



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company Griffin Management, LLC

Well Rea #2

Field

County Pratt

State Kansas

Location: API #: 15-151-22551-00-00

1650 FSL & 2310 FEL

SEC 32 TWP 29S RGE 15W

Other Services
CNL/CDL
DIL

Permanent Datum Ground Level Elevation 2001
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Elevation
K.B. 2006
D.F.
G.L. 2001

Date 9/25/2022

Run Number One

Depth Driller 4860

Depth Logger 4858

Bottom Logged Interval 4857

Top Log Interval 2800

Casing Driller 8,625 @ 261

Casing Logger 259

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 7000

Density / Viscosity 9.3 55

pH / Fluid Loss 9.5 8.8

Source of Sample Flowline

Rm @ Meas. Temp 0.40 @ 80

Rmt @ Meas. Temp 0.30 @ 80

Rmc @ Meas. Temp 0.54 @ 80

Source of Rmf / Rmc Charts

Rm @ BHT 0.26 @ 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

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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, 1 East, 1/2 South,
West and 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: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Charles Griffin
Secondary Witness:
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 (307-11)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (402)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (501 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: griffin_rea 2.db: field/well/stkml/pass3.11
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin_rea 2.db
 Dataset field/well/stkml/pass3.11/_vars_

Top - Bottom

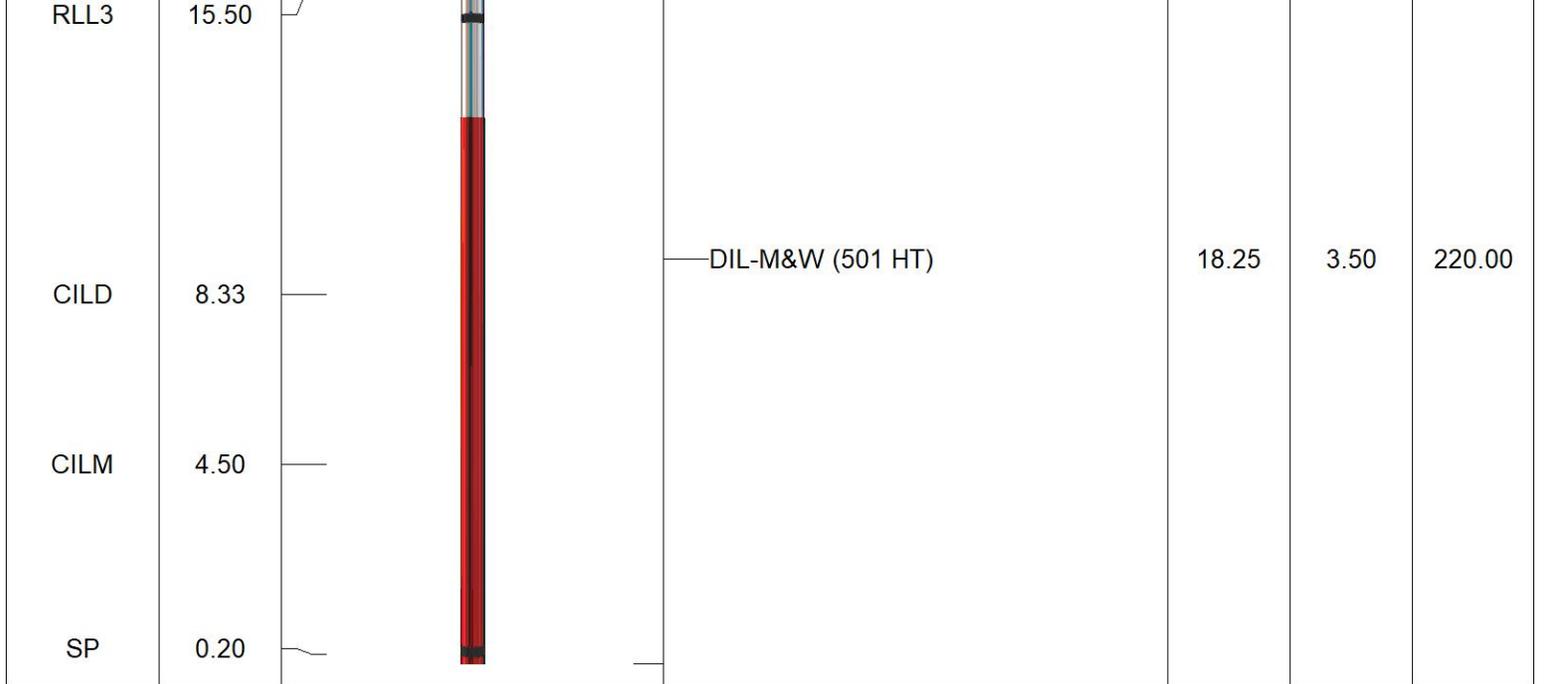
A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	121	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	320	80	Off	4858

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 (106)	3.00	3.50	50.00
CNLSC	37.23		CNT-M&W (207-MW)	5.00	3.50	100.00
CNSSC	36.48					
LSD	28.18		CDL-M&W (307-11)	8.50	4.00	250.00
DCAL	28.17					
SSD	27.68					
			ML-PSIML (402)	7.58	4.00	65.00
MCAL	19.58					
MI	19.58					
MN	19.58					
RLL3F	15.50					



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 Total weight: 685.00 lb
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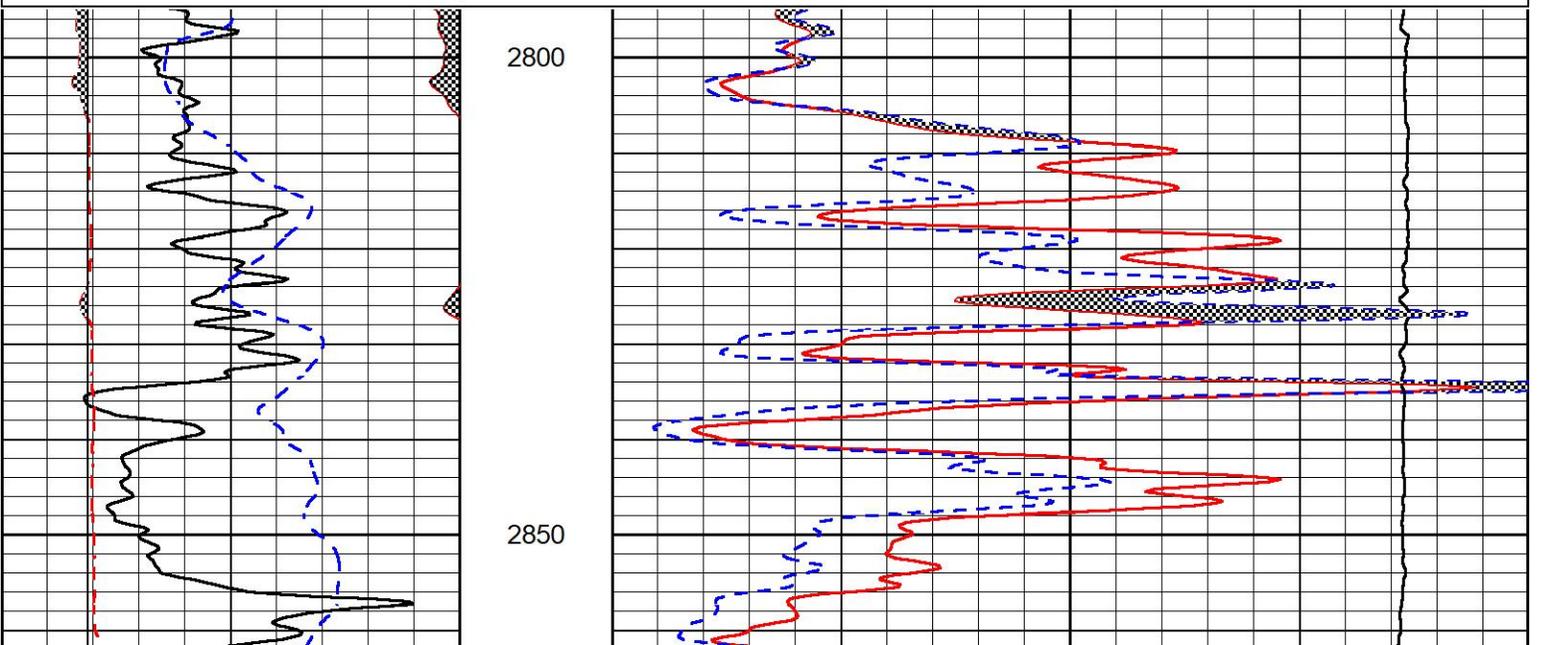
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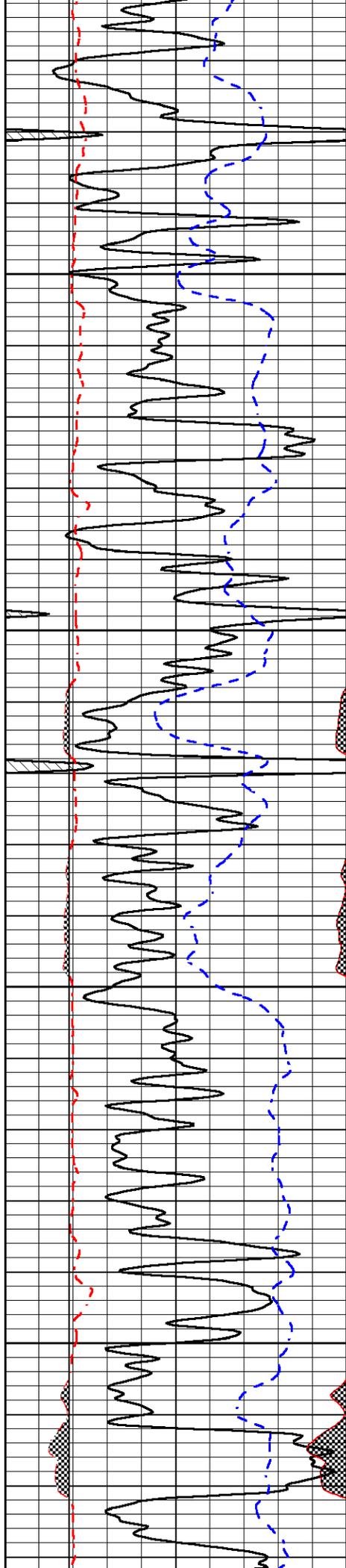
MAIN PASS

