

Company: Noble Energy Inc

Well: Wells Ranch AA11-682
Field: Wattenberg
County: Weld State: Colorado

County: Weld		USI-LITE				
Field: Wattenberg						
Location: NENE Sec.11 T6N R63W						
Well: Wells Ranch AA11-682						
Company: Noble Energy Inc						
LOCATION		Permanent Datum: Log Measured From: Drilling Measured From:	GL KB KB	Elev: K.B. 4886.0 F G.L. 4856.0 F D.F. 4885.0 F		
API Serial No. 05-123-41210	Section 11				Township 6N	Range 63W
Logging Date 01-Jul-2015	Run Number Run 1					
Depth Driller 7120.9 F						
Schlumberger Depth 7120.9 F						
Bottom Log Interval 6892.0 F						
Top Log Interval 30.0 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 638.0 F						
To 7120.9 F						
Casing Size 7.00 IN						
Weight 26.00 LB/F						
Grade P110						
From 0.0 F						
To 7111.3 F						
Max Recorded Temp 213.0						
Logger on bottom (date) 01-Jul-2015						
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: Calibration Date: Calibrator Serial Number: Number Of Calibration Points: Calibration RMS: Calibration Peak Error:	Serial Number: Length: 24000.00000

DISCLAIMER

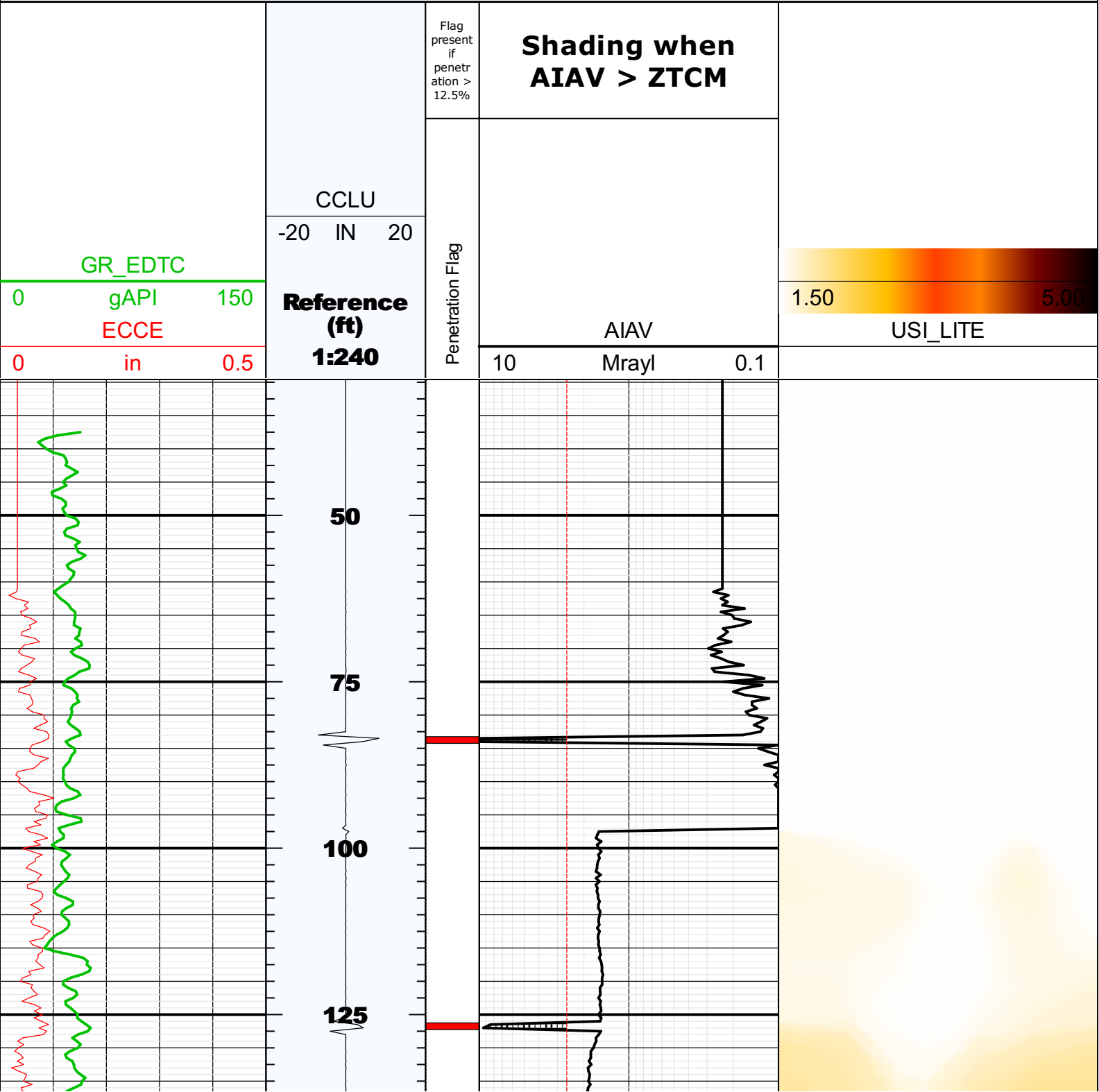
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRCTIONS ON USE OF THE RECORDED-DATA (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

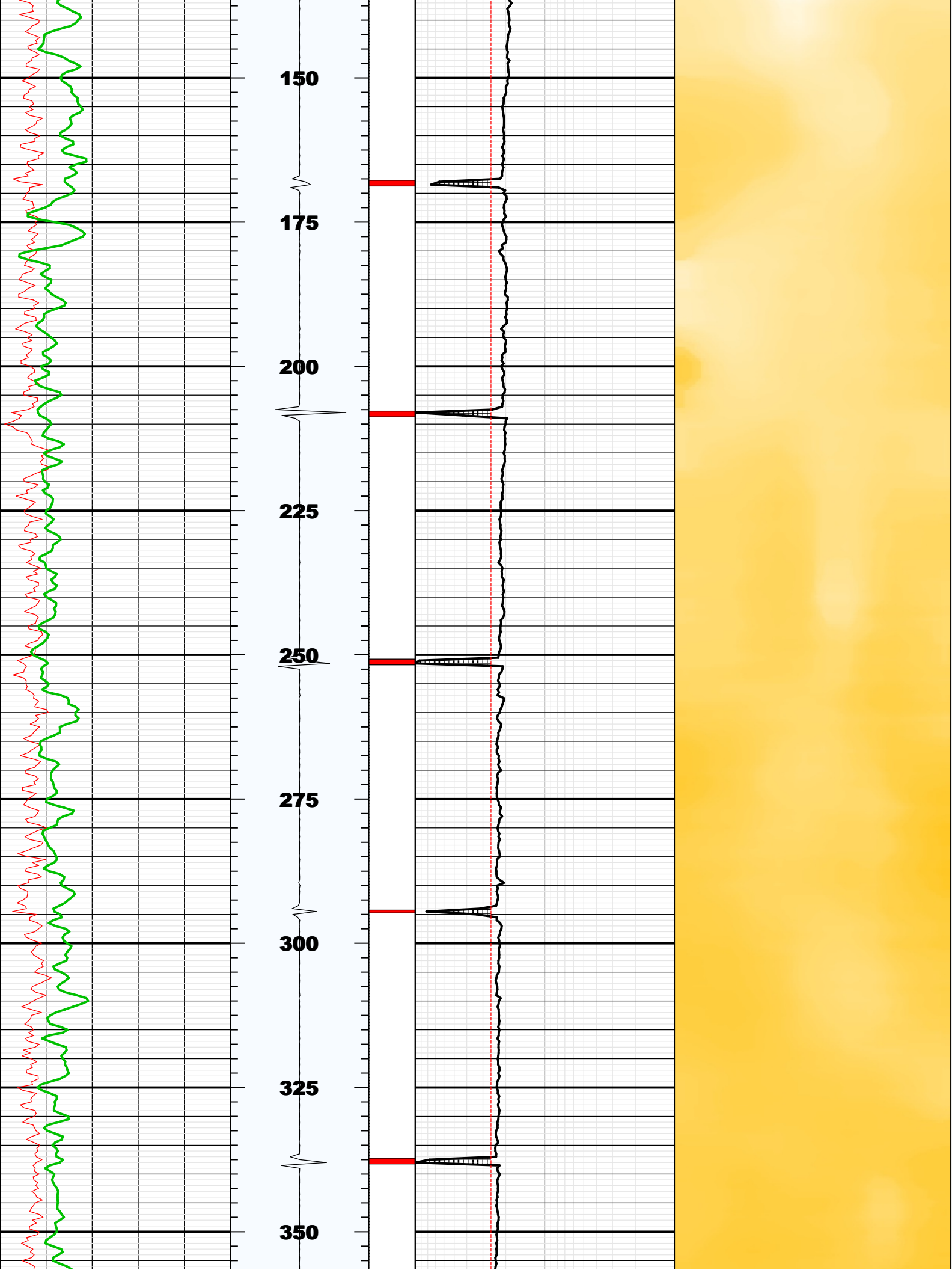
Toolstring ran as per tool sketch
Repeat pass is done with 0 psi
Main pass is done under 2500 psi
Temperature at the bottom 213 degF
Log started 30 ft above top of the liner 6892 ft
Top of the cement 584 ft

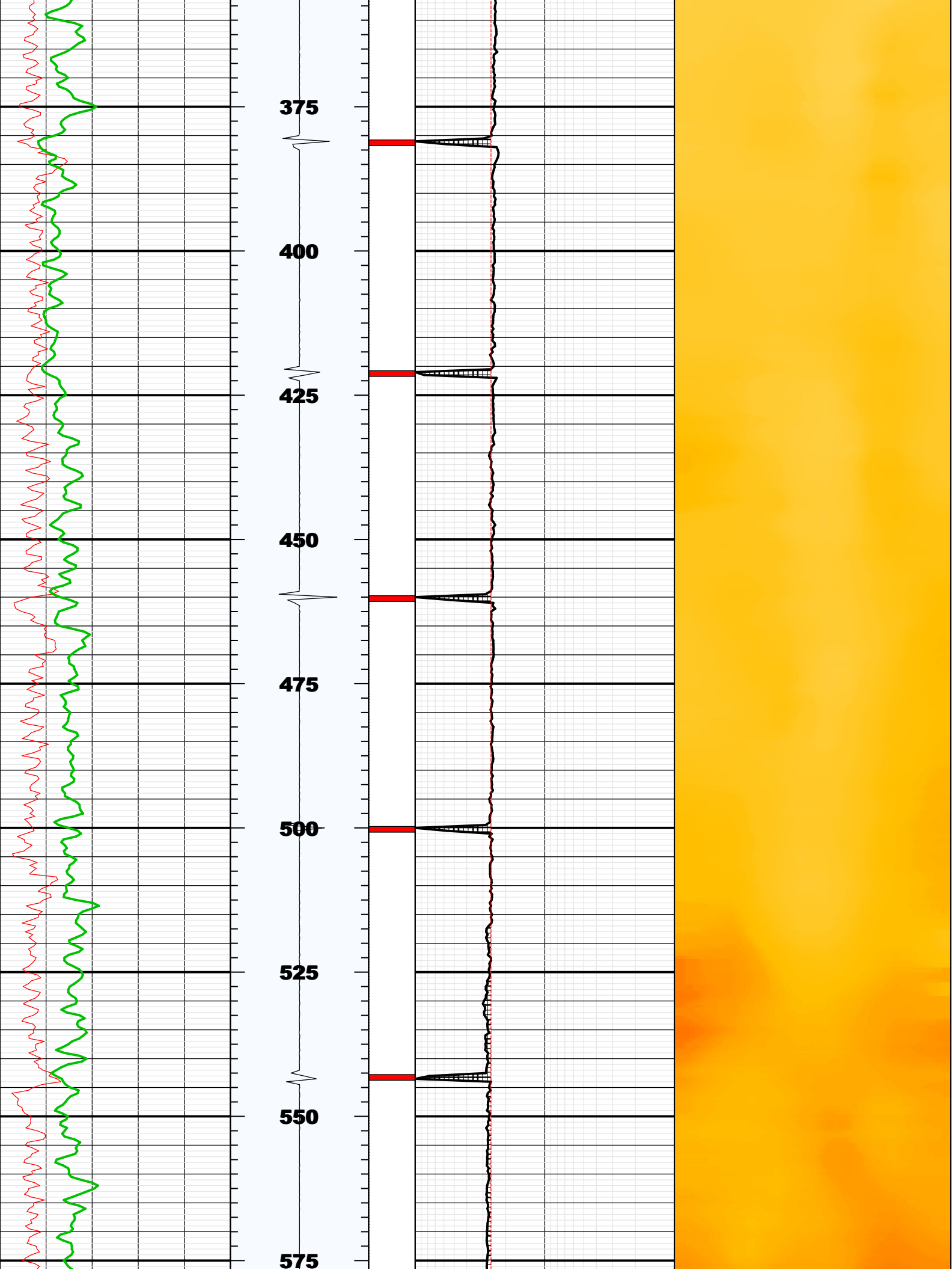
Crew Ian Derry Jake Jump
Thank you for choosing Schlumberger Wireline!

