

Company: Noble Energy Inc

Well: Reliance E23-68-1HN
Field: Greeley
County: Weld State: Colorado

County: Weld		USI-LITE						
Field: Greeley								
Location: NWNW Sec. 2 T6N R65W								
Well: Reliance E23-68-1HN								
Company: Noble Energy Inc								
LOCATION		Permanent Datum: Log Measured From: Drilling Measured From:	GL KB KB	Elev: K.B. G.L. D.F.	4762.0 F 4732.0 F 4761.0 F			
API Serial No. 05-123-38142-0000						Section 23	Township 6N	Range 65W
Logging Date 26-Mar-2015								
Run Number Run 1								
Depth Driller		7324.9 F						
Schlumberger Depth		7159.9 F						
Bottom Log Interval		7159.9 F						
Top Log Interval		30.0 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		7159.9 F						
To		-999.2 F						
Casing Size		7.00 IN						
Weight		26.00 LB/F						
Grade		P110						
From		30.0 F						
To		7315.0 F						
Max Recorded Temp		246.5						
Logger on bottom (date)		26-Mar-2015						
Location		Fort Morgan CO						
Recorded By		Keri 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: 1109 Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: U711136 Length: 17200.00000

DISCLAIMER

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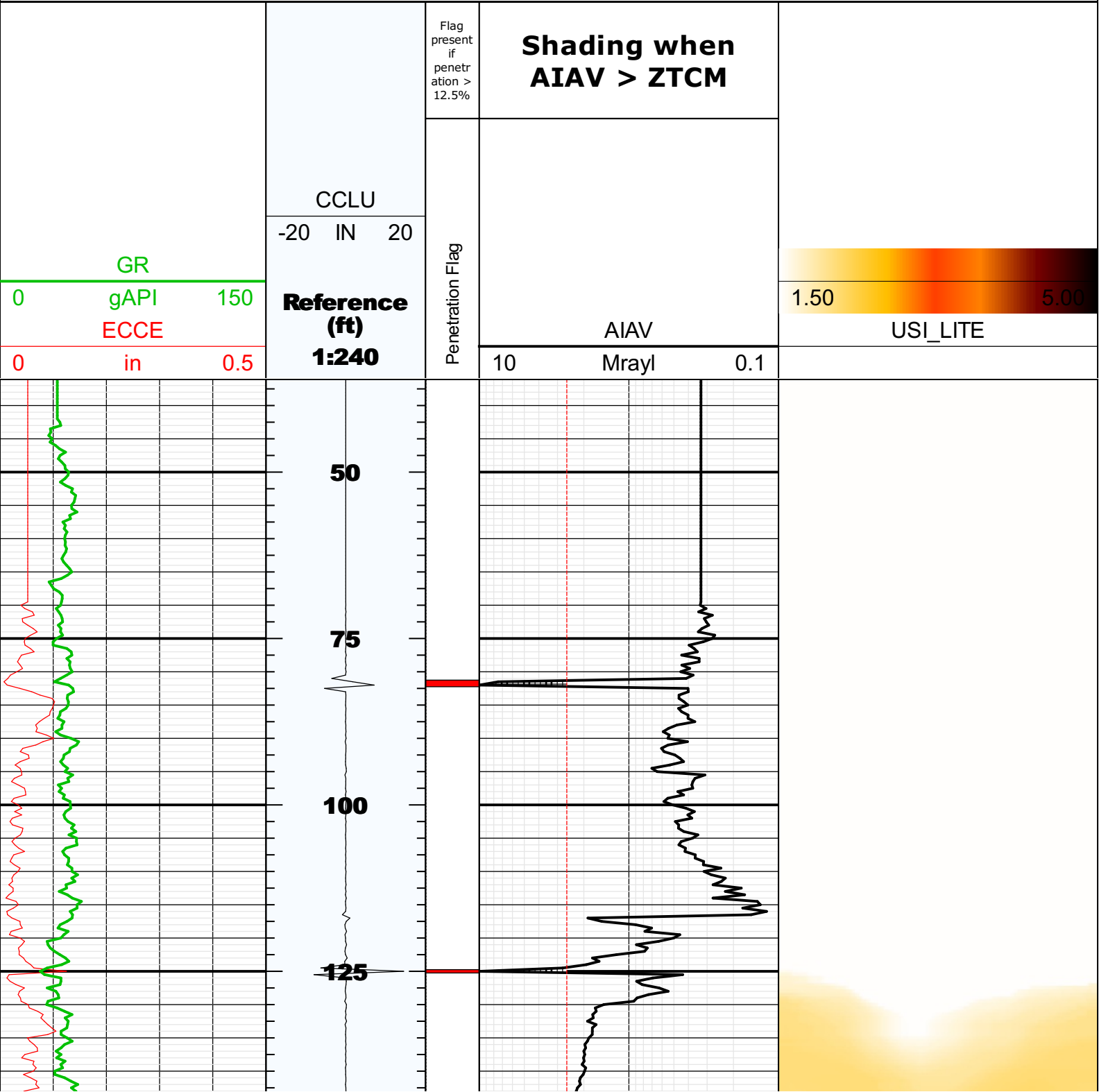
This is the first run in hole.
Toolstring run as per toolsketch.
Log objective Cement Evaluation.
0 PSI repeat pass and 2500 PSI main pass.

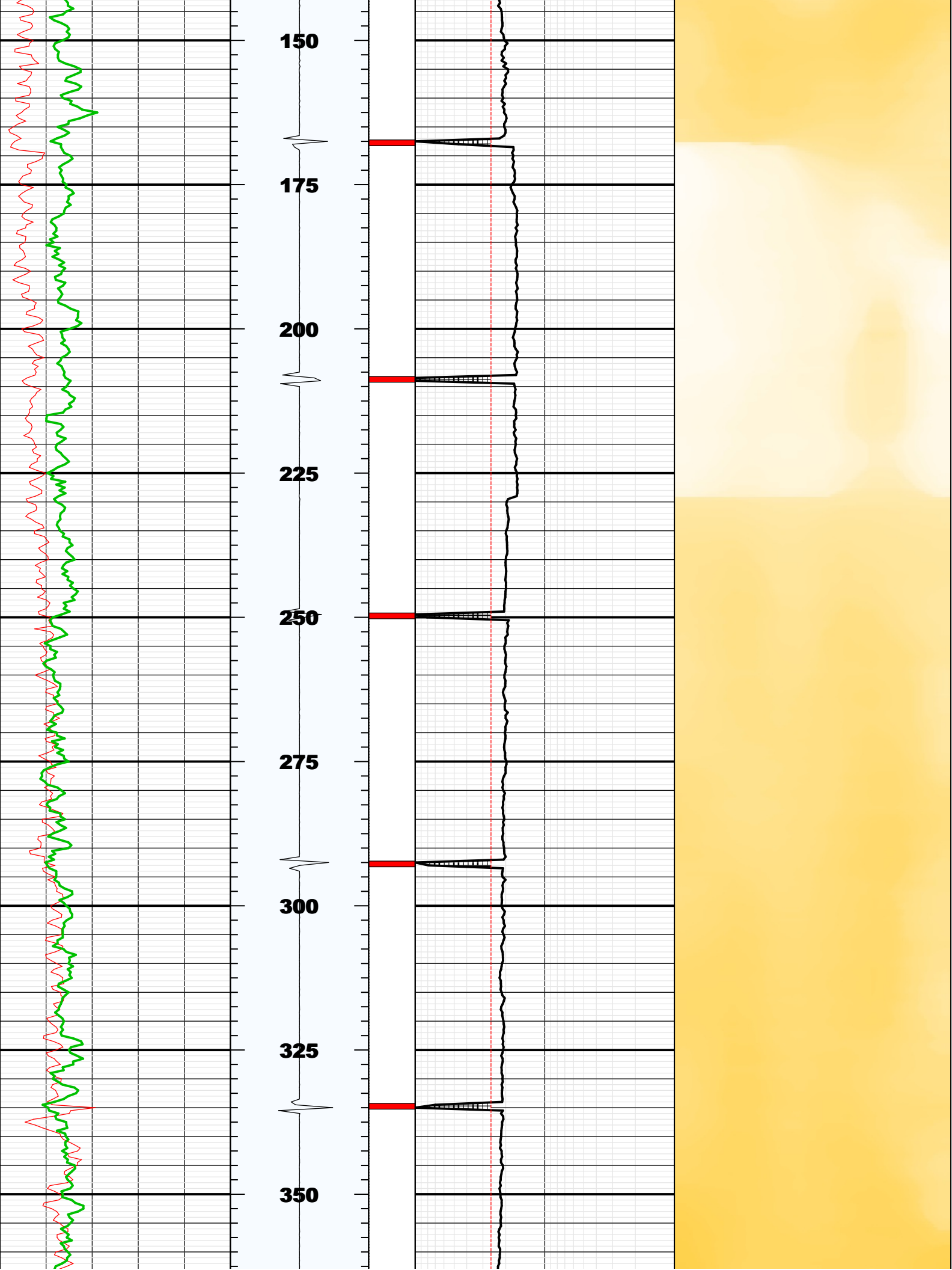
Estimated TOC @ 1200'. Expected TOC @ 1500'.
Top of 4.5 liner at 7171.6'.
Bottom log interval at 7160 to maintain distance from top of liner.
Bottom hole temperature was 246.59 degF.

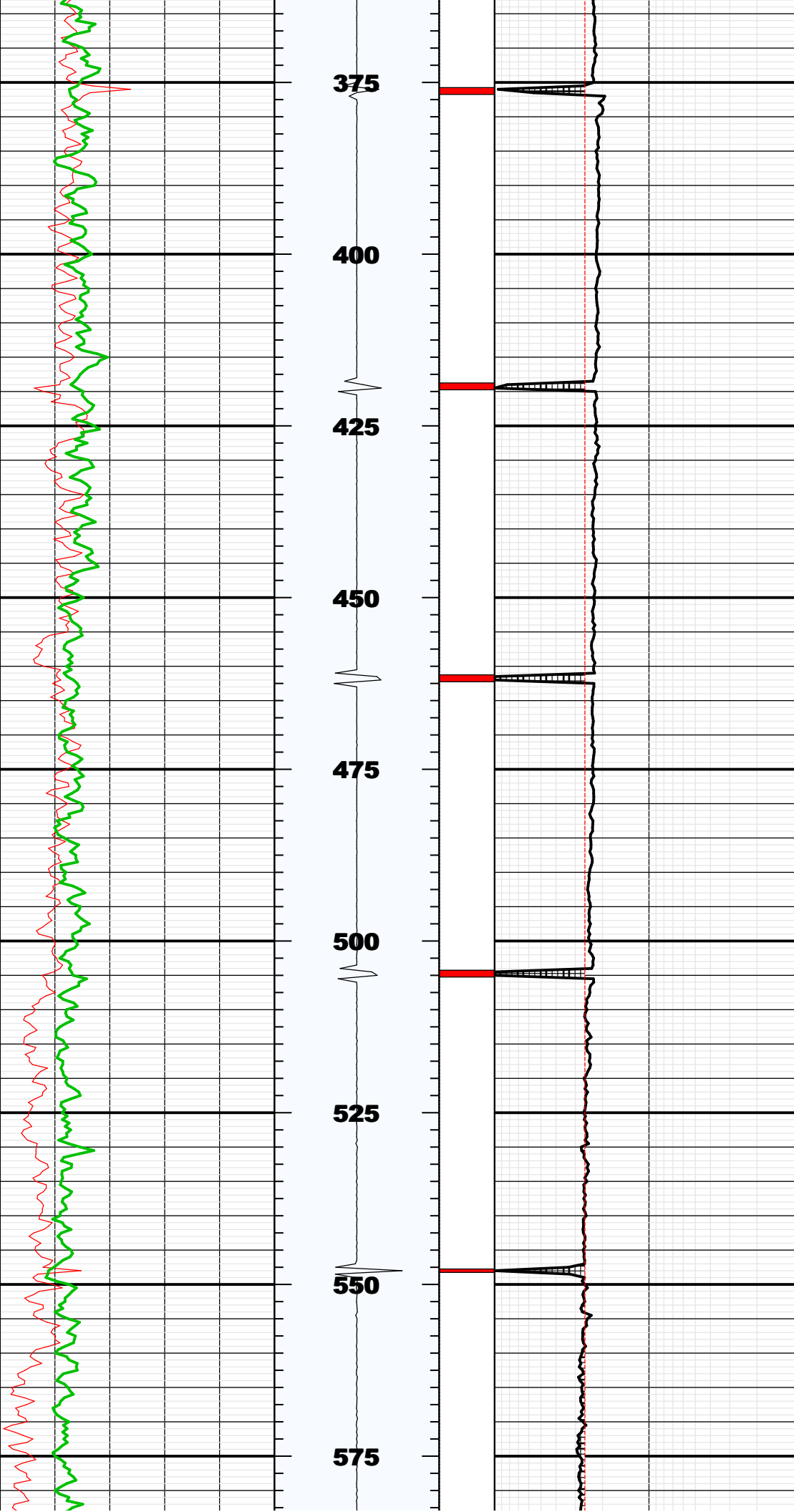
Thank you for choosing Schlumberger Wireline!
SLB crew Tim Ludgate Jake Jump and Keri Ondrus.

