



SUPERIOR
Hays,
Kansas

SONIC
LOG

Company CRAWFORD OIL & GAS CO. LLC.
Well ZIMMERMAN #1-24
Field WILDCAT
County GOVE
State KANSAS

Company CRAWFORD OIL & GAS COMPANY, LLC.
Well ZIMMERMAN #1-24
Field WILDCAT
County GOVE State KANSAS

Location: API # : 15-063-22032-0000

2617' FSL & 622' FEL

SEC 24 TWP 13S RGE 31W

Permanent Datum GROUND LEVEL Elevation 2835
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL/PE
DIL/MEL

Elevation

K.B. 2840
D.F. 2838
G.L. 2835

Date	8/18/12		
Run Number	TWO		
Depth Driller	4590		
Depth Logger	4590		
Bottom Logged Interval	4578		
Top Log Interval	200		
Casing Driller	8 5/8"@218		
Casing Logger	218		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2,000 PPM	
Density / Viscosity	9.460		
pH / Fluid Loss	10.5/7.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	2.40@88F		
Rmt @ Meas. Temp	1.80@88F		
Rmc @ Meas. Temp	2.88@88F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	1.75@121F		
Time Circulation Stopped	4.5 HOURS		
Time Logger on Bottom	7:00 A.M.		
Maximum Recorded Temperature	121F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	LARRY FRIEND		

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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
GRINNELL, KS. & I-70, 10 1/2S. TO "RD. S", 4W. TO "RD. 22", 3 1/2S., W. INTO

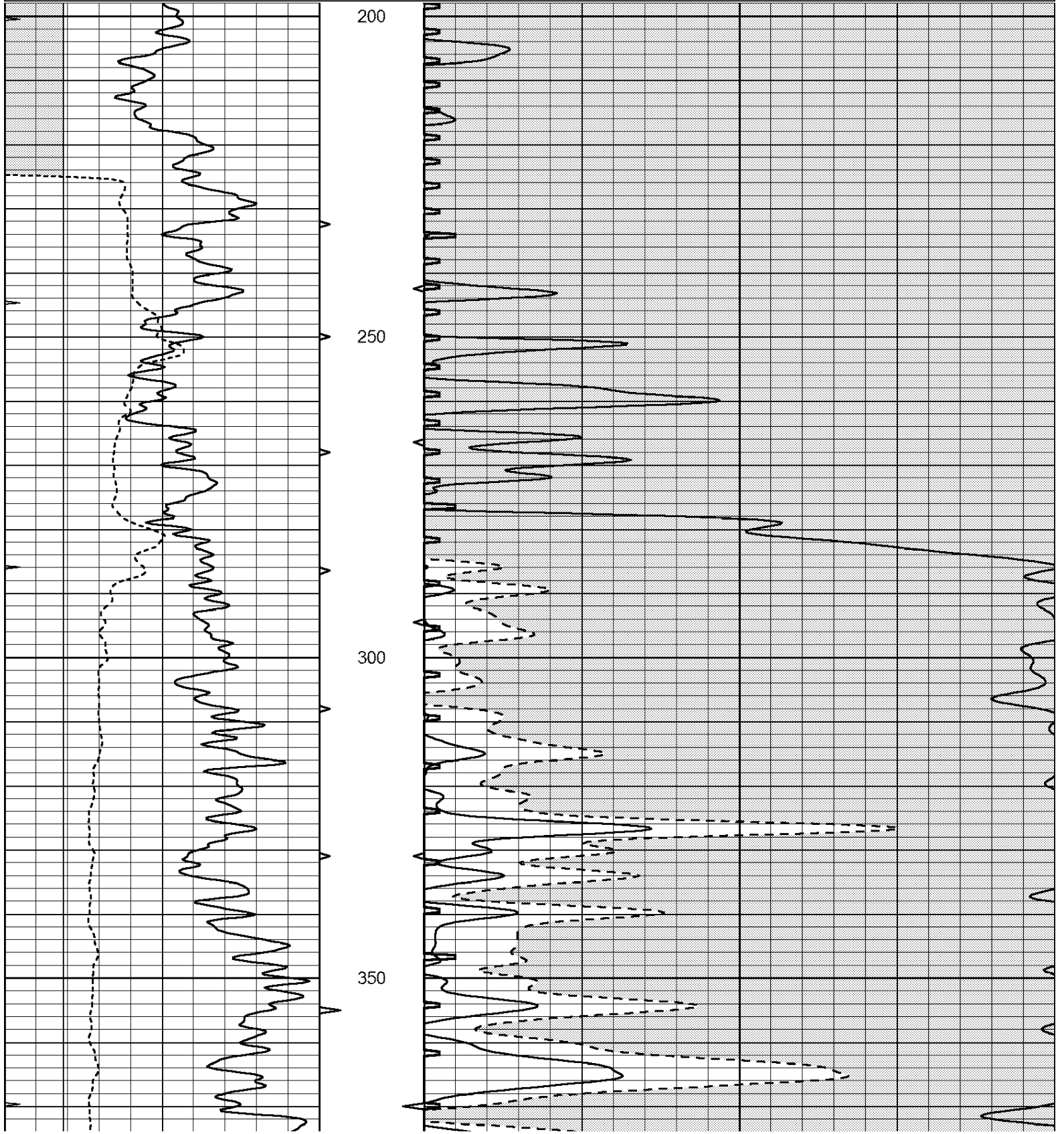


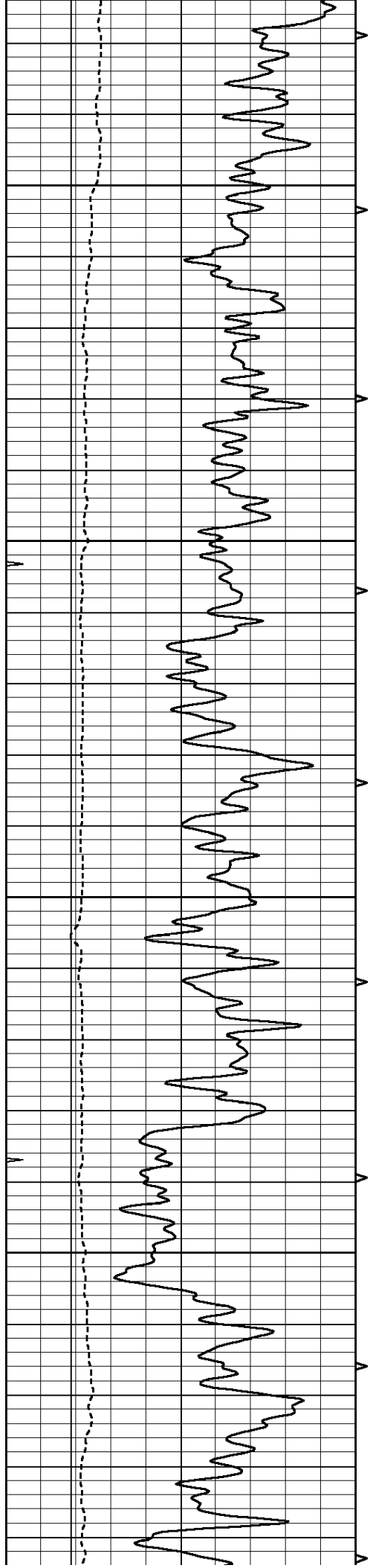
SUPERIOR
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MAIN SECTION

Database File: 409504pe.db
 Dataset Pathname: pass6.2
 Presentation Format: slt
 Dataset Creation: Sat Aug 18 11:11:42 2012
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	140	DELTA TIME (usec/ft)	40	
6	CALIPER (in)	16	10 (ft3)	0	30	SONIC POROSITY (pu)	-10
0	MINMK	20	TBHV	0	ITT (msec)	20	
			0 (ft3)	10			



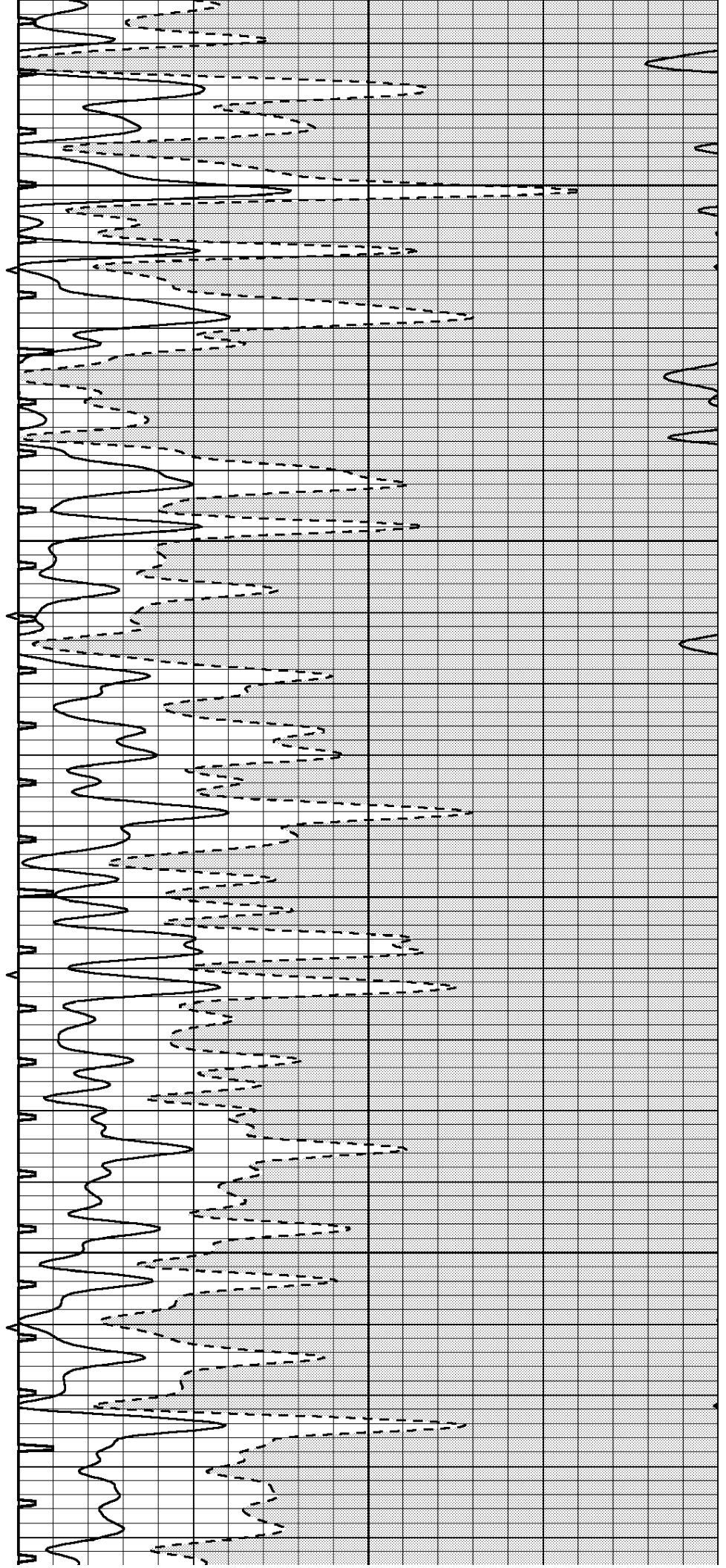


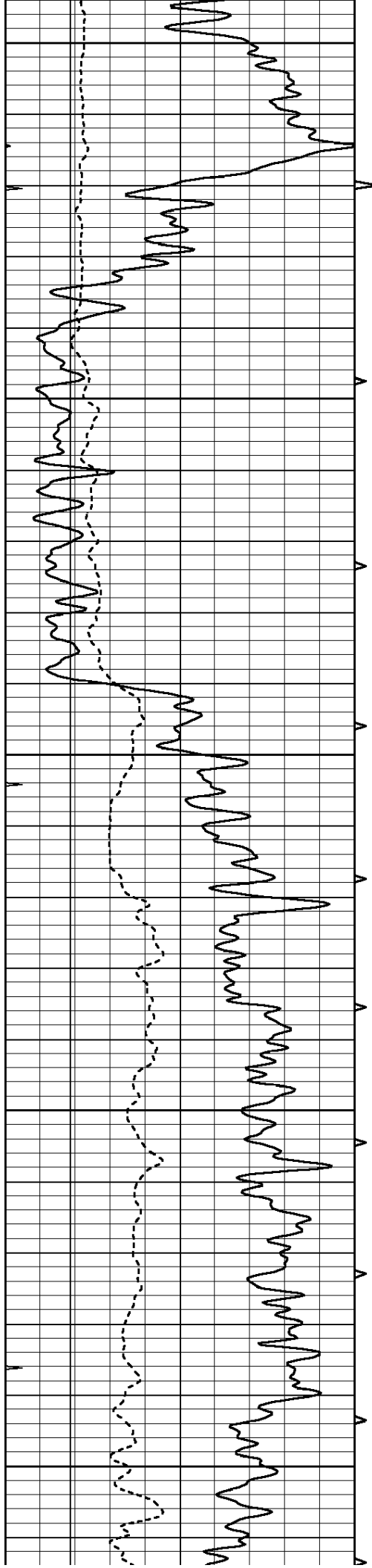
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450