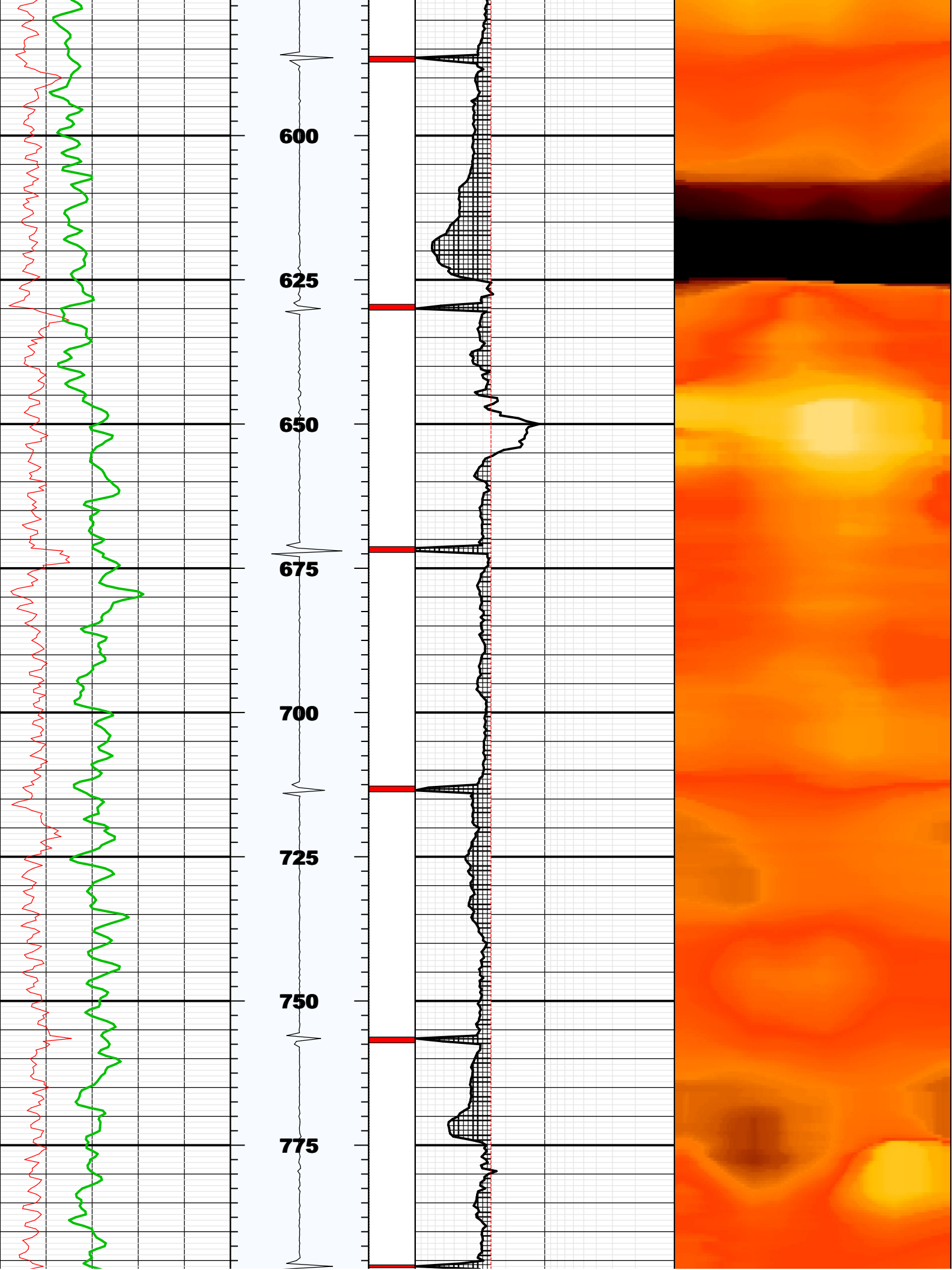
Main Pass

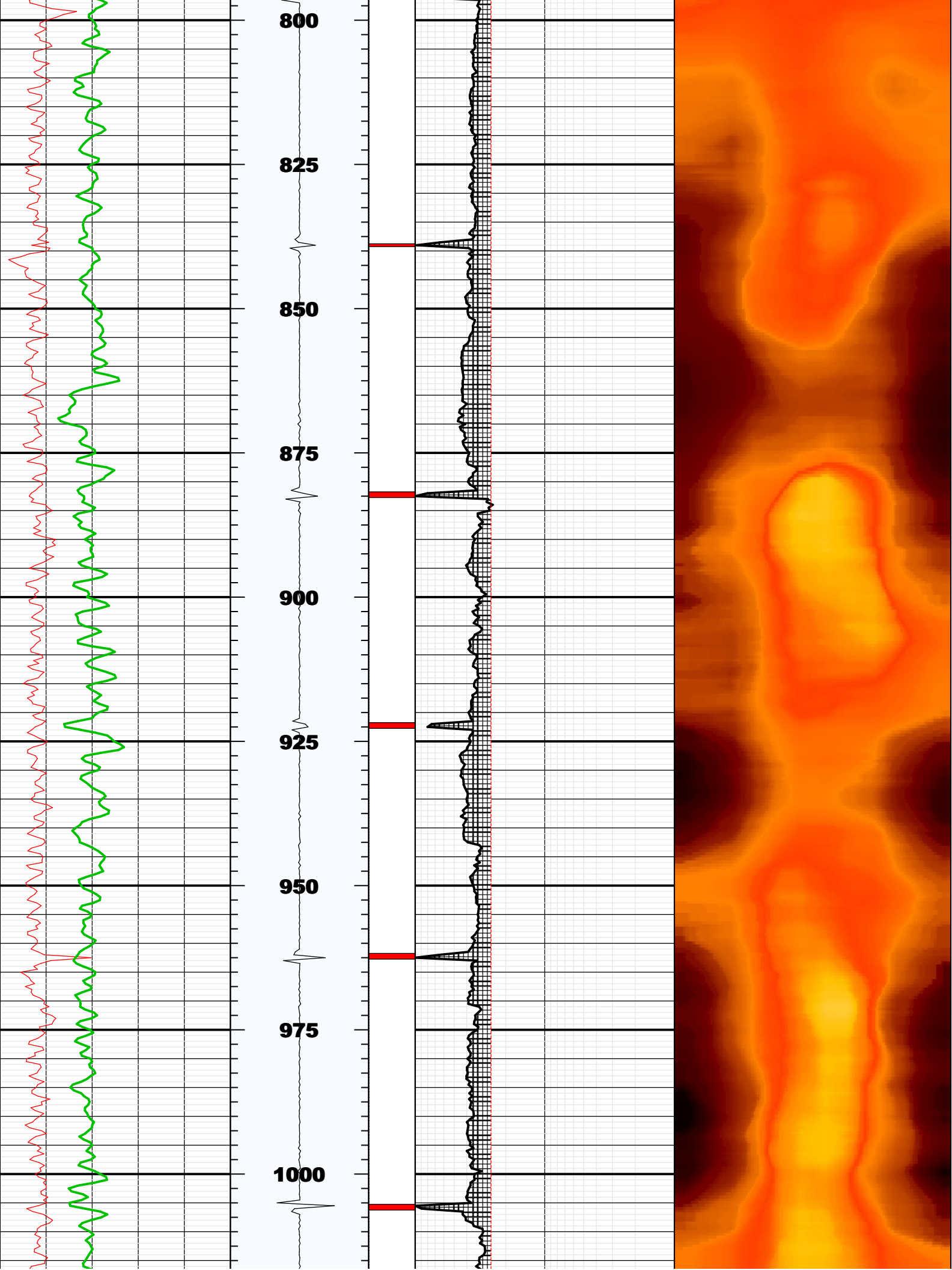
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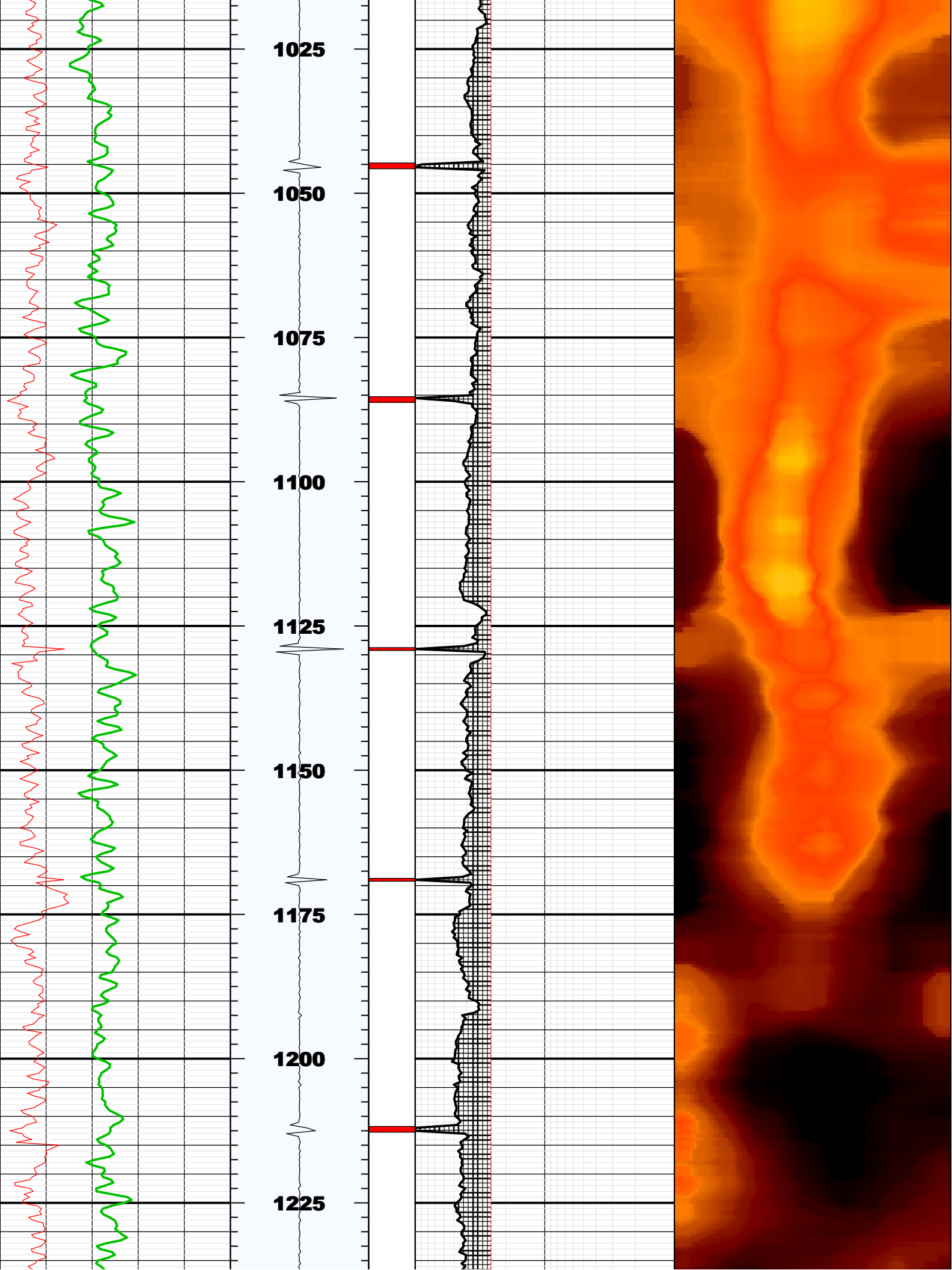


