

Company: Noble Energy Inc

Well: Rainbow LC28-74-1HNA  
Field: Wildcat  
County: Weld State: Colorado

County: Weld		Field: Wildcat		Location: SHL 340' FSL & 1810' FEL		Well: Rainbow LC28-74-1HNA		Company: Noble Energy Inc	
Logging Date		LOCATION		Permanent Datum: Log Measured From: Drilling Measured From:		GL KB KB		Elev: K.B. 4890.0 F G.L. 4866.0 F D.F. 4889.0 F	
Run Number		API Serial No. 05-123-38849		Section 28		Township 9N		Range 59W	
Depth Driller		One							
Schlumberger Depth		6362.0 F							
Bottom Log Interval		6362.0 F							
Top Log Interval		6090.0 F							
Casing Fluid Level		24.0 F							
Salinity		8.0 F							
Density		8.40 LB/G							
Fluid Level		8.0 F							
BIT/CASING/TUBING STRING									
Bit Size		8.750 IN							
To		625.0 F							
Casing Size		6362.0 F							
Weight		7.00 IN							
Grade		26.00 LB/F							
From		N/A							
To		0.0 F							
Max Recorded Temp		6362.0 F							
Logger on bottom (date)		215.0							
Location		30-Aug-2014							
Recorded By		Fort Morgan							
Witnessed By		Kevin Crow							
		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: U711136 Length: 18000.00000

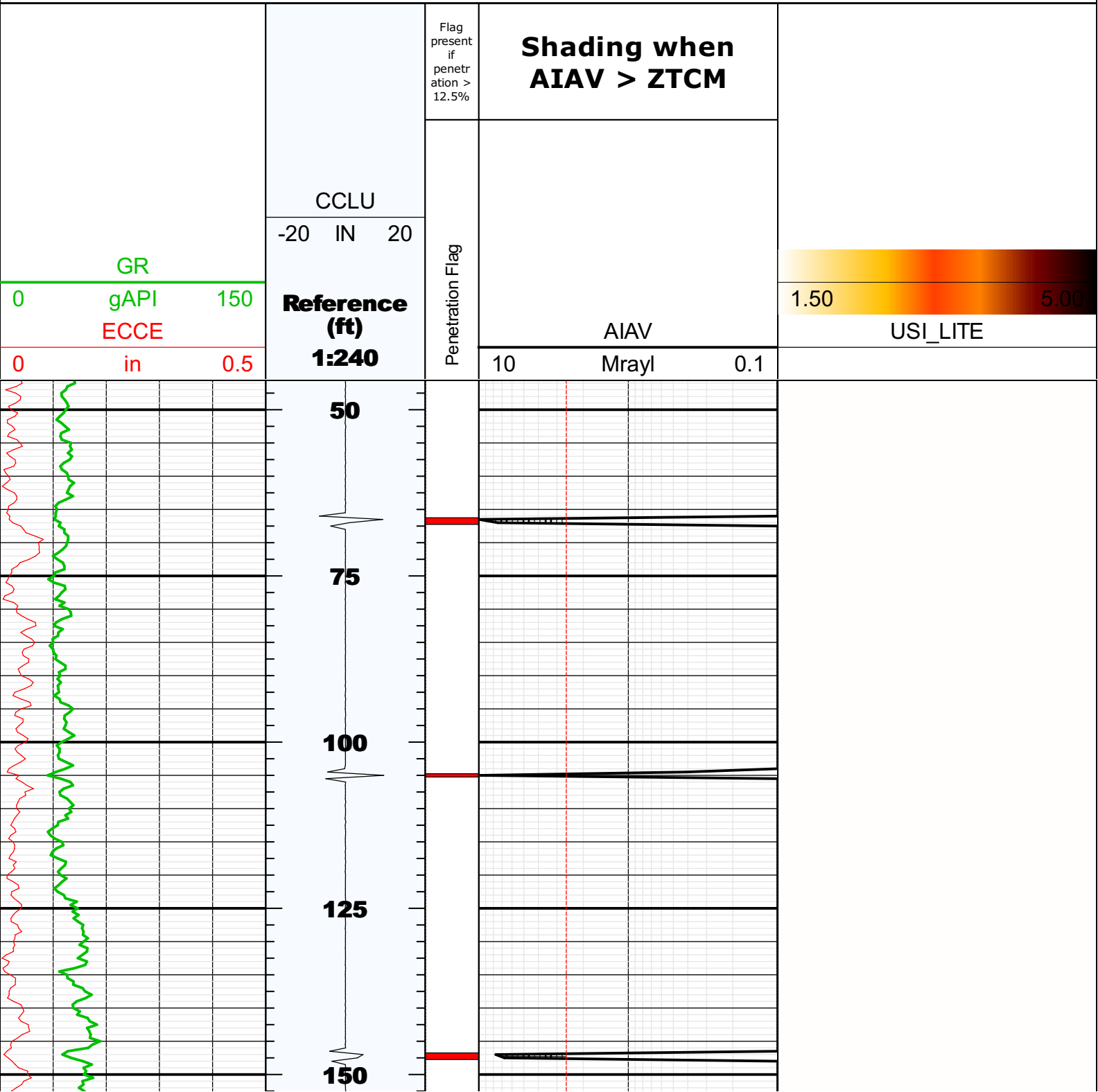
DISCLAIMER

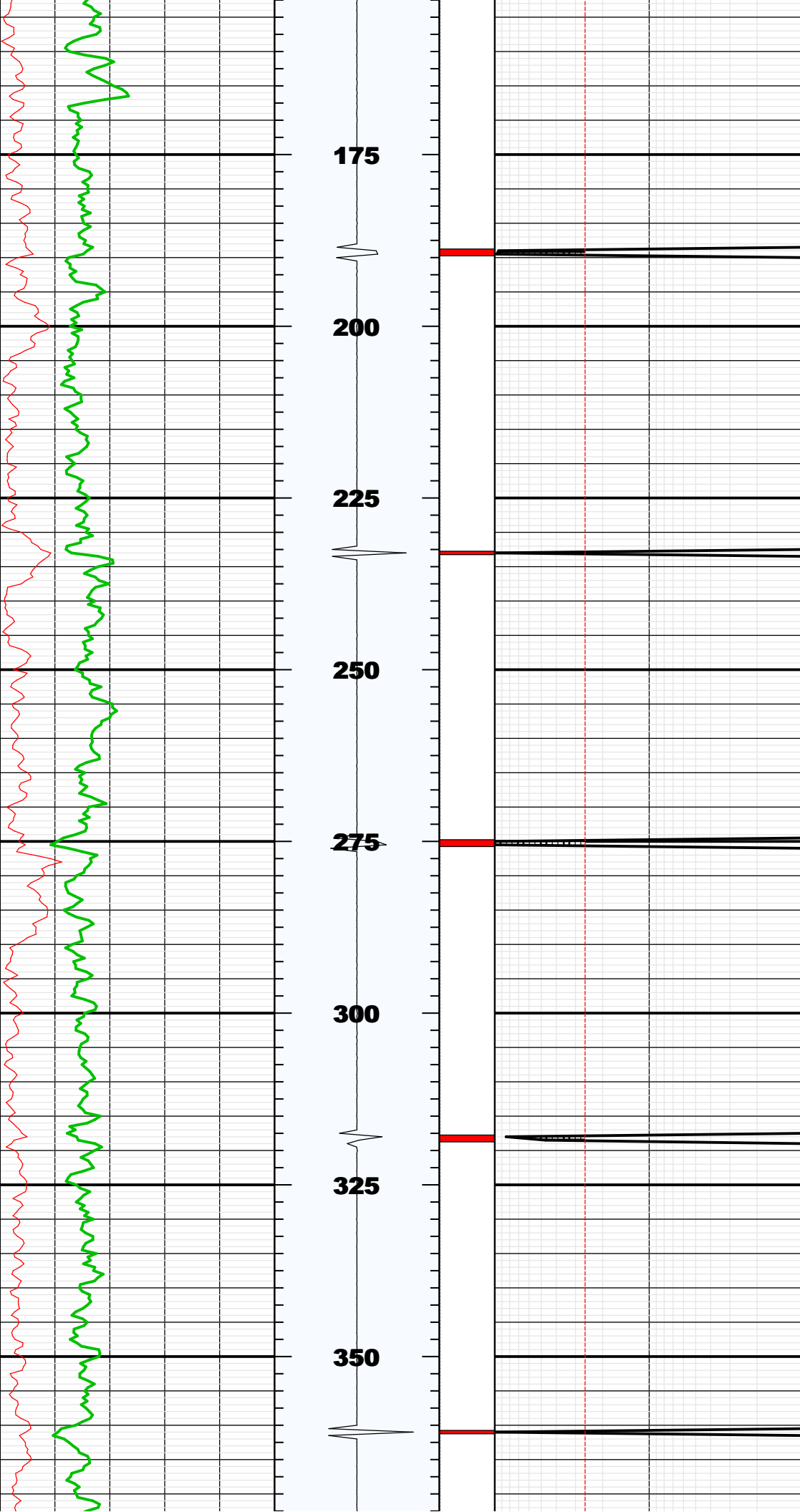
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIIONS ON USE OF THE RECORDED-DATA (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF ANR RELIANCE UPN THE RECORDED-DATA; AND (c)CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISIONS MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA

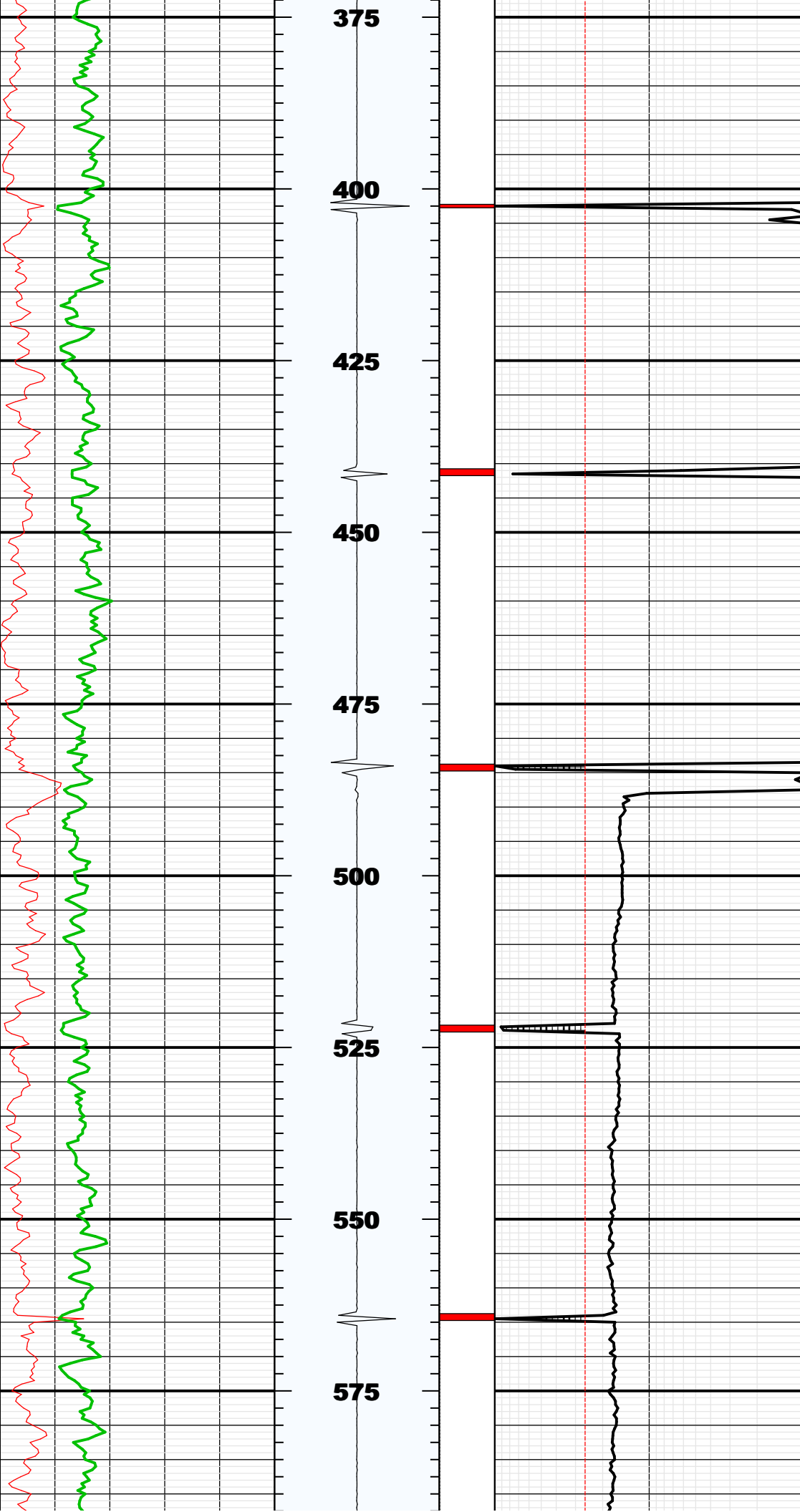
Thank you for choosing Schlumberger Wireline  
Toolstring ran as per toolsketch  
Cement-13.6# Single Slurry  
Casing 7 26#  
Two passes done on well  
Log measured from original rig KB 24 ft  
Repeat pass ran at 0 psi main pass ran at 2500 psi

