

Company: Noble Energy Inc

Well: Oscar Y10-72-1HC  
Field: Wattenberg  
County: Weld

State: Colorado

USI-LITE (2500 psi)

|   |   |
|---|---|
| County: Weld  |   |
| Field: Wattenberg   |   |
| Location: NESE Sec. 10 T2N 64W                                    |   |
| Well: Oscar Y10-72-1HC  |   |
| Company: Noble Energy Inc   |   |
| USI-LITE (2500 psi)   |   |
| LOCATION  |   |
| Permanent Datum:<br>Log Measured From:<br>Drilling Measured From: | GL<br>KB<br>KB  |
| API Serial No.<br>05-123-37942-0000                               | Section<br>10   |
|   | Township<br>2N  |
|   | Range<br>64W  |
|   | Elev: K.B. 4952.0 F<br>G.L. 4928.0 F<br>D.F. 4951.0 F |

DEPTH SUMMARY LISTING

DEPTH SYSTEM EQUIPMENT

| Depth Measuring Device  | Tension Device   | Logging Cable                         |
|---|--|---------------------------------------|
| Type:<br>Serial Number:<br>Calibration Date:<br>Calibration Cable Type:<br>Wheel Correction 1:<br>Wheel Correction 2: | Type:<br>Serial Number: 1109<br>Calibration Date:<br>Calibrator Serial Number:<br>Number Of Calibration Points:<br>Calibration RMS:<br>Calibration Peak Error: | Serial Number:<br>Length: 16500.00000 |

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) RESTRICTIONS 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

0 PSI repeat pass and 2500 PSI main.

Top of Cement seen @ 255'.

Cement program 11.5 PPG tuned spacer 12.5 PPG lead cement and 13.0 PPG tail cement. Full returns.  
During cement job casing pressure tested to 1500 PSI for 15 min. Floats held.

Top of the 4.5" liner at 6548.6'.

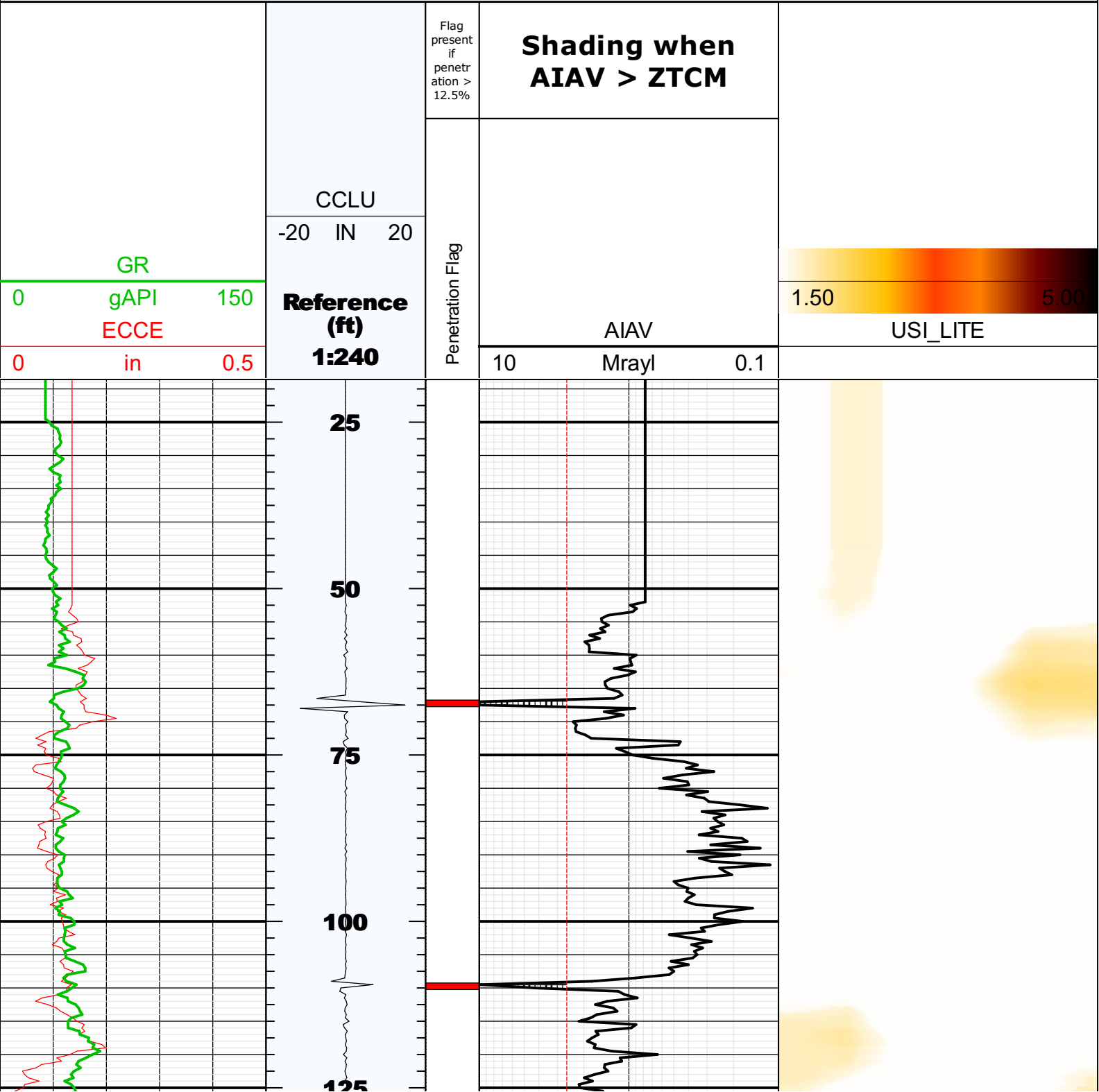
Bottom log interval at 6535' to maintain distance from liner top.

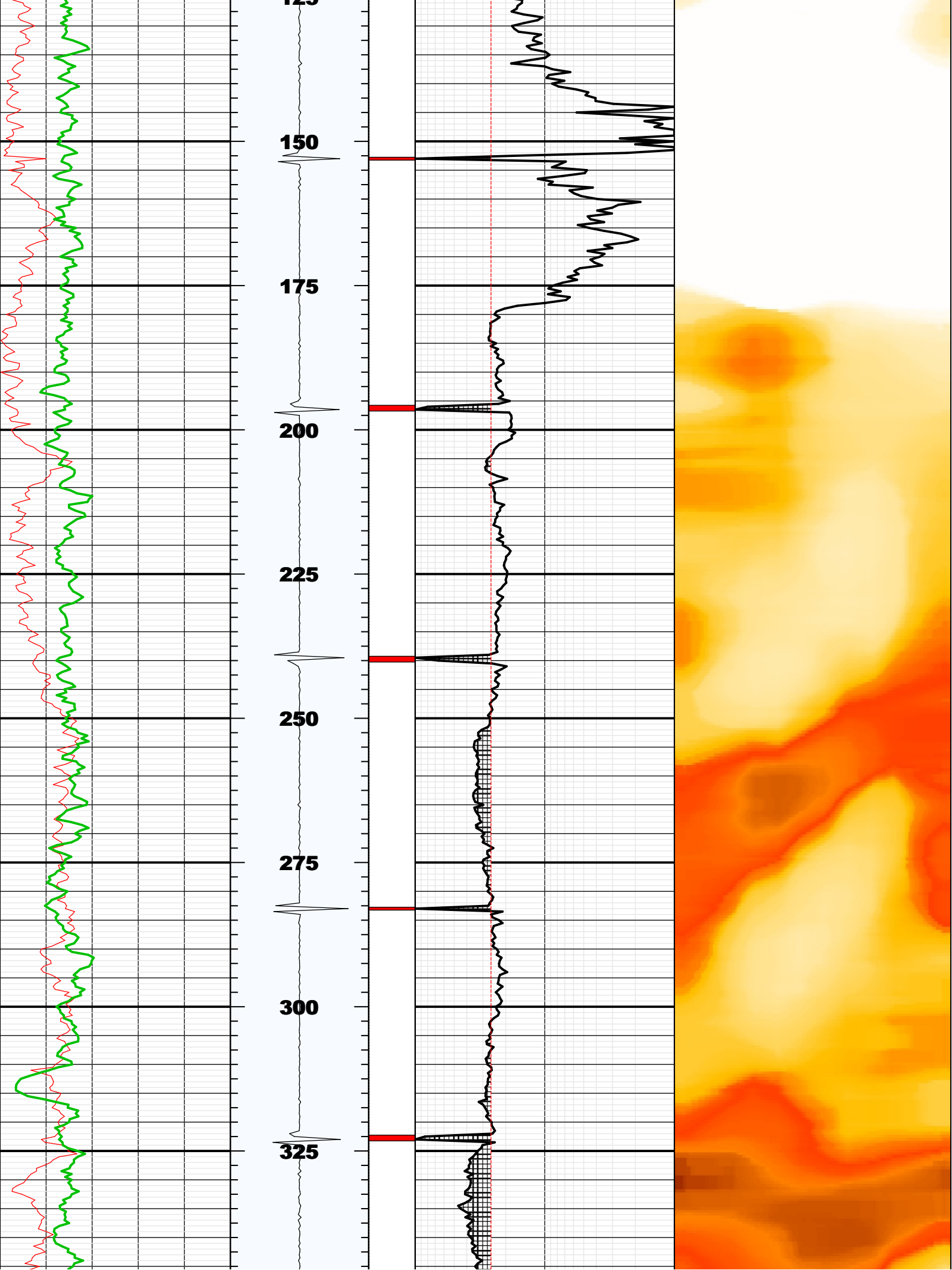
Did not see Niobrara but unable to go deeper due to liner top.

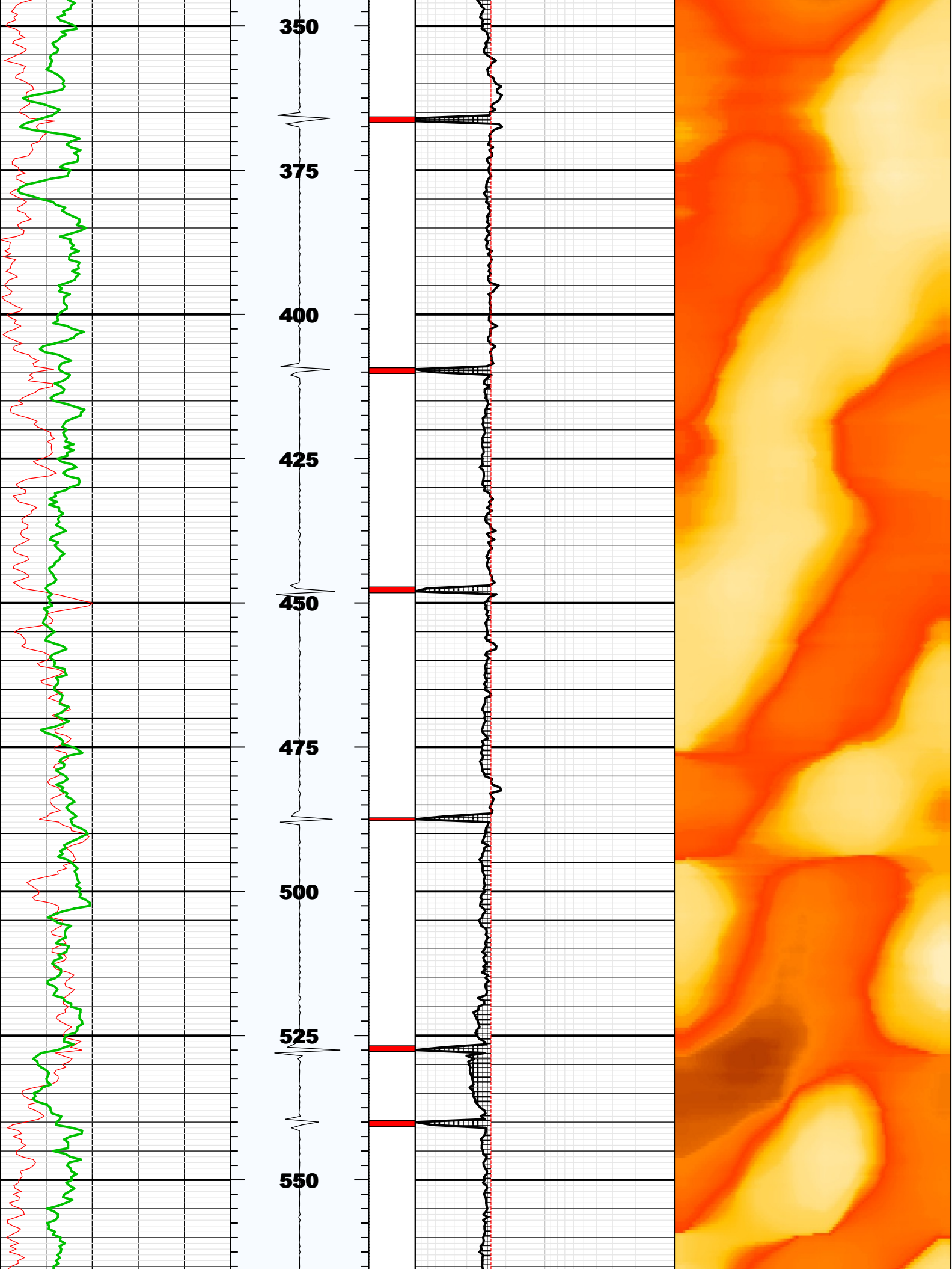
Bottom hole temperature was 217 degF measured at depth.

