



Pioneer Energy Services

# Dual Induction Log

15-185-23,816-00-00

**Company** H&D Exploration, LLC  
**Well** Fritzemeier #1  
**Field** Wildcat  
**County** Stafford **State** Kansas  
**Location** W2 NE NE NE  
 330' FNL & 425' FEL  
**Sec:** 20 **Twp:** 25S **Rge:** 12W

Other Services  
 CNL/CDL  
 MEL/BHCS

**Permanent Datum** Ground Level Elevation 1874  
**Log Measured From** Kelly Bushing 10 Ft. Above Perm. Datum  
**Drilling Measured From** Kelly Bushing

**Elevation**  
 K.B. 1884  
 D.F. 1874  
 G.L. 1874

Date	7/1/2013	
Run Number	One	
Depth Driller	4240	
Depth Logger	4239	
Bottom Logged Interval	4238	
Top Log Interval	700	
Casing Driller	8.625 @ 717	
Casing Logger	714	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	8000	
Density / Viscosity	9.4 54	
pH / Fluid Loss	11.5 9.2	
Source of Sample	Flowline	
Rm @ Meas. Temp	.36 @ 78	
Rmf @ Meas. Temp	.27 @ 78	
Rmc @ Meas. Temp	.49 @ 78	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.24 @ 118	
Operating Rig Time	4 Hours	
Max Rec. Temp. F	118	
Equipment Number	108	
Location	Hays	
Recorded By	J. Long	
Witnessed By	Josh Austin	

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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 Pioneer Energy Services  
[www.pioneerenergy.com](http://www.pioneerenergy.com)  
 785 625 3858  
 Stafford, 6 South to 60 Road, 3 West, South Into

Database File: c:\warrior\data\h&d\_fritzemeier # 1\h&d\_fritzemeier\_1hd.db  
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 Presentation Format: dil2in  
 Dataset Creation: Mon Jul 01 03:32:16 2013  
 Charted by: Depth in Feet scaled 1:600

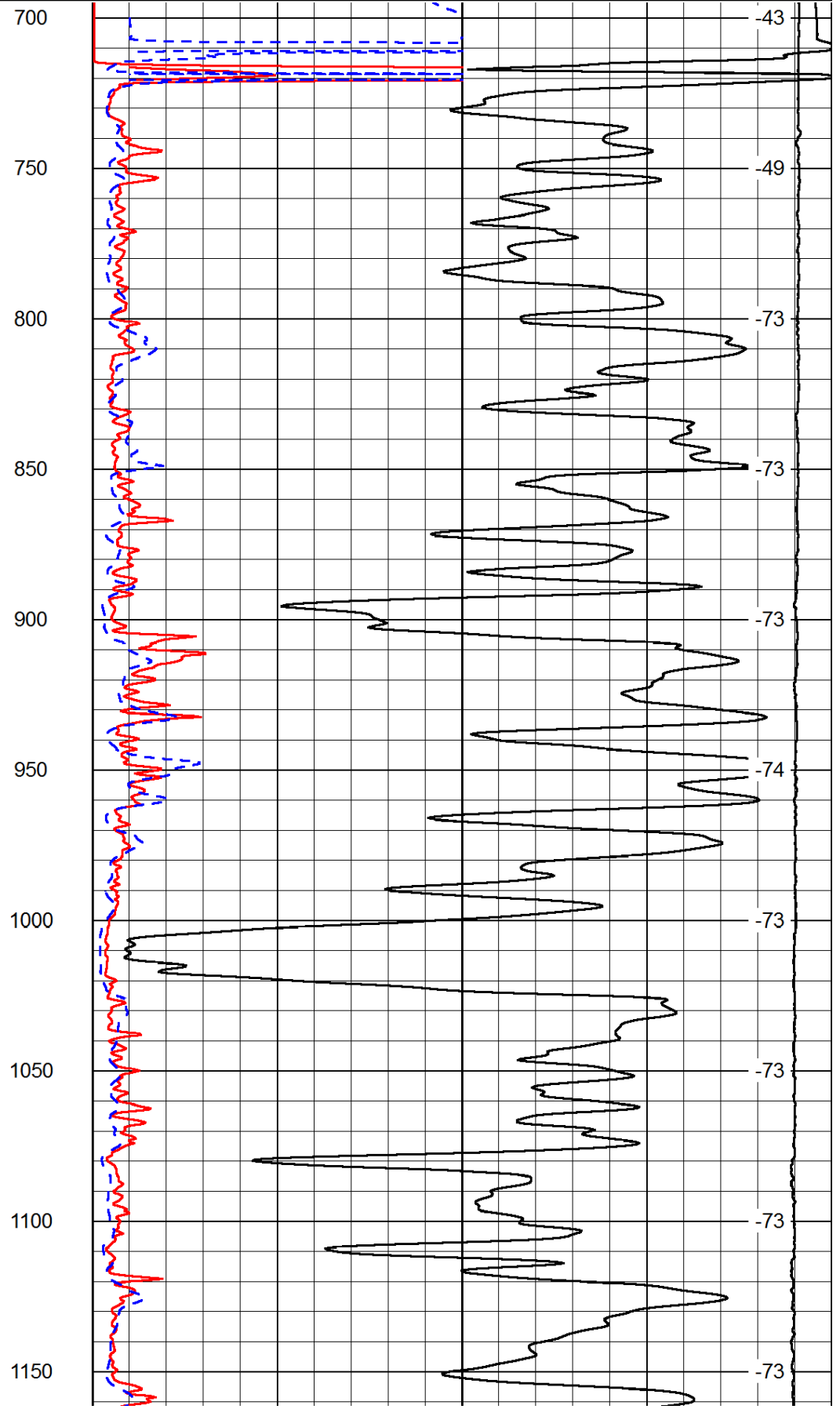
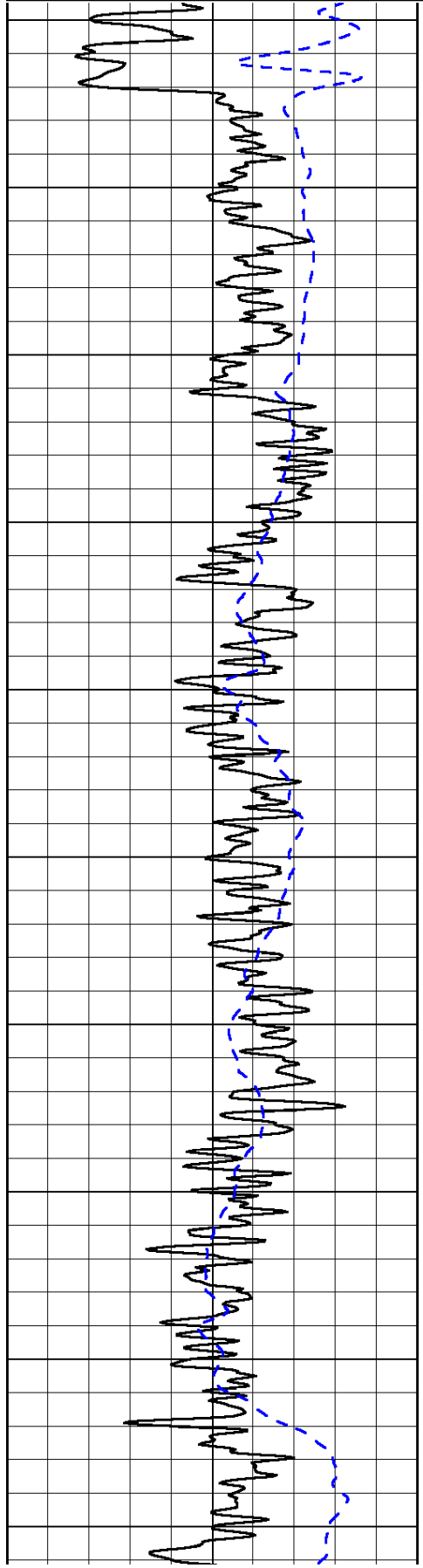
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-200	SP (mV)	0