500

550





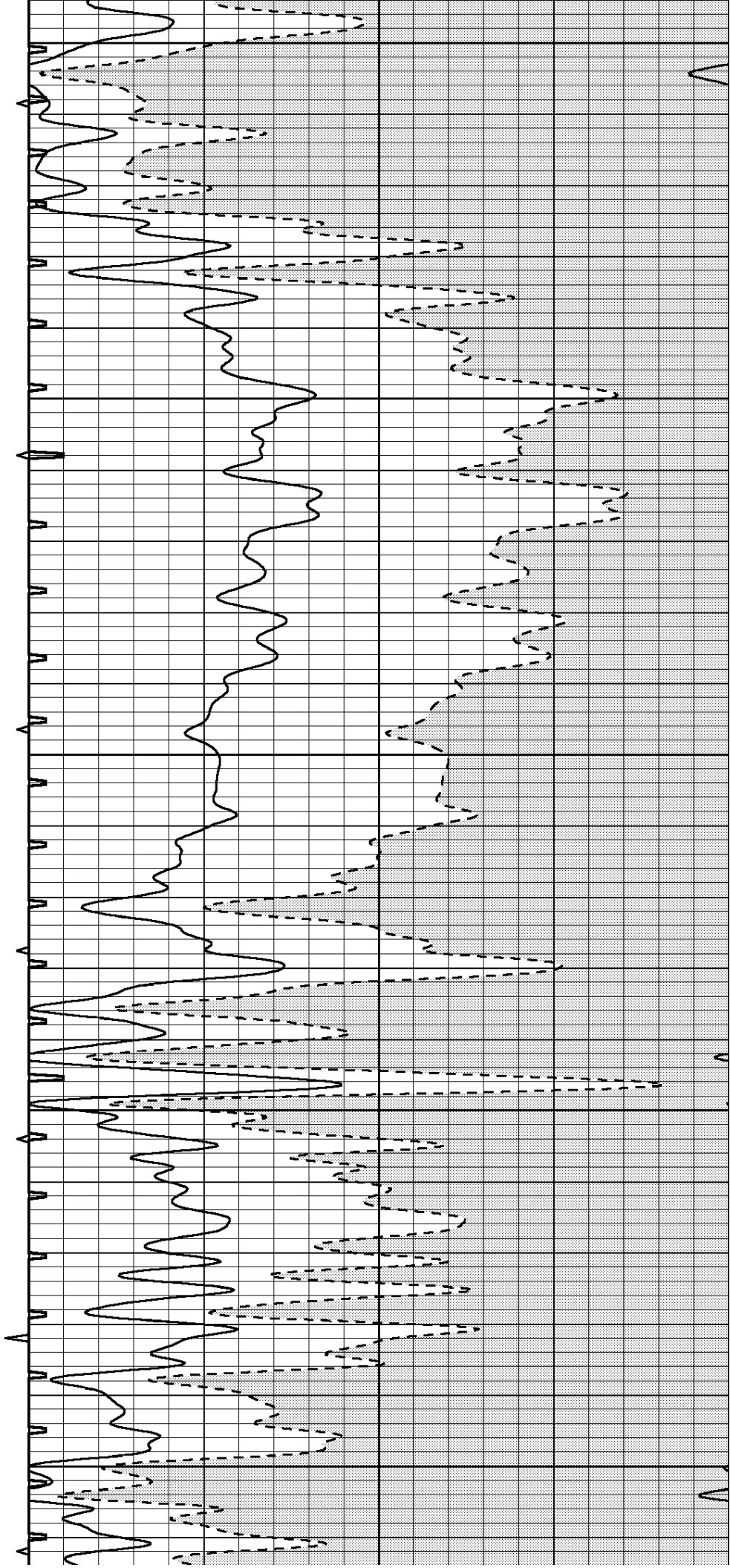
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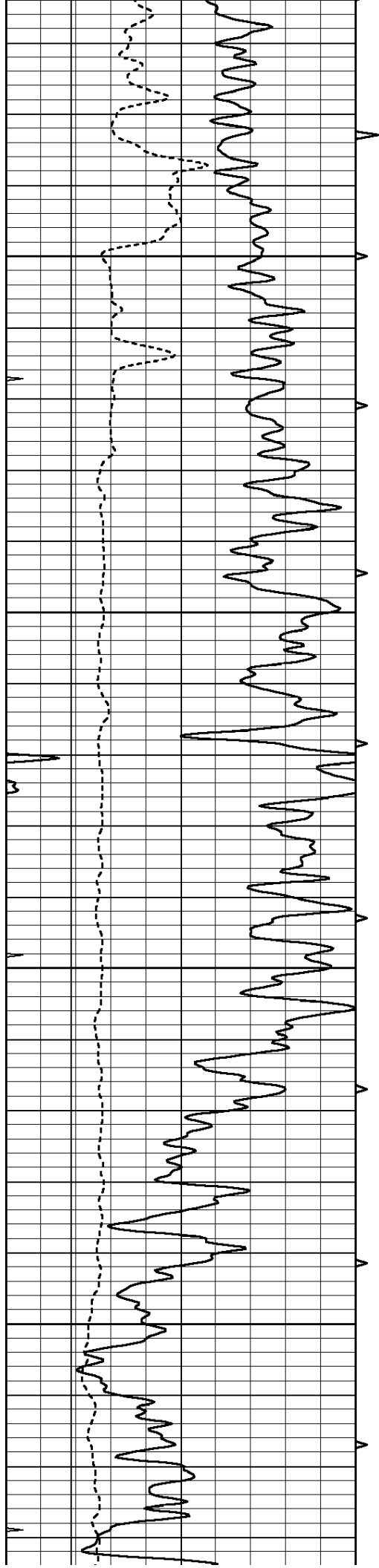
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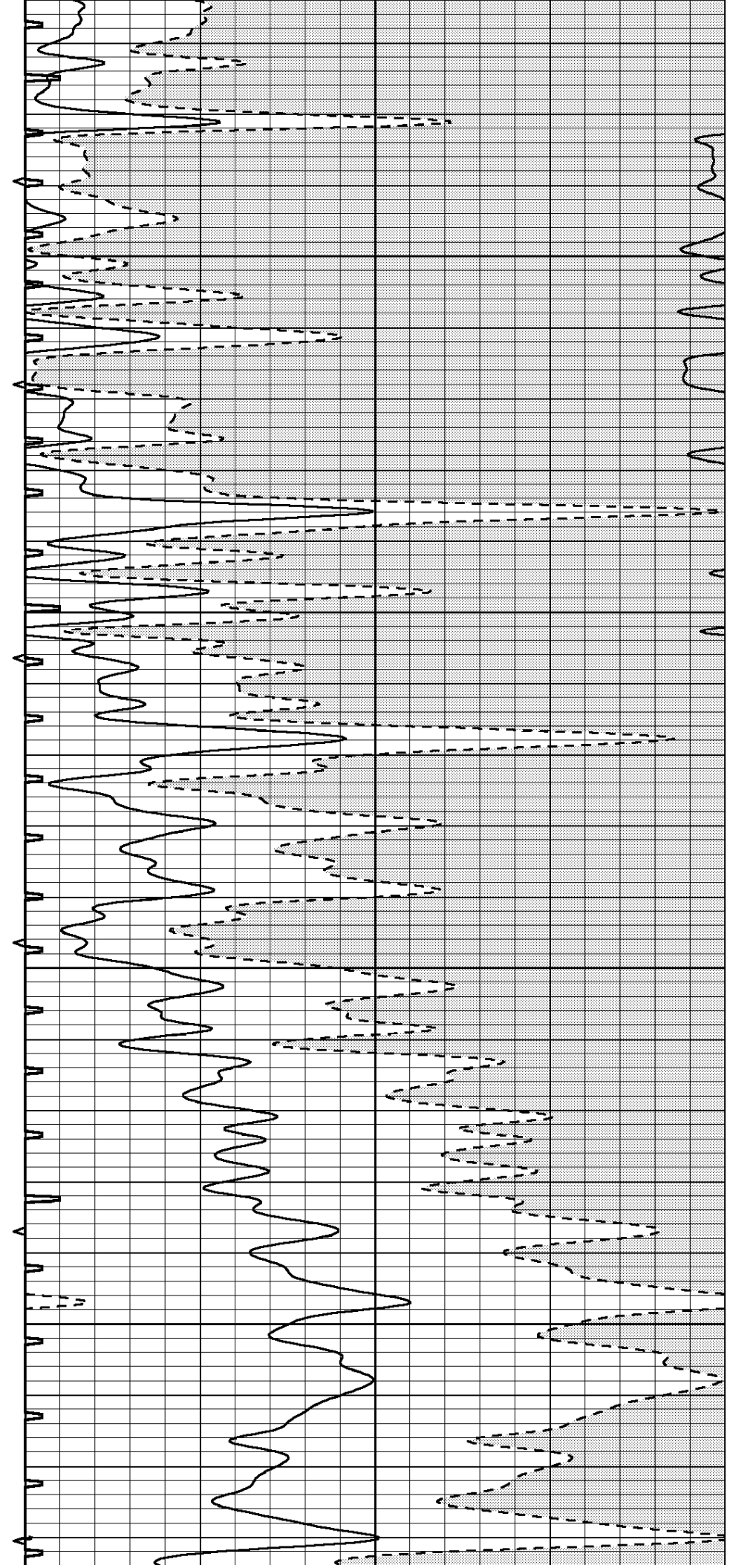


