



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company Griffin Management LLC
 Well Marla 3
 Field Lee Ranch
 County Barber State Kansas

Location: API #: 15-007-24415-00-00
 2060 FSL & 915 FEL
 SEC 5 TWP 30S RGE 15W
 Permanent Datum Ground Level Elevation 2000
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 DIL
 Elevation
 K.B. 2005
 D.F.
 G.L. 2000

Date	4/28/2020
Run Number	One
Depth Driller	4850
Depth Logger	4851
Bottom Logged Interval	4850
Top Log Interval	2800
Casing Driller	8.625 @ 260
Casing Logger	255
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	5000
Density / Viscosity	9.1 48
pH / Fluid Loss	10.0 8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.60 @ 70
Rmt @ Meas. Temp	.45 @ 70
Rmc @ Meas. Temp	.81 @ 70
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.34 @ 125
Operating Rig Time	2 Hours
Max Rec. Temp. F	125
Equipment Number	P-108
Location	HAYS
Recorded By	J. Henrickson
Witnessed By	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 Kansas
South to 110th, 1 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

Engineer: J. Henrickson
 Operator:
 Operator:
 Operator:

This Log Record Was Witnessed By

Primary Witness: Eli Felts
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin_marla_3.db
Dataset field/well/stackml/pass3.1/_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	395	75	Off	4851

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

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	37.23		CNT-M&W (210)	5.00	3.50	100.00
CNSSC	36.48		CDL-M&W (303-03)	8.50	4.00	250.00
LSD	28.18		ML-PSI STKBL ML (402)	7.58	4.00	65.00
DCAL	28.17					
SSD	27.68					
MCAL	19.58		RLL3F	15.50	15.50	
MI	19.58					
MN	19.58					
RLL3F	15.50		RLL3	15.50		

CILD 8.33

CILM 4.50

SP 0.20

DIL-M&W (504 HT)

18.25

3.50

220.00

Dataset: griffin_marla_3.db: field/well/stackml/pass3.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in



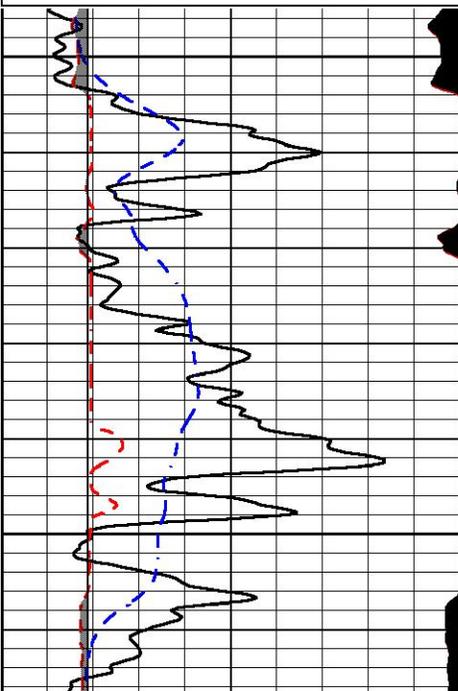
DETAIL SECTION

MAIN PASS

Database File griffin_marla_3.db
 Dataset Pathname stackml/pass4.1
 Presentation Format _micro
 Dataset Creation Thu Apr 28 09:14:33 2022
 Charted by Depth in Feet scaled 1:240

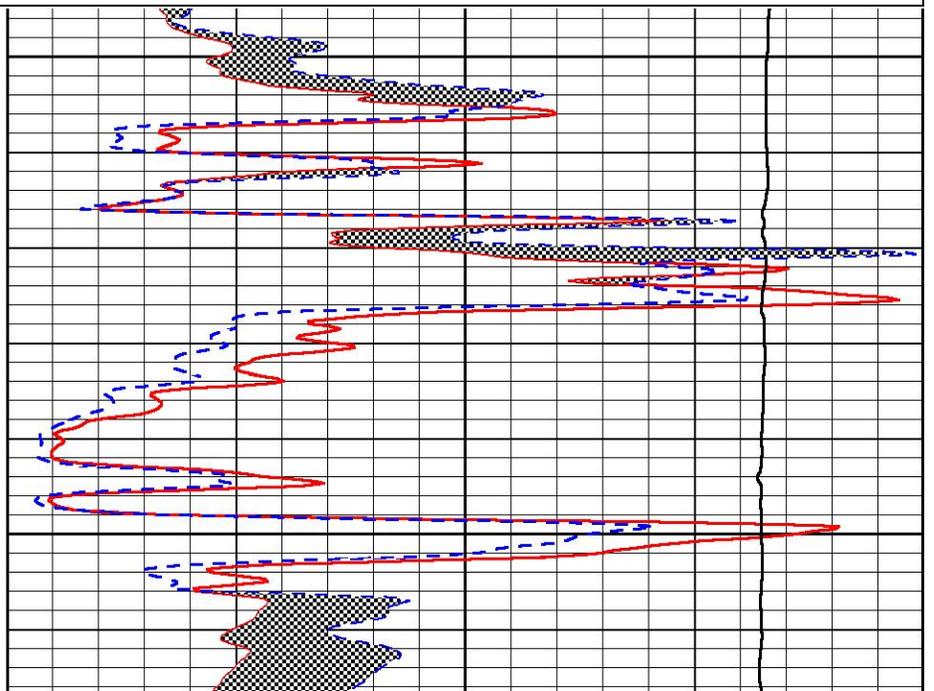
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	mcal (in)	7.875
-200	SP (mV)	0

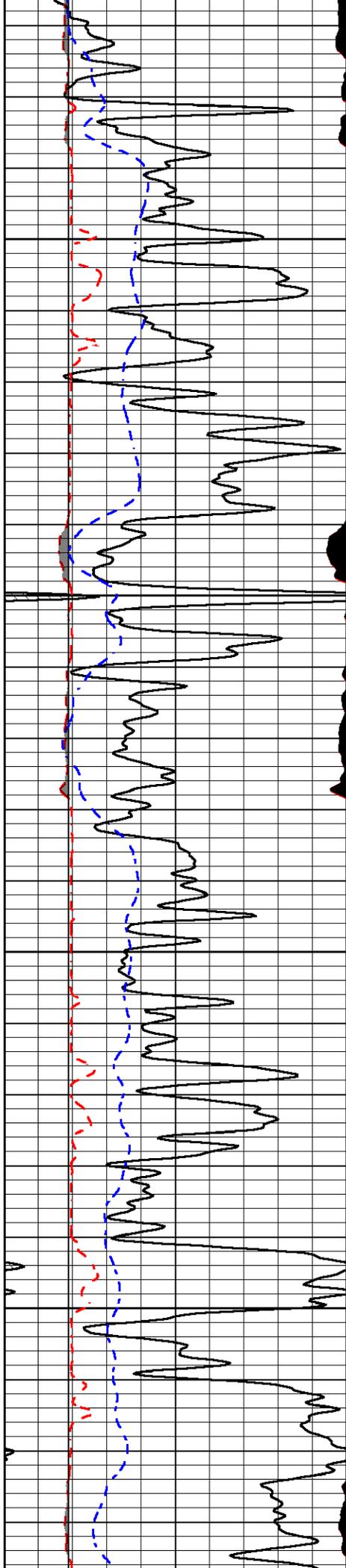
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2800

