



SUPERIOR
Black Lick, Pa.
Mercer, Pa.
Wooster, Oh.
Cleveland, Ok.
Trinidad, Co.

COMPENSATED DENSITY LOG

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Tanana 33-4	Well	Tanana 33-4
Field	Purgatorie River	Field	Purgatorie River
County	Las Animas	County	Las Animas
State	CO	State	CO
Location:	API # : 05-071-09294-00 2689' FSL & 1962' FEL	Other Services	Sil
Permanent Datum	SEC 4 TWP 32S RGE 66W	Elevation	K.B. 7585' D.F. ----- G.L. 7576'
Log Measured From	Ground level	Elevation	7576'
Drilling Measured From	Kelly Bushing 9' A. G. L. Kelly Bushing		
Date	10-1-07		
Run Number	One		
Depth Driller	2550'		
Depth Logger	2538'		
Bottom Logged Interval	2536'		
Top Log Interval	Surface Casing		
Casing Driller	8.625@640'		
Casing Logger	642'		
Bit Size	7 7/8"		
Type Fluid in Hole	Water		
Density / Viscosity	///		
pH / Fluid Loss	///		
Source of Sample	///		
Rm @ Meas. Temp	///		
Rmf @ Meas. Temp	///		
Rmc @ Meas. Temp	///		
Source of Rmf / Rmc	///		
Rm @ BHT	///		
Time Circulation Stopped	6:30 AM		
Time Logger on Bottom	9:00 AM		
Maximum Recorded Temperature	106 DEG F		
Equipment Number	T0700		
Location	Trinidad		
Recorded By	Karl Lucero		
Witnessed By	Mr. Jeremy Odell		

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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

Density Porosity Presented On Sandstone Matrix
ABHV Calculated for 4 1/2 Casing.

Well Directions:

125 to exit 30 to Gulnare, Take left at Gravel Pit, stay right at creek, top of hill, 3rd left to drive through locati



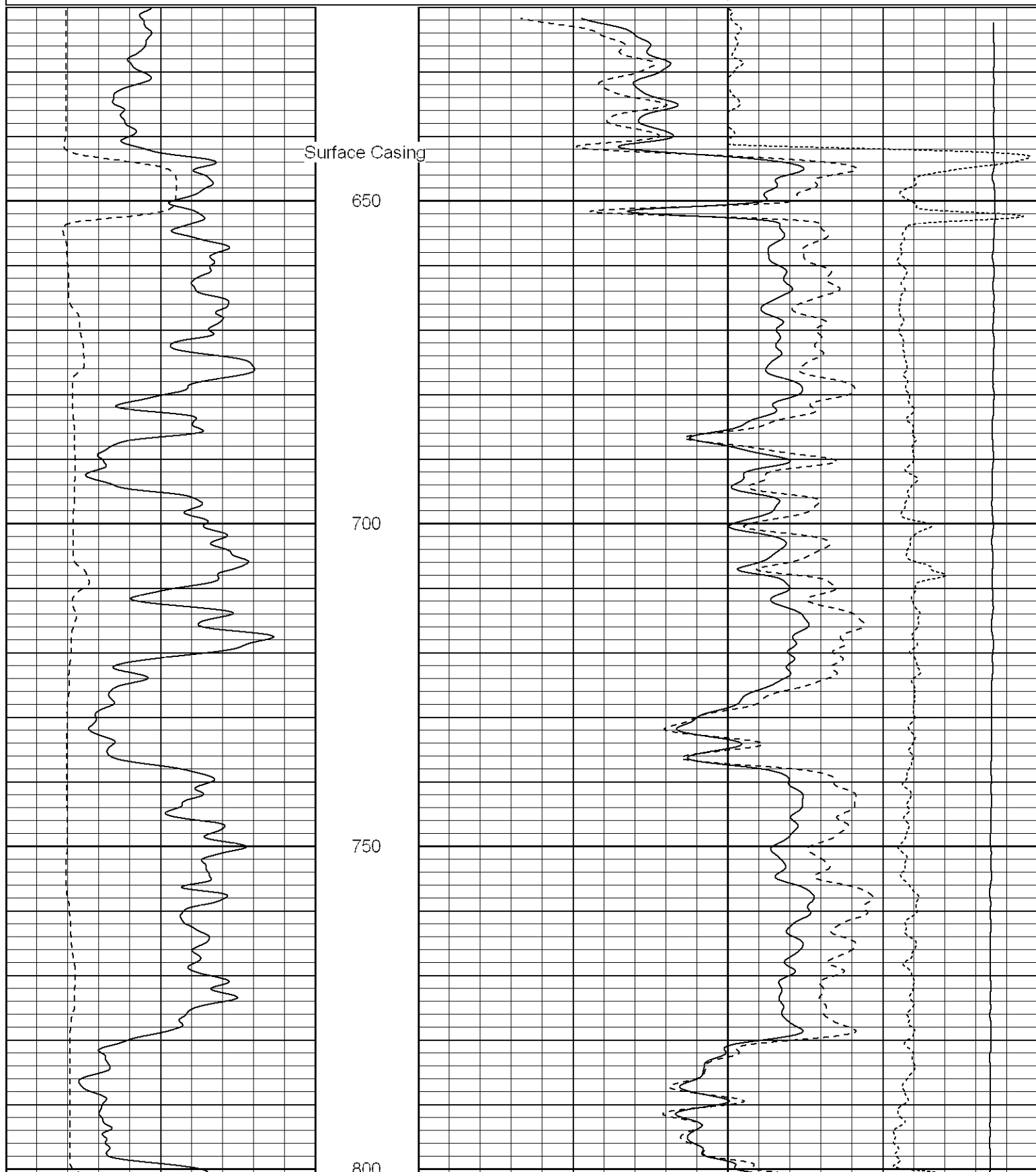
SUPERIOR

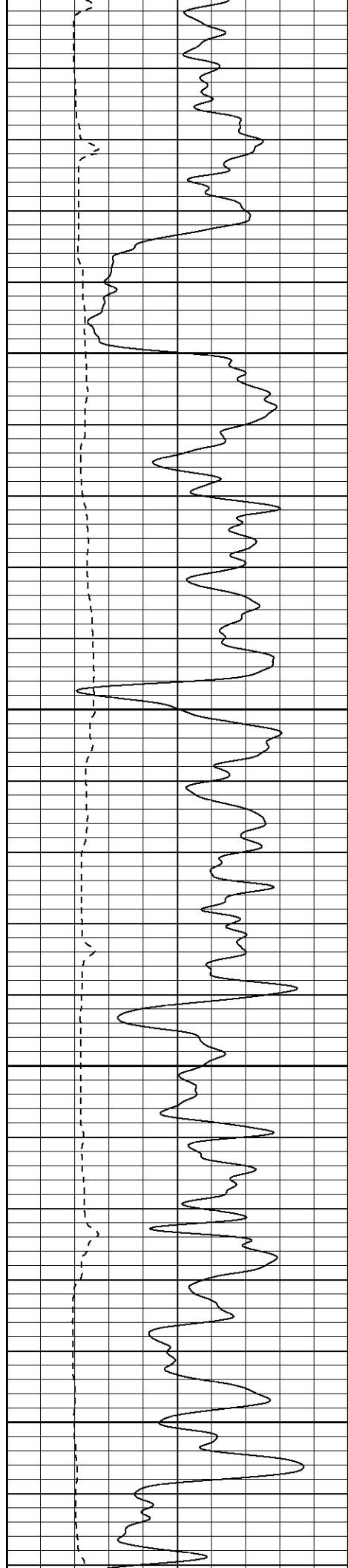
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Main Pass

Database File: tanana.db
Dataset Pathname: pass7
Presentation Format: cdl
Dataset Creation: Mon Oct 01 12:25:30 2007
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	2	RHOB (g/cc)		3
6	DCAL (in)	16	30	DPOR (pu)		-10
				-0.5	RHOC (g/cc)	0.5
				5000	LTEN (lb)	0





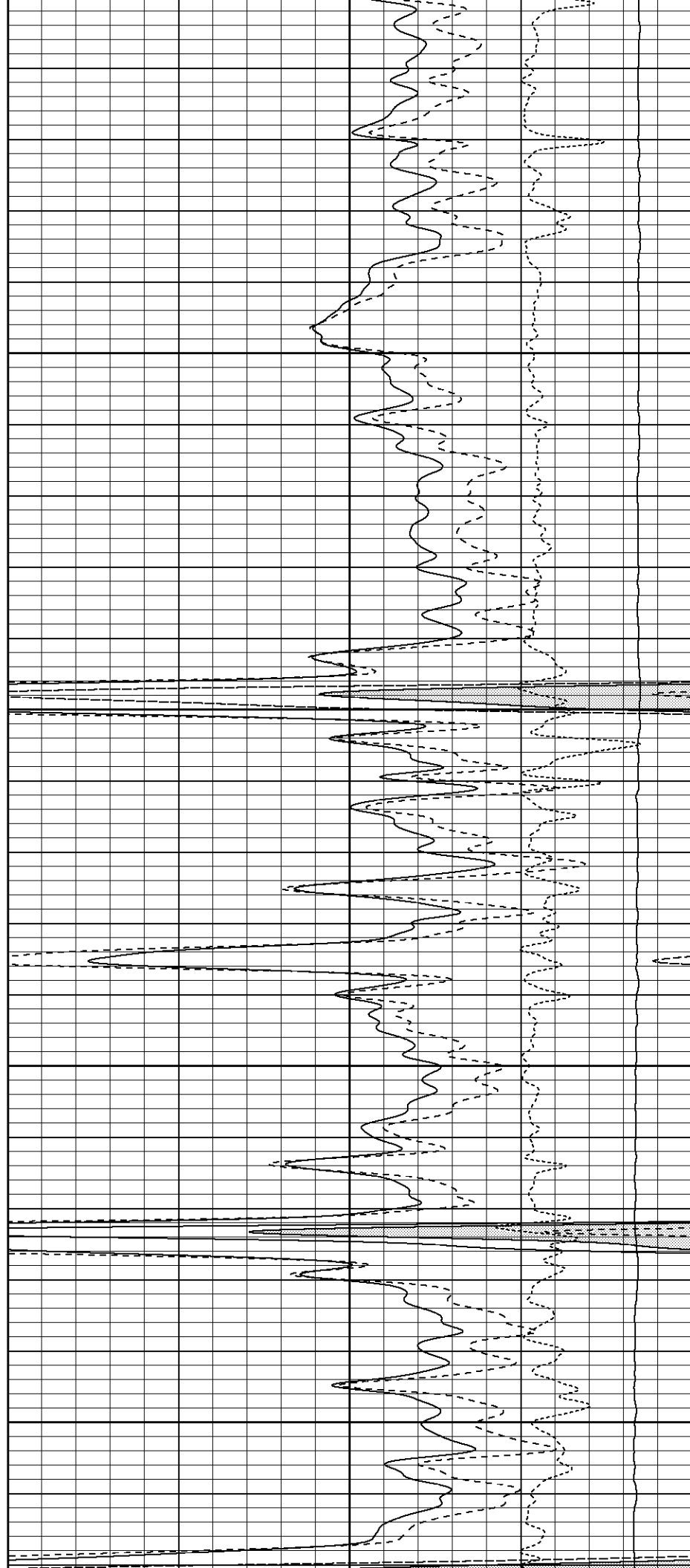
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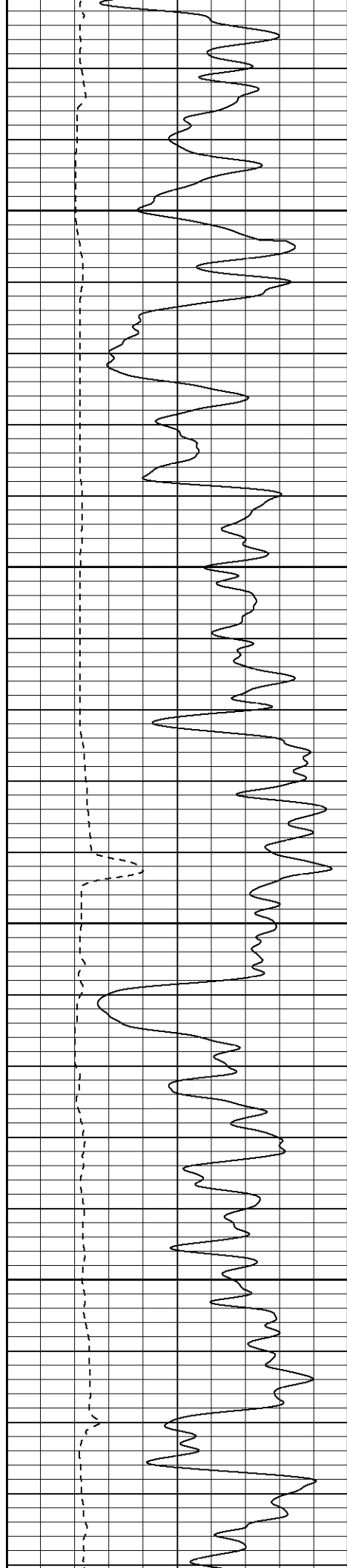
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900

950

1000



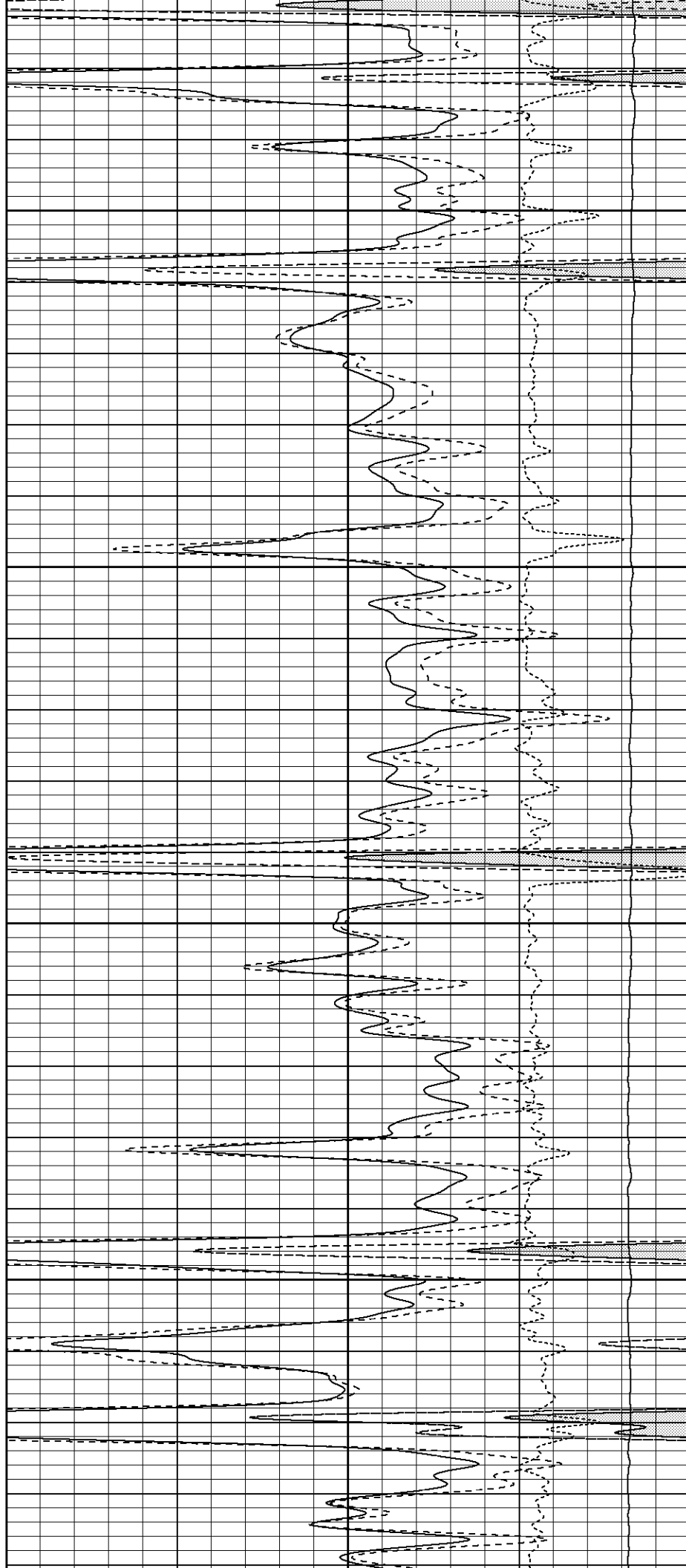


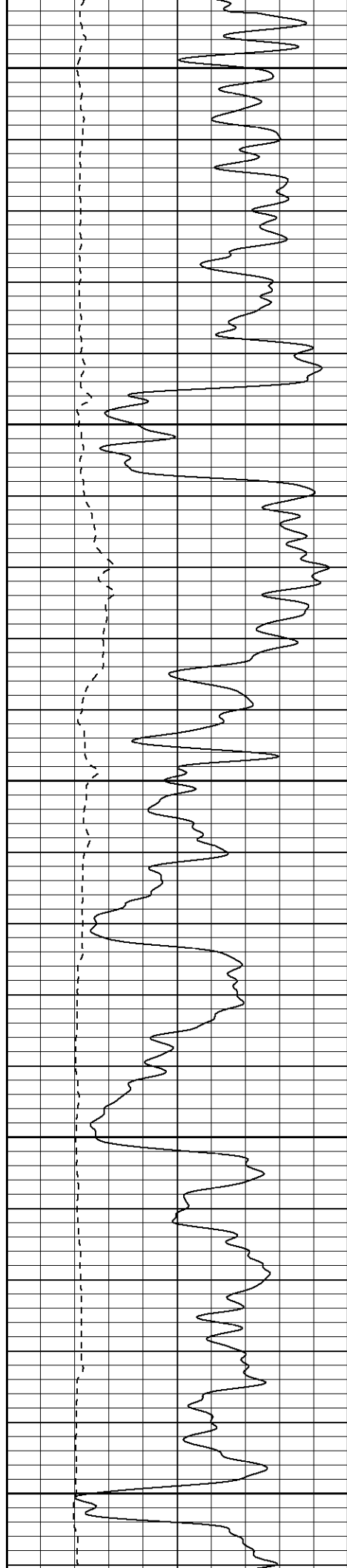
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1100

