HALLIBURTON

RADIAL BOND-GAMMA RAY
COLLAR LOG

Company	CONOCOPHILLIPS
Well	SKY RANCH 4-65 9-10 1H
Field	SKY RANCH
County	ARAPAHOE
State	COLORADO

Company CONOCOPHILLIPS
Well SKY RANCH 4-65 9-10 1H
Field SKY RANCH
County ARAPAHOE State COLORADO

Location: API # : 05-005-07224-0000
Latitude: 39° 42' 46.667"N Longitude : 104° 38' 33.752"W
350' FSL & 0350' FEL
SO# 901805329
SEC 010 TWP 5S RGE 65W

Other Services

Permanent Datum	GROUND LEVEL	Elevation	5,675'
Log Measured From	K.B. = 24'		
Drilling Measured From	K.B.		

Elevation
K.B. 5,699'
D.F.
G.L. 5,675'

Date	NOVEMBER 5, 2014
Run Number	ONE
Depth Driller	17,305'
Depth Logger	17,166'
Bottom Logged Interval	17150'
Top Log Interval	7400'
Open Hole Size	N/A
Type Fluid	WATER/ FR
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	2105'
Time Well Ready	NOV 4 @ 16:15 hrs.
Time Logger on Bottom	NOV 5 @ 06:59 hrs.
Equipment Number	200333466
Location	FT. LUPTON, CO
Recorded By	CORINNE COGHLAN
Witnessed By	TIM SHAW

Borehole Record

Run Number	Bit	From	To

Casing Record

Size	Weight	From	To
9 5/8"	36#	SURFACE	2,207'
5 1/2"	23#	SURFACE	17,294'

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Logging Objective: Complete a Radial Bond Log to Asses Cement Bond Quality and Evaluate Hydraulic Seal.

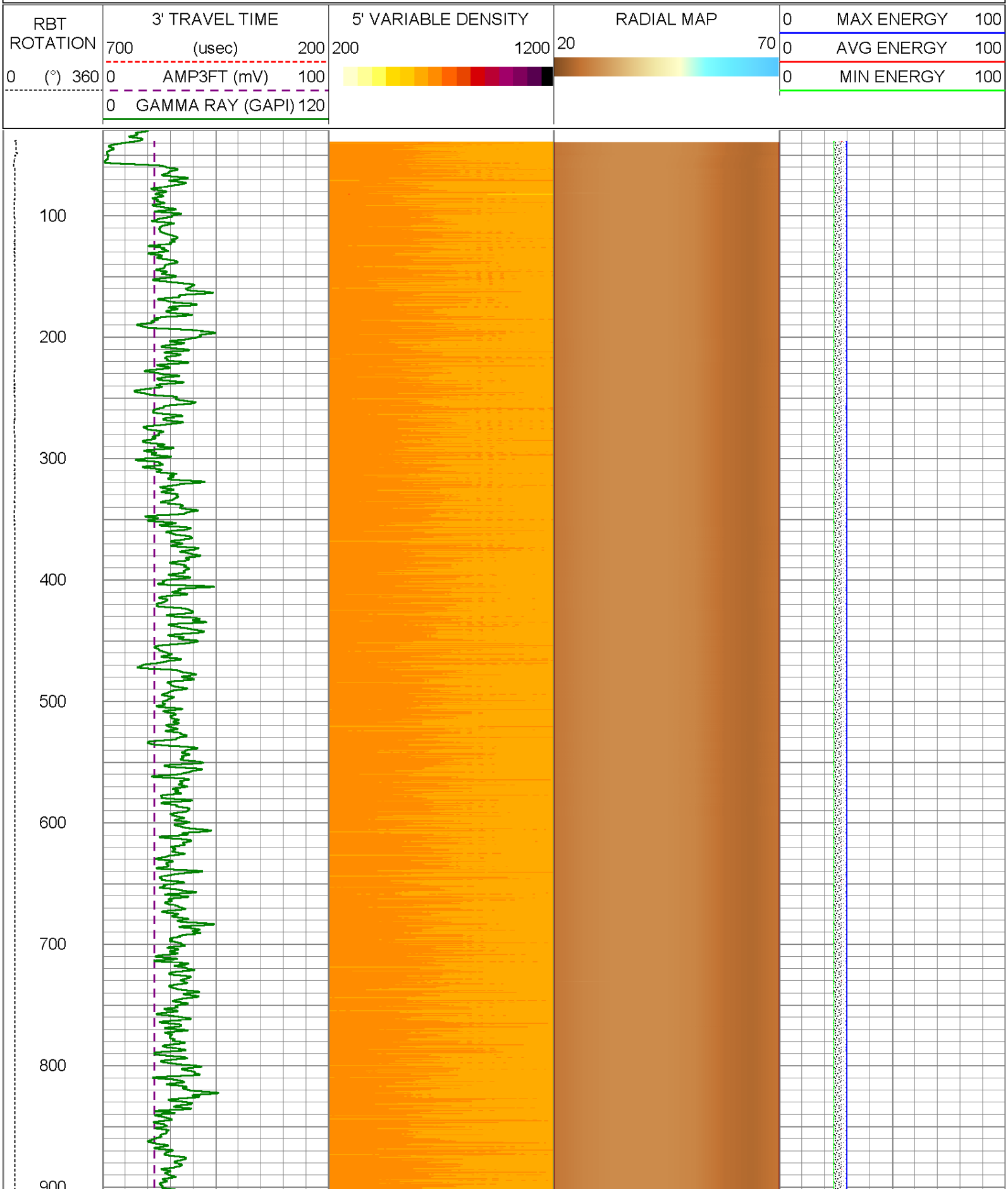
Log Correlated to Reported Marker Joint Top @ 7022.3'.

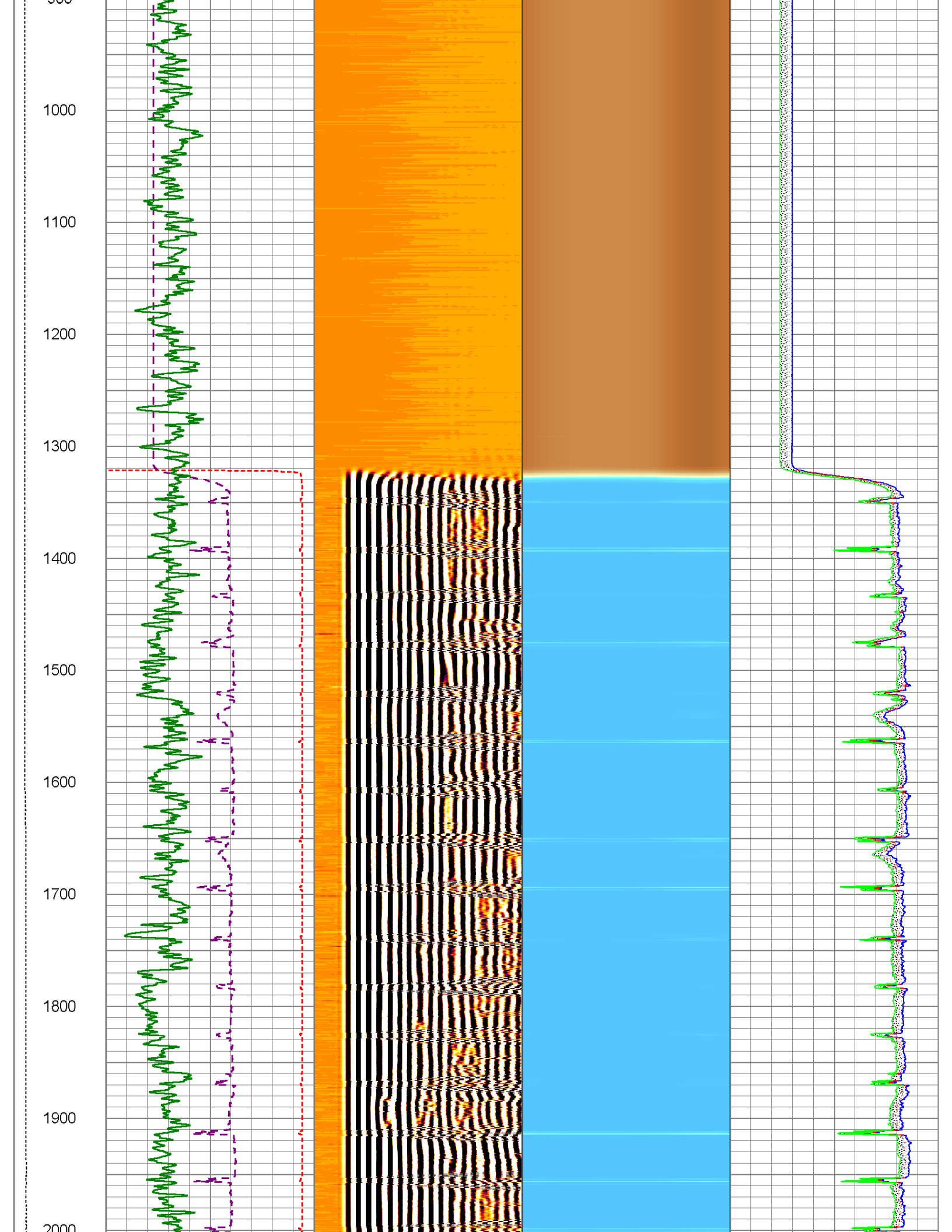
Toolstring Deployed and Logged Utilizing Halliburton's 2 3/8" Coil Tubing.
Logging Depth Provided via Halliburton's Insite for Well Intervention.

HALLIBURTON

High Speed Overview

Database File: cop_skyranch_rbt.db
Dataset Pathname: MAIN/HSOV
Presentation Format: hsov
Dataset Creation: Tue Mar 04 15:16:06 2014
Charted by: Depth in Feet scaled 1:1200

