



Pioneer Energy Services

# Microresistivity Log

15-145-21,685-00-00

API No.

Company **Carmen Schmitt, Inc.**  
Well **Tombaugh Unit No.1**  
Field **Wildcat**  
County **Pawnee** State **Kansas**

Location **230' FSL & 2440' FWL**

Sec: **26** Twp: **20S** Rge: **20W**

Other Services  
CNL/CDL  
DIL/BHCS

Elevation

K.B. 2150  
D.F. 2145  
G.L. 2145

Permanent Datum Ground Level Elevation 2145  
Log Measured From Kelly Bushing 5 Ft. Above Perm. Datum  
Drilling Measured From Kelly Bushing

Date	9/8/2012	
Run Number	Two	
Depth Driller	4280	
Depth Logger	4257	
Bottom Logged Interval	4256	
Top Log Interval	2000	
Casing Driller	8.625 @ 1228	
Casing Logger	1228	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity,ppm CL	7.200	
Density / Viscosity	9.4 59	
pH / Fluid Loss	9.0 11.2	
Source of Sample	Flowline	
Rm @ Meas. Temp	.45 @ 72	
Rmf @ Meas. Temp	.34 @ 72	
Rmc @ Meas. Temp	.61 @ 72	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.27 @ 119	
Operating Rig Time	5 Hours	
Max Rec. Temp. F	119	
Equipment Number	17	
Location	Hays	
Recorded By	C. Desaire	
Witnessed By	Marc Downing	

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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  
785 625 3858

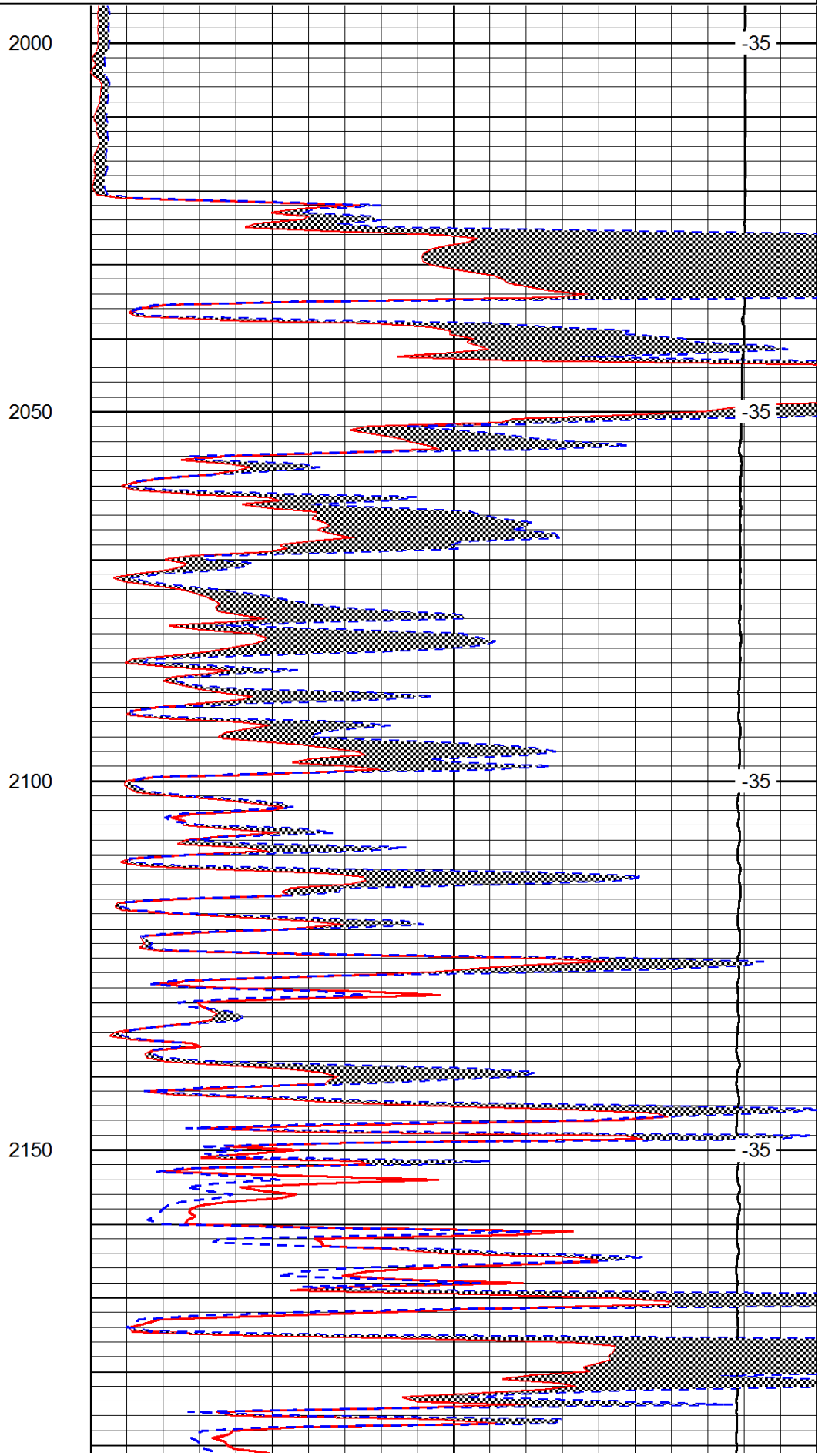
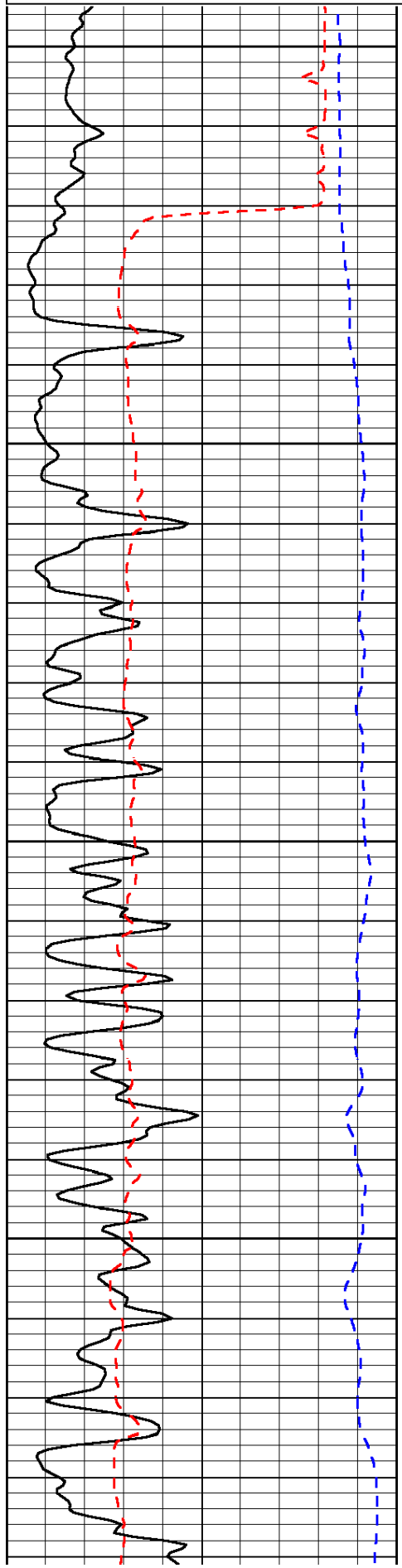
Alexander KS, 13 S to U Rd, 2 1/2 E, N Into