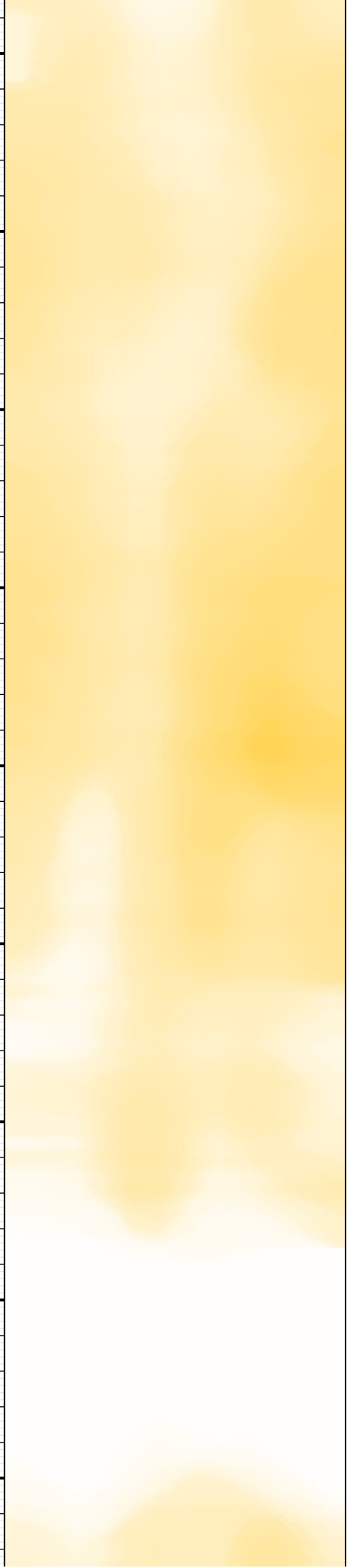
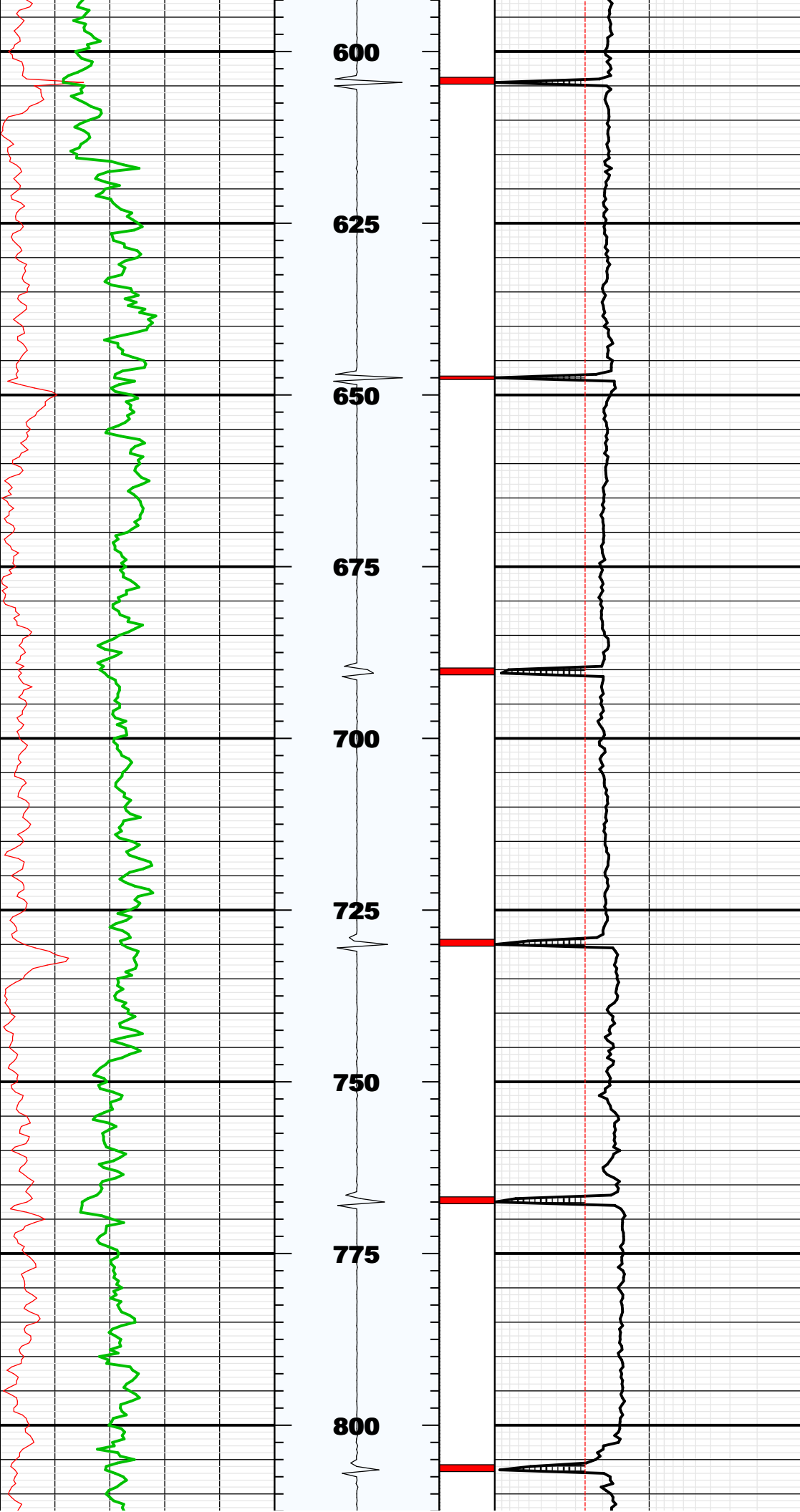
## Main Pass

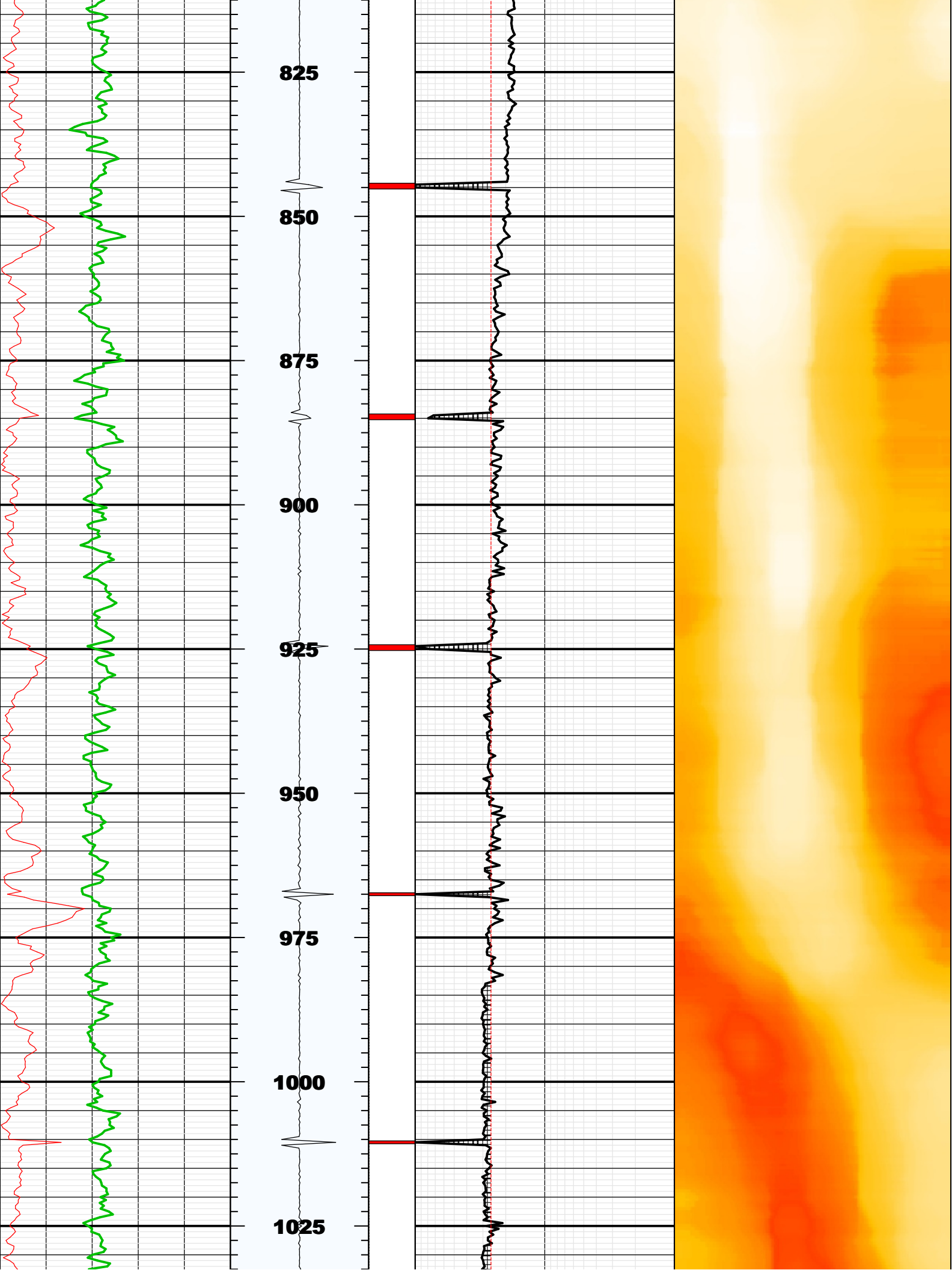
Company: Noble Energy Inc  
Well: Rainbow LC28-74-1HNA  
Field: Wildcat