0	Shallow Resistivity	50
0	Deep Resistivity	50

LSPD

1000	Conductivity	0
15000	Line Tension	0

50	Shallow Resistivity	500
50	Deep Resistivity	500



700 -43

750 -49

800 -73

850 -73

900 -73

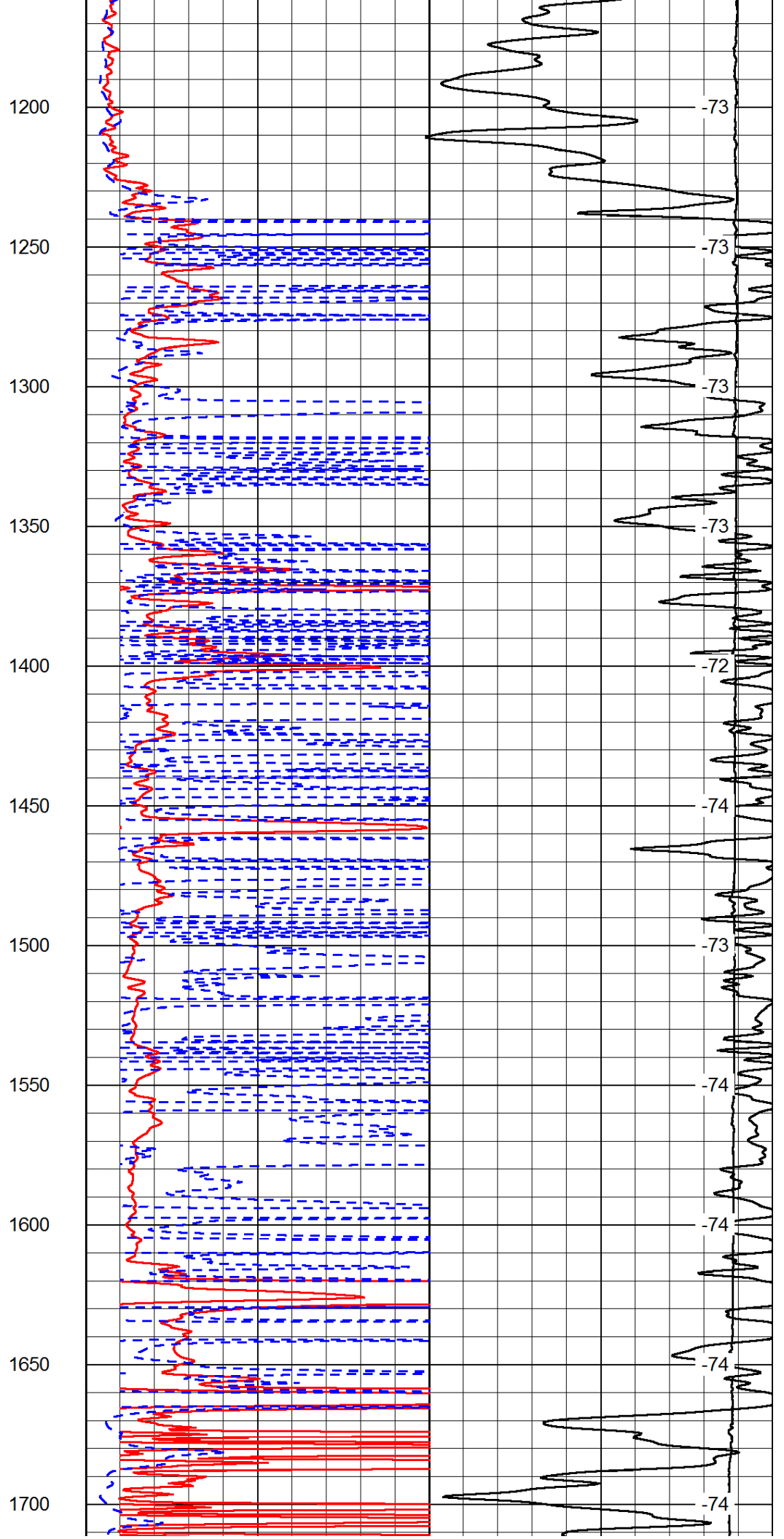
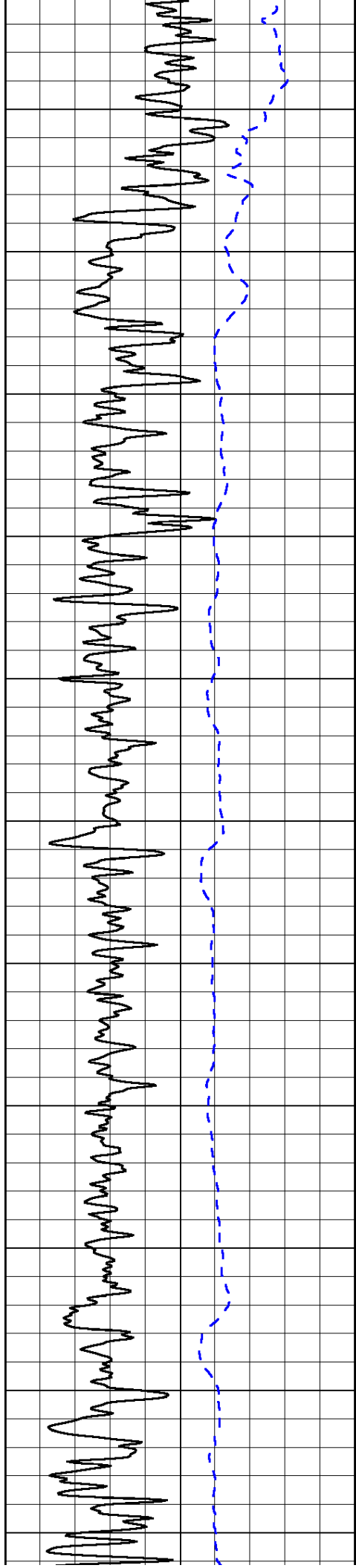
950 -74

