

Company: Noble Energy Inc

Well: Rohn State LD10-69-1HN

Field: Wildcat

County: State: Colorado

USI-LITE (2500 psi)

LOCATION			
Permanent Datum: Log Measured From: Drilling Measured From:	GL KB KB	Elev:	K.B.
			G.L.
		D.F.	
		4755.0 F	4739.0 F
		4754.0 F	

API Serial No.	Section	Township	Range
05-123-37619-0000	9	9N	58W

Logging Date	14-Nov-2014
Run Number	Run 1 USIT
Depth Driller	6160.0 F
Schlumberger Depth	5988.0 F
Bottom Log Interval	5988.0 F
Top Log Interval	-999.2 F
Casing Fluid Level	8.0 F
Salinity	
Density	8.40 LB/G
Fluid Level	8.0 F
BIT/CASING/TUBING STRING	
Bit Size	8.750 IN
From	5988.0 F
To	-999.2 F
Casing Size	7.00 IN
Weight	26.00 LB/F
Grade	P110
From	0.0 F
To	5988.0 F
Max Recorded Temp	224.0
Logger on bottom (date)	14-Nov-2014
Location	Ft. Morgan
Recorded By	Danielle Maniere
Witnessed By	Bill Manfield

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: 713384 Length: 18250.00000

DISCLAIMER

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13.6ppg single slurry cement
2500psi main pass logged from 20ft above top of liner 0psi repeat pass

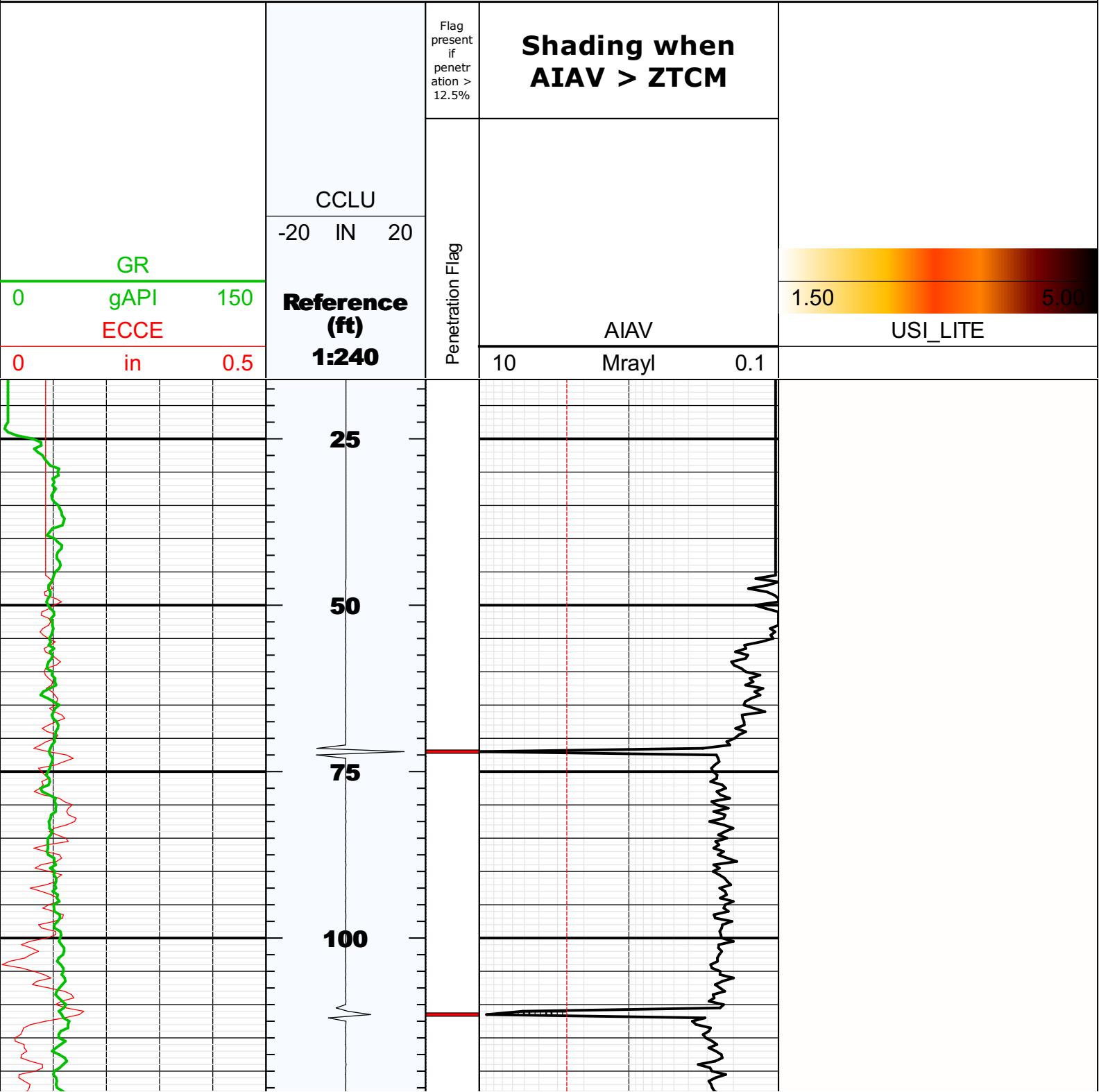
Top of cement located at 730'.

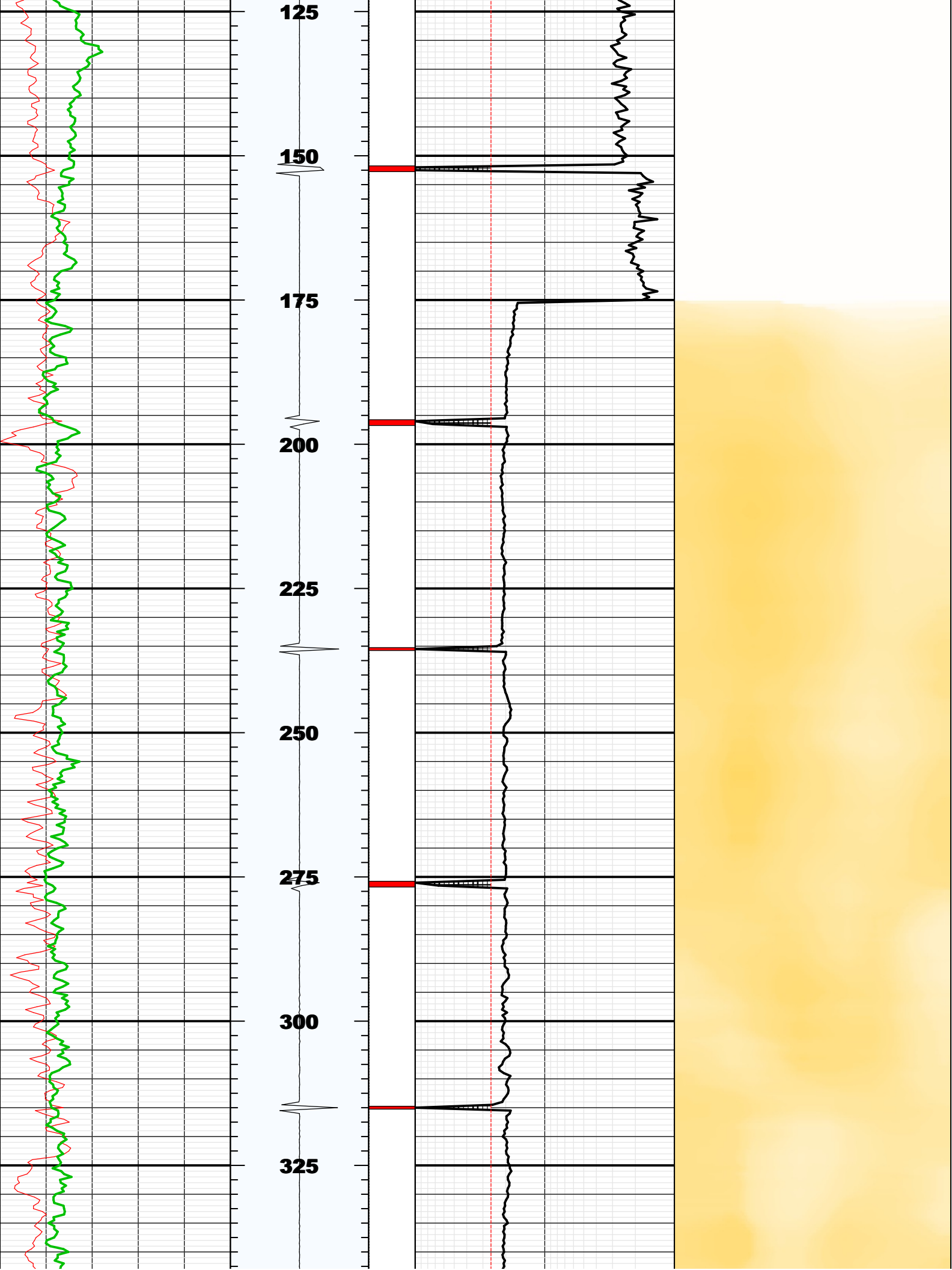
Liner top at 6008ft.

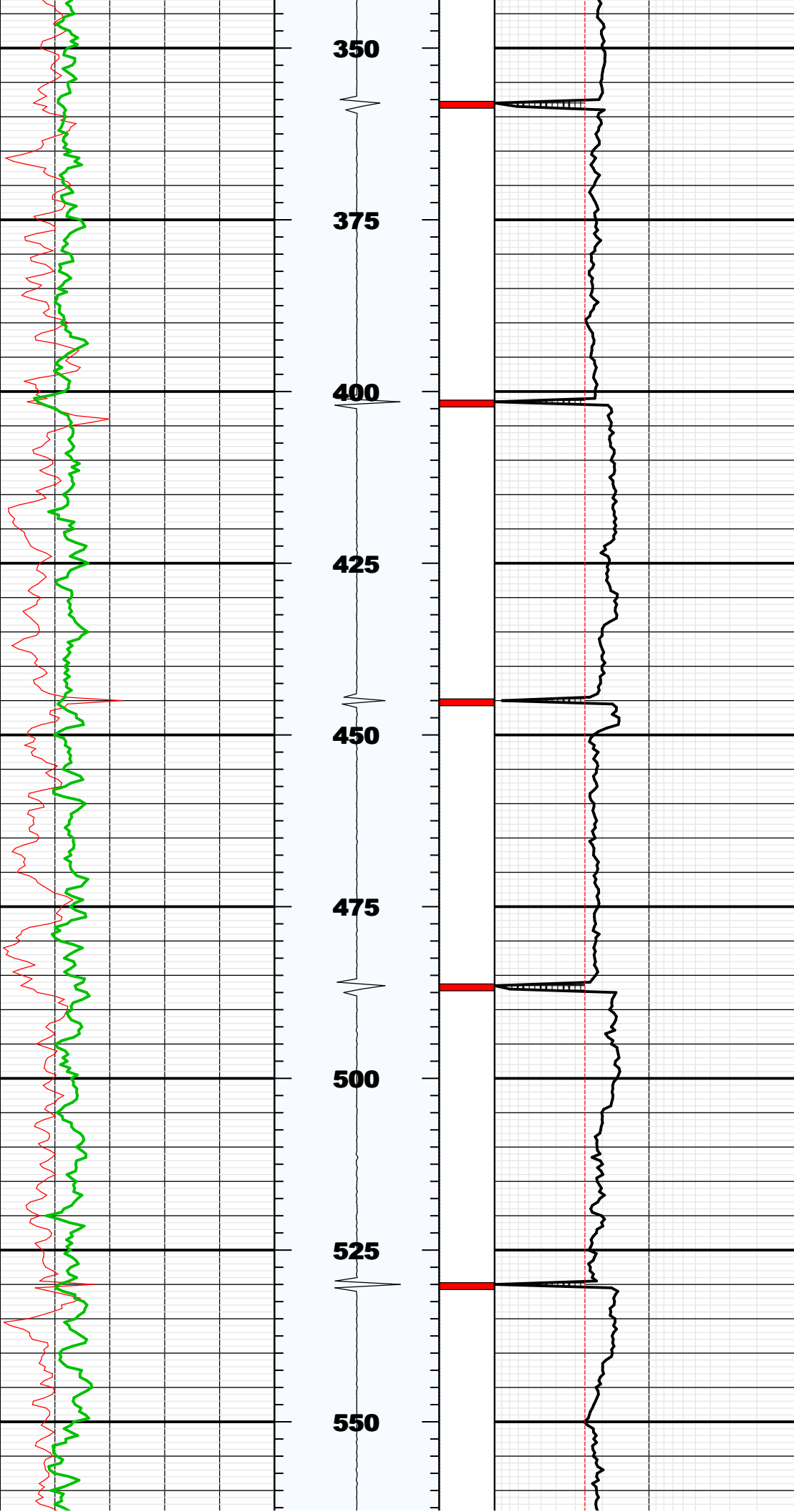
Bottom hole temperature measured at depth of 218degF.