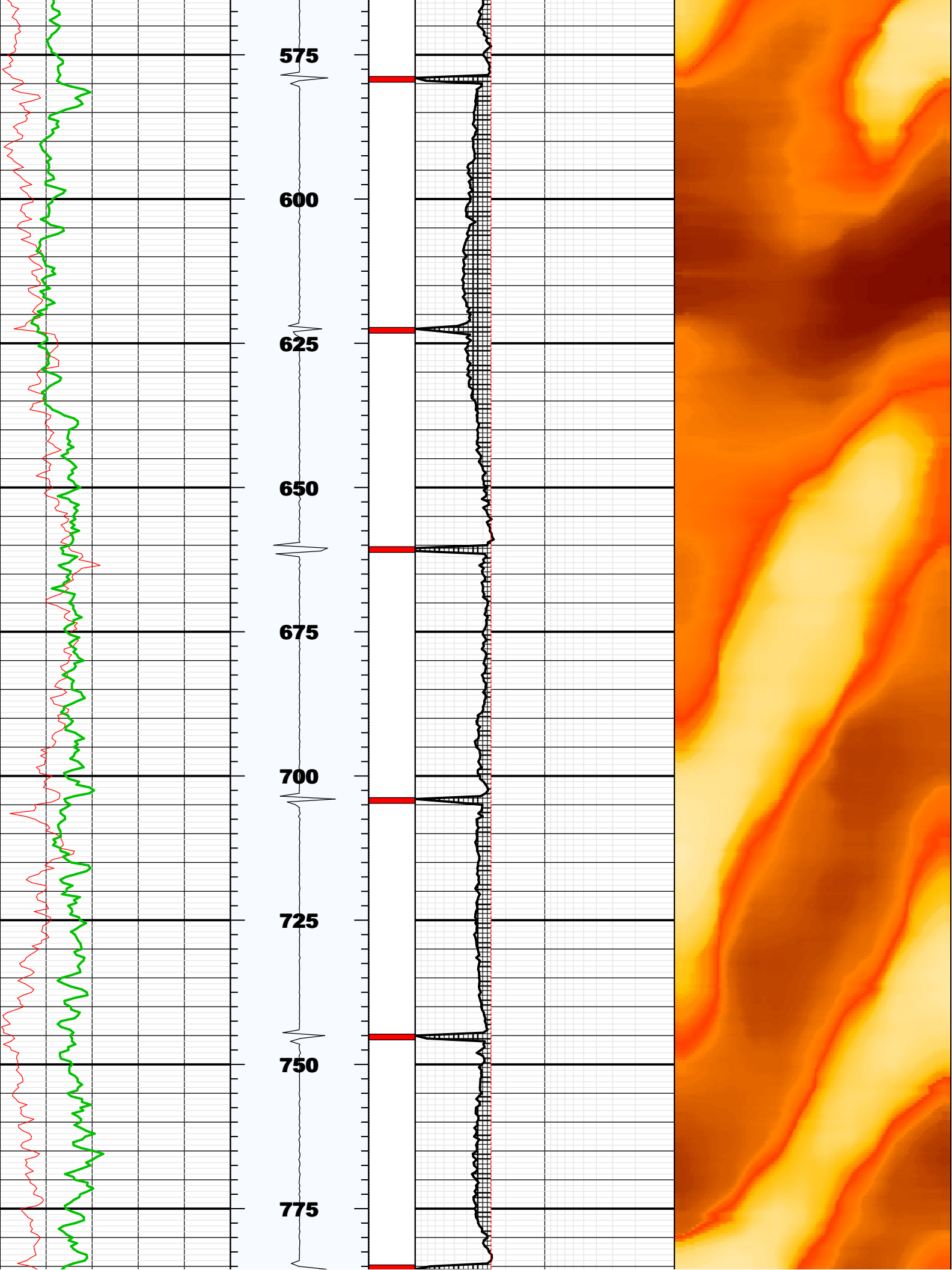
Main Pass

Company: Noble Energy Inc  
Well: Oscar Y10-72-1HC  
Field: Wattenberg

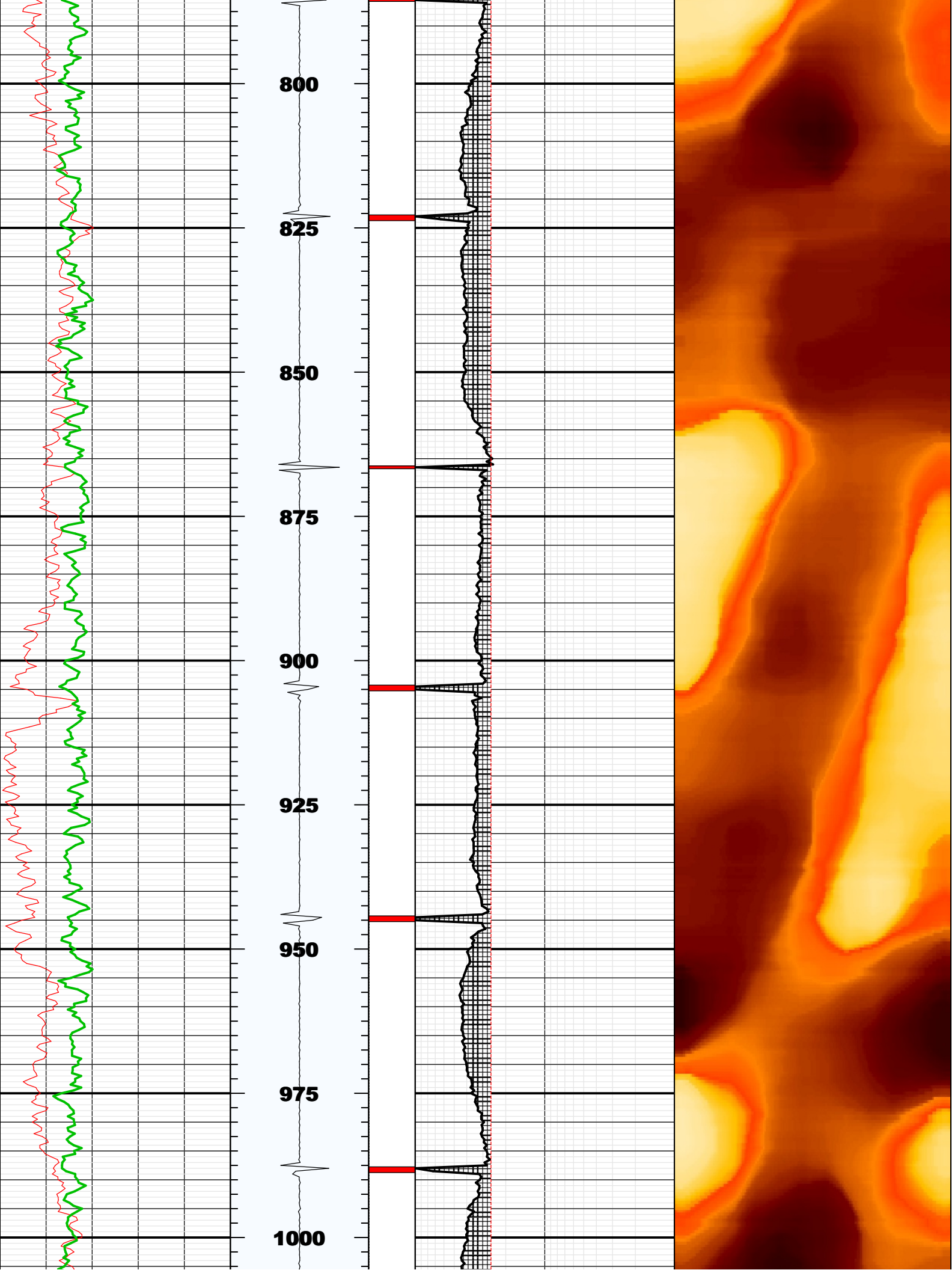


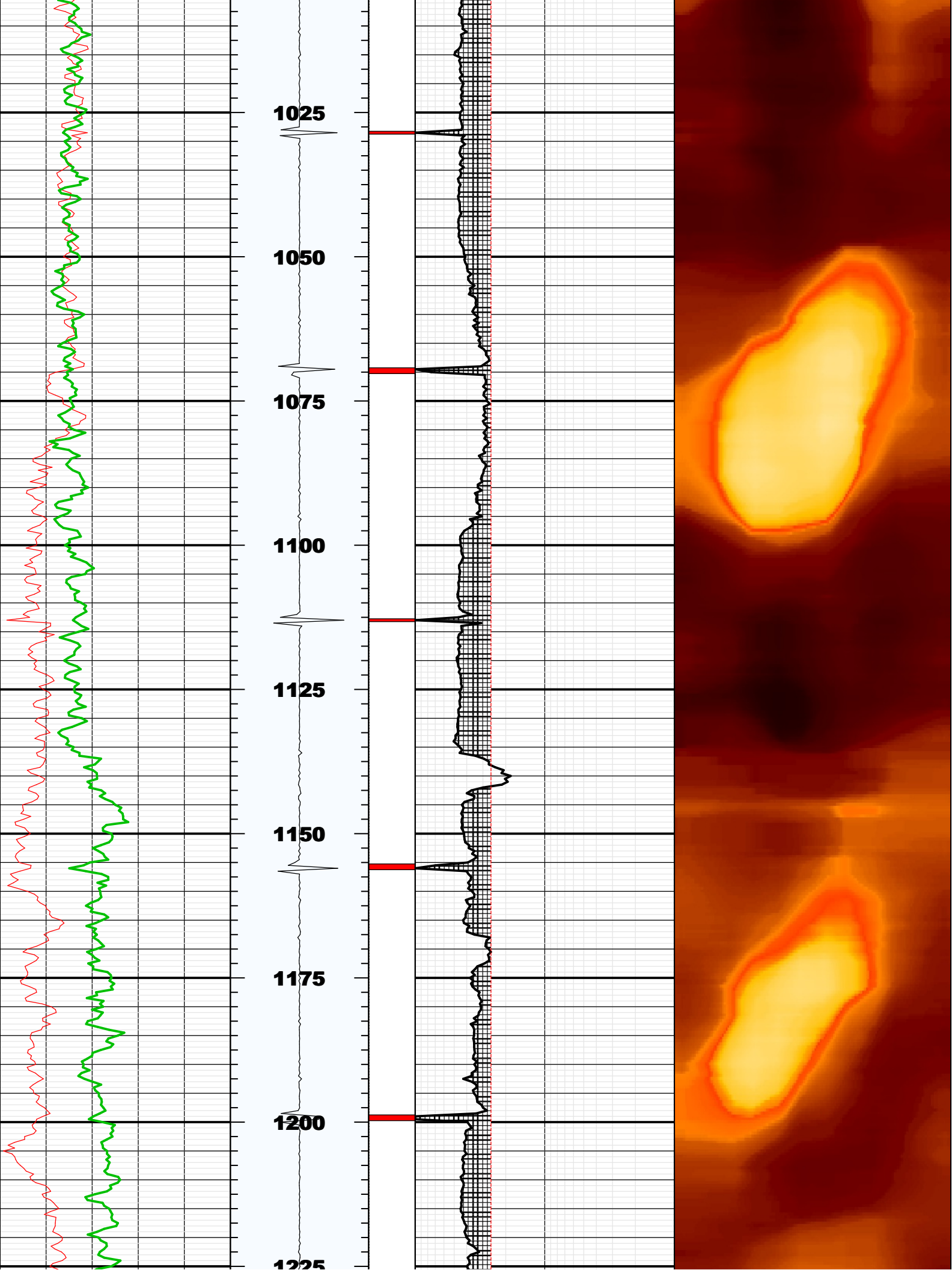




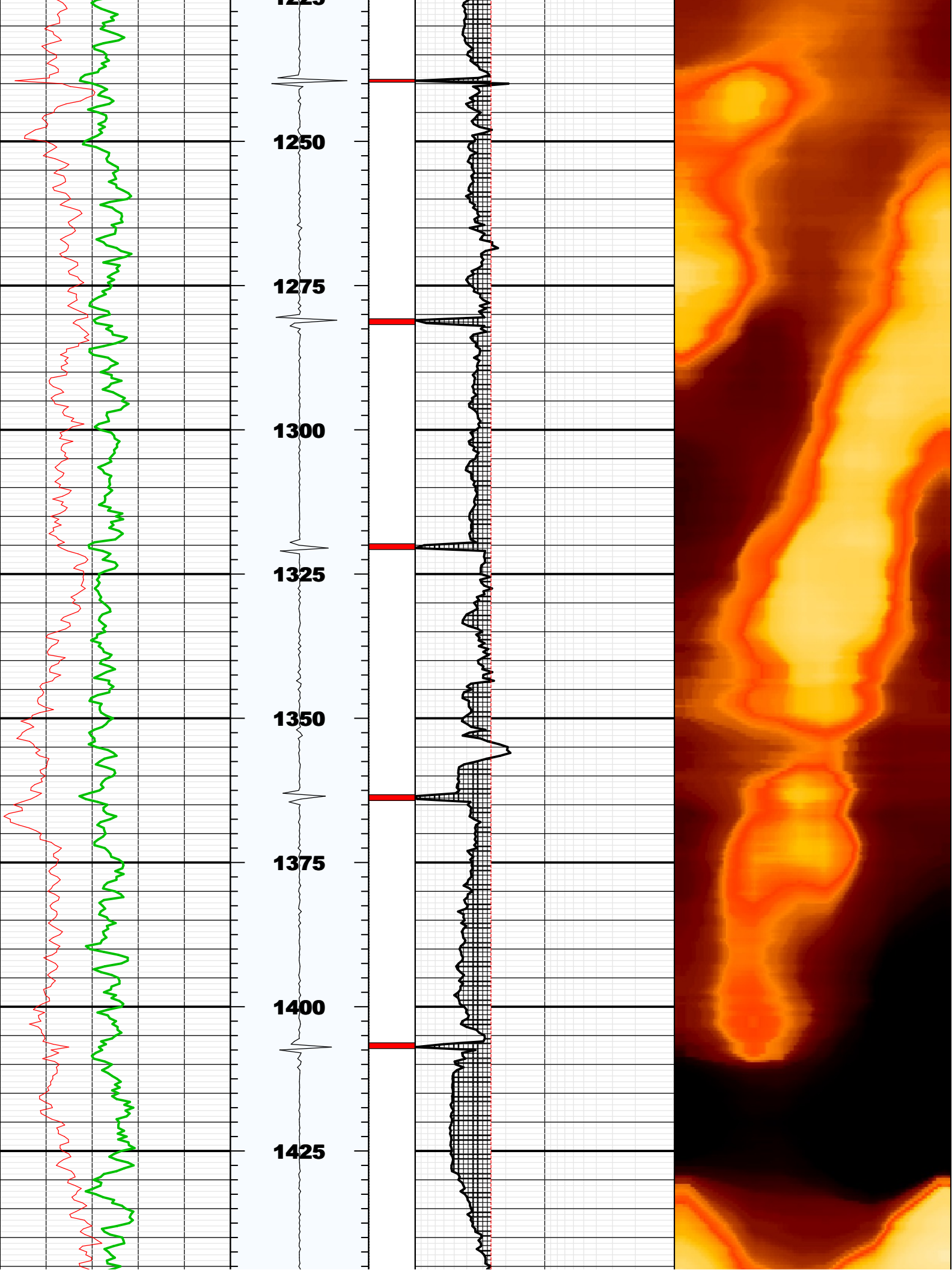


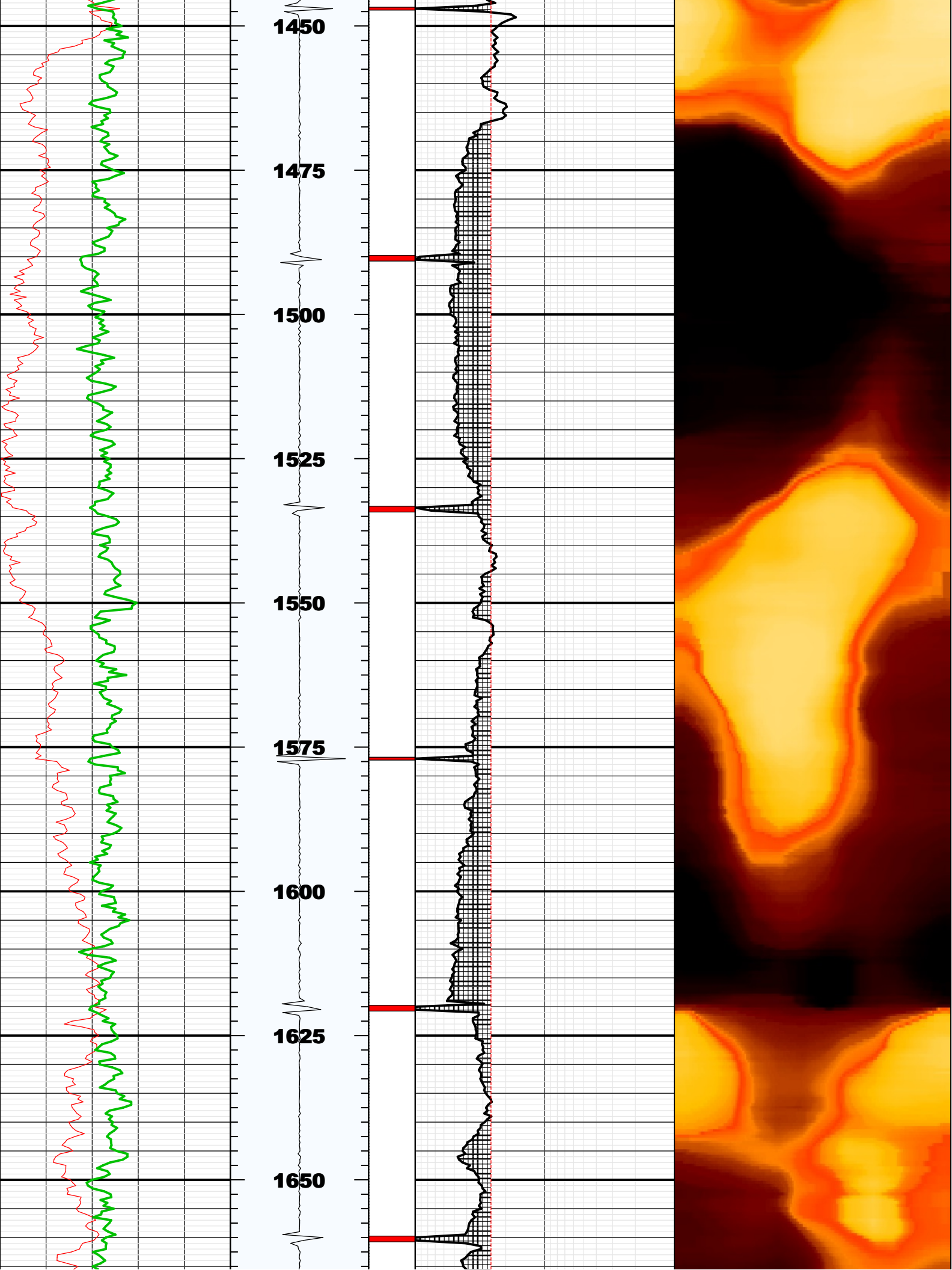


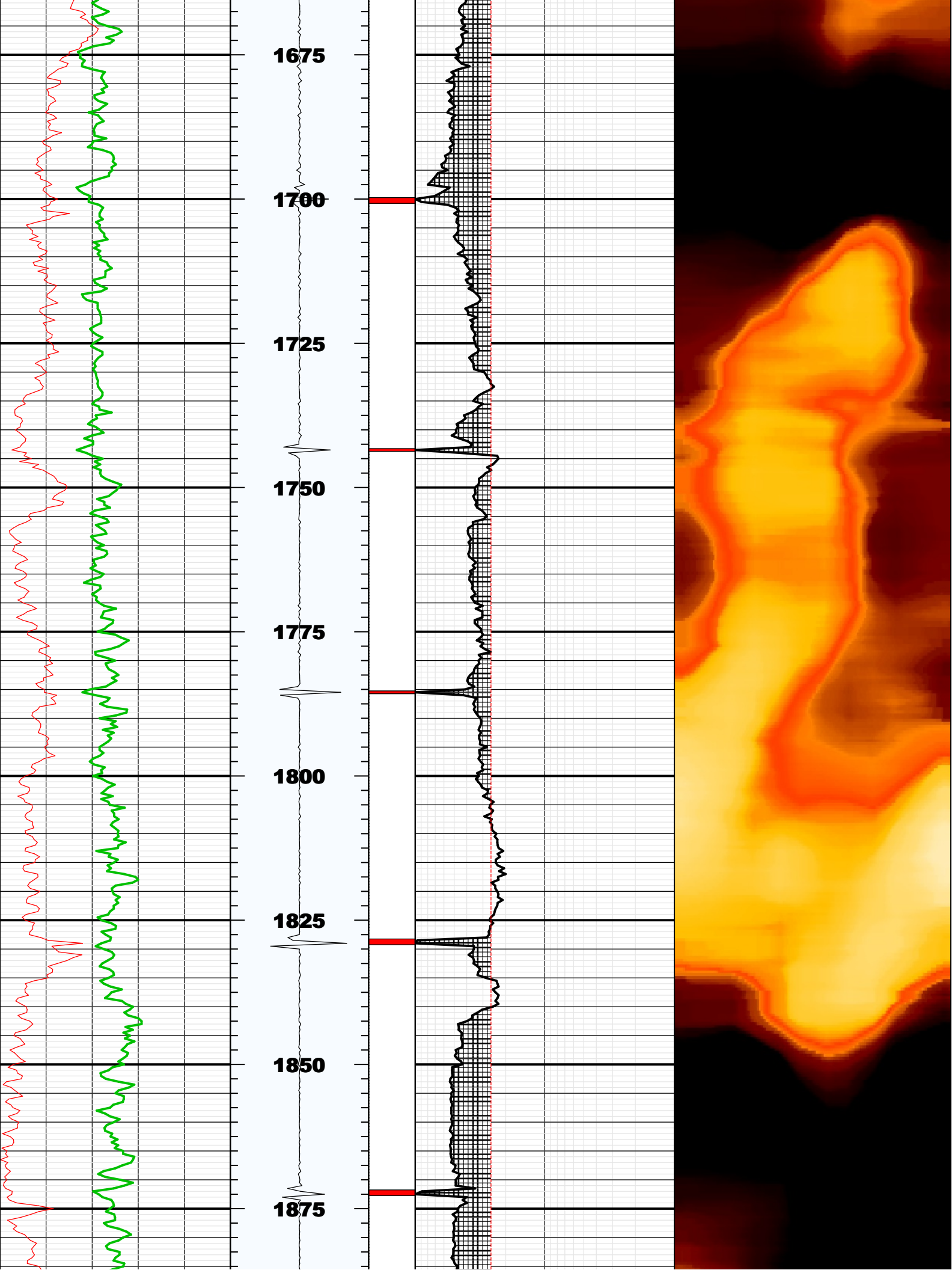


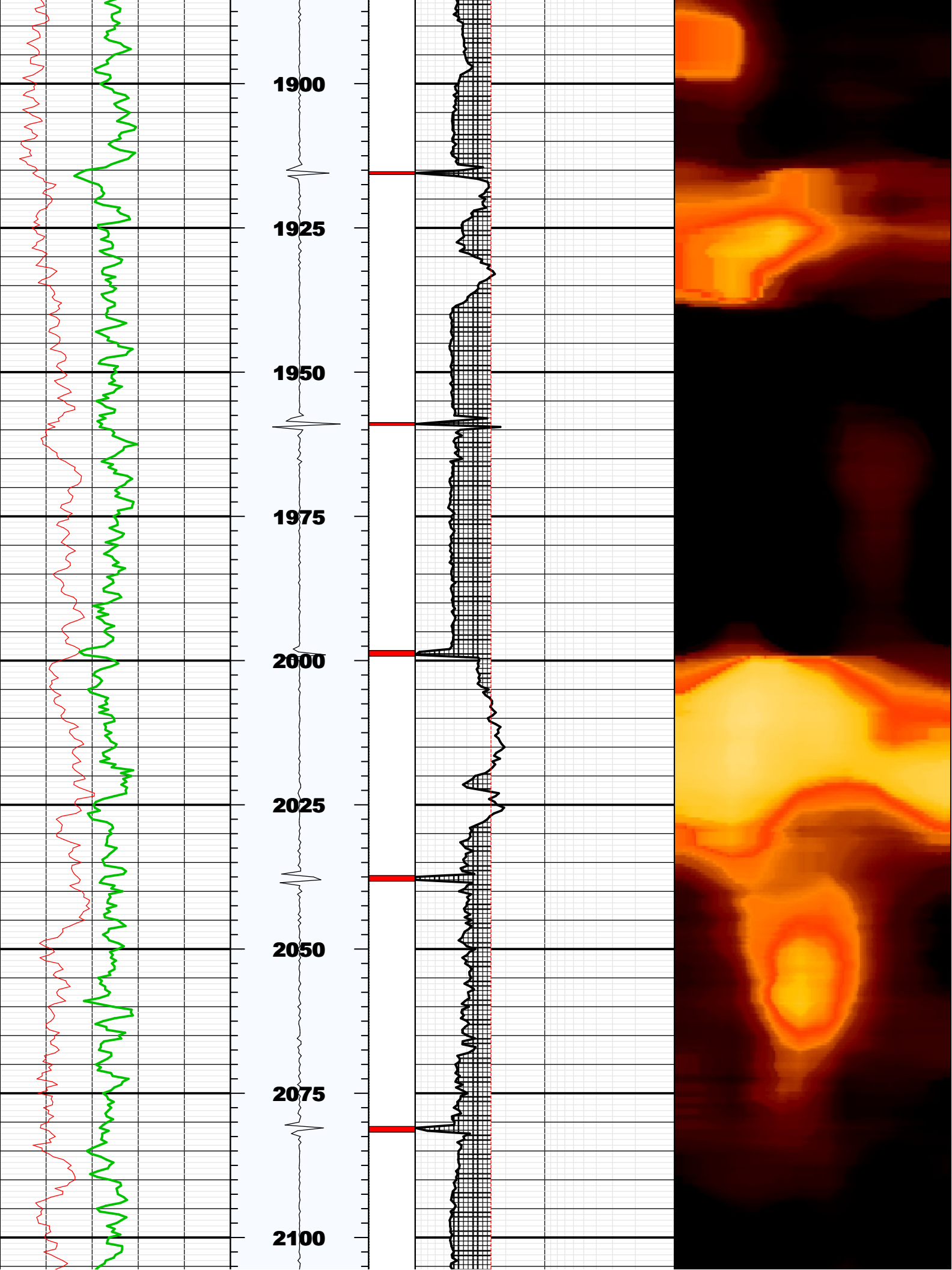




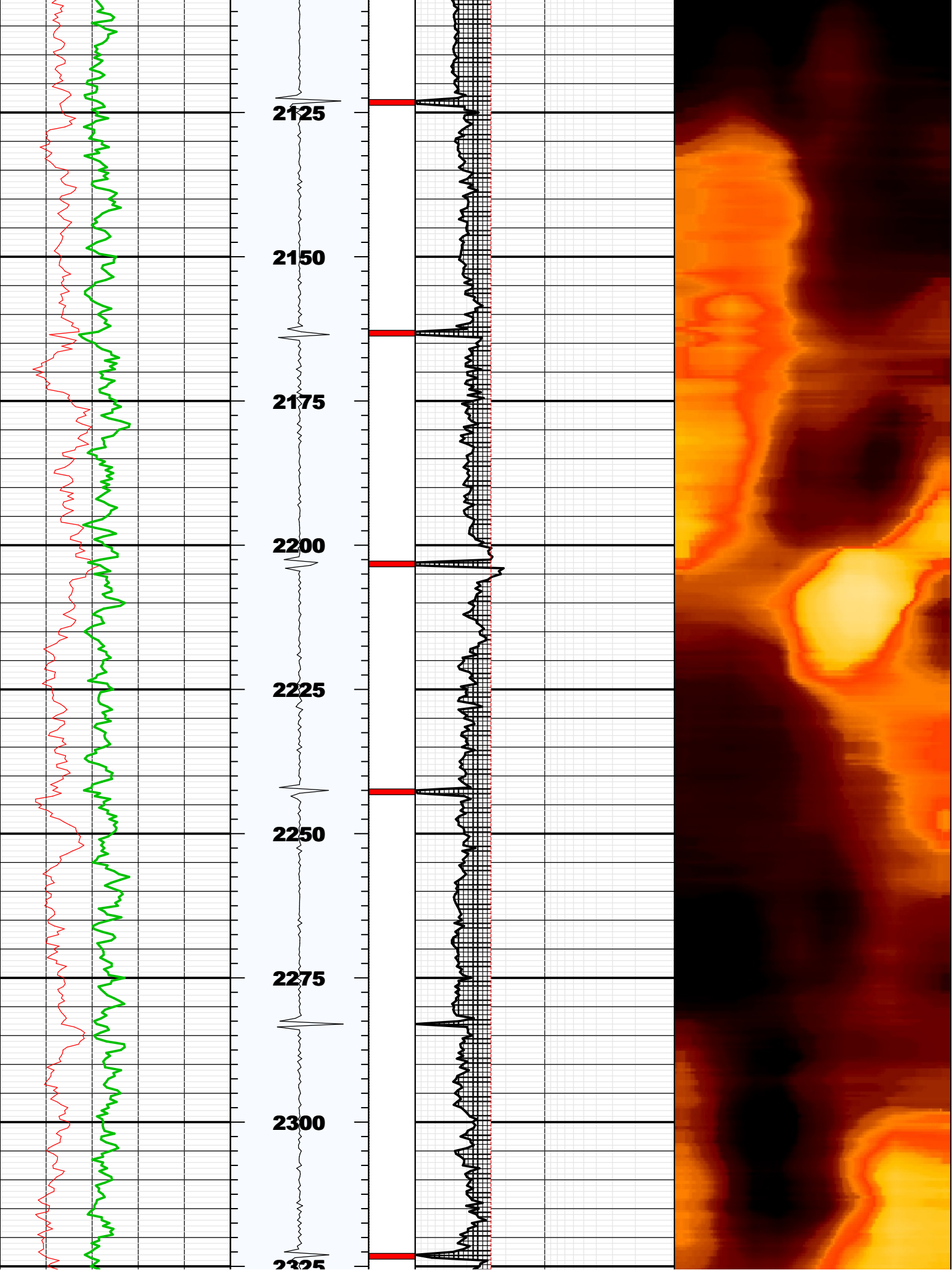


