



Pioneer Energy Services

# Dual Induction Log

API No.	15-185-23,773-00-00	
Company	L.D. Drilling, Inc.	
Well	Lorraine No. 1 - 35	
Field	Waddle South	
County	Stafford	State
Location	1880' FSL & 1130' FWL	
Sec: 35	Twp: 25 S	Rge: 15 W
Other Services	CNL/CDL	

Permanent Datum	Ground Level	Elevation 2017
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Elevation	K.B. 2025 D.F. 2017 G.L. 2017	

Date	11/9/2012
Run Number	One
Depth Driller	4634
Depth Logger	4634
Bottom Logged Interval	4633
Top Log Interval	350
Casing Driller	8.625 @ 395
Casing Logger	389
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	4500
Density / Viscosity	9.2 50
pH / Fluid Loss	10.0 9.6
Source of Sample	Flowline
Rm @ Meas. Temp	.70 @ 68
Rmf @ Meas. Temp	.53 @ 68
Rmc @ Meas. Temp	.95 @ 68
Source of Rmf / Rmc	Charts
Rm @ BHT	.39 @ 122
Operating Rig Time	3 Hours
Max Rec. Temp. F	122
Equipment Number	108
Location	Hays
Recorded By	D. Martin
Witnessed By	Kim Shoemaker

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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