2850



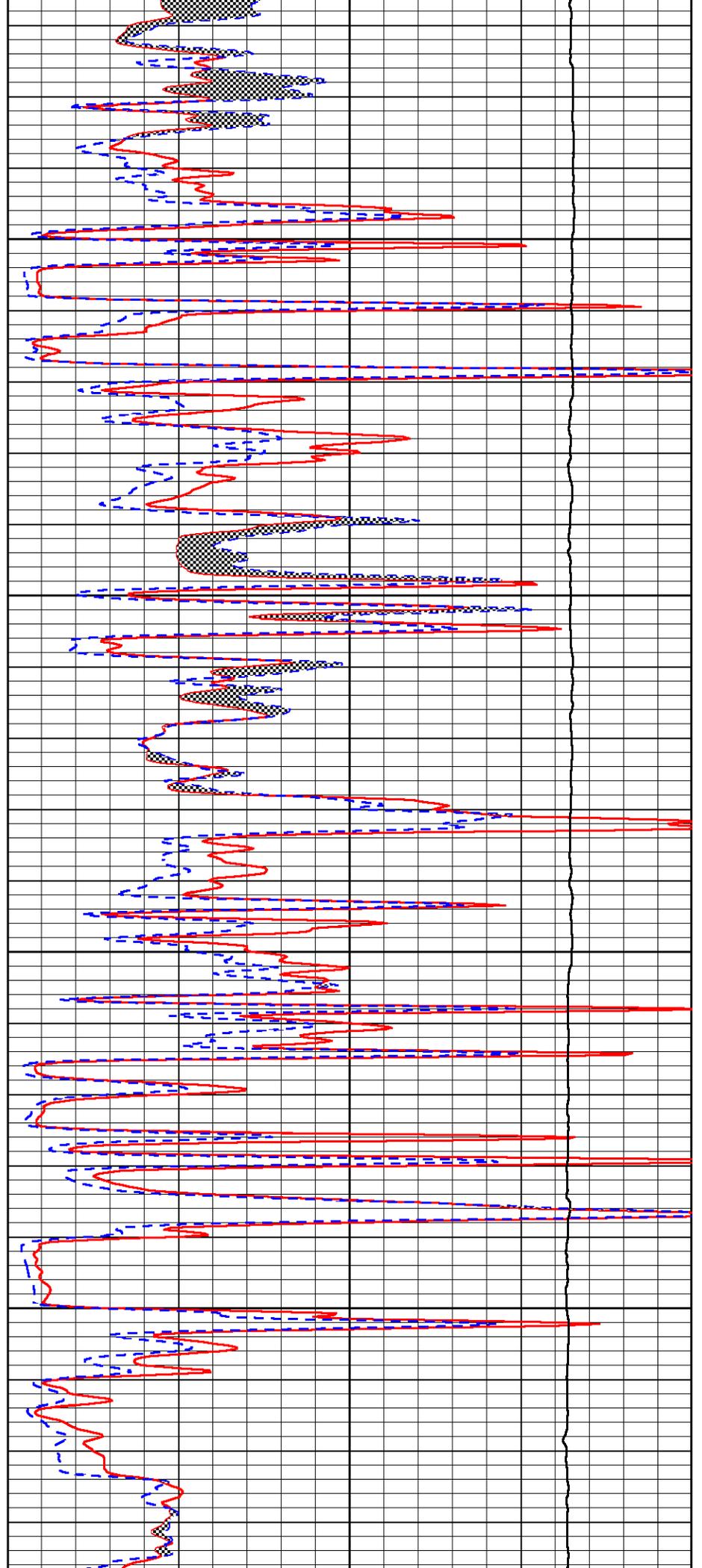


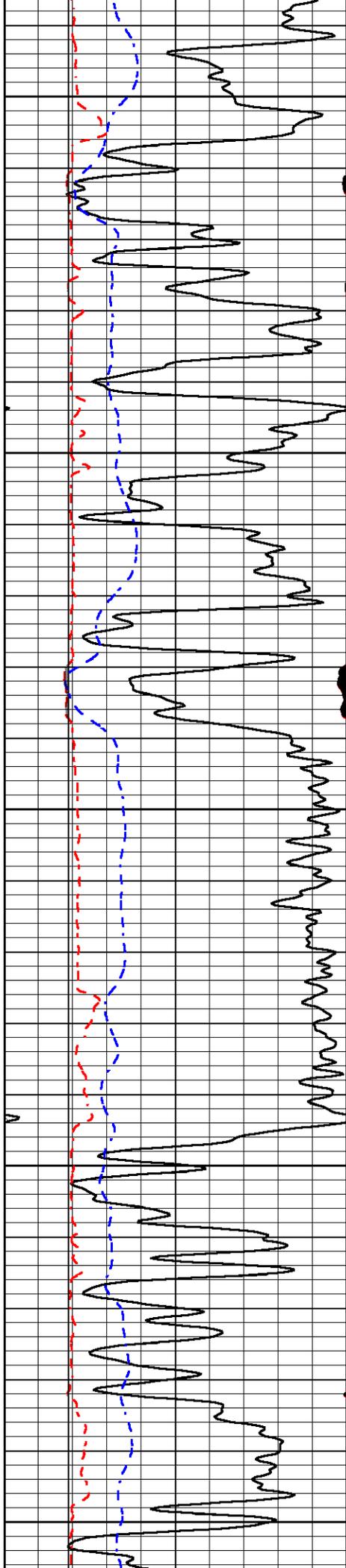
2900

2950

3000

3050





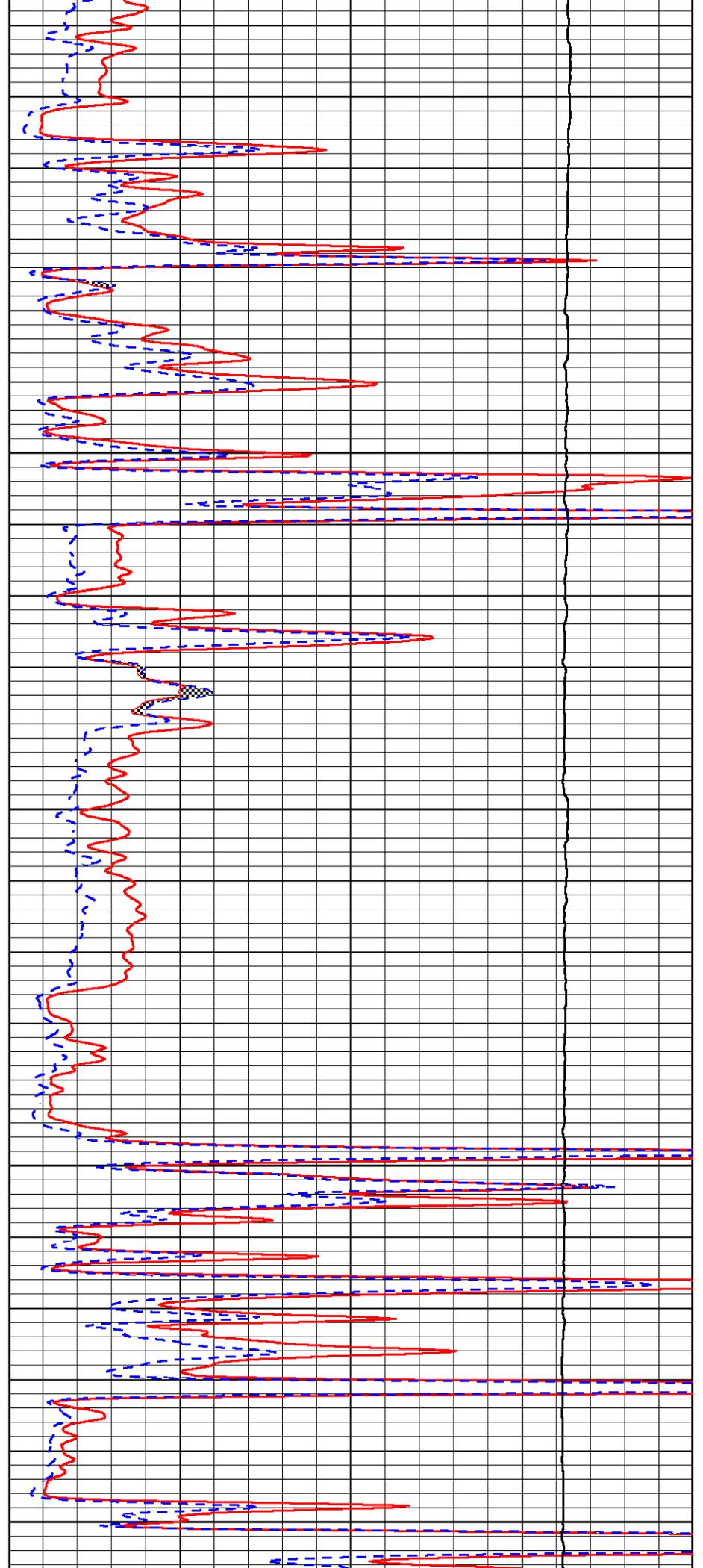
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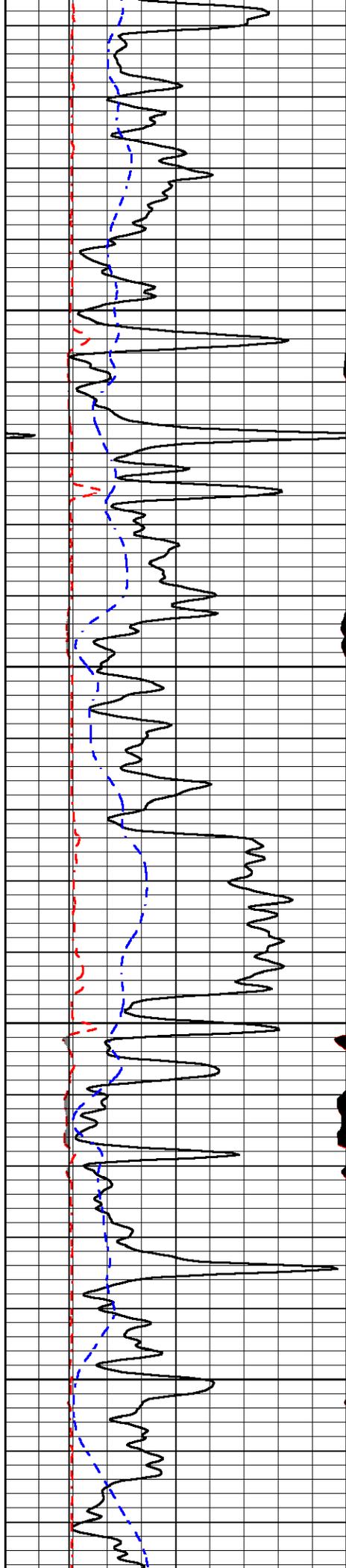
3150

