



# Dual Induction Log

DIGITAL LOG (785) 625-3858

API No.	15-165-21,861-00-00	
Company	Murfin Drilling Company, Inc.	
Well	McGowan No. 1-15	
Field	Wildcat	
County	Rush	State Kansas
Location	900' FNL & 1900' FWL	
Sec:	15	Twp: 16S Rge: 20W
Permanent Datum	Ground Level	Elevation 2185
Log Measured From	Kelly Bushing	5 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	K.B. 2190
		D.F. 2185
		G.L. 2185

Date	11/03/2009	
Run Number	One	
Depth Driller	4060	
Depth Logger	4058	
Bottom Logged Interval	4057	
Top Log Interval	00	
Casing Driller	8.625 @ 218	
Casing Logger	215	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	8,200	
Density / Viscosity	9.2	52
pH / Fluid Loss	11.0	8.0
Source of Sample	Flowline	
Rm @ Meas. Temp	1.1 @ 58	
Rmf @ Meas. Temp	.83 @ 58	
Rmc @ Meas. Temp	1.49 @ 58	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.54 @ 119	
Operating Rig Time	4 1/2 Hours	
Max Rec. Temp. F	119	
Equipment Number	4	
Location	Hays	
Recorded By	Mike Garrison	
Witnessed By	Paul Gunzelman	

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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

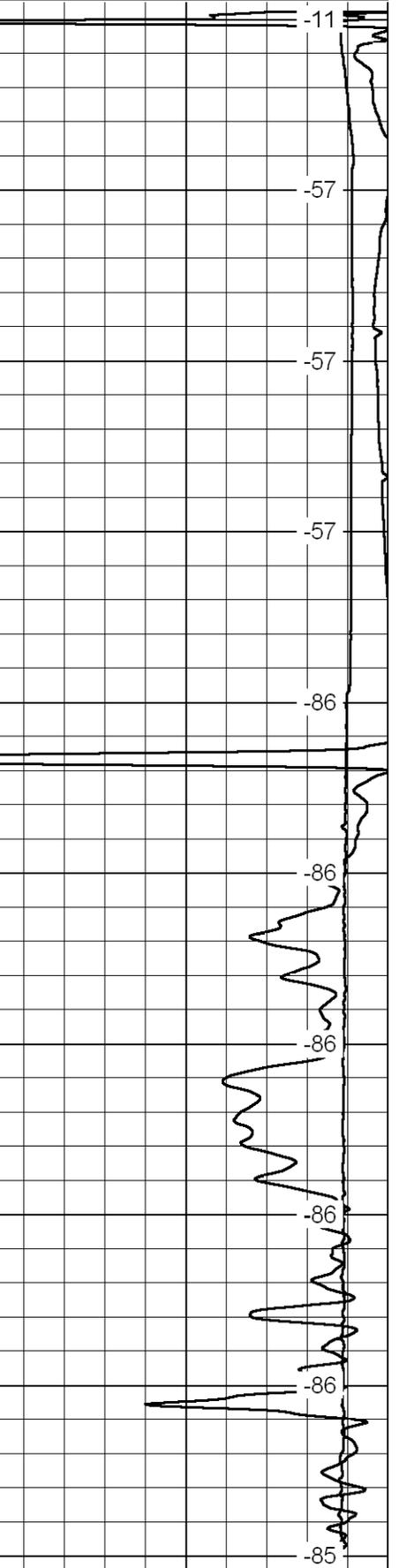
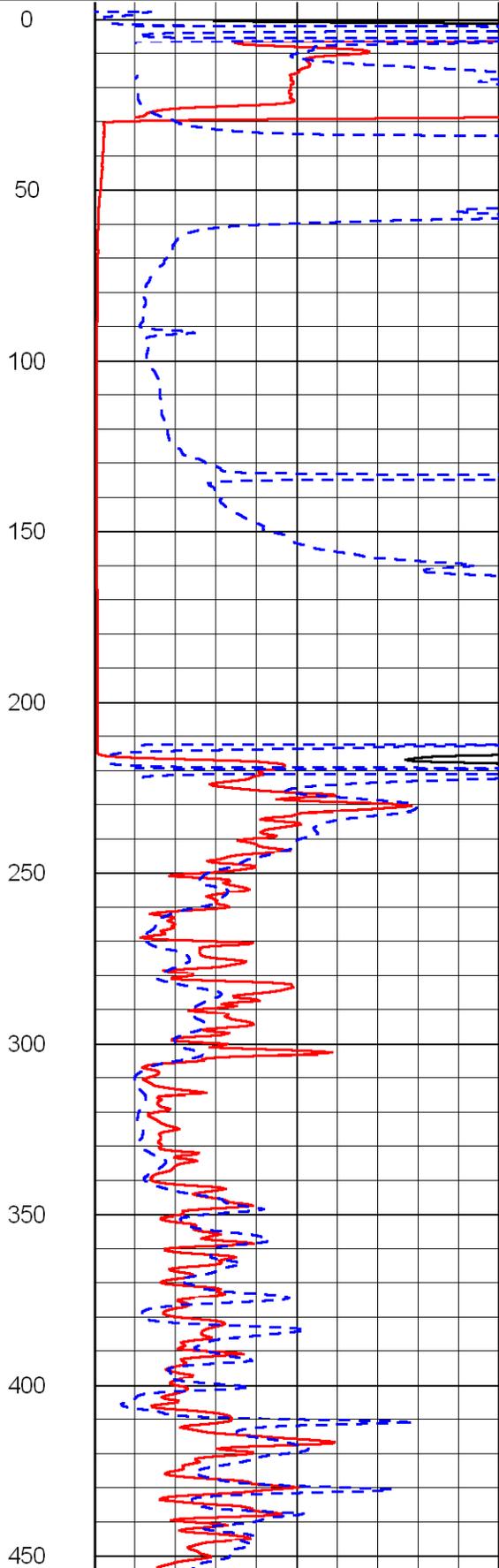
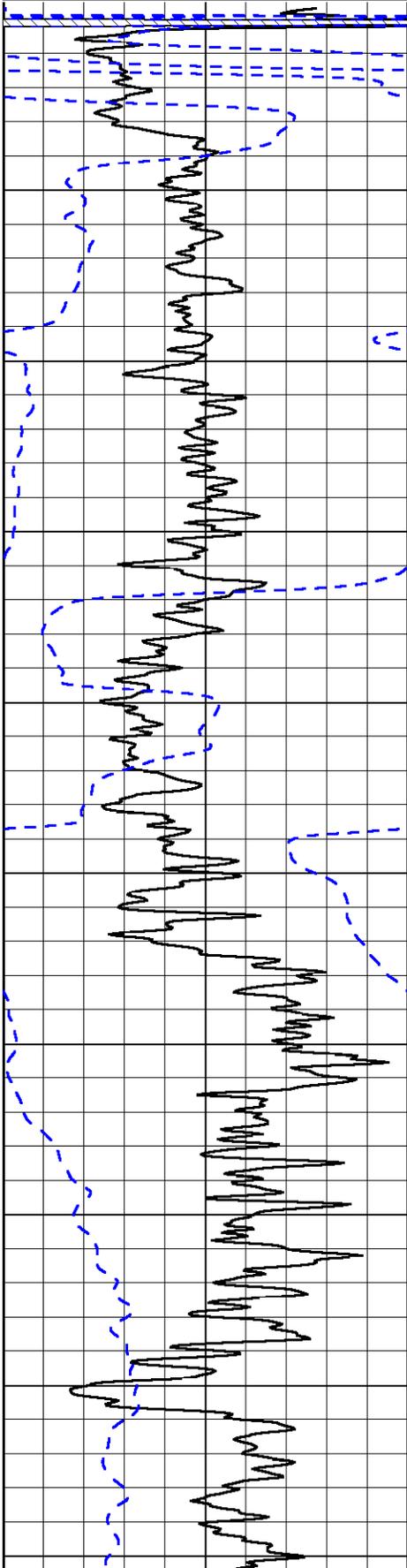
Liebenthal 1/2 South, 11 1/2 West, 1 1/2 North, East Into

Database File: c:\warrior\data\murfin\_mcgowan no. 1-15\murfhd.db  
 Dataset Pathname: dil/mrfnstck  
 Presentation Format: dil2in  
 Dataset Creation: Tue Nov 03 05:30:09 2009  
 Charted by: Depth in Feet scaled 1:600

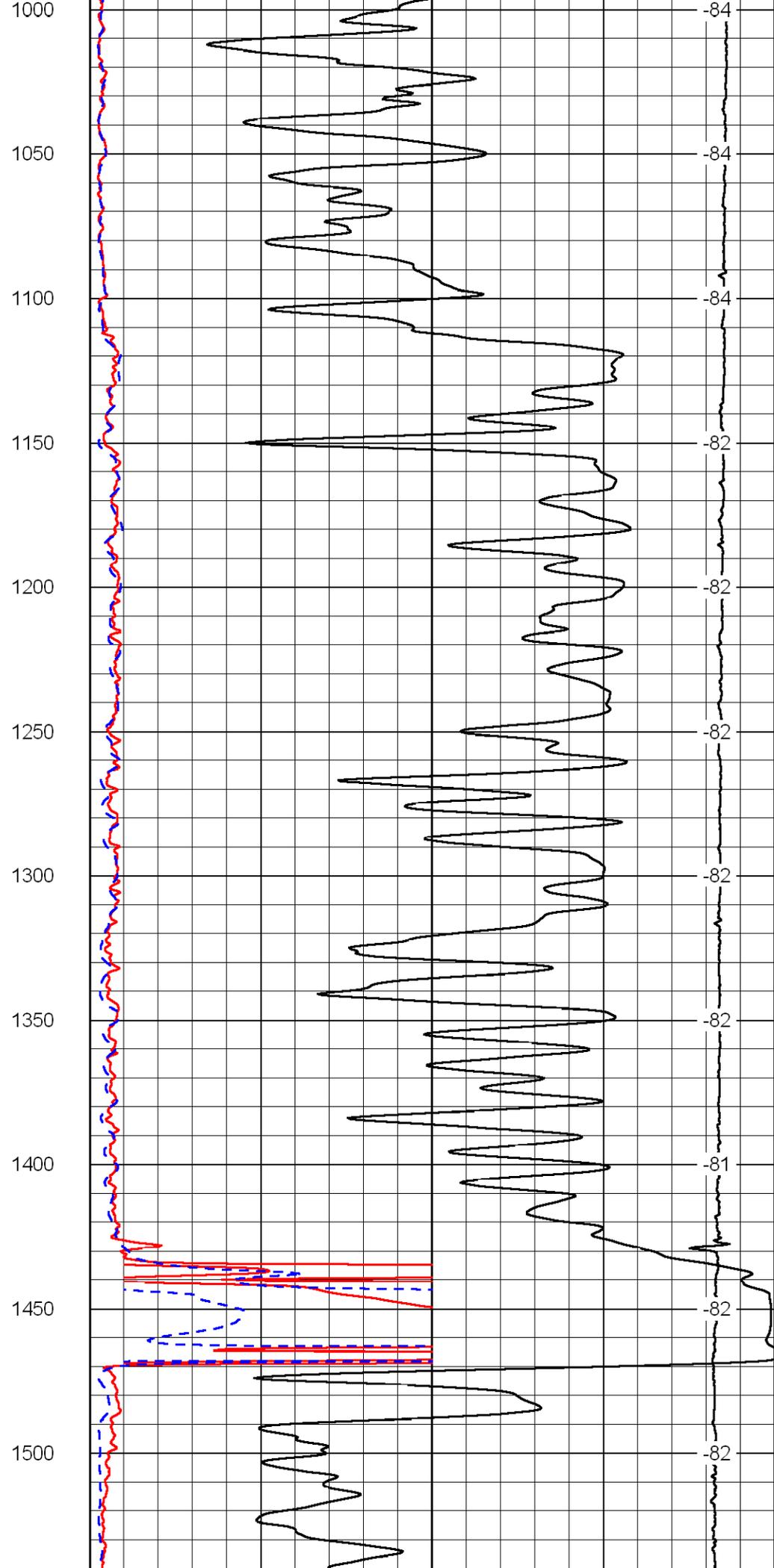
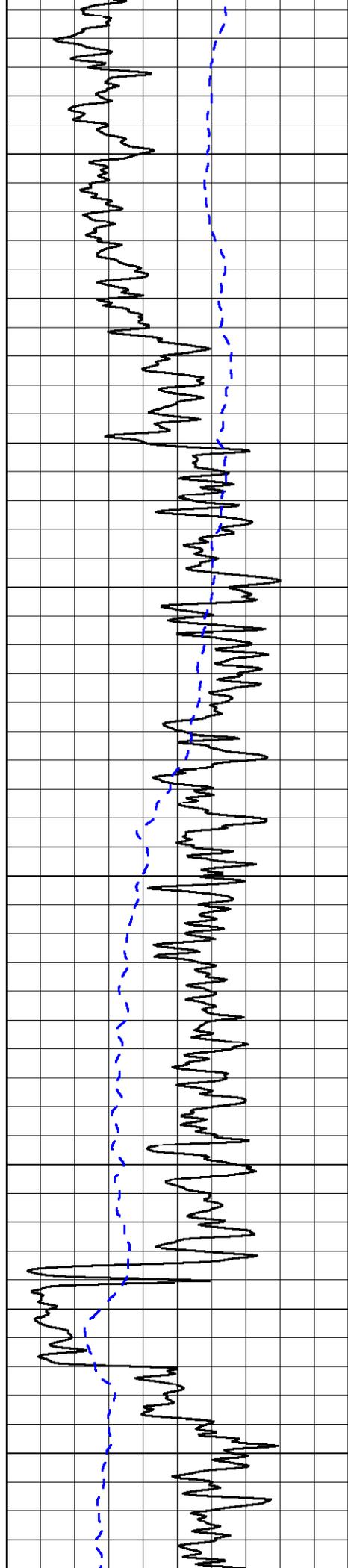
0 Gamma Ray 150  
-200 SP (MV) 0

