



DUAL INDUCTION LOG

MIDWEST WIRELINE

Company Murfin Drilling Company, Inc.				
Well	Jean A #2-7			
Field	Wildcat			
County	Cheyenne			
State	Kansas			
Company Murfin Drilling Company, Inc.				
Well	Jean A #2-7			
Field	Wildcat			
County	Cheyenne			
State	Kansas			
Location: API #: 15-023-21563-00-00				
600 FSL & 2100 FEL				
SEC 7 TWP 1S RGE 37W	CNL/CDL MEL/BHCS			
Permanent Datum	Ground Level	Elevation	3101	Other Services
Log Measured From	Kelly Bushing			K.B. 3106
Drilling Measured From	Kelly Bushing			D.F. 3101
				G.L. 3101
Date	1/9/2022			
Run Number	One			
Depth Driller	4635			
Depth Logger	4629			
Bottom Logged Interval	4628			
Top Log Interval	00			
Casing Driller	8.625 @ 324			
Casing Logger	324			
Bit Size	7.875			
Type Fluid in Hole	Chemical			
Salinity, ppm CL	1200			
Density / Viscosity	8.6	56		
pH / Fluid Loss	12.0	6.8		
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	0.95 @ 62			
Rmf @ Meas. Temp	0.71 @ 62			
Rmc @ Meas. Temp	1.28 @ 62			
Source of Rmf / Rmc	CHARTS			
Rm @ BHT	0.48 @ 122			
Operating Rig Time	6 Hours			
Max Rec. Temp. F	122			
Equipment Number	P-24			
Location	Hays			
Recorded By	T. Martin			
Witnessed By	Wes Hansen			

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Bird City, N to DD Rd, 2 E to T,
1 S, W into after TB

Log Measured From: Kelly Bushing

5 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: T. Martin
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Wes Hansen
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)				
GR	40.33			GR-M&W (101)	3.00	3.50	50.00				
CNLSC CNSSC	37.23 36.48			CNT-M&W (207-MW)	5.00	3.50	100.00				
LSD DCAL SSD	28.18			CDL-M&W (305-05)	8.50	4.00	250.00				
	28.17			ML-PSIML (402)	7.58	4.00	65.00				
	27.68										
MCAL MI MN	19.58										
	19.58										
	19.58										
RLL3F RLL3	15.50 15.50			DIL-M&W (501 HT)	18.25	3.50	220.00				
CILD	8.33										
	4.50										
CILM	4.50										
SP	0.20										
Dataset: murfin_jean a #2-7.db: field/well/StkMI/pass3.1 Total length: 42.33 ft Total weight: 685.00 lb O.D.: 4.00 in											

Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_jean a #2-7.db
Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	122	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	500	50		4629

Variable Description

A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

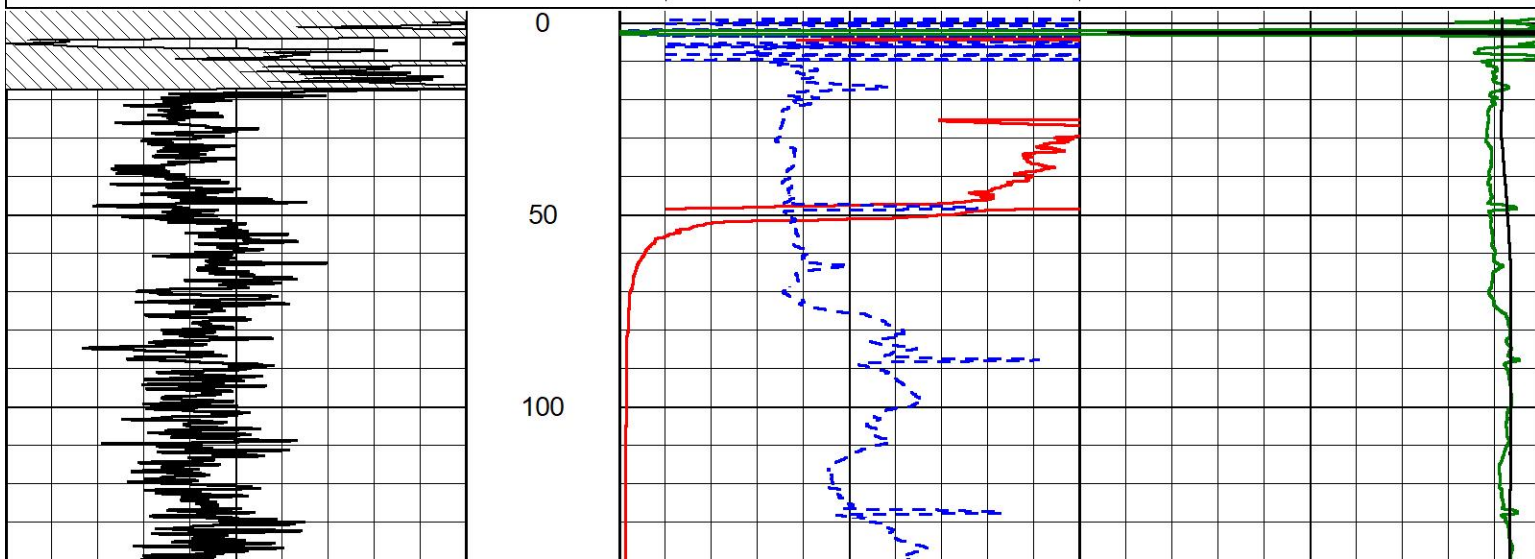


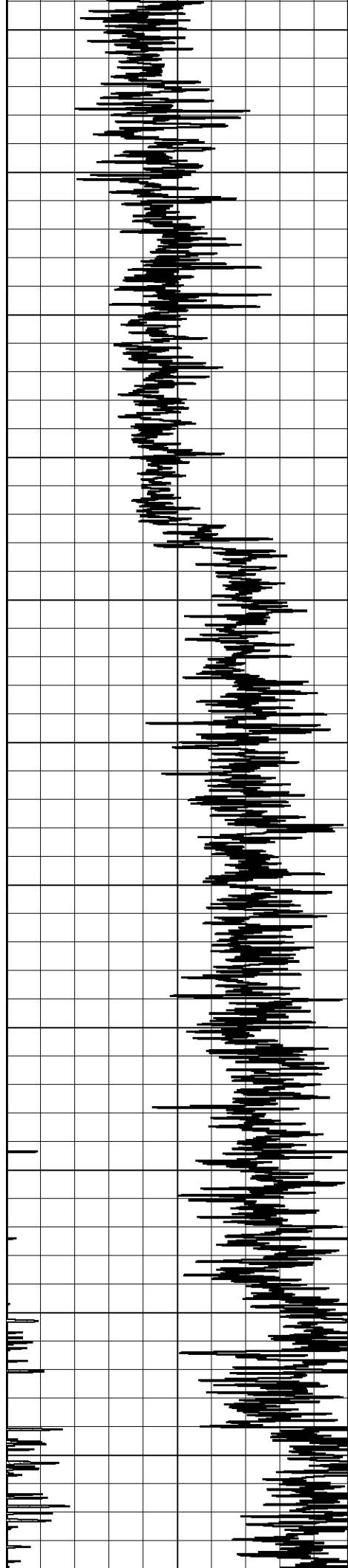
2" SCALE RESISTIVITY

MAIN PASS

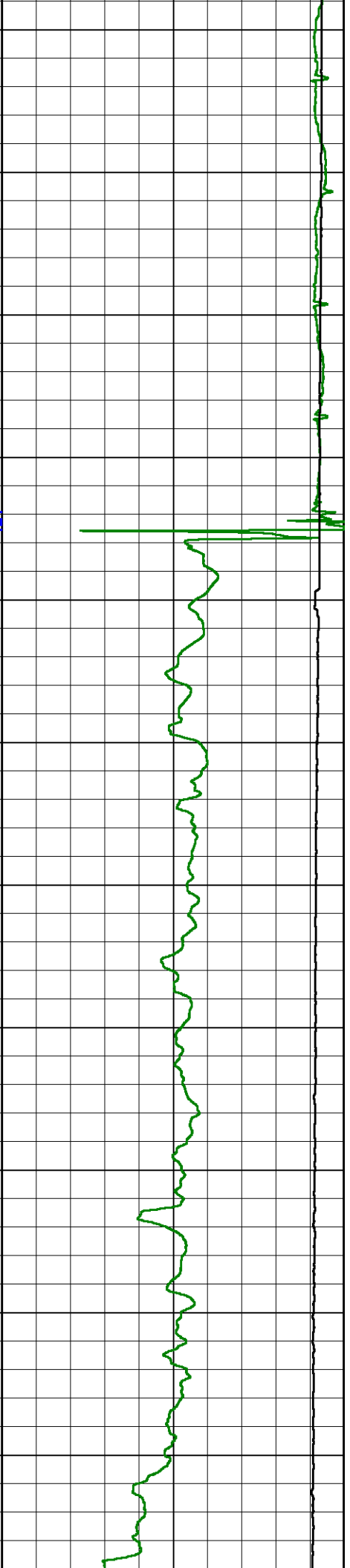
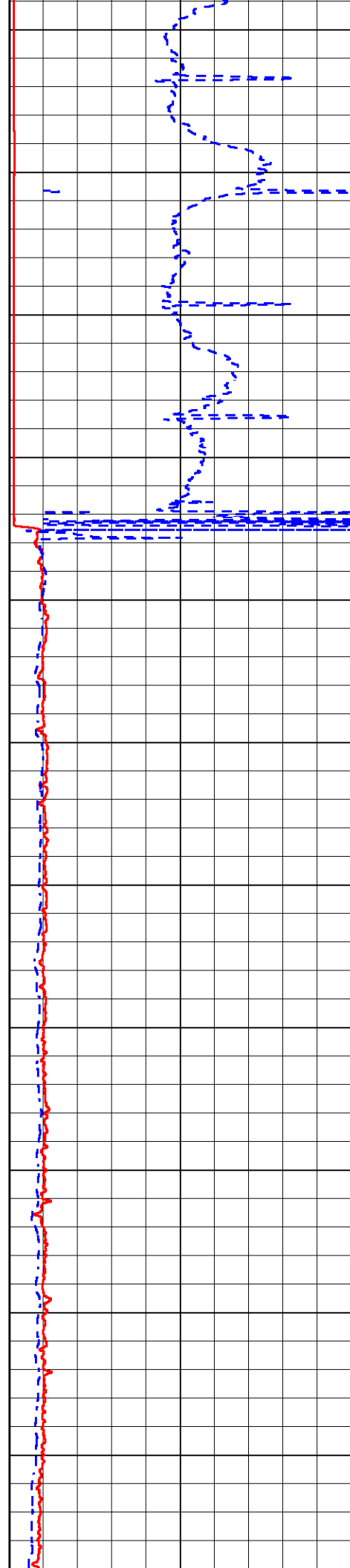
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Dataset Pathname StkMI/pass3.2
Presentation Format _dil2in
Dataset Creation Sun Jan 09 09:43:38 2022
Charted by Depth in Feet scaled 1:600

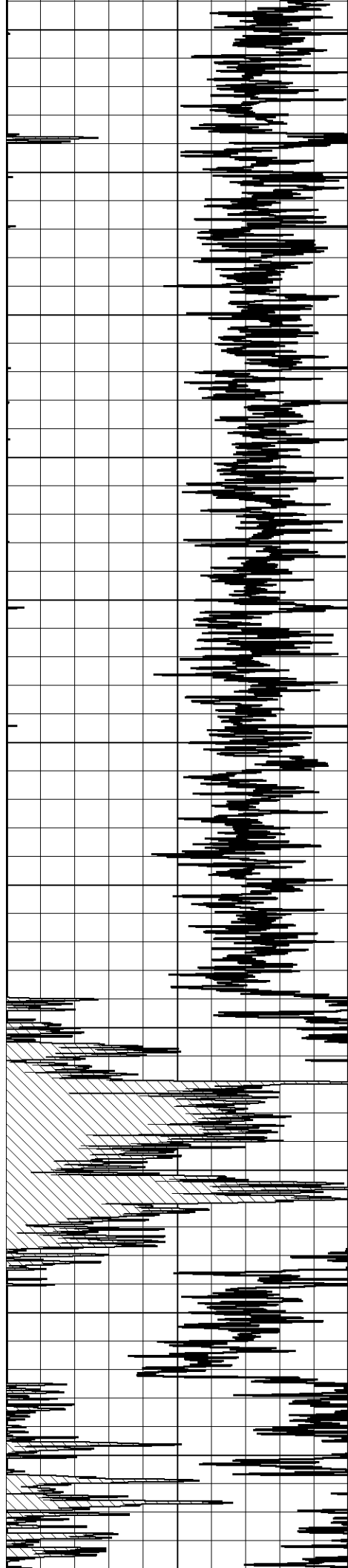
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			15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
				Shallow Resistivity	
			50	(Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200



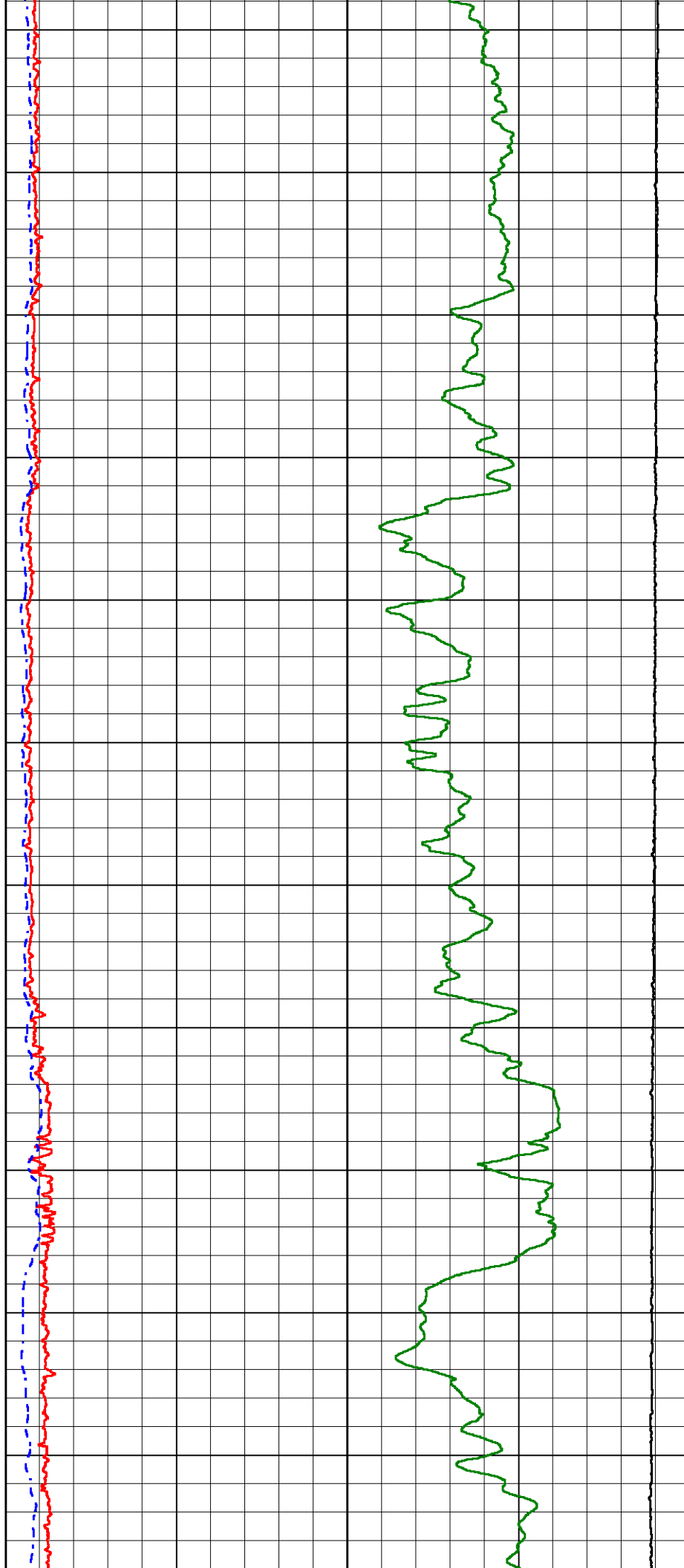


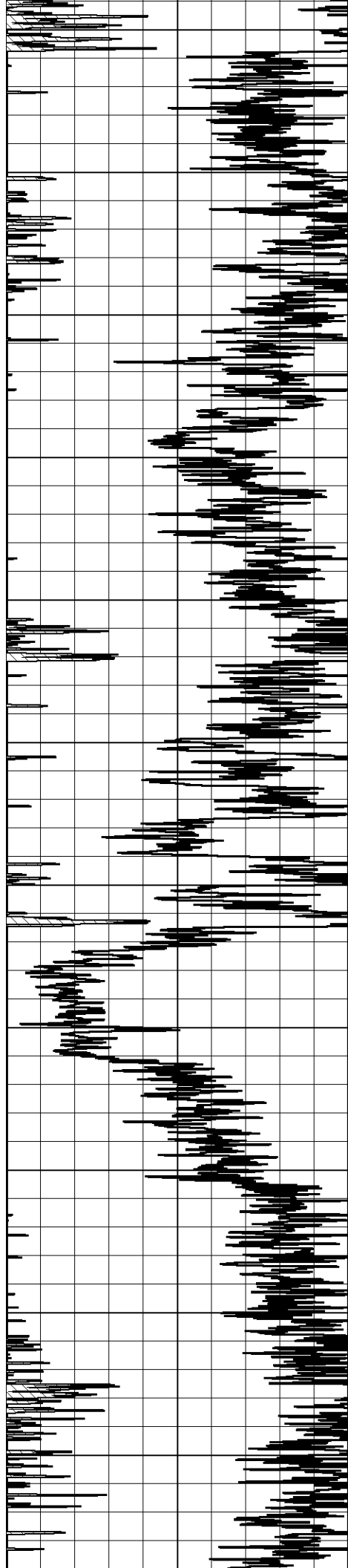
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550
600
650



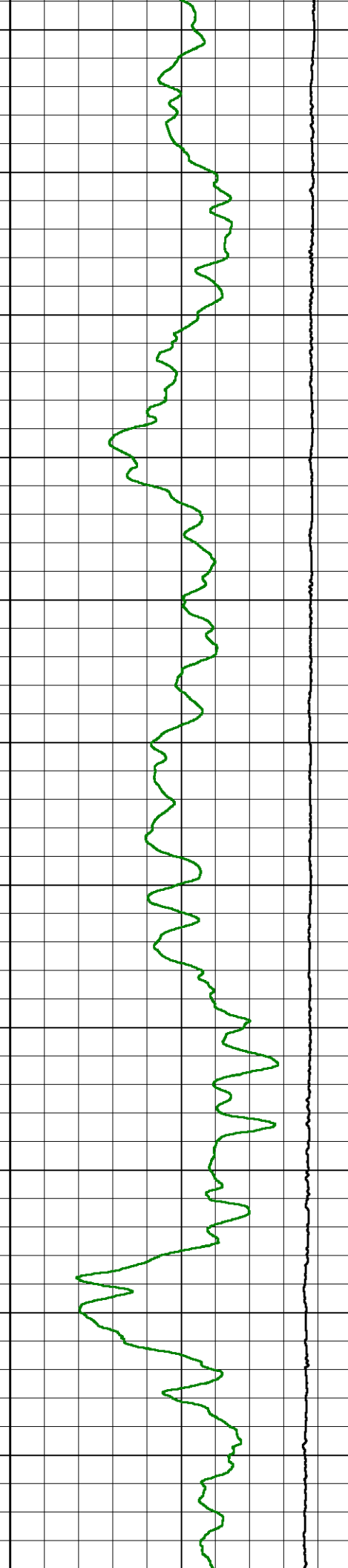
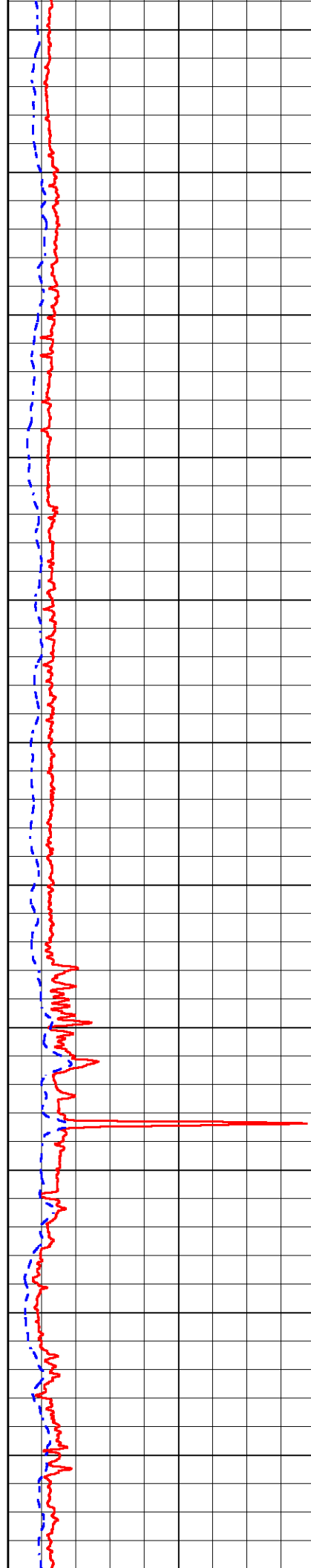


