

Company: Noble Energy Inc

Well: Rohn State LD10-64-1HN  
Field: Wildcat  
County: Weld State: Colorado

County: Weld			
Field: Wildcat			
Location: NESE Sec. 9 T9N R58W			
Well: Rohn State LD10-64-1HN			
Company: Noble Energy Inc			
USI-LITE (2500 psi)			
Permanent Datum: Log Measured From: Drilling Measured From:		GL KB KB	Elev: K.B. 4732.0 F G.L. 4716.0 F D.F. 4731.0 F
API Serial No. 05-123-37622-0000		Section 9	Township 9N
Logging Date 21-Nov-2014		Range 58W	
Run Number One			
Depth Driller 10213.0 F			
Schlumberger Depth 5950.0 F			
Bottom Log Interval 5950.0 F			
Top Log Interval 0.0 F			
Casing Fluid Level 0.0 F			
Salinity			
Density 8.50 LB/G			
Fluid Level 0.0 F			
BIT/CASING/TUBING STRING			
Bit Size 8.750 IN			
From 5950.0 F			
To -999.2 F			
Casing Size 7.00 IN			
Weight 26.00 LB/F			
Grade P110			
From 0.0 F			
To 6110.1 F			
Max Recorded Temp 224.0			
Logger on bottom (date) 21-Nov-2014			
Location Fort Morgan			
Recorded By Nolan Welsh			
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: F713384 Length: 18250.00000

DISCLAIMER

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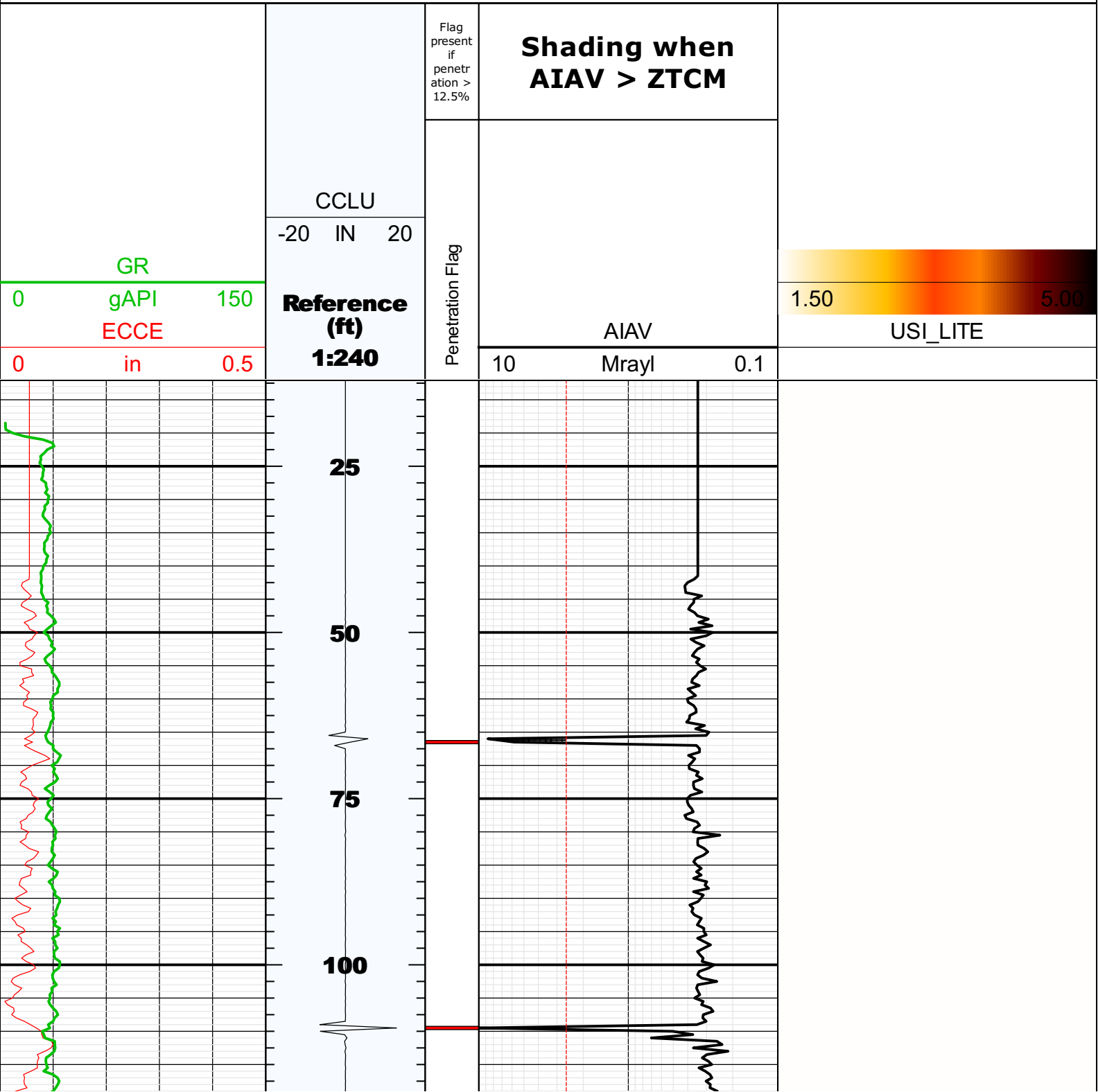
12.5 ppg lead cement  
13.6 ppg tail cement  
0 psi Repeat Pass  
2500 psi Main Pass  
Top of Cement 530 ft.

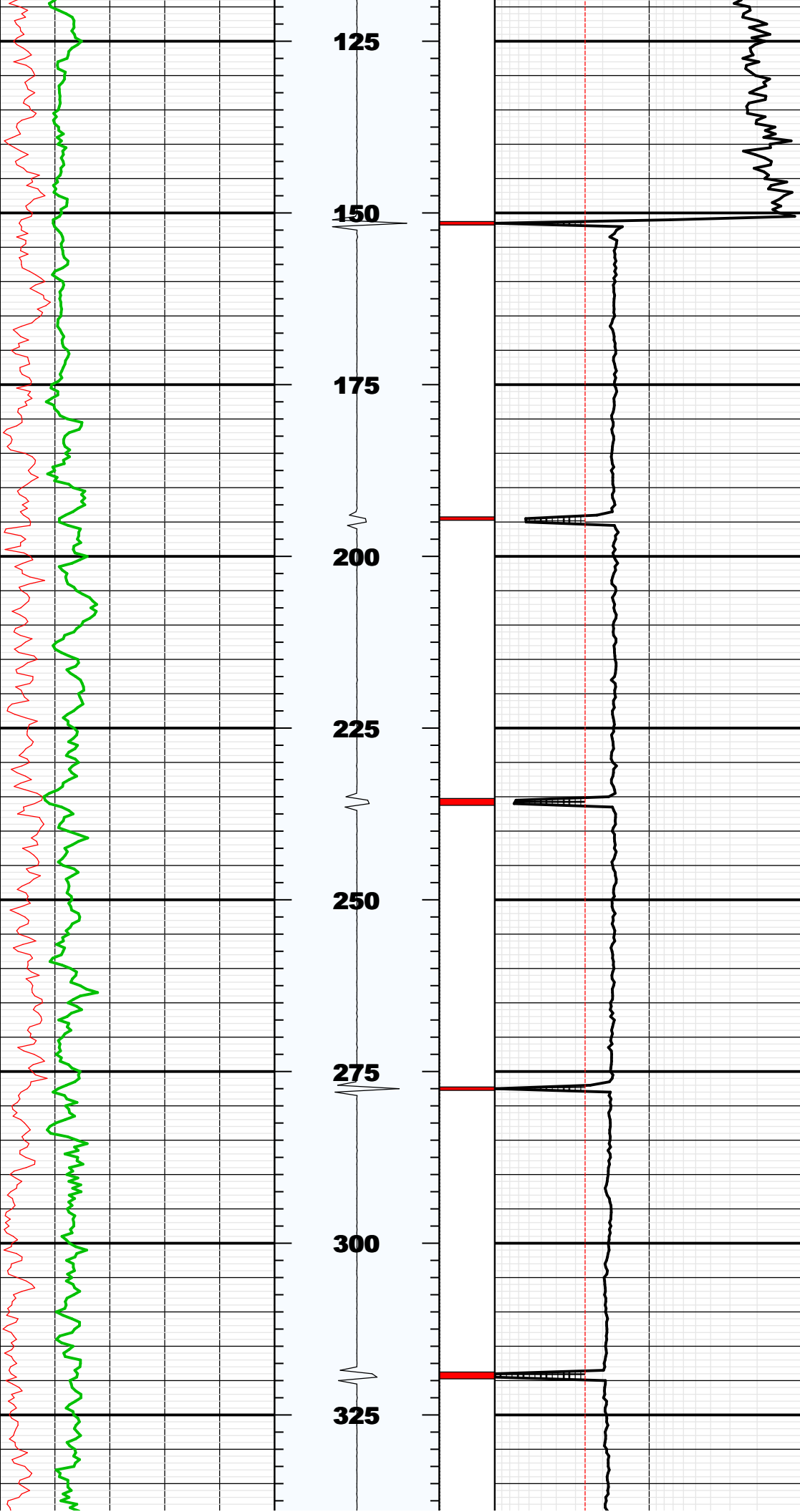
**There is drilling wear that reduces casing thickness below .317" at 1504'.**

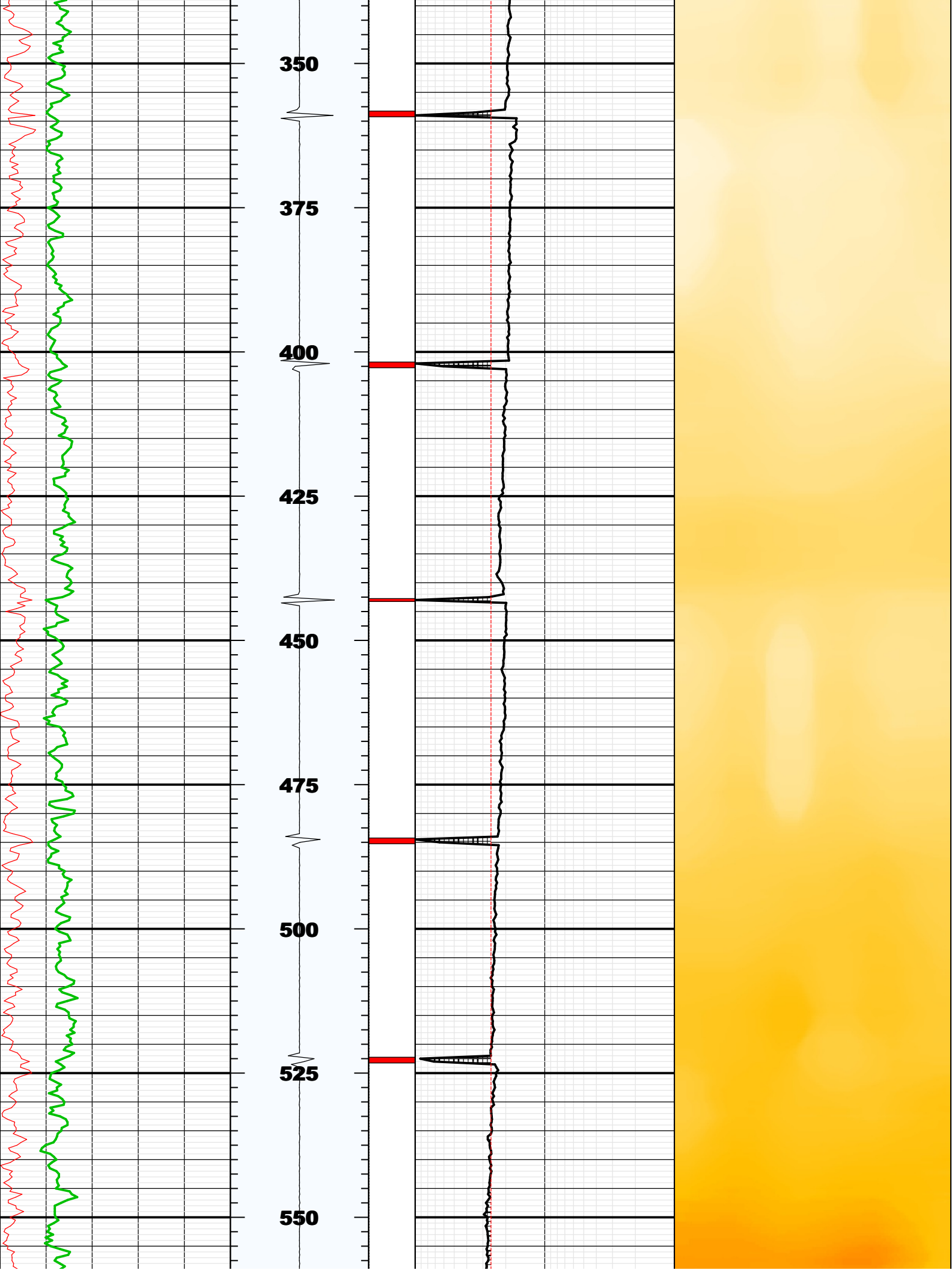
Bottom Log Temperature 224 degF measured at depth

