



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company Griffin Management LLC
 Well Cromer #B2
 Field Moffett North
 County Barber
 State Kansas

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 Well Cromer #B2
 Field Moffett North
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Location: API #: 15007-24444-00-00
 W2 W2 NW
 1320 FNL & 330 FWL
 SEC 4 TWP 30S RGE 15W
 Permanent Datum Ground Level Elevation 2002
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 DIL
 Elevation
 K.B. 2007
 D.F.
 G.L. 2002

Date	10/2/2022
Run Number	One
Depth Driller	4850
Depth Logger	4845
Bottom Logged Interval	4844
Top Log Interval	2800
Casing Driller	8:625 @ 261
Casing Logger	259
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	8000
Density / Viscosity	9.4 52
pH / Fluid Loss	10.0 8.8
Source of Sample	Flowline
Rm @ Meas. Temp	0.8 @ 72
Rmt @ Meas. Temp	0.6 @ 72
Rmc @ Meas. Temp	1.08 @ 72
Source of Rmf / Rmc	Charts
Rm @ BHT	0.46 @ 125
Operating Rig Time	3 Hours
Max Rec. Temp. F	125
Equipment Number	P-24
Location	Hays
Recorded By	T. Martin
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 Blktp, S to SW 110th,
 1 E, 1.5 S, E 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: Eli Felts
 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_cromer #b2.db: field/well/StkMI/pass3.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin_cromer #b2.db
 Dataset field/well/StkMI/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	320	80	Off	4843

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



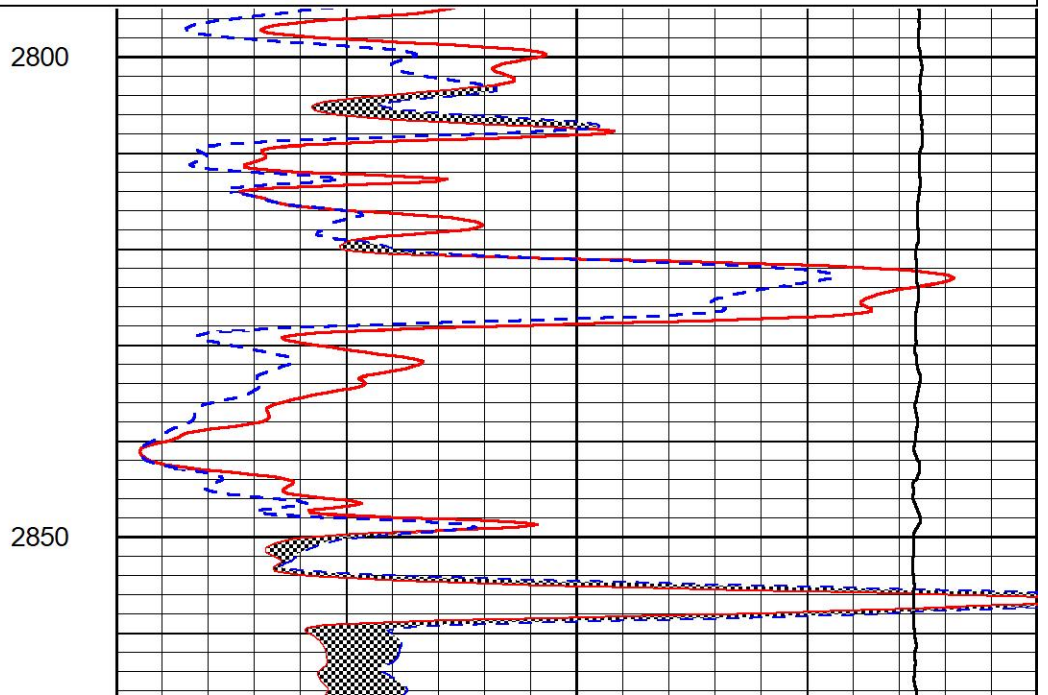
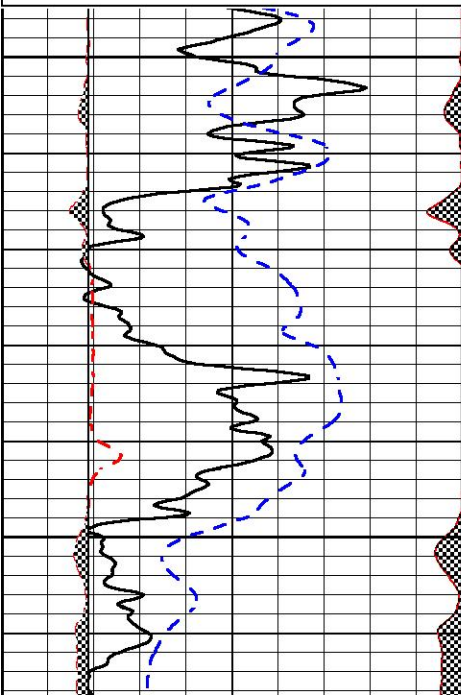
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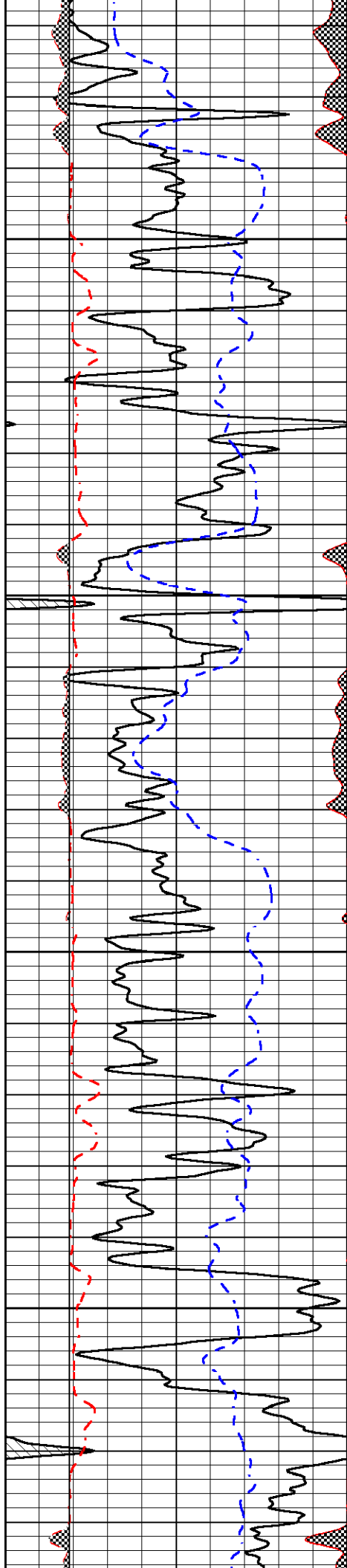
MAIN PASS

Database File griffin_cromer #b2.db
 Dataset Pathname StkMI/pass3.1
 Presentation Format _micro
 Dataset Creation Sun Oct 02 12:34:38 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