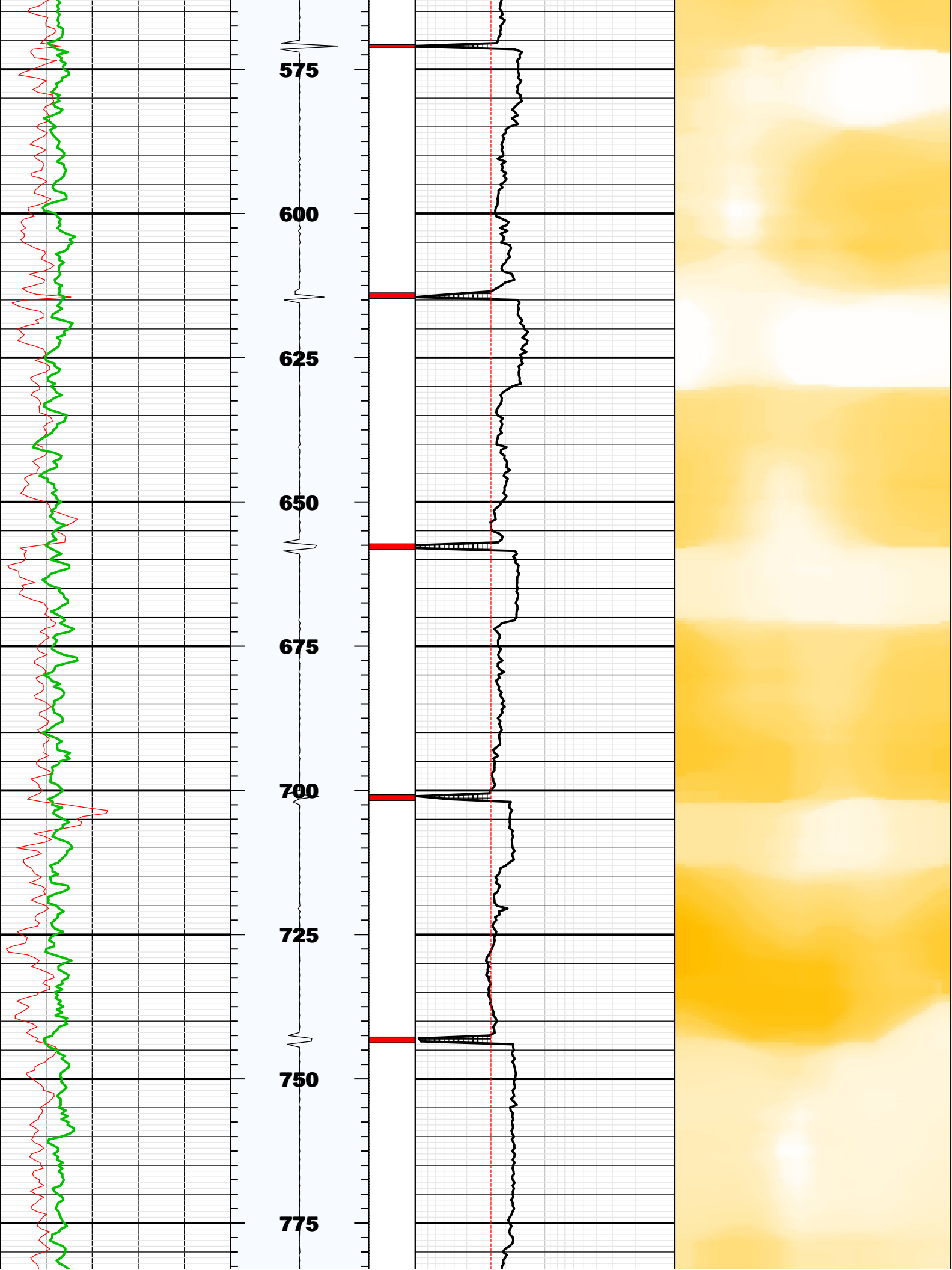
Main Pass

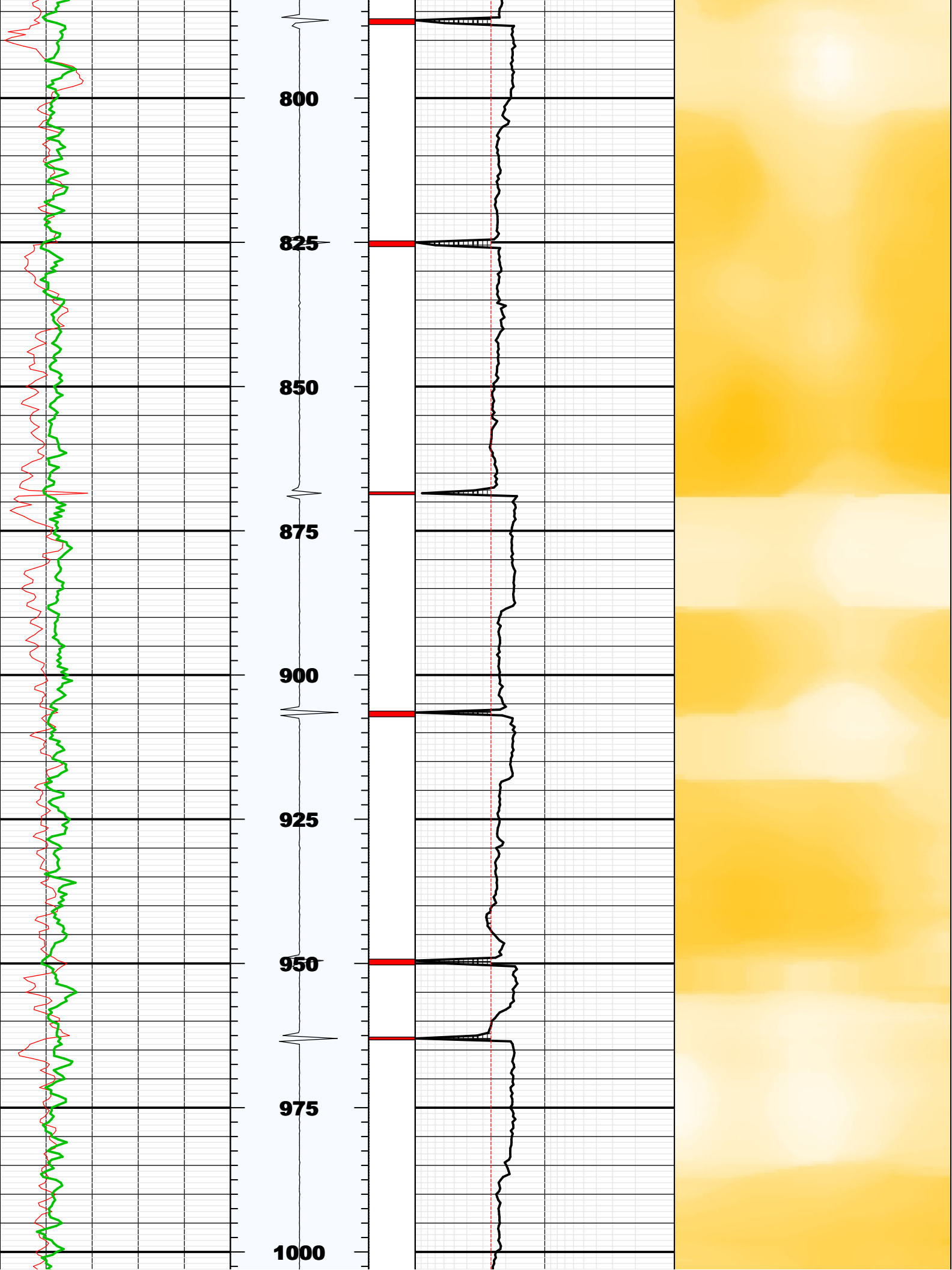
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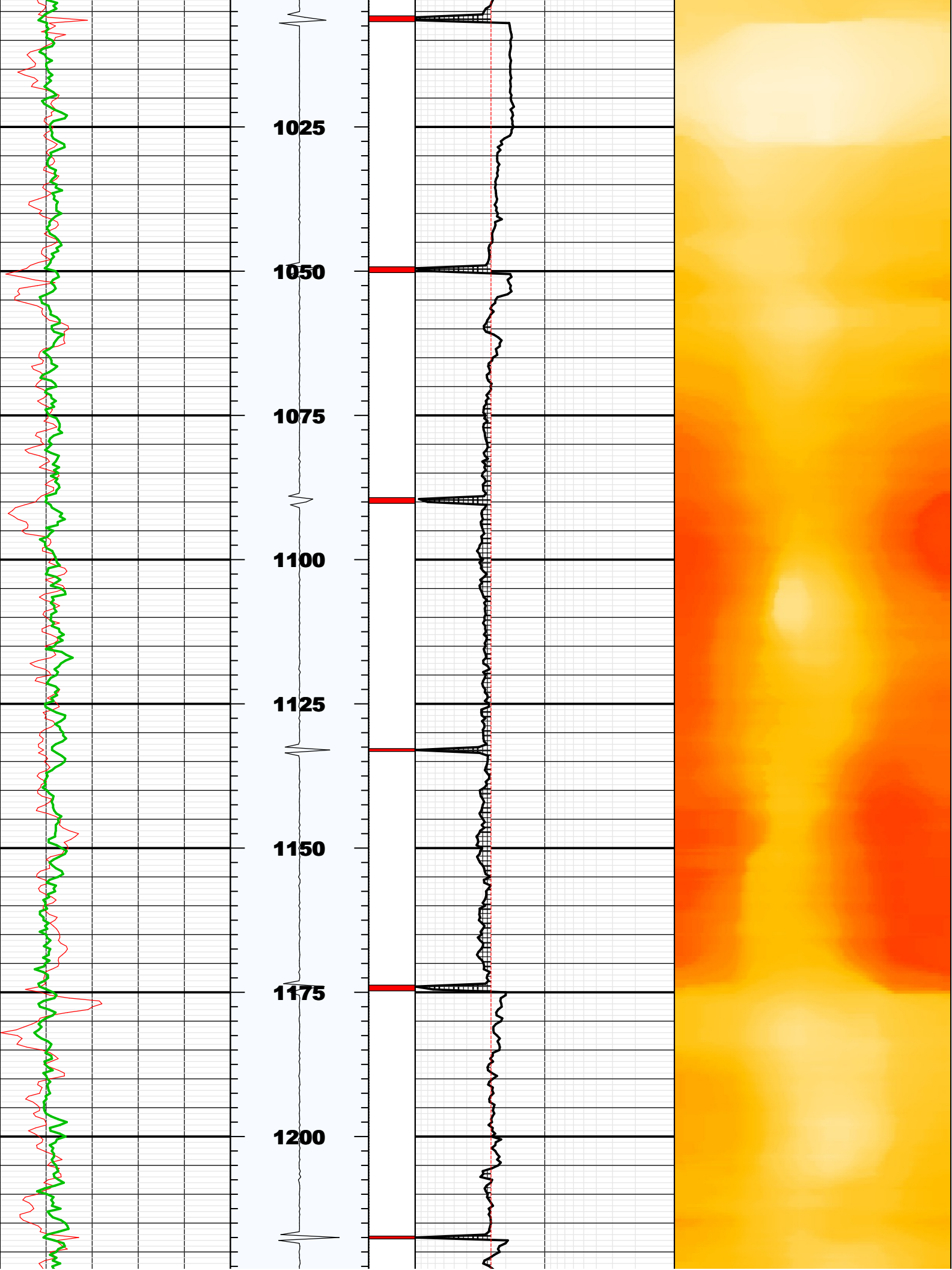


