



DUAL INDUCTION LOG

Company PHILLIPS EXPLORATION COMPANY L.C.
 Well NISWONGER/BROWN UNIT #1-32 MP
 Field N/A
 County LOGAN
 State KANSAS

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Location: API # : 15-109-21491-00-00
 2000' FNL & 50' FWL
 SEC 32 TWP 15S RGE 37W
 Permanent Datum GROUND LEVEL Elevation 3422'
 Log Measured From KELLY BUSHING 8' A.G.L.
 Drilling Measured From KELLY BUSHING
 Other Services
 CDL/CNL
 MEL
 Elevation
 K.B. 3430
 D.F. 3428
 G.L. 3422

Date	03/21/17		
Run Number	ONE		
Depth Driller	5047		
Depth Logger	5048		
Bottom Logged Interval	5046		
Top Log Interval	00		
Casing Driller	8 5/8" @ 321		
Casing Logger	321		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5500 PPM	
Density / Viscosity	9.2/57		
pH / Fluid Loss	11.0/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.70@62		
Rmt @ Meas. Temp	.52@62		
Rmc @ Meas. Temp	.84@62		
Source of Rmt / Rmc	MEASURED		
Rm @ BHT	.34@125		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	125F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	PAT DEENIHAN		

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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.

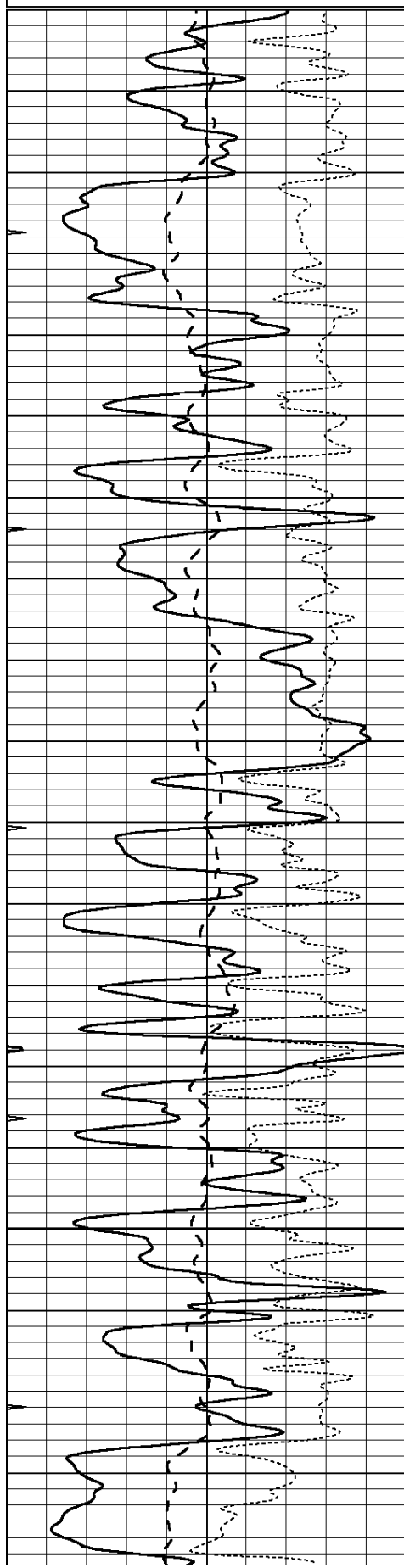
Comments

THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395

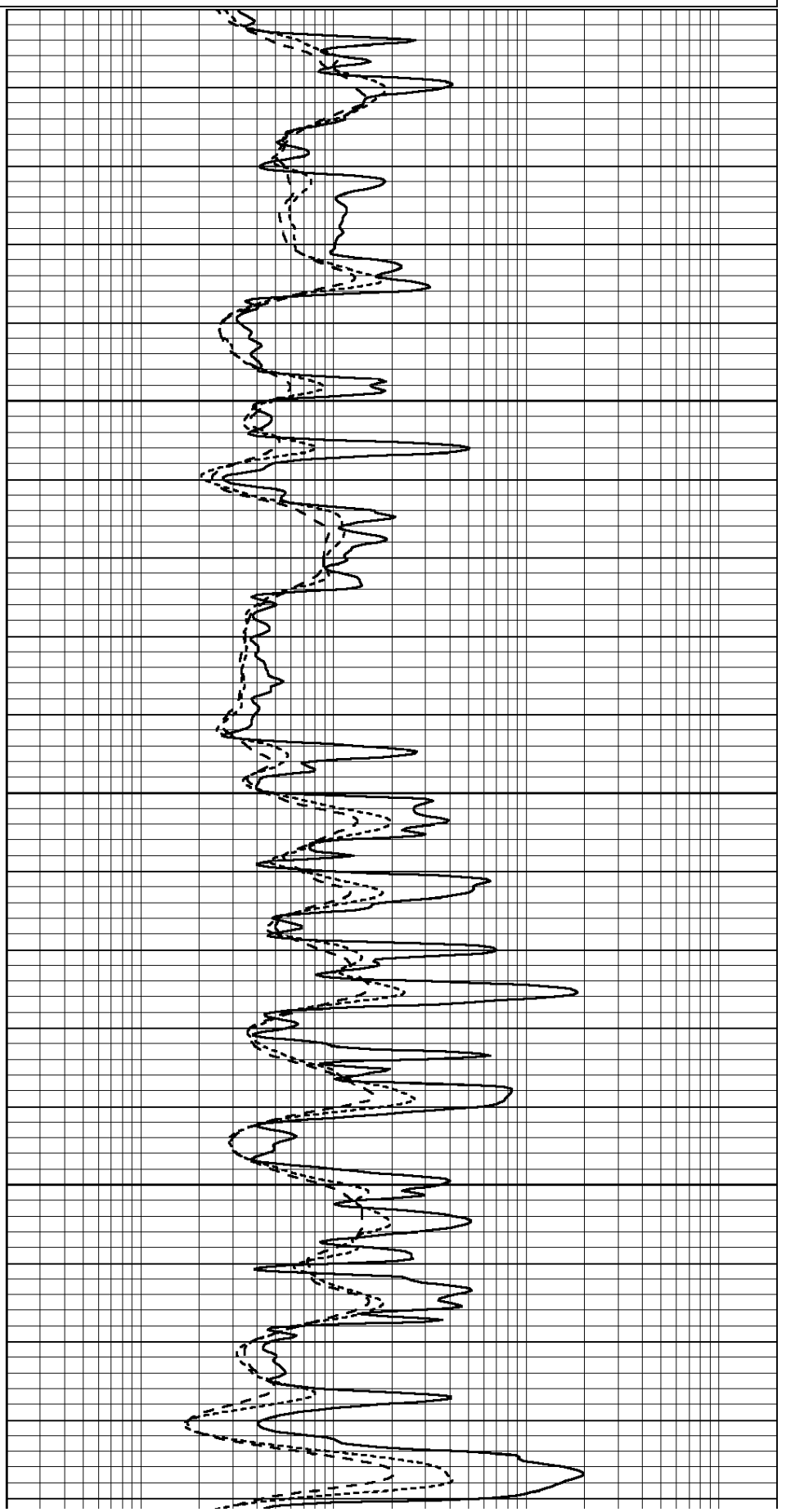
DIRECTIONS
 SOUTH OF RUSSELL SPRINGS TO ADOBE RD.
 WEST 5 MILES
 NORTH INTO.

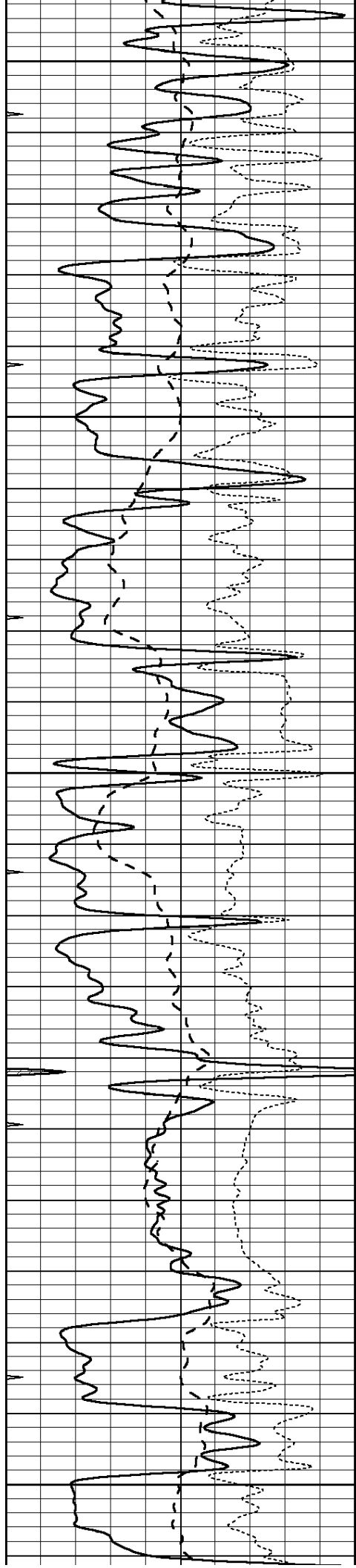
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