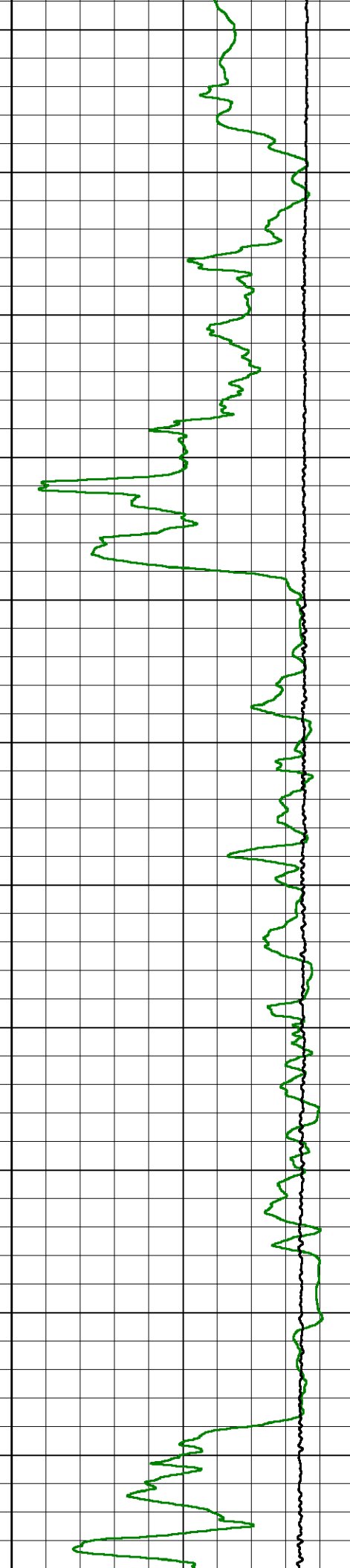
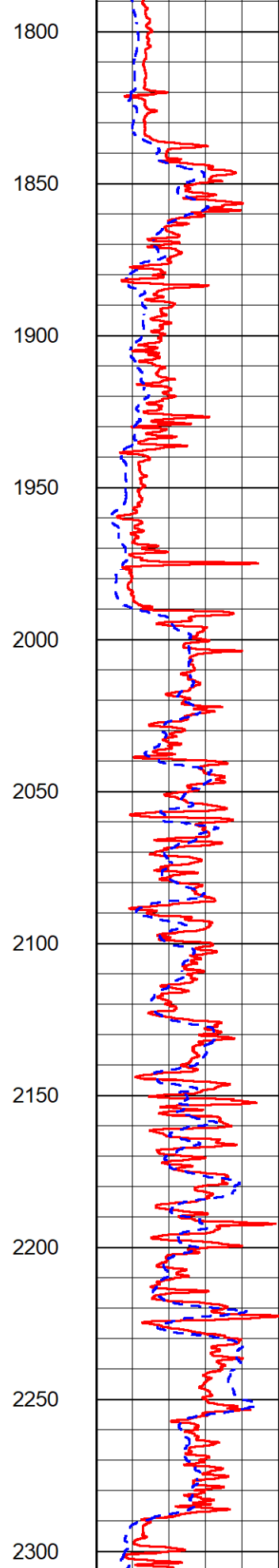
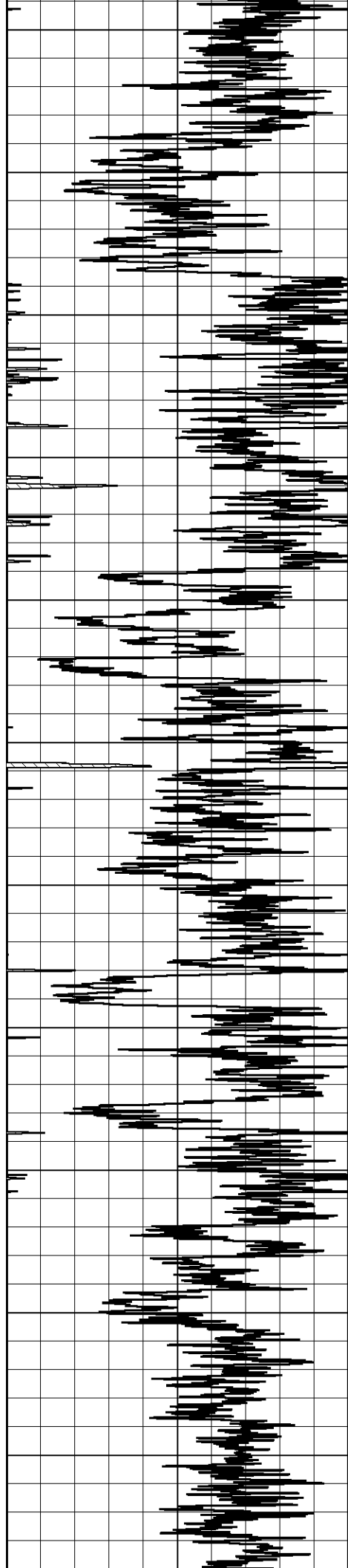
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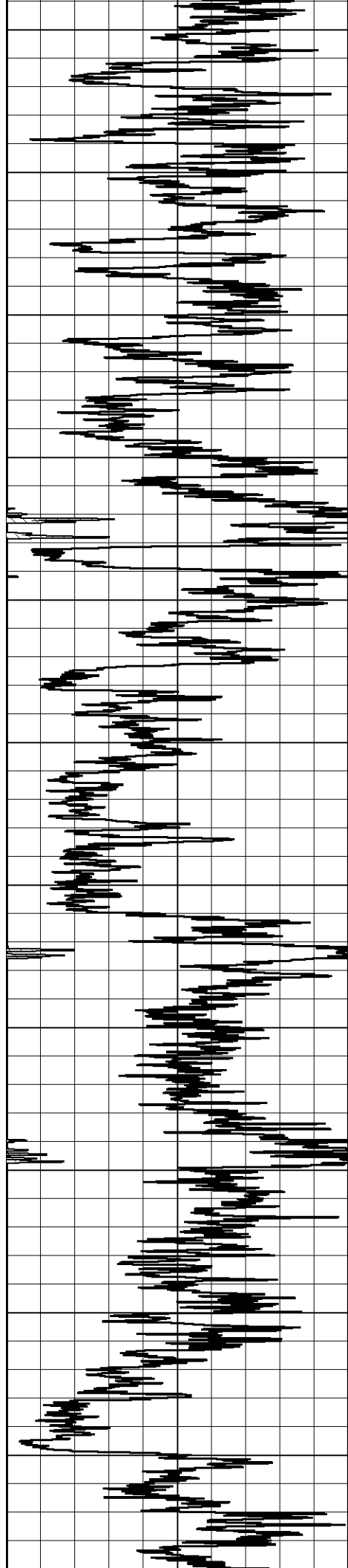




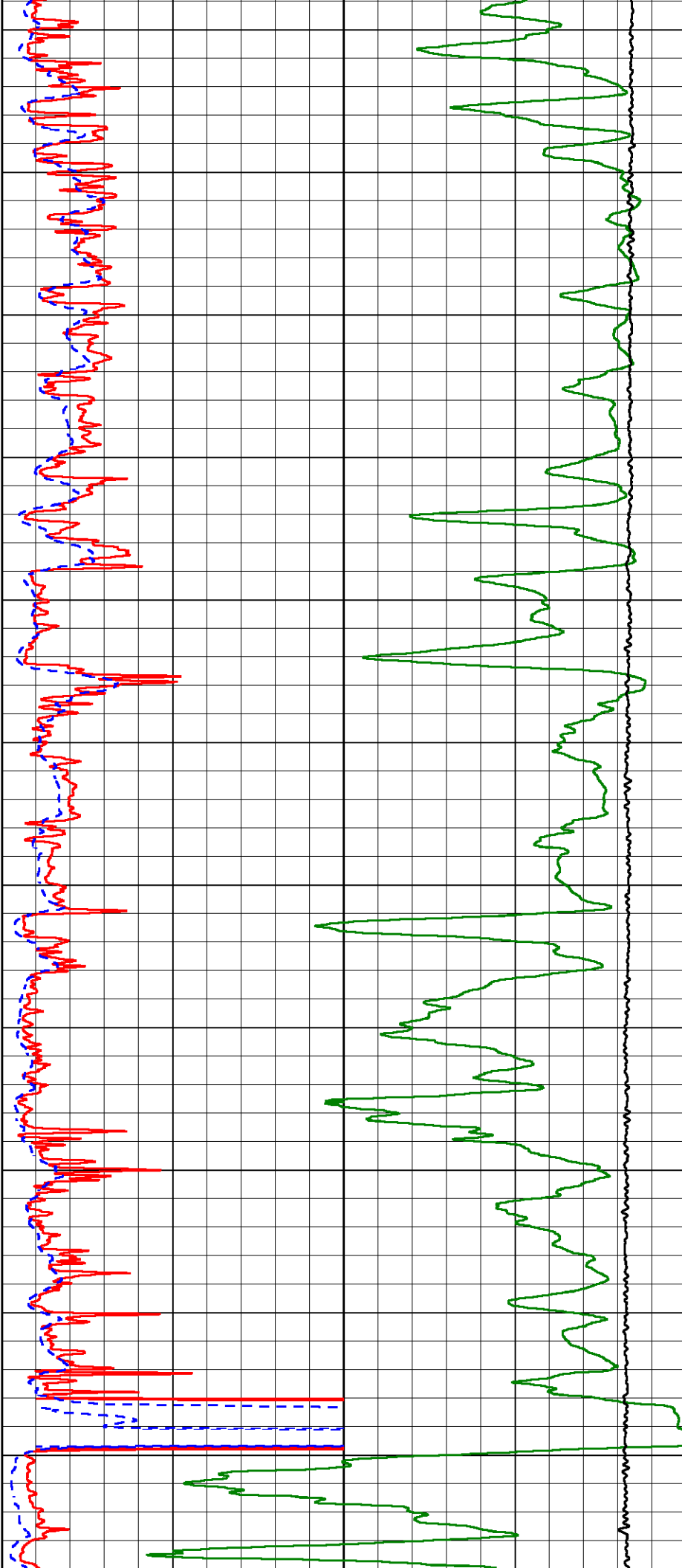
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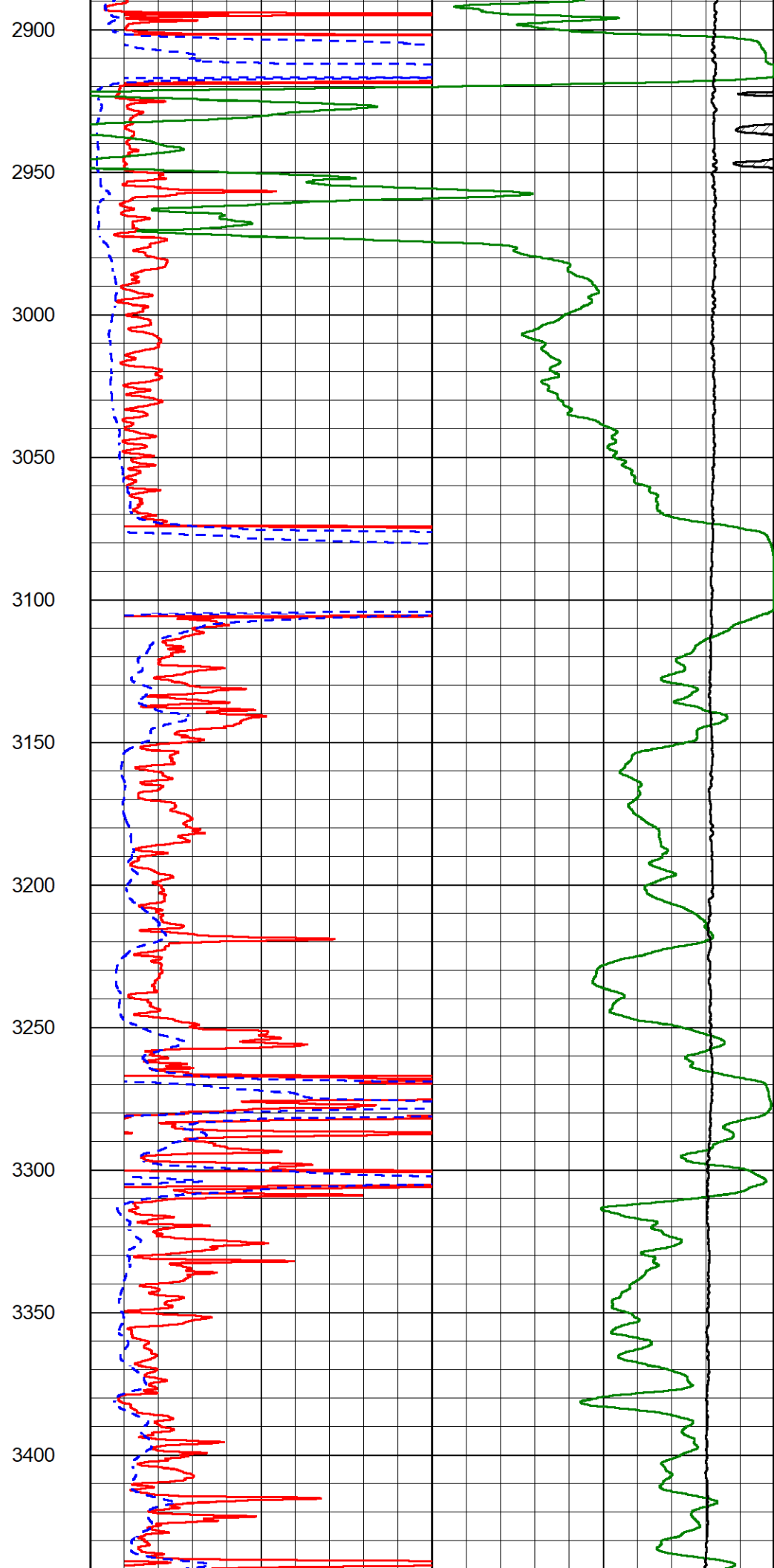
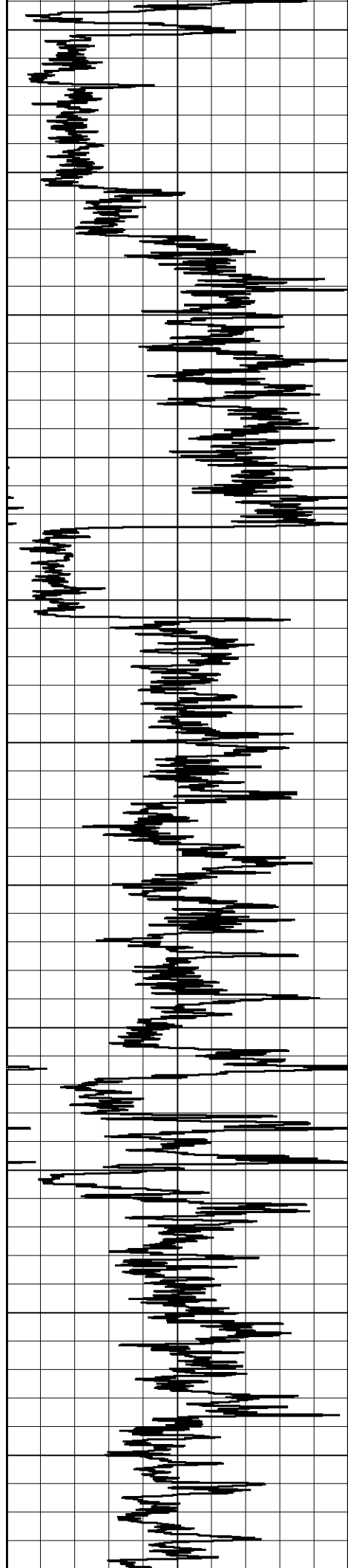


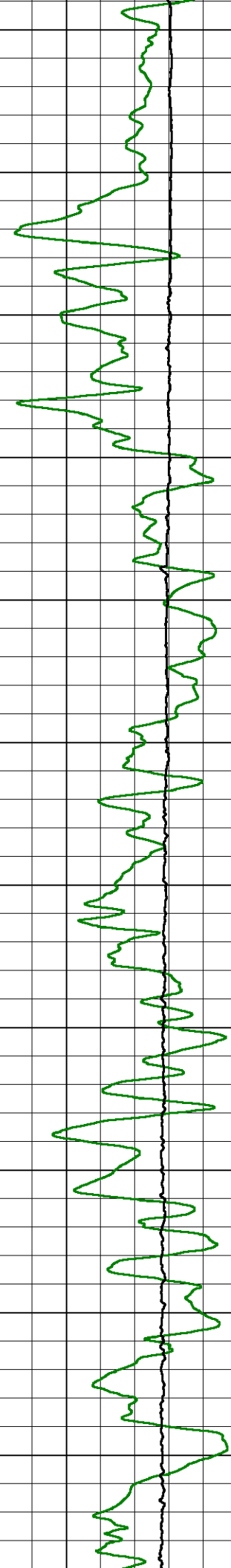
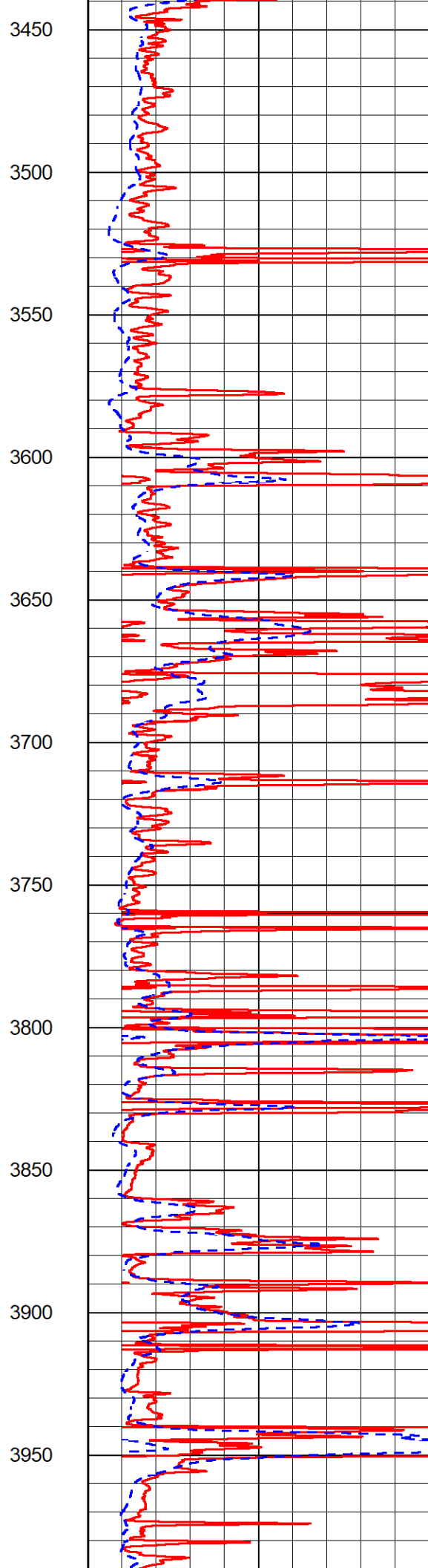
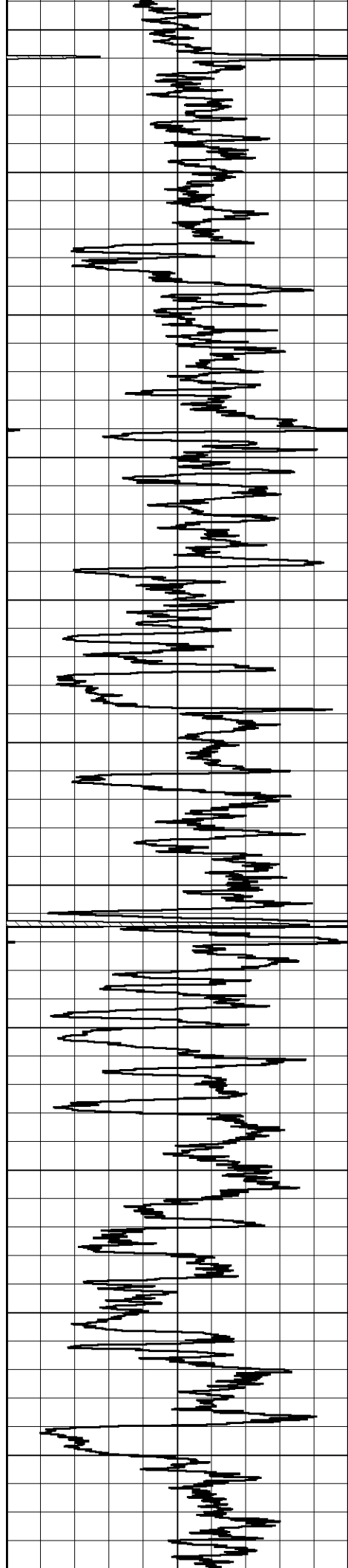


