

Company: Noble Energy Inc

Well: Elway State LD01-75HN
Field: Wildcat
County: Weld State: Colorado

County: Weld		USI-LITE (2500 psi)				
Field: Wildcat						
Location: SWSE Sec.1 T9N R58W						
Well: Elway State LD01-75HN						
Company: Noble Energy Inc						
LOCATION		Permanent Datum: Log Measured From: Drilling Measured From:	GL KB KB	Elev: K.B. 4657.0 F G.L. 4633.0 F D.F. 4656.0 F		
API Serial No. 05-123-39686	Section 1				Township 9N	Range 58W
Logging Date 20-Dec-2014	Run 1					
Run Number						
Depth Driller	5851.0 F					
Schlumberger Depth	5851.0 F					
Bottom Log Interval	5704.0 F					
Top Log Interval	15.0 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	1220.0 F					
To	5851.0 F					
Casing Size	7.00 IN					
Weight	26.00 LB/F					
Grade	P110					
From	0.0 F					
To	5840.2 F					
Max Recorded Temp	216.9					
Logger on bottom (date)	20-Dec-2014					
Location	Ft. Morgan CO					
Recorded By	Aleksei Bekhterev					
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: 17000.00000

DISCLAIMER

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13.6 ppg single slurry cement

Top of the cement 1160 ft

Repeat pass is done with 0 psi
Main pass is done with 2500 psi

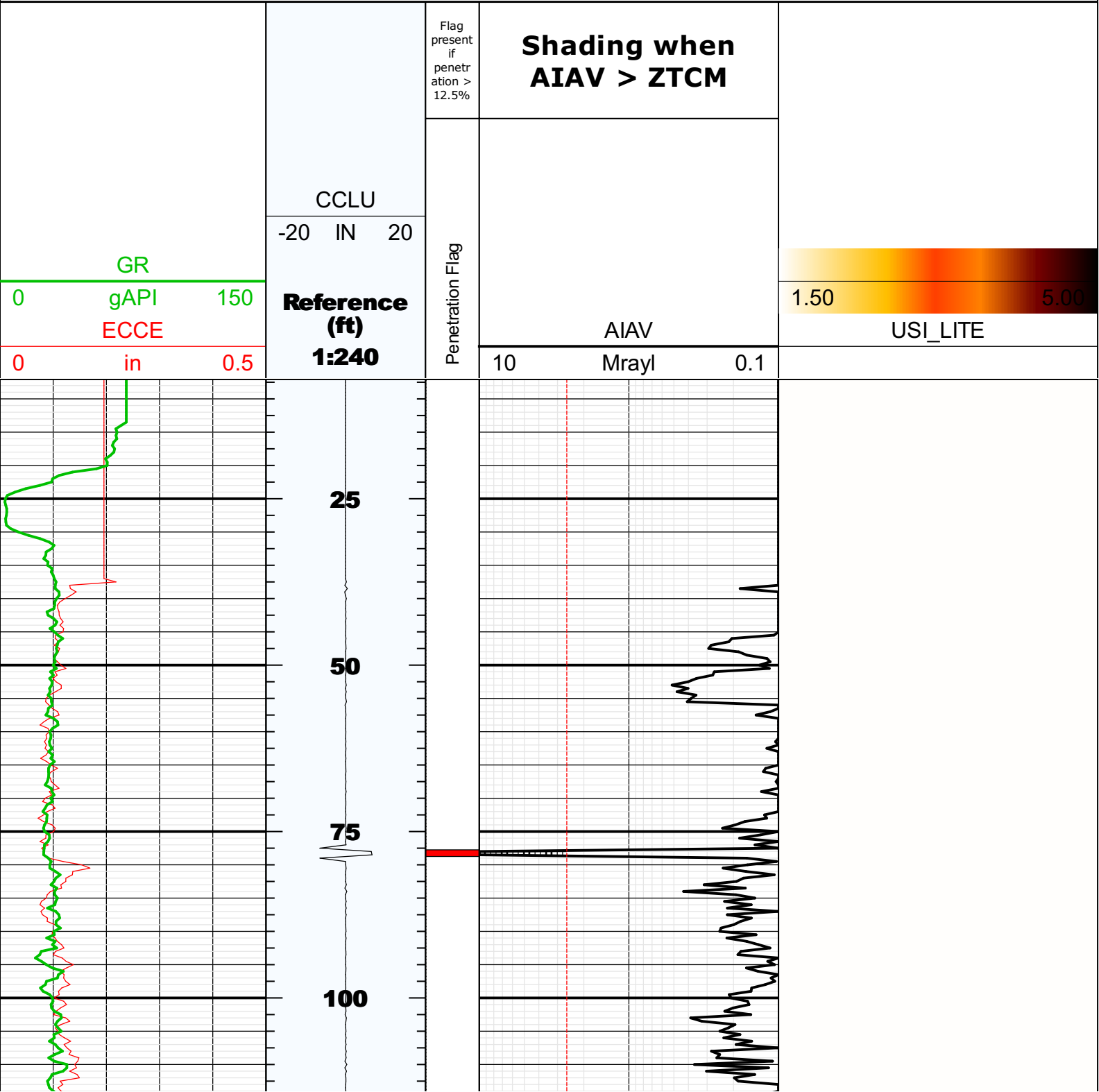
Log started 30 ft above top of the liner (5704 ft)

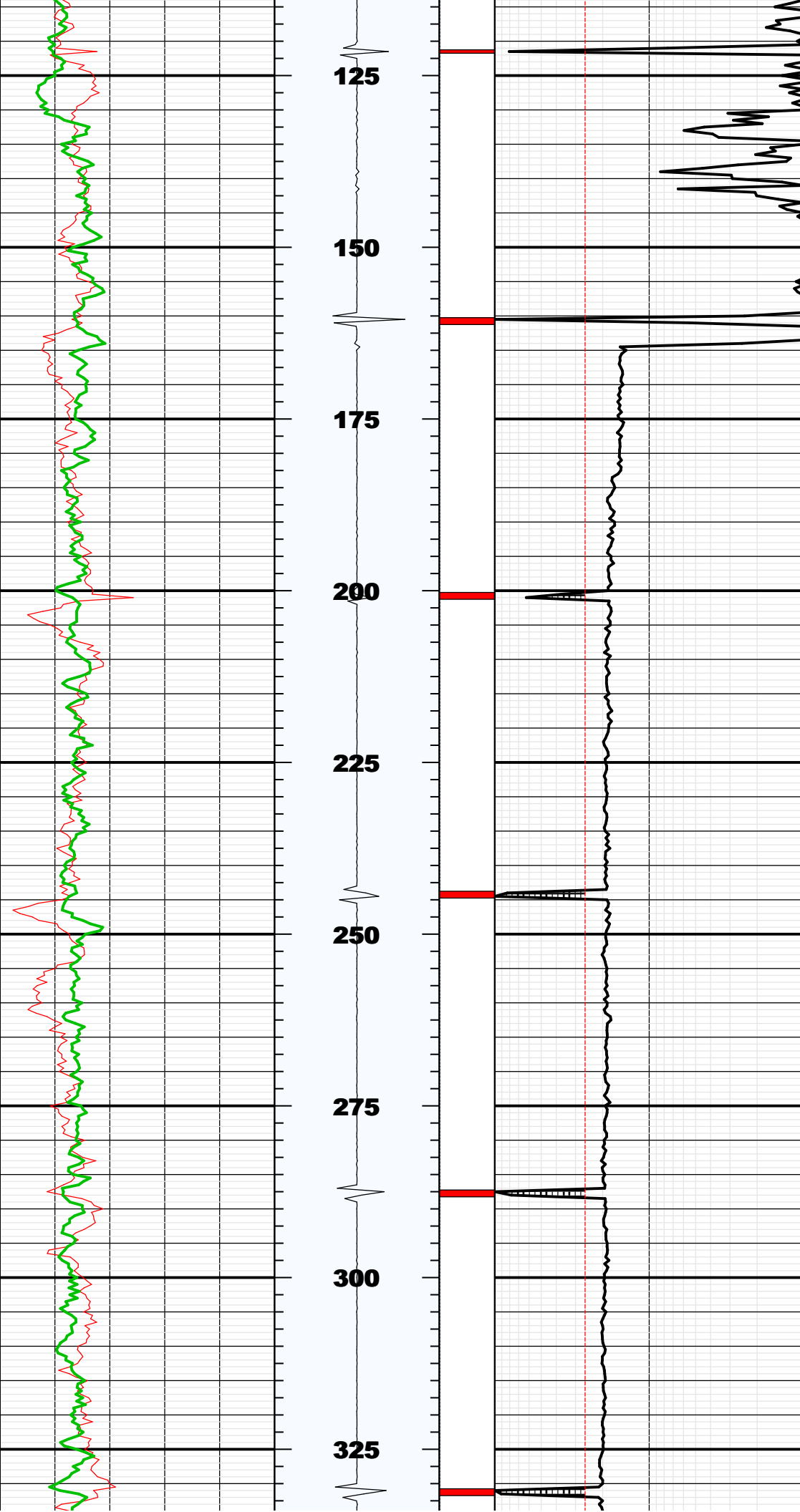
Temperature at the bottom 217 degF

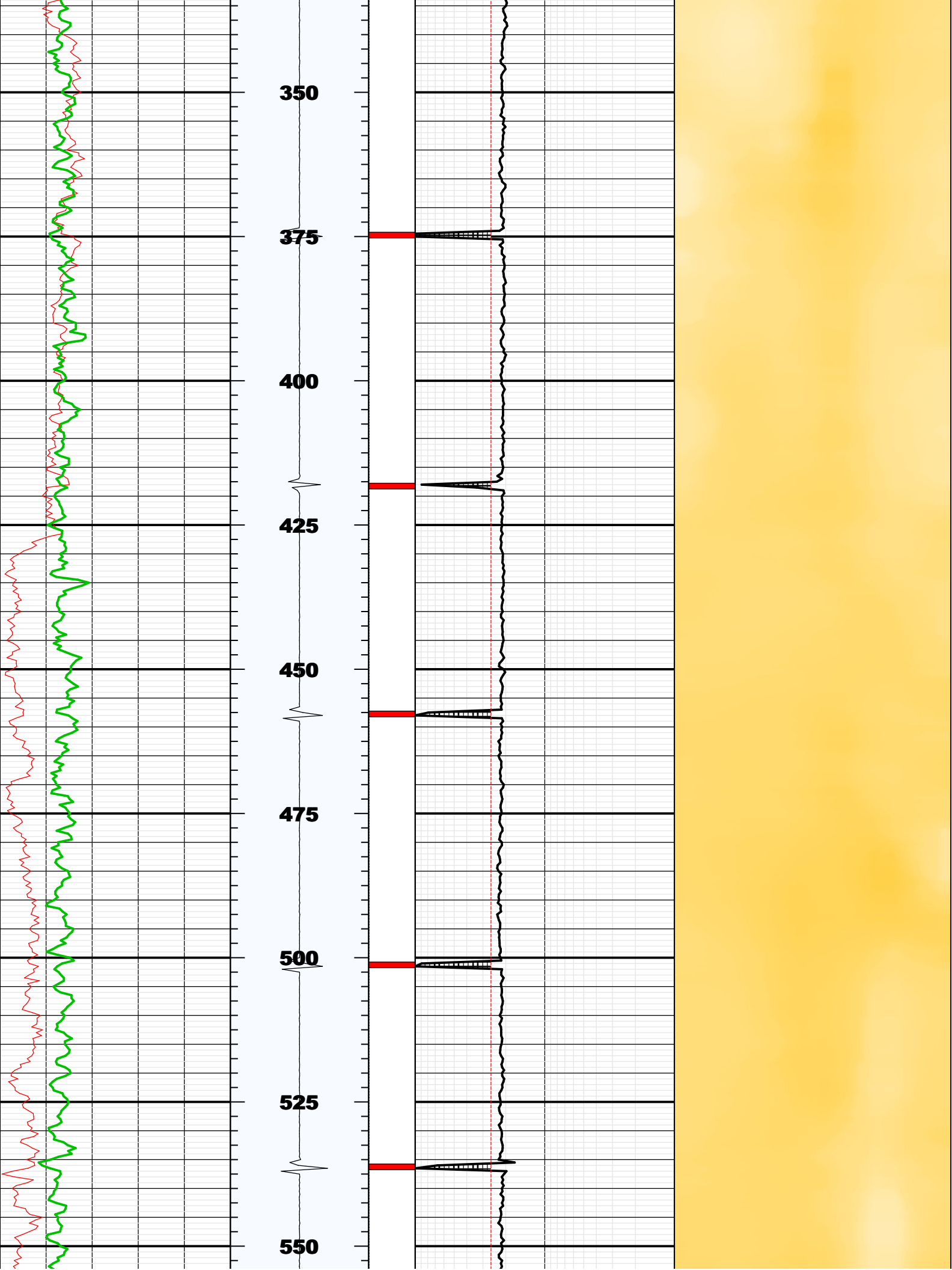
Data adversely affected by tool eccentricity in sections from 4850' to TD.

