

Company: Noble Energy Inc

Well: NCLP AA07 69HNA
Field: Wattenberg
County: Weld State: Colorado

County: Weld		USI-LITE	
Field: Wattenberg			
Location: SHL SWSW 600' FSL & 100' FWL			
Well: NCLP AA07 69HNA			
Company: Noble Energy Inc			
LOCATION			
Permanent Datum:		Elev: K.B. 4732.0 F	
Log Measured From:		G.L. 4708.0 F	
Drilling Measured From:		D.F. 4731.0 F	
GL			
KB			
KB			
API Serial No. 05-123-39160-00		Section 4	
Logging Date 31-Jul-2014		Township 6N	
		Range 63W	
Run Number		Run 1	
Depth Driller		7073.0 F	
Schlumberger Depth		7073.0 F	
Bottom Log Interval		6925.0 F	
Top Log Interval		-999.2 F	
Casing Fluid Level		0.0 F	
Salinity			
Density		8.40 LB/G	
Fluid Level		0.0 F	
BIT/CASING/TUBING STRING			
Bit Size		8.750 IN	
To		-999.2 F	
Casing Size		7073.0 F	
Weight		7.00 IN	
Grade		26.00 LB/F	
From		P110	
To		0.0 F	
Max Recorded Temp		7063.0 F	
Logger on bottom (date)		231.9	
Location		31-Jul-2014	
Recorded By		Fort Morgan CO	
Witnessed By		Max Pace	
		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: Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: Length: 24000.00000

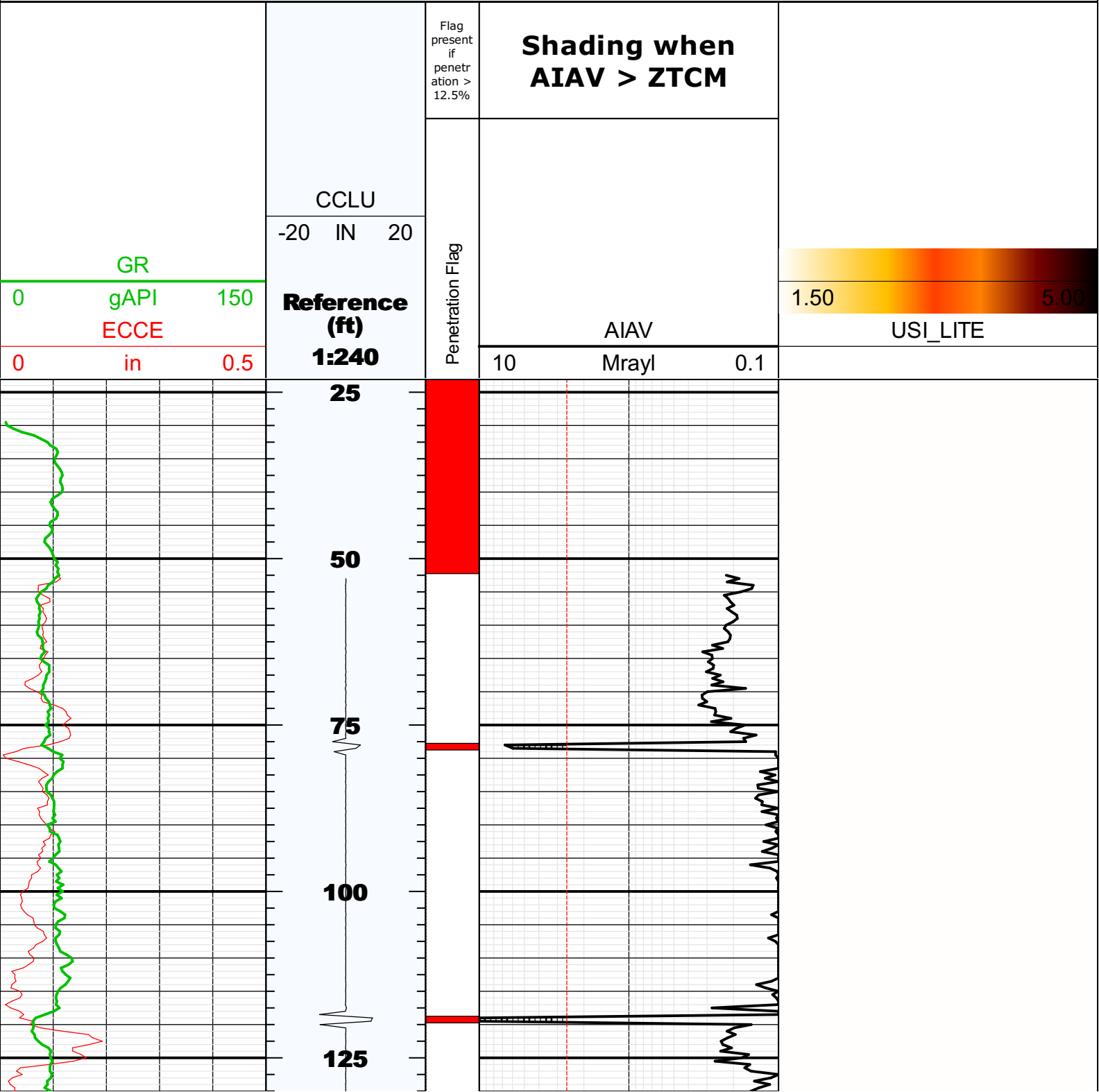
DISCLAIMER

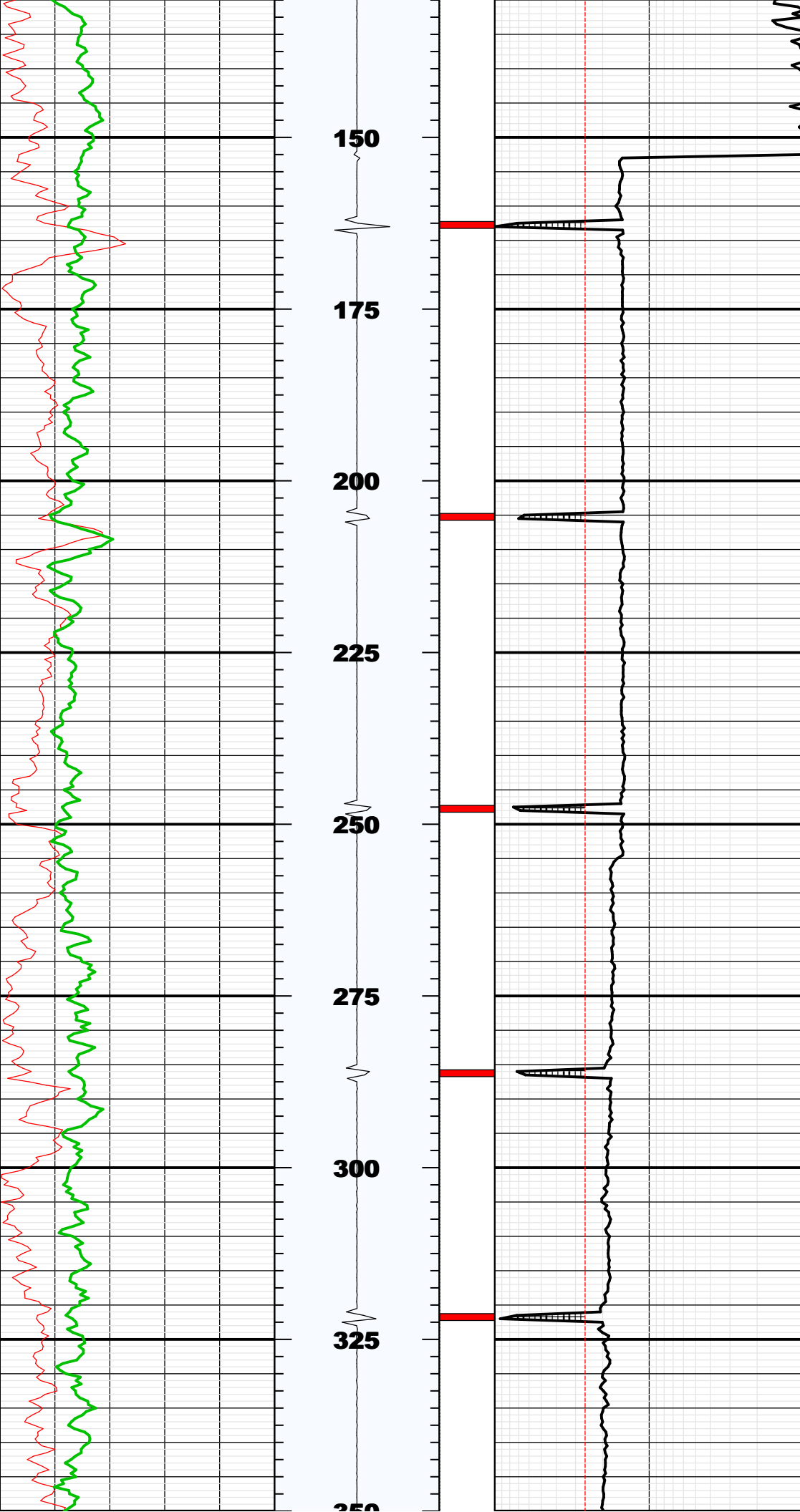
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIIONS ON USE OF THE RECORDED-DATA (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF ANR RELIANCE UPN THE RECORDED-DATA; AND (c)CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISIONS MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA

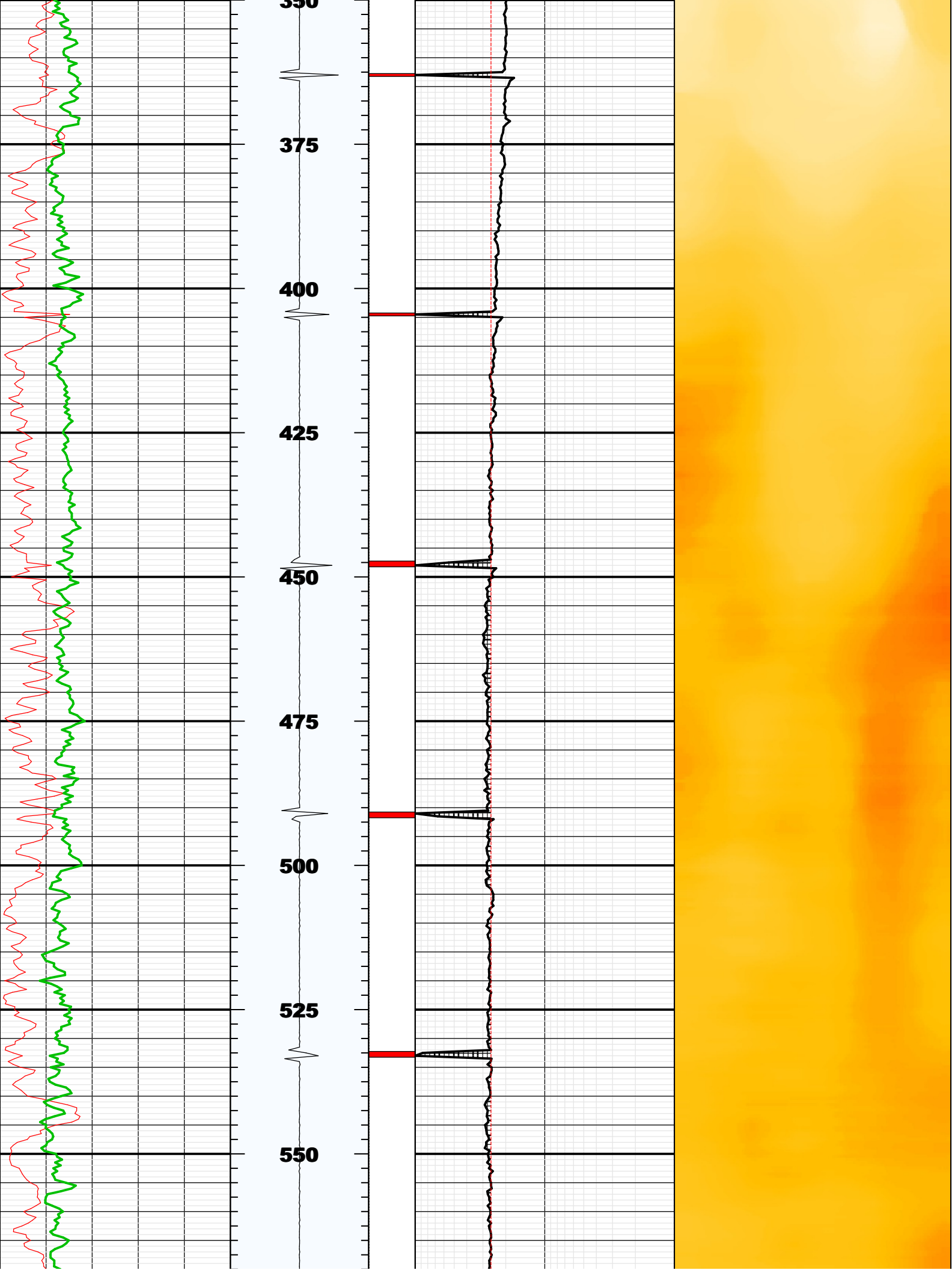
This is the first run in hole
Toolstring run as per tool sketch
Lead cement density not provided by client
Tail cement density not provided by client
0 PSI repeat pass
2500 PSI main pass
Bottom hole temperature 232 deg F
Top of cement 780 feet
Crew Tyler Riter Jay Musgrave Jeff Schossow