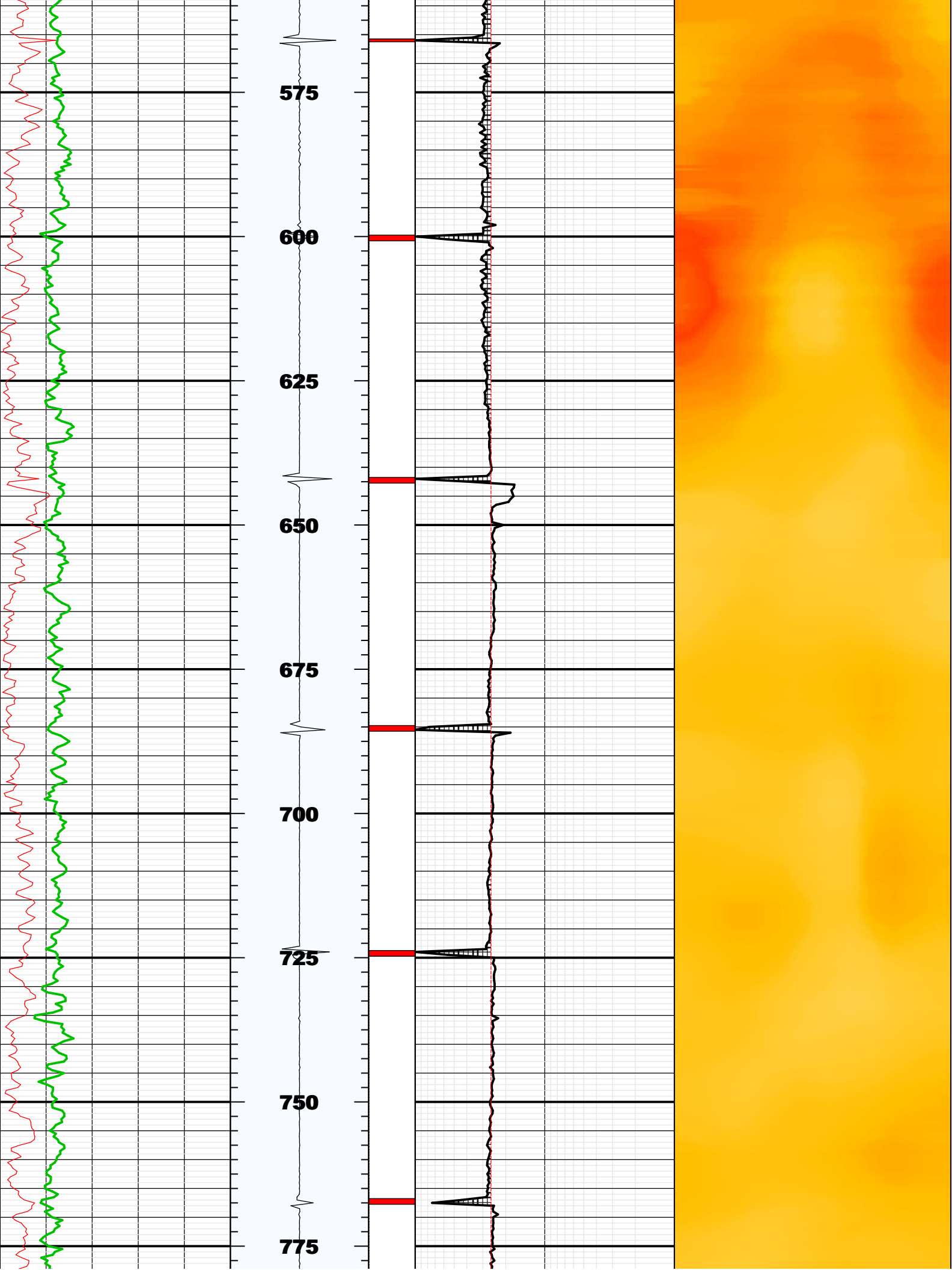
## Main Pass

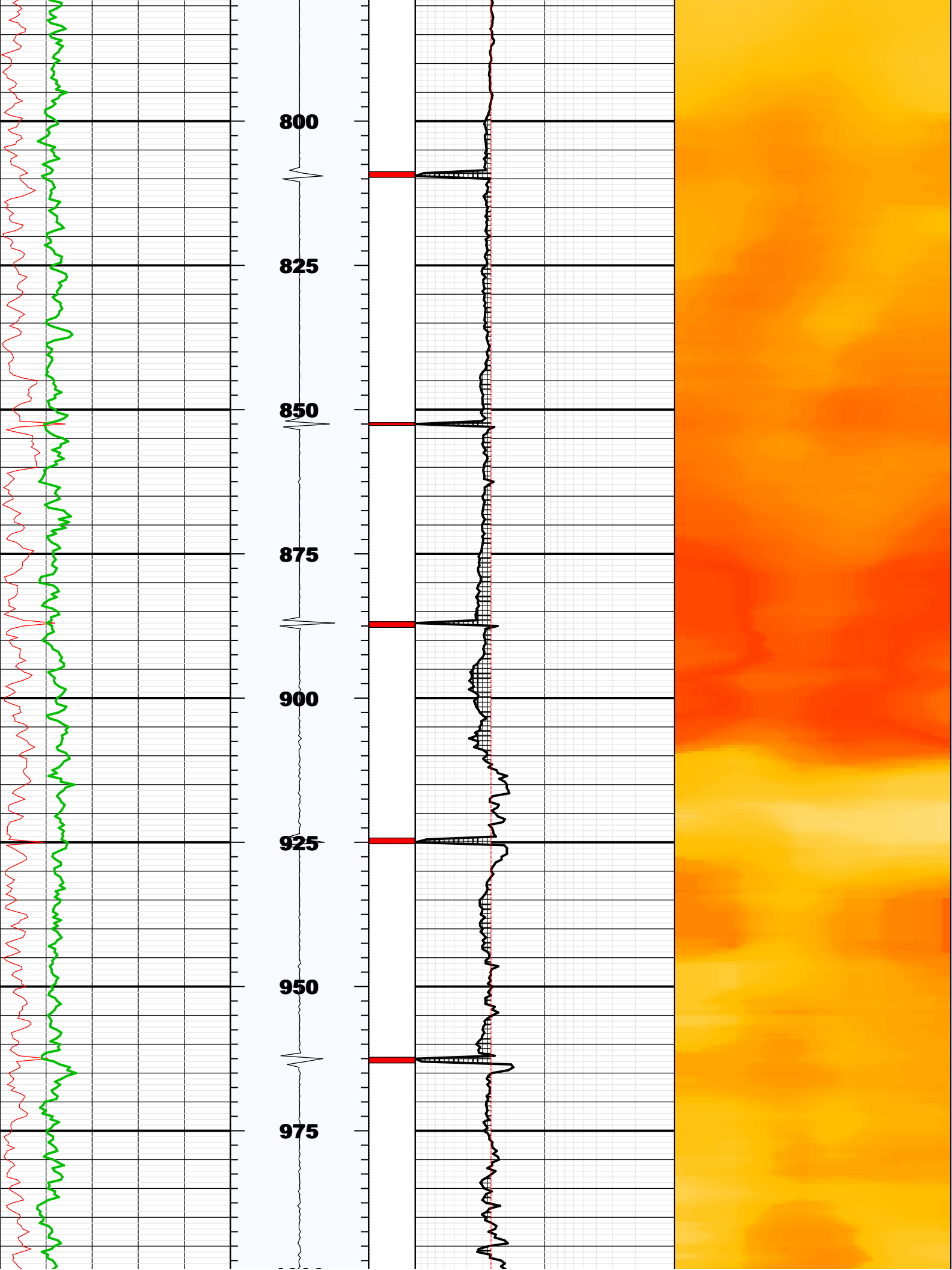
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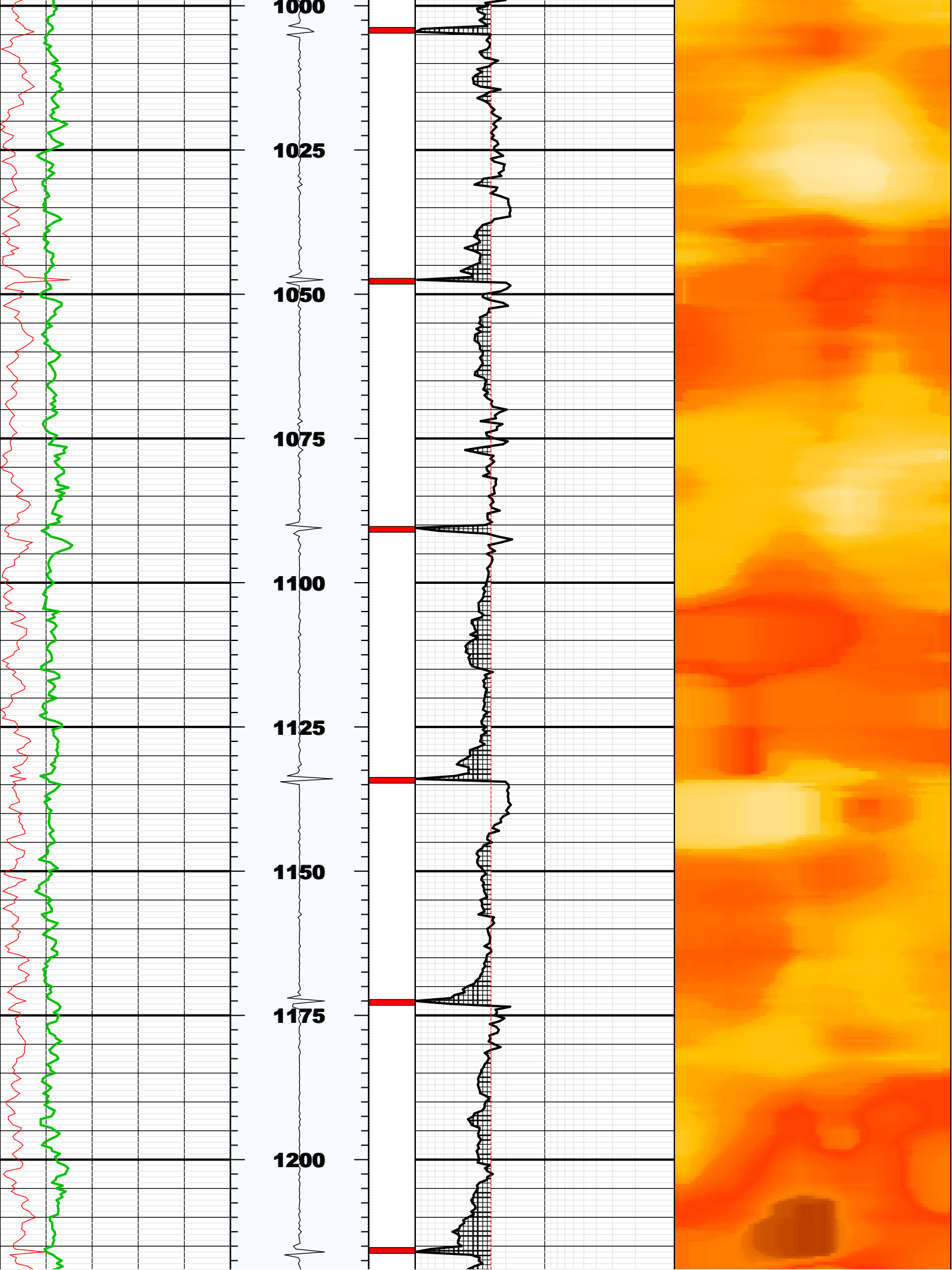




