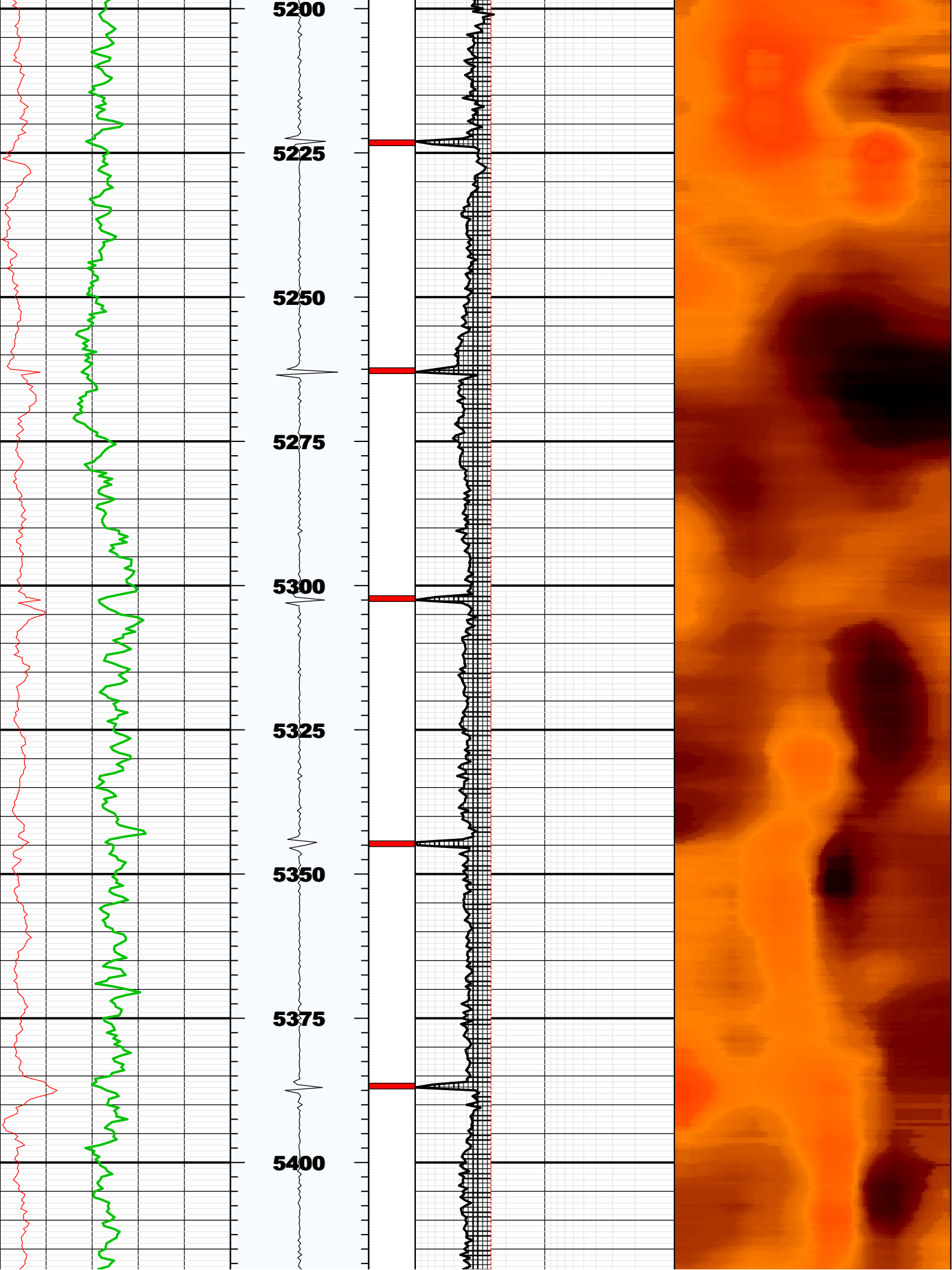


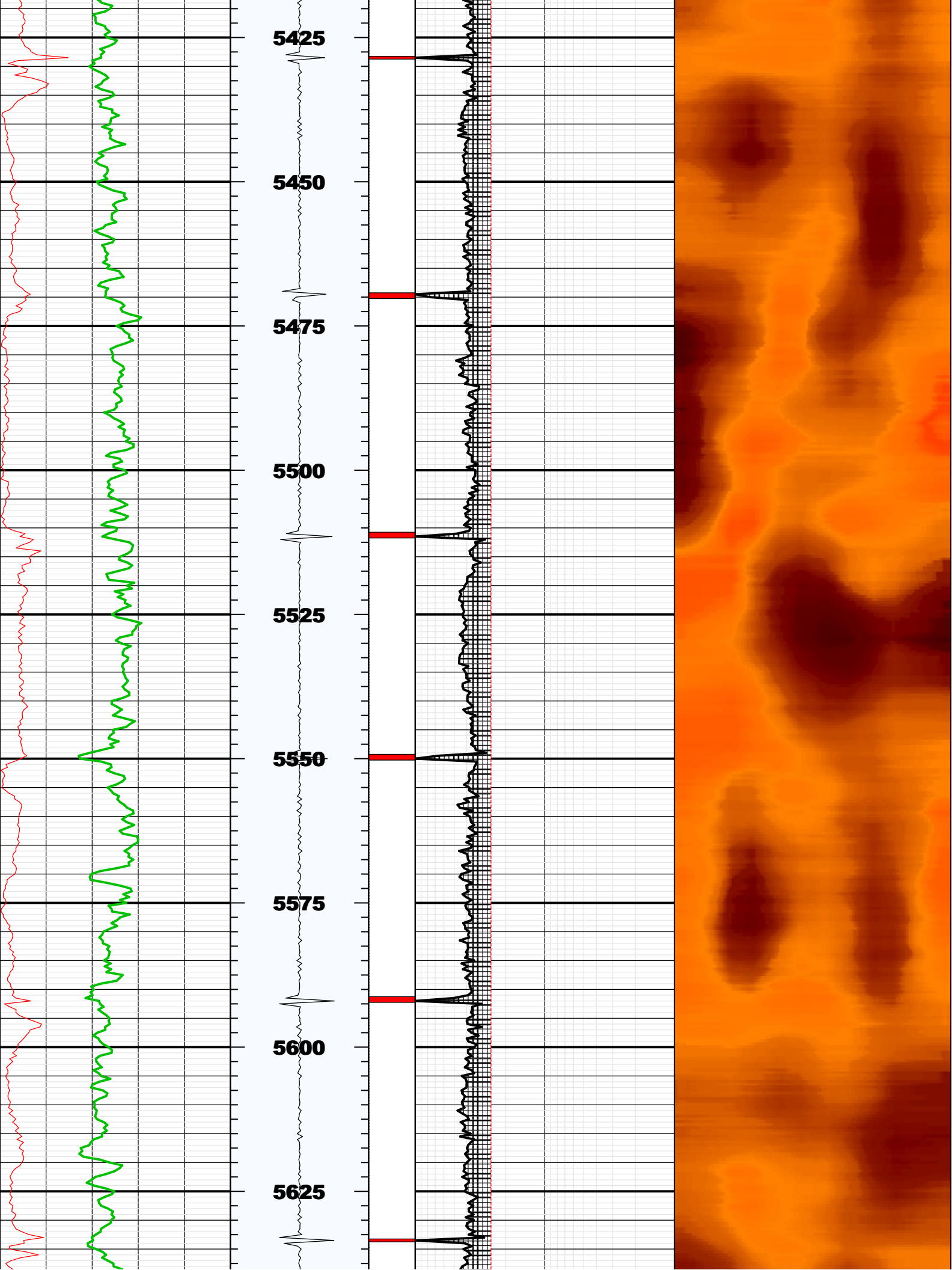


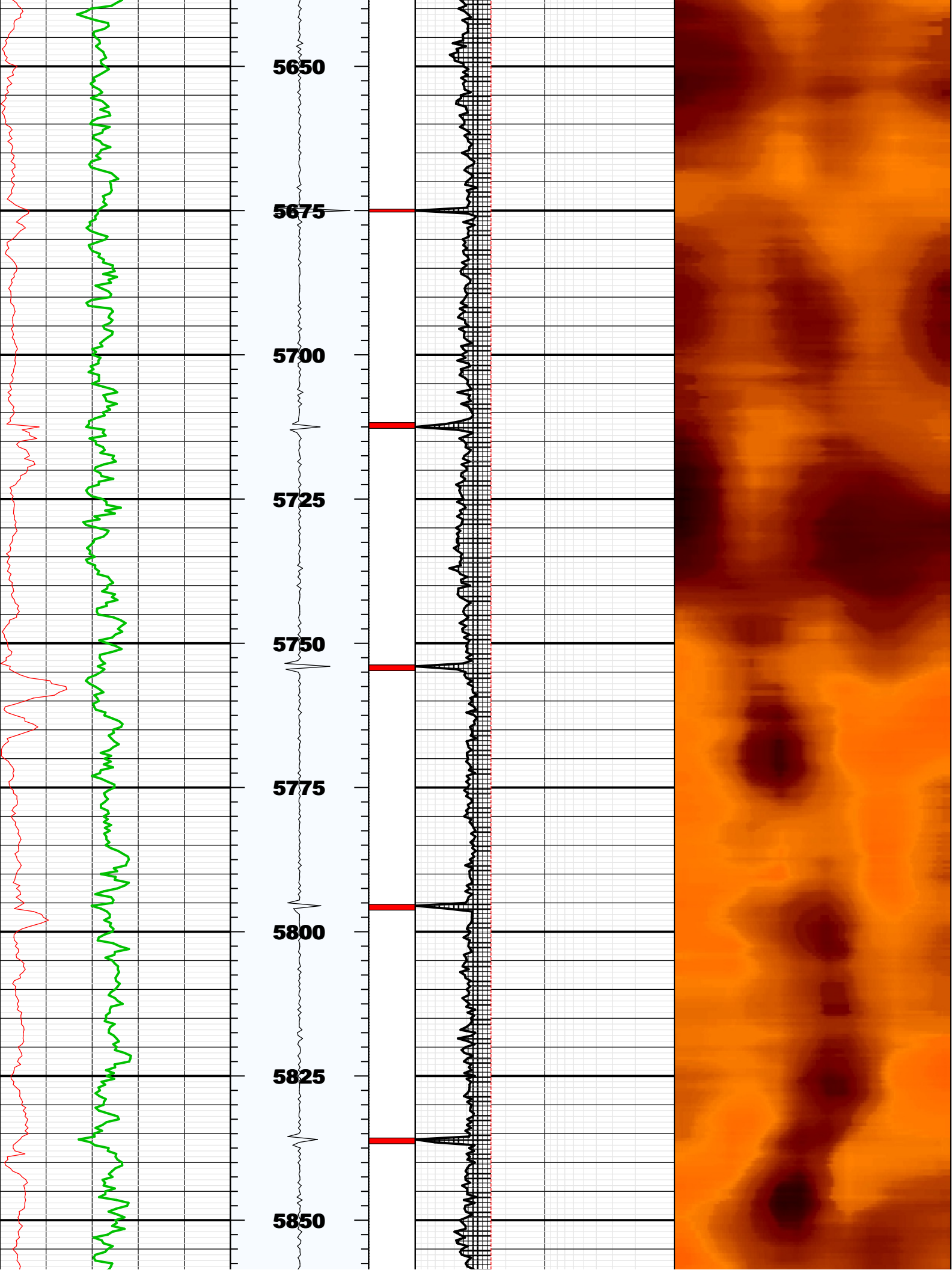