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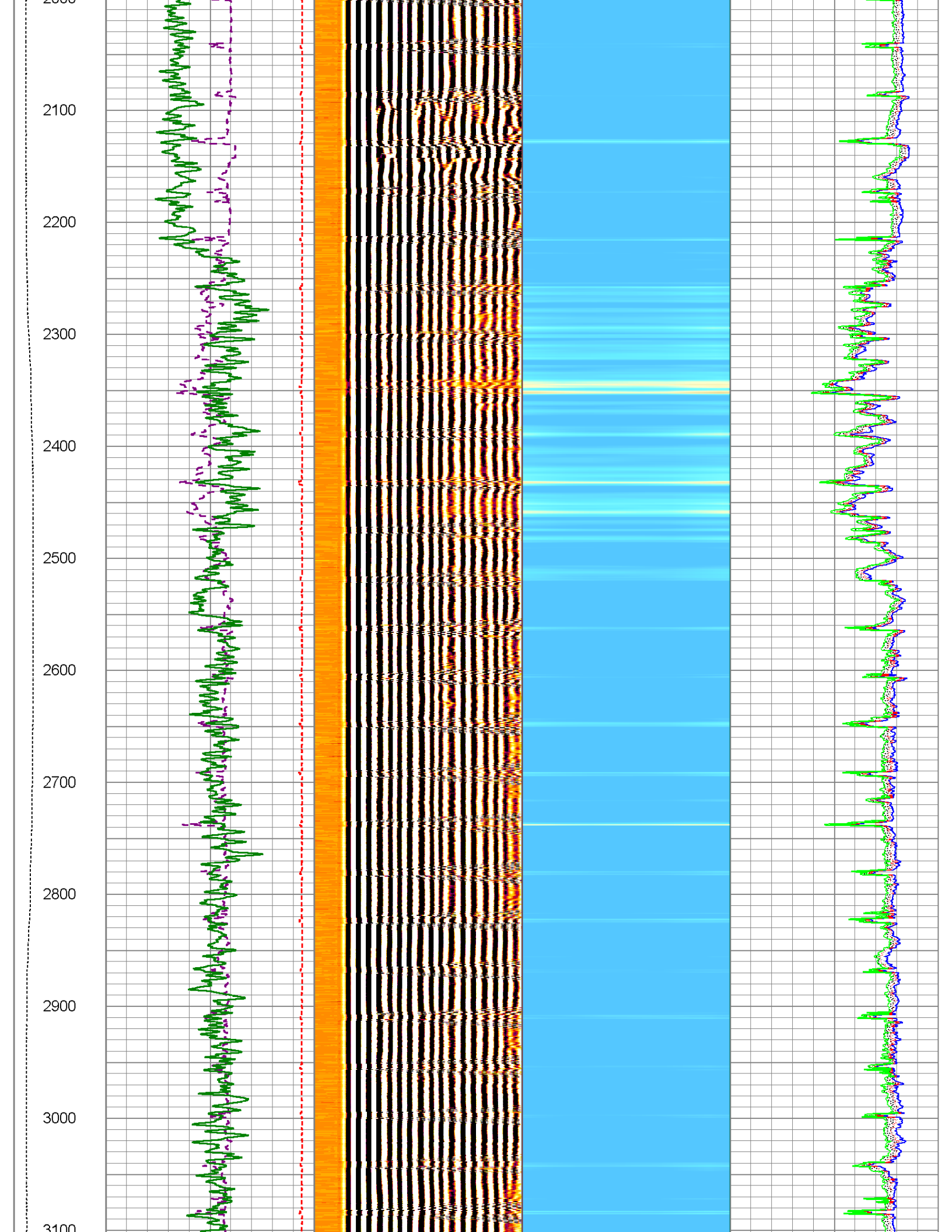
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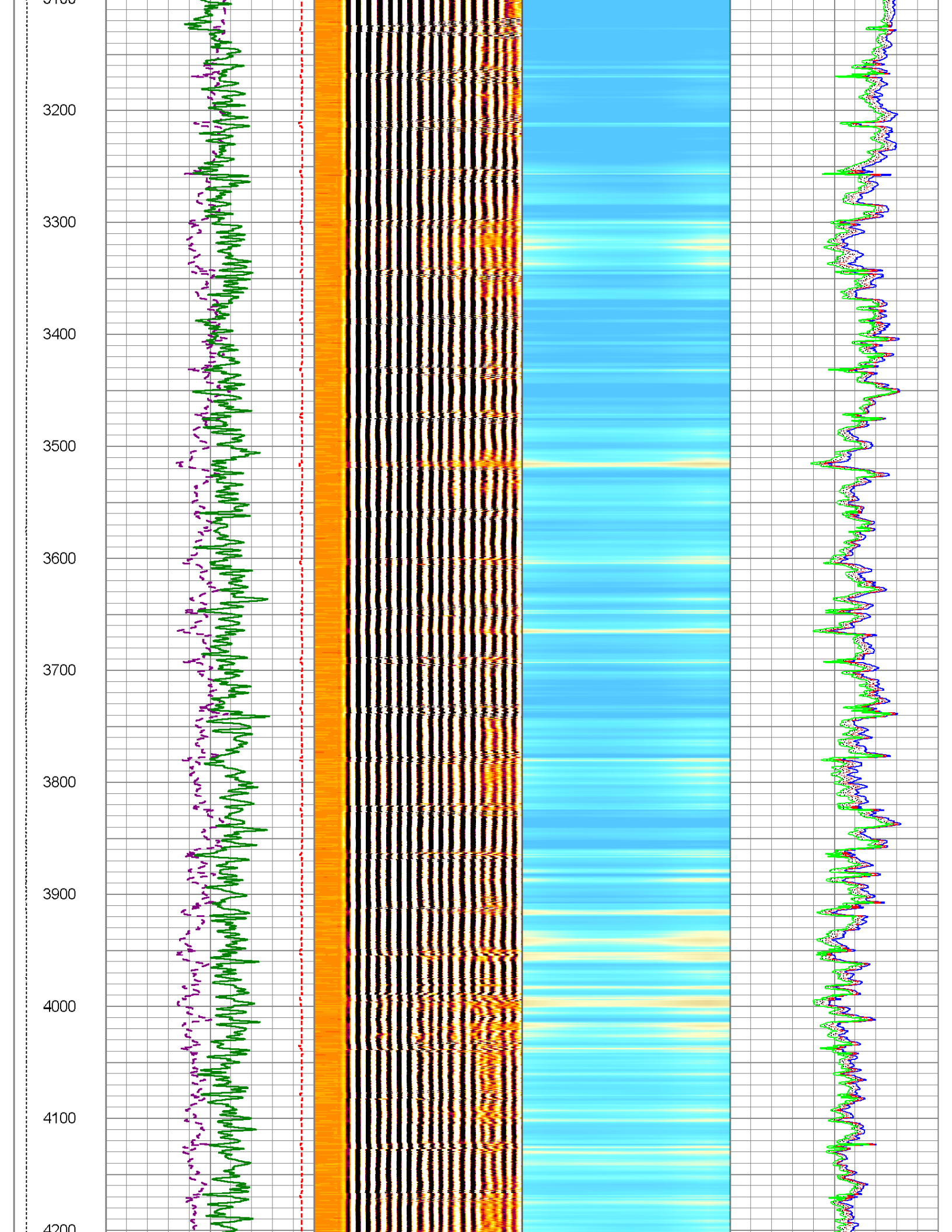
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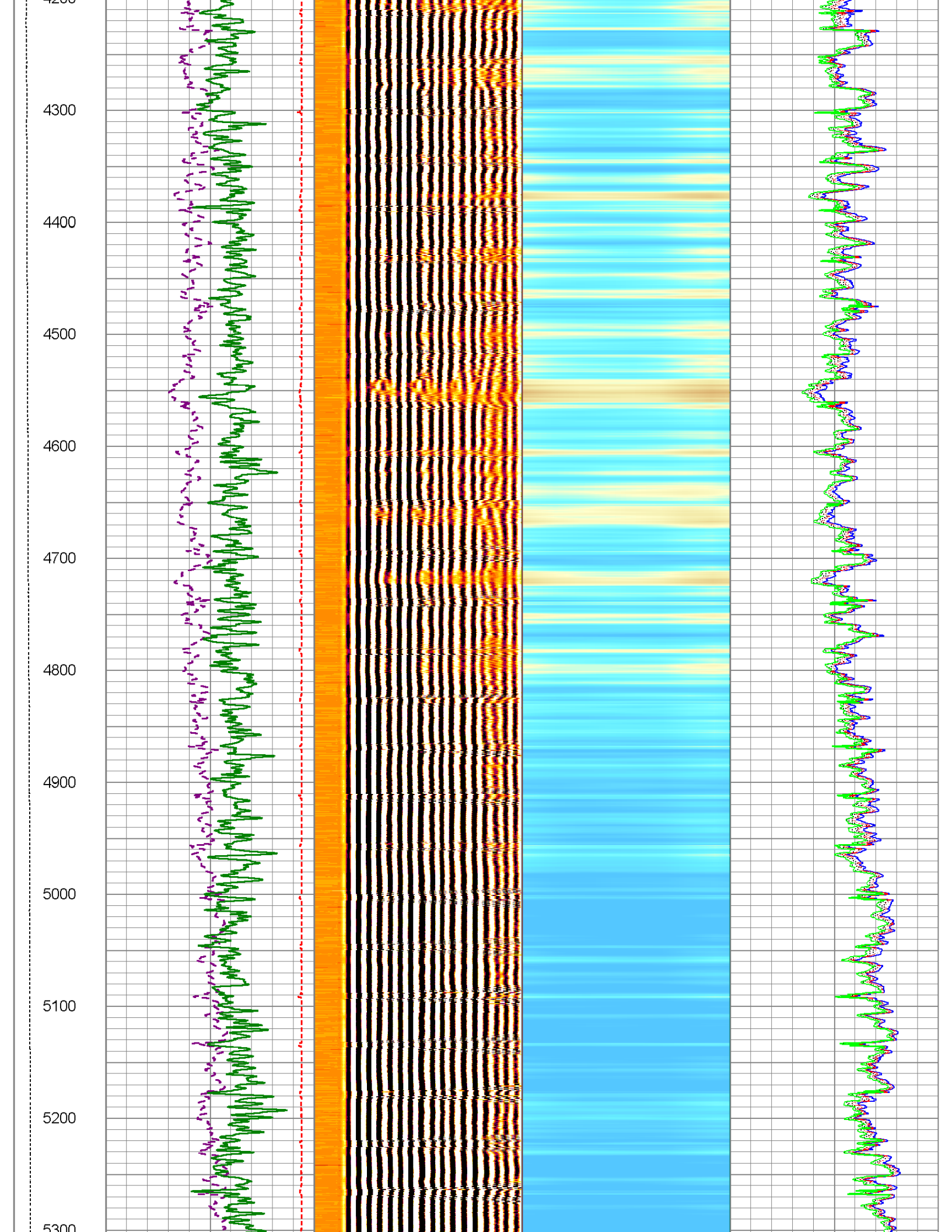
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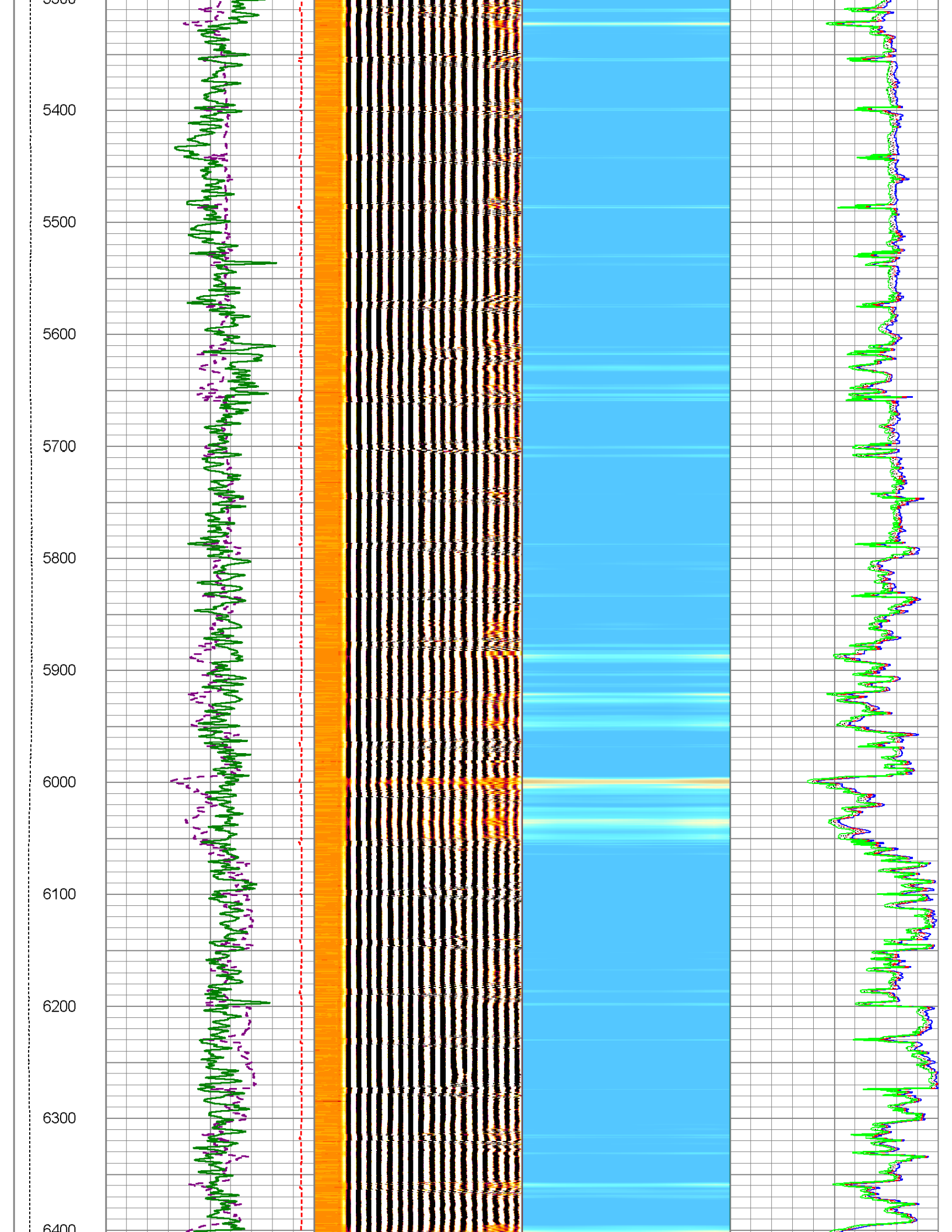
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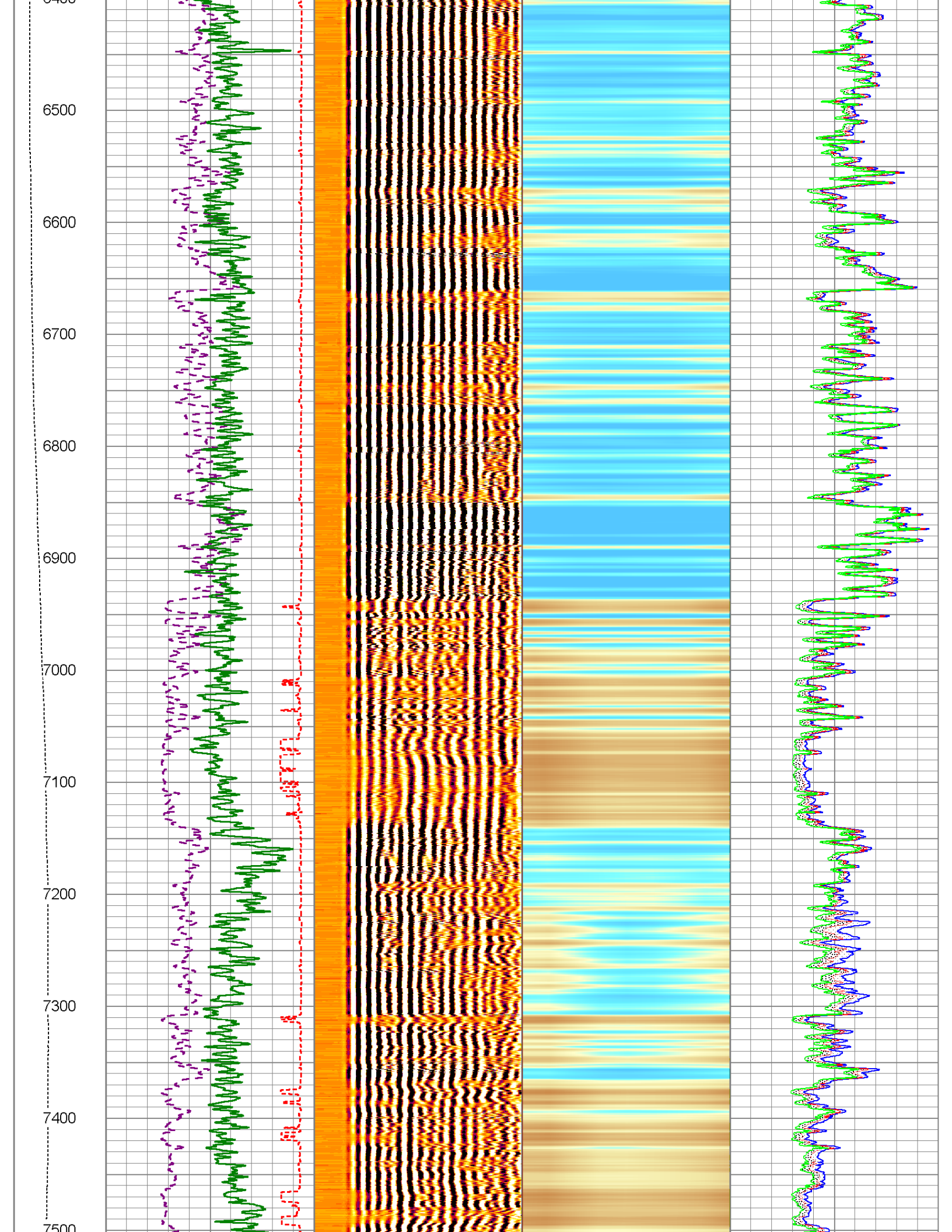
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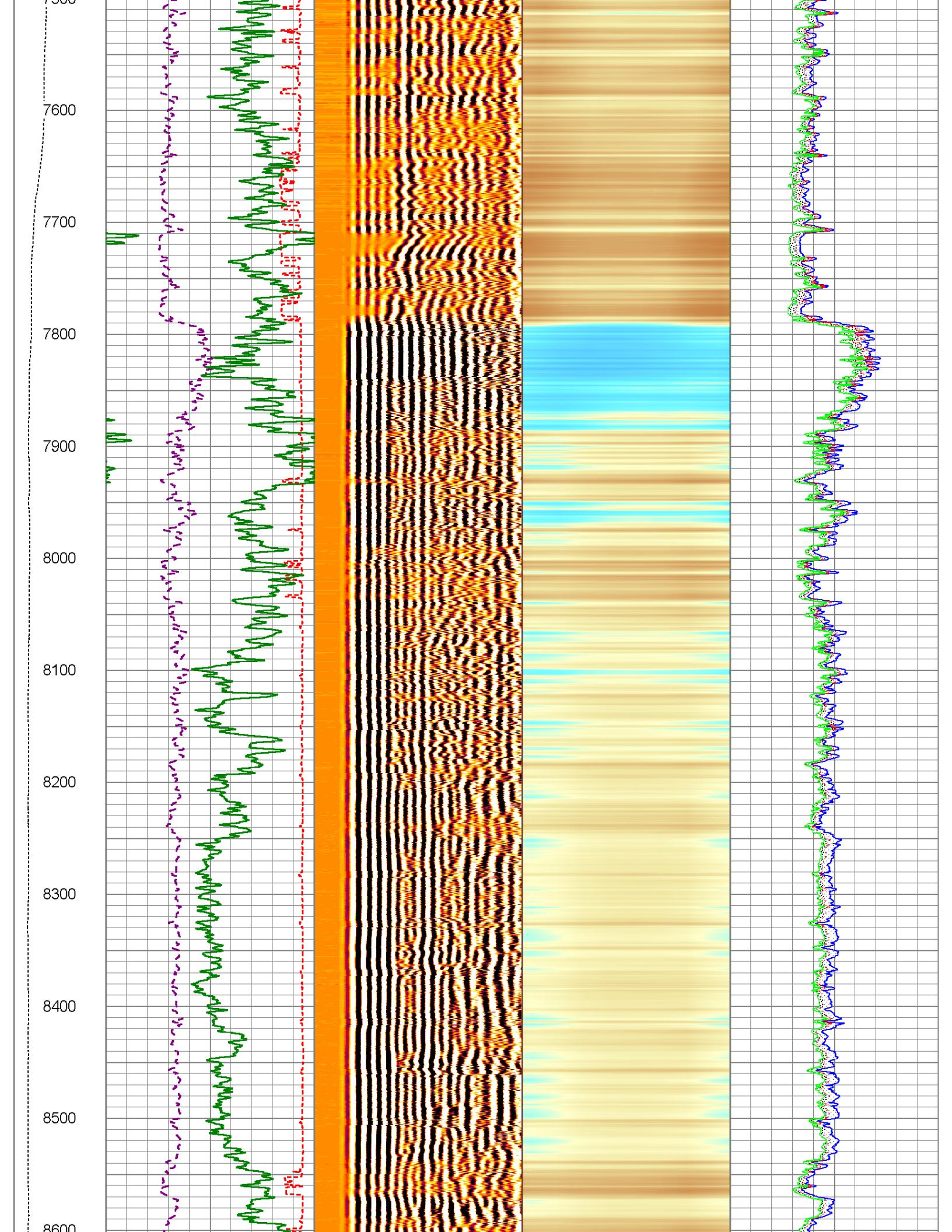
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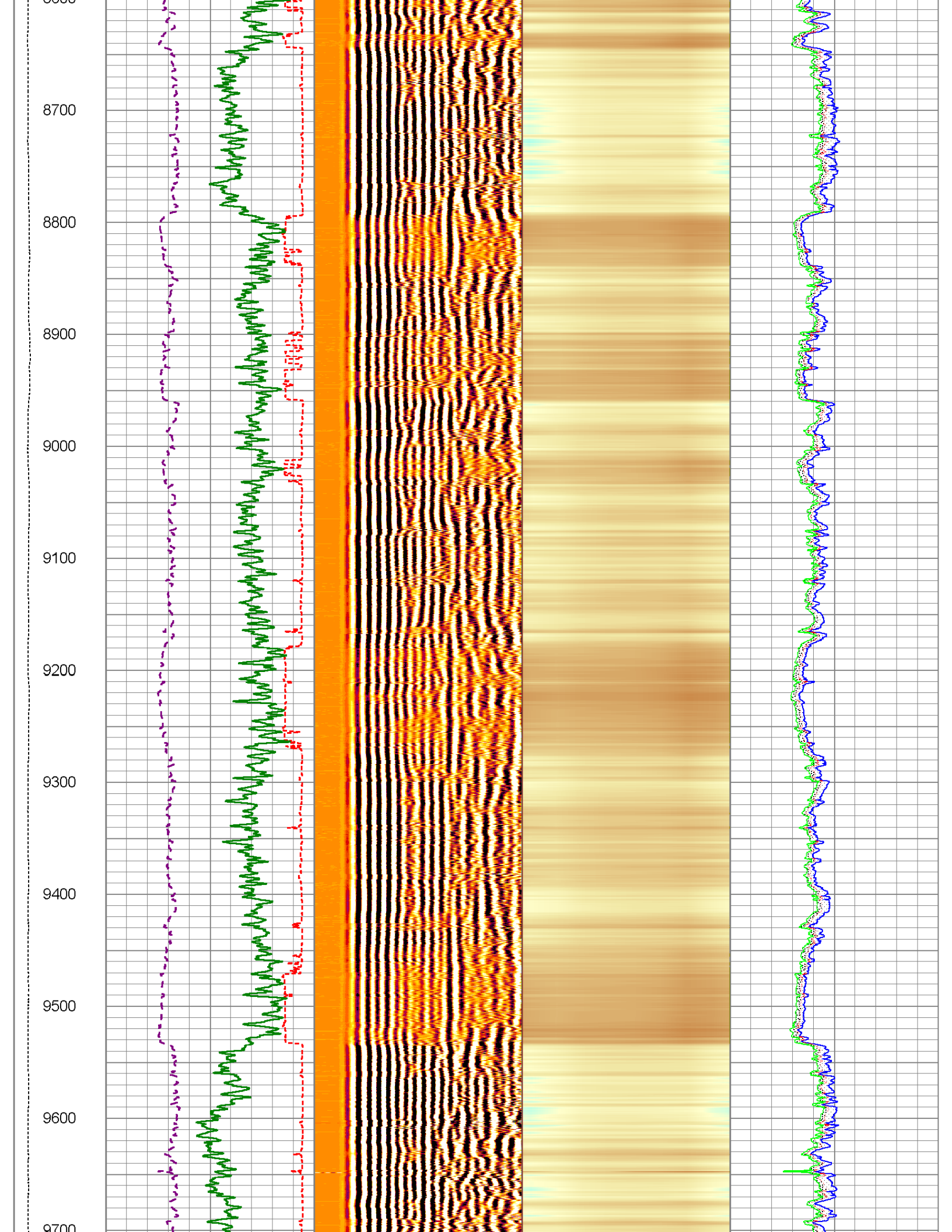
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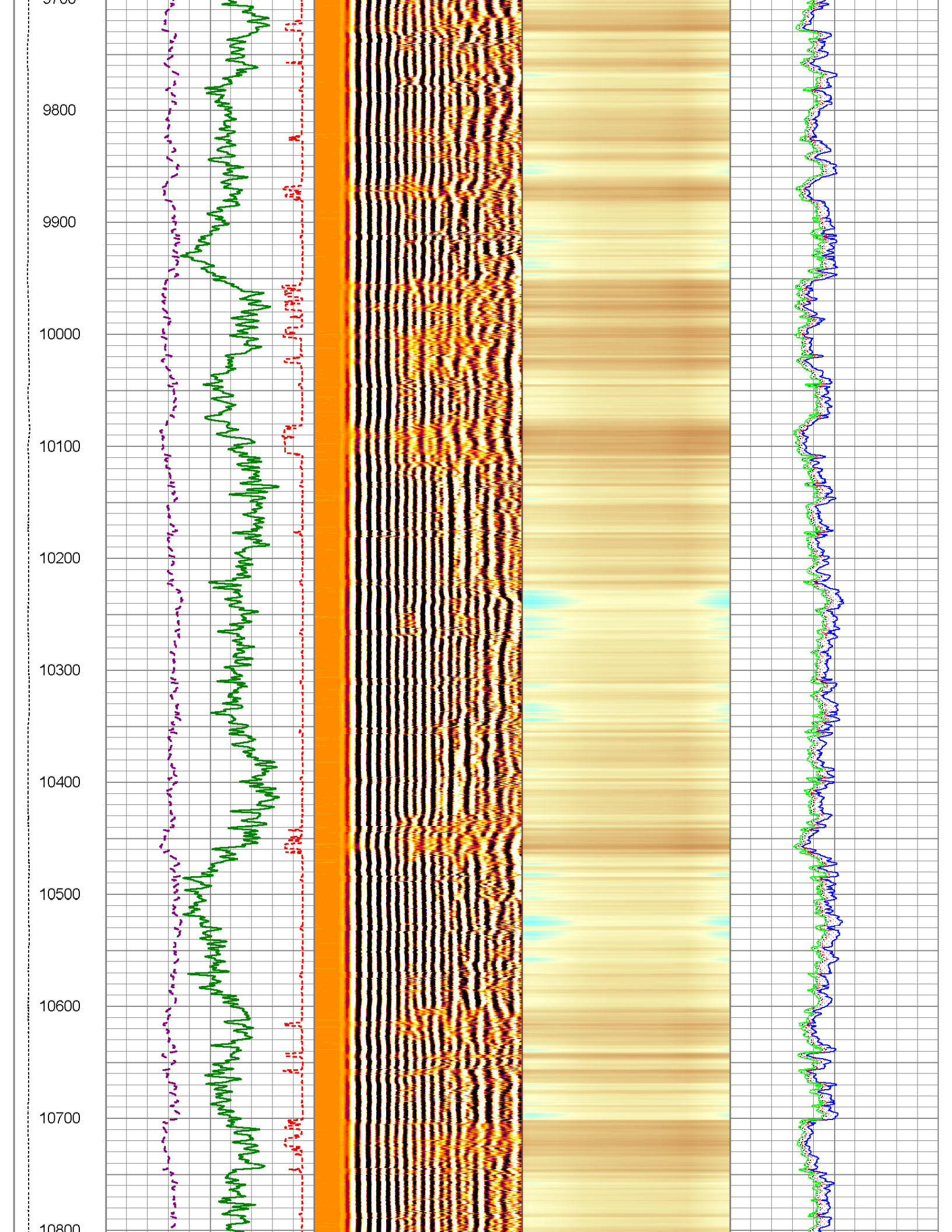
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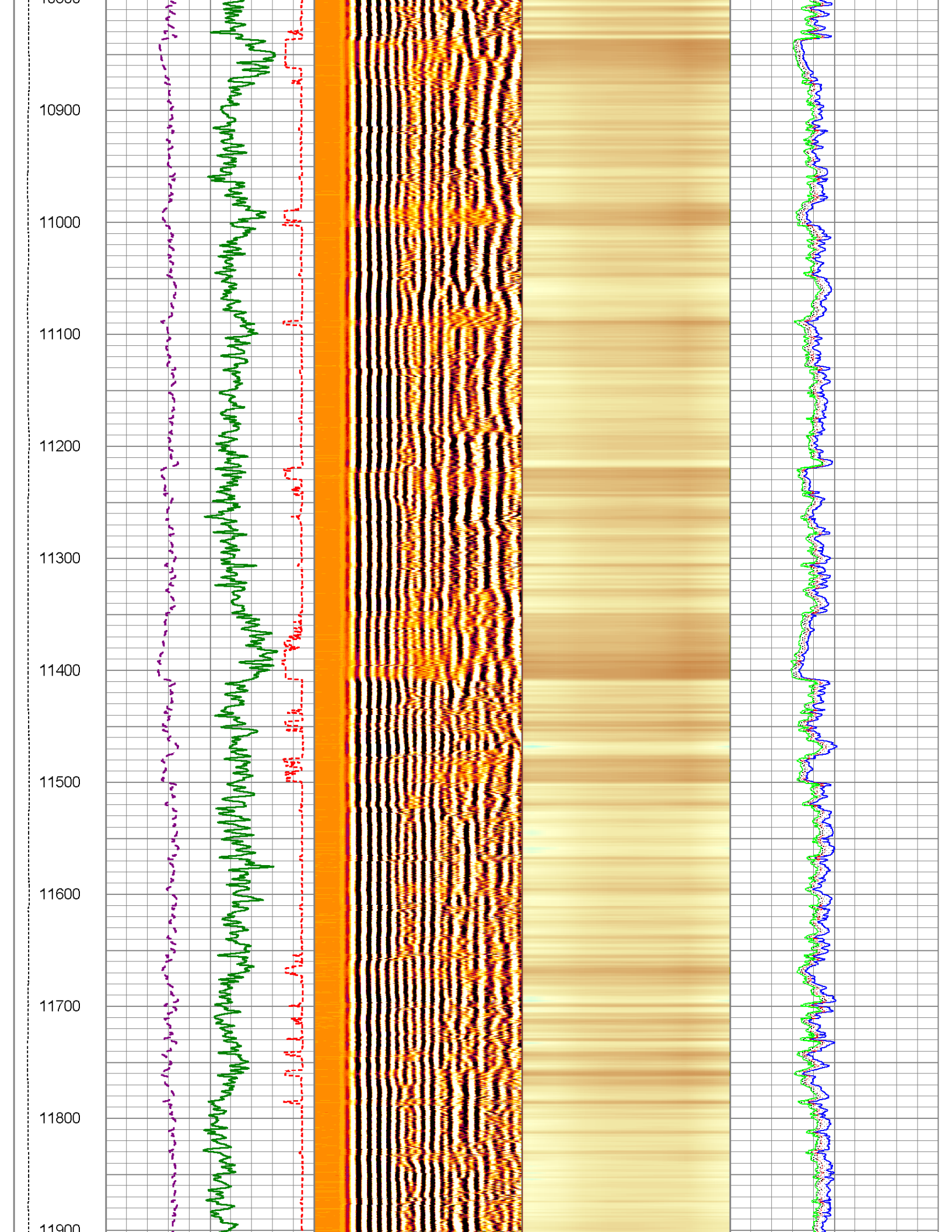
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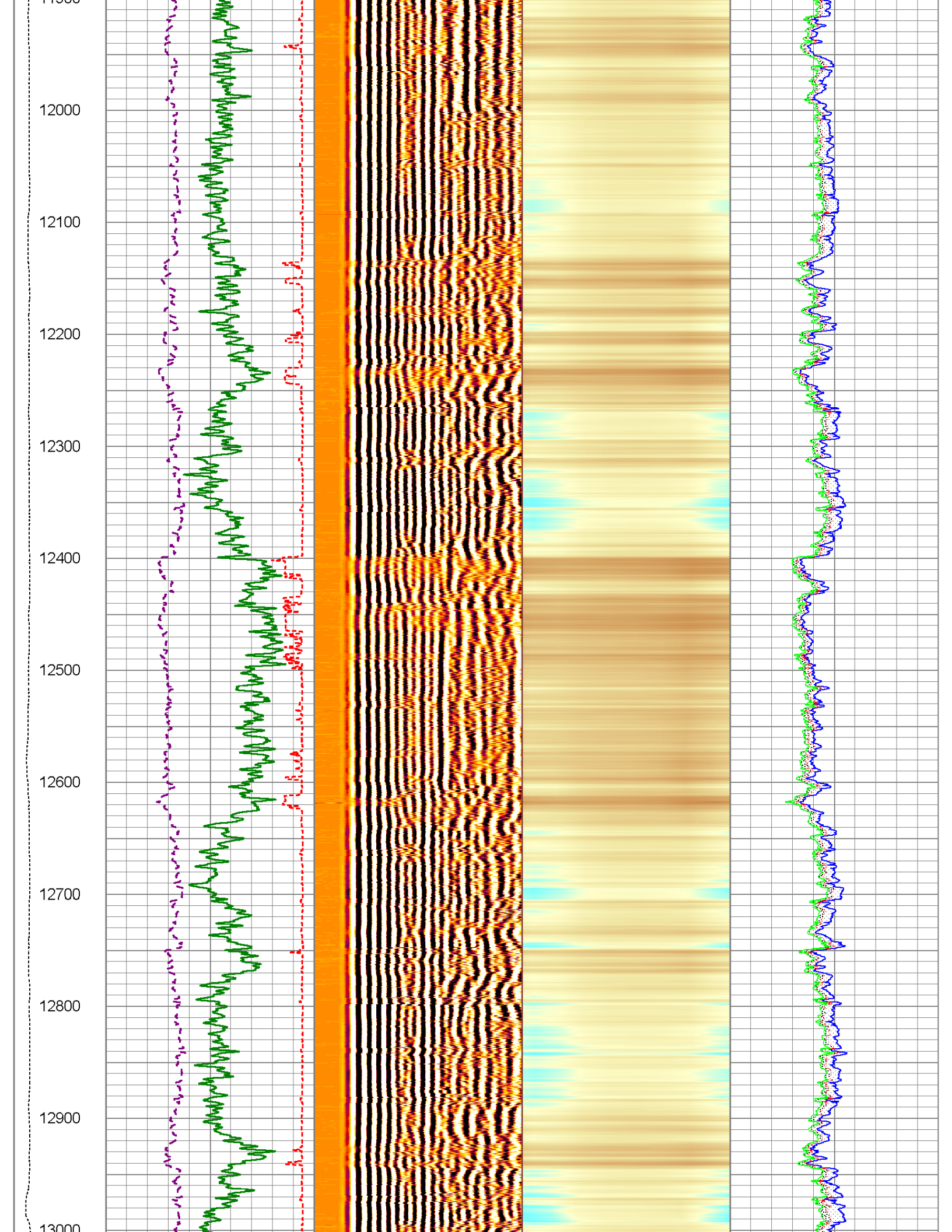
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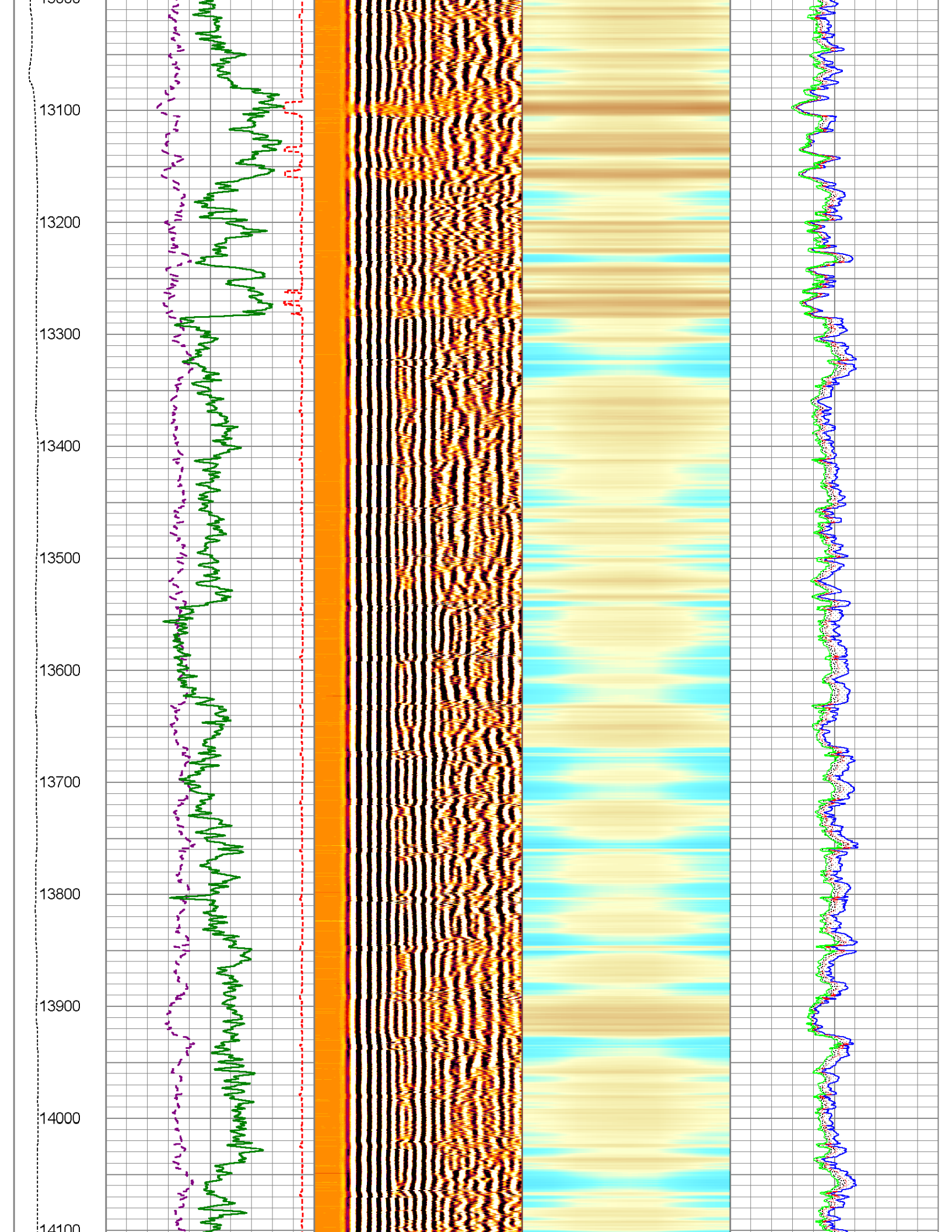
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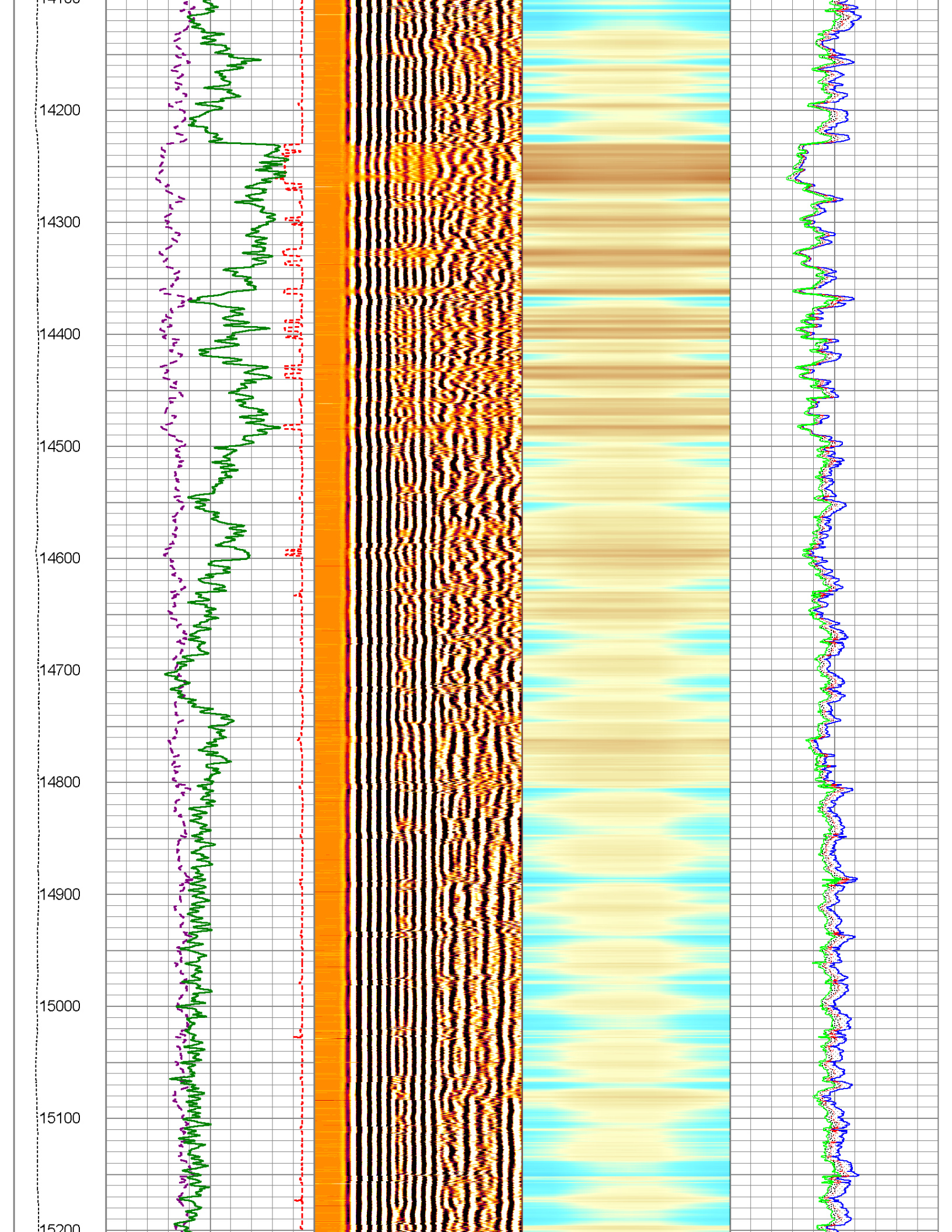
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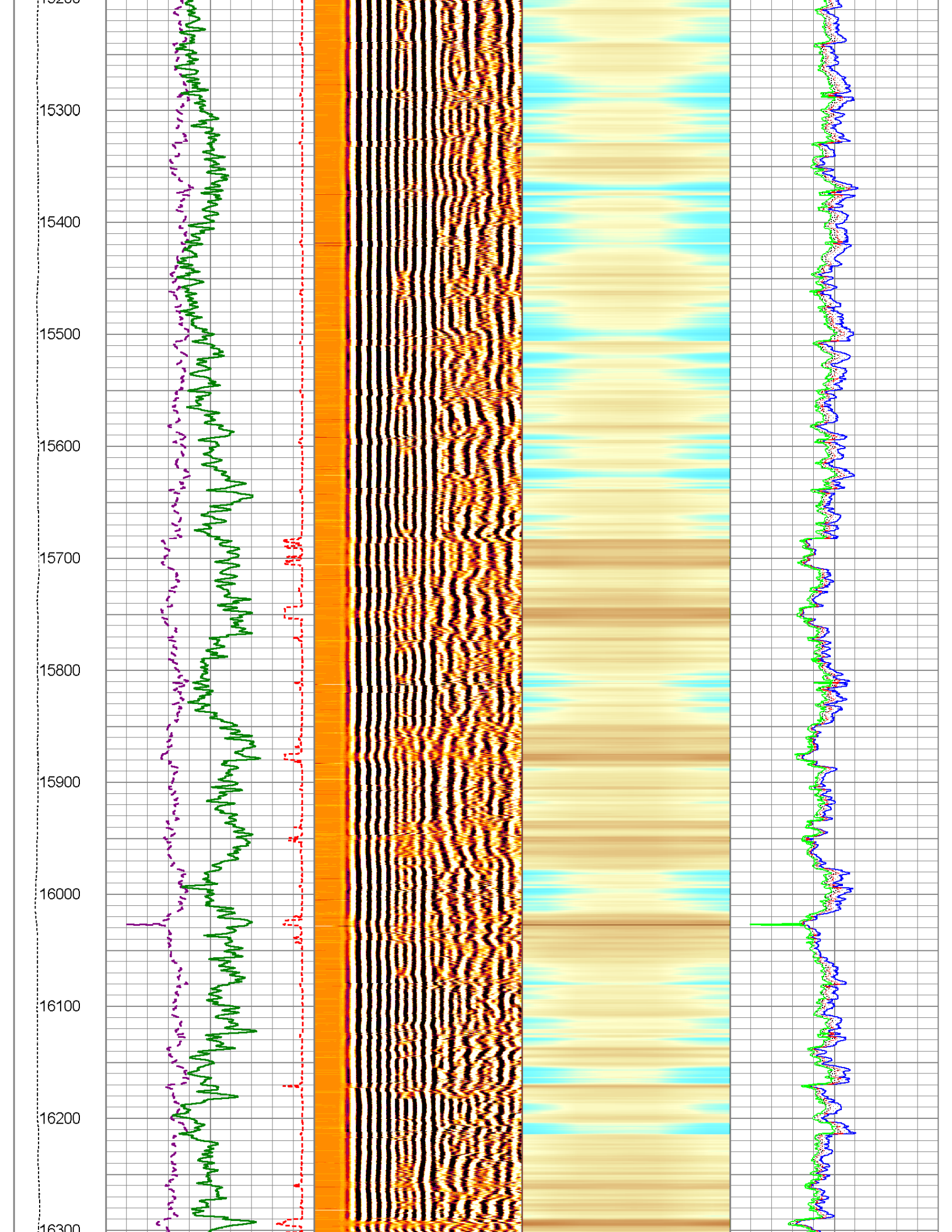
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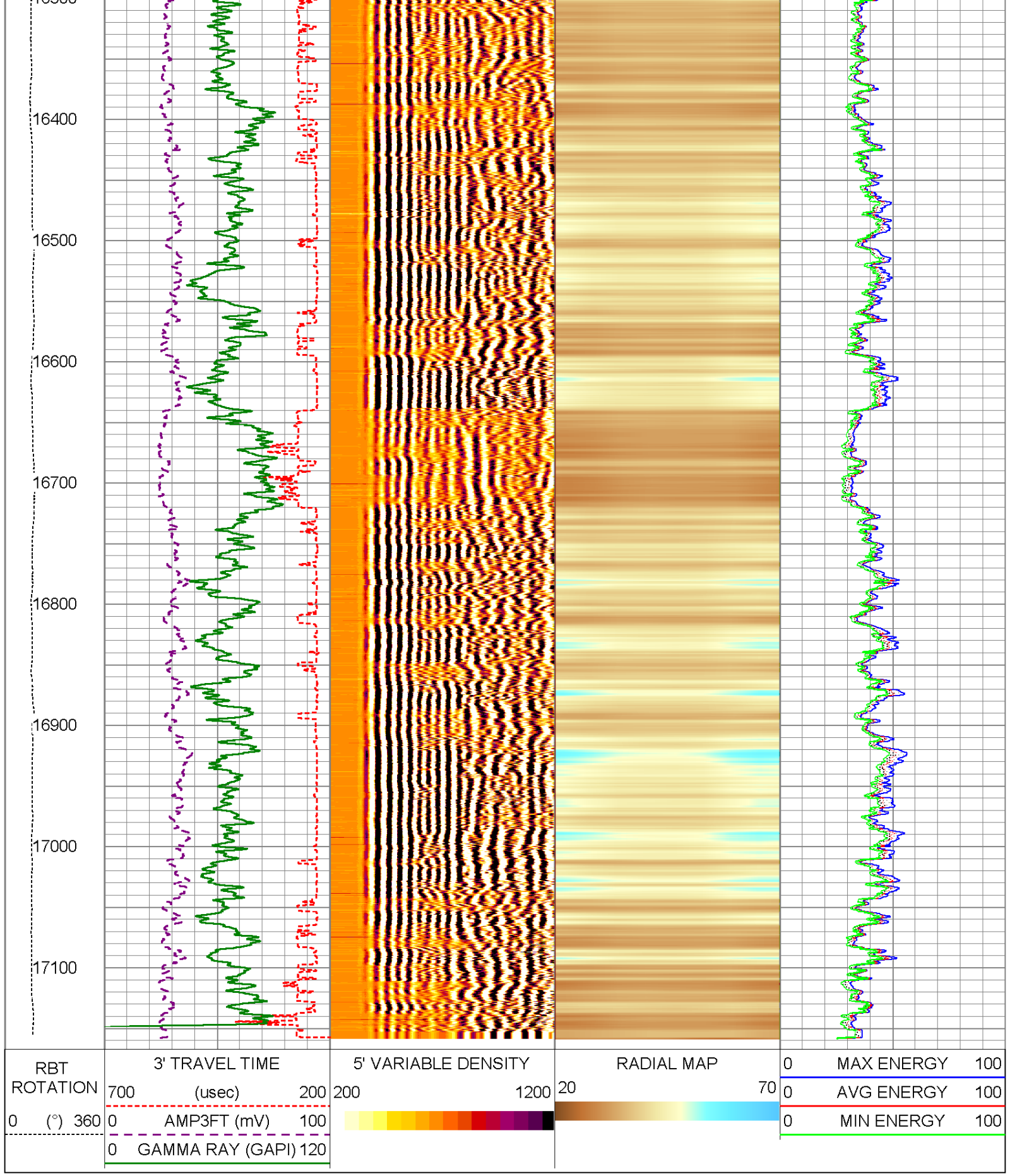

