

Company: Noble Energy Inc

Well: Atwater State LD01-76-1AHN  
Field: Wattenberg  
County: Weld State: Colorado

County: Weld		<b>USI-LITE (2500 psi)</b>			
Field: Wattenberg					
Location: SHL SESW 400' FSL & 1450' FW					
Well: Atwater State LD01-76-1AHN					
Company: Noble Energy Inc					
LOCATION		Permanent Datum: Log Measured From: Drilling Measured From:			
Logging Date	07-Jan-2015	API Serial No. 05-123-39761	Section 1	Township 9N	Range 58W
Run Number	Run 1				
Depth Driller	5883.0 F				
Schlumberger Depth	5883.0 F				
Bottom Log Interval	5700.0 F				
Top Log Interval	55.0 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				
From	-999.2 F				
To	5883.0 F				
Casing Size	7.00 IN				
Weight	26.00 LB/F				
Grade	P110				
From	0.0 F				
To	5878.3 F				
Max Recorded Temp	215.0				
Logger on bottom (date)	07-Jan-2015				
Location	Fort Morgan CO				
Recorded By	Max Pace				
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: Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: Length: 24000.00000

DISCLAIMER

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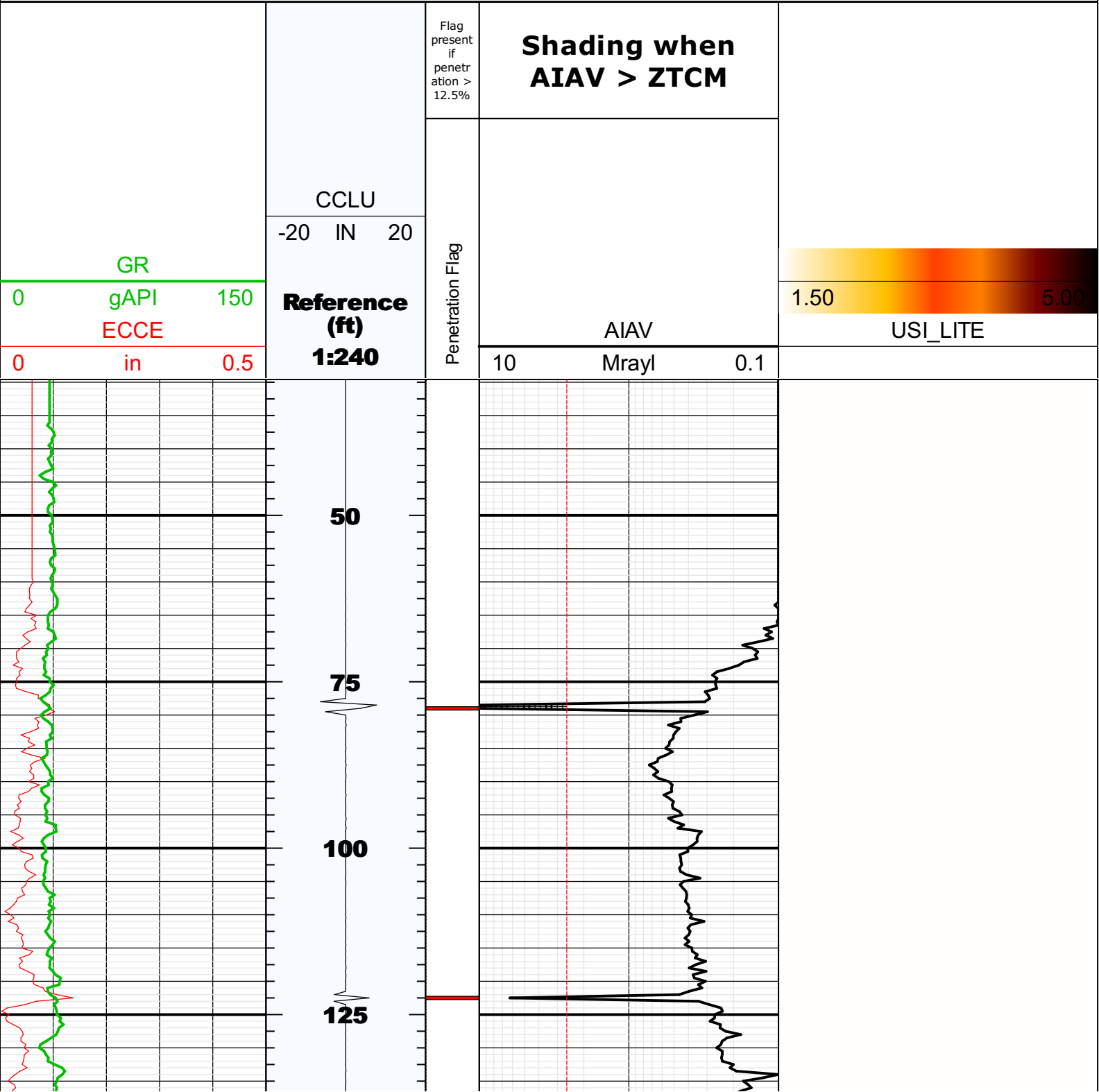
Bottom hole 215 degF measured at depth

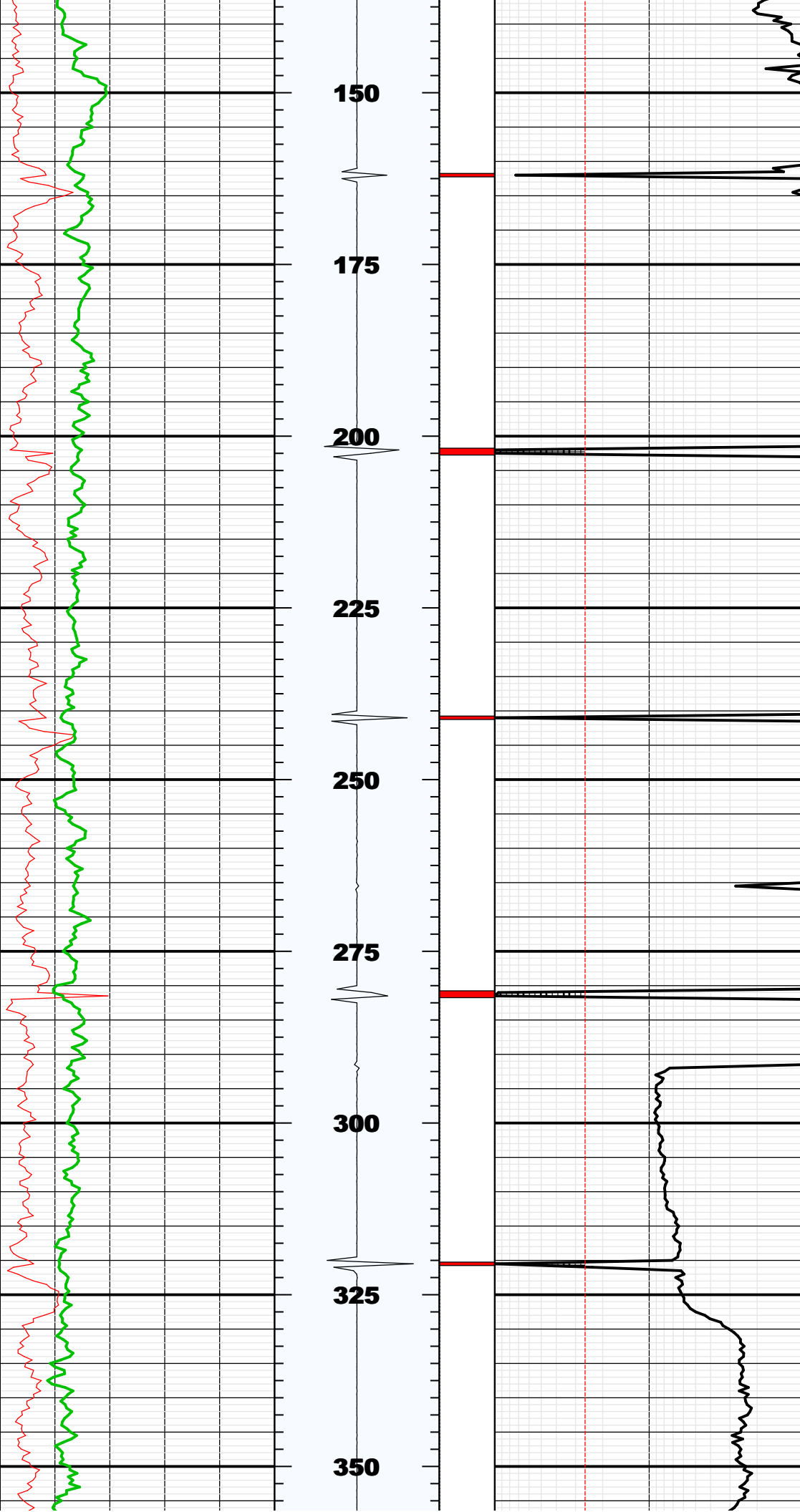
Top of cement at 1,225' feet

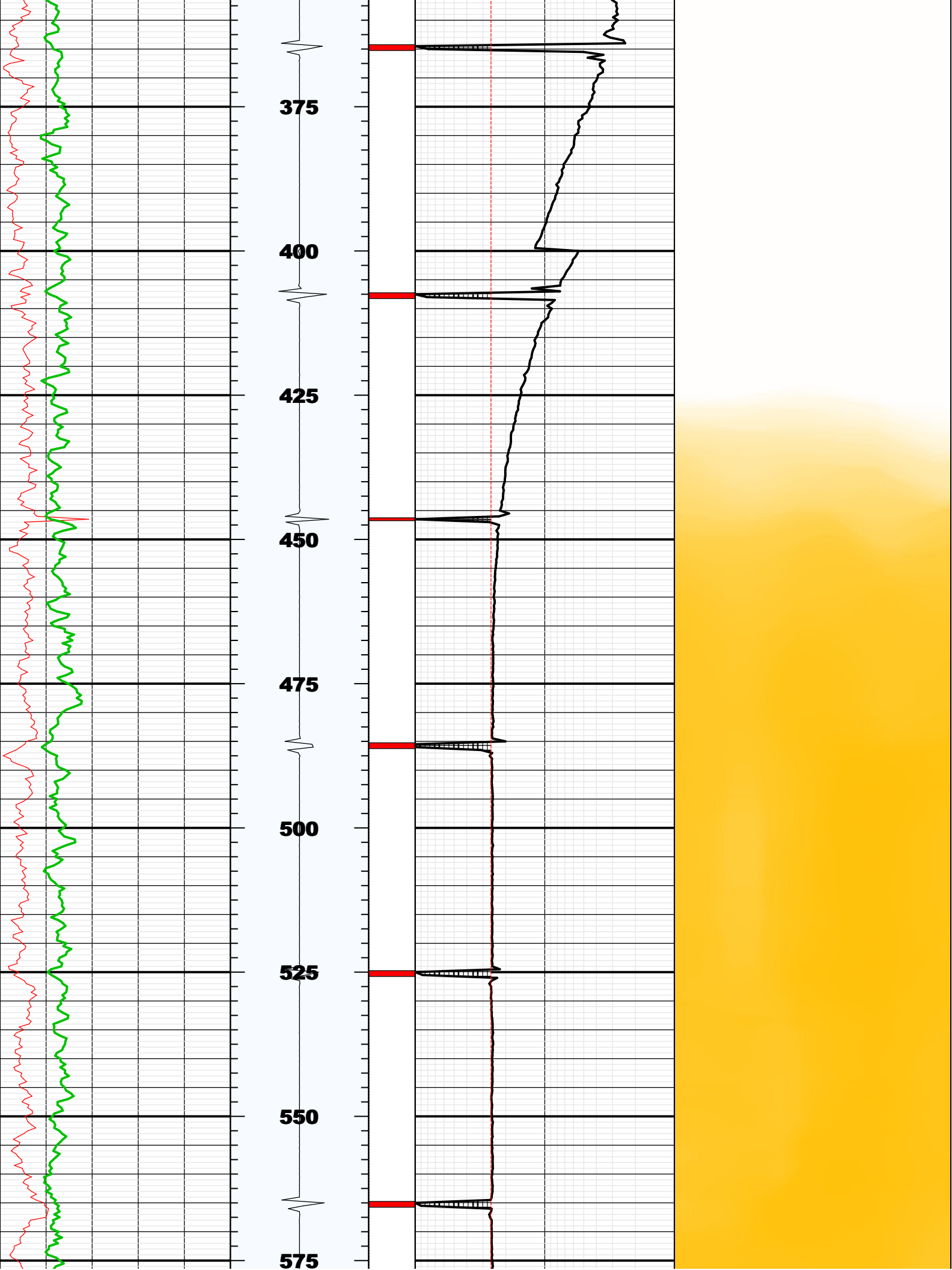
0 psi repeat pass 2500 psi main pass

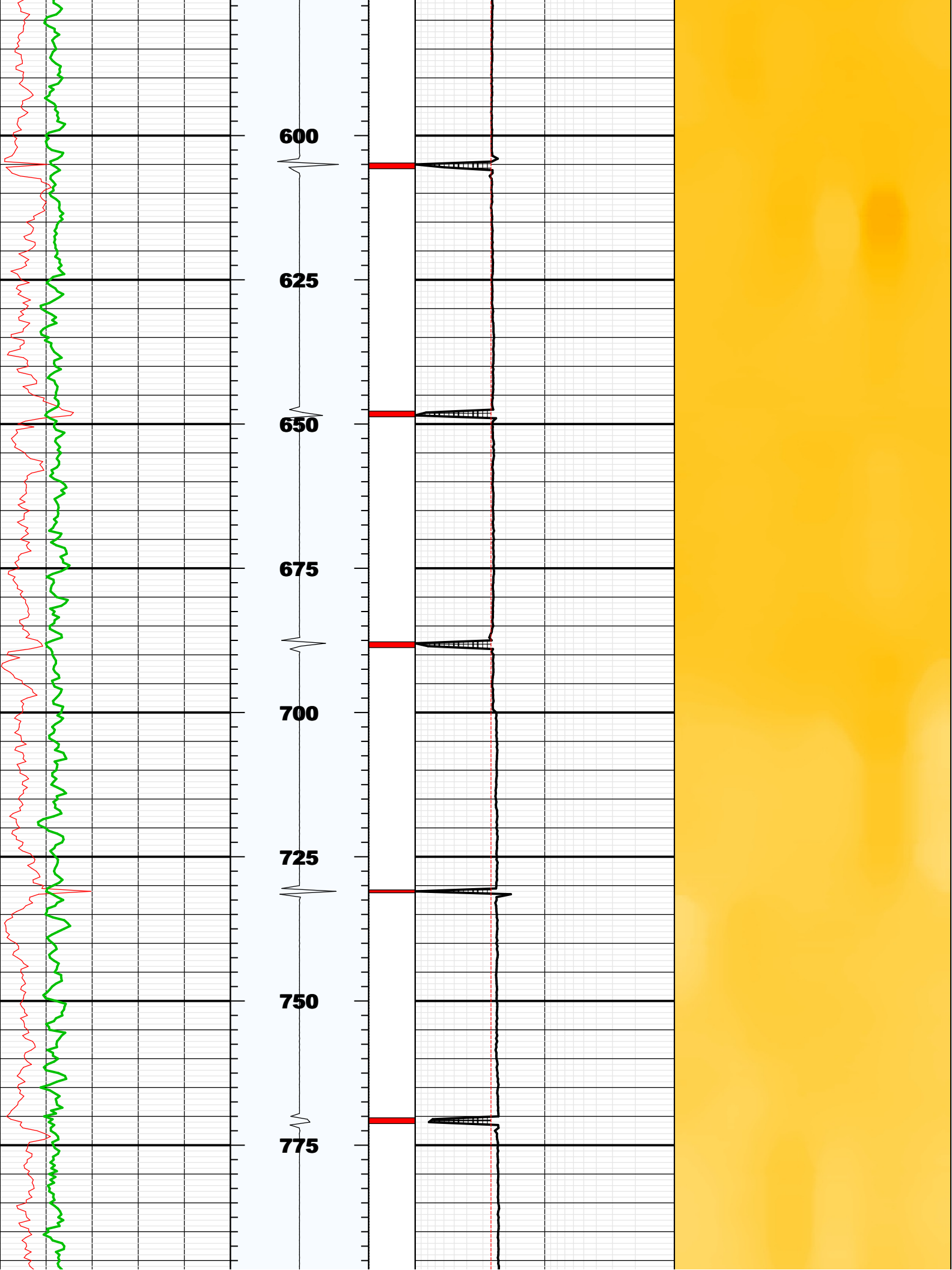
Main Pass

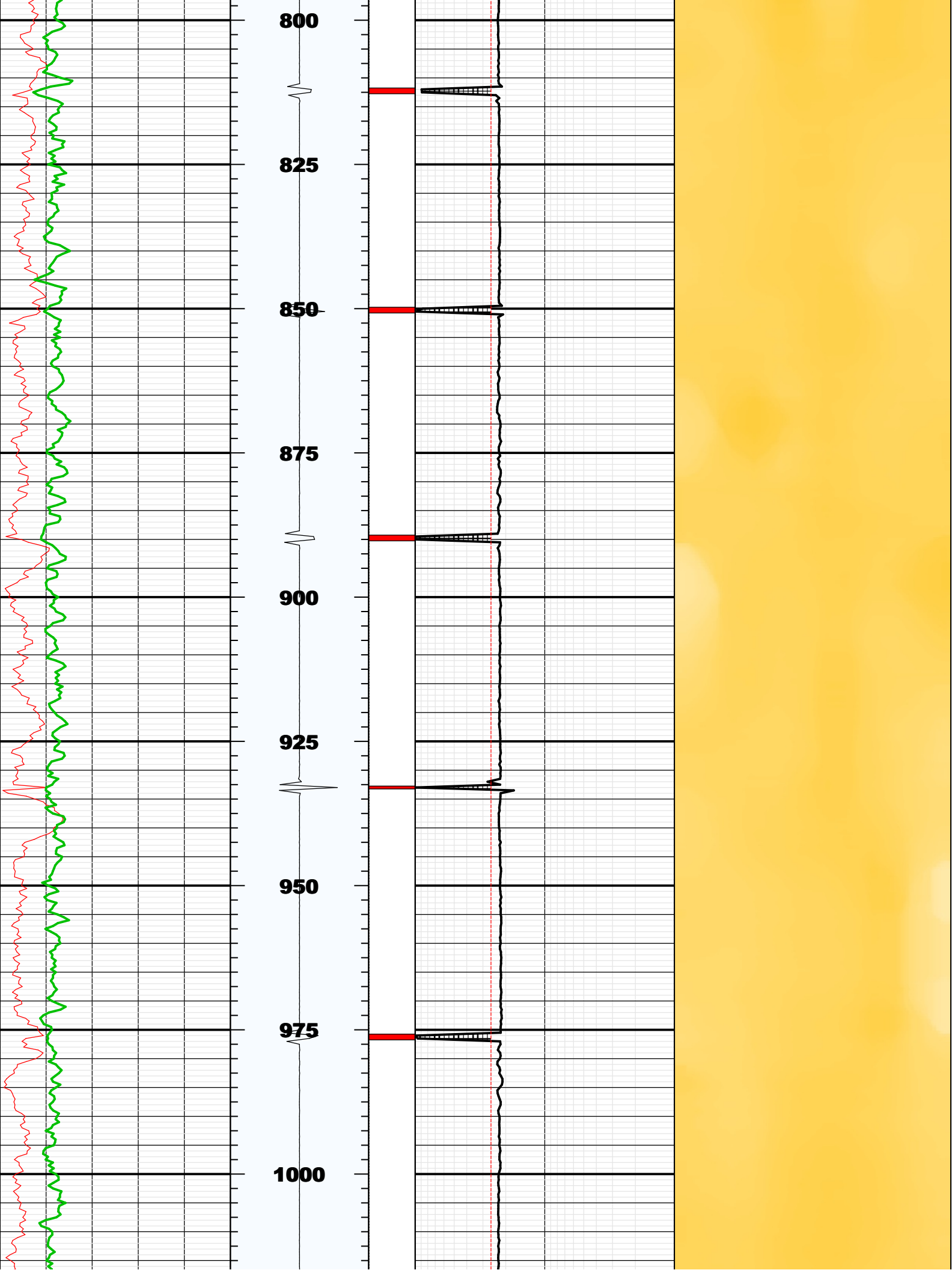
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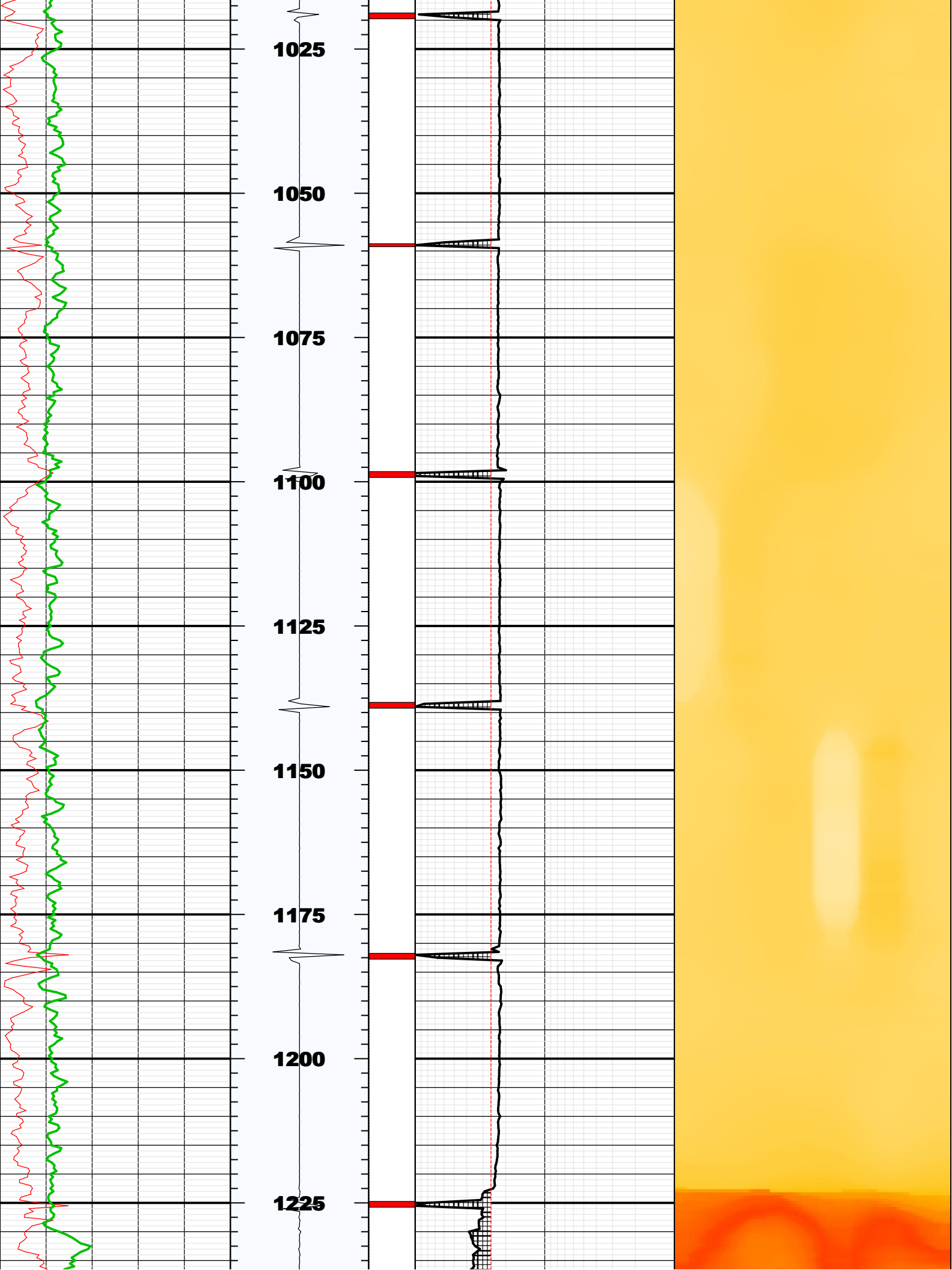




