

Company: Noble Energy Inc.

Well: Moses State LD11-77-1AHN  
Field: Wildcat  
County: Weld State: Colorado

County: Weld  
Field: Wildcat  
Location: SHL 465' FSL & 1529' FWL  
Well: Moses State LD11-77-1AHN  
Company: Noble Energy Inc.

USI-LITE (2500 psi)			
LOCATION			
Permanent Datum: Log Measured From: Drilling Measured From:		GL KB KB	Elev: K.B. 4771.0 F G.L. 4741.0 F D.F. 4770.0 F
API Serial No. 05-123-39844	Section 2	Township 9N	Range 58W
Logging Date	30-Jan-2015		
Run Number	One		
Depth Driller	6060.0 F		
Schlumberger Depth	6060.0 F		
Bottom Log Interval	5840.0 F		
Top Log Interval	51.0 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	1243.0 F		
To	6060.0 F		
Casing Size	7.00 IN		
Weight	26.00 LB/F		
Grade	N/A		
From	0.0 F		
To	6060.0 F		
Max Recorded Temp	212.0		
Logger on bottom (date)	30-Jan-2015		
Location	Fort Morgan		
Recorded By	Kevin Crow		
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: 16500.00000

## DISCLAIMER

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Repeat ran with 0 psi, Main ran with 2500 psi

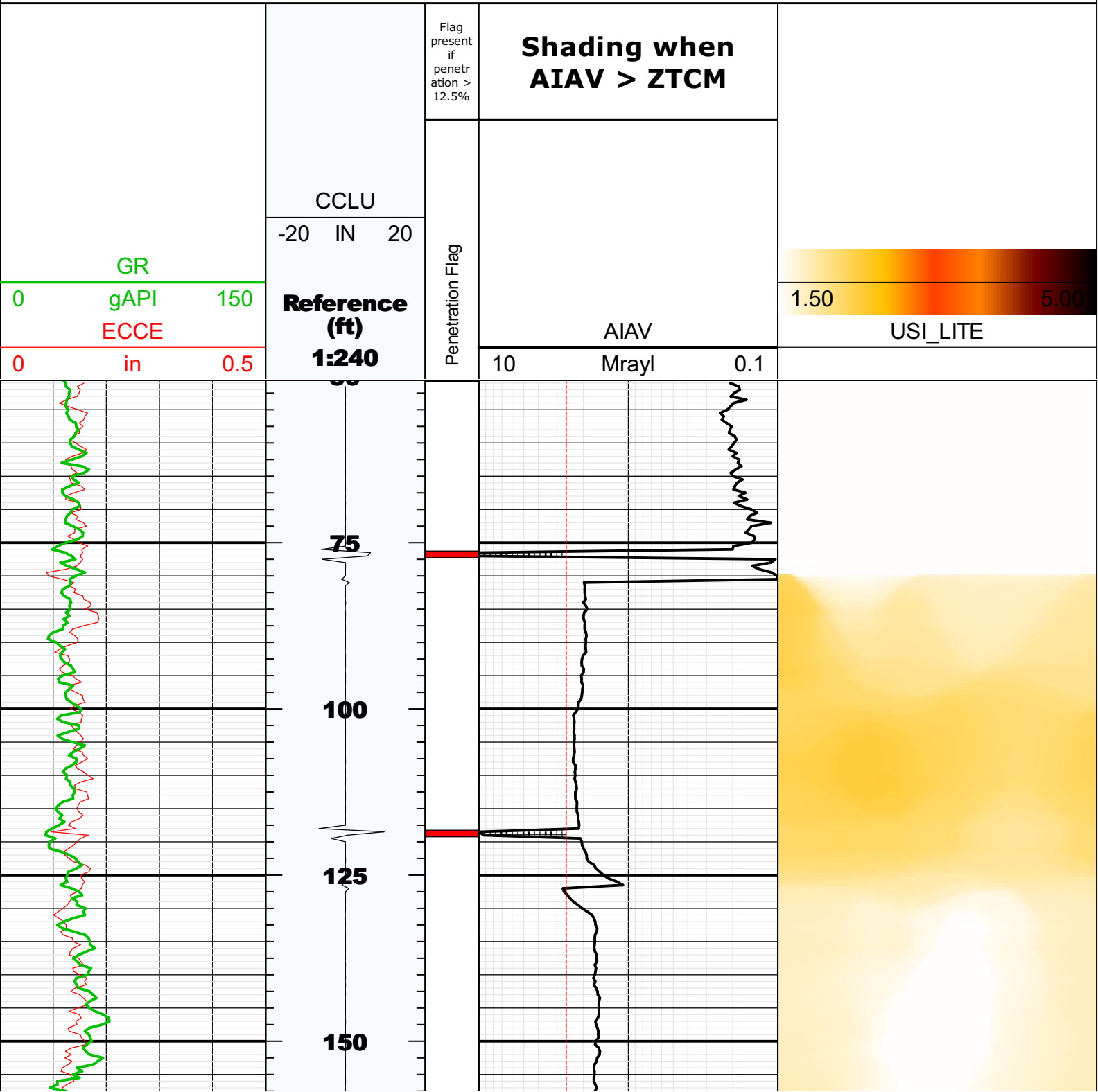
Lead Cement 12.5 lb/gal, Tail Cement 13.8 lb/gal

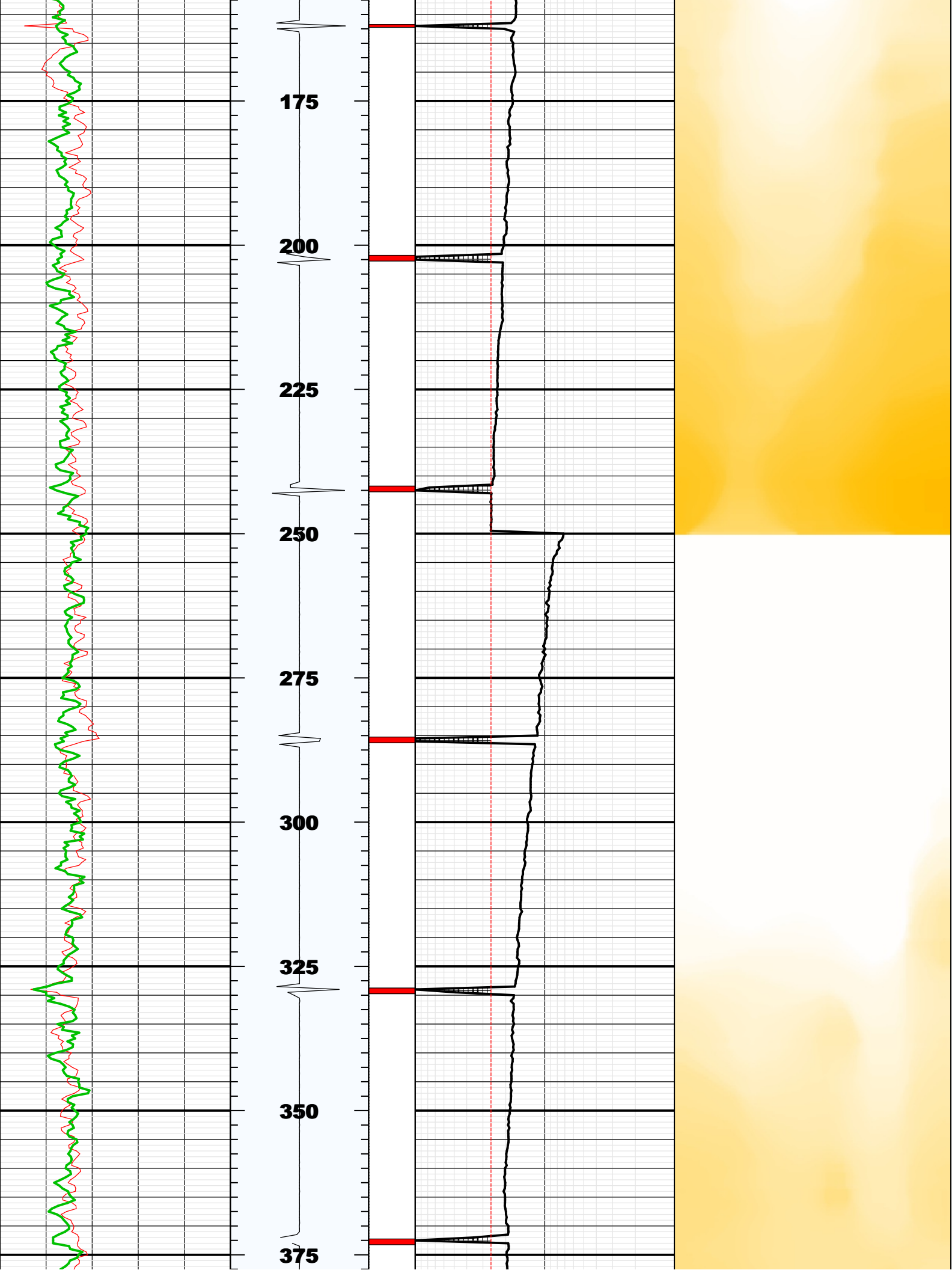
Top of cement seen at 1245'.

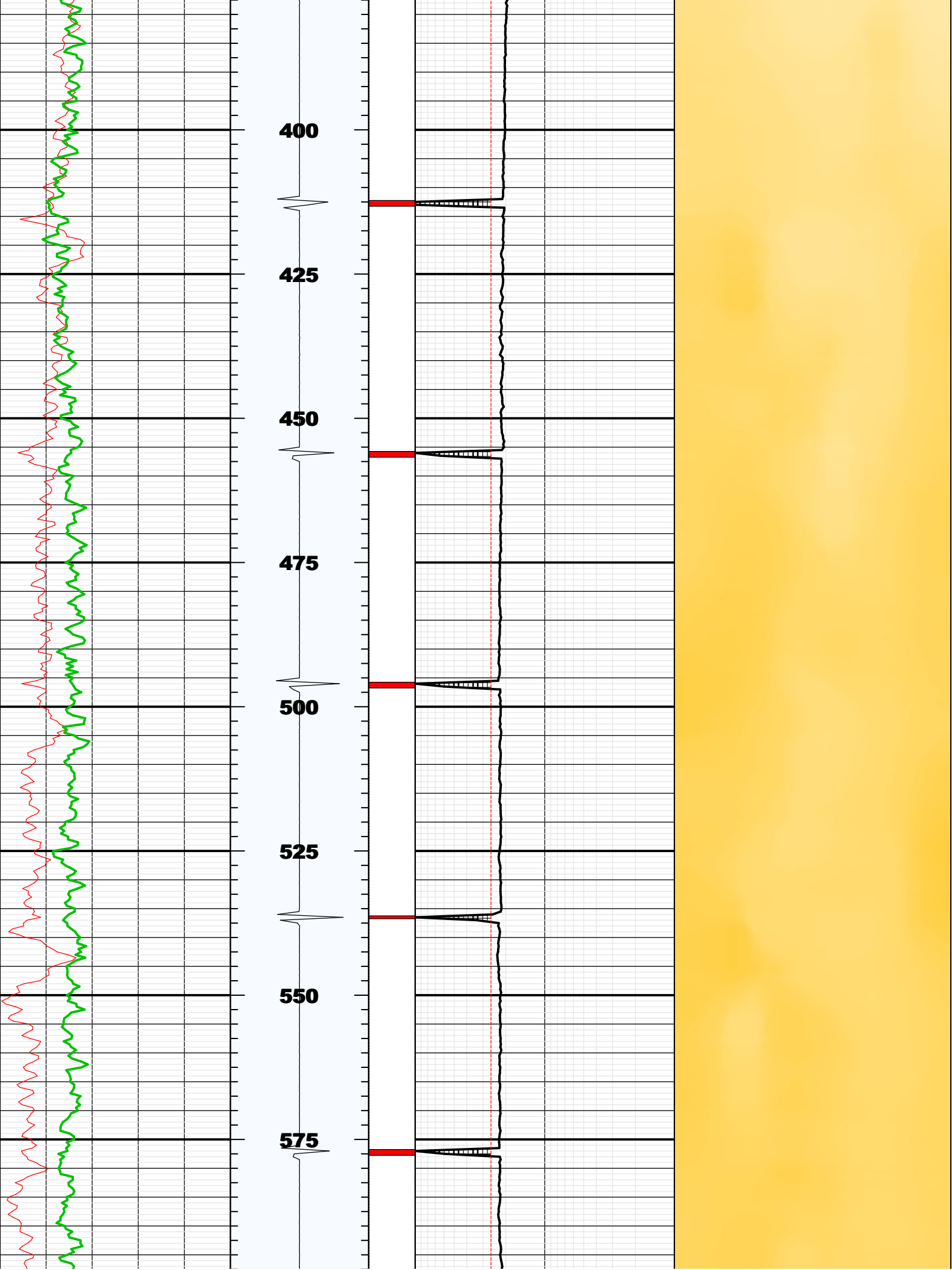
Bottom Hole Temperature was 212 degF, measured at depth.