HALLIBURTON

Main Pass

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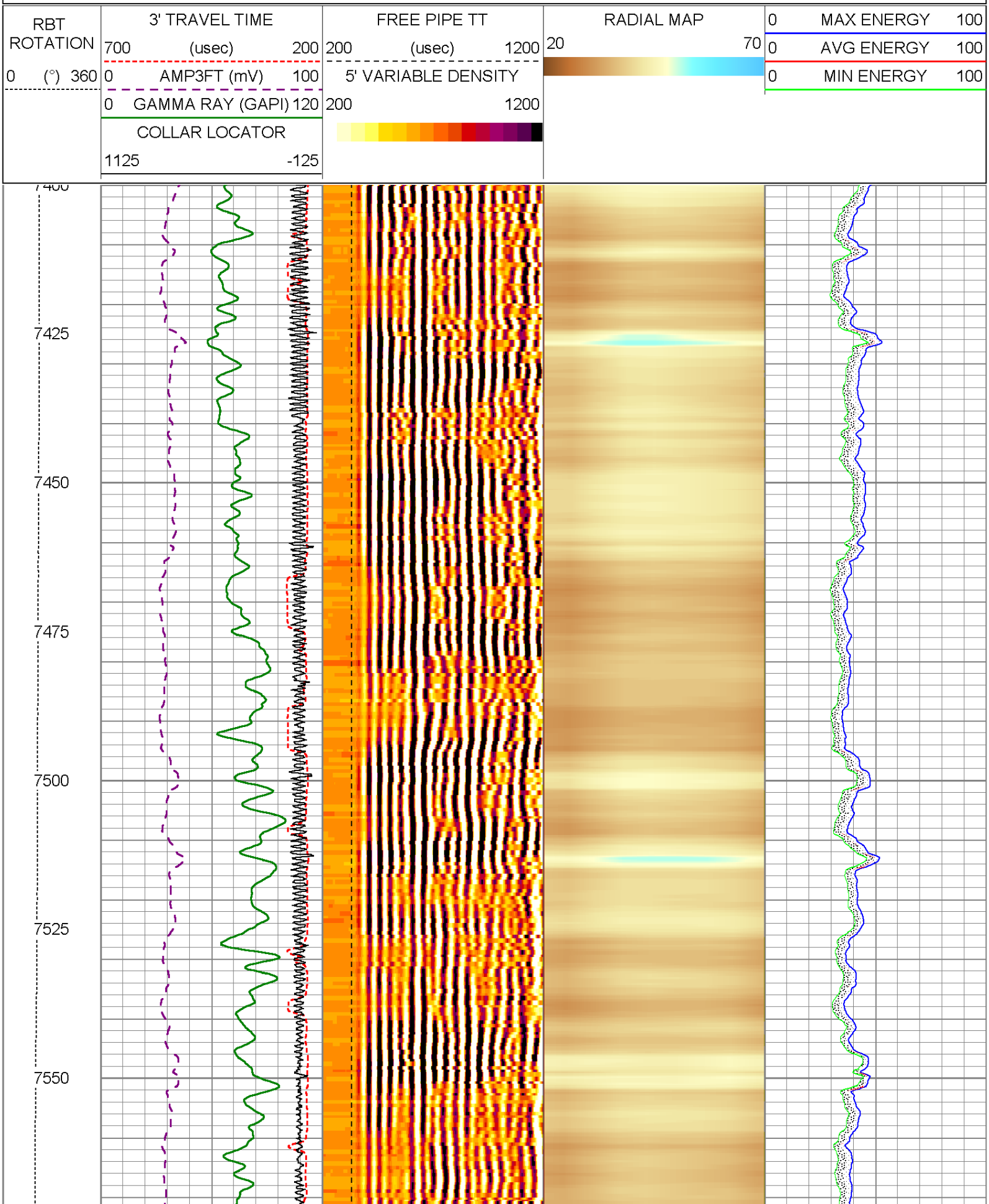
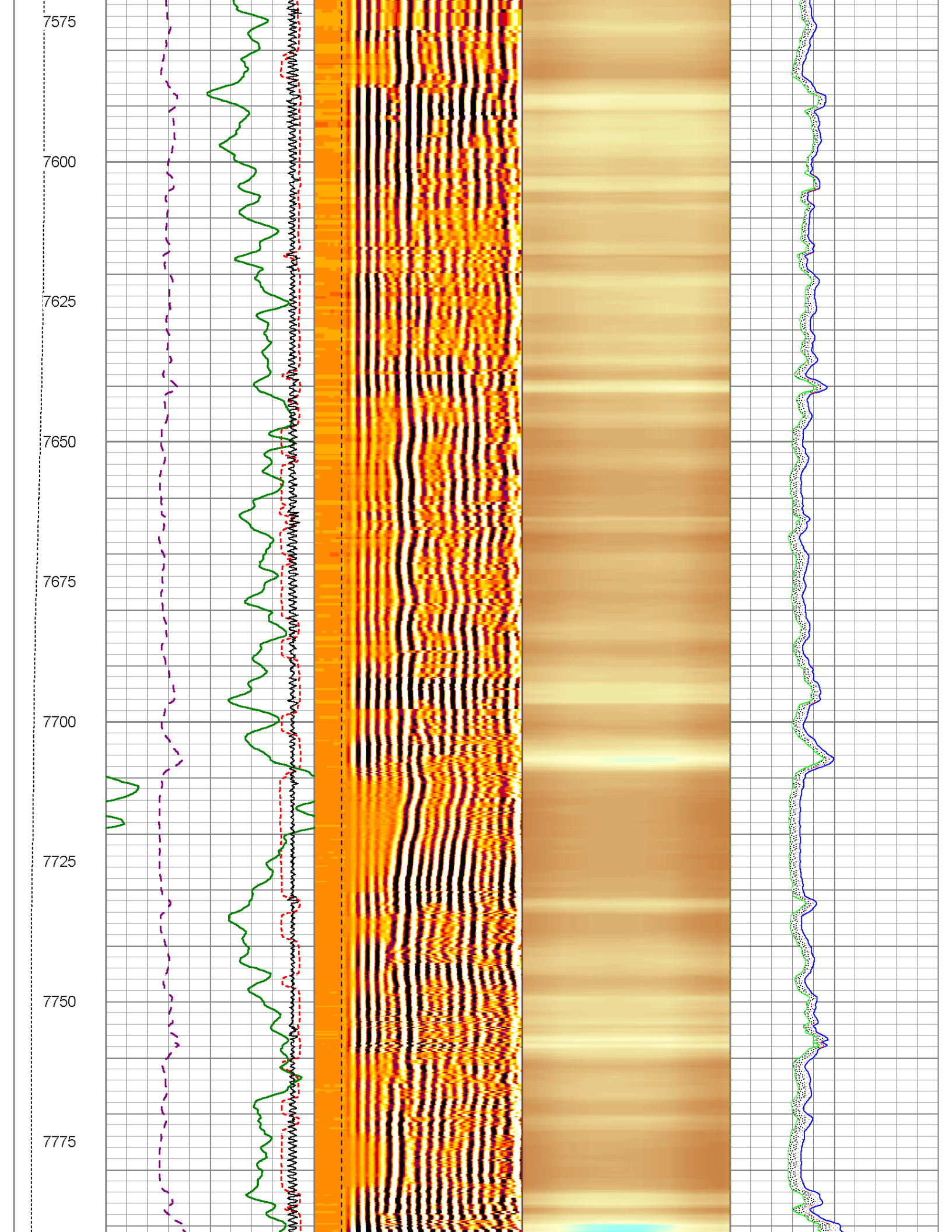
Presentation Format: rbt_5ft
Dataset Creation: Tue Mar 04 14:00:57 2014 by Calc Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

