



# CEMENT BOND LOG

COMPANY URSA OPERATING COMPANY VALLEY FARMS 41B-14-06-92 FIELD GRAVEL TREAD CNTY GARFIELD STATE CO									
COMPANY URSA OPERATING COMPANY WELL VALLEY FARMS 41B-14-06-92 FIELD GRAVEL TREAD COUNTY GARFIELD STATE COLORADO									
LOCATION: SHL: 1208' FSL & 1178' FEL BHL: 0471' FNL & 0661' FEL SEC.11 TWP.6S RGE92W					OTHER SERVICES: PND GR/JB				
PERM. DATUM GROUND LEVEL LOG MEASURED FROM K.B.13.5 FT. ABOVE PERMANENT DATUM DRILLING MEASURED FROM K.B.					ELEV. 5577' ELEV.:K.B. 5590.5 D.F. 5590.5 G.L. 5577.0				
DATE	18-JAN-2015								
RUN NO.	ONE								
DEPTH DRILLER	7813'								
DEPTH LOGGER	7480'								
BTM. LOG INTERVAL	7474'								
TOP LOG INTERVAL	3600'								
OPEN HOLE SIZE	8.750"								
TYPE FLUID	WATER								
DENS.	8.3				N/A				
MAX. REC. TEMP. °F	184 DEG. F								
EST. CEMENT TOP	N/A								
TIME WELL READY	R.O.A.								
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	7813'			
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"

MAIN PASS

108831548 SBTMAIN

FINISH DEPTH: 964.0 Feet DIRECTION: UP DATE: 01/20/2015 TIME: 01:37 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

Tension

3' AMP X 5

0 mv 20

AMPLITUDE 3FT

0 mv 100

MIN ENERGY

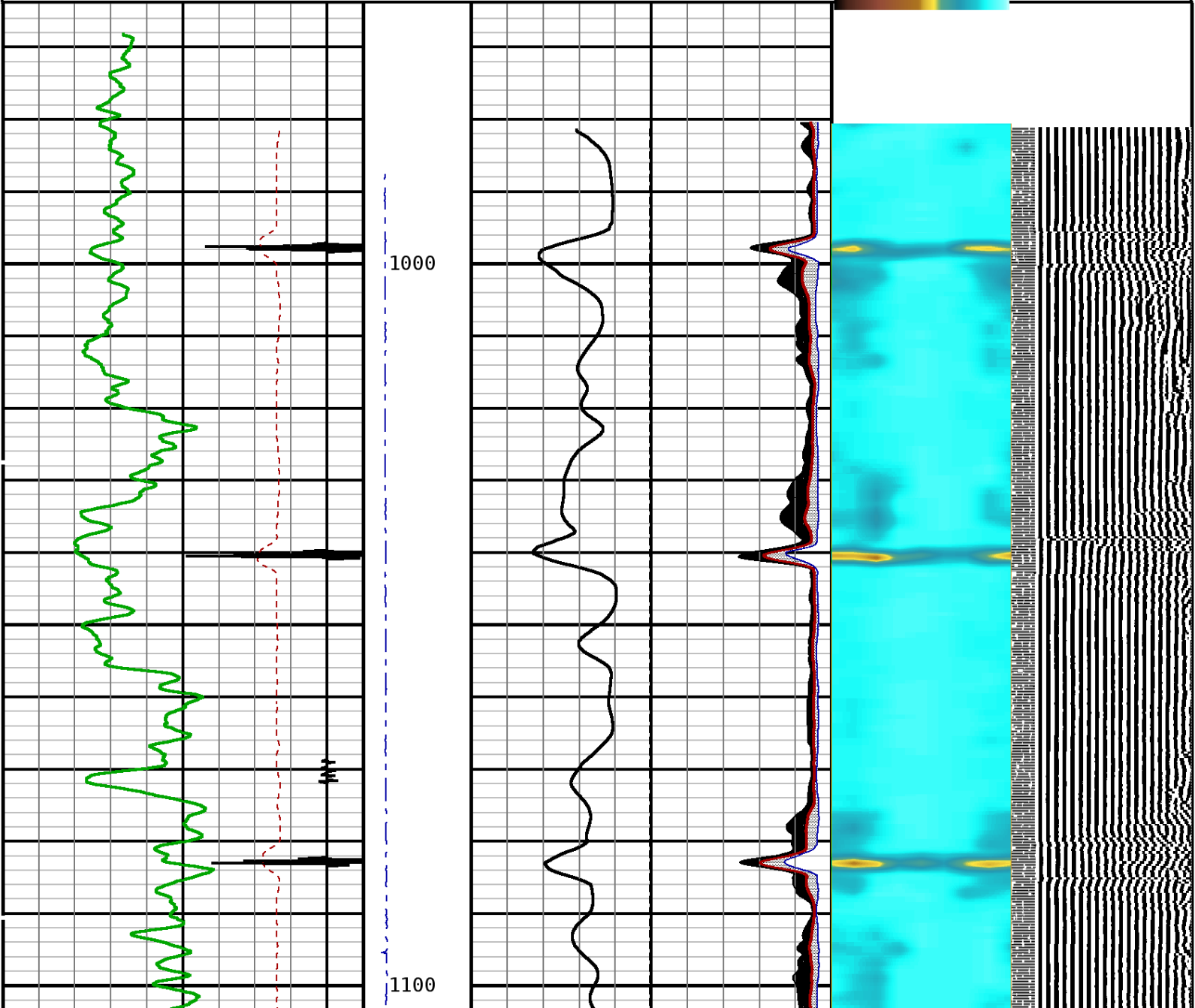
0 mv 100

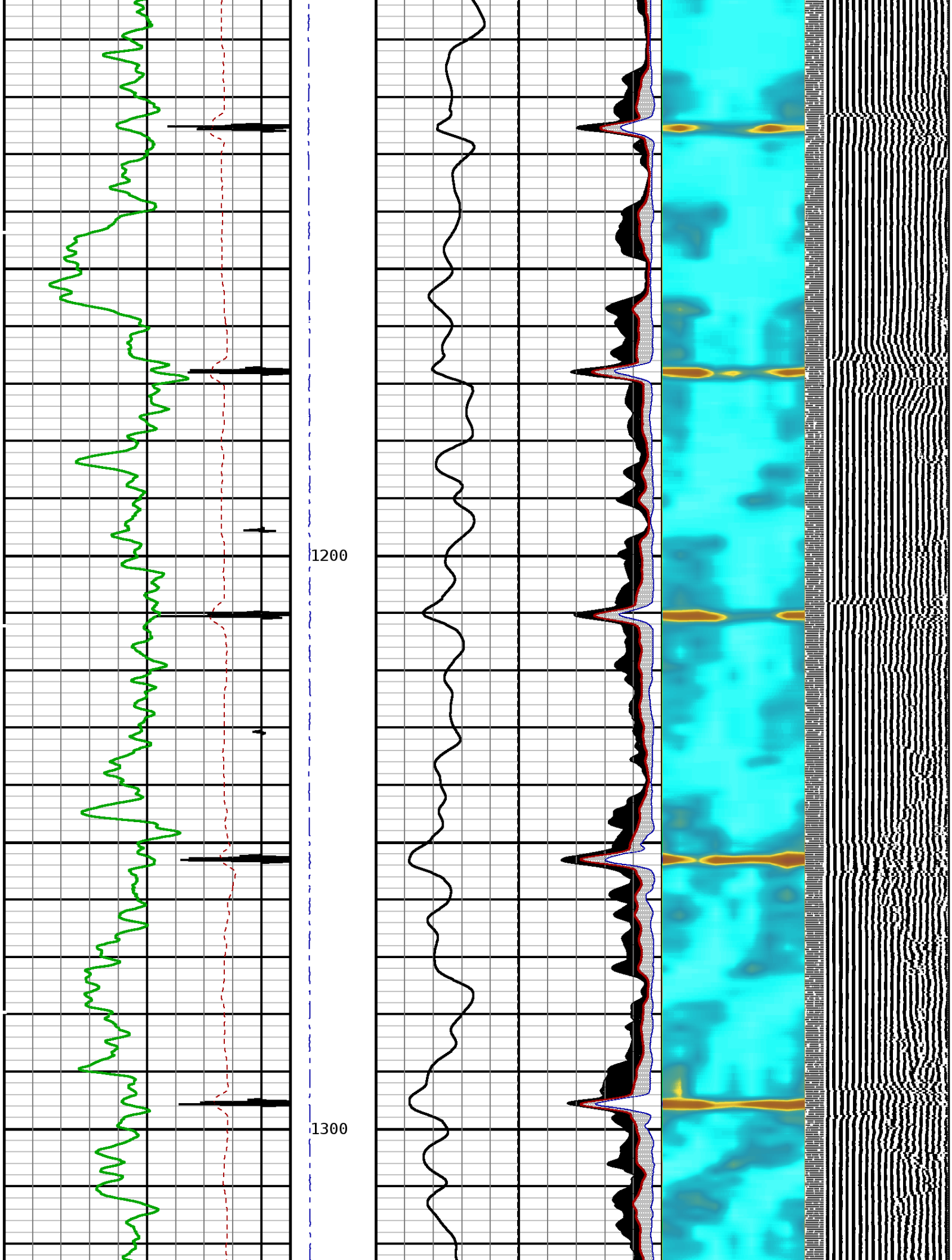
VARIABLE ENERGY

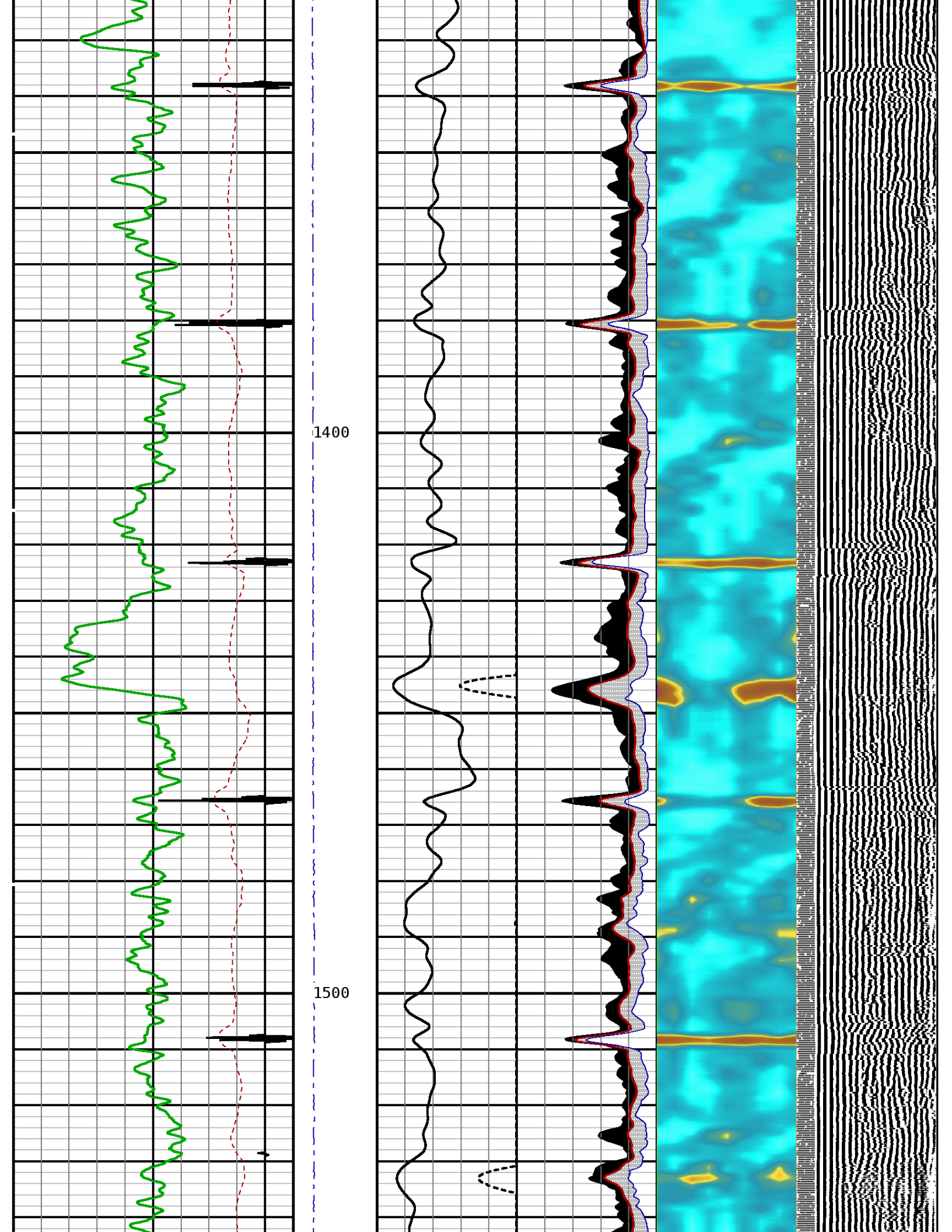
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VARIABLE DENSI