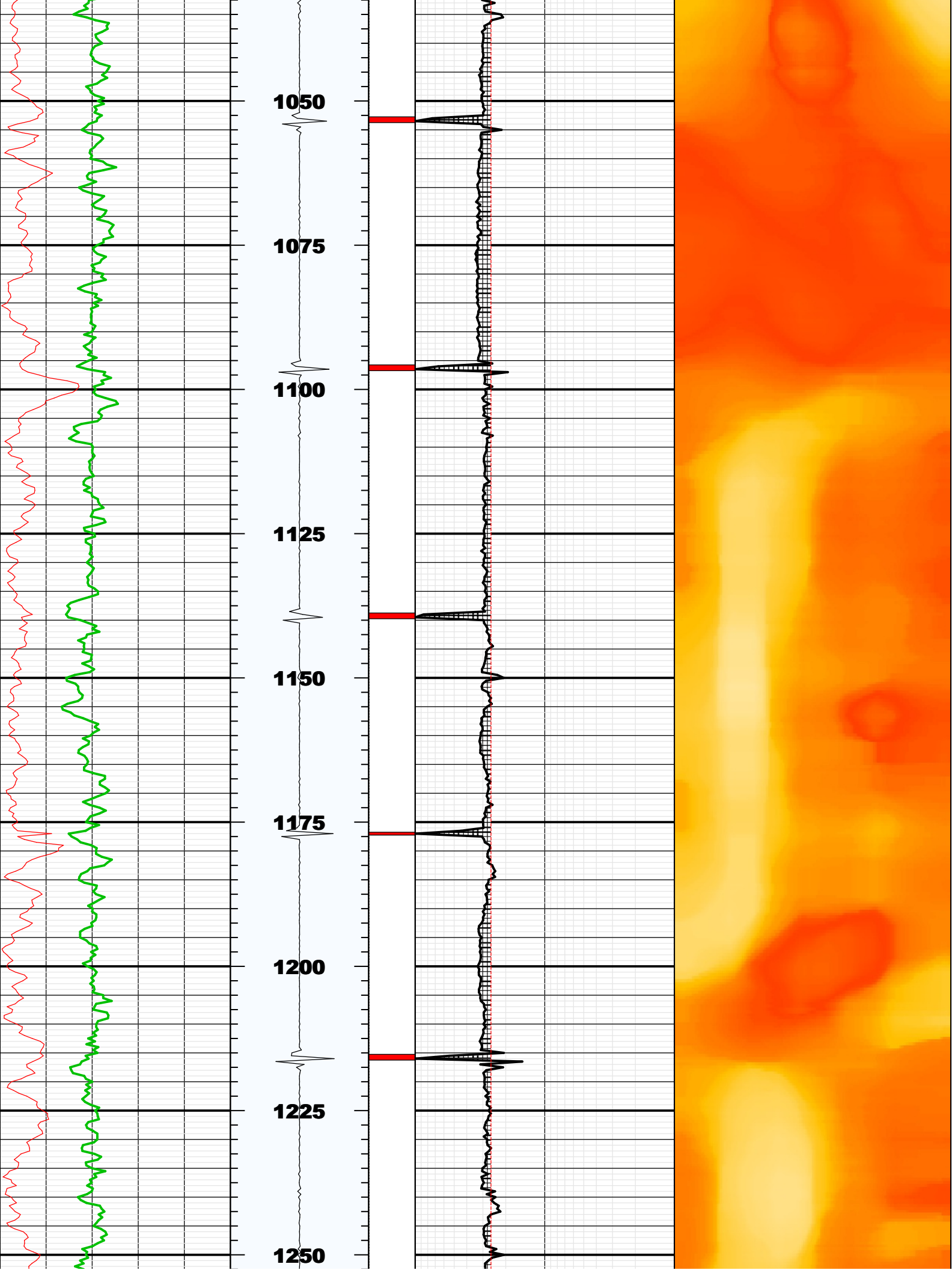




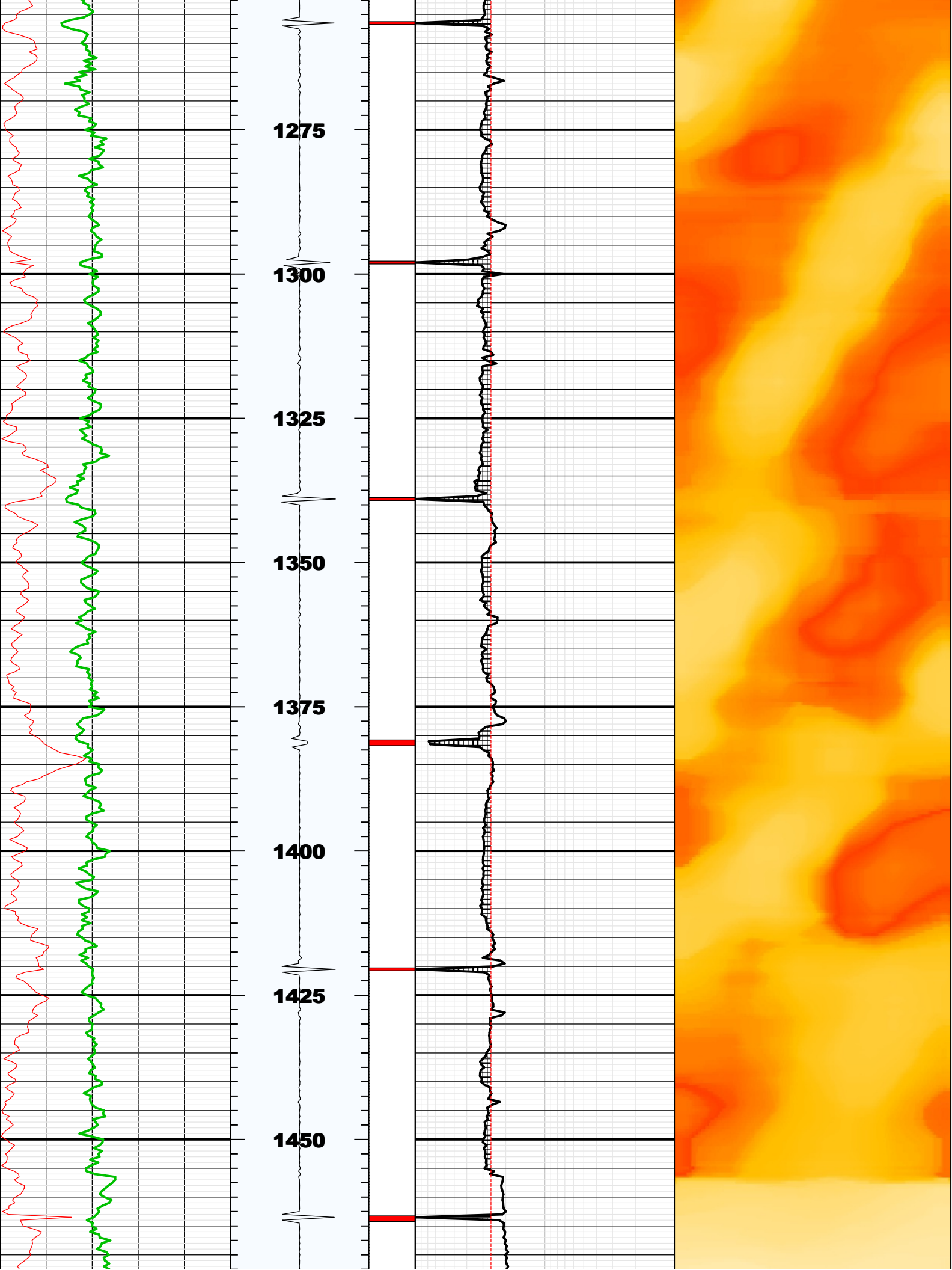


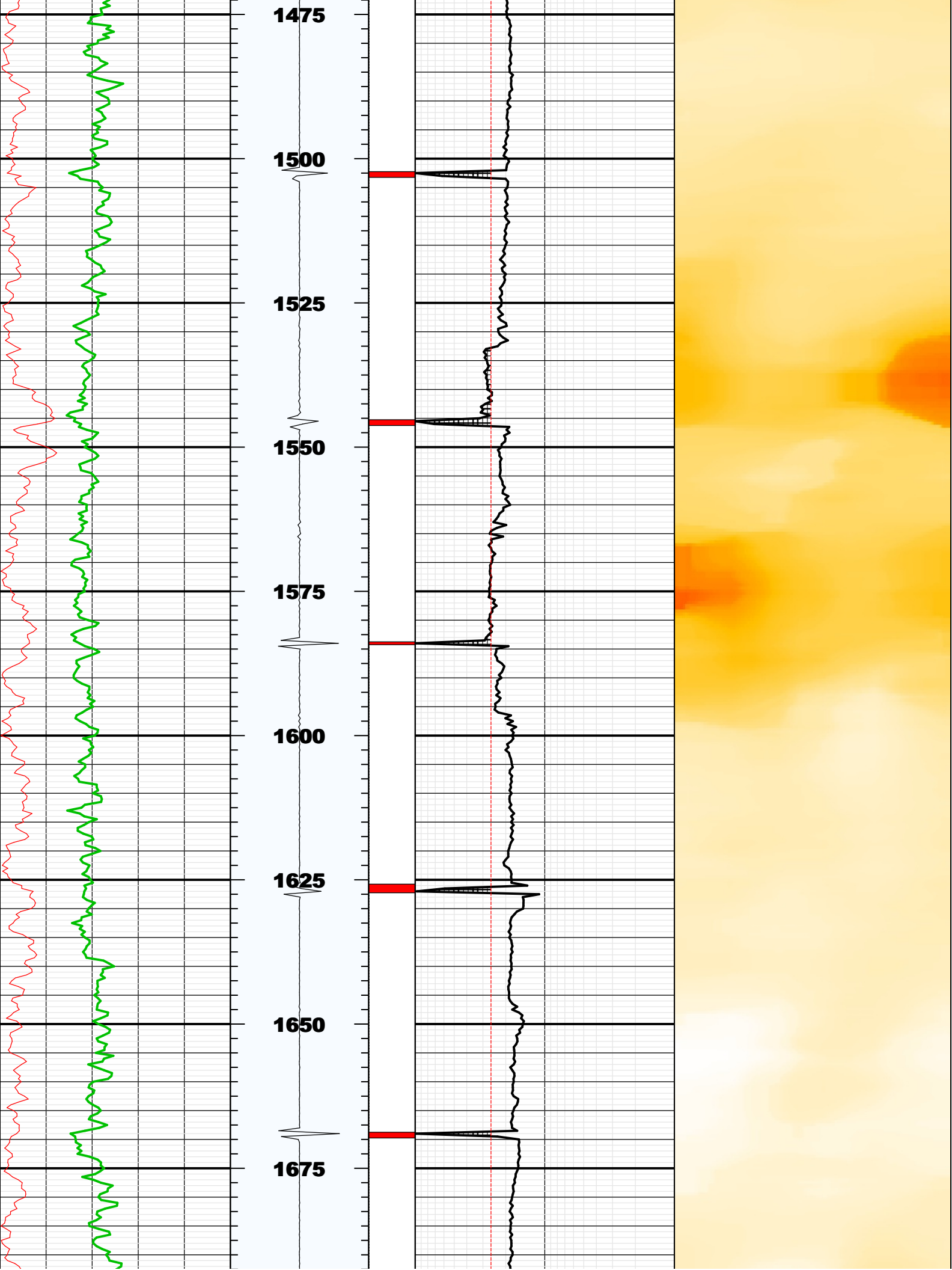


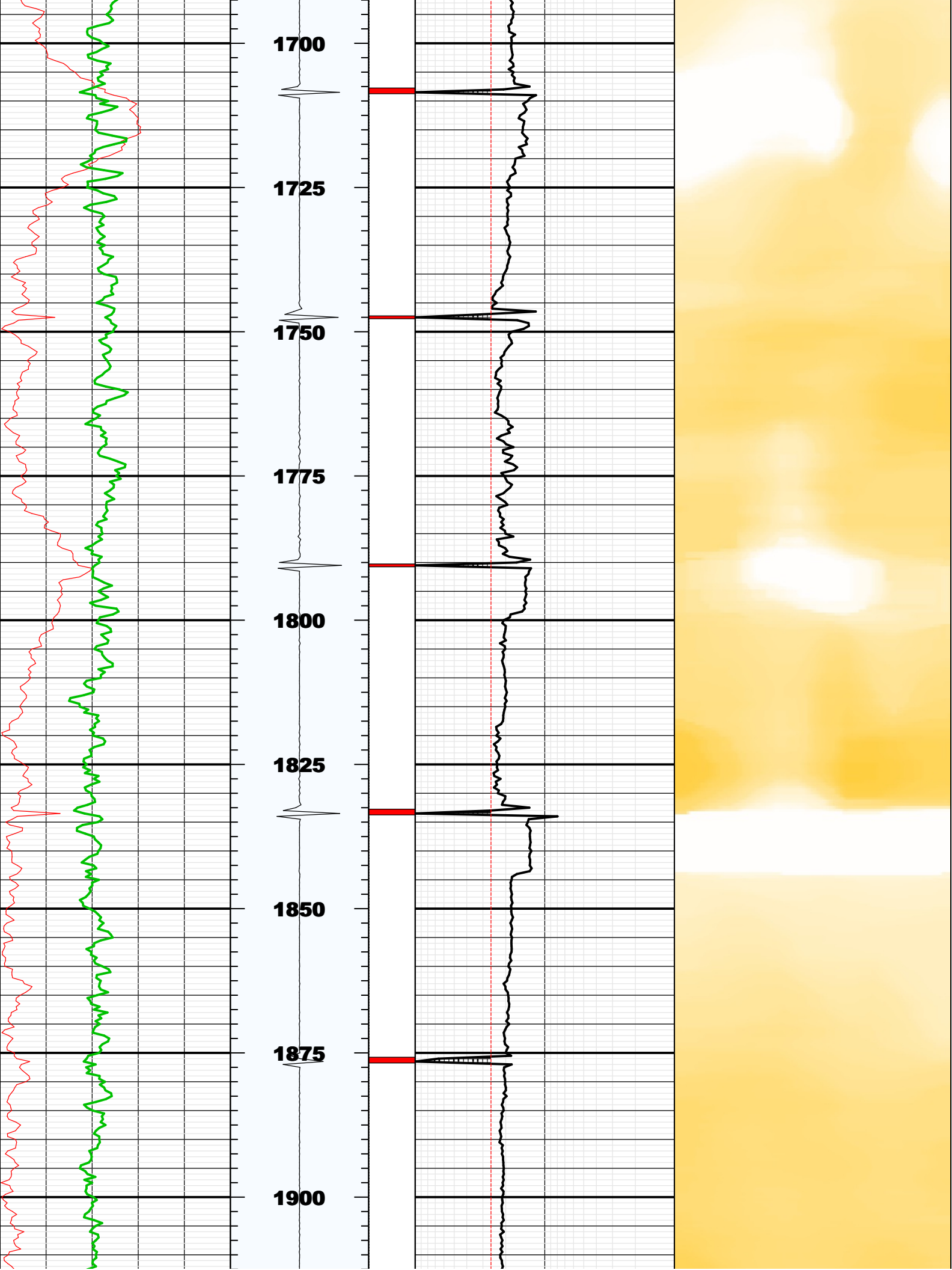