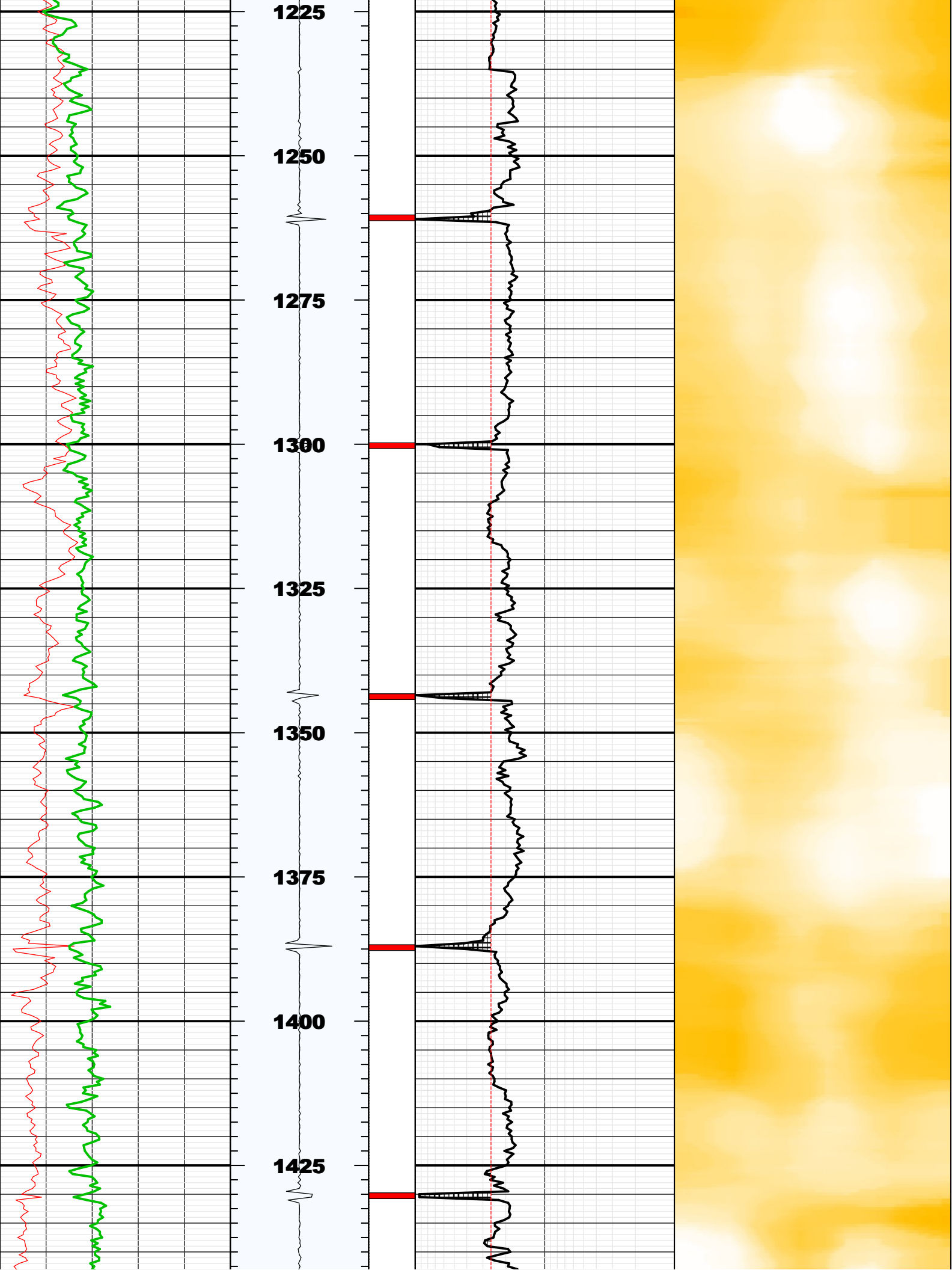


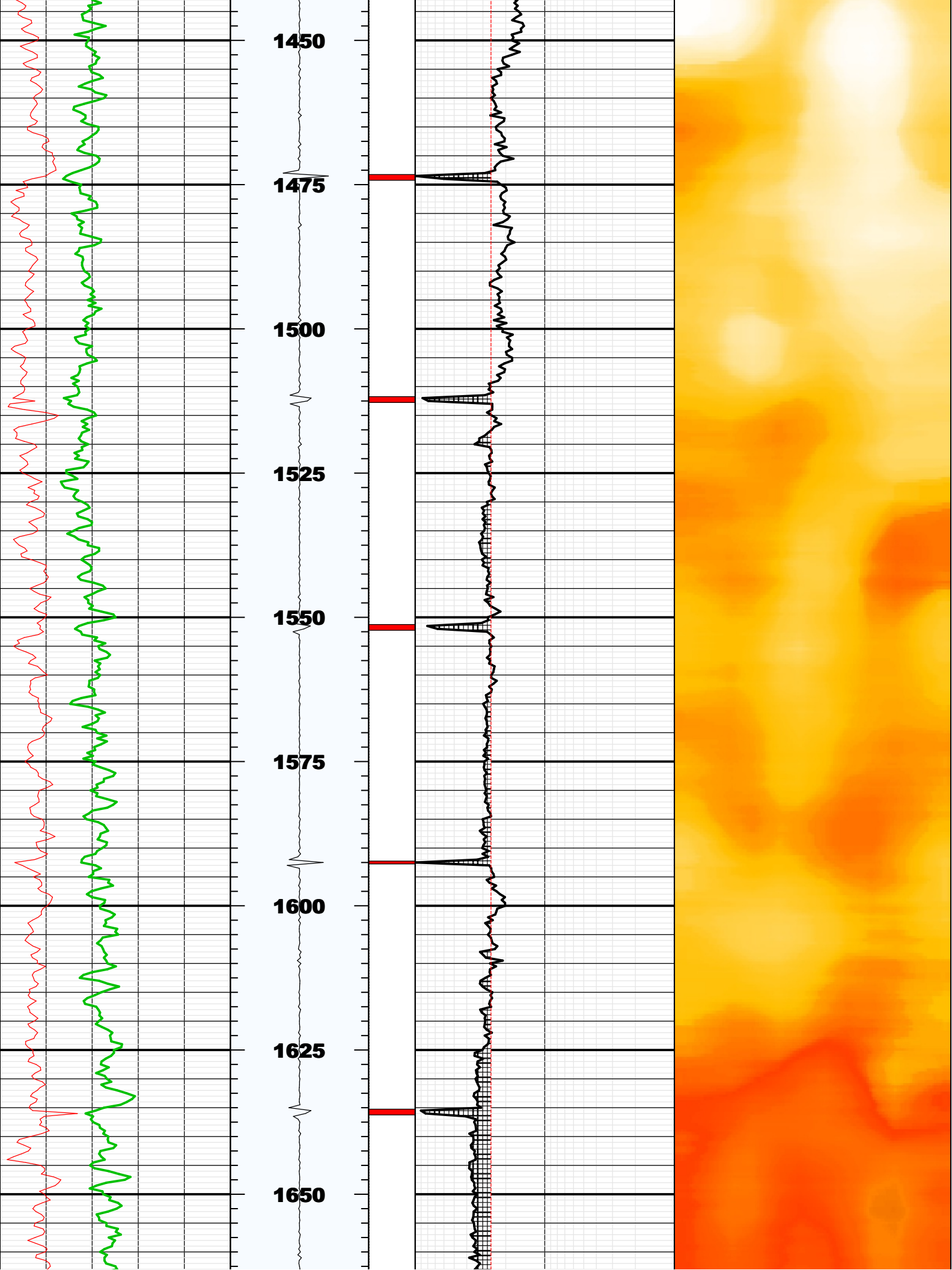


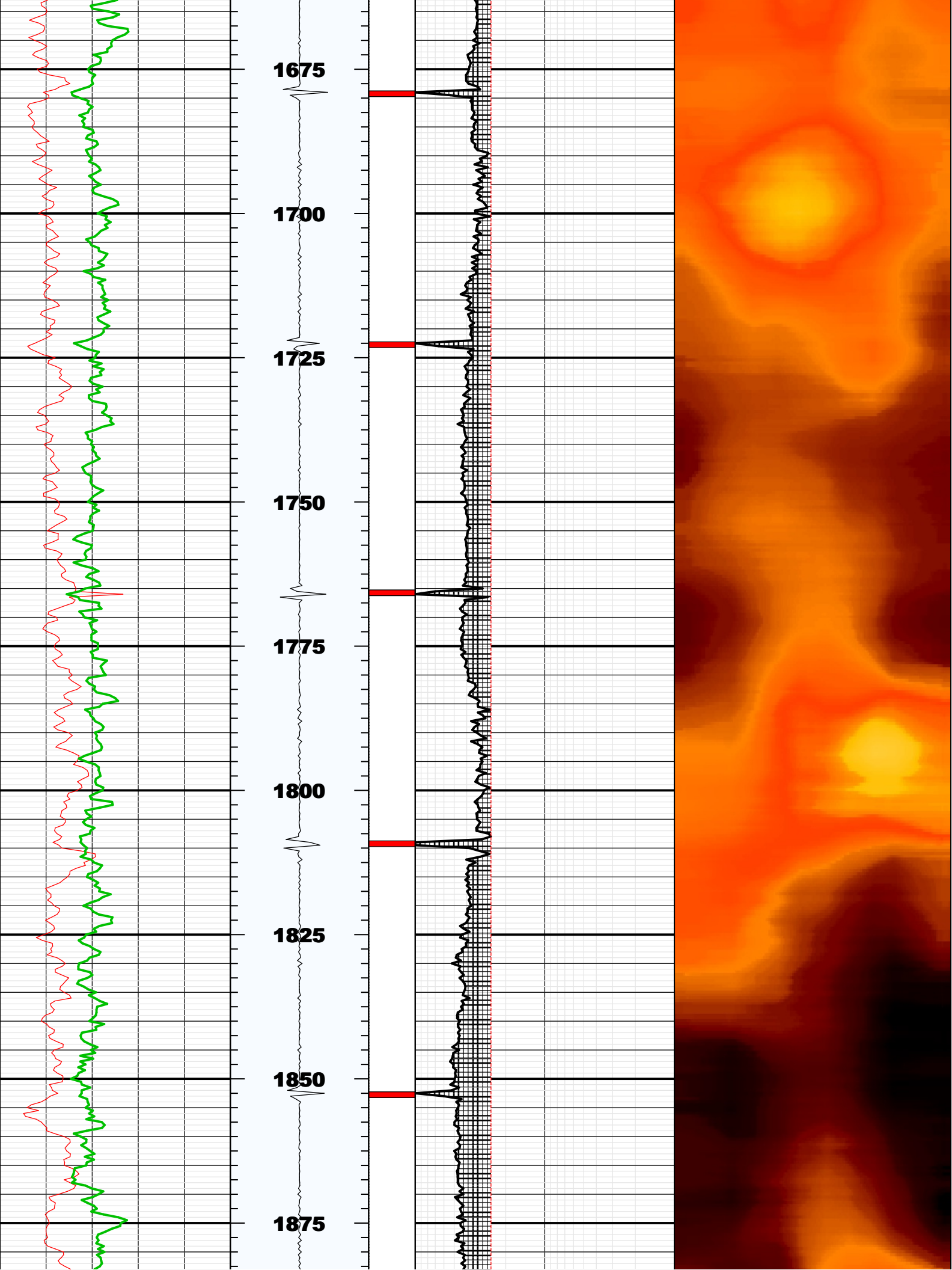


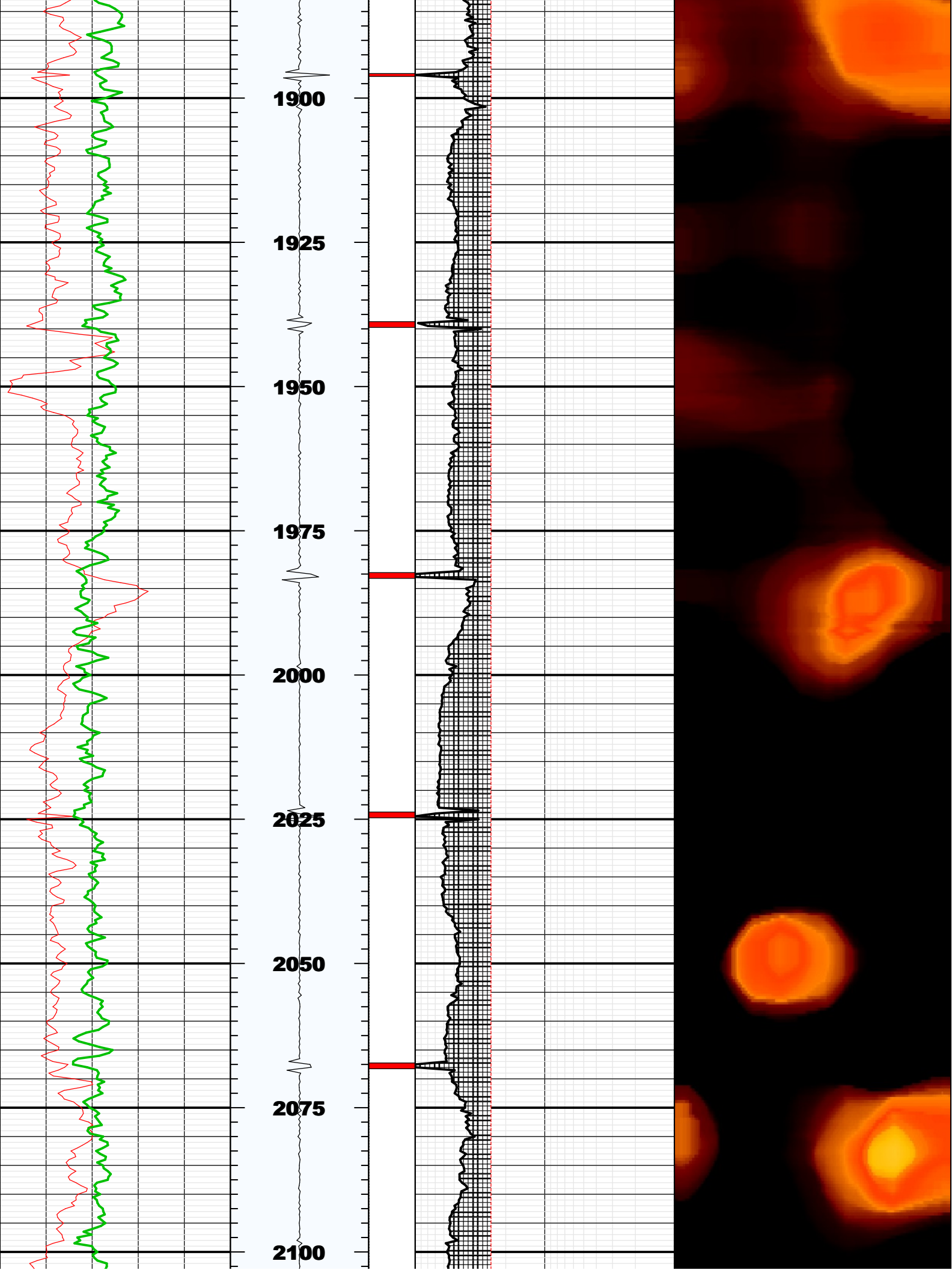


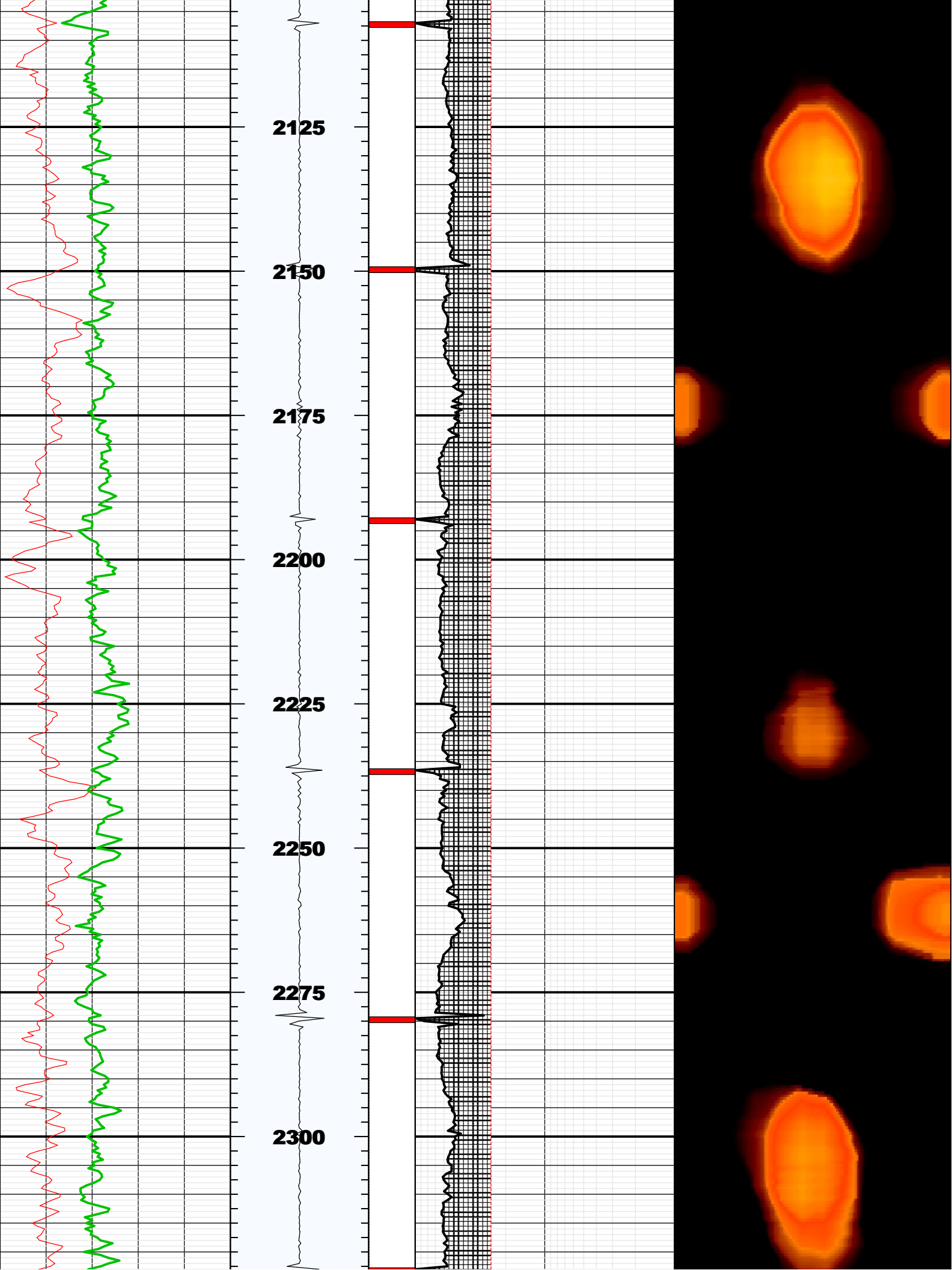


