



COMPENSATED
DENSITY / NEUTRON
PE LOG

Company		WOOLSEY OPERATING CO. LLC.	
Well		HUBBARD #1	
Field		CRYSTAL SRINGS N.W.	
County		HARPER	
State		KANSAS	
Company		WOOLSEY OPERATING COMPANY, LLC.	
Well		HUBBARD #1	
Field		CRYSTAL SRINGS N.W.	
County		HARPER	
State		KANSAS	
Location:		API # : 15-077-22175-0000	
Permanent Datum		GROUND LEVEL	
Log Measured From		KELLY BUSHING 12' A.G.L.	
Drilling Measured From		KELLY BUSHING	
SEC 1 TWP 32S RGE 8W		Elevation	
		K.B. 1510	
		D.F. 1508	
		G.L. 1498	
Date		9/24/18	
Run Number		ONE	
Depth Driller		4920	
Depth Logger		4920	
Bottom Logged Interval		4896	
Top Log Interval		1300	
Casing Driller		8 5/8"@225'	
Casing Logger		225	
Bit Size		7 7/8"	
Type Fluid in Hole		CHEMICAL MUD	
Density / Viscosity		9.6/55	
pH / Fluid Loss		11.0/8.8	
Source of Sample		FLOWLINE	
Rim @ Meas. Temp		.700@100F	
Rmf @ Meas. Temp		.525@100F	
Rmc @ Meas. Temp		.840@100F	
Source of Rmf / Rmc		MEASUREMENT	
Rim @ BHT		.565@124F	
Time Circulation Stopped		3 HOURS	
Time Logger on Bottom		7:30 P.M.	
Maximum Recorded Temperature		124F	
Equipment Number		922339	
Location		HAYS, KANSAS	
Recorded By		JEFF LUEBBERS	
Witnessed By		BILL KLAVER	

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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

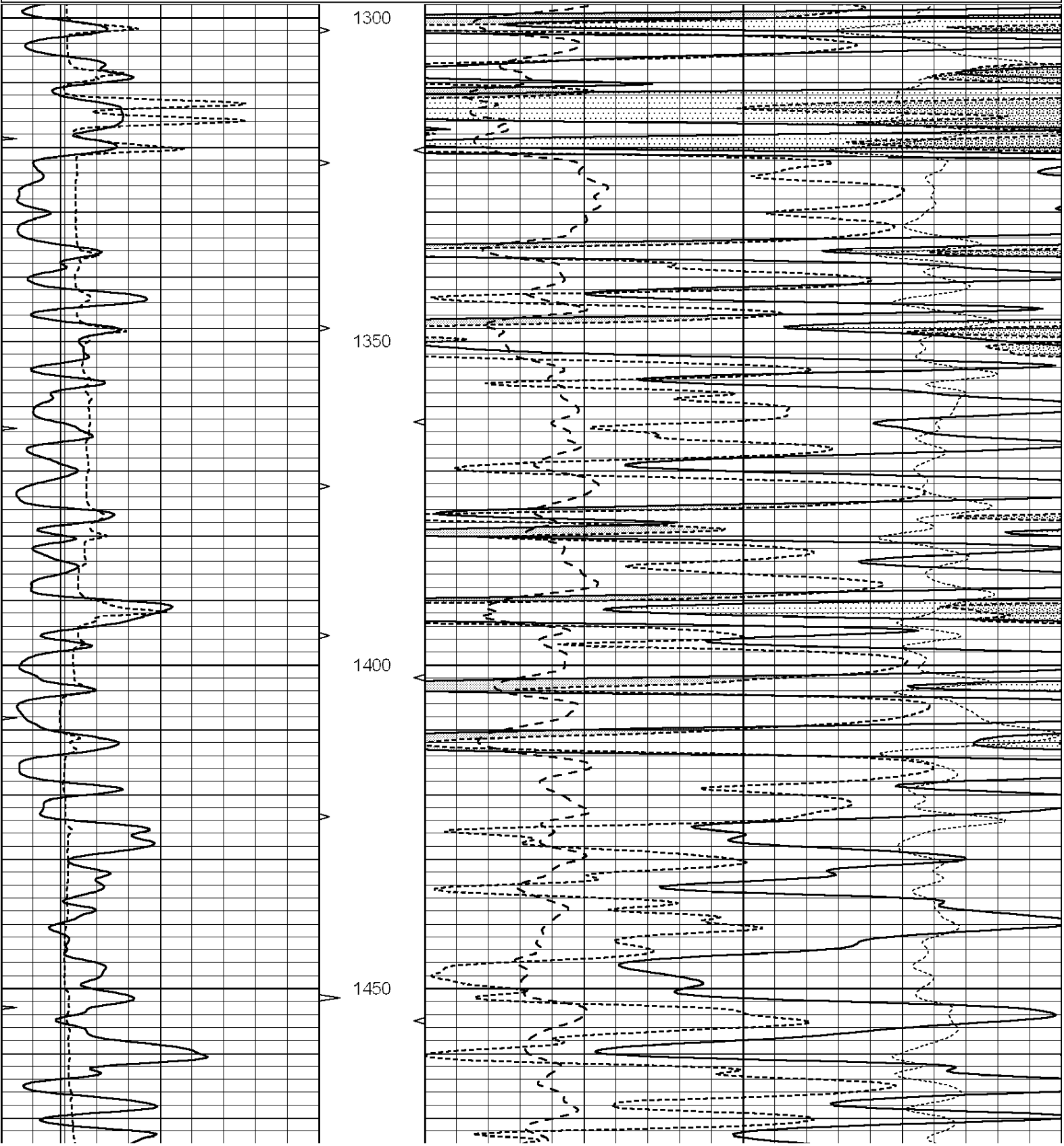
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
HARPER, KS., 5W., 1N., W. INTO

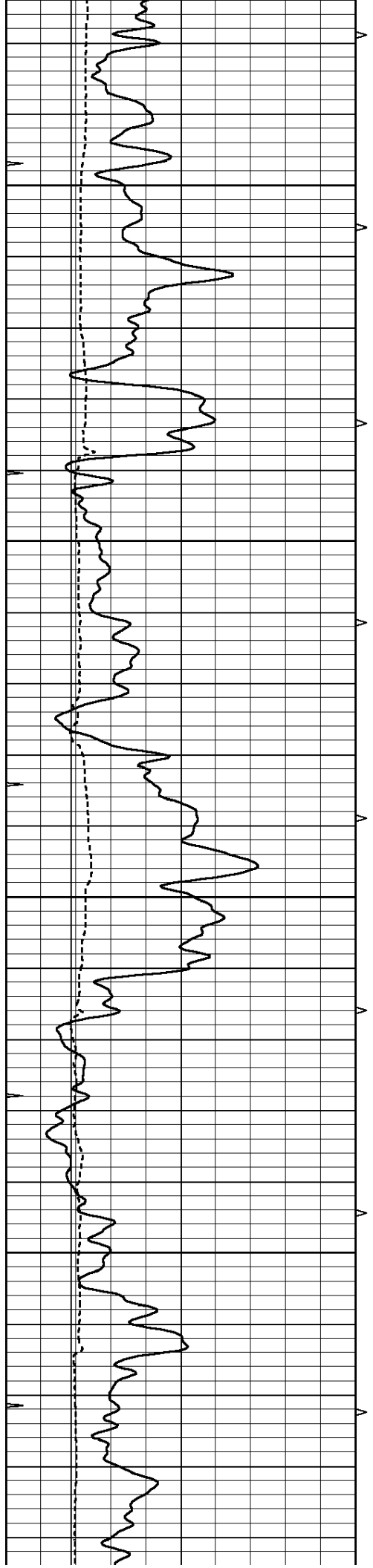


MAIN SECTION

Database File: 2936pe.db
Dataset Pathname: pass3.6
Presentation Format: ldt_neu
Dataset Creation: Mon Sep 24 21:32:03 2018 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		