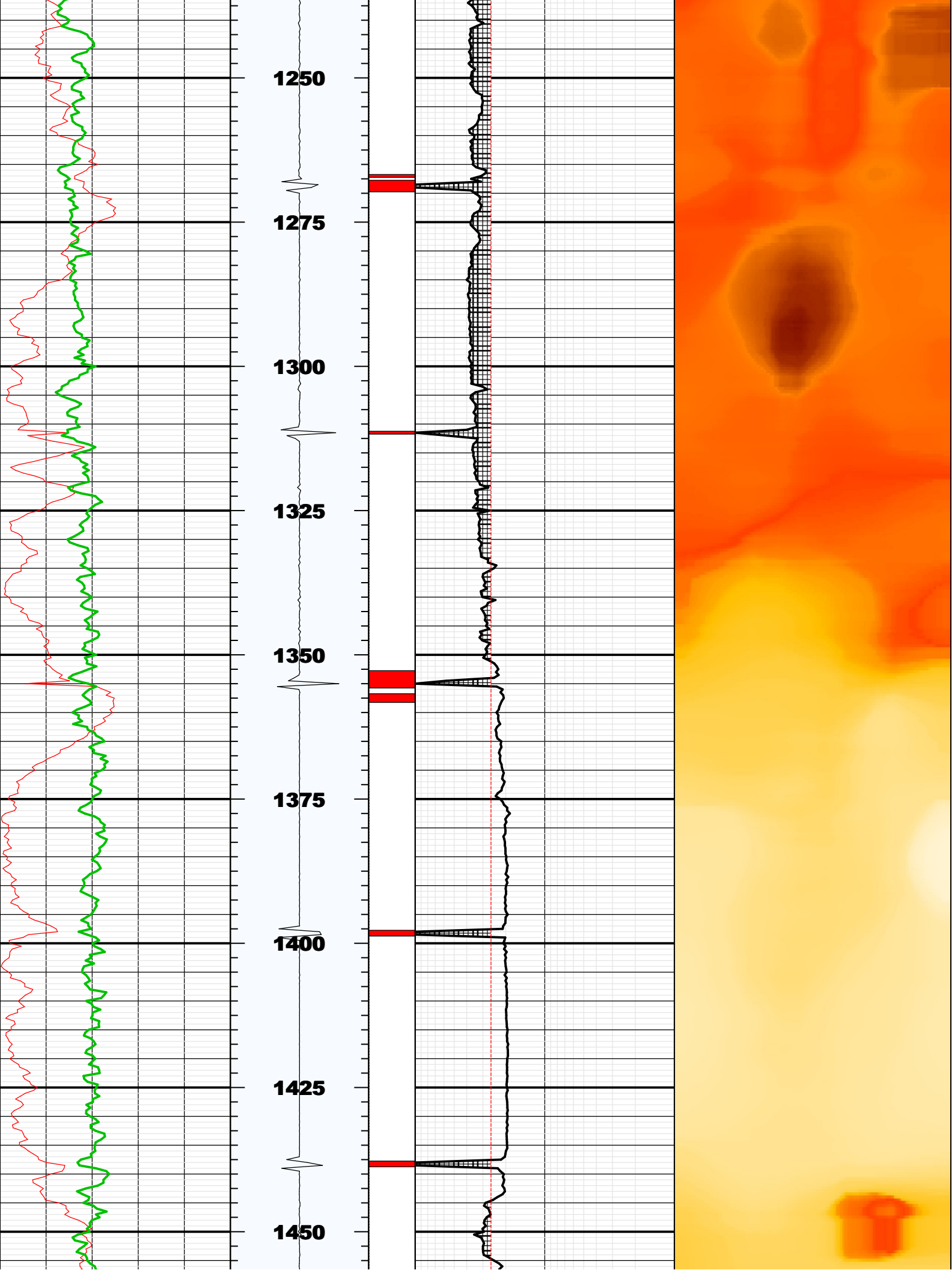


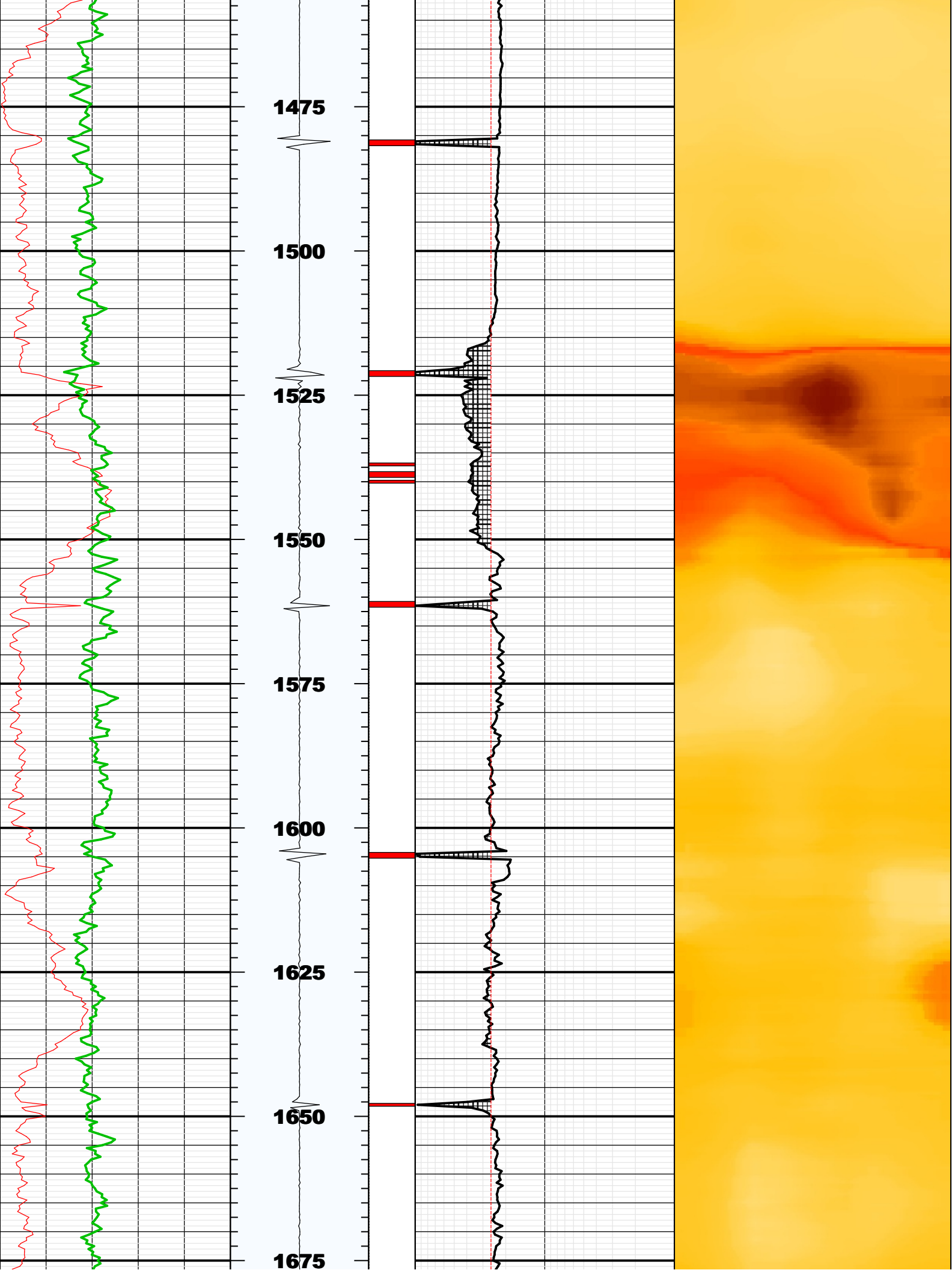


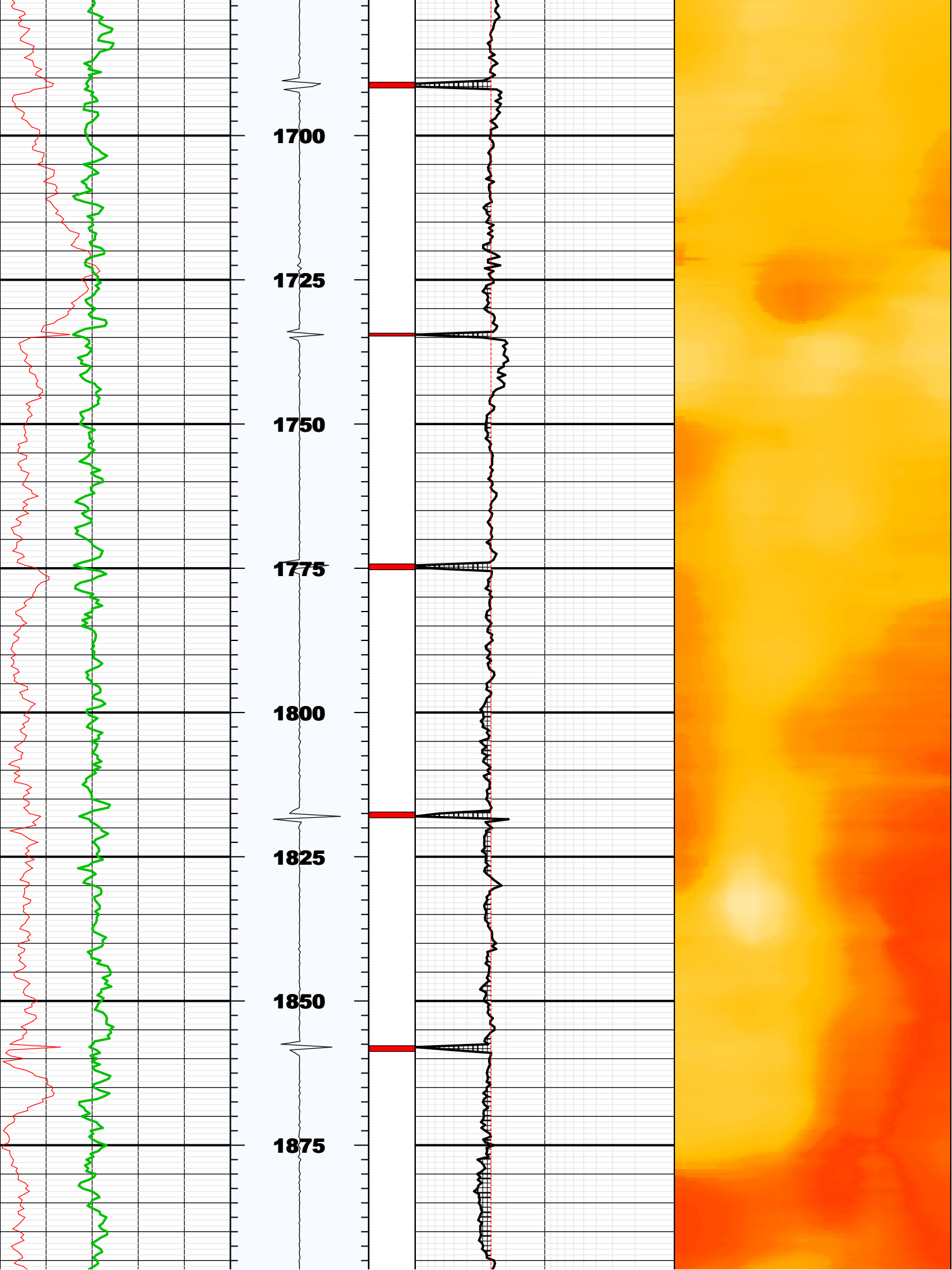


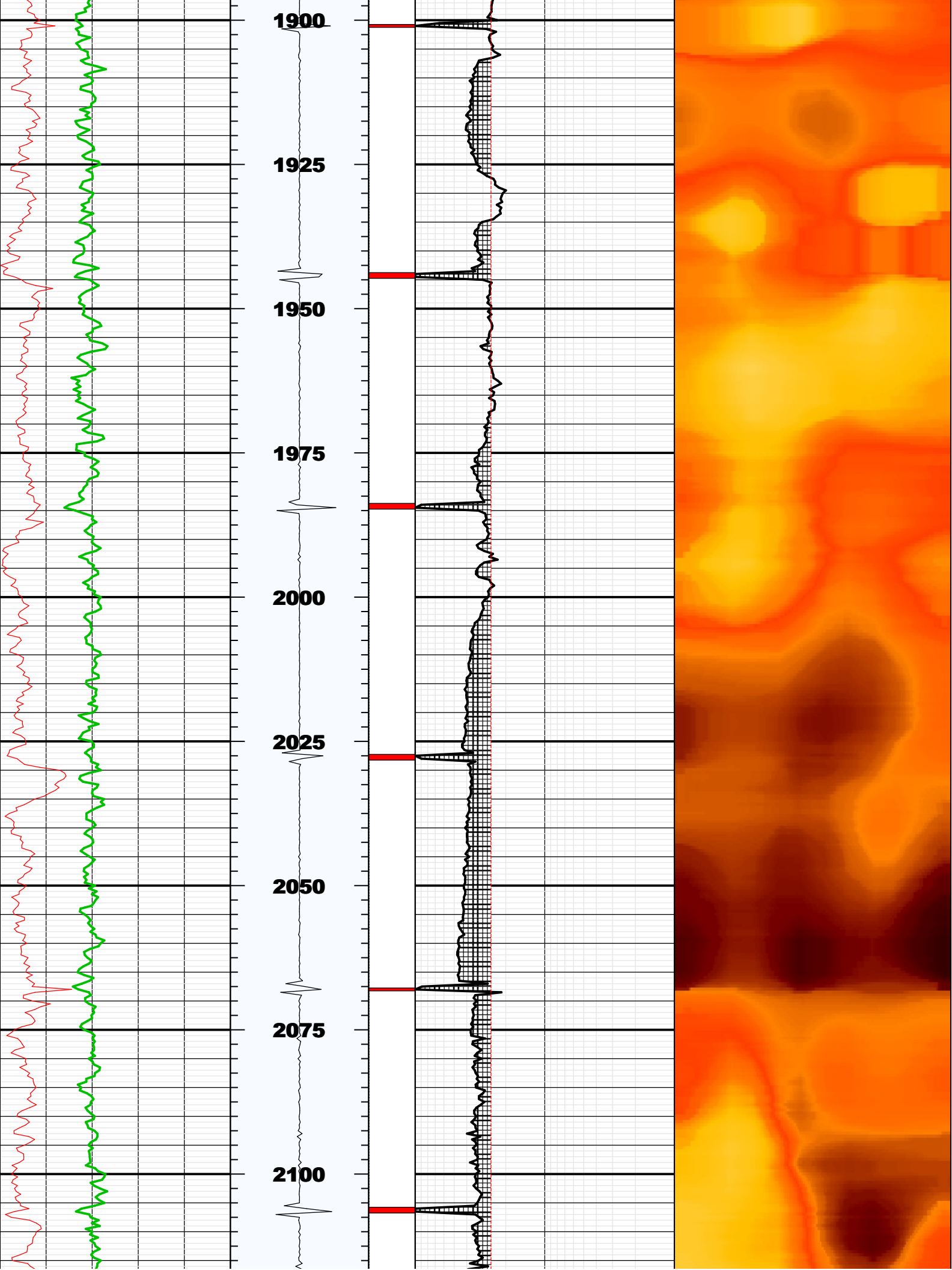


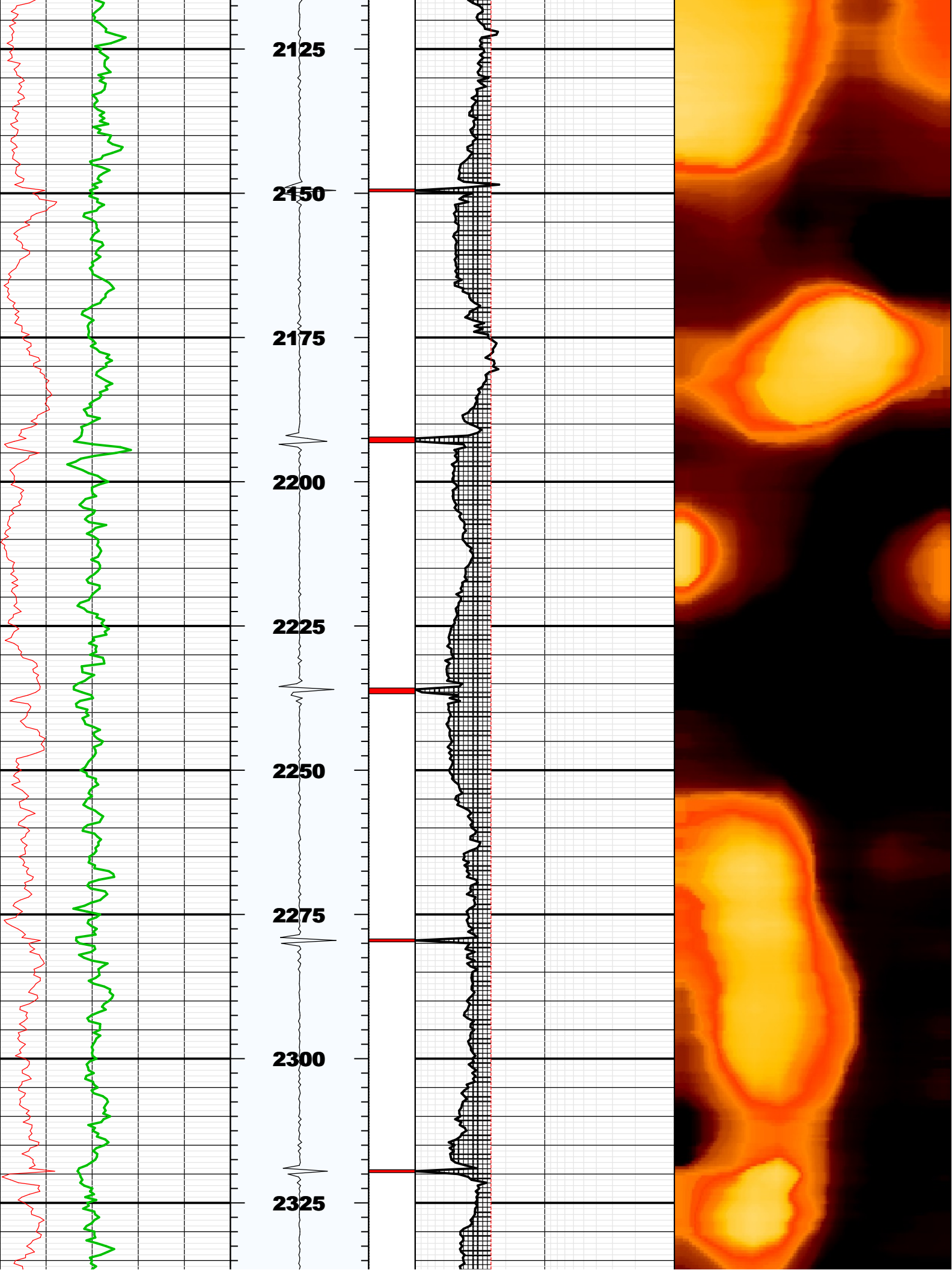




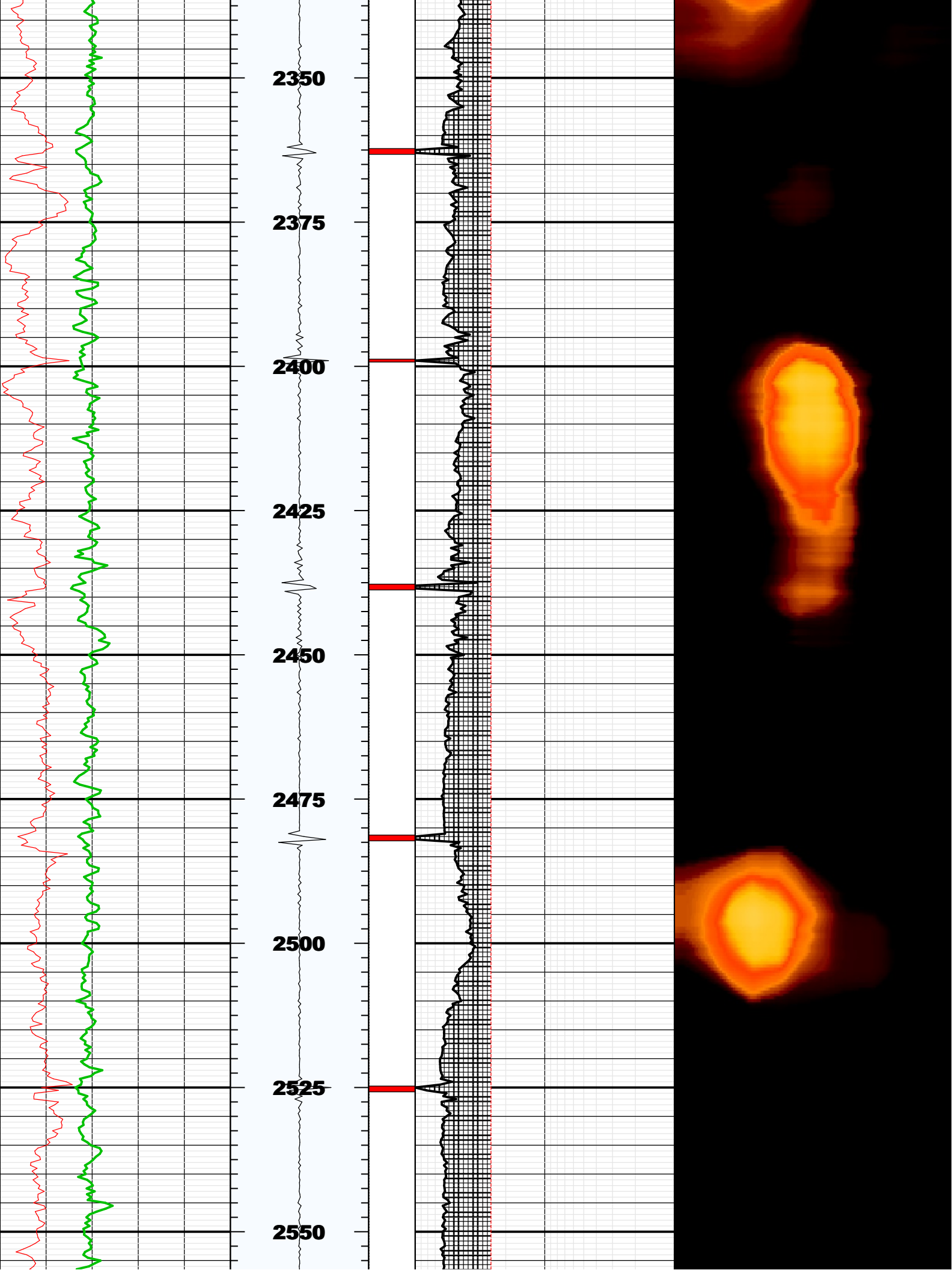