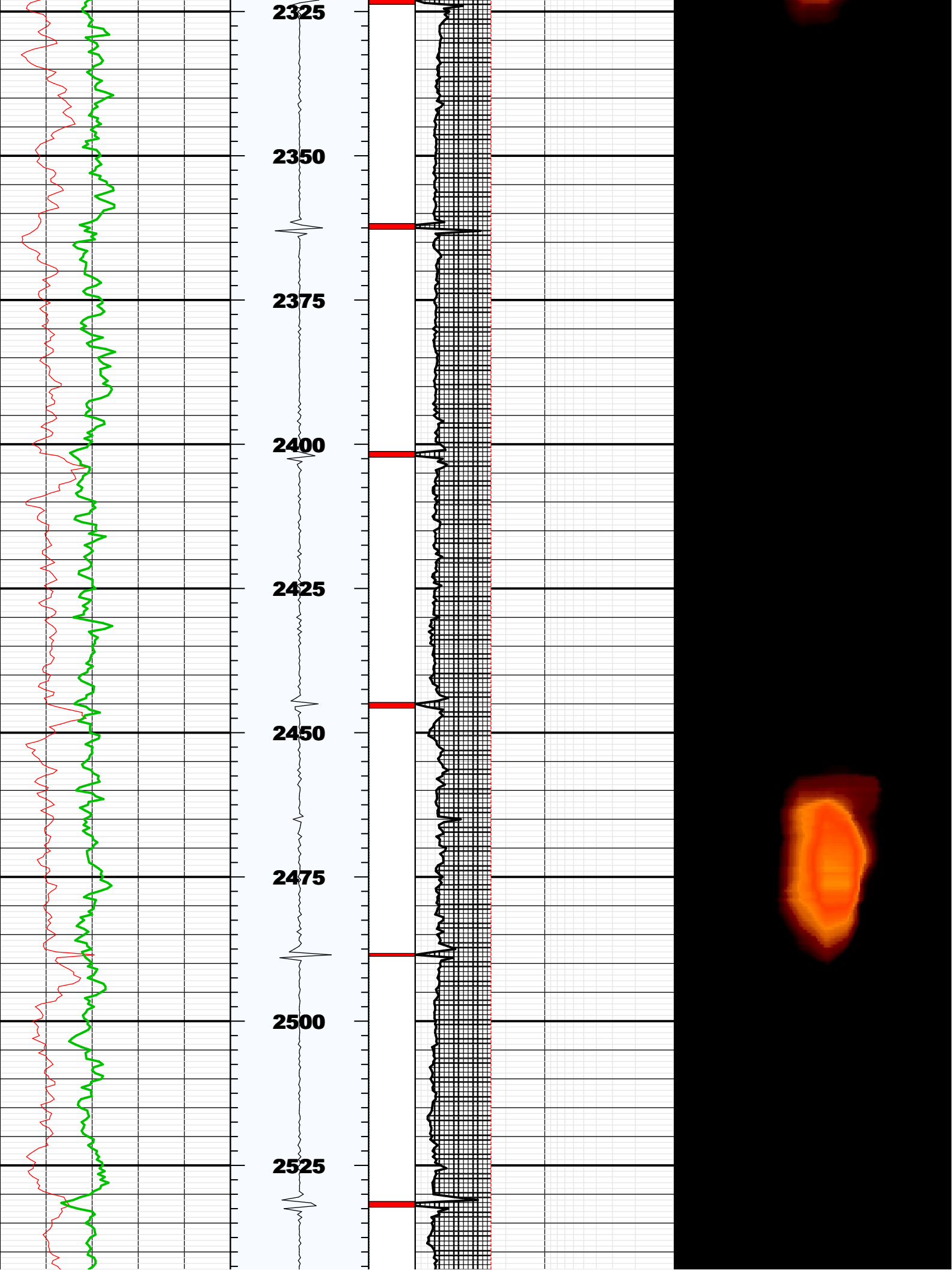


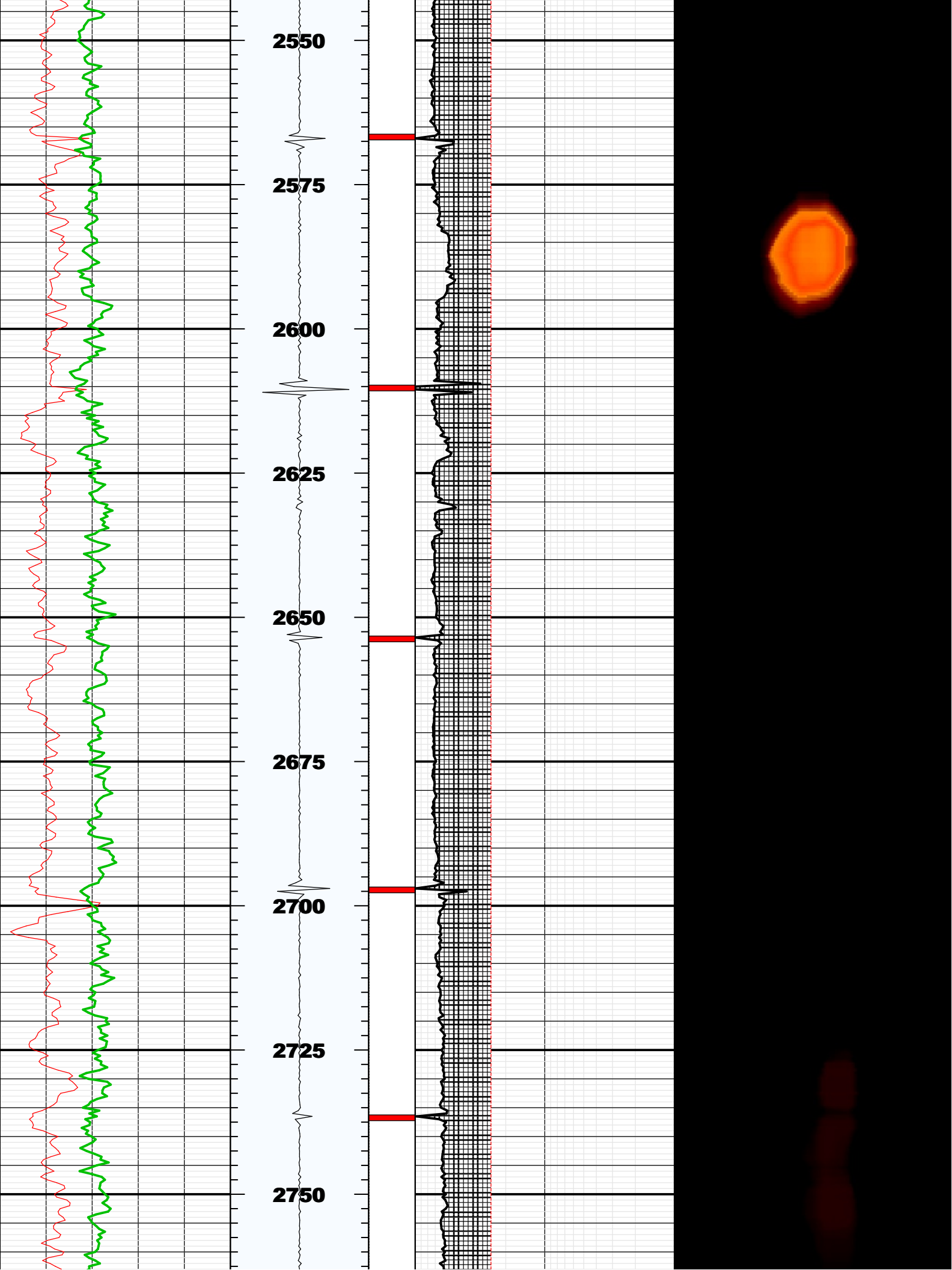


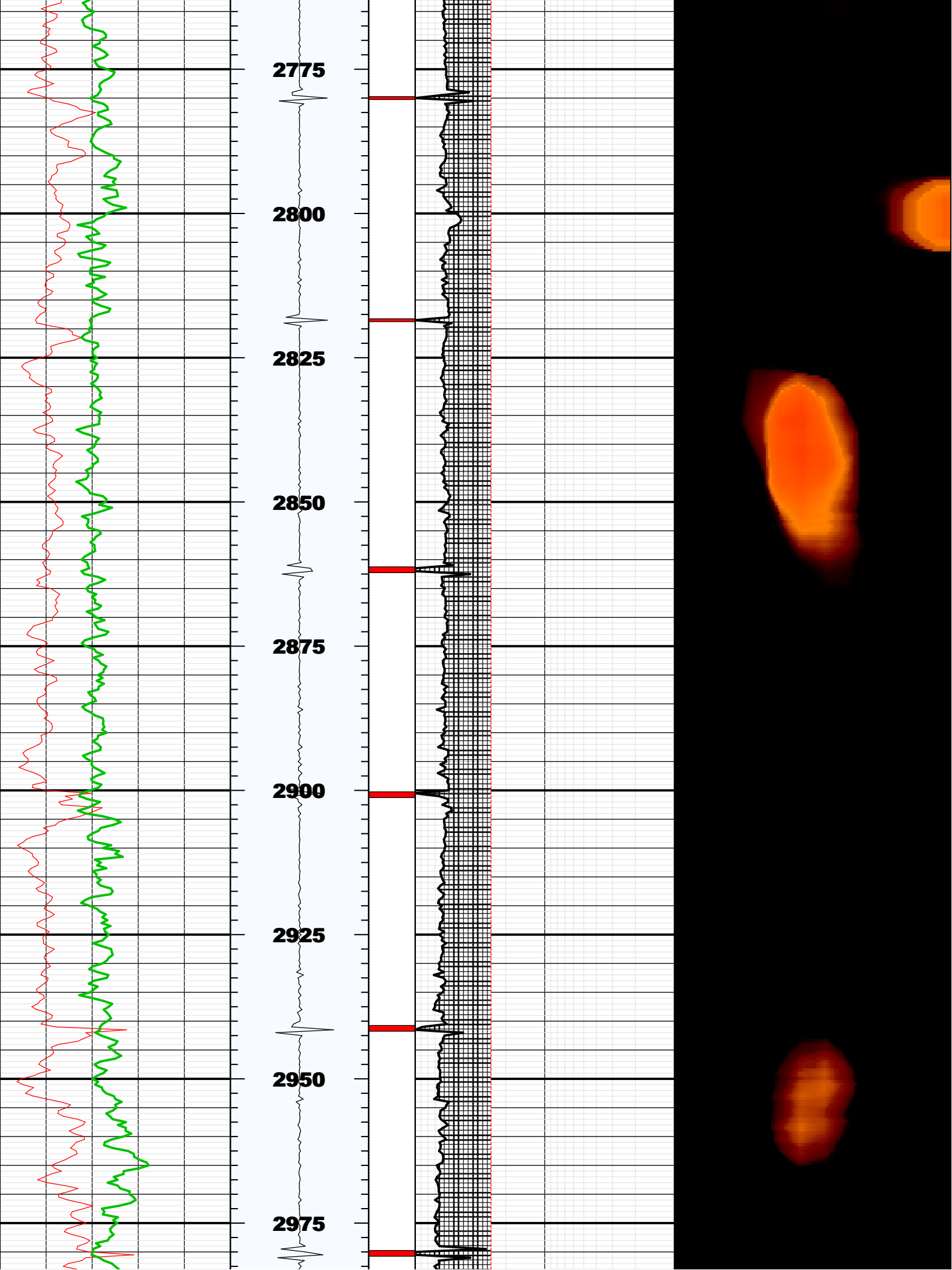


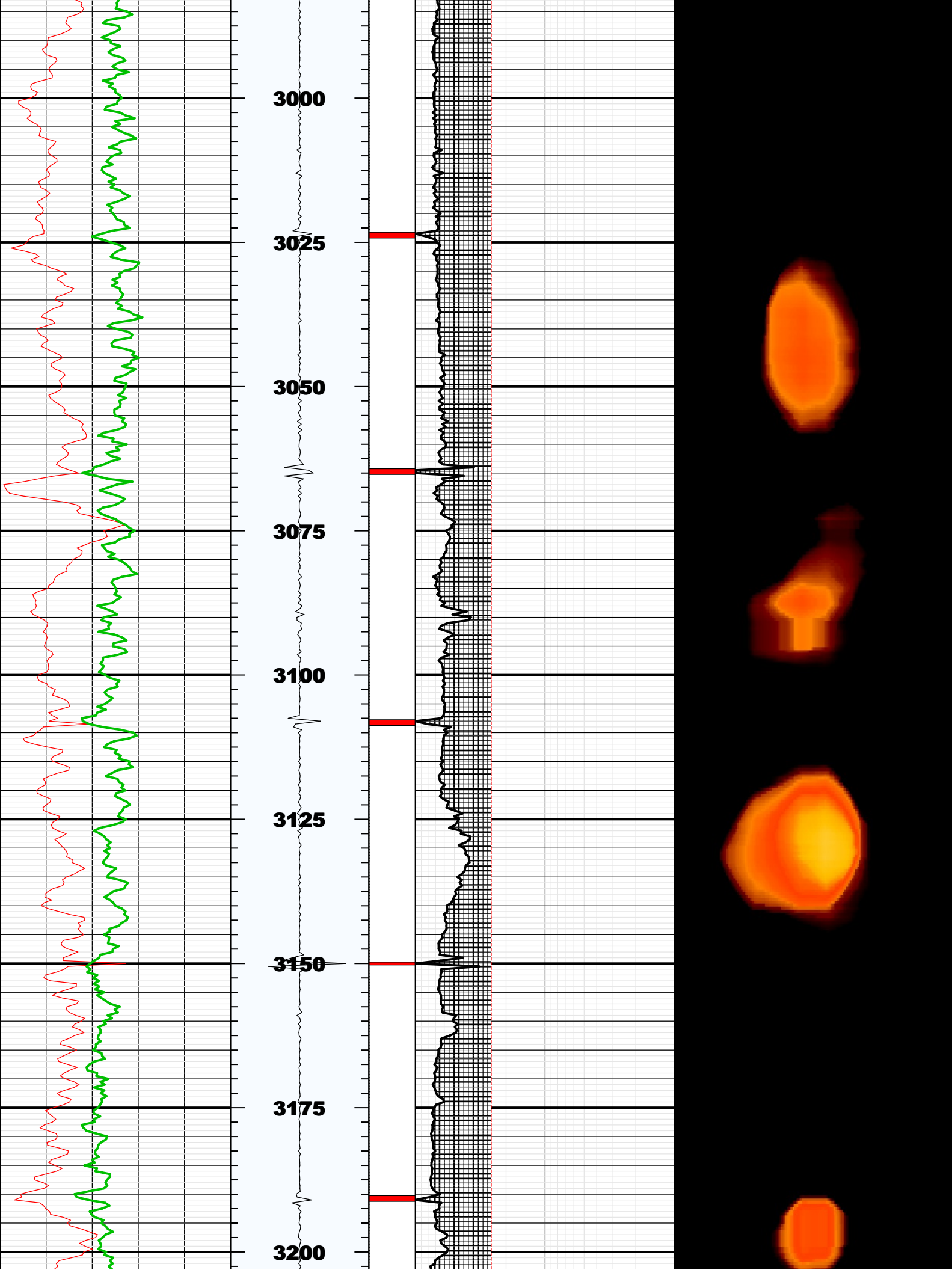


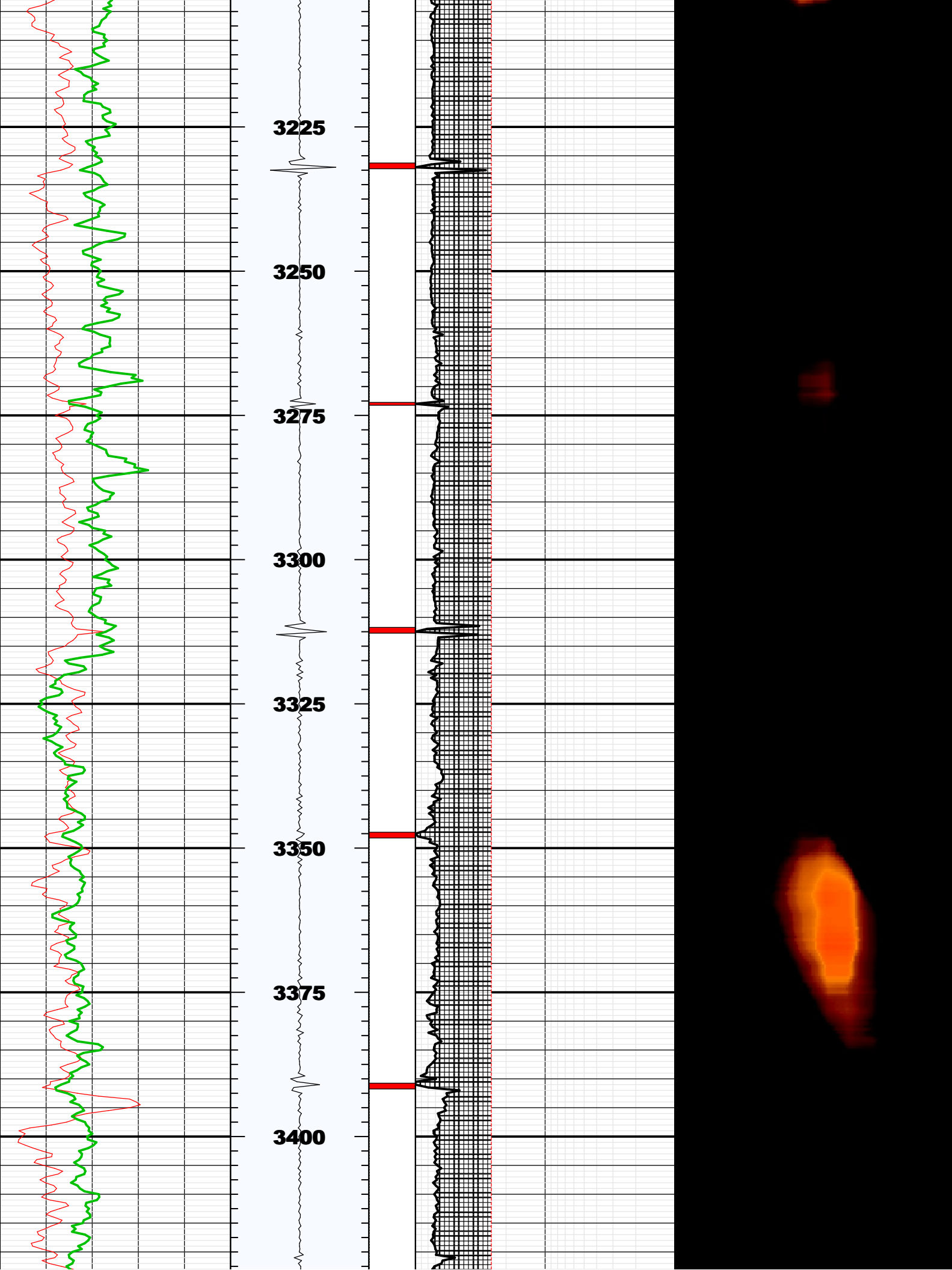