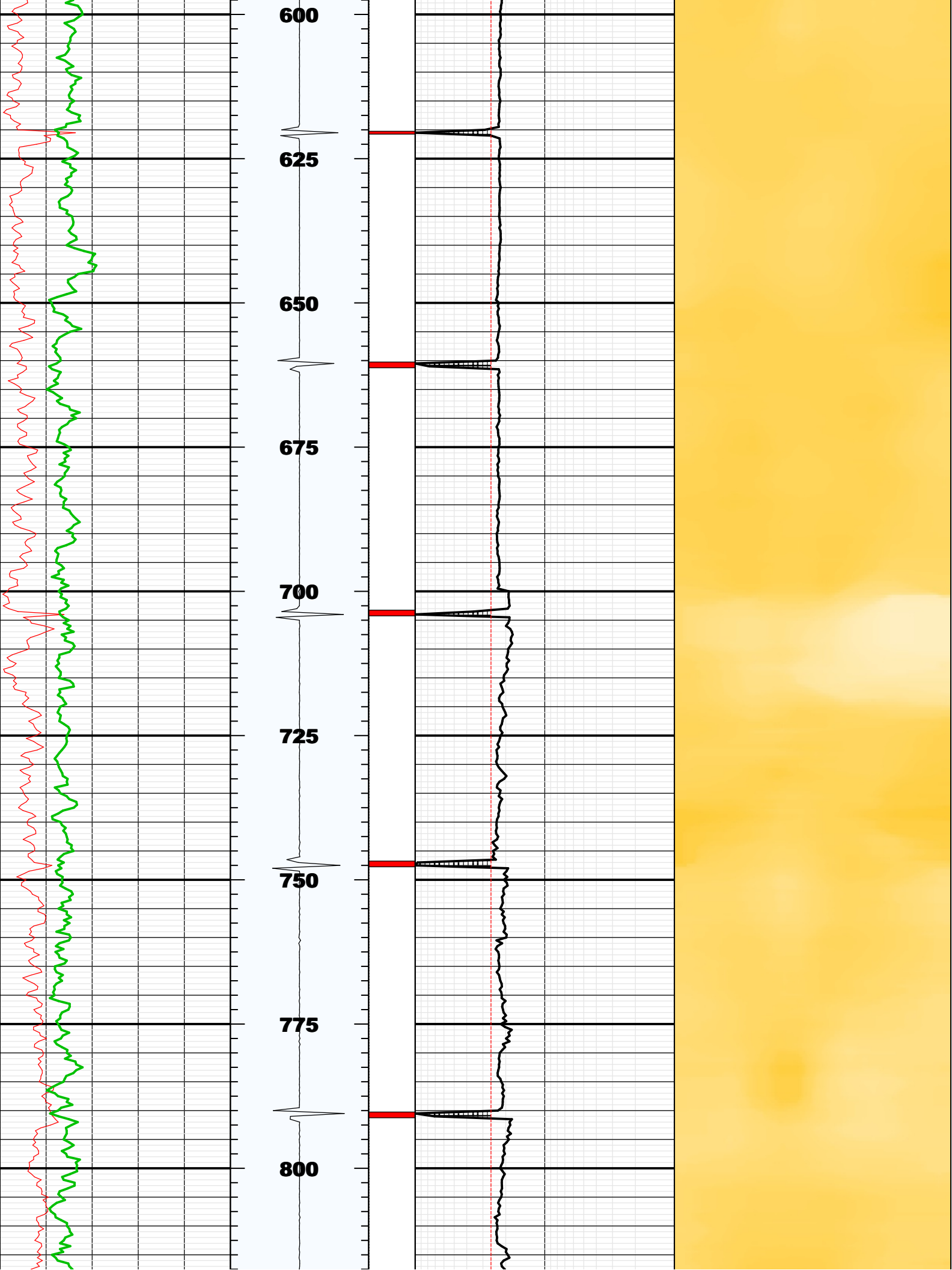
Main Pass

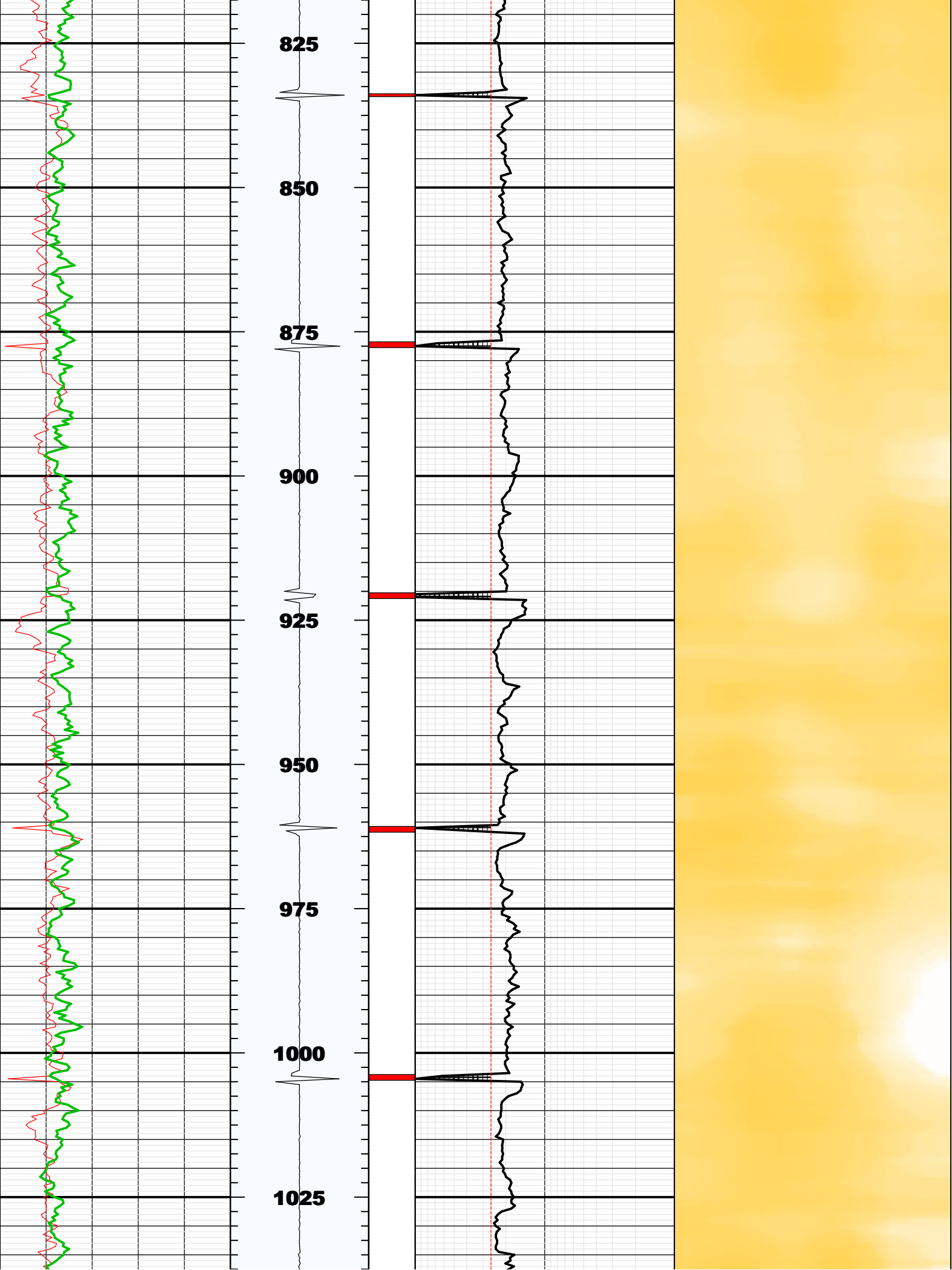
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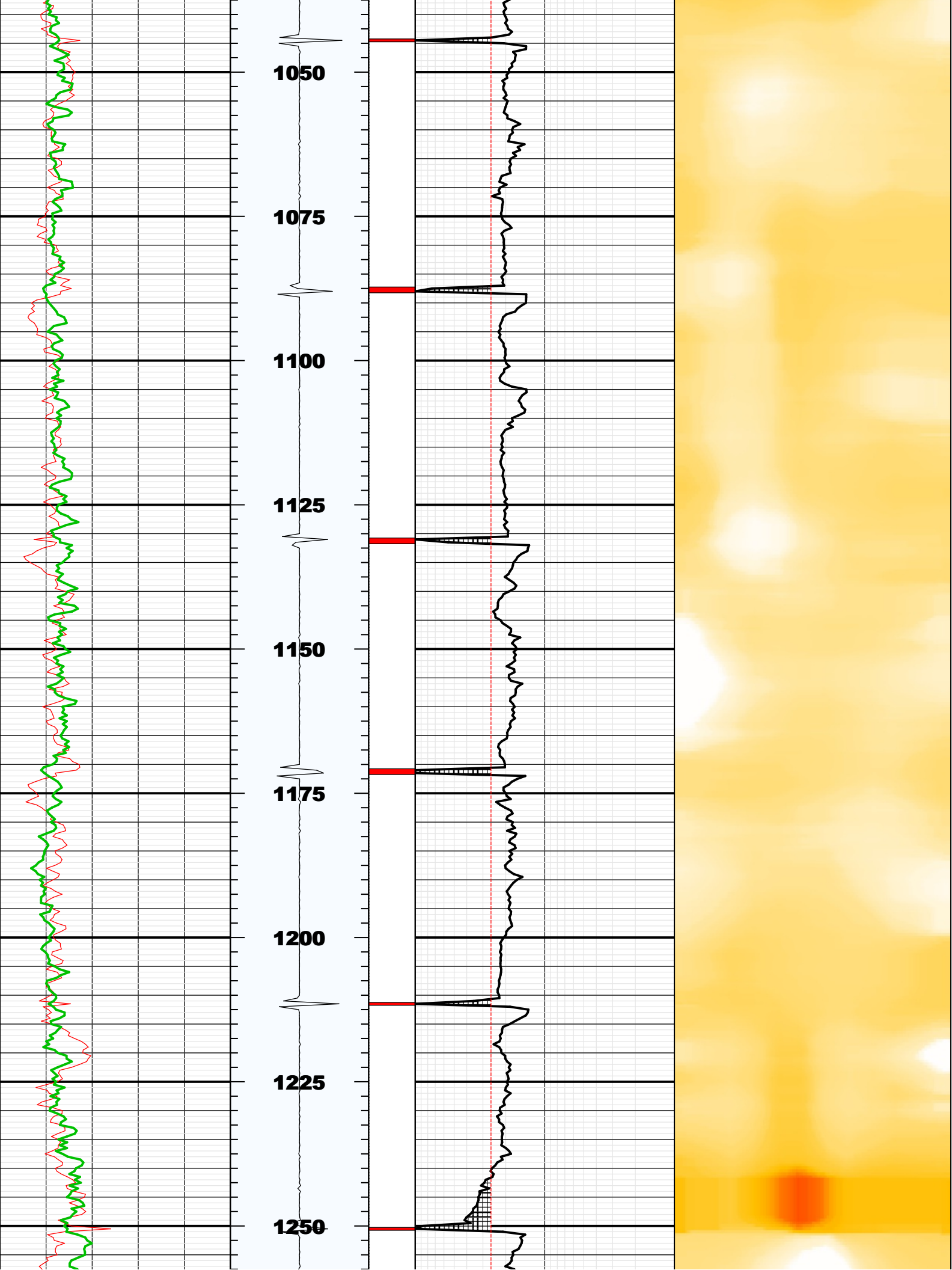