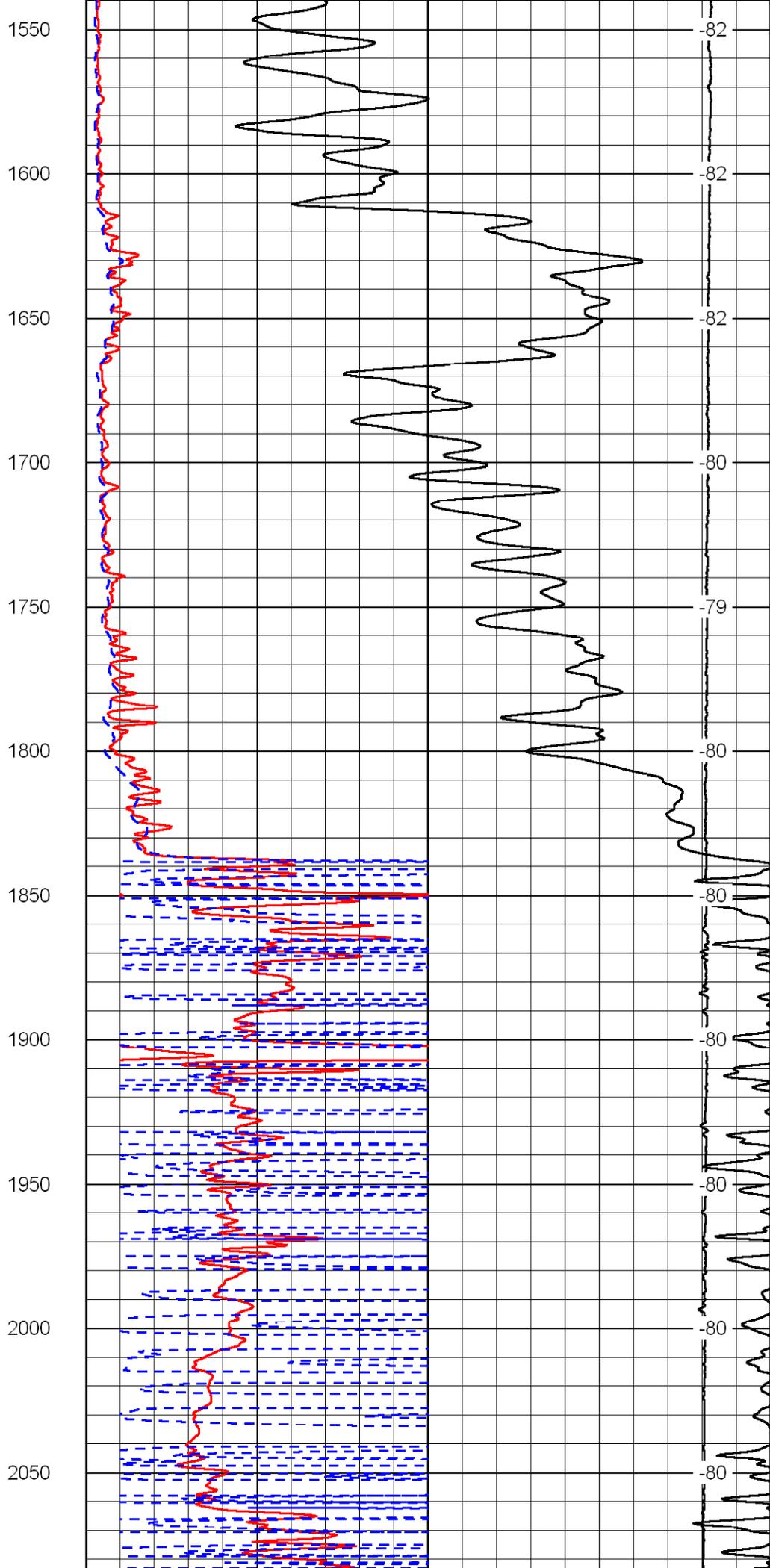
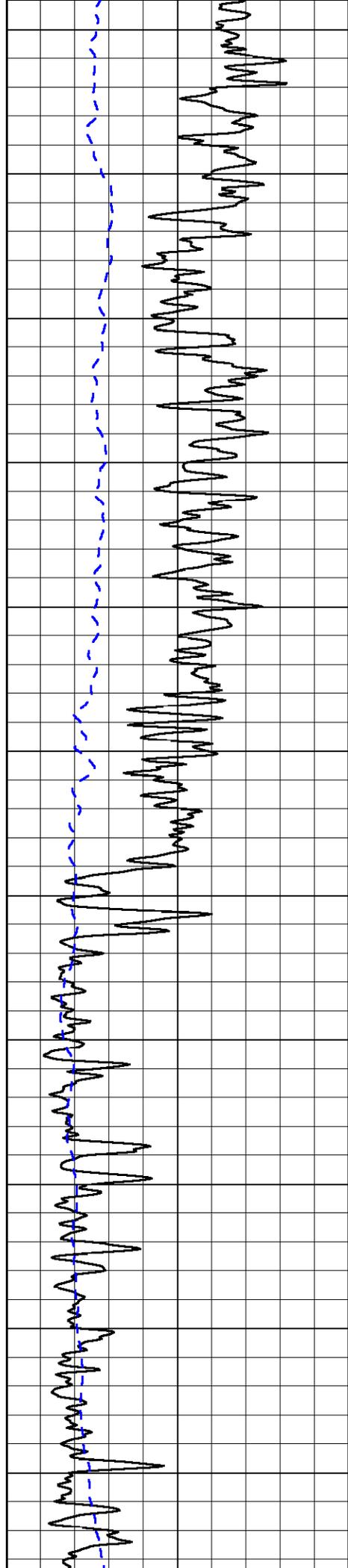
0 Shallow Resistivity (Ohm-m) 50  
0 Deep Resistivity (Ohm-m) 50  
1000 Conductivity (mmho/m) 0  
15000 Line Tension (lb) 0  
50 (Ohm-m) 500  
50 Deep Resistivity (Ohm-m) 500

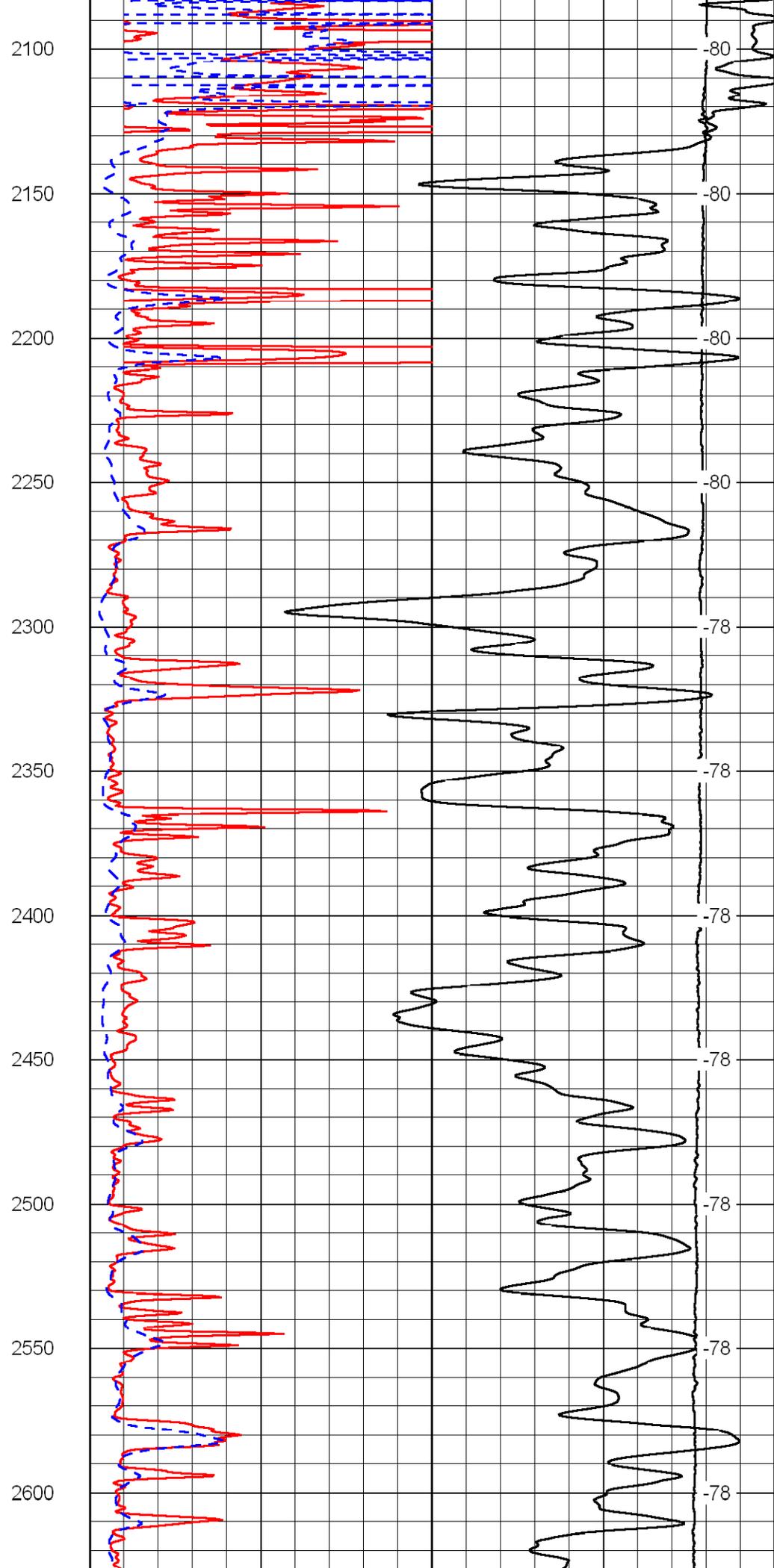
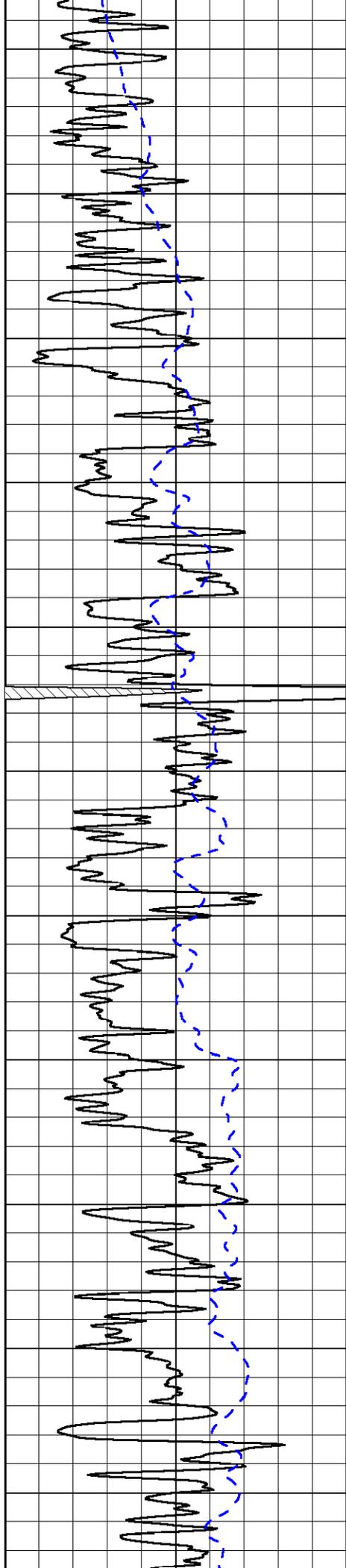
LSPD  
(ft/min)

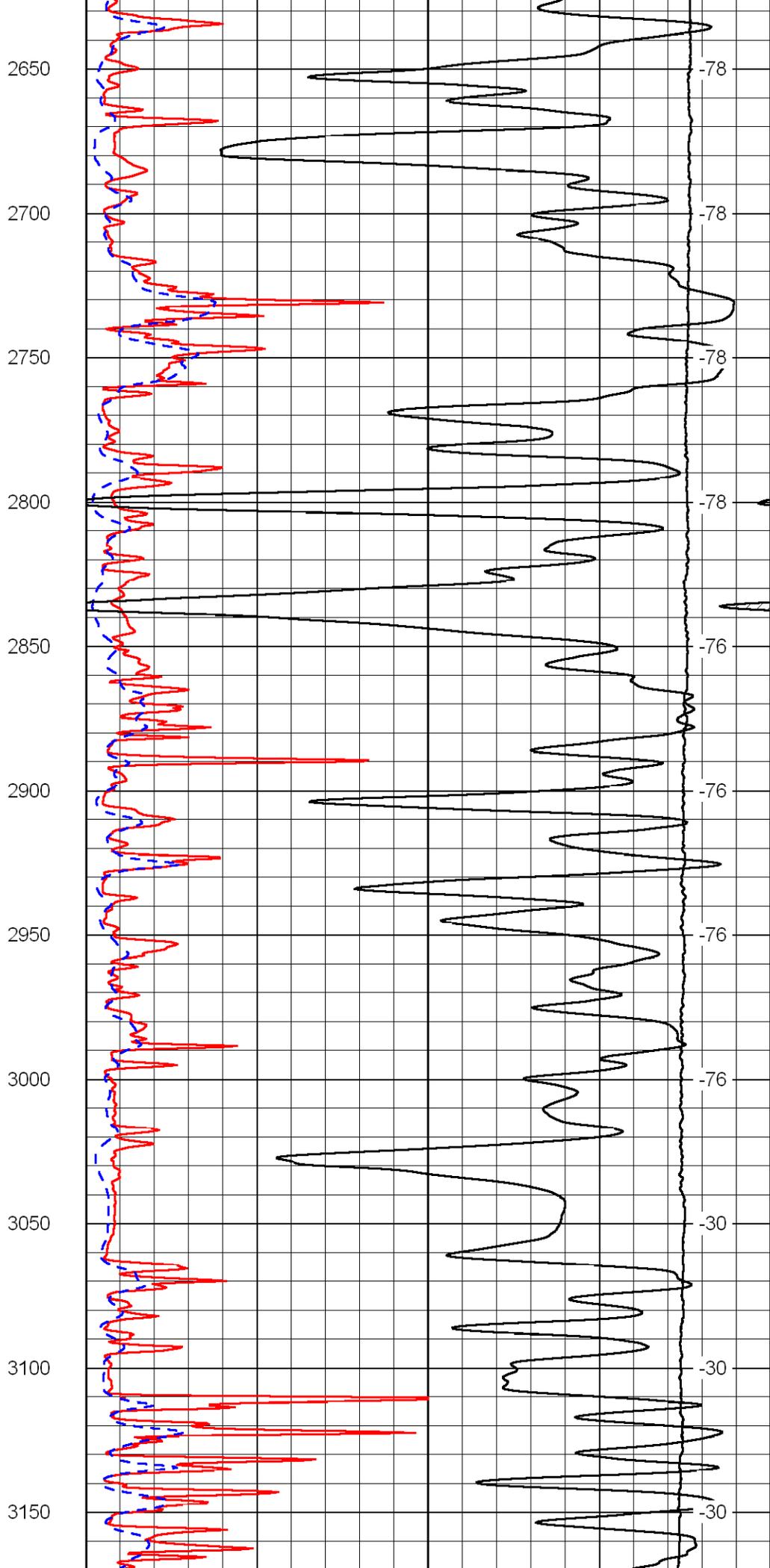
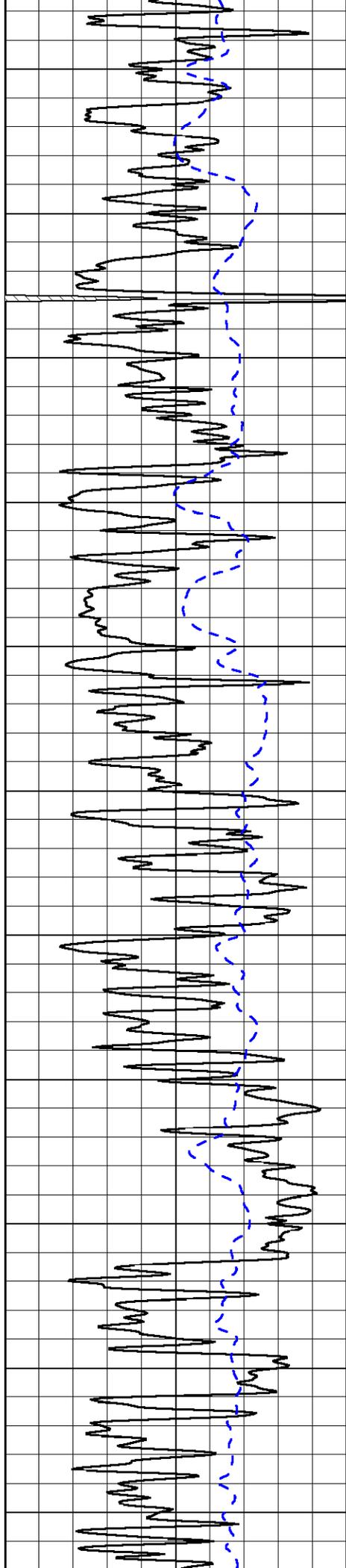




