



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company: Murfin Drilling Company, Inc.
 Well: Carolyn A #4-24
 Field: Unnamed
 County: Cheyenne
 State: Kansas

Company: Murfin Drilling Company, Inc.
 Well: Carolyn A #4-24
 Field: Unnamed
 County: Cheyenne
 State: Kansas

Location: API #: 15-023-21568-00-00
 500 FSL & 2090 FEL
 SEC 24 TWP 1S RGE 37W
 Permanent Datum: Ground Level Elevation 3344
 Log Measured From: Kelly Bushing
 Drilling Measured From: Kelly Bushing
 Other Services: CNL/CDL MEL/BHCS
 Elevation: K.B. 3349 D.F. G.L. 3344

Date	3/19/2022	
Run Number	One	
Depth Driller	5094	
Depth Logger	5094	
Bottom Logged Interval	5093	
Top Log Interval	00	
Casing Driller	8.625 @ 350	
Casing Logger	344	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	900	
Density / Viscosity	9.2	54
pH / Fluid Loss	10.5	6.8
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	1.1 @ 62	
Rmt @ Meas. Temp	0.83 @ 62	
Rmc @ Meas. Temp	1.49 @ 62	
Source of Rmf / Rmc	CHARTS	
Rm @ BHT	0.54 @ 127	
Operating Rig Time	5.5 Hours	
Max Rec. Temp. F	127	
Equipment Number	P-108	
Location	HAYS	
Recorded By	T. Martin	
Witnessed By	Robert Hendrix	

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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.

McDonald, KS, 2 W to Co Ln, 10.5 N,
 1/2 W, 1/2 N, N and E to TB, N & W into

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: Robert Hendrix
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (303-03)	8.50	4.00	250.00
ML-PSI STKBL ML (402)			ML-PSI STKBL ML (402)	7.58	4.00	65.00
MCAL	19.58					
MI MN	19.58 19.58					
RLL3F RLL3	15.50 15.50					
DIL-M&W (504 HT)			DIL-M&W (504 HT)	18.25	3.50	220.00
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: murfin_carolyn a #4-24.db: field/well/StkMI/pass4.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_carolyn a #4-24.db
 Dataset field/well/StkMI/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	127	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	460	70	Off	5094

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

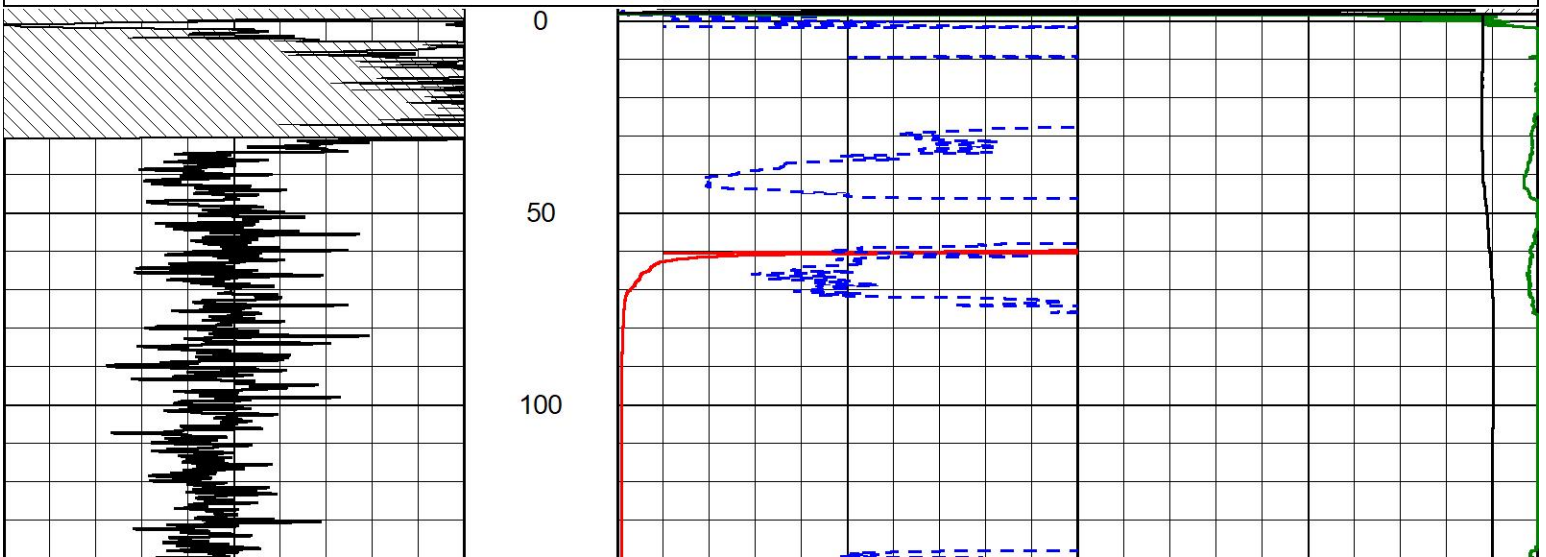


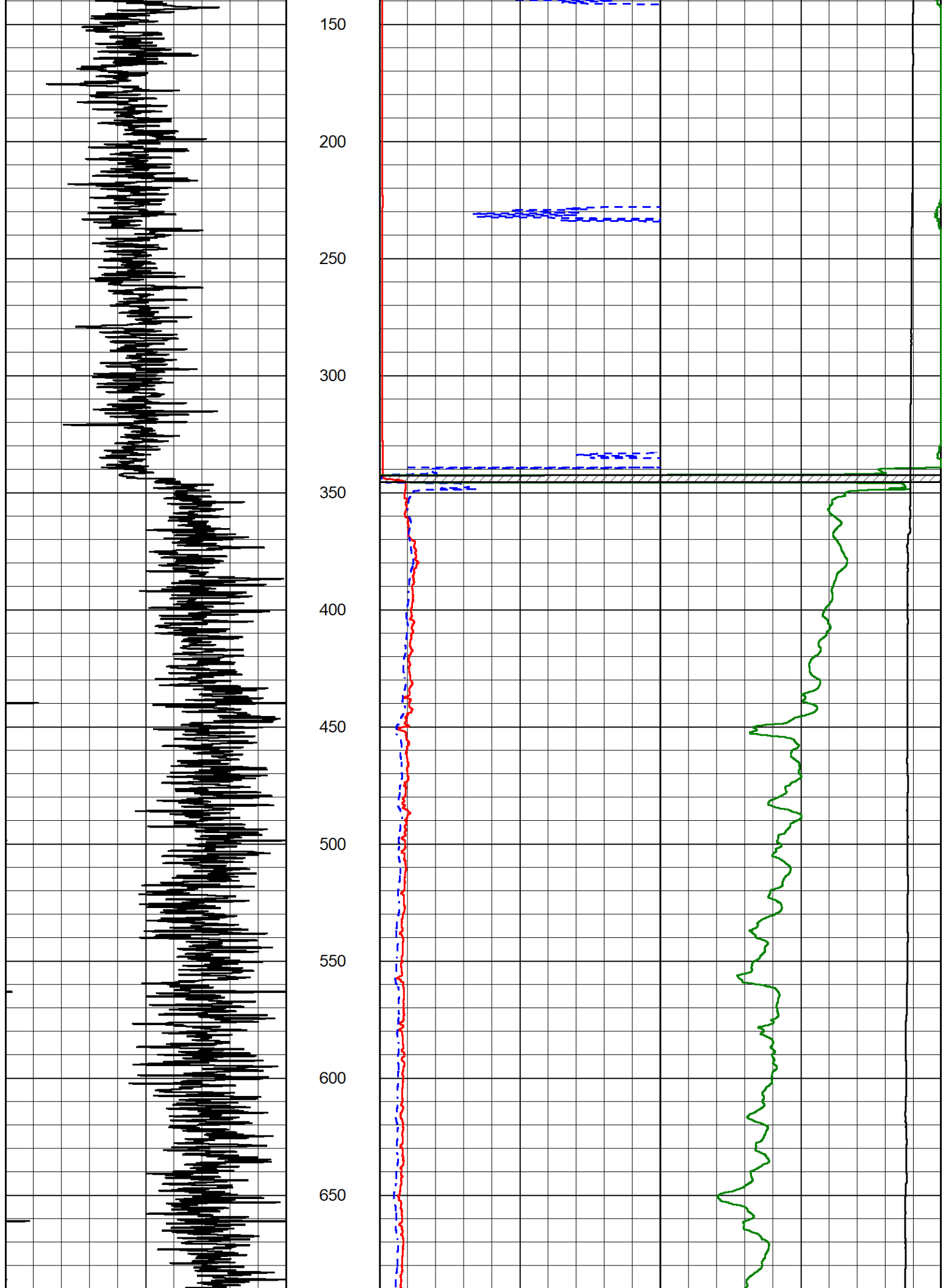
2" SCALE RESISTIVITY

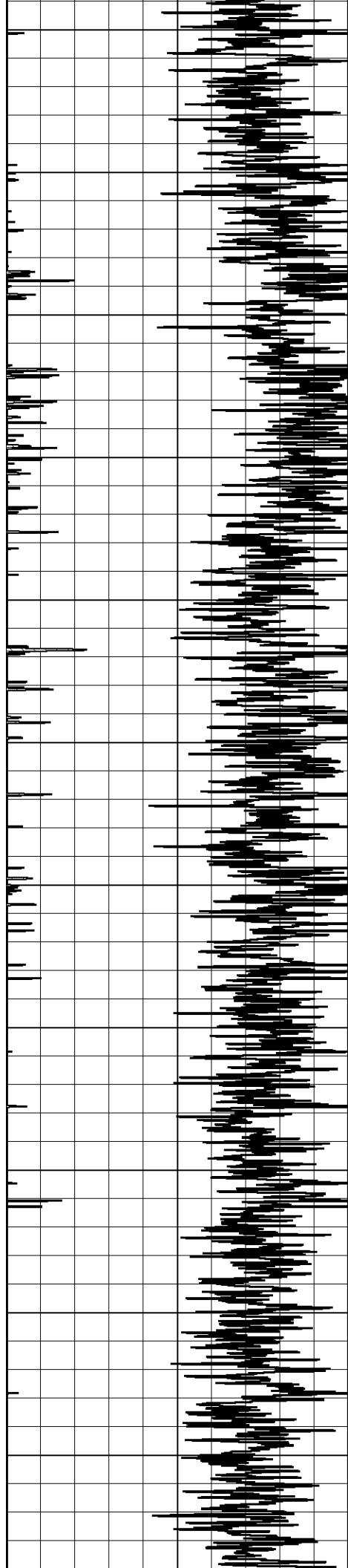
MAIN PASS

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 Presentation Format _dil2in
 Dataset Creation Sat Mar 19 19:03:33 2022
 Charted by Depth in Feet scaled 1:600

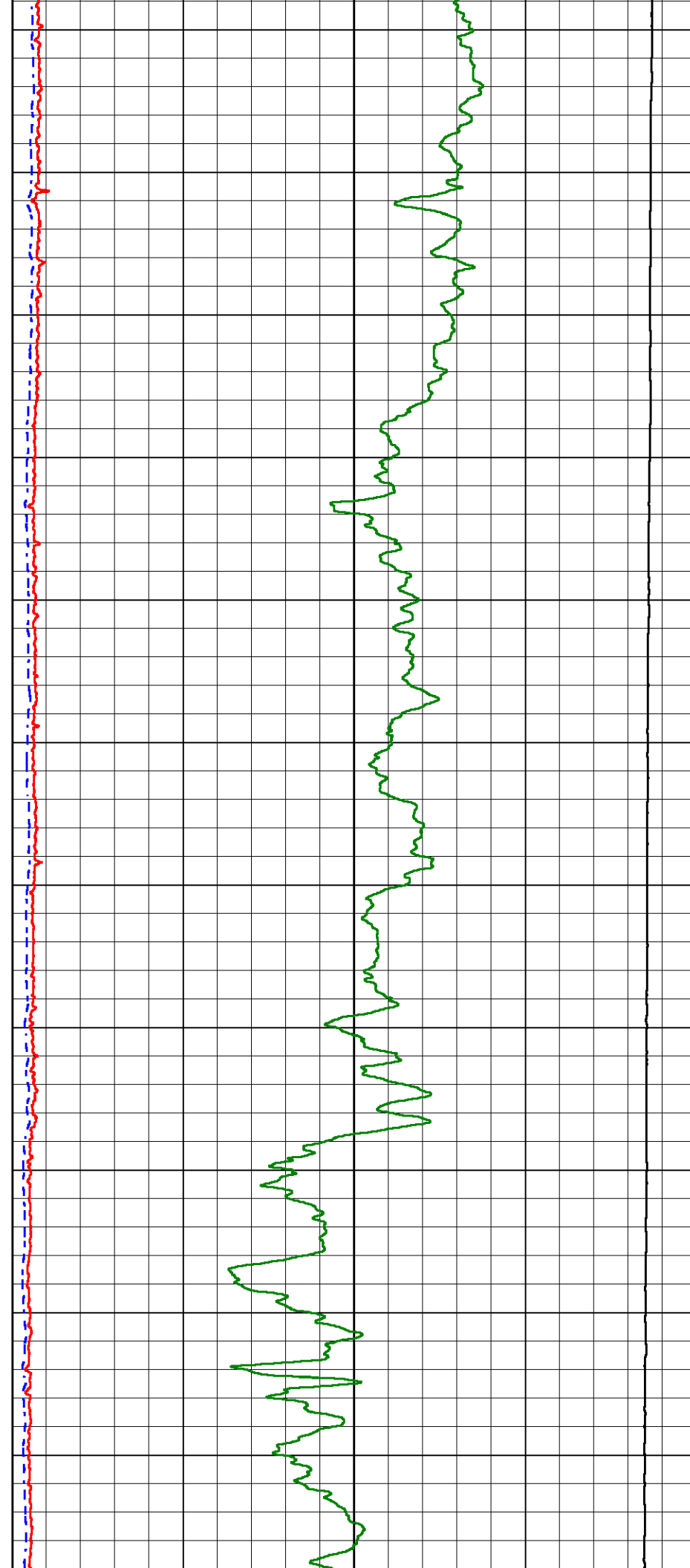
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			15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50			
0	Deep Resistivity (Ohm-m)	50			
	Shallow Resistivity				
50	(Ohm-m)	200			
50	Deep Resistivity (Ohm-m)	200			

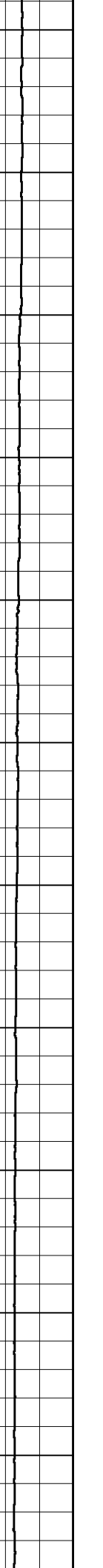
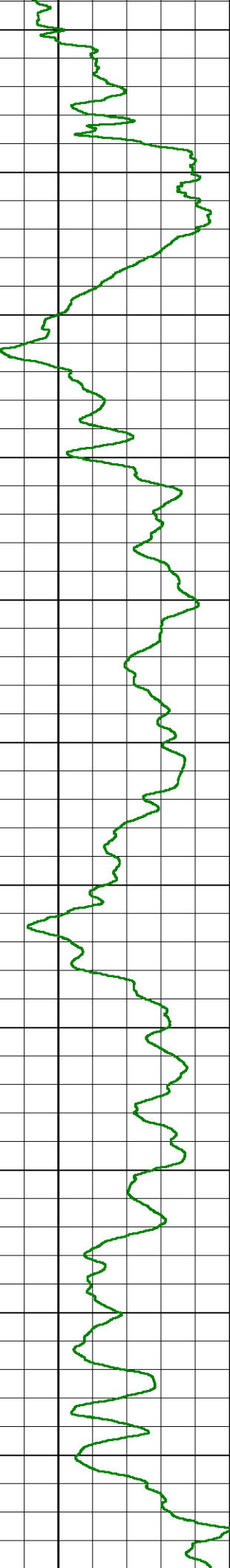
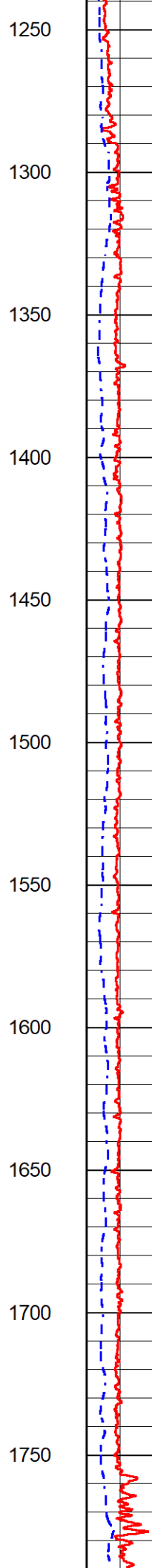
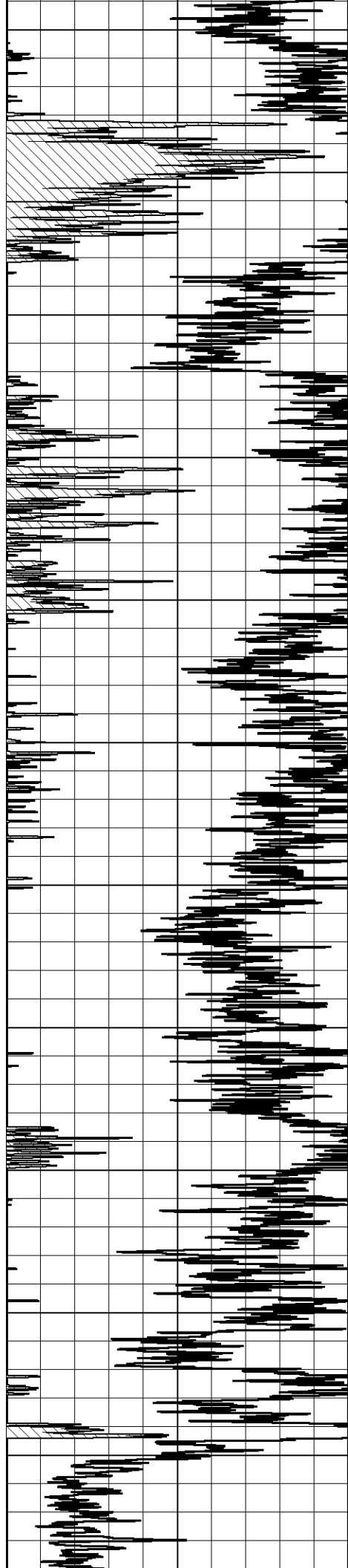


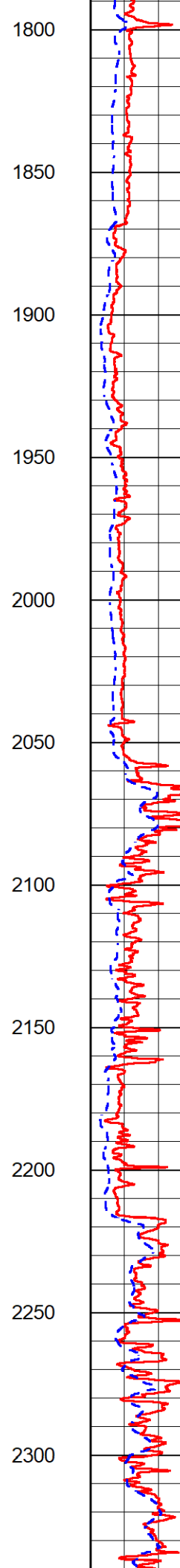
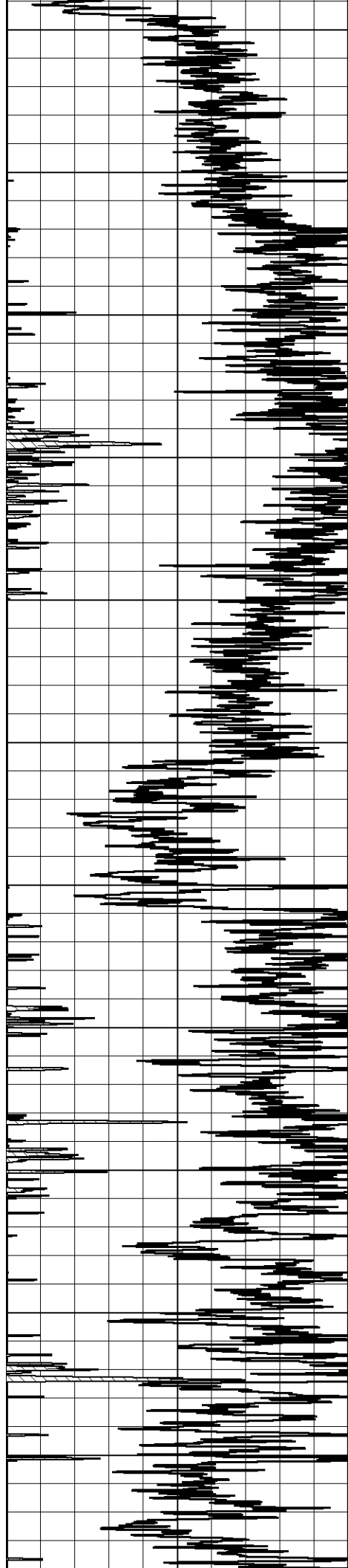