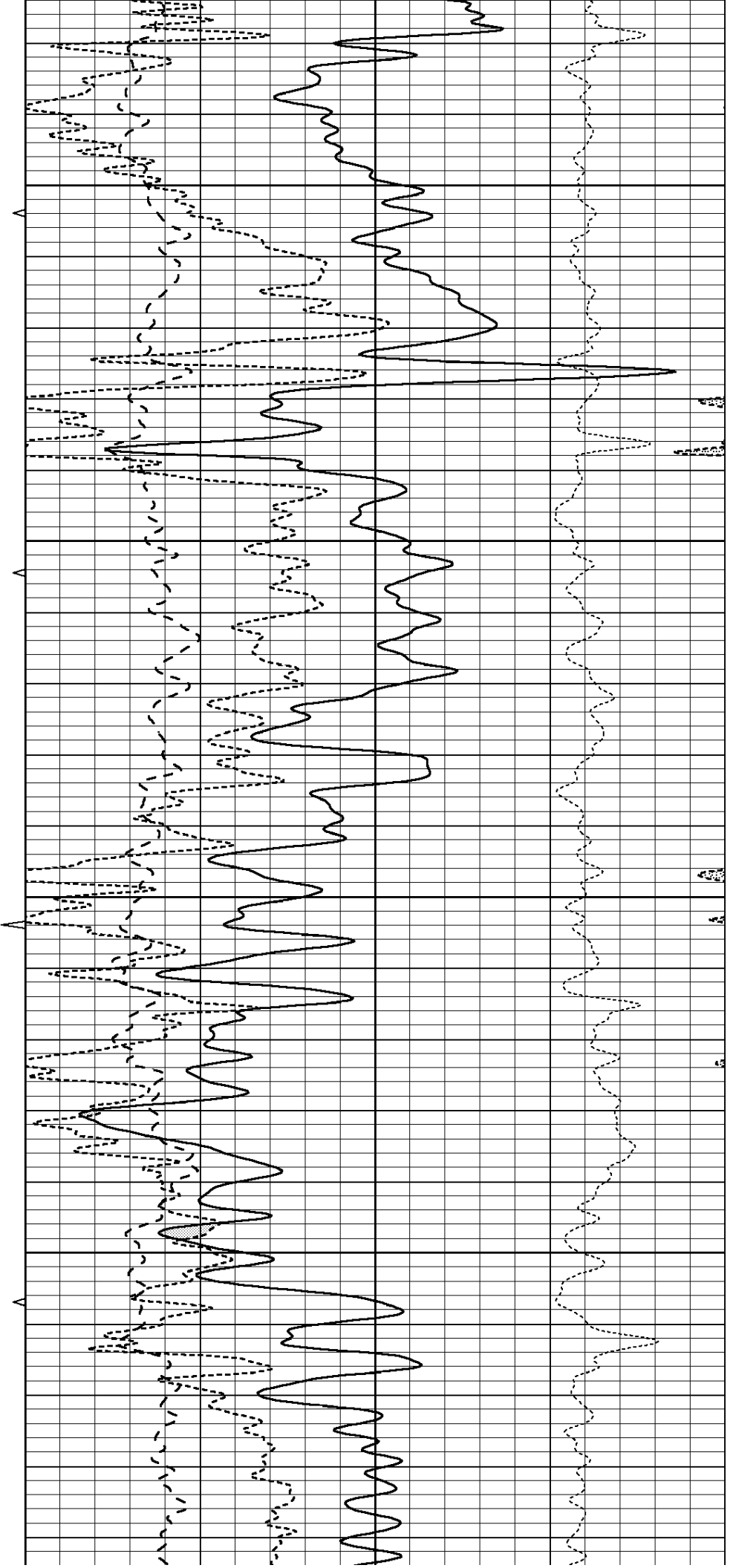


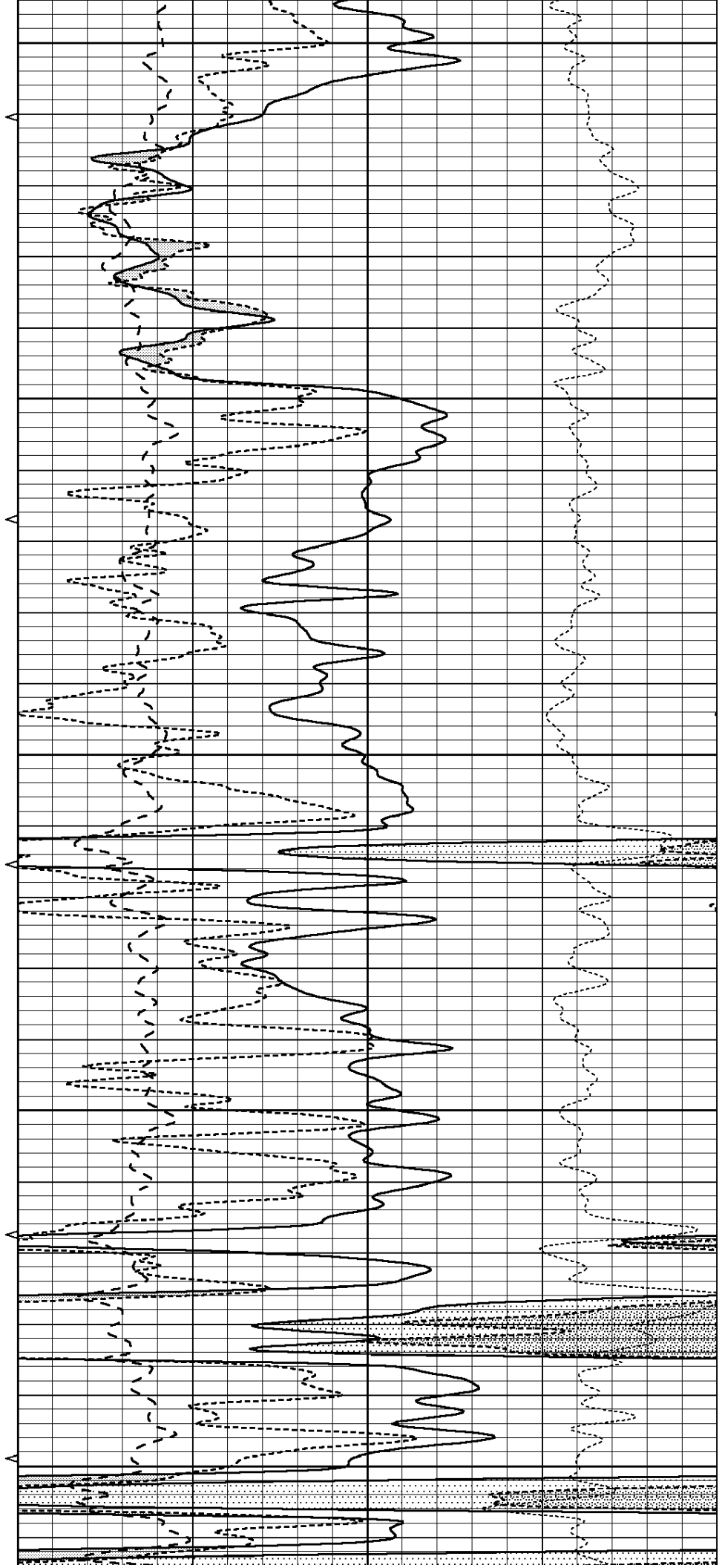
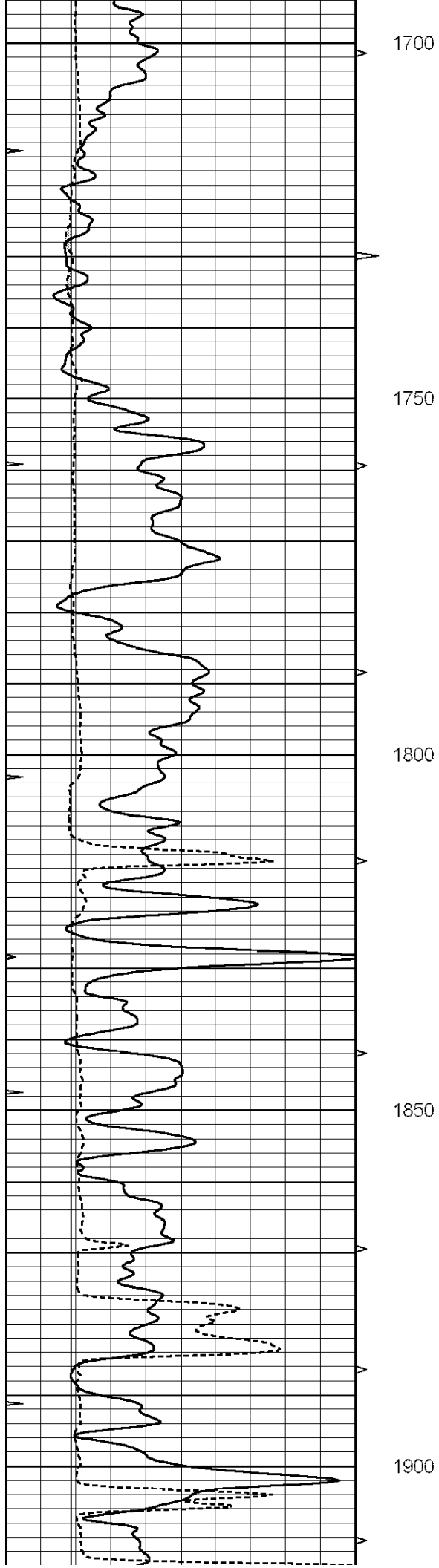
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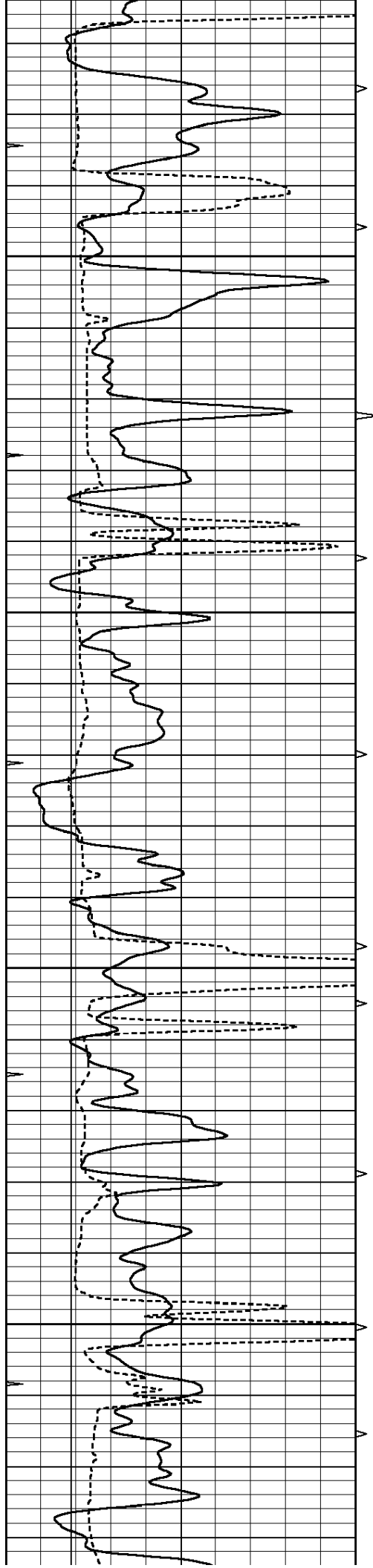
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1600