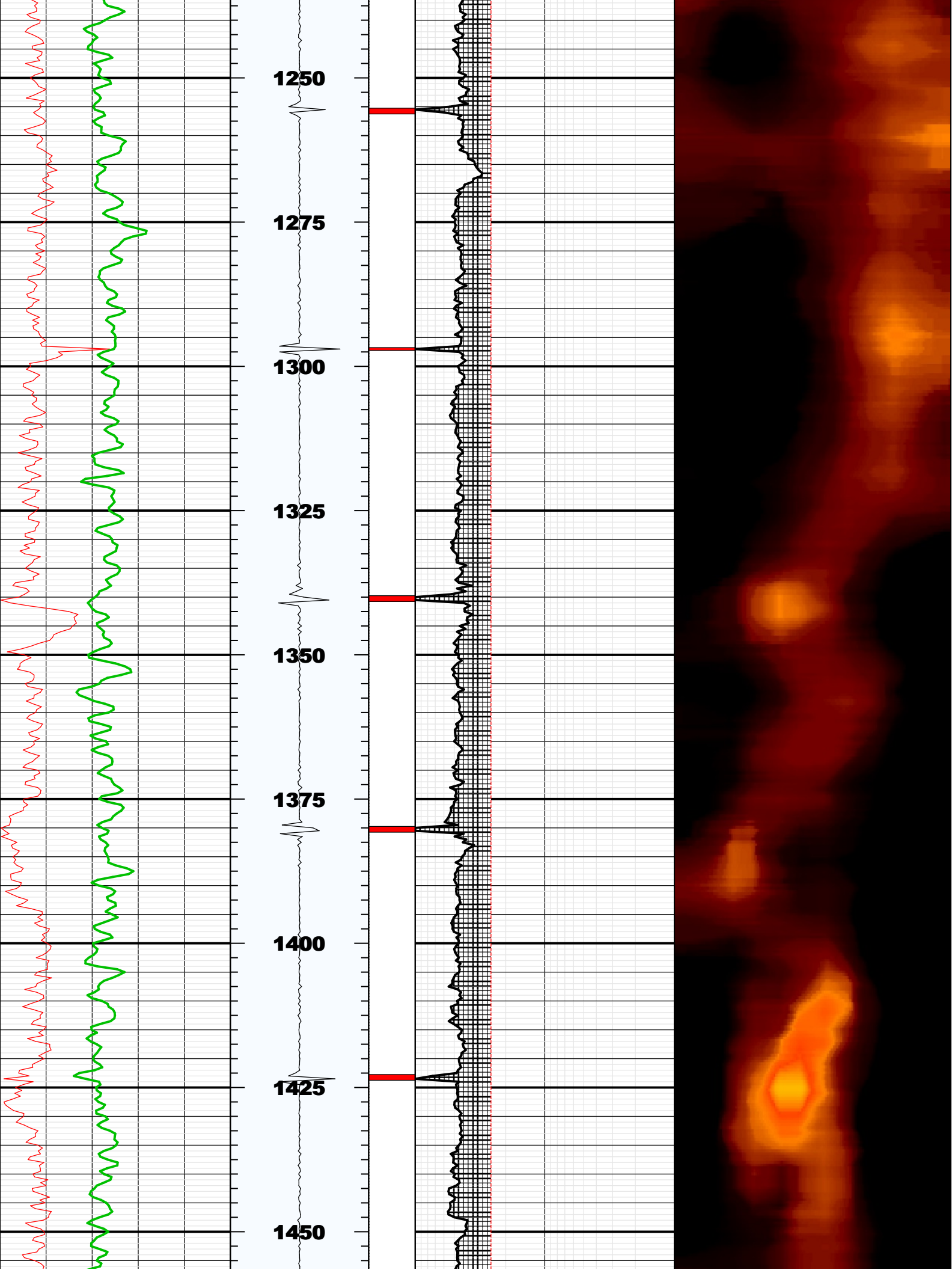


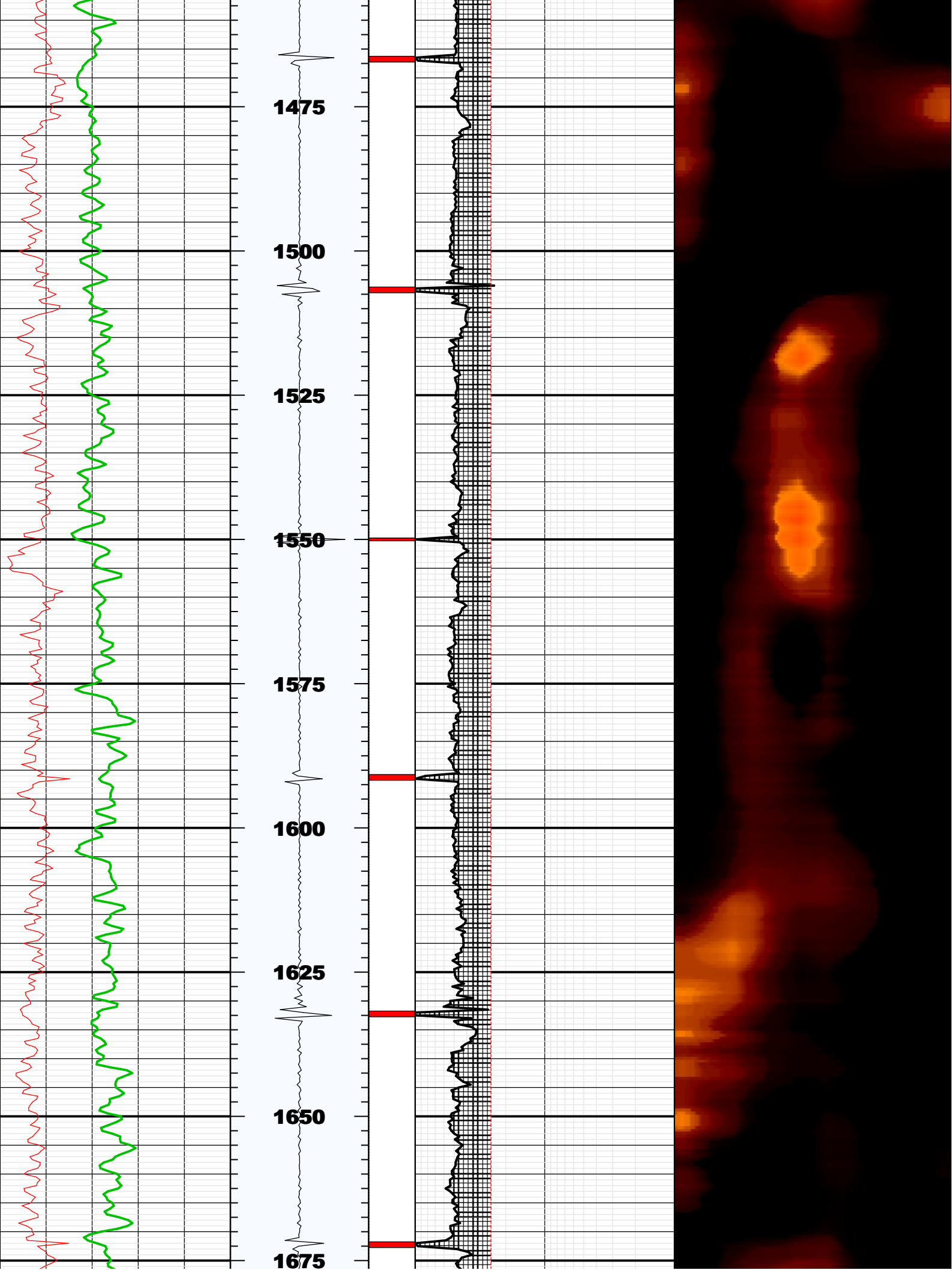


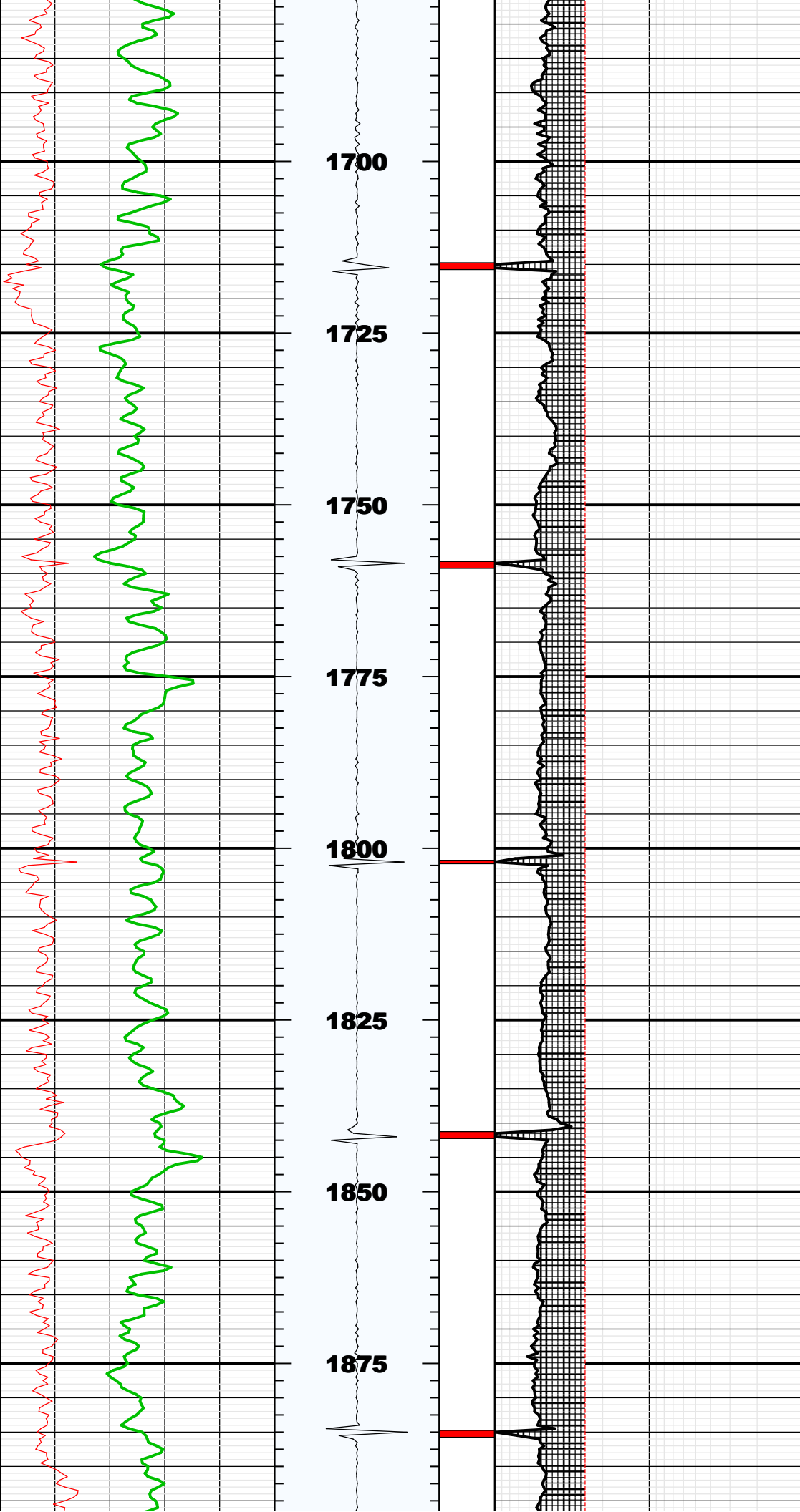


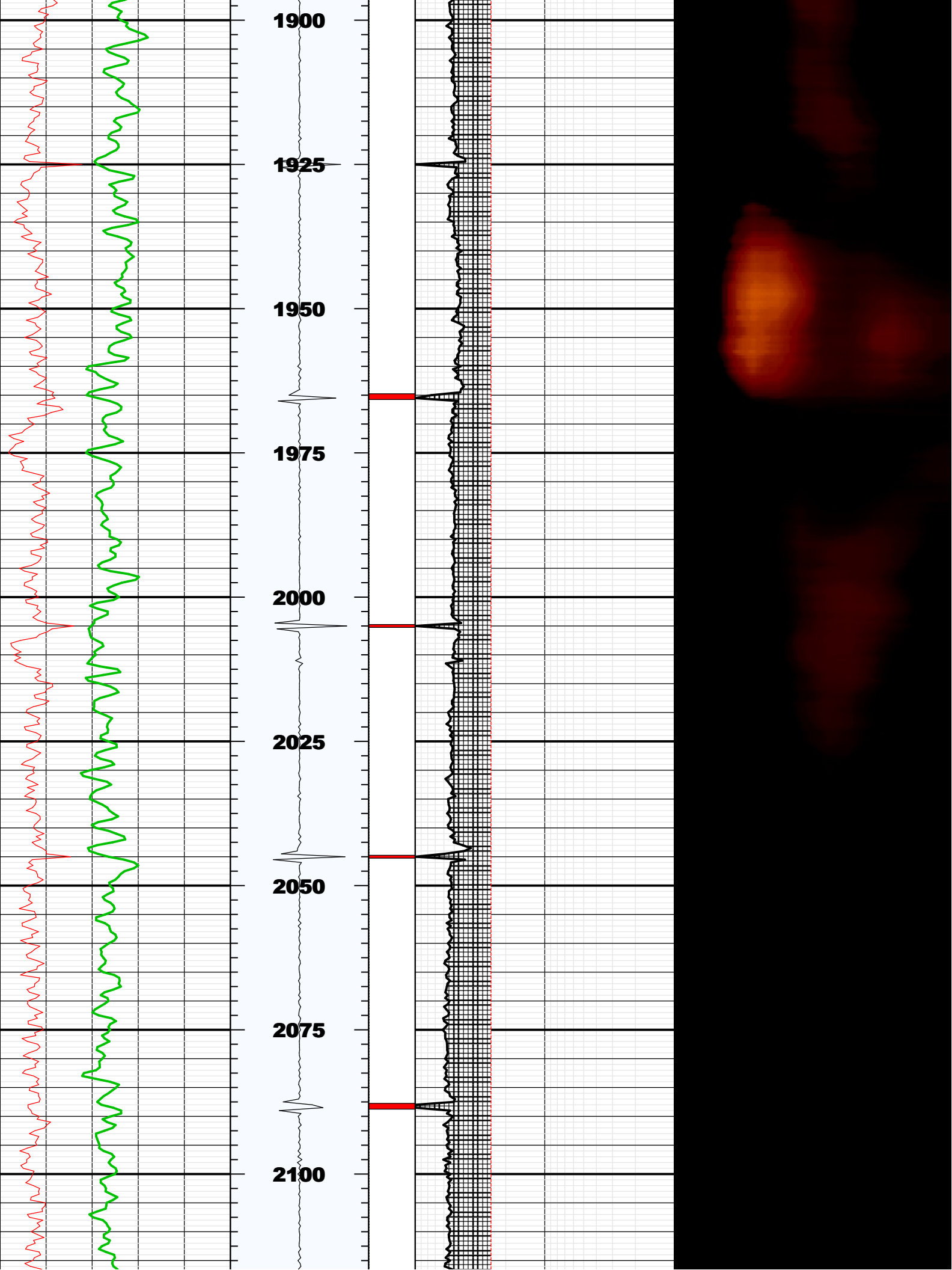


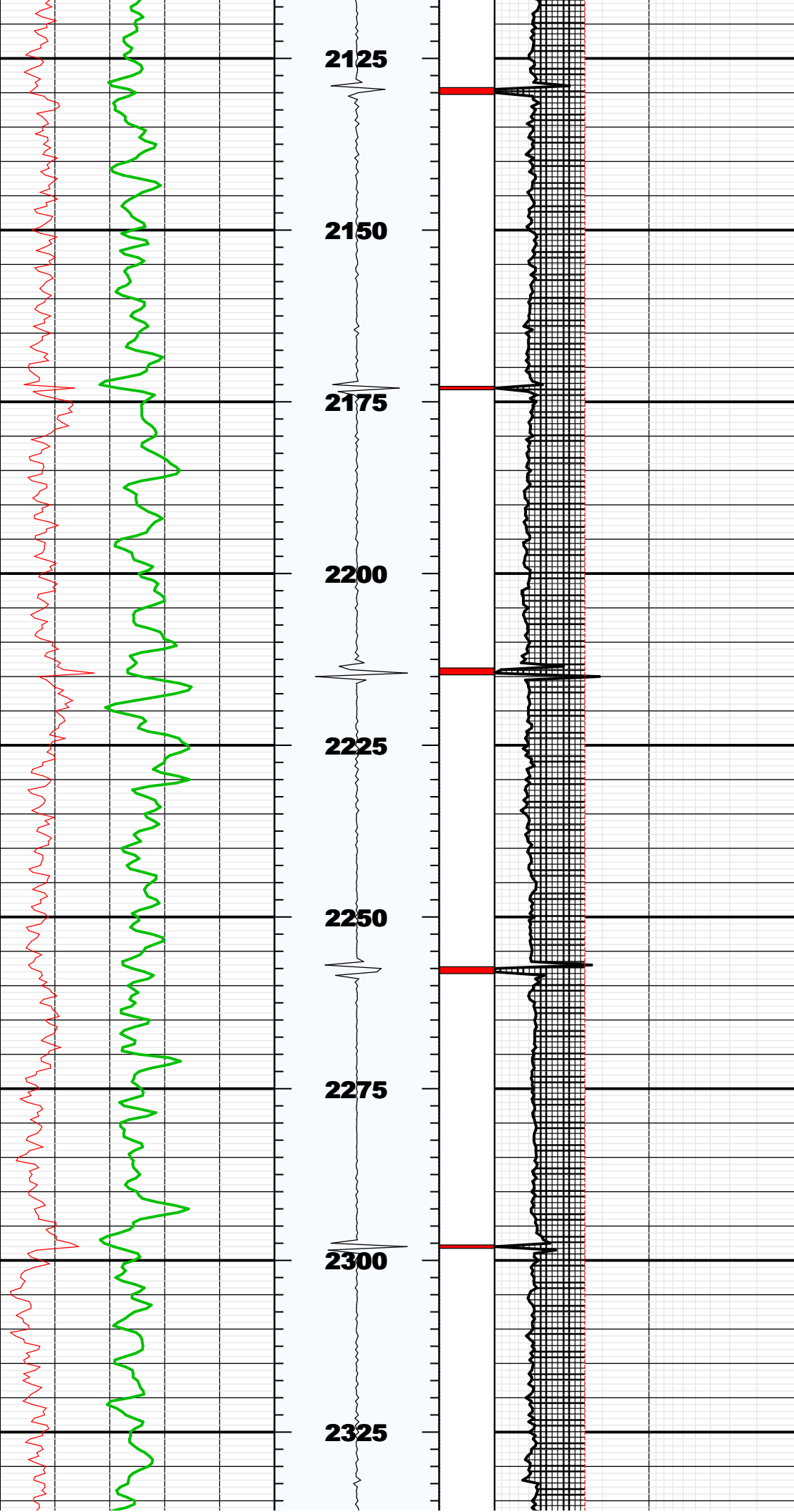


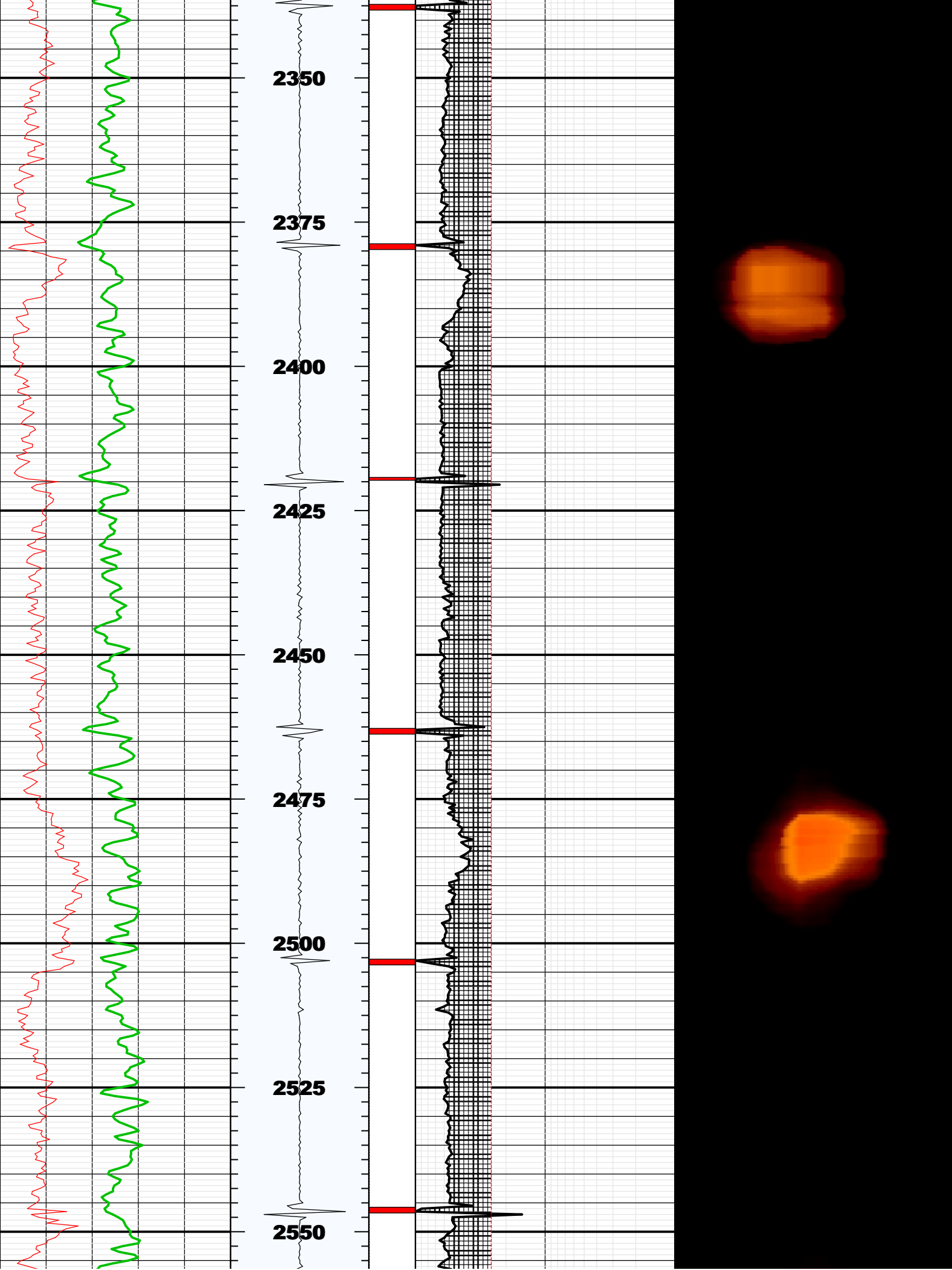


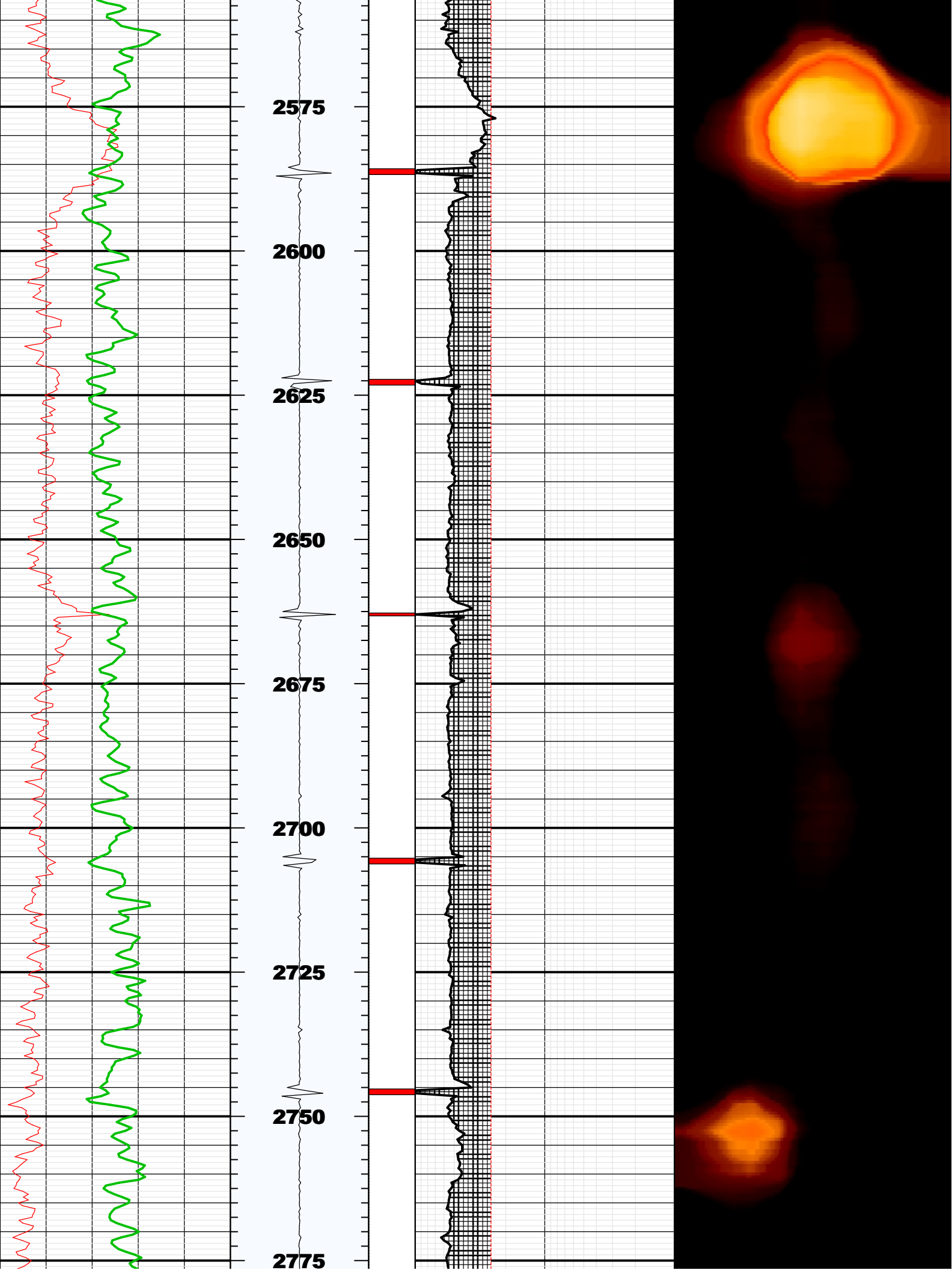