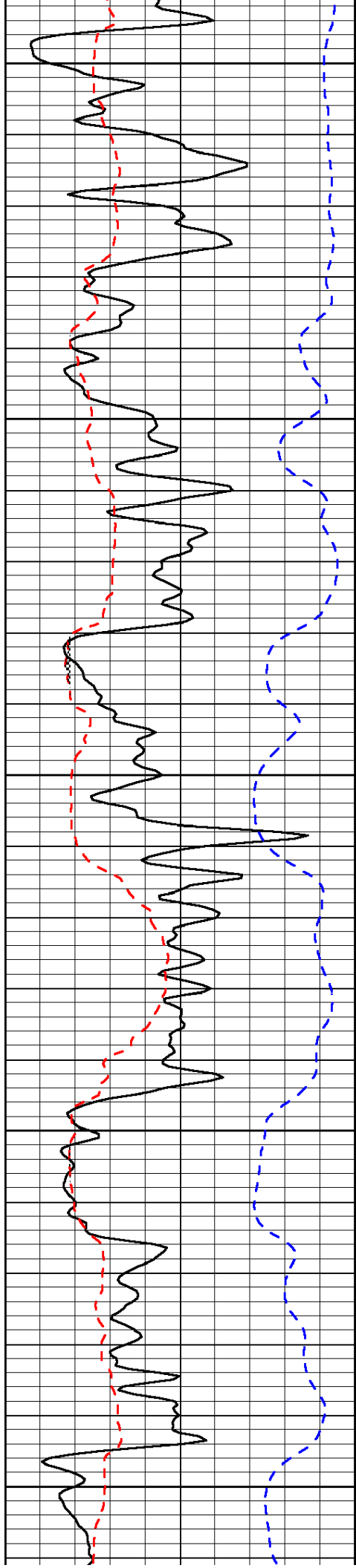
Database File: c:\warrior\data\carmen schmitt\_tombaugh unit no.1\carmhd.db  
Dataset Pathname: dil/carmstk  
Presentation Format: micro  
Dataset Creation: Sat Sep 08 14:40:57 2012  
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
15000	Line Weight	0

LSPD





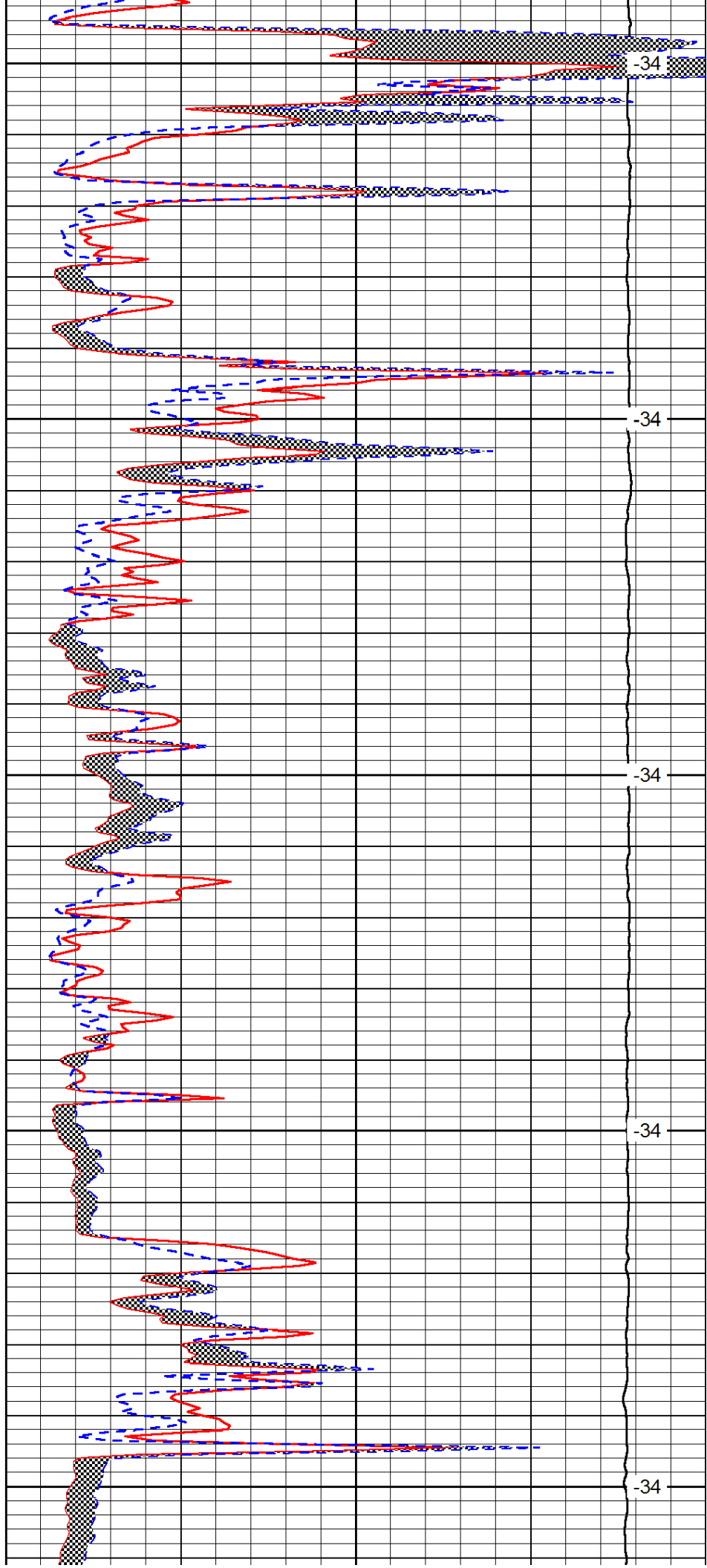
2200

2250

2300

2350

2400



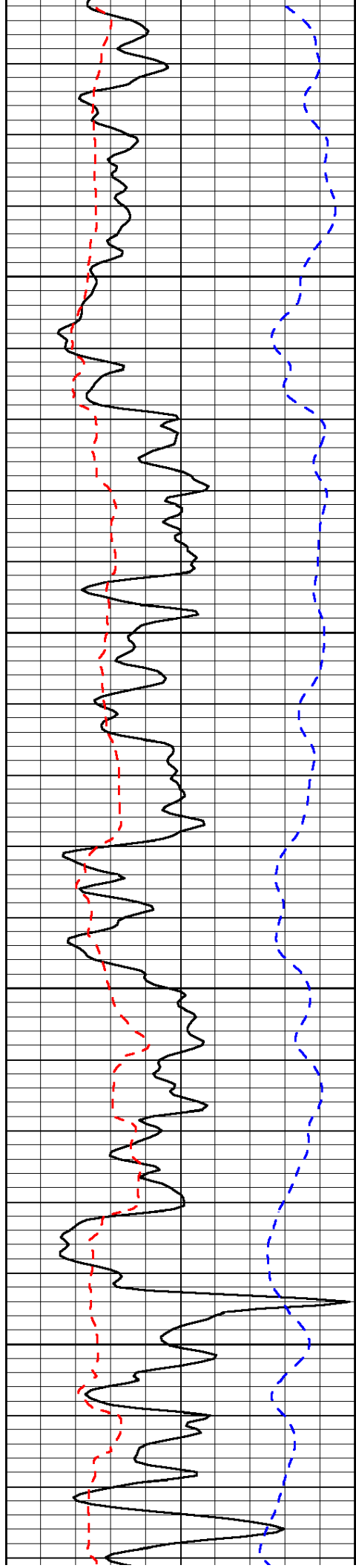
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-34