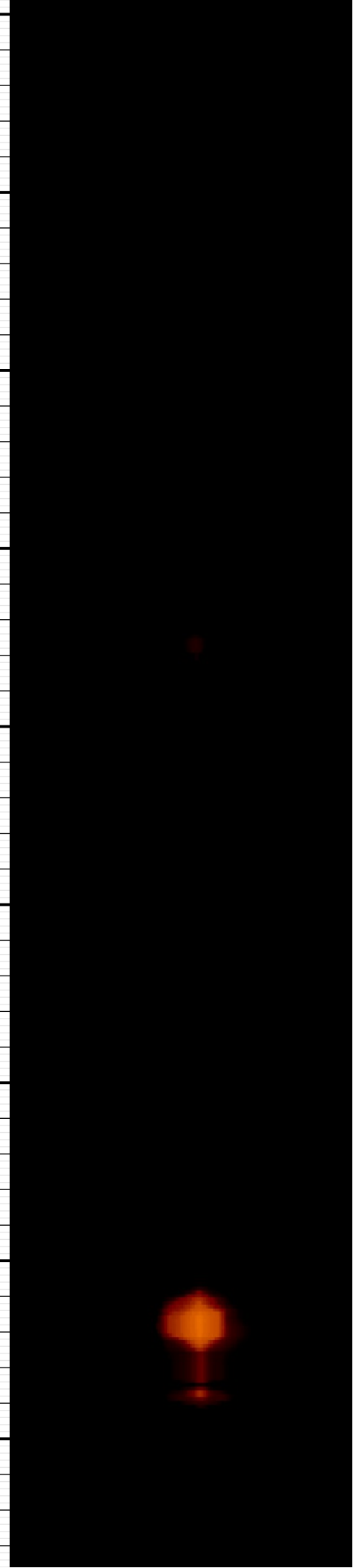
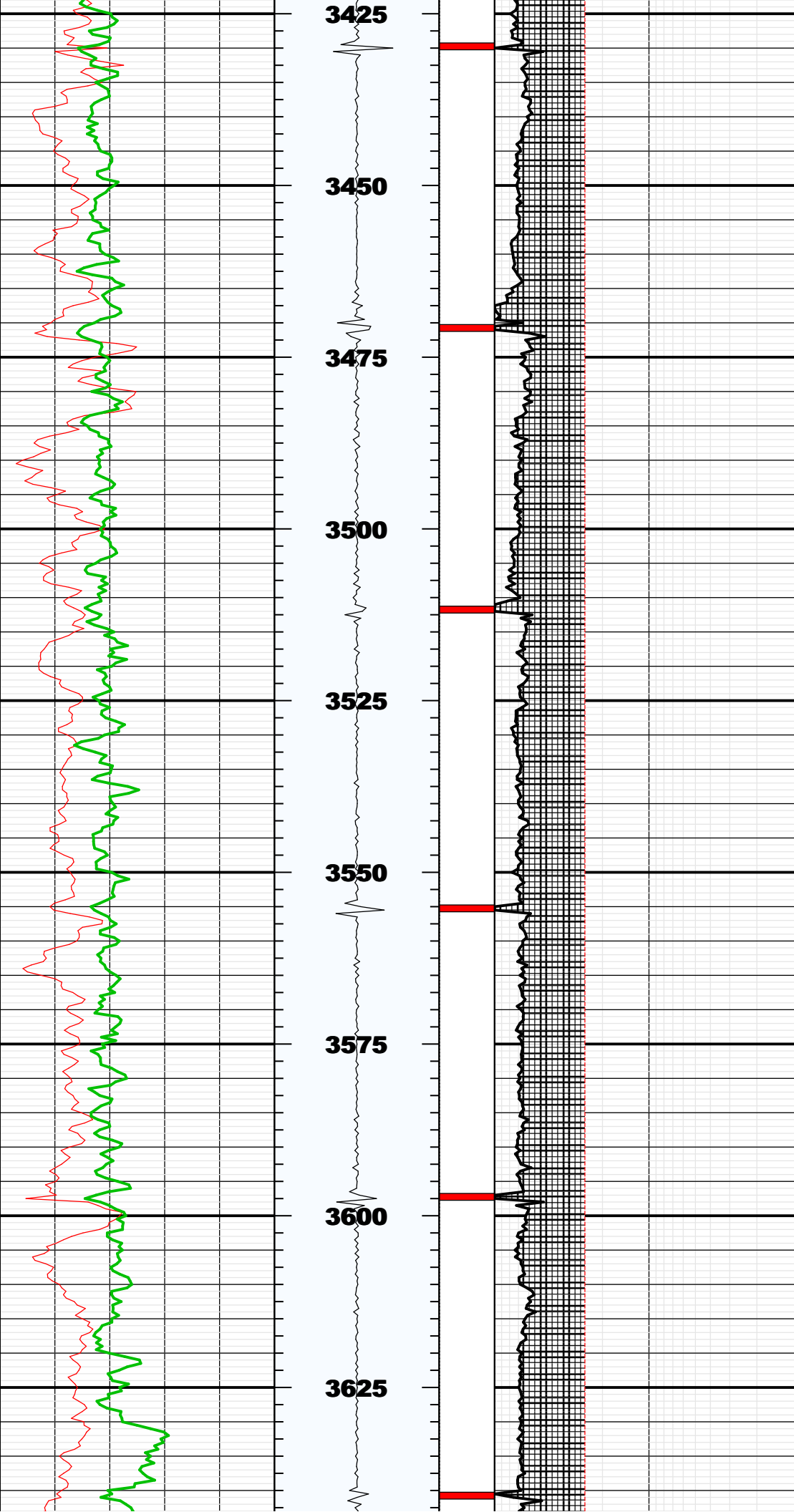


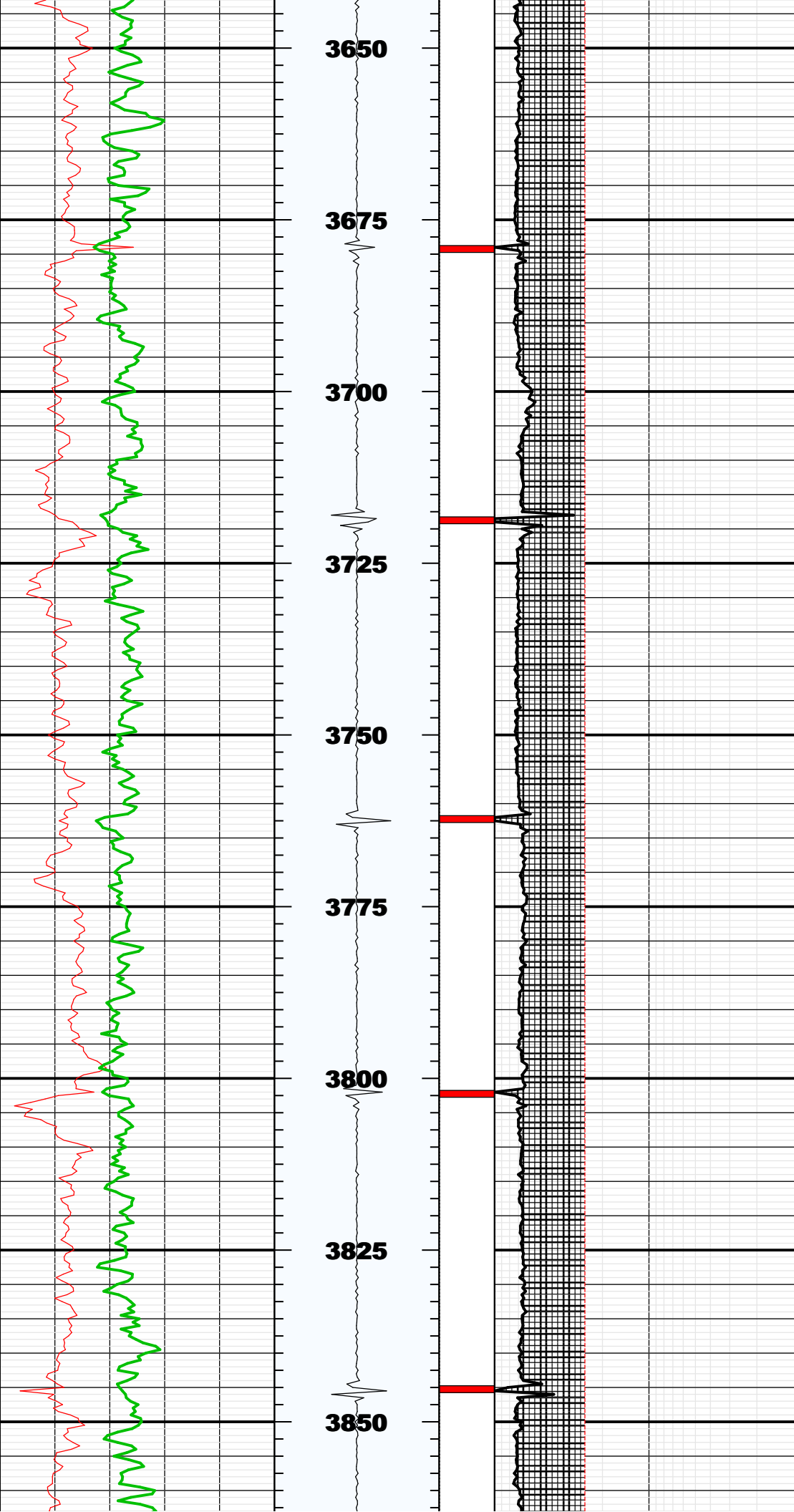


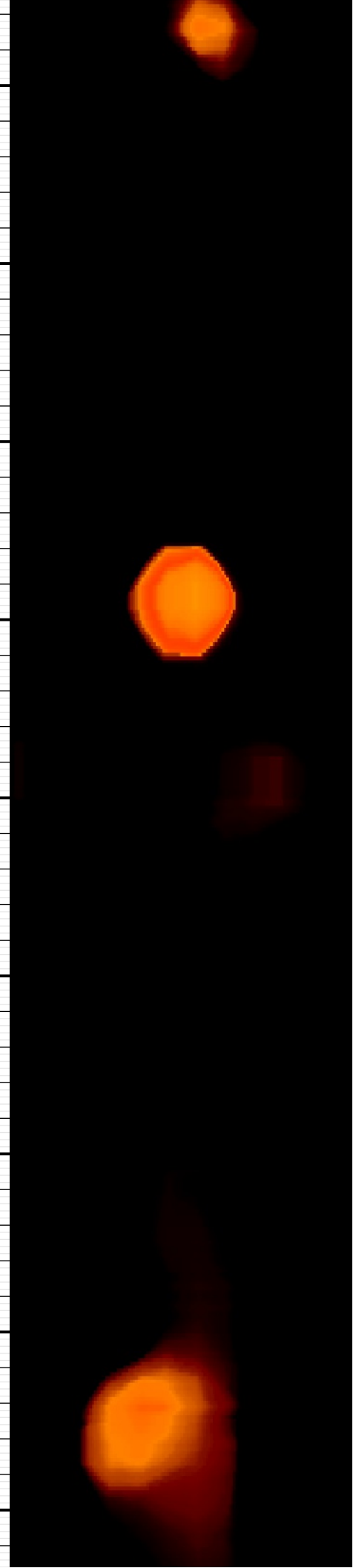
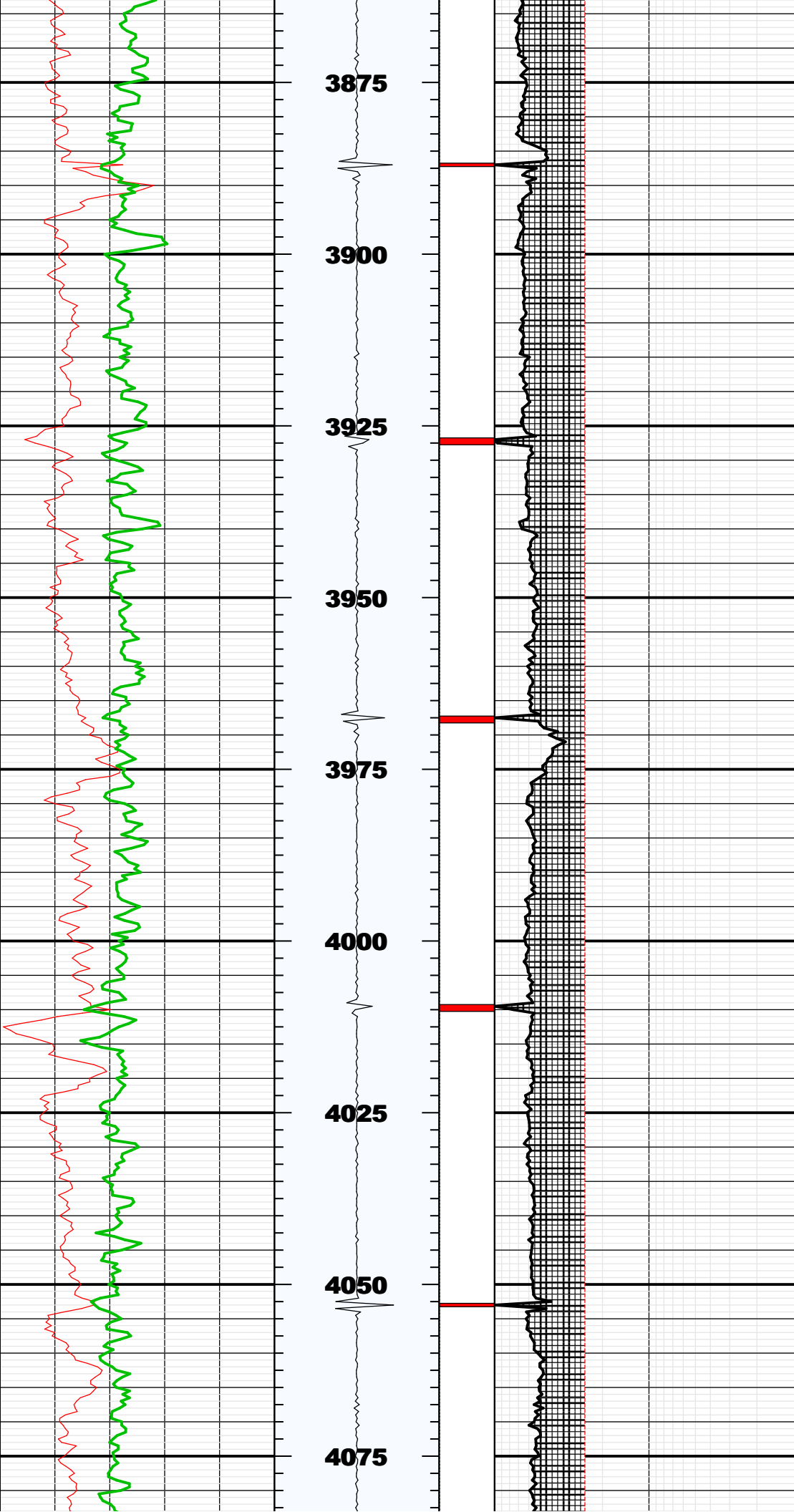