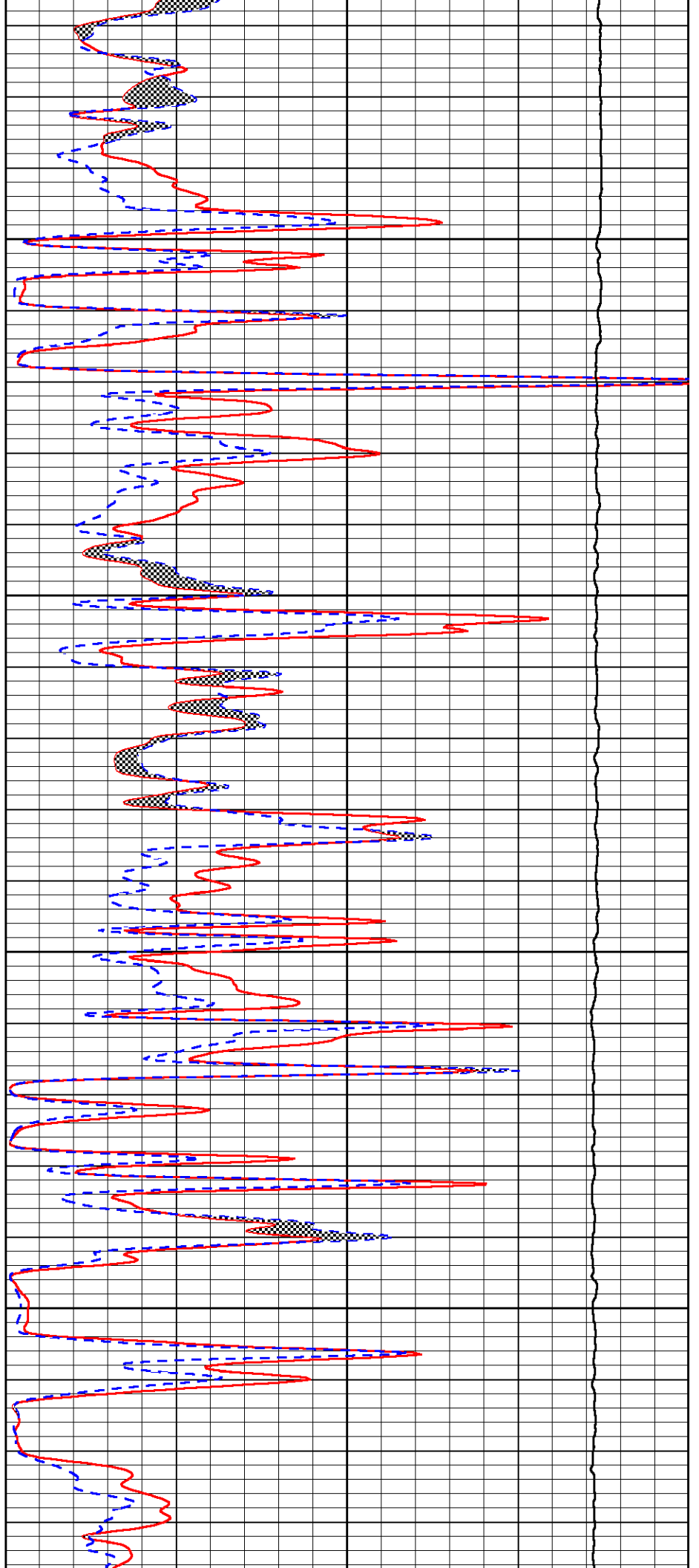


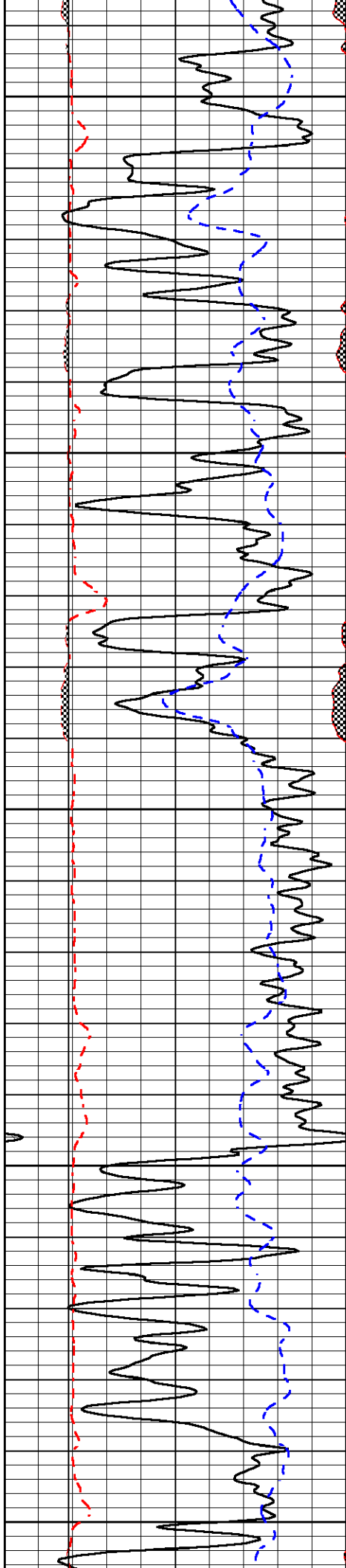
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2950

3000

3050





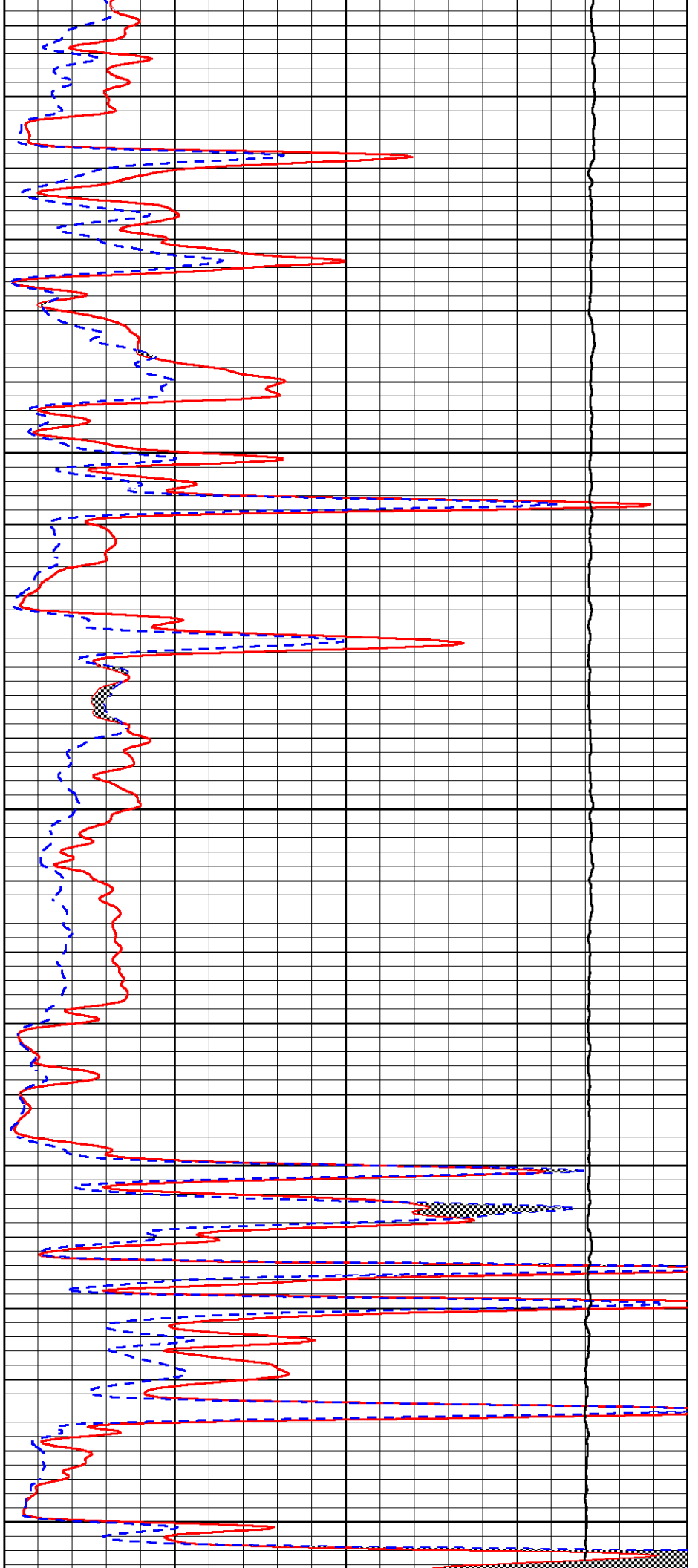
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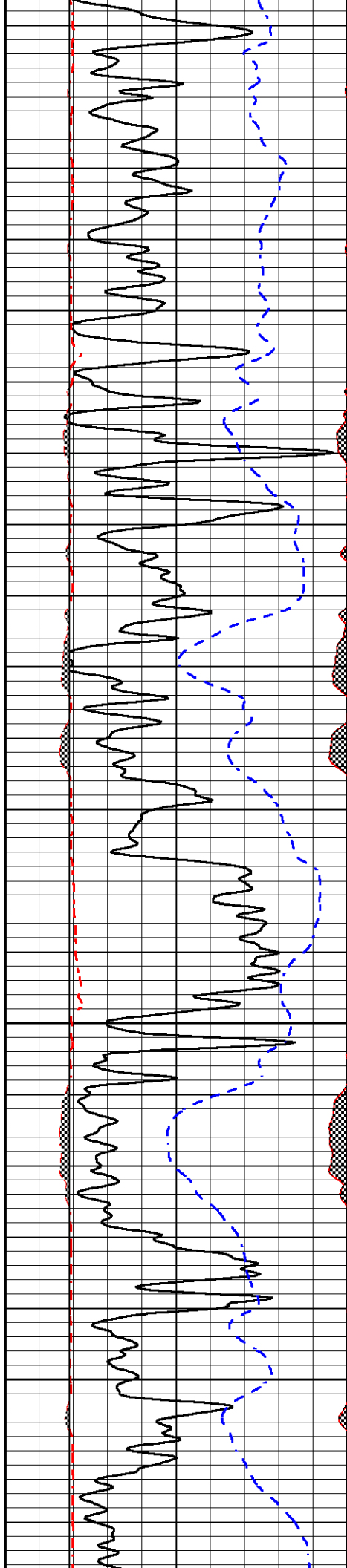
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3200