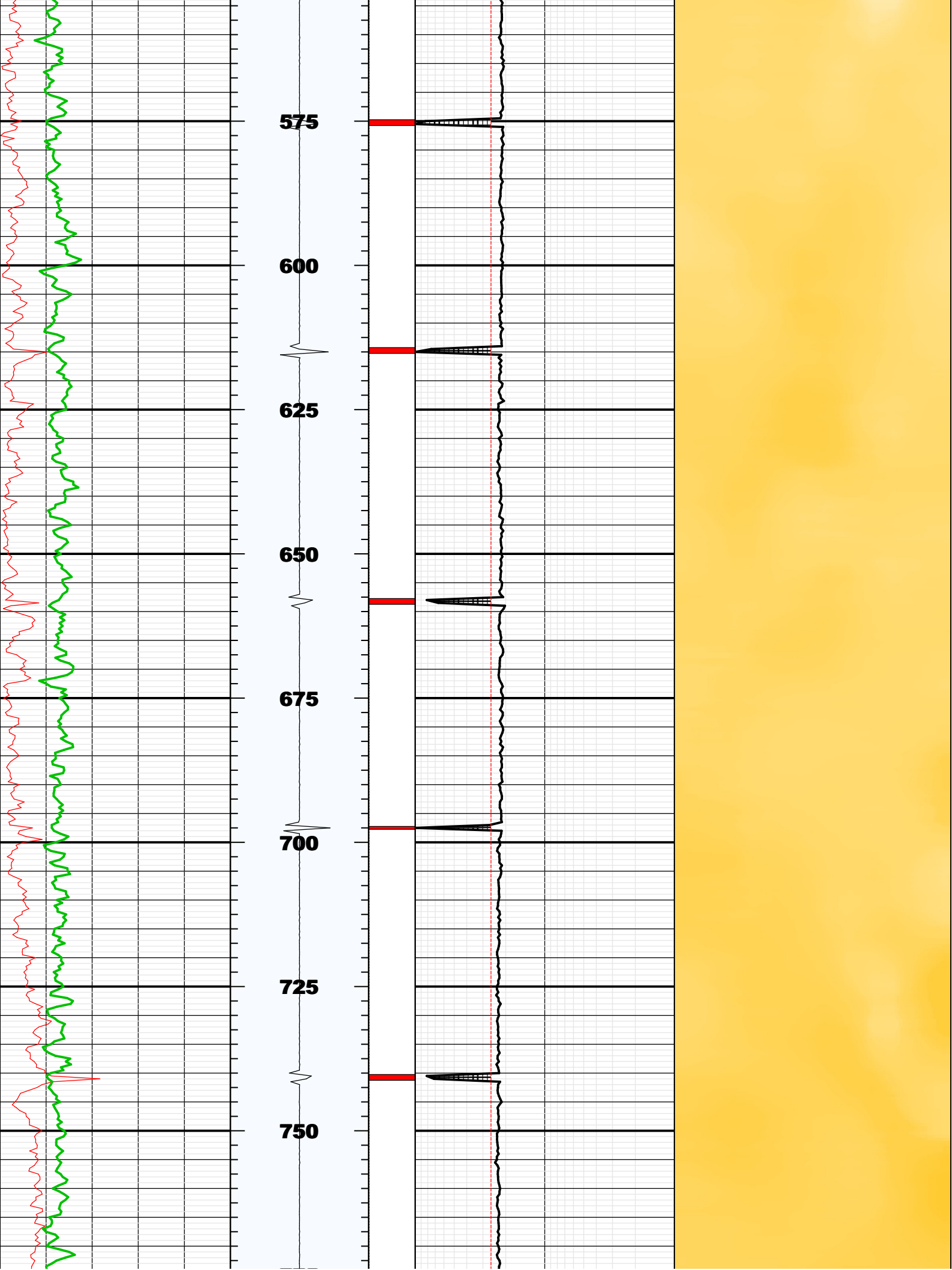
Main Pass

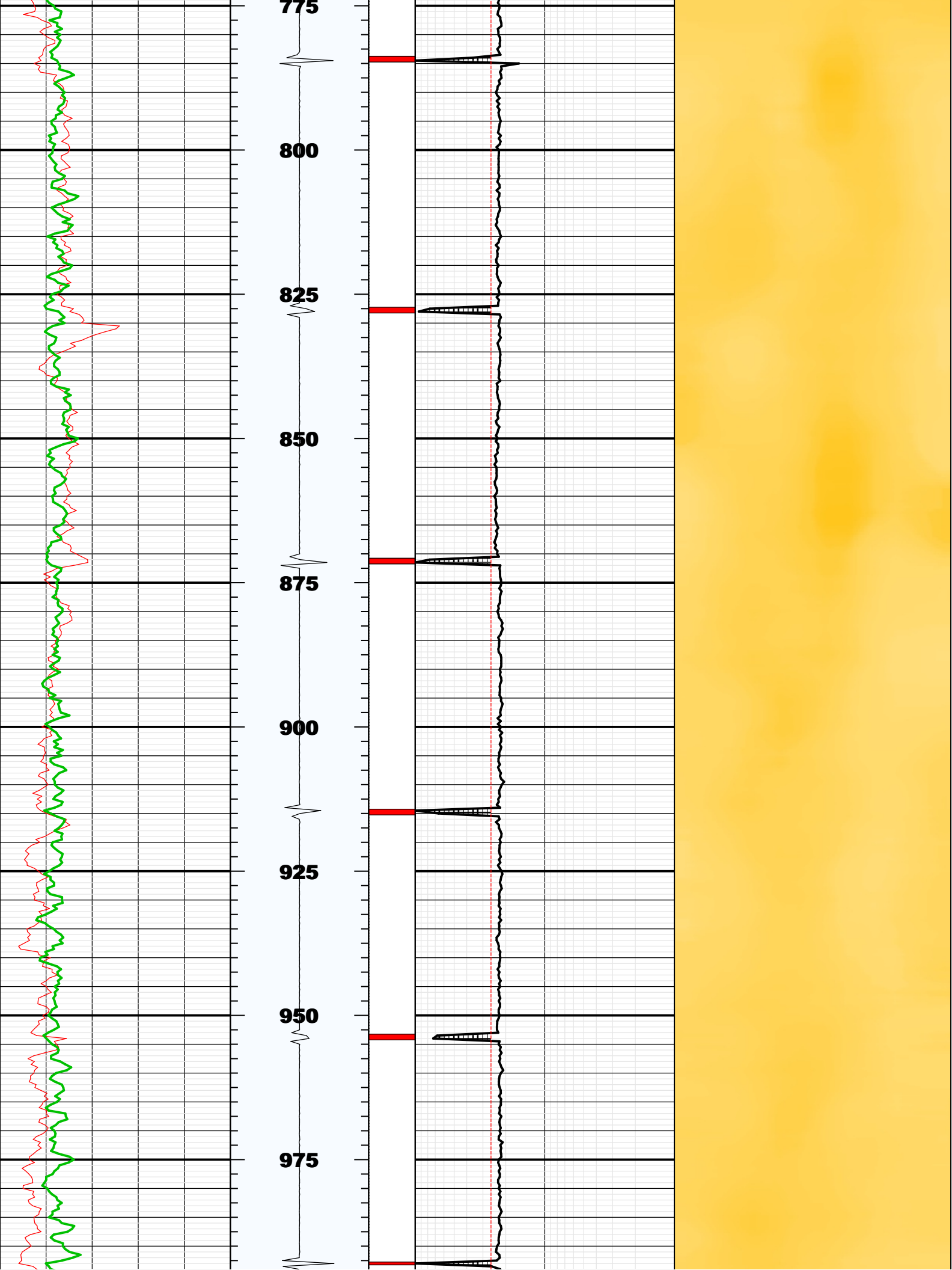
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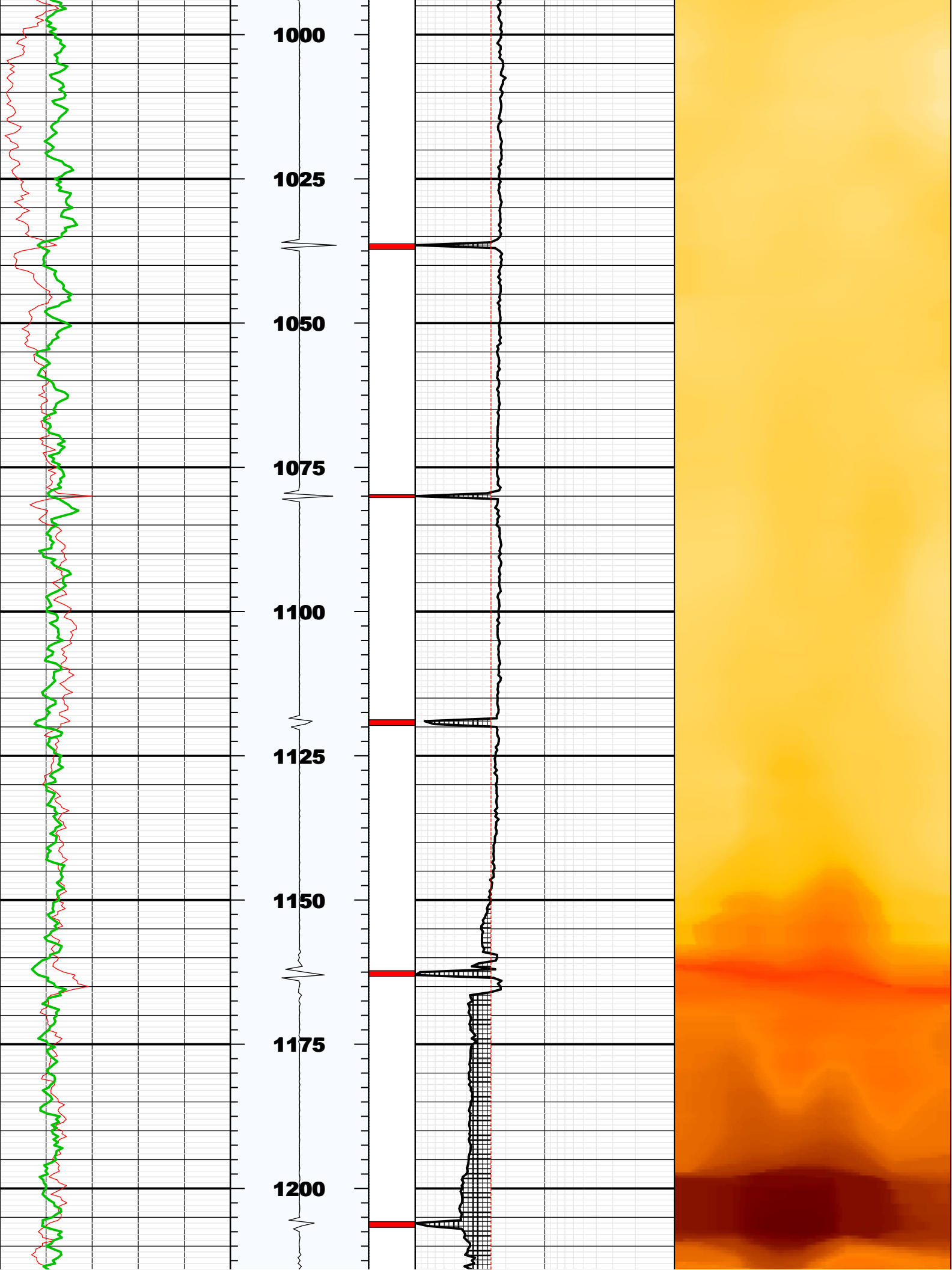


