



CEMENT BOND LOG

| | | | | | | | | | | | |
|---|--------|---------------|-------|------------|------|--|----|--|--|--|--|
| COMPANY URSA OPERATING COMPANY | | | | | | WELL VALLEY FARMS 44B-11-06-92 FIELD GRAVEL TREAD CNTY GARFIELD STATE CO | | | | | |
| COMPANY URSA OPERATING COMPANY | | | | | | WELL VALLEY FARMS 44B-11-06-92 FIELD GRAVEL TREAD COUNTY GARFIELD STATE COLORADO | | | | | |
| LOCATION: | | | | | | OTHER SERVICES: | | | | | |
| SHL: 1232' FSL & 1134' FEL BHL: 0849' FSL & 0660' FEL SEC.11 TWP.6S RGE92W | | | | | | PND GR/JB | | | | | |
| PERM. DATUM GROUND LEVEL ELEV. 5577' LOG MEASURED FROM K.B.13.5 FT. ABOVE PERMANENT DATUM DRILLING MEASURED FROM K.B. | | | | | | ELEV.:K.B. 5590.5 D.F. 5590.5 G.L. 5577.0 | | | | | |
| DATE | | 20-JAN-2015 | | | | | | | | | |
| RUN NO. | | ONE | | | | | | | | | |
| DEPTH DRILLER | | 7303' | | | | | | | | | |
| DEPTH LOGGER | | 7239' | | | | | | | | | |
| BTM. LOG INTERVAL | | 7233' | | | | | | | | | |
| TOP LOG INTERVAL | | 1000' | | | | | | | | | |
| OPEN HOLE SIZE | | 7.875" | | | | | | | | | |
| TYPE FLUID | | WATER | | | | | | | | | |
| DENS. | | 8.3 | | N/A | | | | | | | |
| MAX. REC. TEMP. °F | | 186 DEG. F | | | | | | | | | |
| EST. CEMENT TOP | | SEE LOG | | | | | | | | | |
| TIME WELL READY | | ROA | | | | | | | | | |
| TIME LOGGER ON BTM. | | SEE LOG | | | | | | | | | |
| EQUIP. NO. | | 14247 | | | | | | | | | |
| LOCATION | | CASPER | | | | | | | | | |
| RECORDED BY | | P. MAZUR | | | | | | | | | |
| WITNESSED BY | | NOT WITNESSED | | | | | | | | | |
| BOREHOLE RECORD | | | | | | TUBING RECORD | | | | | |
| RUN NO. | BIT | FROM | TO | SIZE | WGT. | FROM | TO | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| CASING RECORD | SIZE | WT./FT | GRADE | TYPE JOINT | TOP | BOTTOM | | | | | |
| SURFACE STRING | 8.625" | | | | SURF | 1000' | | | | | |
| PROD. STRING | 4.5" | 11.6 | | | SURF | 7303' | | | | | |
| PROD. STRING | | | | | | | | | | | |
| LINER | | | | | | | | | | | |

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

[illegible]

DEPTH SCALE: 5":100'

PROCESSED VERSION: 2012.07.18.162"

108978281

FINISH DEPTH: 988.5 Feet DIRECTION: UP DATE: 01/20/2015 TIME: 16:59 MODE: ORIGINAL

CCL

-3600 Millivolts 400

GAMMA RAY

0 API 150

TRAVEL TIME 3FT

310 Microseconds 210

MAX ENERGY

0 mv 100

AVG ENERGY

0 mv 100

MIN ENERGY

0 mv 100

Tension

0 2000

3' AMP X 5

0 mv 20

AMPLITUDE 3FT

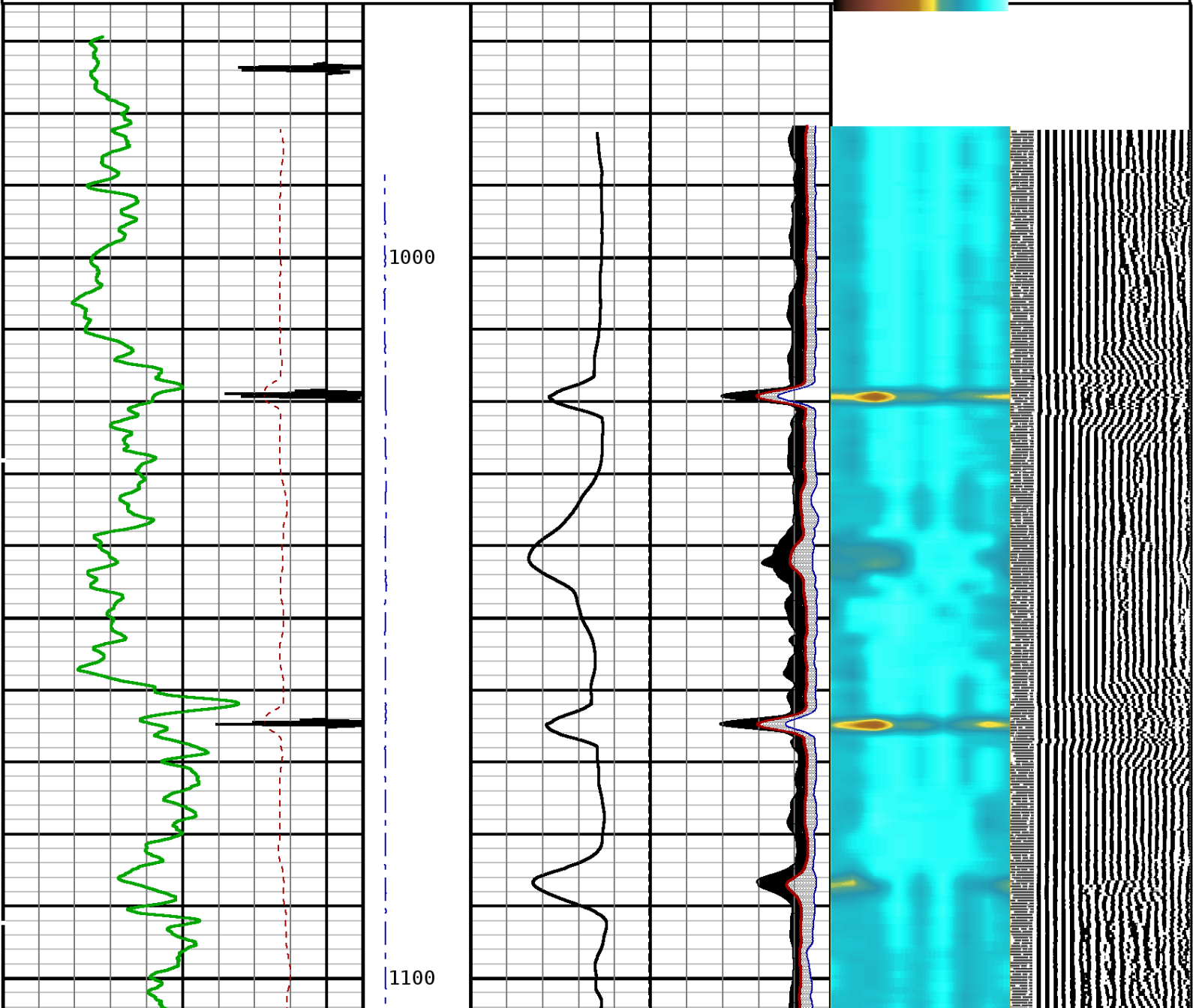
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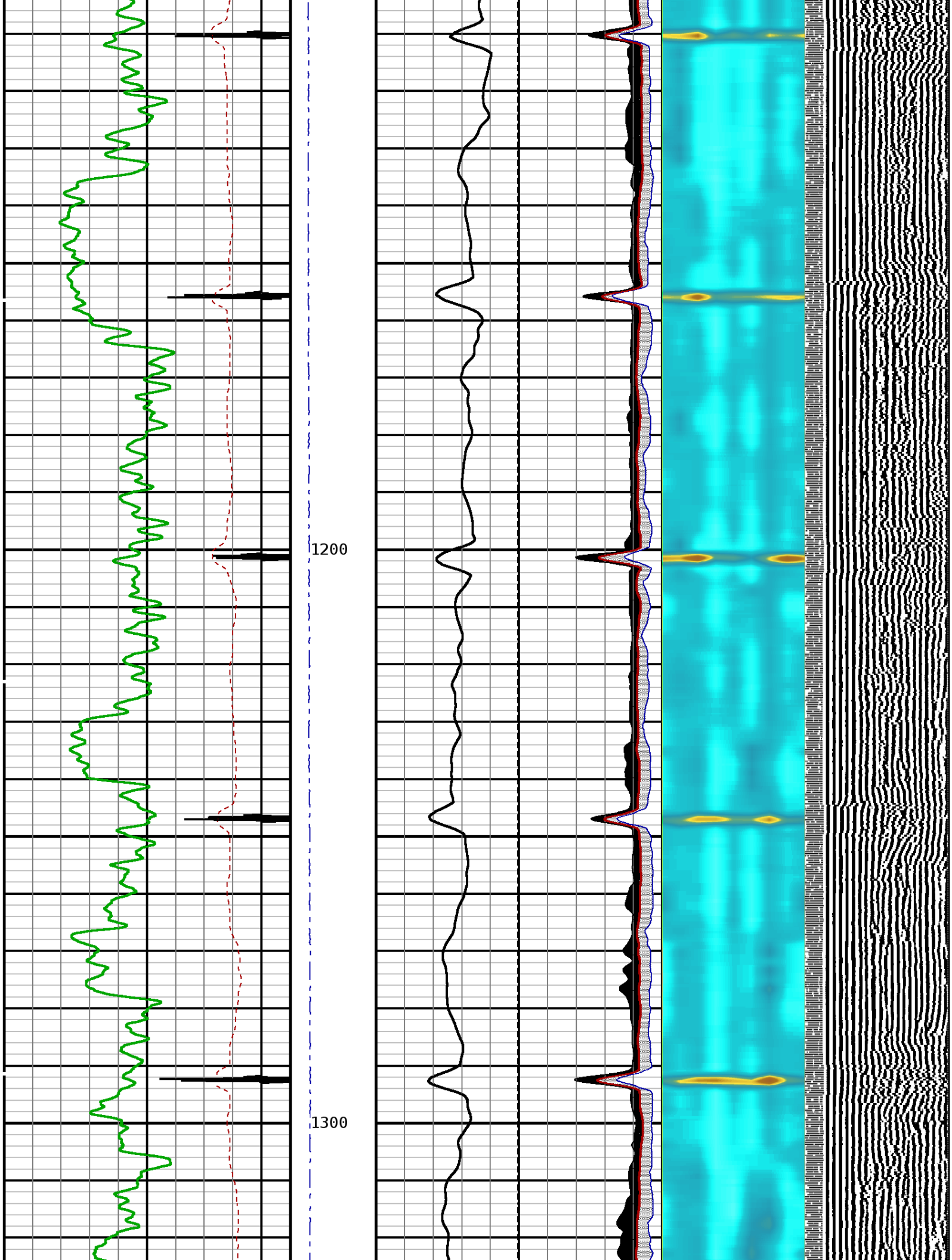
VARIABLE ENERG

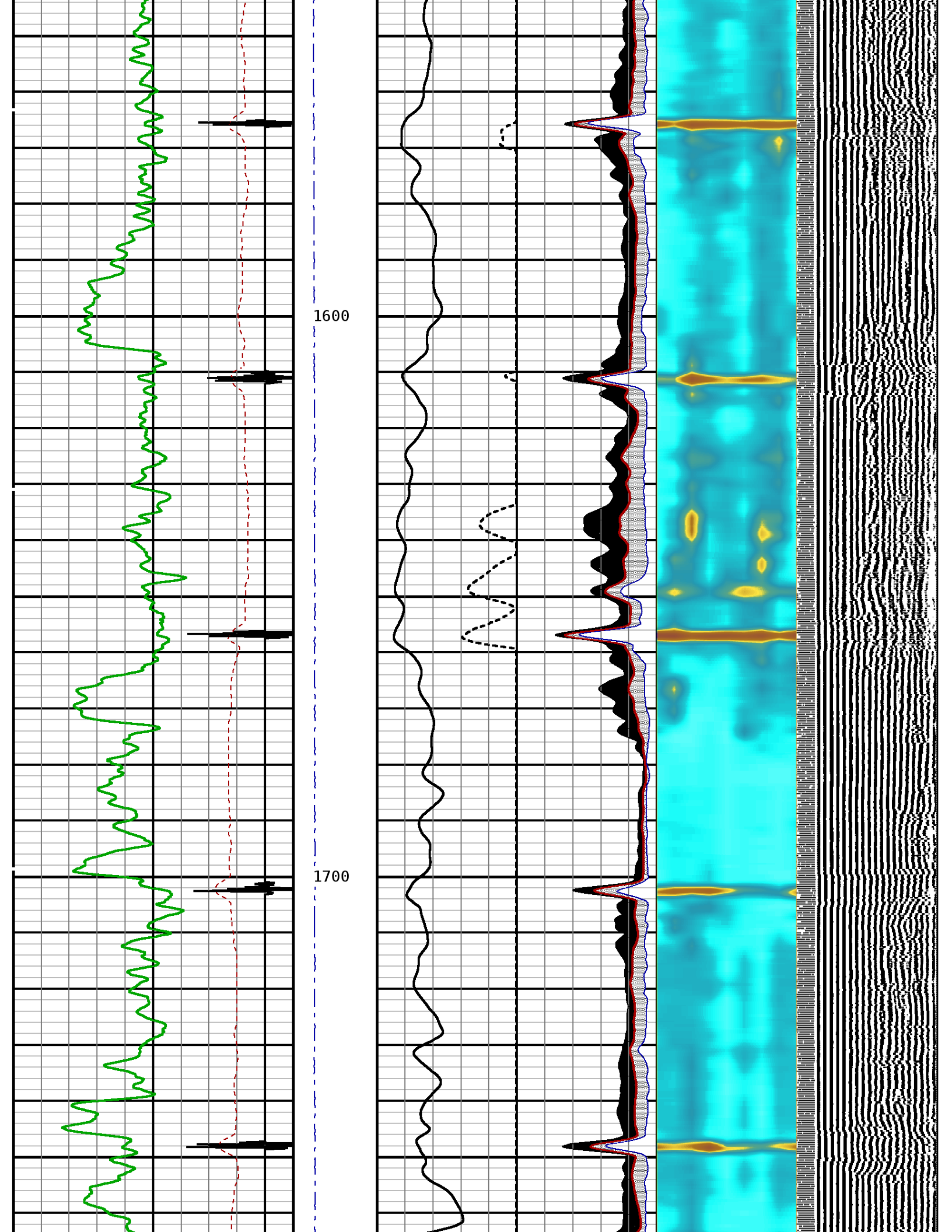
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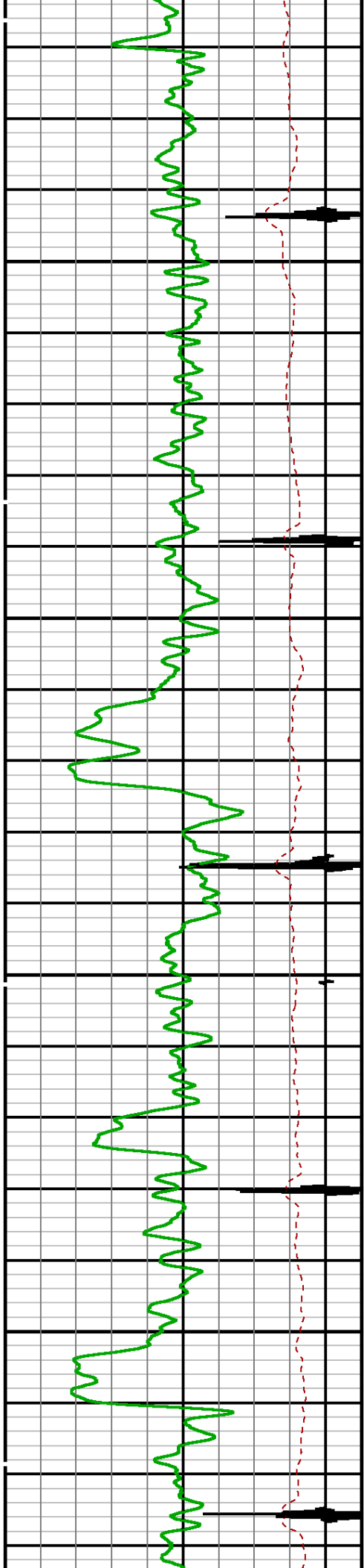
VARIABLE DENSI