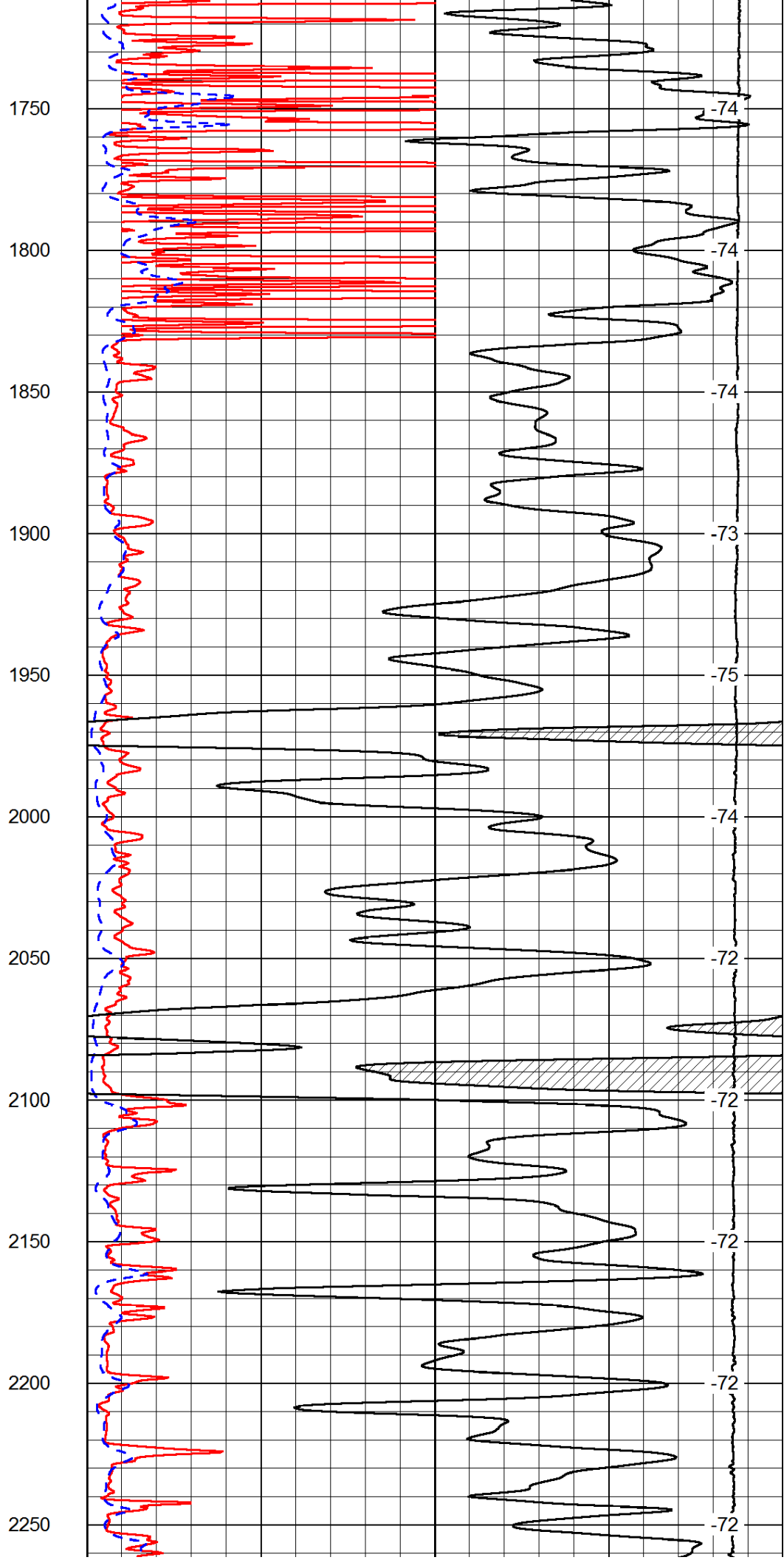
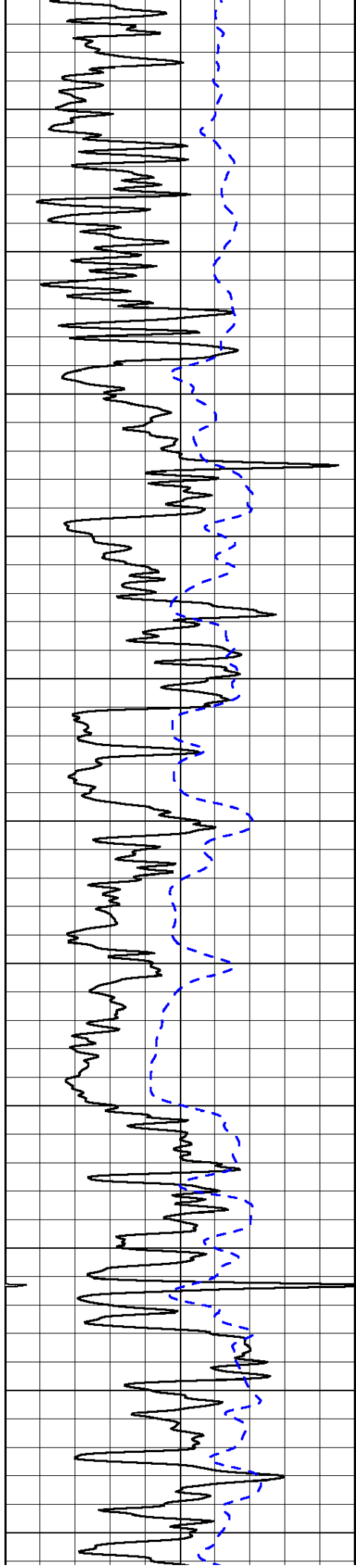
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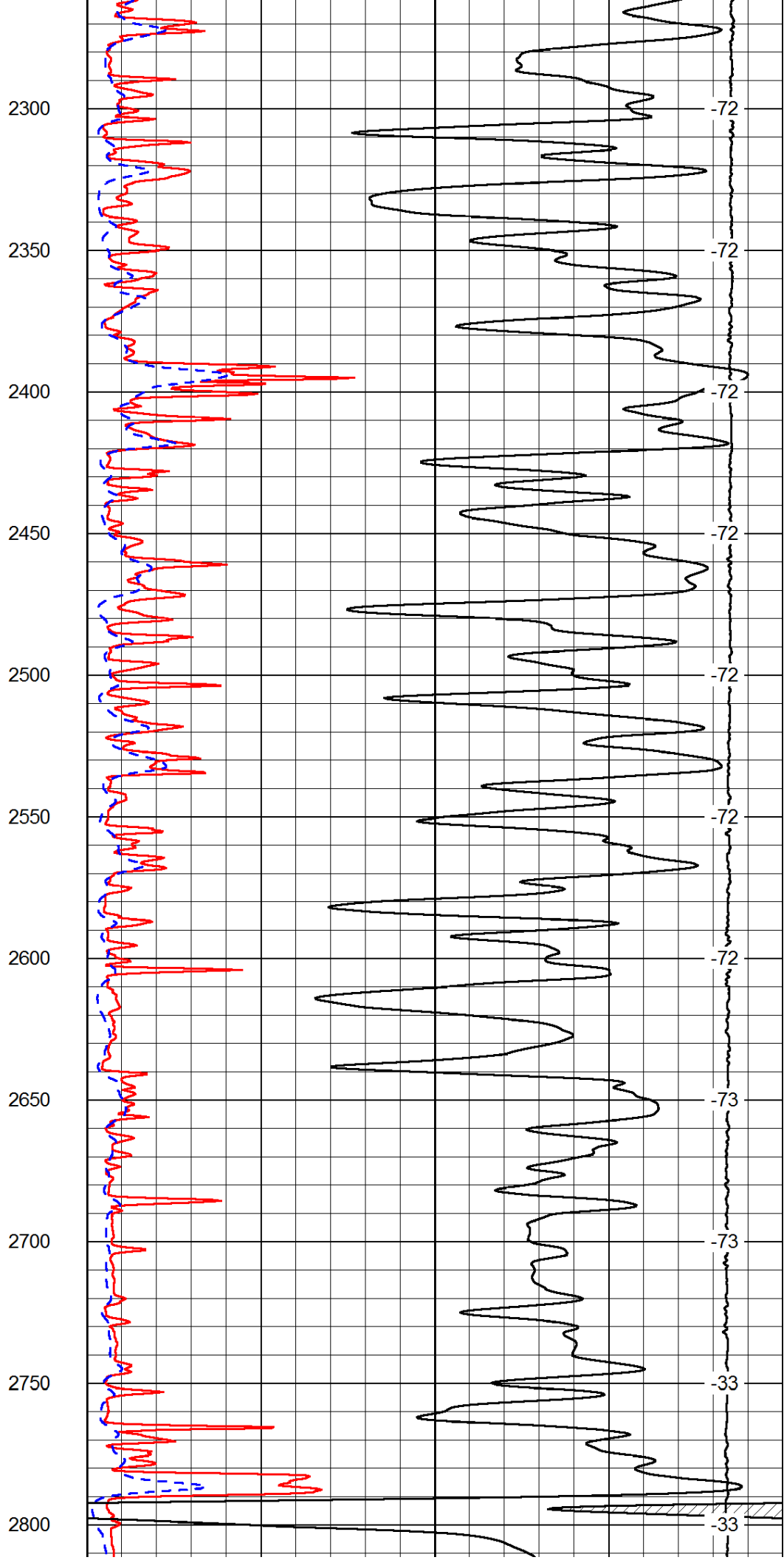
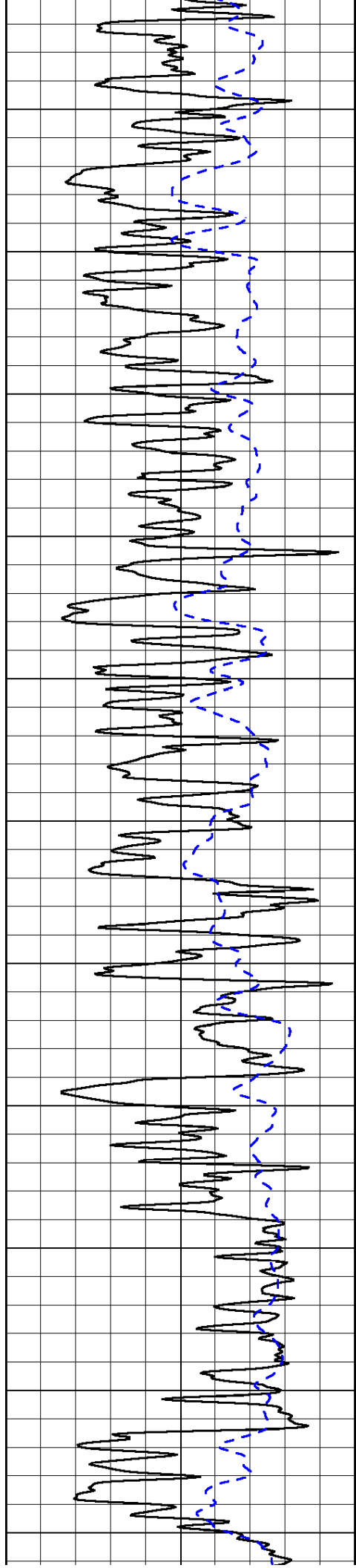
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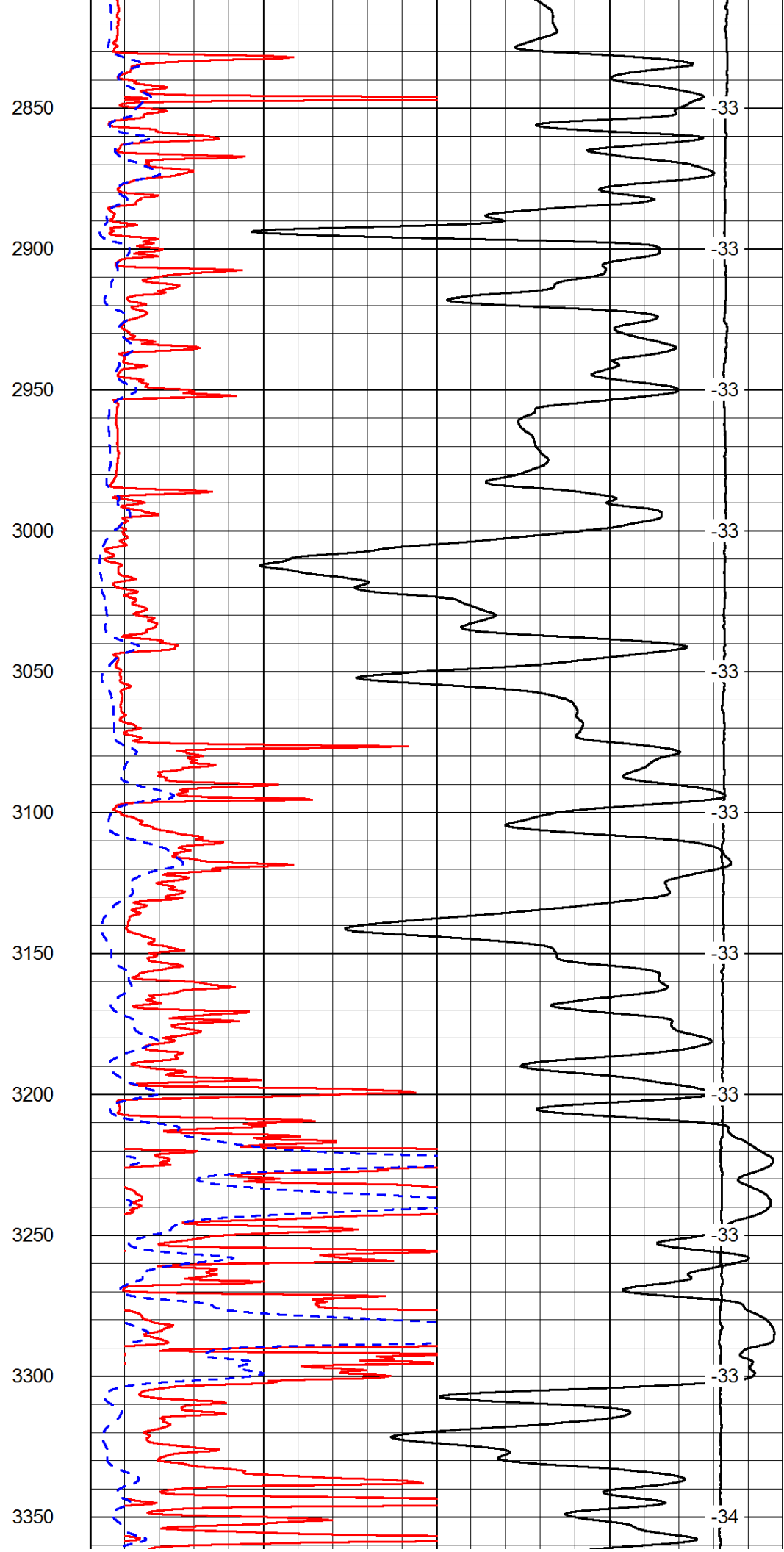
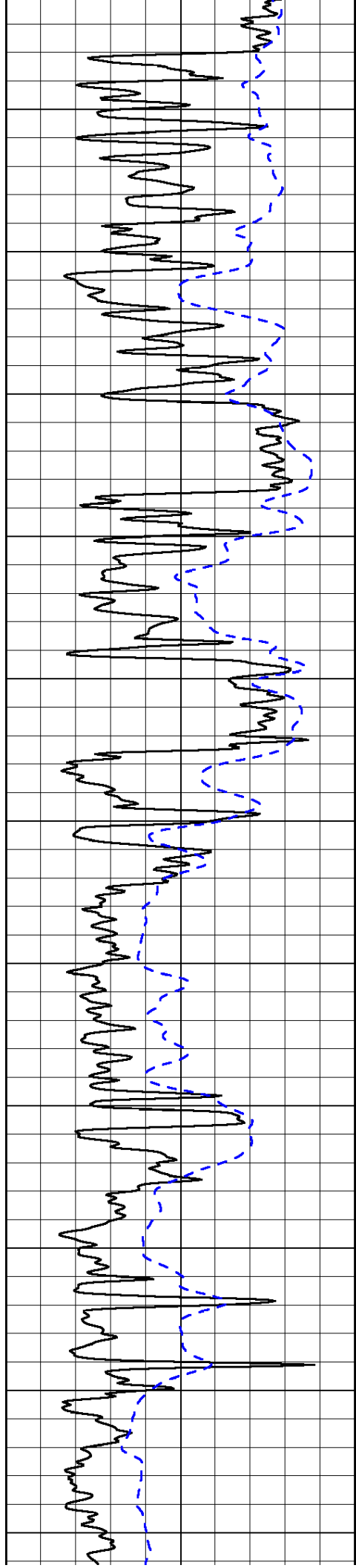
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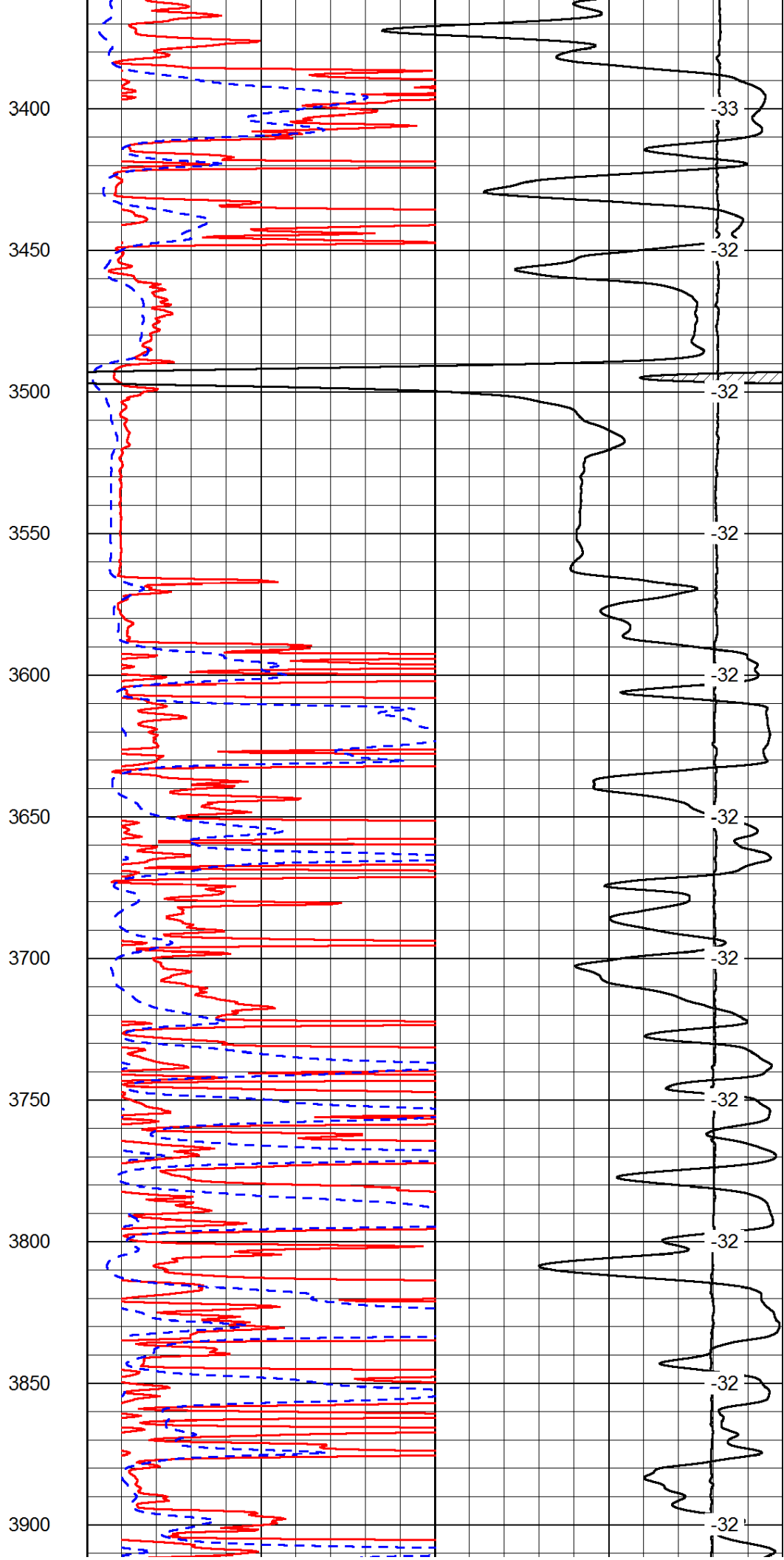
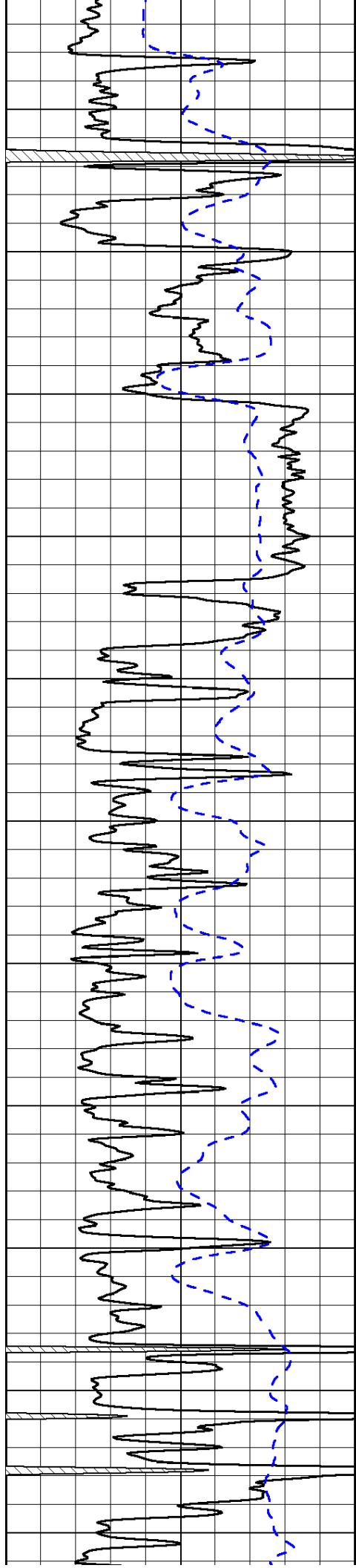
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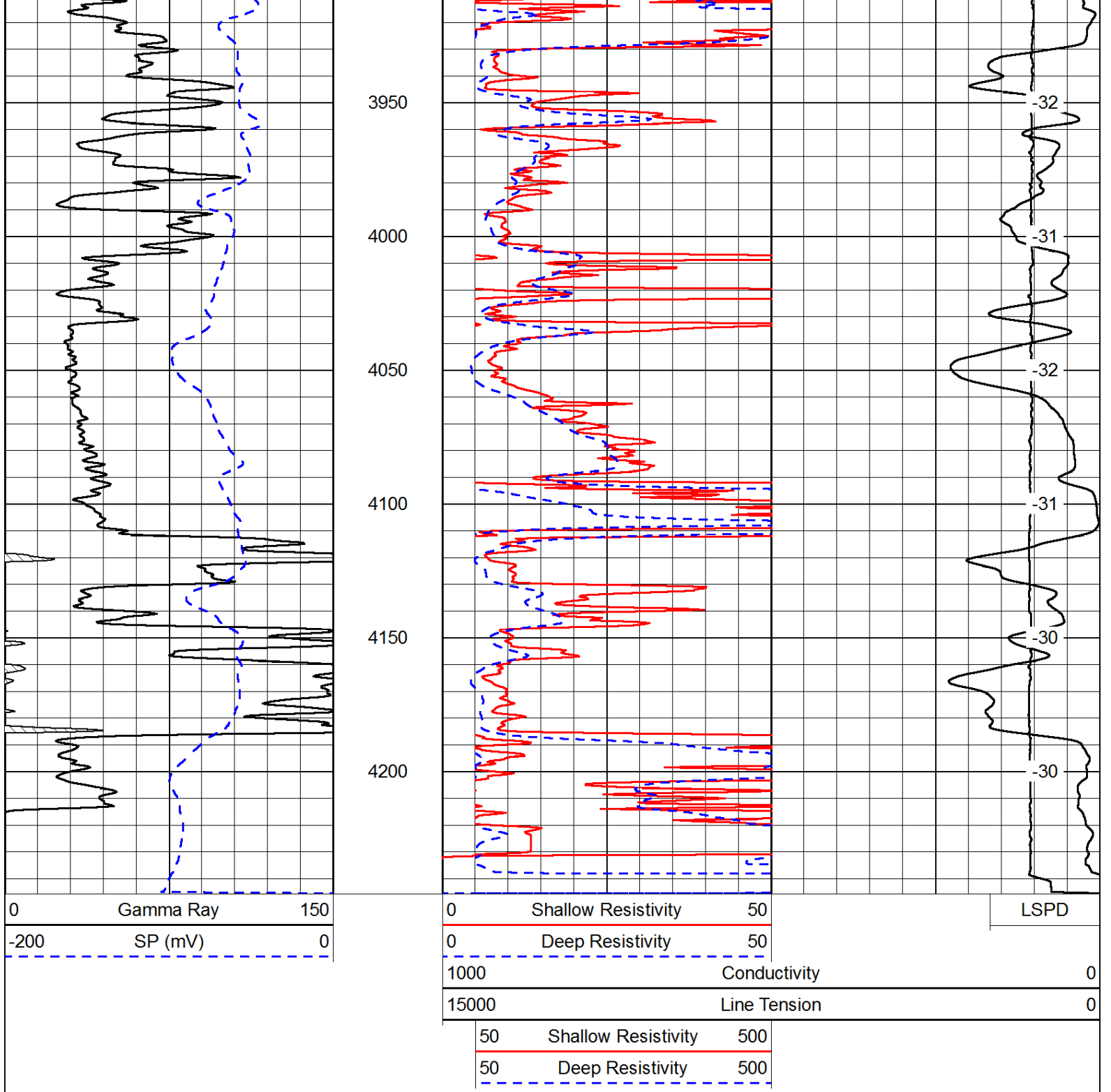