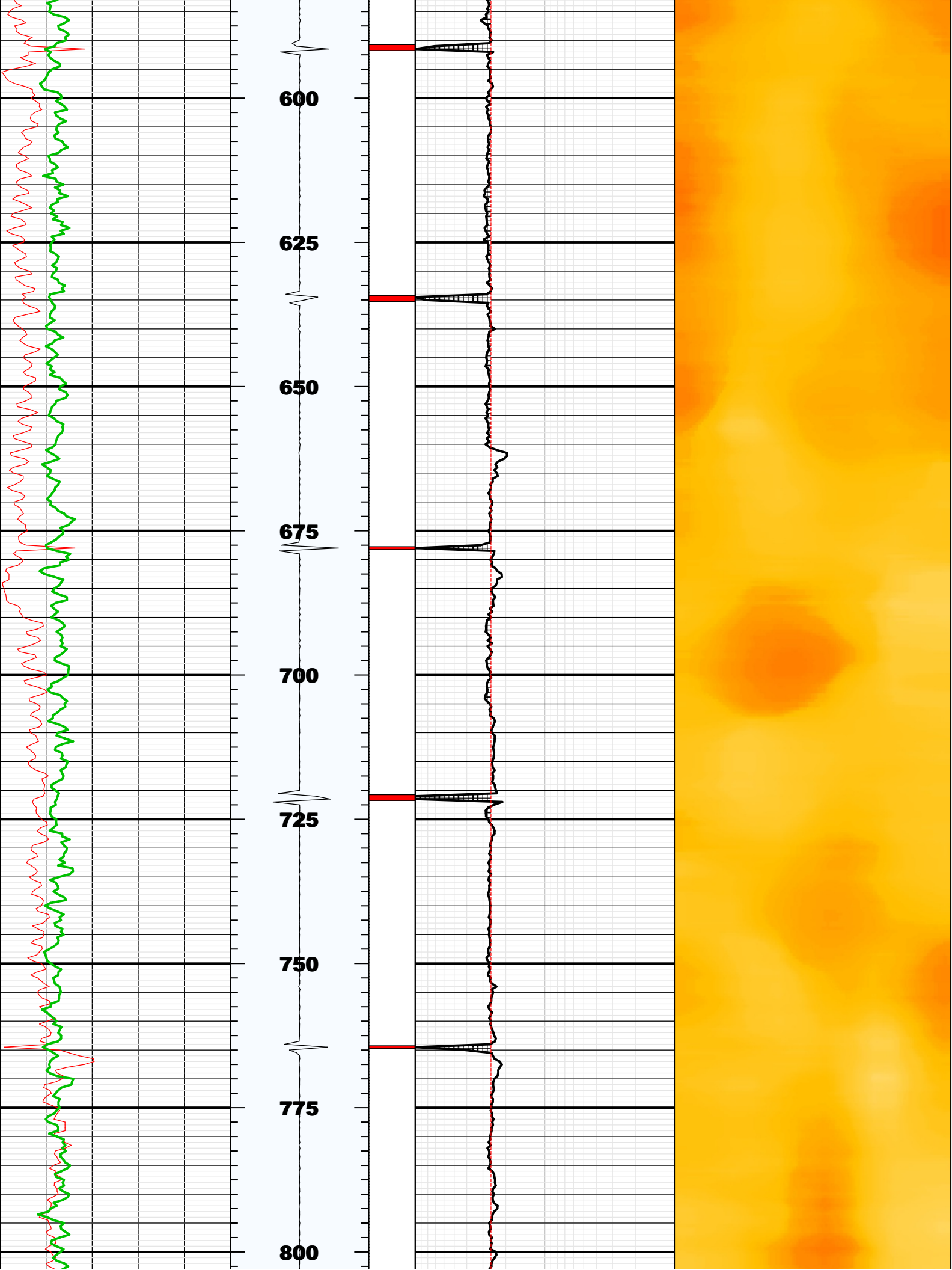
Main Pass

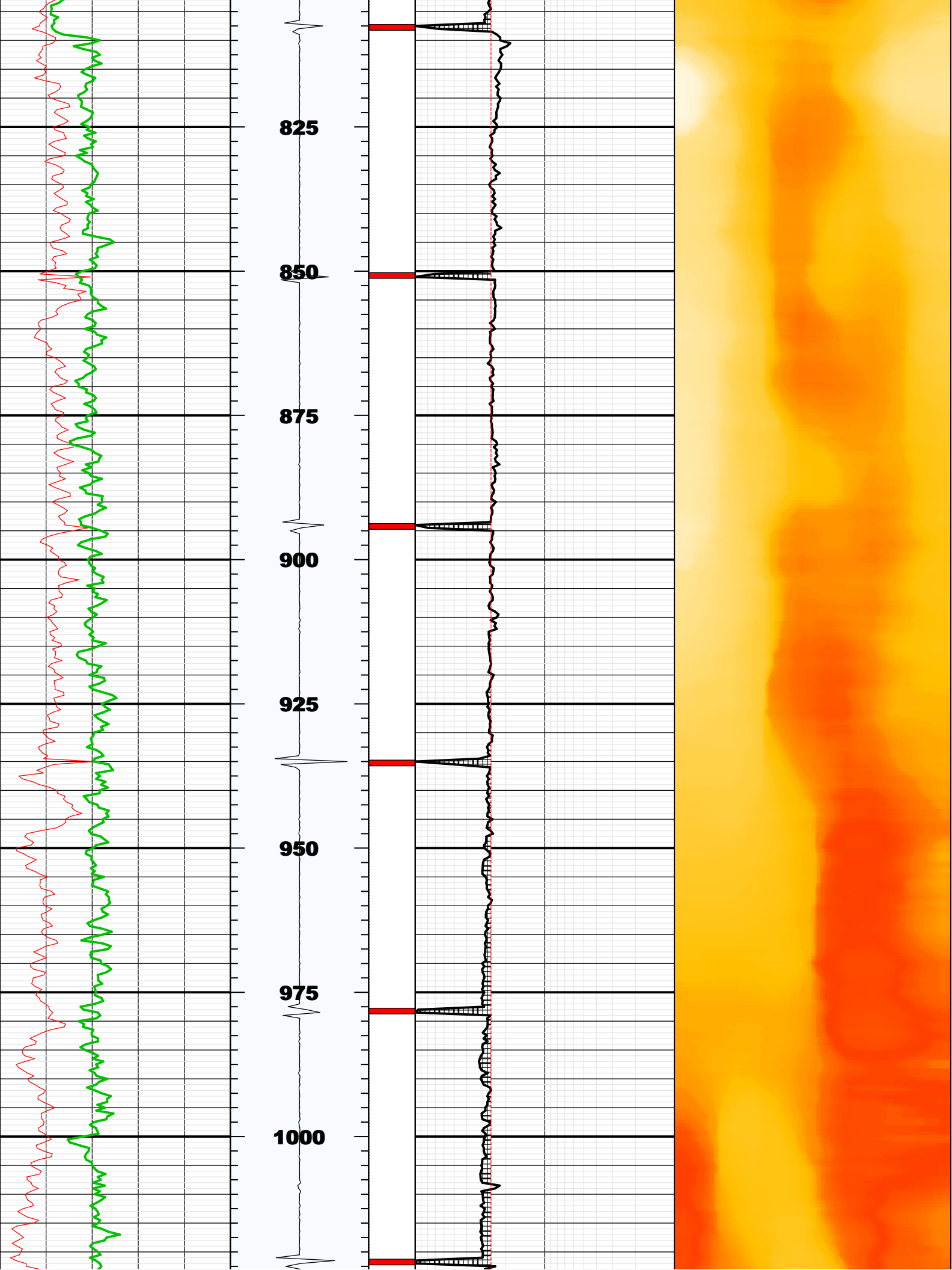
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Well: Reliance E23-68-1HN
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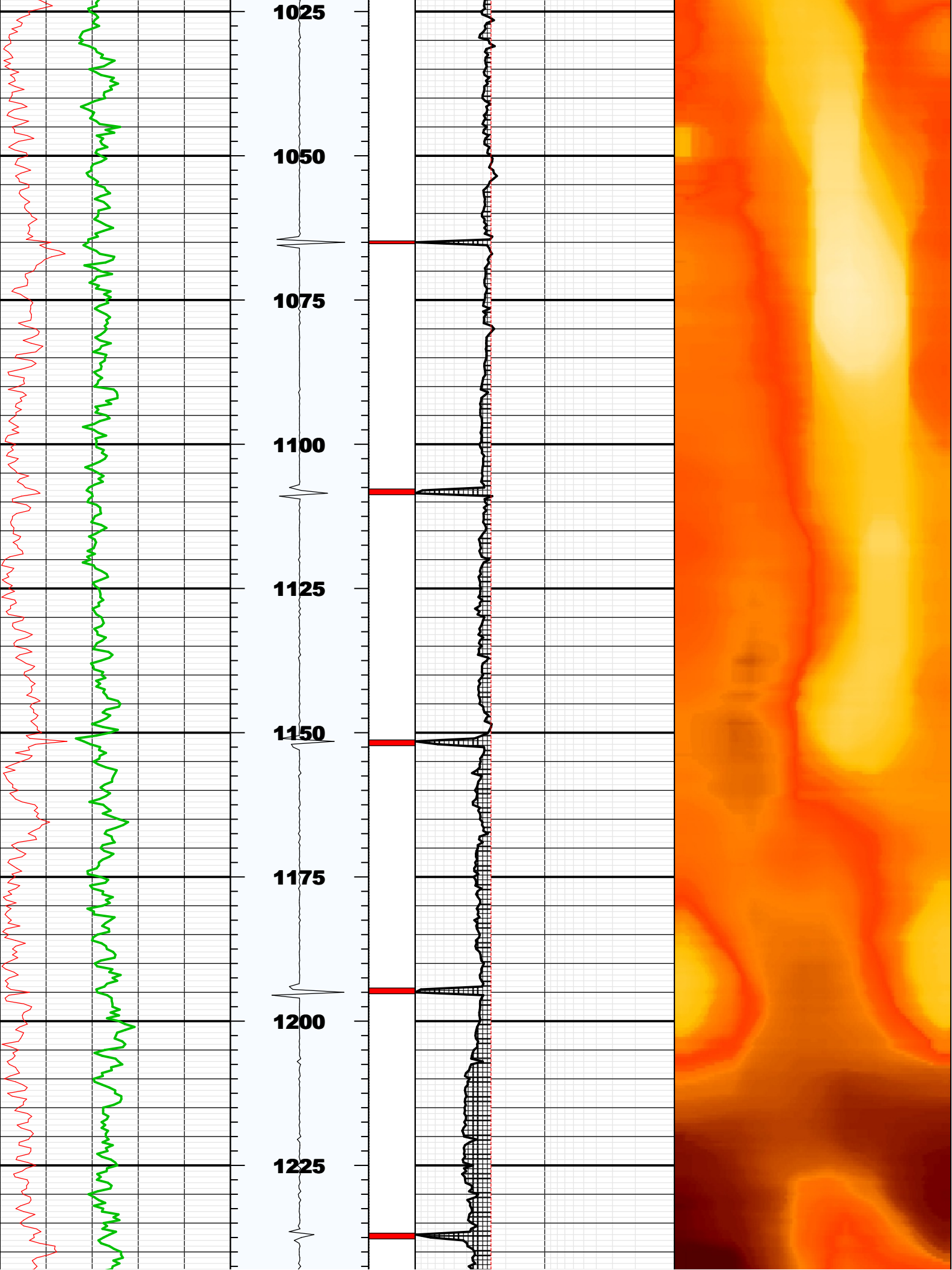