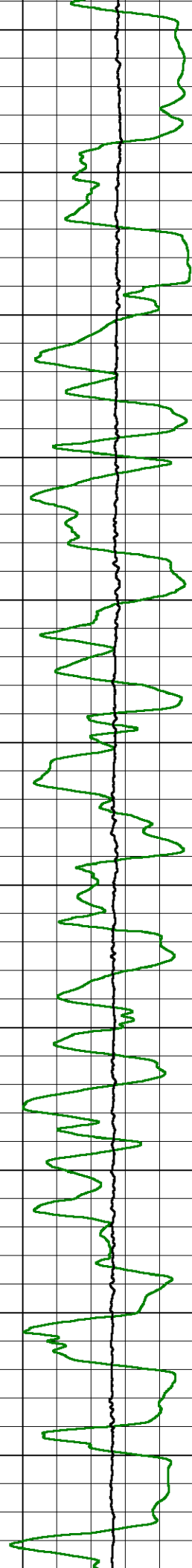
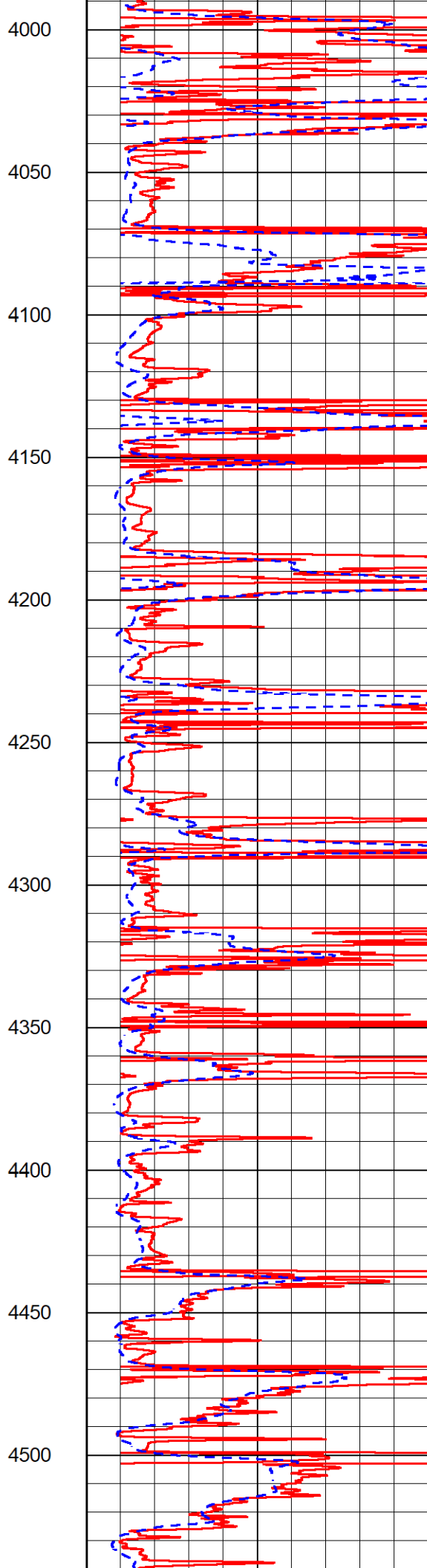
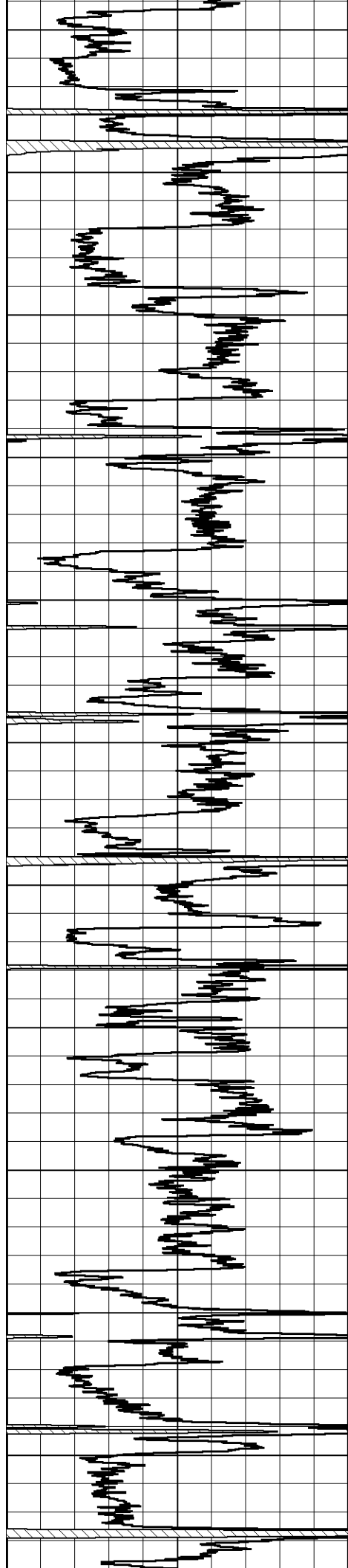


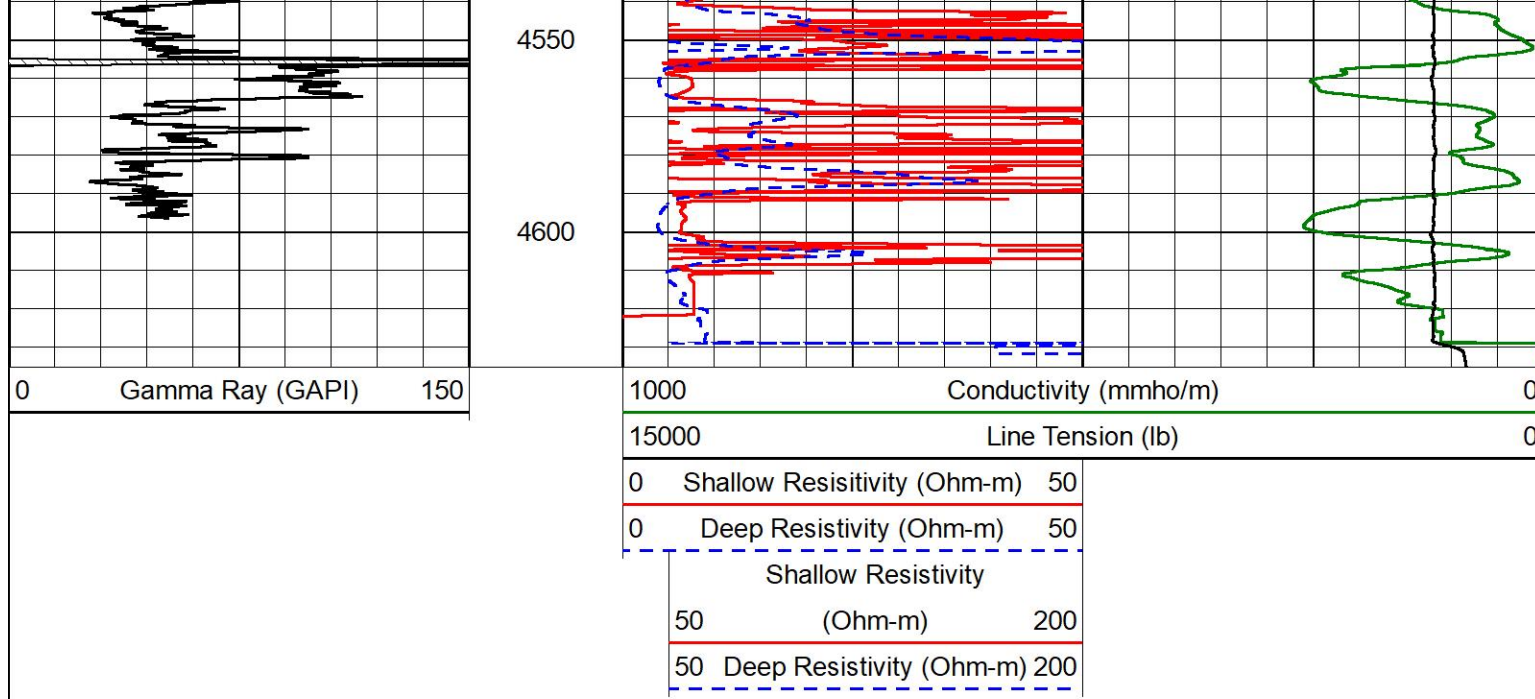
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2750
2800
2850











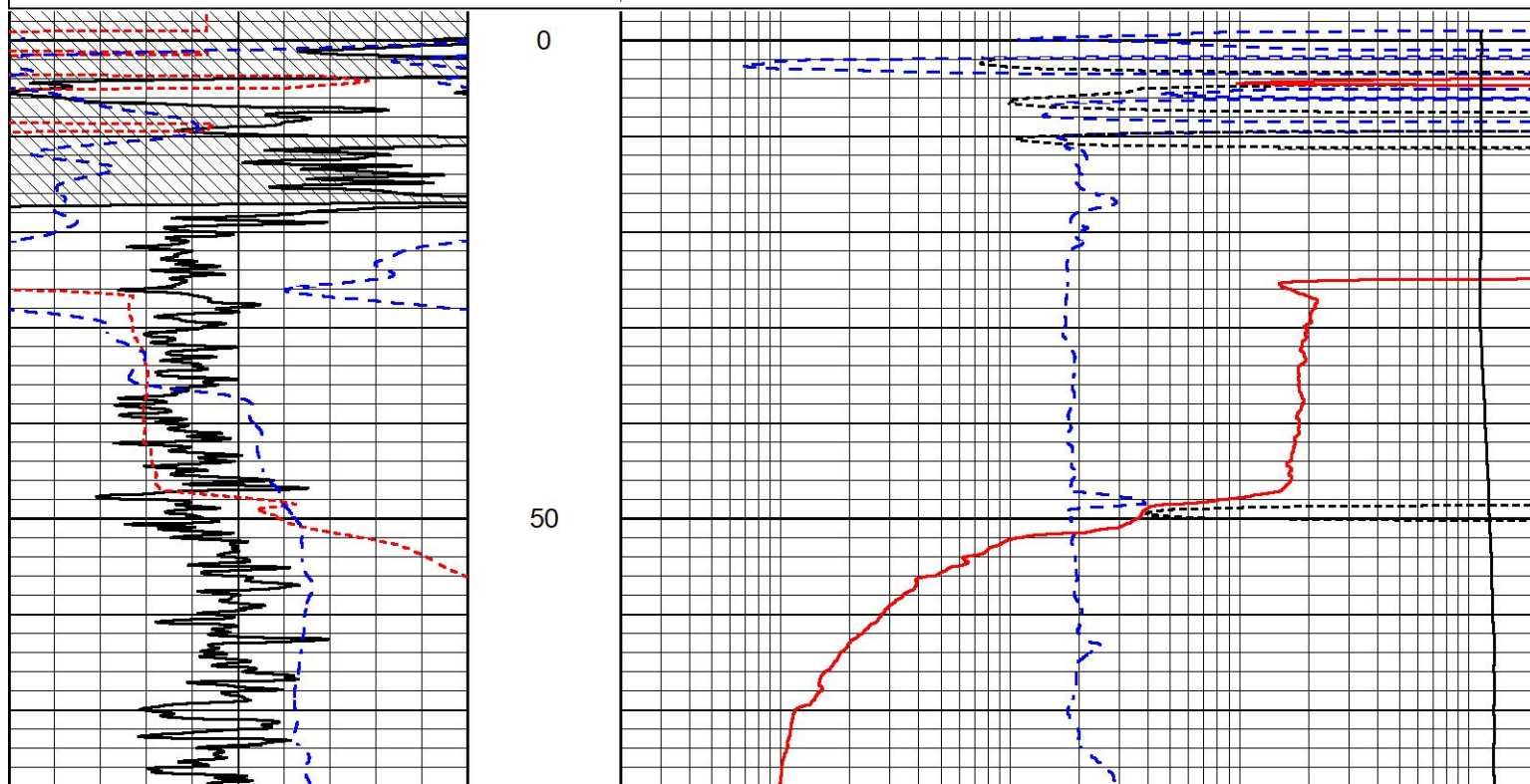
MIDWEST WIRELINE

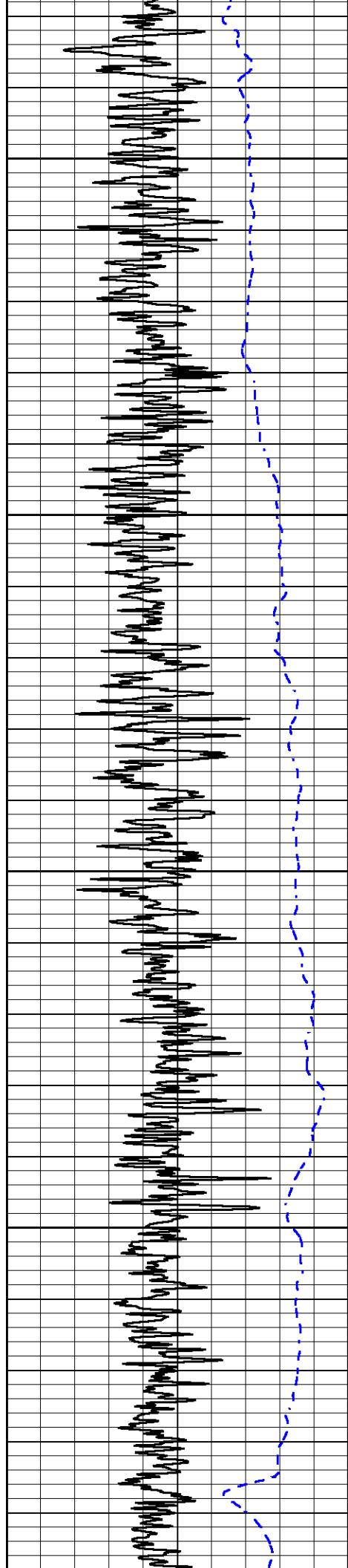
DETAIL SECTION

MAIN PASS

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 Dataset Pathname StkMI/pass3.1
 Presentation Format _dil
 Dataset Creation Sun Jan 09 09:44:02 2022
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXORT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0



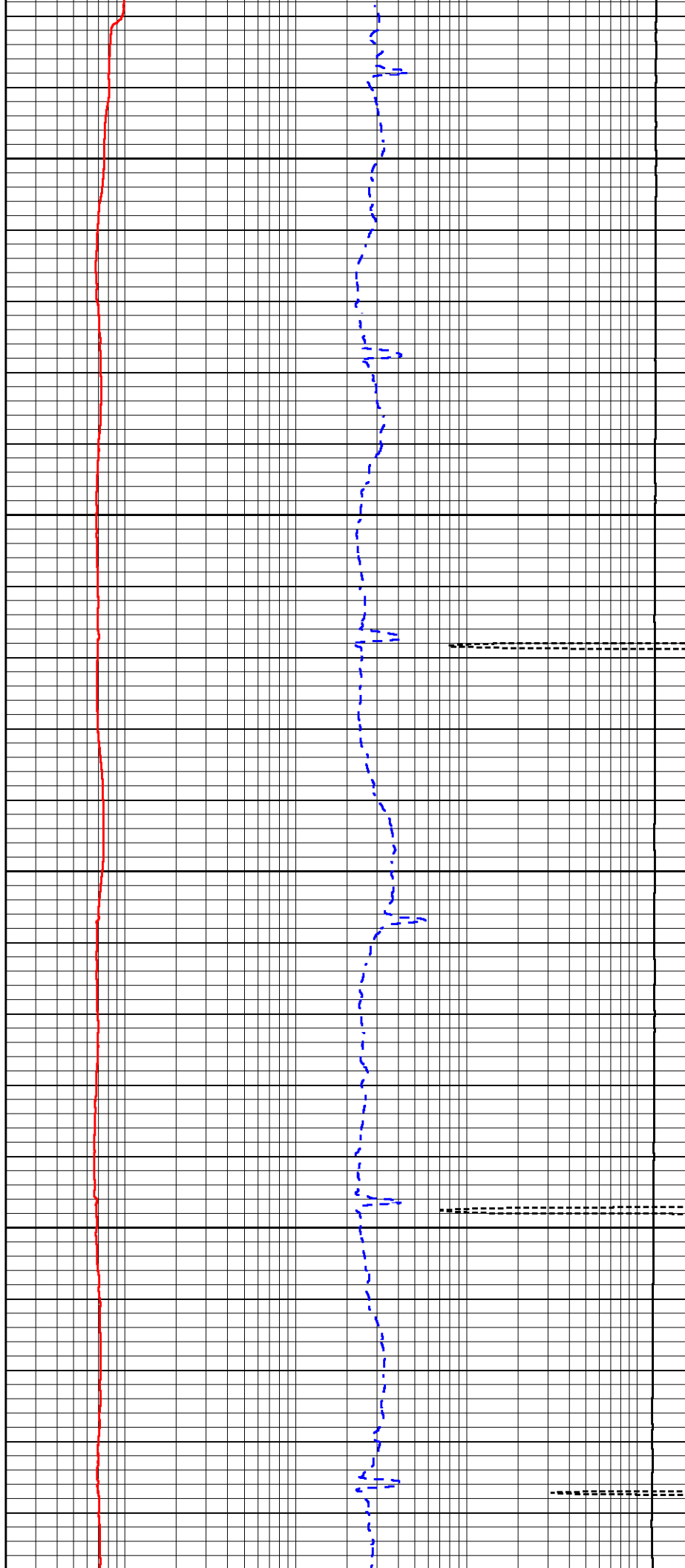


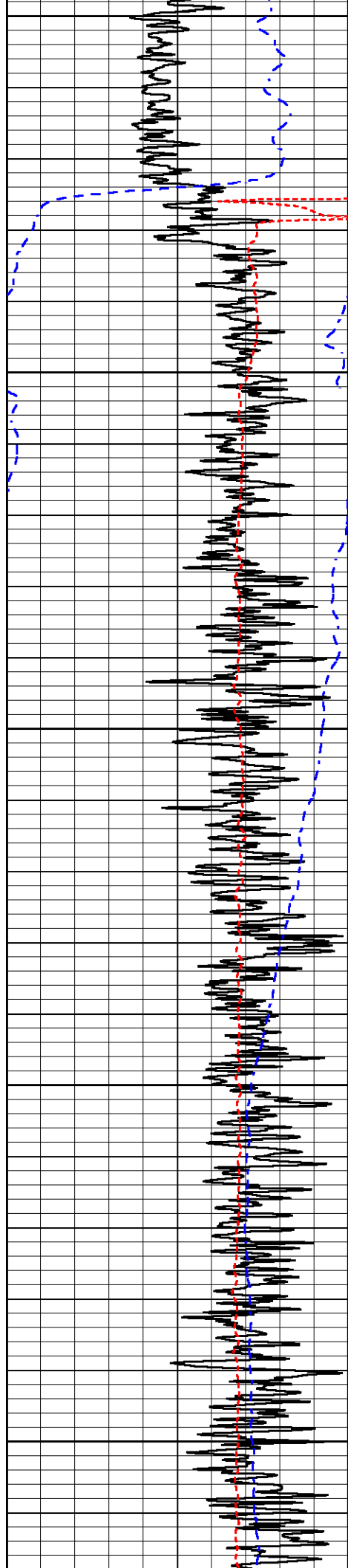
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200

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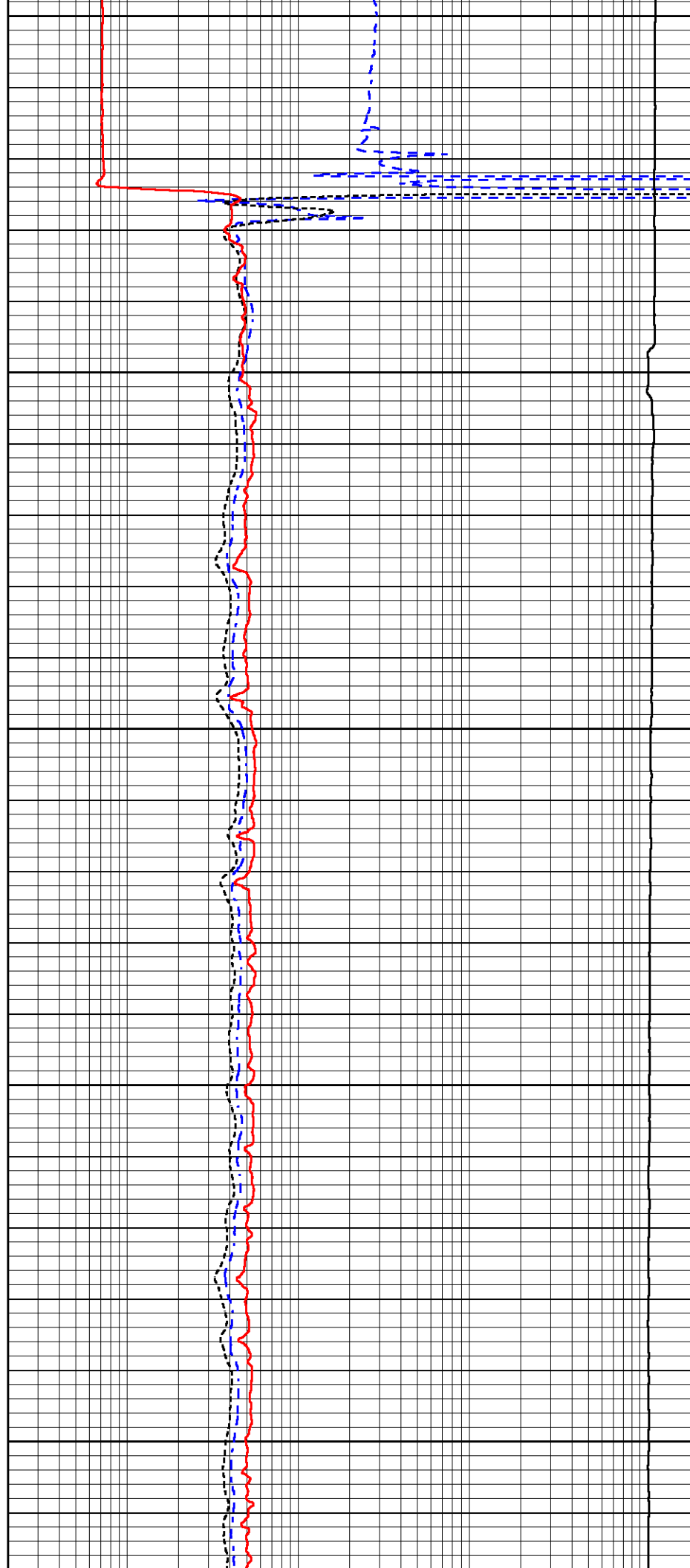
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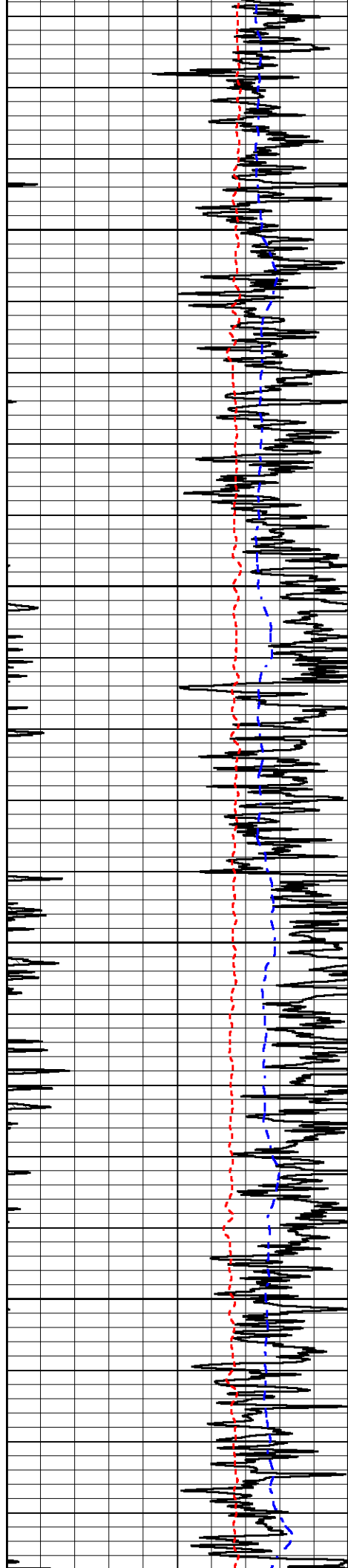
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500