Database File griffin_rea 2.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _micro
 Dataset Creation Sun Sep 25 21:32:12 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



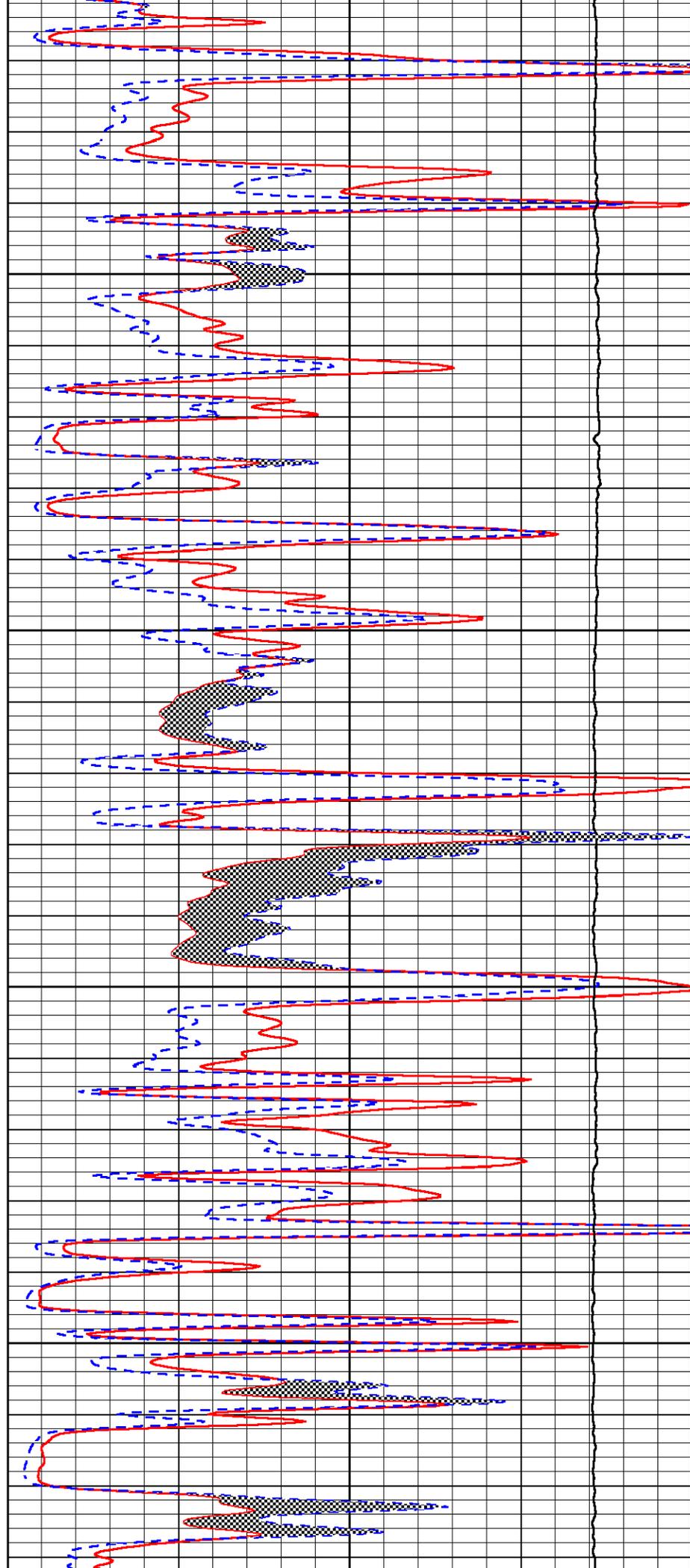


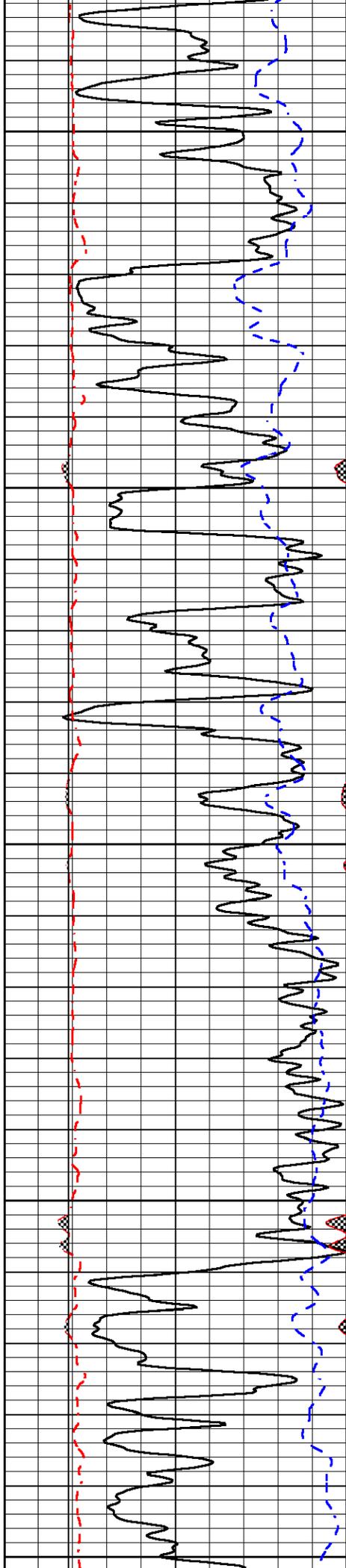
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2950