1650





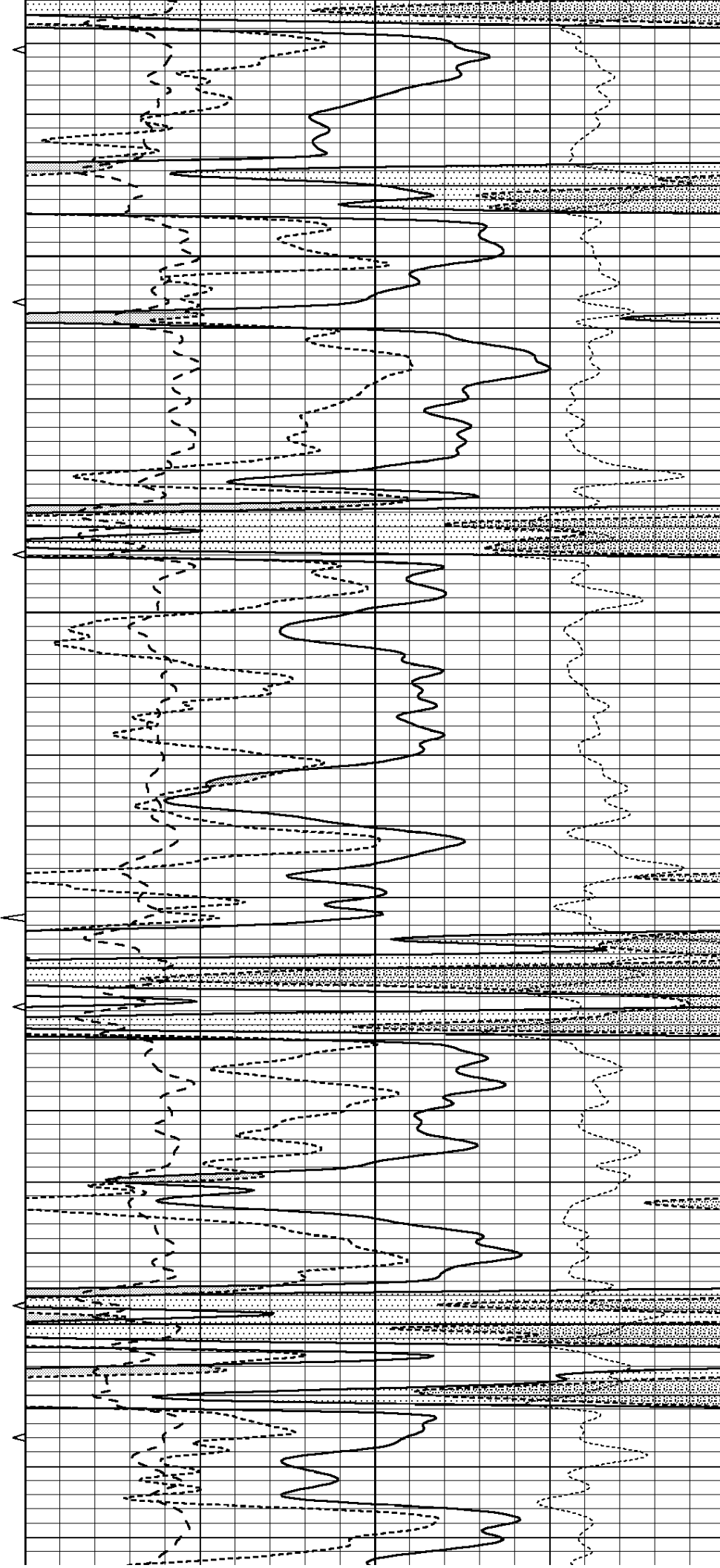


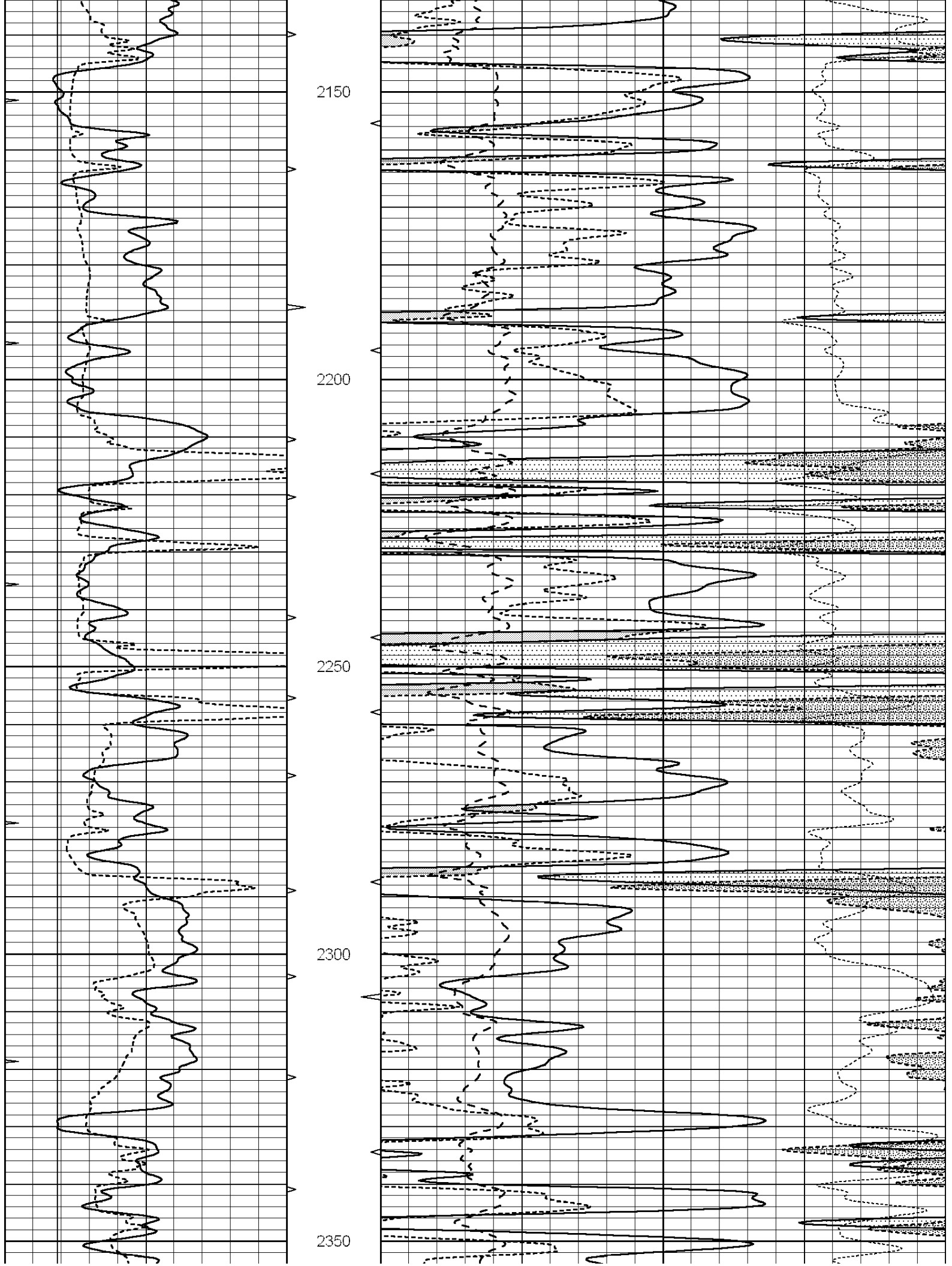
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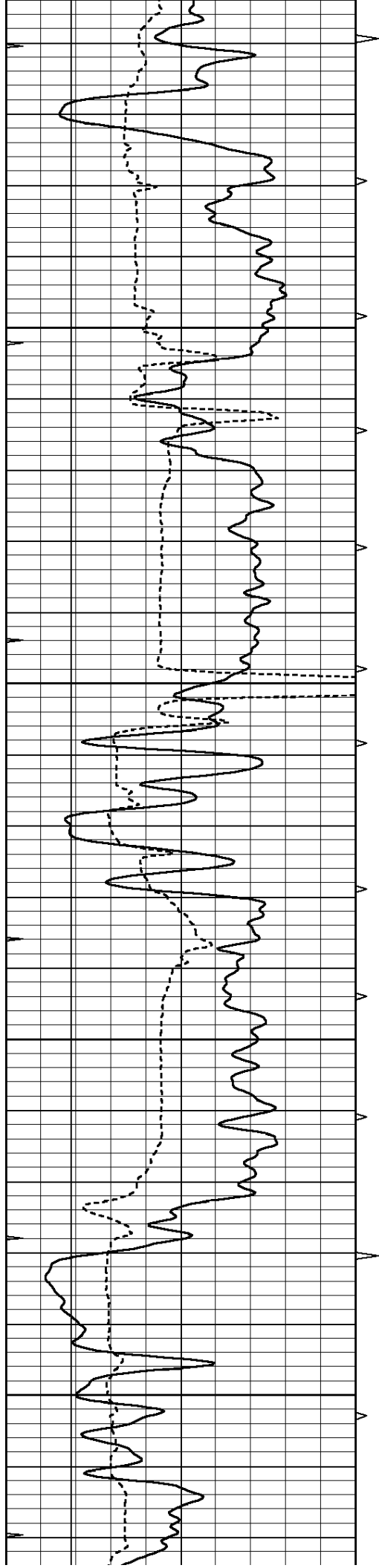
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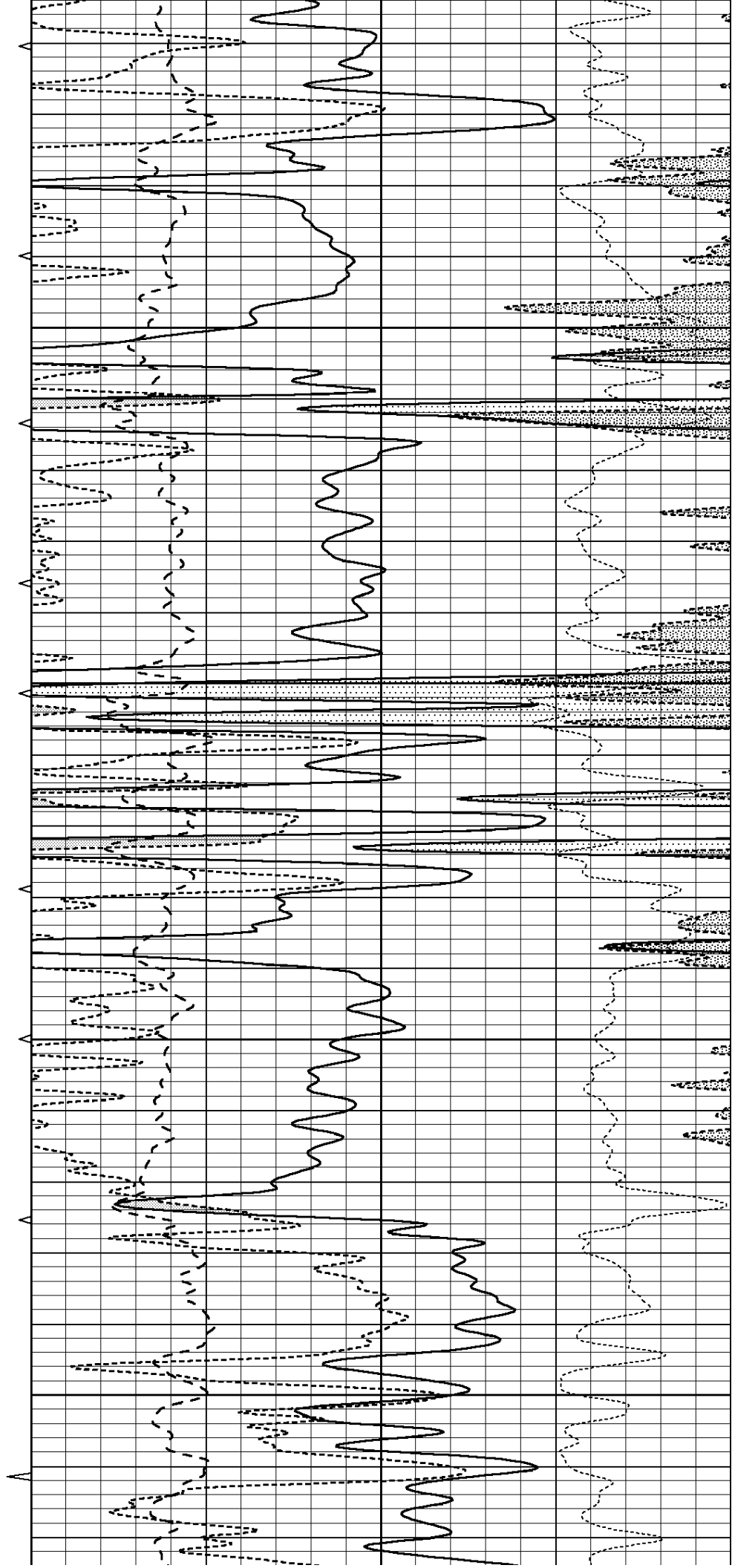