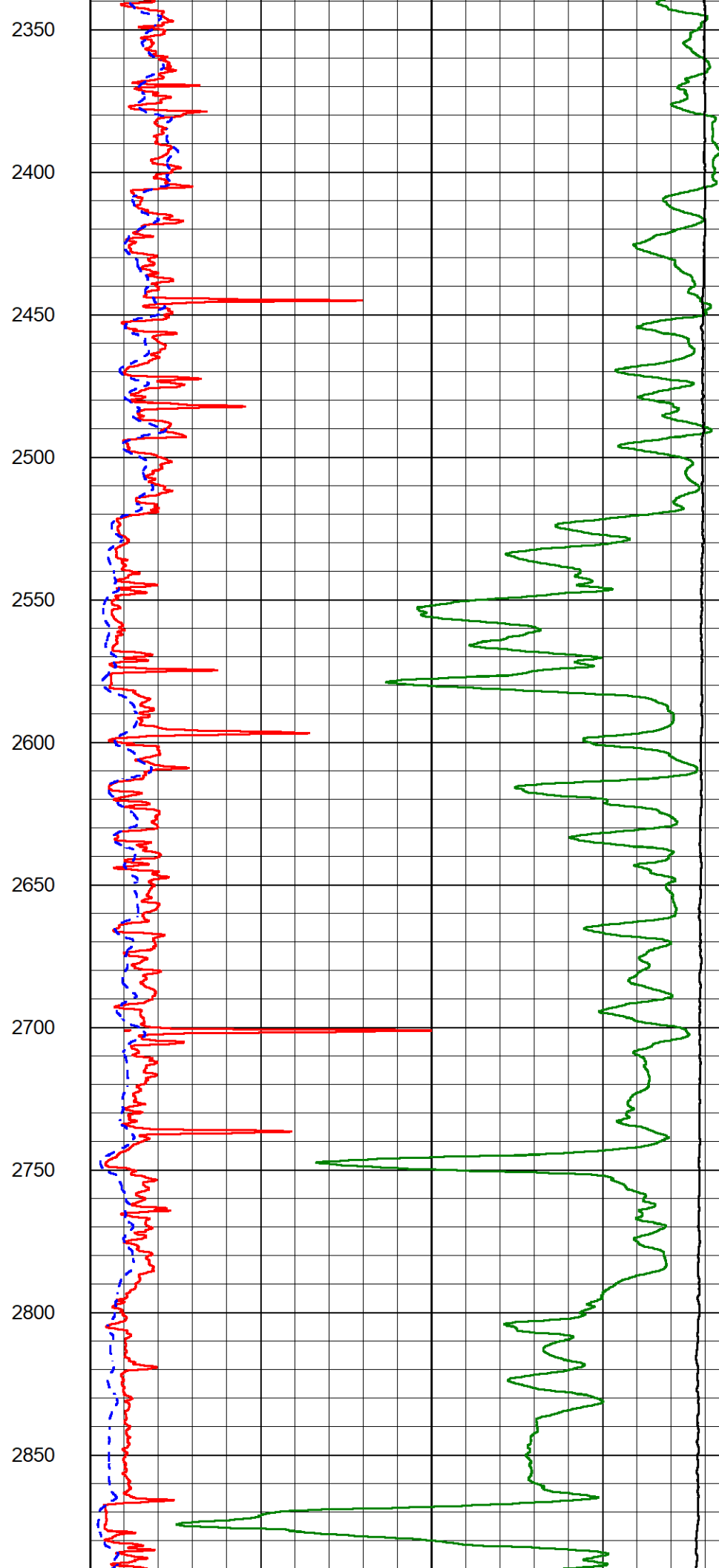
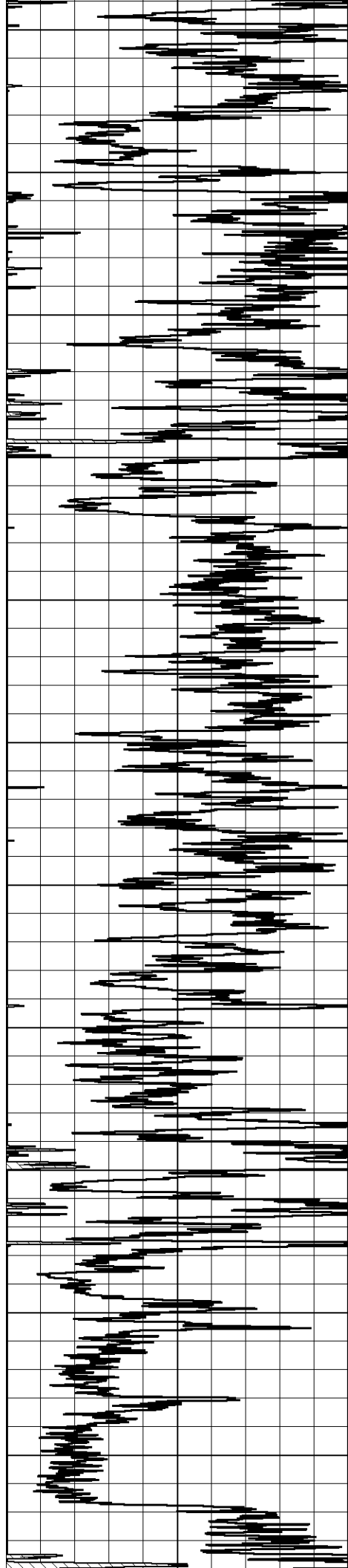


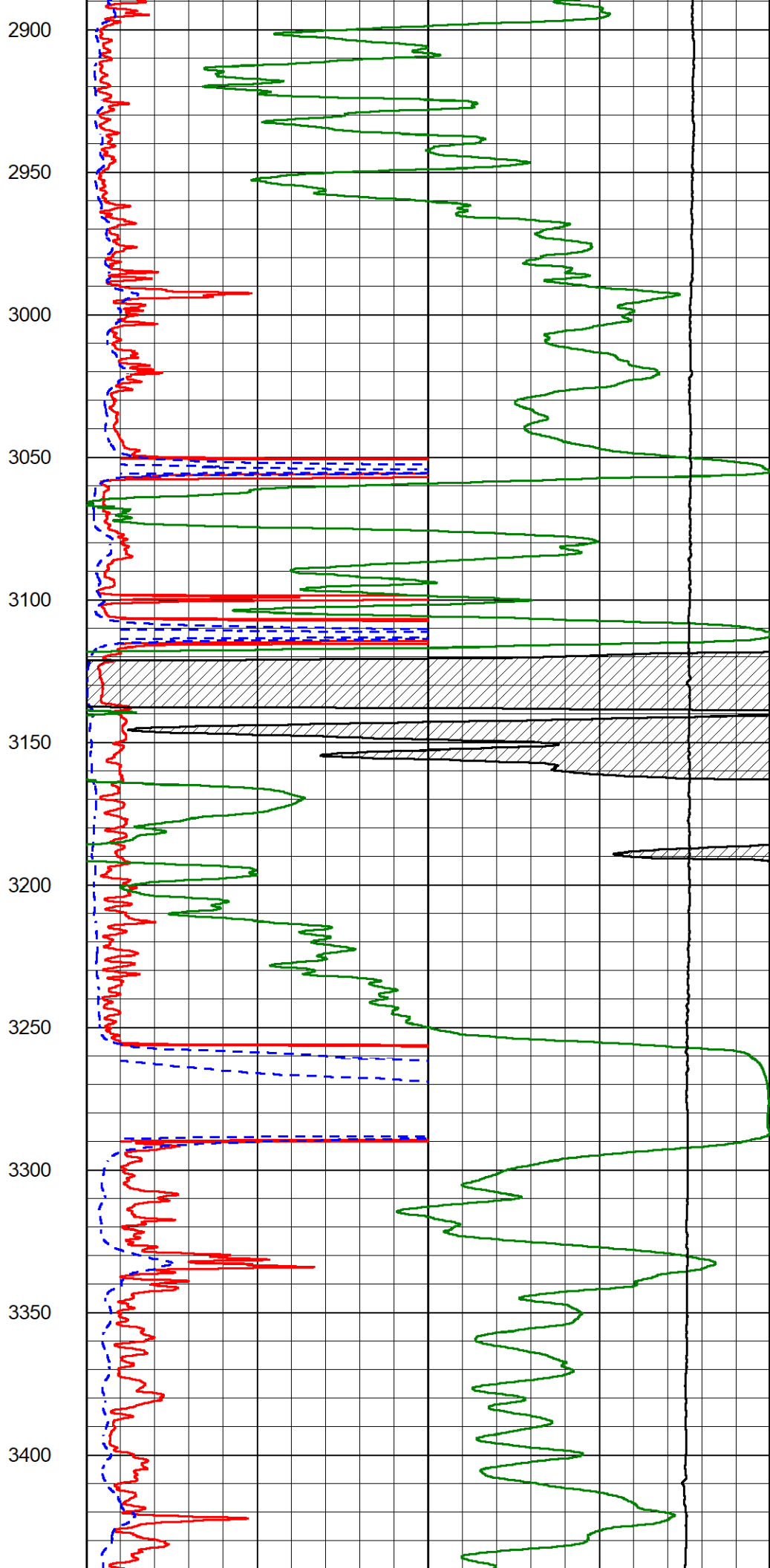
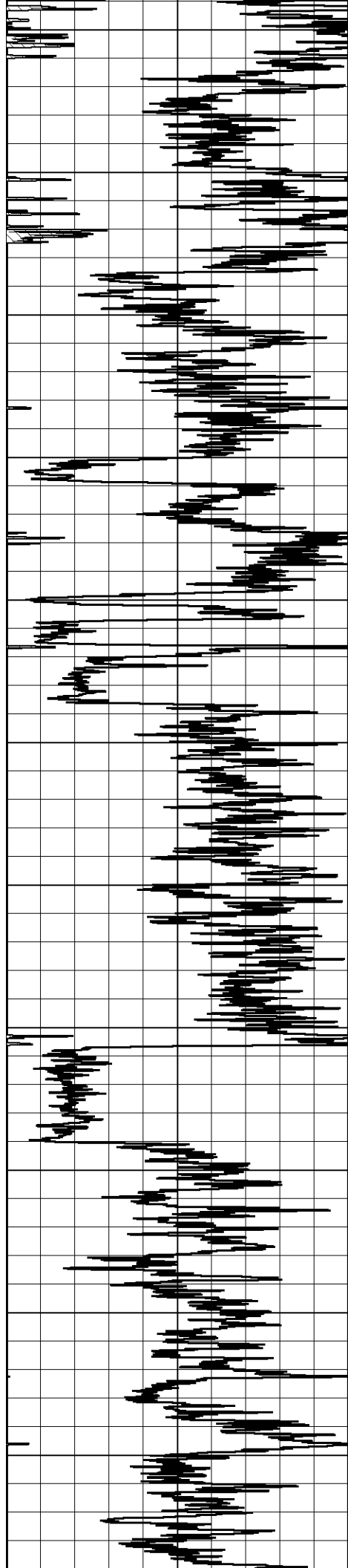
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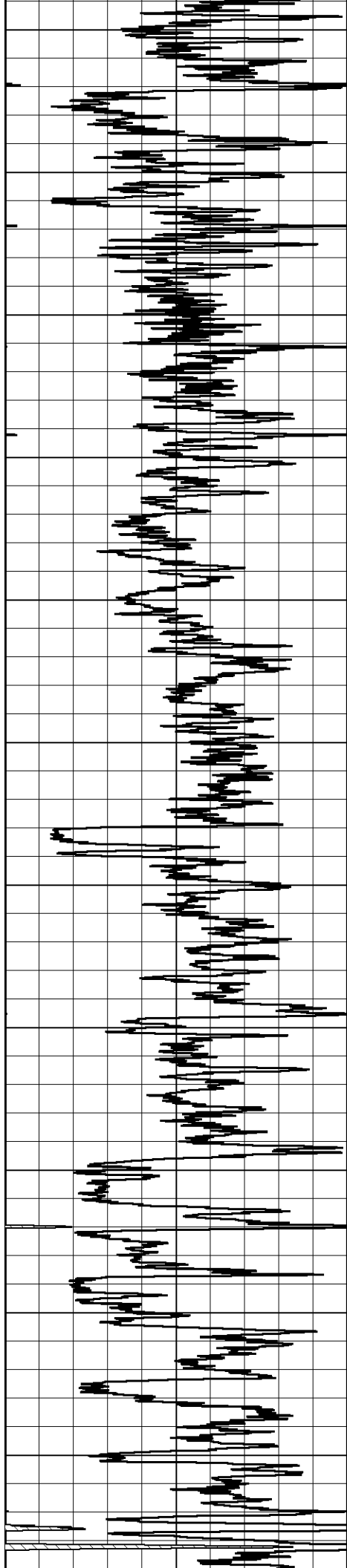




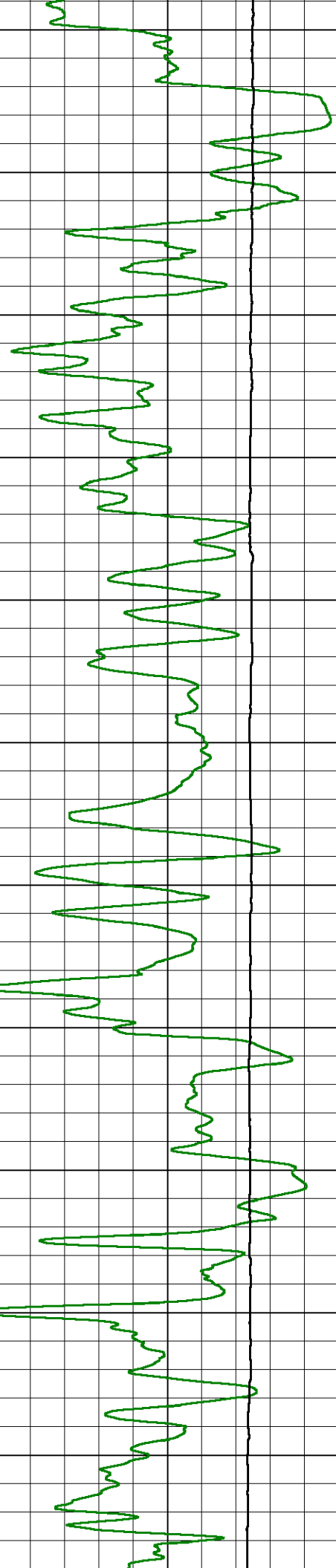
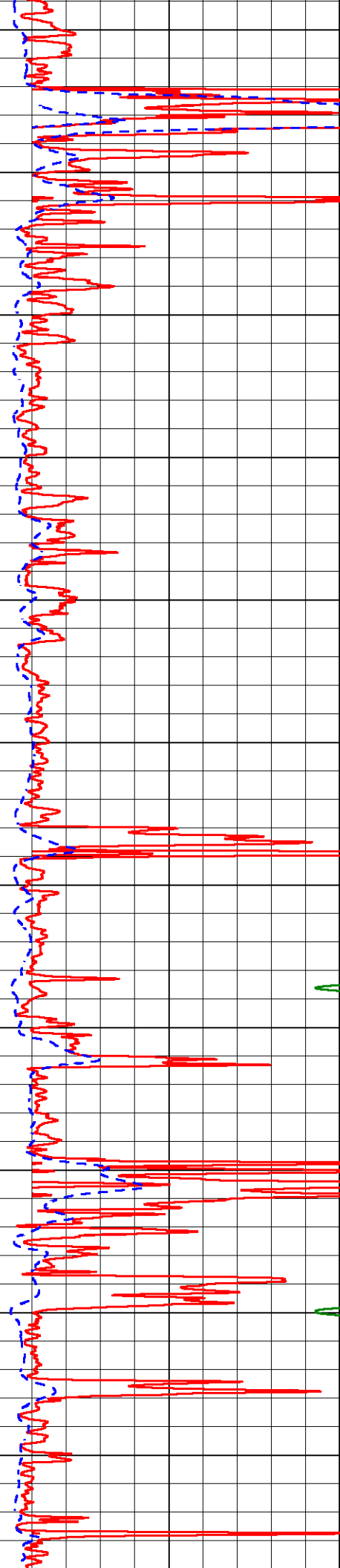


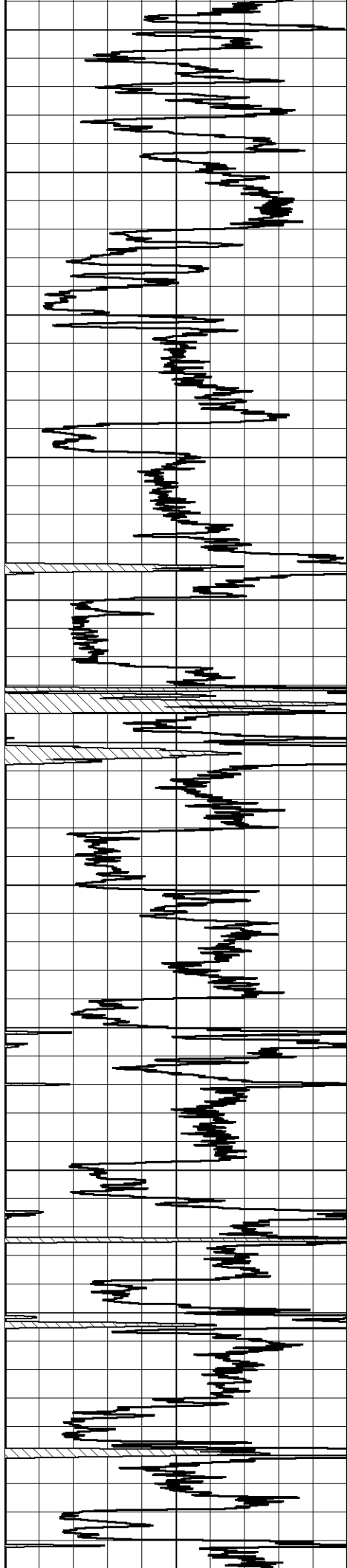




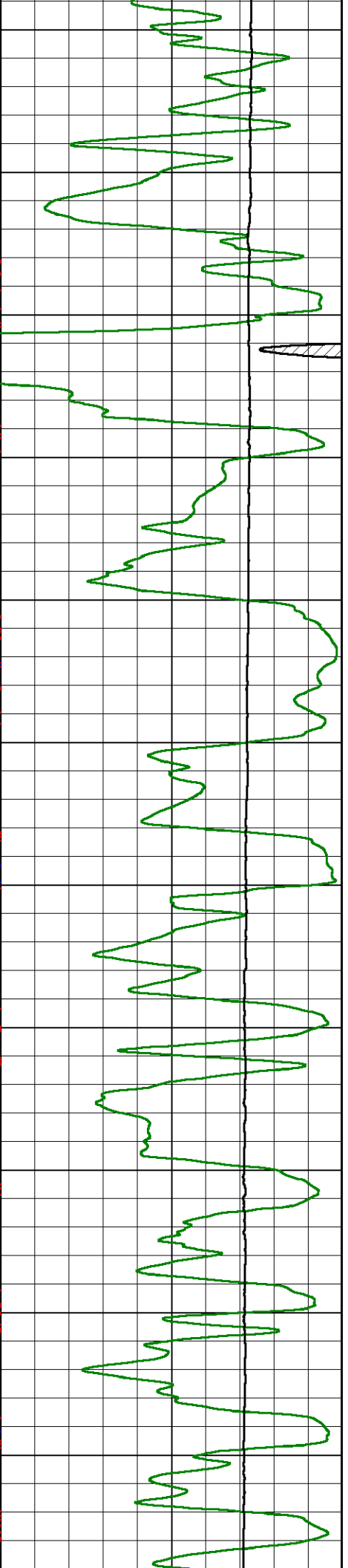
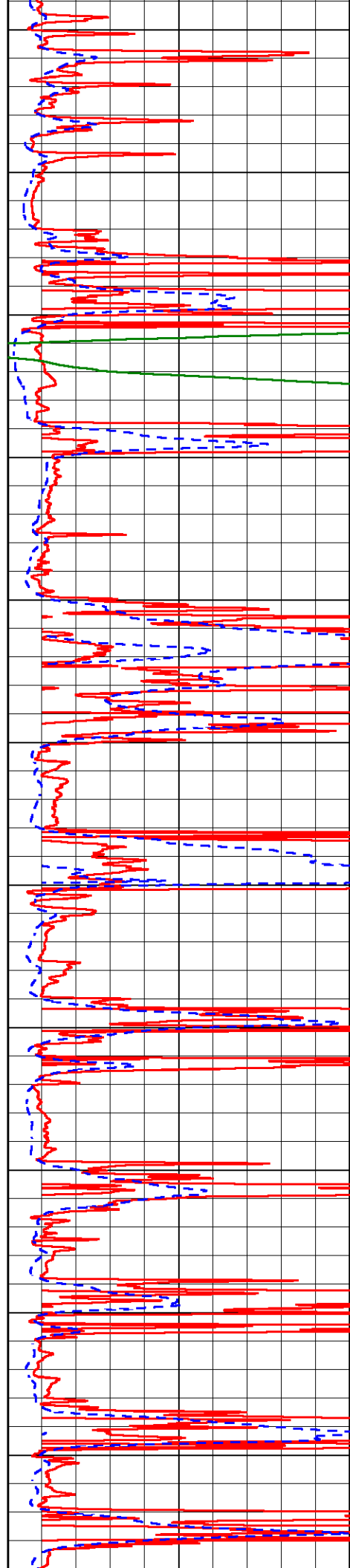