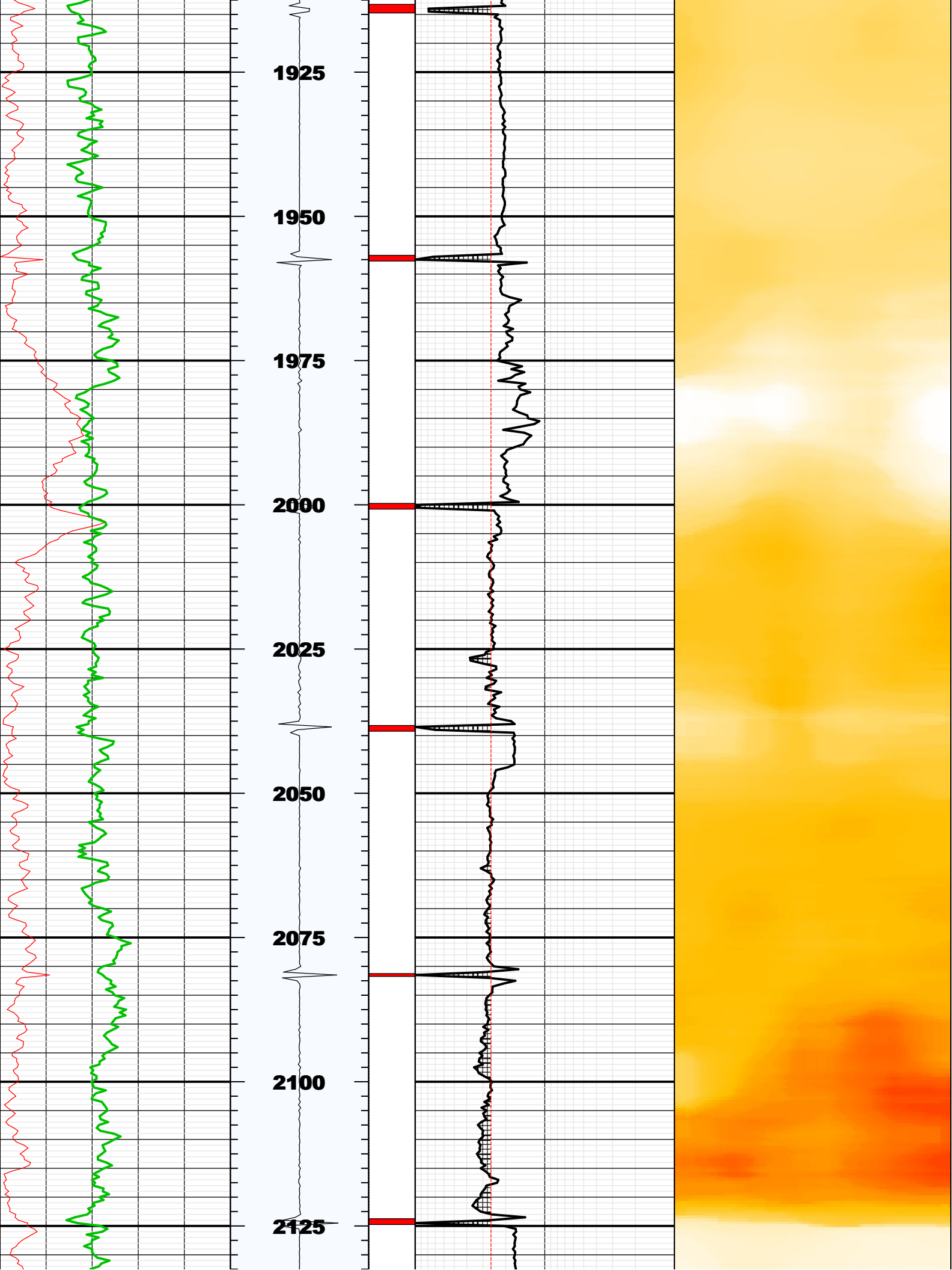


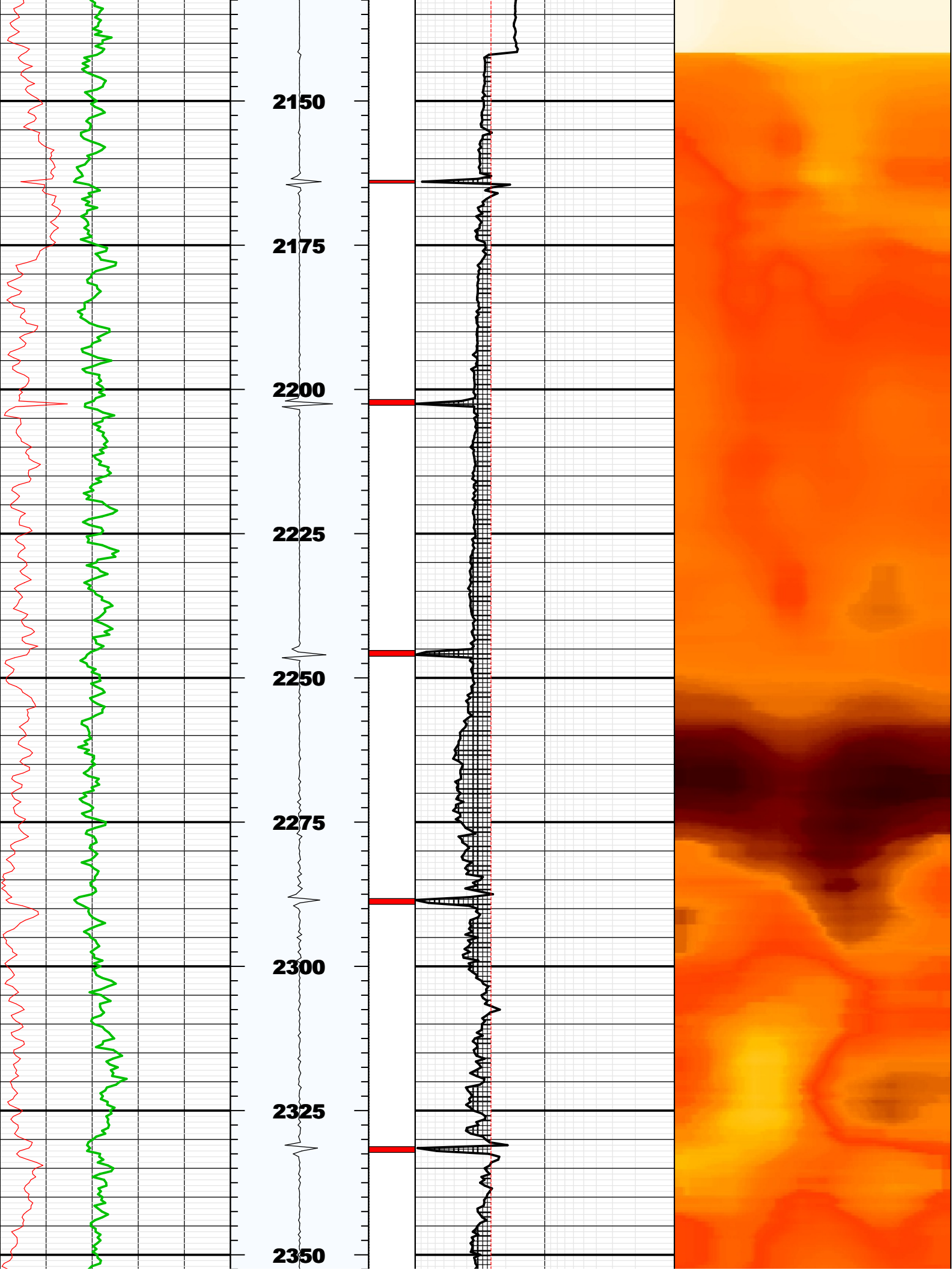




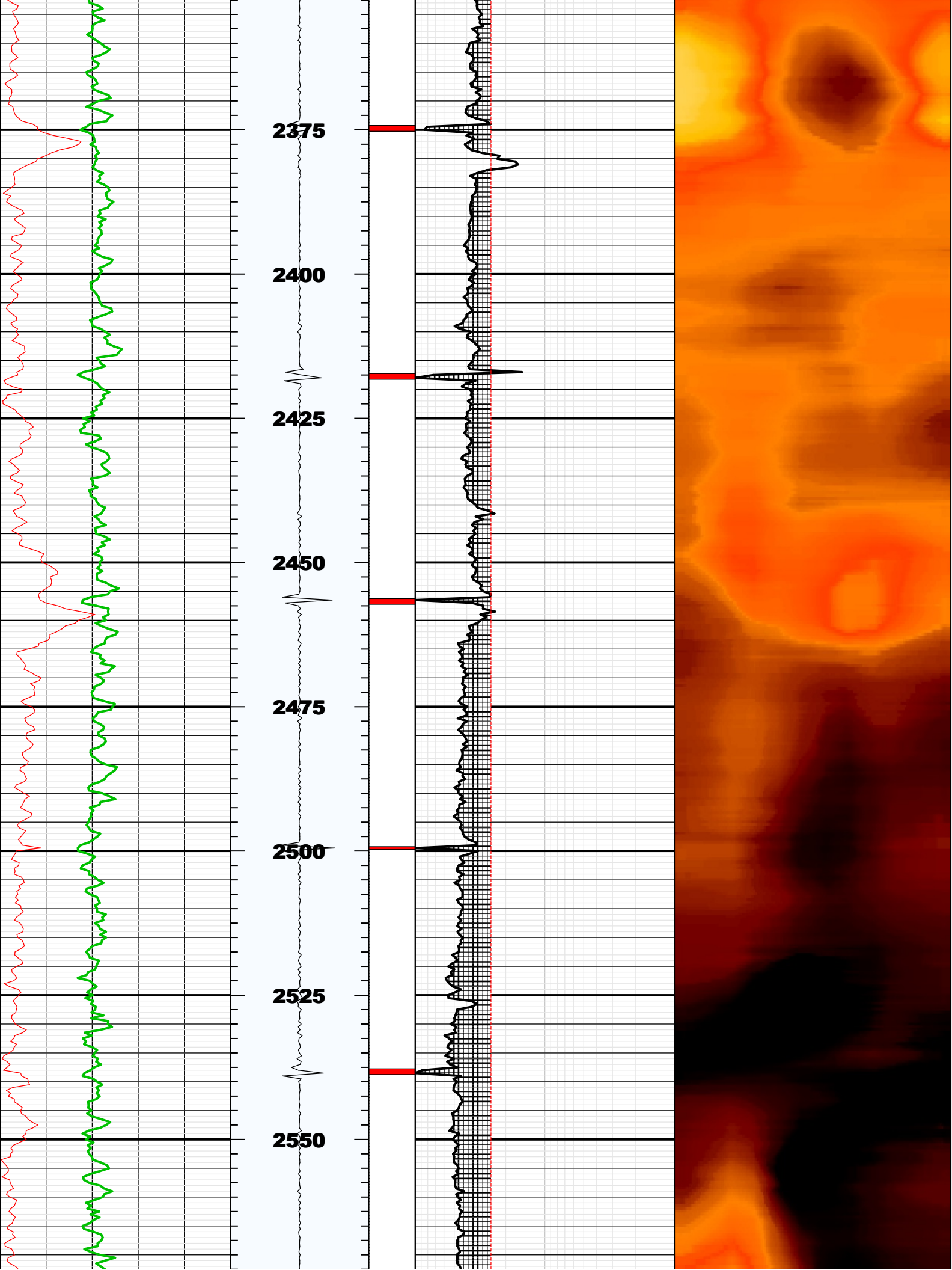


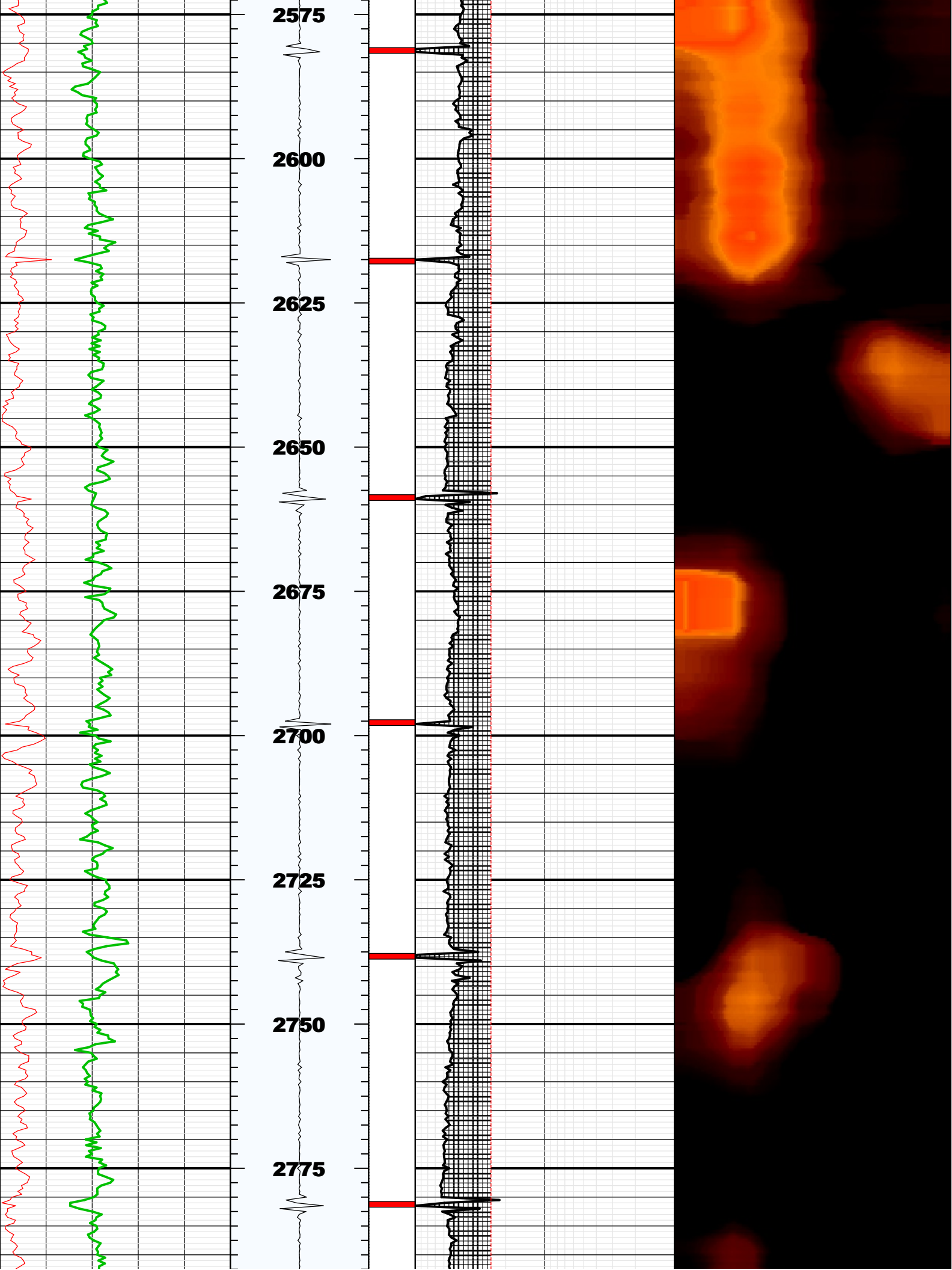