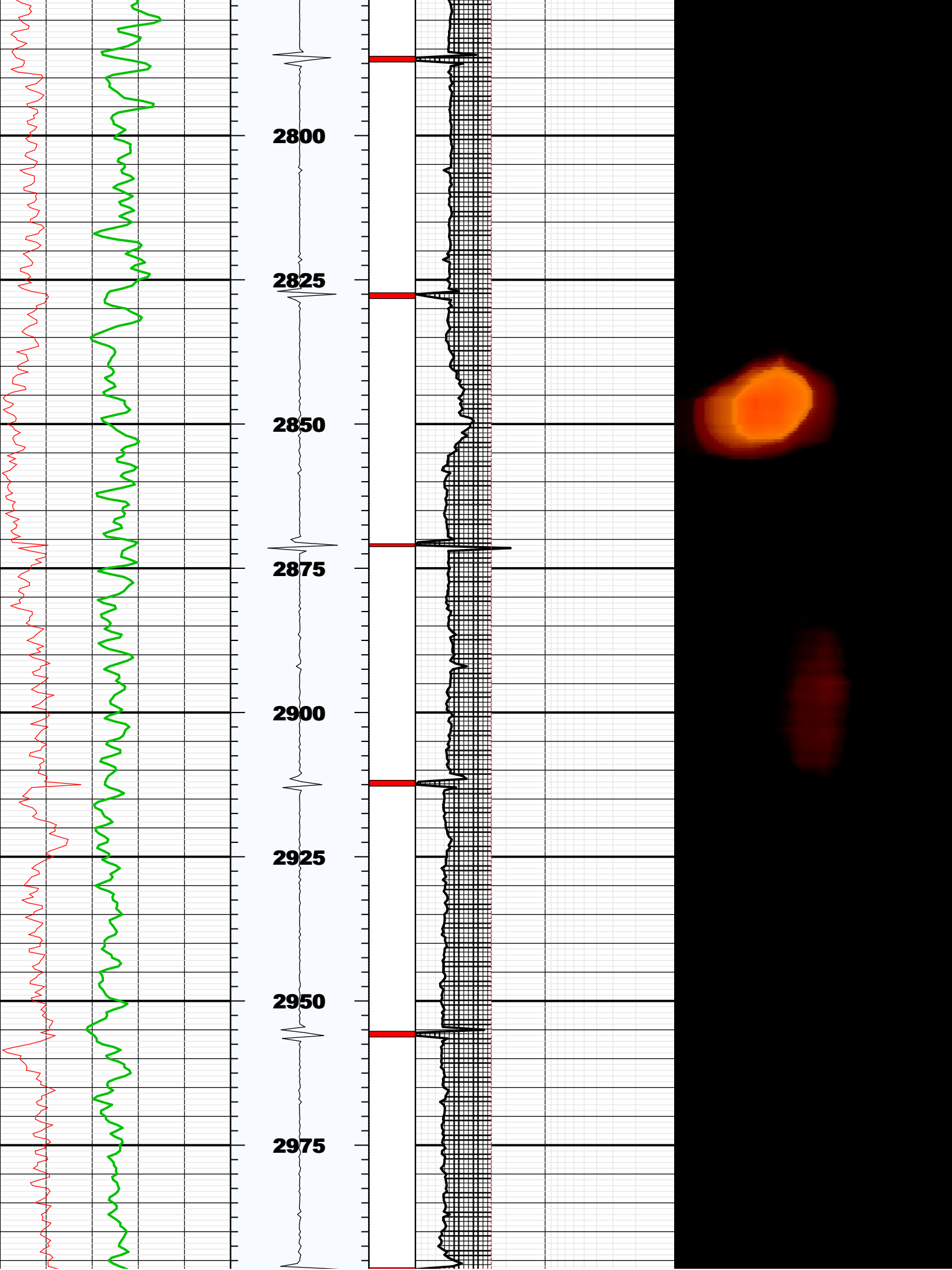


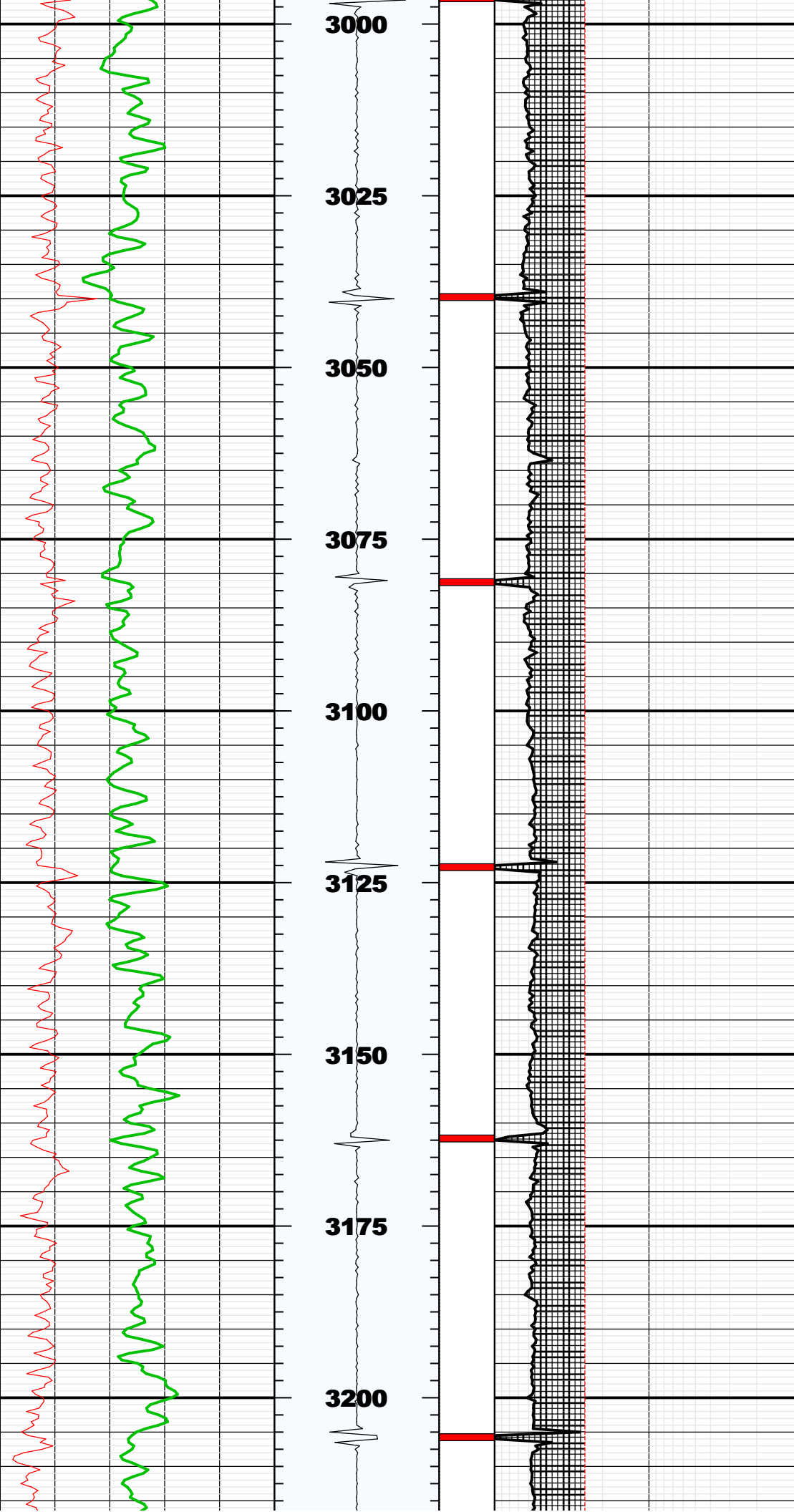


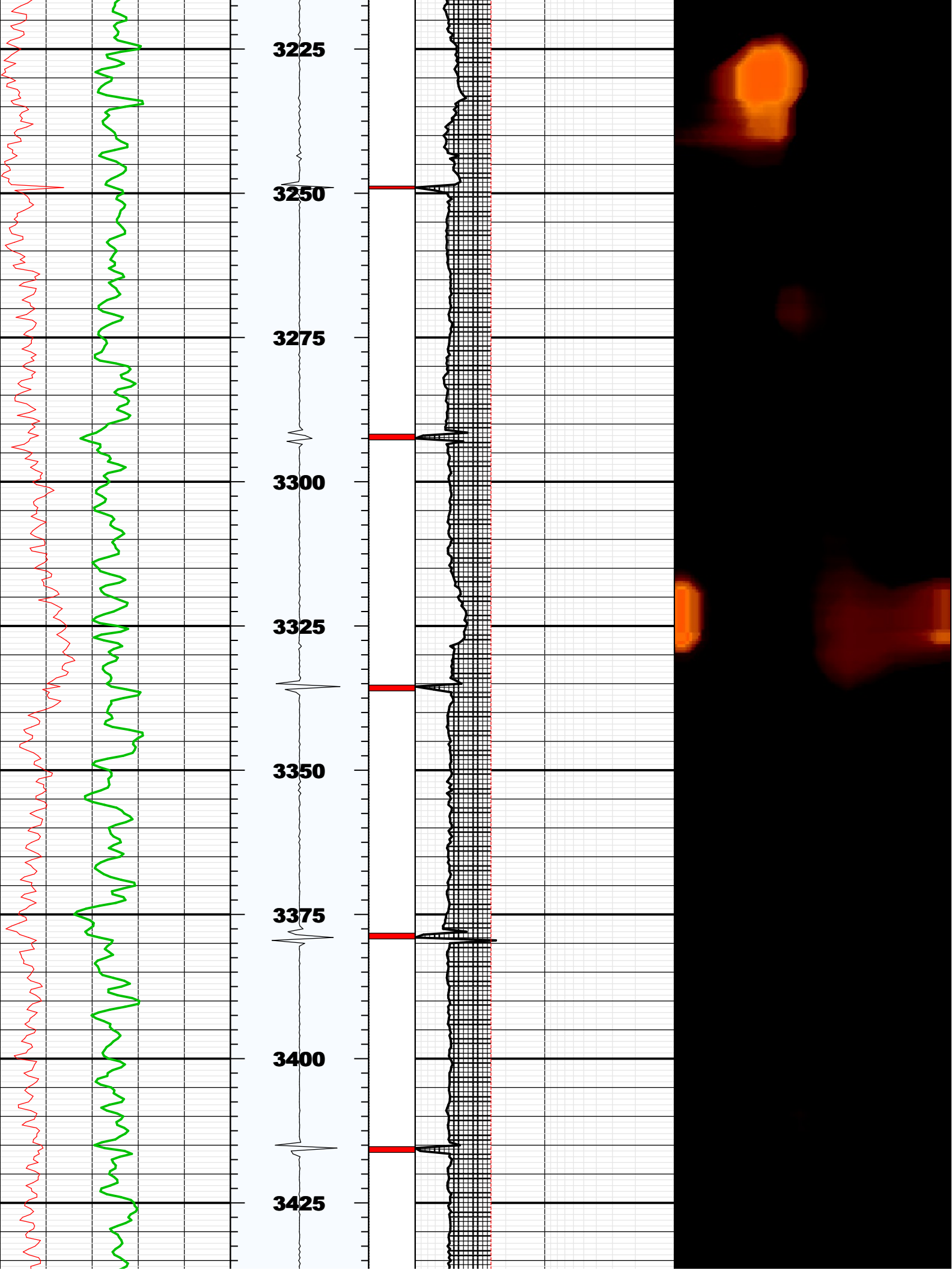


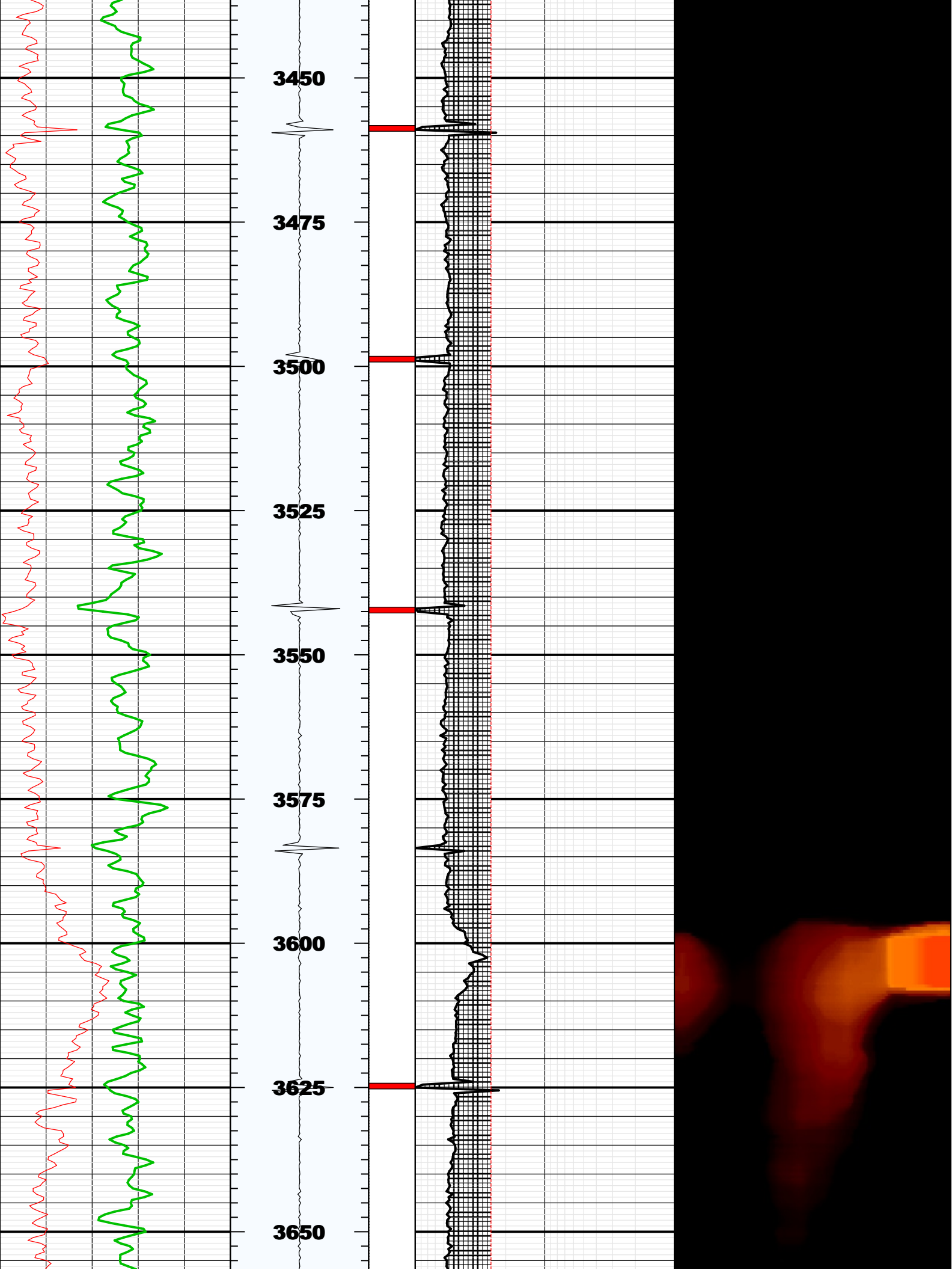


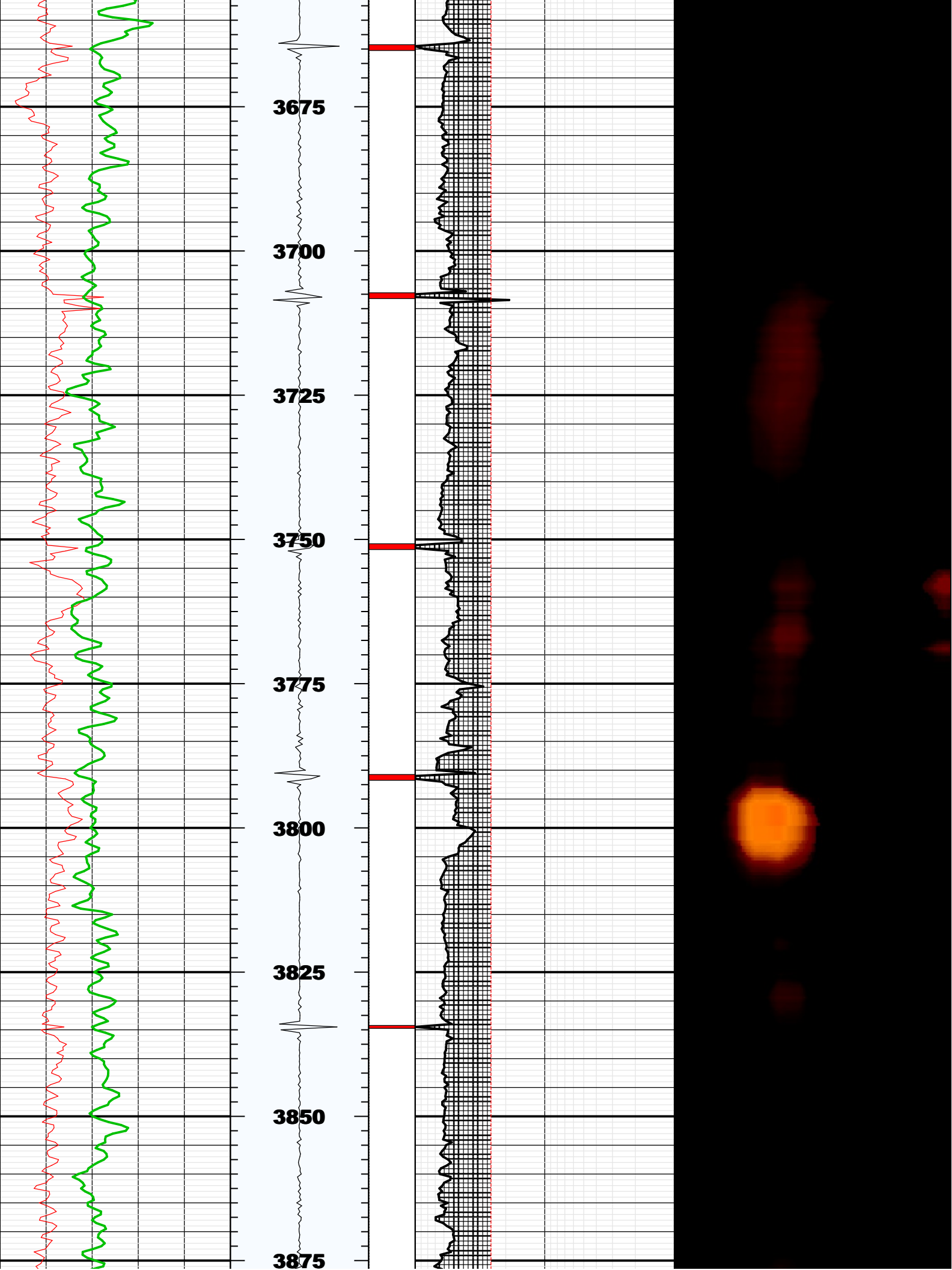


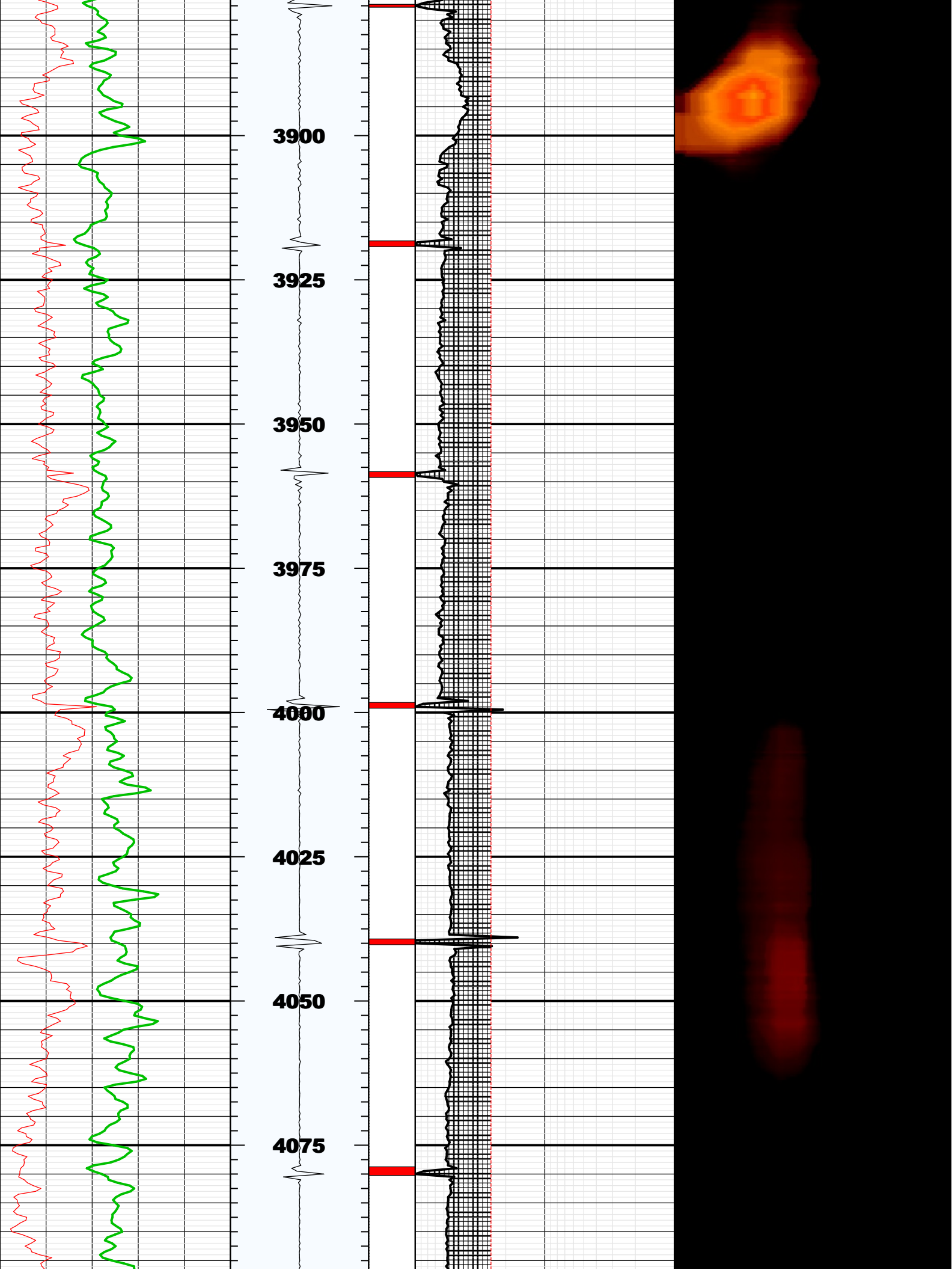


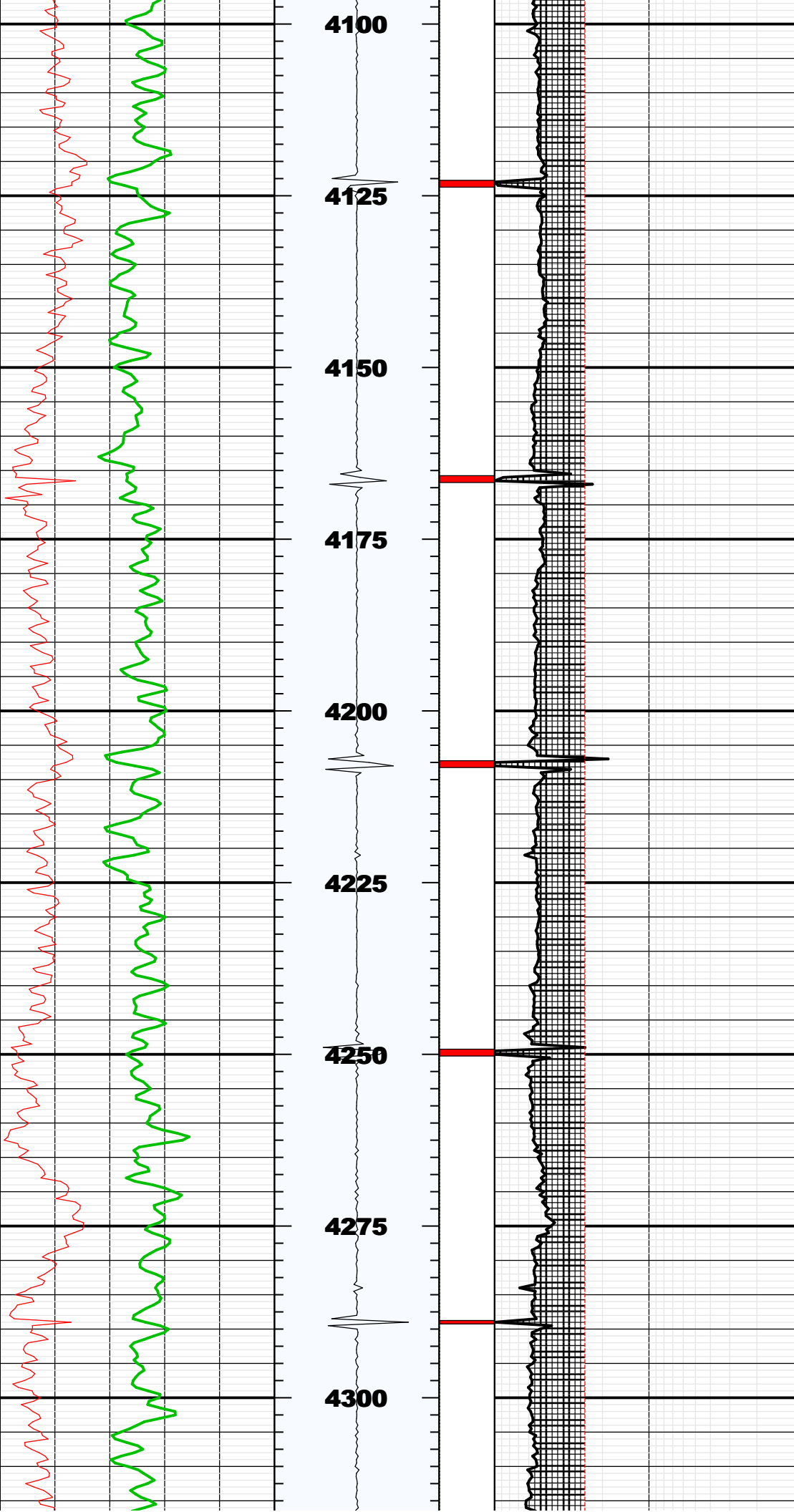