-34

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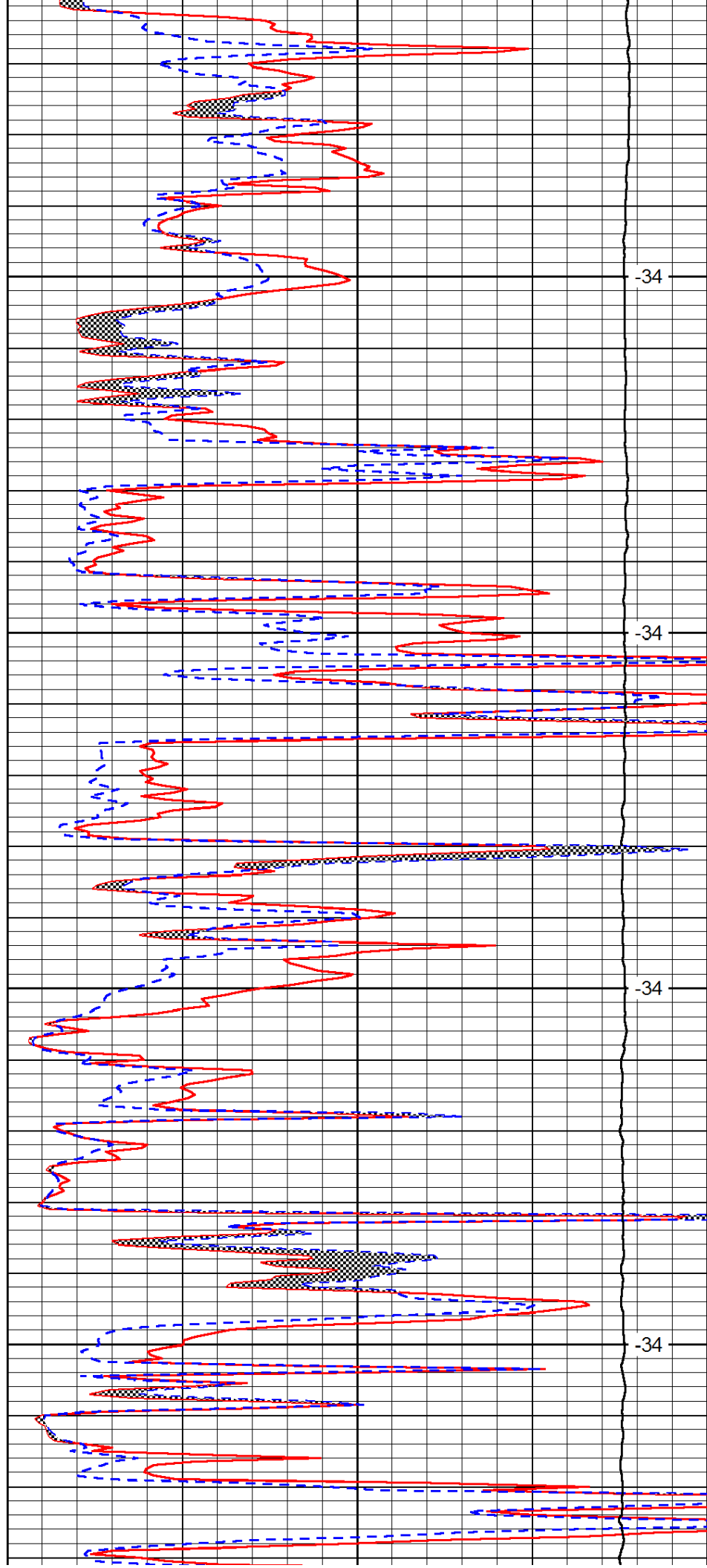


2450

2500

2550

2600

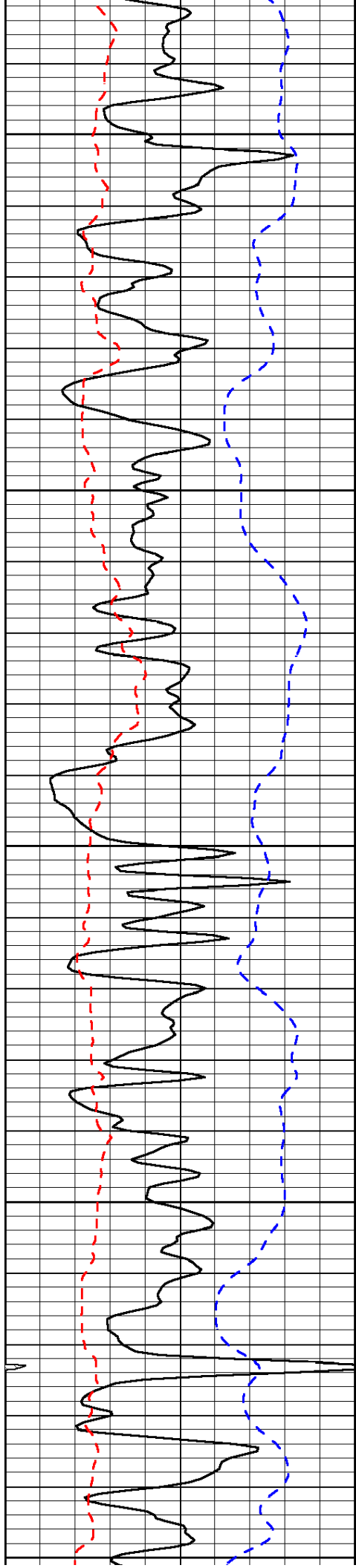


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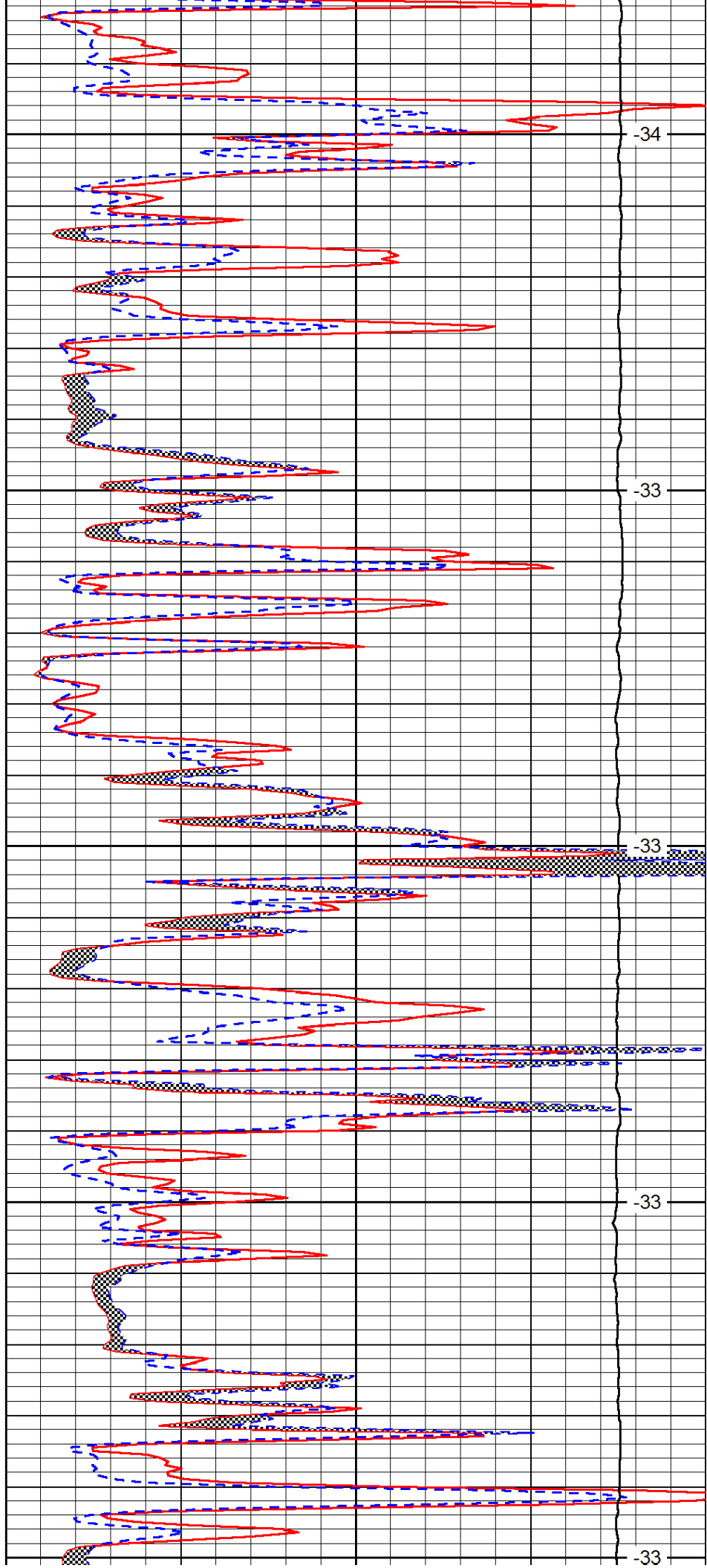
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2700