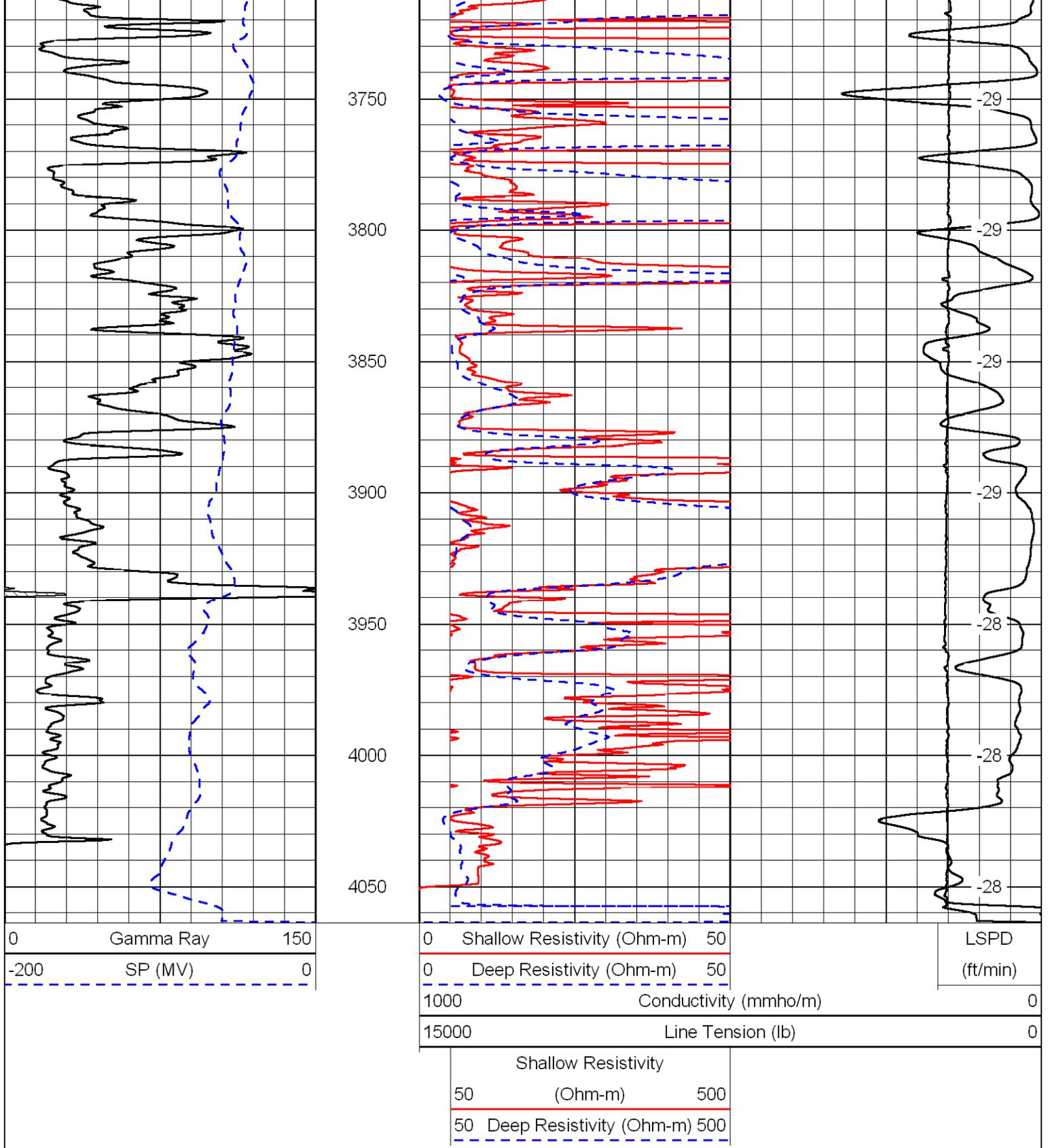








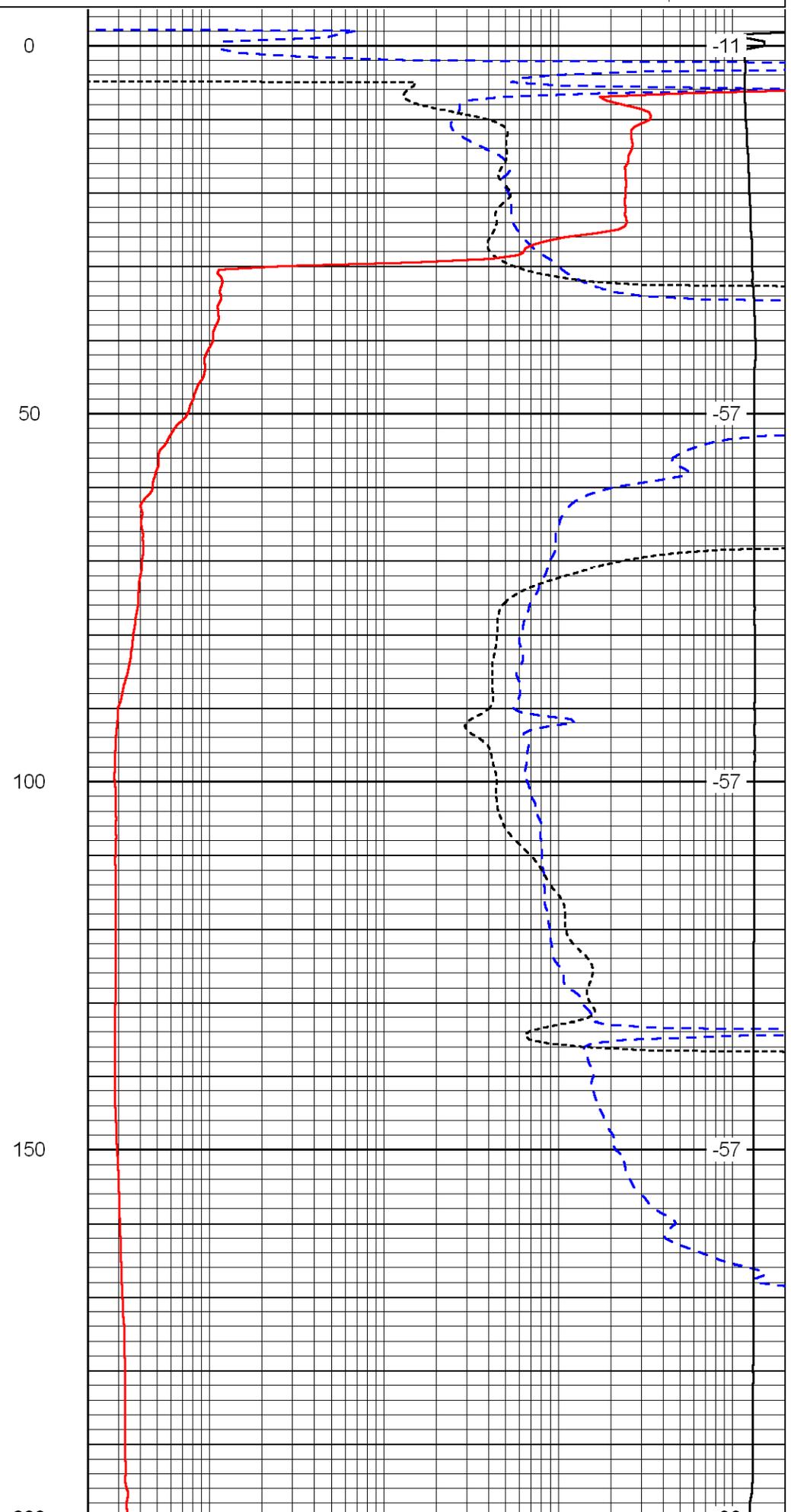
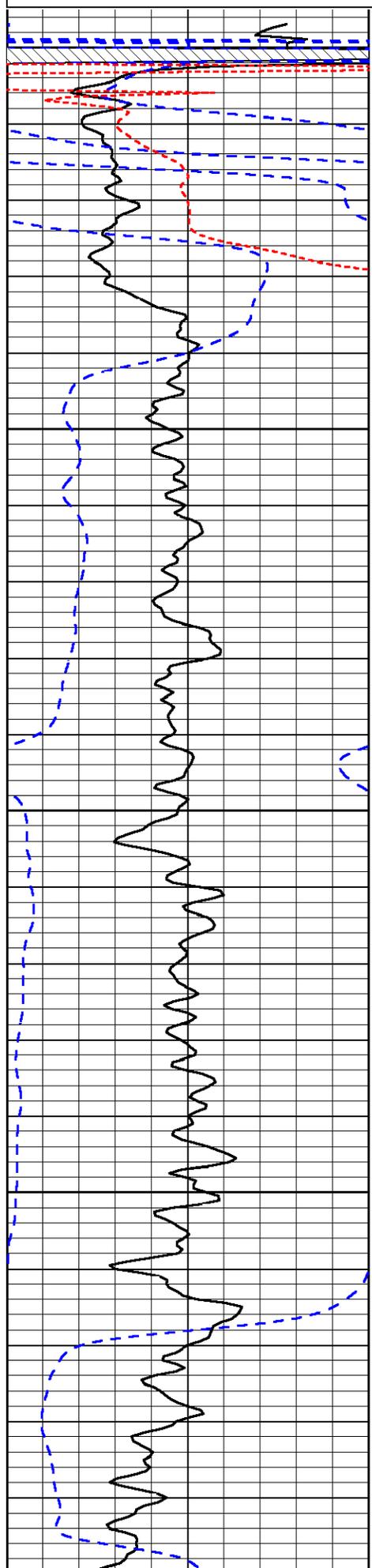


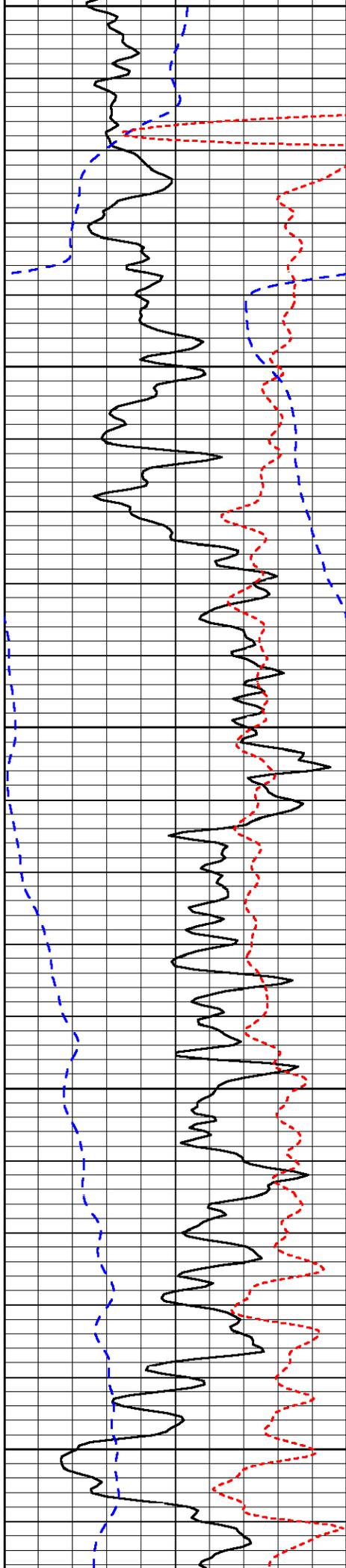


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 Dataset Pathname: dil/mrfnstck  
 Presentation Format: dil  
 Dataset Creation: Tue Nov 03 05:30:09 2009  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	0.2	Deep Resistivity (Ohm-m)	2000
-200	SP (MV)	0	0.2	Medium Resistivity (Ohm-m)	2000
-160	Rxo / Rt	40	0.2	Shallow Resistivity (Ohm-m)	2000
			15000	Line Tension (lb)	0

LSPD  
(ft/min)





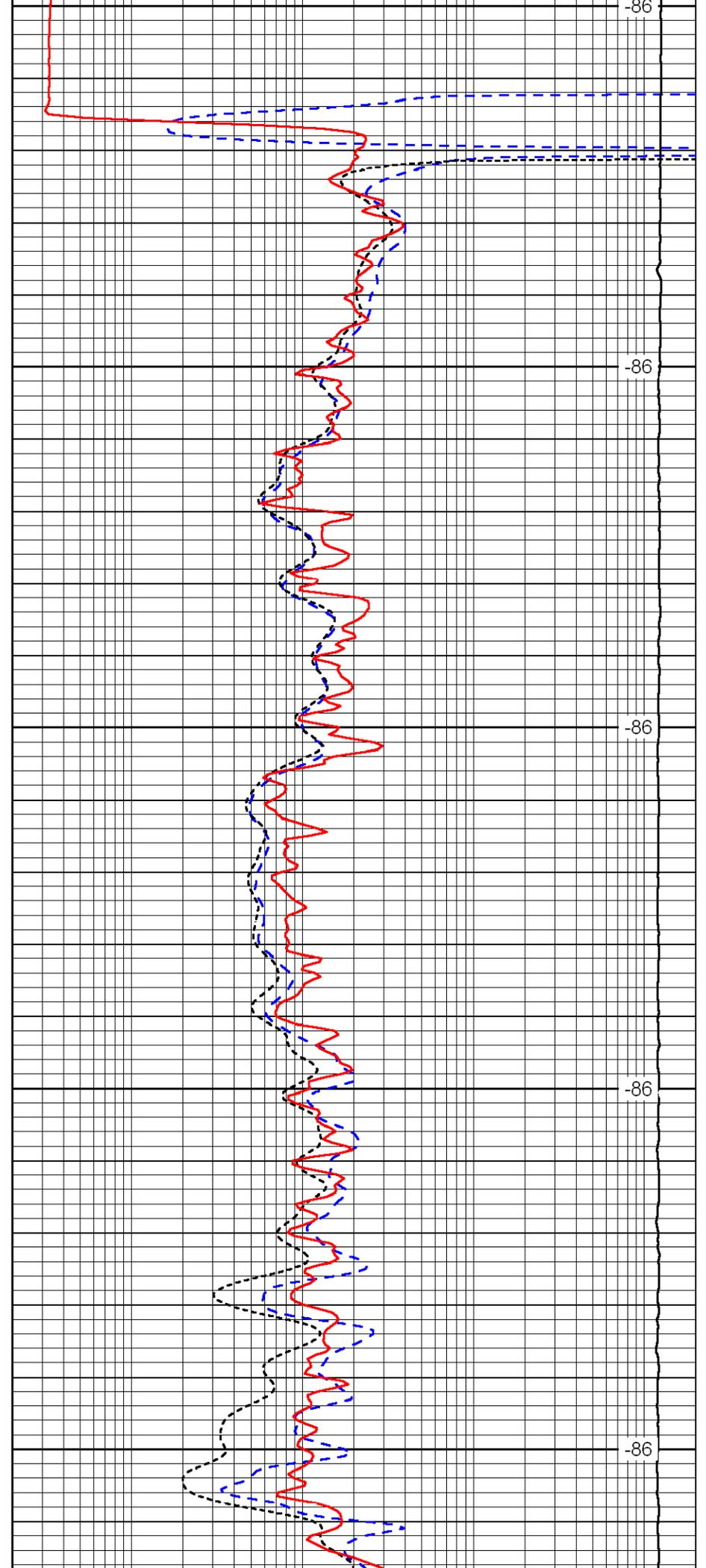
200

250

300

350

400



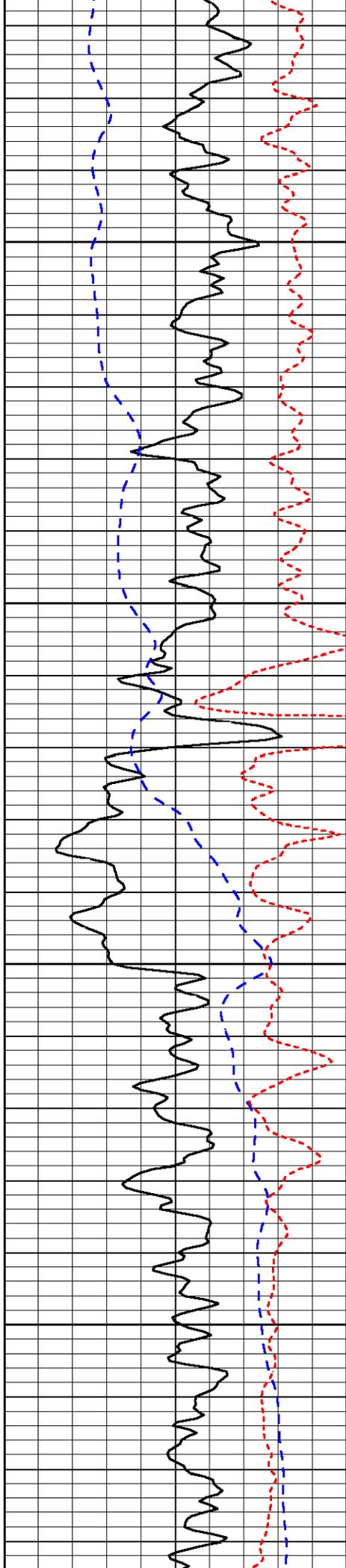
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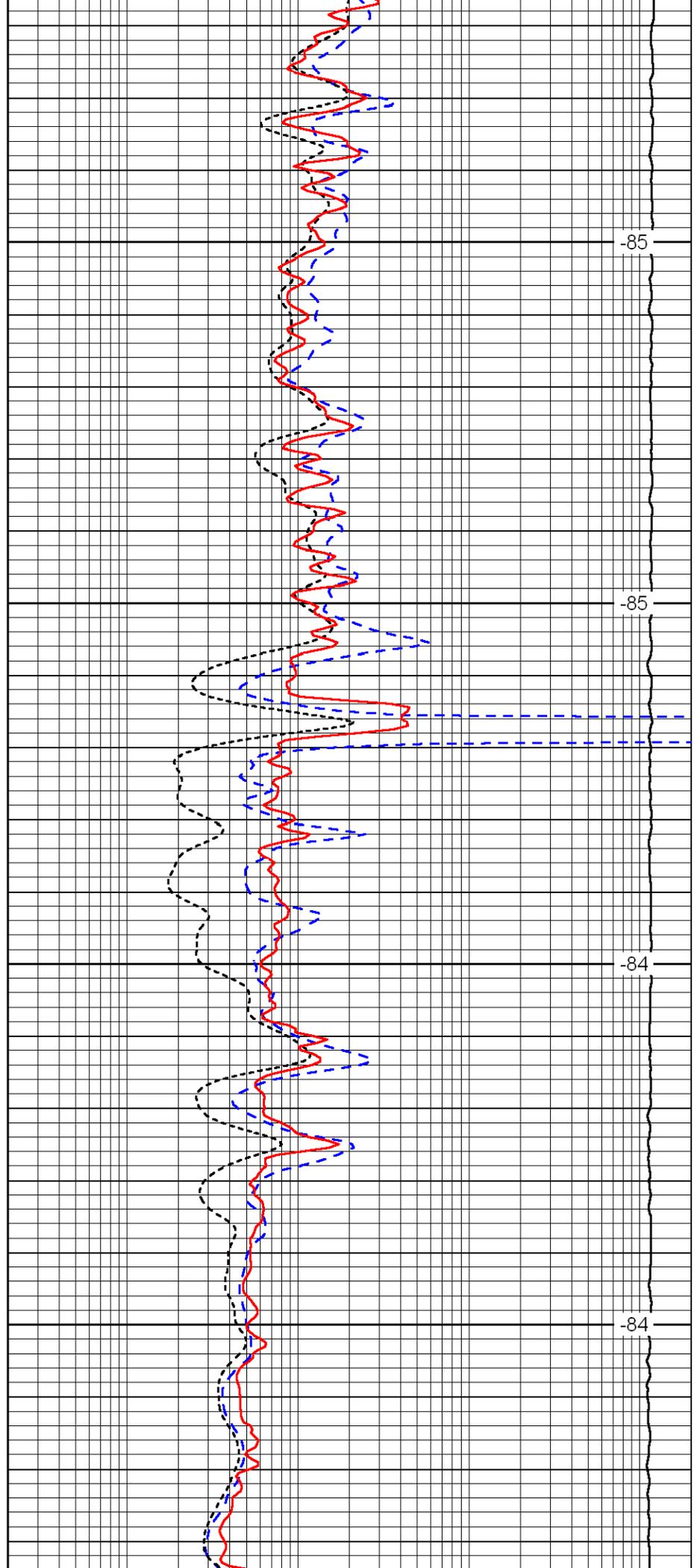