3250

3300



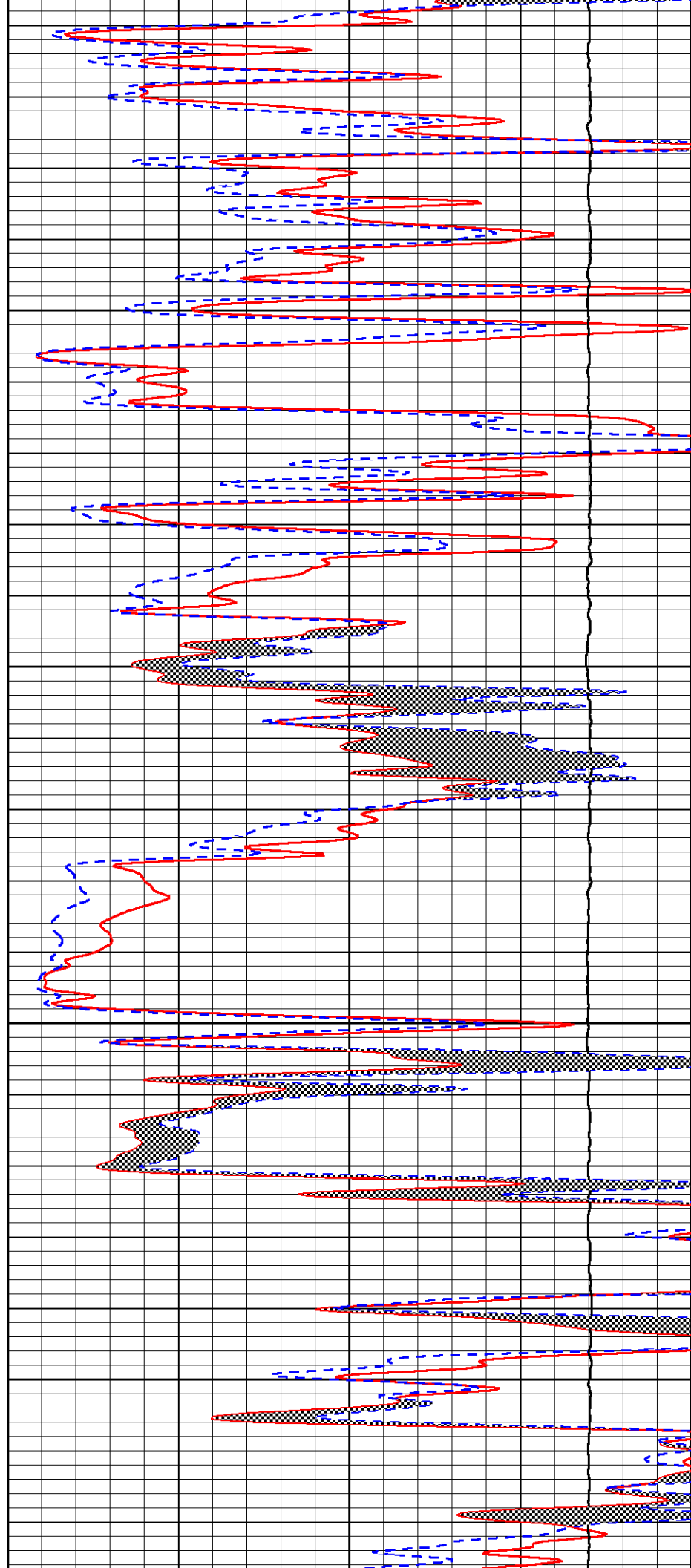


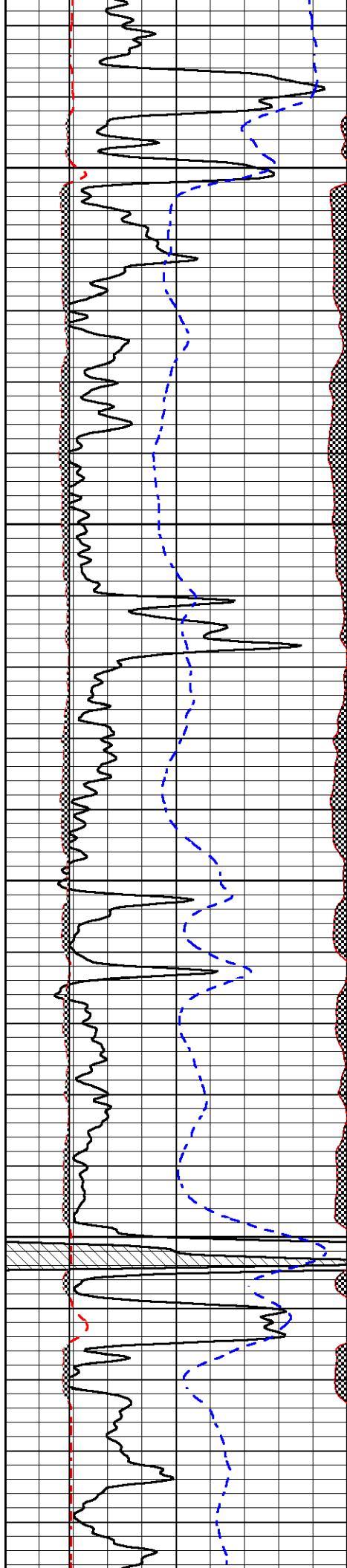
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3400