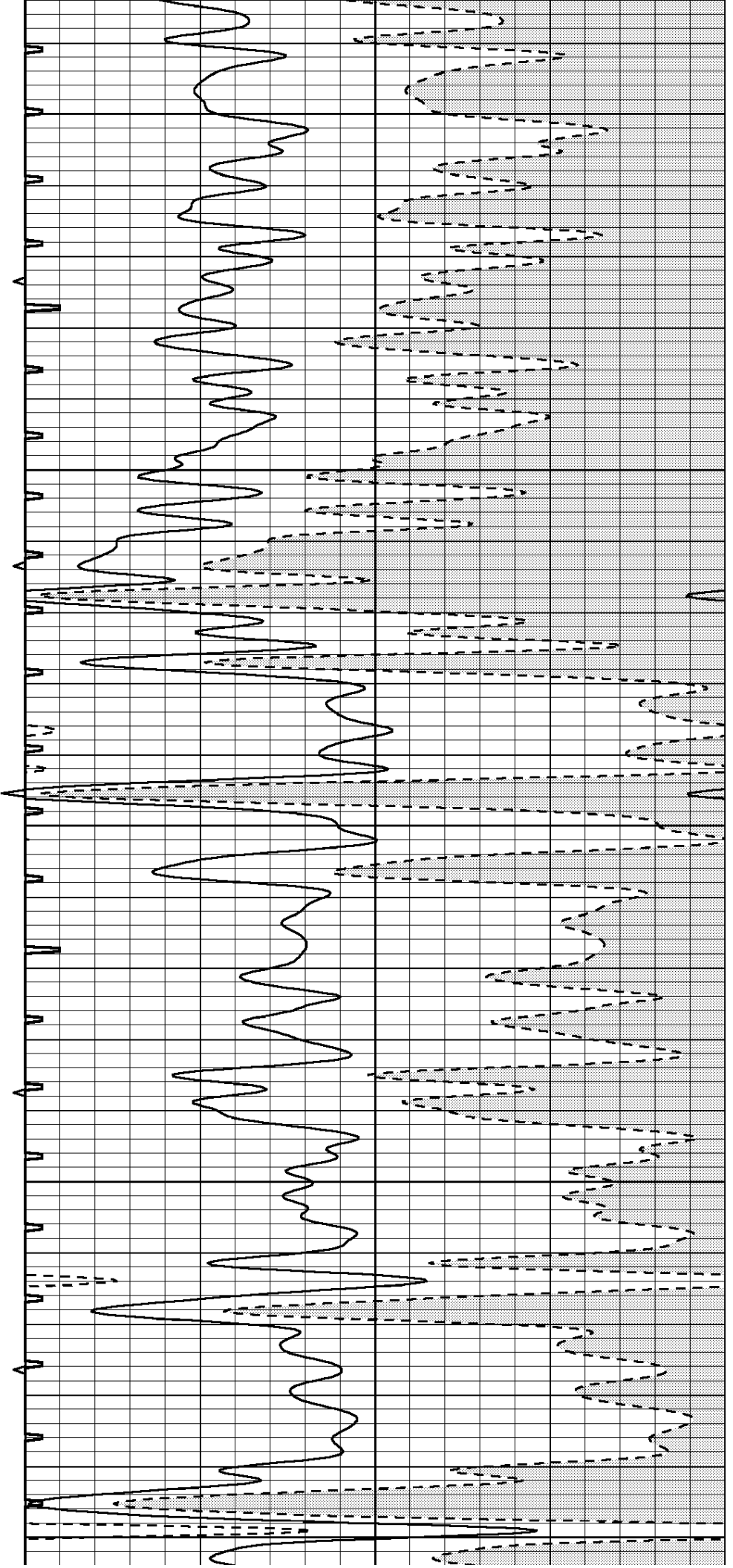
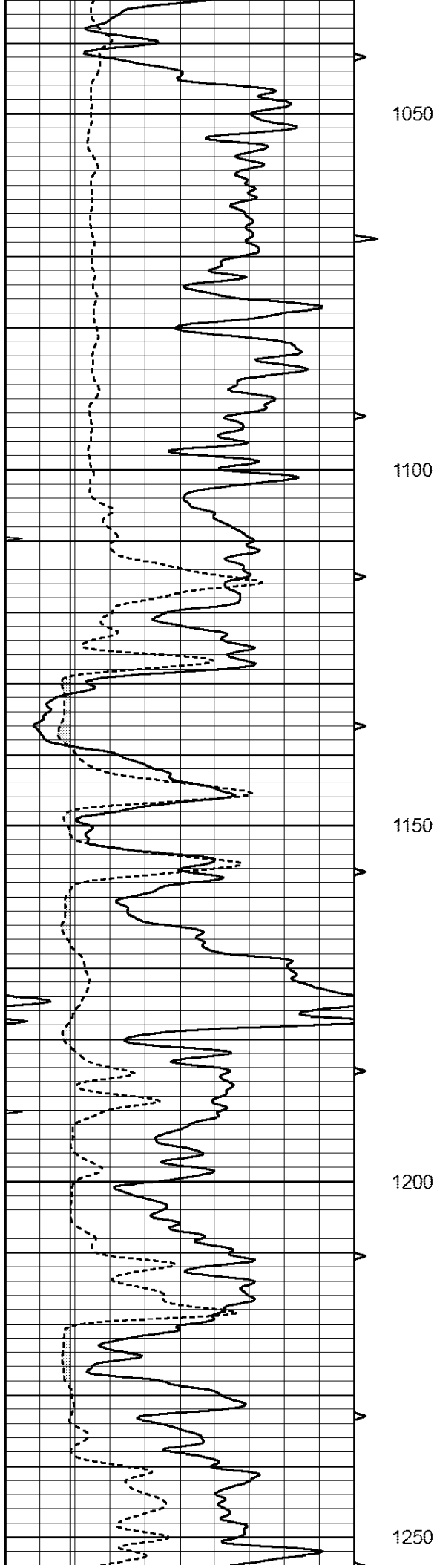
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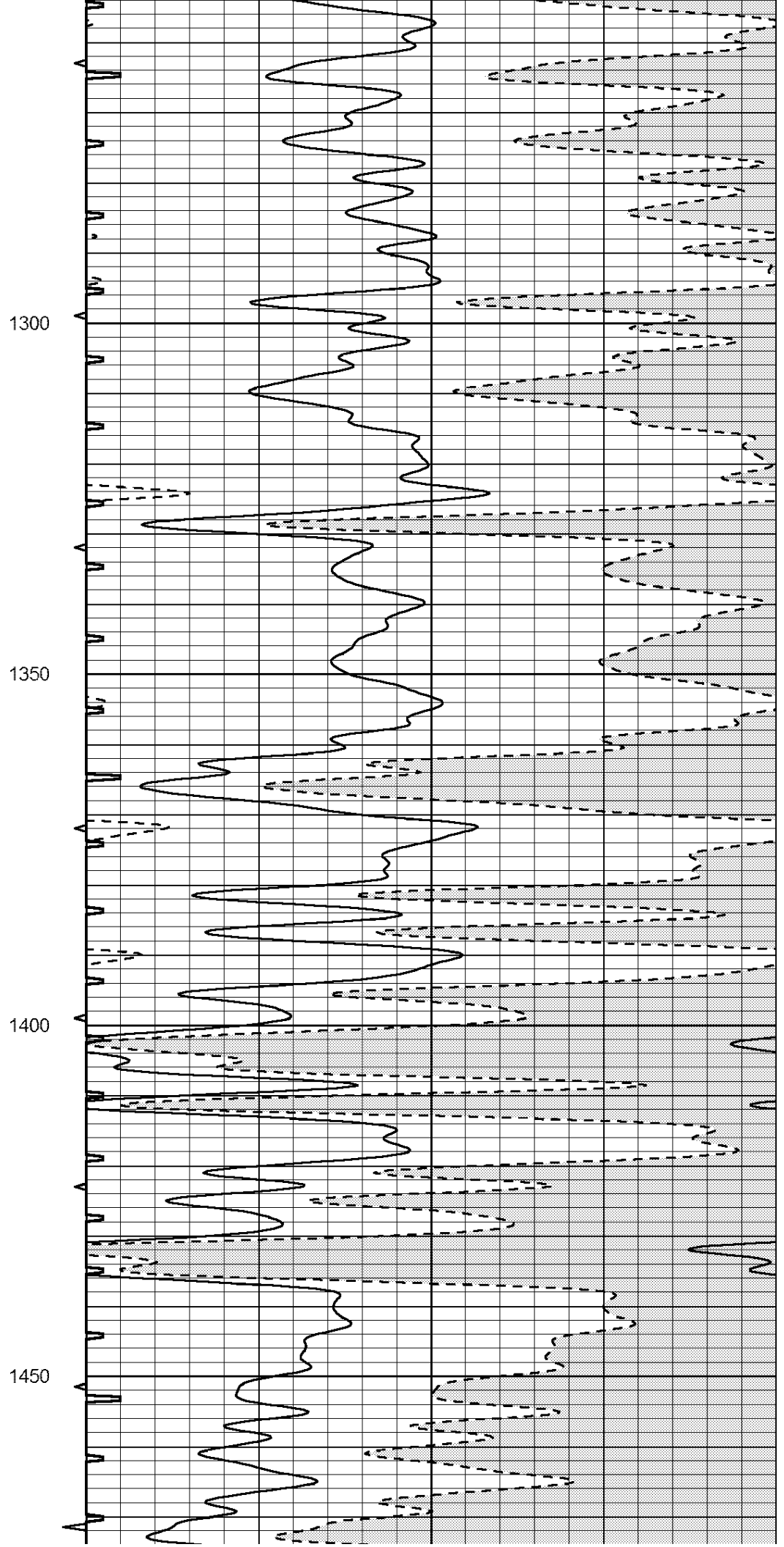
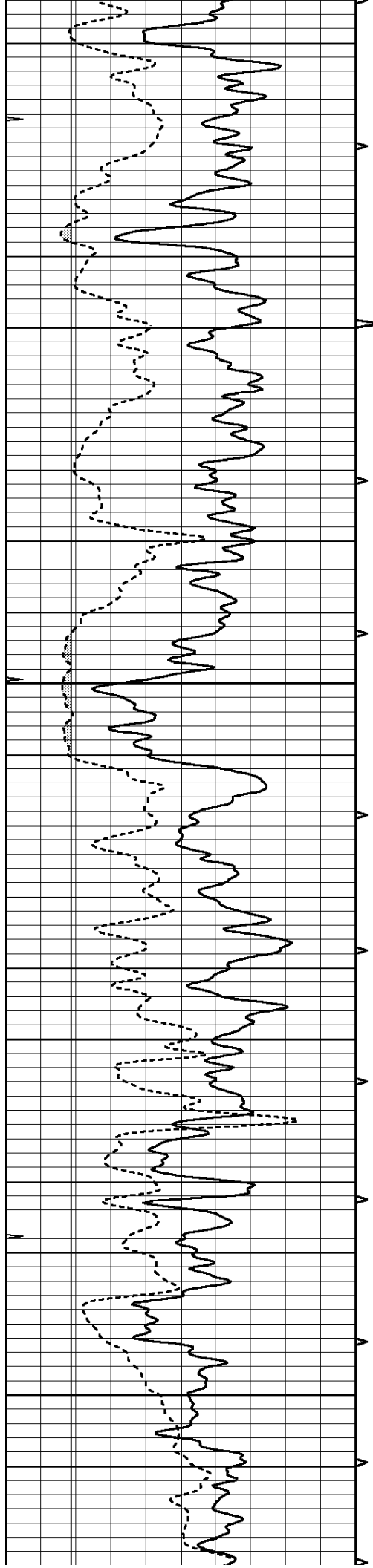
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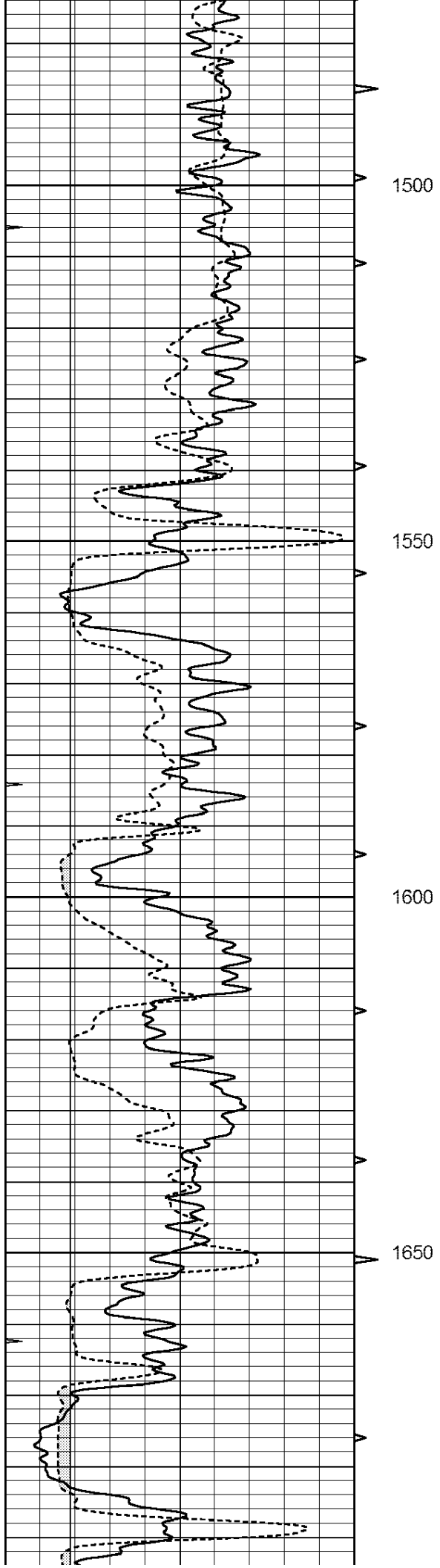
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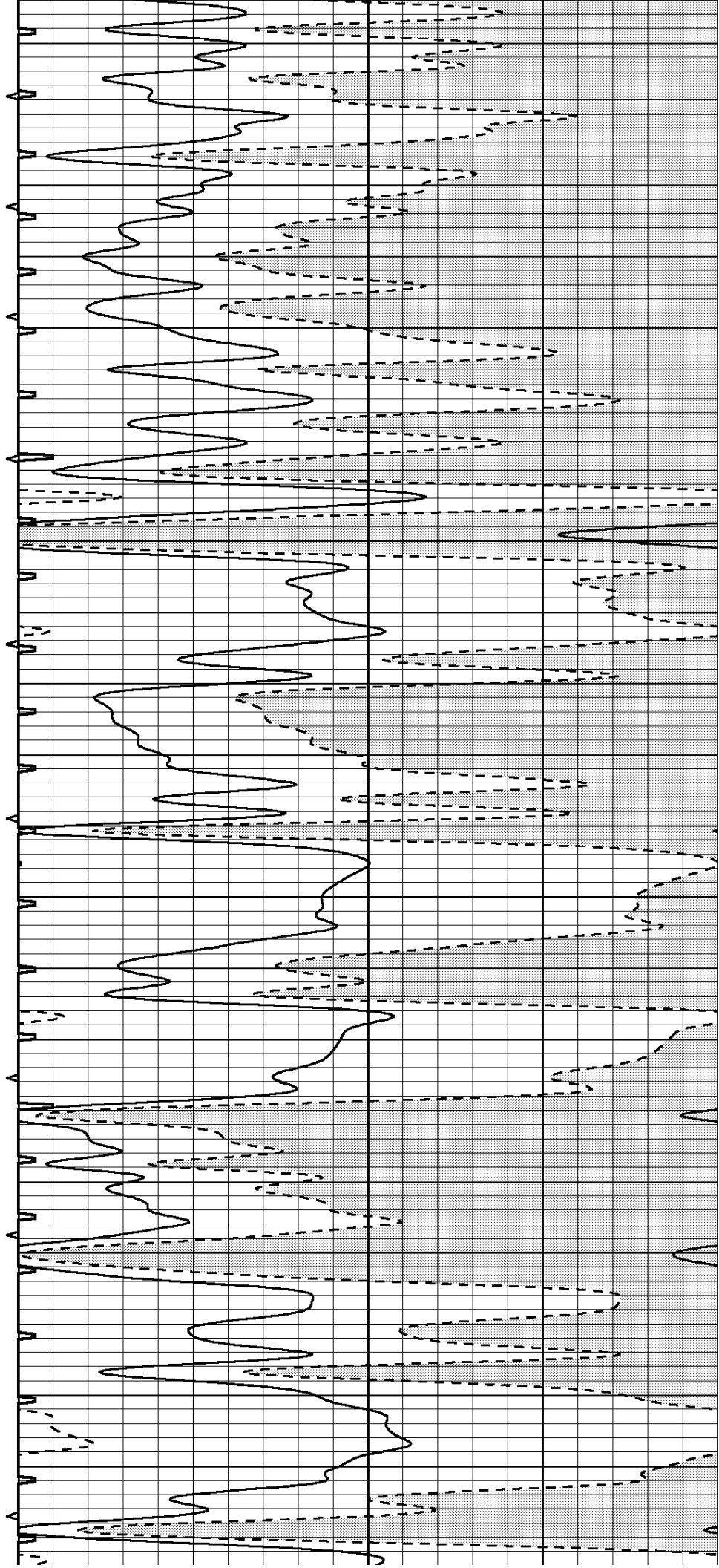