450

500

550

600

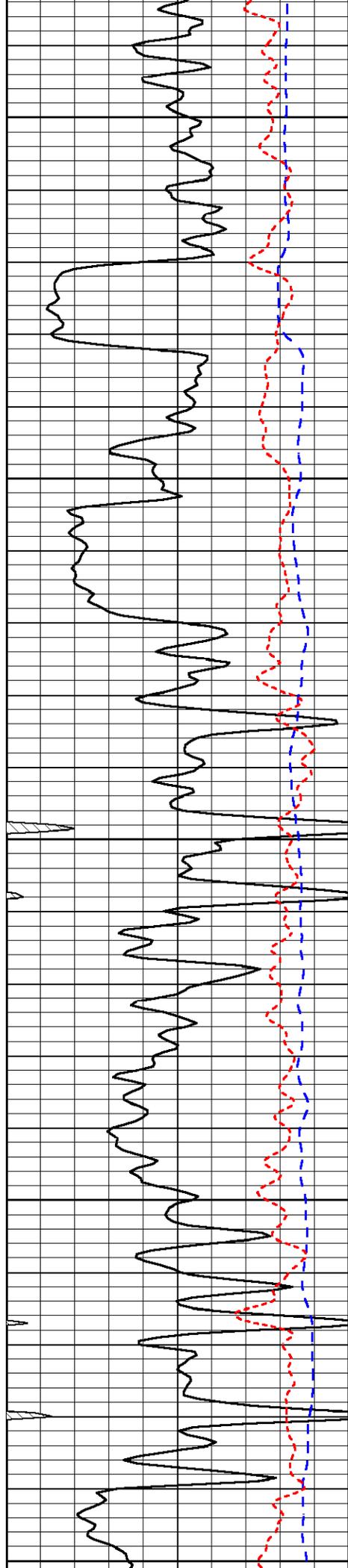


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650

700

750

800

850

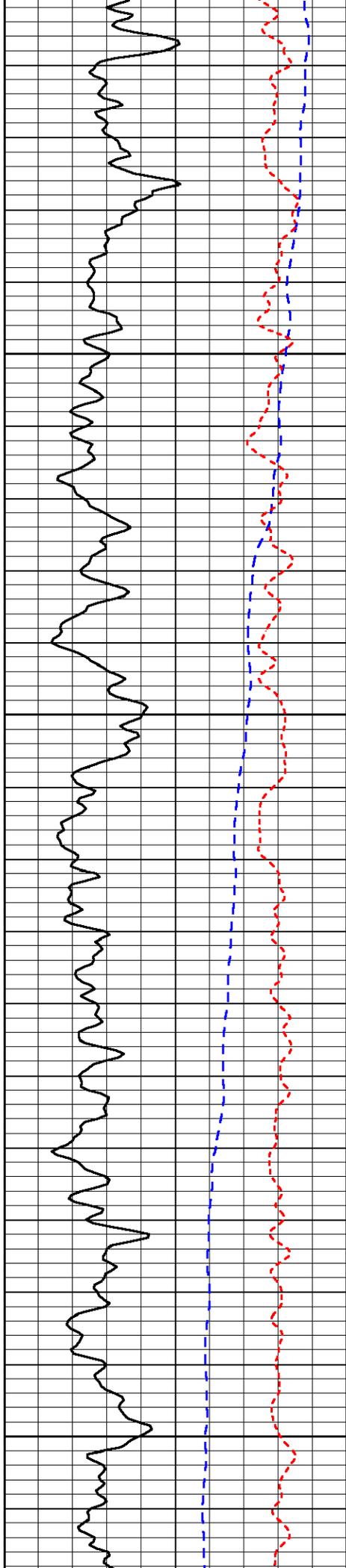
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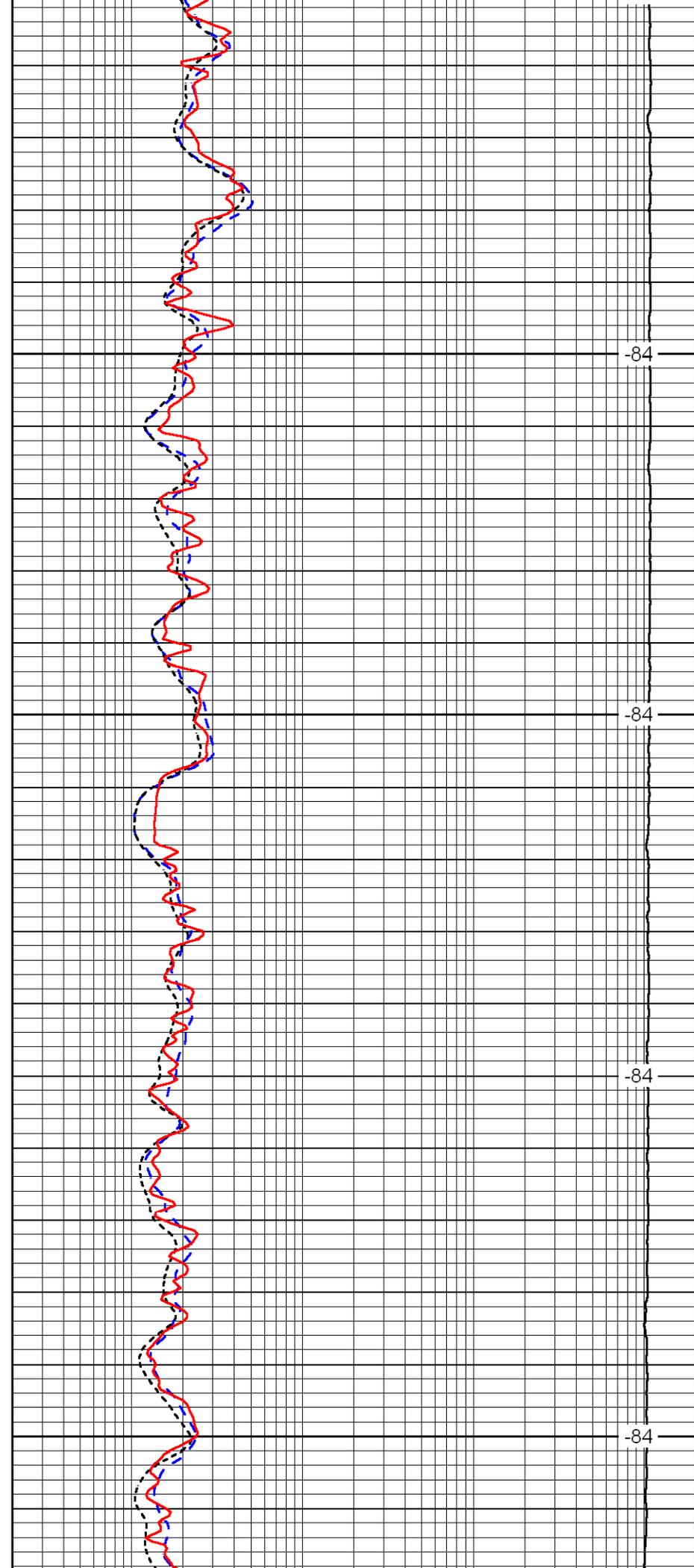


900

950

1000

1050

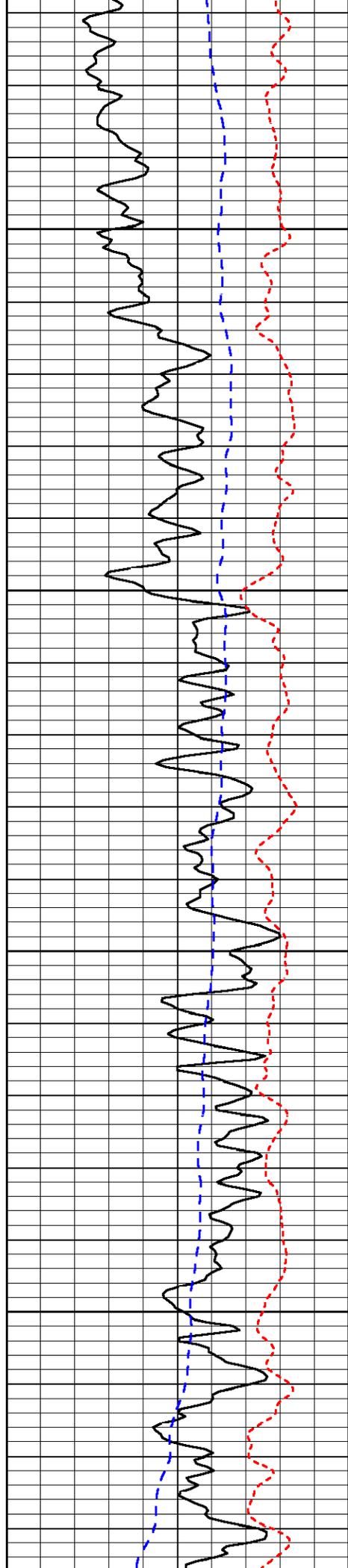


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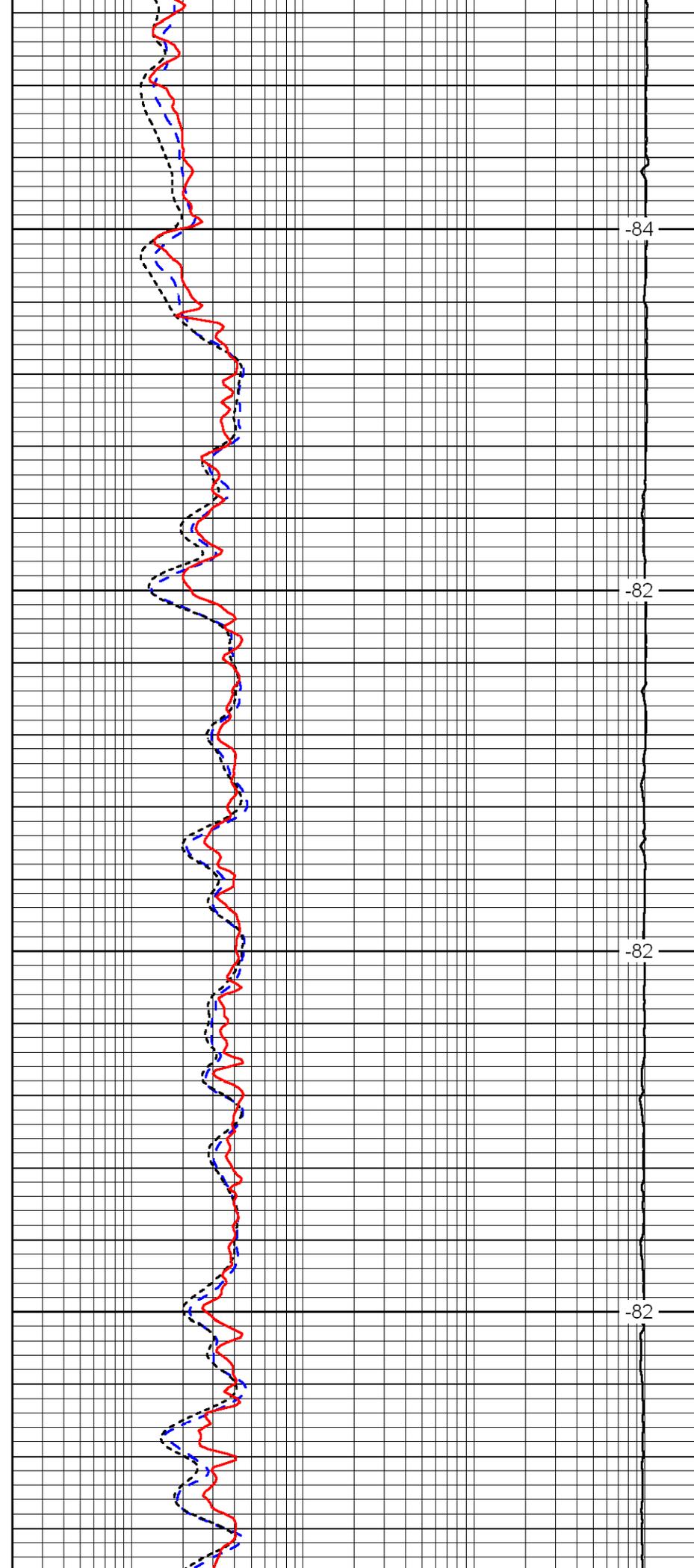


1100

1150

1200

1250

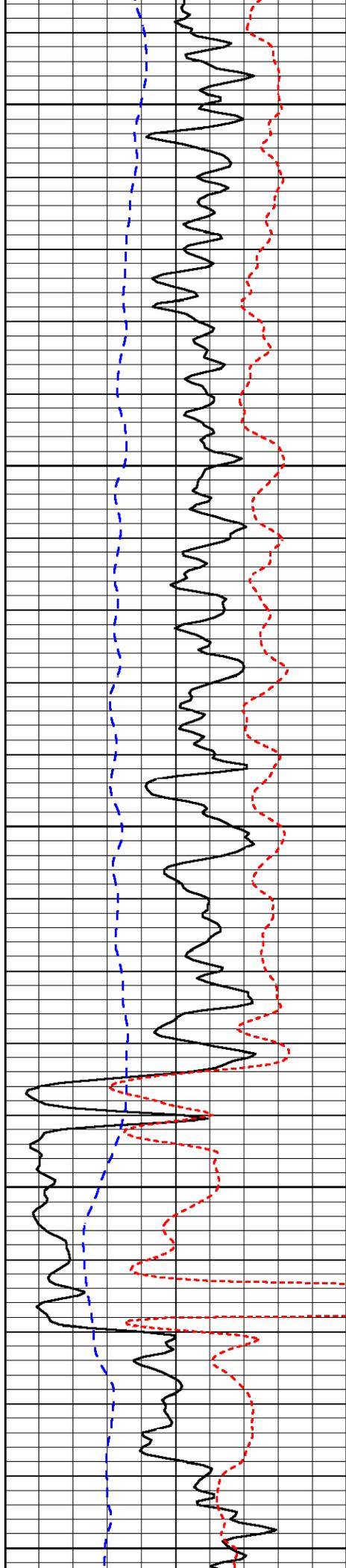


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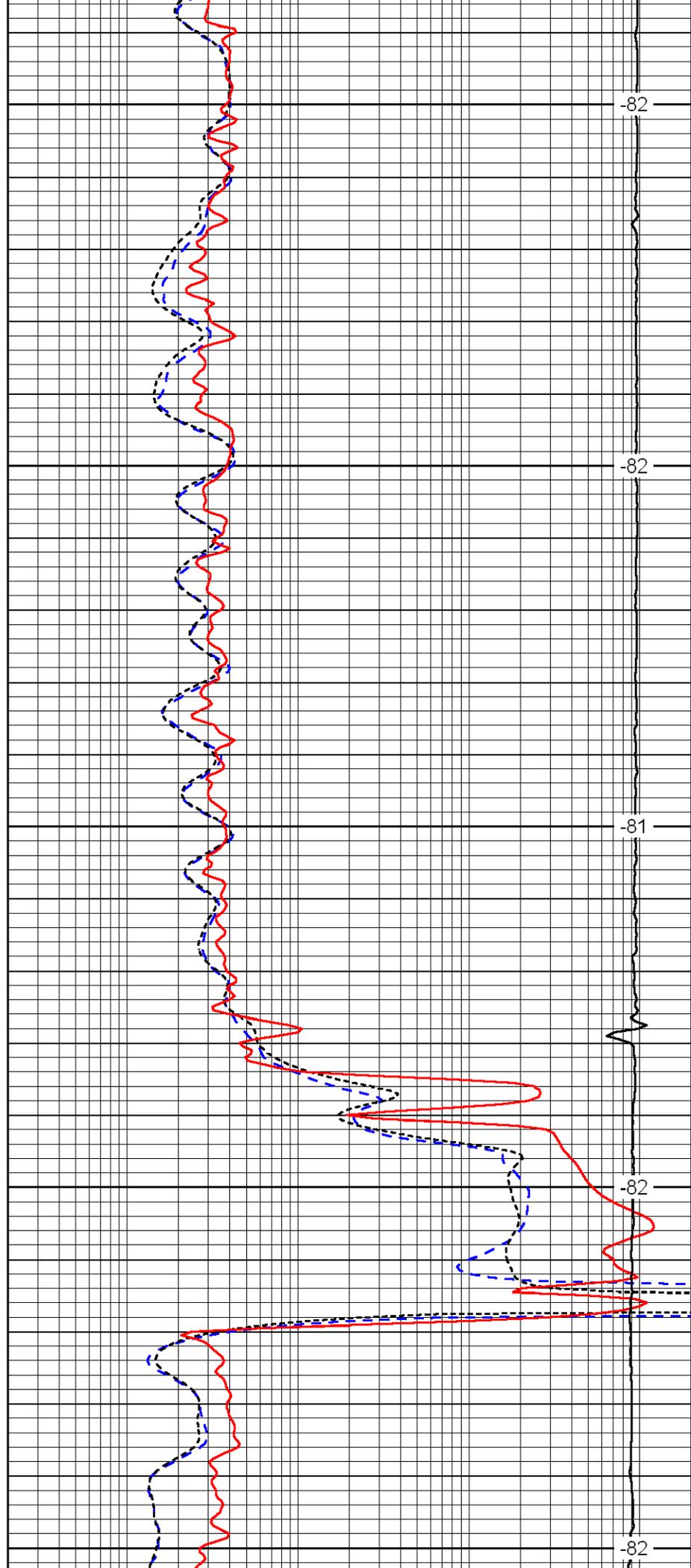
1300