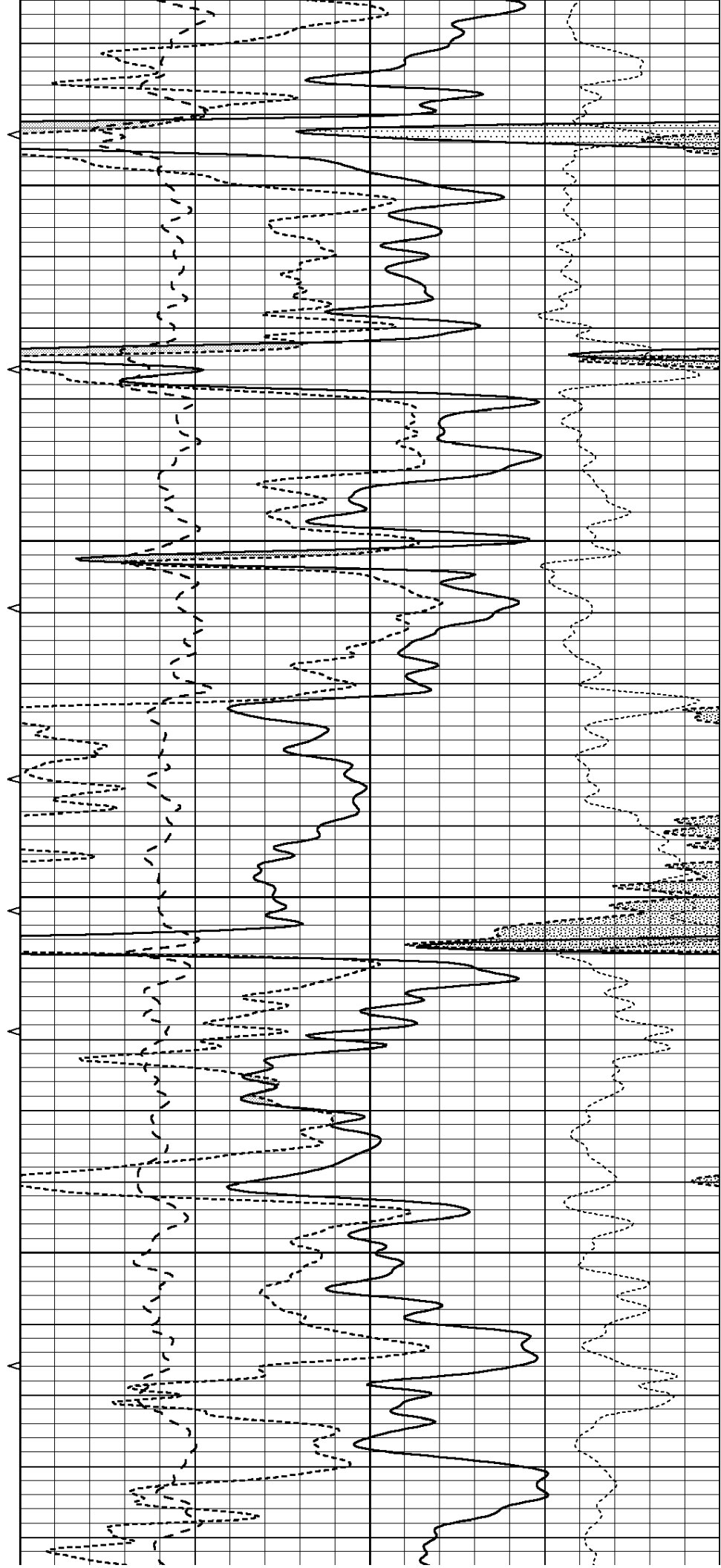
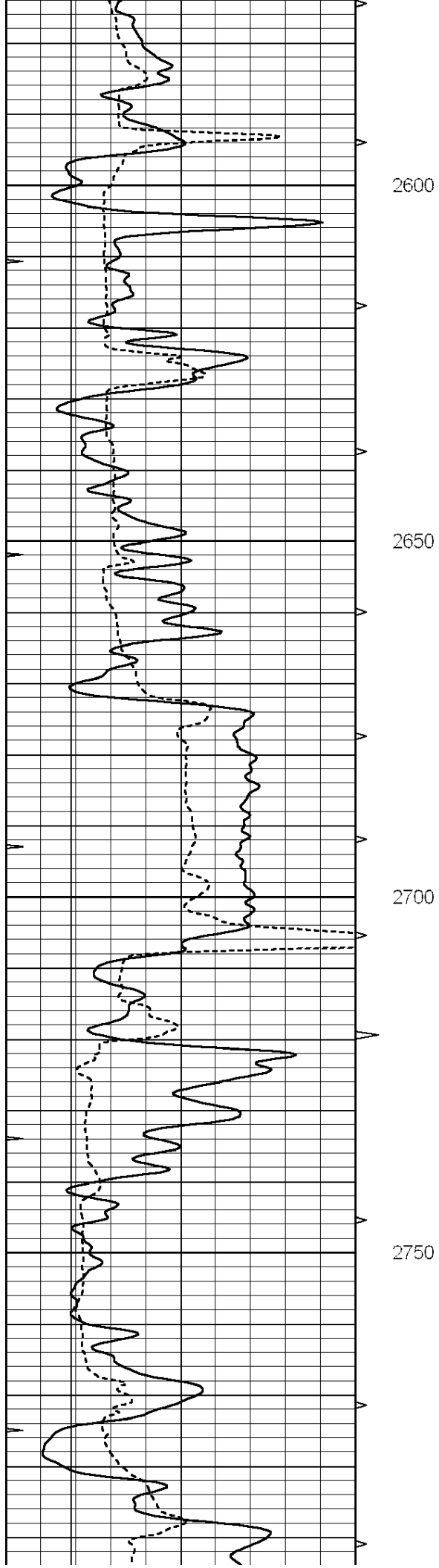
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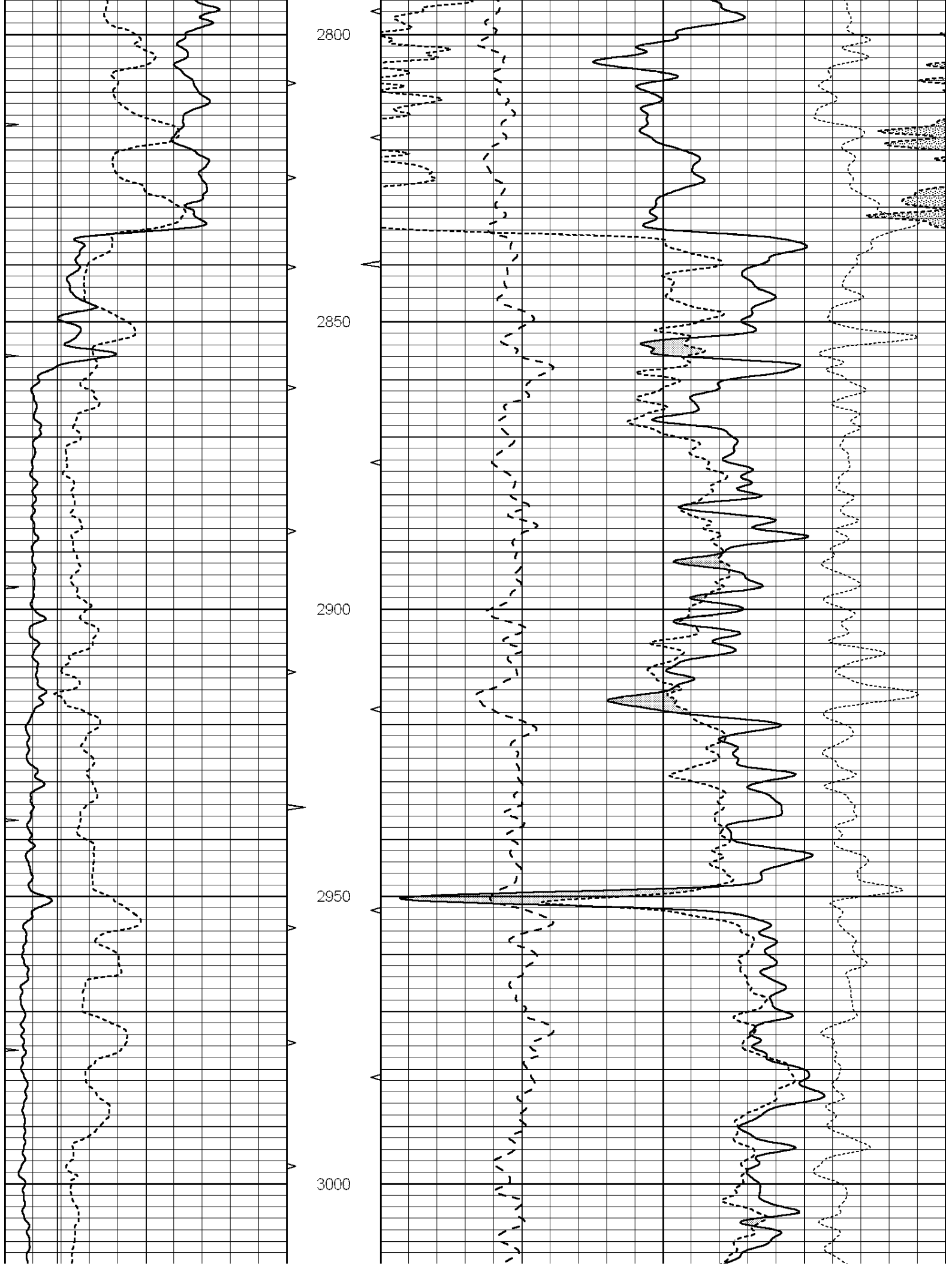
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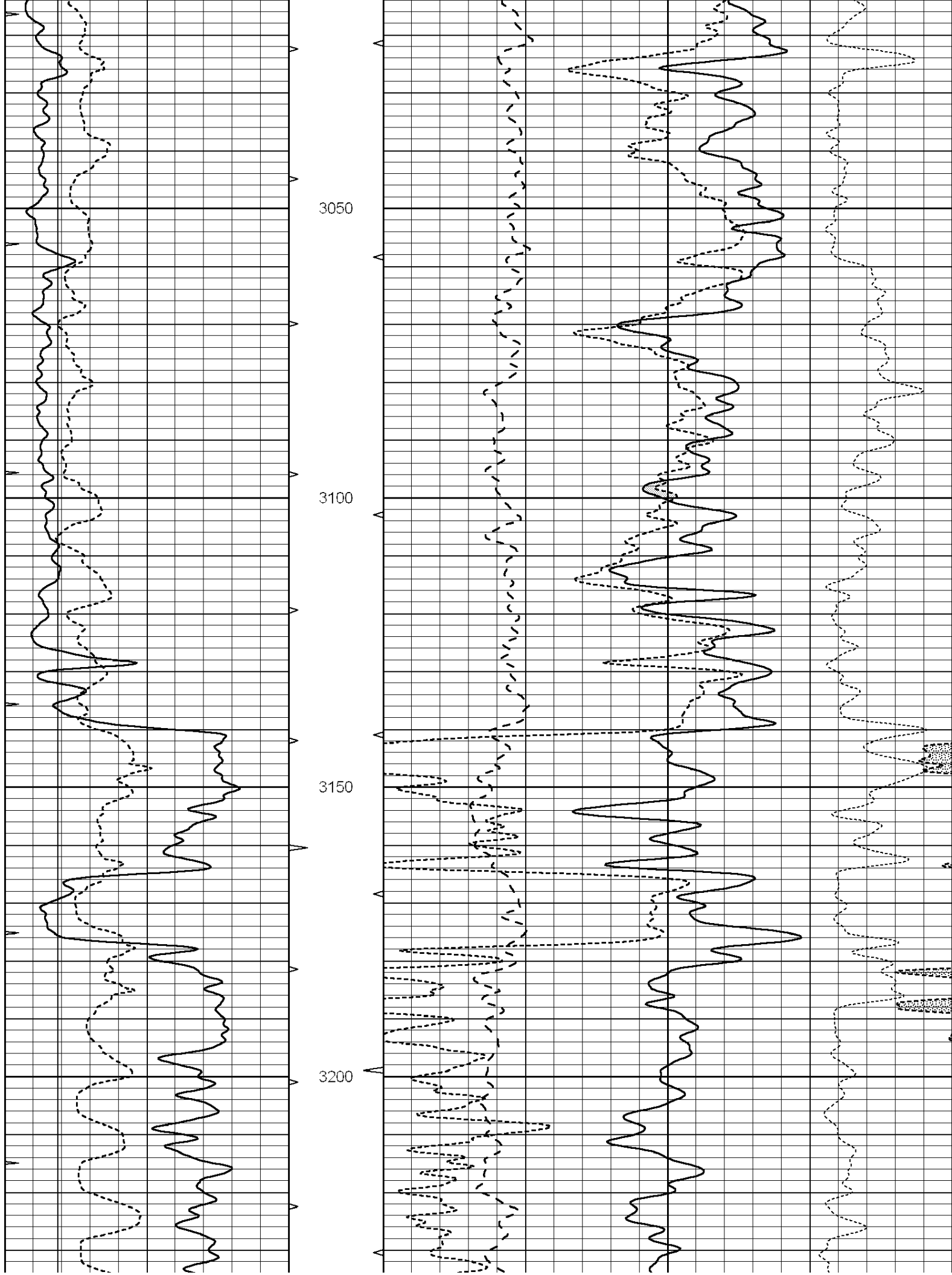