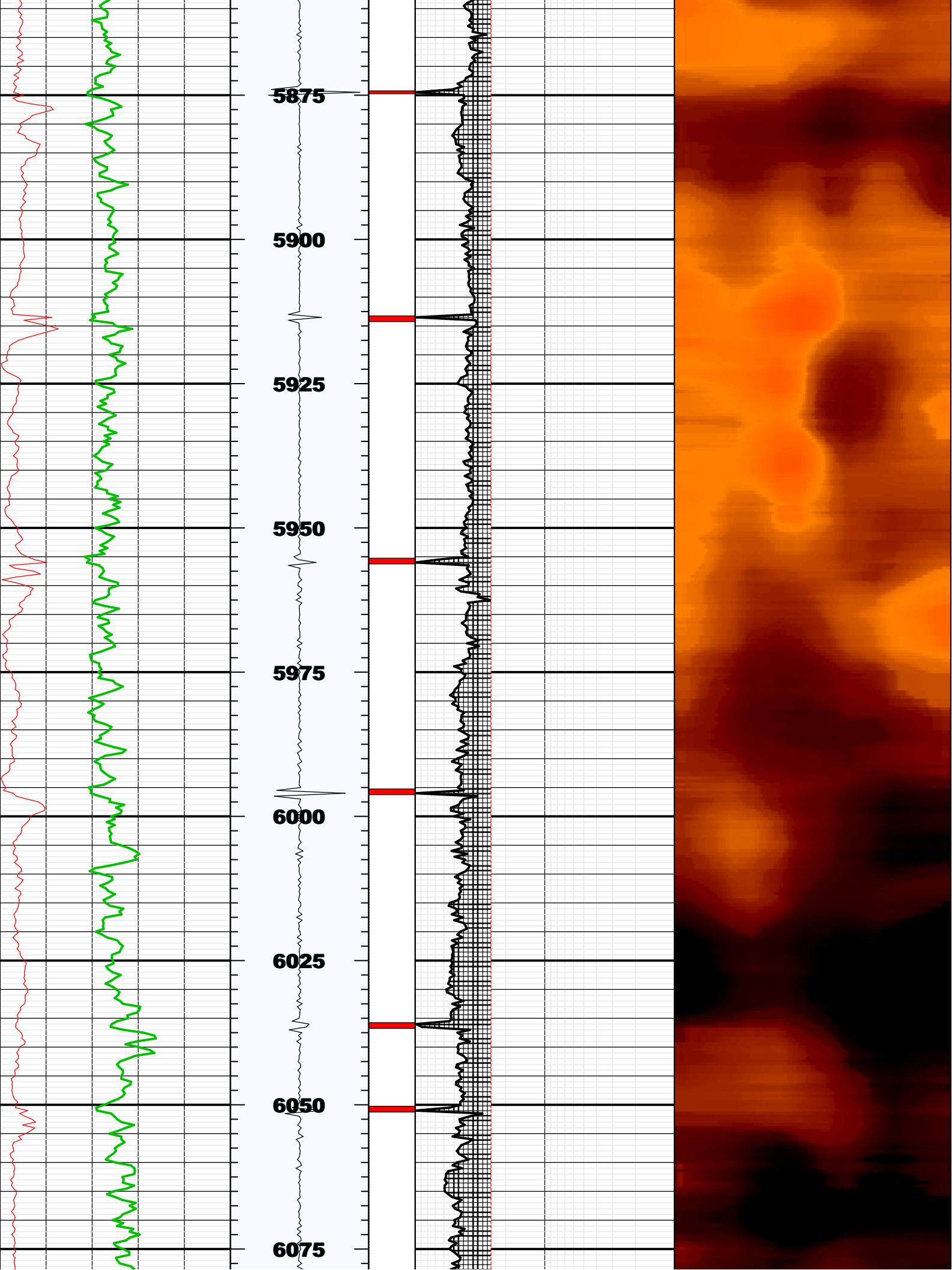


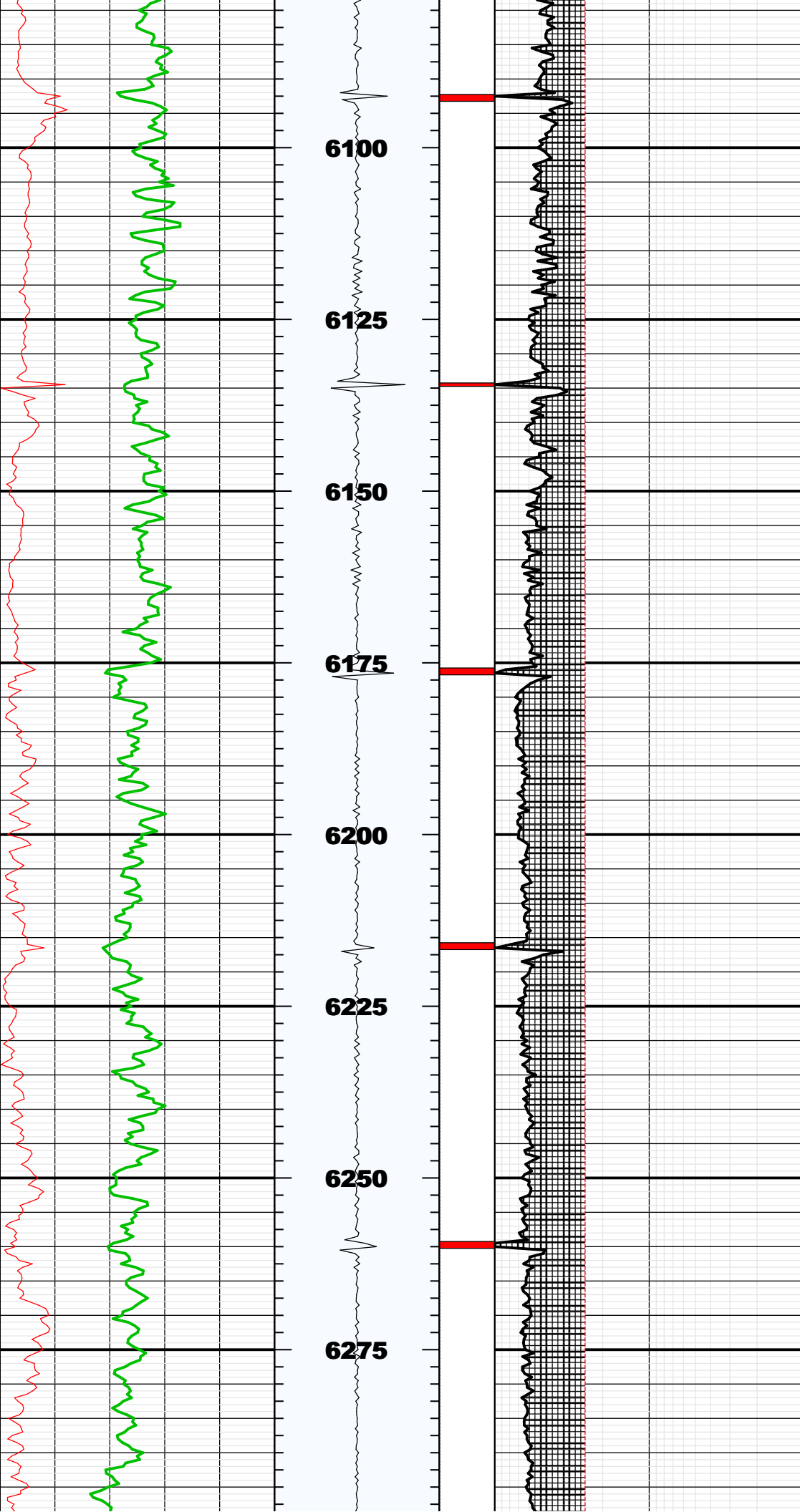


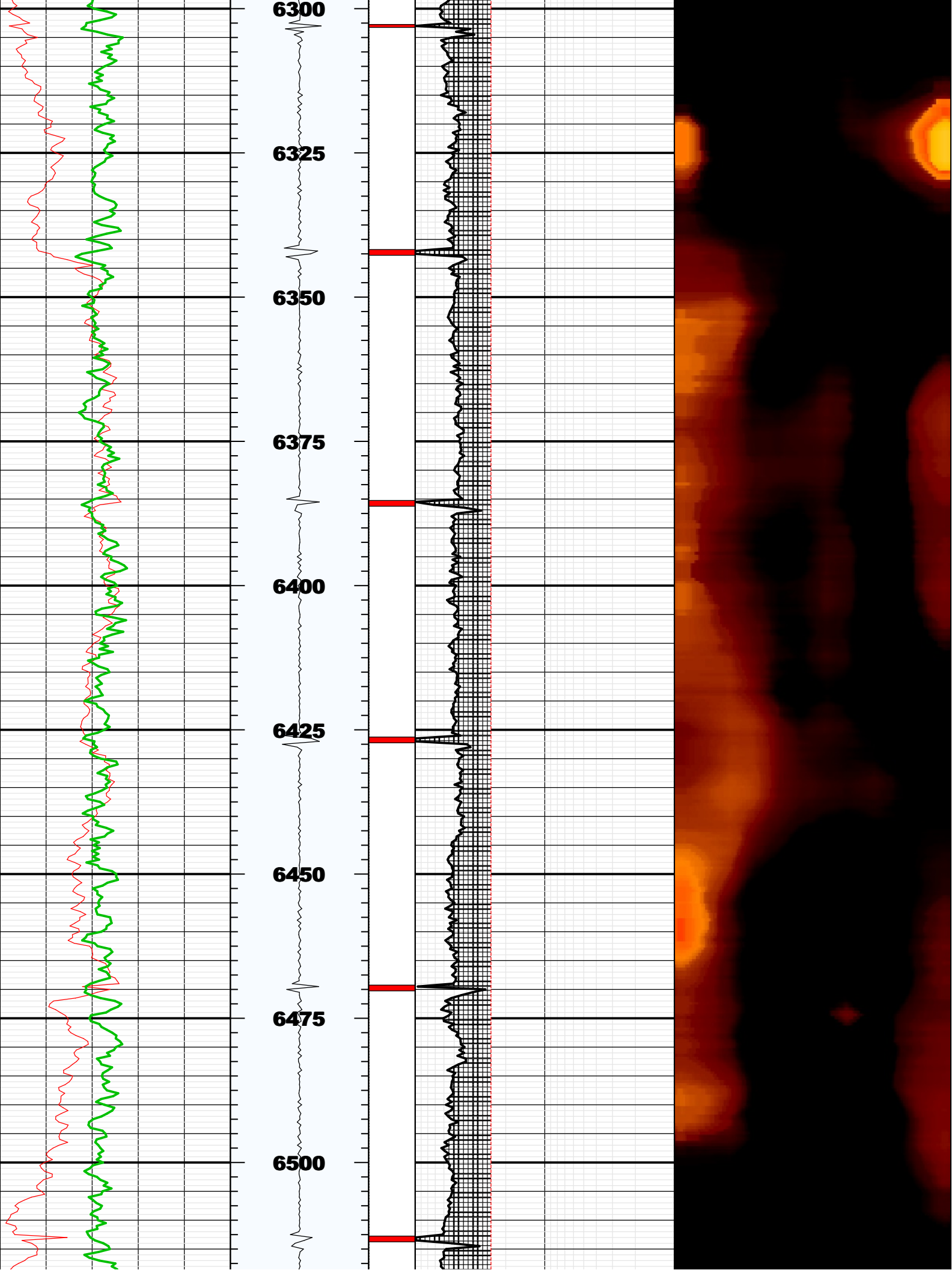