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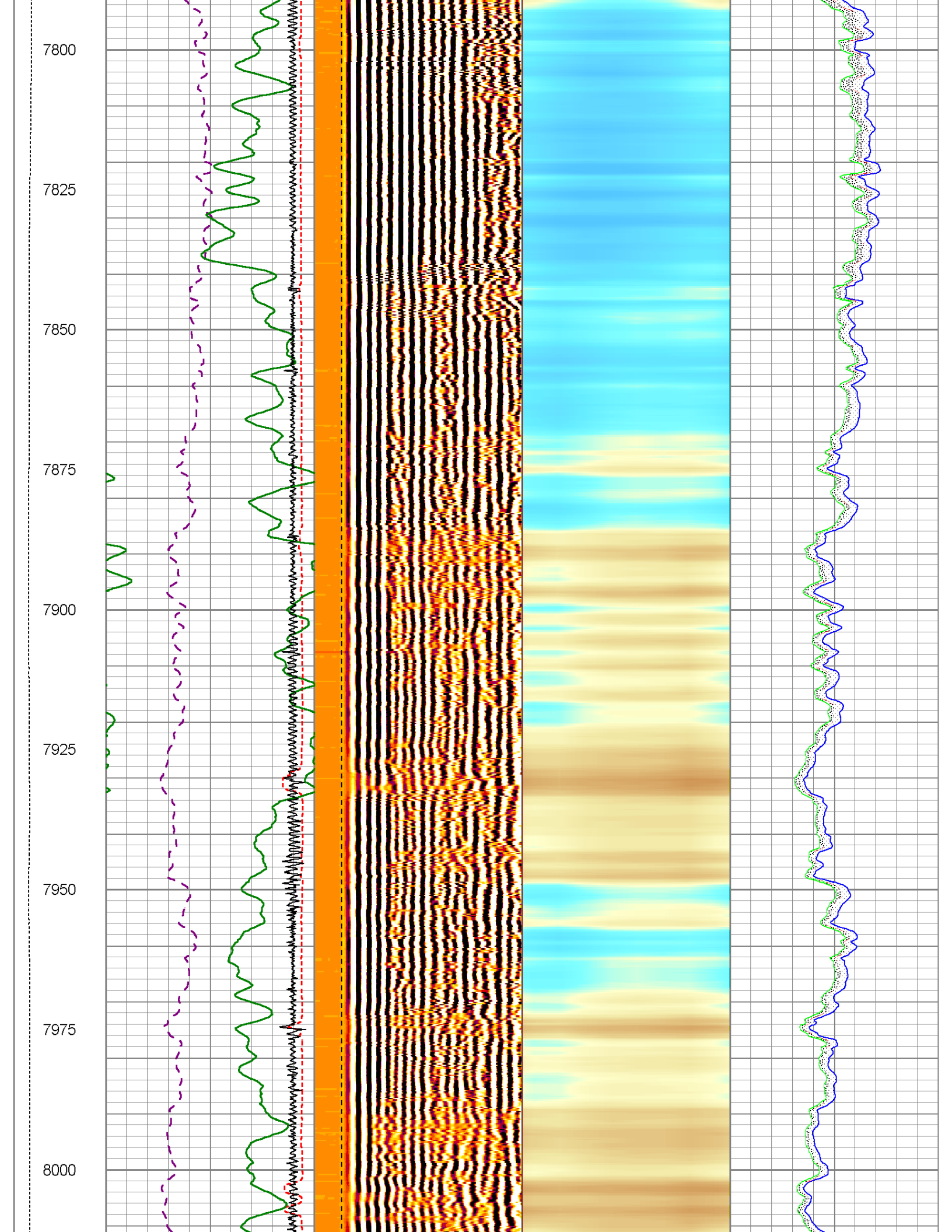
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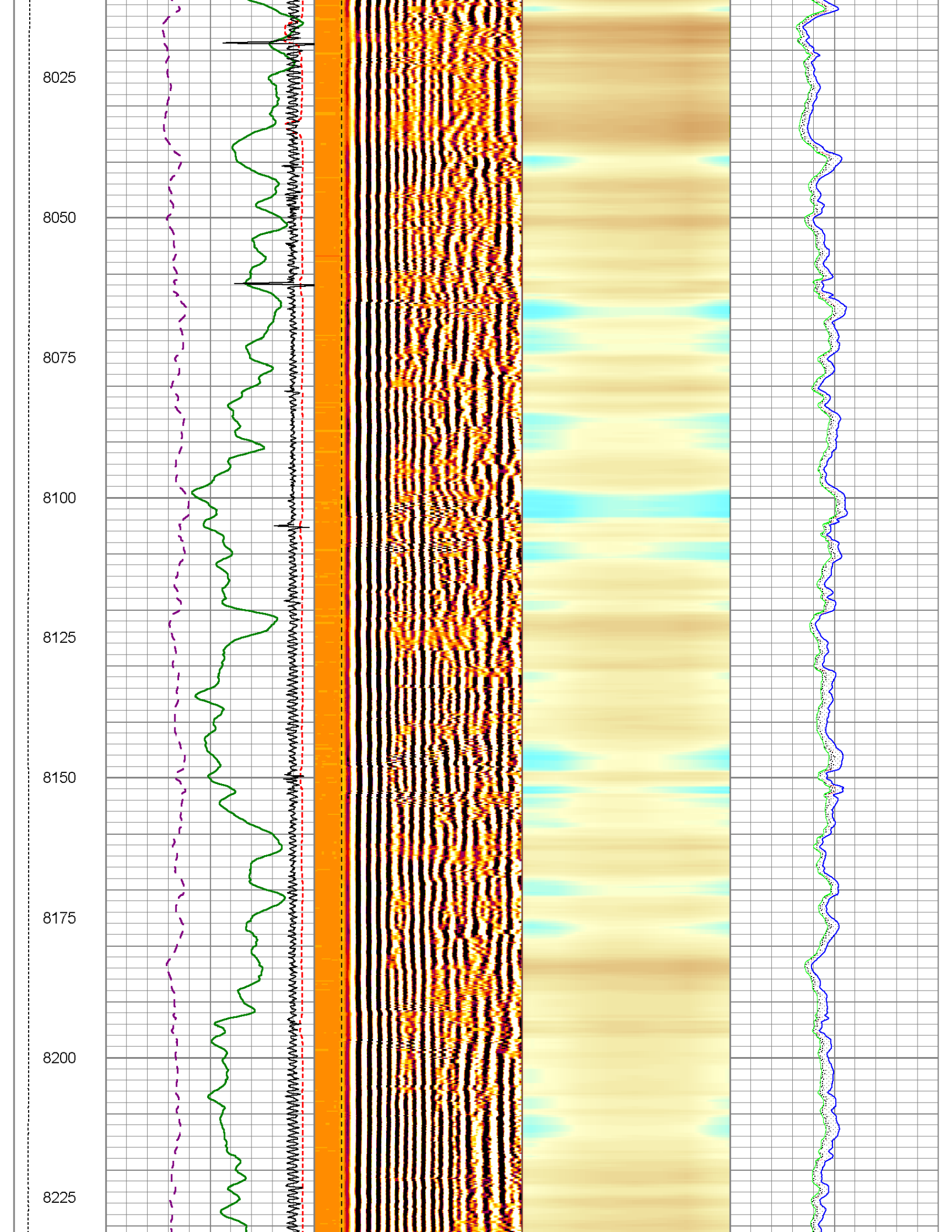
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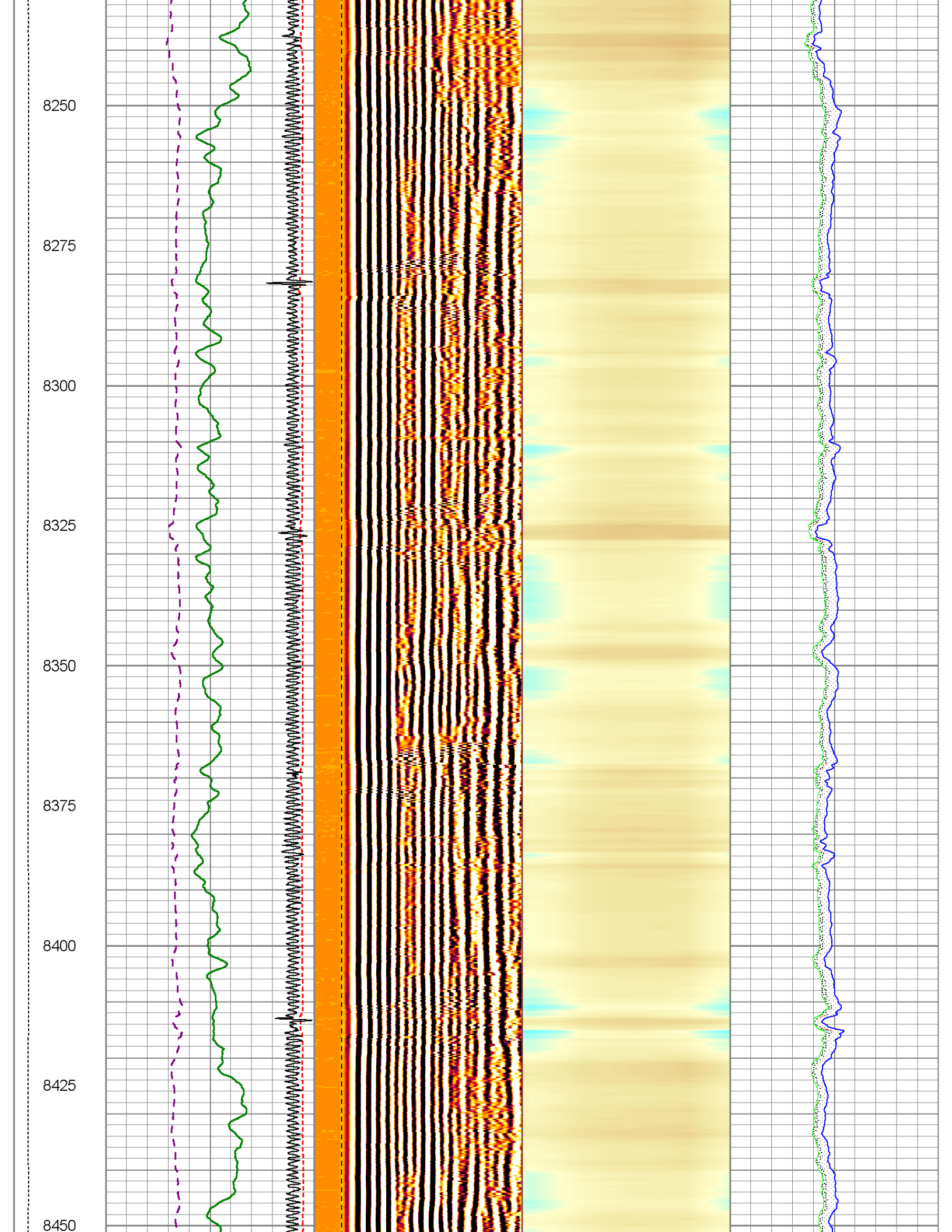
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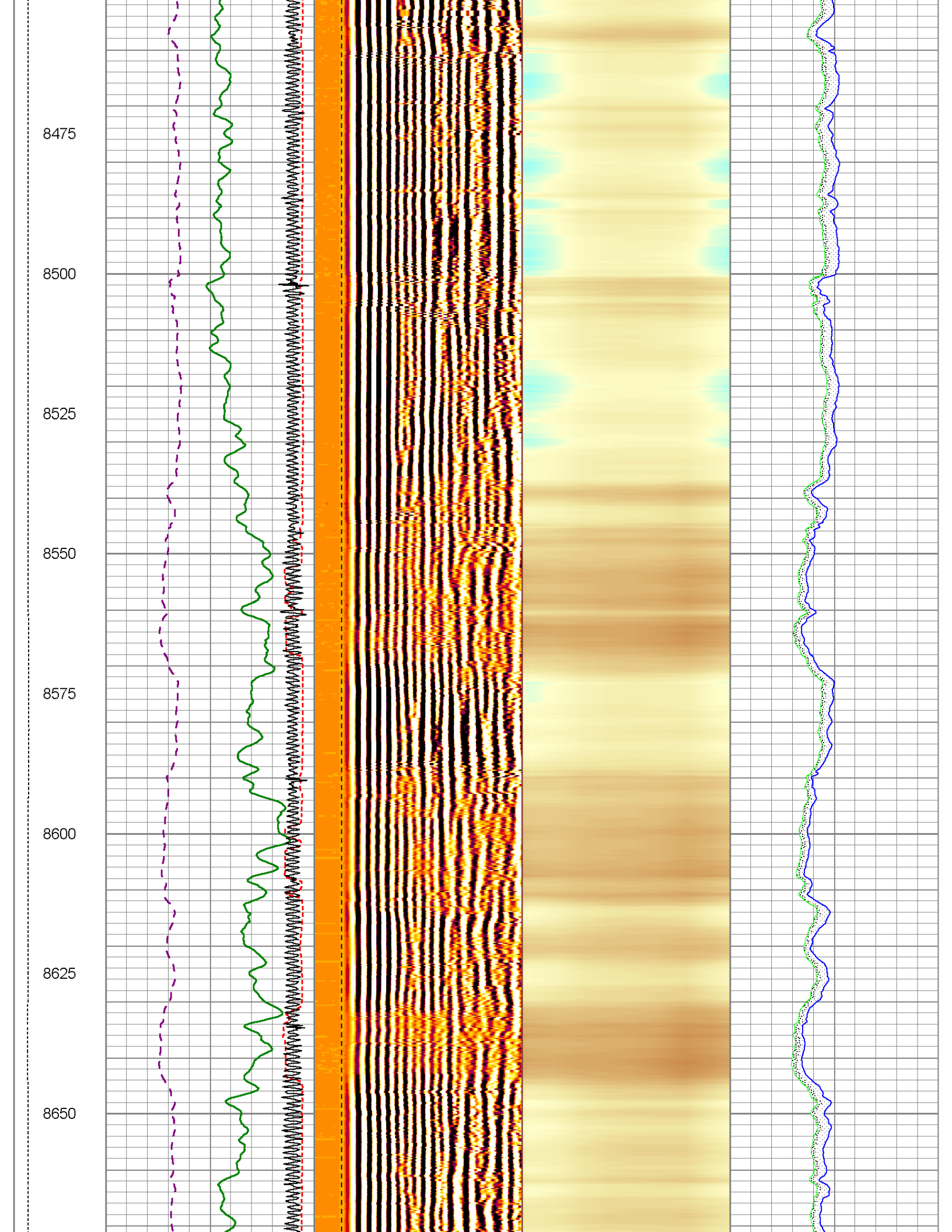
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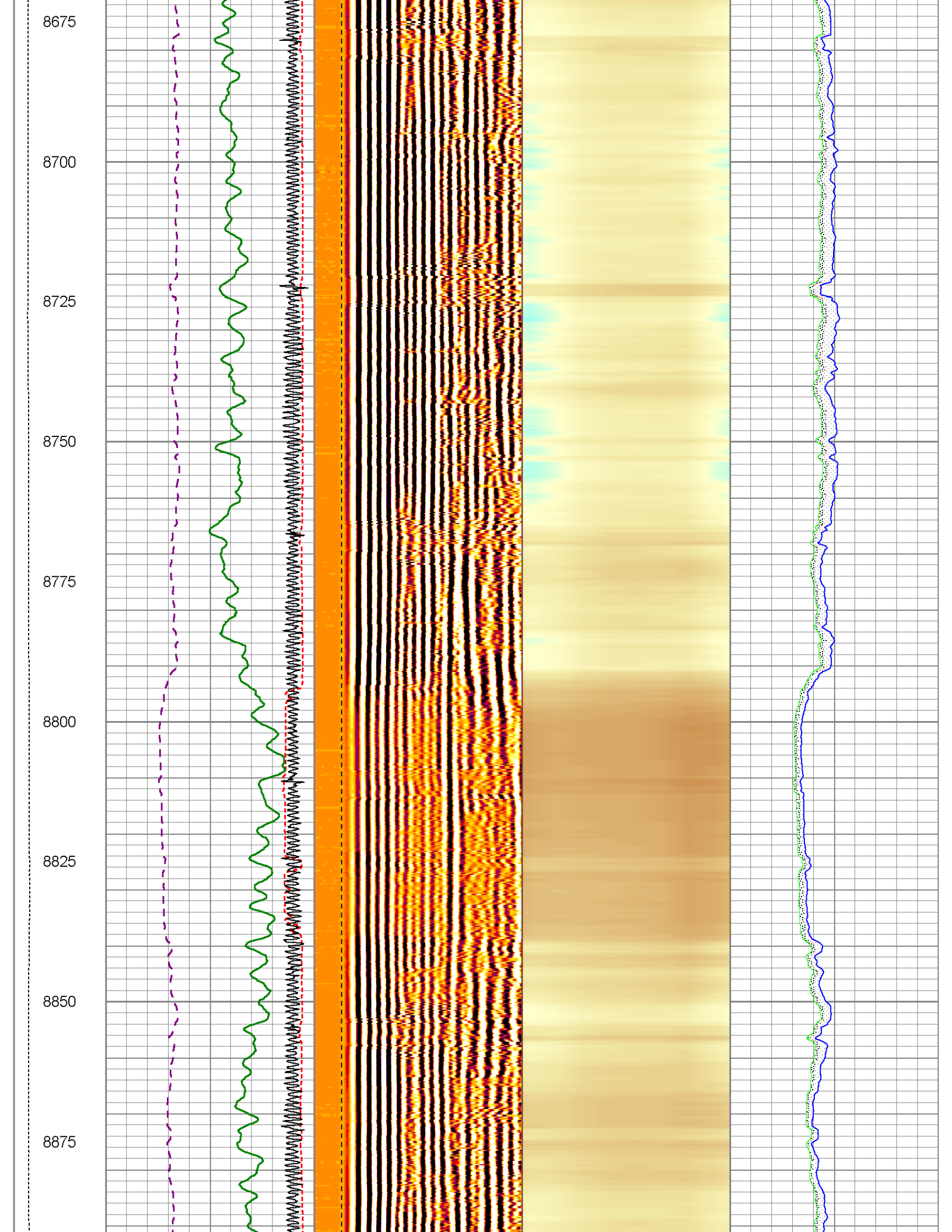
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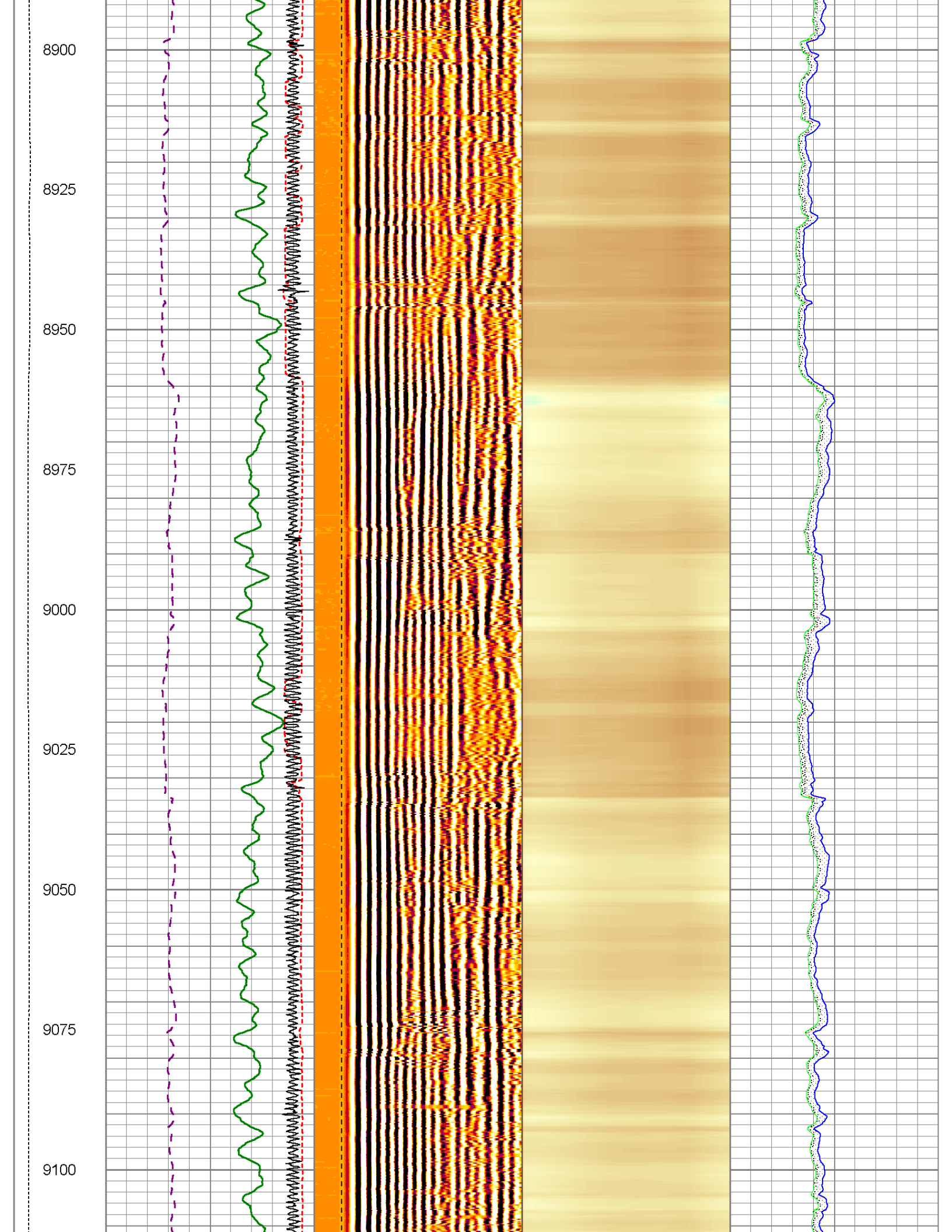
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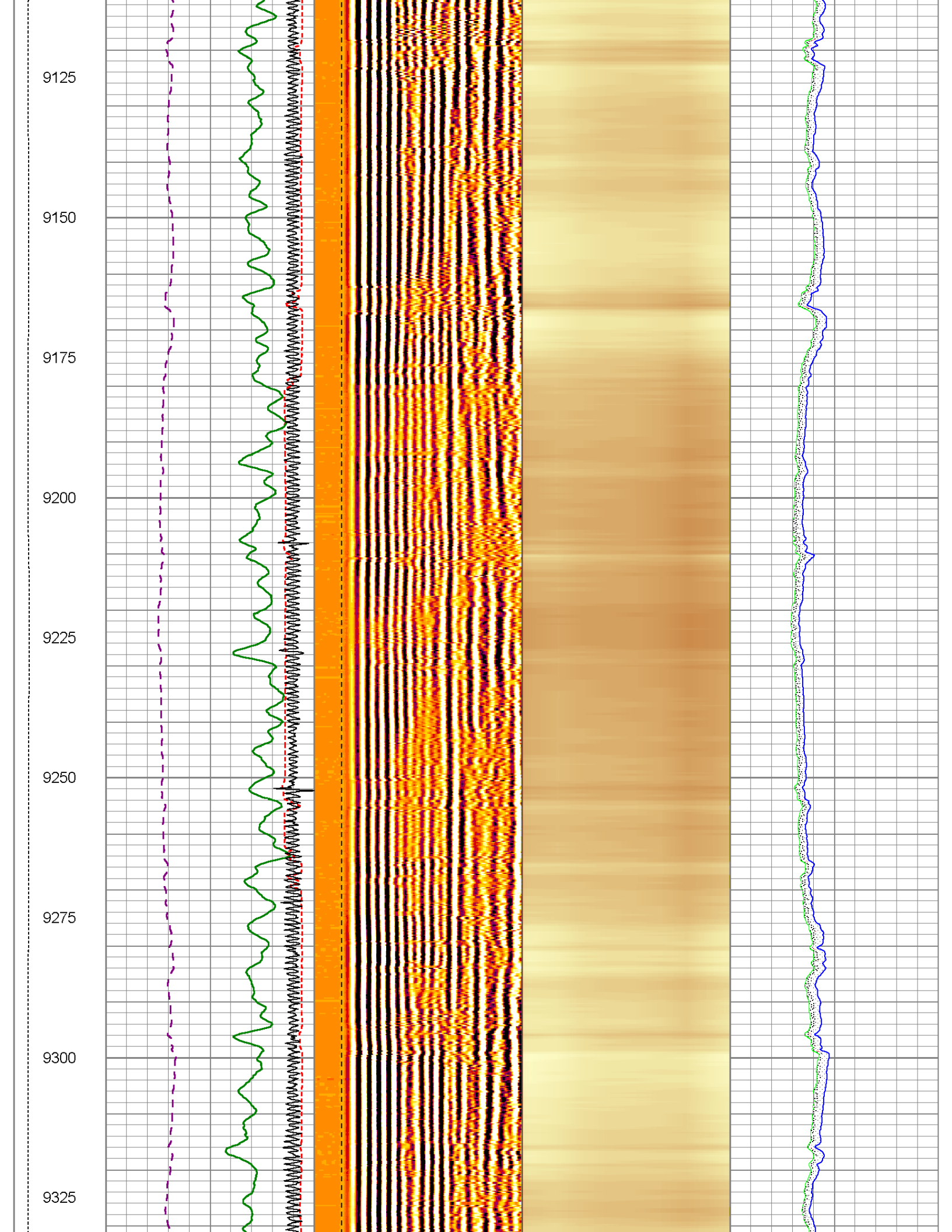
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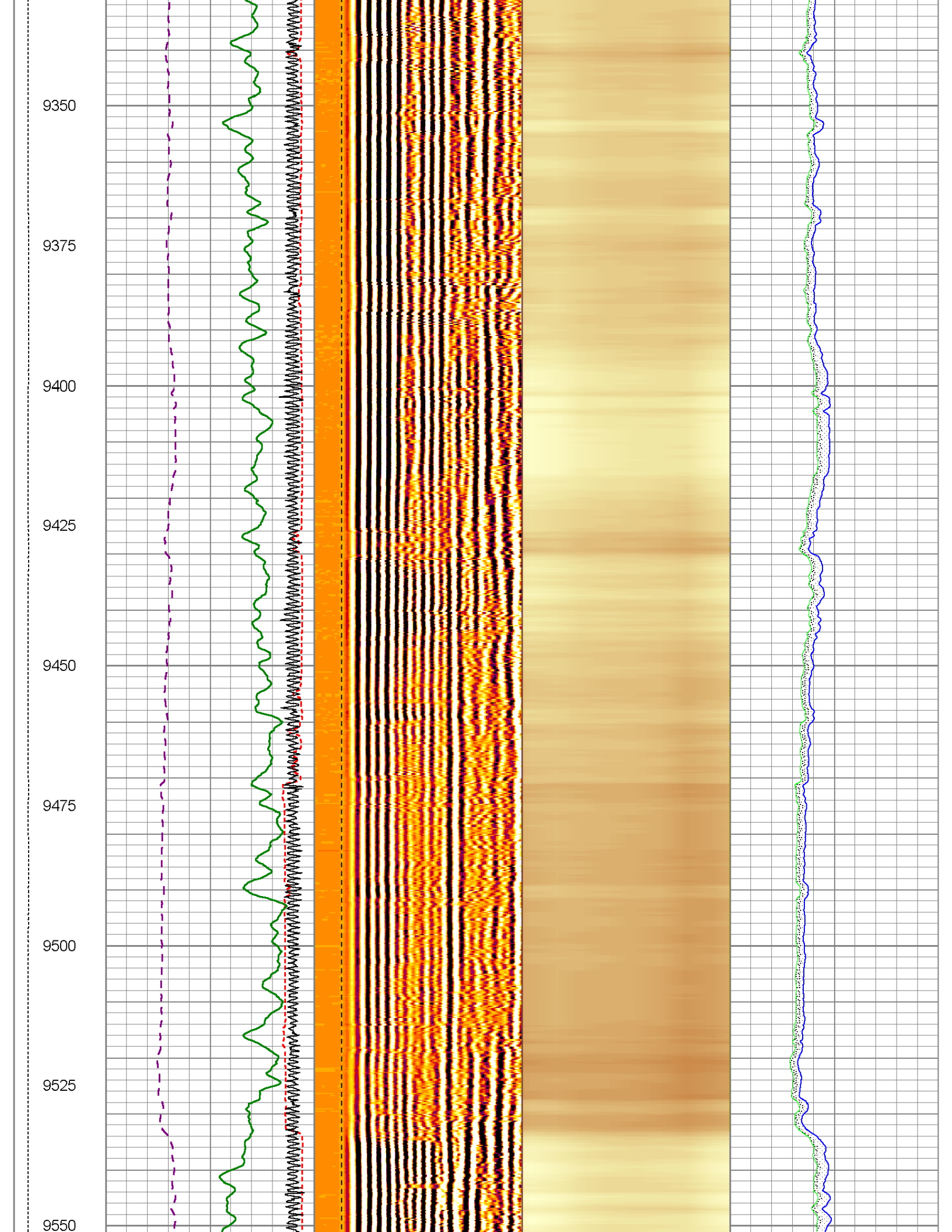
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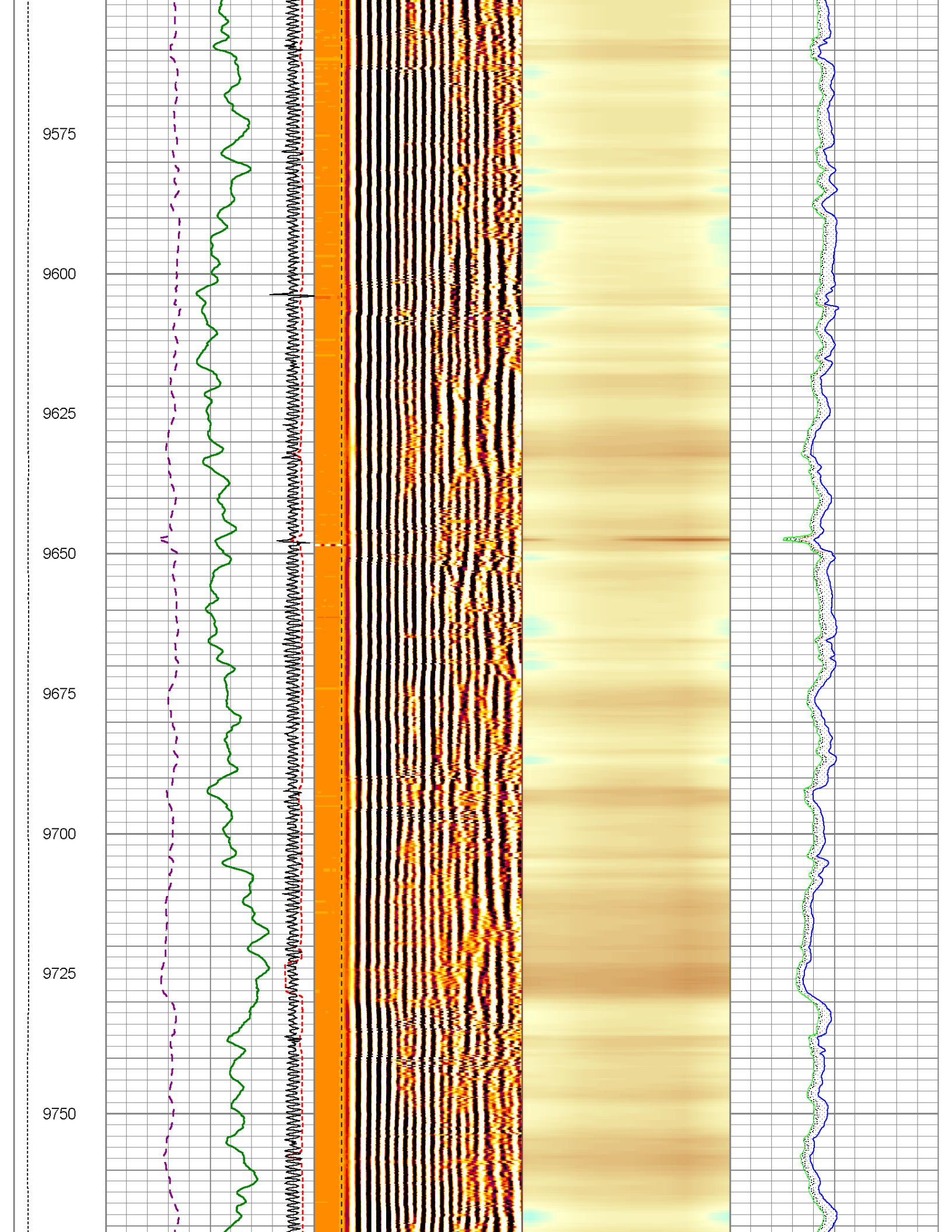
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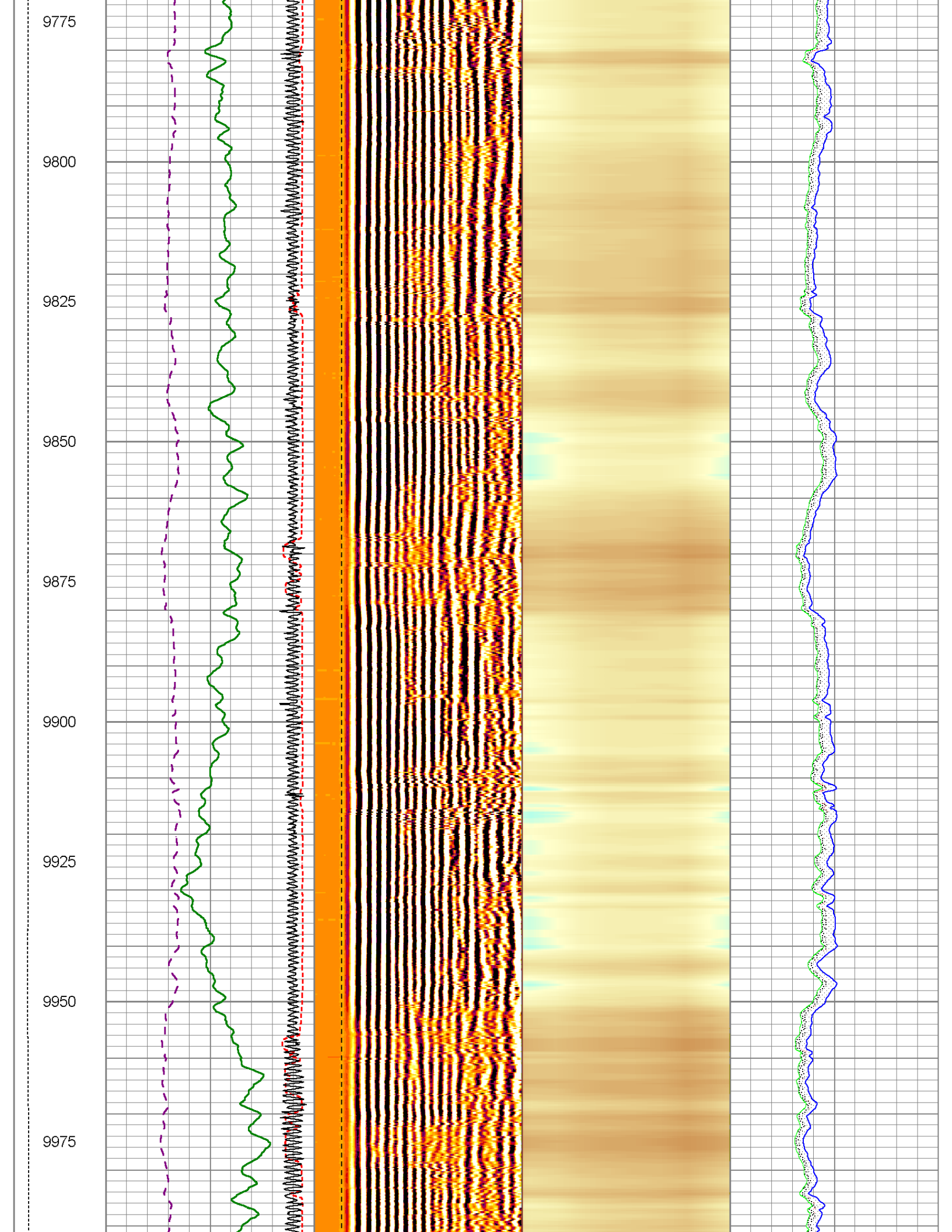
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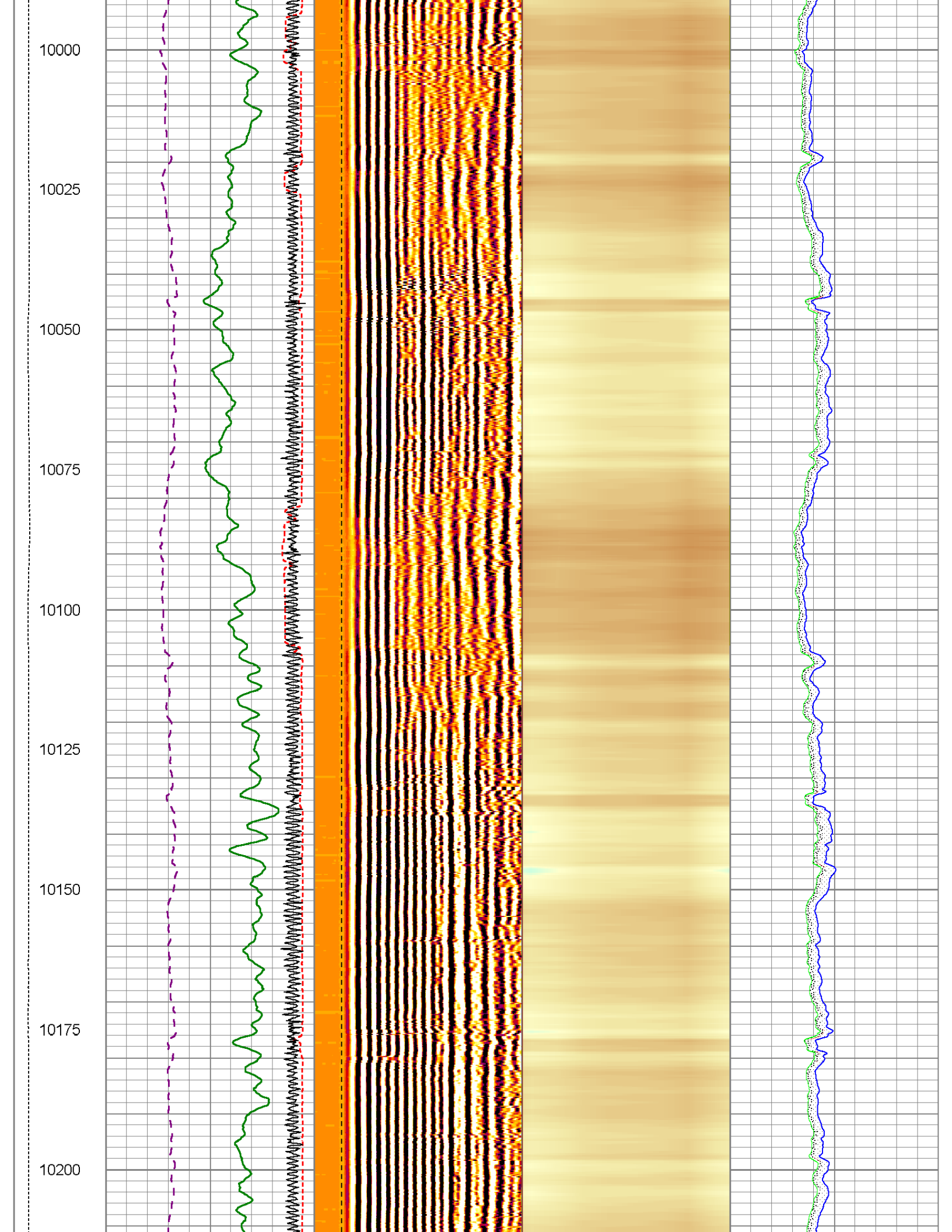