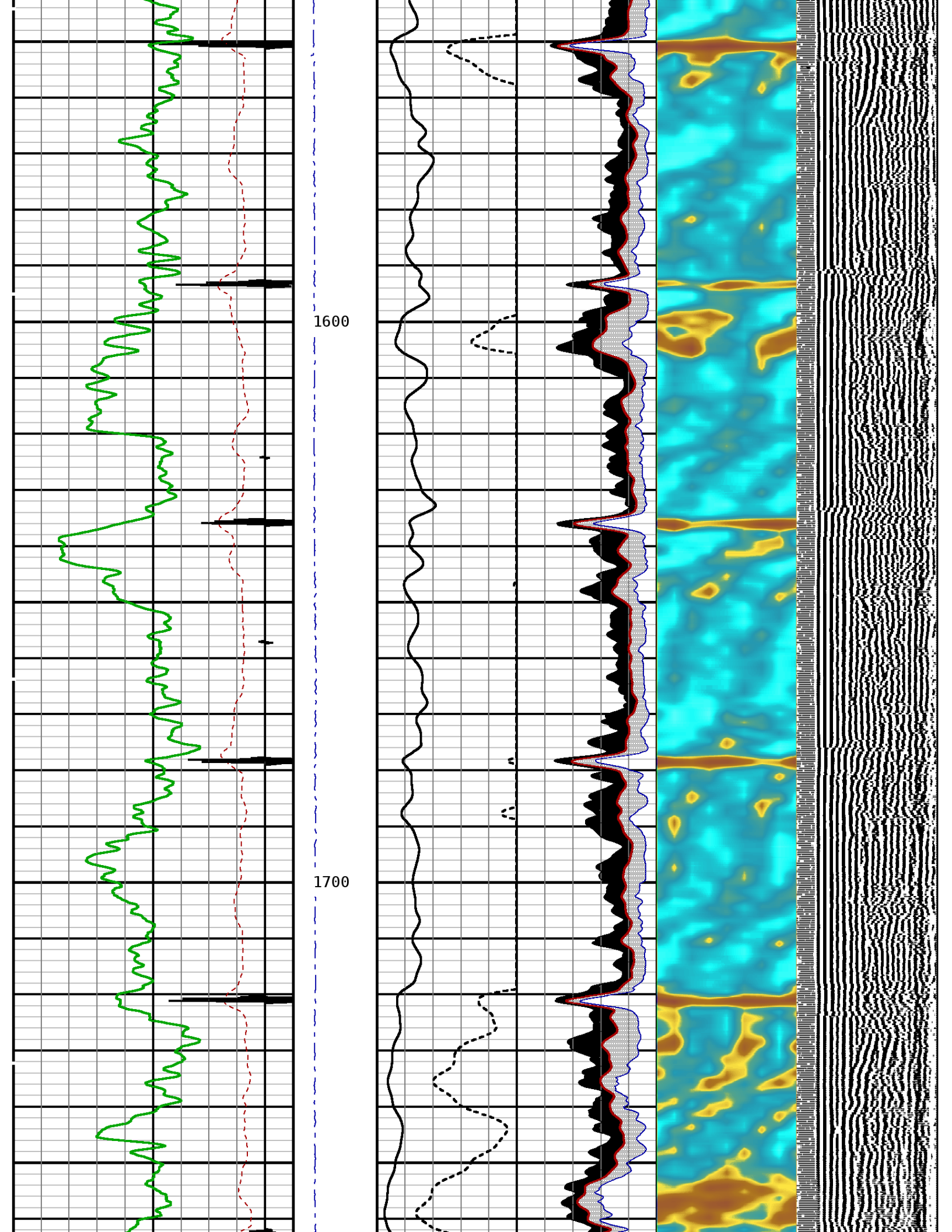
200 us 1200

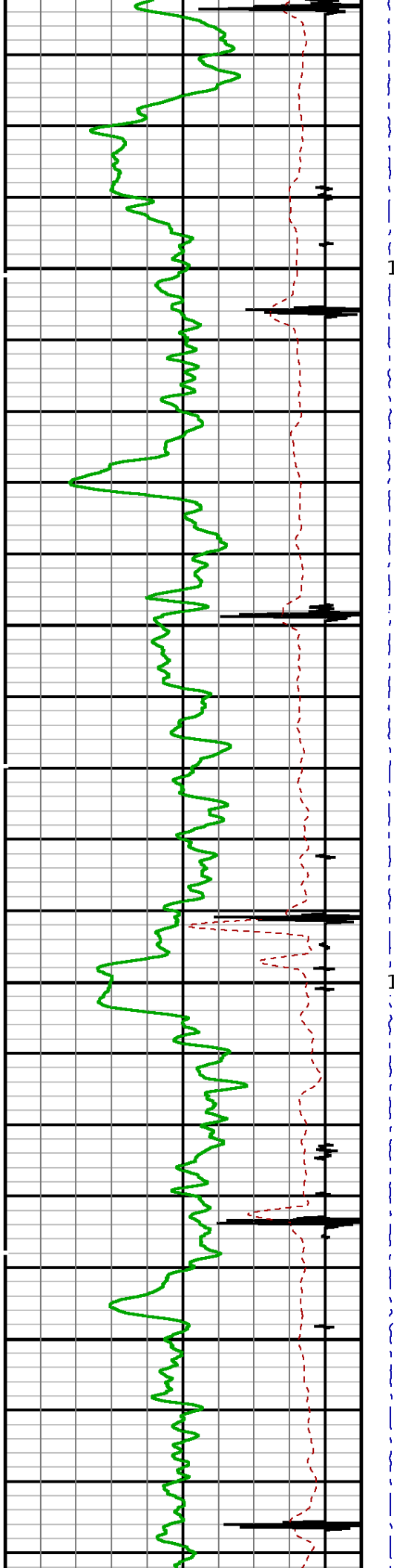






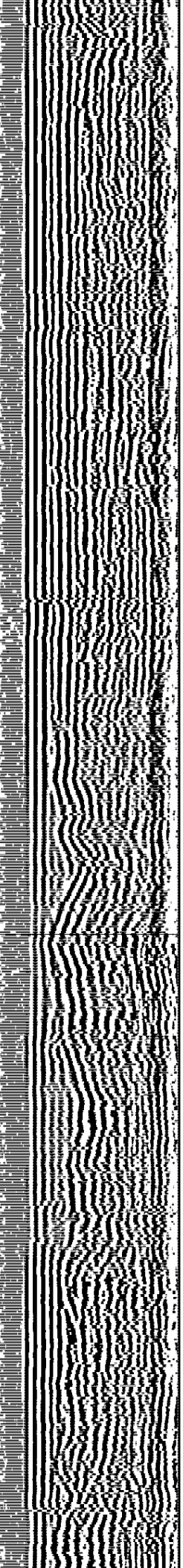
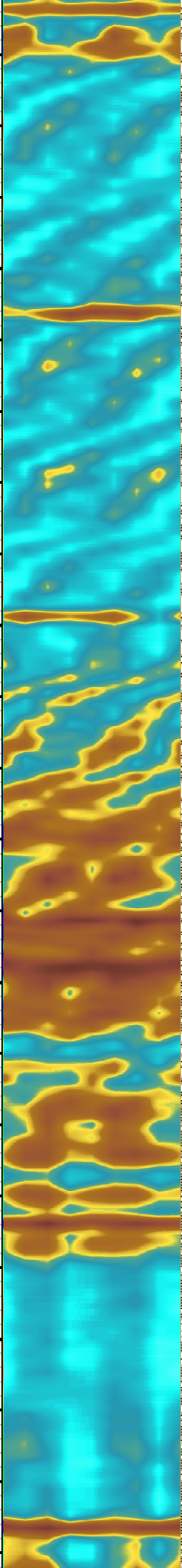
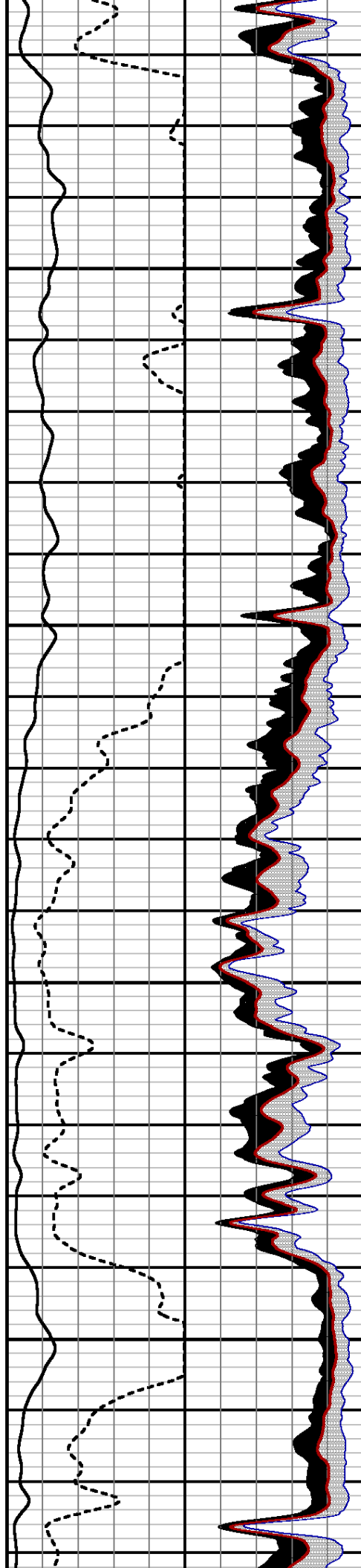




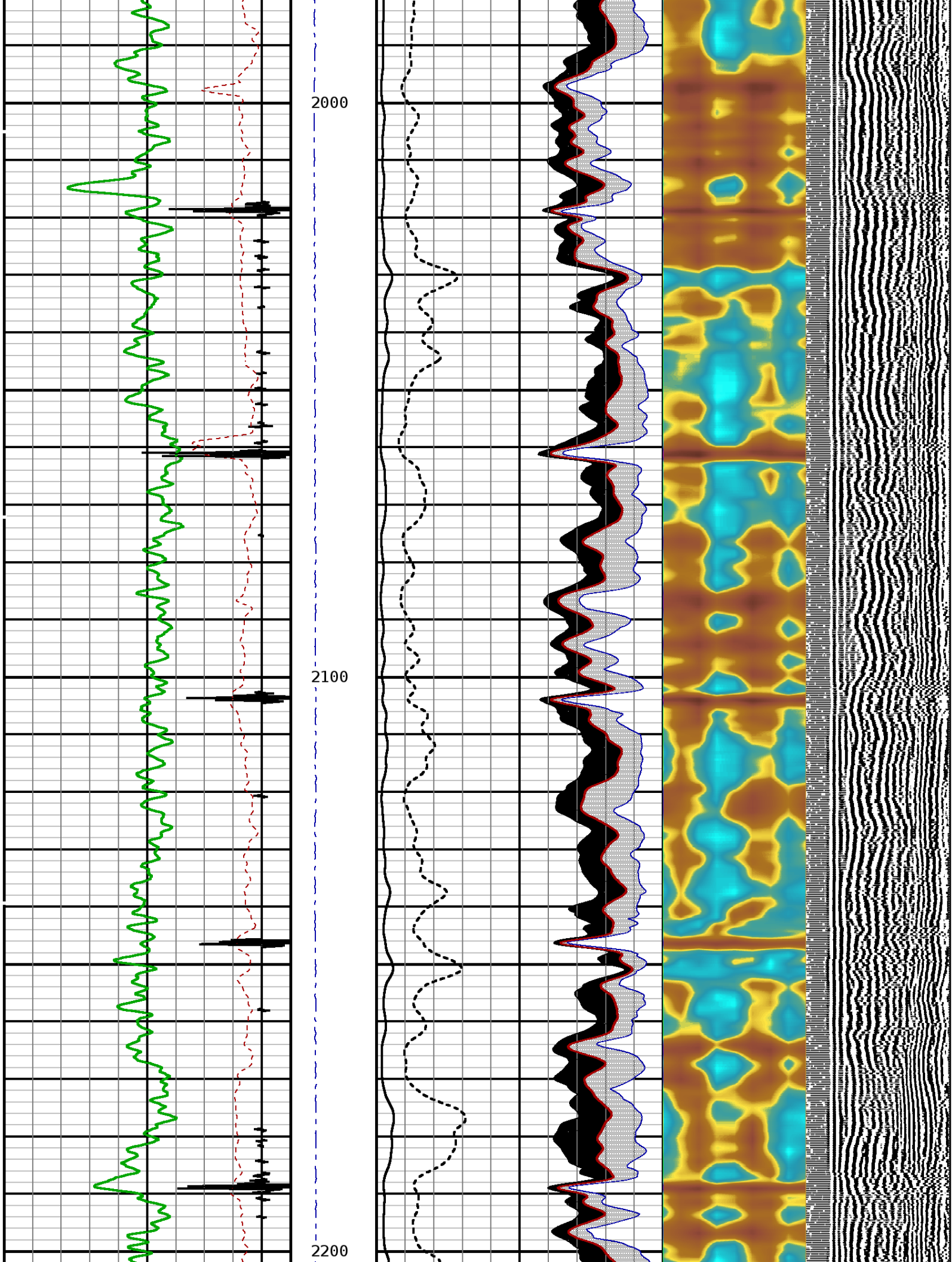


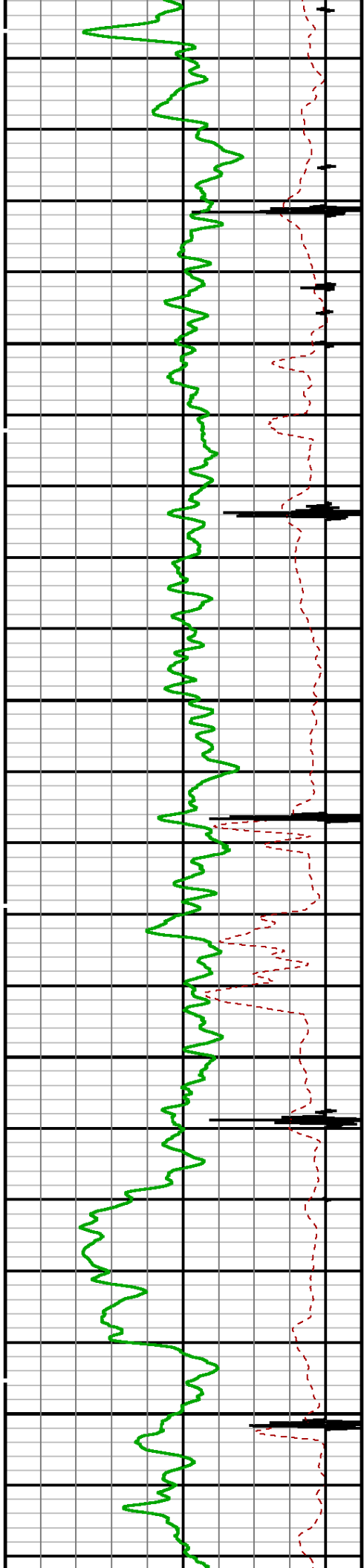
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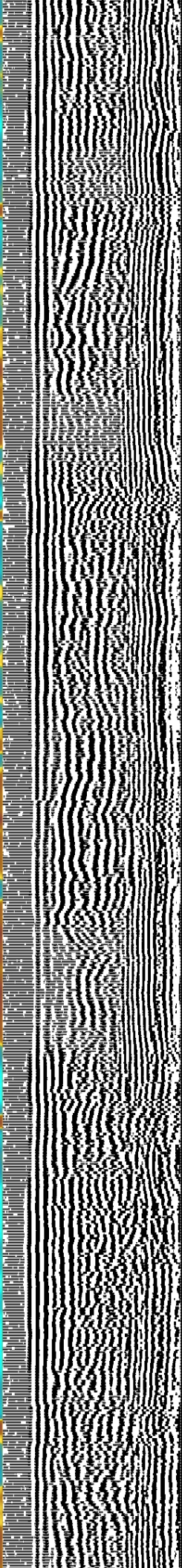
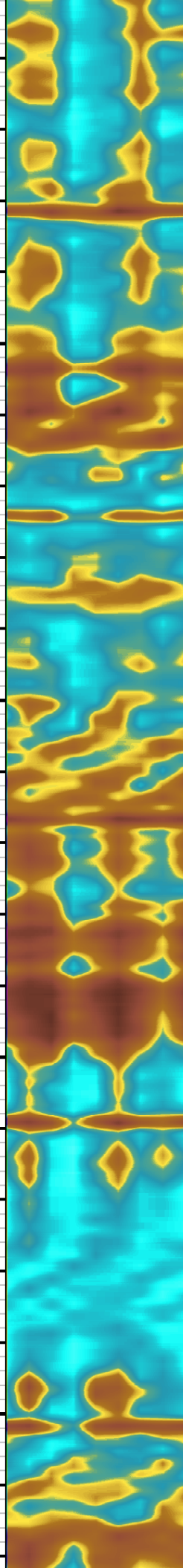
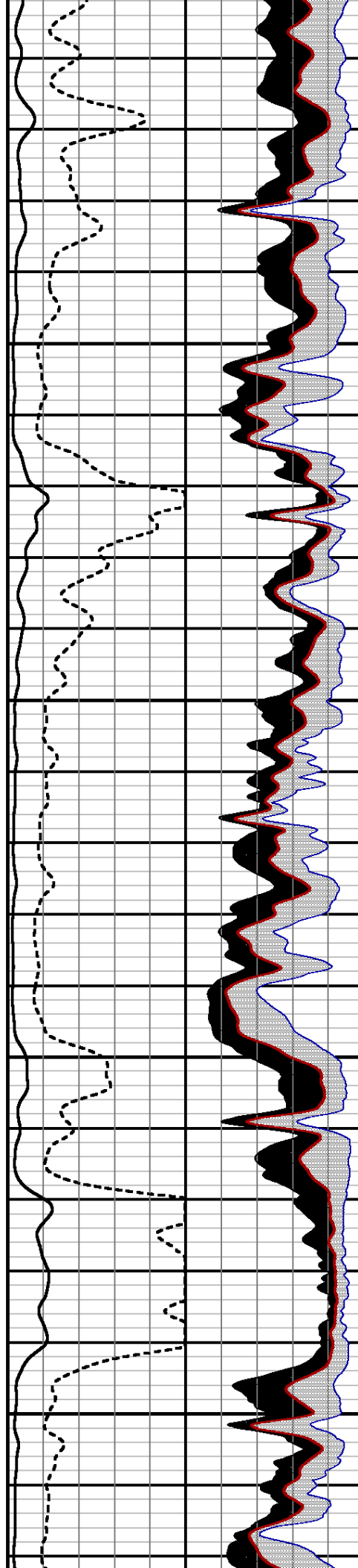