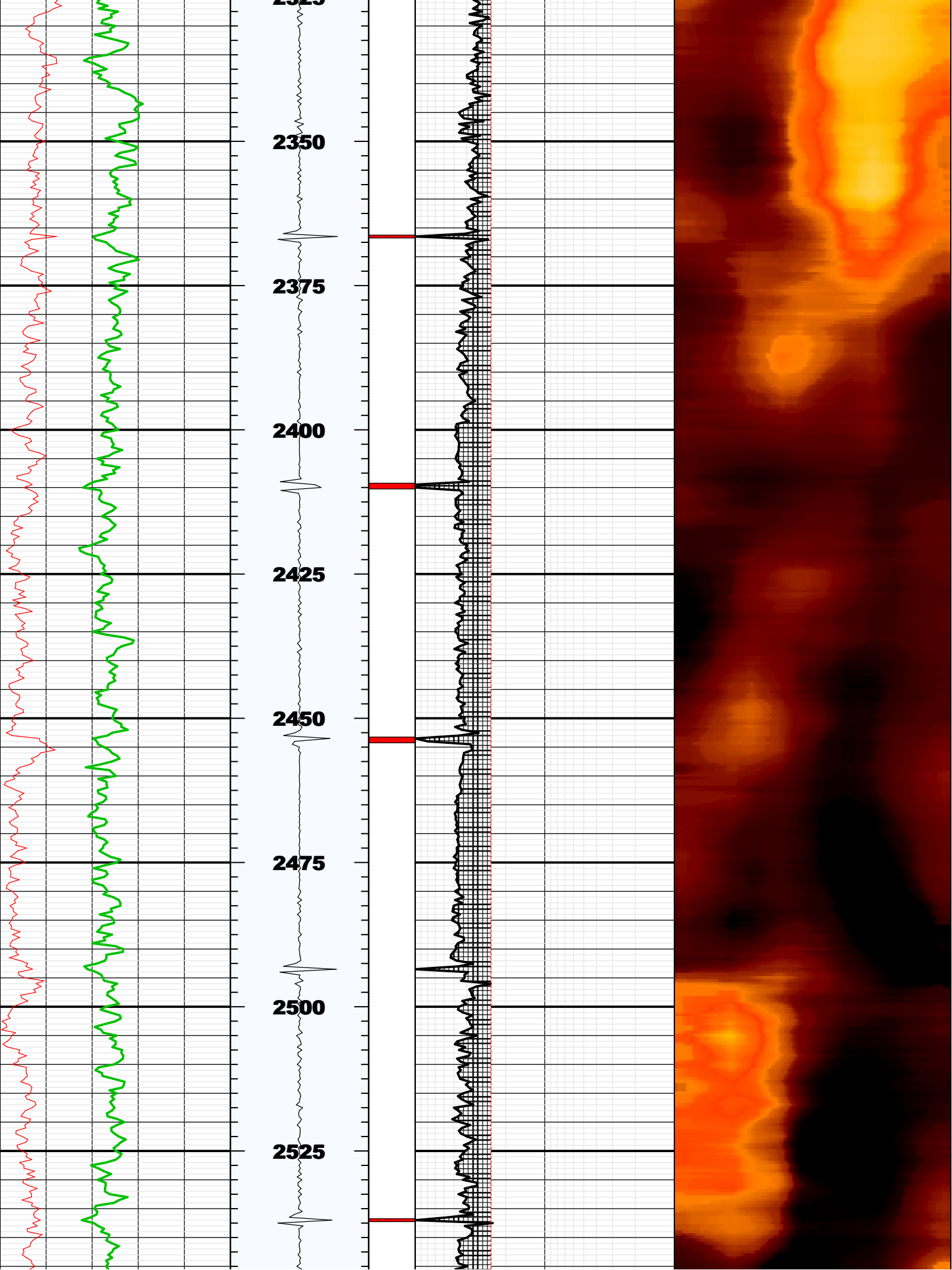




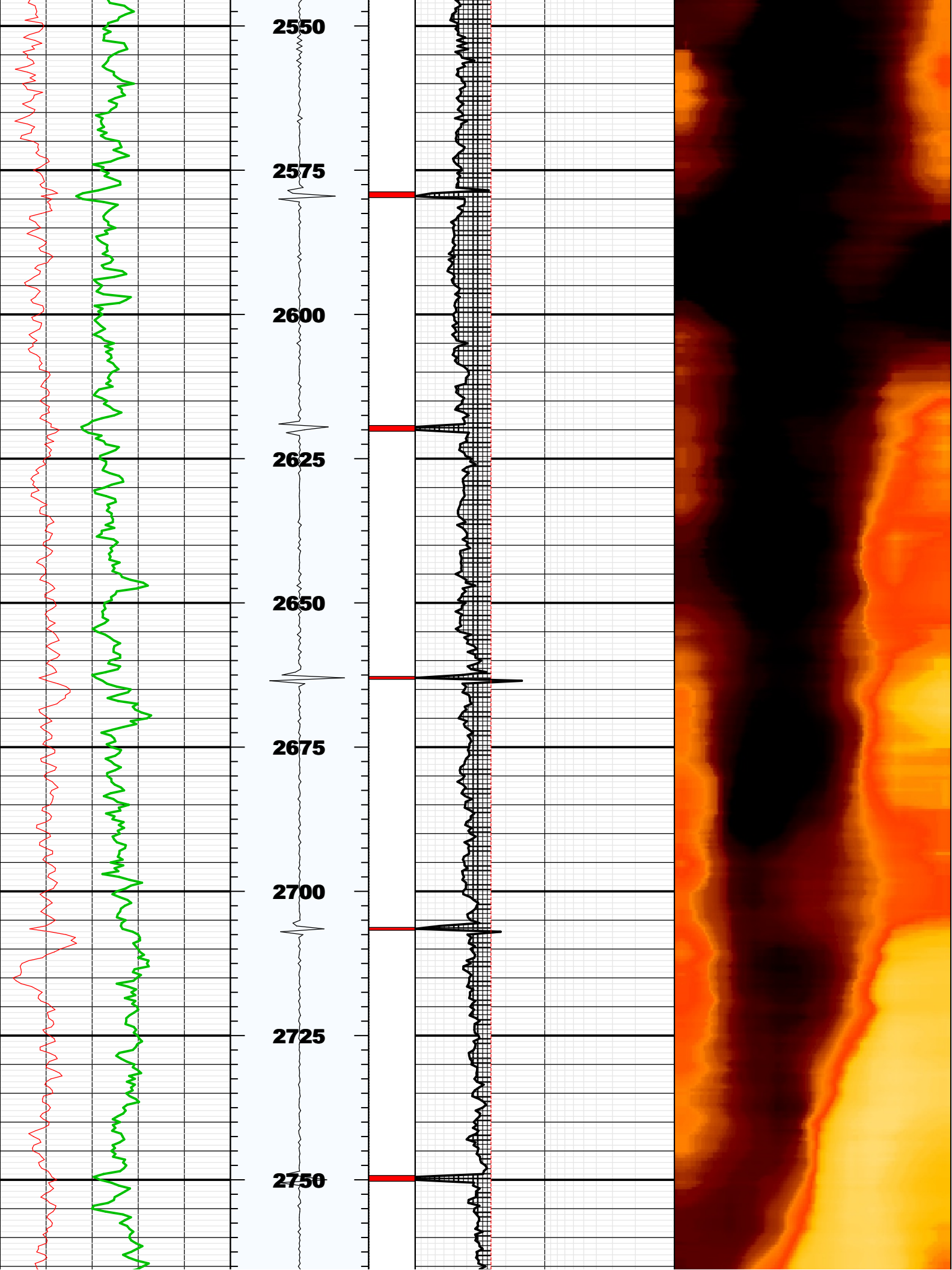


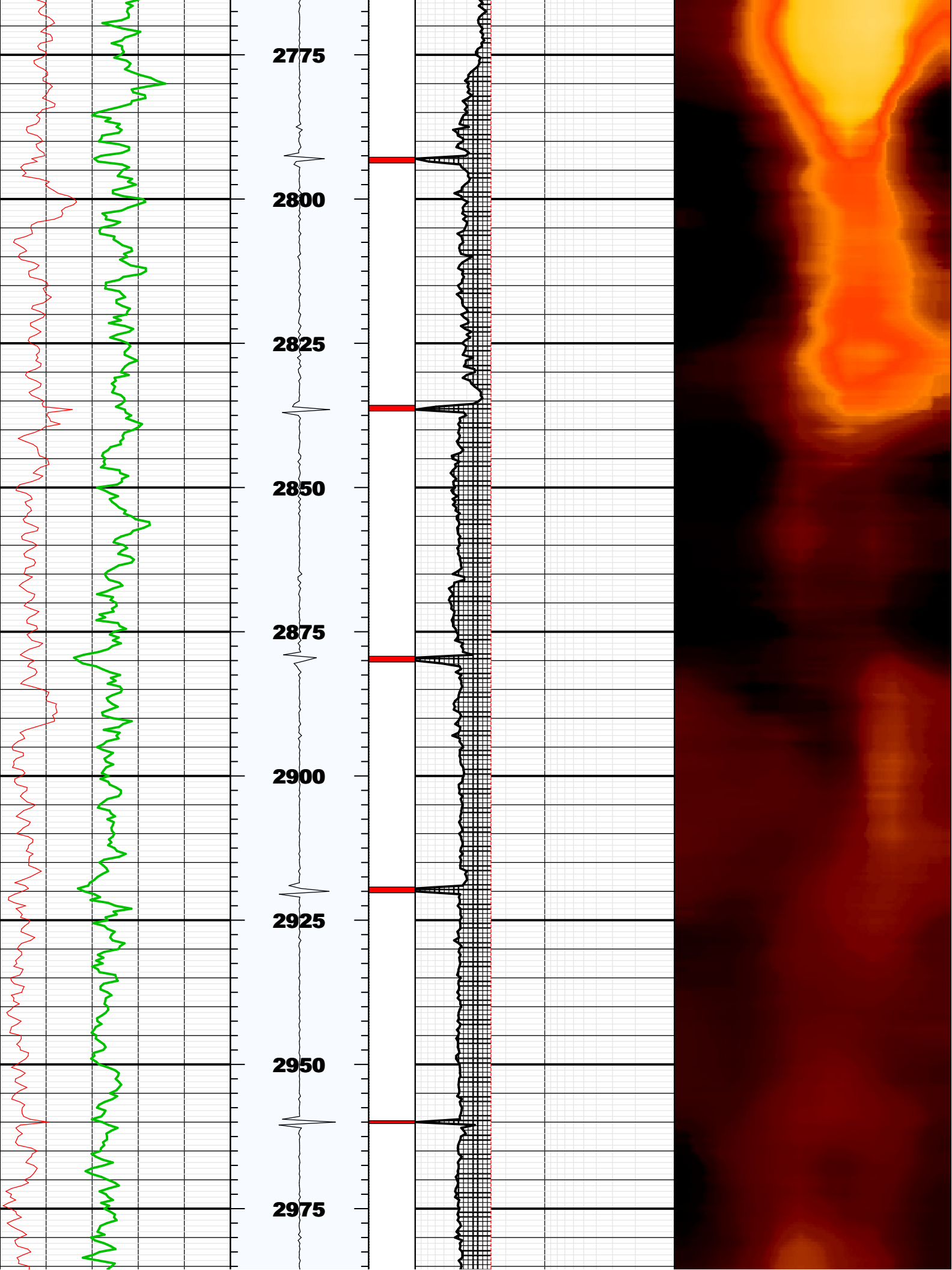


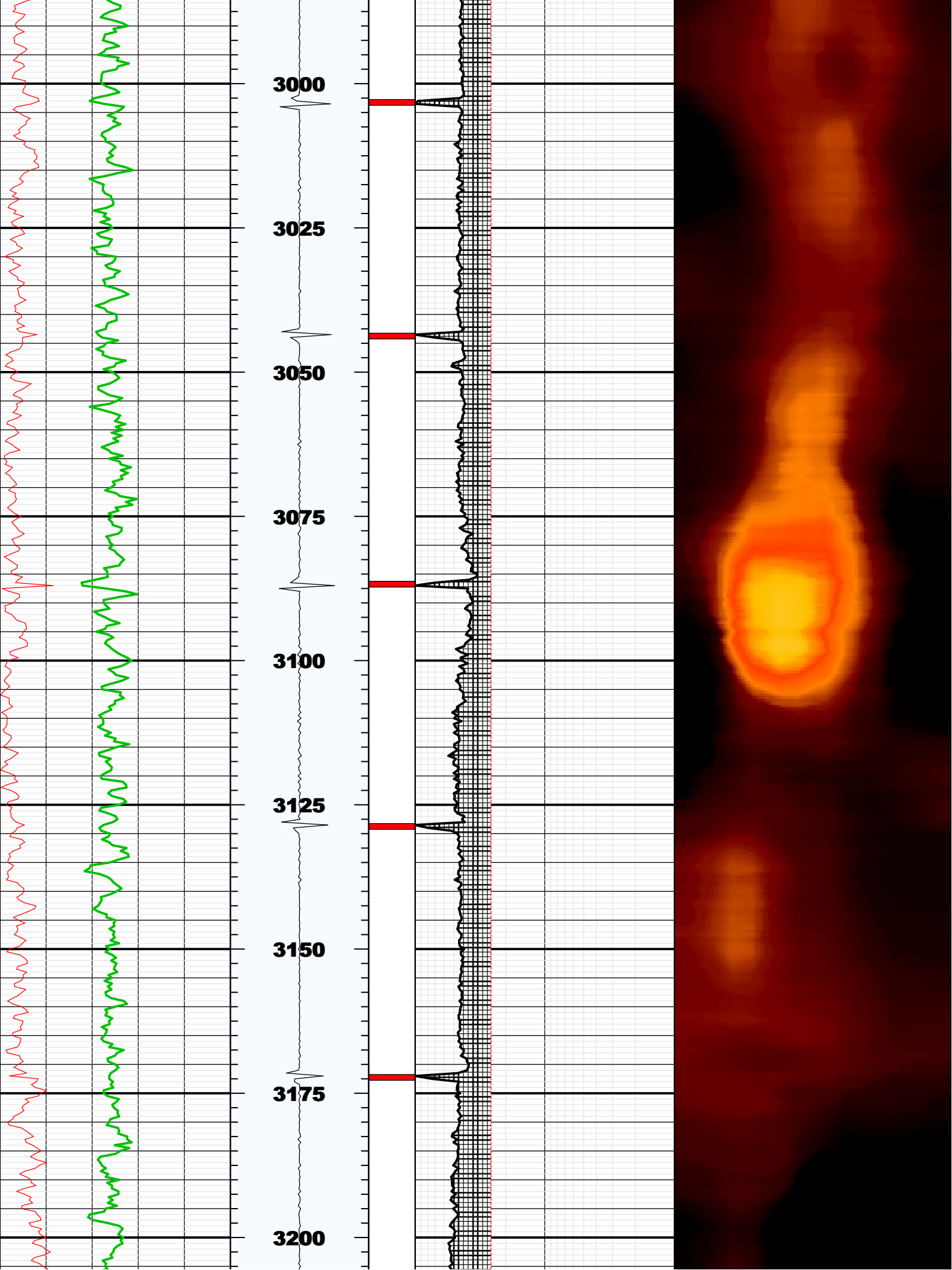


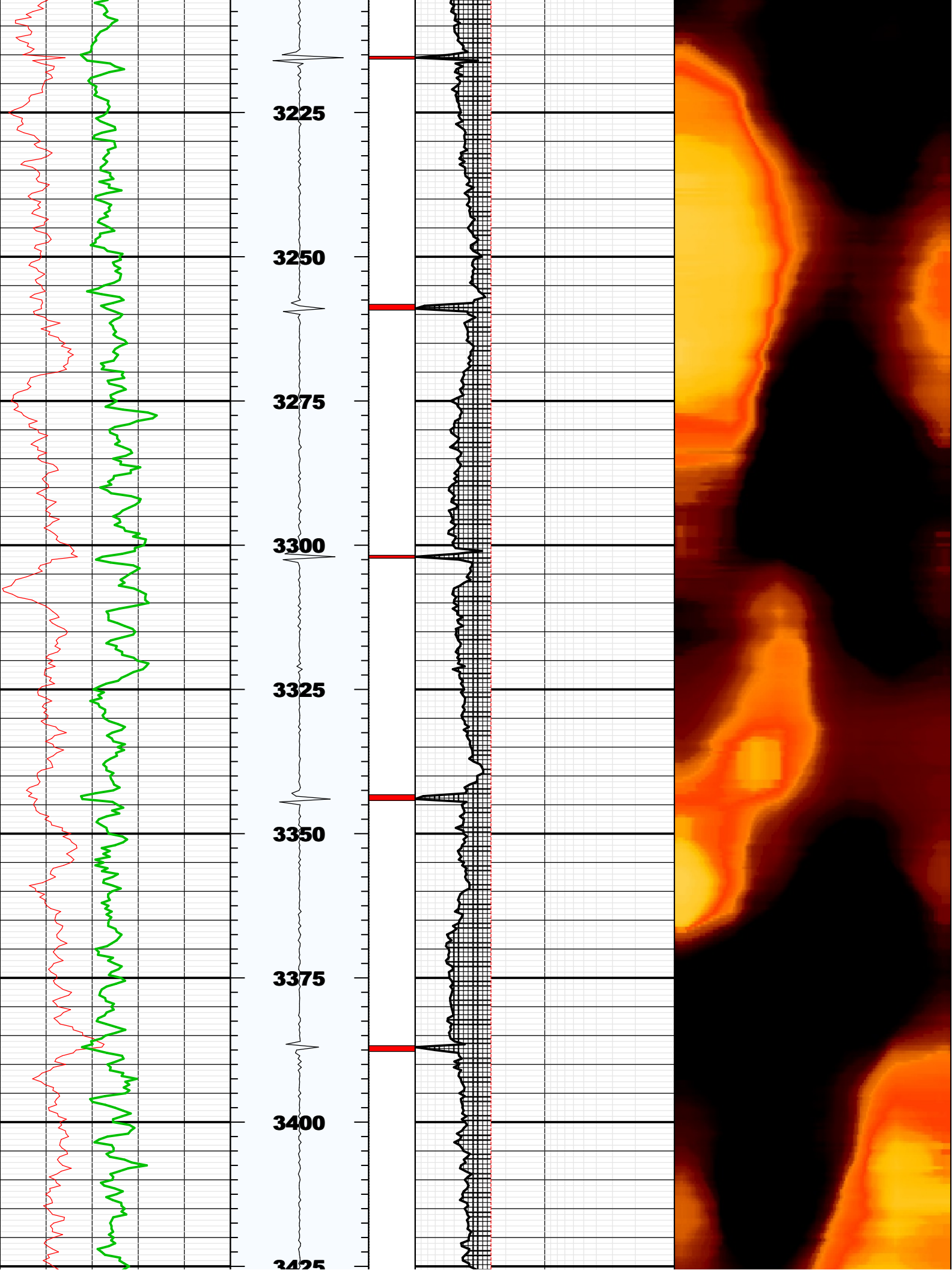




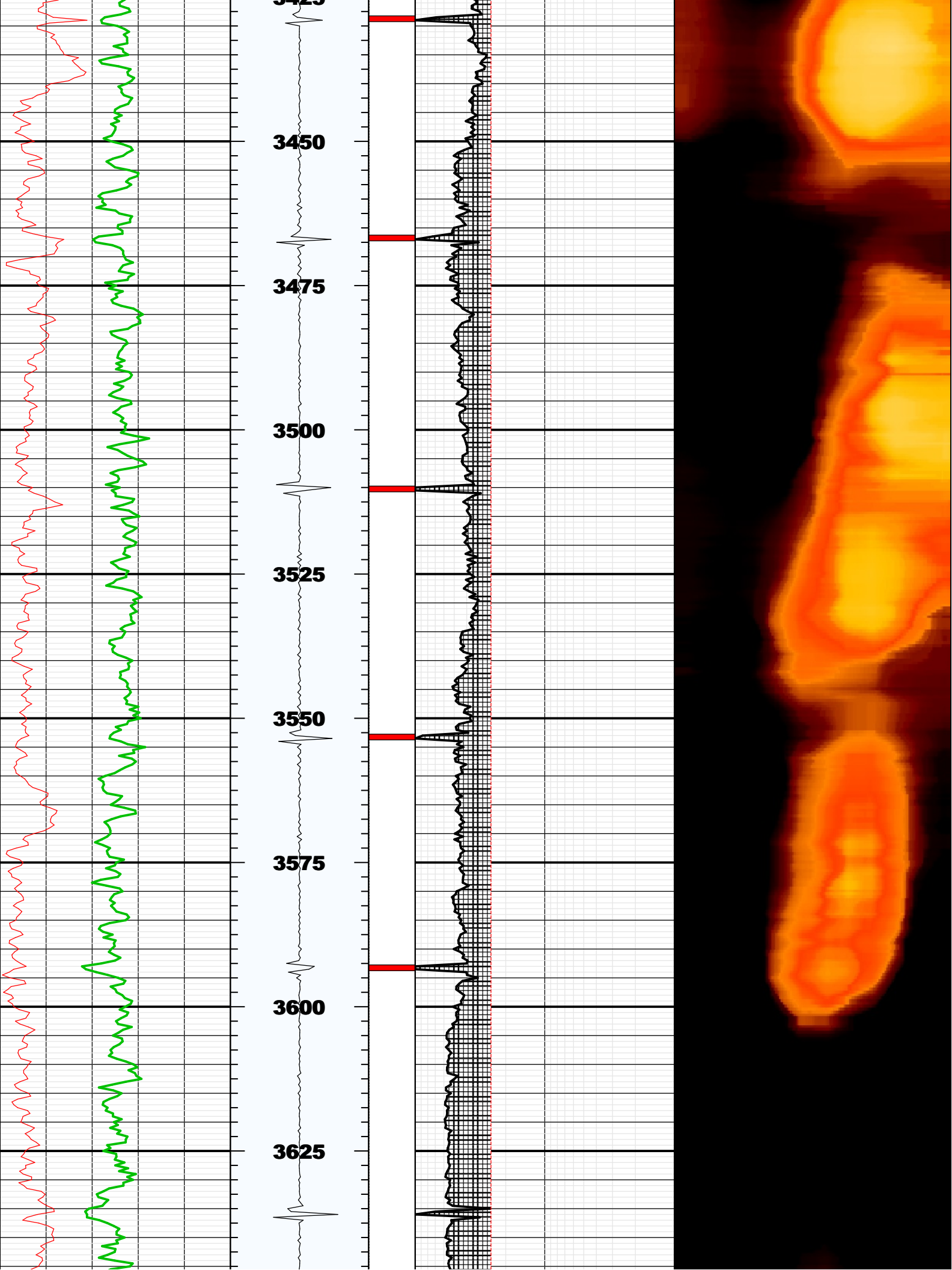


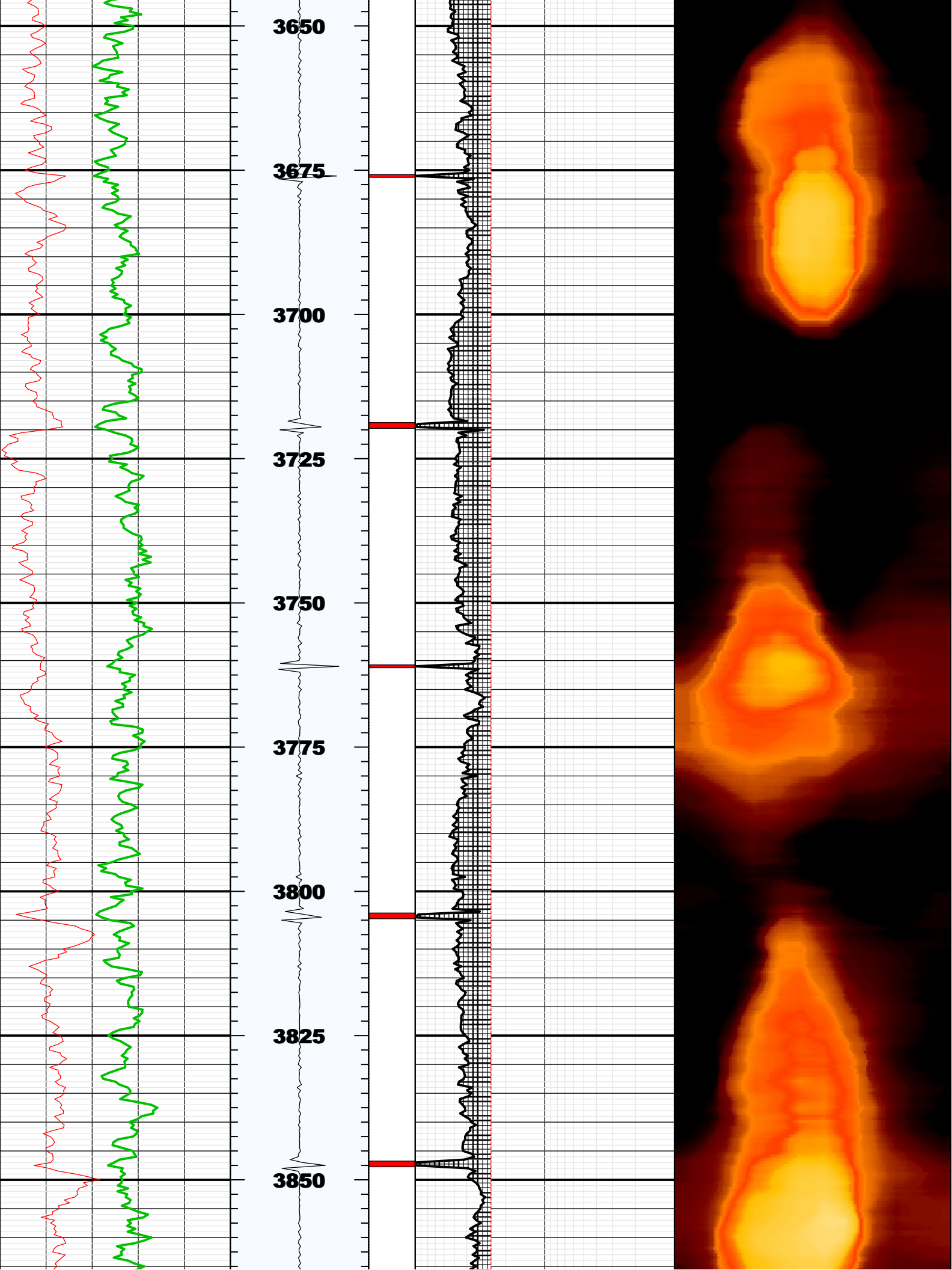




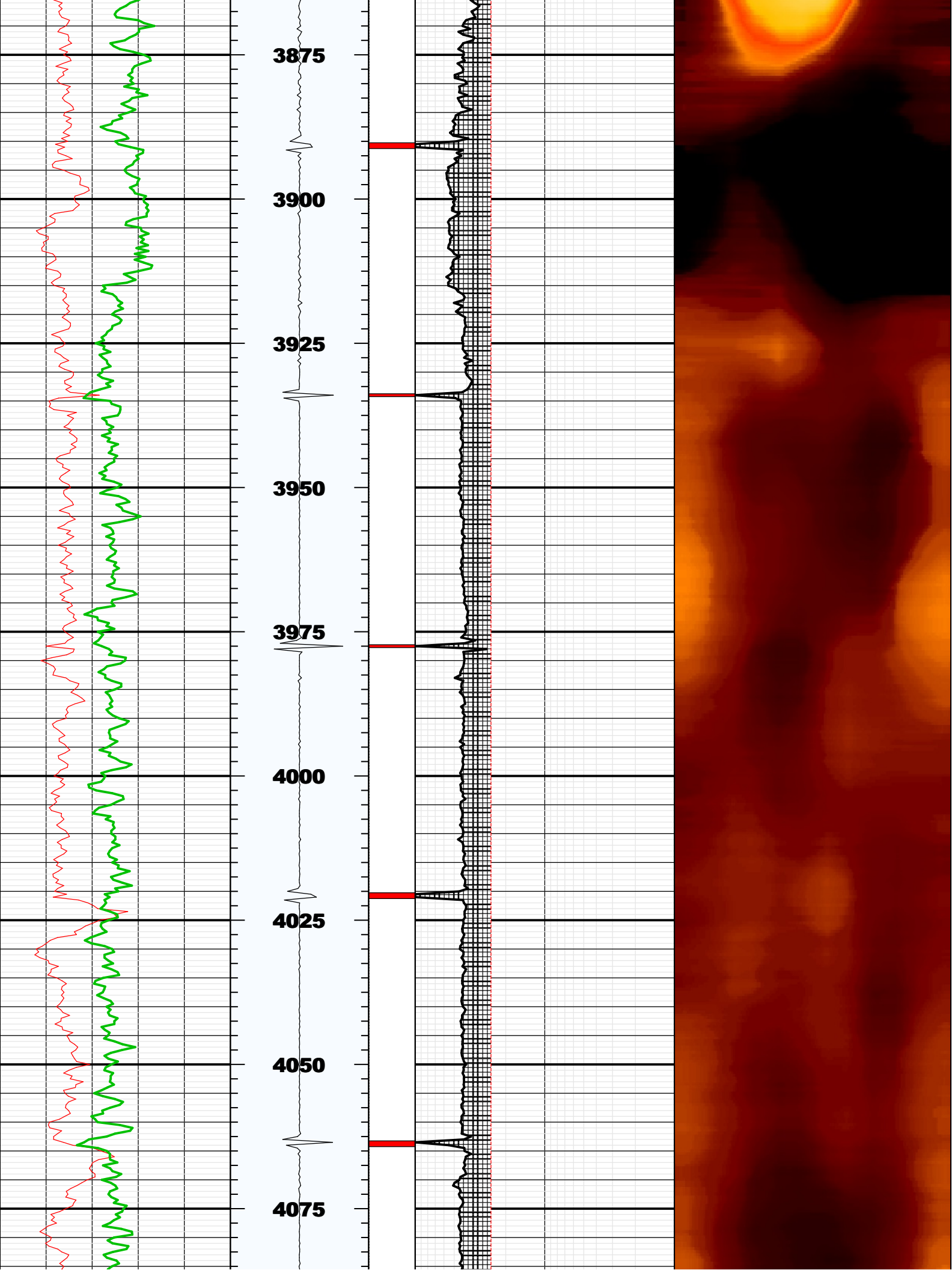


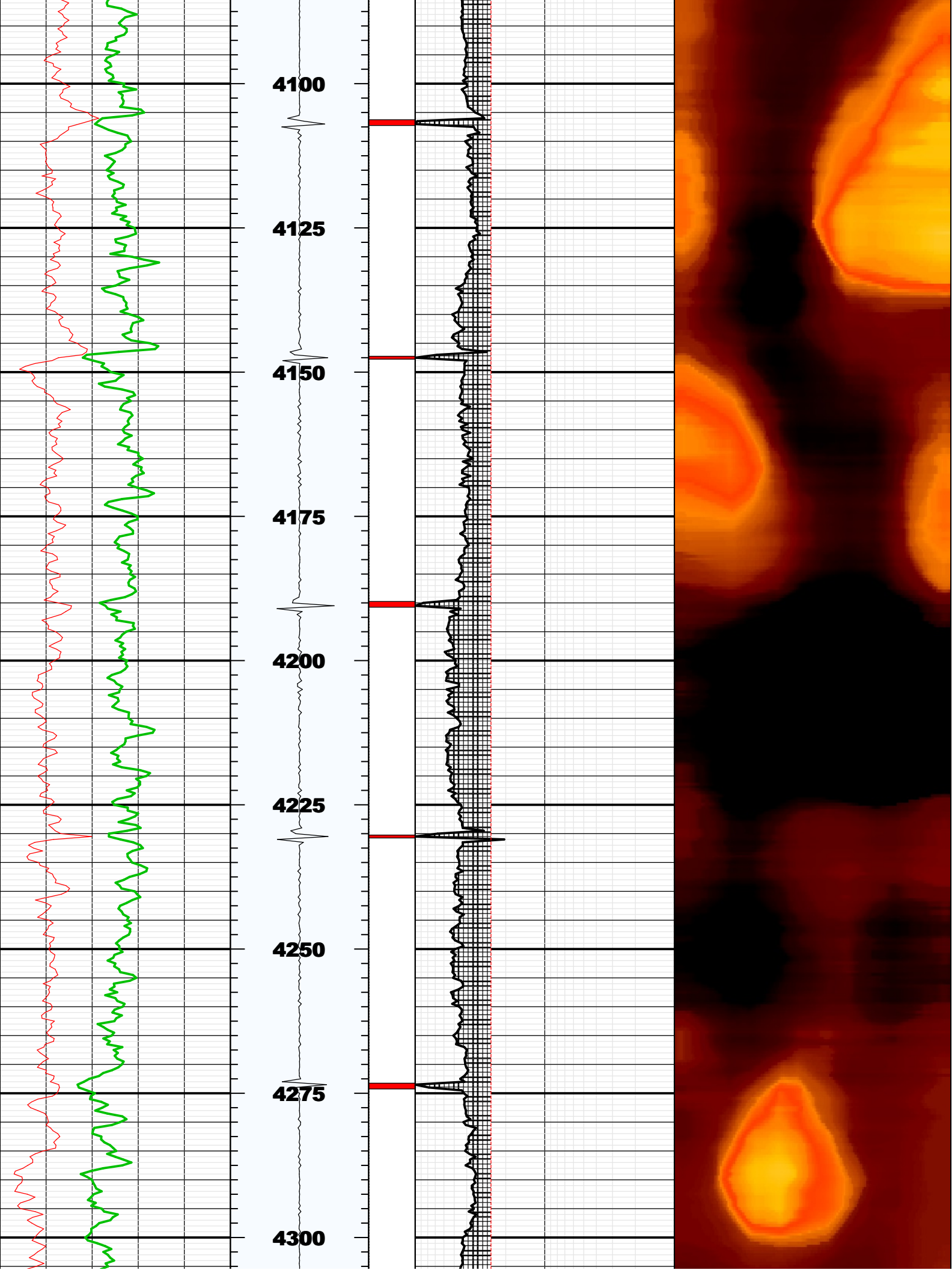


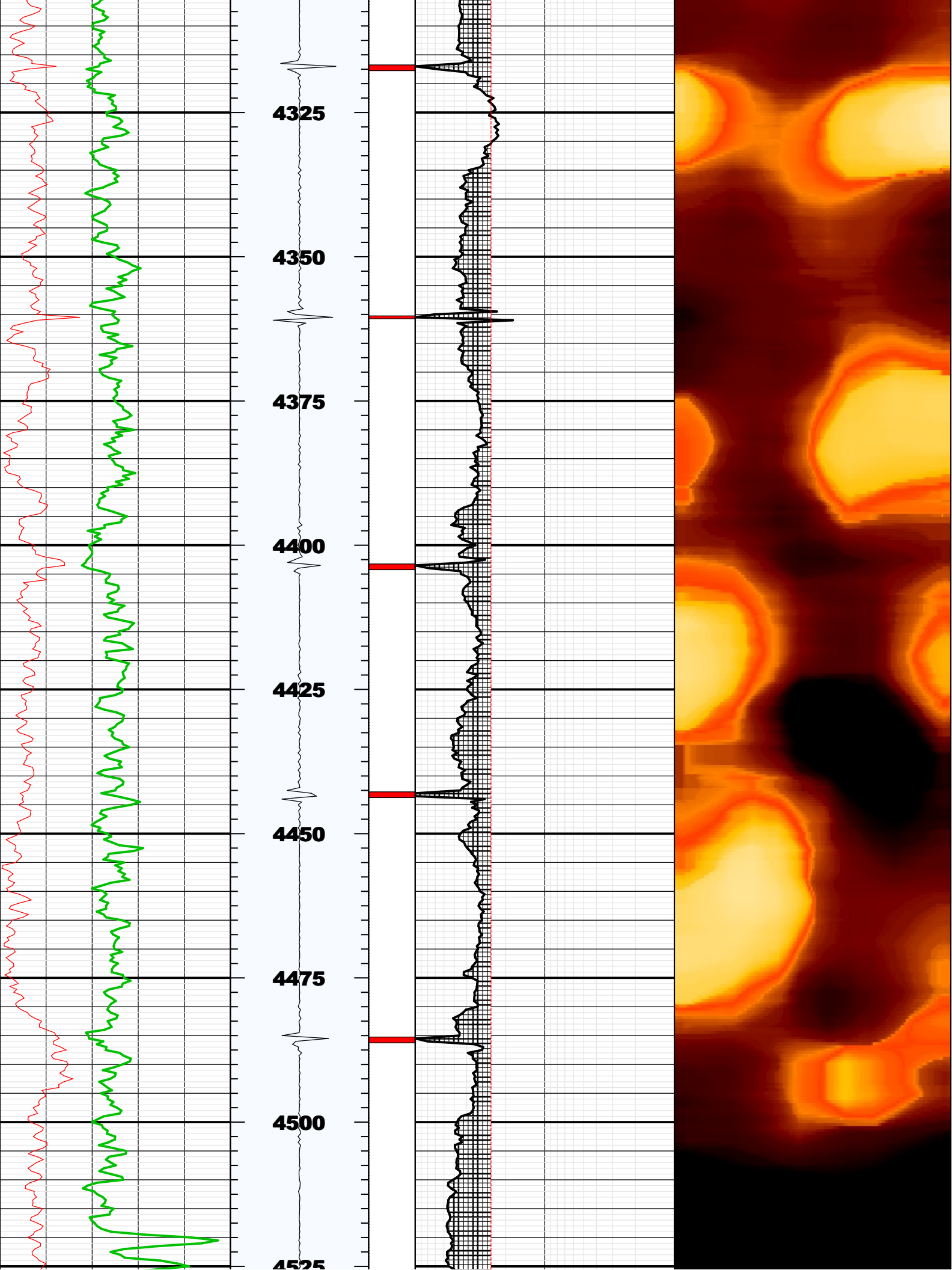