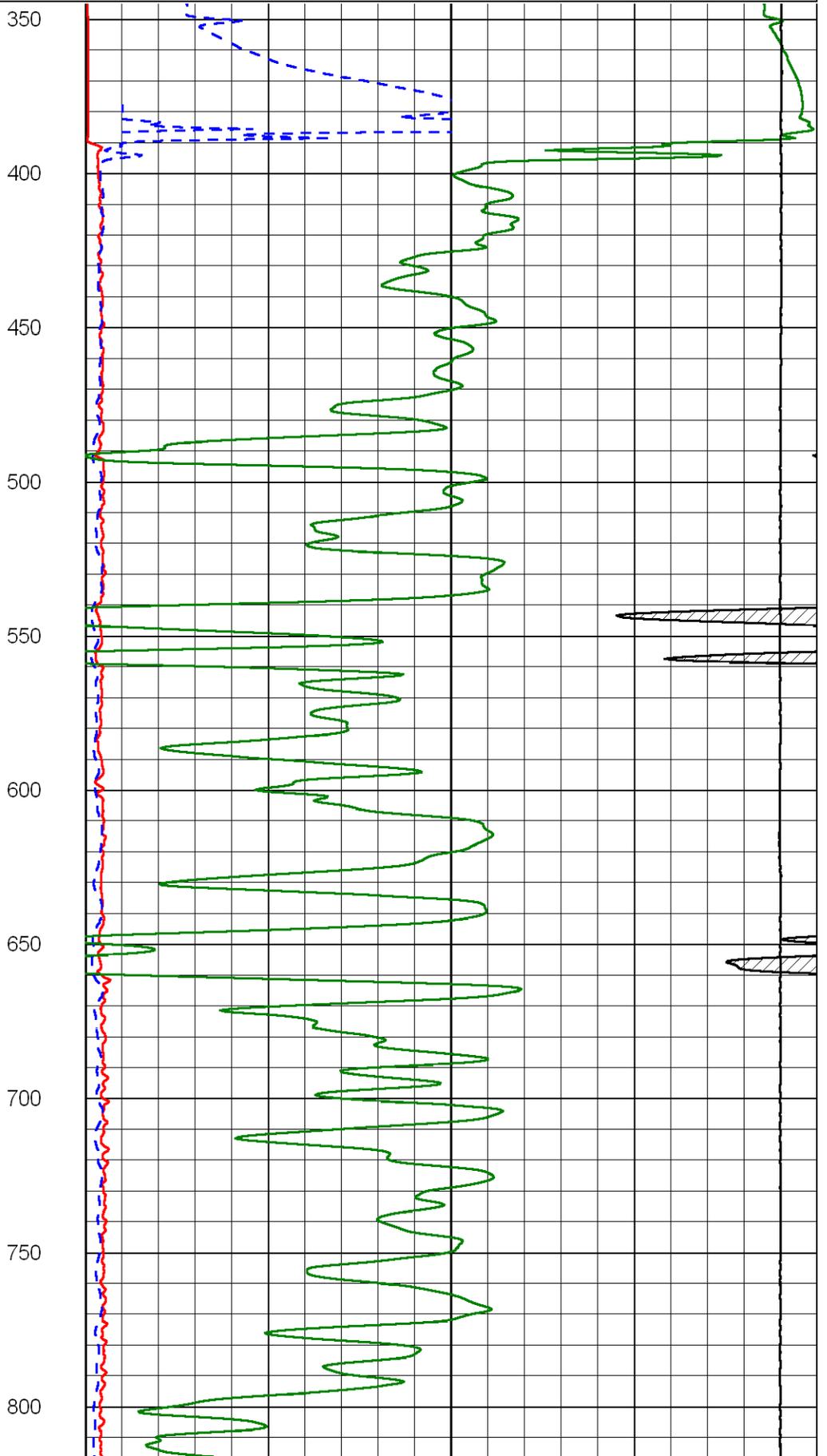
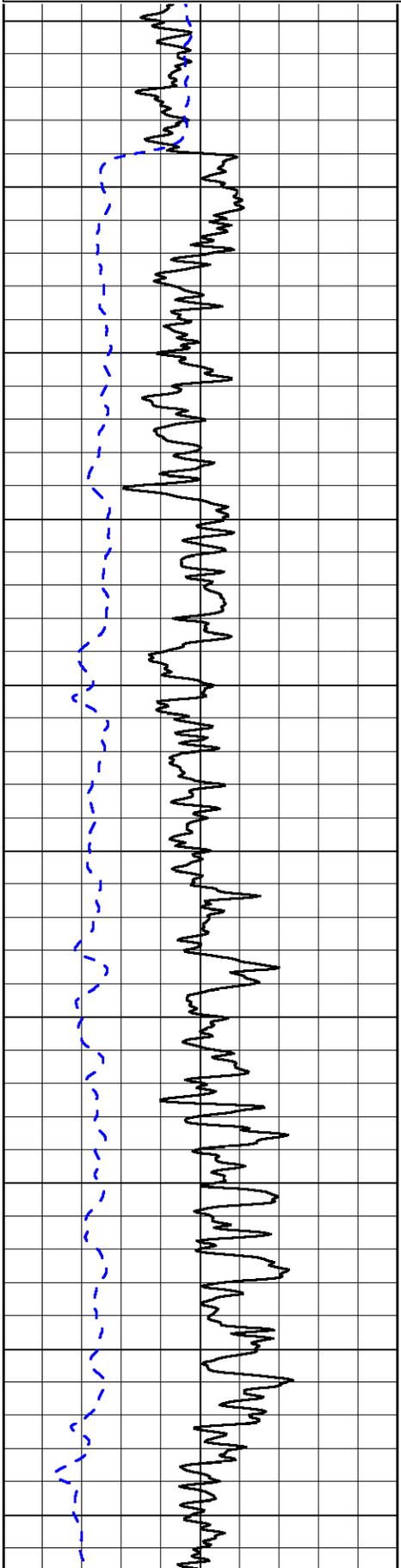
Thank you for using Log-Tech, Inc.  
 (785) 625-3858  
 Macksville, KS  
 9 S to T(Co. Line), 1 E,  
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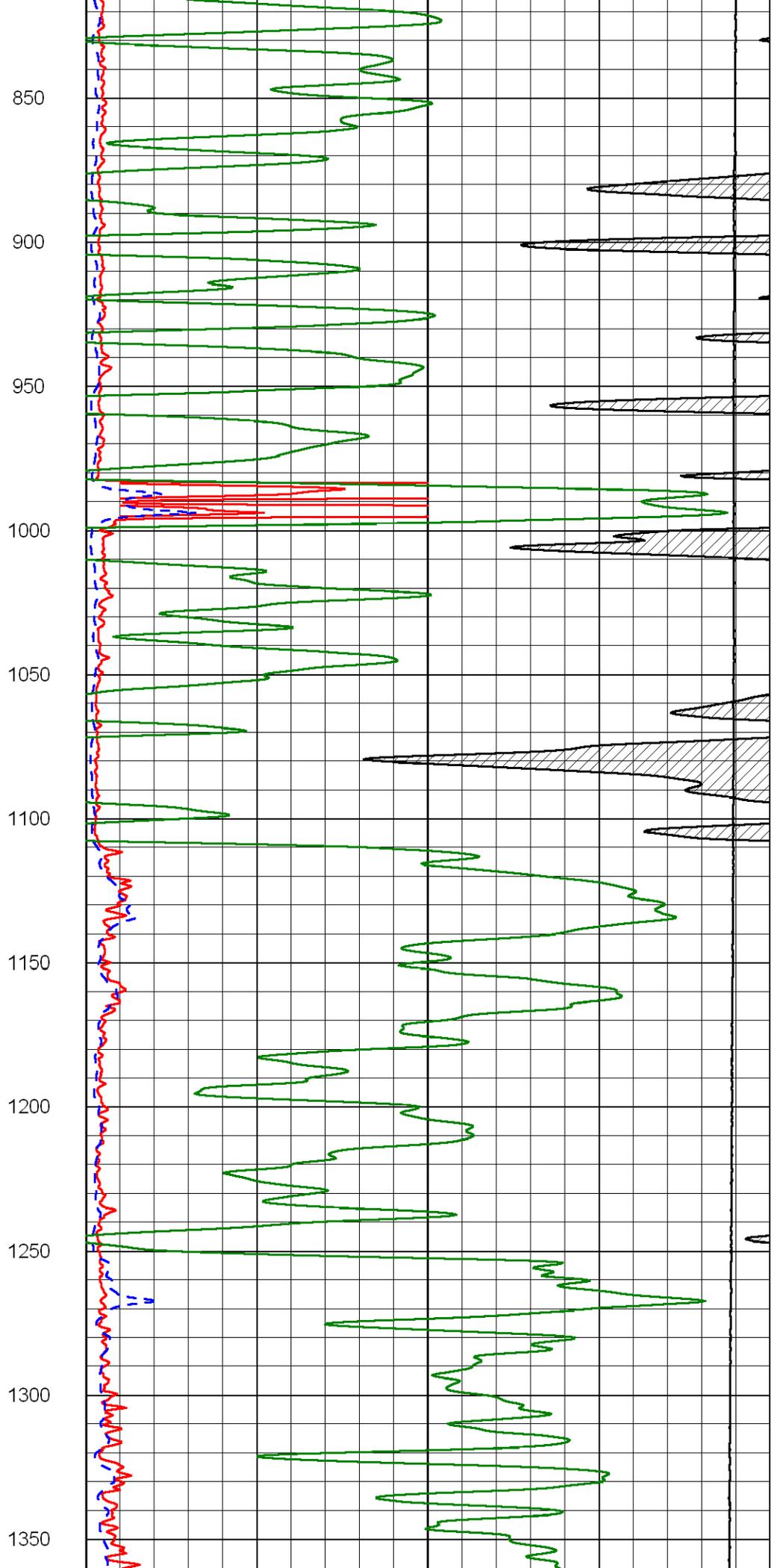
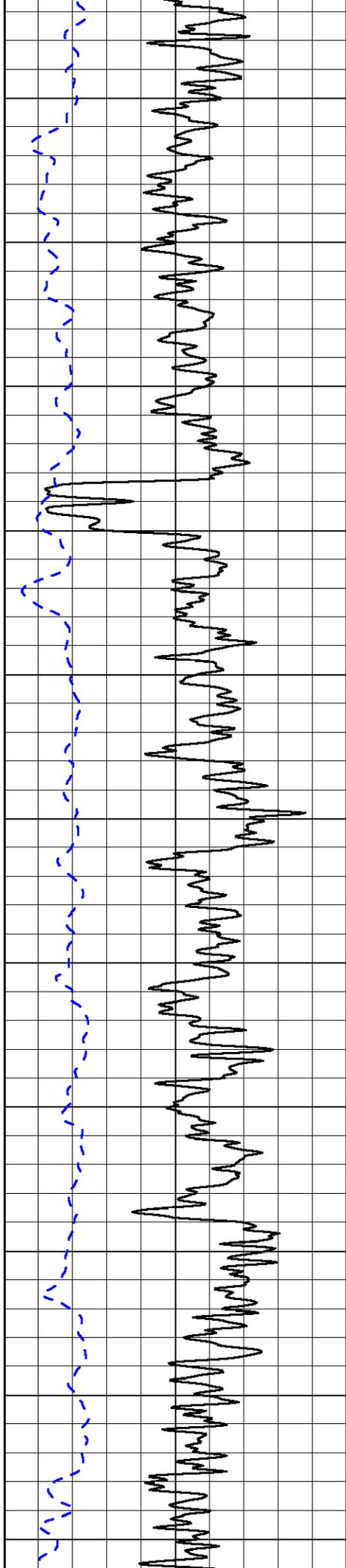
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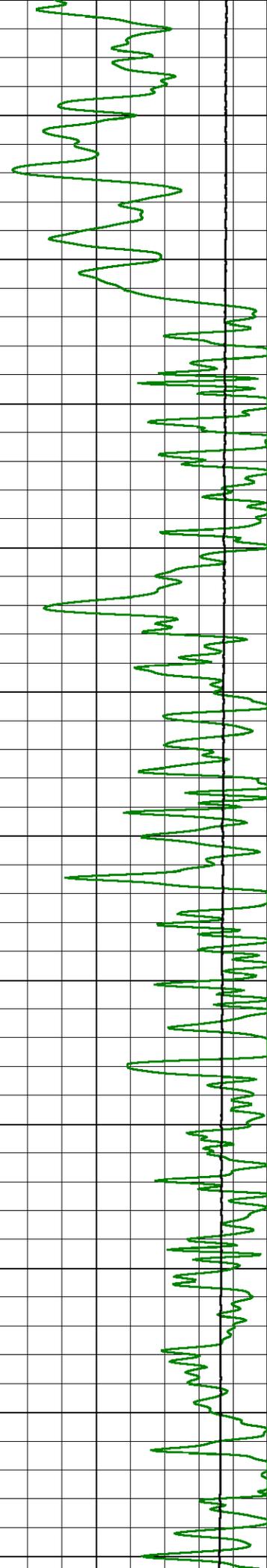