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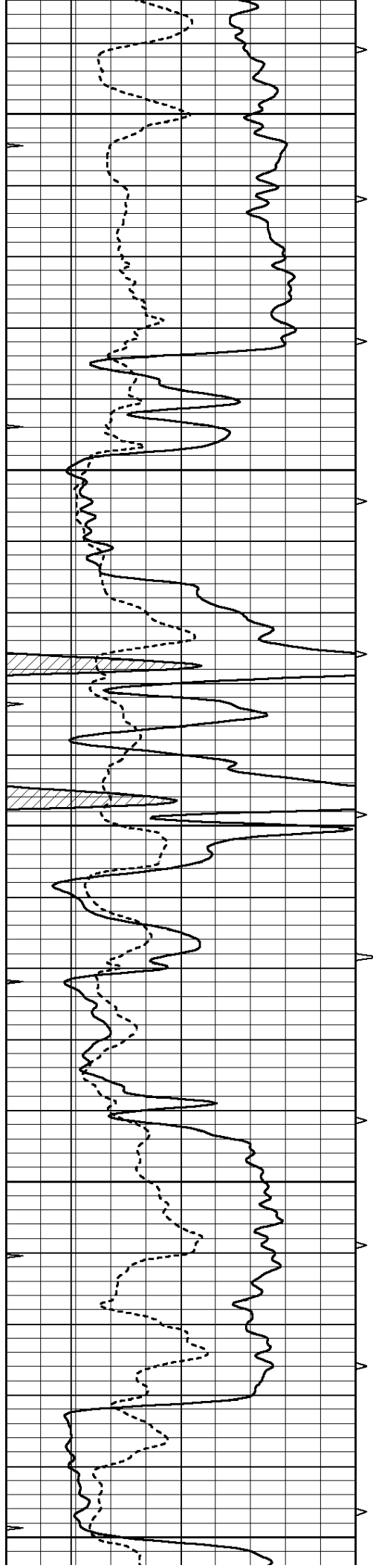
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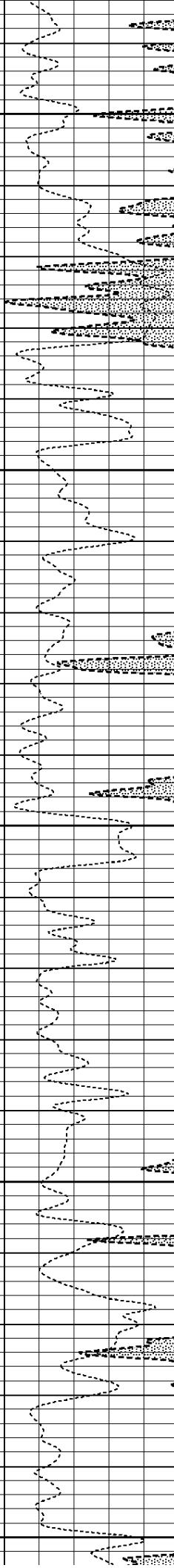
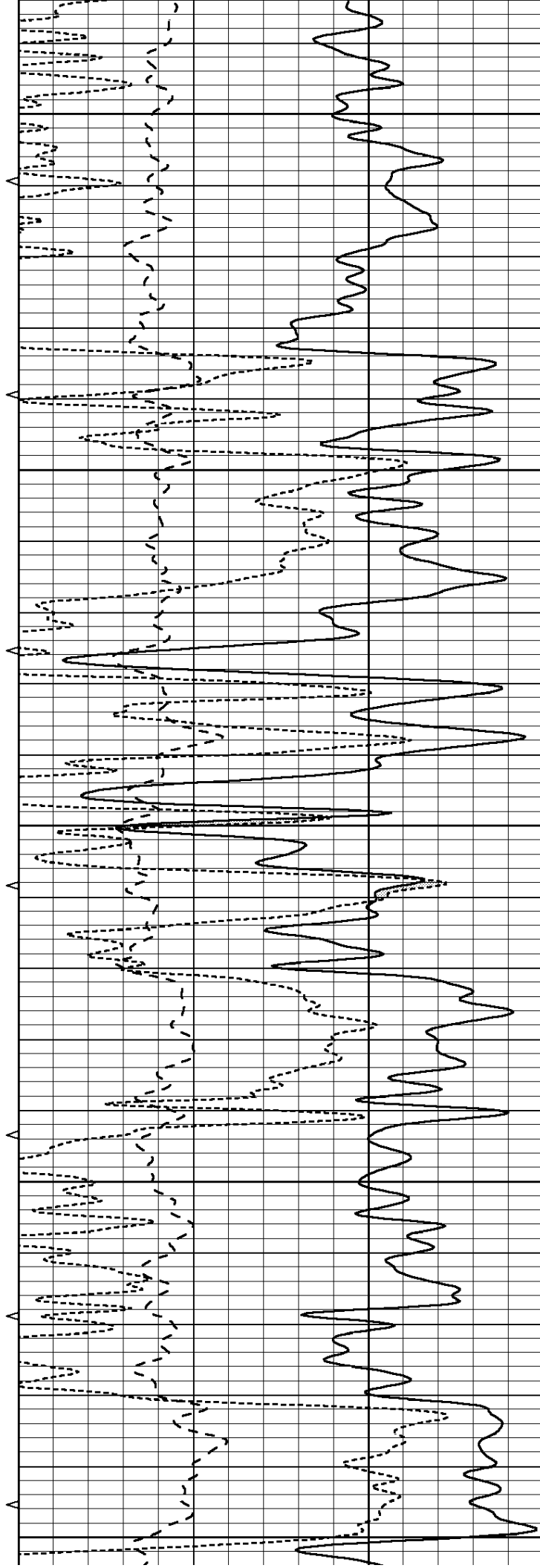