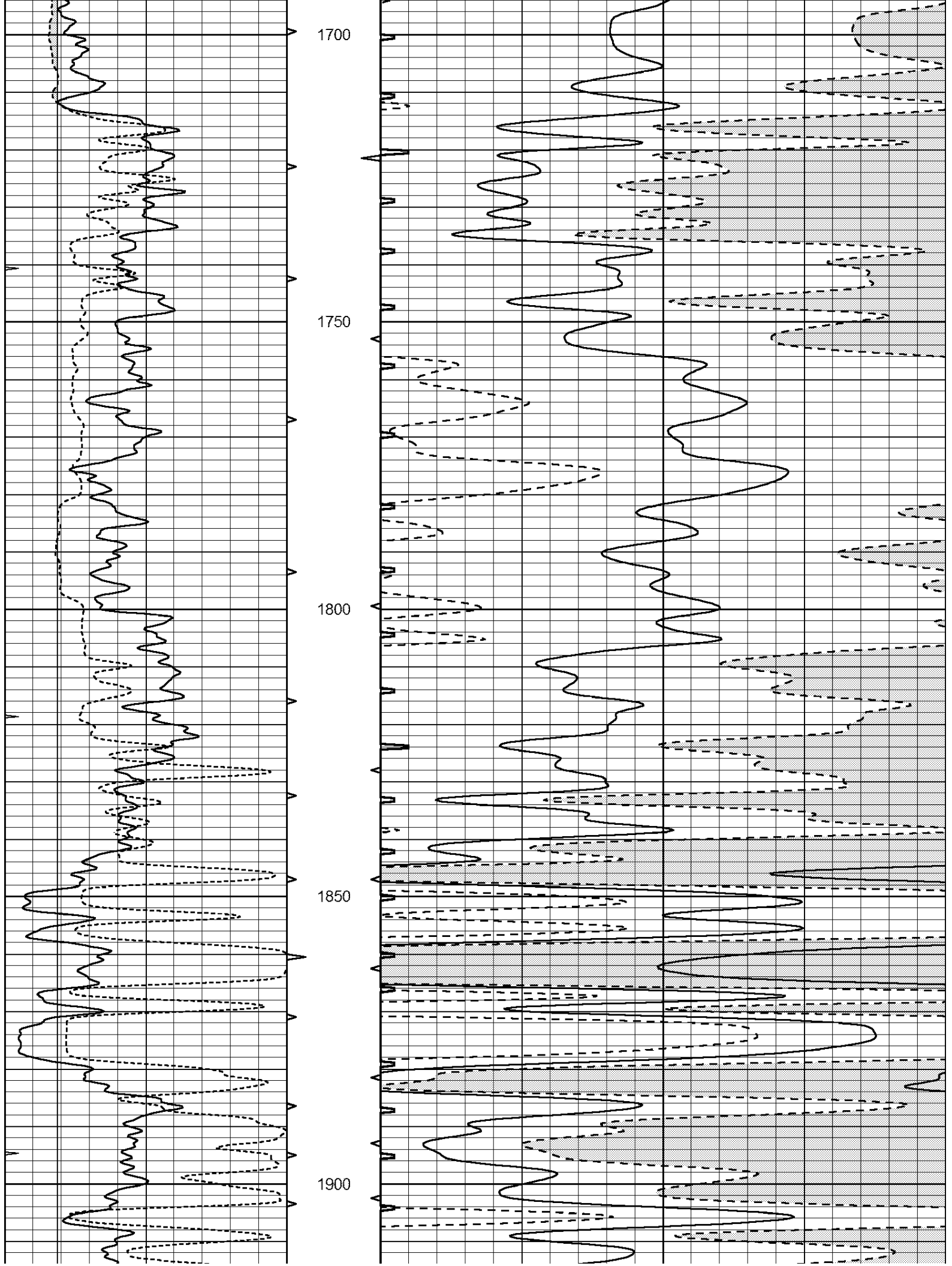
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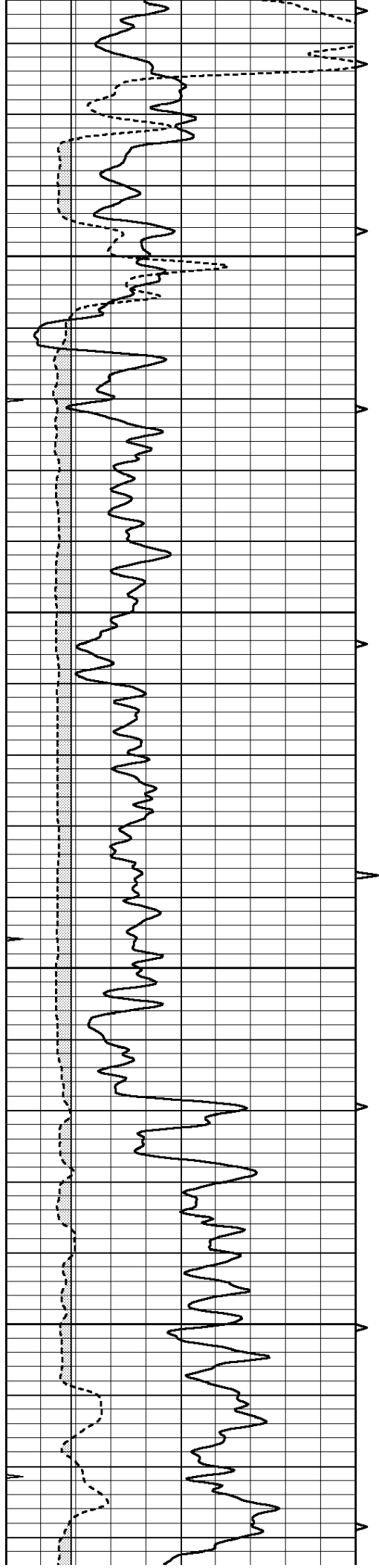
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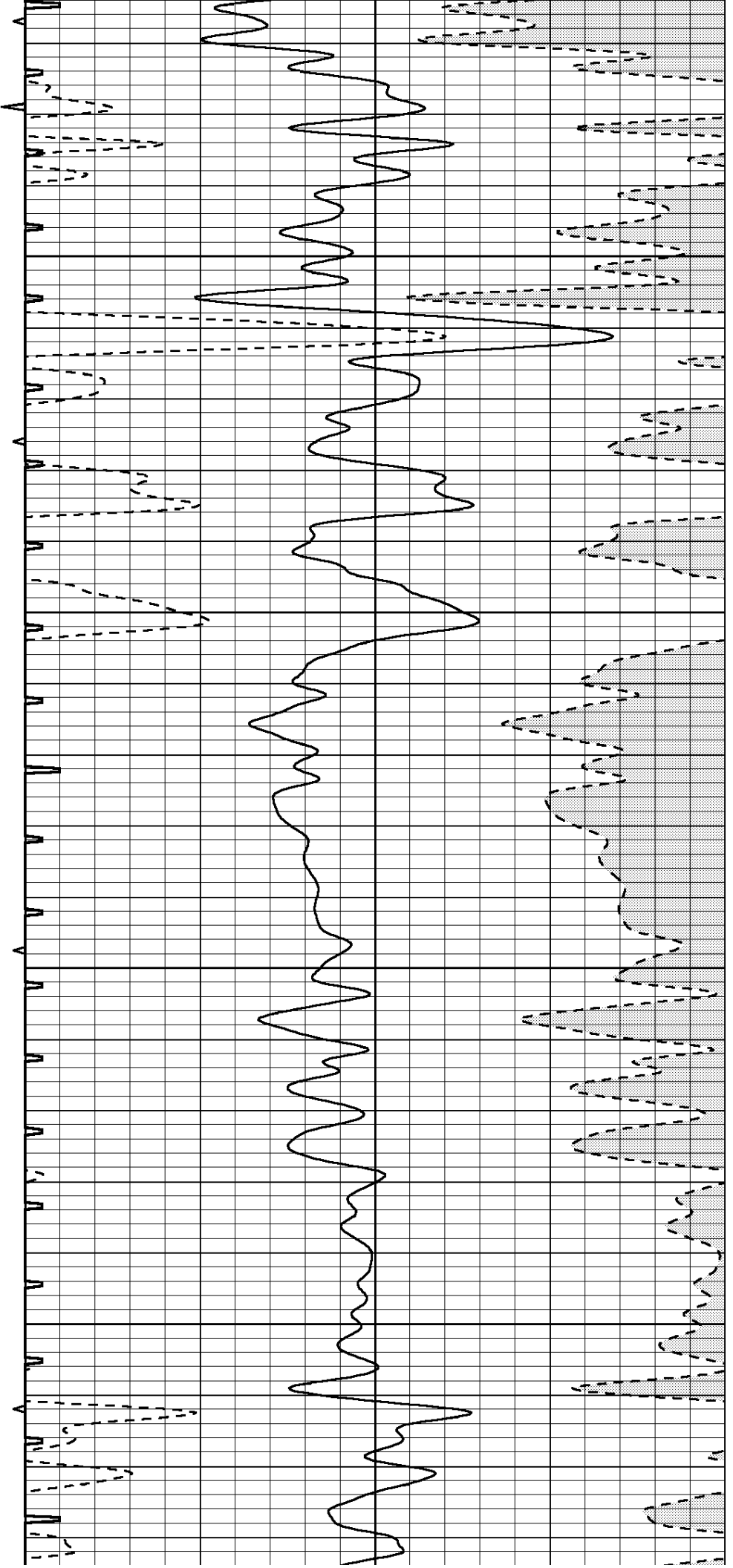


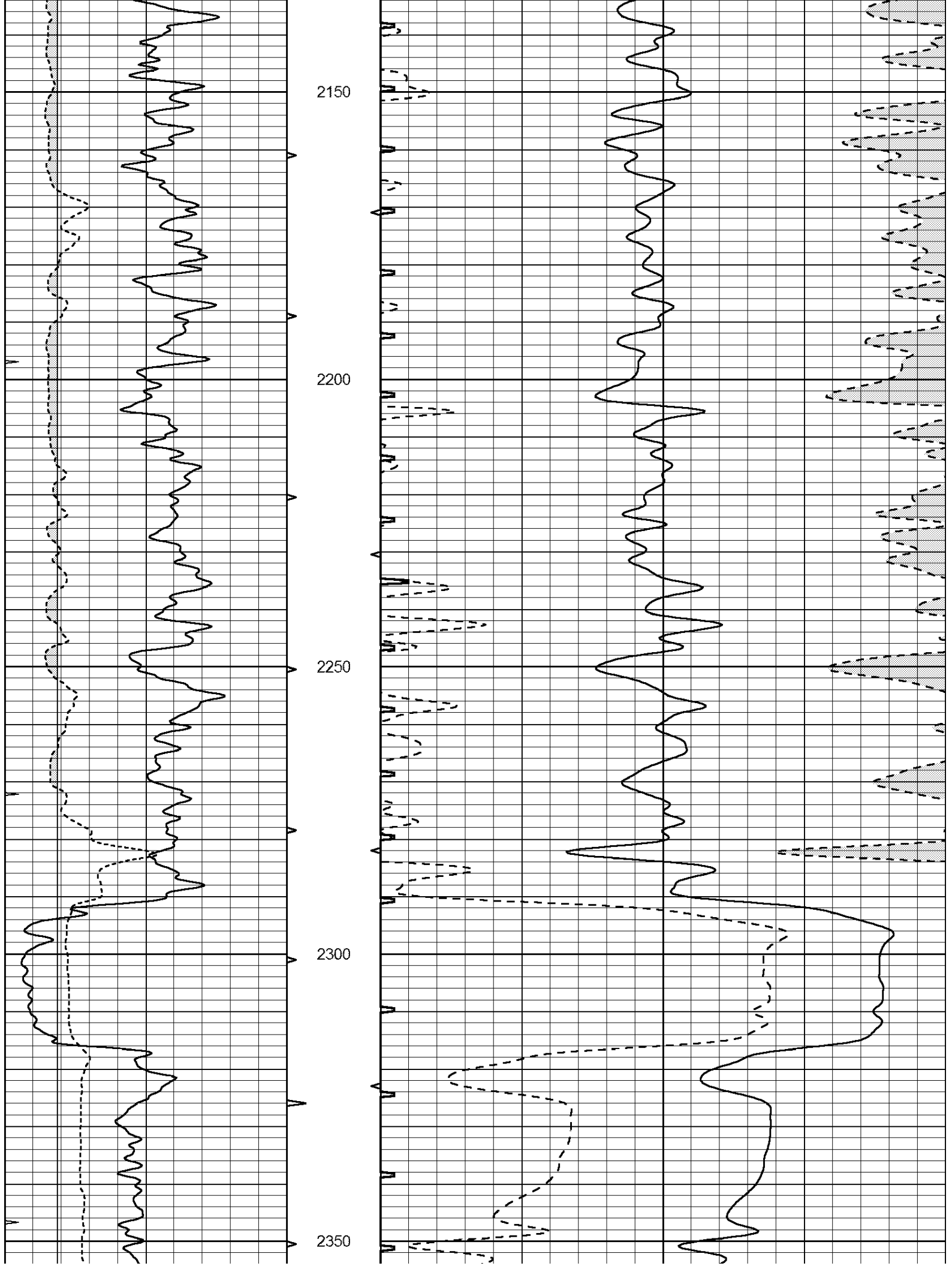
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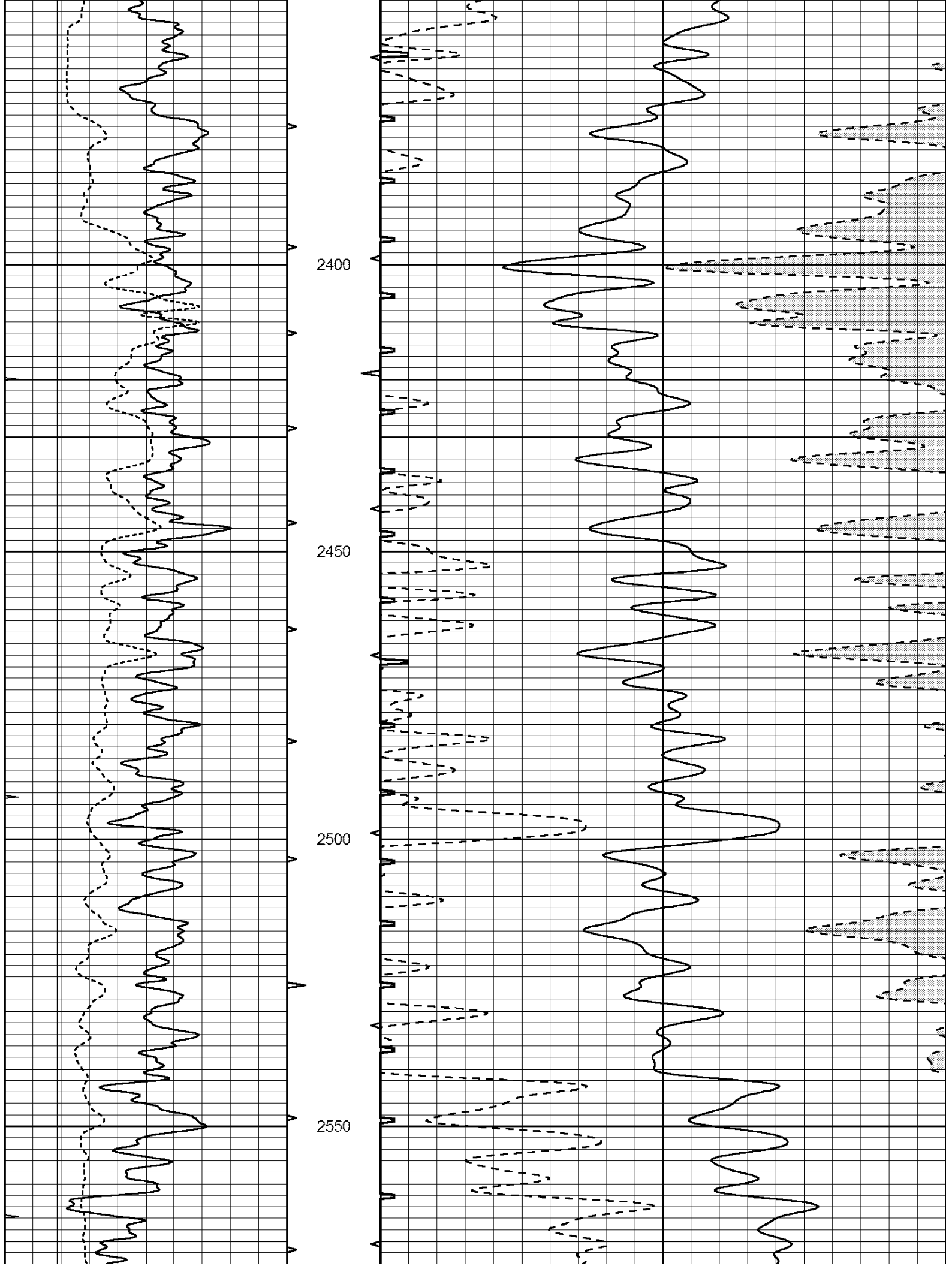
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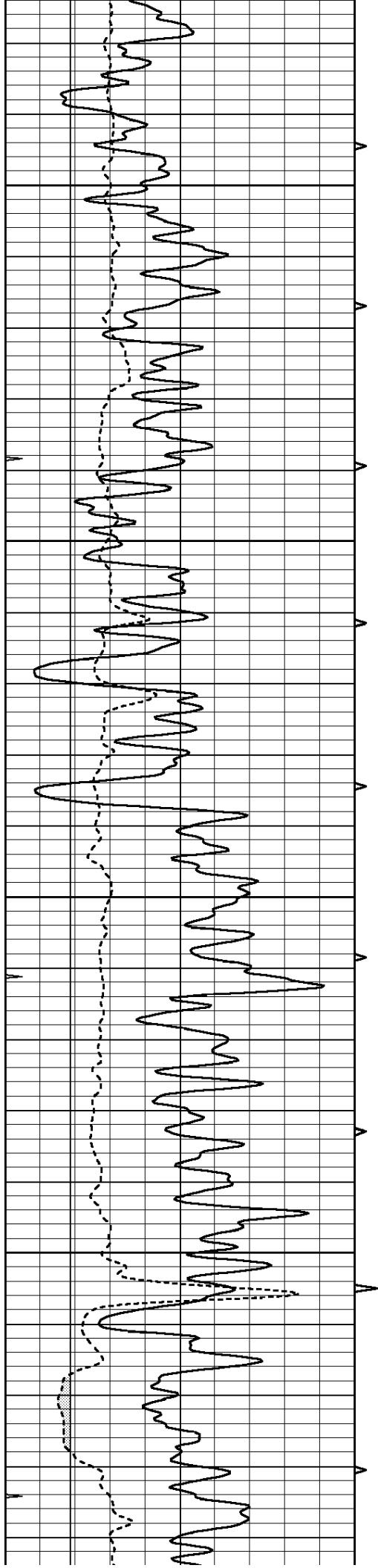
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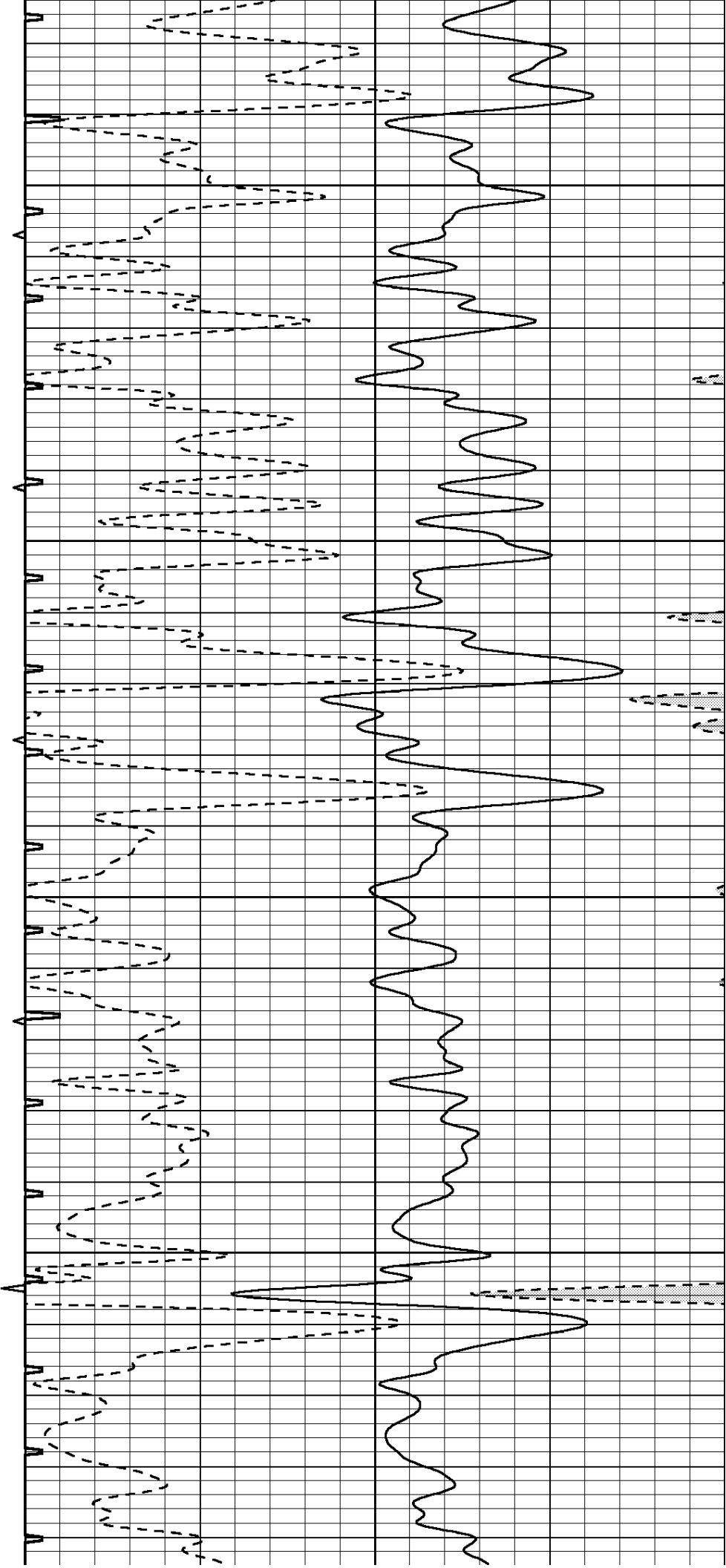