1350

1400

1450

1500



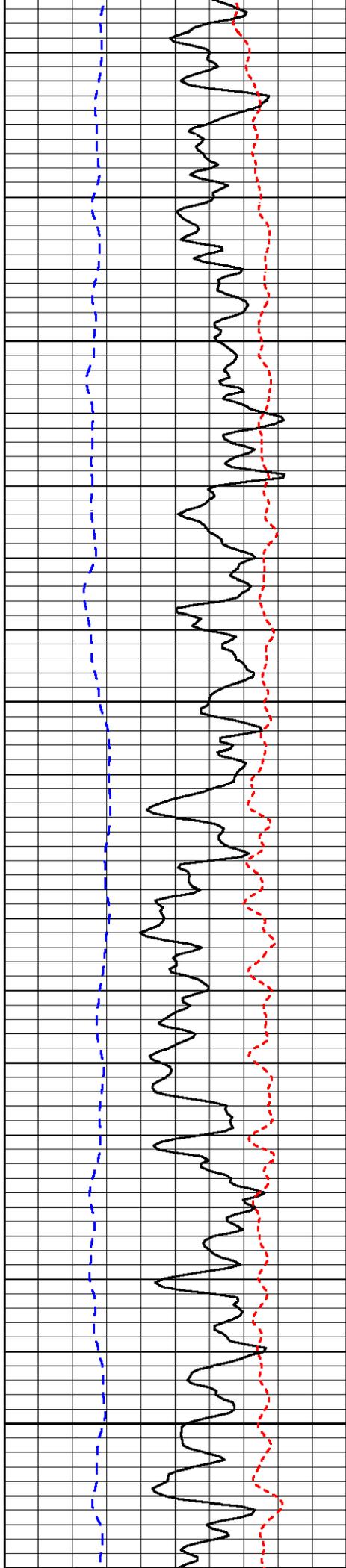
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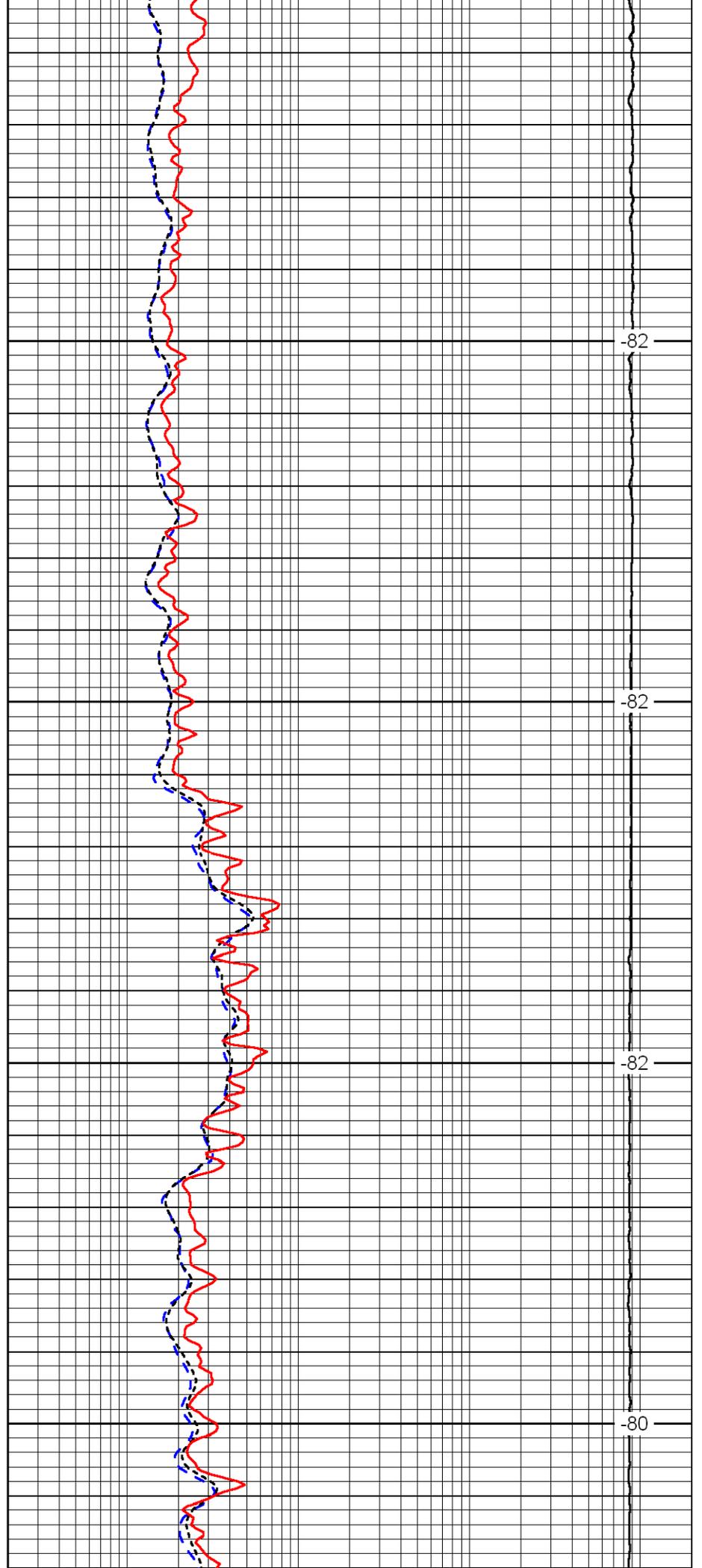


1550

1600

1650

1700

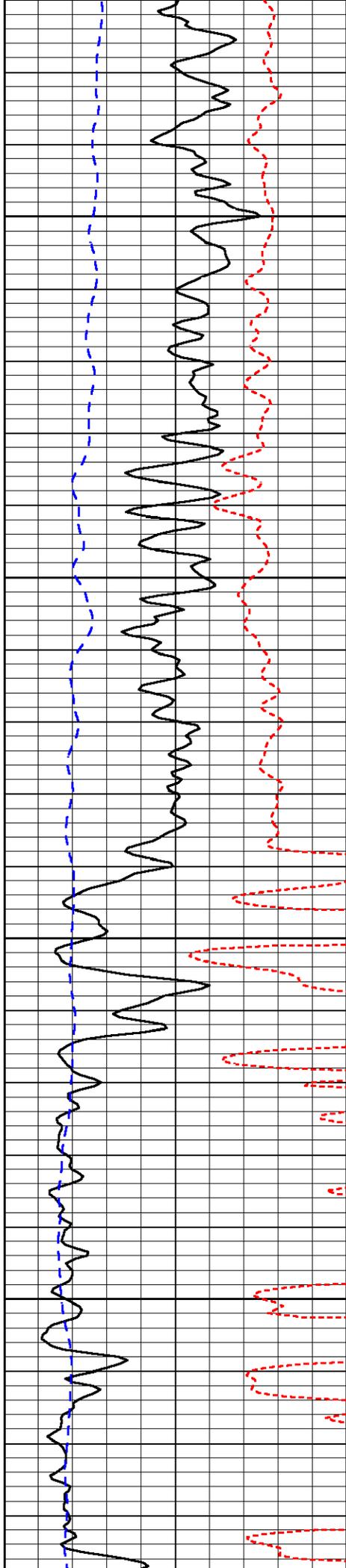


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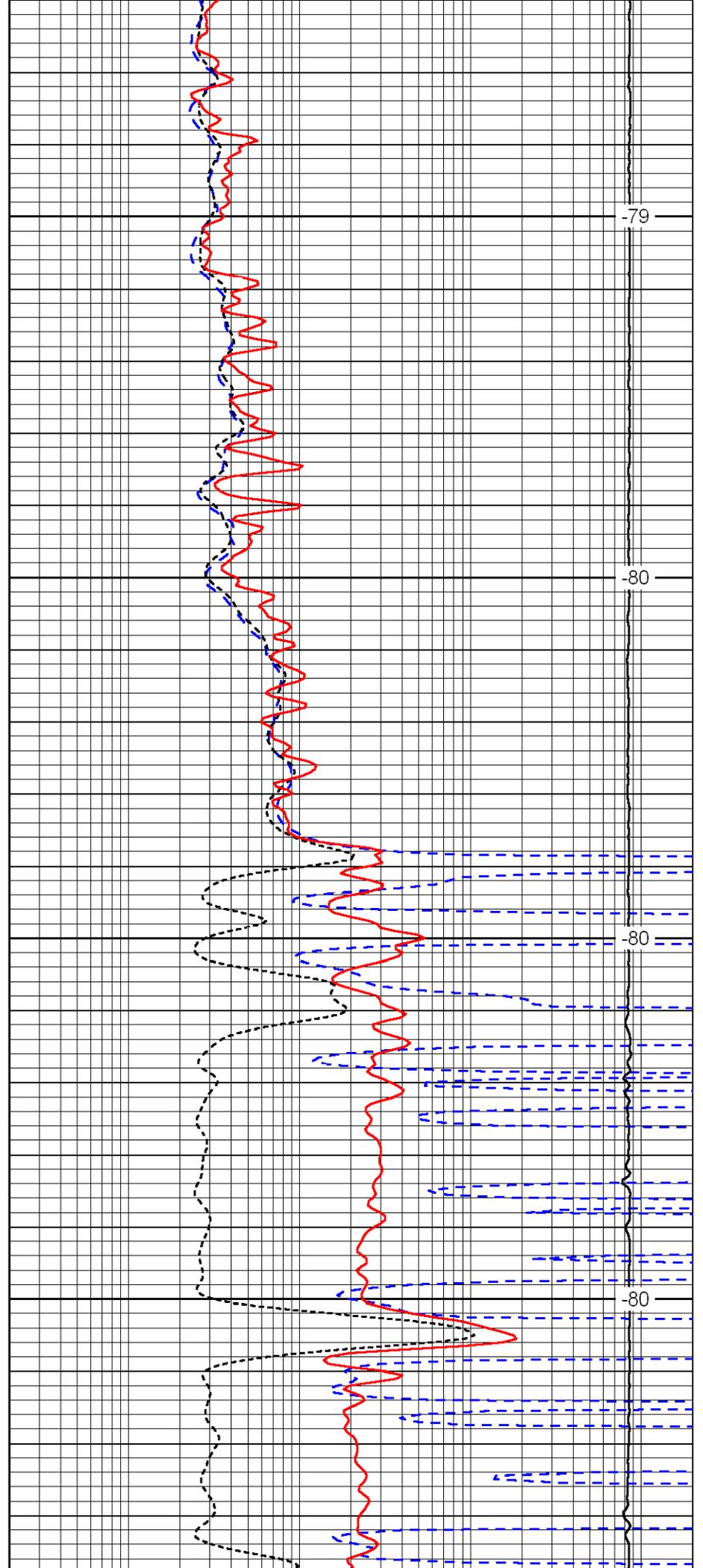


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1850

1900

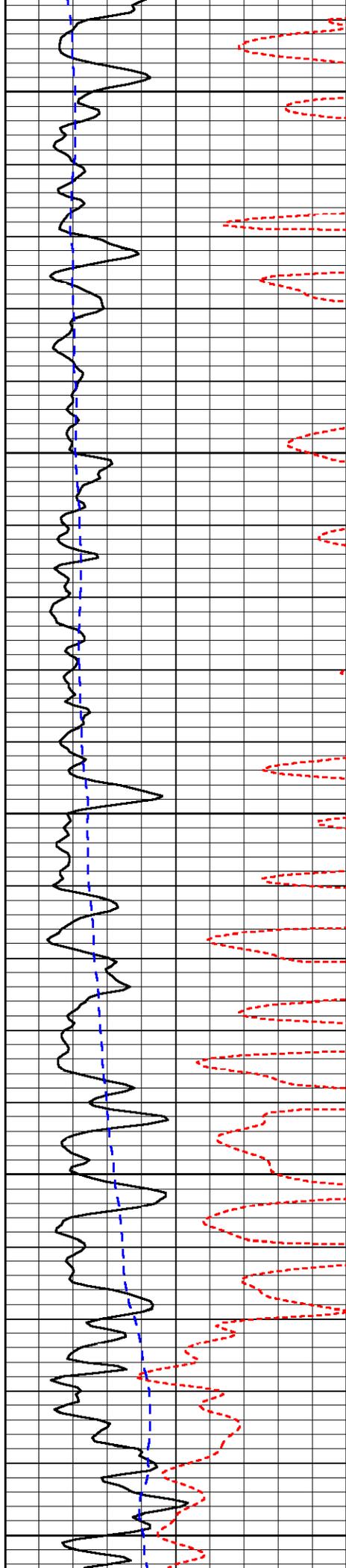


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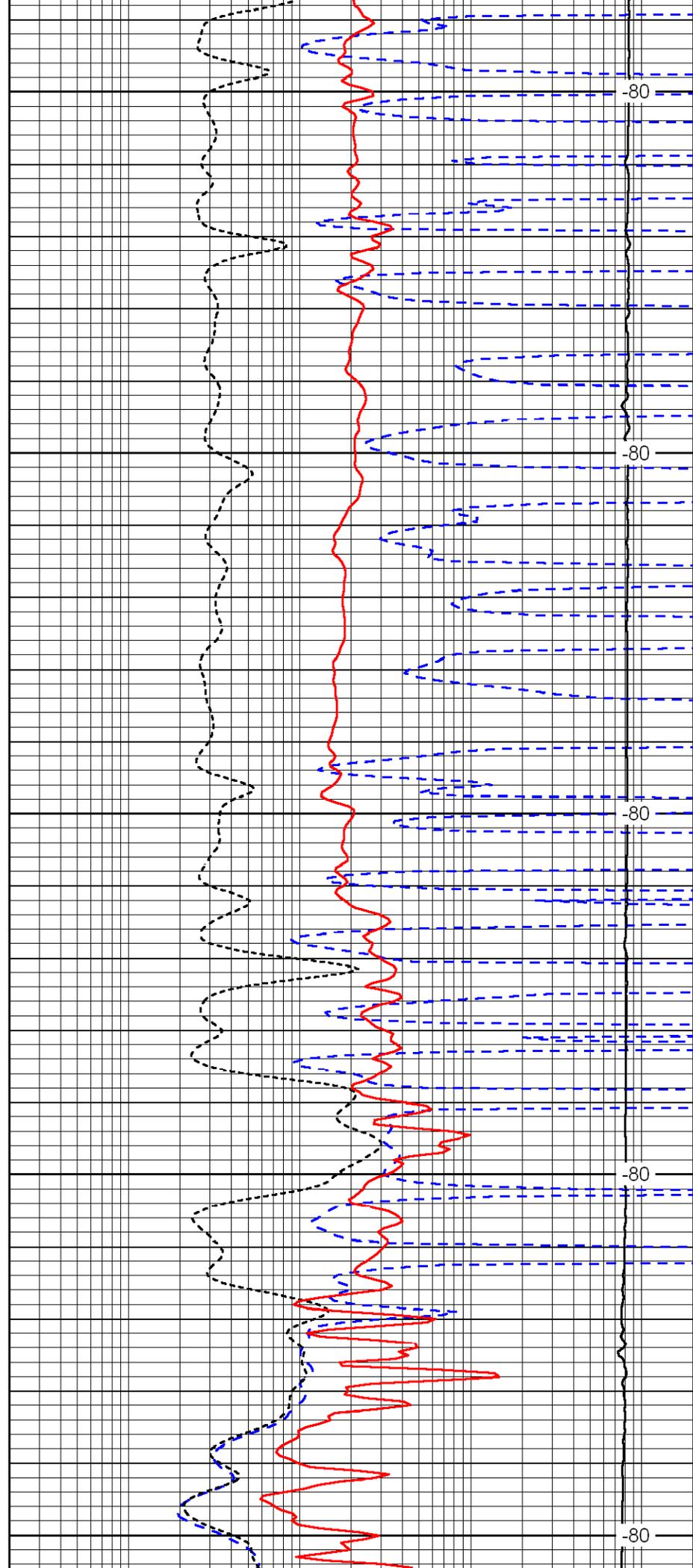
1950