200 us 1200



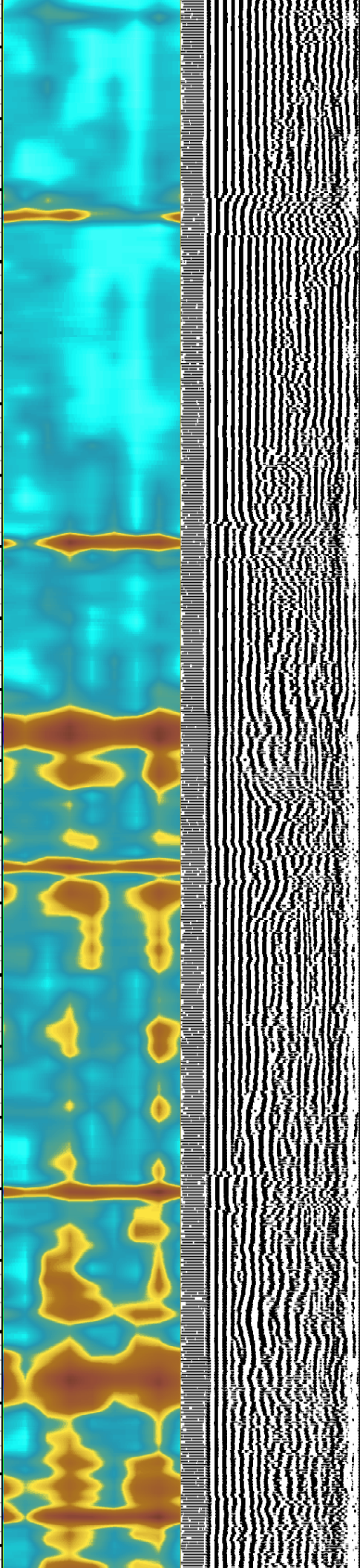
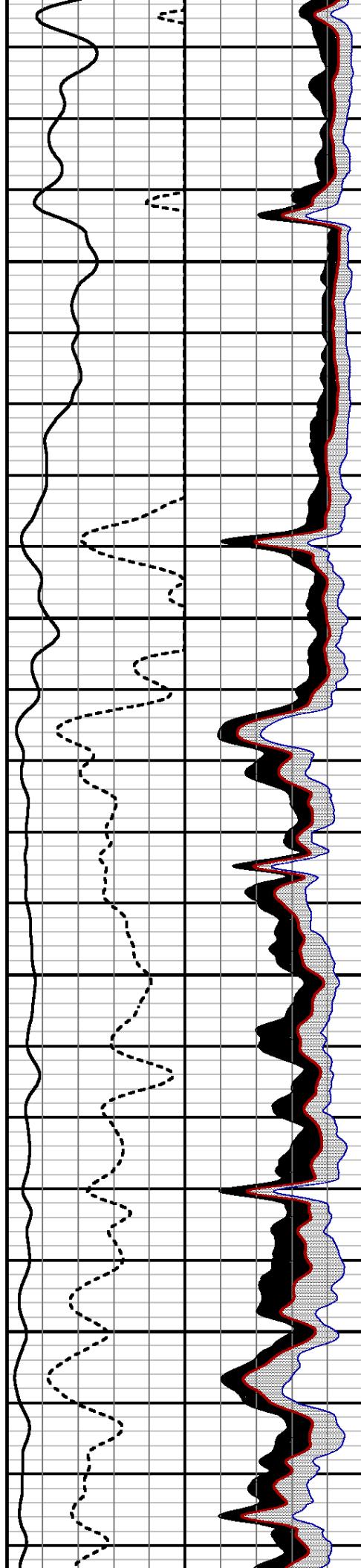


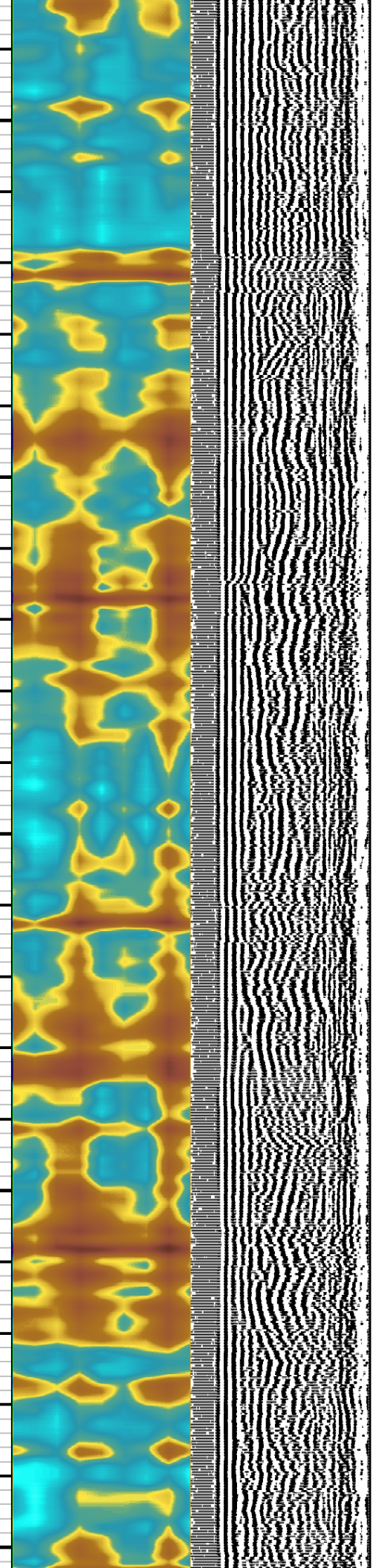
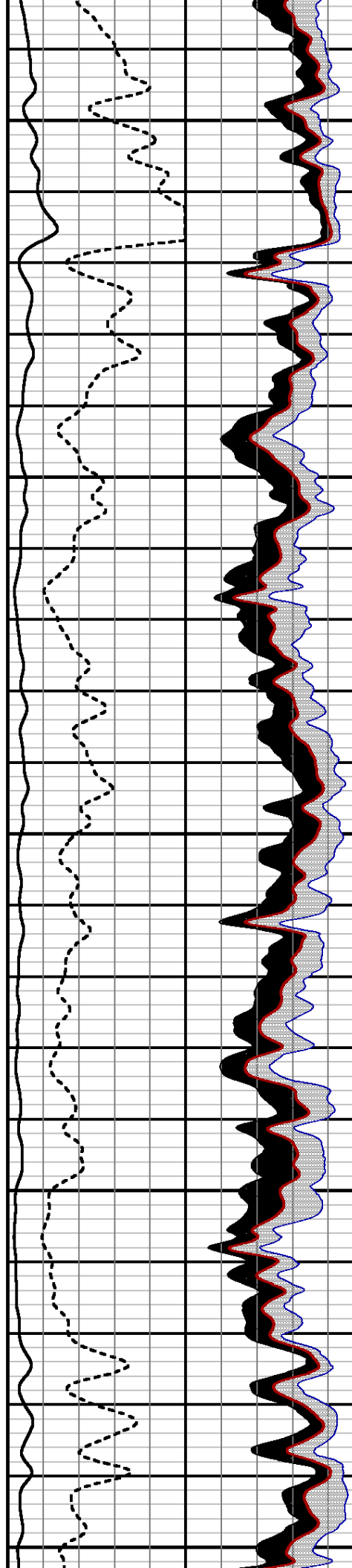
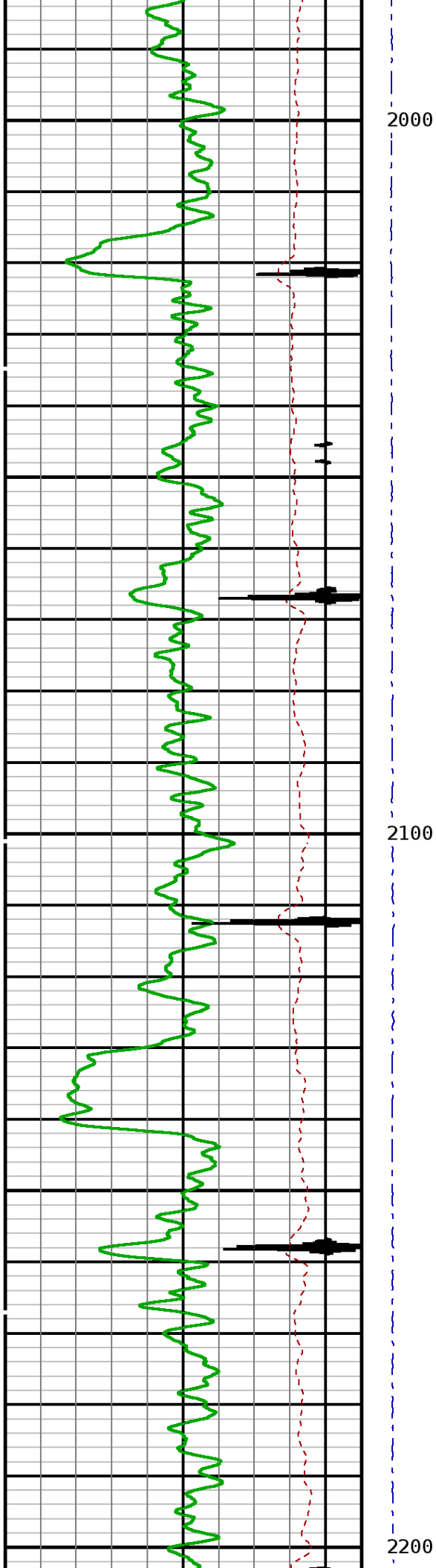


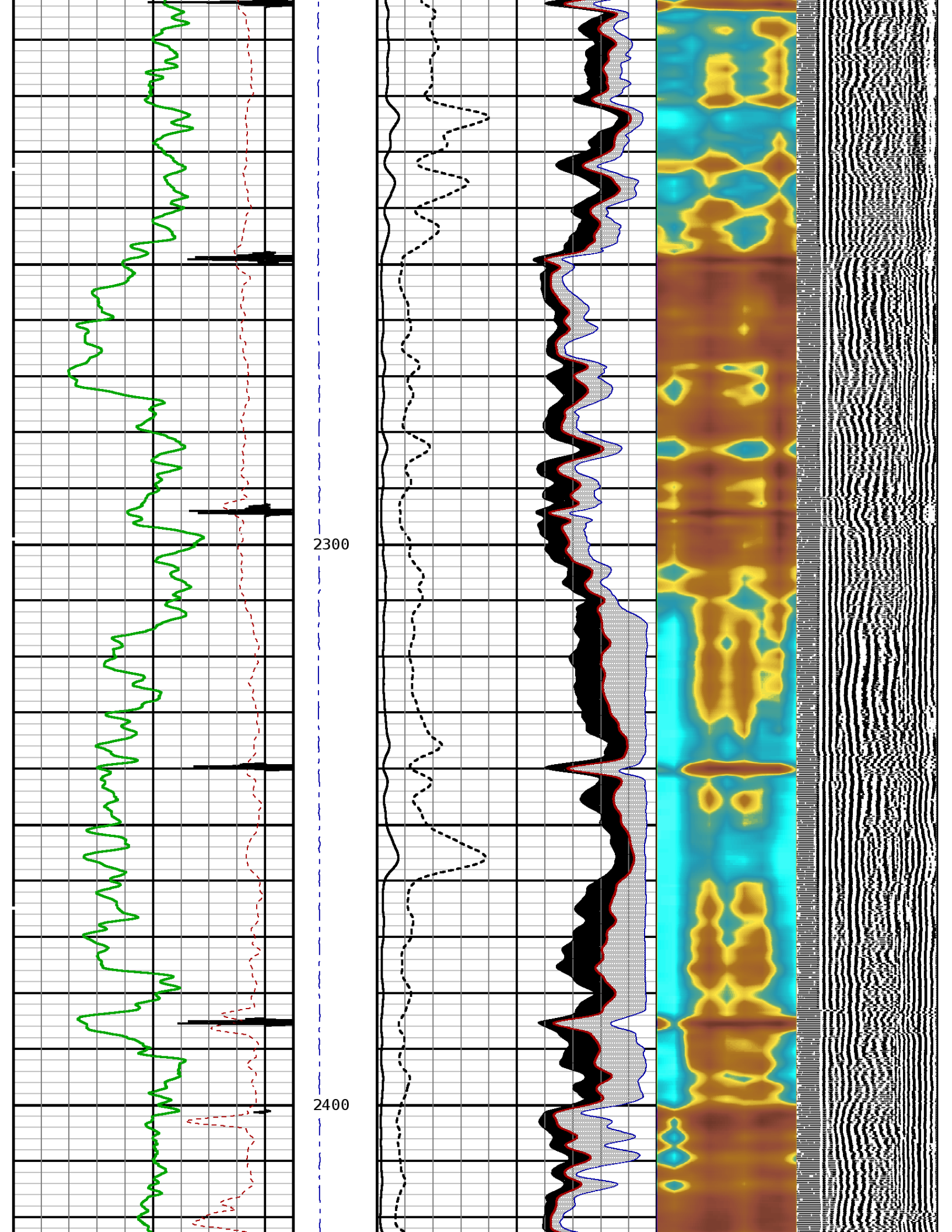


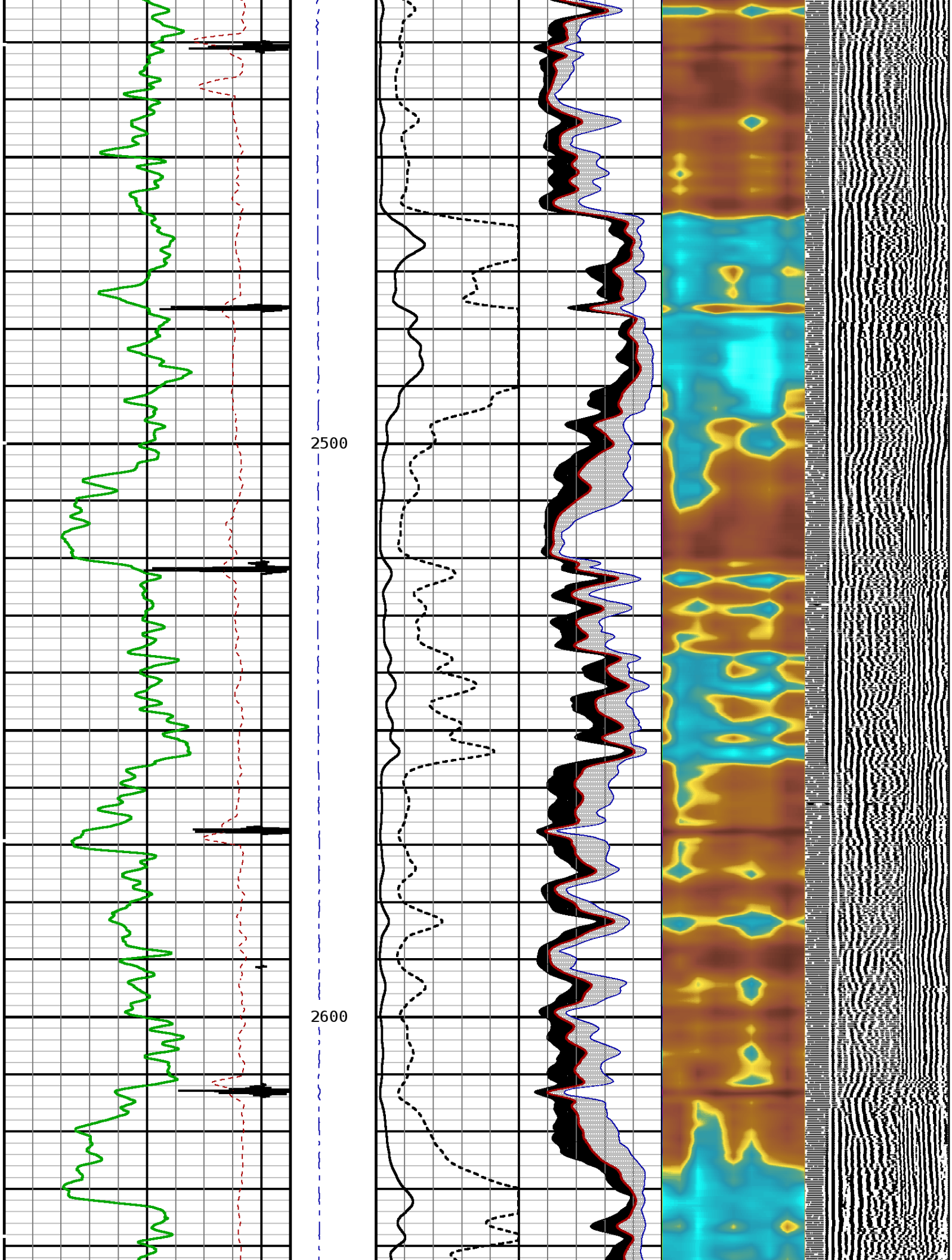
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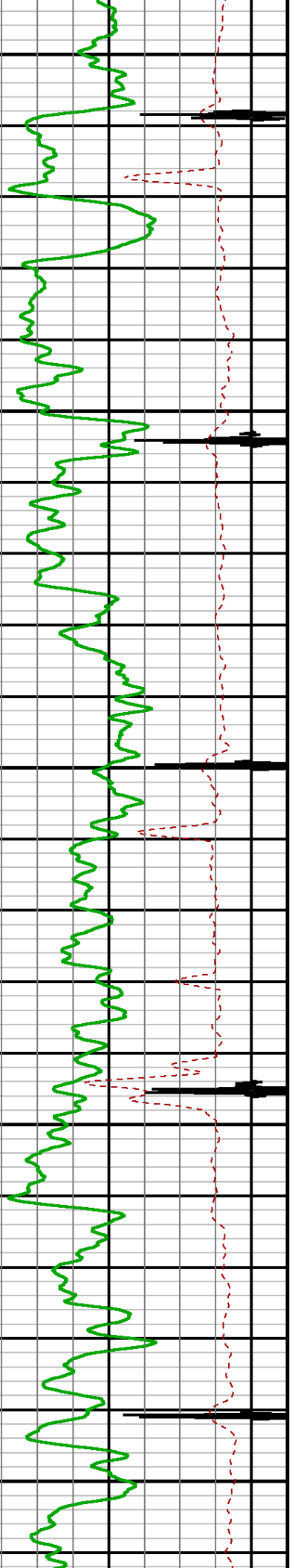
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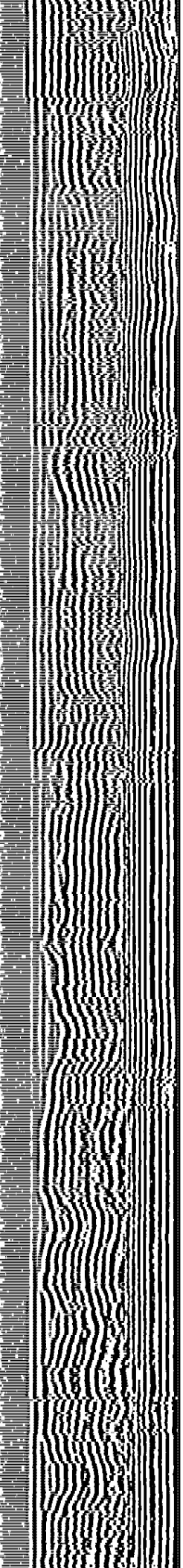
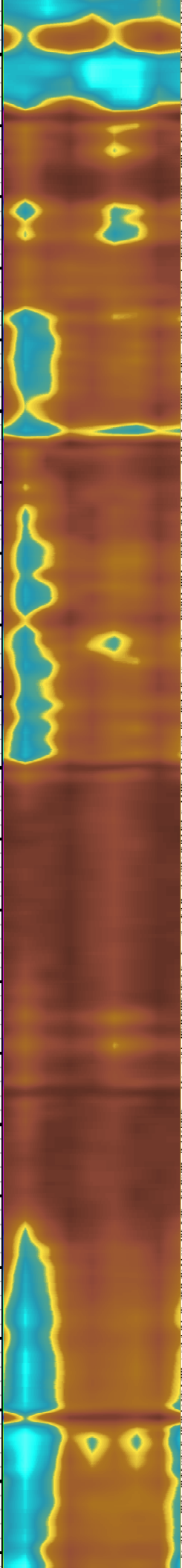
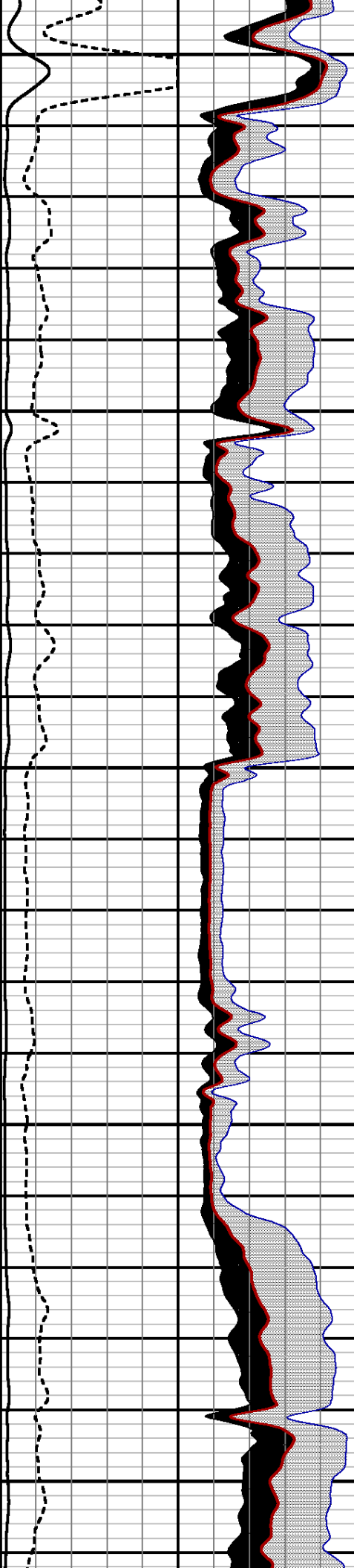