3200

3250

3300



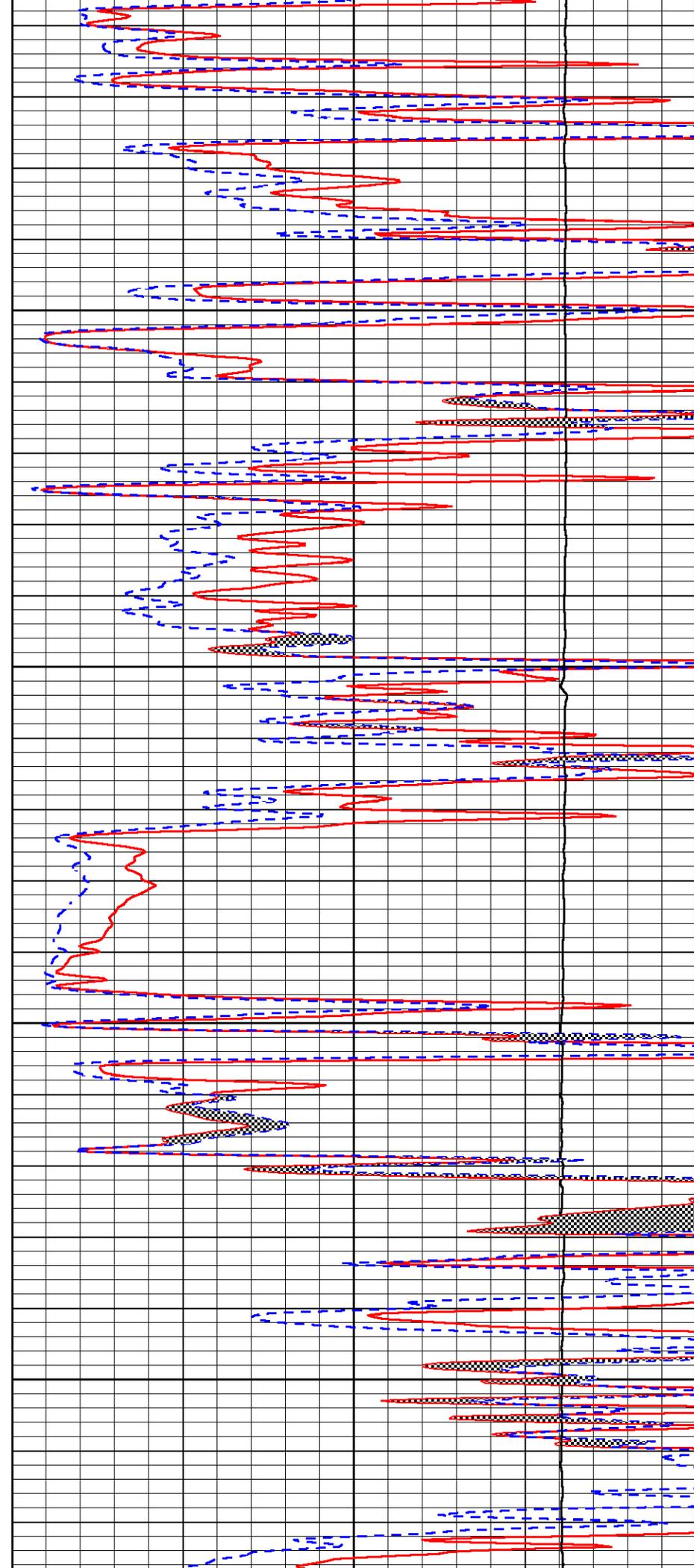


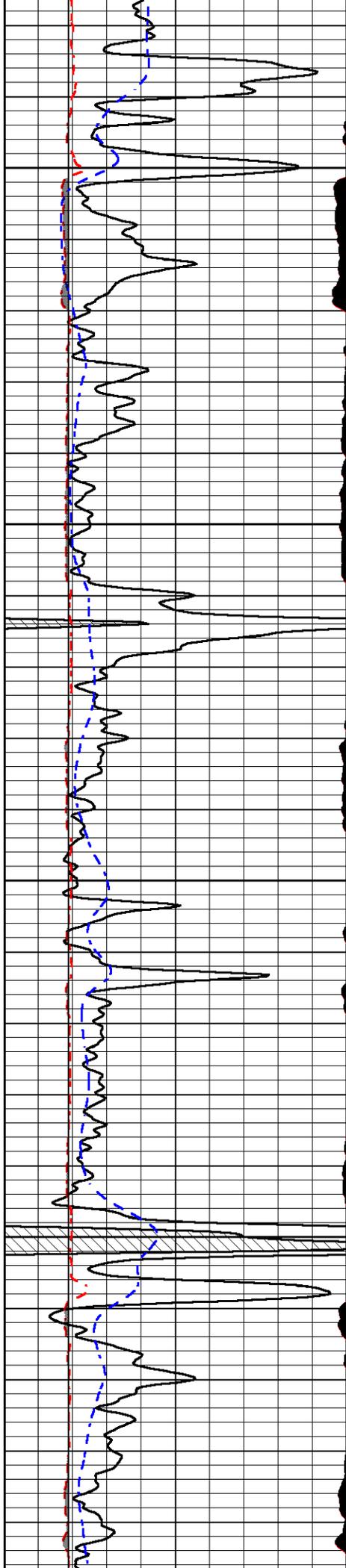
3350

3400

3450

3500



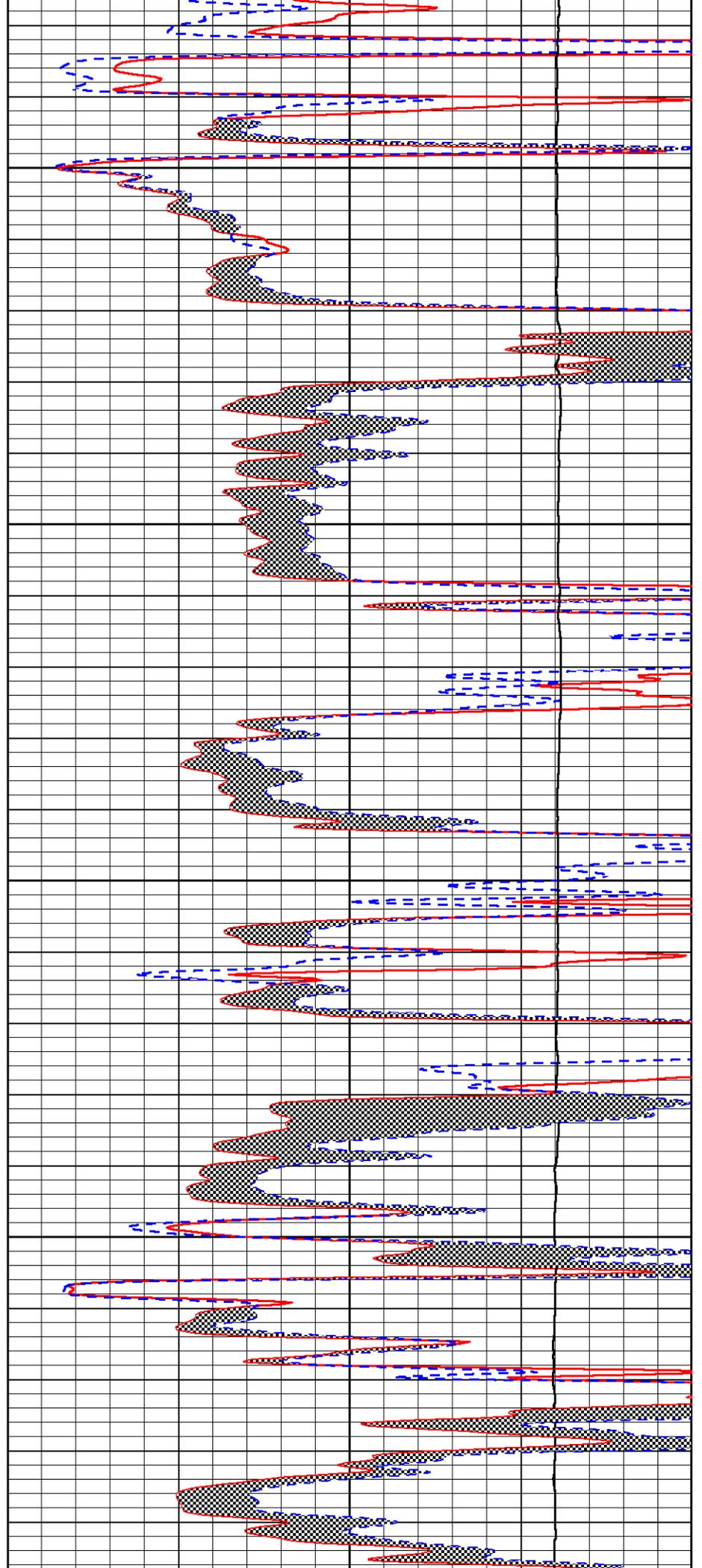


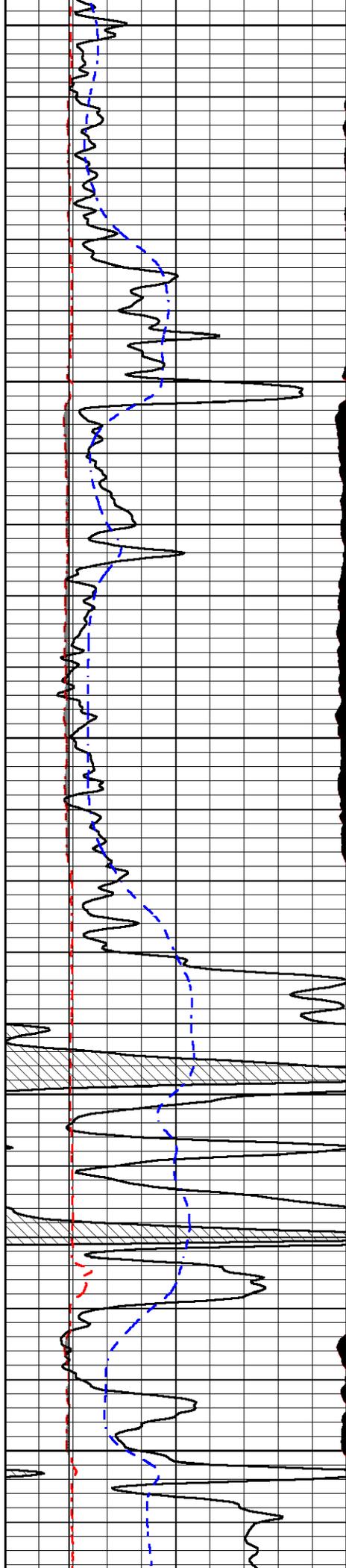