1150

1200





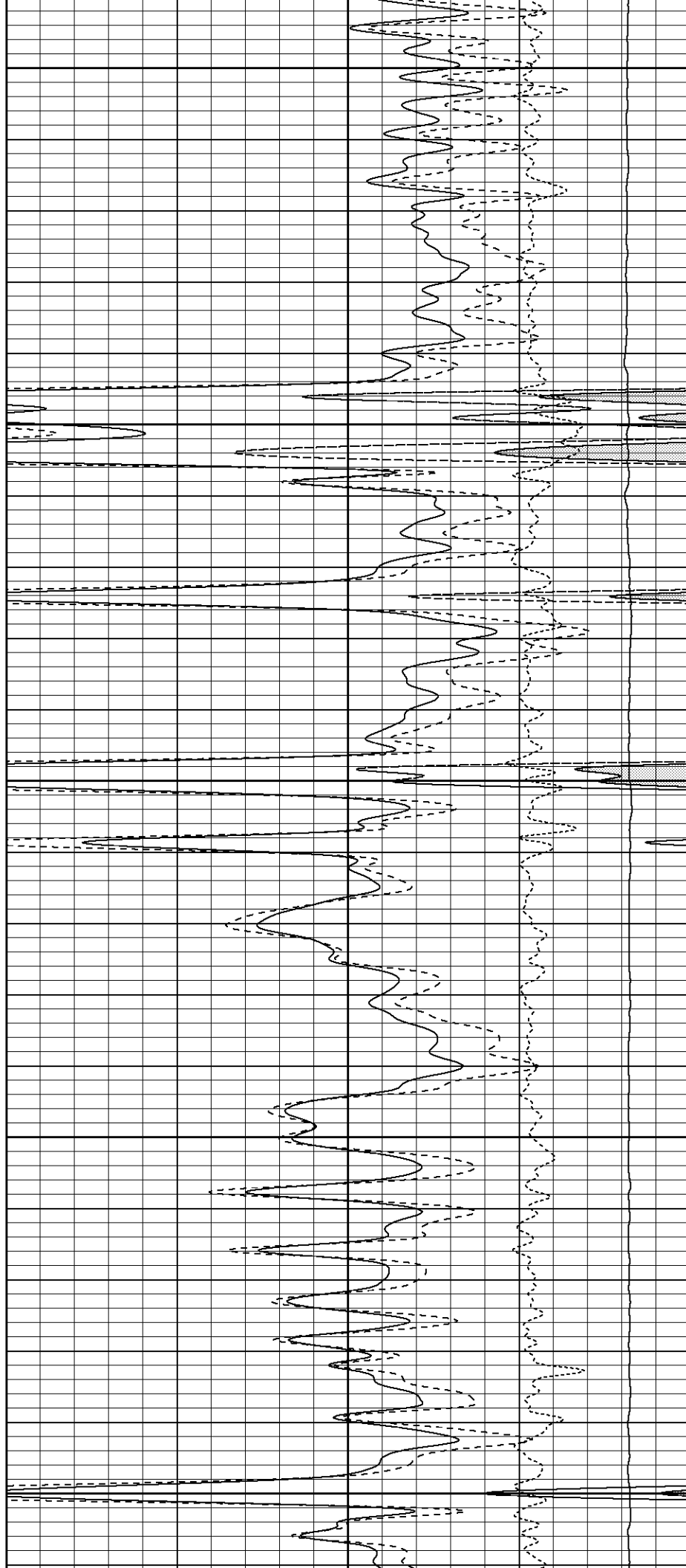
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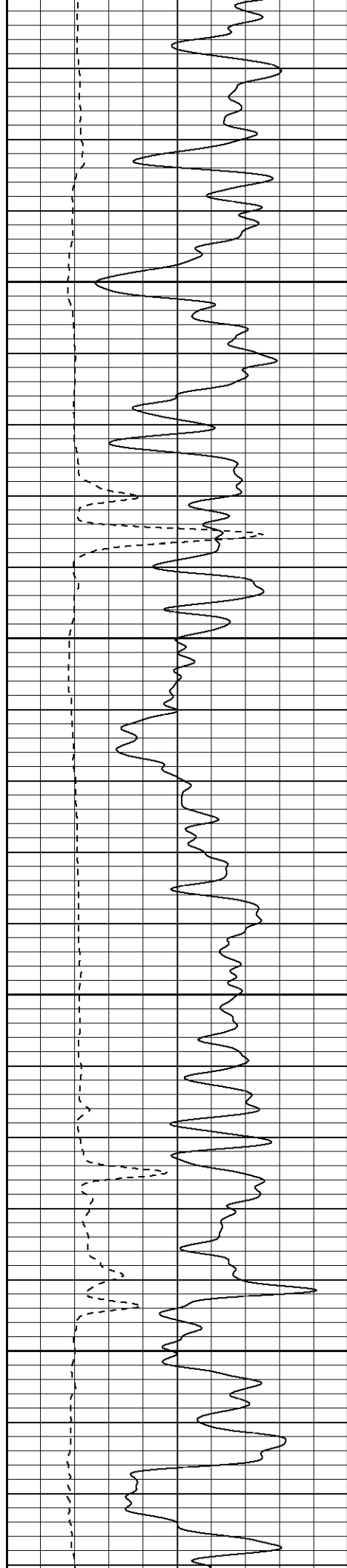
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1350

1400

1450



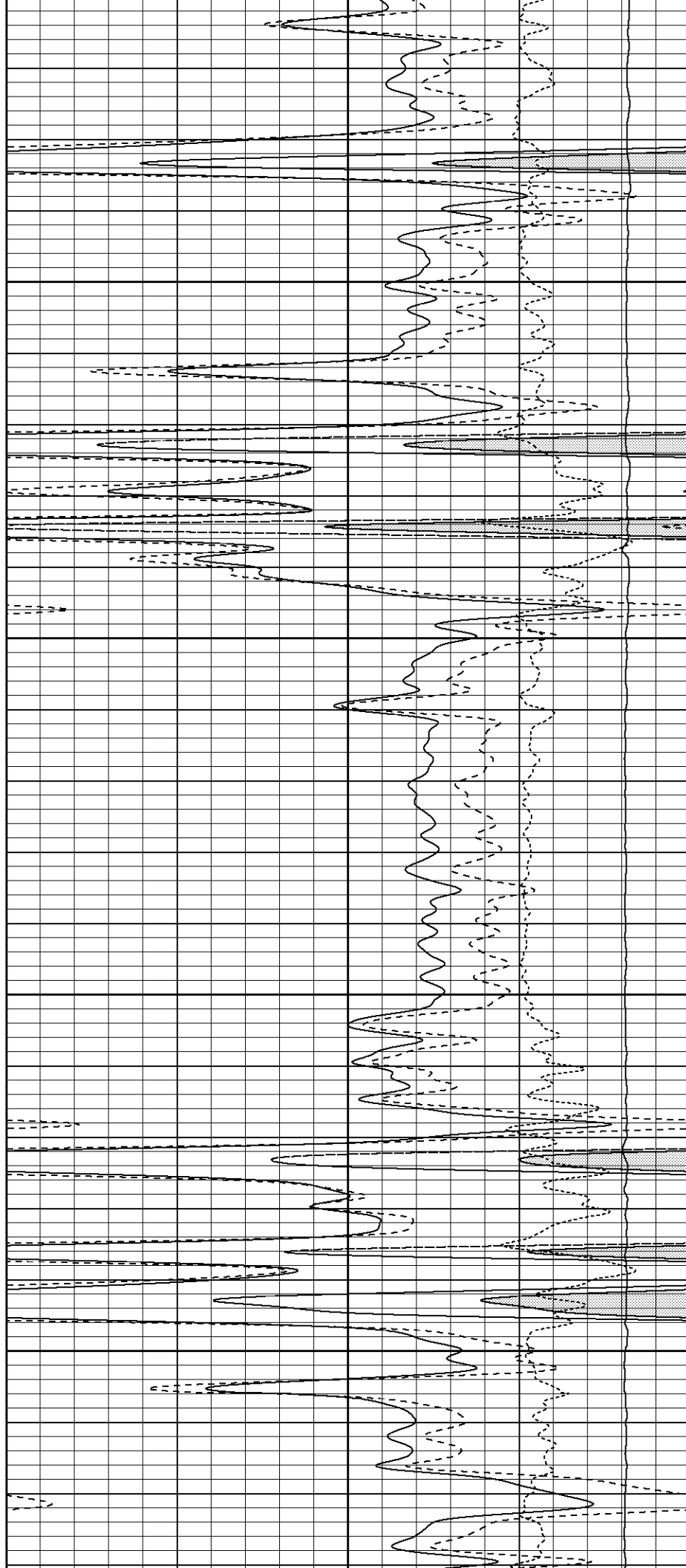


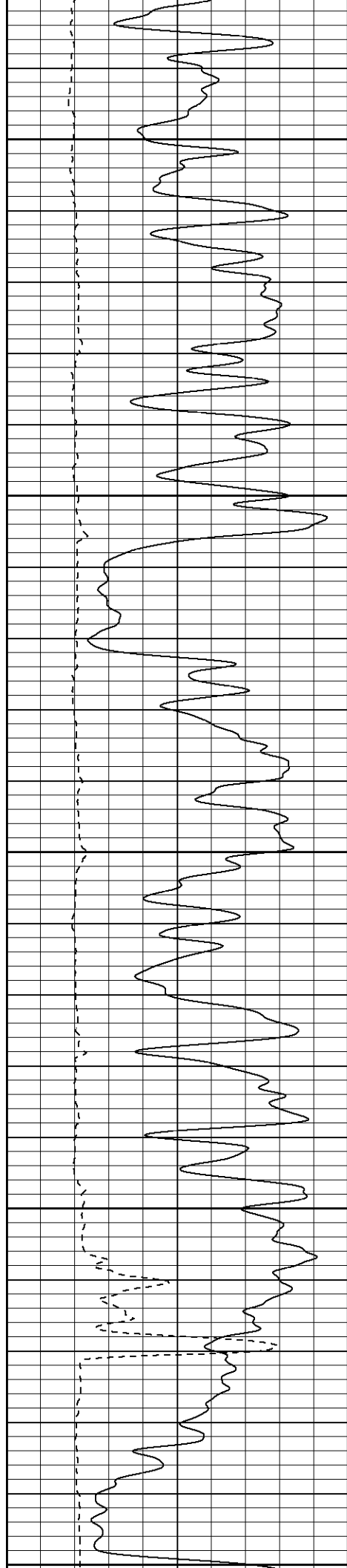
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1650





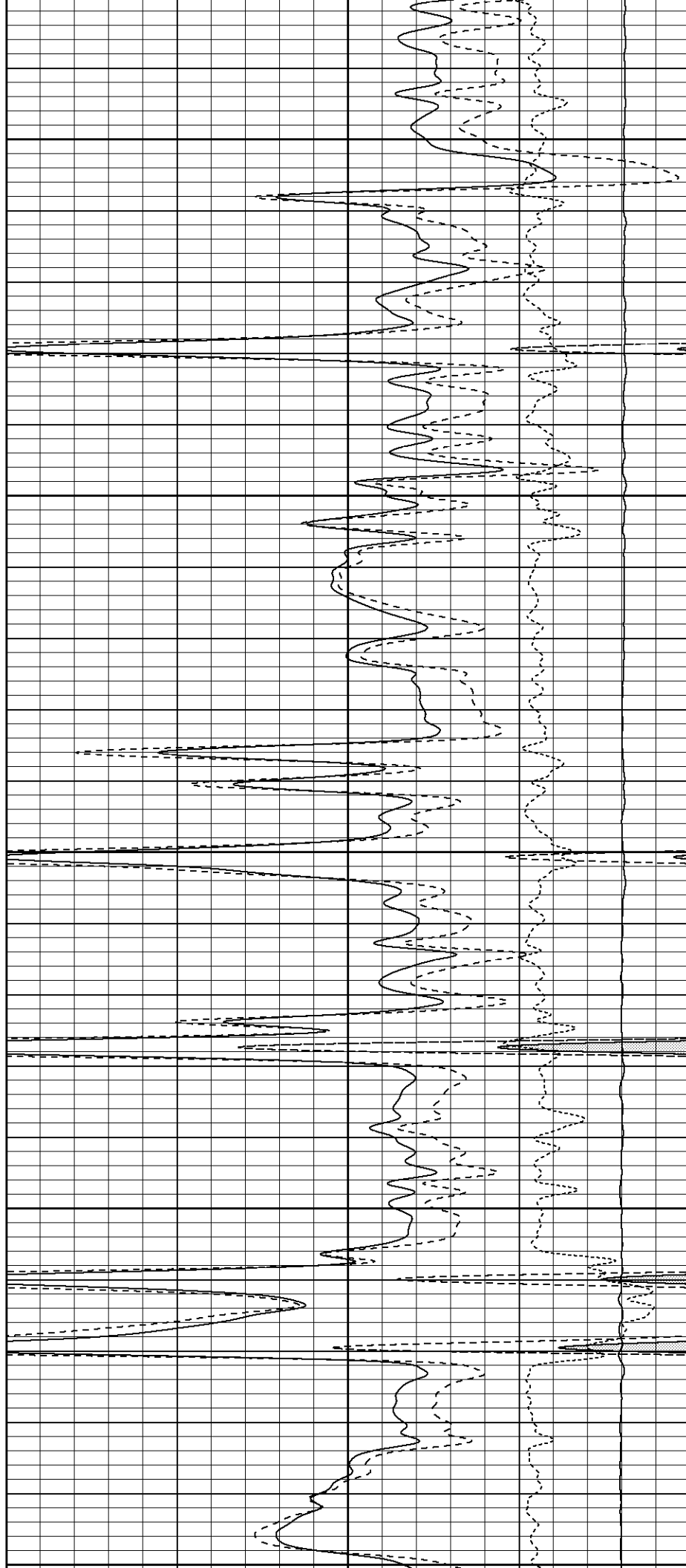
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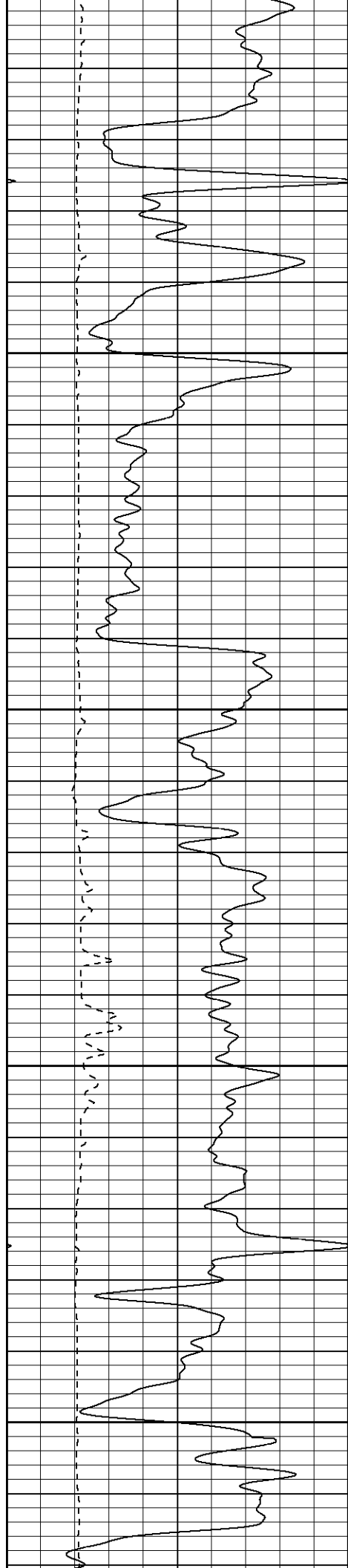
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1800

1850

1900





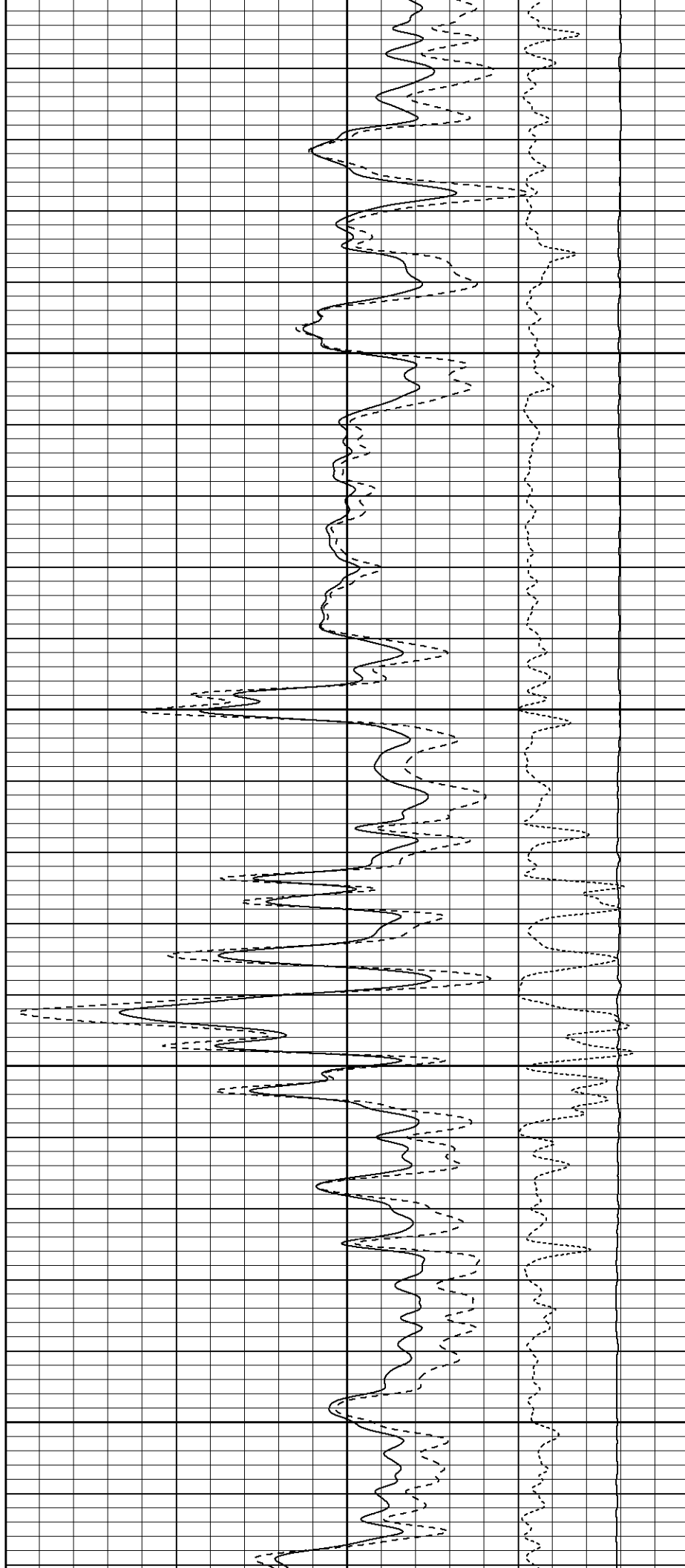
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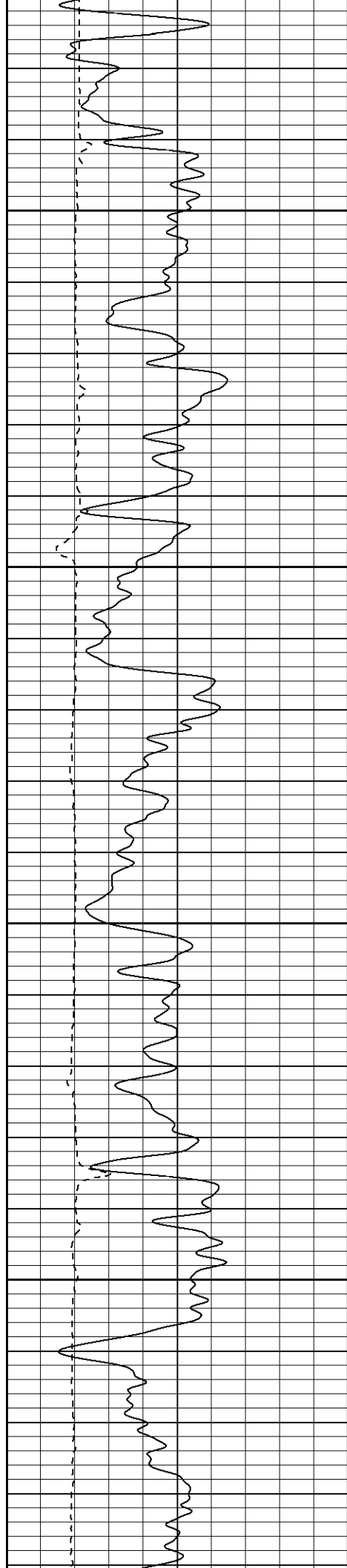
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2000