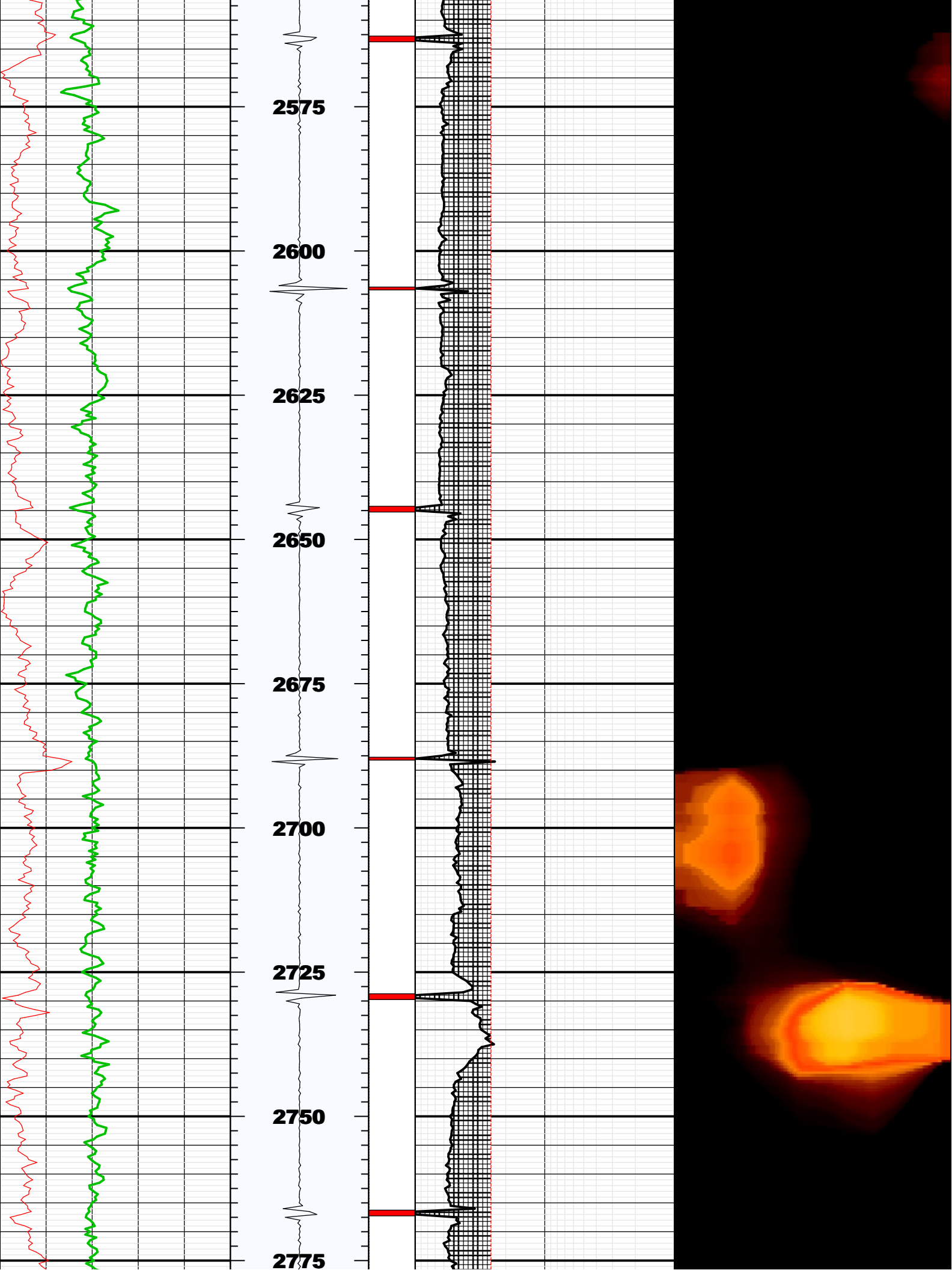


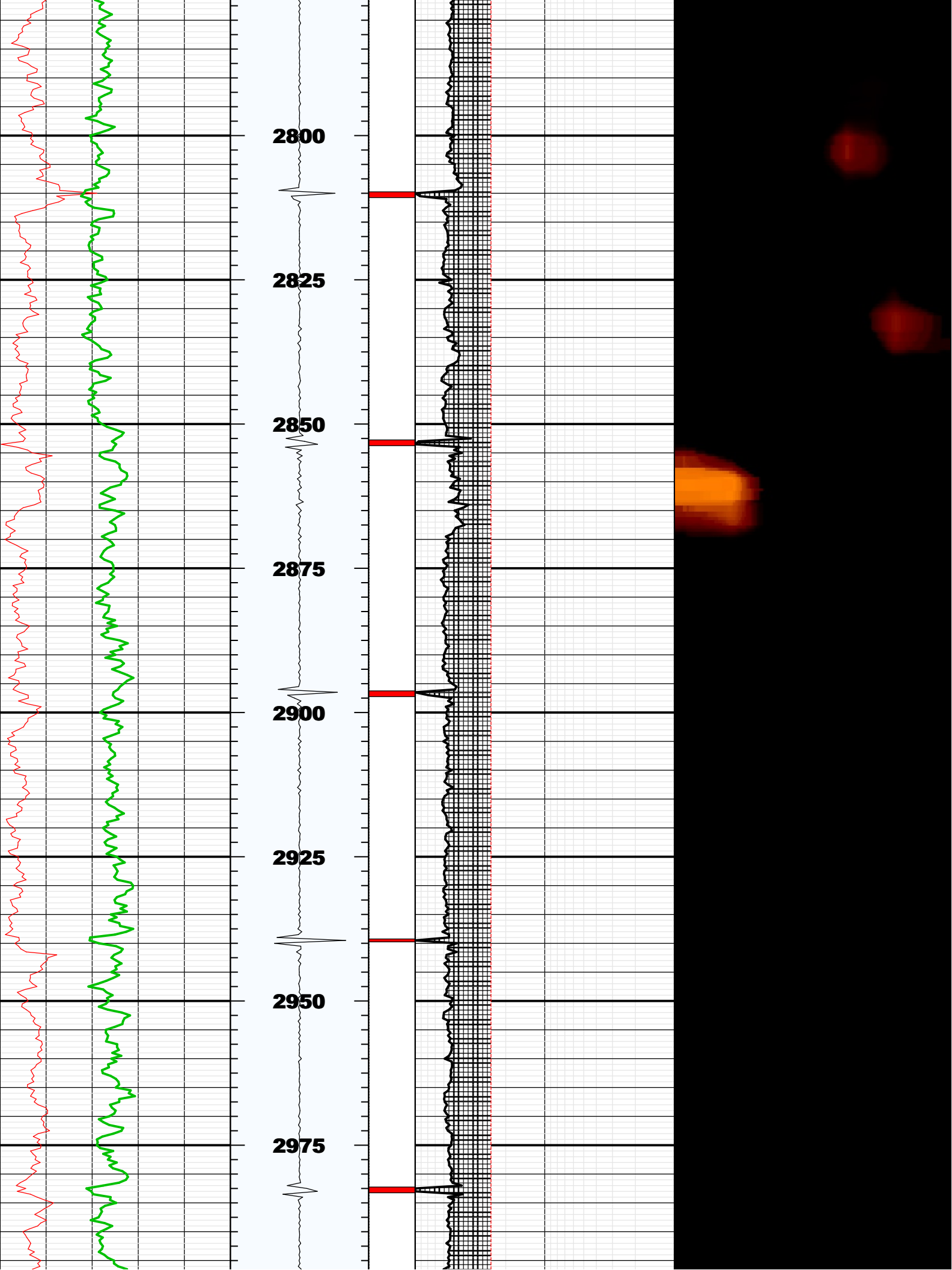




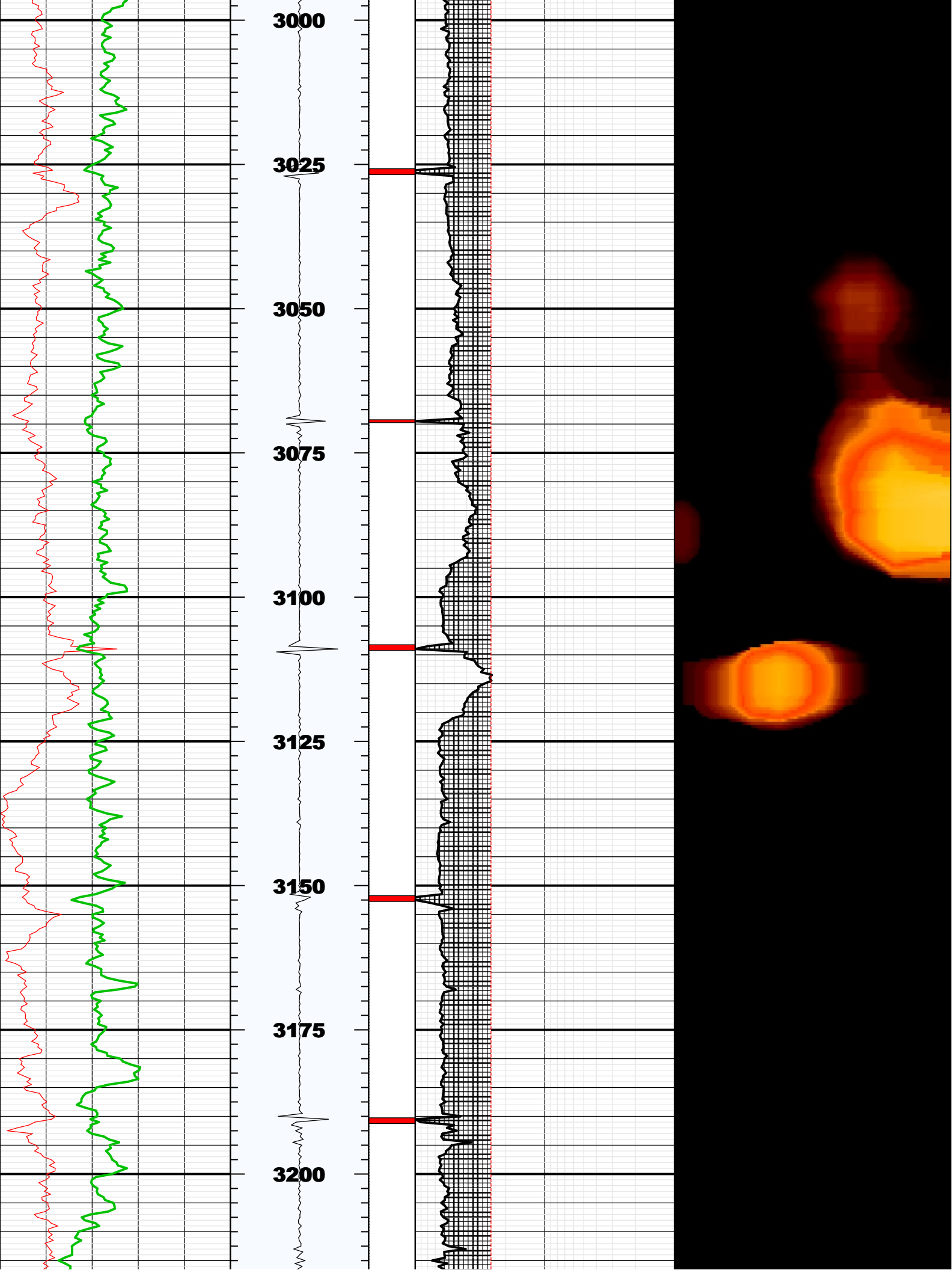


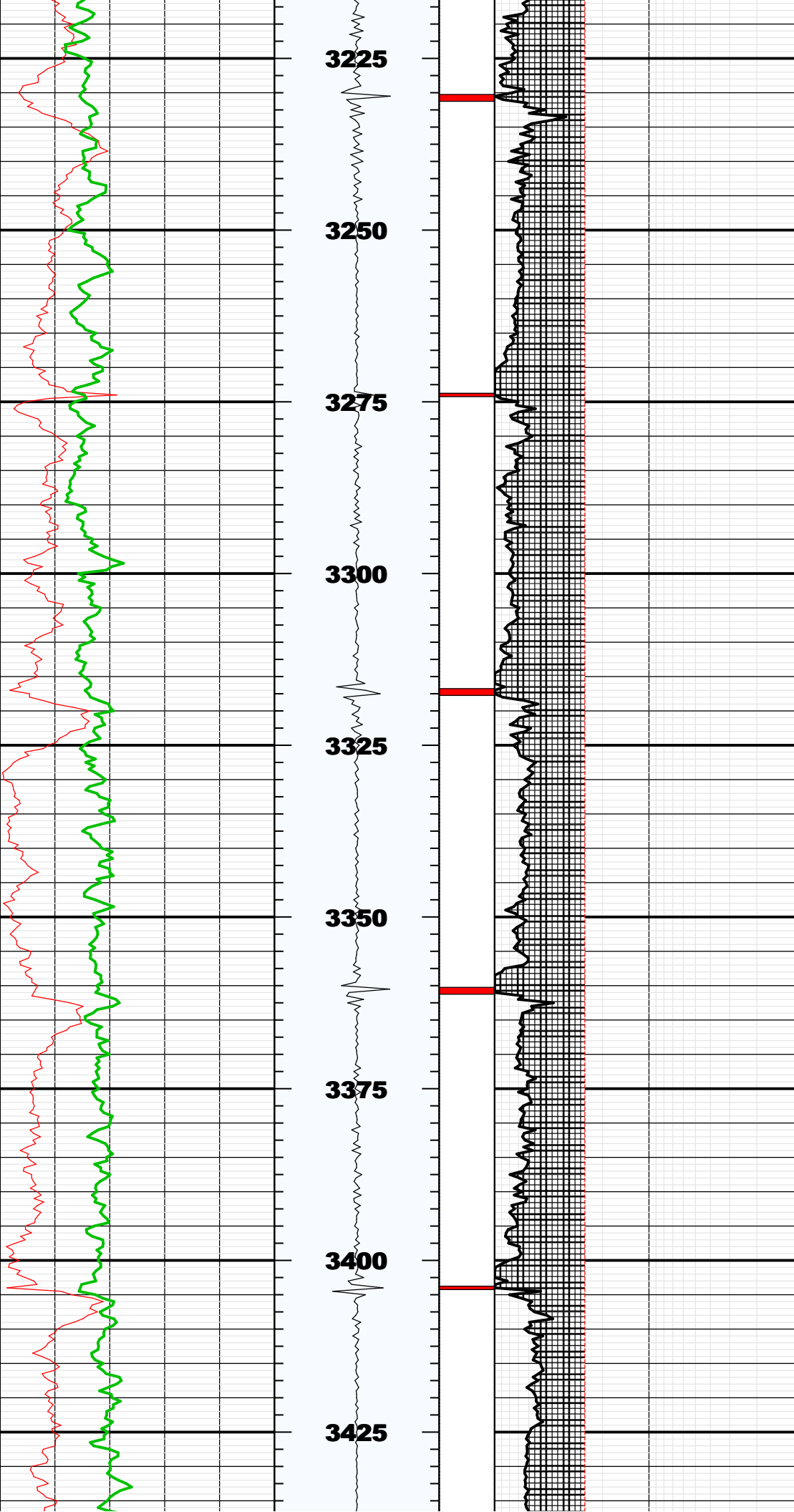


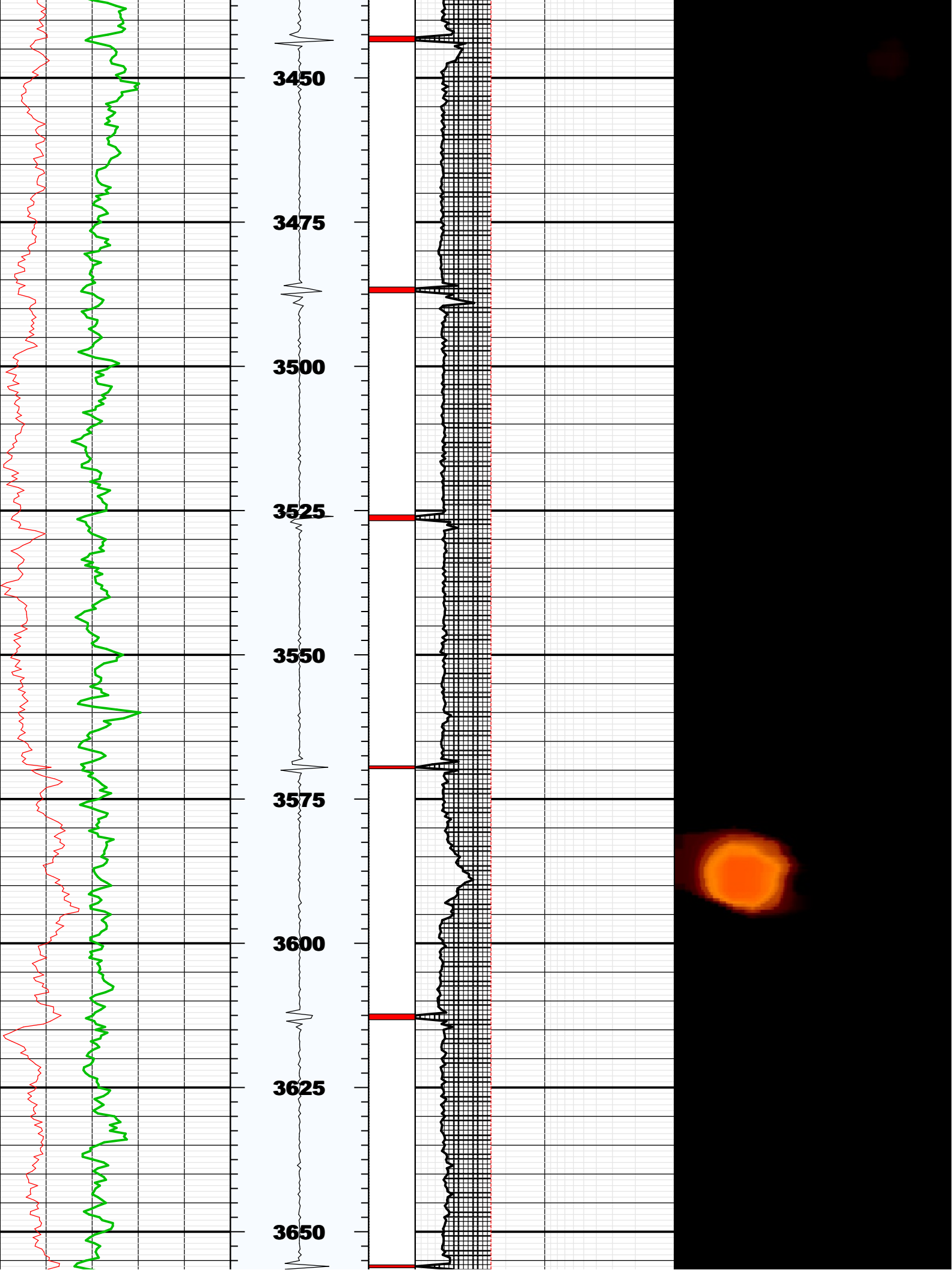


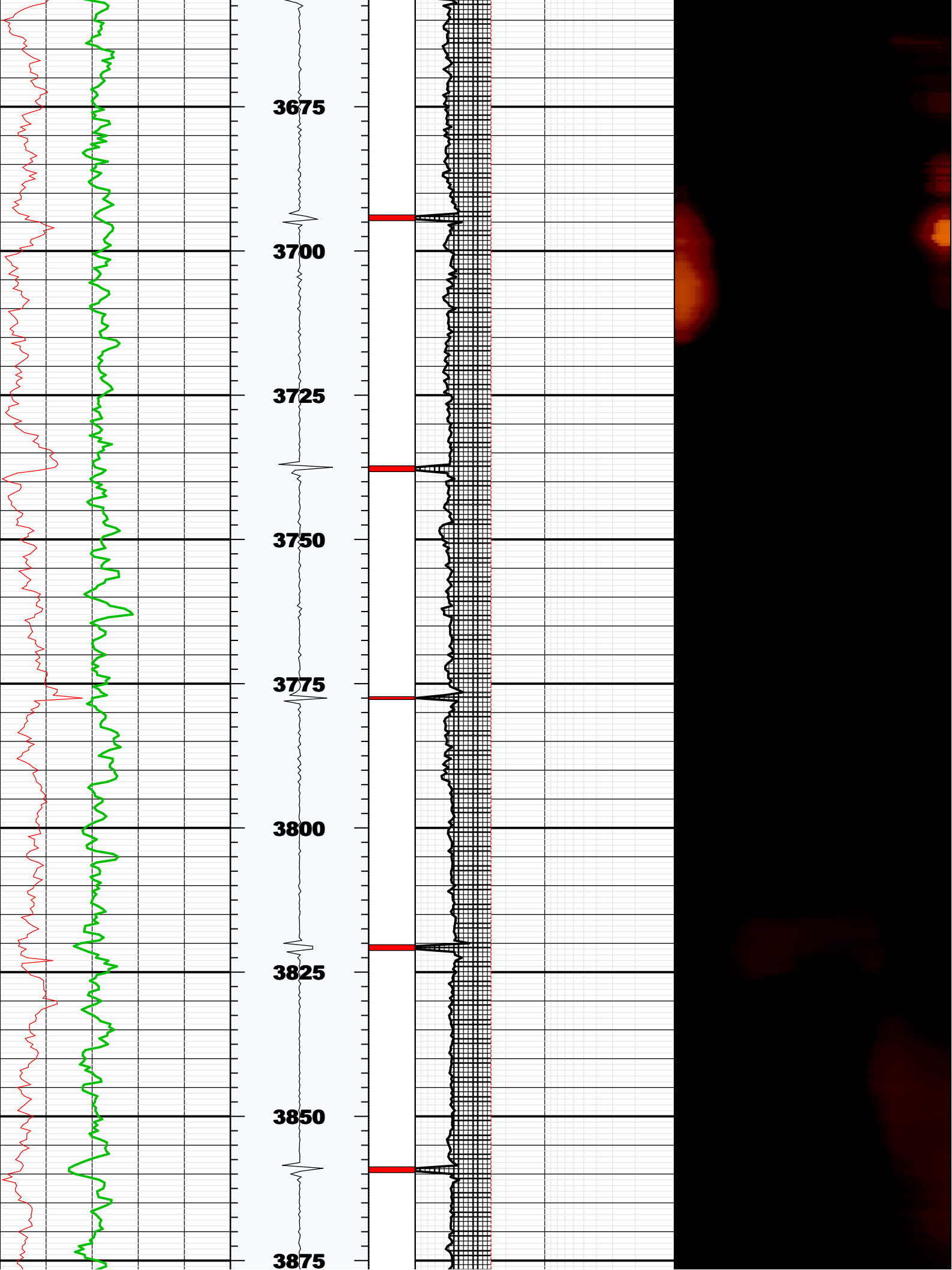