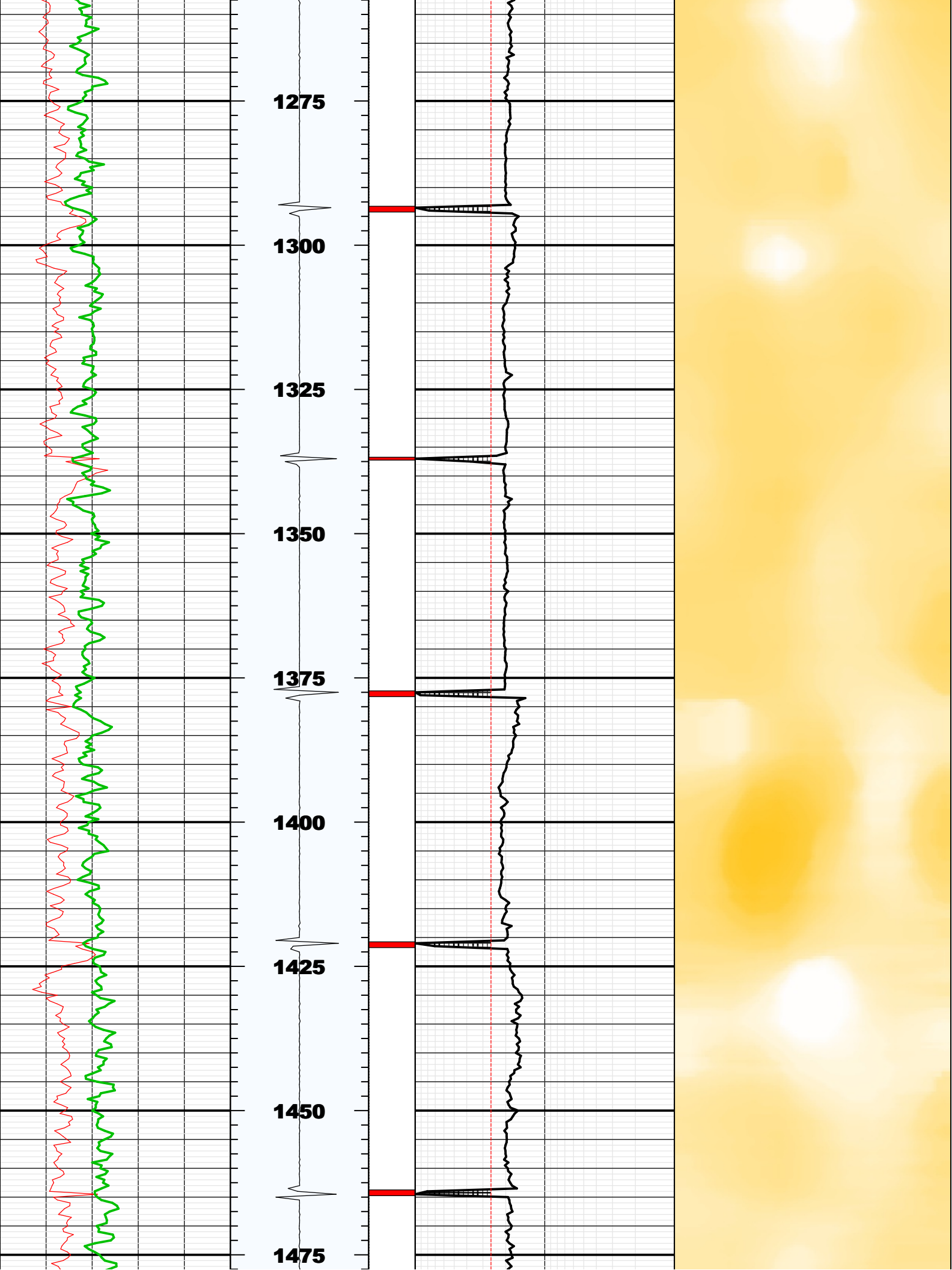


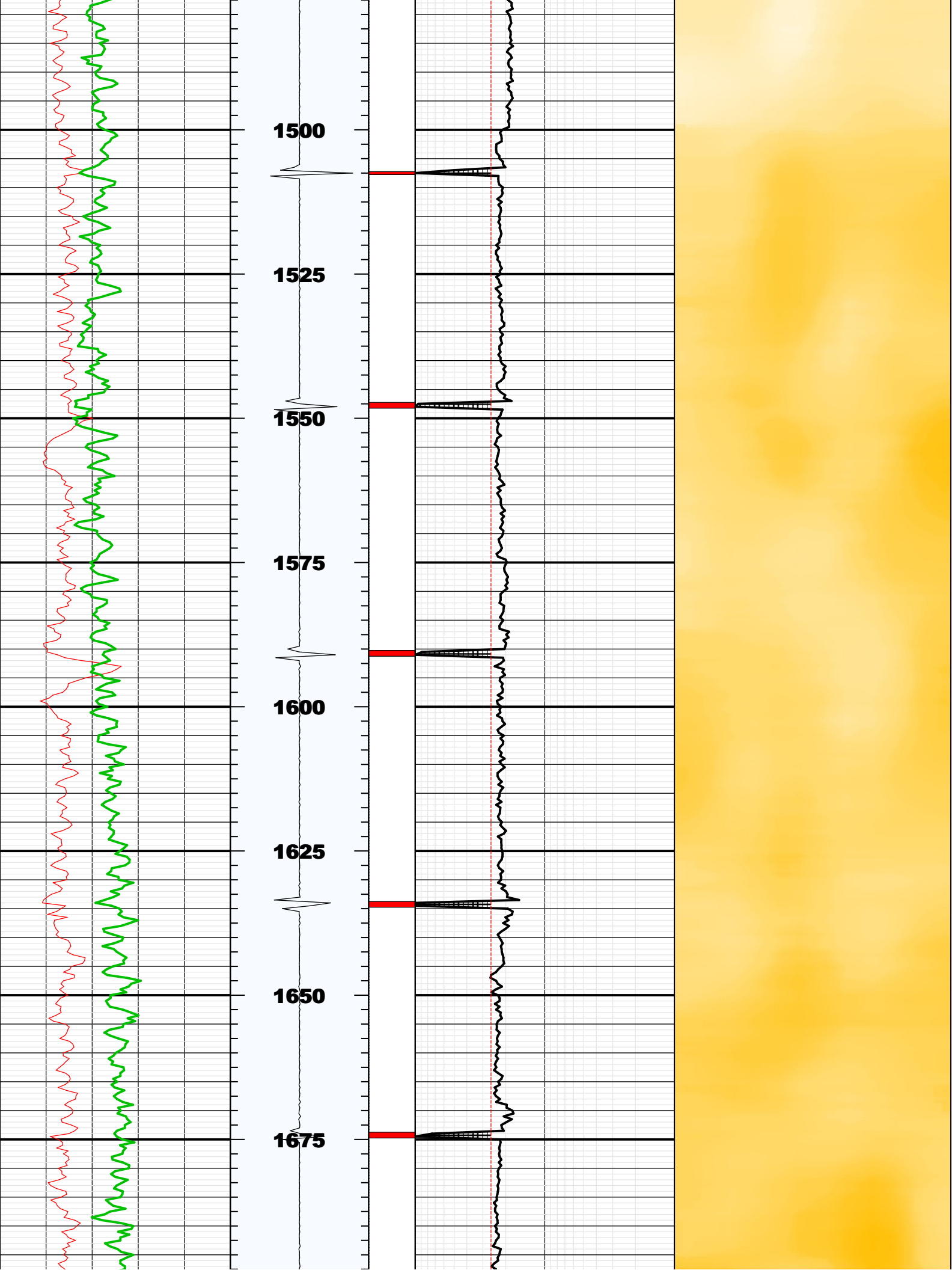


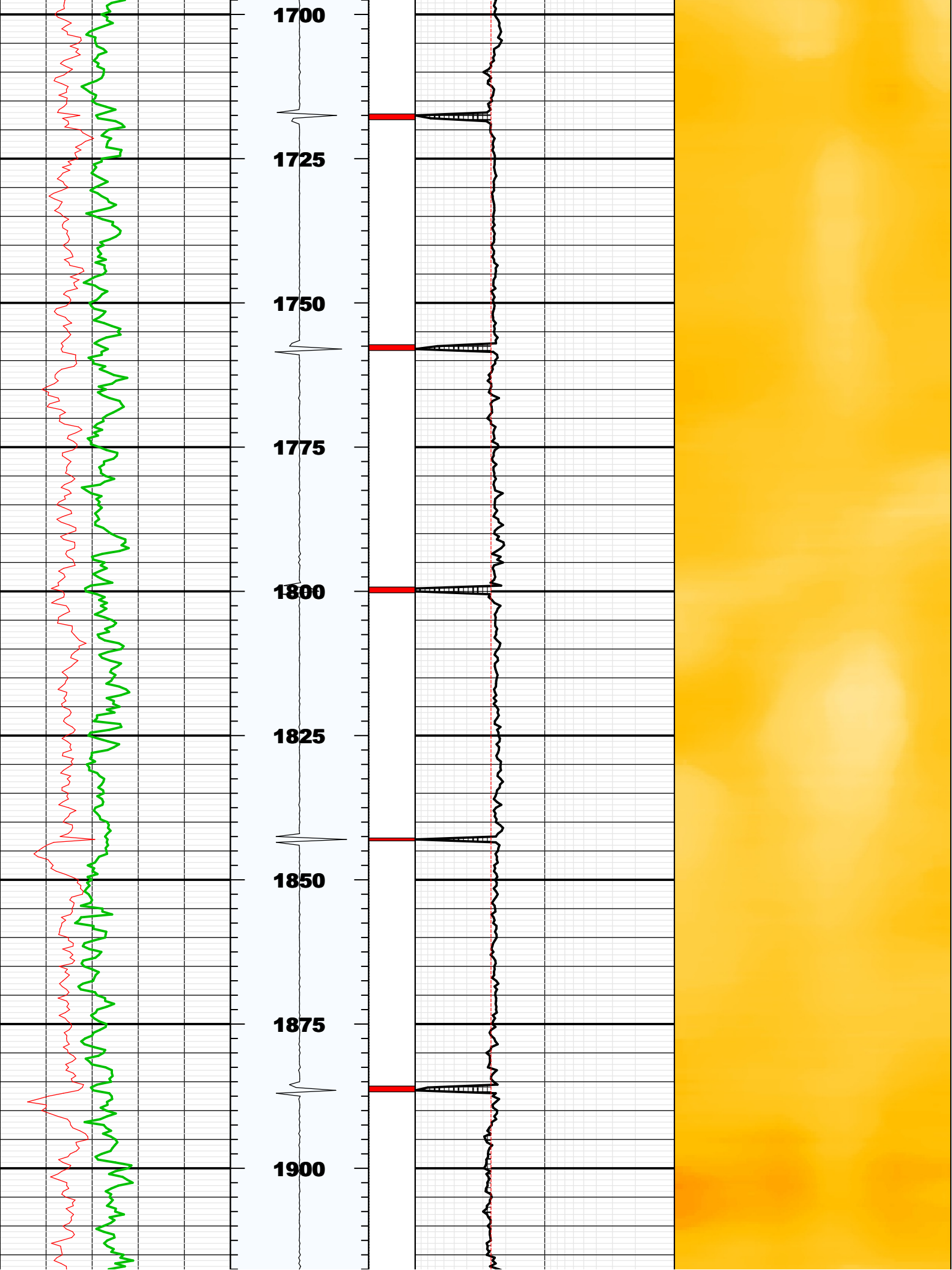


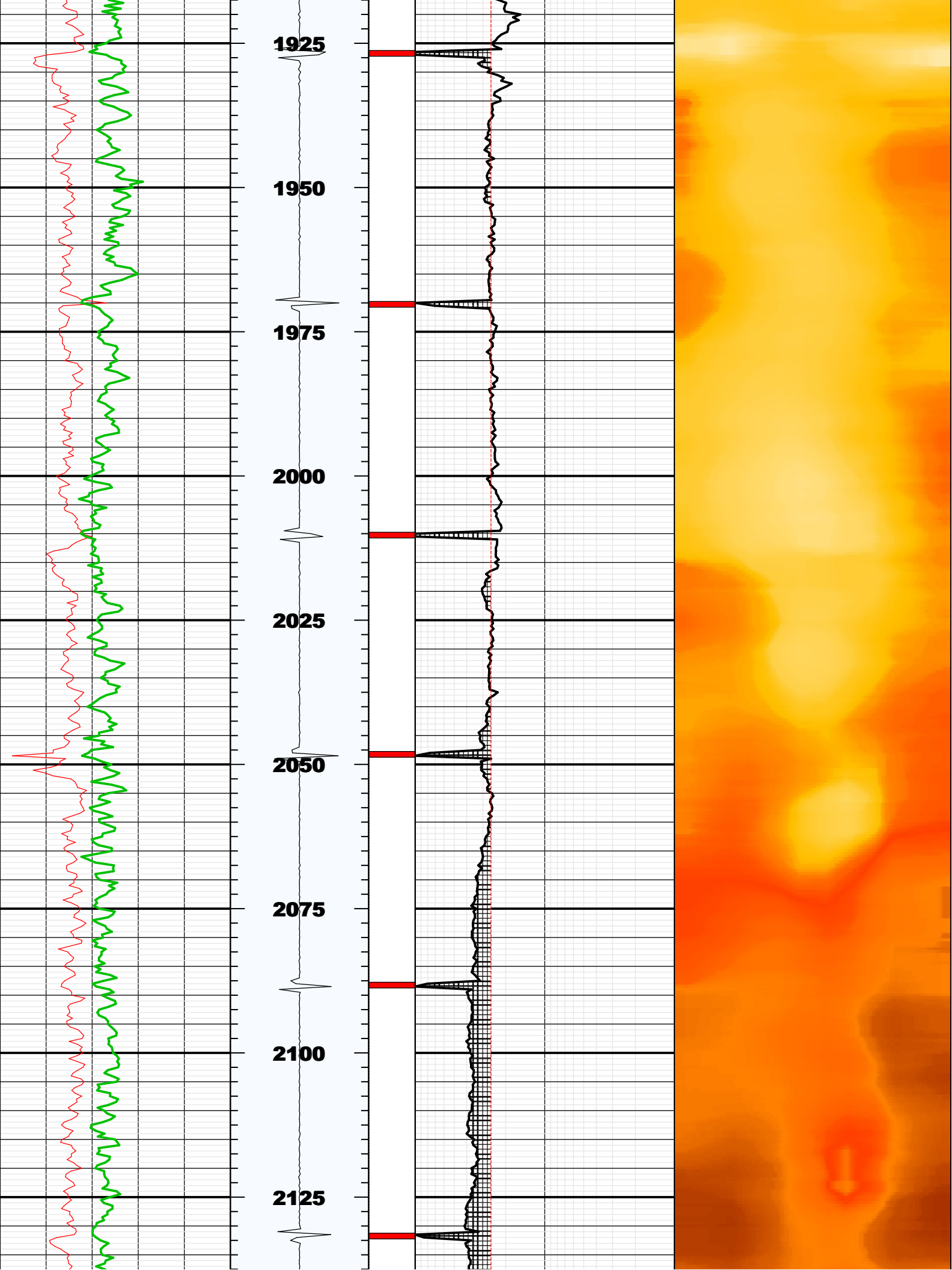


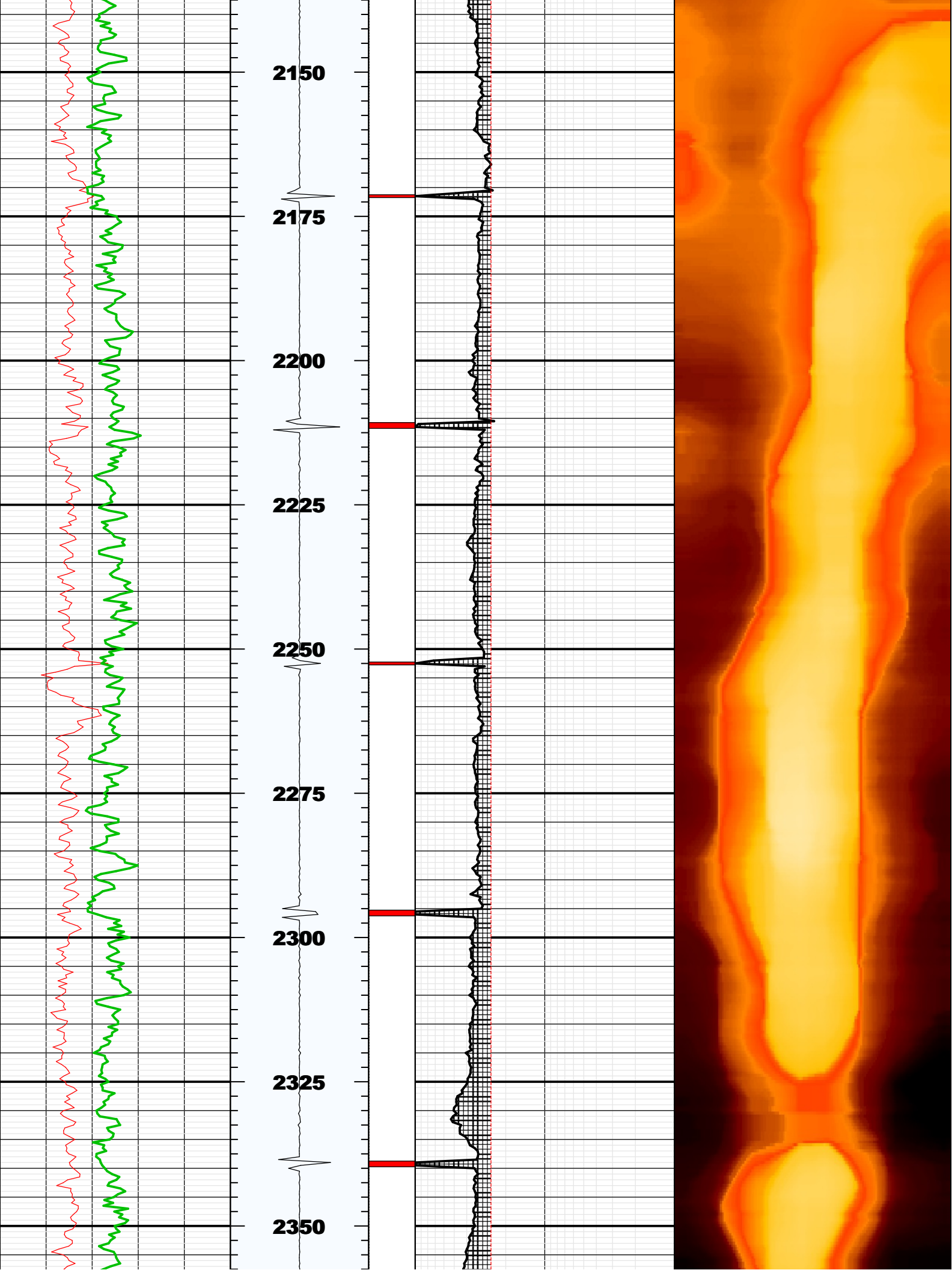




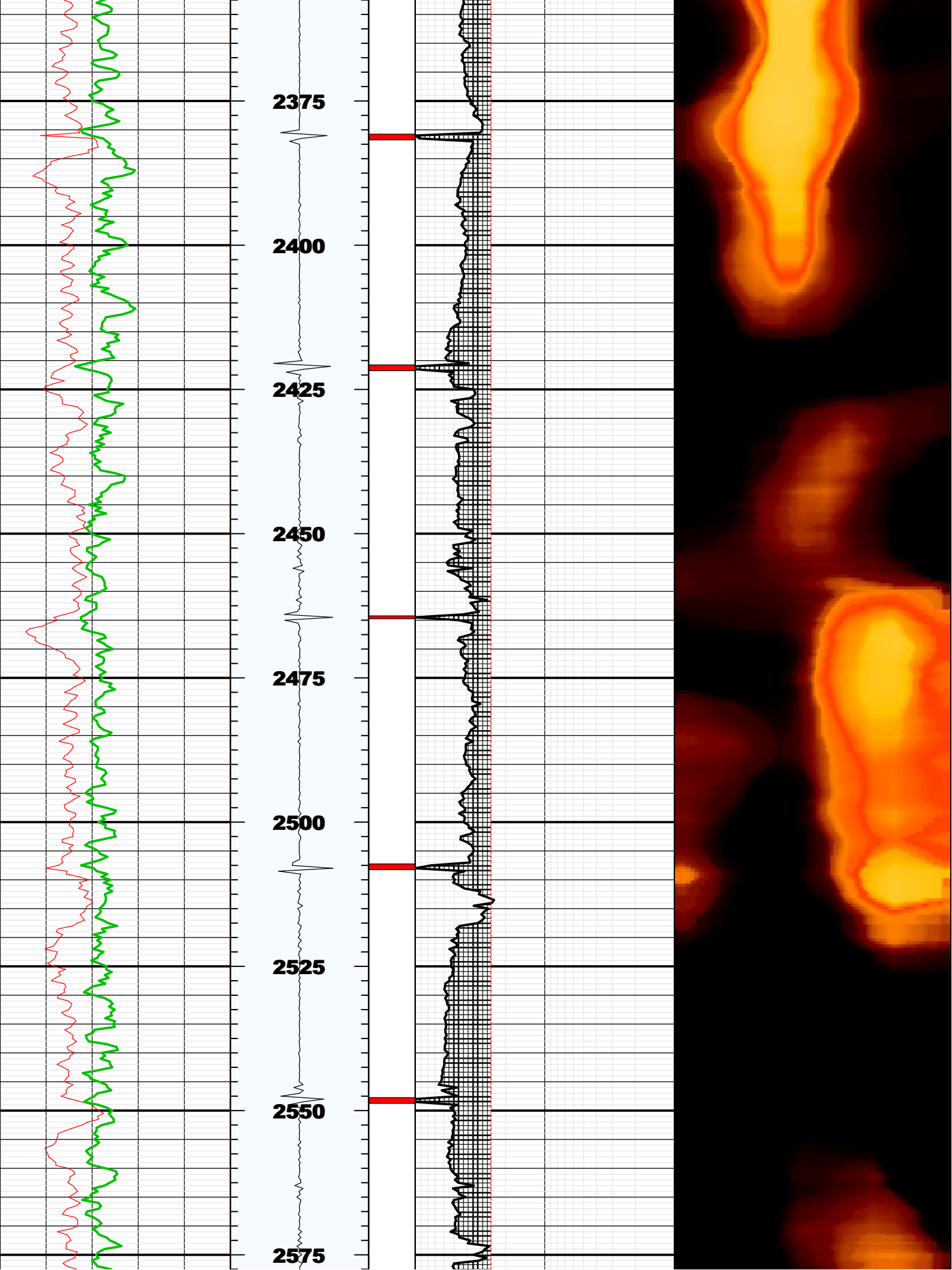