3600
3650
3700
3750





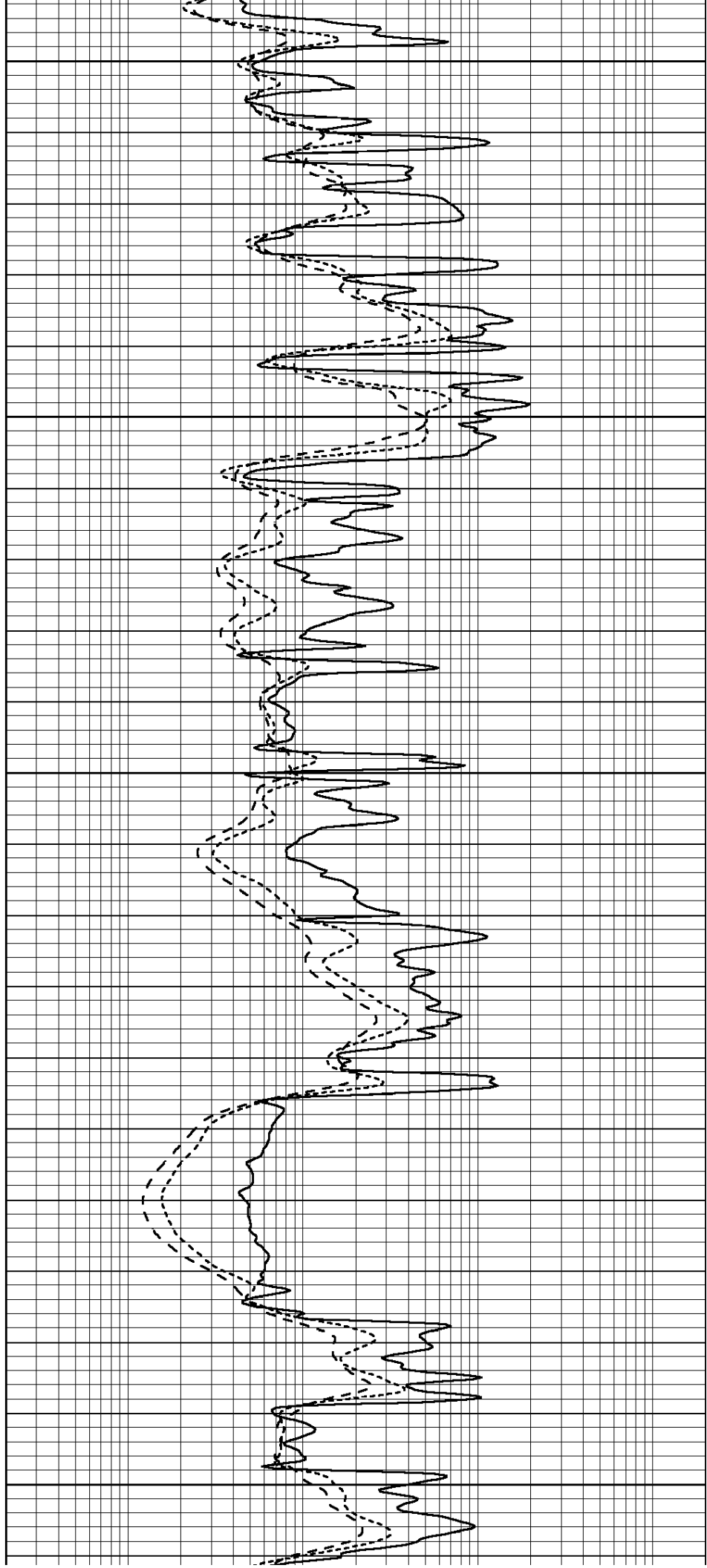
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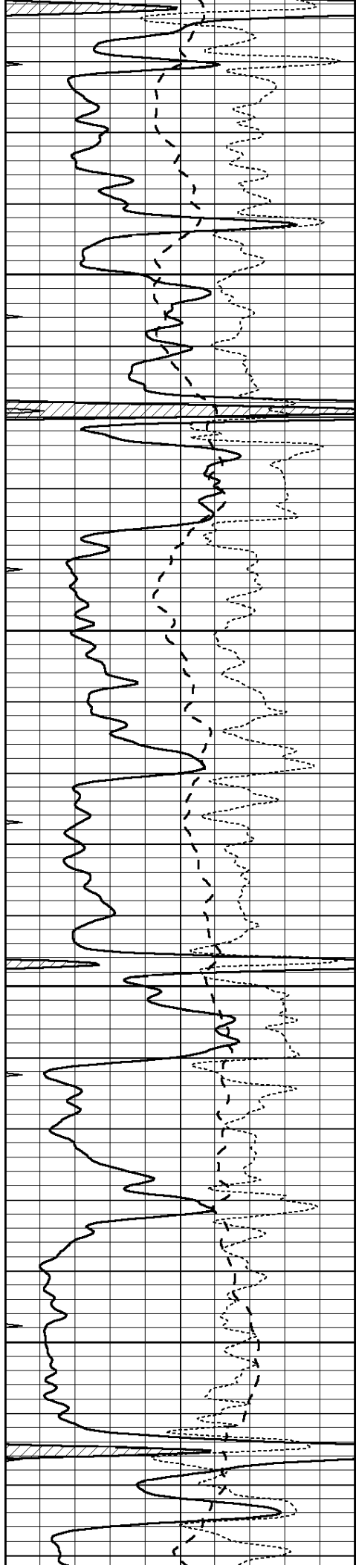
3850