3450

3500



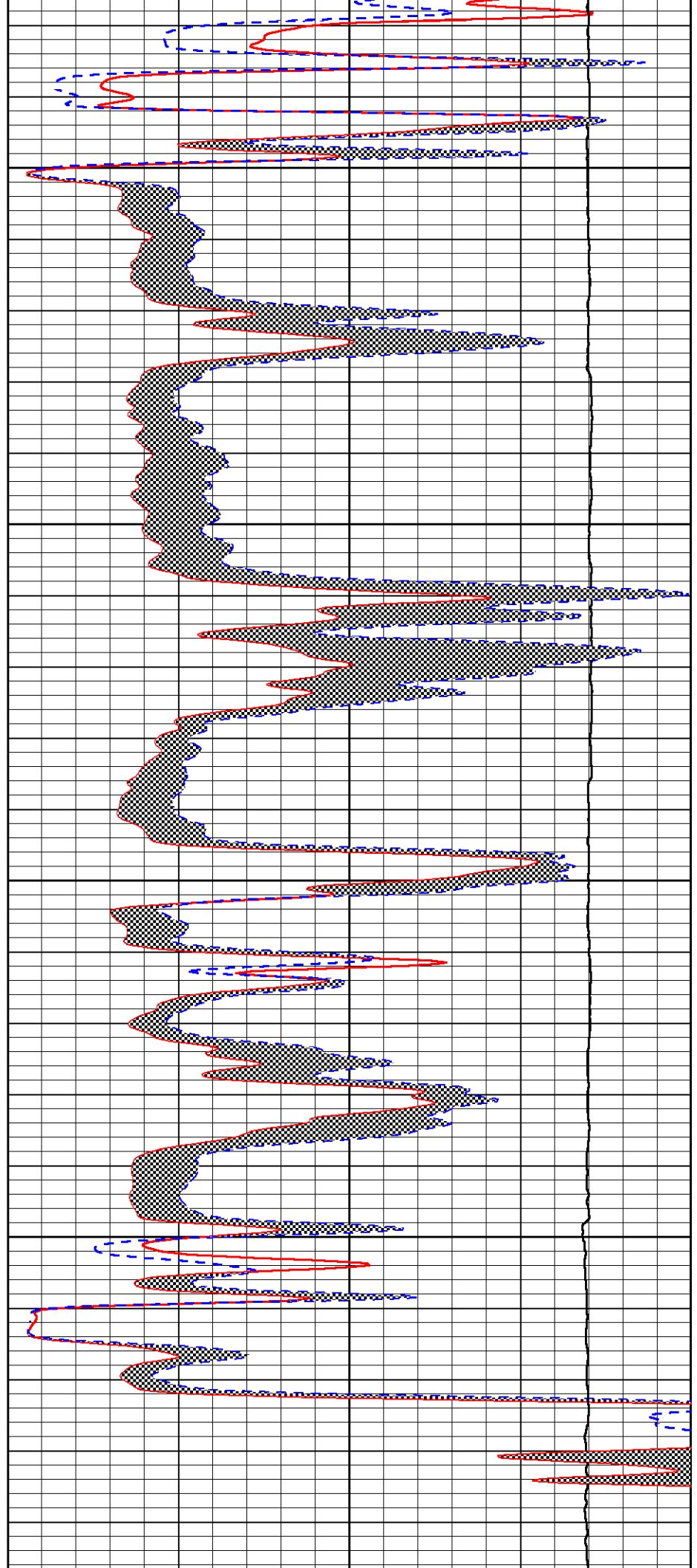


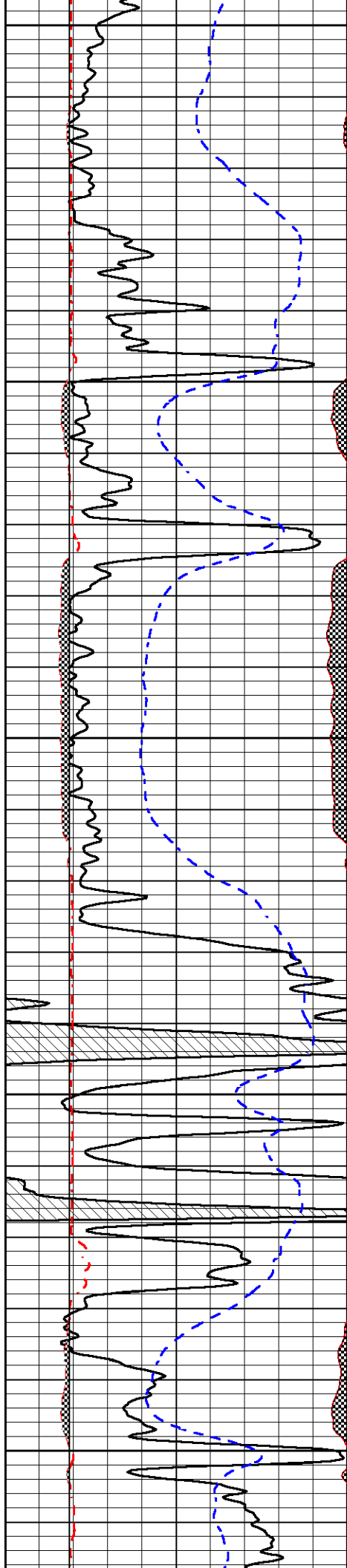
3550

3600

3650

3700





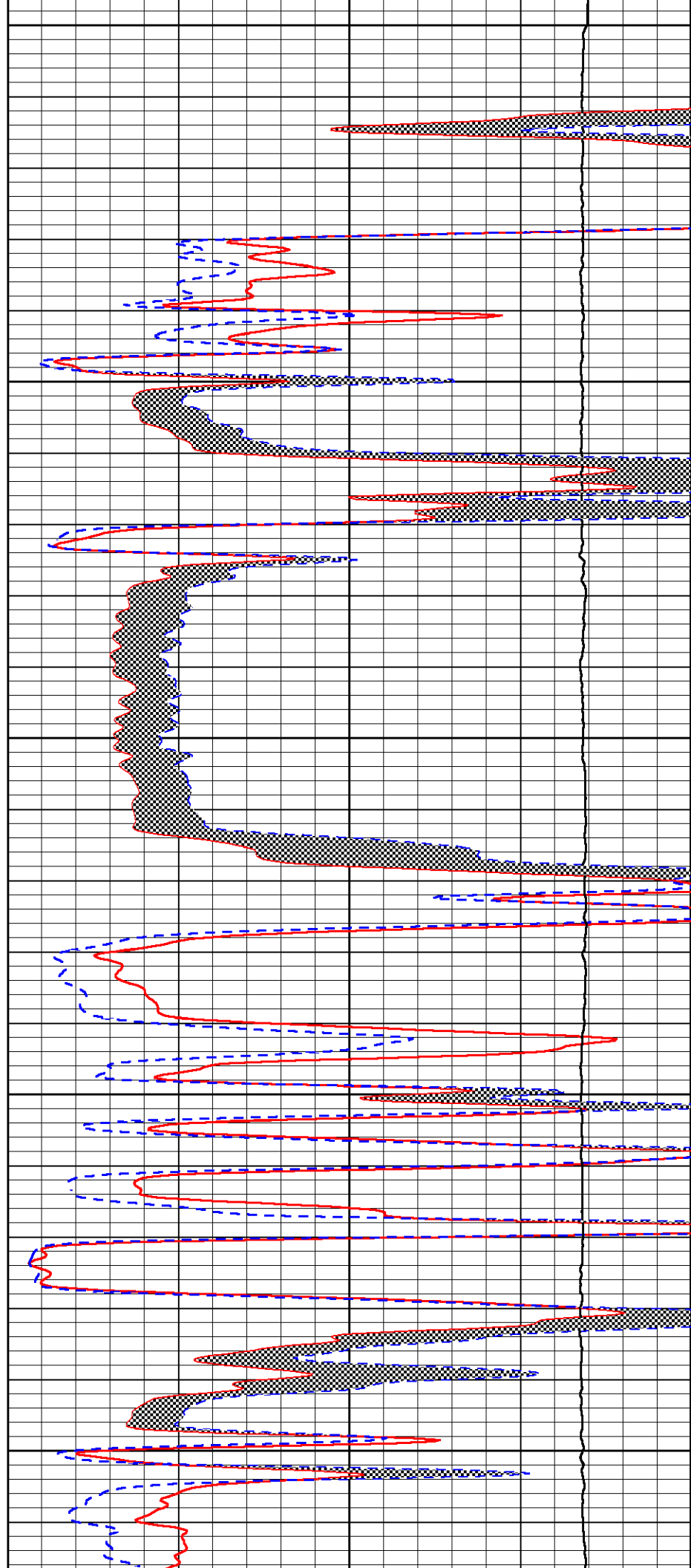
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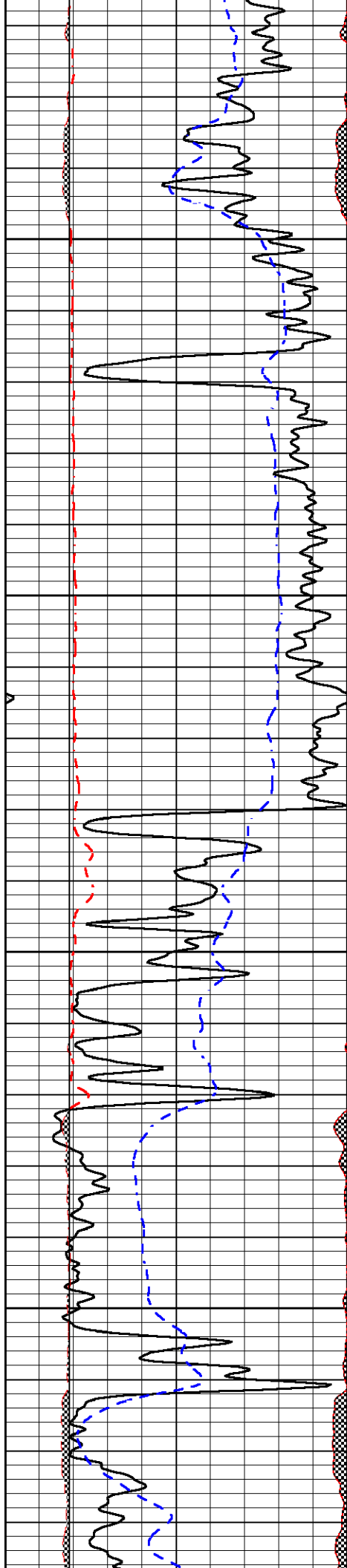
3800