2050

2100



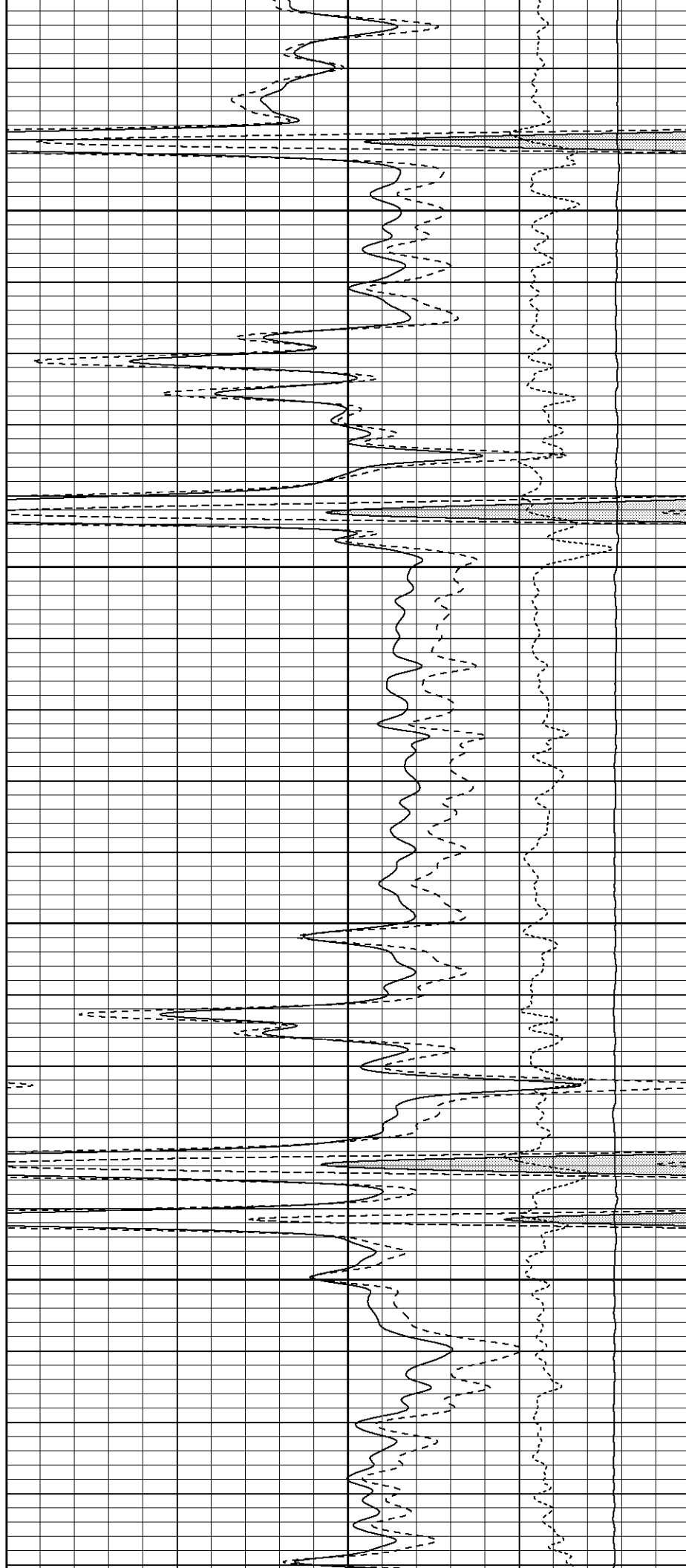


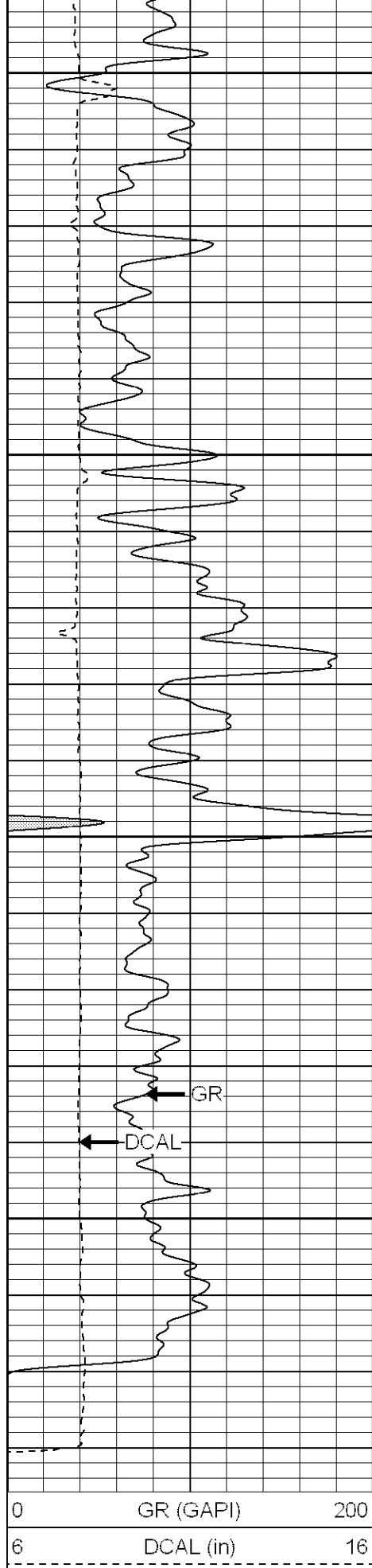
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2200

2250

2300





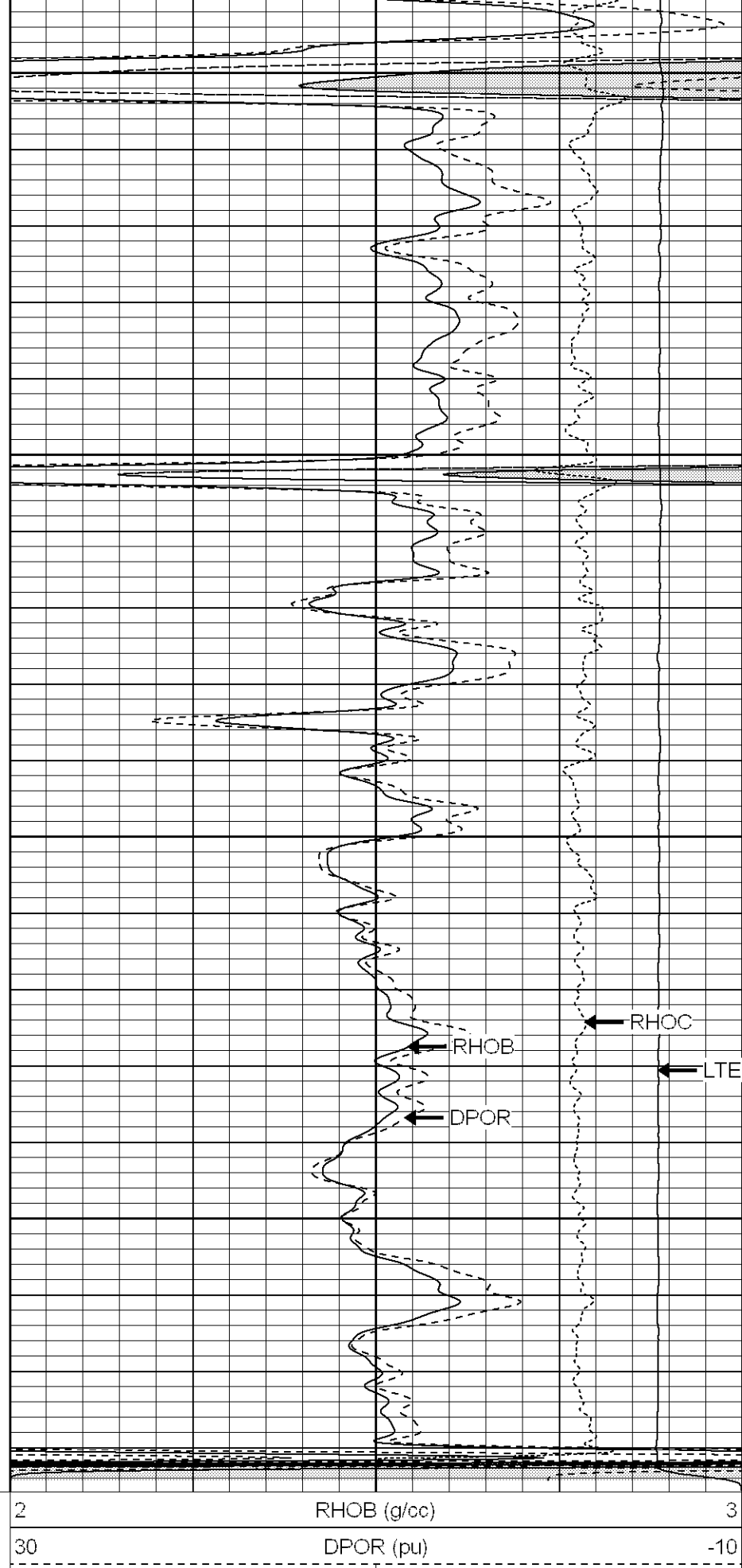
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2400

2450

2500

0 GR (GAPI) 200
6 DCAL (in) 16



2 RHO (g/cc) 3
30 DPOR (pu) -10

-0.5 RHO (g/cc) 0.5
5000 LTEN (lb) 0



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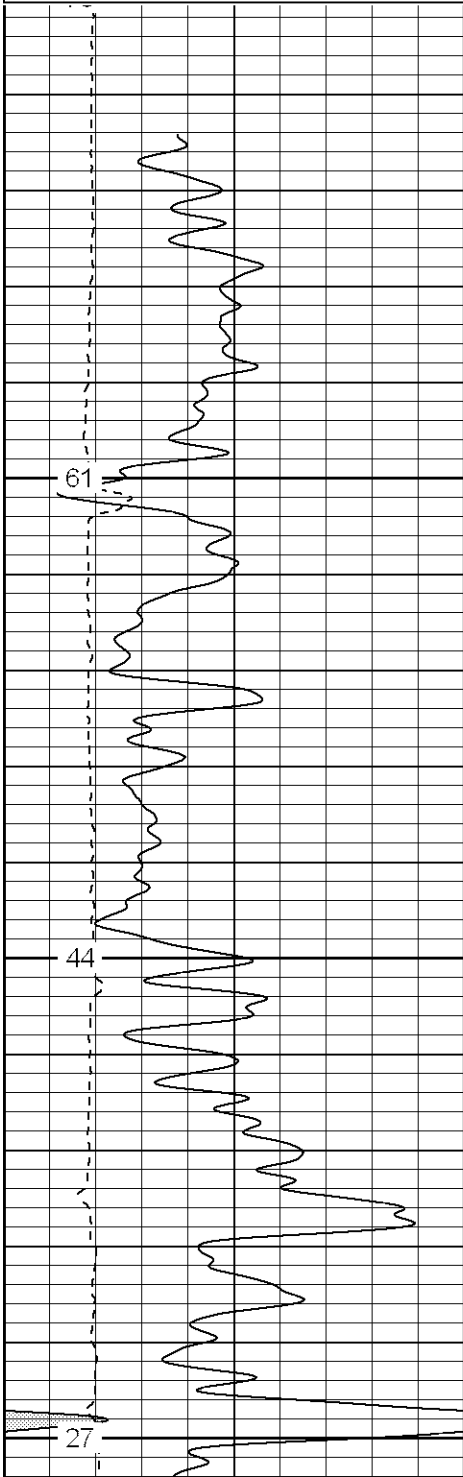
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Repeat Pass

Database File: tanana.db
Dataset Pathname: pass3
Presentation Format: cdl
Dataset Creation: Mon Oct 01 09:40:49 2007 by Log Open-Cased 070814
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

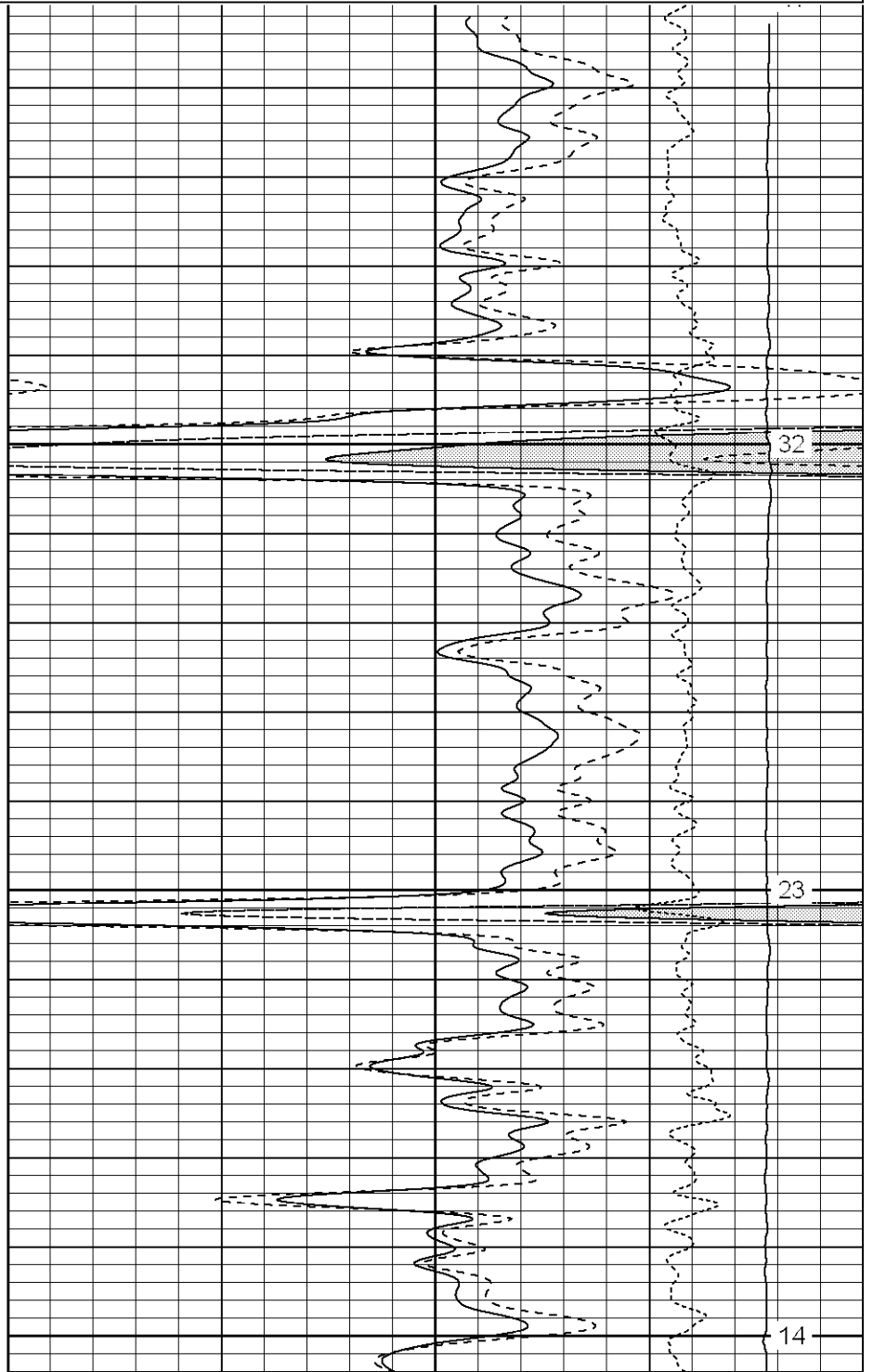
2	RHOB (g/cc)	3
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5
5000	LTEN (lb)	0
		ABHV (ft3)