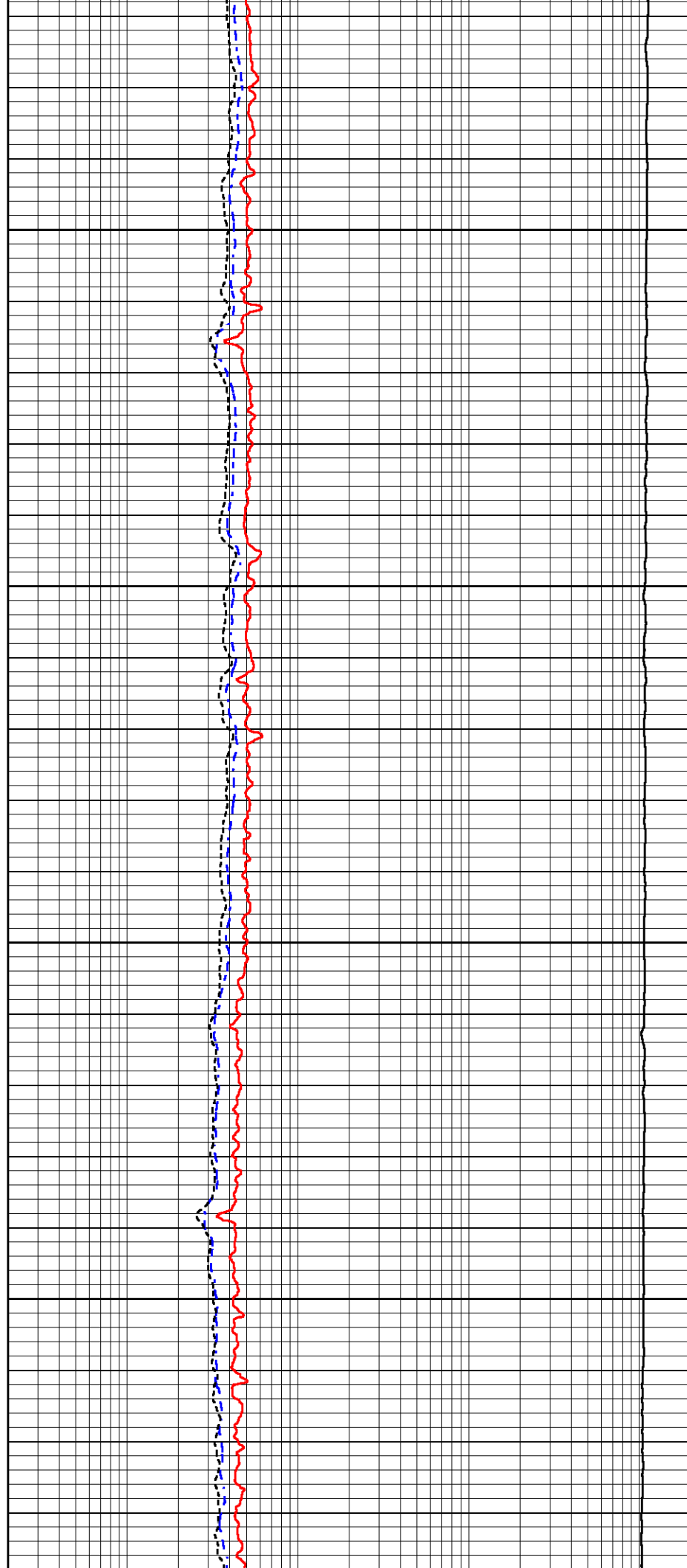


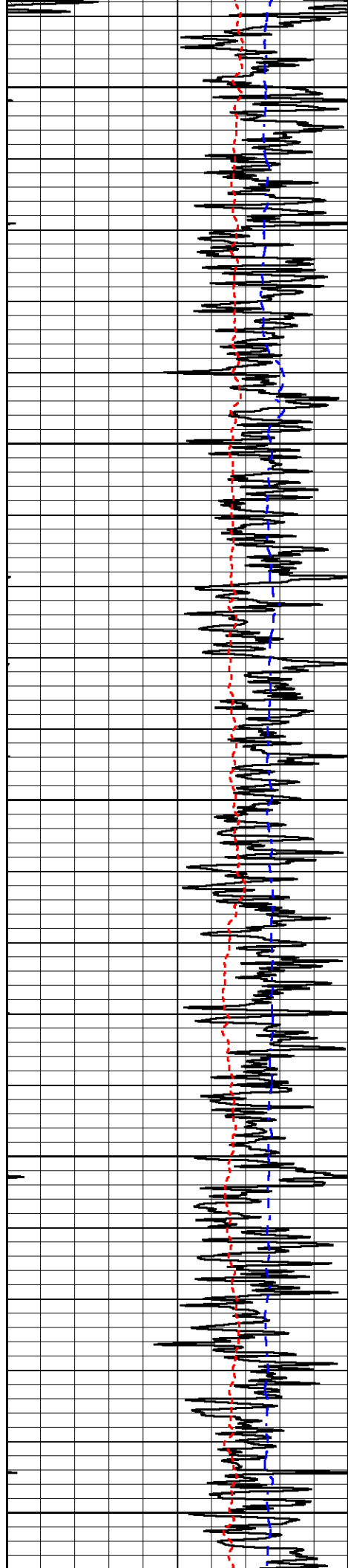
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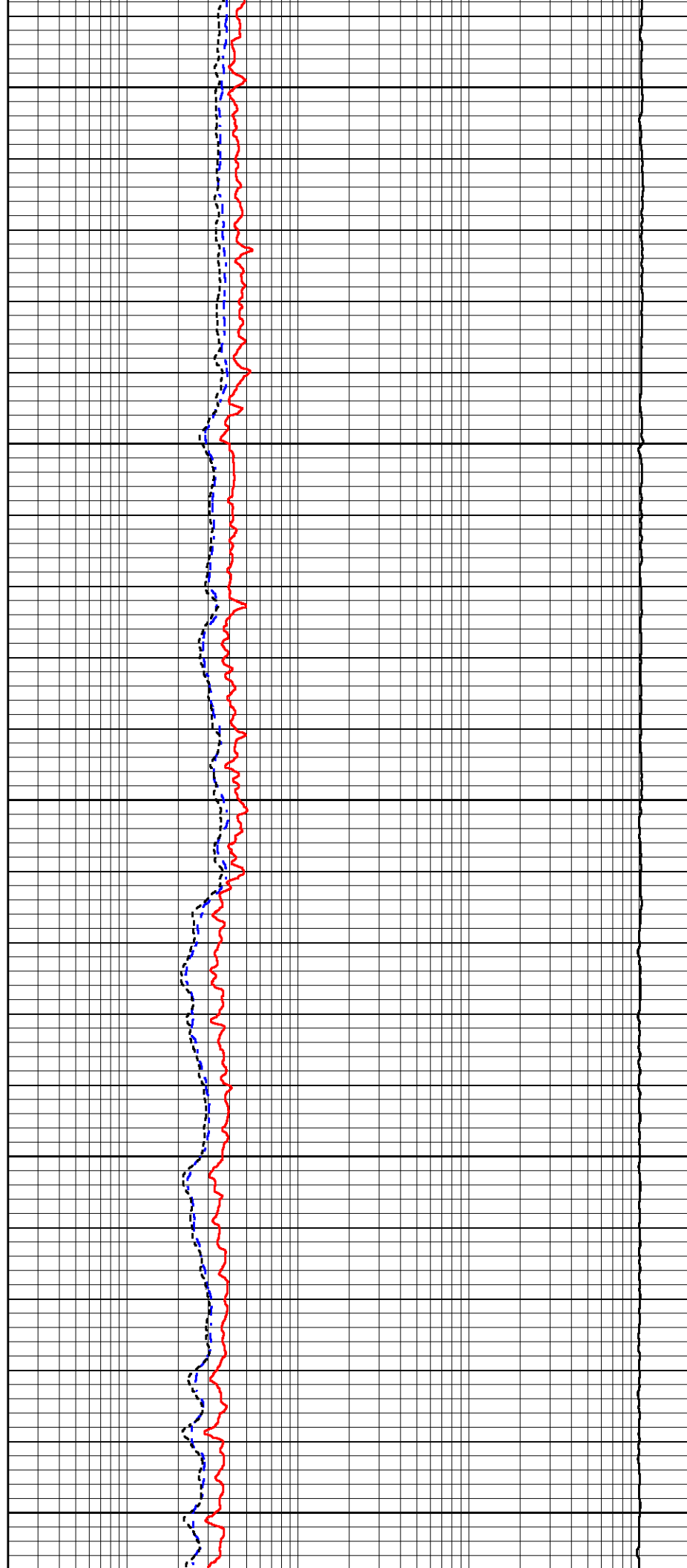
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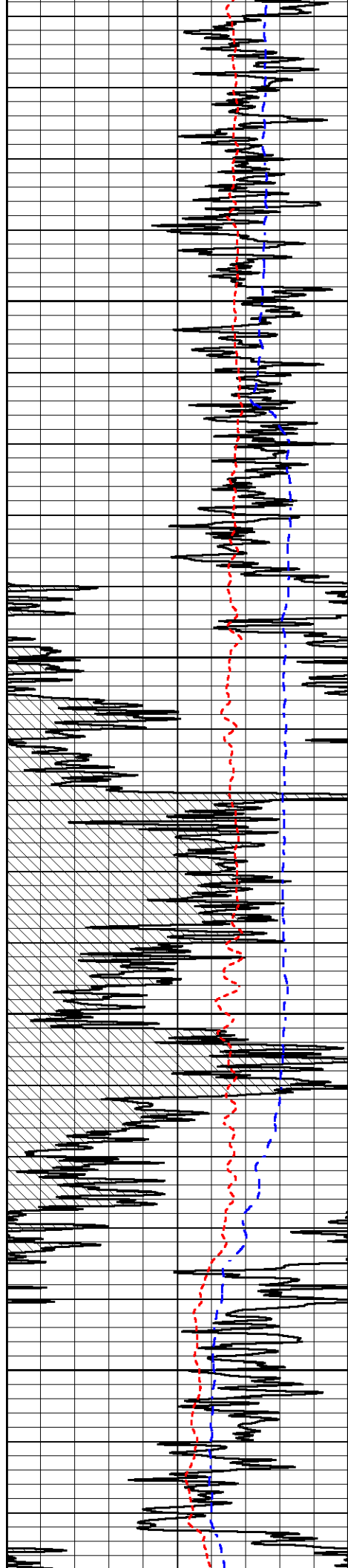
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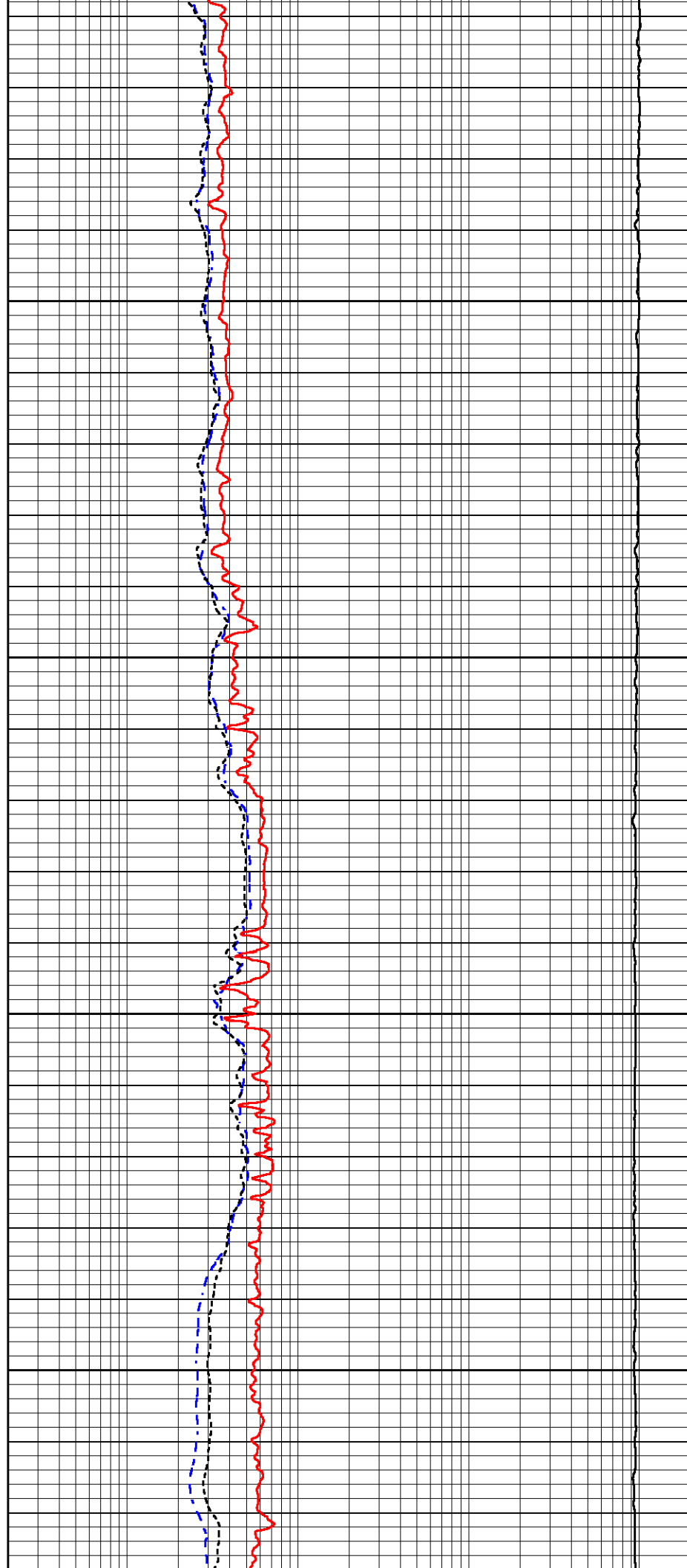


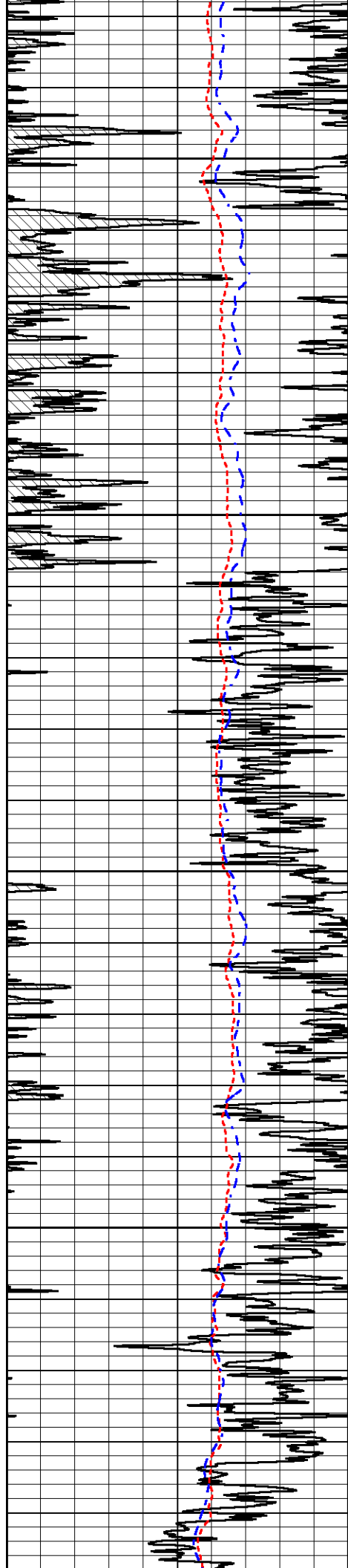
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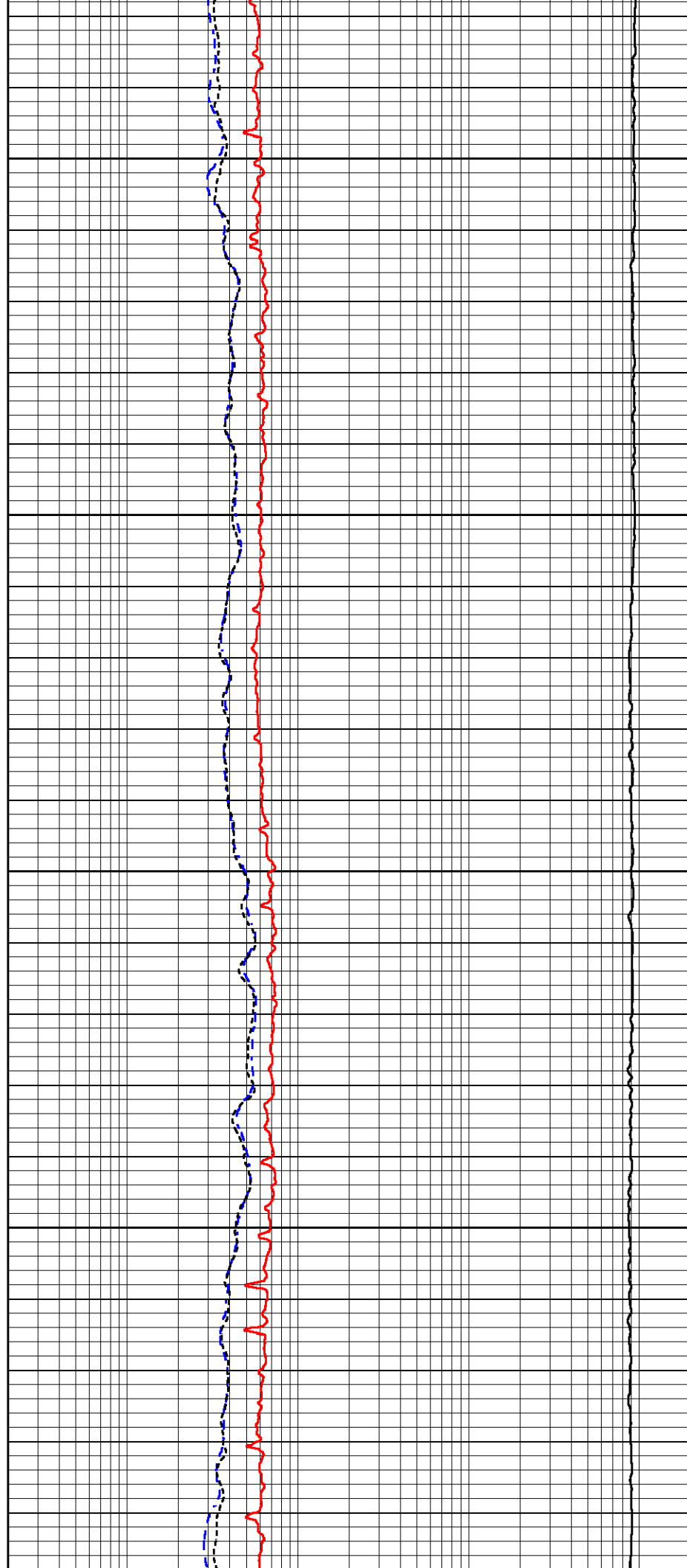


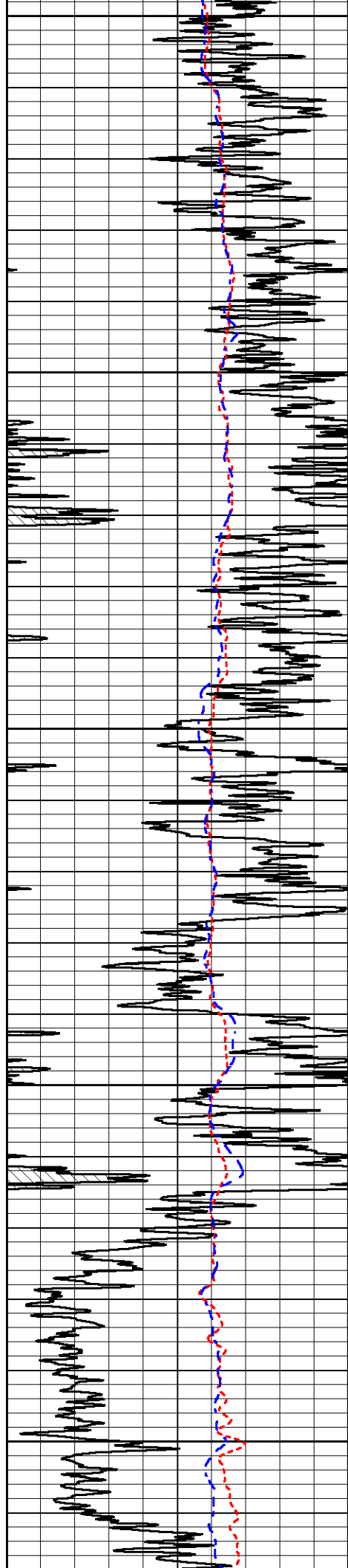
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1350