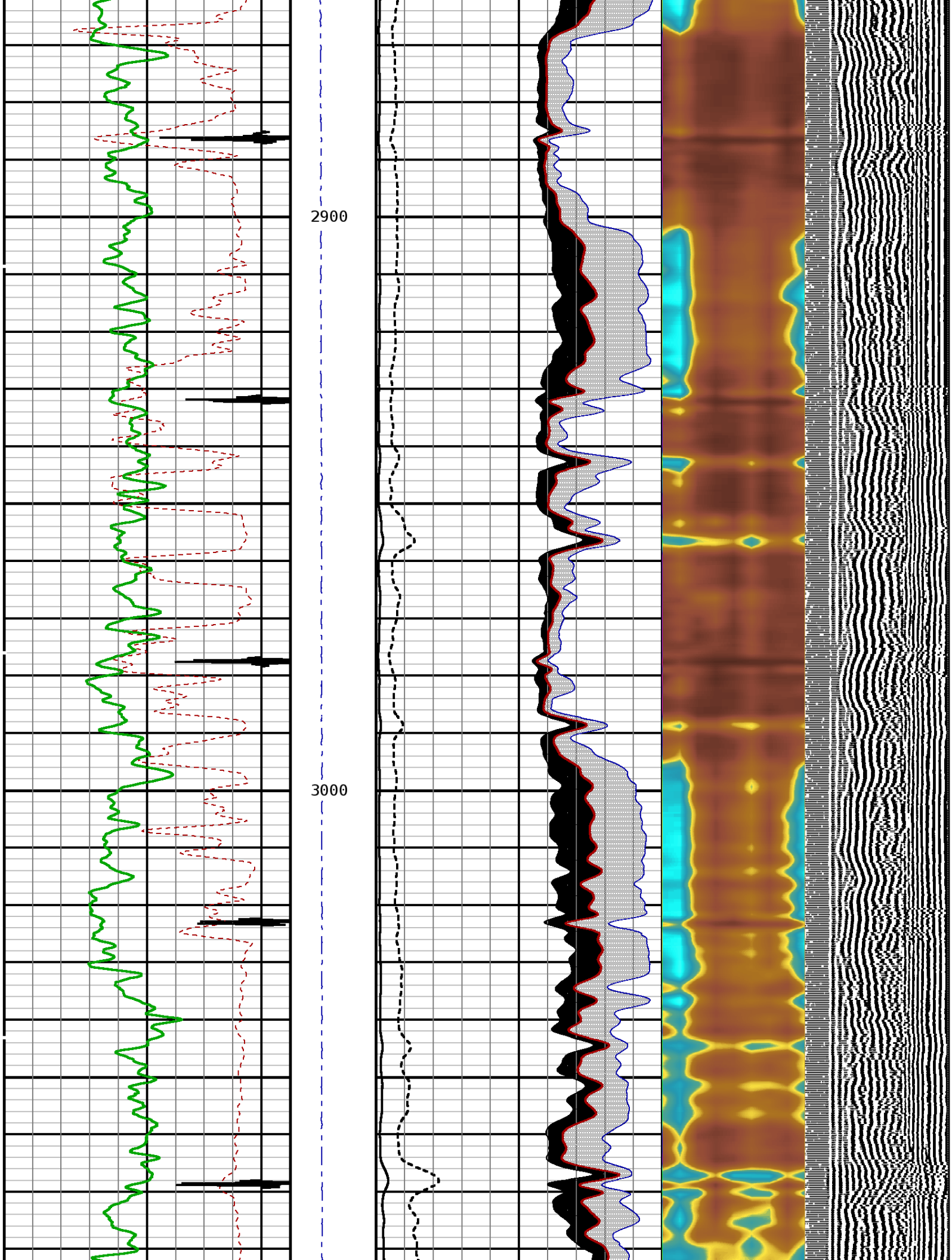


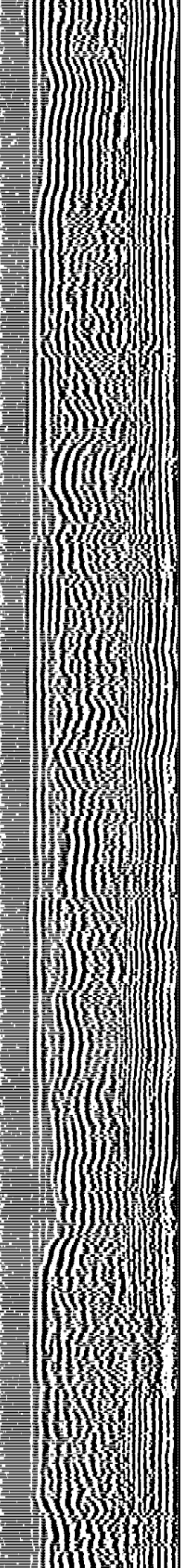
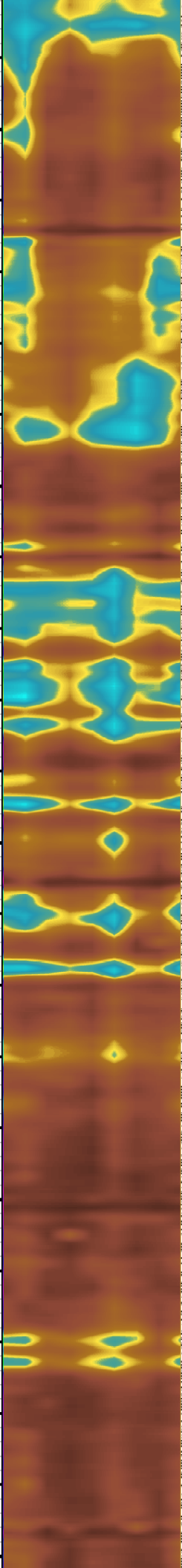
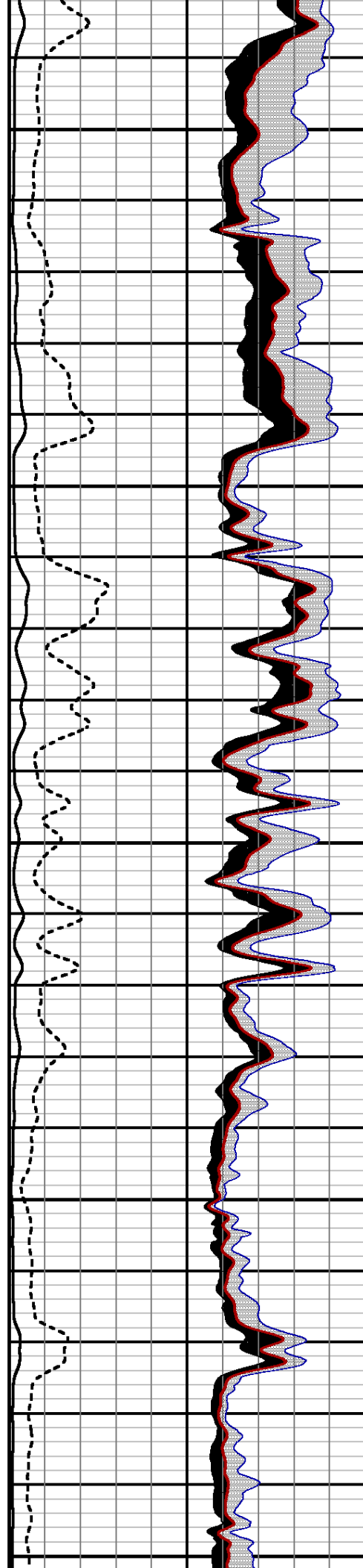
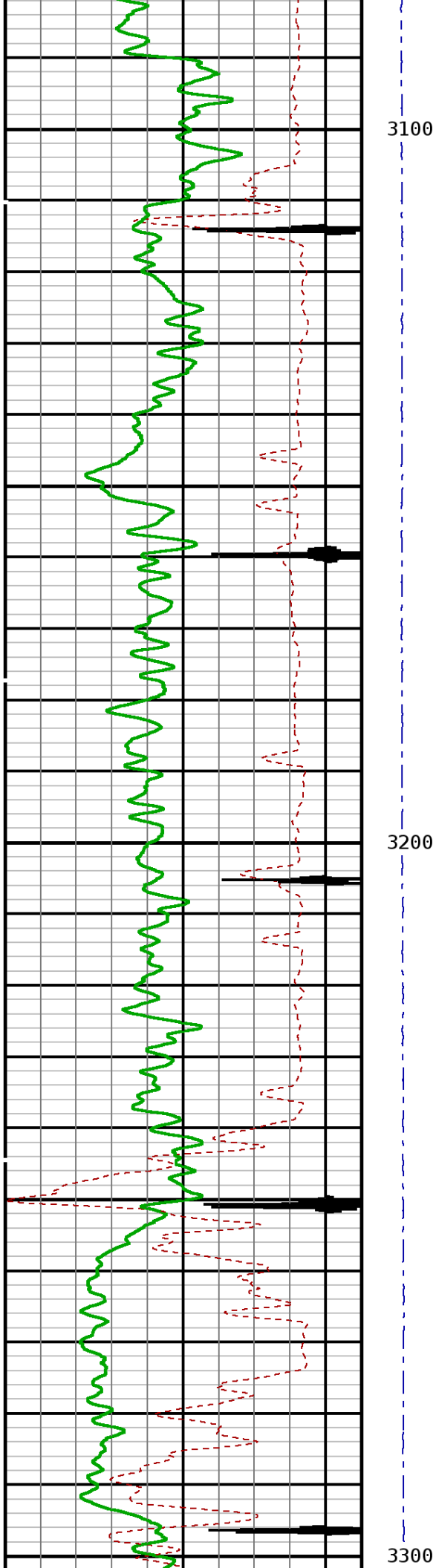


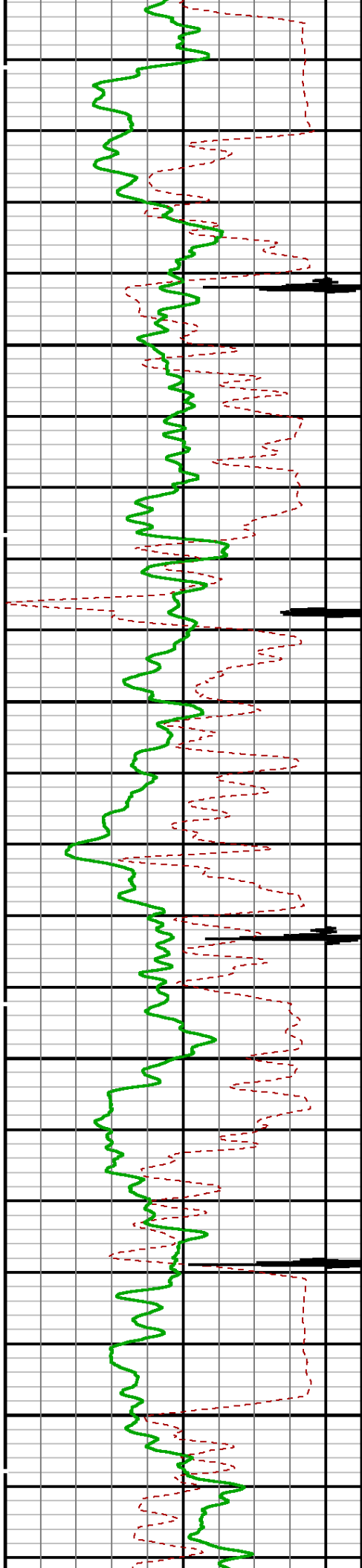
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2800