2000

2050

2100

2150



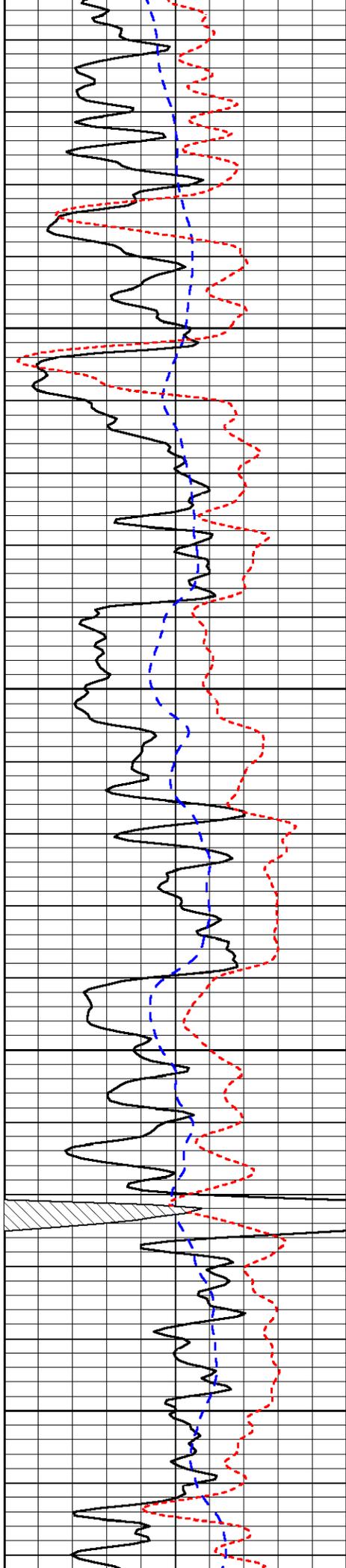
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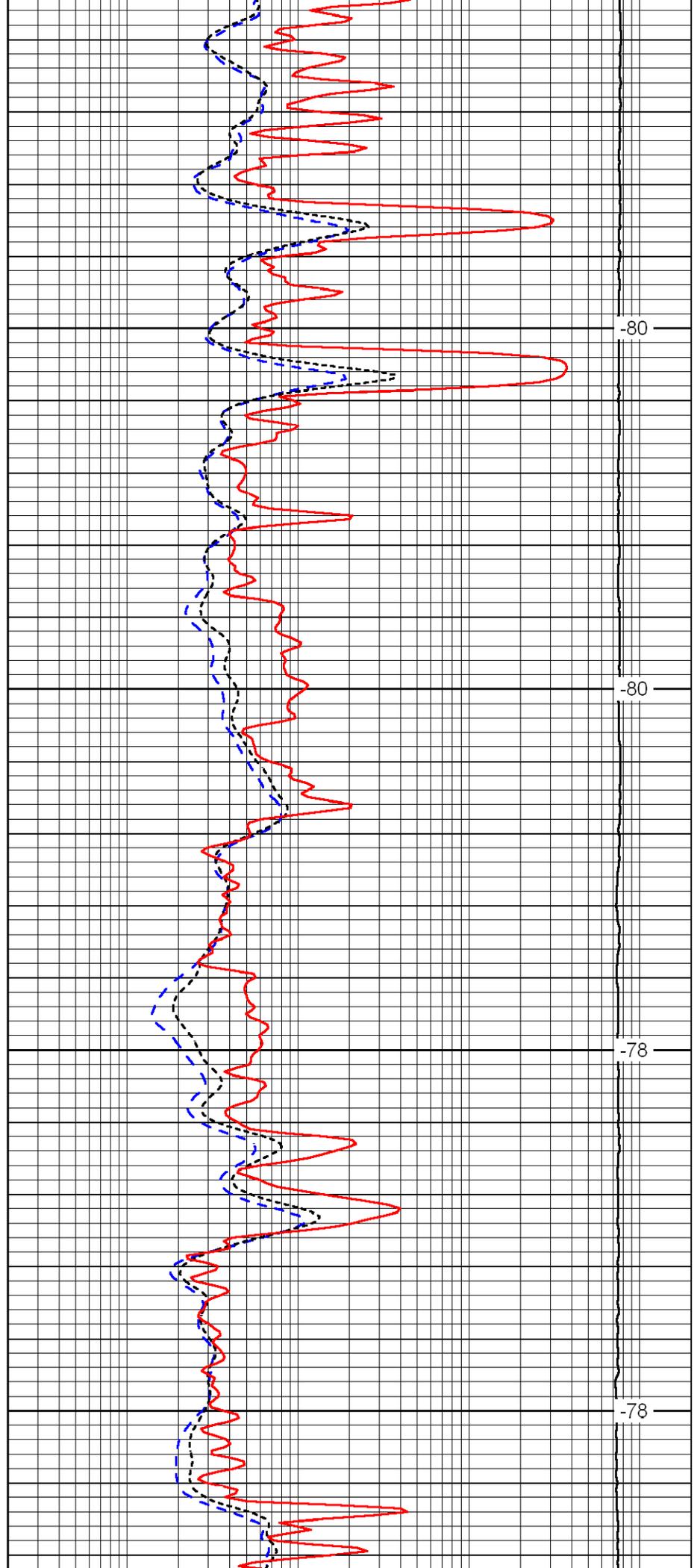


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2250

2300

2350

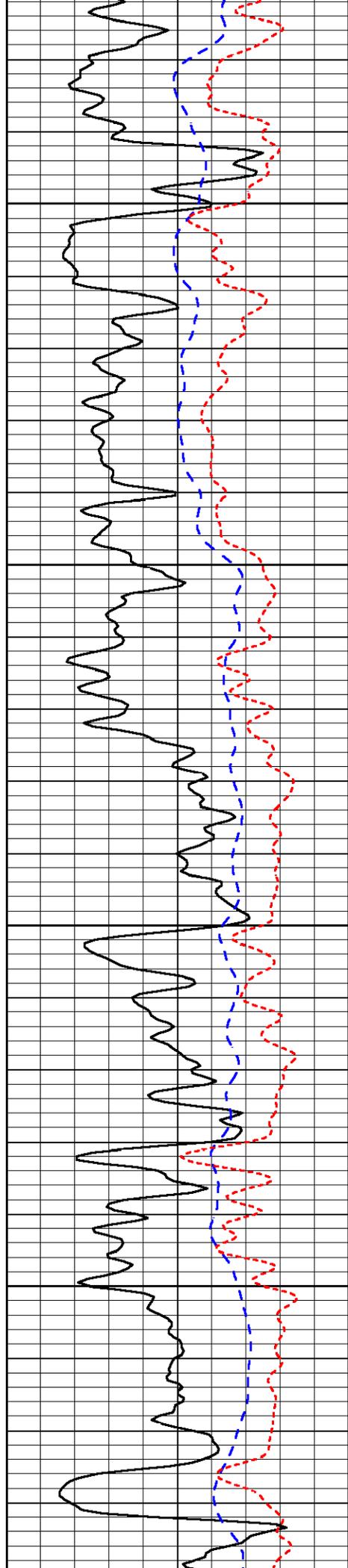


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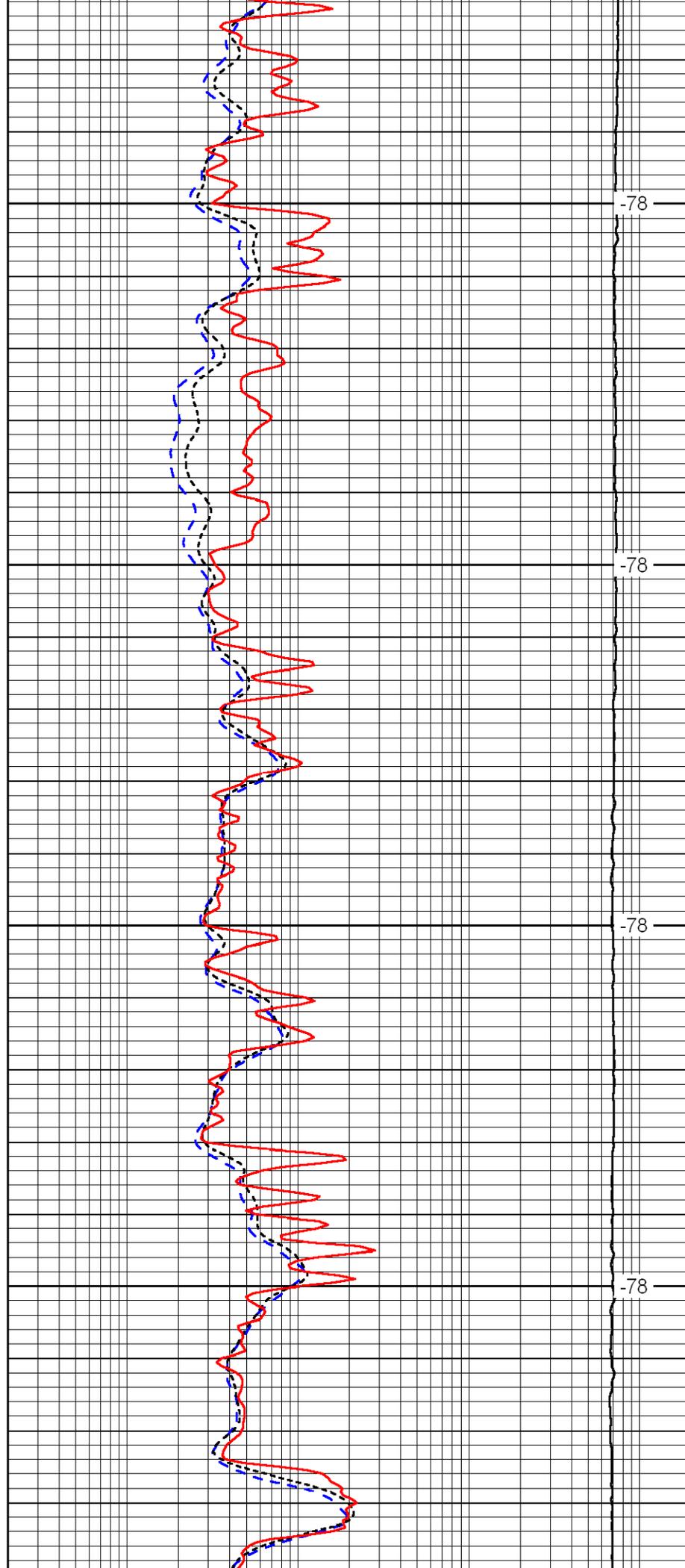


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2450

2500

2550

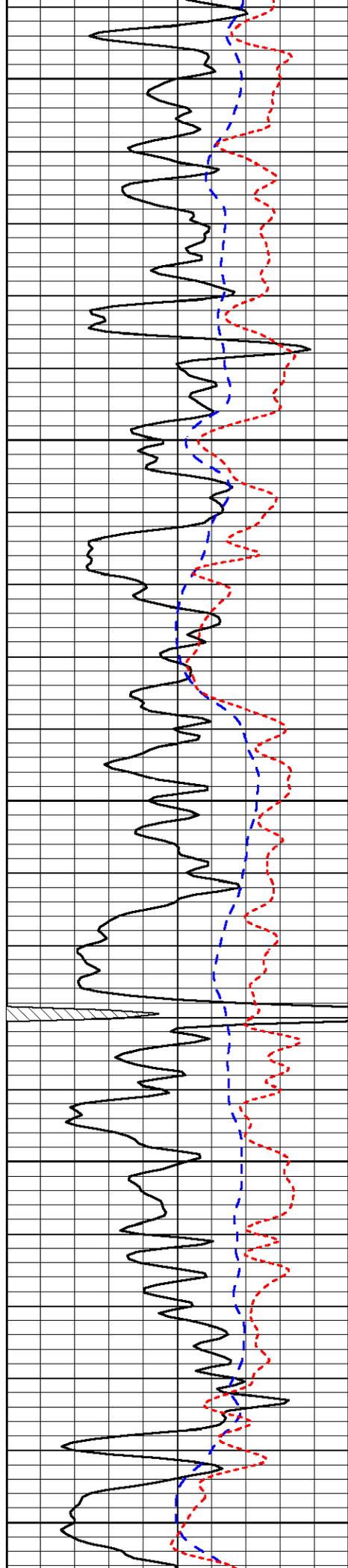


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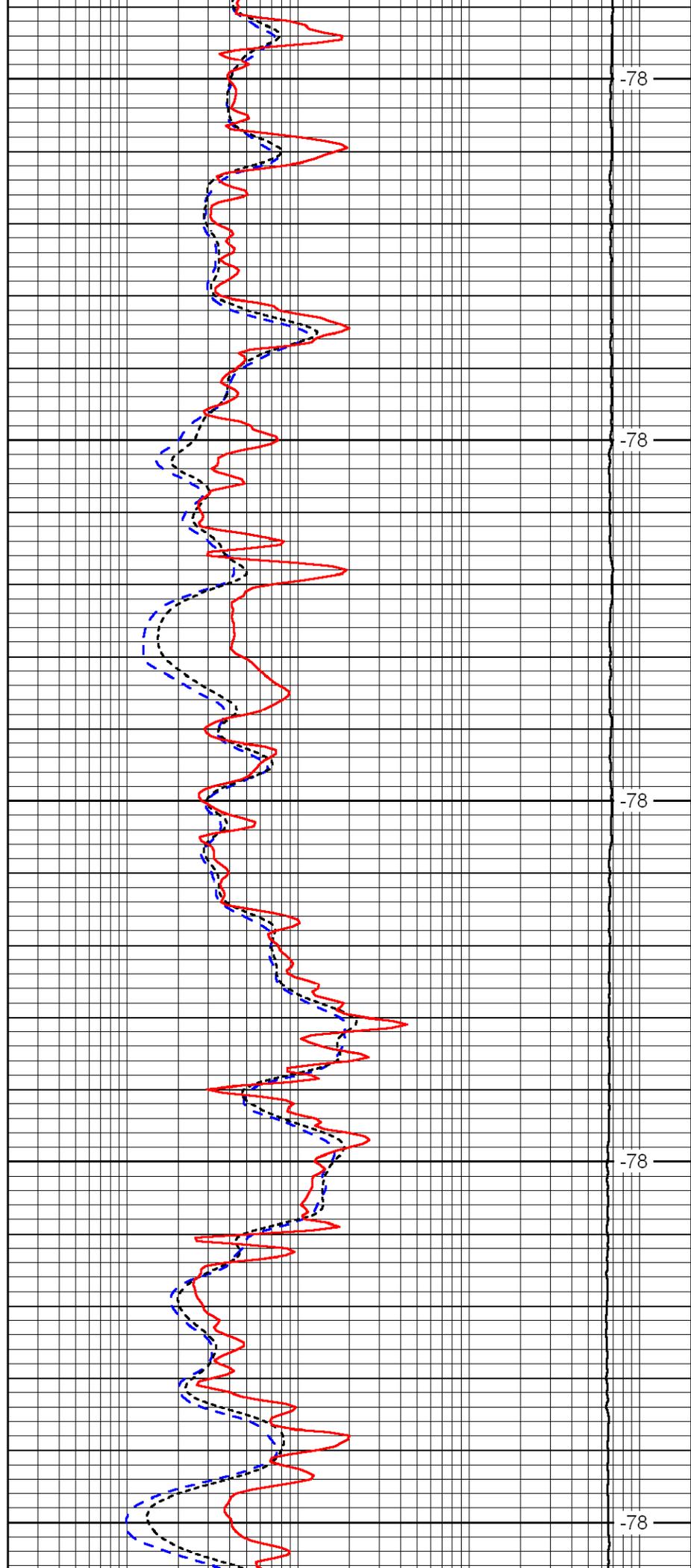
2600