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3600

3650

3700





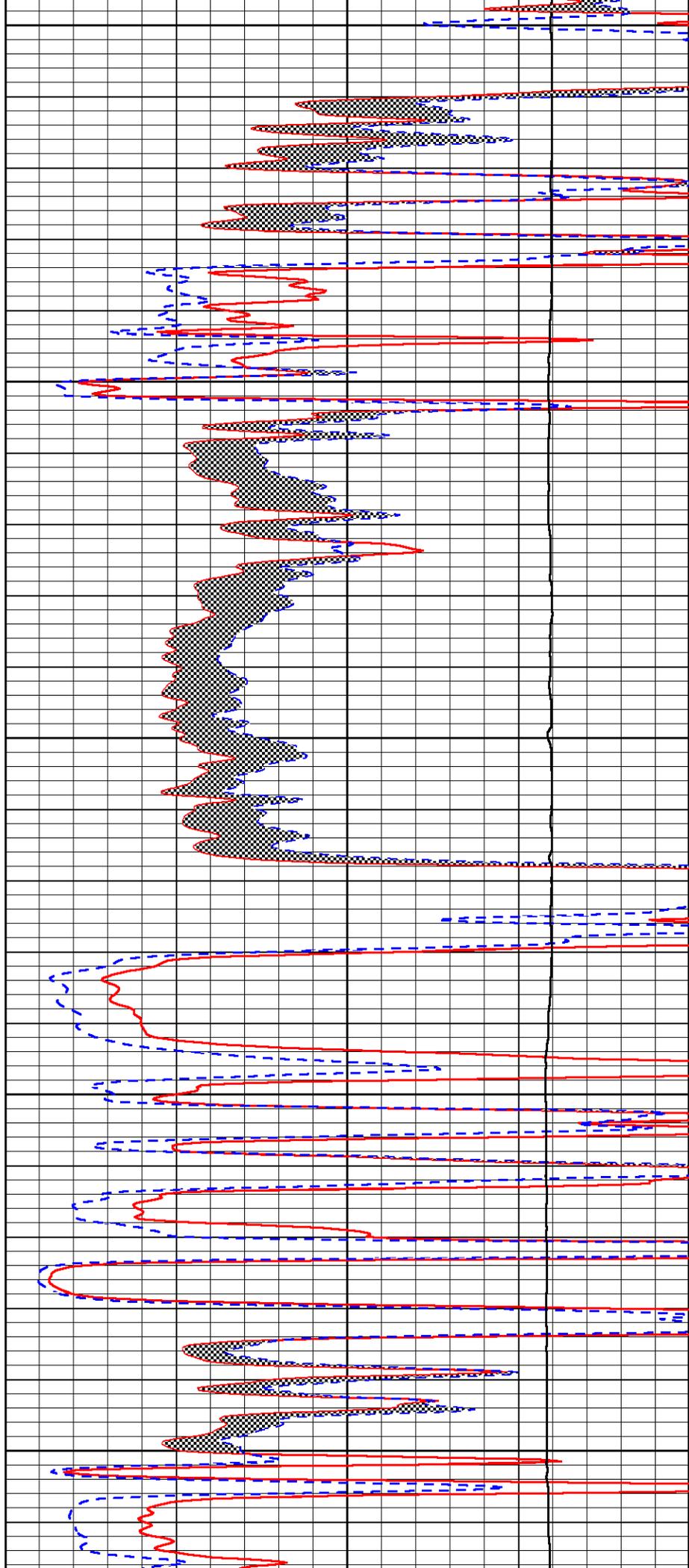
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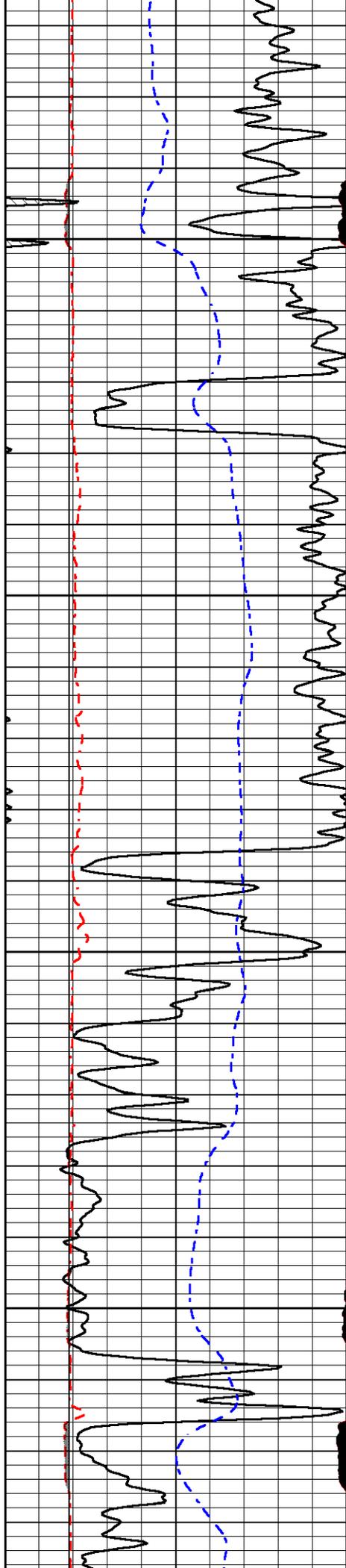
3800