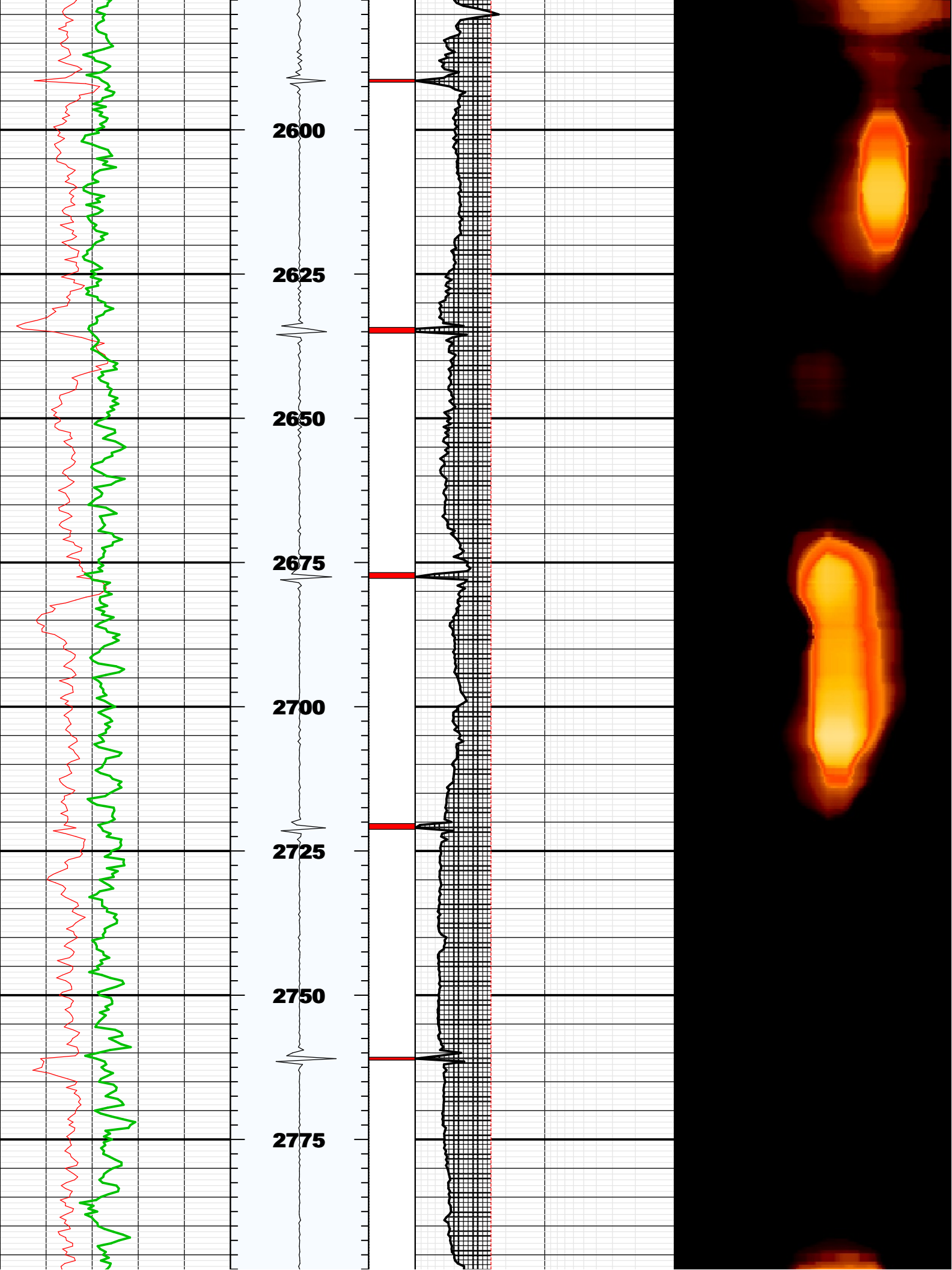


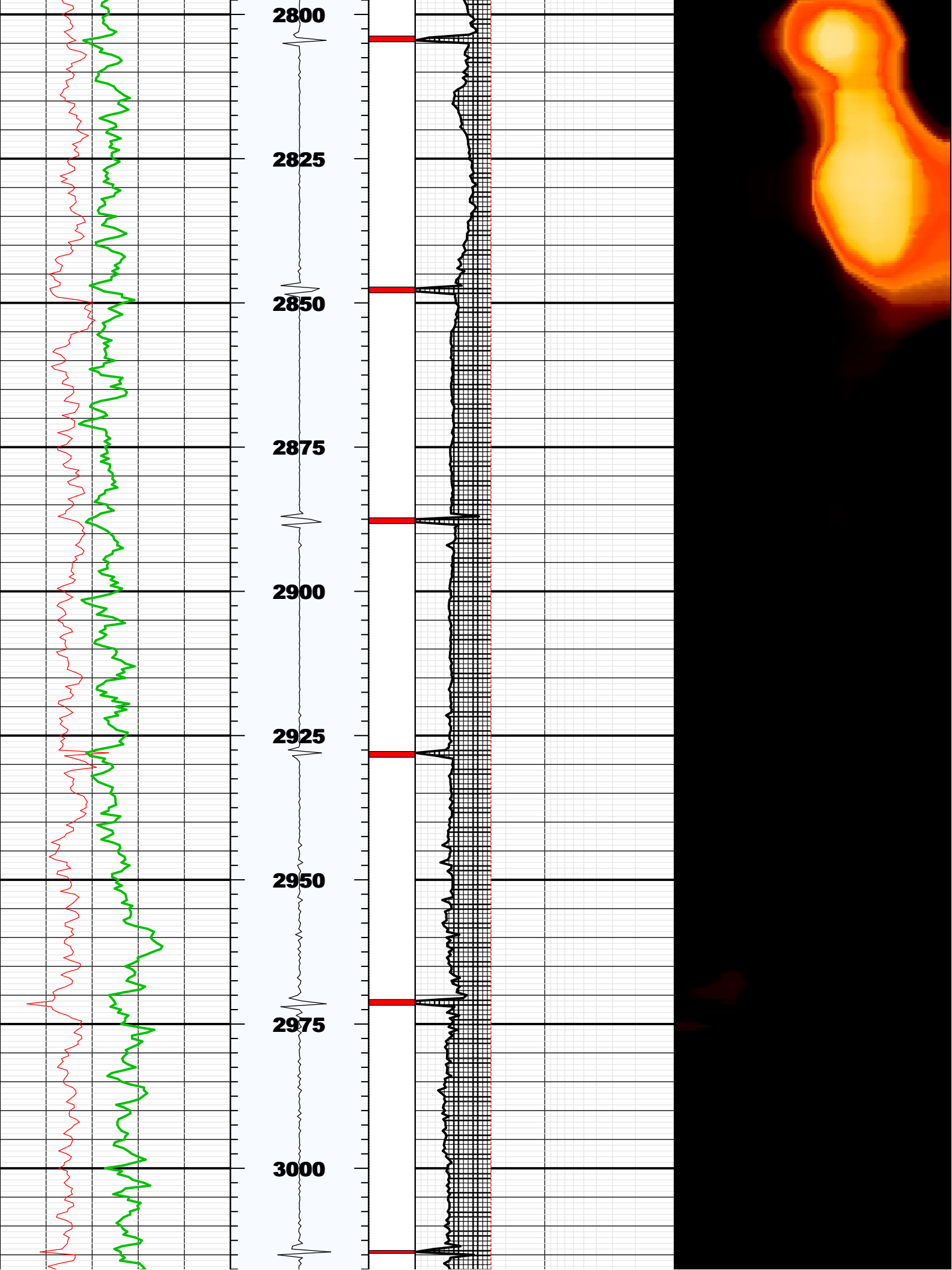




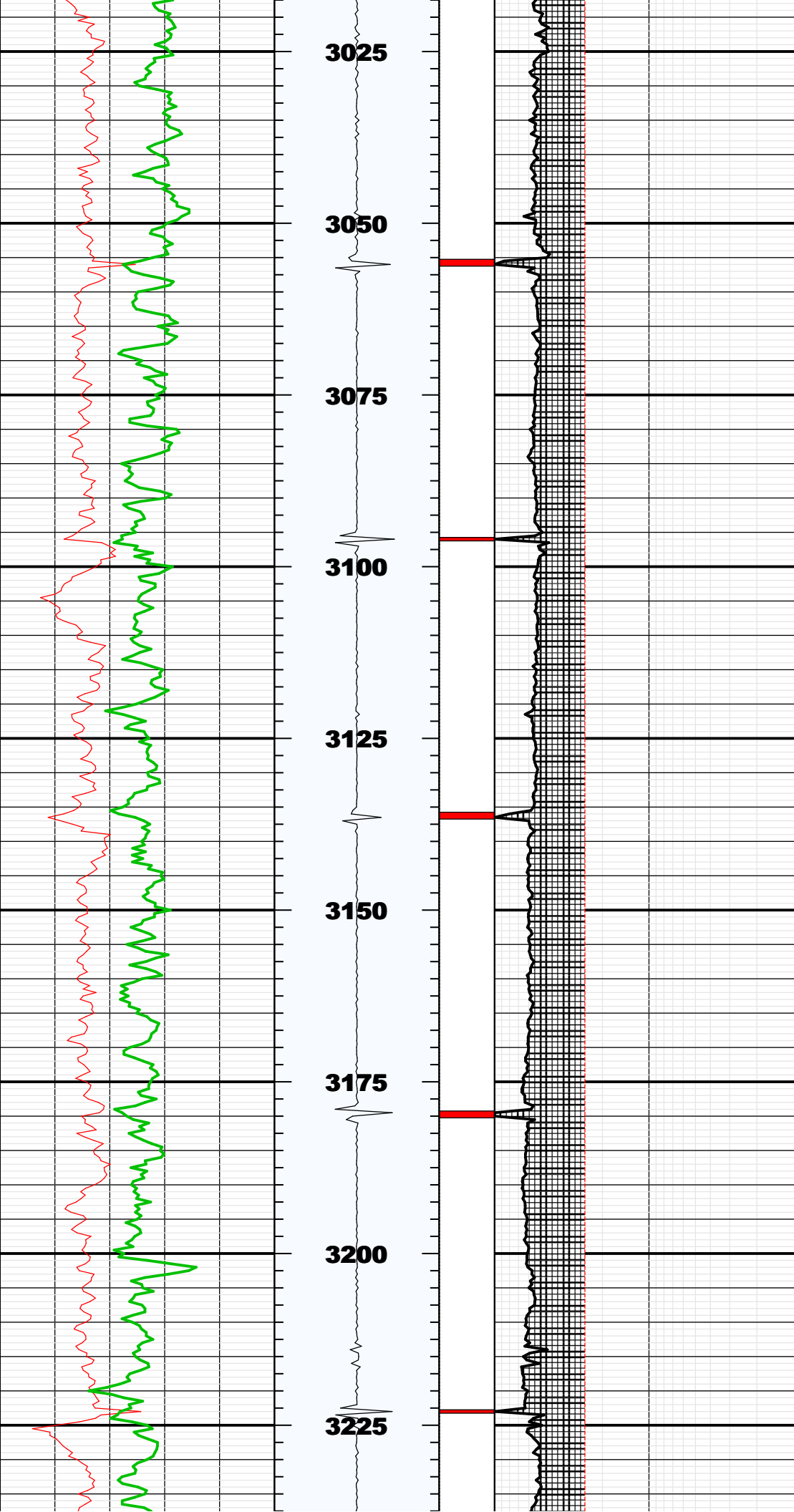


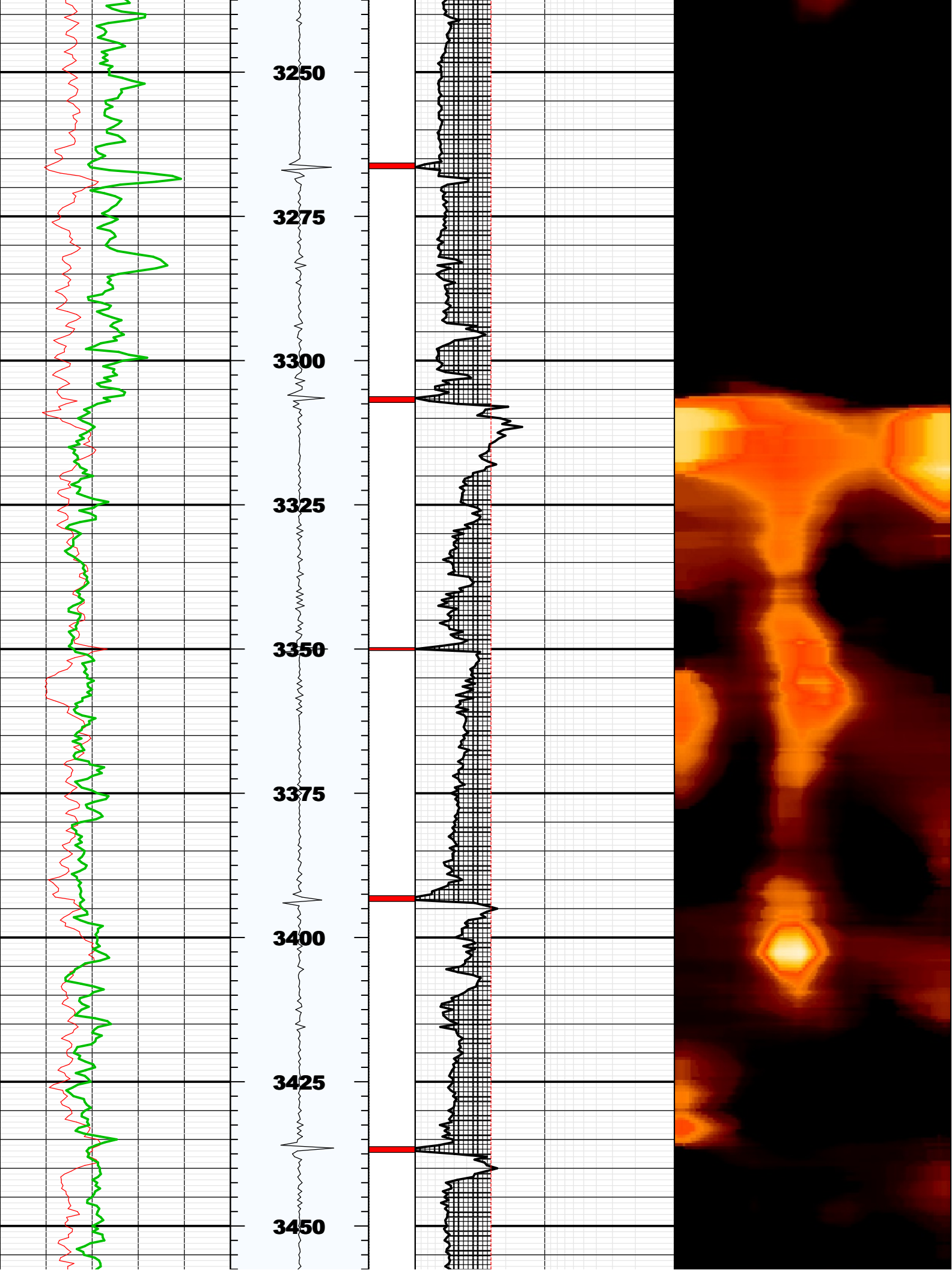


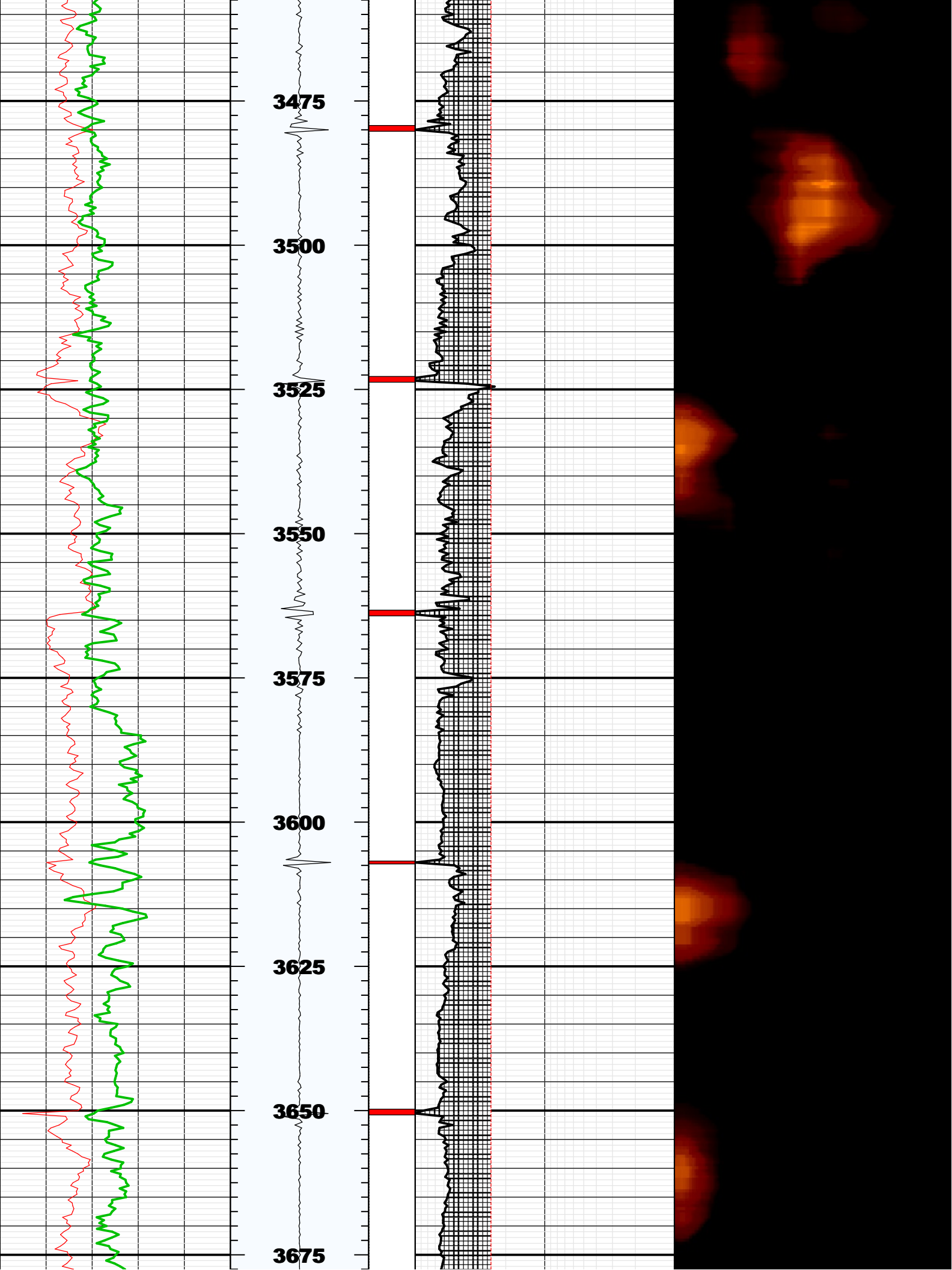


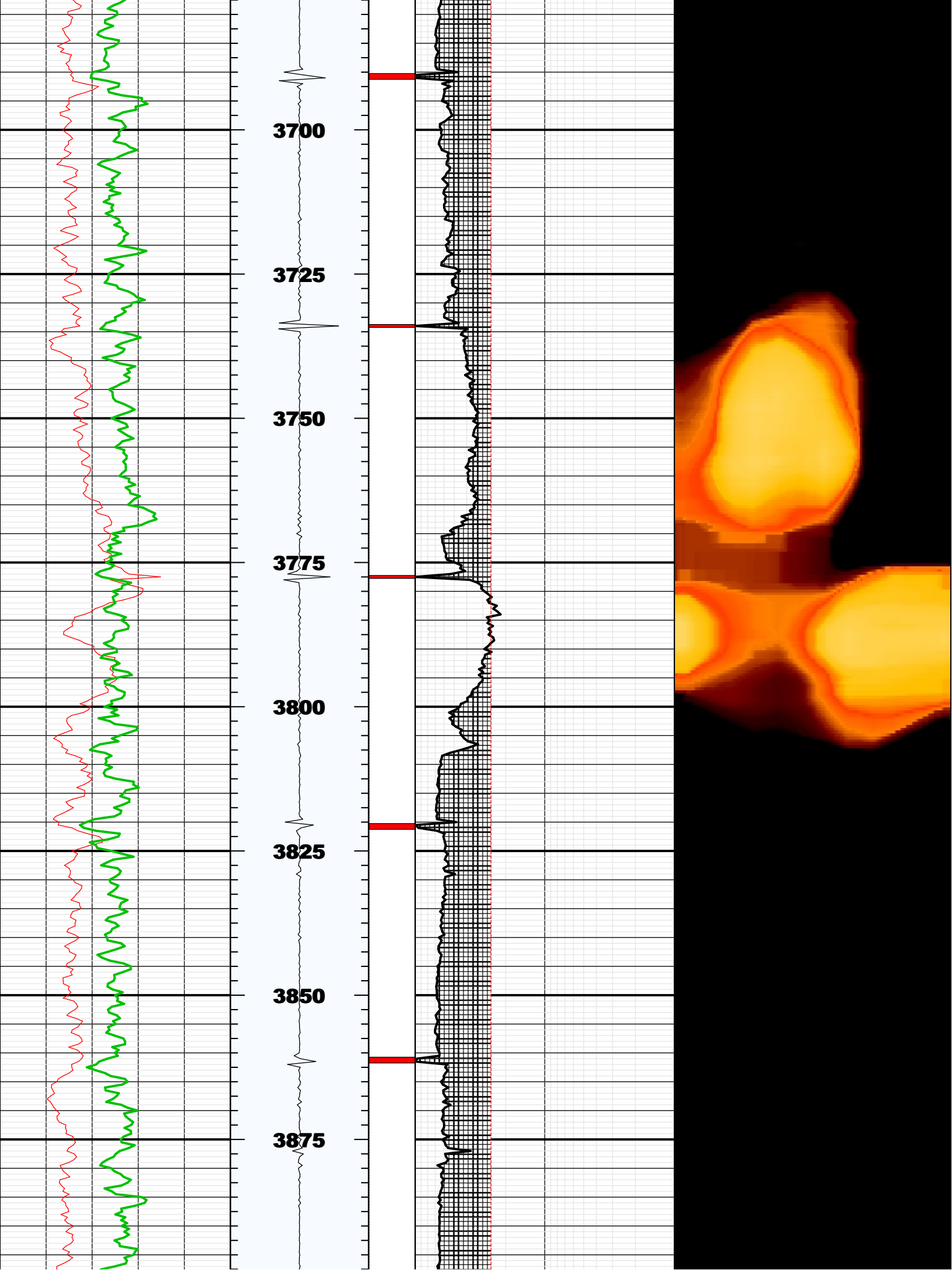