3900

3950

4000



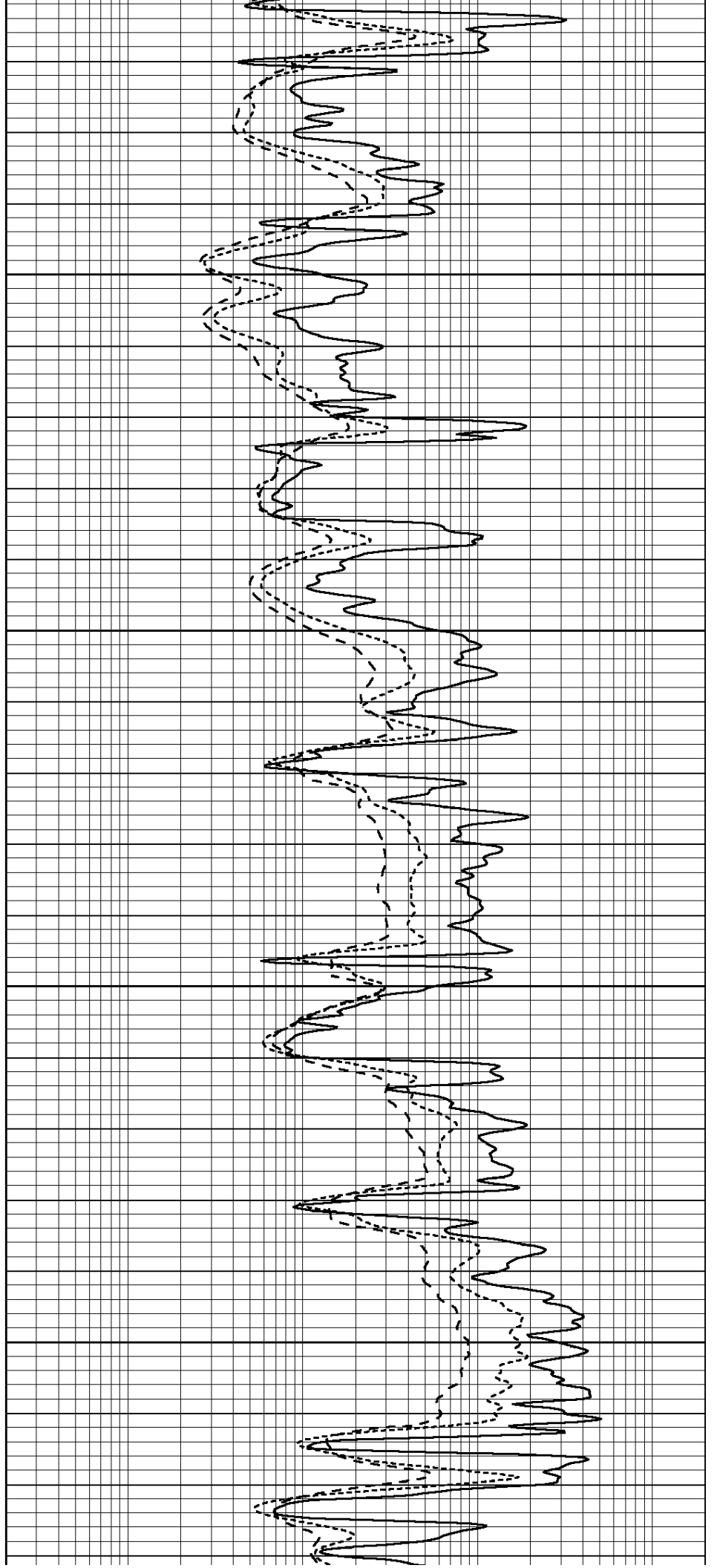


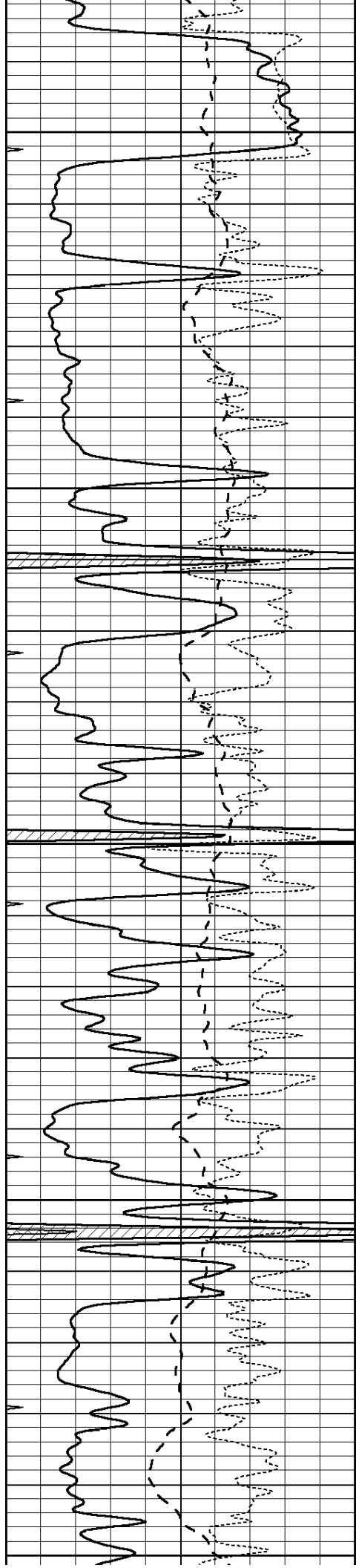
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4100