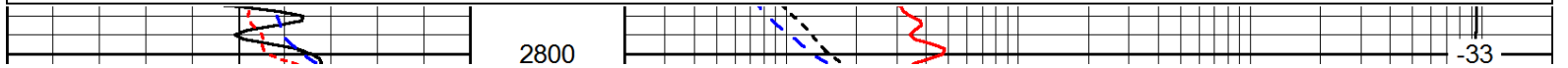
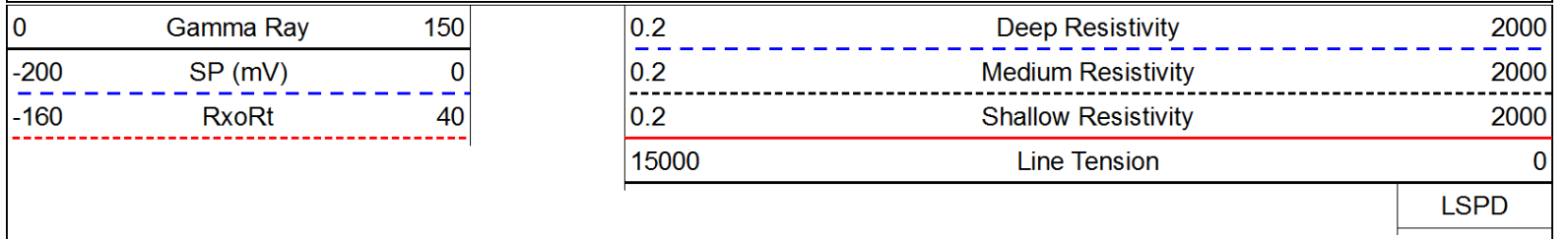