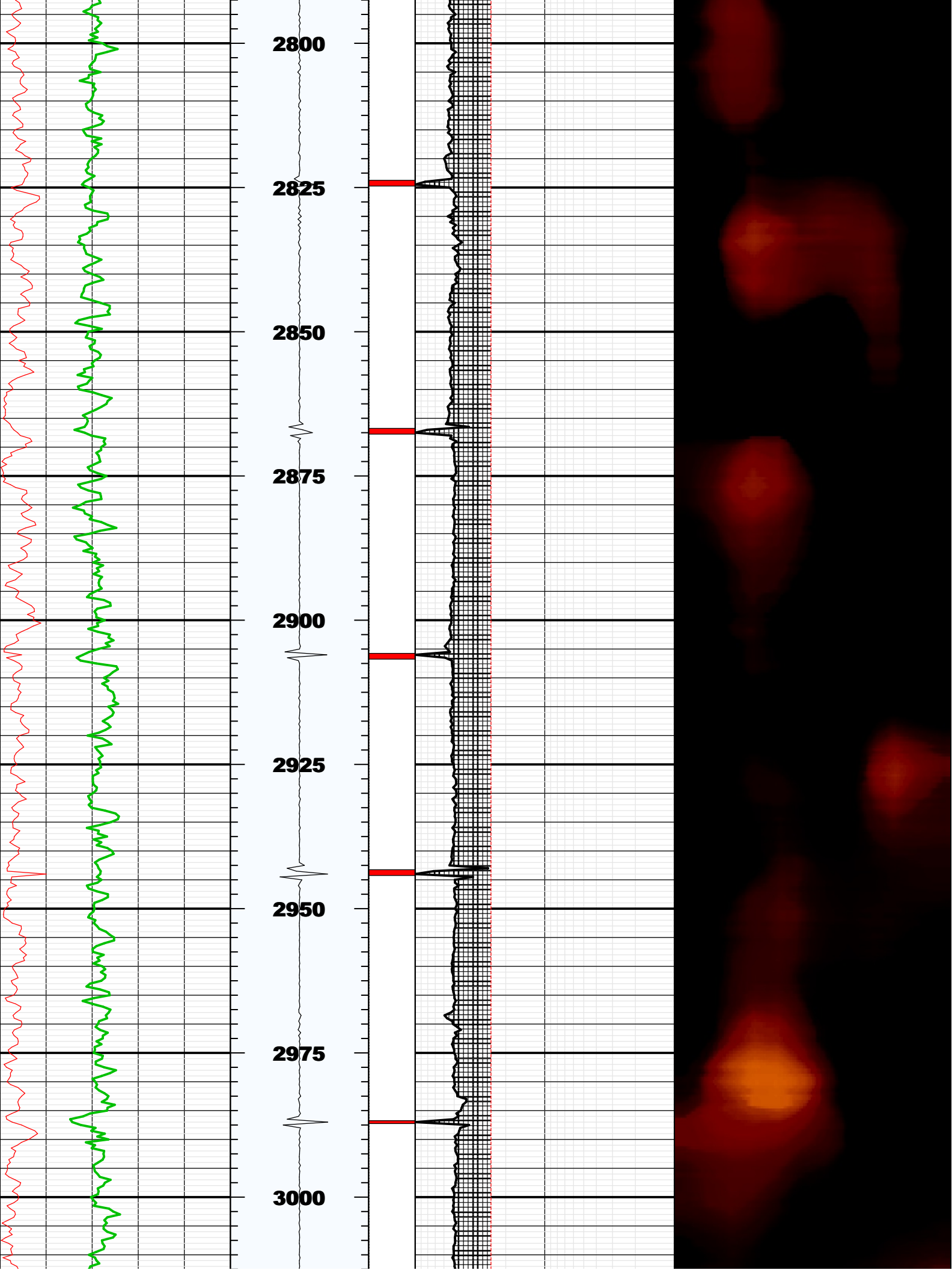




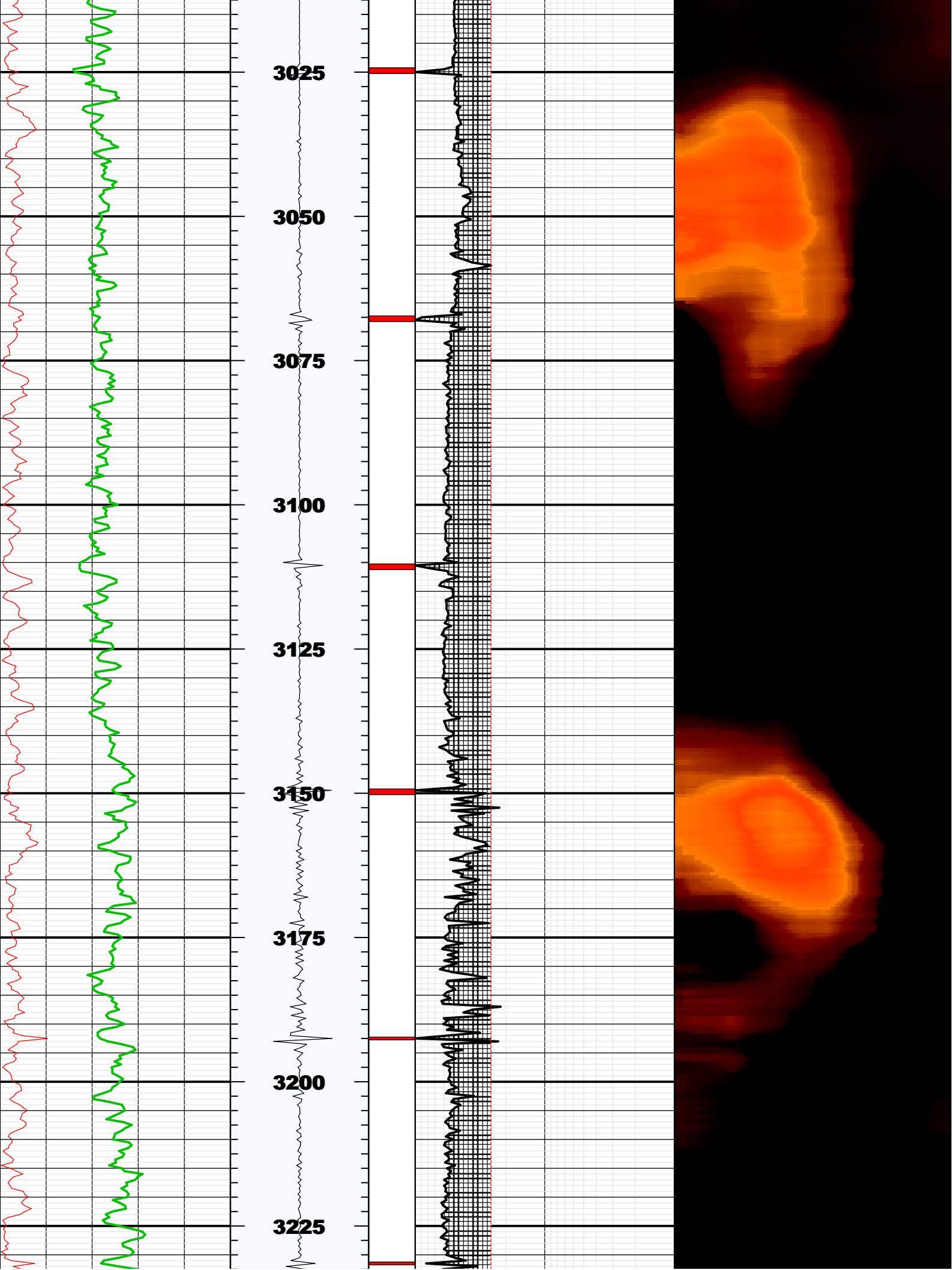


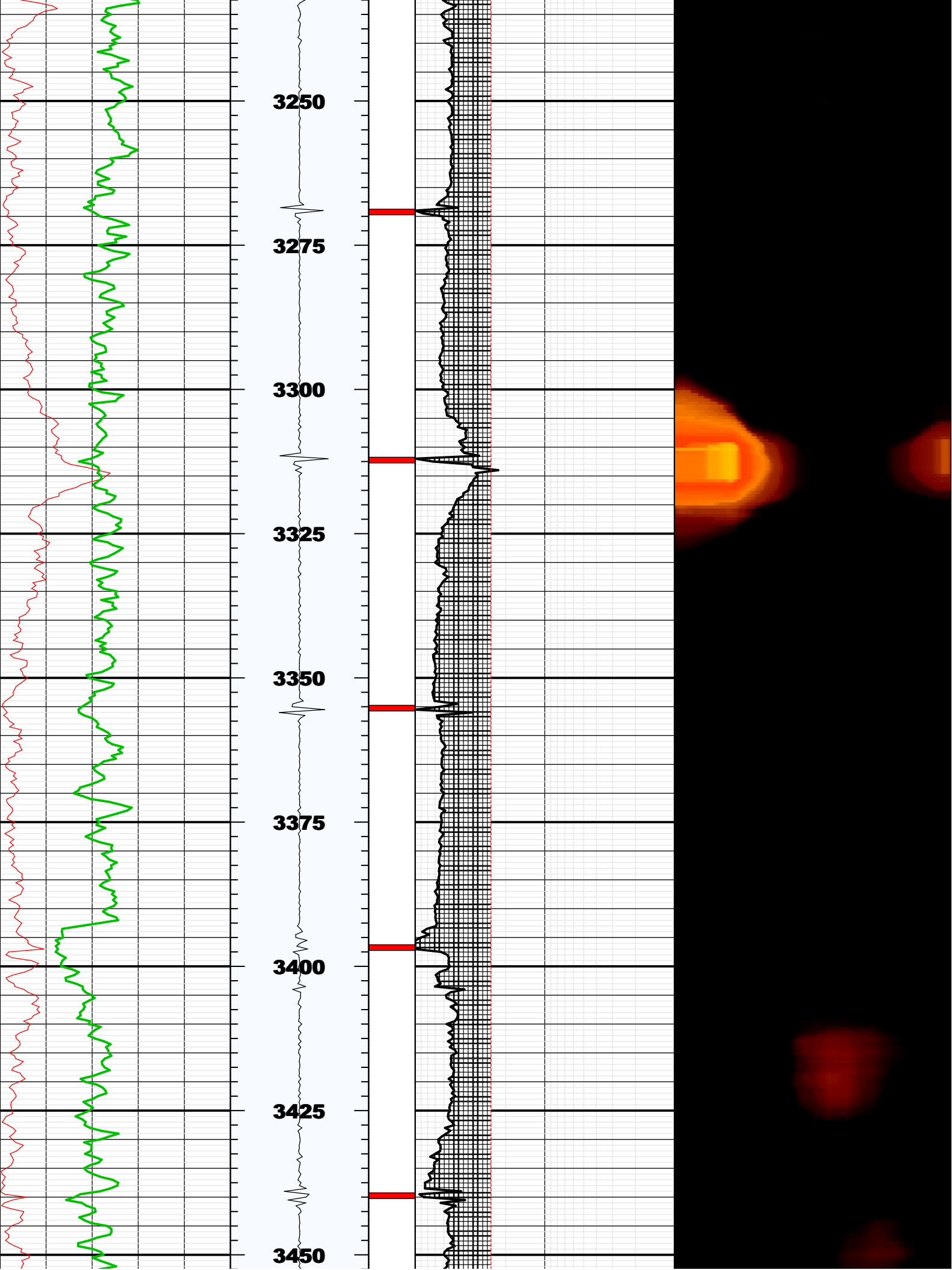


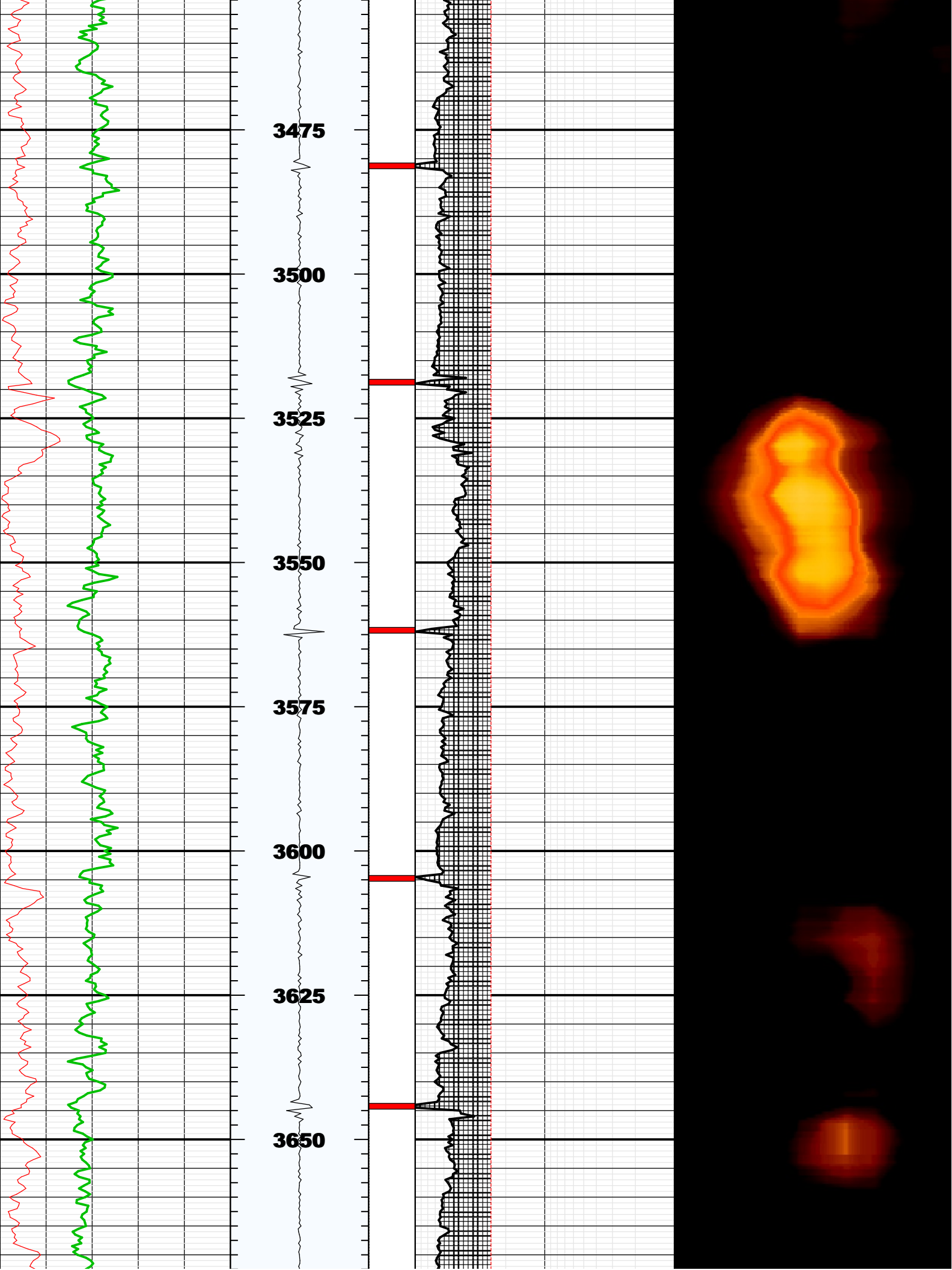


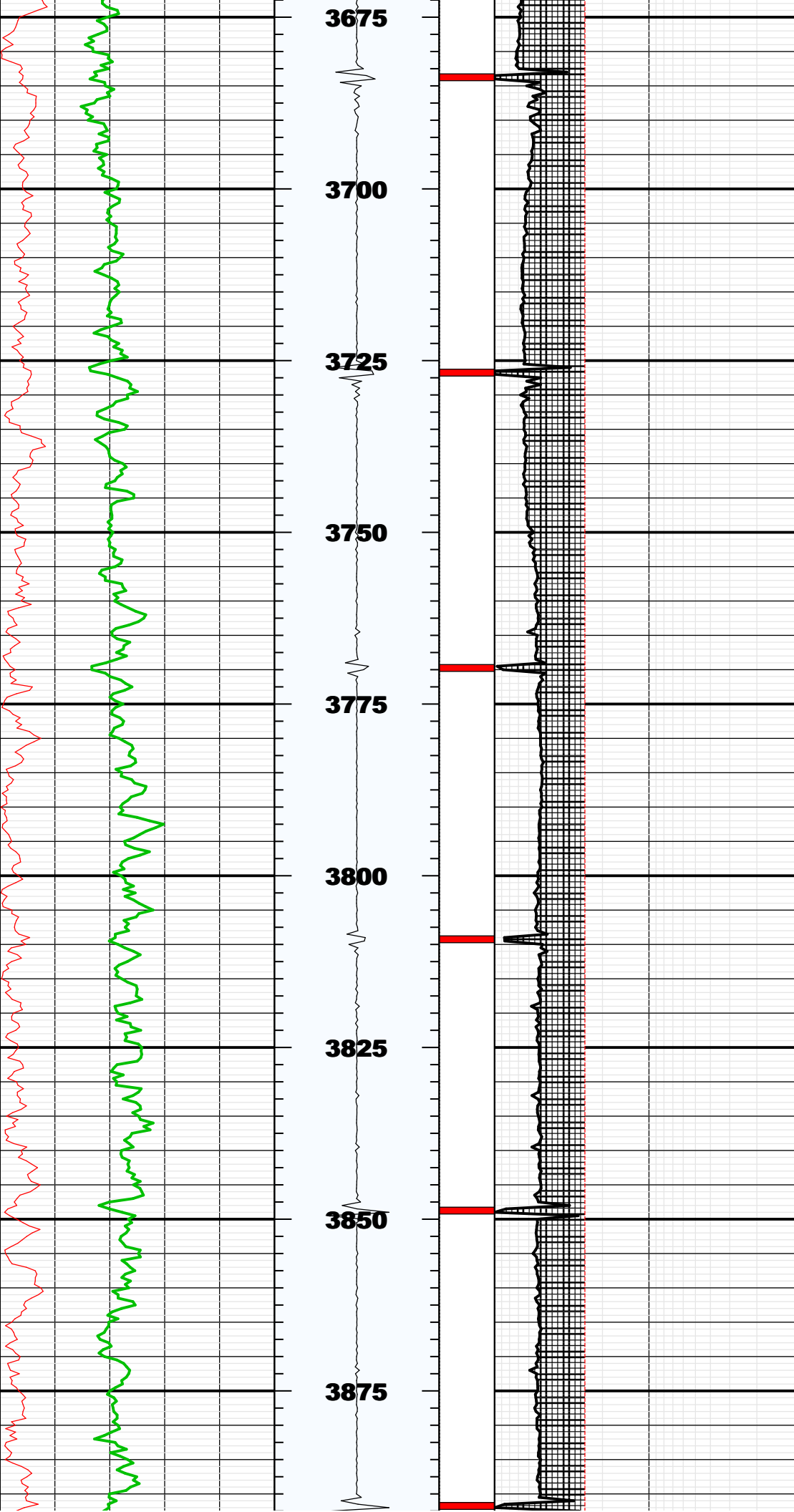