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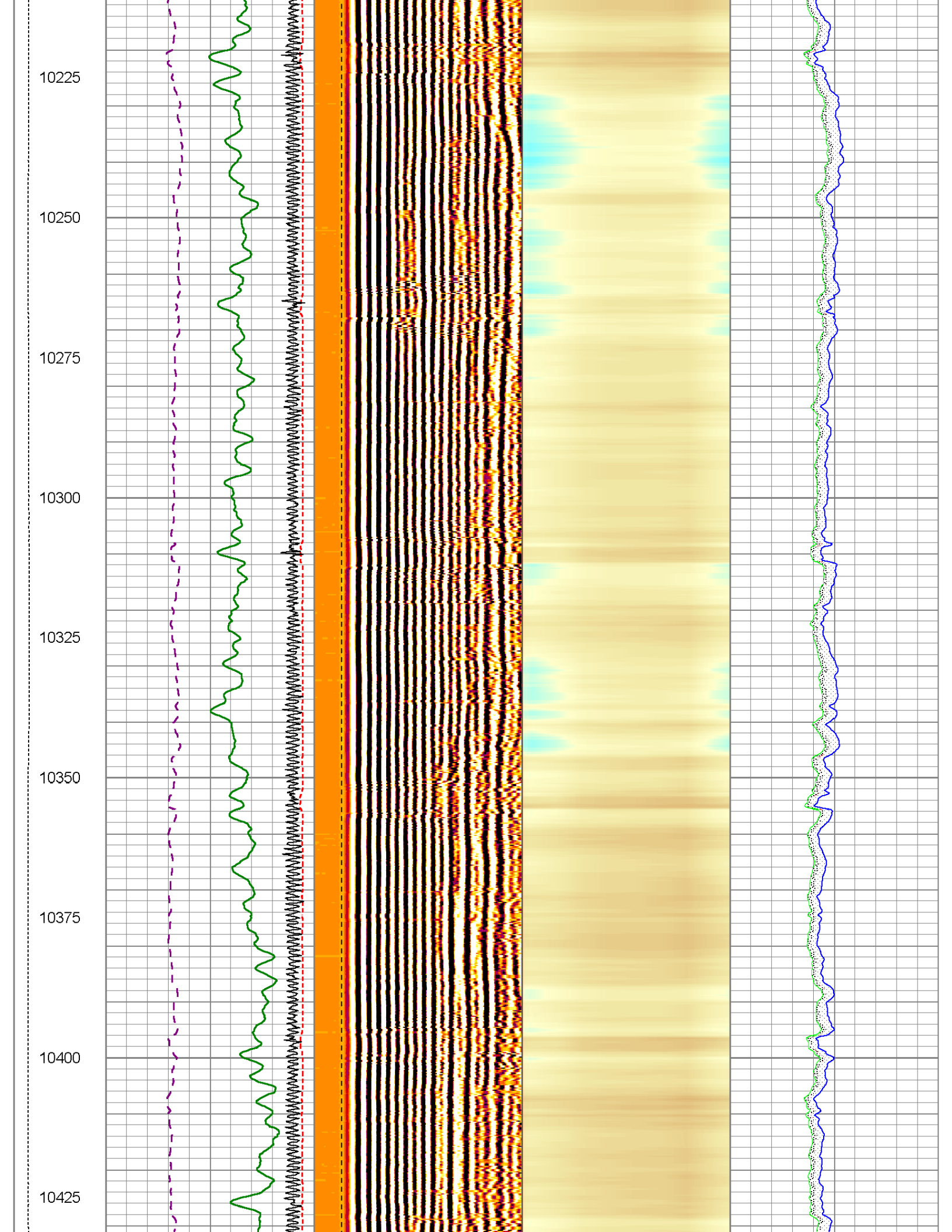
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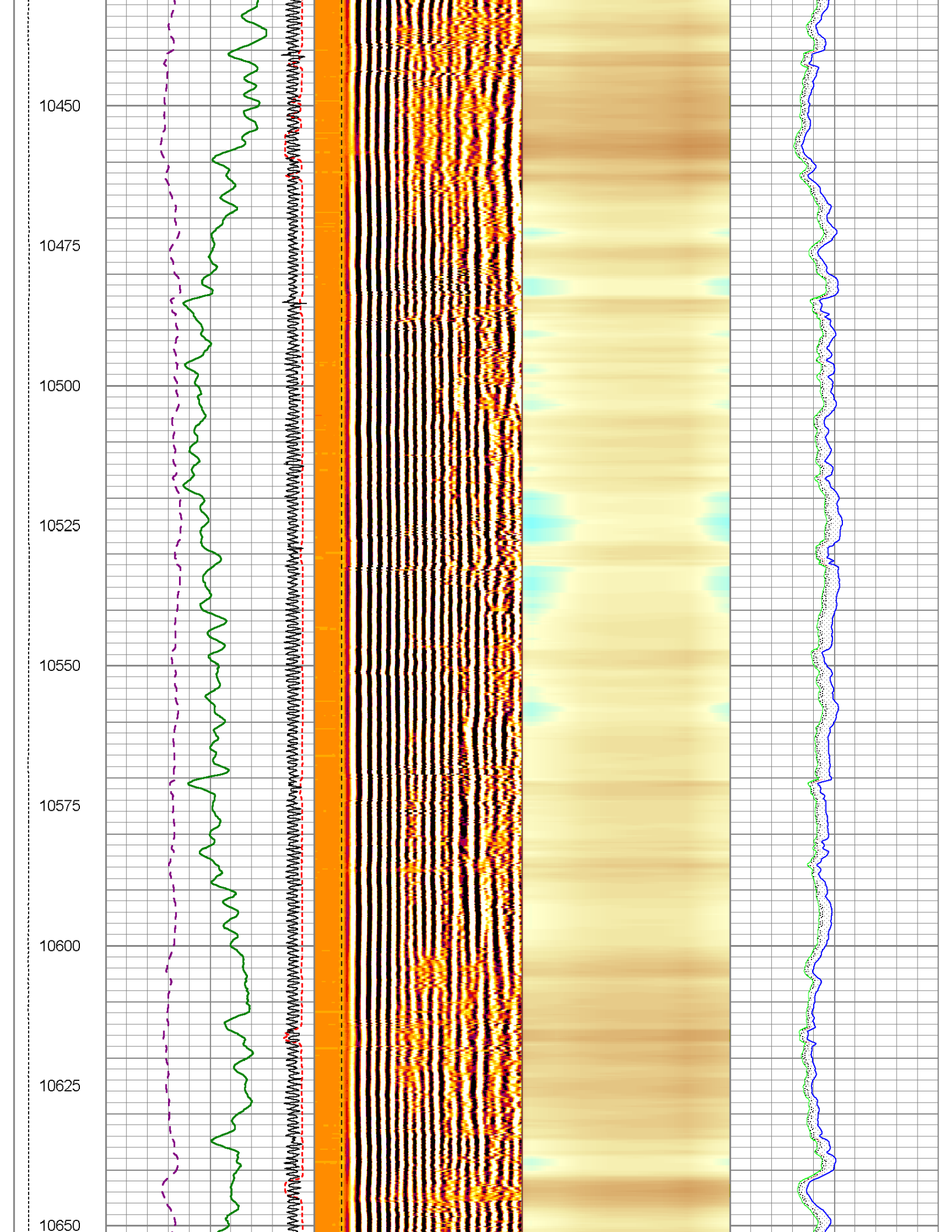
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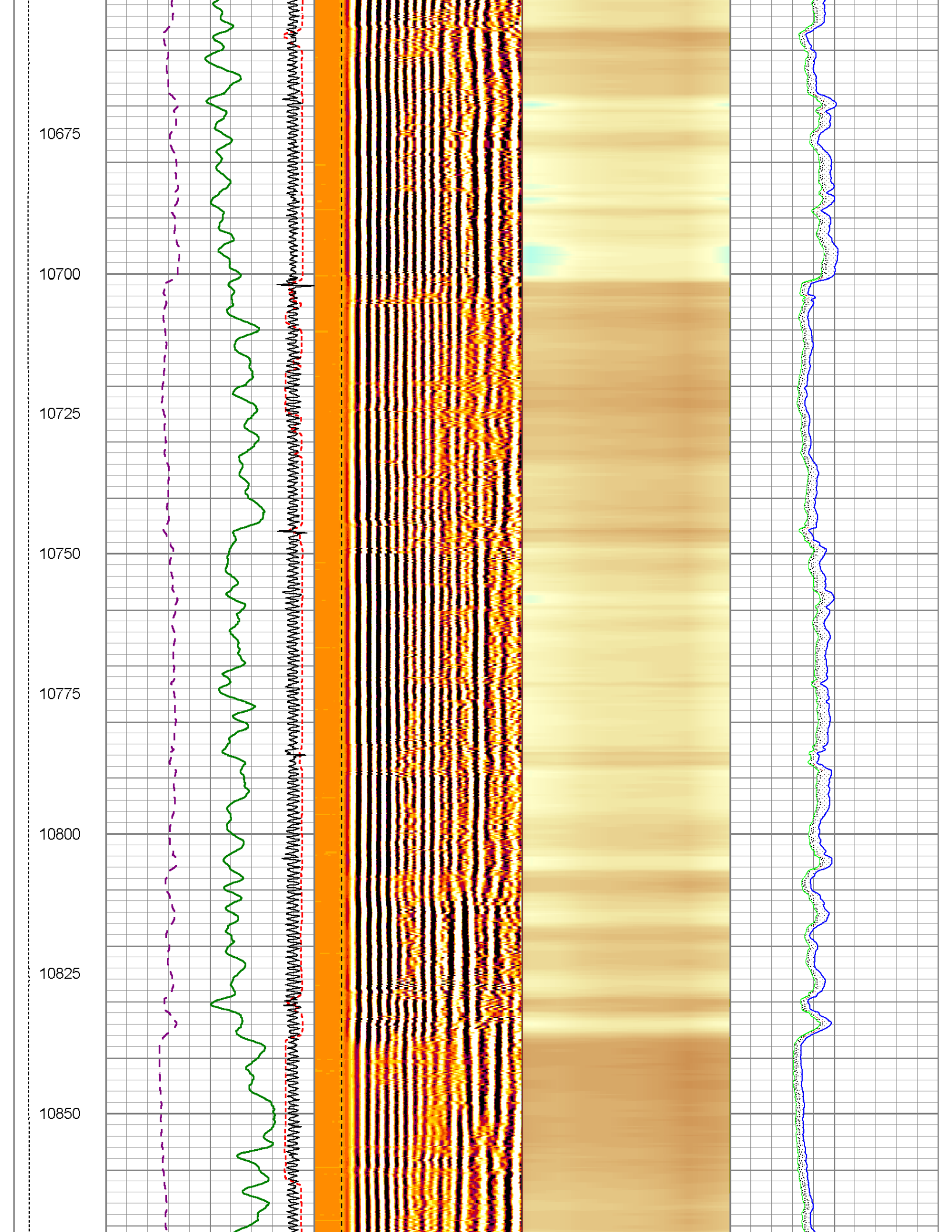
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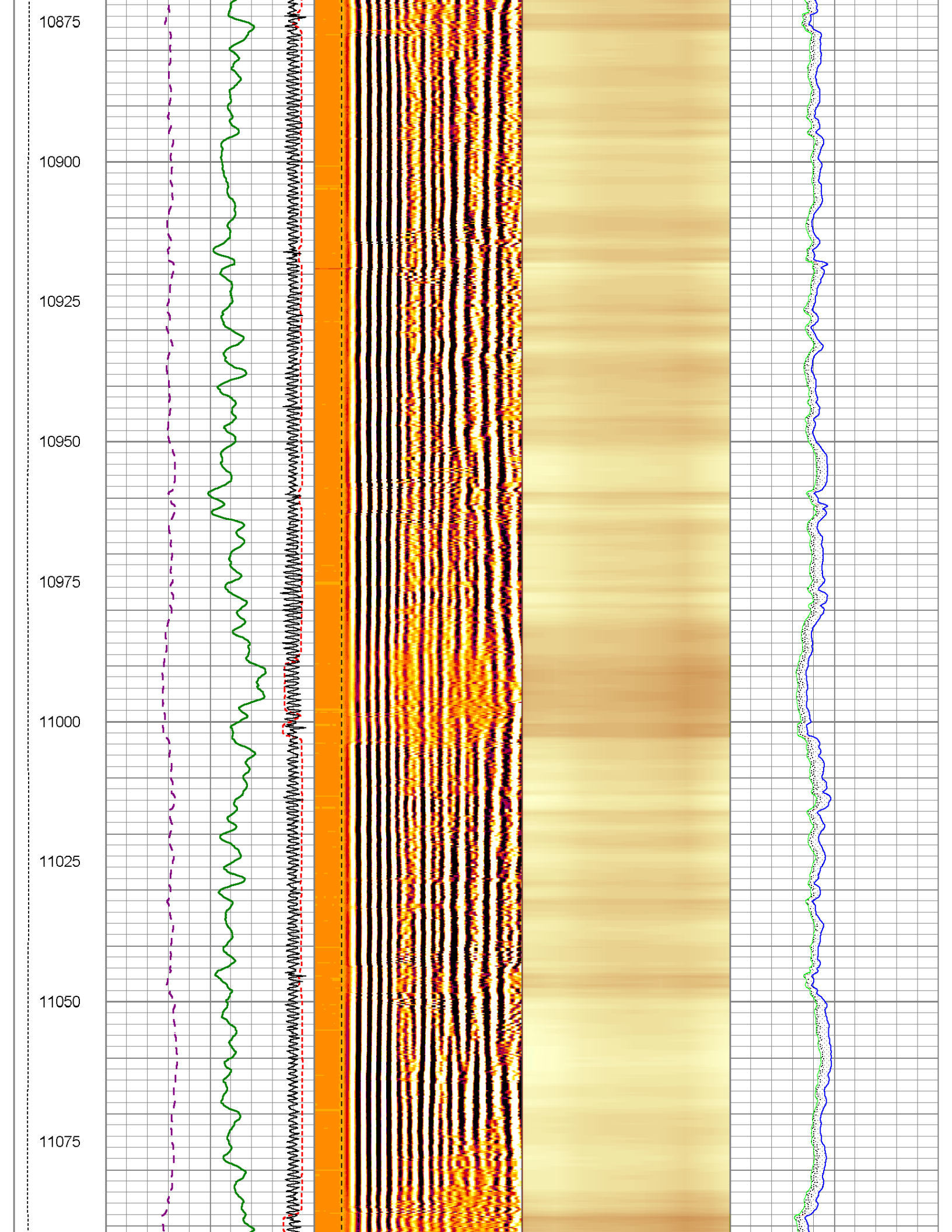
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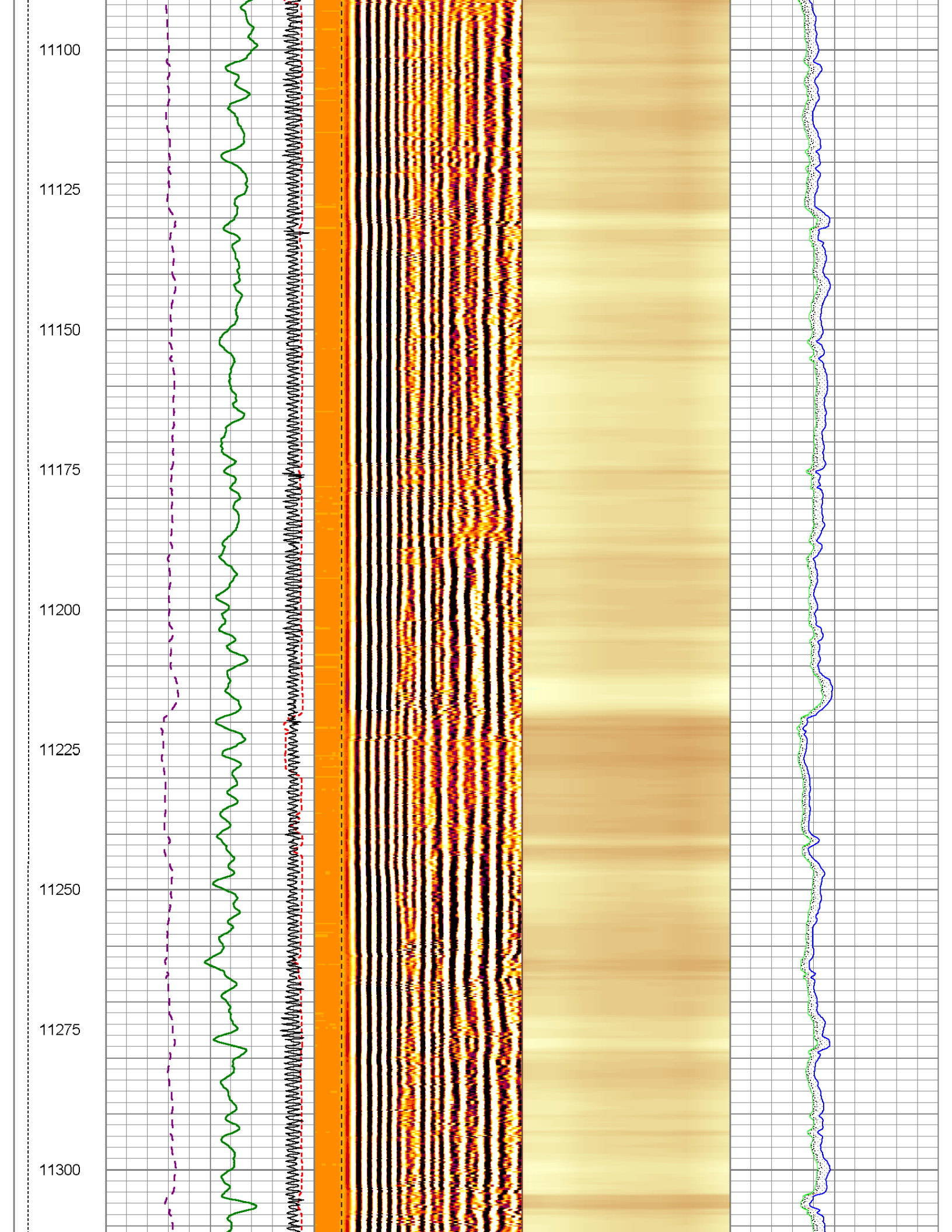
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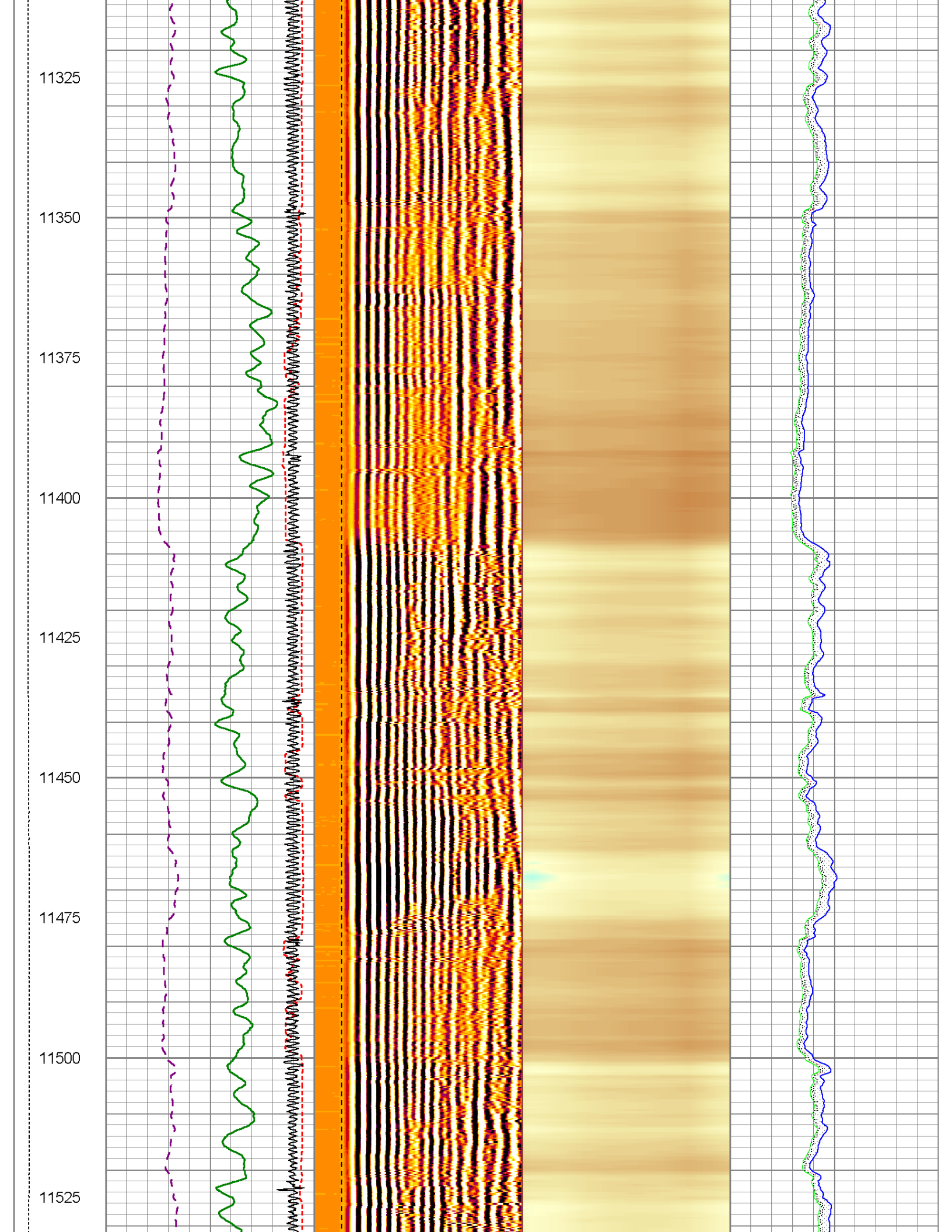
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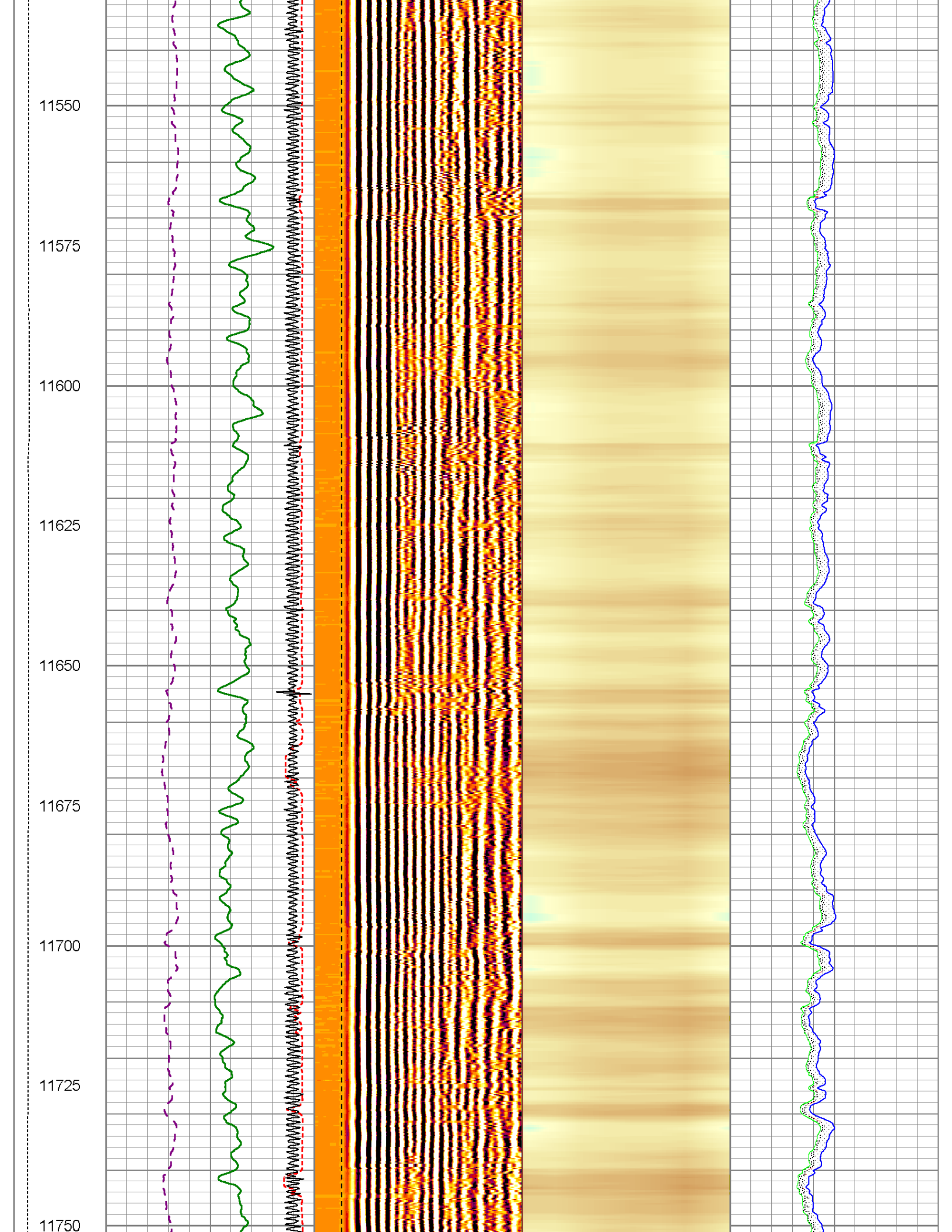
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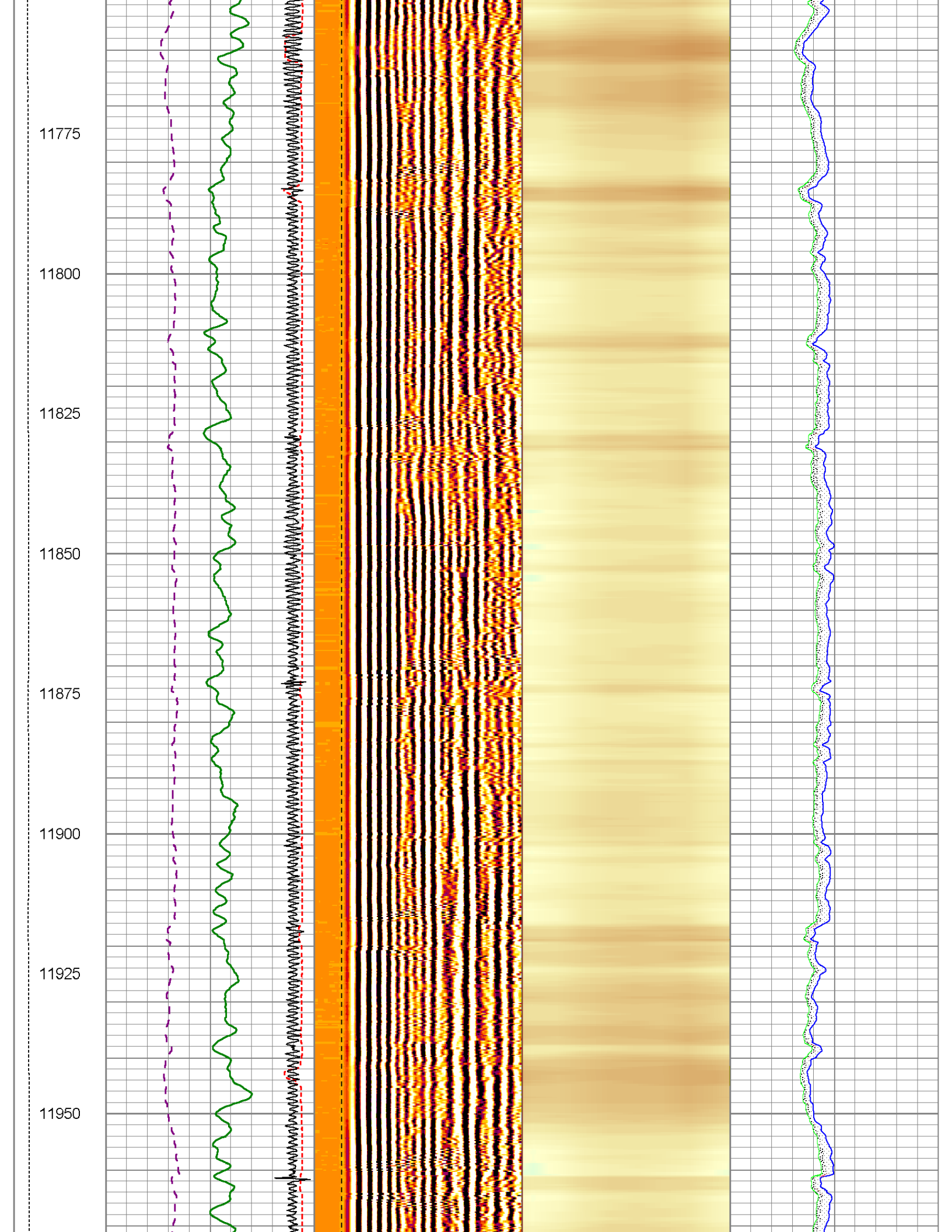
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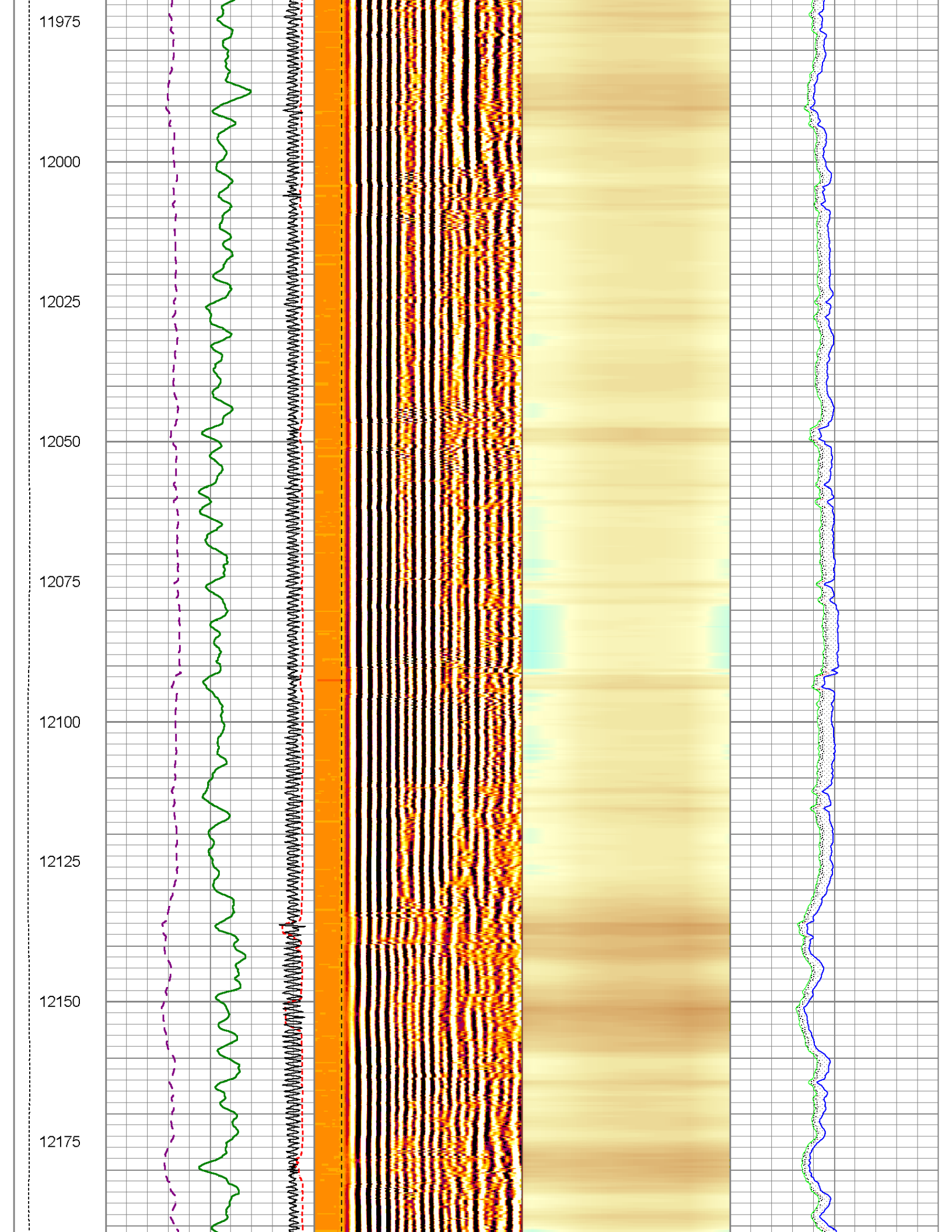
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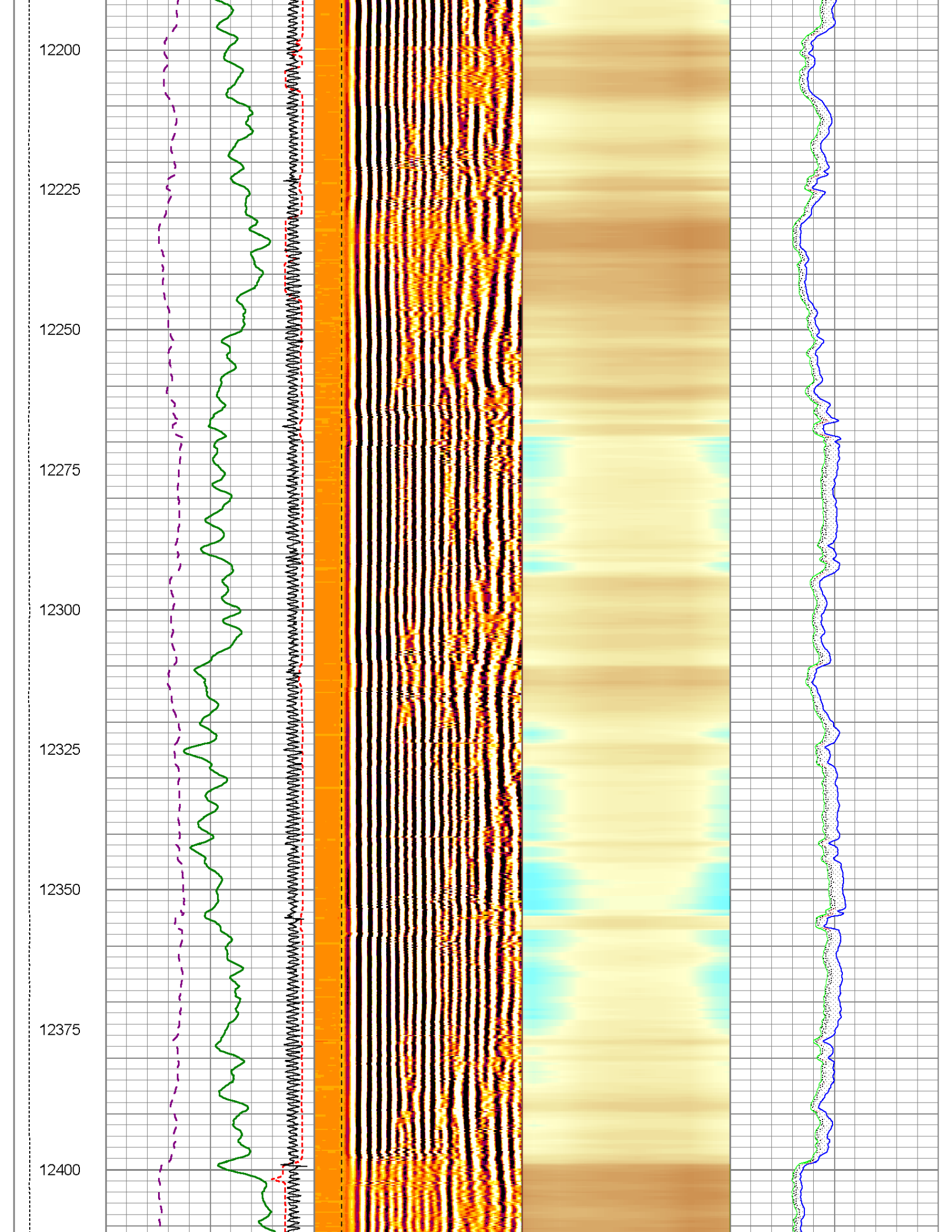
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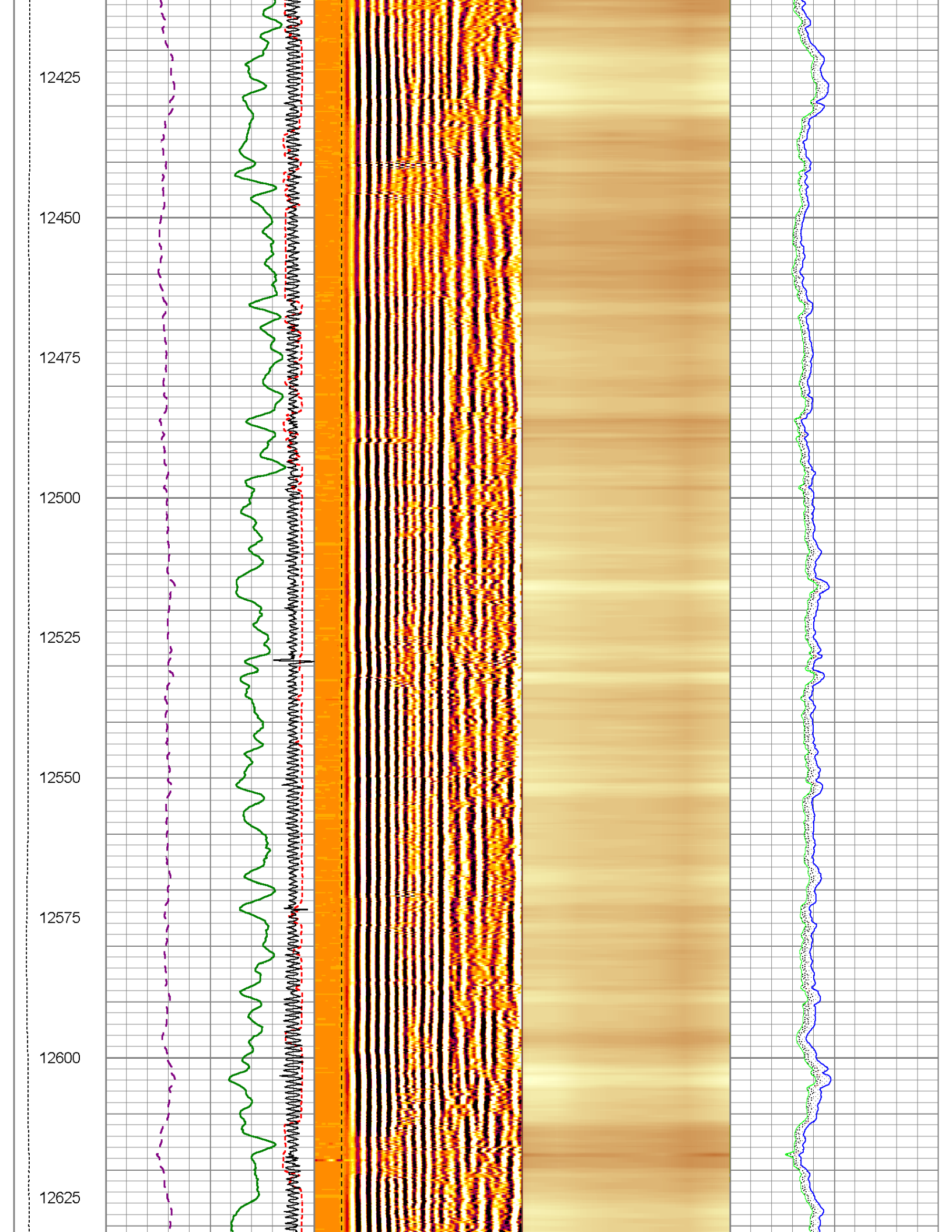