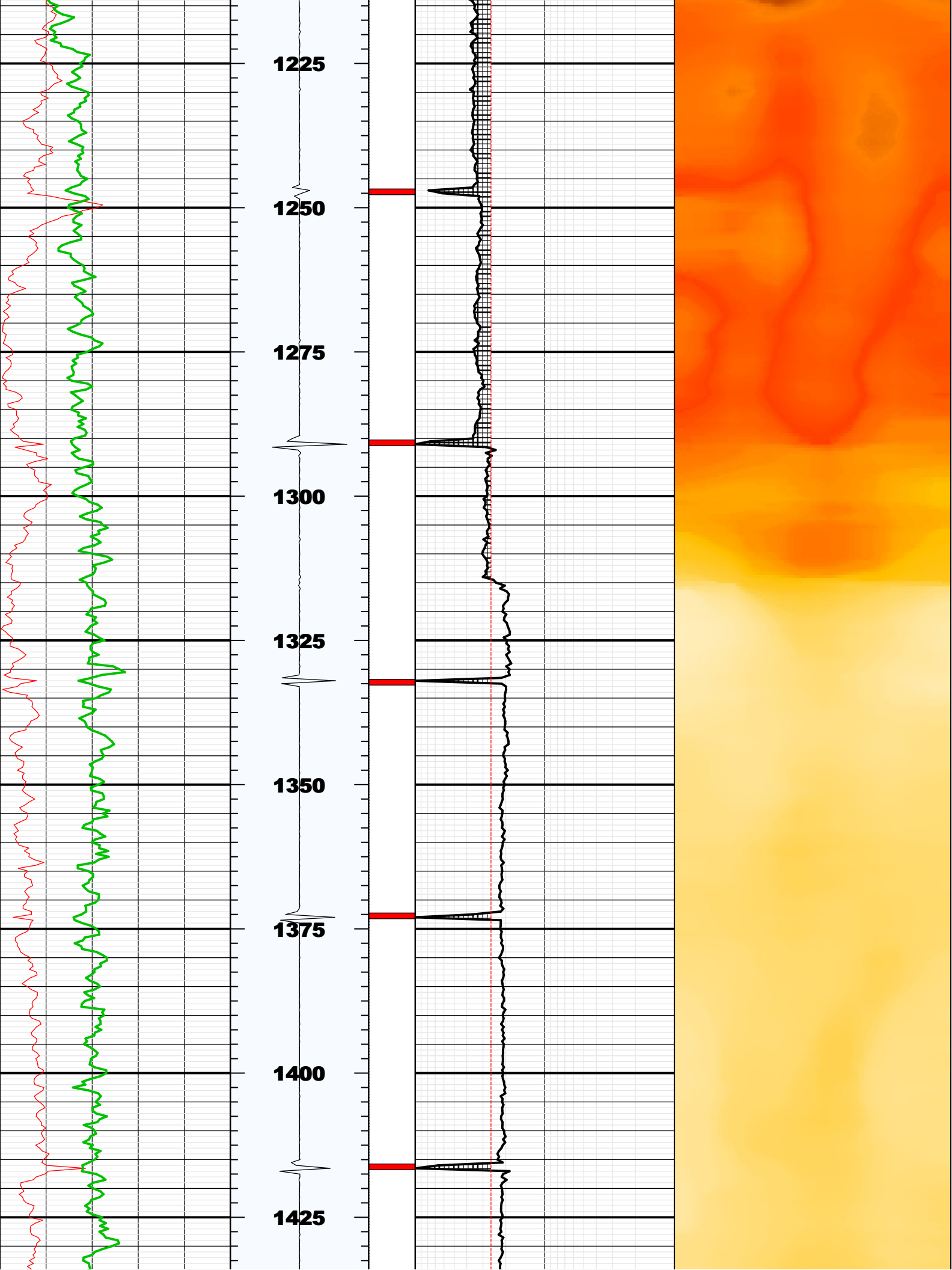


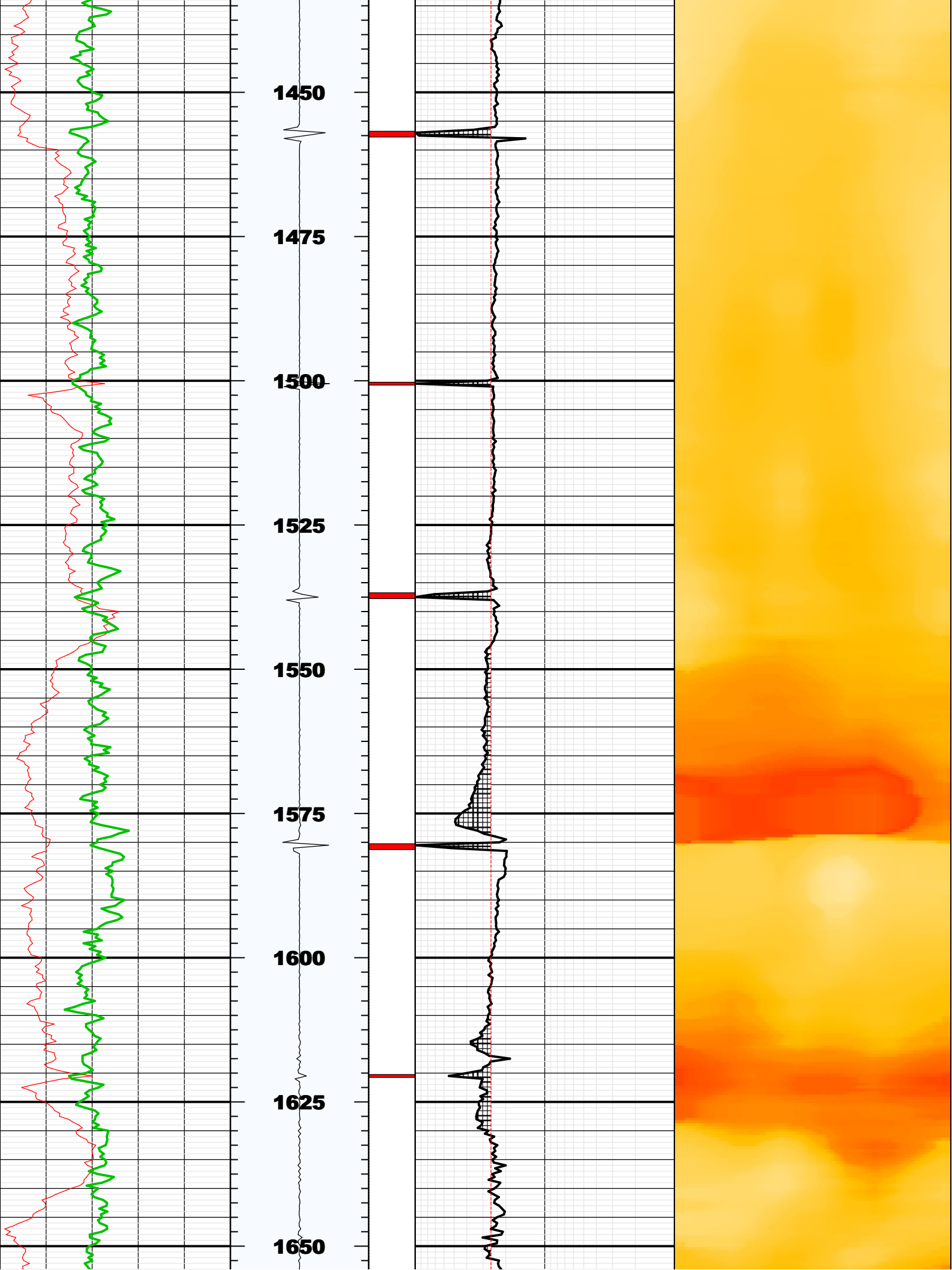


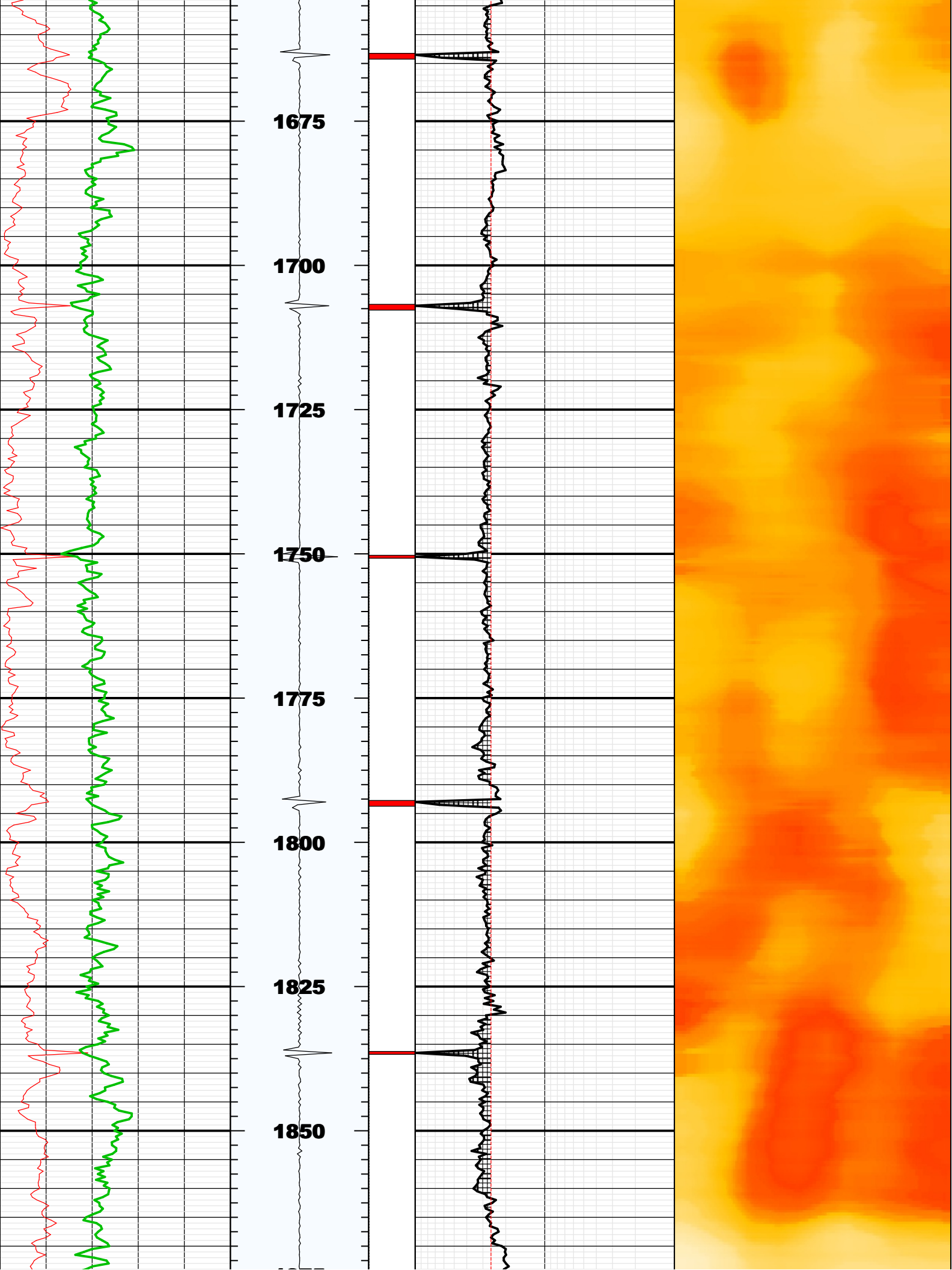


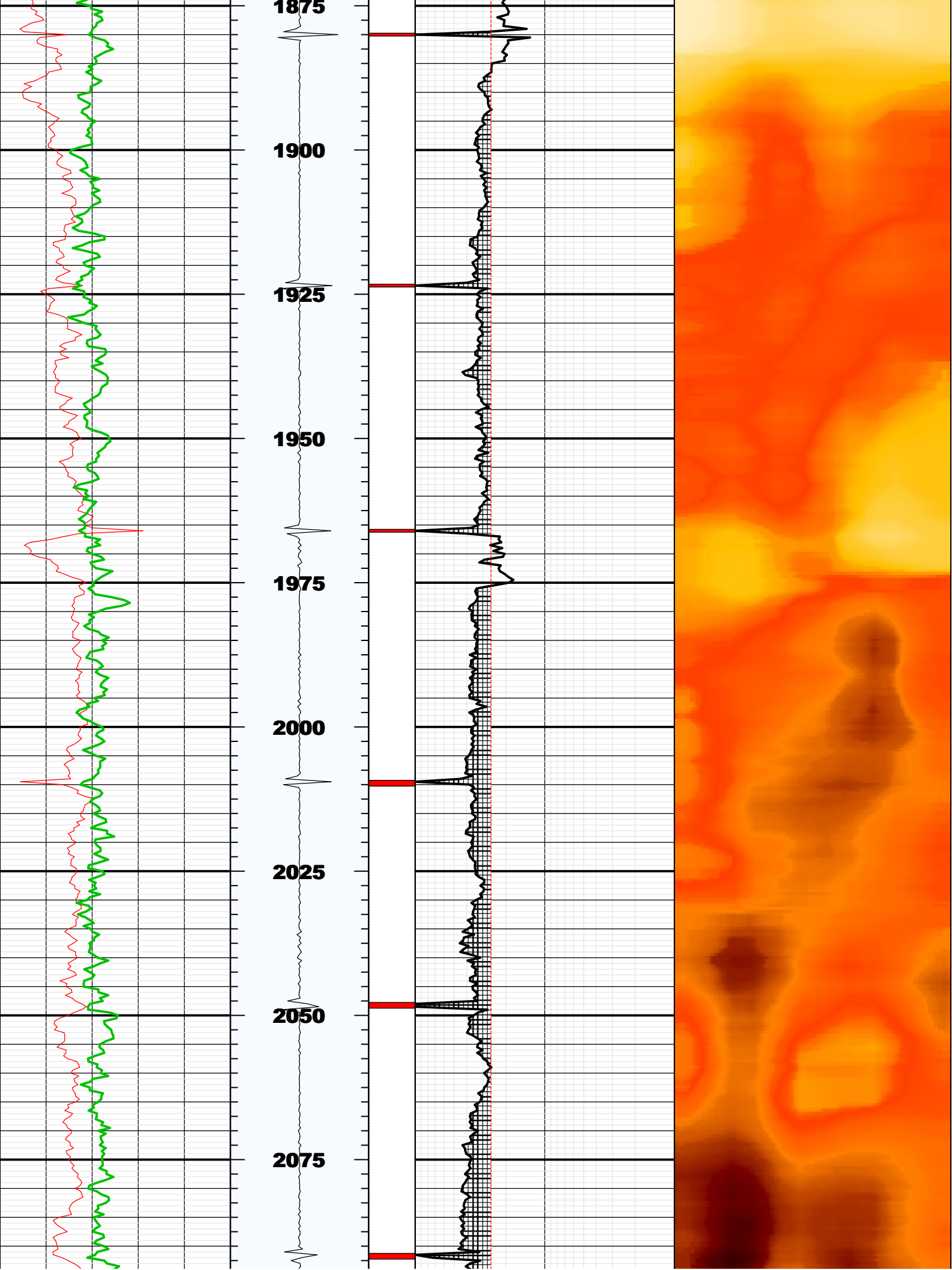


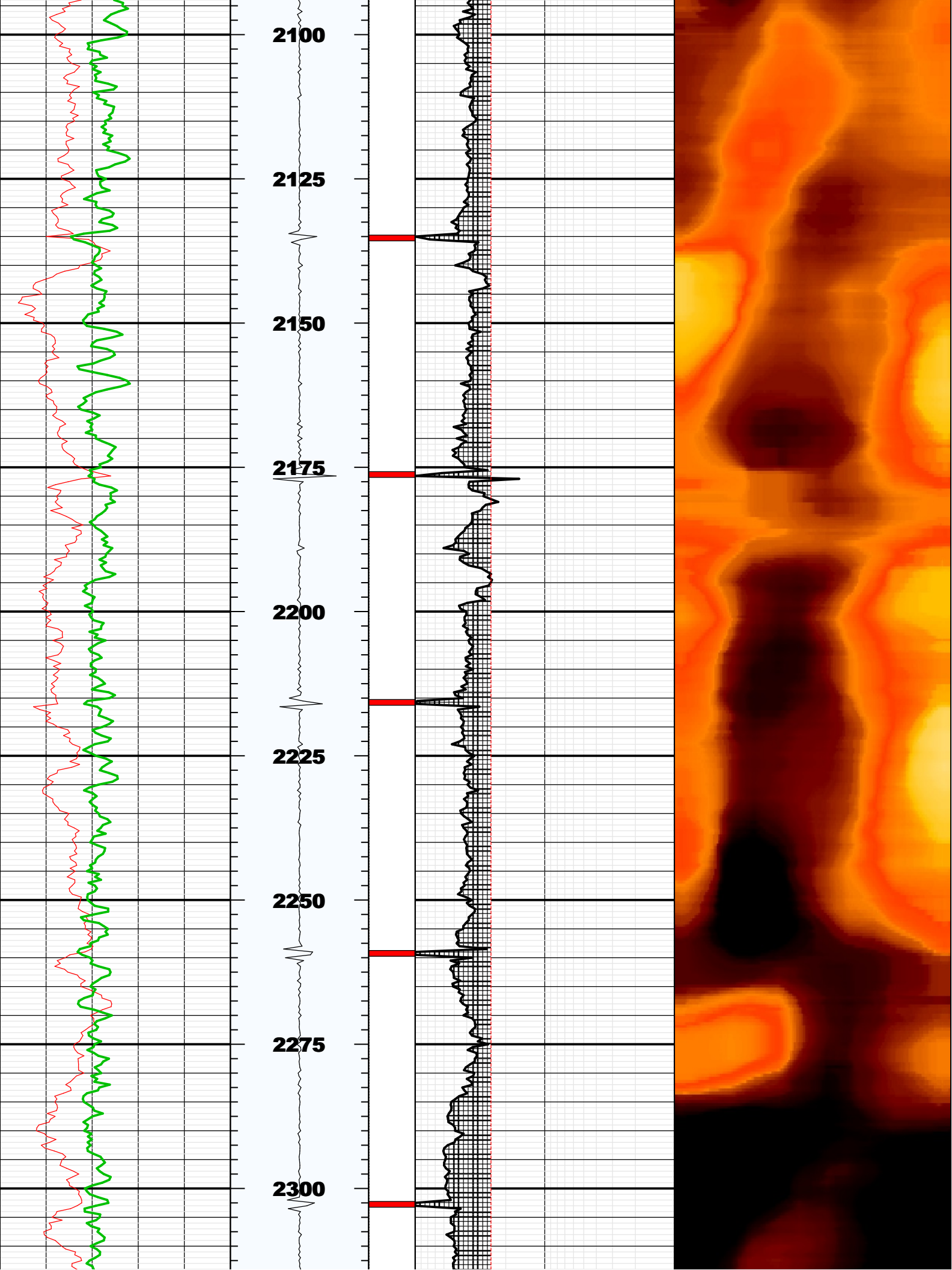