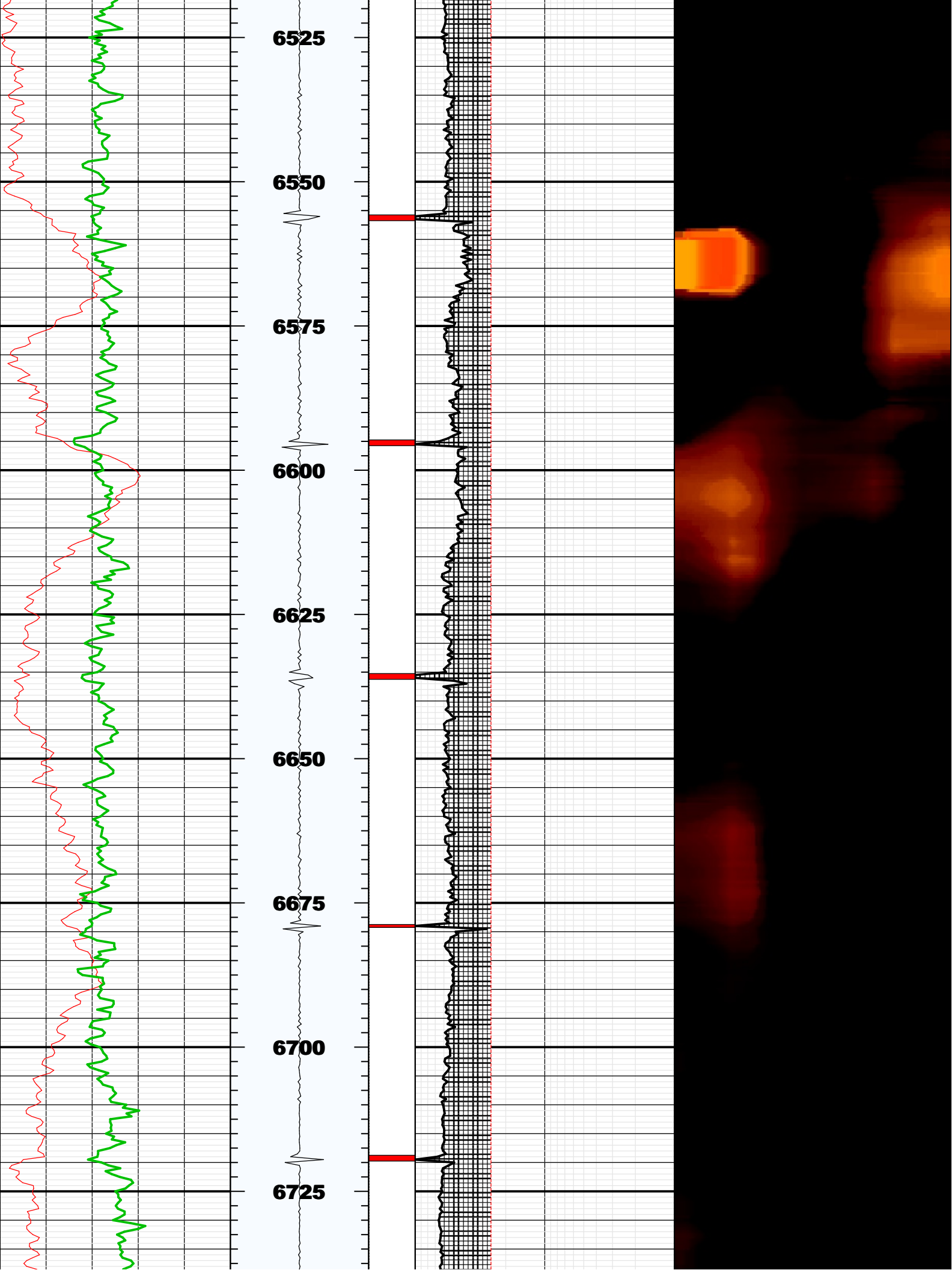


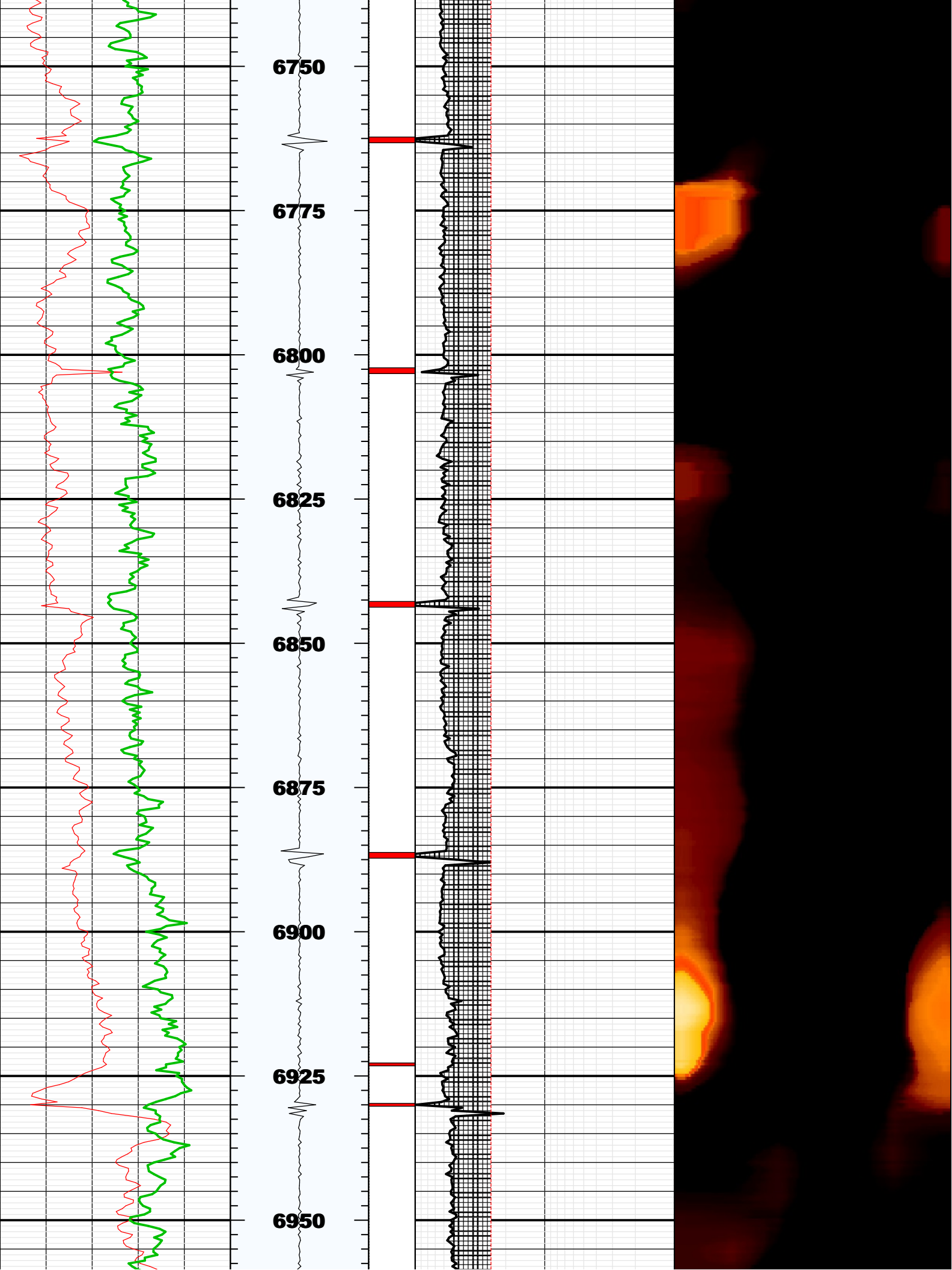


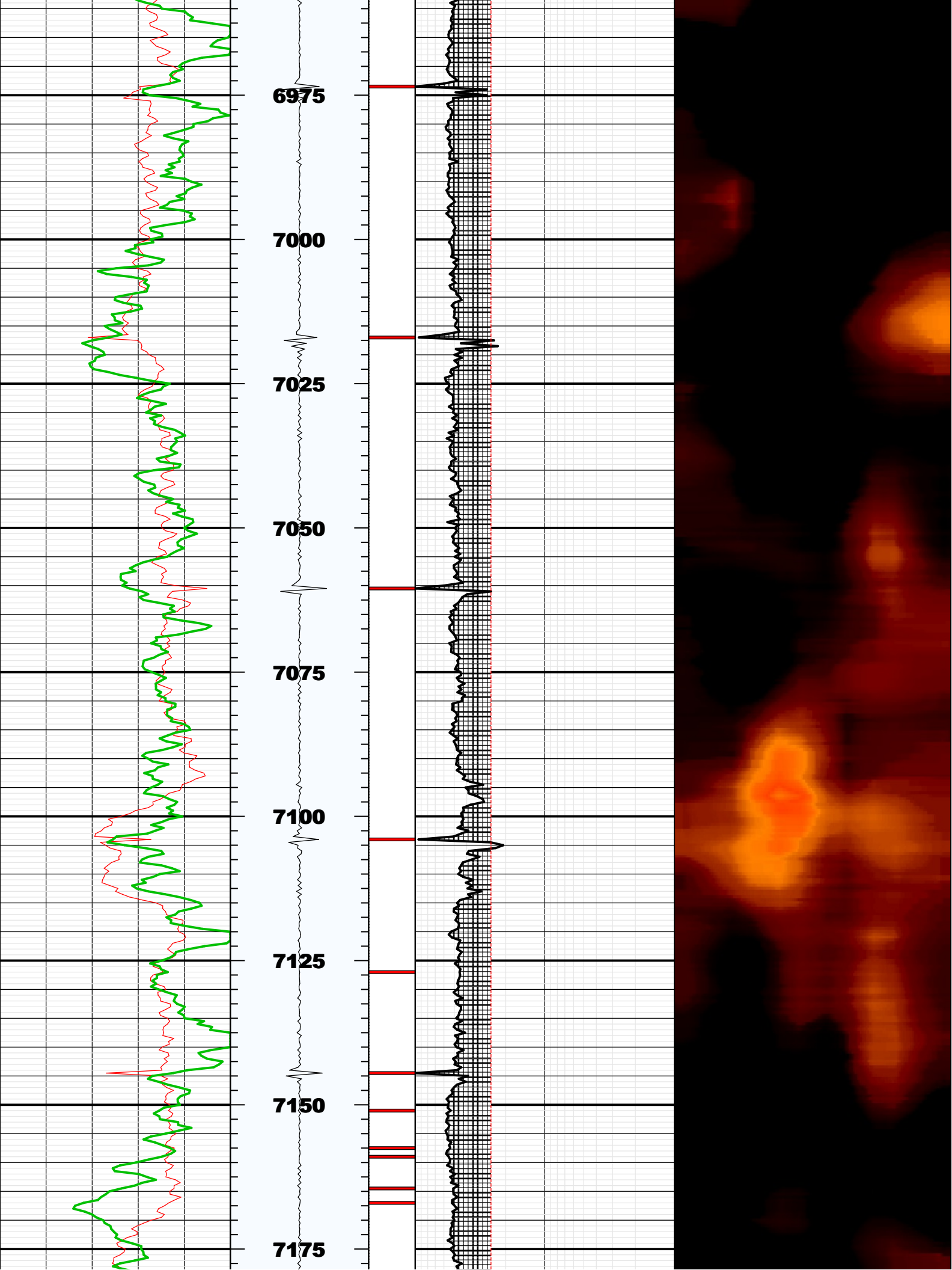