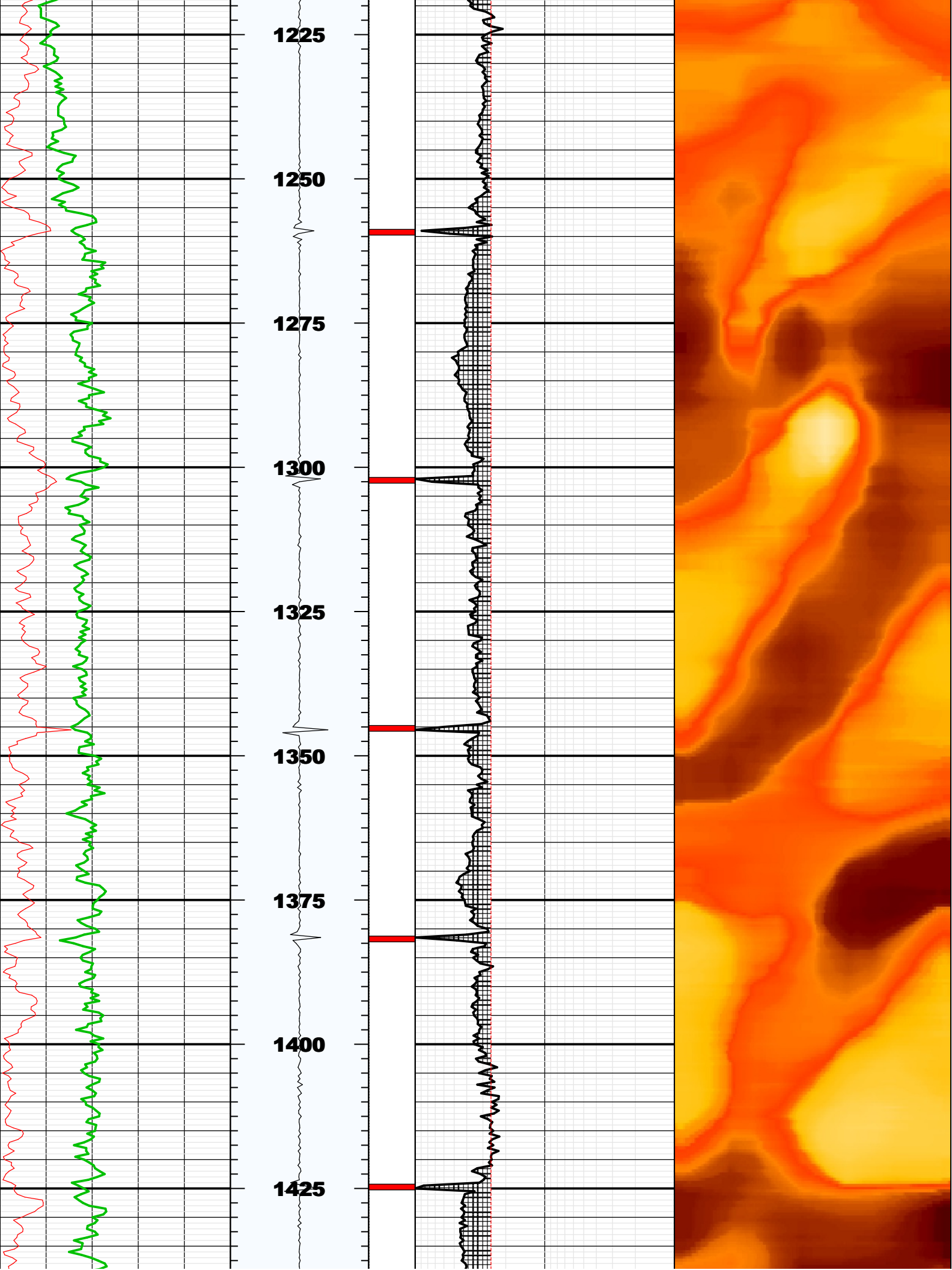


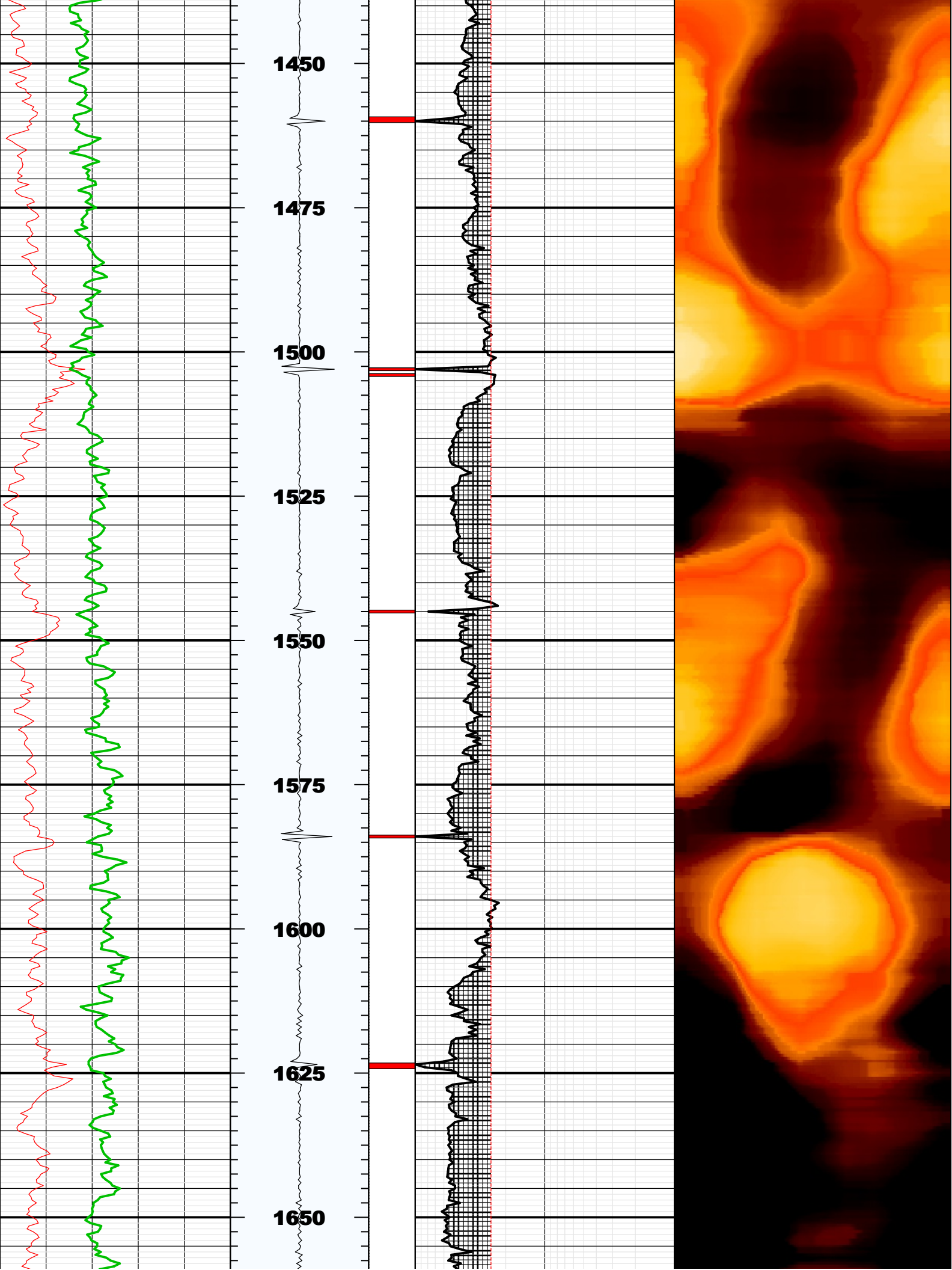


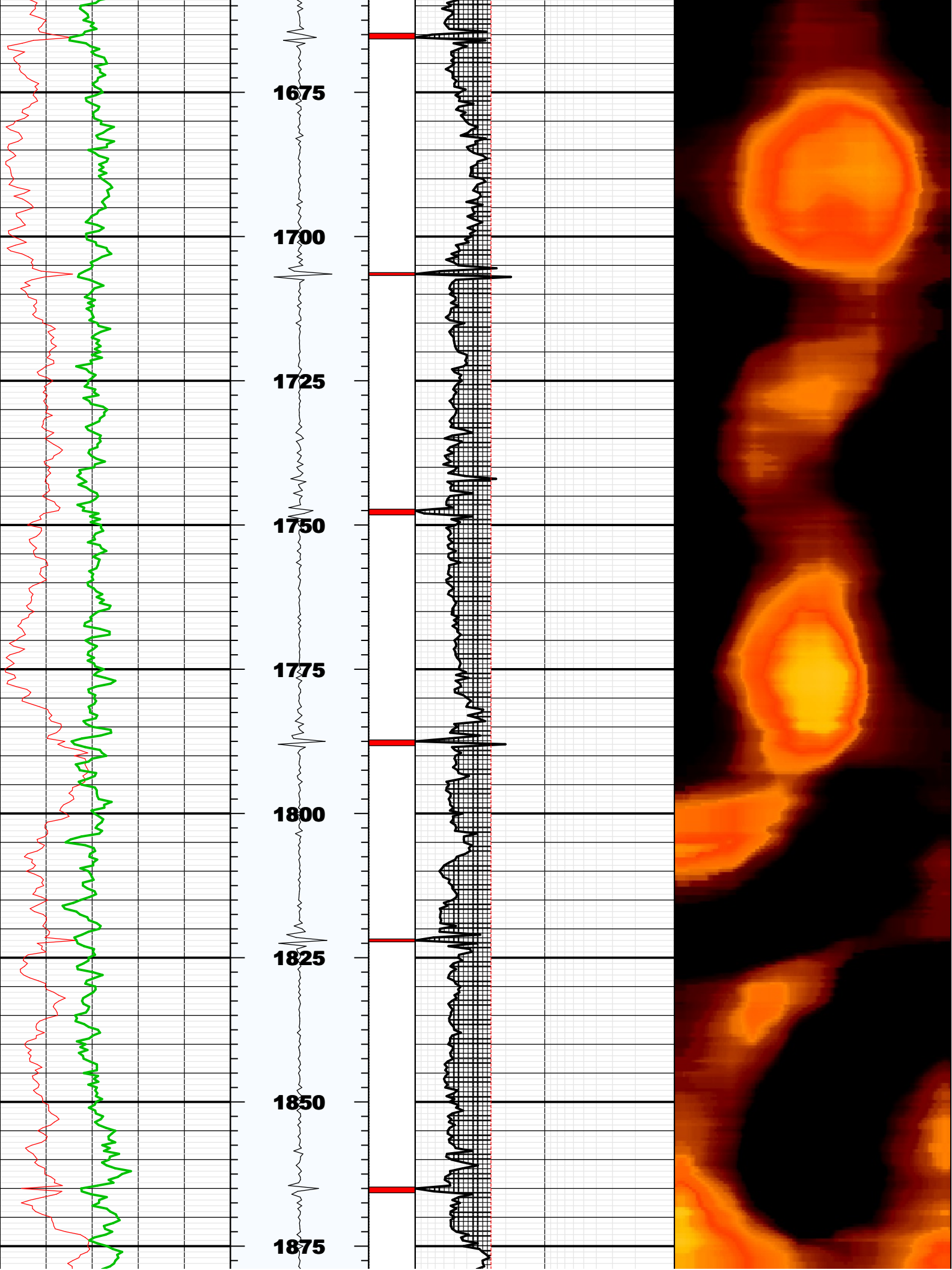


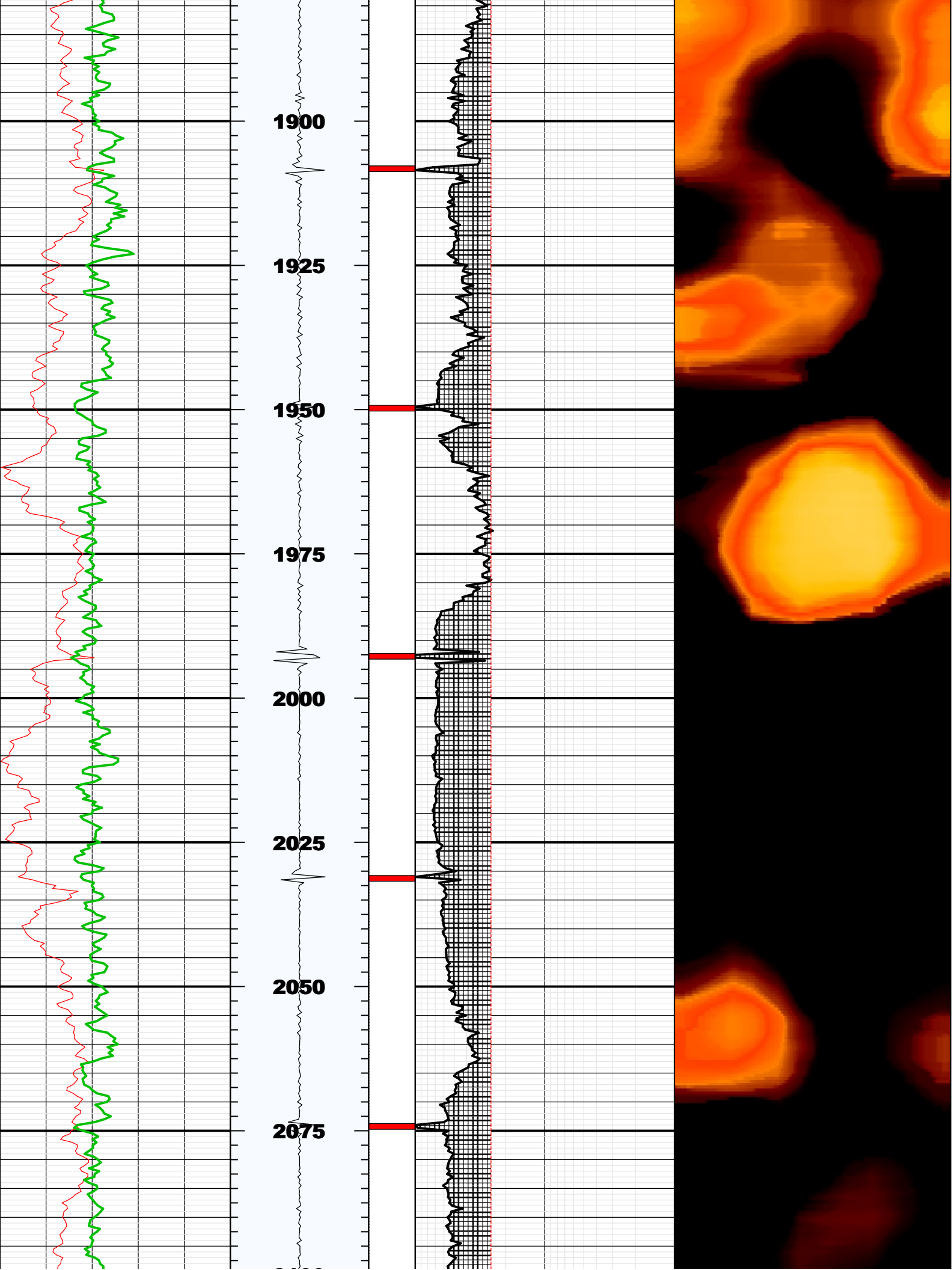




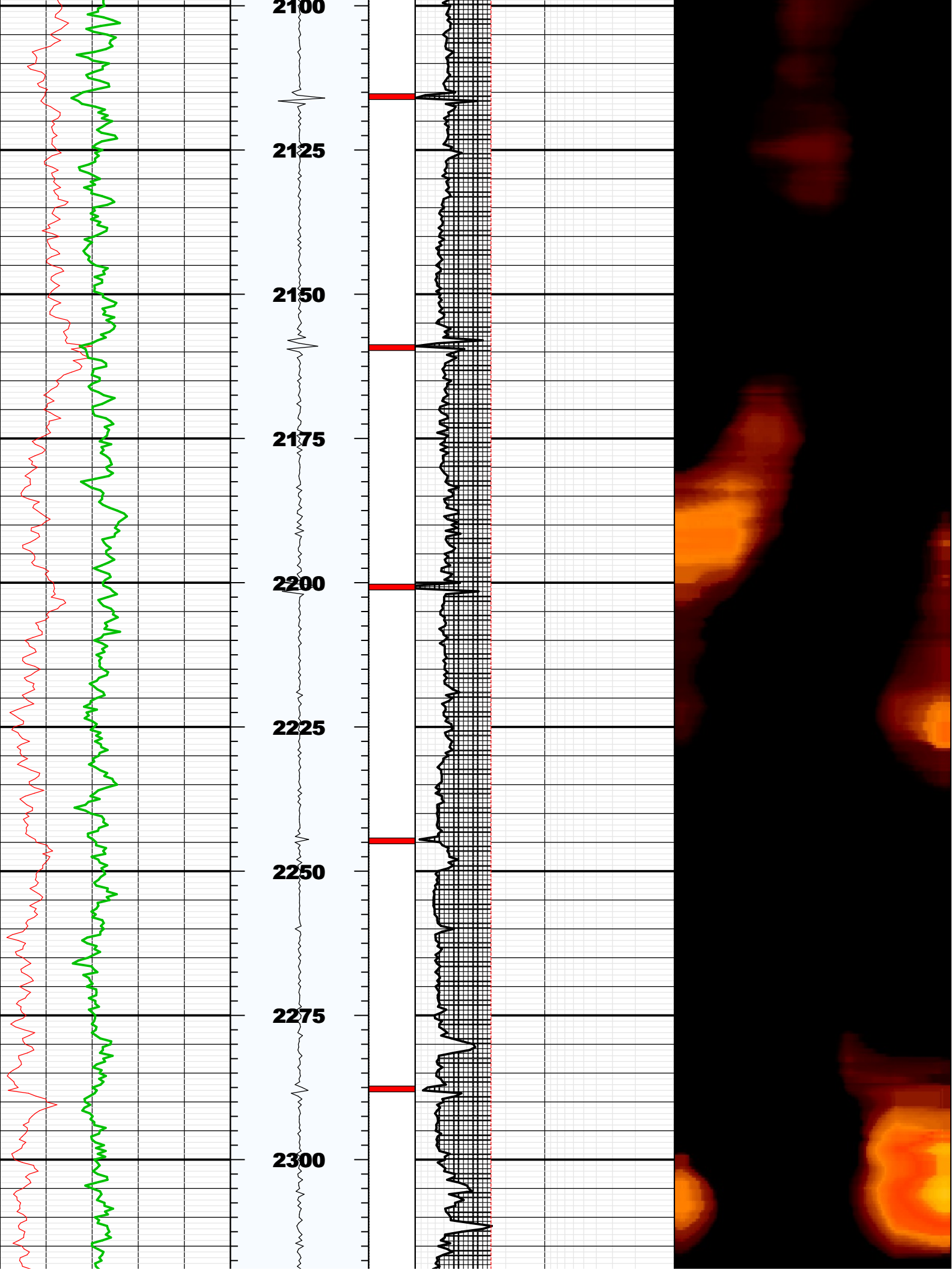


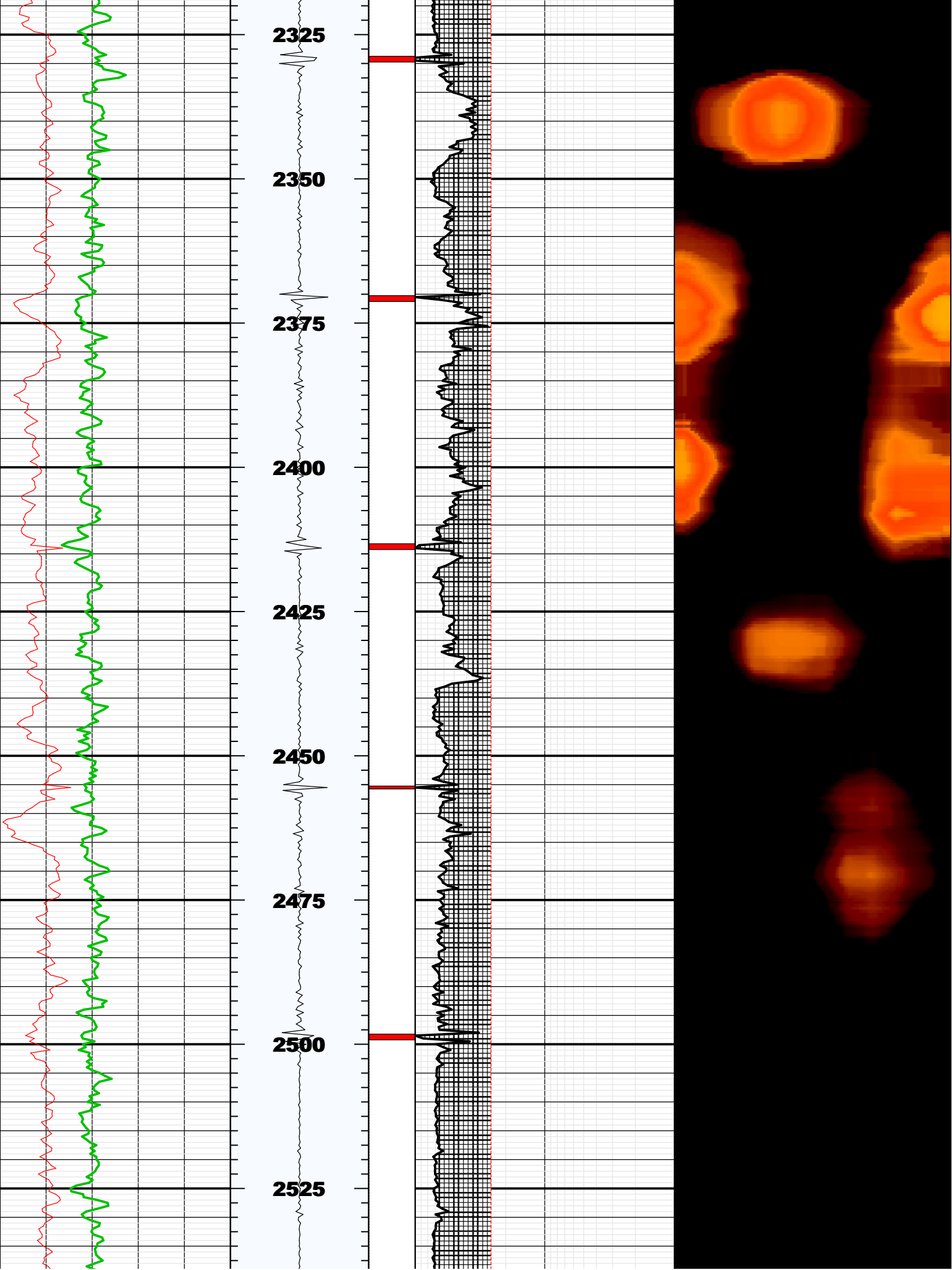