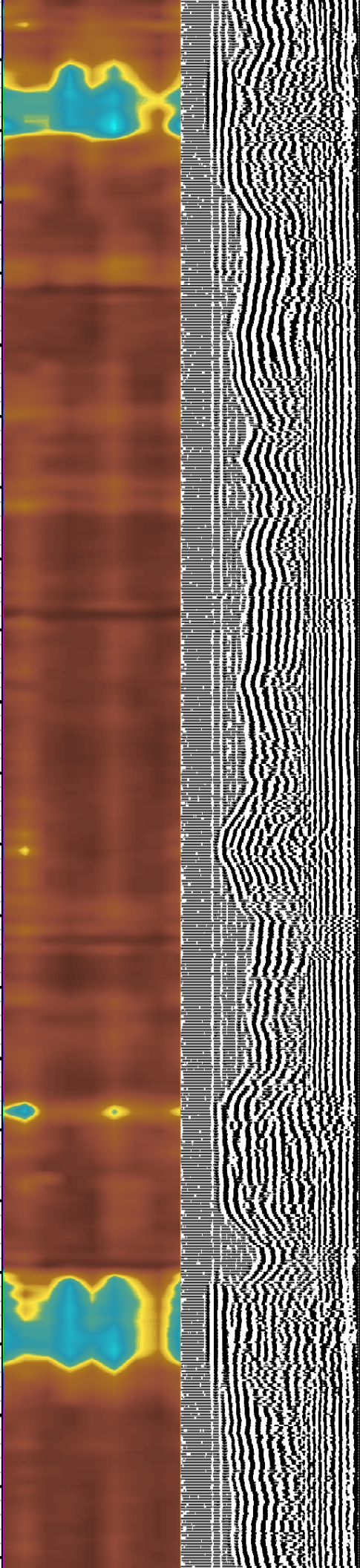
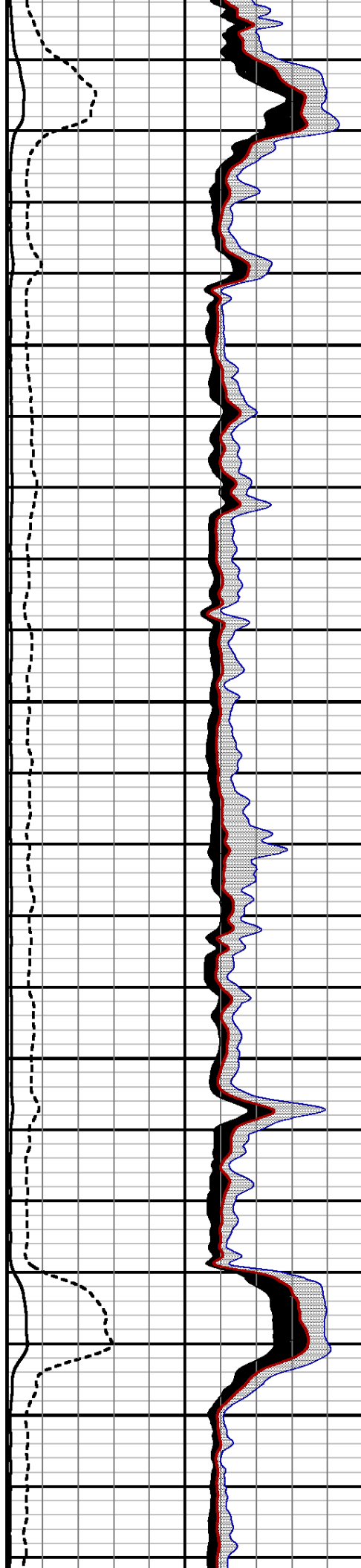


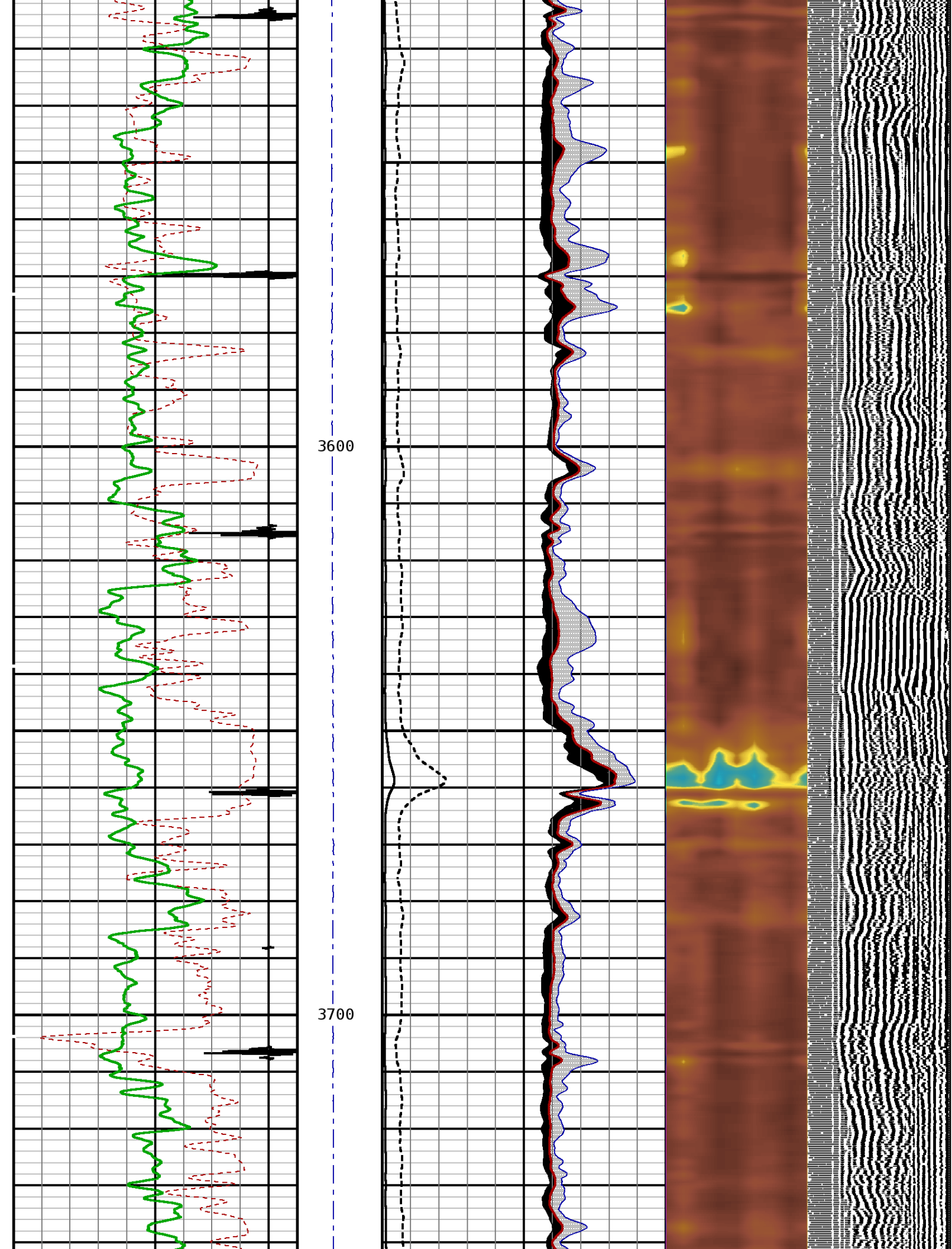


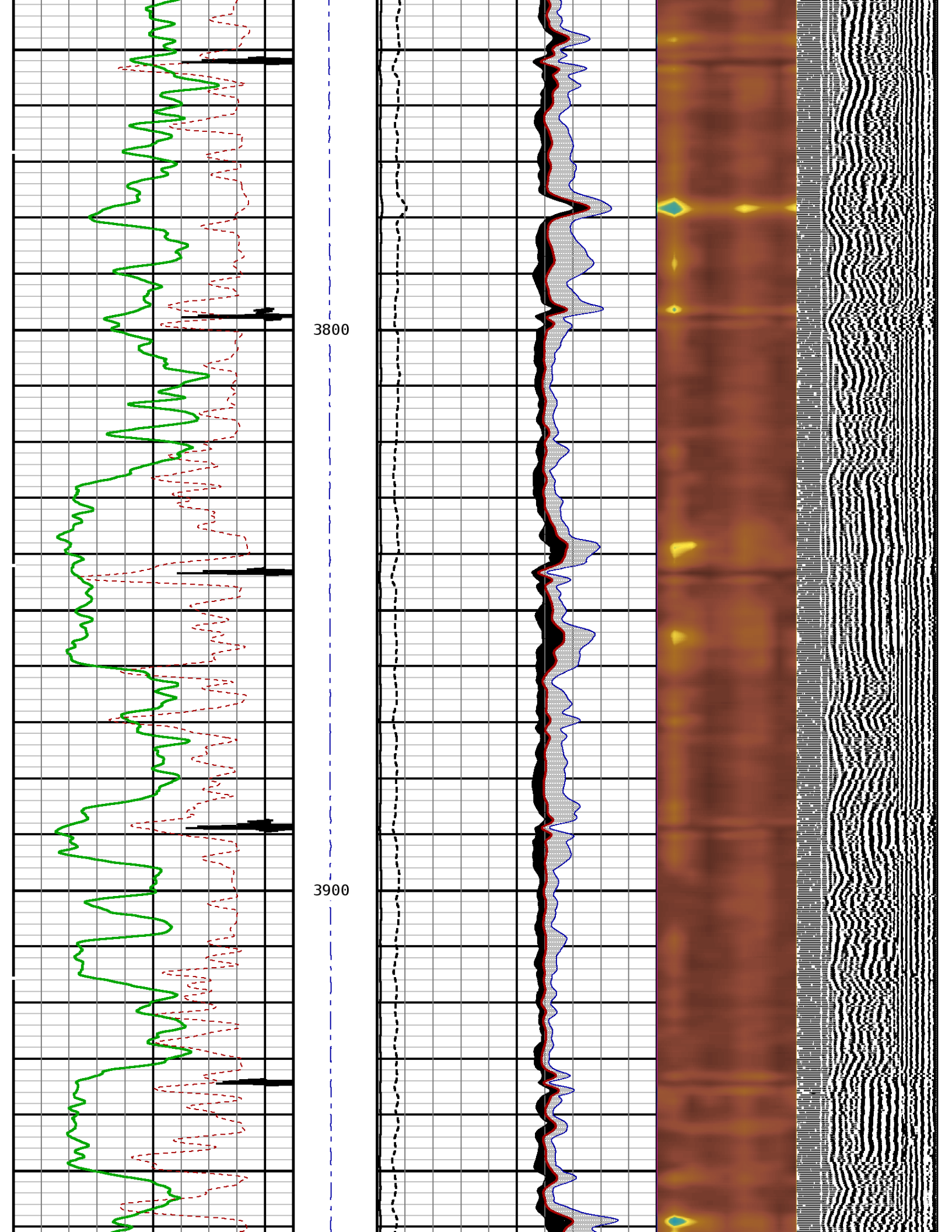


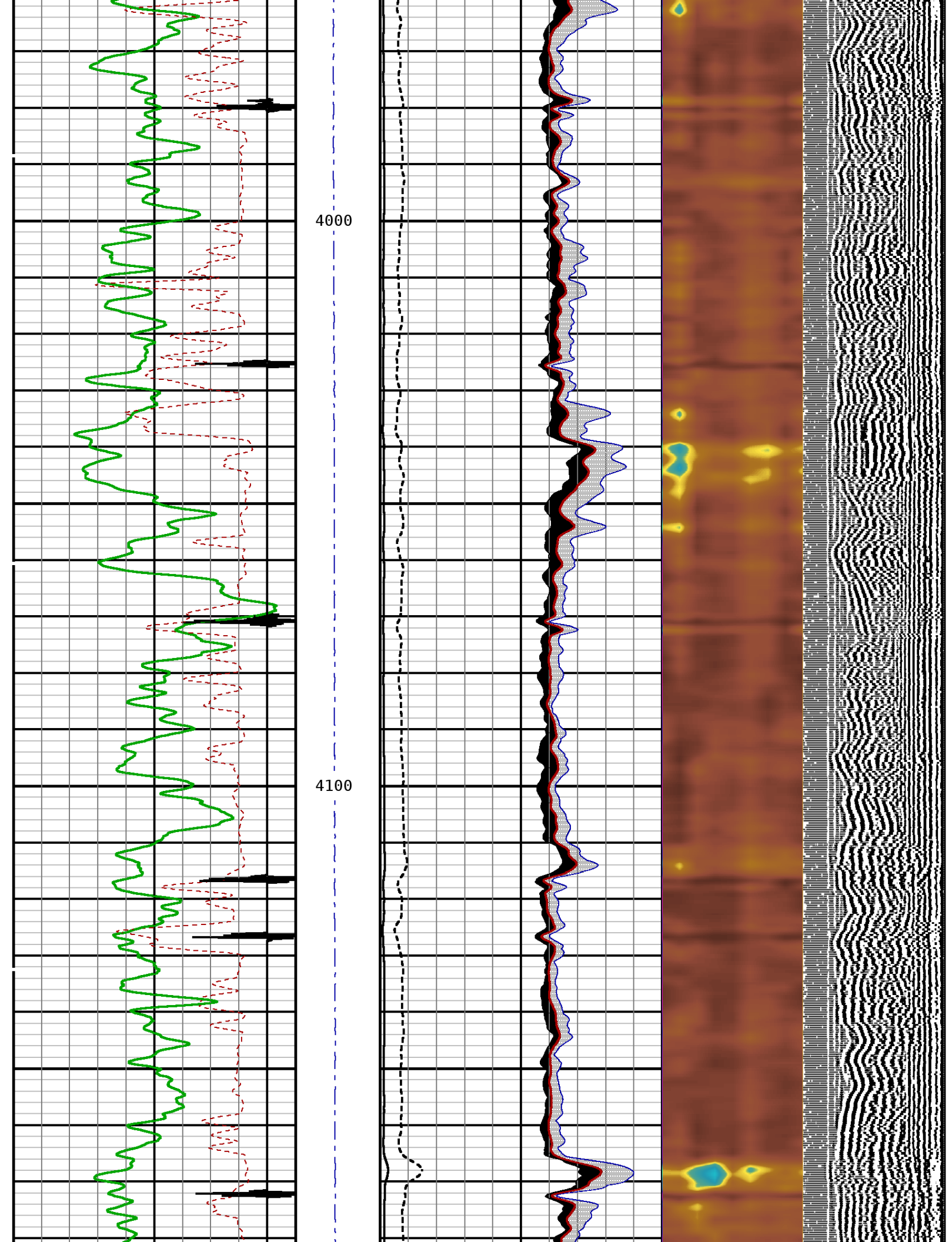
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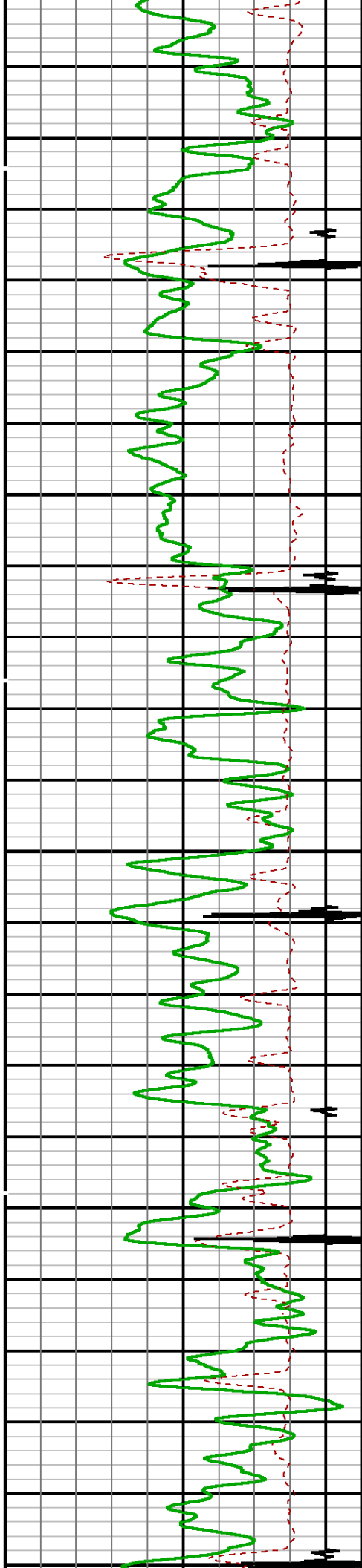
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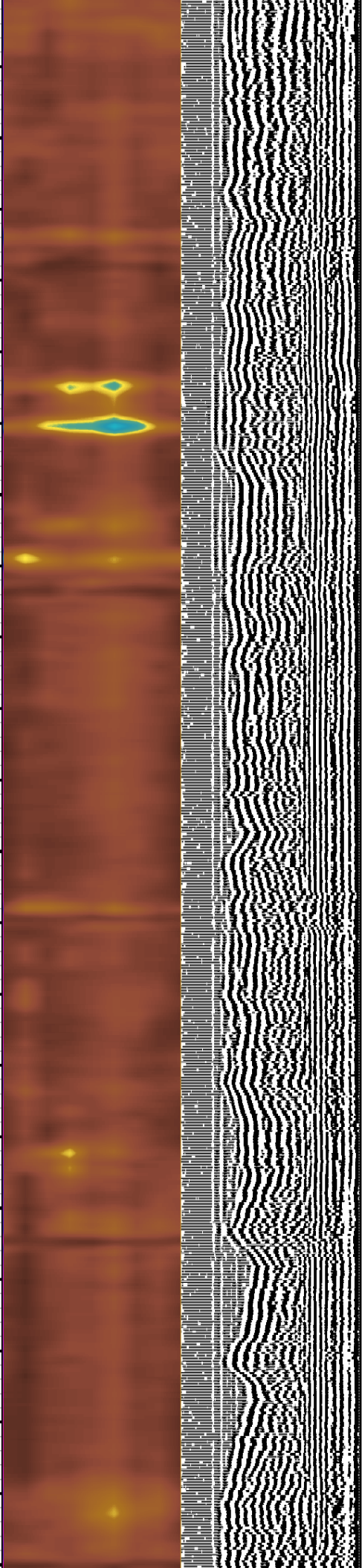
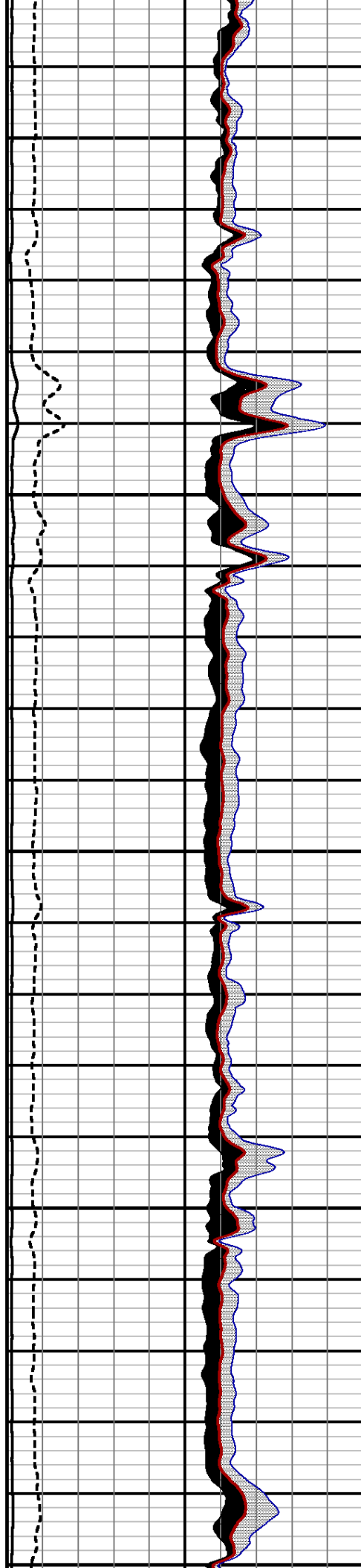


