MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Murfin Drilling Company, Inc.
Well CWA 'G' #1-8
Field
County Cheyenne State Kansas
Location: API # : 15-023-21560-00-00
330 FSL & 1080 FWL
SEC 8 TWP 3S RGE 37W

Other Services: CNL/CDL MEL/BHCS

Permanent Datum: Ground Level — Elevation: 3431
Log Measured From: Kelly Bushing
Drilling Measured From: Kelly Bushing

Elevation: K.B. 3436, D.F., G.L. 3431

Company Murfin Drilling Company, Inc.
Well CWA 'G' #1-8
Field
County Cheyenne
State Kansas

Date	11/5/2021			
Run Number	One			
Depth Driller	5150			
Depth Logger	5150			
Bottom Logged Interval	5149			
Top Log Interval	0			
Casing Driller	8.625 @ 403			
Casing Logger	401			
Bit Size	7.875			
Type Fluid in Hole	Chemical			
Salinity,ppm CL	1400			
Density / Viscosity	9.2 / 73			
pH / Fluid Loss	11.0 / 6.4			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	0.75 @ 55			
Rmf @ Meas. Temp	0.56 @ 55			
Rmc @ Meas. Temp	1.01 @ 55			
Source of Rmf / Rmc	CHARTS			
Rm @ BHT	0.32 @ 128			
Operating Rig Time	6 Hours			
Max Rec. Temp. F	128			
Equipment Number	P-24			
Location	HAYS			
Recorded By	D. Schmidt			
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,
West to 30 Rd, 4 North, 1/4 East,
South 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	This Log Record Was Witnessed By
Engineer: D. Schmidt	Primary Witness: Robert Hendrix
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			GR-M&W (233-M&W)	3.00	3.50	50.00
GR	40.58					
CNLSC	37.48		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73					
			CDL-M&W (934-226)	8.50	4.00	250.00
LSD	28.43					
DCAL	28.42					
SSD	27.93					
			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
MCAL	19.83					
MI	19.83					
MN	19.83					
RLL3F	15.80					
RLL3	15.80					
			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset: murfin_cwa g 1-8.db: field/well/stkml/pass4.1
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_cwa g 1-8.db
Dataset field/well/stkml/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	128	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	320	50	Off	5150

Variable Description

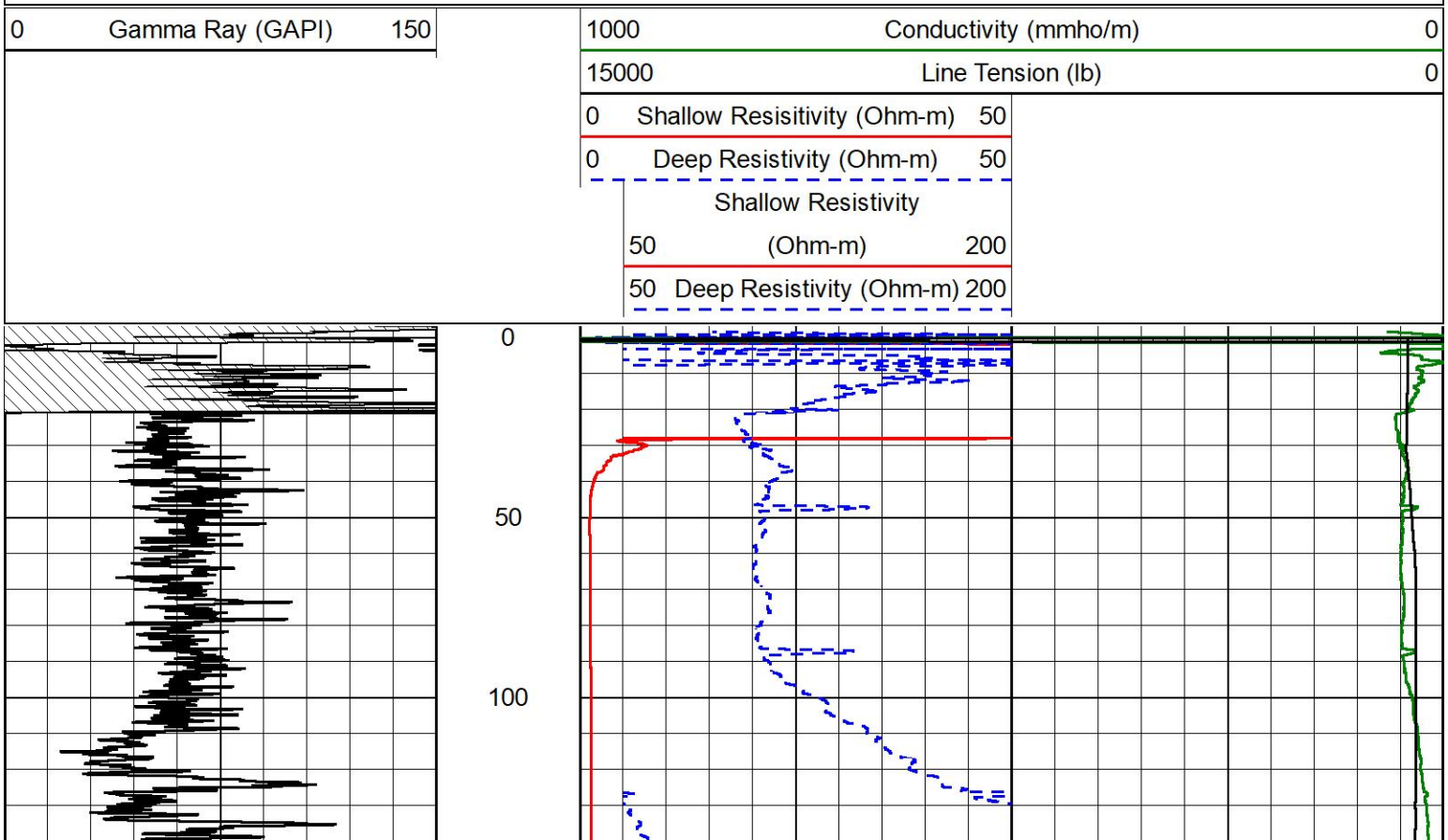
A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density
NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