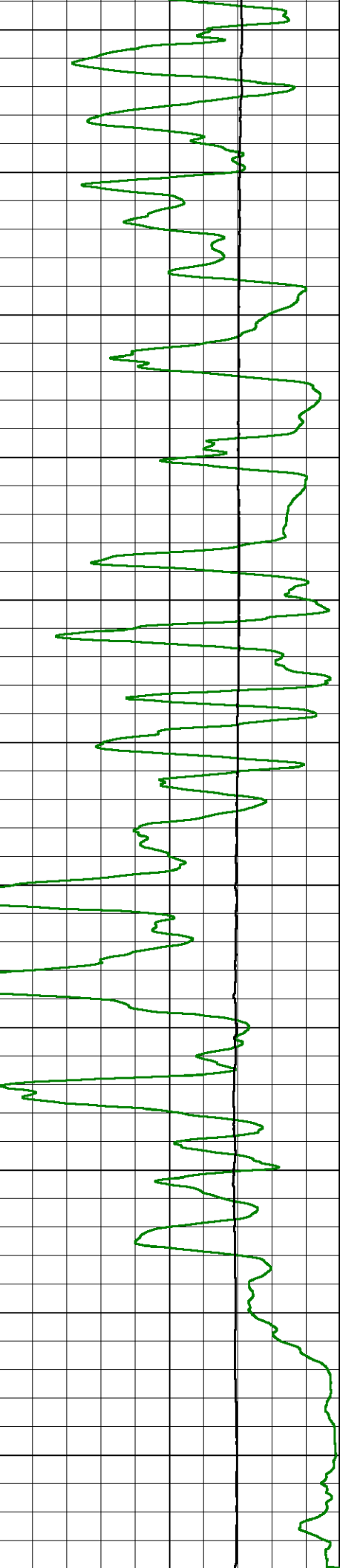
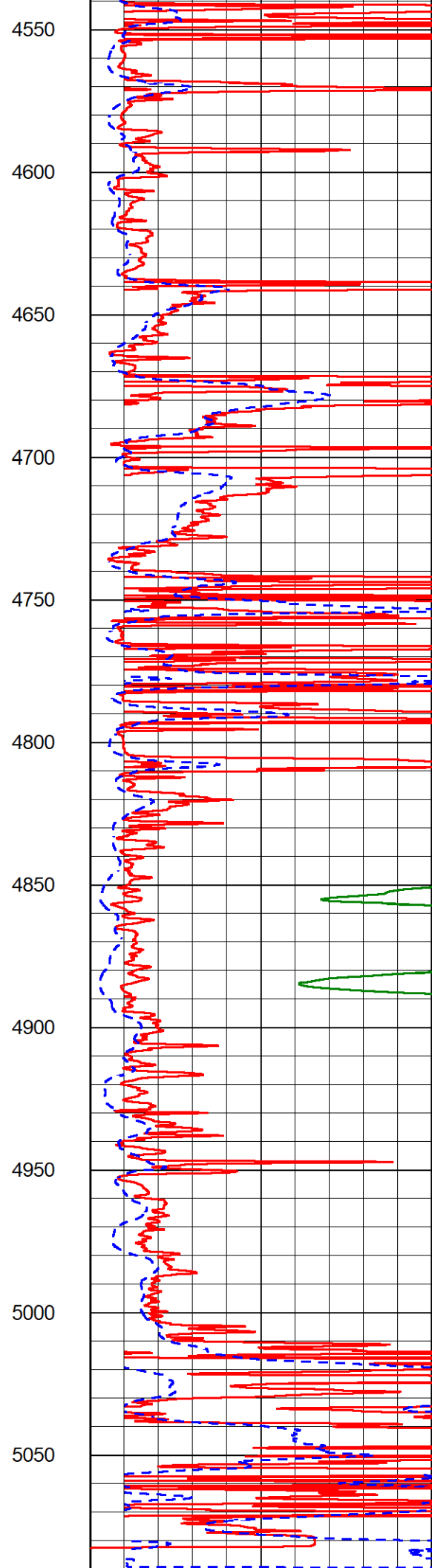
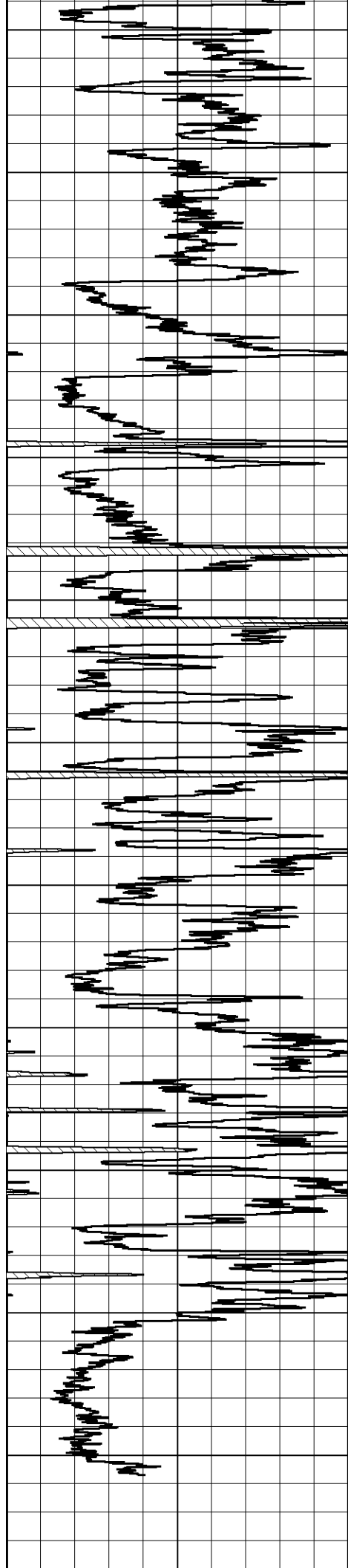
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4000
4050
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4200
4250
4300
4350
4400
4450
4500





0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
			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			



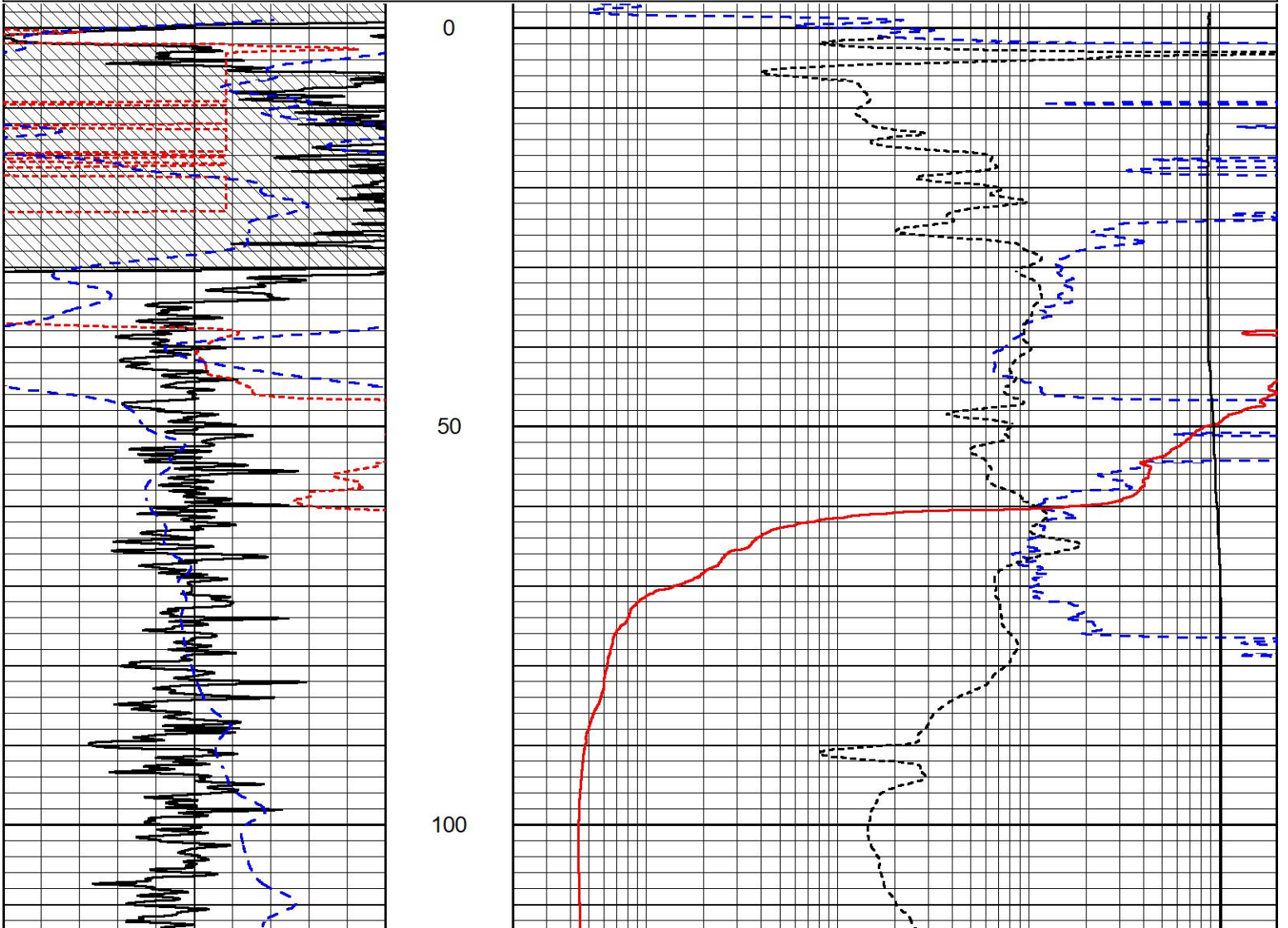
MIDWEST WIRELINE

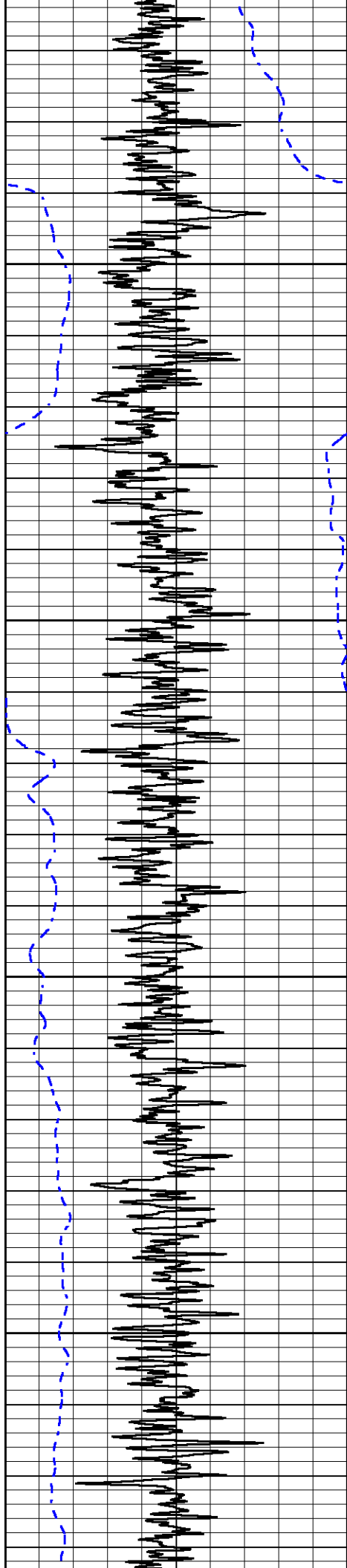
DETAIL SECTION

MAIN PASS

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 Dataset Pathname StkMI/pass4.1
 Presentation Format _dil
 Dataset Creation Sat Mar 19 19:04:42 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



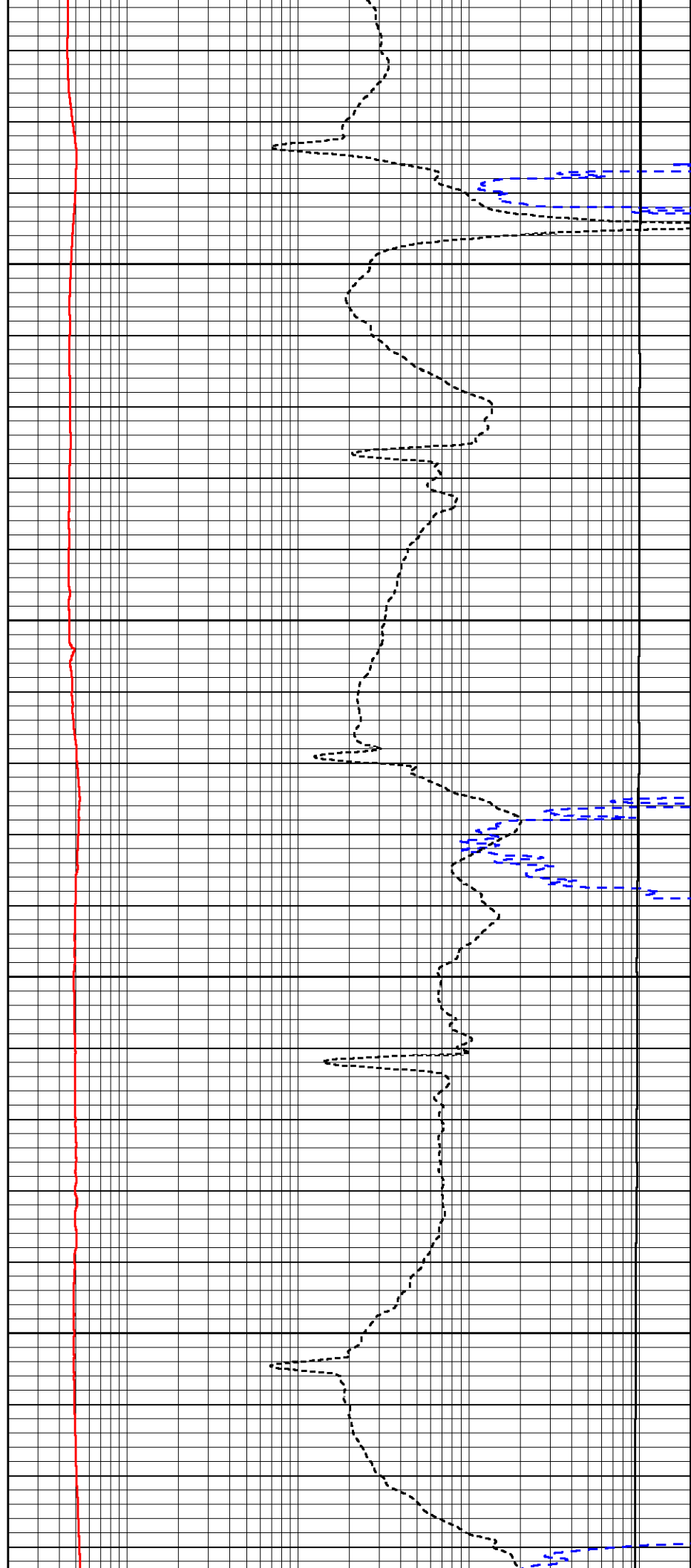


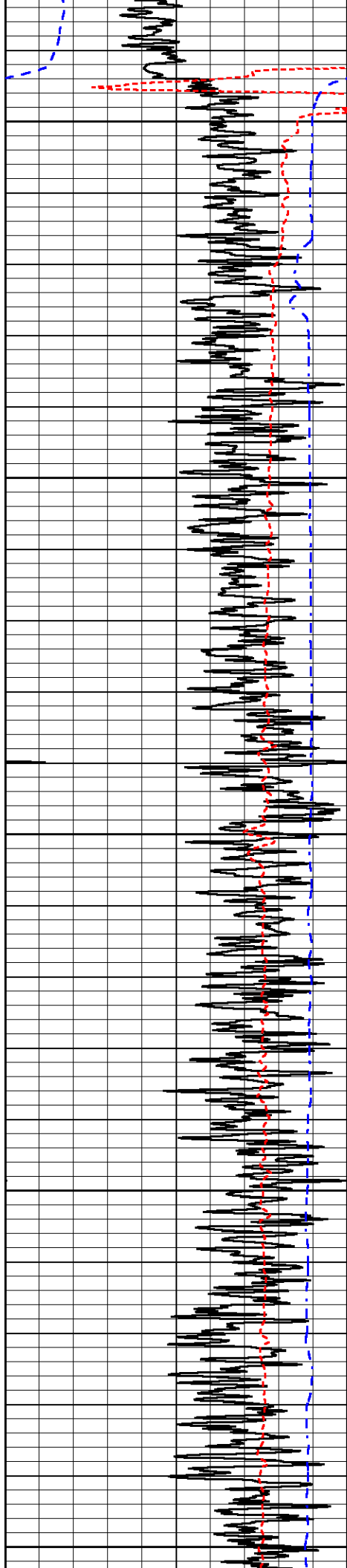
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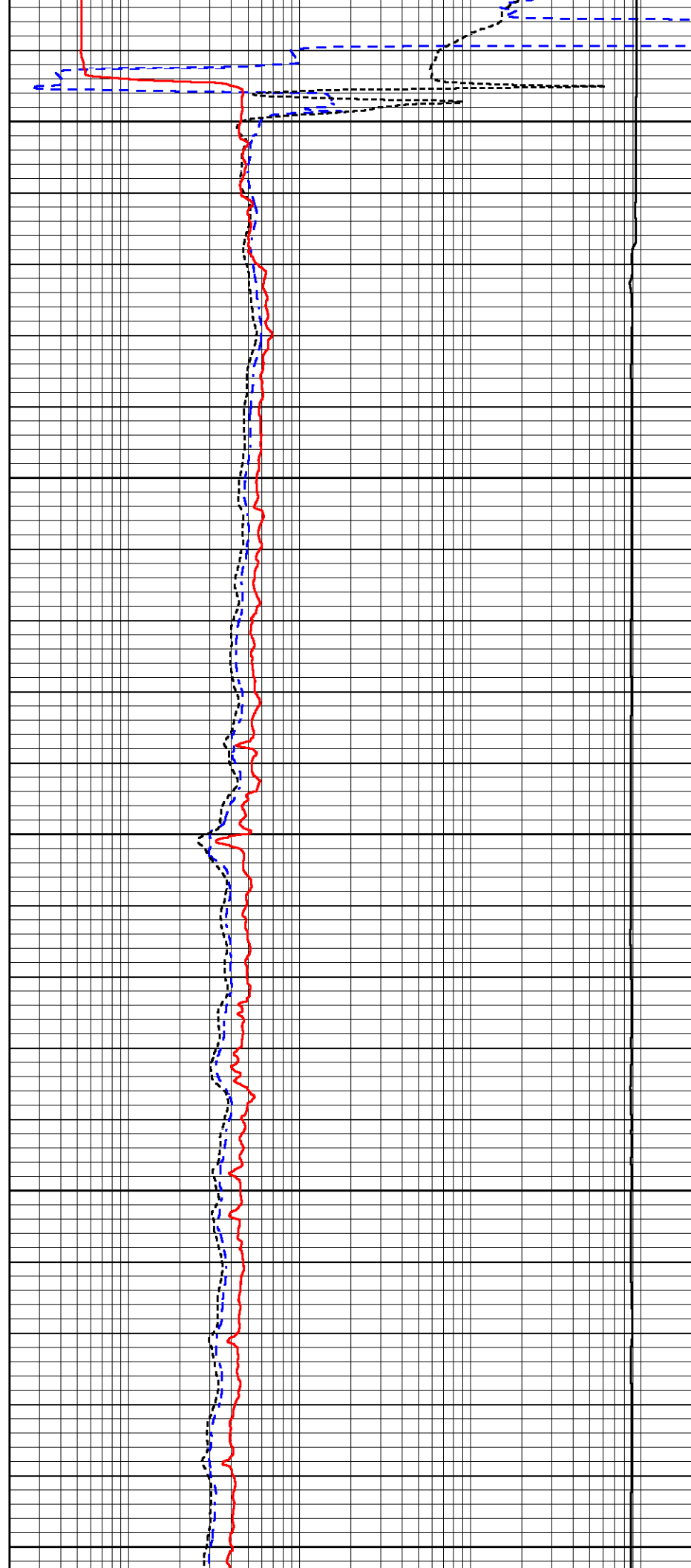
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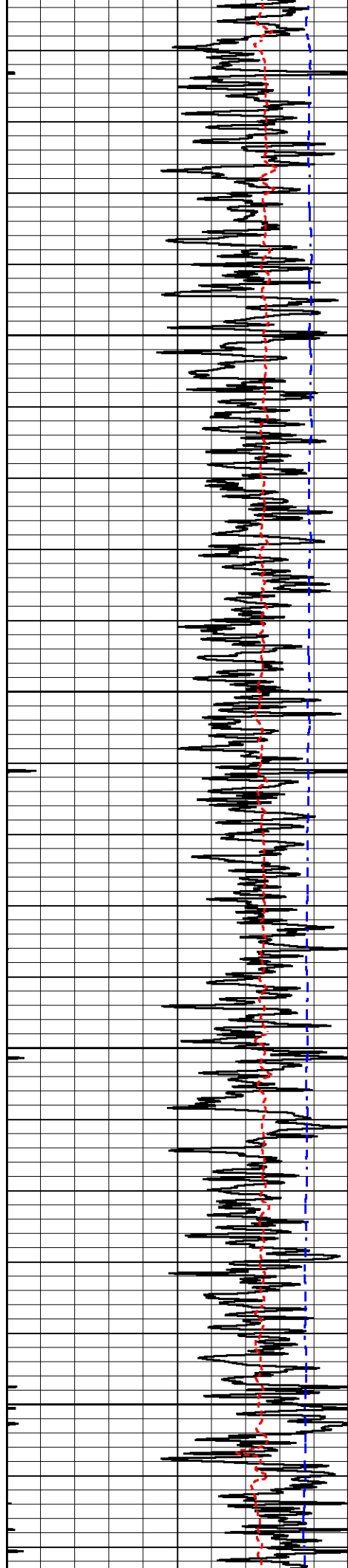
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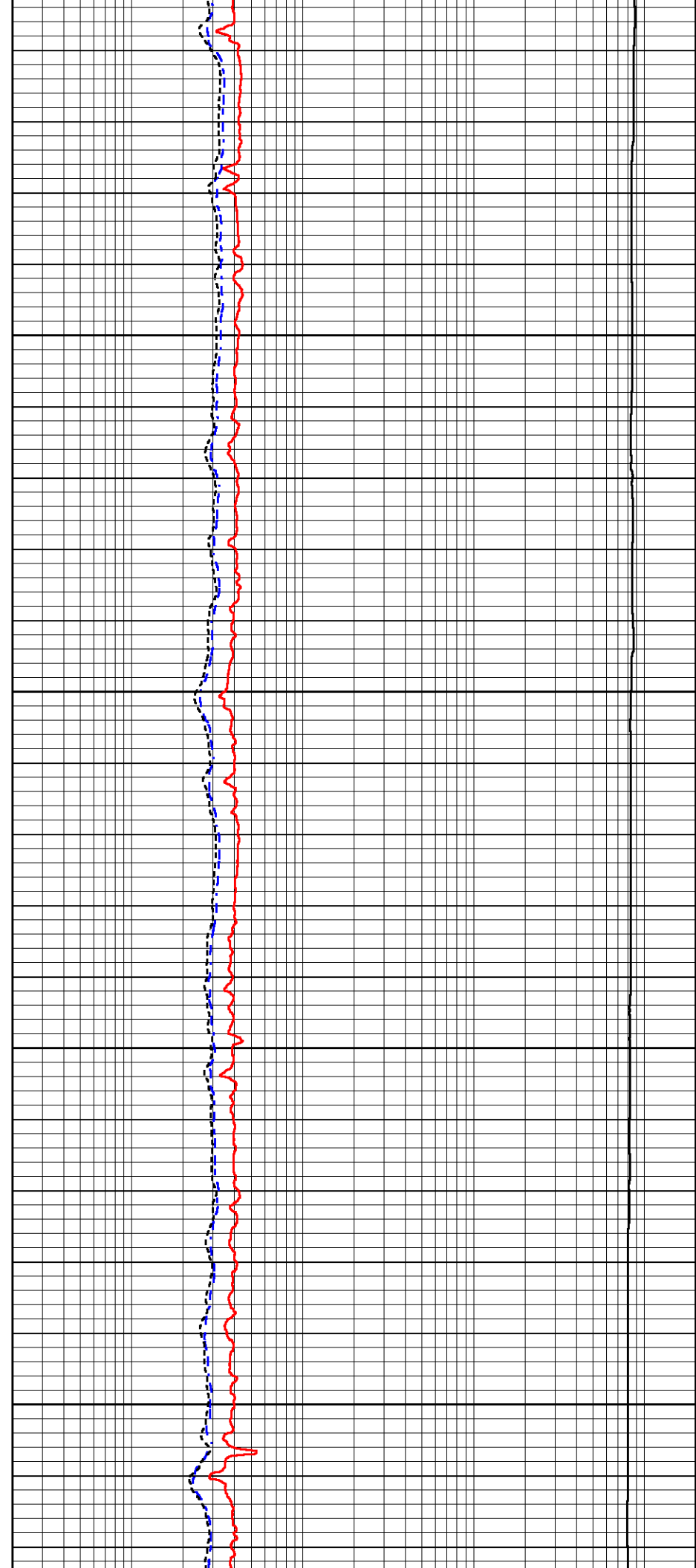


