

**SONIC
LOG**

Company BLACK STONE PETROLEUM, LLC
 Well MOORE #1
 Field OTIS-ALBERT
 County RUSH
 State KANSAS

Company BLACK STONE PETROLEUM, LLC
 Well MOORE #1
 Field OTIS-ALBERT
 County RUSH State KANSAS

Location: API # : 15-165-22154-00-00
 1270' FNL & 1310' FWL

Permanent Datum GROUND LEVEL Elevation 1928'
 Log Measured From KELLY BUSHING 10' A.G.L.
 Drilling Measured From KELLY BUSHING

SEC 25 TWP 18S RGE 16W
 Elevation
 K.B. 1938
 D.F. 1936
 G.L. 1928

Other Services
 CDL/CNL/DIL
 MEL

Date	12/11/17
Run Number	TWO
Depth Driller	3571
Depth Logger	3570
Bottom Logged Interval	3561
Top Log Interval	00
Casing Driller	8 5/8" @ 1362
Casing Logger	1362
Bit Size	8 3/4"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/50
pH / Fluid Loss	10.8/6.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.80@57
Rmt @ Meas. Temp	.60@57
Rmc @ Meas. Temp	.96@57
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.40@112
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	///
Maximum Recorded Temperature	112F
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	GUS PFANENSTIEL
Witnessed By	KEATON JONES

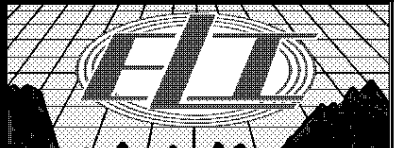
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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, KS. (785) 628-6395

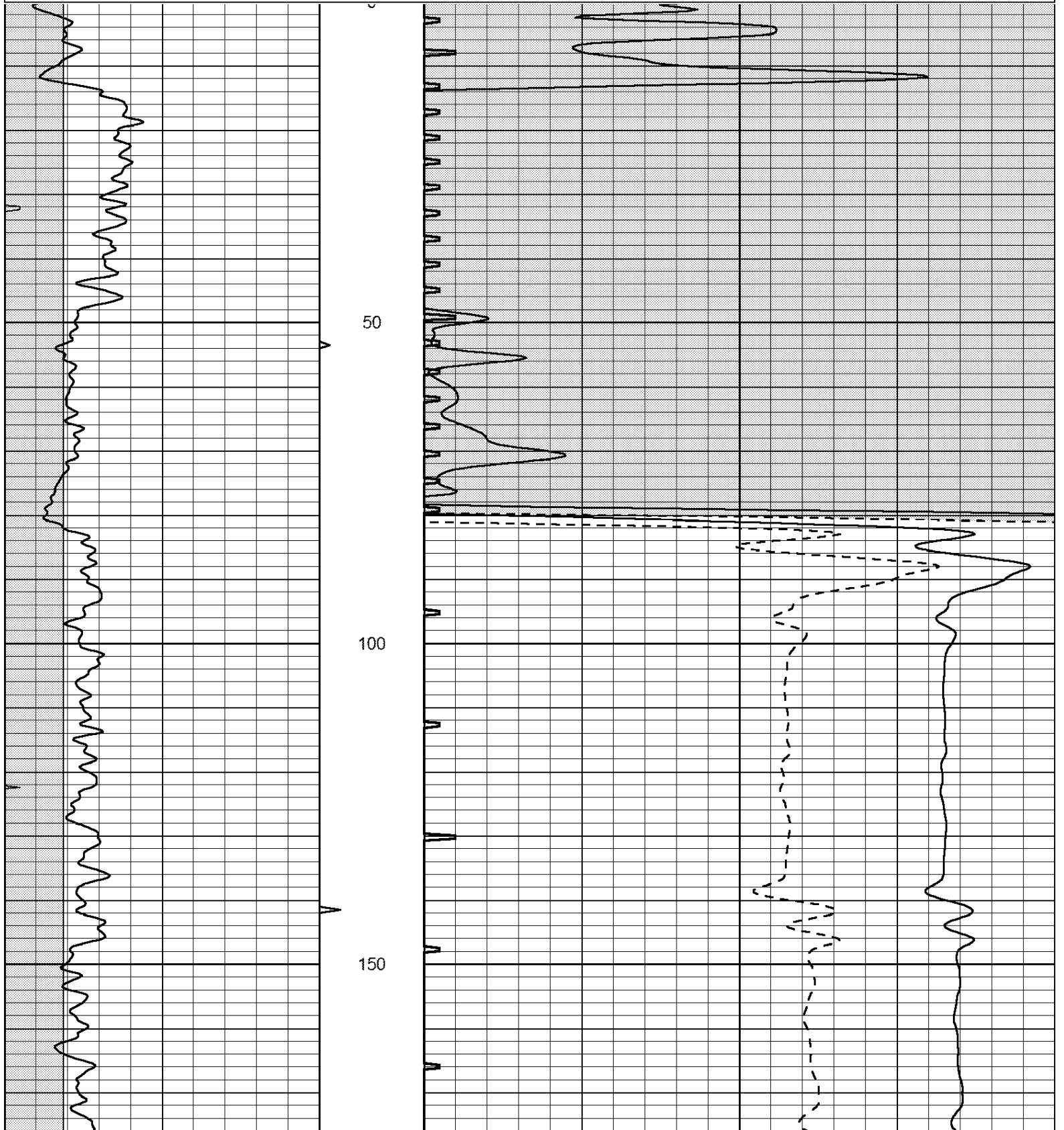
DIRECTIONS
 96 HIGHWAY OUT OF RUSH CENTER EAST TO 390
 GO PAST 200 YRDS NORTH INTO.

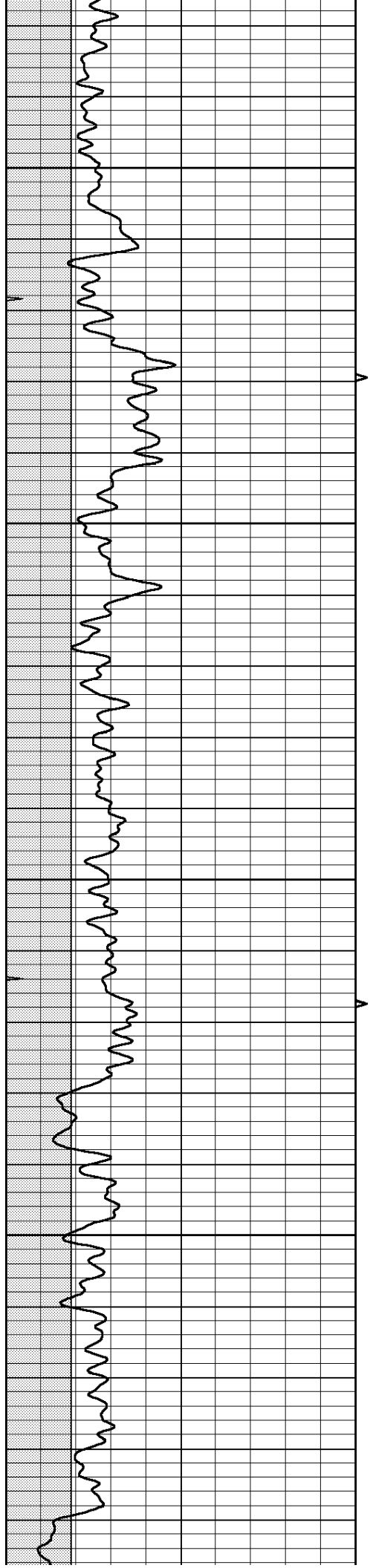


MAIN PASS

Database File: 2117ddn.db
 Dataset Pathname: pass7
 Presentation Format: _slt
 Dataset Creation: Mon Dec 11 06:32:21 2017 by Log Open-Cased 090629
 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)
0	MINMK	20	TBHV	0	ITT (msec)	20
			0 (ft3)	10		