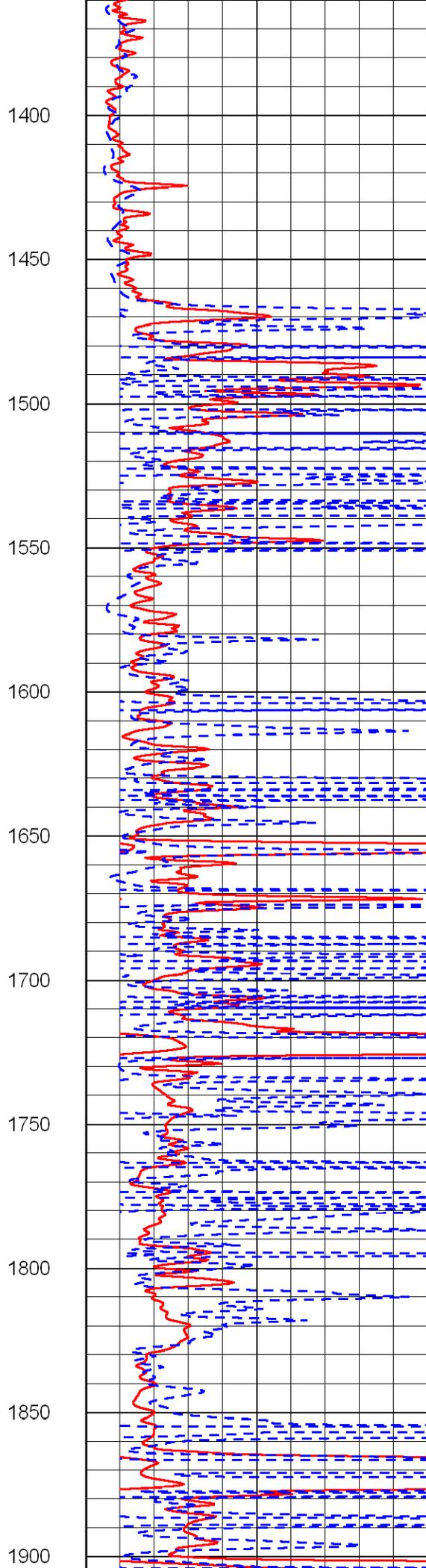
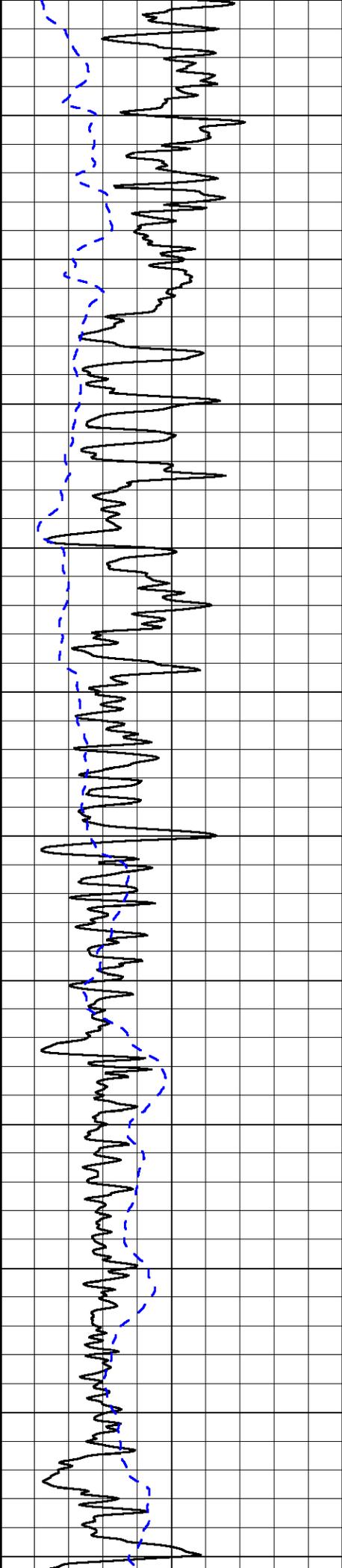
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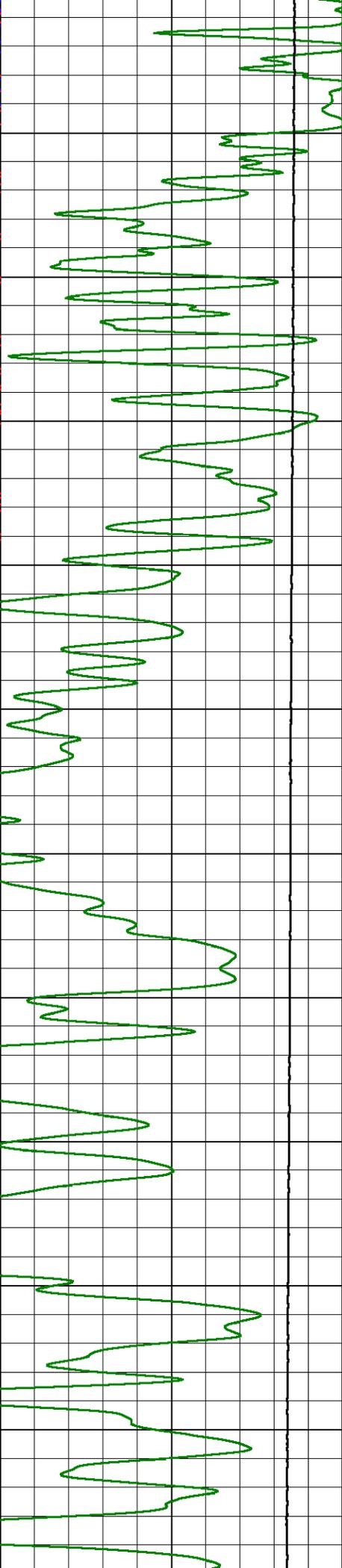
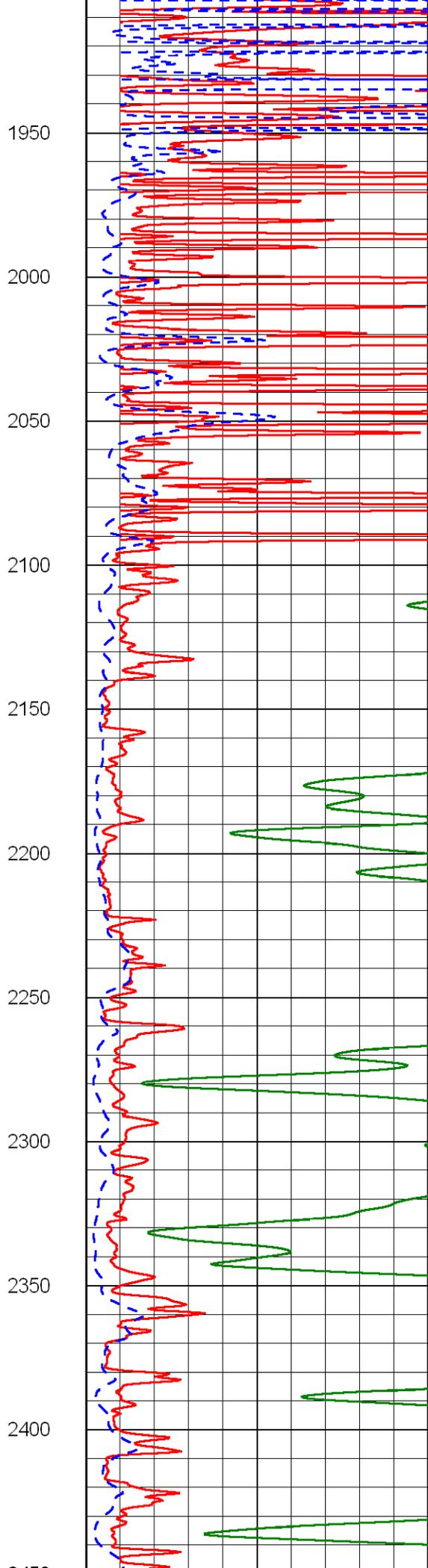
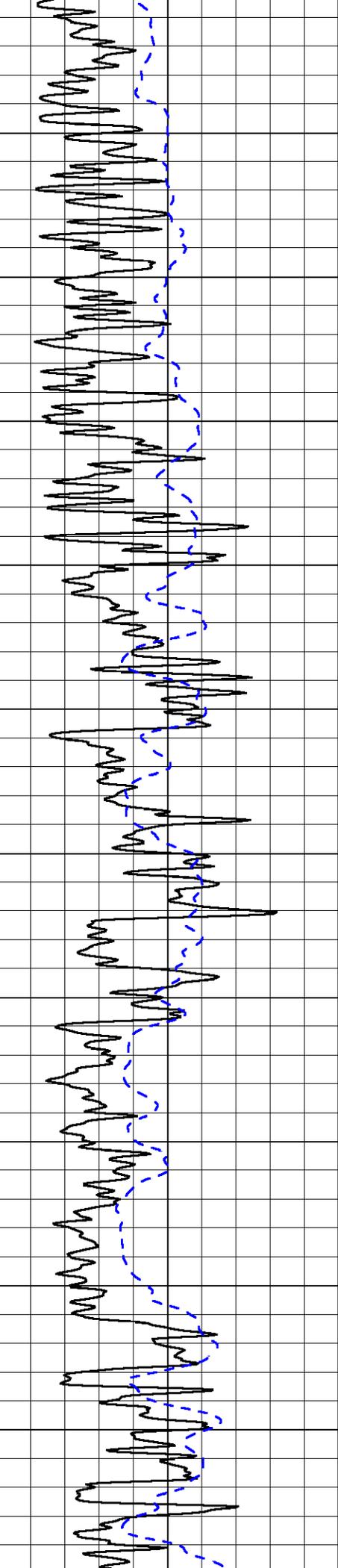
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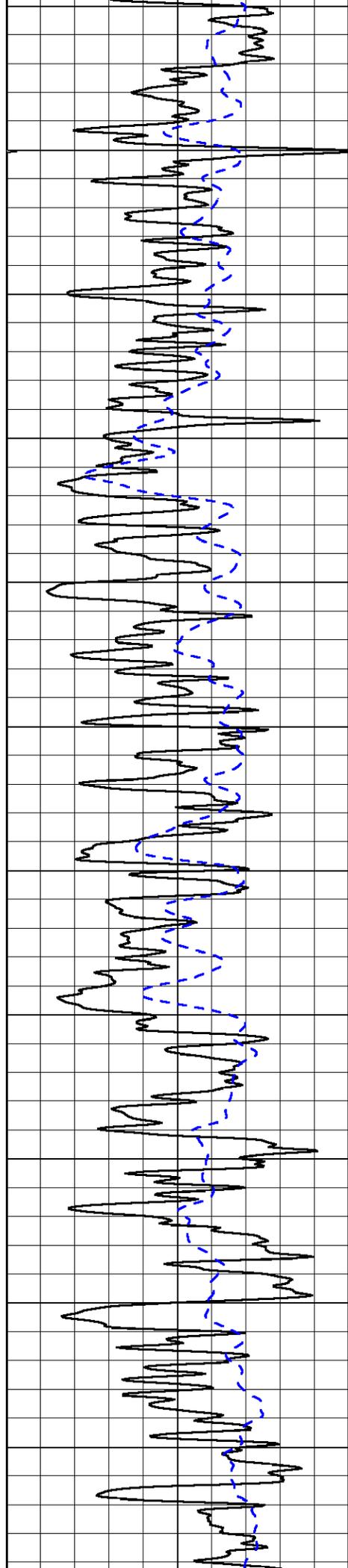
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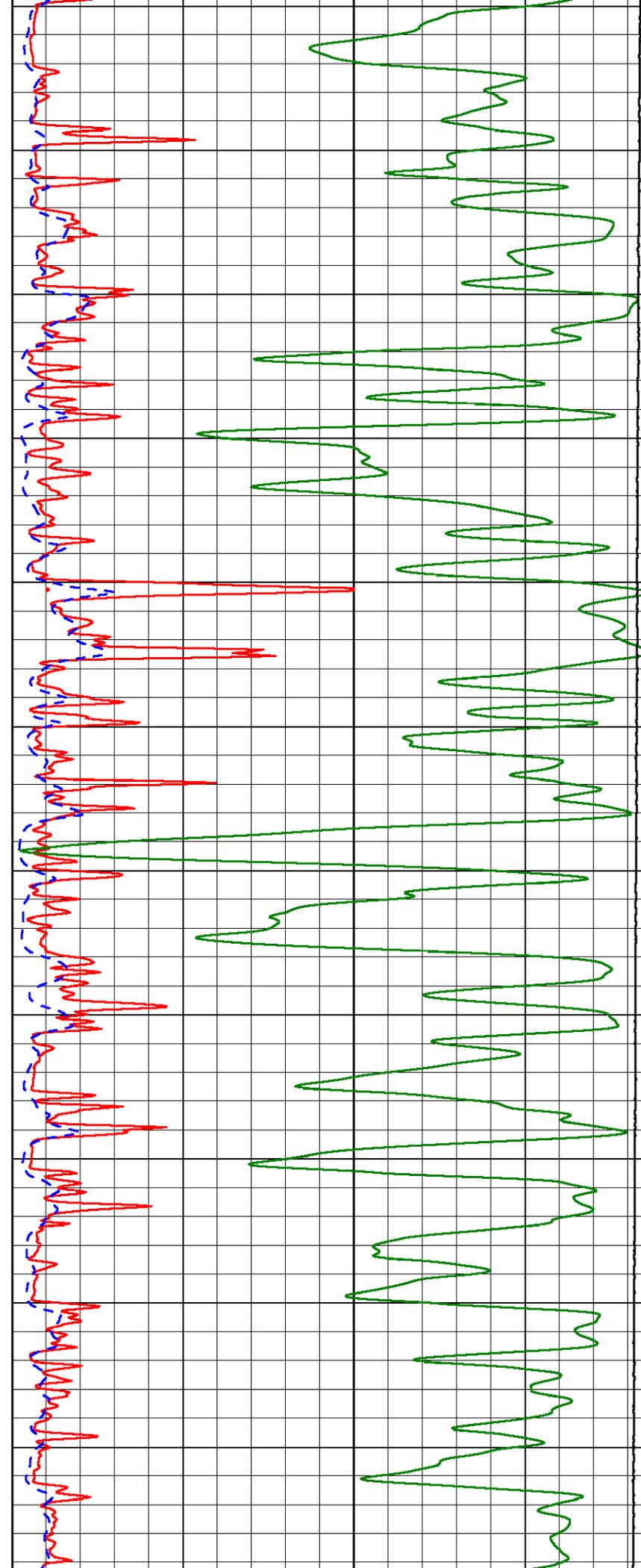