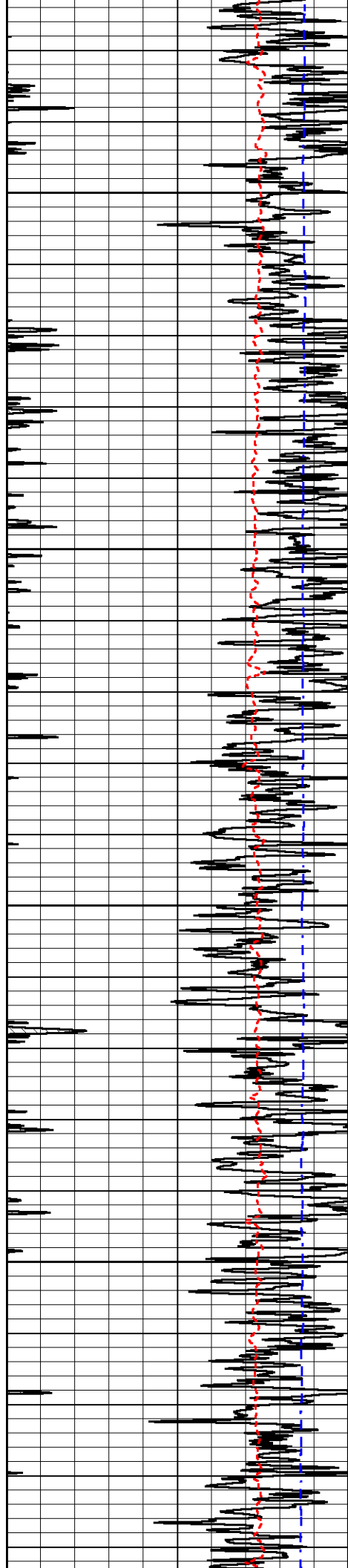
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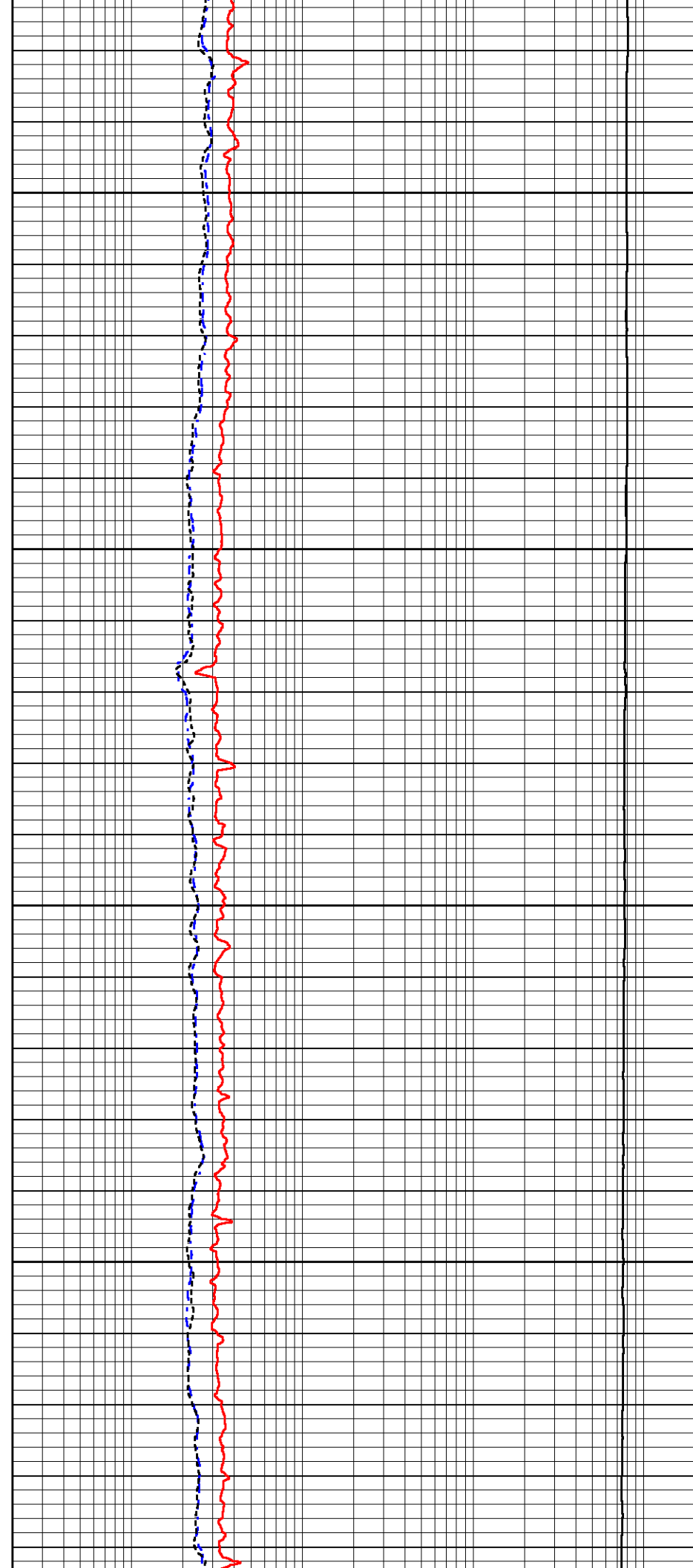


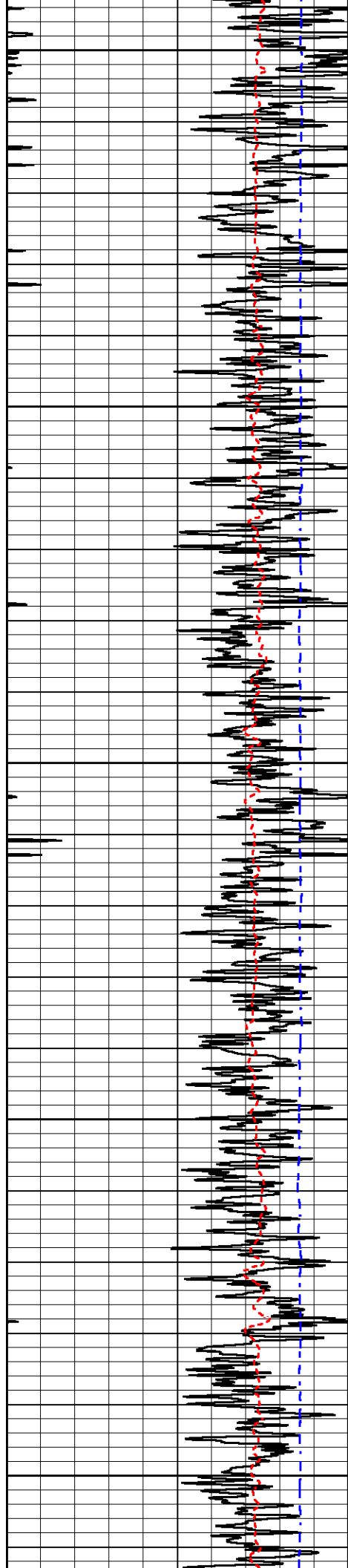
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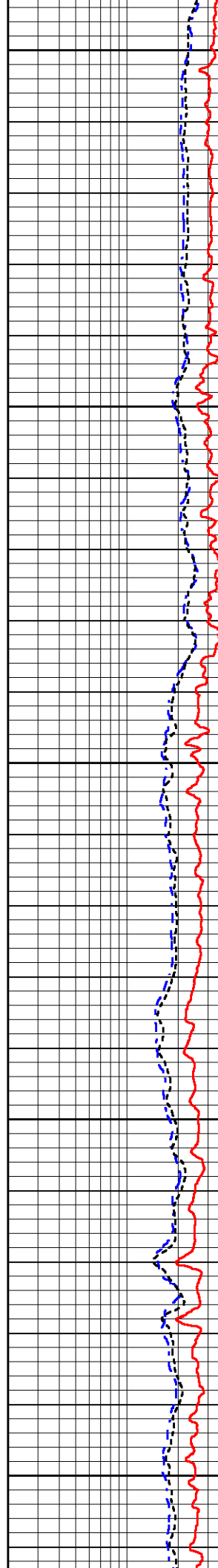
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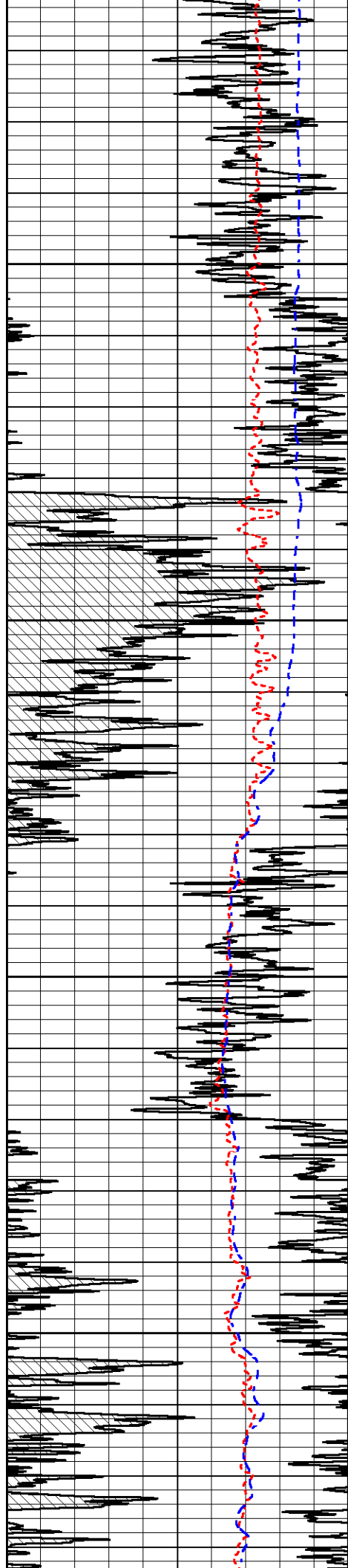
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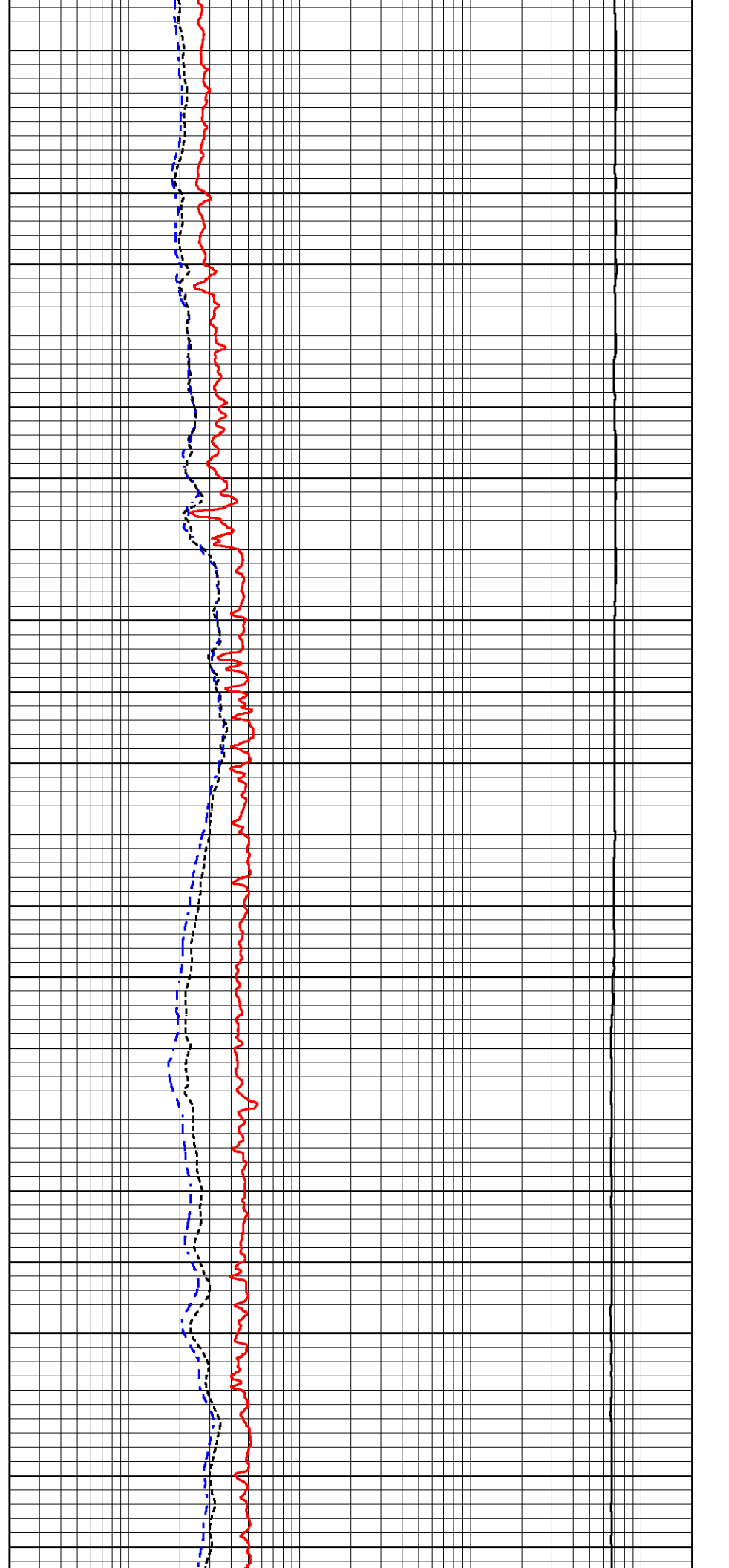


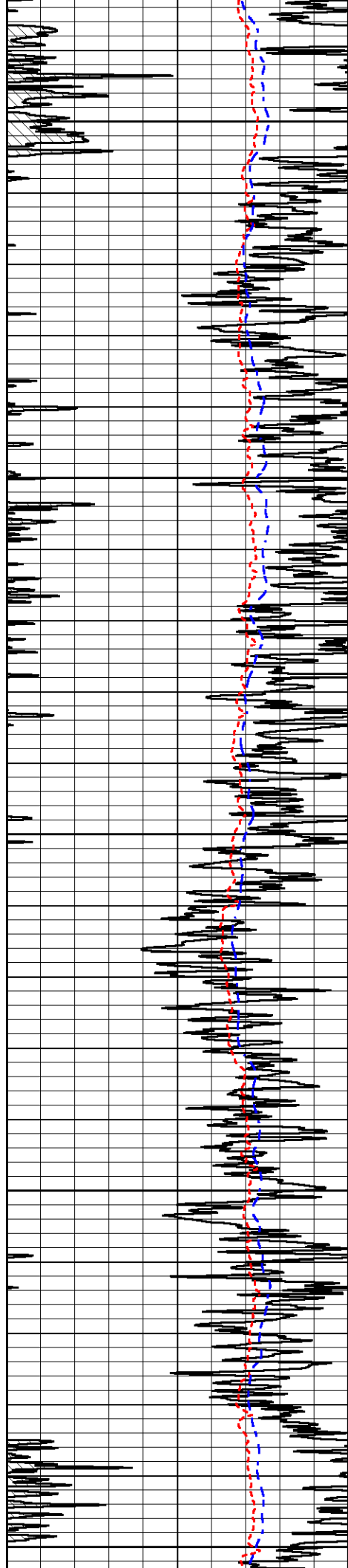
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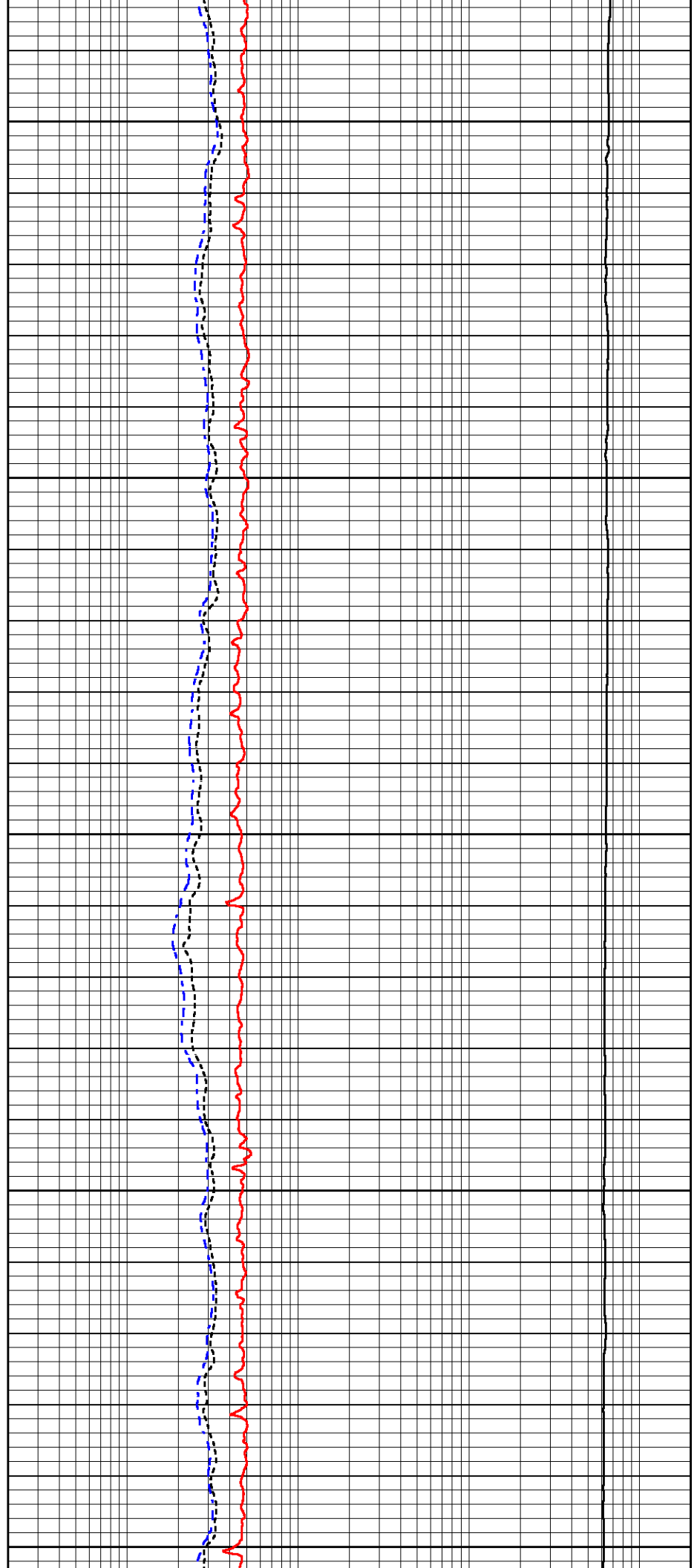
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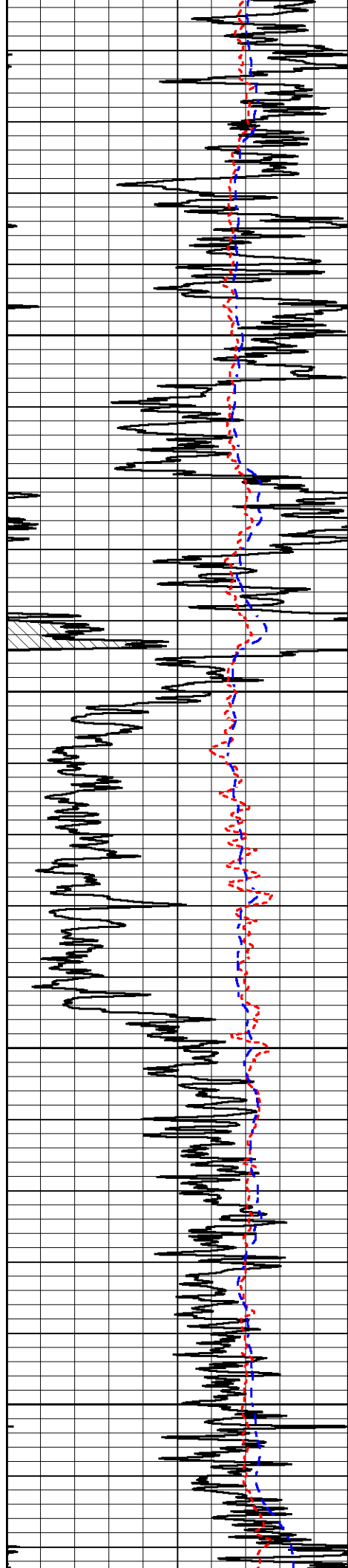
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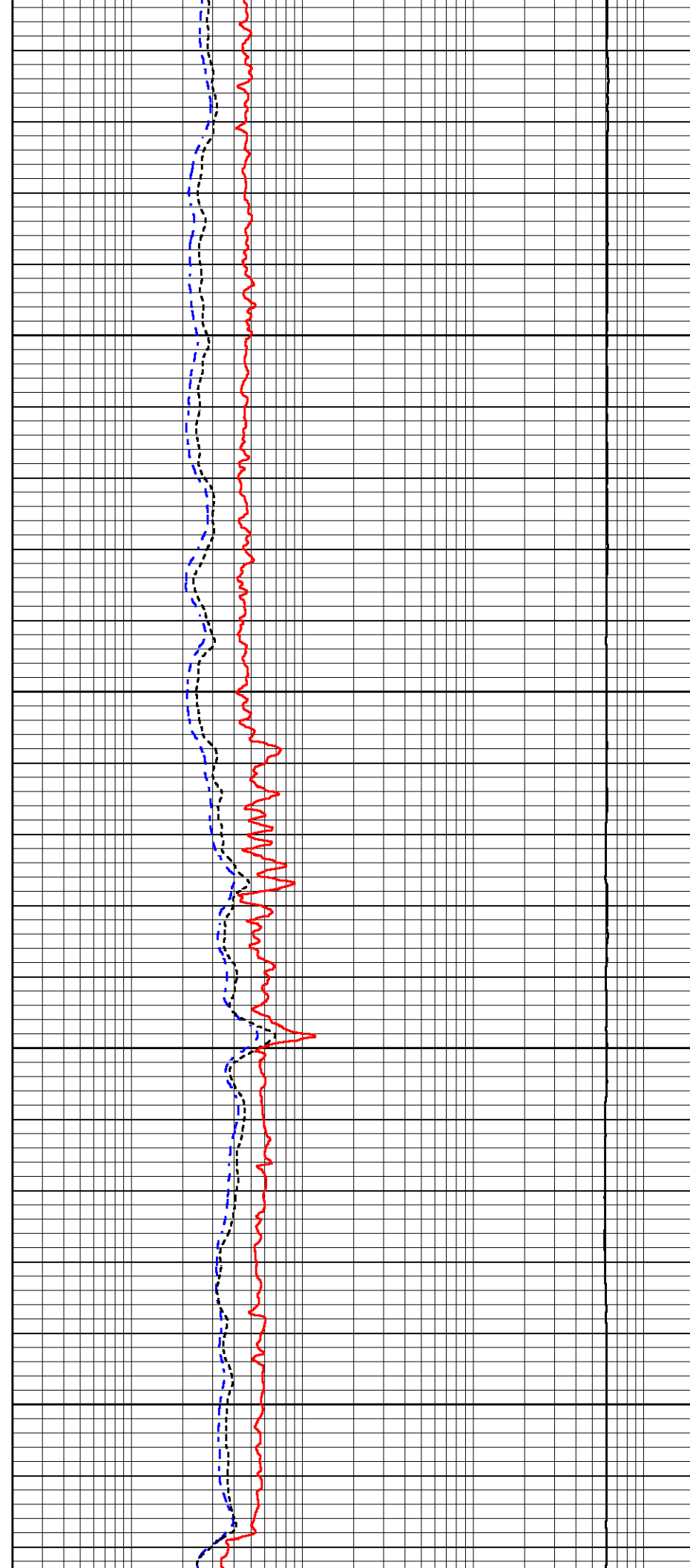