4150

4200





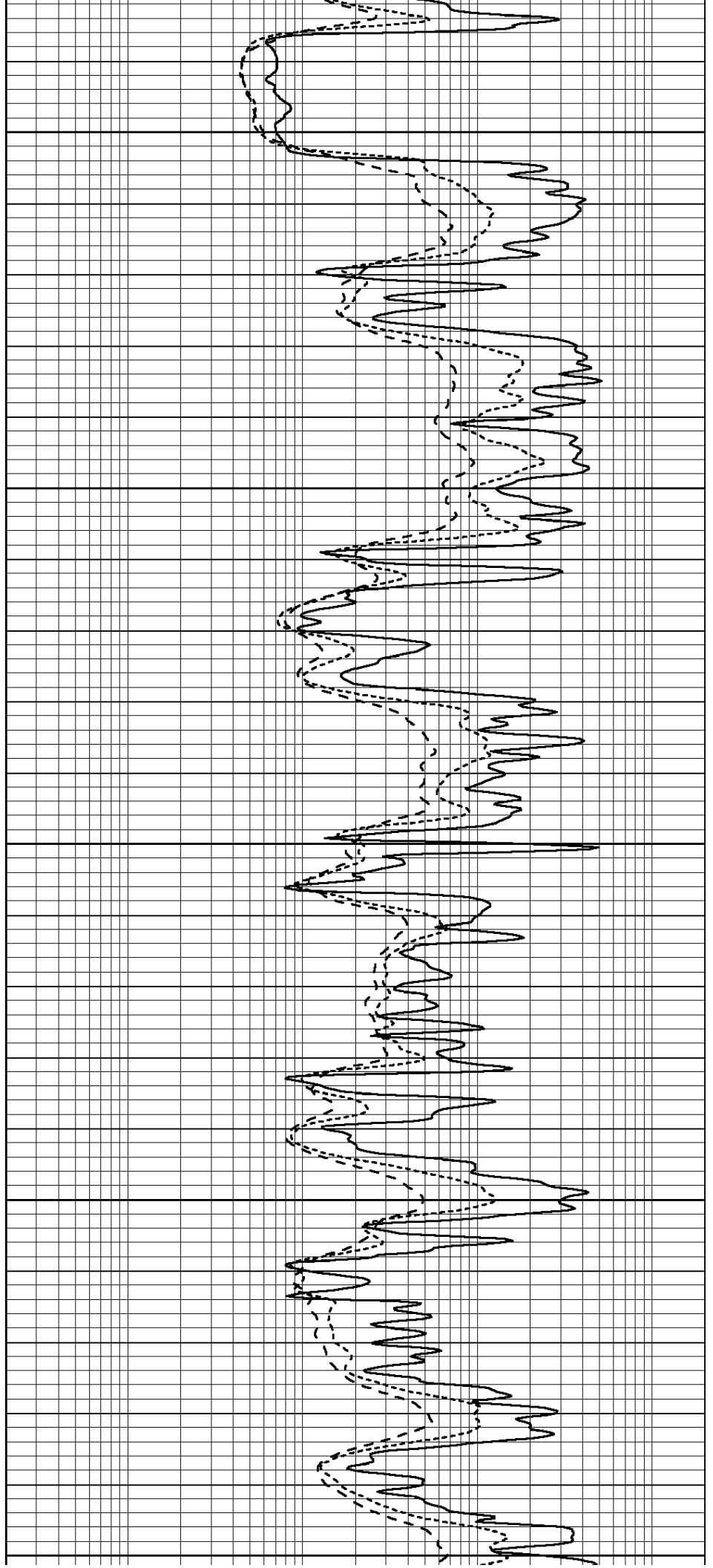
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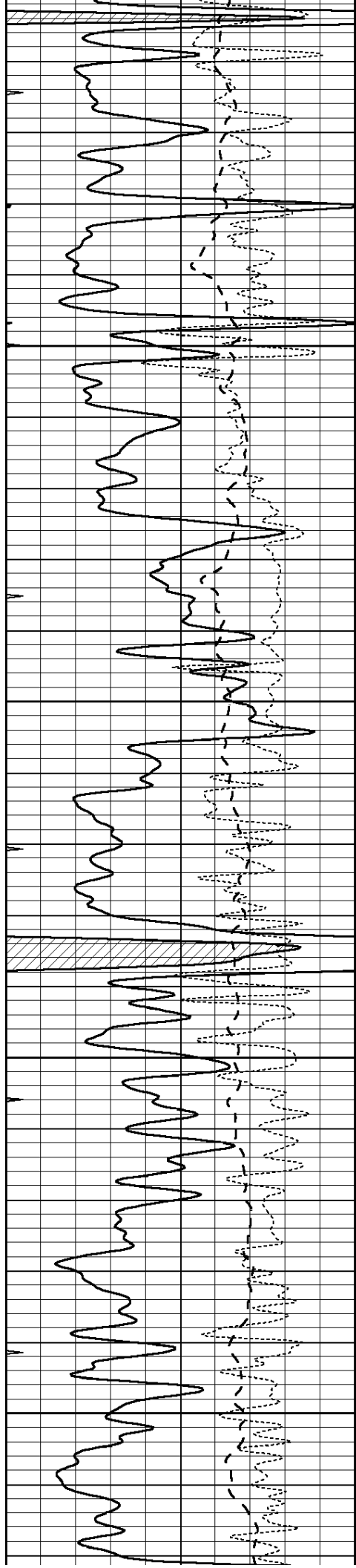
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4350