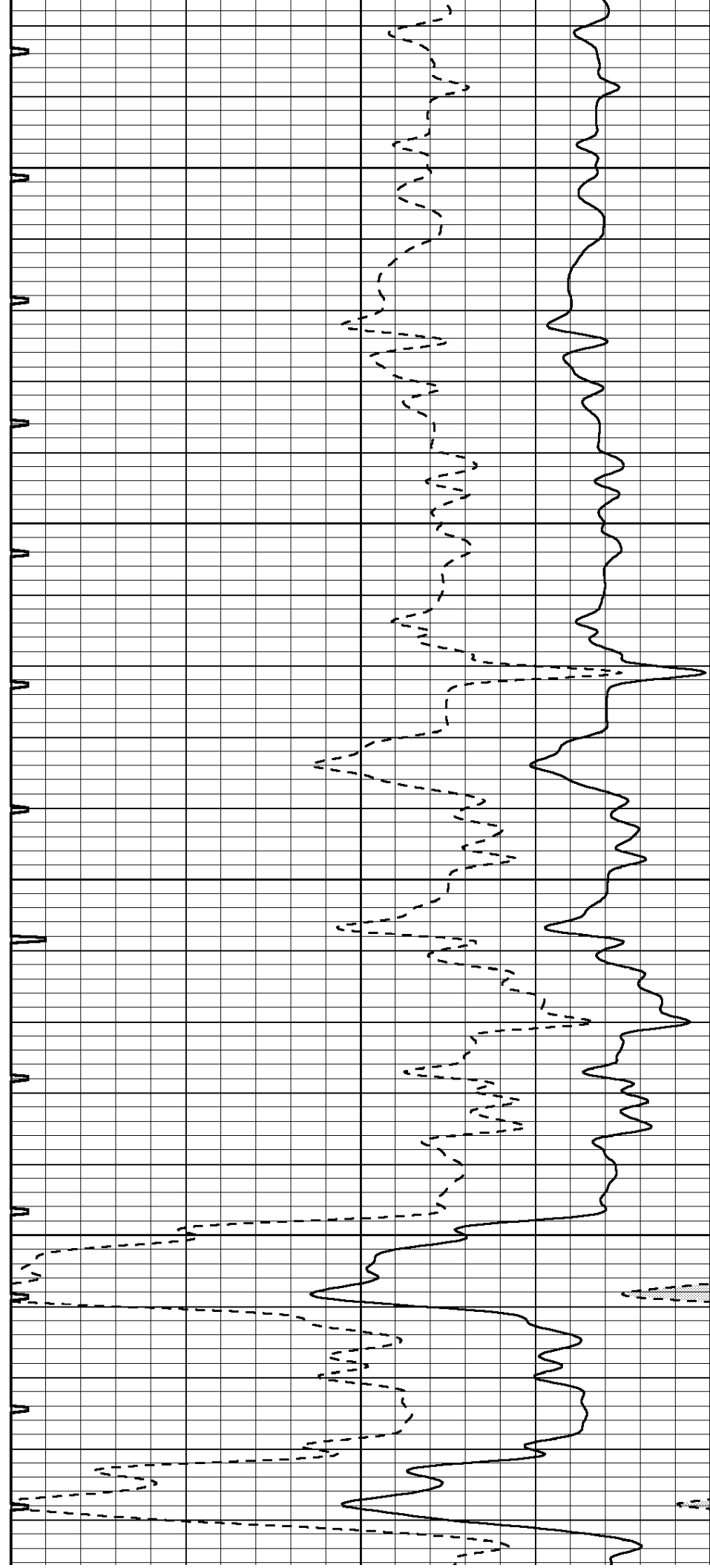


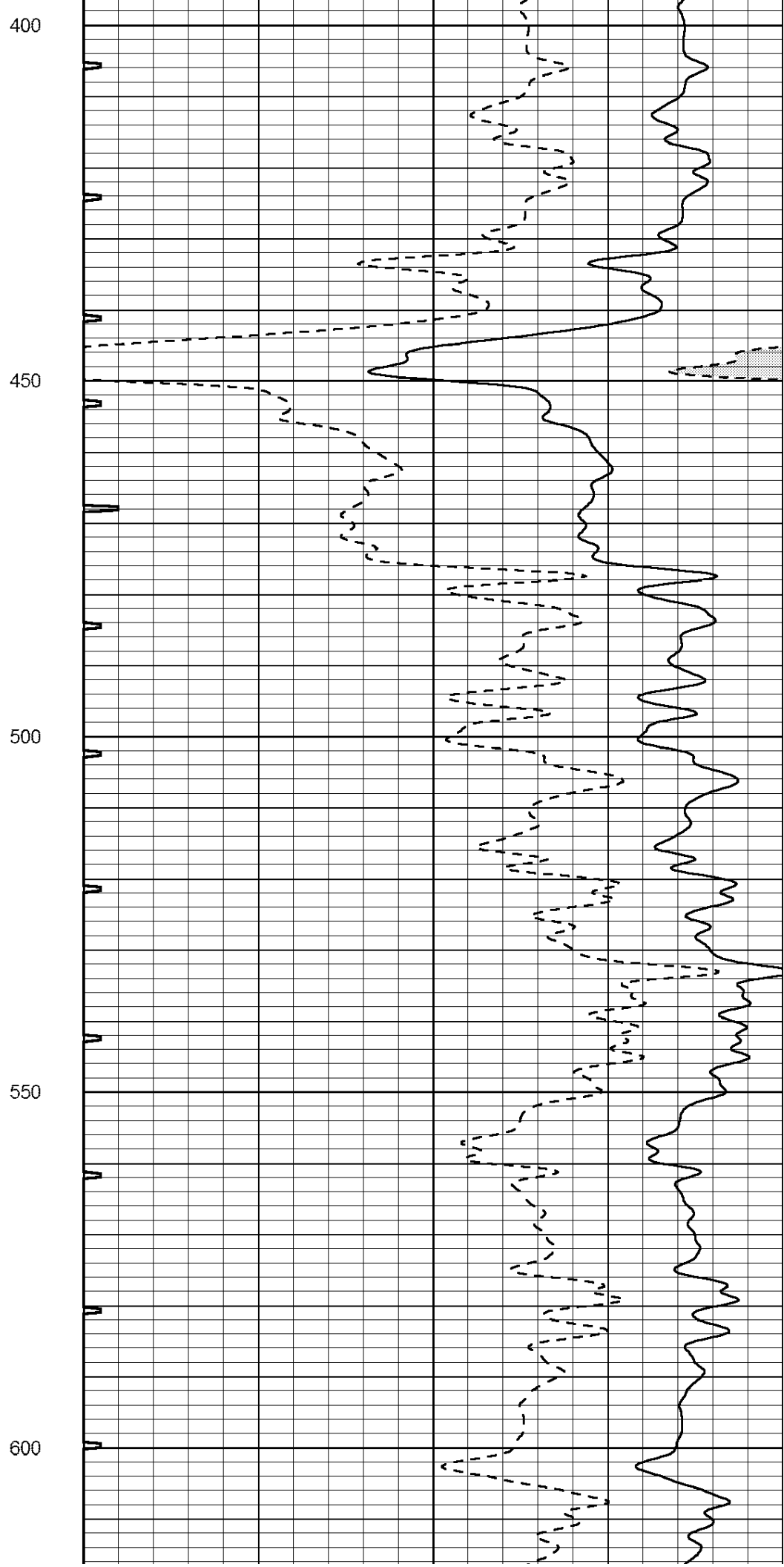
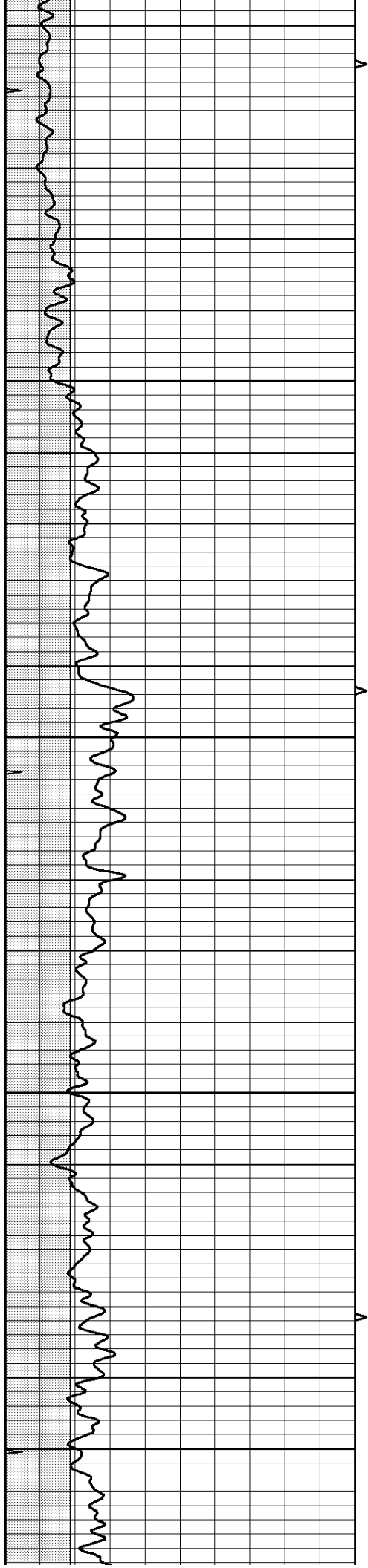
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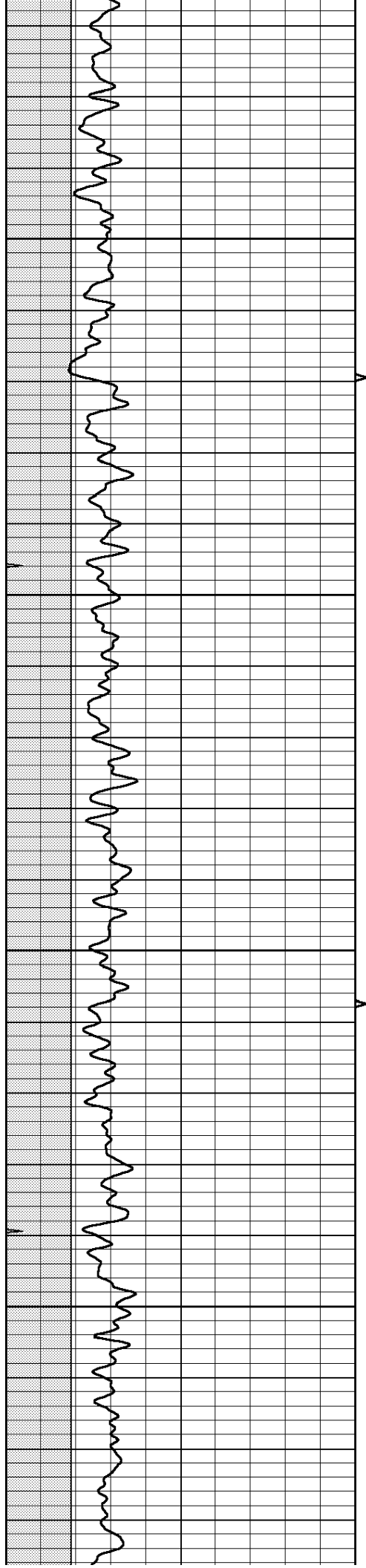
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300

350





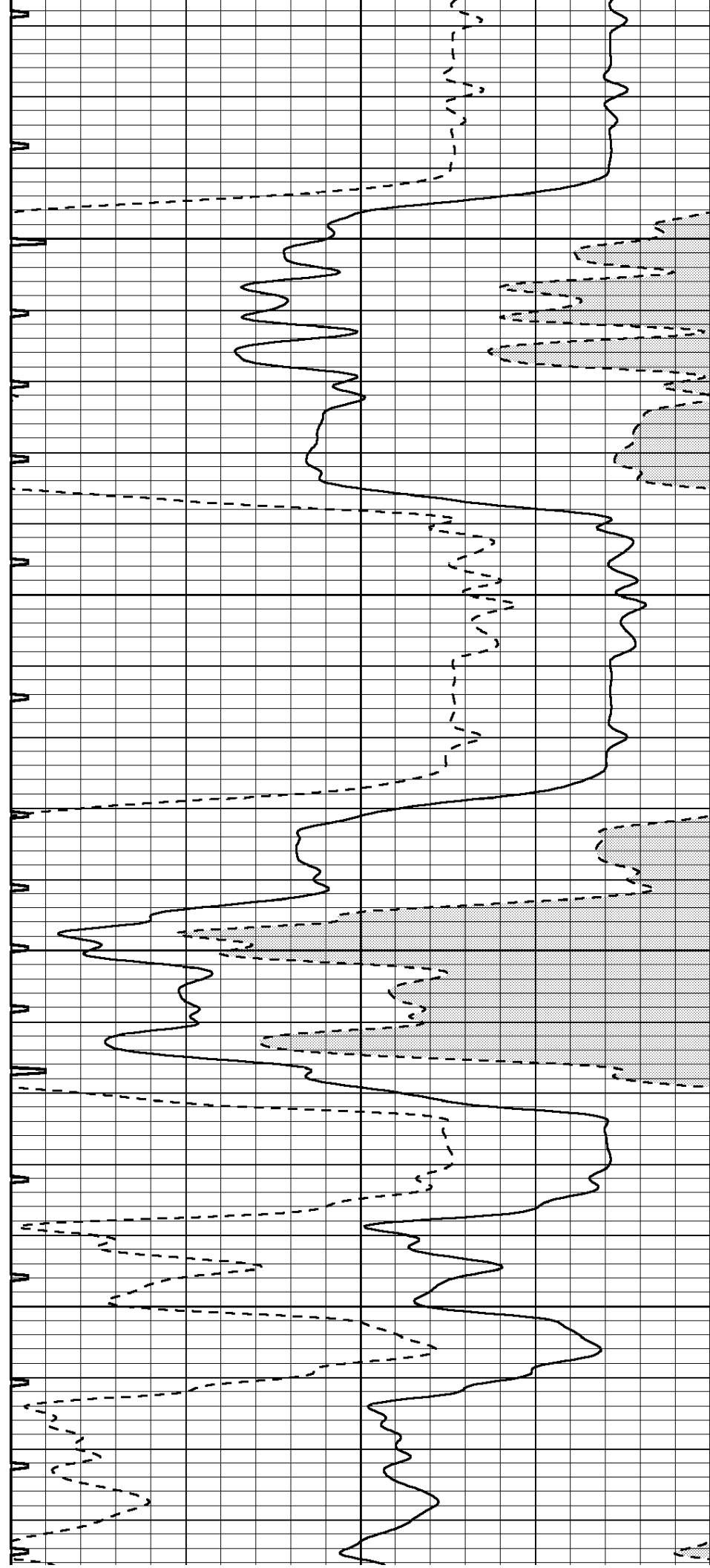


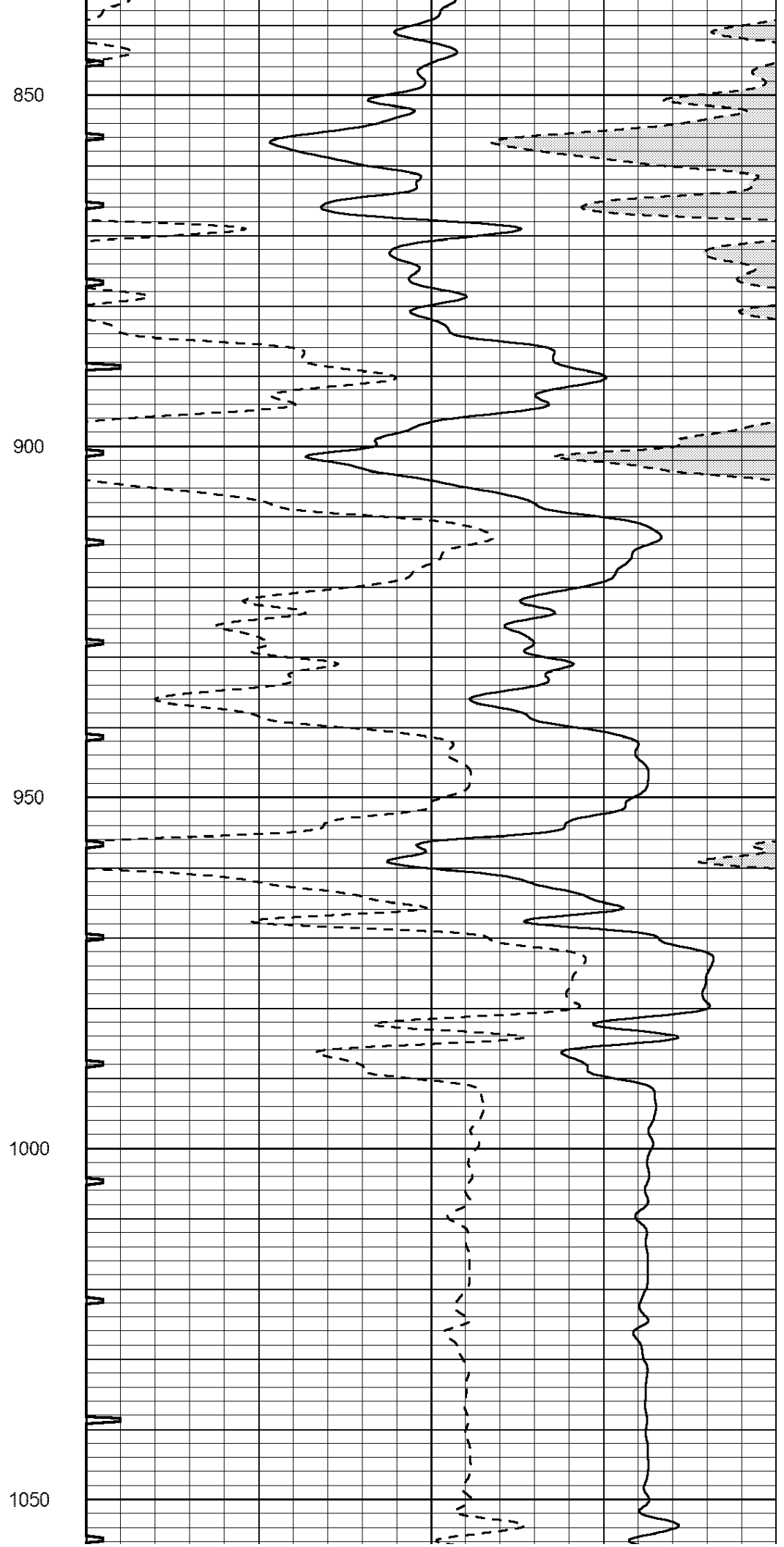
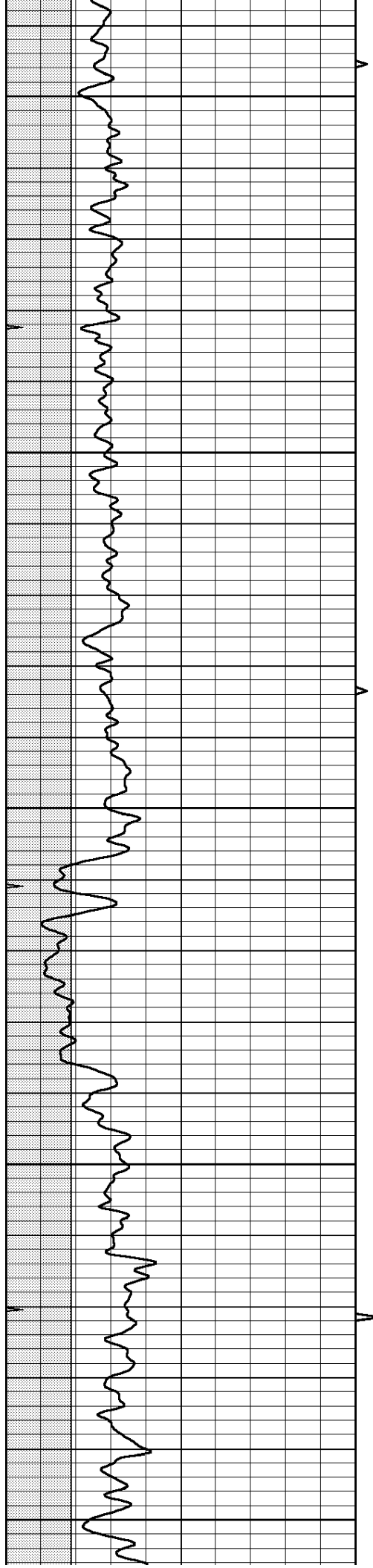
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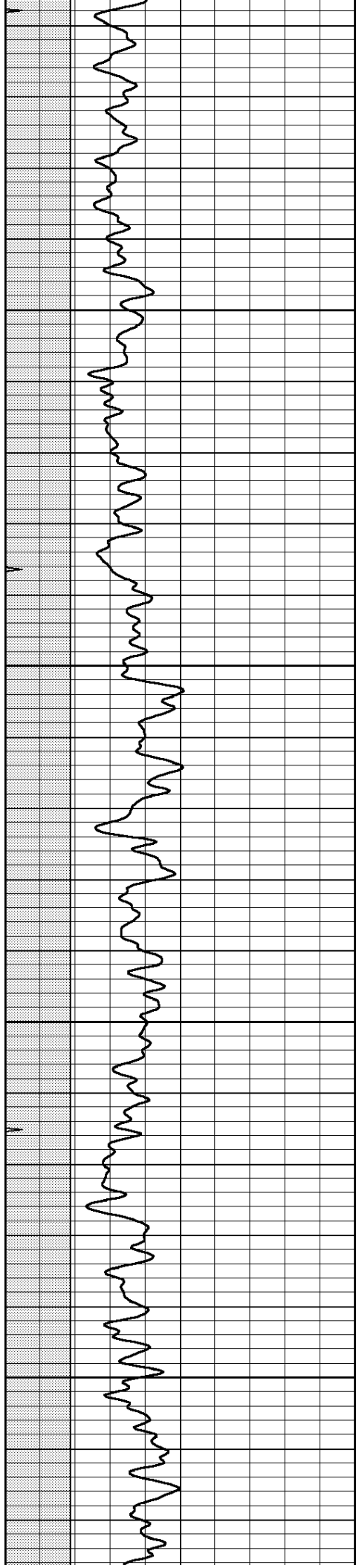
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800