2750

2800

2850



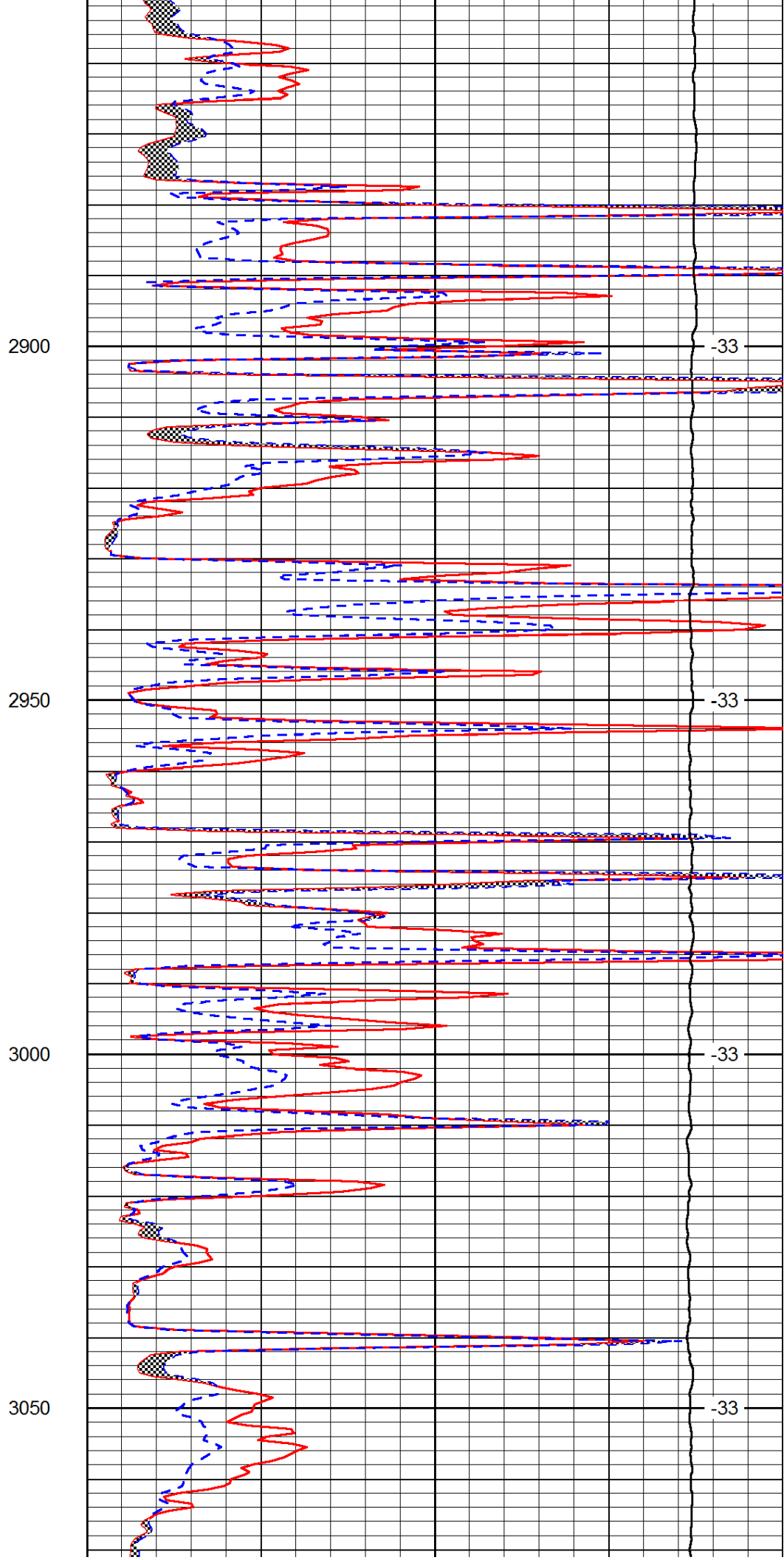
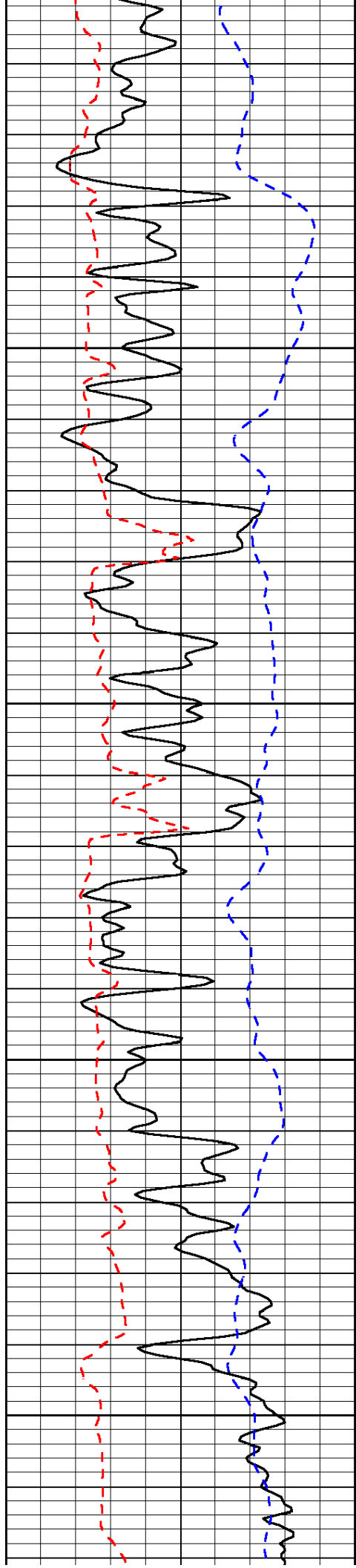
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