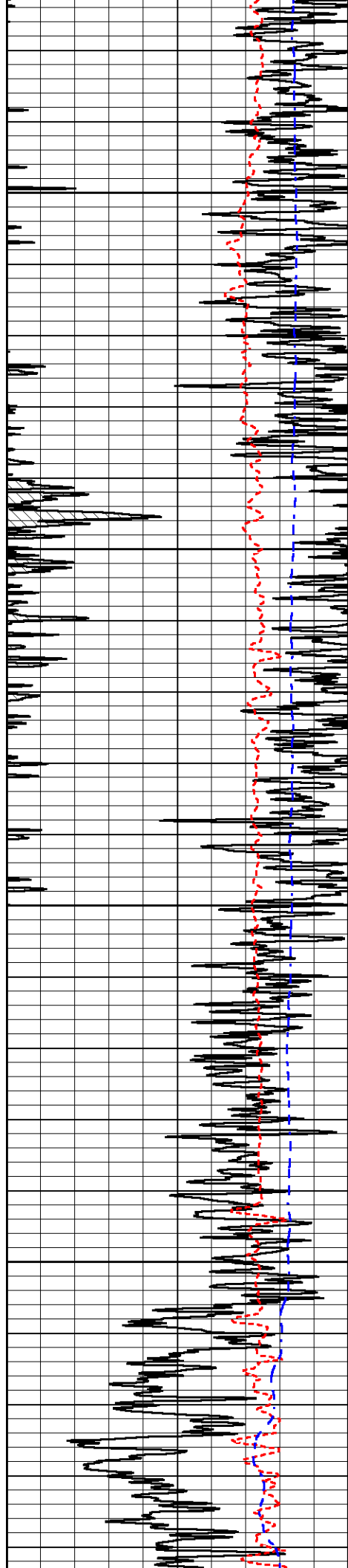
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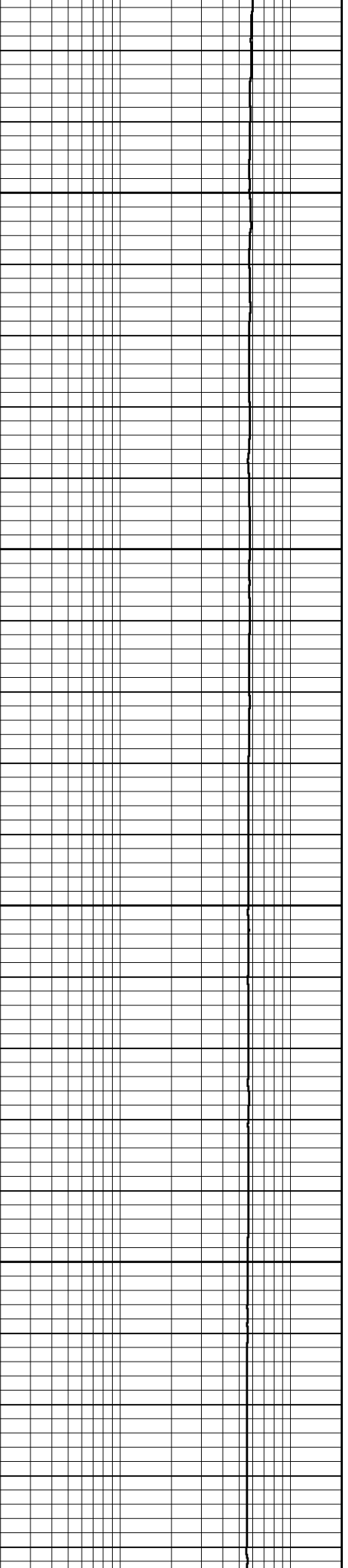
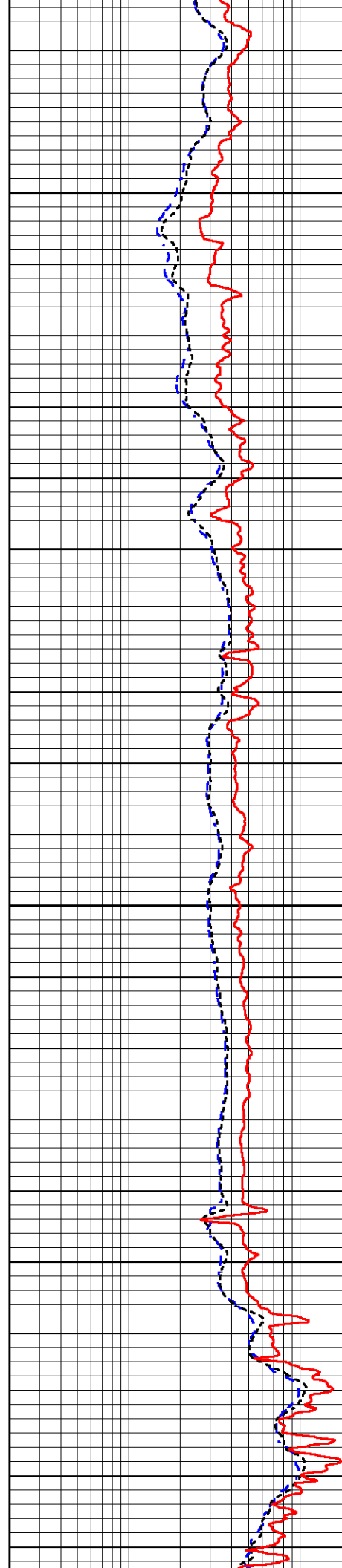


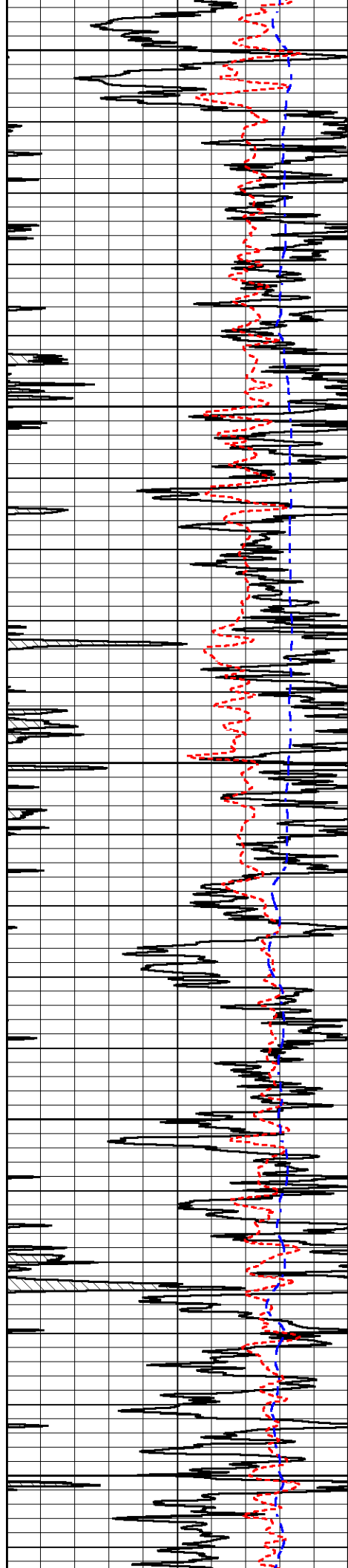
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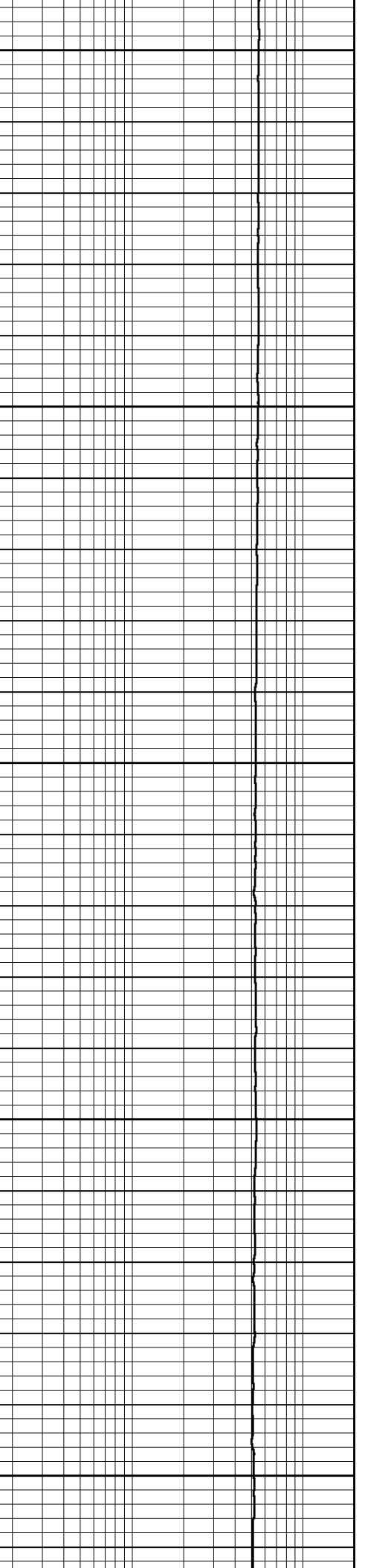
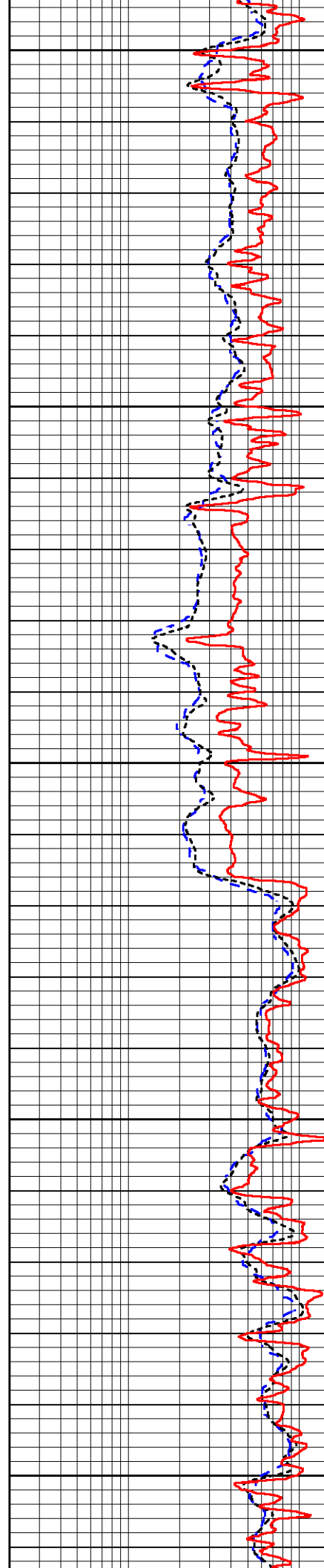
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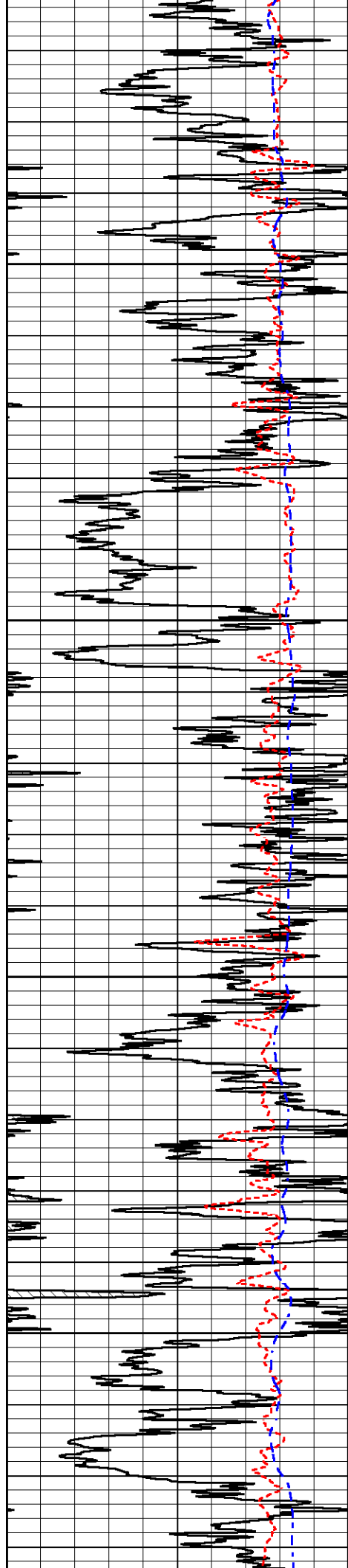
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2300



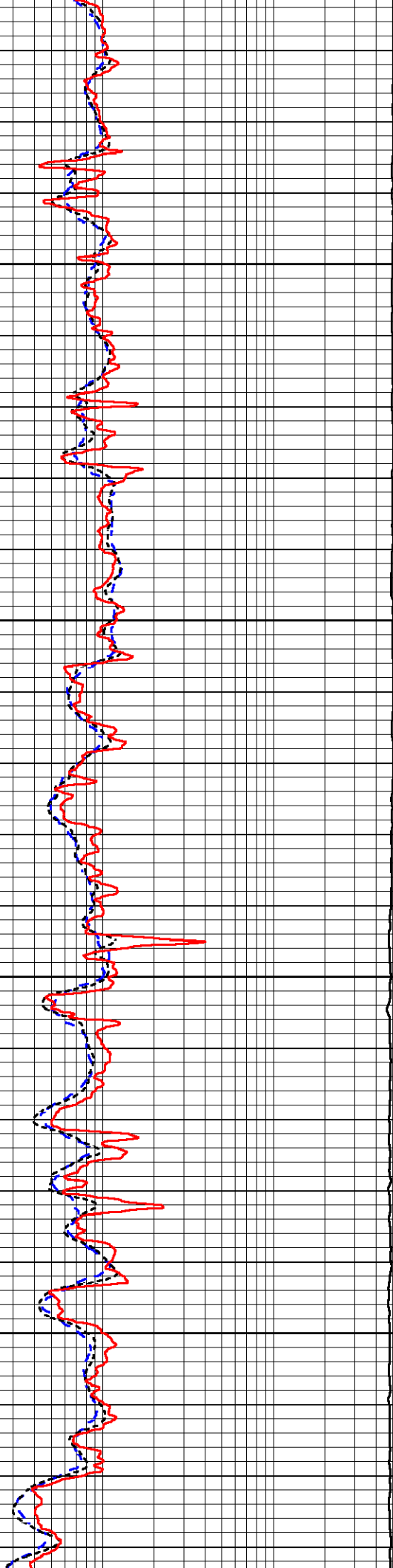


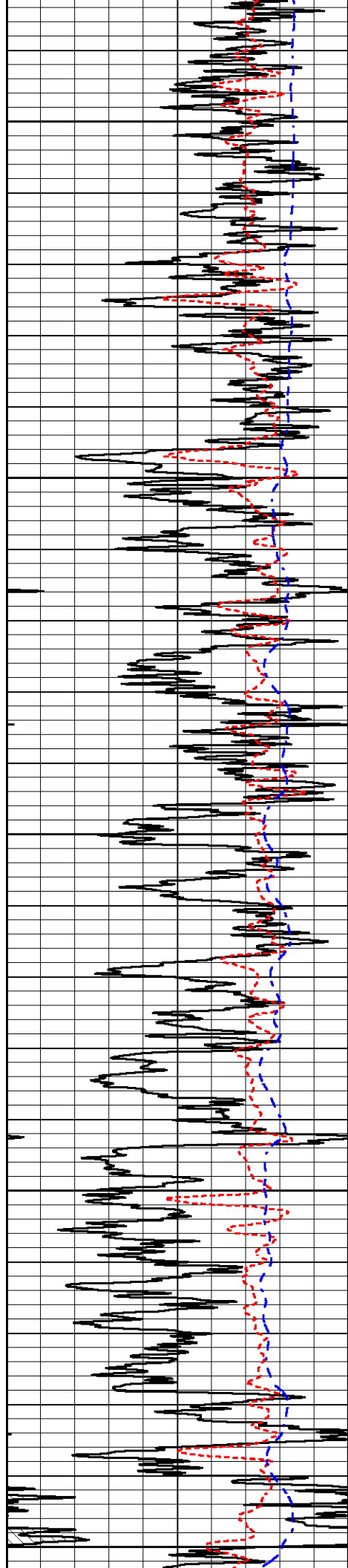
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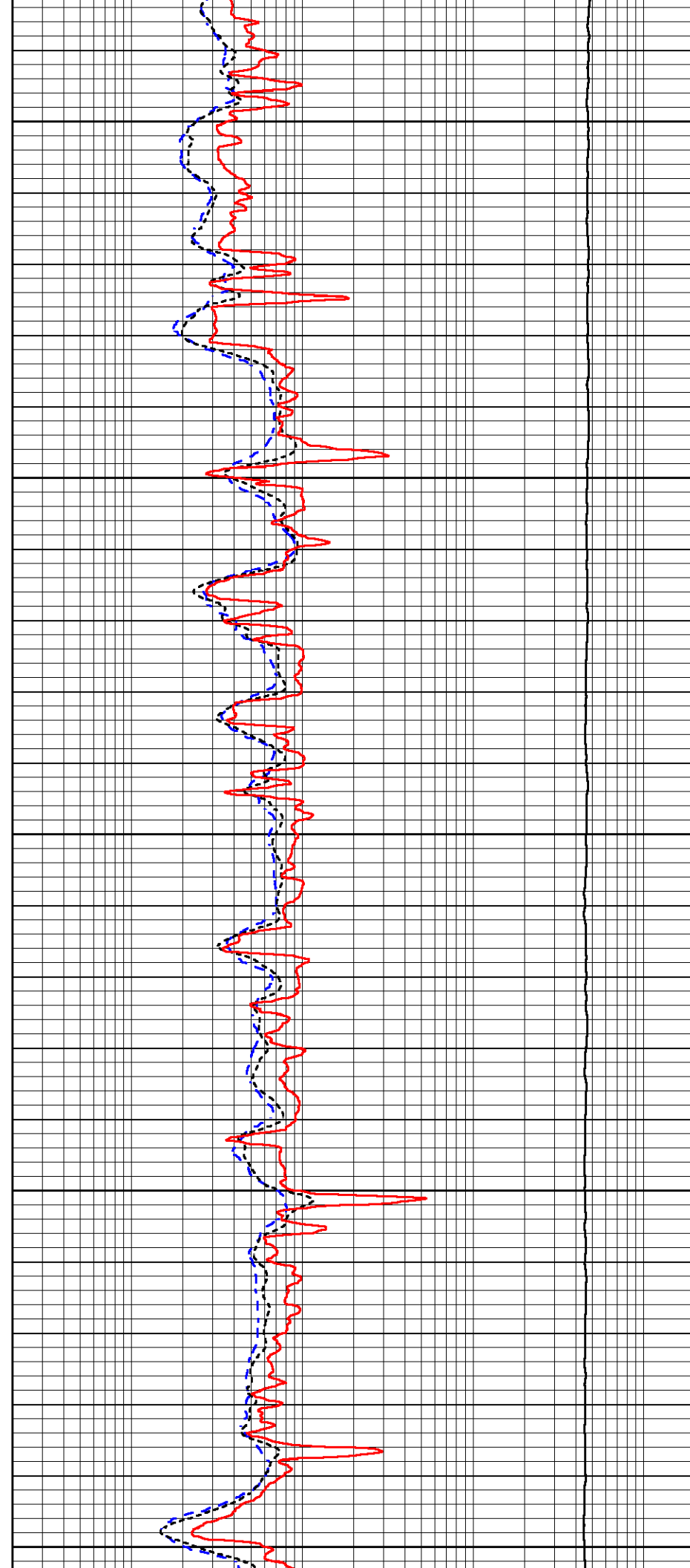
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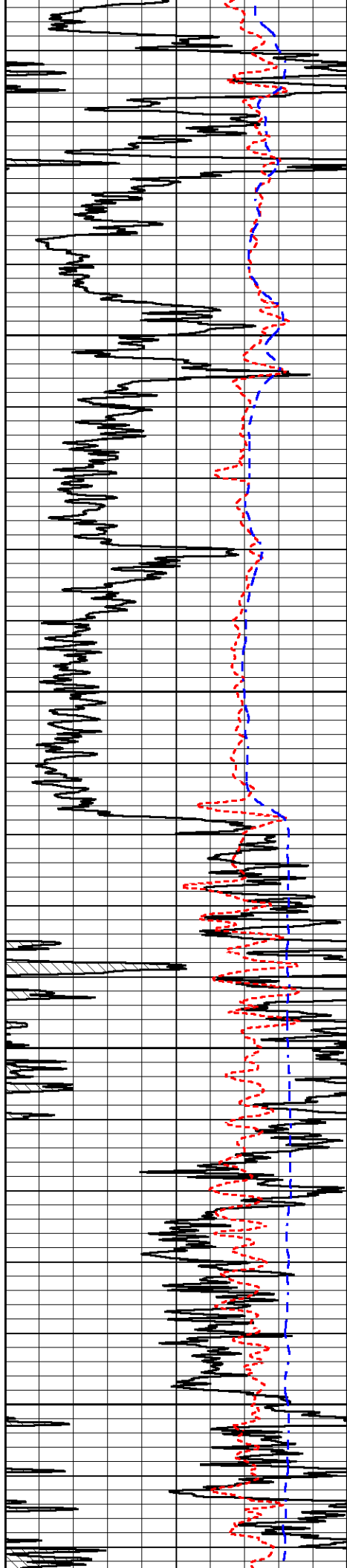
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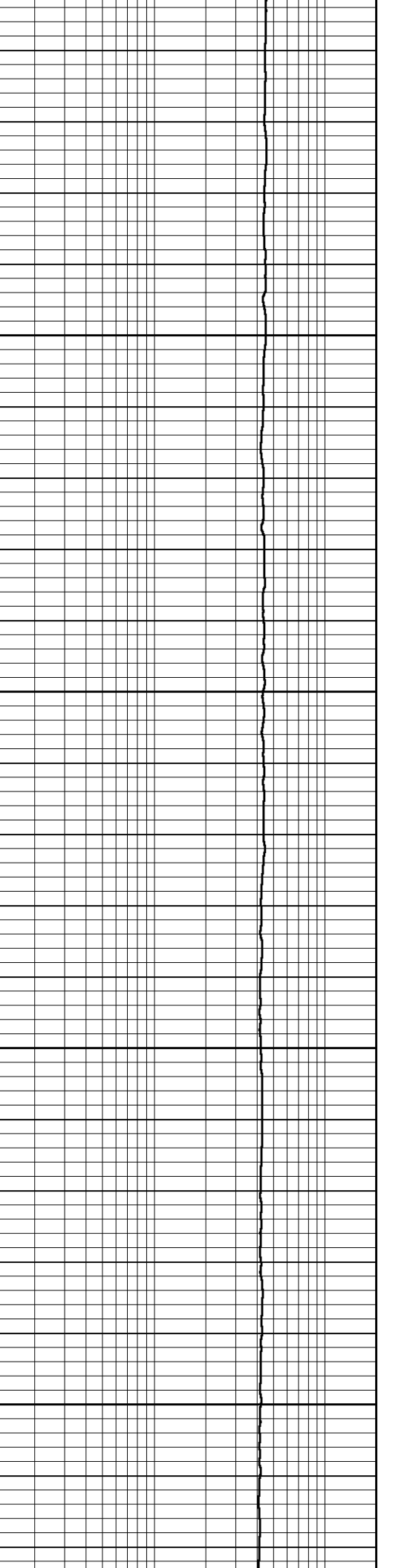
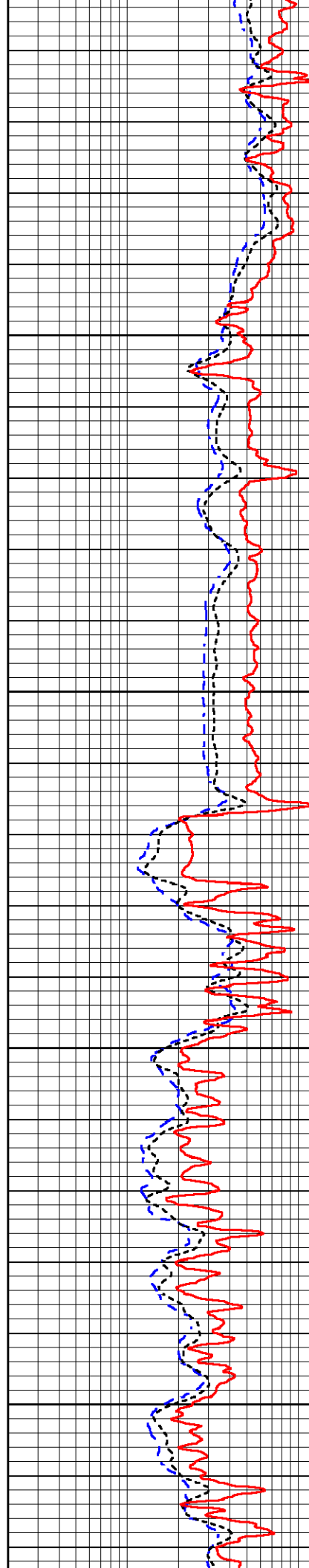