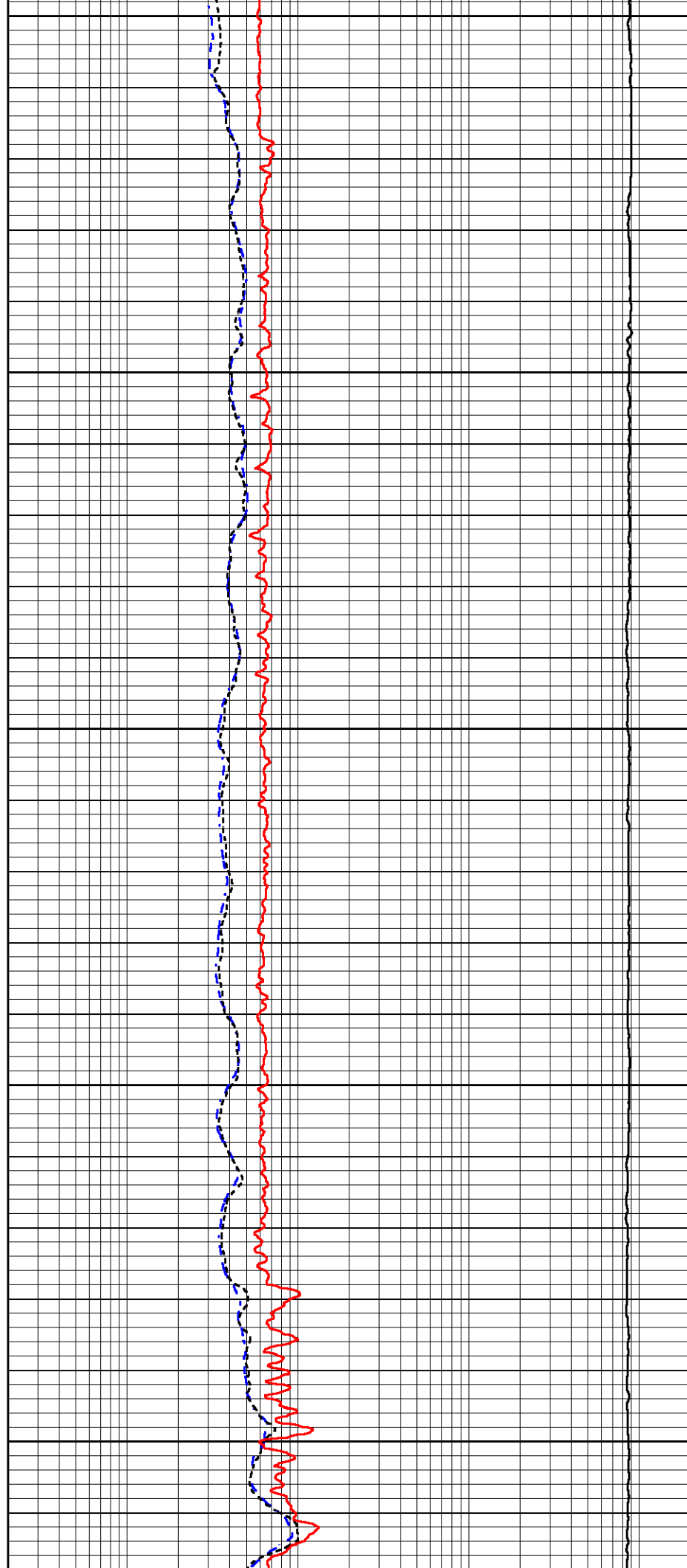
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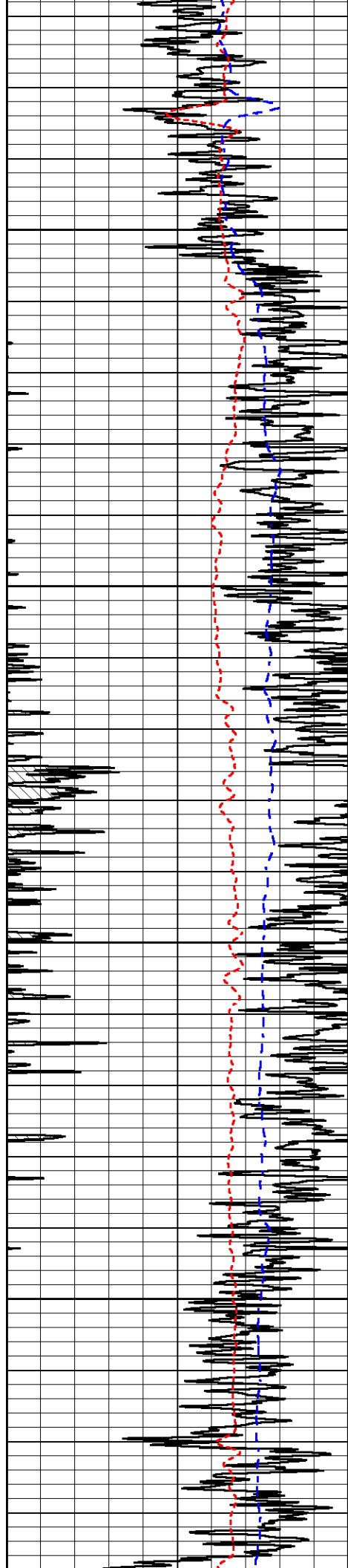
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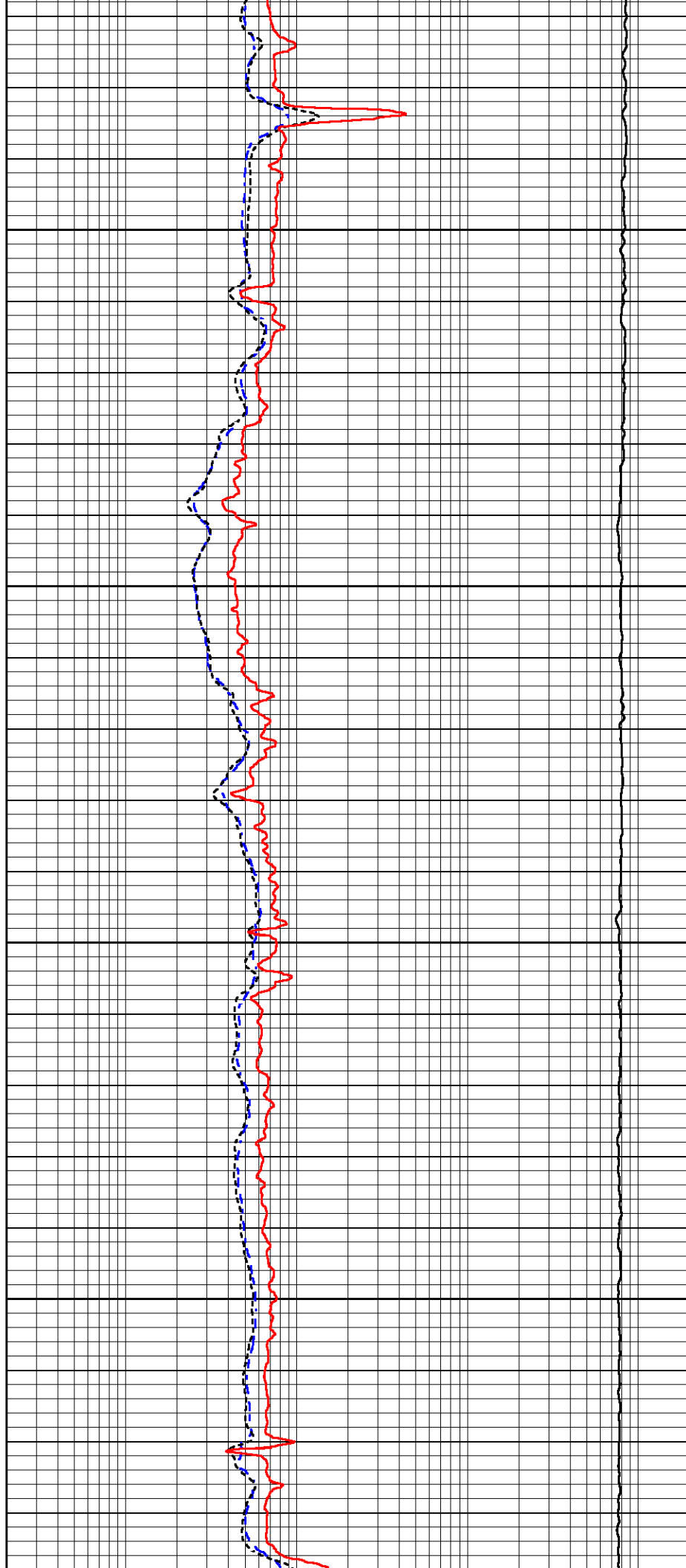


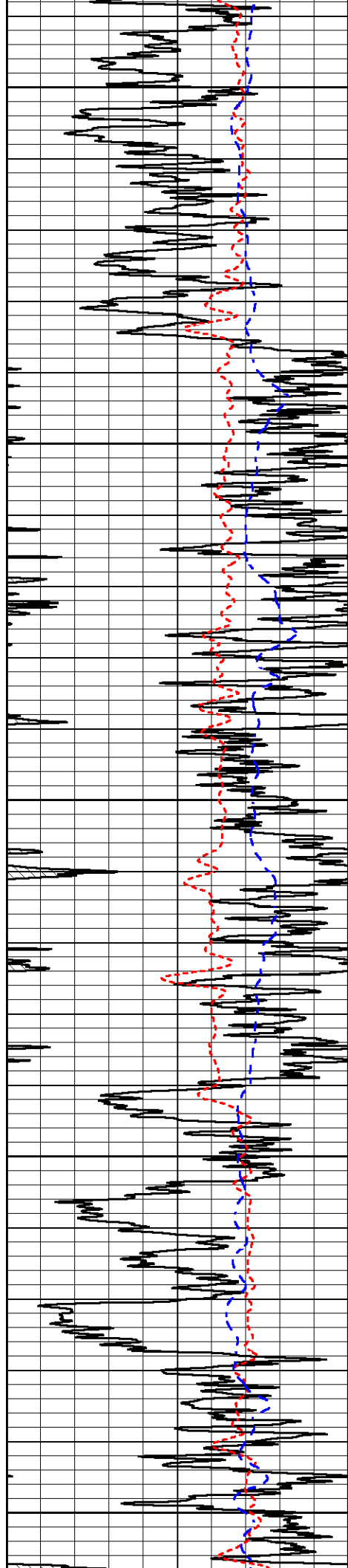
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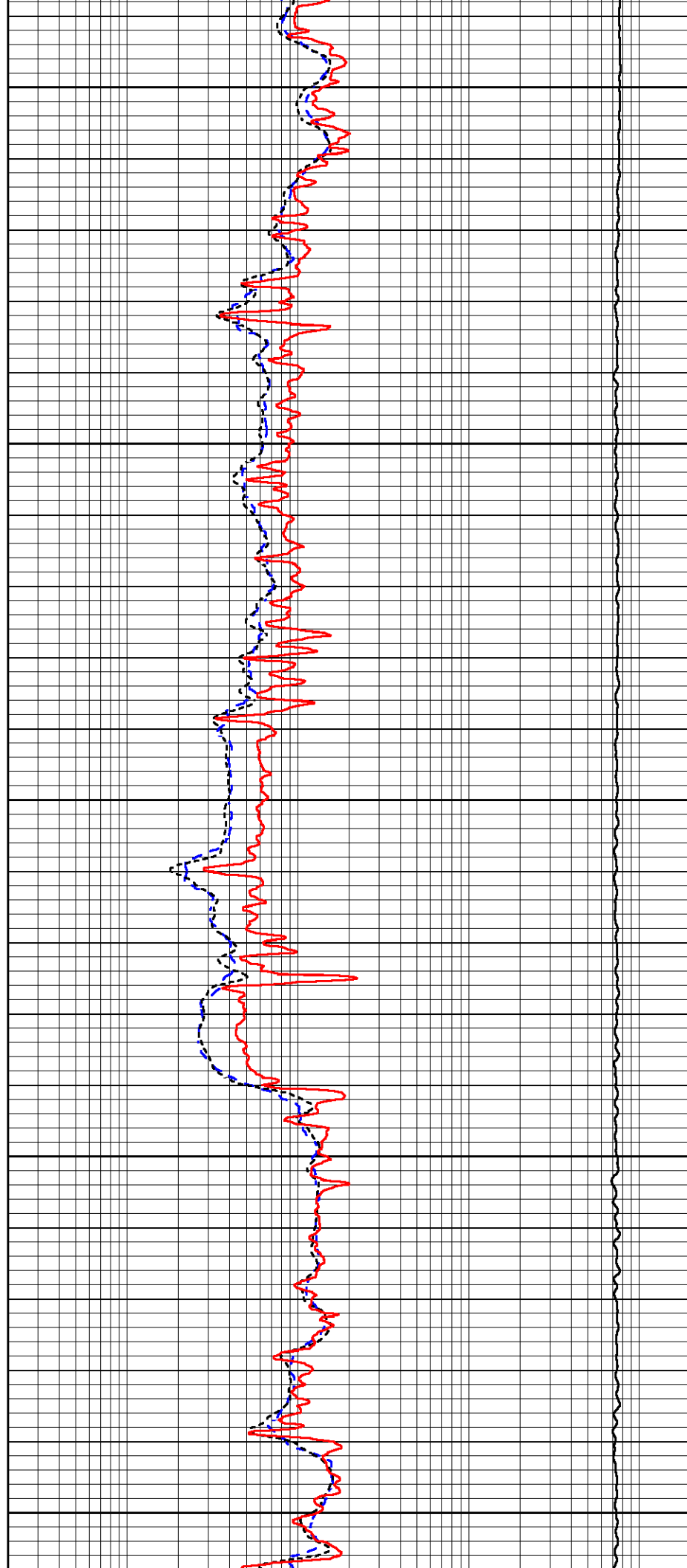
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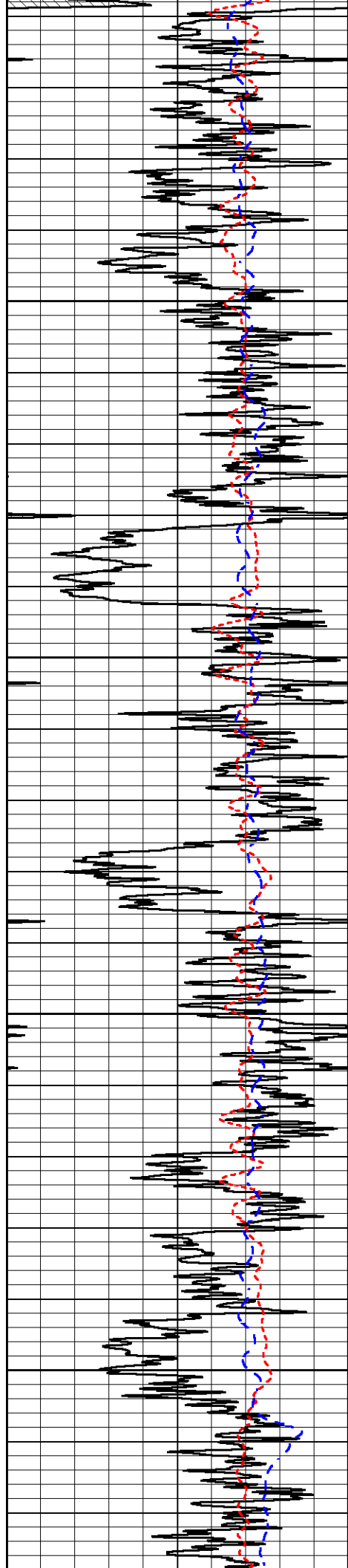
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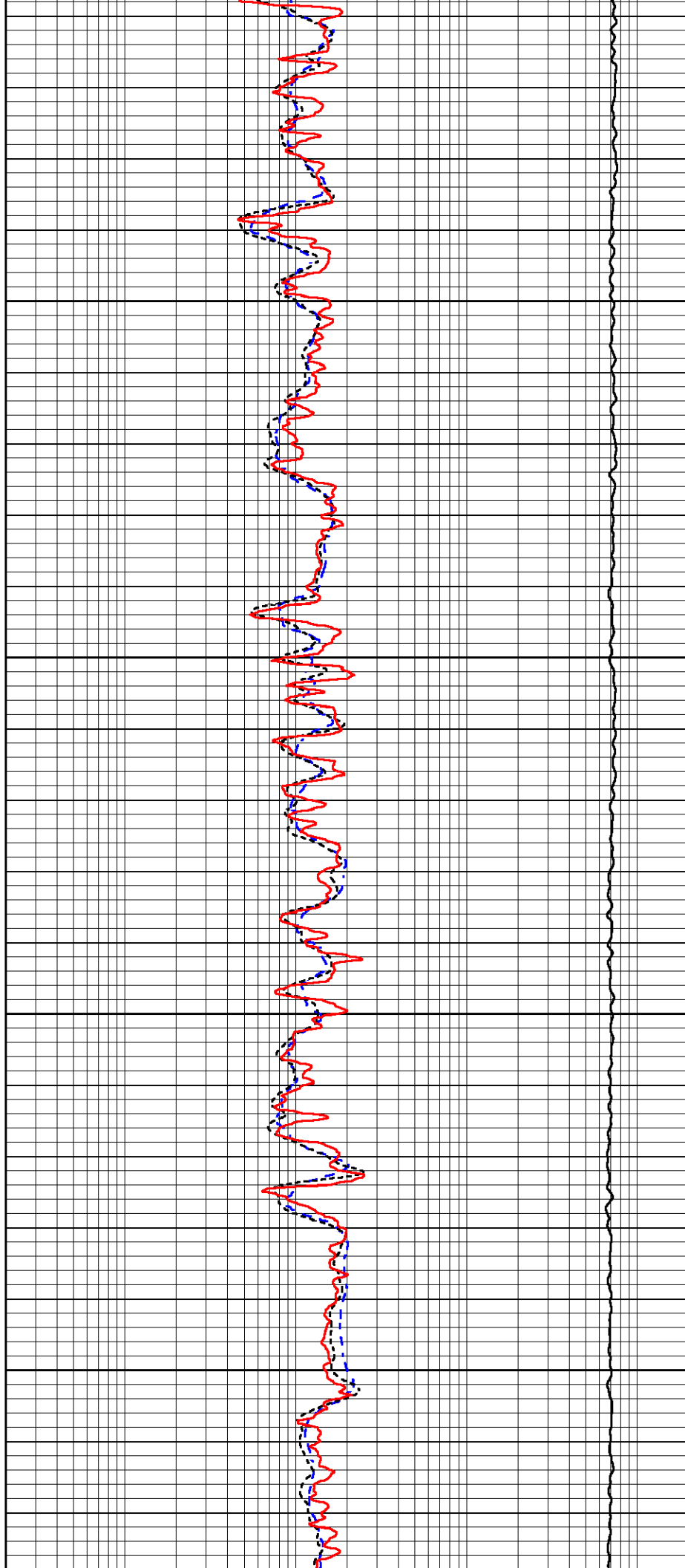


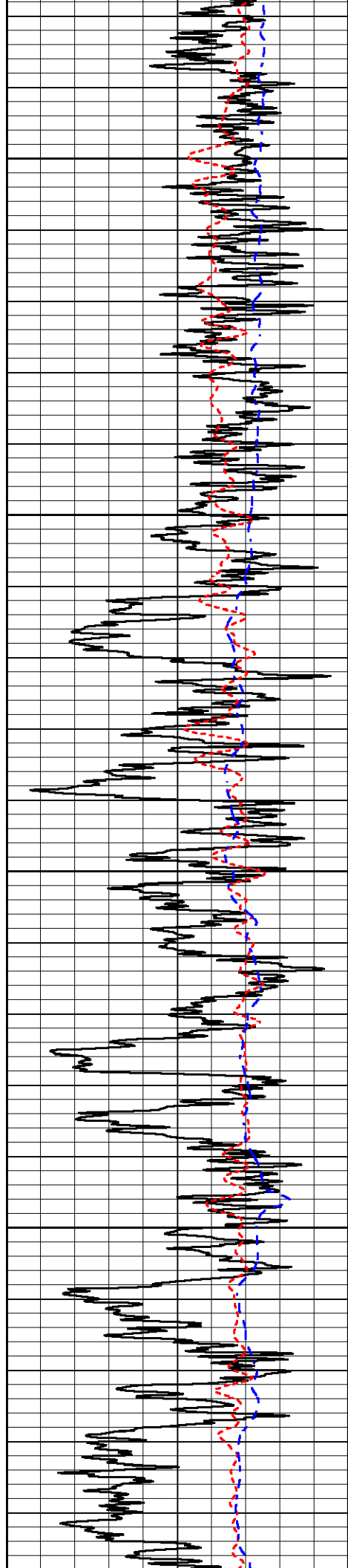
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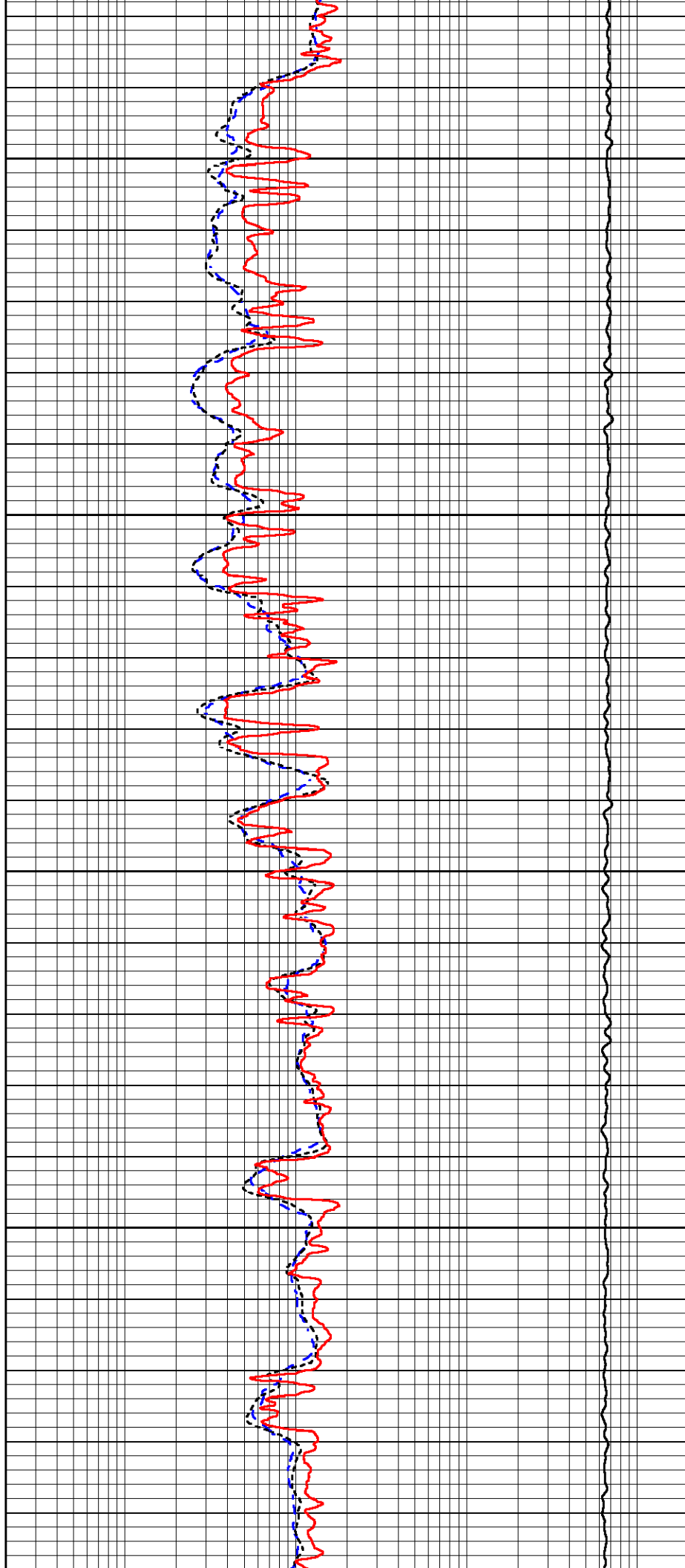