3850

3900

3950



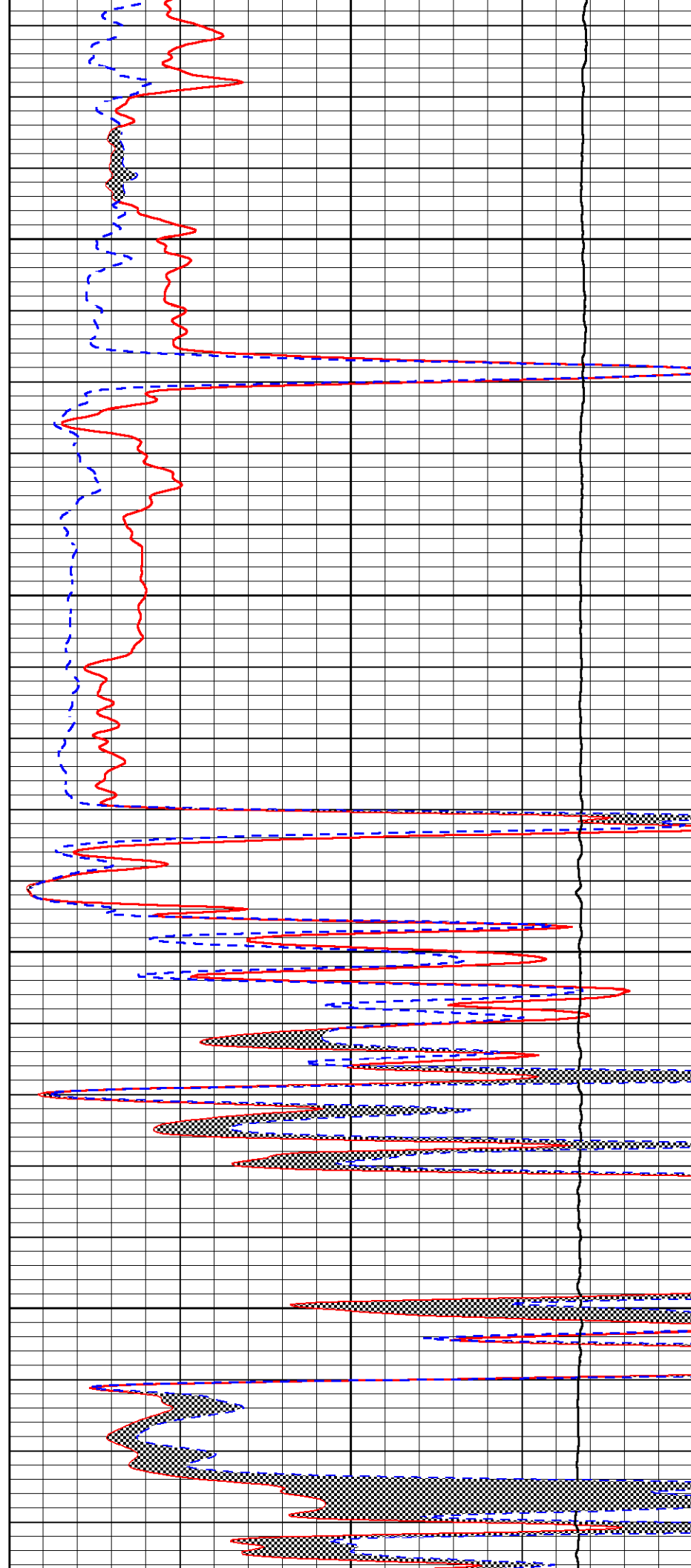


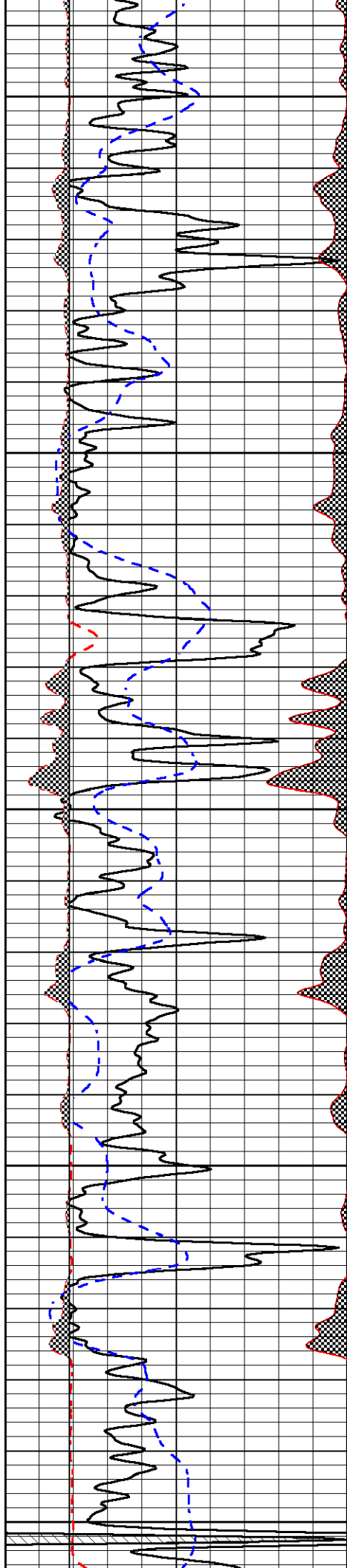
4000

4050

4100

4150





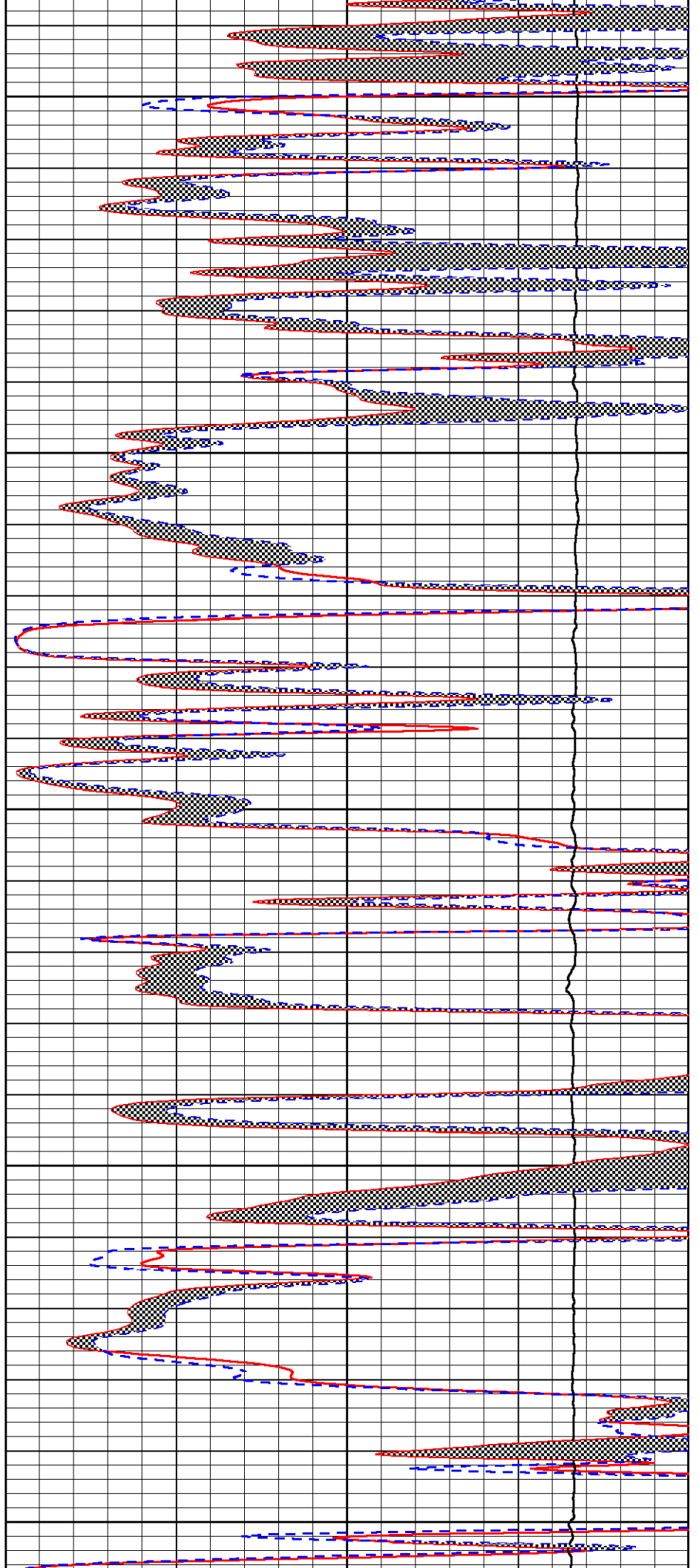
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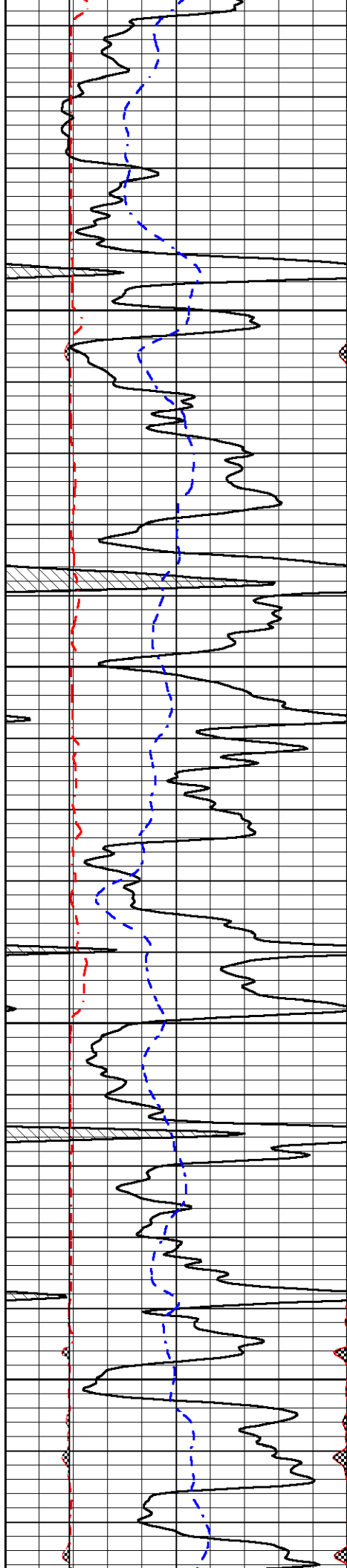
4250