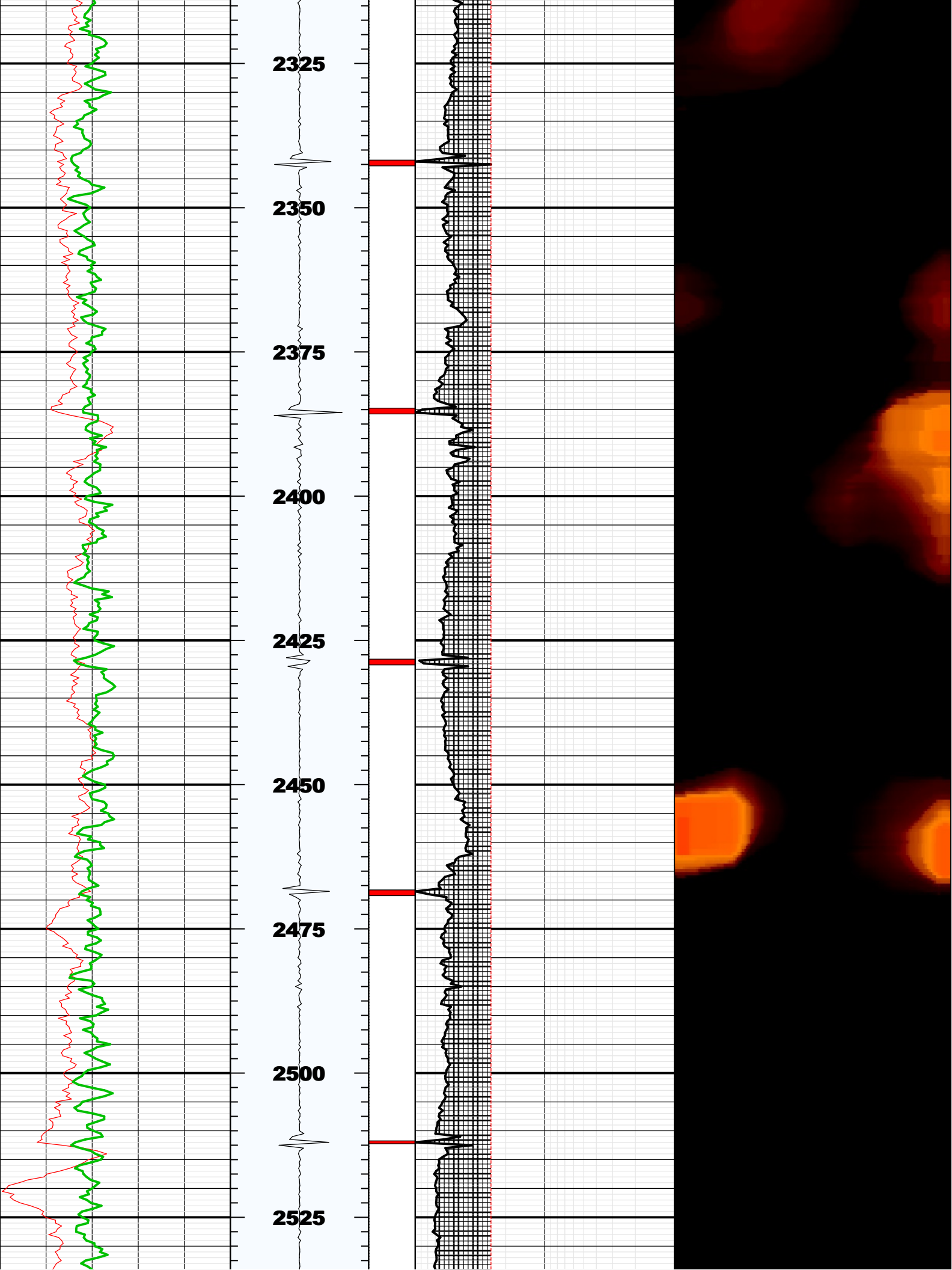


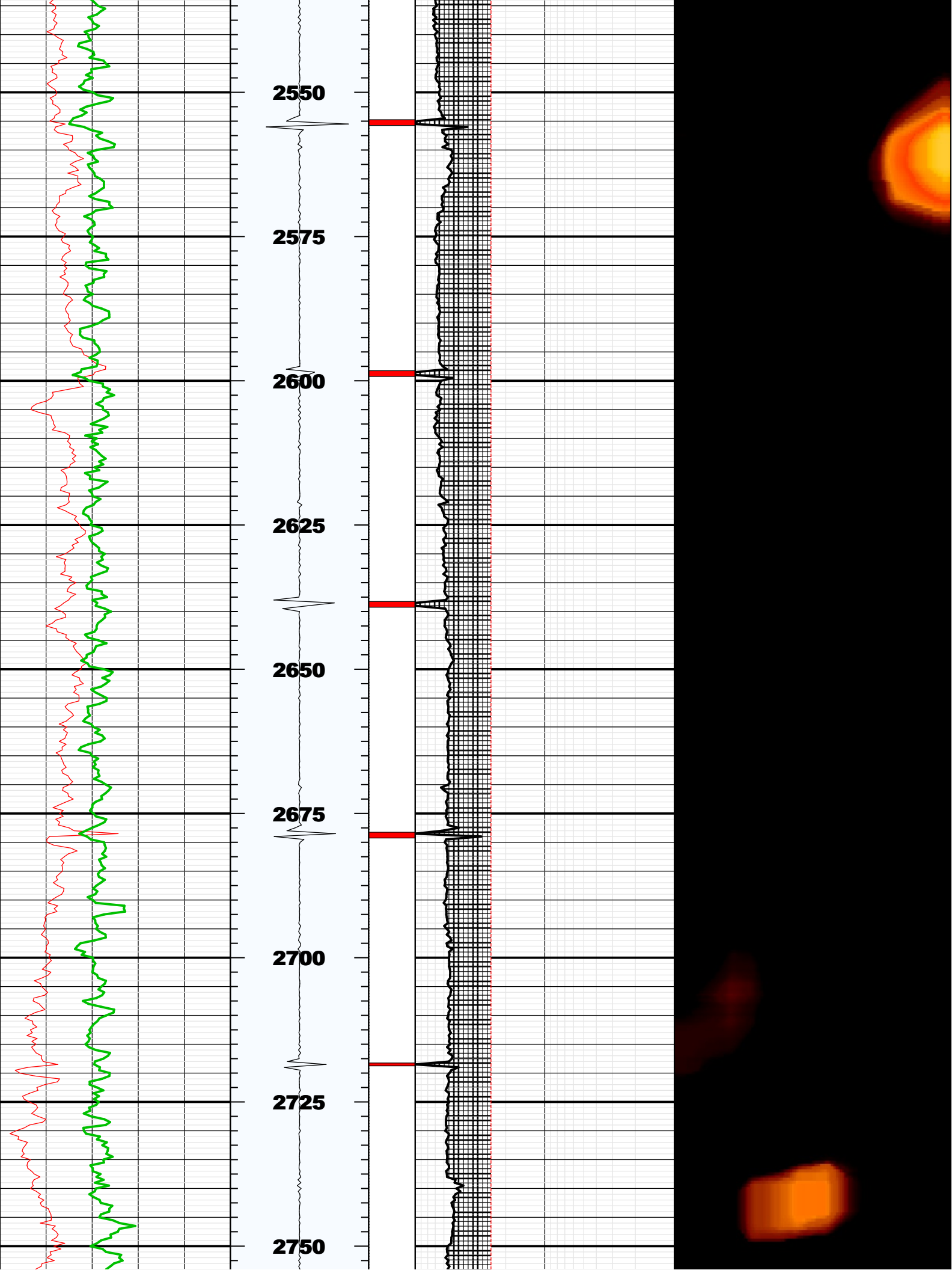


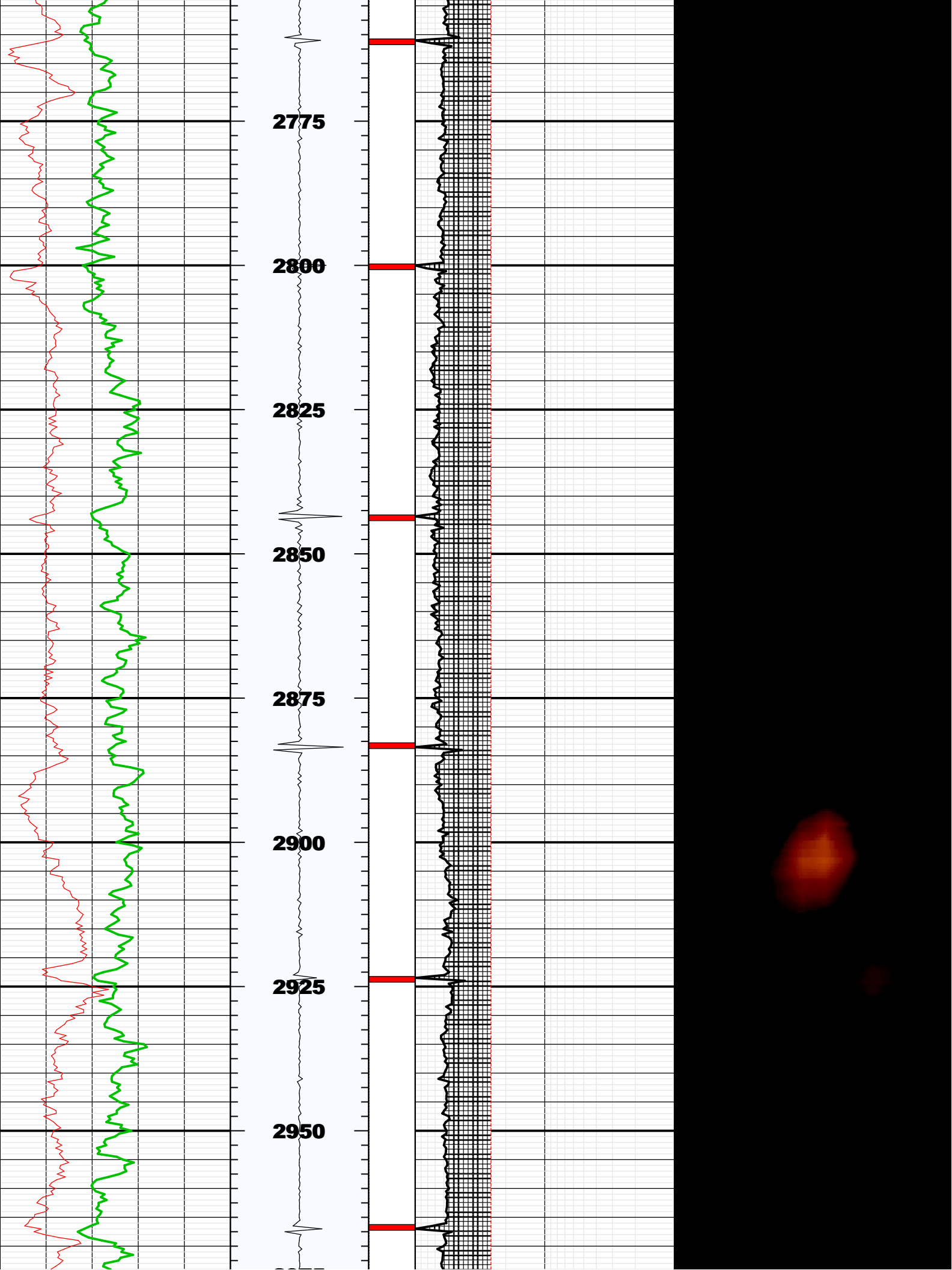


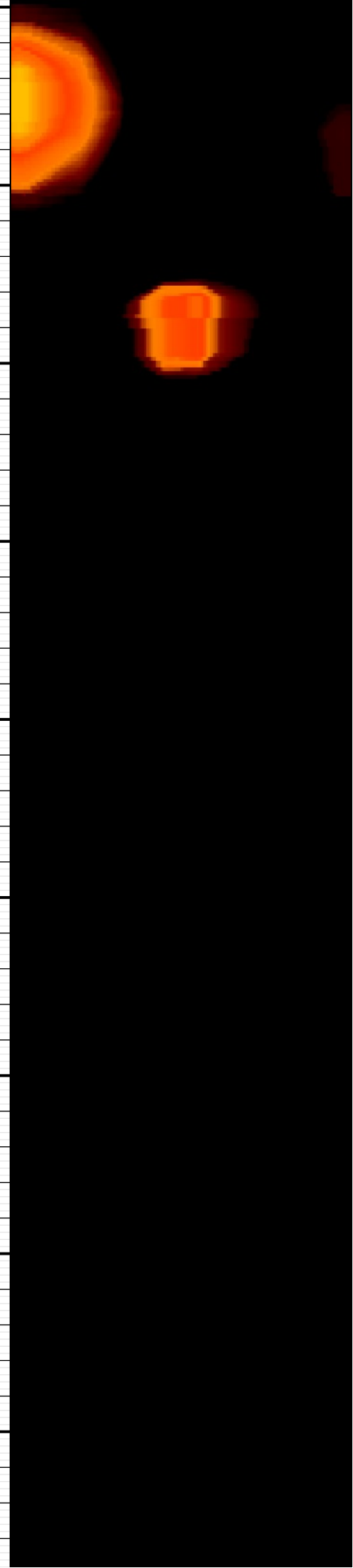
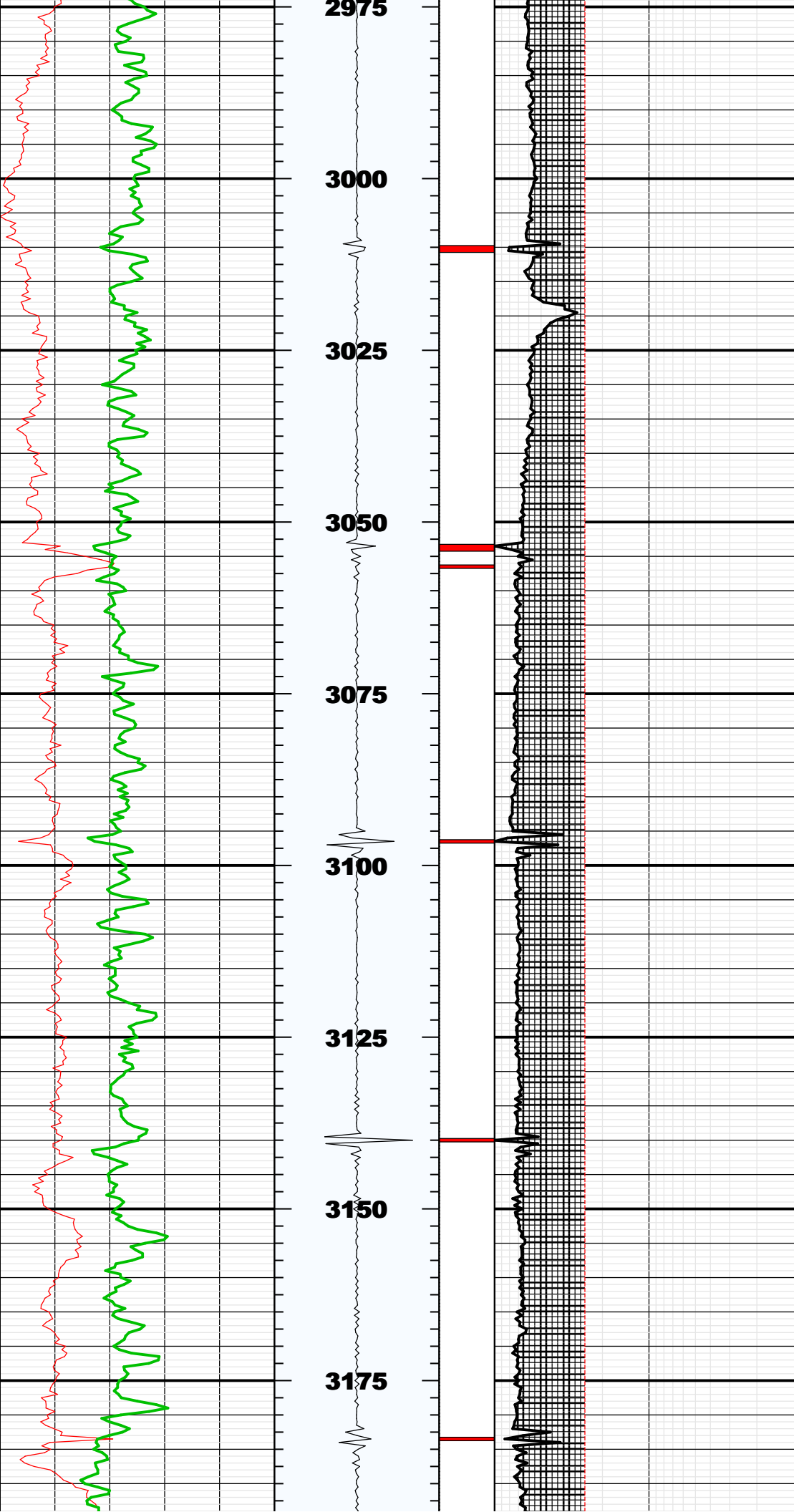