3850

3900

3950



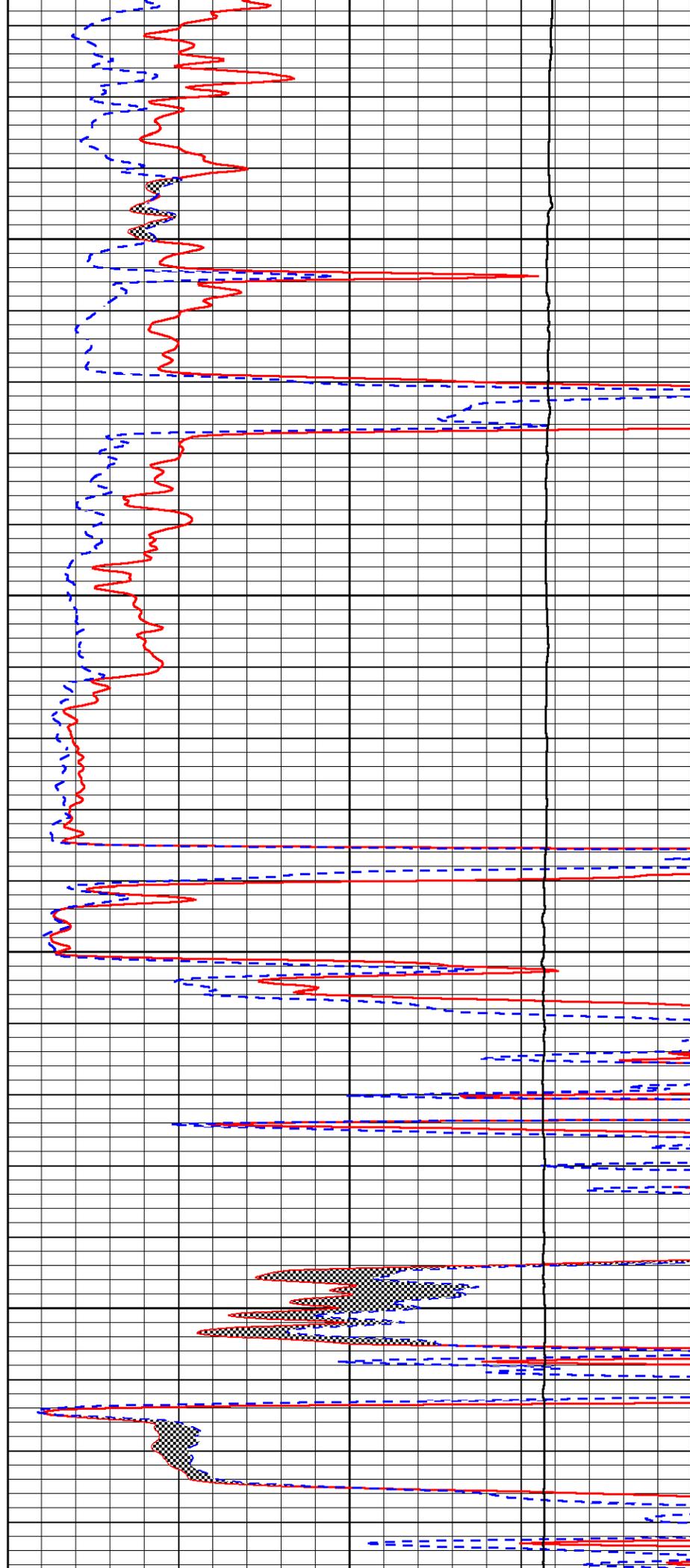


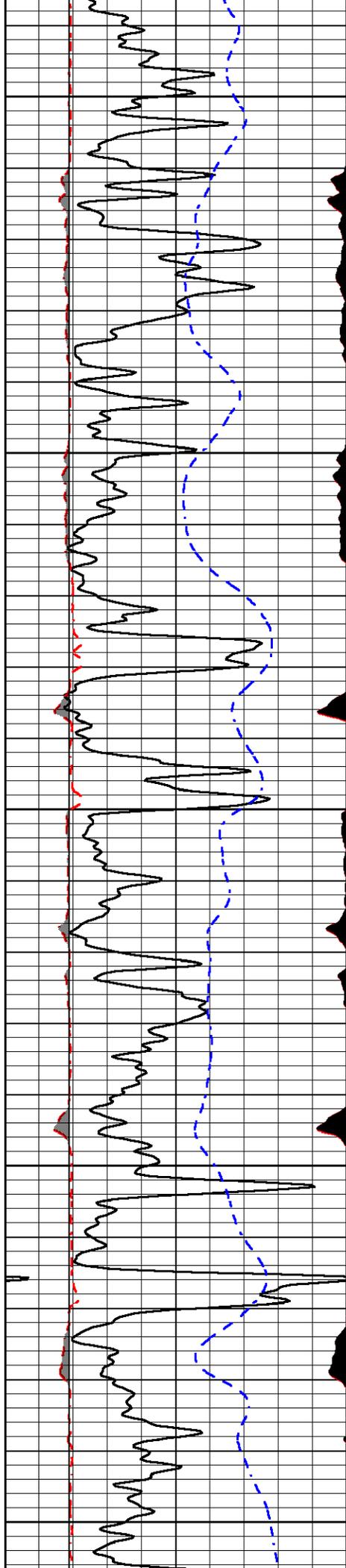
4000

4050

4100

4150





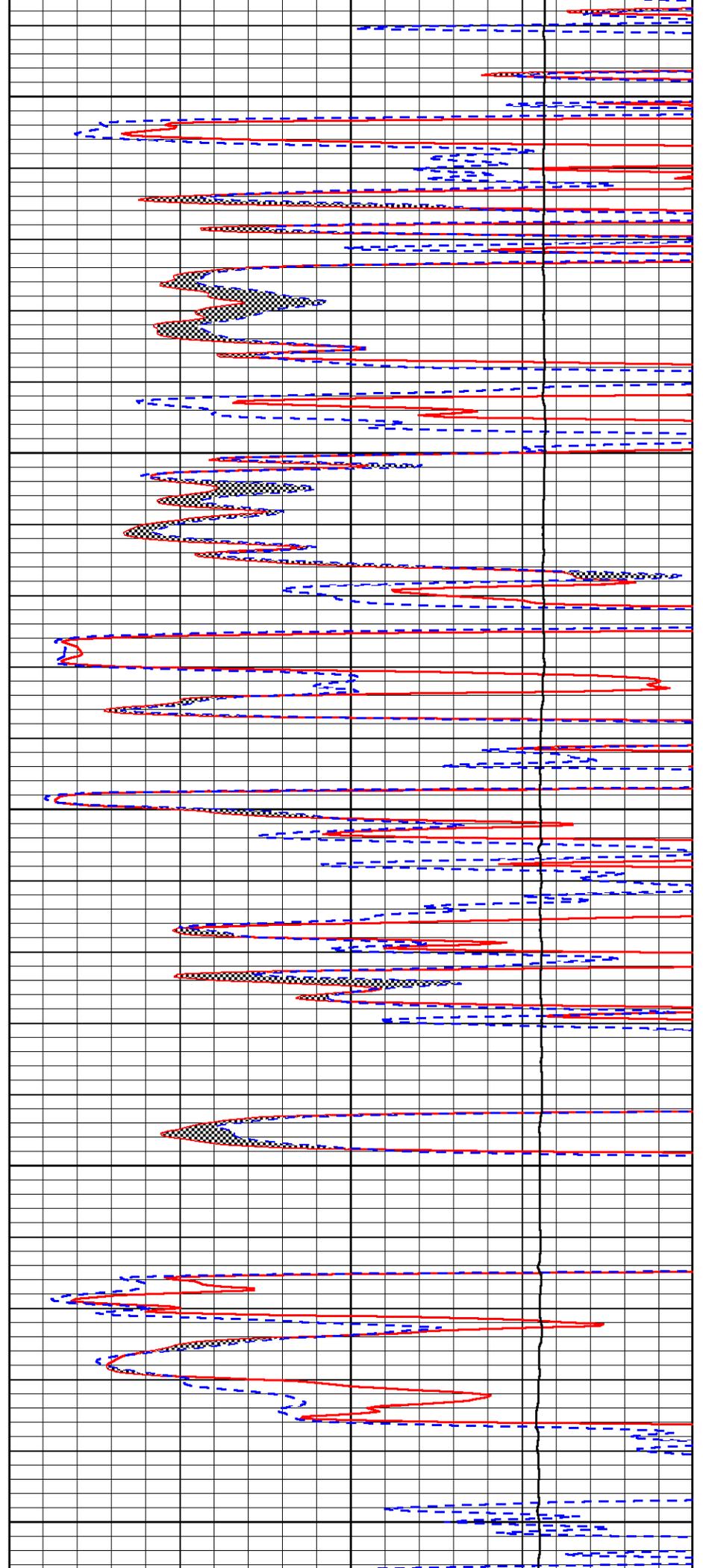
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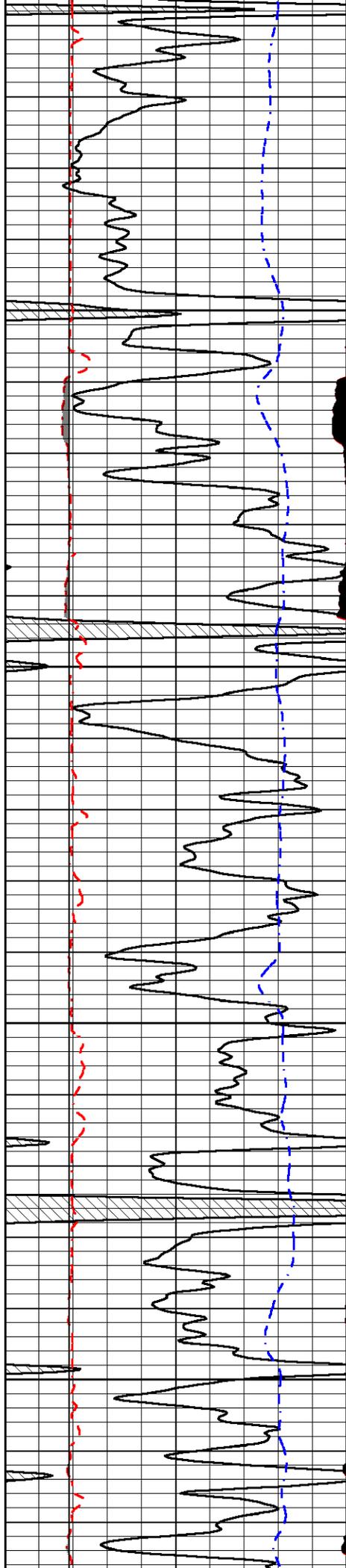