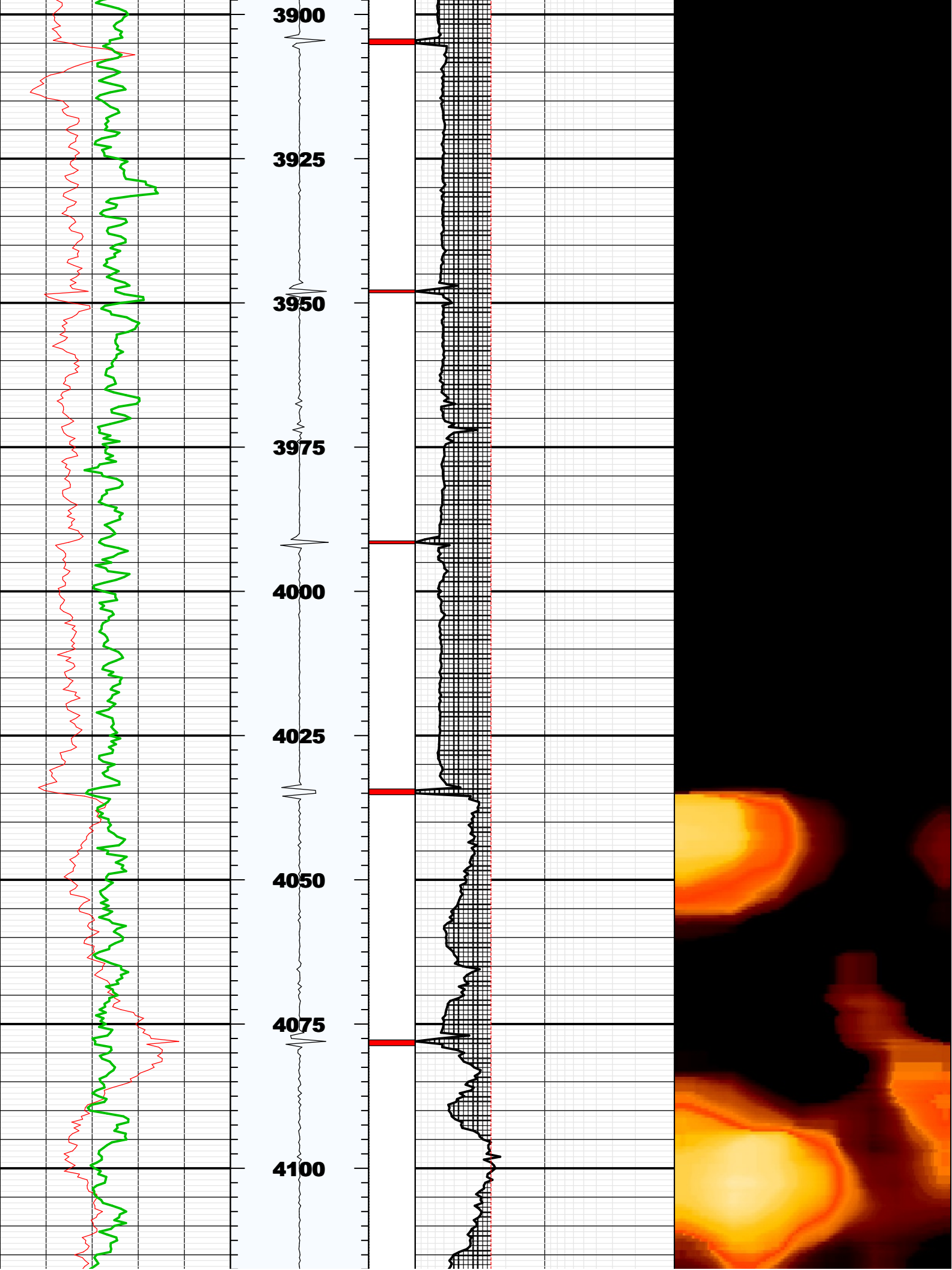




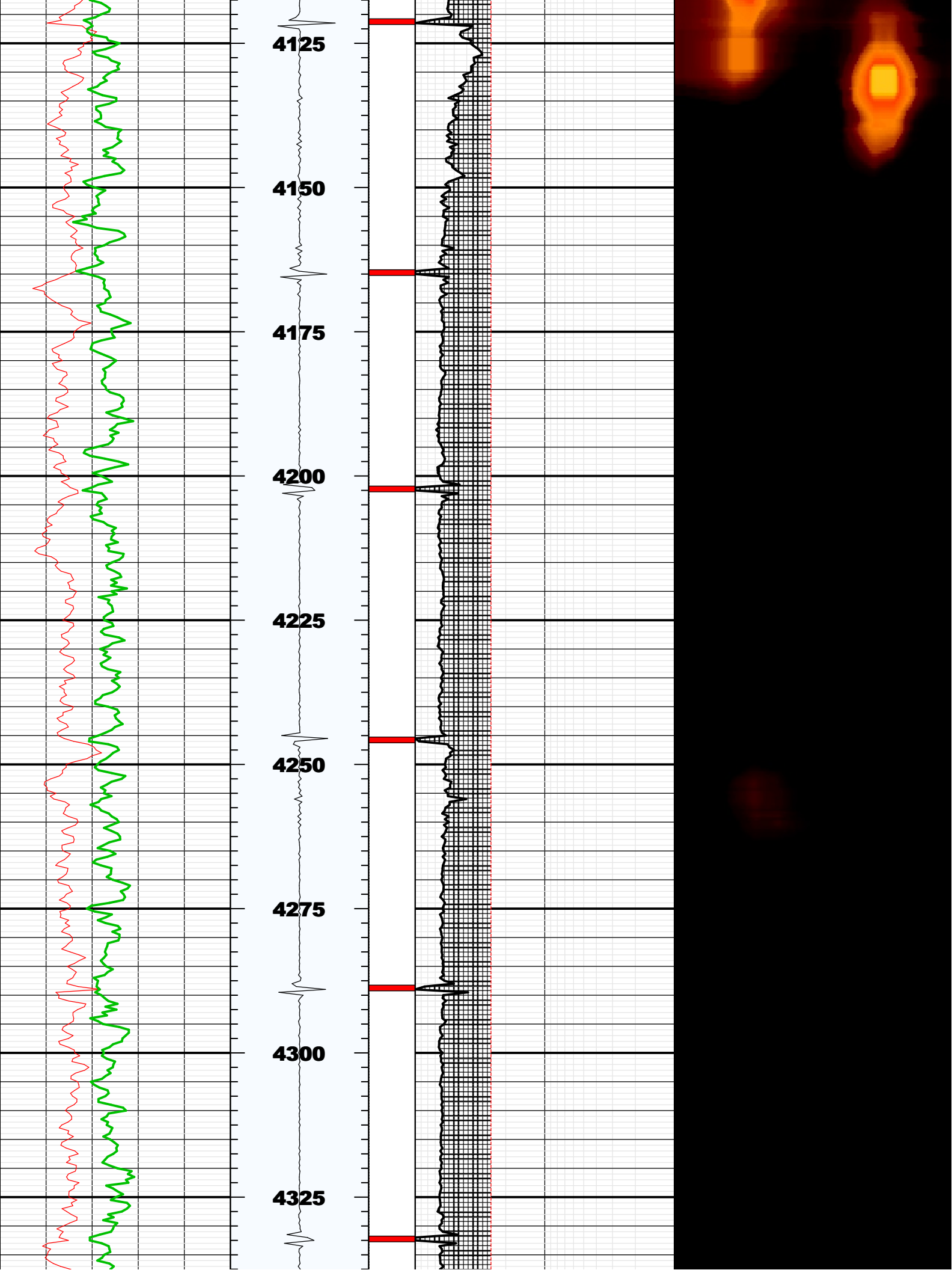


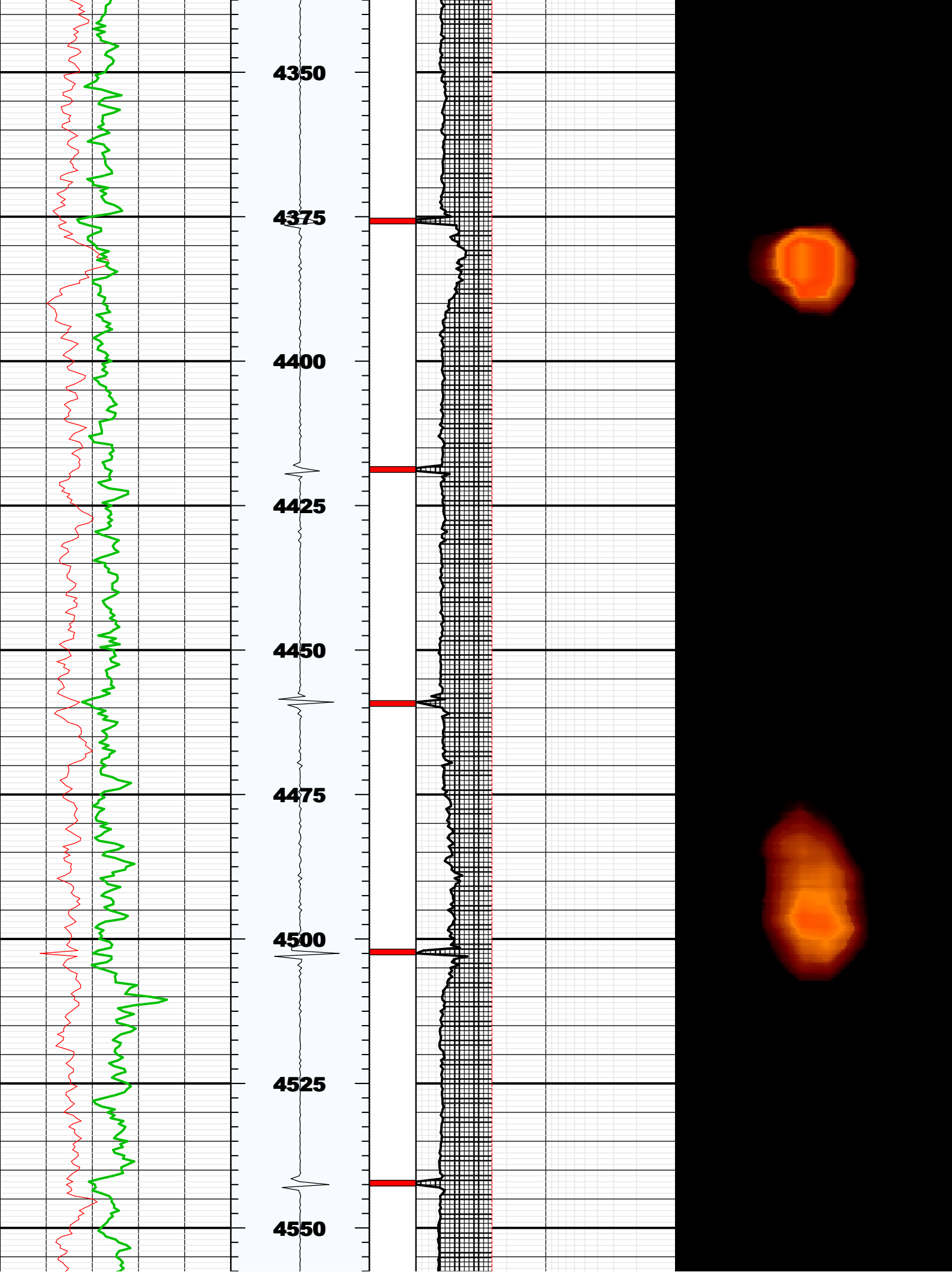


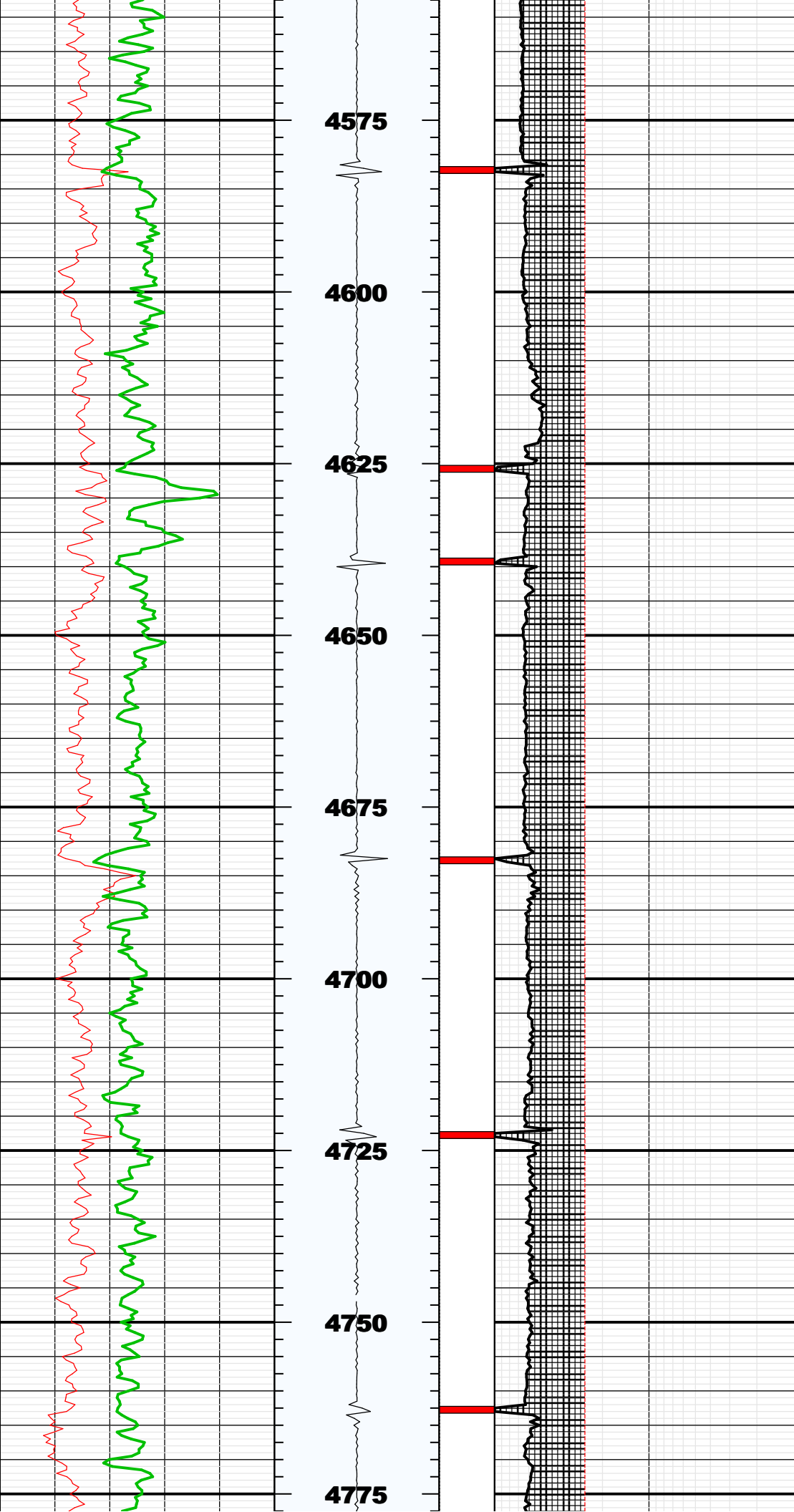




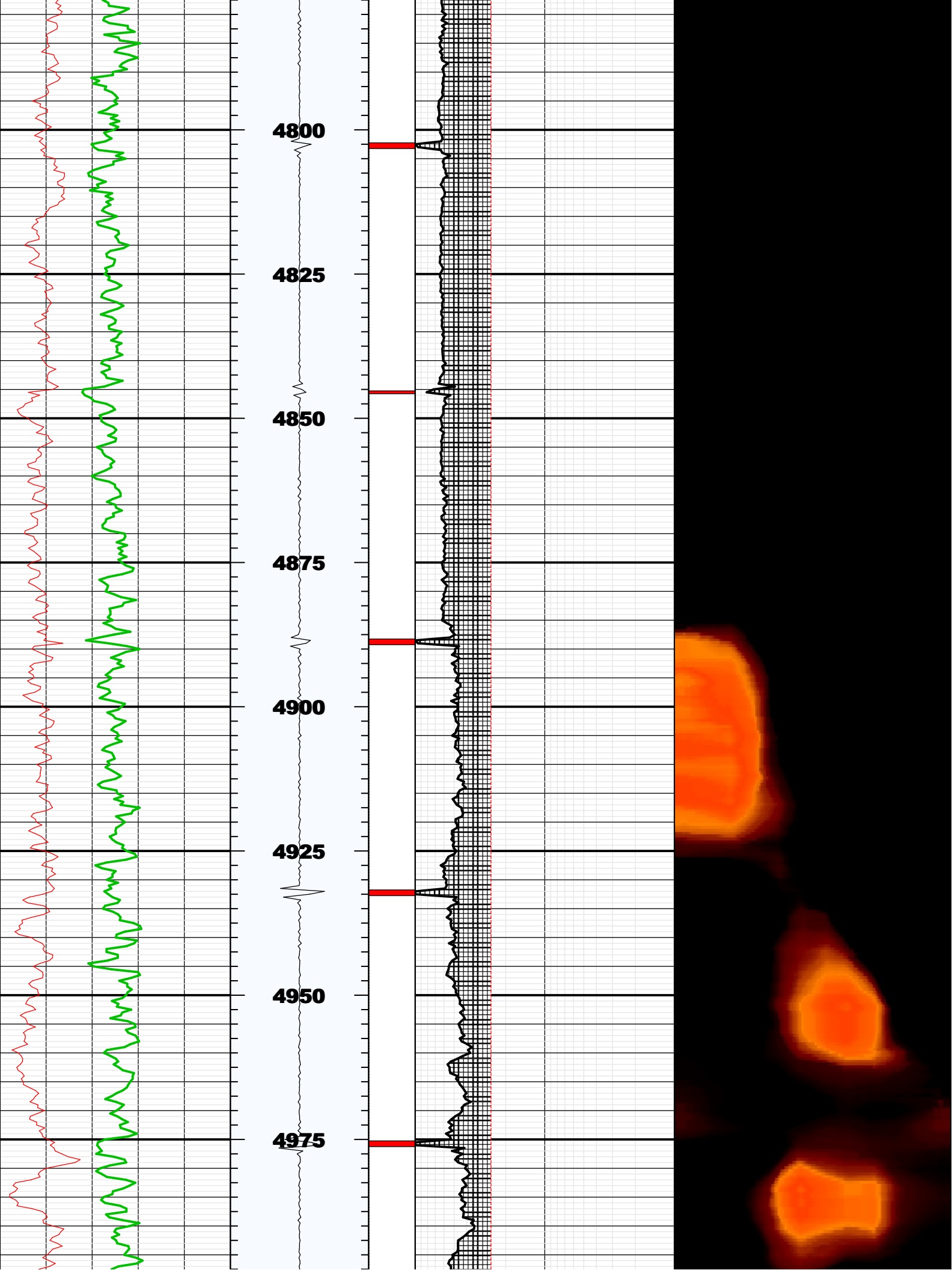


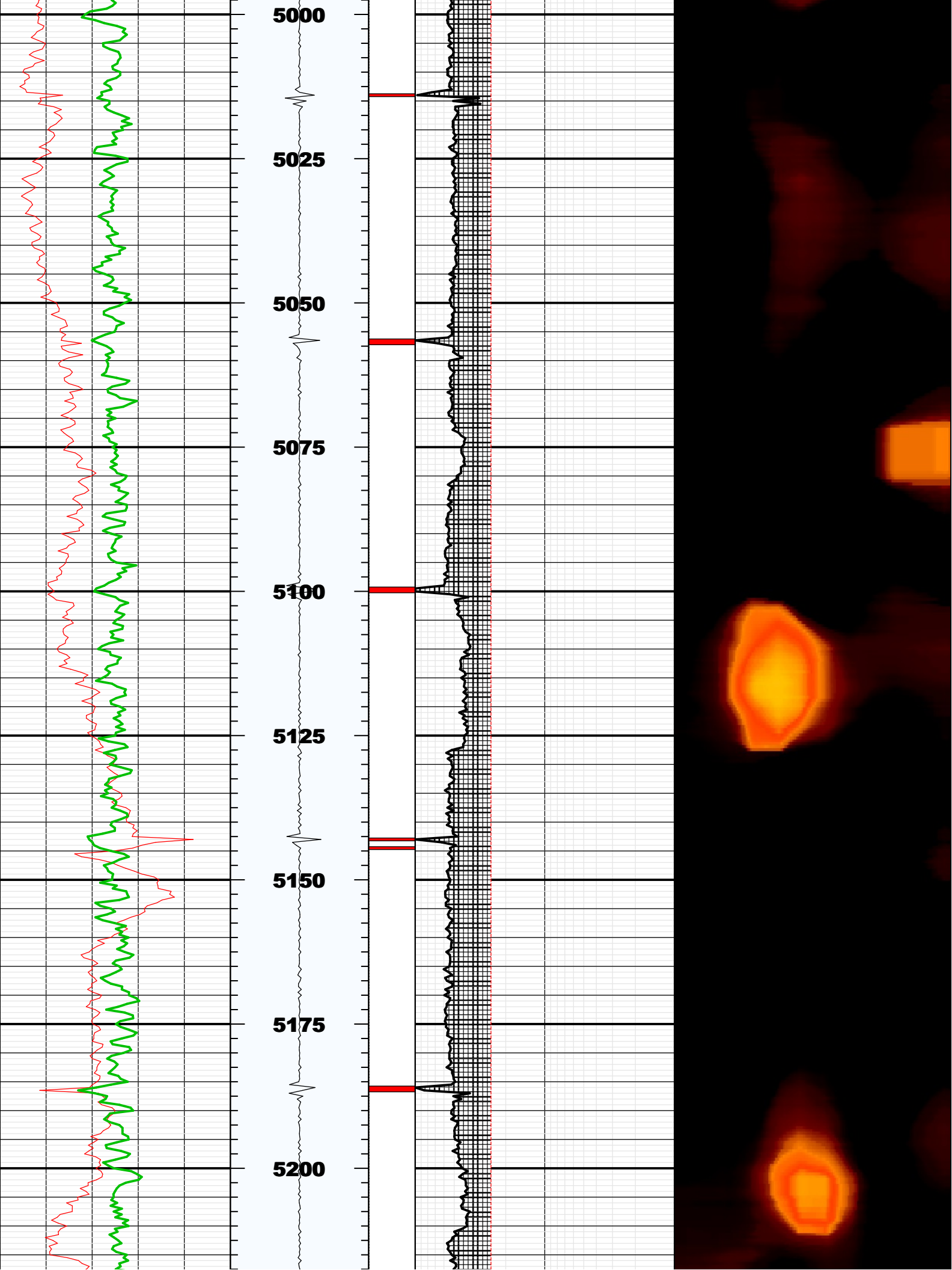