3000

3050





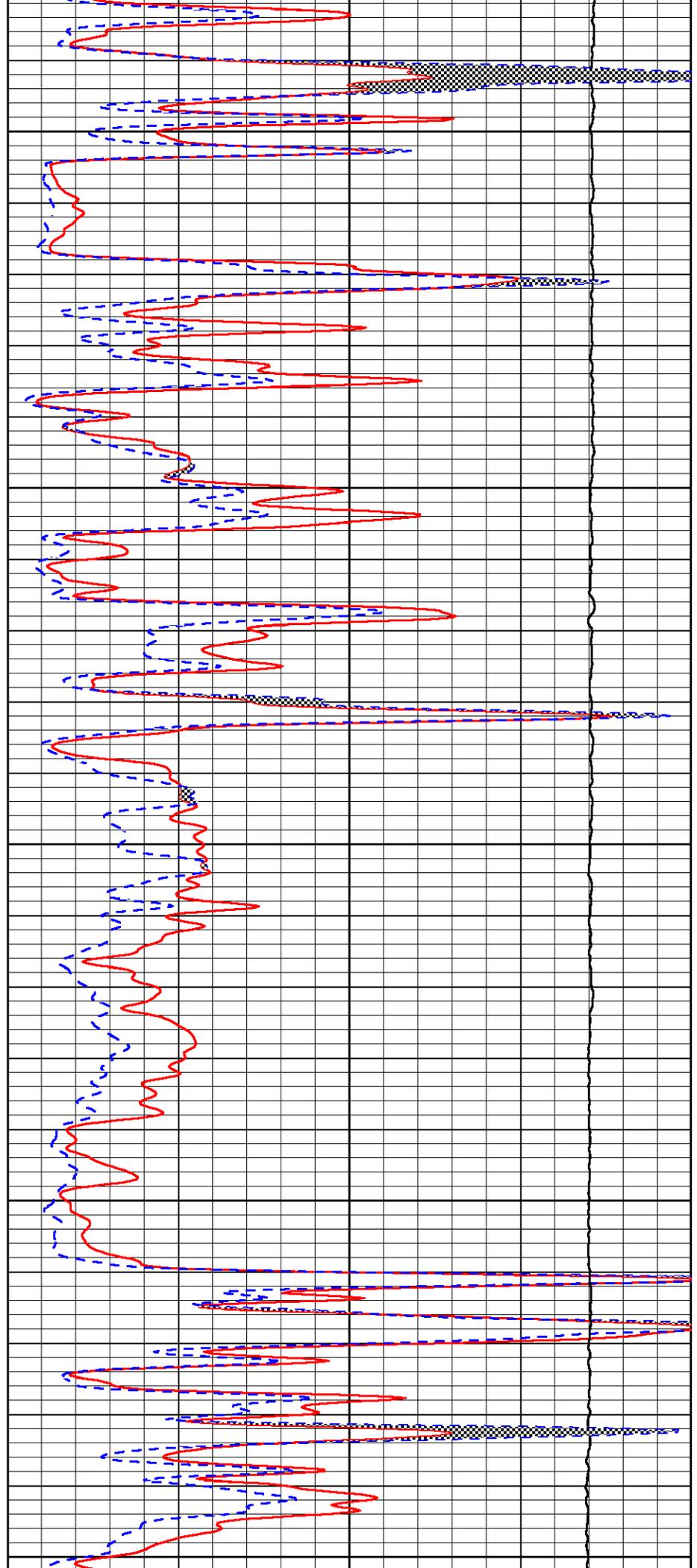
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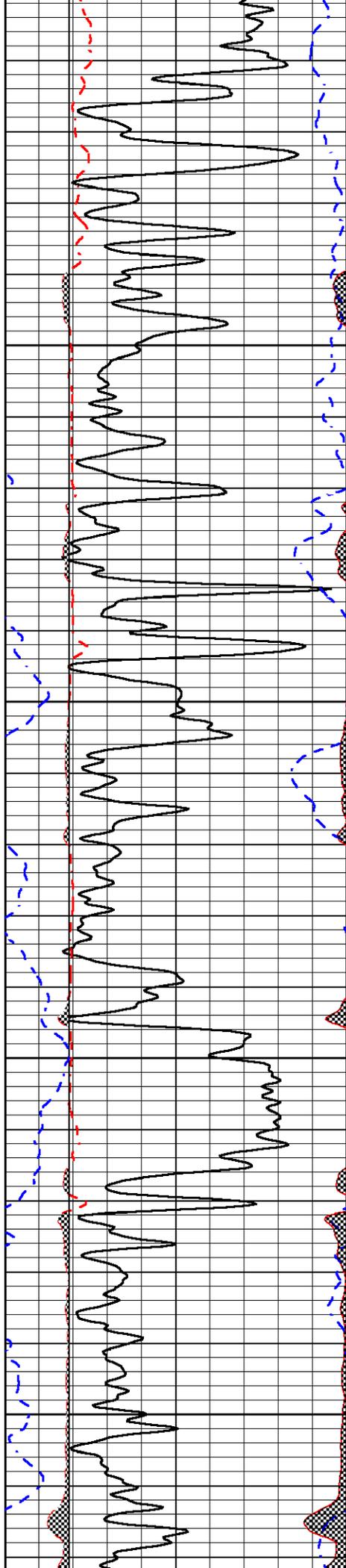
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3200