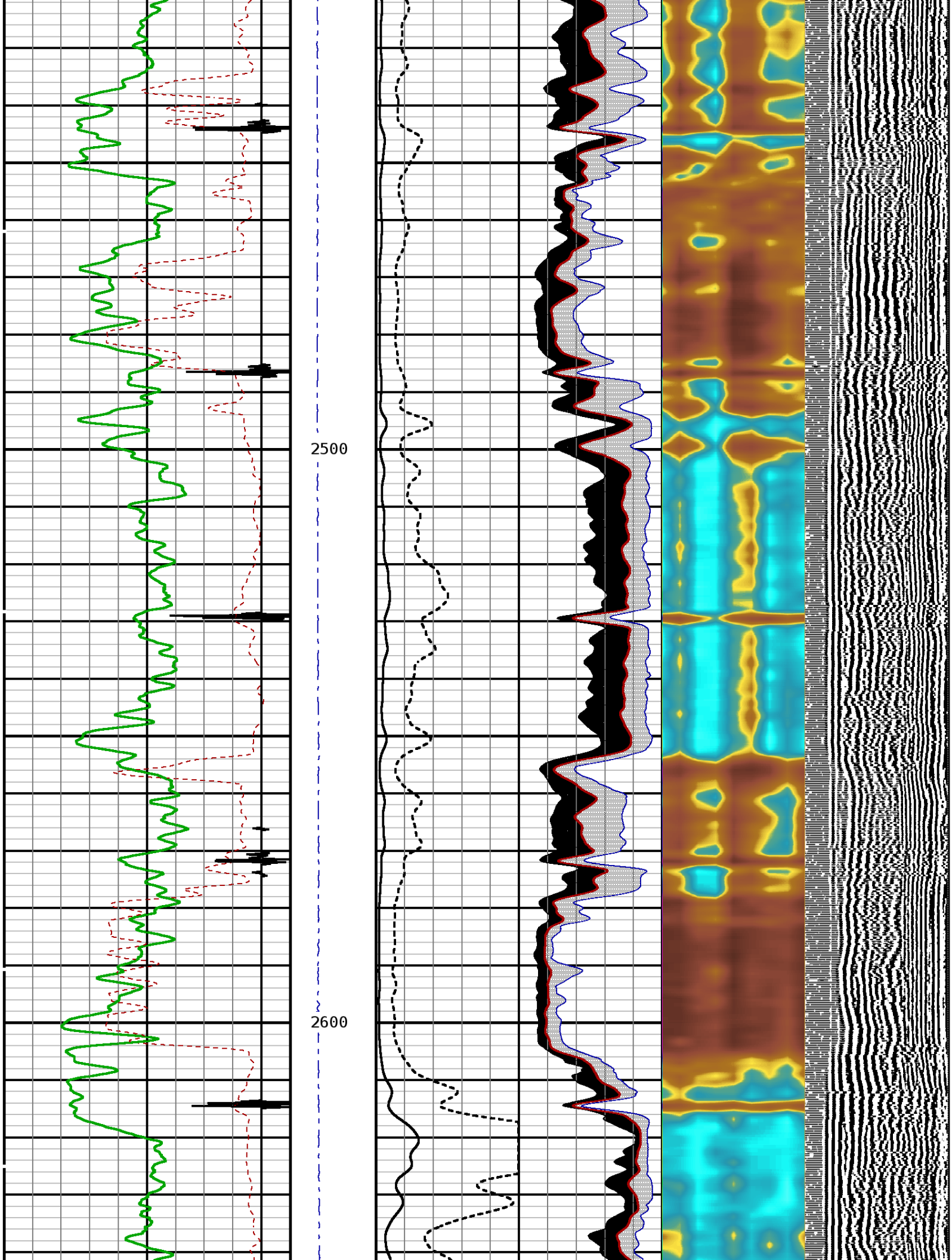


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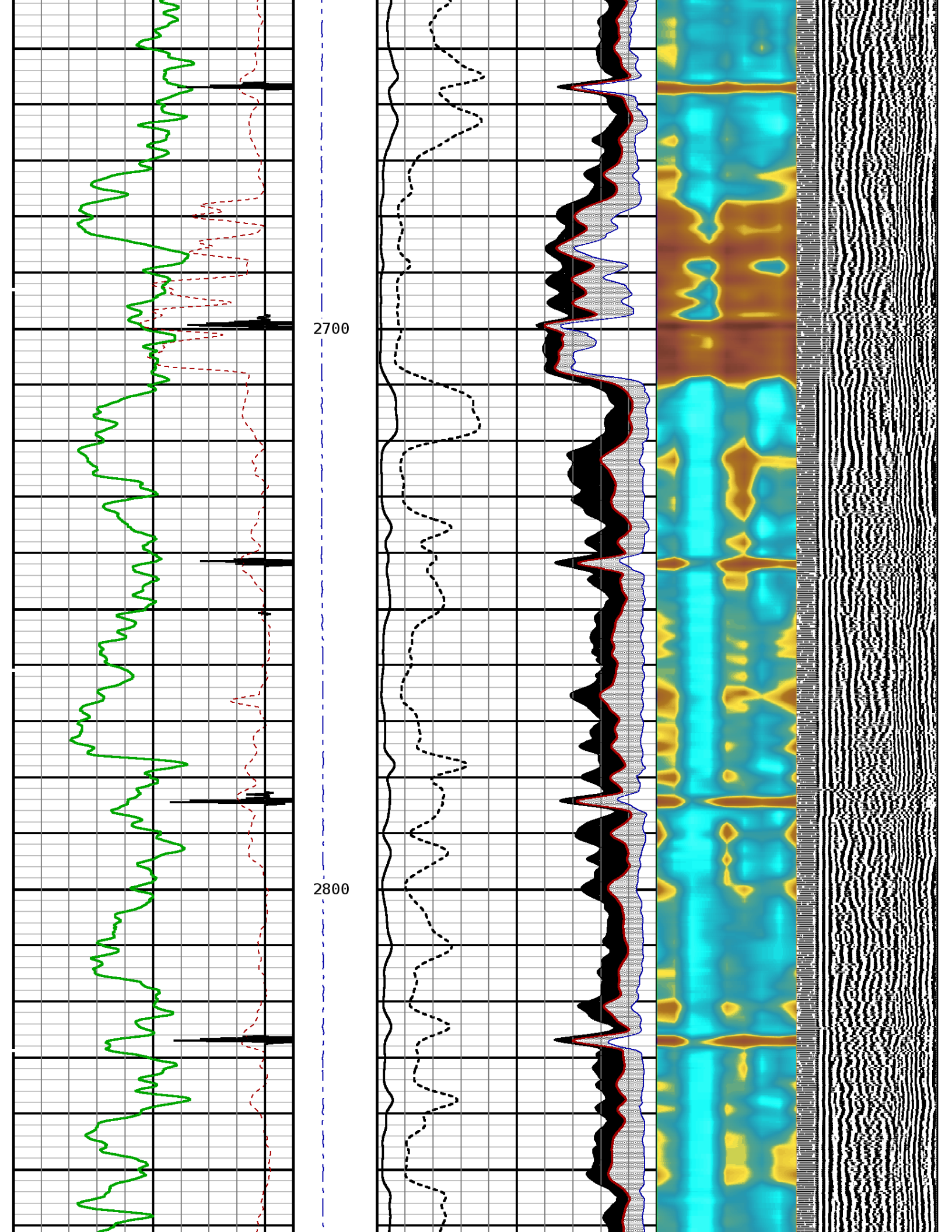
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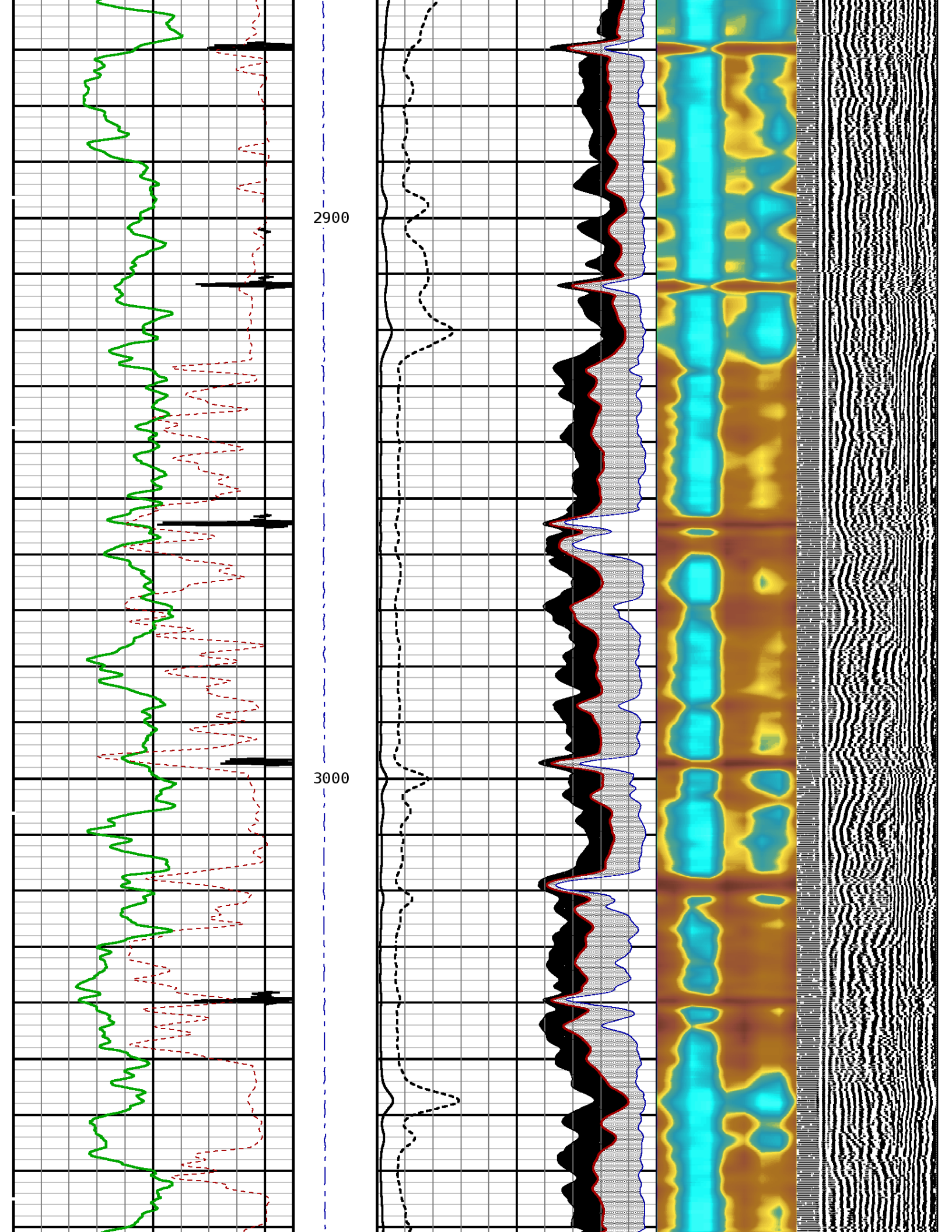




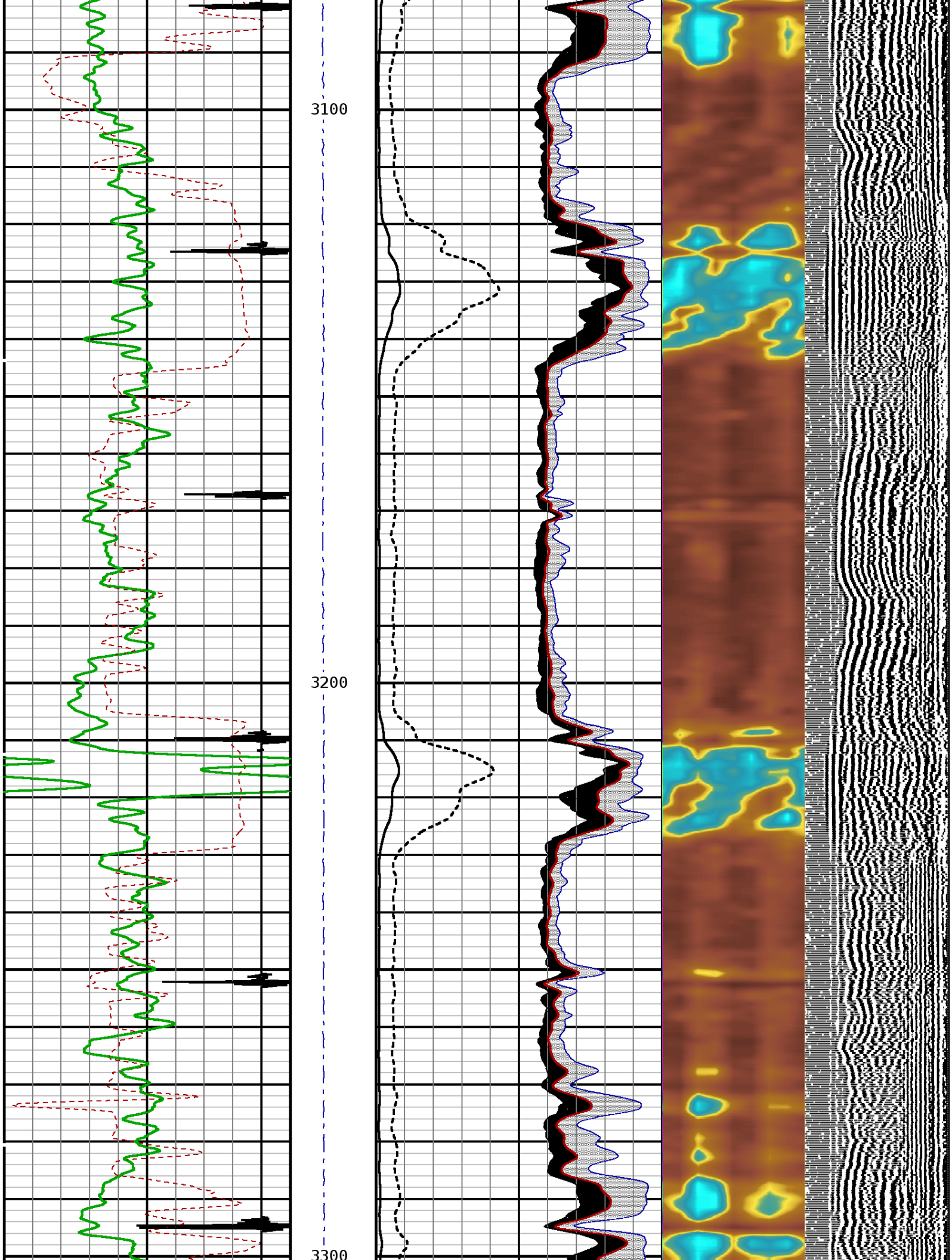


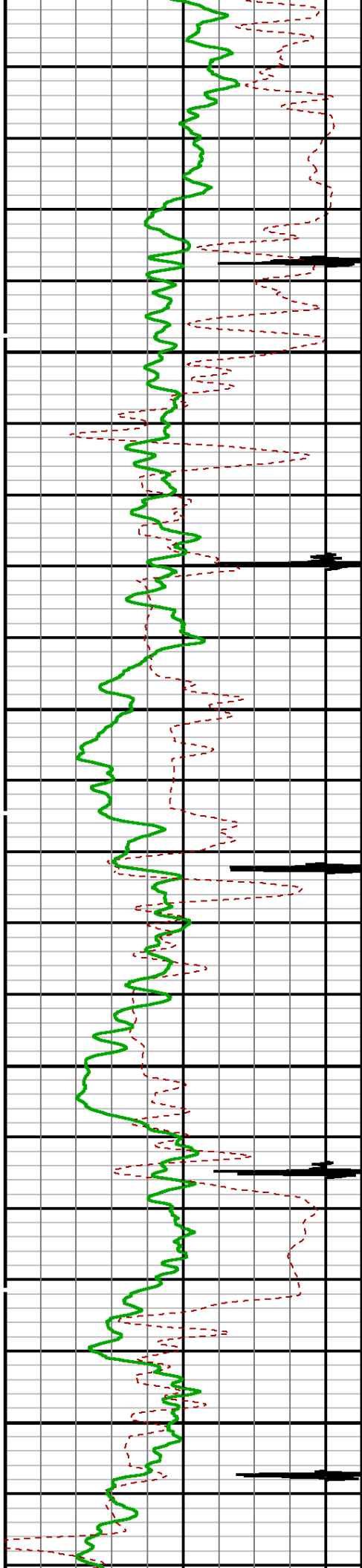






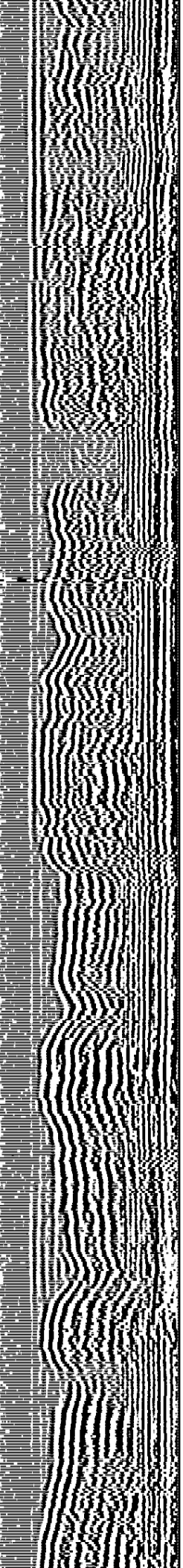
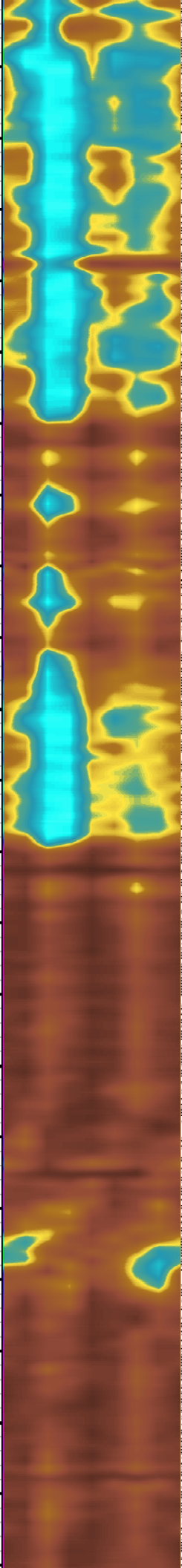
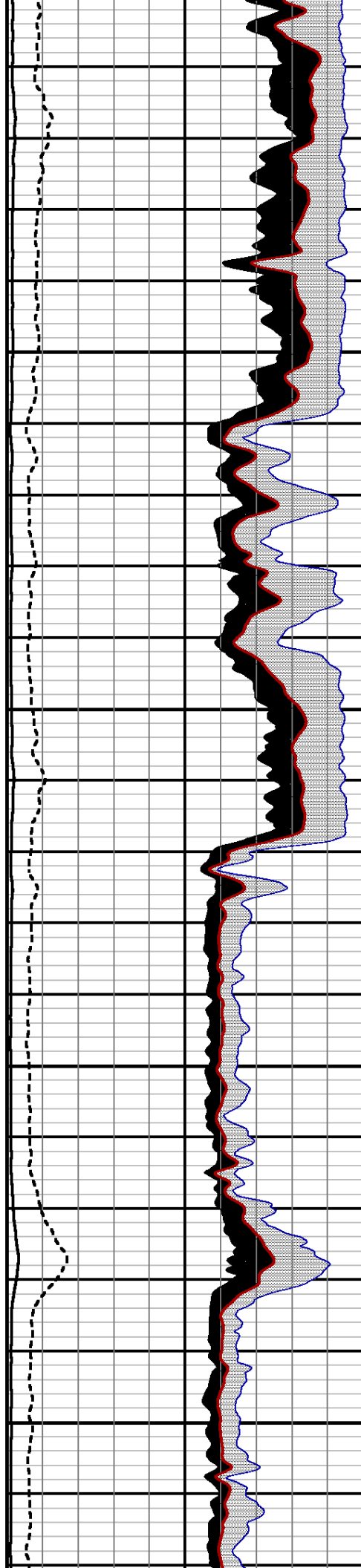