2650

2700

2750

2800



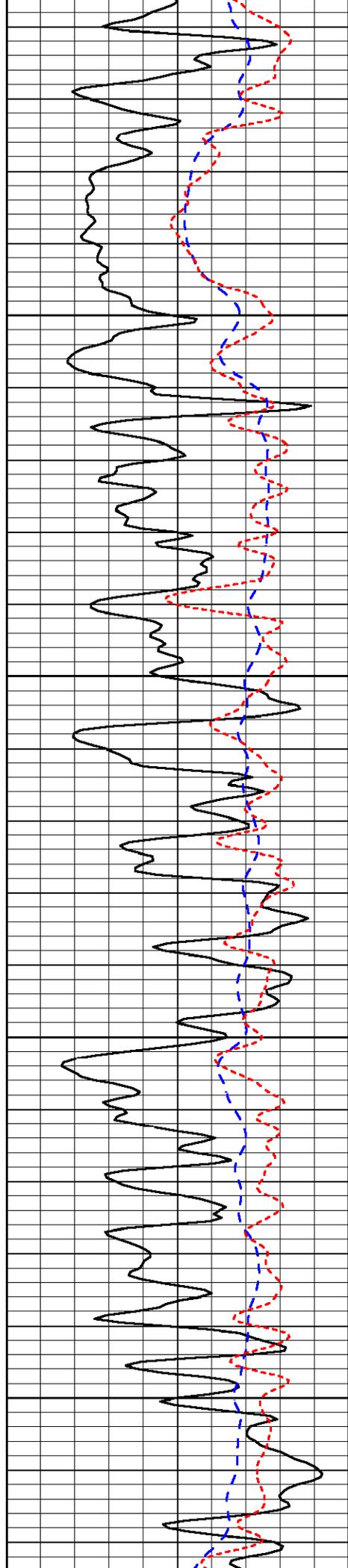
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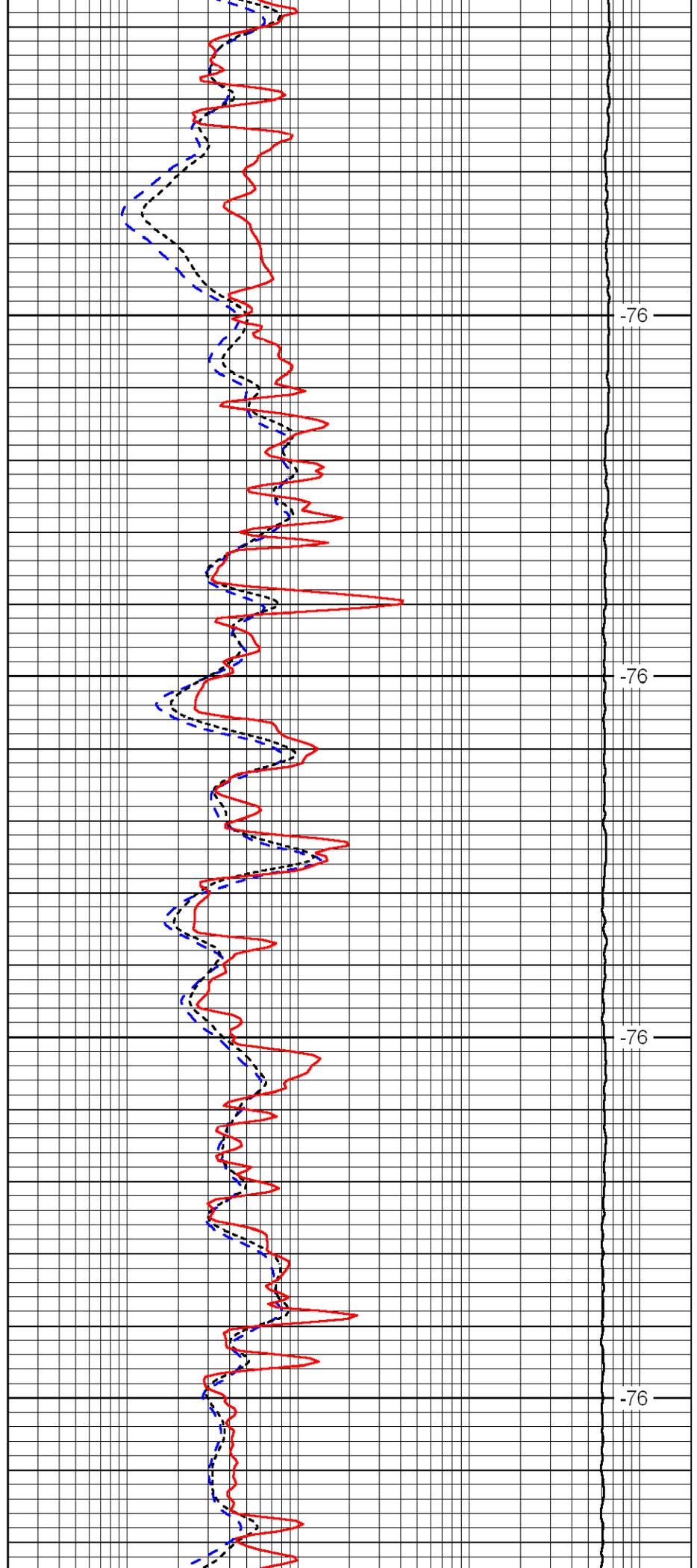


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2900

2950

3000

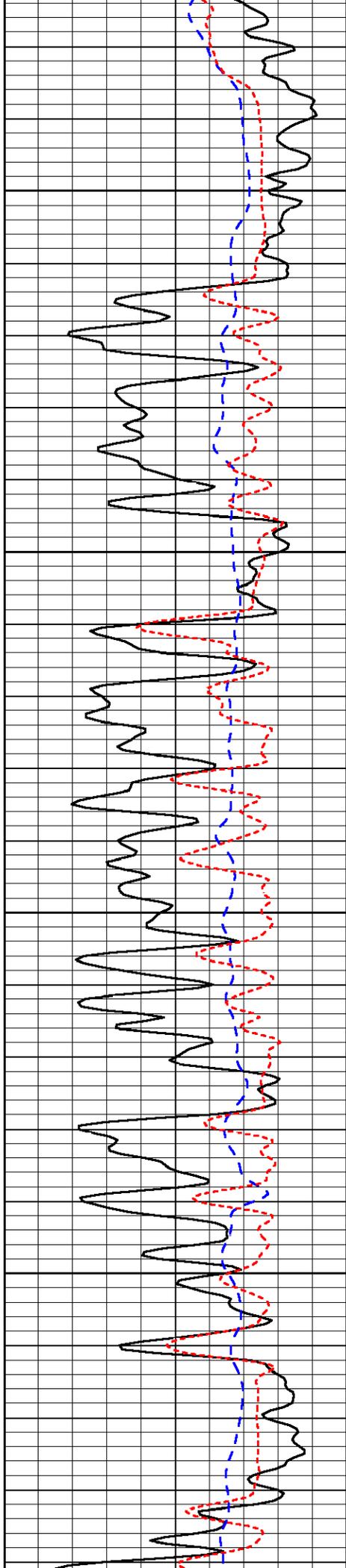


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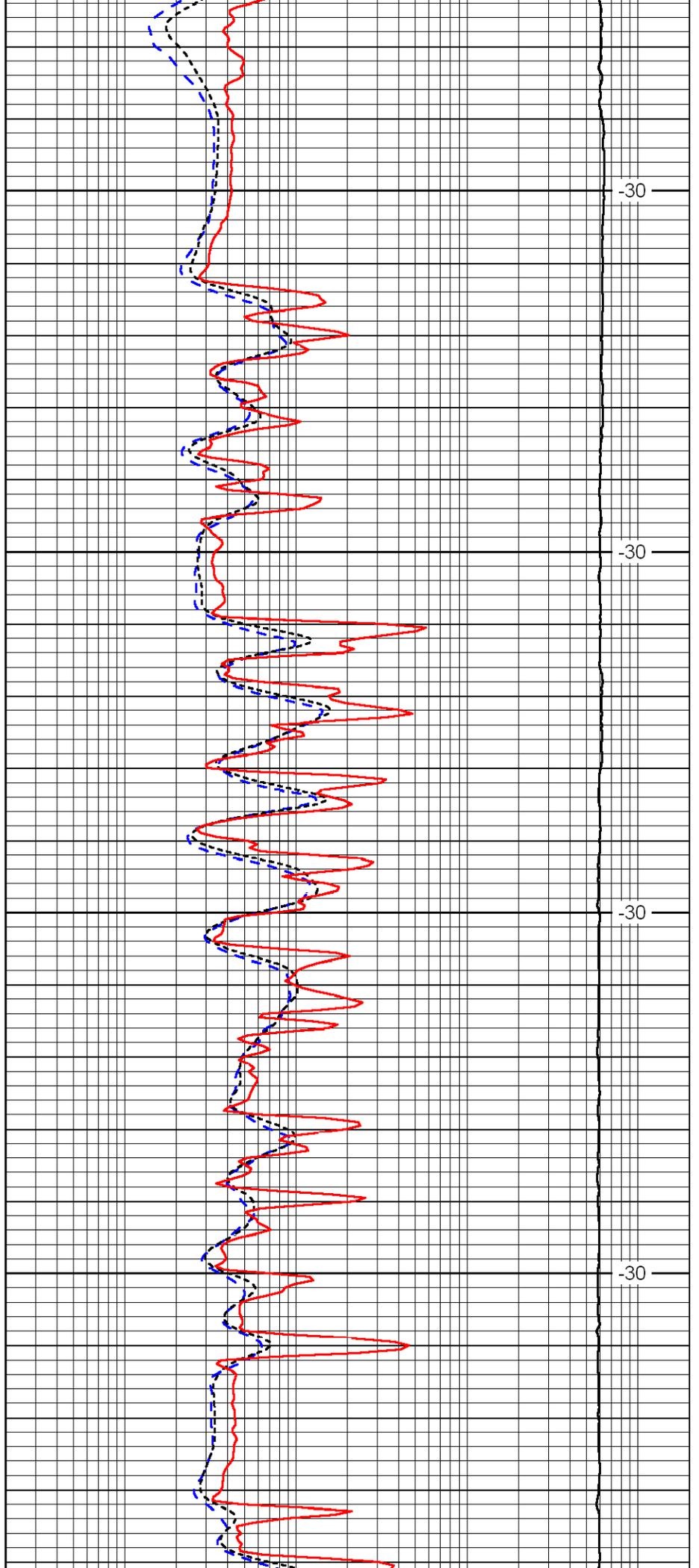


3050

3100

3150

3200

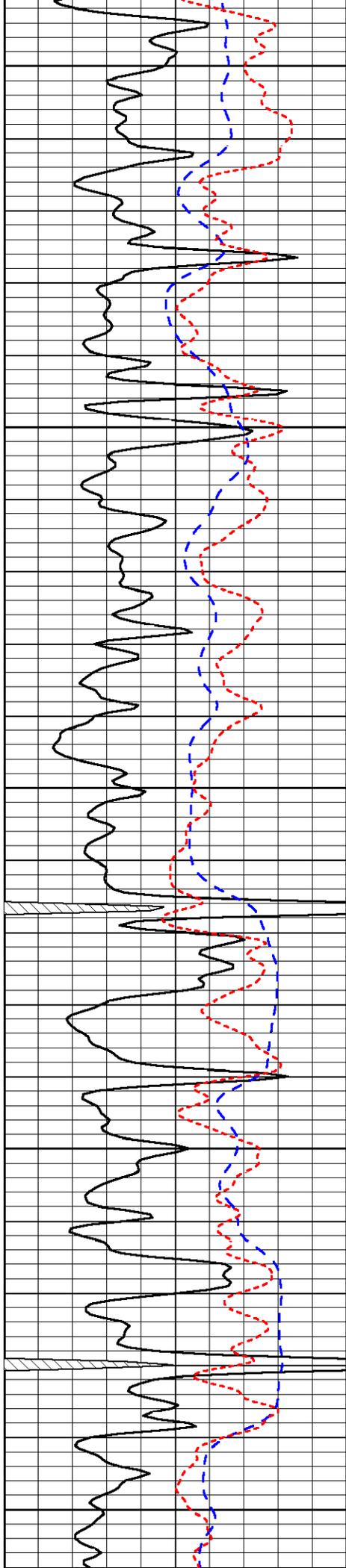


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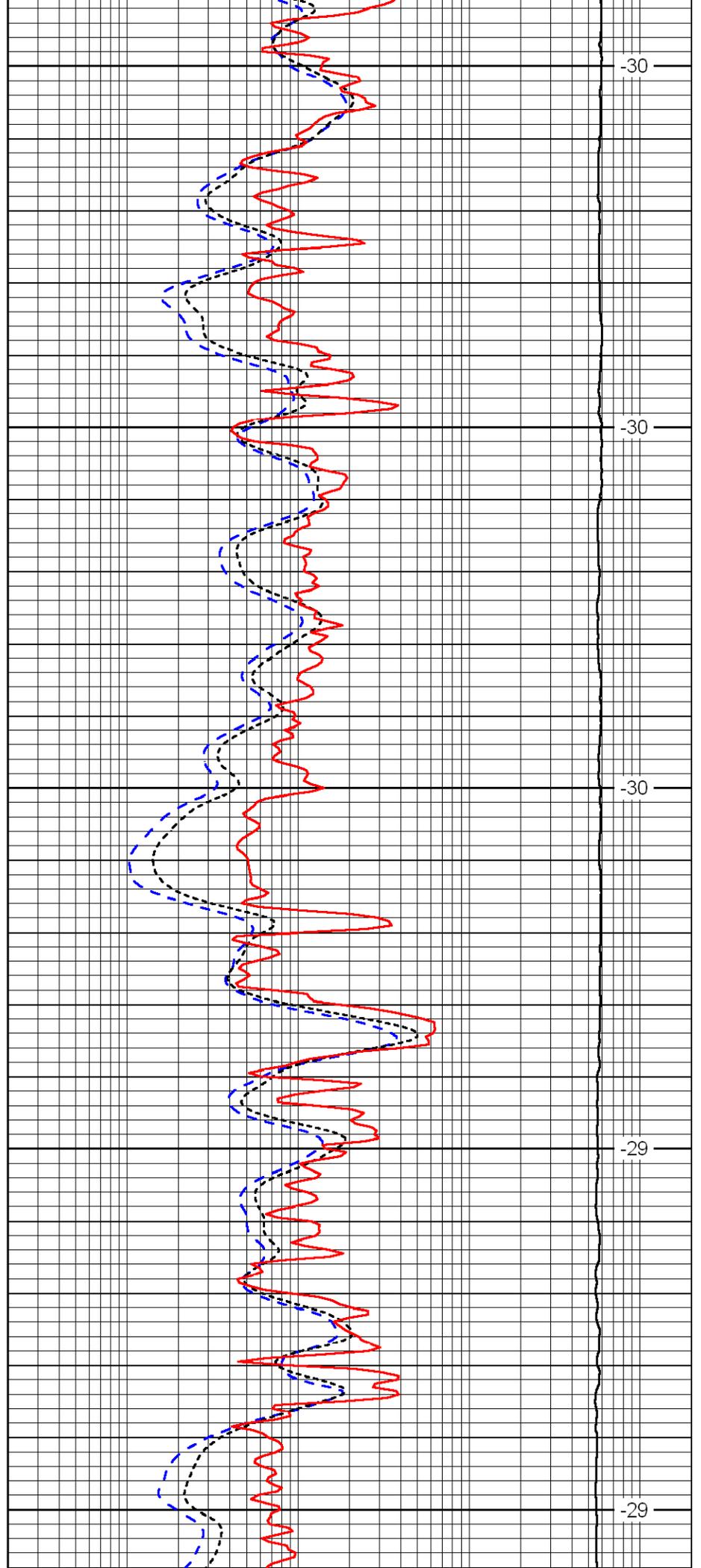
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3300