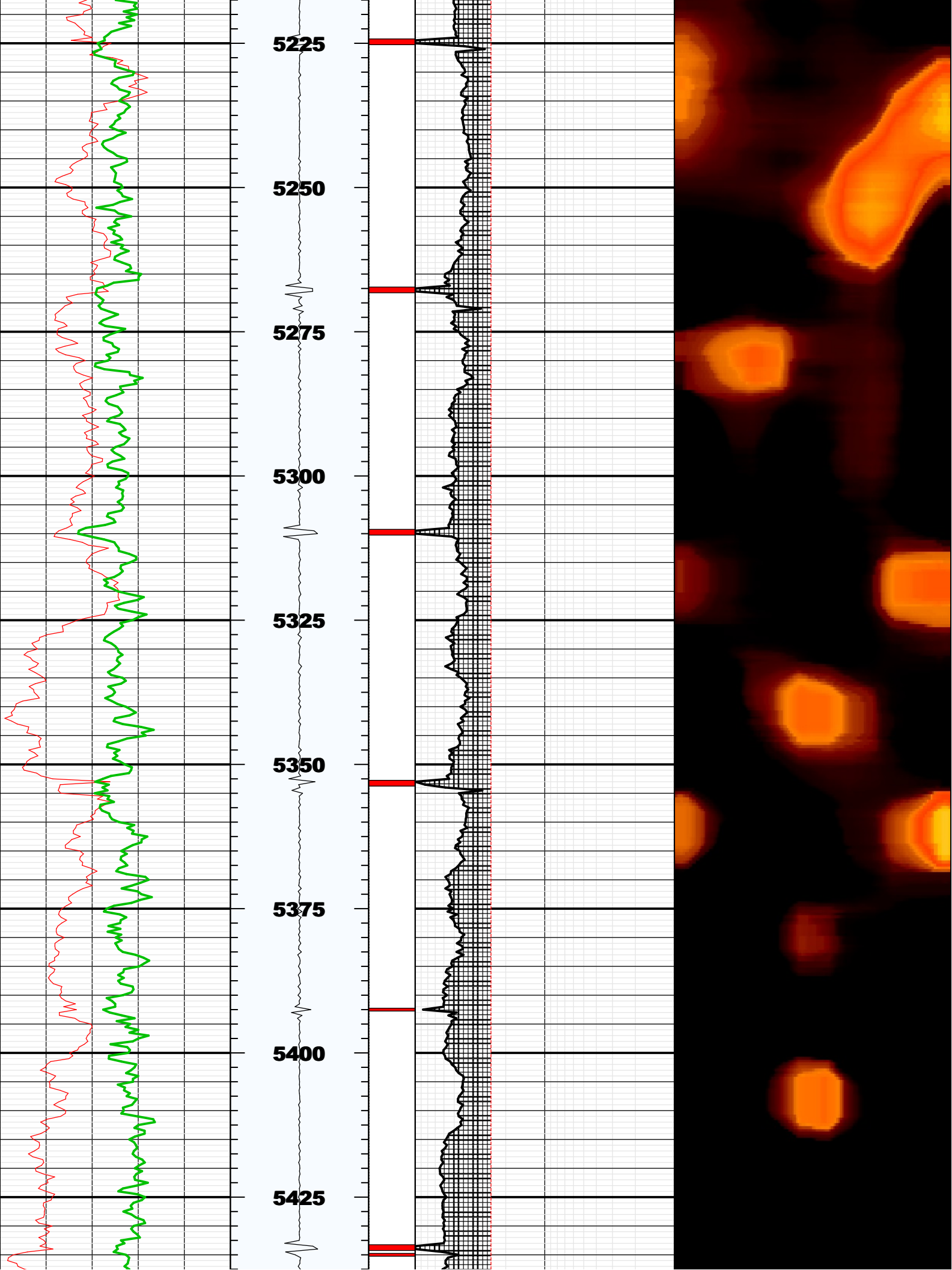


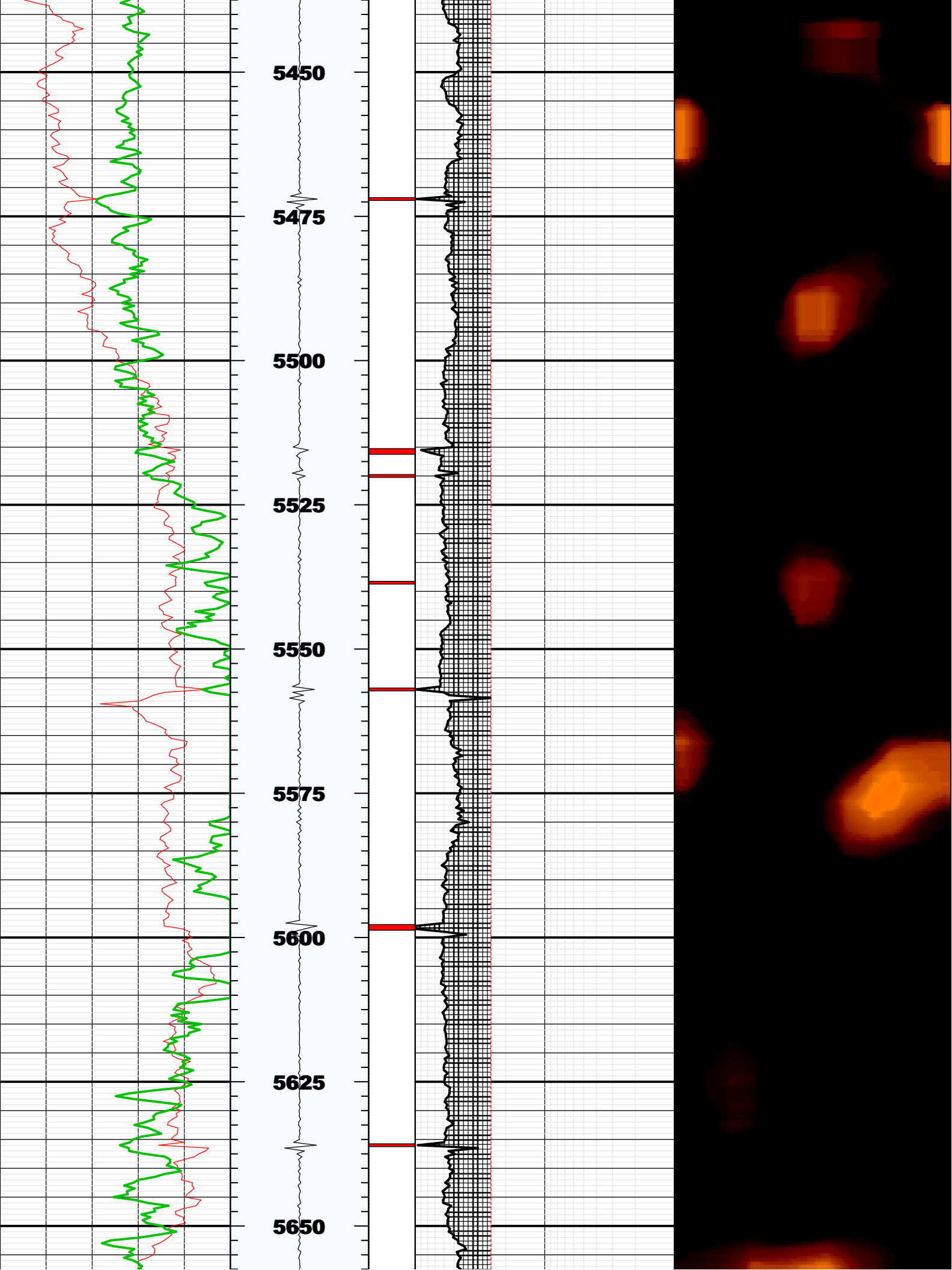


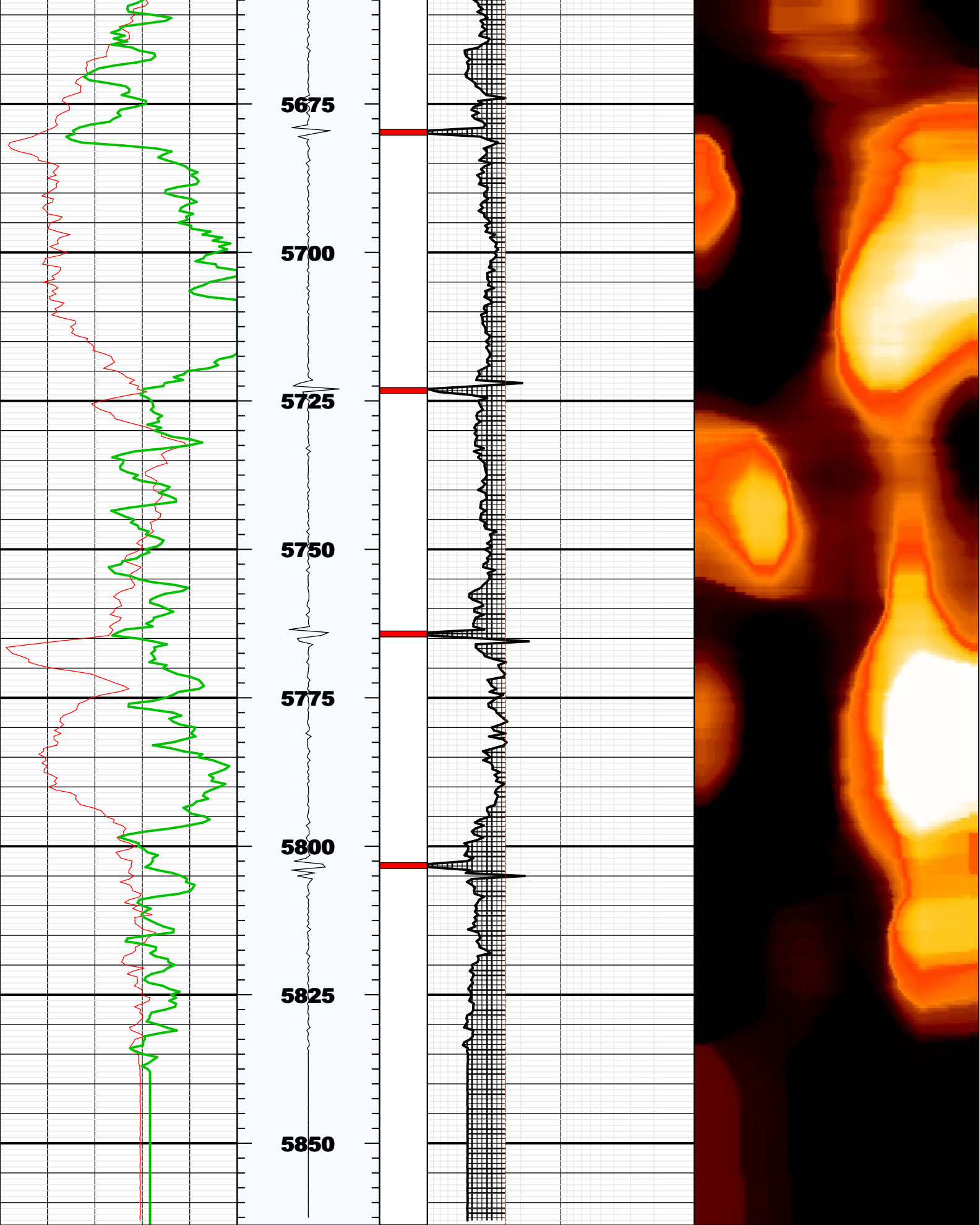










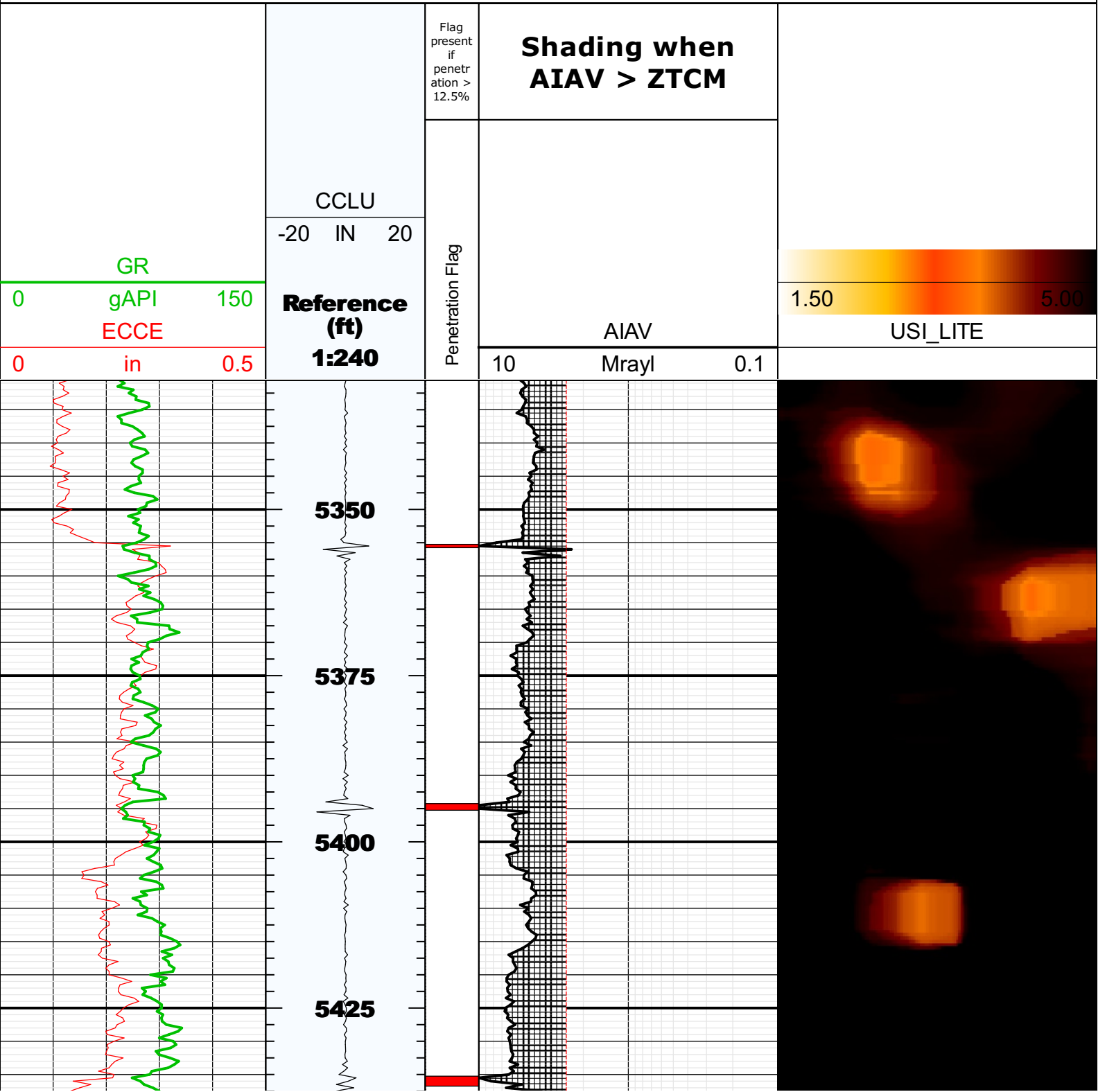


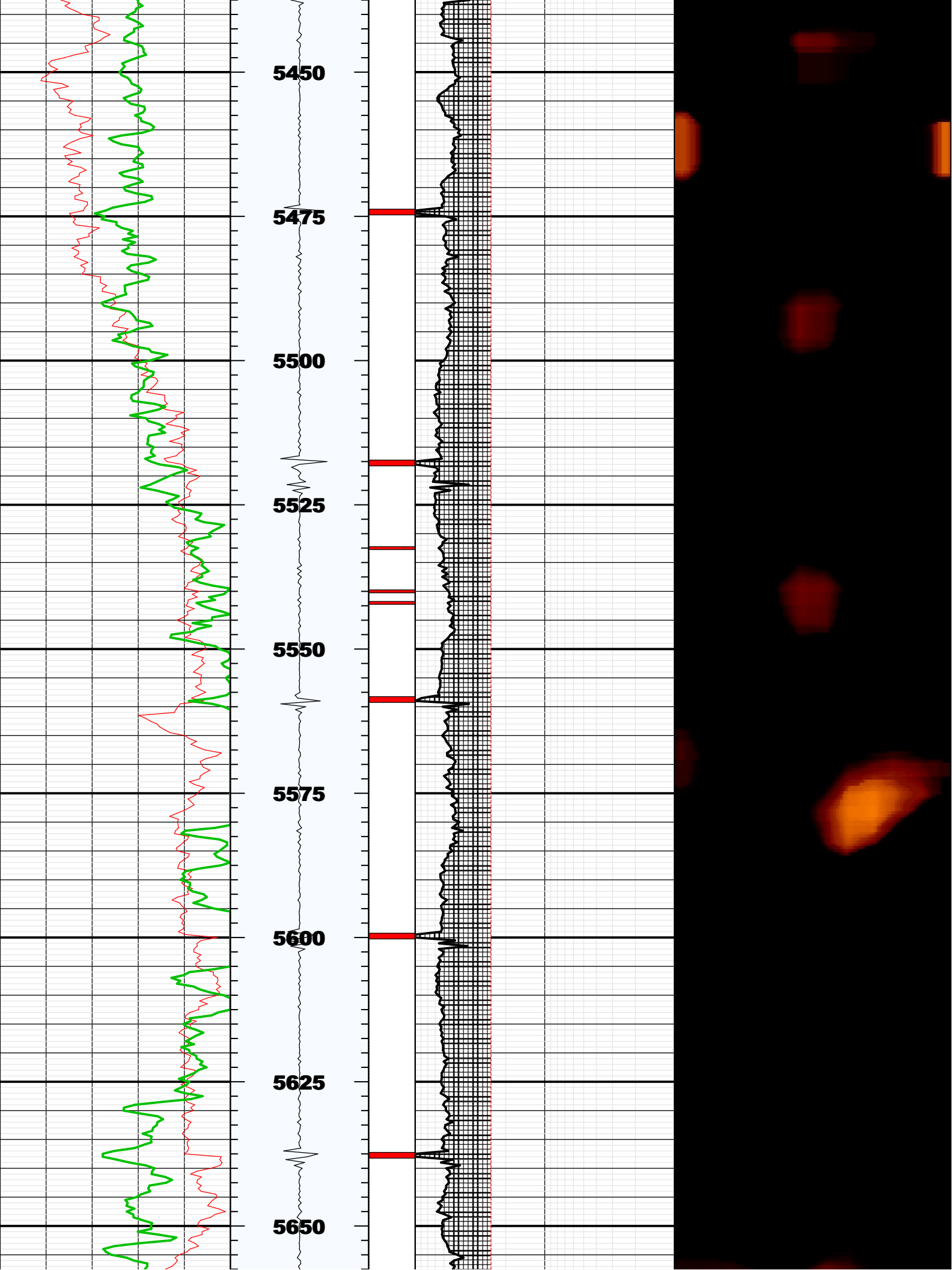
BS	8.75000	IN	Bit Size