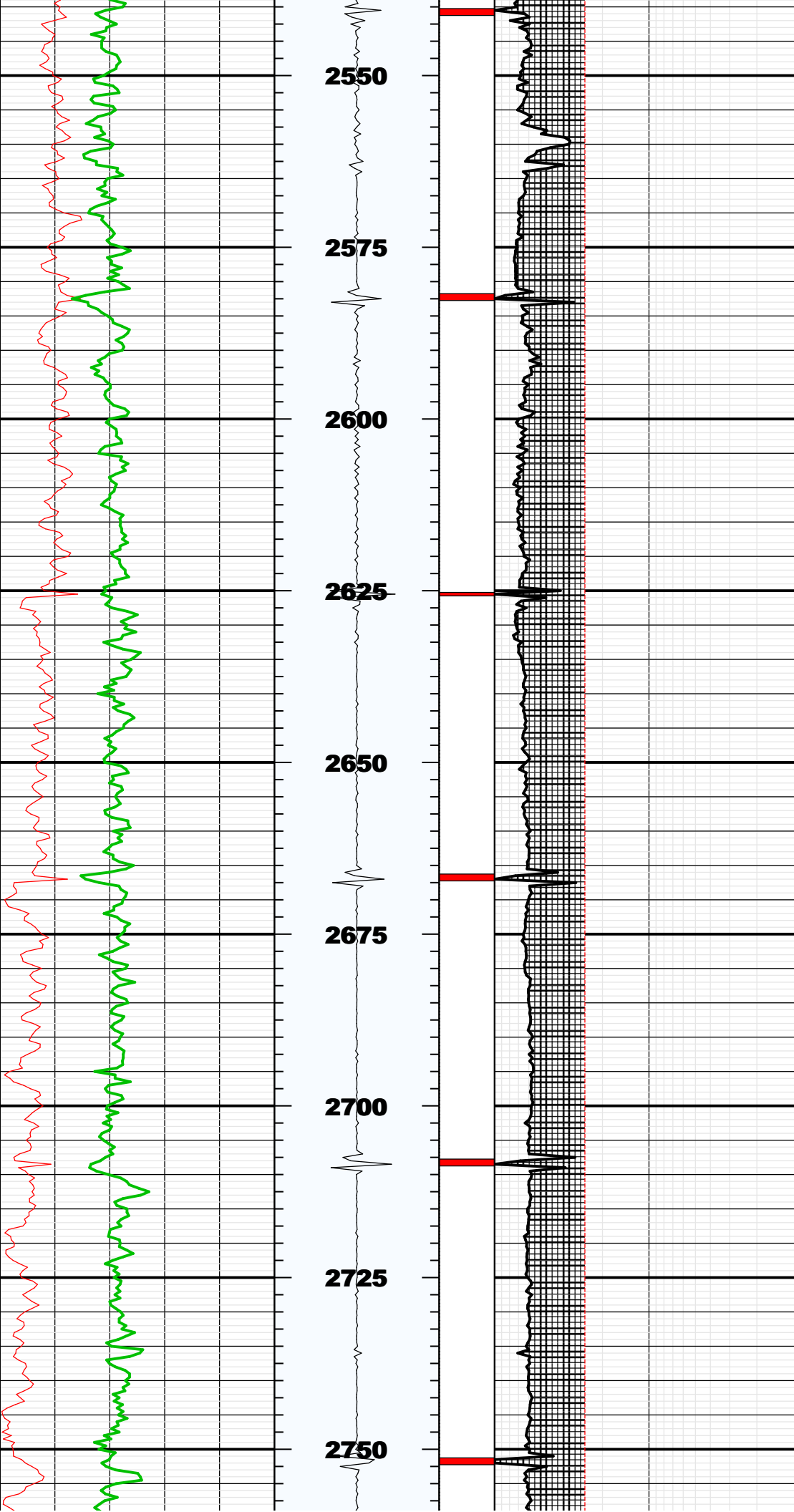


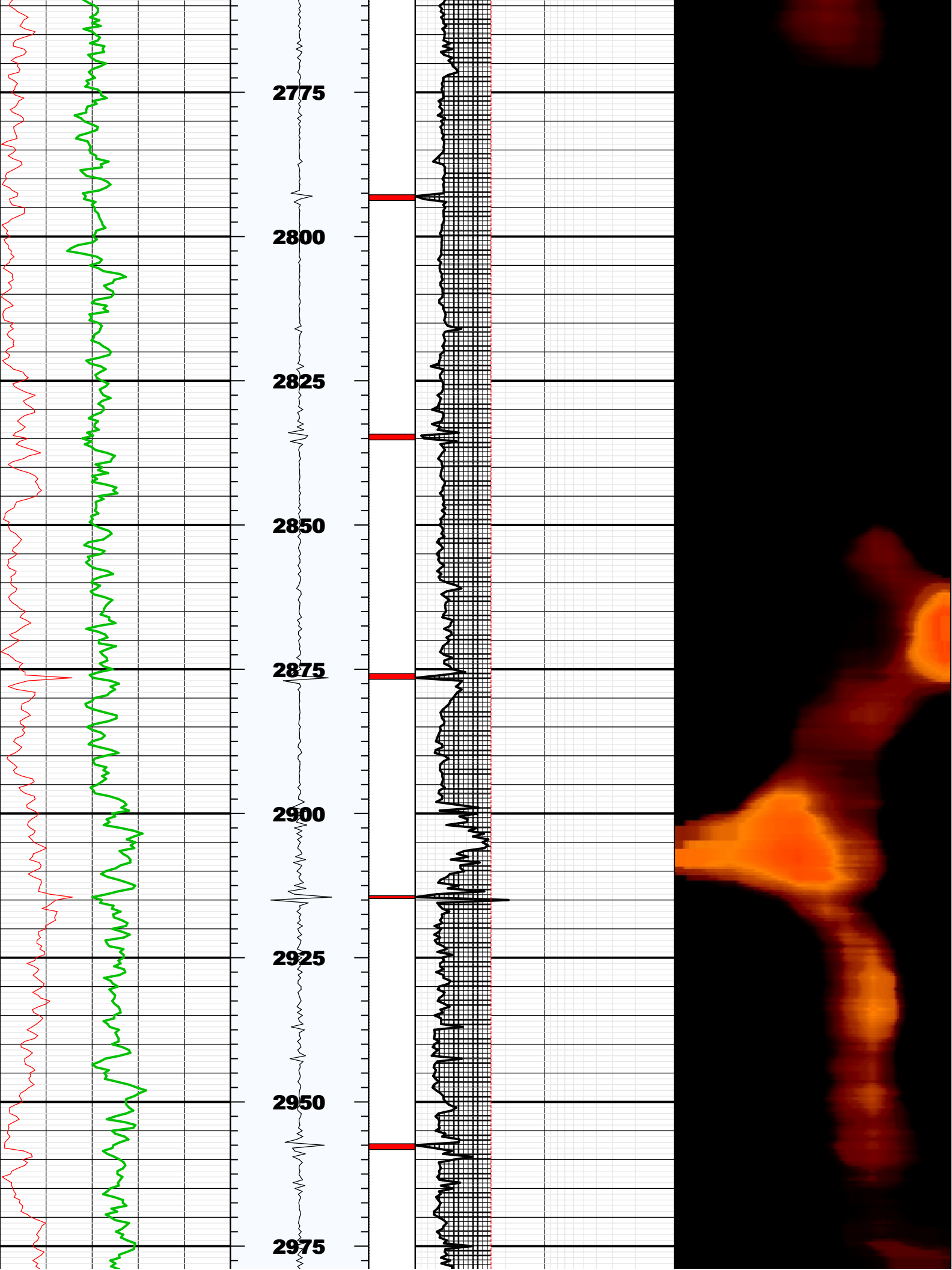




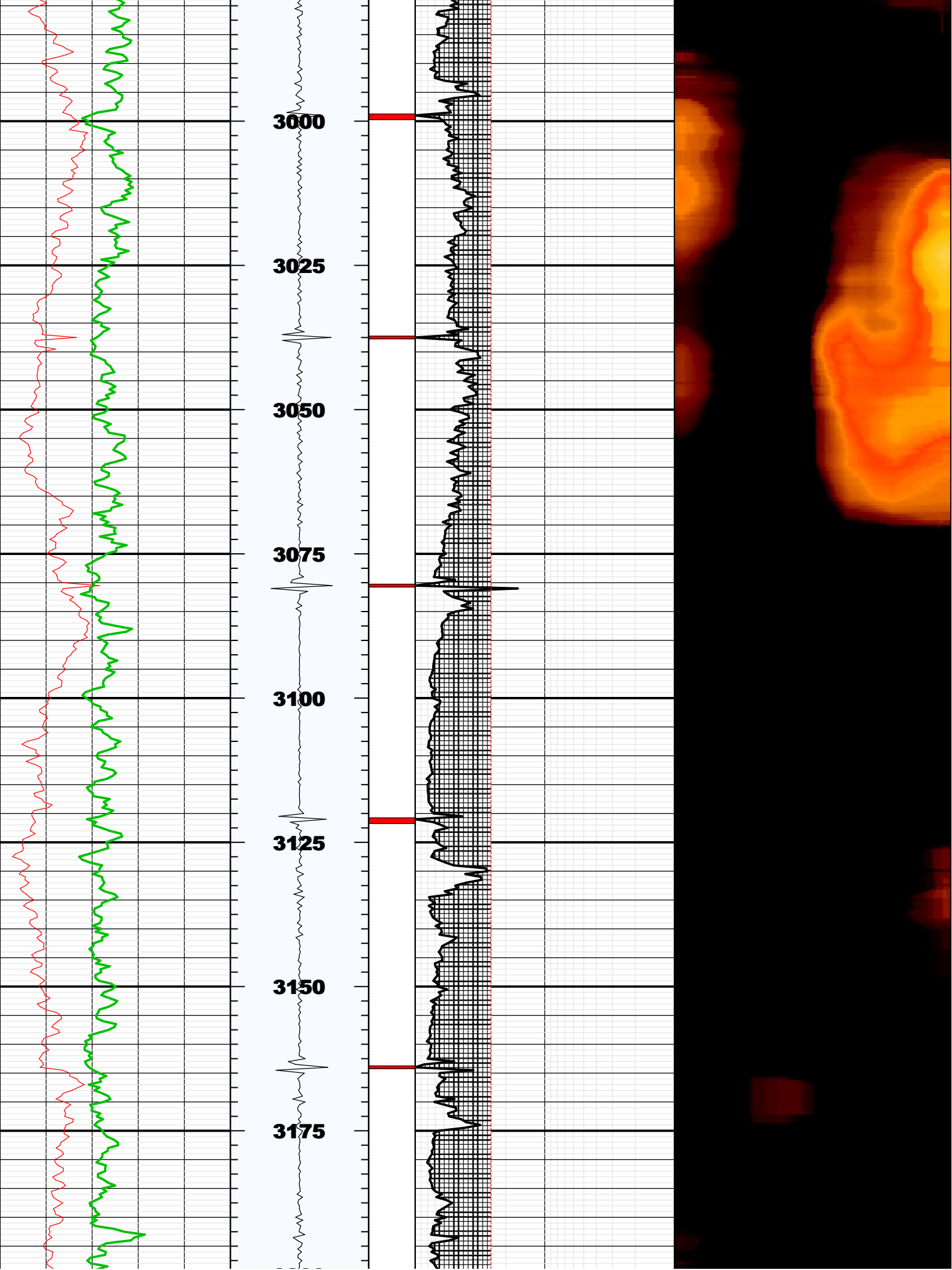


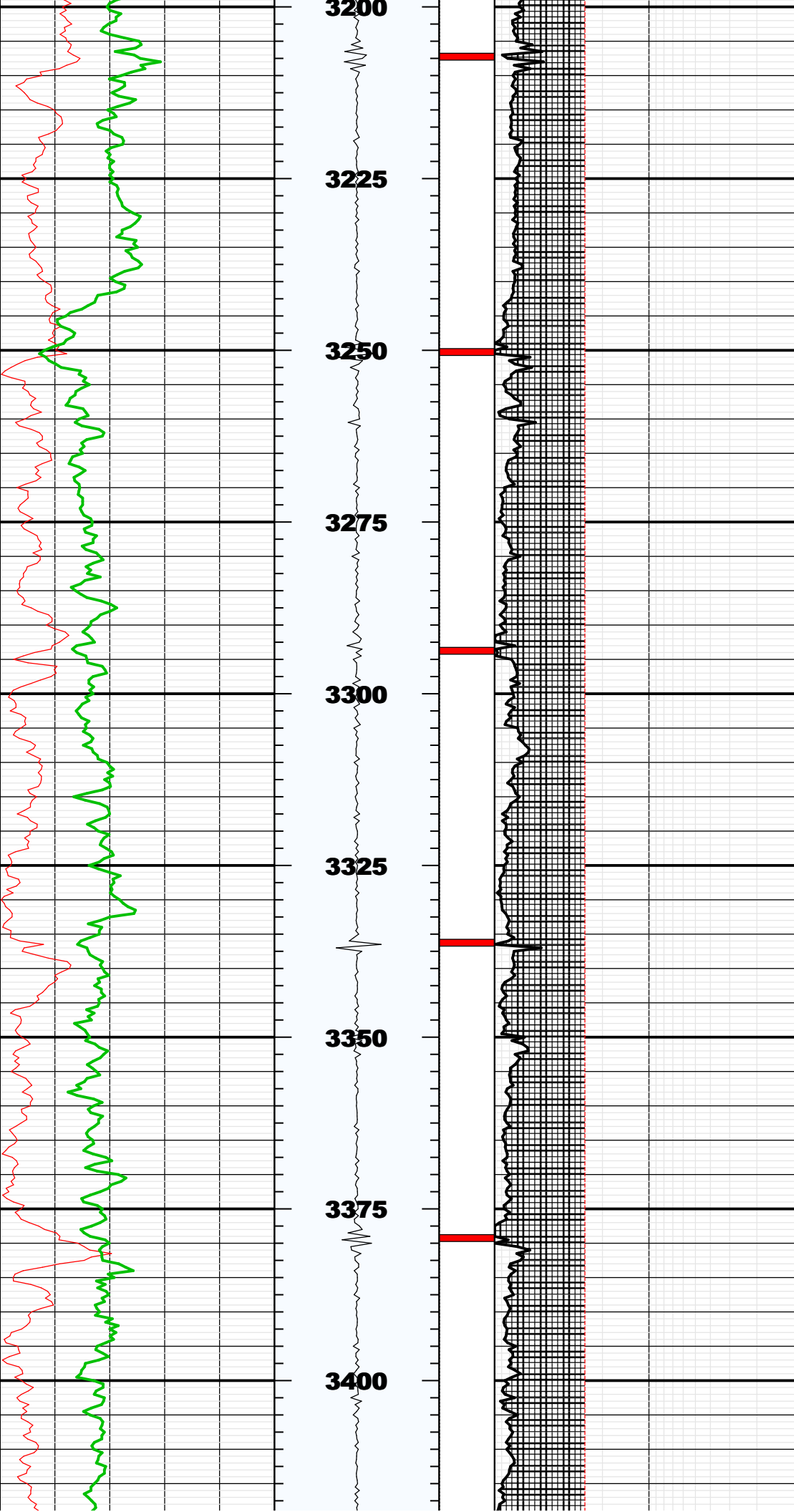


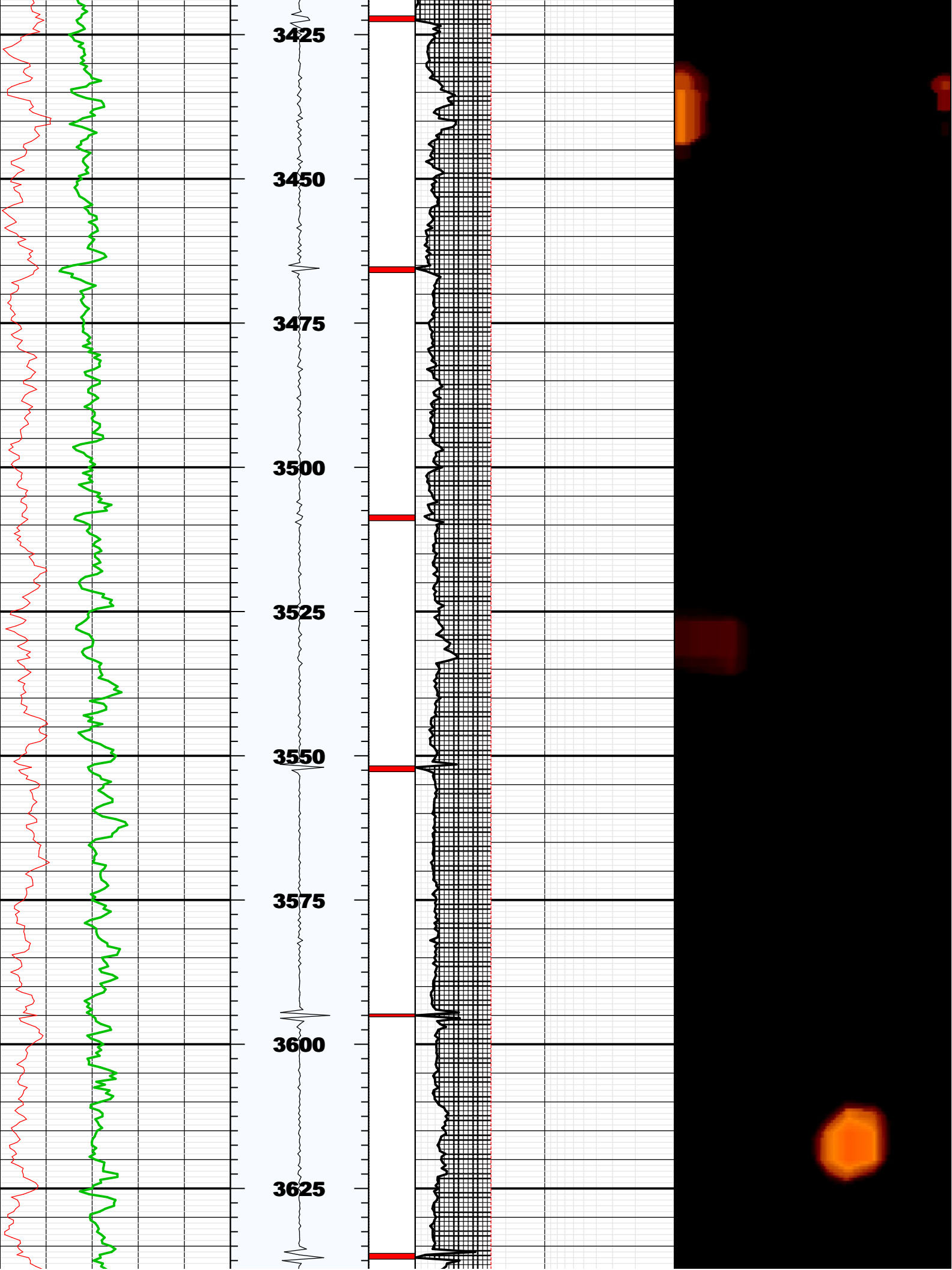


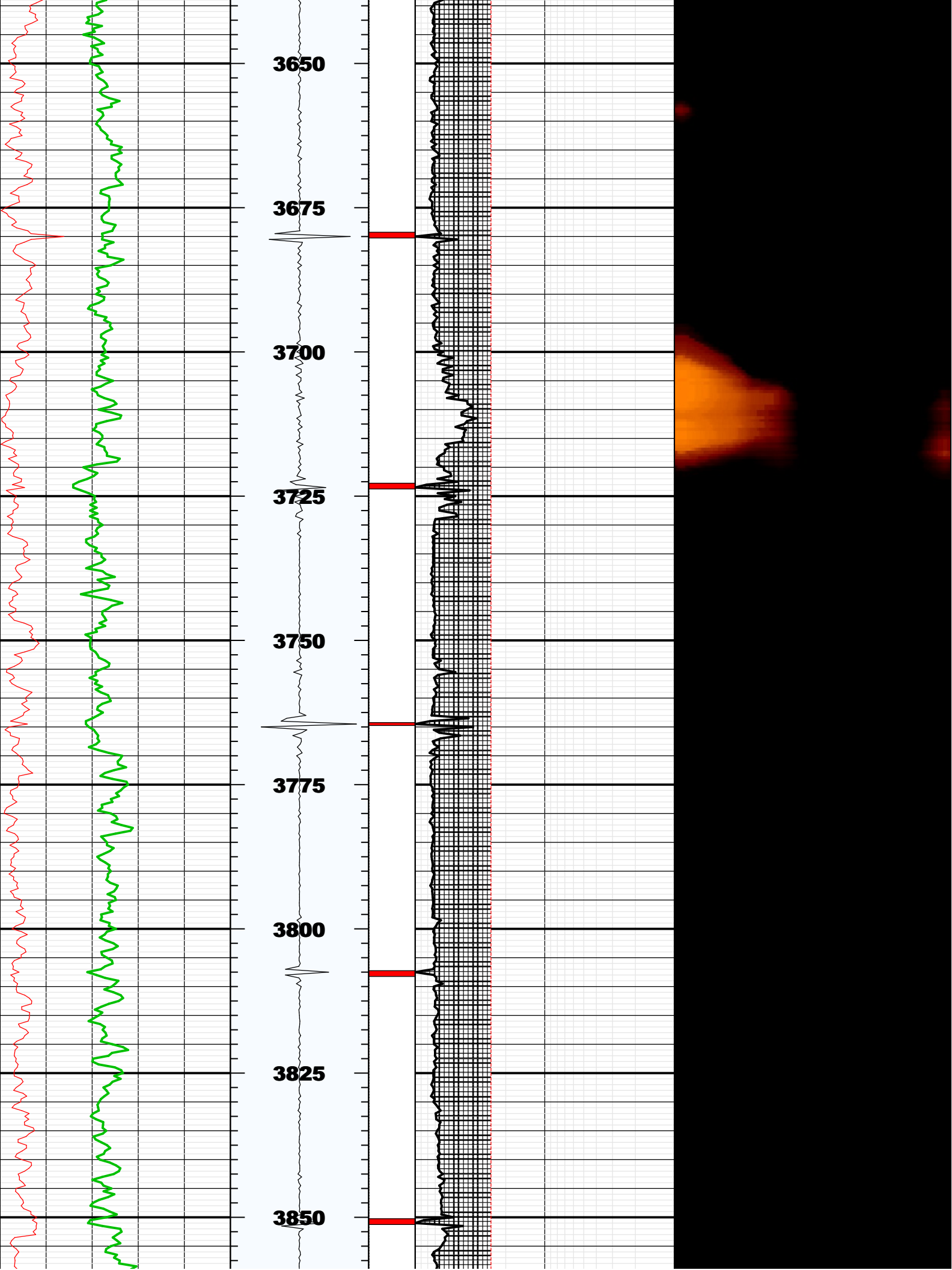


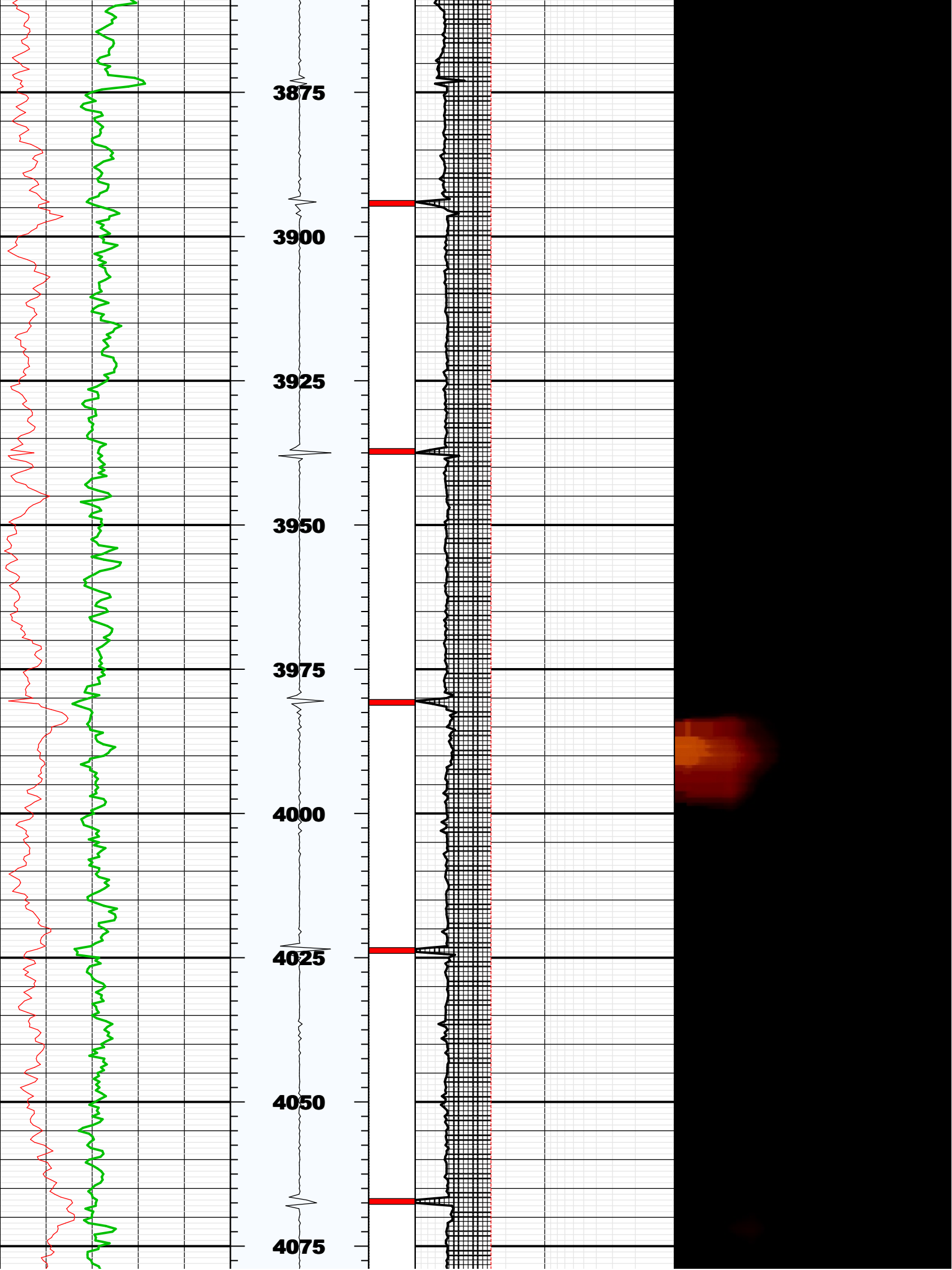