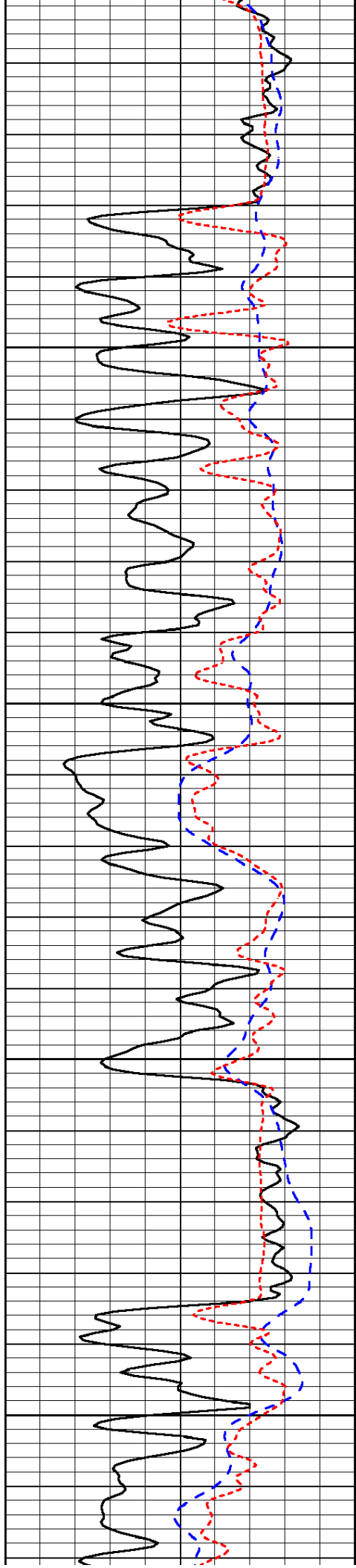




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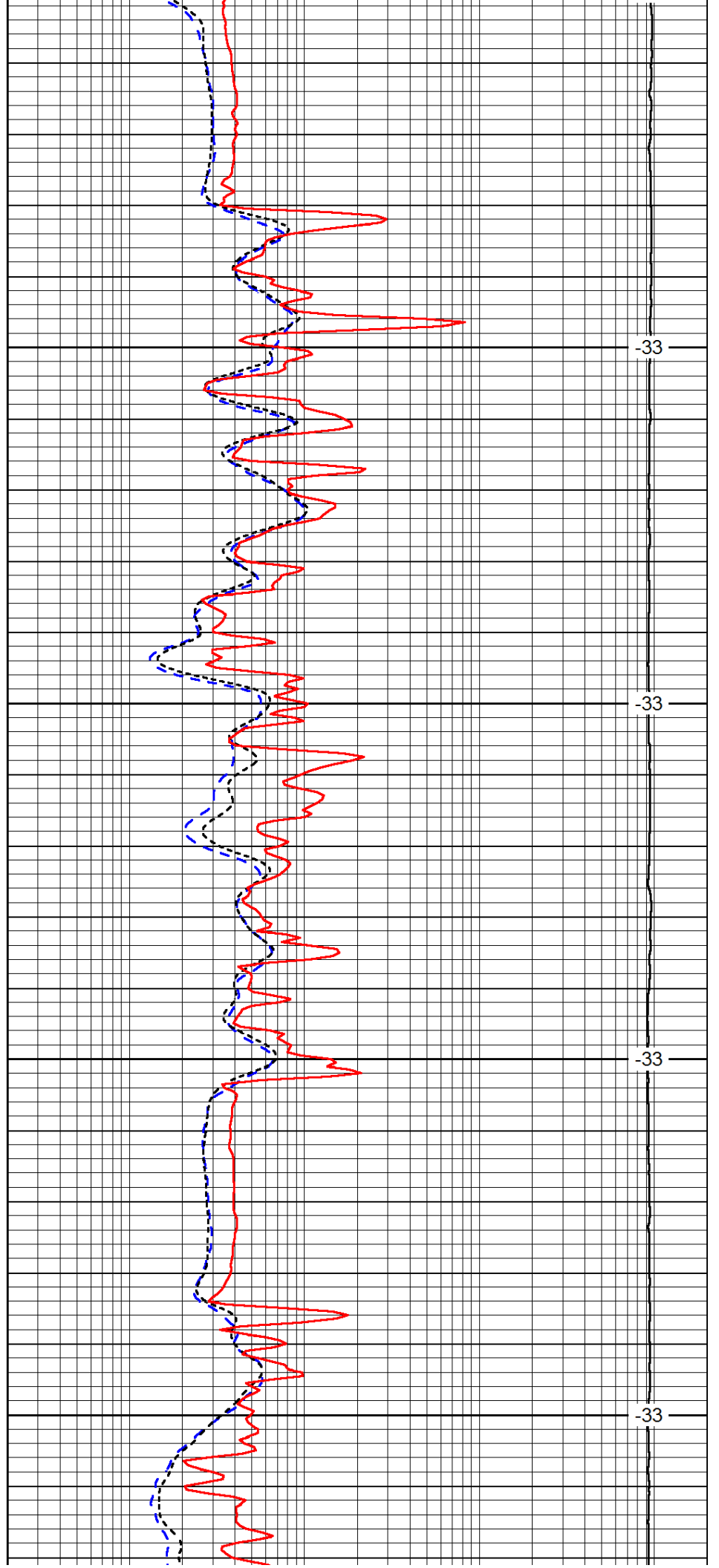