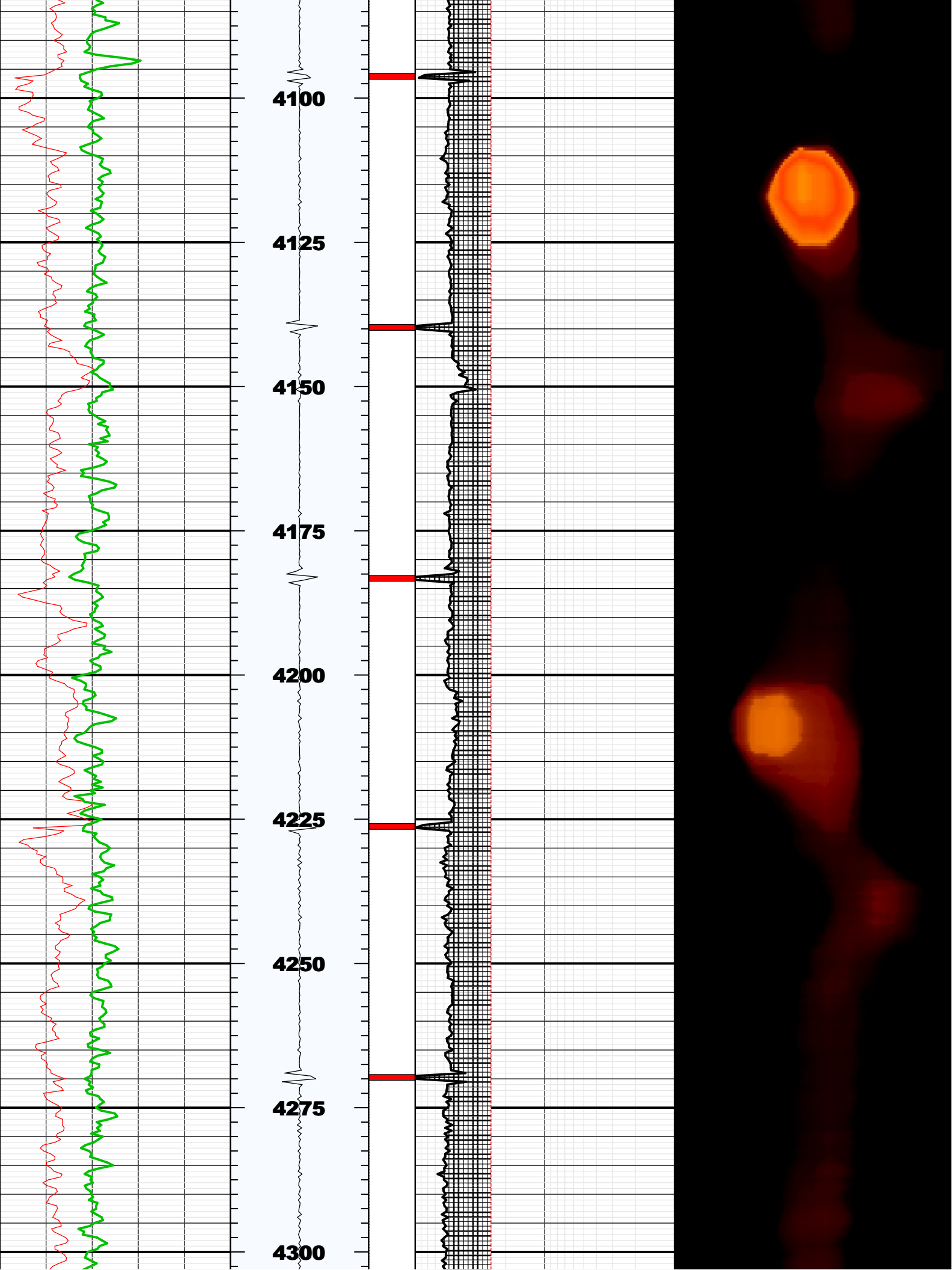


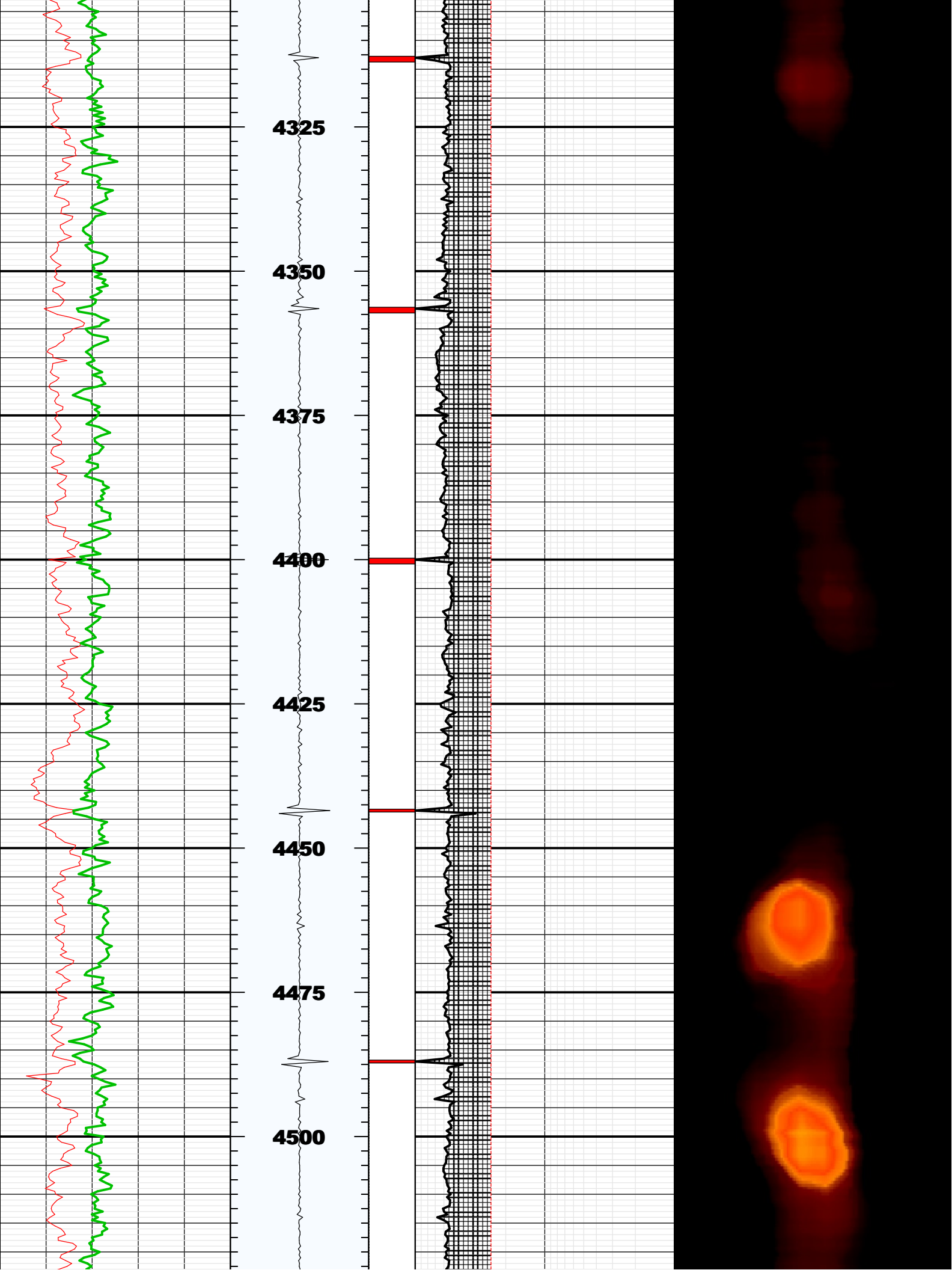


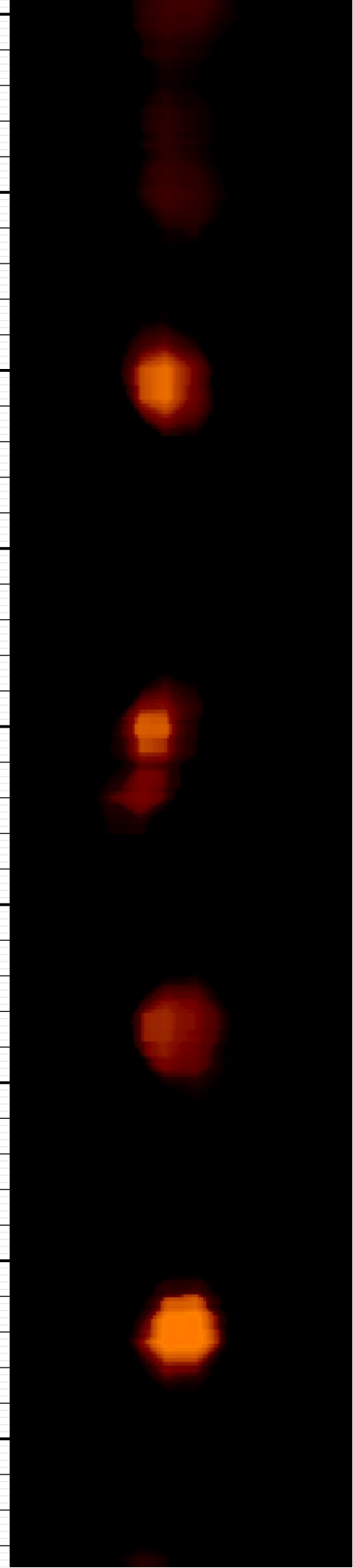
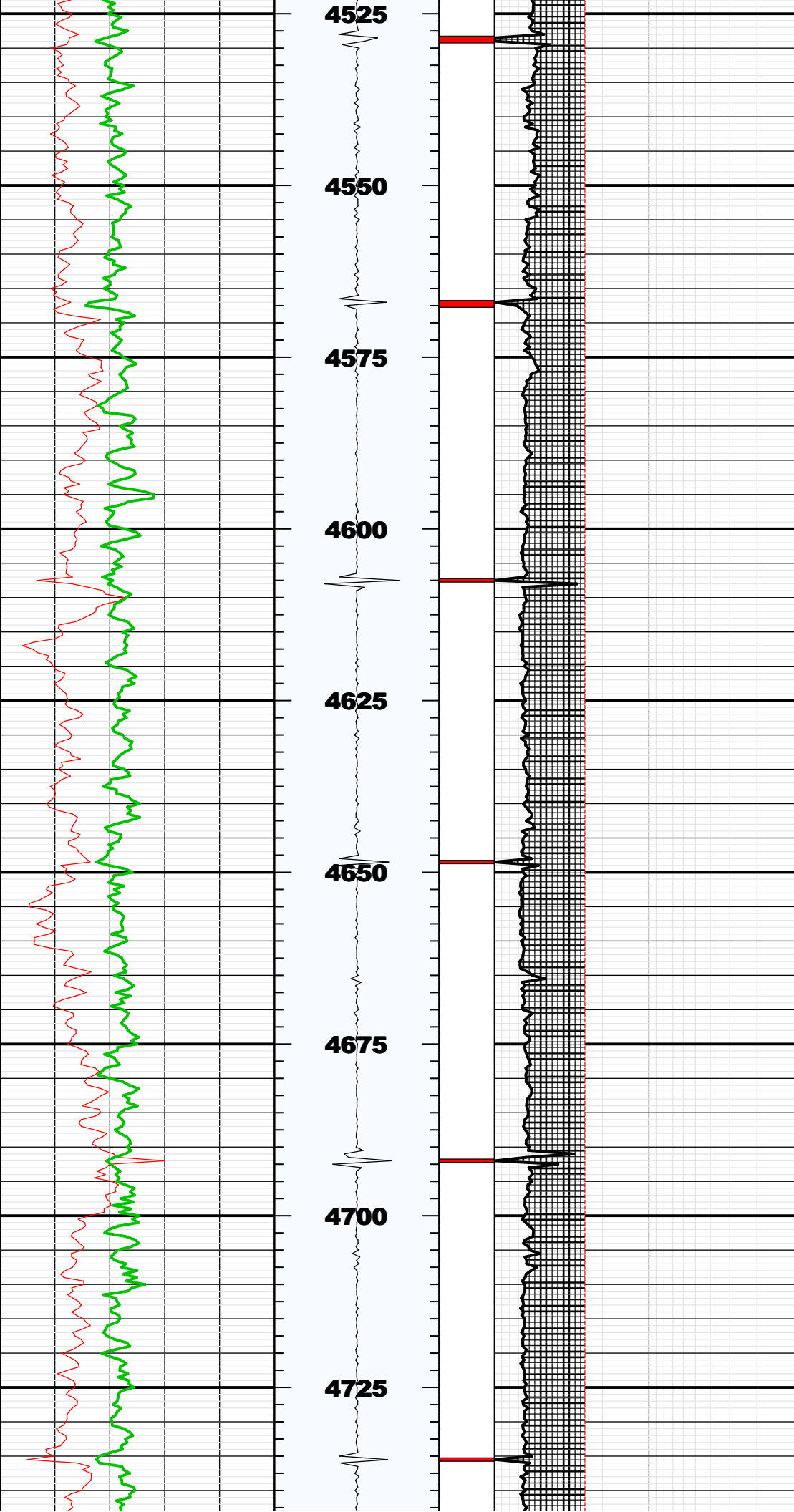