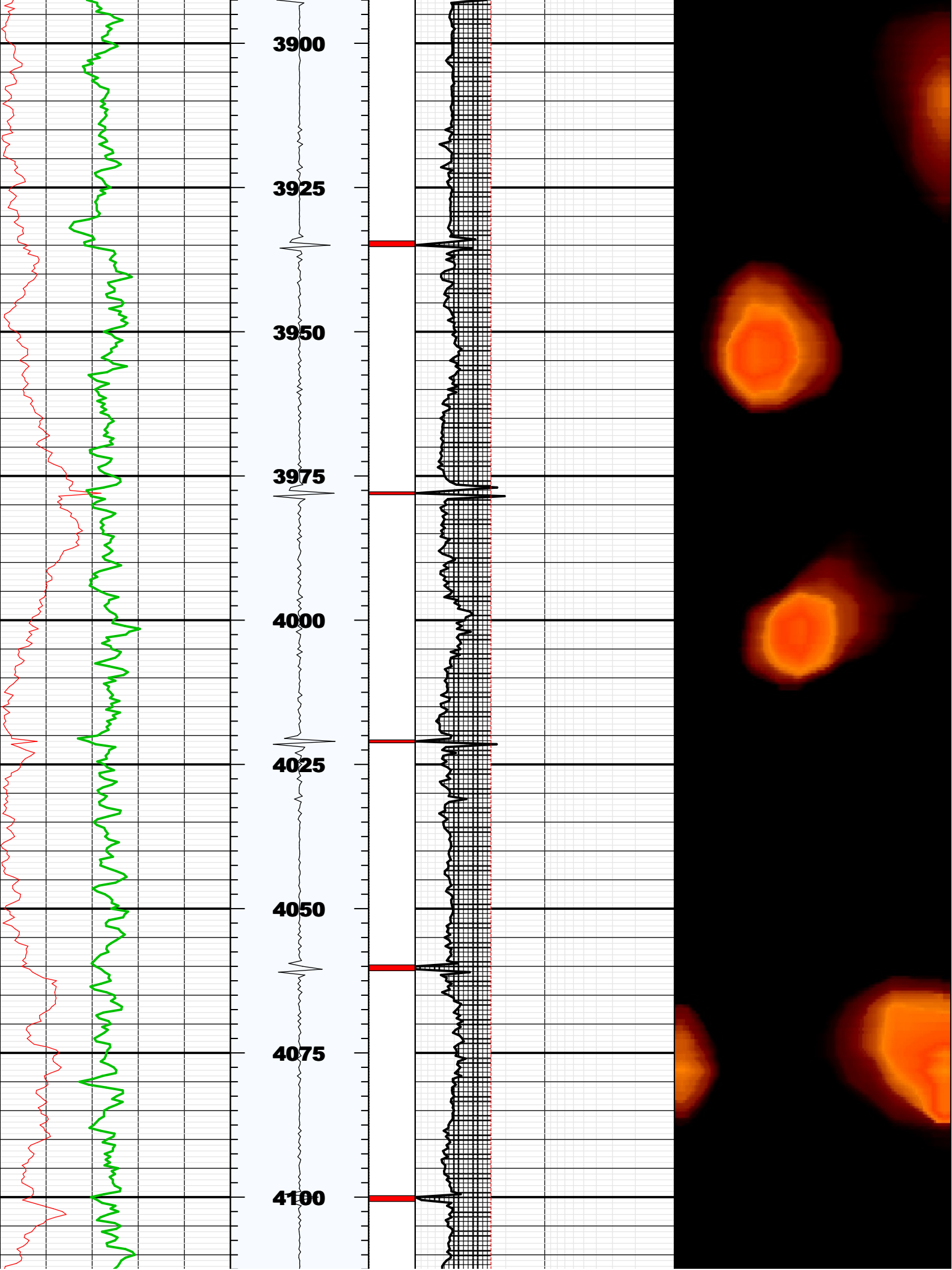


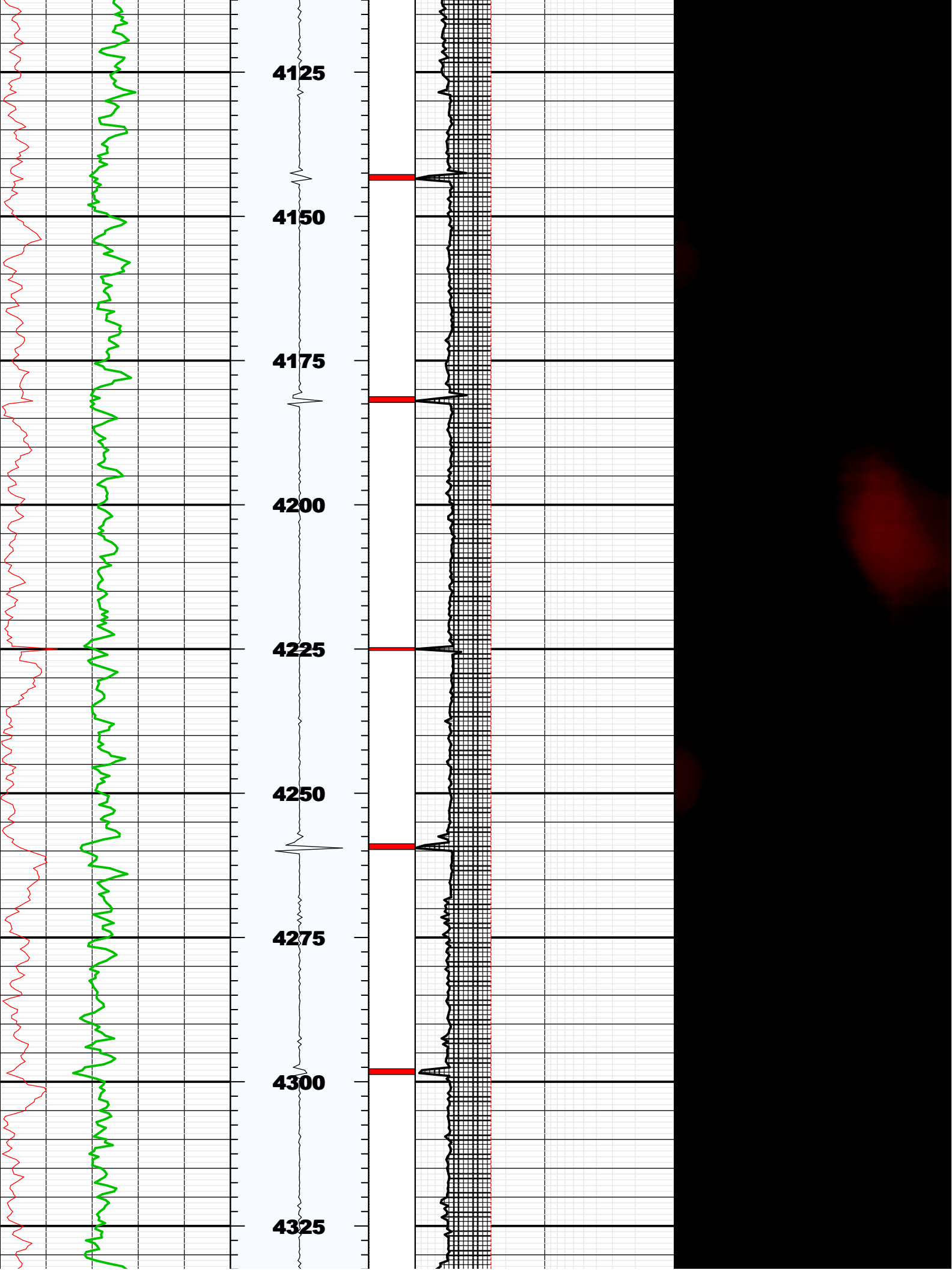




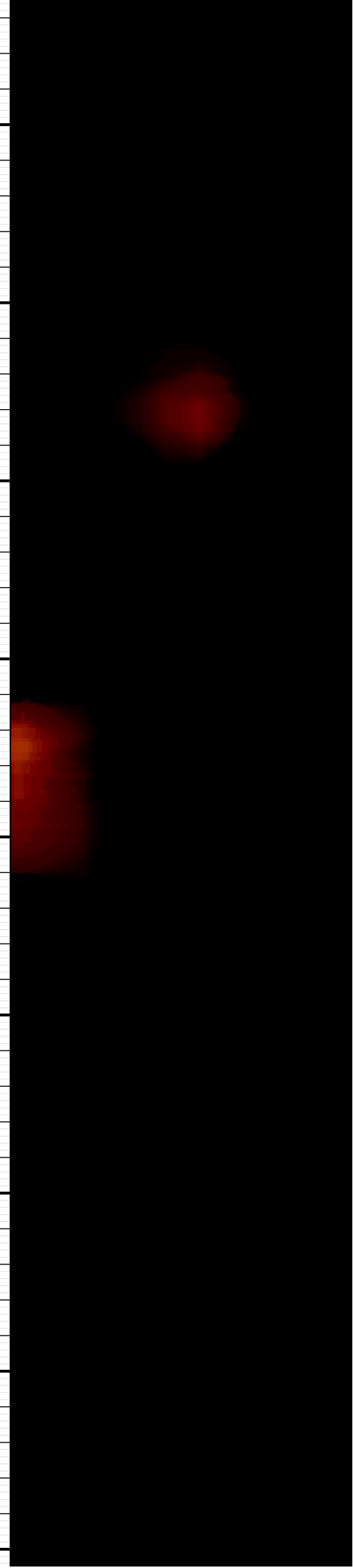
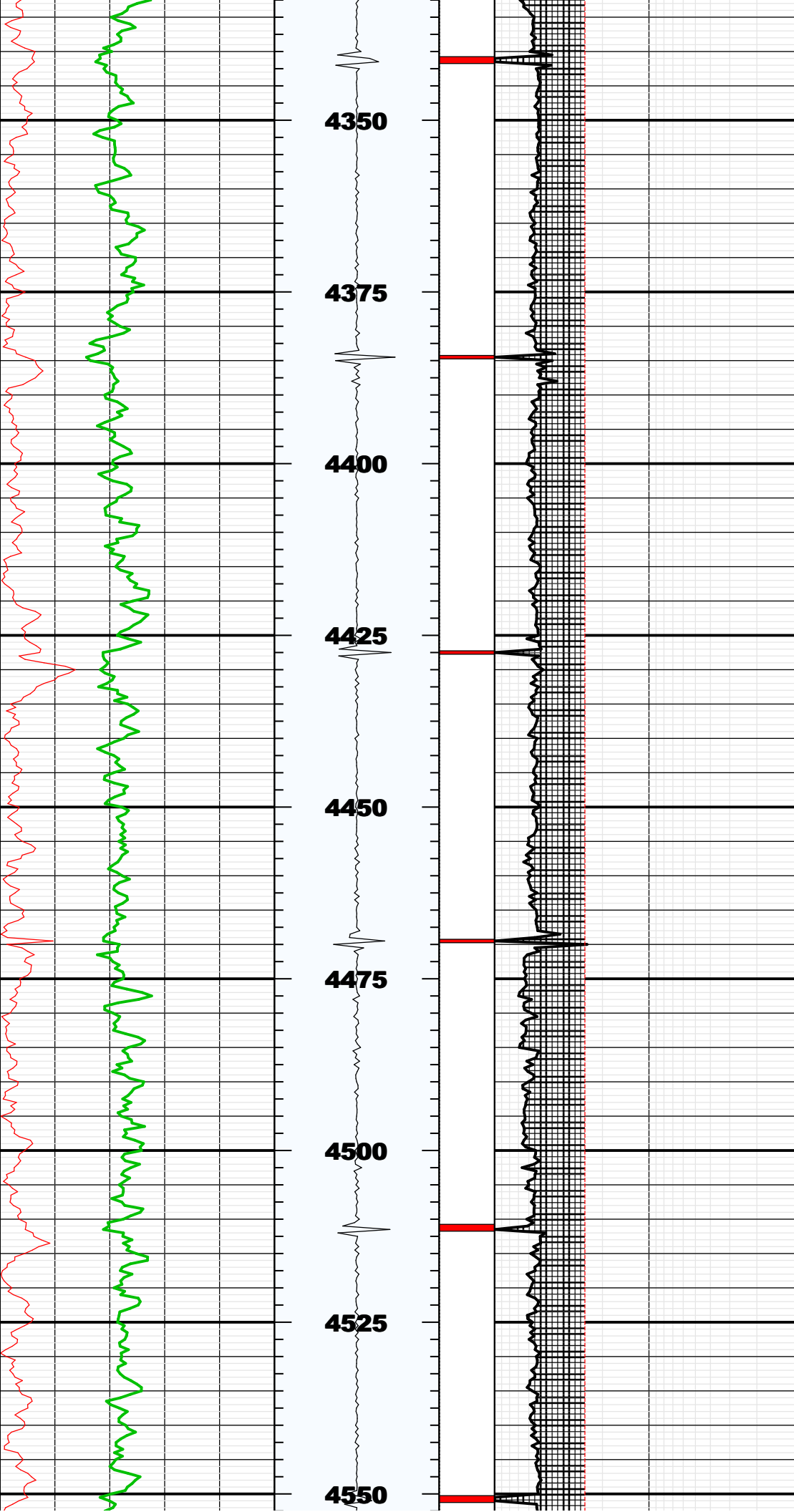