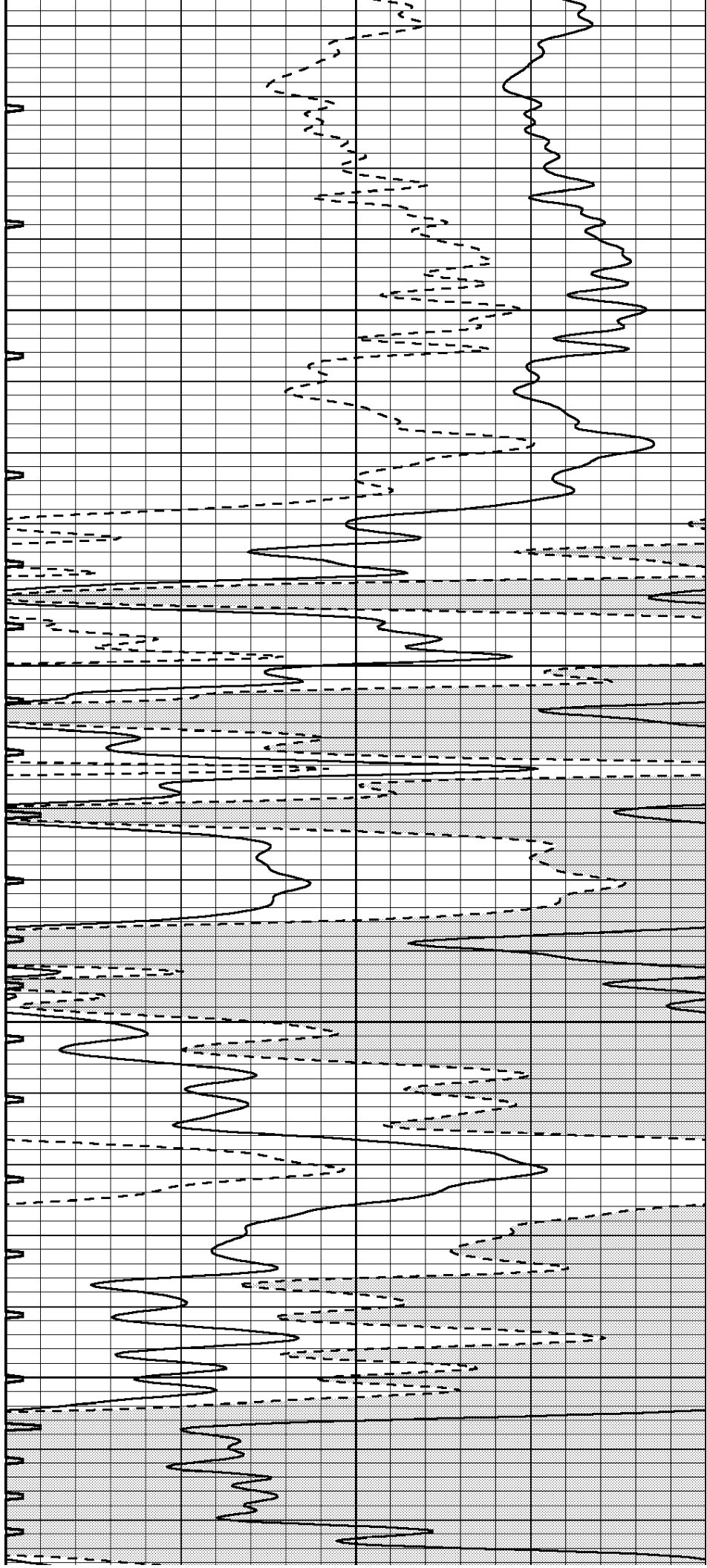


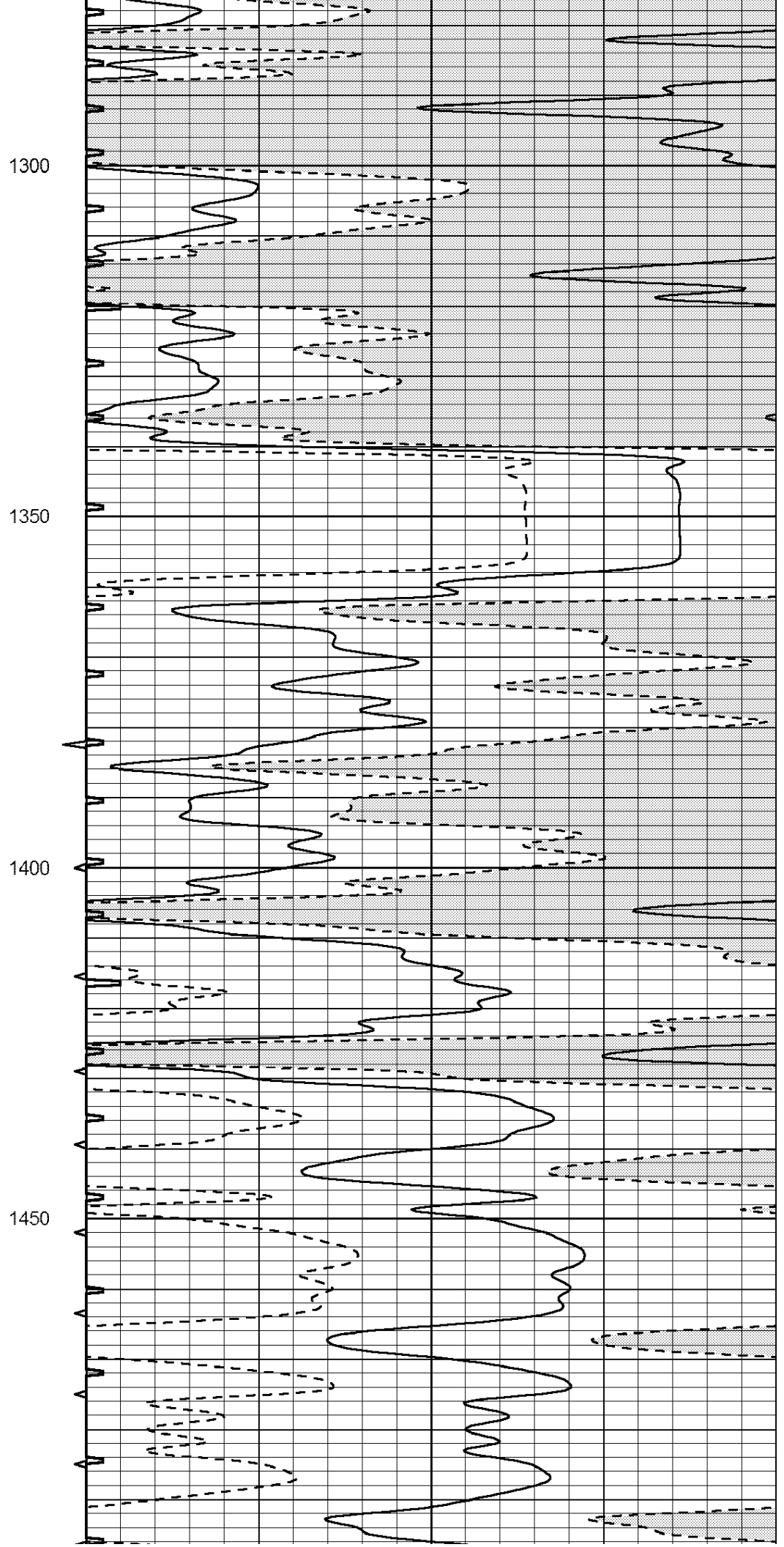
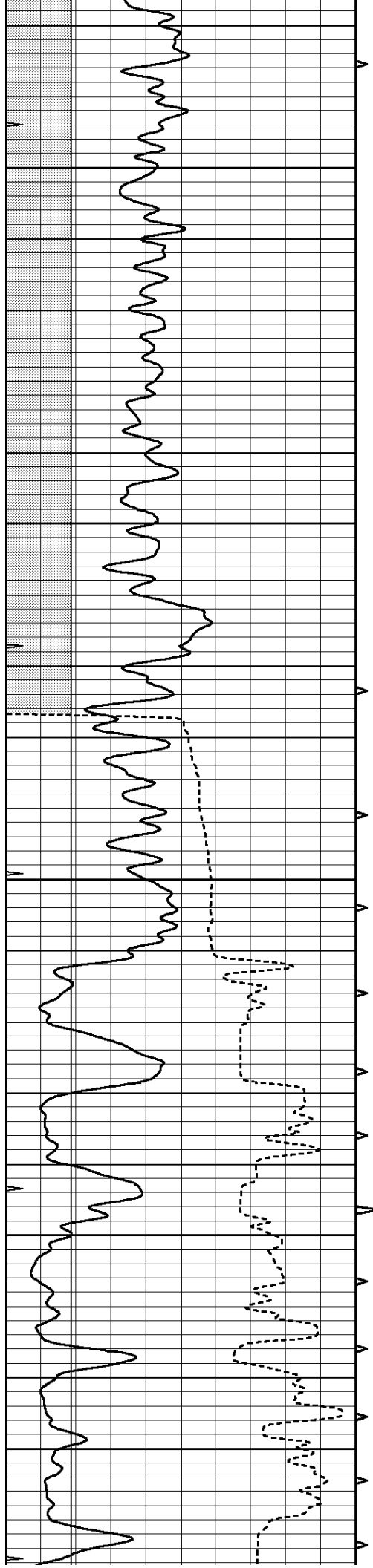
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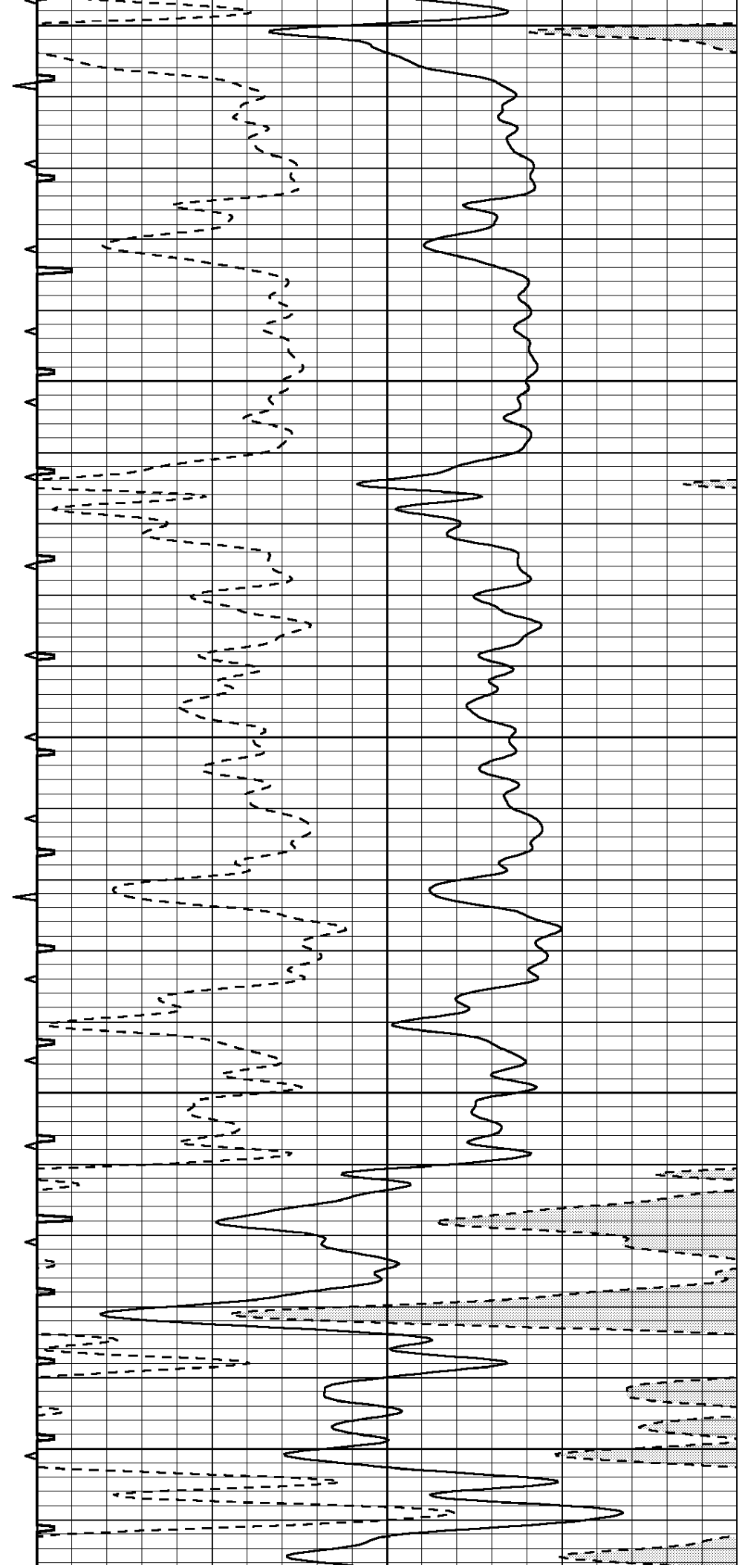
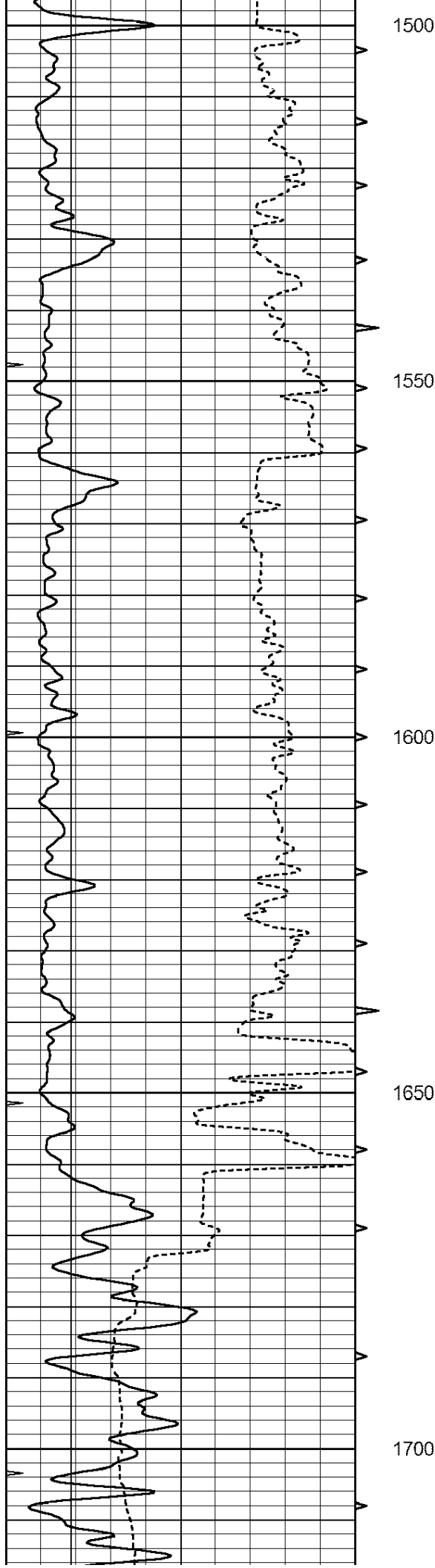
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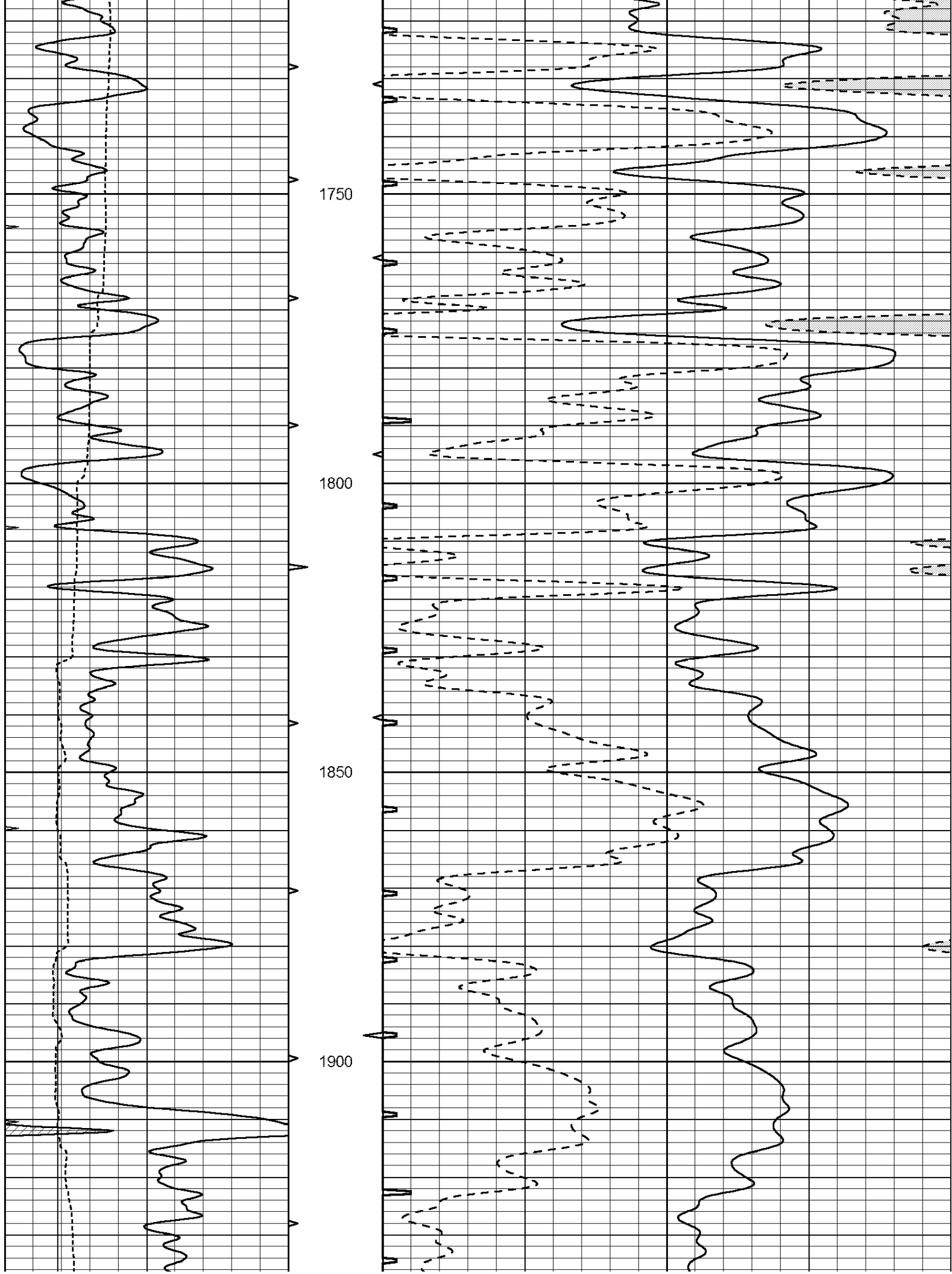
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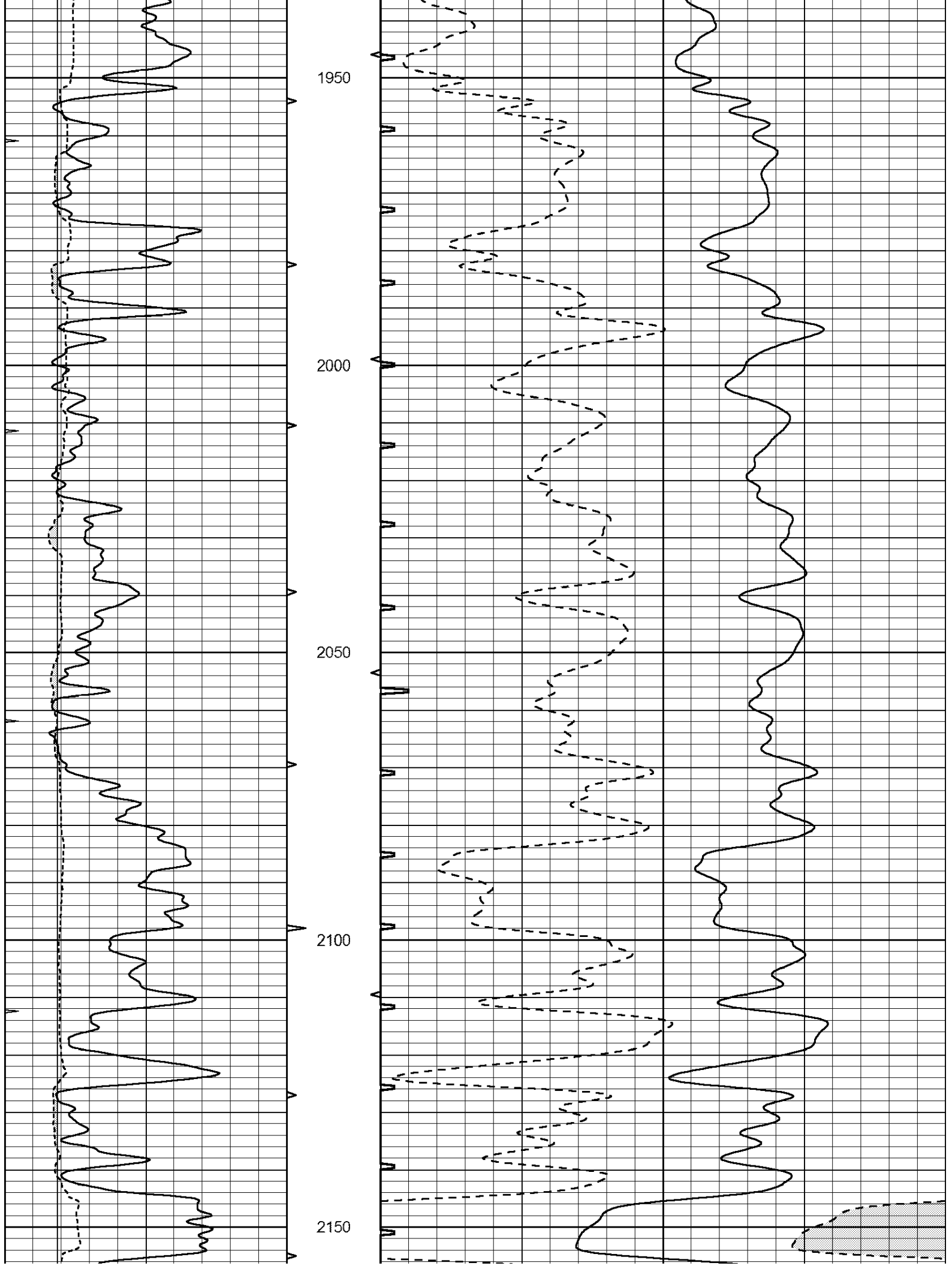
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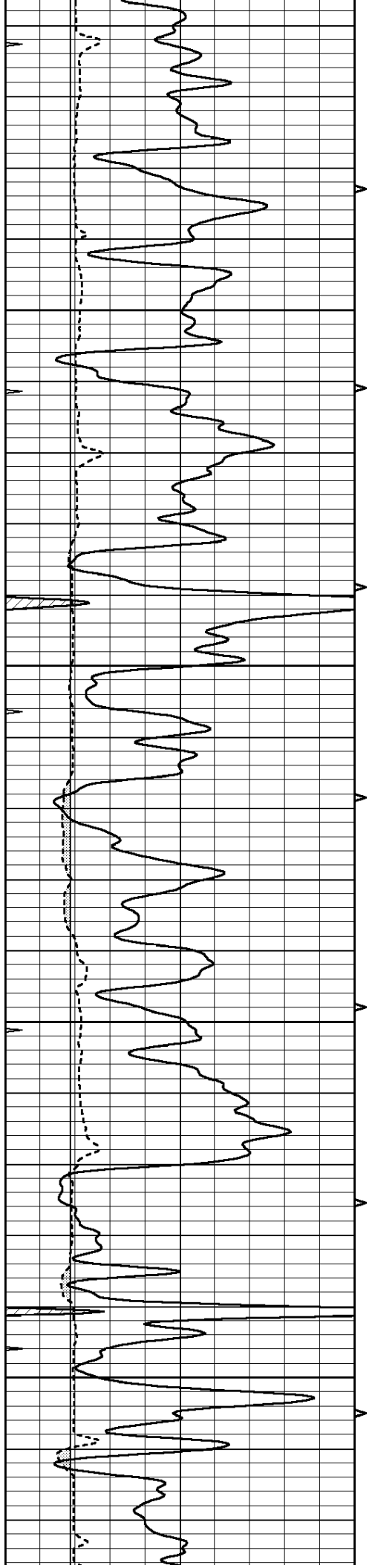