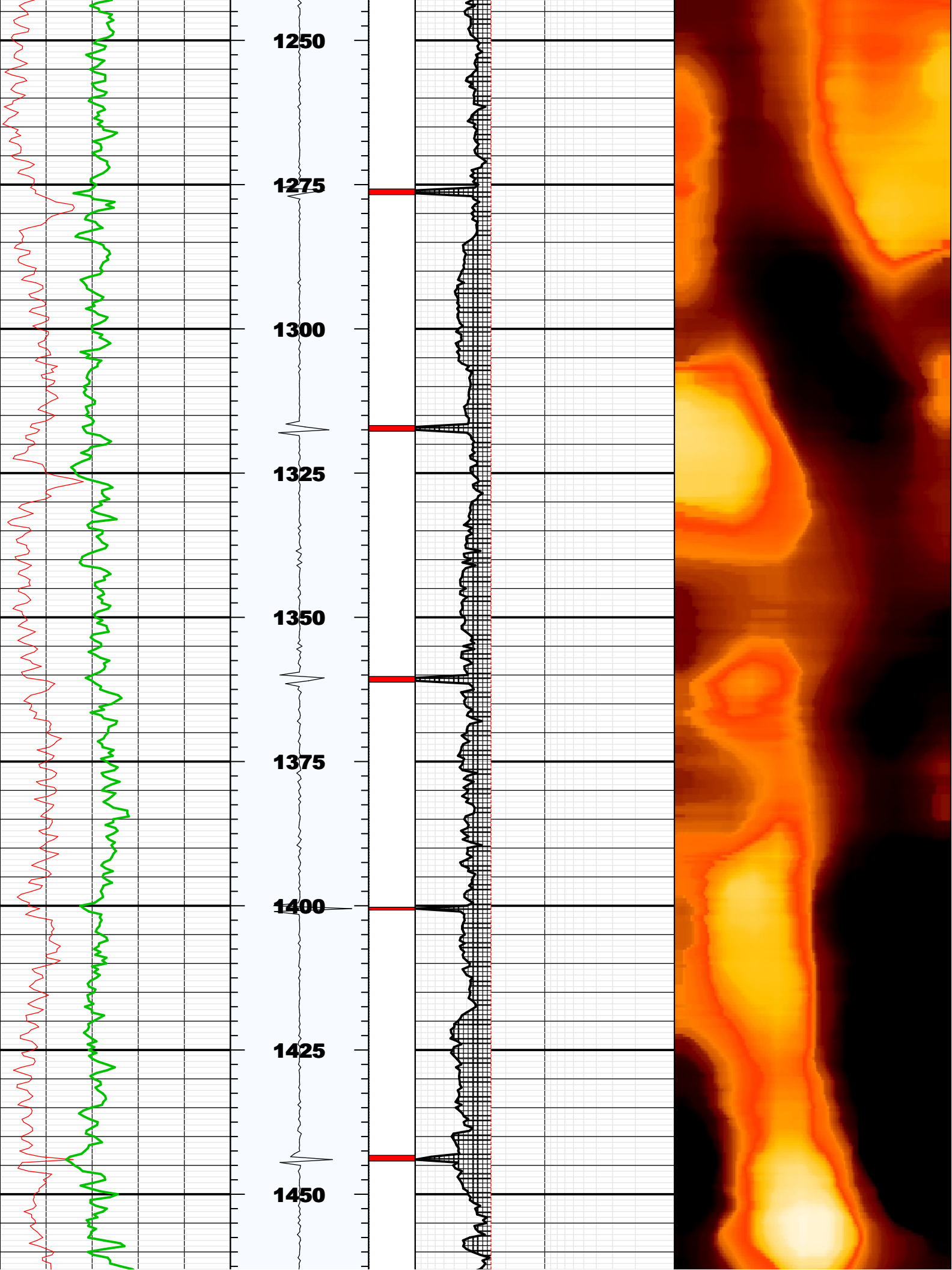


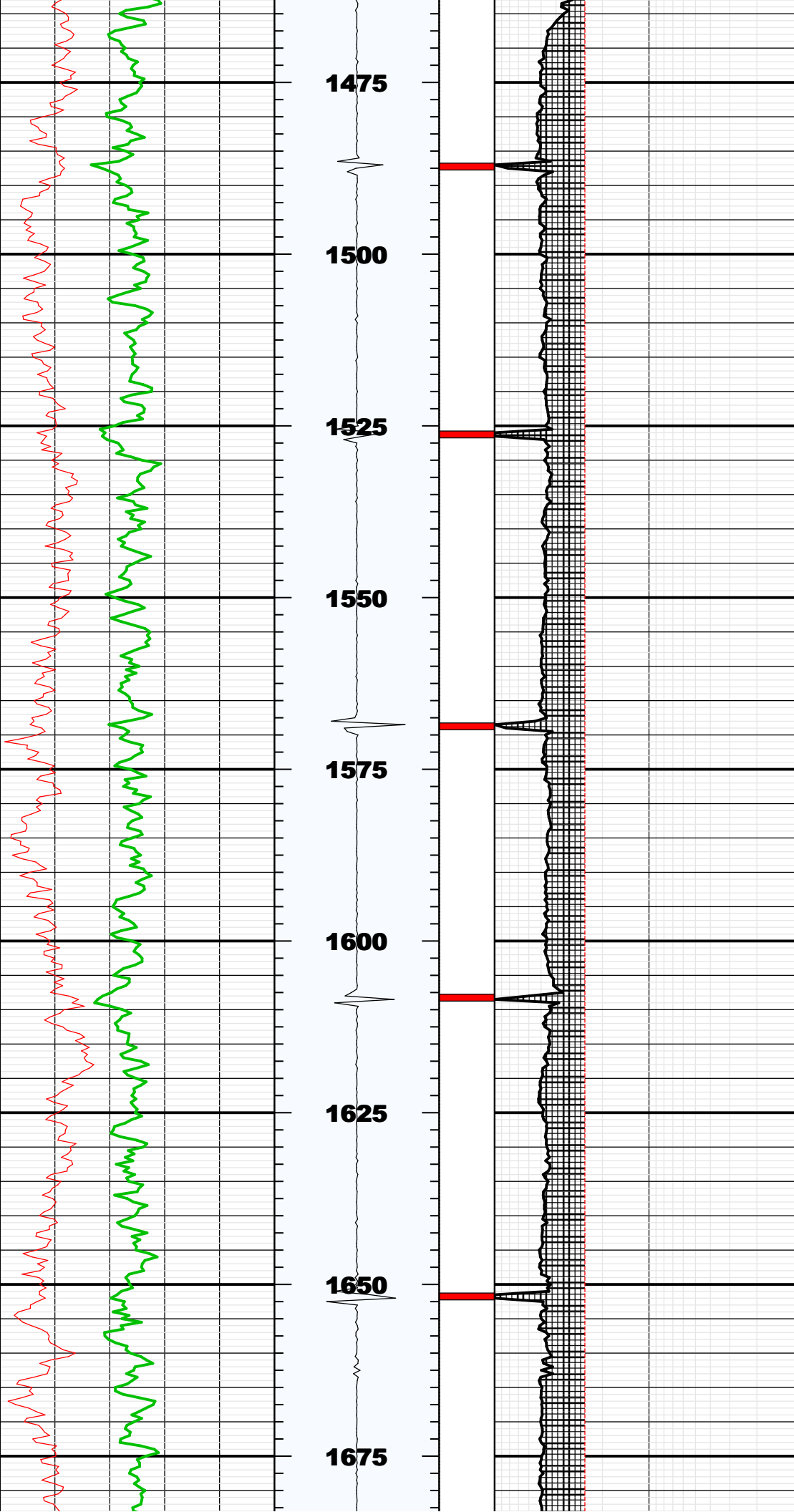


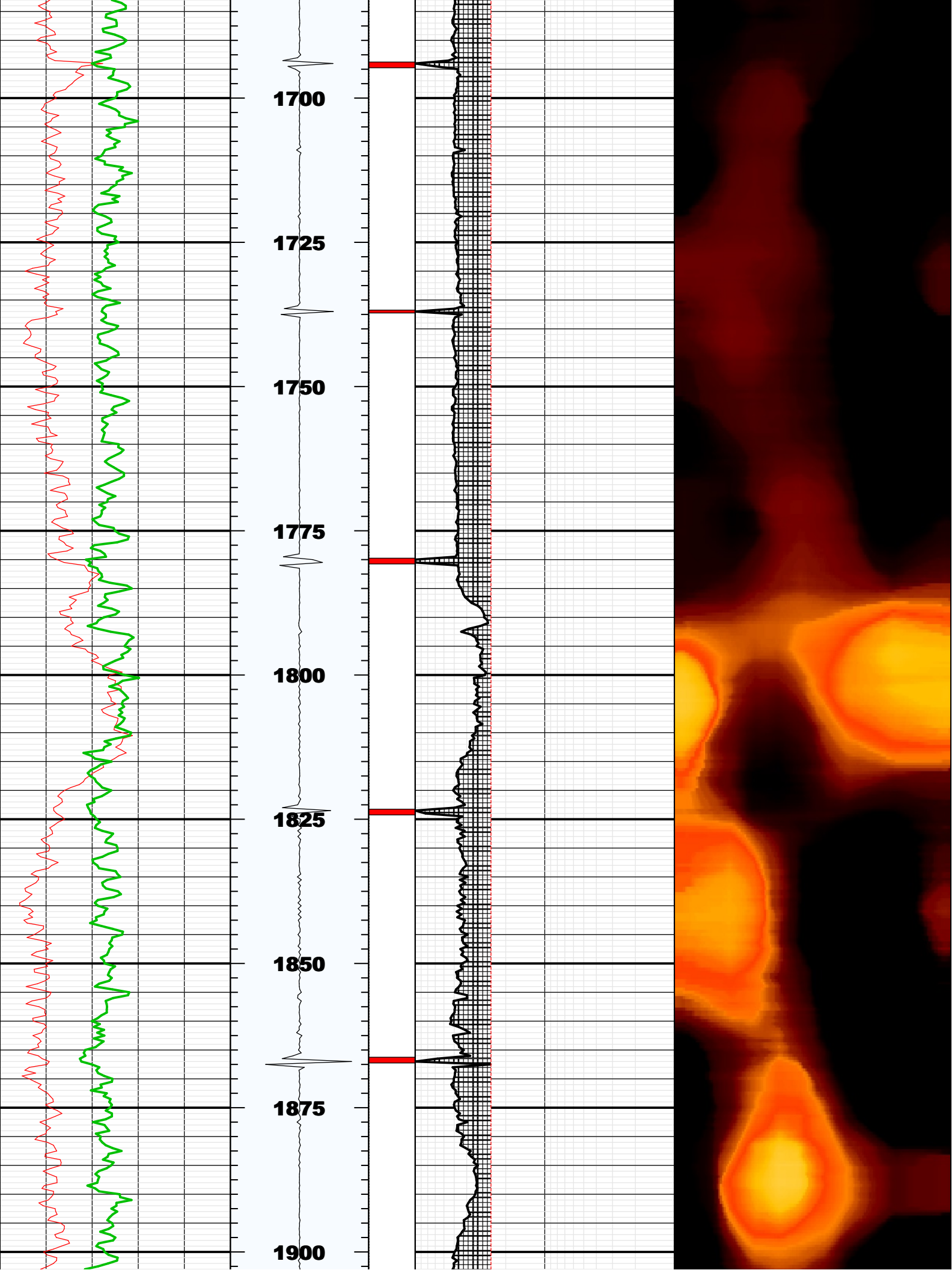


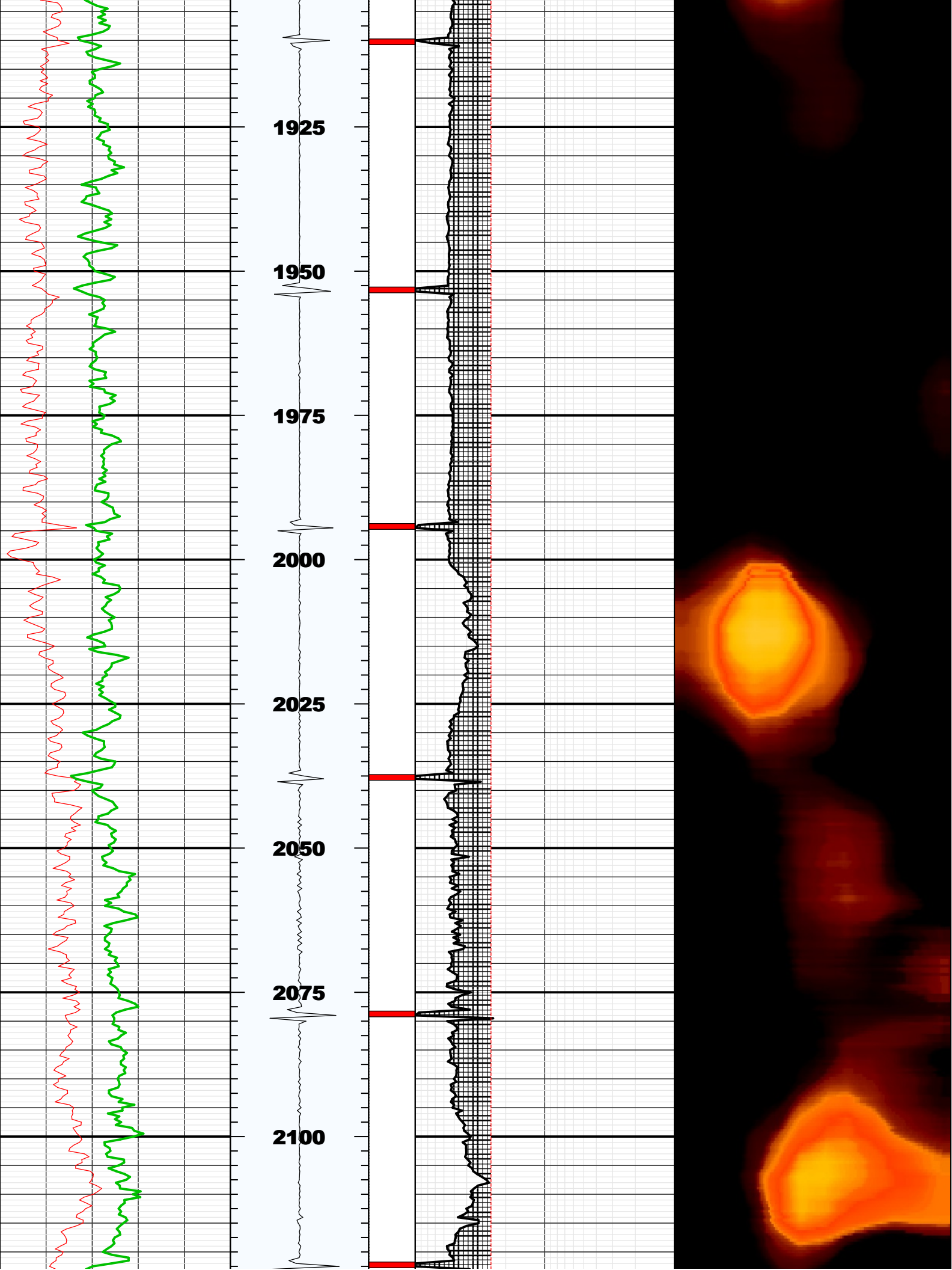


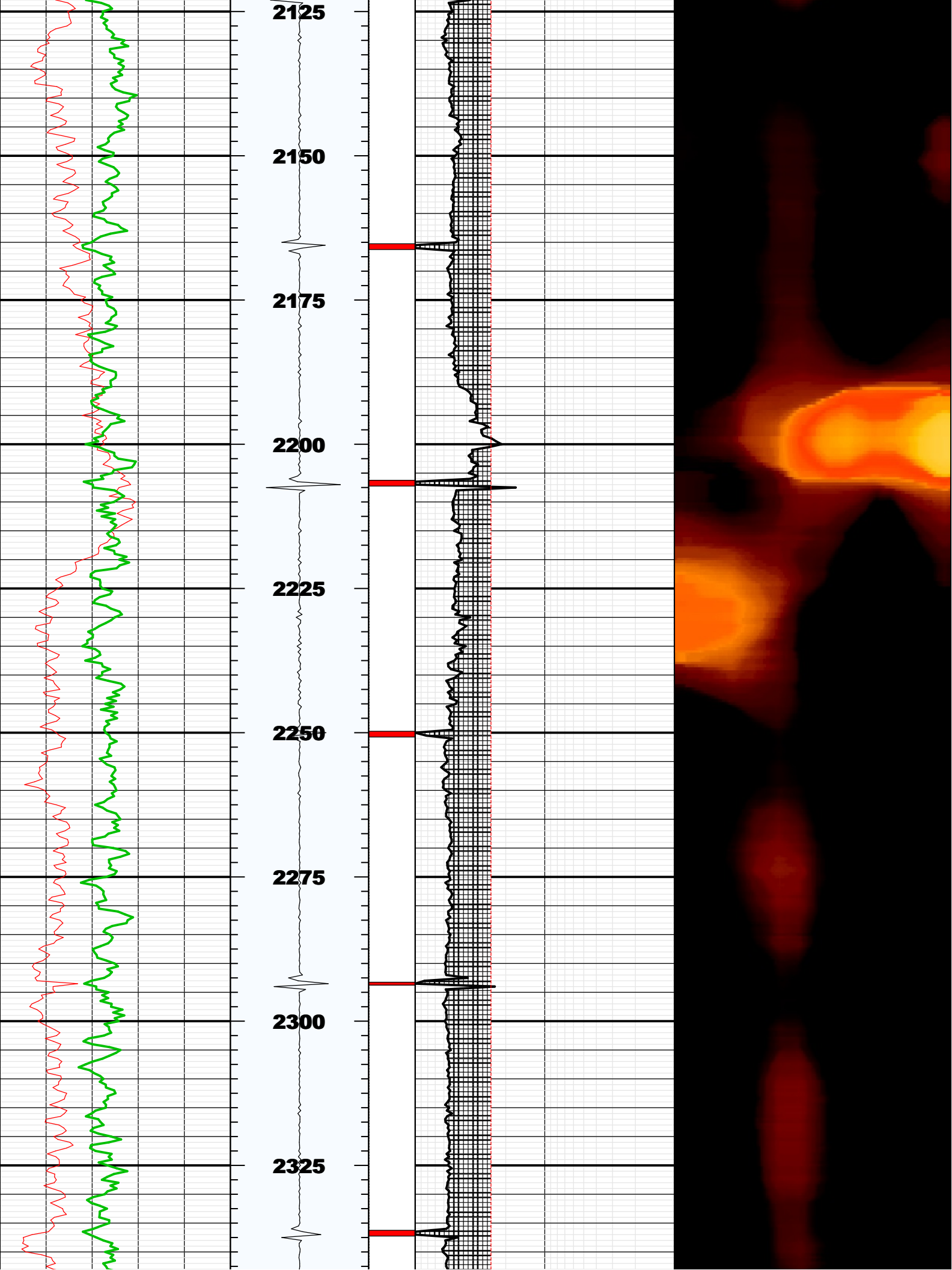


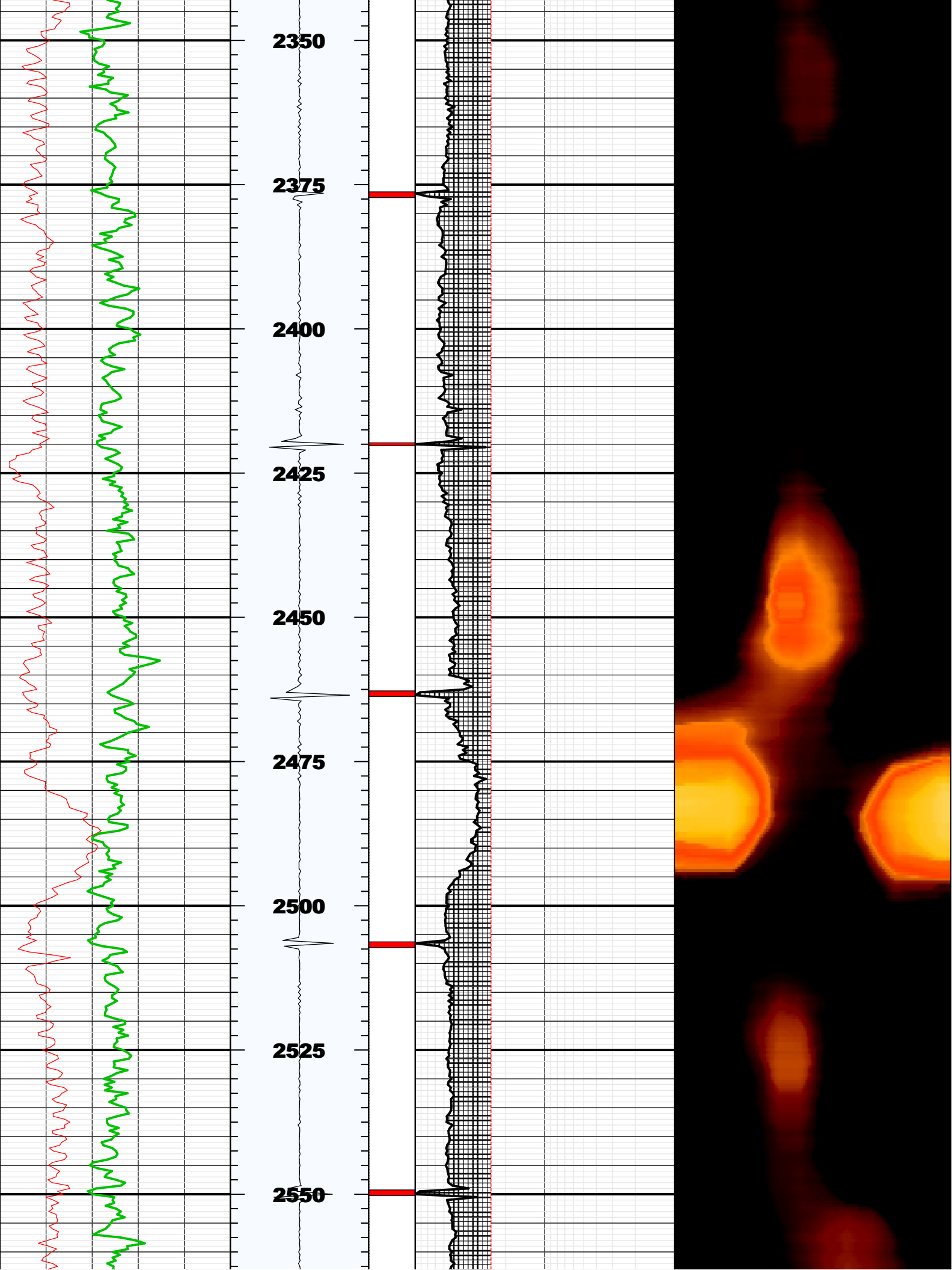


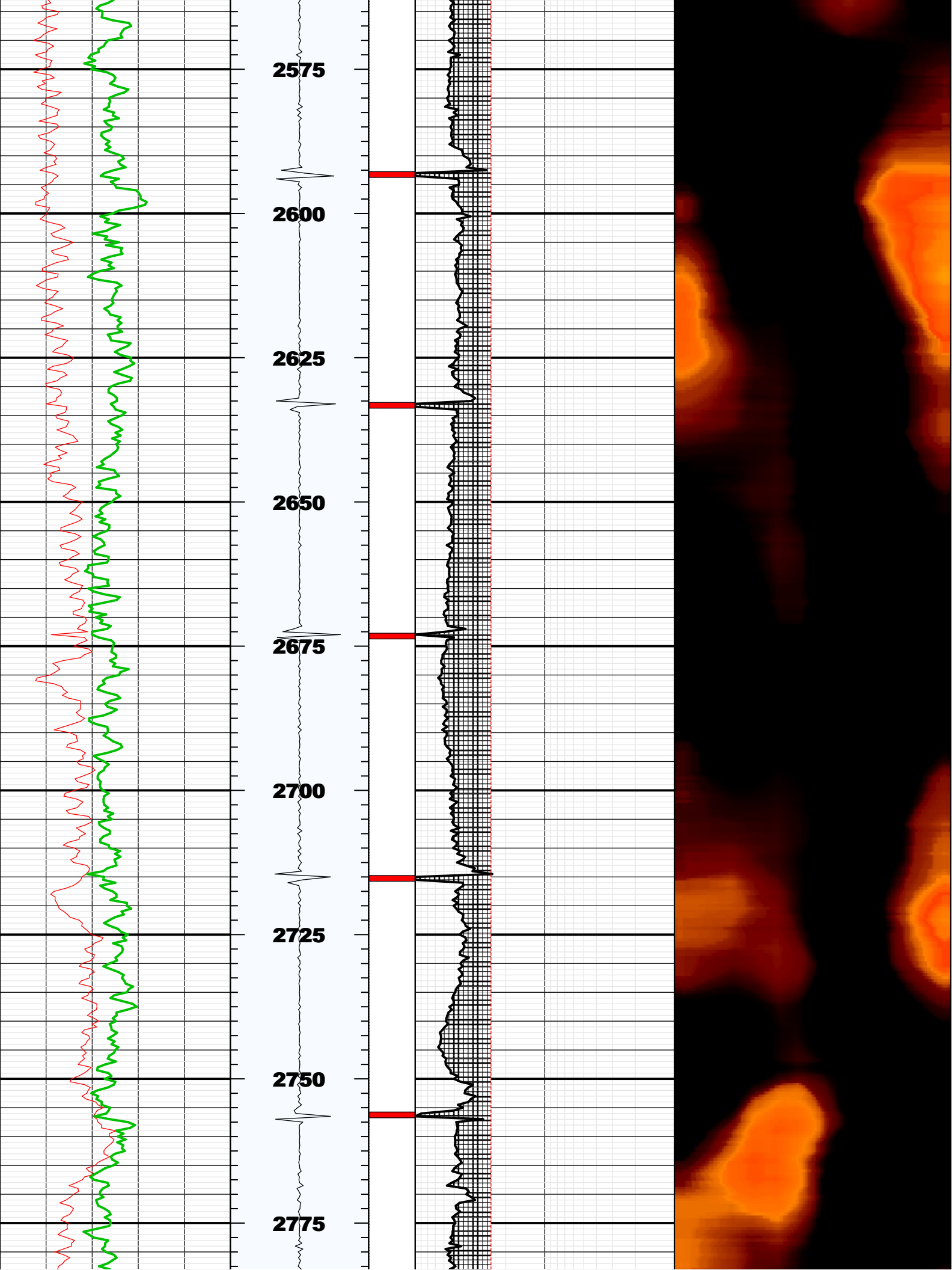