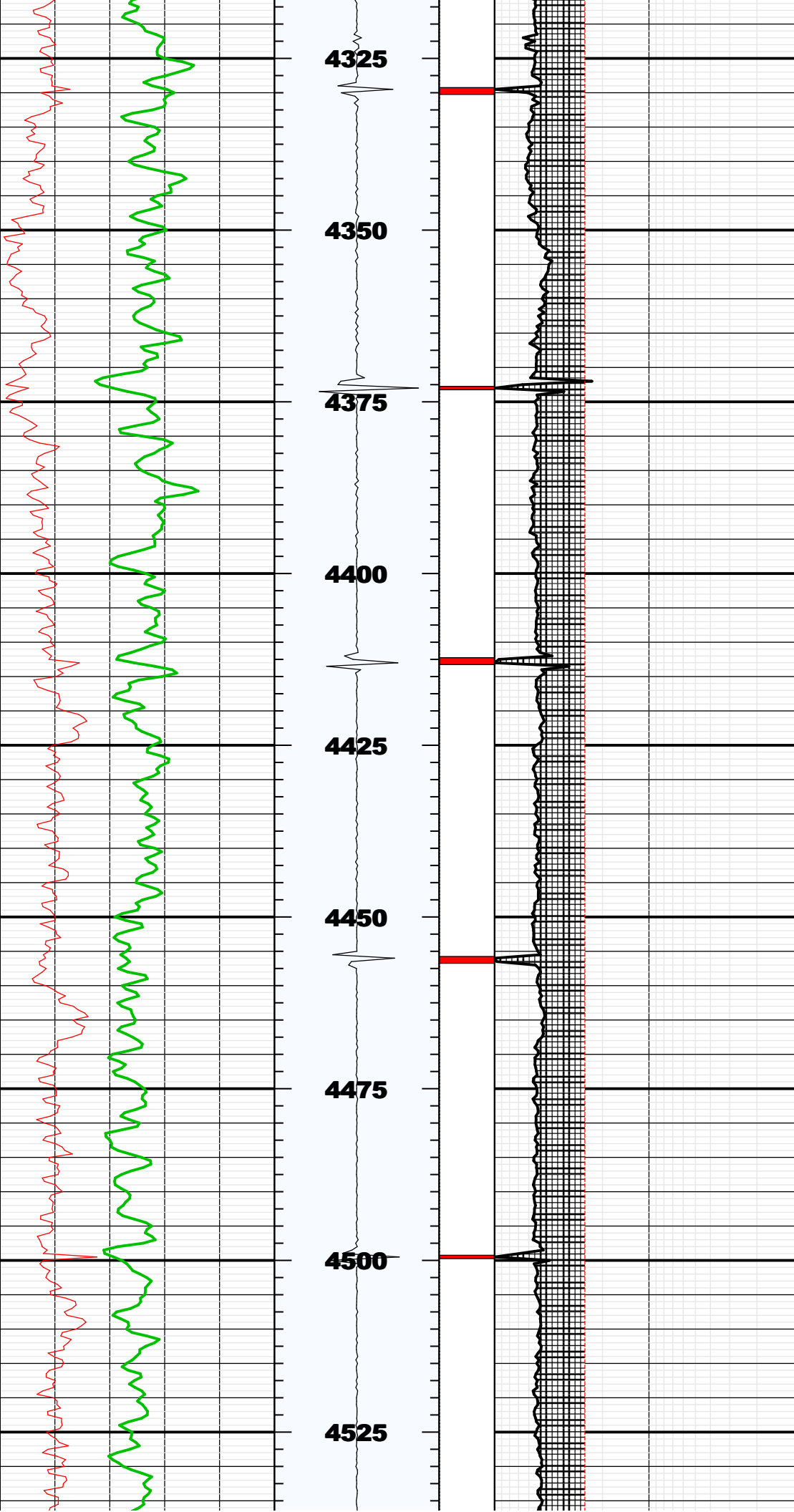


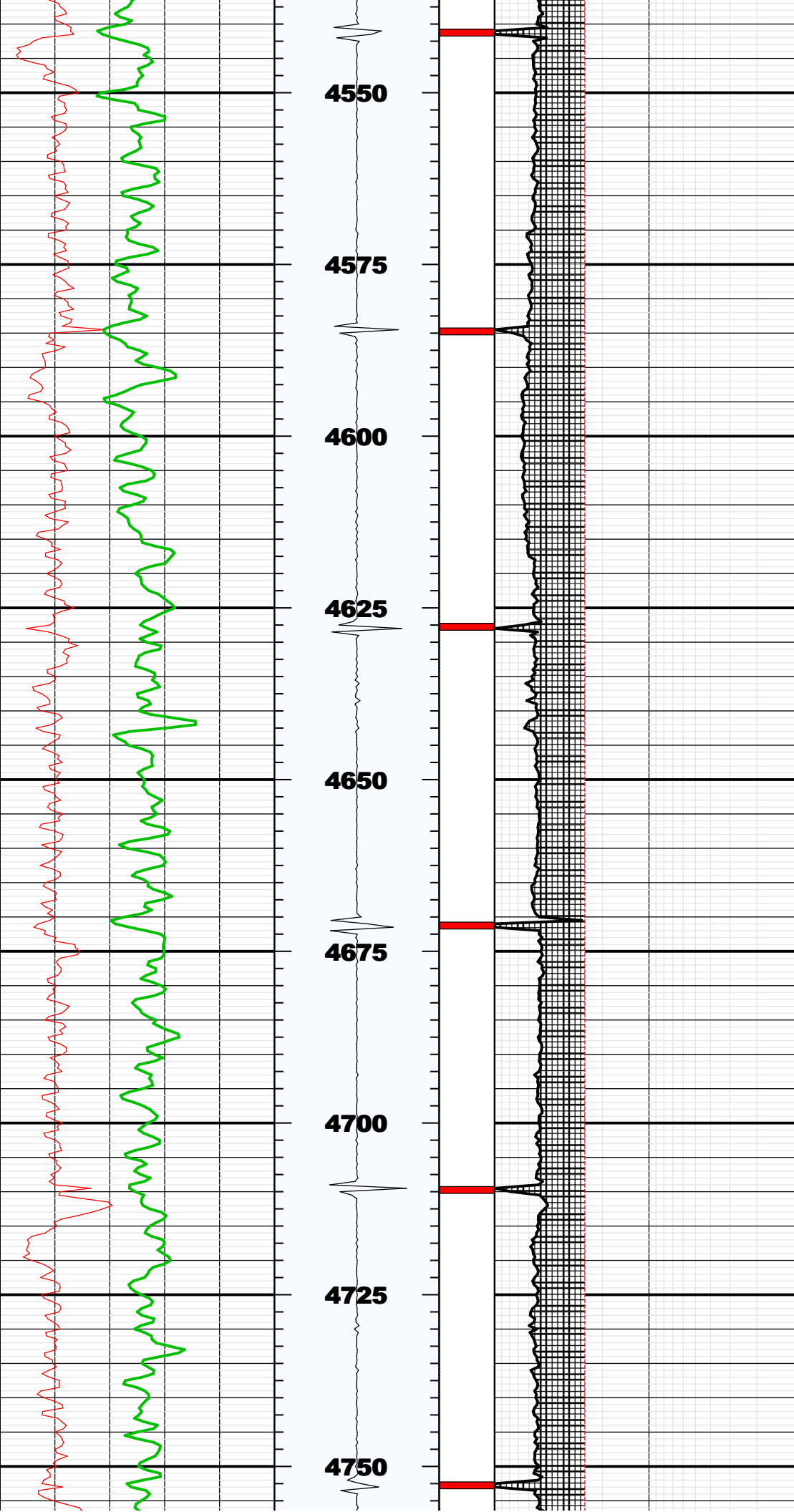


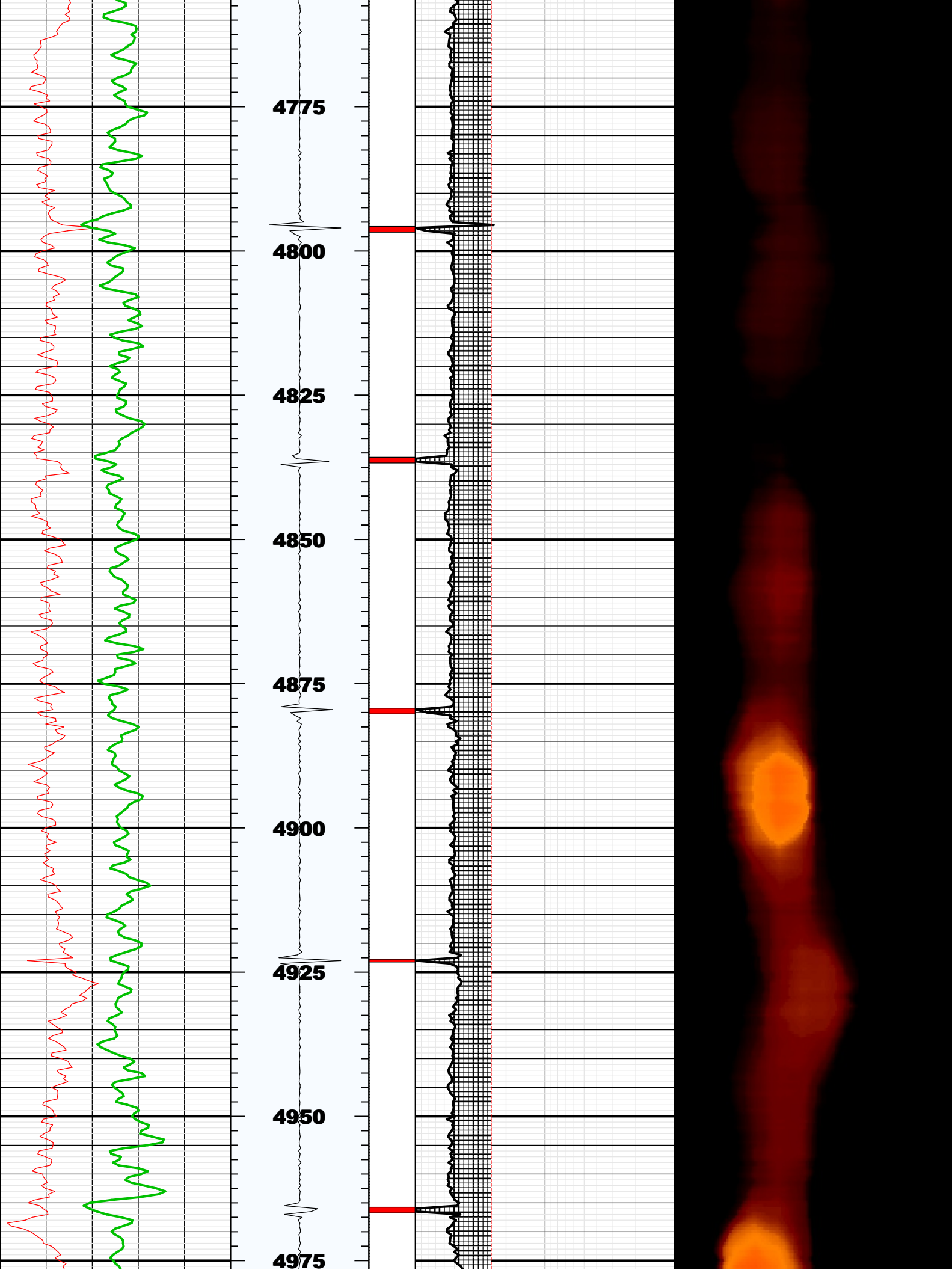


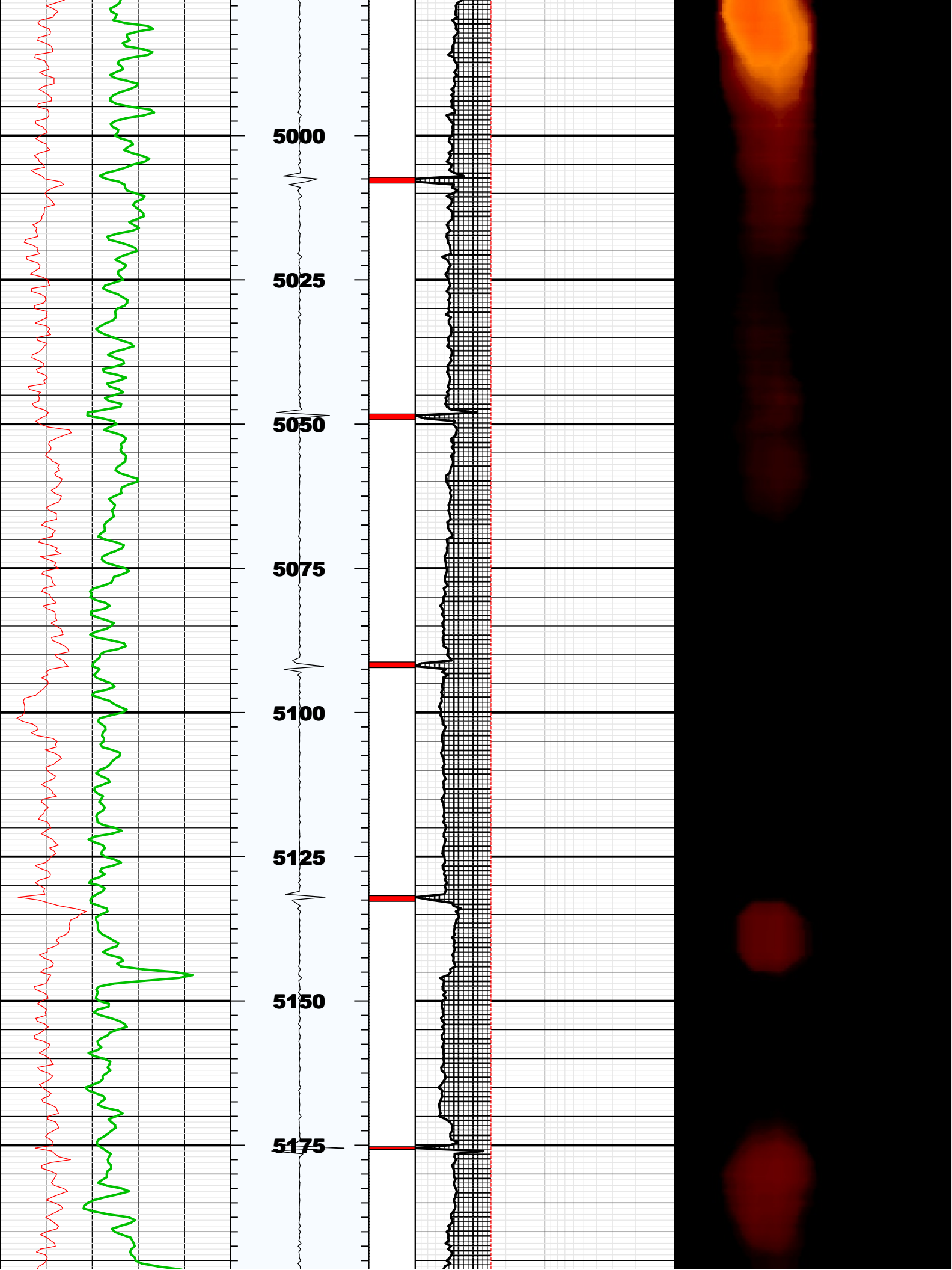


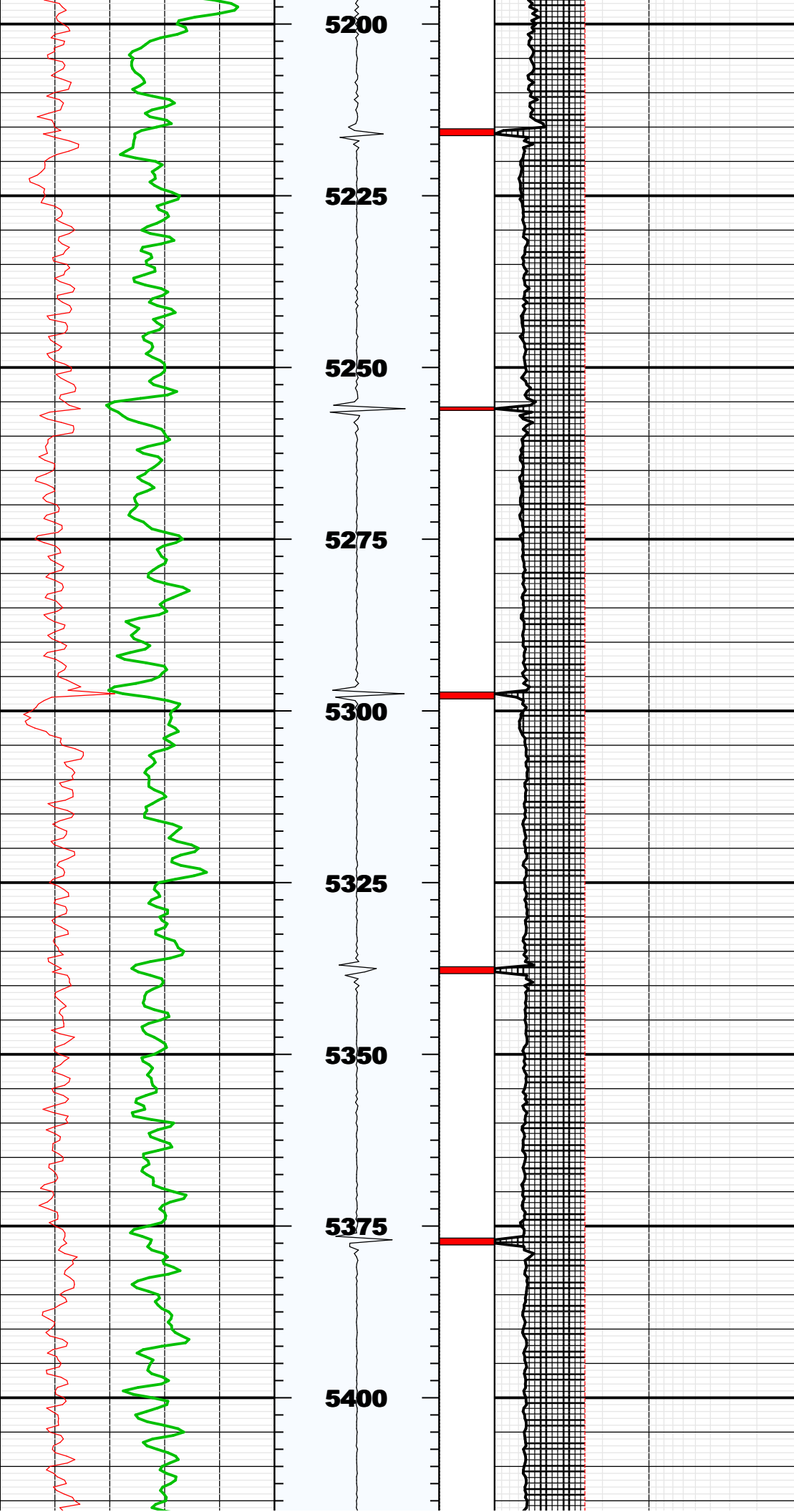


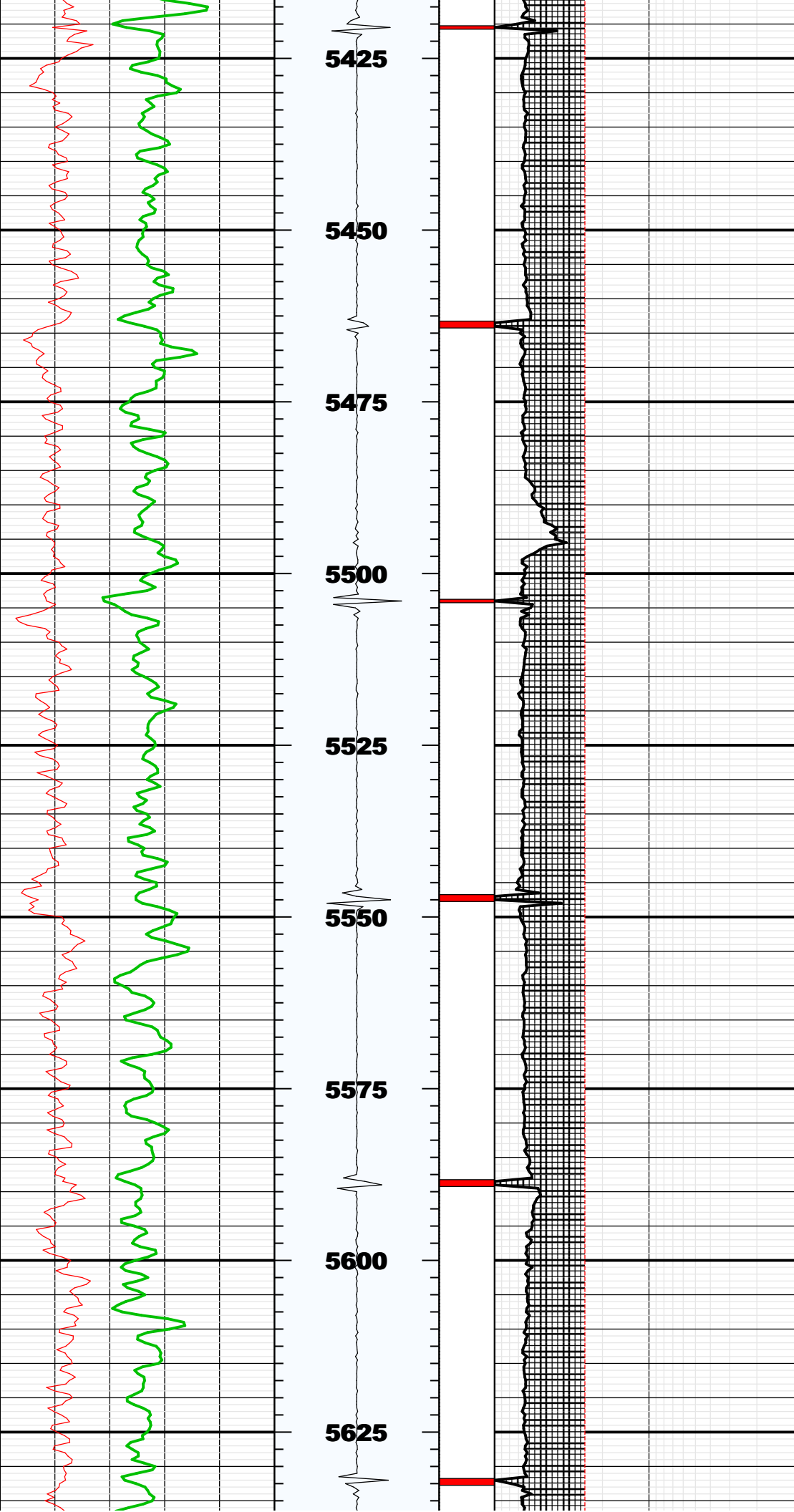


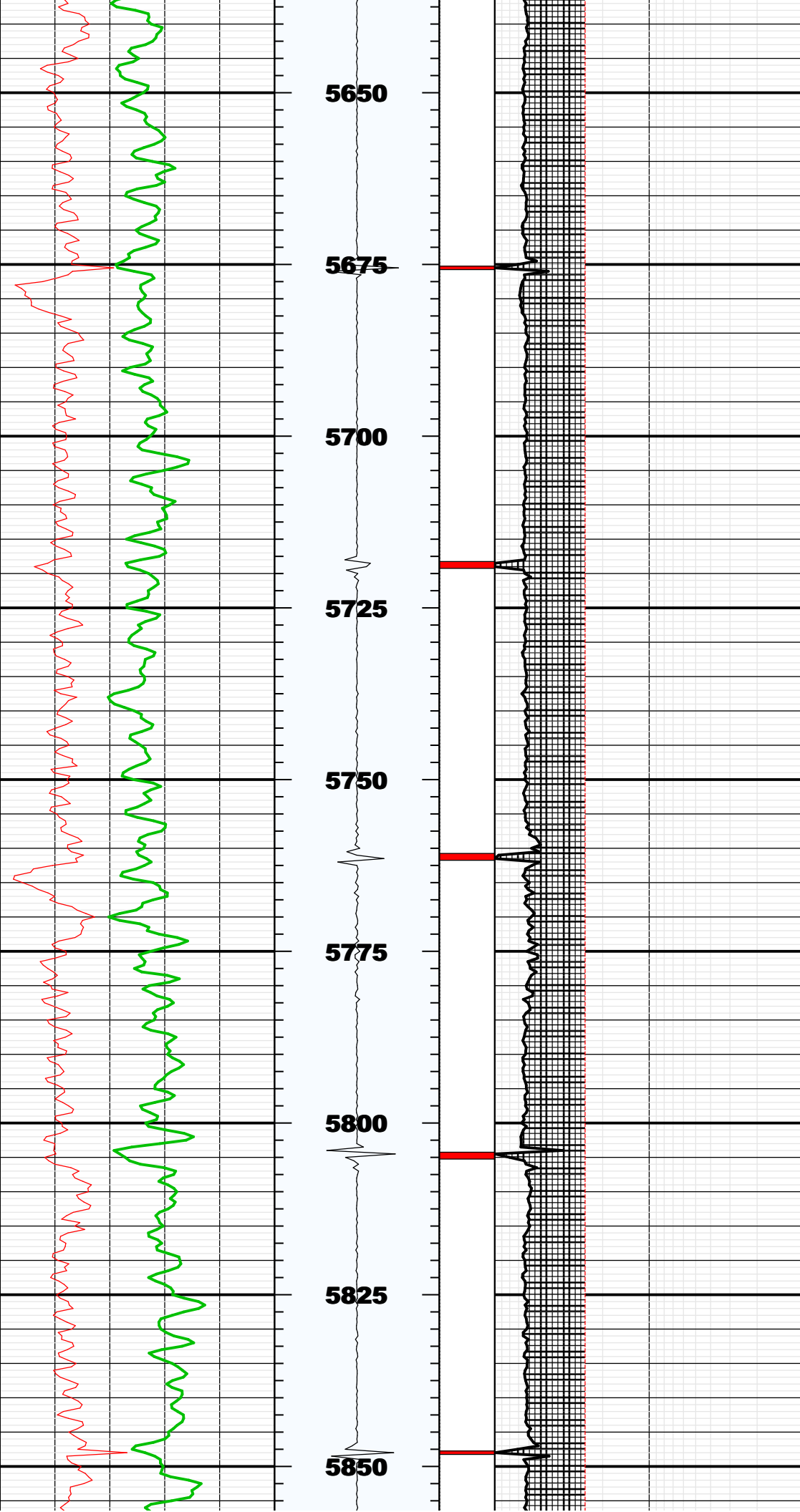