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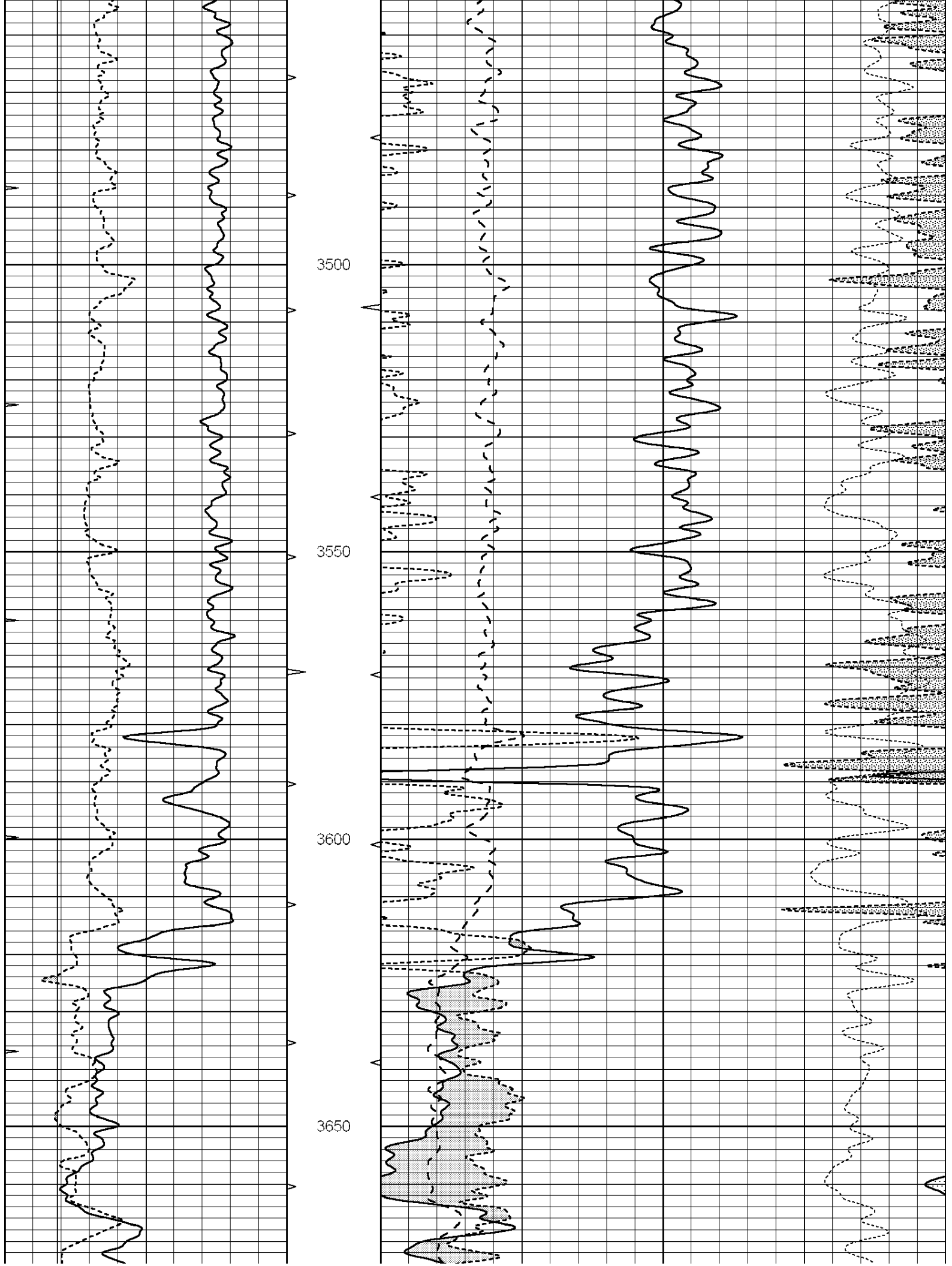
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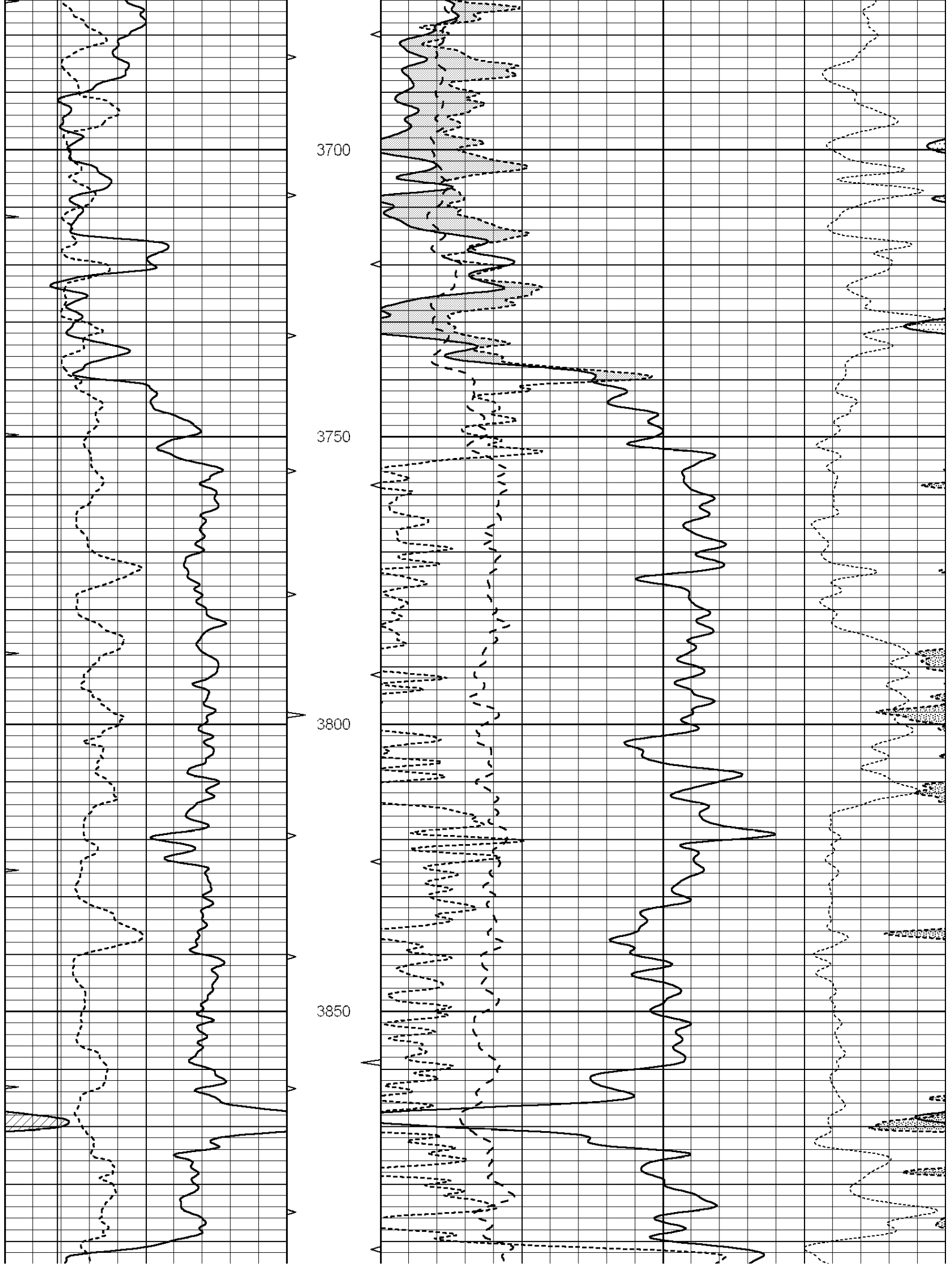
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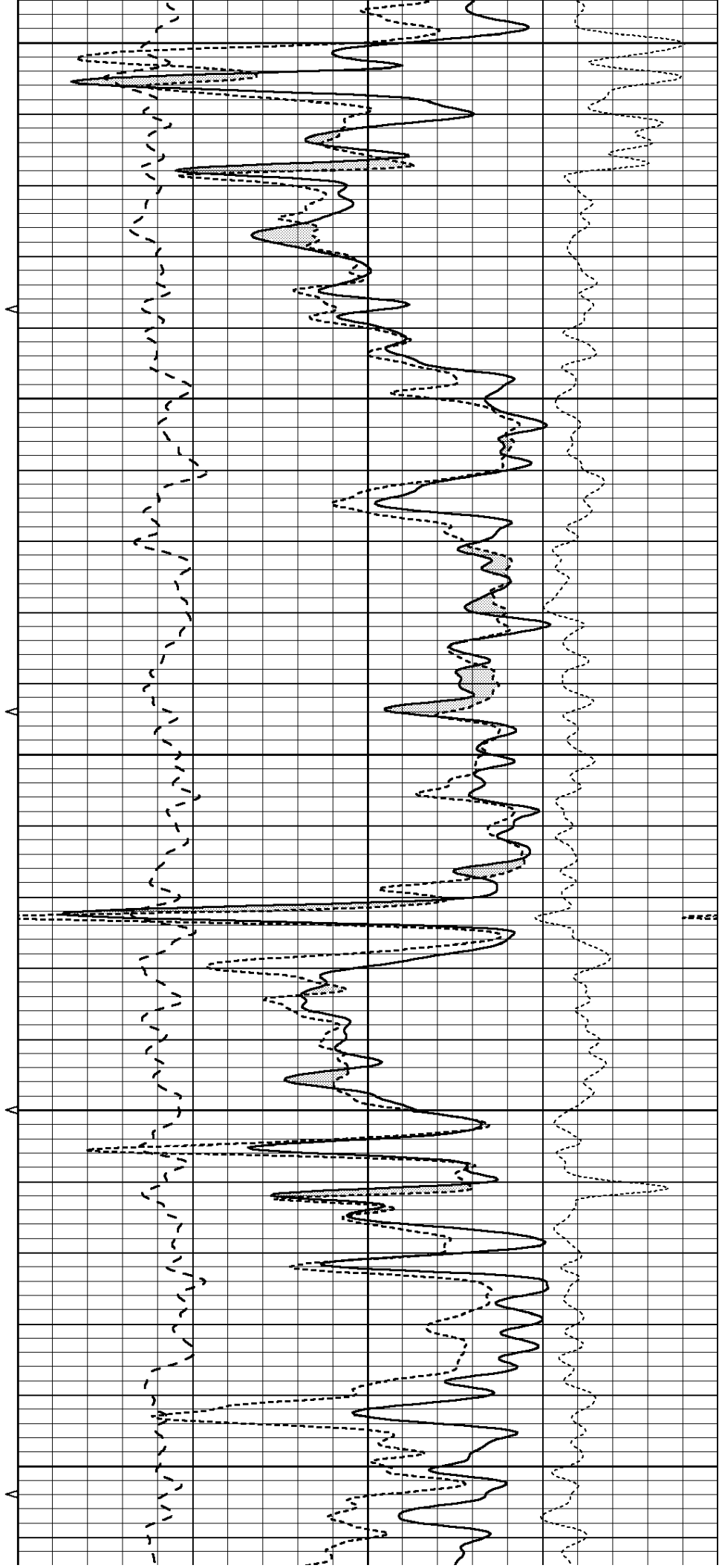