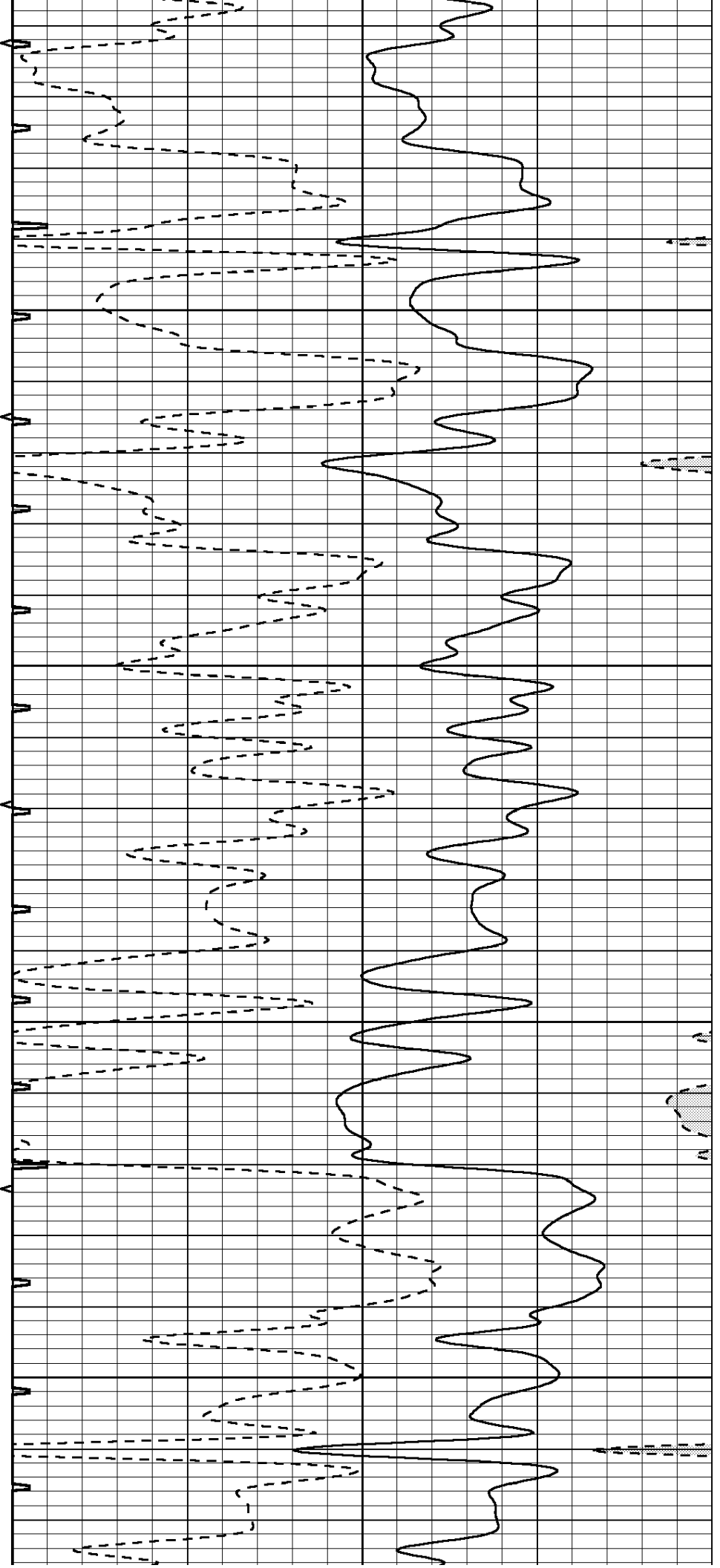


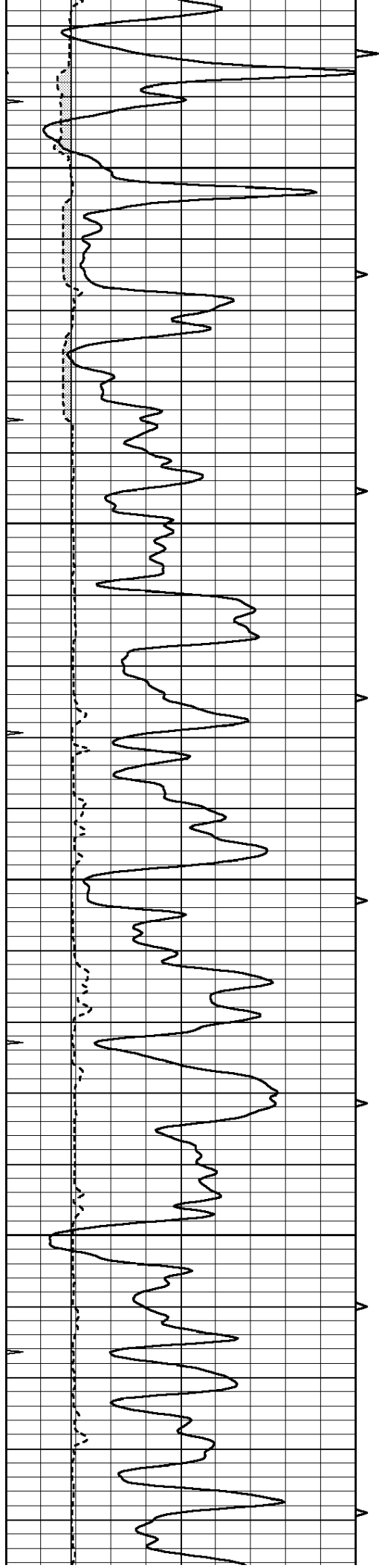
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2250