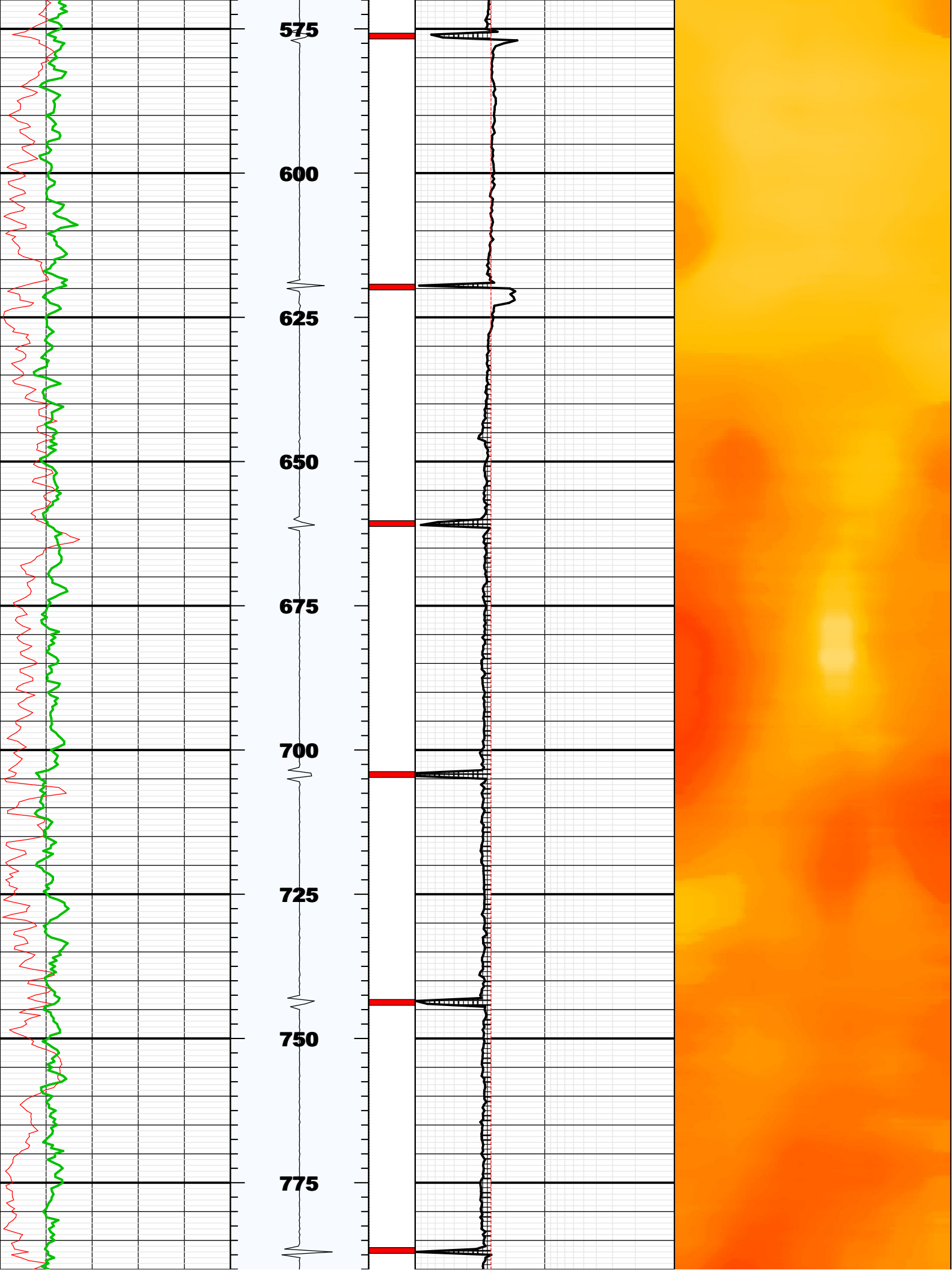
Main Pass

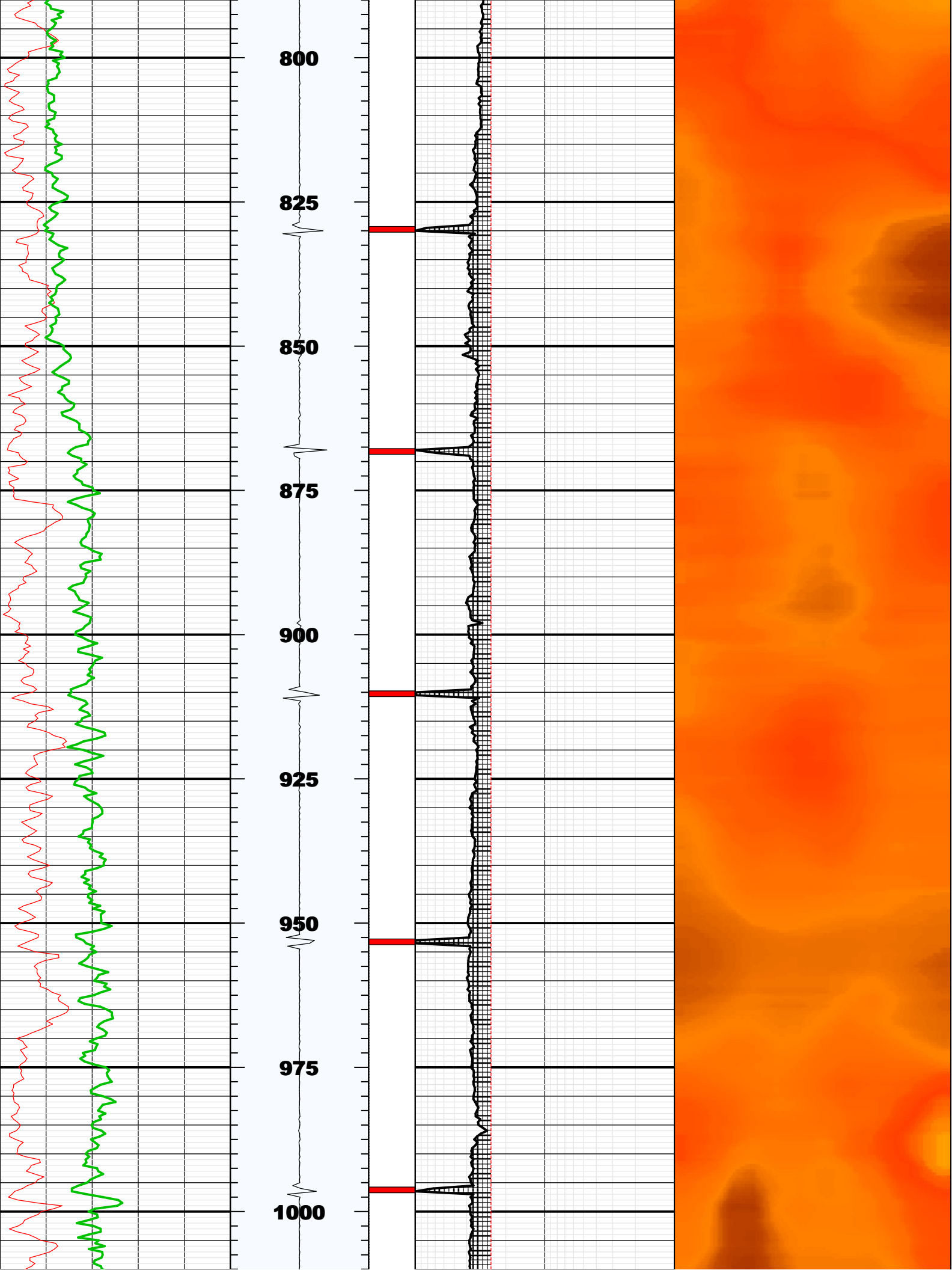
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Well: NCLP AA07 69HNA
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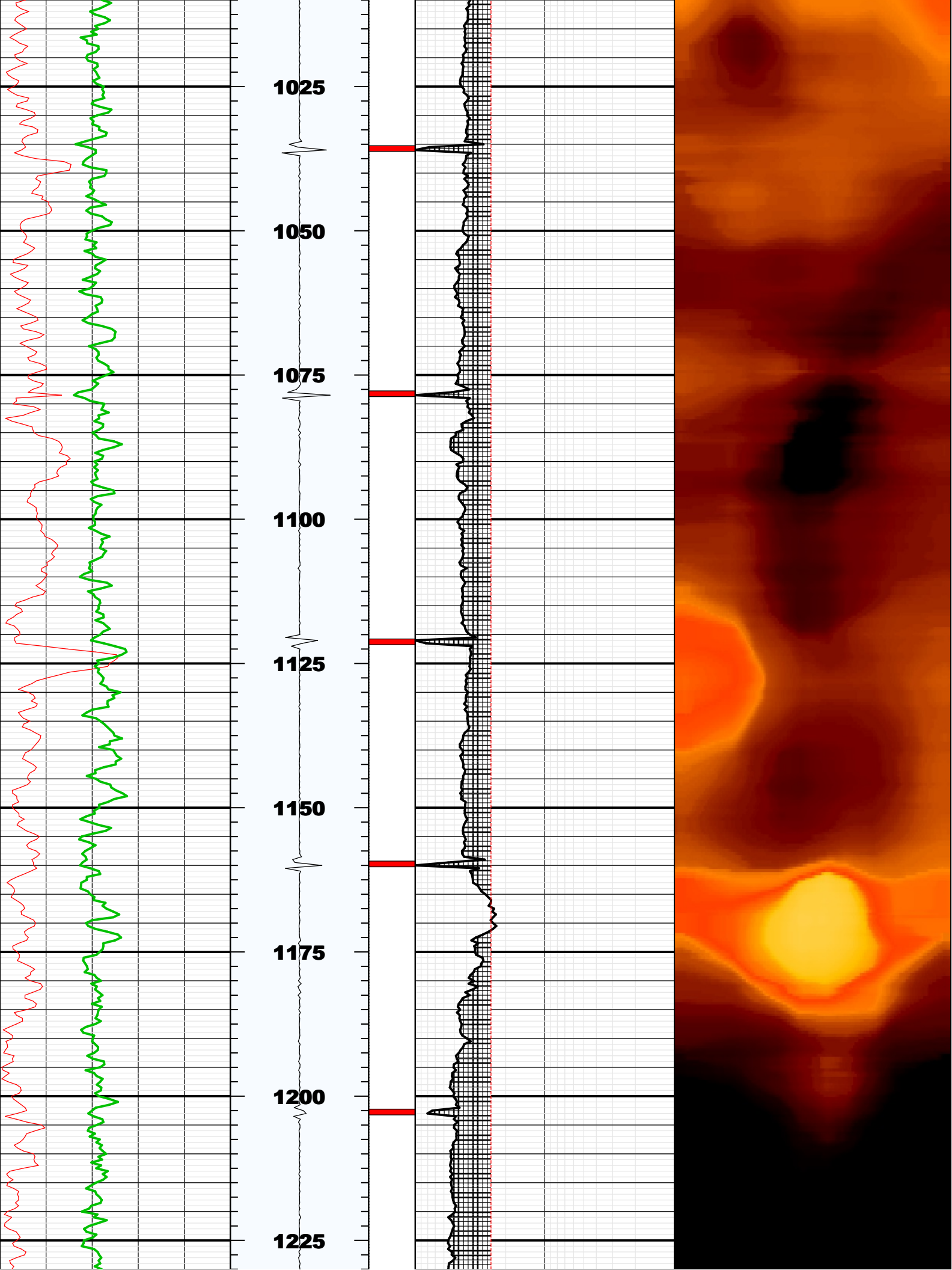