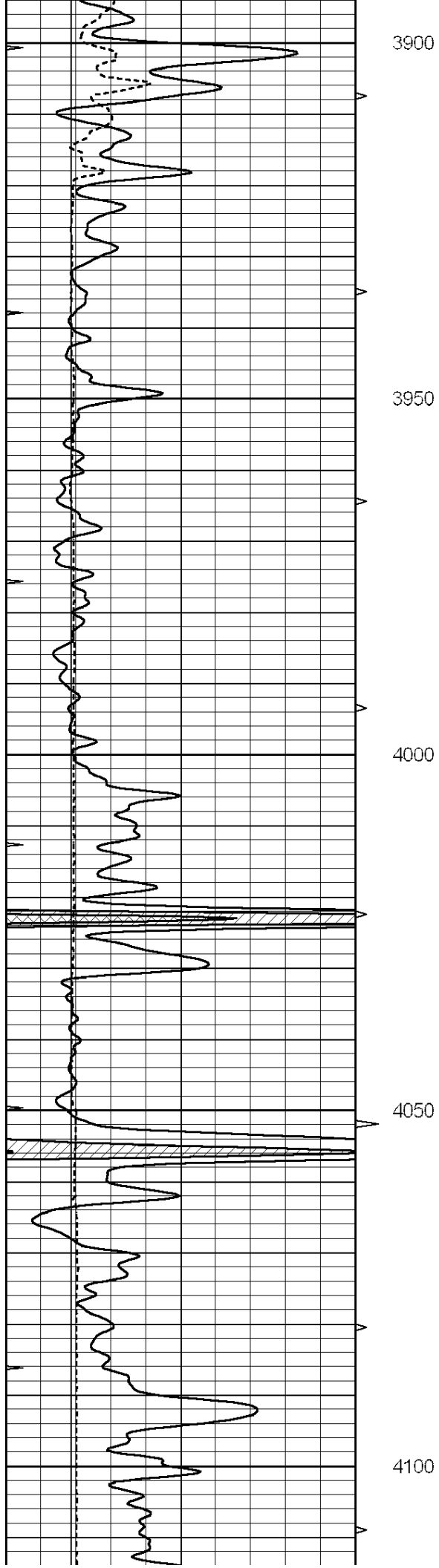
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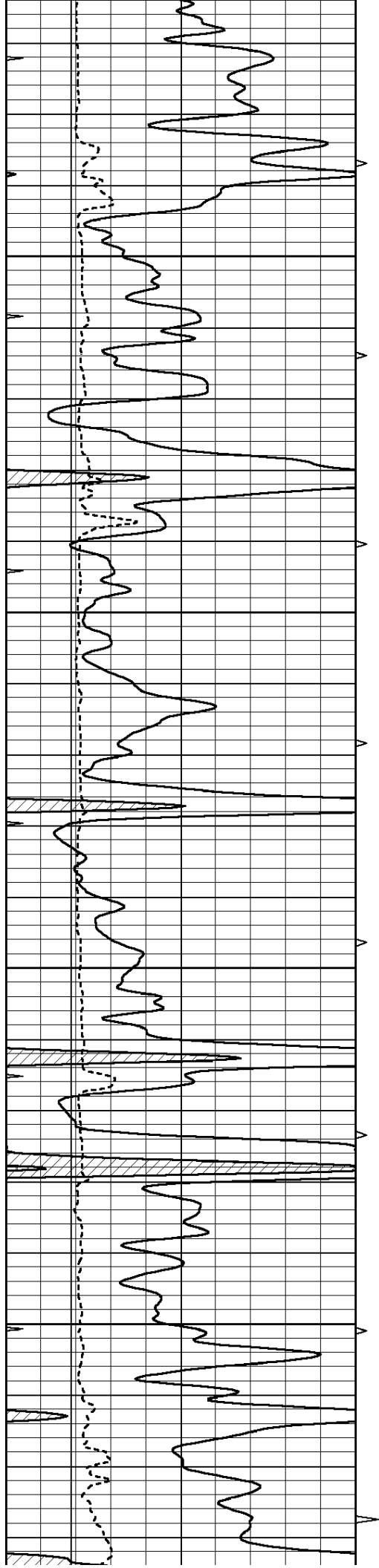
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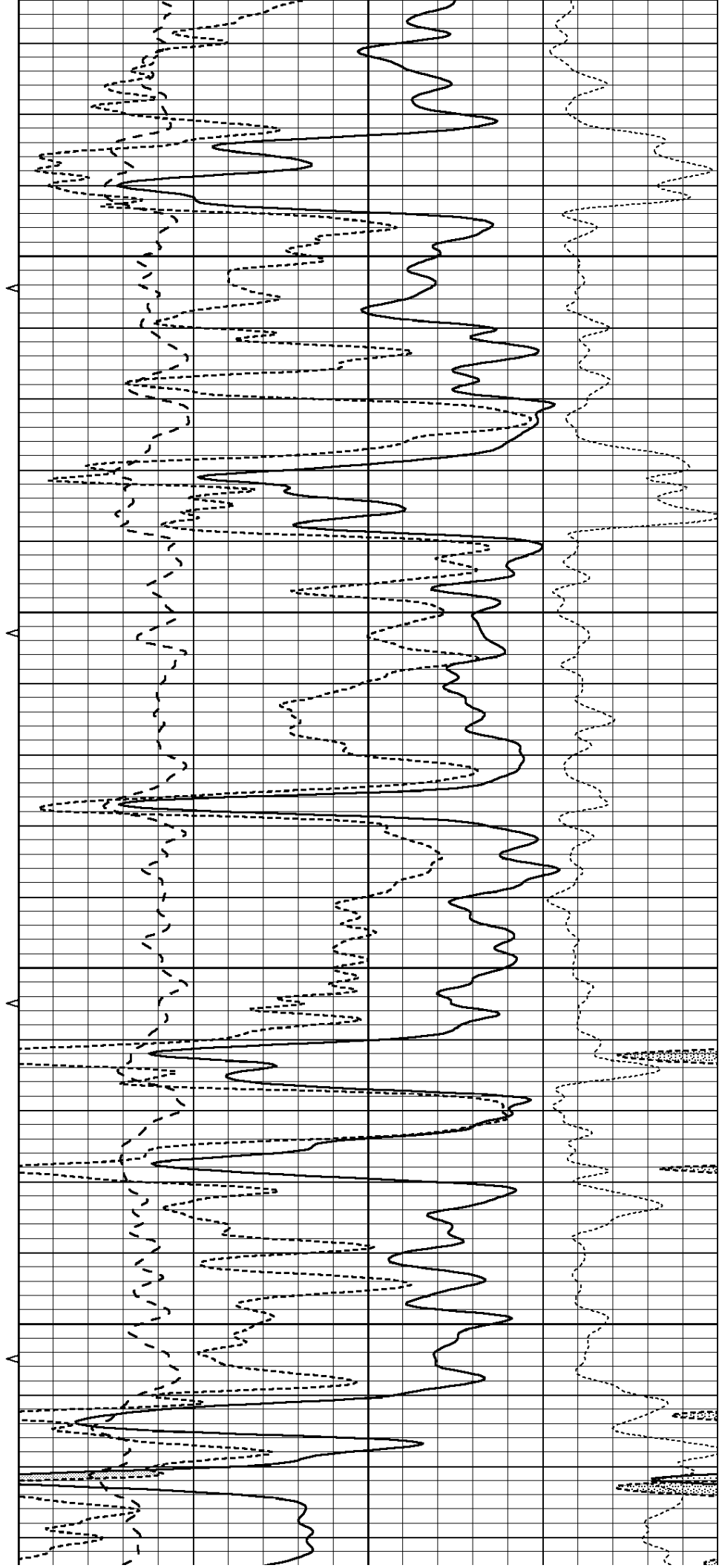