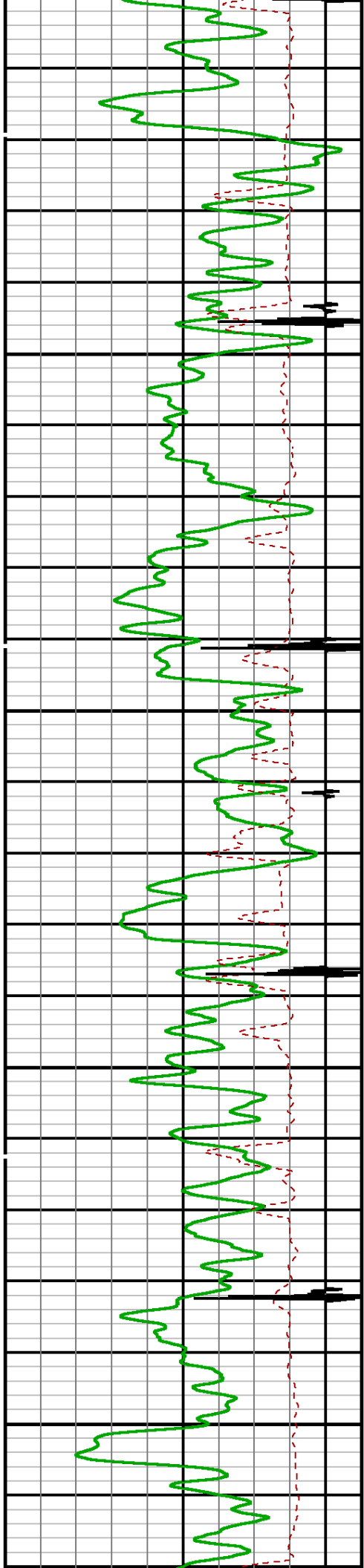


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4300

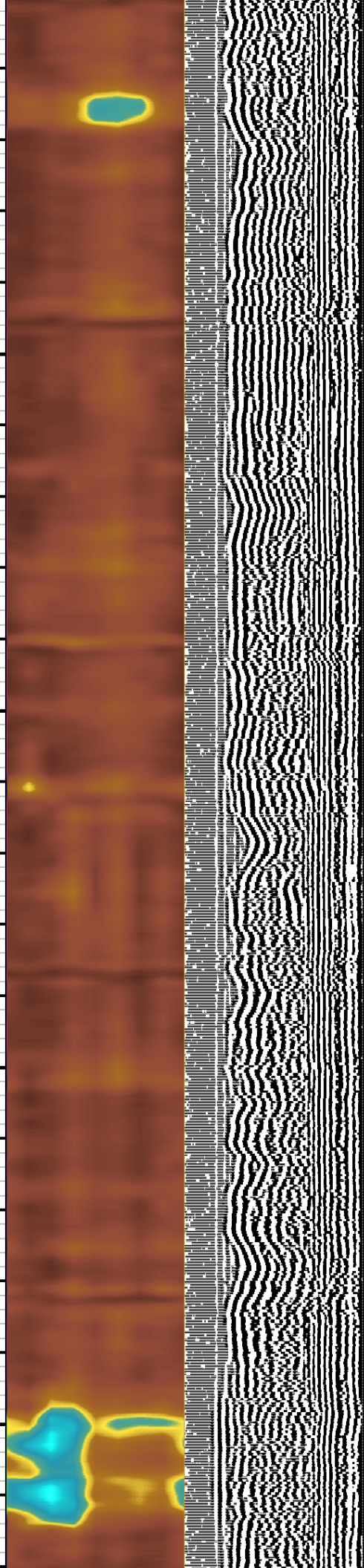
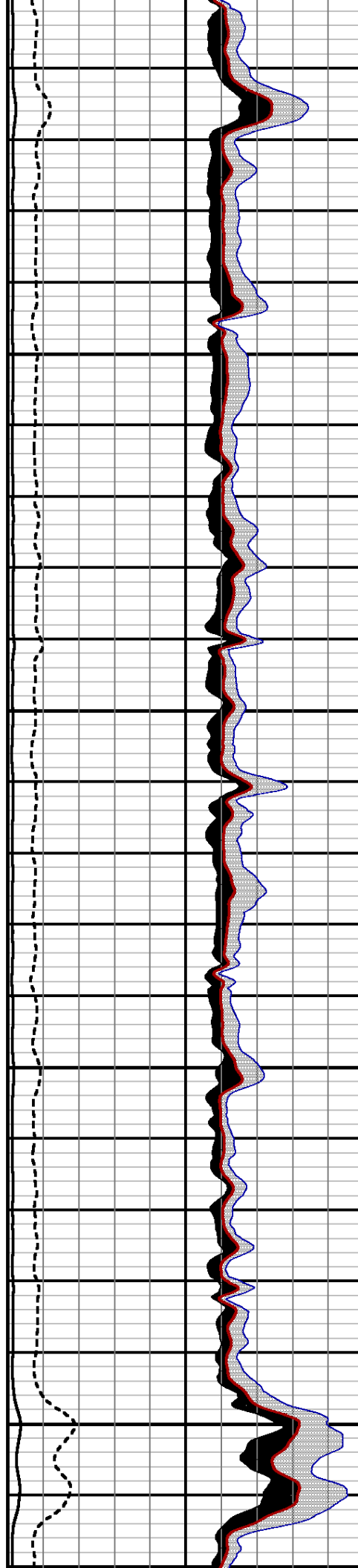
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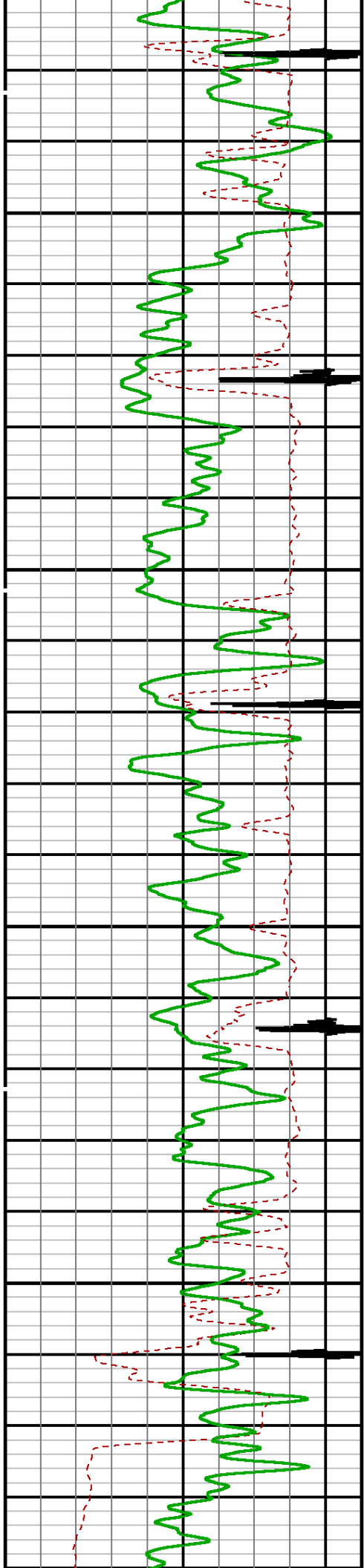




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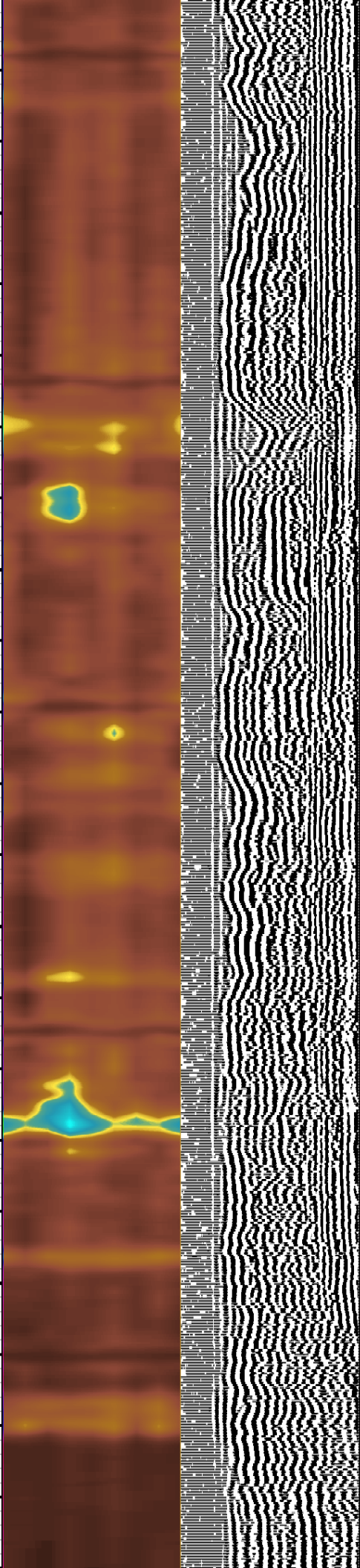
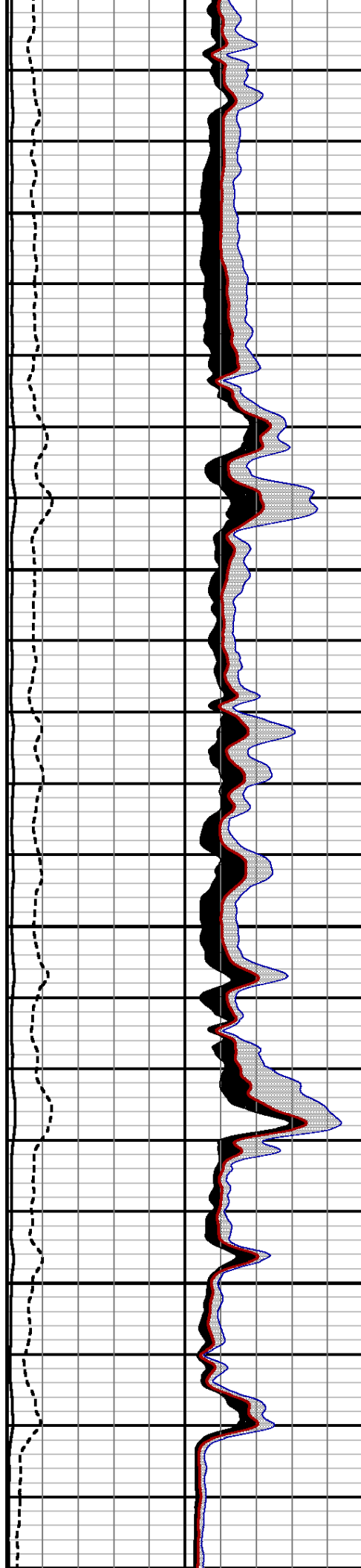
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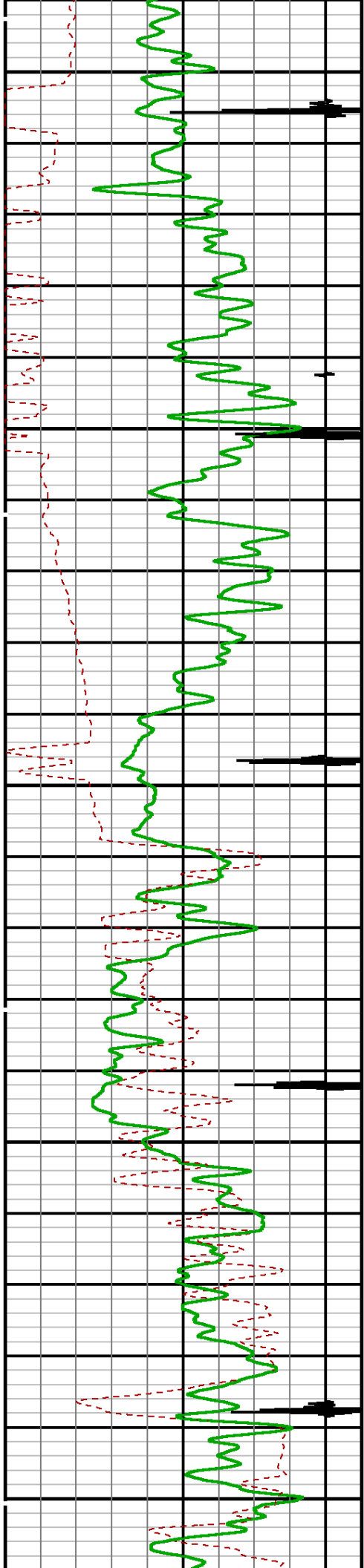




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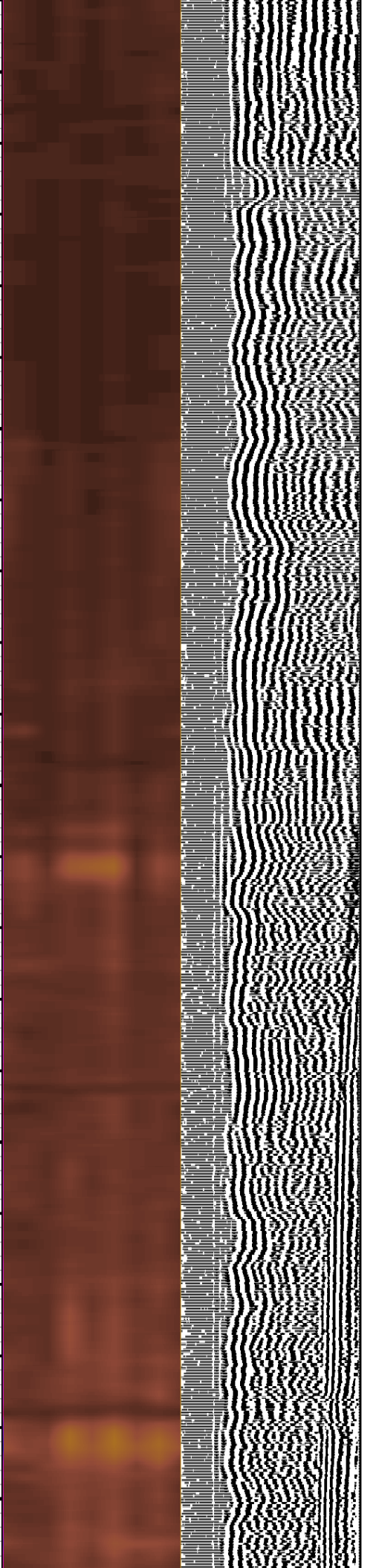
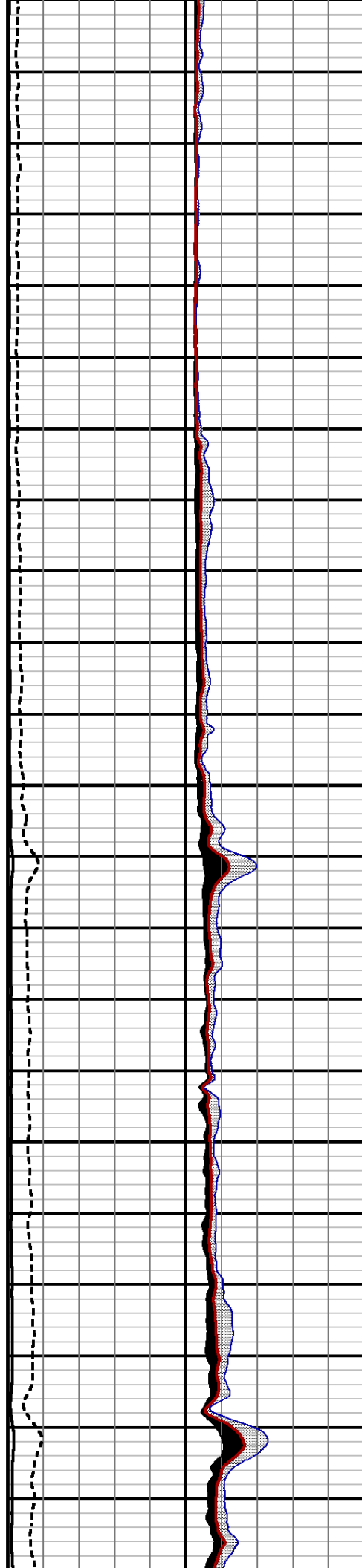
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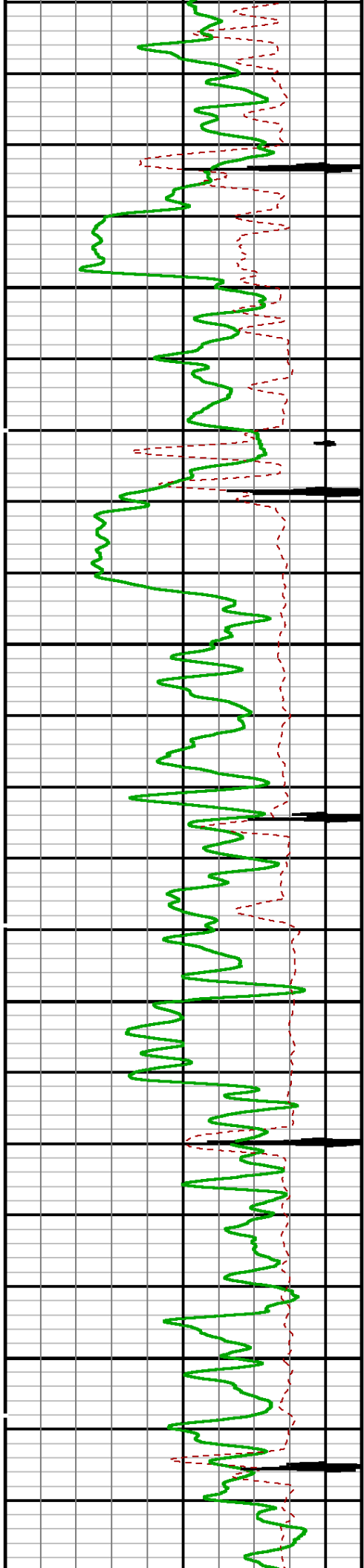