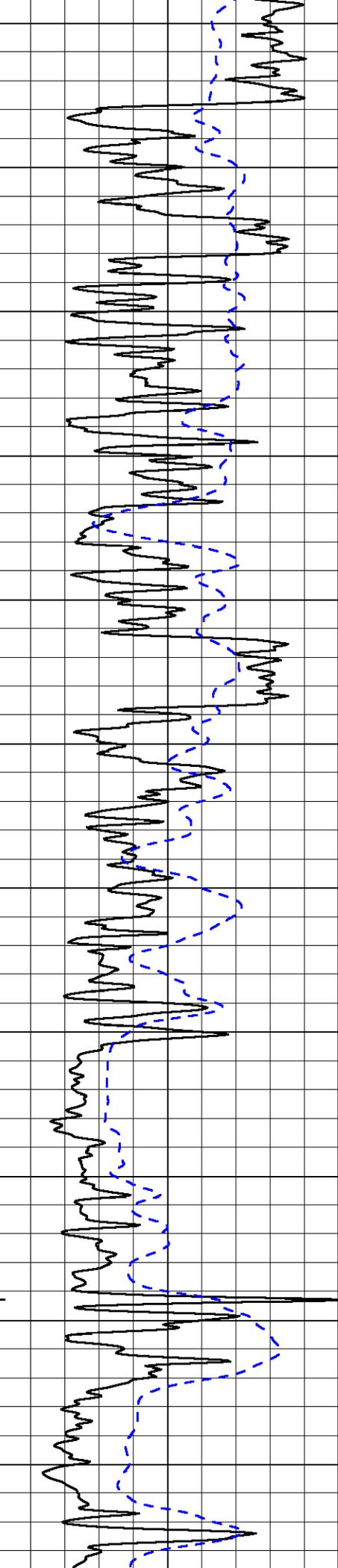




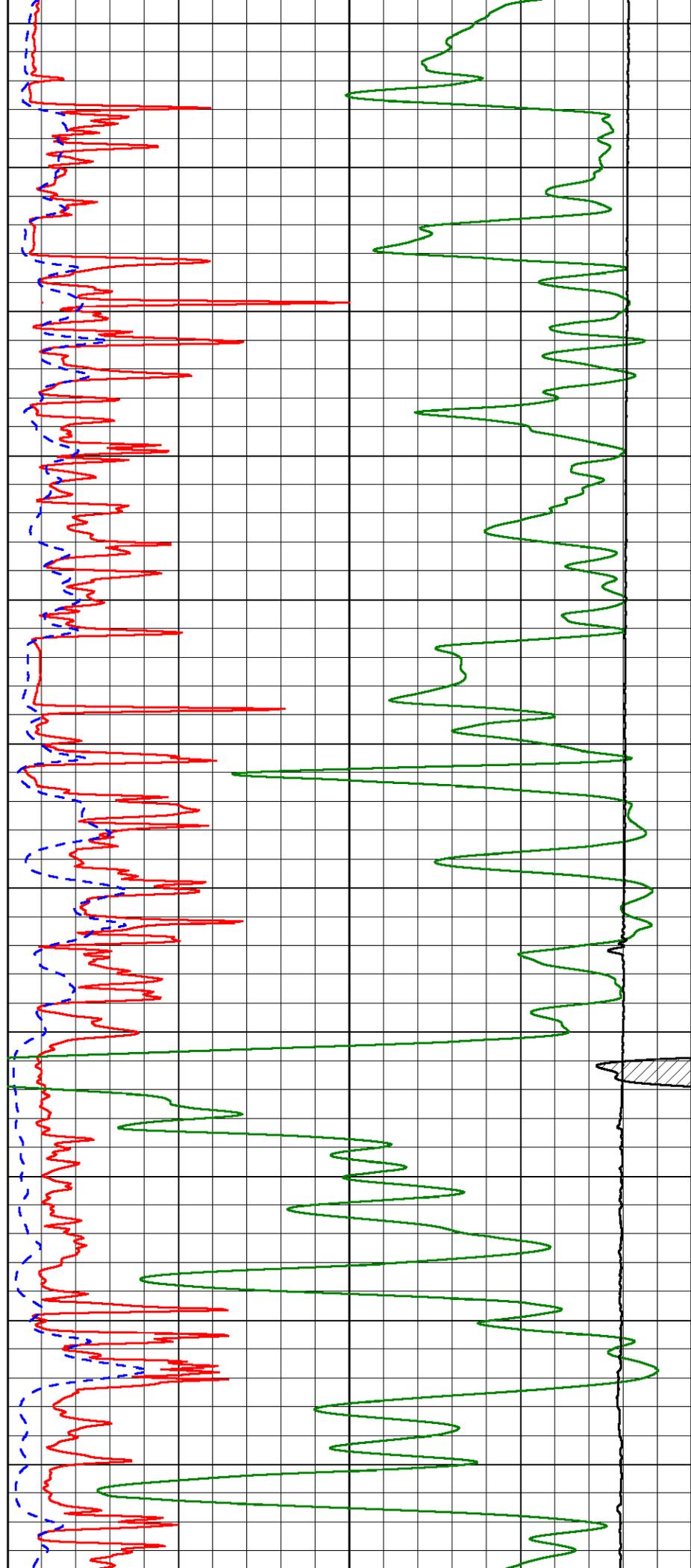


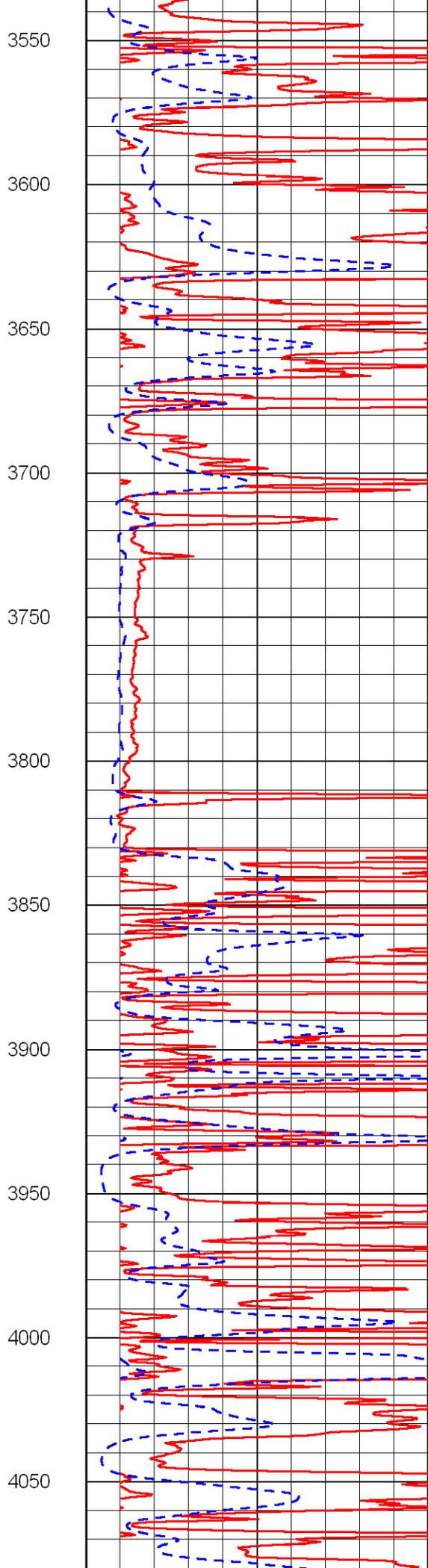
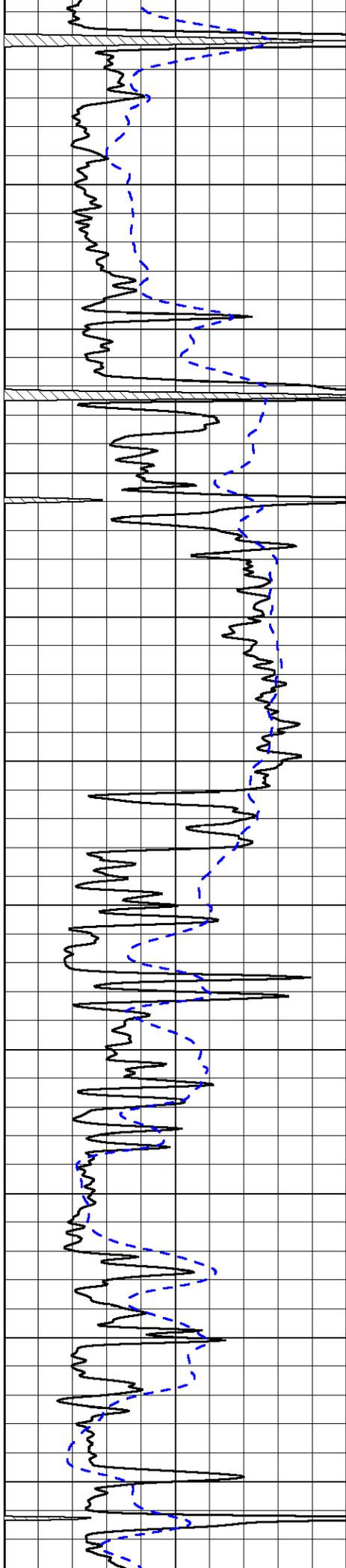
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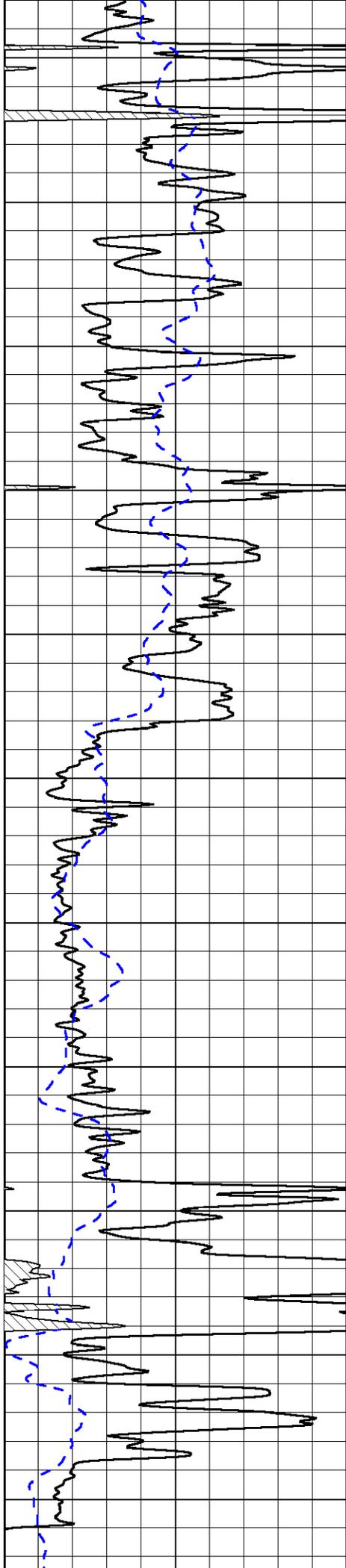




