



**SUPERIOR**  
Hays,  
Kansas

**SONIC**  
LOG

Company DOWNING - NELSON OIL CO. INC.  
Well CROSSLAND #1-16  
Field WILDCAT  
County TREGO  
State KANSAS

Company DOWNING - NELSON OIL COMPANY, INC.  
Well CROSSLAND #1-16  
Field WILDCAT  
County TREGO State KANSAS

Location: API # : 15-195-22697-0000  
1710' FNL & 960' FWL  
SW - NE - SW - NW  
SEC 16 TWP 13S RGE 22W  
Permanent Datum GROUND LEVEL Elevation 2306  
Log Measured From KELLY BUSHING 8' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
CDL/CNL  
DIL/MEL  
Elevation  
K.B. 2314  
D.F. 2312  
G.L. 2306

Date	2/10/11
Run Number	TWO
Depth Driller	4243
Depth Logger	4244
Bottom Logged Interval	4231
Top Log Interval	200
Casing Driller	8 5/8" @ 223'
Casing Logger	223
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/48
pH / Fluid Loss	8.8/9.0
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.850 @ .65F
Rmf @ Meas. Temp	.638 @ .65F
Rmc @ Meas. Temp	1.02 @ .65F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.468 @ 118F
Time Circulation Stopped	4.5 HOURS
Time Logger on Bottom	7:15 A.M.
Maximum Recorded Temperature	118F
Equipment Number	0836
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	RON NELSON

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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**

THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
OGALLAH, KS. & I-70 4S. ON HWY 147 TO (BOOSTER STATION) "RD. 0", 2W. PAST LOW WATER  
BRIDGE, 1/2S., E. INTO