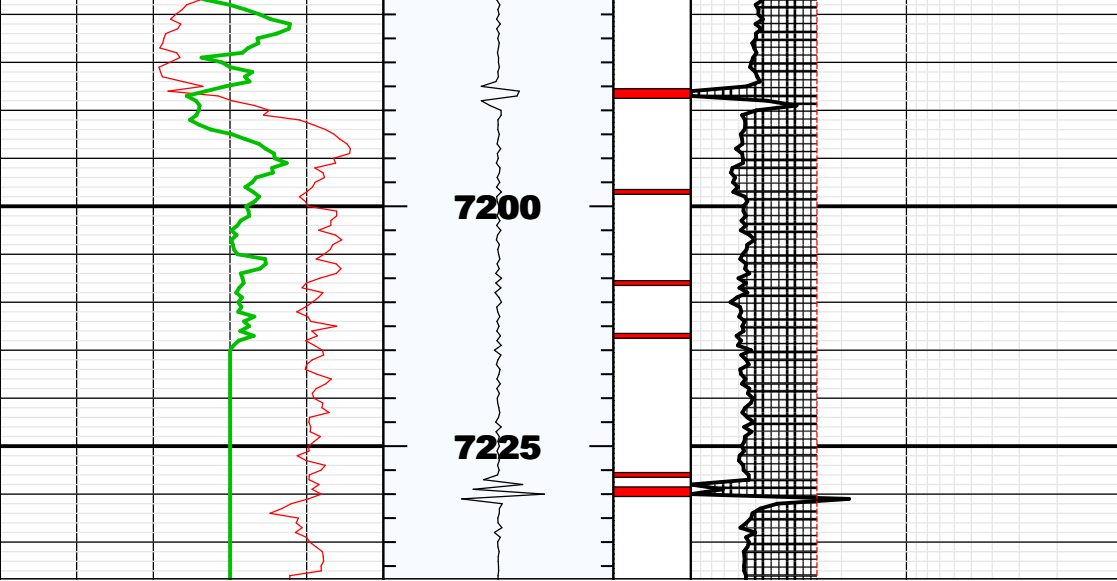








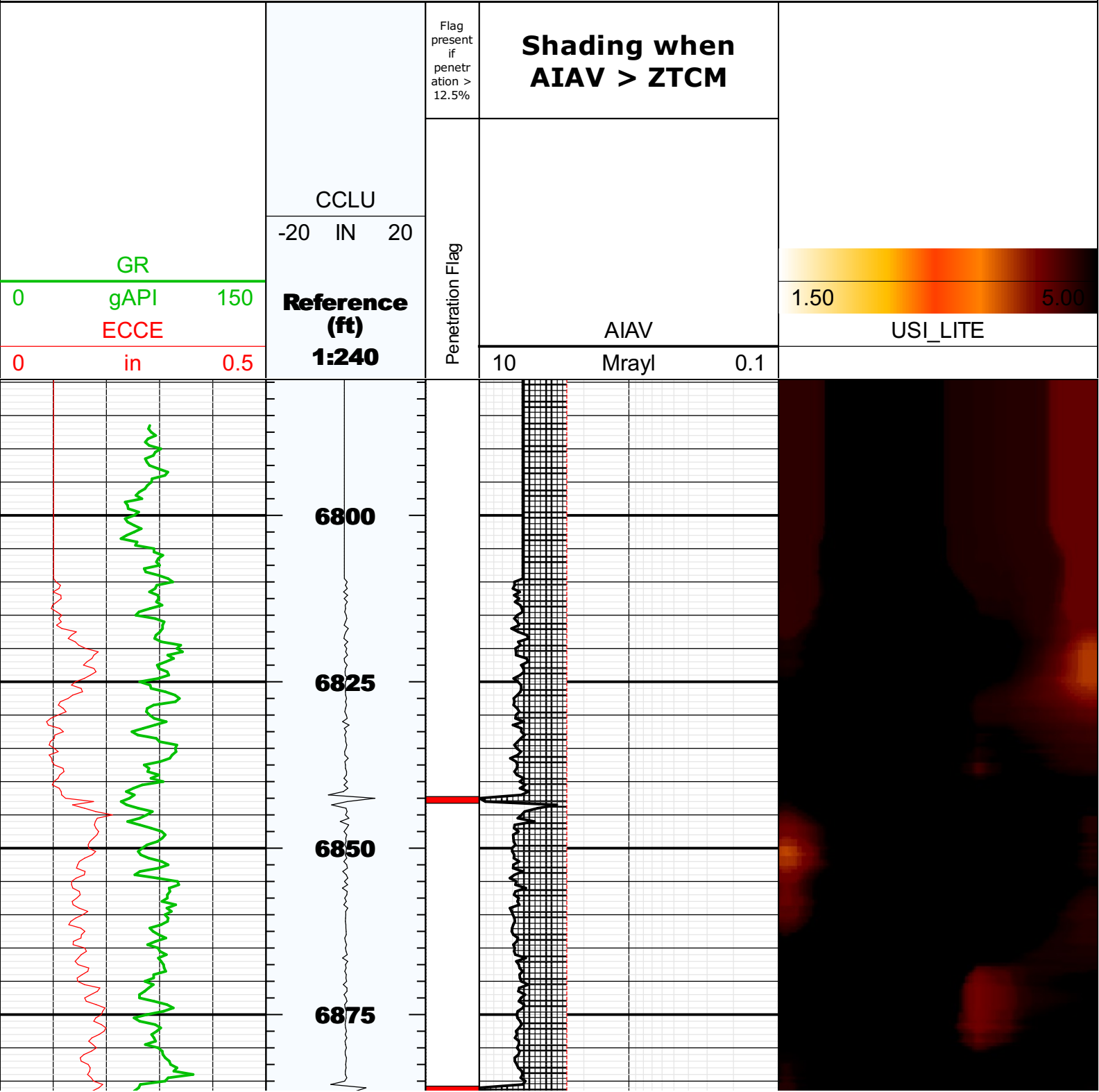


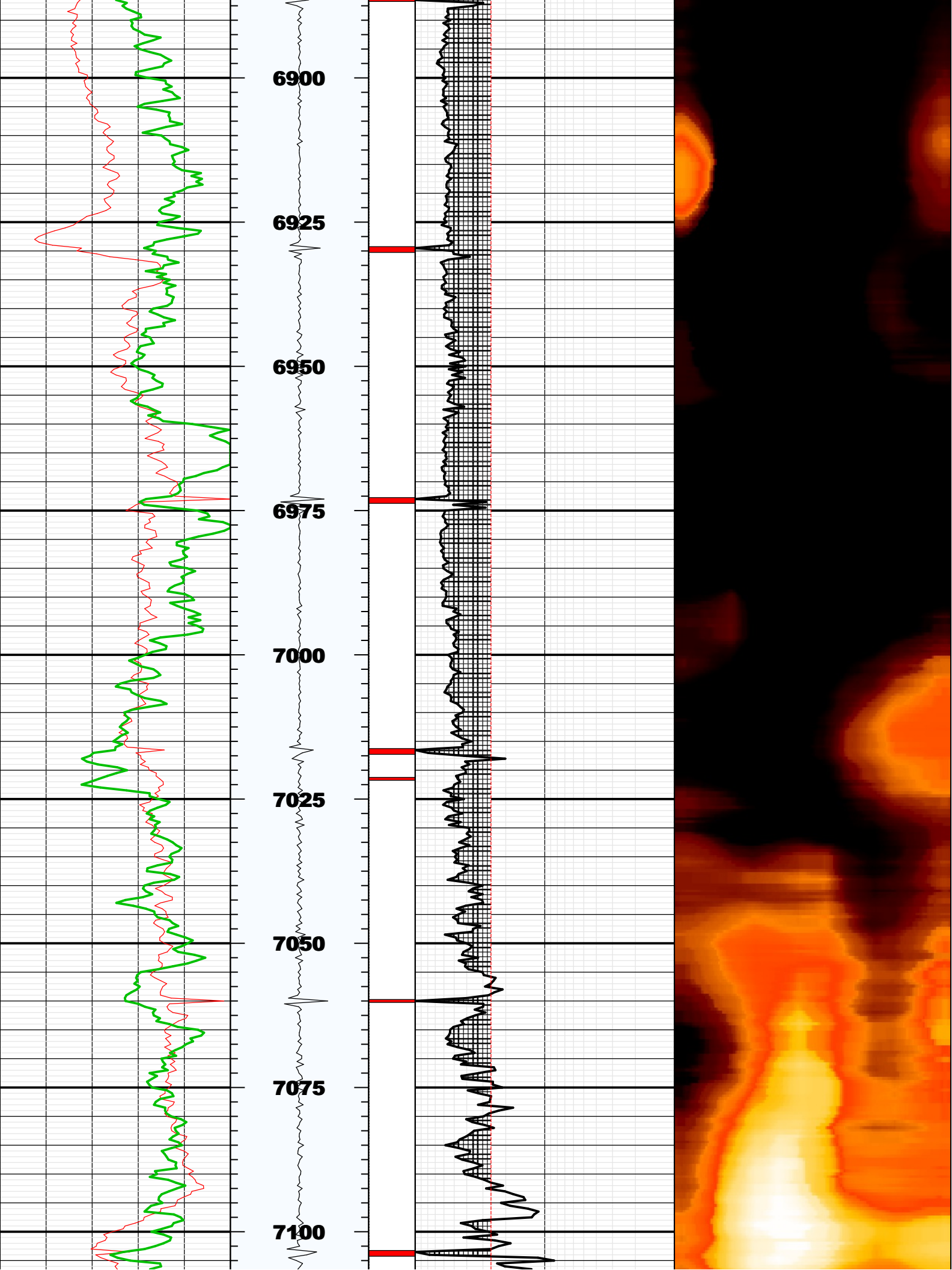