4300

4350

4400



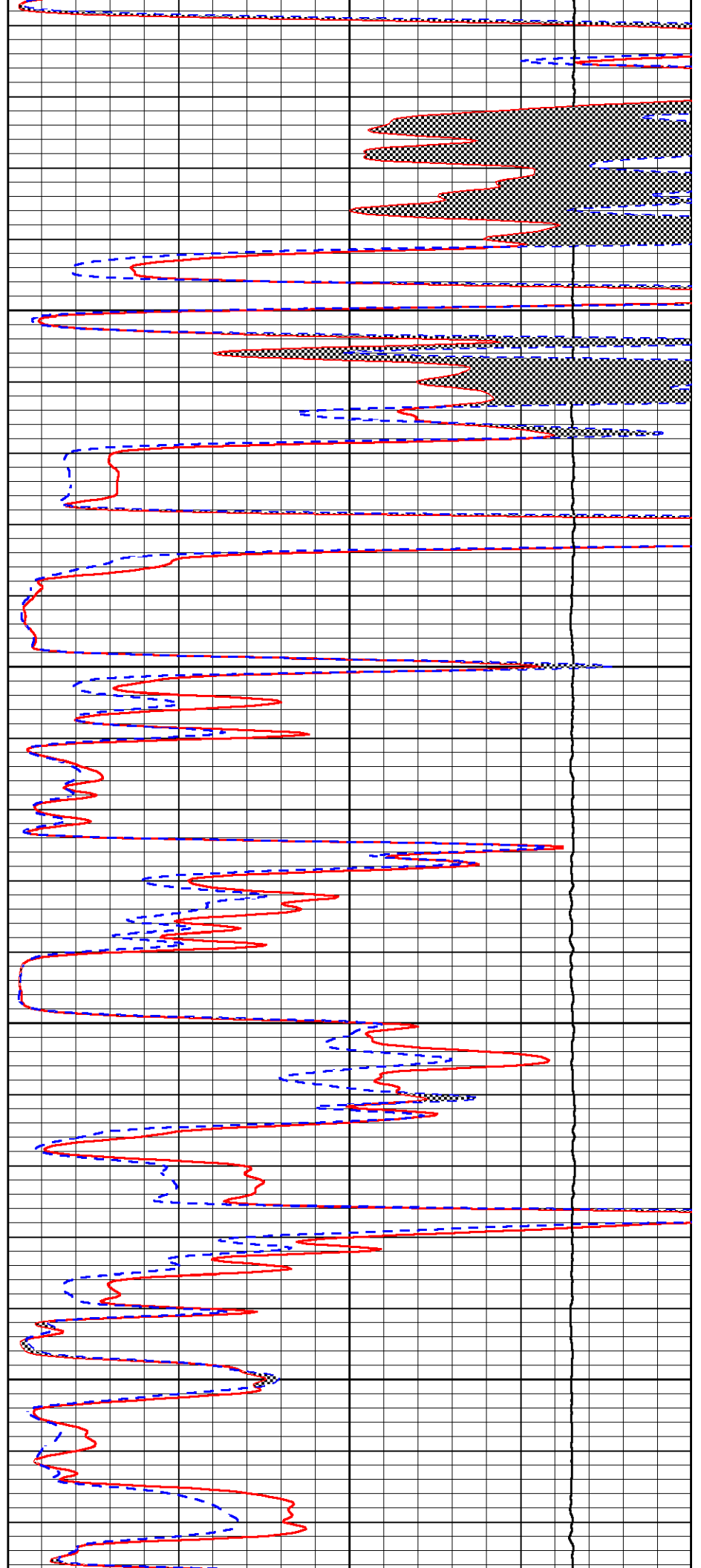


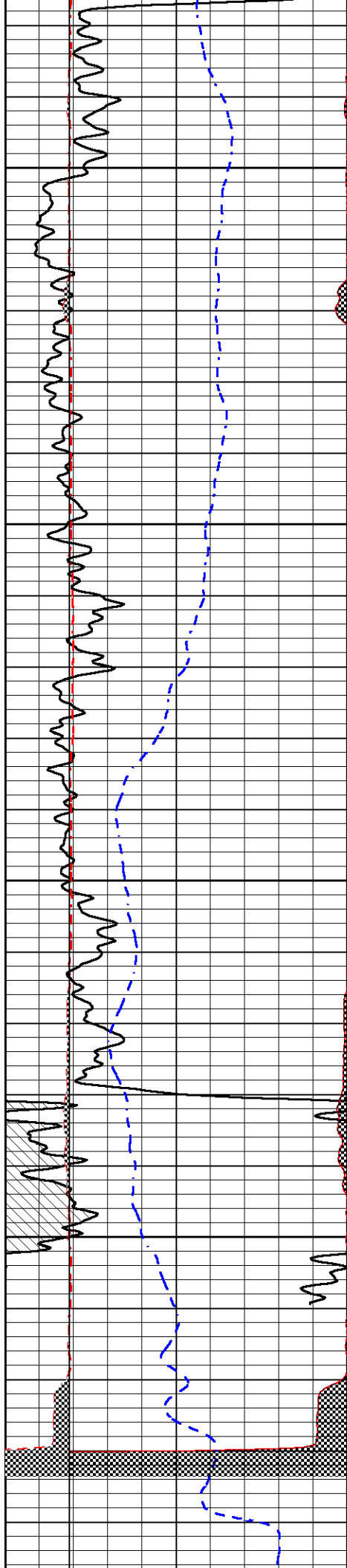
4450

4500

4550

4600



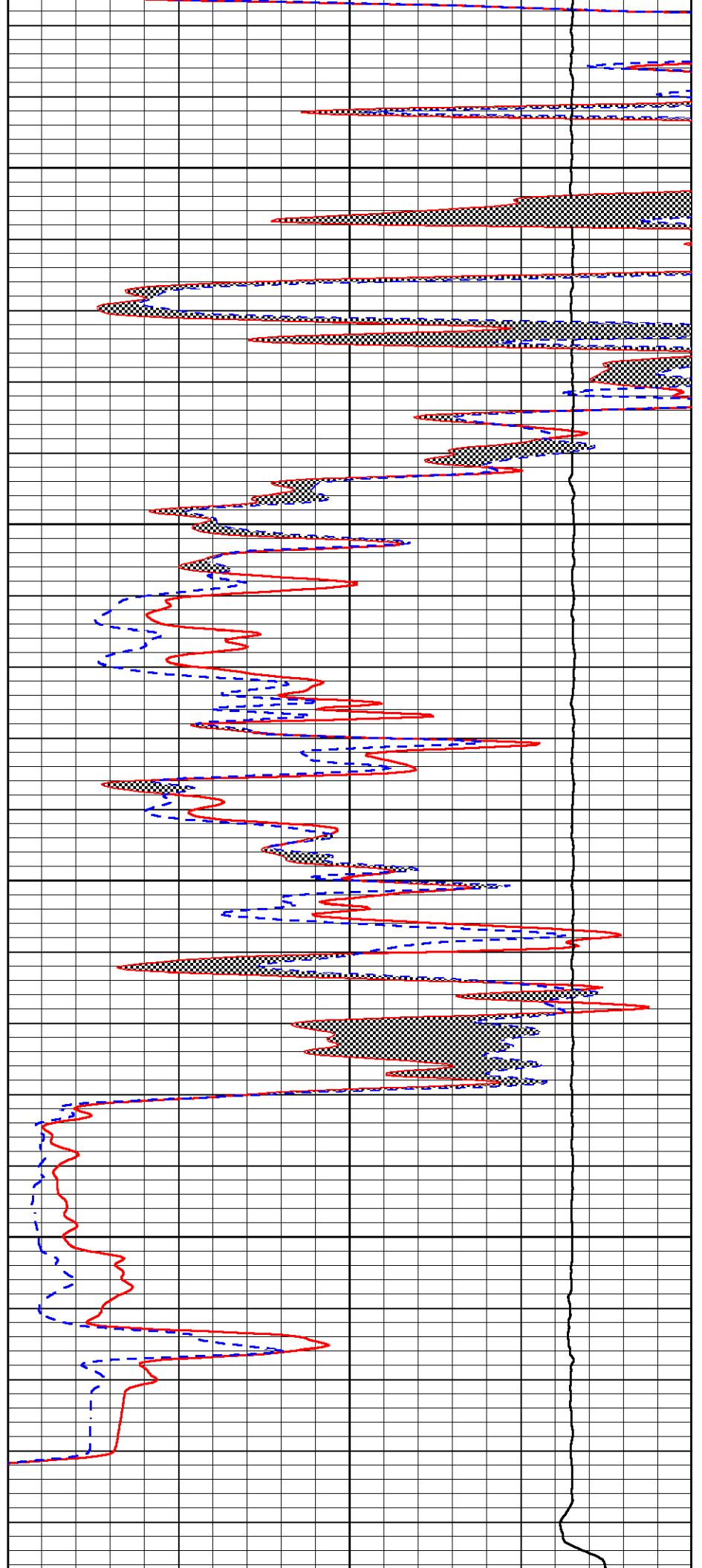


4650

4700

4750

4800



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

4850