300

350



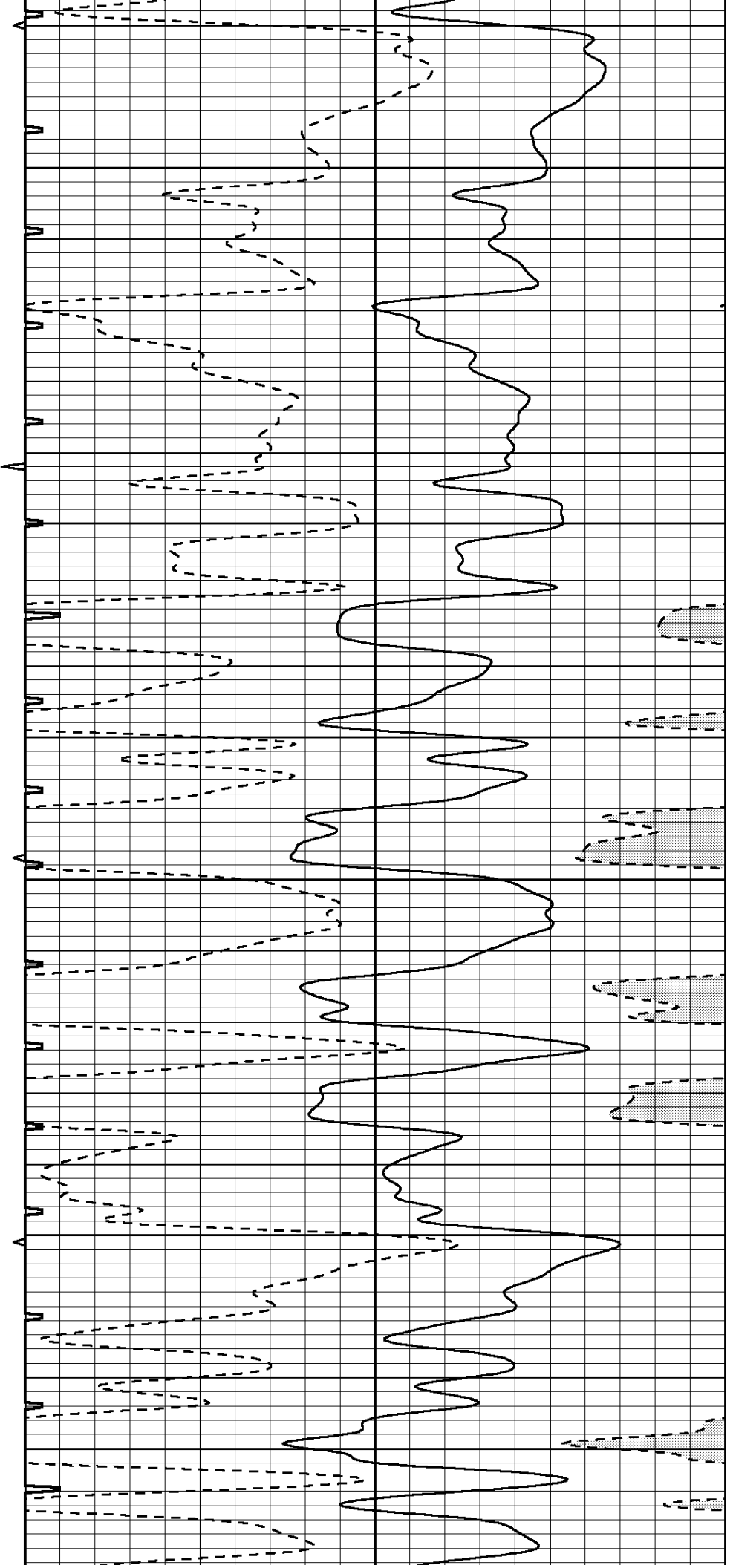


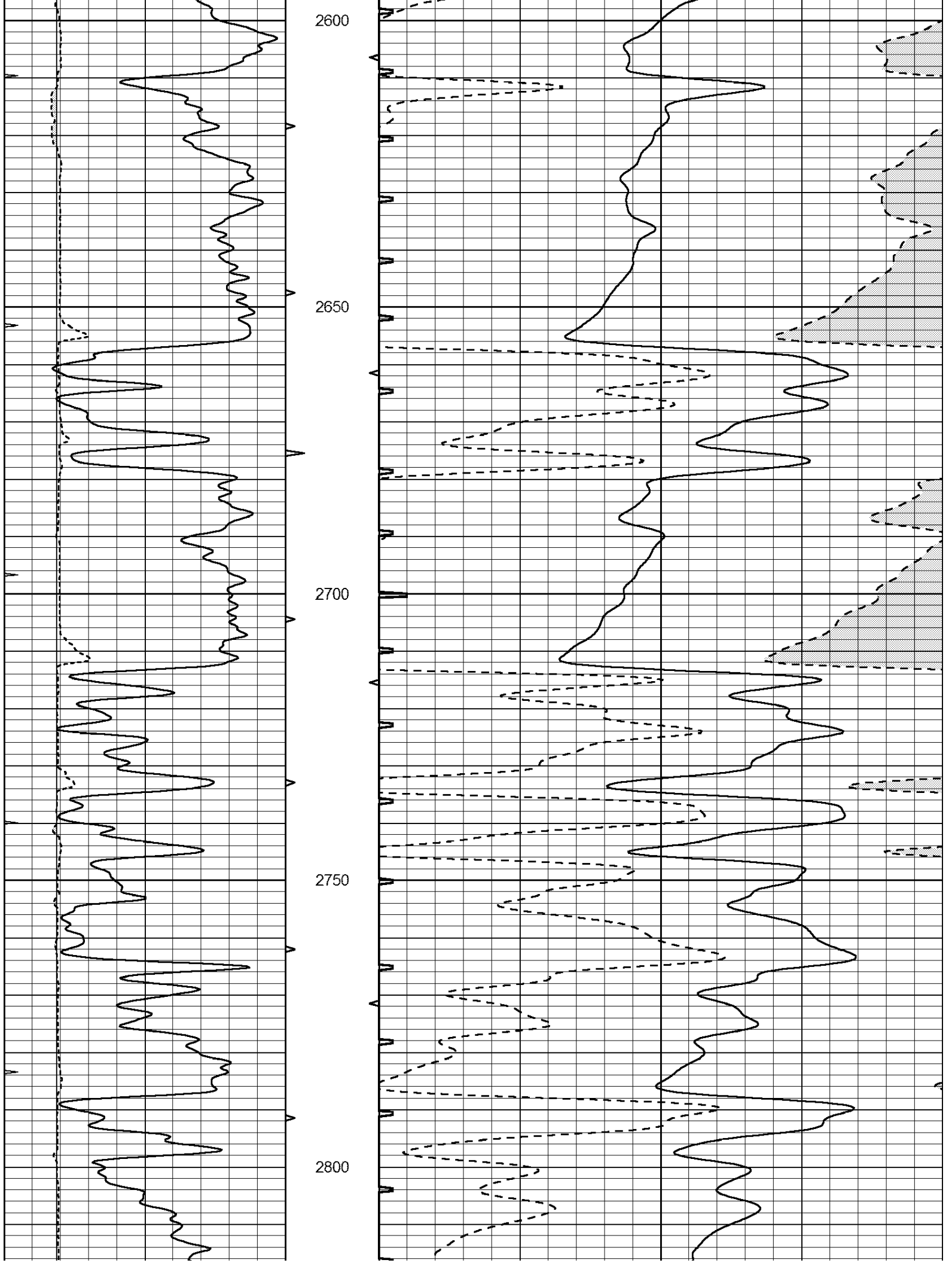
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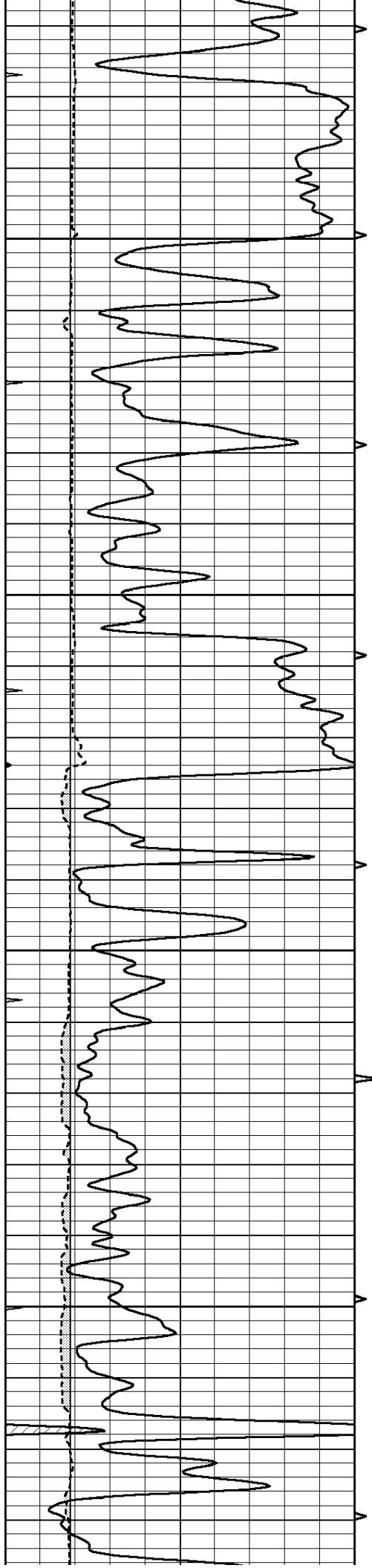
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2500