3250

3300



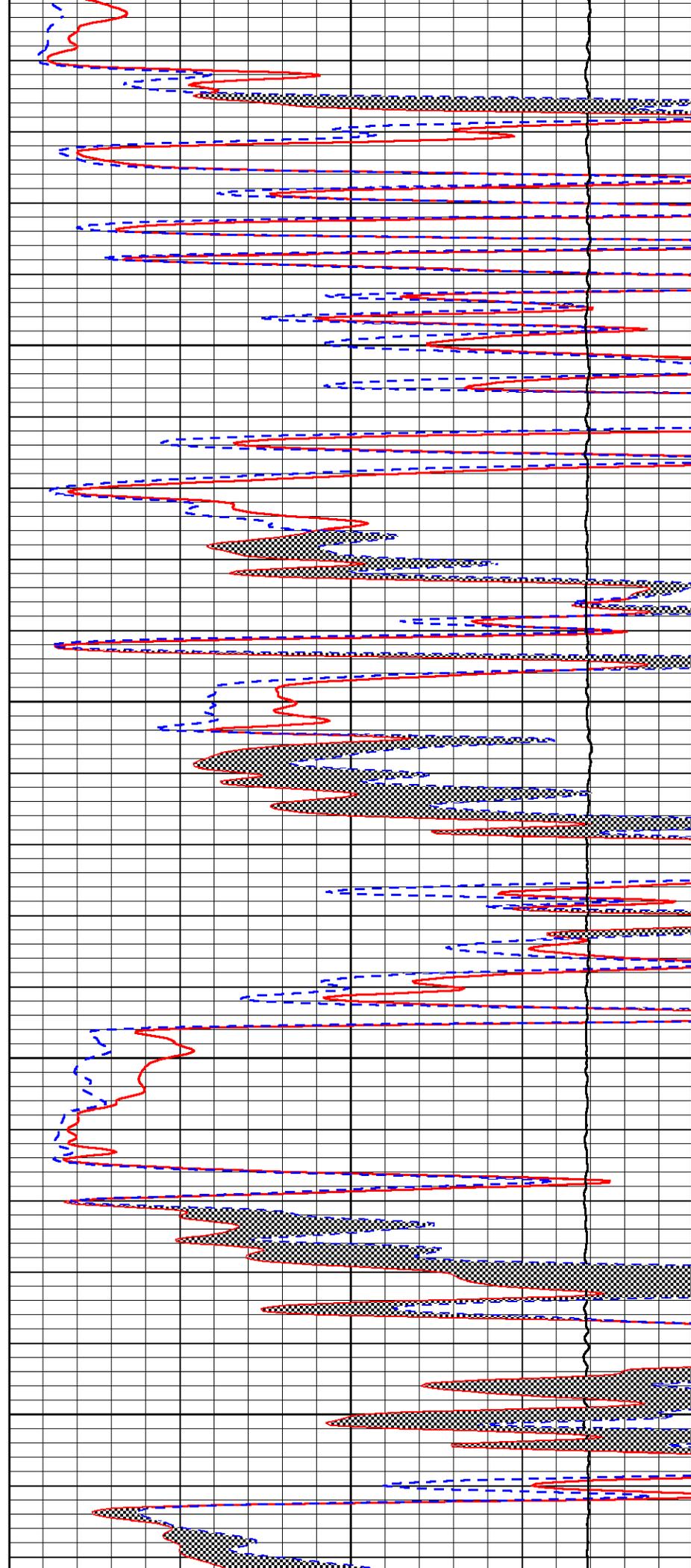


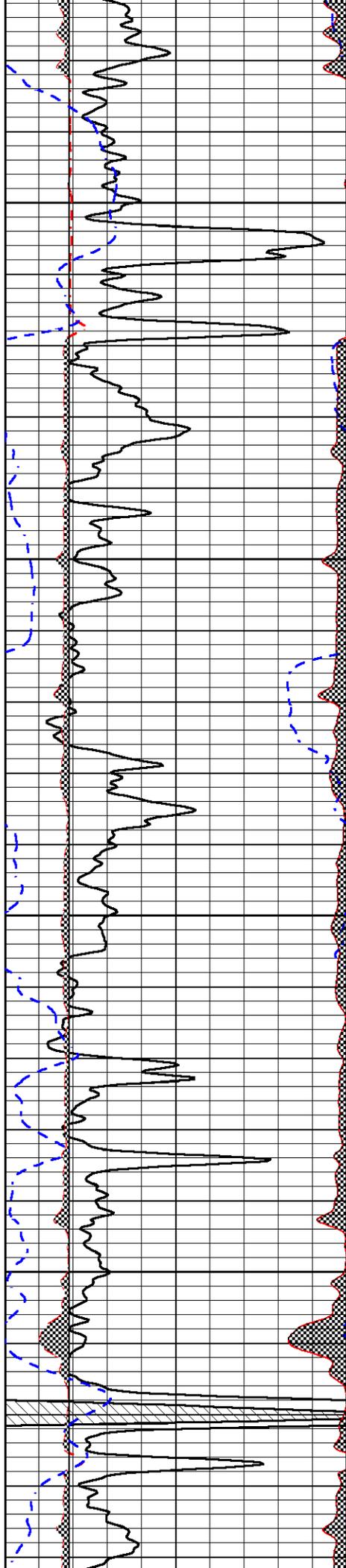
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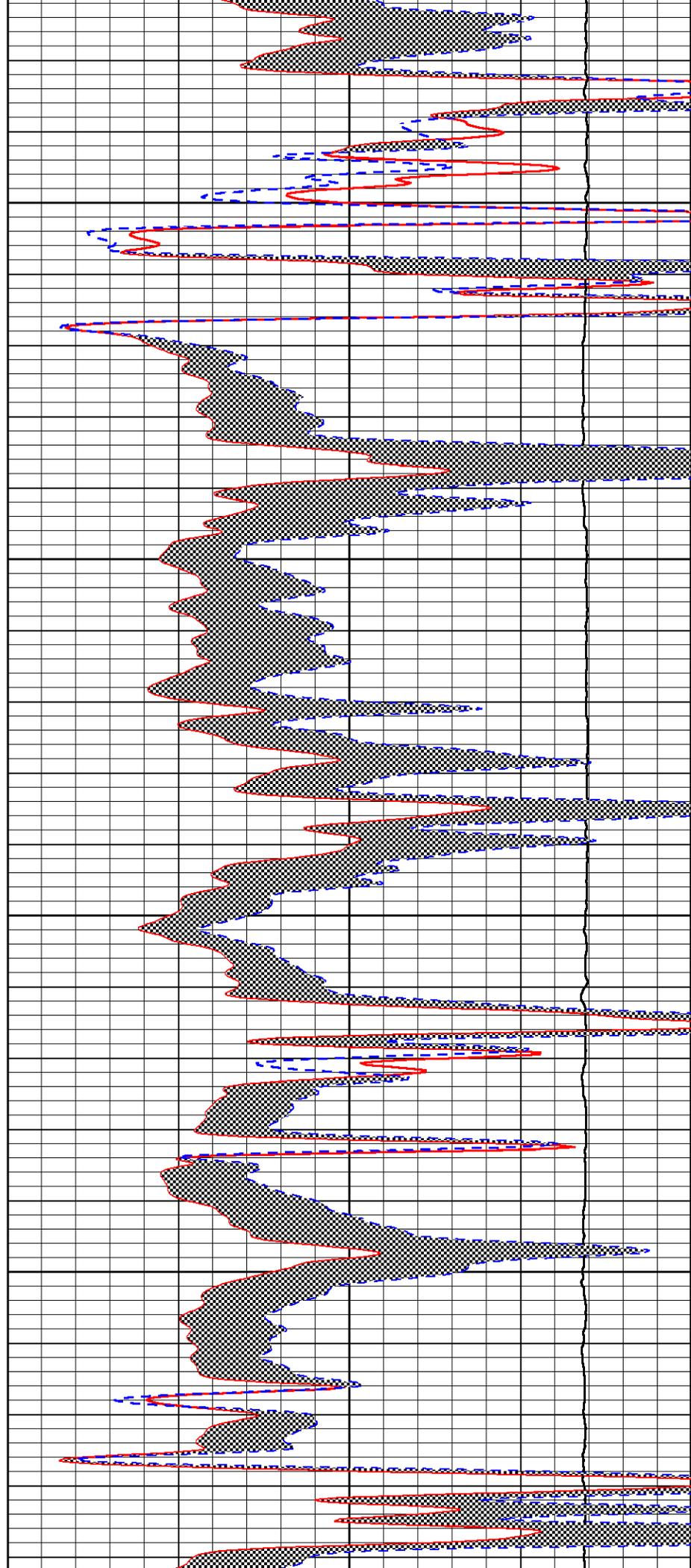


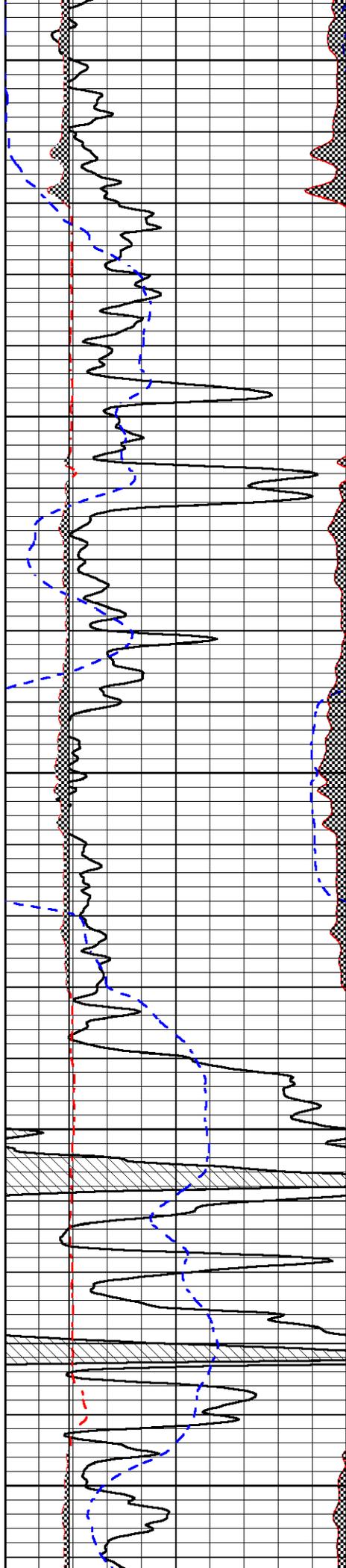
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3700





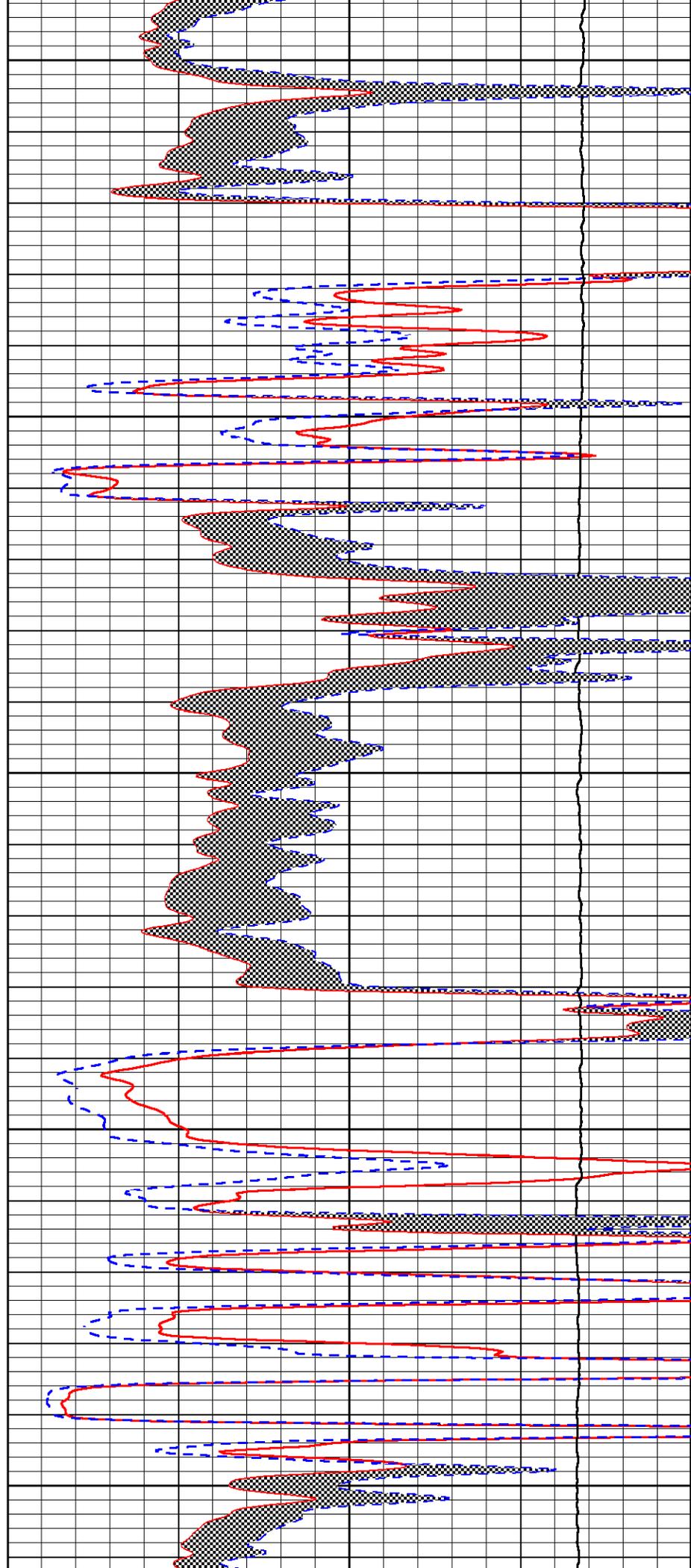
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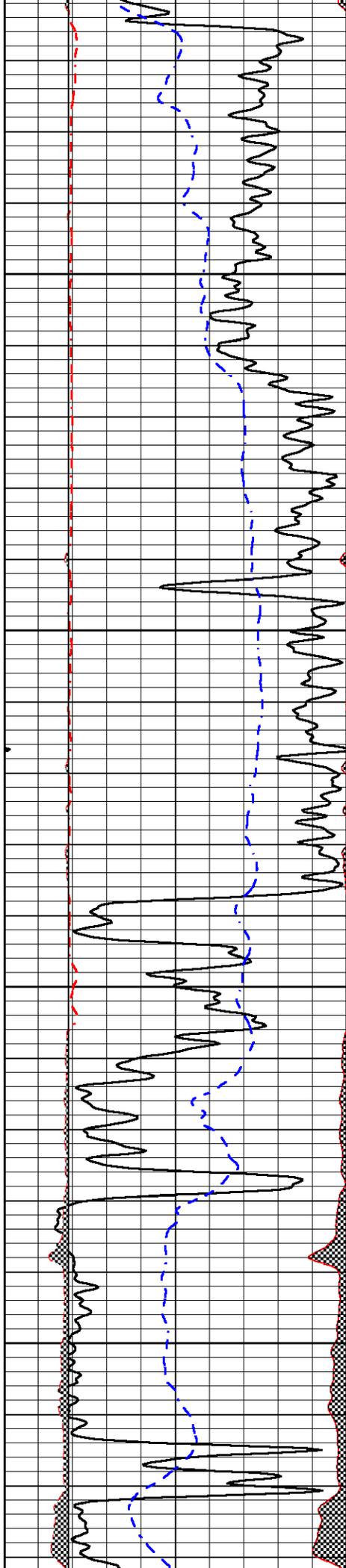
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3900