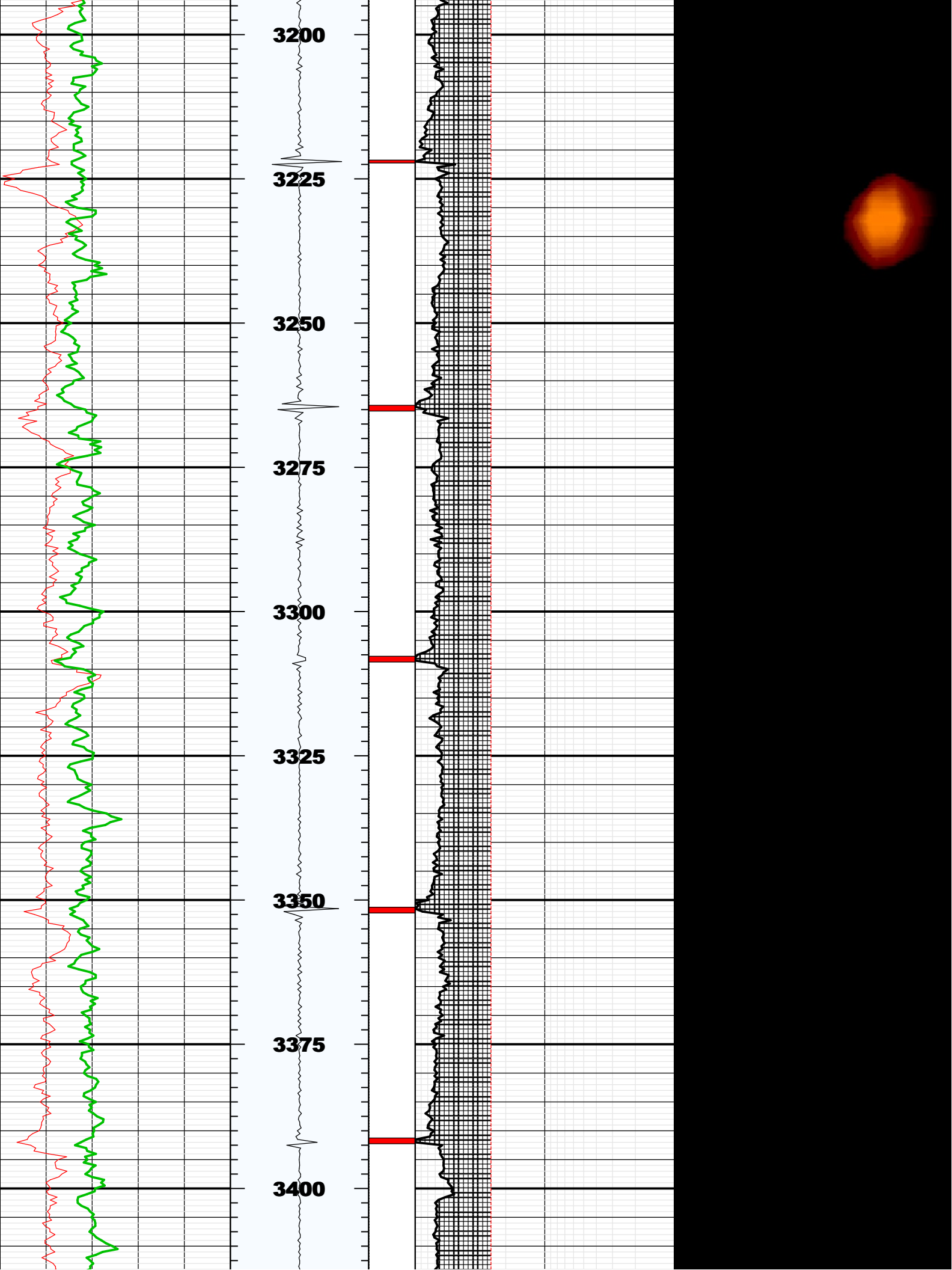


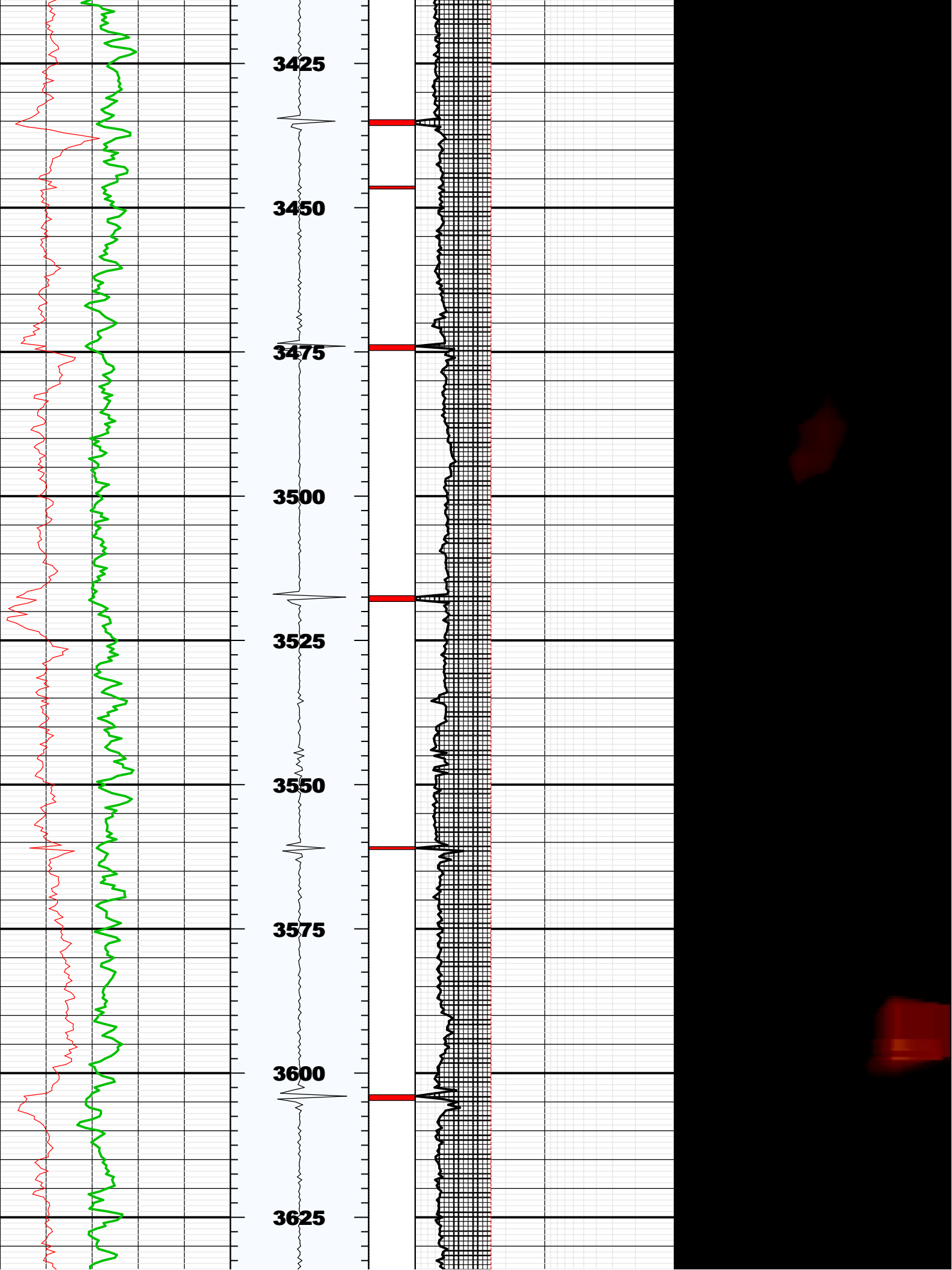


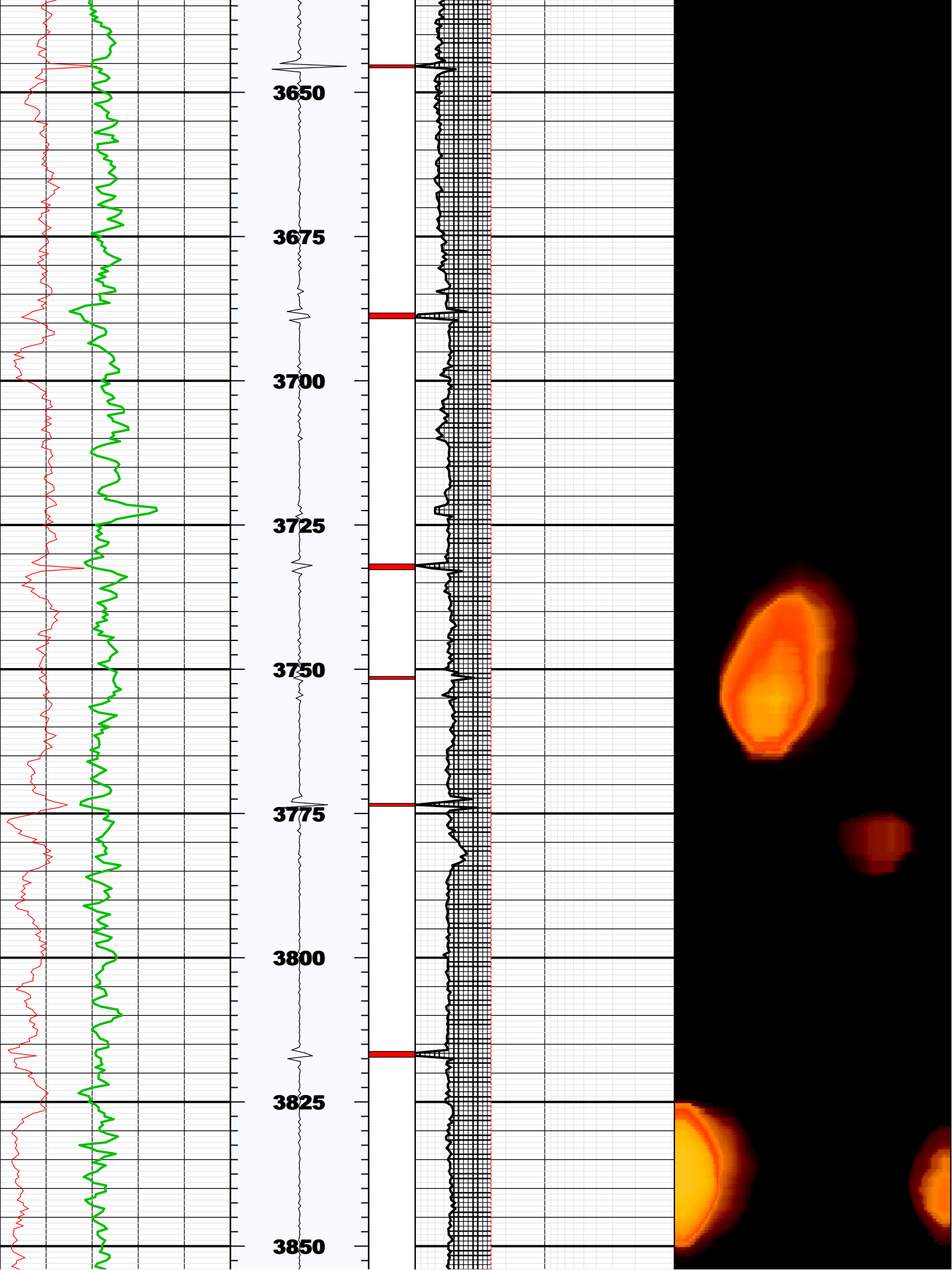


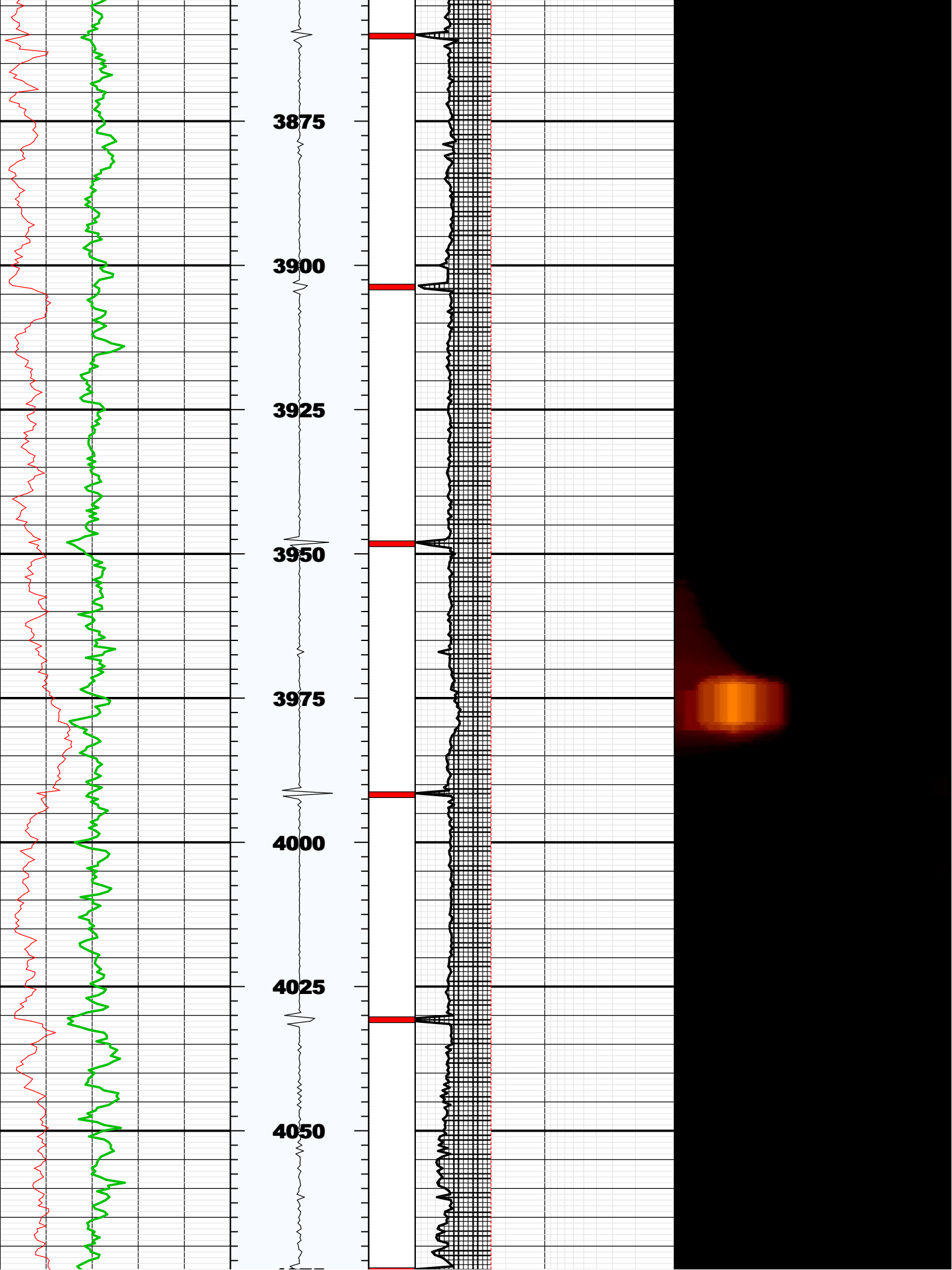


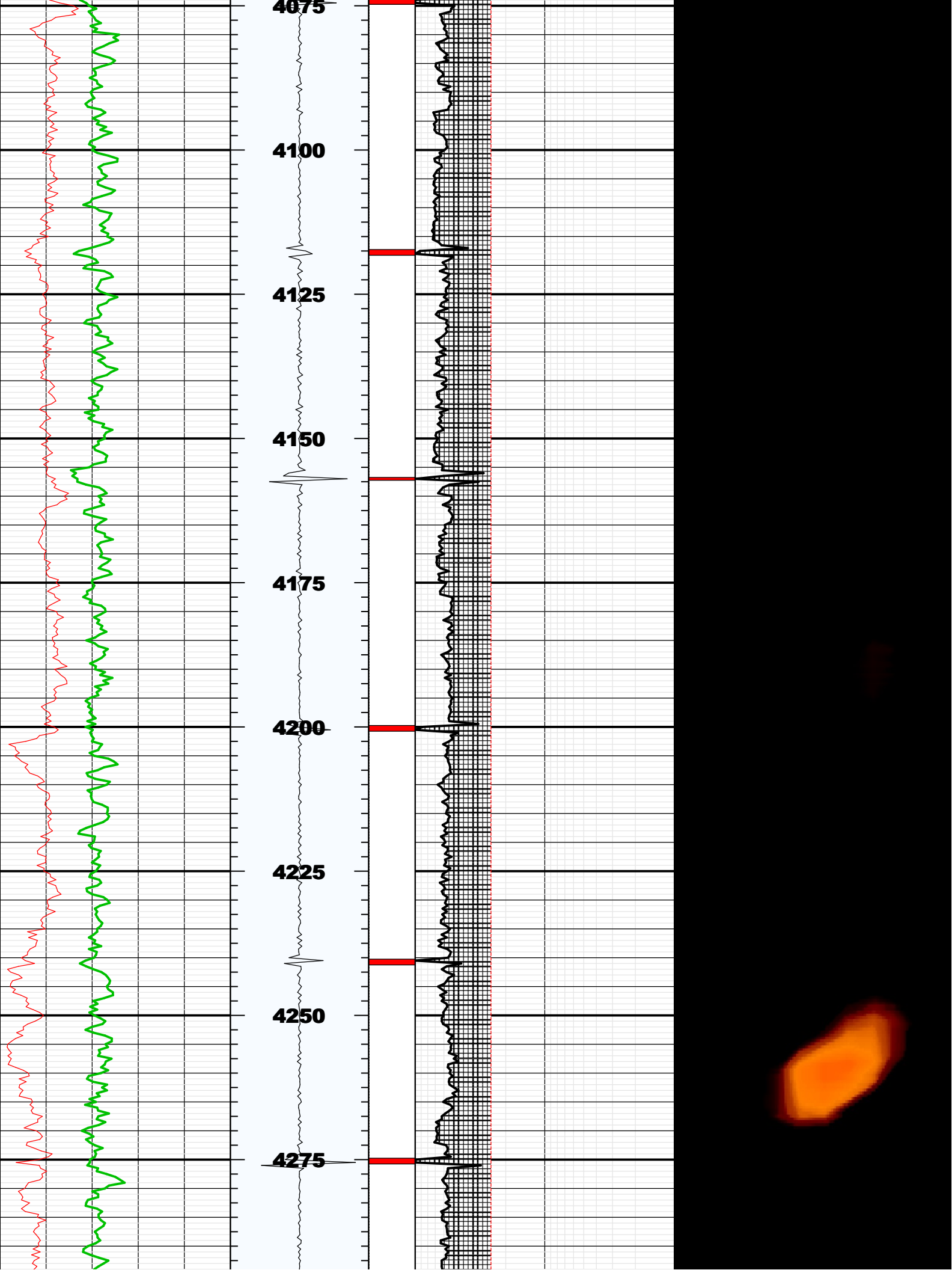


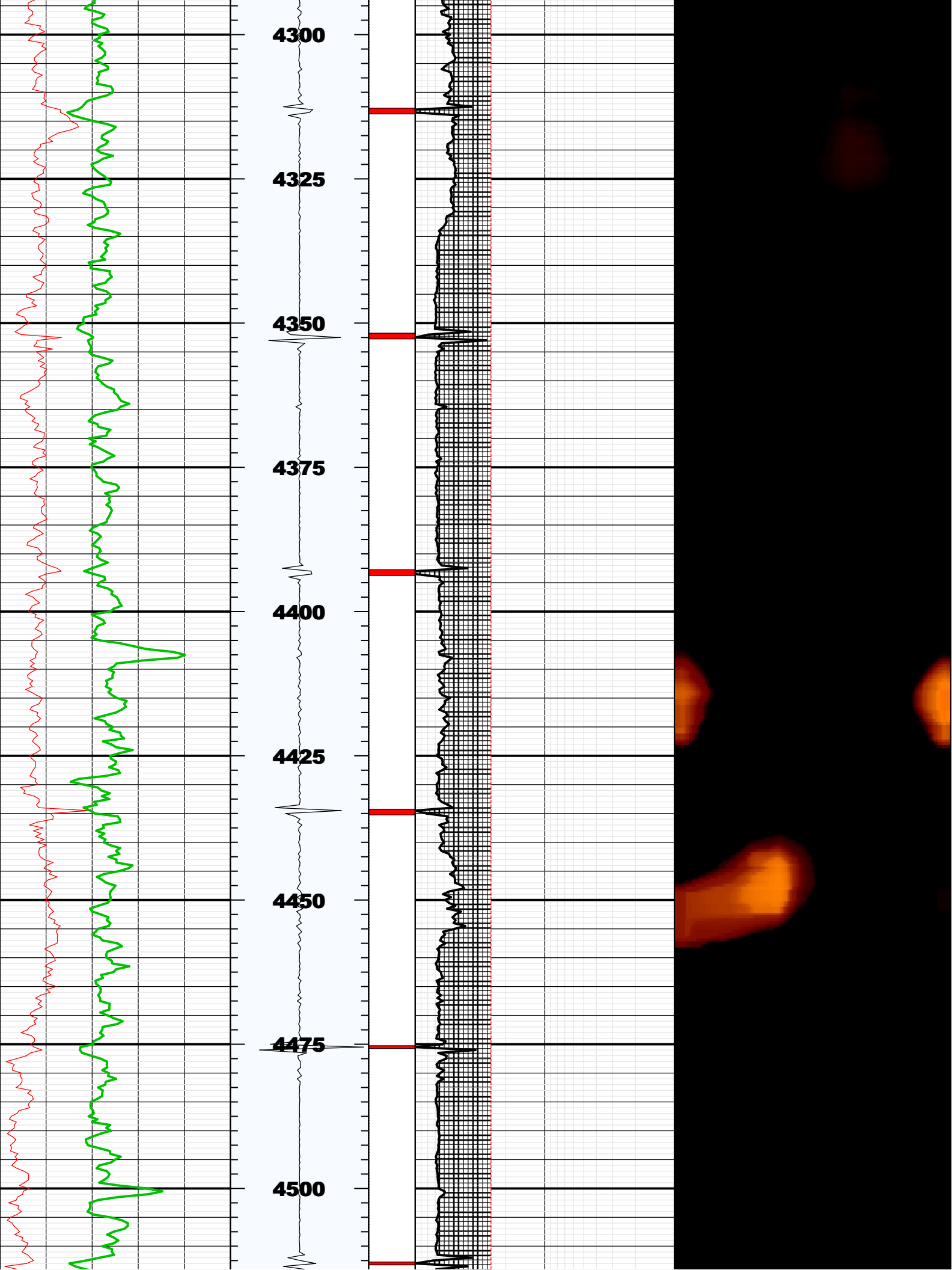


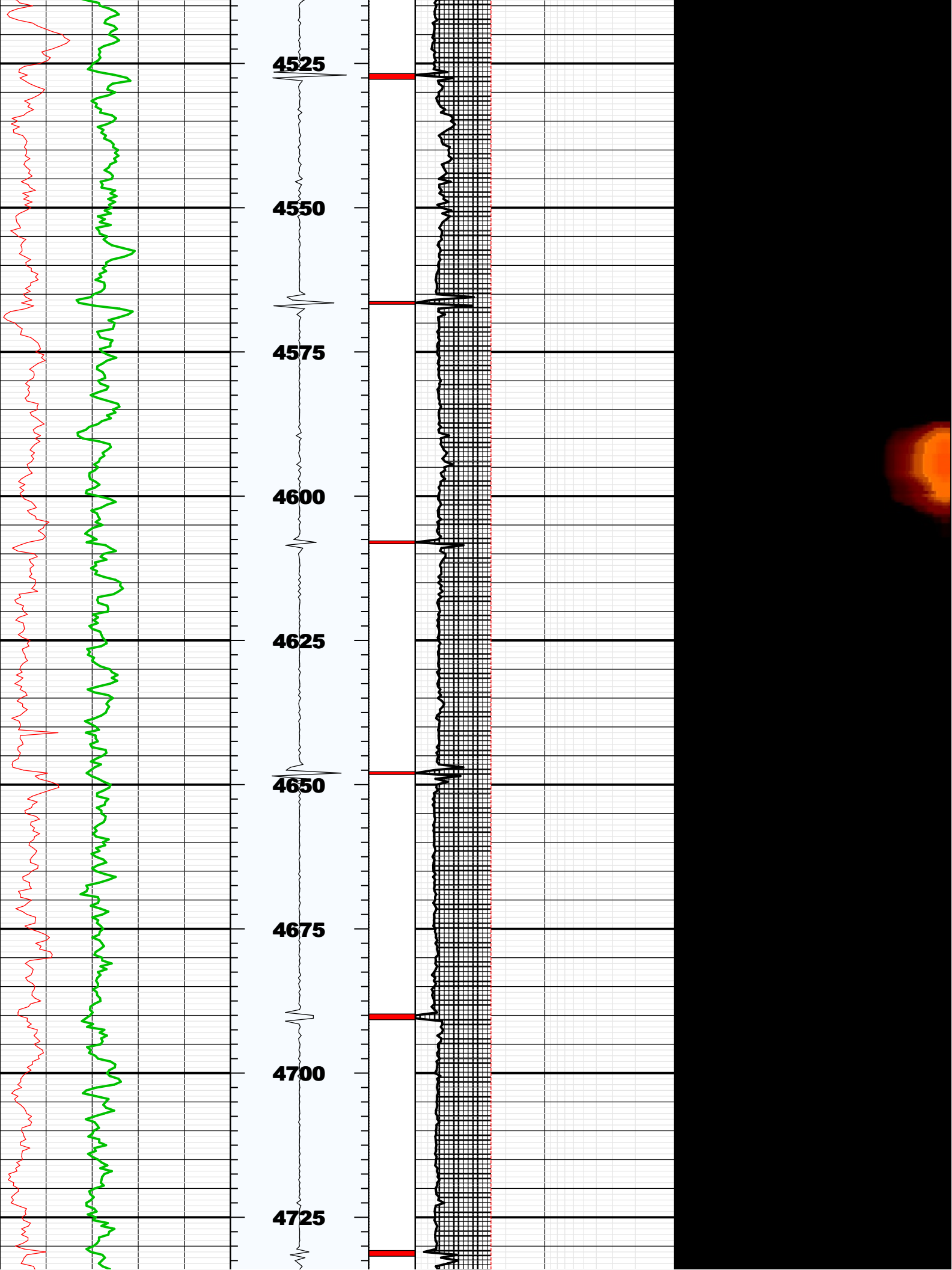