2350

2400

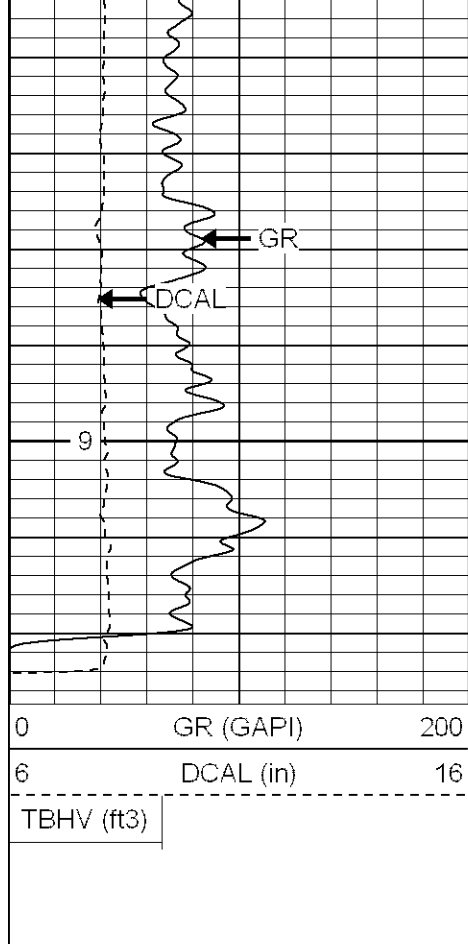
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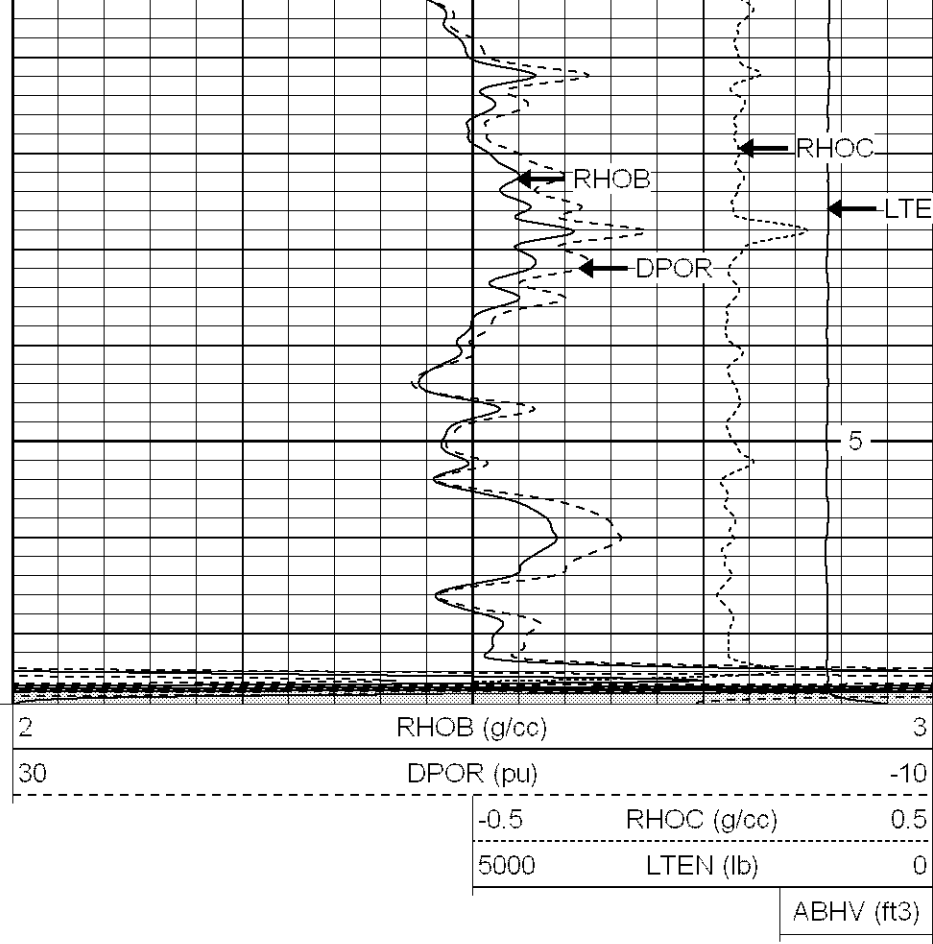
32

23

14



2500

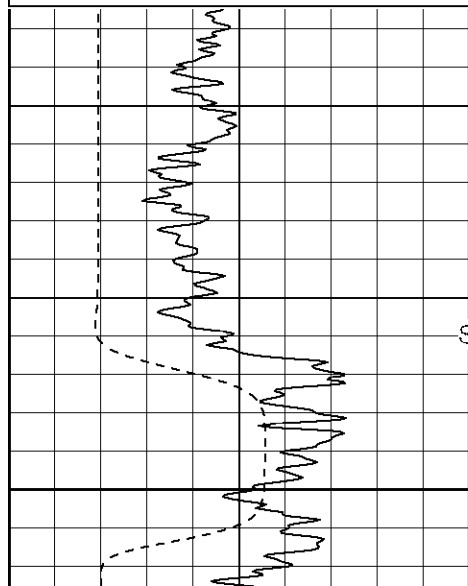
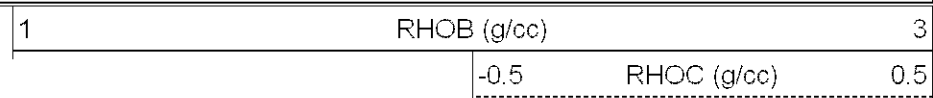
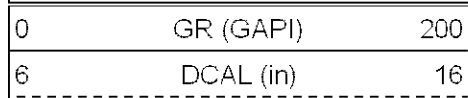


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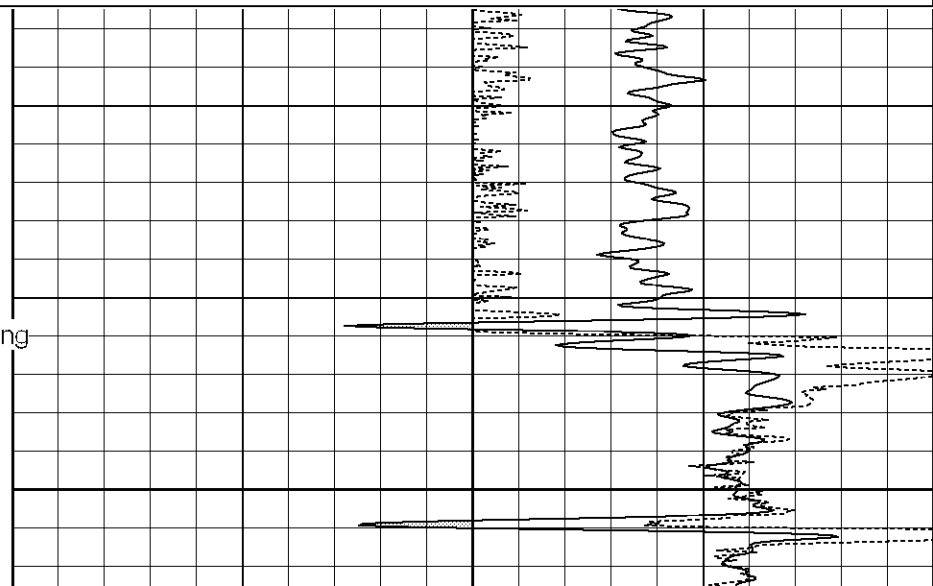
High Resolution Pass

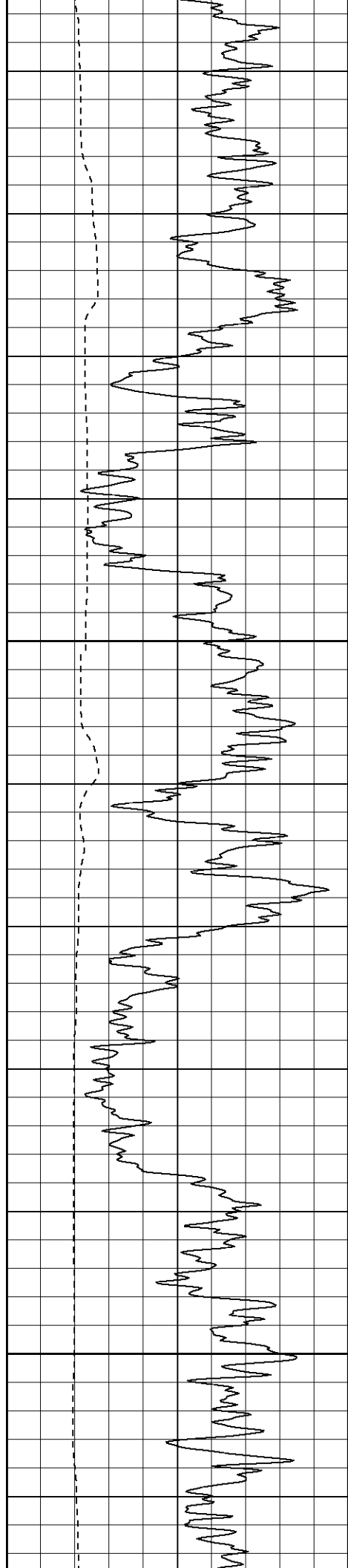
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Presentation Format: cdlhr
Dataset Creation: Mon Oct 01 15:16:41 2007
Charted by: Depth in Feet scaled 1:120



Surface Casing

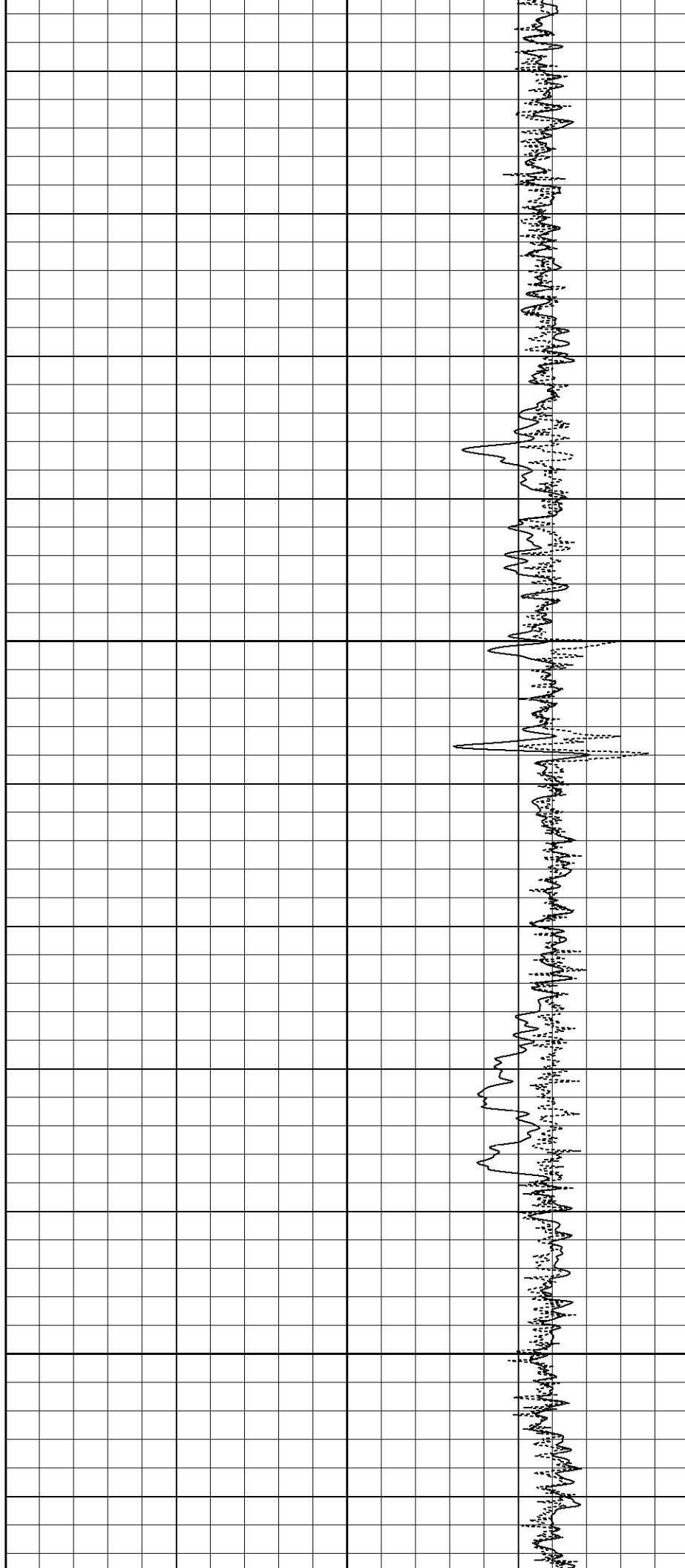
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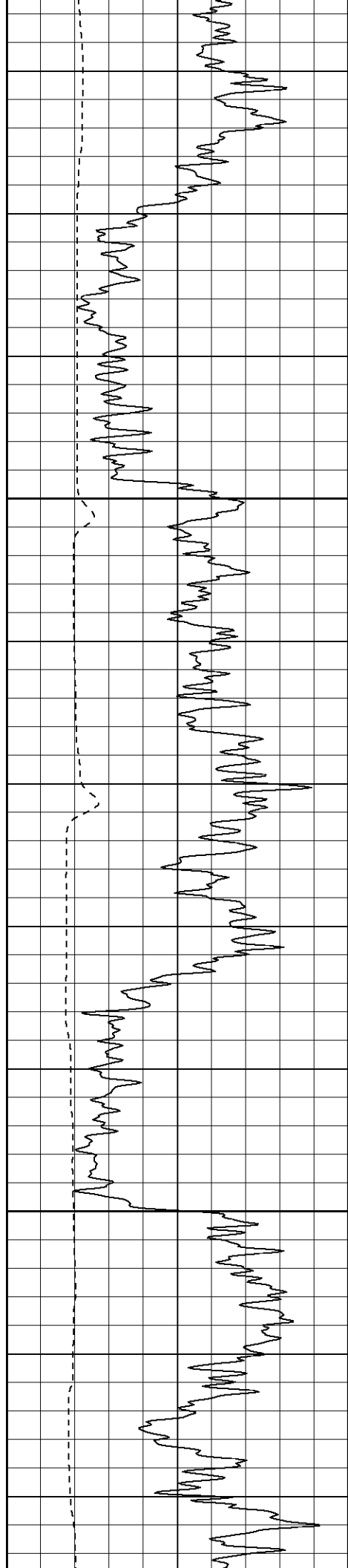




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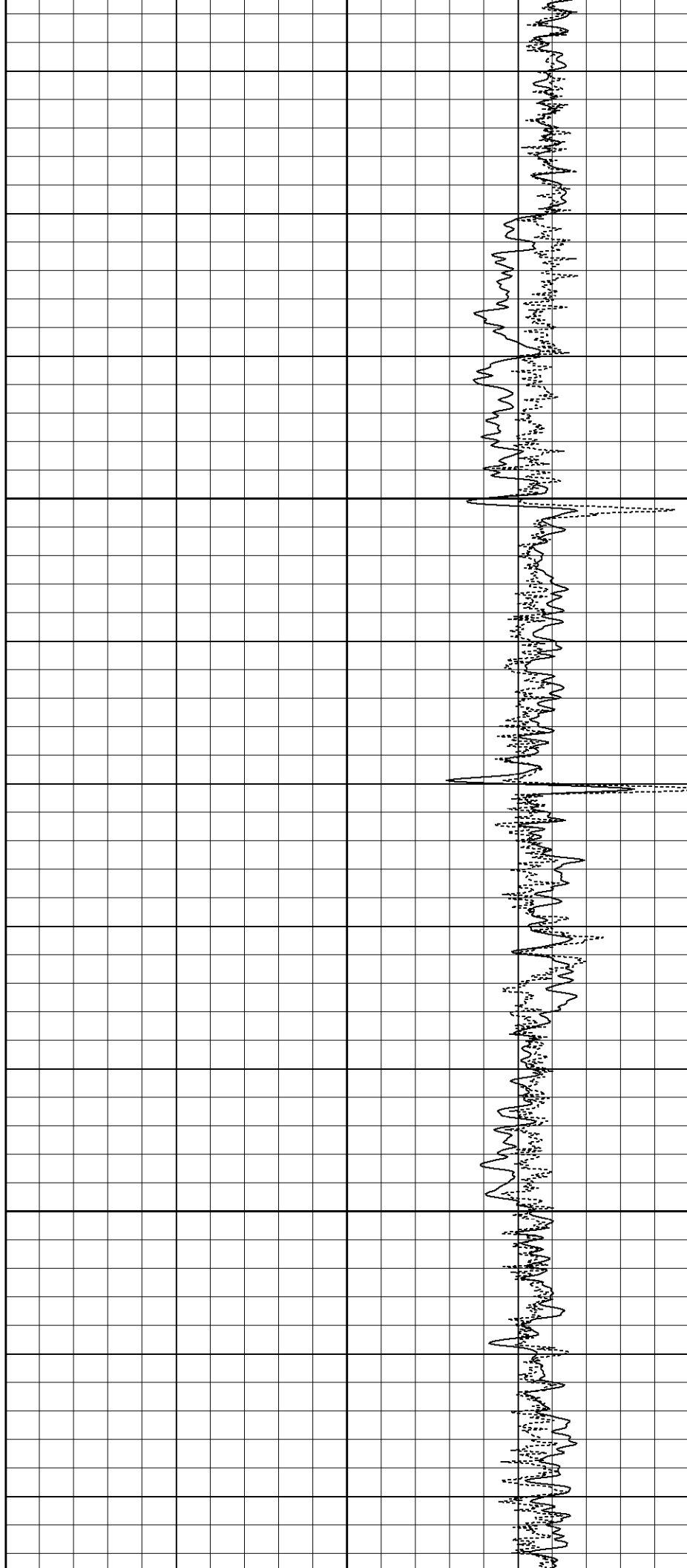
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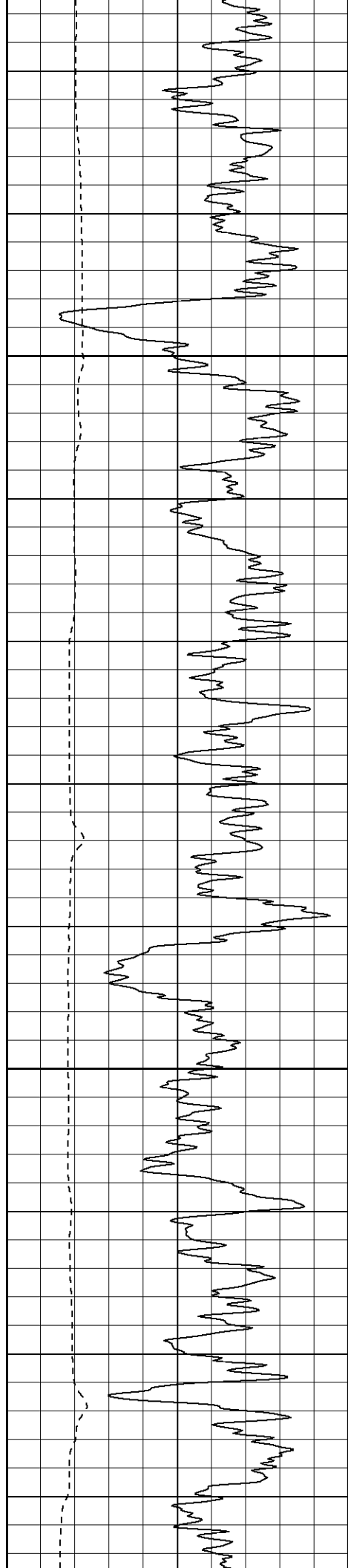