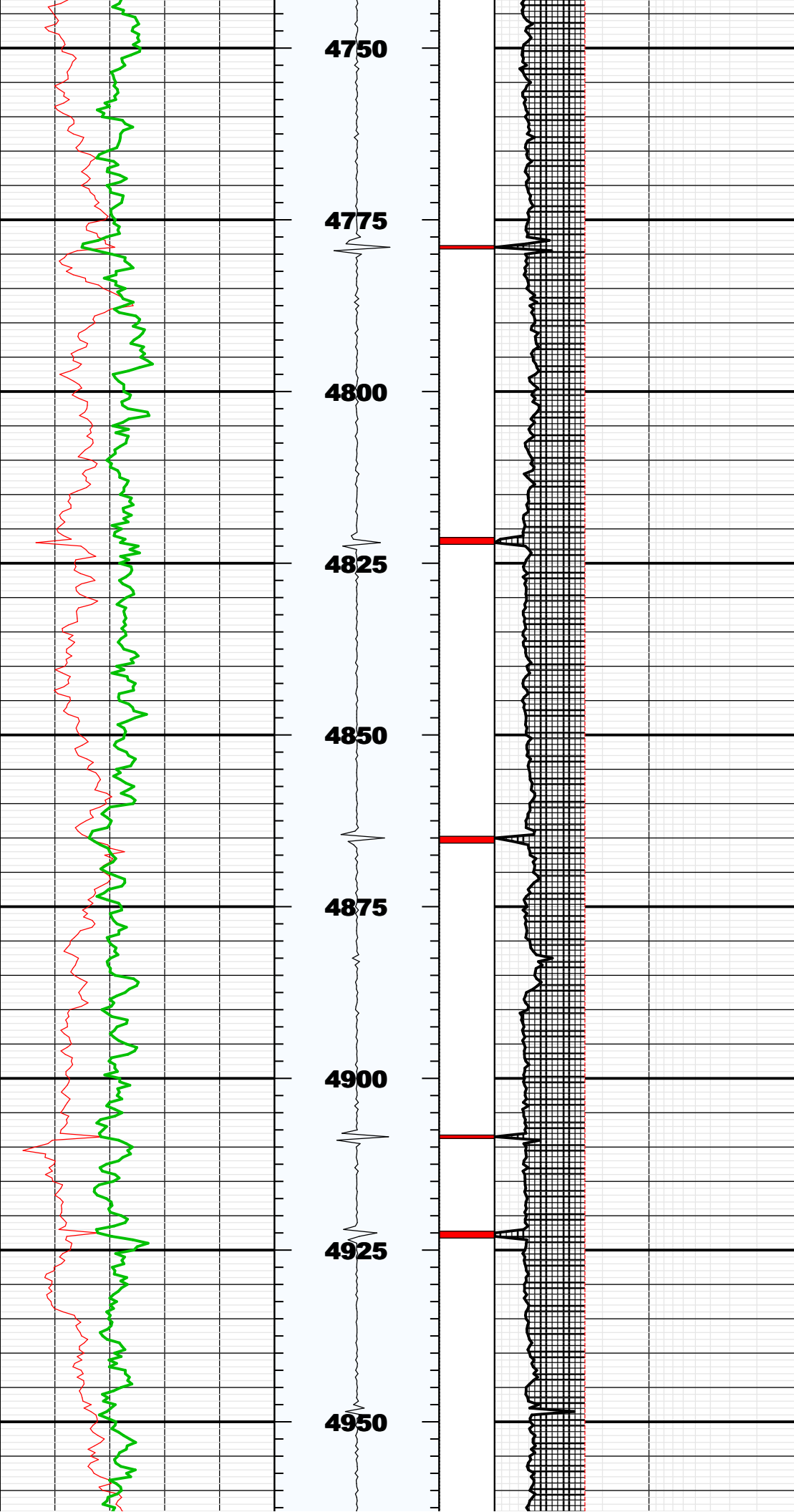


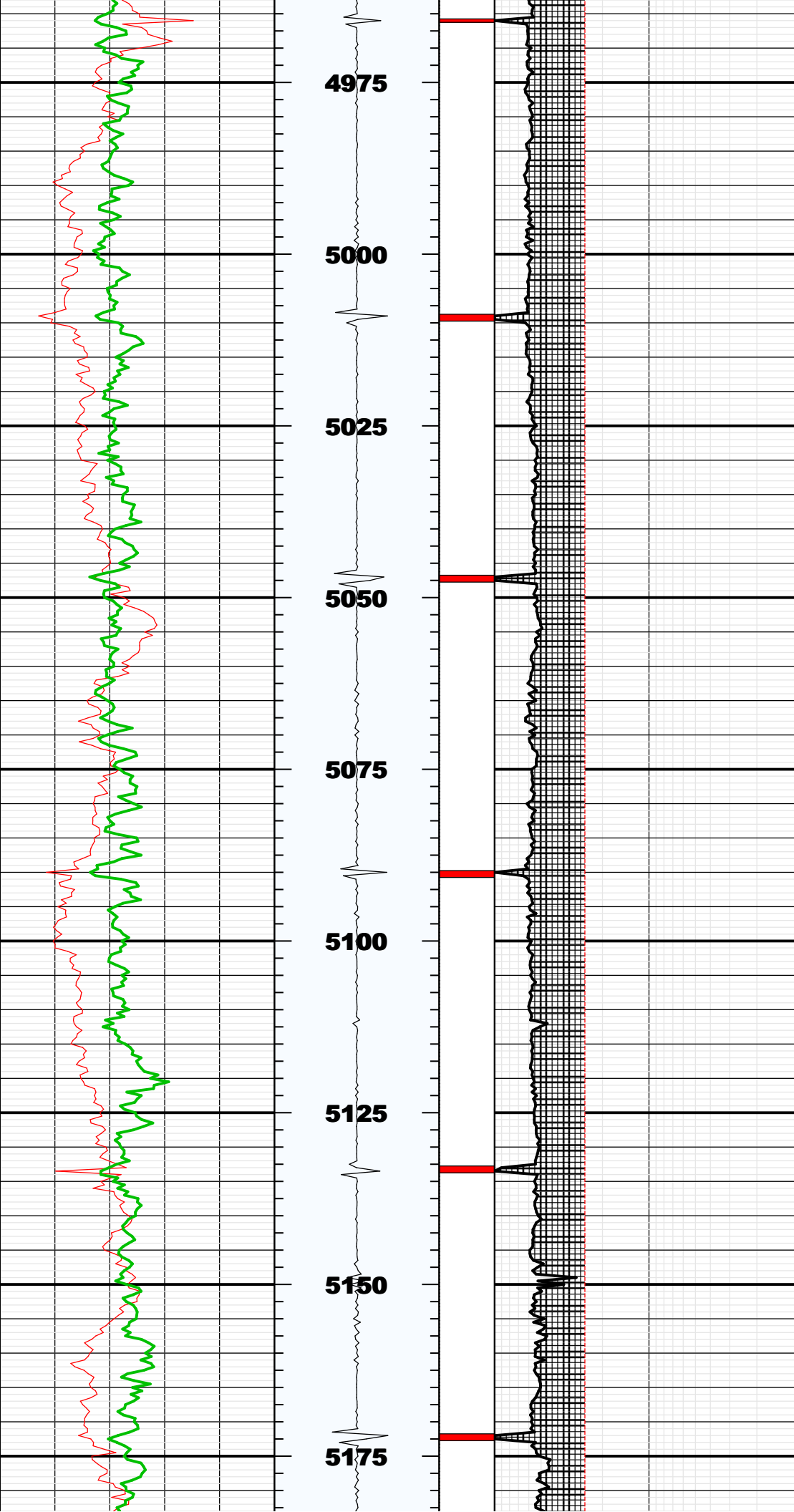


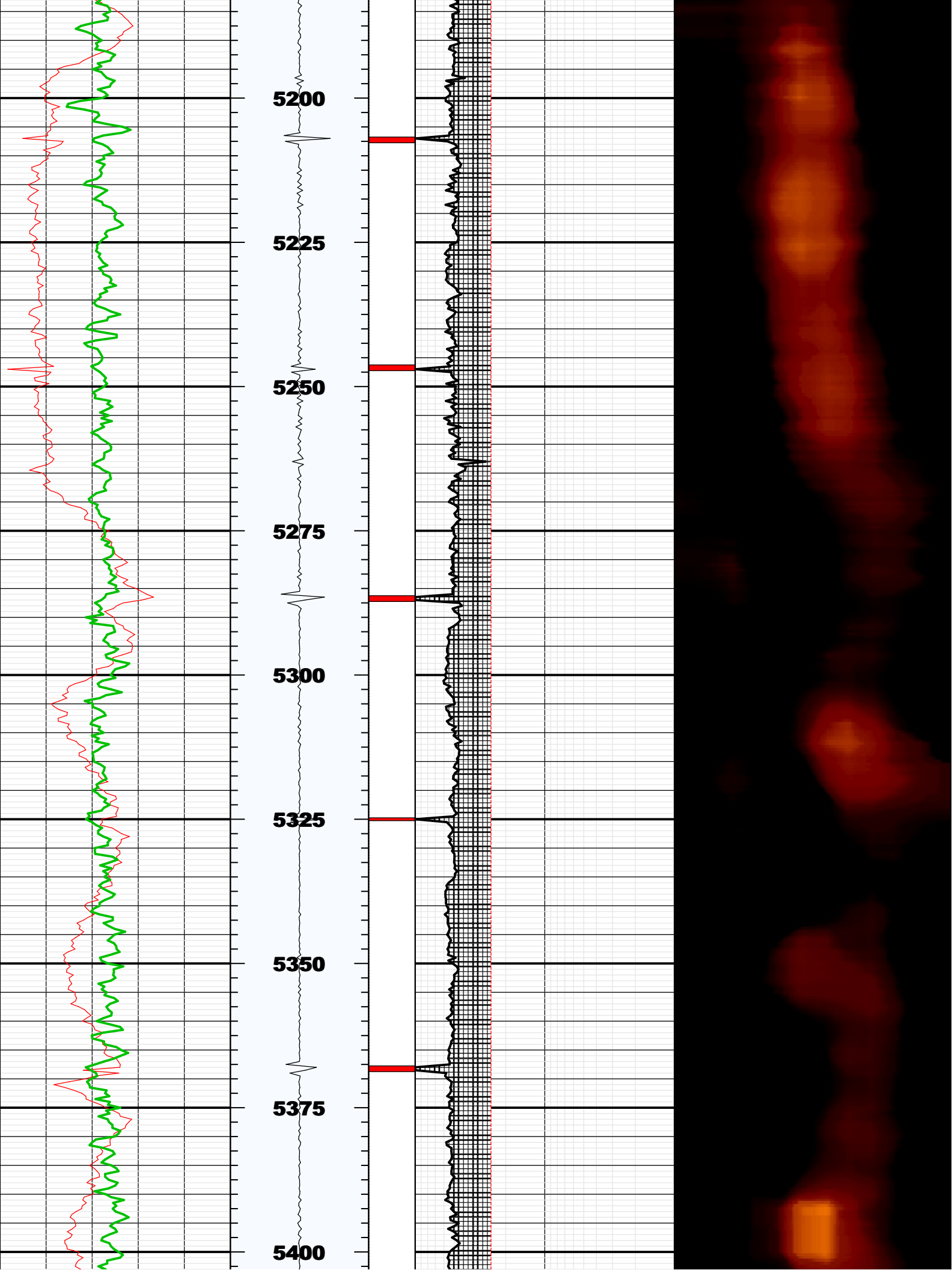


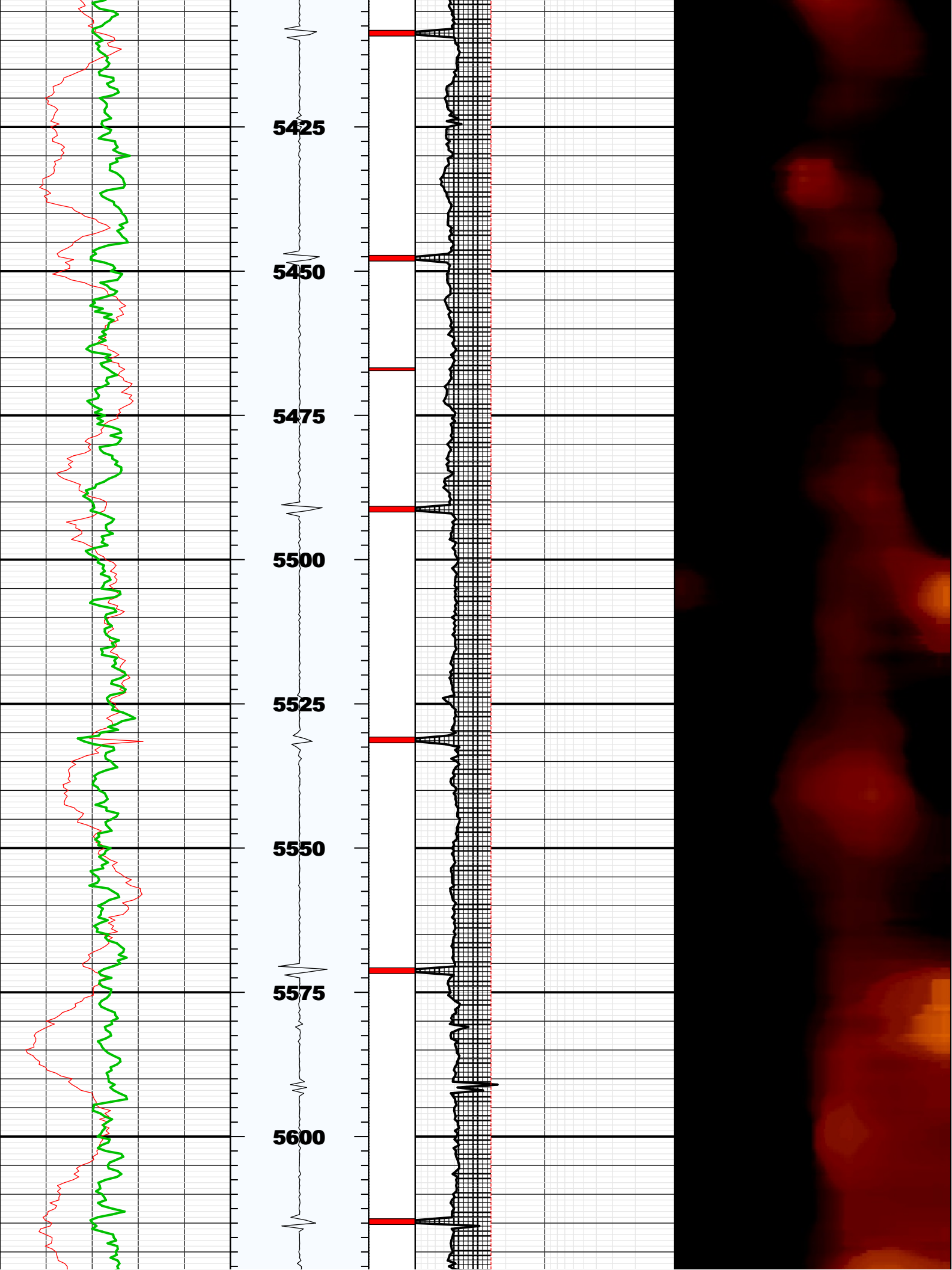


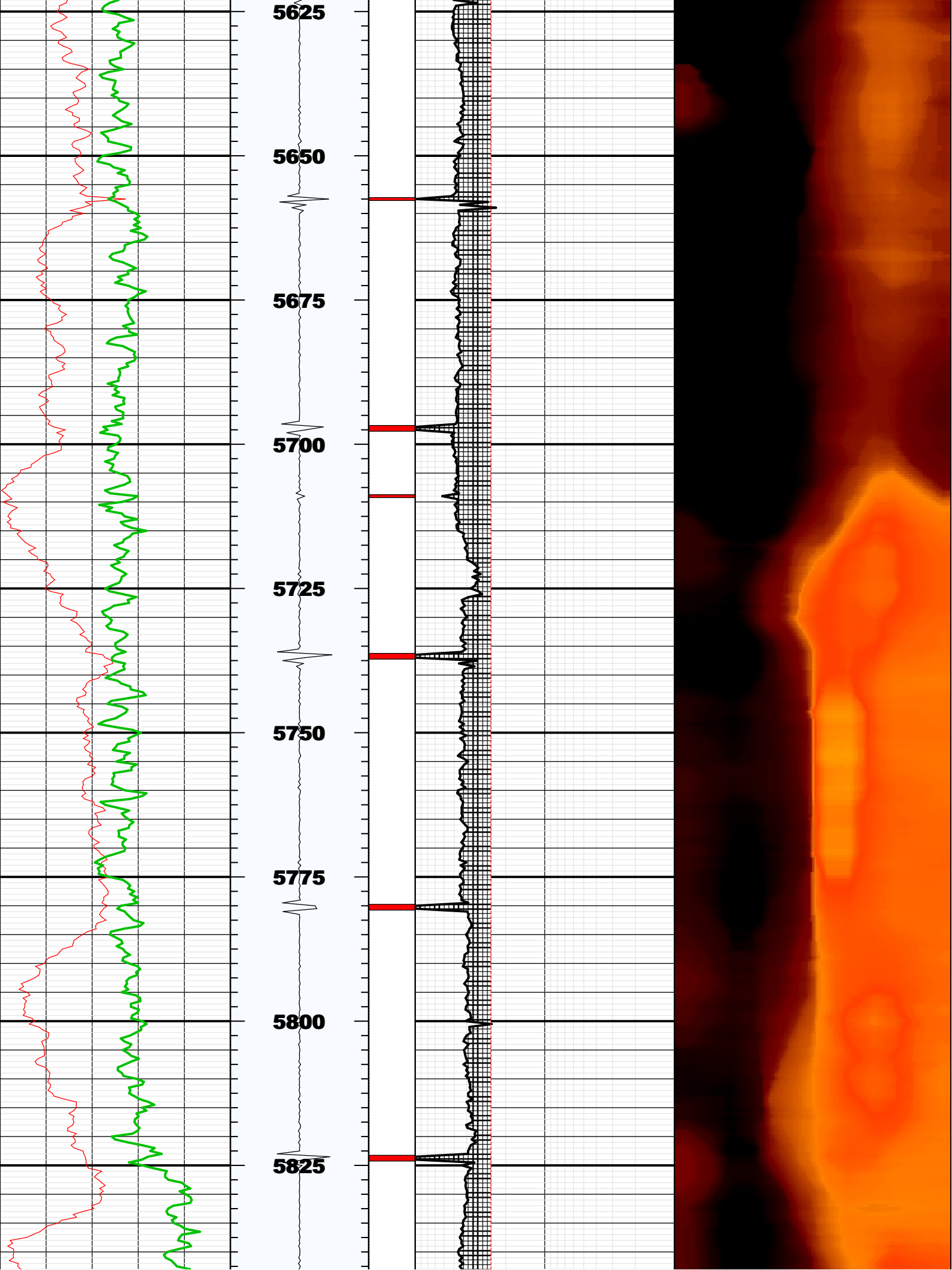


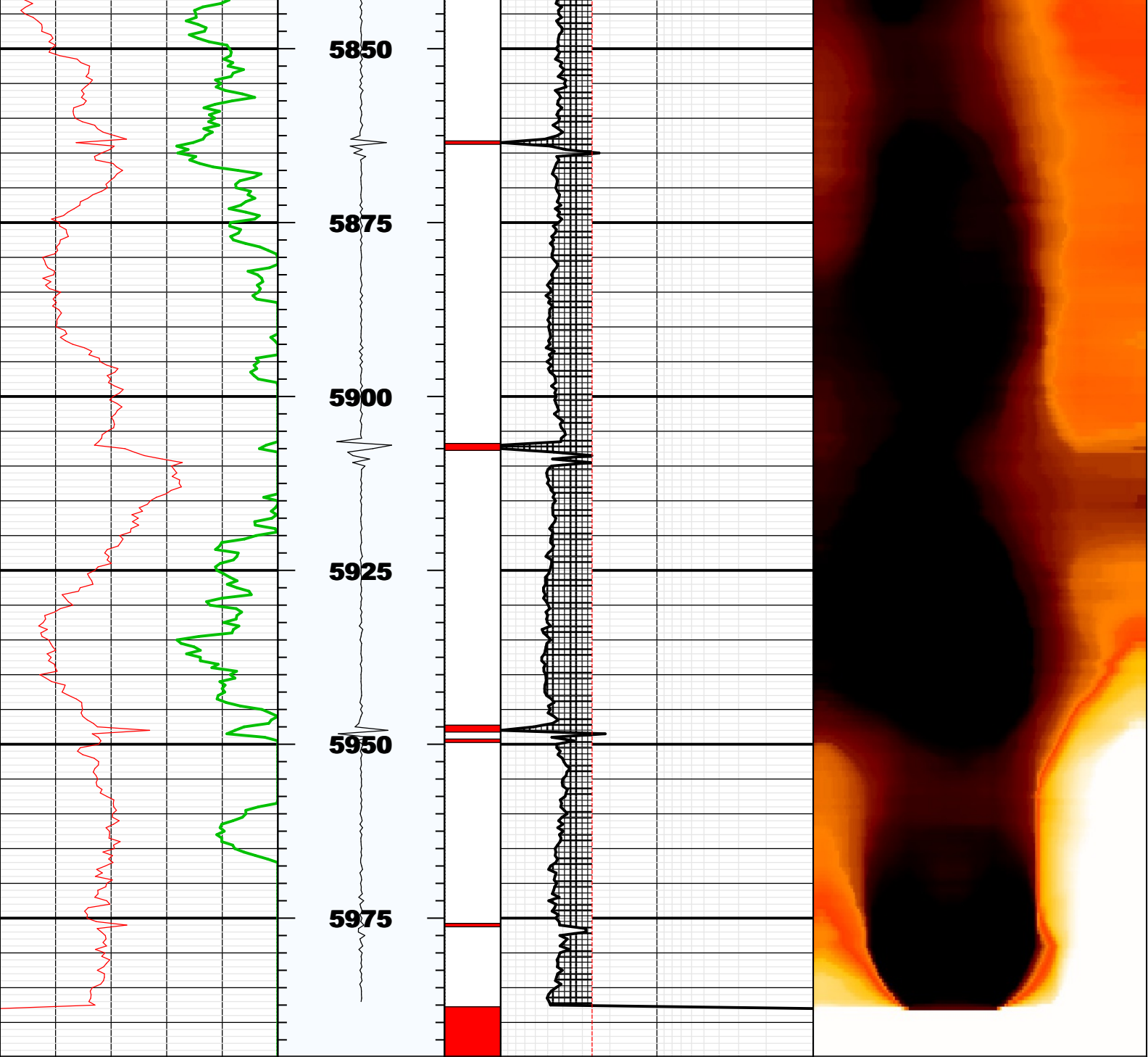








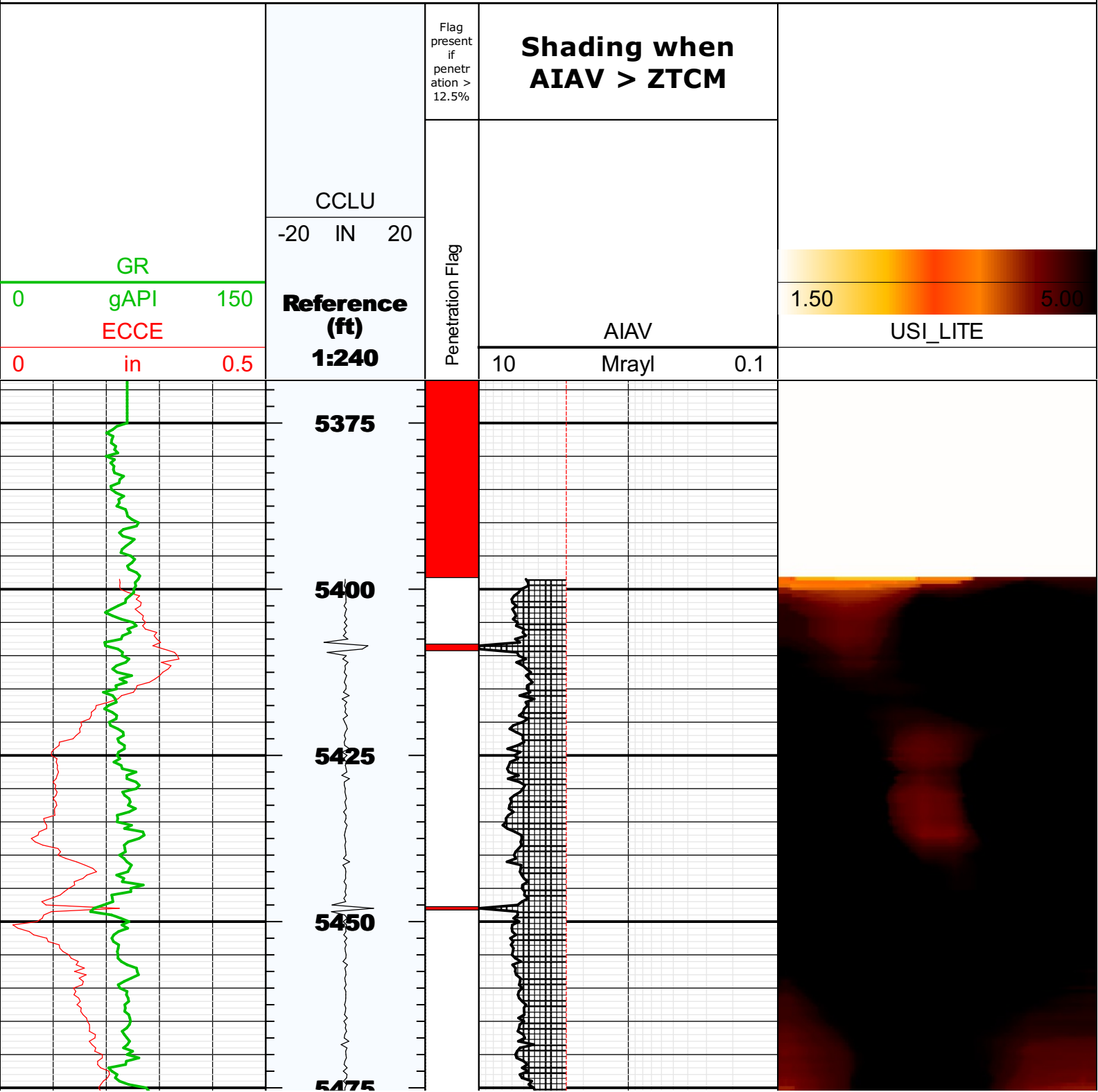


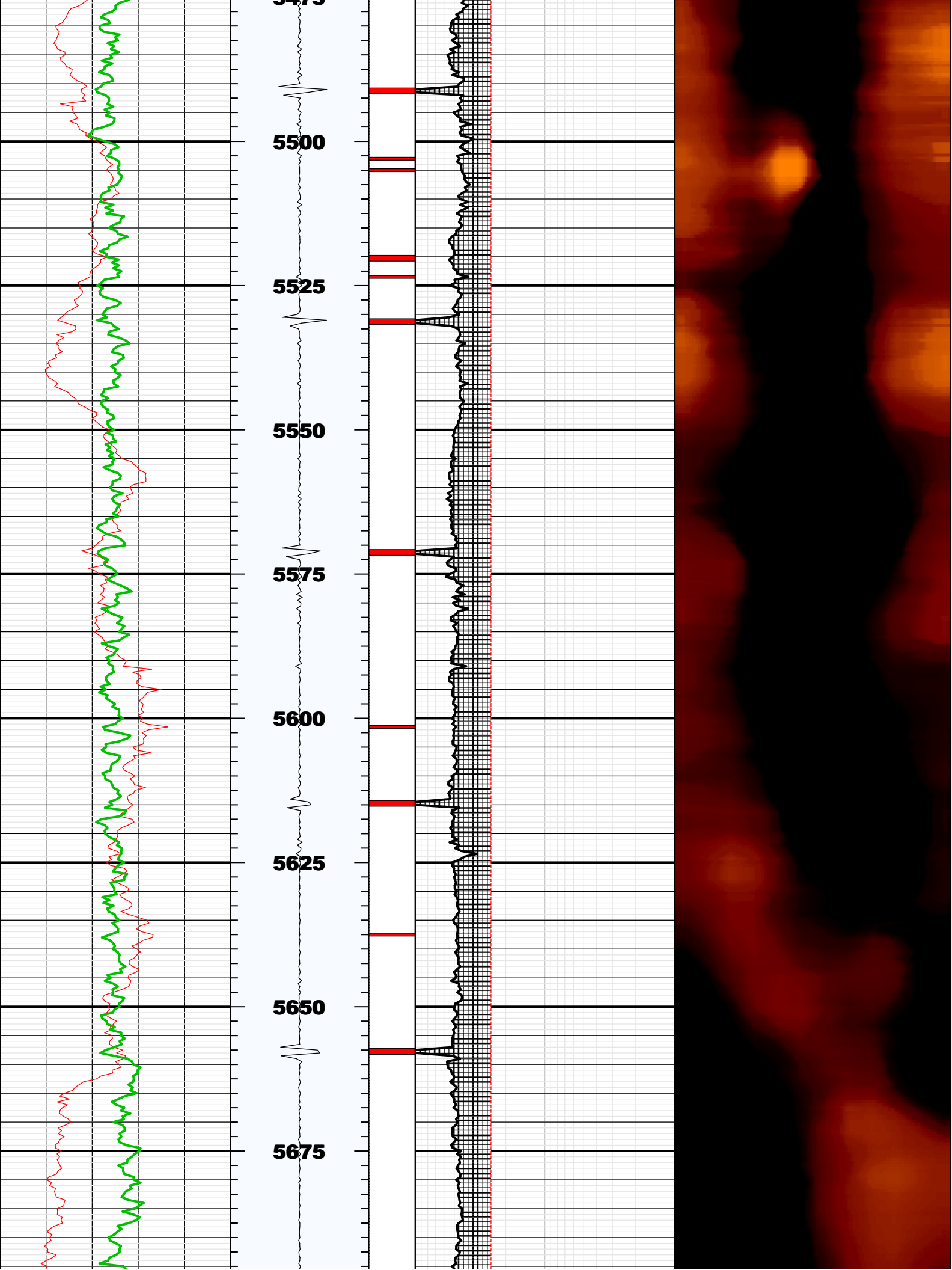


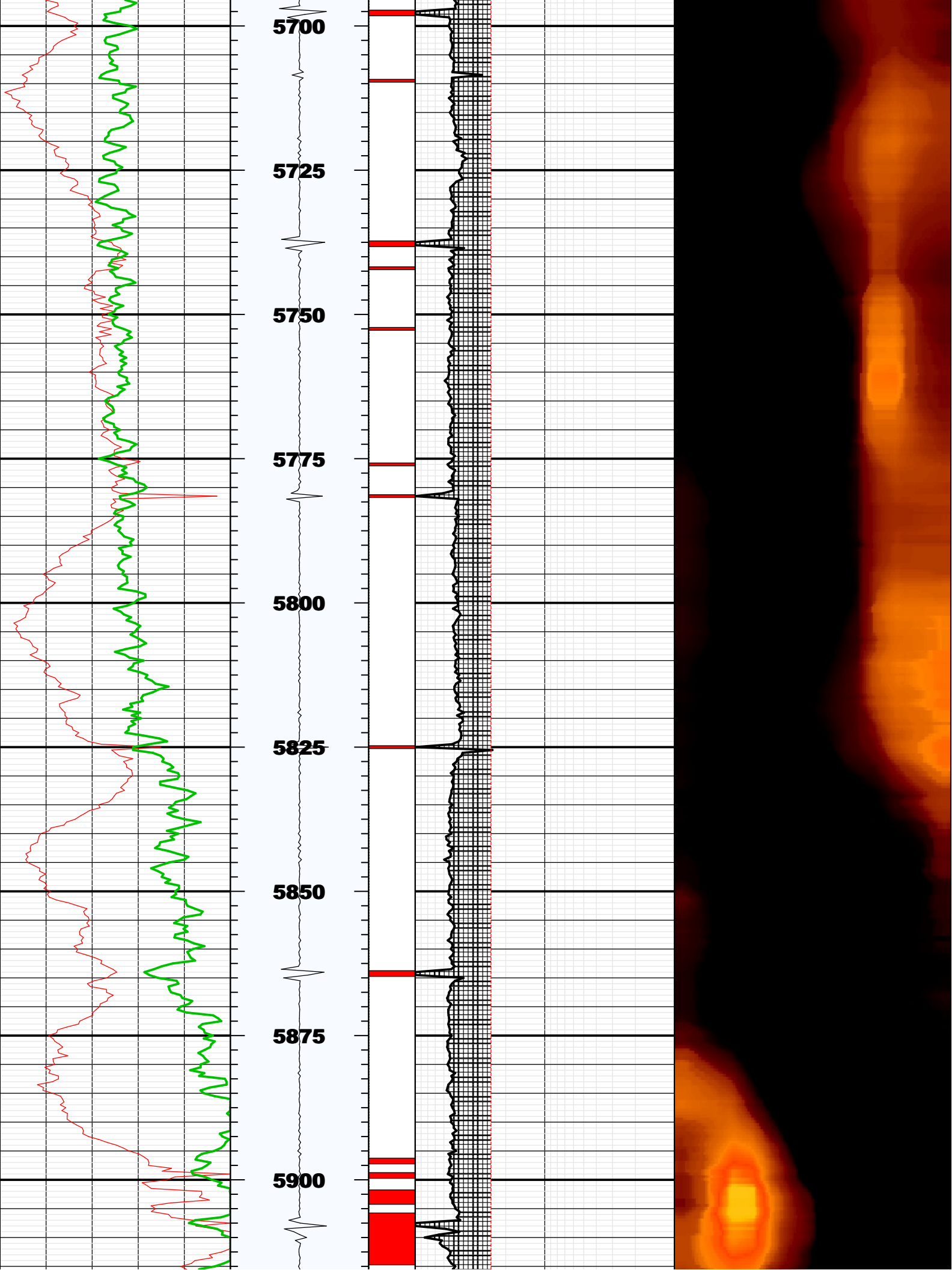
BS	8.75000	IN	Bit Size
CASG	P110		Casing Grade
CDIA	7.00000	IN	Casing Outer Diameter
CSID			
CSIZ	7.00000	IN	Current Casing Size
CWEI	26.00000	LB/F	Casing Weight