4400

4450



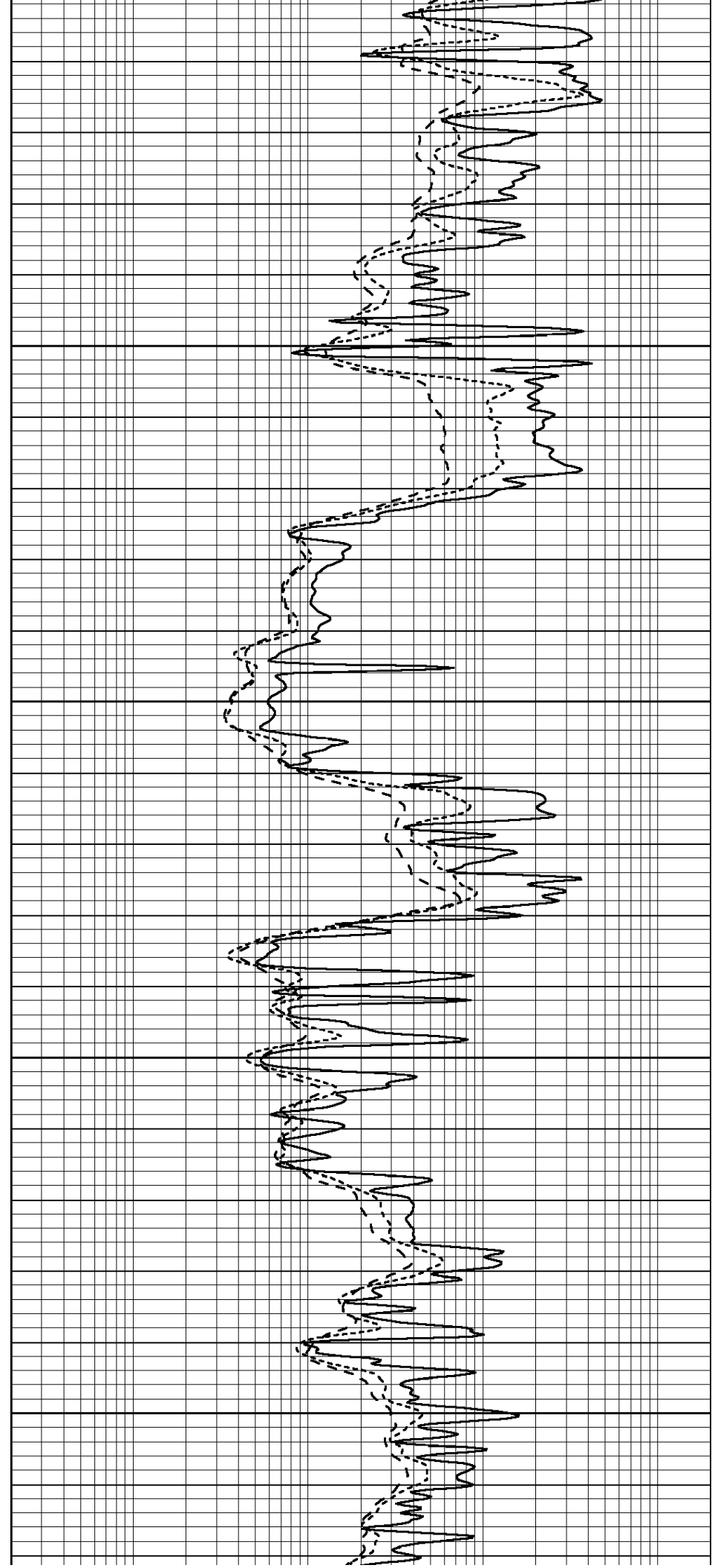


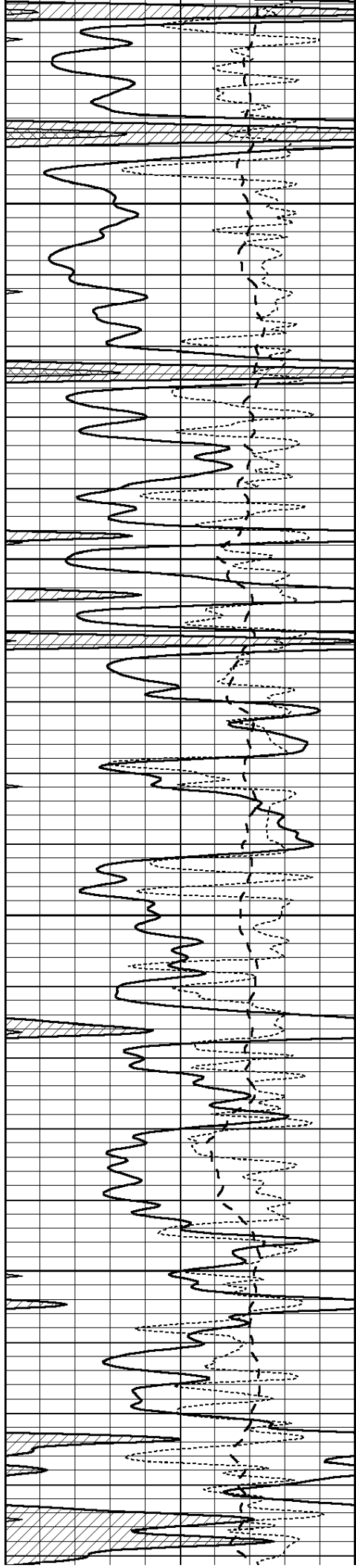
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4550