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



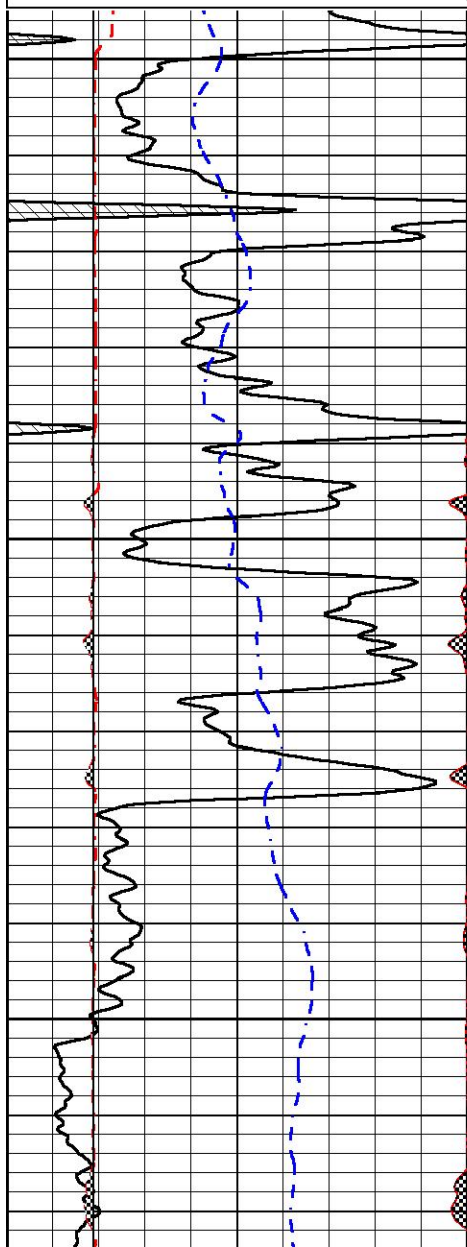
REPEAT SECTION

REPEAT PASS

Database File griffin_cromer #b2.db
 Dataset Pathname StkMI/pass2.1
 Presentation Format _micro
 Dataset Creation Sun Oct 02 12:09:26 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