DFD	8.40000	LB/G	Drilling Fluid Density
DFVL	188.00000	US/F	Default Fluid Velocity
DO			
DOT	2.87400	IN	Diameter of Transducer Sensor
EMXV	100	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	31.31336	US	Window Begin Time
WINE	79.82967	US	Window End Time
ZCAS	46.25000	MRAY	Acoustic Impedance of Casing
ZINI	-1.00000	MRAY	Initial Estimate of Cement Impedance
ZMUD	1.81000	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

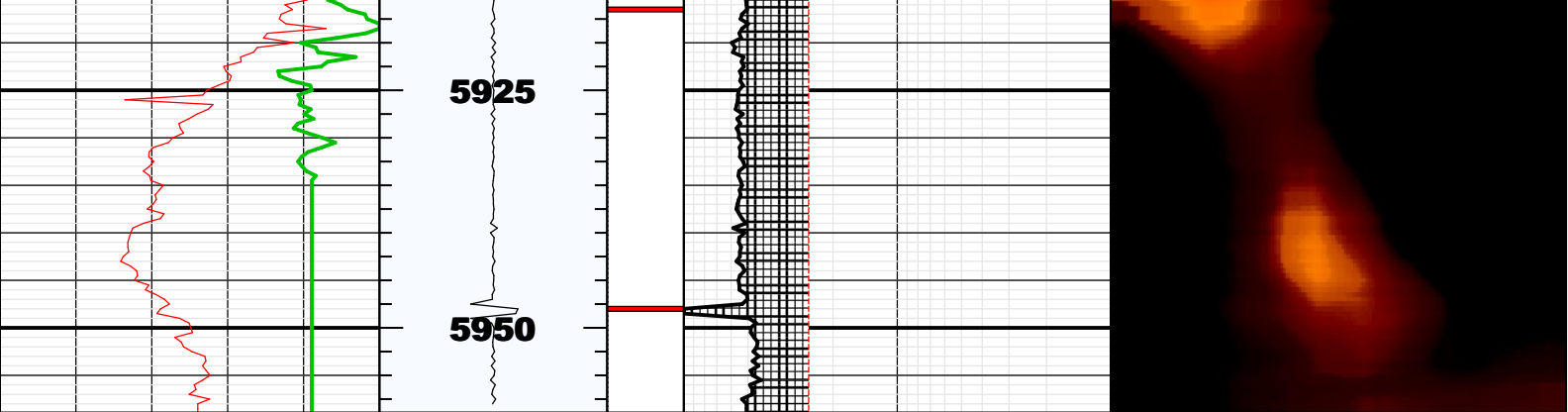
Repeat Pass

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Fluid Properties Used for Main Pass