4600

4650



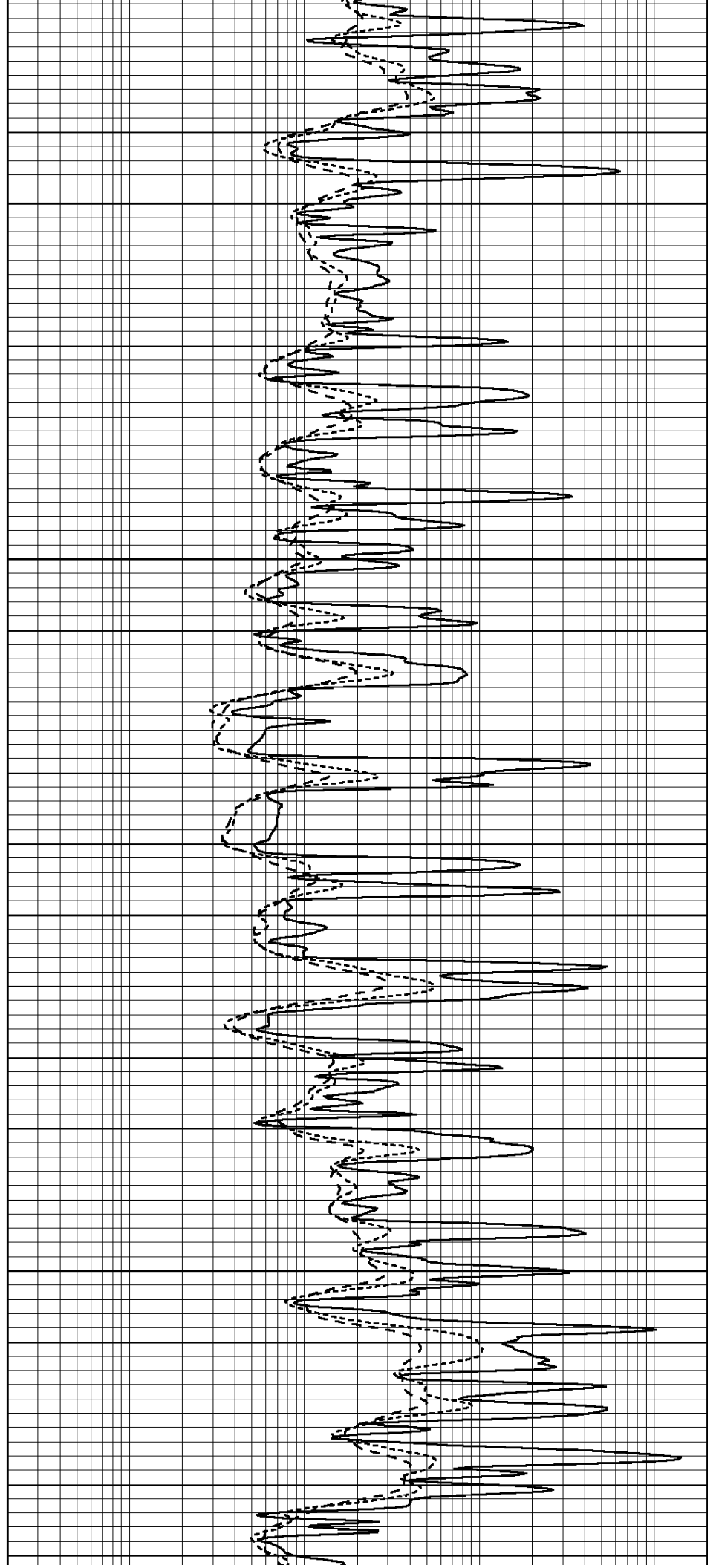


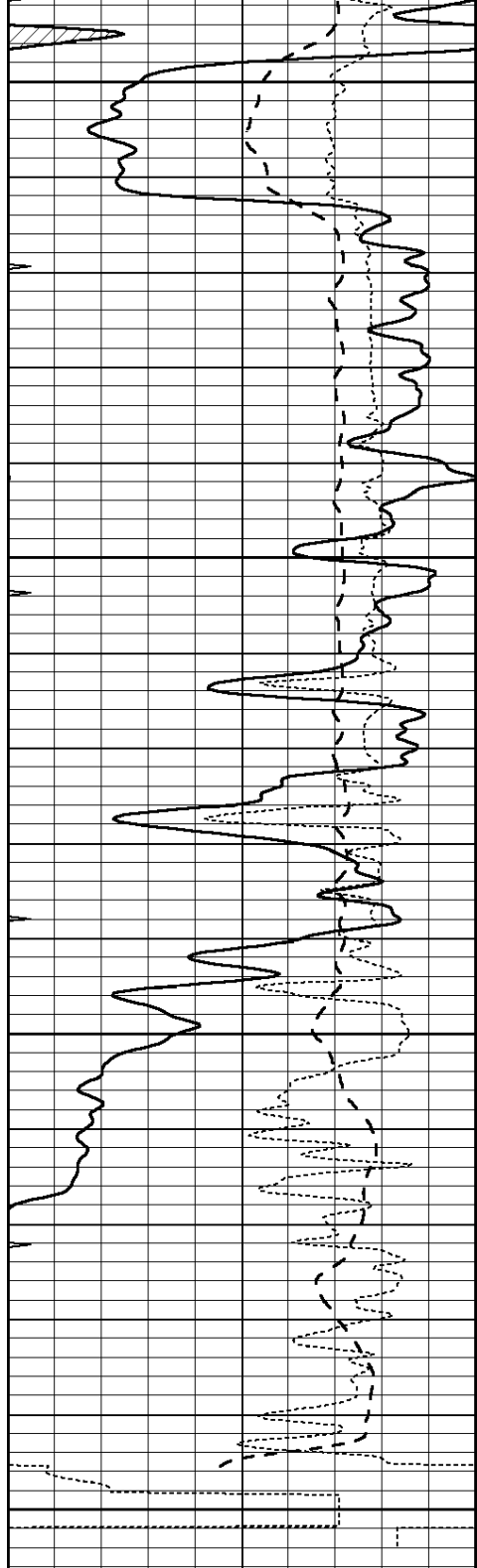
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