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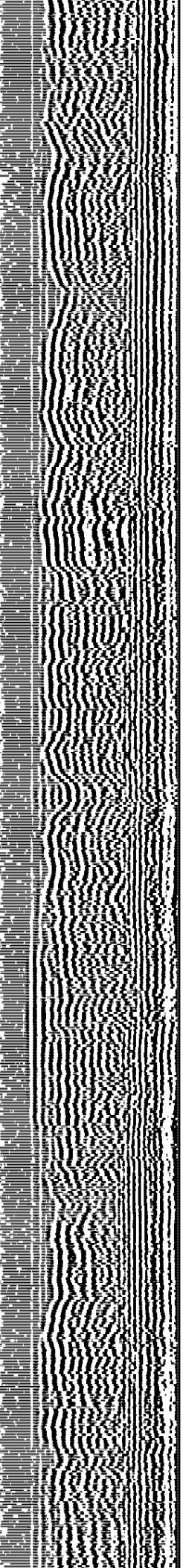
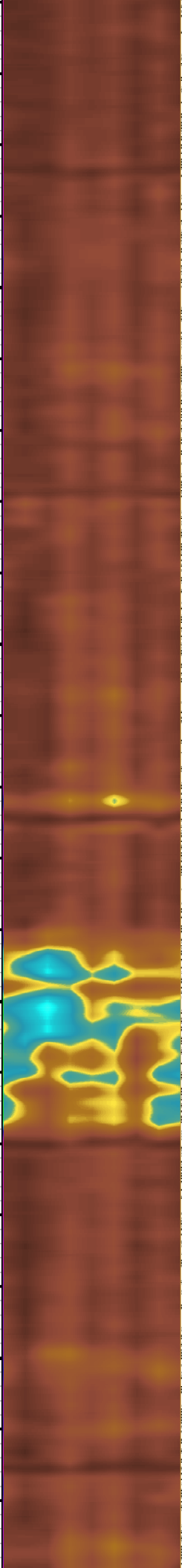
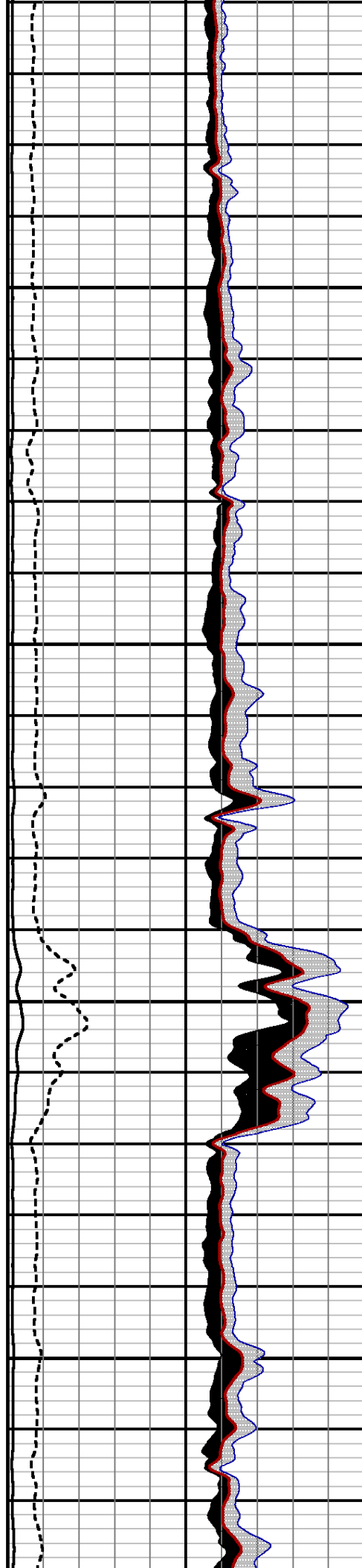
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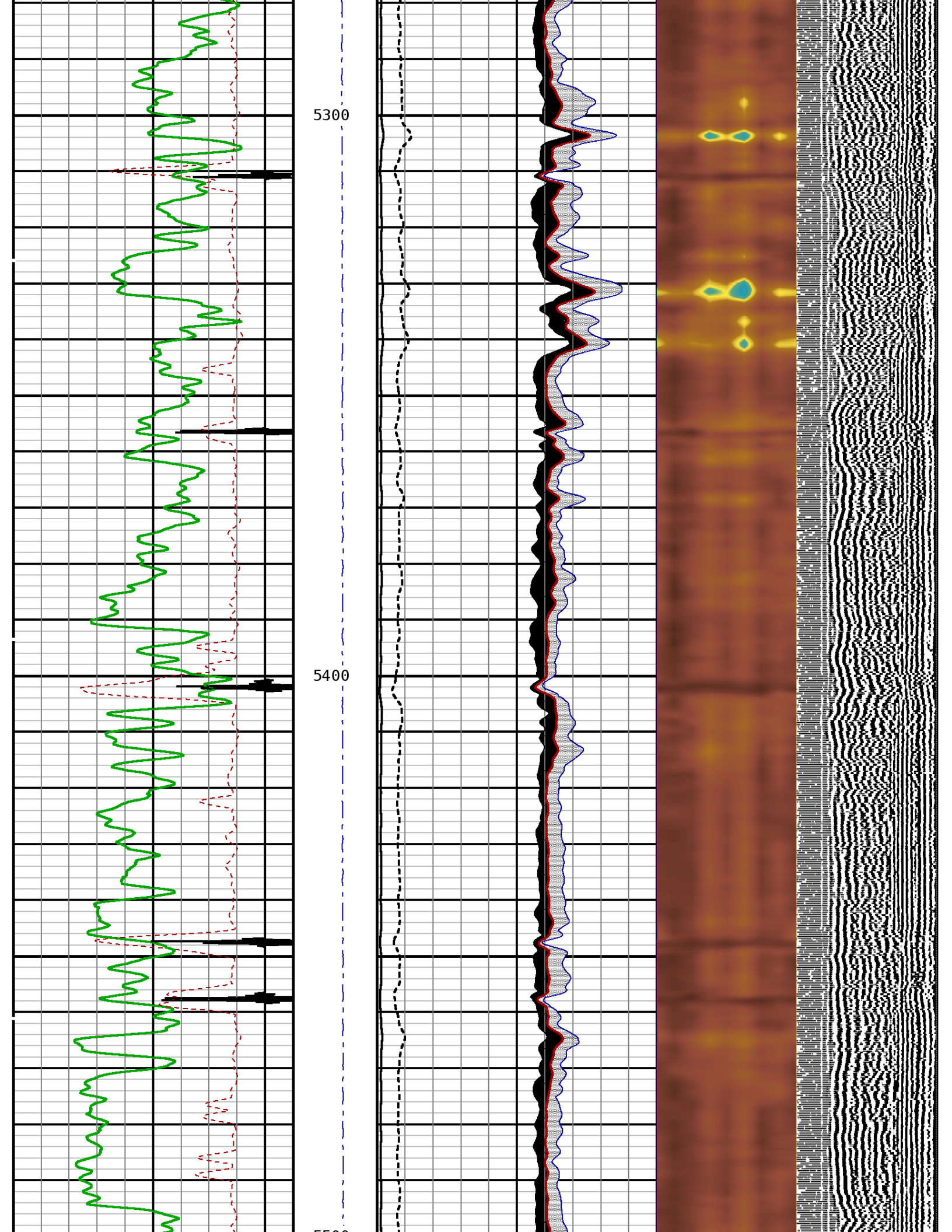