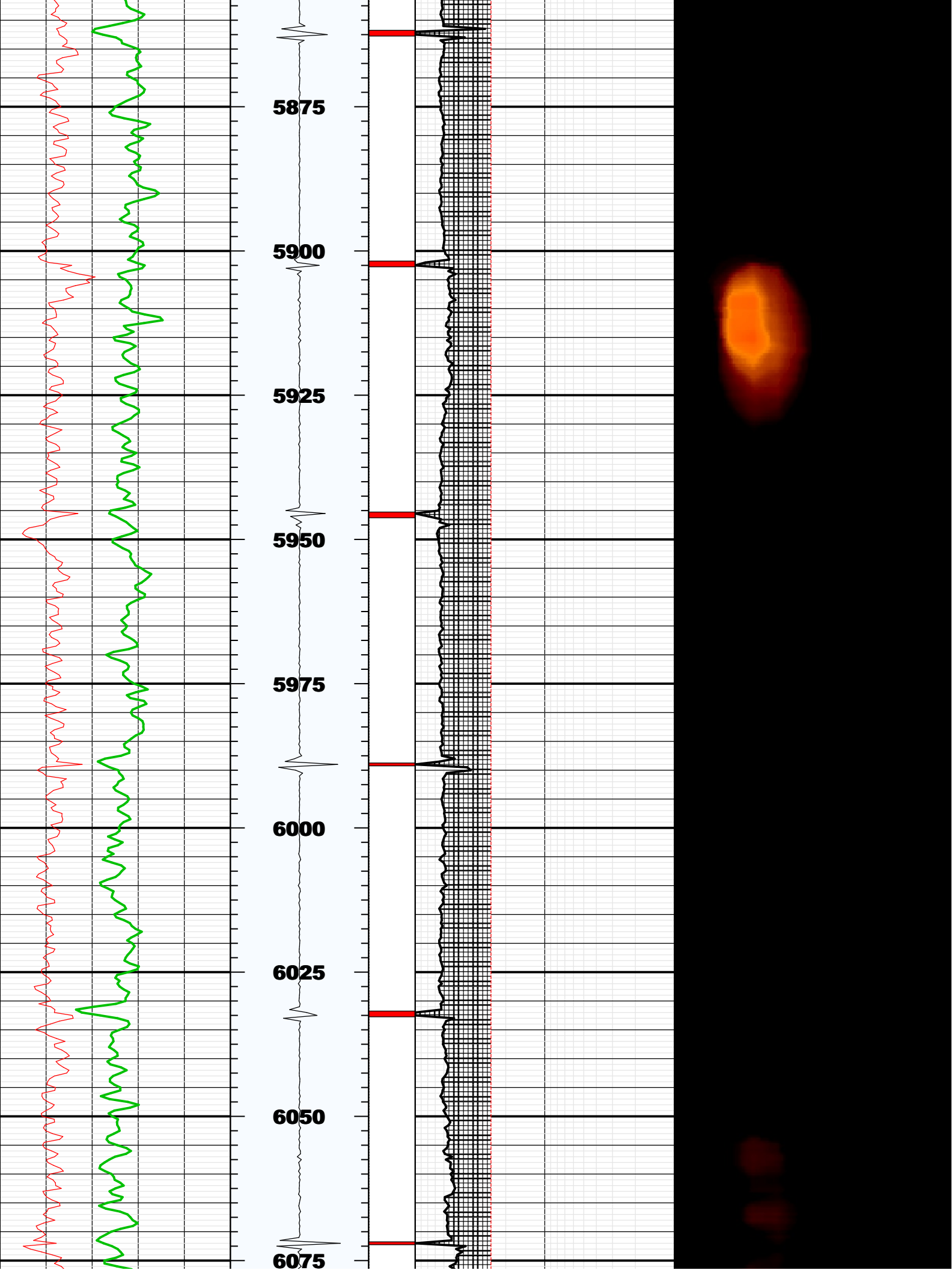


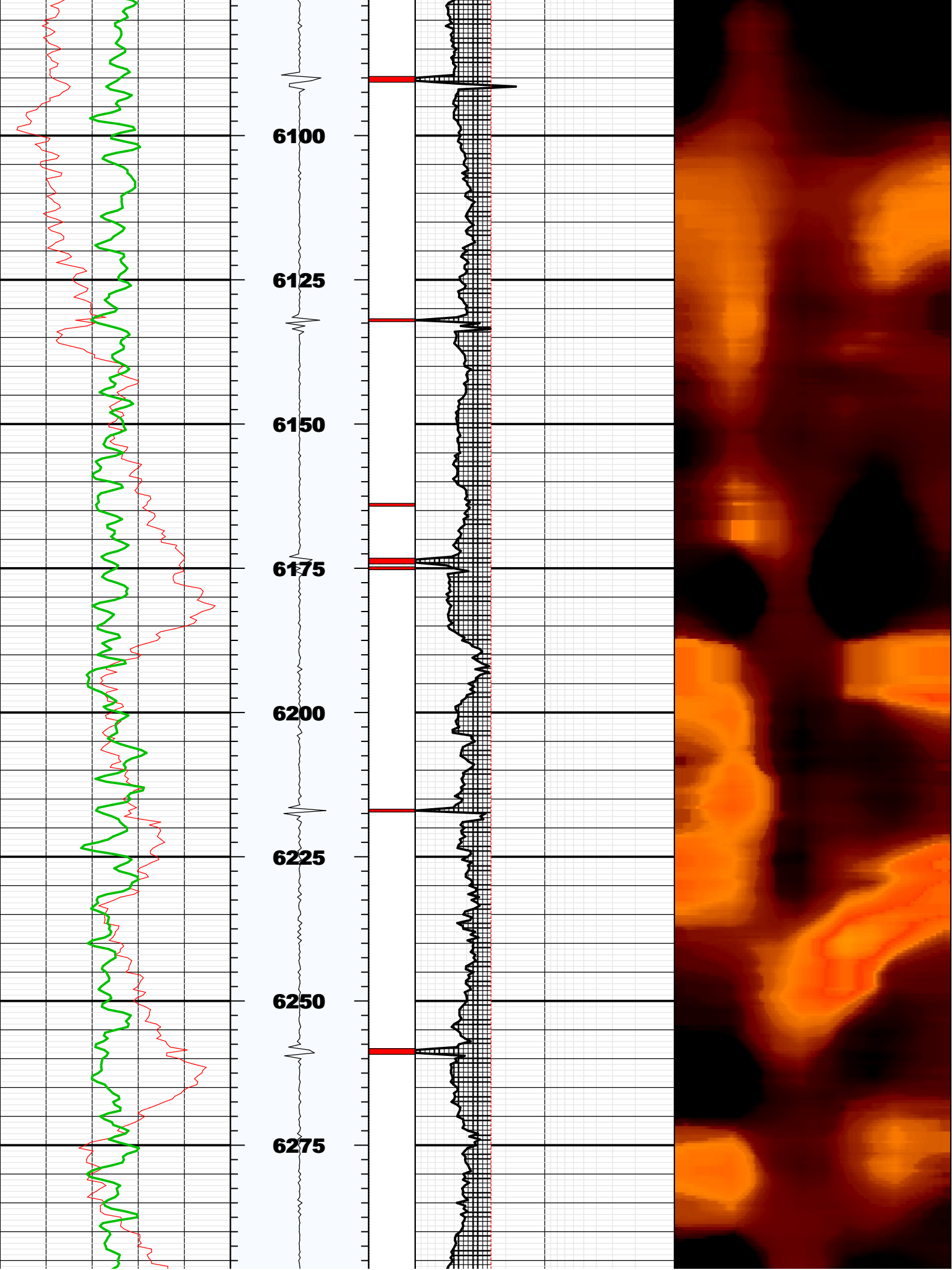


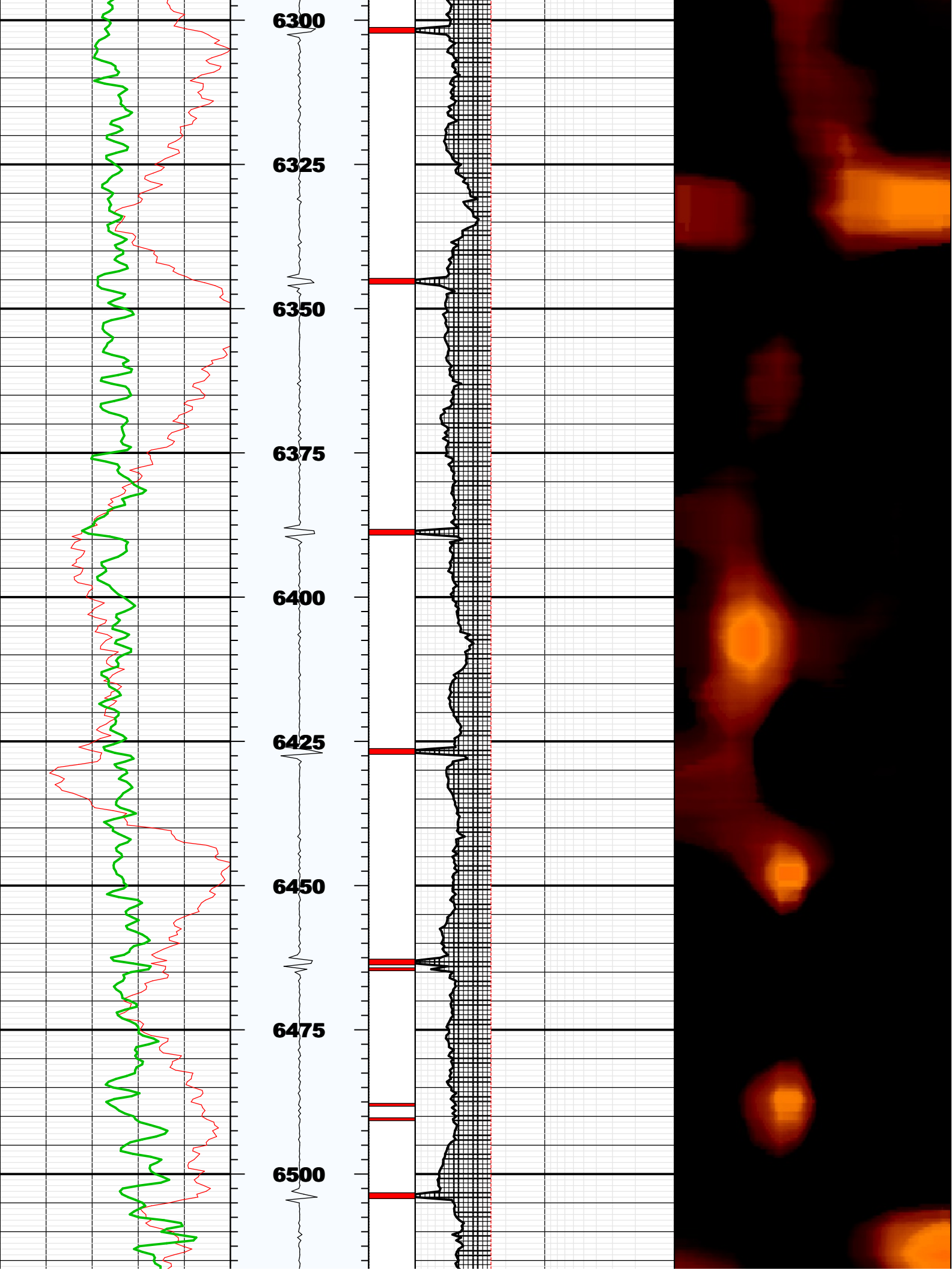


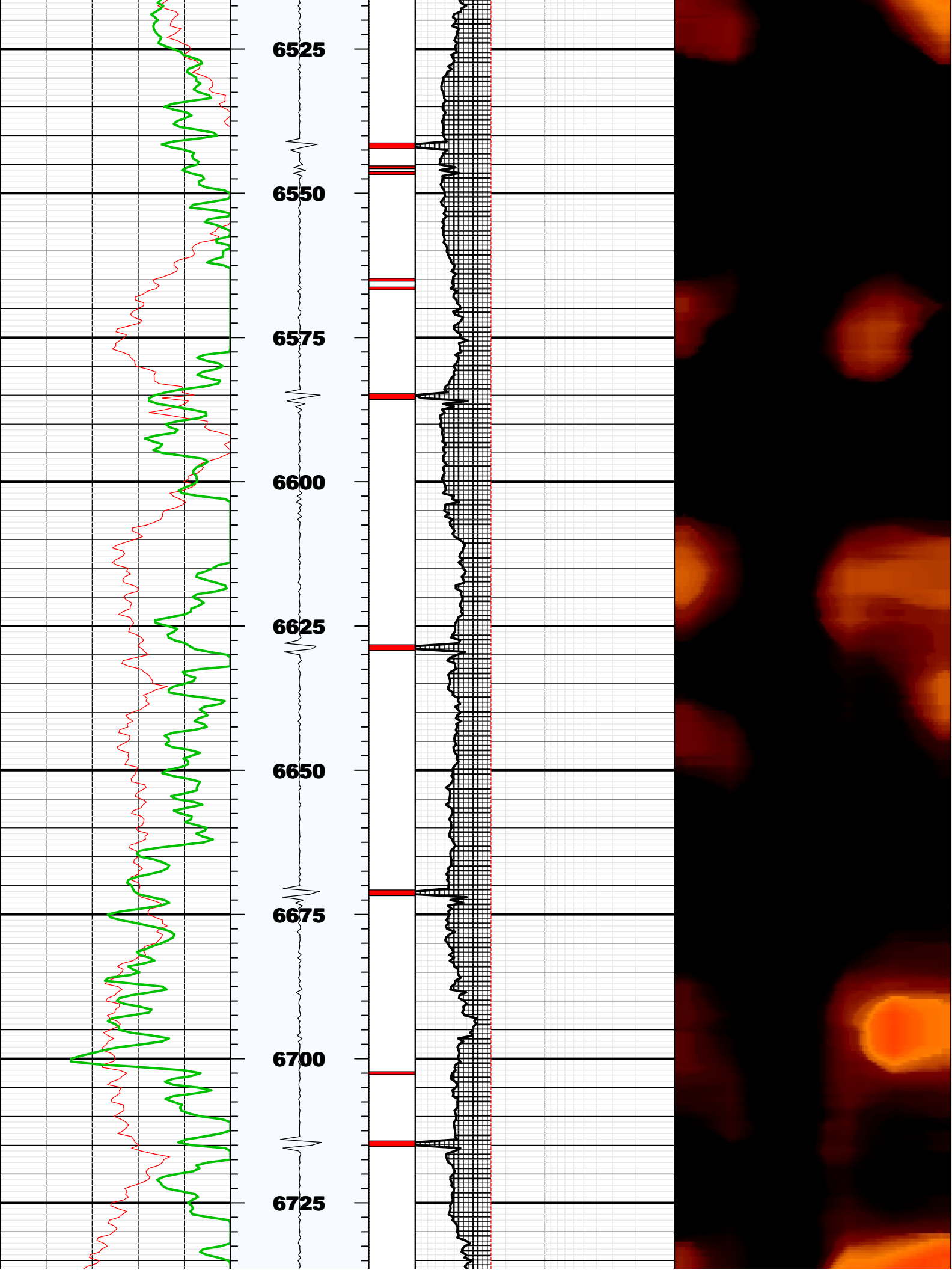


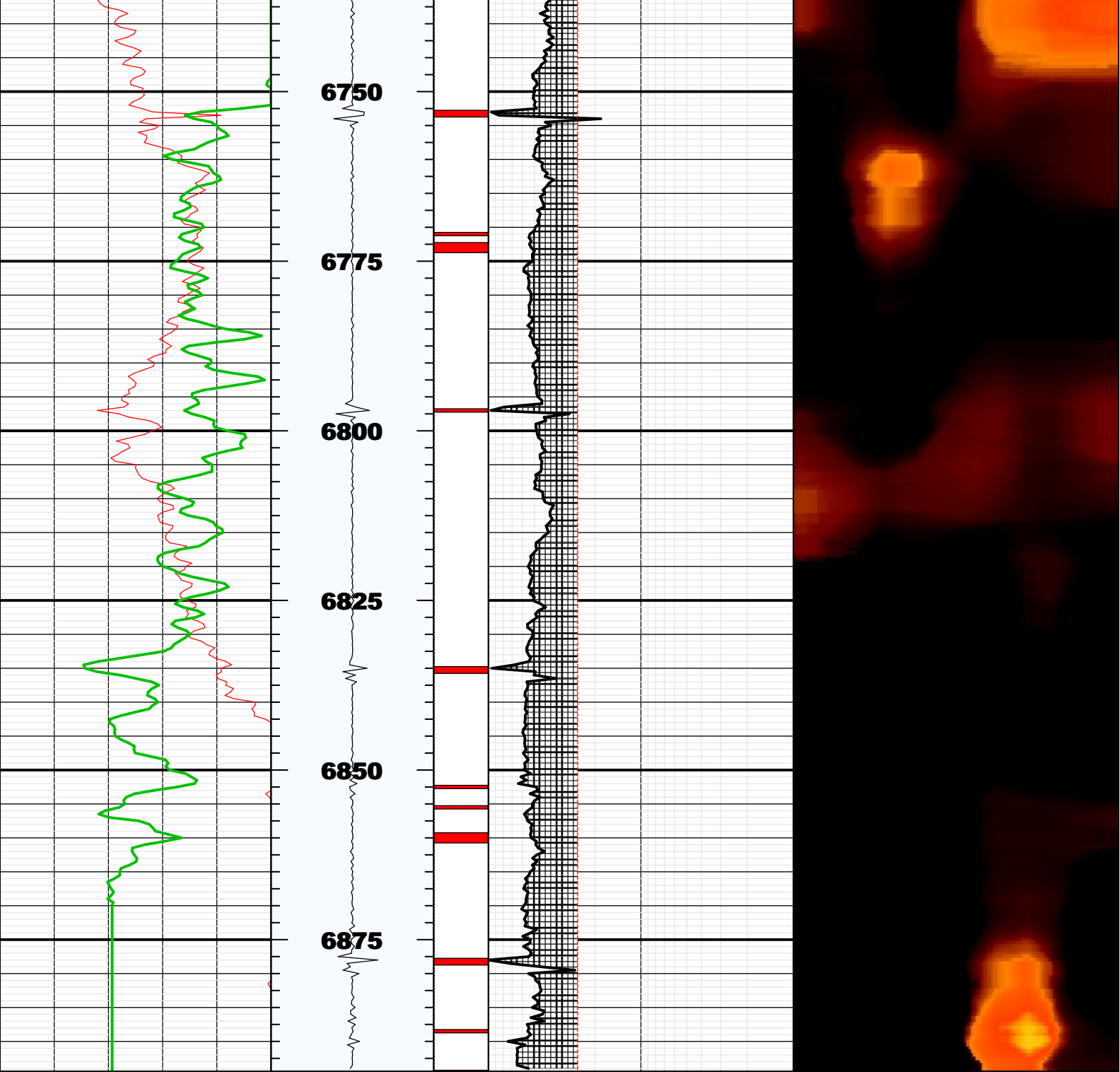








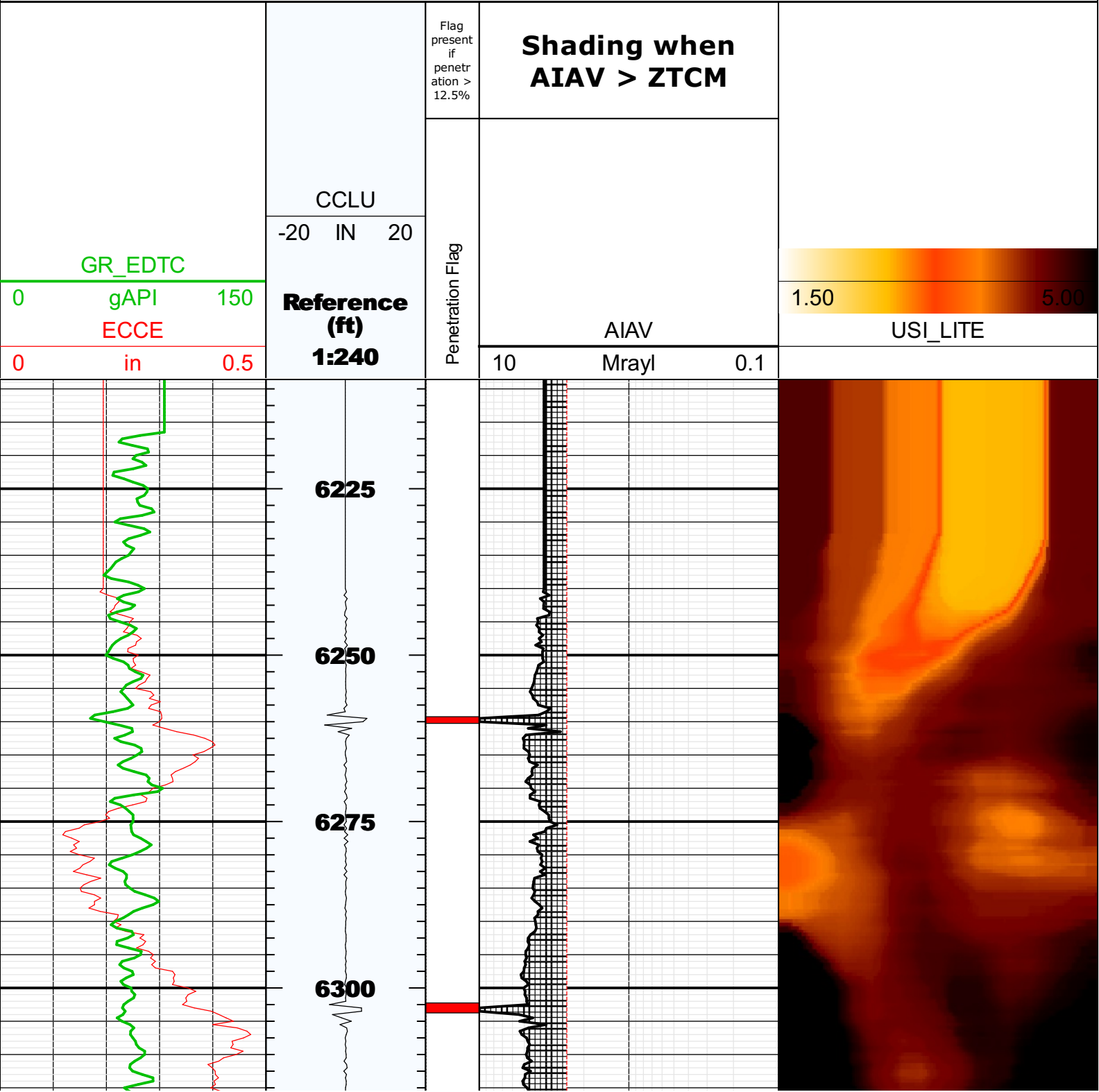


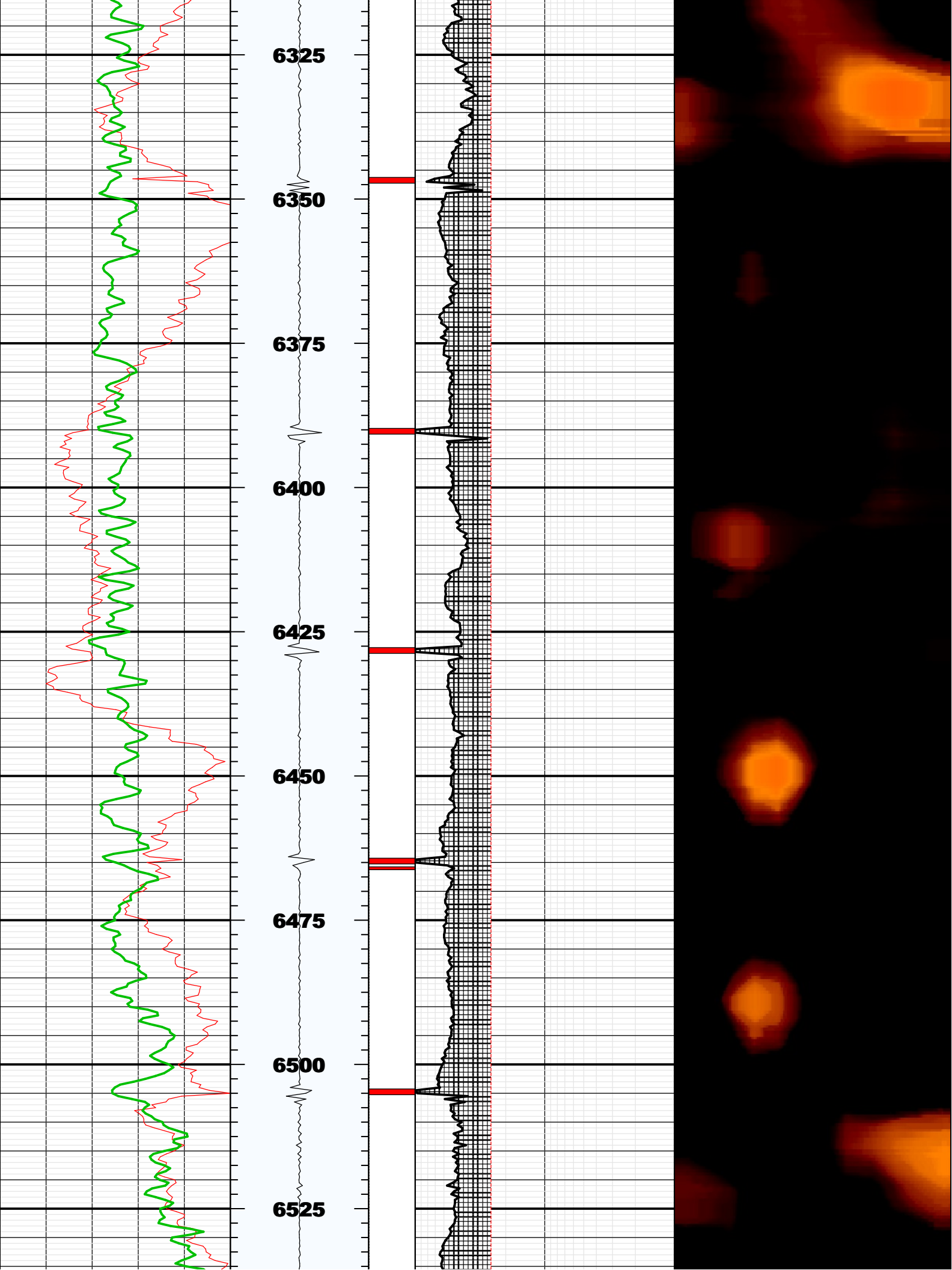