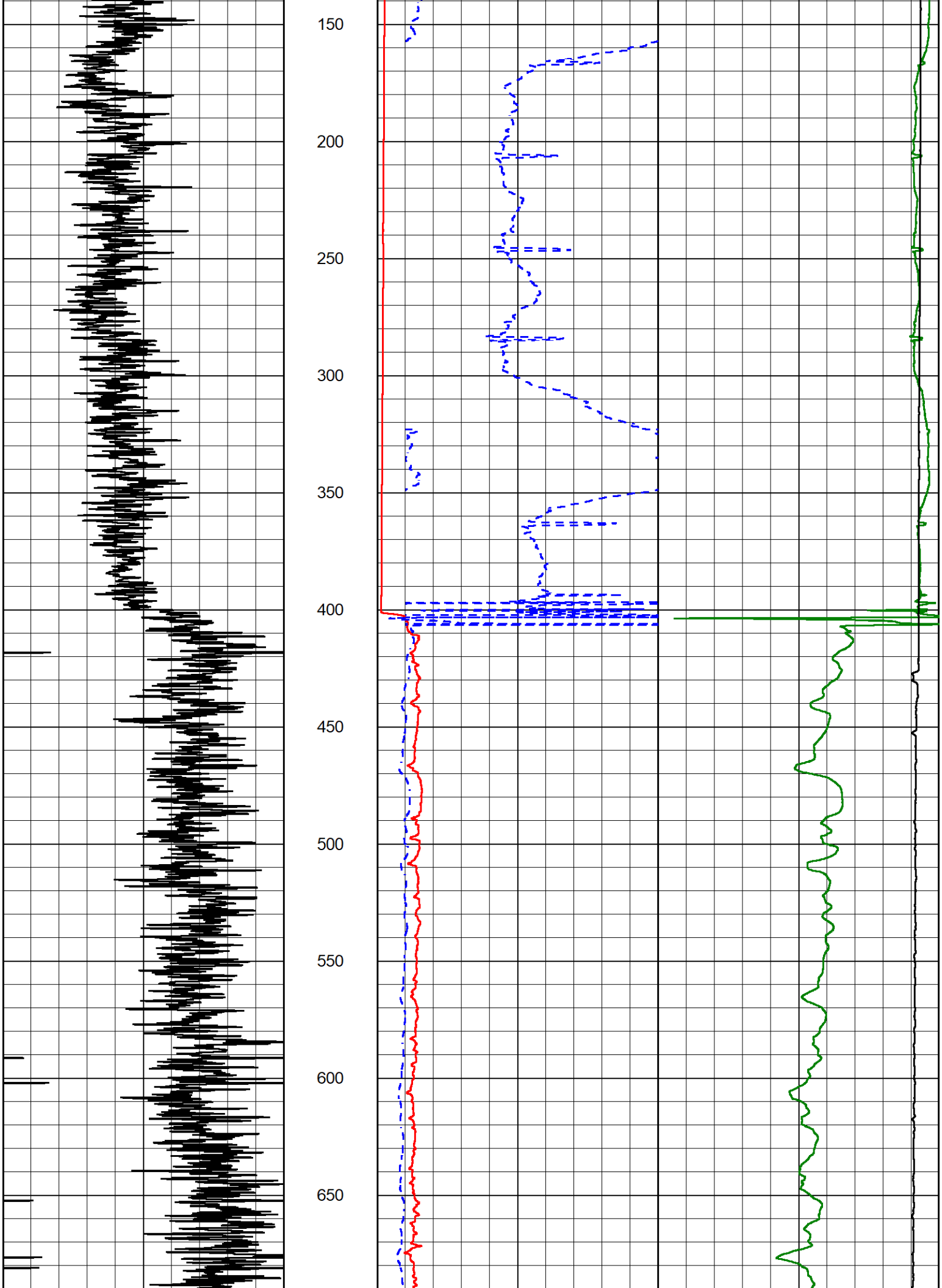
MIDWEST WIRELINE

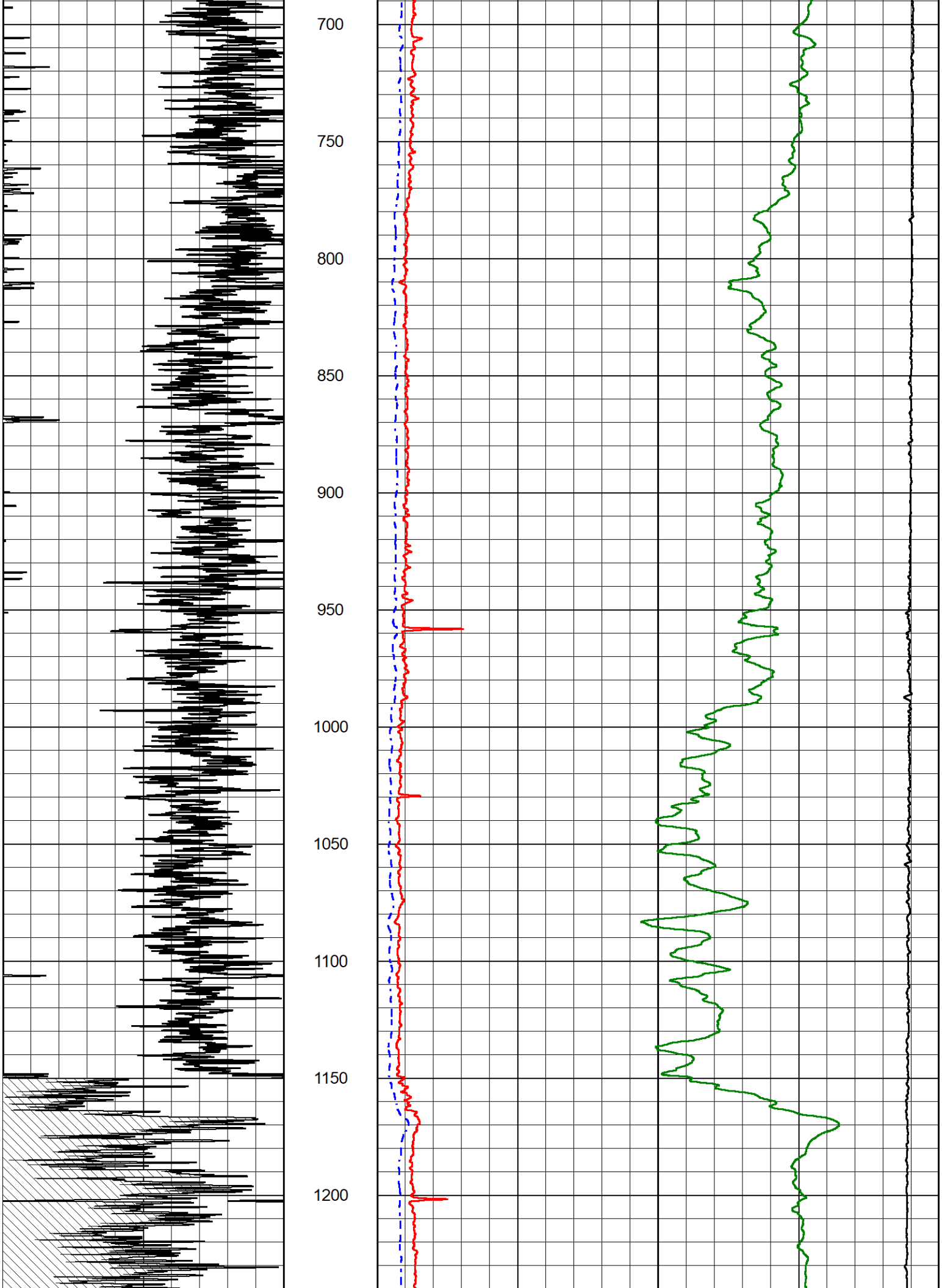
2" SCALE RESISTIVITY

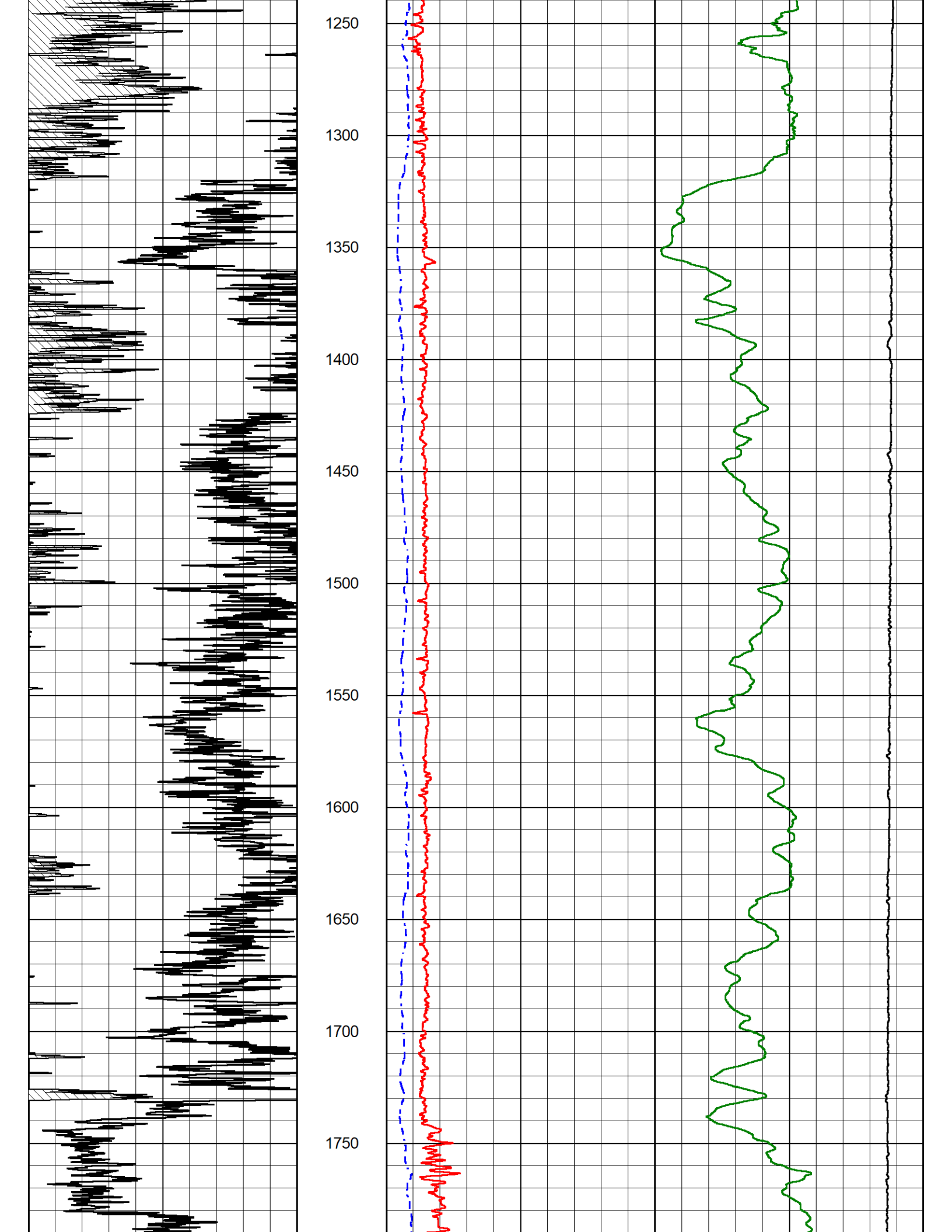
MAIN PASS

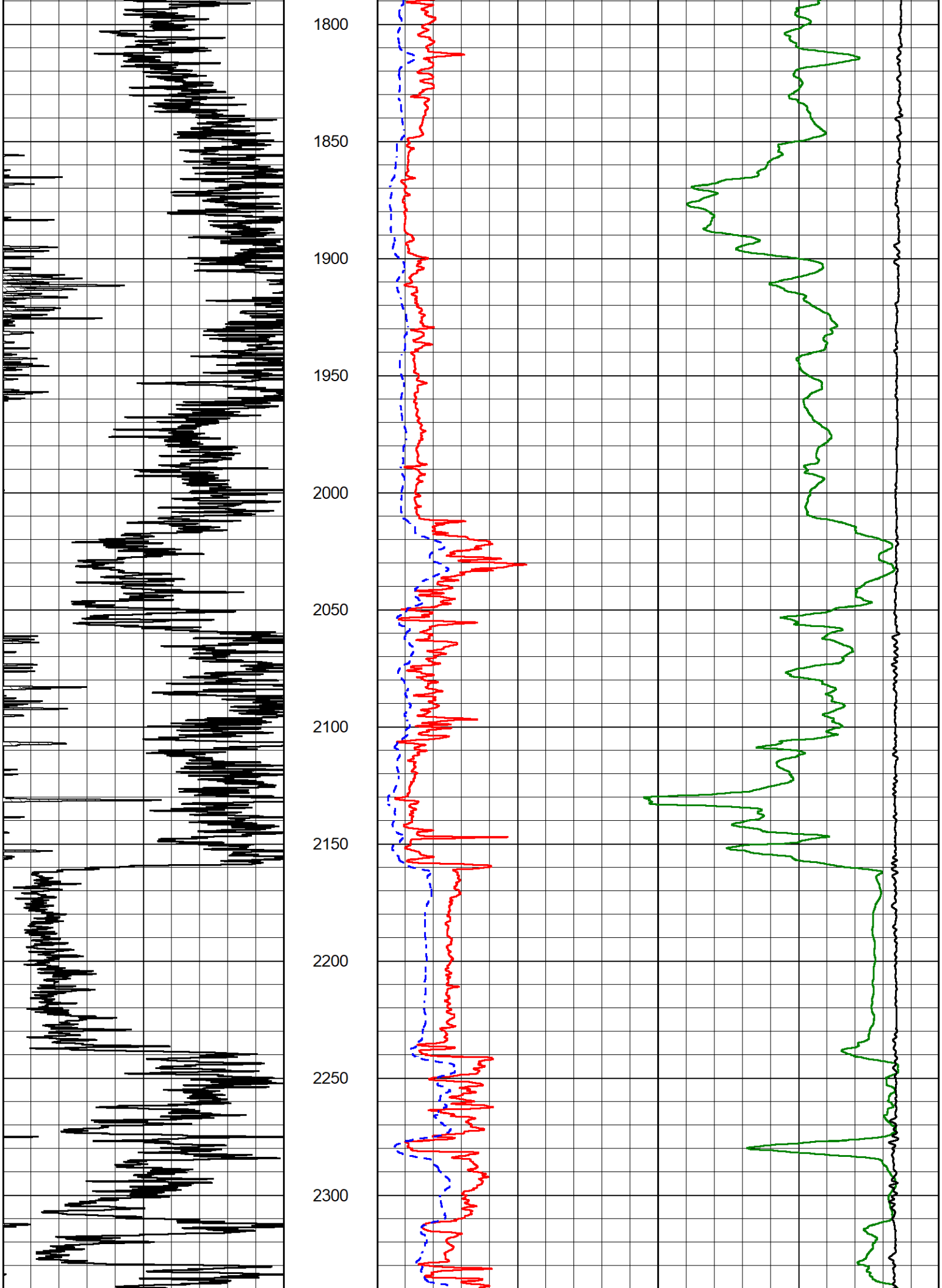
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Charted by	Depth in Feet scaled 1:600

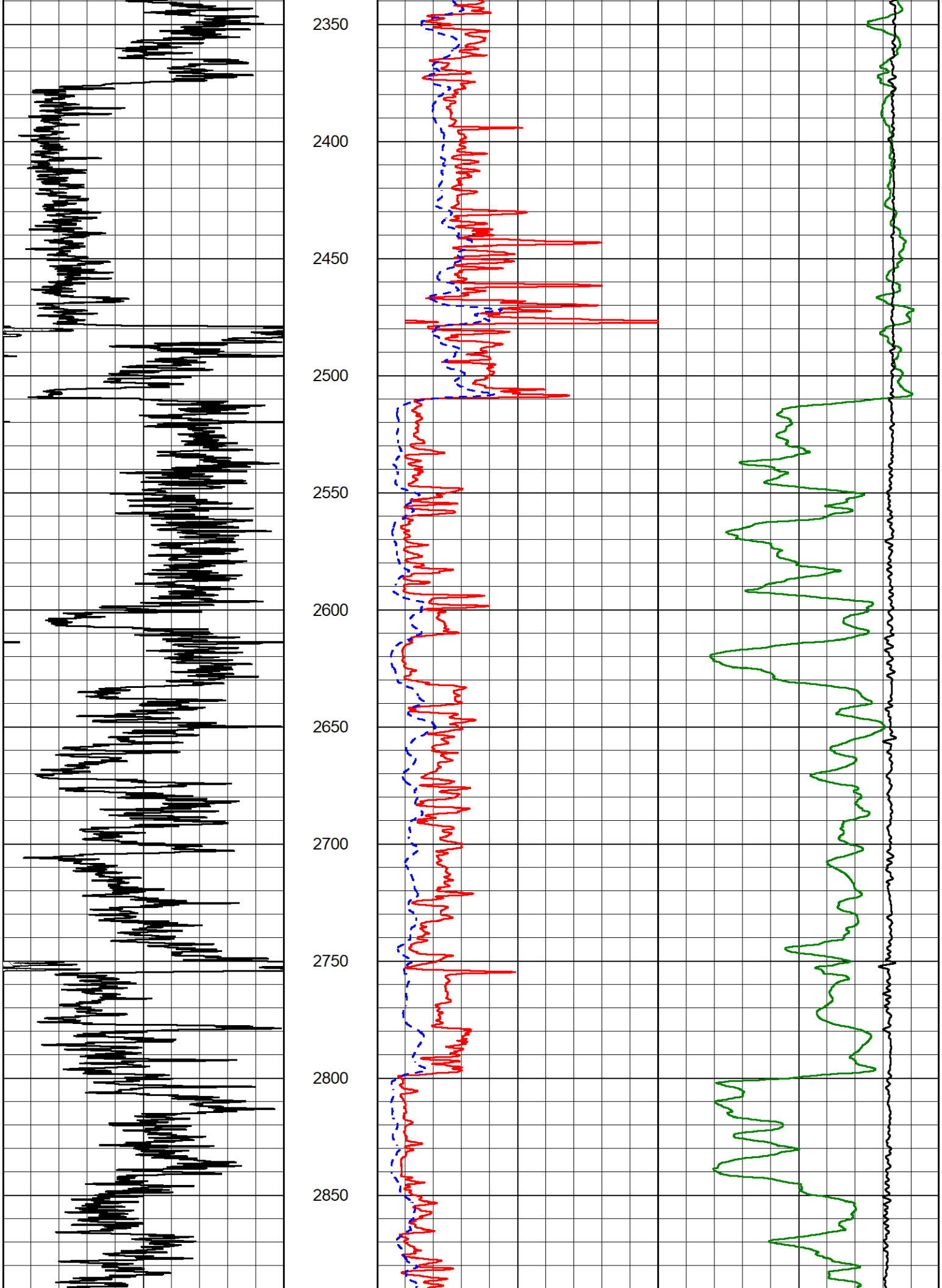


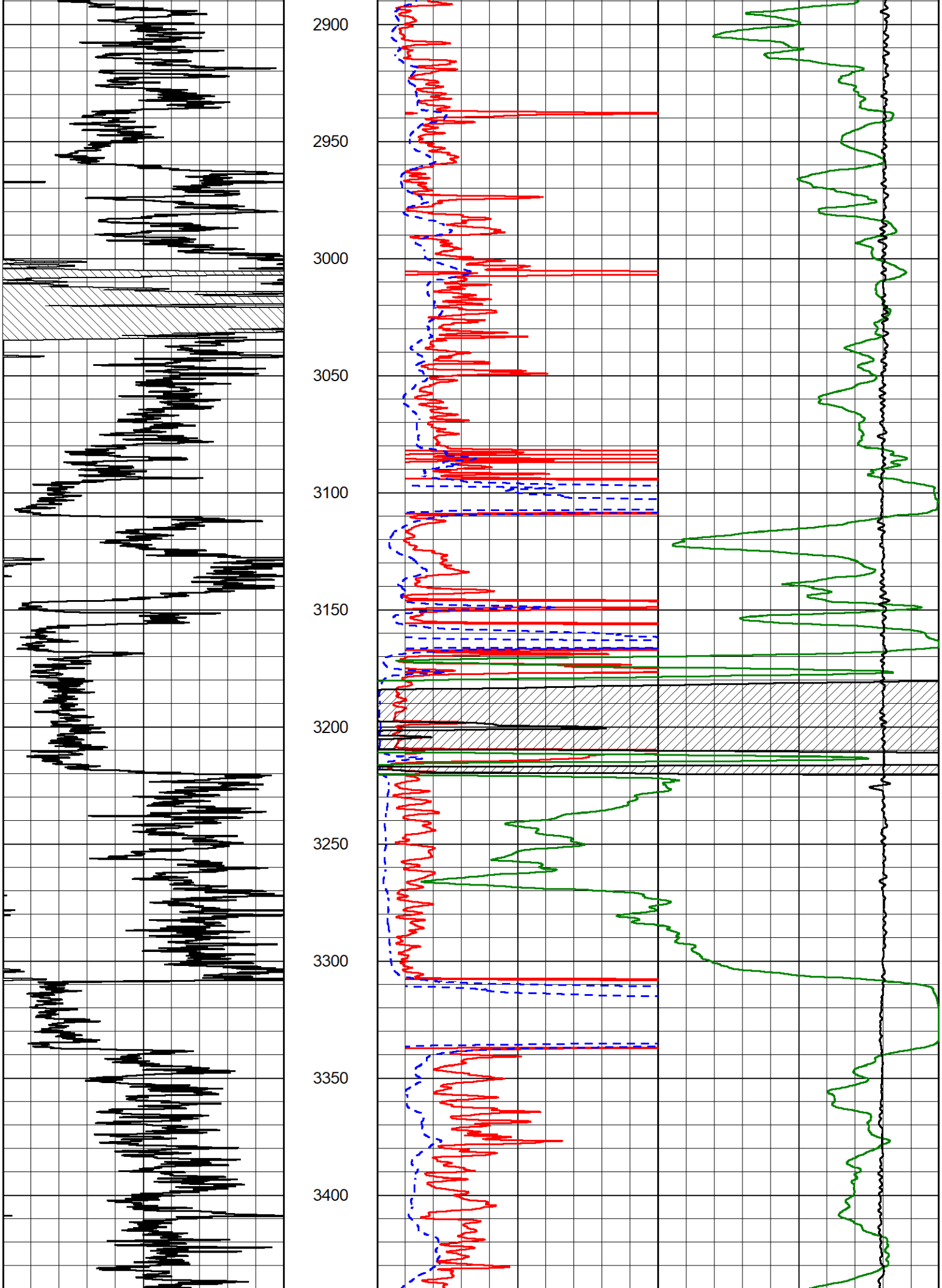

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200
250
300
350
400
450
500
550
600
650

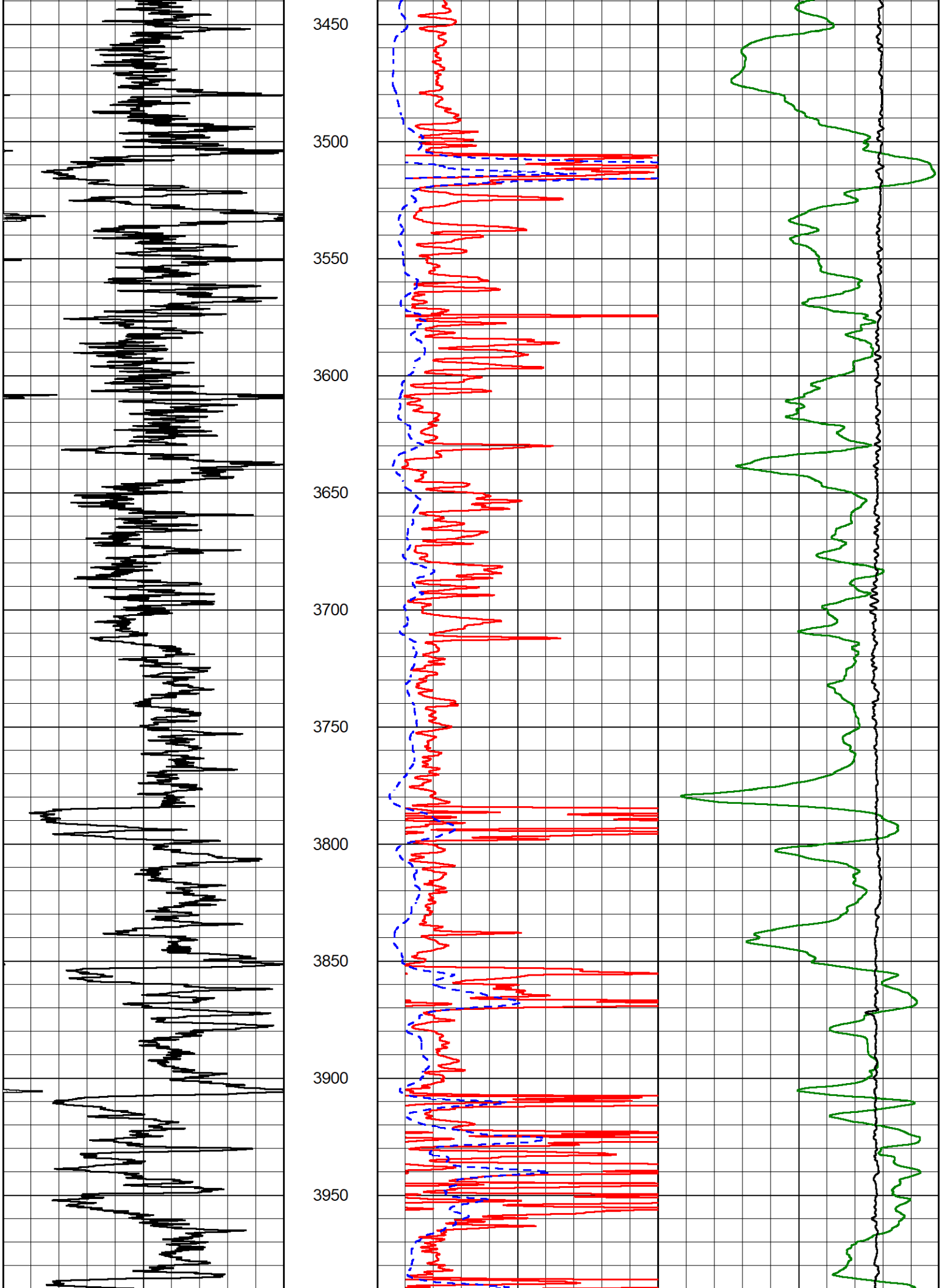

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900
950
1000
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1100
1150
1200