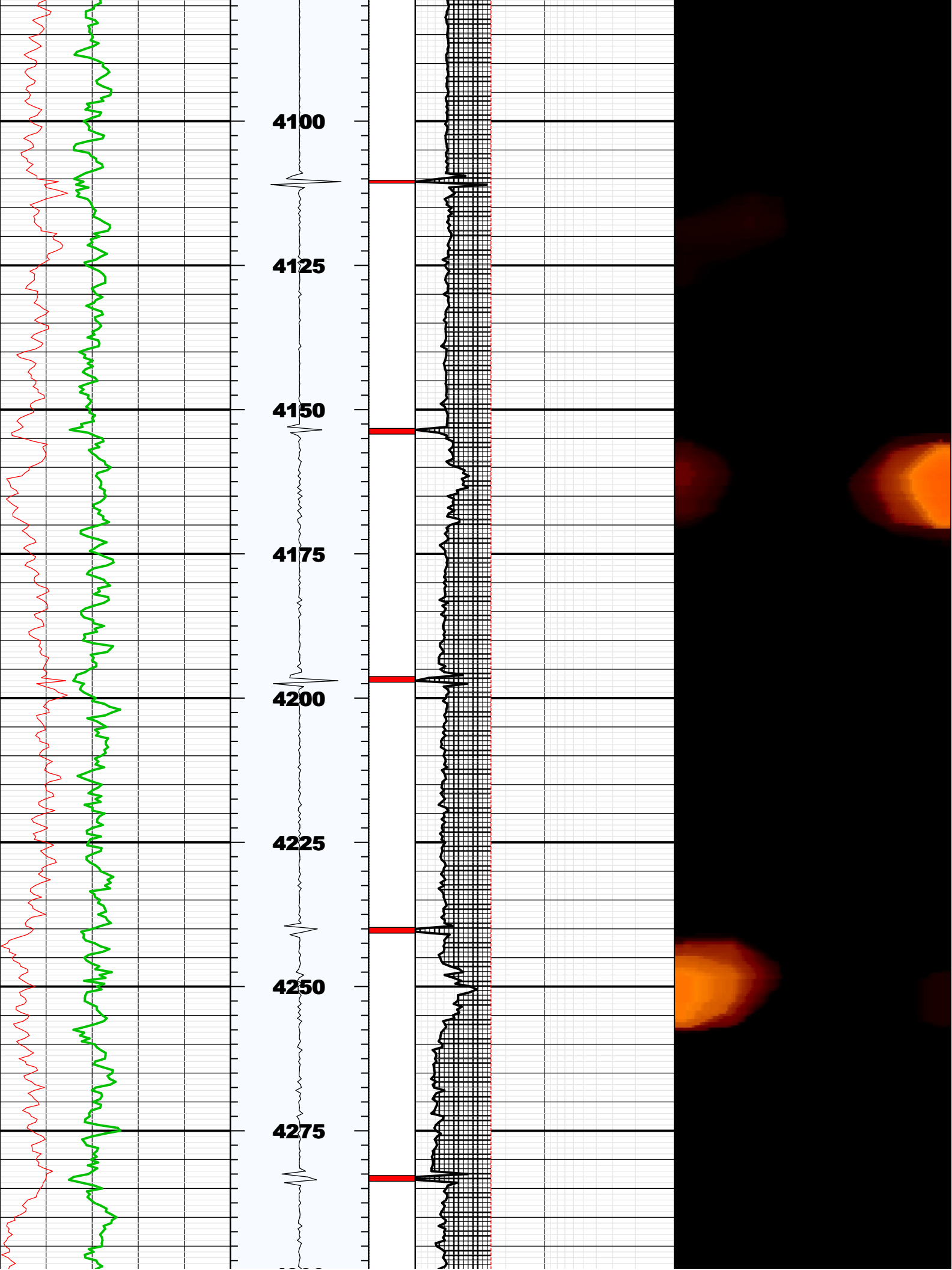




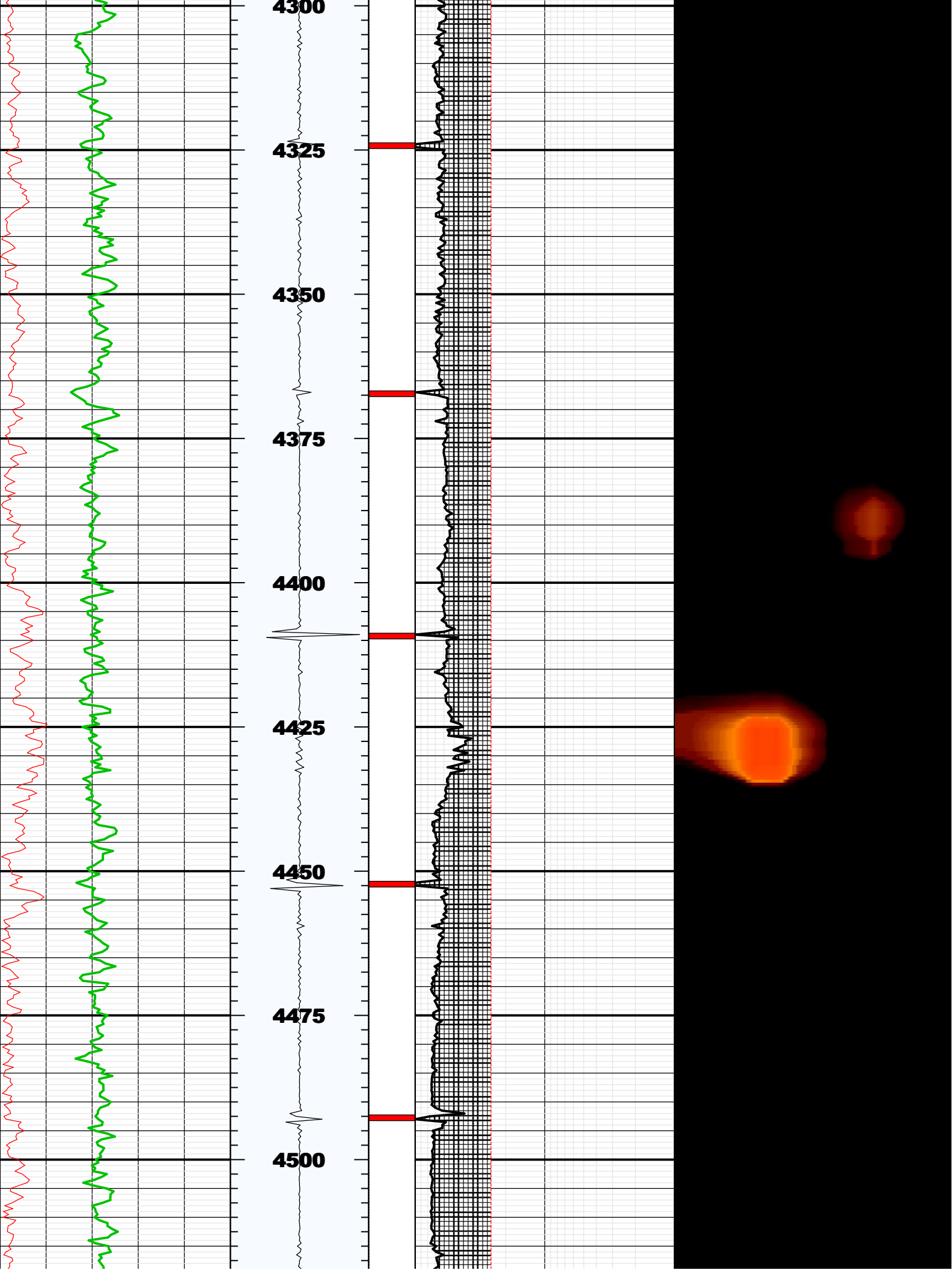


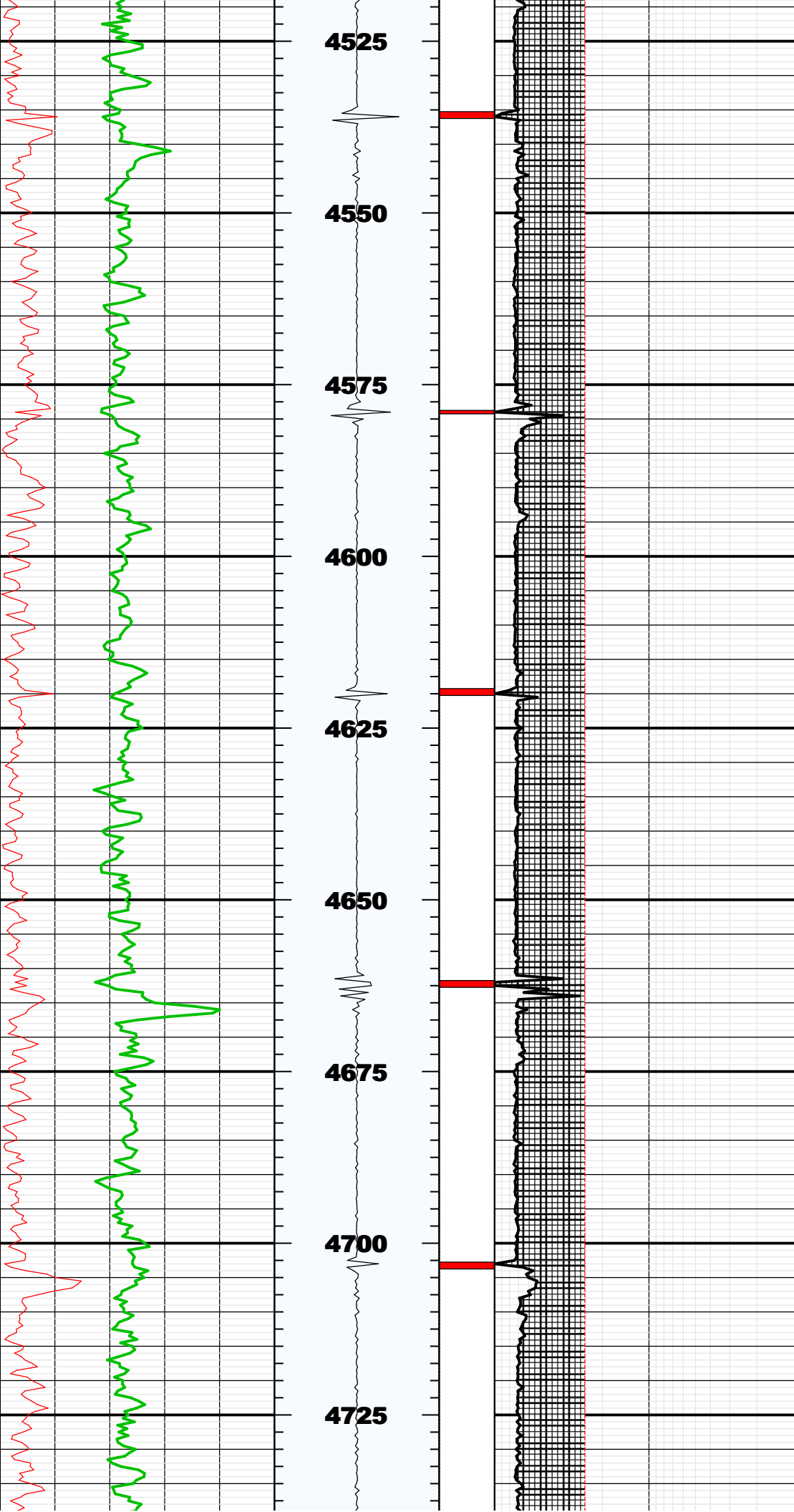




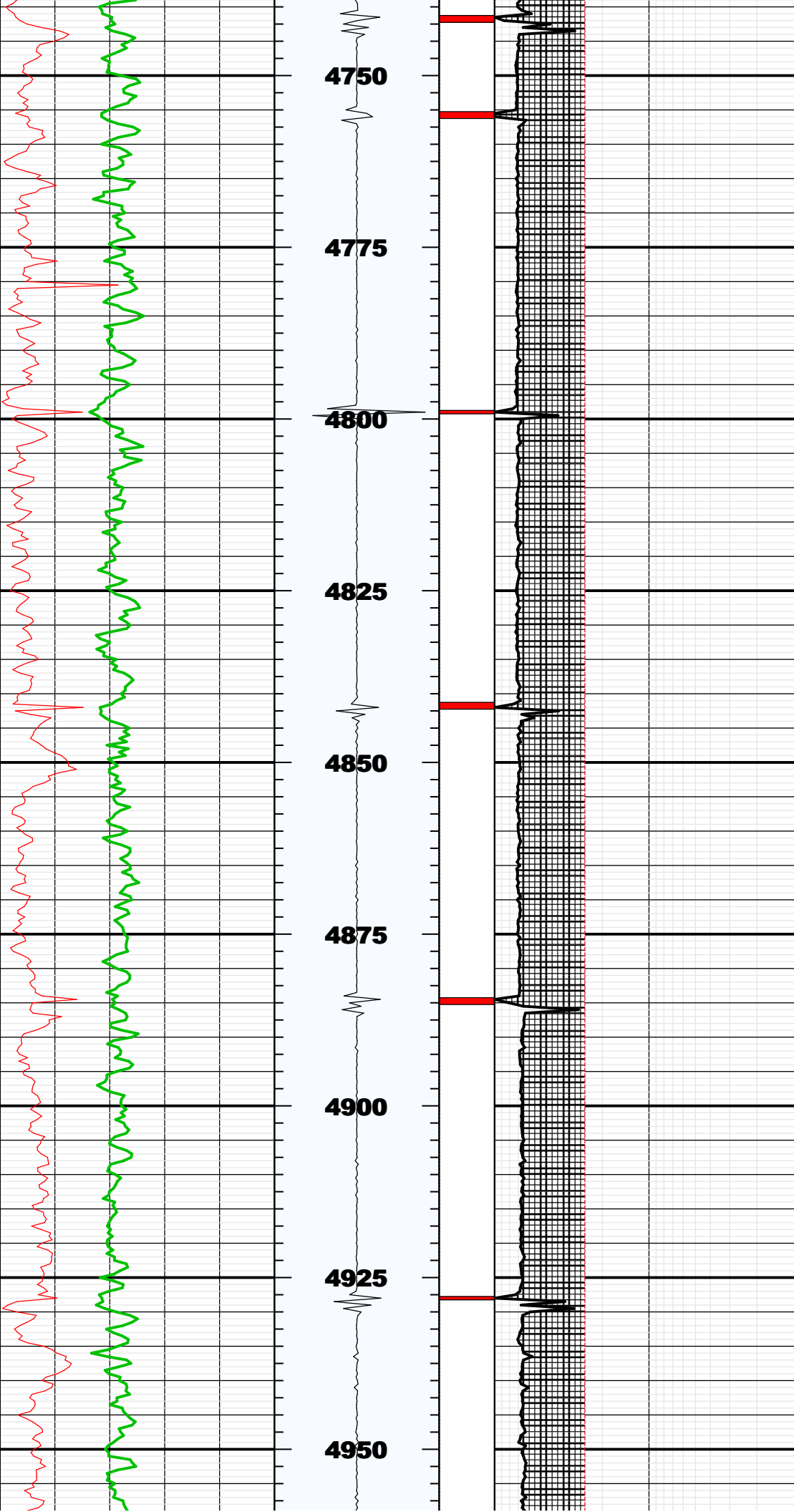


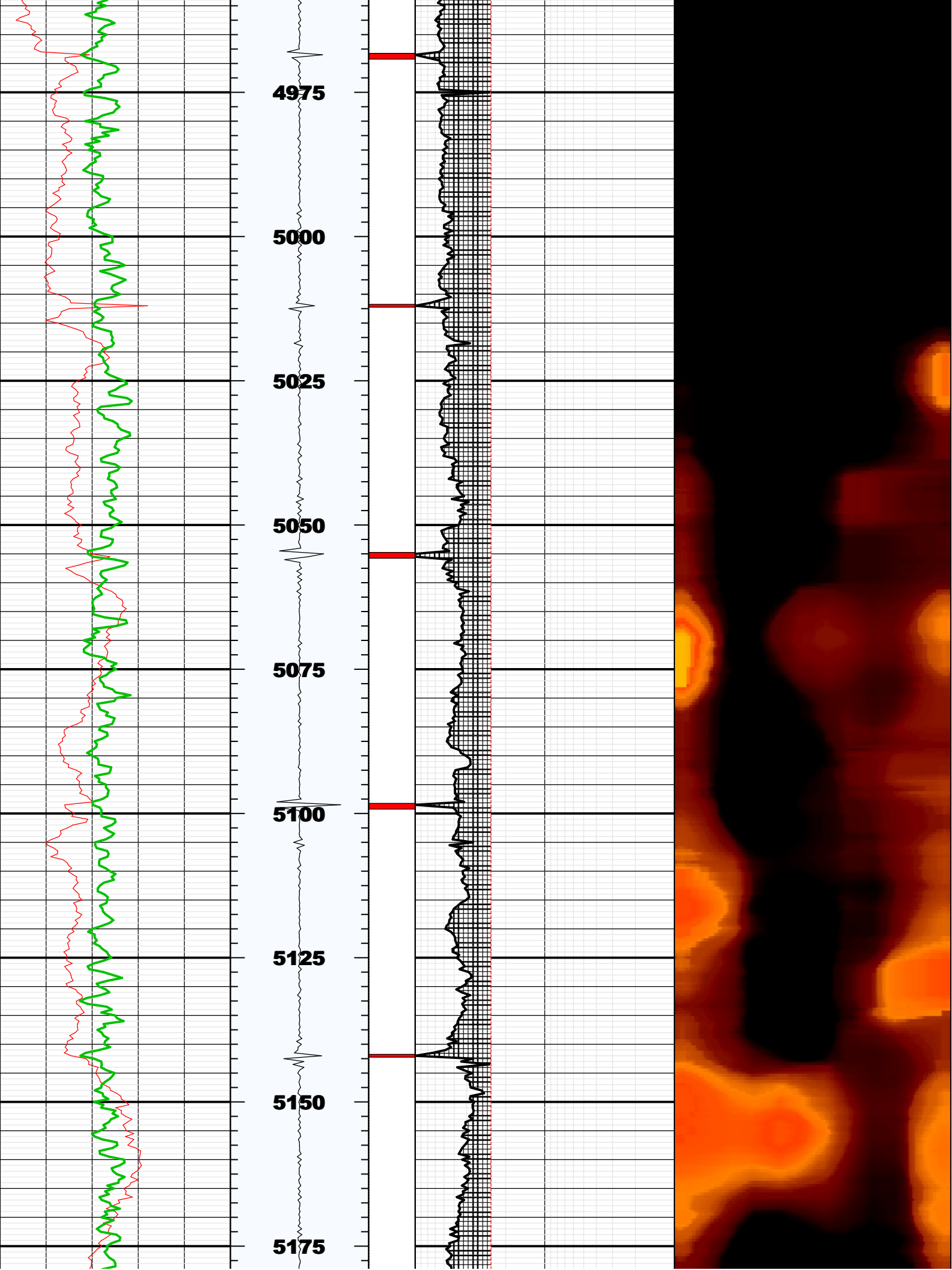


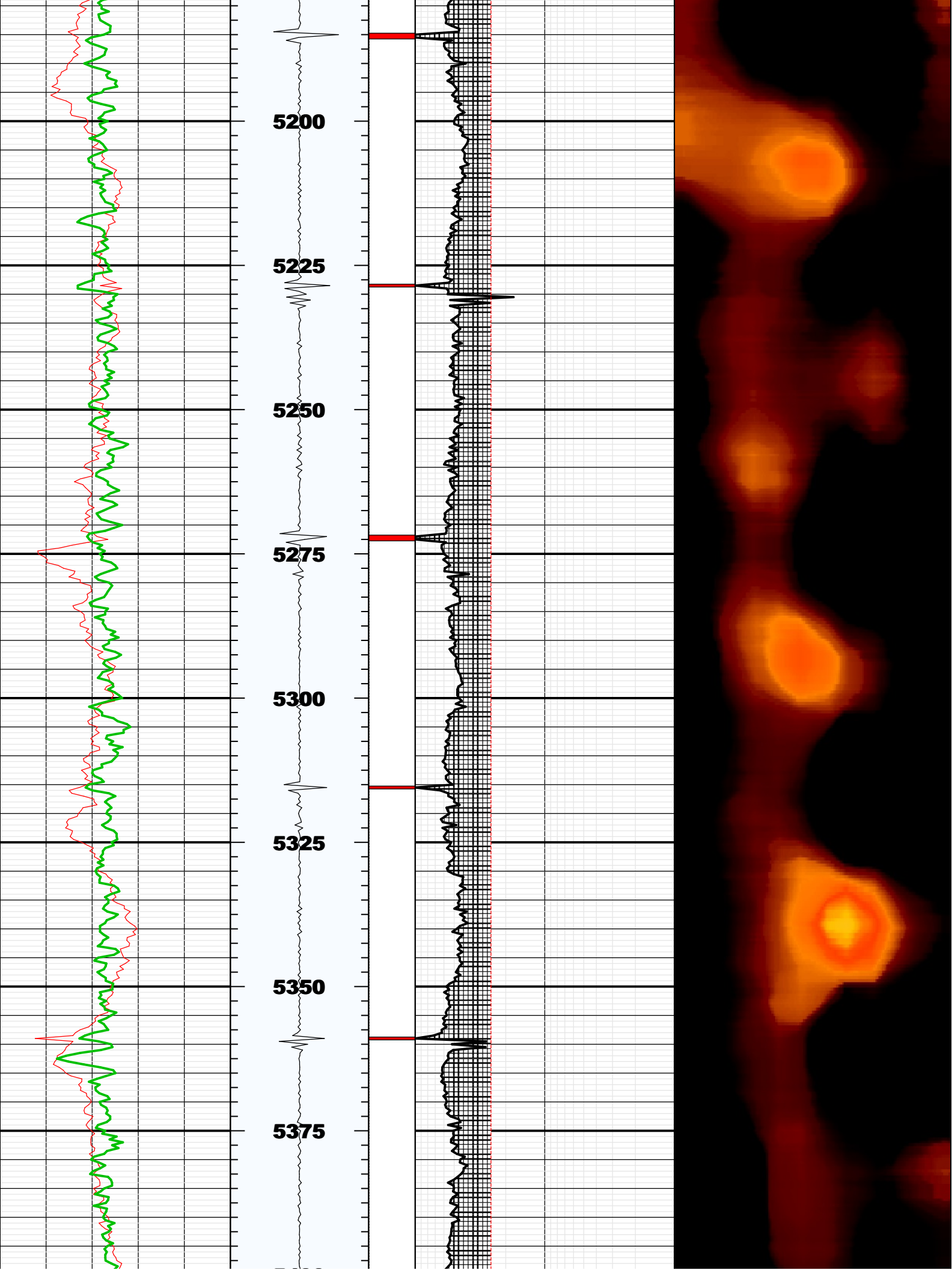