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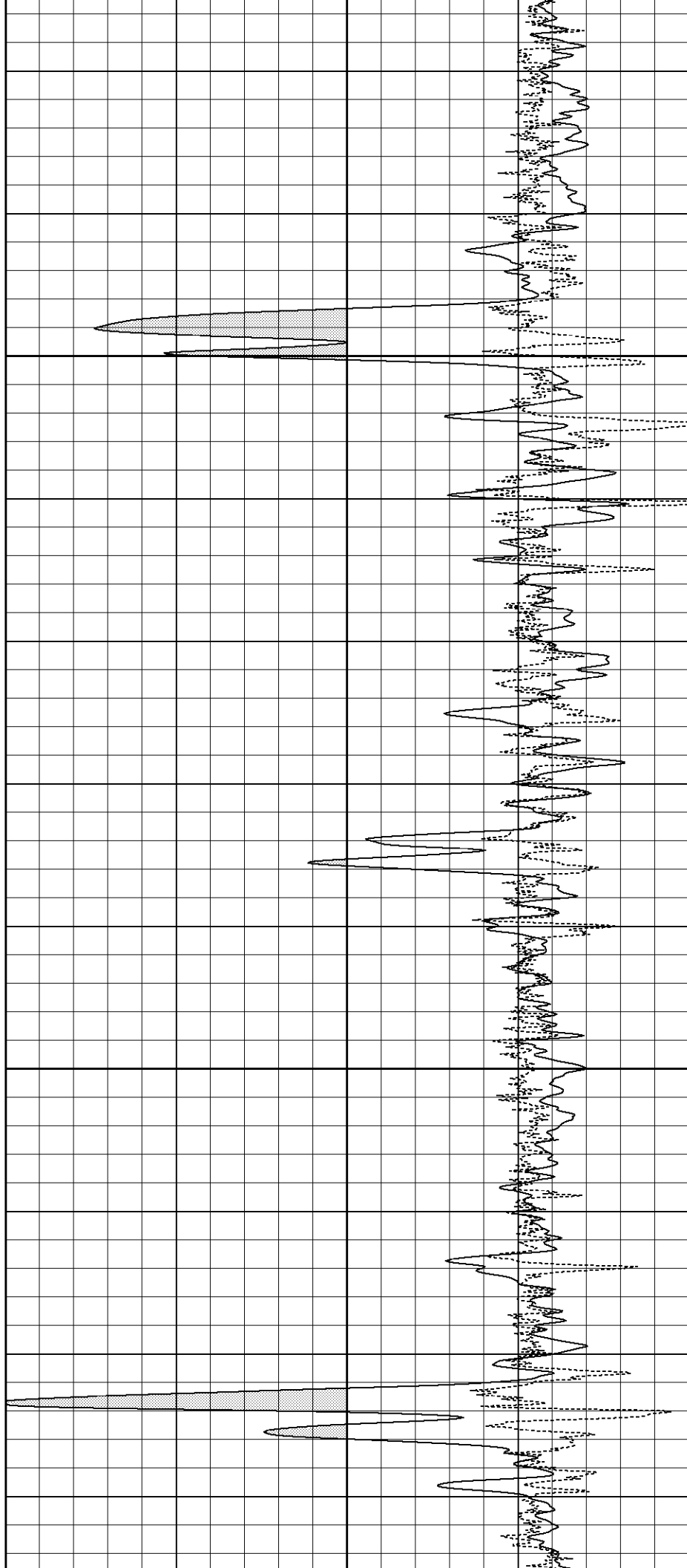
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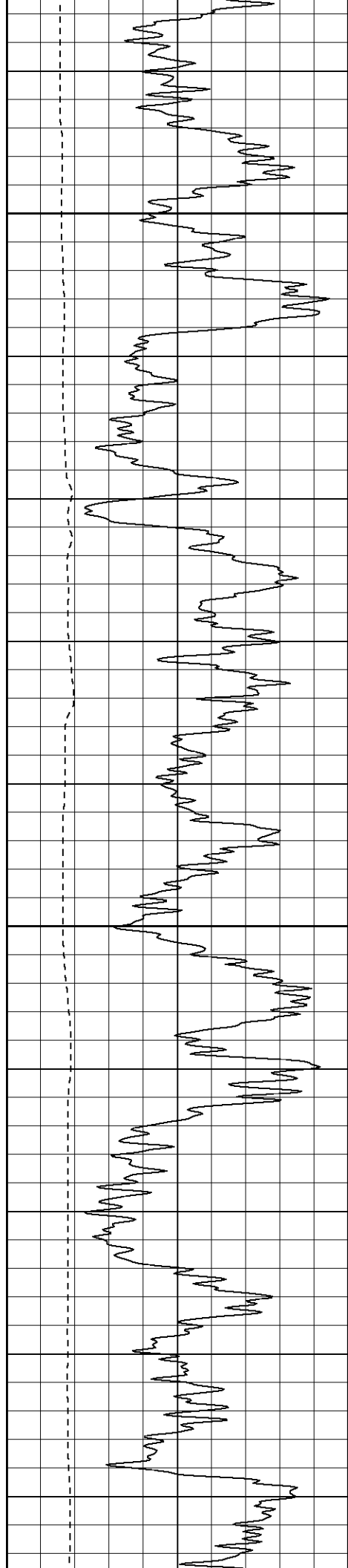




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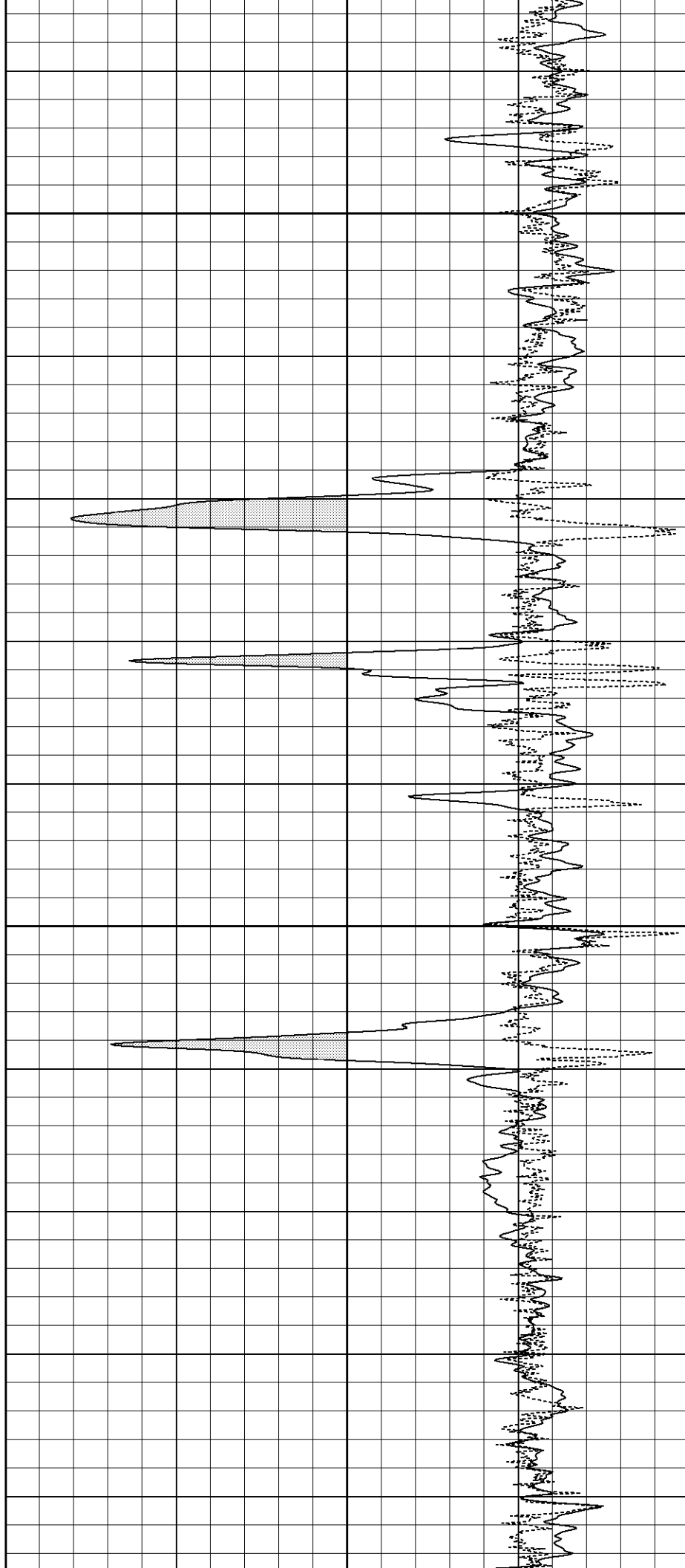
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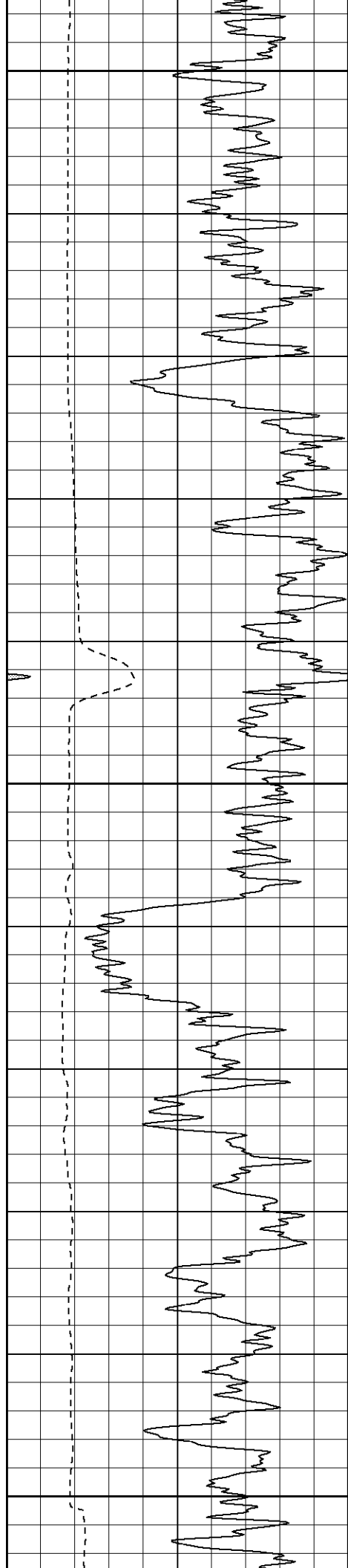




1000

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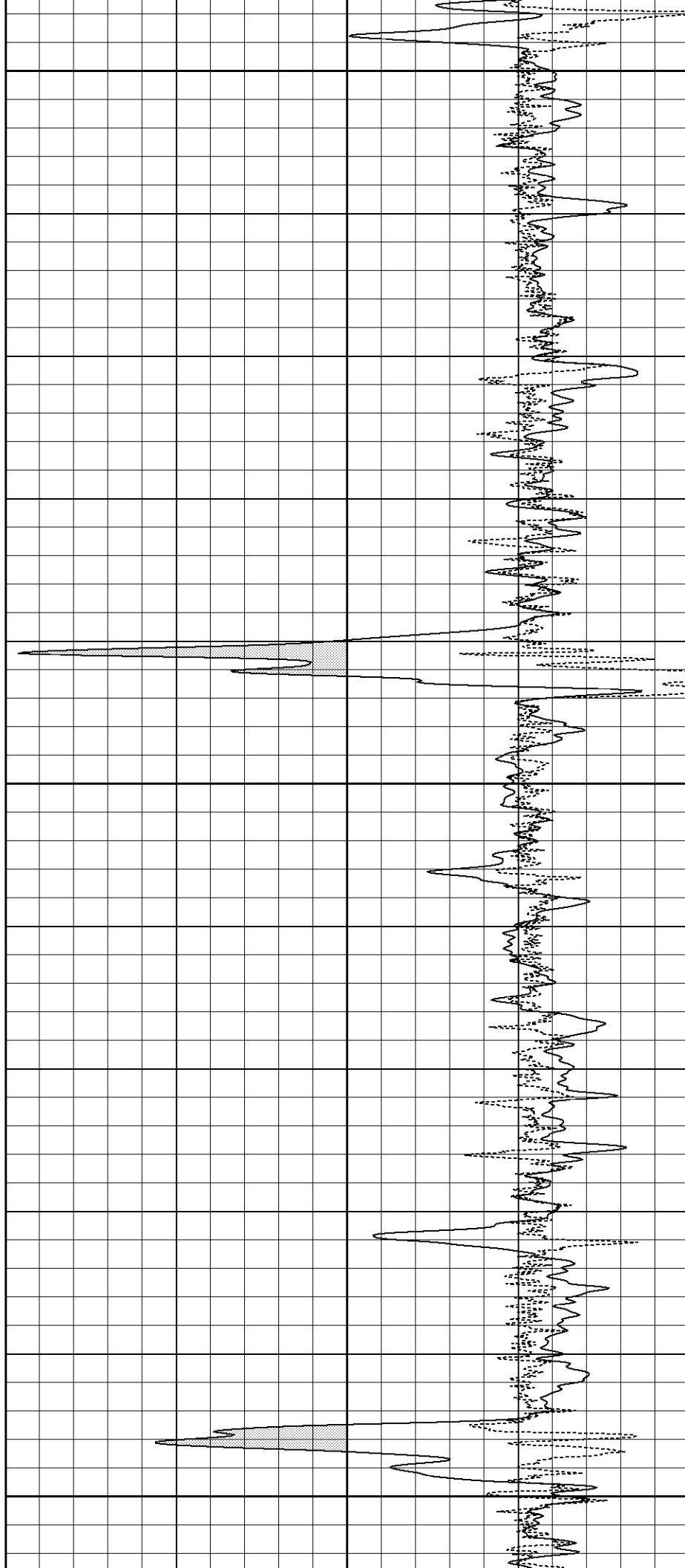


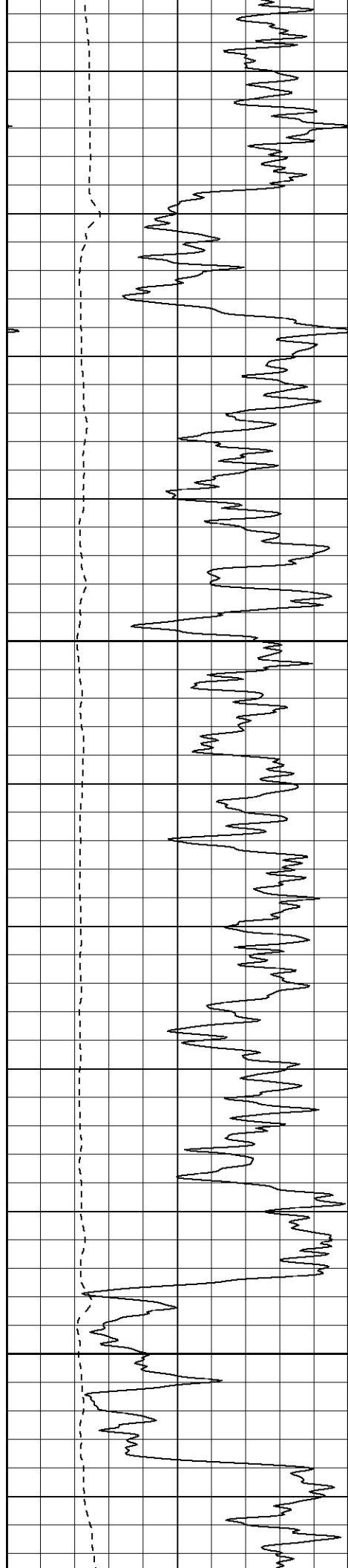


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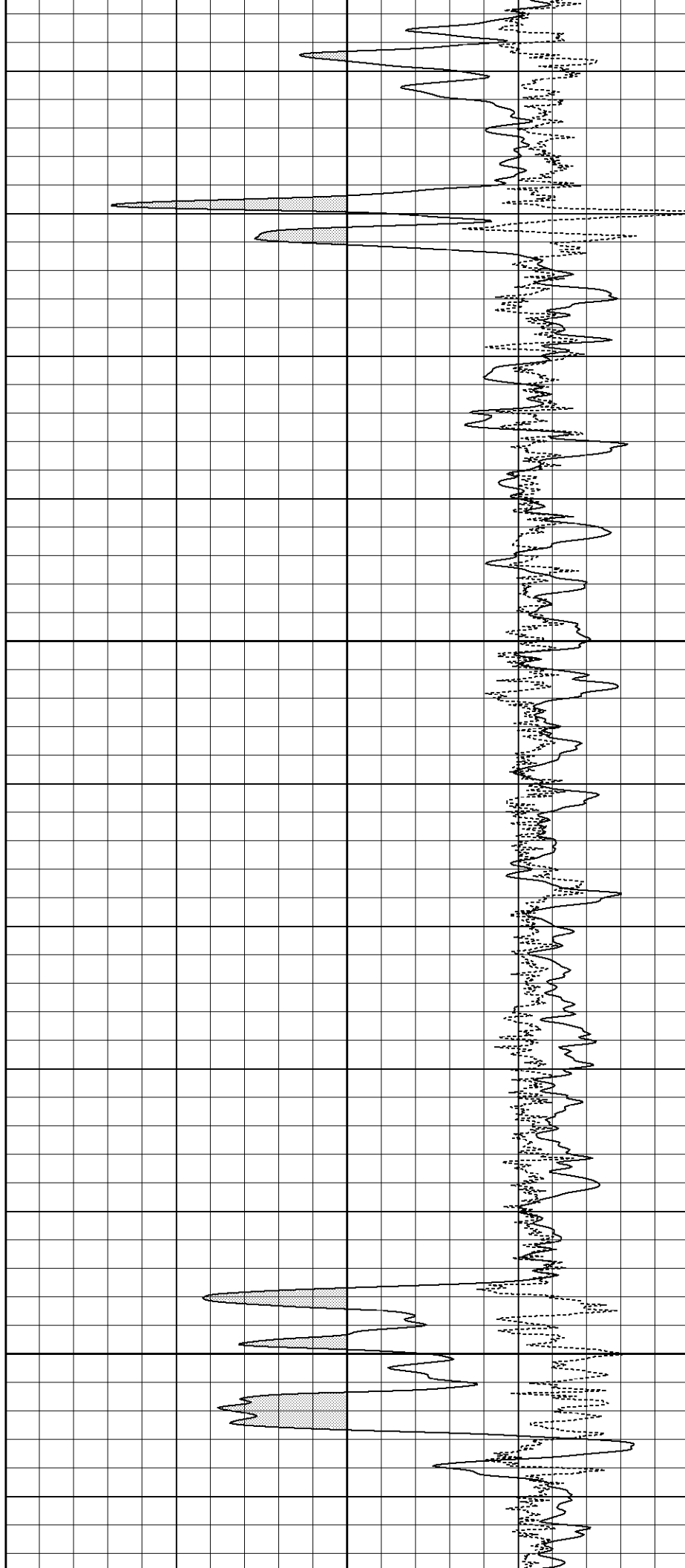
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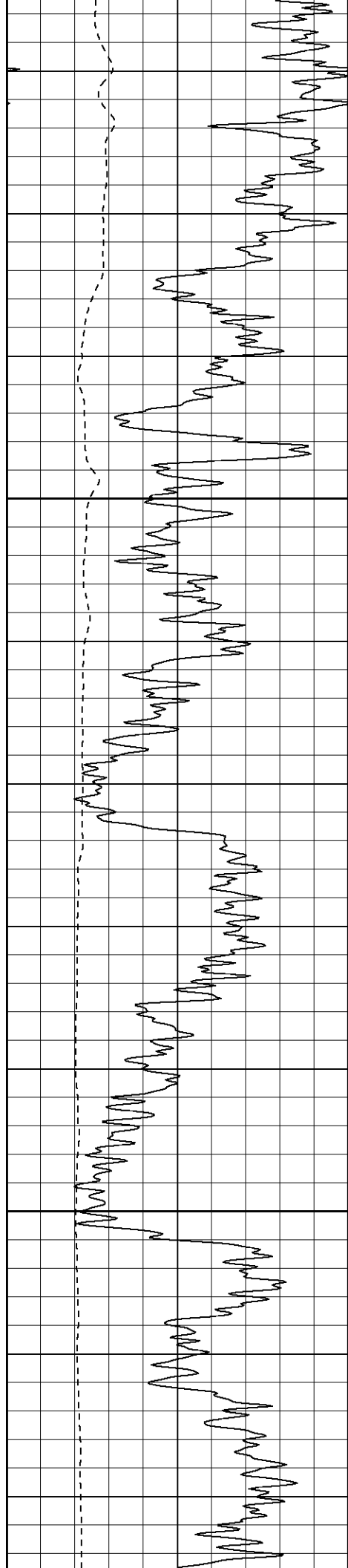