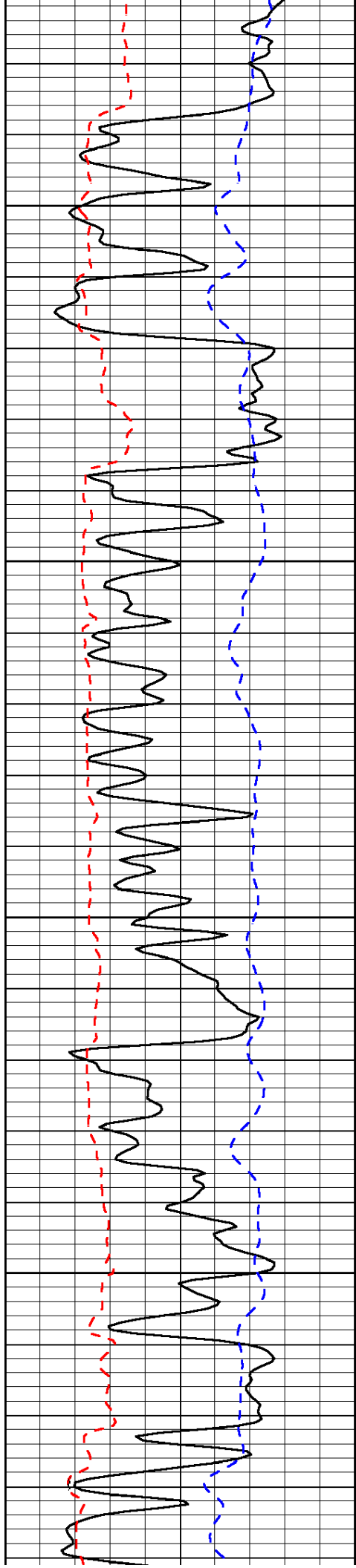
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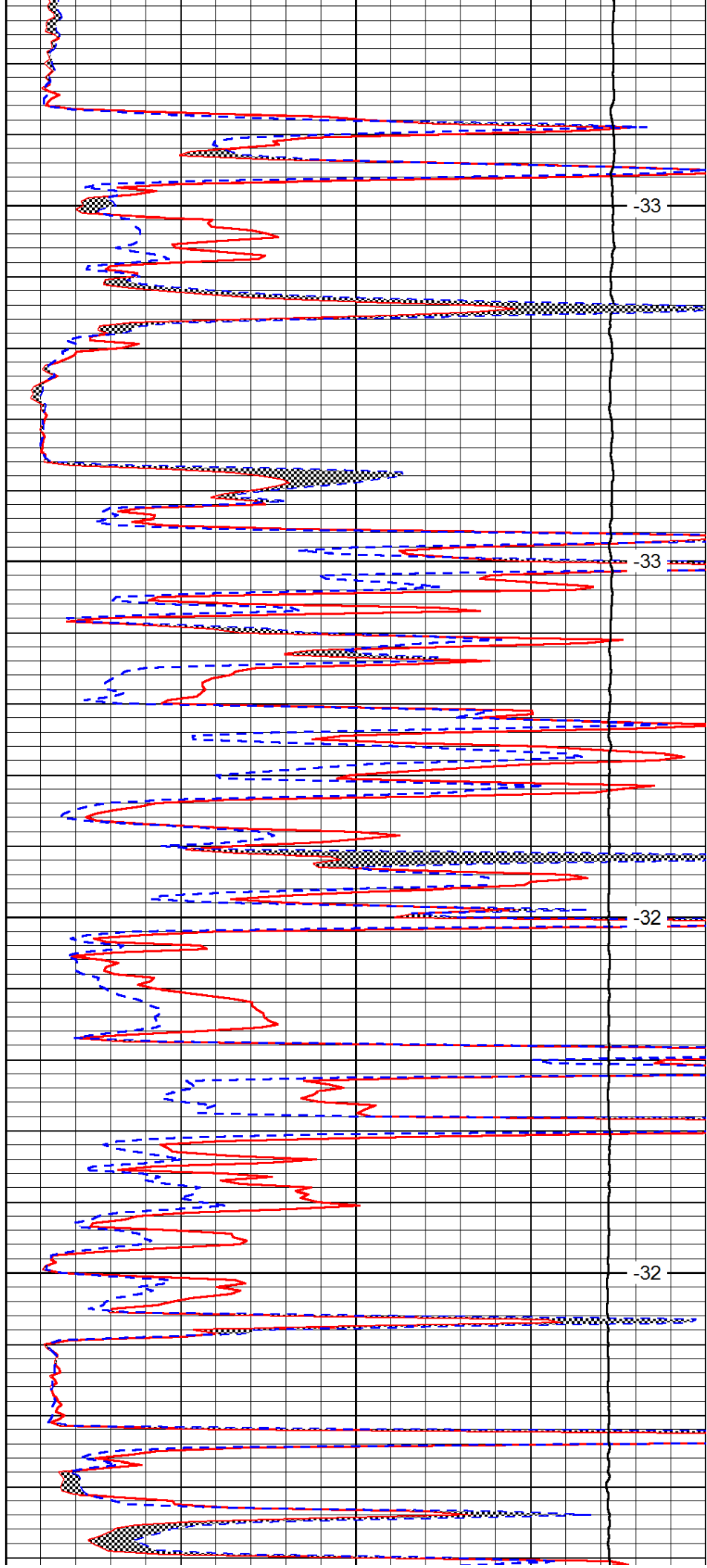