2850

2900

2950

3000

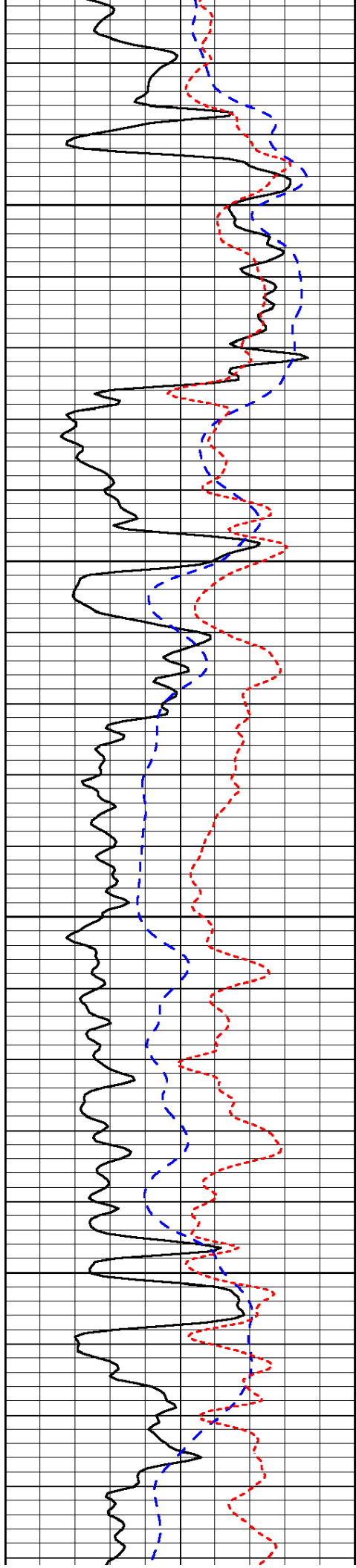


-33

-33

-33

-33

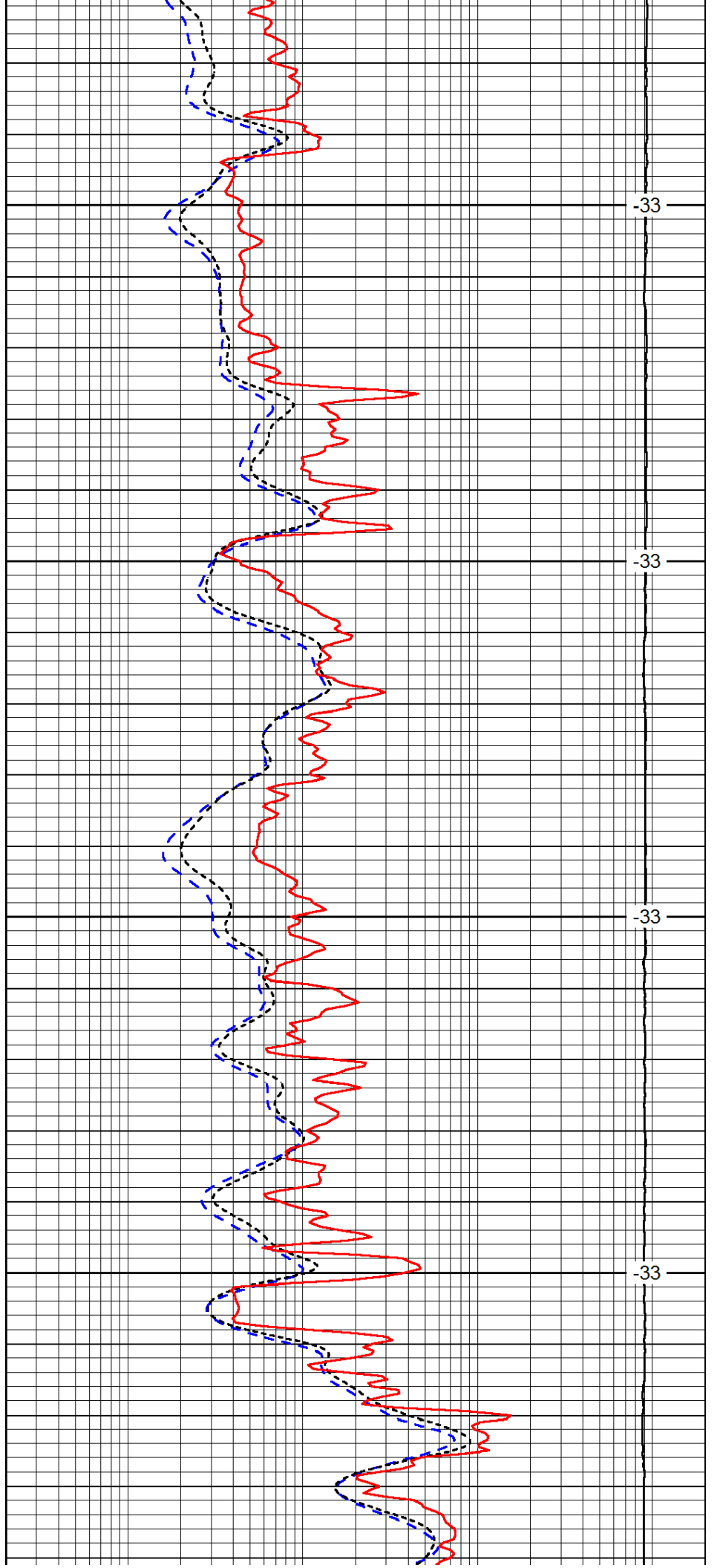


3050

3100

3150

3200

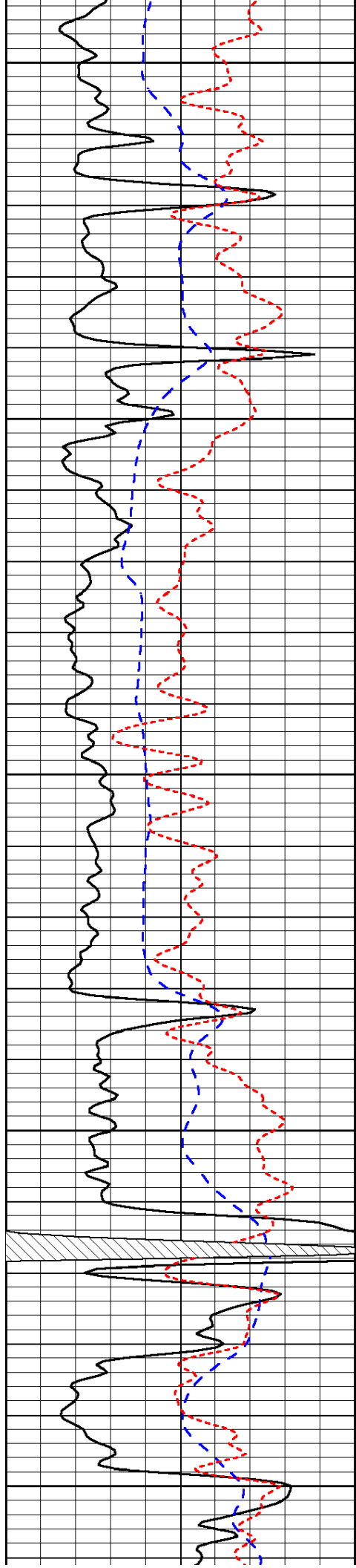


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-33

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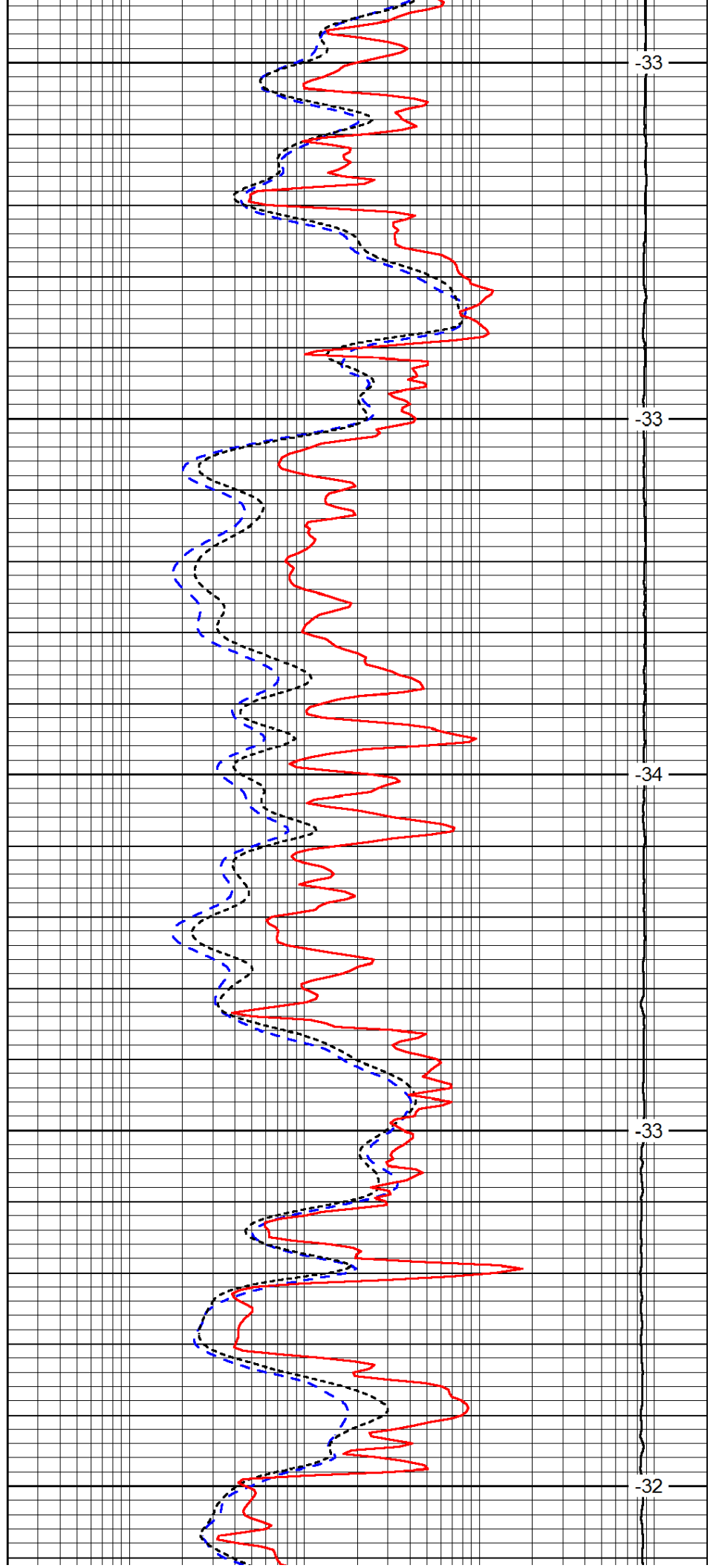
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3300

3350

3400

3450



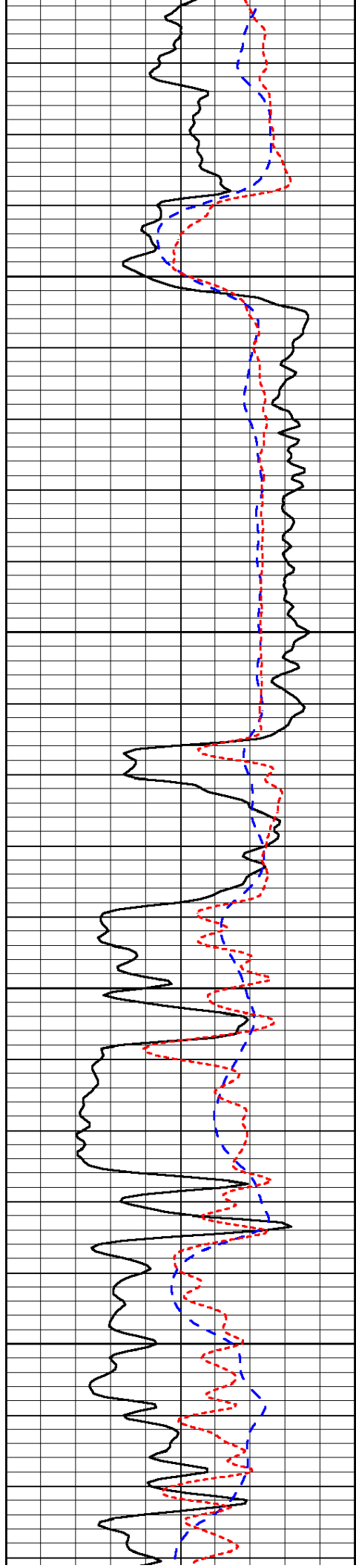
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-34