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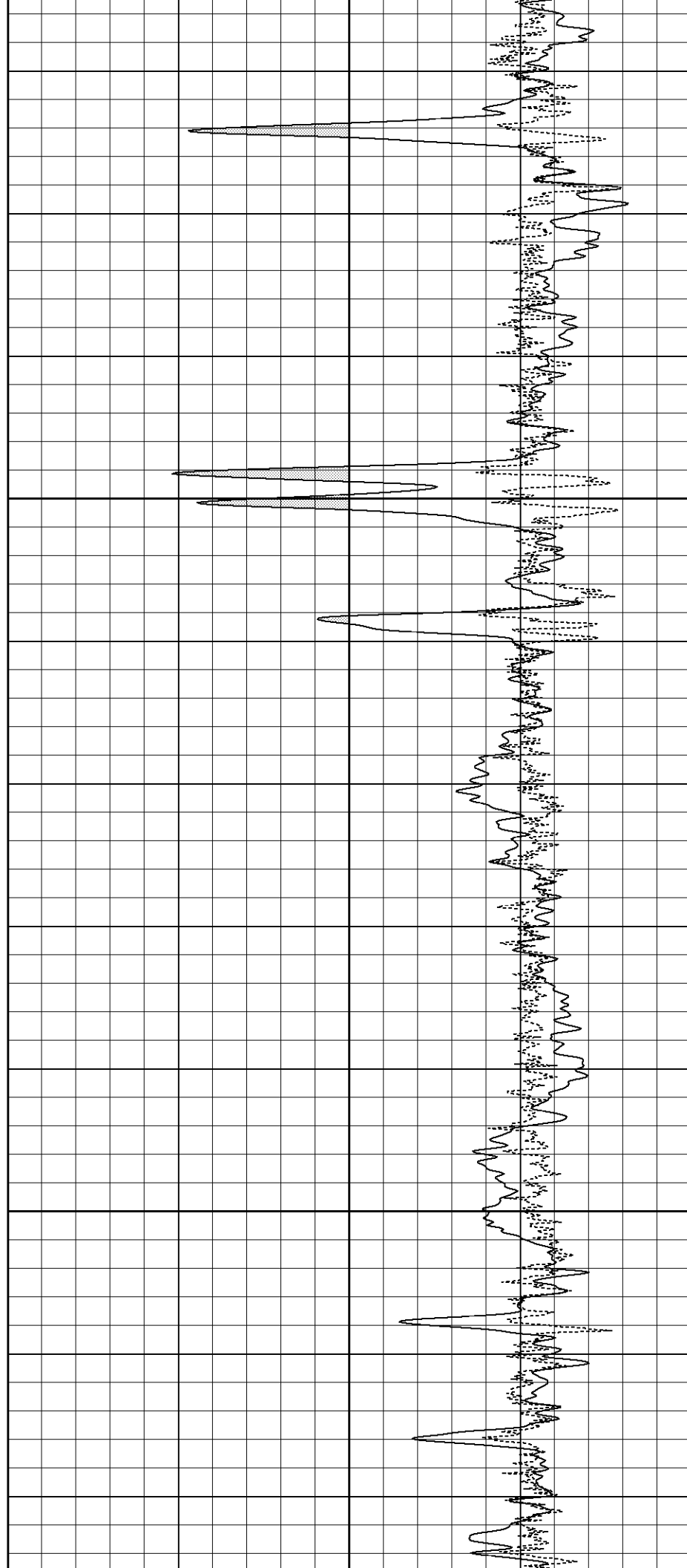
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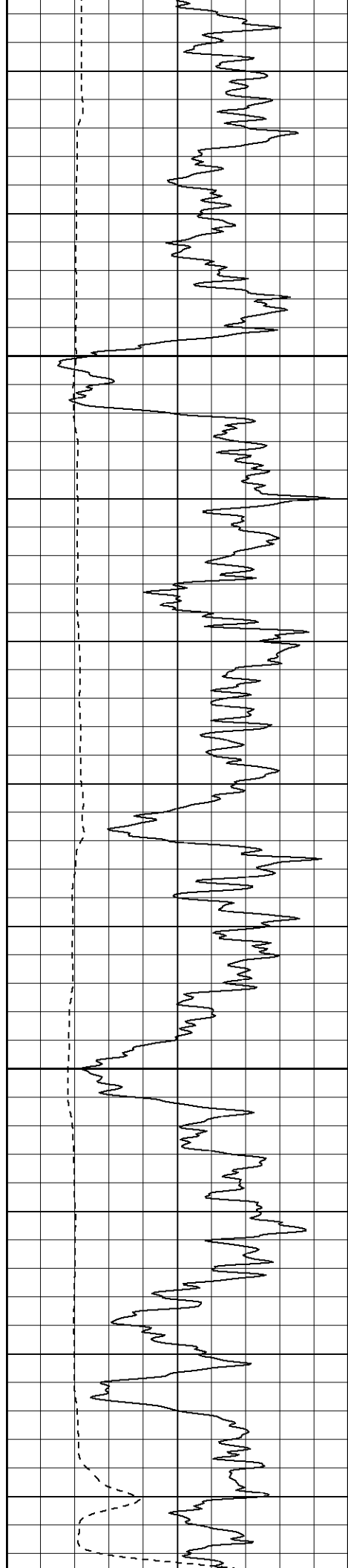




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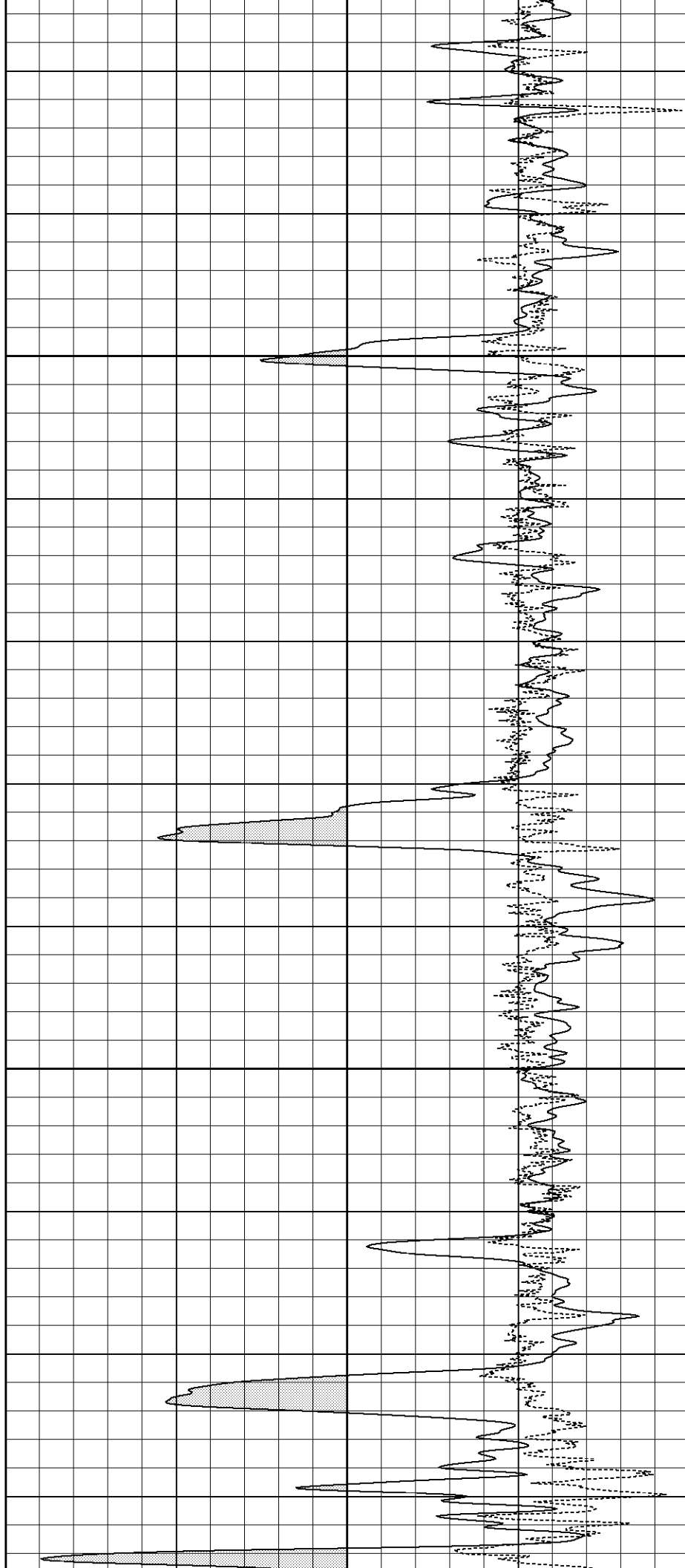
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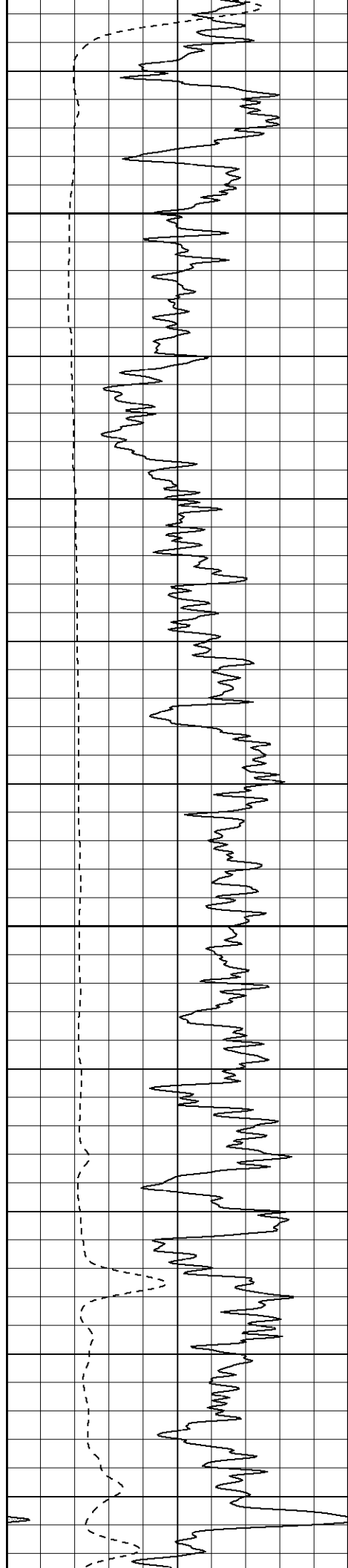




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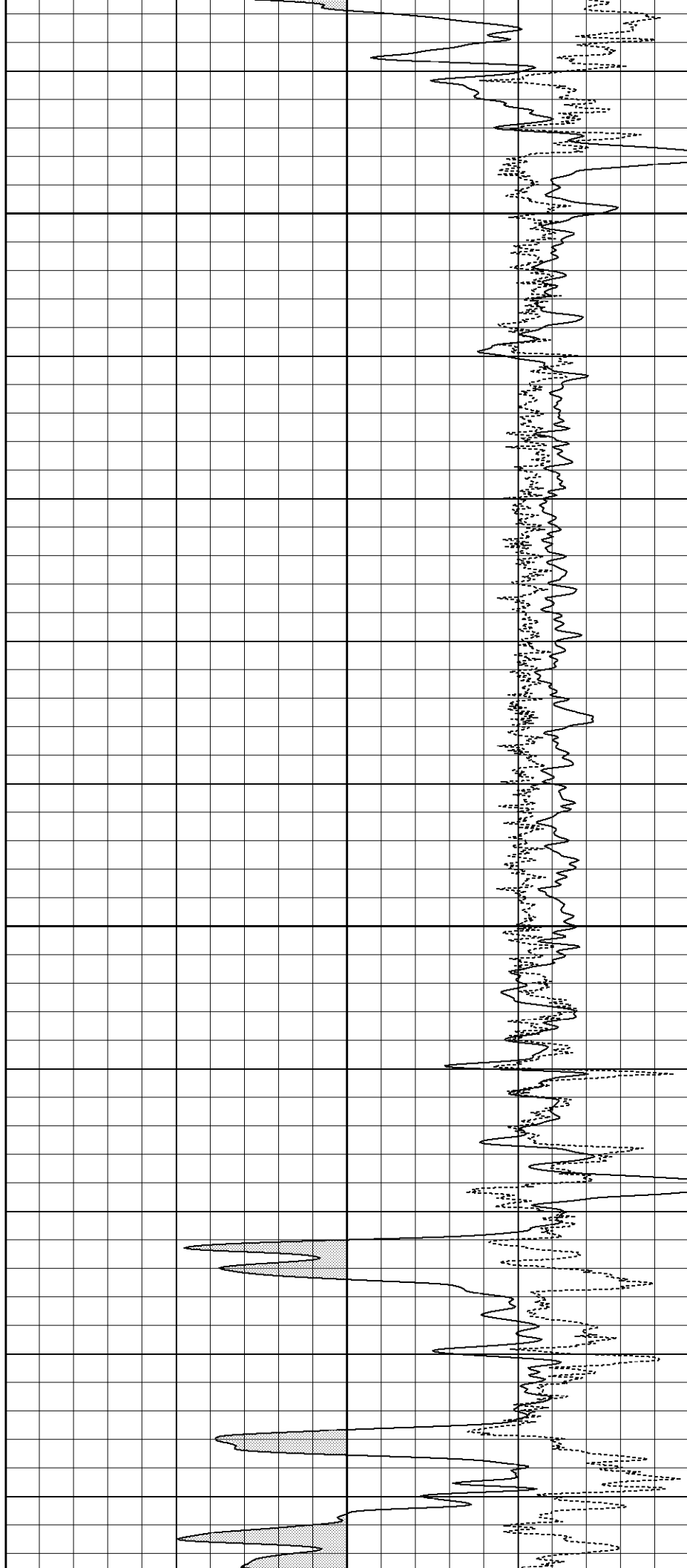
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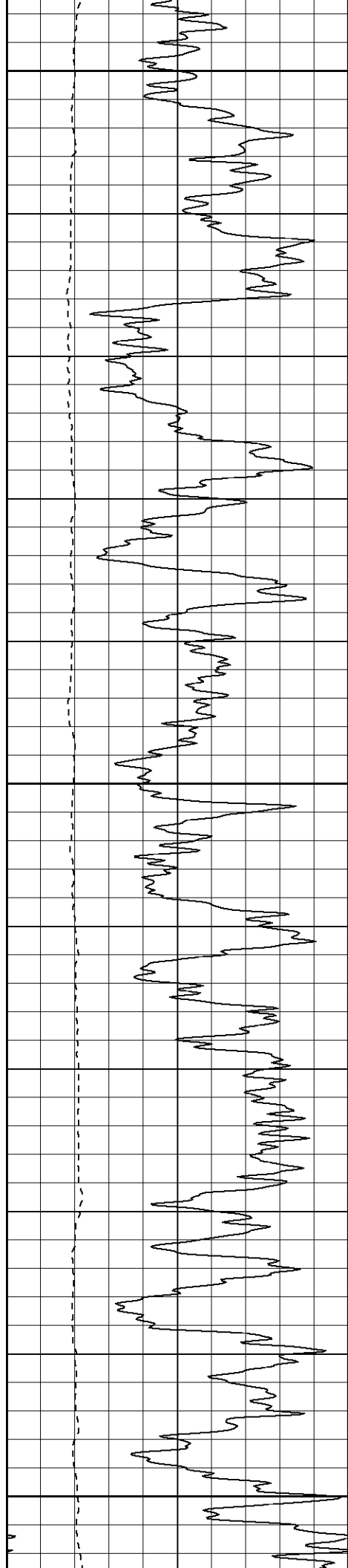