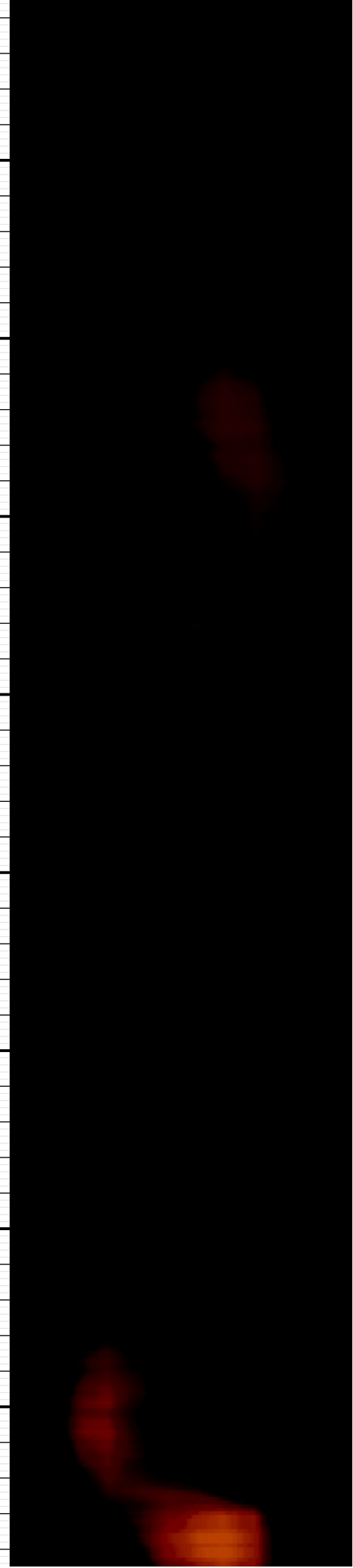
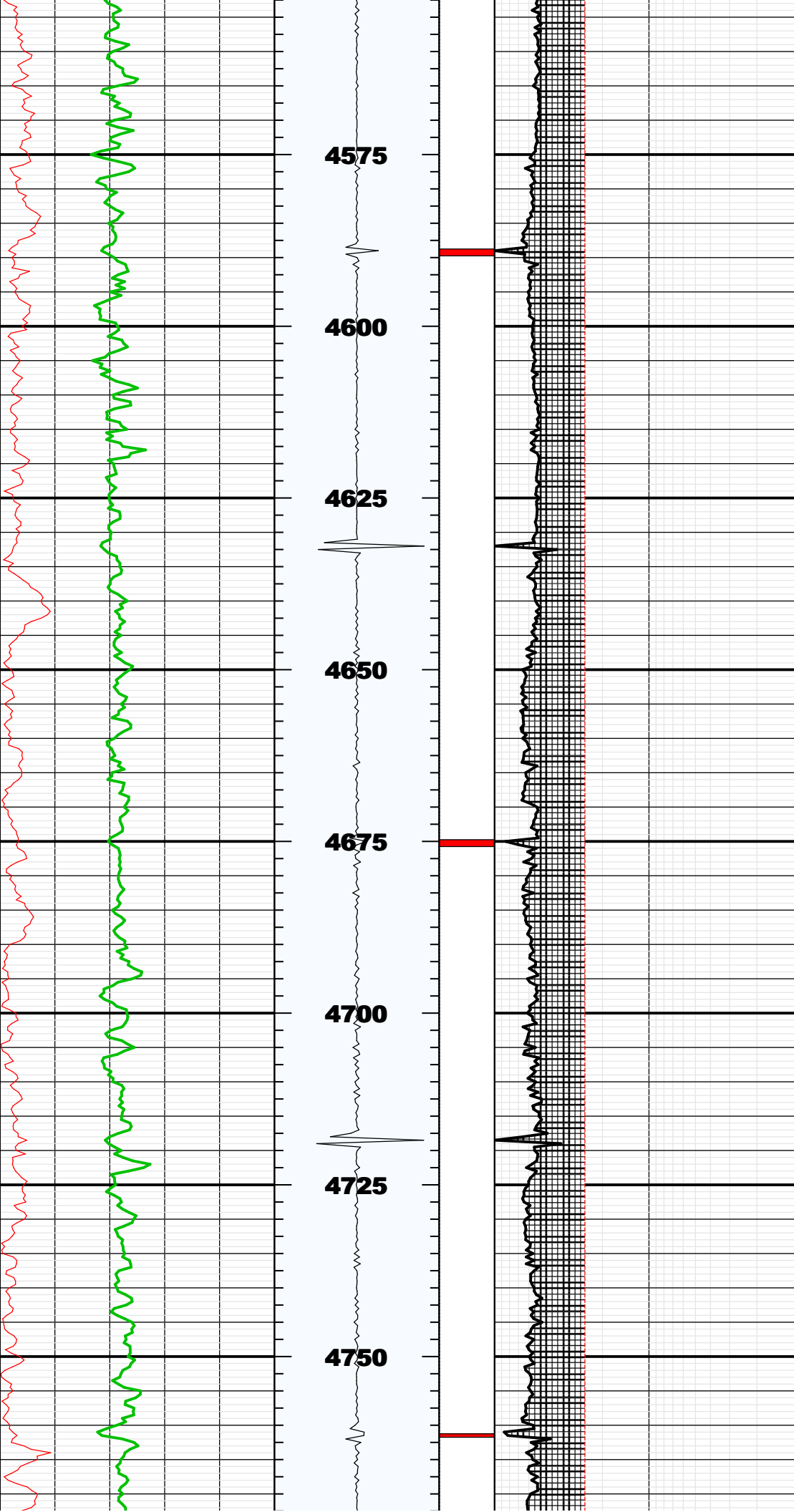