3100

3150

3200

3250

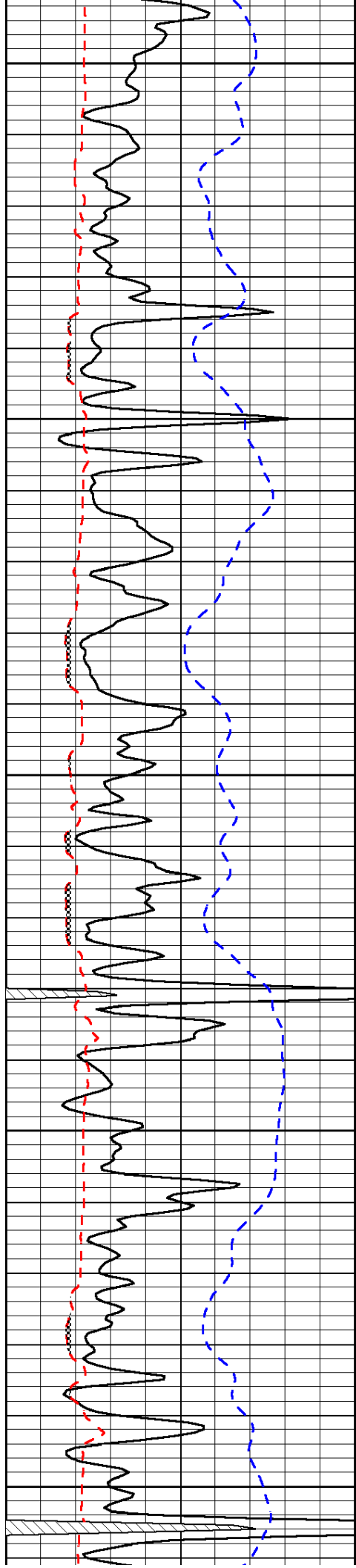


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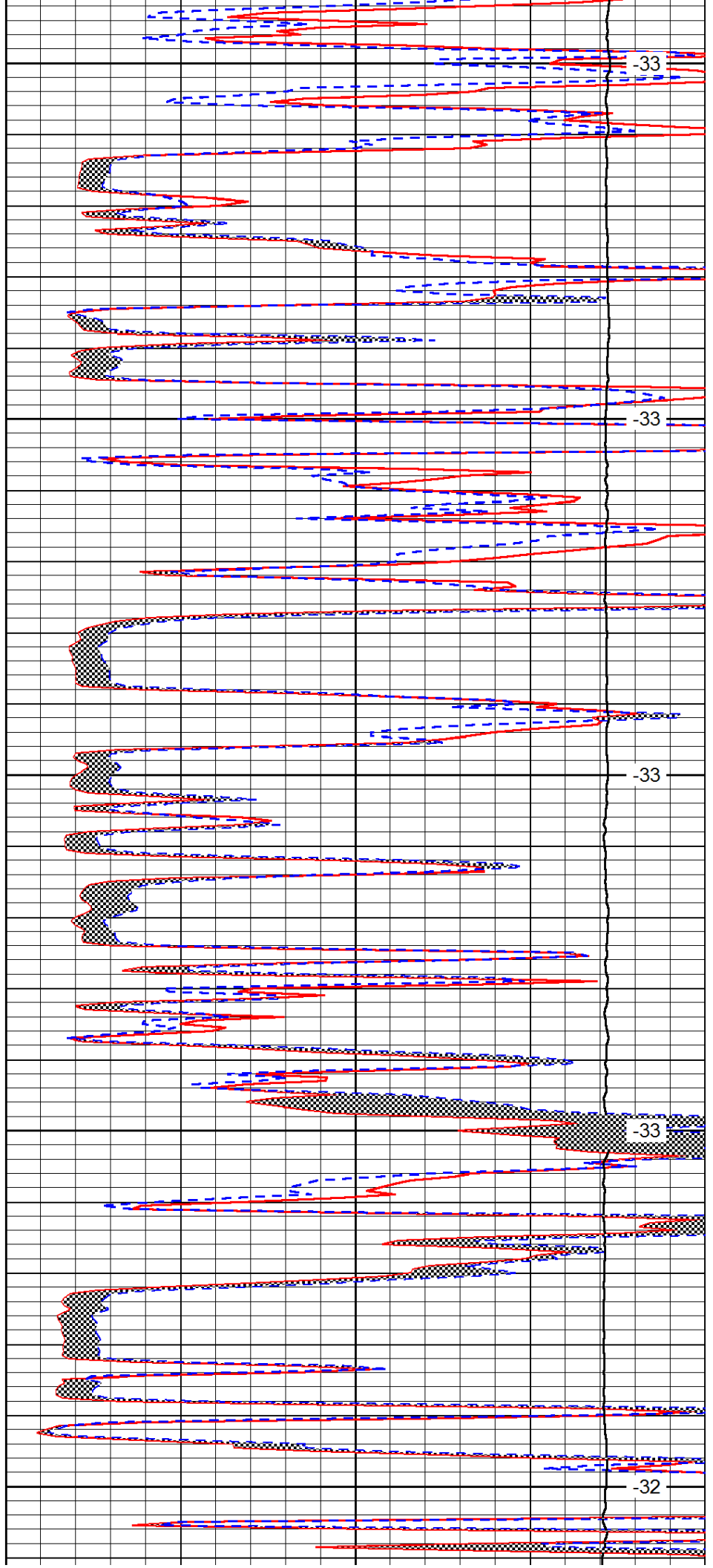
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3350

3400

3450

3500



-33

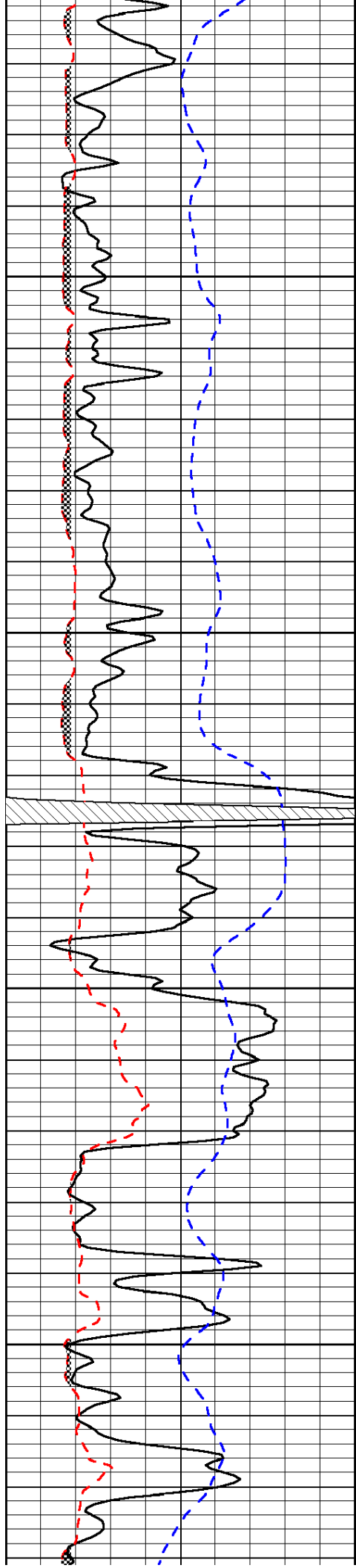
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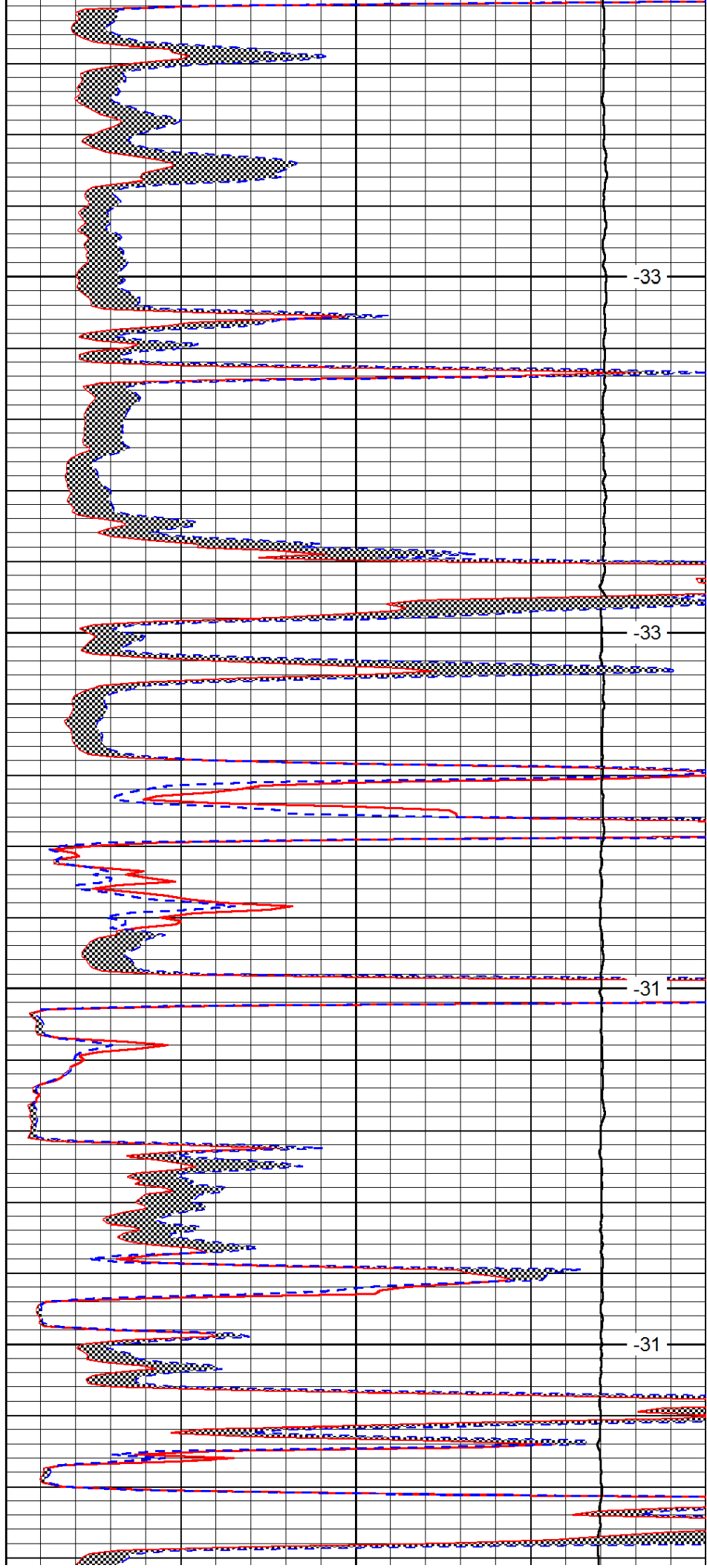