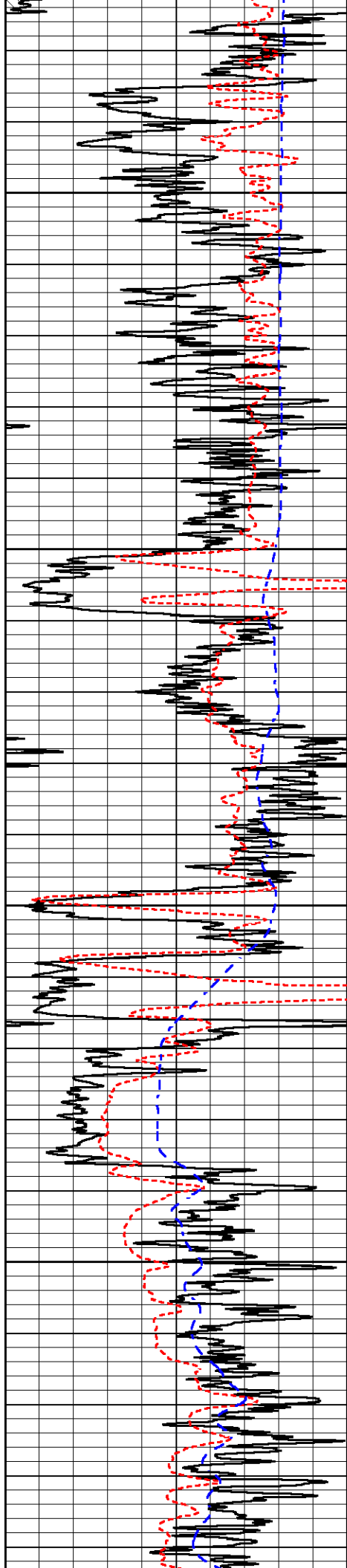
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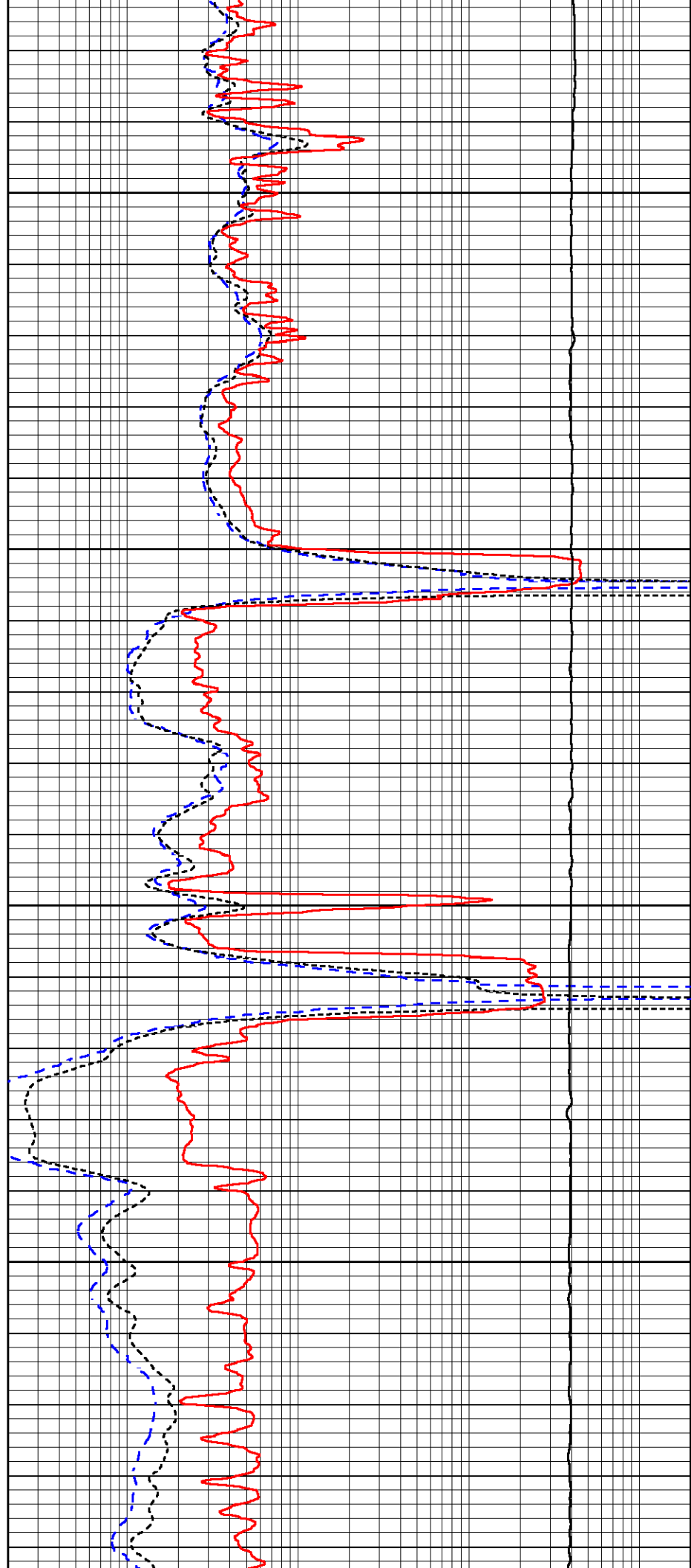


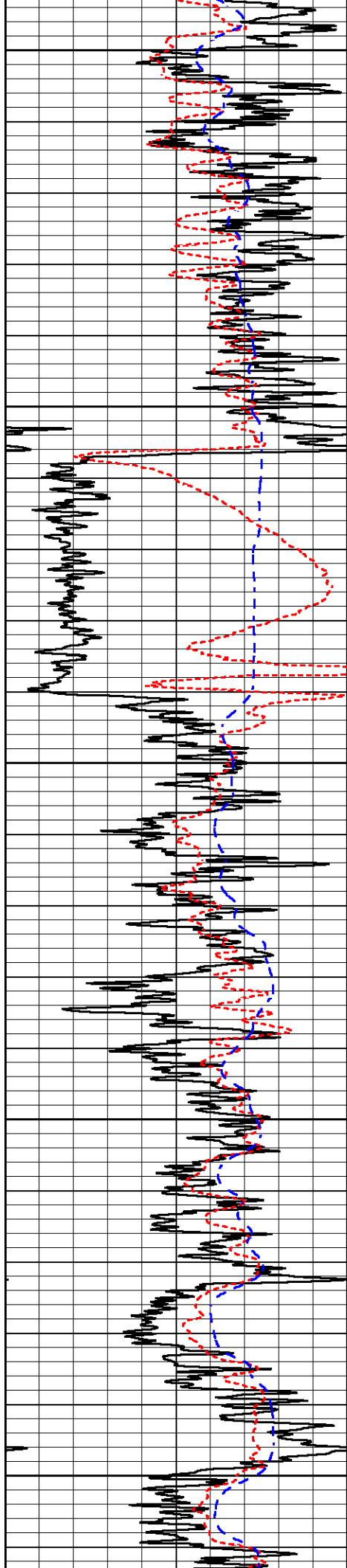
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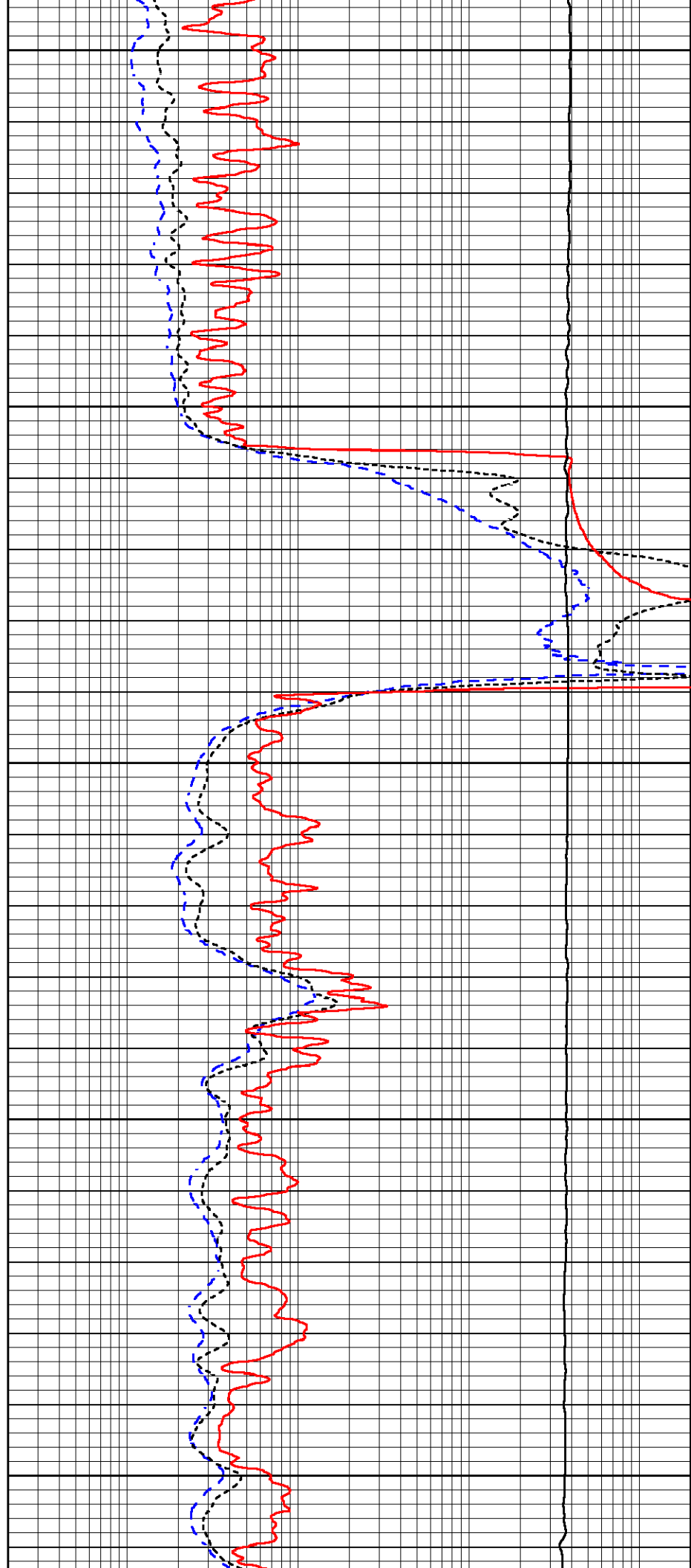
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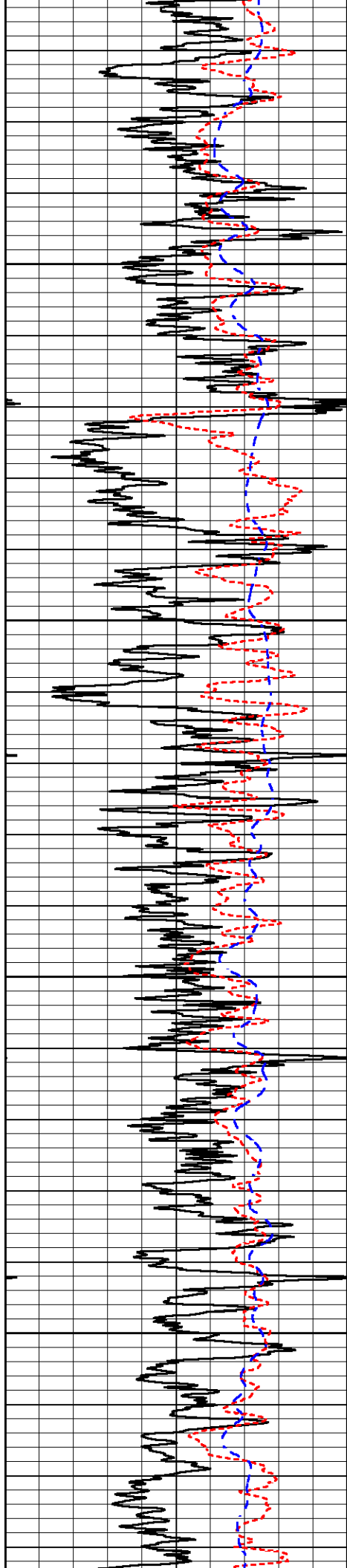
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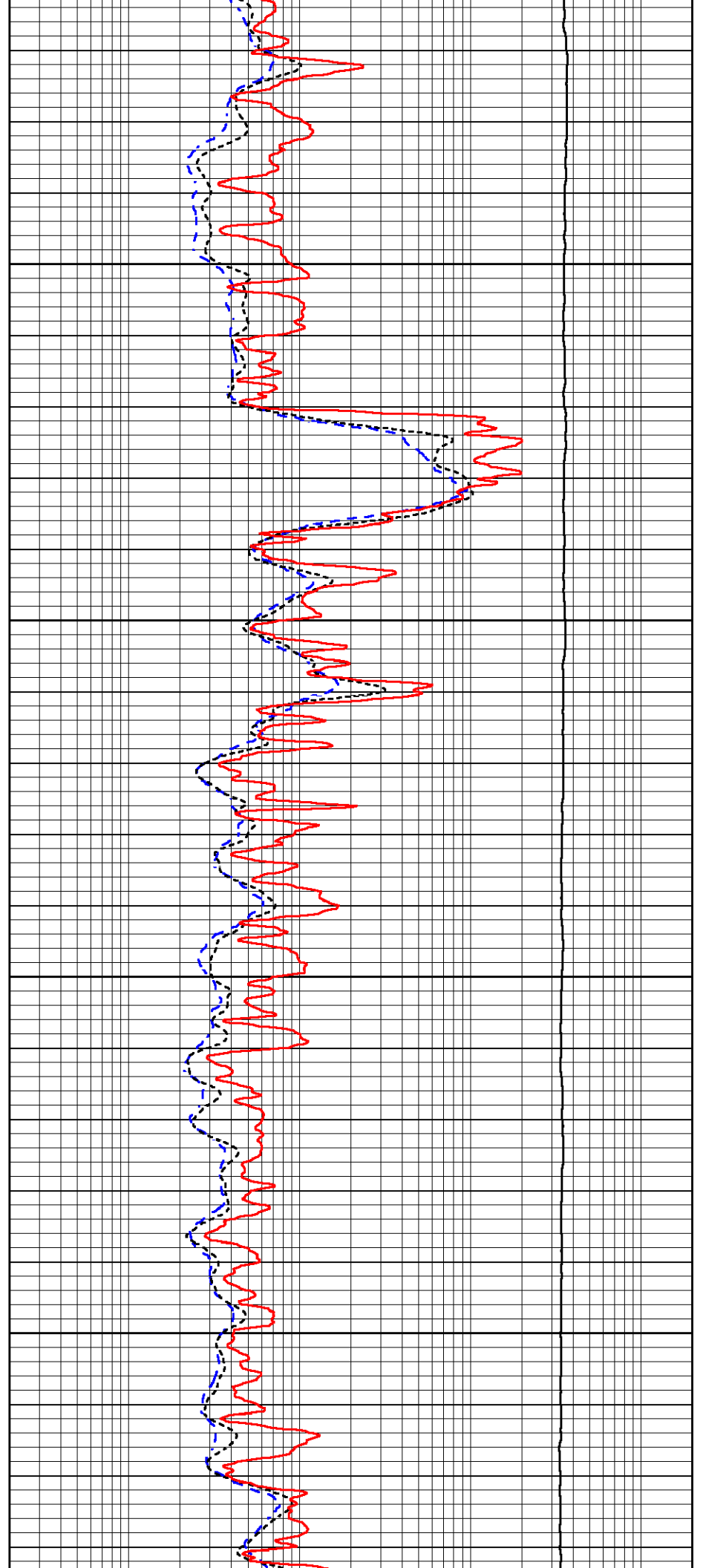