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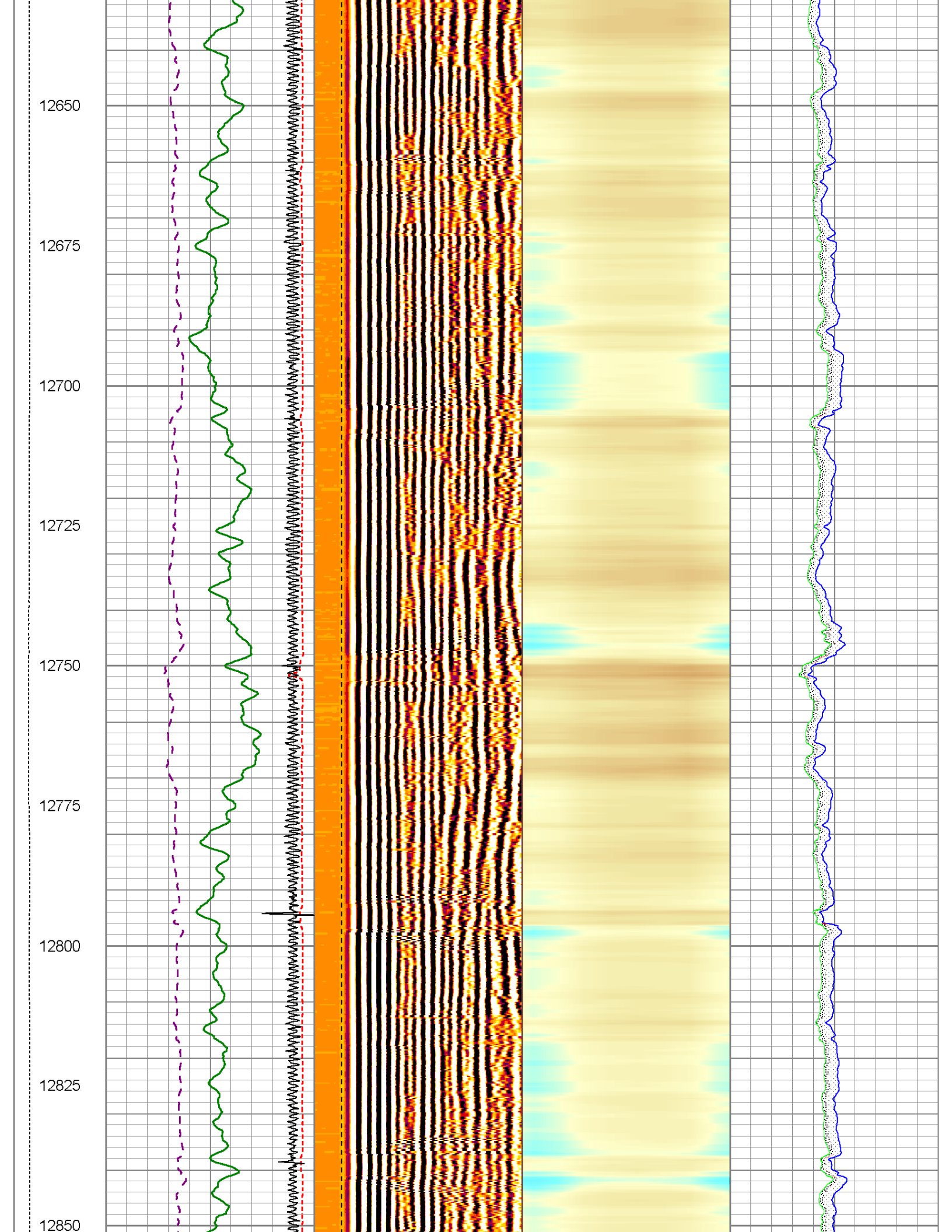
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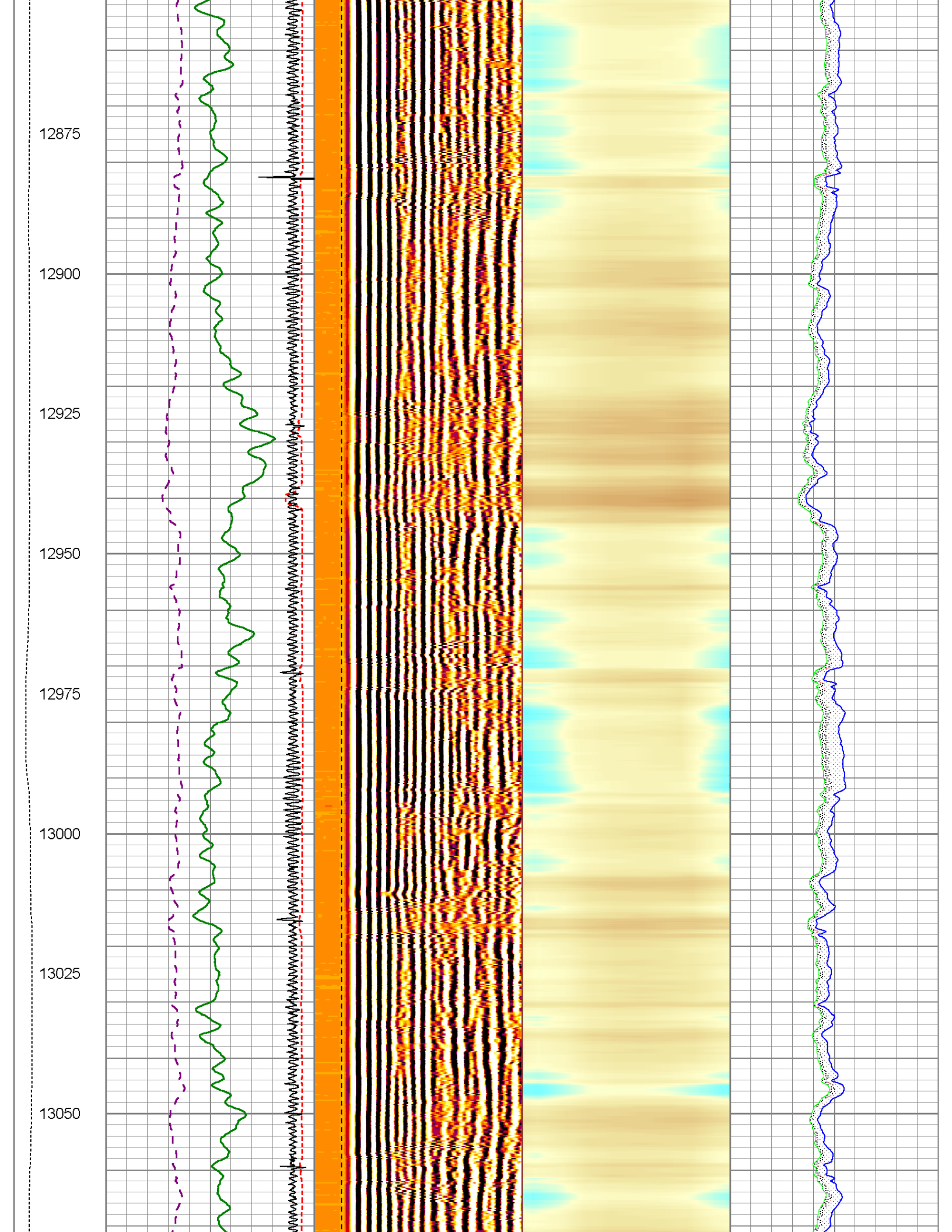
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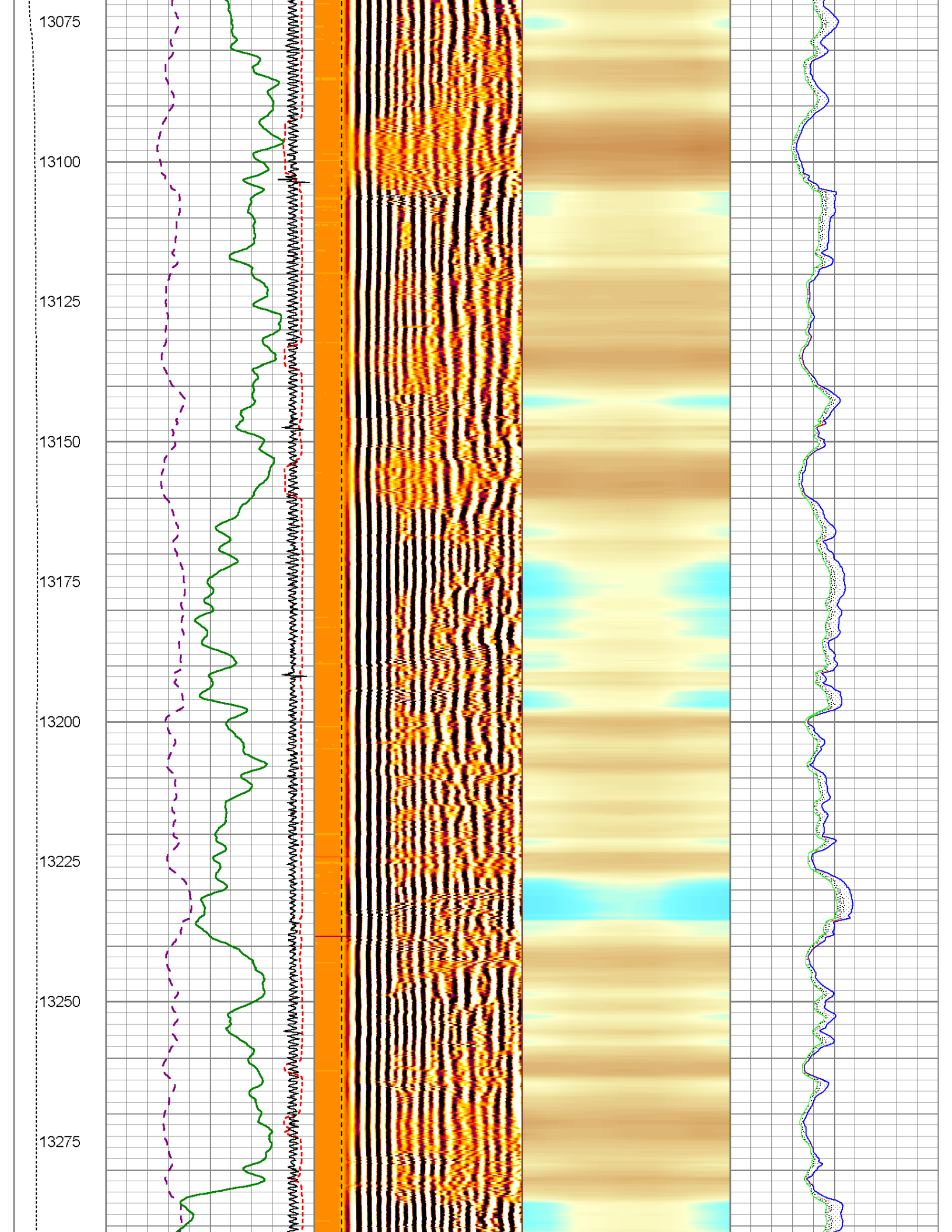
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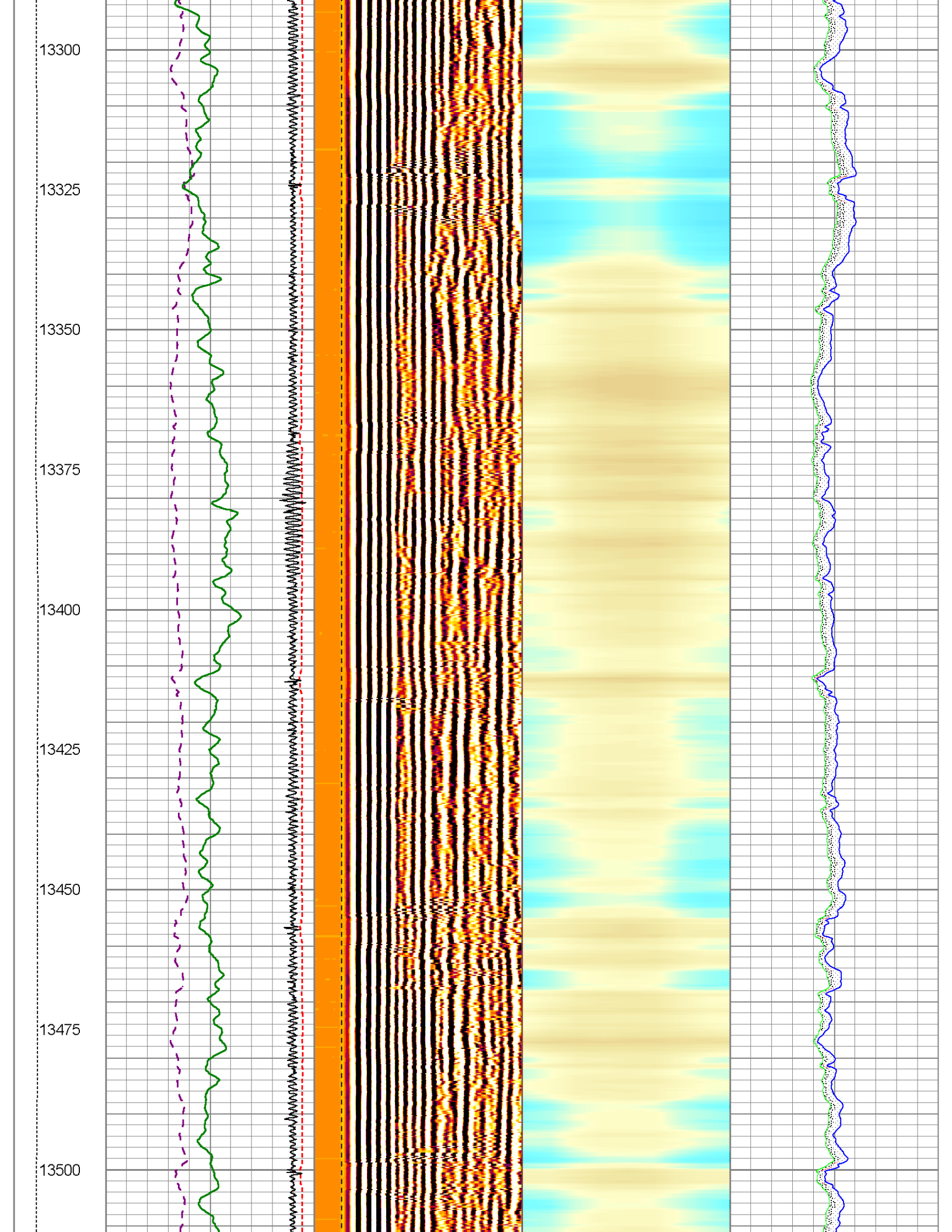
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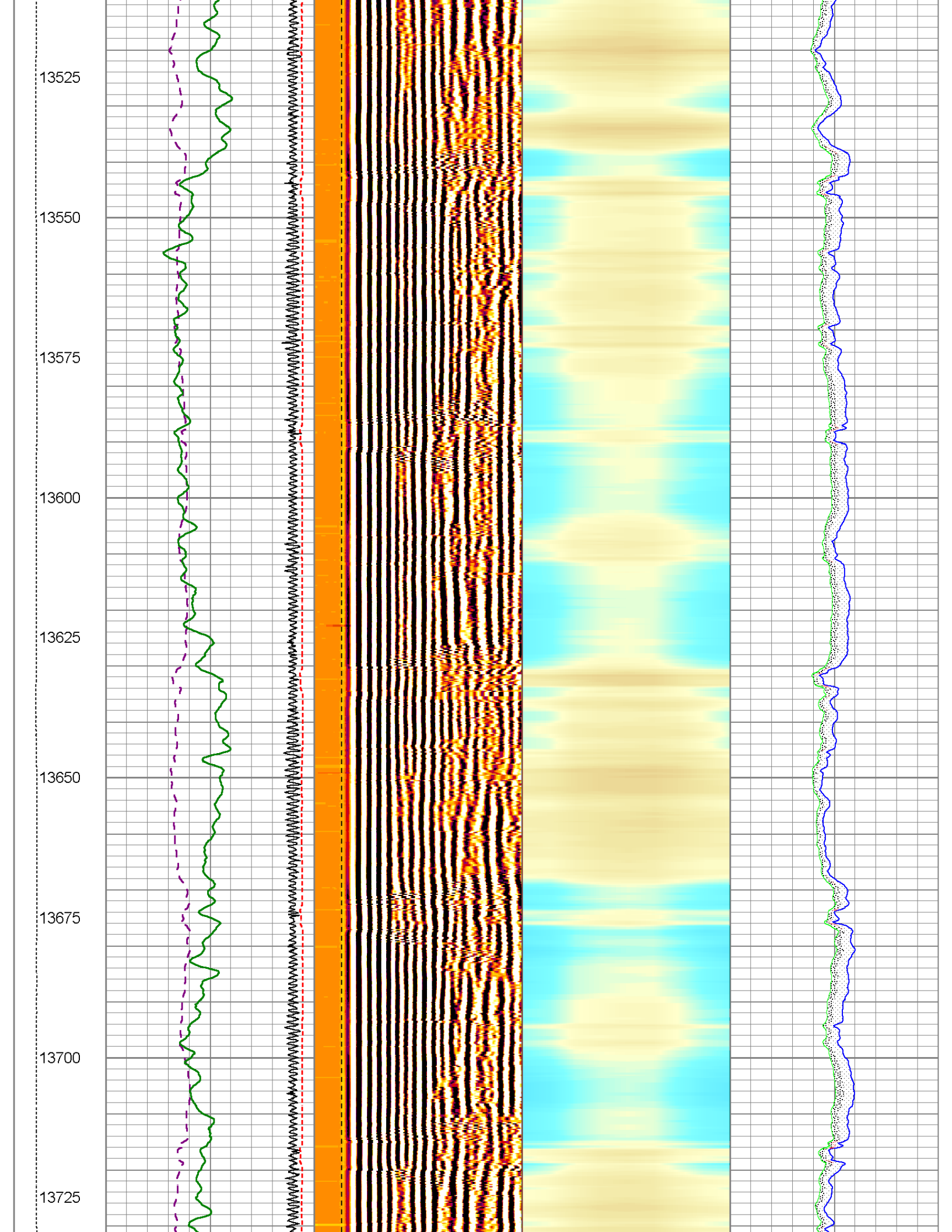
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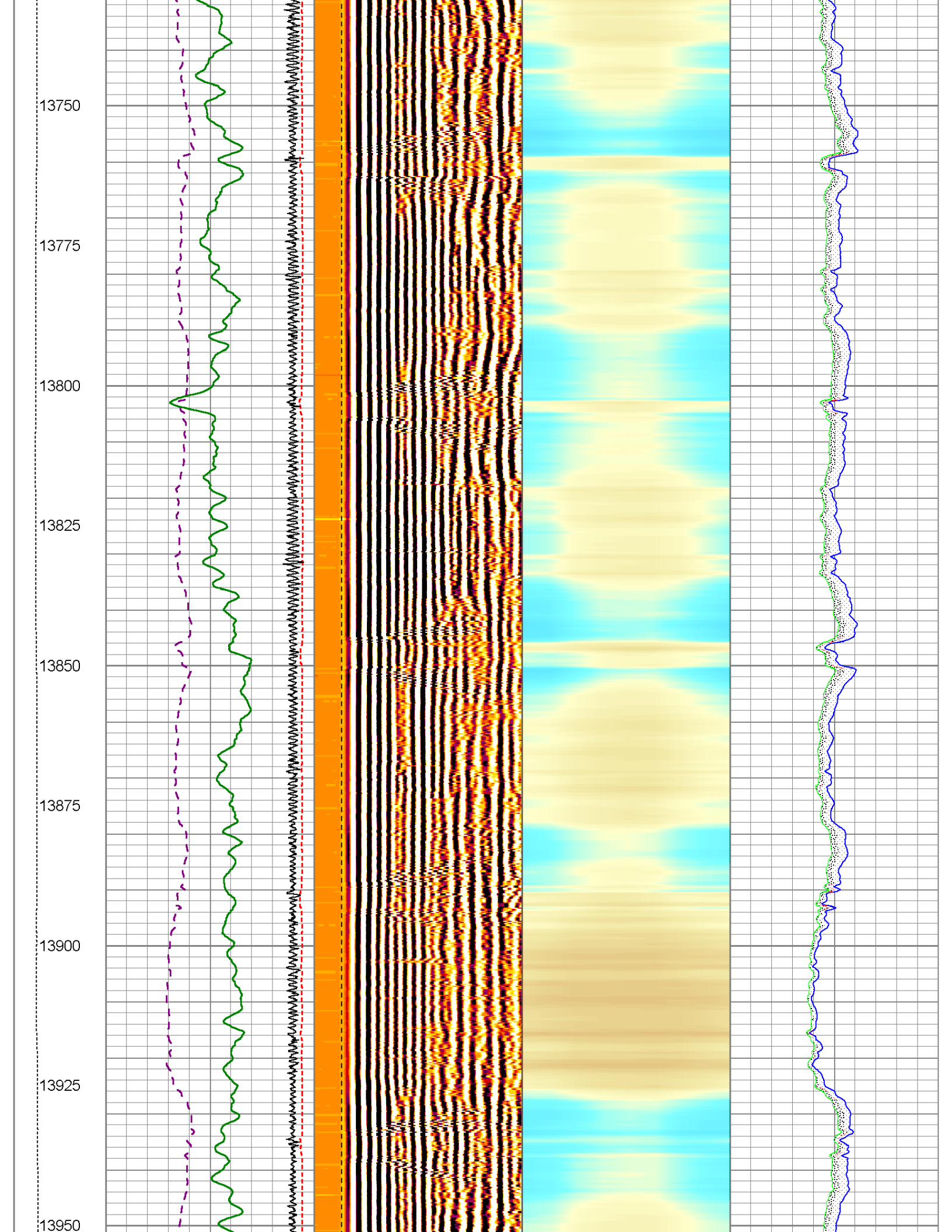
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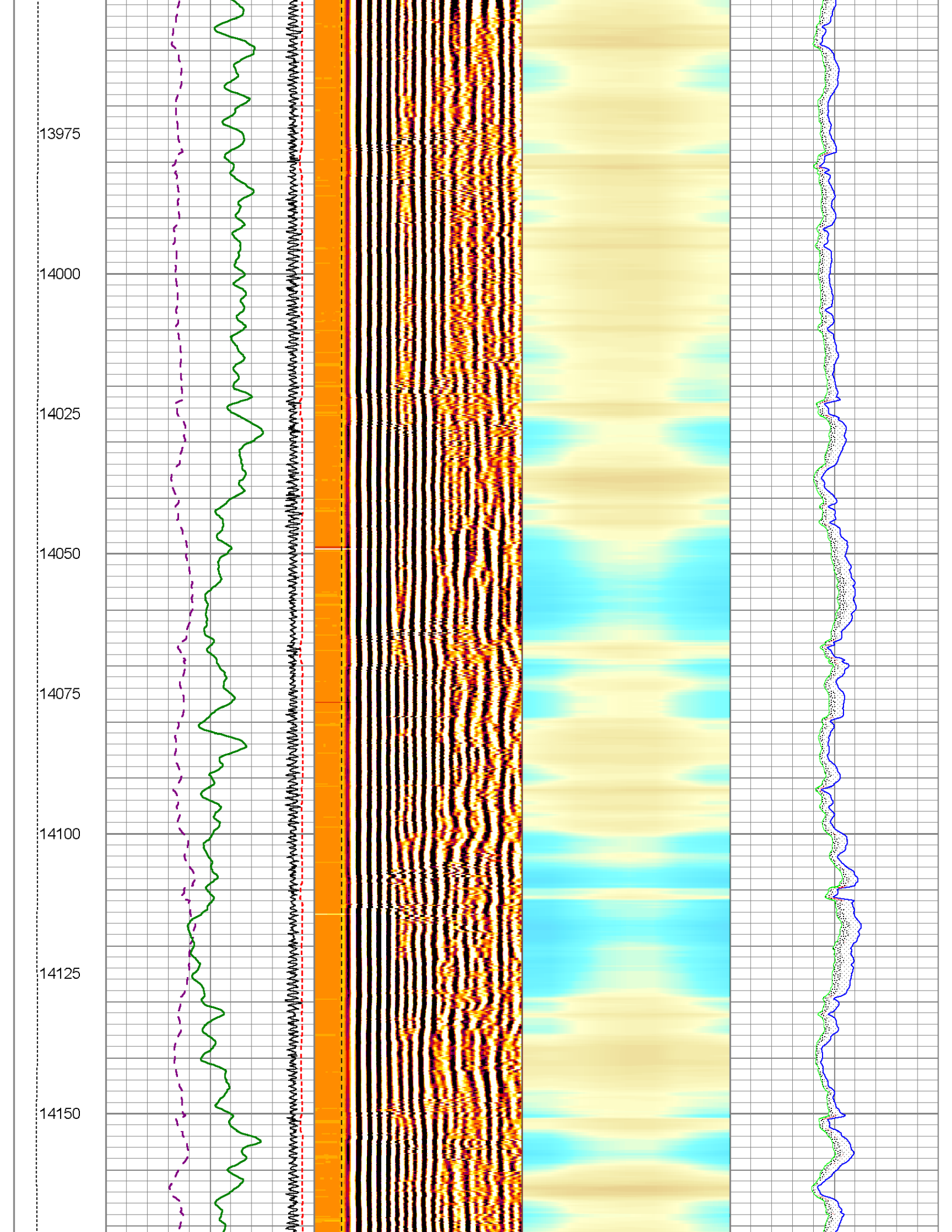
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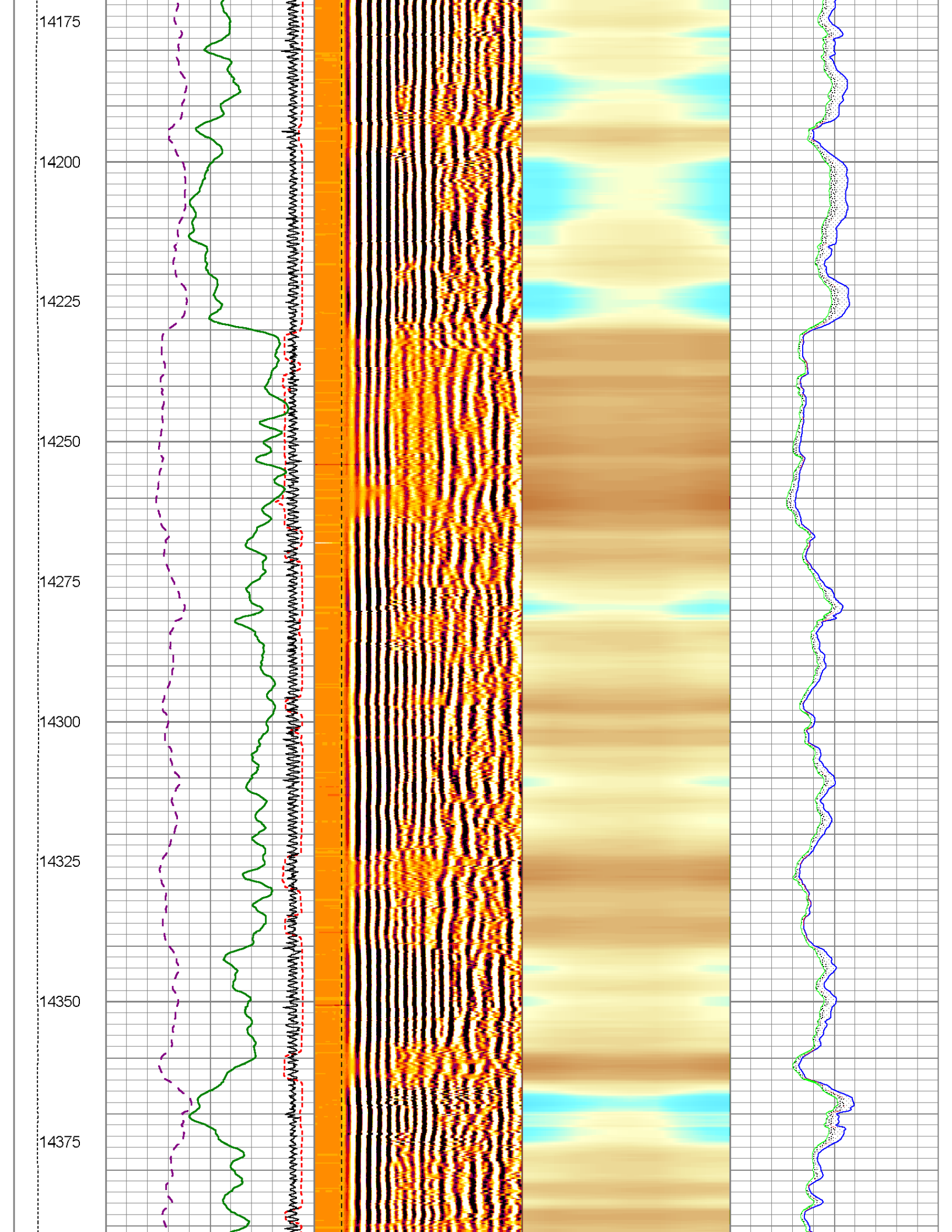
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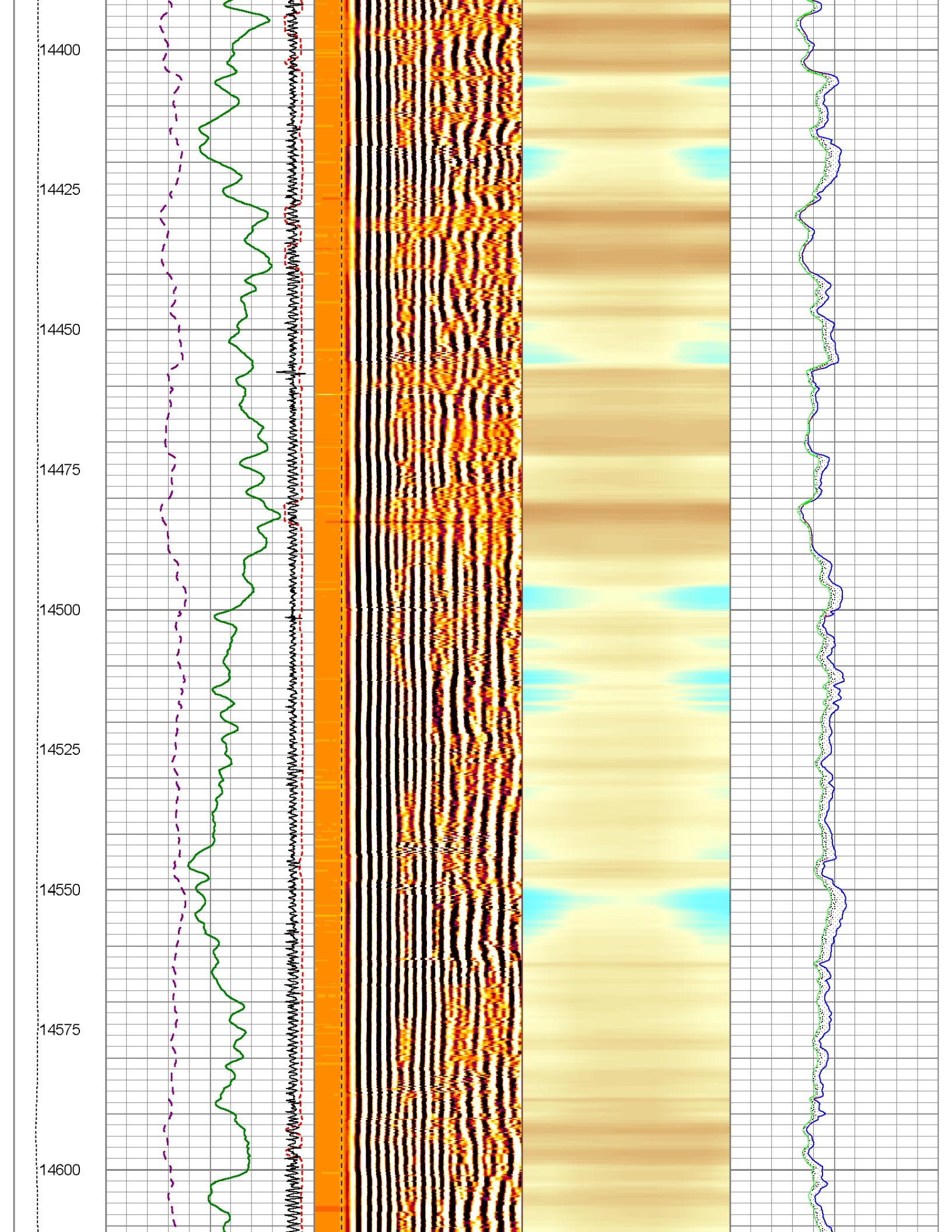
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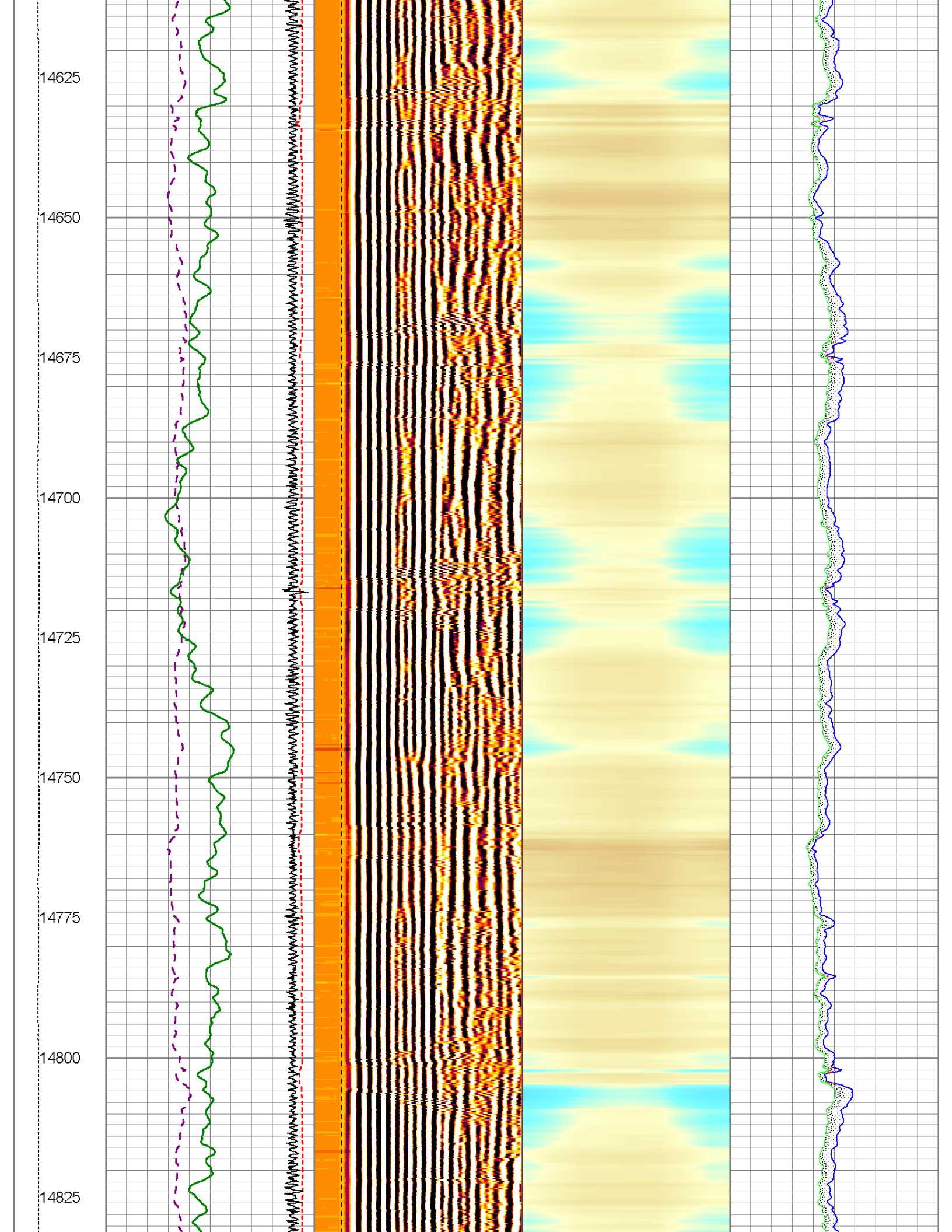
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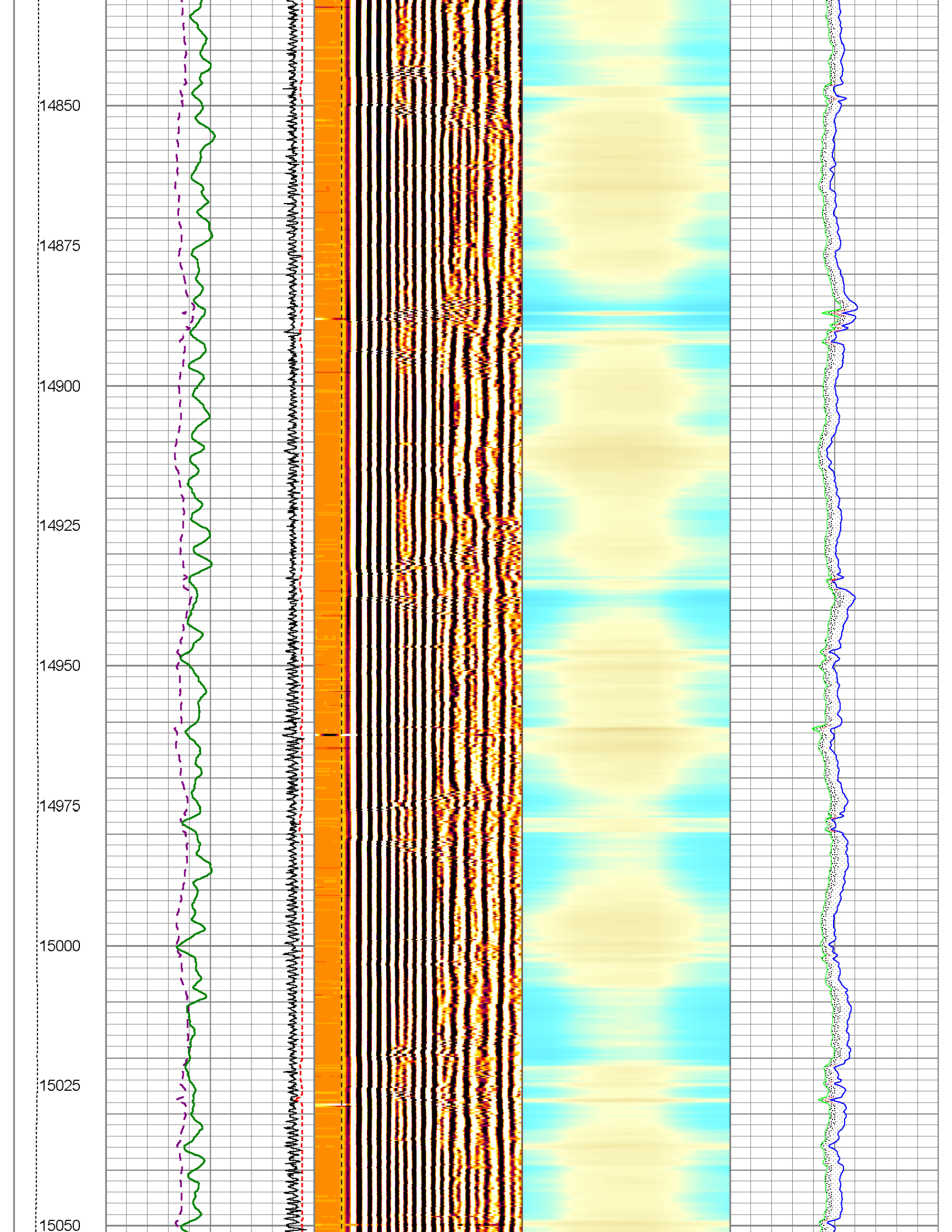