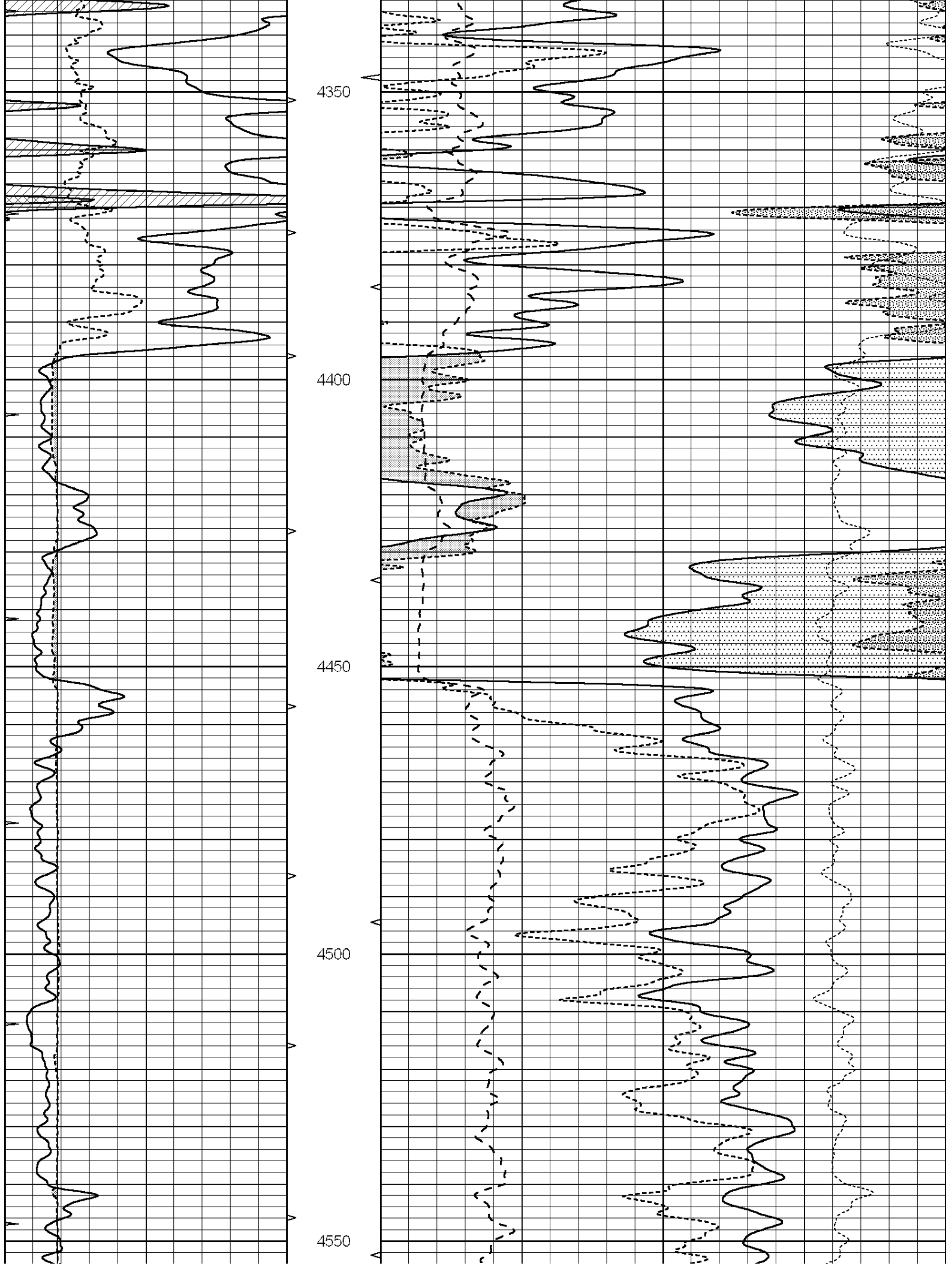
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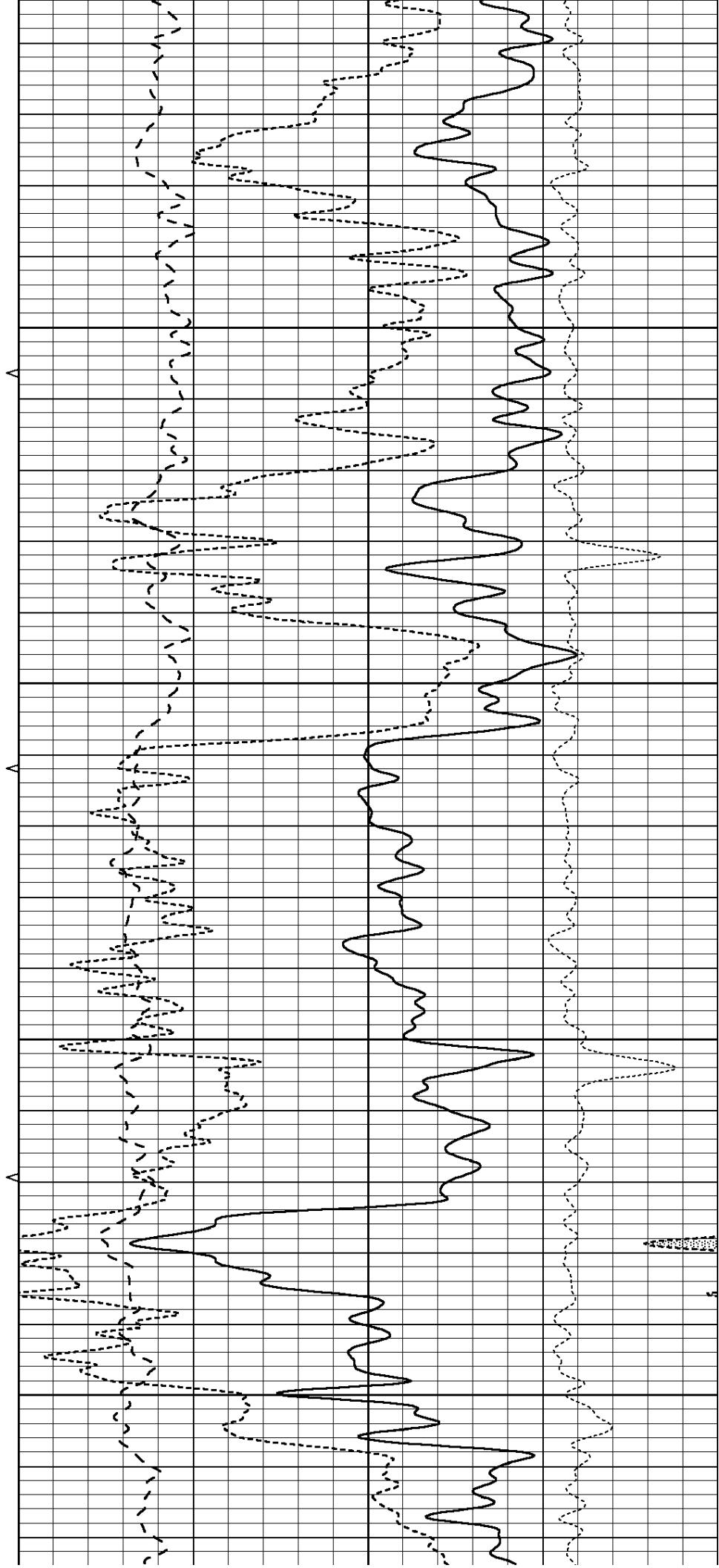
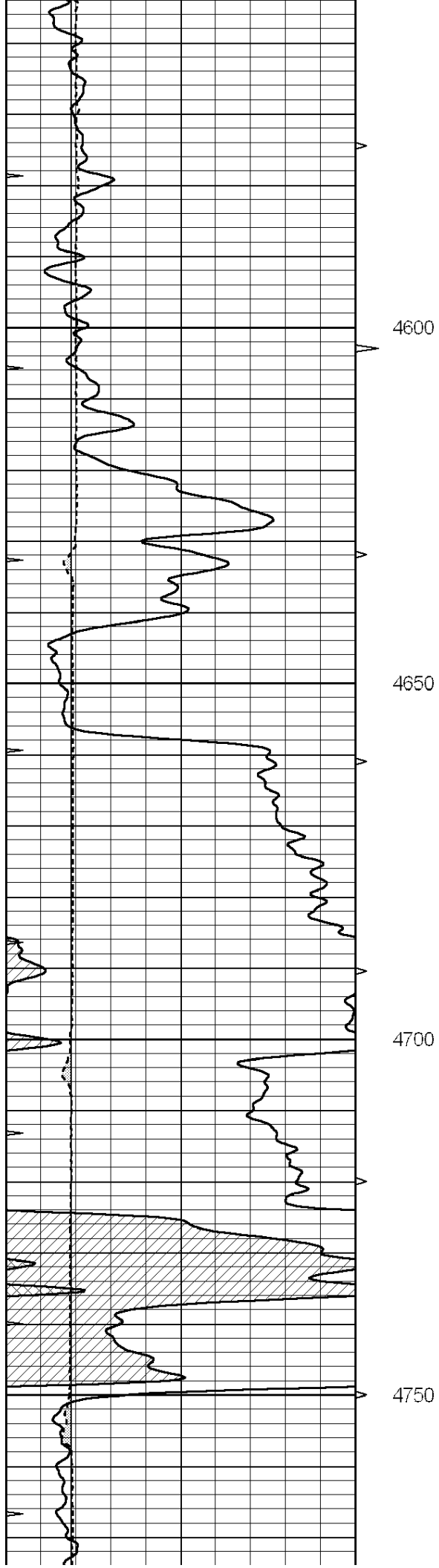
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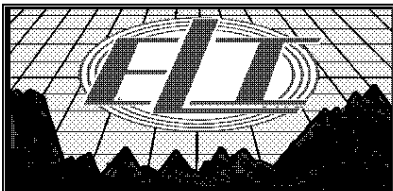
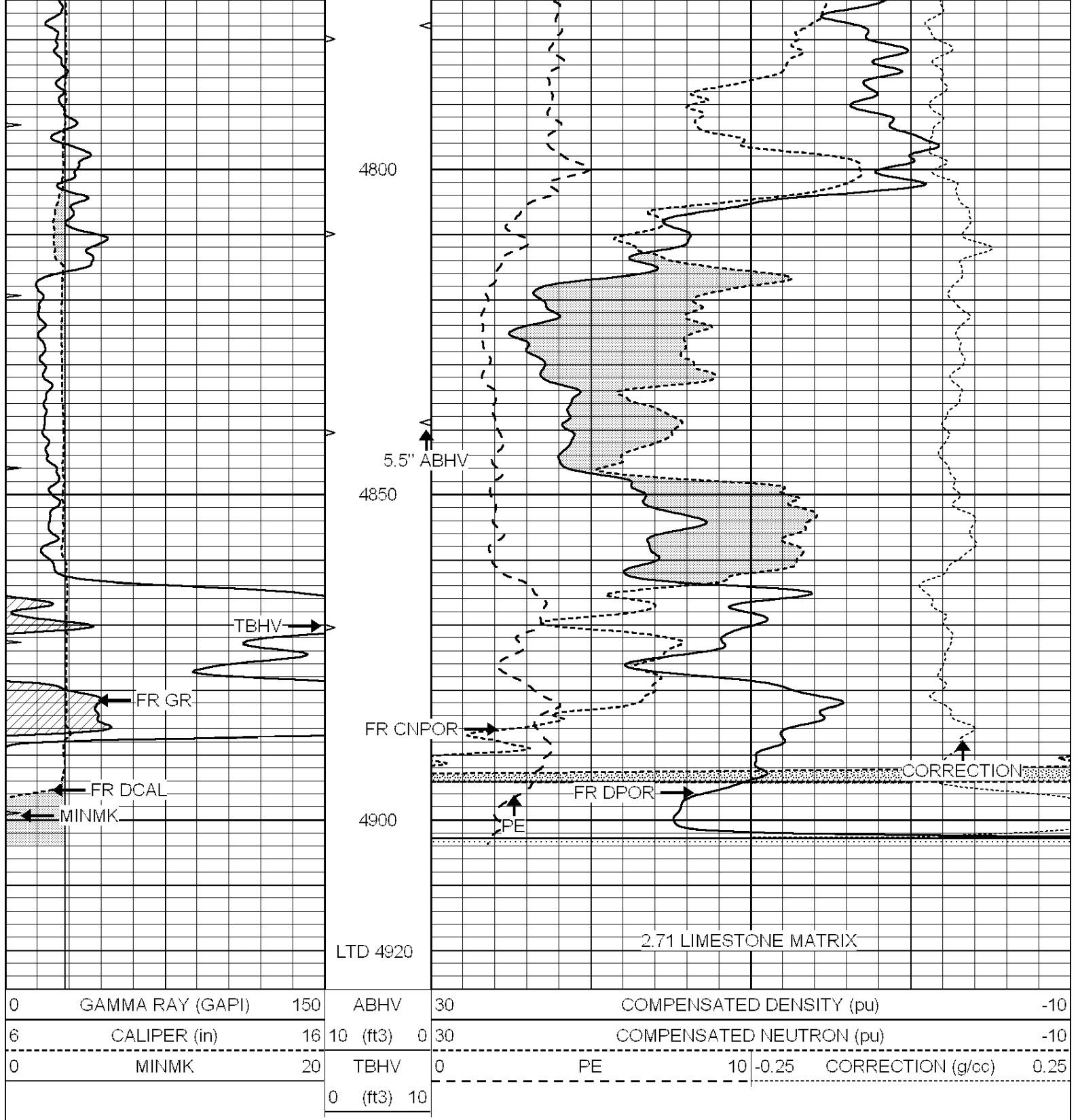
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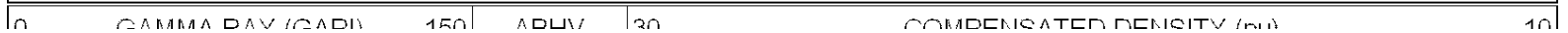






REPEAT SECTION

Database File: 2936pe.db
Dataset Pathname: pass2.6
Presentation Format: ldt_neu
Dataset Creation: Mon Sep 24 20:12:20 2018 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240



Window 1	837.1	10632.5	2945.1	12110.1	cps
Window 2	772.0	9117.4	2570.1	10197.3	cps
Window 3	631.7	4669.0	1481.9	5042.9	cps
Window 4	187.0	187.5	185.9	189.9	cps
Long Space	0.0	8345.4	1798.1	9425.3	cps
Short Space	1.1	1927.9	1285.9	2050.2	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.558
Spine Angle	: 75.2	Spine Slope	: 3.790	Spine Intercept	: -19.6

Before Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

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Compensated Neutron Calibration Report
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Serial Number:	070808
Tool Model:	Probe

PRE-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070558
Tool Model:	OPEN_GR
Performed:	Wed May 31 00:09:32 2017

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2800	GAPI/cps