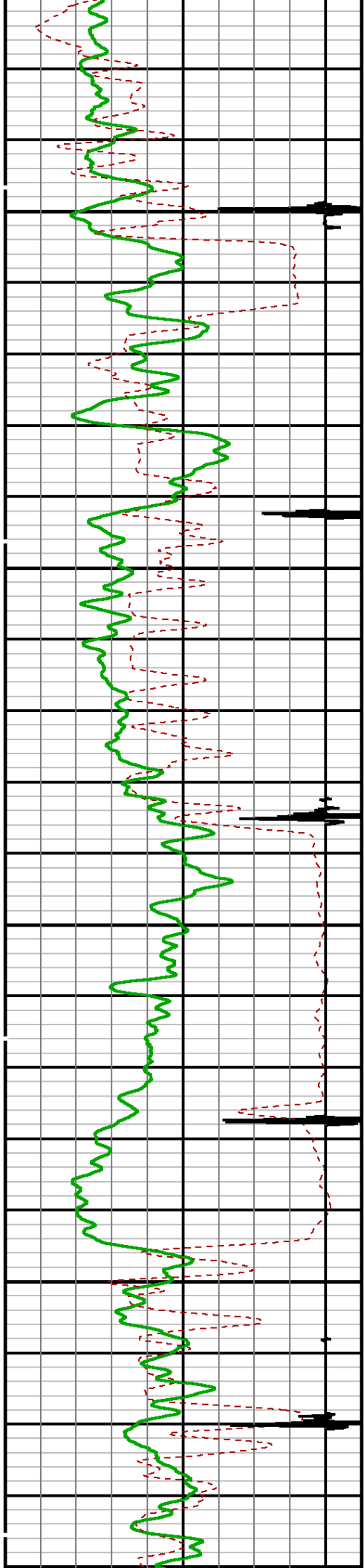


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3500

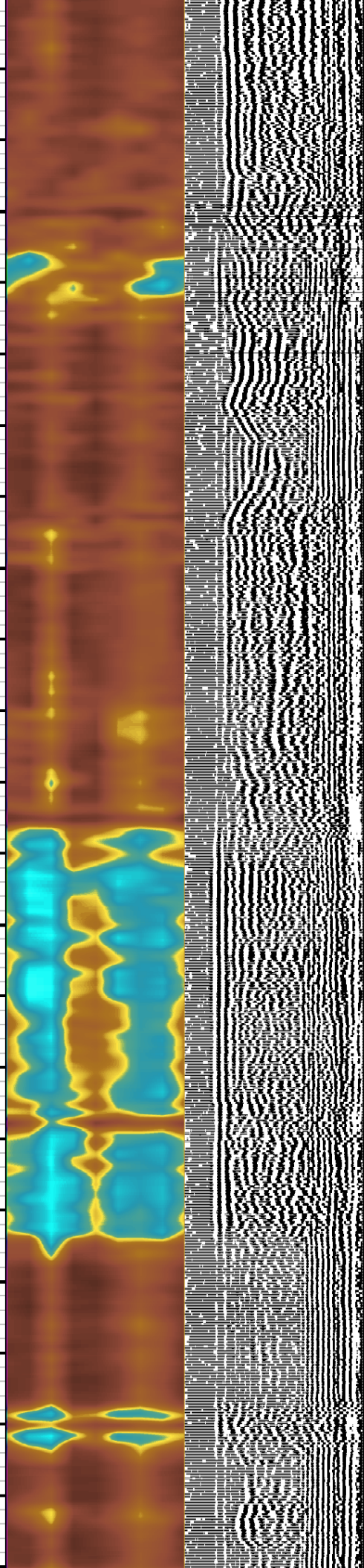
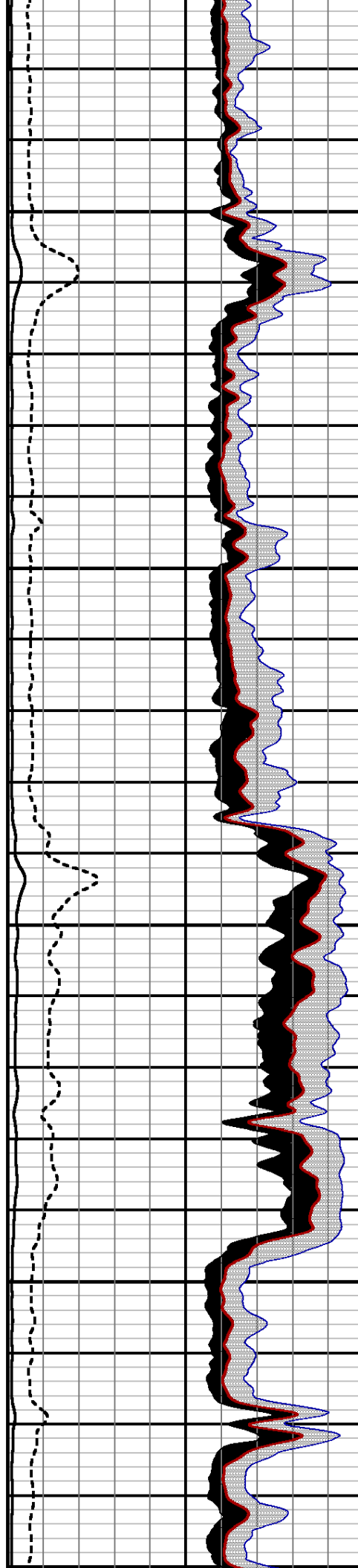




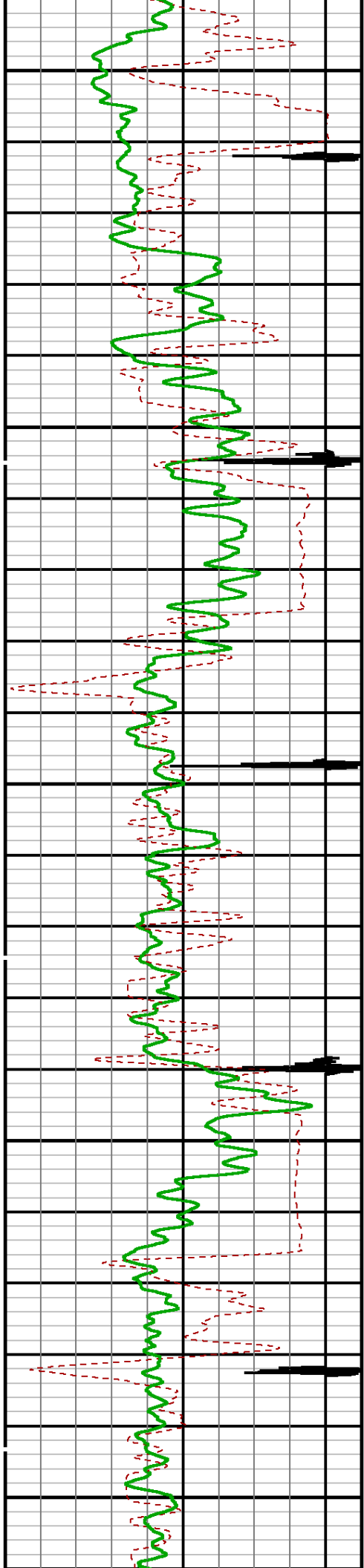


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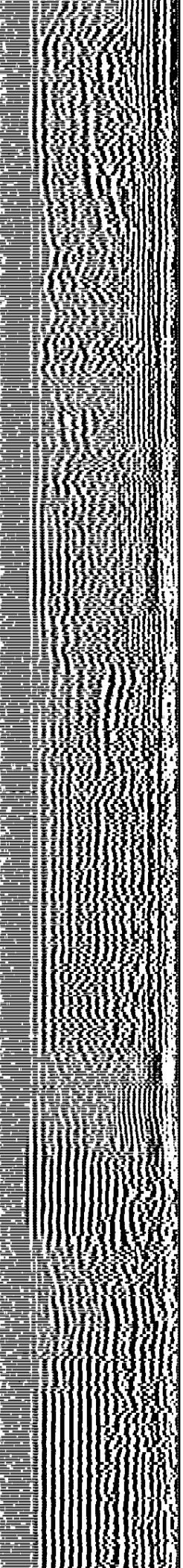
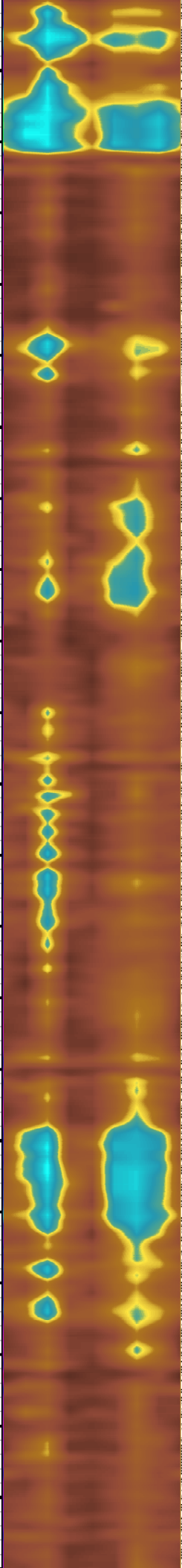
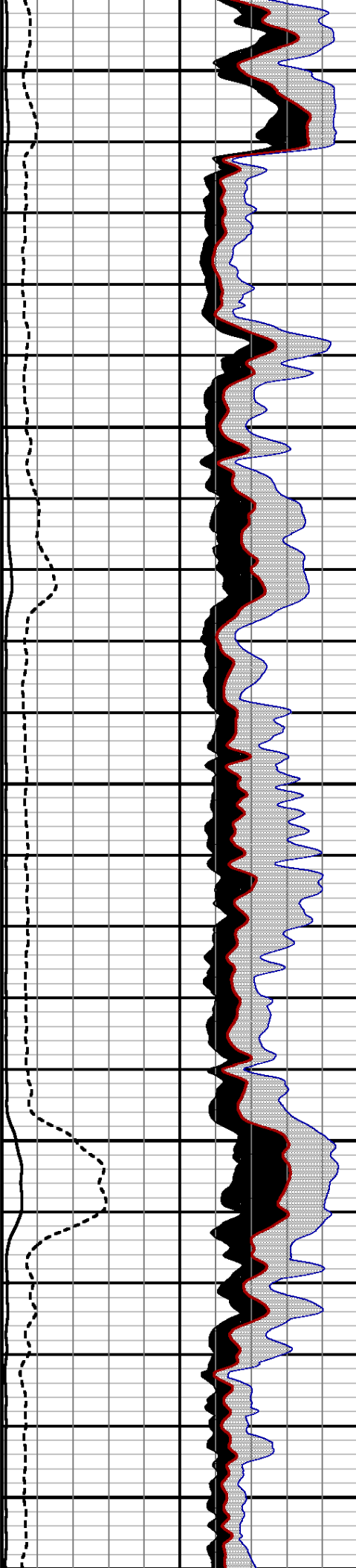