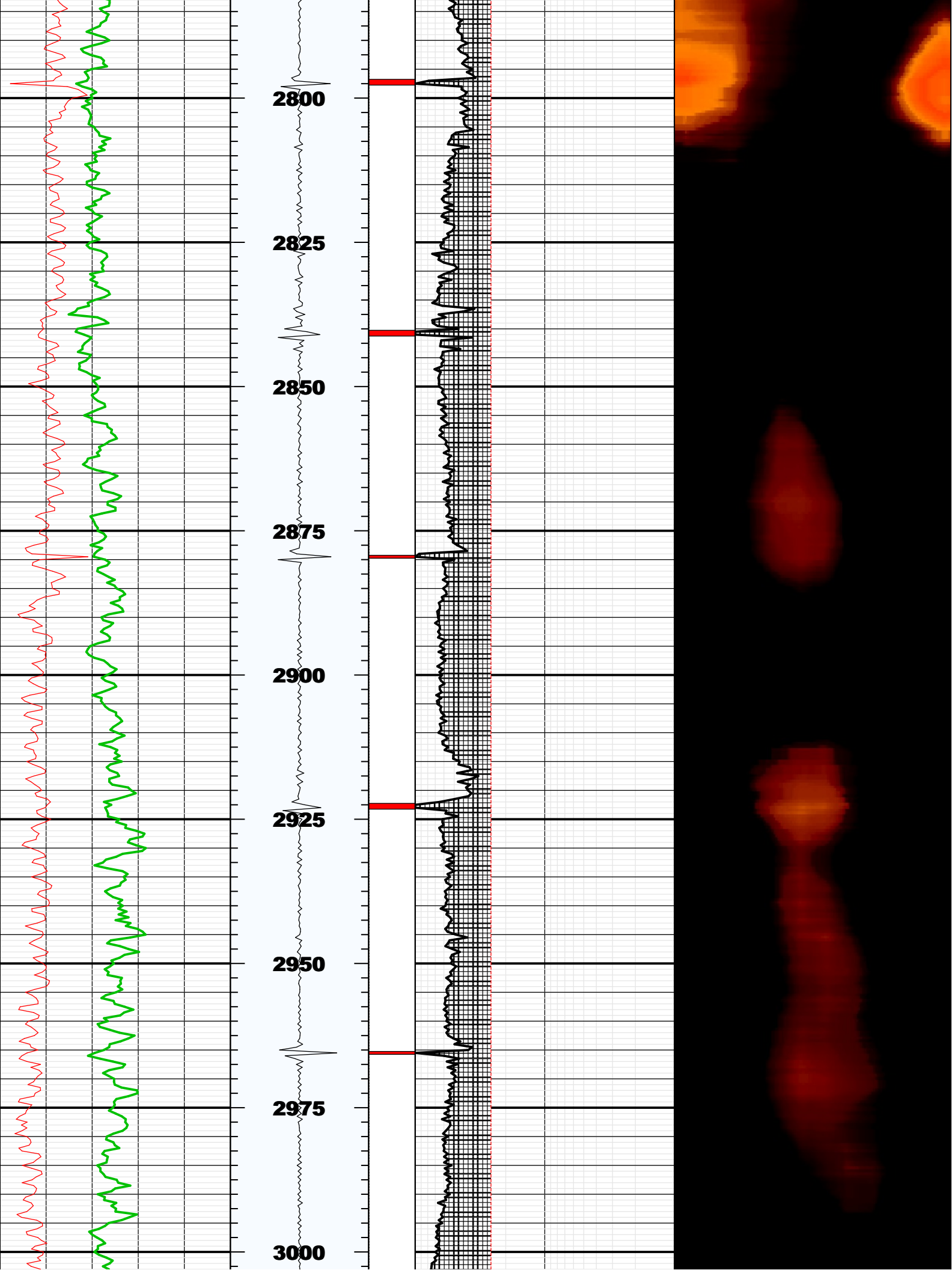


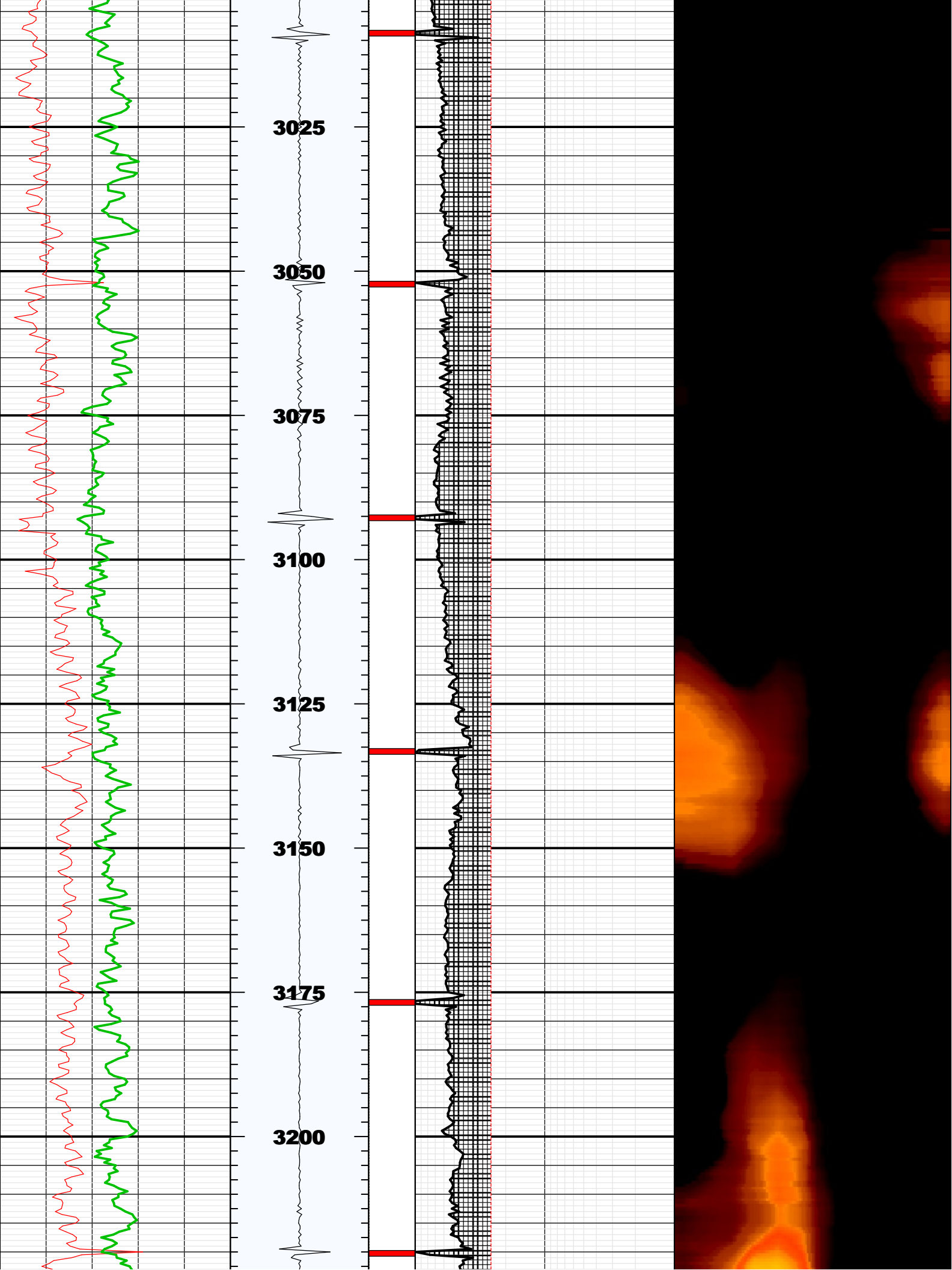


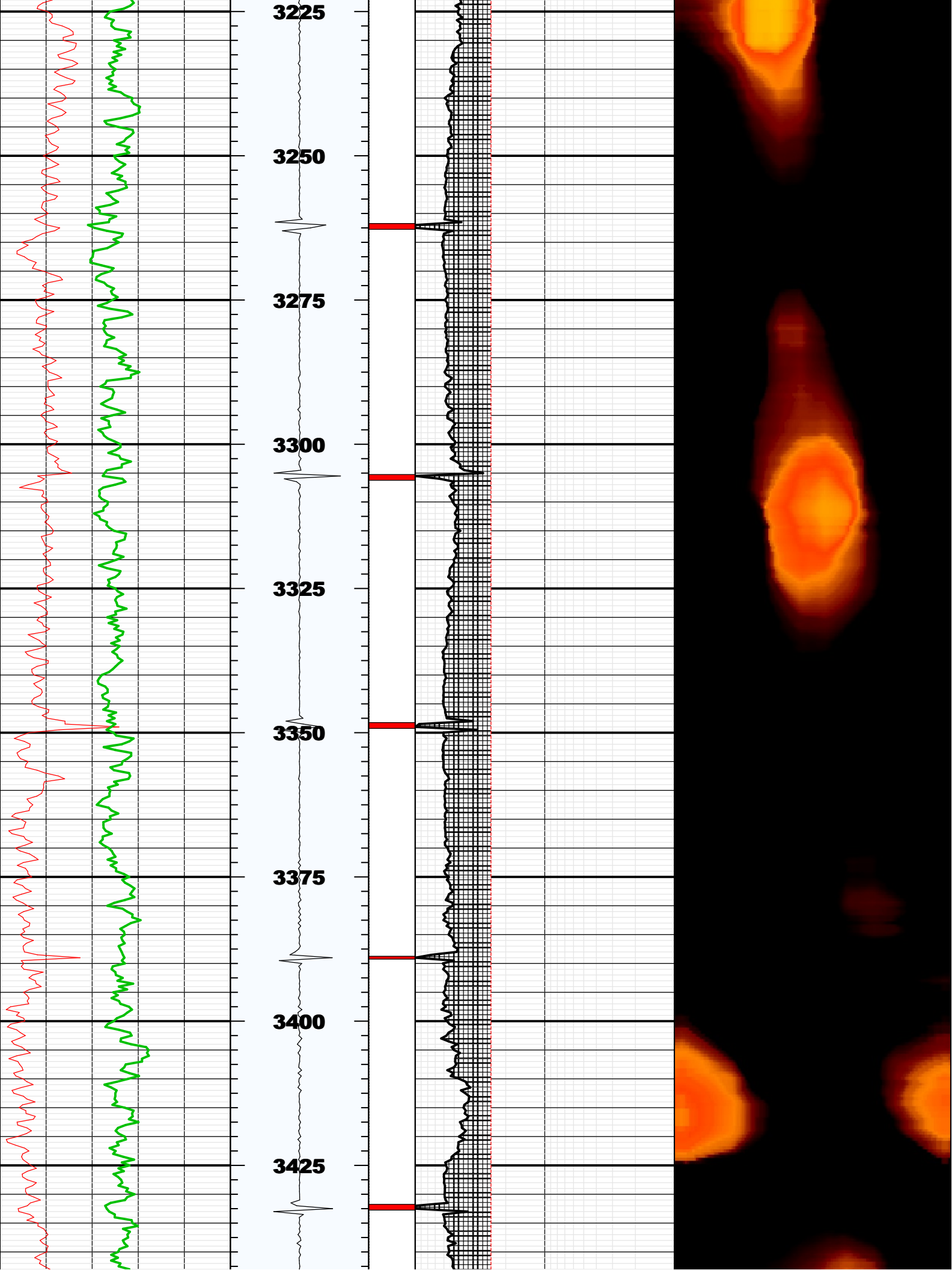


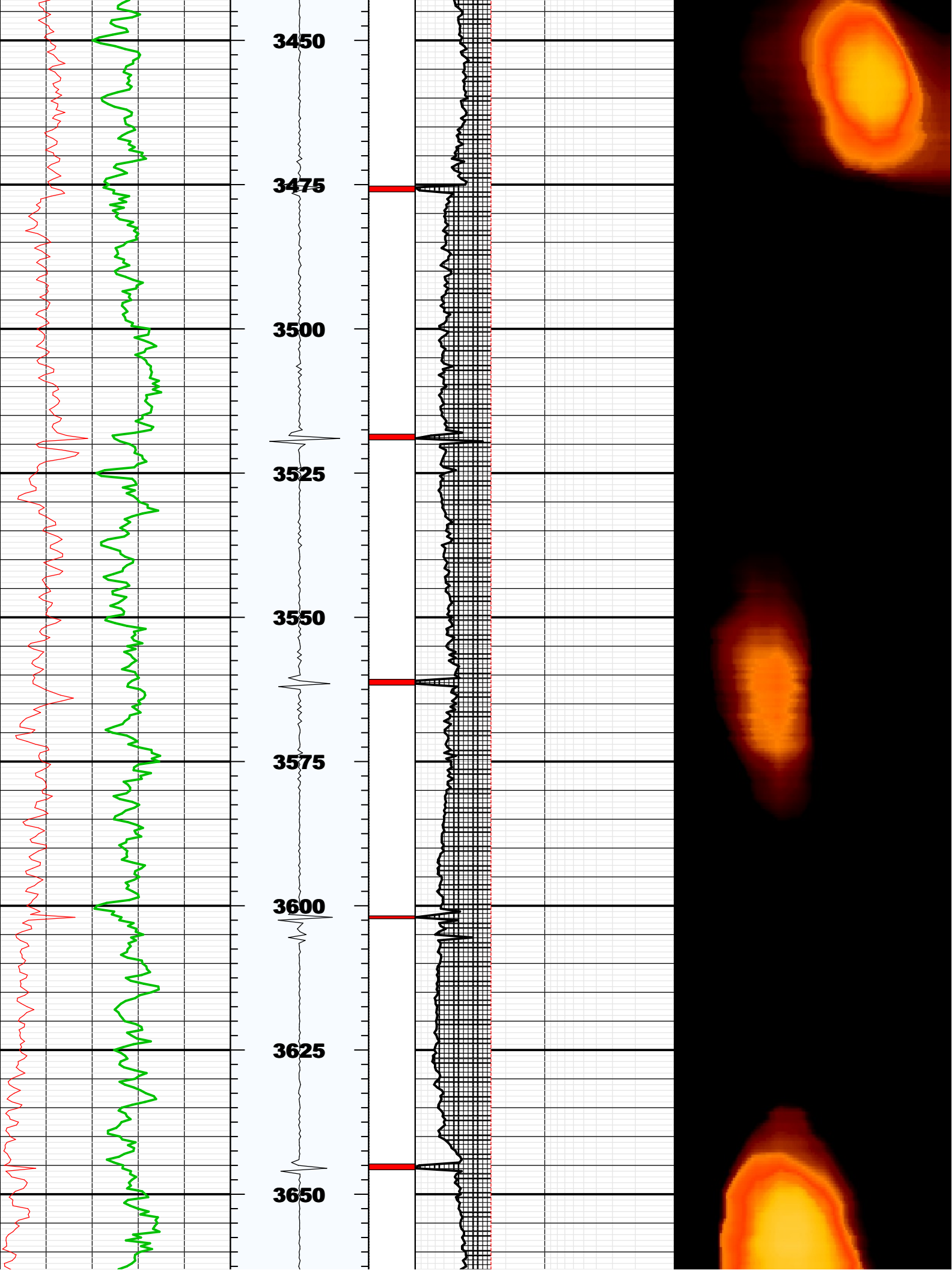


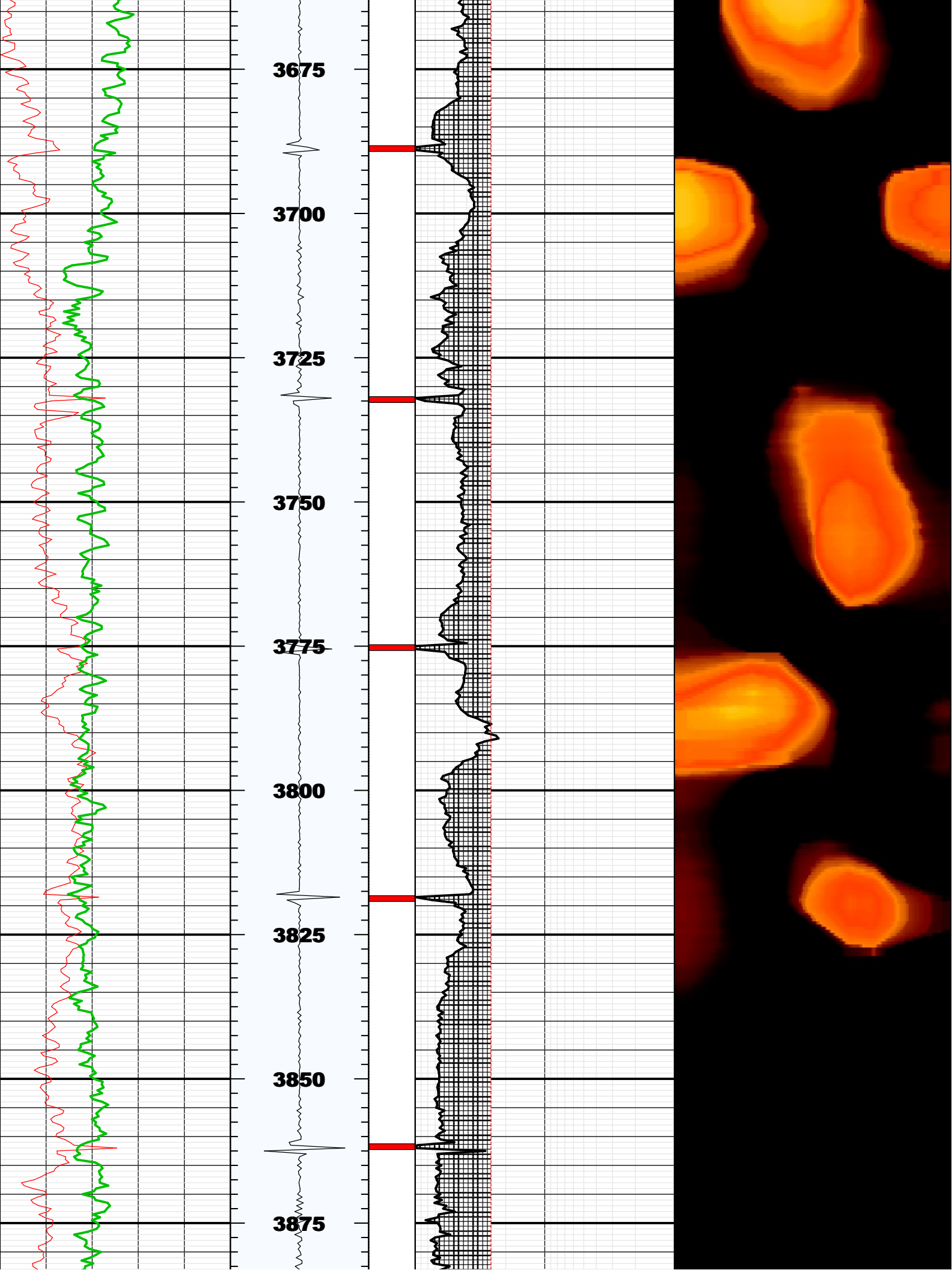


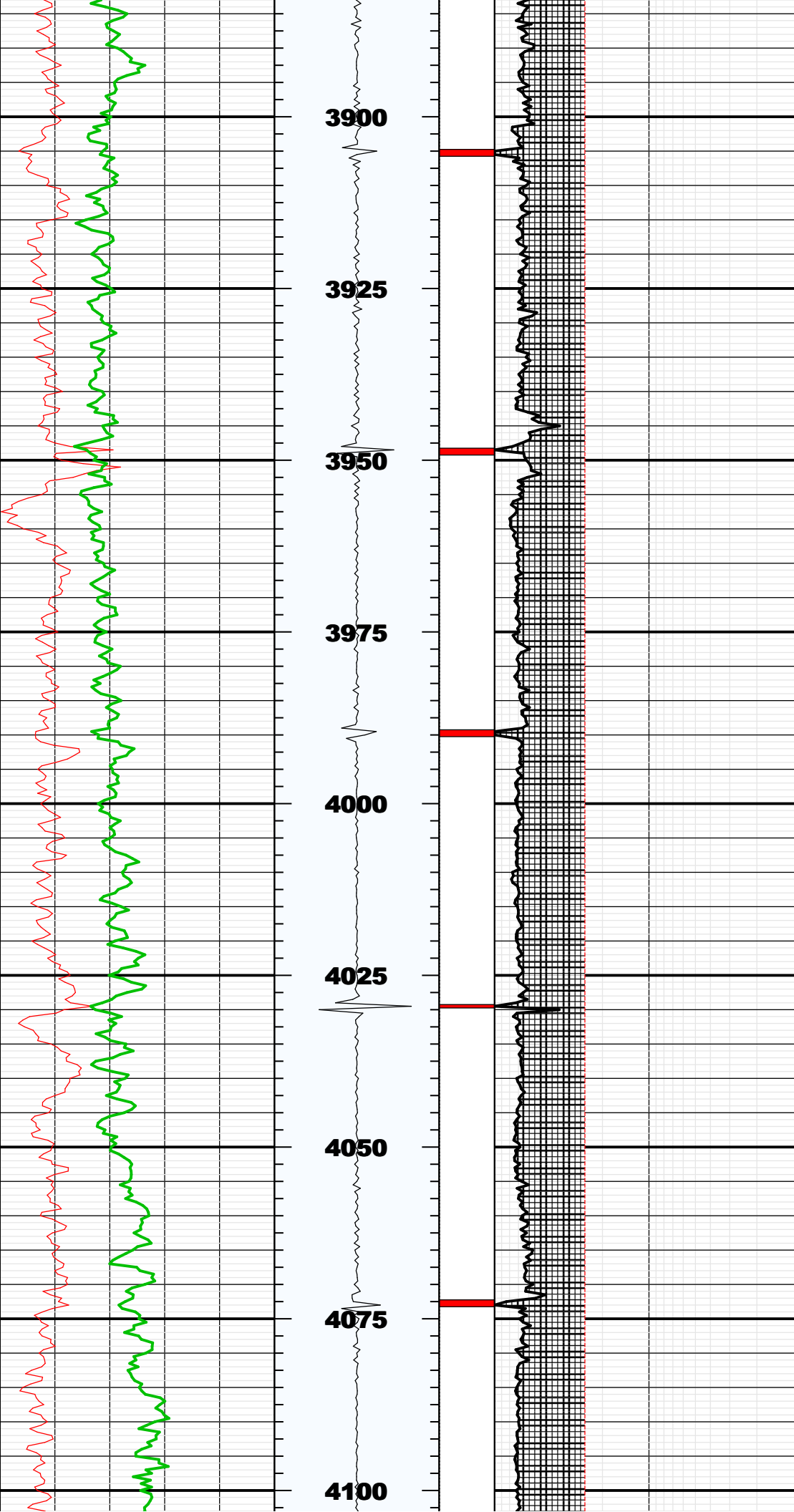


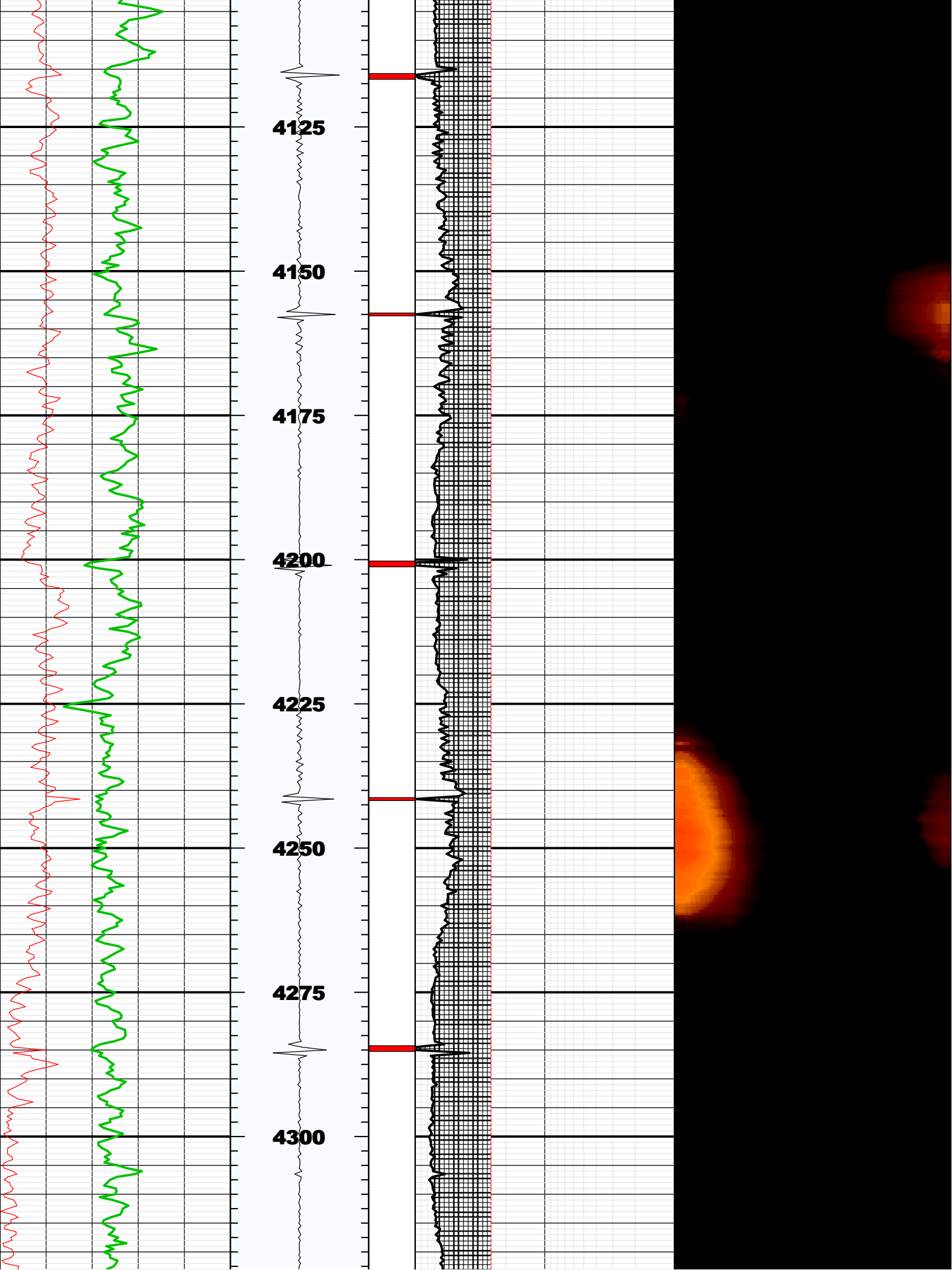


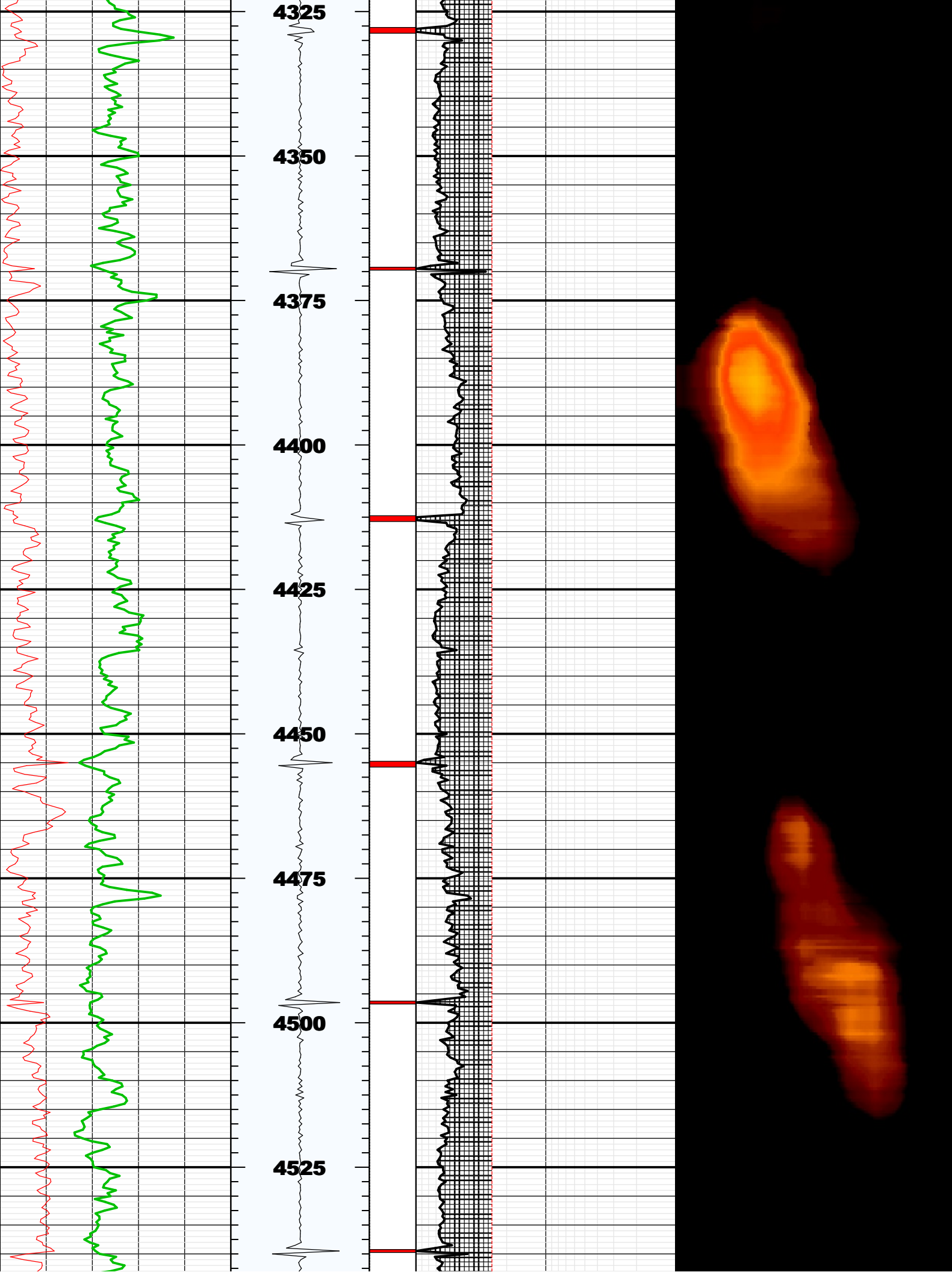


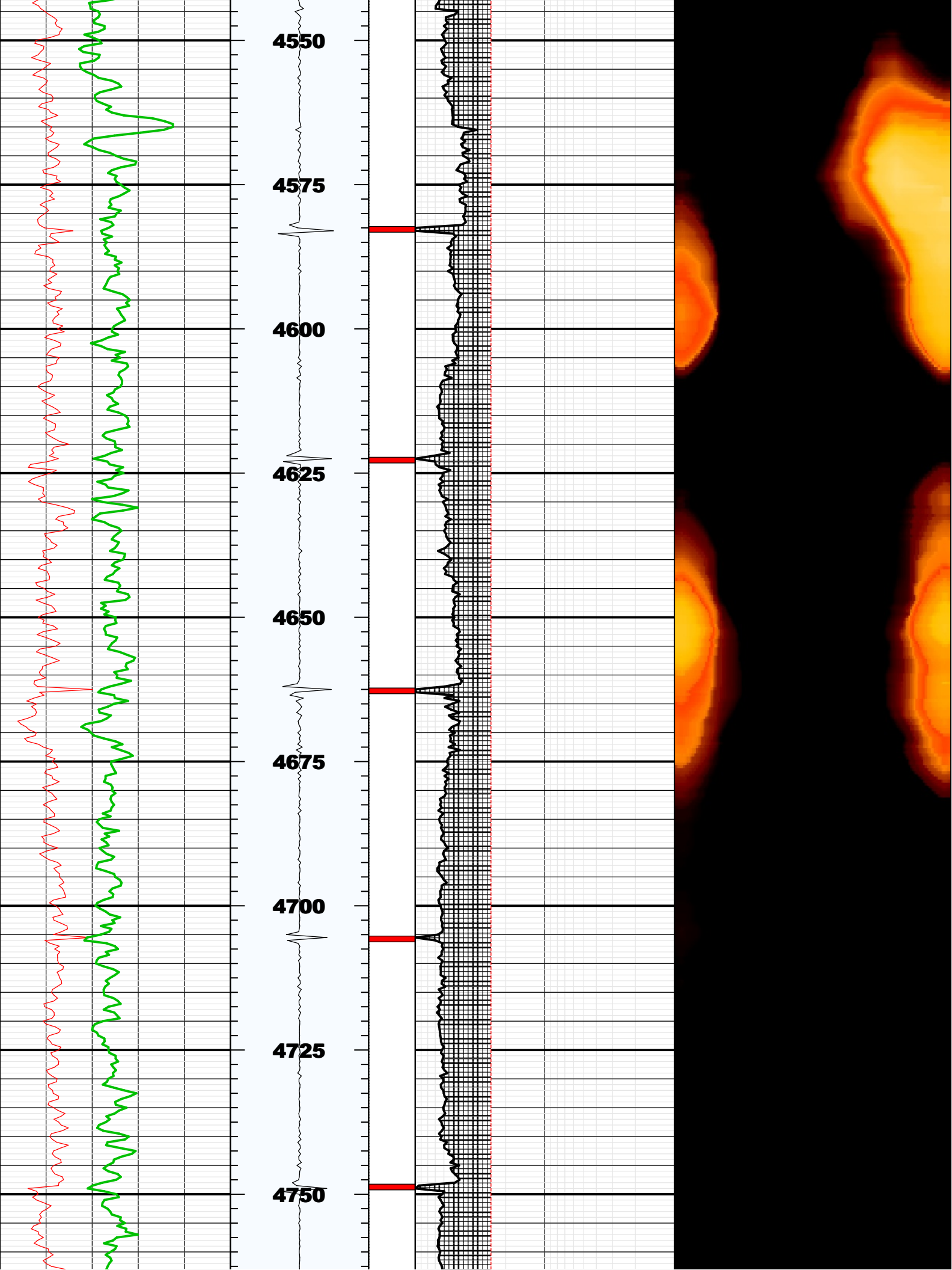


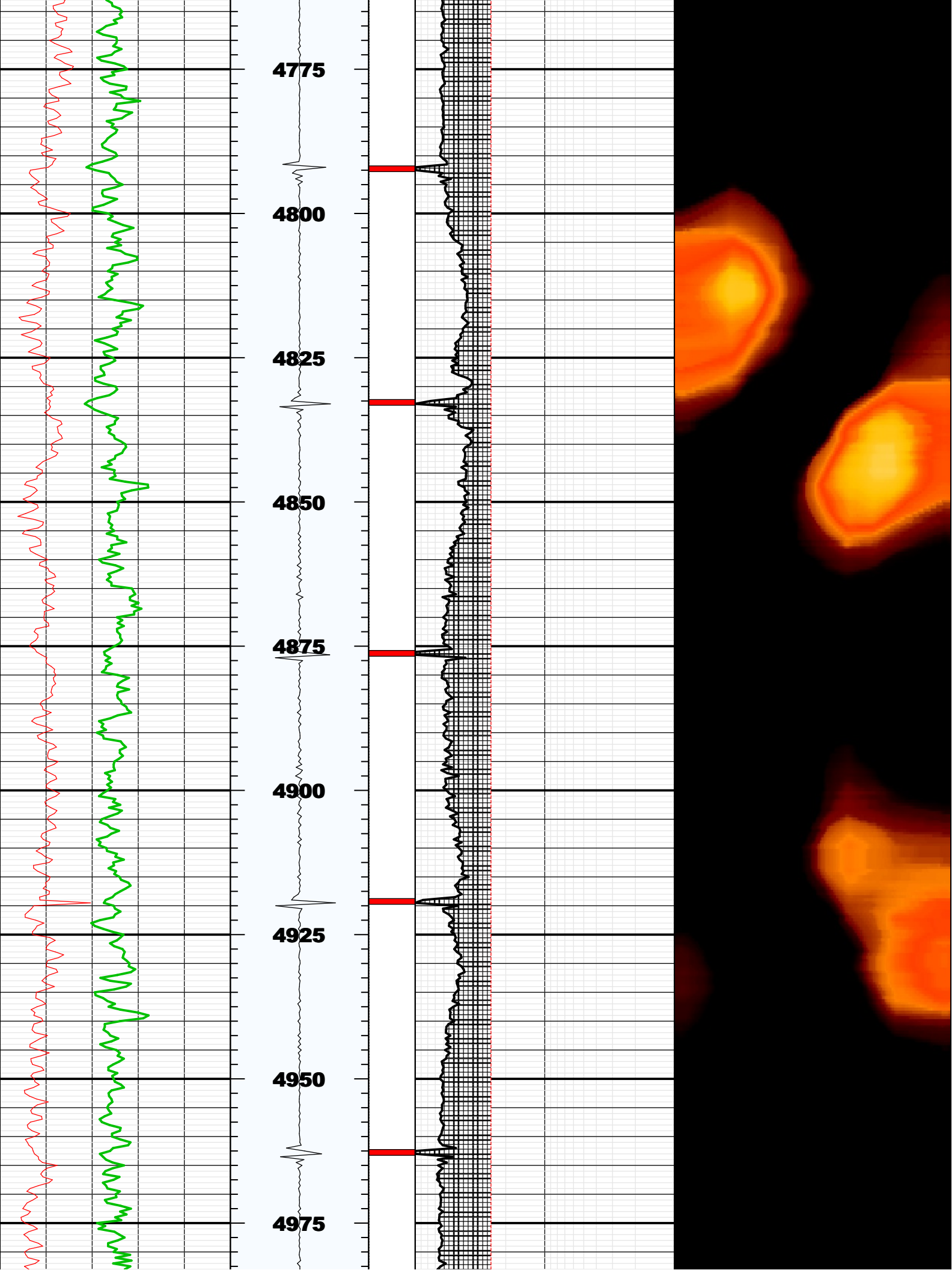


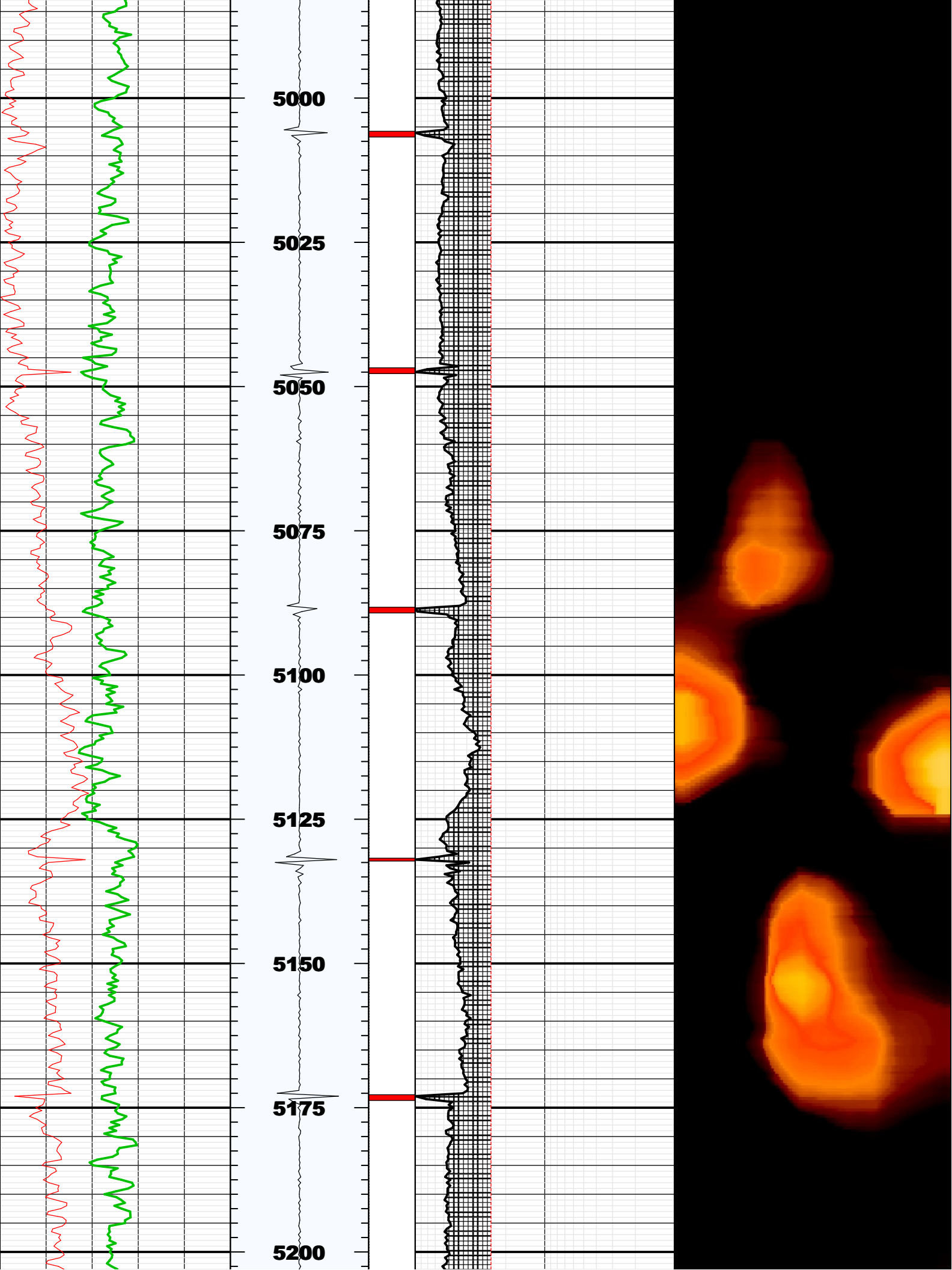


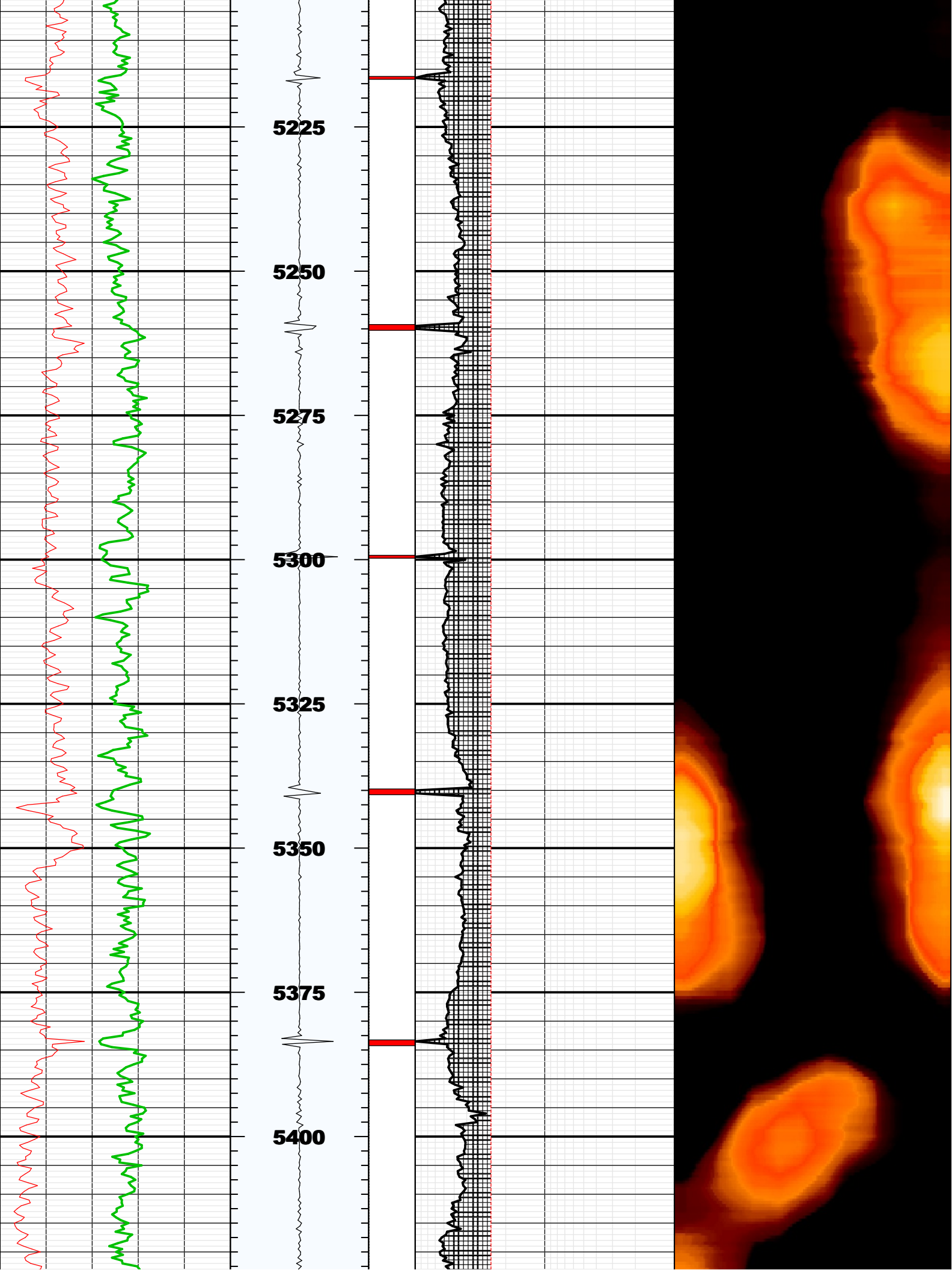


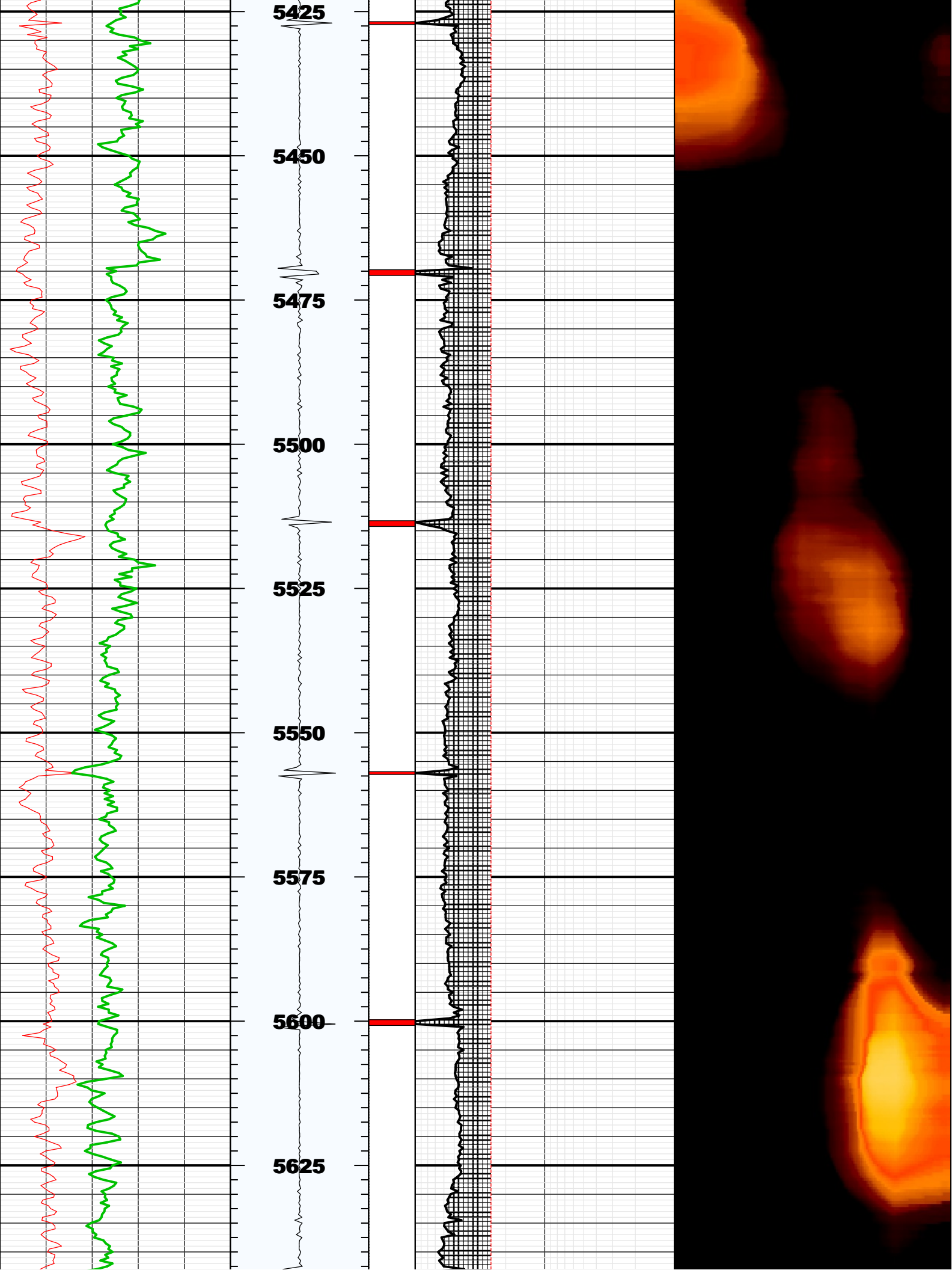


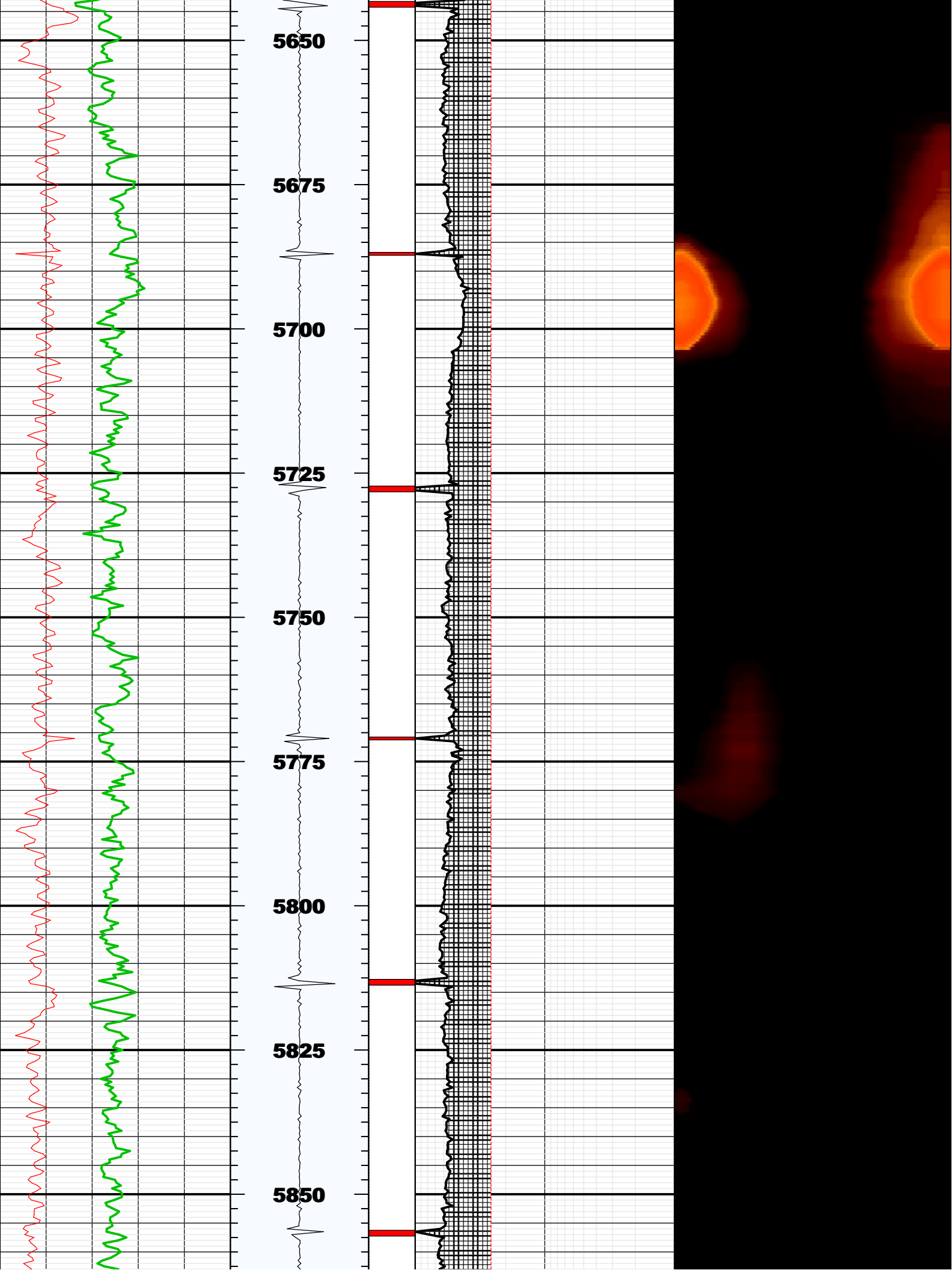


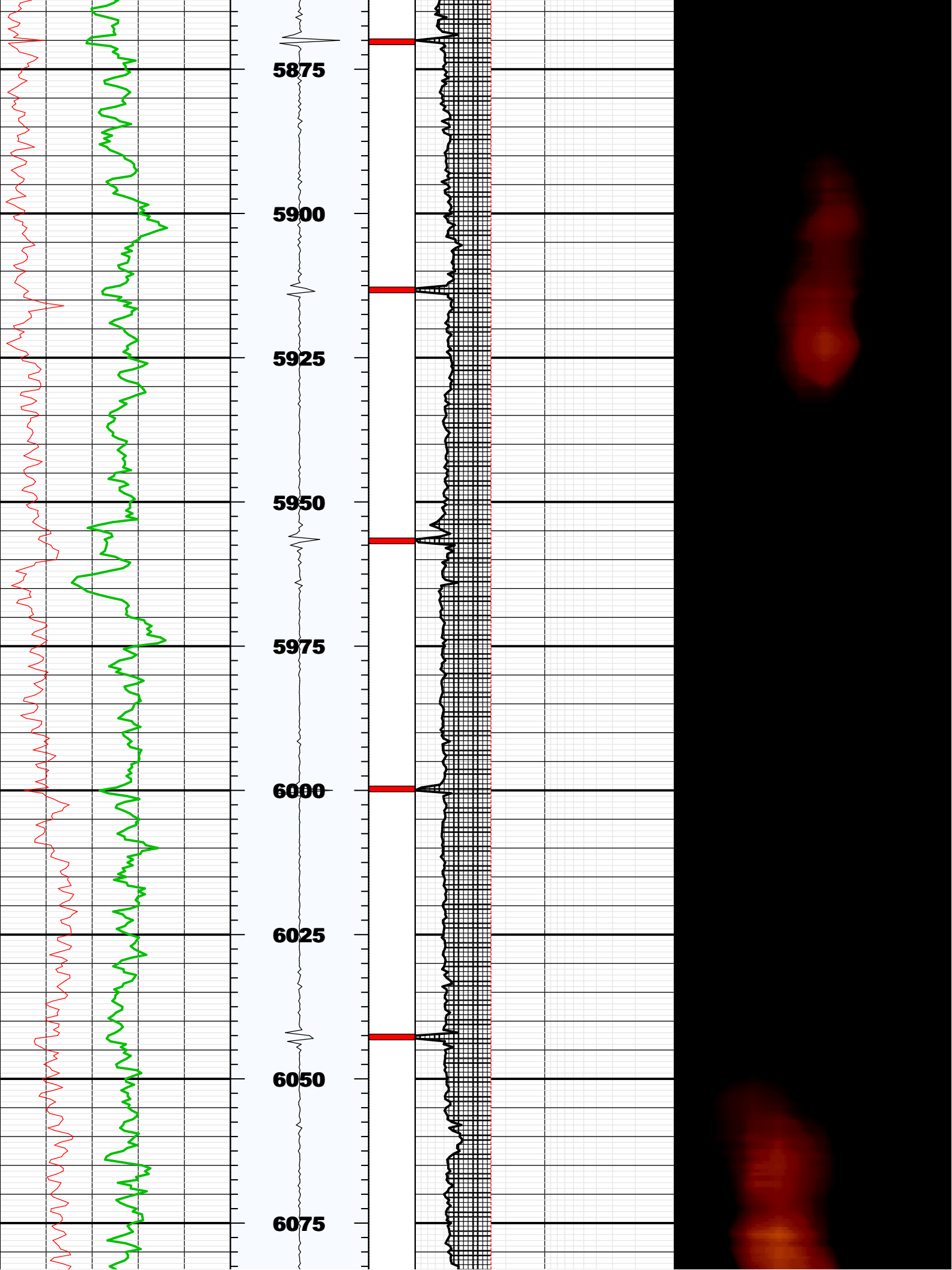