2550





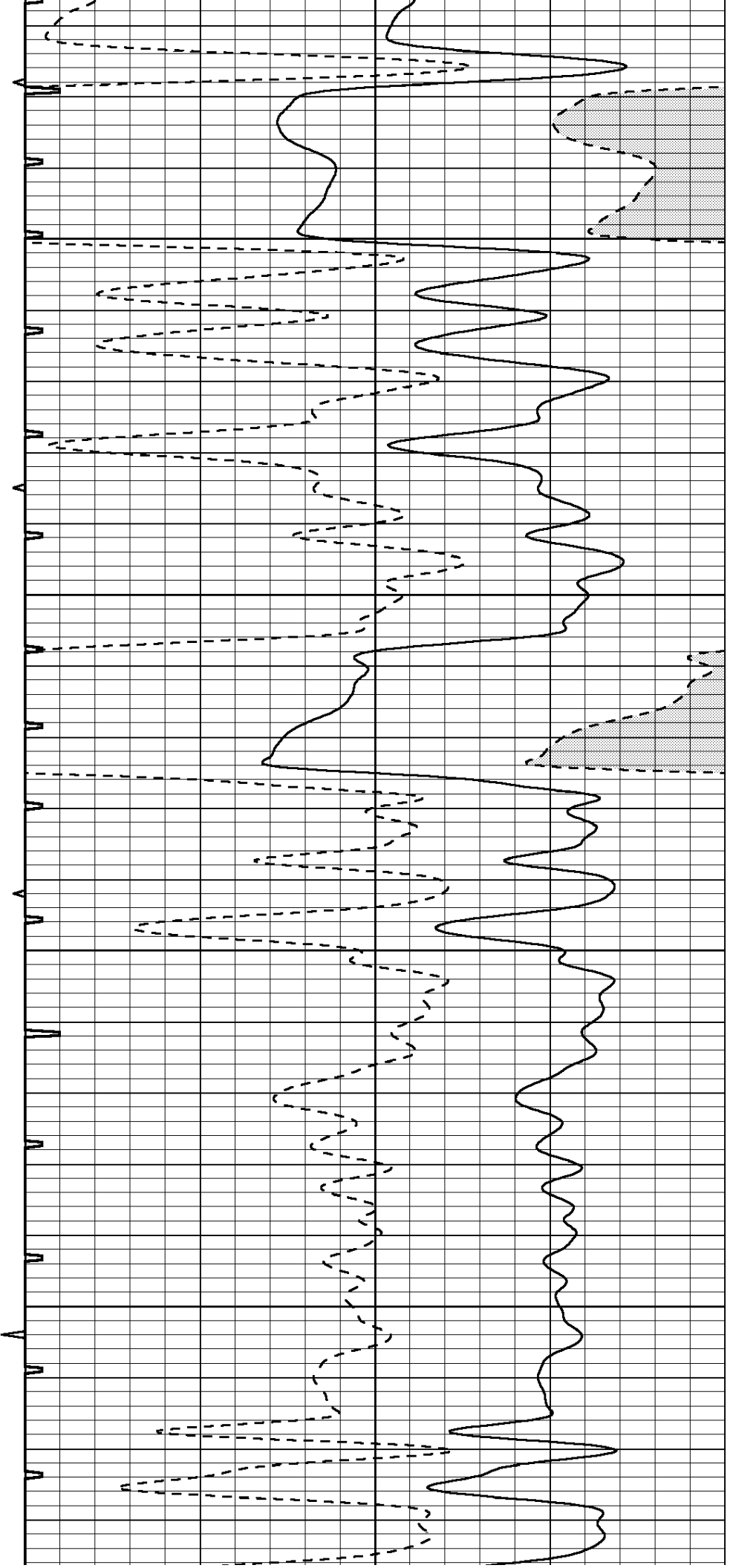


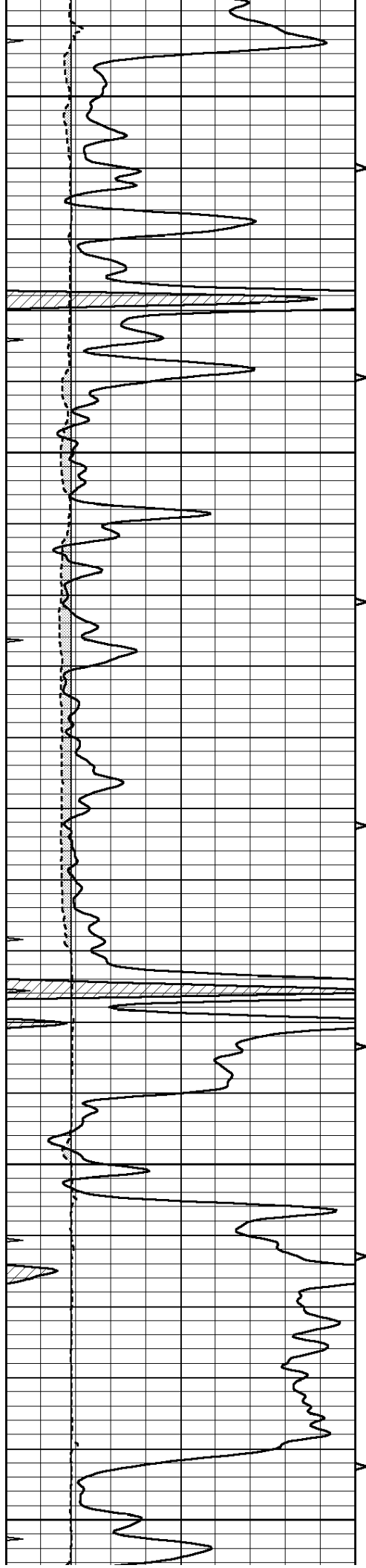
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2900

2950

3000





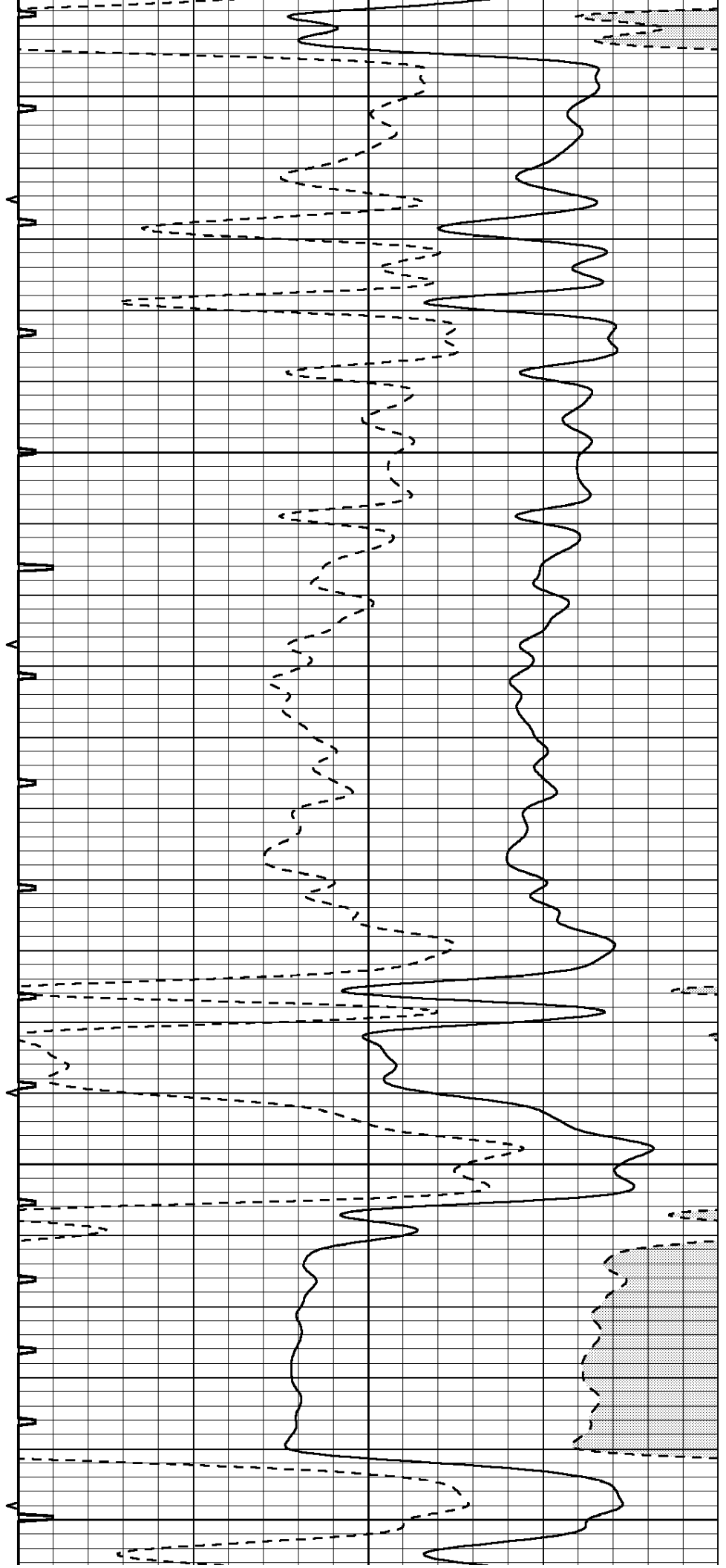
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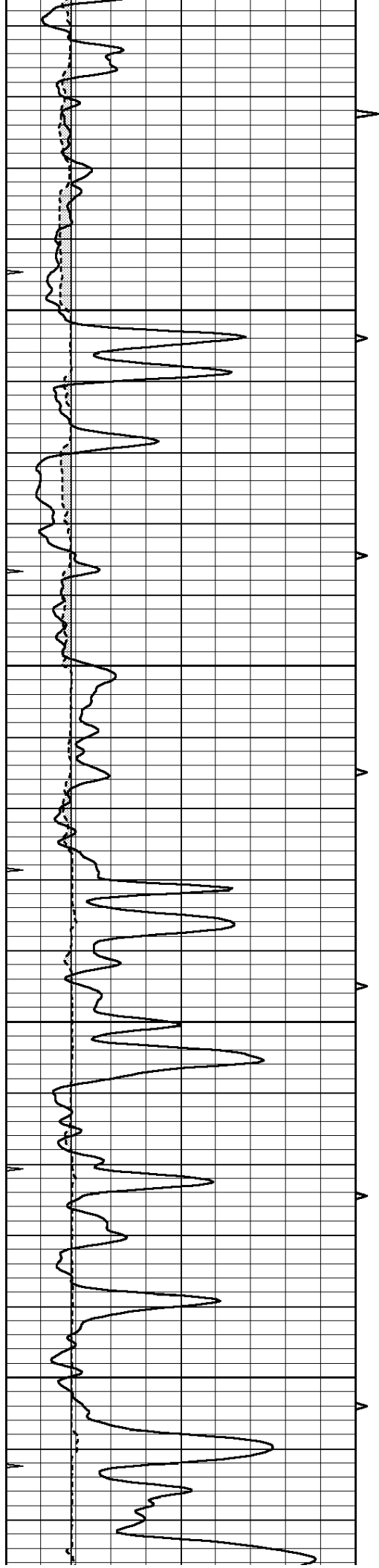
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3150