-33

-32

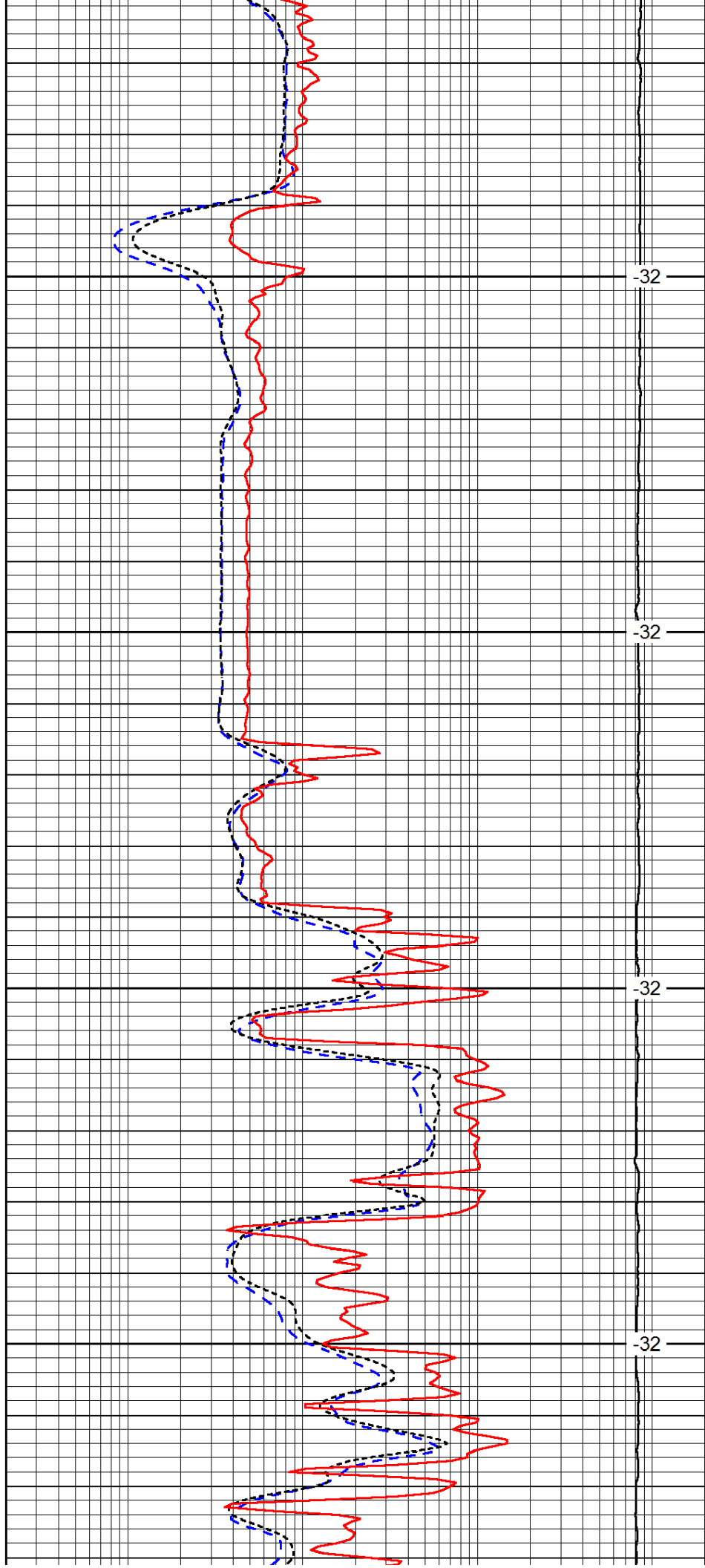


3500

3550

3600

3650

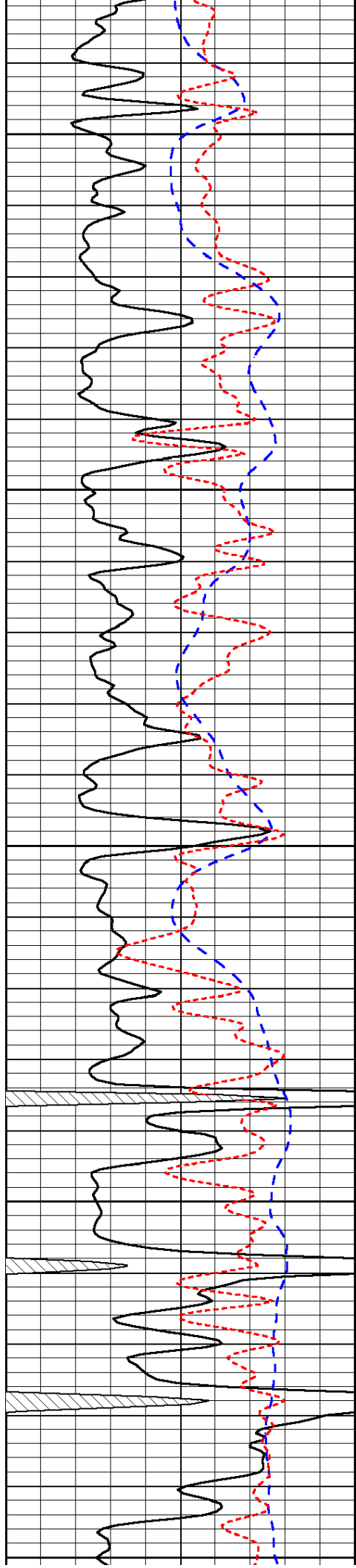


-32

-32

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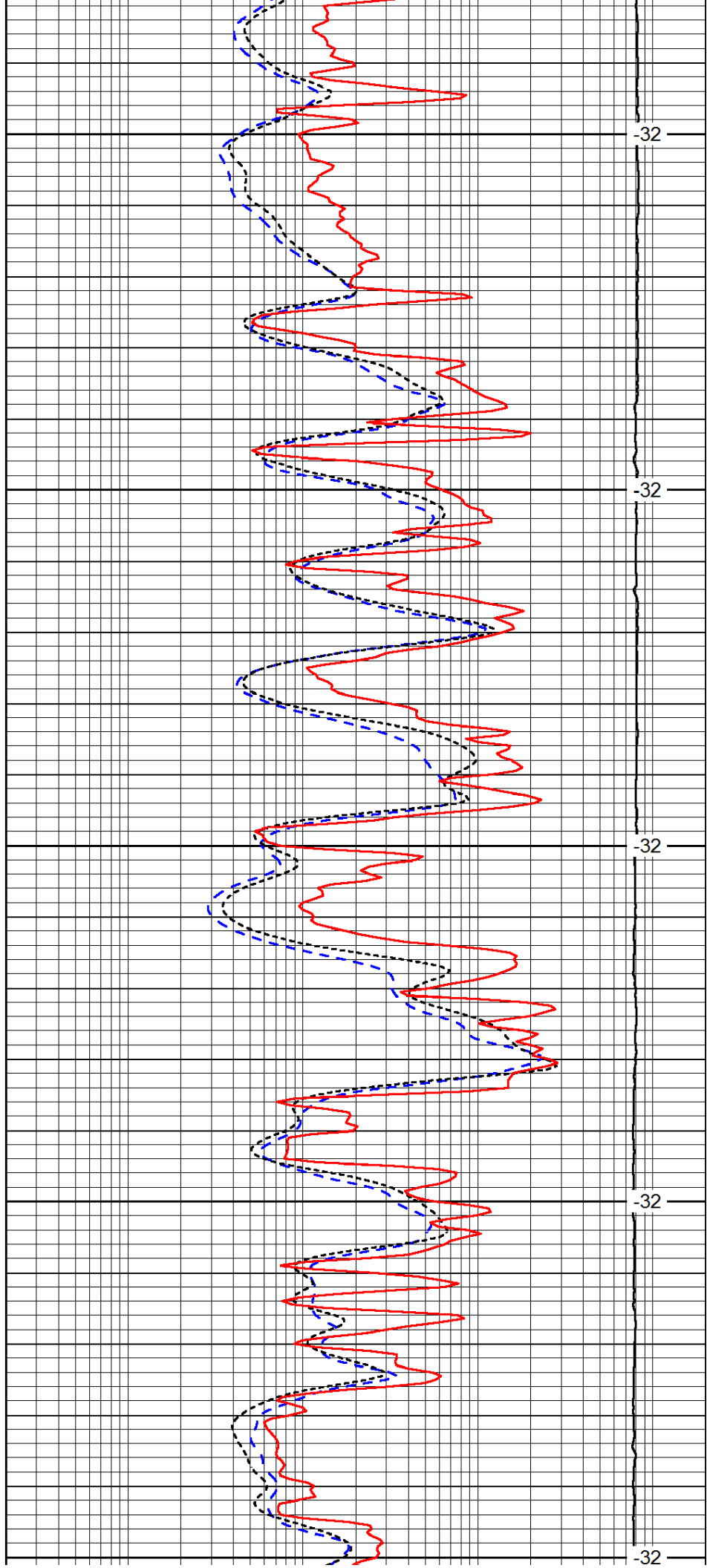
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3750

3800

3850

3900



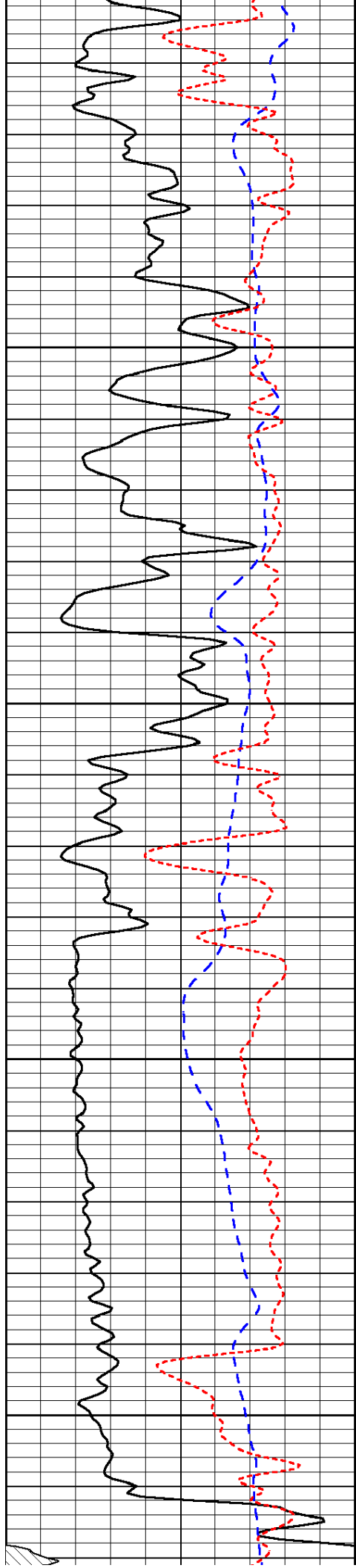
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3750