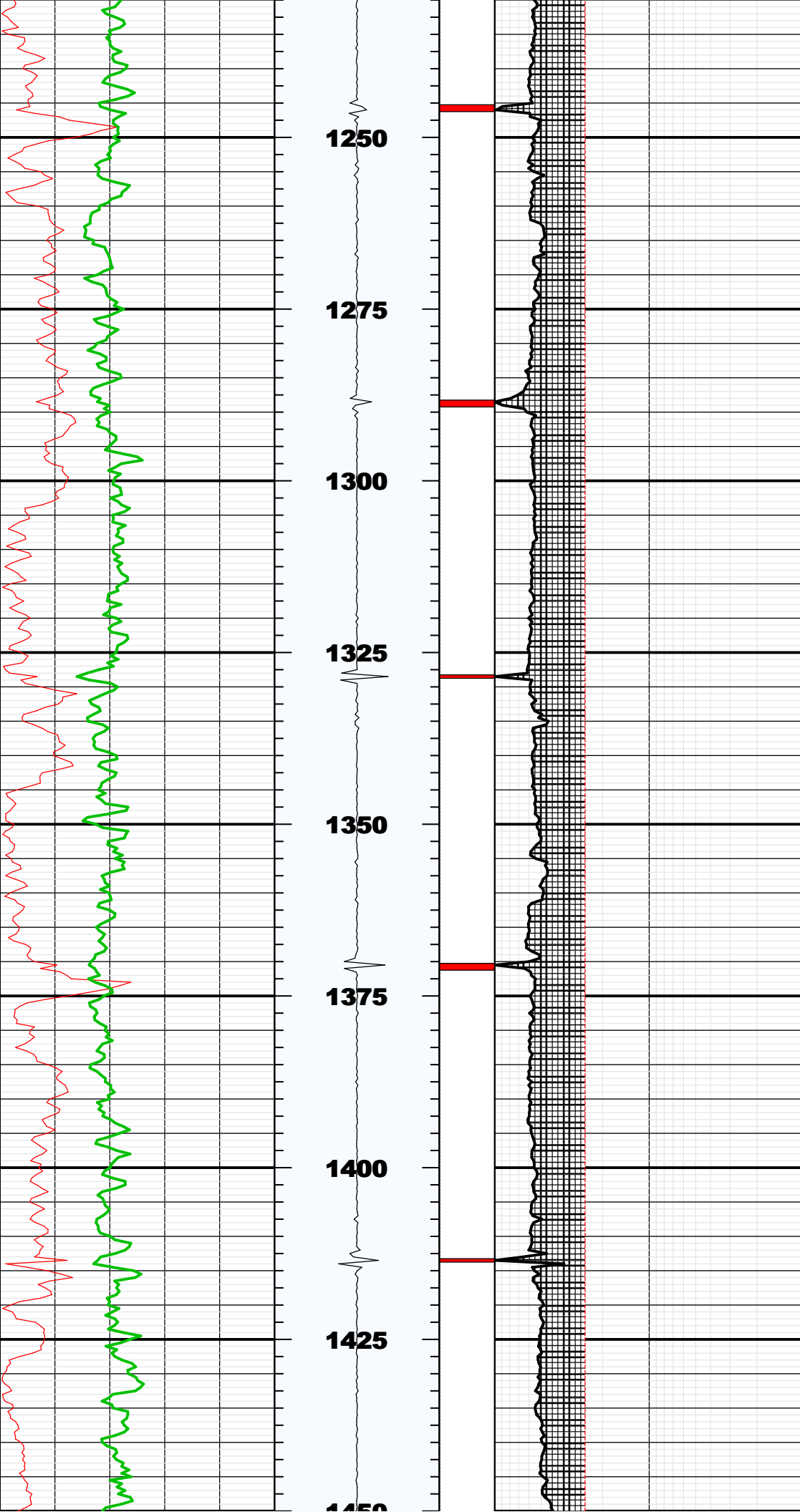


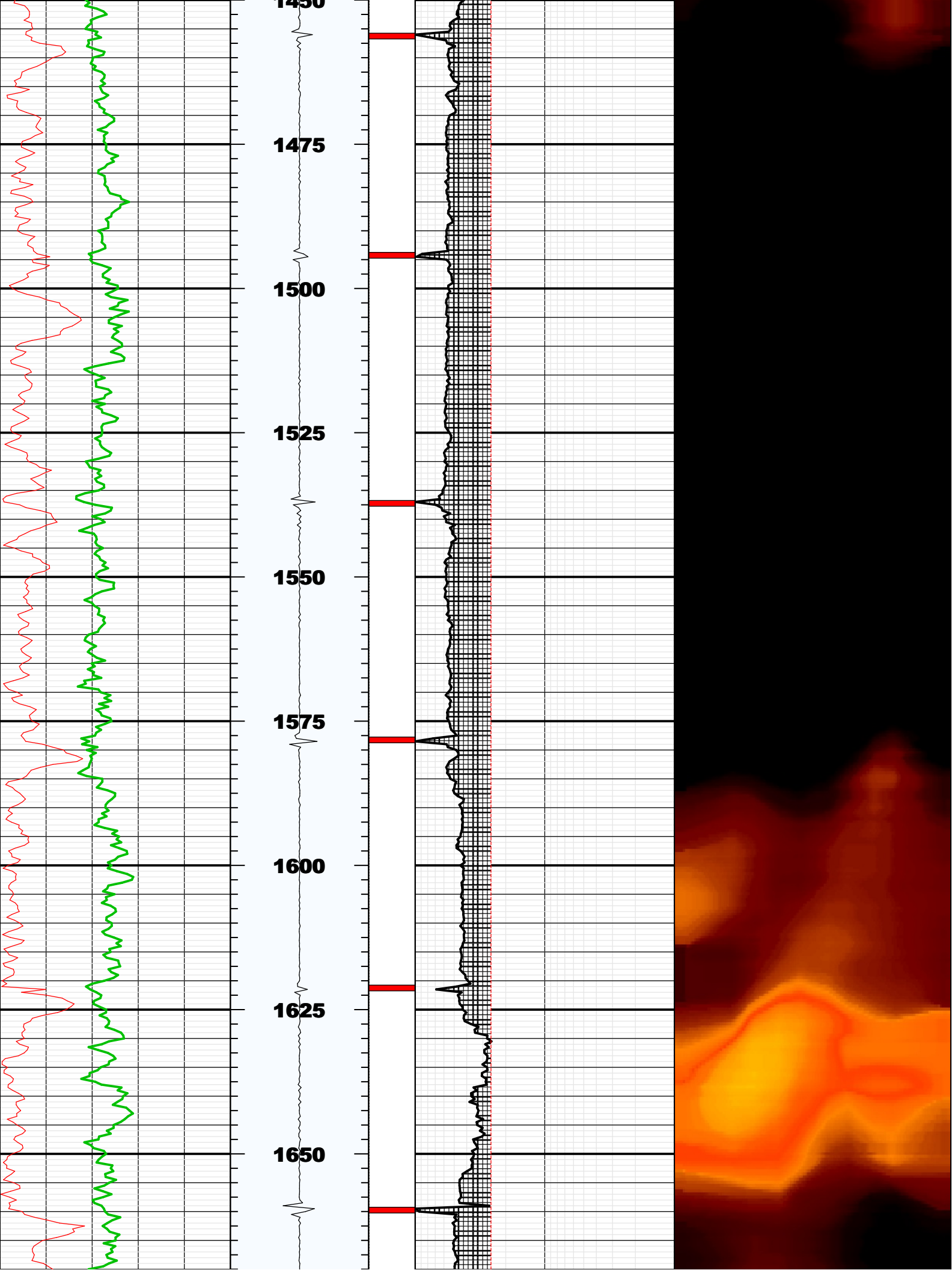


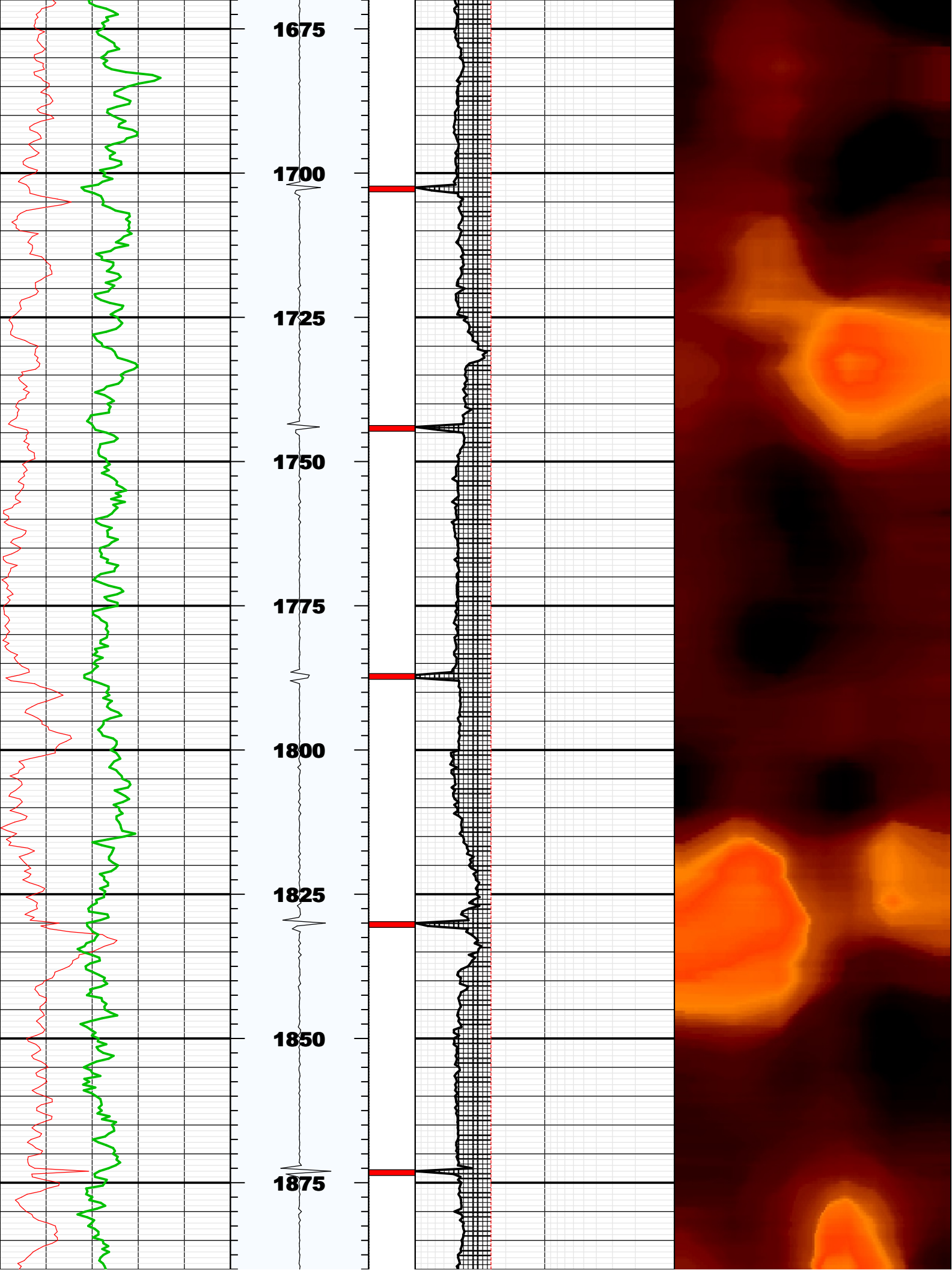


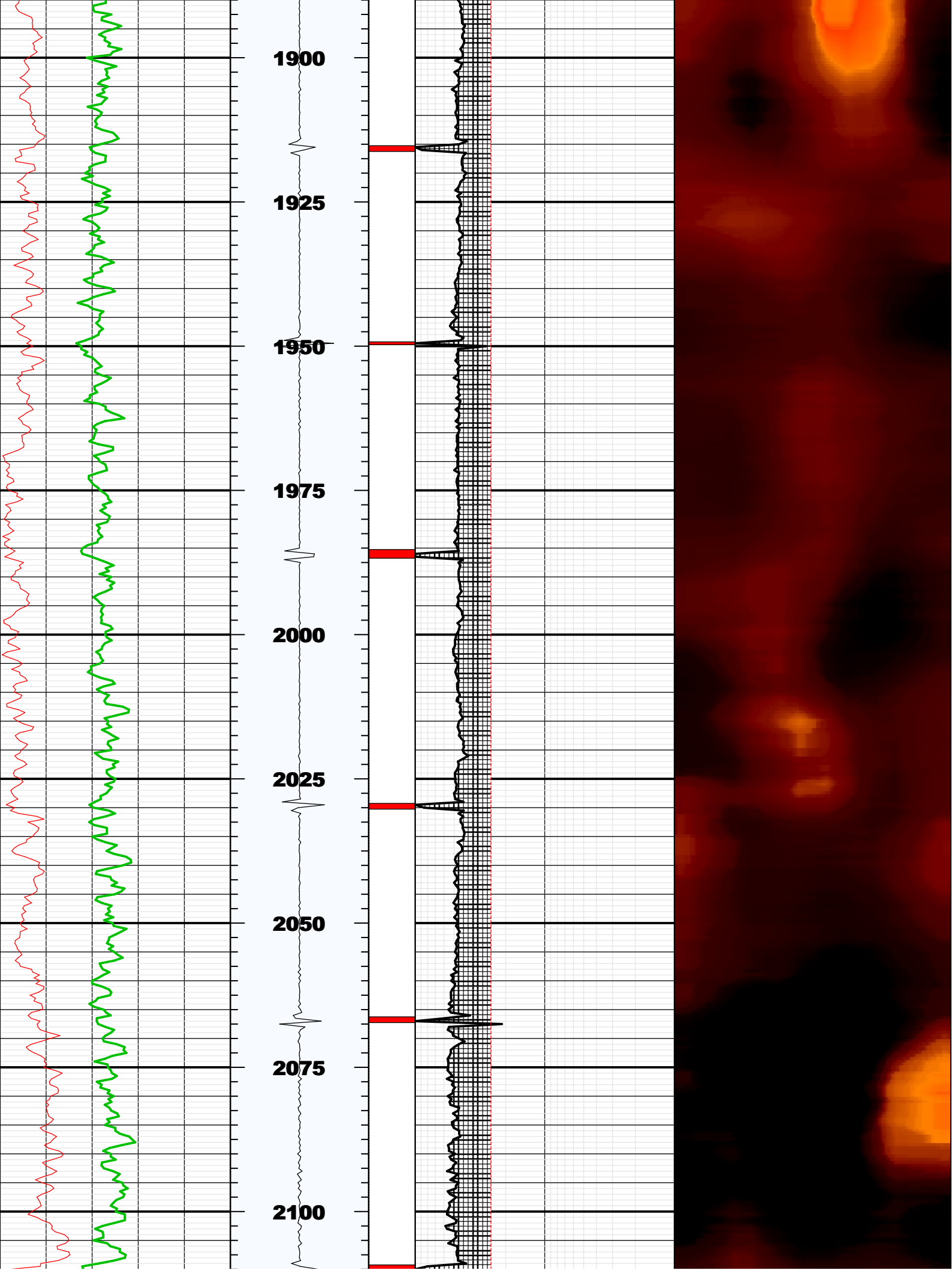


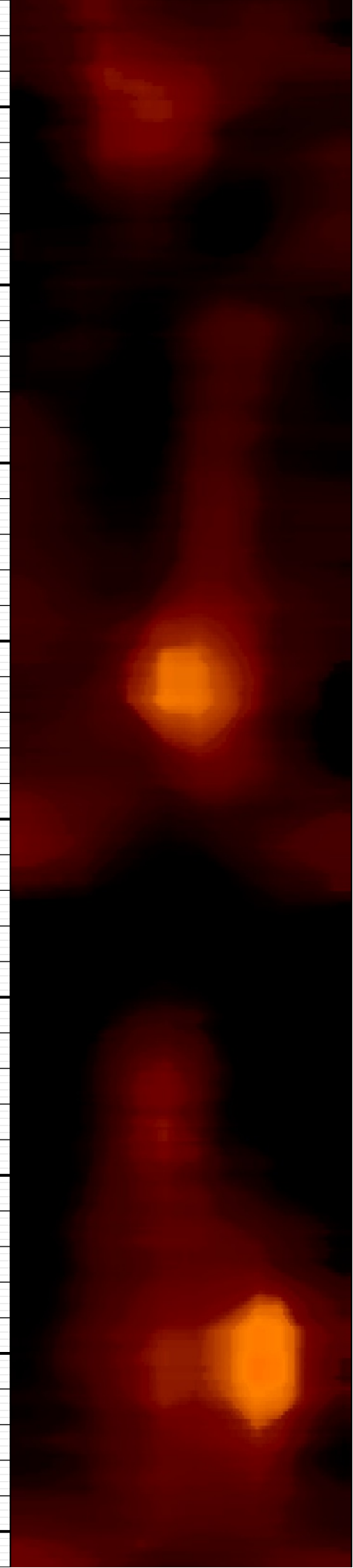
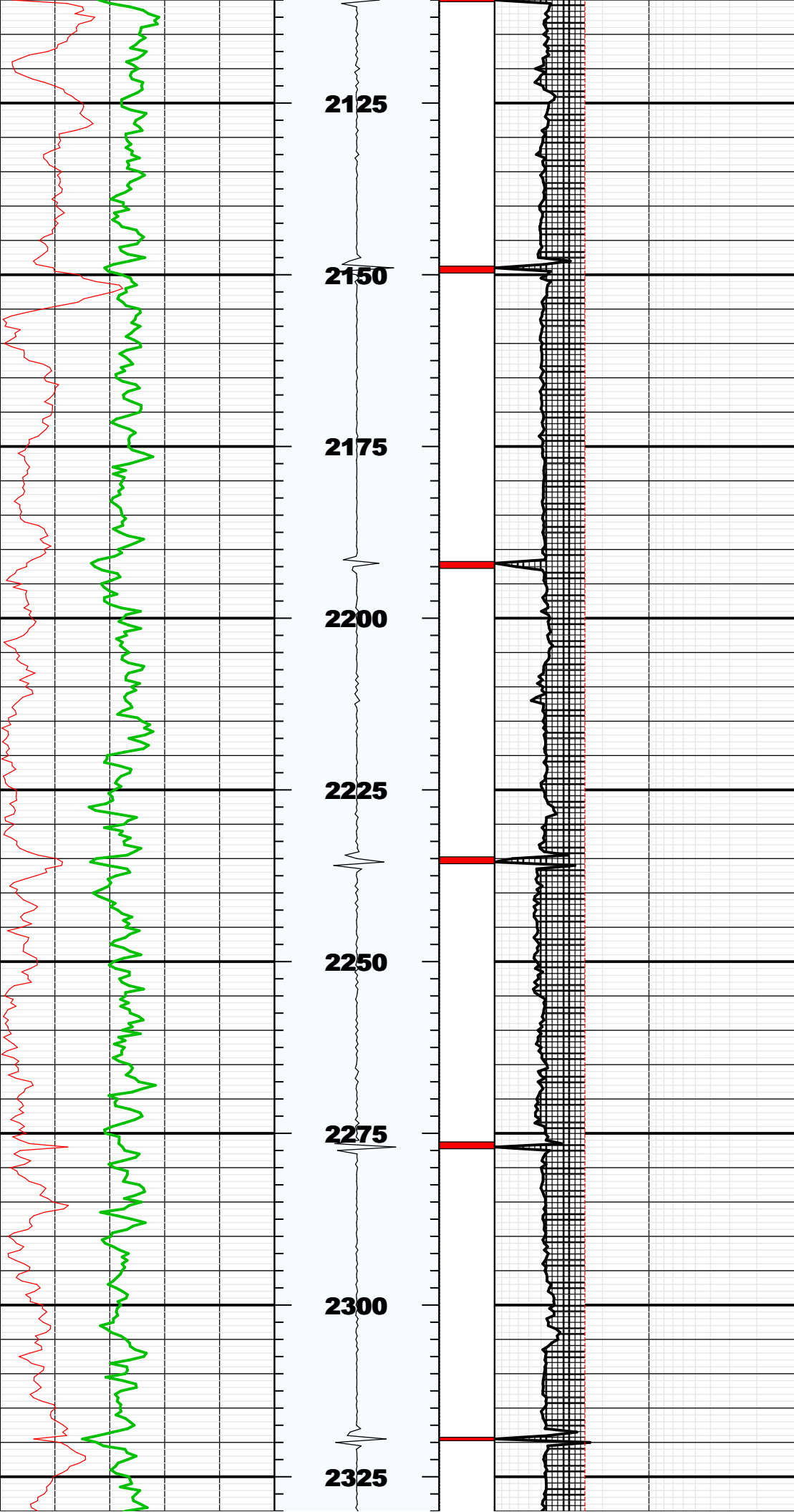