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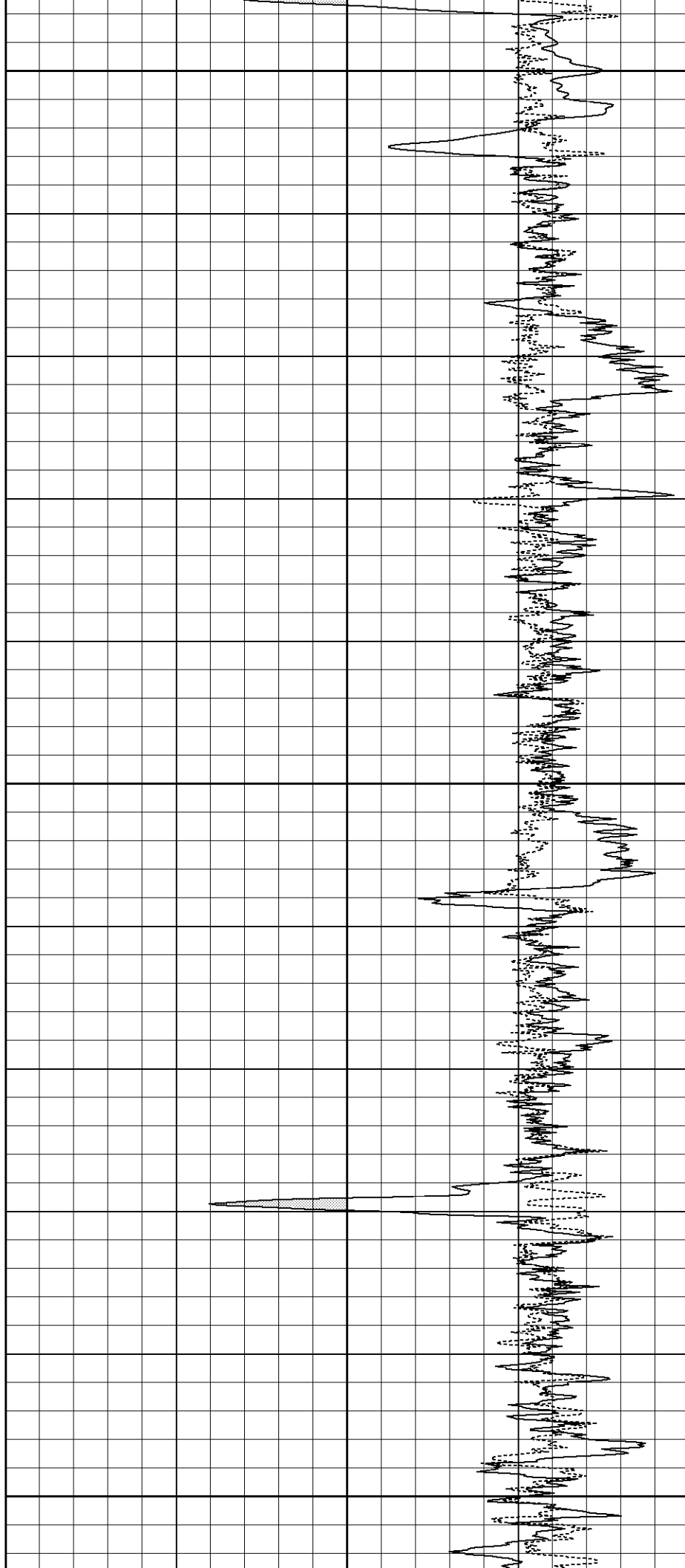


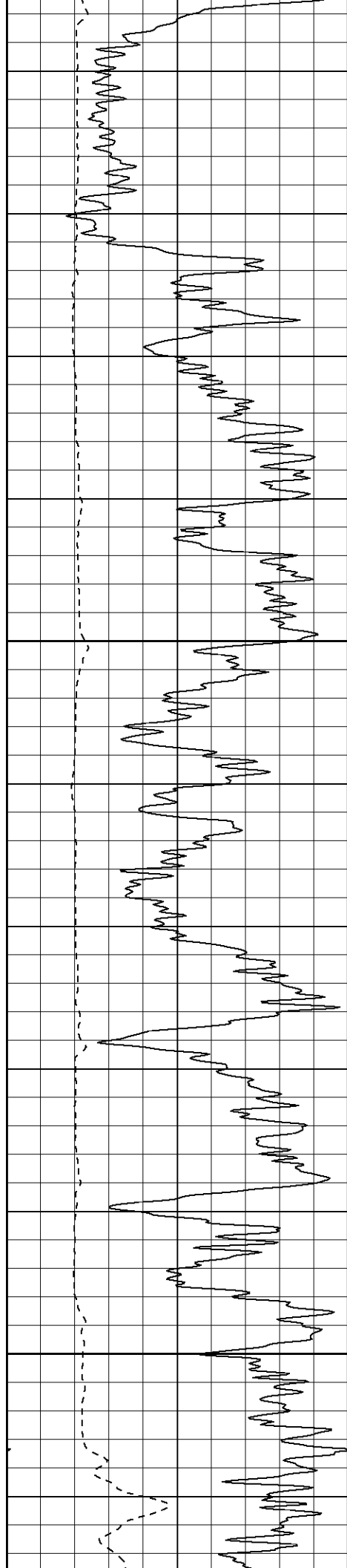


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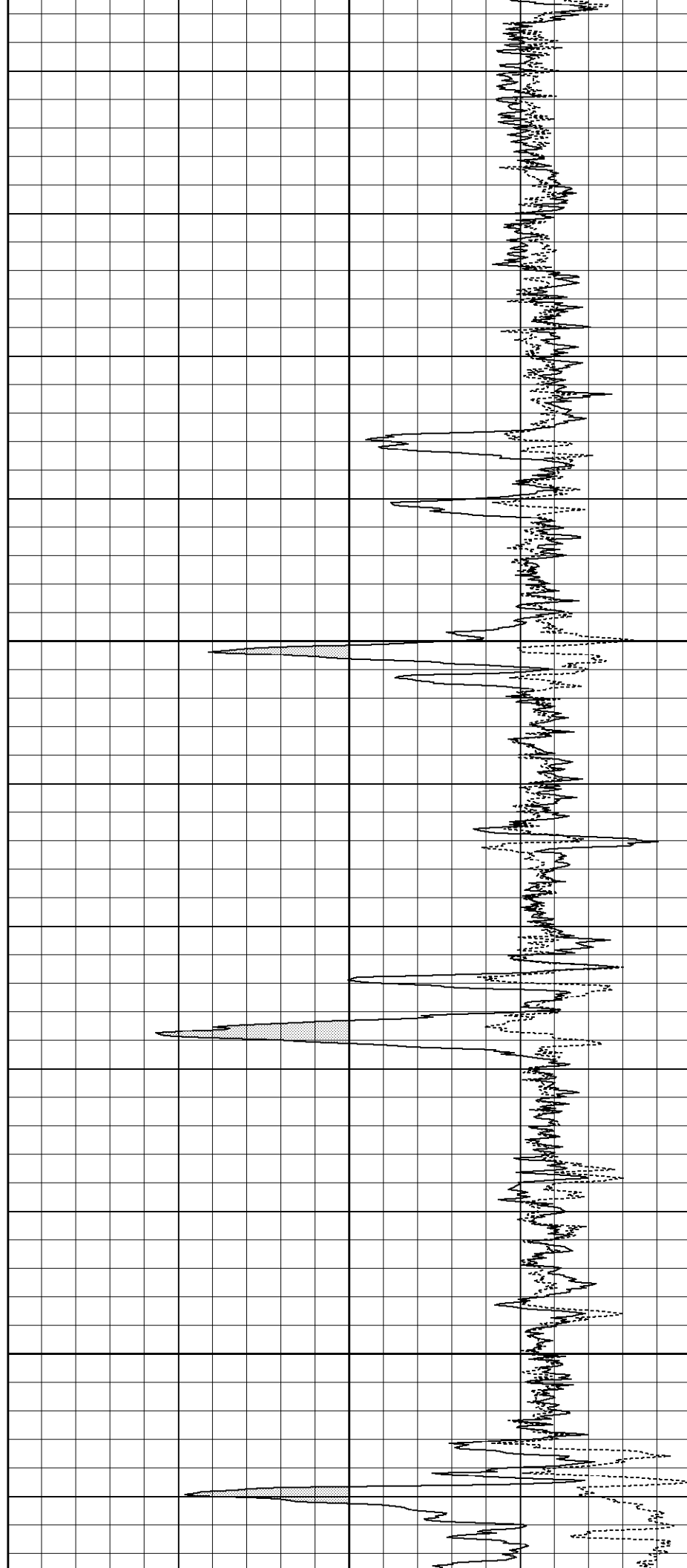
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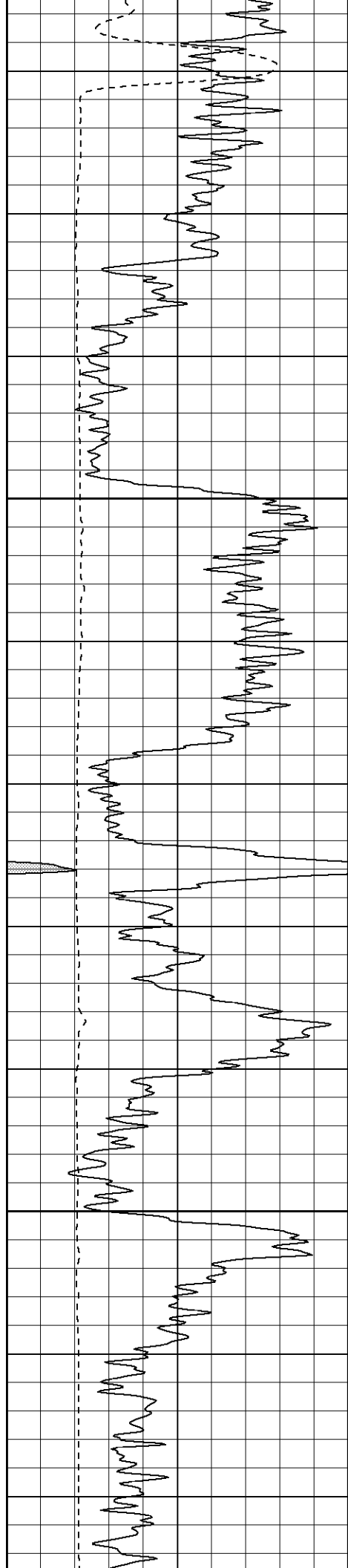




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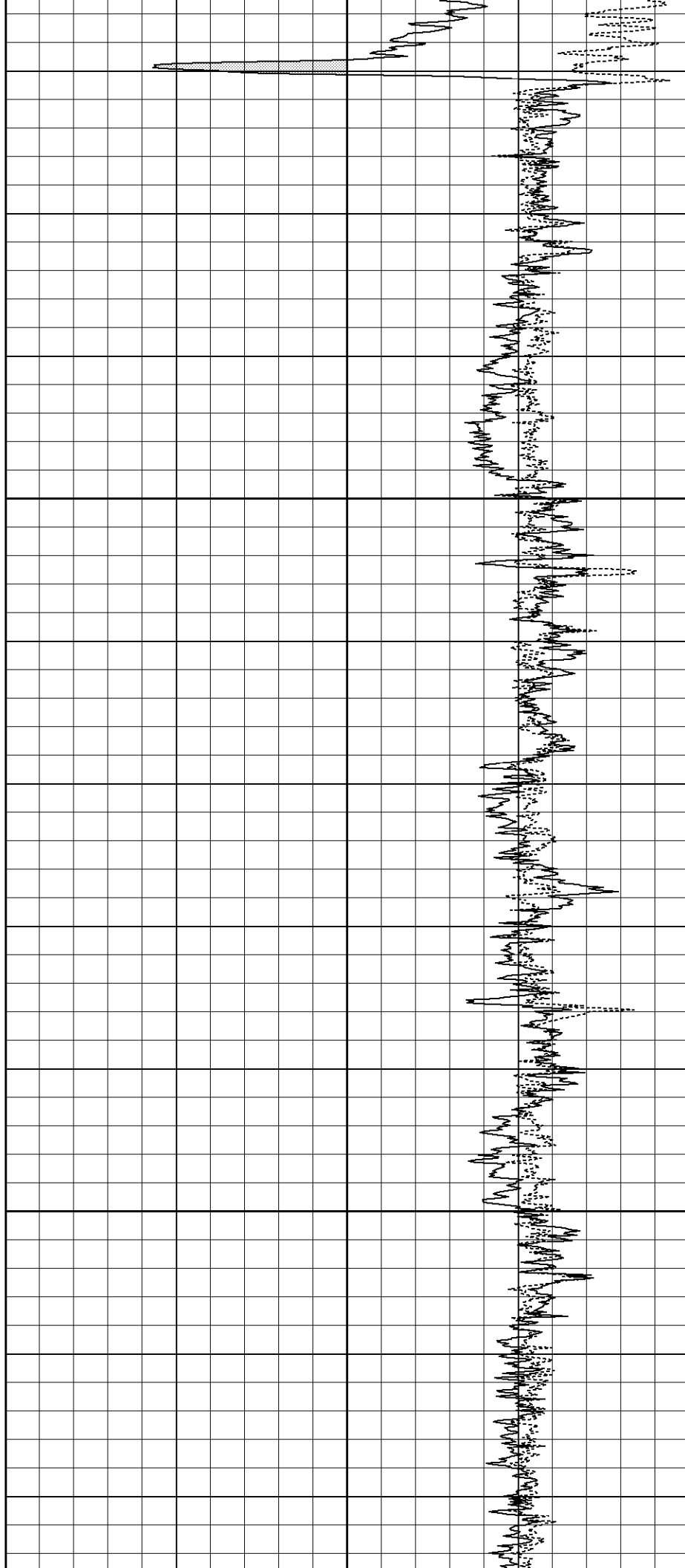
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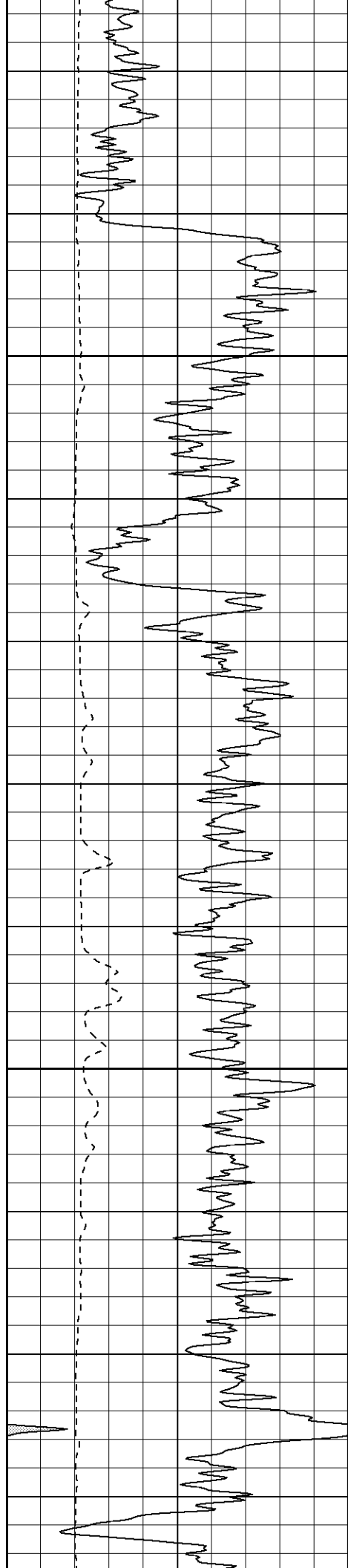