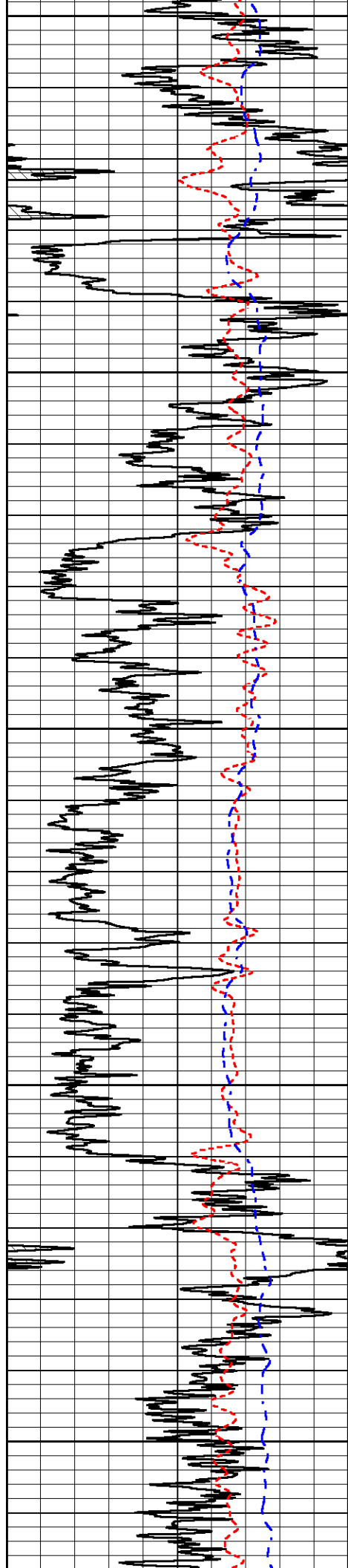
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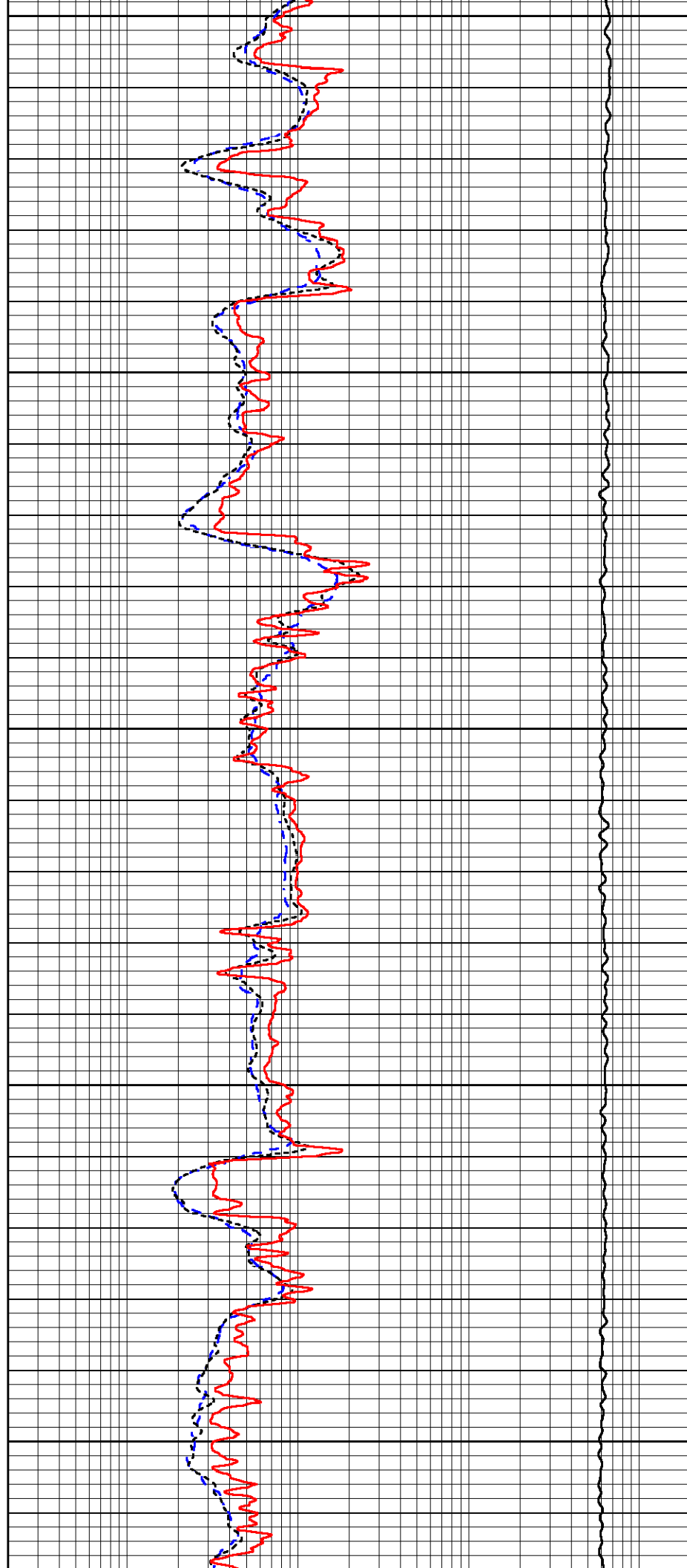
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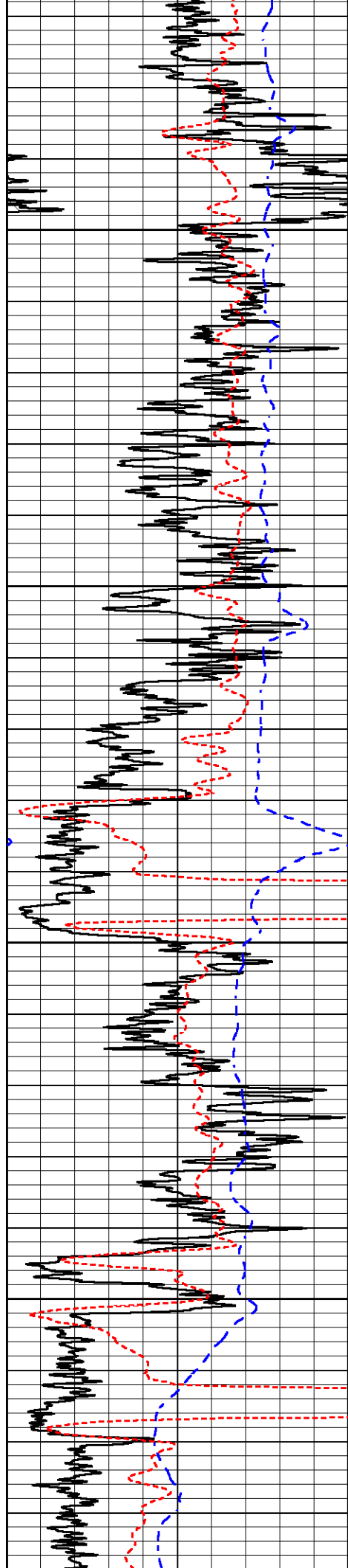
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2700



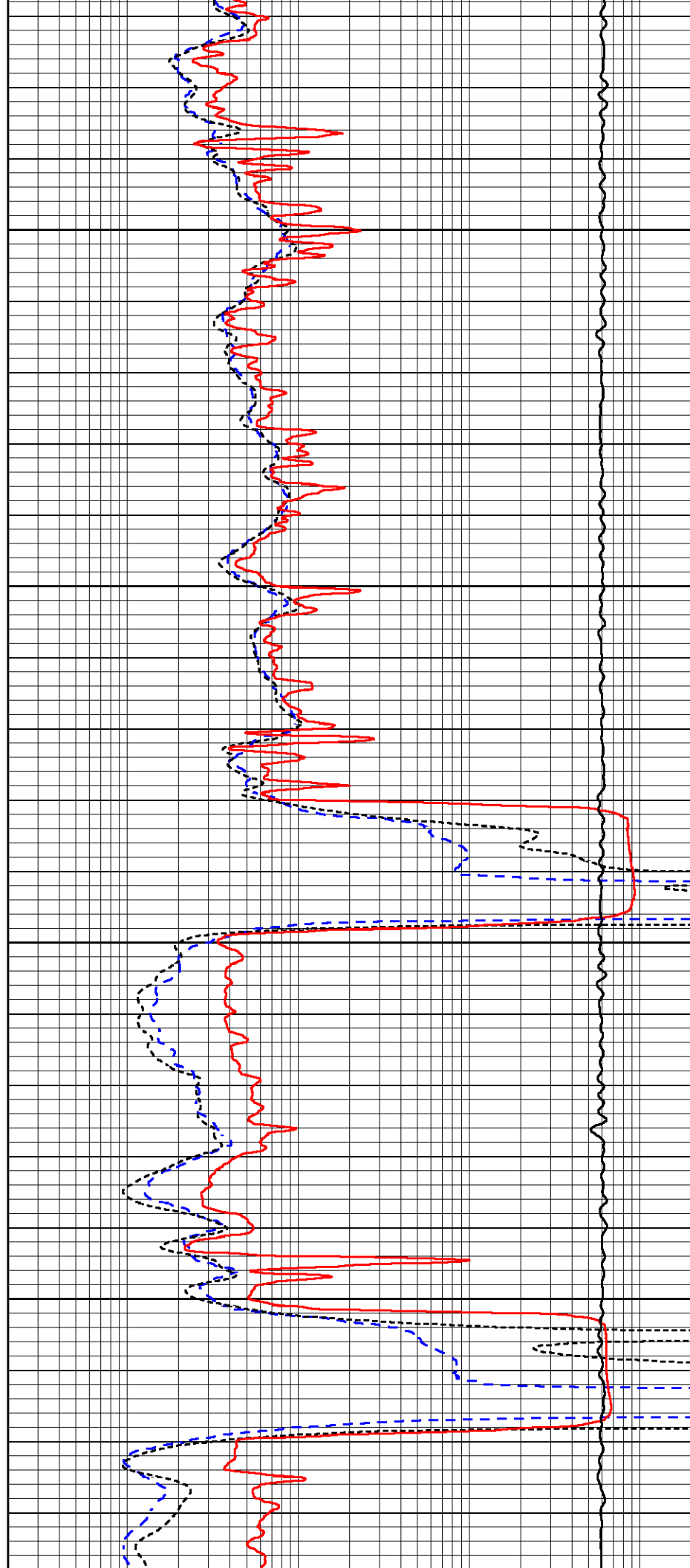


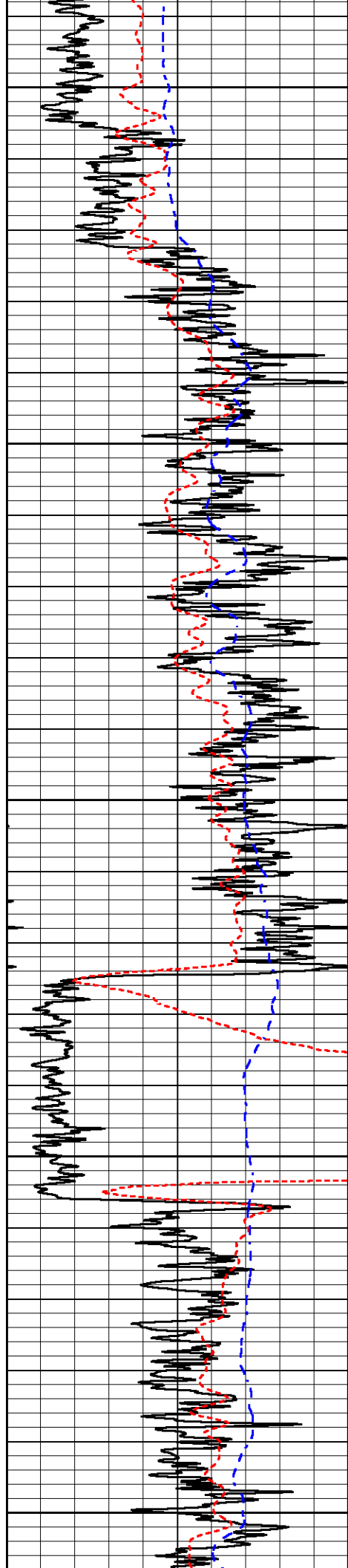
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2850

2900





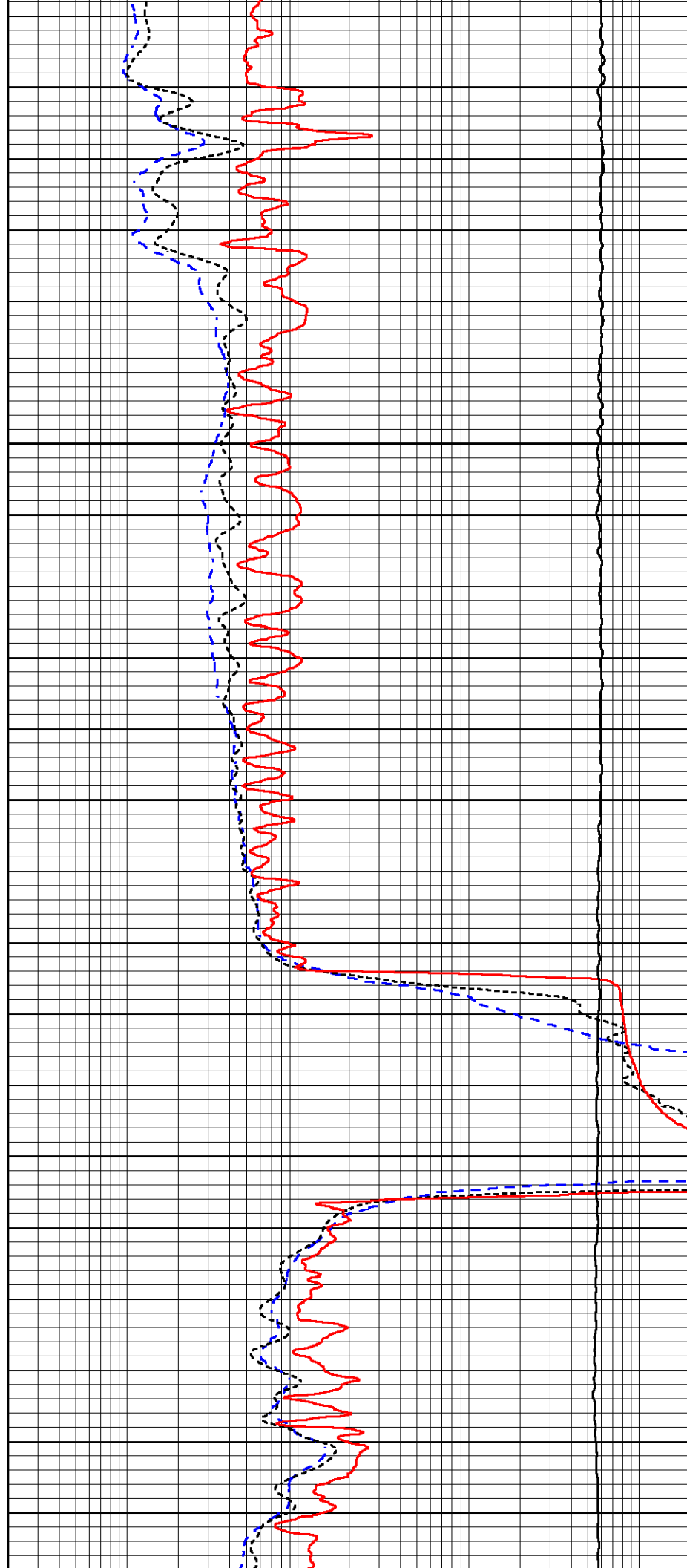
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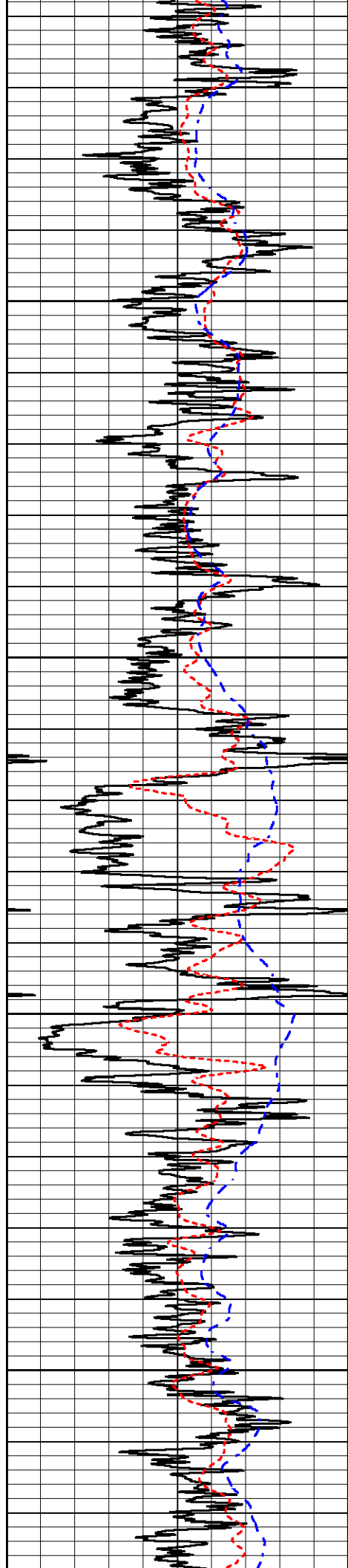
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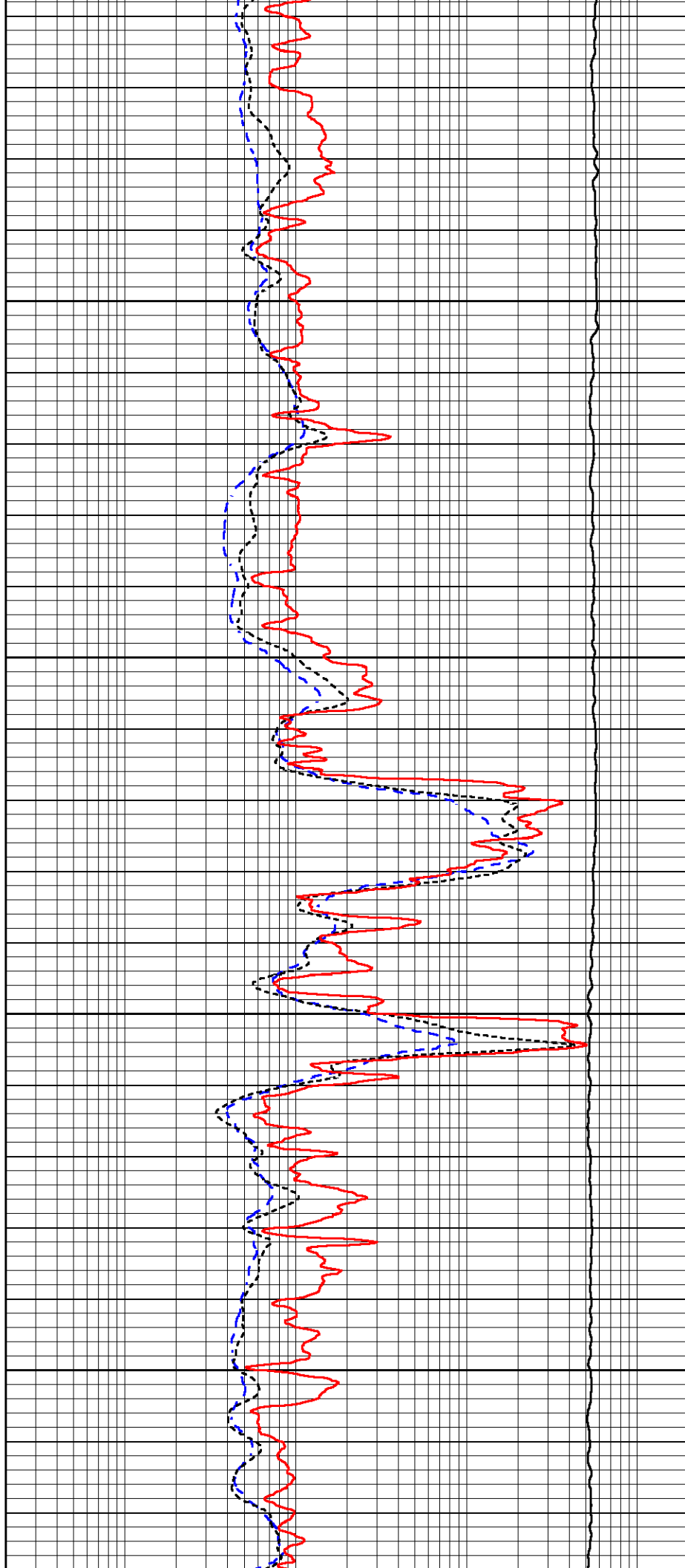