3950



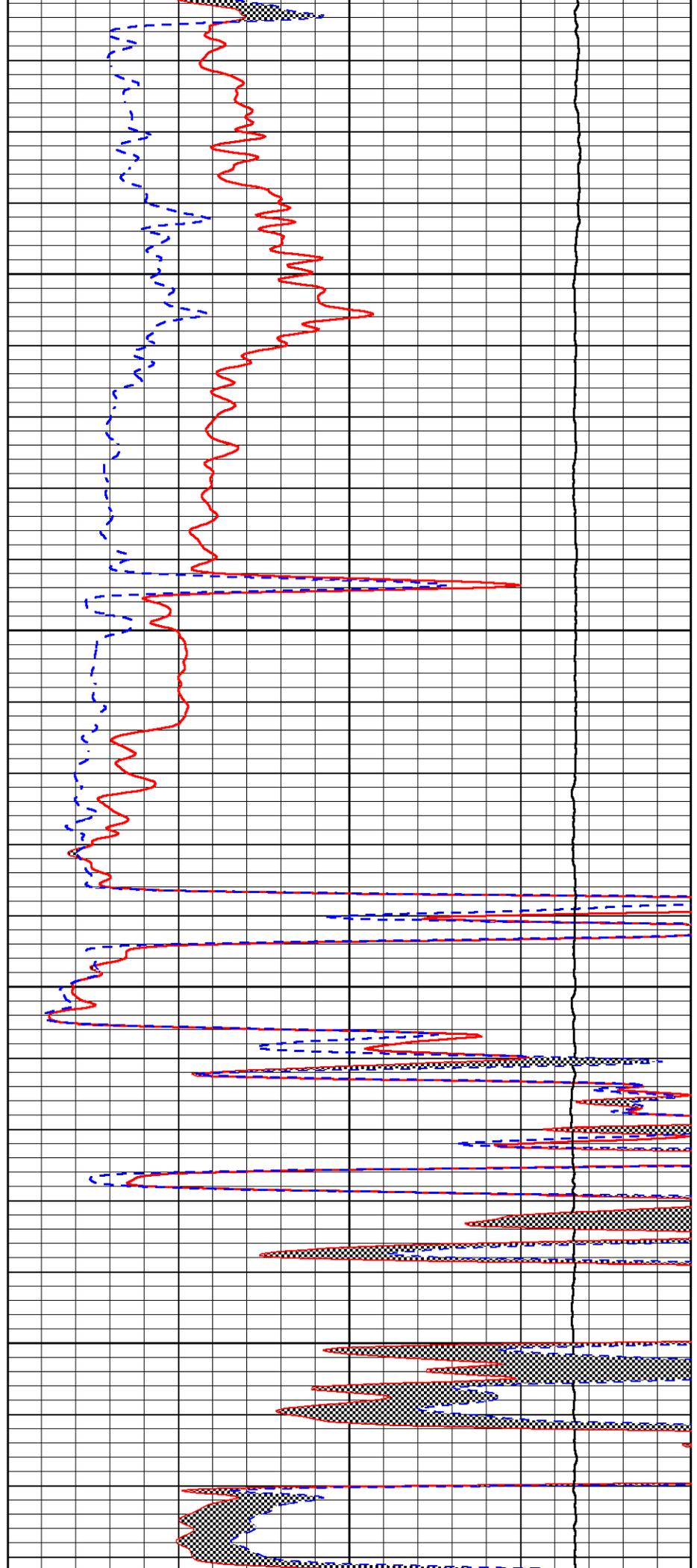


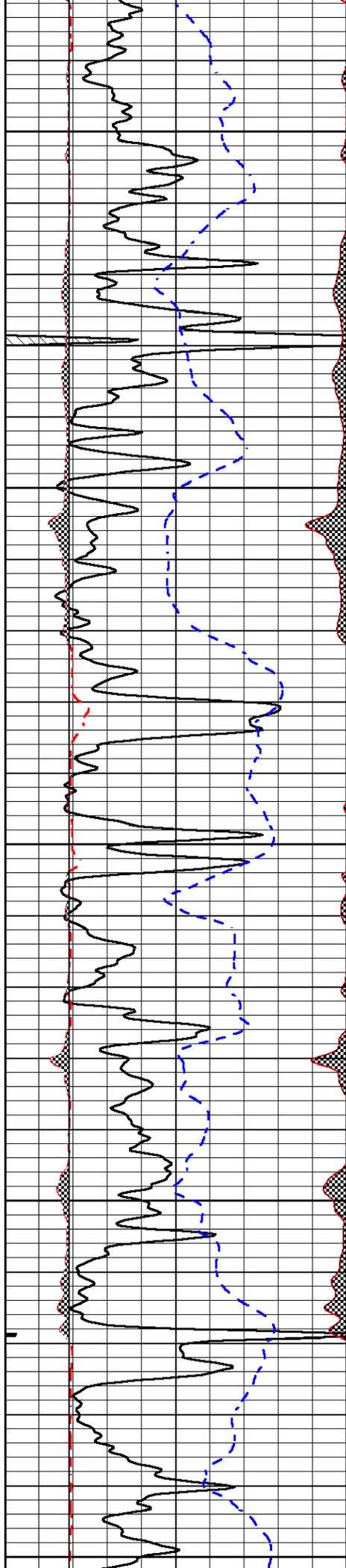
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4050