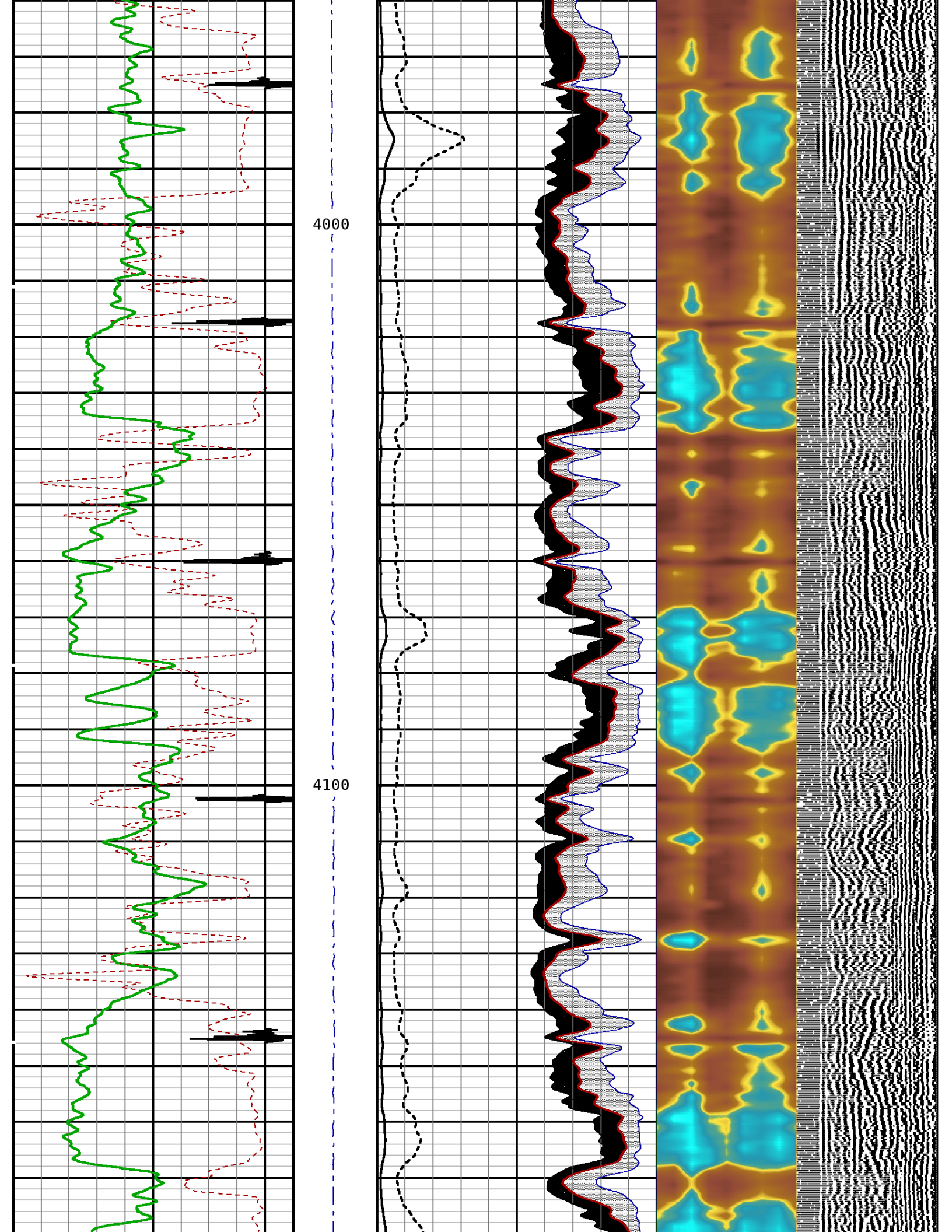




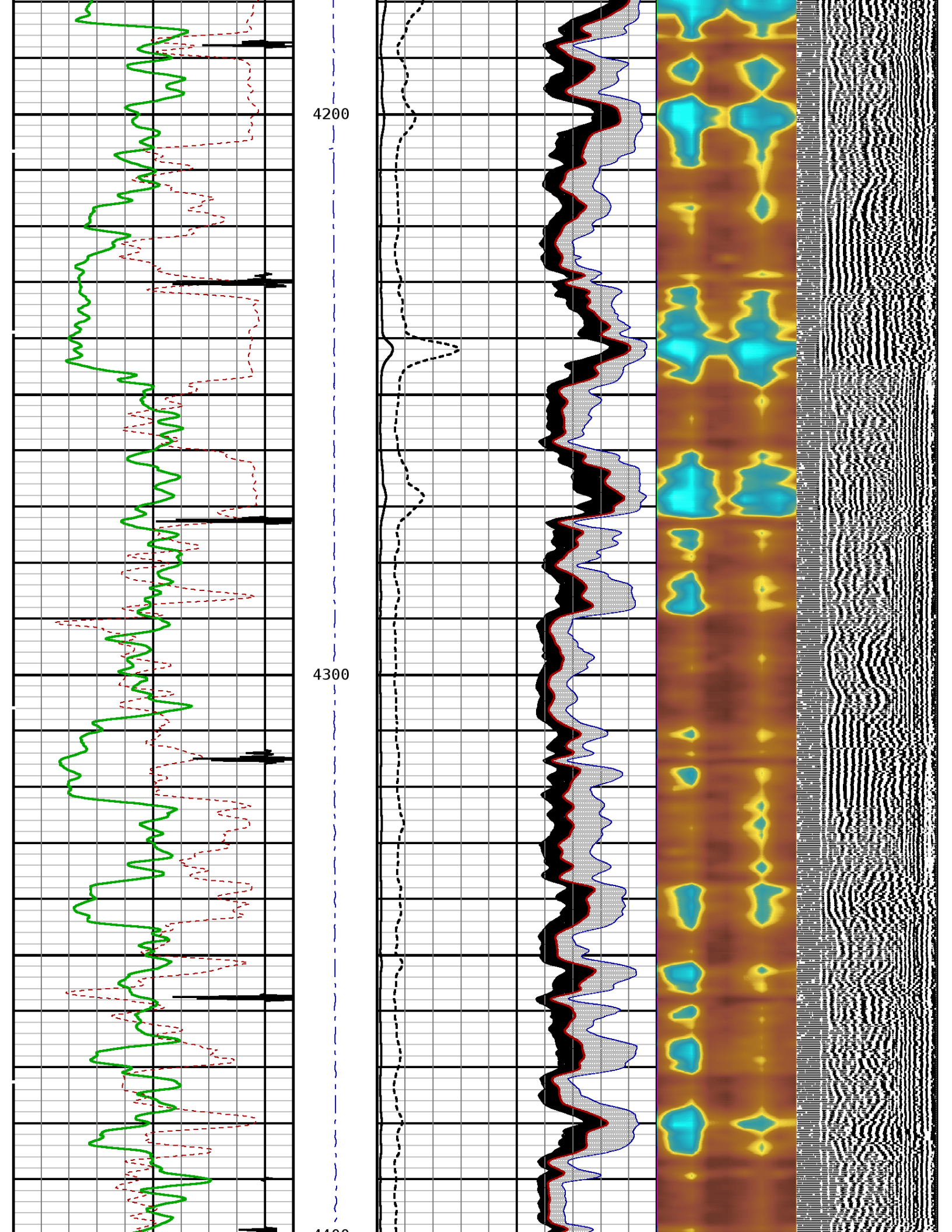
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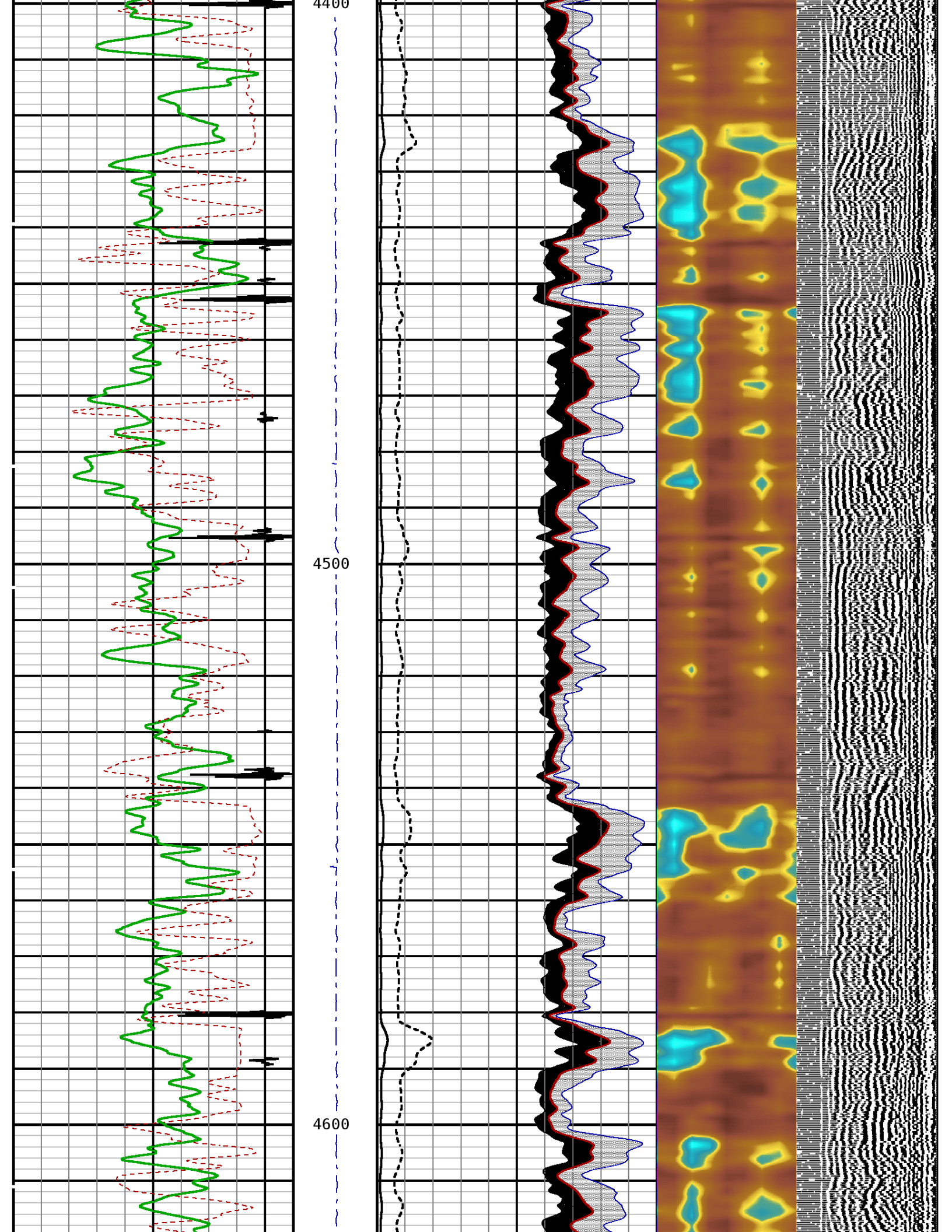
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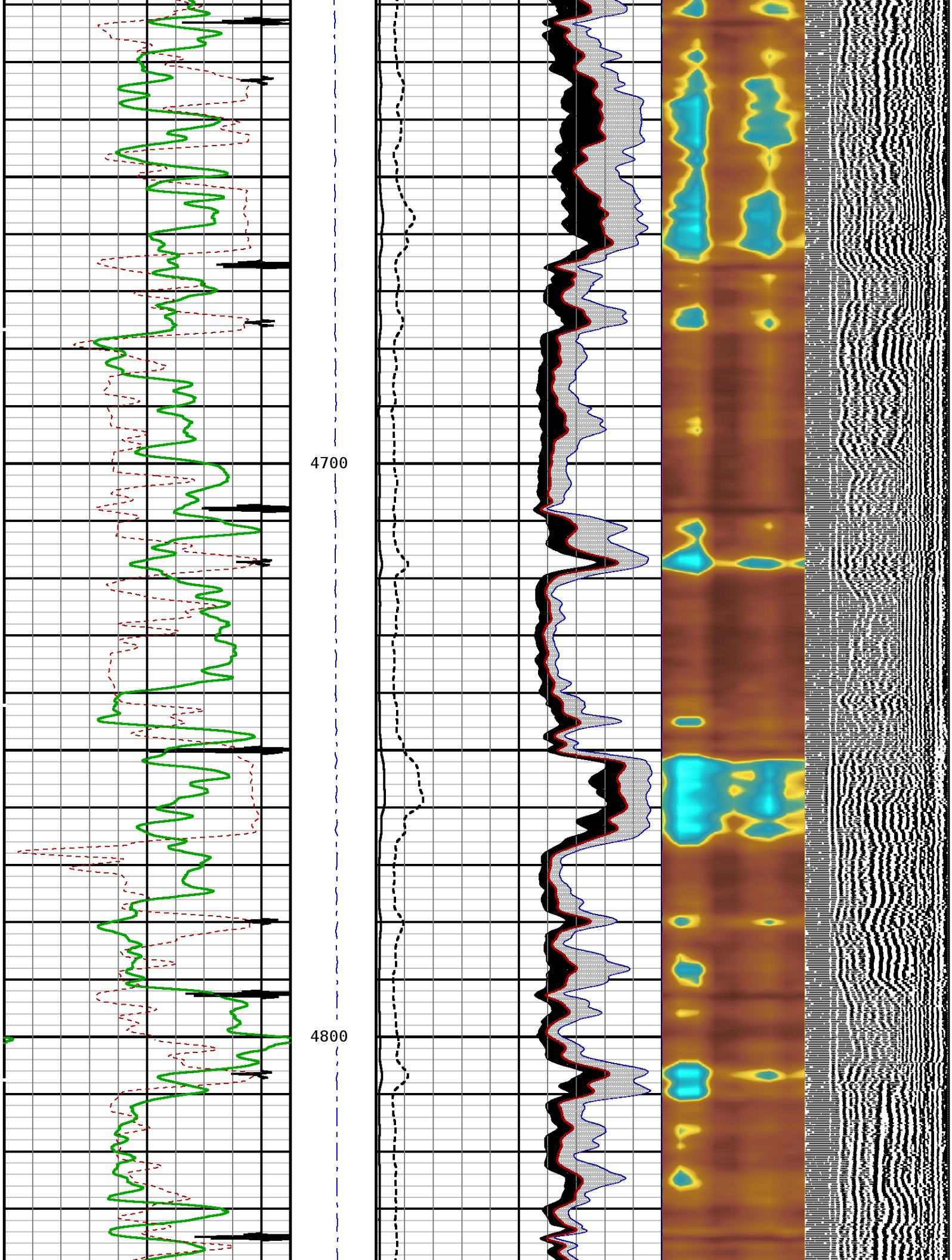




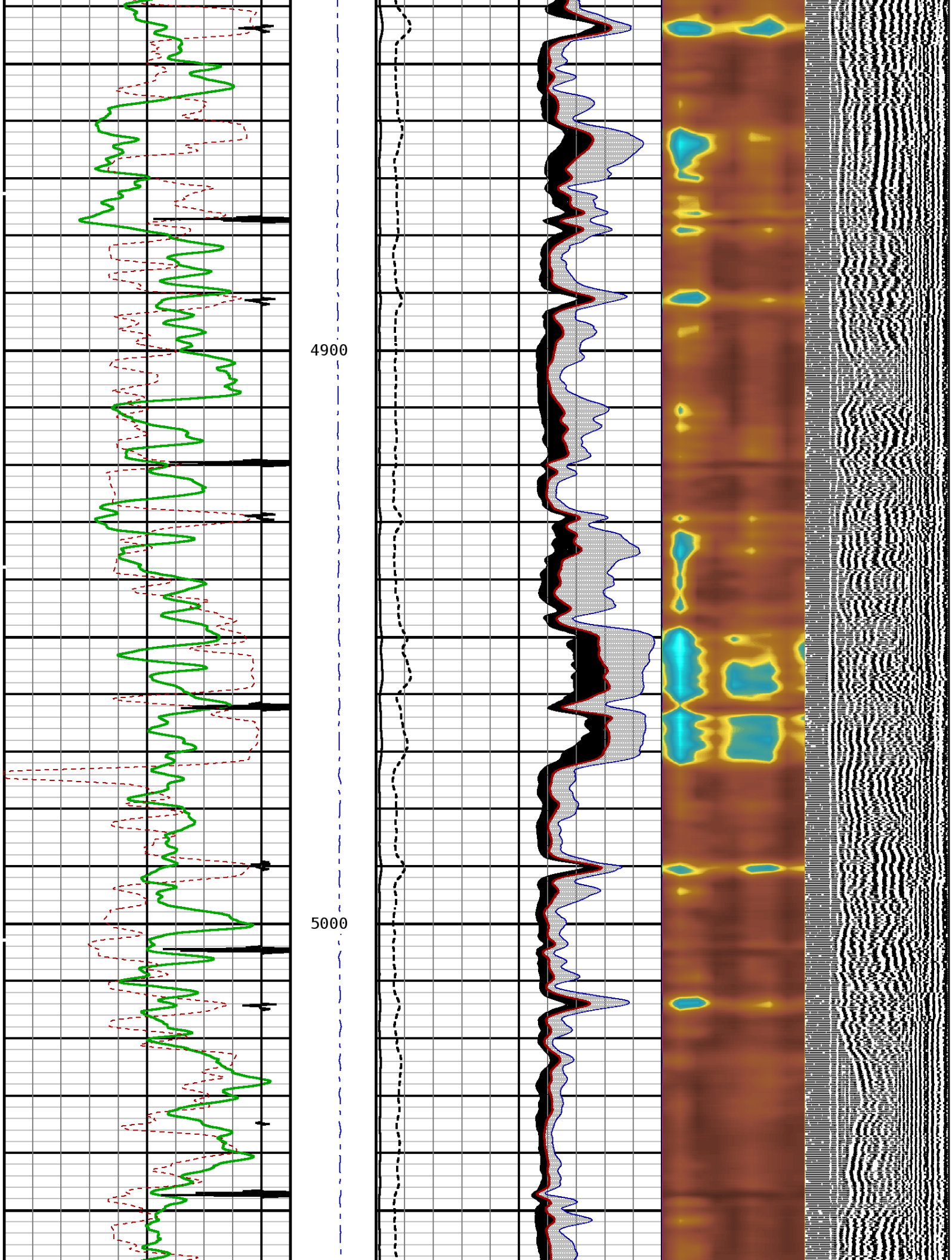


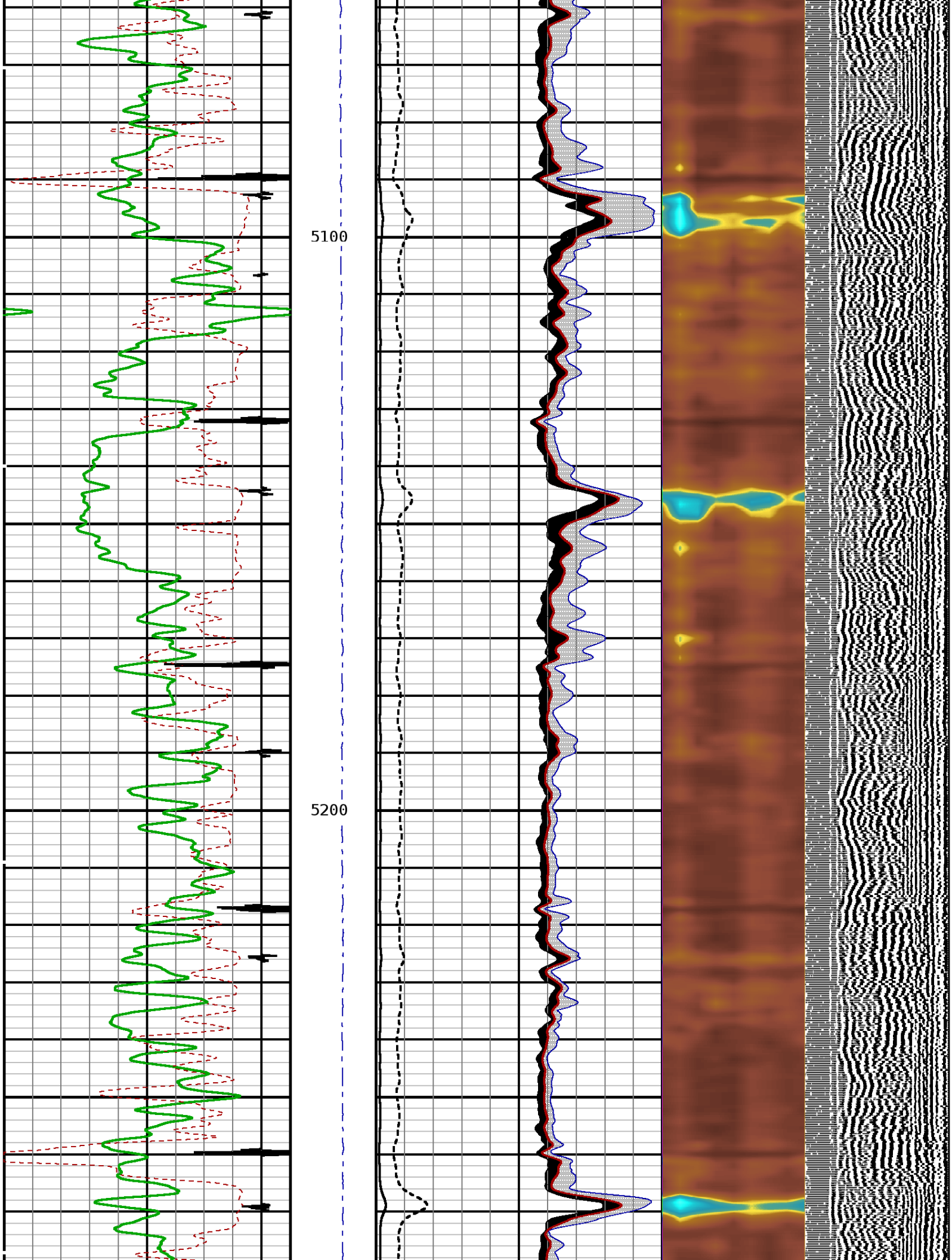


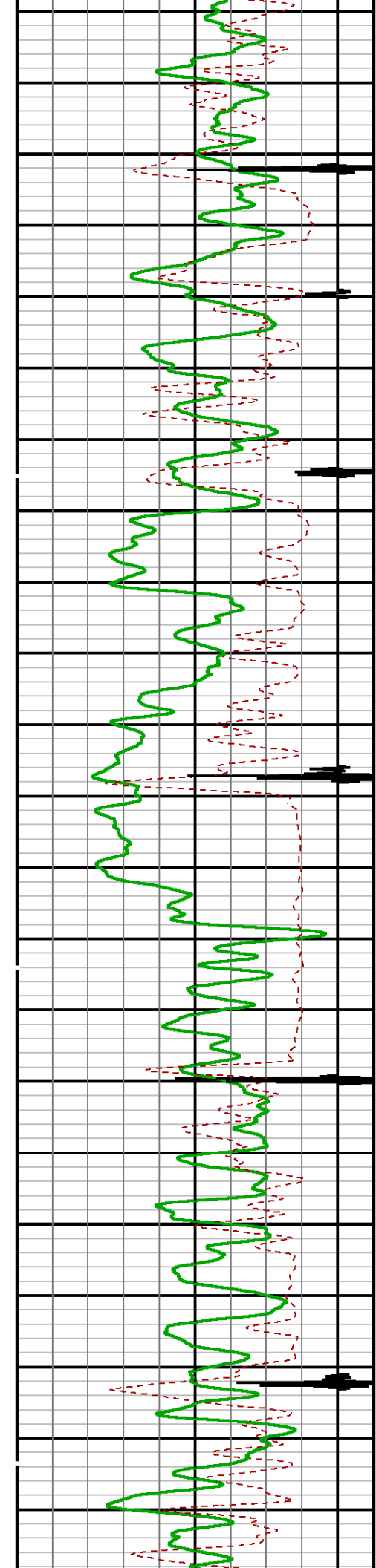






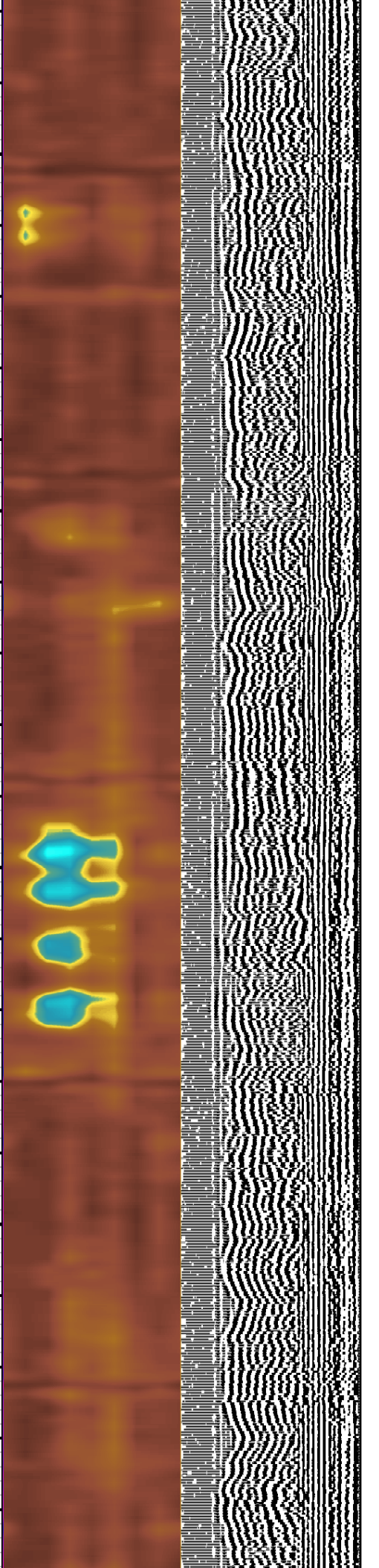
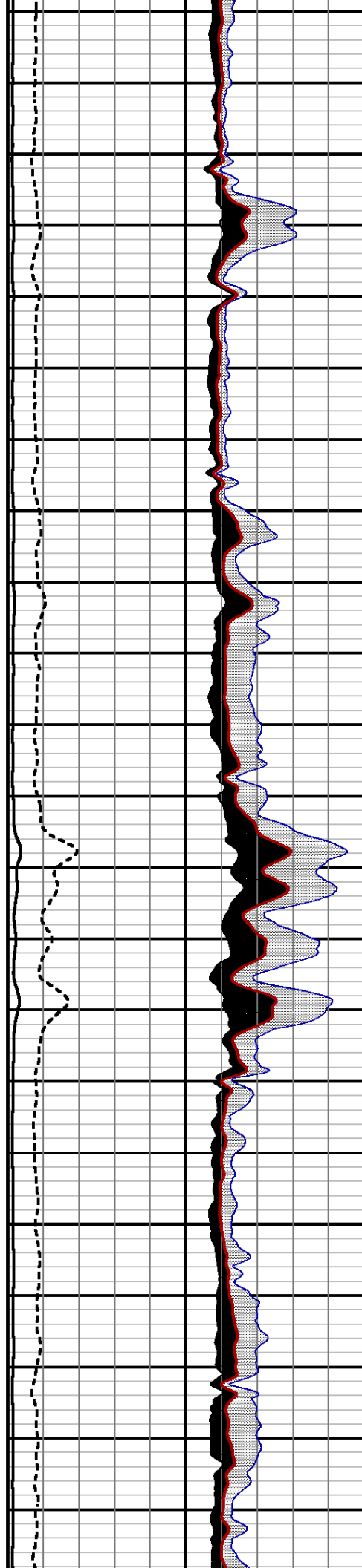




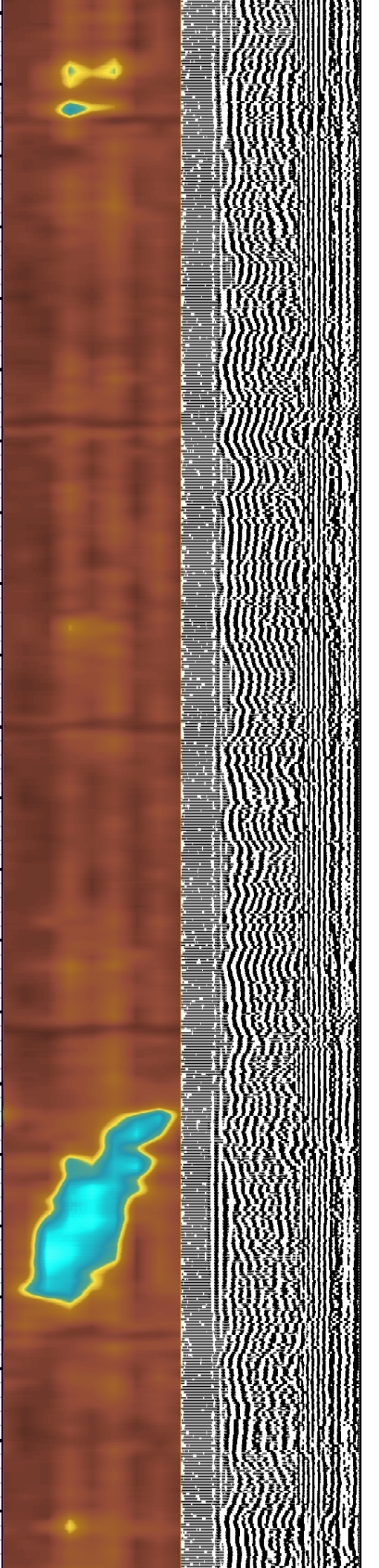
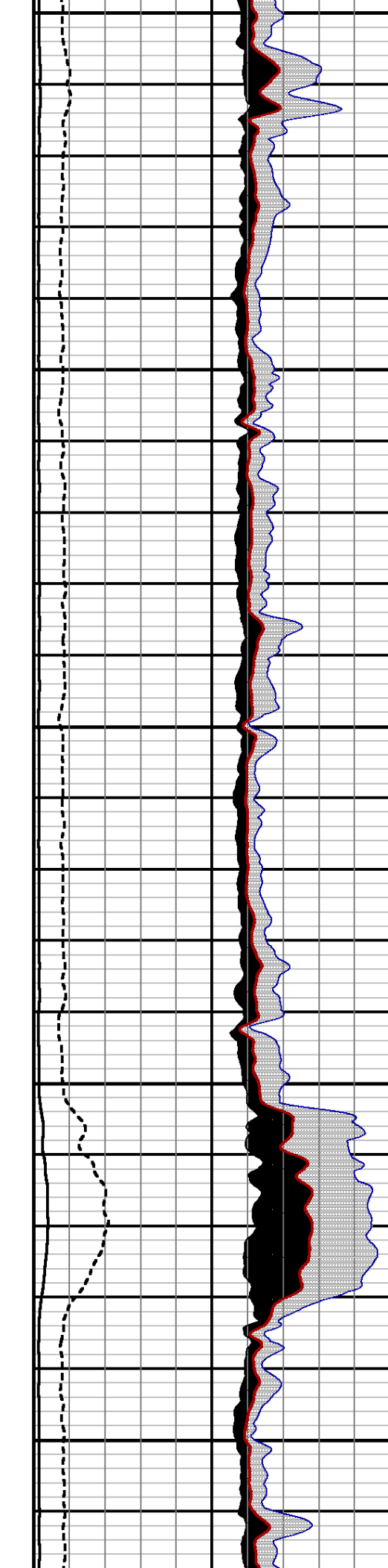
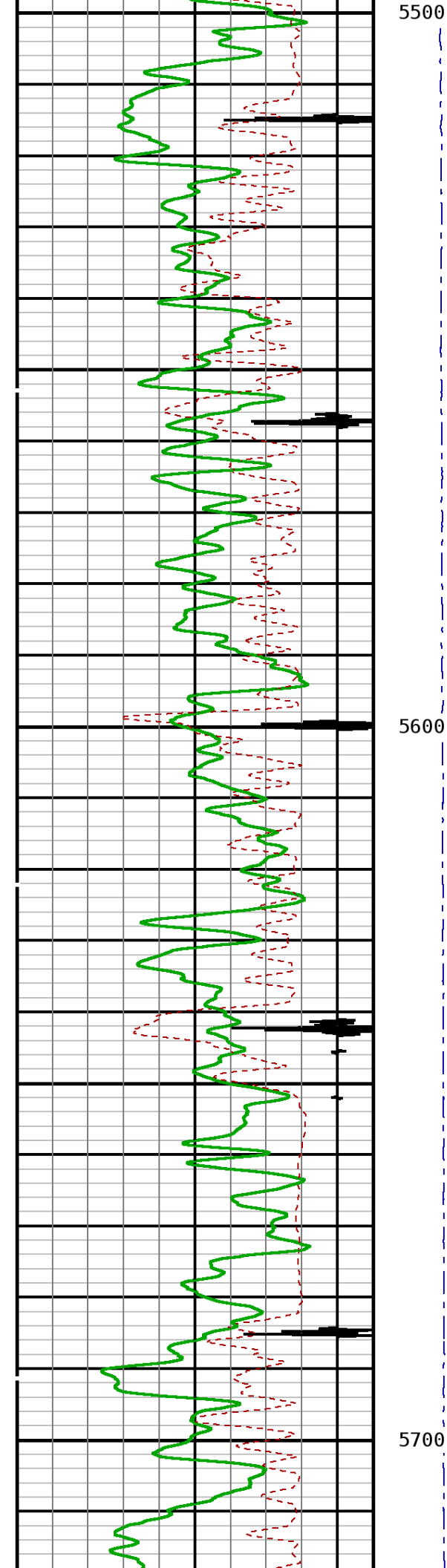


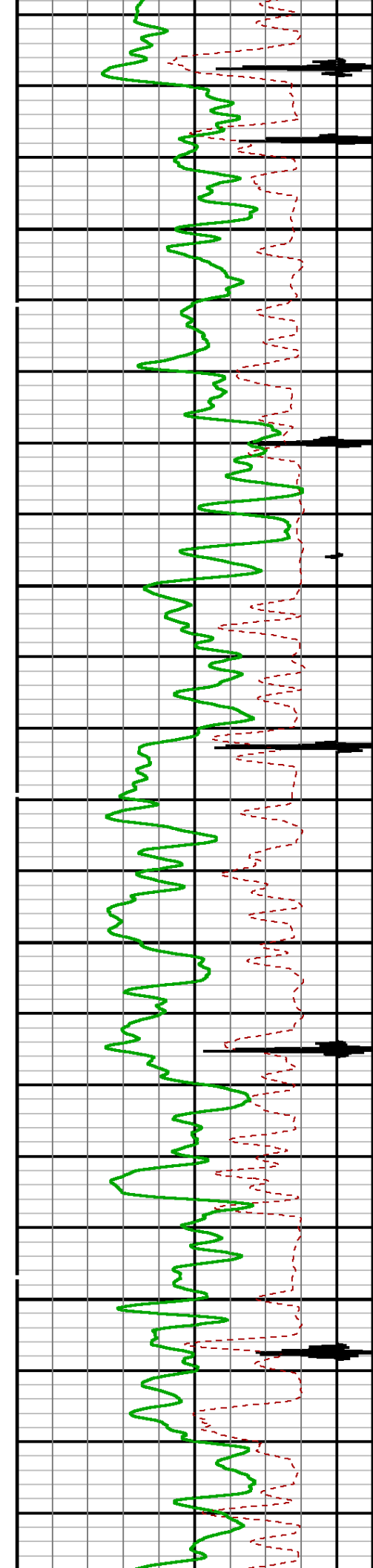
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5400



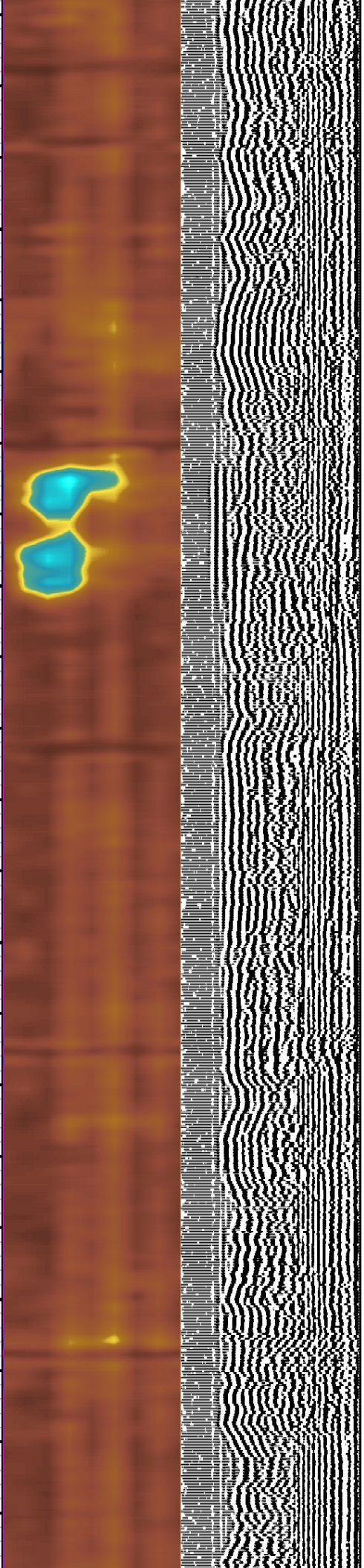
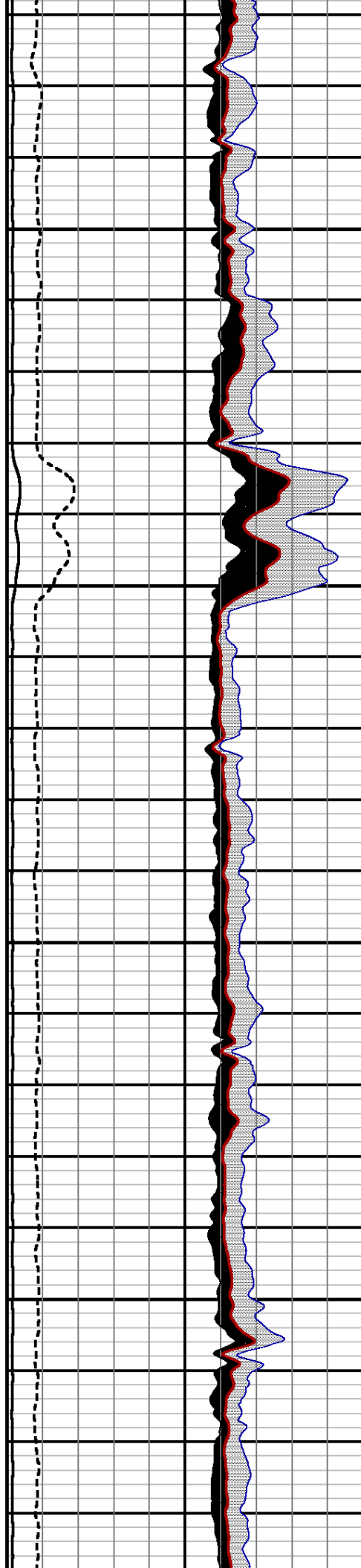




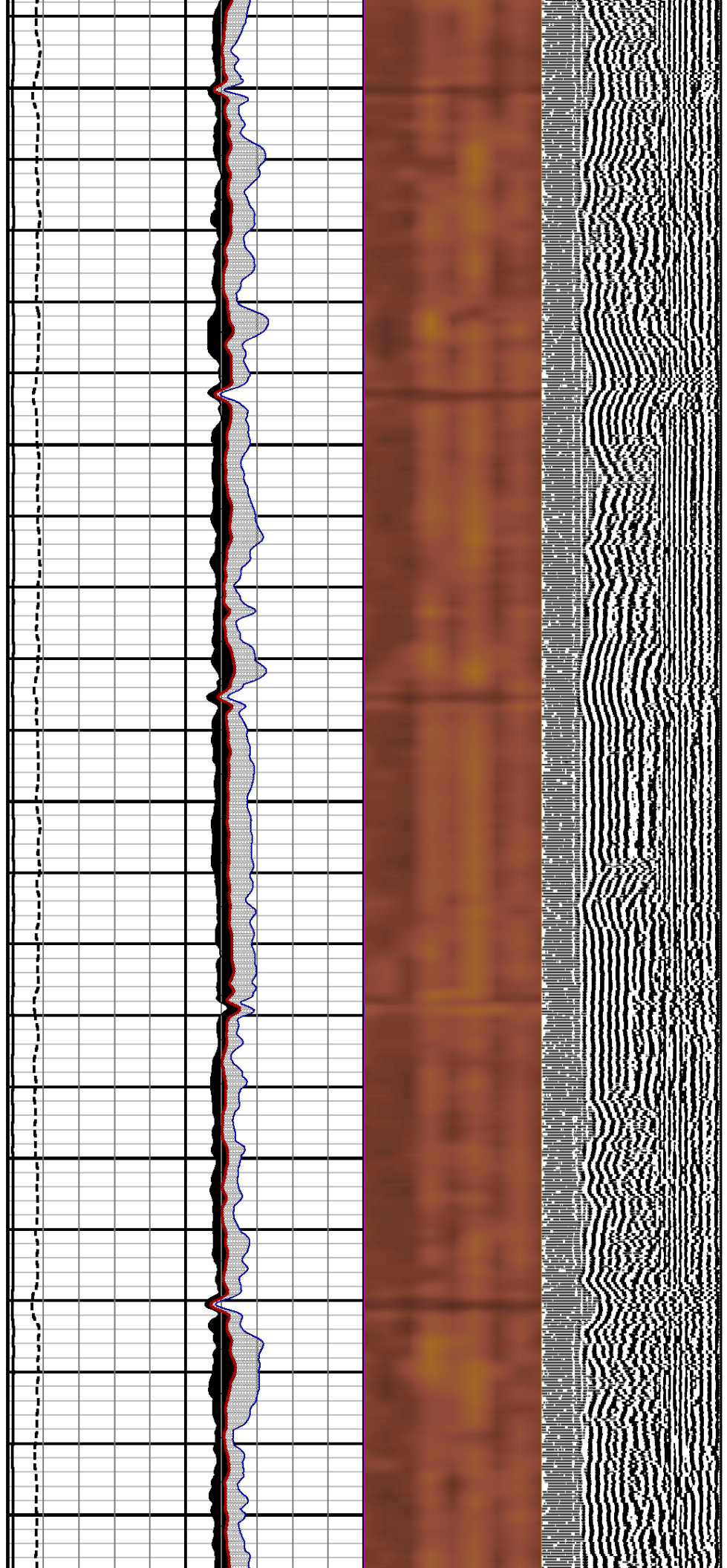
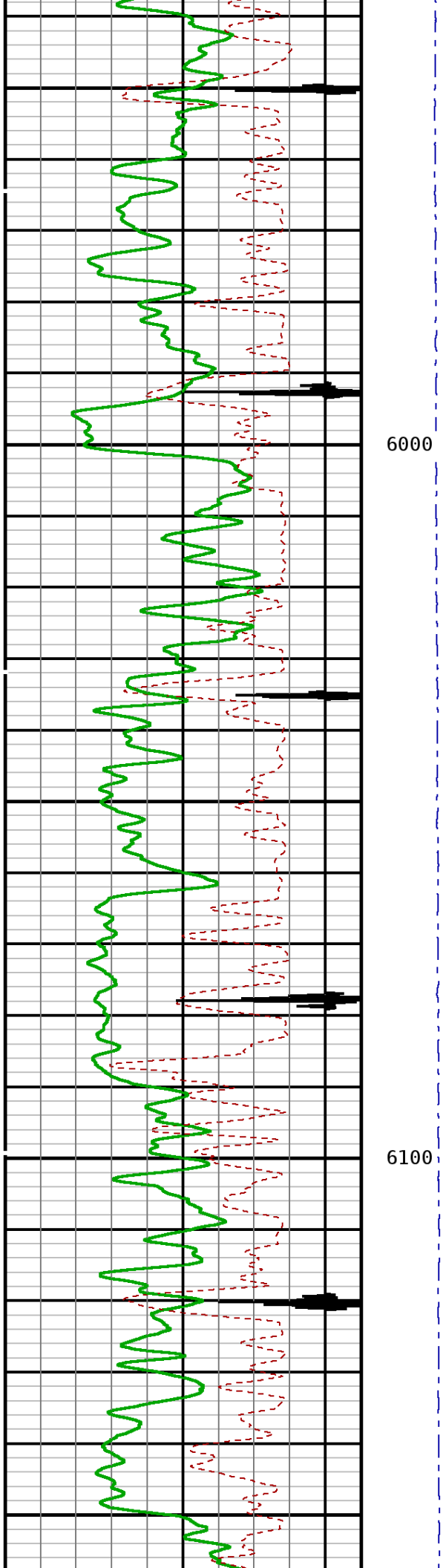


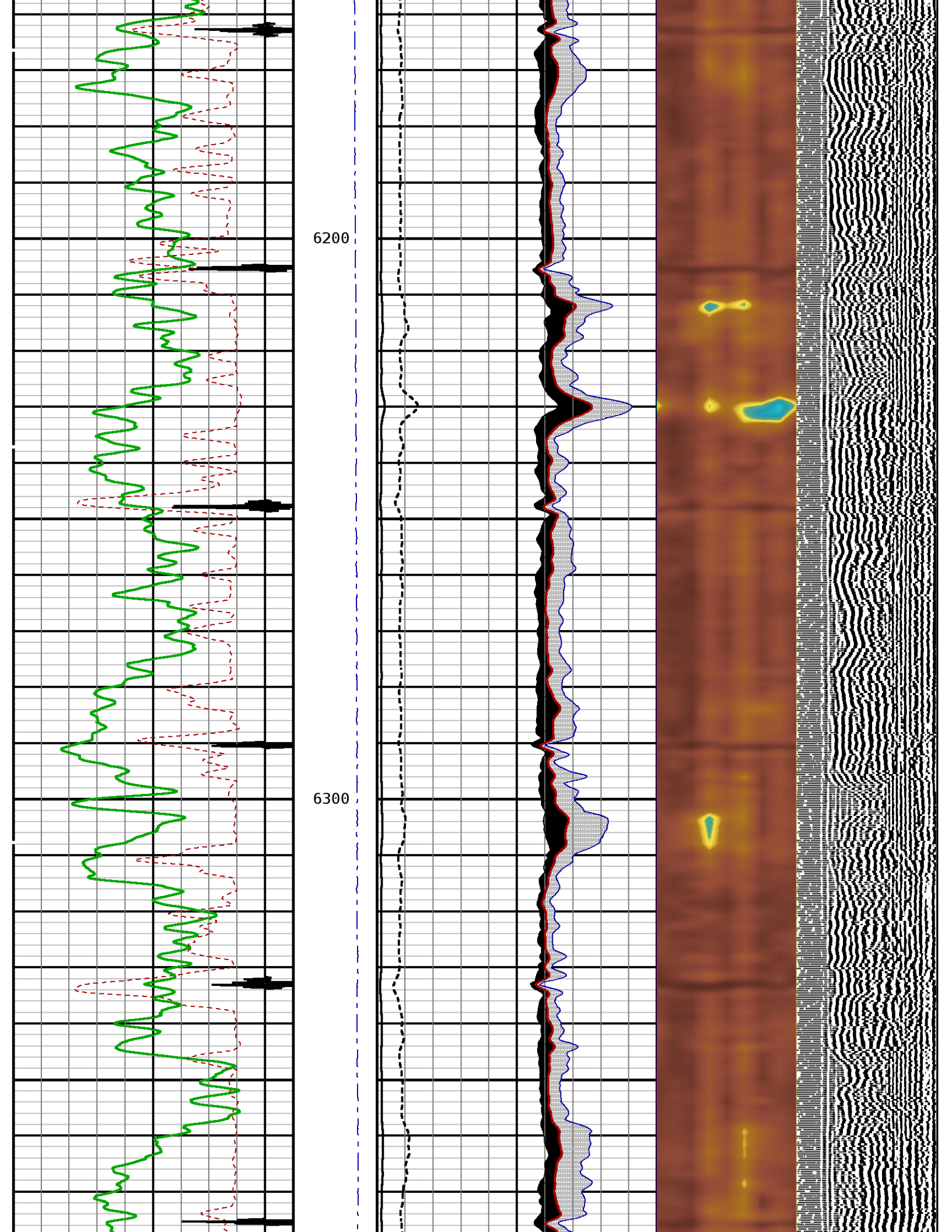
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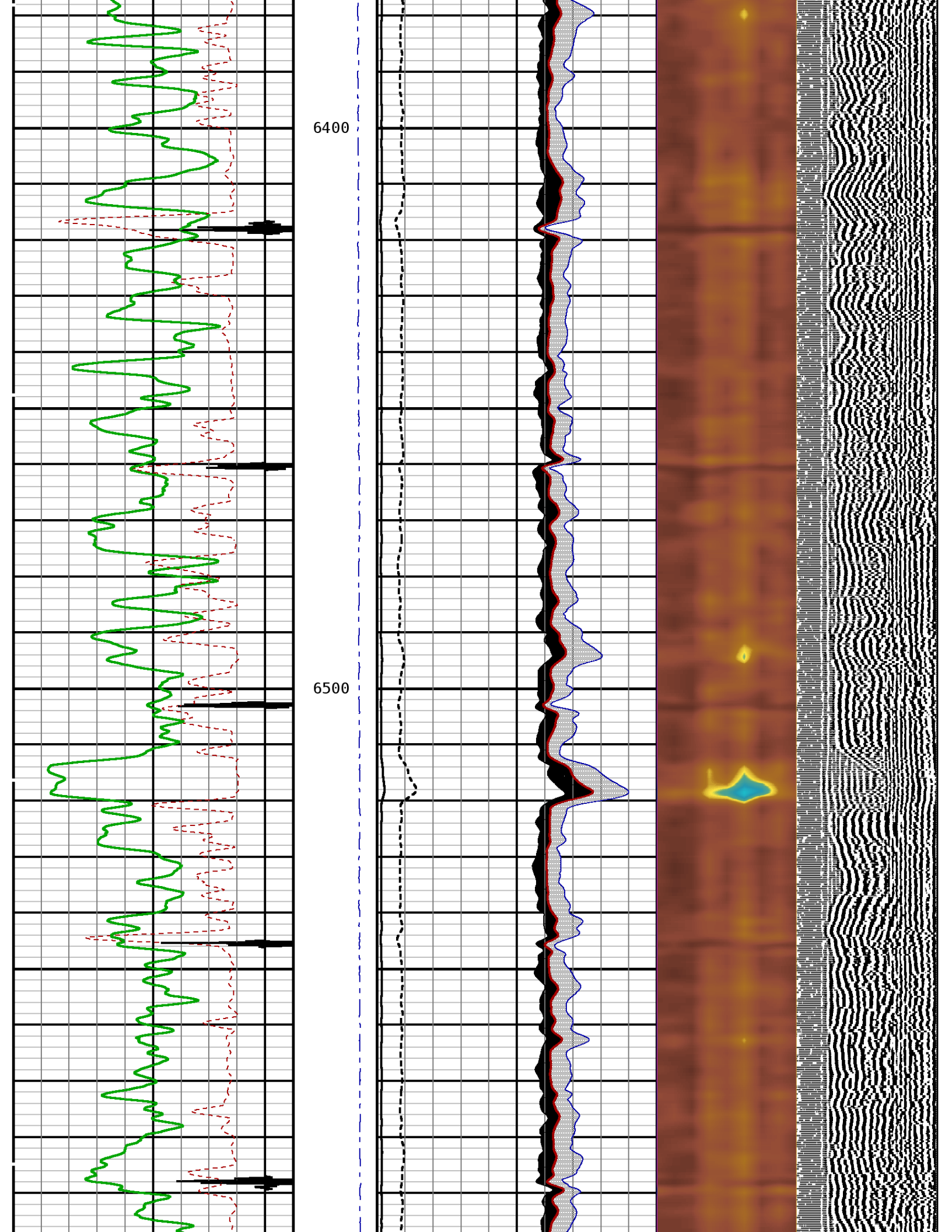
5900