3550

3600

3650

3700

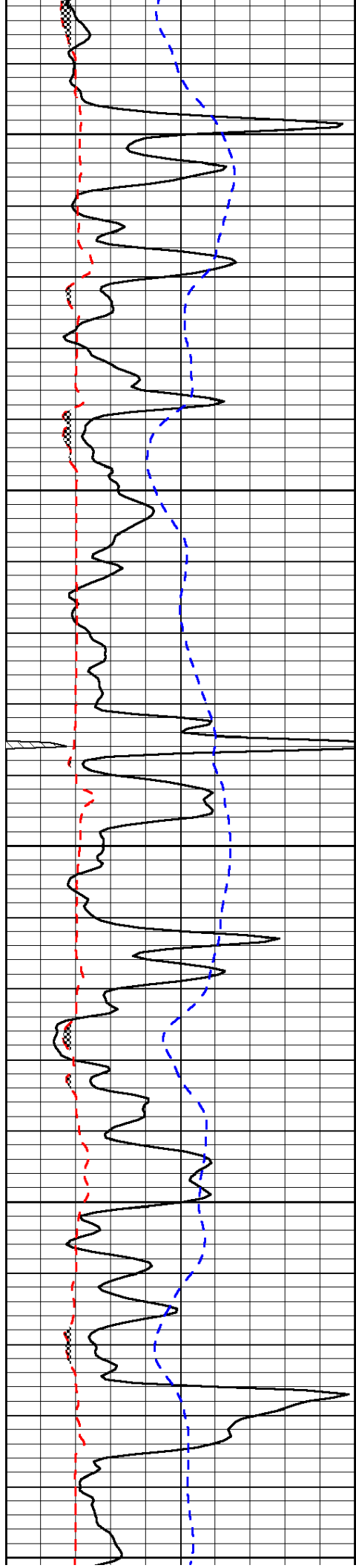


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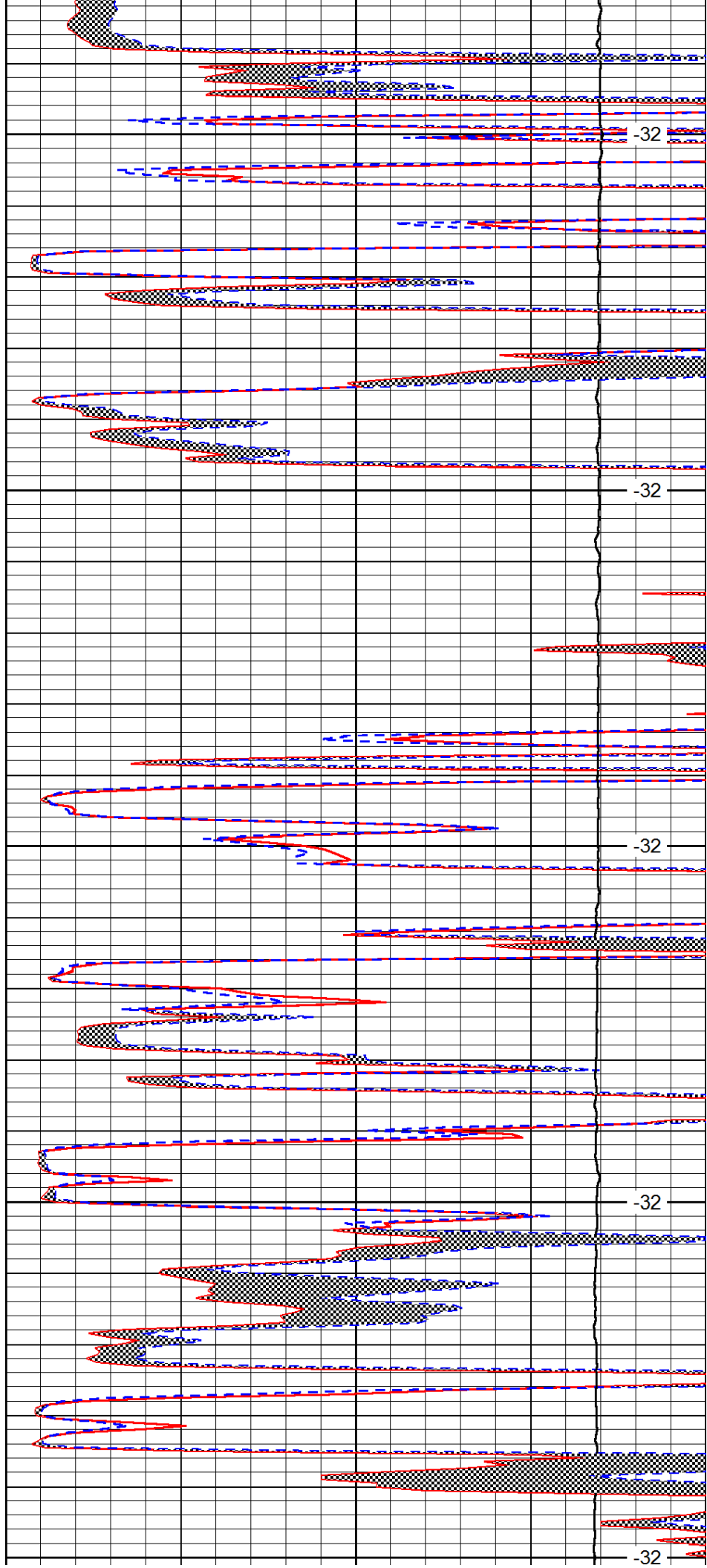
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3800