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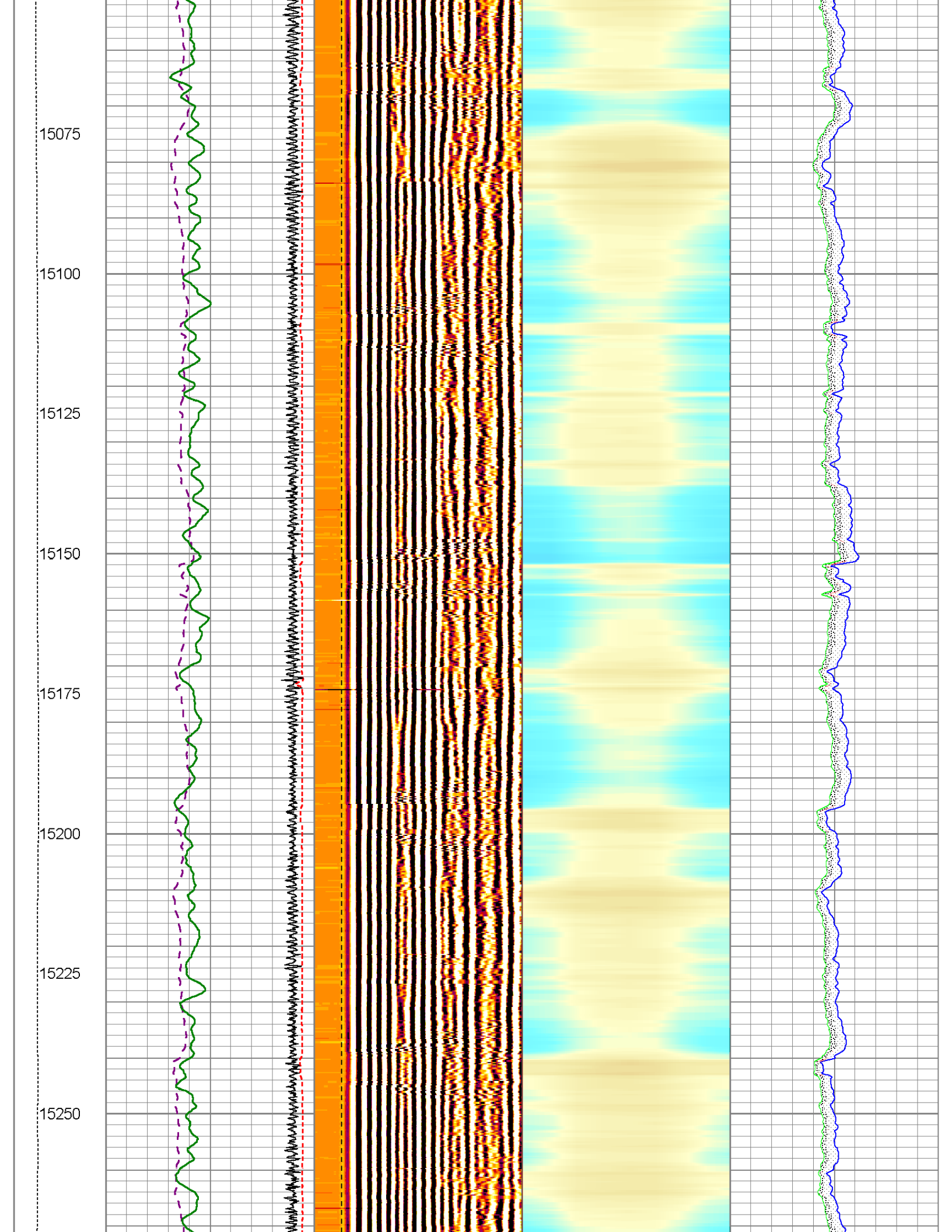
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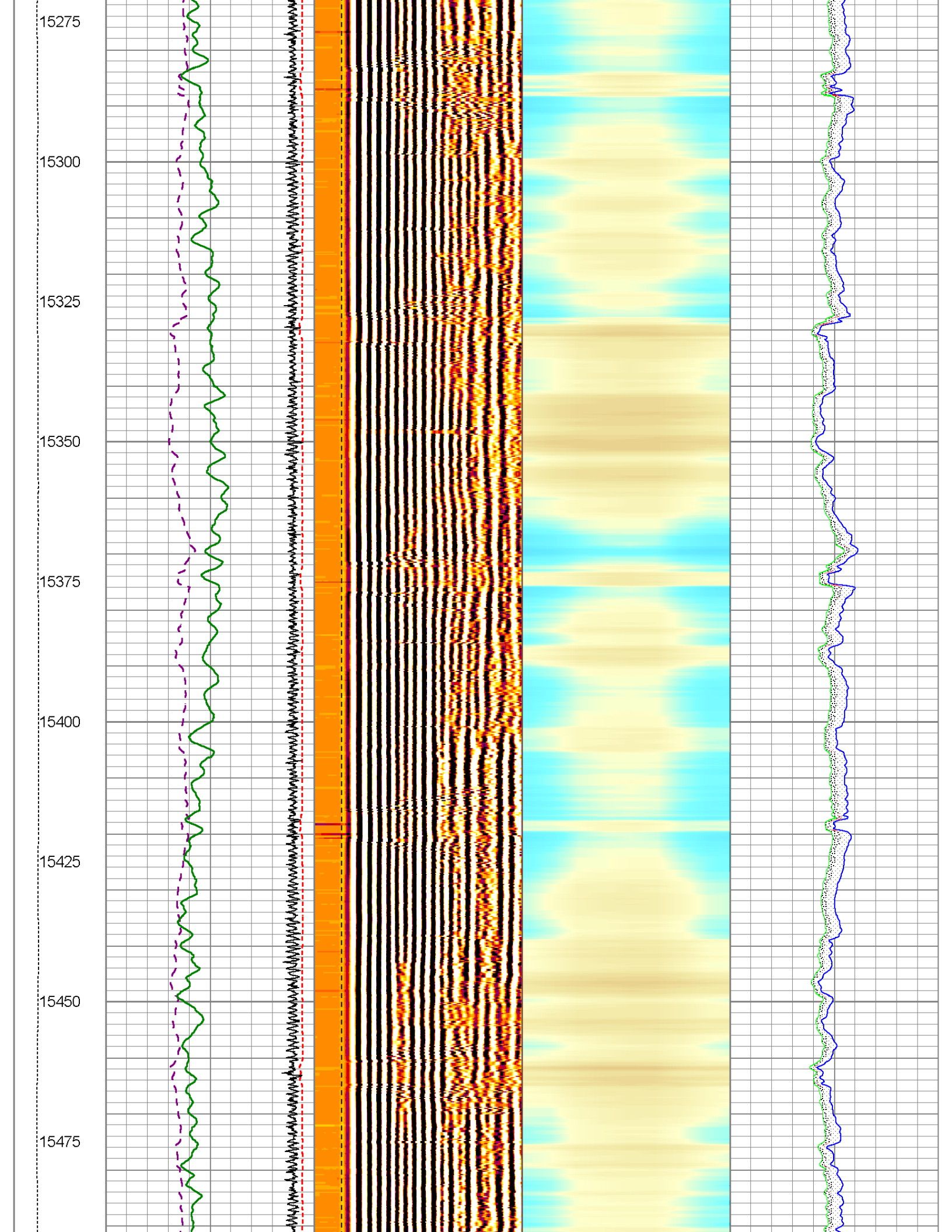
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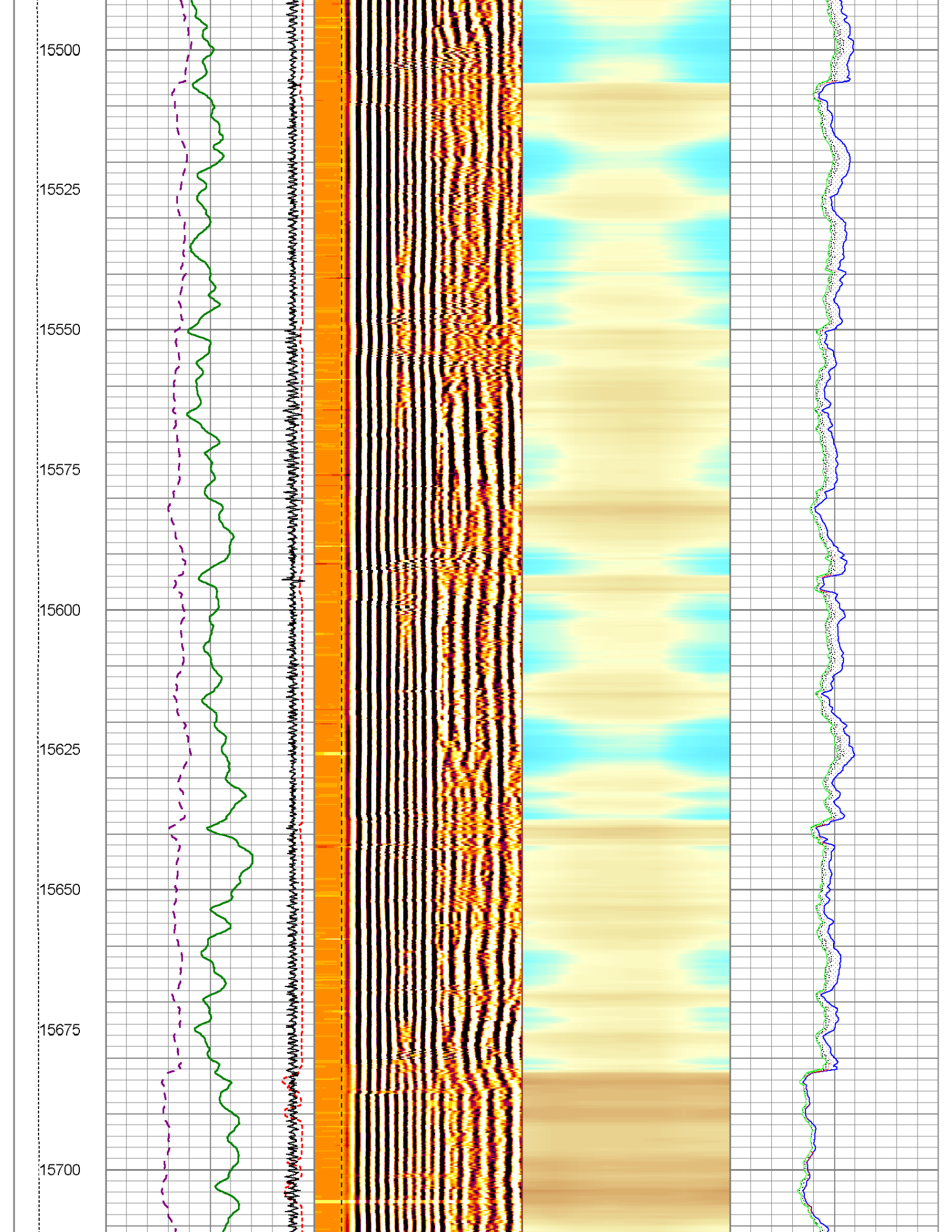
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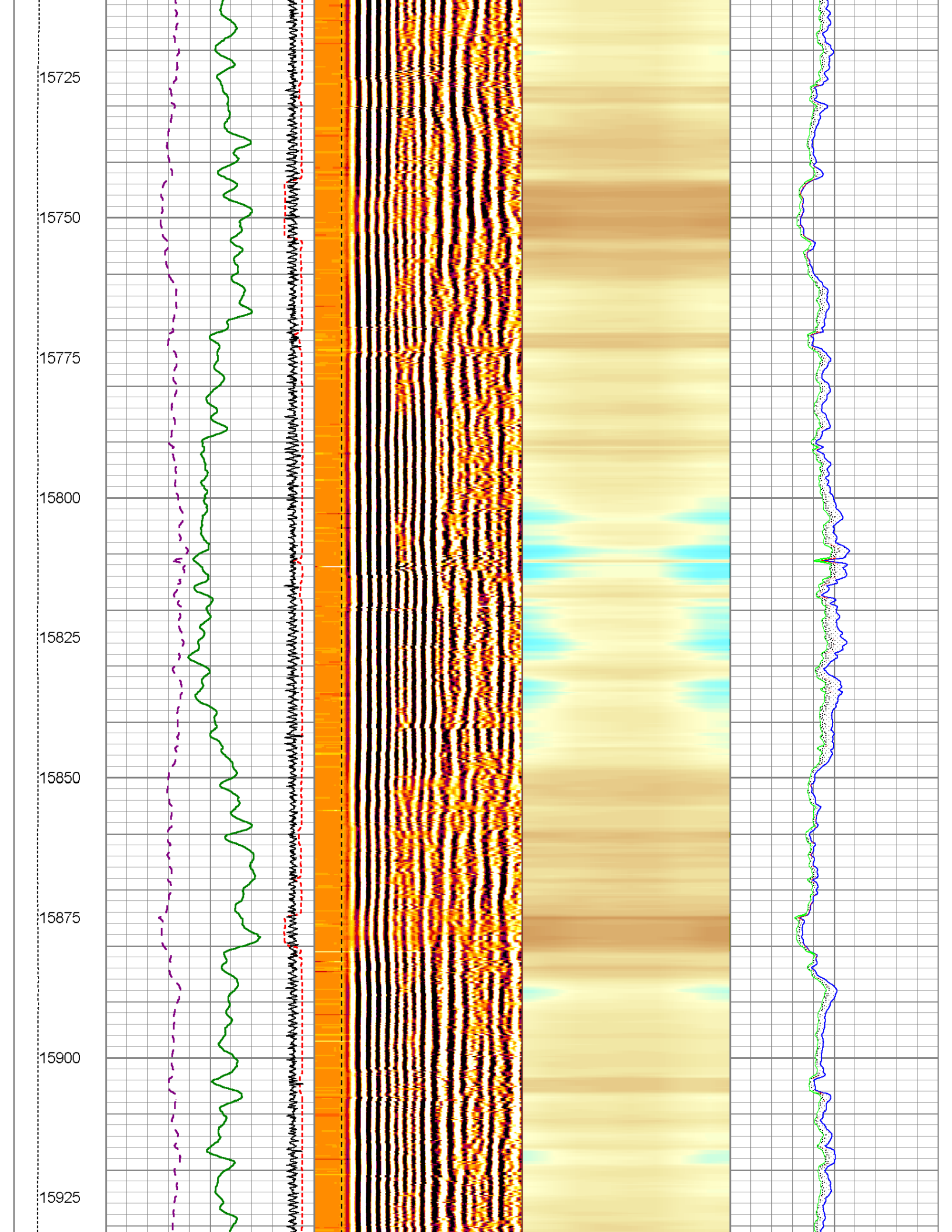
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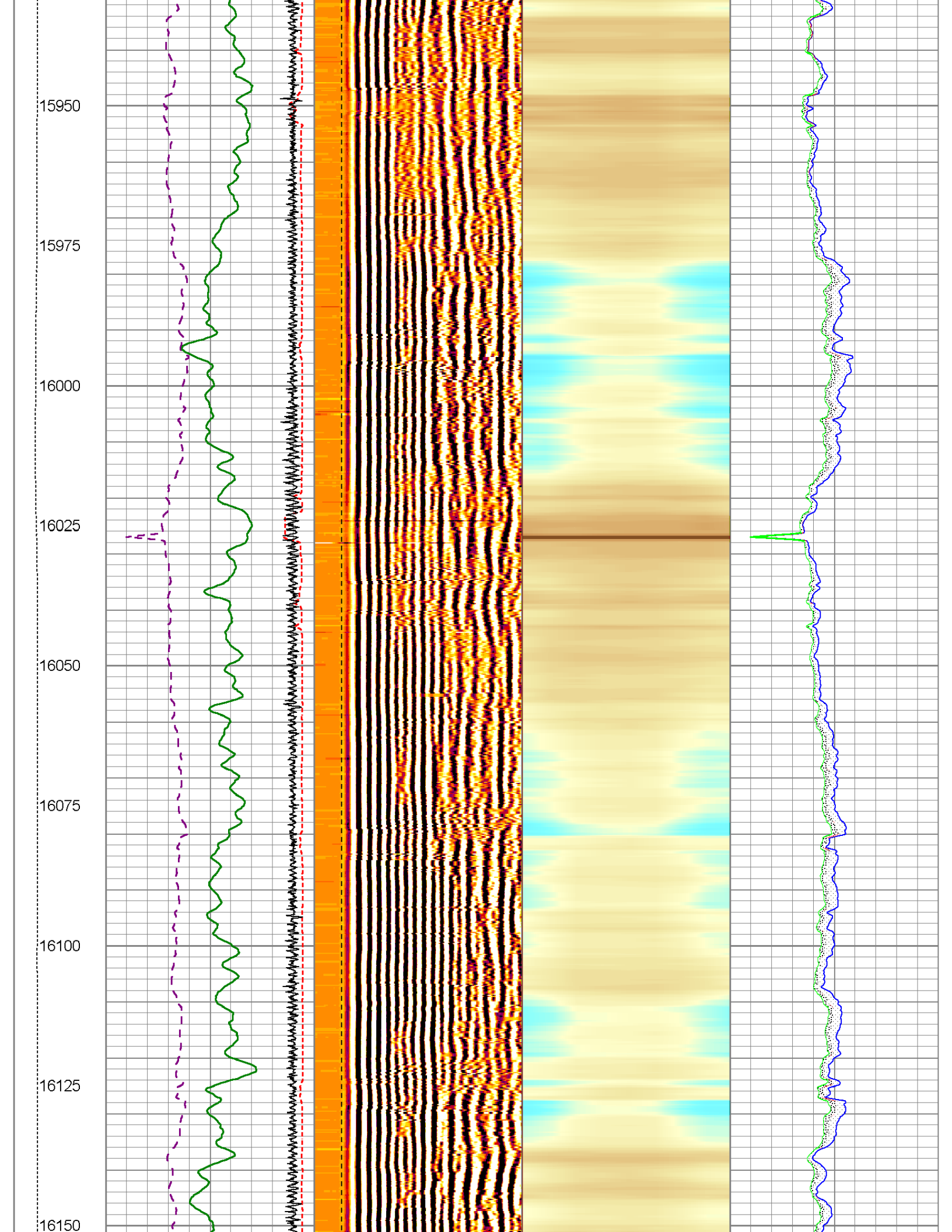
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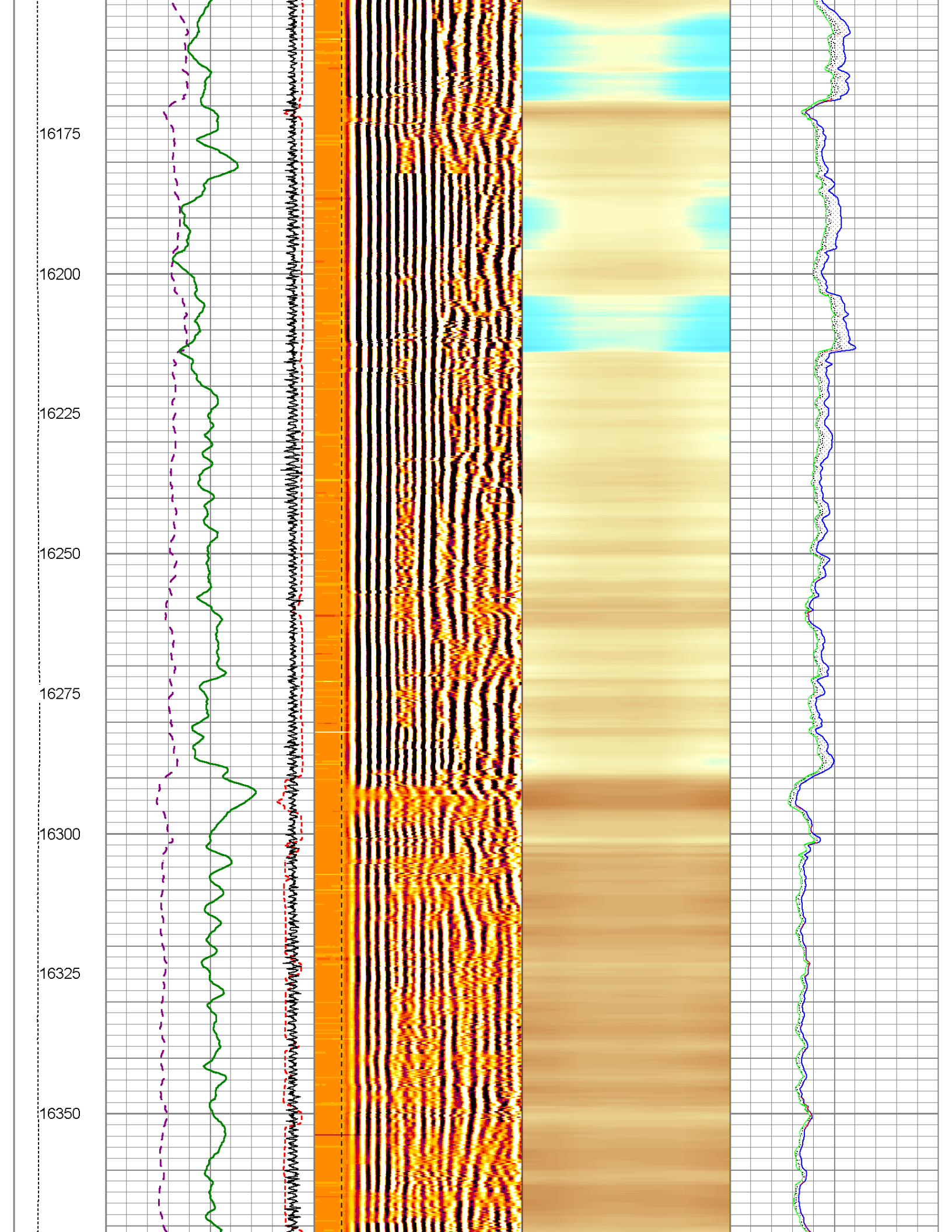
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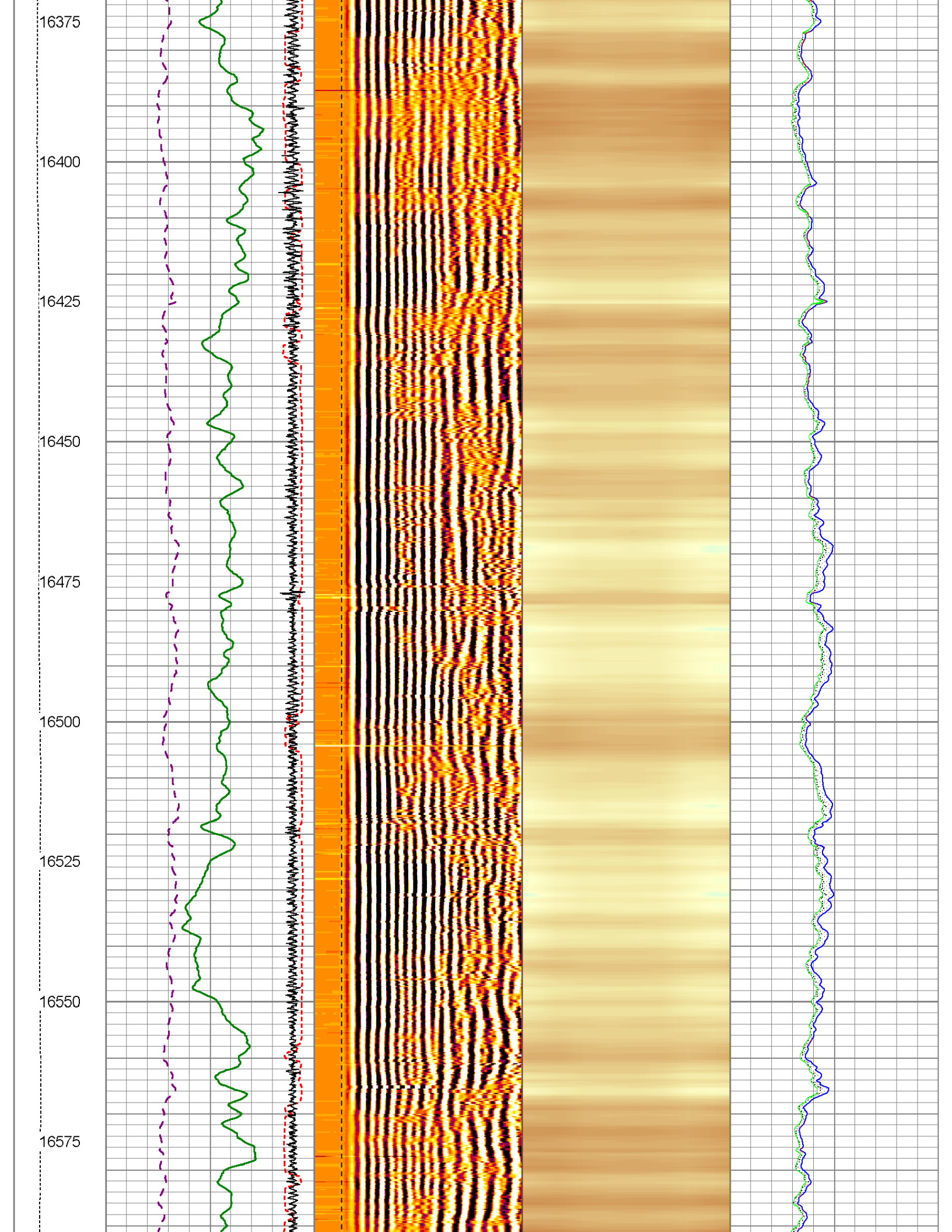
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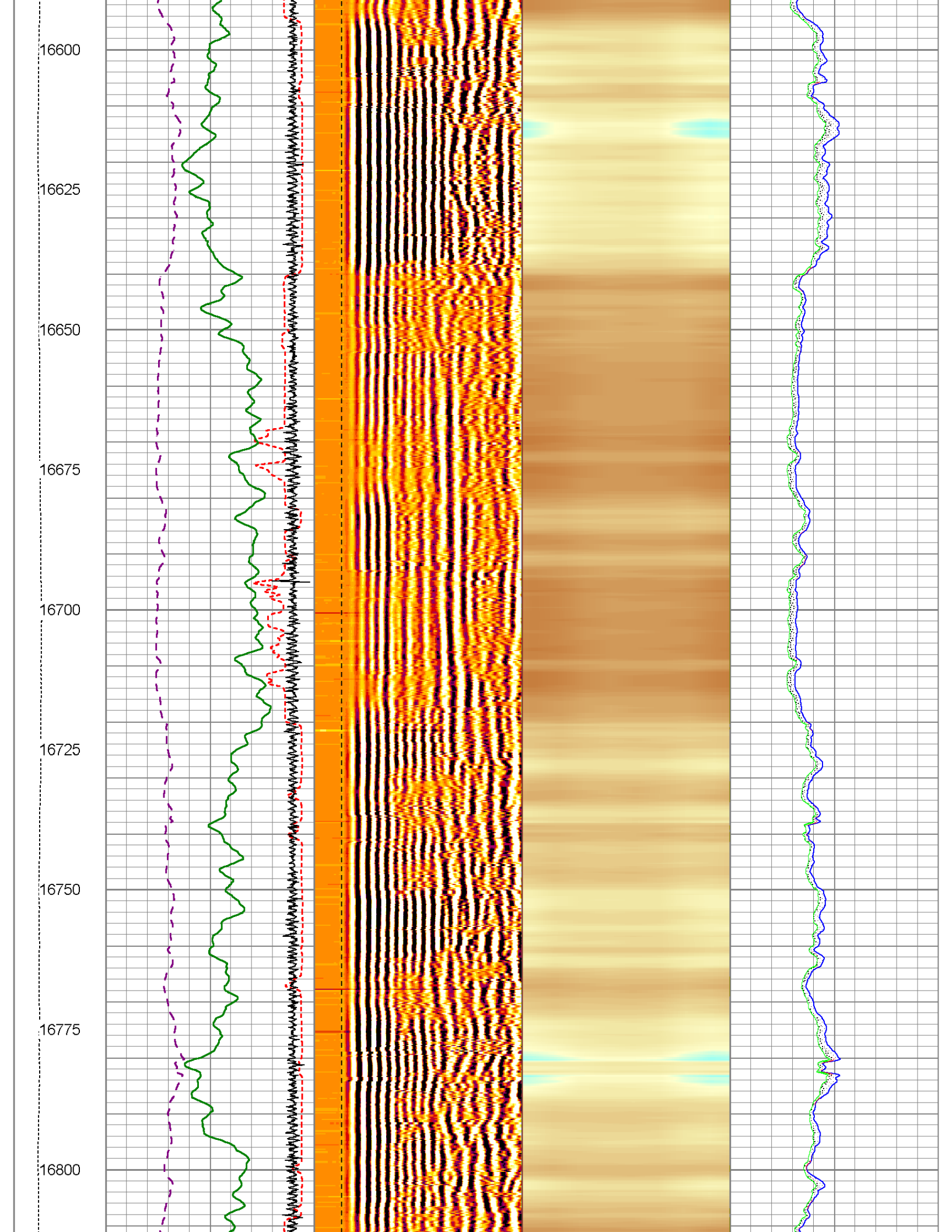
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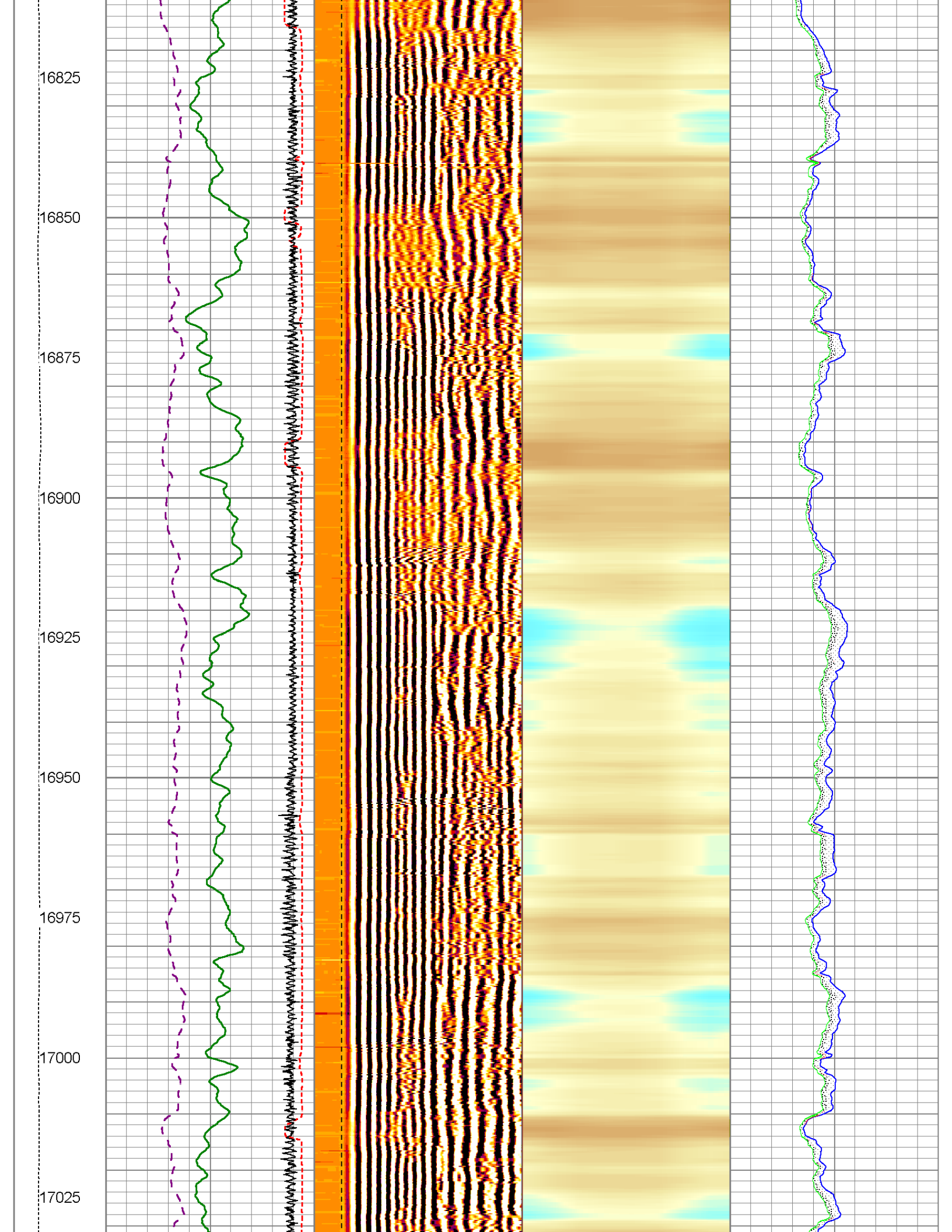
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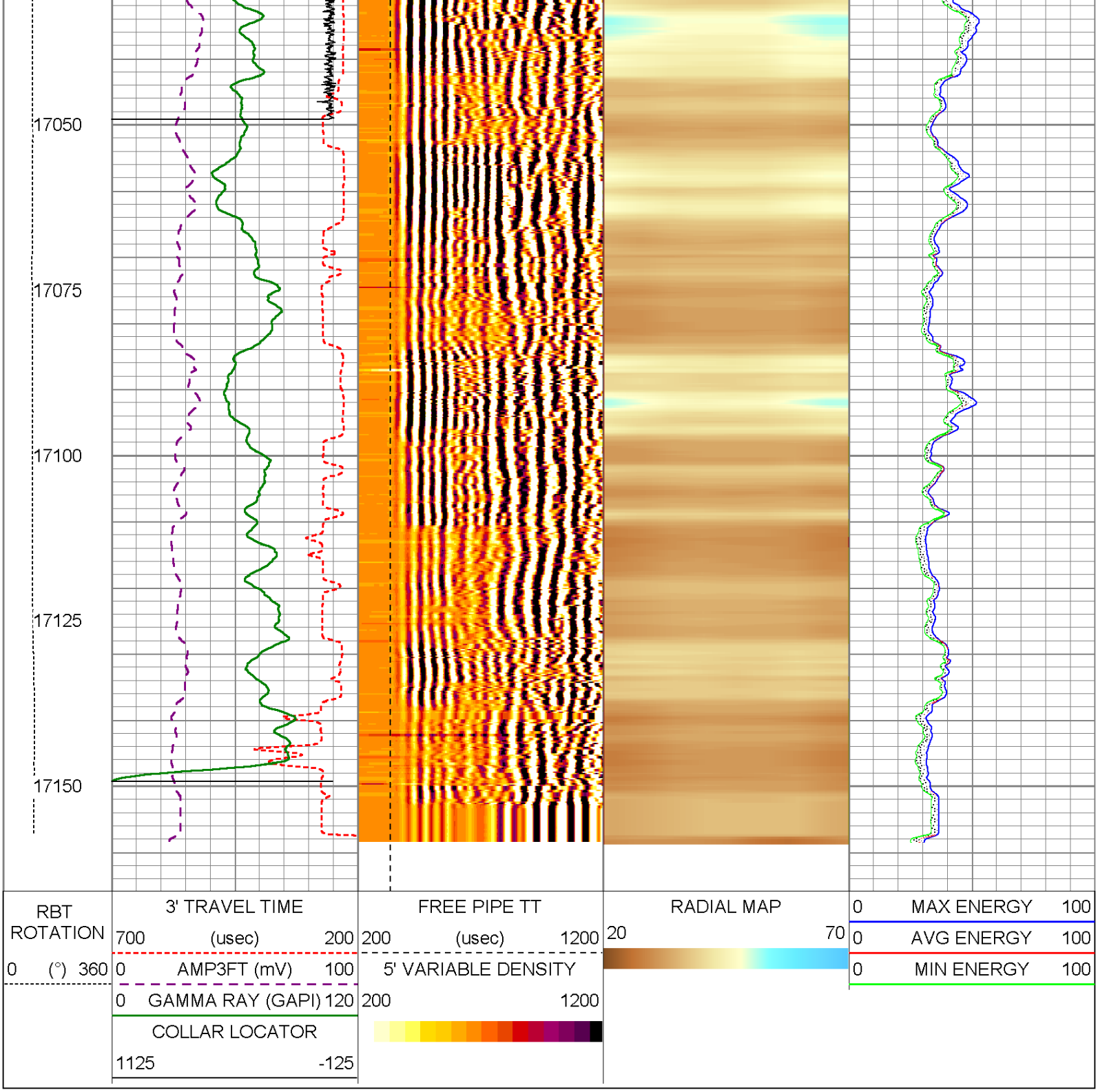
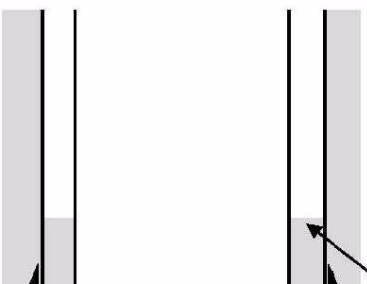