CASG	N/A		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID	6.27600	IN	Casing Inner Diameter
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	37	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	30.00000	US	Window Begin Time
WINE	80.00000	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	0.30000	MRAY	Acoustic Impedance Threshold for Gas
WLEN	22.50350	US	T <sup>^</sup> 3 Processing Length



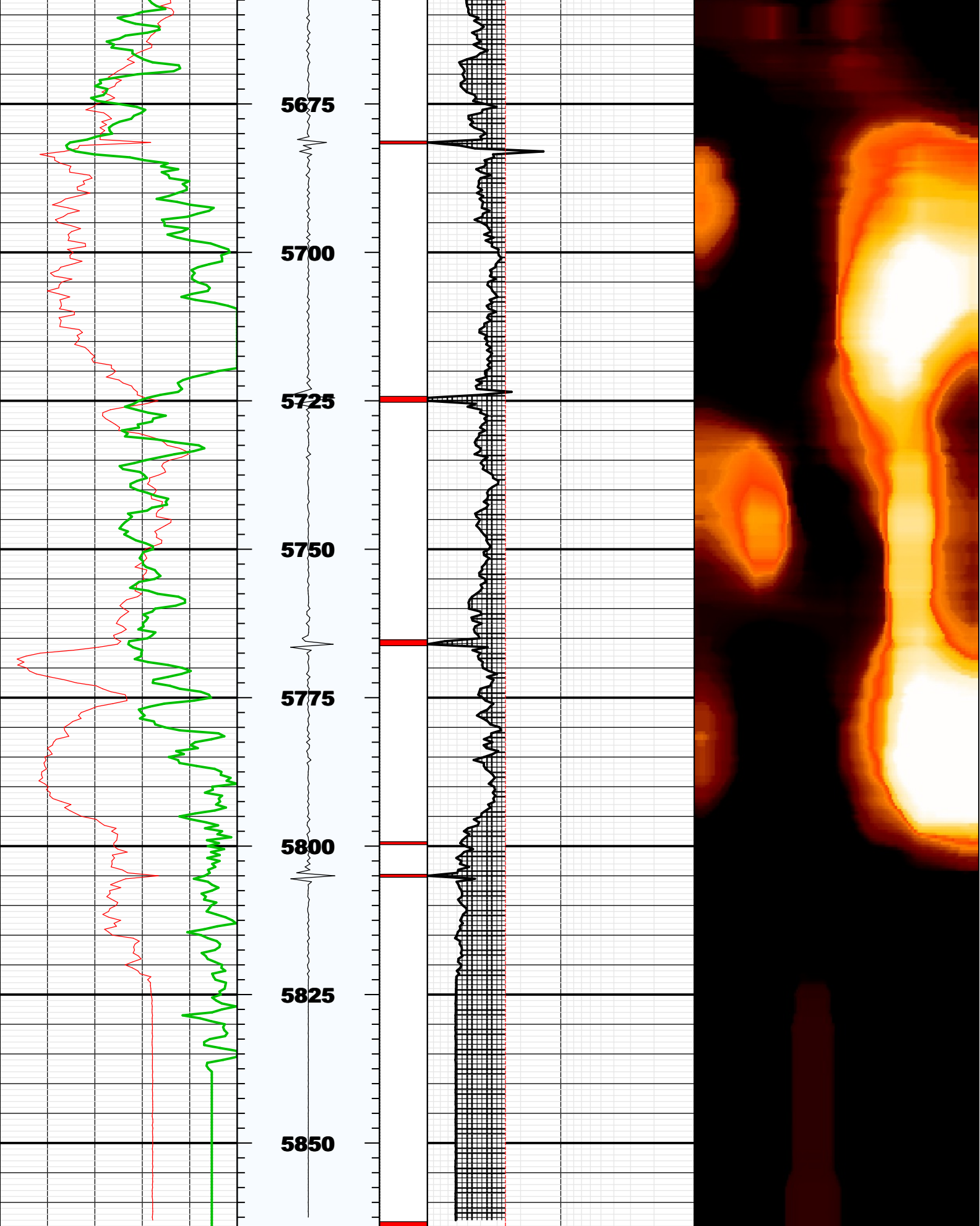
Repeat Pass

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## Fluid Properties Used for Main Pass