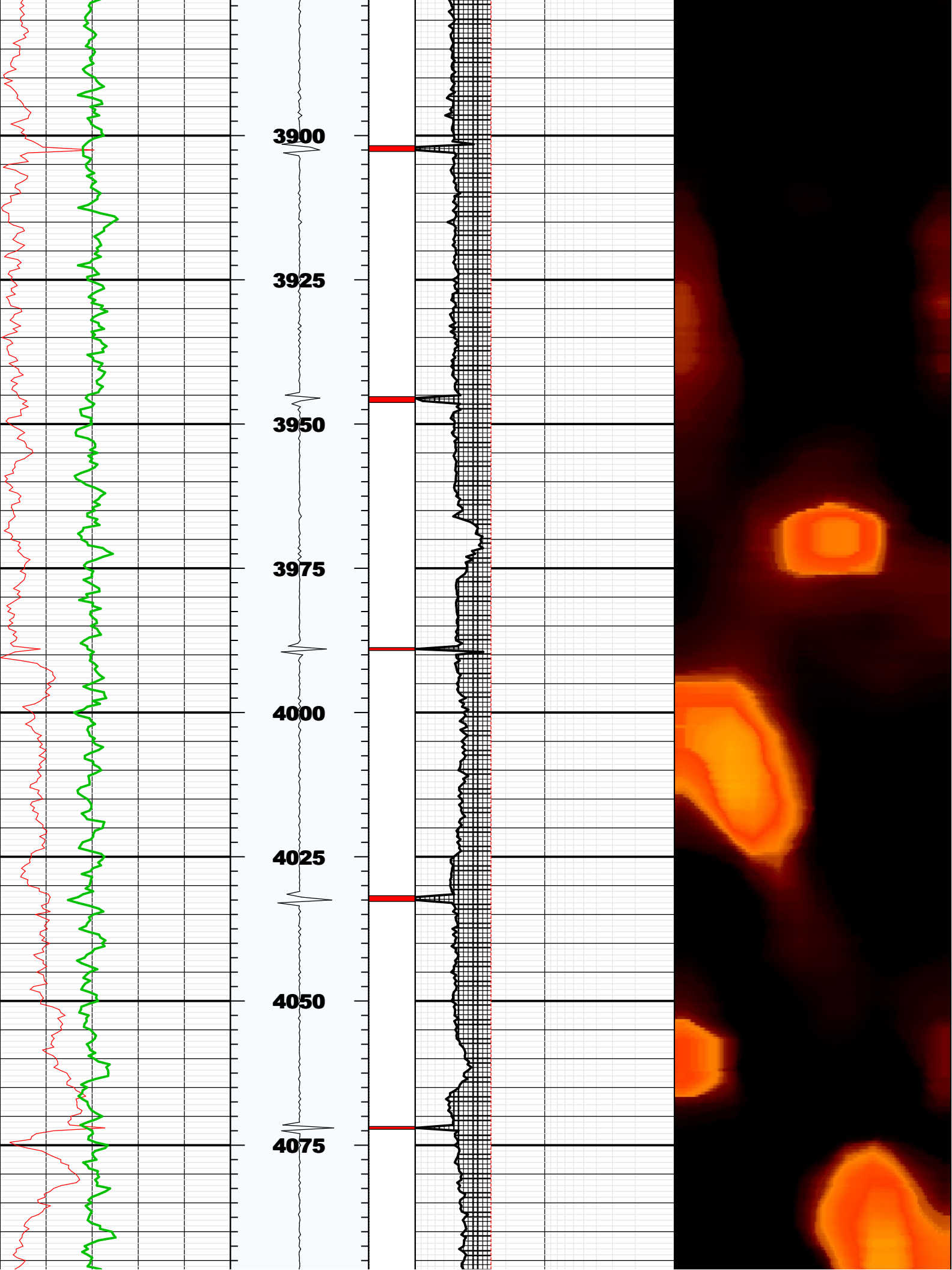


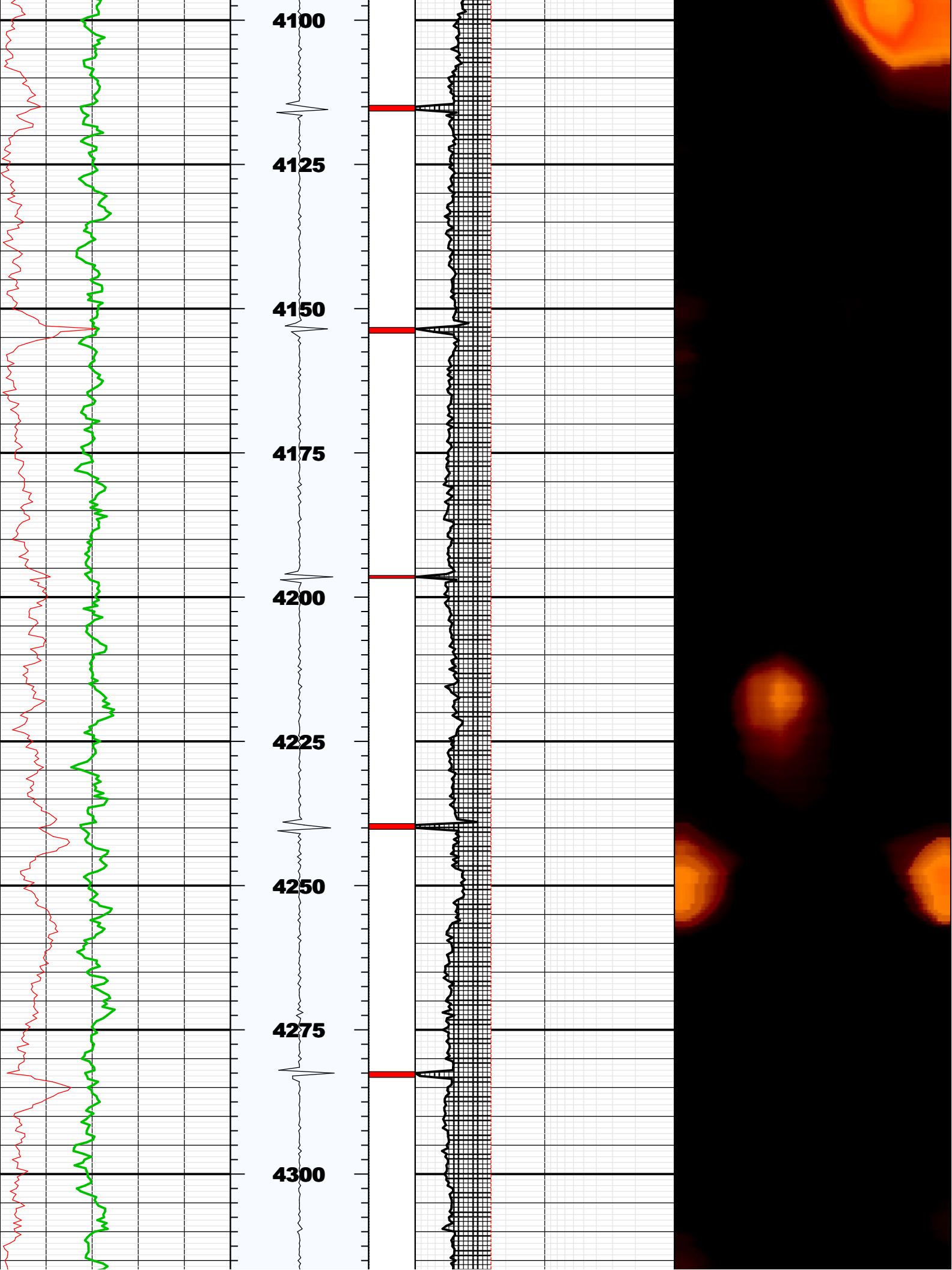




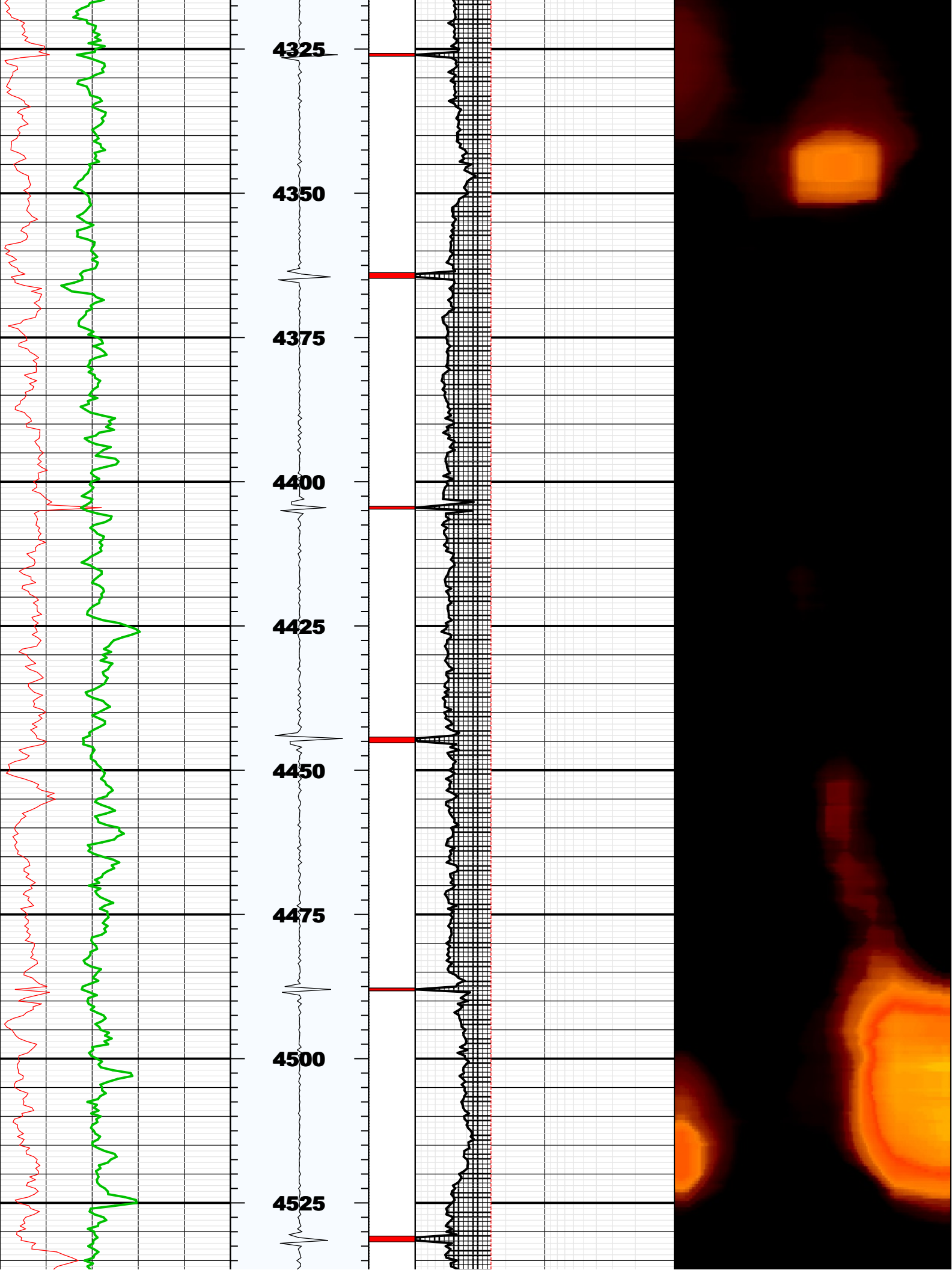


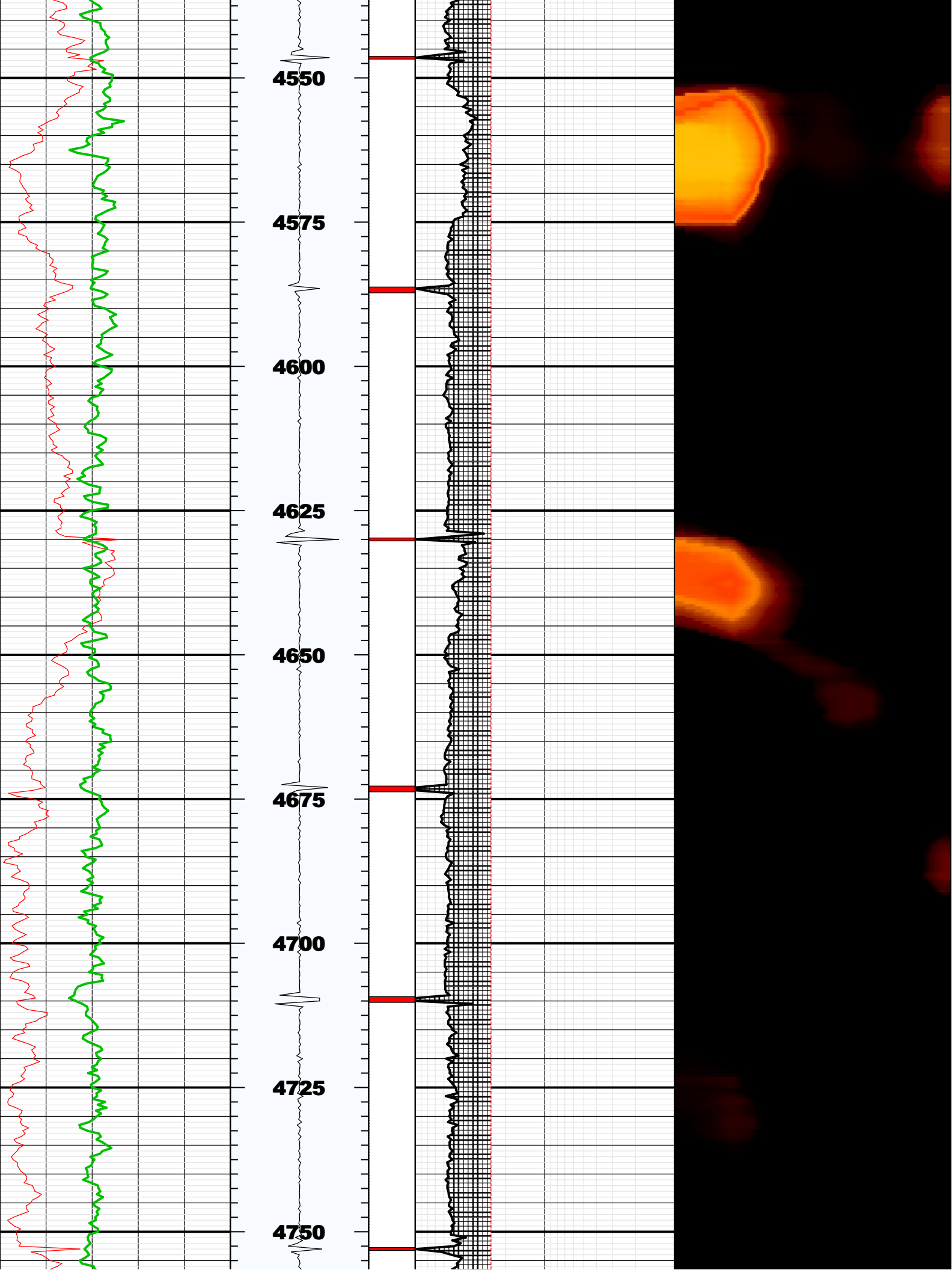




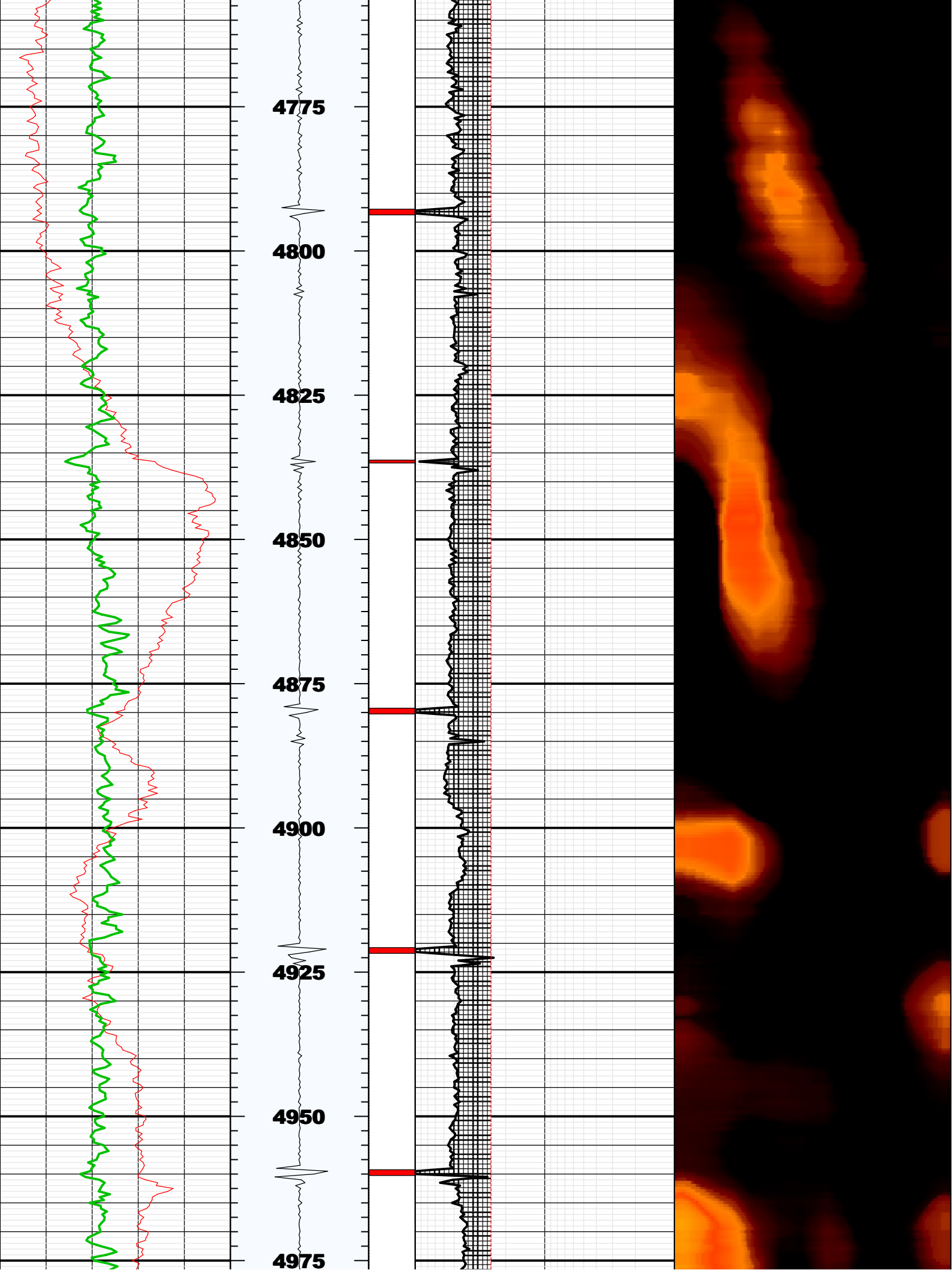


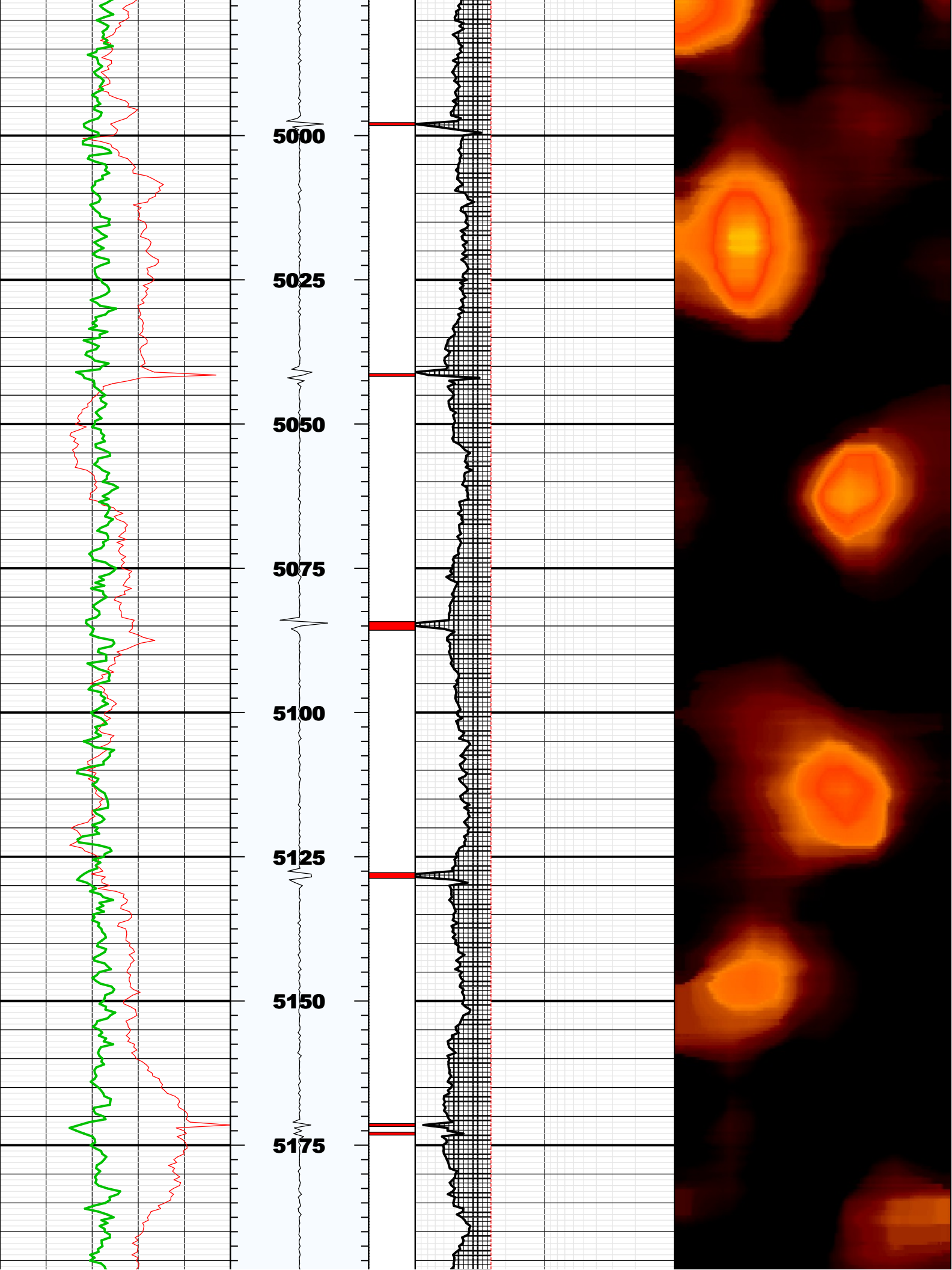