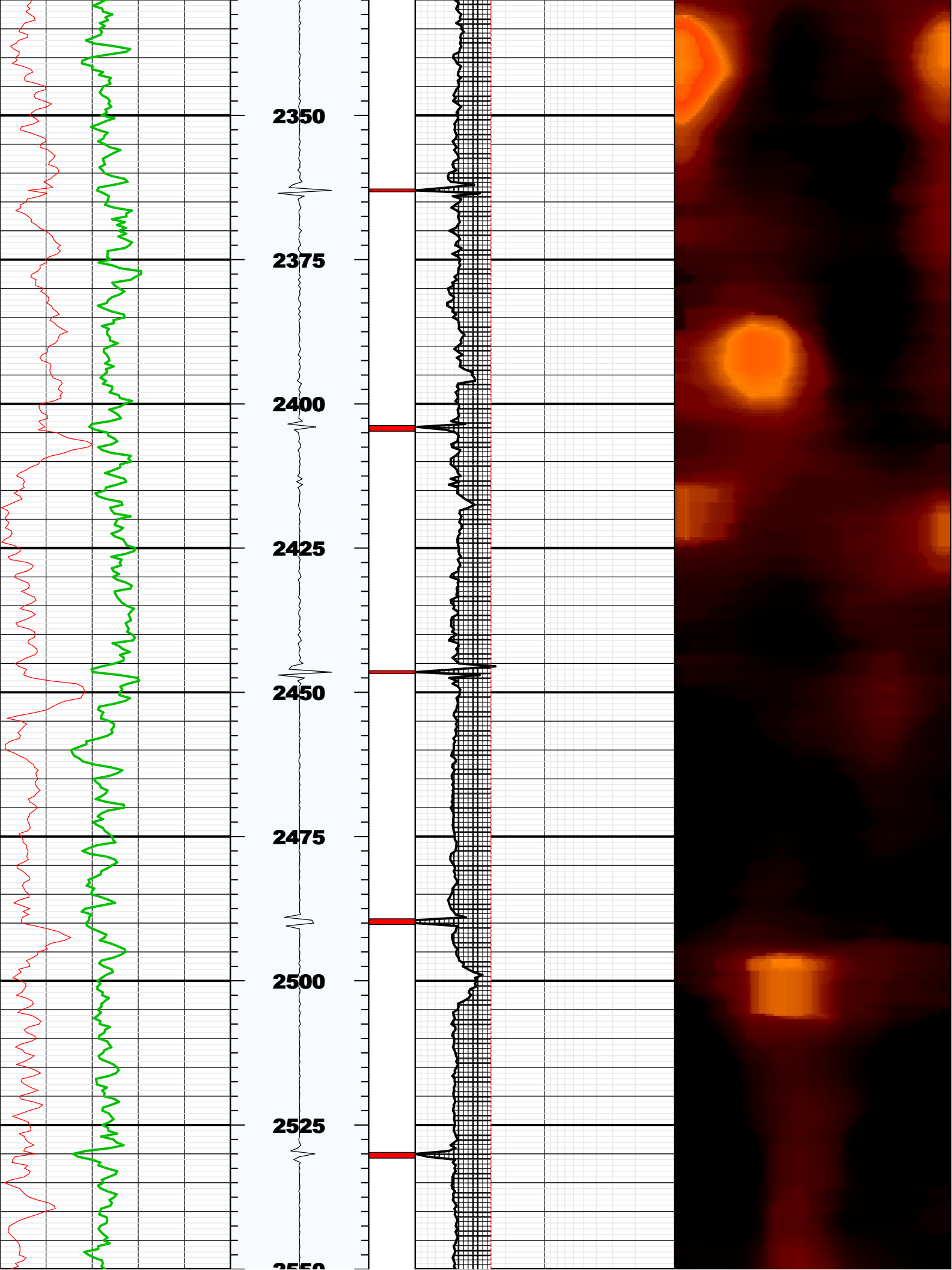


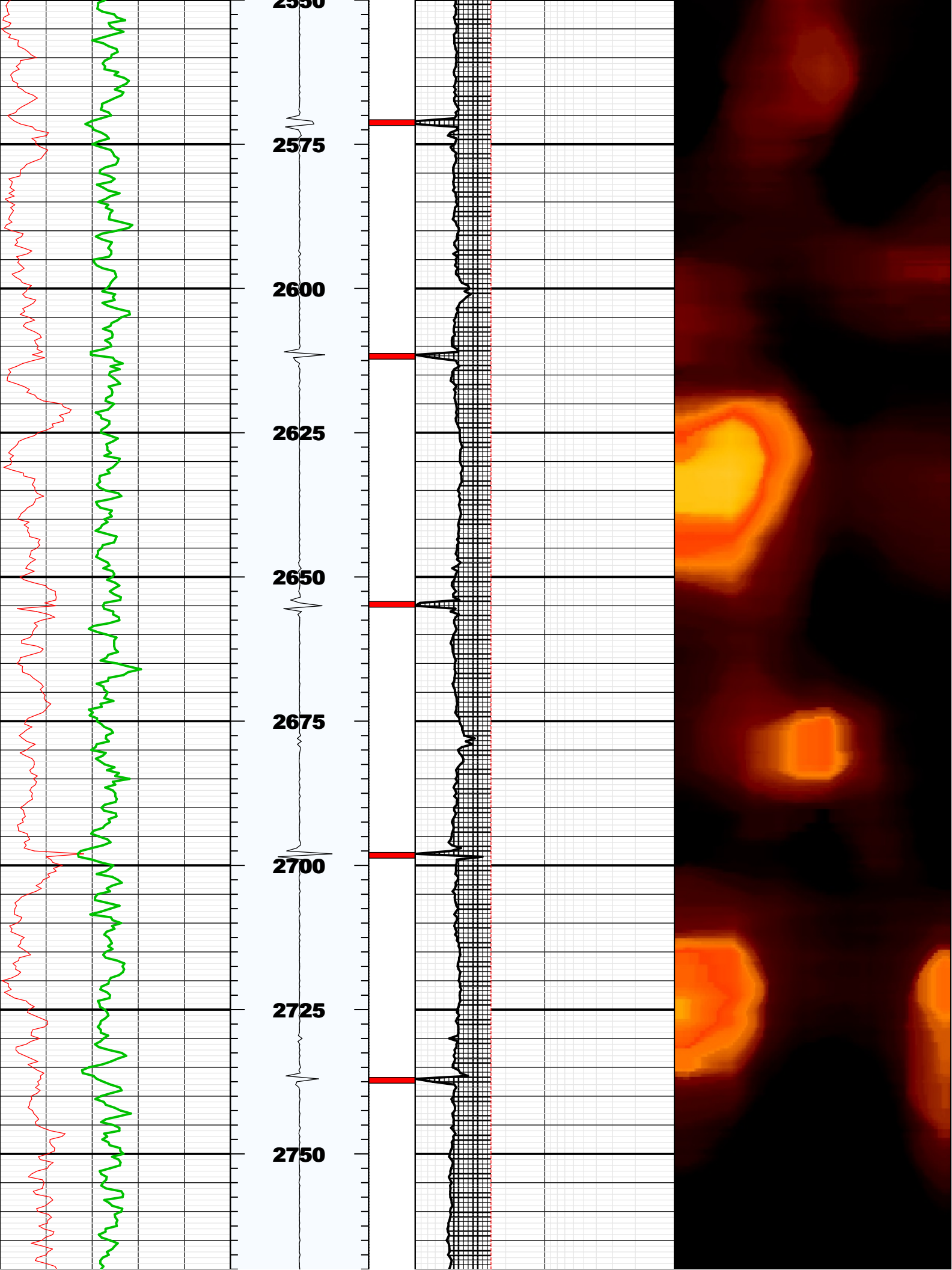


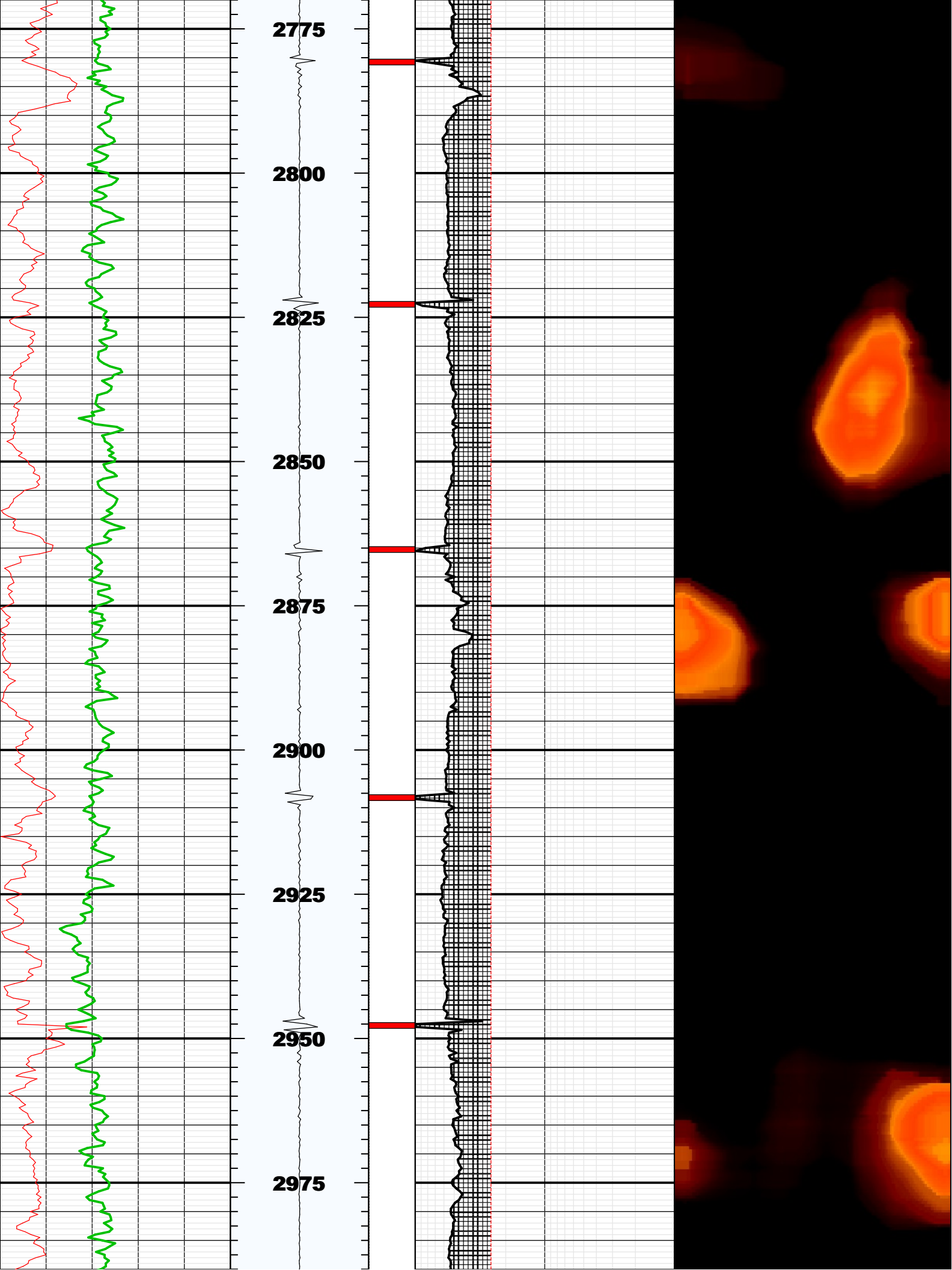


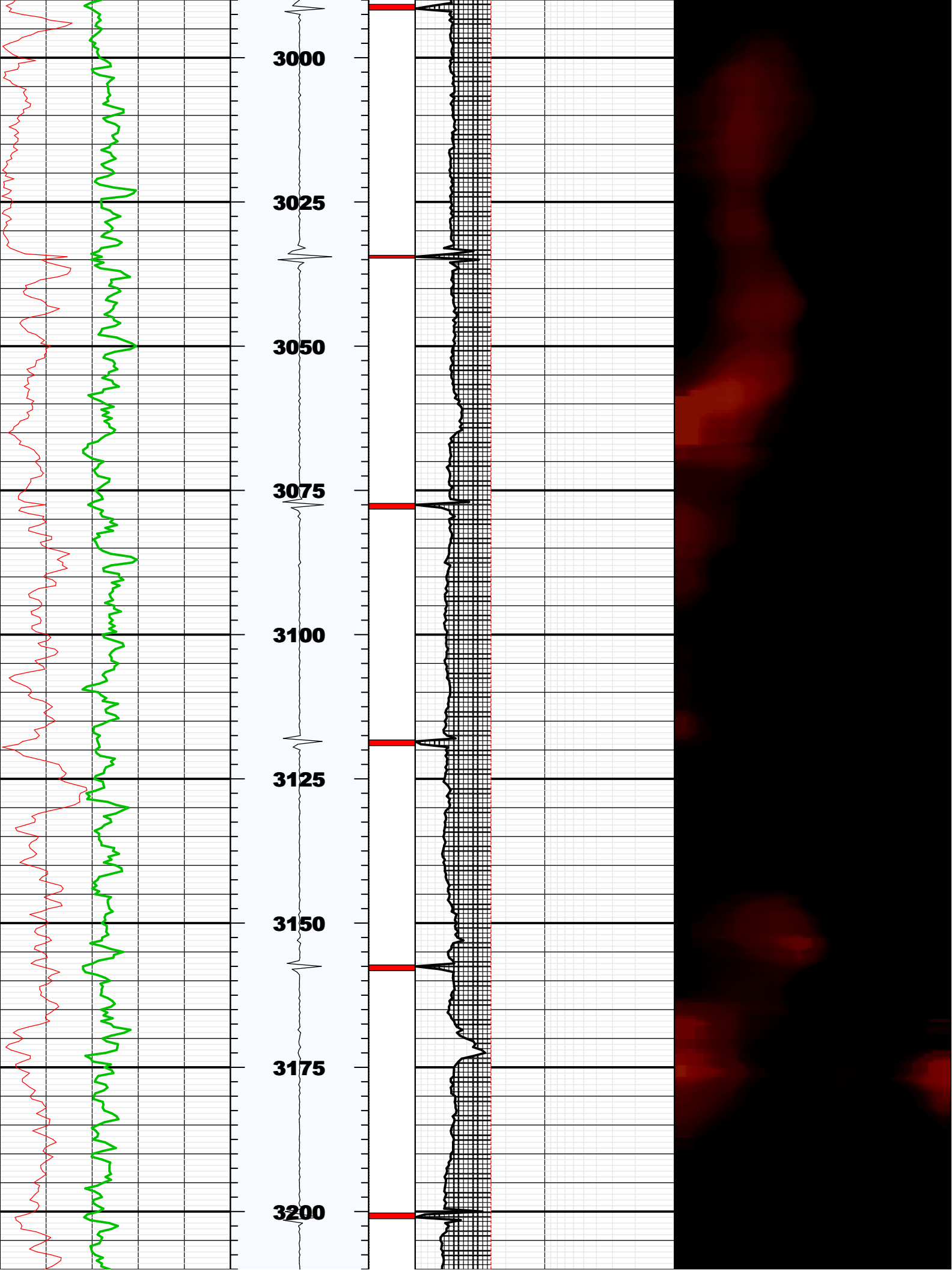


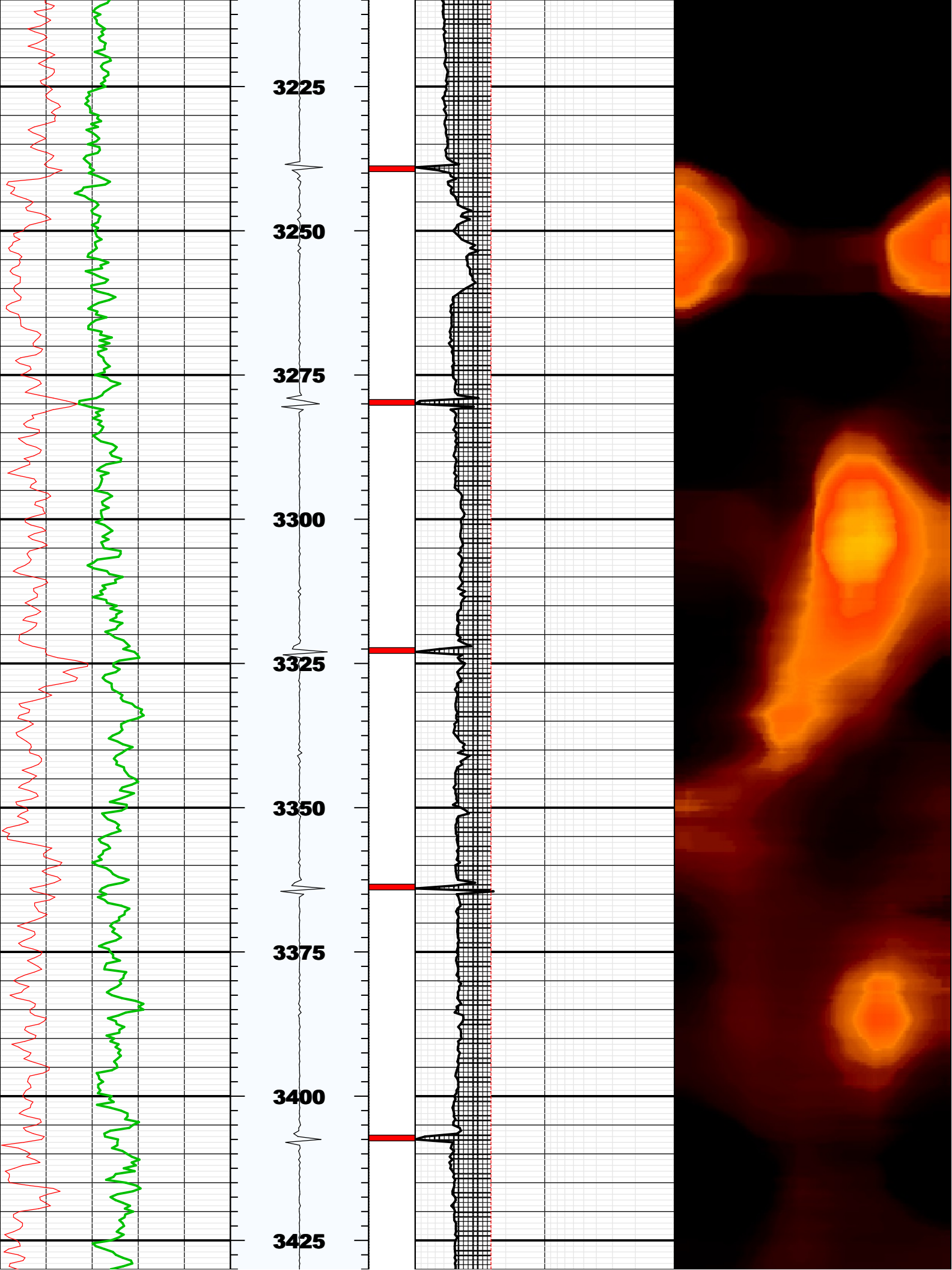


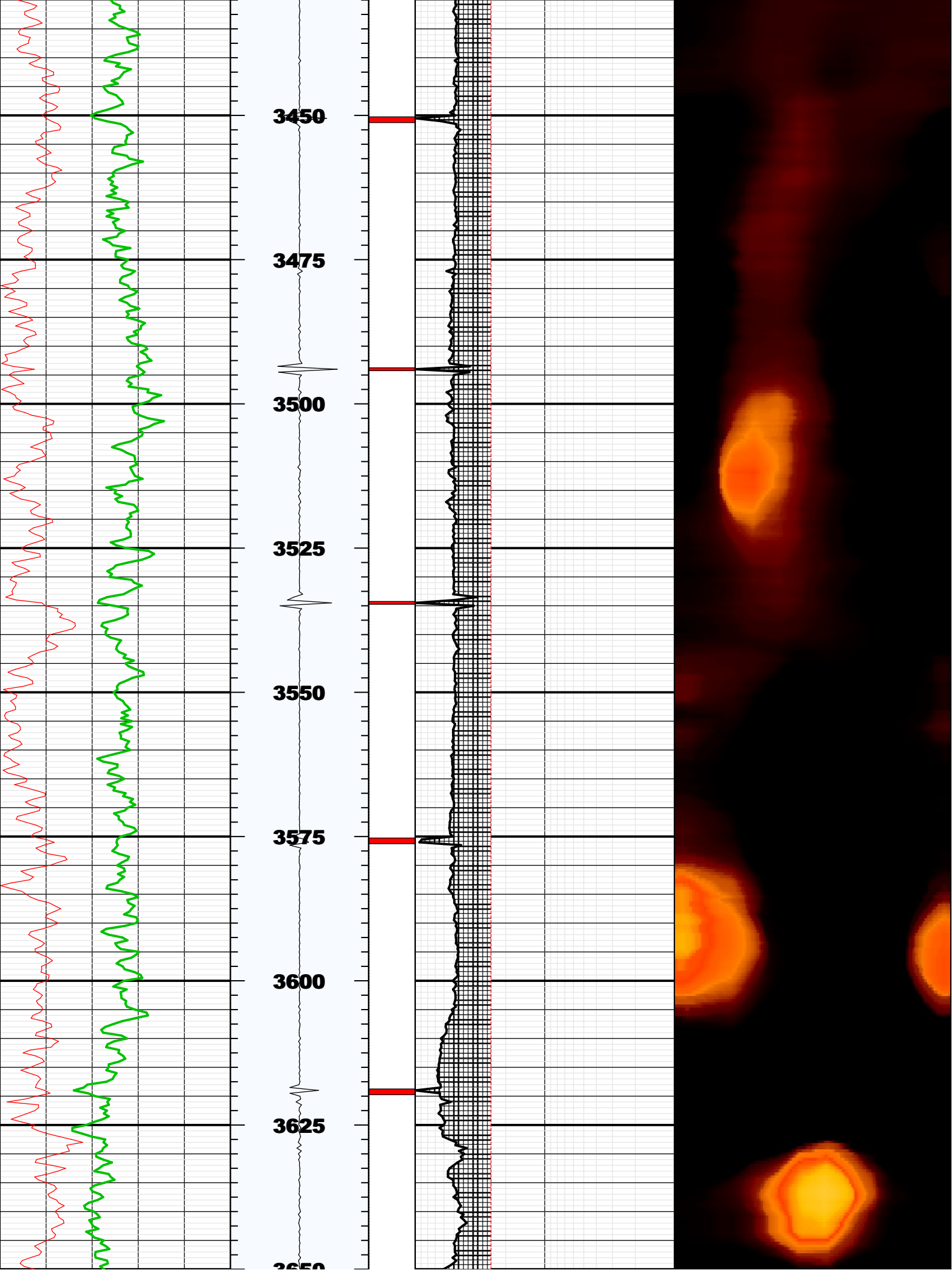