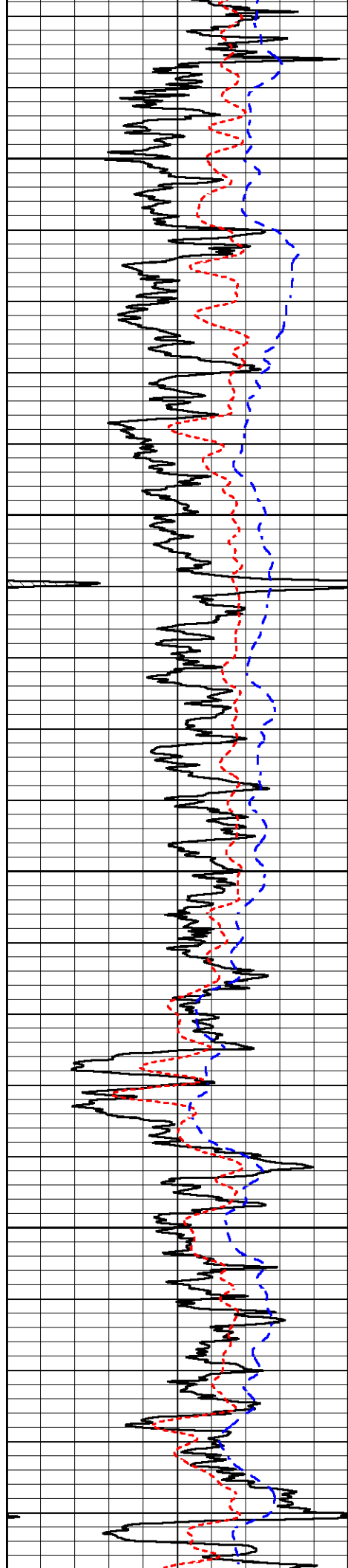
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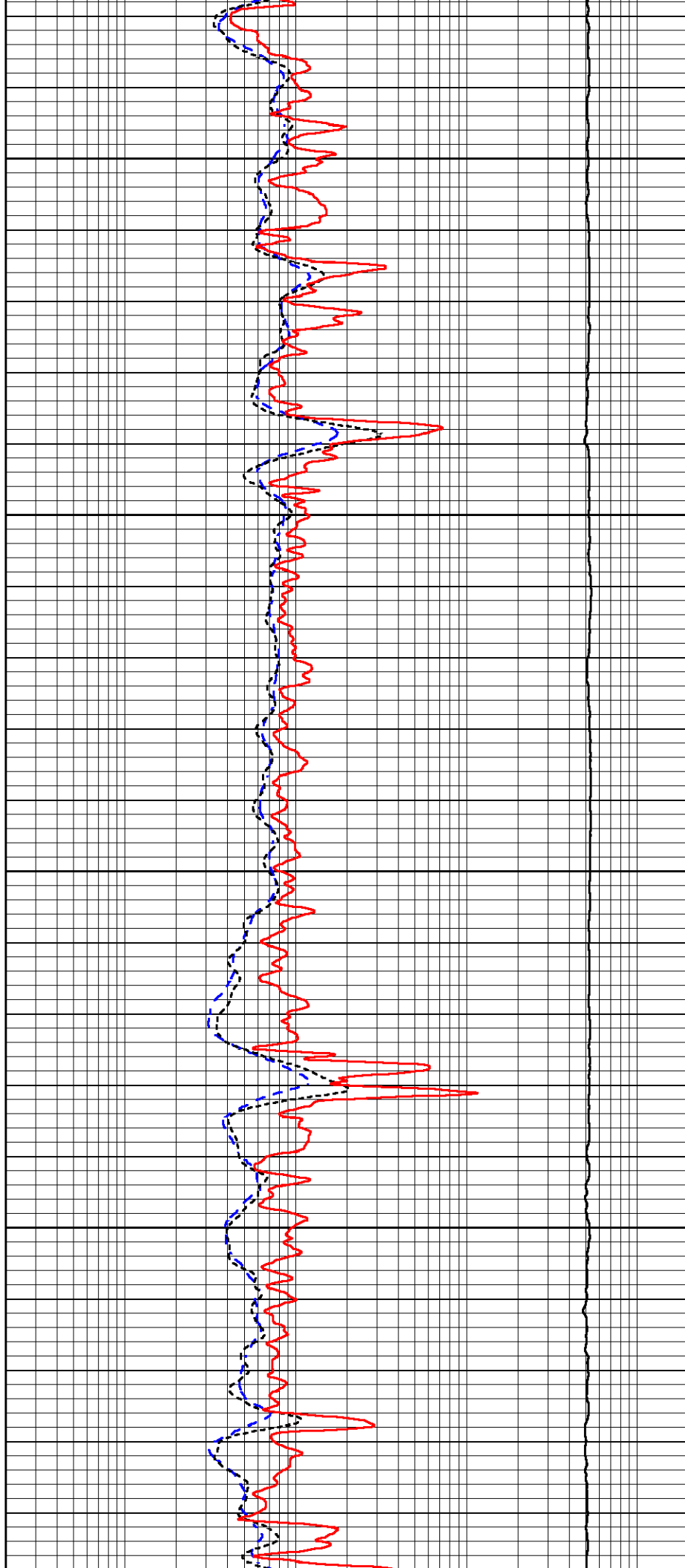


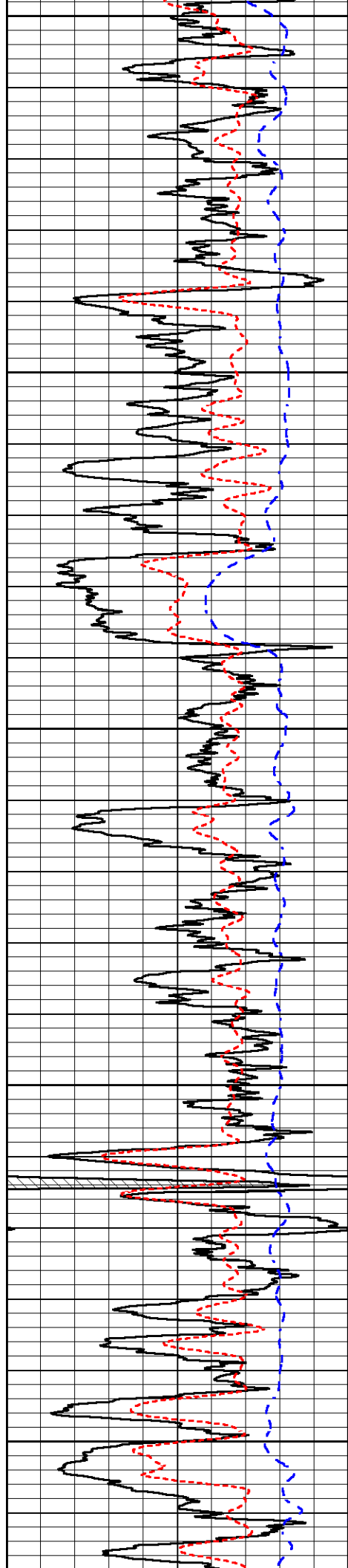
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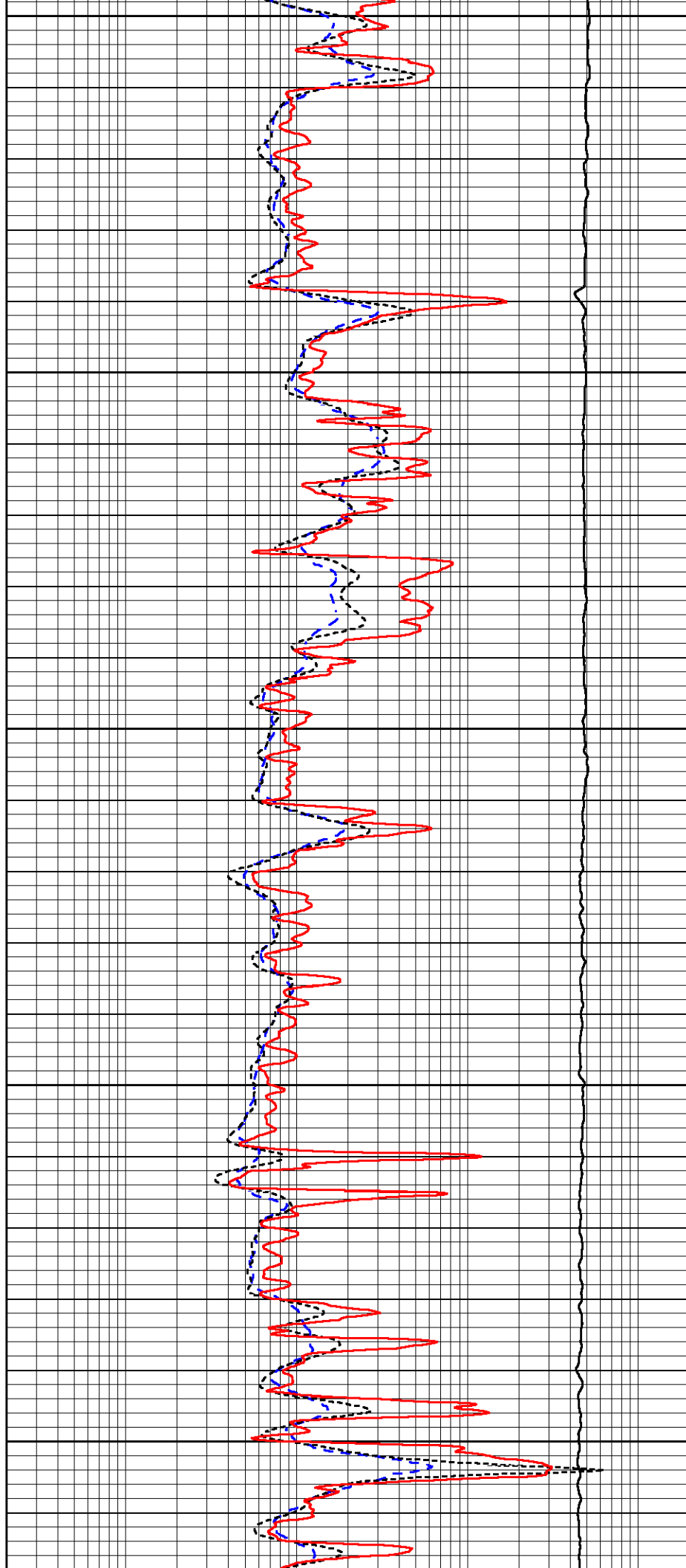
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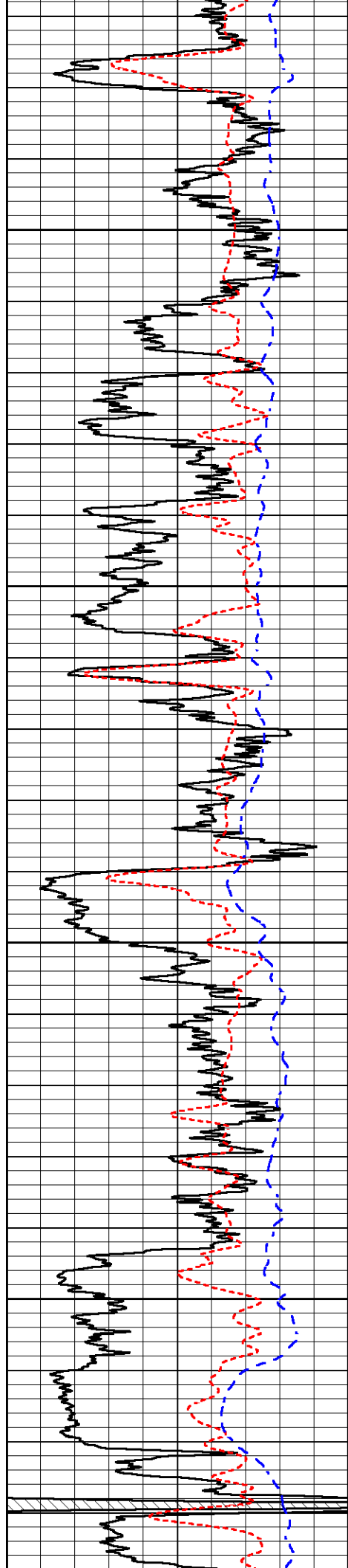
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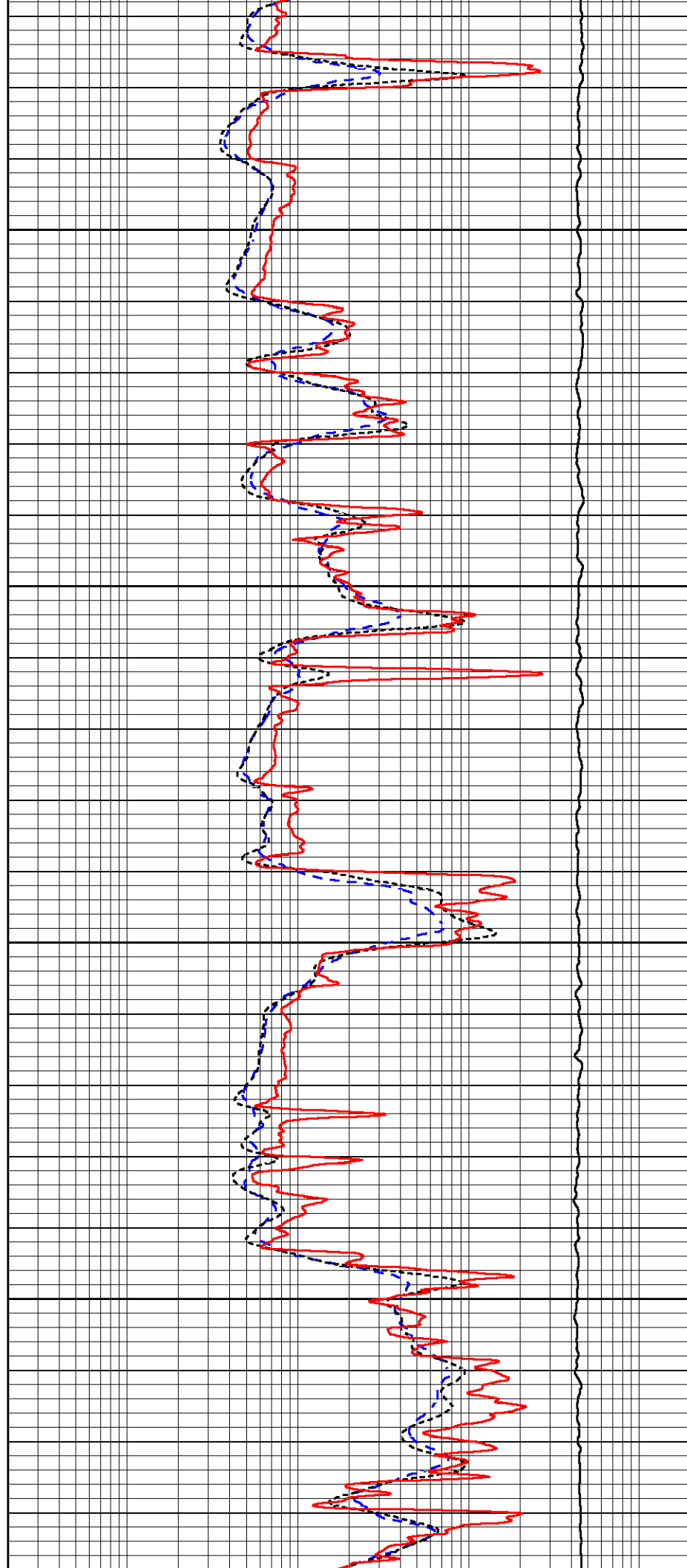


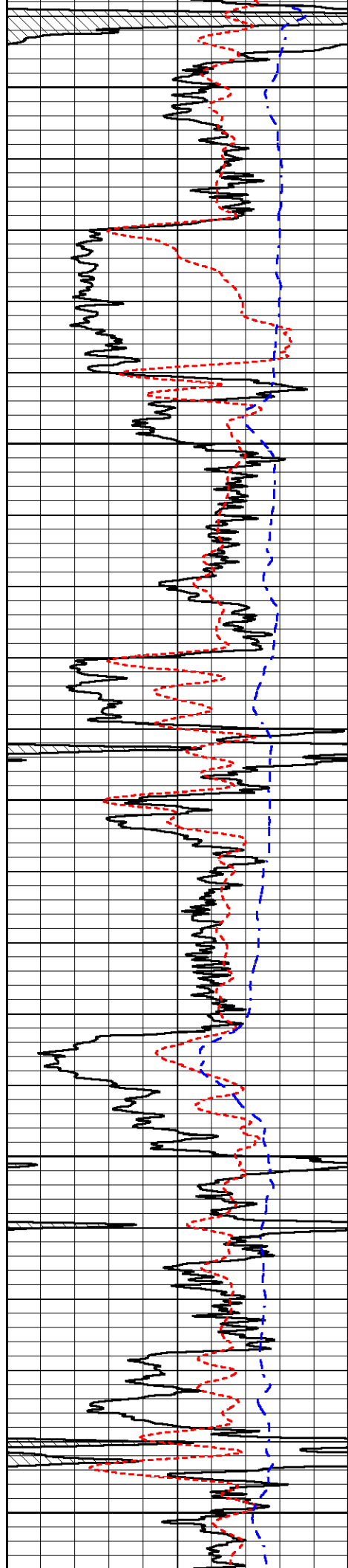
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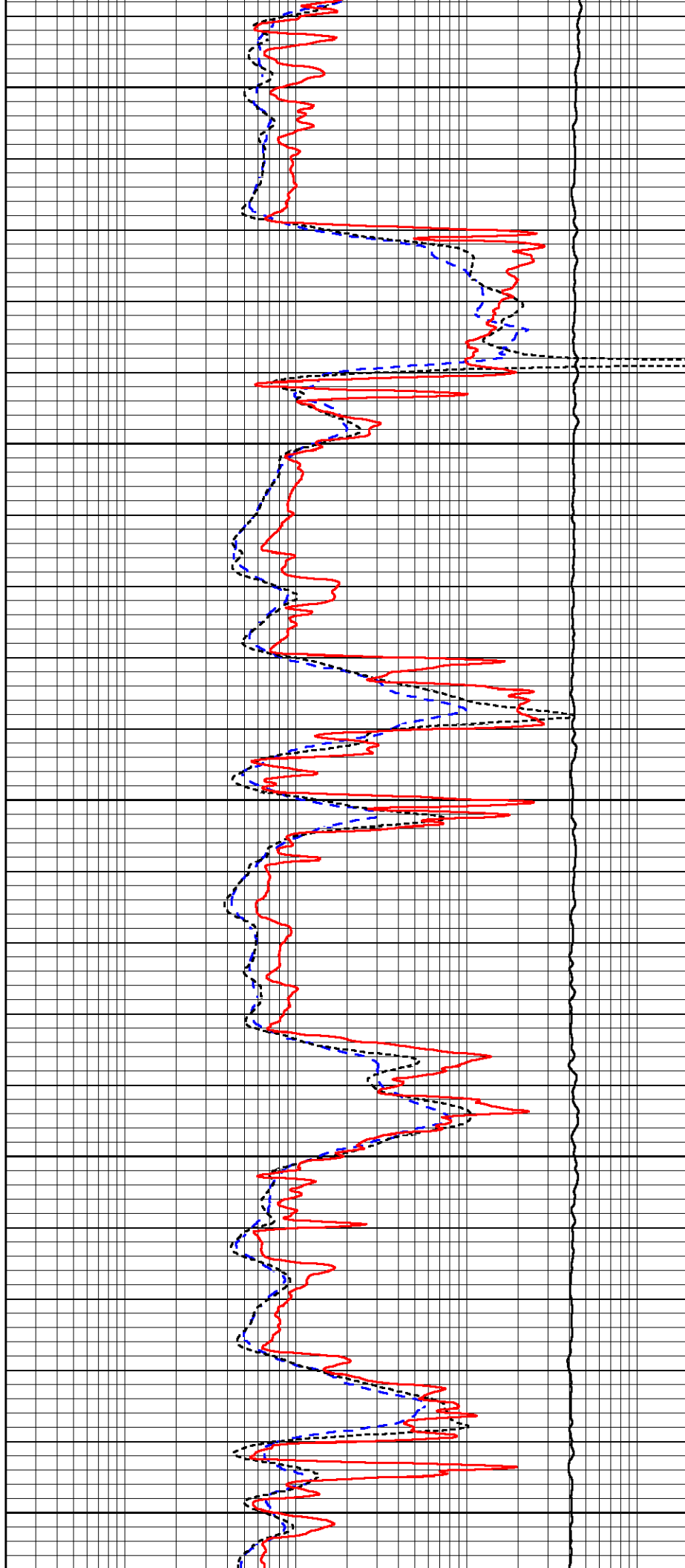
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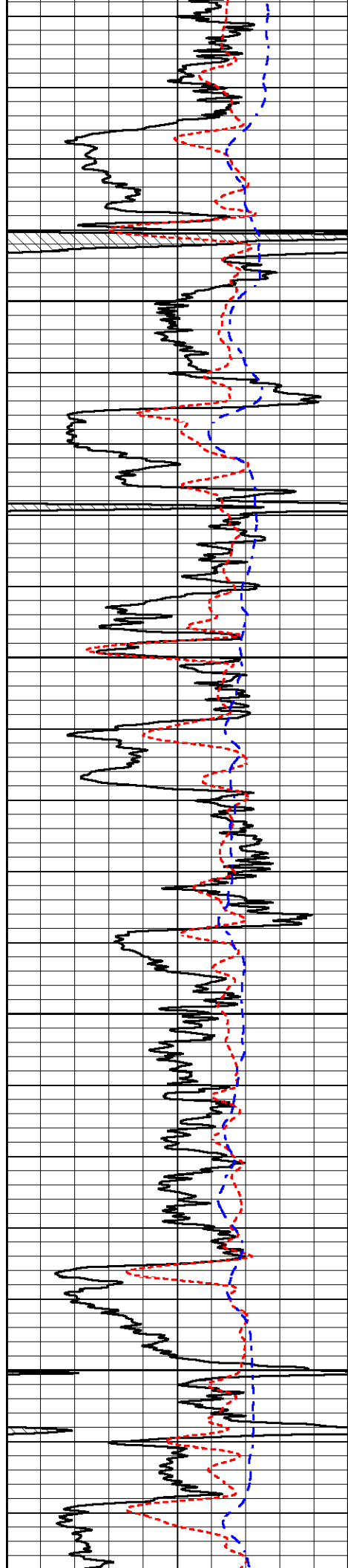
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4150