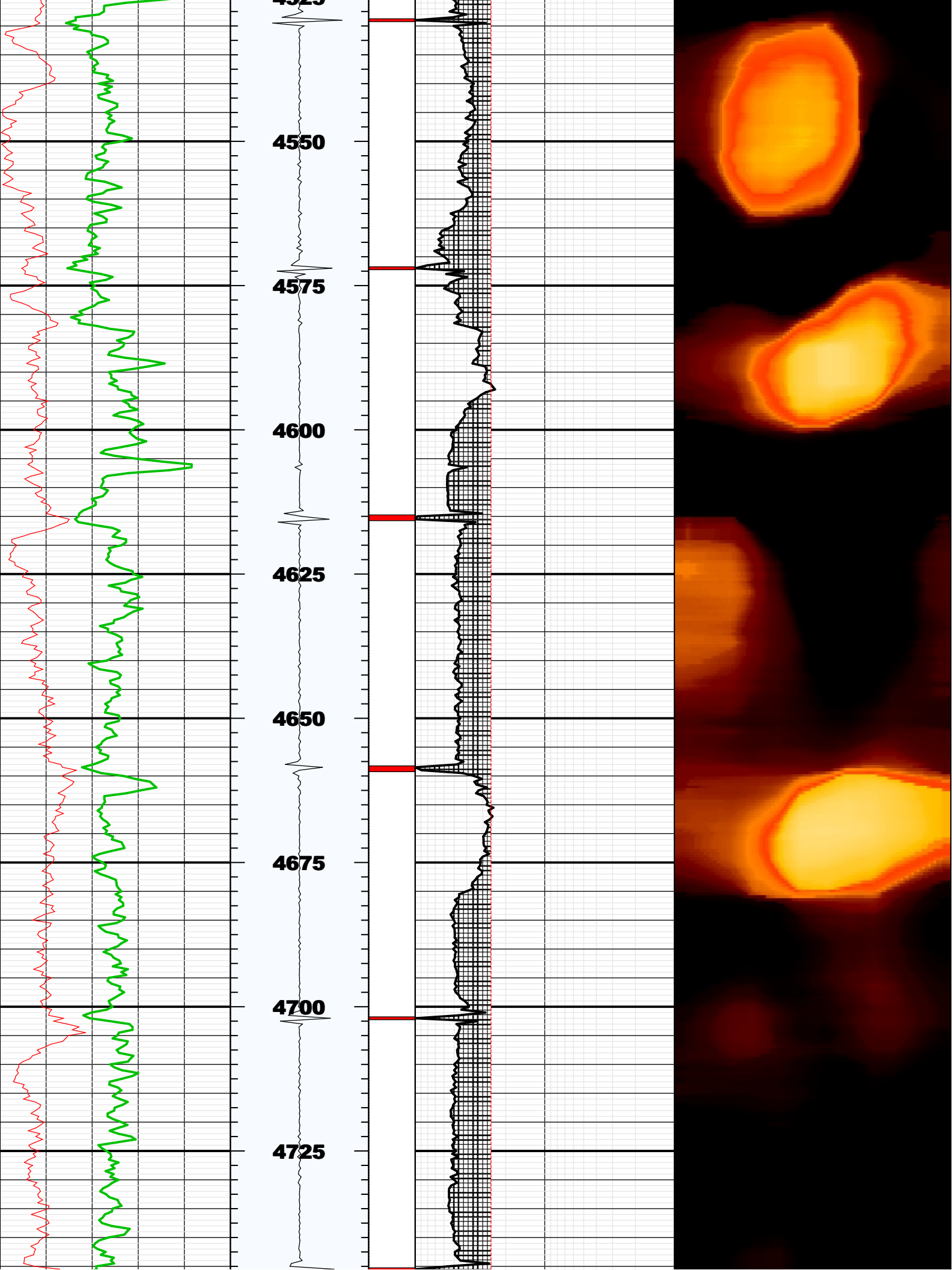




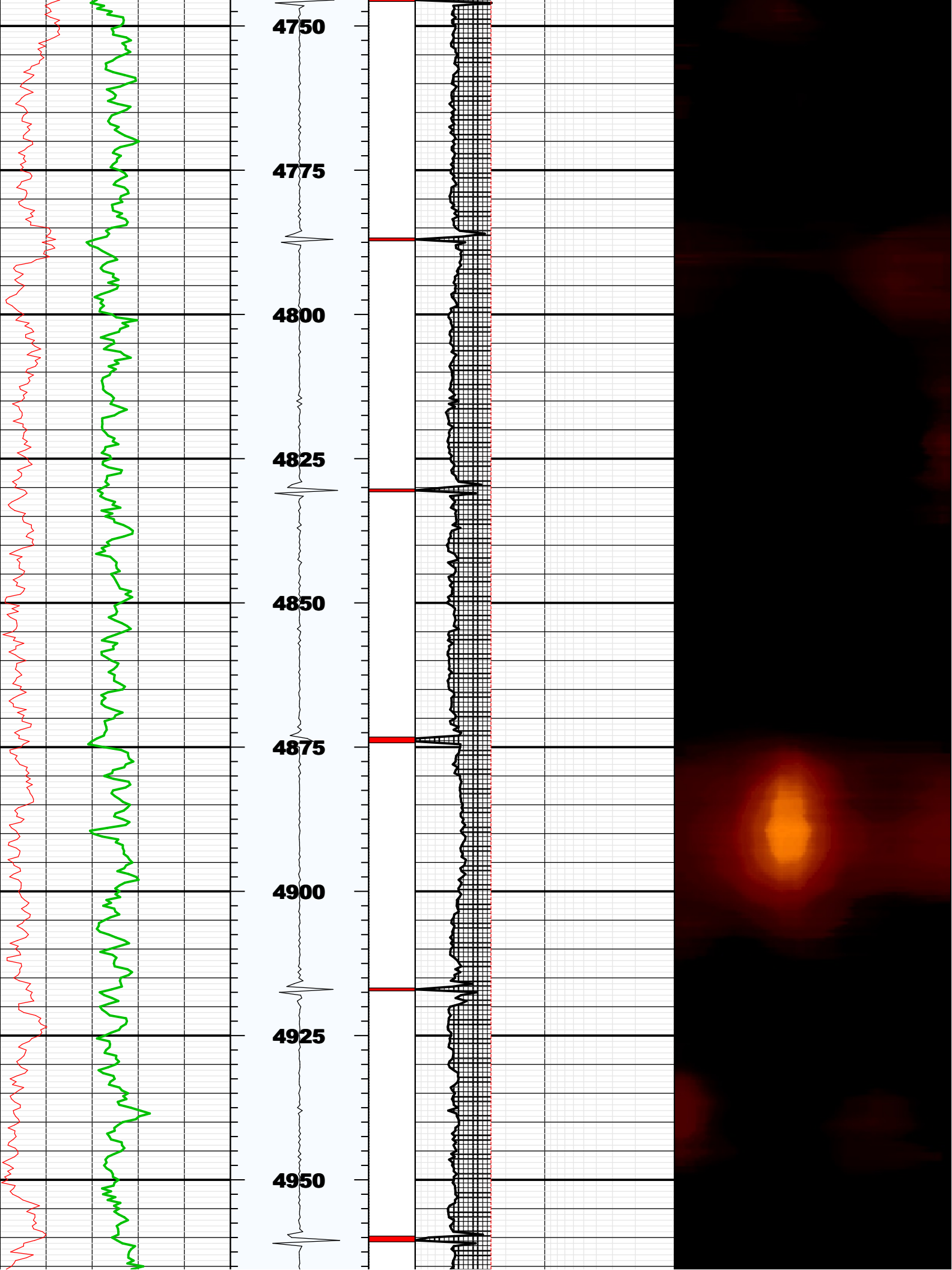


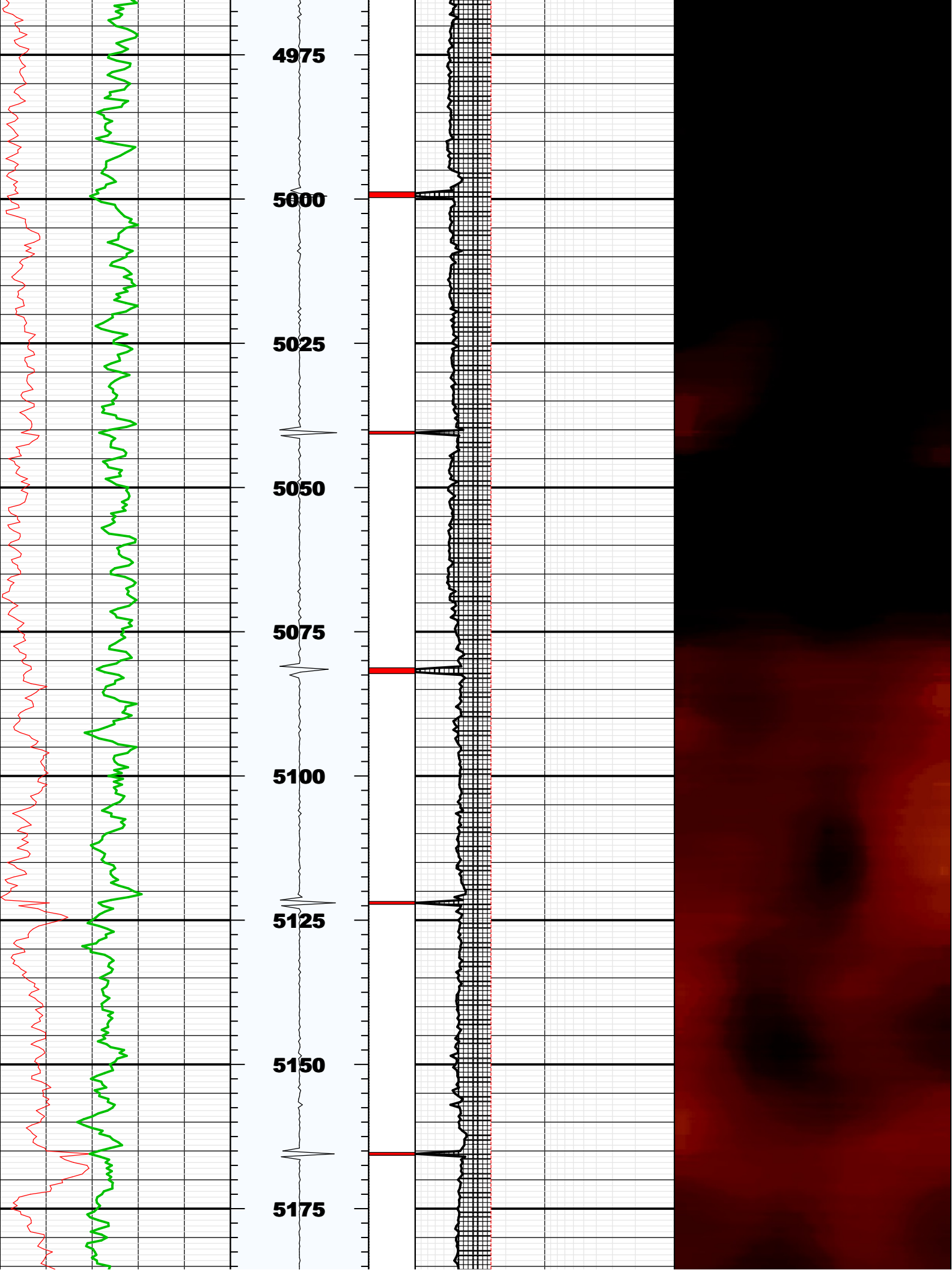




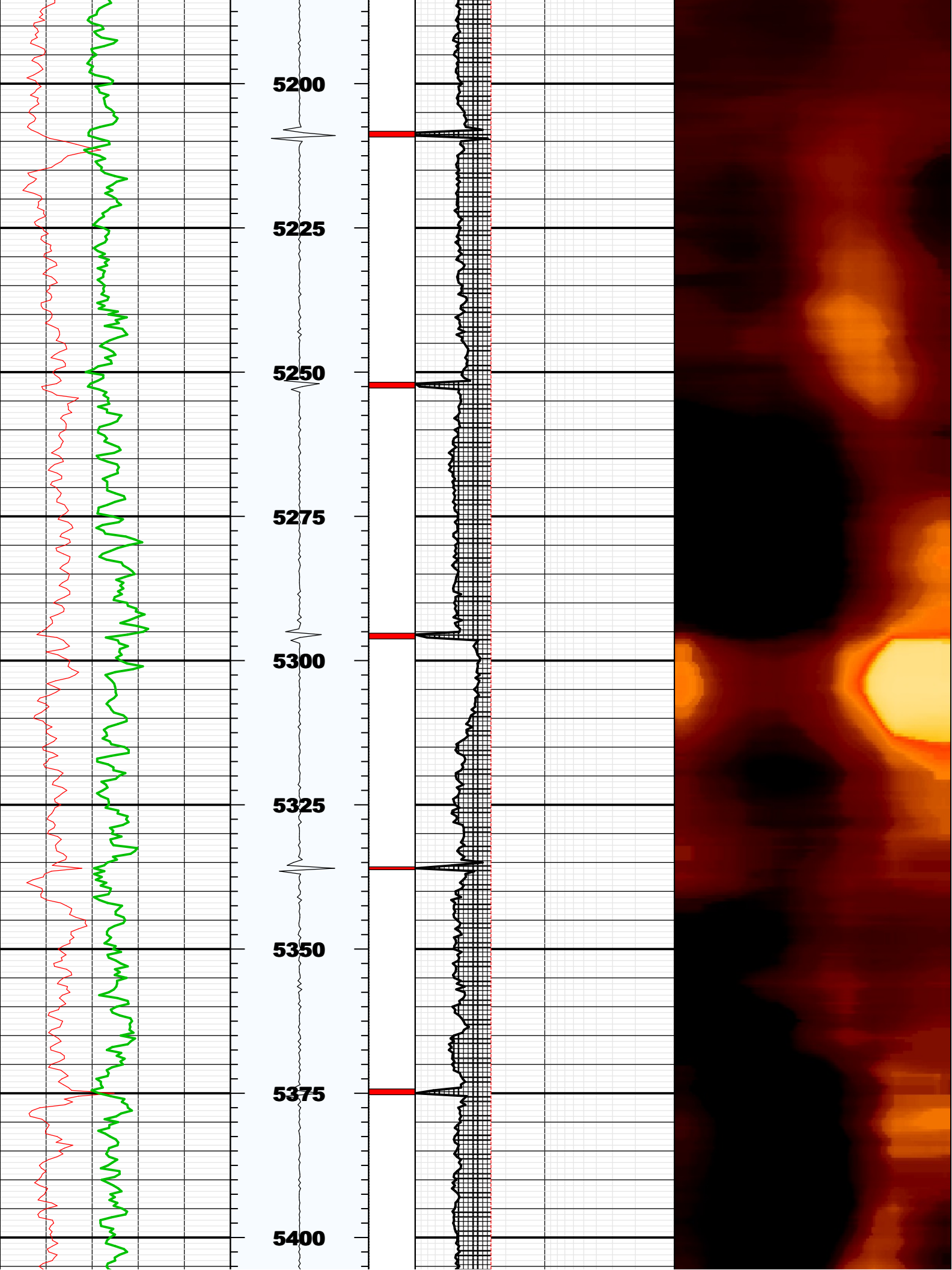


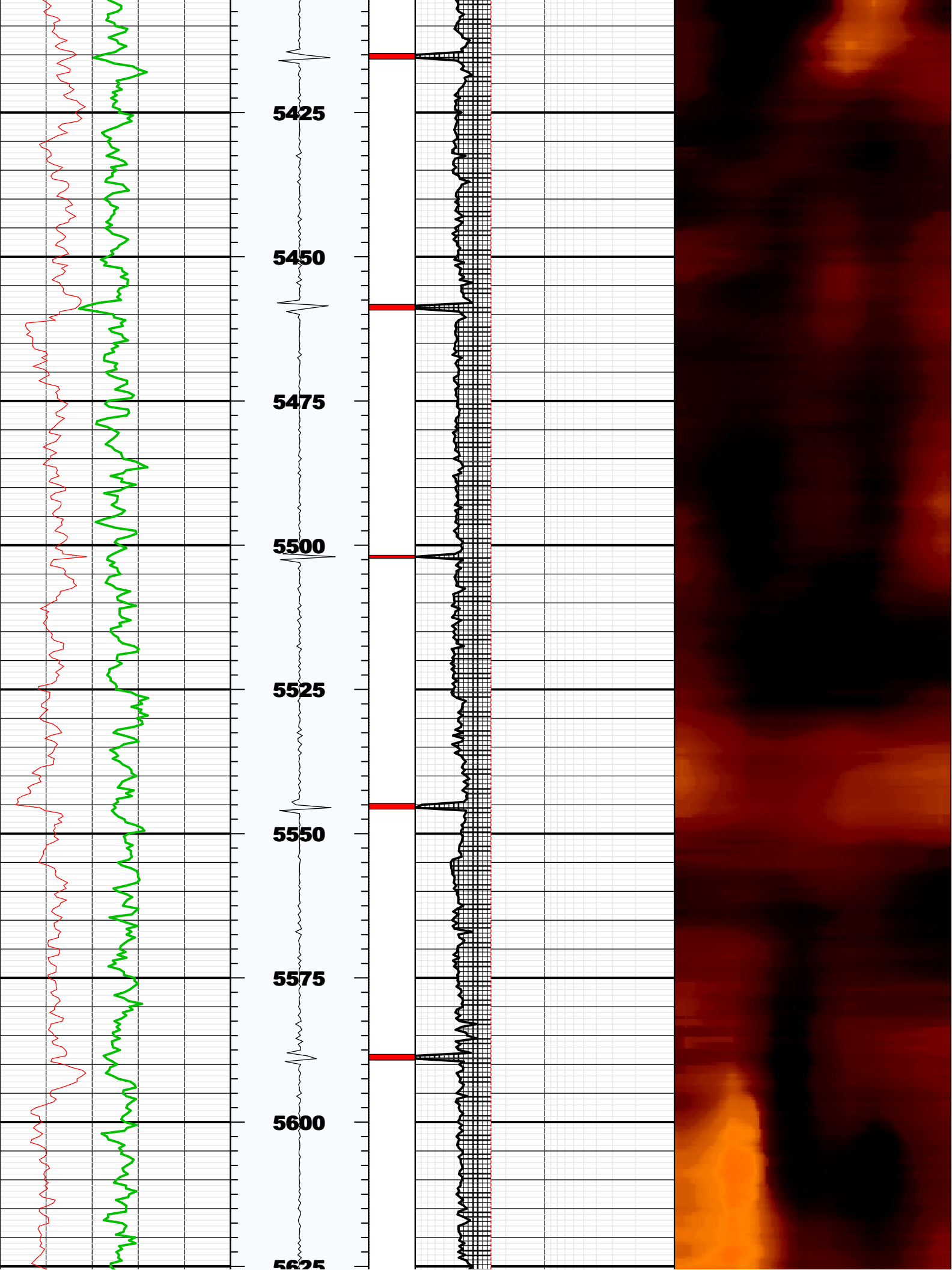


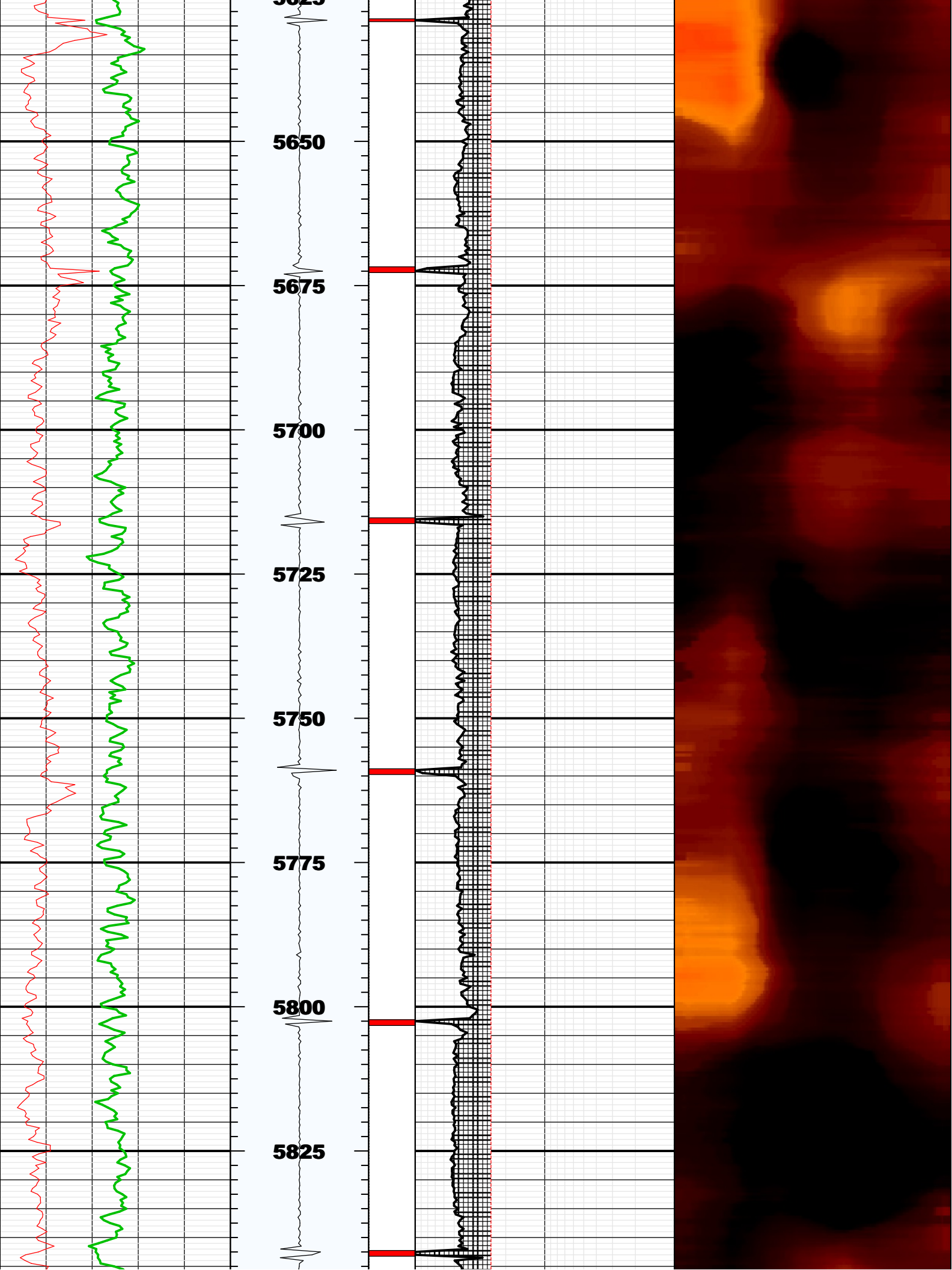


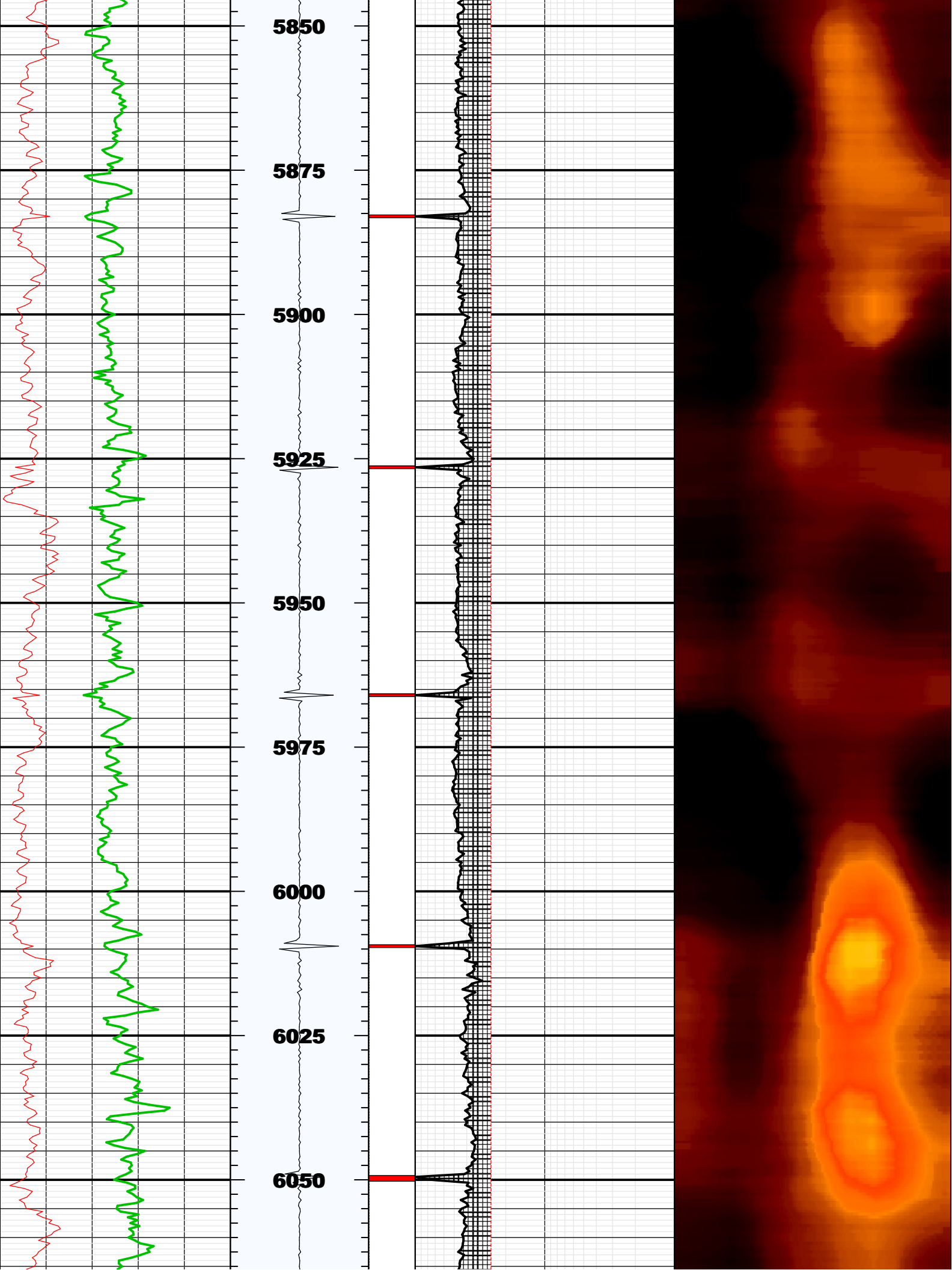




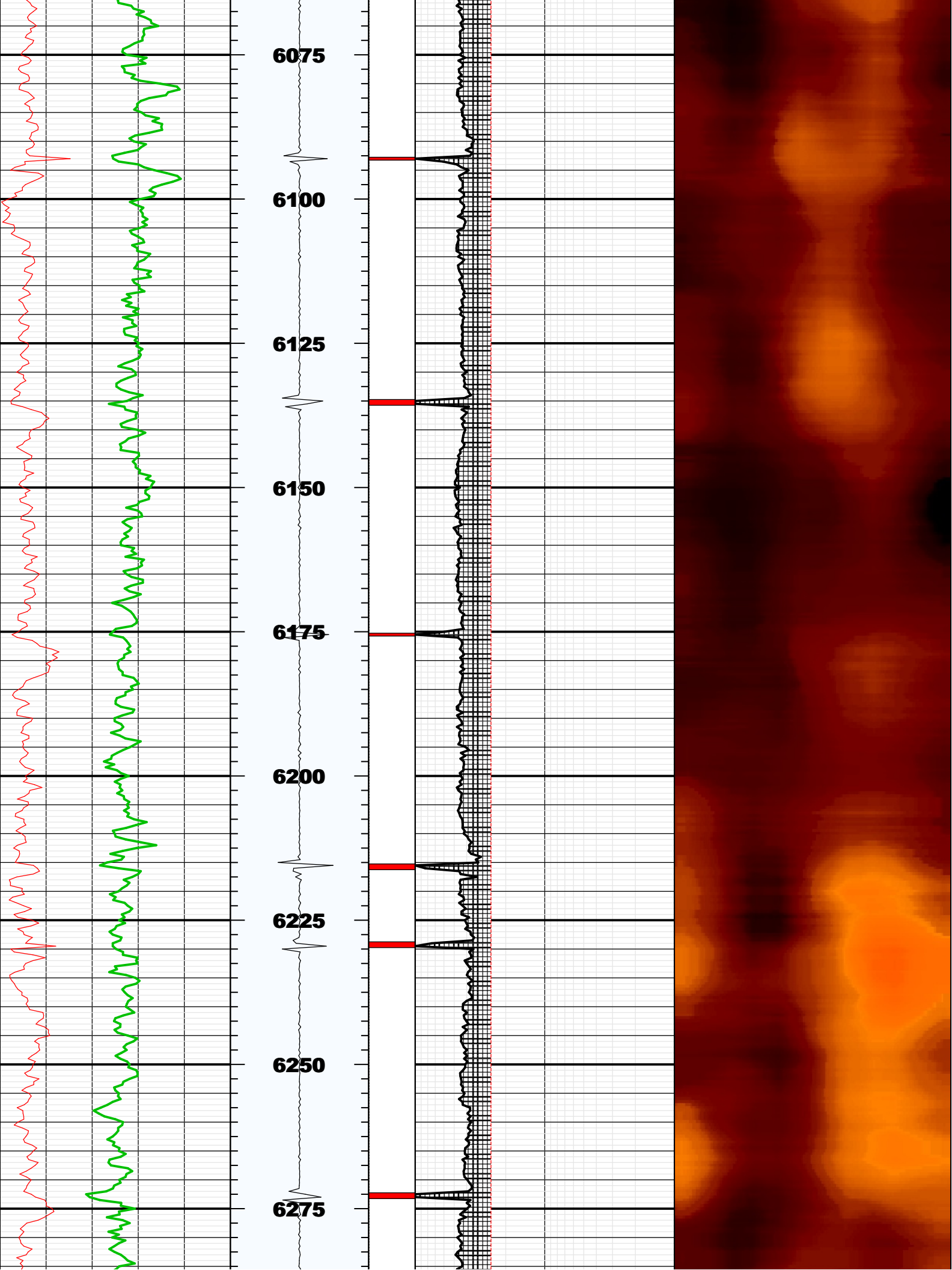


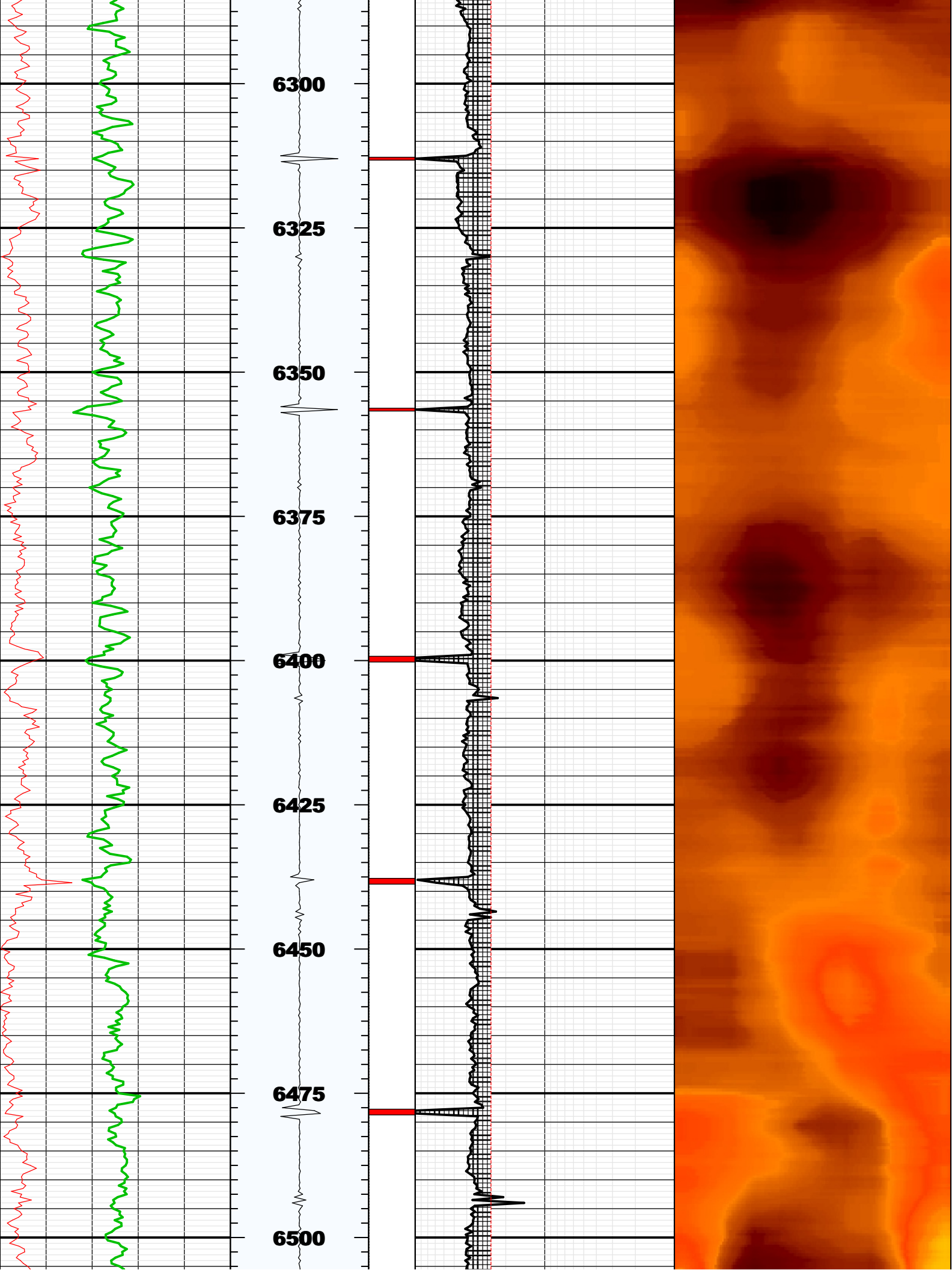




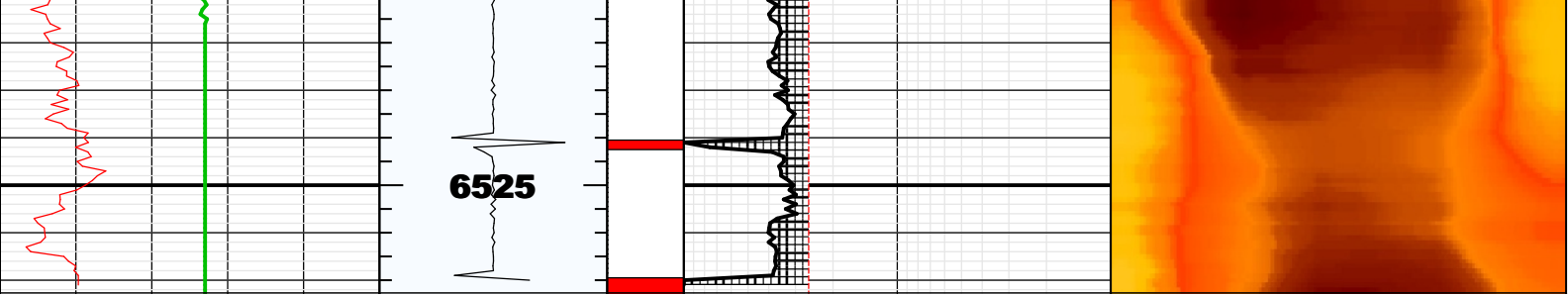