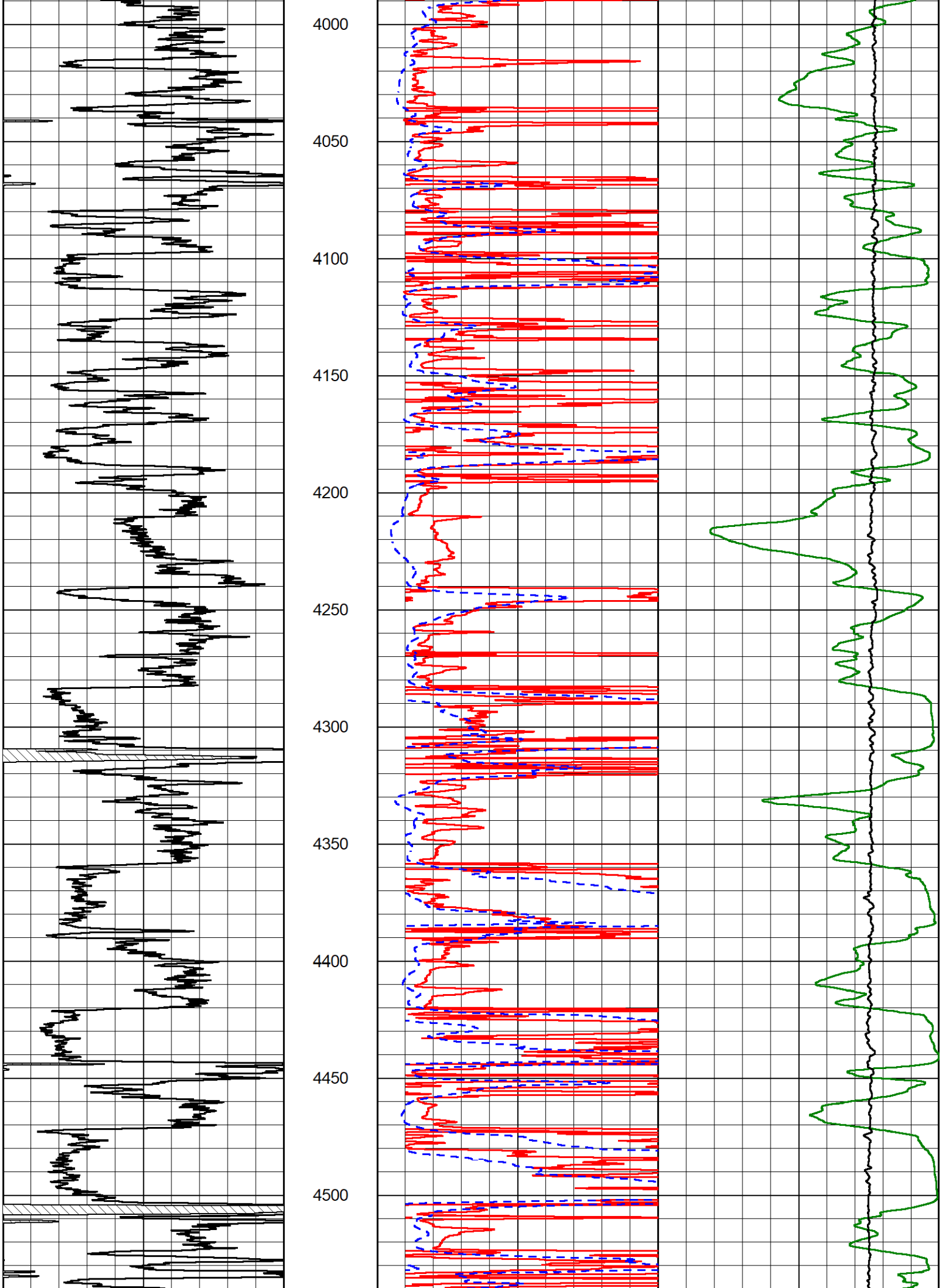

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1750

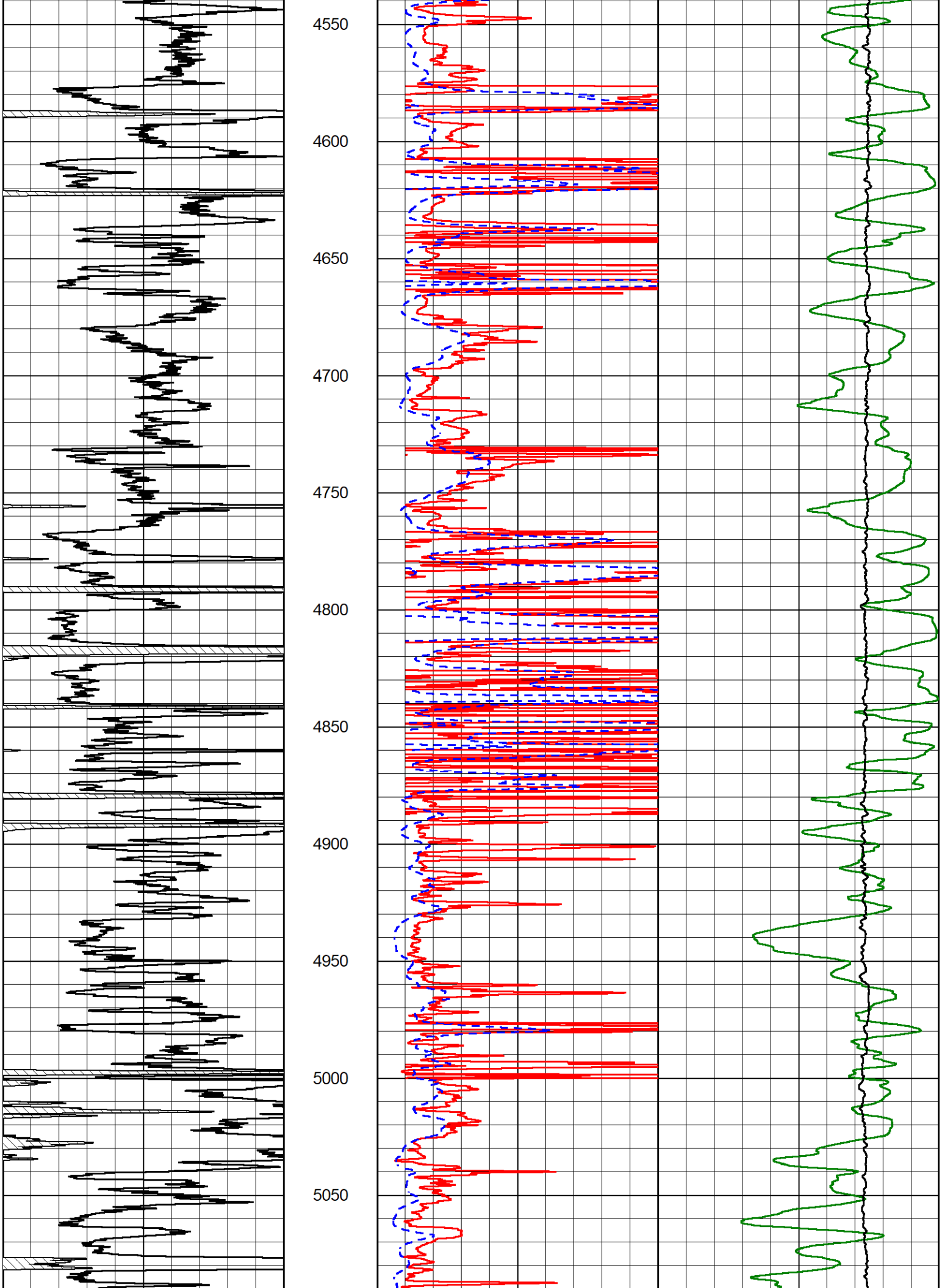

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2300

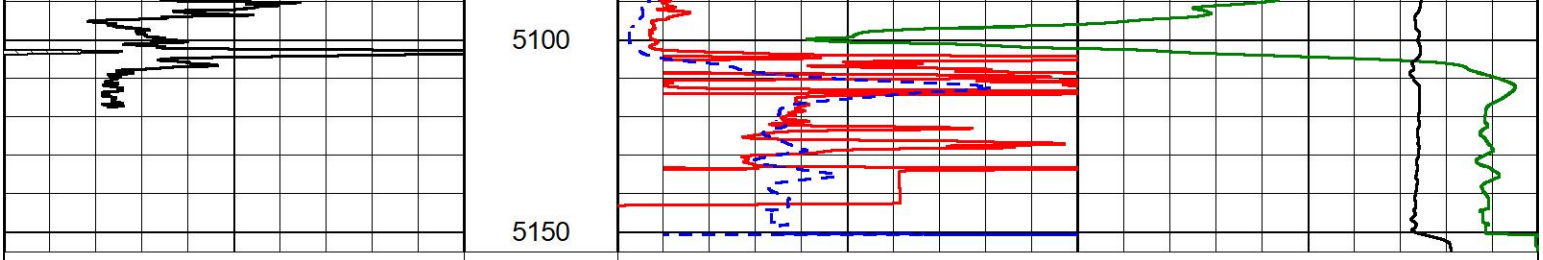

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2800
2850


2900
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3000
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3400


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4200
4250
4300
4350
4400
4450
4500


4550
4600
4650
4700
4750
4800
4850
4900
4950
5000
5050



0	Gamma Ray (GAPI)	150
1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
0	Shallow Resisitivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
	Shallow Resistivity	
50	(Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200

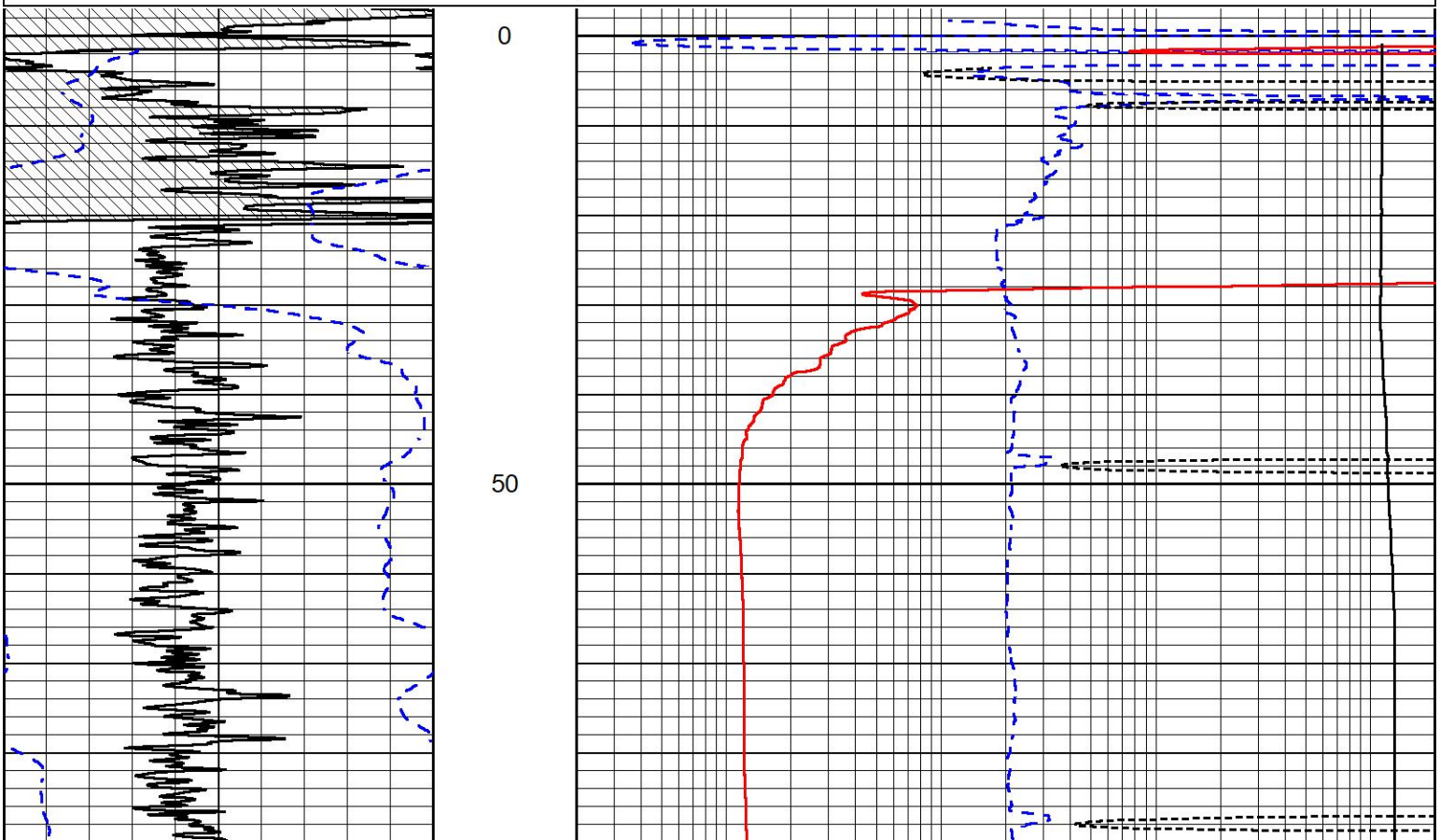
MIDWEST WIRELINE

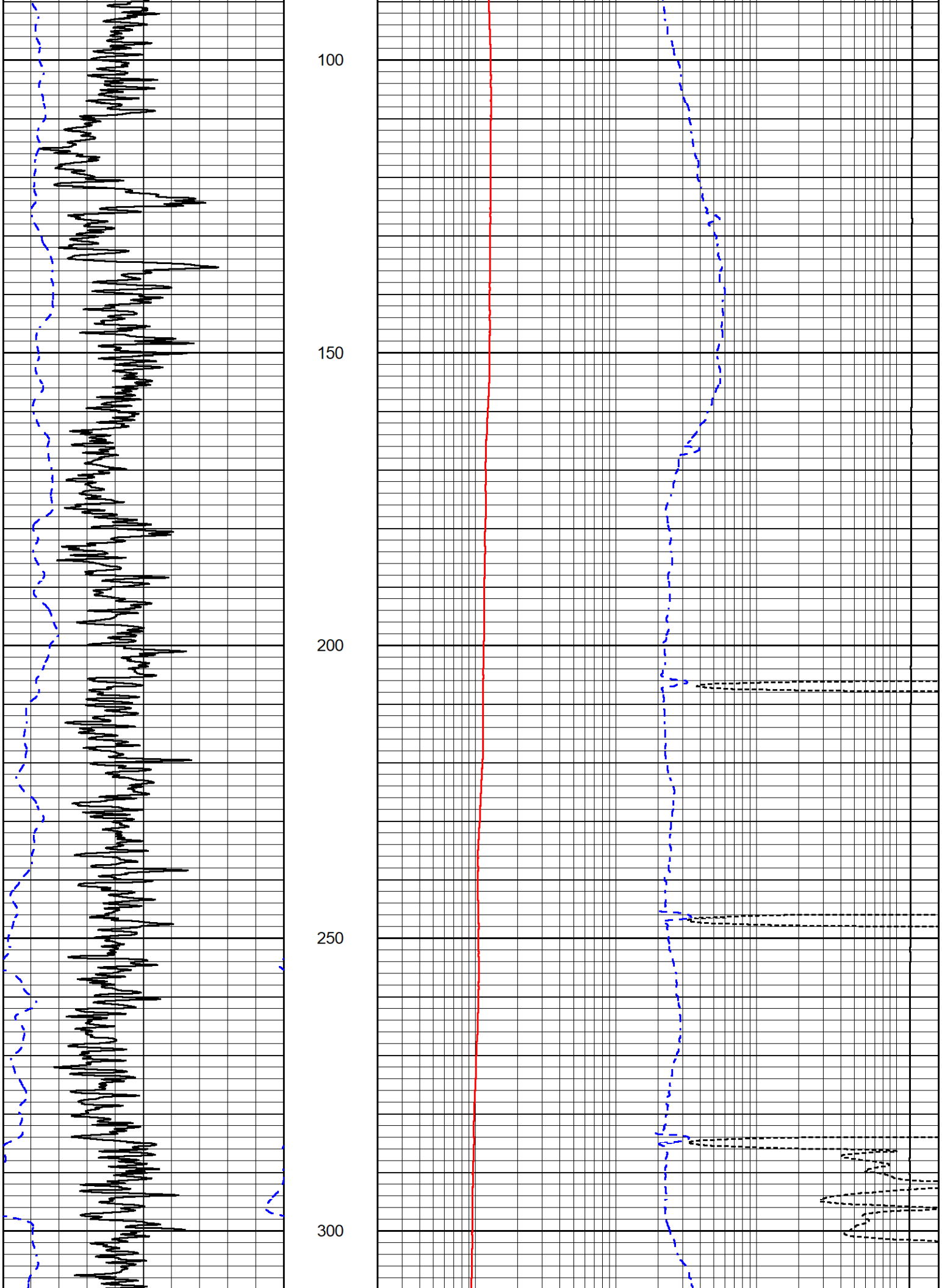
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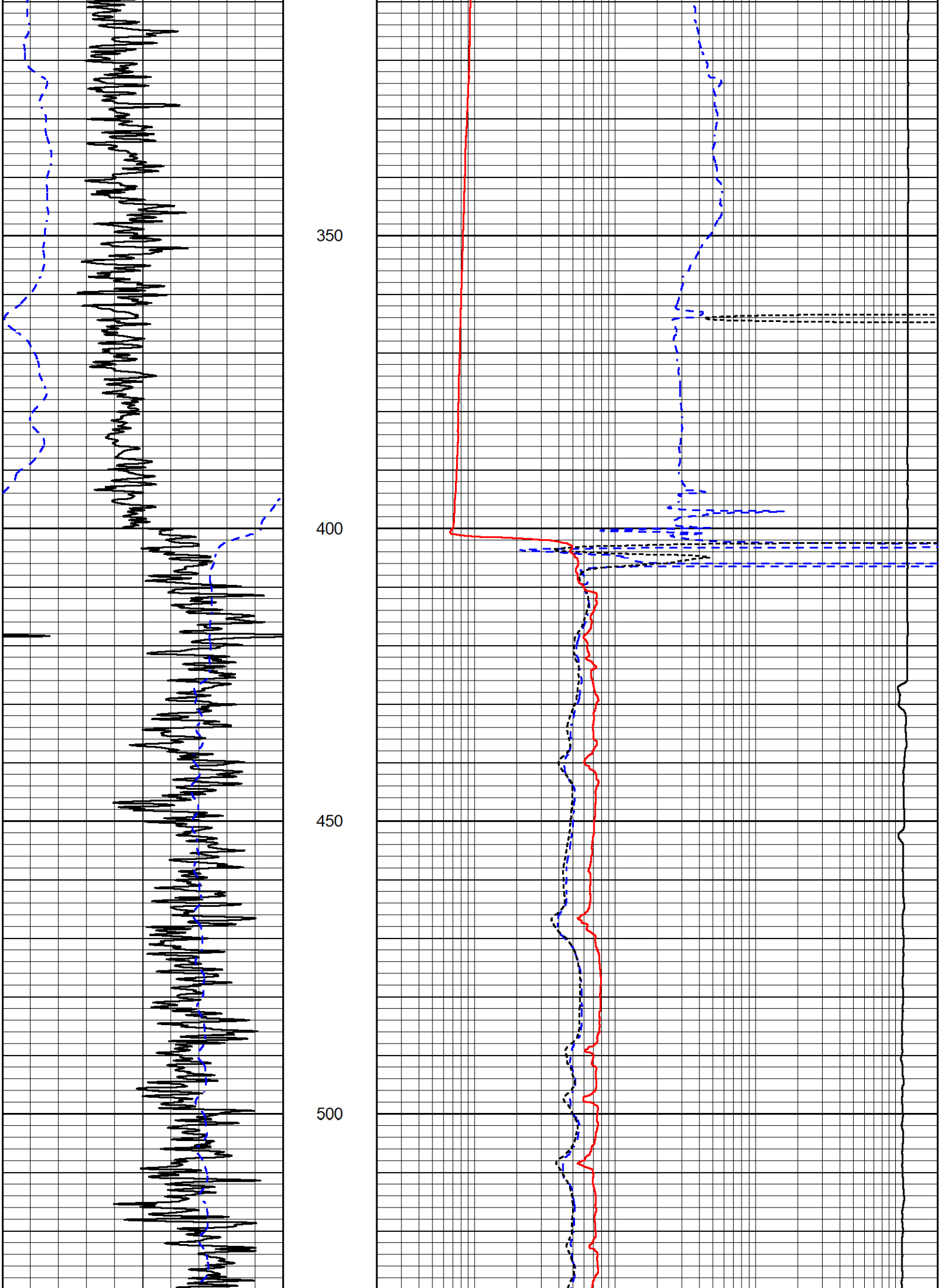
MAIN PASS

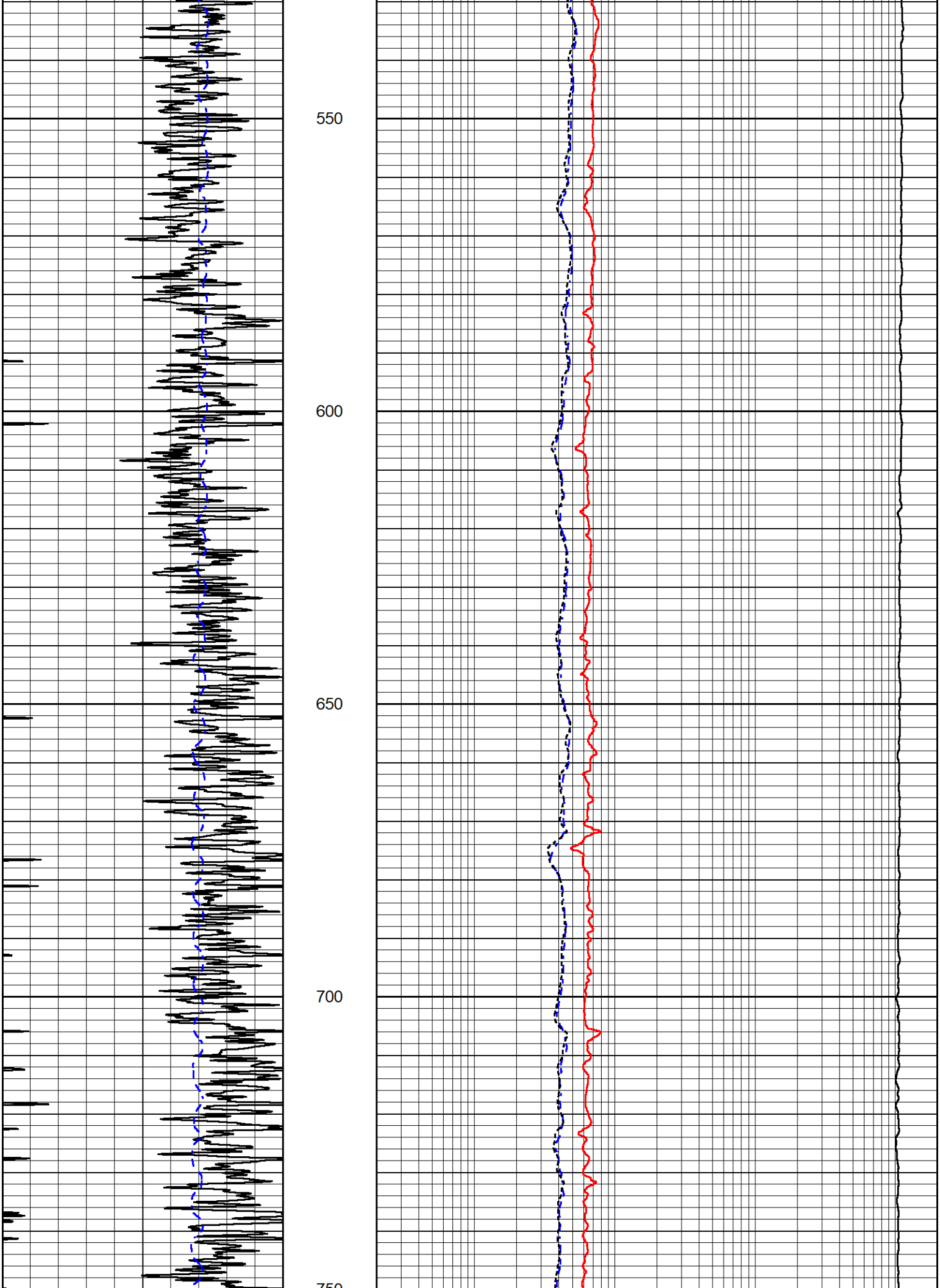
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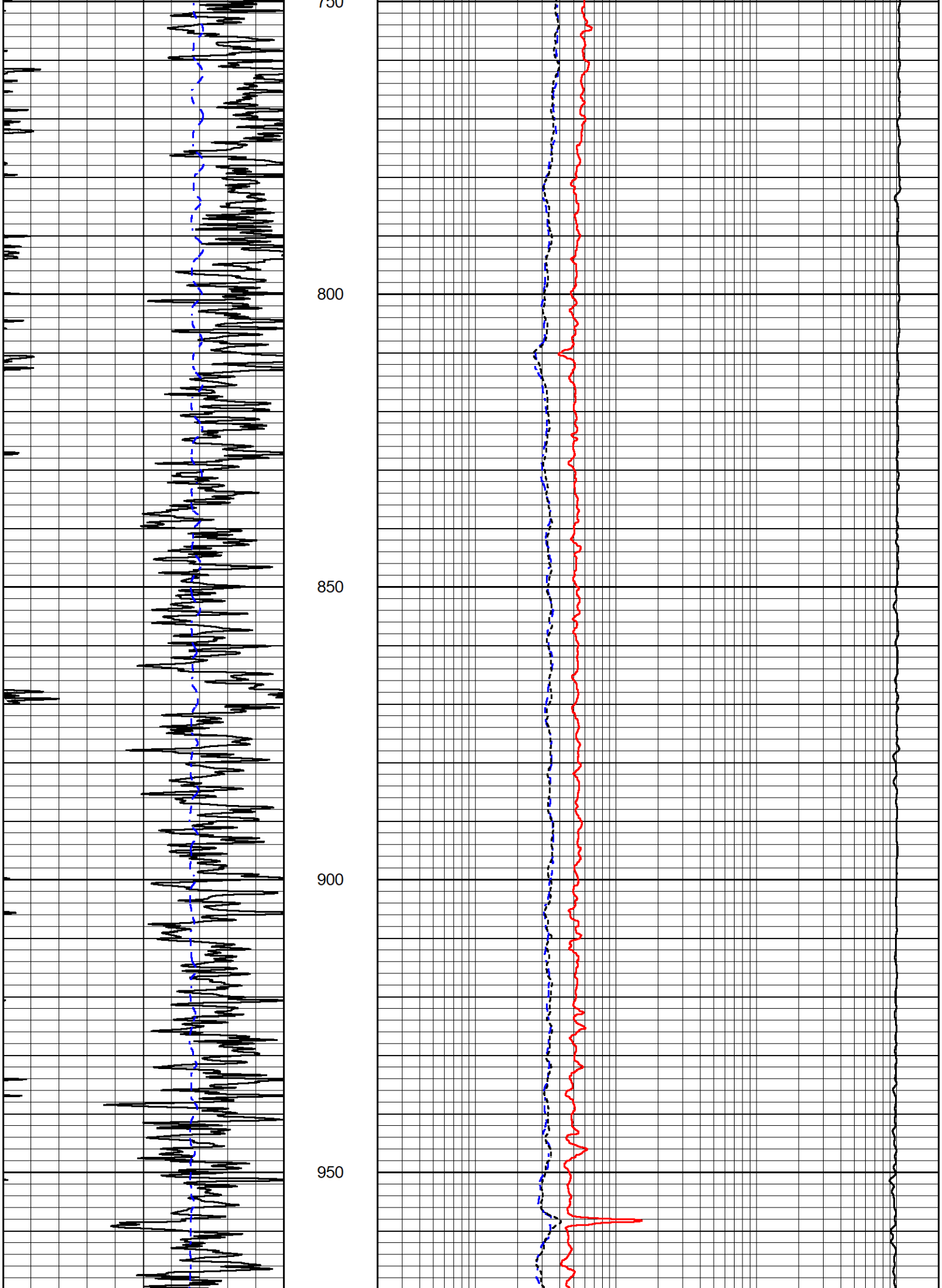
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

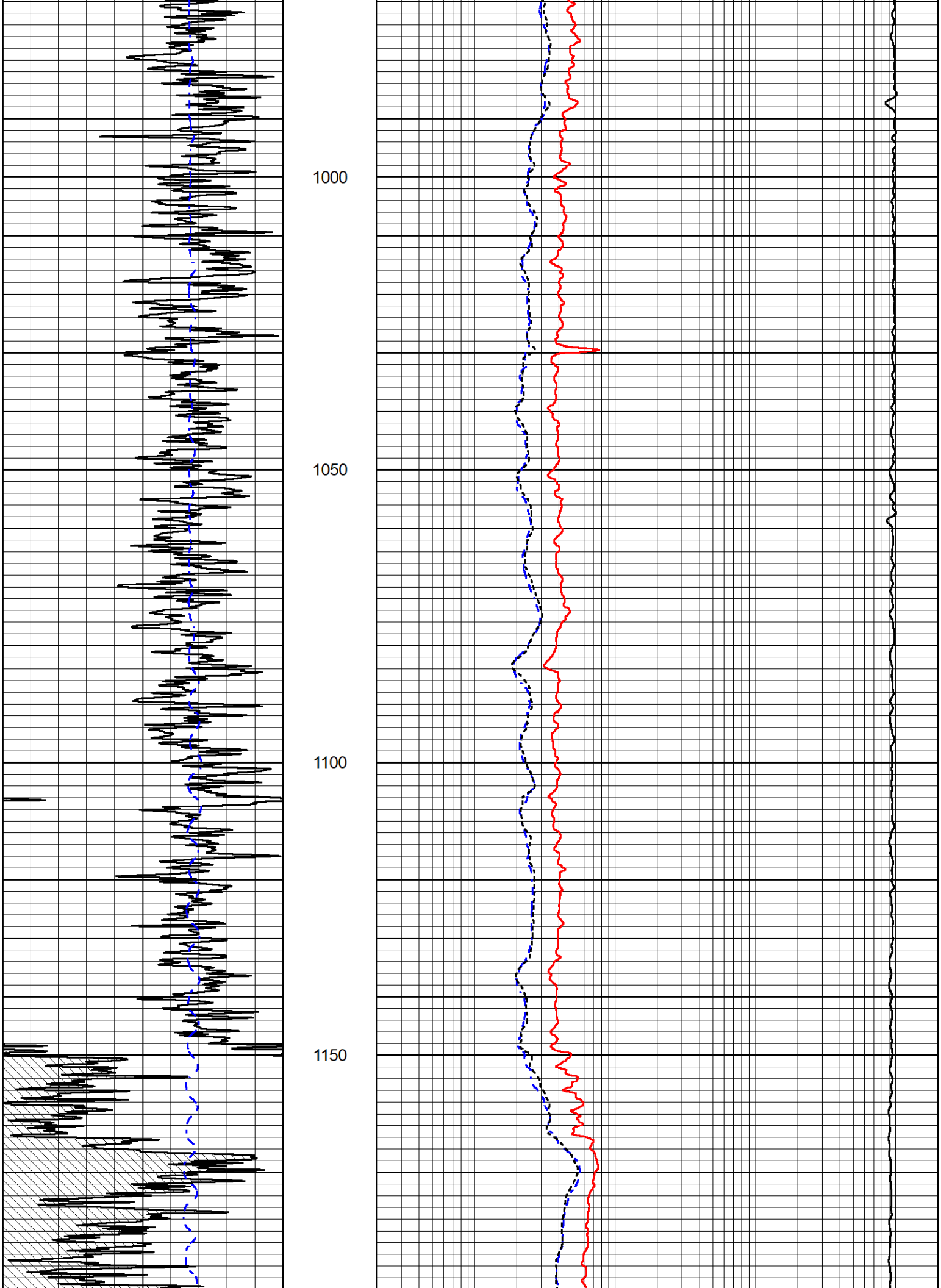


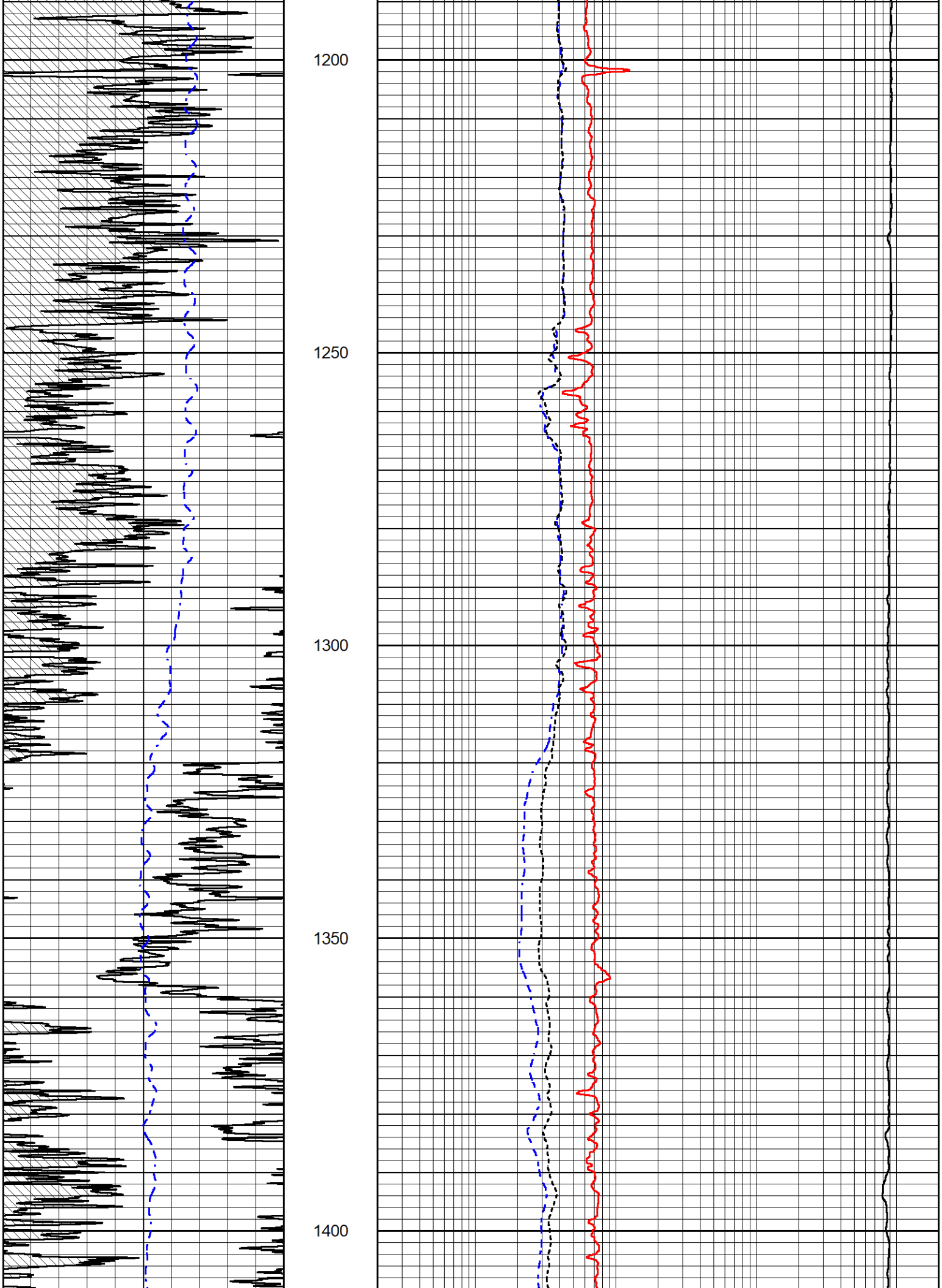

100
150
200
250
300

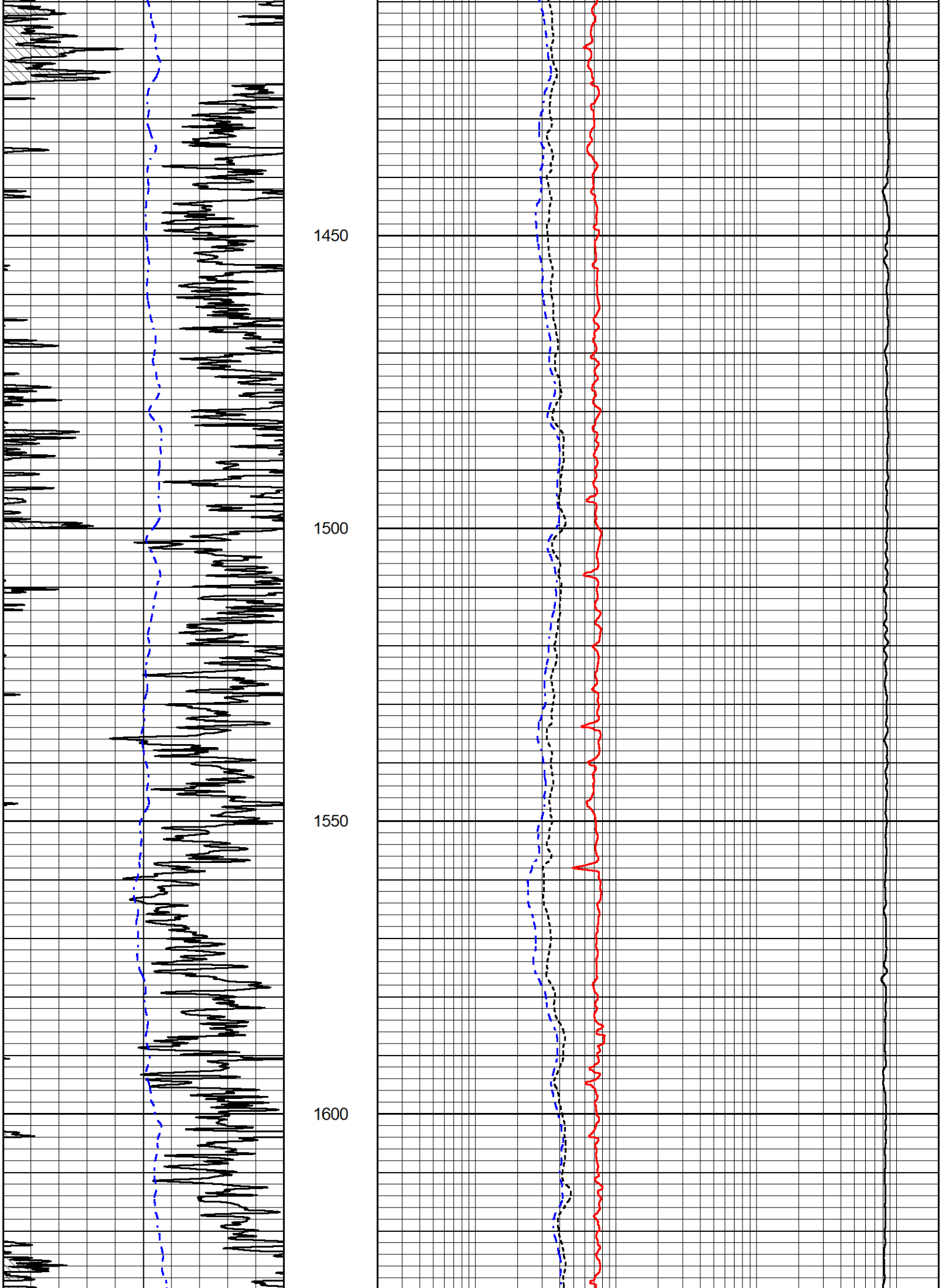

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400
450
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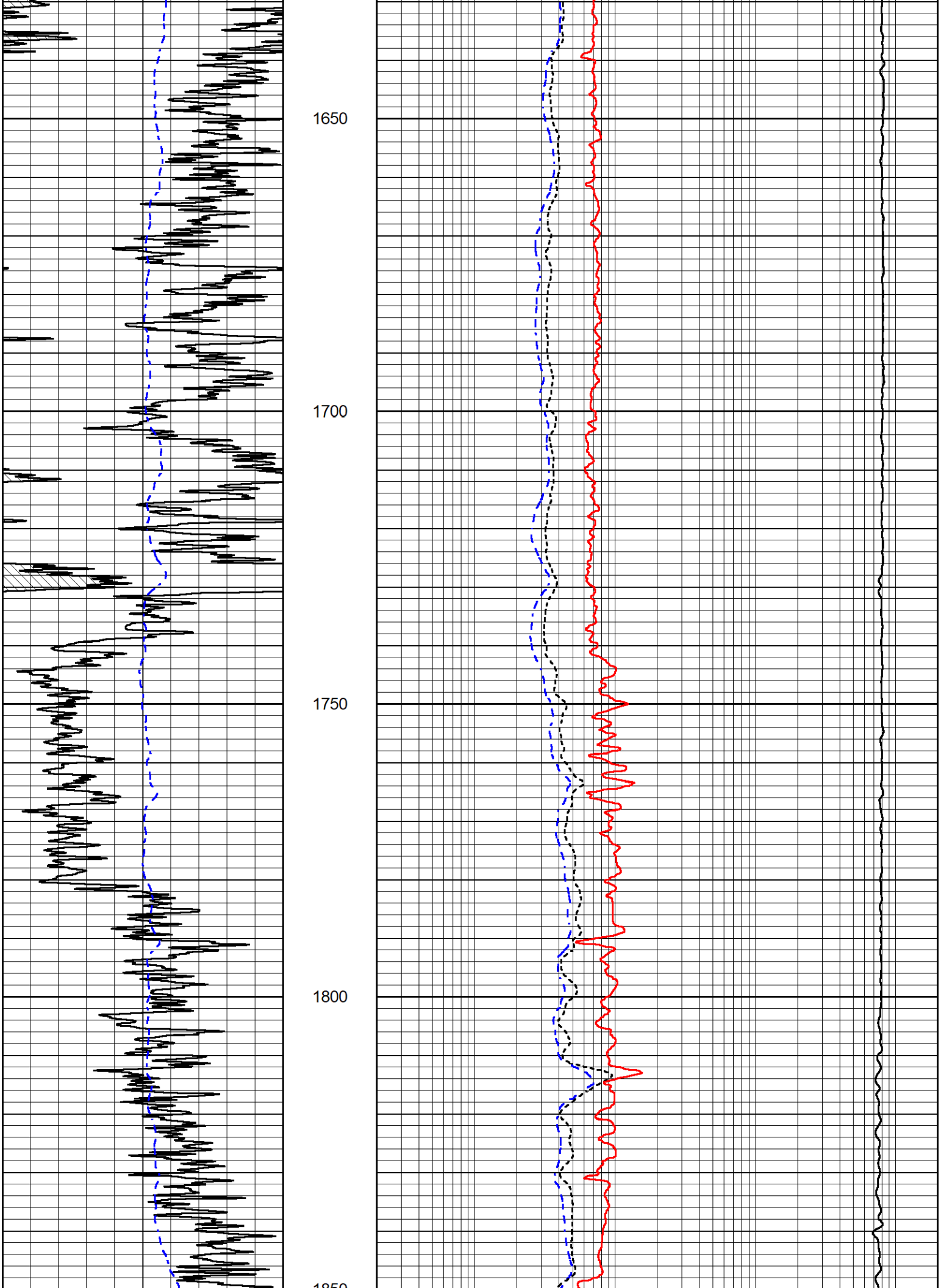

550
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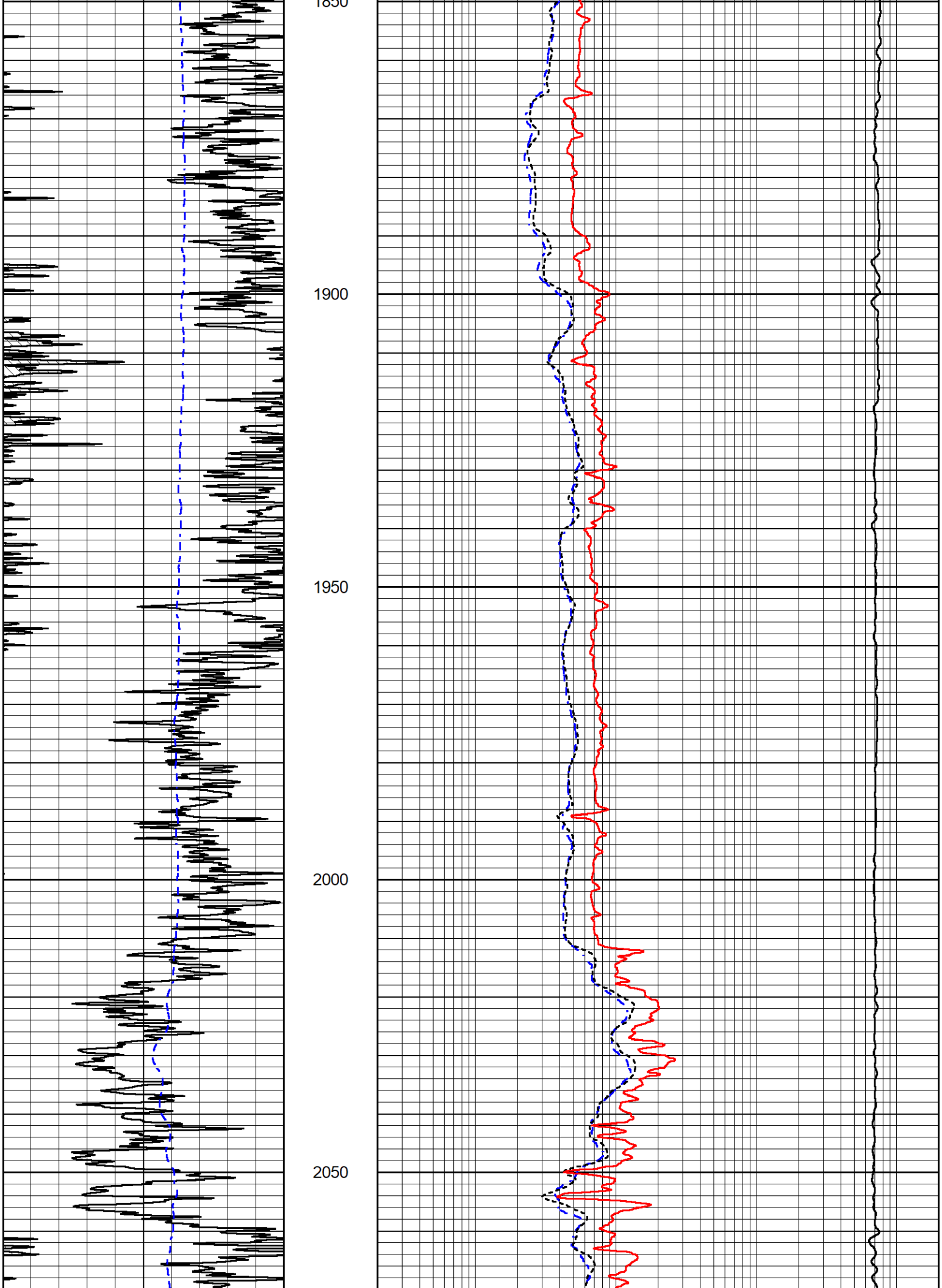

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800
850
900
950

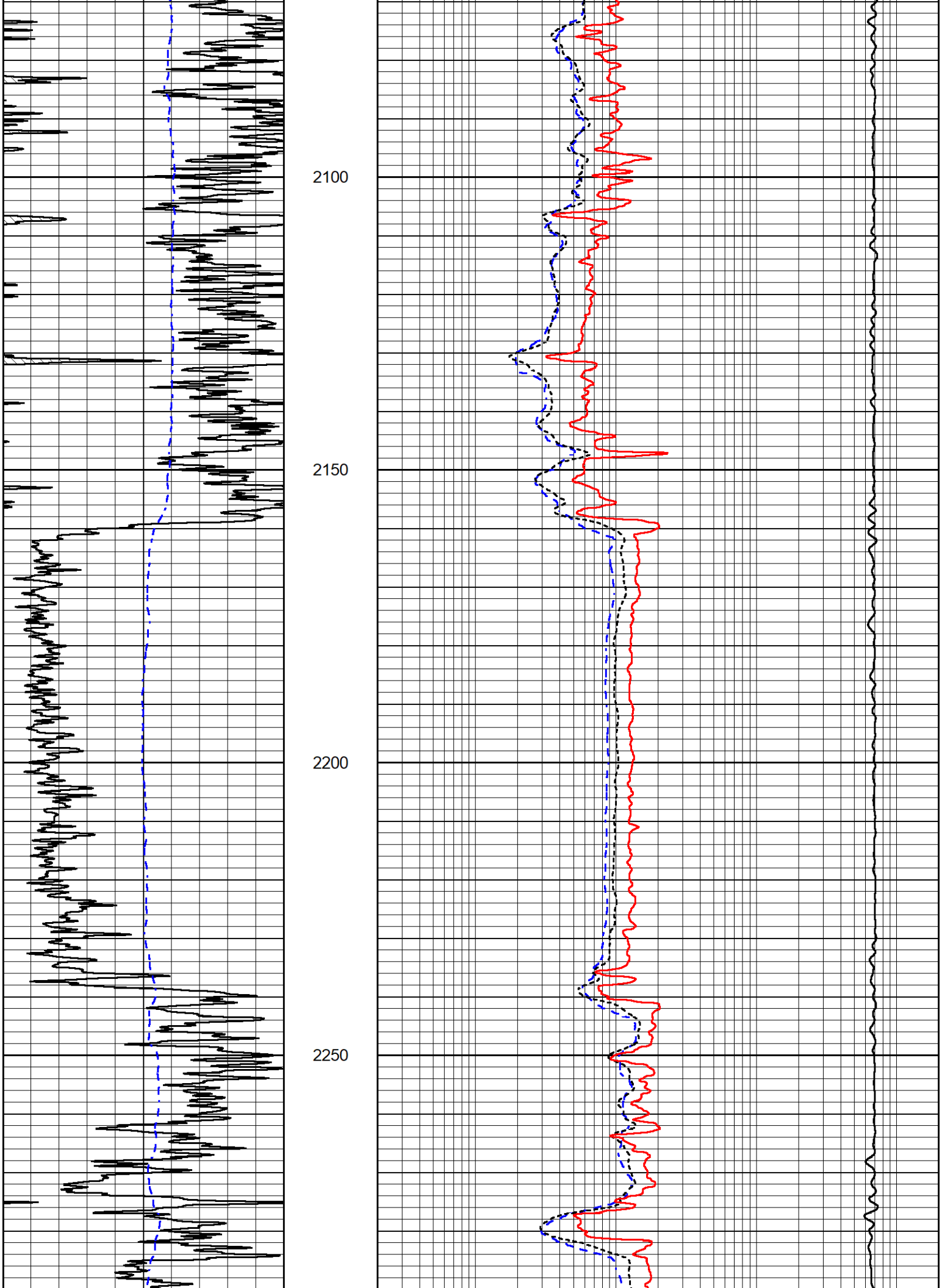

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1100
1150

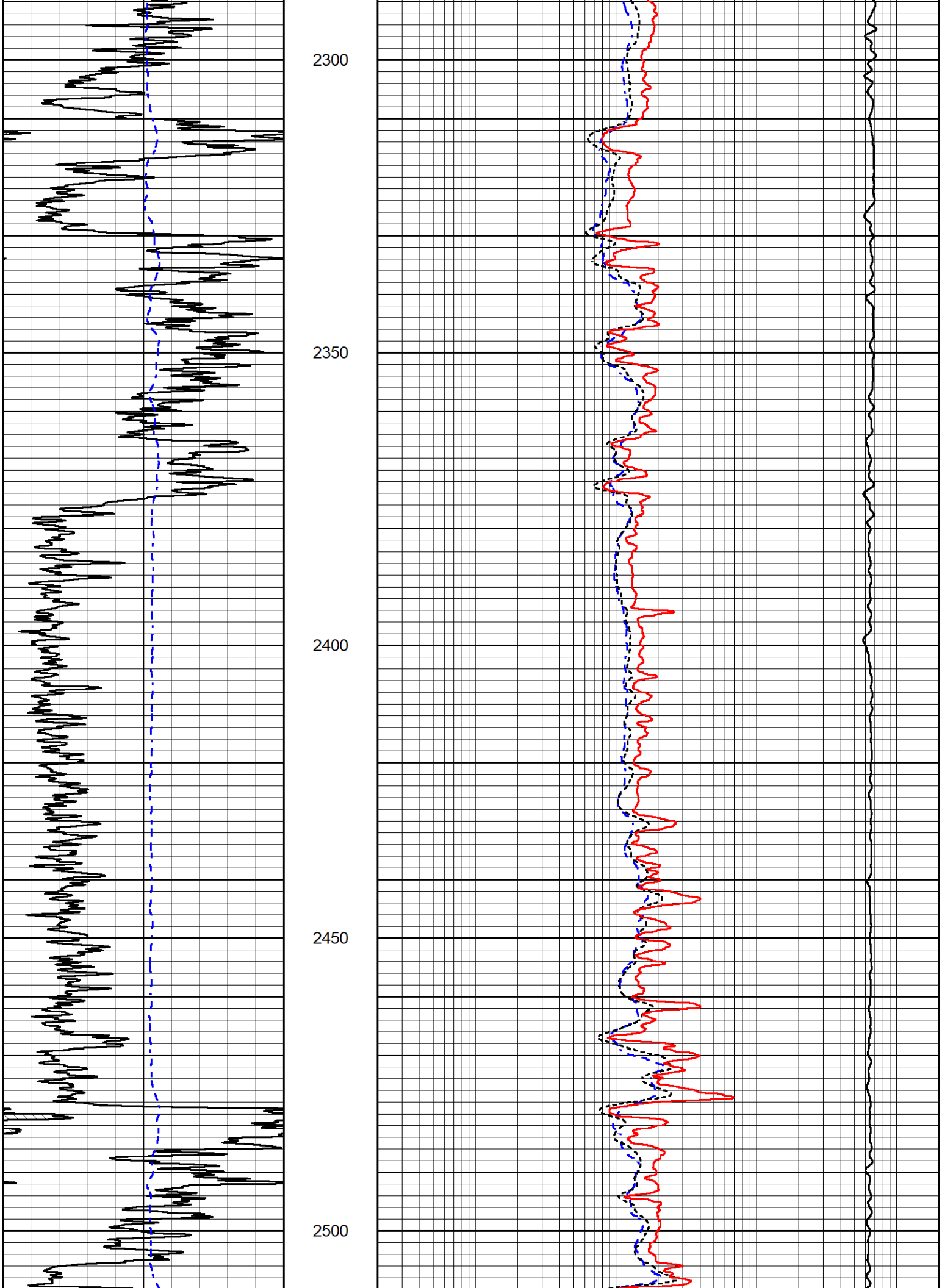

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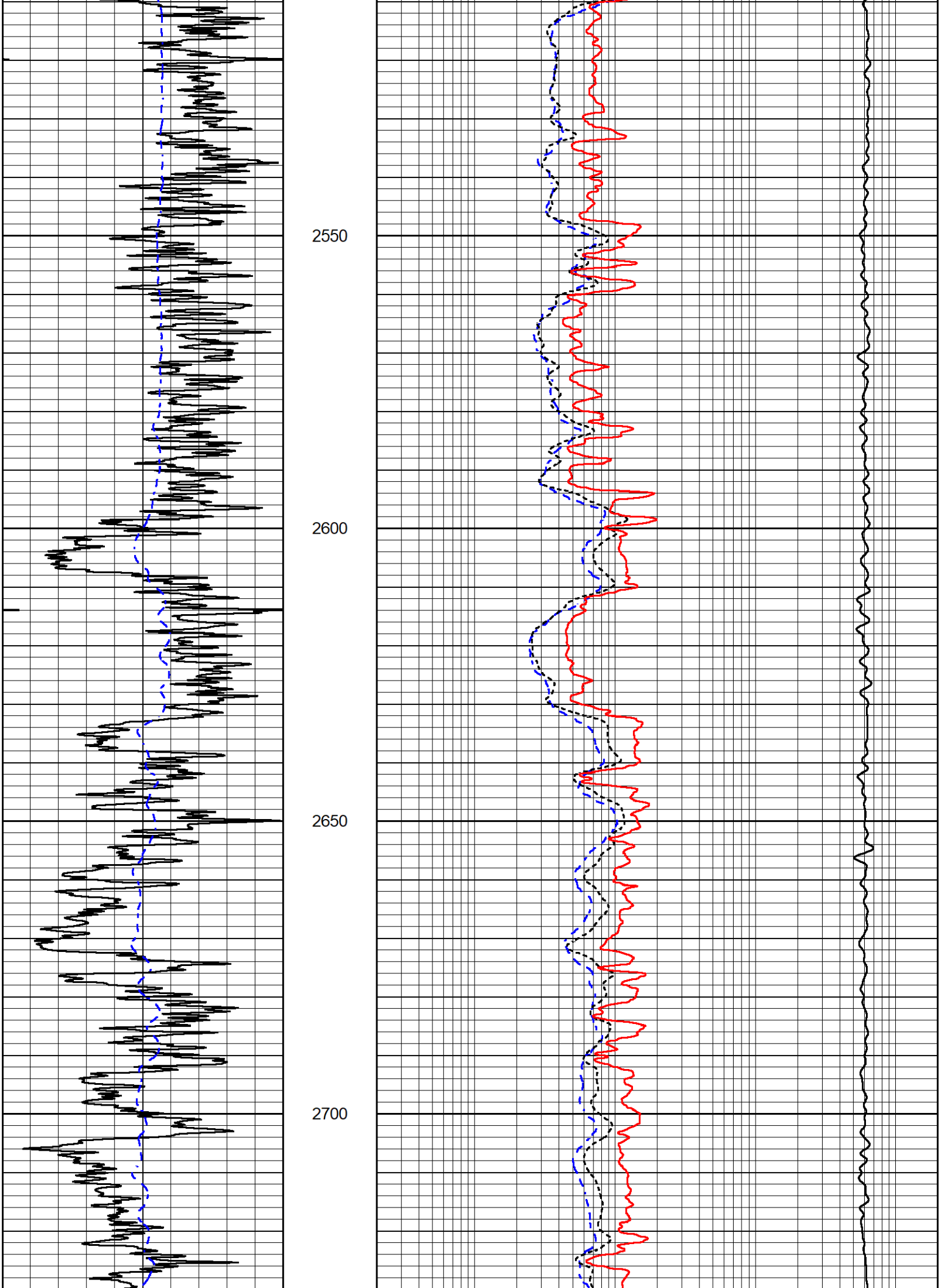

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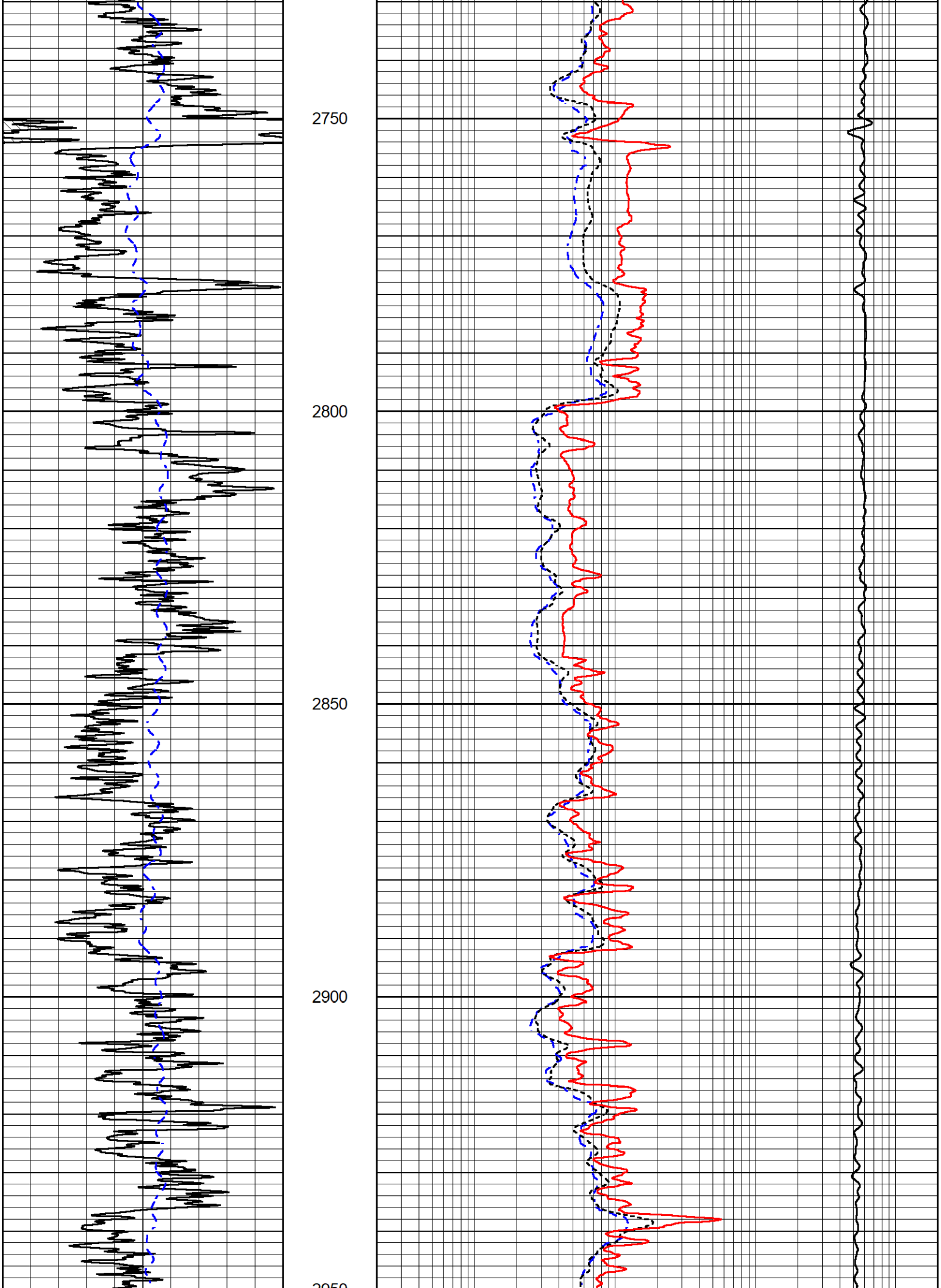

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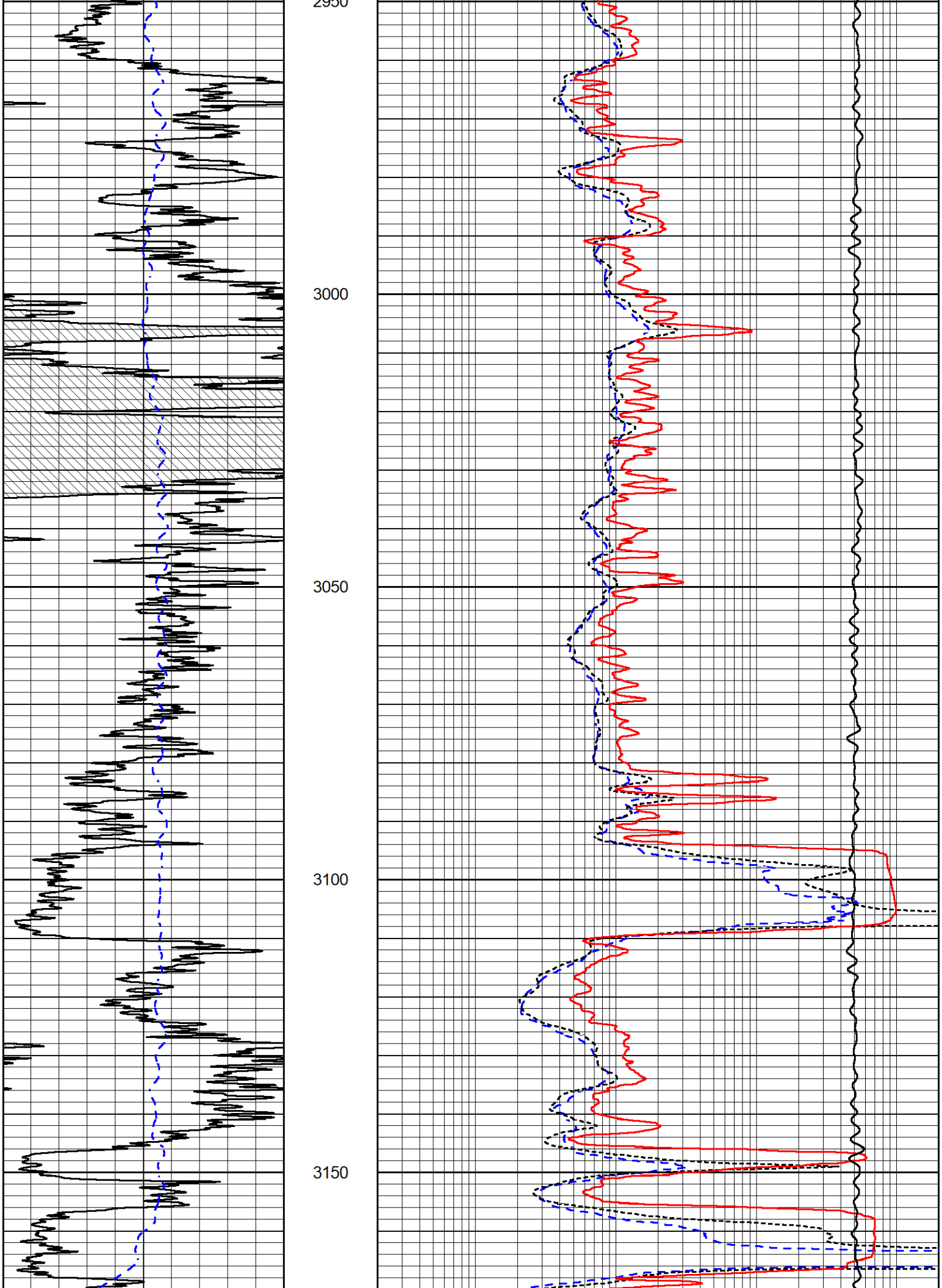

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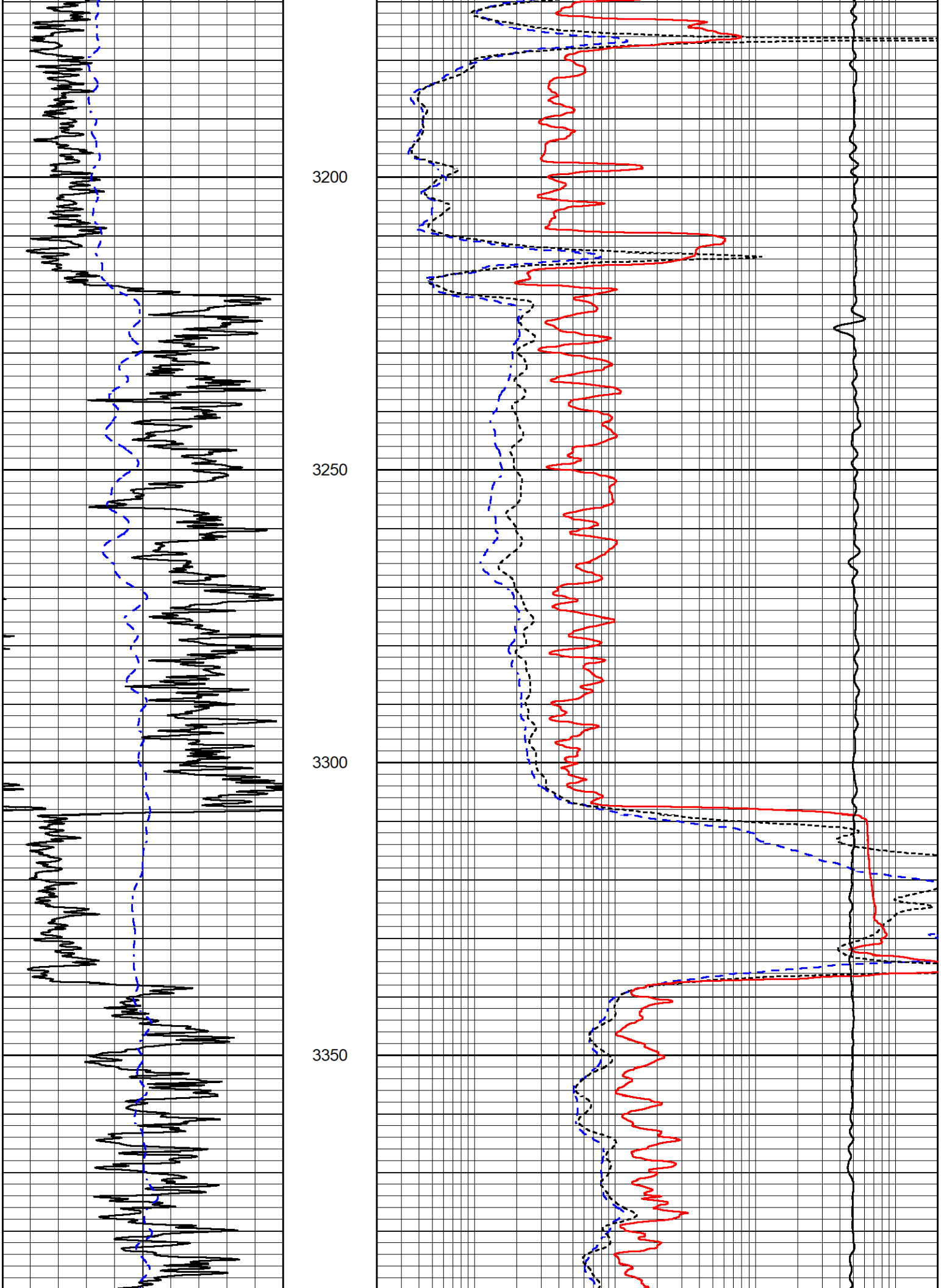

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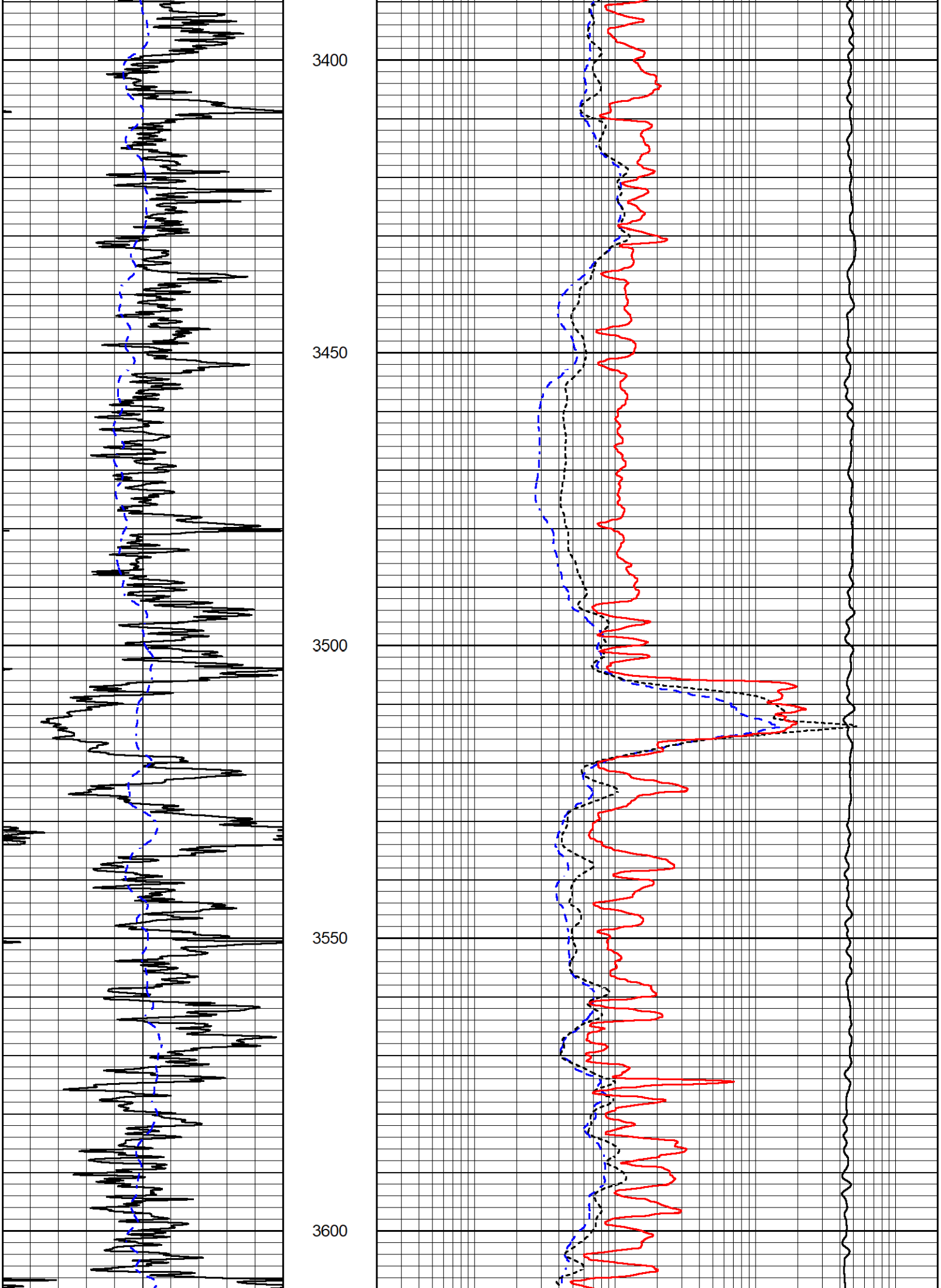

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2400
2450
2500

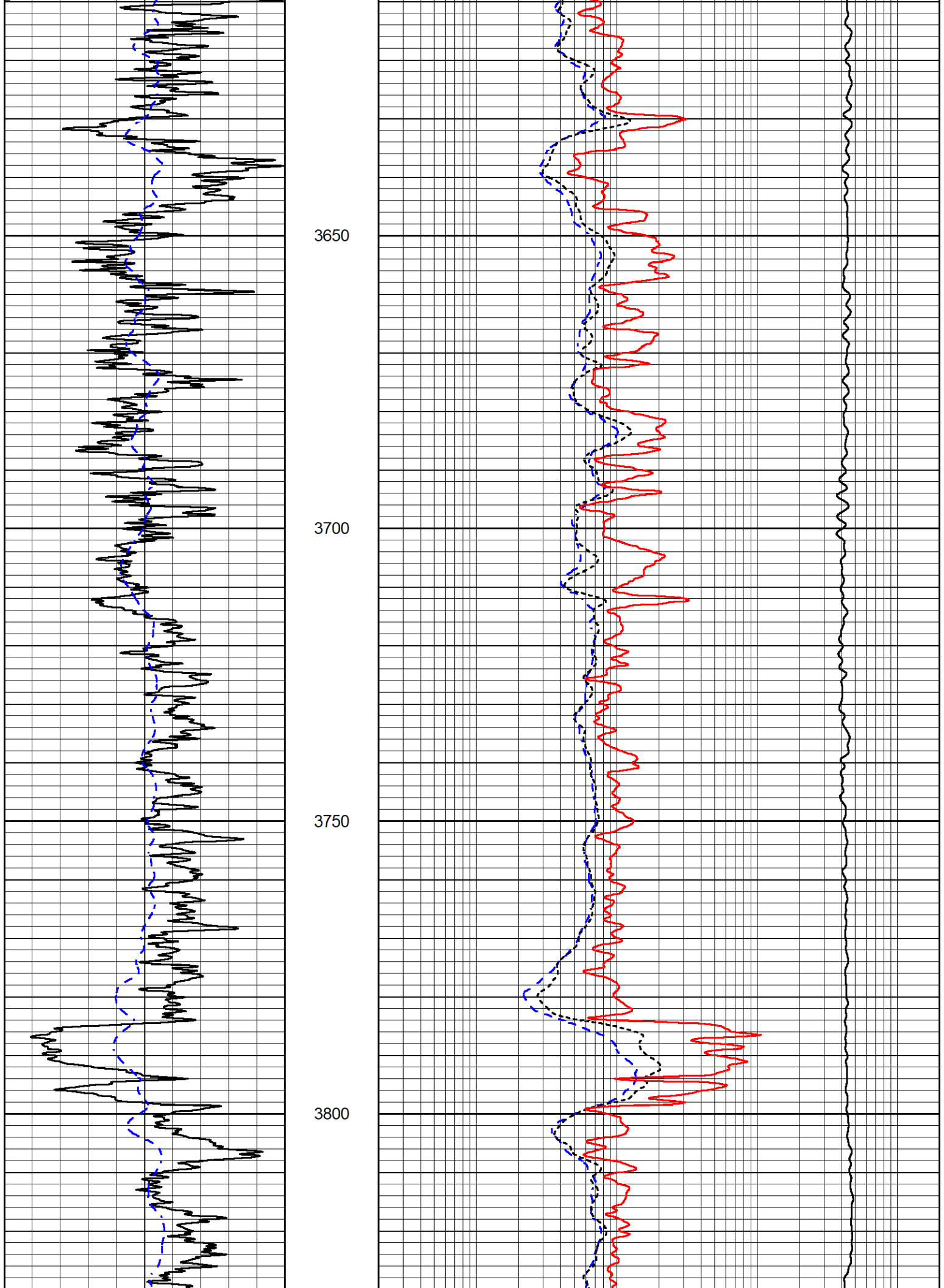

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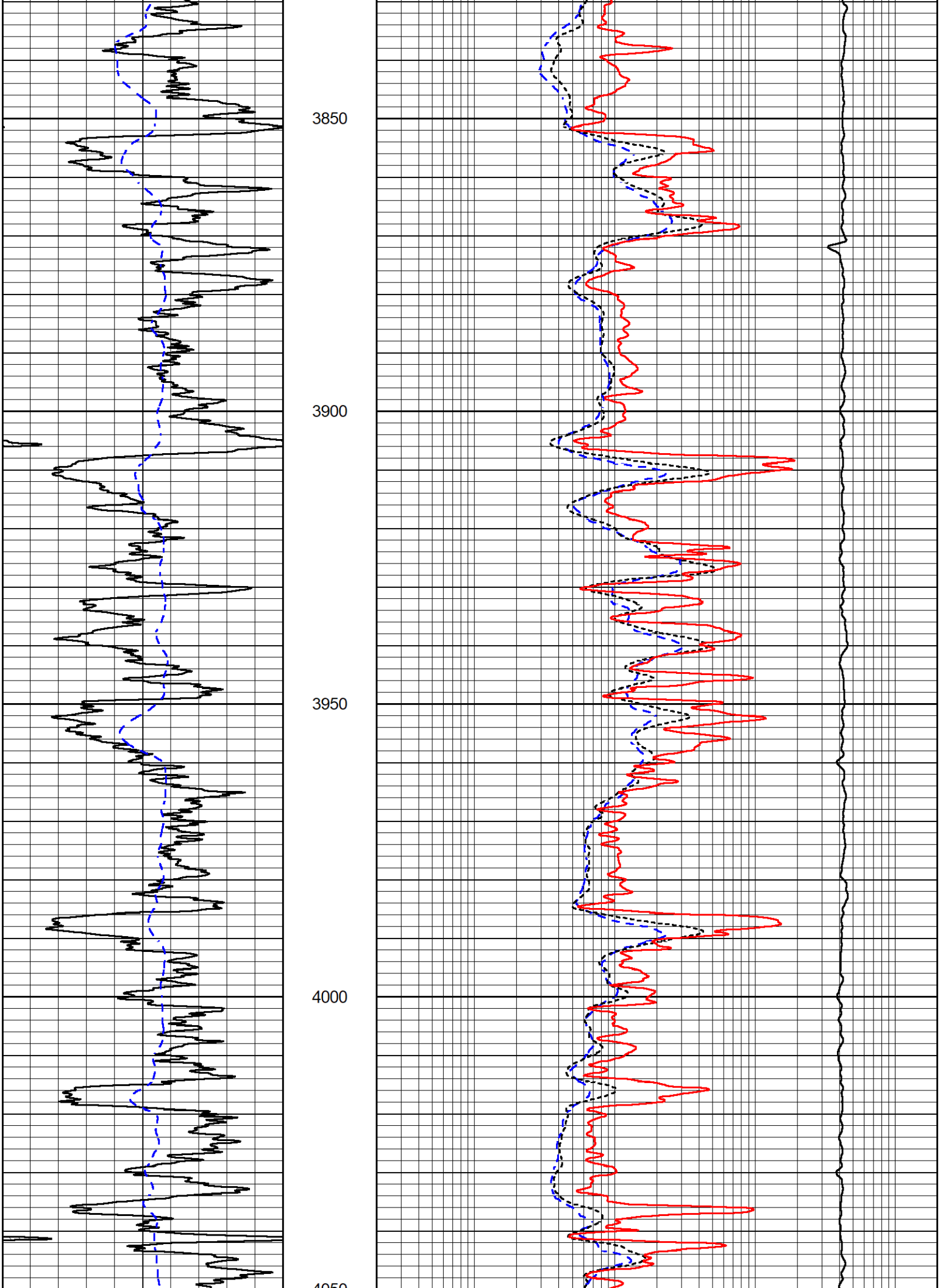

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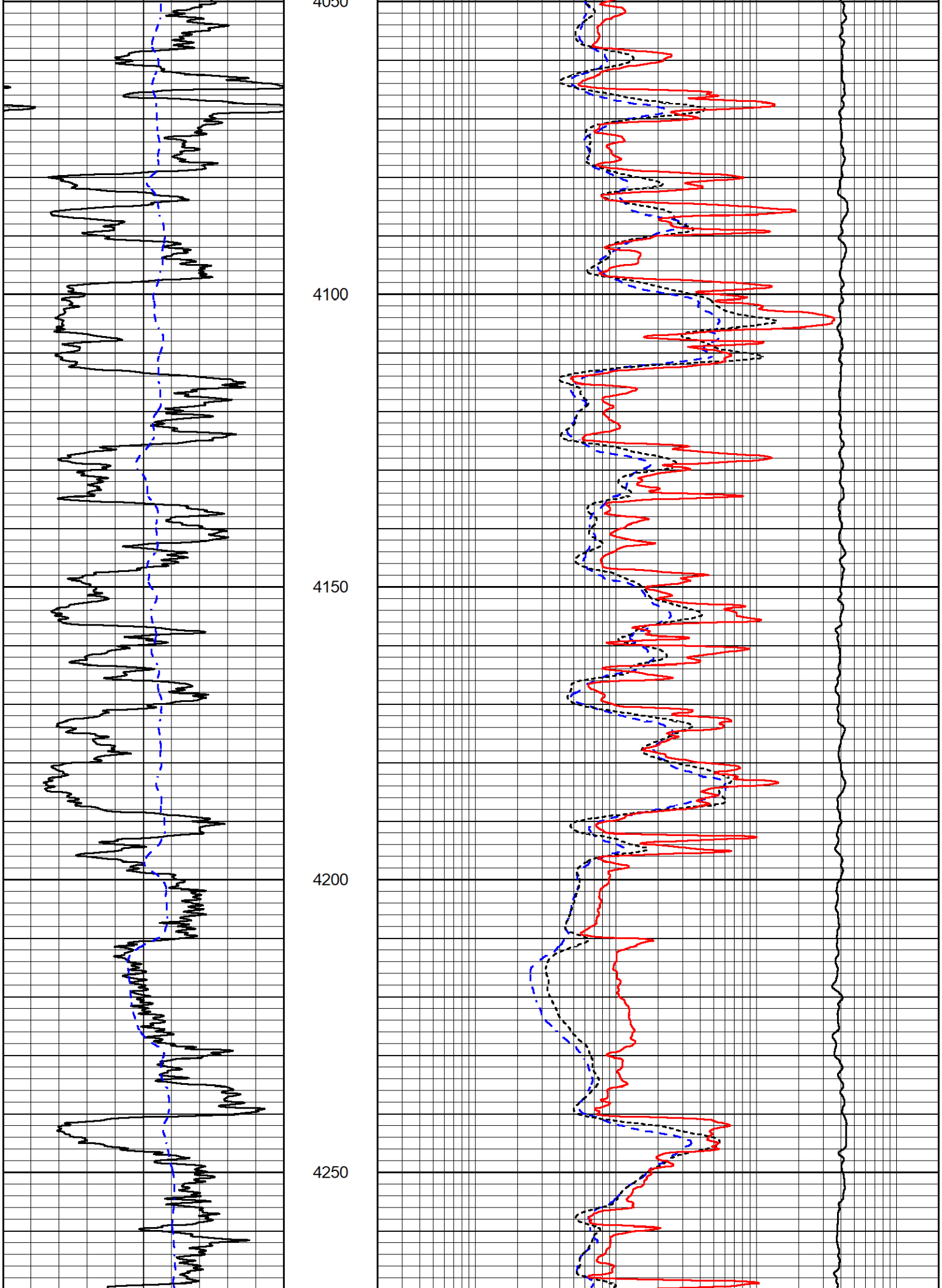

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3050
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3150

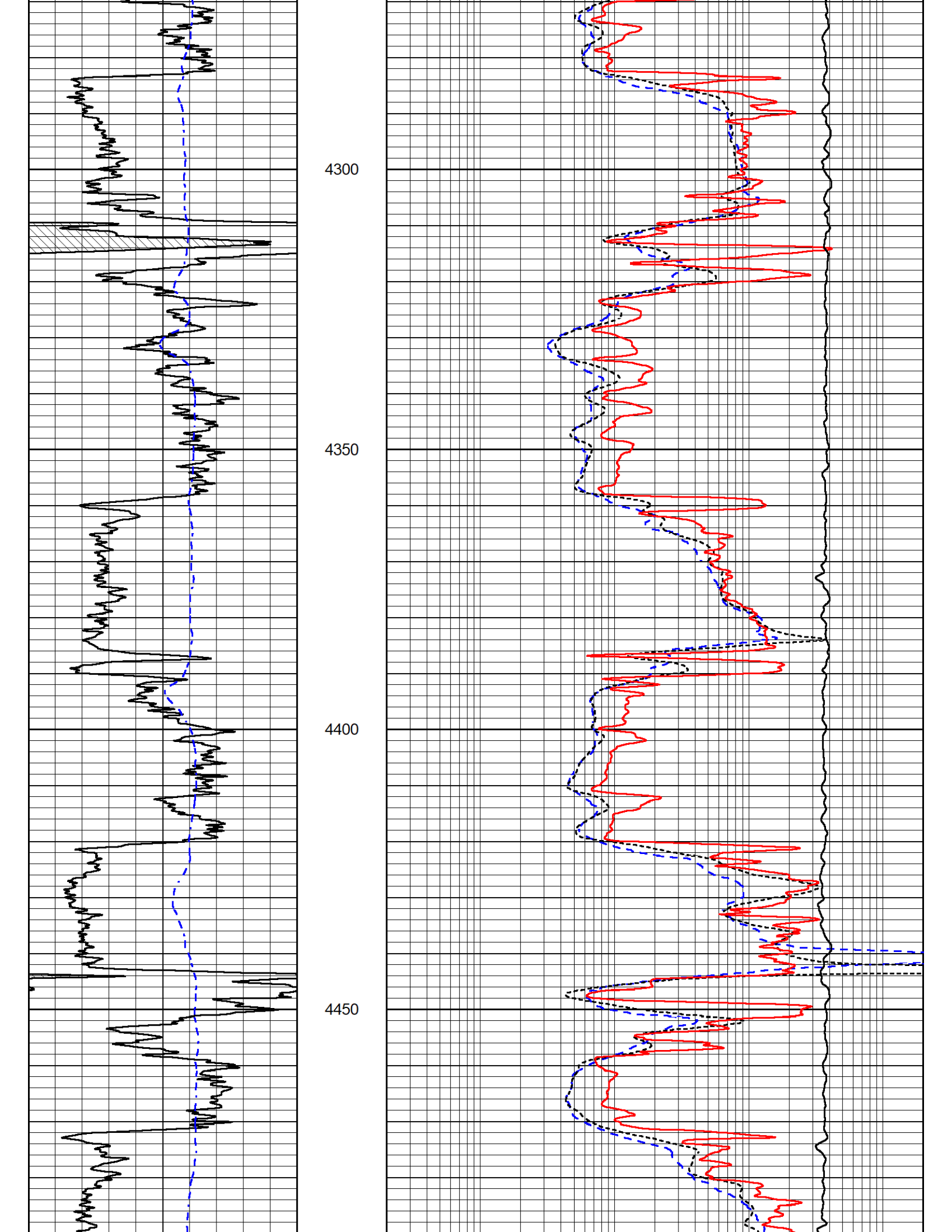

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3350

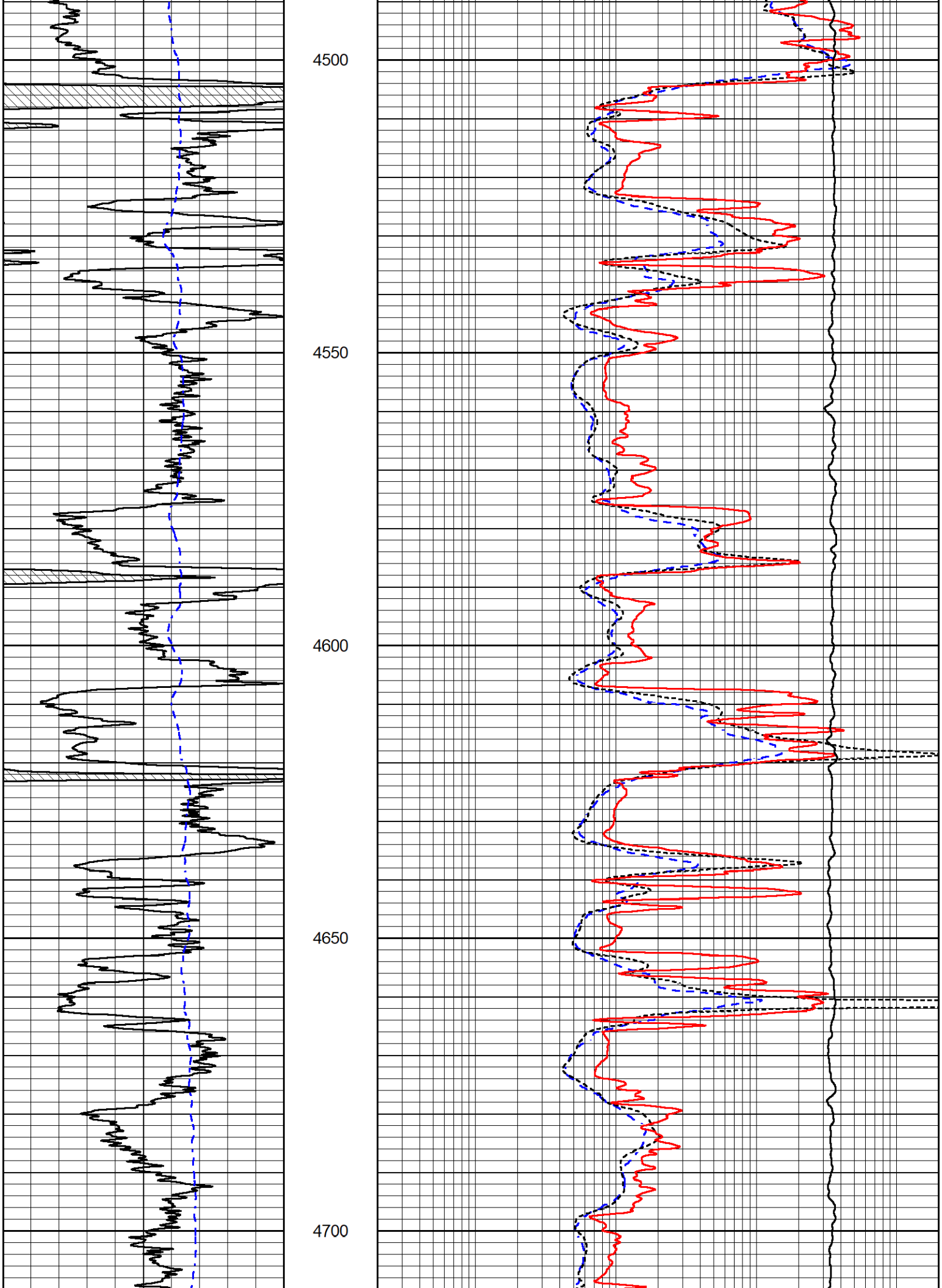

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3550
3600

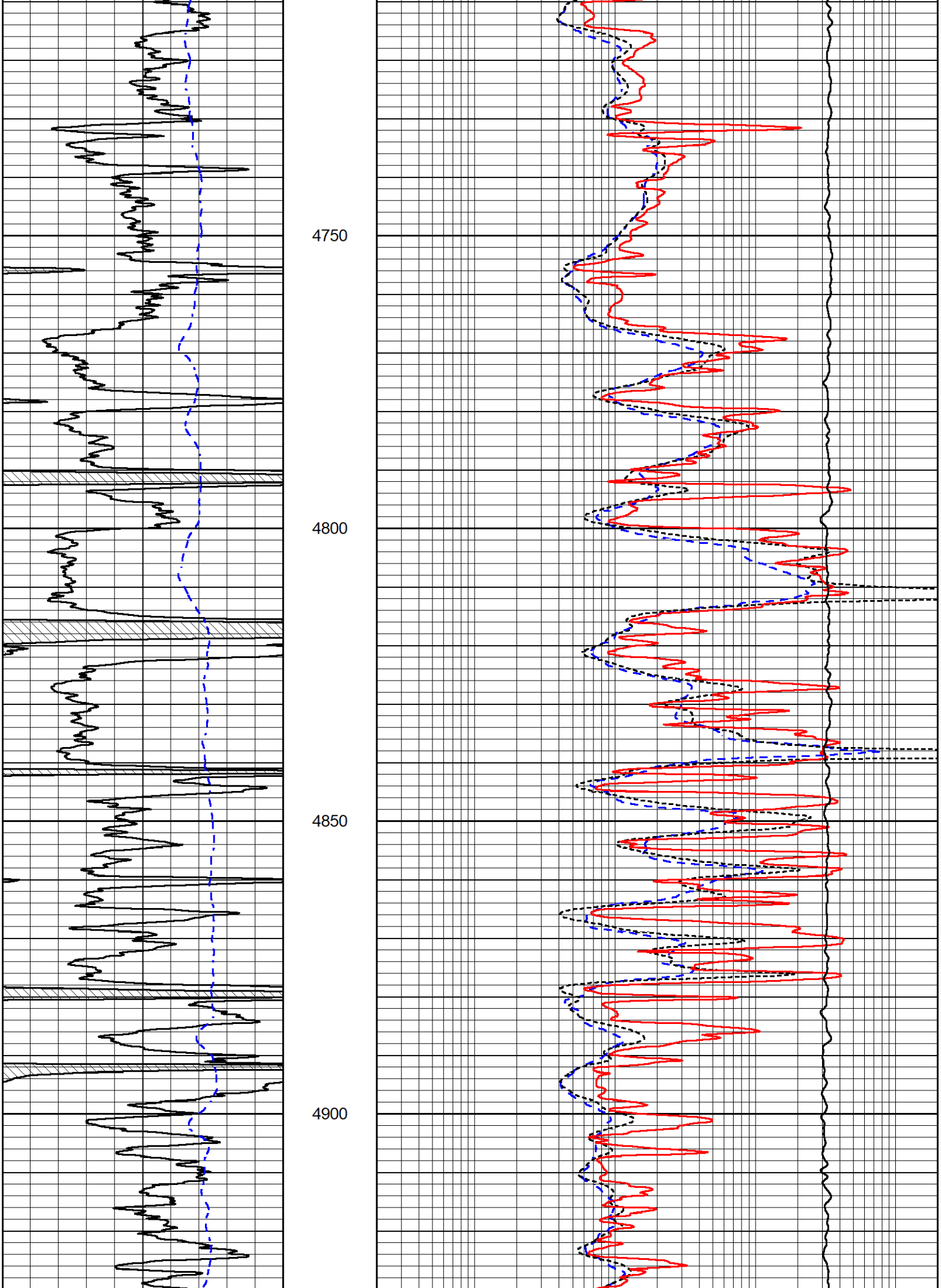

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3750
3800

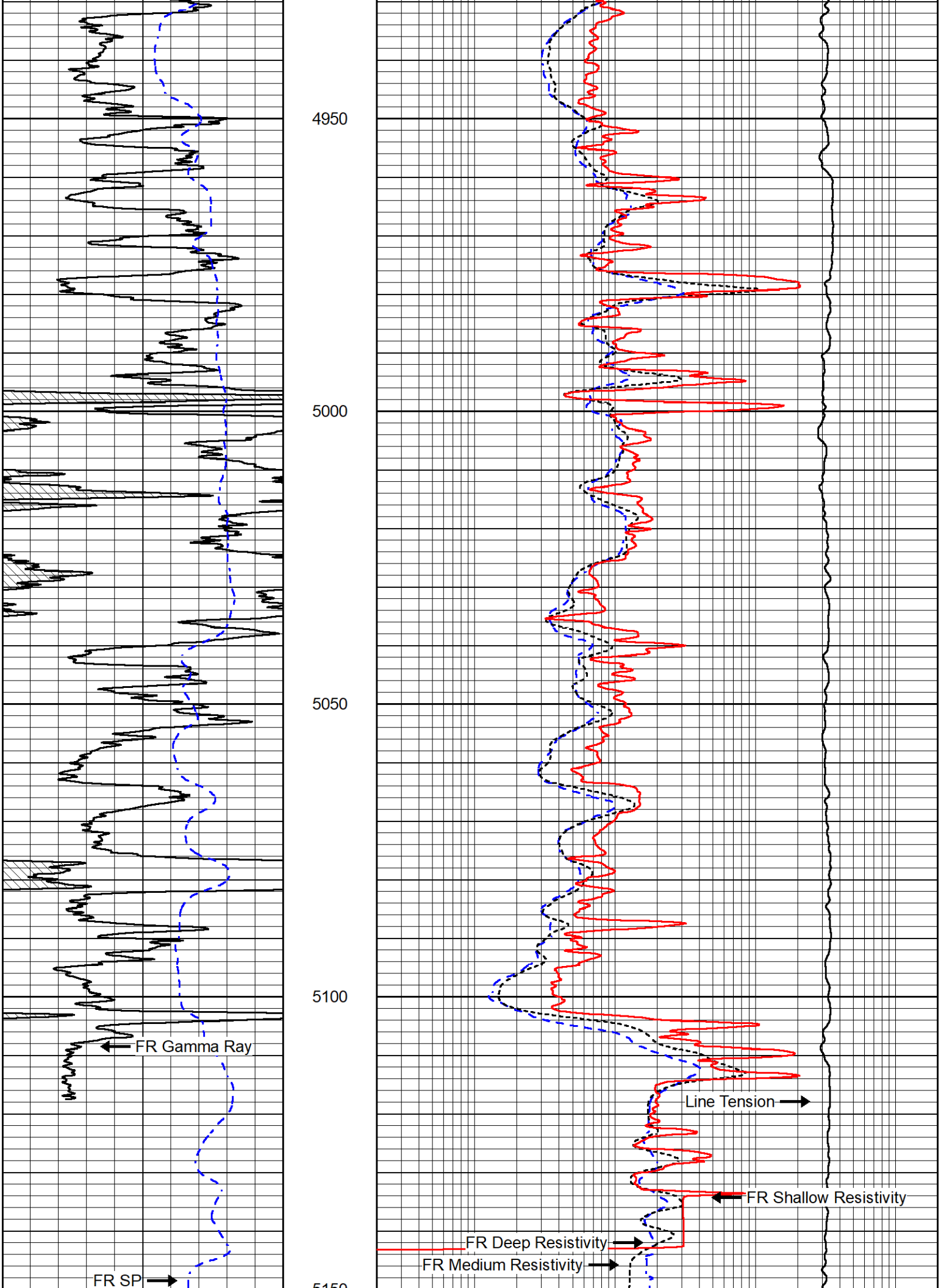

3850
3900
3950
4000


4050
4100
4150
4200
4250


4300
4350
4400
4450


4500
4550
4600
4650
4700


4750
4800
4850
4900


4950
5000
5050
5100
5150
FR Gamma Ray
FR SP
Line Tension
FR Shallow Resistivity
FR Deep Resistivity
FR Medium Resistivity

0	Gamma Ray (GAPI)	150
-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

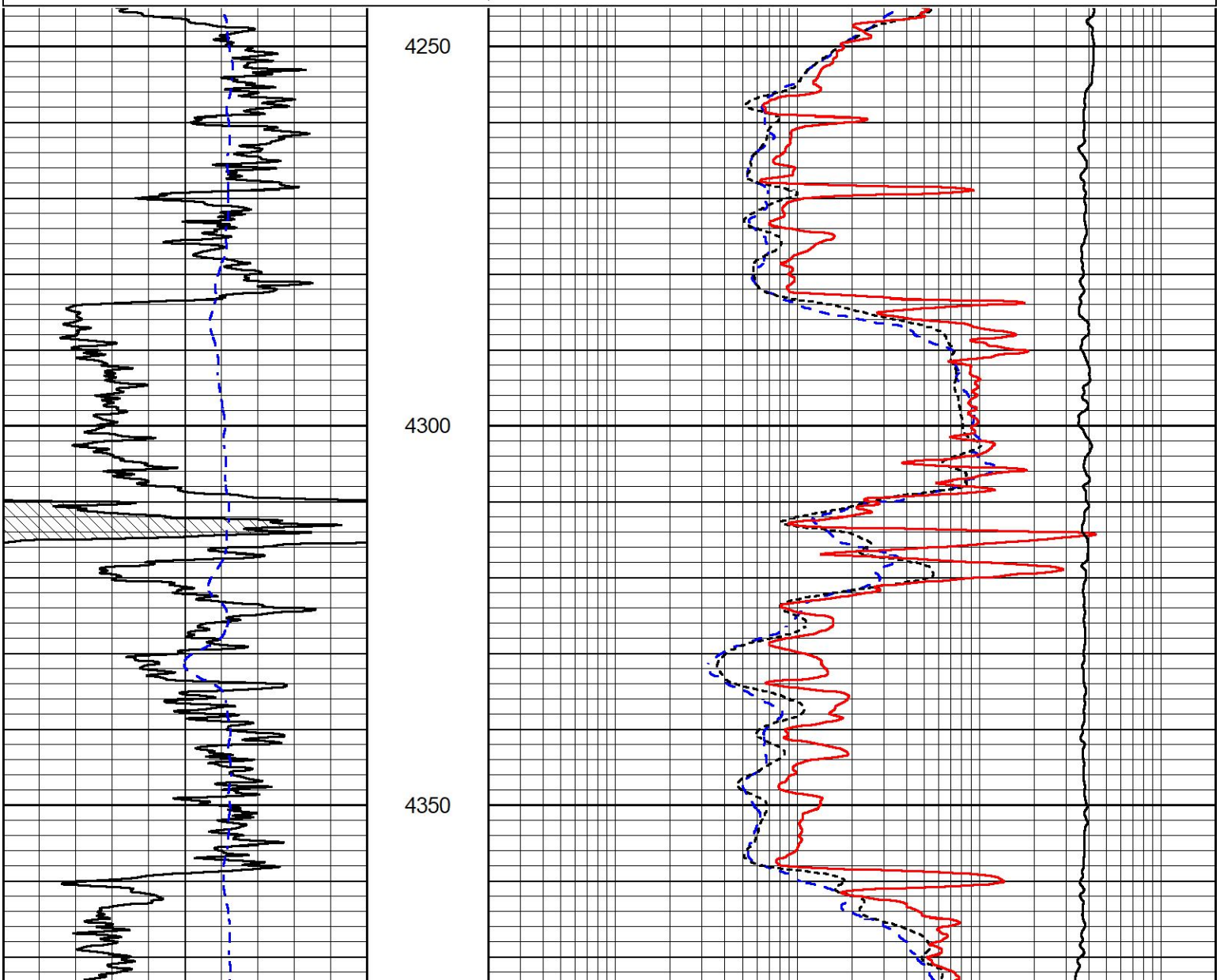
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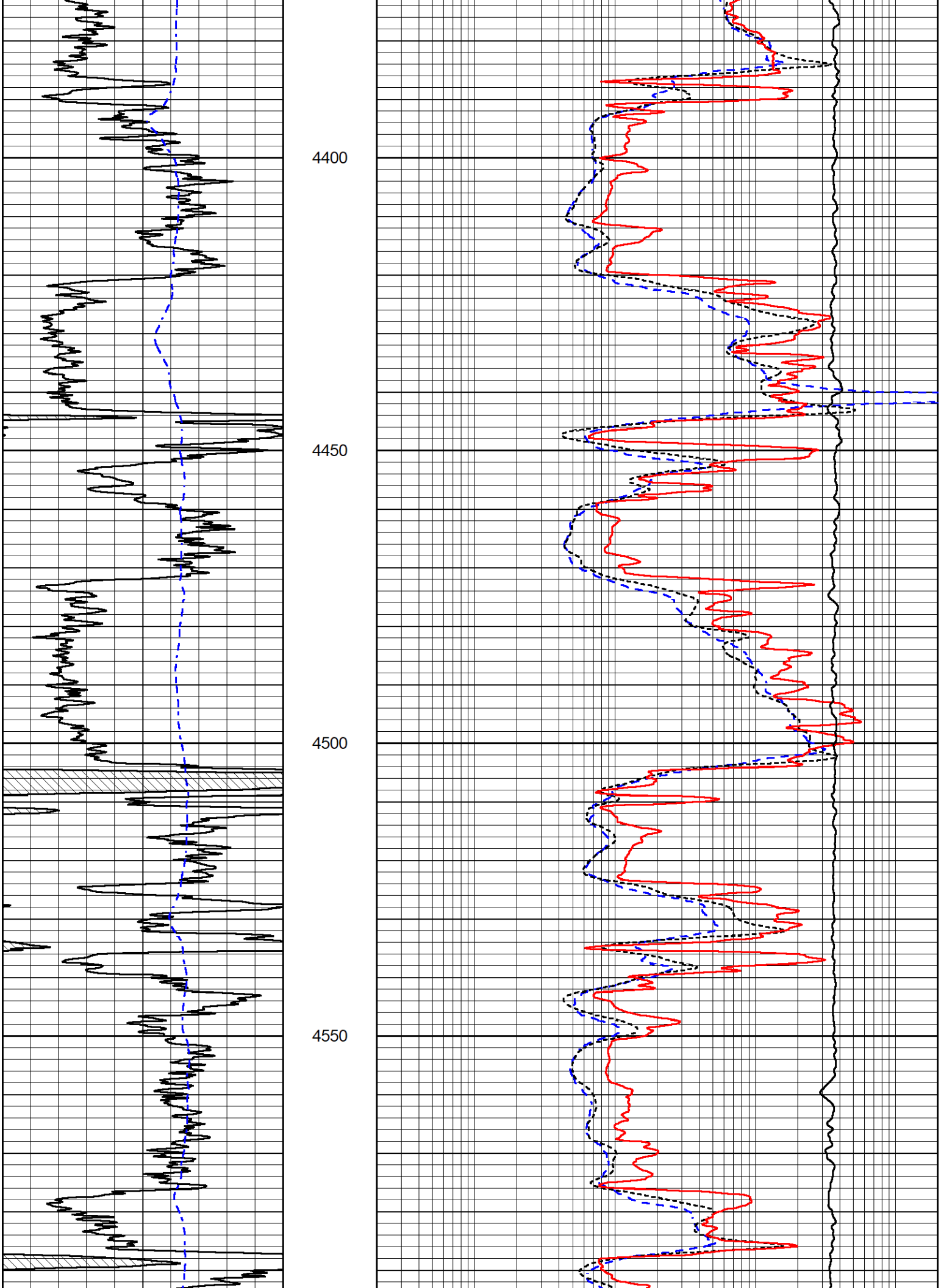
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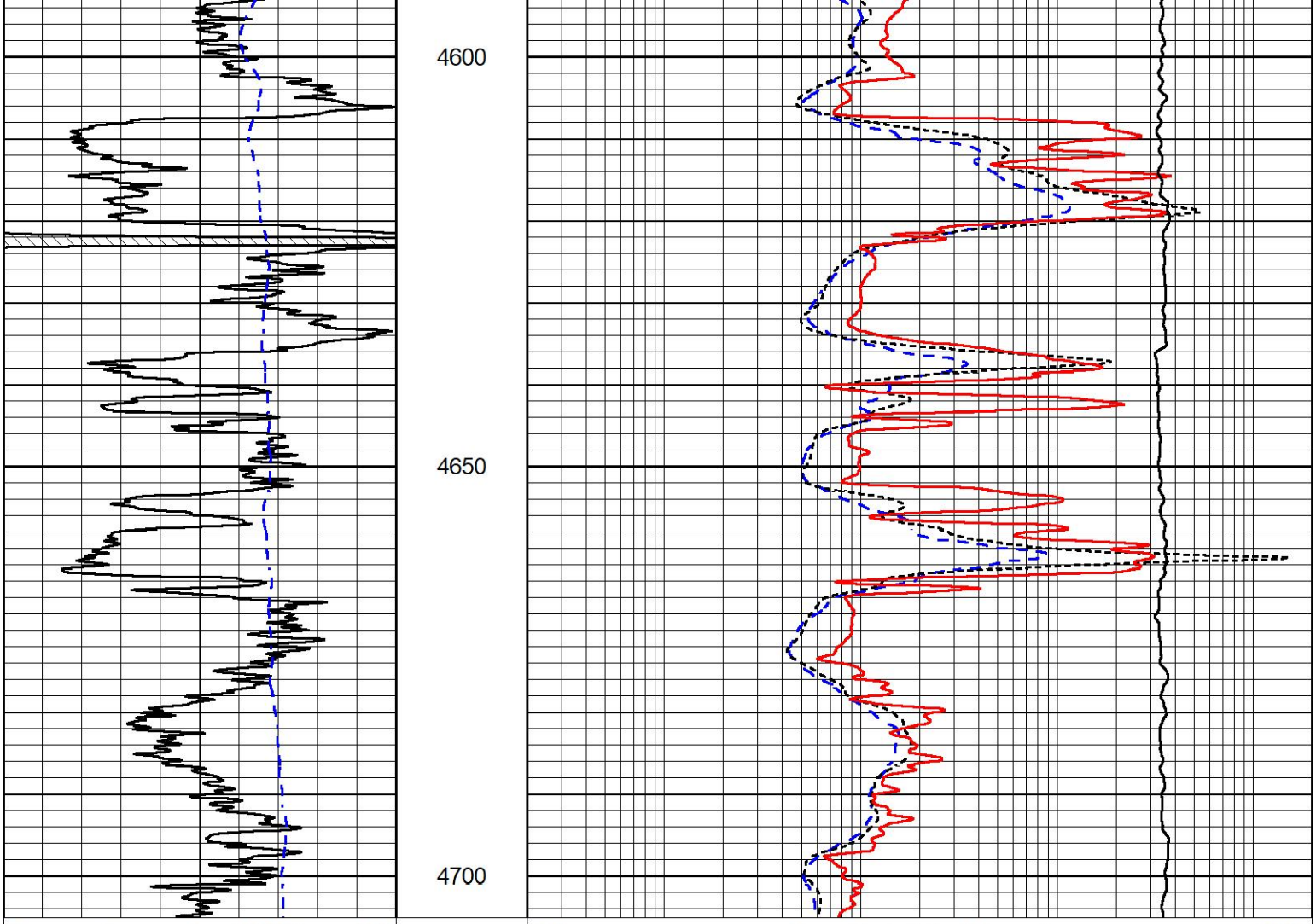
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Dataset Pathname	stkml/pass2.1
Presentation Format	_dil
Dataset Creation	Fri Nov 05 08:57:17 2021
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-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




4400
4450
4500
4550



MIDWEST WIRELINE

Company	Murfin Drilling Company, Inc.
Well	CWA 'G' #1-8
Field	
County	Cheyenne
State	Kansas