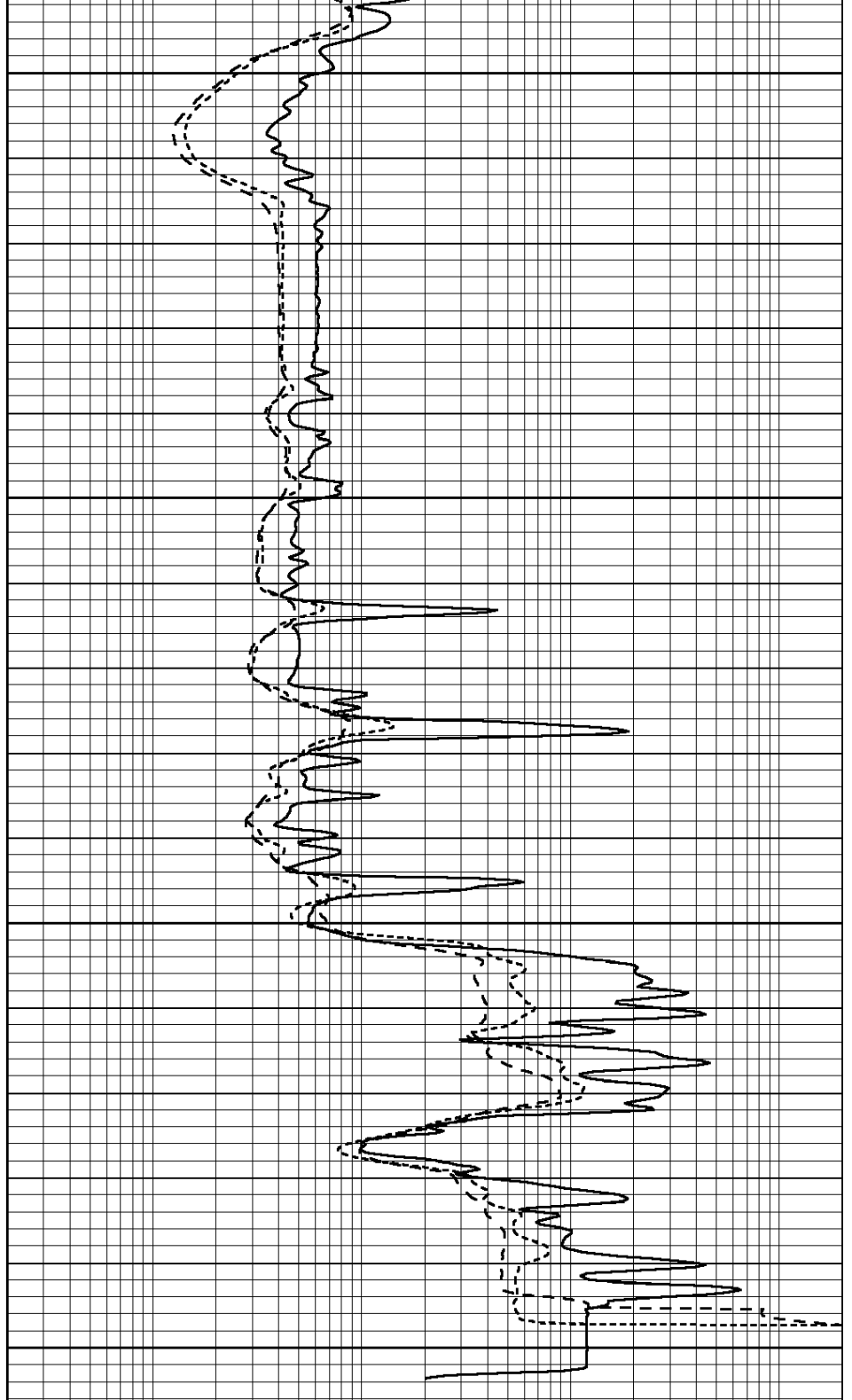
4800

4850





4900
4950
5000
5050



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