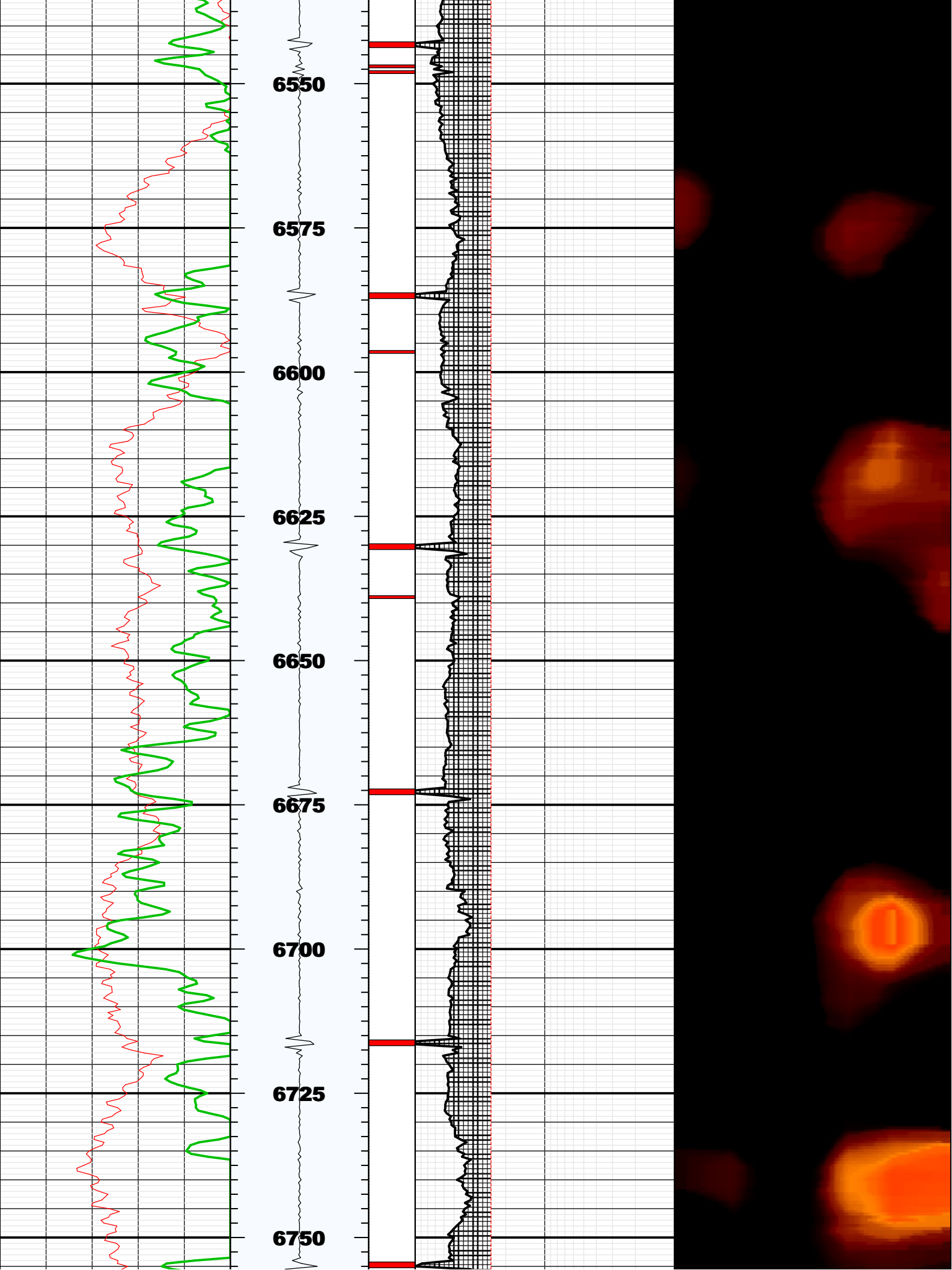
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID	6.27600	IN	Casing Inner Diameter
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	206.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	55	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	28.90190	US	Window Begin Time