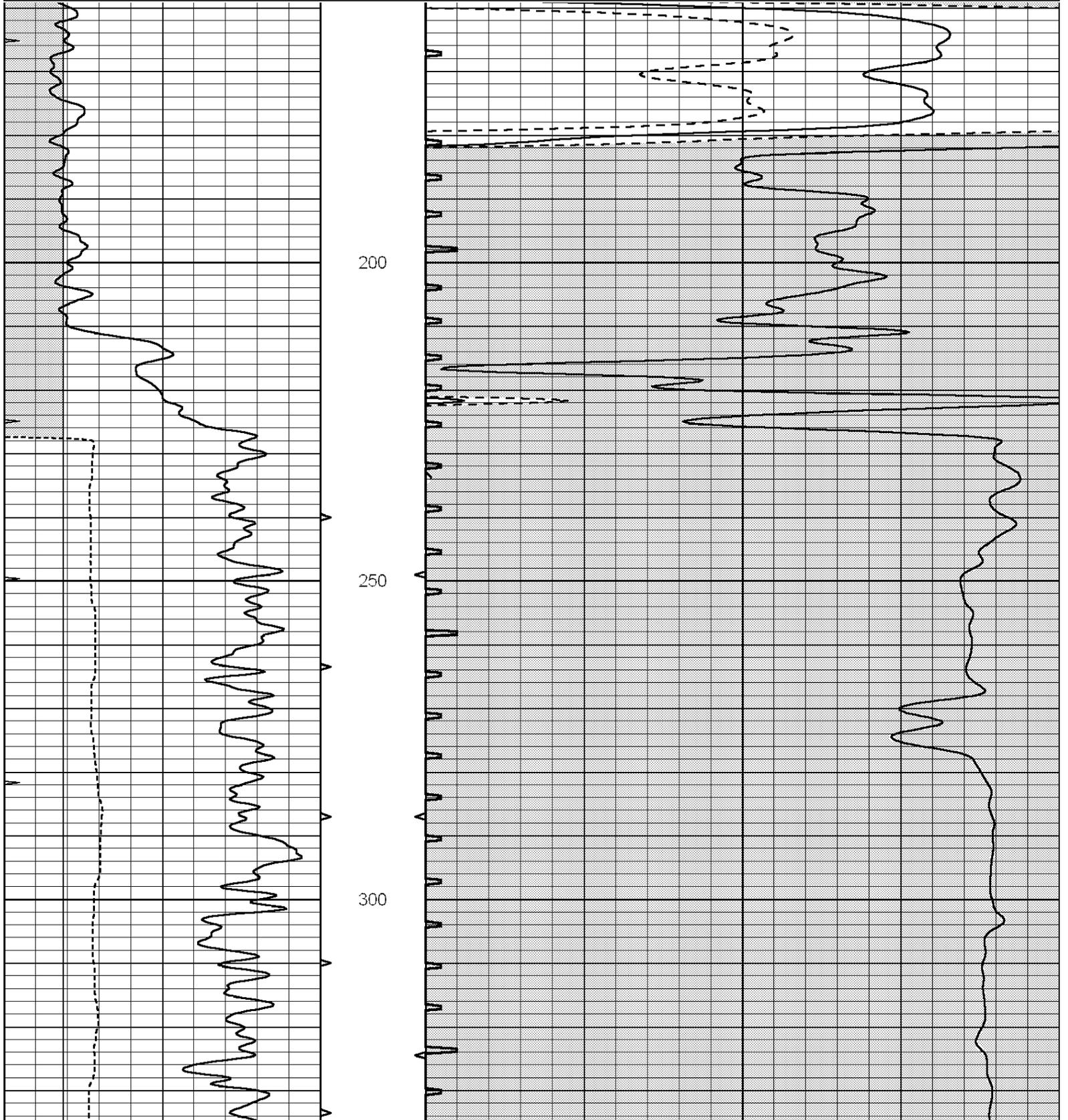


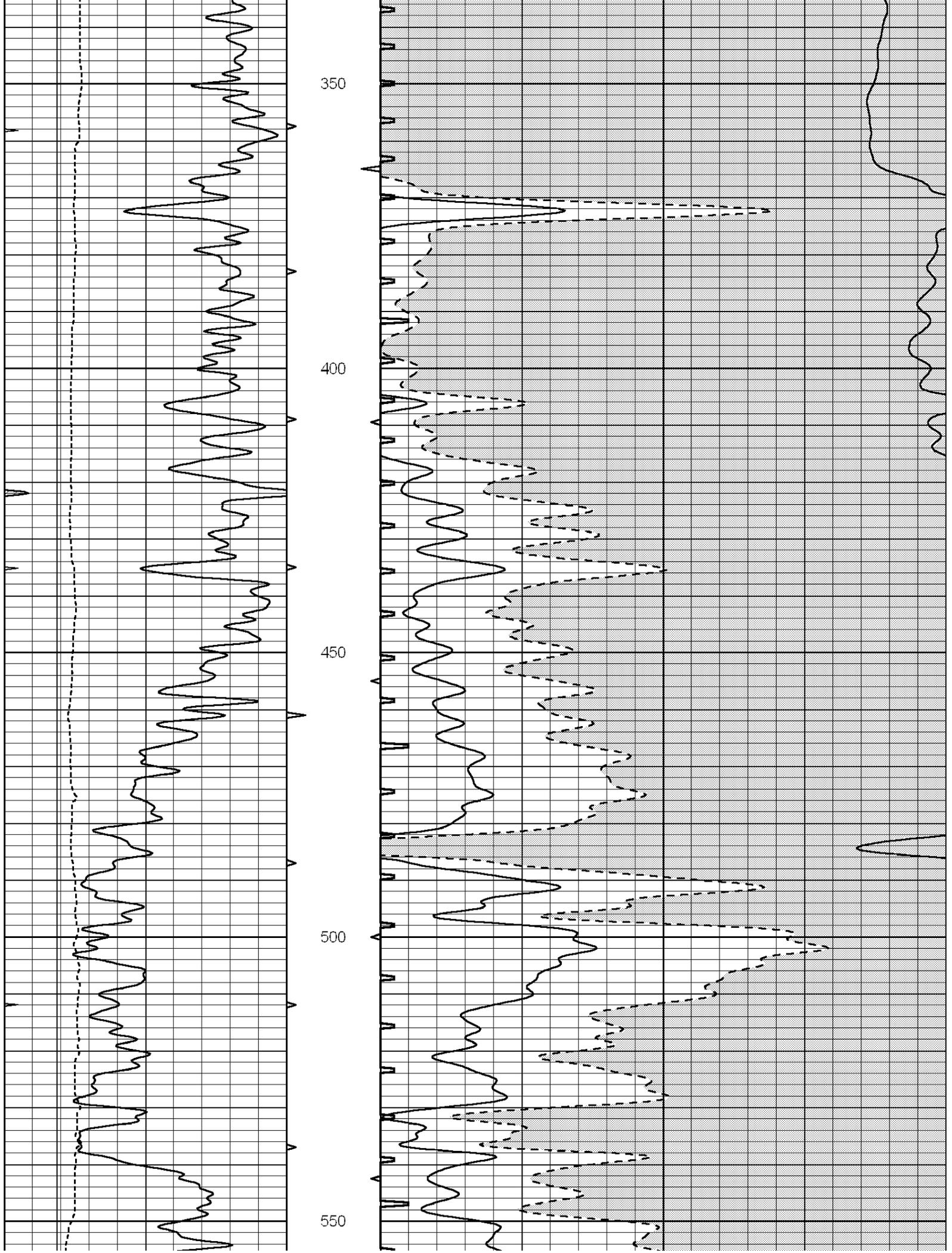
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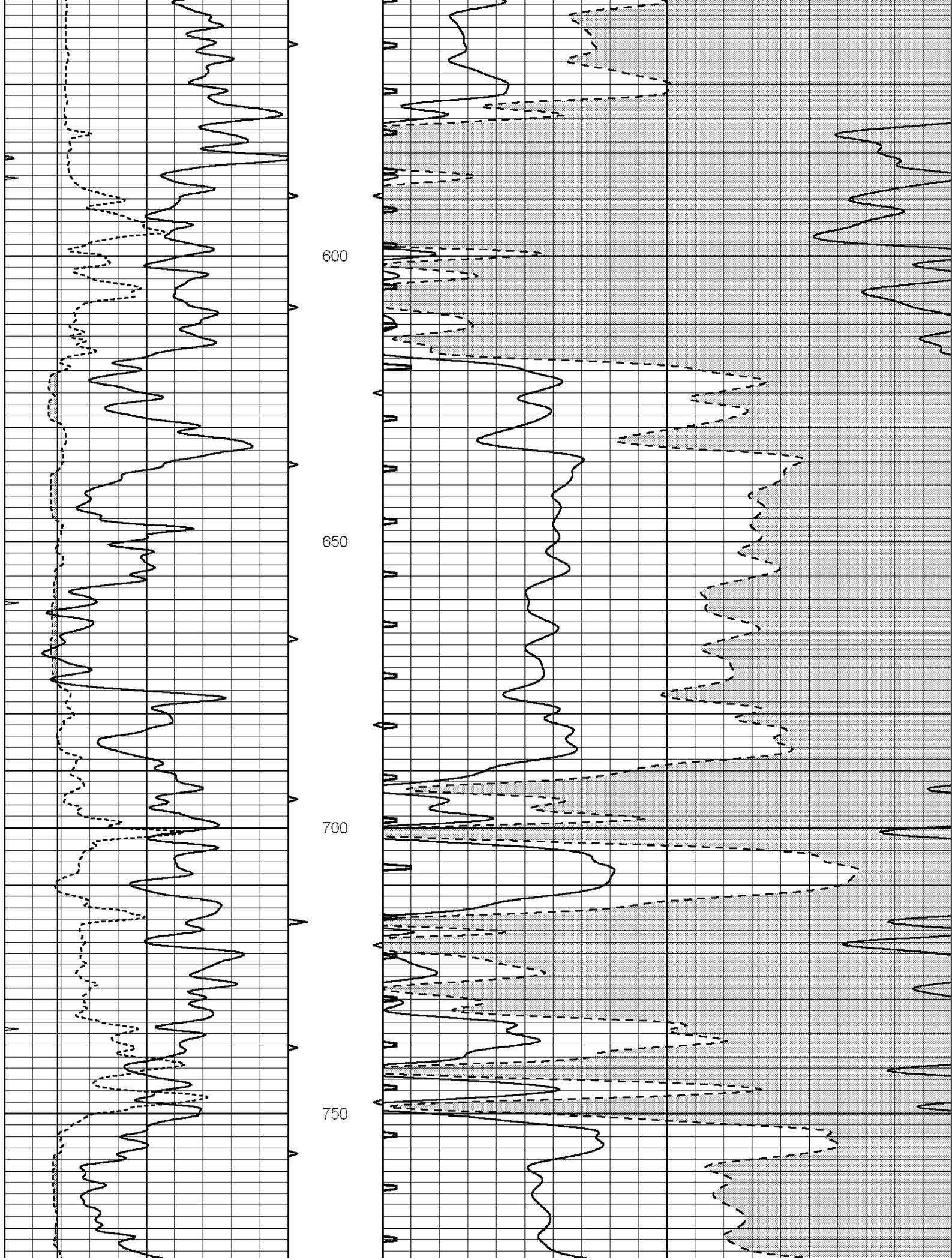
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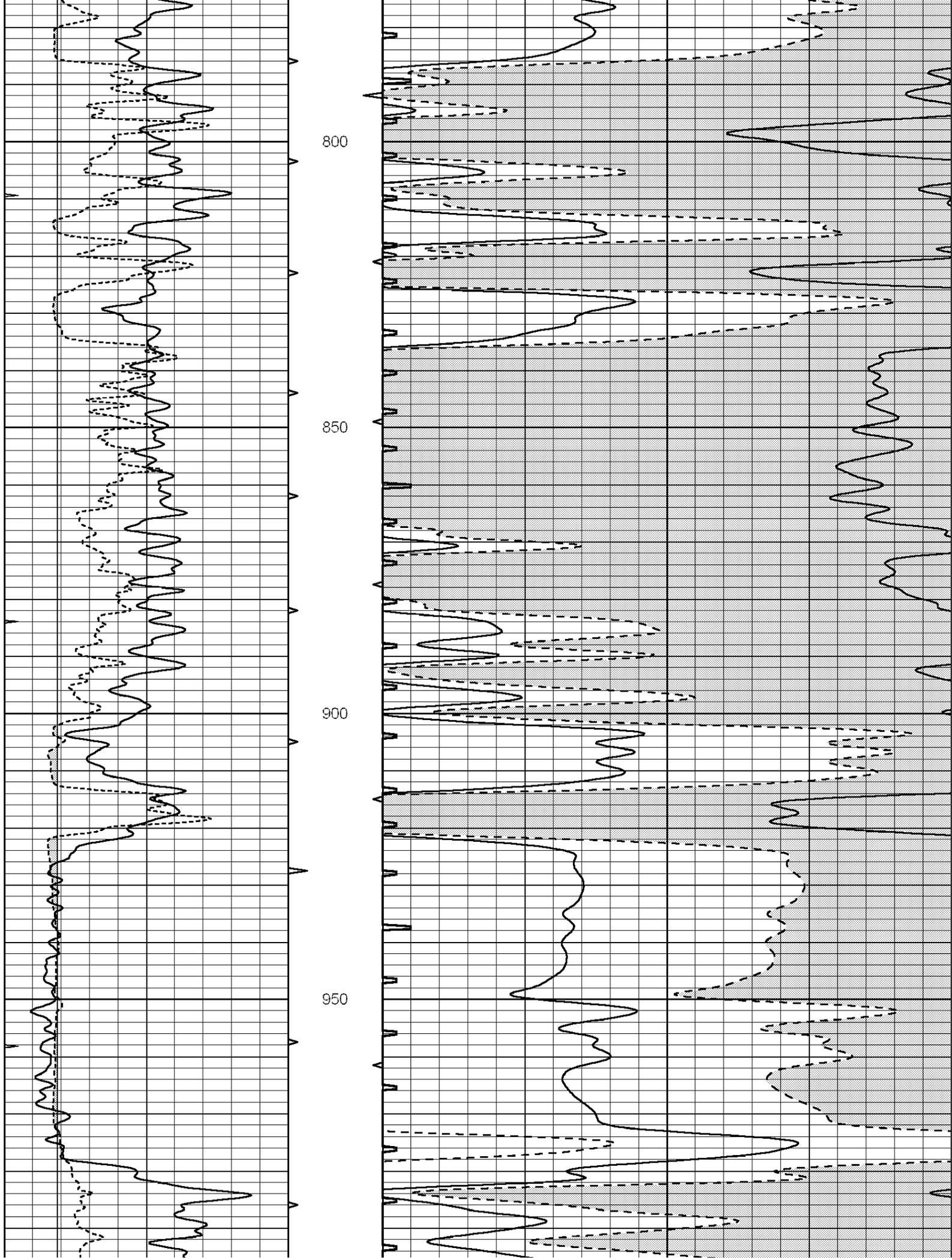
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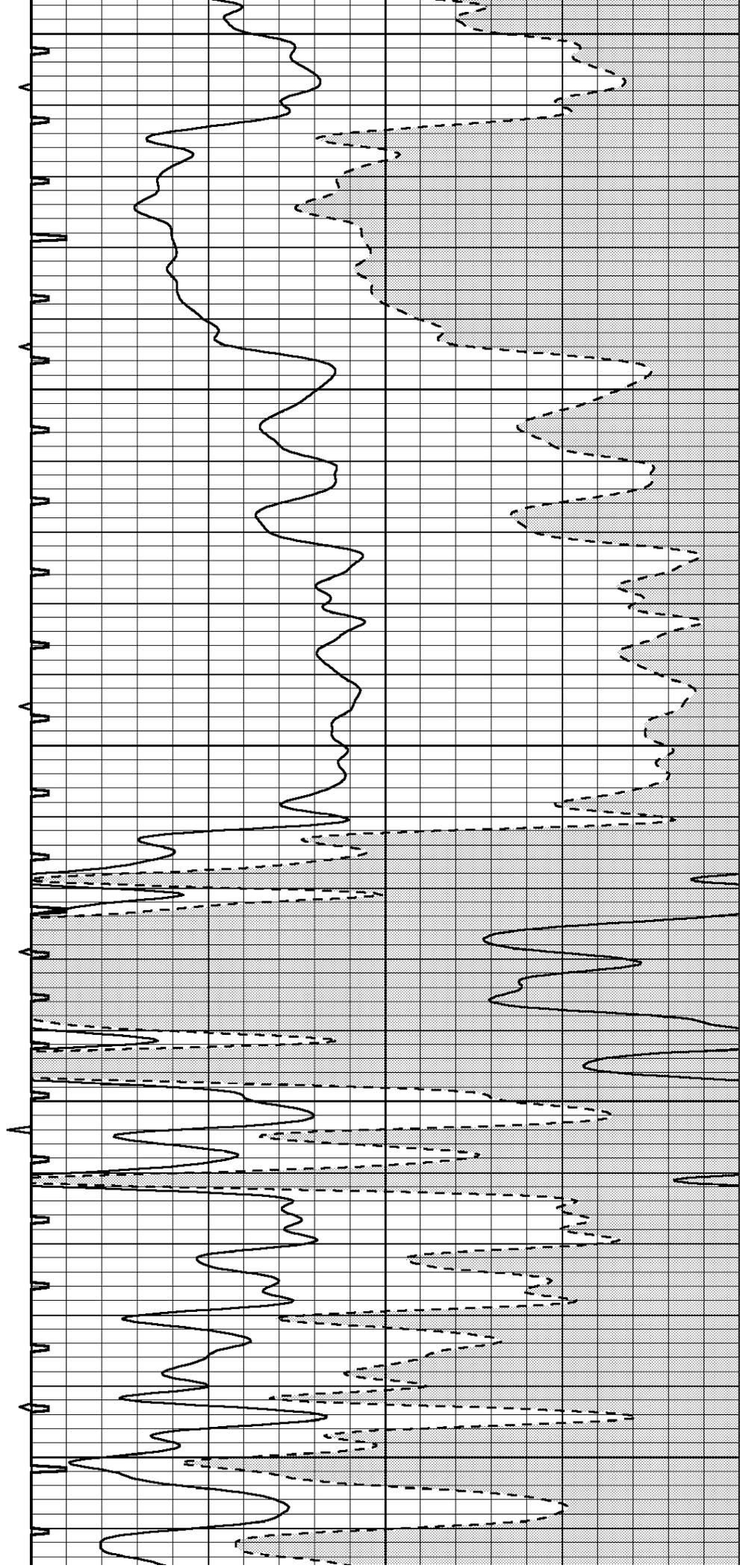
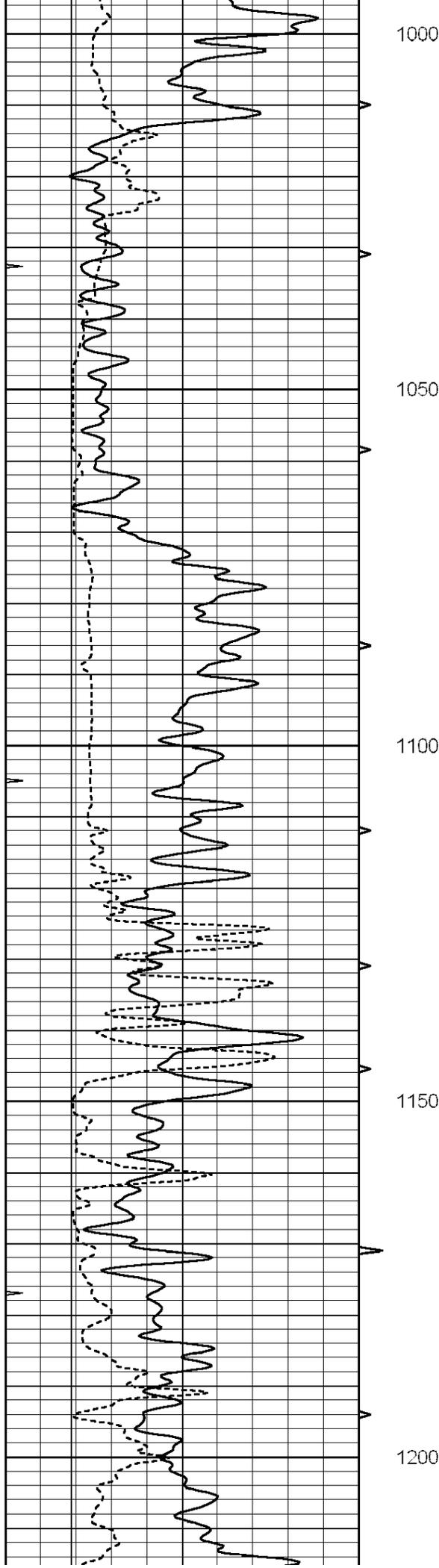
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6	CALIPER (in)	16	10 (ft3)	0	30	SONIC POROSITY (pu)	-10
0	MINMK	20	TBHV	0	ITT (msec)	20	
			0 (ft3)	10			