4100

4150





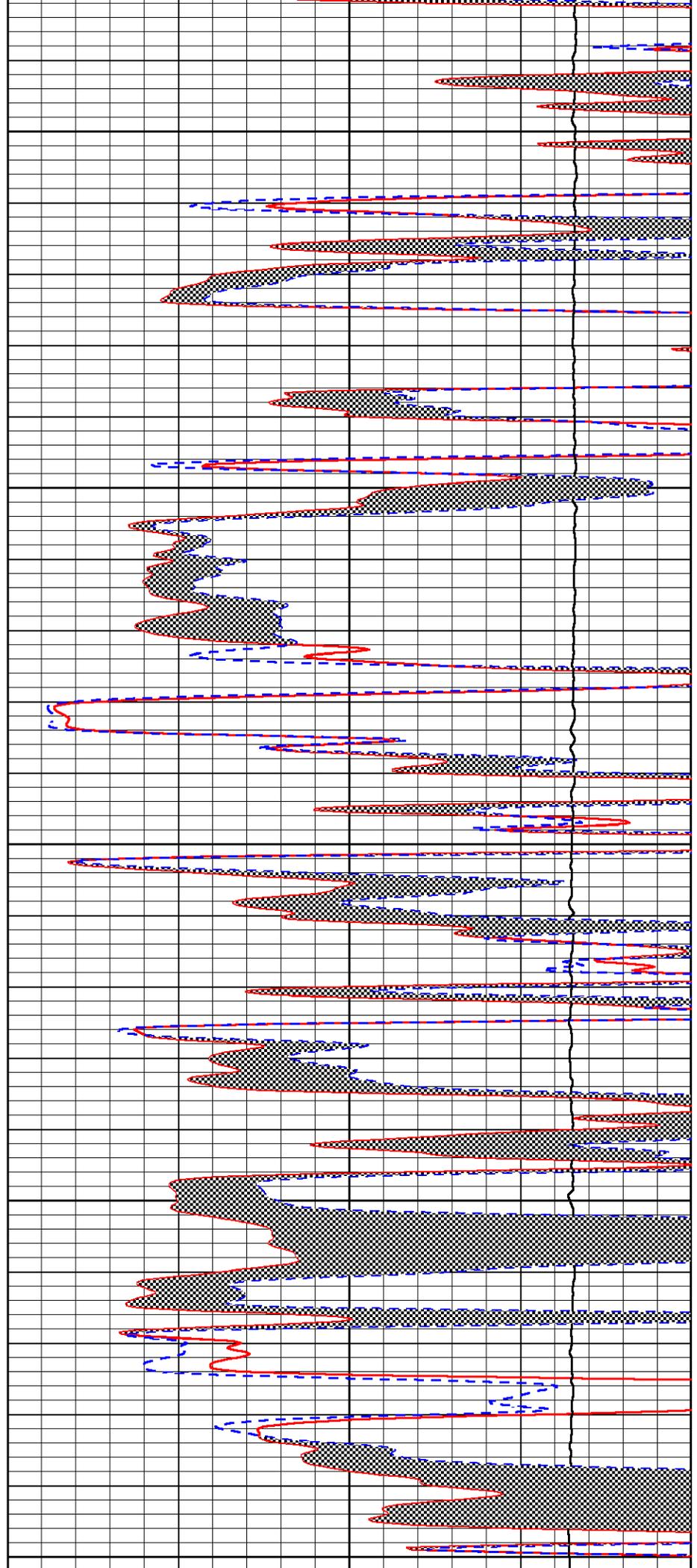
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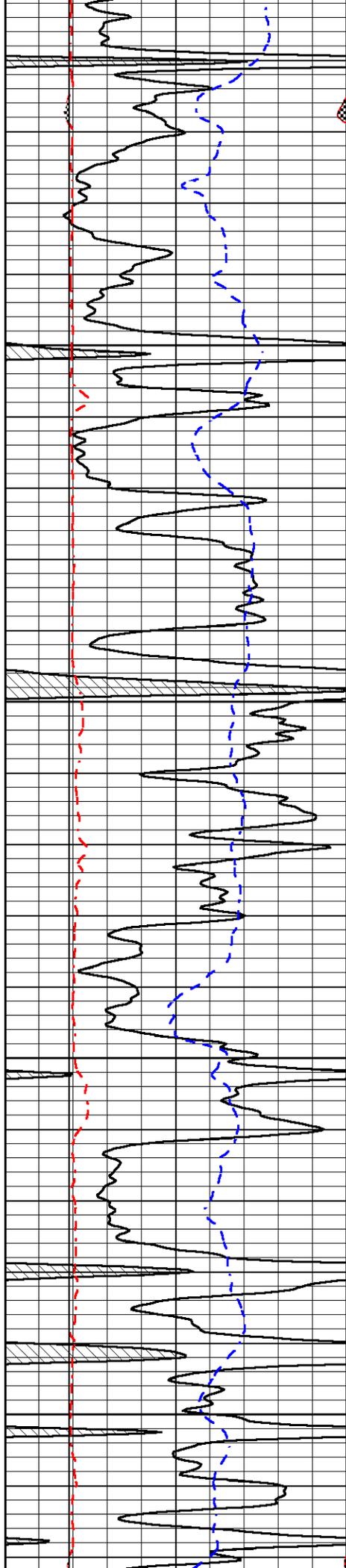
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4400



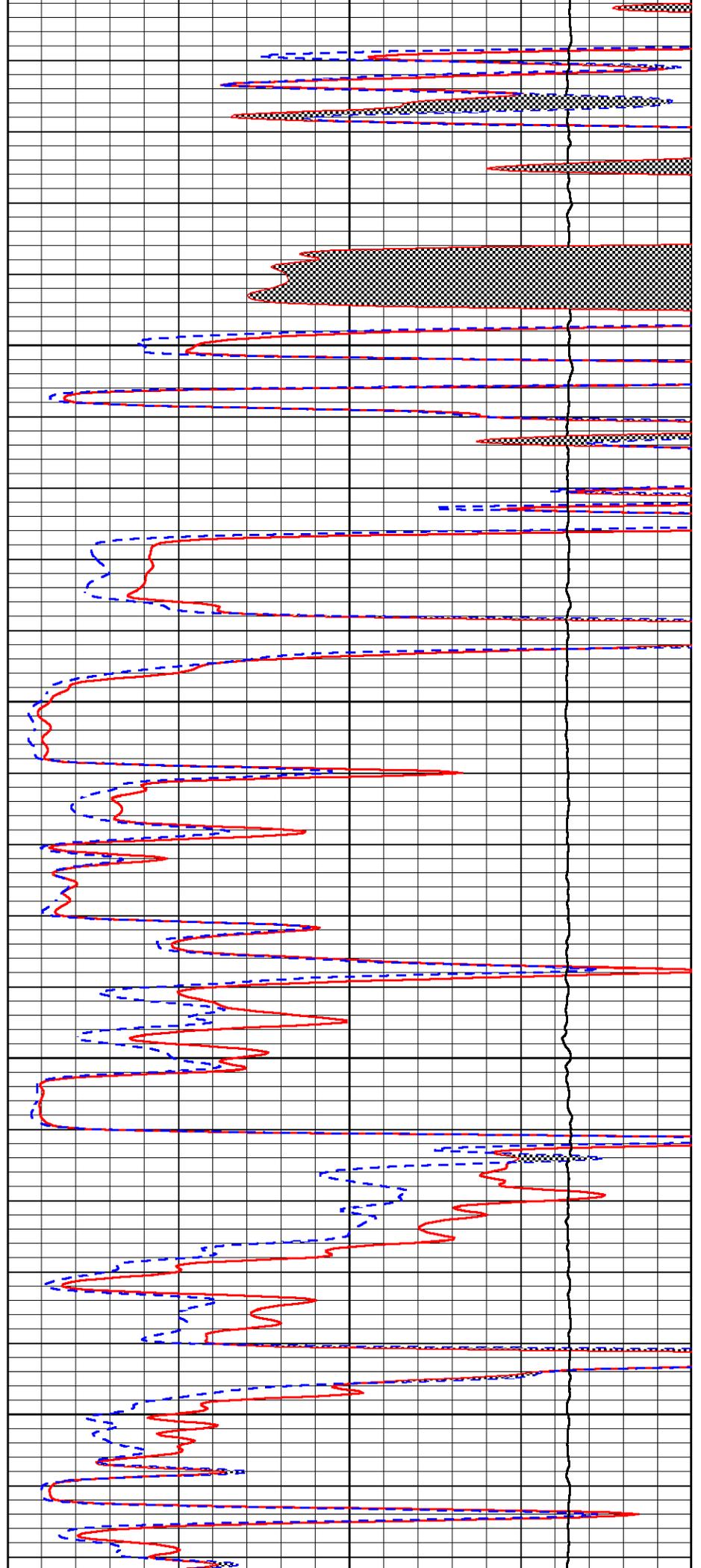


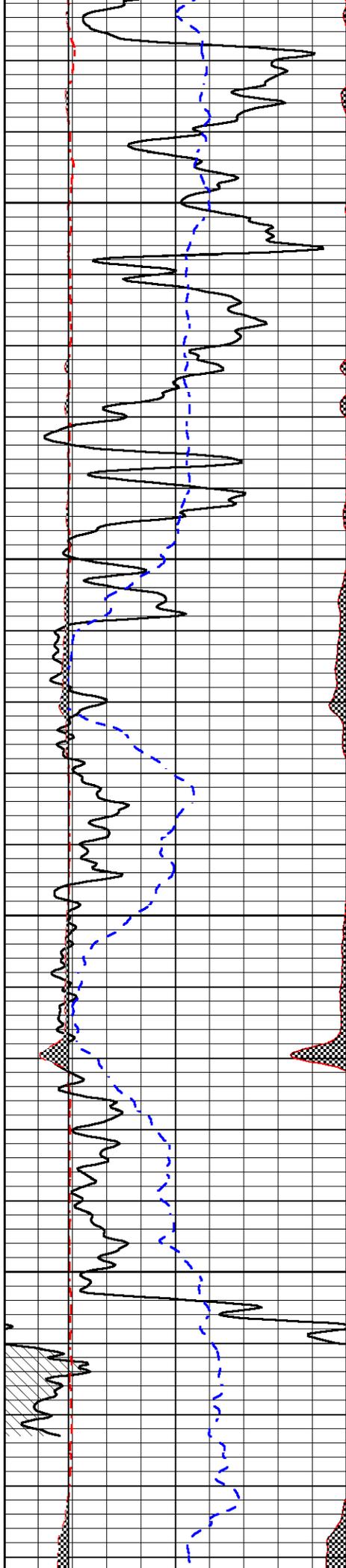
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4600