3200

3250



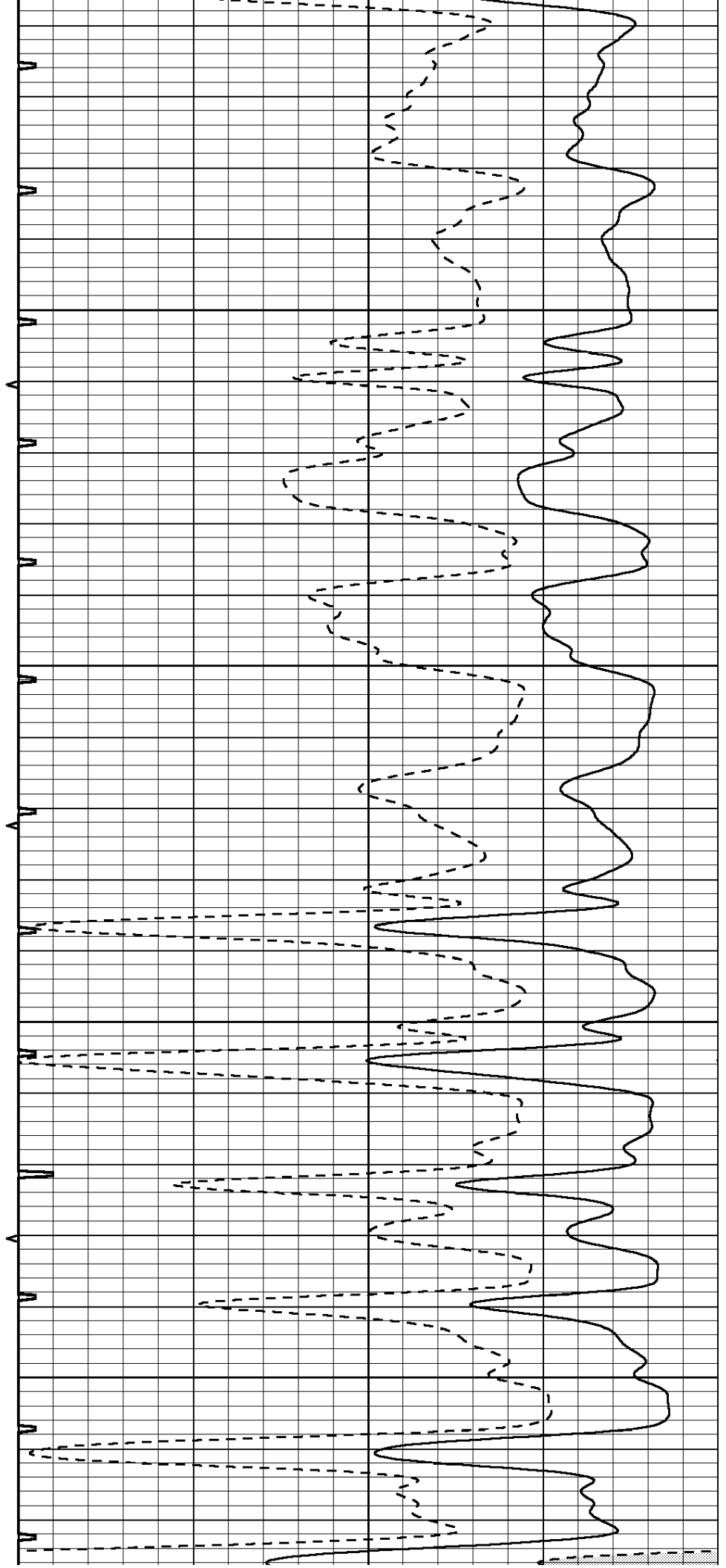


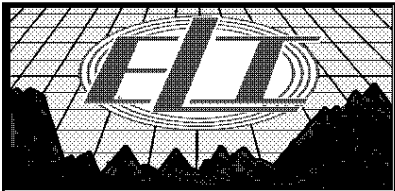
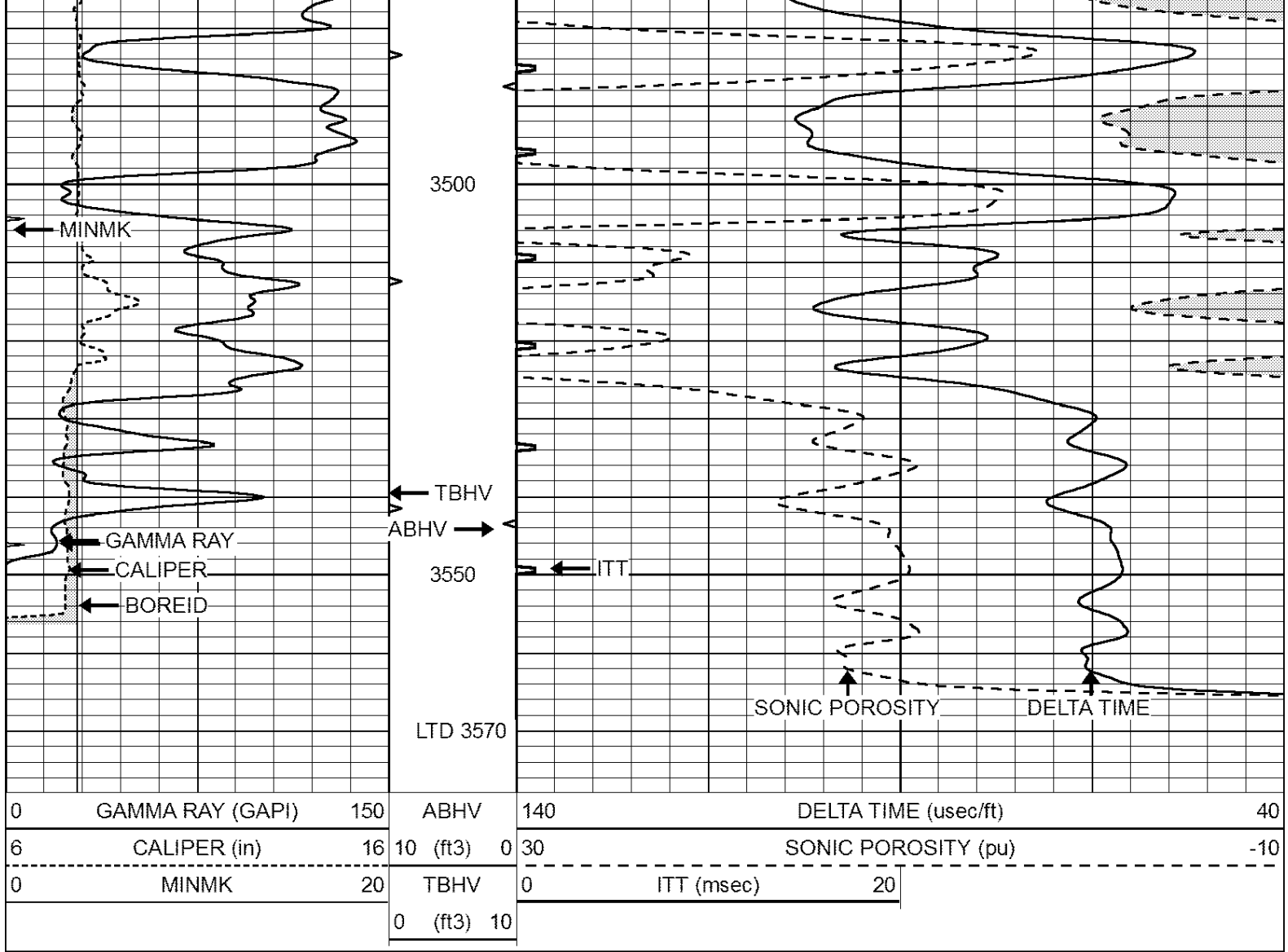
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3350

3400

3450

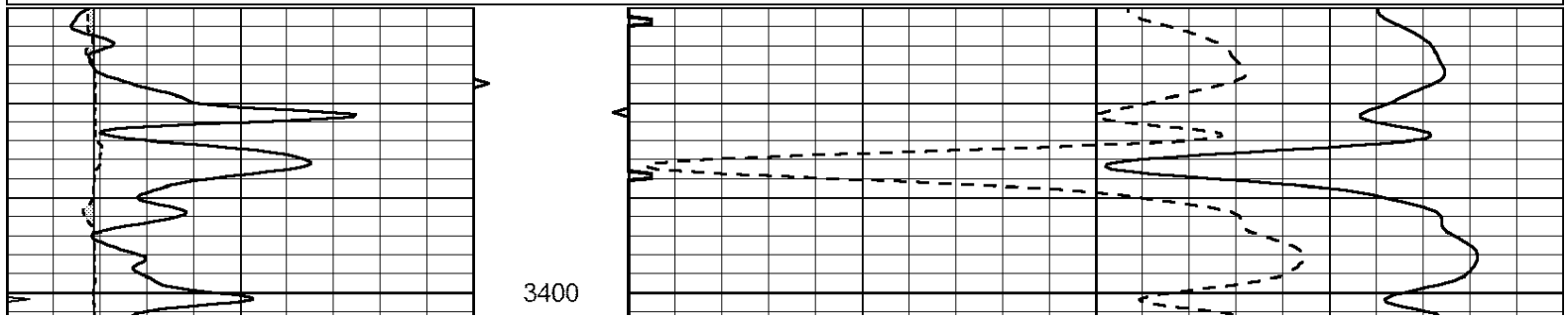


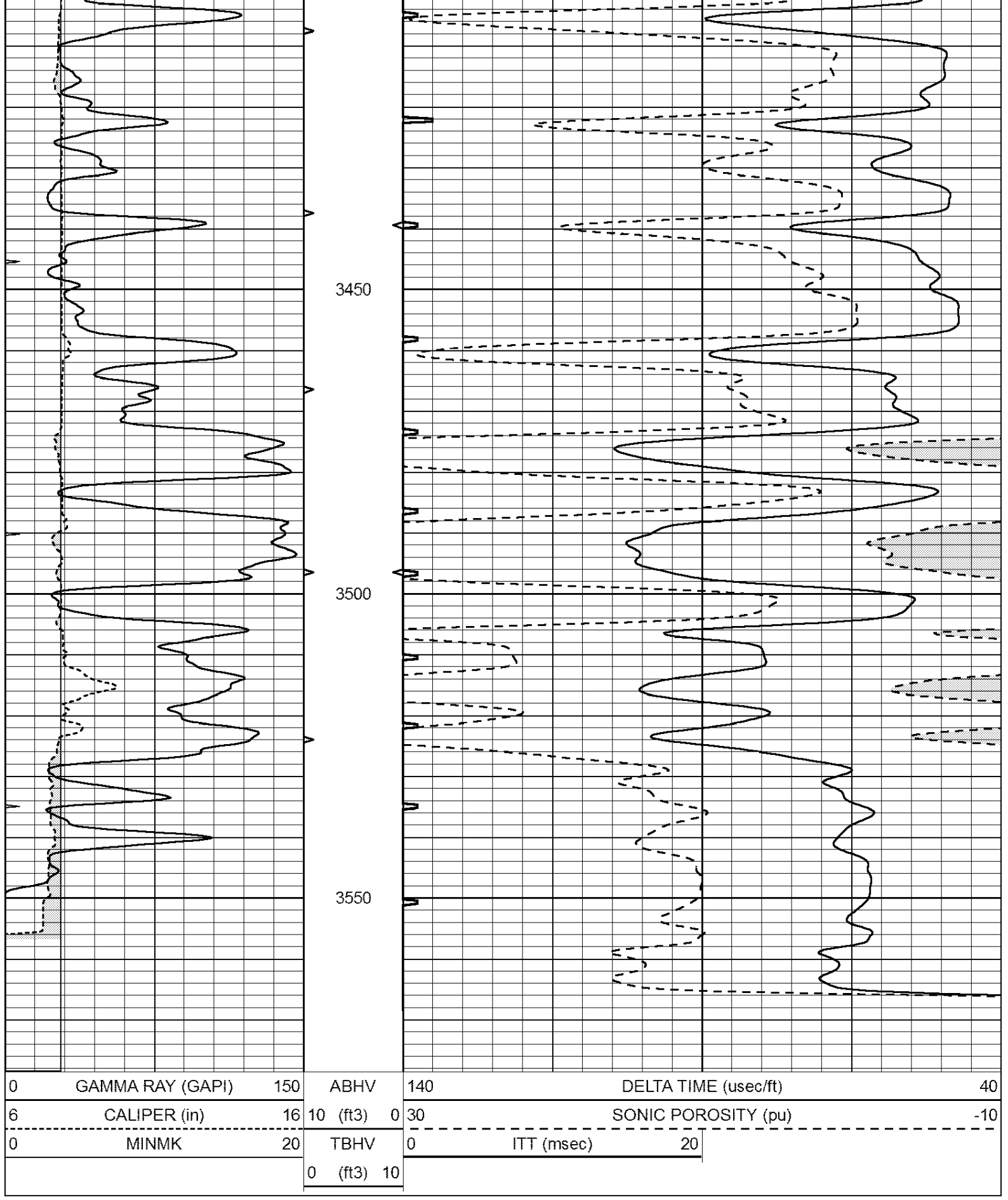


REPEAT SECTION

Database File: 2117ddn.db
 Dataset Pathname: pass6RP
 Presentation Format: _slt
 Dataset Creation: Mon Dec 11 06:55:33 2017
 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		





Calibration Report

Database File: 2117ddn.db
 Dataset Pathname: pass6RP
 Dataset Creation: Mon Dec 11 06:55:33 2017

MICRO Calibration Report

Serial Number:	MICRO6
Tool Model:	PROBE
Performed:	Wed Aug 16 17:13:39 2017

Caliper Calibration:	Gain=3.960	Offset=4.551
References	Low Cal	High Cal
Readings	7.000	14.000
	0.555	2.323

1.5" Calibration:	Gain=38.075	Offset=-0.400
References	Low Cal	High Cal
Readings	0.000	20.000
	0.004	1.196

2" Calibration:	Gain=48.000	Offset=-1.000
References	Low Cal	High Cal
Readings	0.000	20.000
	0.006	0.913

Gamma Ray Calibration Report

Serial Number:	GR2
Tool Model:	OPEN
Performed:	Wed Aug 16 17:13:40 2017

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3800	GAPI/cps