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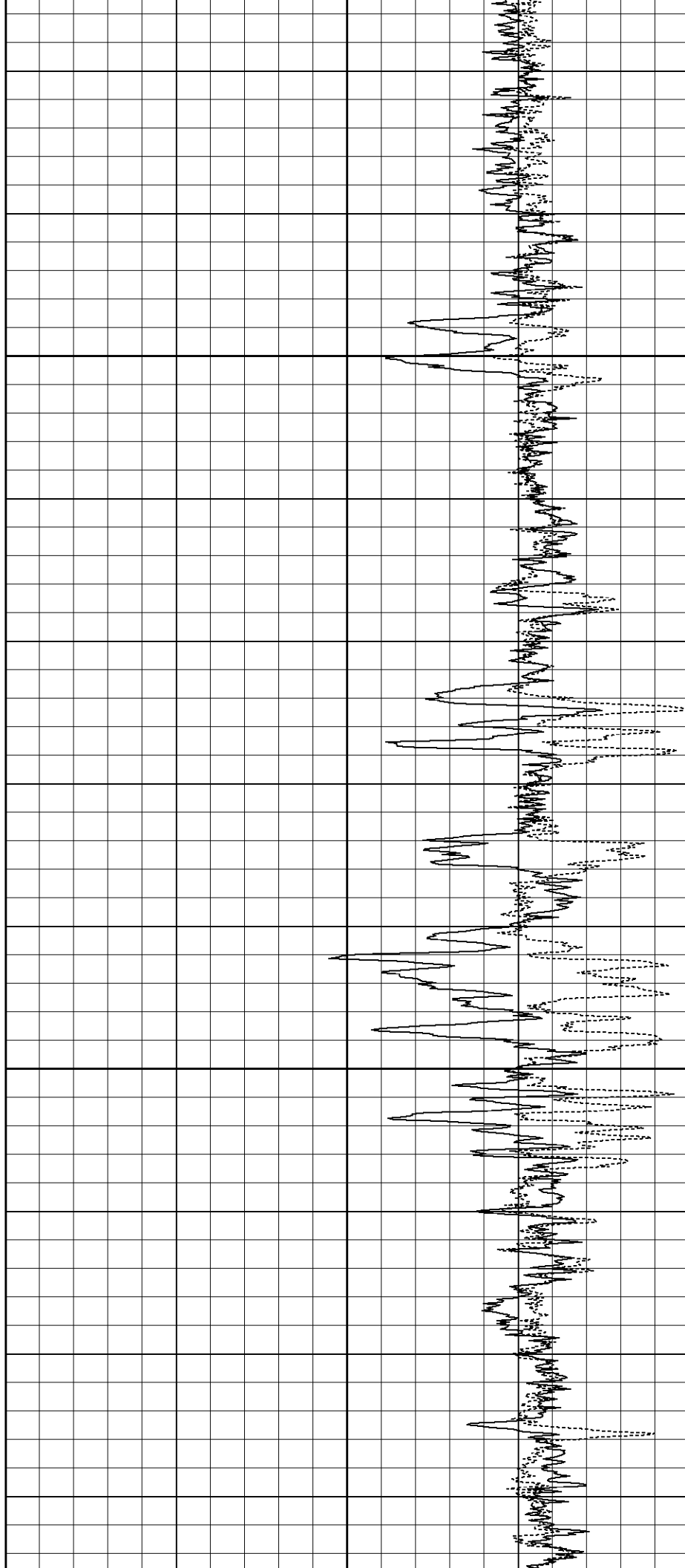
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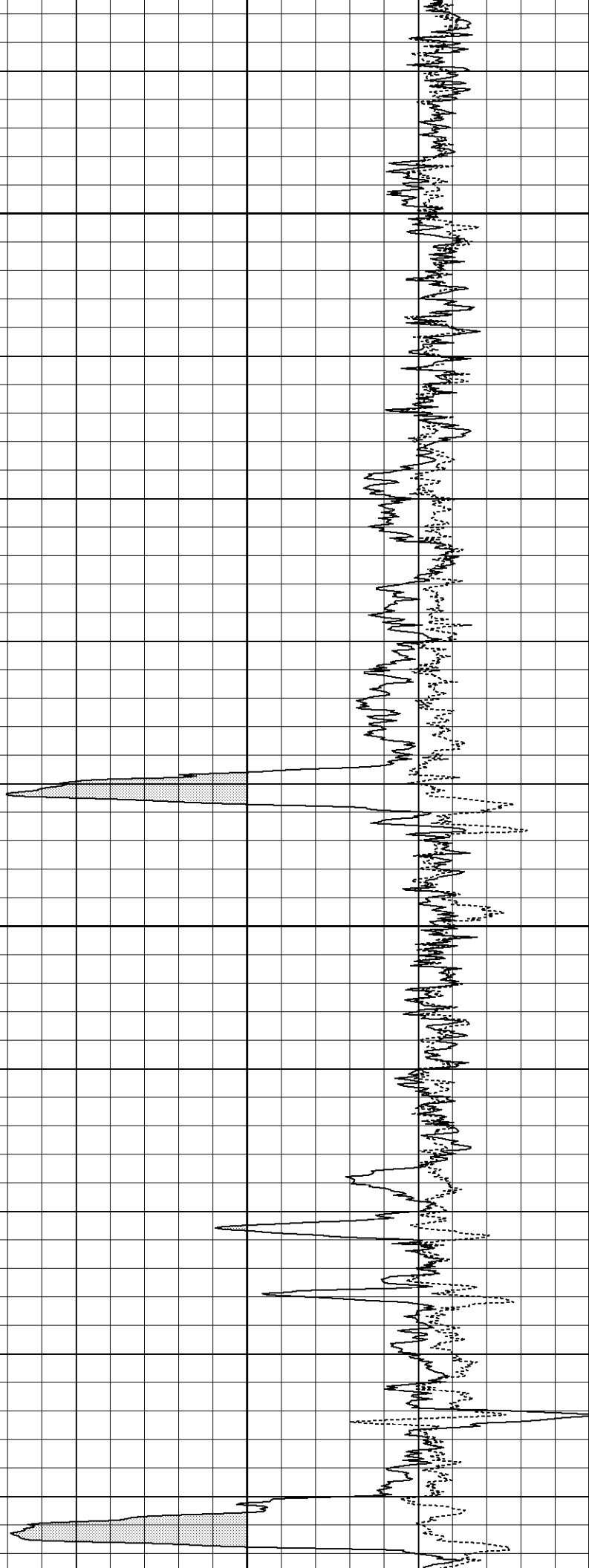
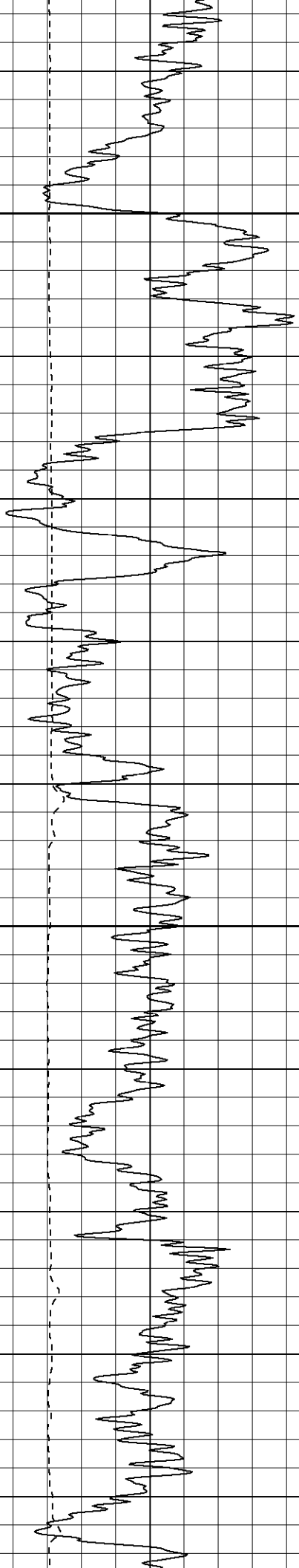
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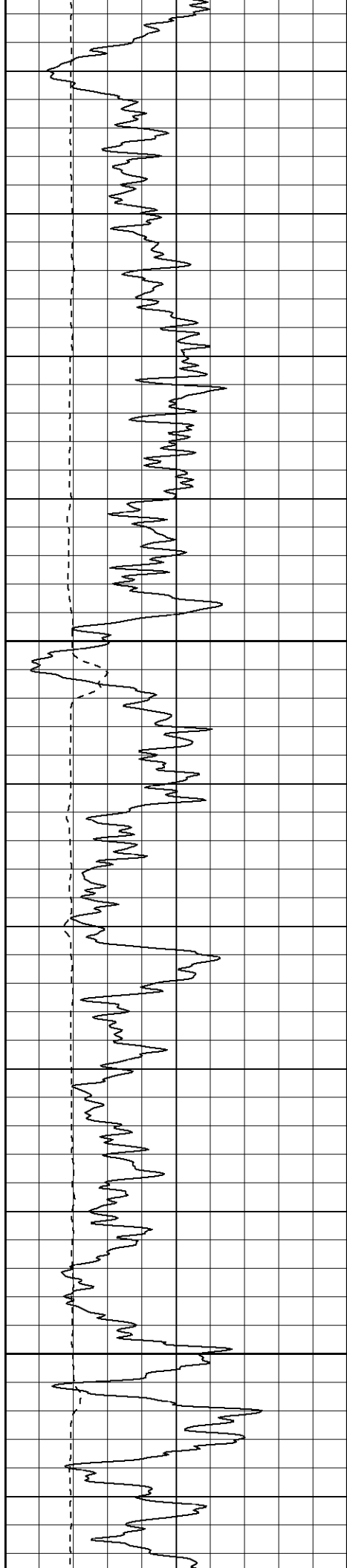
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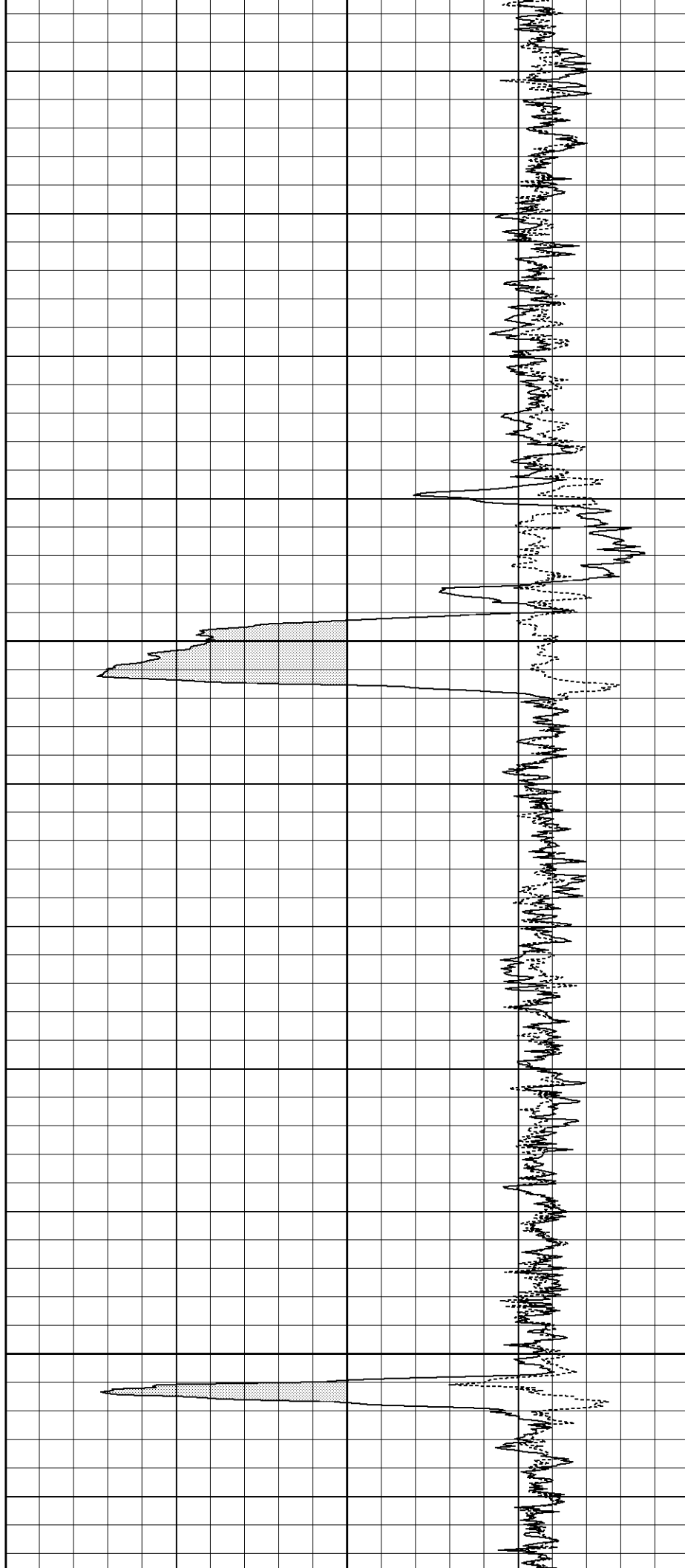
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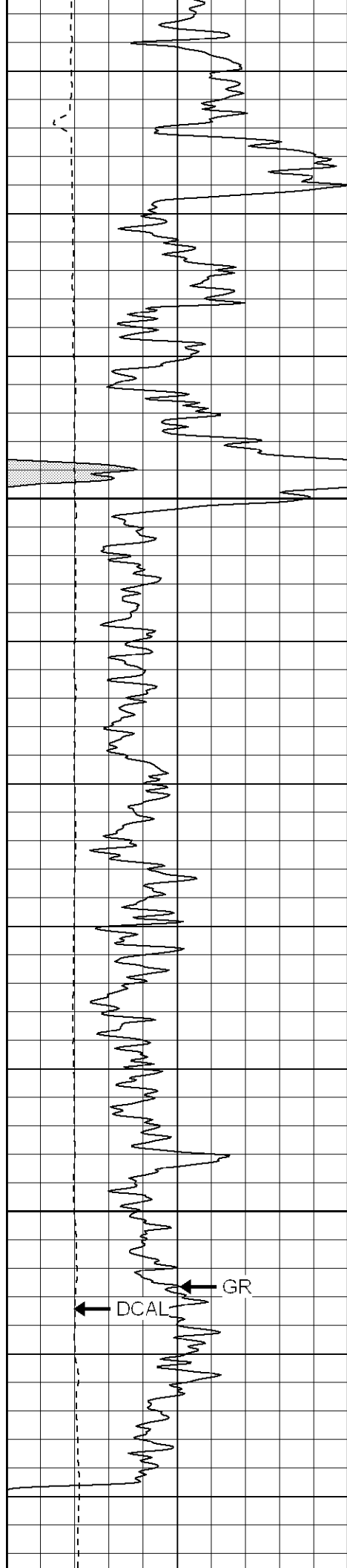




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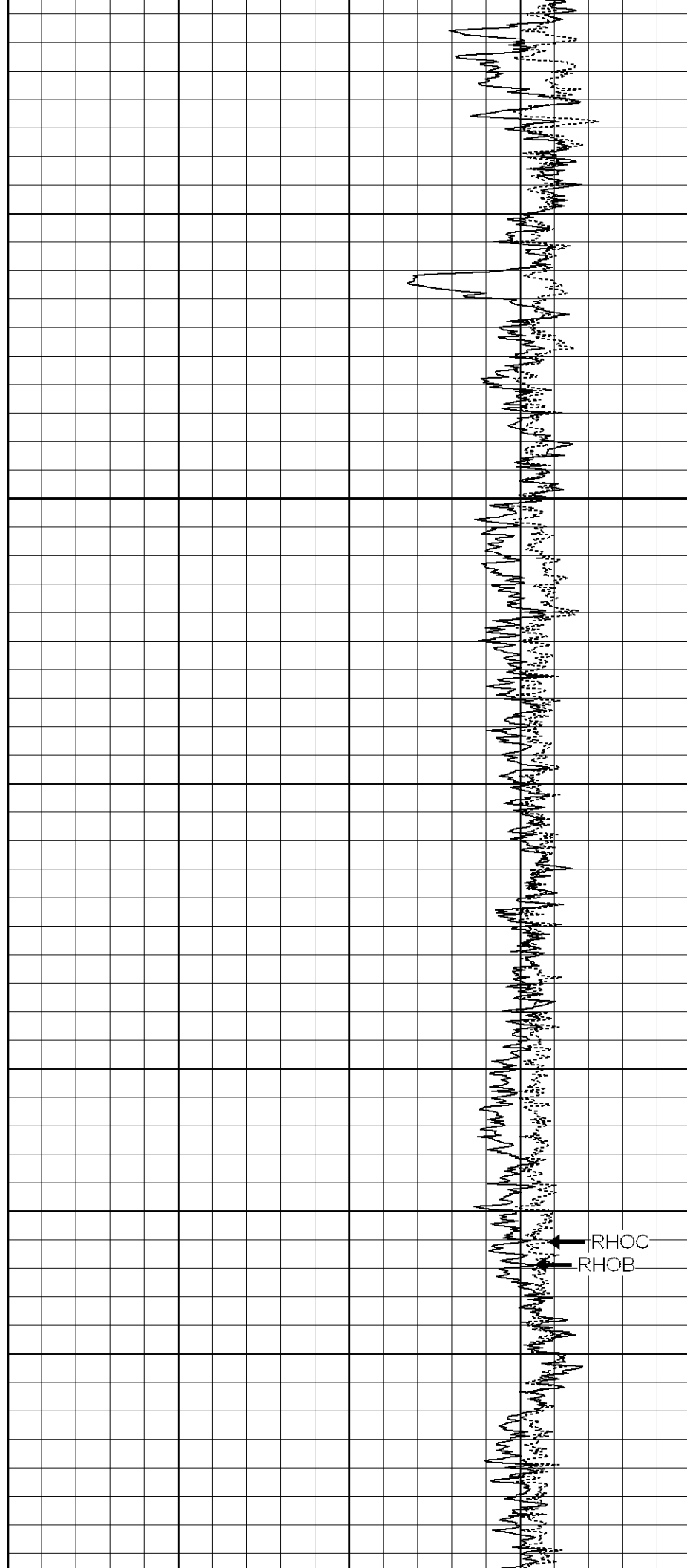


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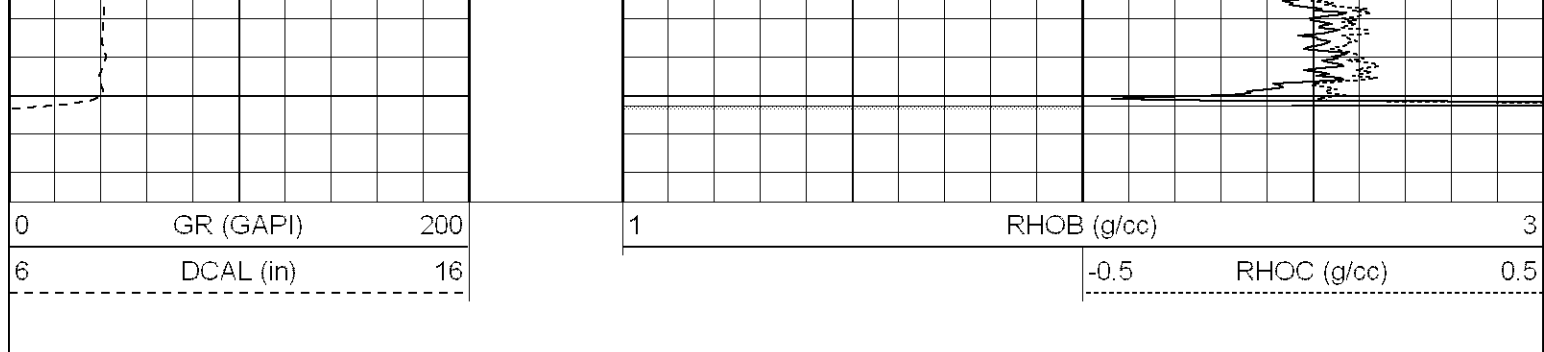
DCAL

GR



RHOC

RHOB



Calibration Report

Database File: tanana.db
 Dataset Pathname: pass3
 Dataset Creation: Mon Oct 01 09:40:49 2007 by Log Open-Cased 070814

Temperature Calibration Report

Serial Number: 2542T
 Tool Model: CDLP
 Performed: Tue Sep 18 07:40:40 2007

	Reference	Reading
Low Reference:	55.00 degF	3.11 V
High Reference:	160.00 degF	5.35 V
Gain:	46.88	
Offset:	-90.78	
Delta Spacing	1	

Compensated Density Calibration Report

Serial-Model: 2542-G
 Source / Verifier: csv-n20 / blks
 Master Calibration Performed: Wed Sep 05 13:57:03 2007

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1062.66	505.73	cps
Aluminum	2.590	g/cc	238.30	354.81	cps
Spine Angle = 76.66			Density/Spine Ratio = 0.573		
	Size		Reading		
Small Ring	7.85	in	1.33	V	
Large Ring	14.00	in	2.71	V	

Gamma Ray Calibration Report

Serial Number: 2000
 Tool Model: P2000
 Performed: Tue Sep 18 07:40:52 2007

Calibrator Value: 200.0 GAPI

Background Reading: 54.0 cps
 Calibrator Reading: 219.0 cps

Sensitivity: 0.2700 GAPI/cps

4. *Chlorophyll a* and *Chlorophyll b* (mg/g)

01214 400

2014/11/26

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	11.80		GR-P2000 (2000)	3.50	3.25	40.00
LSD	3.22		CDL-G (2542)	9.29	4.00	201.00
DCAL	2.92					
SSD	2.67					
TEMP	1.08		TEMP-CDLP (2542T)	0.01	4.00	1.00
Dataset: tanana.db: field/well/run1/pass3 Total Length: 12.80 ft Total Weight: 242.00 lb O.D.: 4.00 in						