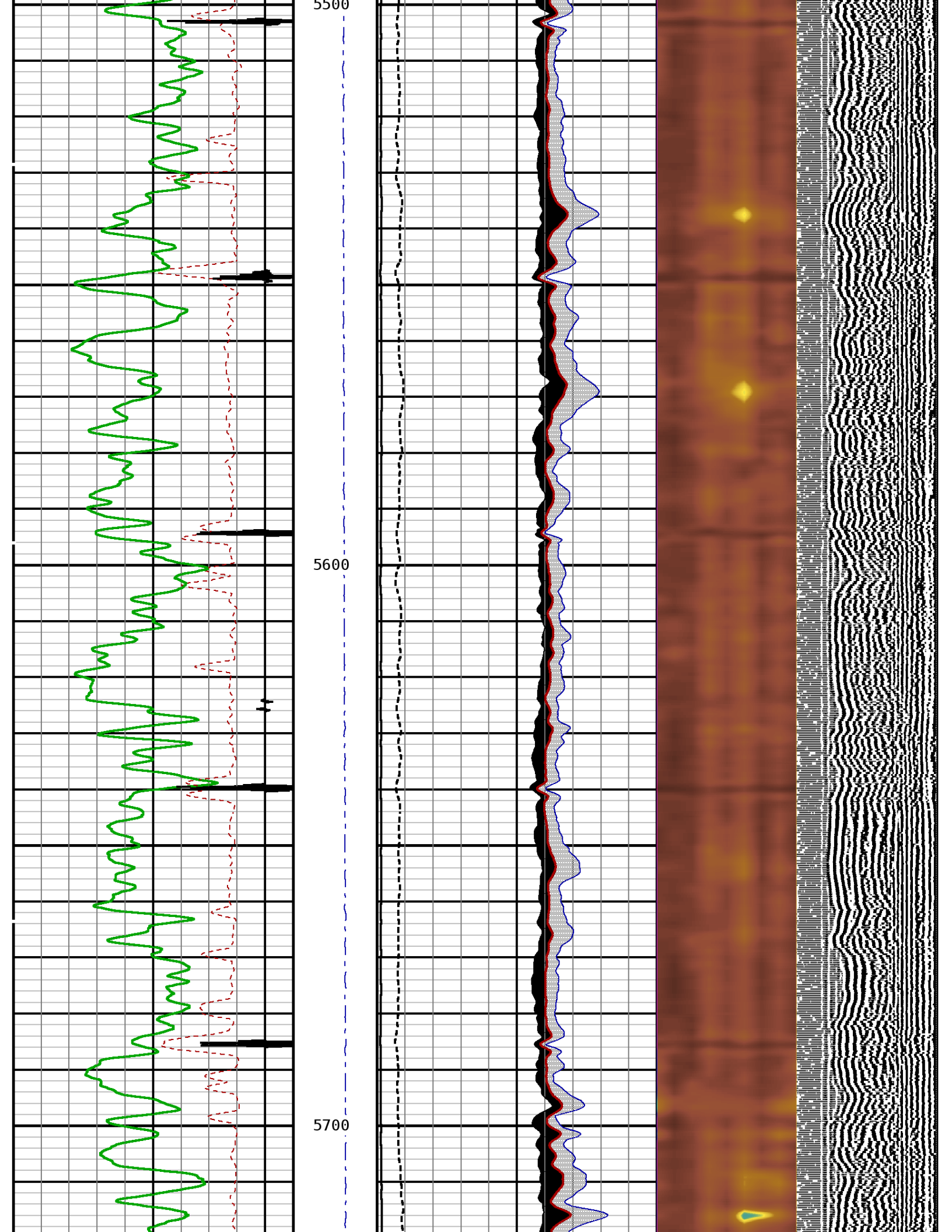


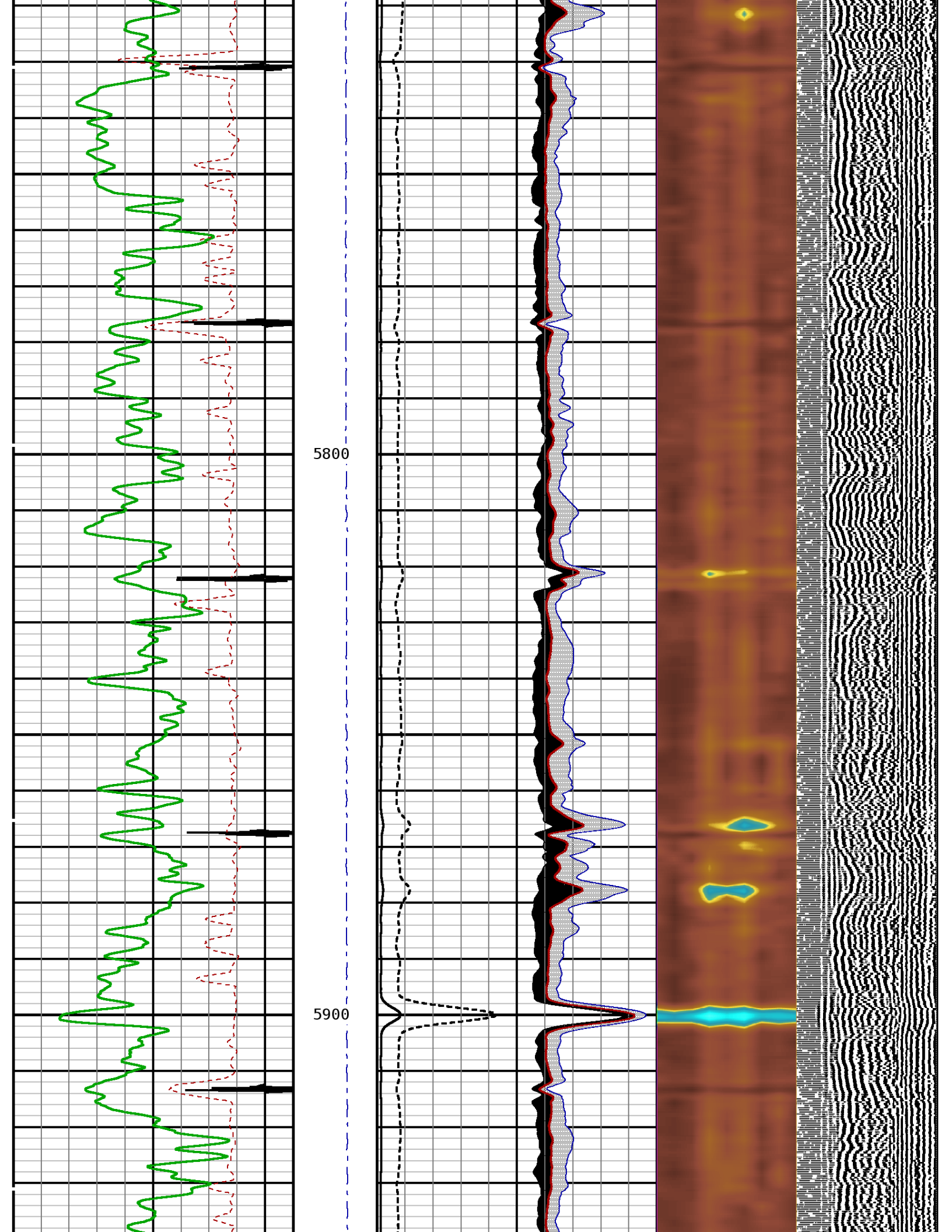
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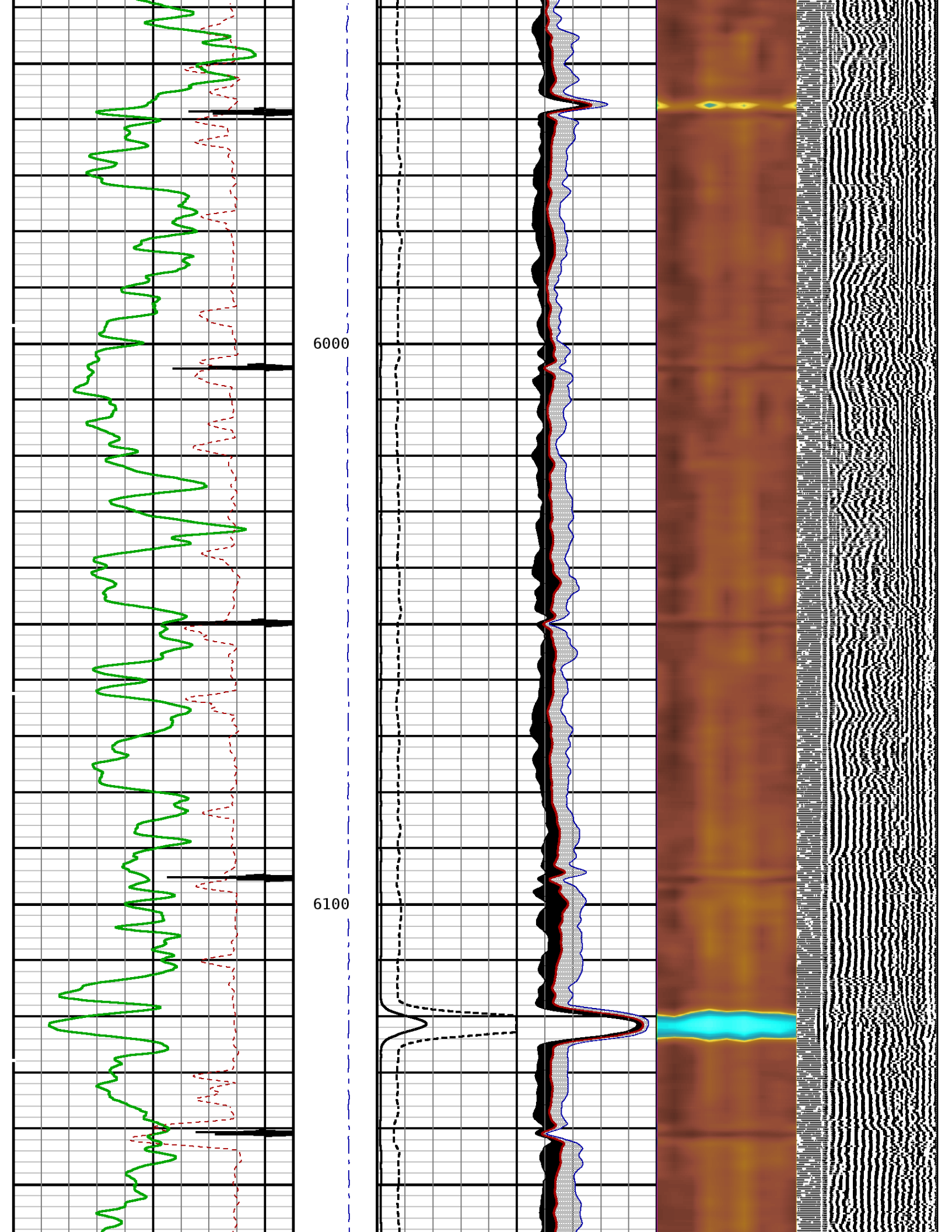
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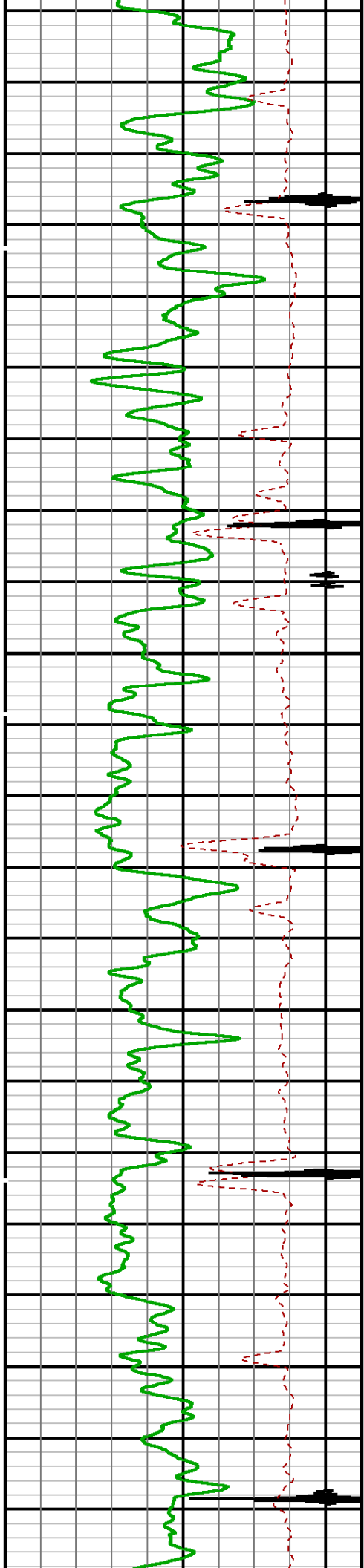






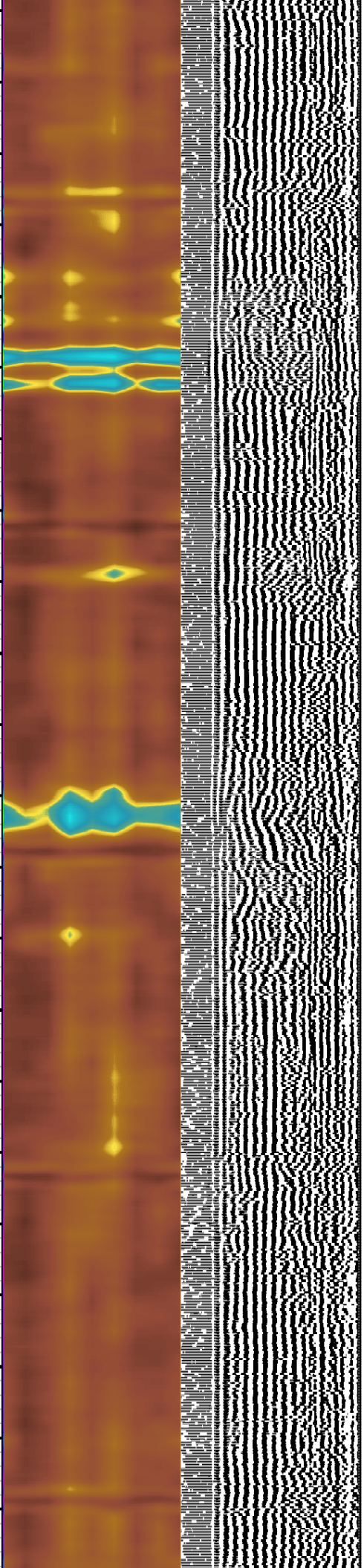
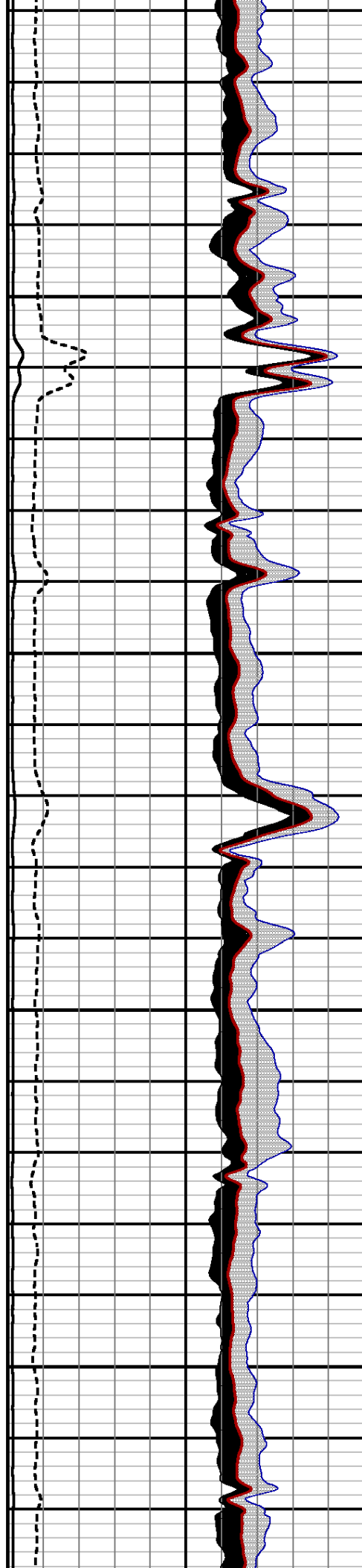


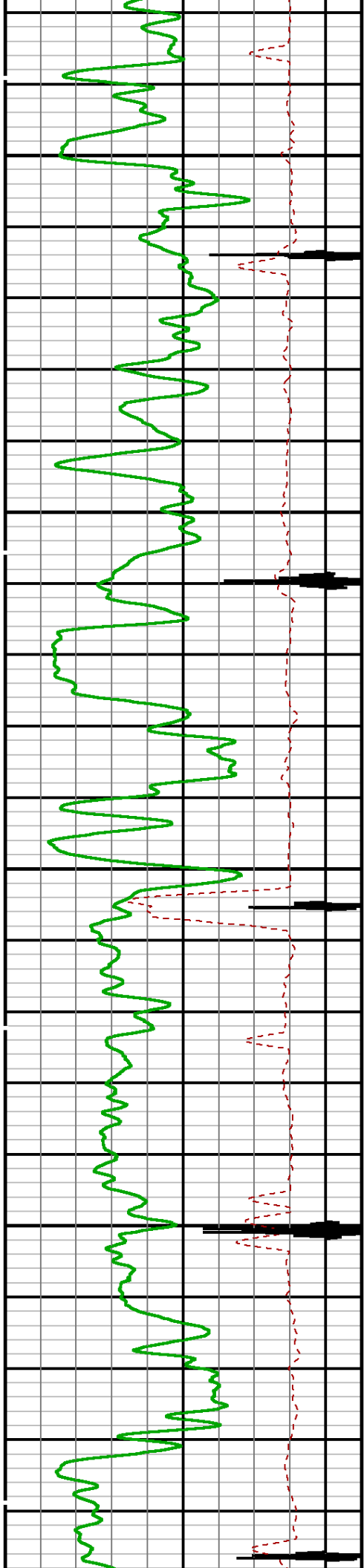




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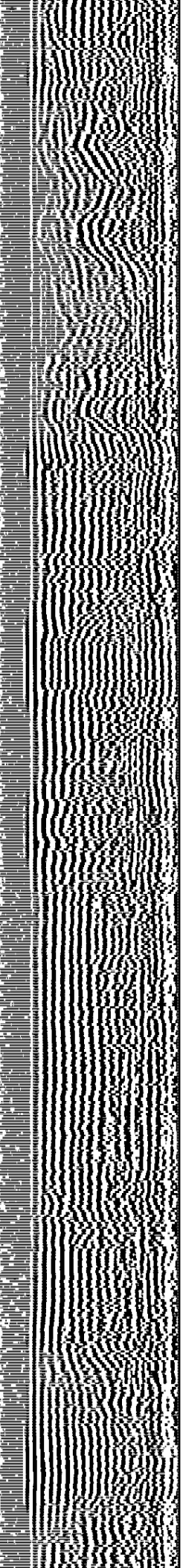
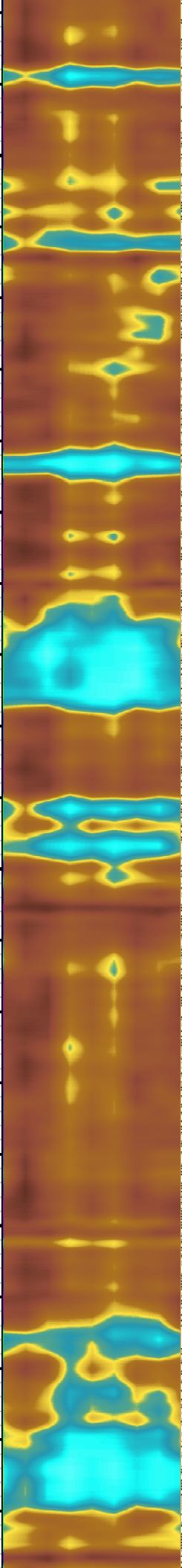
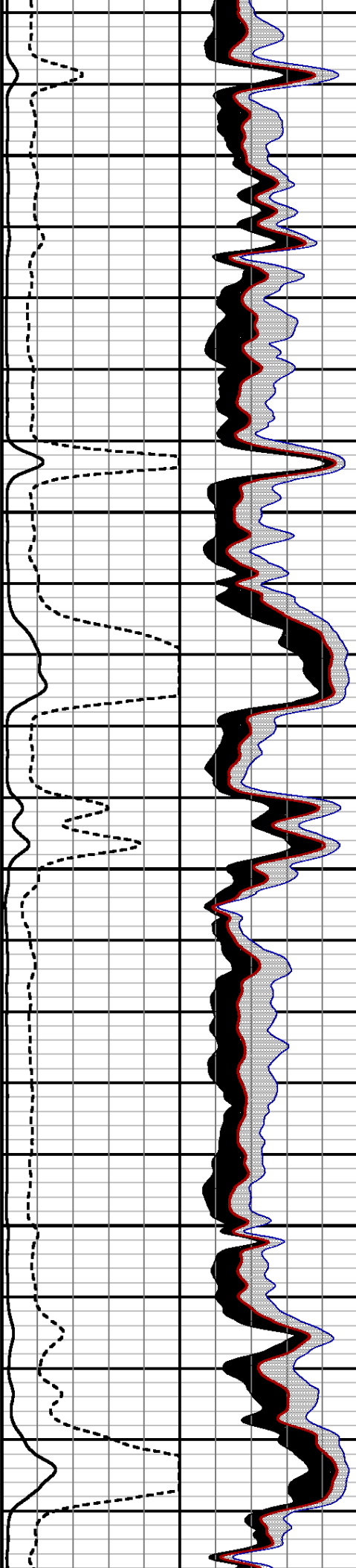
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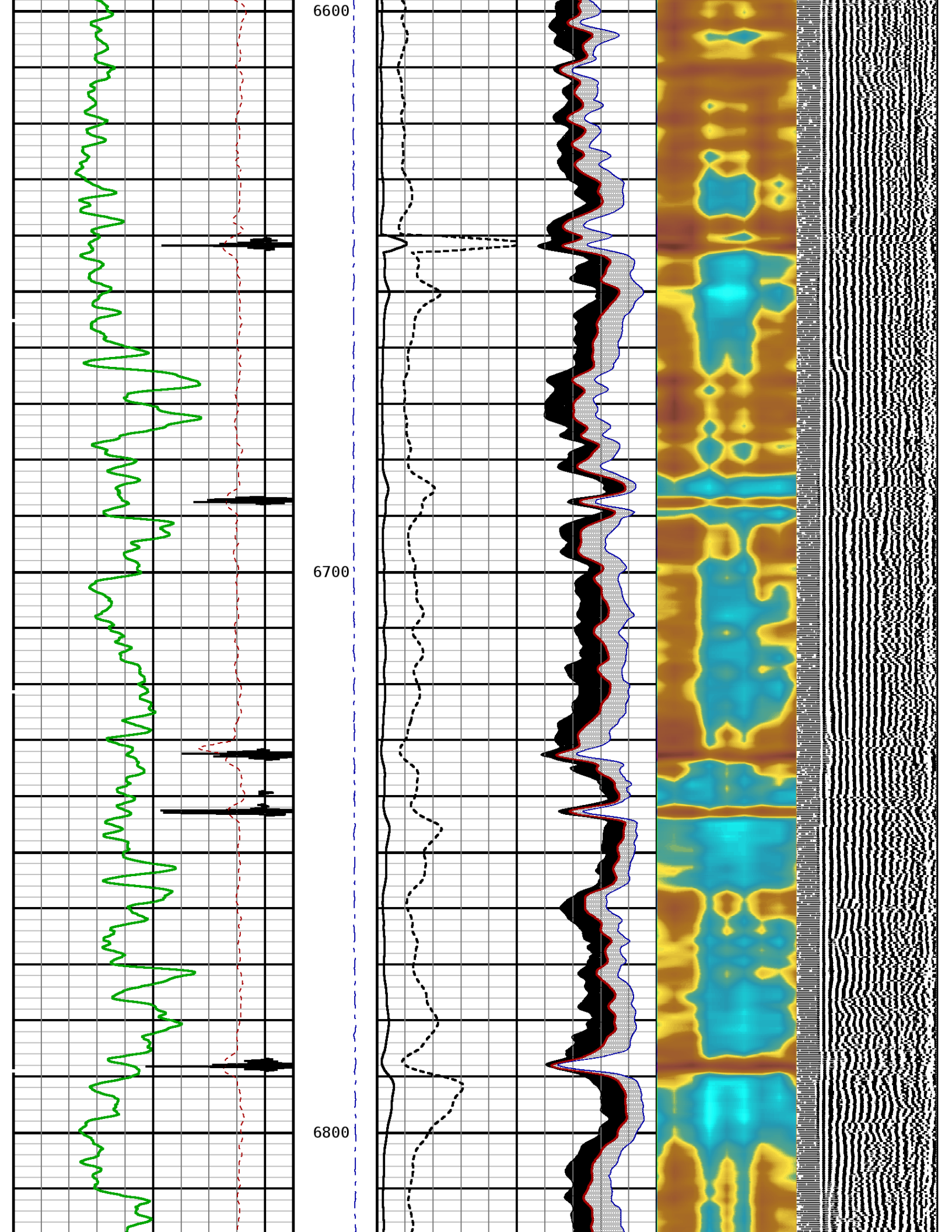