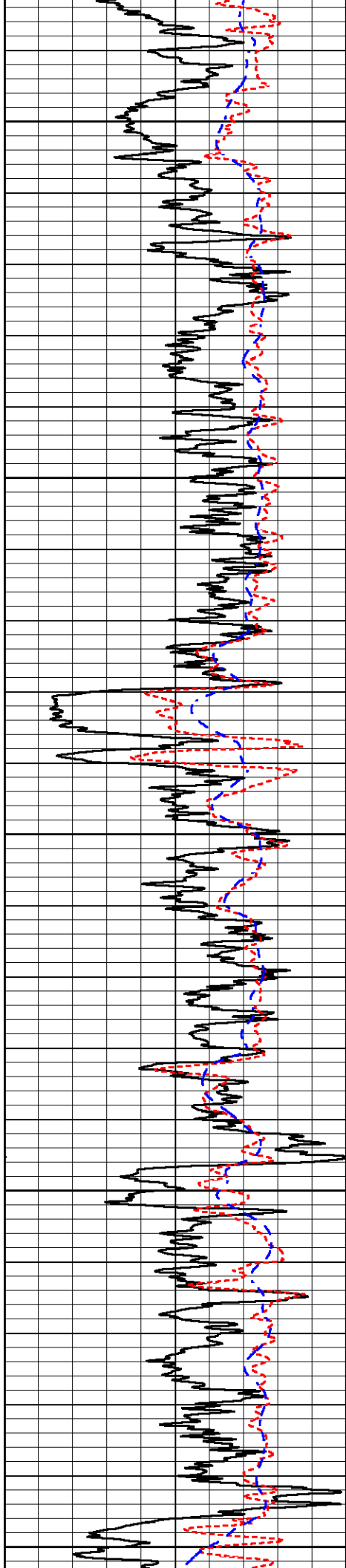
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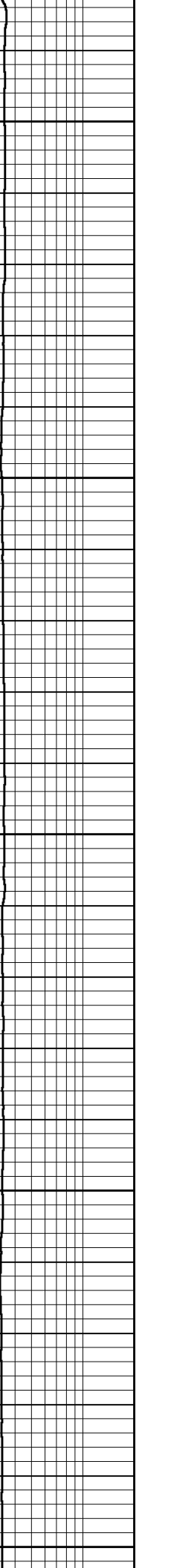
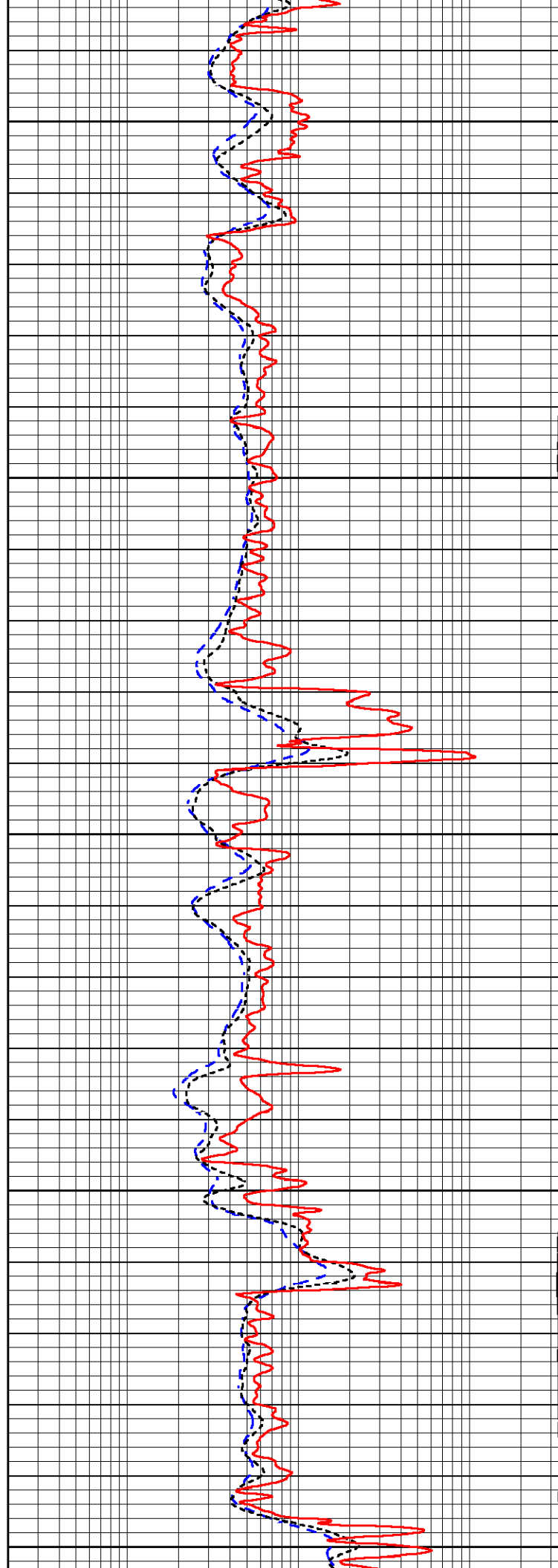
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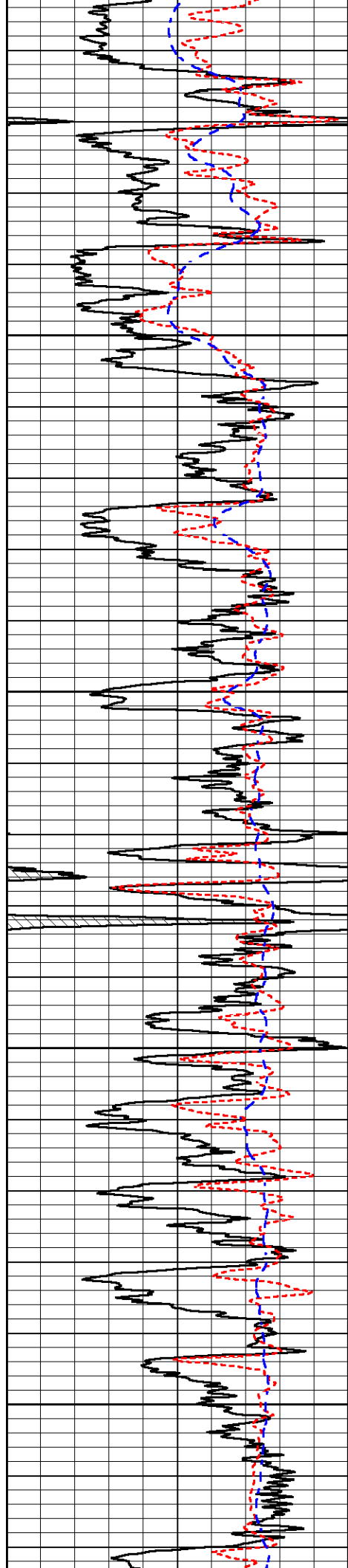
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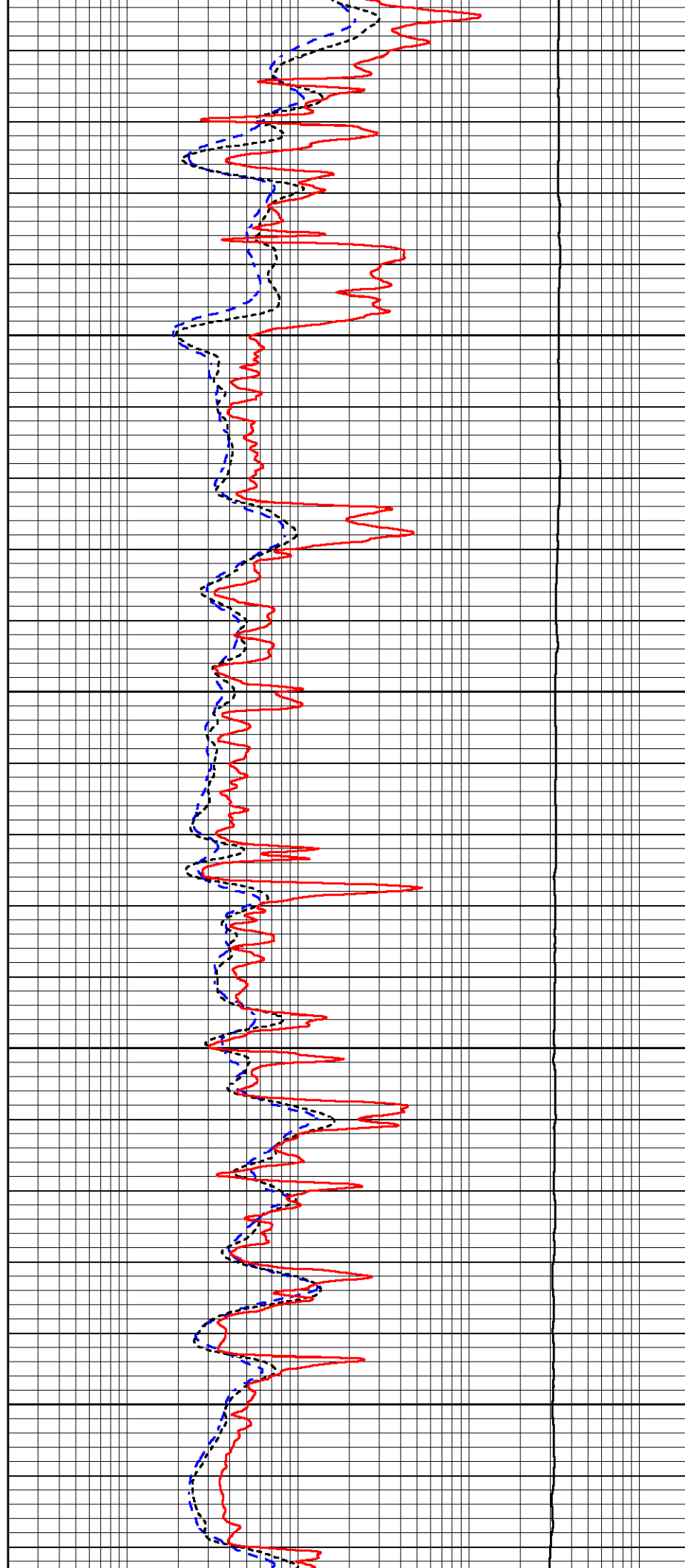


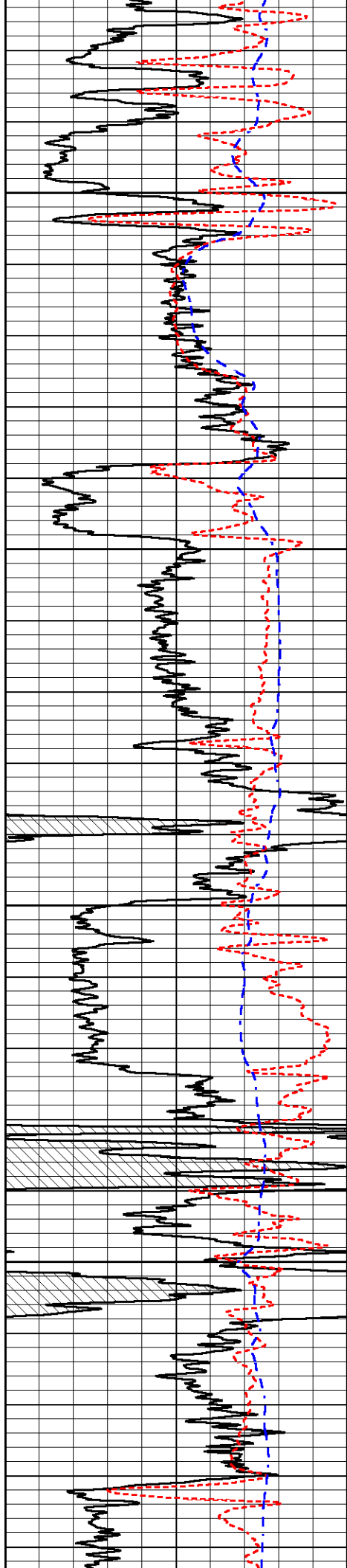
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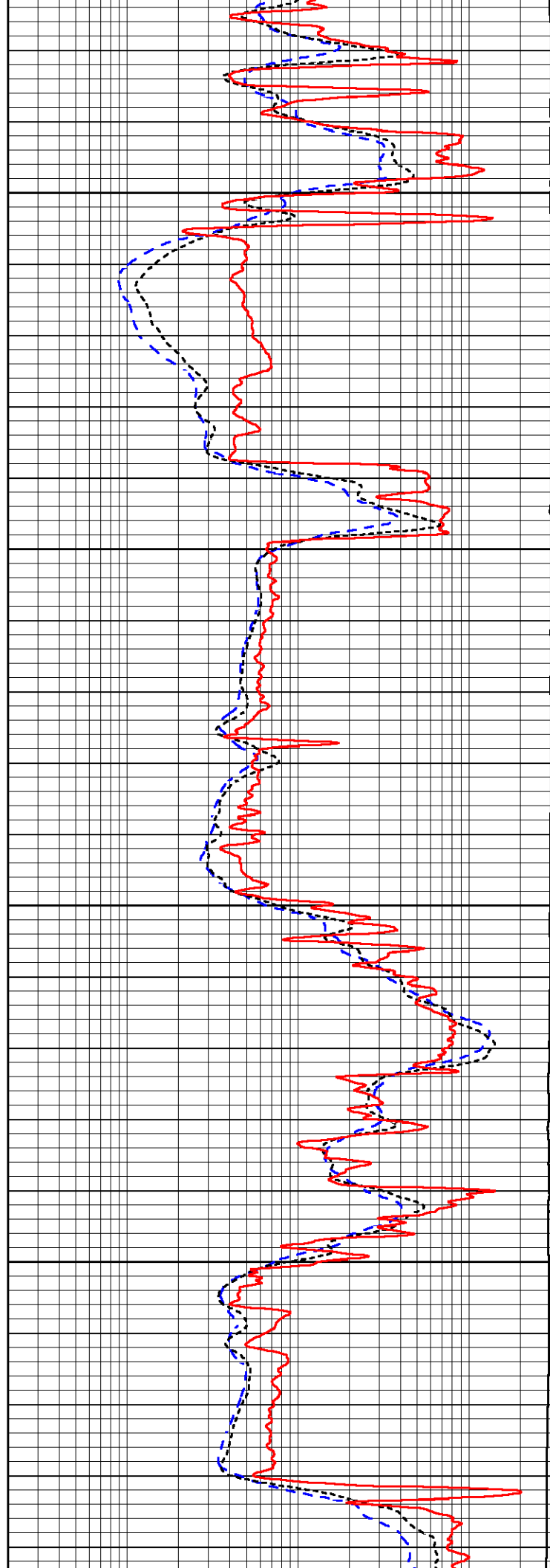


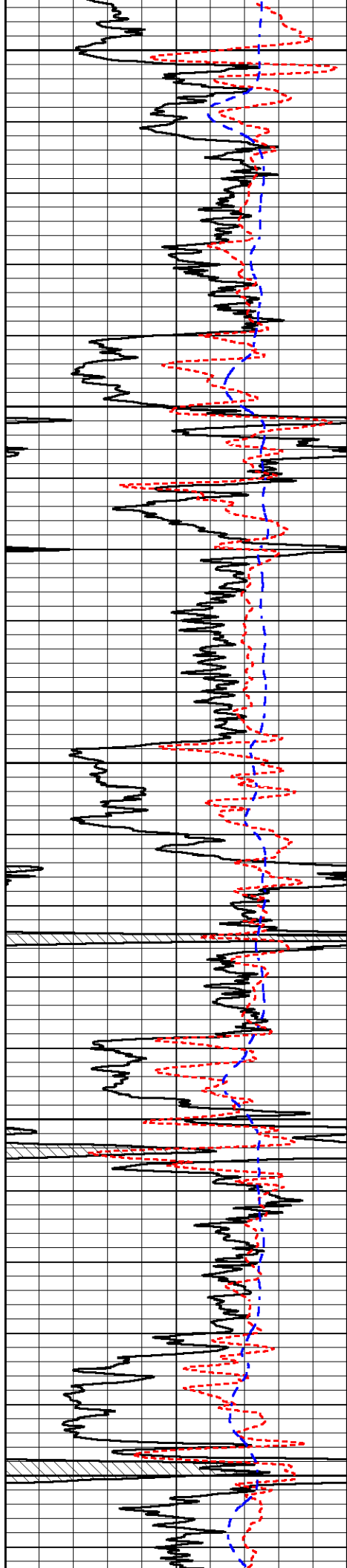
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4150

4200

4250





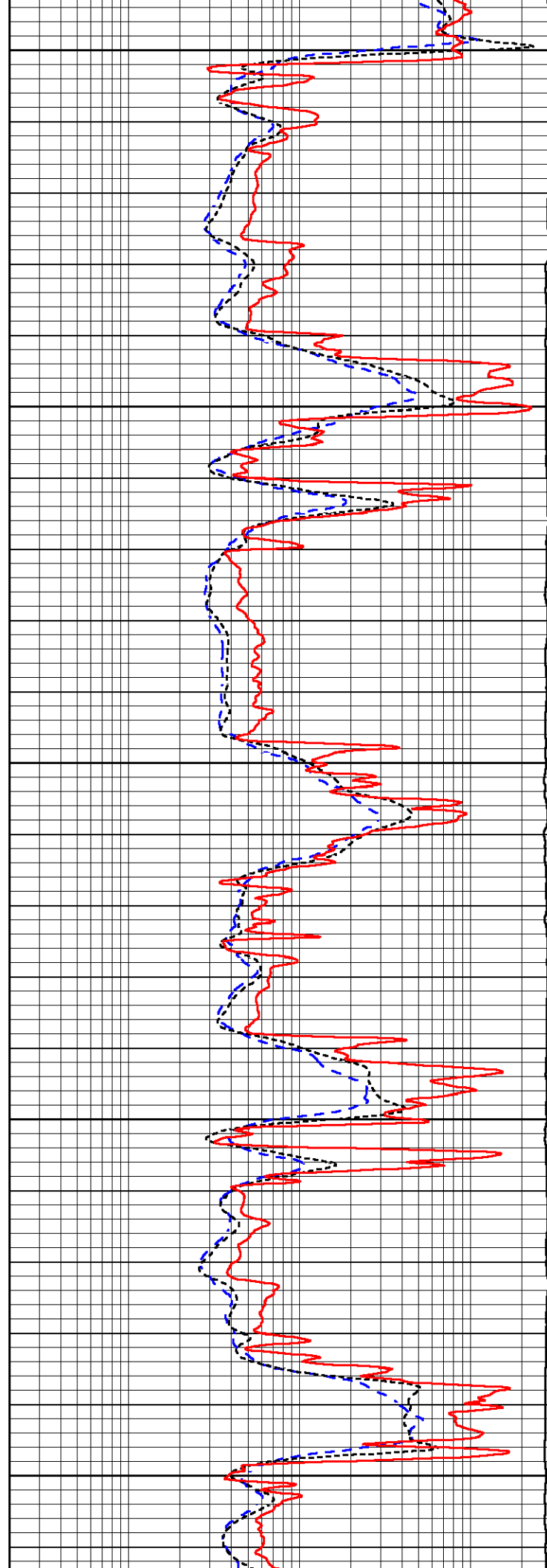
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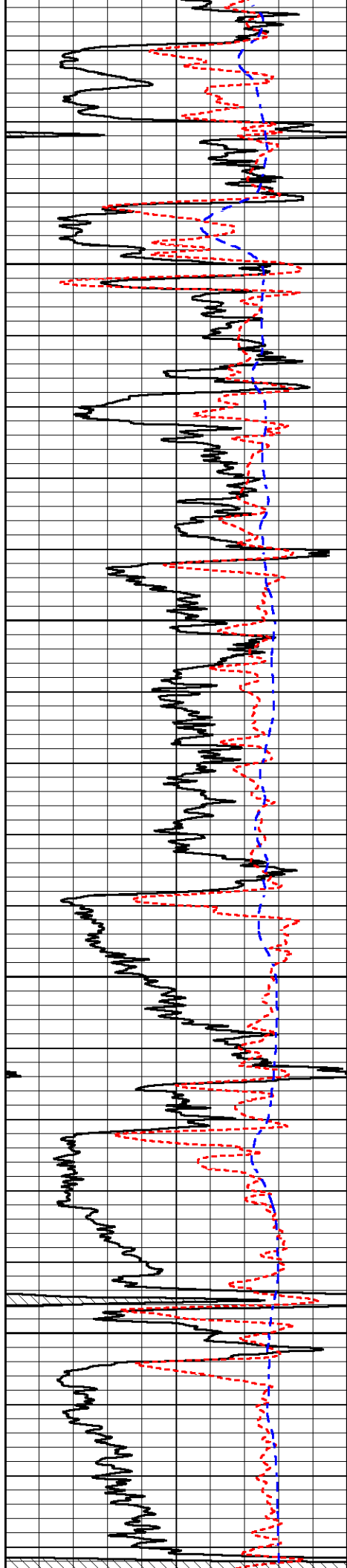
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4400