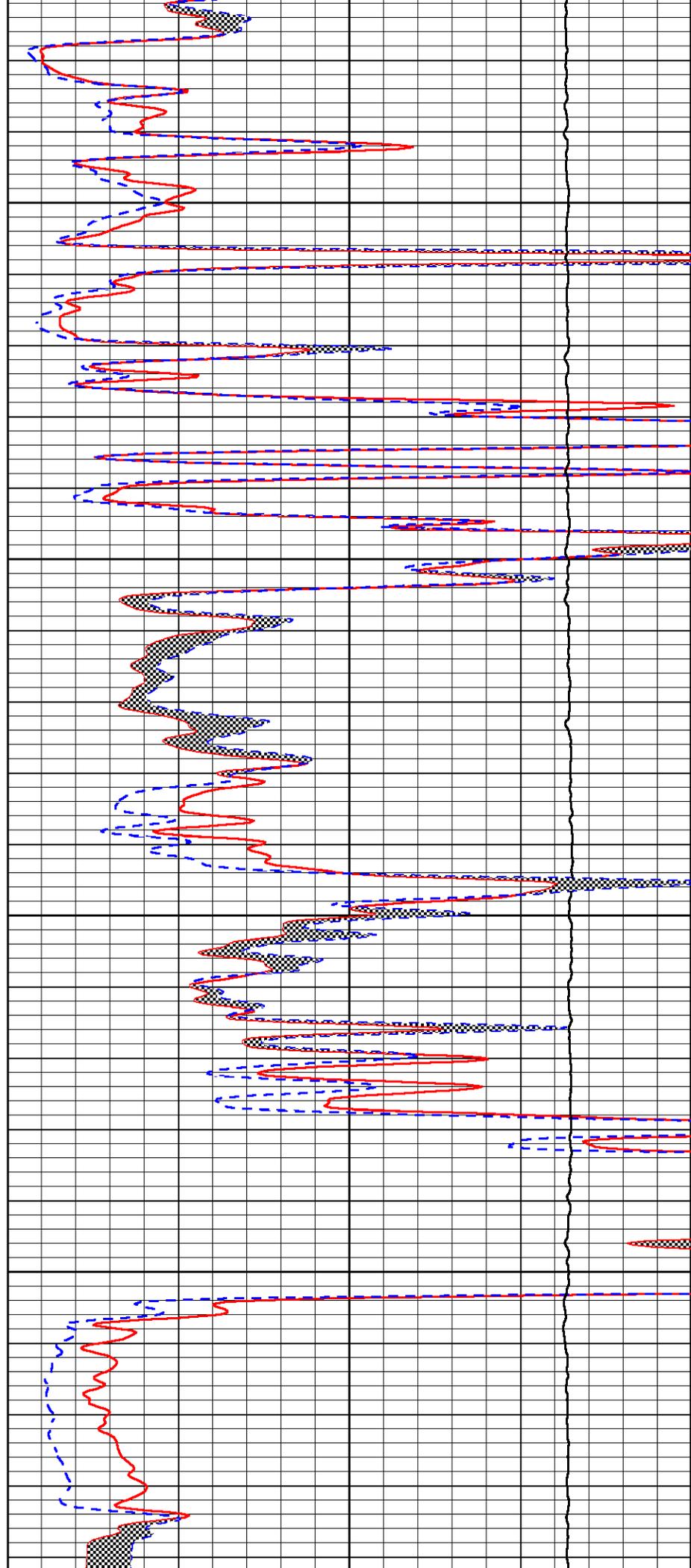


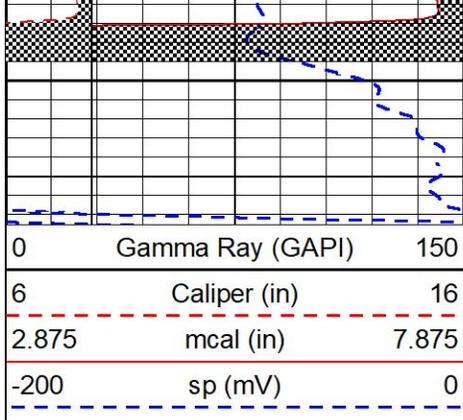
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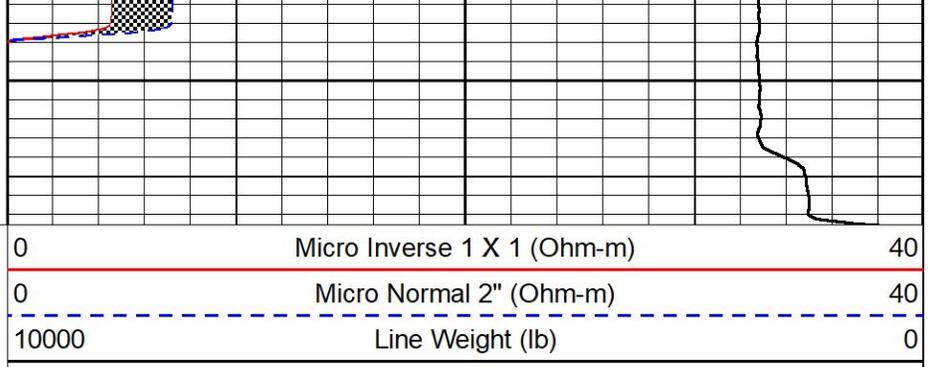
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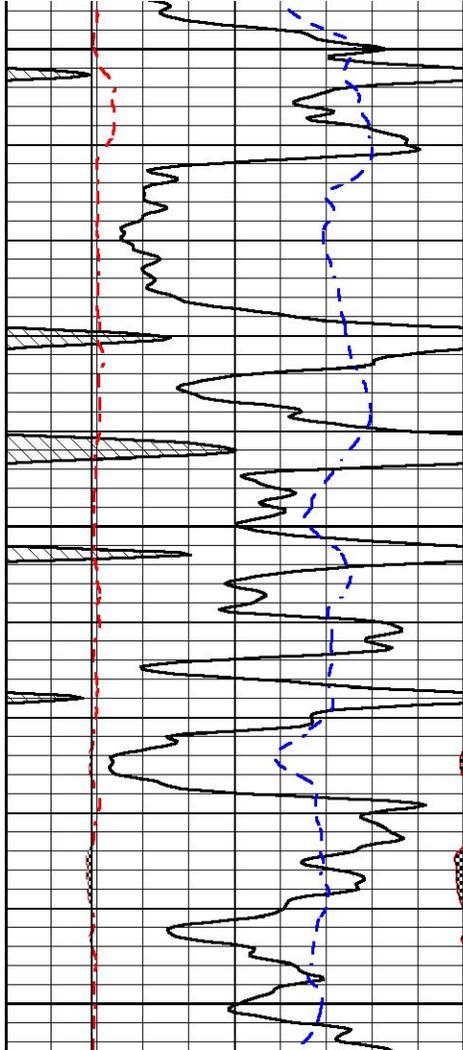
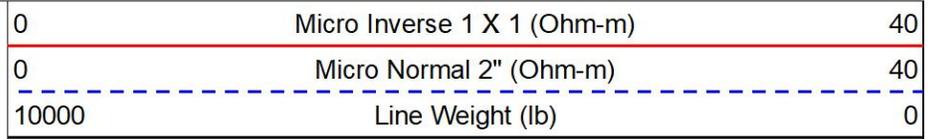
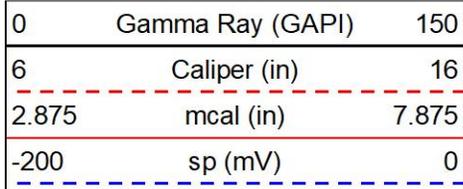
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REPEAT SECTION