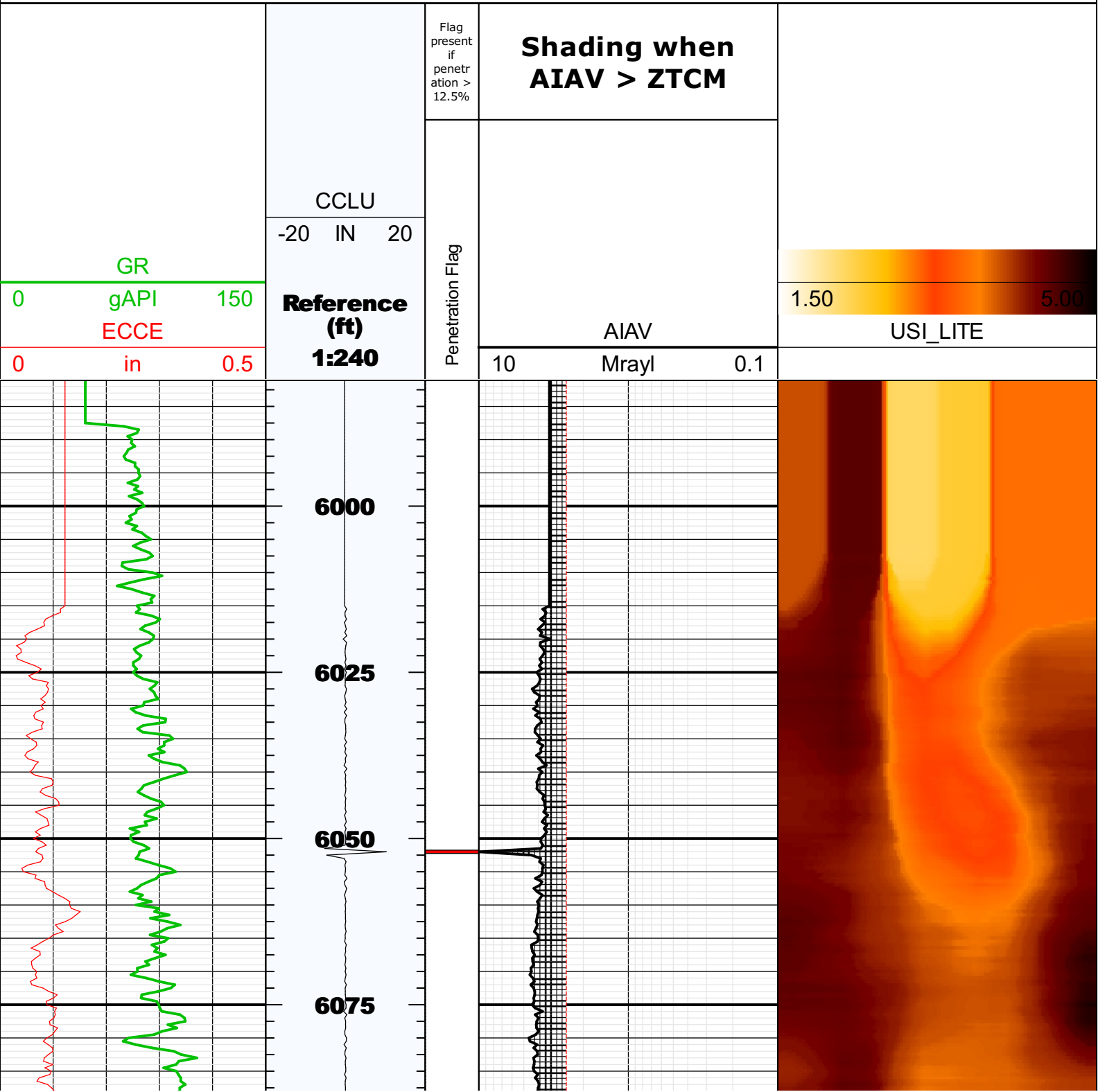


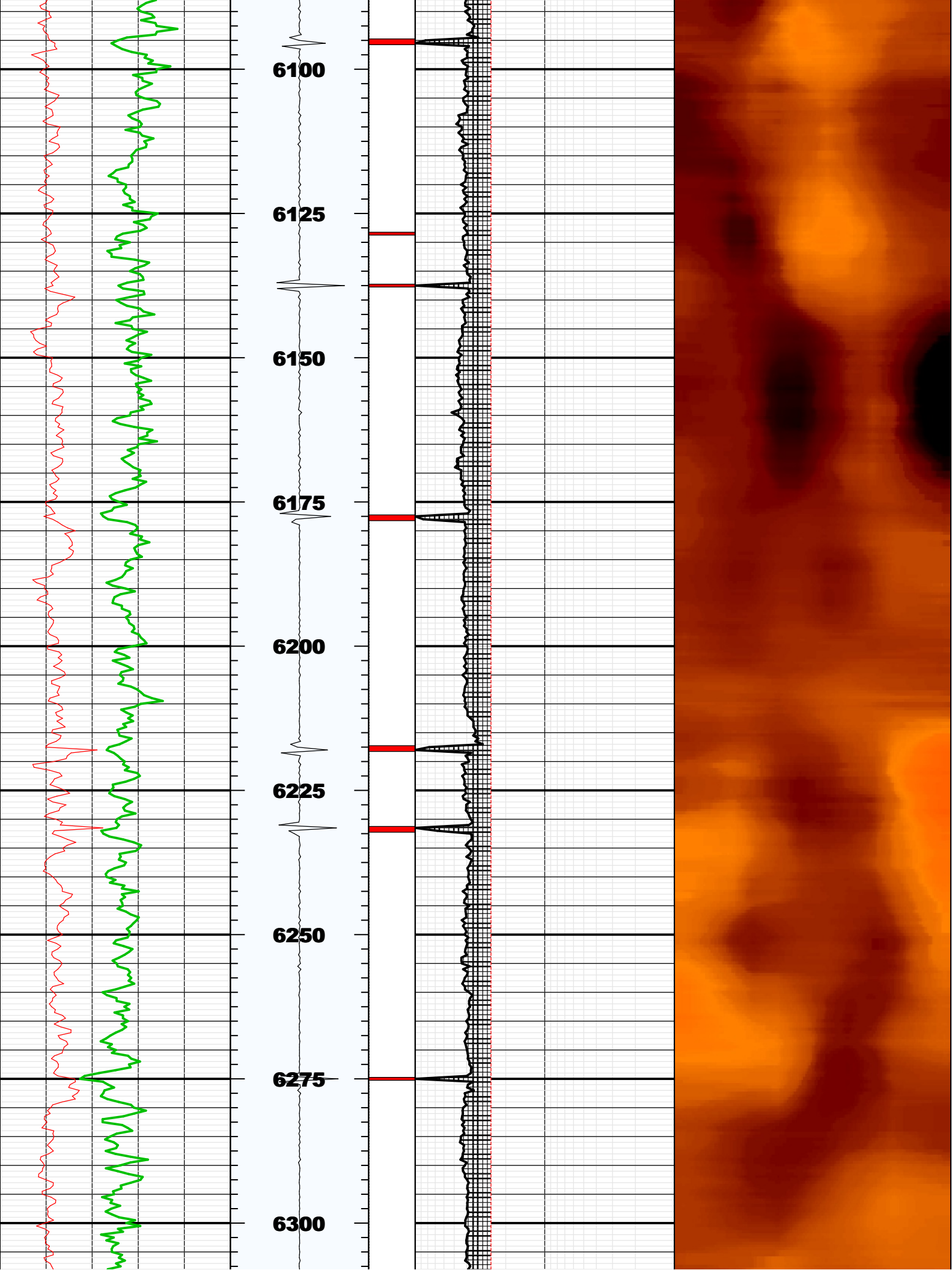


|             |             |      |  |
|-------------|-------------|------|--|
| BS          | 8.75000     | IN   | Bit Size   |
| CASG        | P110        |      | Casing Grade                                     |
| CDIA        | 7.00000     | IN   | Casing Outer Diameter                            |