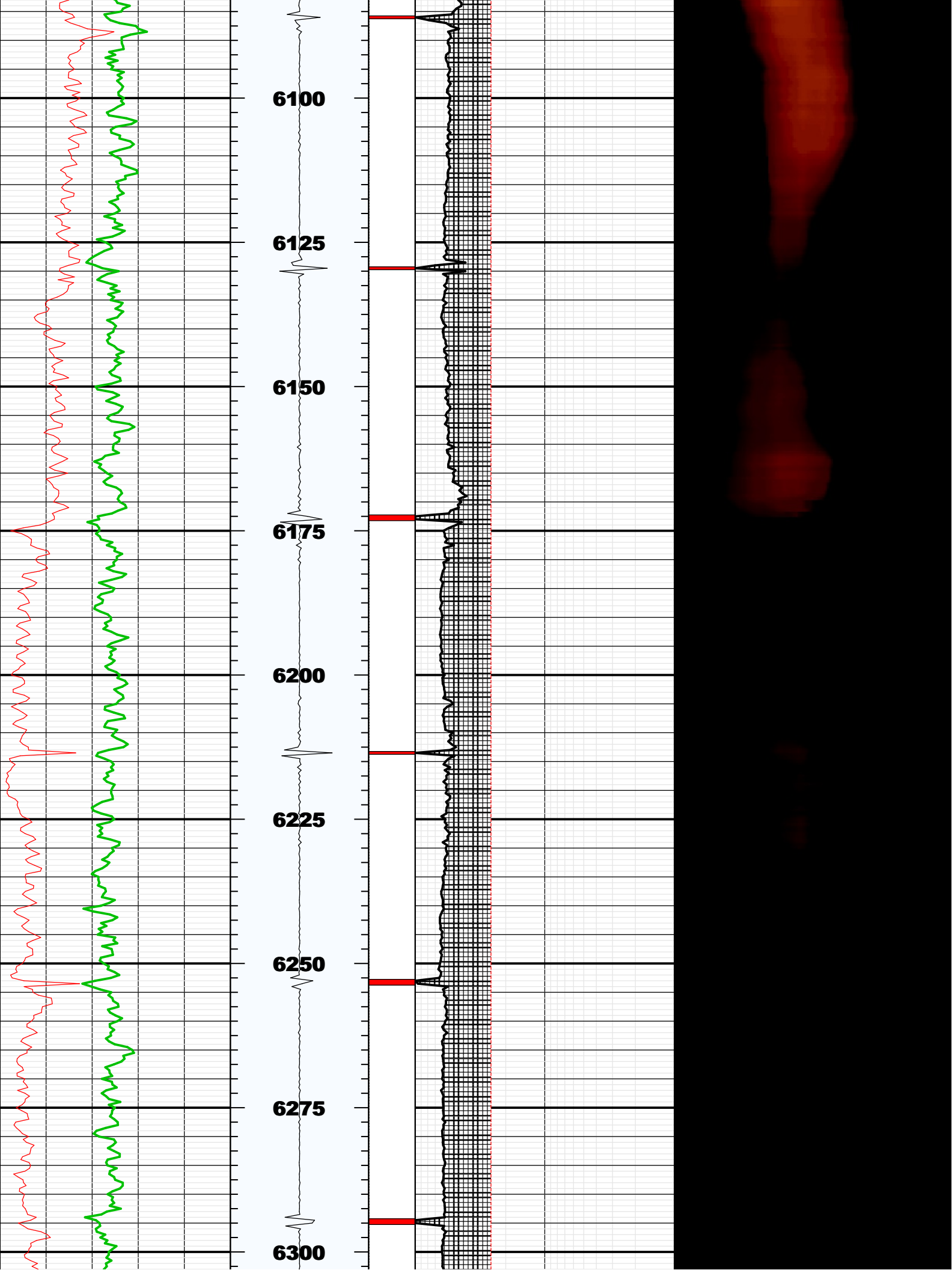


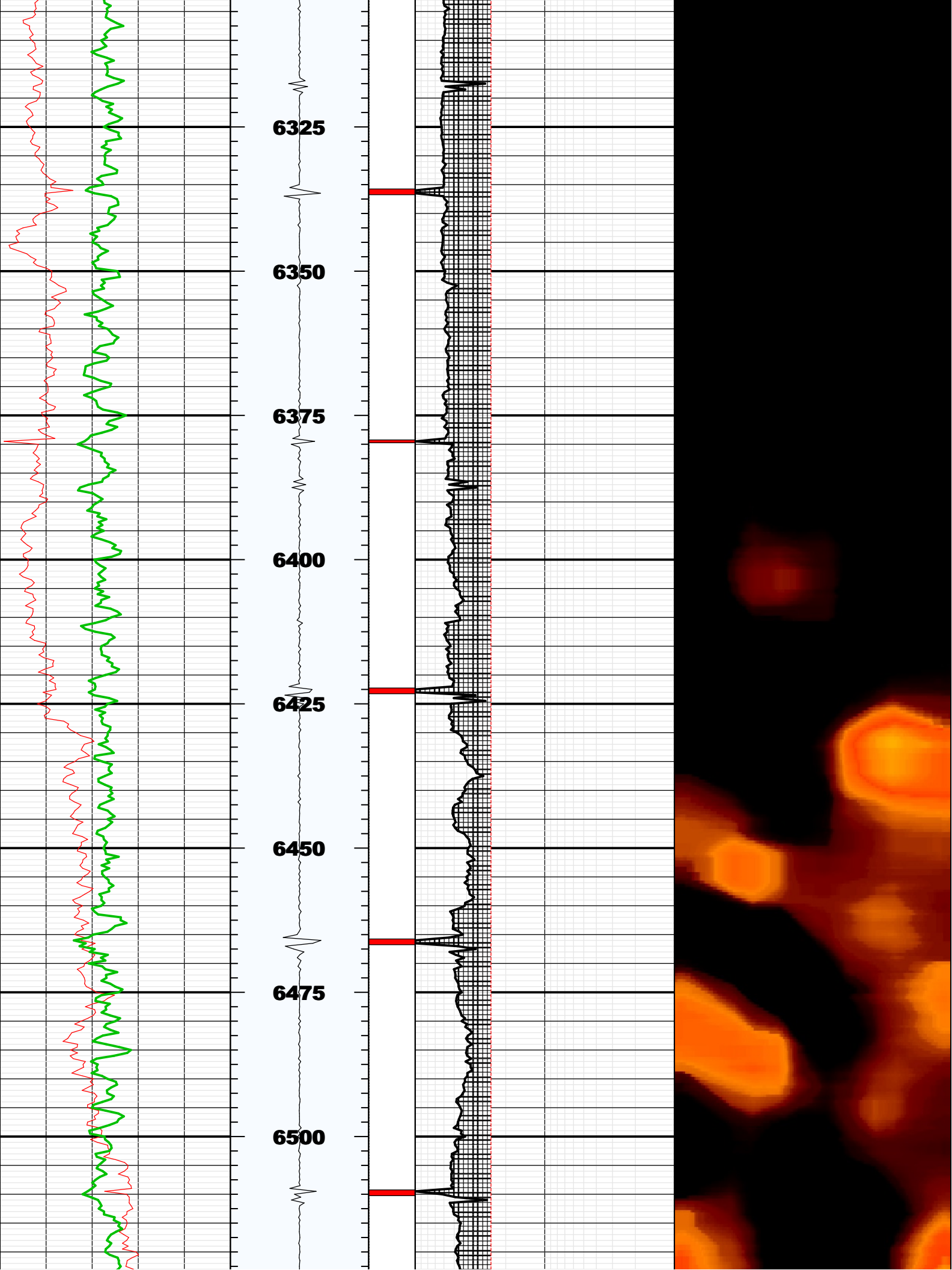


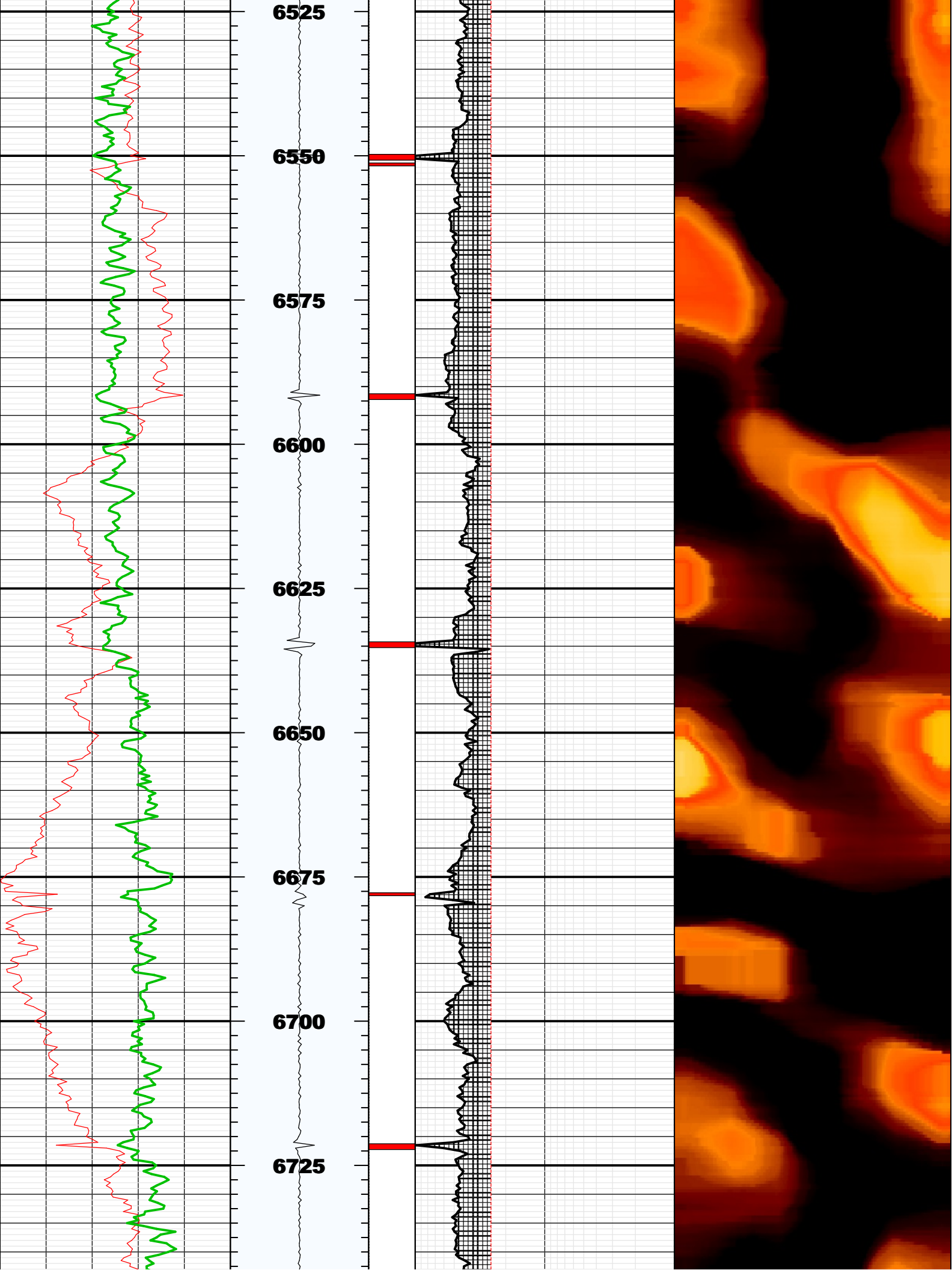


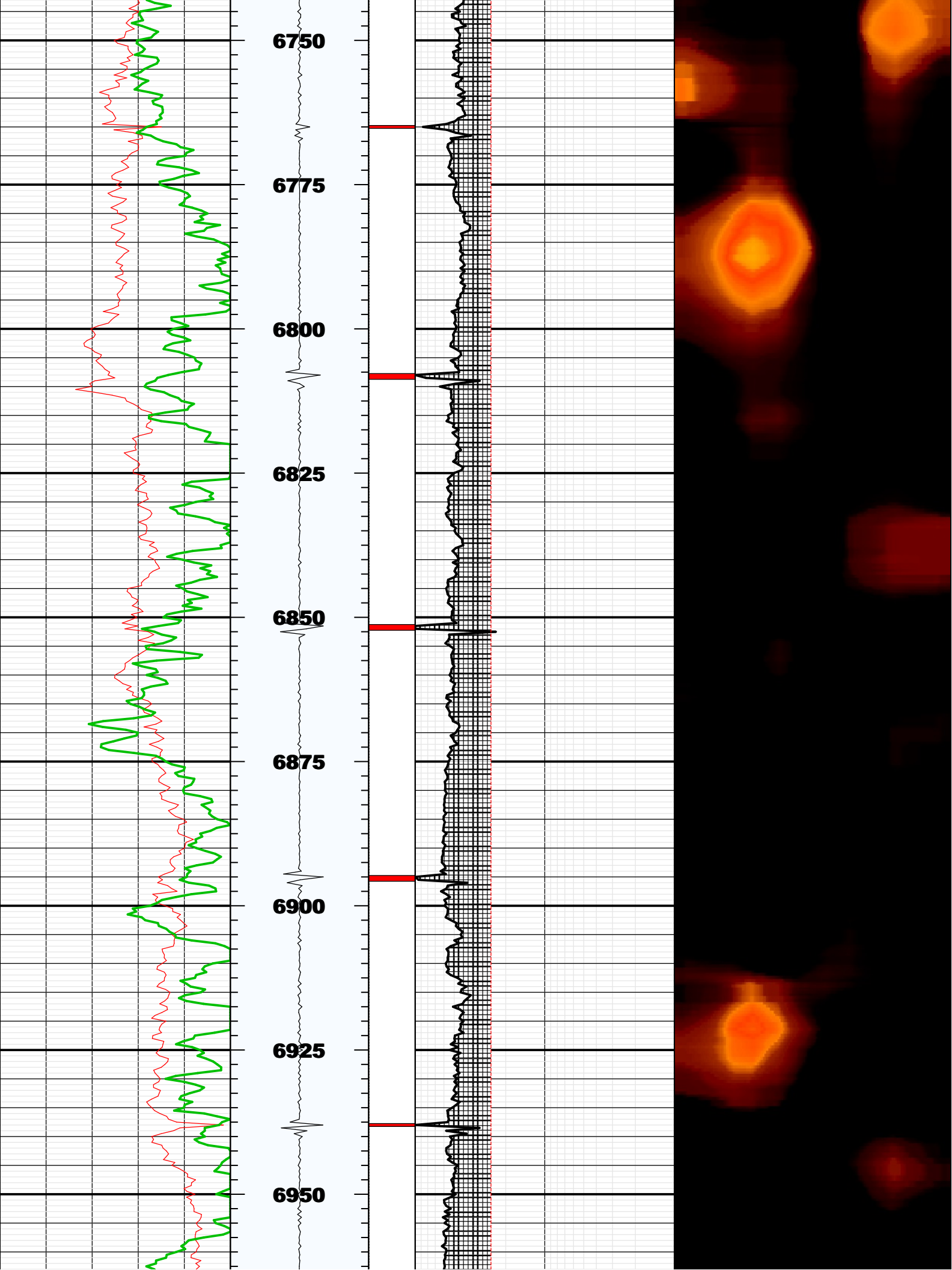


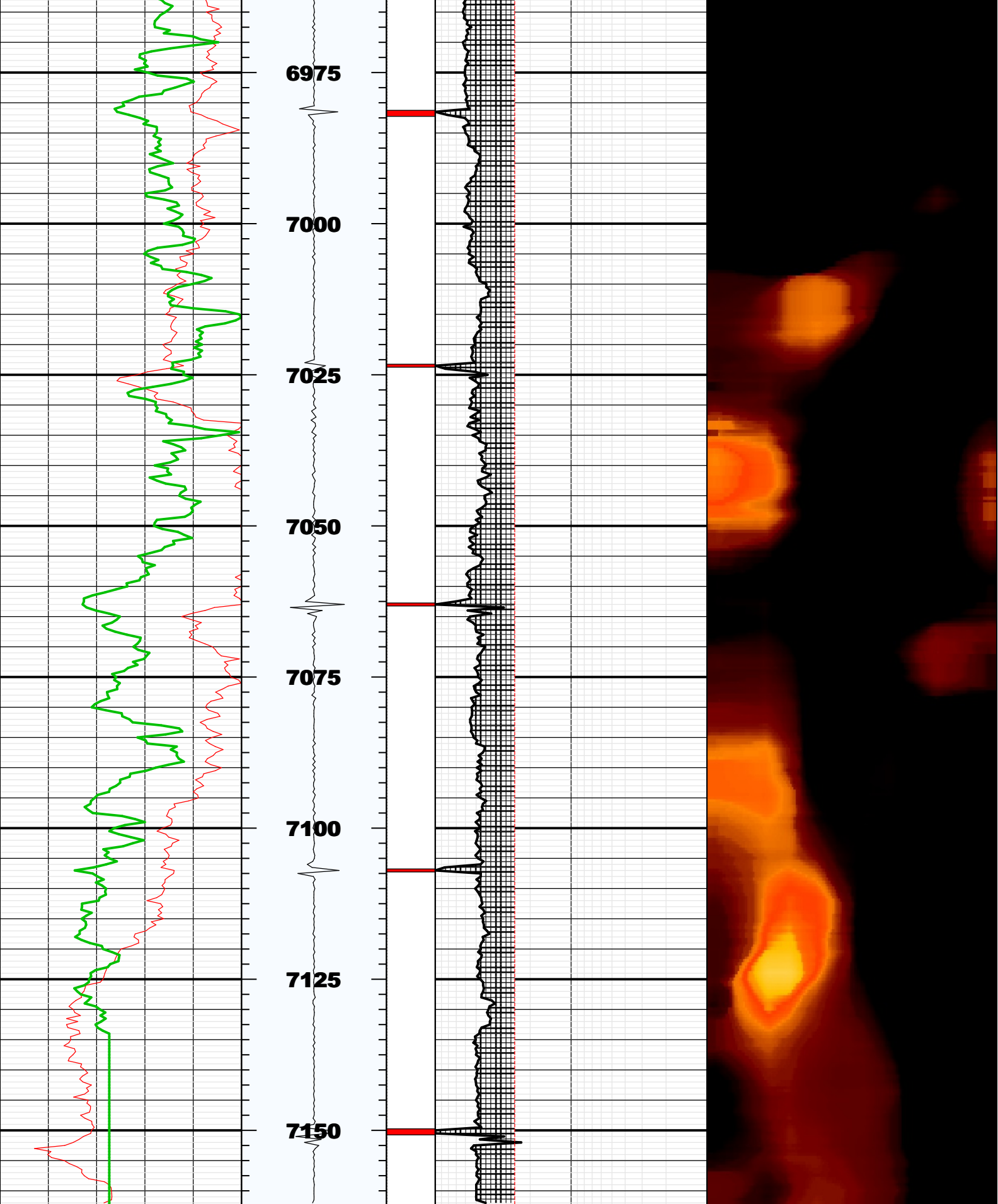








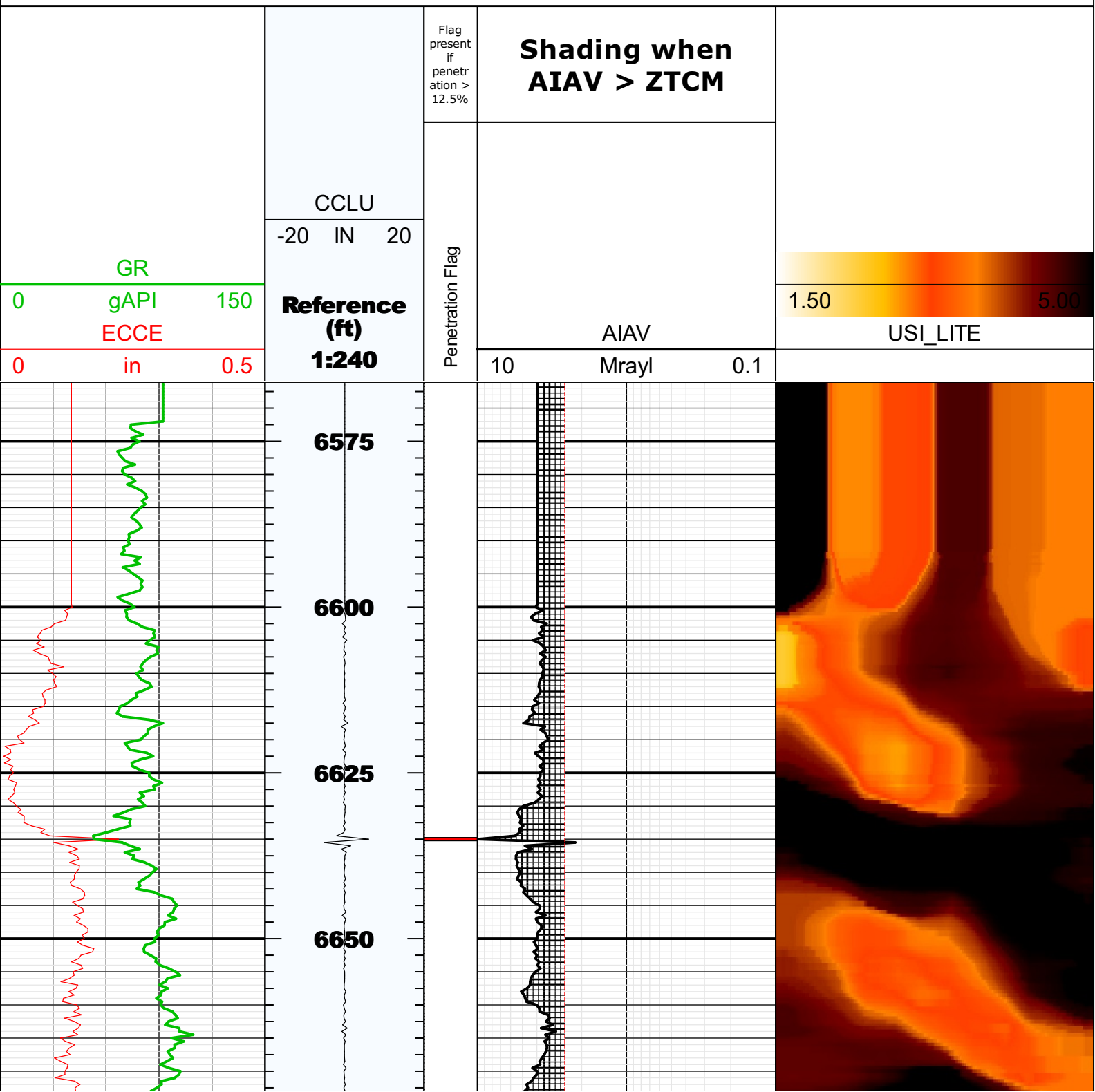


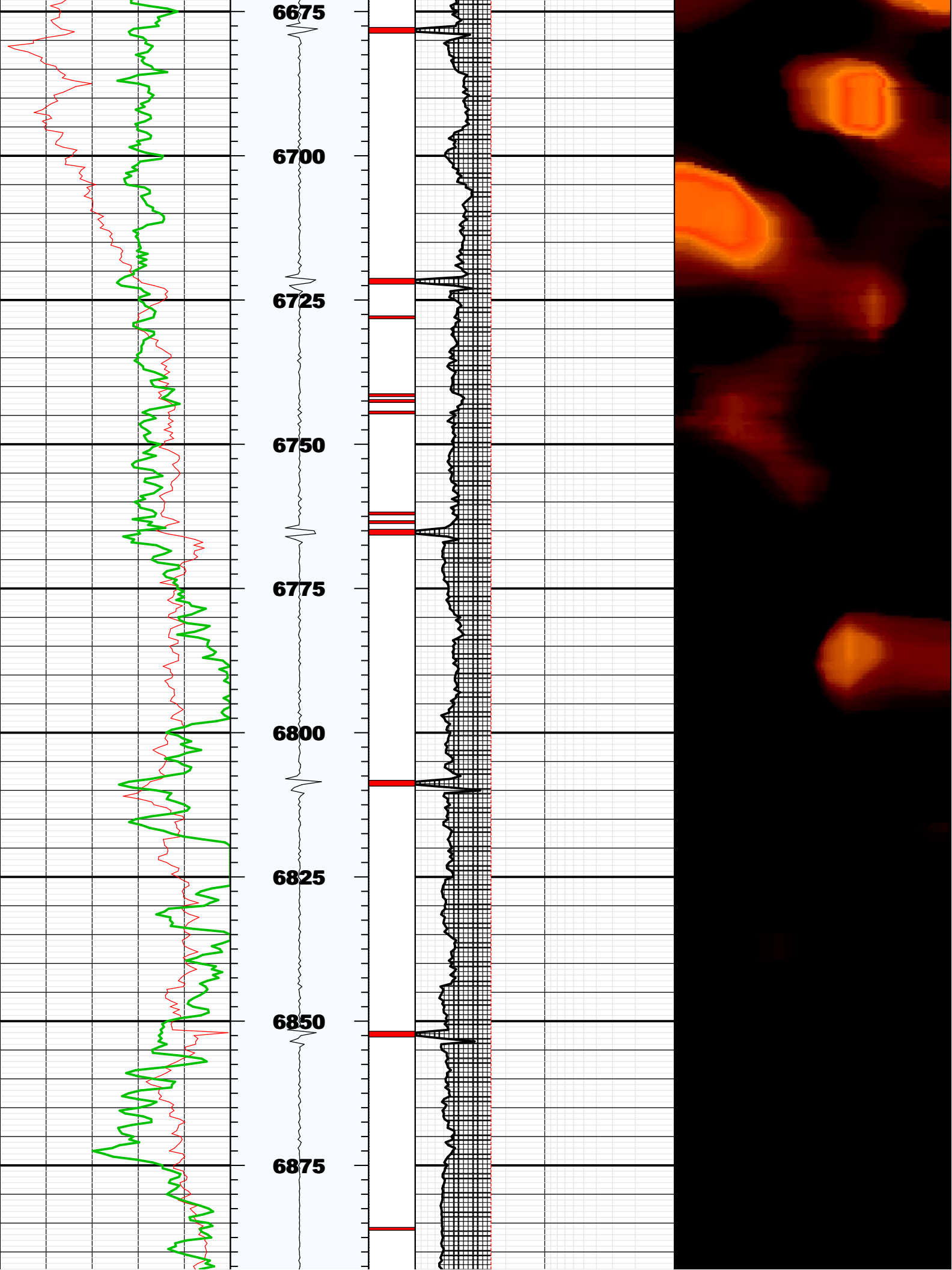


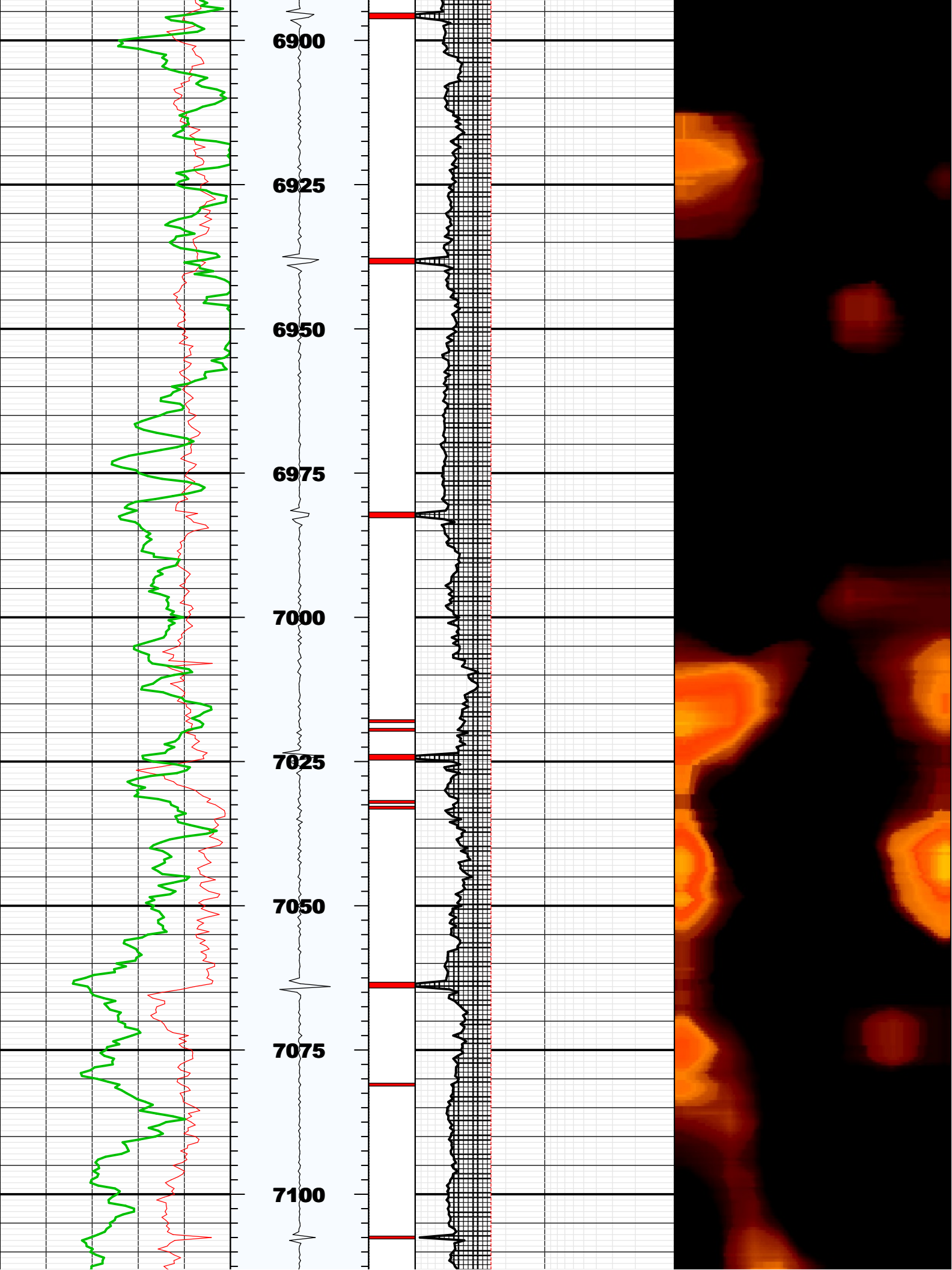