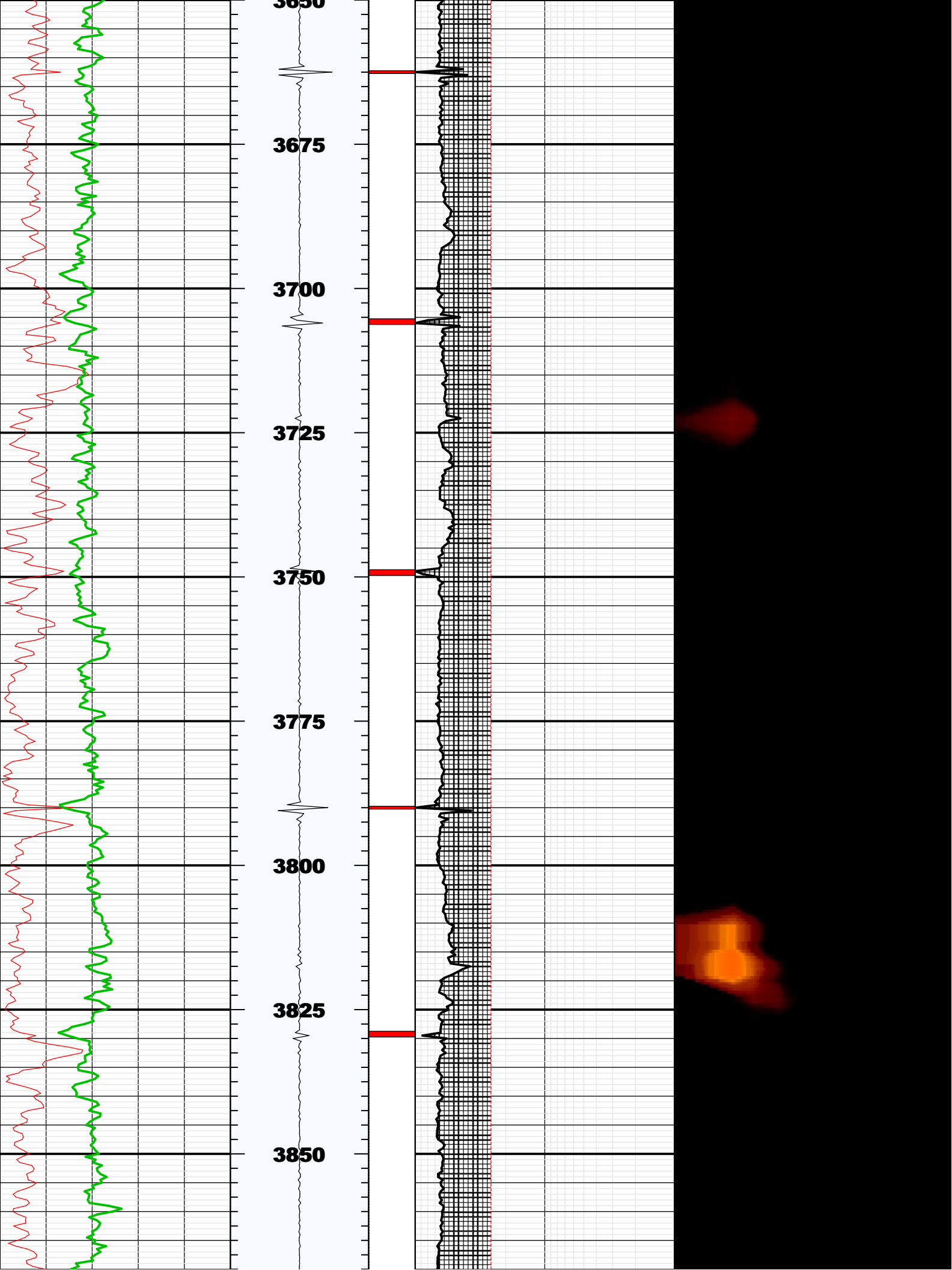


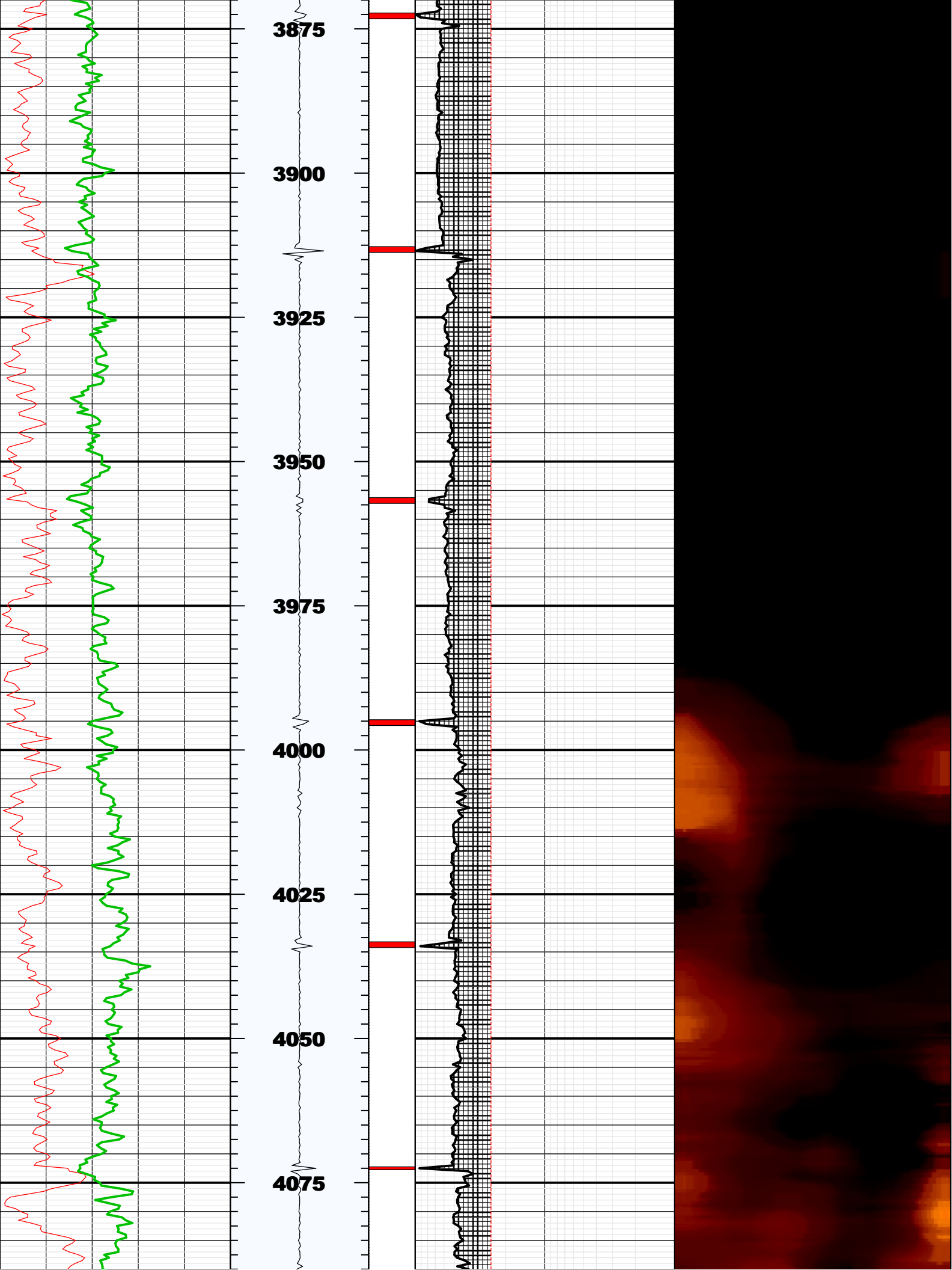


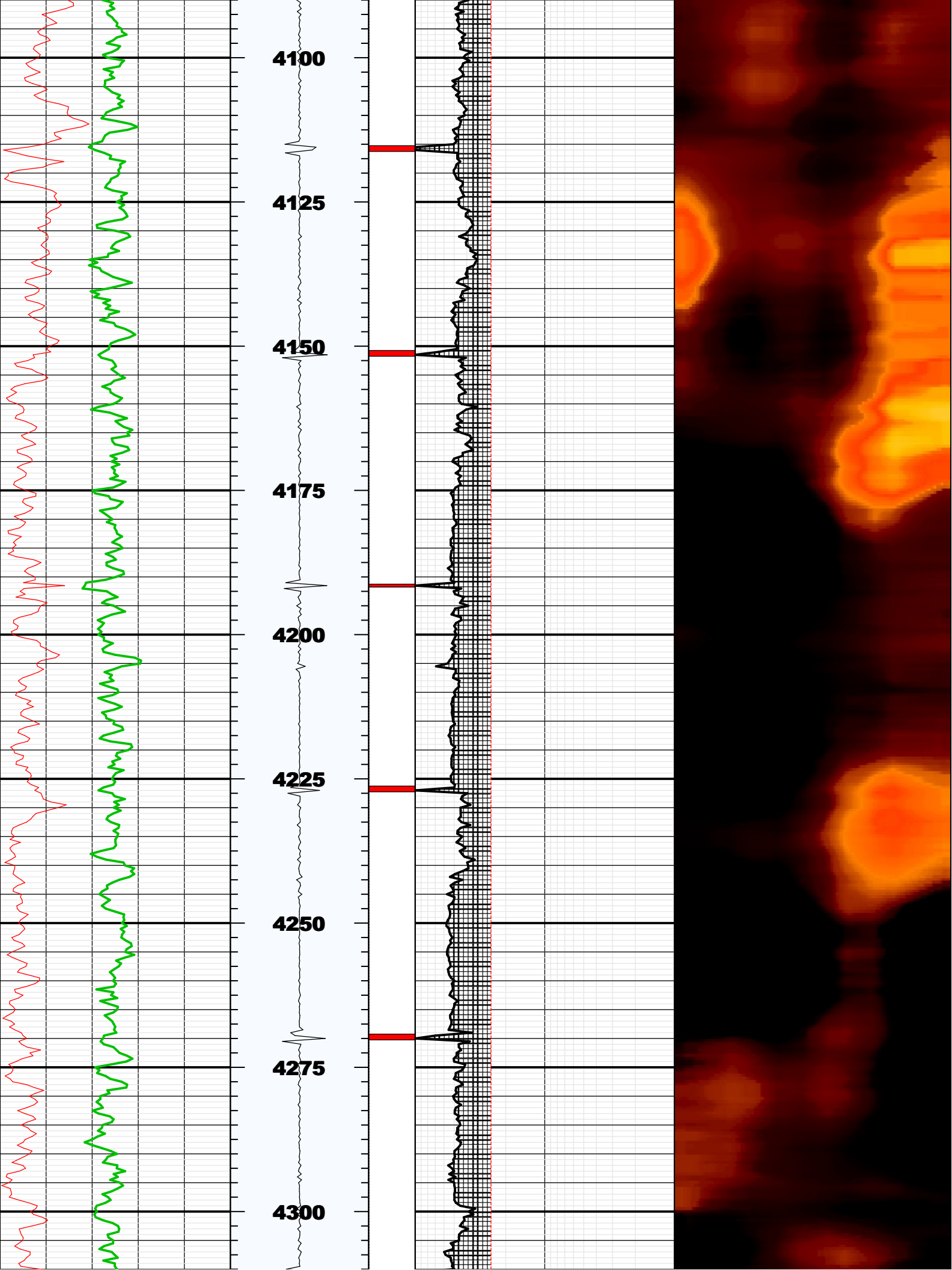


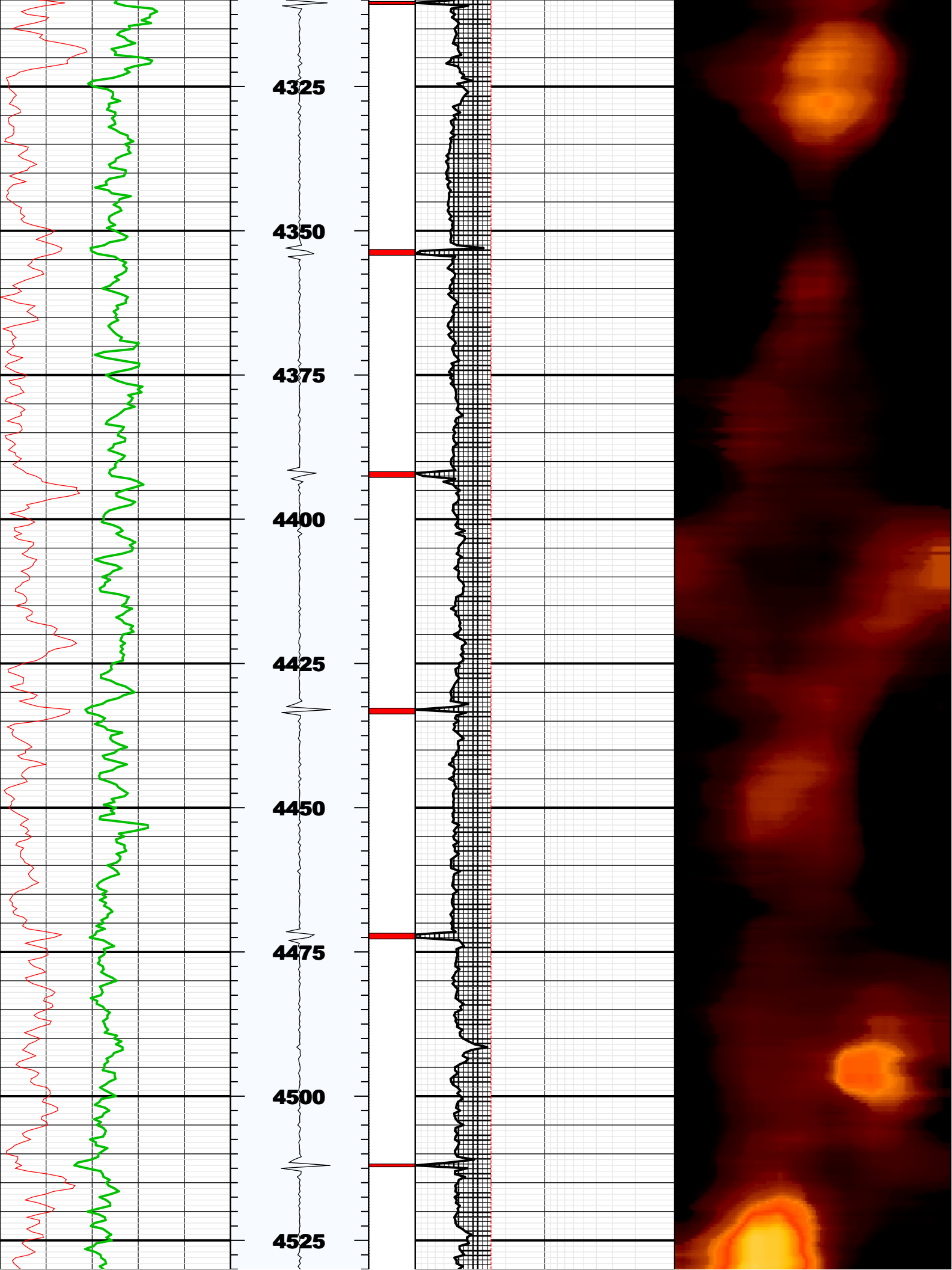


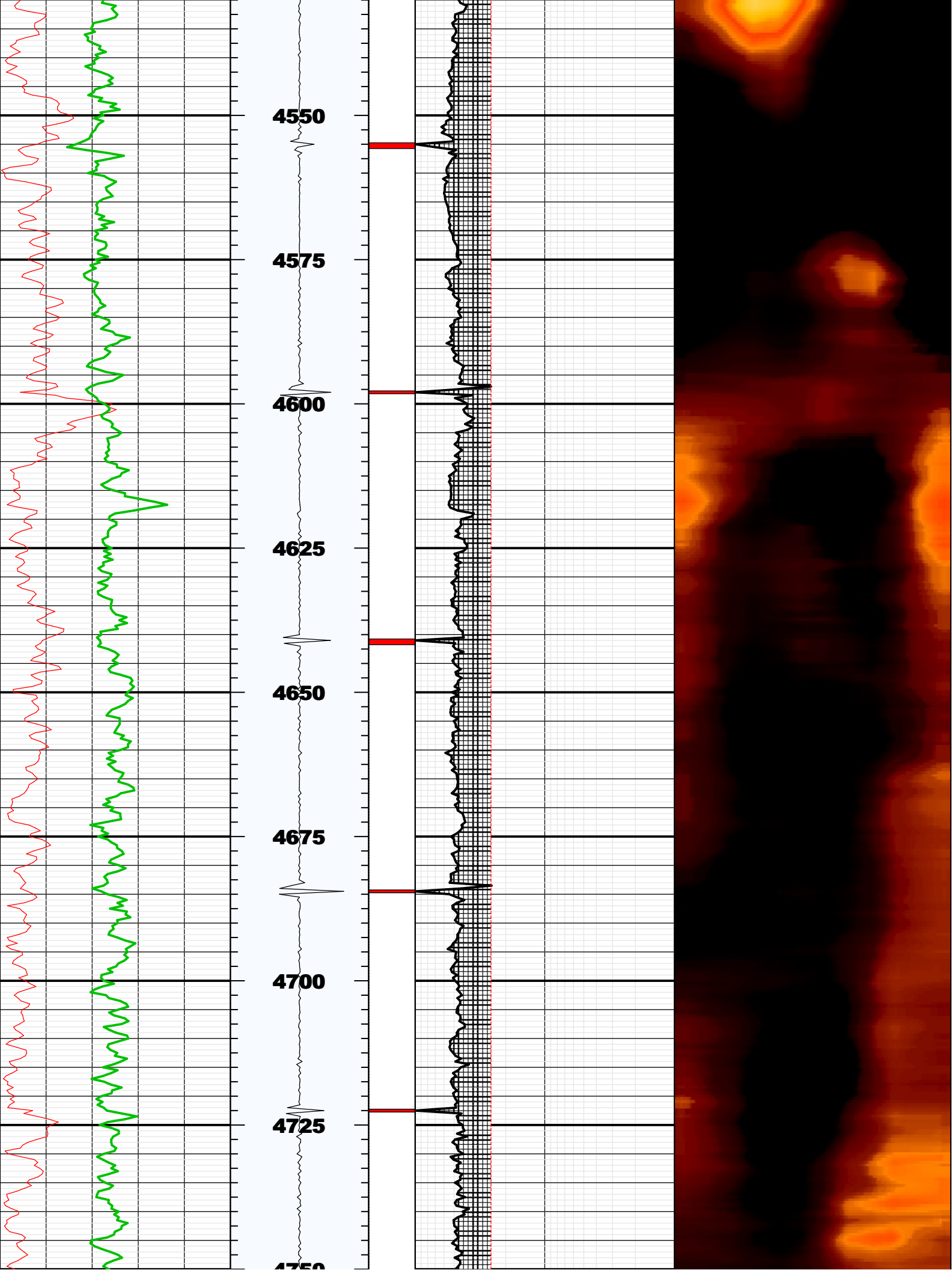


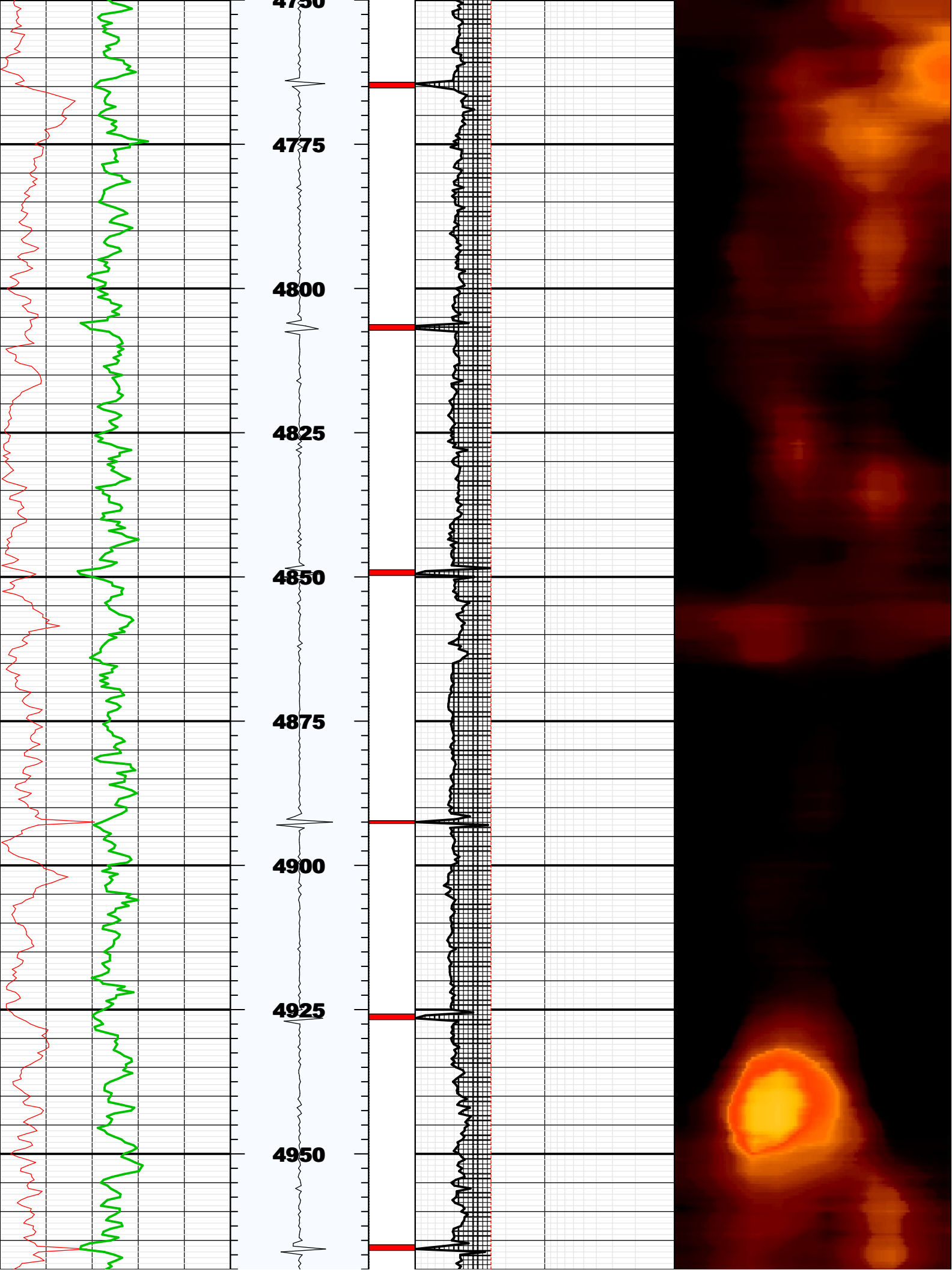


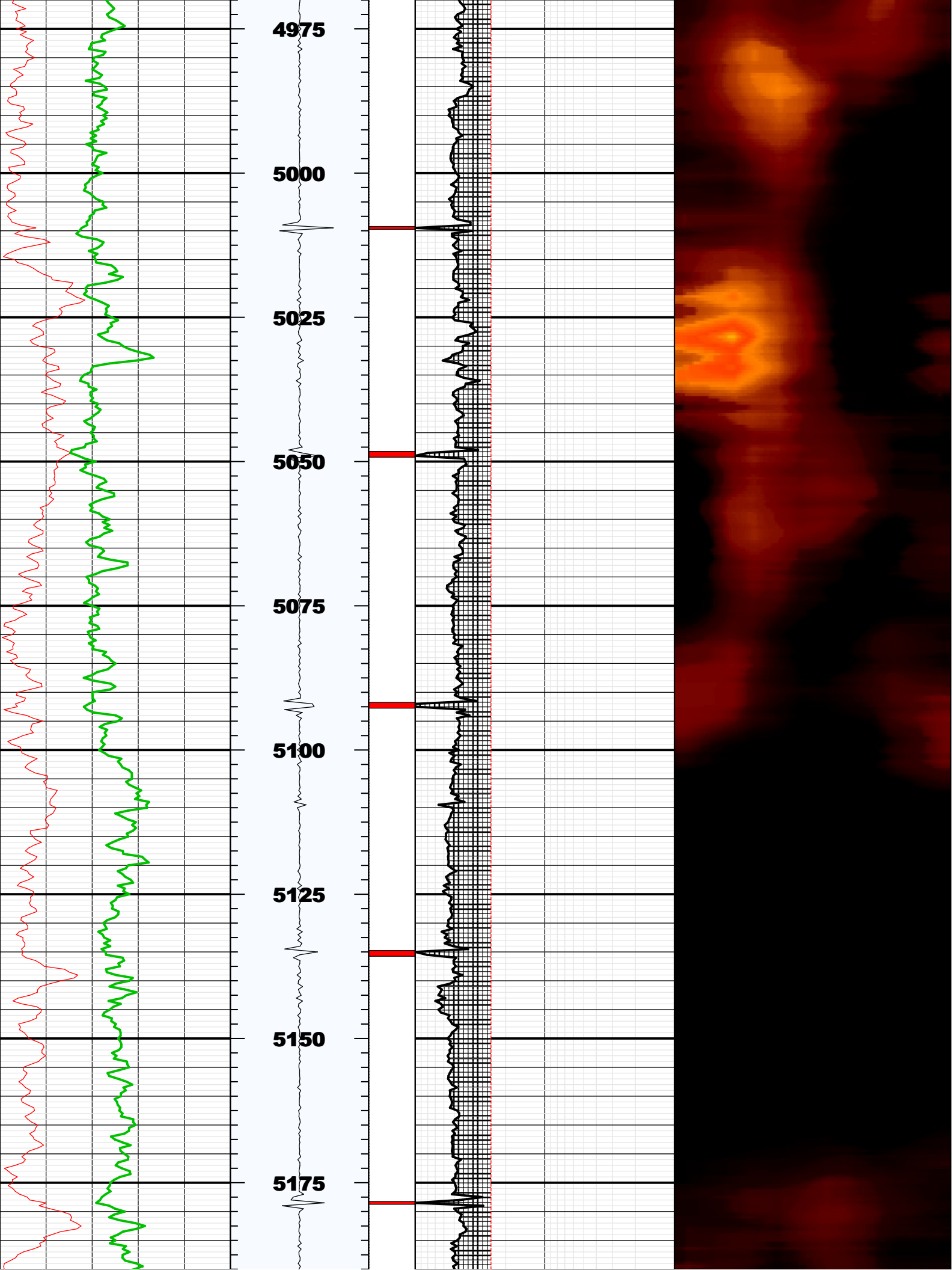