| CSID        | 6.27600     | IN   | Casing Inner Diameter                            |
| CSIZ        | 7.00000     | IN   | Current Casing Size                              |
| CWEI        | 26.00000    | LB/F | Casing Weight                                    |
| DFD         | 8.70000     | LB/G | Drilling Fluid Density                           |
| DFVL        | 188.00000   | US/F | Default Fluid Velocity                           |
| DO          |             |      |  |
| DOT         | 2.87400     | IN   | Diameter of Transducer Sensor                    |
| EMXV        | 66          | 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        | 33.29800    | US   | Window Begin Time                                |
| WINE        | 73.29800    | US   | Window End Time                                  |
| ZCAS        | 46.25000    | MRAY | Acoustic Impedance of Casing                     |
| ZINI        | -1.00000    | MRAY | Initial Estimate of Cement Impedance             |
| ZMUD        | 1.80000     | 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 <sup>^</sup> 3 Processing Length               |

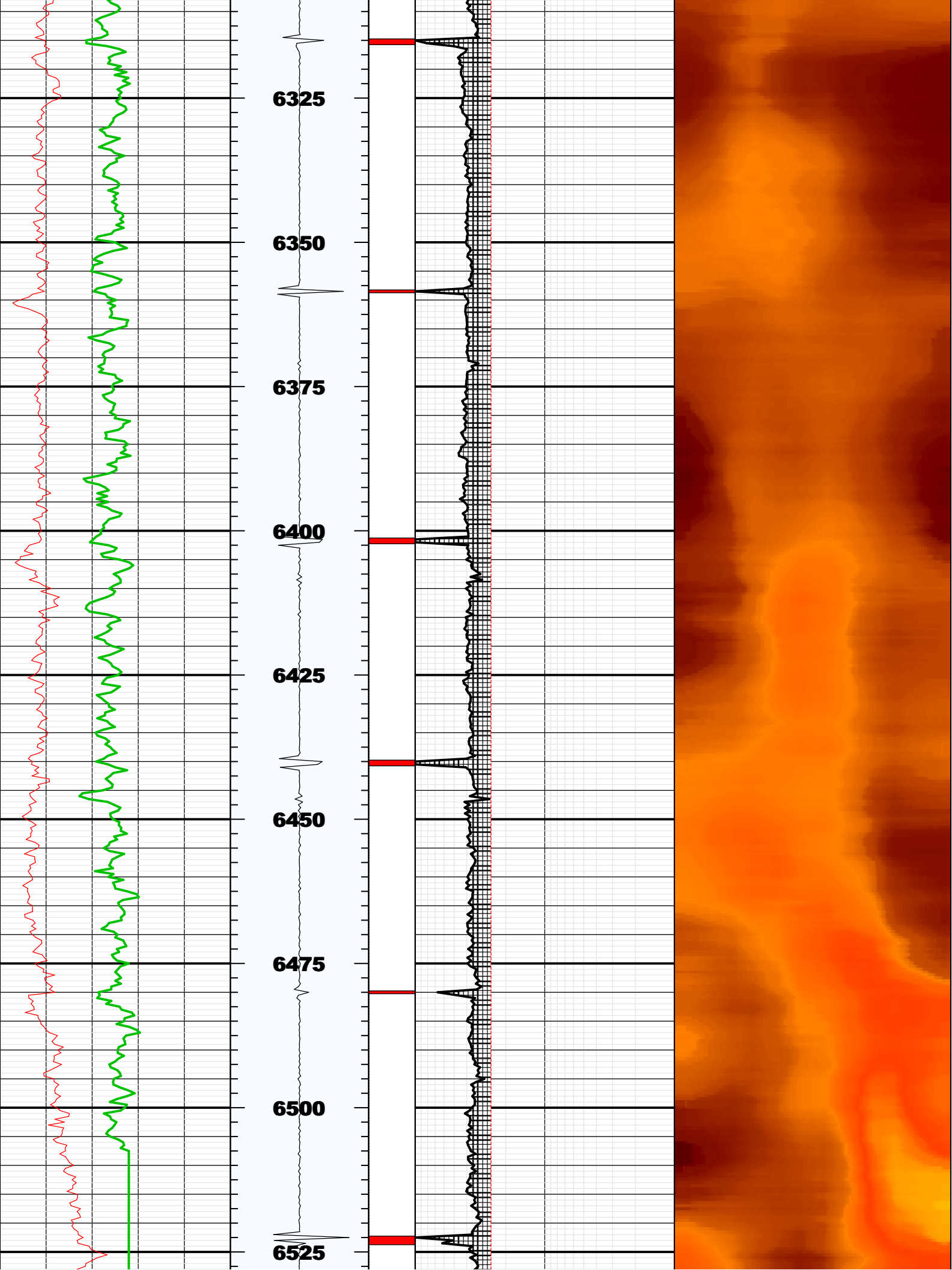
Repeat Pass

Company: Noble Energy Inc  
Well: Oscar Y10-72-1HC  
Field: Wattenberg











## Fluid Properties Used for Main Pass