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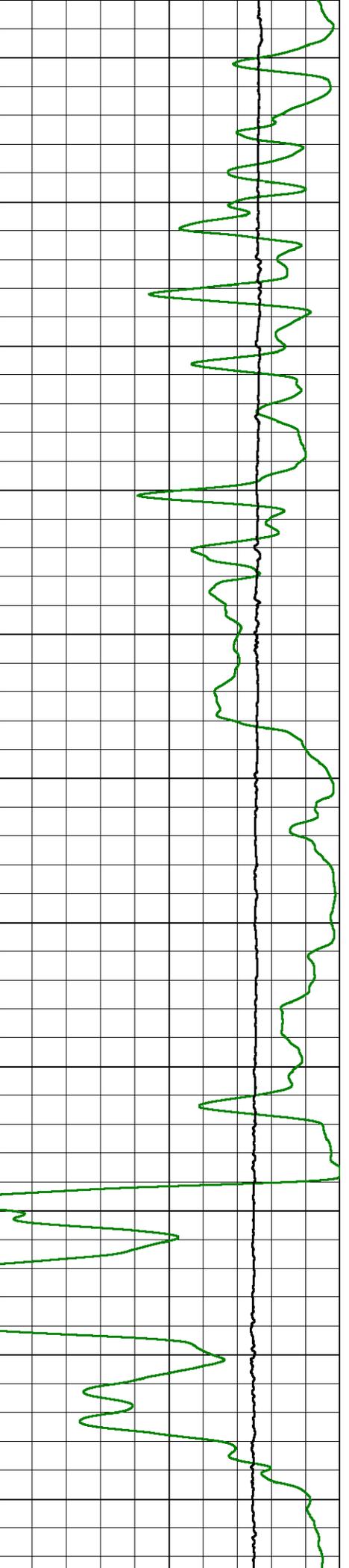
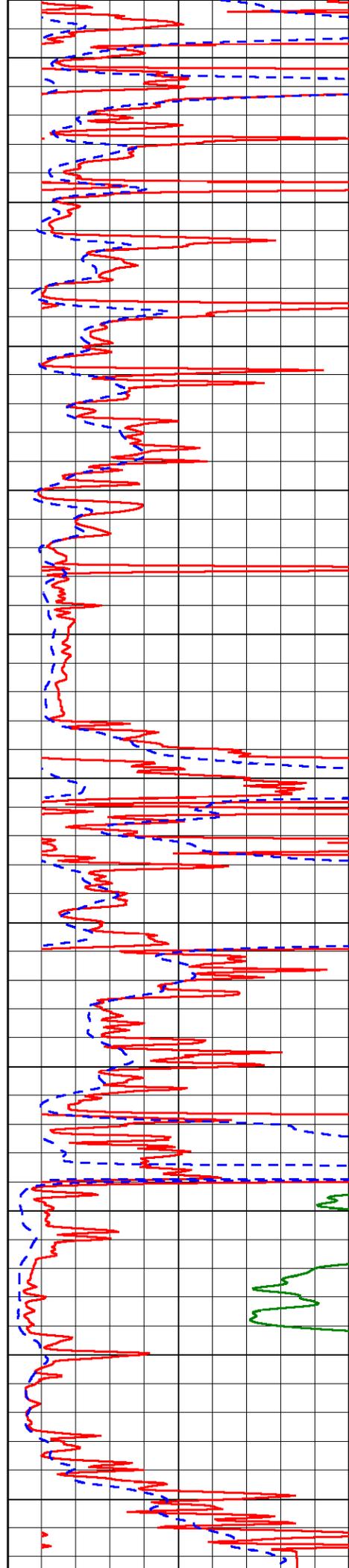
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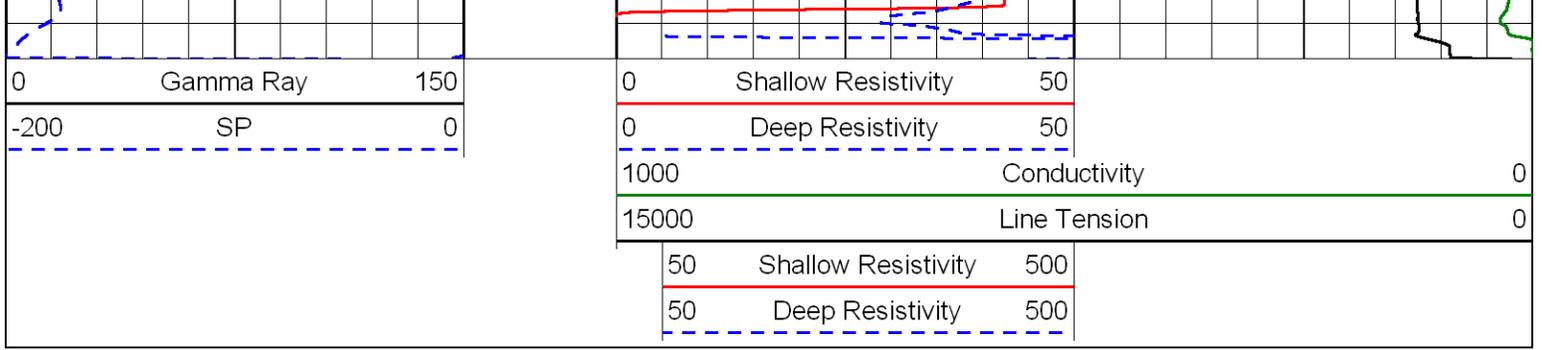
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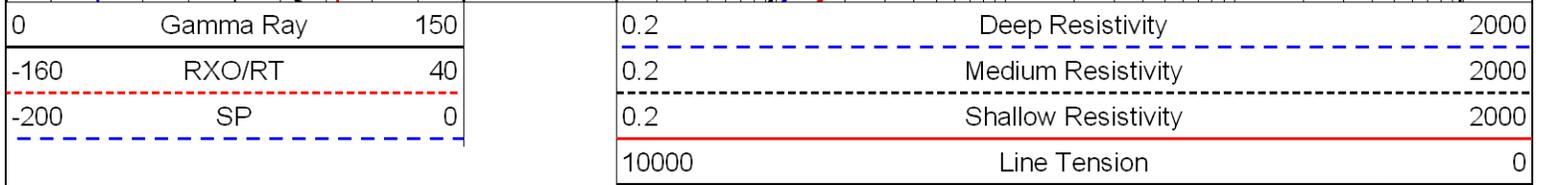
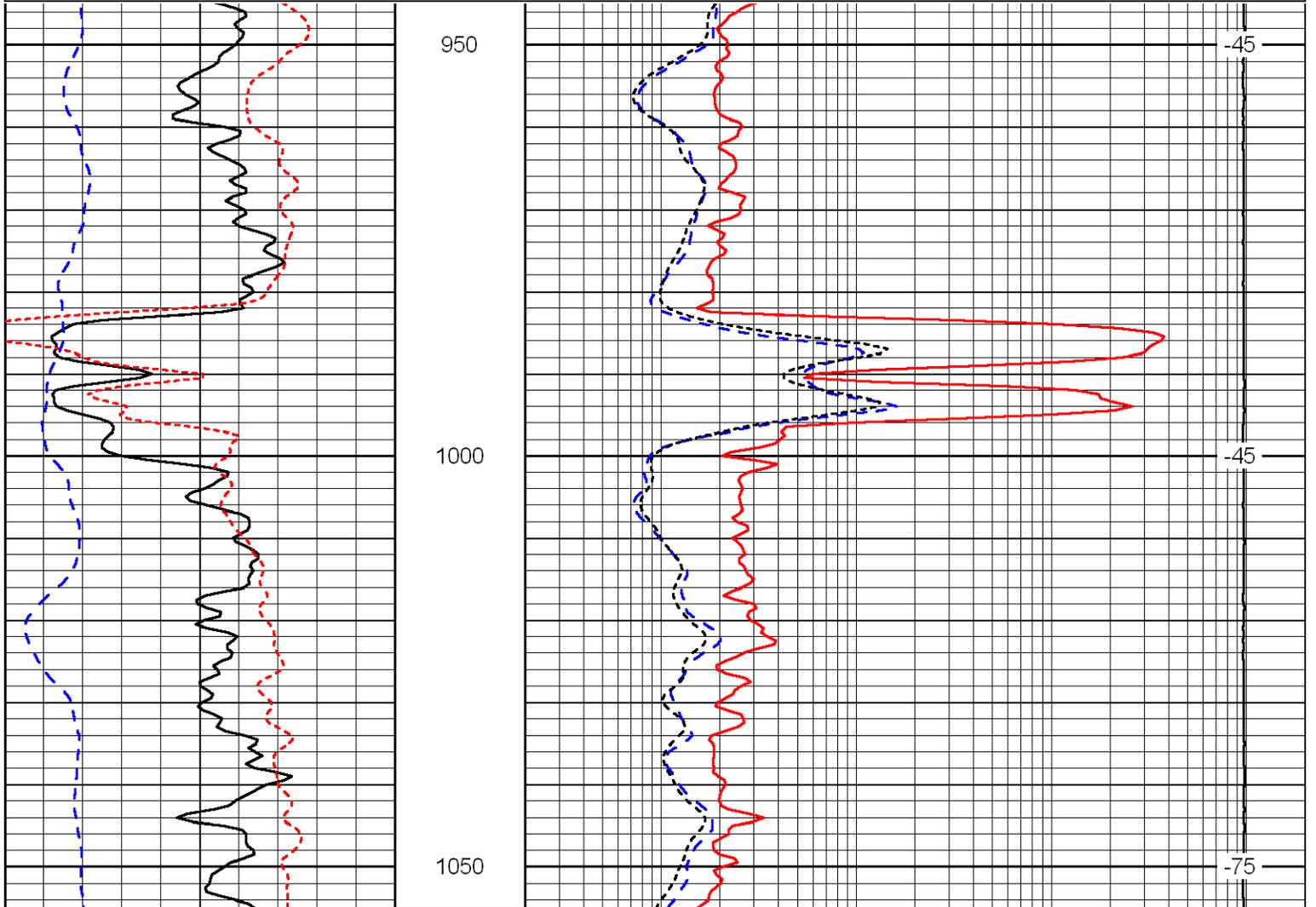
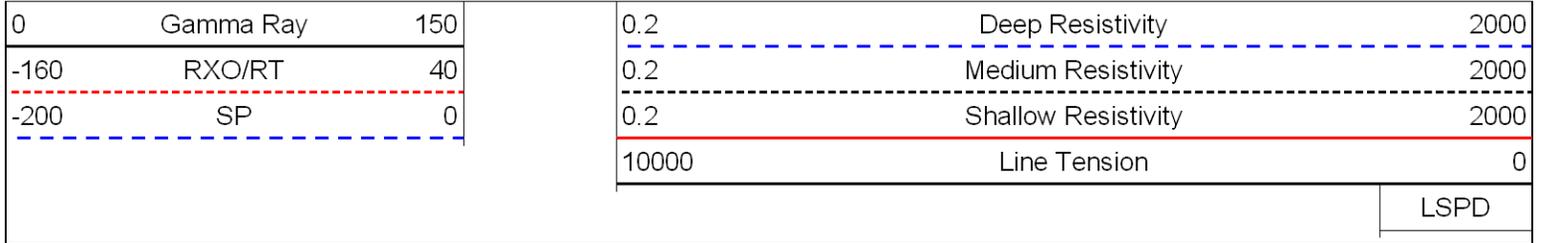
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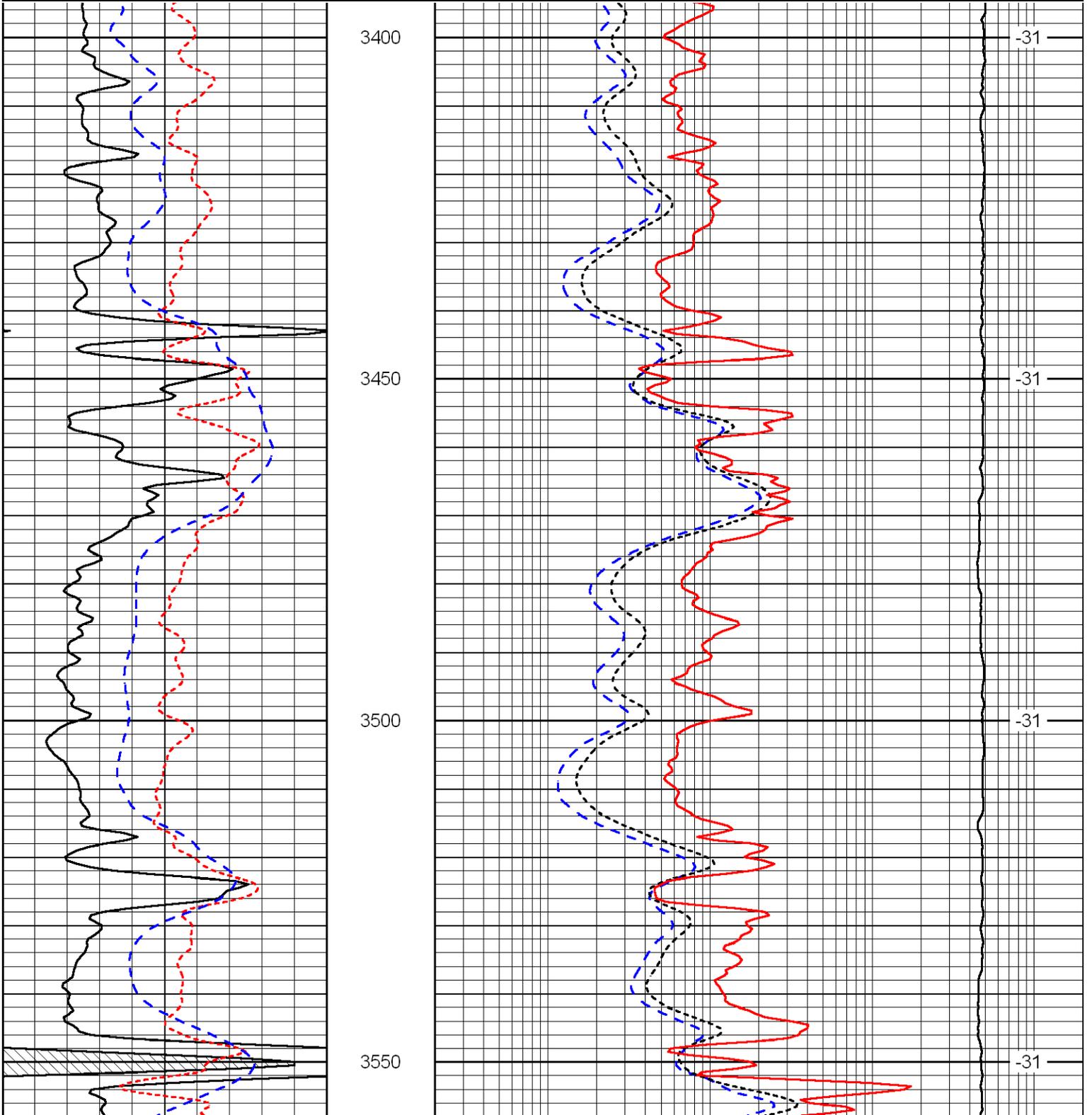