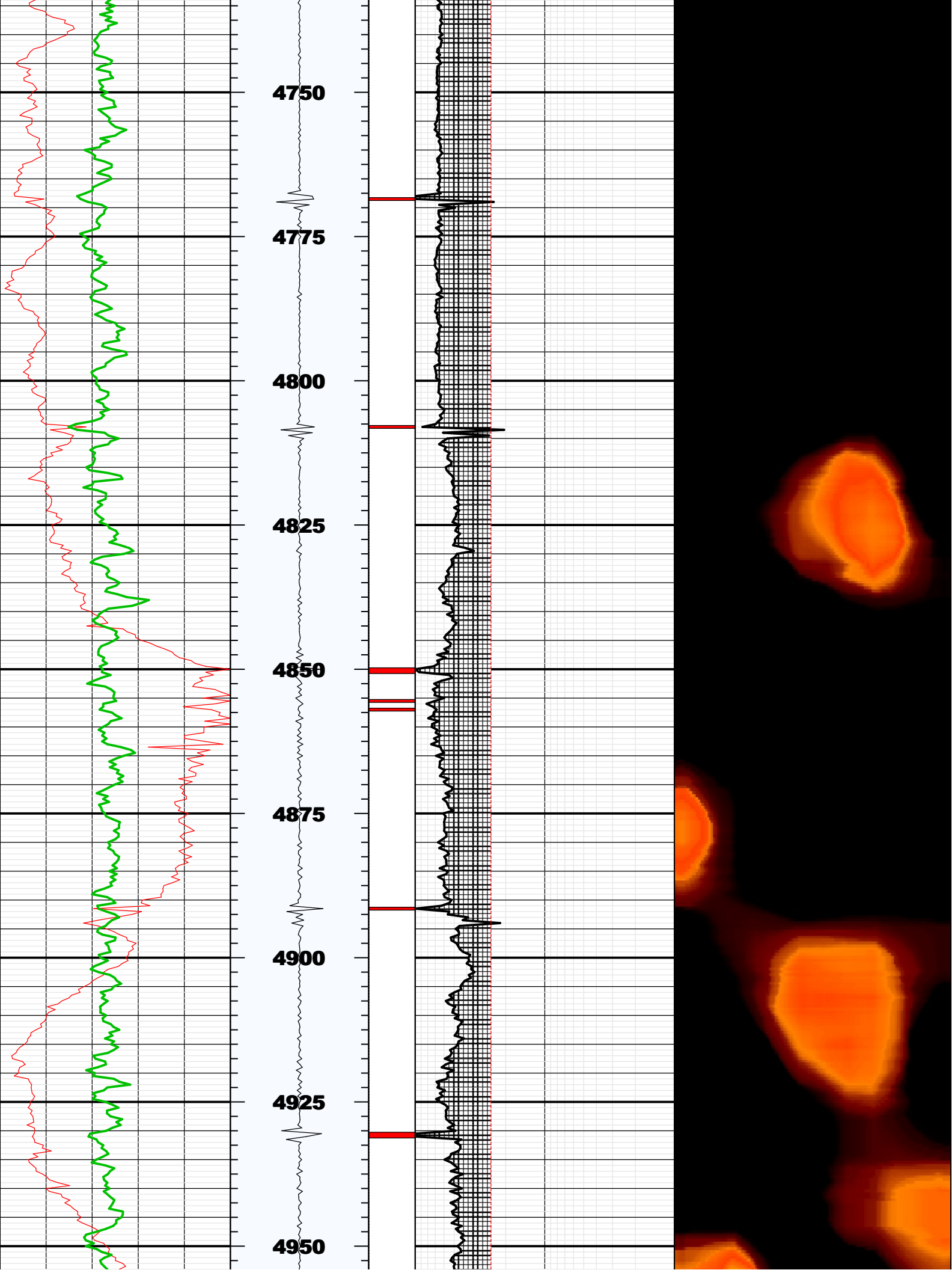


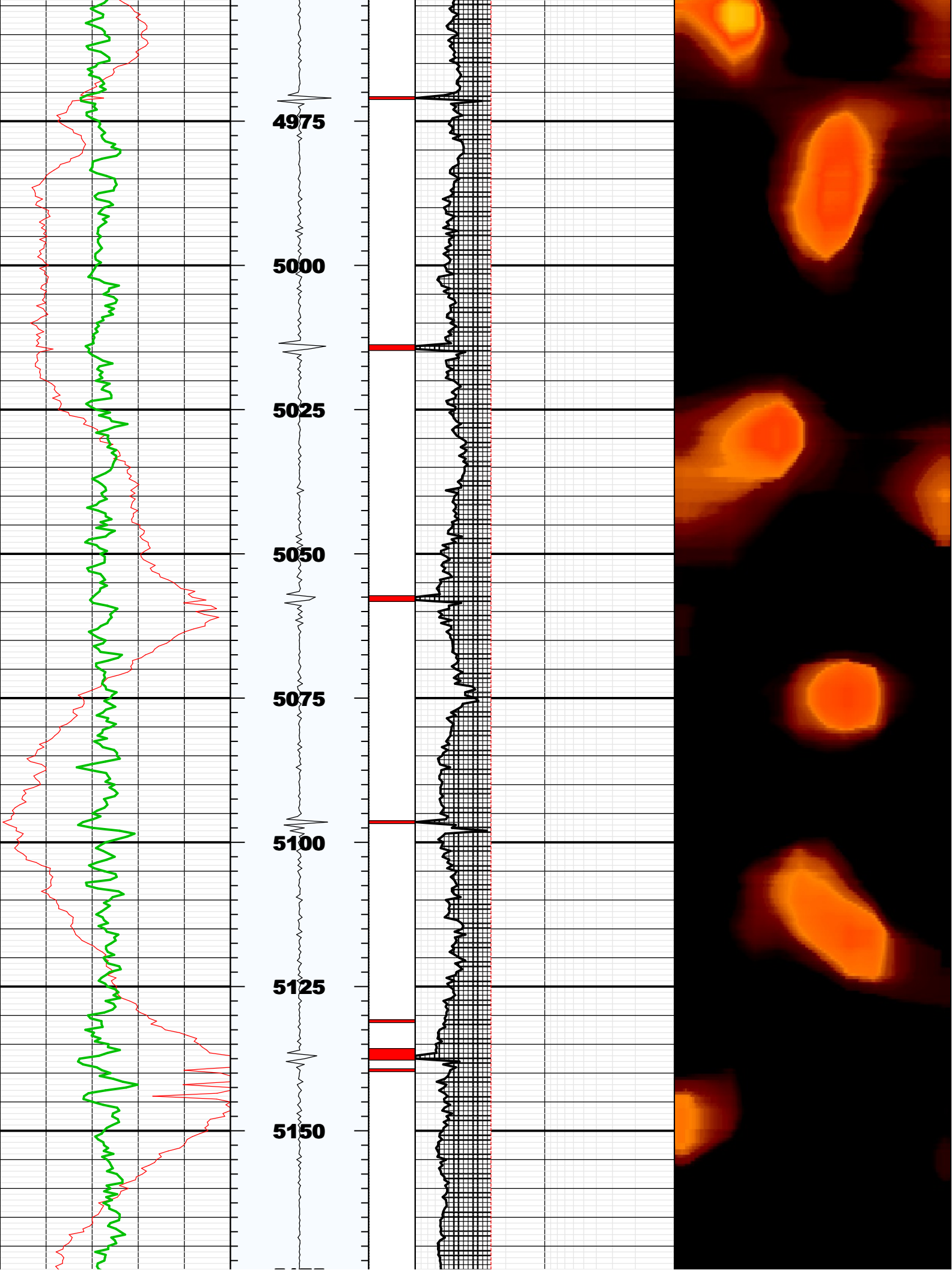


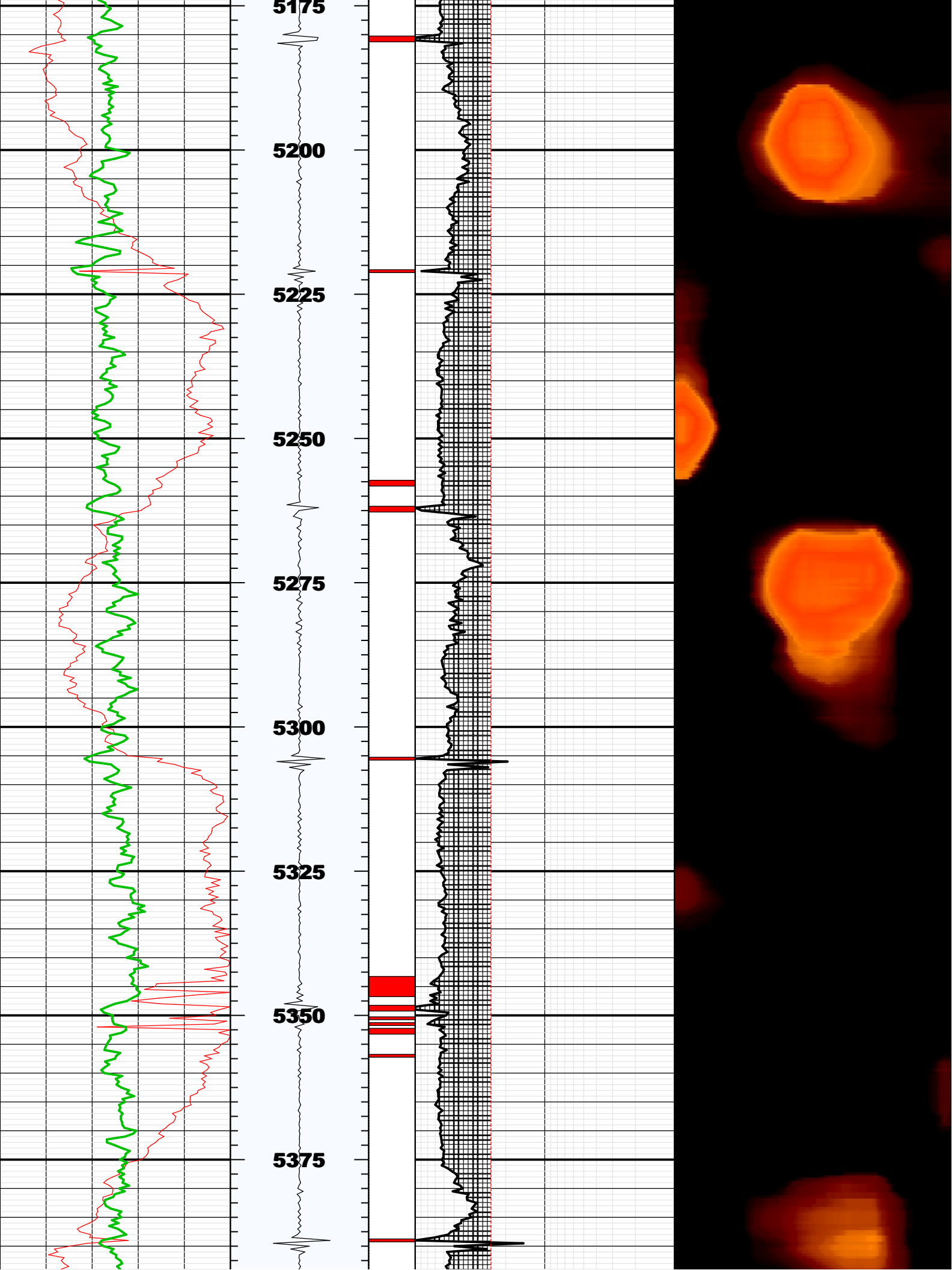


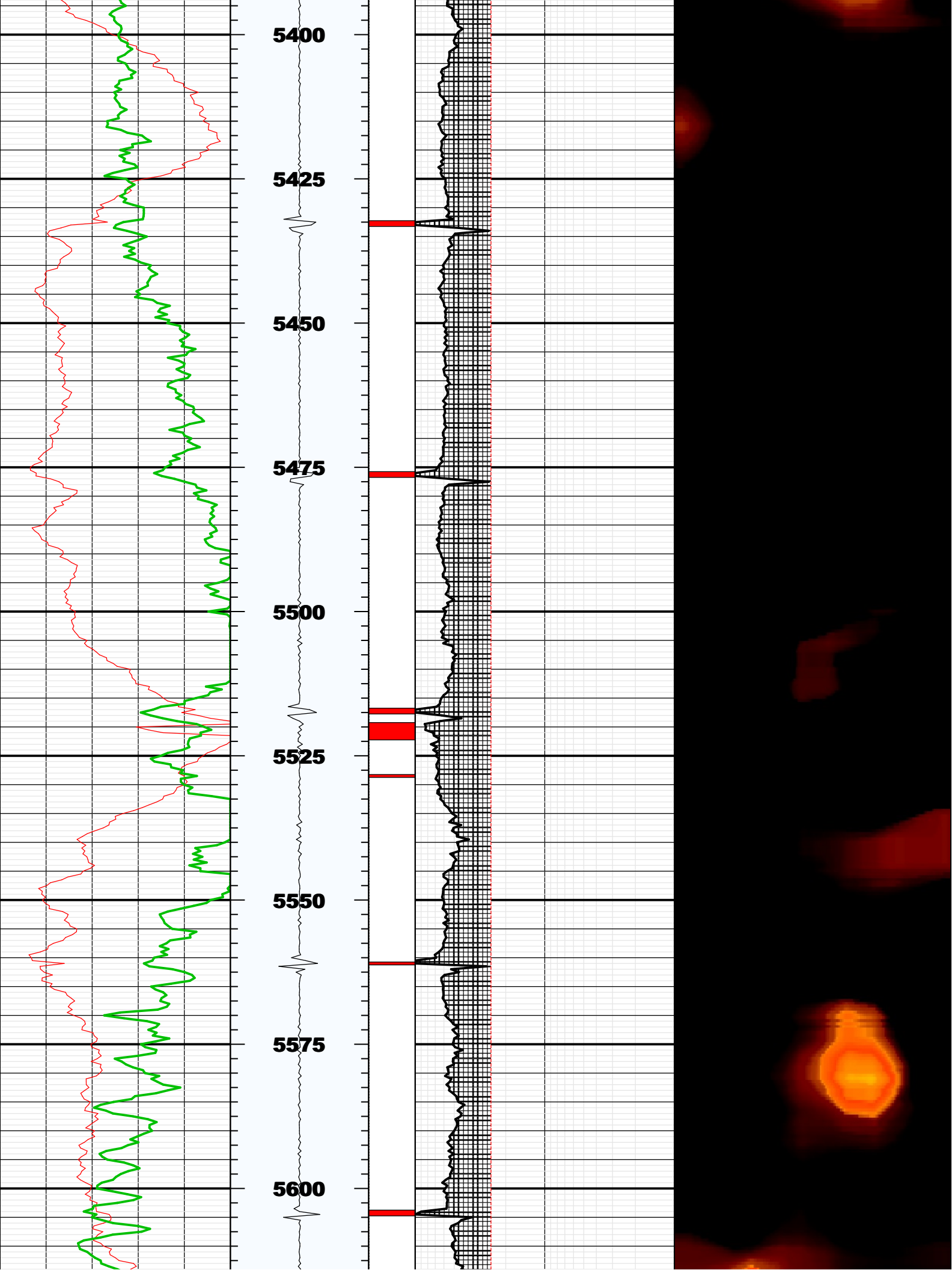


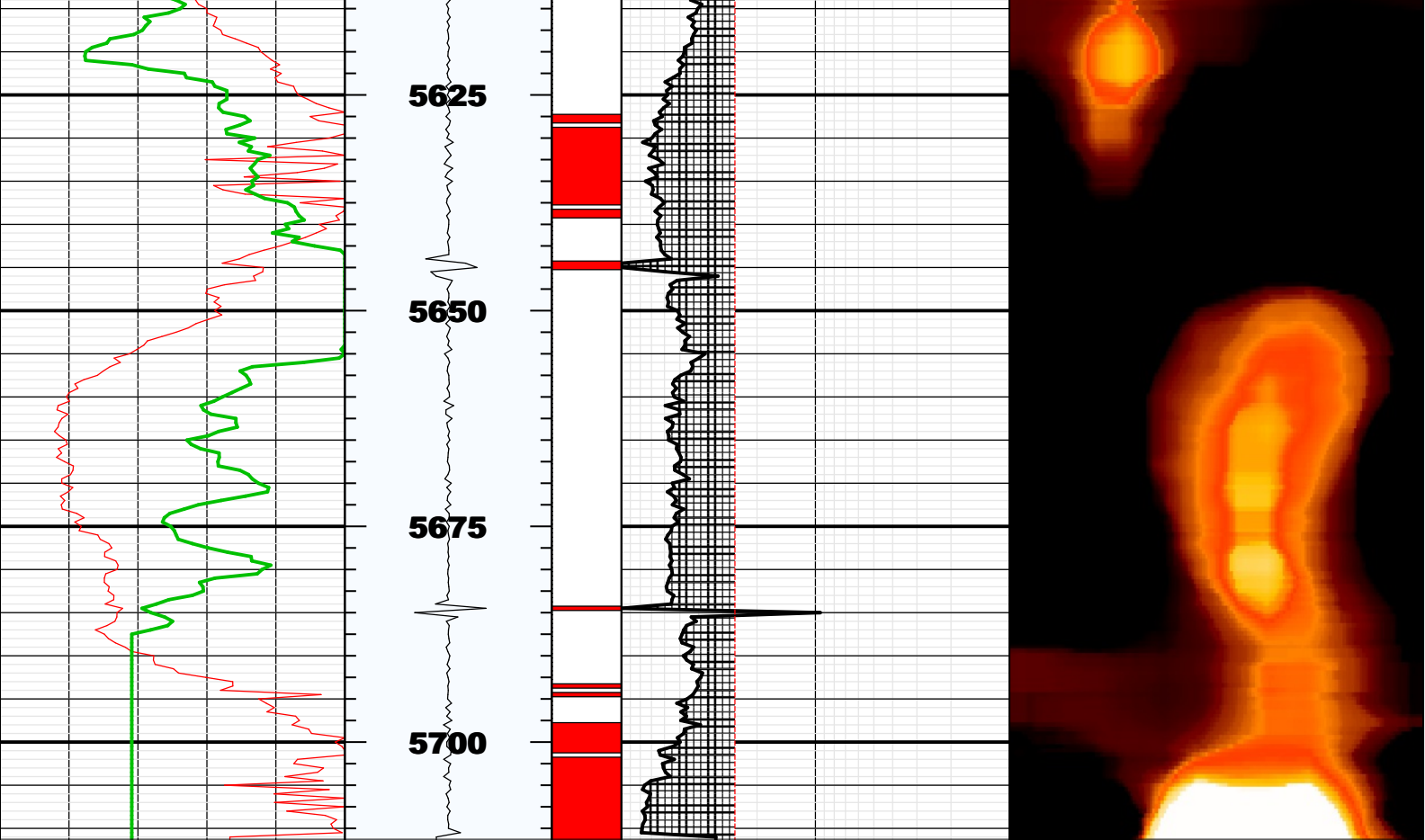








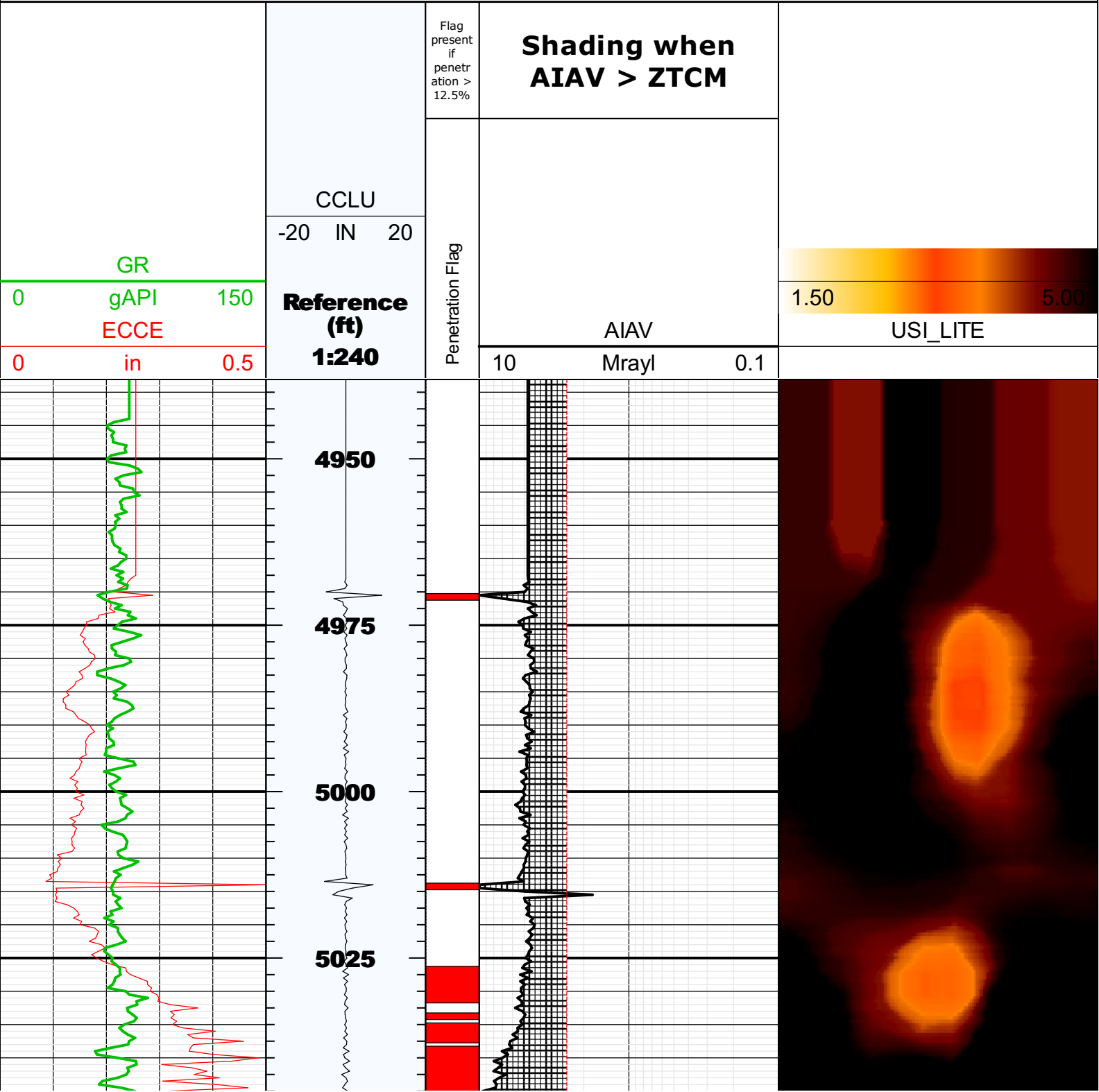


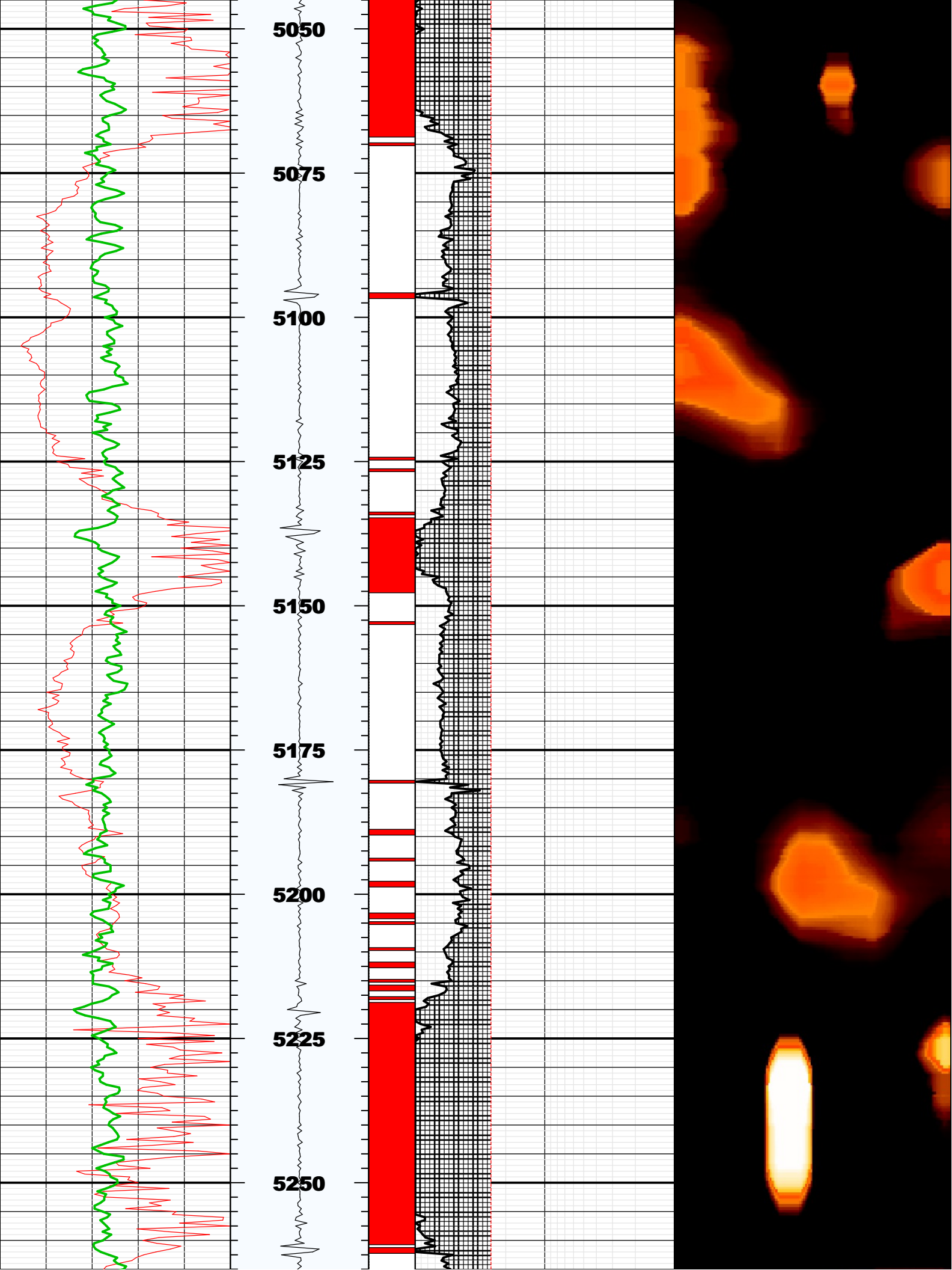