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4300

4350

4400



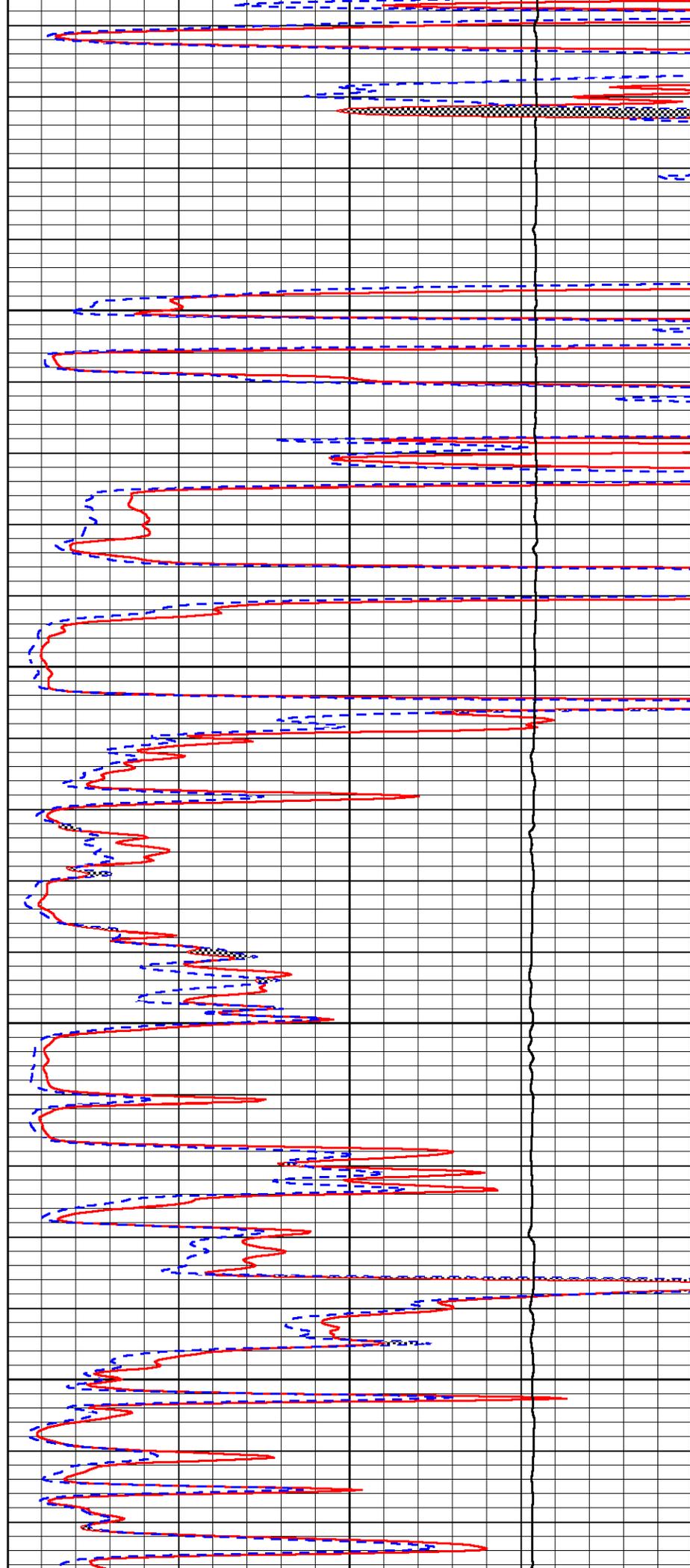


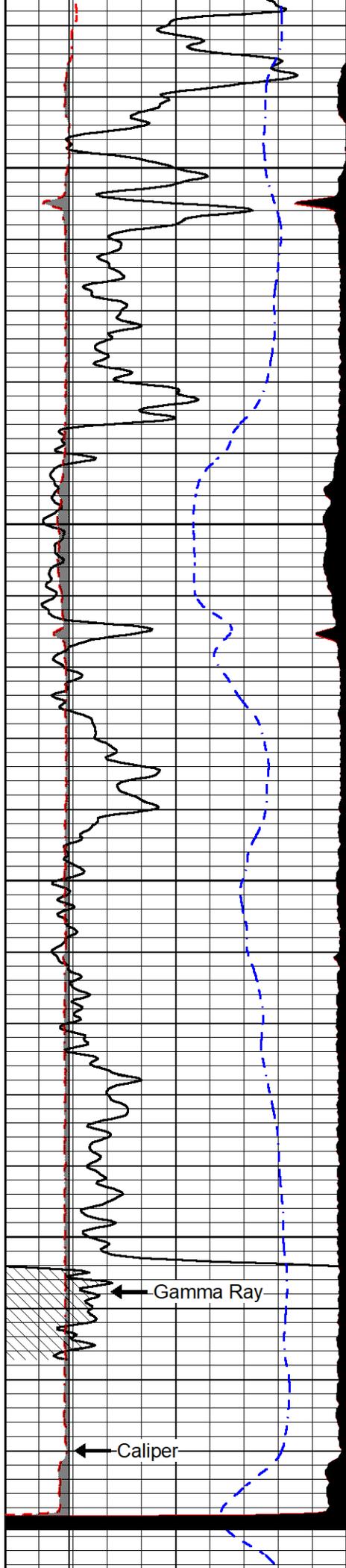
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4500