4450

4500



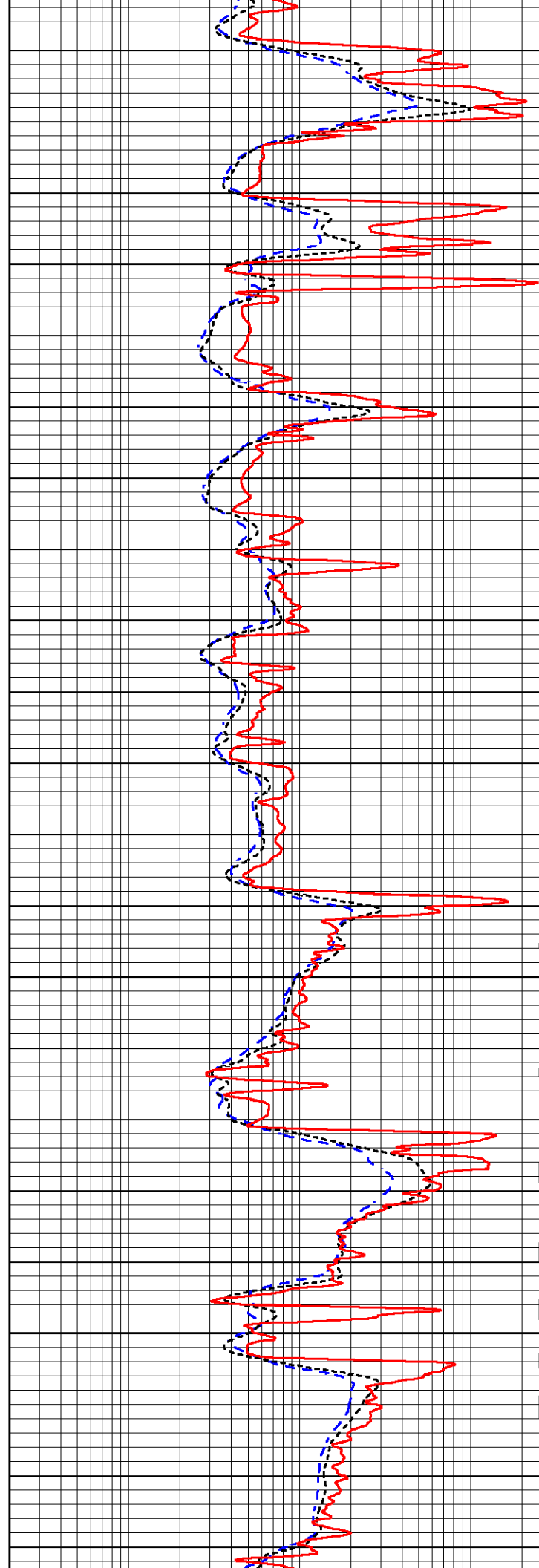


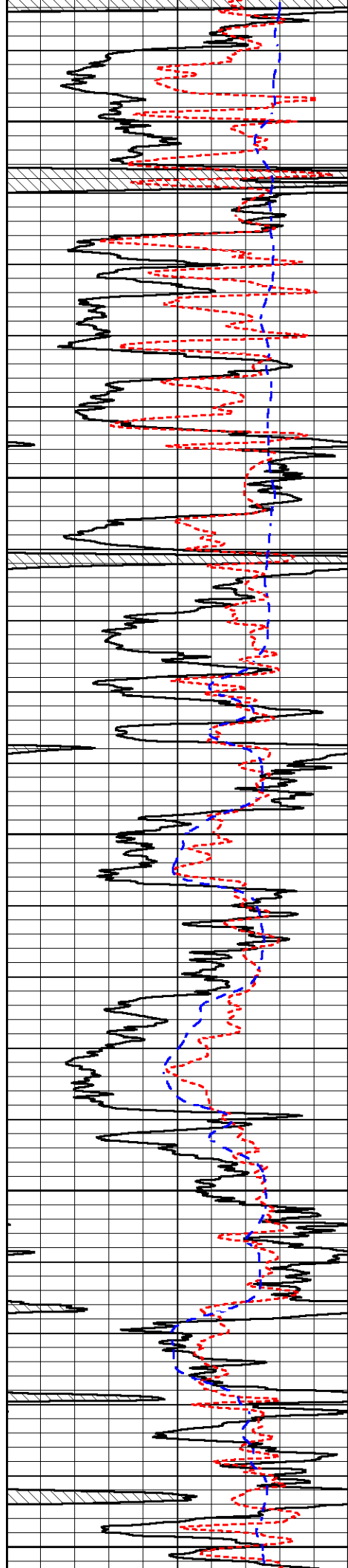
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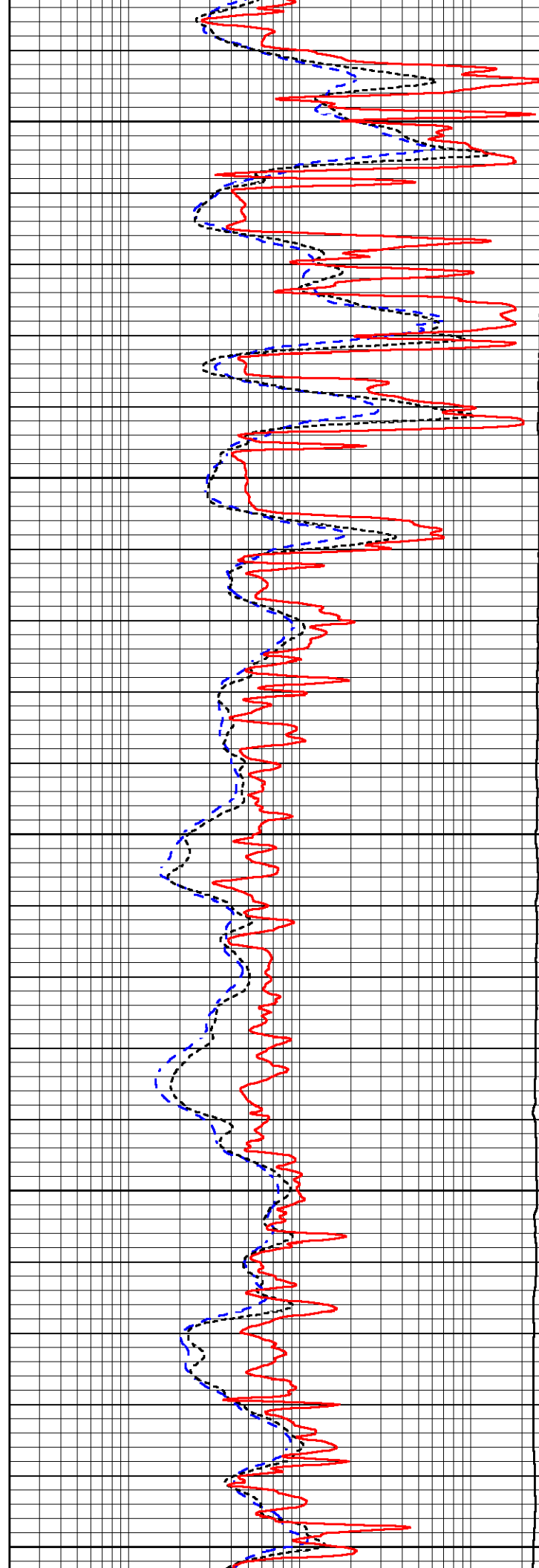
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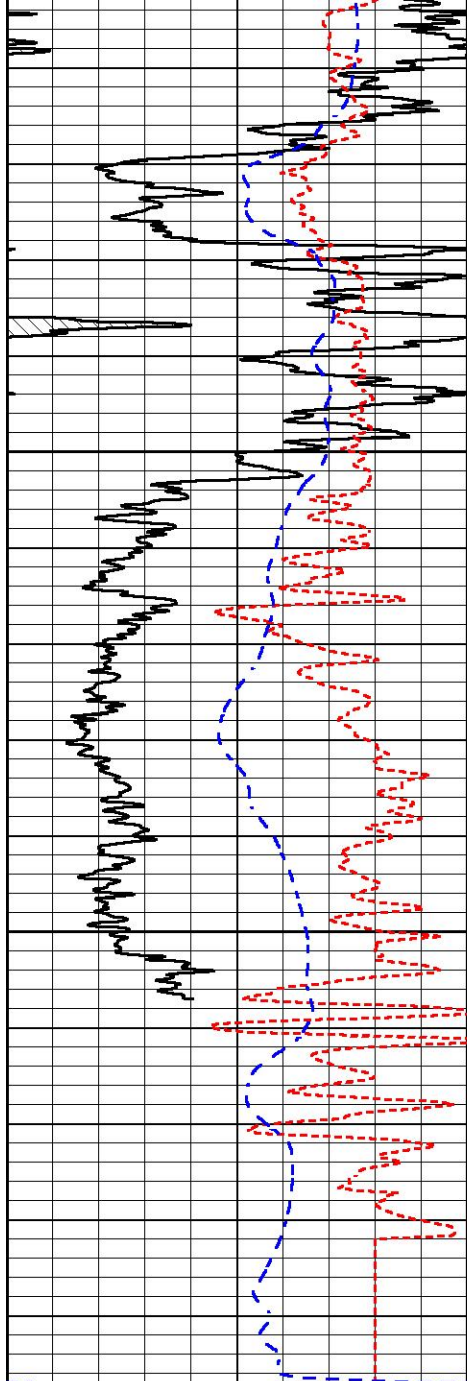
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4850

4900

4950

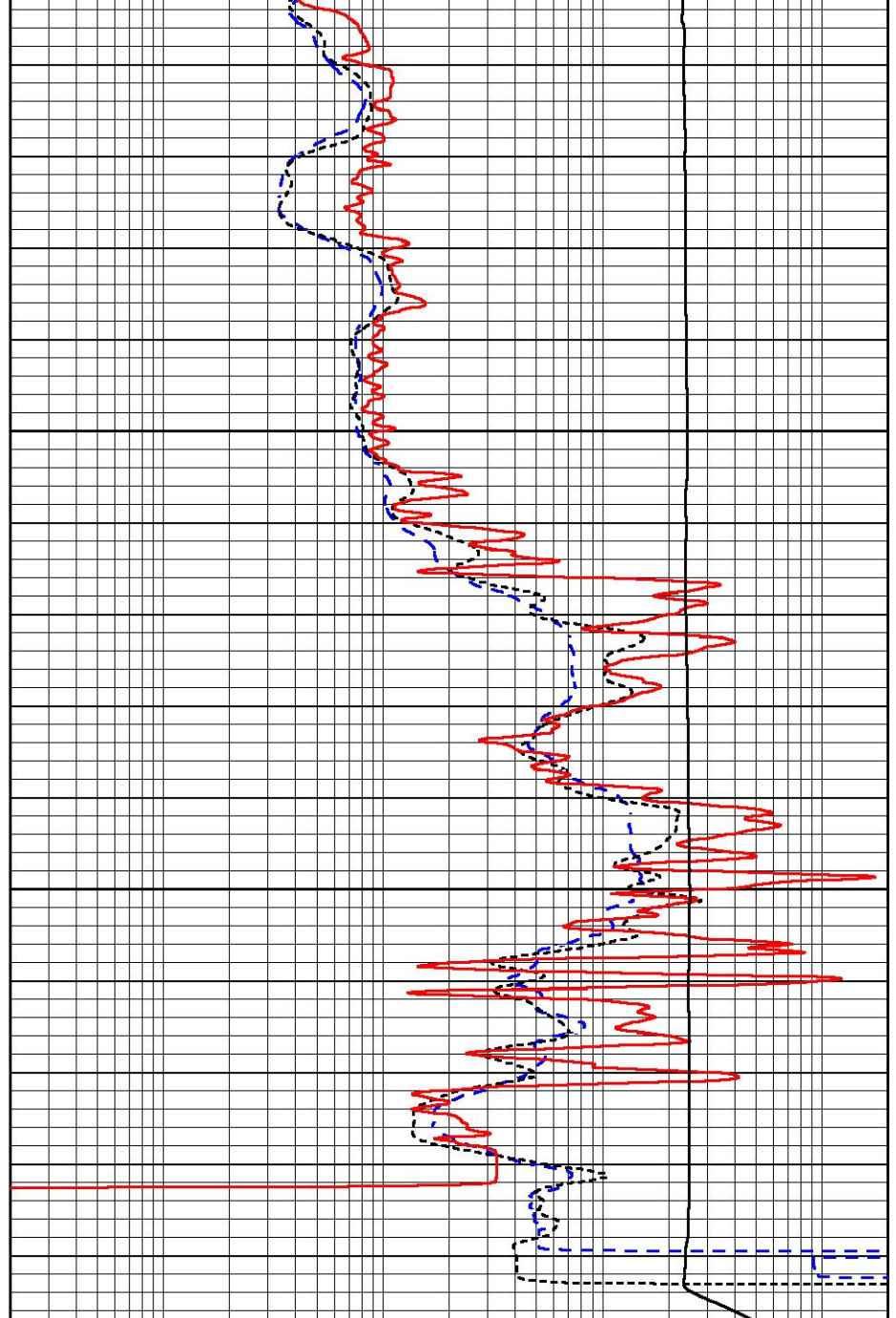




5000

5050

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



MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File murfin_carolyn a #4-24.db
 Dataset Pathname StkMI/pass2.1
 Presentation Format _dil
 Dataset Creation Sat Mar 19 18:14:10 2022
 Charted by Depth in Feet scaled 1:240

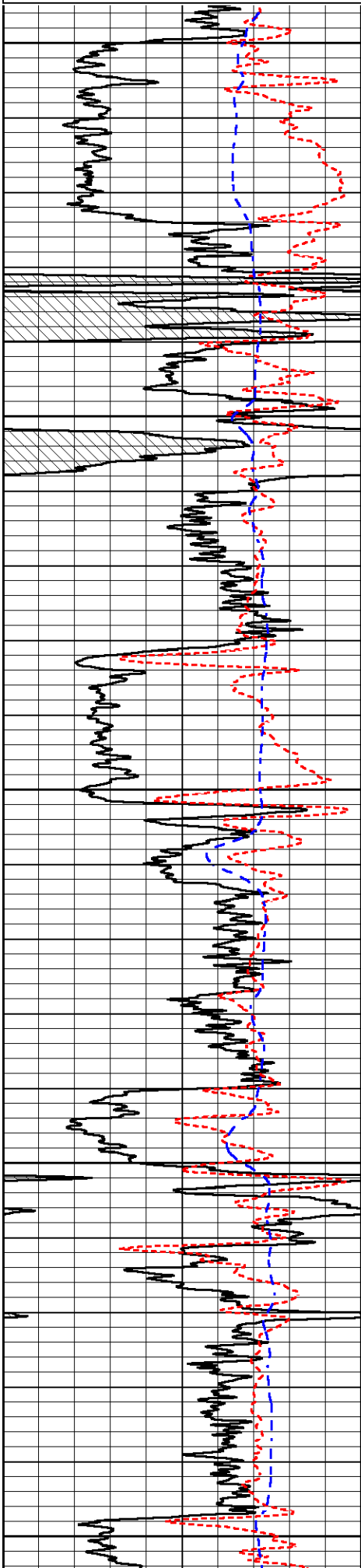
0	Gamma Ray (GAPI)	150
-160	RXORT	40

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000

-200 SP (mV) 0

0.2 Shallow Resistivity (Ohm-m) 2000

10000 Line Tension (lb) 0



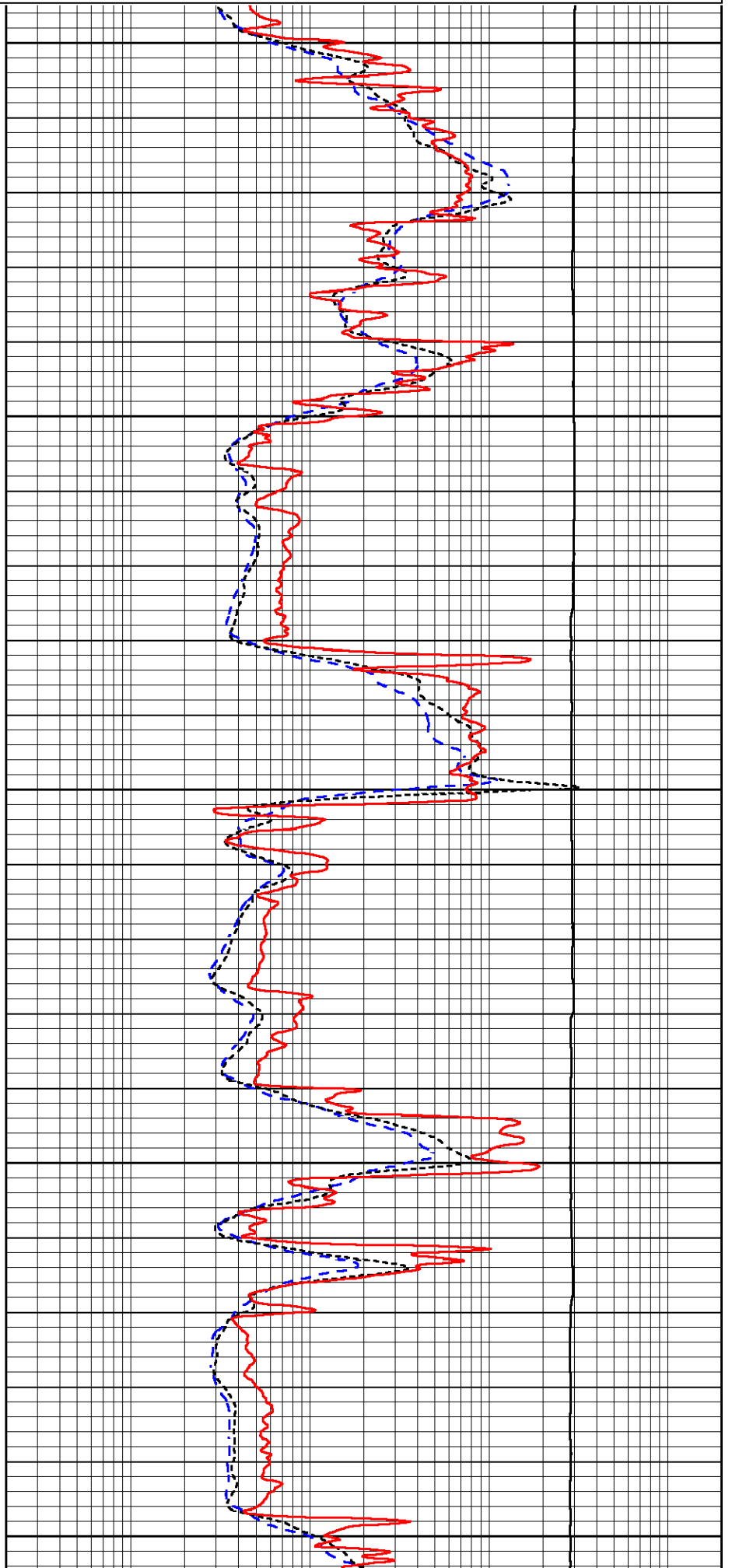
4200

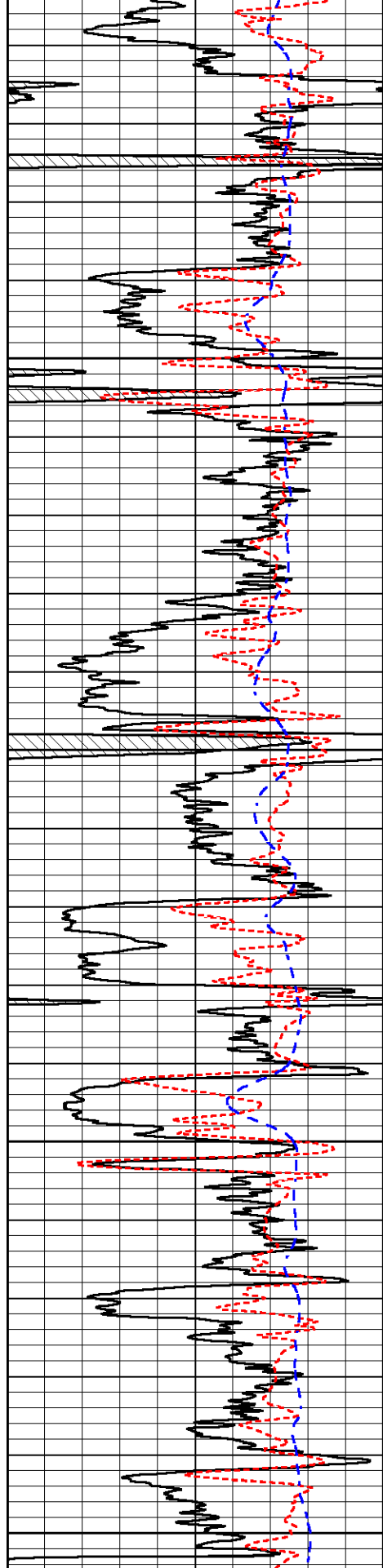
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4300

4350

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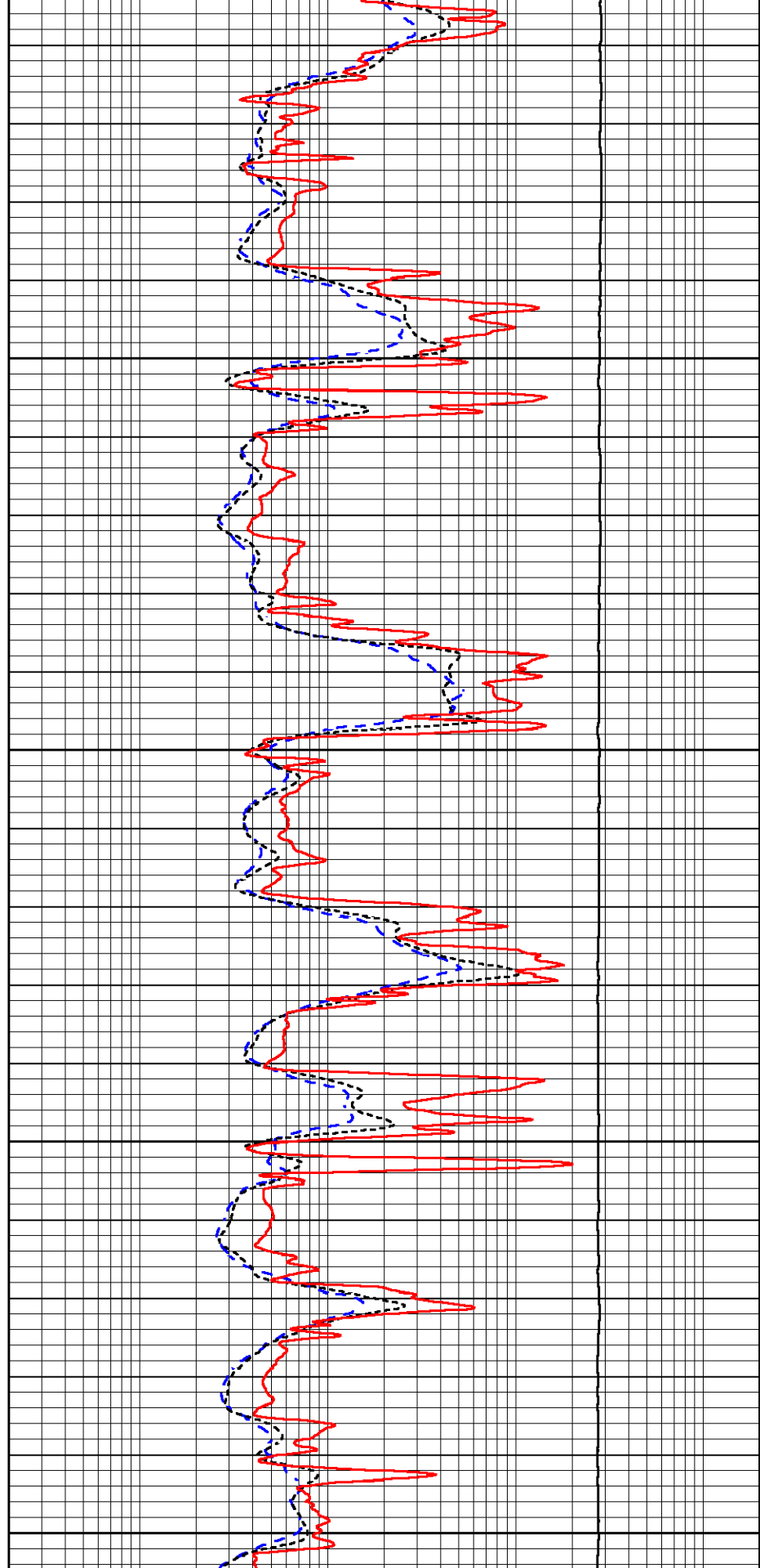
4450

4500

4550

4600

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

Long Space

460.00 cps

1000.00 cps

1.9500

Gamma Ray Calibration Report

Serial Number:	103	
Tool Model:	M&W	
Performed:	Fri Dec 3 12:13:24 2021	
Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps



Company	Murfin Drilling Company, Inc.
Well	Carolyn A #4-24
Field	Unnamed
County	Cheyenne
State	Kansas