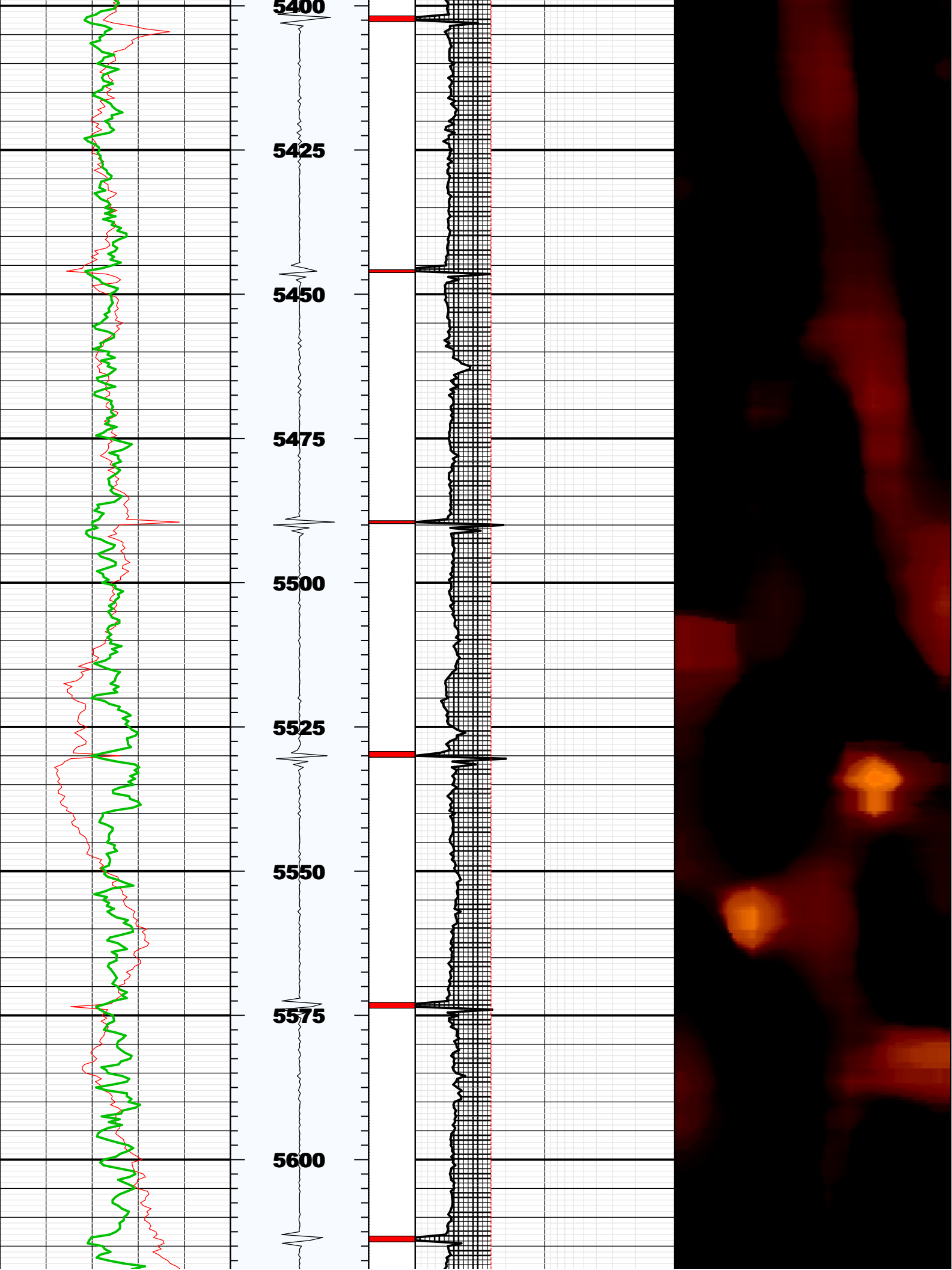


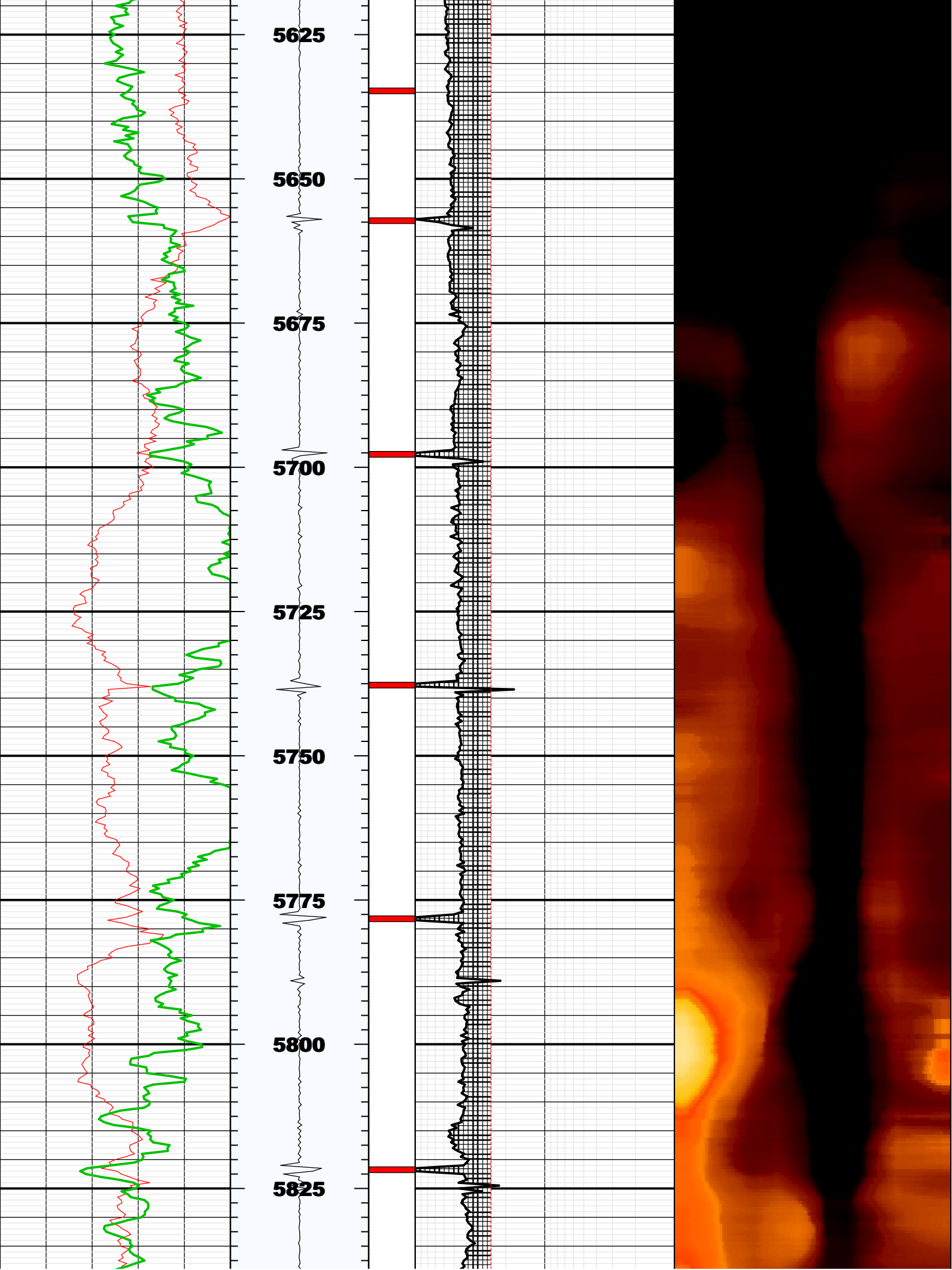




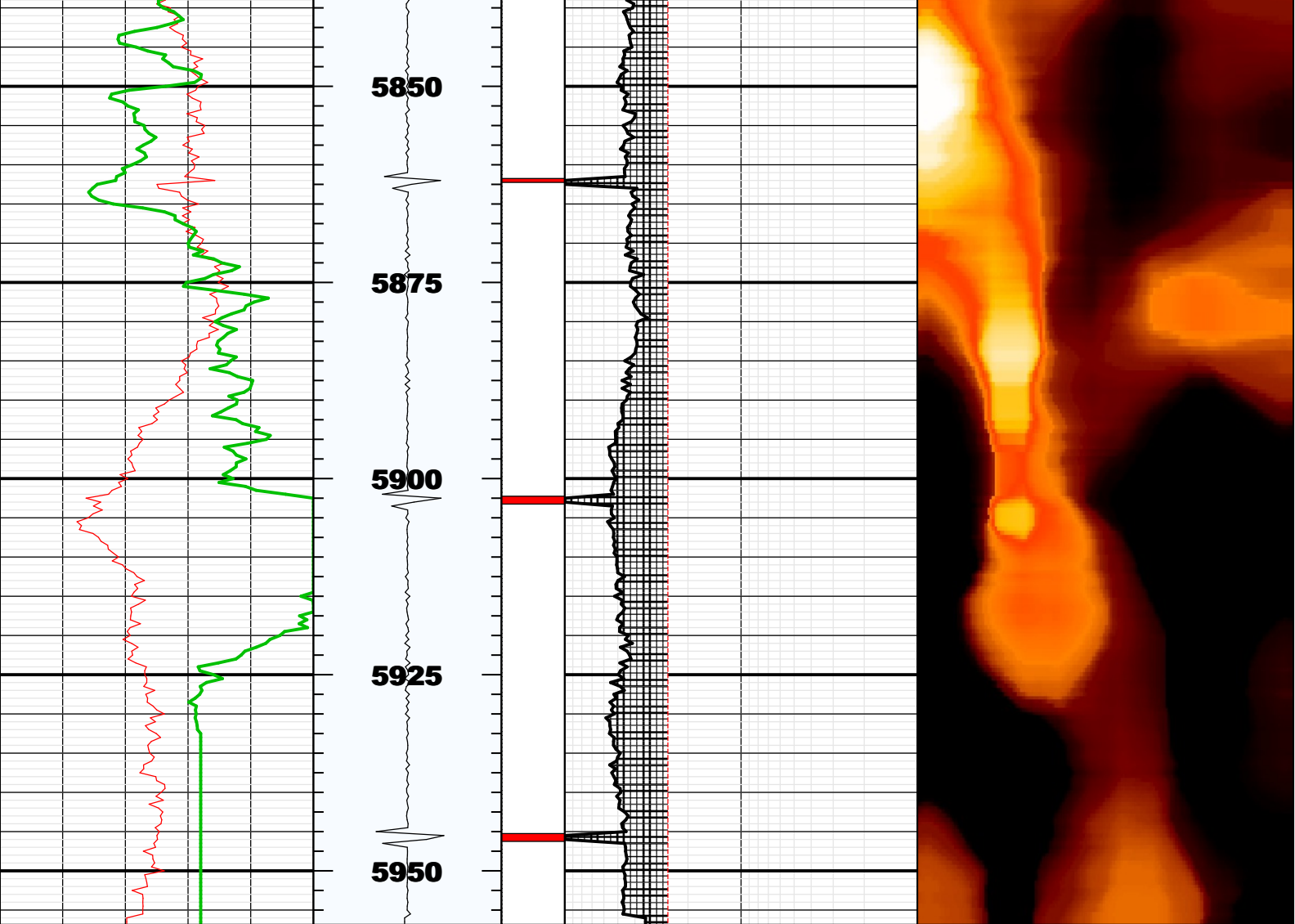








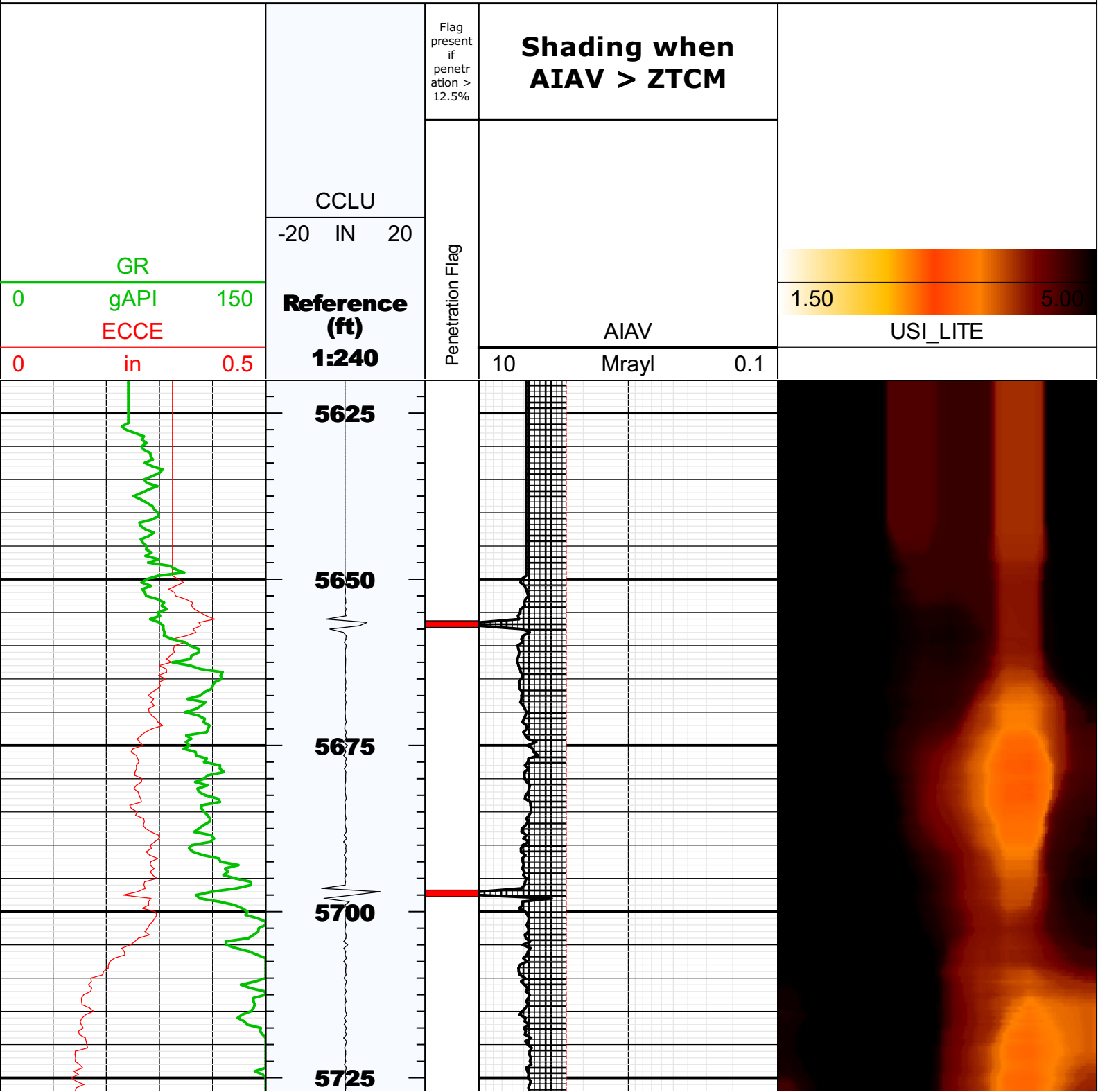




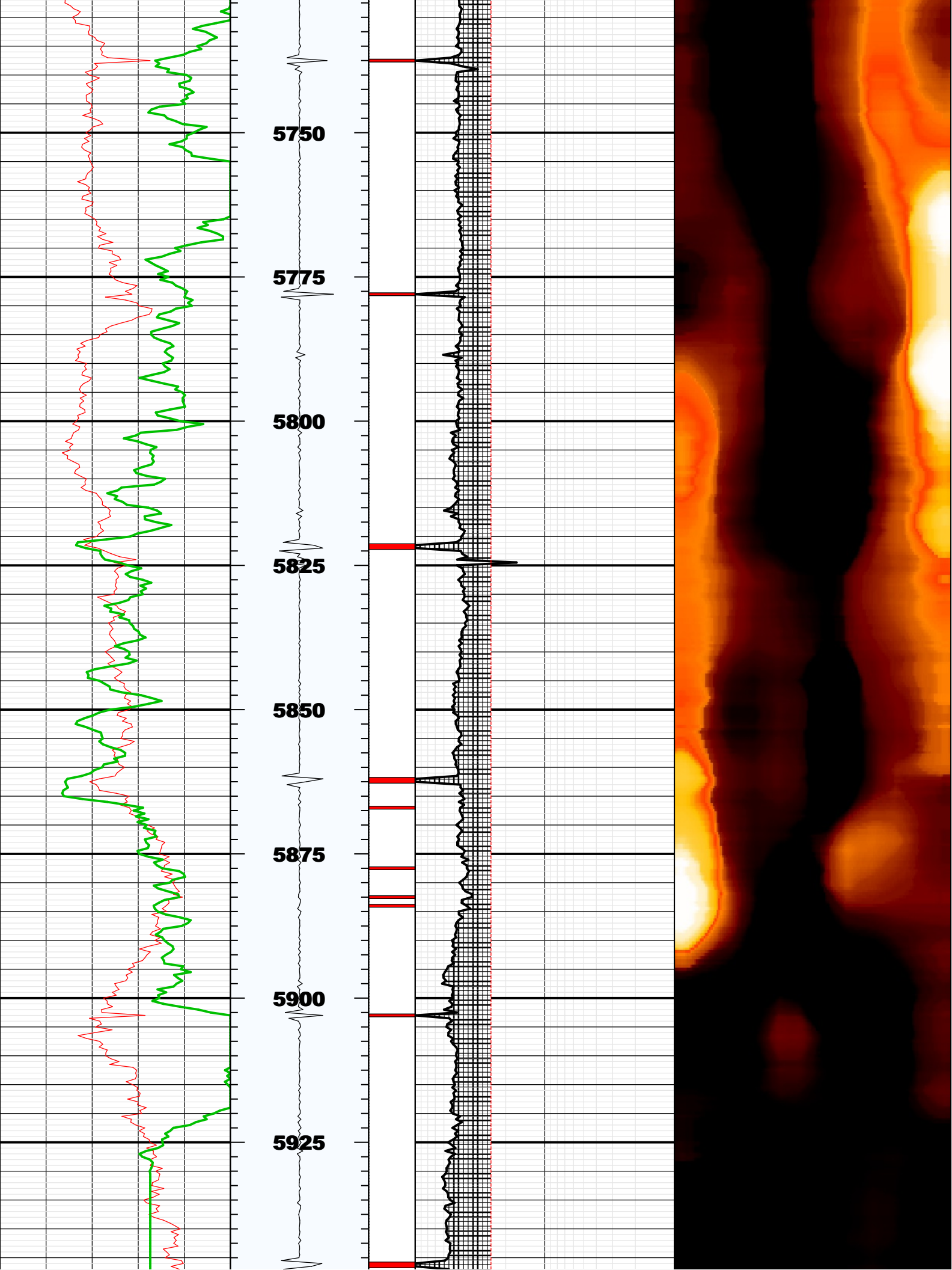
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.50000	LB/G	Drilling Fluid Density
DFVL	206.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	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	42.86486	US	Window Begin Time
WINE	65.96787	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.74000	MRAY	Acoustic Impedance of Mud
ZTCM	2.60000	MRAY	Acoustic Impedance Threshold for Cement
ZTGS	0.30000	MRAY	Acoustic Impedance Threshold for Gas
WLEN	15.36685	US	T <sup>^</sup> 3 Processing Length

Repeat Pass

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## Fluid Properties Used for Main Pass