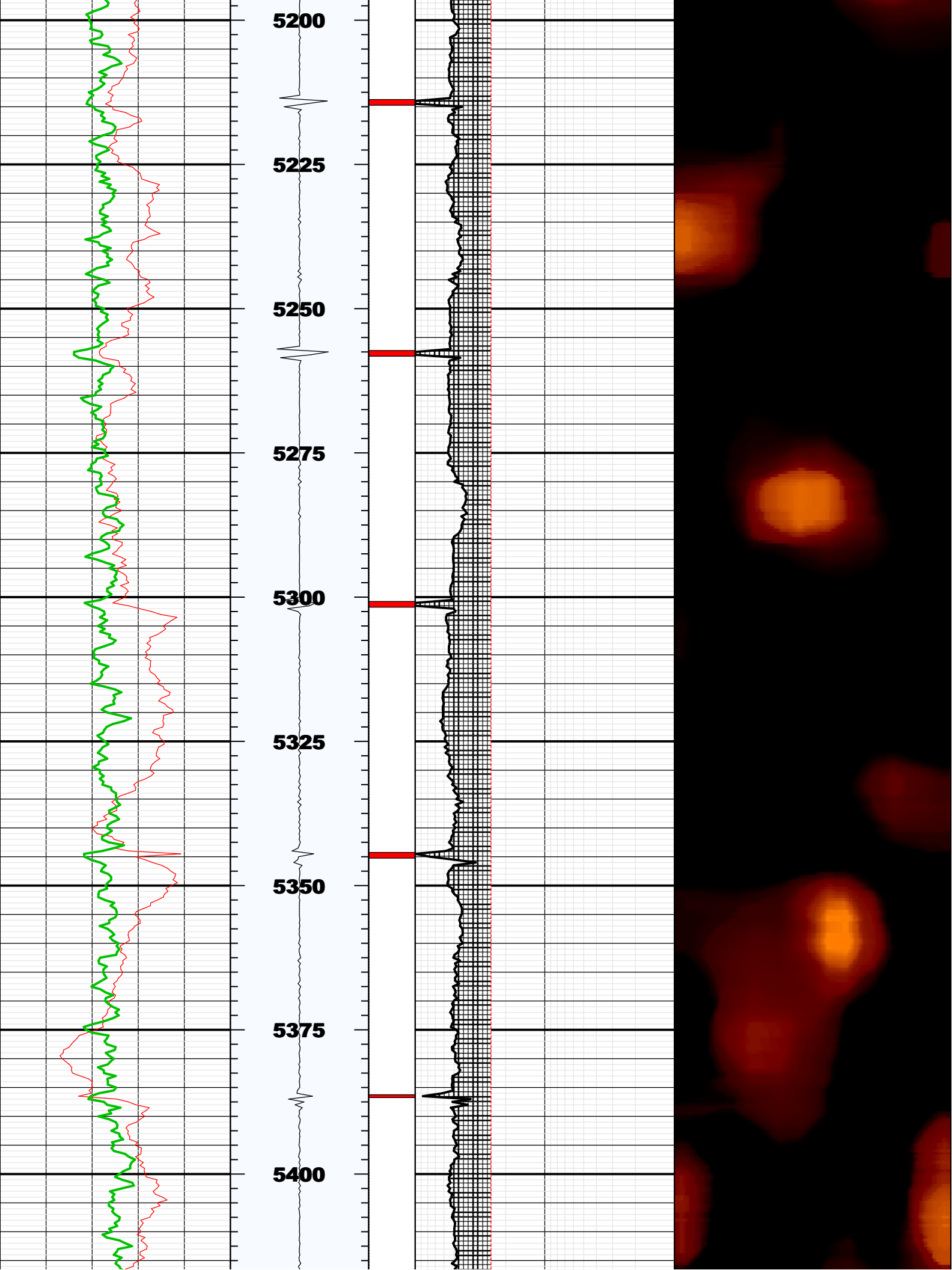


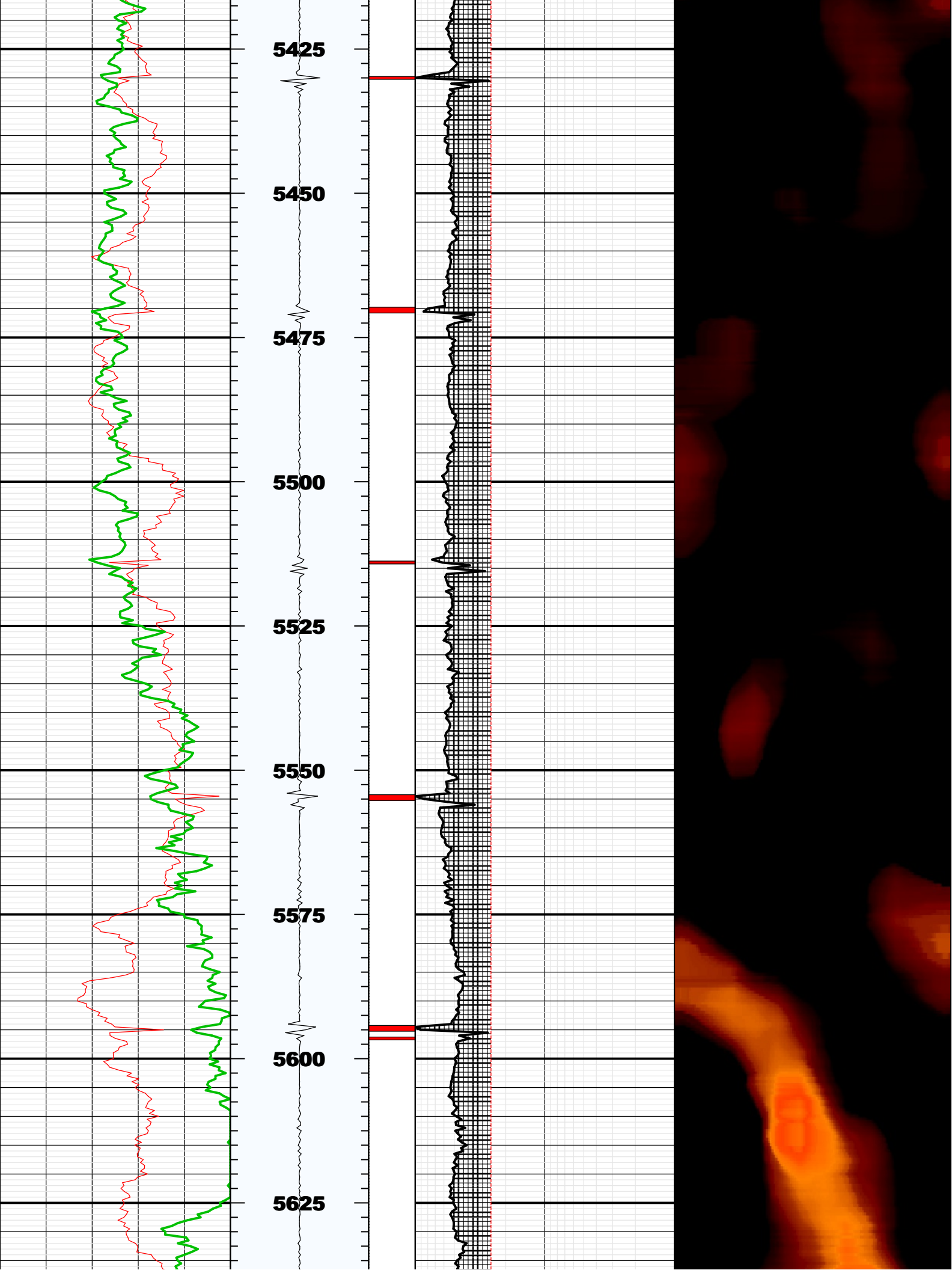


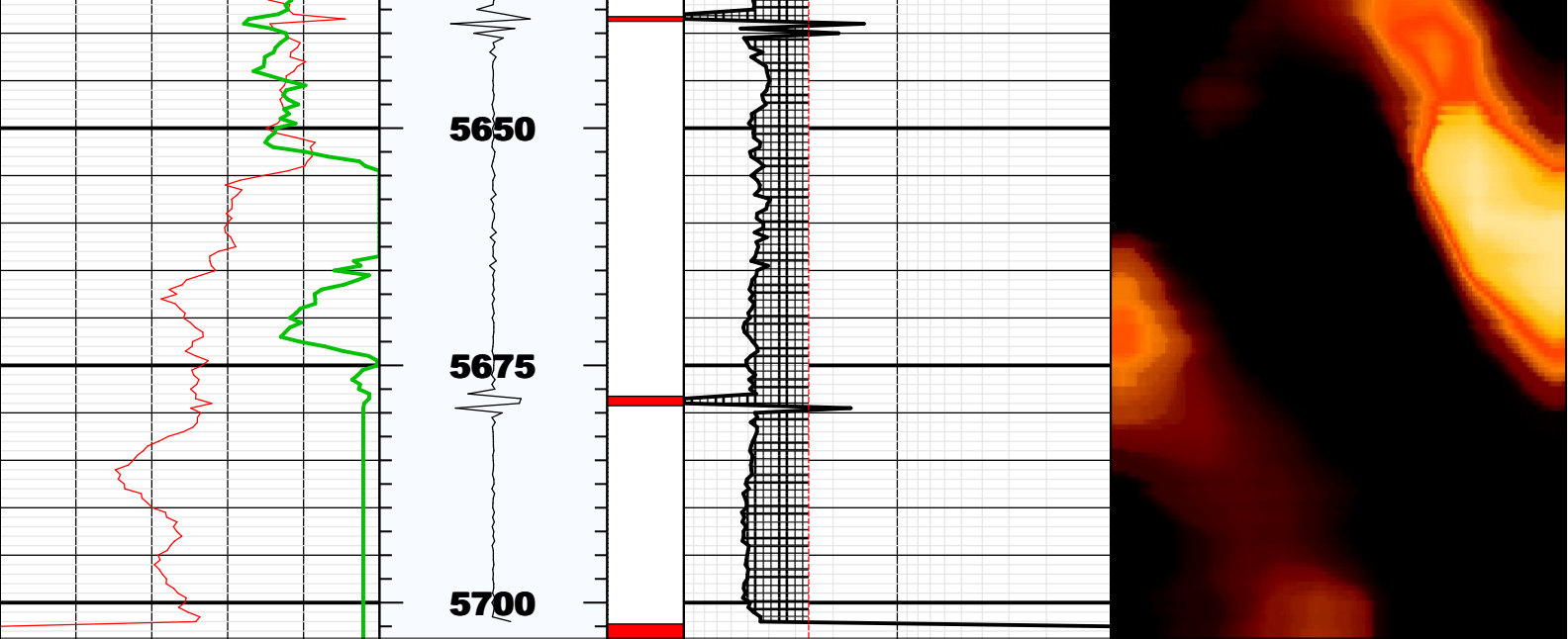








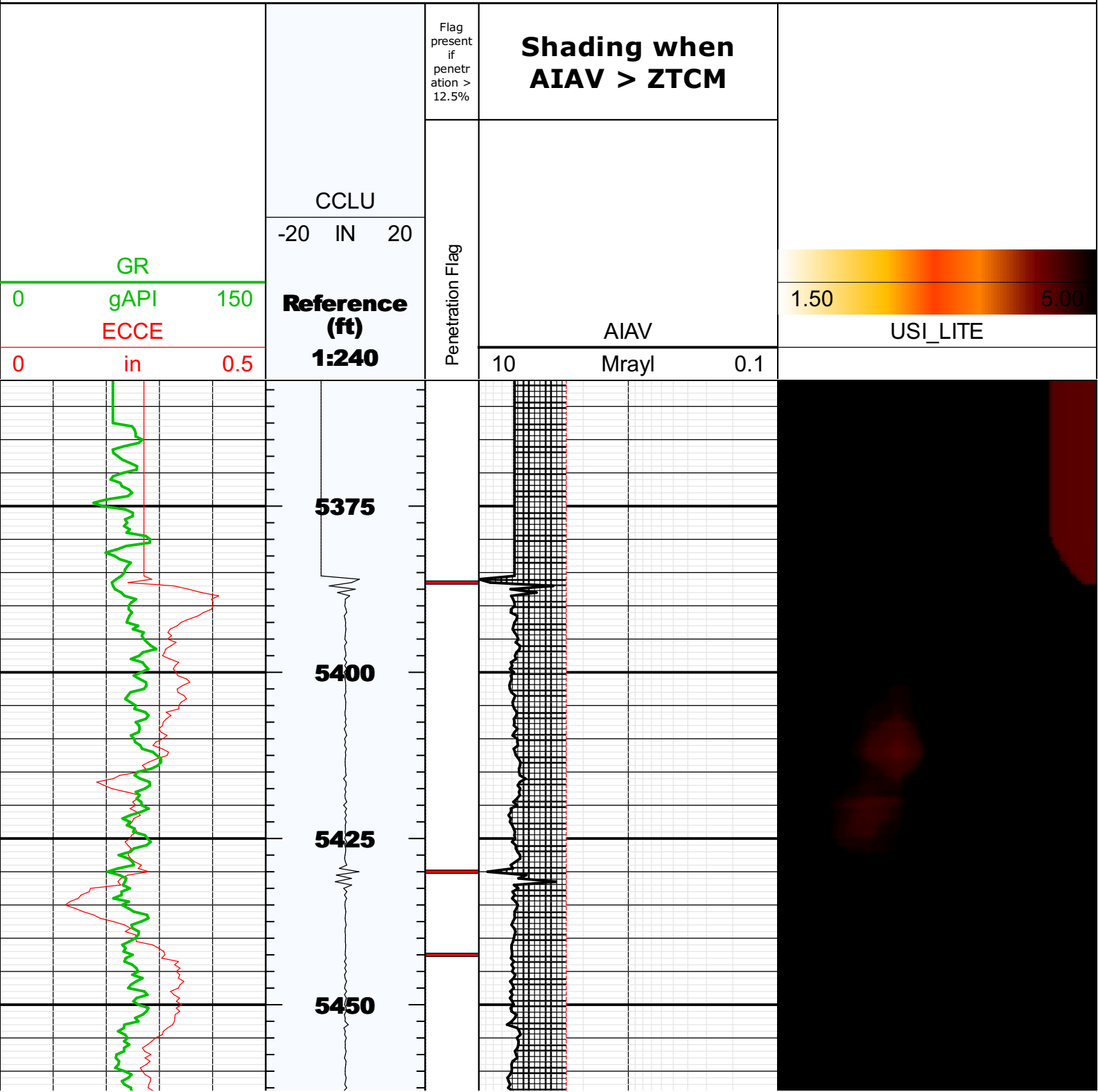




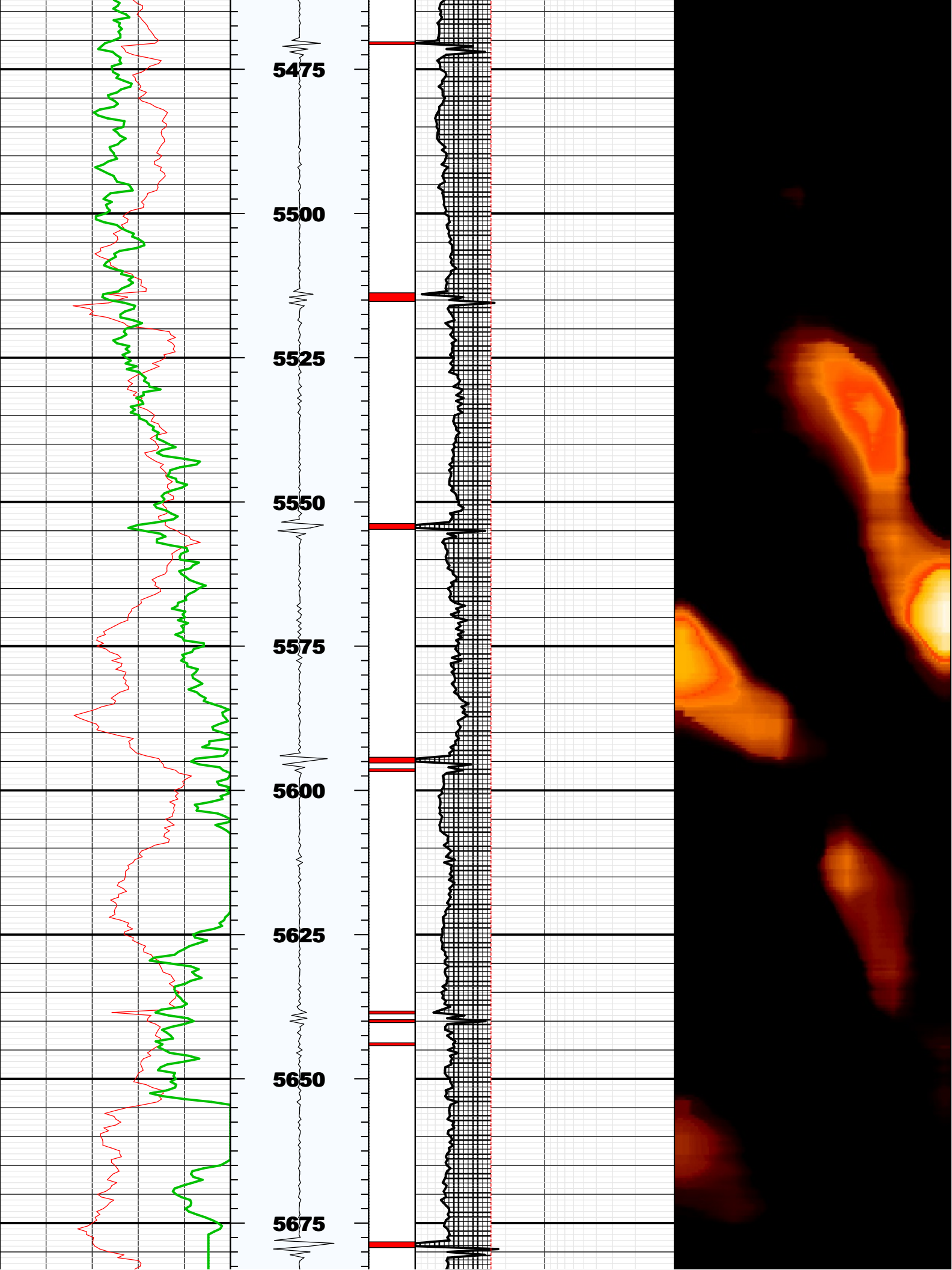
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID	6.27600	IN	Casing Inner Diameter
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	190.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter 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	BRINE		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	1.84000	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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Well: Atwater State LD01-76-1AHN  
Field: Wattenberg











## Fluid Properties Used for Main Pass