4550

4600





4650

4700

4750

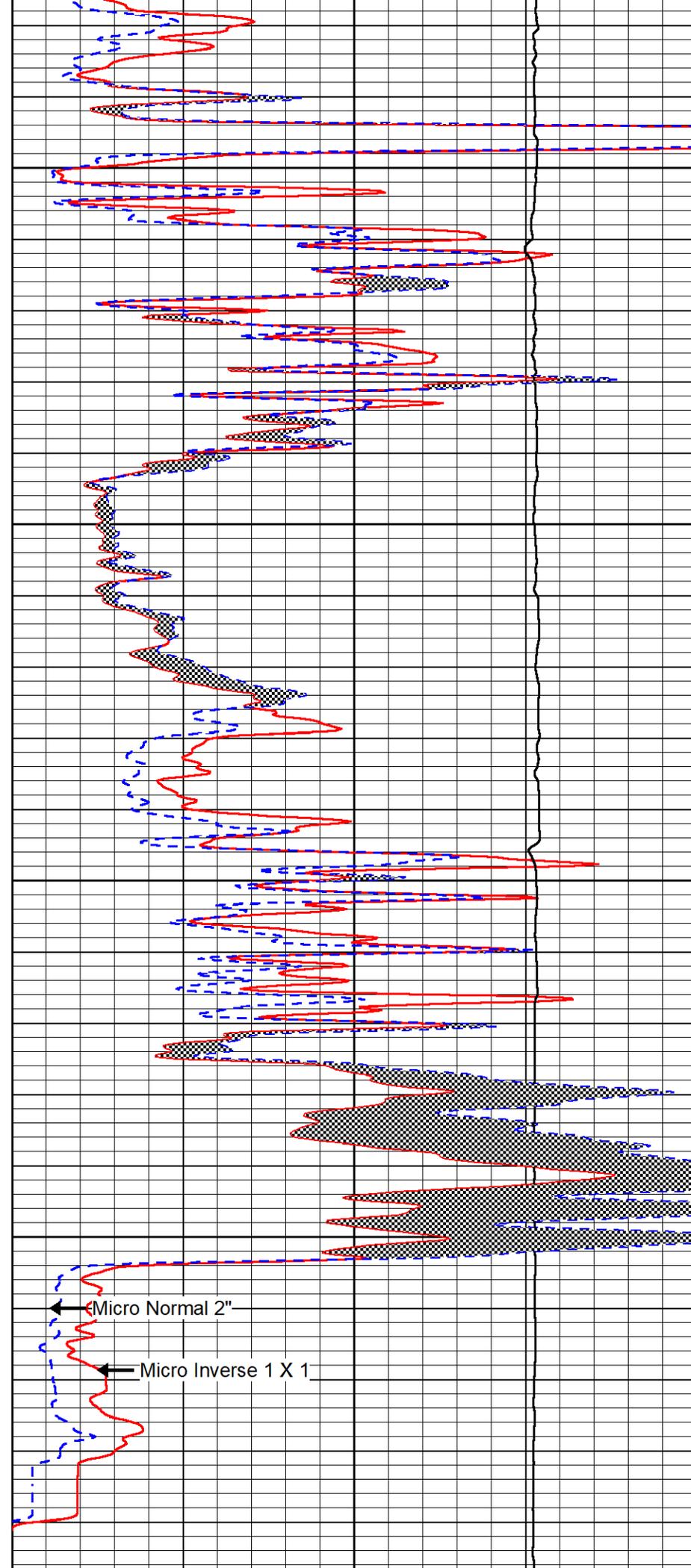
4800

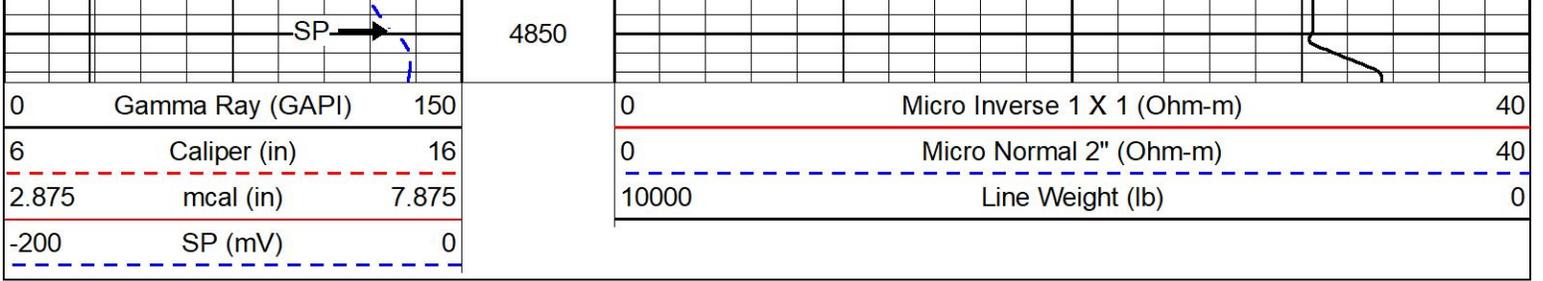
Gamma Ray

Caliper

Micro Normal 2"