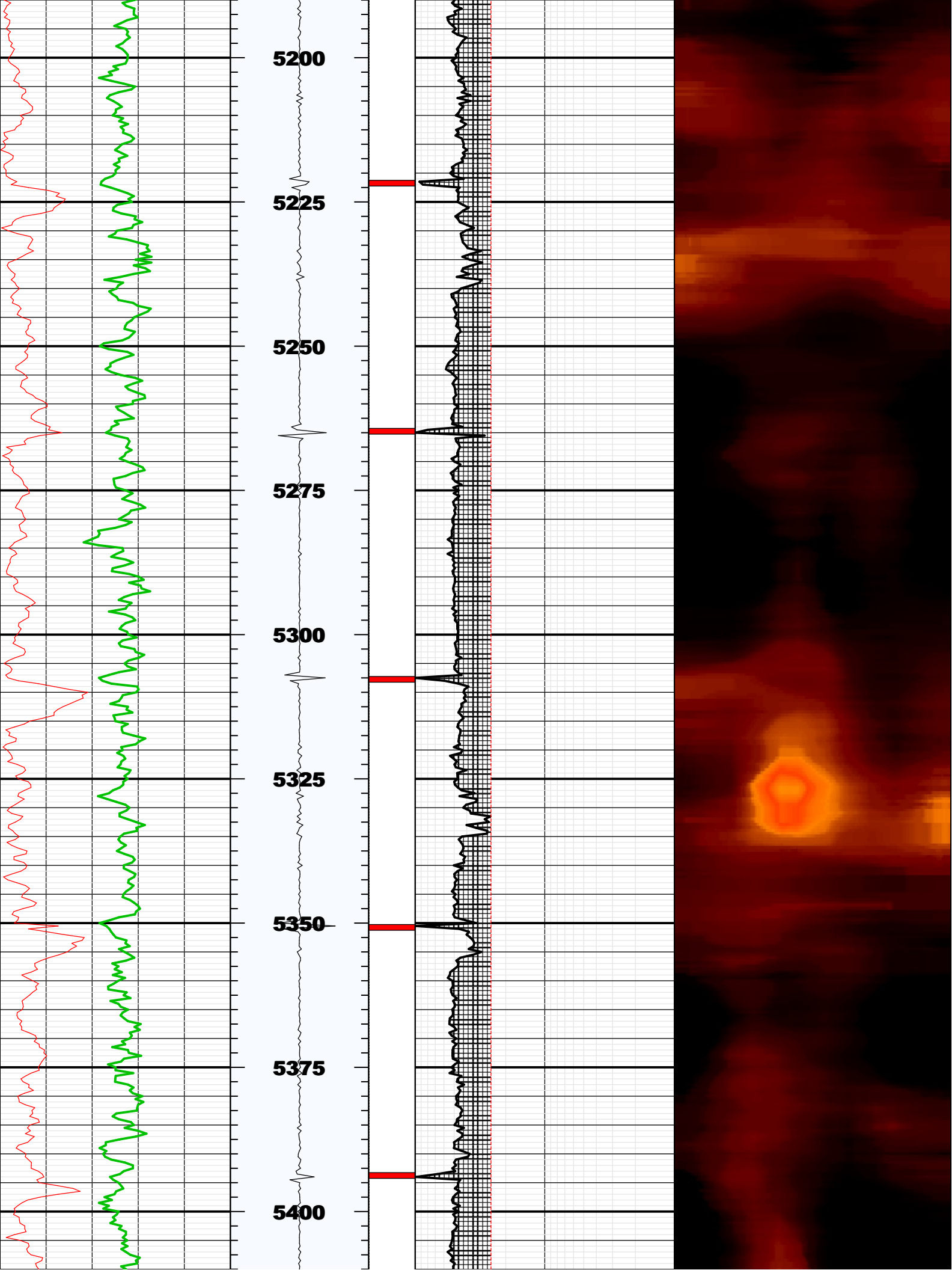


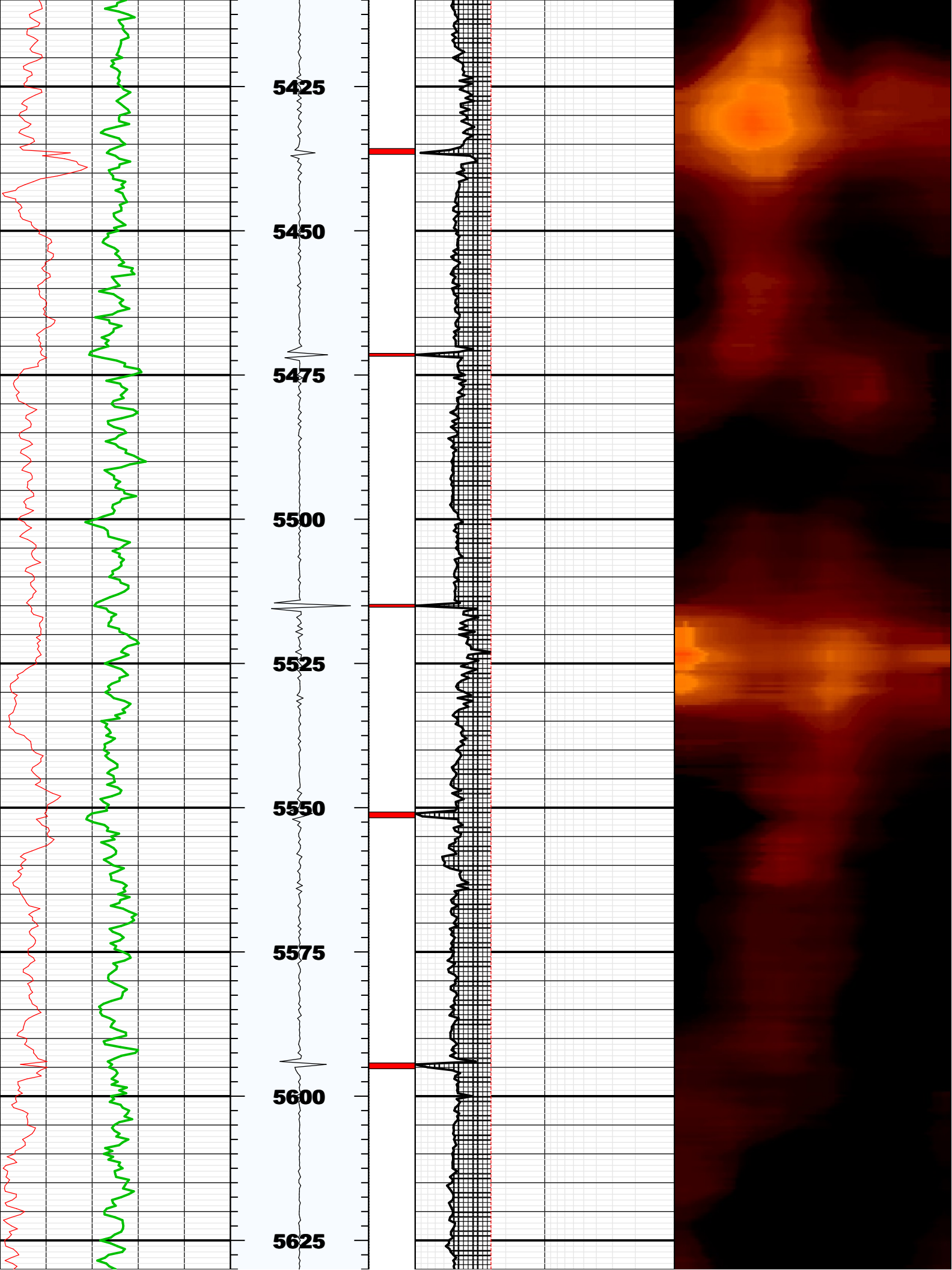


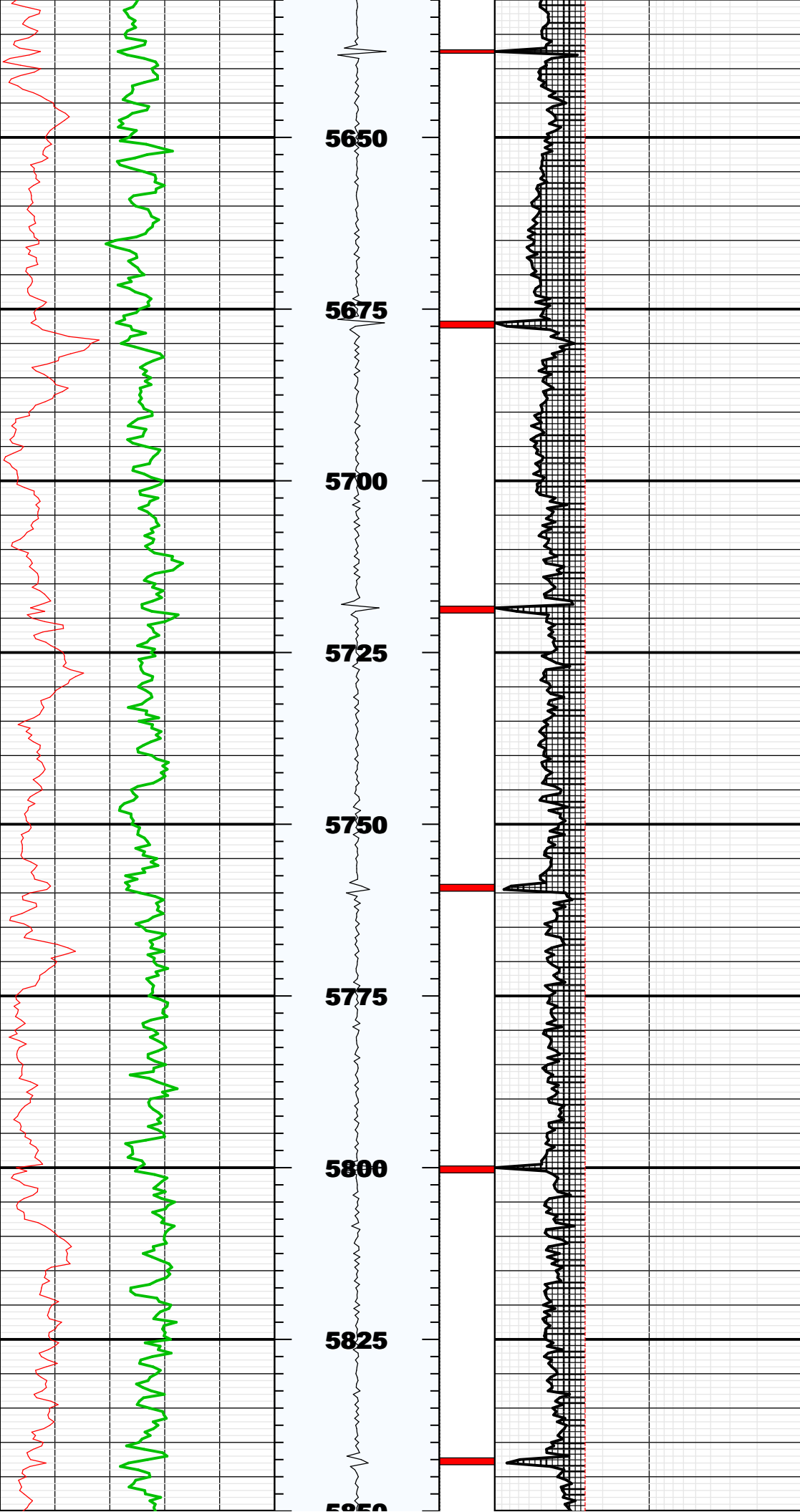


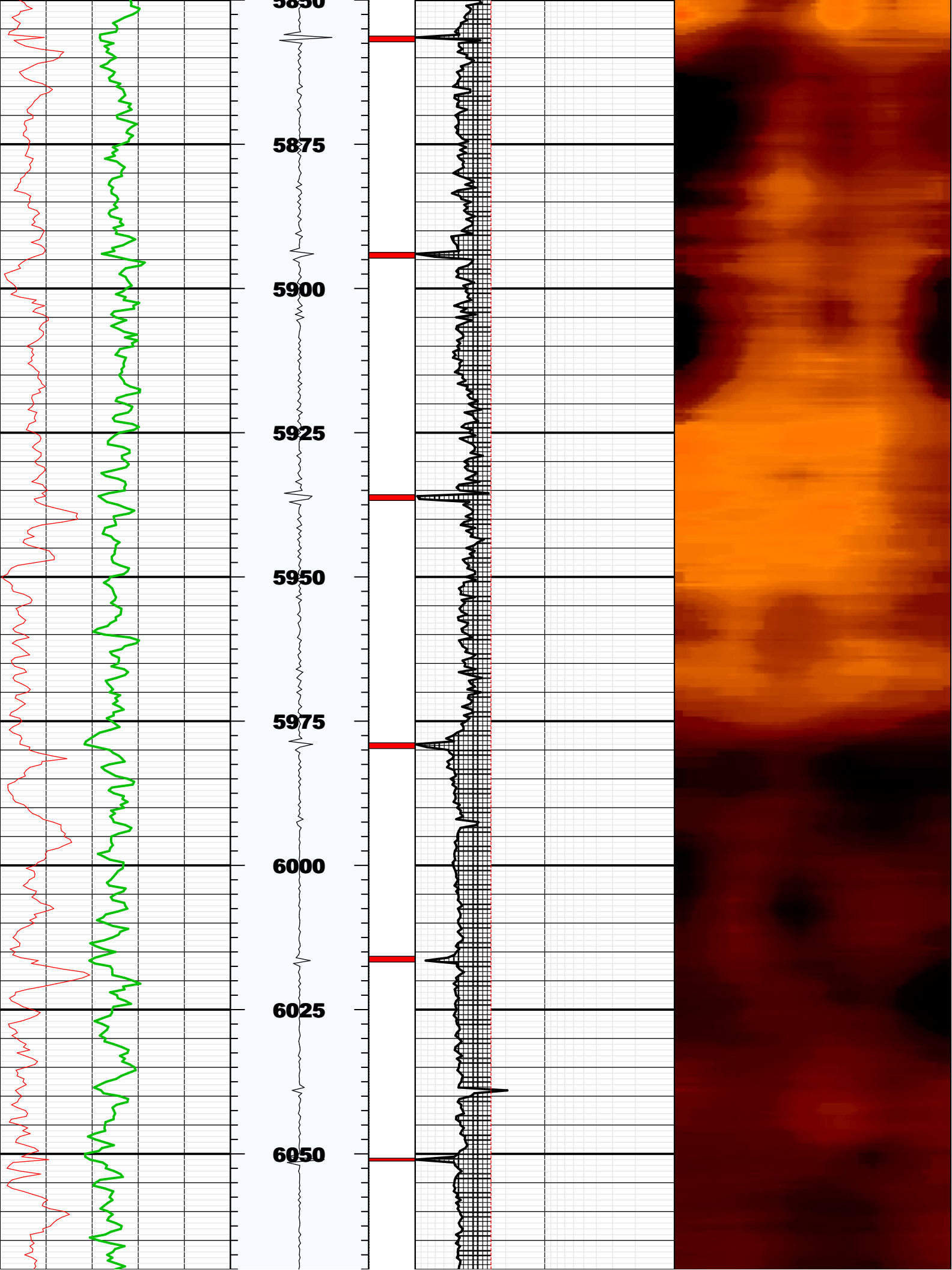


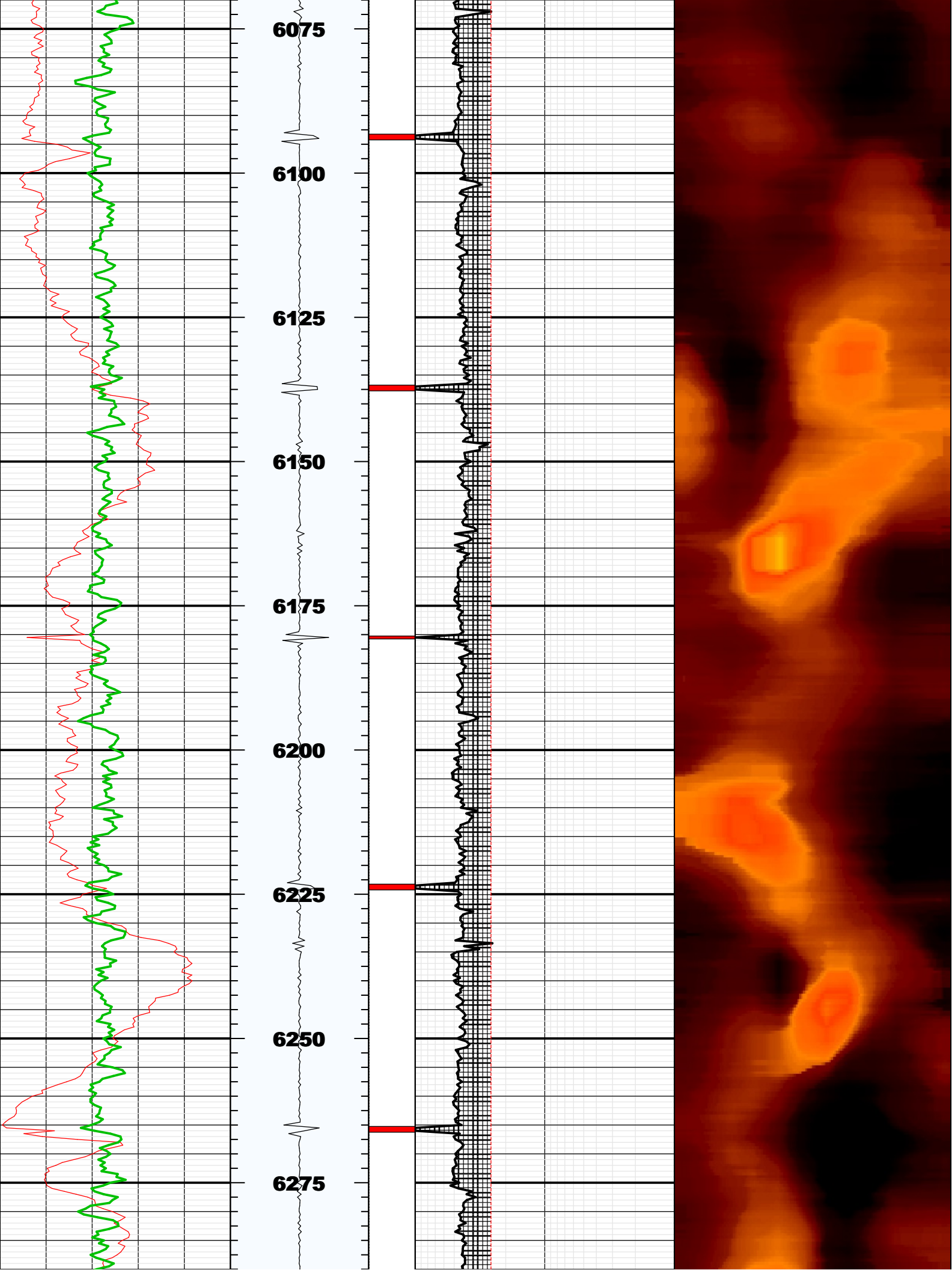


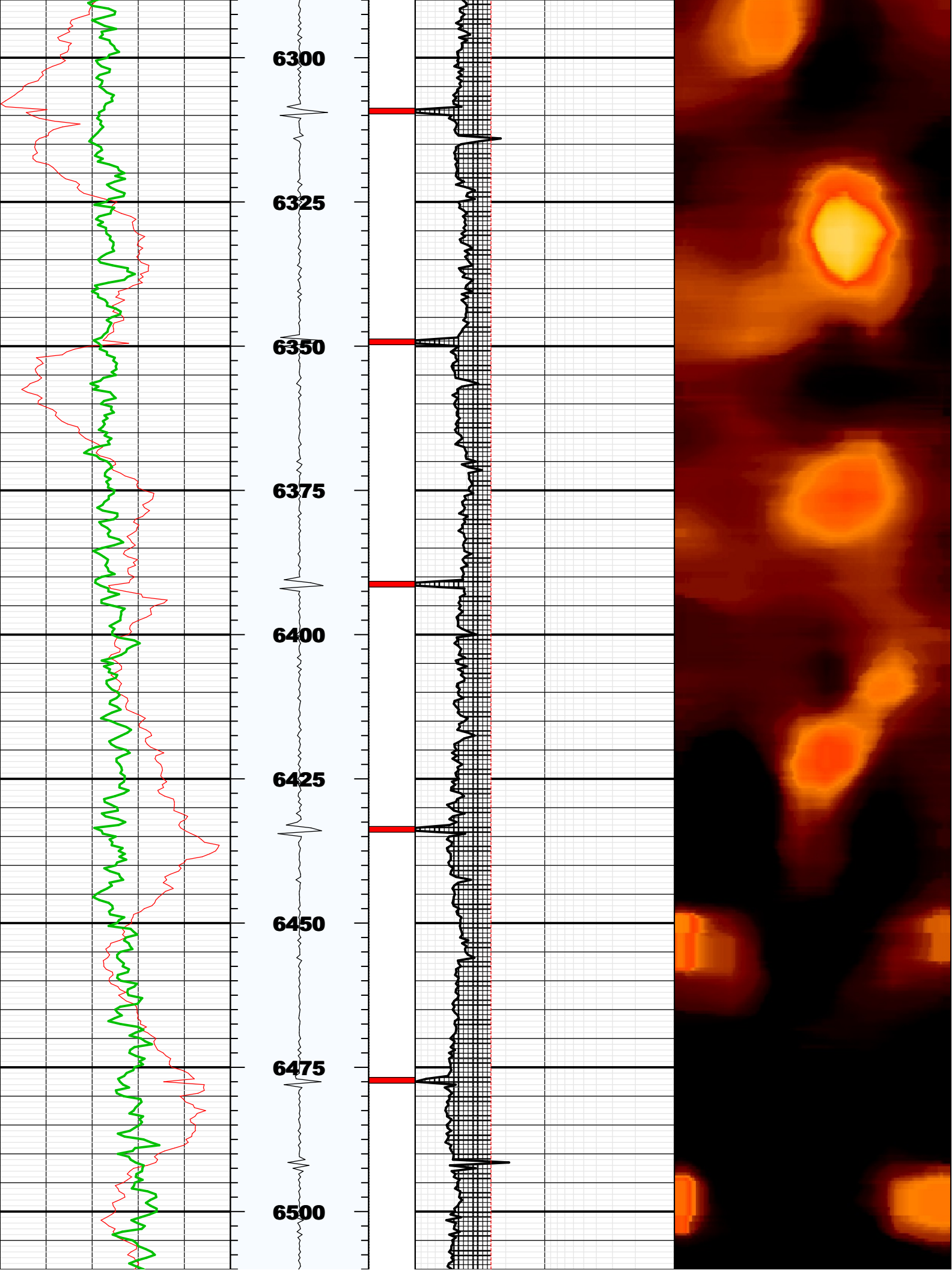