REPEAT PASS

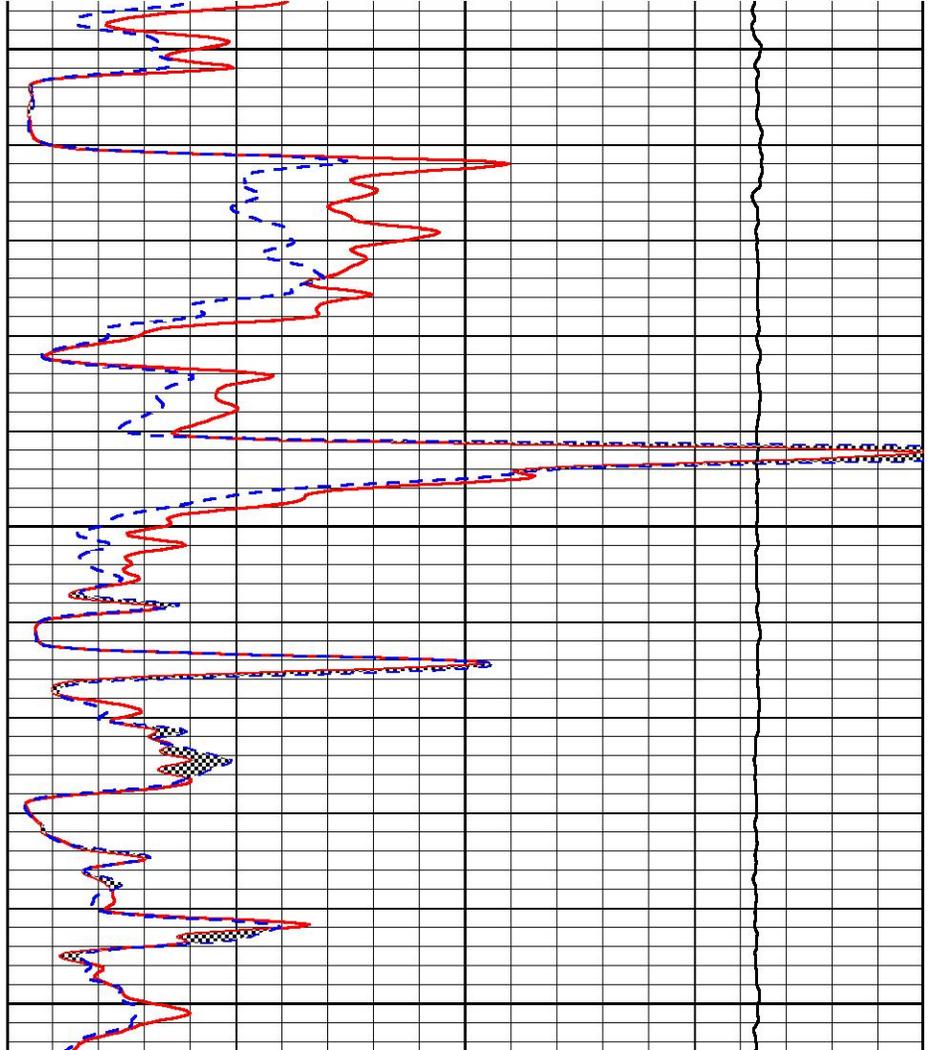
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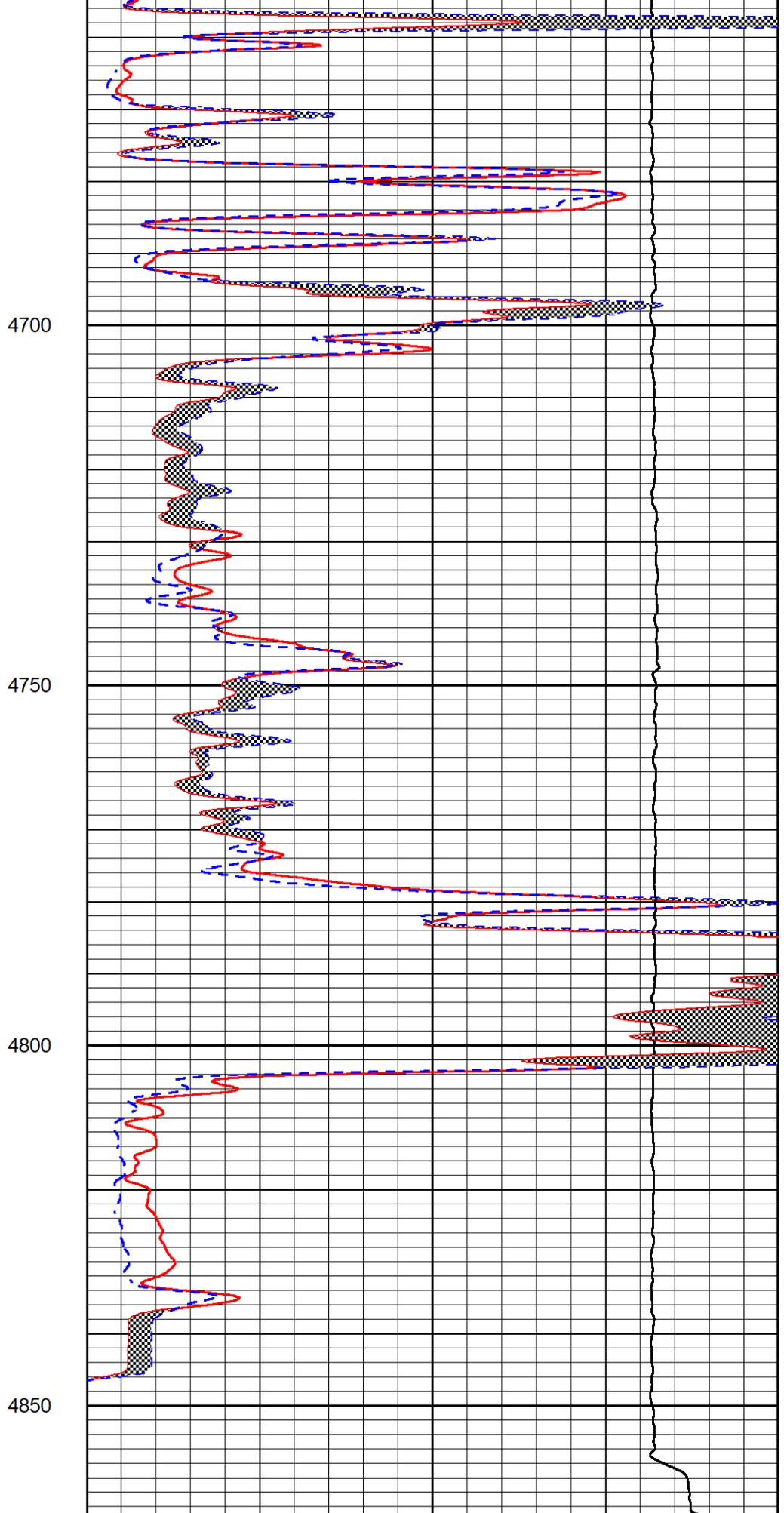
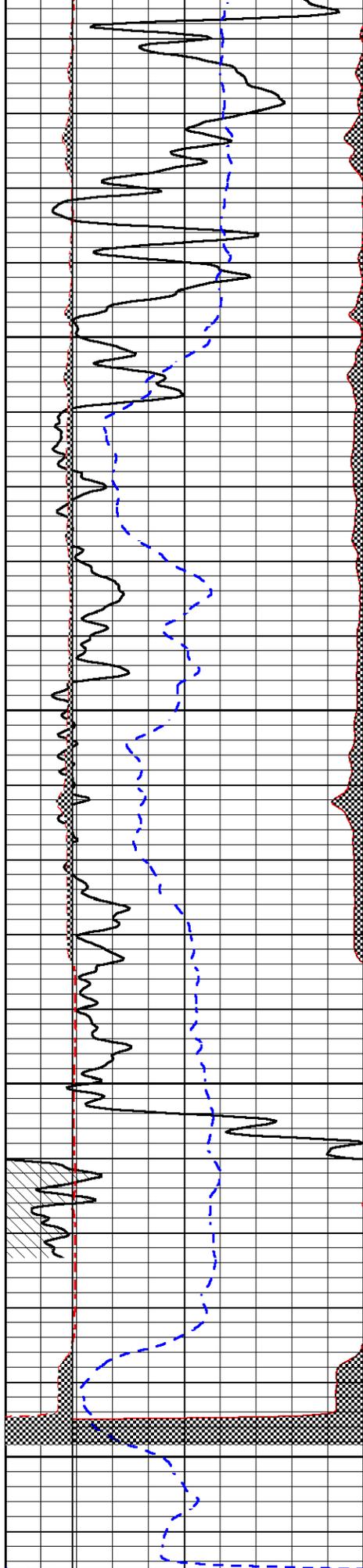


4550

4600

4650





0 Gamma Ray (GAPI) 150
 6 Caliper (in) 16

0 Micro Inverse 1 X 1 (Ohm-m) 40
 0 Micro Normal 2" (Ohm-m) 40

2.875	mcal (in)	7.875
-200	sp (mV)	0

10000 Line Weight (lb) 0

Calibration Report

Database File griffin_rea 2.db
 Dataset Pathname stkml/pass3.11
 Dataset Creation Sun Sep 25 20:36:22 2022

Dual Induction Calibration Report

Serial-Model: 501 HT-M&W
 Surface Cal Performed: Thu Sep 22 17:20:27 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.455	-37.000
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.305	-35.000

Microlog Calibration Report

Serial-Model: 402-PSIML
 Performed: Thu Sep 22 17:20:33 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	-1.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	22000.0000	-0.7000
Caliper	1.0052	1.0858	5.0000	16.5000	in	120.0000	-115.8000

Compensated Density Calibration Report

Serial-Model: 307-11-M&W
 Source #: 20762B
 Master Calibration Performed: Sat Aug 27 10:20:16 2022

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3600.52	4768.22	cps
Aluminum	2.670	g/cc	693.98	3106.20	cps
Spine Angle = 75.41			Density/Spine Ratio = 0.538		
	Size		Reading		
Small Ring	6.00	in	1.16		
Large Ring	18.00	in	1.01		

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 Rea #2
 Field
 County Pratt
 State Kansas