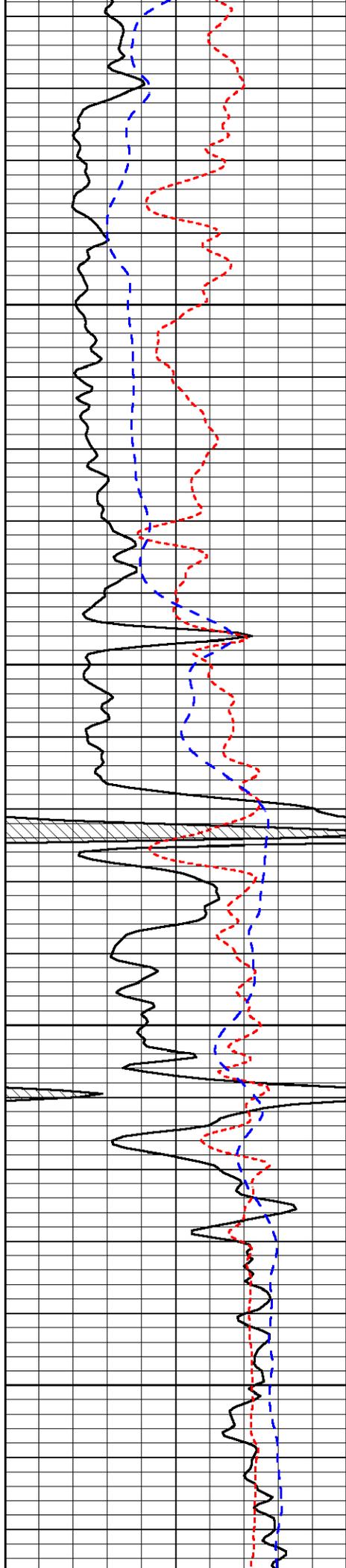
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-160	RXO/RT	40
-200	SP	0

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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



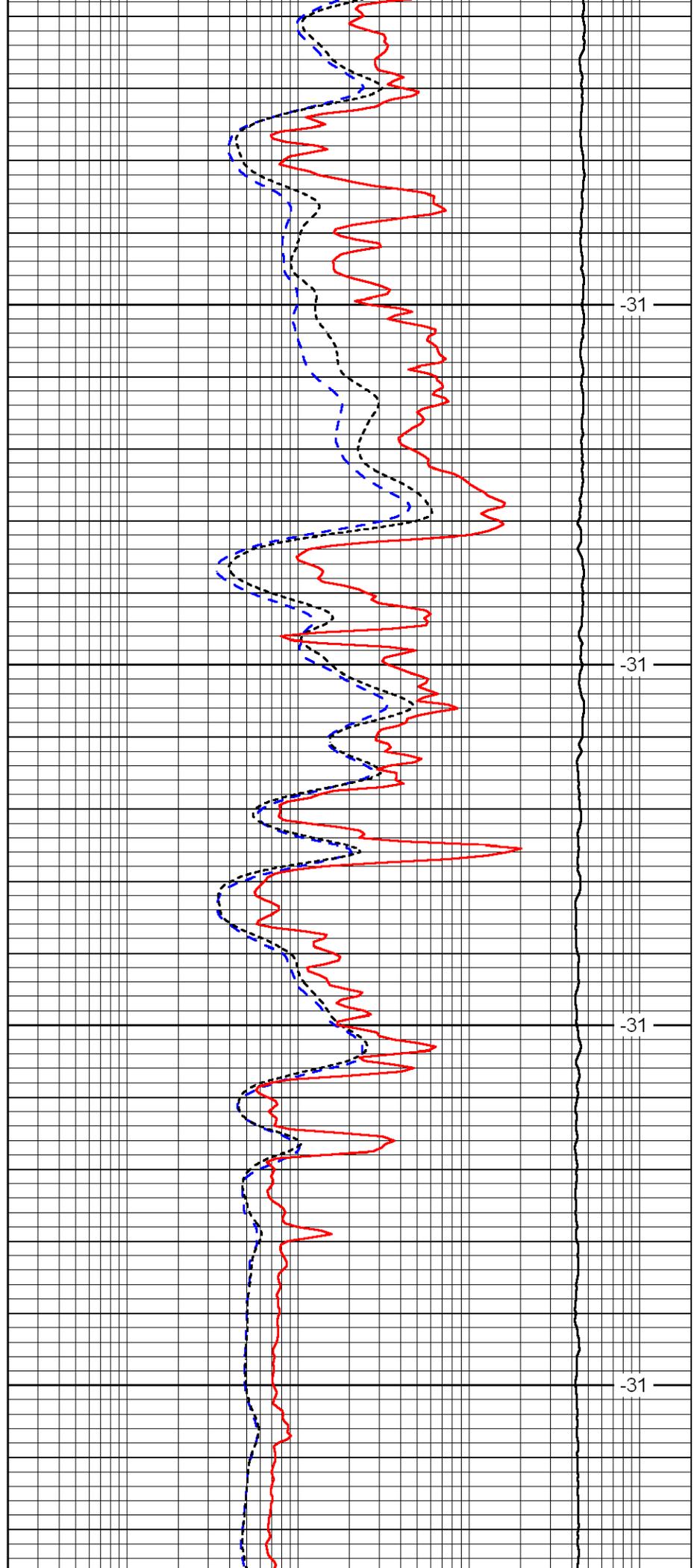


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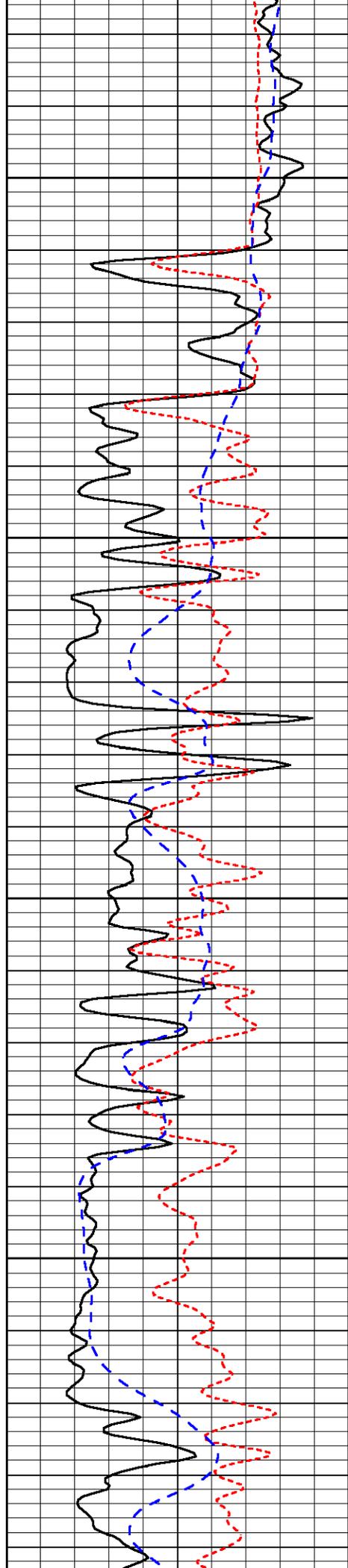