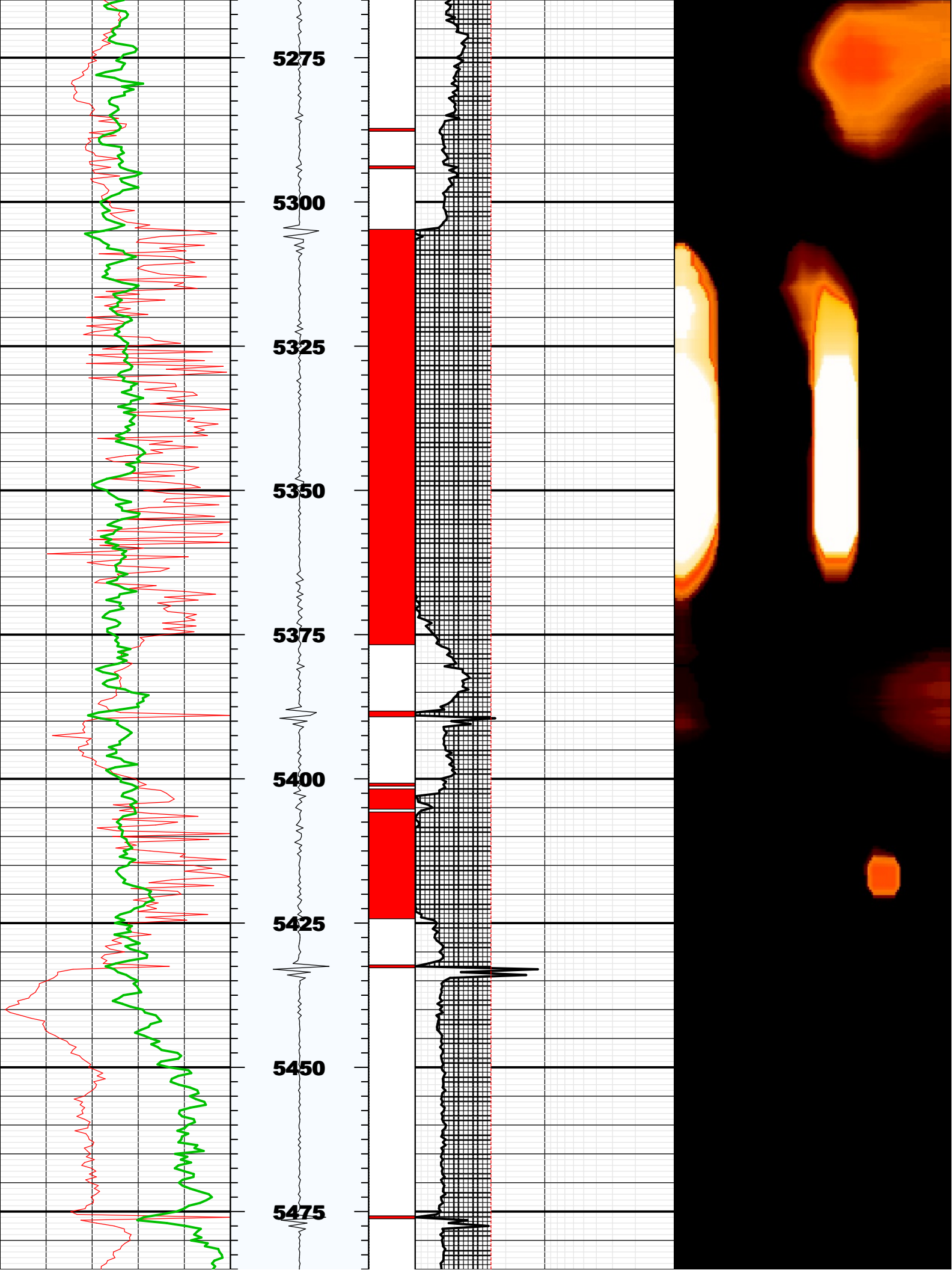
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	206.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	125	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	36.70407	US	Window Begin Time
WINE	81.36987	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.72000	MRAY	Acoustic Impedance of Mud