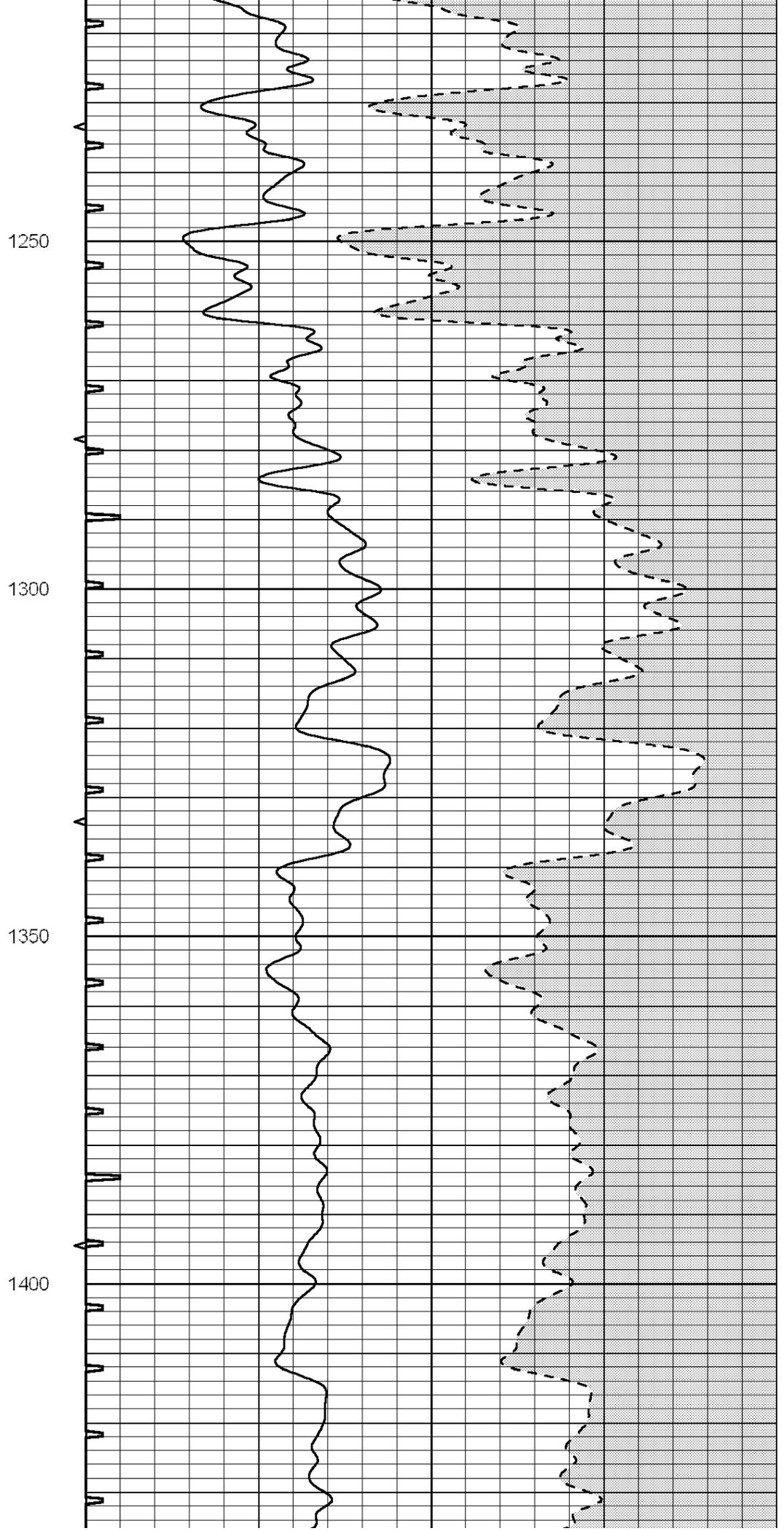
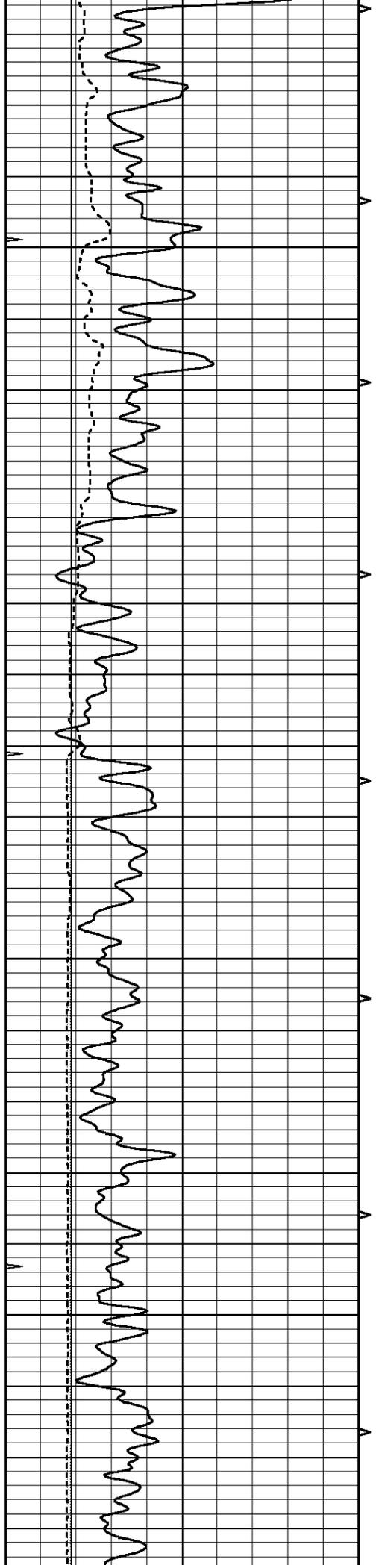


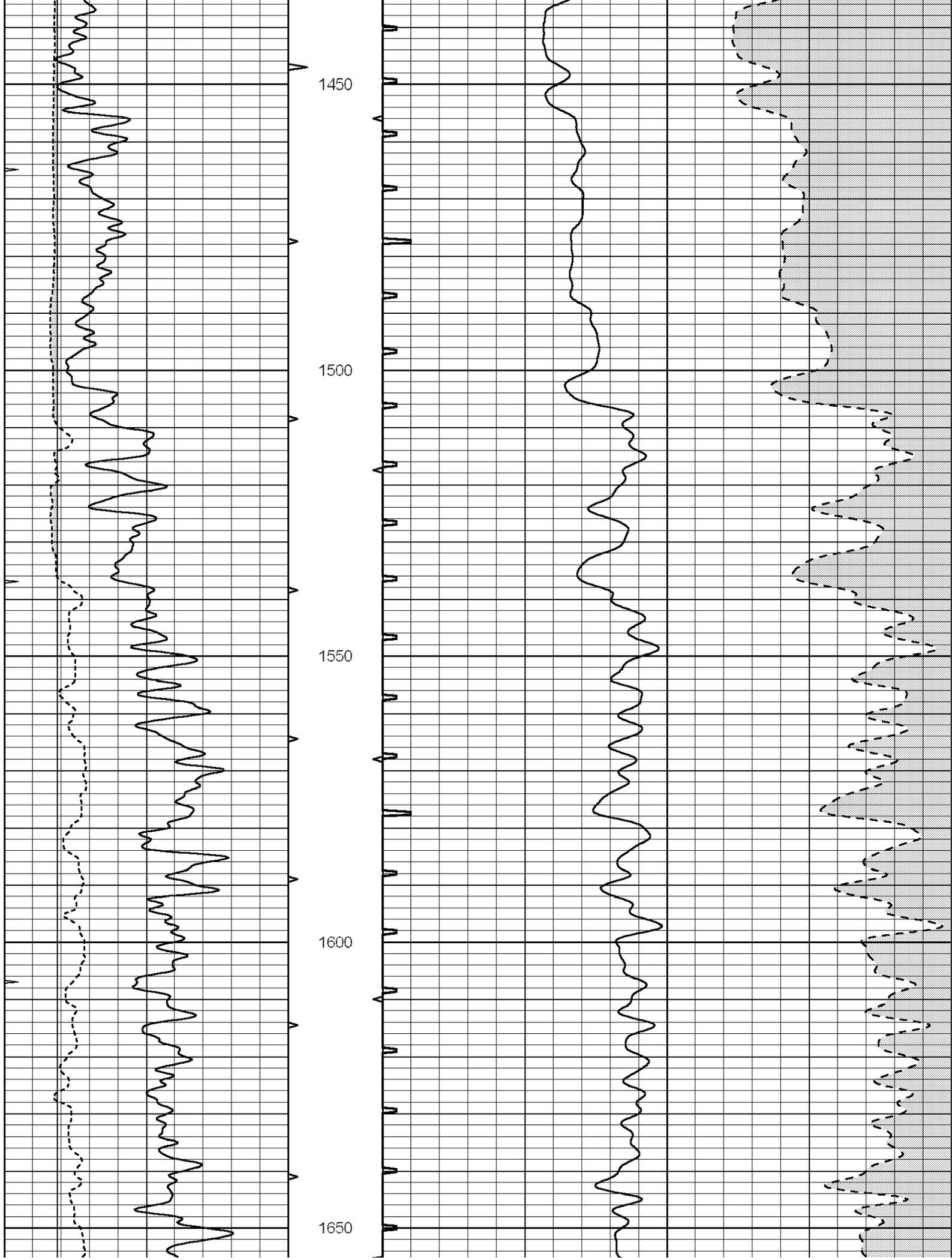


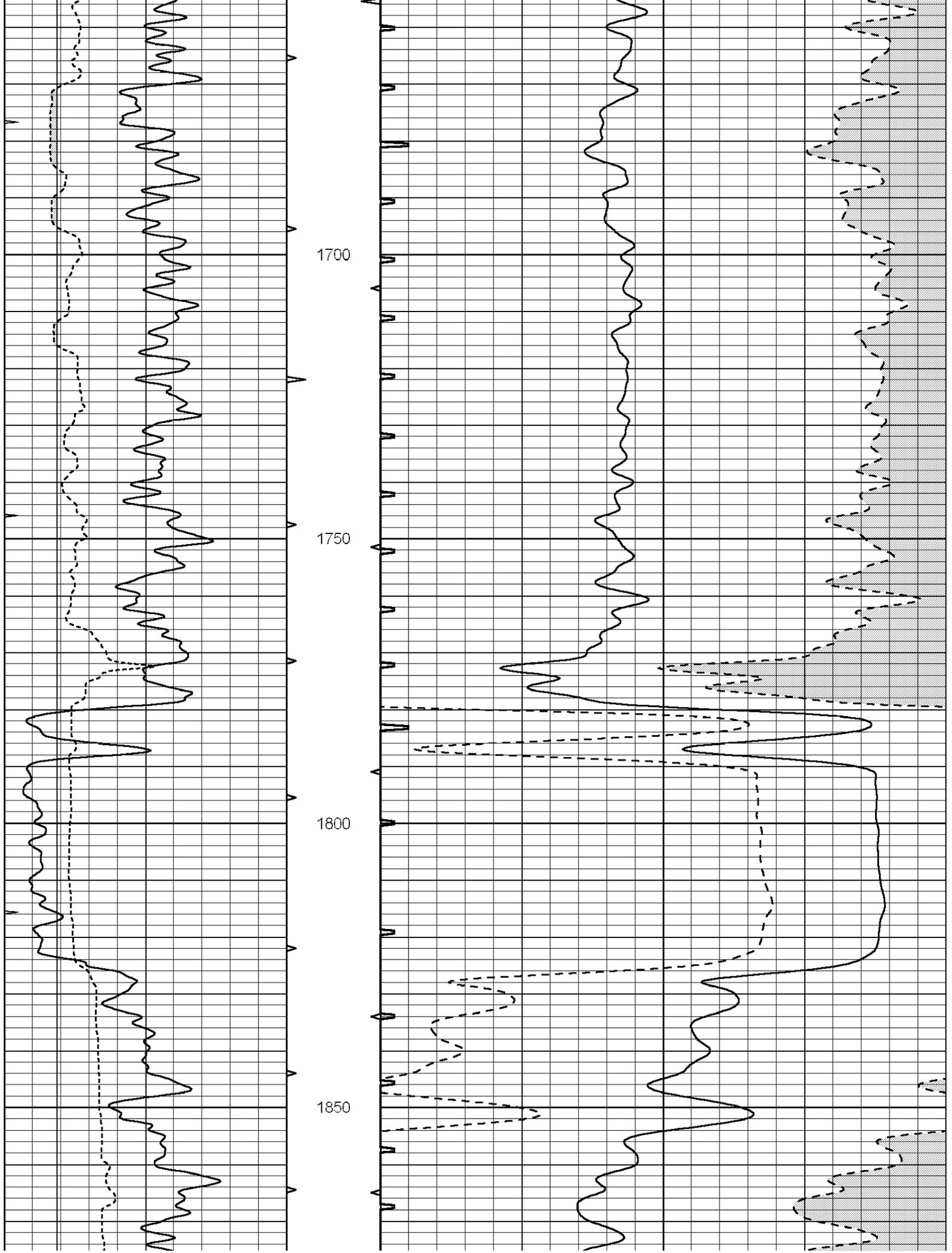




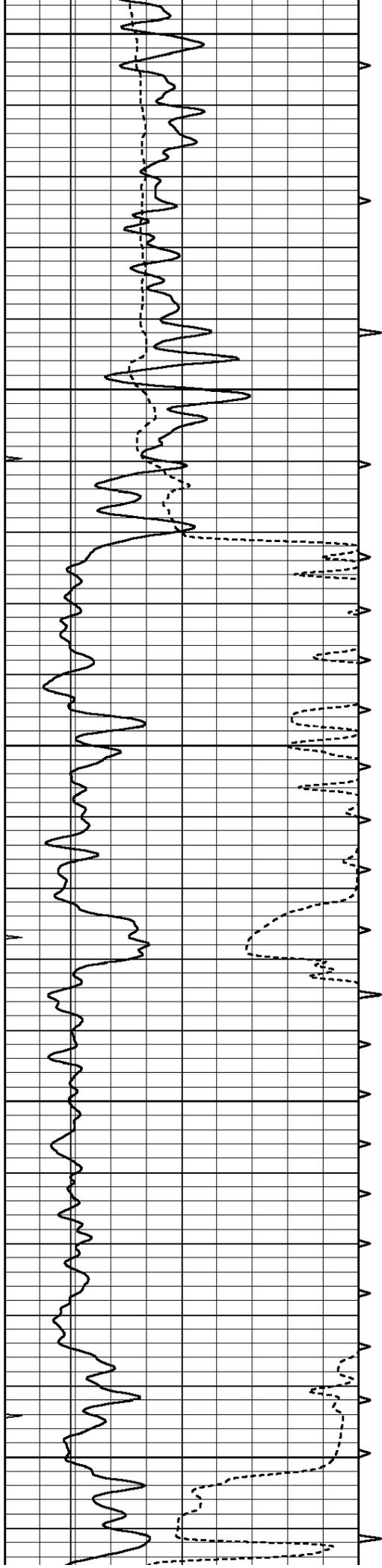












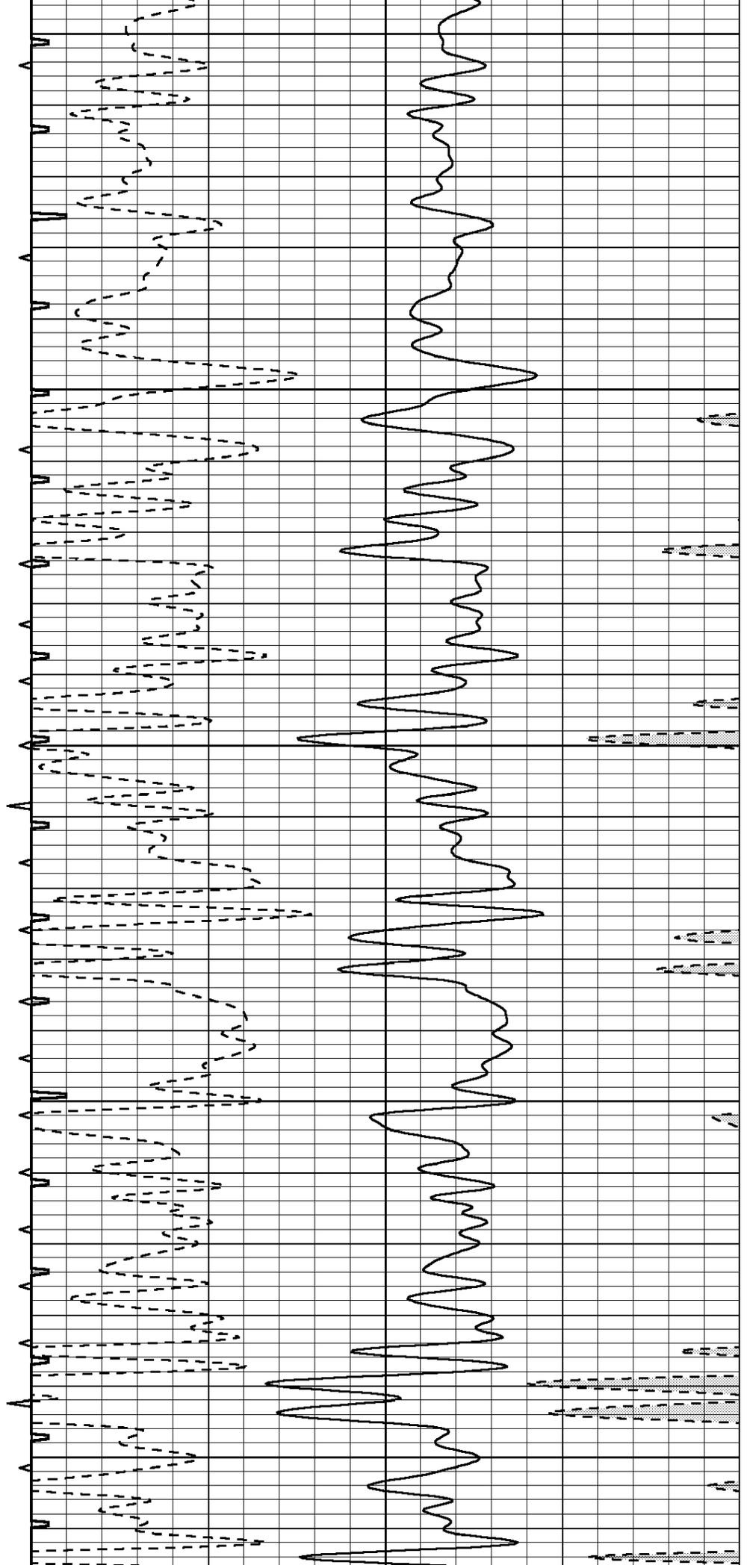
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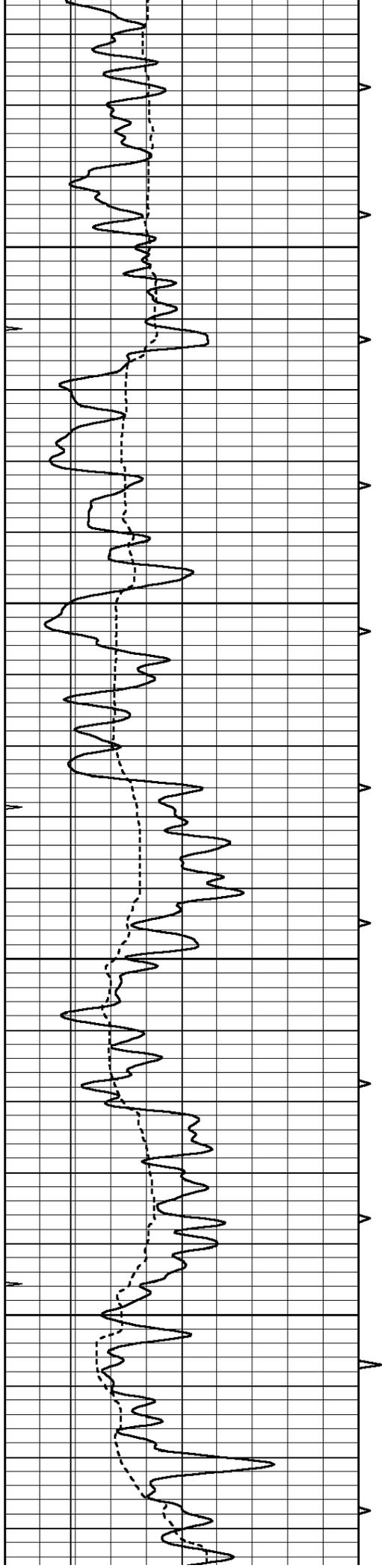
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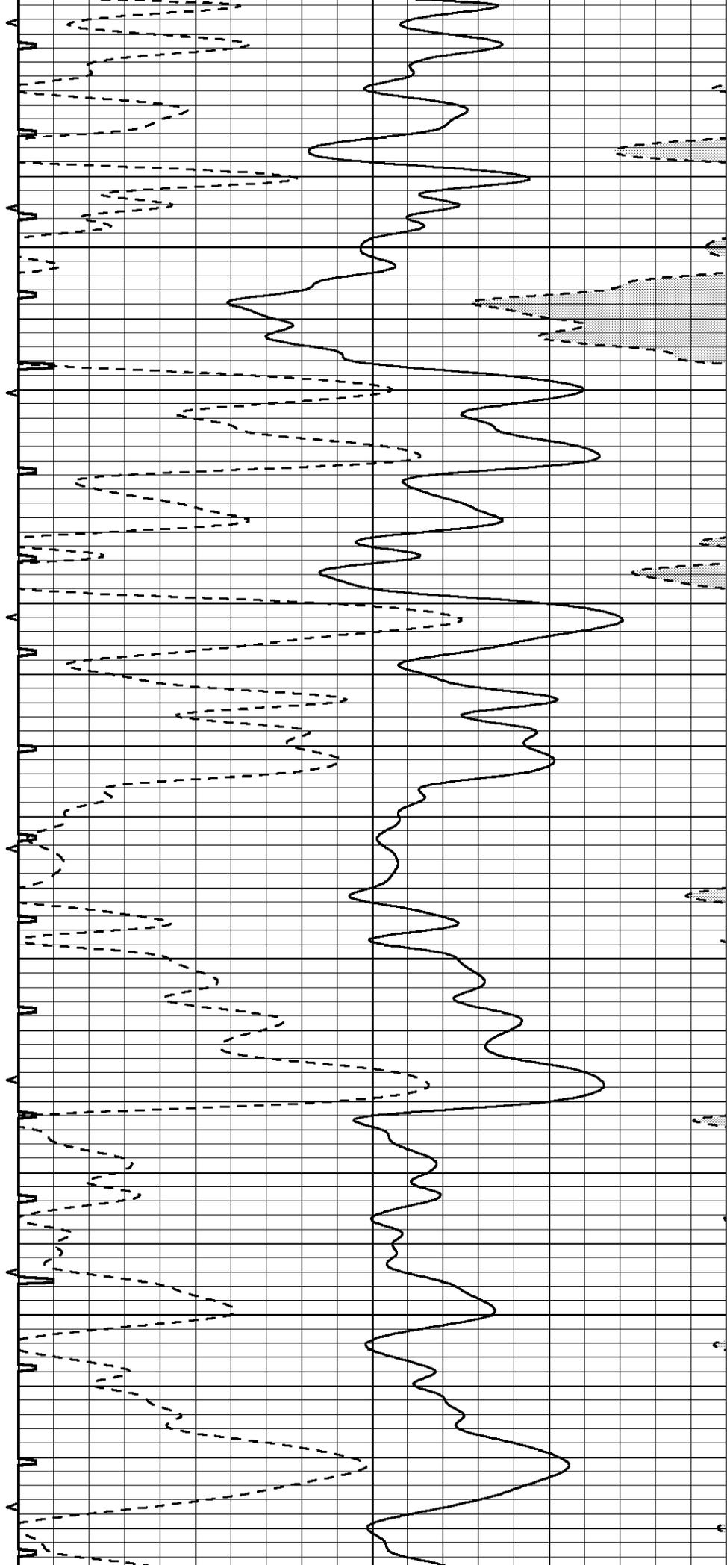


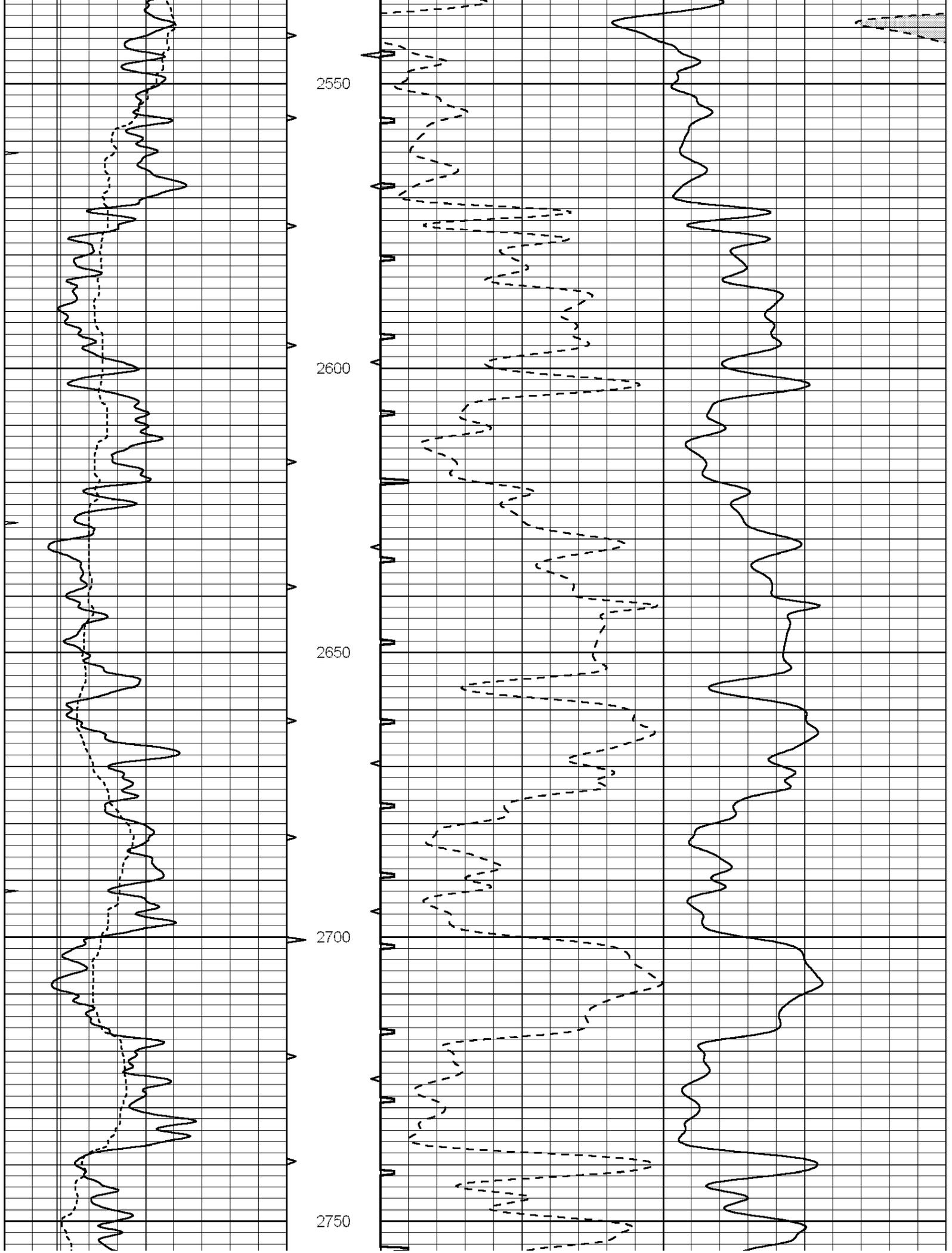
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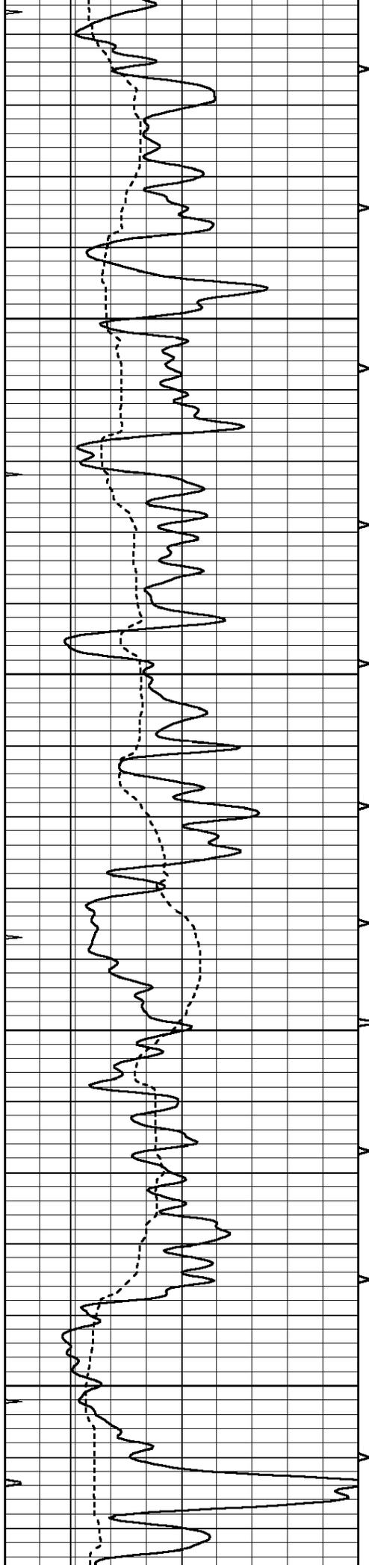
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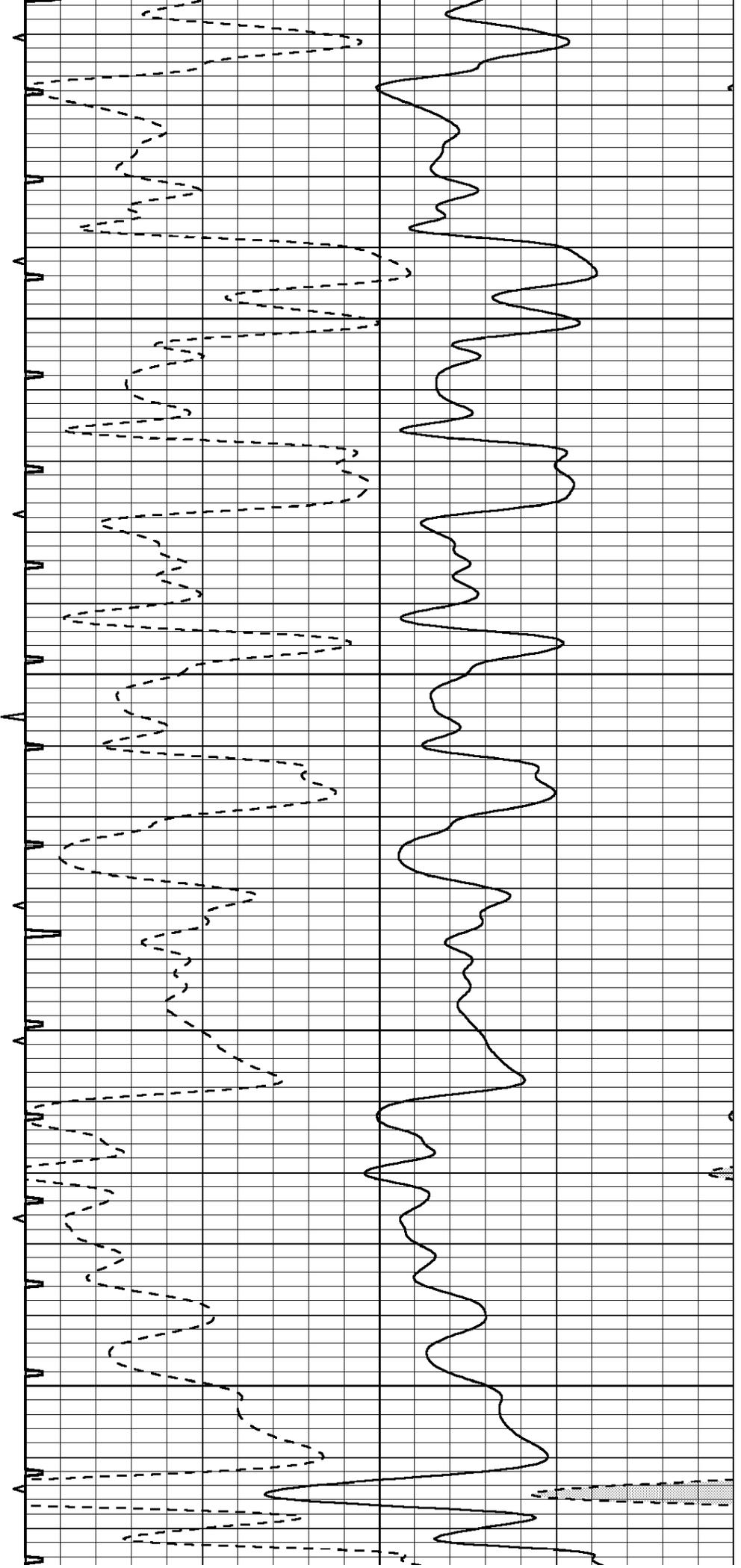


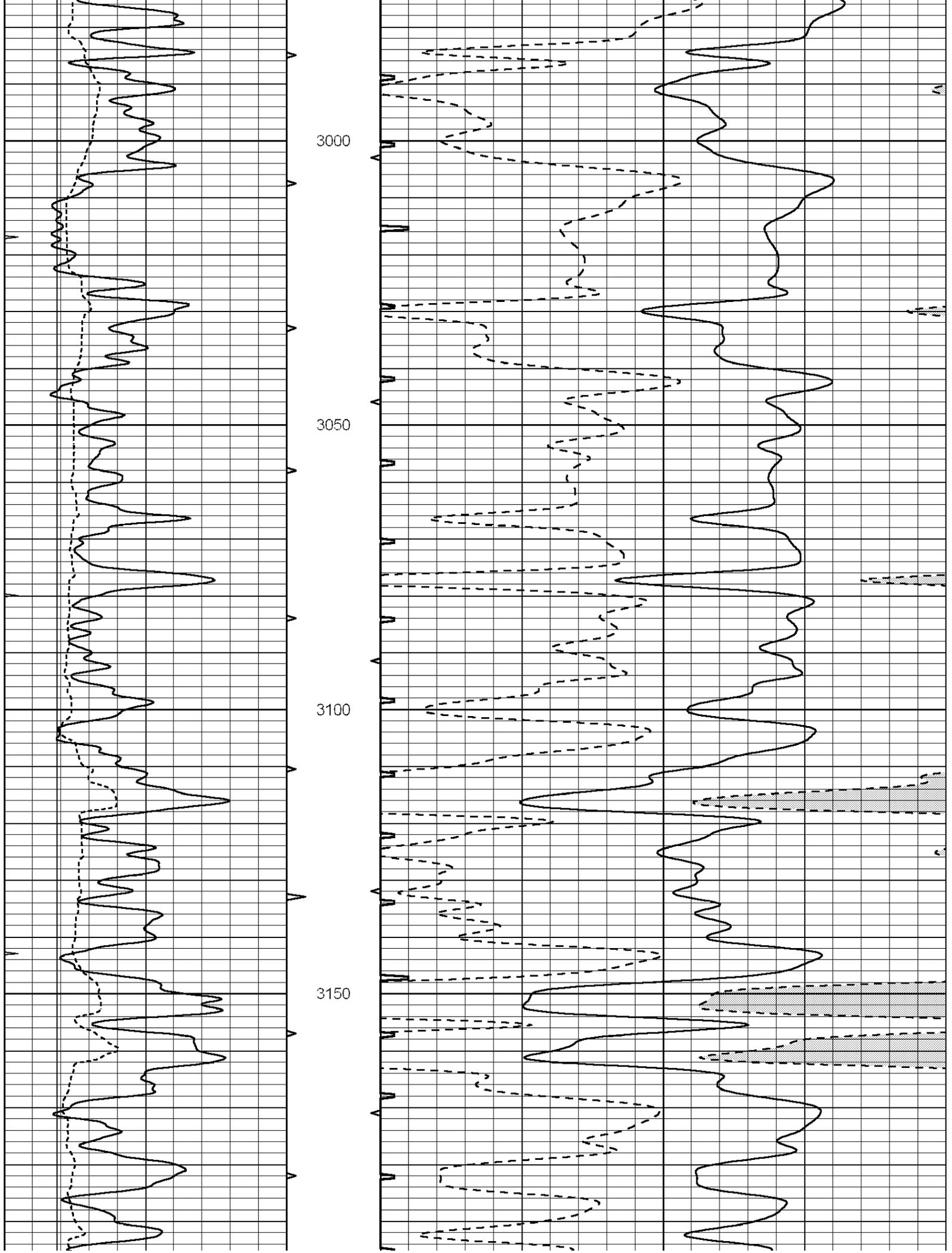
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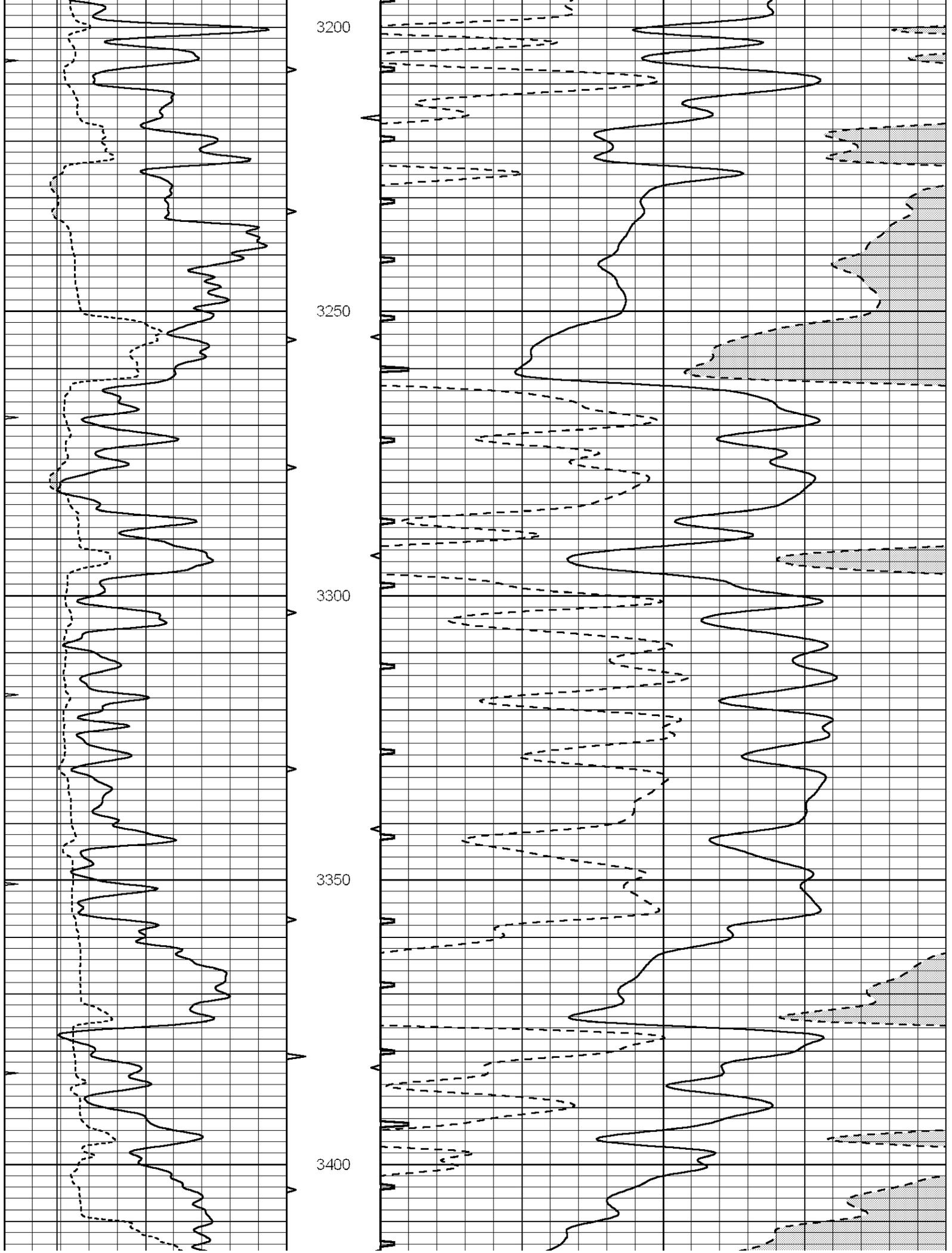
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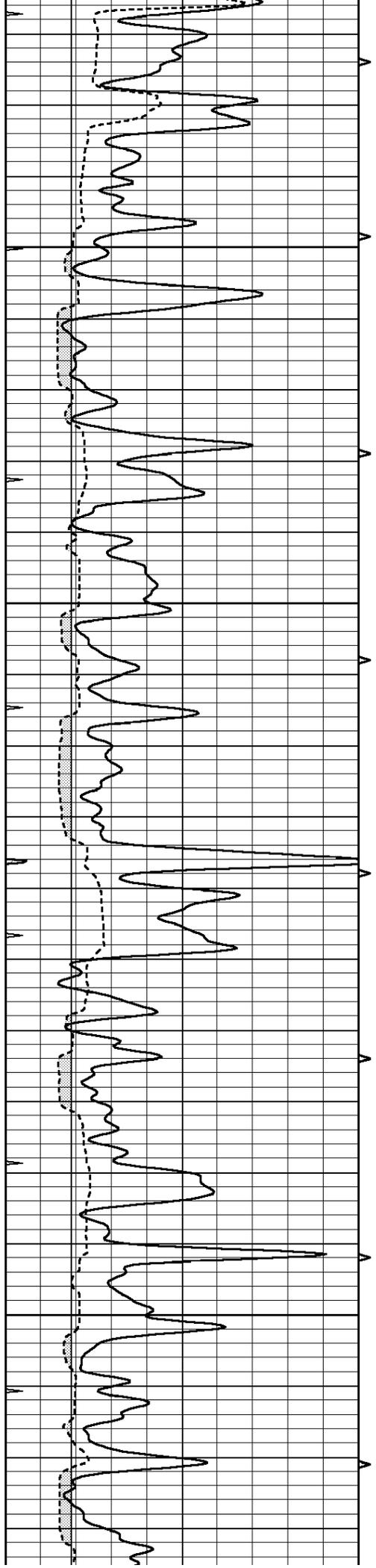
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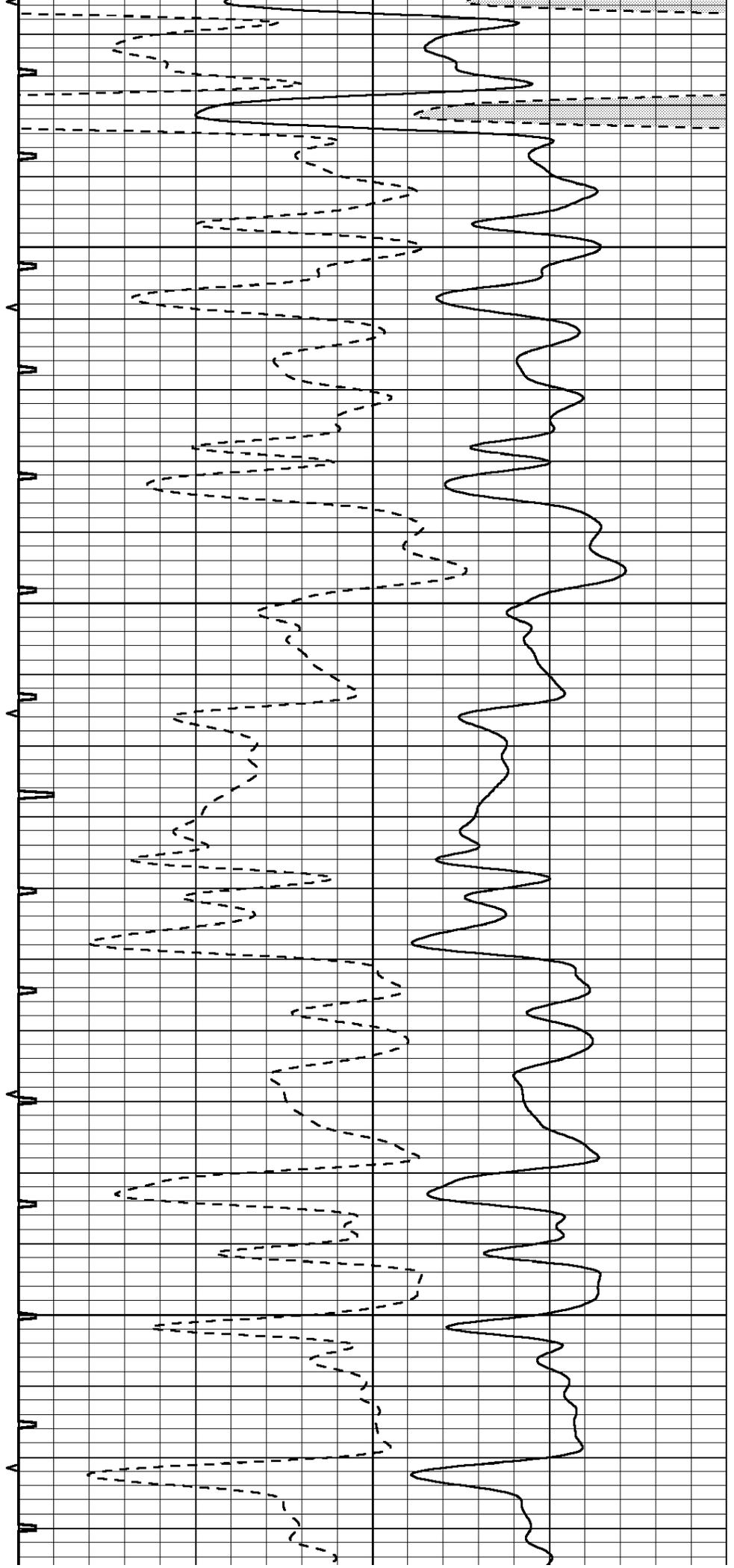


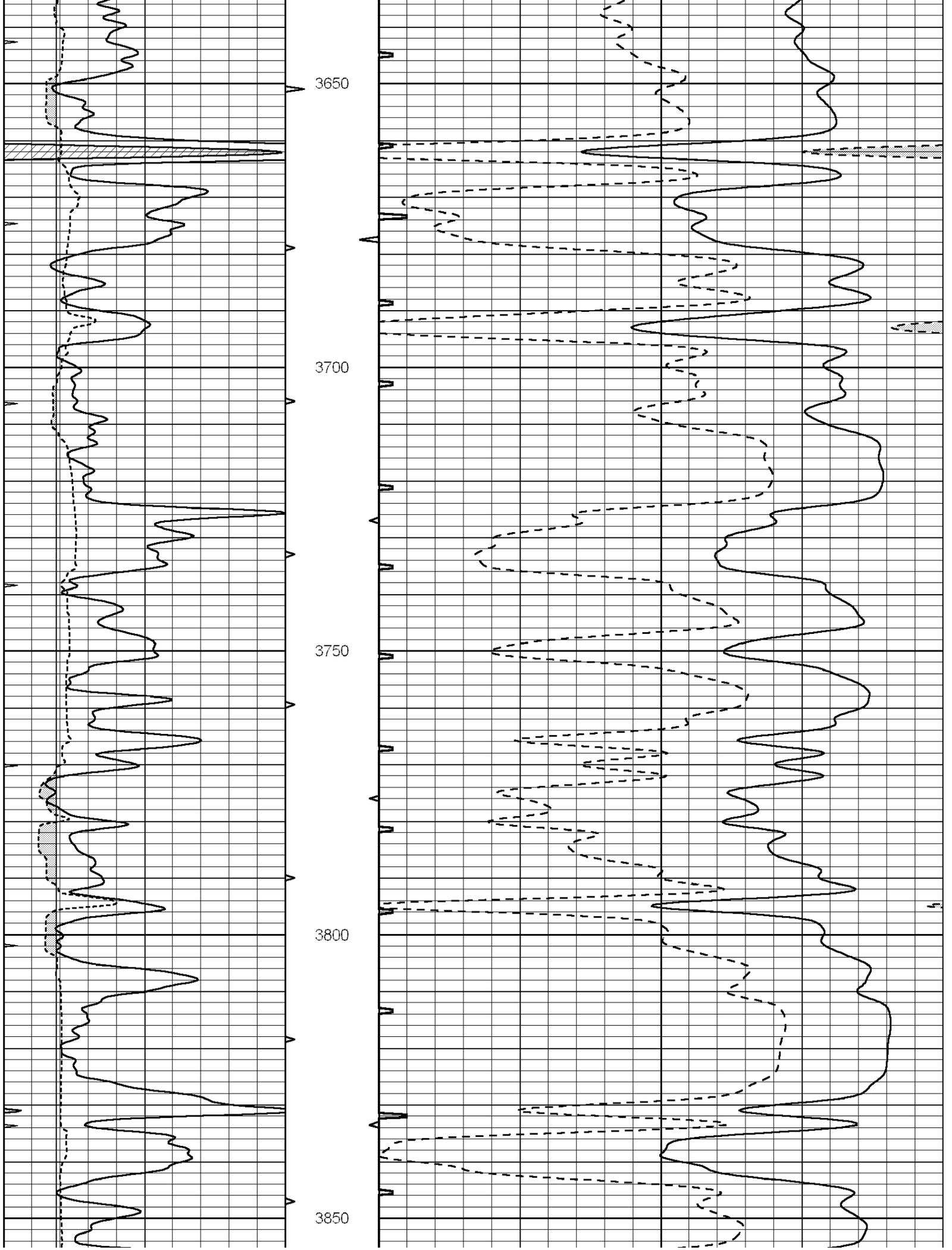
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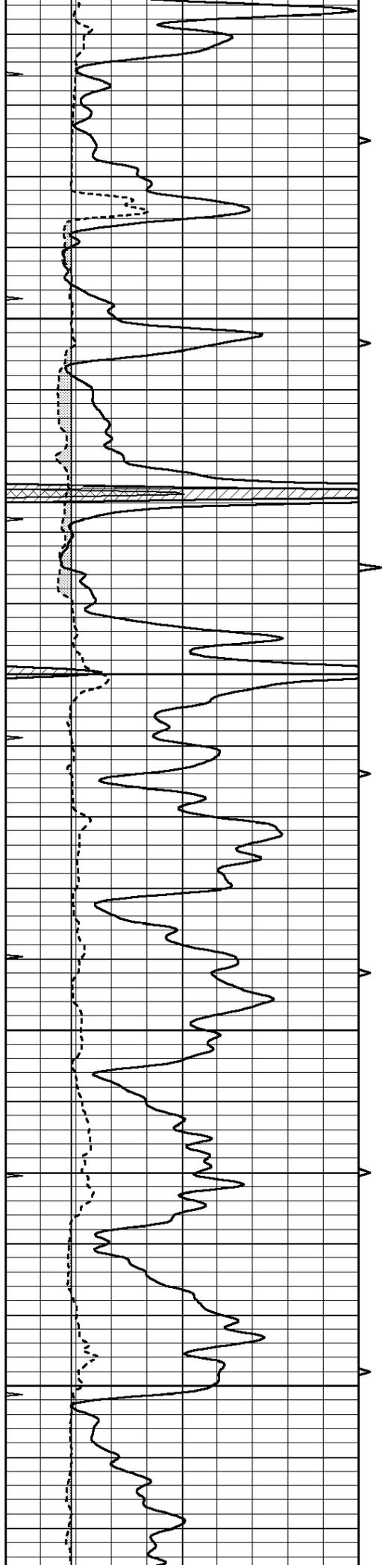
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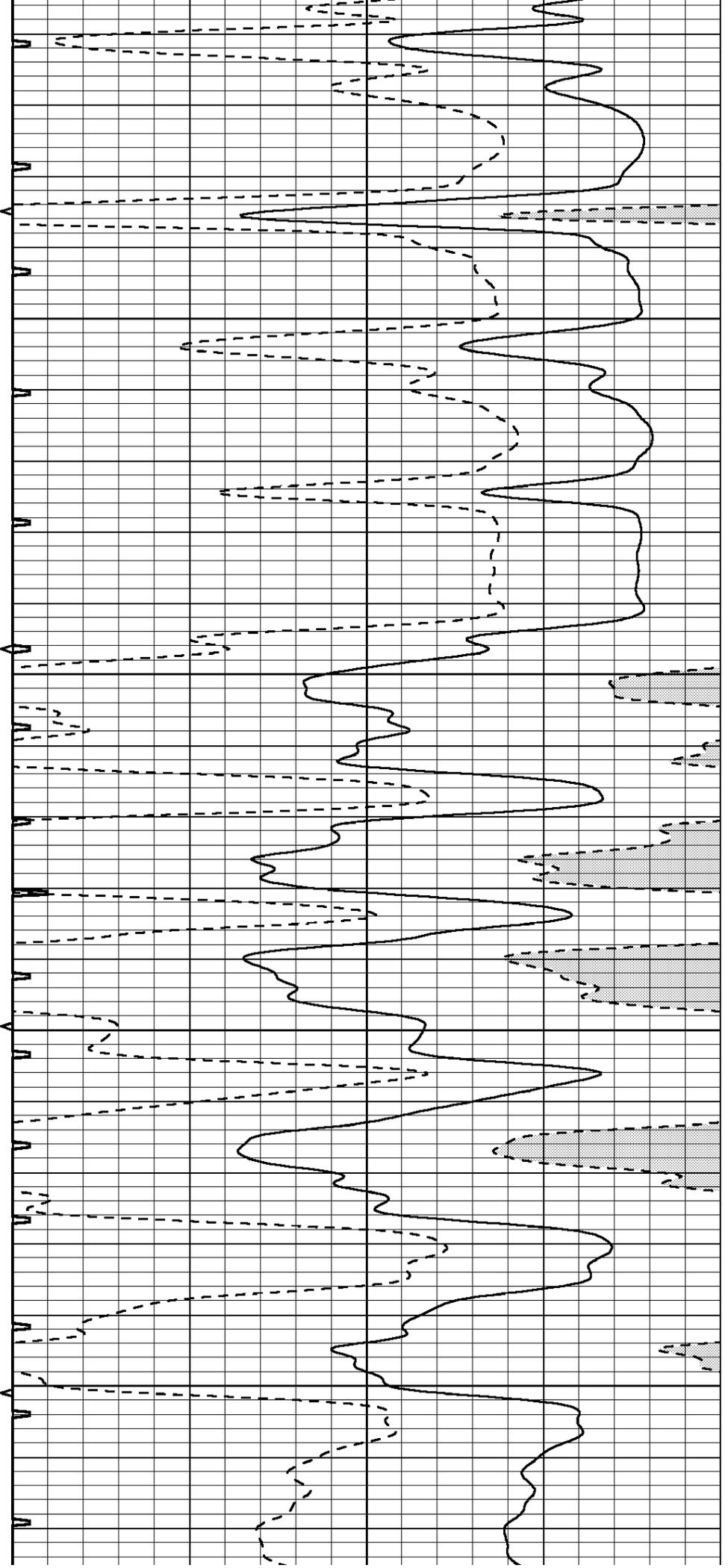


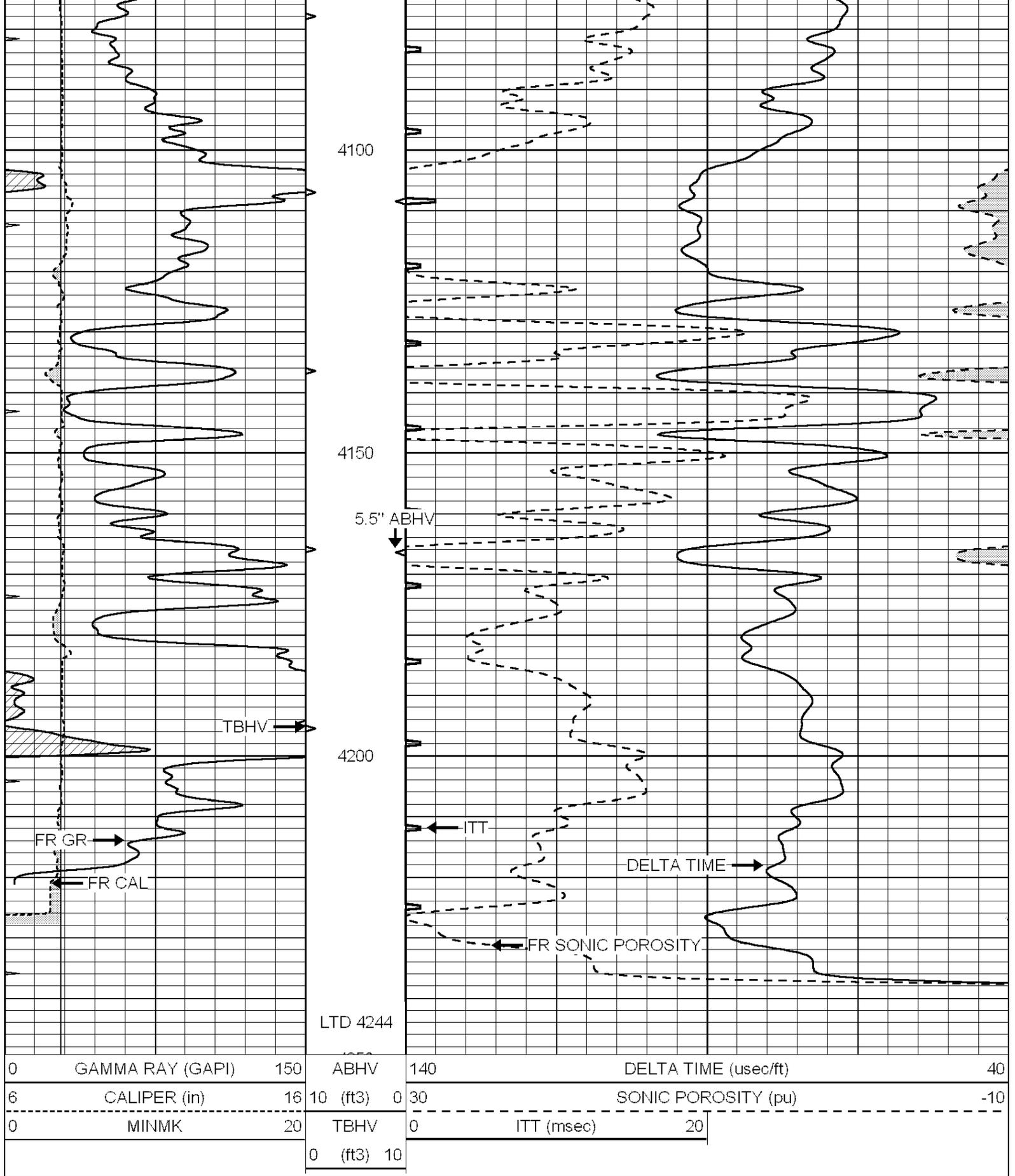
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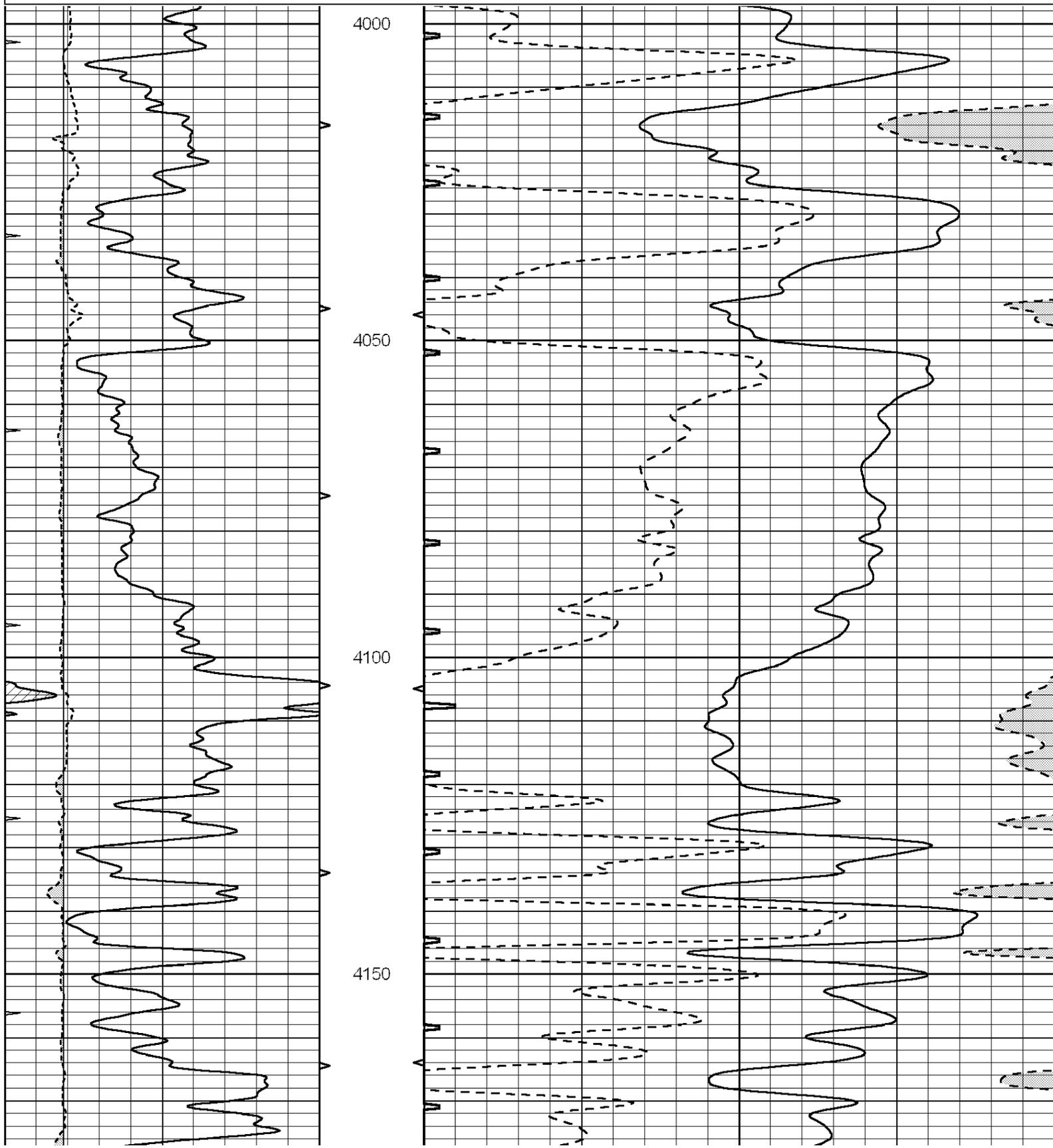


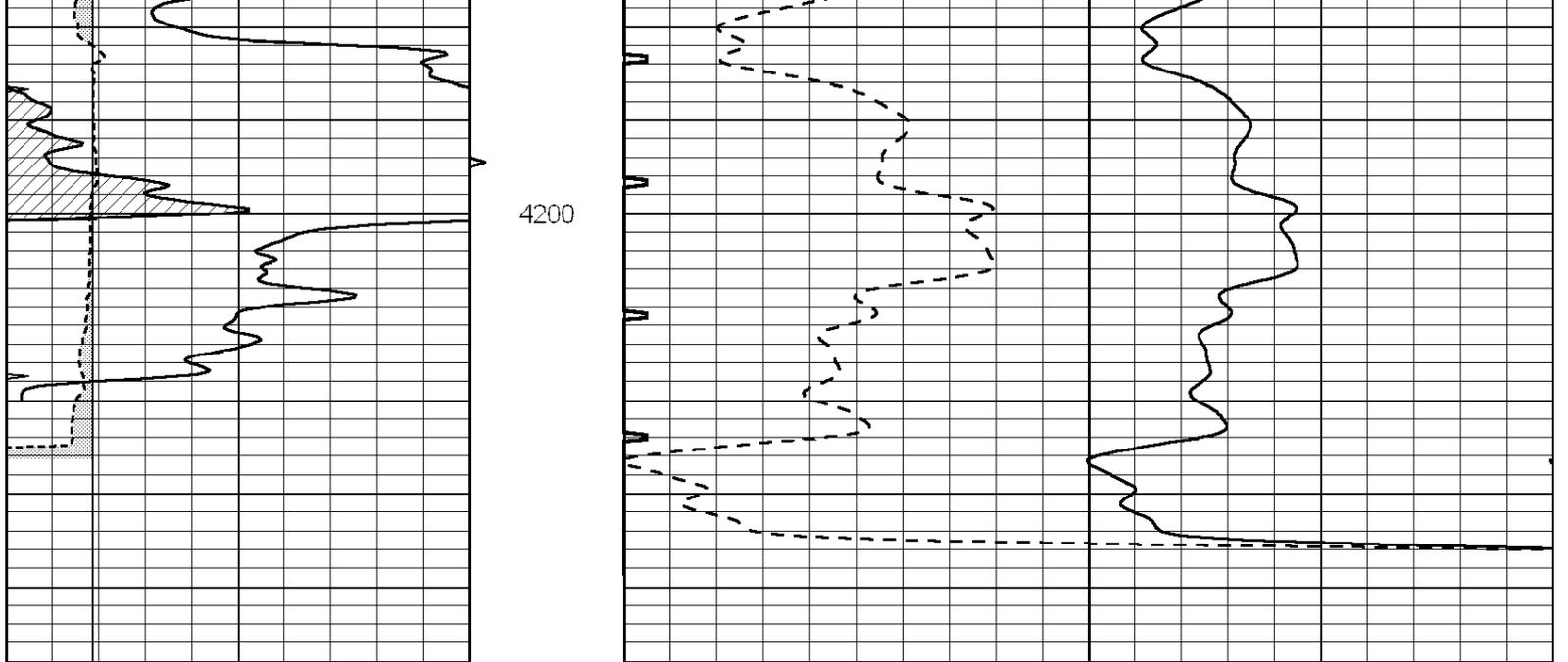
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# REPEAT SECTION

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6	CALIPER (in)	16	10 (ft3)	0	30	SONIC POROSITY (pu)	-10
0	MINMK	20	TBHV	0	ITT (msec)	20	
			0 (ft3)	10			





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6	CALIPER (in)	16	10 (ft3)	0	30	SONIC POROSITY (pu)	-10
0	MINMK	20	TBHV	0	ITT (msec)	20	
			0 (ft3)	10			