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID	6.27600	IN	Casing Inner Diameter
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.70000	LB/G	Drilling Fluid Density
DFVL	206.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	115	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	27.39607	US	Window Begin Time
WINE	79.59459	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.83000	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

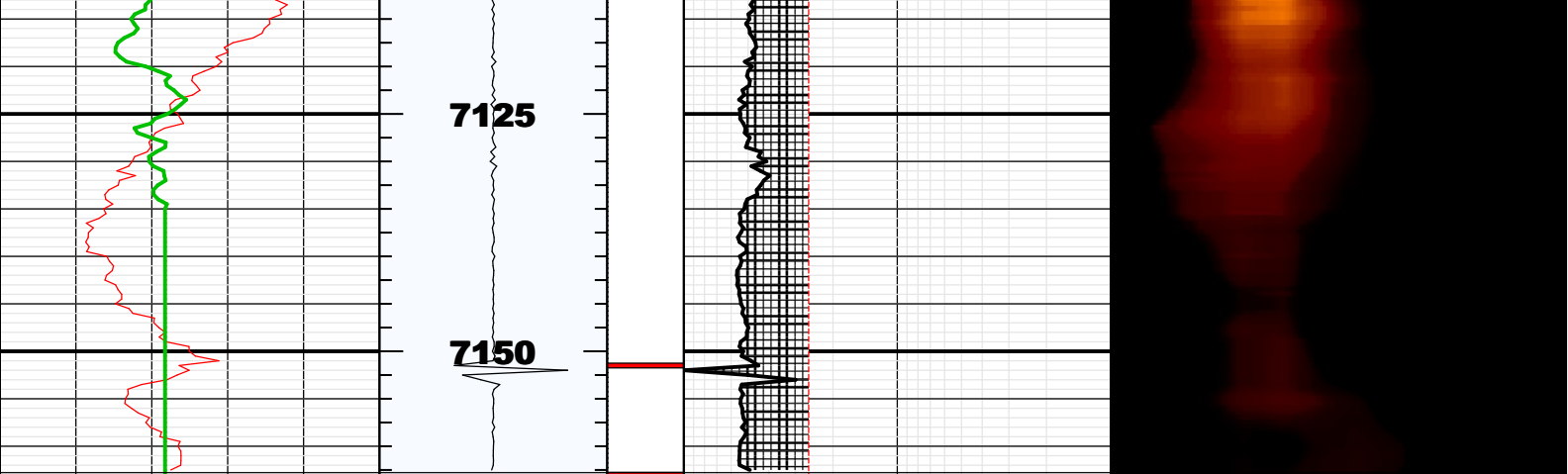
Repeat Pass

Company: Noble Energy Inc
Well: Reliance E23-68-1HN
Field: Greeley









Fluid Properties Used for Main Pass