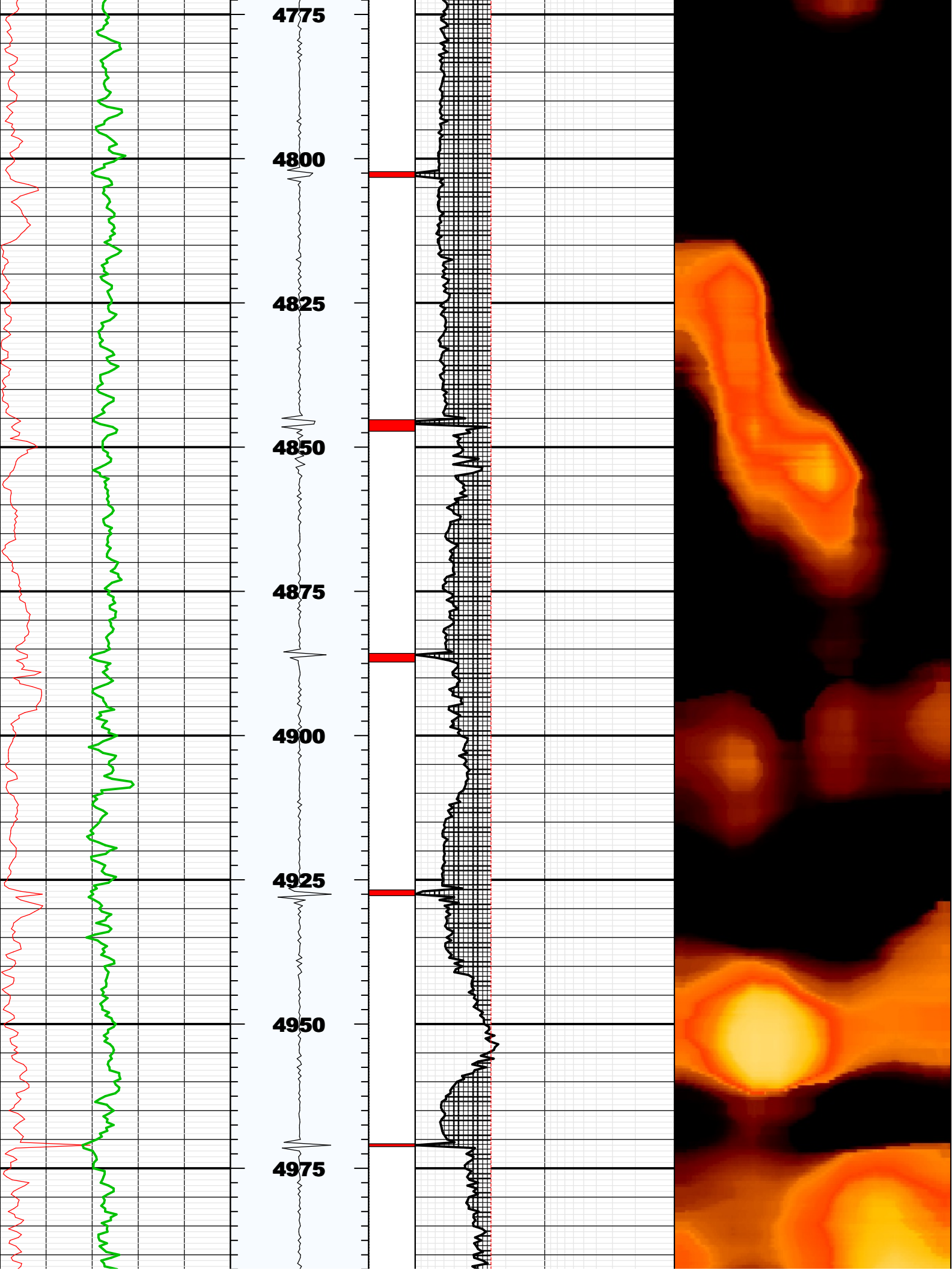


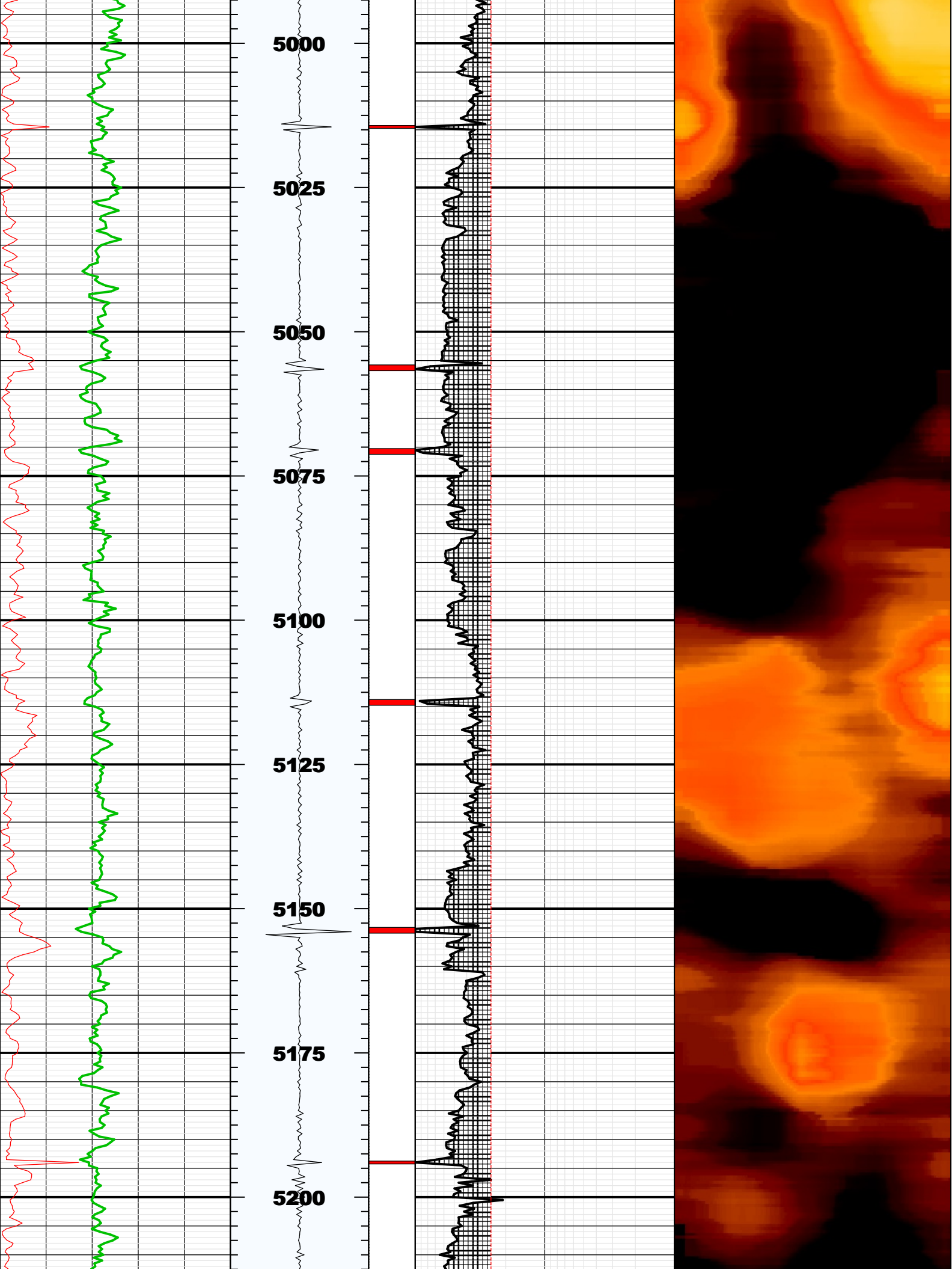


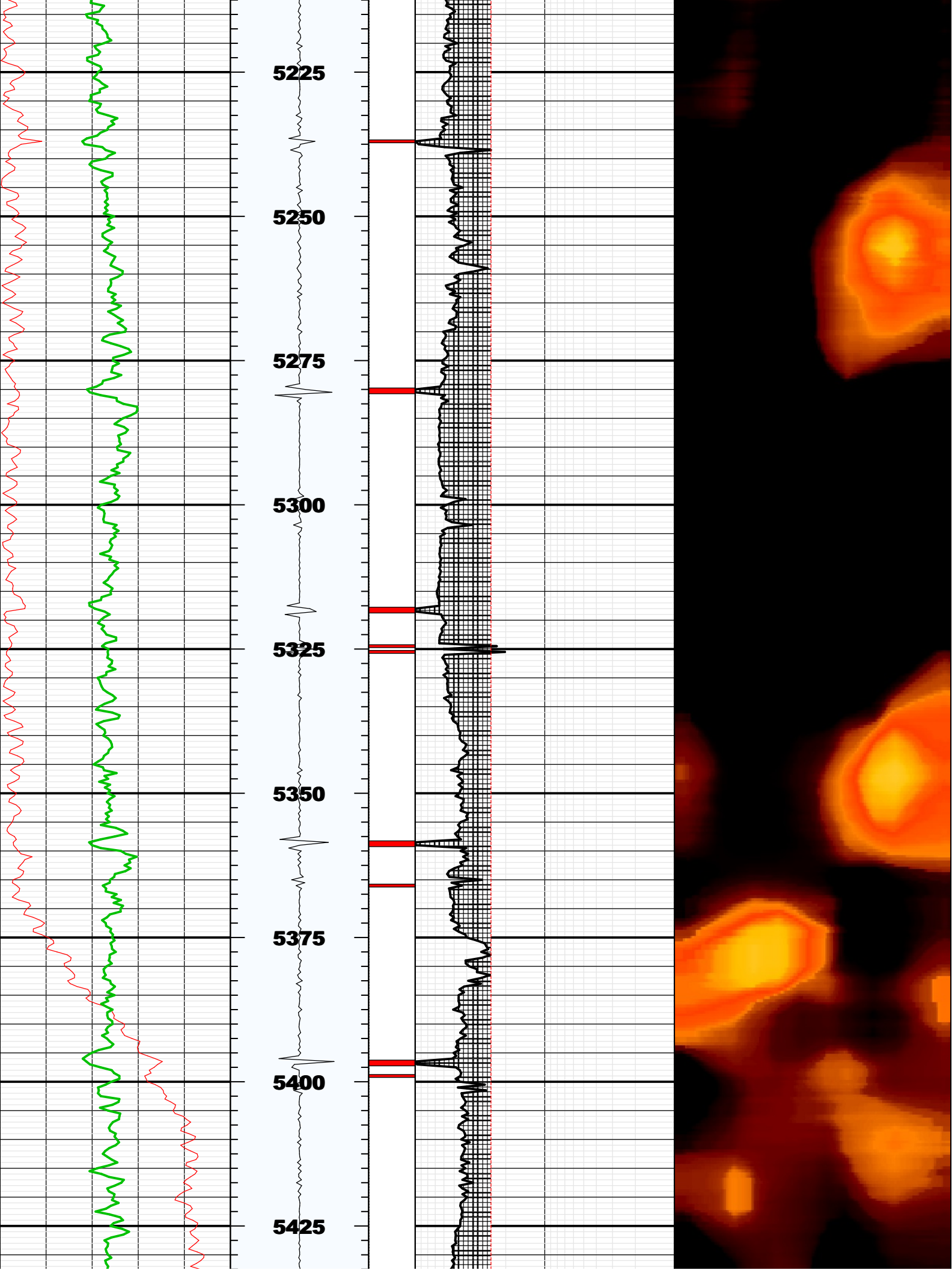


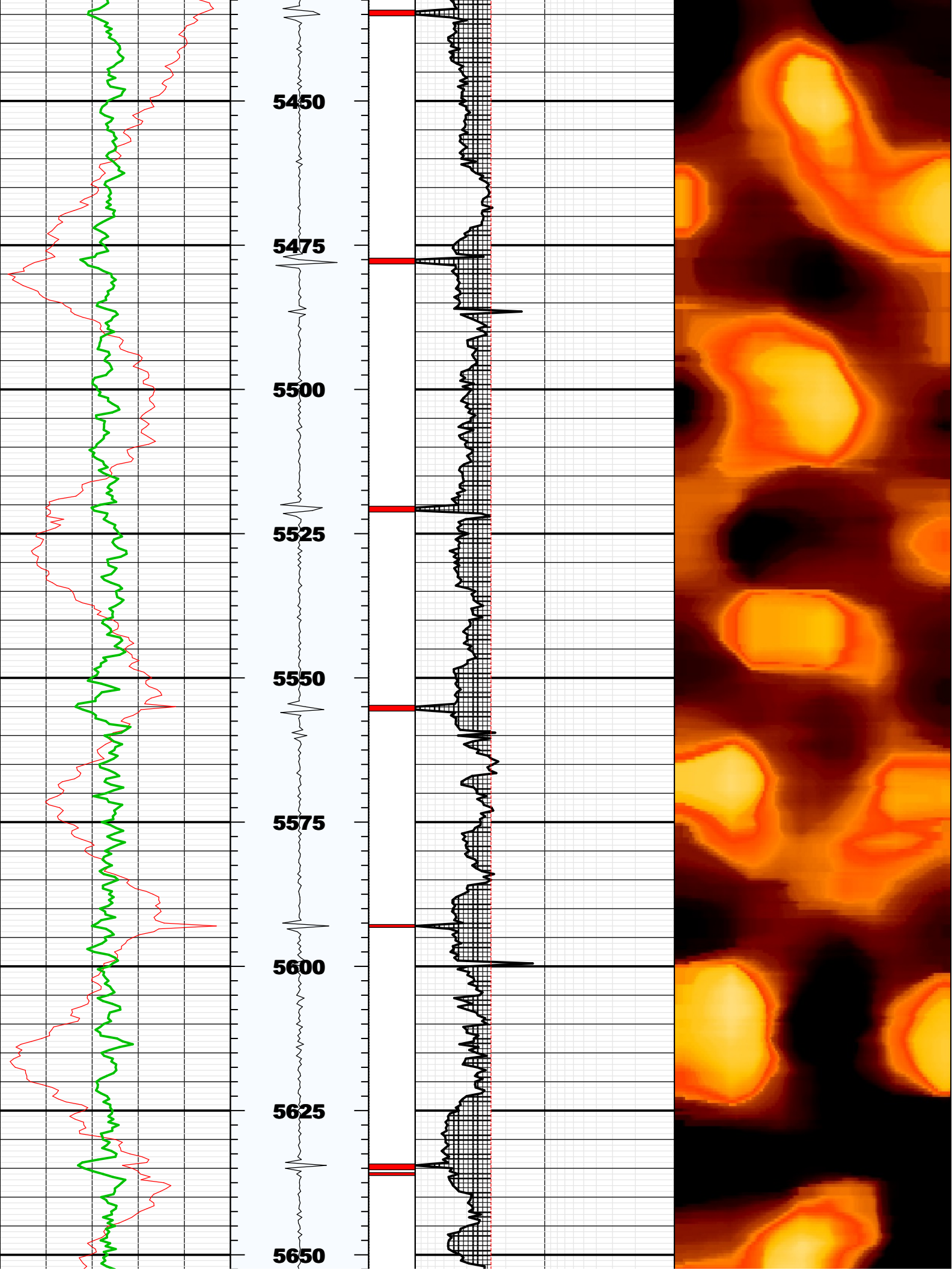




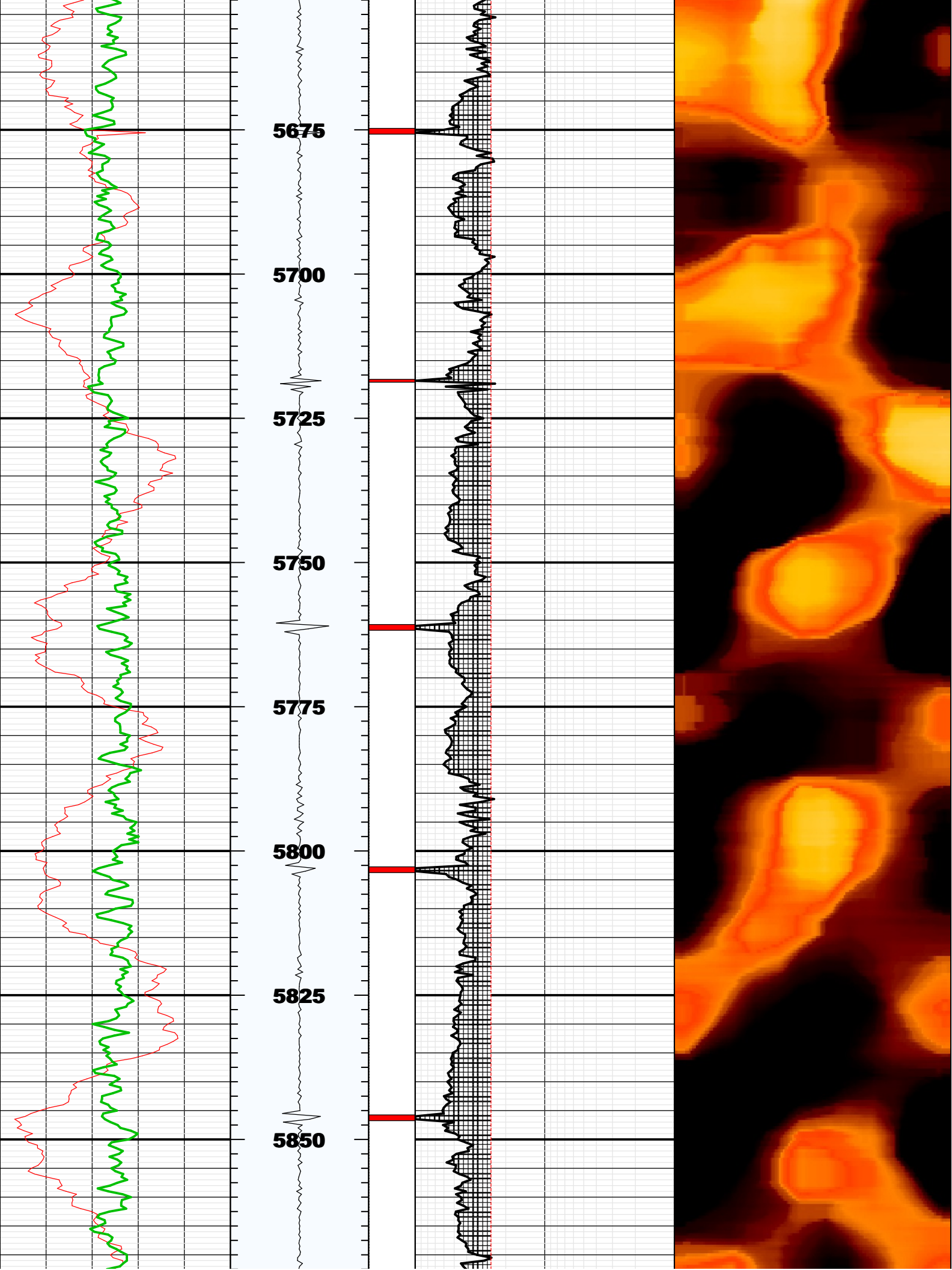


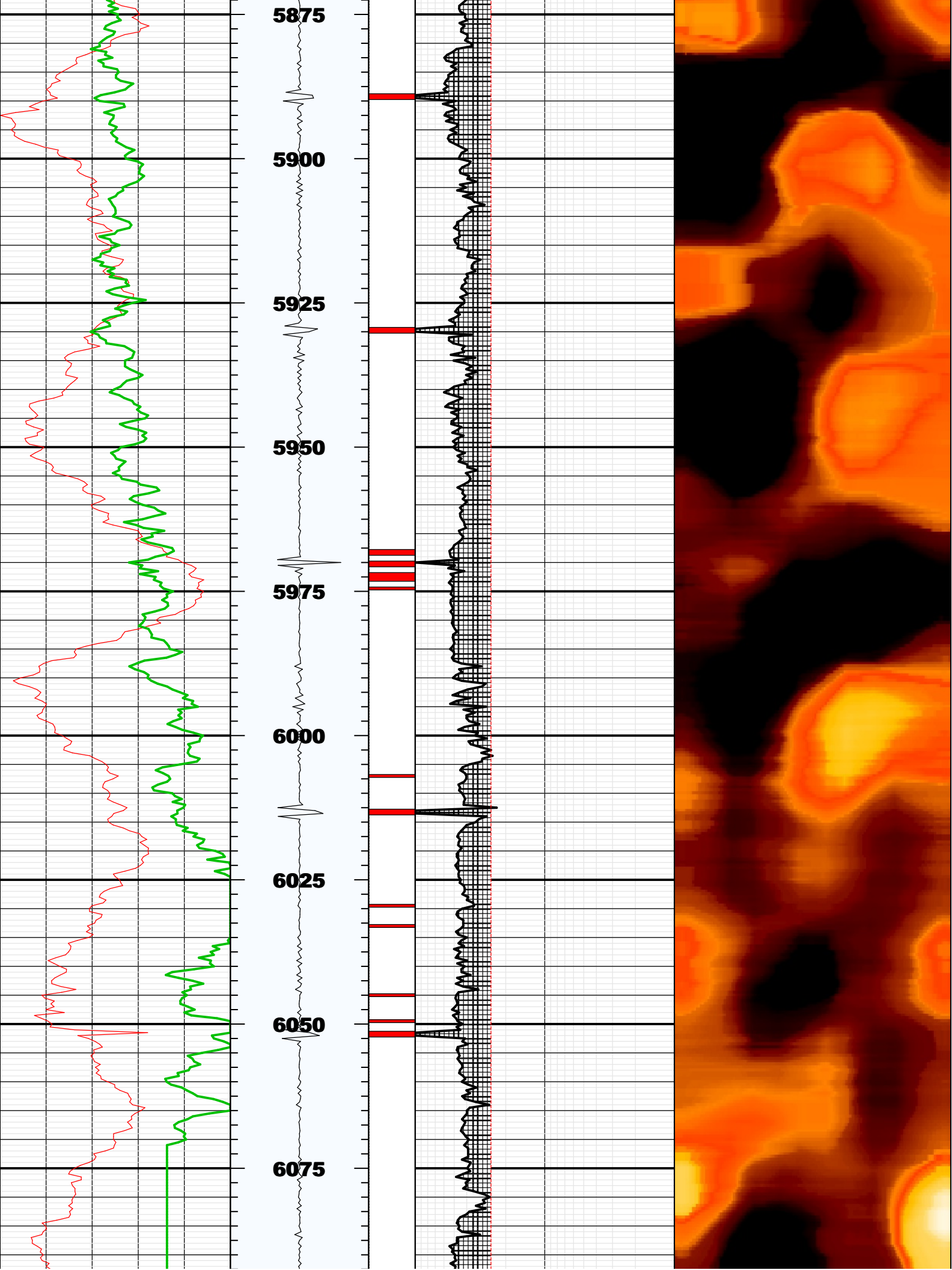














BS	8.75000	IN	Bit Size
CASG	N/A		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	195.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	30	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	35.28250	US	Window Begin Time
WINE	75.28250	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.79000	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: Rainbow LC28-74-1HNA  
Field: Wildcat