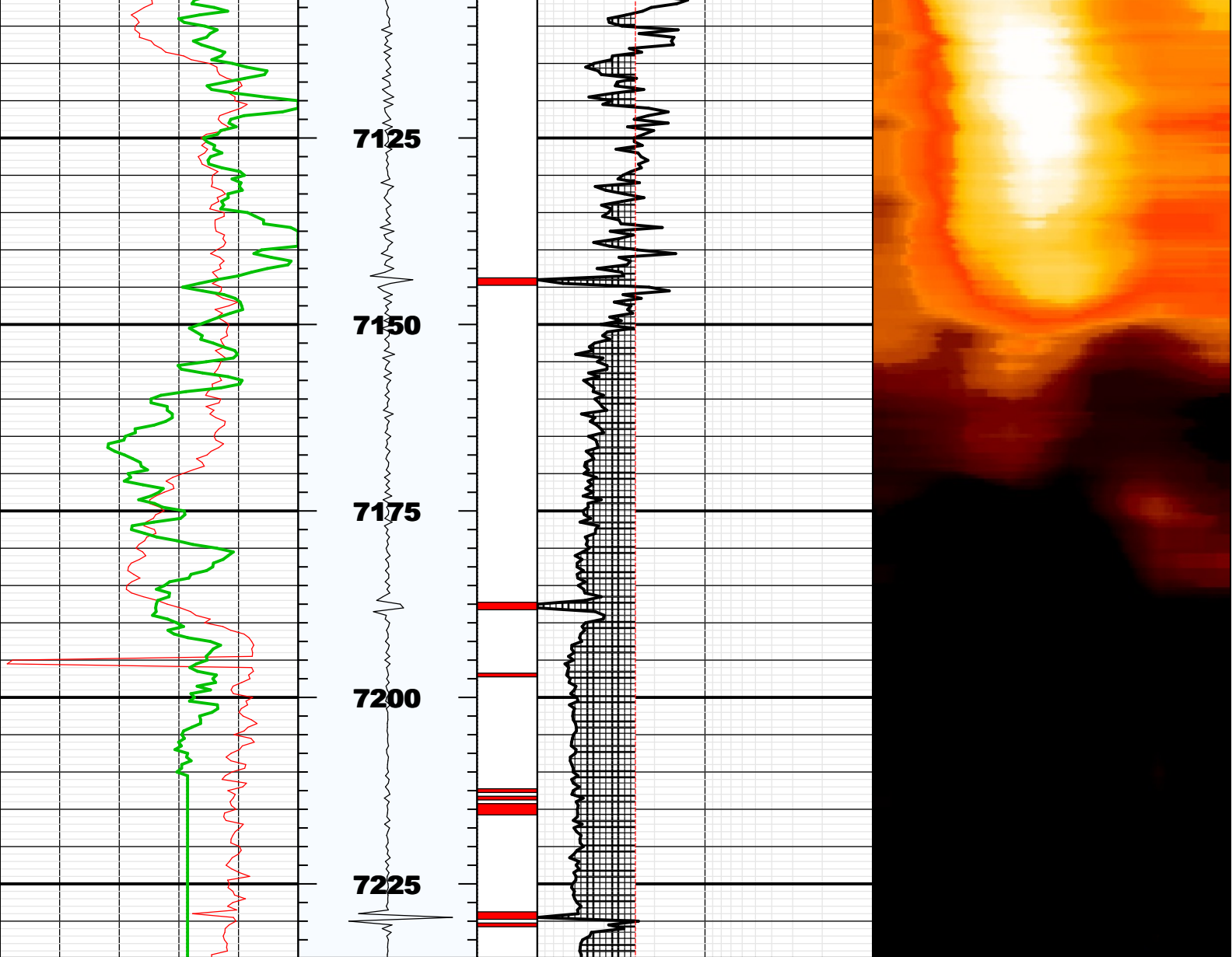
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	188.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	84	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	32.54768	US	Window Begin Time
WINE	73.83736	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.82000	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

Company: Noble Energy Inc
Well: Five Rivers K09-67-1HN
Field: Wattenberg







Fluid Properties Used for Main Pass