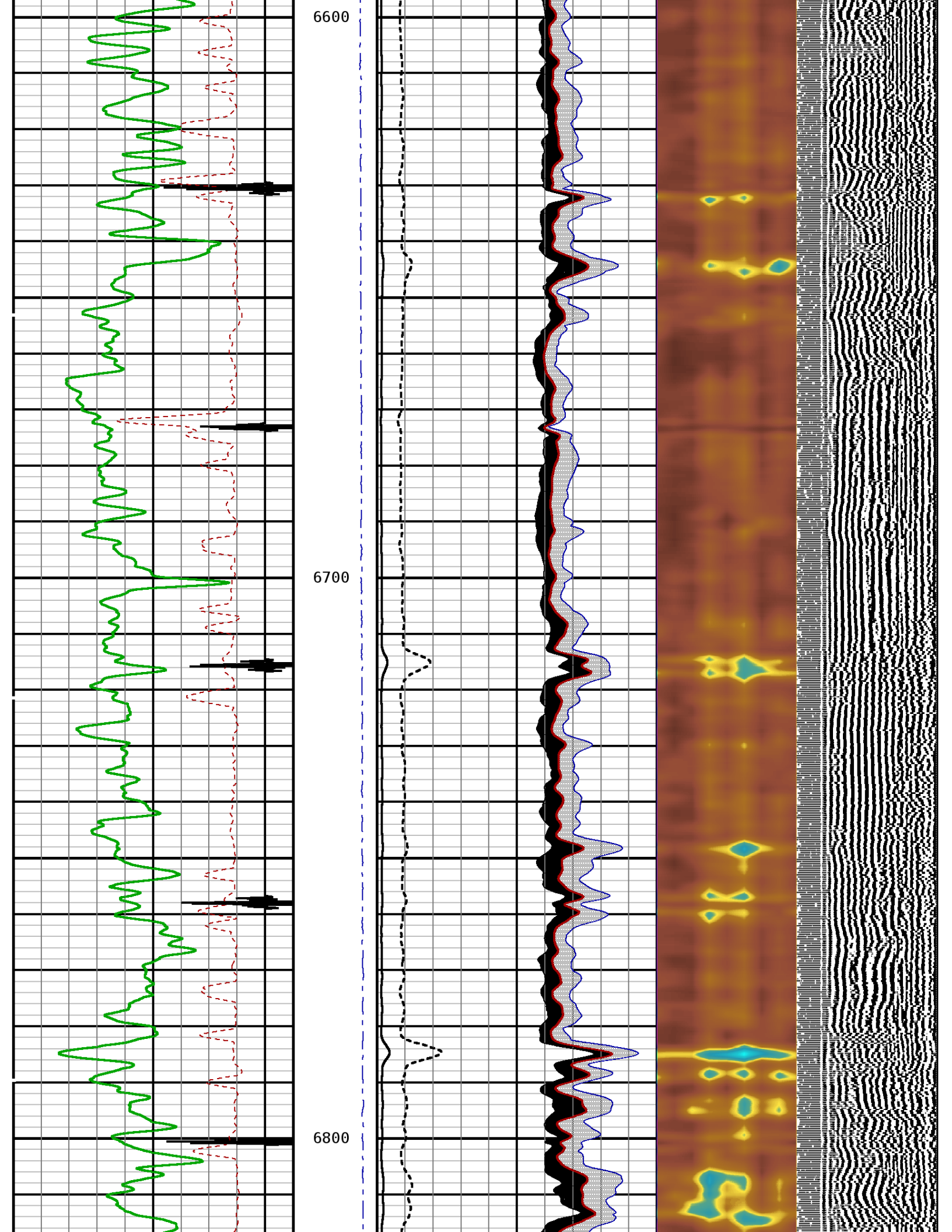


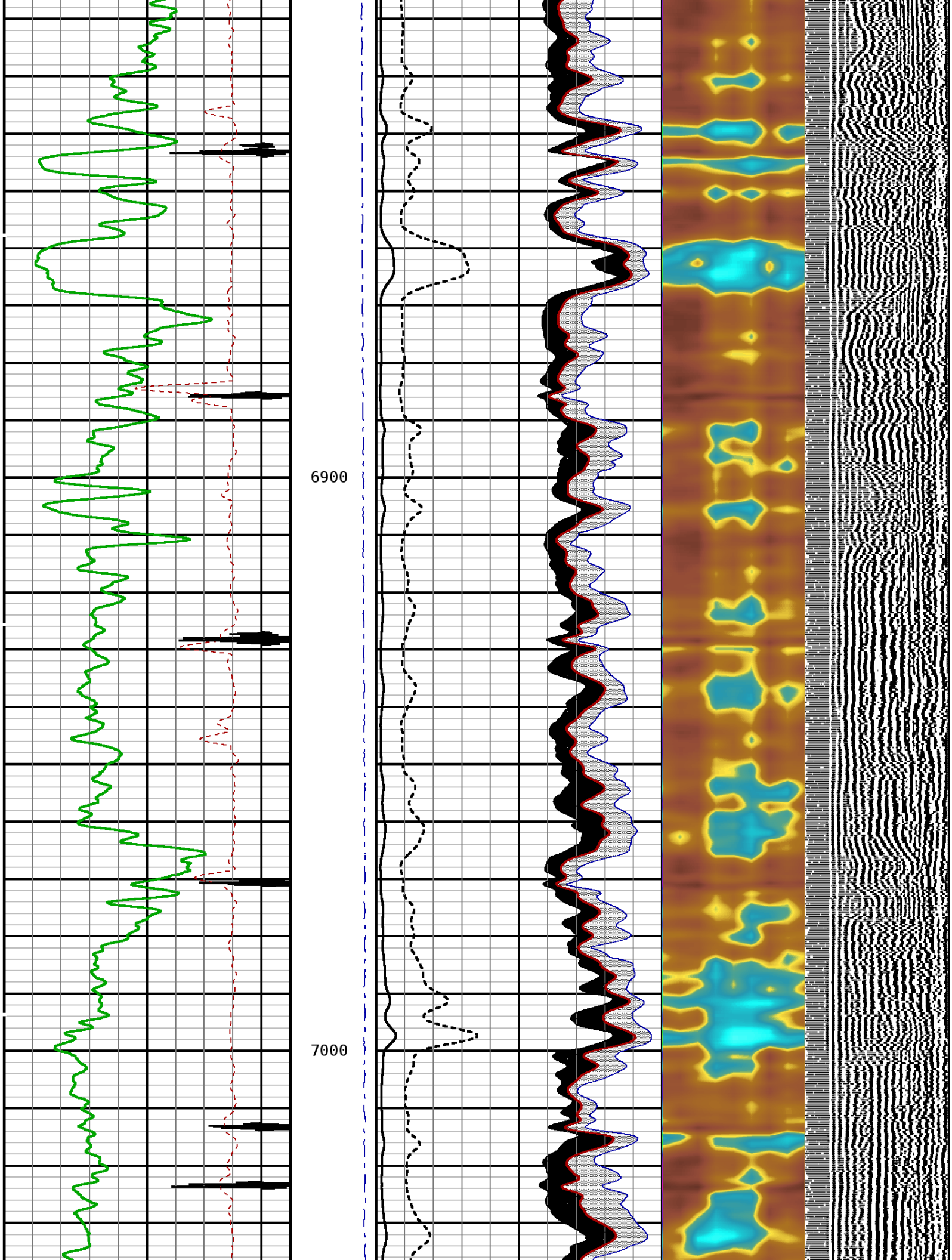




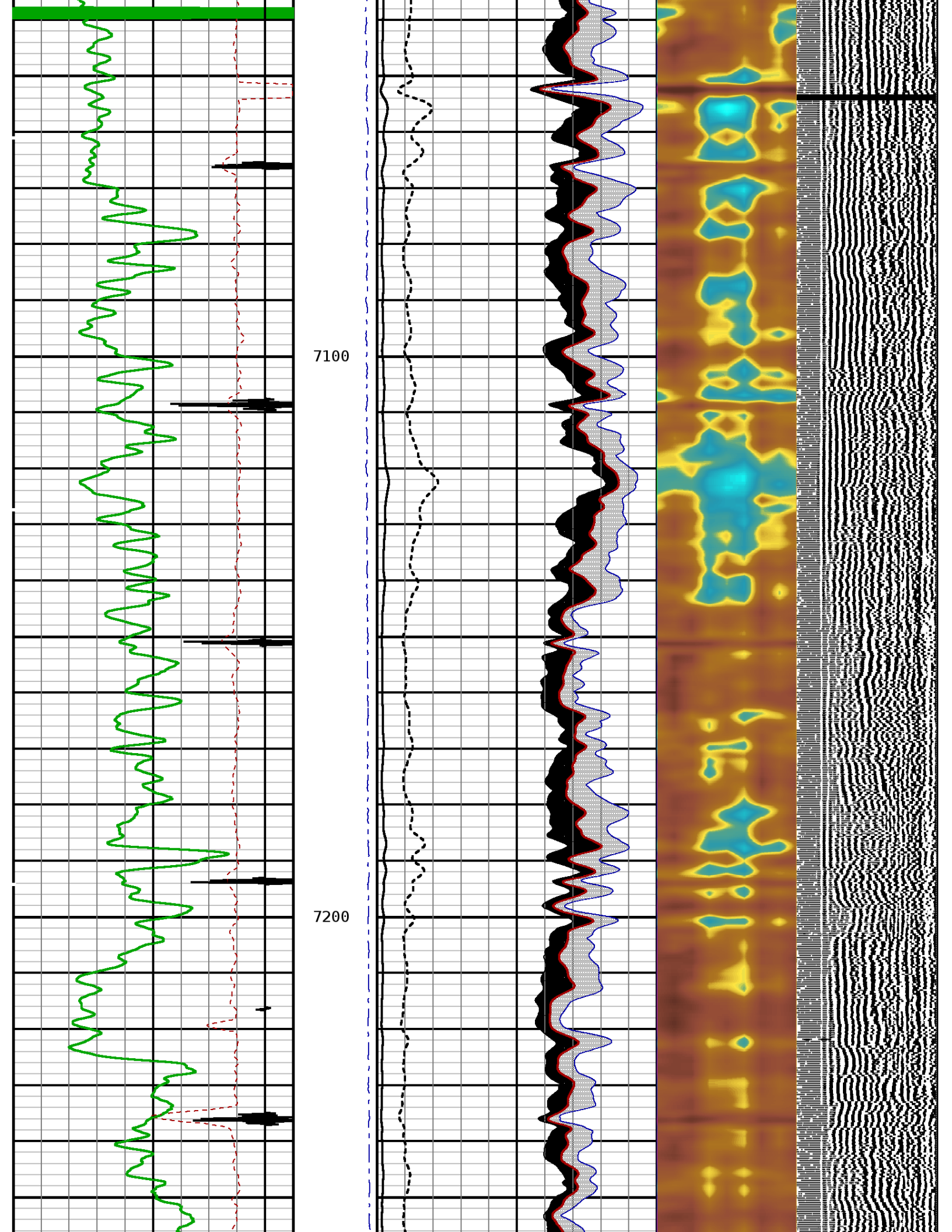




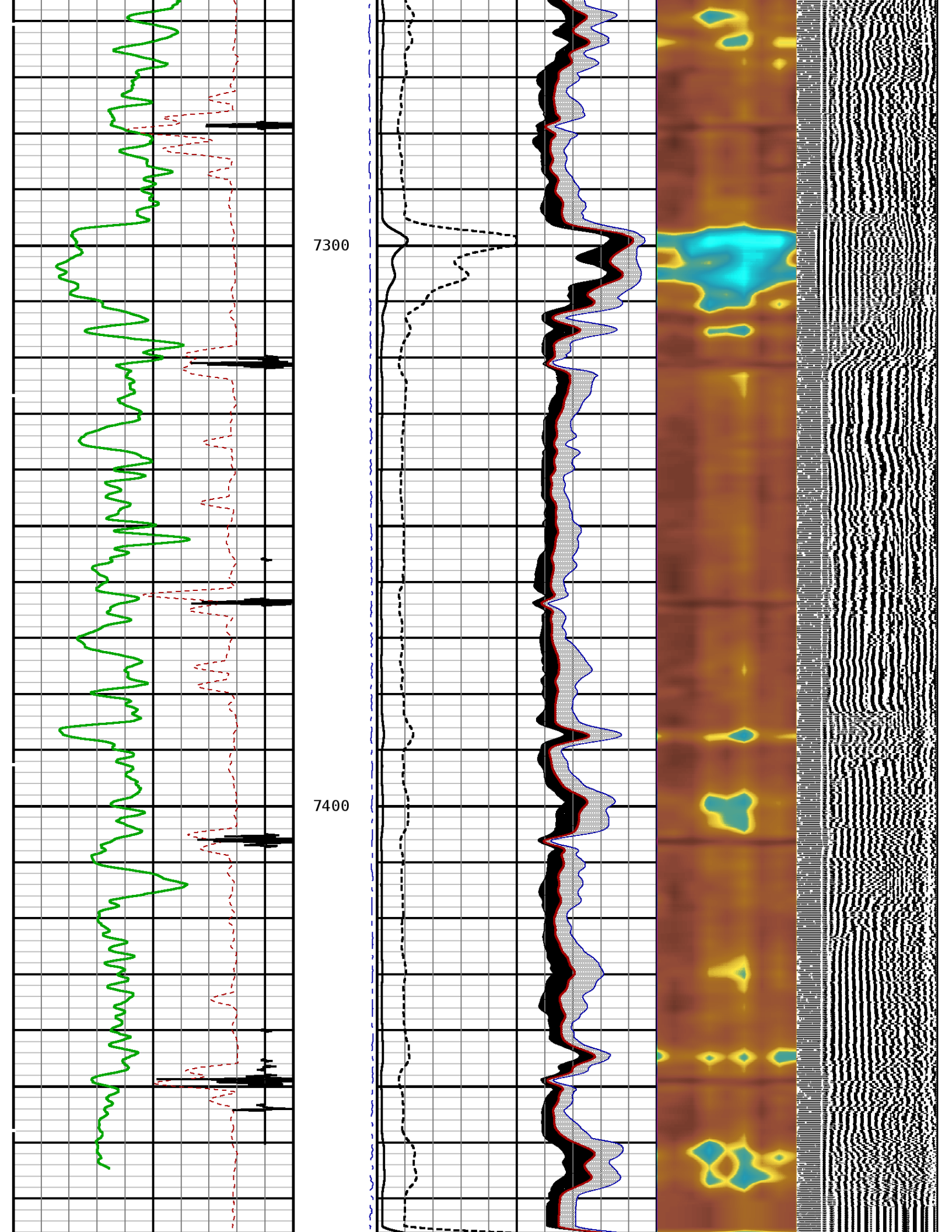












<div>TRAVEL TIME 3FT</div> <div>310      Microseconds      210</div>			<div>Tension</div> <div>0      2000</div>		<div>AMPLITUDE 3FT</div> <div>0      mv      100</div>		<div>MIN ENERGY</div> <div>0      mv      100</div>		<div>VARIABLE ENERGY</div> <div>0      mv      80</div>		<div>VARIABLE DENSI</div>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

START DEPTH: 7483.9    DIRECTION: UP    DATE: 01/20/2015    TIME: 01:34    MODE: ORIGINAL

108831548 SBTMAIN

MAIN PASS

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

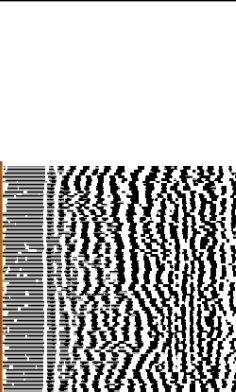
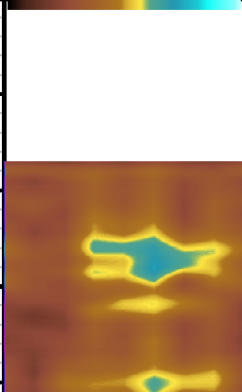
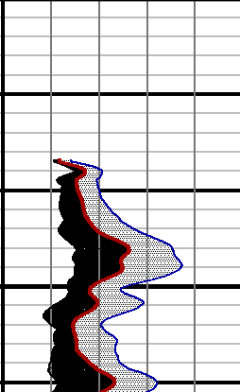
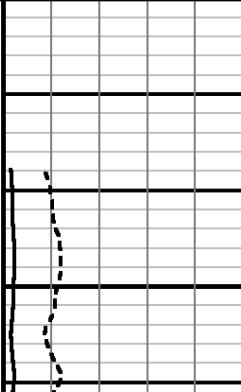

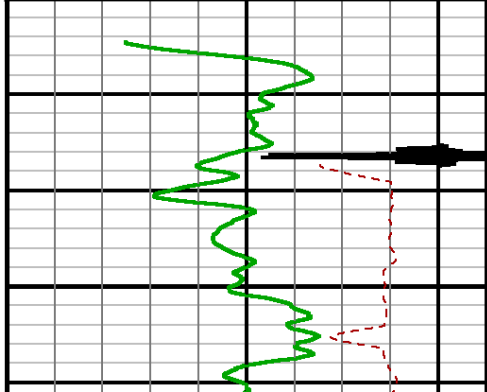
DEPTH SCALE: 5":100'    PROCESSED VERSION: 2012.07.18.162"

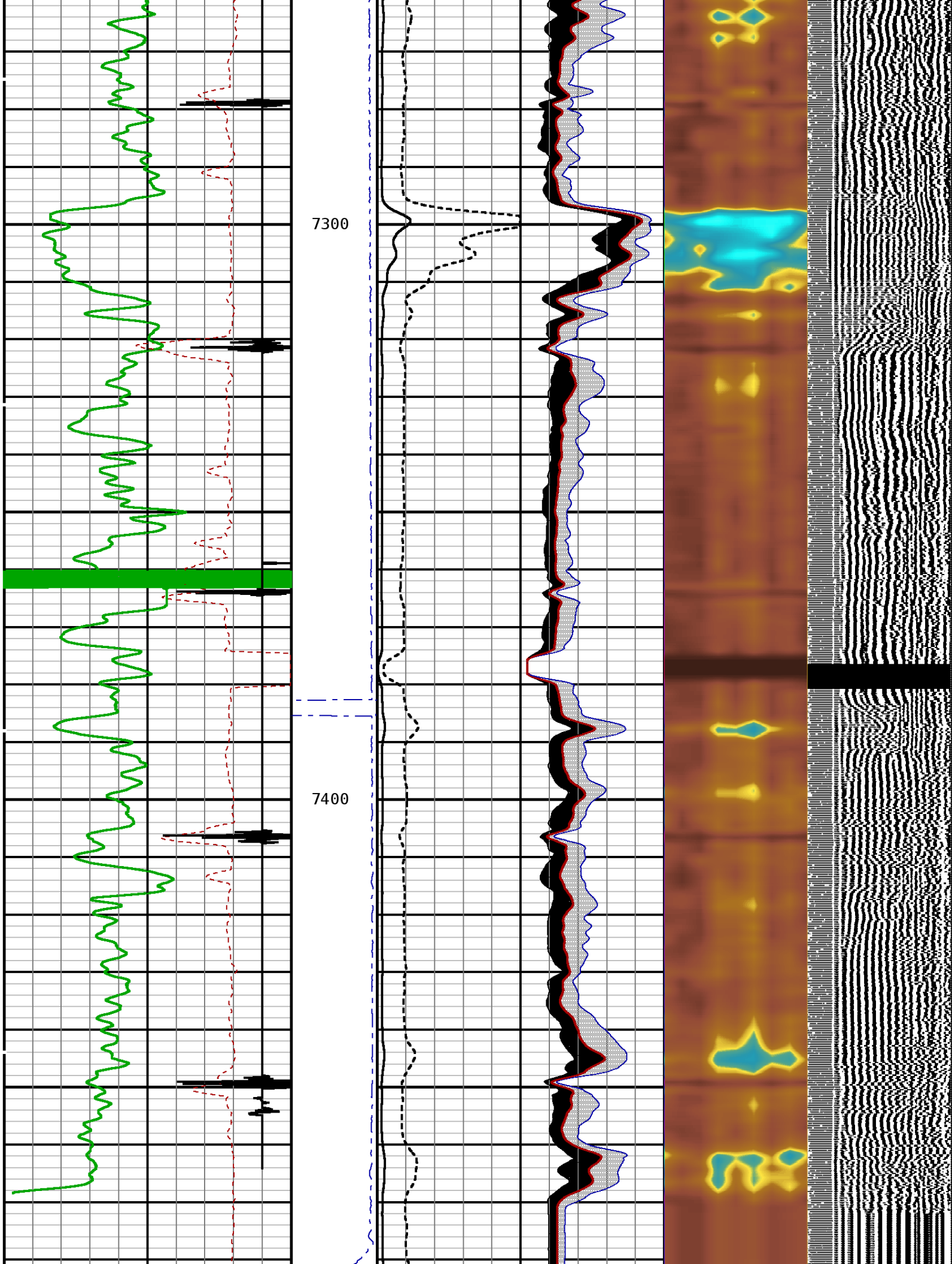
REPEAT PASS

108831548 SBTREPEAT

FINISH DEPTH: 7220.3 Feet    DIRECTION: UP    DATE: 01/20/2015    TIME: 01:38    MODE: ORIGINAL

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







<b>TRAVEL TIME 3FT</b> <hr style="border-top: 1px dashed red;"/> <div style="display: flex; justify-content: space-between;"> <span>310</span> <span>Microseconds</span> <span>210</span> </div> <div style="text-align: center; color: green; margin-top: 10px;"> <b>GAMMA RAY</b> </div> <hr style="border-top: 1px solid green;"/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>API</span> <span>150</span> </div> <div style="text-align: center; margin-top: 10px;"> <b>CCL</b> </div> <hr/> <div style="display: flex; justify-content: space-between;"> <span>-3600</span> <span>Millivolts</span> <span>400</span> </div>	<b>Tension</b> <hr style="border-top: 1px solid blue;"/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>2000</span> </div>	<b>AMPLITUDE 3FT</b> <hr/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>mv</span> <span>100</span> </div> <div style="text-align: center; margin-top: 10px;"> <b>3' AMP X 5</b> </div> <hr style="border-top: 1px dashed black;"/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>mv</span> <span>20</span> </div>	<b>MIN ENERGY</b> <hr/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>mv</span> <span>100</span> </div> <div style="text-align: center; color: red; margin-top: 10px;"> <b>AVG ENERGY</b> </div> <hr style="border-top: 1px solid red;"/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>mv</span> <span>100</span> </div> <div style="text-align: center; color: blue; margin-top: 10px;"> <b>MAX ENERGY</b> </div> <hr style="border-top: 1px solid blue;"/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>mv</span> <span>100</span> </div>	<b>VARIABLE ENERGY</b> <hr style="border-top: 1px solid blue;"/> <div style="display: flex; justify-content: space-between;"> <span>0</span> <span>mv</span> <span>80</span> </div>	<b>VARIABLE DENSI</b> <hr style="border-top: 1px solid green;"/> <div style="display: flex; justify-content: space-between;"> <span>200</span> <span>us</span> <span>1200</span> </div>
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START DEPTH: **7487.7**
DIRECTION: **UP**
DATE: **01/20/2015**
TIME: **01:38**
MODE: **ORIGINAL**

108831548 SBTREPEAT

REPEAT PASS

DEPTH SCALE: **5":100'**
LOGGED VERSION: **2012.07.18.162"**

### 1 7/16 Adapter Head

Weight 2.2 LB.  
Length 2.54  
Max. Diameter

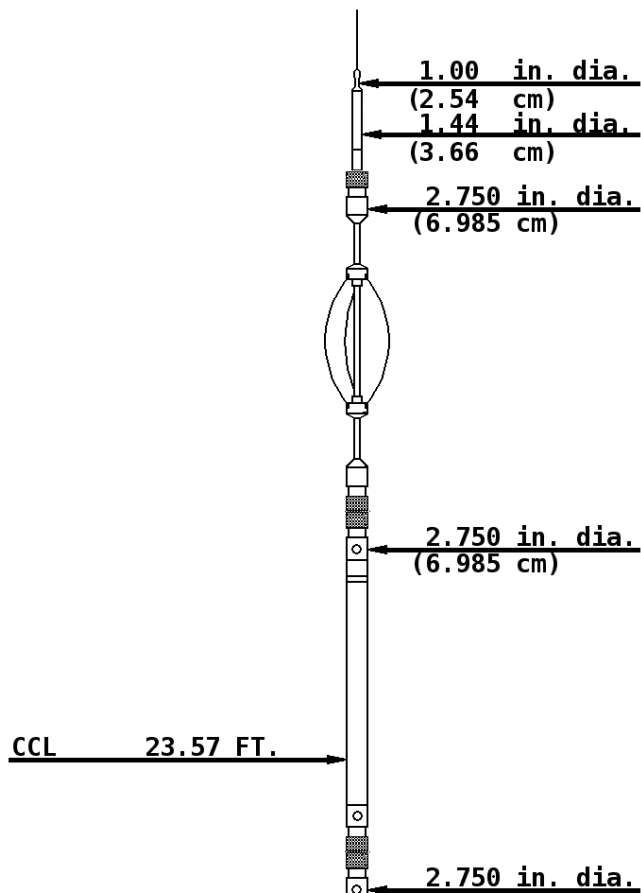
Total Stack Weight in air  
Total Stack Length 27.83 FT.

### 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.

GR 19.97 FT.

2.750 in. dia.  
(6.985 cm)

### 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.

SBT Rx 7.77 FT.

3' Rx 7.28 FT.

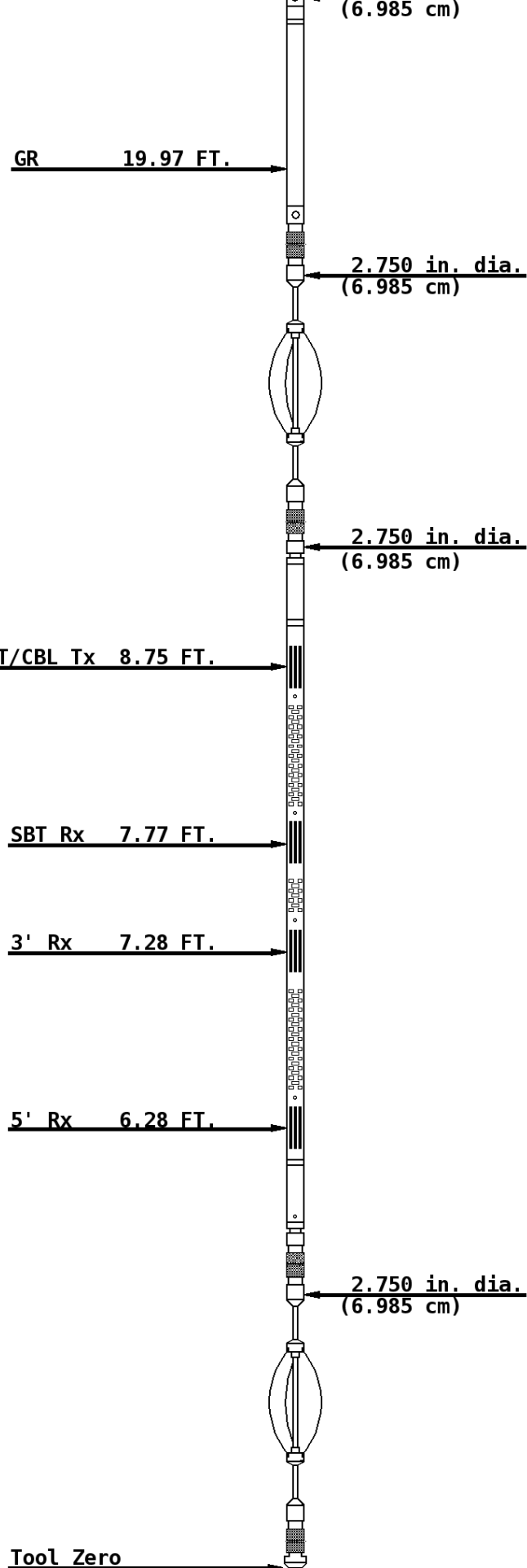
5' Rx 6.28 FT.

2.750 in. dia.  
(6.985 cm)

### Slim Hole Centralizer

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

Tool Zero



COMPANY	URSA OPERATING COMPANY		
WELL	VALLEY FARMS 41B-14-06-92		
FIELD	GRAVEL TREAD		
COUNTY	GARFIELD	STATE	COLORADO



**Weatherford®**