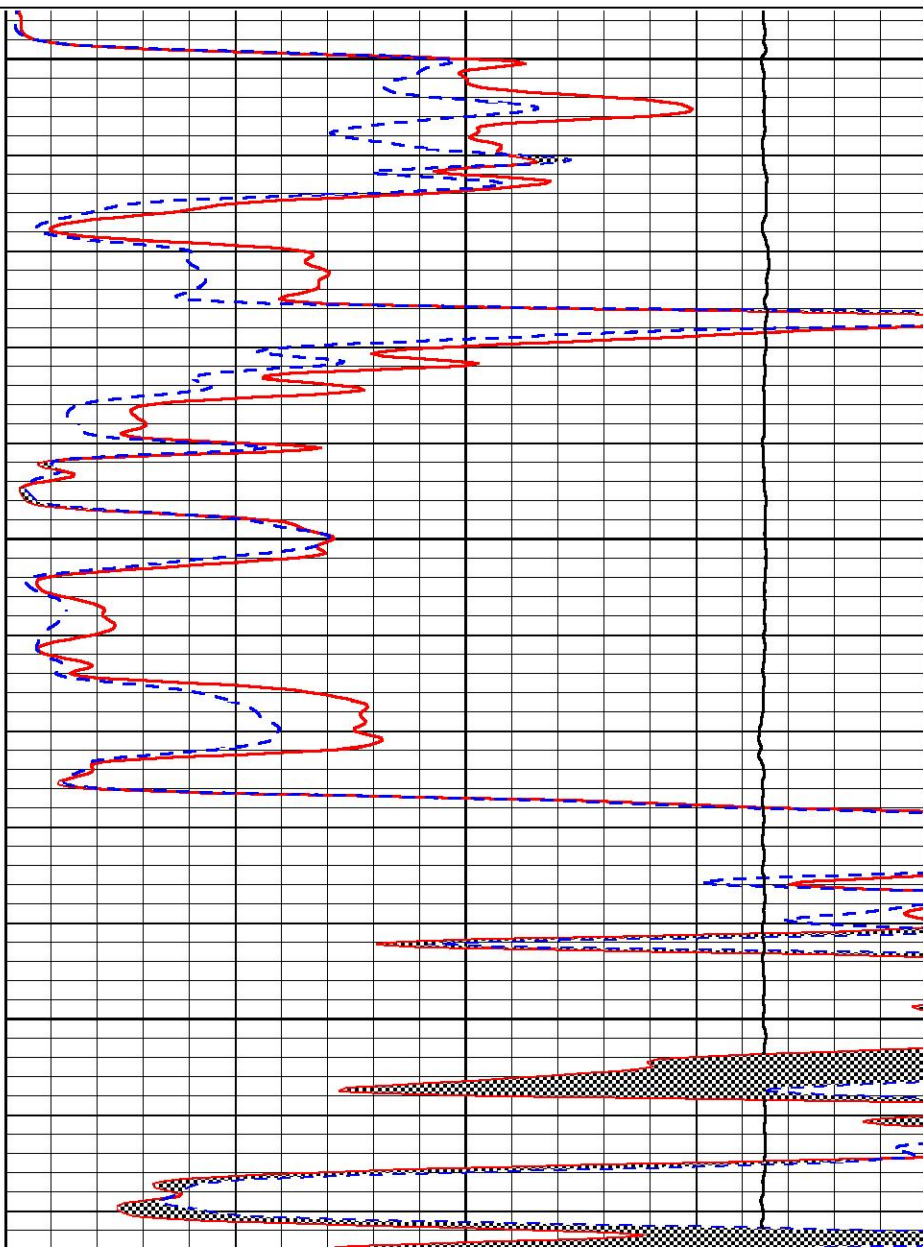
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

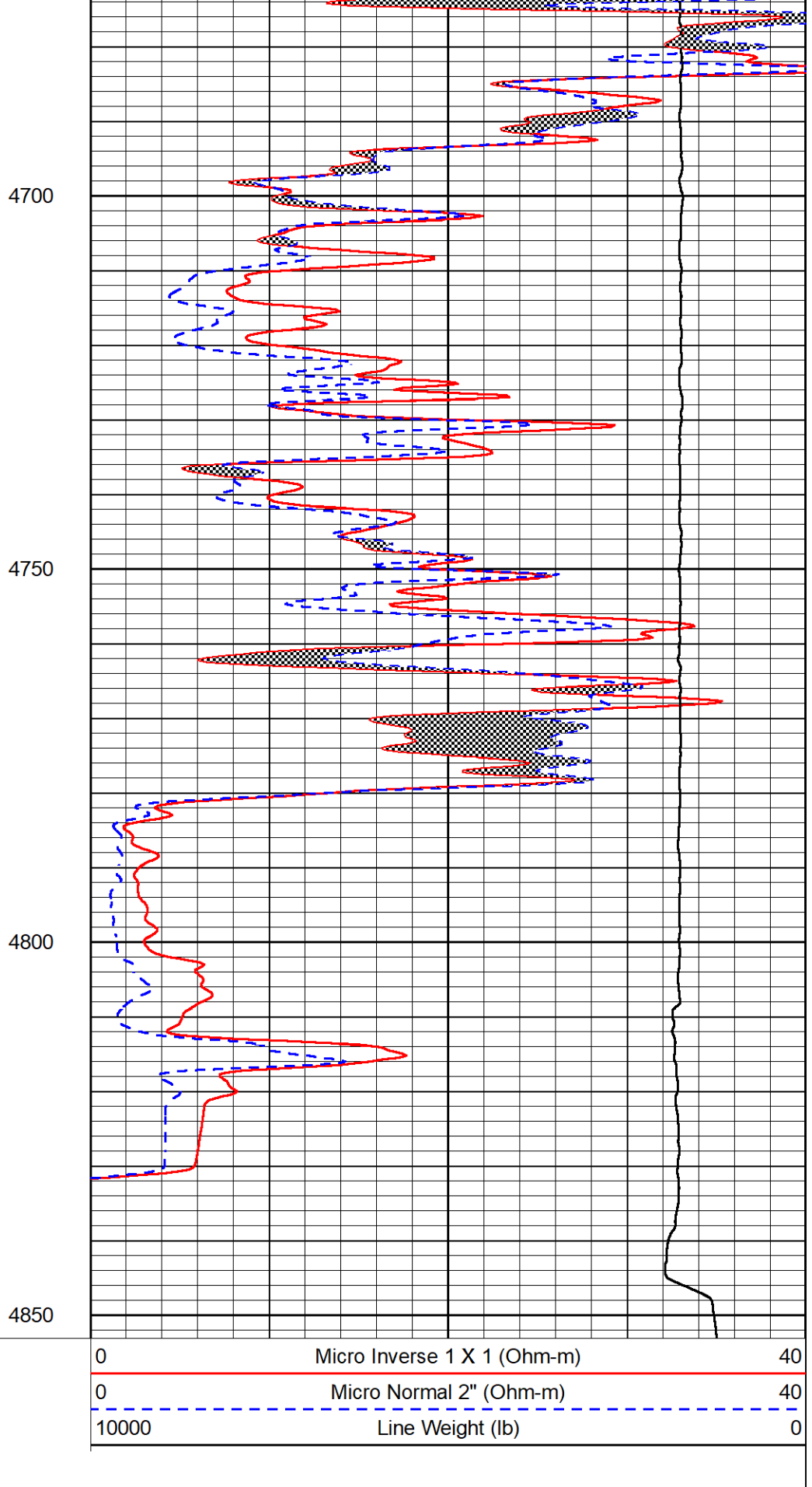
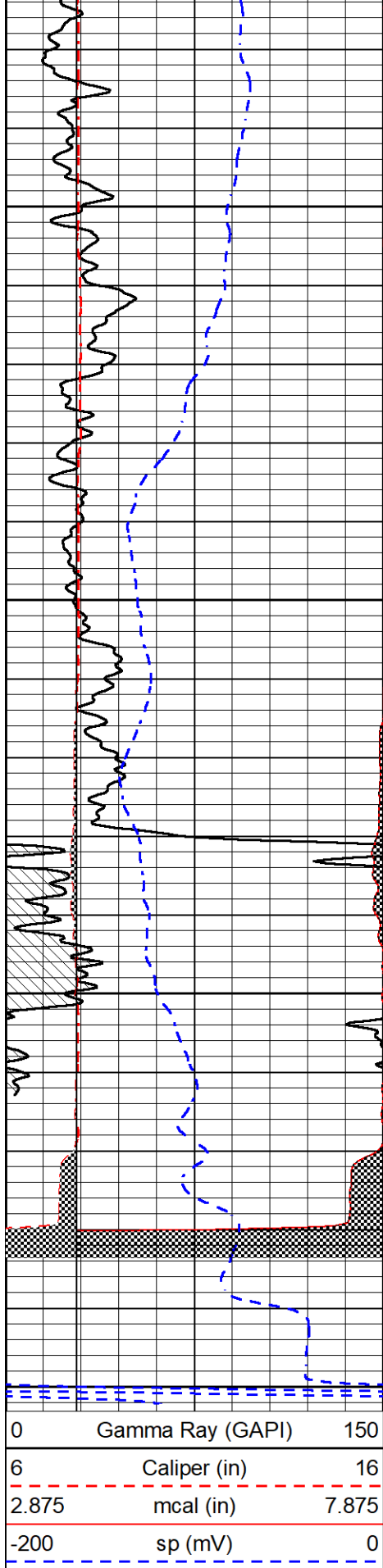


4550

4600

4650





Calibration Report

Database File griffin_cromer #b2.db
 Dataset Pathname StkMI/pass3.1
 Dataset Creation Sun Oct 02 12:34:38 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	-36.000
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.305	-33.000

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	13000.0000	0.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	19000.0000	-0.2000
Caliper	1.0052	1.0858	5.0000	16.5000	in	120.0000	-117.0000

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			
Long Space			

	Long Space			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



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