ZTCM	2.60000	MRAY	Acoustic Impedance Threshold for Cement
ZTGS	0.30000	MRAY	Acoustic Impedance Threshold for Gas
WLEN	20.00000	US	T ³ Processing Length

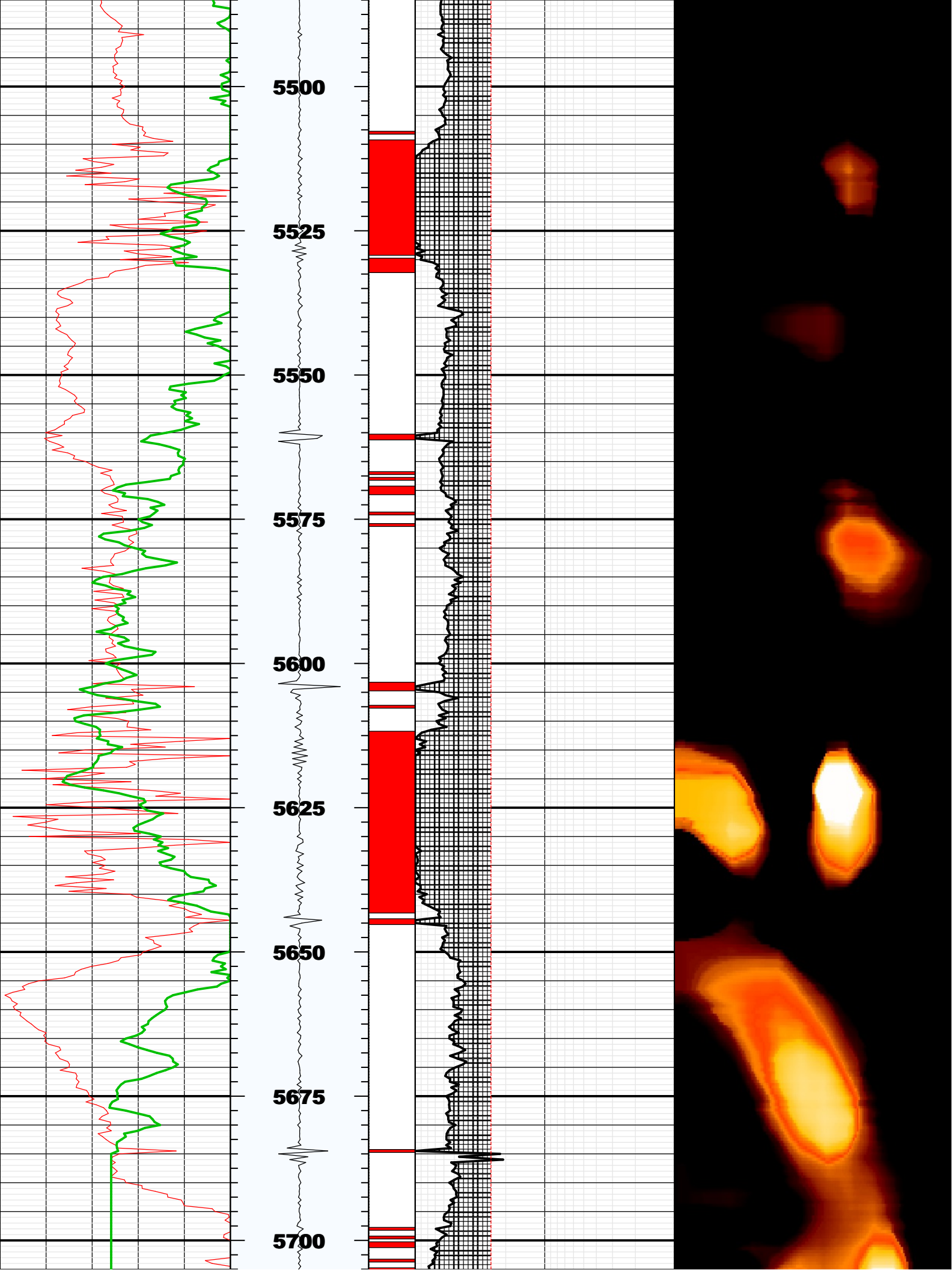
Repeat Pass

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Fluid Properties Used for Main Pass