3800

3850

3900

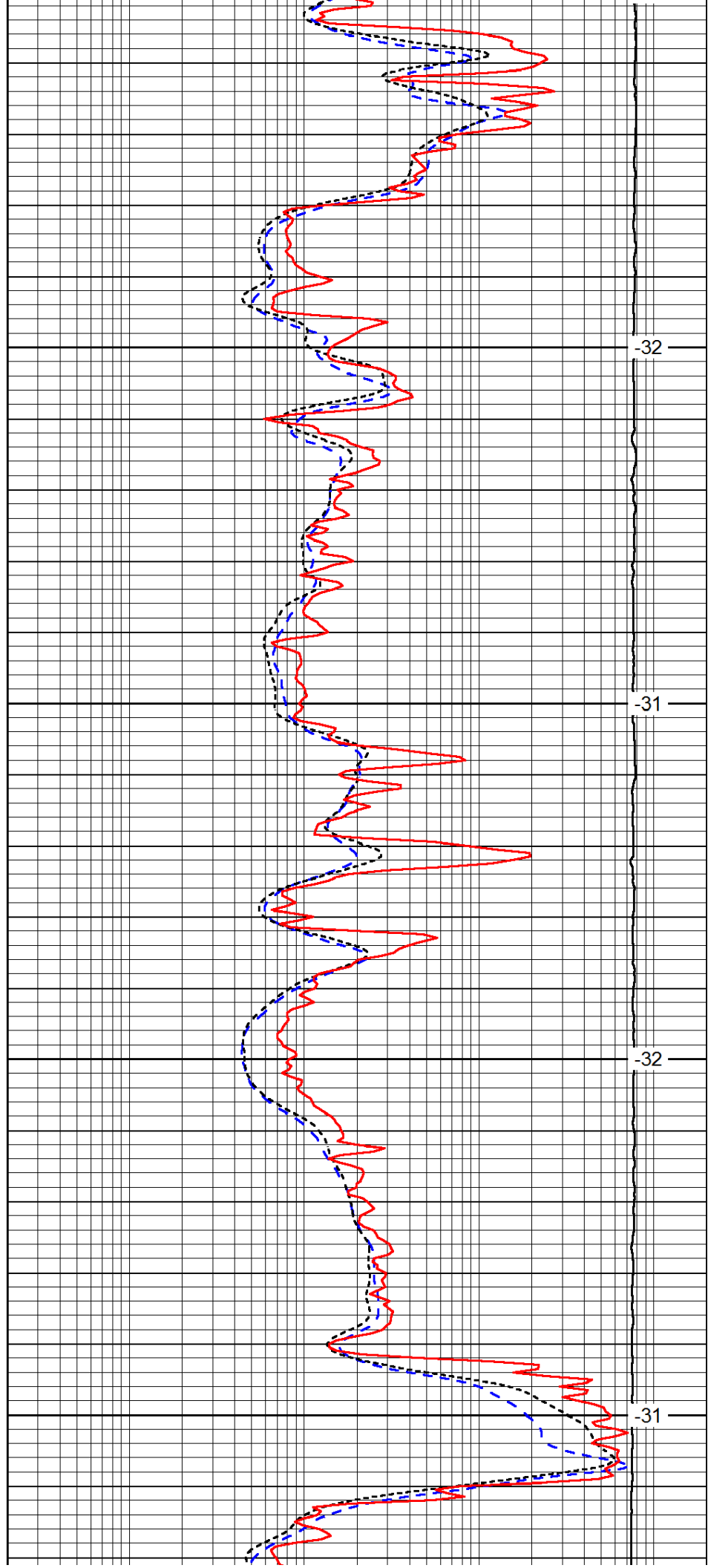


3950

4000

4050

4100

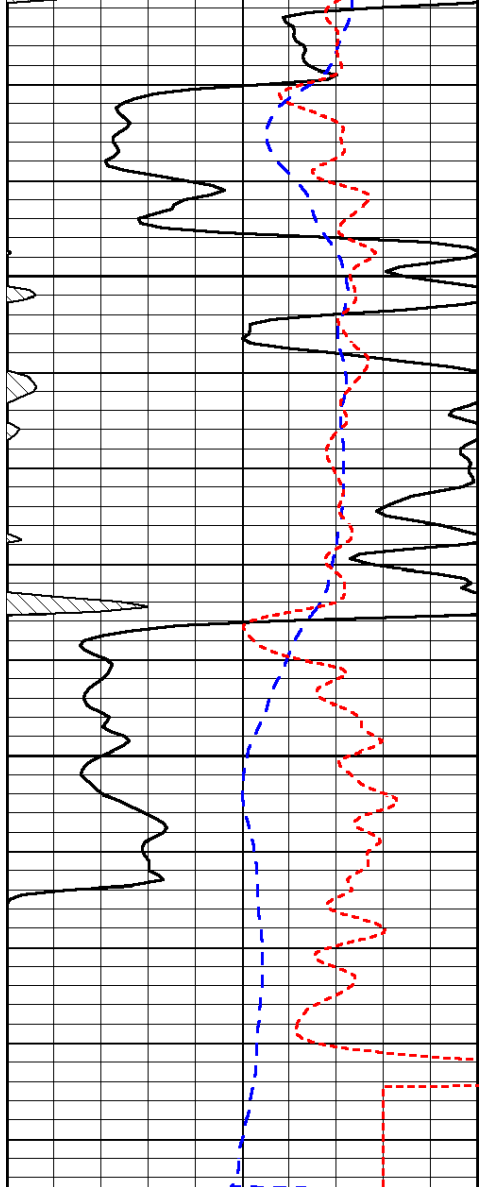


-32

-31

-32

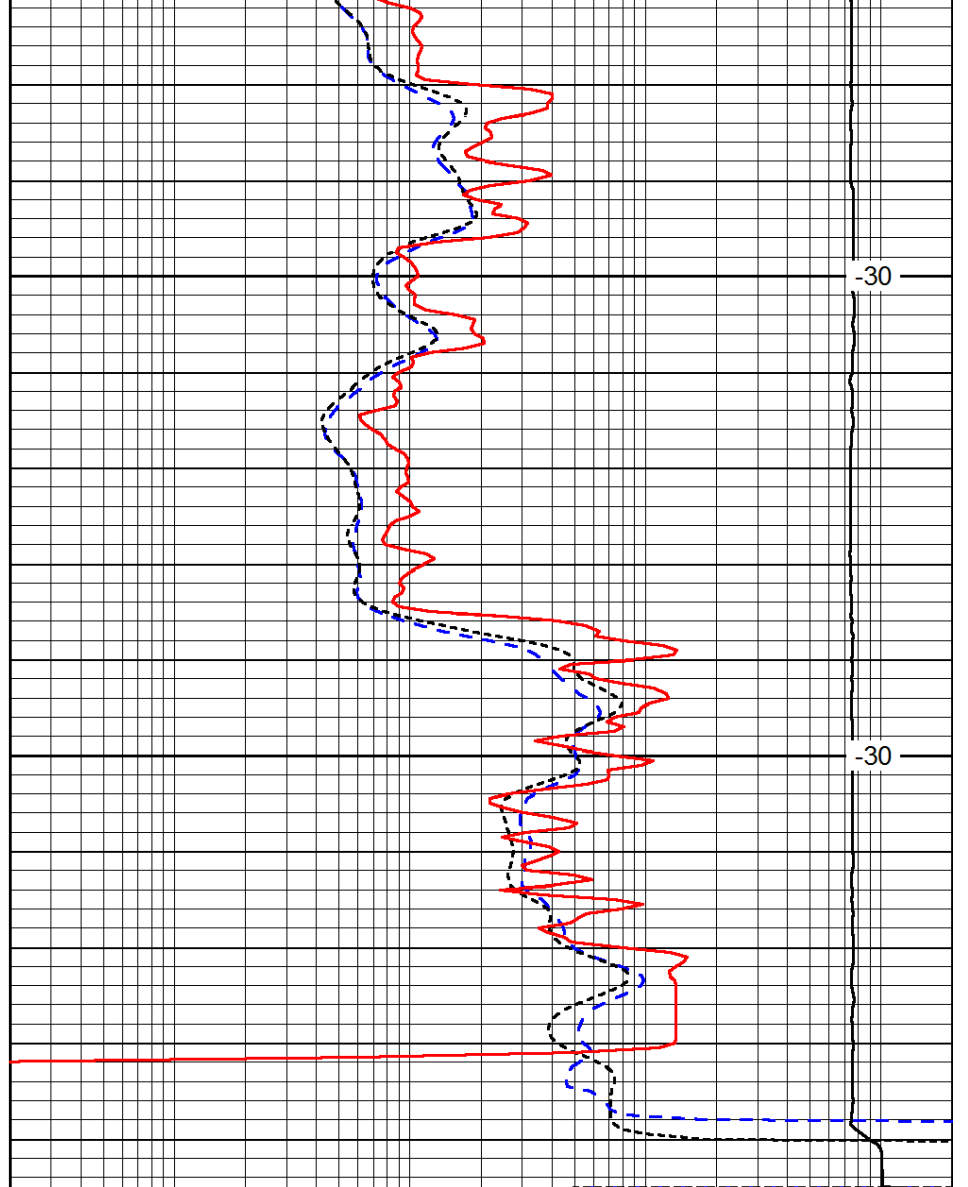
-31



0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

4150

4200



-30

-30

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD