



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Griffin Management, LLC
 Well Whitley #4
 Field Moffett West
 County Barber
 State Kansas

Company Griffin Management, LLC
 Well Whitley #4
 Field Moffett West
 County Barber State Kansas

Location: 900 FNL & 2635 FEL
 SEC 8 TWP 30S RGE 15W
 API #: 15-007-24452-00-00
 Permanent Datum Ground Level Elevation 1936
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 1941
 D.F.
 G.L. 1936

Date	11/20/2022
Run Number	One
Depth Driller	4875
Depth Logger	4873
Bottom Logged Interval	4872
Top Log Interval	250
Casing Driller	8.625 @ 260
Casing Logger	260
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	5000
Density / Viscosity	9.5 47
pH / Fluid Loss	10.0 9.0
Source of Sample	Flowline
Rm @ Meas. Temp	0.40 @ 50
Rmt @ Meas. Temp	0.30 @ 50
Rmc @ Meas. Temp	0.54 @ 50
Source of Rmf / Rmc	Charts
Rm @ BHT	0.16 @ 125
Operating Rig Time	3 Hours
Max Rec. Temp. F	125
Equipment Number	P-24
Location	Hays
Recorded By	D. Schmidt
Witnessed By	Charles Griffin
	Eli Felts

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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.

Croft,
 South to 110, East to 130,
 South to location

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: D. Schmidt
 Operator:
 Operator:
 Operator:

This Log Record Was Witnessed By

Primary Witness: Charles Griffin
 Secondary Witness: Eli Felts
 Secondary Witness:
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (106)	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 28.17 27.68		CDL-M&W (305-24)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (401)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (502 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: griffin_whitley 4.db: field/well/stkml/pass4.11
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin_whitley 4.db
 Dataset field/well/stkml/pass4.11/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	125	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	280	40	Off	4873

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

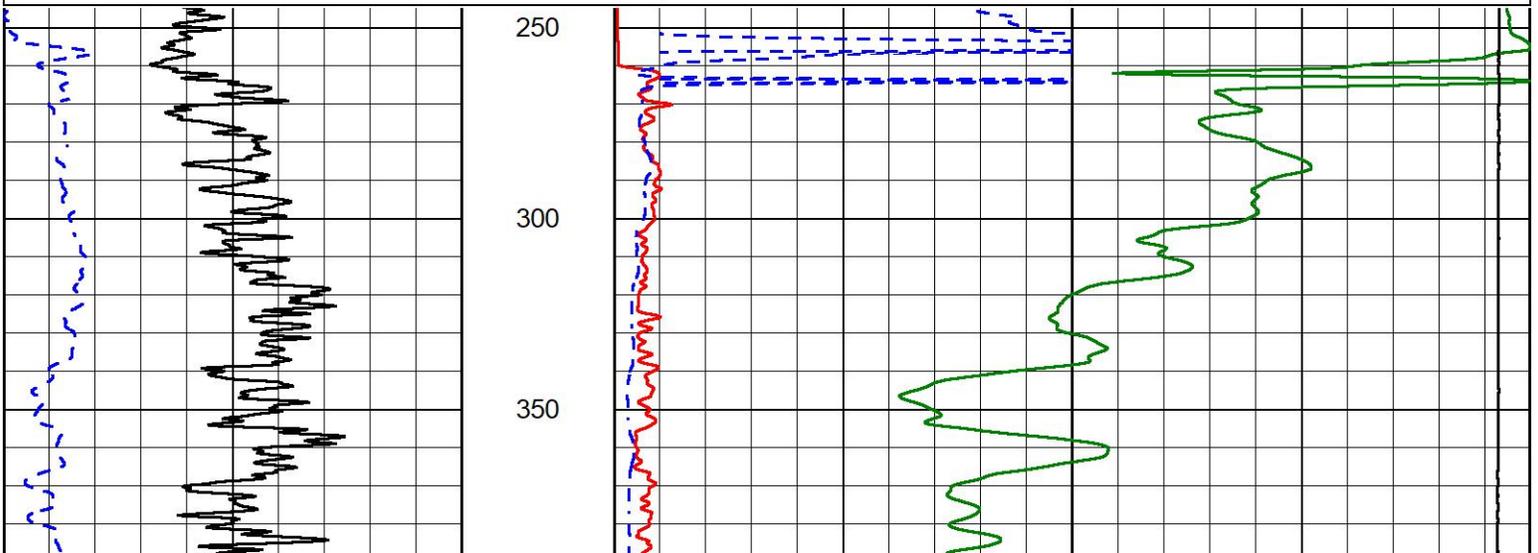


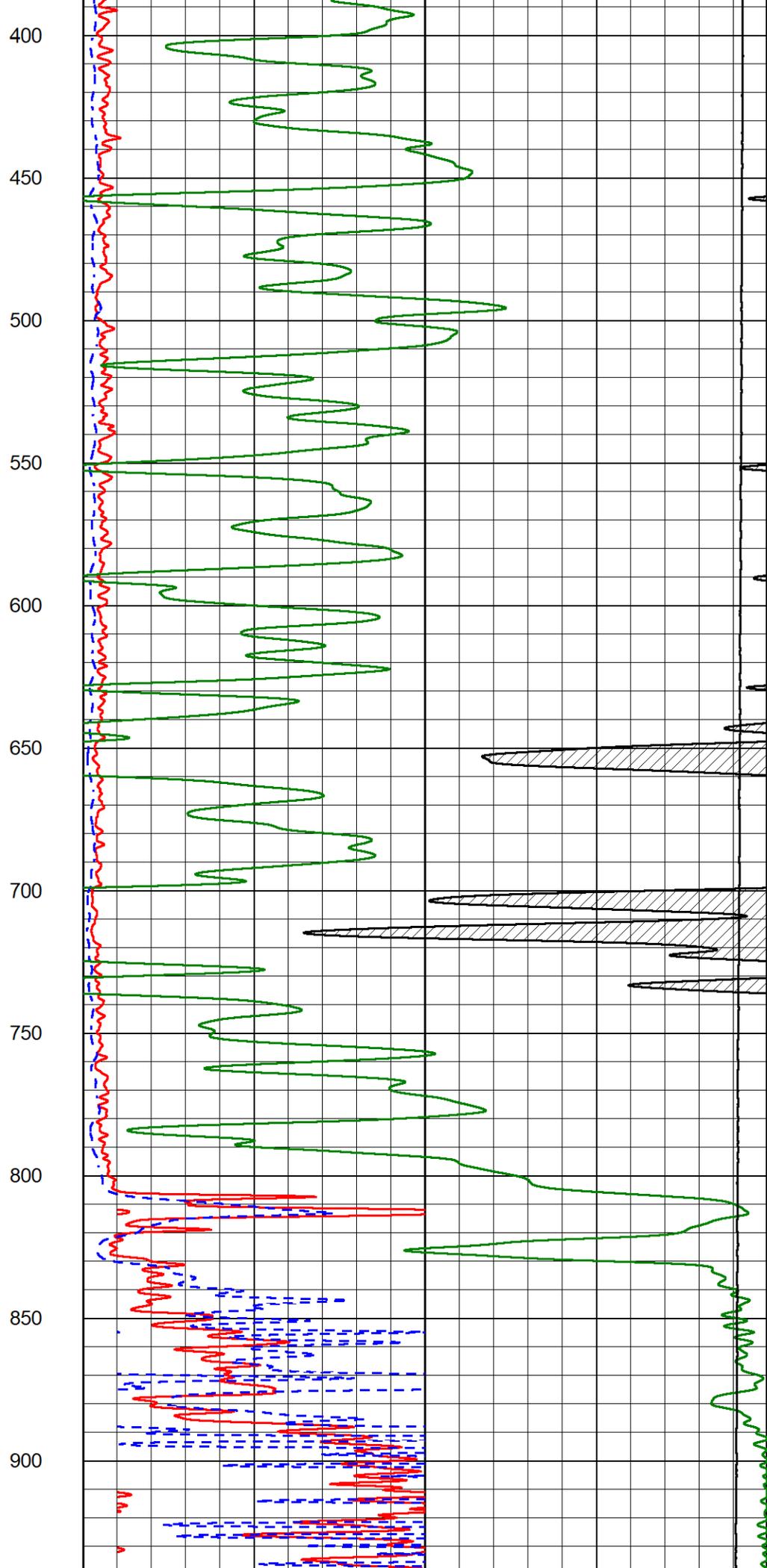
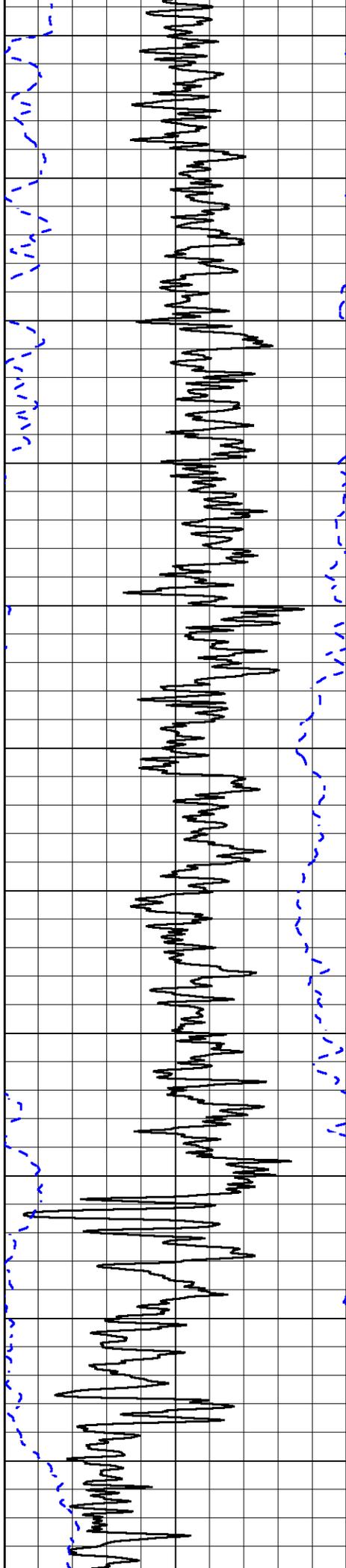
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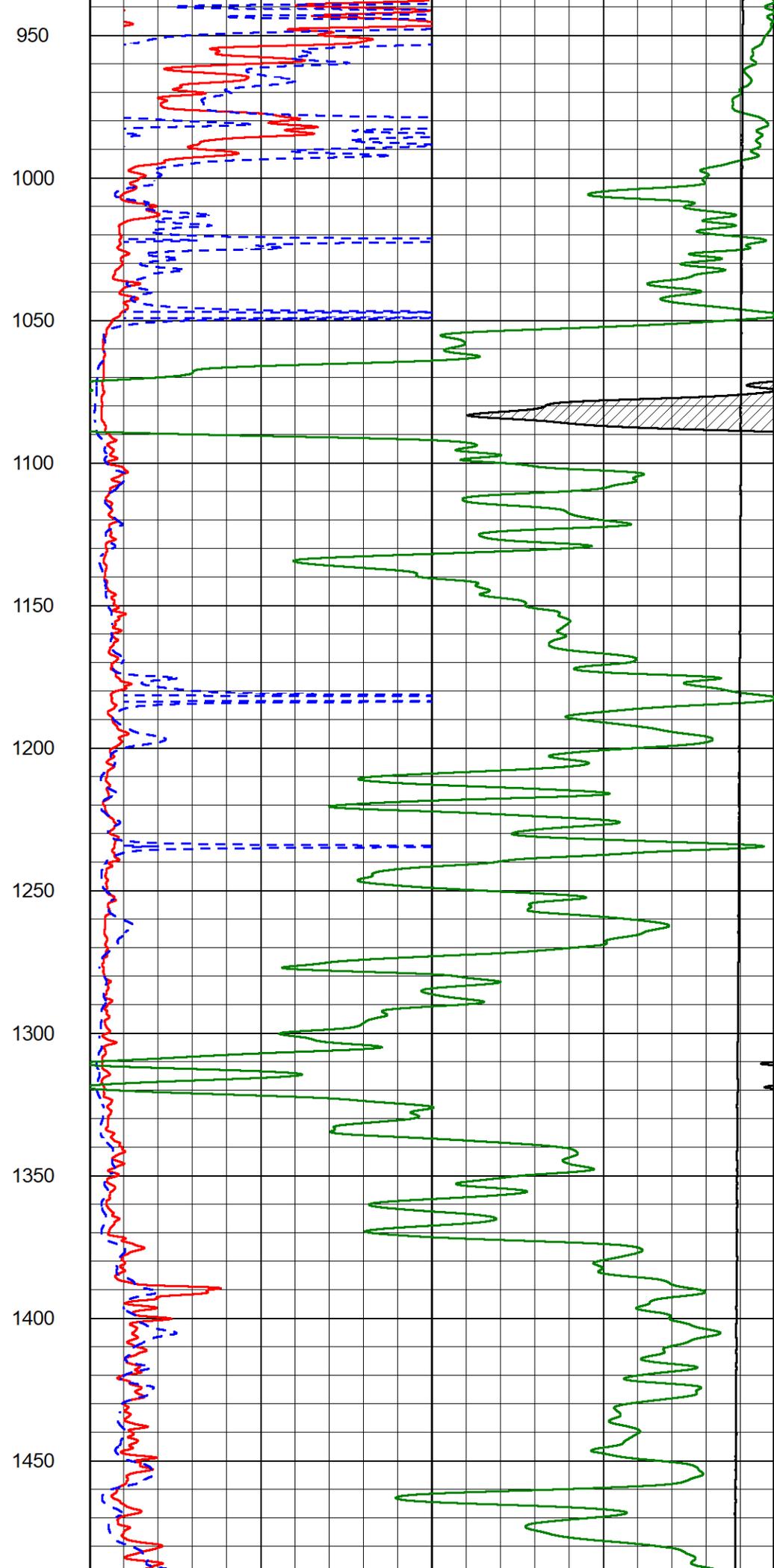
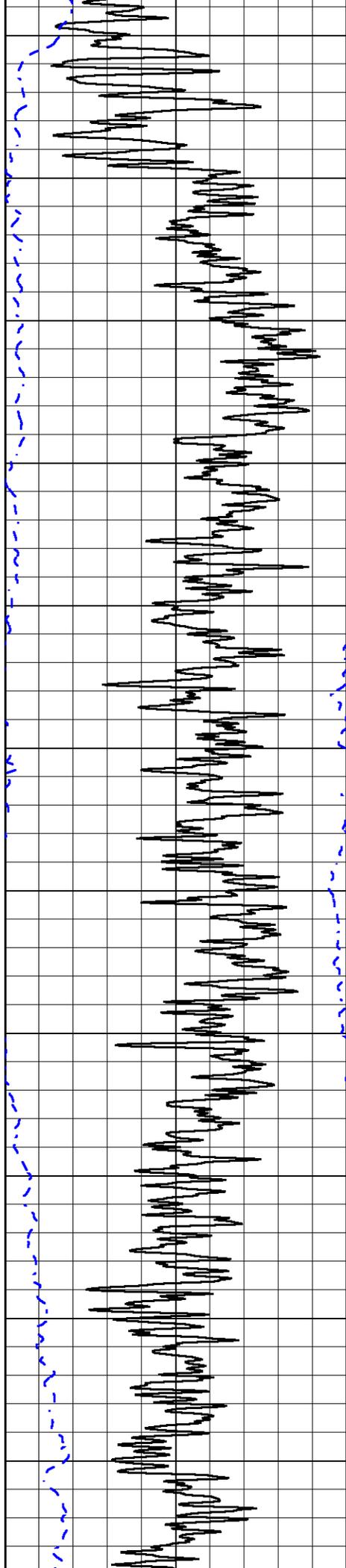
MAIN PASS

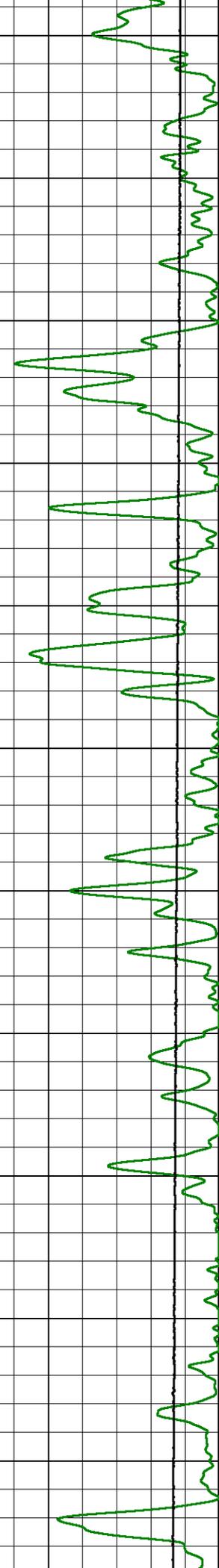
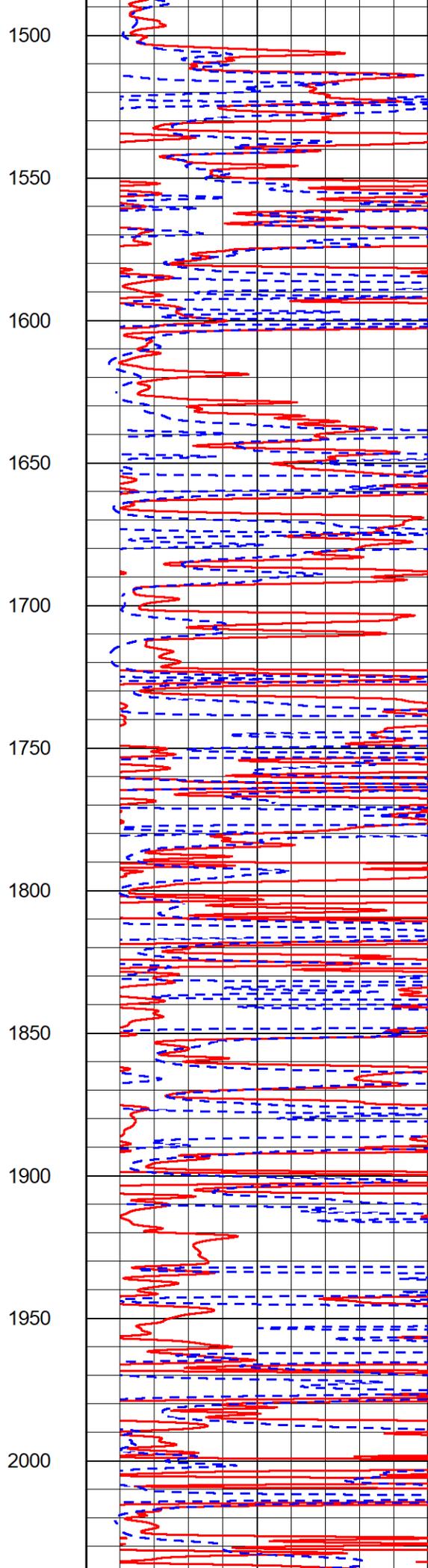
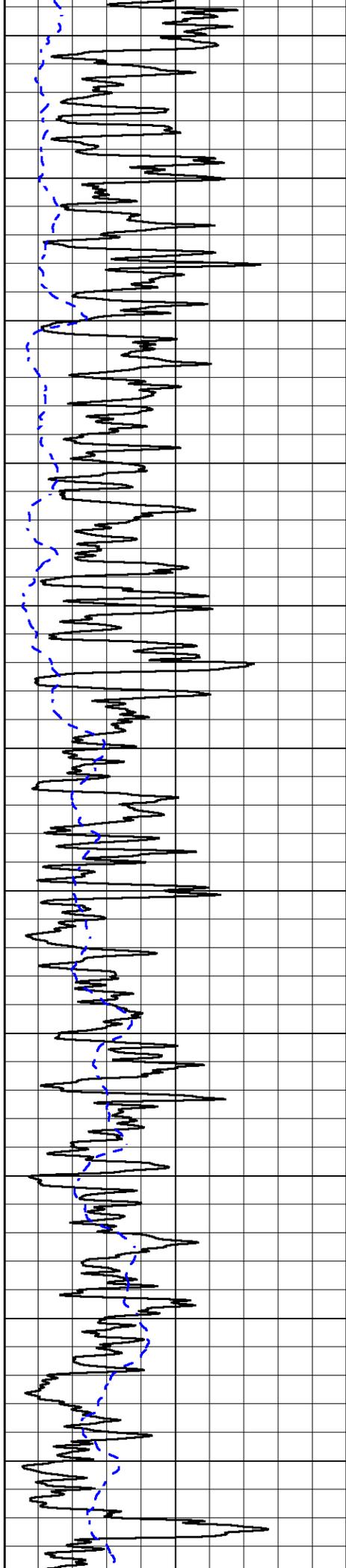
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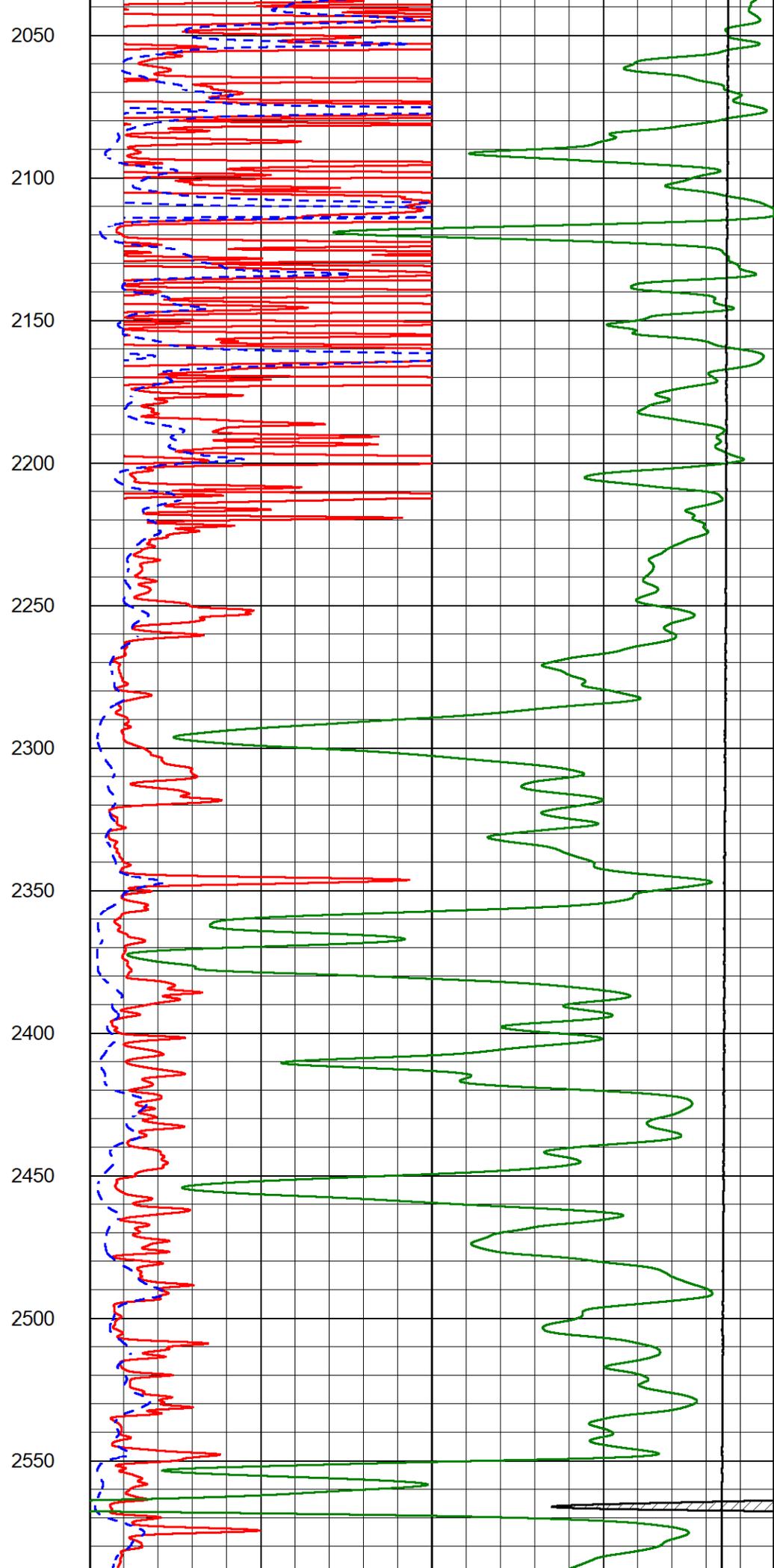
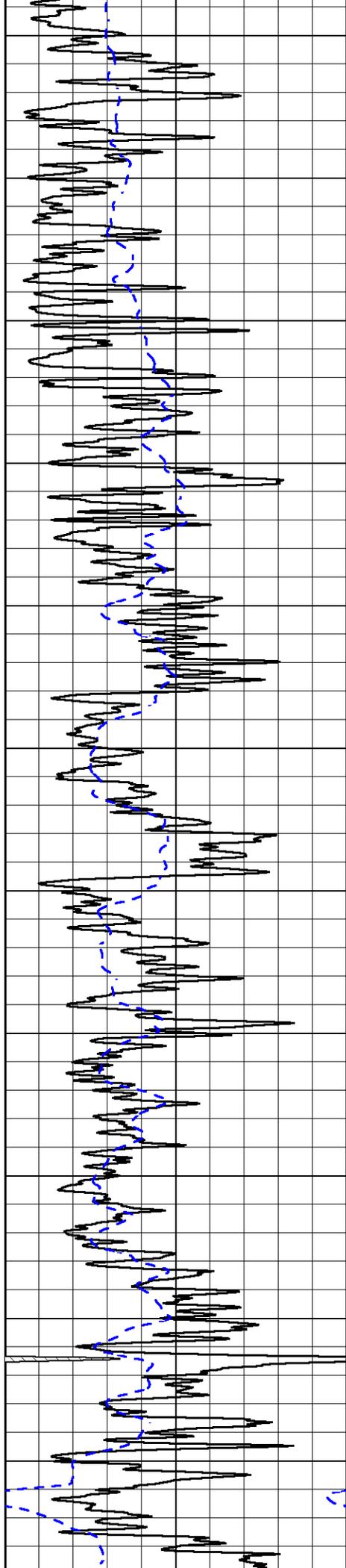
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
-200	SP (mV)	0	15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			Shallow Resistivity		
			50	(Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200

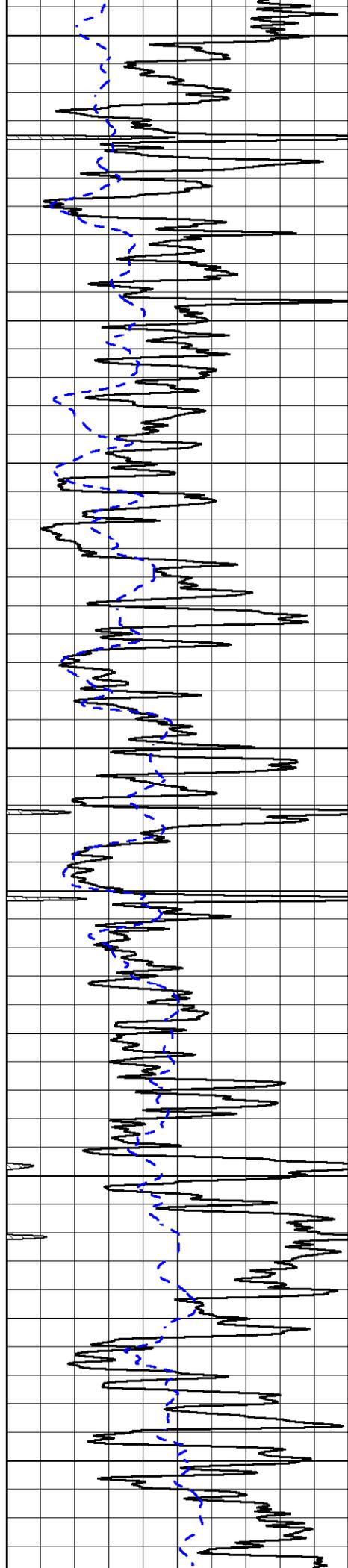




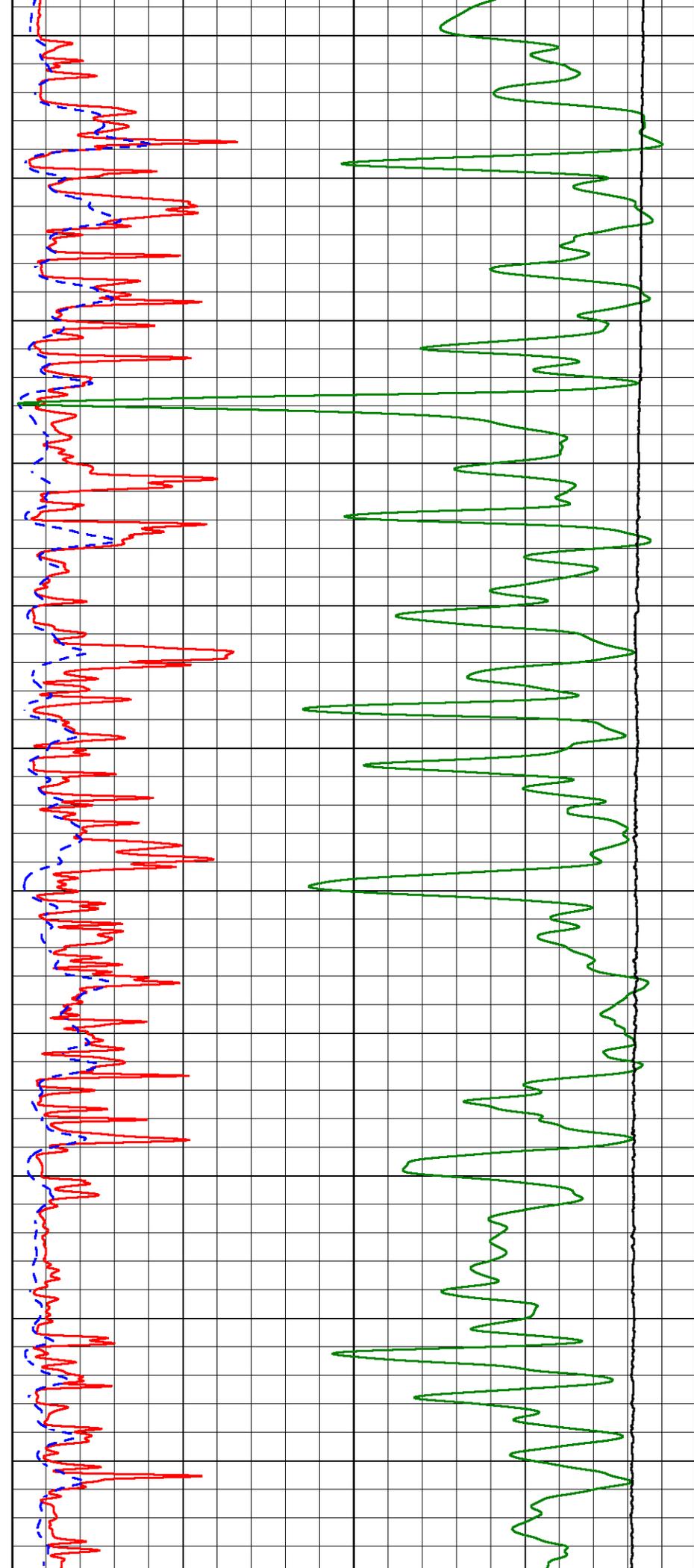


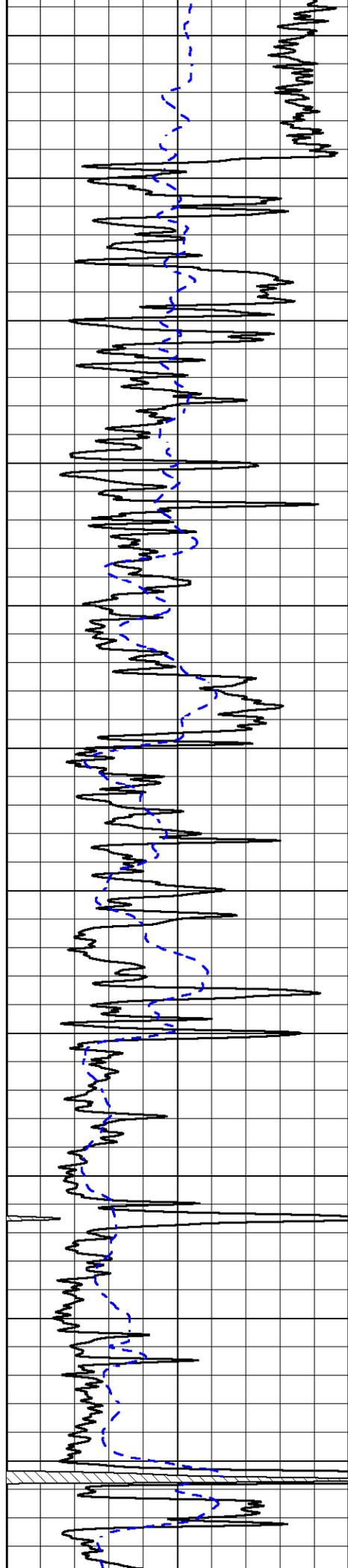






2600
2650
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2800
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3100





3150

3200

3250

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3350

3400

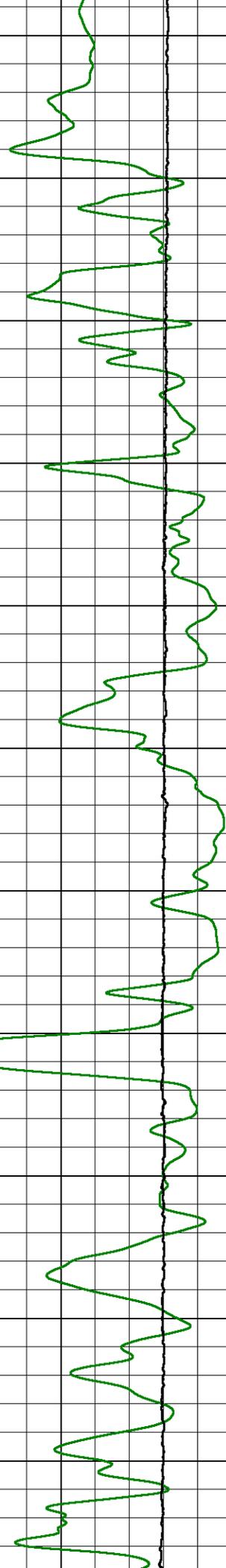
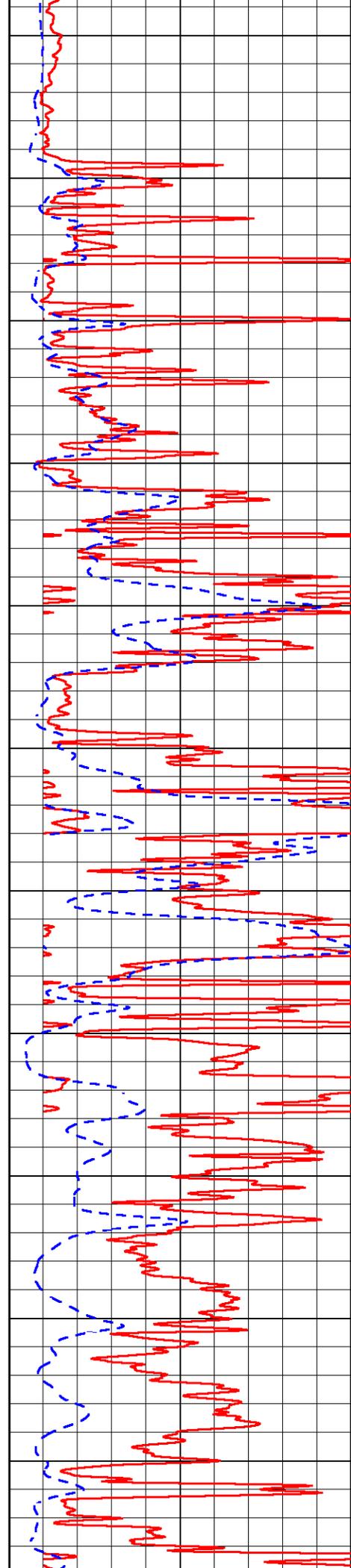
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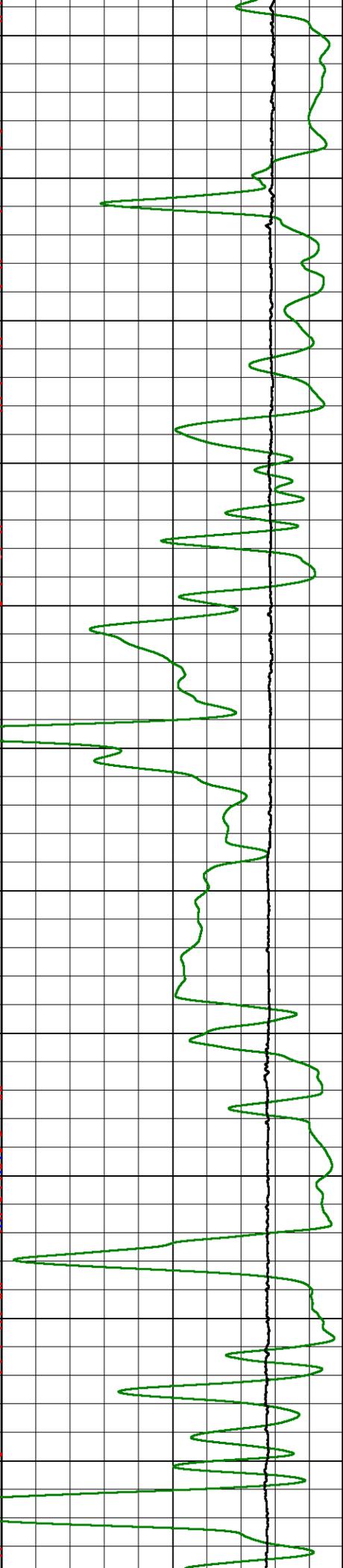
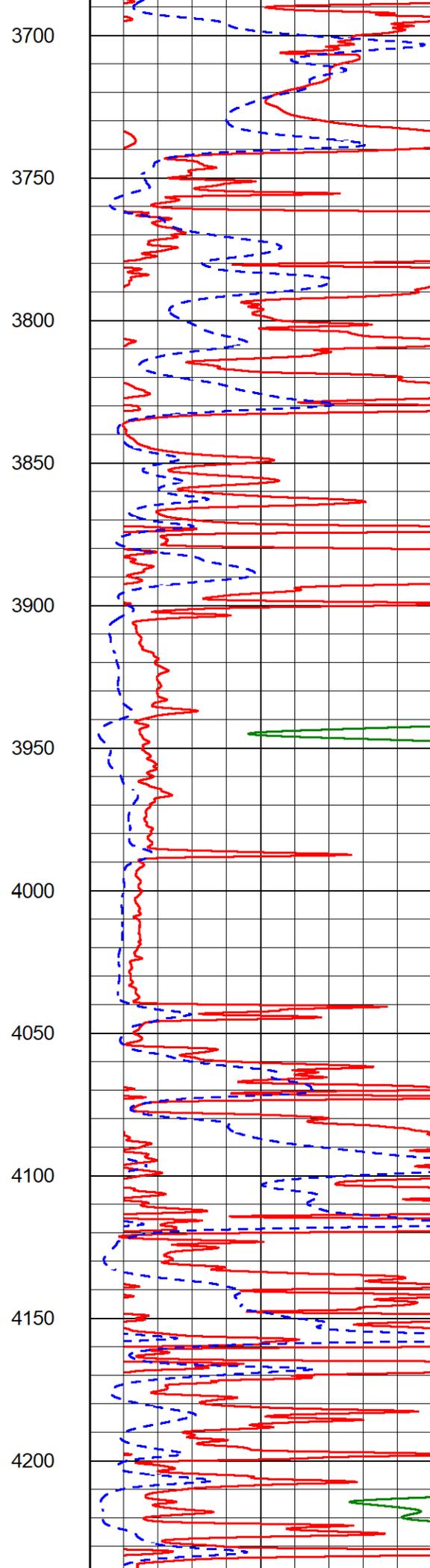
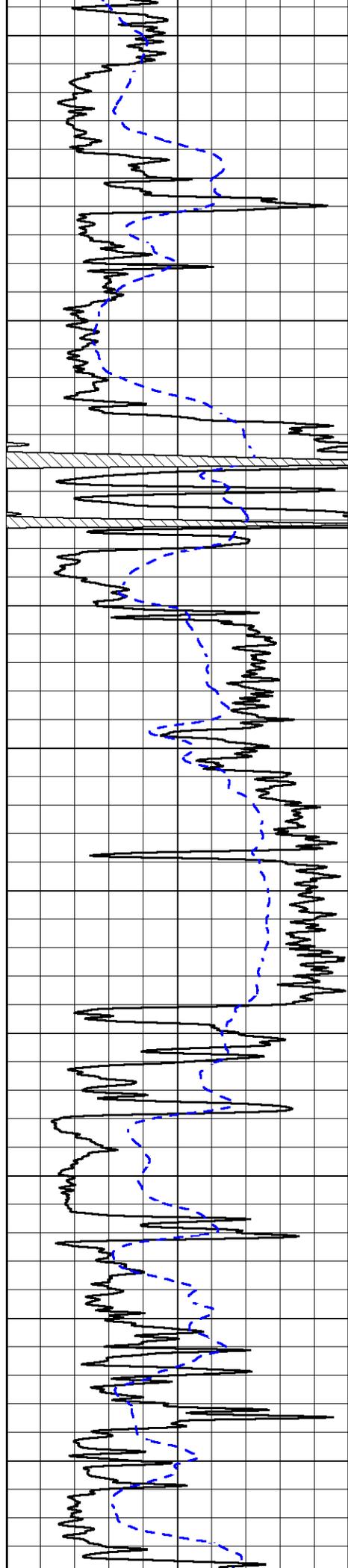
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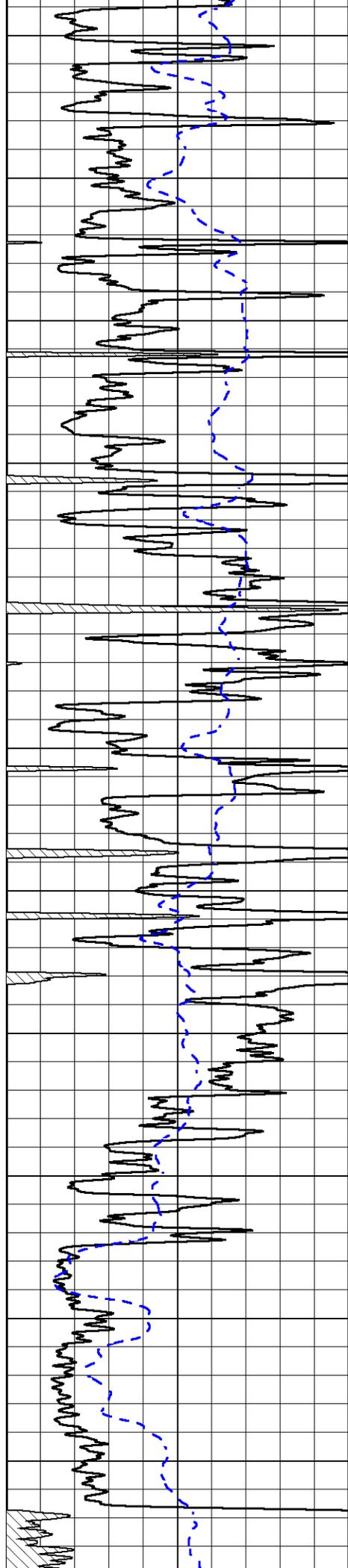
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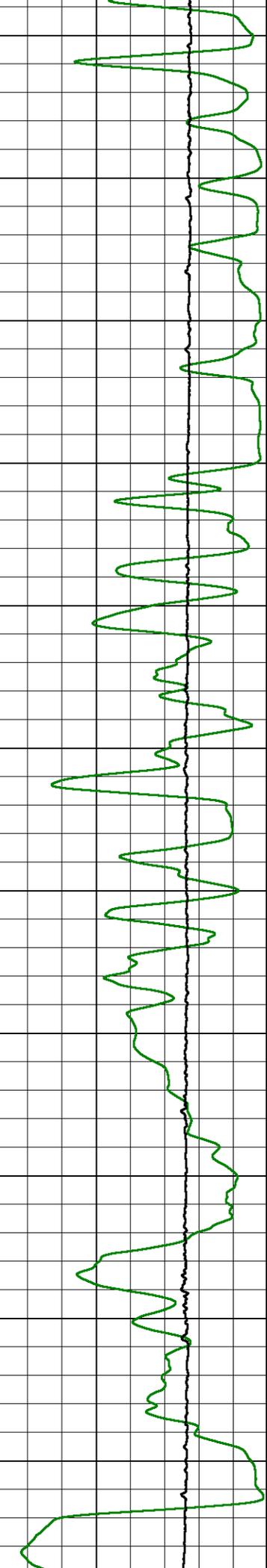
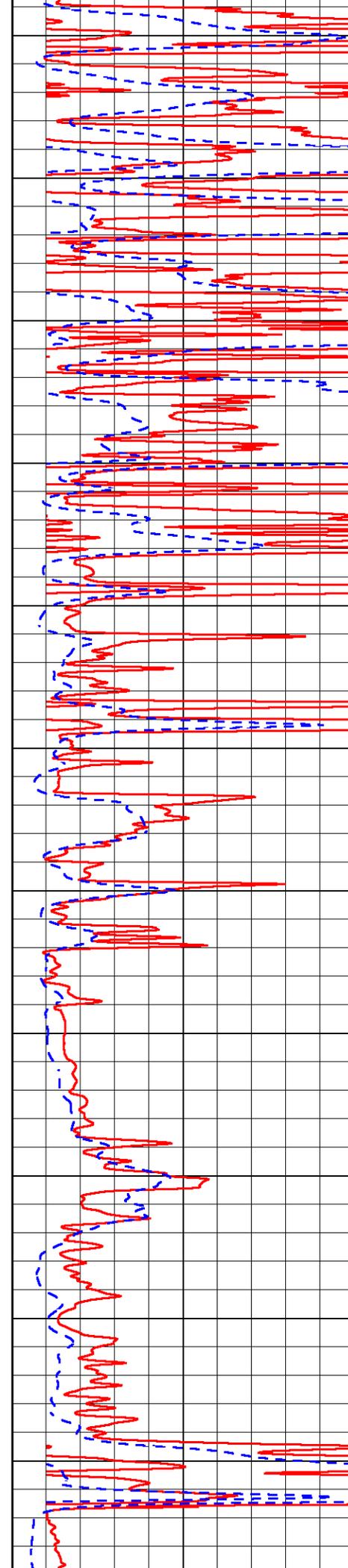
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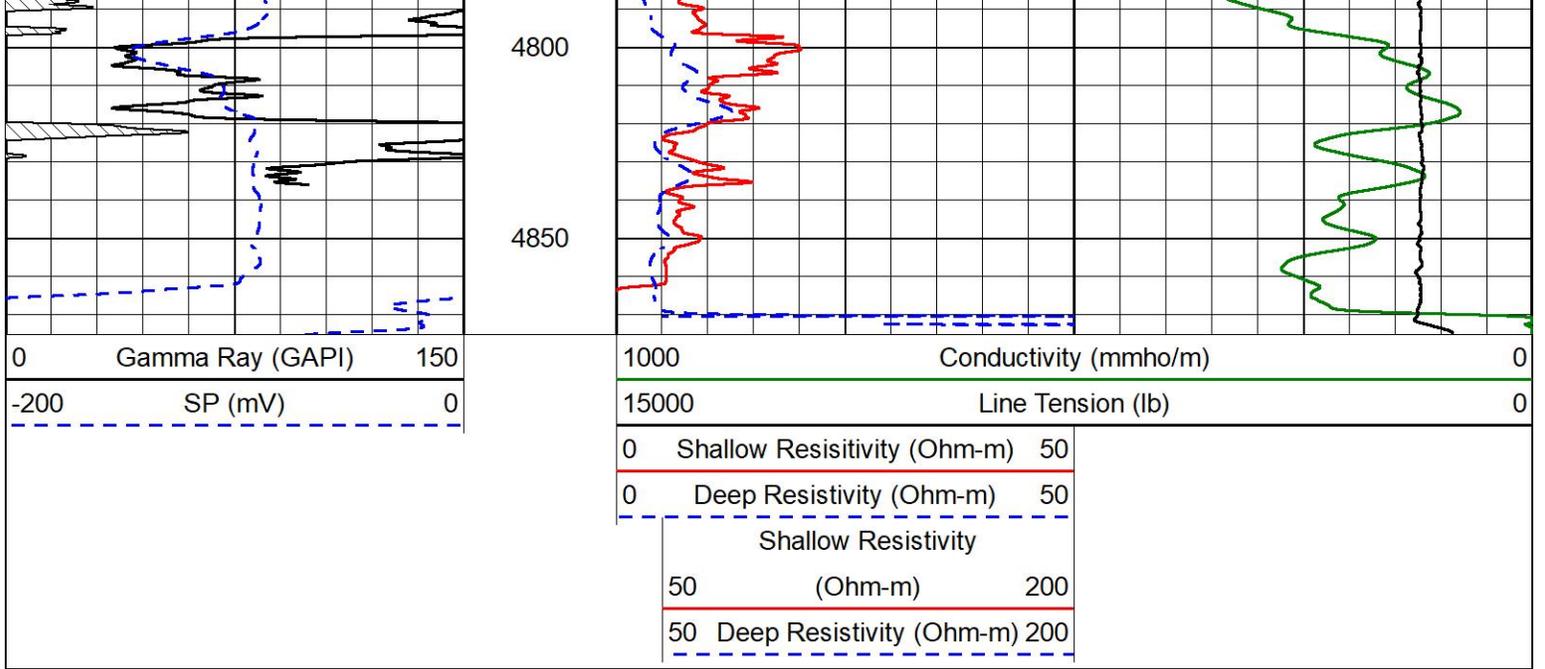
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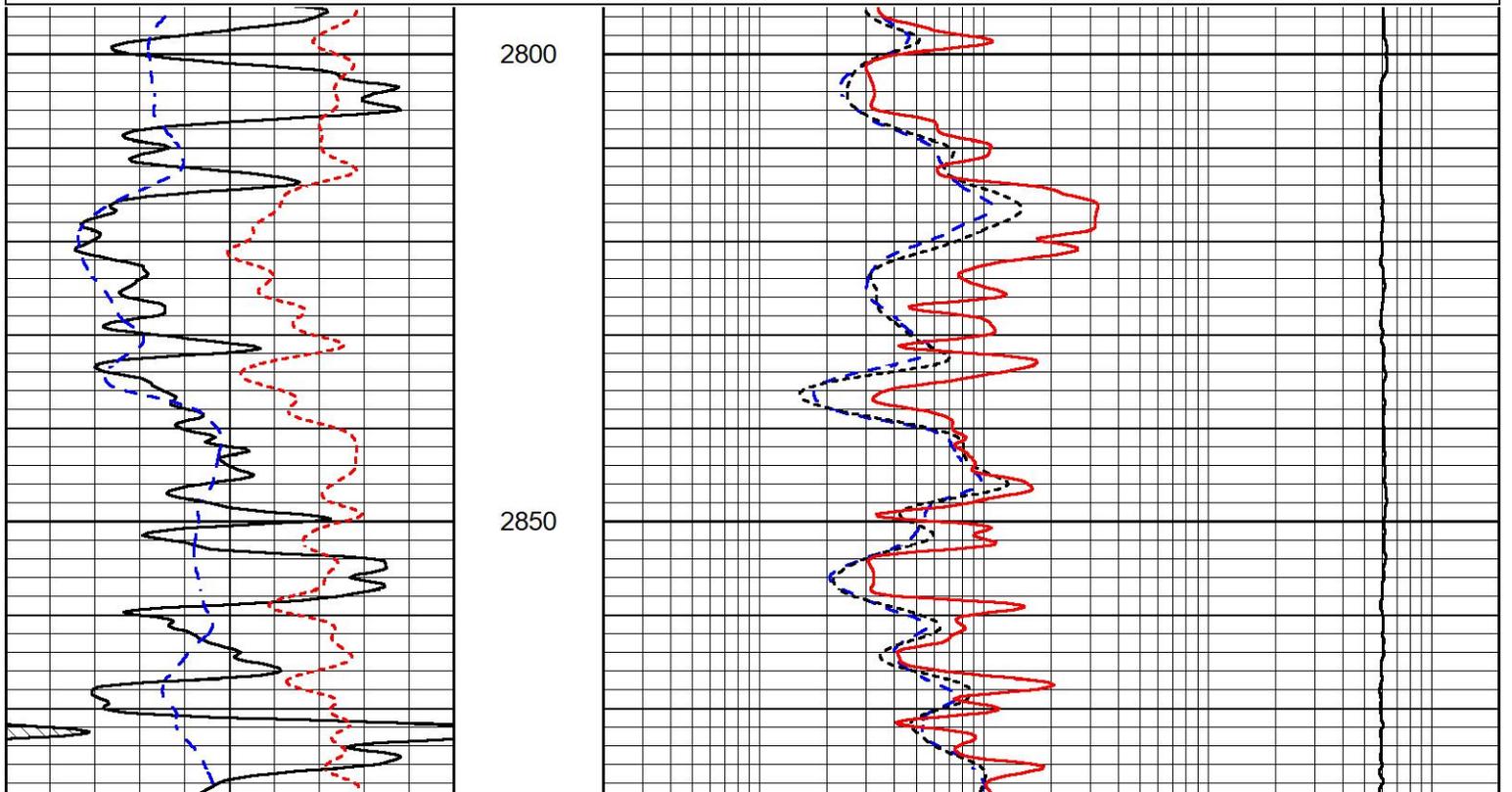
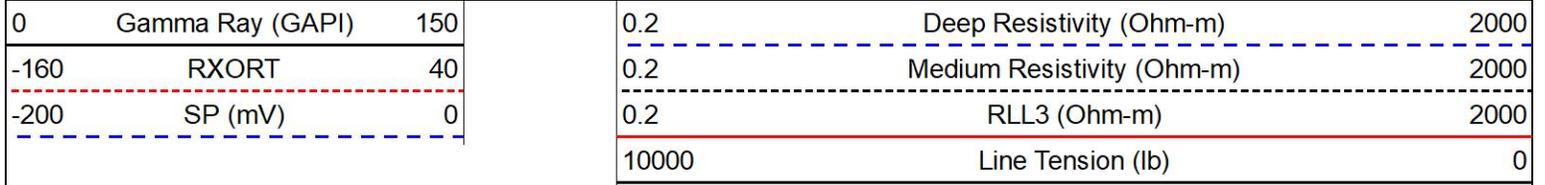


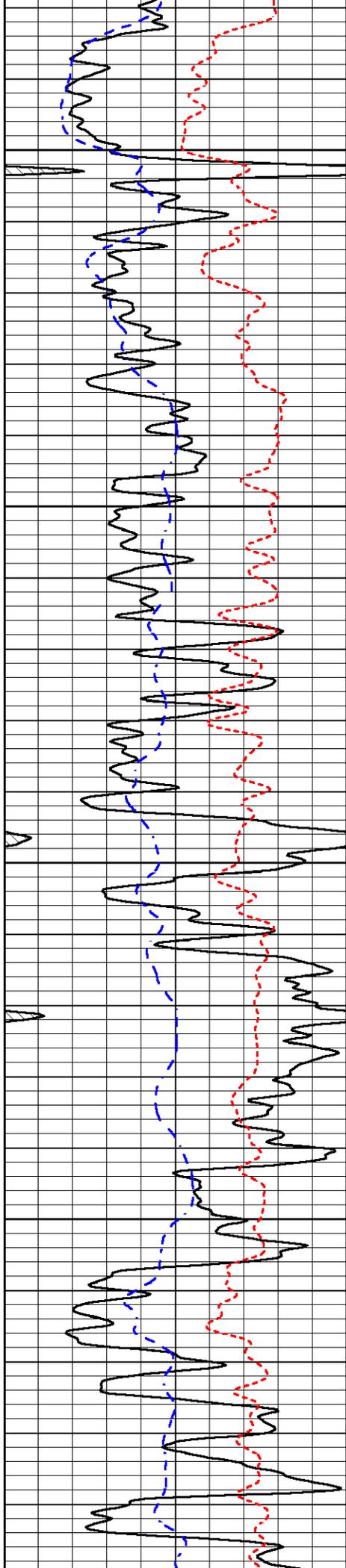
MIDWEST WIRELINE

DETAIL SECTION

MAIN PASS

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 Presentation Format _dil
 Dataset Creation Sun Nov 20 23:31:53 2022
 Charted by Depth in Feet scaled 1:240



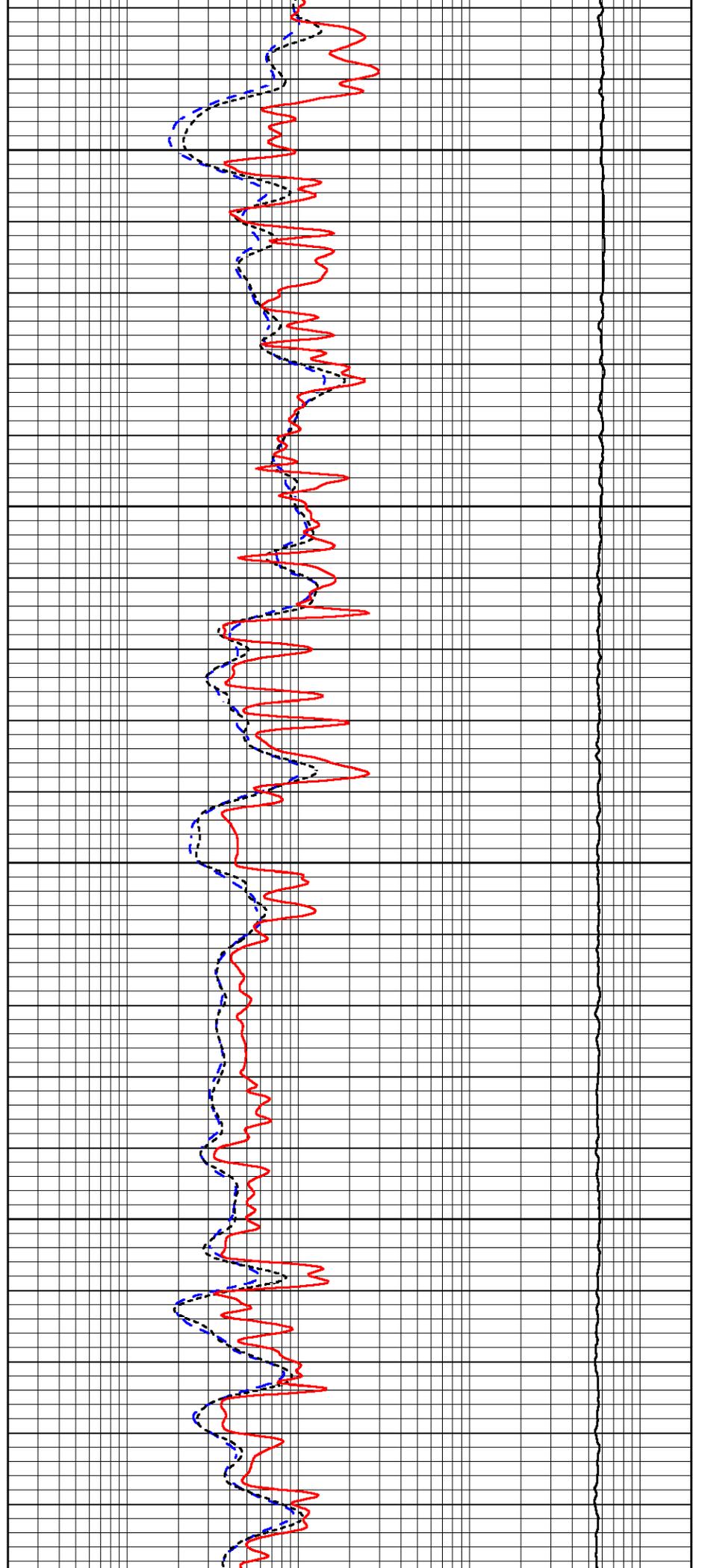


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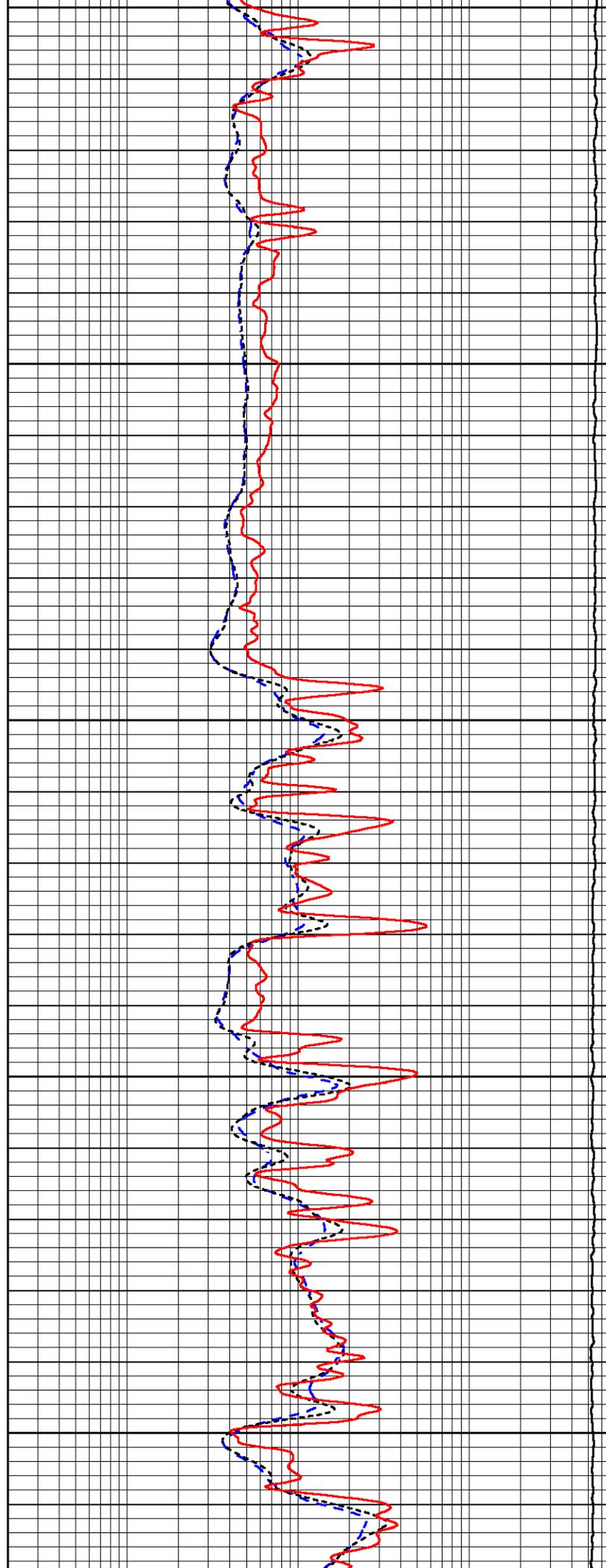
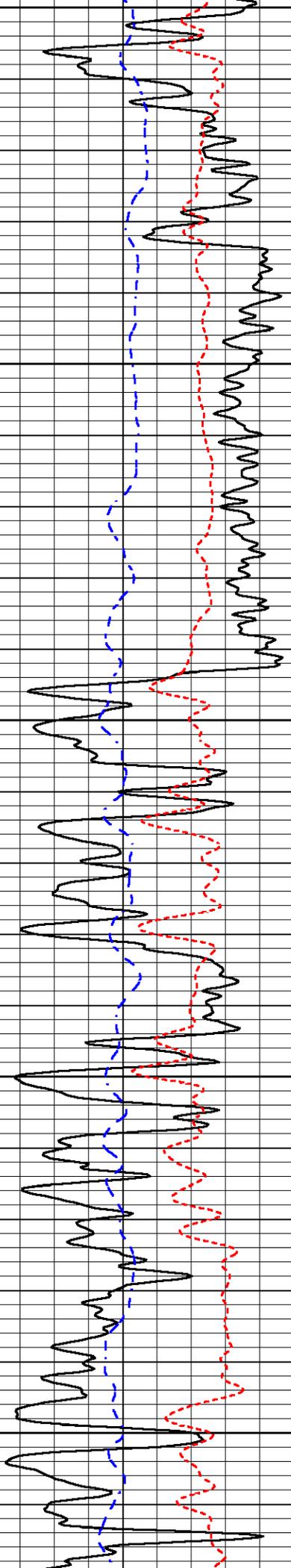
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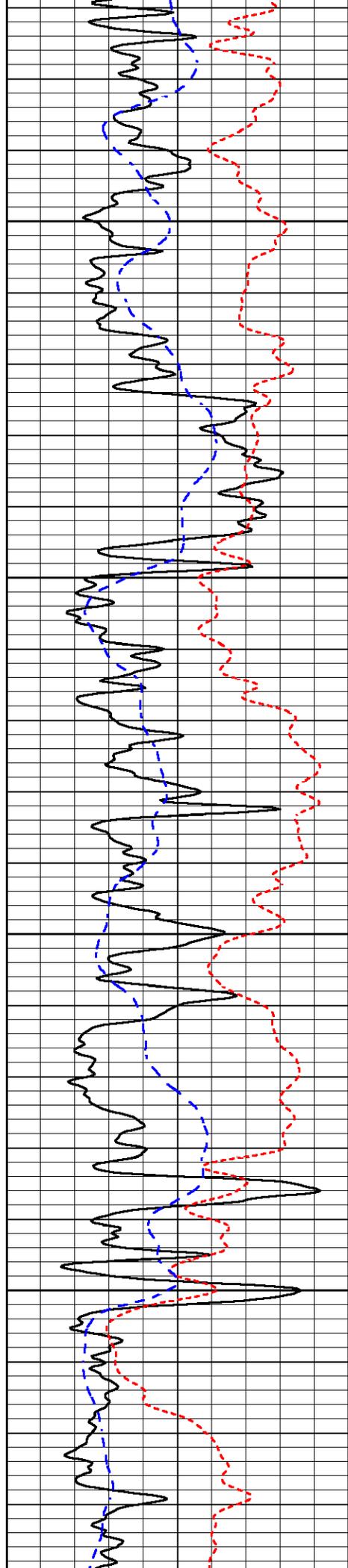
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3250

3300



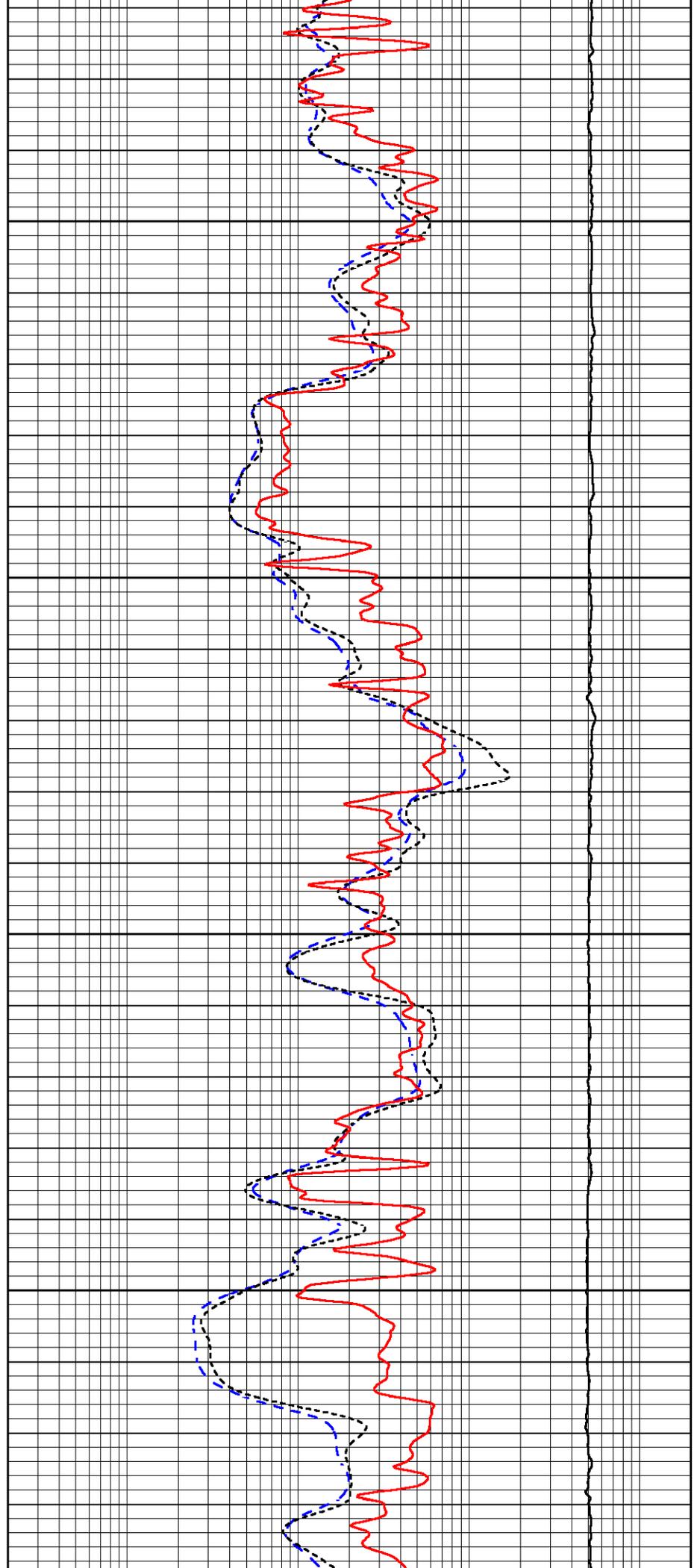


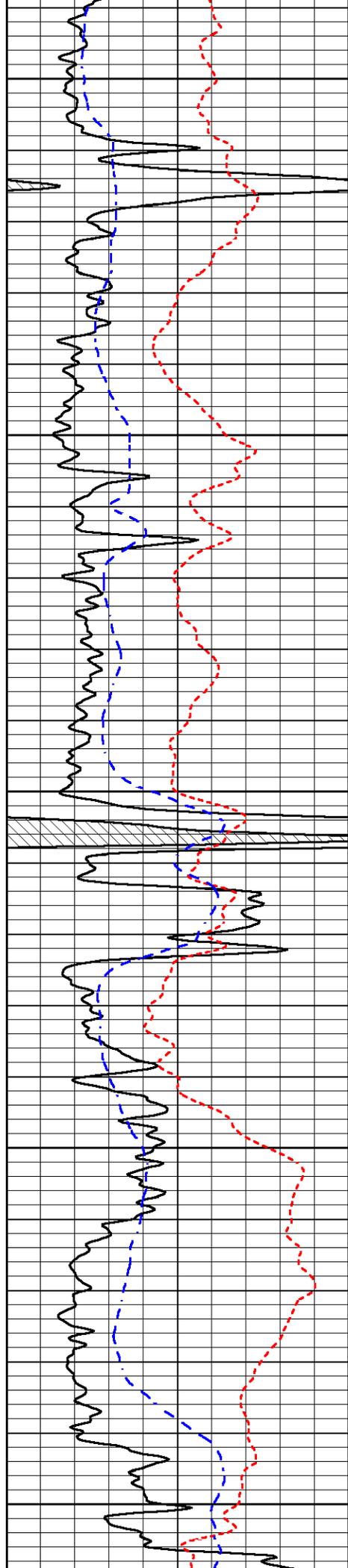
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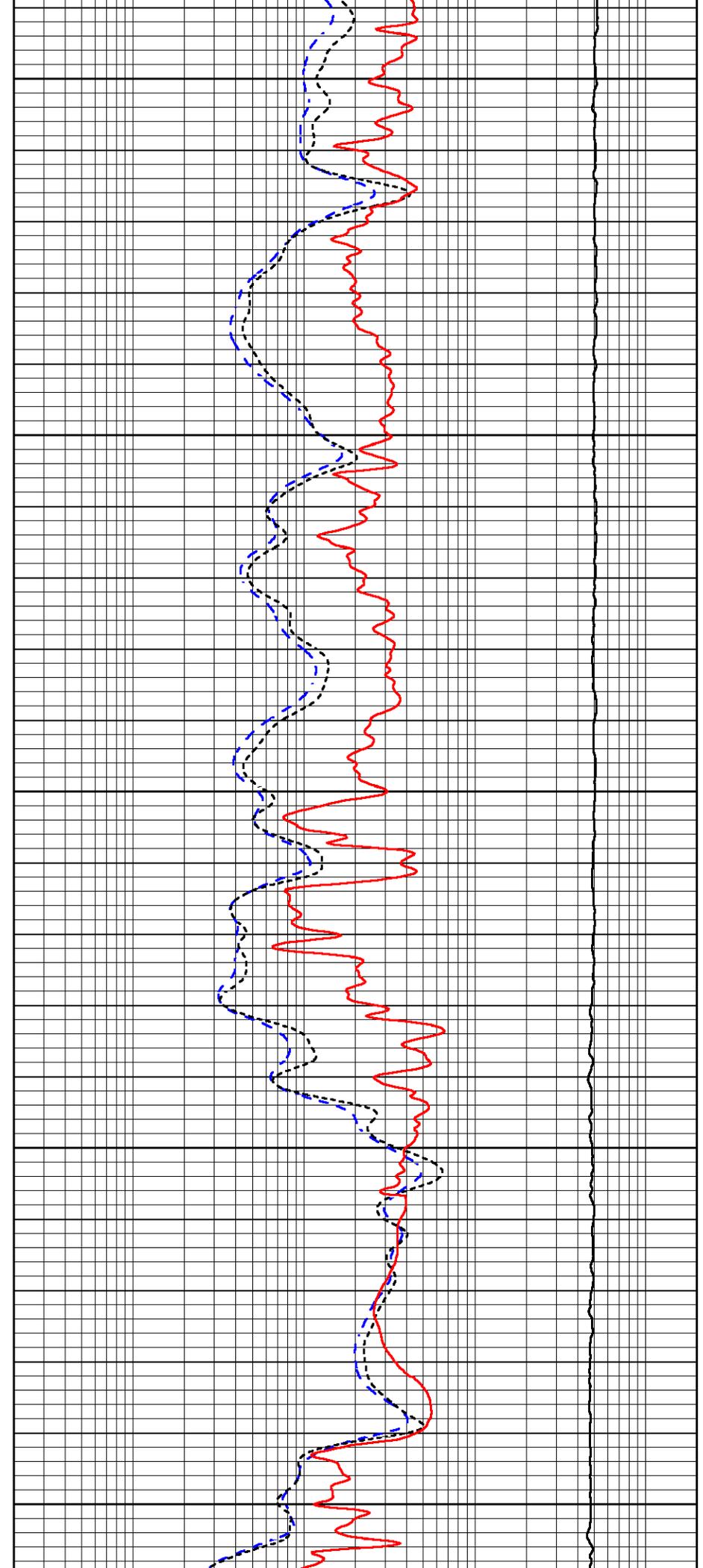
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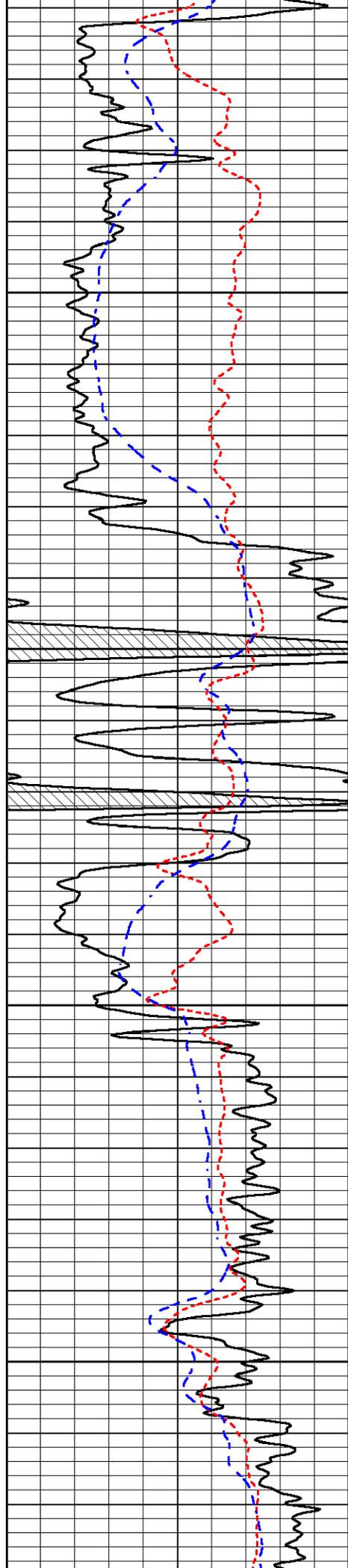
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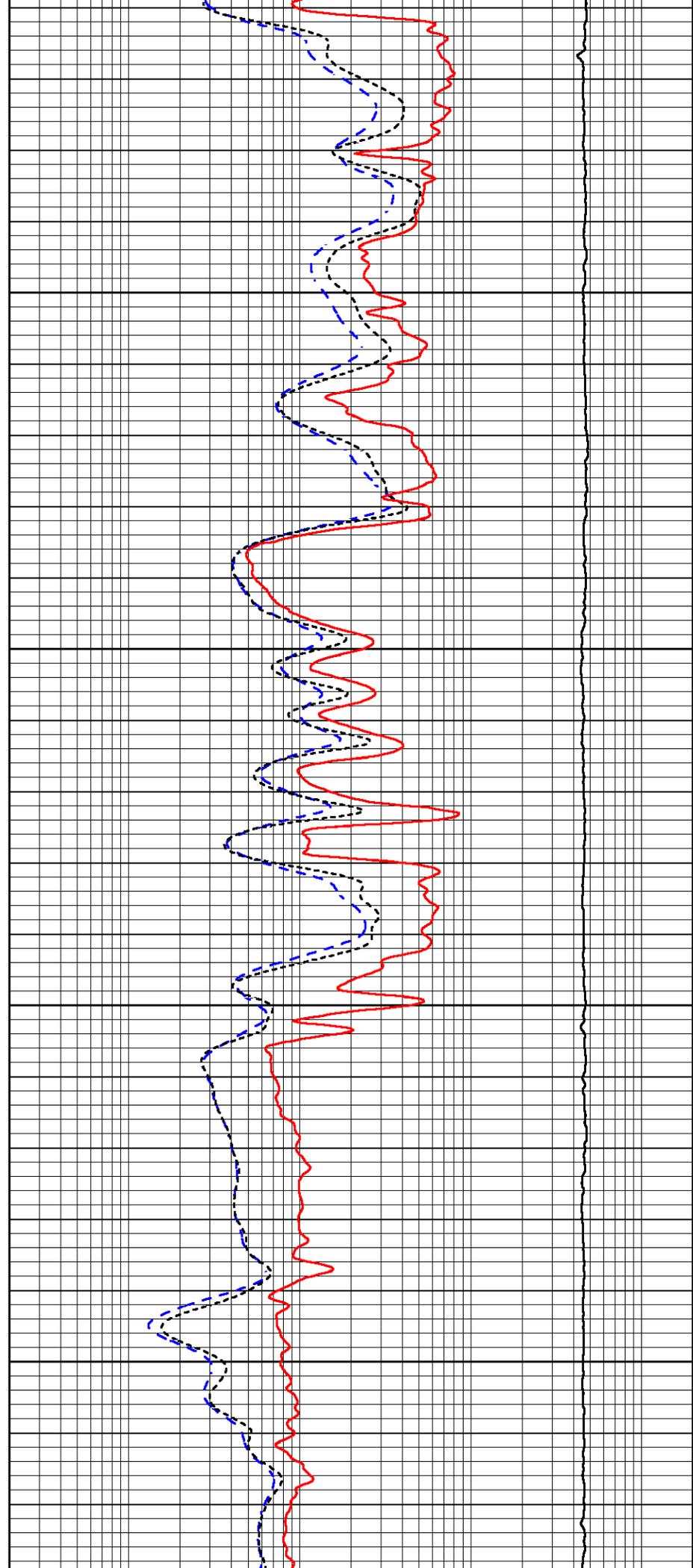


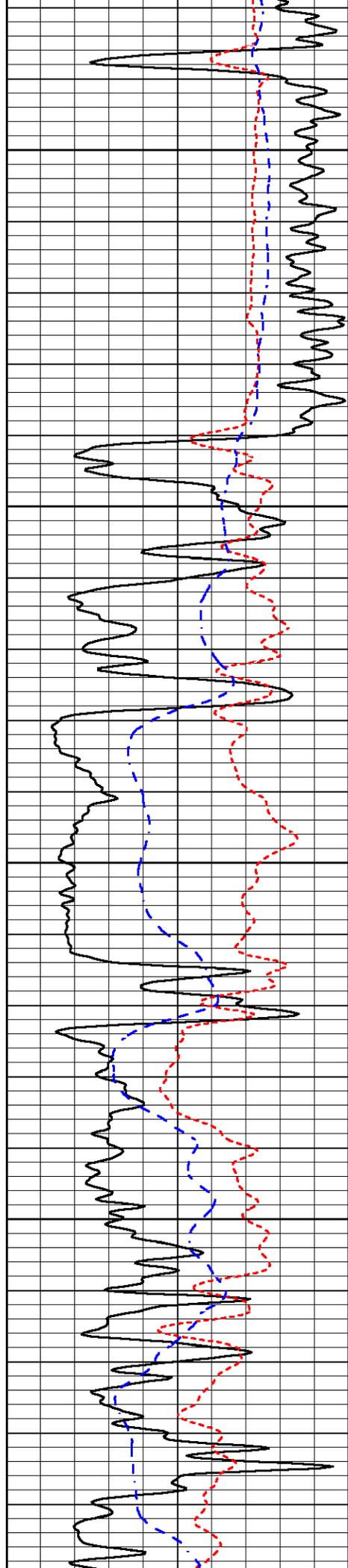
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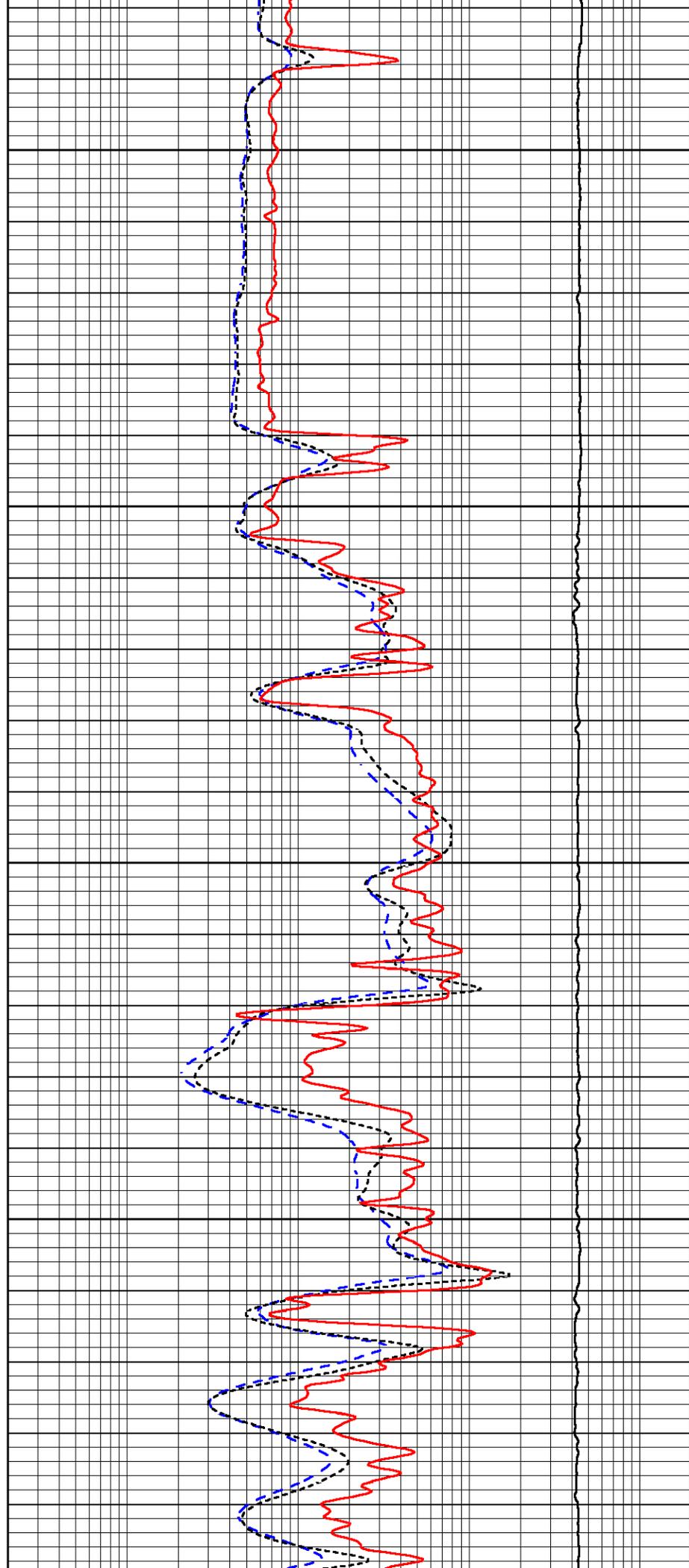


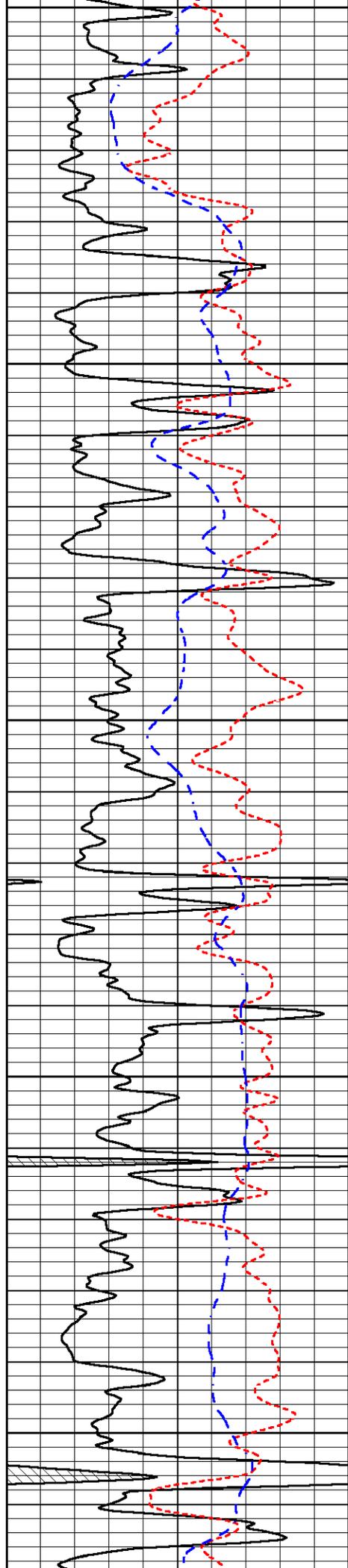
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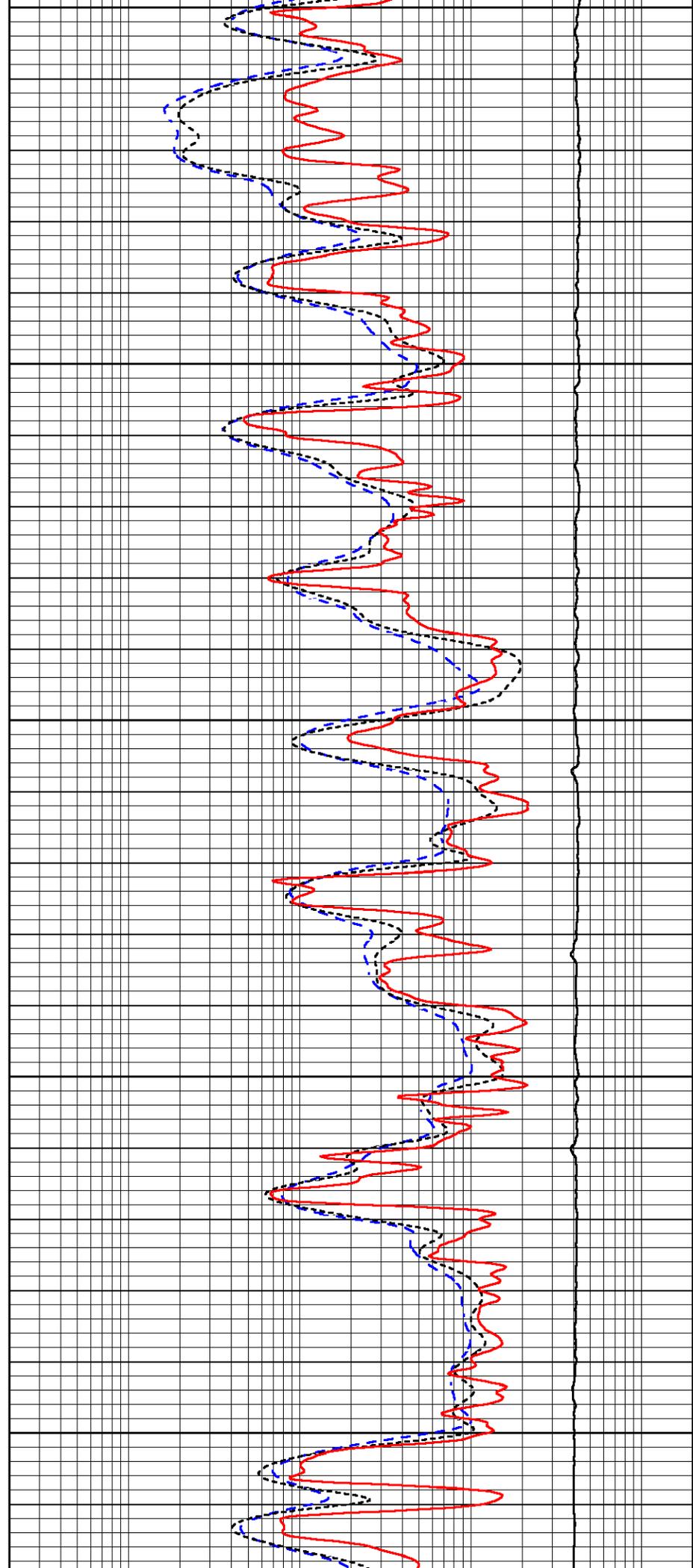
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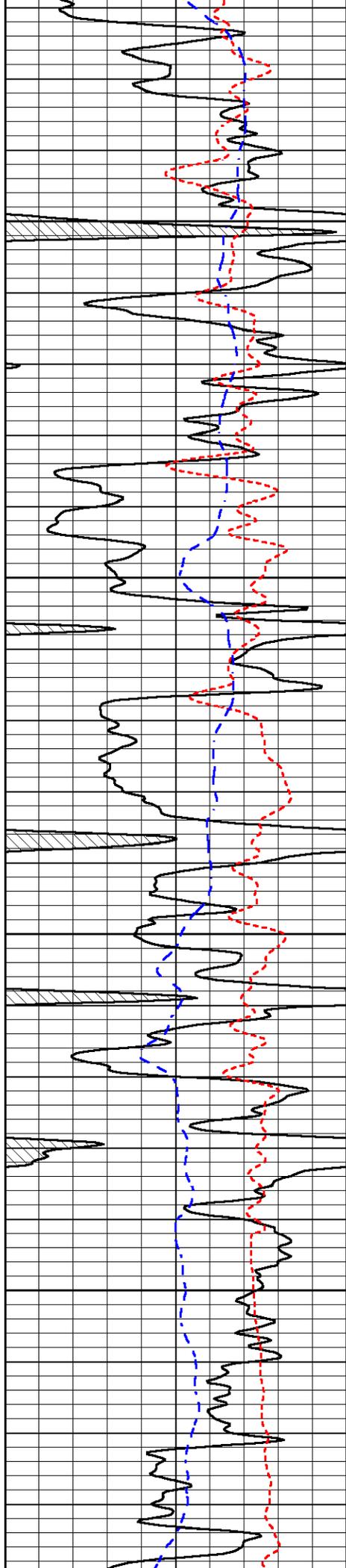
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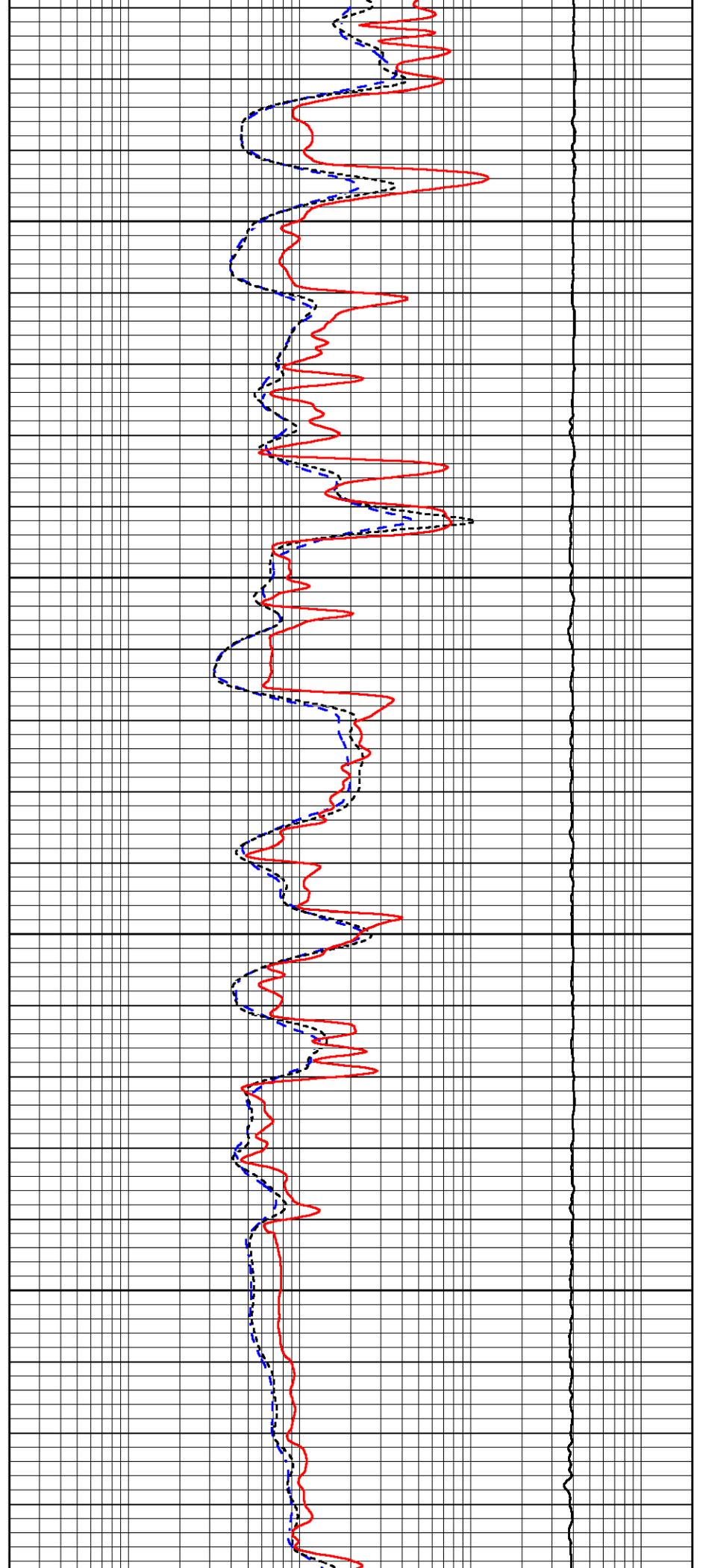


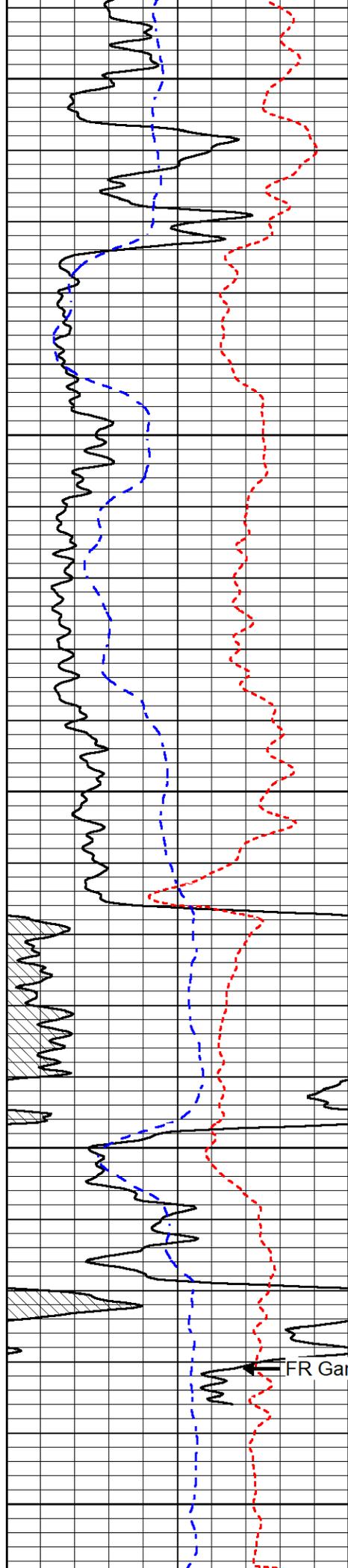
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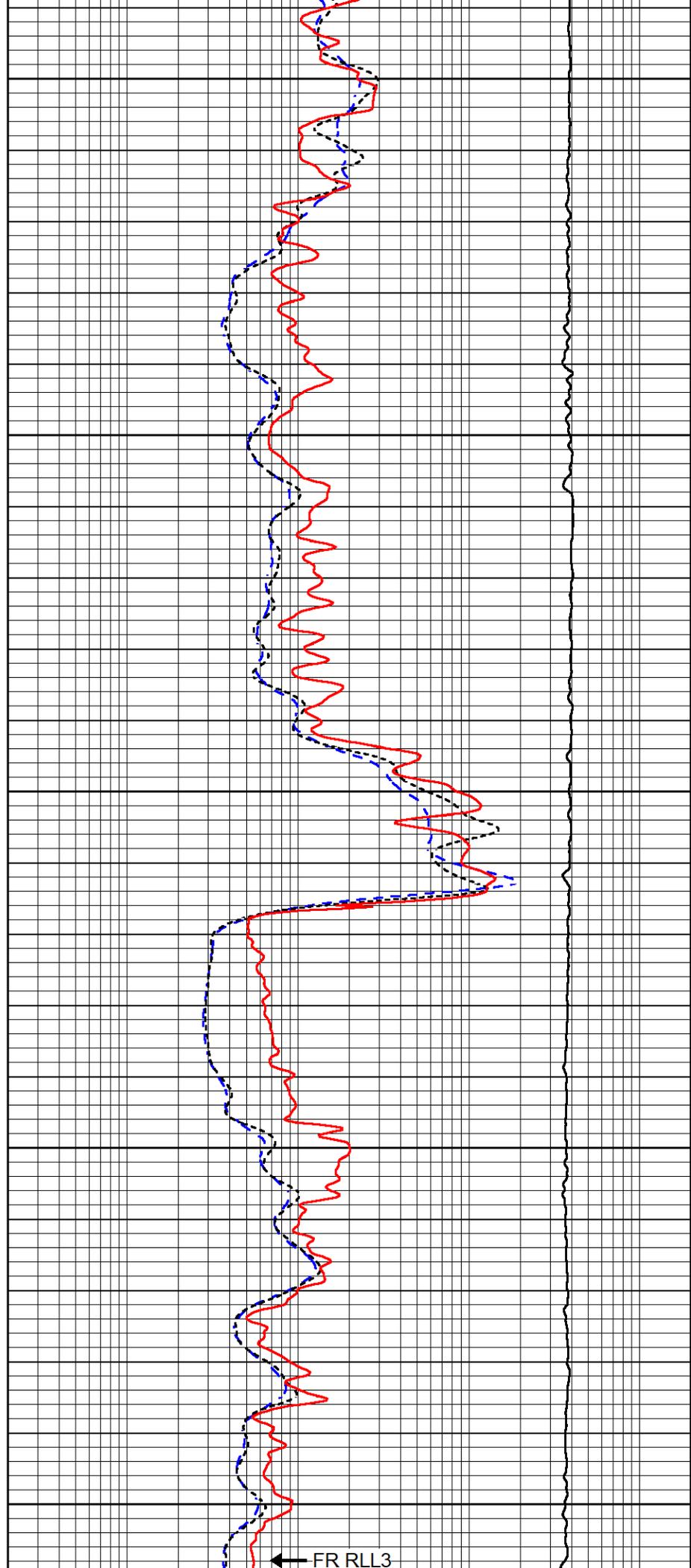
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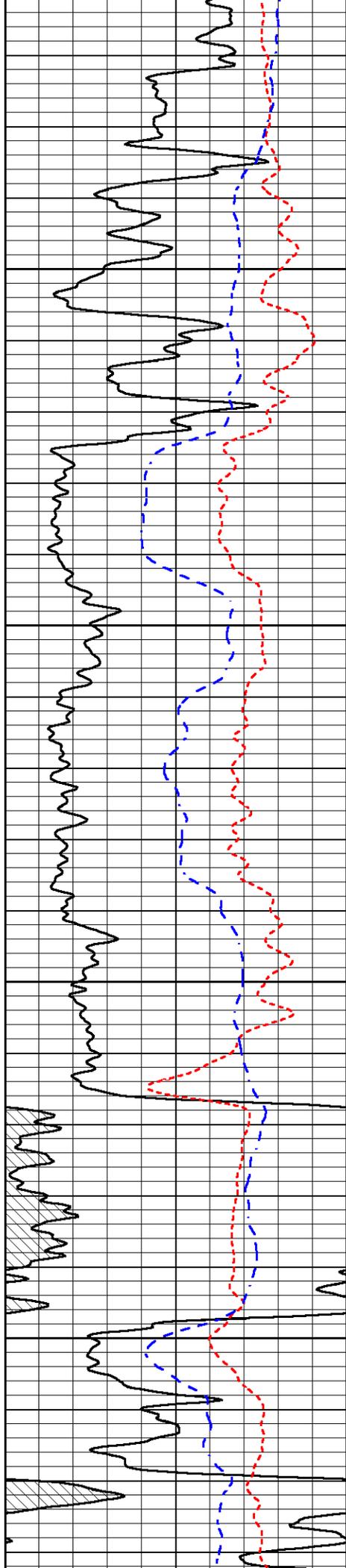
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FR Gamma Ray



FR RLL3

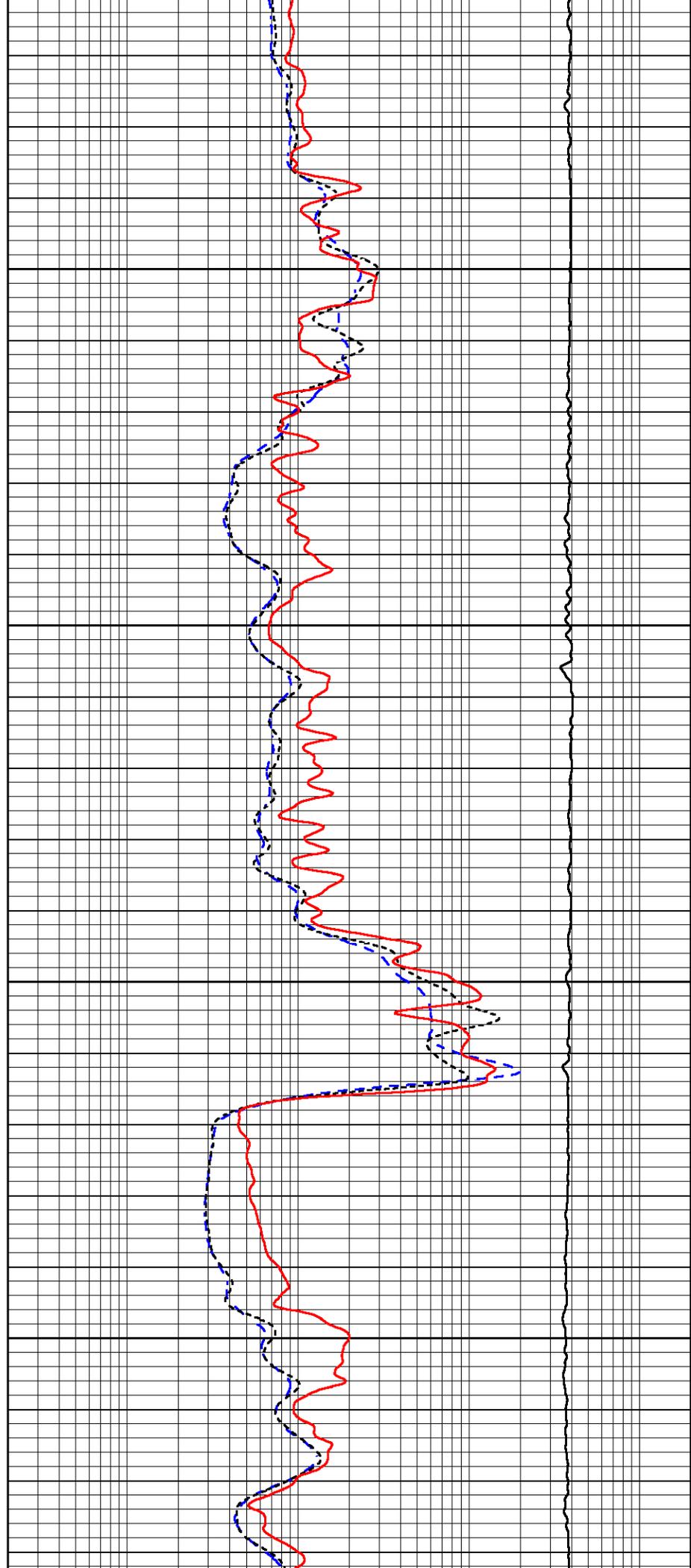


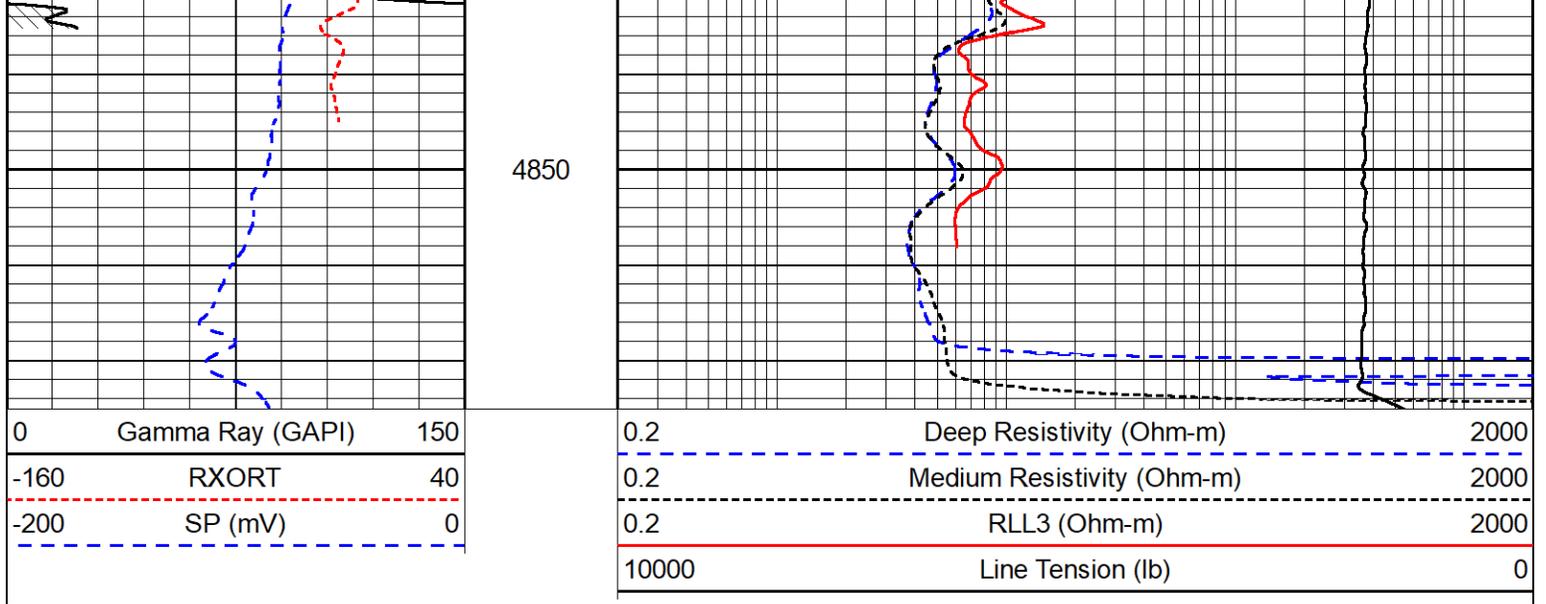
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Calibration Report

Database File griffin_whitley 4.db
 Dataset Pathname stkml/pass4.11
 Dataset Creation Sun Nov 20 22:33:32 2022

Dual Induction Calibration Report

Serial-Model: 502 HT-M&W
 Surface Cal Performed: Mon Nov 7 15:53:48 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	255.800	mmho/m	0.454	-31.000
Medium	113.335	1585.690	0.000	255.800	mmho/m	0.350	-11.000

Microlog Calibration Report

Serial-Model: 401-PSIML
 Performed: Mon Nov 7 15:53:59 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	11500.0000	-0.6000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	9500.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	98.0000	-93.2200

Compensated Density Calibration Report

Serial-Model: 305-24-M&W
 Source #: 20762B
 Master Calibration Performed: Mon Jun 20 16:54:11 2022

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4771.35	5494.27	cps
Aluminum	2.650	g/cc	908.54	3539.54	cps

Spine Angle = 75.15

Density/Spine Ratio = 0.522

	Size		Reading
Small Ring	4.00	in	1.74
Large Ring	14.00	in	1.38

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W

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

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
1) Short Space	cps		
Long Space	cps	pu	pu
2) Short Space	cps		
Long Space	cps	pu	
3) Short Space	cps		
Long Space	cps	pu	

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
1) Short Space	cps		
Long Space	cps	pu	pu
2) Short Space	cps		
Long Space	cps	pu	pu
3) Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 106
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 Griffin Management, LLC
Well Whitley #4
Field Moffett West
County Barber
State Kansas

MIDWEST WIRELINE

DATE

NAME