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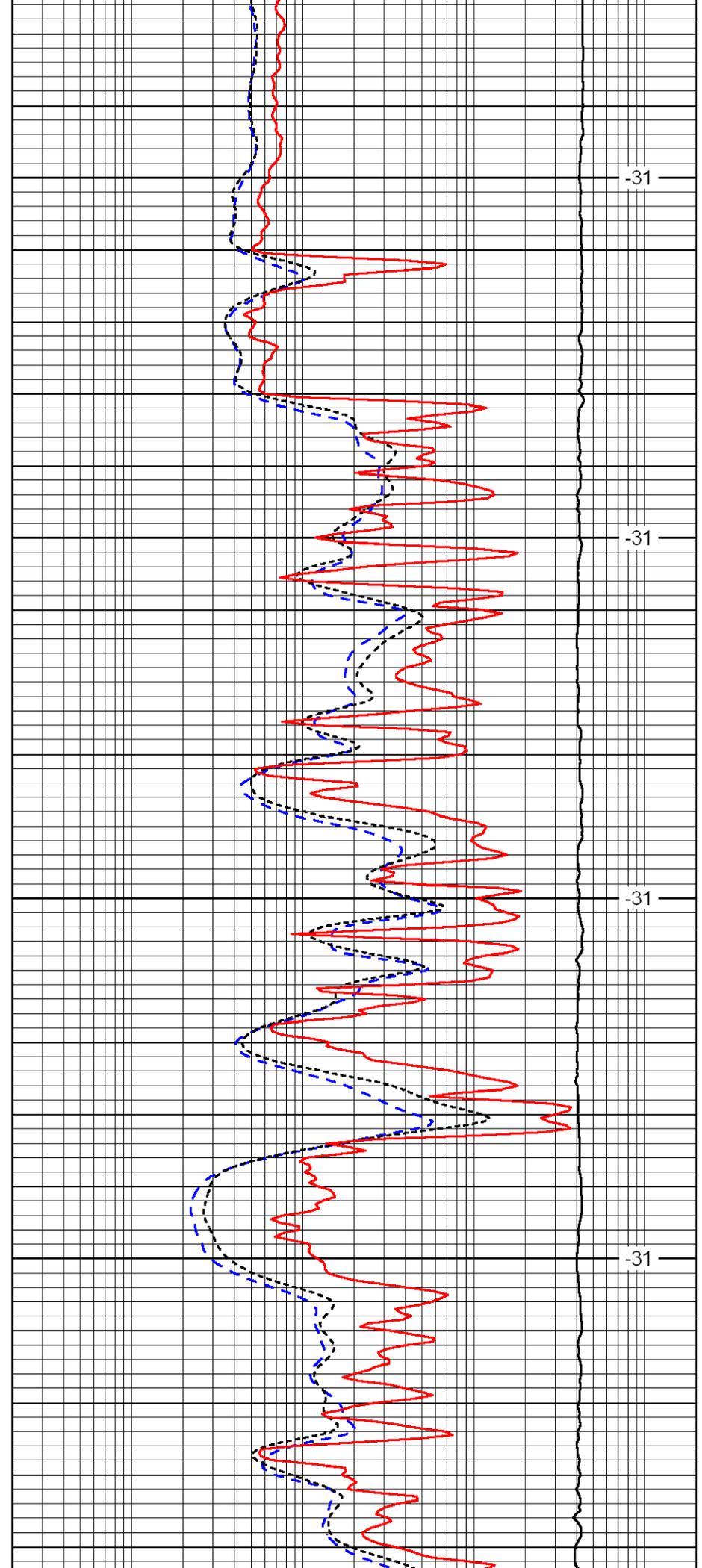


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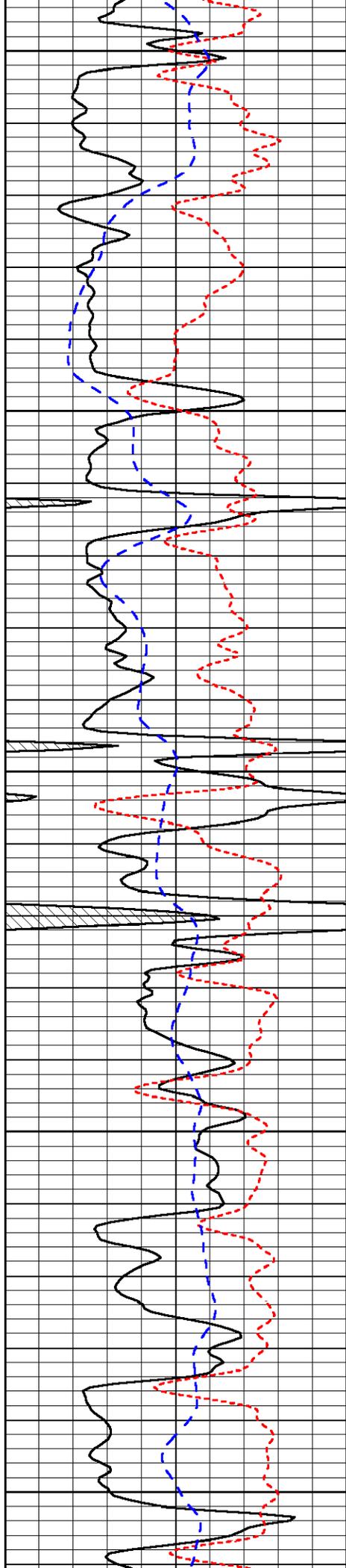