3350

3400

3450



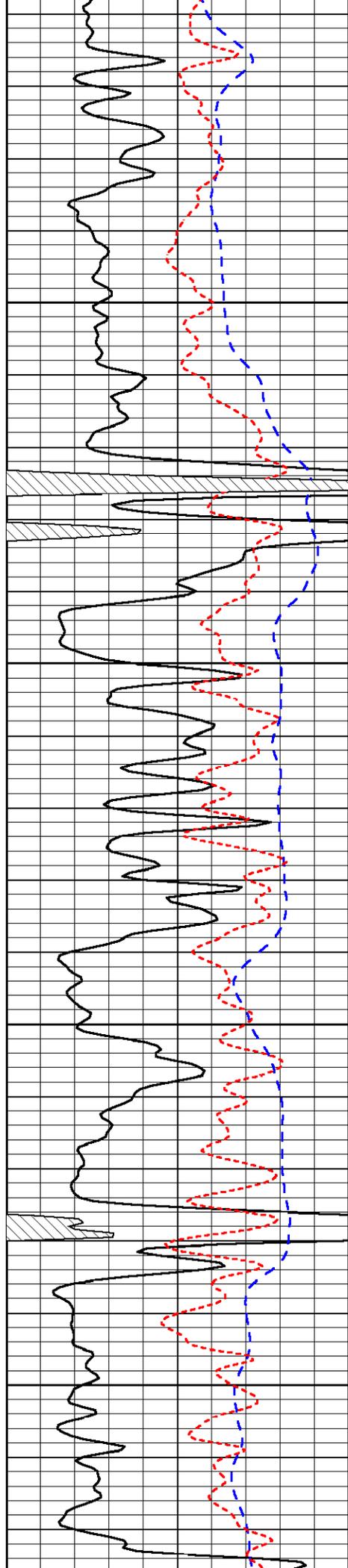
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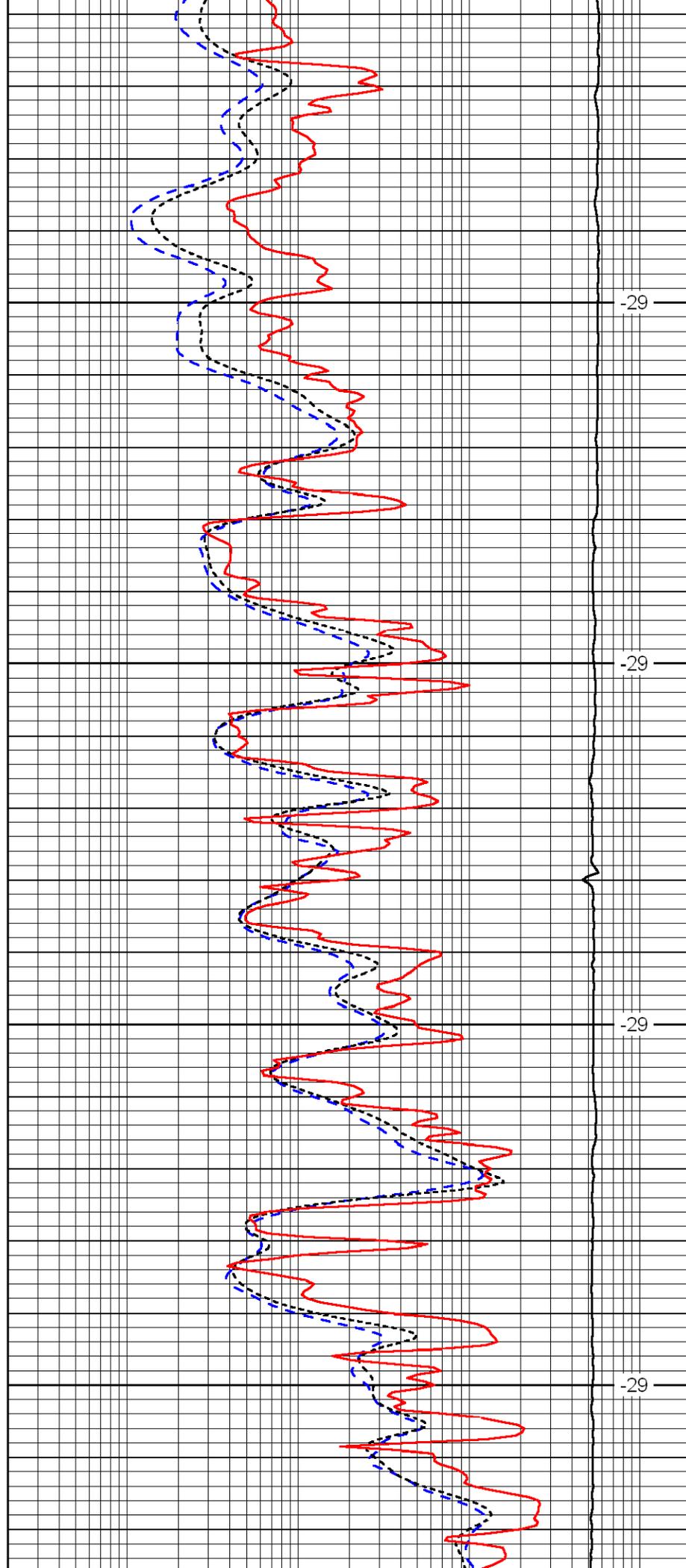


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3600

3650

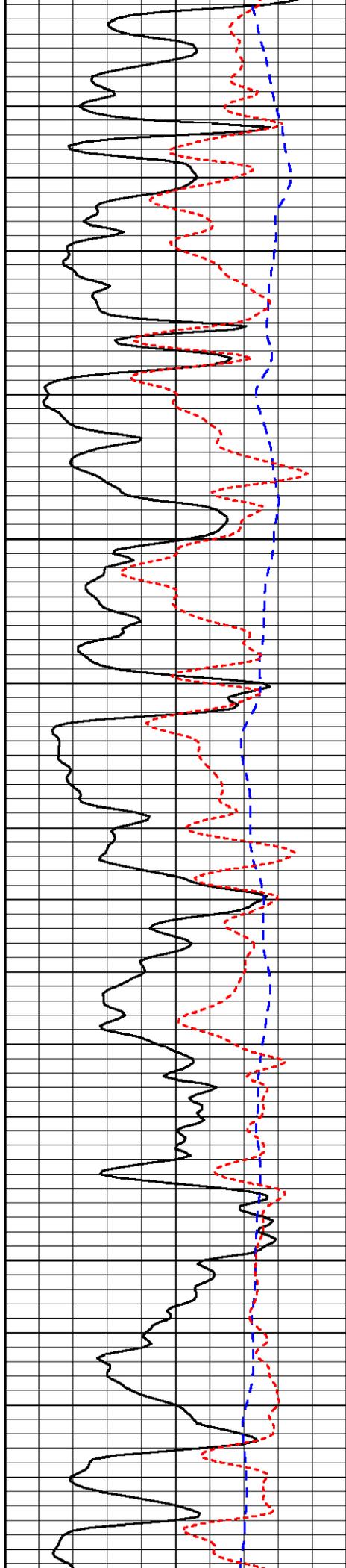


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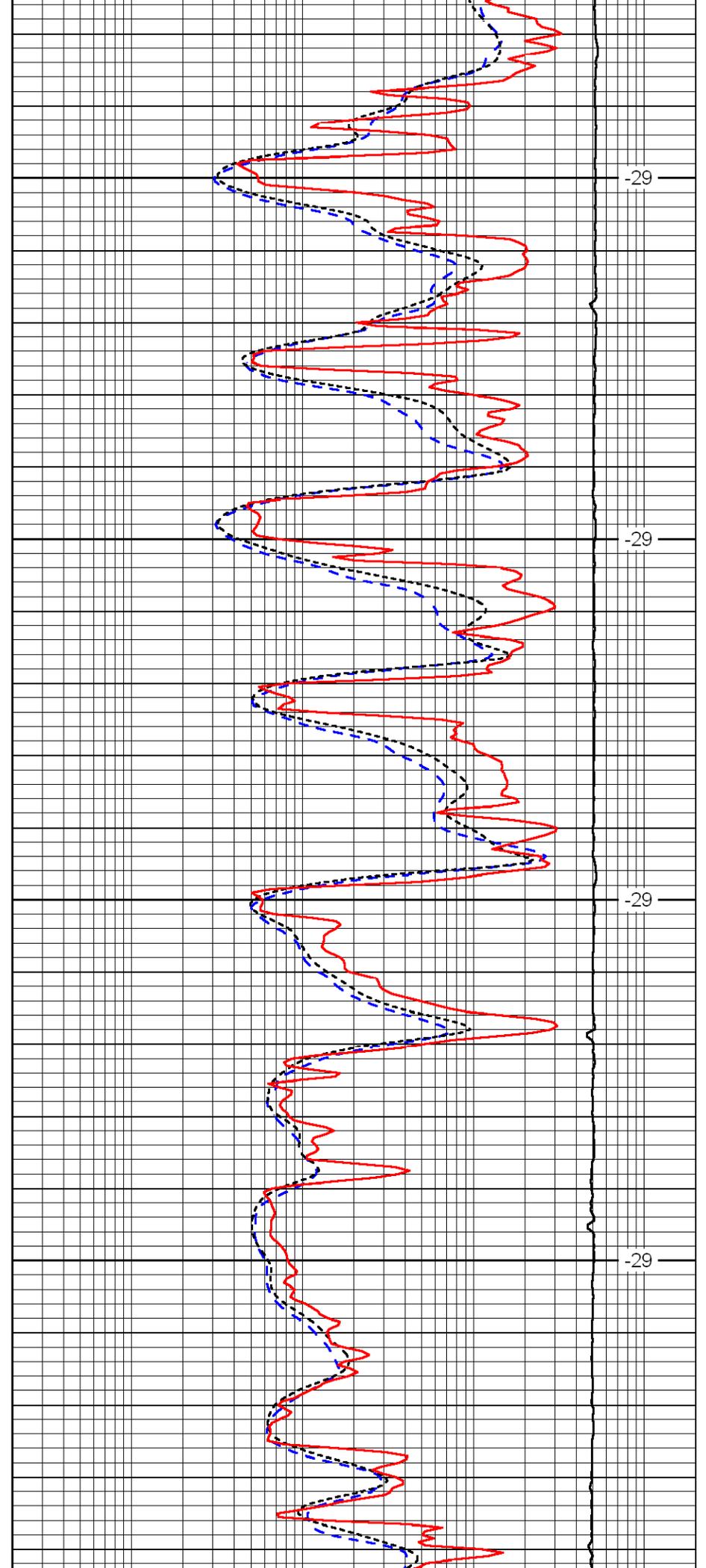


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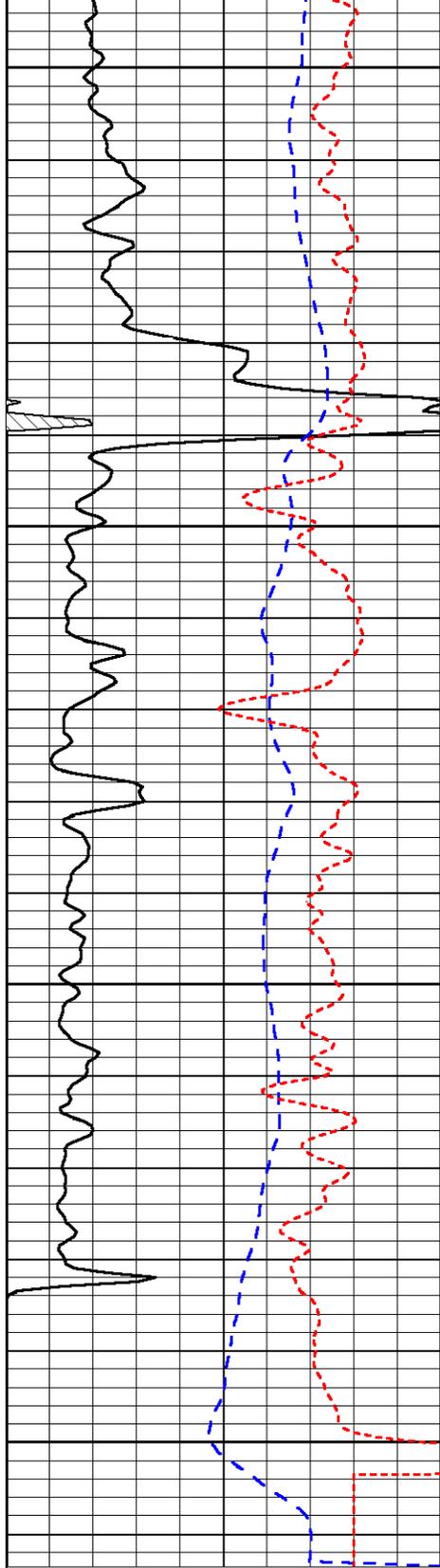


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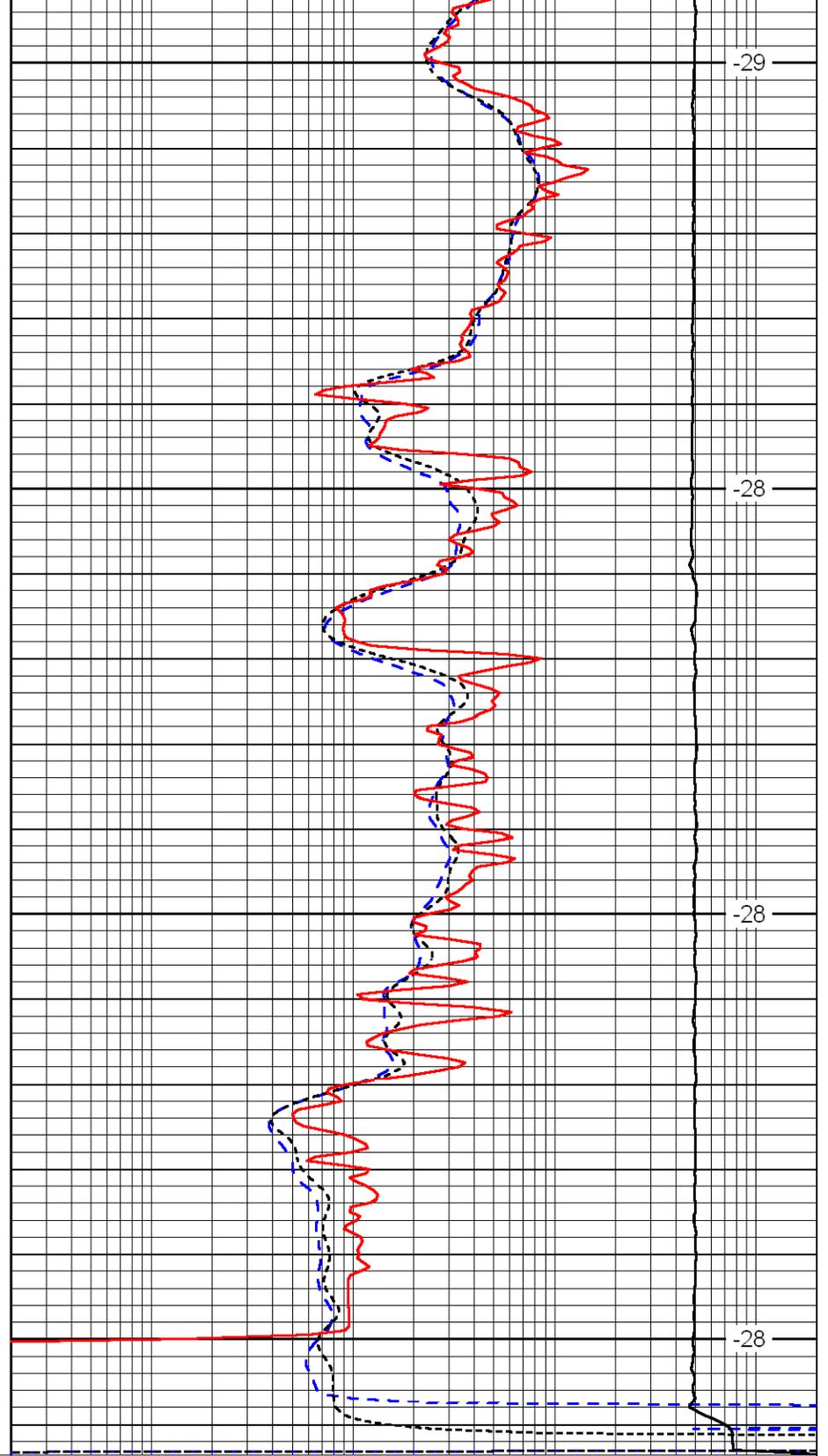
3900

3950

4000

4050

0	Gamma Ray	150
-200	SP (MV)	0
-160	Rxo / Rt	40



-29

-28

-28

-28

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
15000	Line Tension (lb)	0

LSPD  
(ft/min)