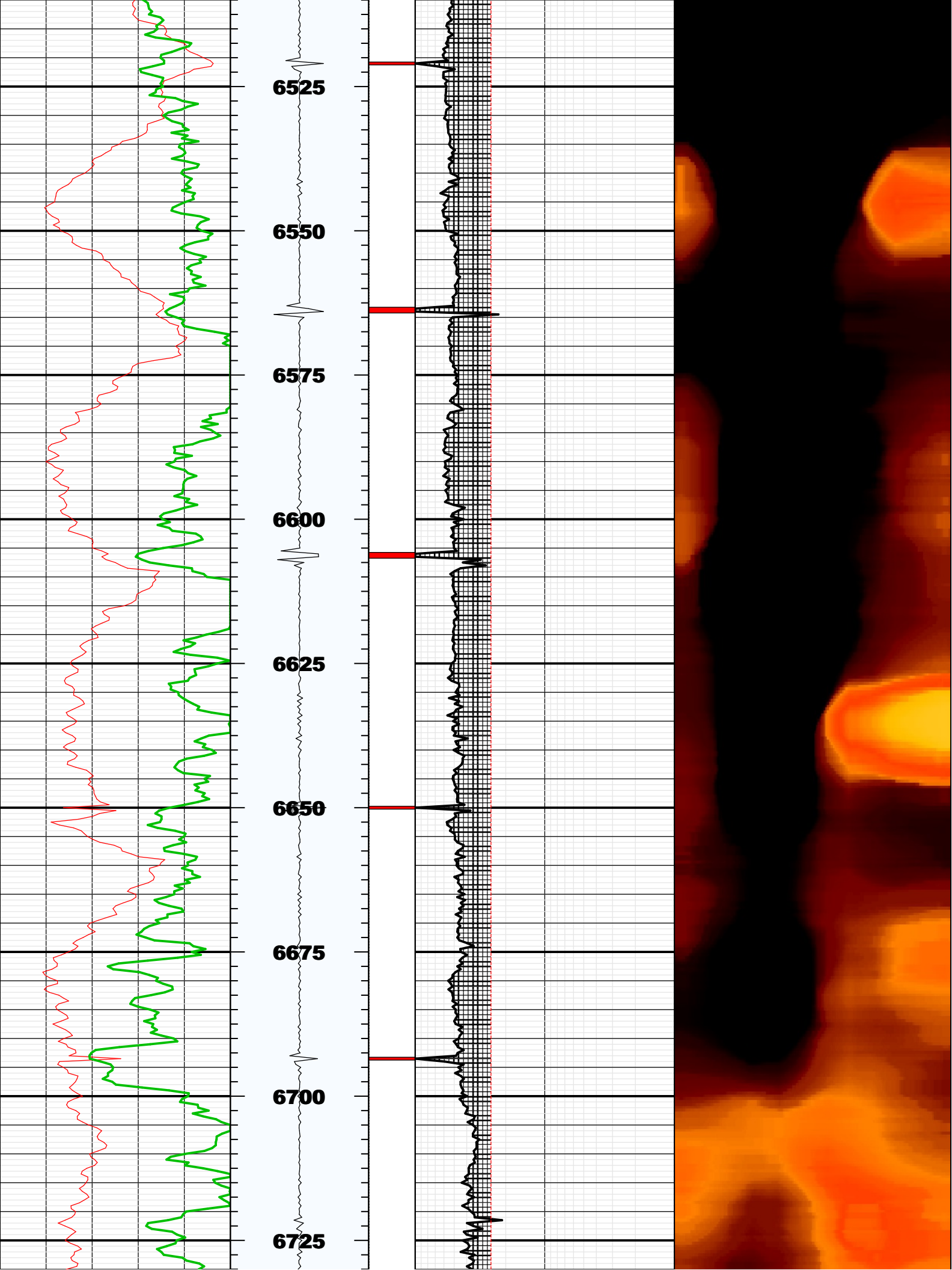


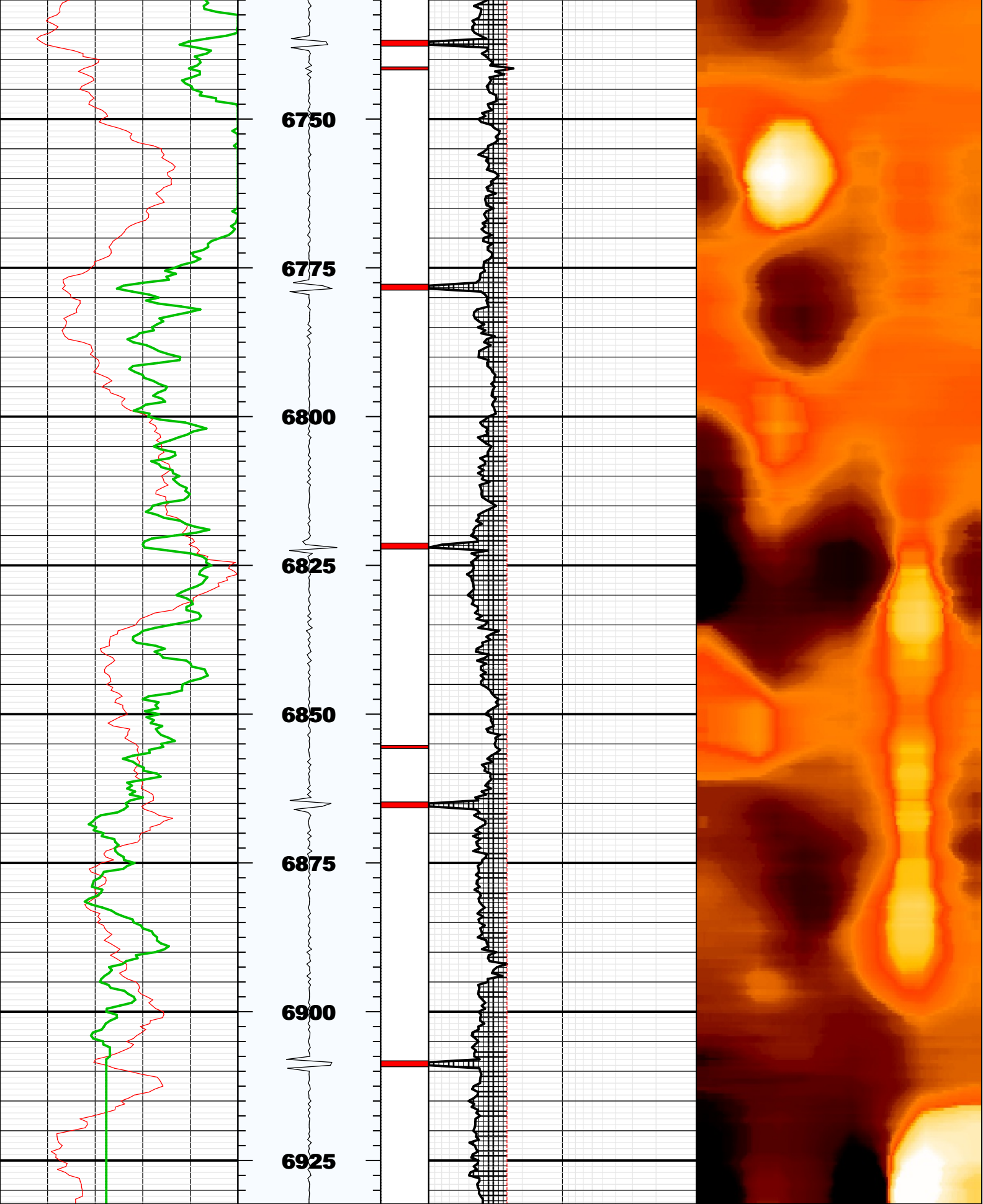








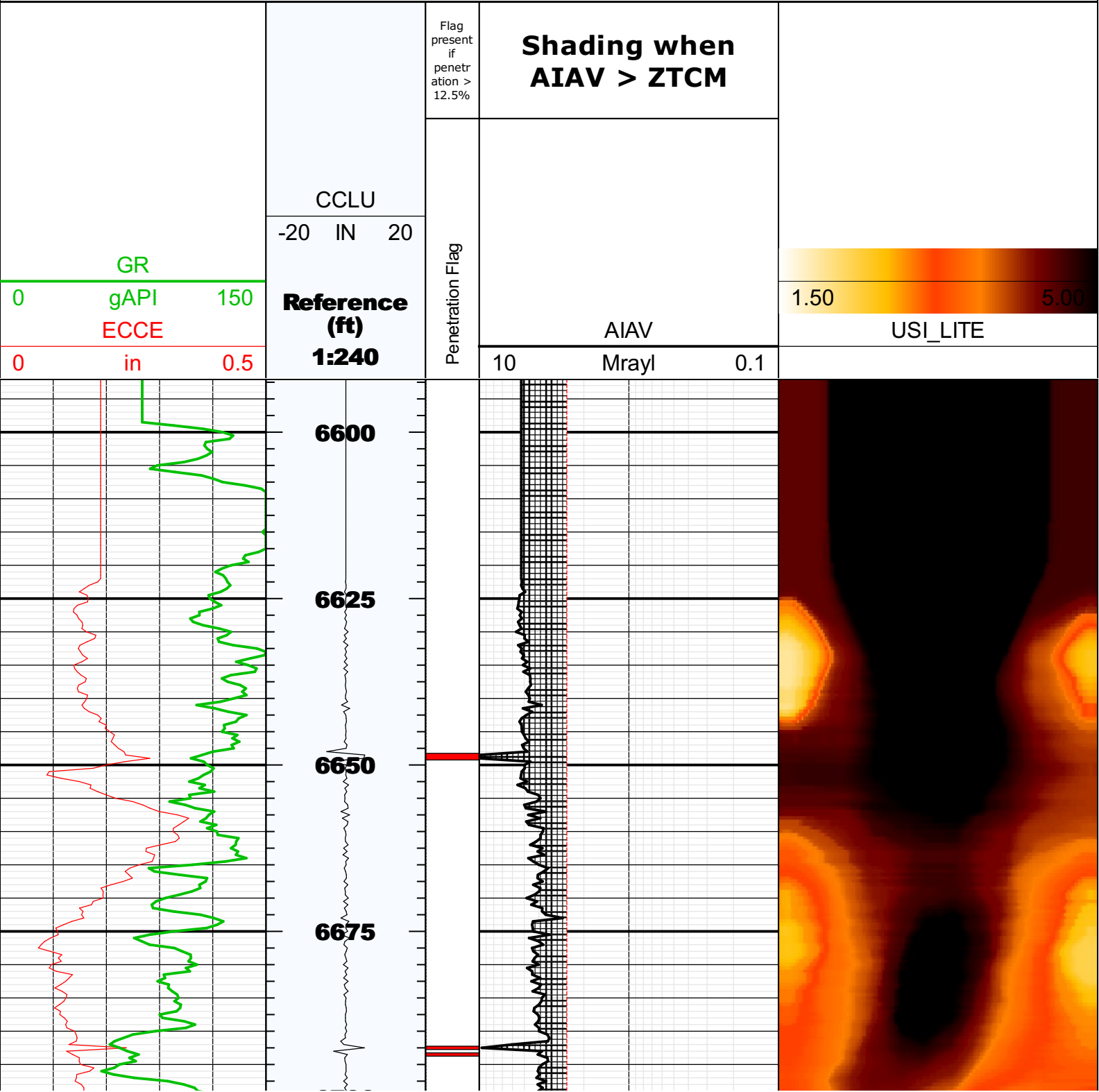


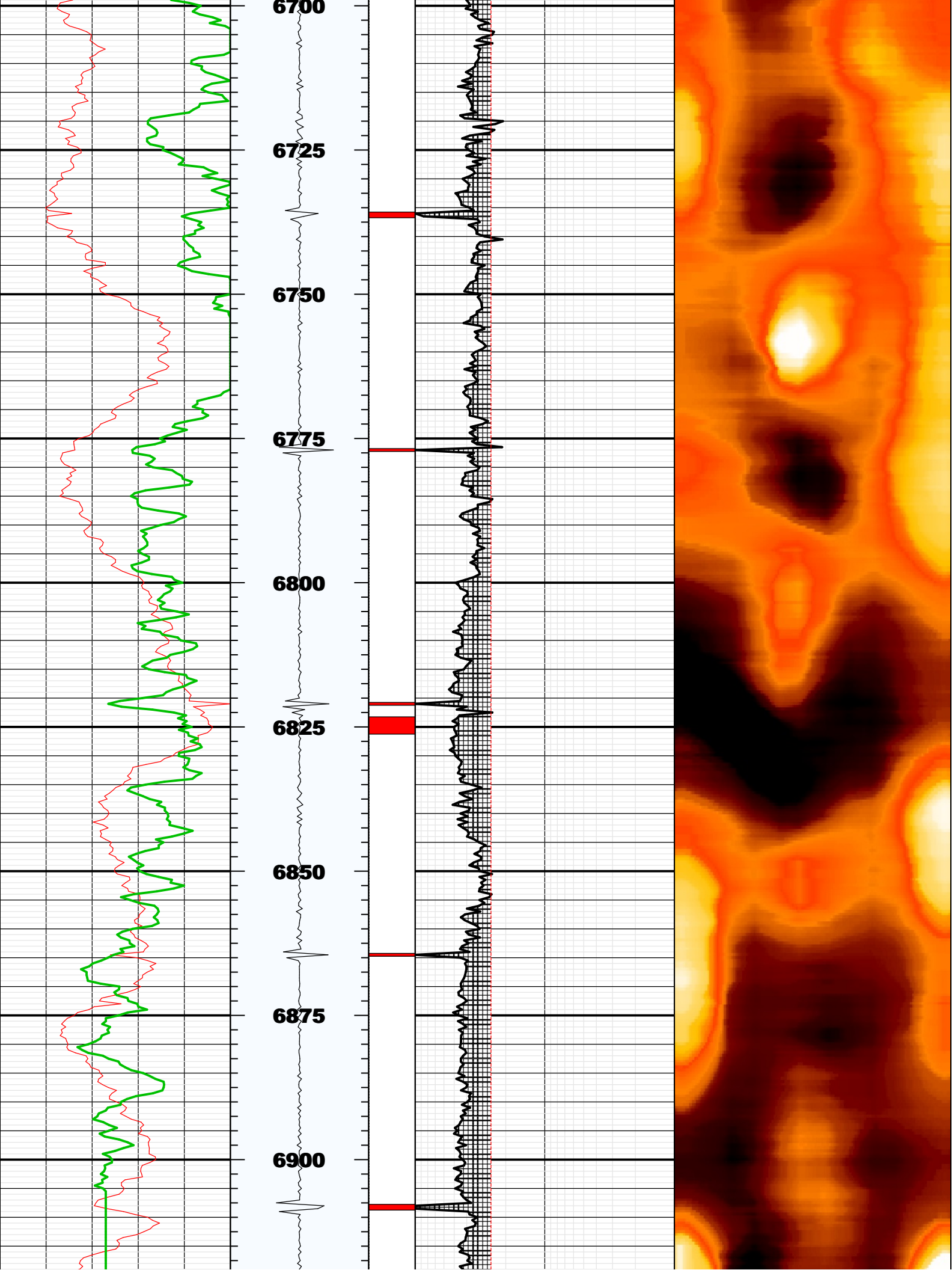


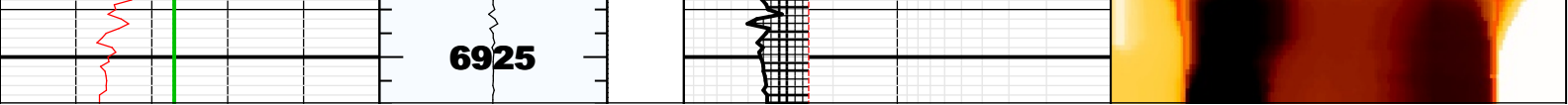
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	60	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	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	1.81000	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
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Field: Wattenberg







Fluid Properties Used for Main Pass