4200

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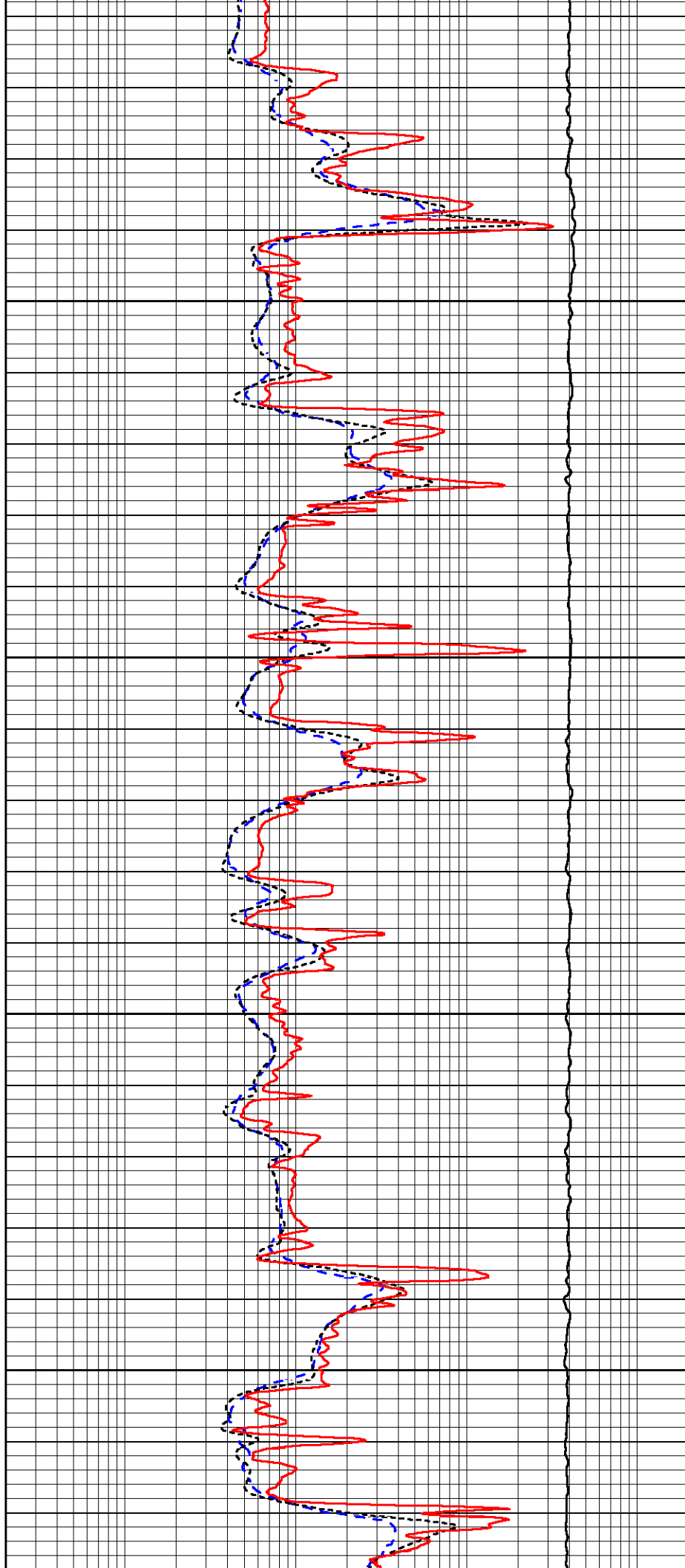


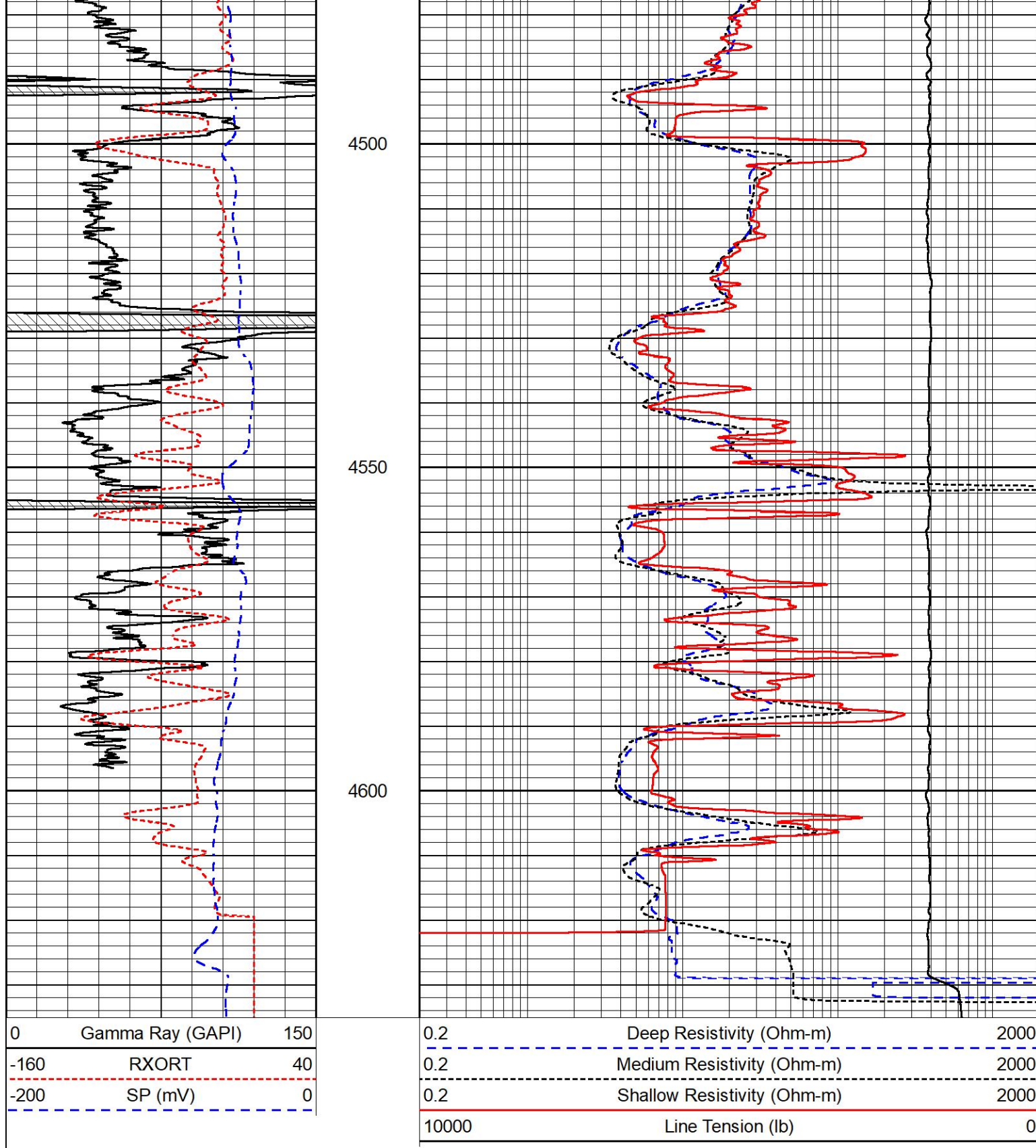
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4350

4400

4450





MIDWEST WIRELINE

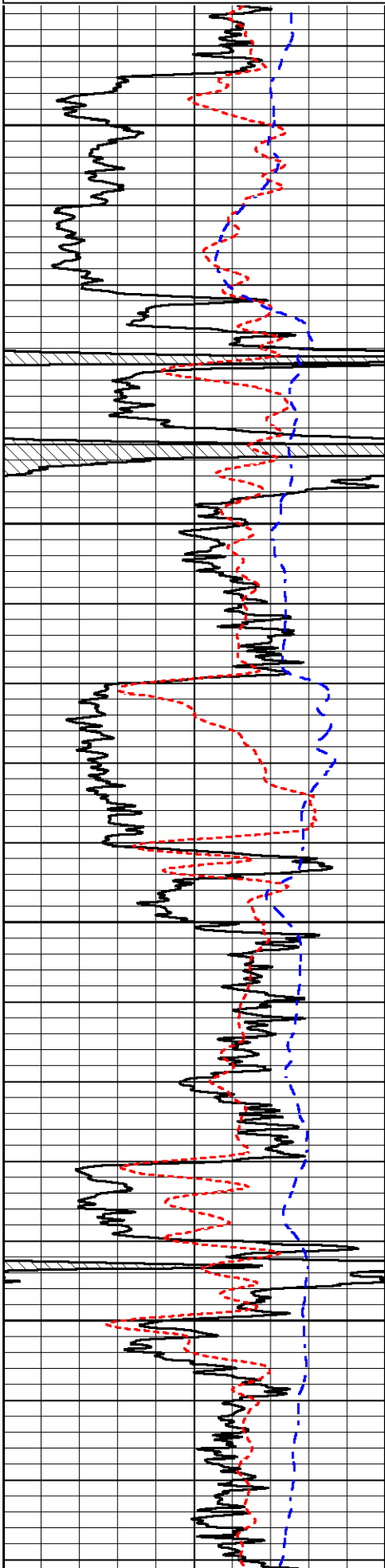
REPEAT SECTION

REPEAT PASS

Database File murfin_jean a #2-7.db
 Dataset Pathname StkML/pass2.1
 Presentation Format _dil
 Dataset Creation Sun Jan 09 08:55:57 2022
 Charted by Depth in Feet scaled 1:240

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

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

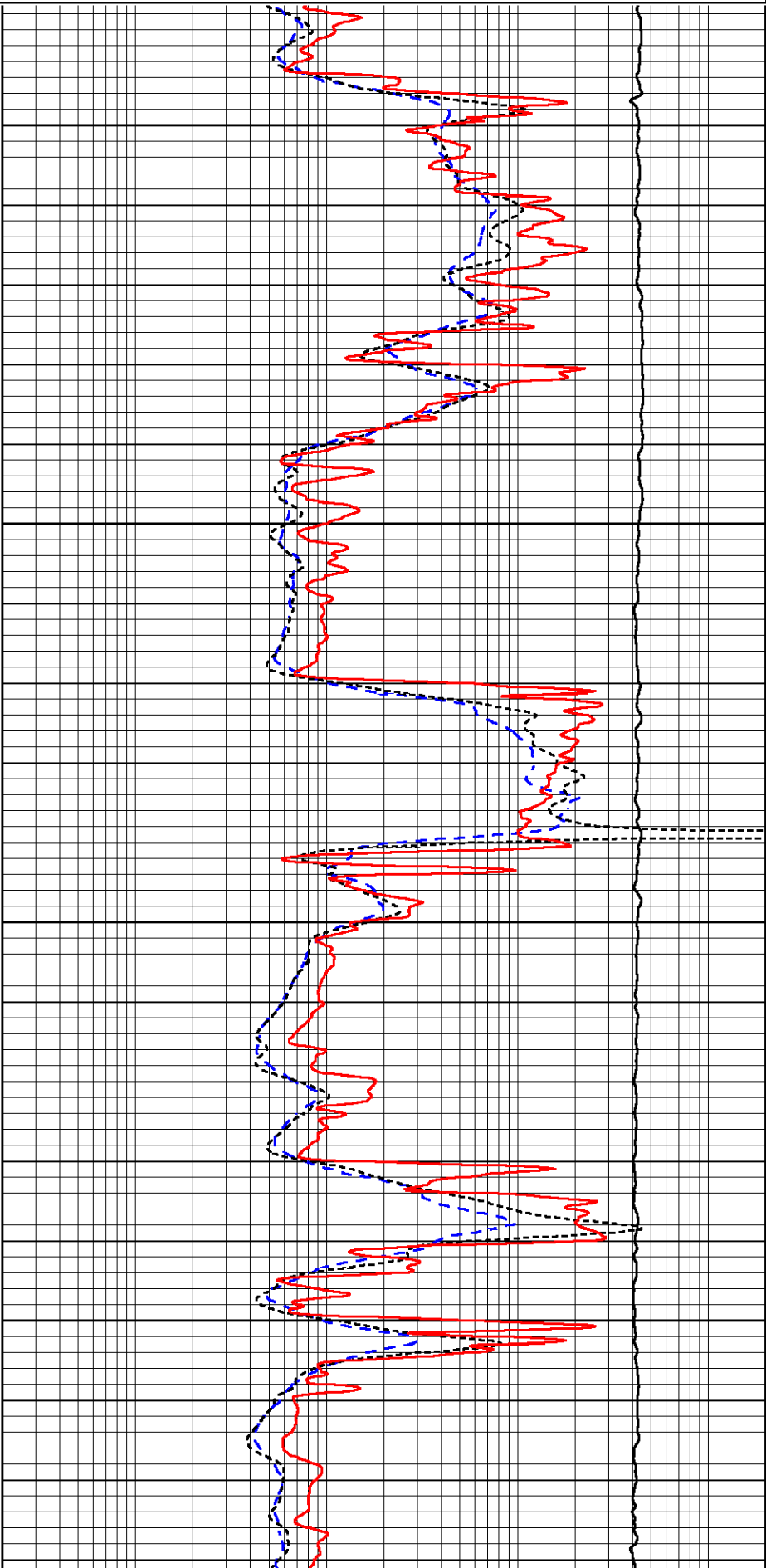


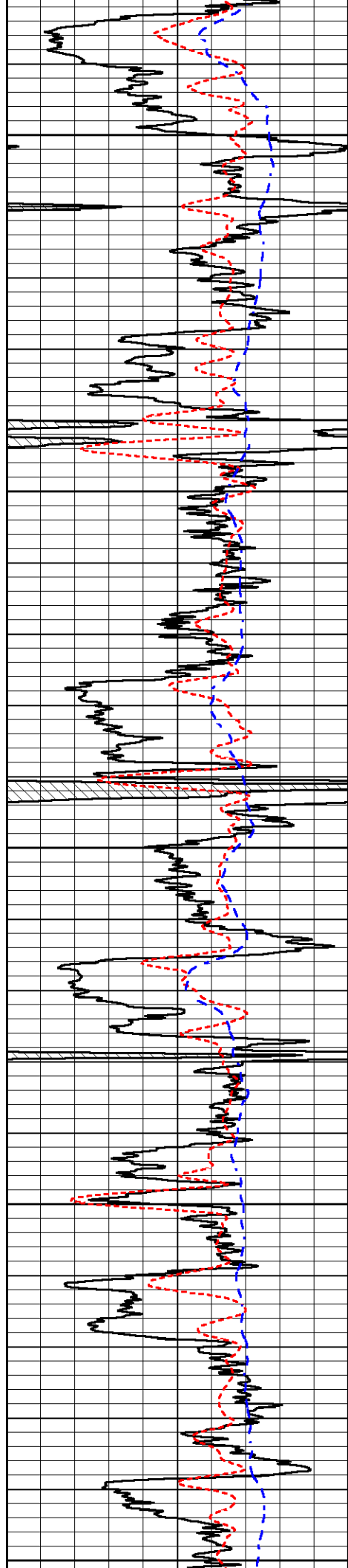
4000

4050

4100

4150





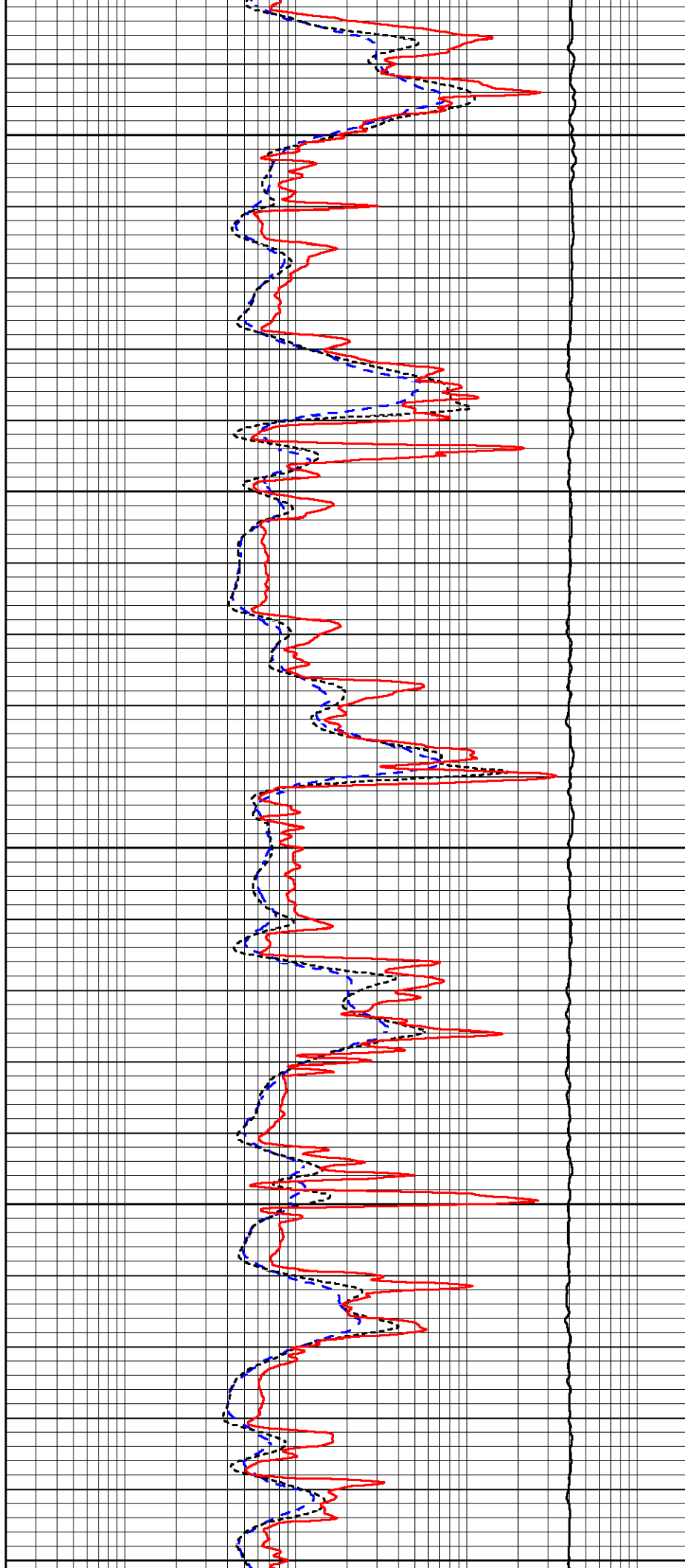
4200

4250

4300

4350

4400



0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXORT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0

Calibration Report	
Database File	murfin_jean a #2-7.db
Dataset Pathname	StkMI/pass3.1
Dataset Creation	Sun Jan 09 09:44:02 2022

Dual Induction Calibration Report

Serial-Model:	501 HT-M&W
Surface Cal Performed:	Mon Dec 20 13:26:03 2021

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.420	-33.500
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.300	-31.500

Microlog Calibration Report

Serial-Model:	402-PSIML
Performed:	Wed Jan 5 07:26:27 2022

Readings			References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	27000.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	23000.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-142.5500

Compensated Density Calibration Report
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Serial-Model:	305-05-M&W
Source #:	20762B
Master Calibration Performed:	Mon Dec 13 15:18:29 2021

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	8758.11	9709.36	cps
Aluminum	2.630	g/cc	1513.14	5652.54	cps
Spine Angle = 72.88			Density/Spine Ratio = 0.476		
	Size		Reading		
Small Ring	4.00	in	1.75		
Large Ring	14.00	in	1.38		

Compensated Neutron Calibration Report
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Serial-Model:	207-MW-M&W
Source #:	100046B

Source #:
Master Calibration Performed:

100040B
Mon Nov 29 15:06:24 2021

Master Calibration

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number:	101	
Tool Model:	M&W	
Performed:	Fri Dec 3 15:10:46 2021	
Calibrator Value:	500.0	GAPI
Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.5500	GAPI/cps



Company	Murfin Drilling Company, Inc.
Well	Jean A #2-7
Field	Wildcat
County	Cheyenne
State	Kansas