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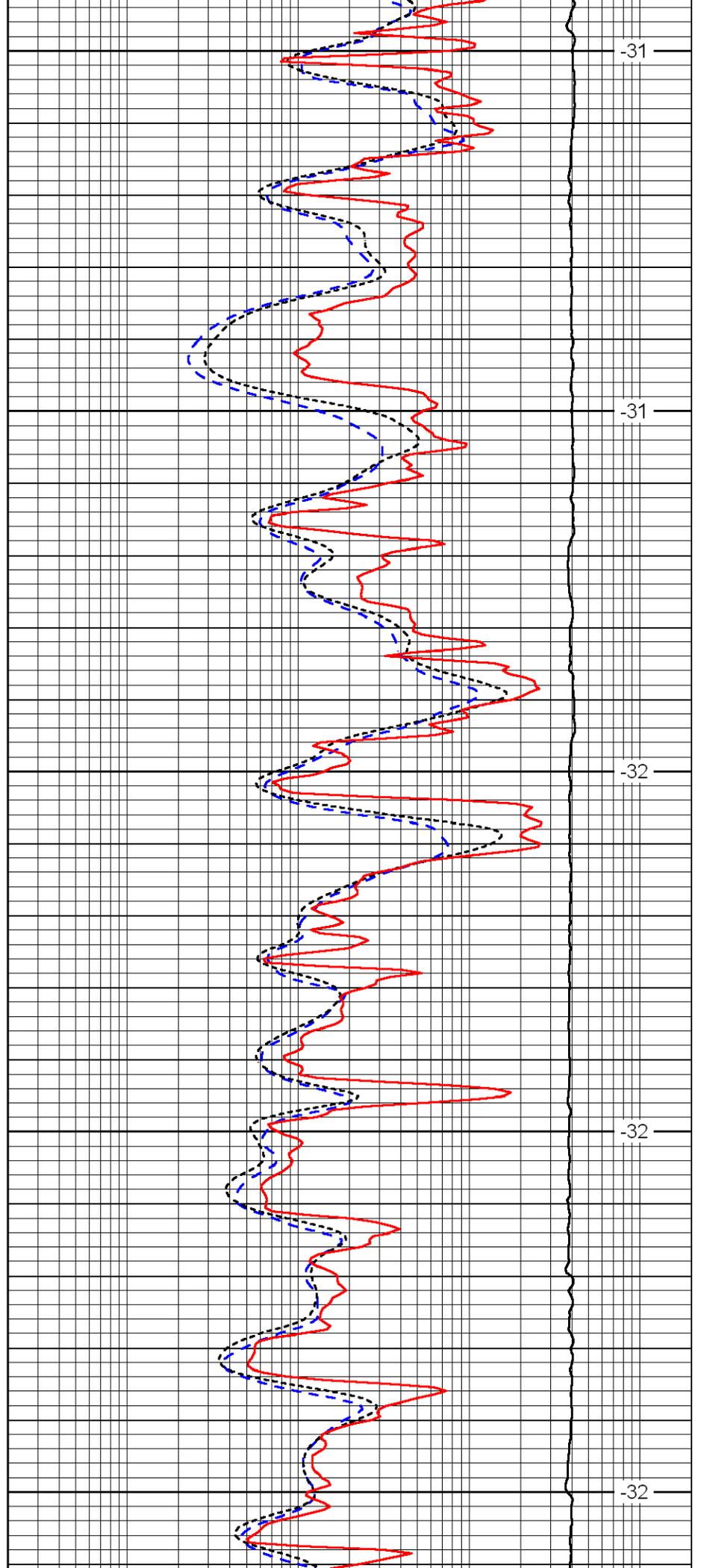
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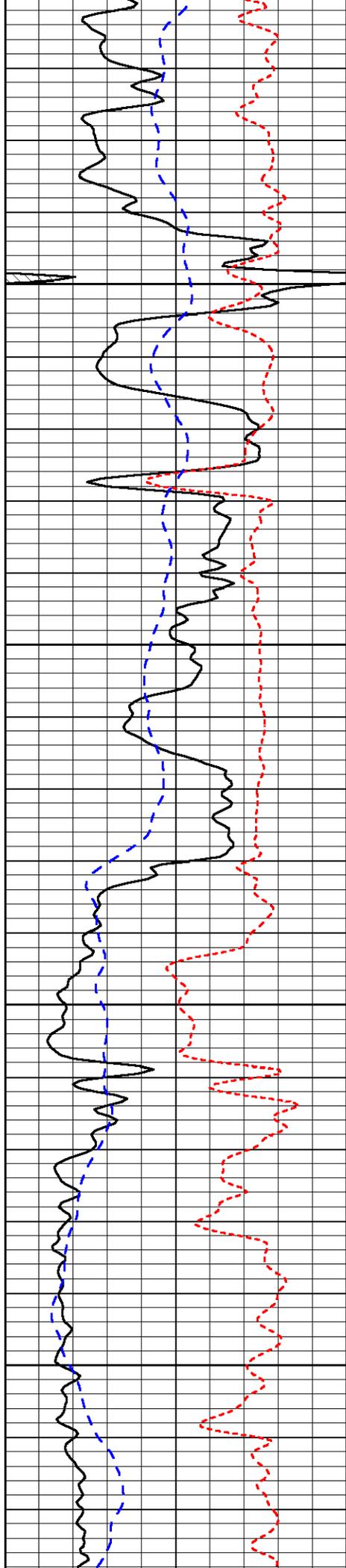
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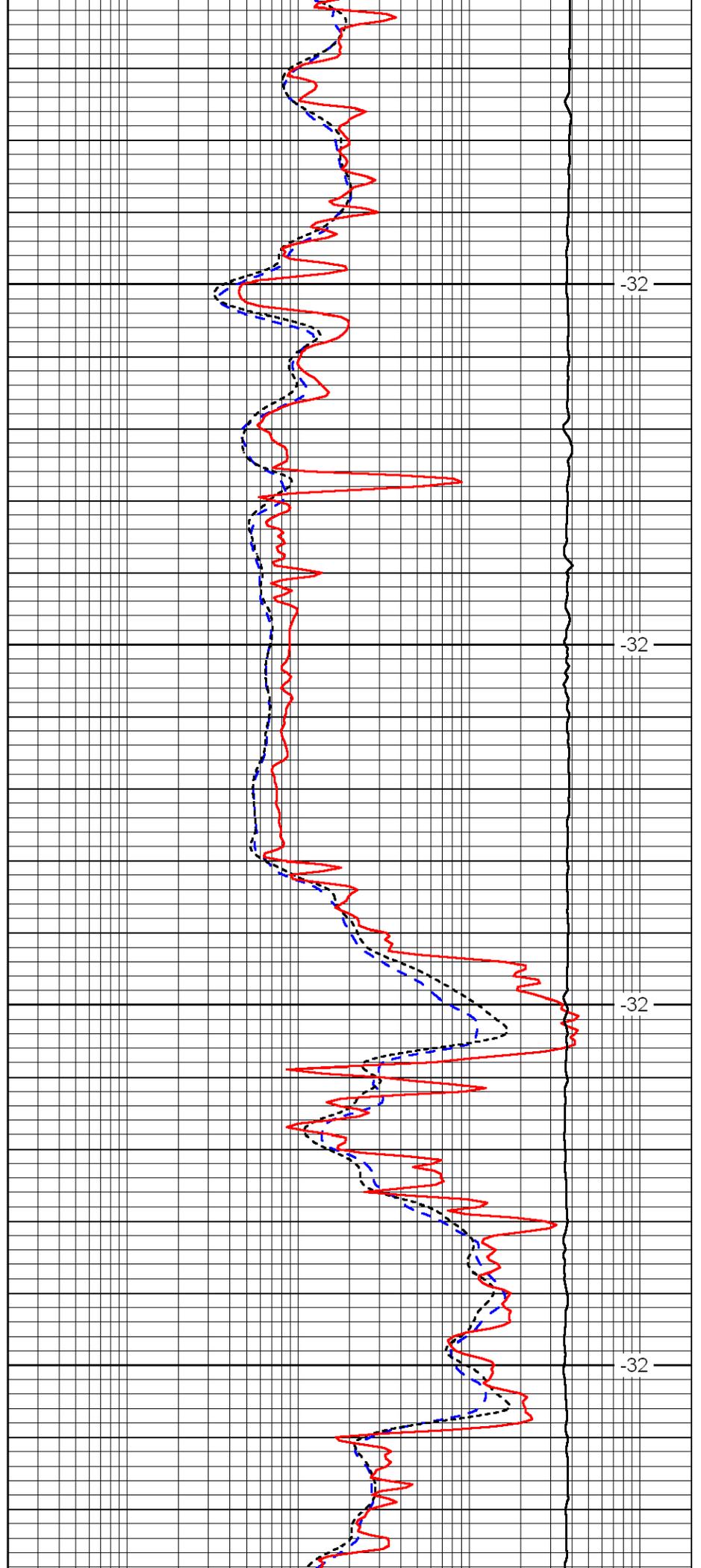


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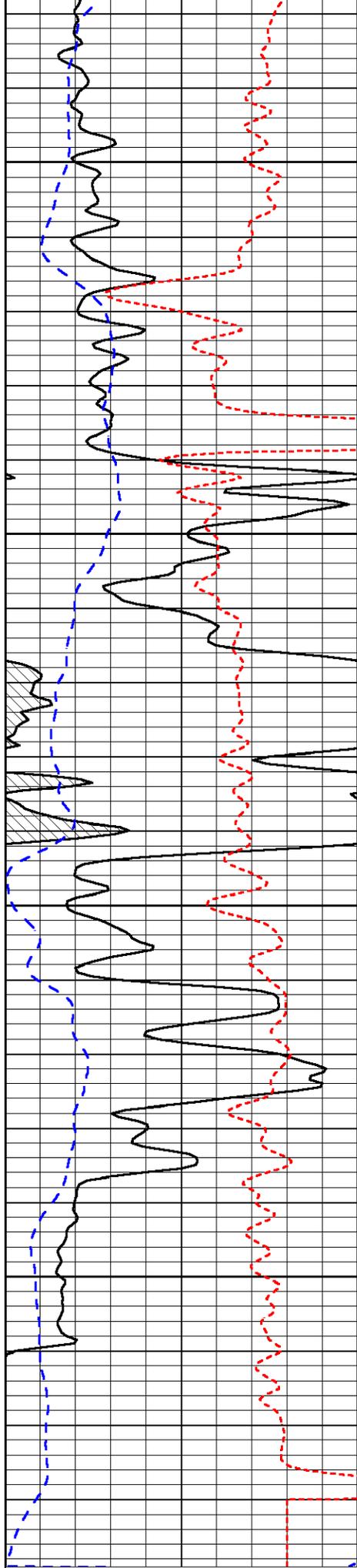


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Gamma Ray

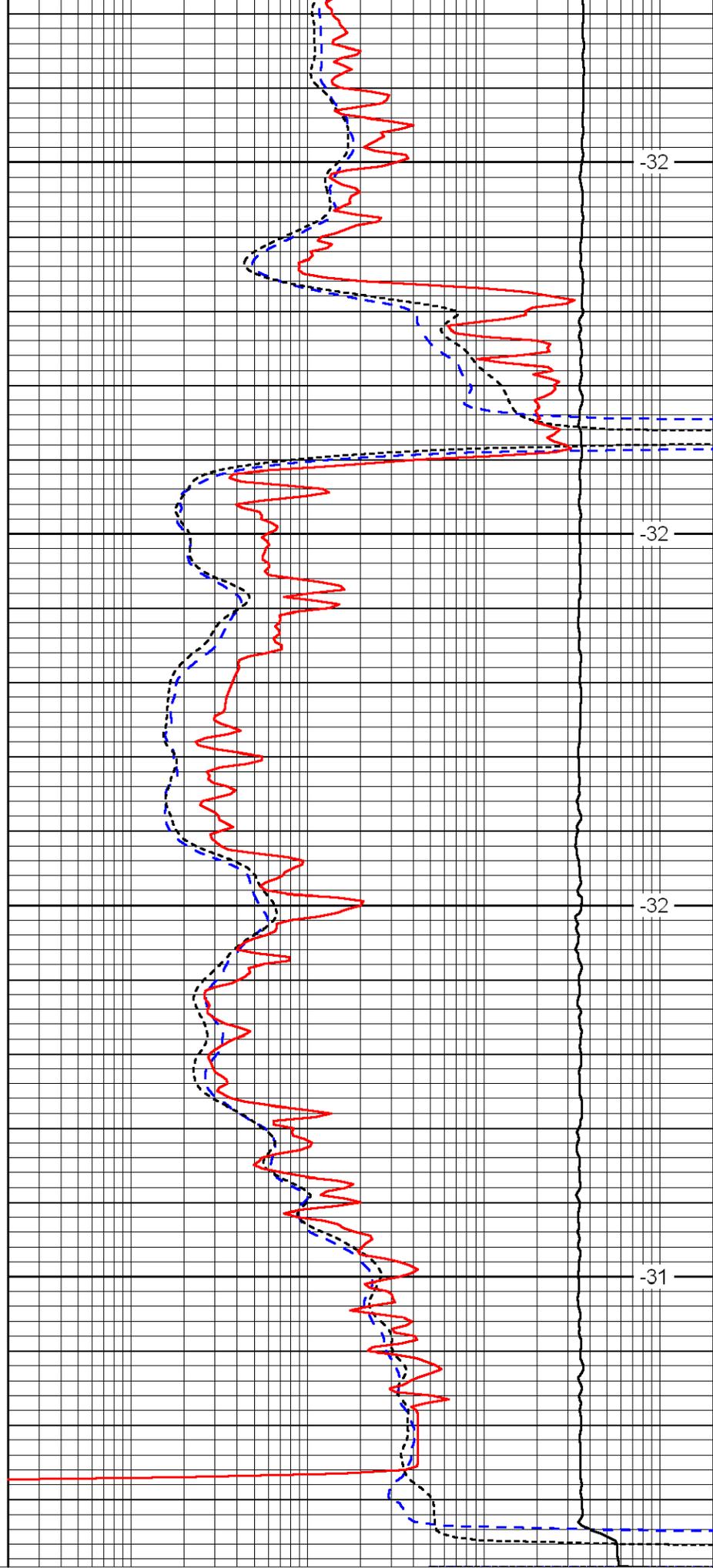
150

0

100

RYO/RT

40



-32

-32

-32

-31

Deep Resistivity

2000

0.2

Medium Resistivity

2000

0.2

-160	RXD/R1	40
-200	SP	0

0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0
		LSPD