Micro Inverse 1 X 1

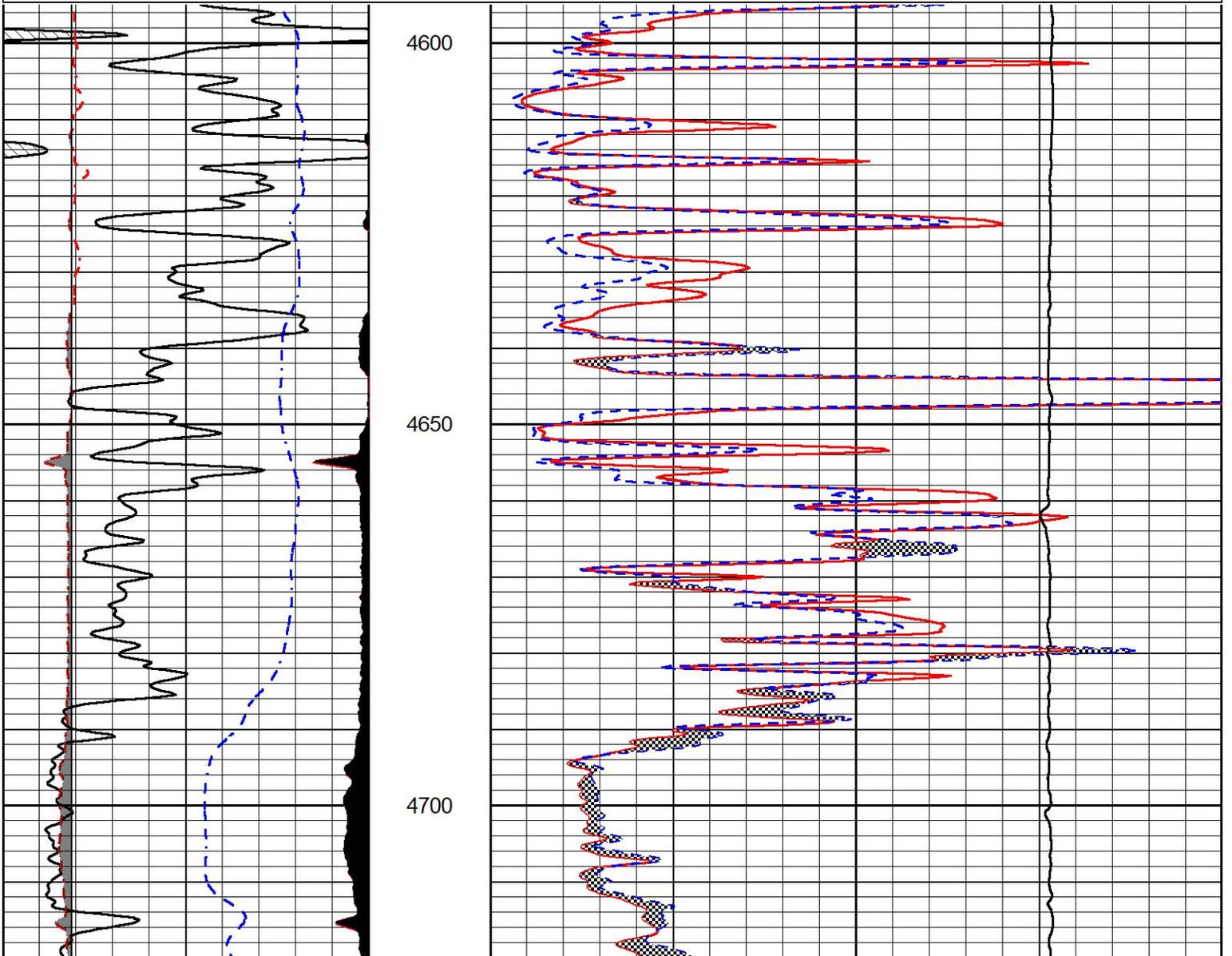
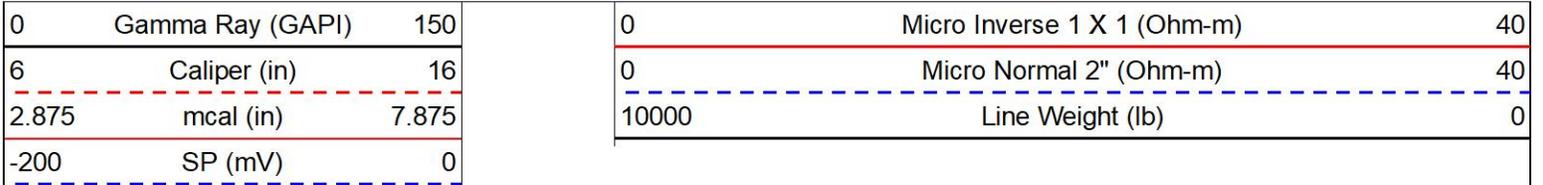


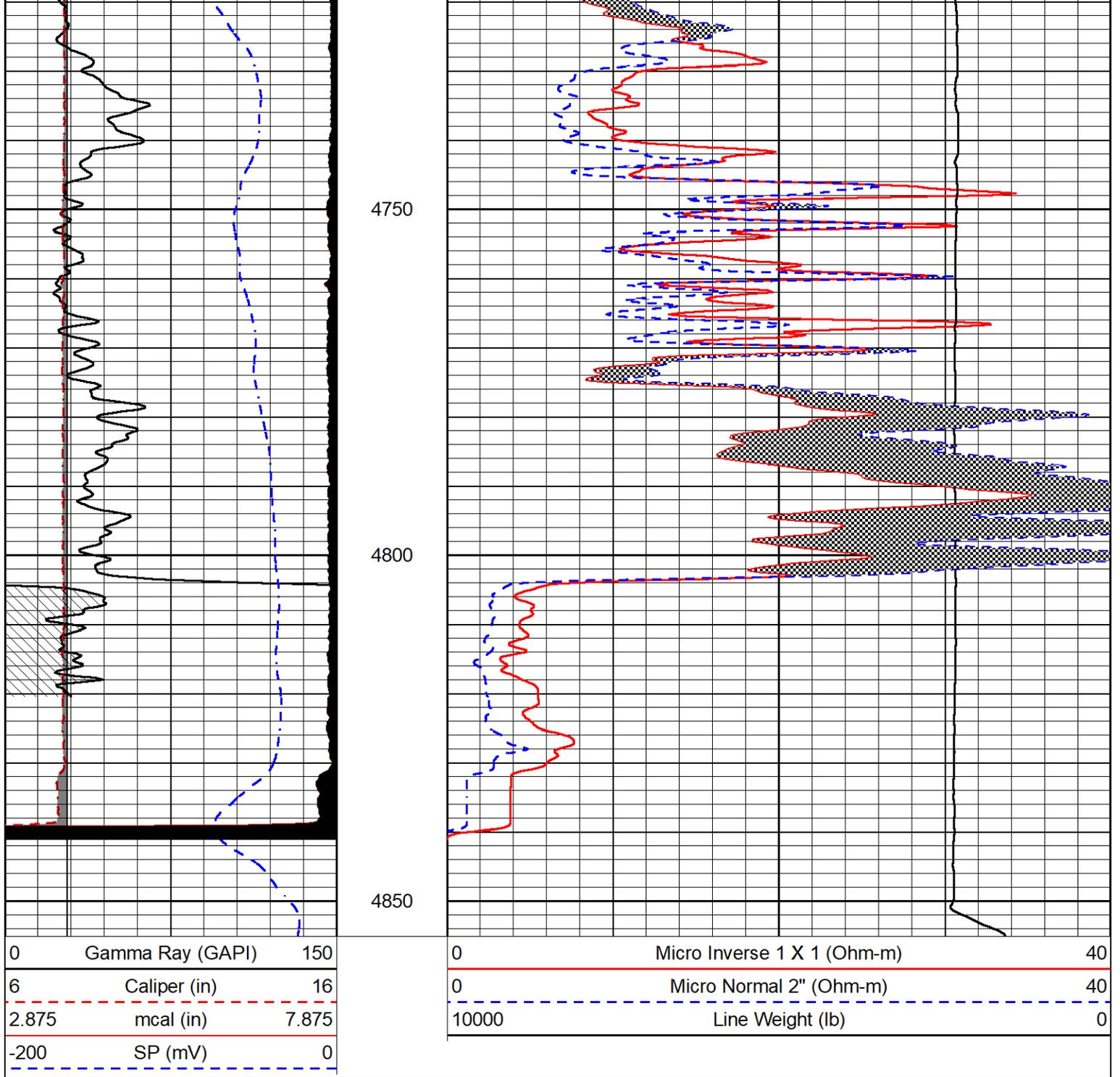


REPEAT SECTION

REPEAT PASS

Database File griffin_marla_3.db
 Dataset Pathname stackml/pass2.1
 Presentation Format _micro
 Dataset Creation Thu Apr 28 09:05:33 2022
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File griffin_marla_3.db
 Dataset Pathname stackml/pass4.1
 Dataset Creation Thu Apr 28 09:14:33 2022

Dual Induction Calibration Report

Serial-Model: 504 HT-M&W
 Surface Cal Performed: Thu Dec 16 22:32:49 2021

Loop:	Readings		References		Results		
	Air	Loop	Air	Loop	m	b	
Deep	178.615	710.235	0.000	255.800	mmho/m	0.650	-19.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.450	-45.500

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML
 Performed: Sat Mar 19 19:10:40 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	17000.0000	-1.0000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	15500.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1520	-131.2000

Compensated Density Calibration Report

Serial-Model: 303-03-M&W
 Source #: 21170B
 Master Calibration Performed: Thu Dec 16 23:28:34 2021

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps
Aluminum	2.670	g/cc	700.98	3068.49	cps
Spine Angle = 73.06			Density/Spine Ratio = 0.515		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	14.00	in	1.04		

Compensated Neutron Calibration Report

Serial-Model: 210-M&W
 Source #: N-1238
 Master Calibration Performed: Fri Dec 3 09:16:24 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: 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 Griffin Management LLC



Well	Mana 3
Field	Lee Ranch
County	Barber
State	Kansas