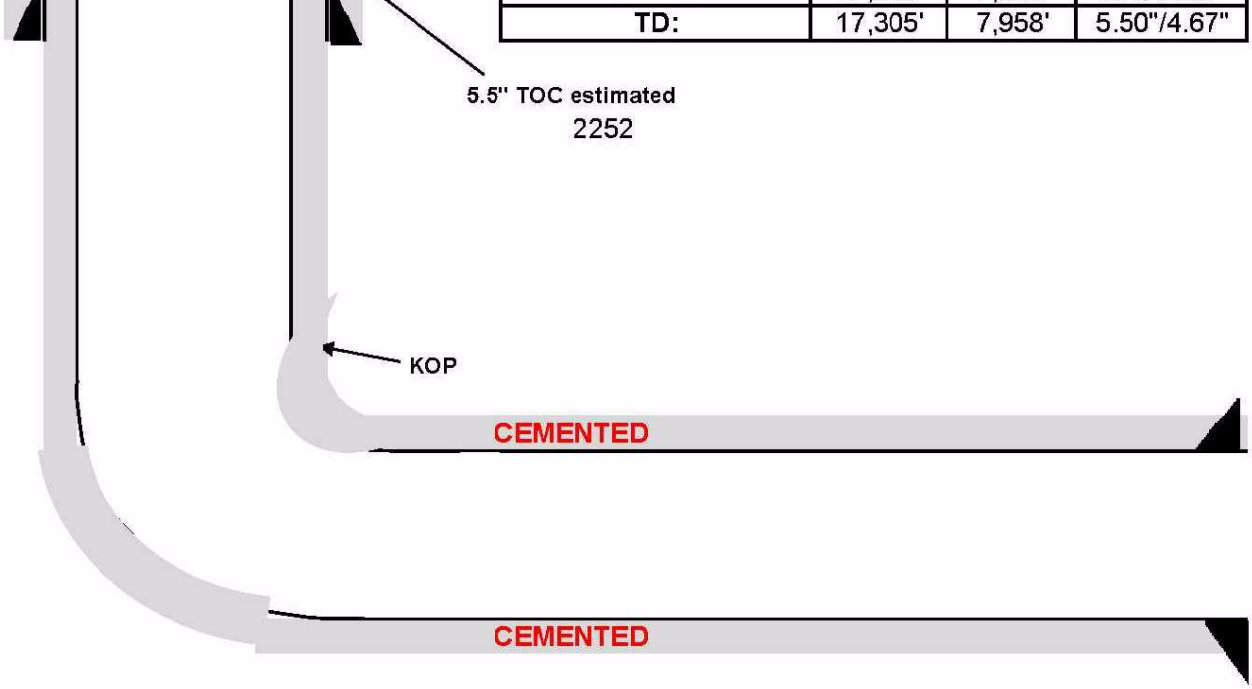
Sky Ranch 4-65 9-10 1H

Niobrara Horizontal

GL: 5,675'
KB: 5,699'



ITEM	MD	TVD	O.D./I.D.
KOP:	7,256'	7,255'	5.50"/4.67"
45° :	7,747'	7,683'	5.50"/4.67"
90° :	8,550'	7,846'	5.50"/4.67"
PBTD:	17,203'	7,958'	5.50"/4.67"



String	Size	Weight	Grade	Thread	Top	Bottom	TOC
Surface	9 5/8"	36	J-55	STC	24'	2,207'	Surface
Production	5 1/2"	23	P-110	TXP-BTC	24'	17,294'	2252

String	Drift (in)	Capacity (BBL/ft)	Burst (psi)	Collapse (psi)	Tension (psi)
Surface	8.765	0.0773	3,060	1,925	402,000
Production	4.545	0.0211	12,351	13,794	729,000

Calibration Report

Database File: cop_skyranch_rbt.db
Dataset Pathname: MAIN/MAIN.500
Dataset Creation: Tue Mar 04 14:00:57 2014 by Calc Halliburton Casedho

Segmented Cement Bond Log Calibration Report

Serial Number: 1117

Serial Number: 1117
Tool Model: 004

Calibration Casing Diameter: 5.500 in
Calibration Depth: 6268 ft

Master Calibration, performed Tue Nov 05 02:00:49 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.266	0.954	2.000	72.000	50.812	23.502
5FT	-0.053	0.734	2.000	72.000	78.745	14.184
S1	-0.269	0.962	2.000	100.000	73.111	29.684
S2	-0.288	0.972	2.000	100.000	71.472	30.557
S3	-0.282	0.968	2.000	100.000	71.996	30.337
S4	-0.272	0.938	2.000	100.000	74.403	30.214
S5	-0.257	0.952	2.000	100.000	74.465	29.139
S6	-0.211	0.944	2.000	100.000	77.921	26.476
S7	-0.195	0.960	2.000	100.000	77.888	25.208
S8	-0.225	0.946	2.000	100.000	76.876	27.268

Calibration Report

Serial Number: 1117
Tool Model: 004
Performed:

	Reference (degF)	Reading ()
Low:	0.000	0.000
High:	1.000	1.000
	Gain = 1.000	Offset = 0.000

Gamma Ray Calibration Report

Serial Number: 218504
Tool Model: 020
Performed: Sat Nov 01 14:38:40 2014

Calibrator Value: 184.4 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 155.0 cps

Sensitivity: 1.0194 GAPI/cps

Company CONOCOPHILLIPS
Well SKY RANCH 4-65 9-10 1H
Field SKY RANCH
County ARAPAHOE State COLORADO

HALLIBURTON

RADIAL BOND-GAMMA RAY
COLLAR LOG