WINE	80.31863	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.73000	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

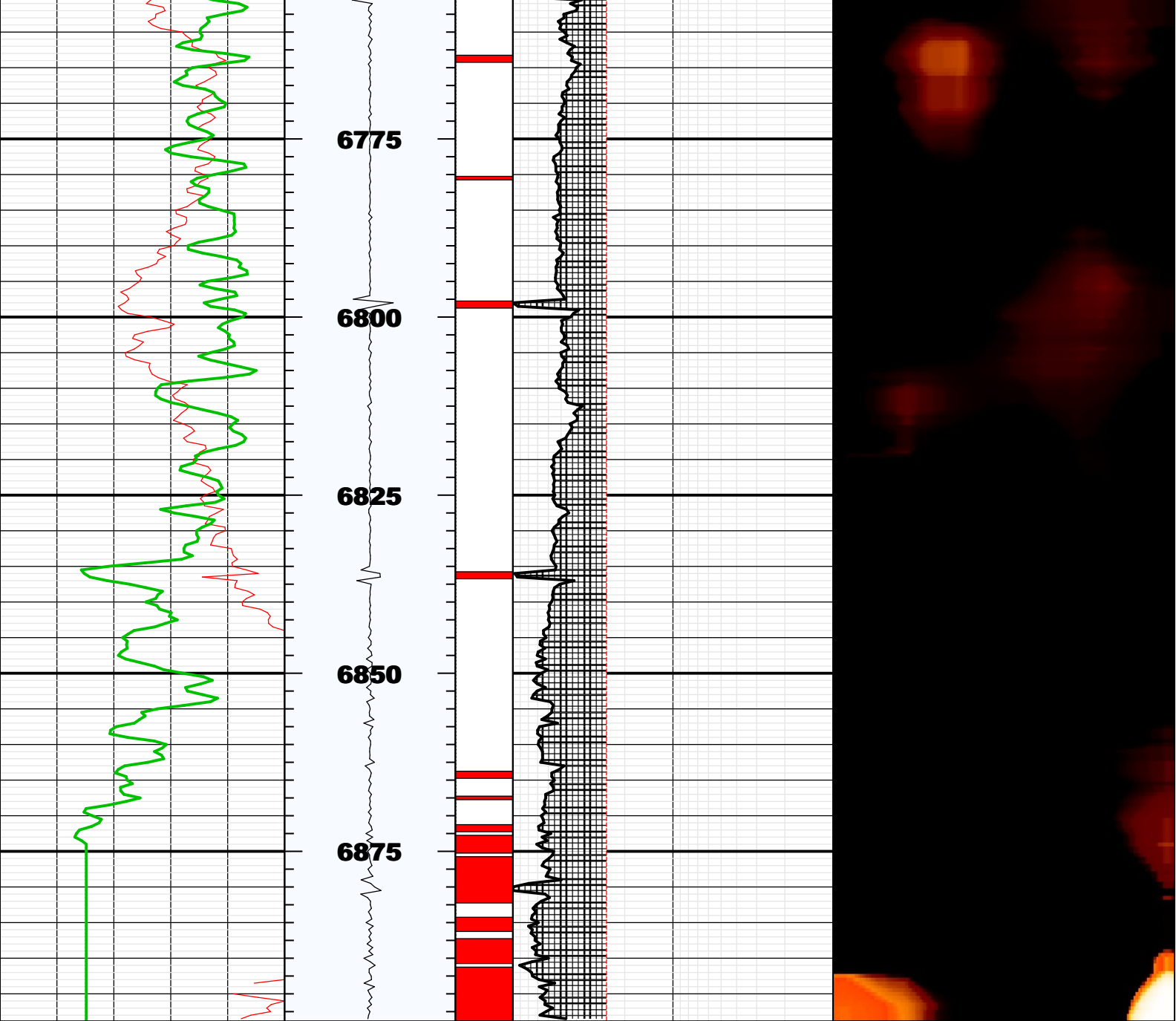
Repeat Pass

Company: Noble Energy Inc
Well: Wells Ranch AA11-682
Field: Wattenberg









Fluid Properties Used for Main Pass