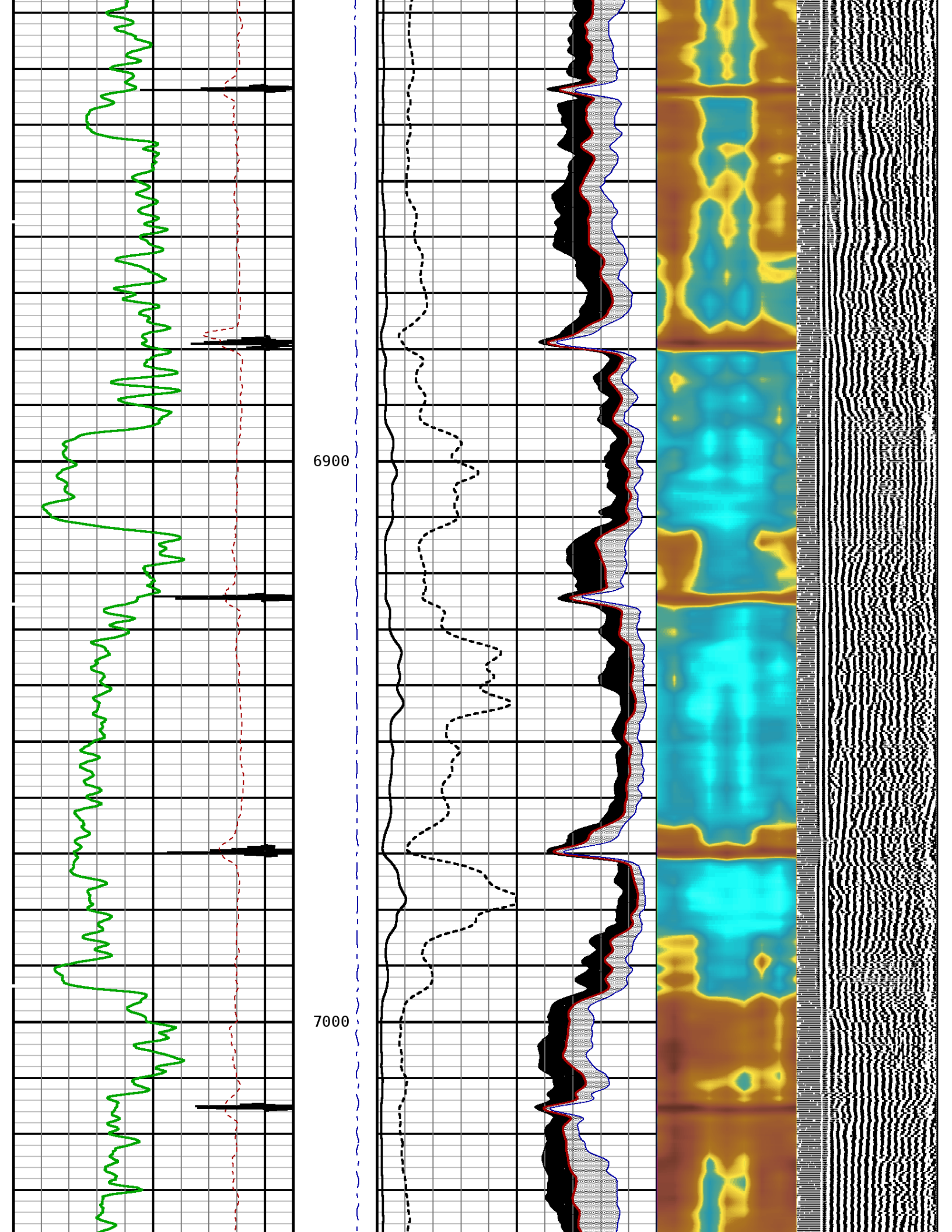


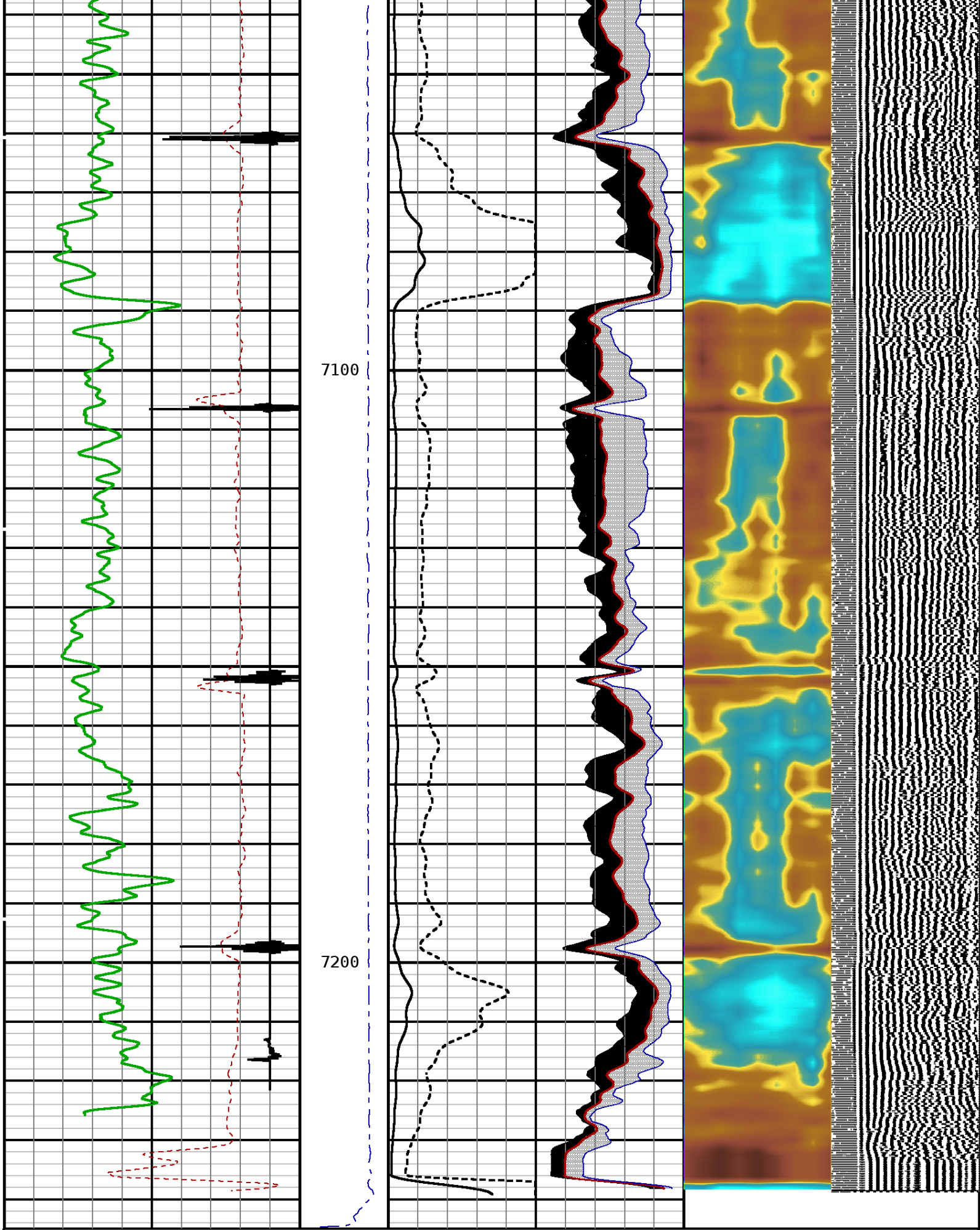
6400

6500









| TRAVEL TIME 3FT | | | Tension | AMPLITUDE 3FT | | MIN ENERGY | | VARIABLE ENERGY | | VARIABLE DENSI | |
|-----------------|--------------|-----|---------|---------------|--------|------------|--------|-----------------|-------|----------------|---------|
| 310 | Microseconds | 210 | 0 2000 | 0 | mv 100 | 0 | mv 100 | 0 | mv 80 | 200 | us 1200 |

| | | | | | | | | |
|-----------|------------|-----|------------|----|----|------------|----|-----|
| GAMMA RAY | | | 3' AMP X 5 | | | AVG ENERGY | | |
| 0 | API | 150 | 0 | mv | 20 | 0 | mv | 100 |
| CCL | | | | | | MAX ENERGY | | |
| -3600 | Millivolts | 400 | | | | 0 | mv | 100 |

START DEPTH: **7245.0** DIRECTION: **UP** DATE: **01/20/2015** TIME: **16:57** MODE: **ORIGINAL**

108978281

DEPTH SCALE: **5":100'**

LOGGED VERSION: **2012.07.18.162"**

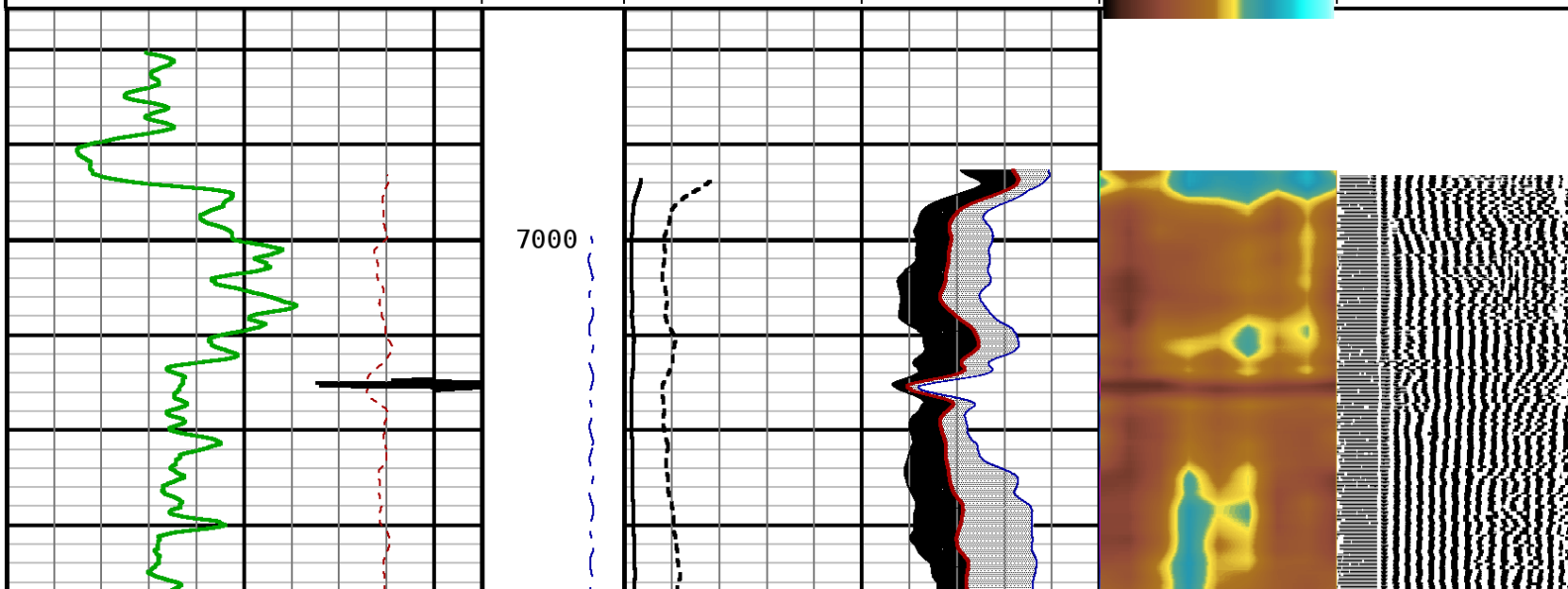
DEPTH SCALE: **5":100'**

PROCESSED VERSION: **2012.07.18.162"**

108978281

FINISH DEPTH: **6999.4** Feet DIRECTION: **UP** DATE: **01/20/2015** TIME: **17:01** MODE: **ORIGINAL**

| | | | | | | | | |
|-----------------|--------------|-----|---------------|------|----|-----------------|-----|------|
| CCL | | | | | | MAX ENERGY | | |
| -3600 | Millivolts | 400 | | | | 0 | mv | 100 |
| GAMMA RAY | | | 3' AMP X 5 | | | AVG ENERGY | | |
| 0 | API | 150 | 0 | mv | 20 | 0 | mv | 100 |
| TRAVEL TIME 3FT | | | Tension | | | MIN ENERGY | | |
| 310 | Microseconds | 210 | 0 | 2000 | 0 | mv | 100 | 0 |
| | | | AMPLITUDE 3FT | | | VARIABLE ENERGY | | |
| | | | | | | 0 | mv | 80 |
| | | | | | | VARIABLE DENSI | | |
| | | | | | | 200 | us | 1200 |



| | | | |
|--------------------------------|-------------------|--------------------|--|
| GAMMA RAY | 3' AMP X 5 | AVG ENERGY | |
| 0 API 150 | 0 mv 20 | 0 mv 100 | |
| CCL | | MAX ENERGY | |
| -3600 Millivolts 400 | | 0 mv 100 | |

| |
|--|
| START DEPTH: 7245.0 DIRECTION: UP DATE: 01/20/2015 TIME: 17:01 MODE: ORIGINAL |
| 108978281 |

| | |
|-----------------------------|--|
| DEPTH SCALE: 5":100' | LOGGED VERSION: 2012.07.18.162" |
|-----------------------------|--|

1 7/16 Adapter Head

Weight 2.2 LB.
Length 2.54
Max. Diameter

Total Stack Weight in air
Total Stack Length 27.83 FT.

Slim Hole Centralizer

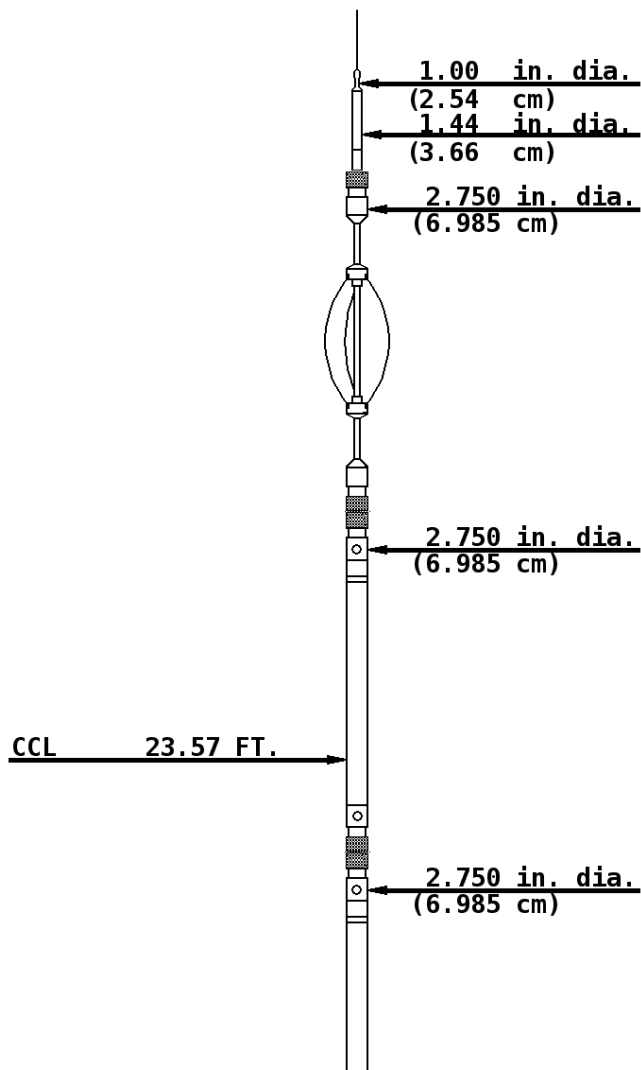
Weight 15 lbs
Length 2.49 FT.
Max. Diameter 2.750 IN.

Collar Locator

Weight 39.8 LBS.
Length 3.40 FT.
Max. Diameter 2.75 IN.

Slim Hole Gamma Ray

Weight 39.8 LBS.
Length 4.71 FT.
Max. Diameter 2.750 IN.



Max. Diameter 2.750 IN.

GR 19.97 FT.

Slim Hole Centralizer

Weight 22 LBS.
Length 3.08 FT.
Max. Diameter 2.750 IN.

2.750 in. dia.
(6.985 cm)

Sector Bond

Weight 89.2 LBS.
Length 10.32 FT.
Max. Diameter 2.750 IN.

SBT/CBL Tx 8.75 FT.

2.750 in. dia.
(6.985 cm)

SBT Rx 7.77 FT.

3' Rx 7.28 FT.

5' Rx 6.28 FT.

Slim Hole Centralizer

Weight 15.0 LBS.
Length 2.82 FT.
Max. Diameter 2.750 IN.

2.750 in. dia.
(6.985 cm)

Tool Zero

COMPANY URSA OPERATING COMPANY
WELL VALLEY FARMS 44B-11-06-92
FIELD GRAVEL TREAD



Weatherford®

COUNTY GARFIELD

STATE COLORADO

Weatherford