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3900

3950



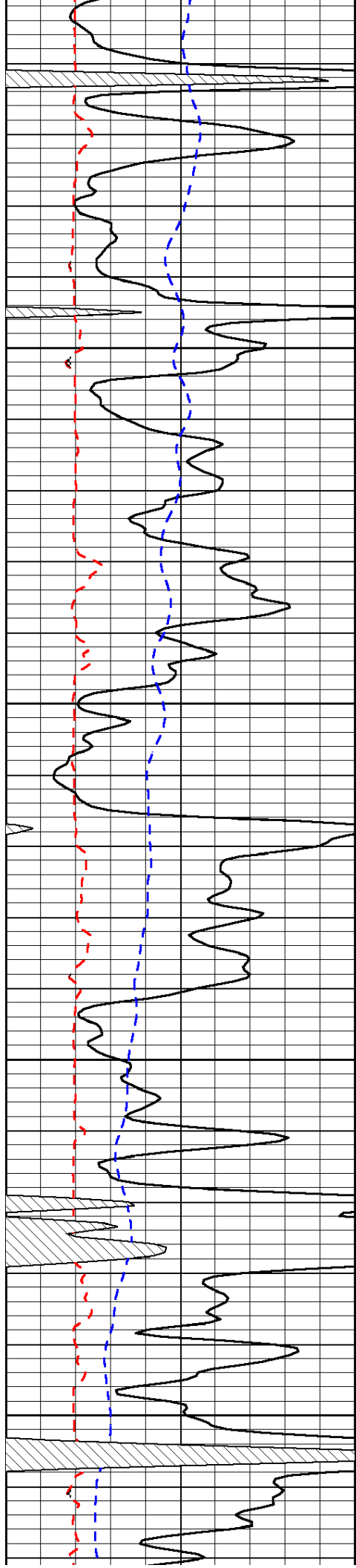
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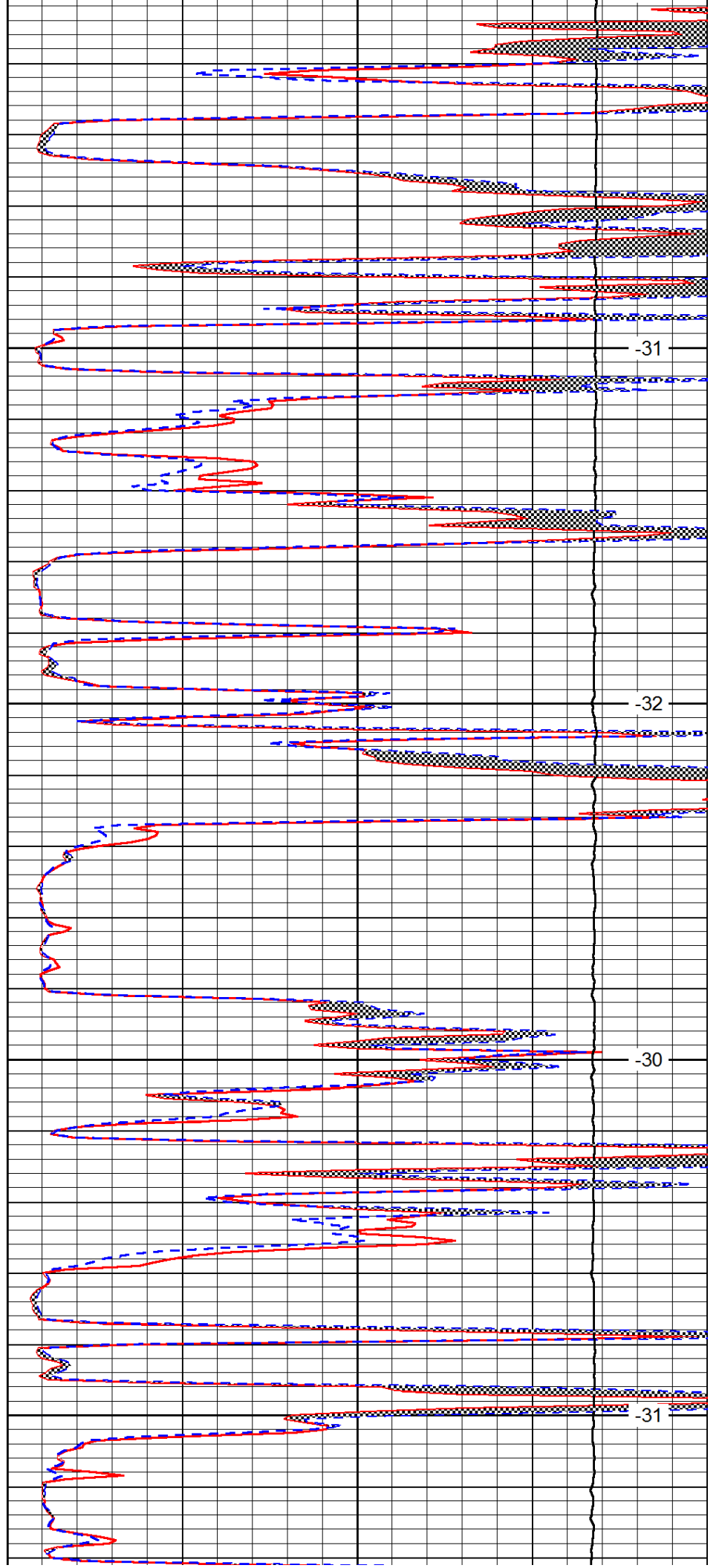


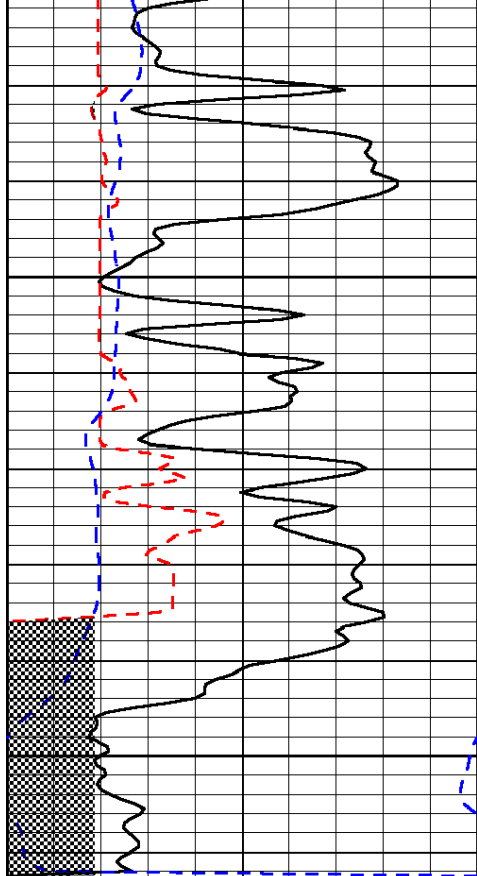
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4050

4100

4150

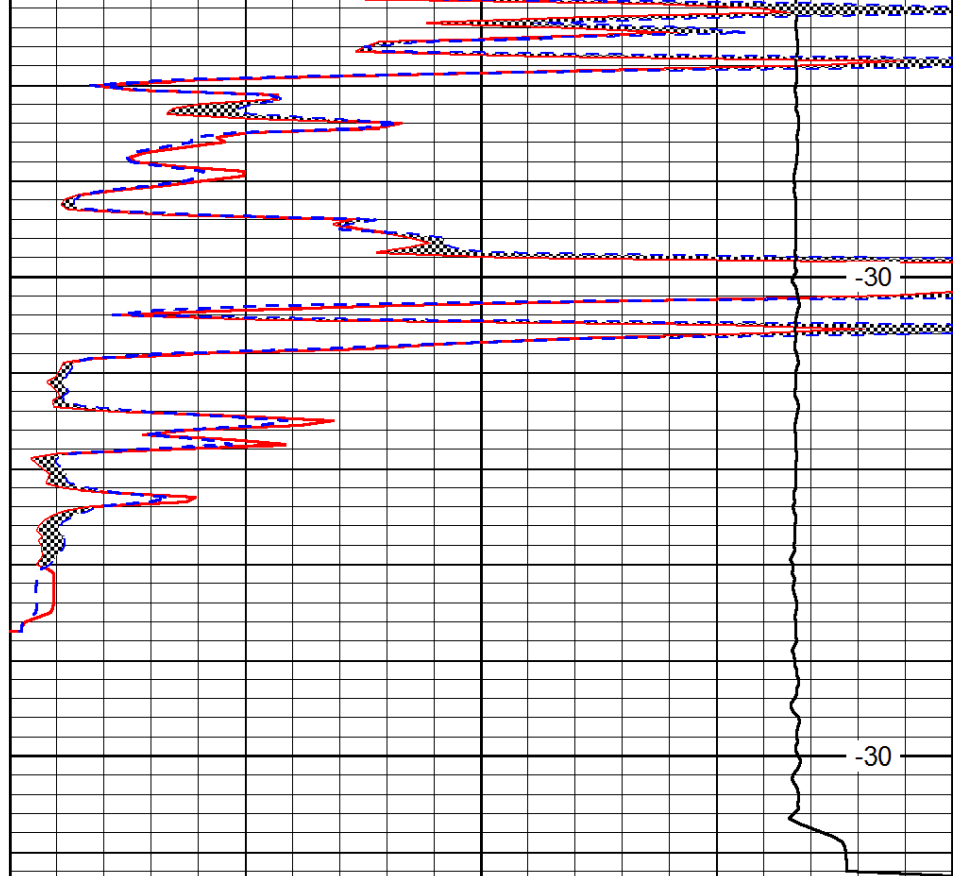




0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

4200

4250



0	Micro Inverse 1 X 1	40
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15000	Line Weight	0

-30

-30

LSPD