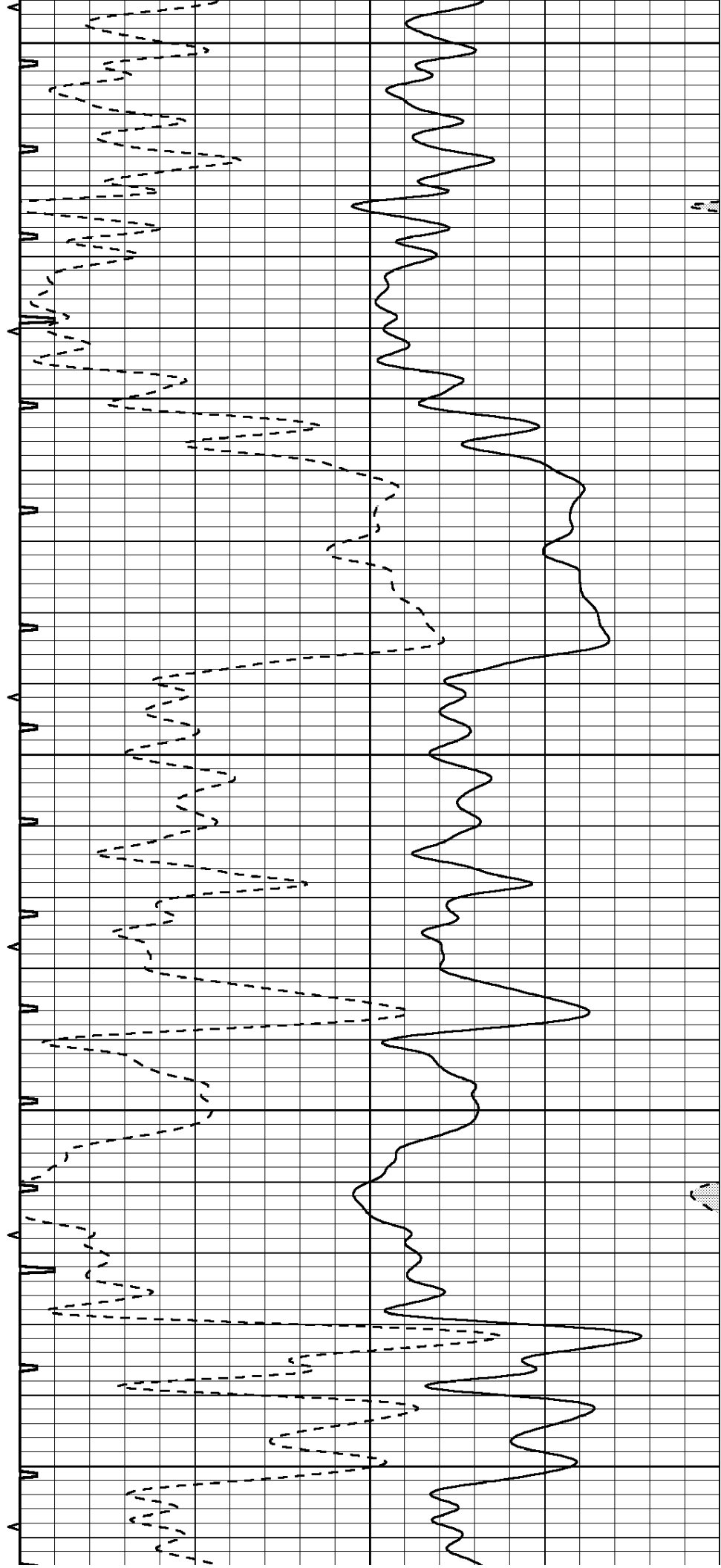
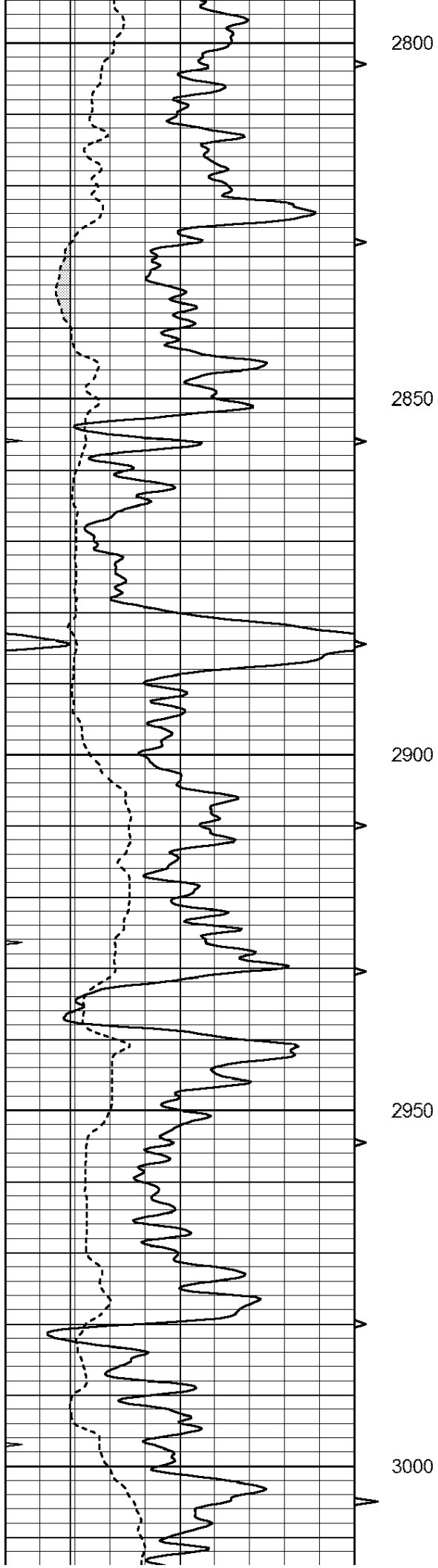
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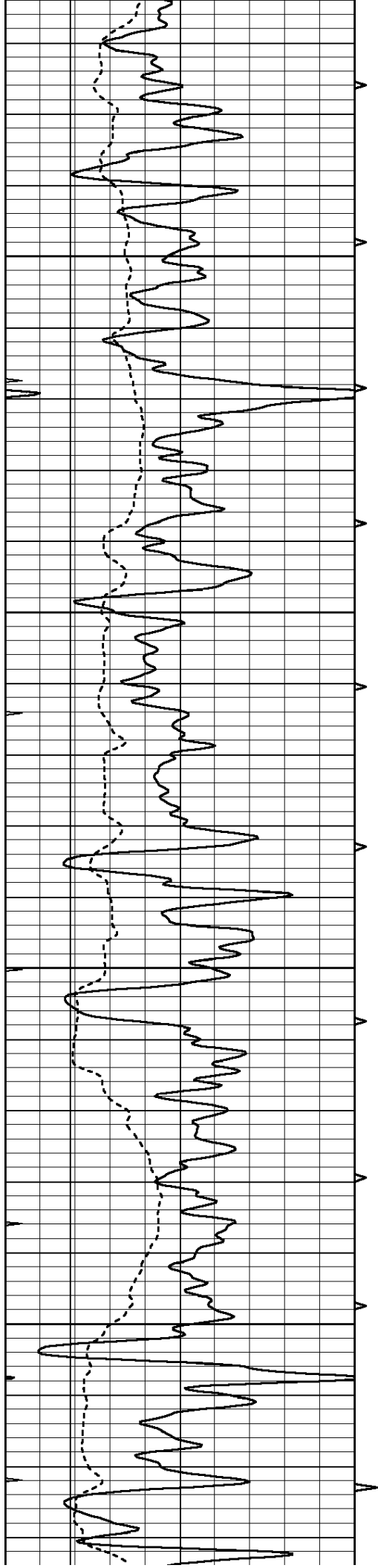
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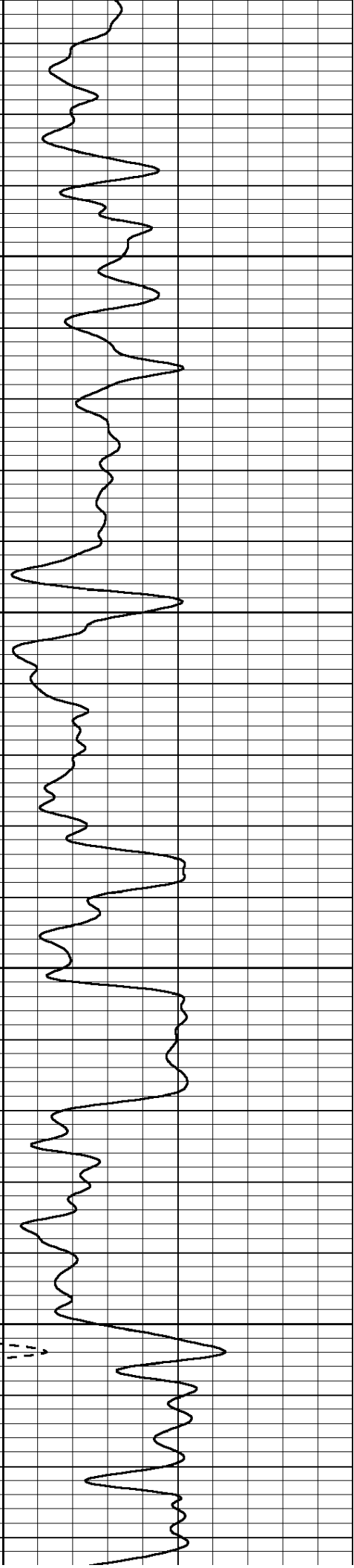
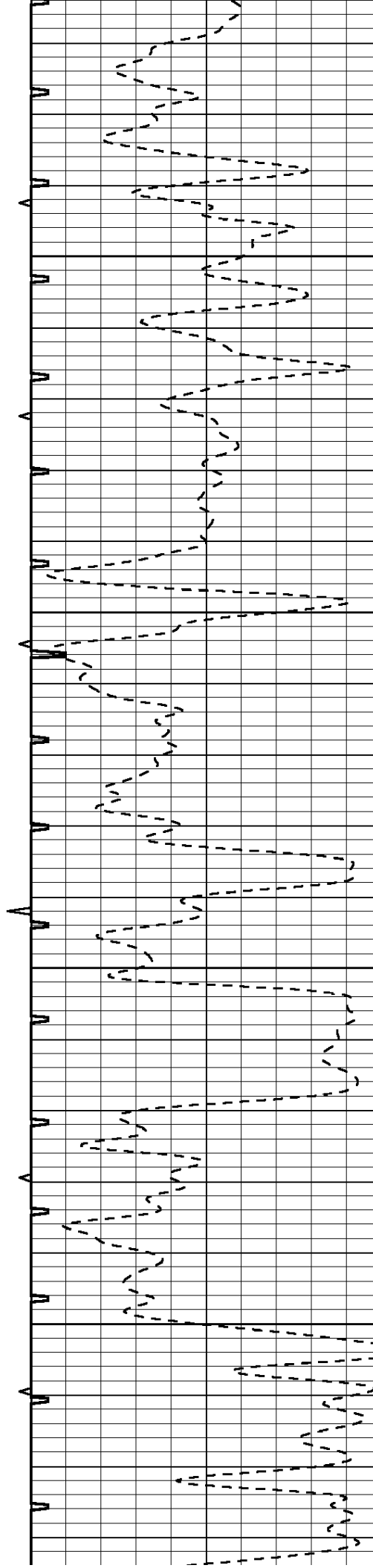


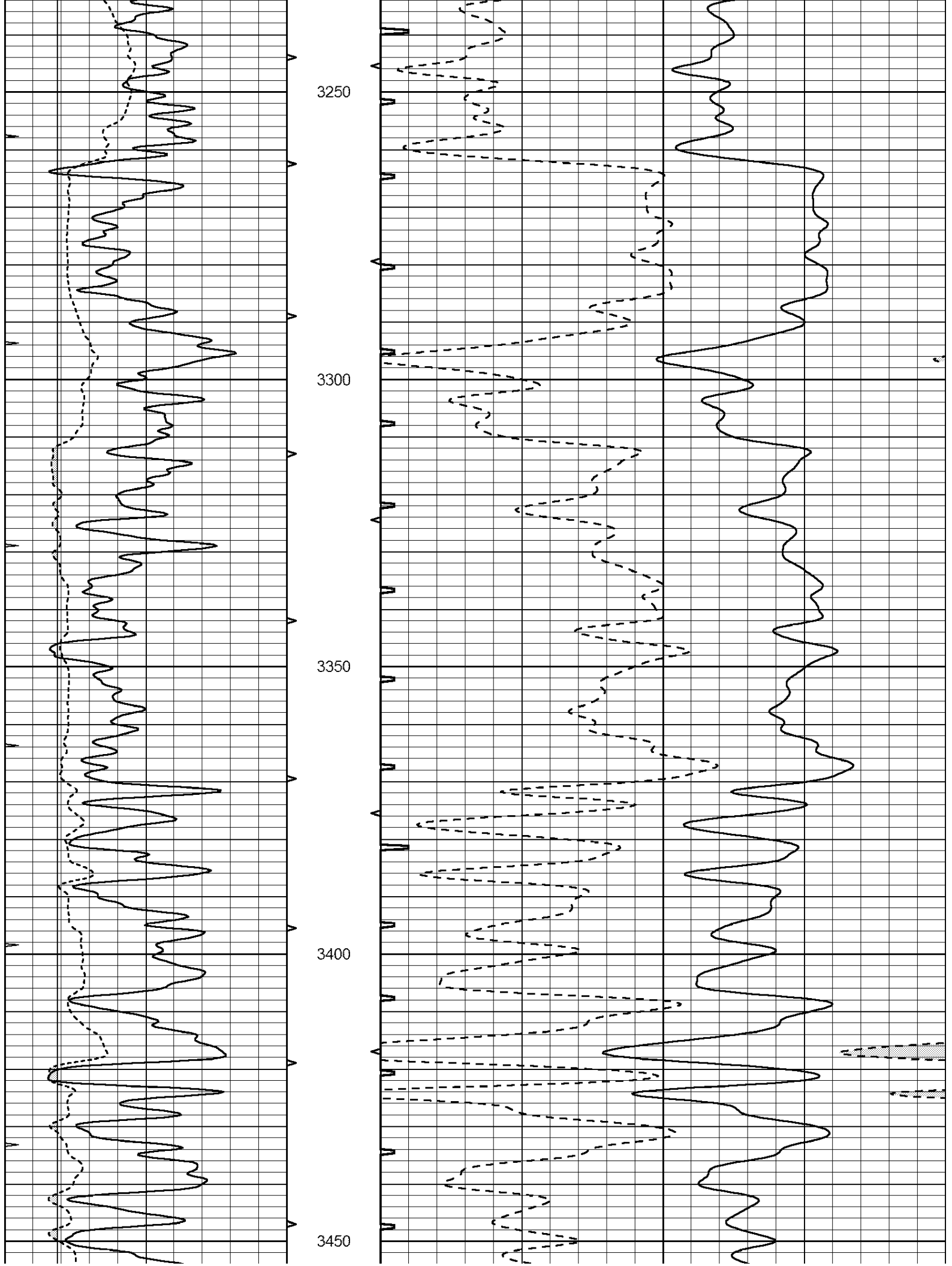
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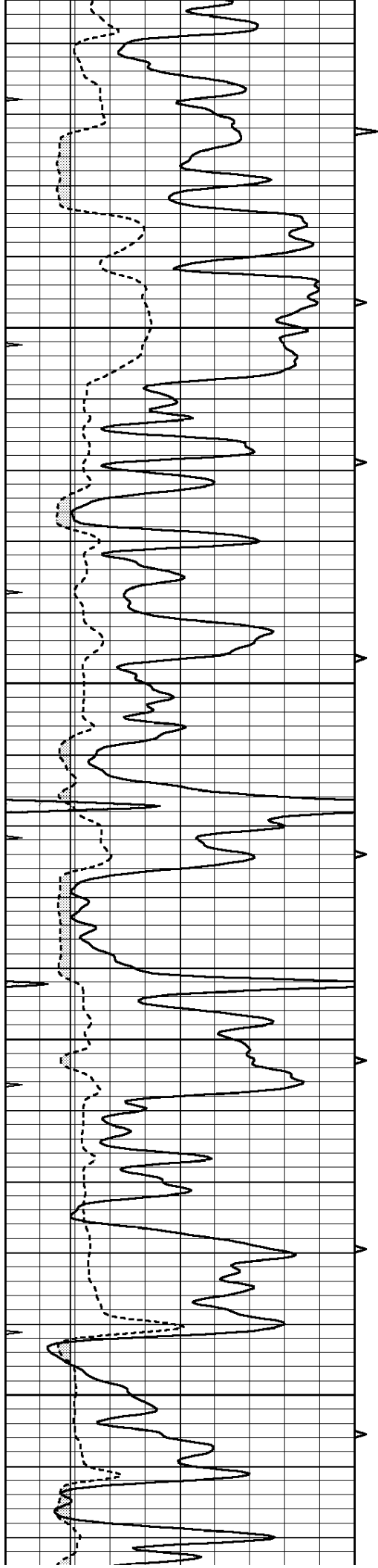
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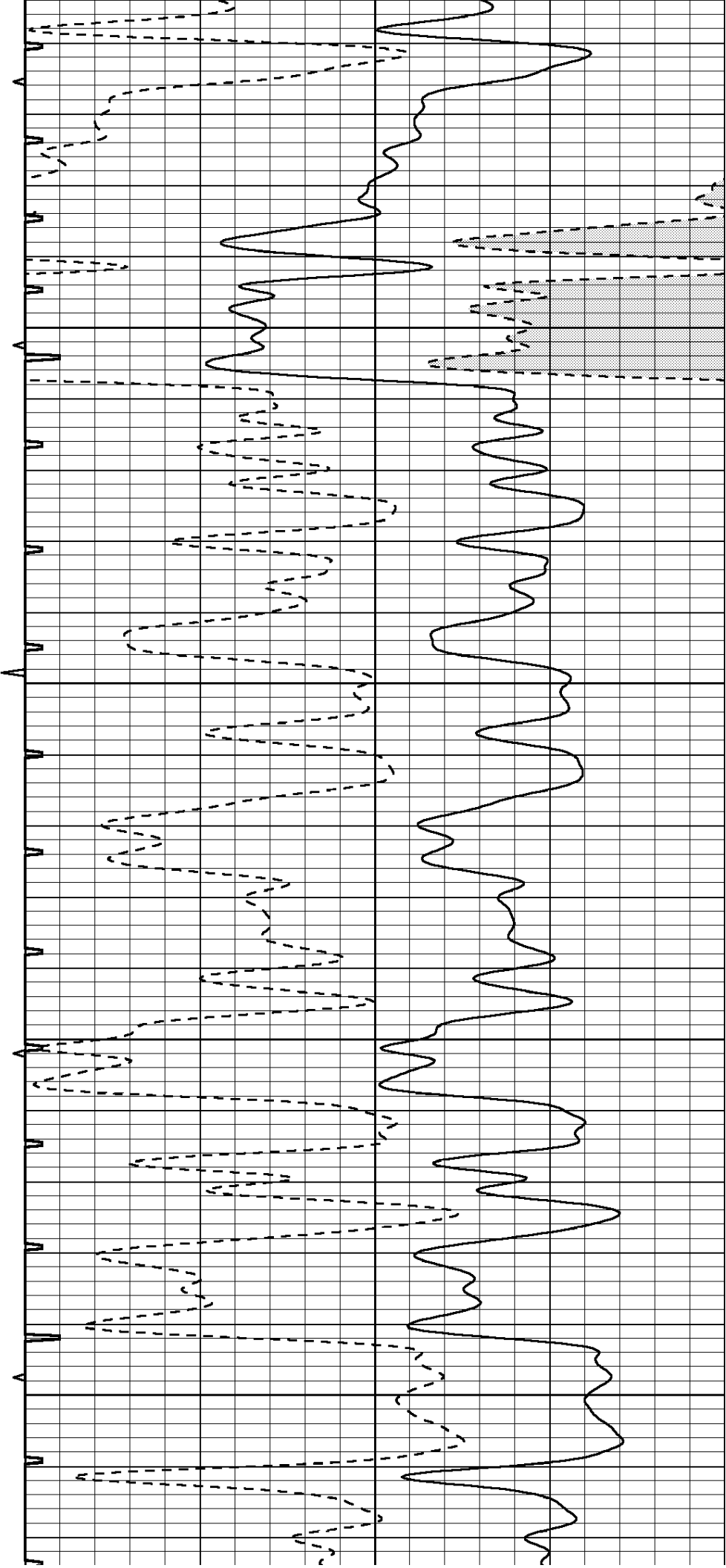


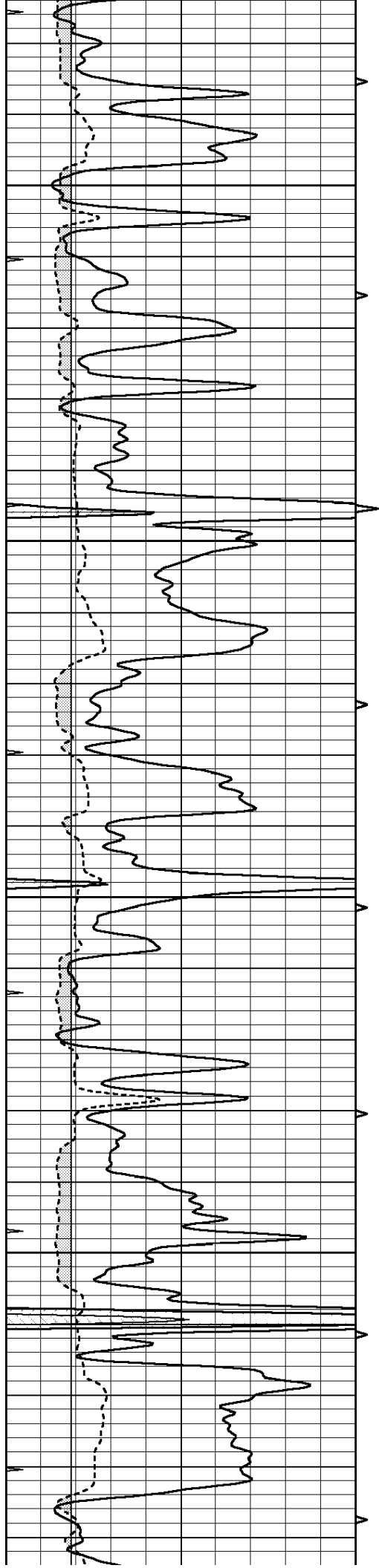
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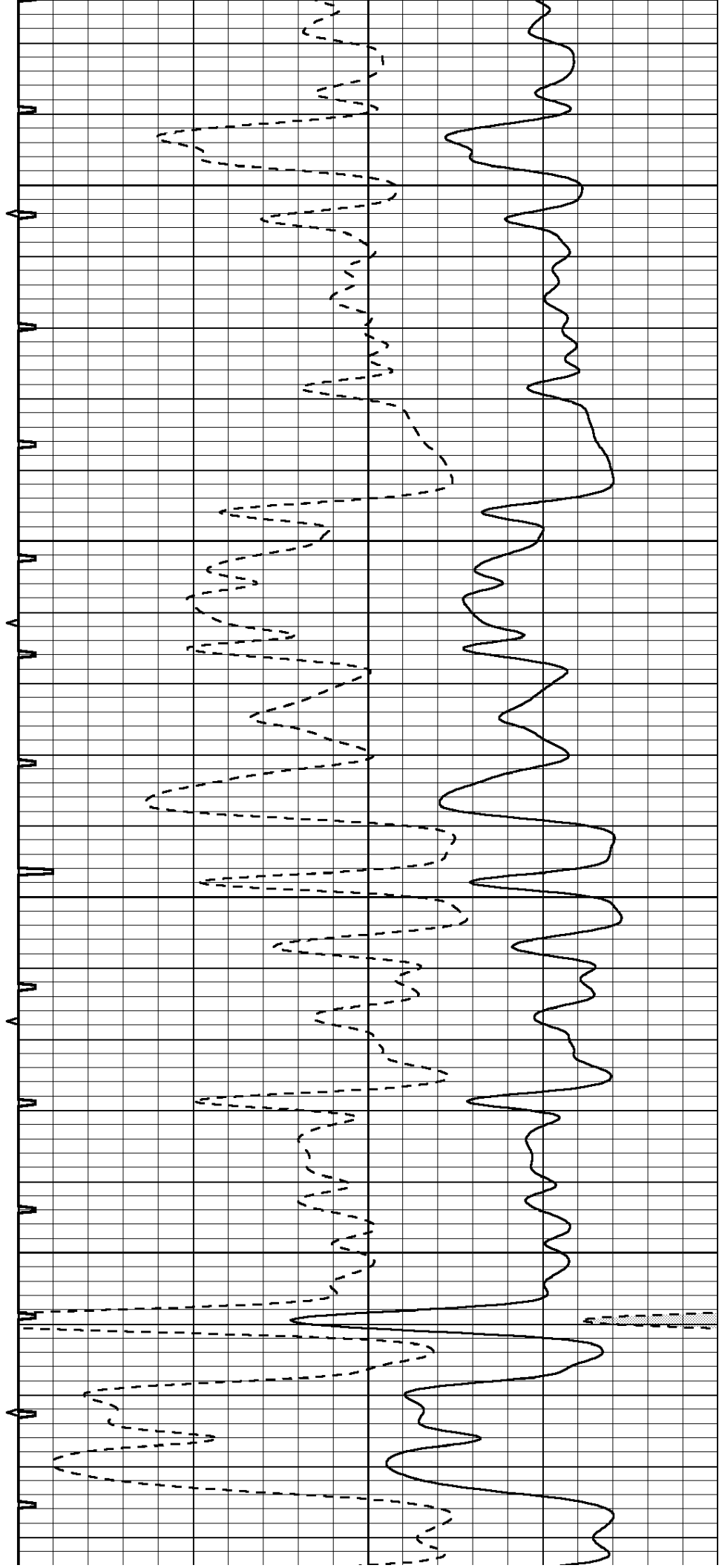


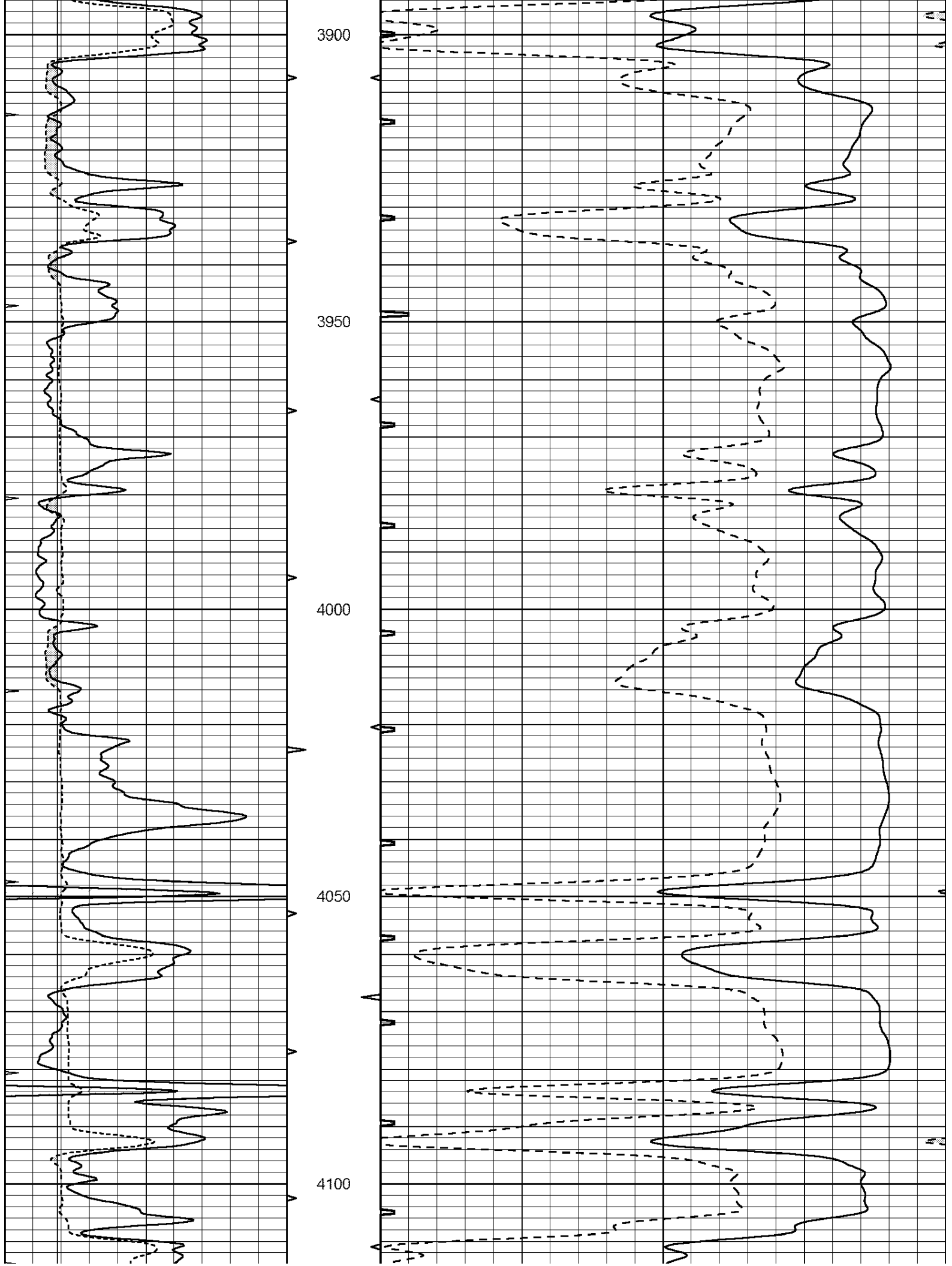
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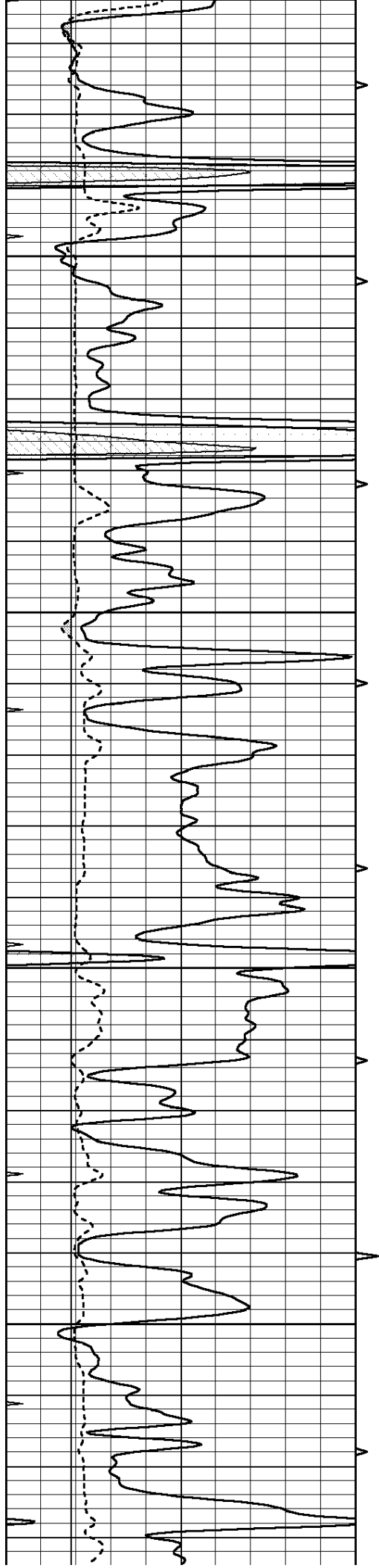
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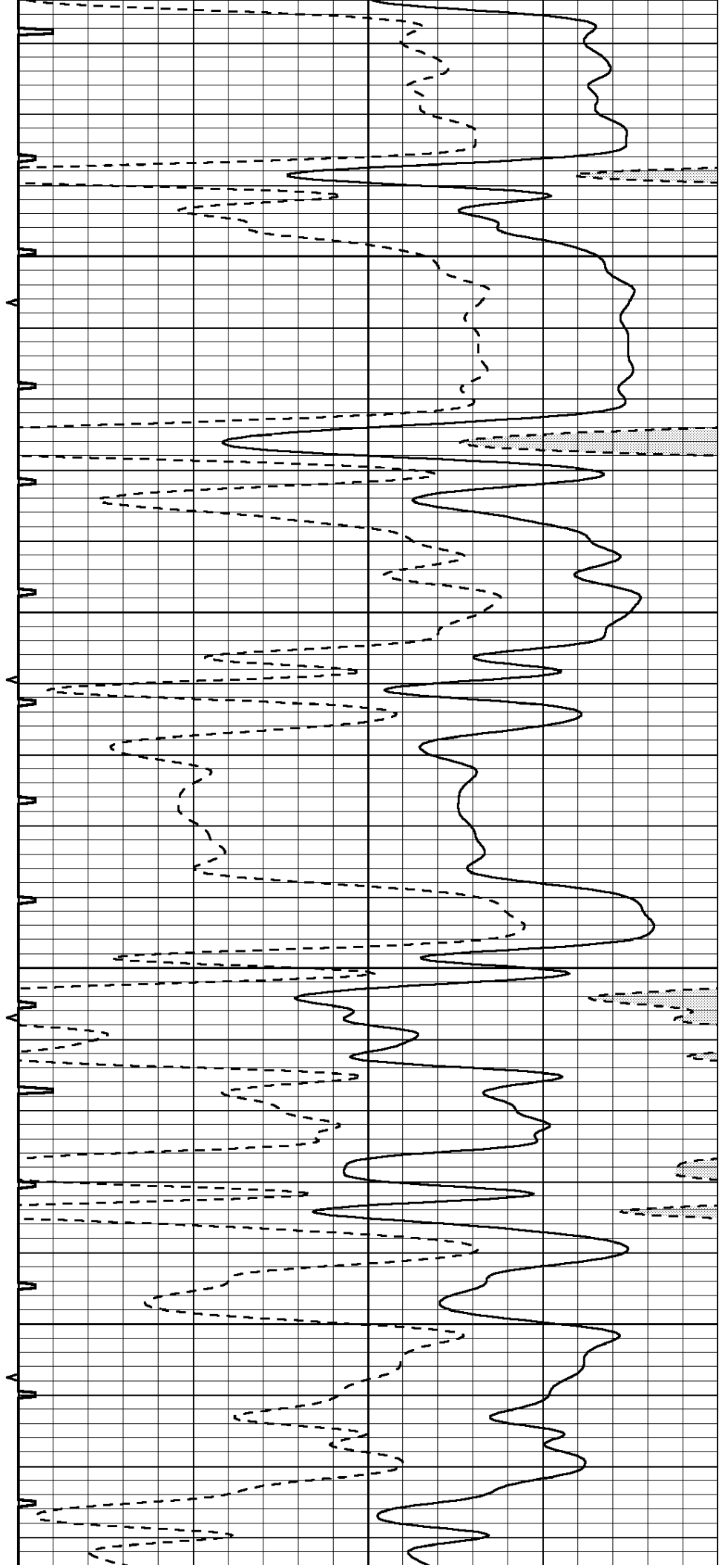


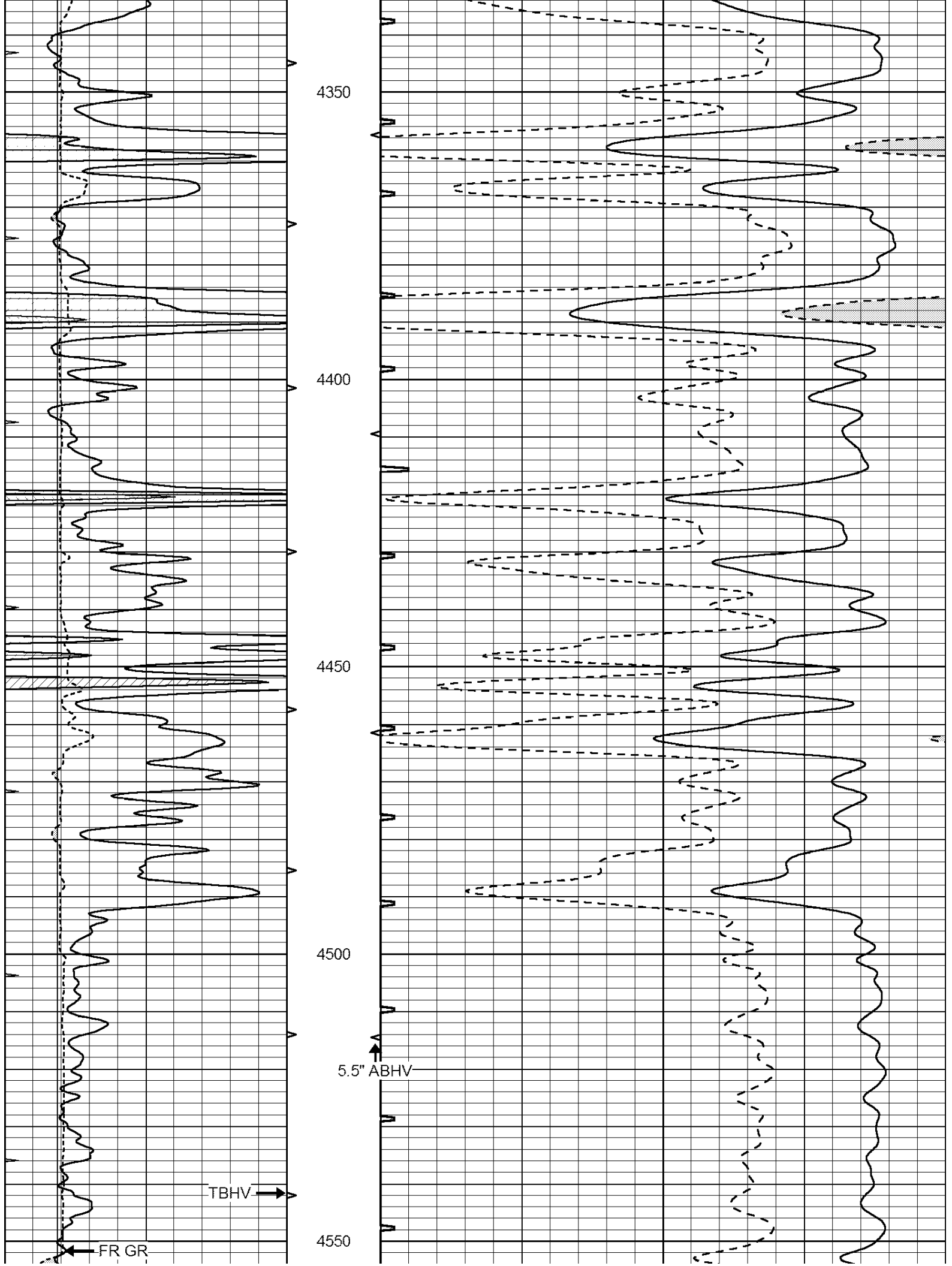
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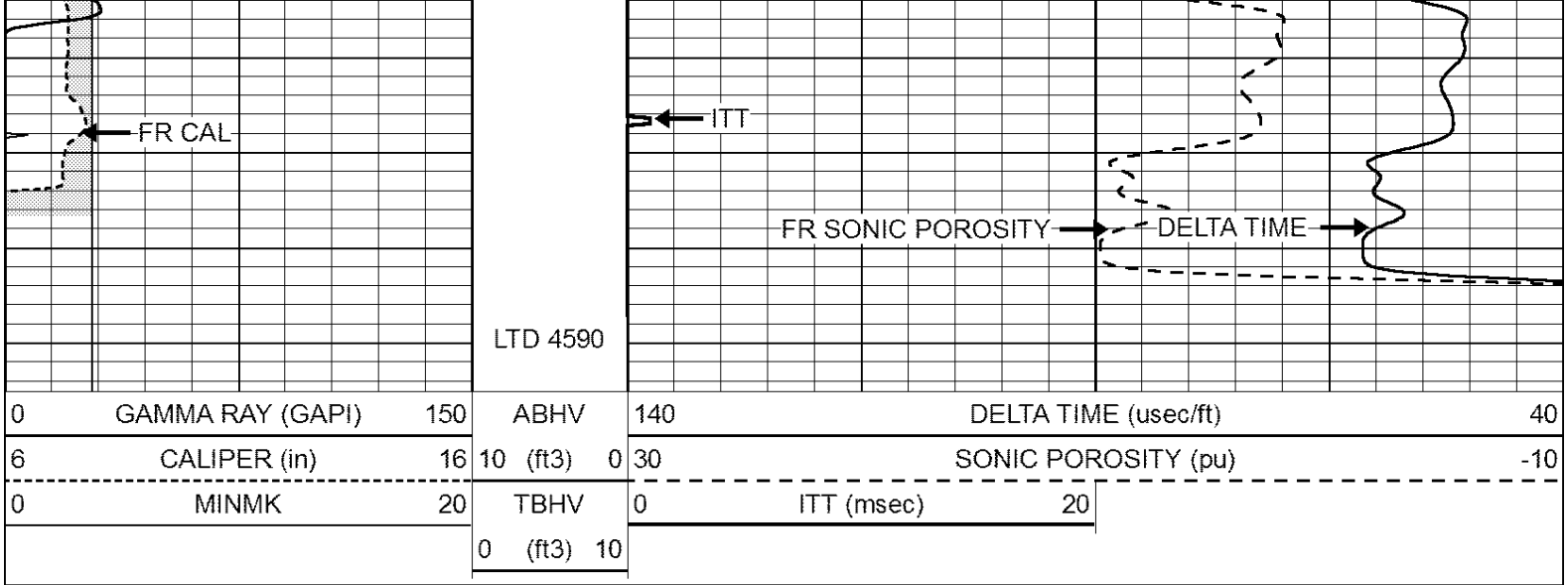
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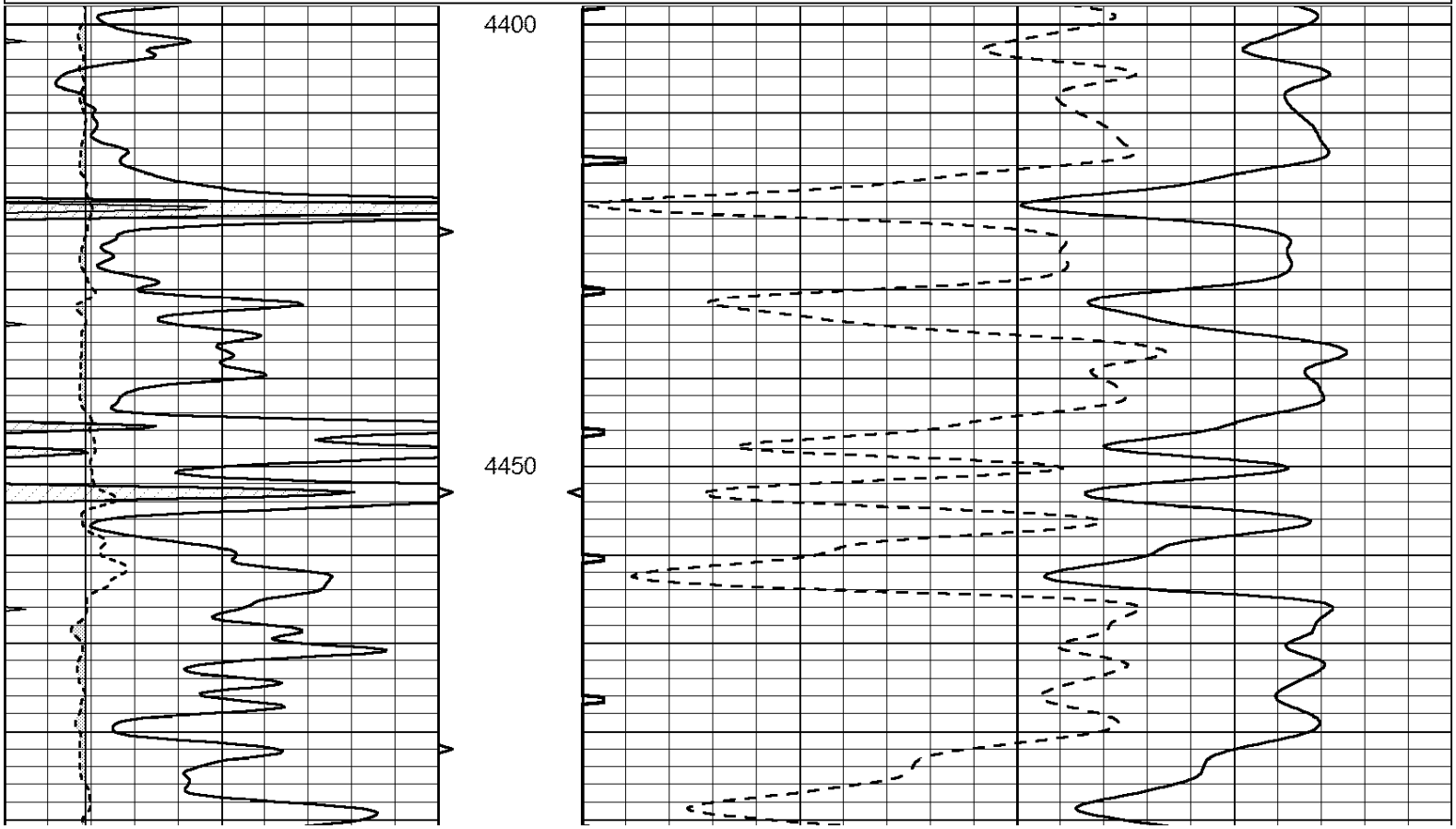


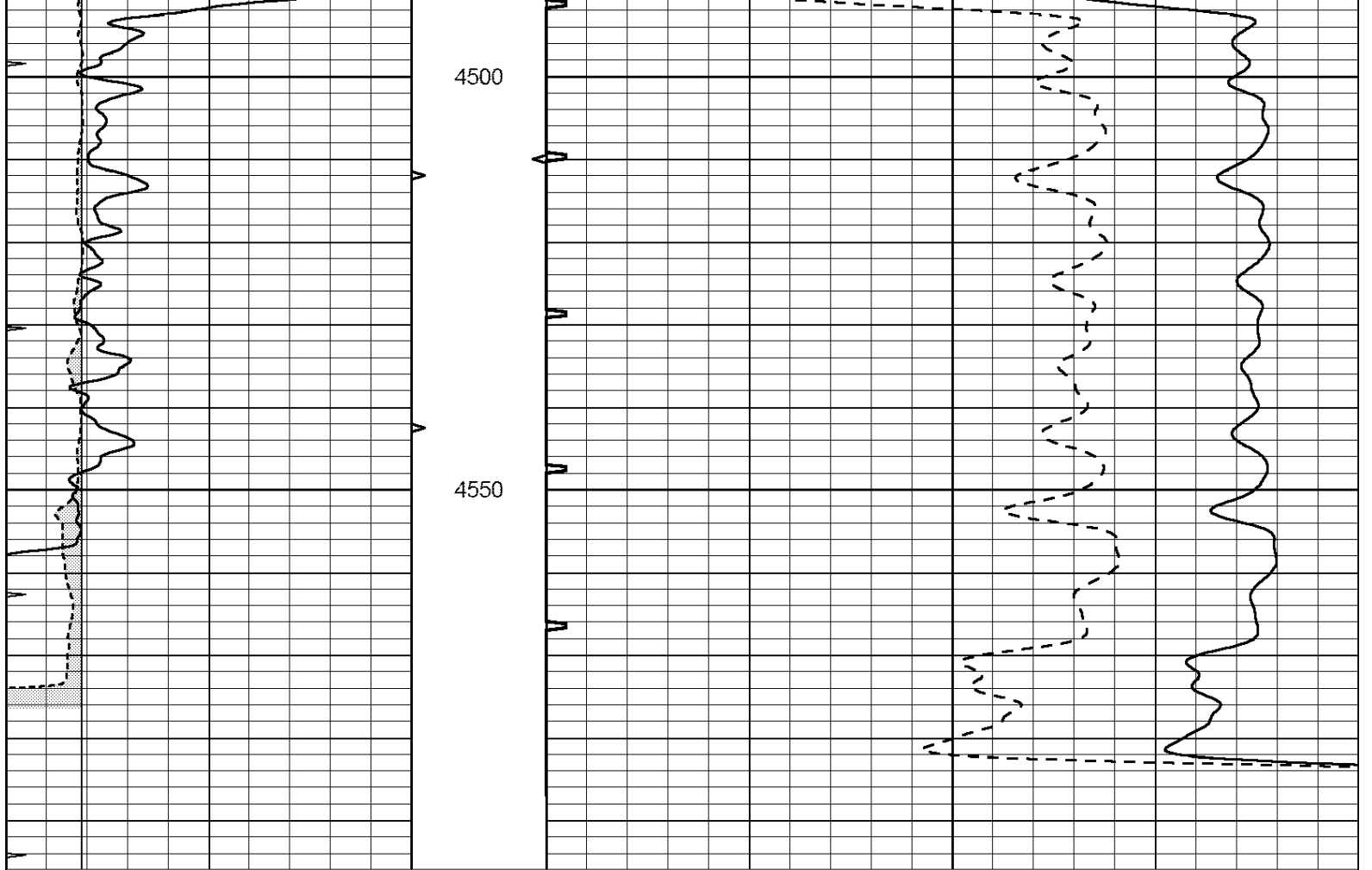
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 409504pe.db
 Dataset Pathname: pass5.6
 Presentation Format: slt
 Dataset Creation: Sat Aug 18 11:29:44 2012
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	140	DELTA TIME (usec/ft)	40
6	CALIPER (in)	16	10 (ft3)	0 30	SONIC POROSITY (pu)	-10
0	MINMK	20	TBHV	0	ITT (msec)	20
			0 (ft3)	10		





0	GAMMA RAY (GAPI)	150	ABHV	140	DELTA TIME (usec/ft)	40
6	CALIPER (in)	16	10 (ft3) 0	30	SONIC POROSITY (pu)	-10
0	MINMK	20	TBHV	0	ITT (msec)	20
			0 (ft3) 10			