



MIDWEST WIRELINE

# DUAL INDUCTION LOG

Company **Ritchie Exploration, Inc.**  
 Well **Stucky-Dirks #1**  
 Field **Wildcat**  
 County **Lane** State **Kansas**

Location: **API #: 15-101-22657-00-00**  
**290 FNL & 1502 FEL**  
 SEC 33 TWP 19S RGE 30W  
 Permanent Datum **Ground Level** Elevation **2905**  
 Log Measured From **Kelly Bushing**  
 Drilling Measured From **Kelly Bushing**  
 Other Services **CNL/CDL MEL/BHCS**  
 Elevation **K.B. 2910 D.F. G.L. 2905**

Date	9/22/2021
Run Number	One
Depth Driller	4740
Depth Logger	4730
Bottom Logged Interval	4729
Top Log Interval	200
Casing Driller	8.625 @ 255
Casing Logger	251
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	3300
Density / Viscosity	8.8 57
pH / Fluid Loss	11.0 7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.8 @ 62
Rmt @ Meas. Temp	.60 @ 62
Rmc @ Meas. Temp	1.08 @ 62
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.40 @ 123
Operating Rig Time	4 Hours
Max Rec. Temp. F	123
Equipment Number	P-108
Location	HAYS
Recorded By	J. Henrickson
Witnessed By	Max Lovely

<<< Fold Here >>>

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.

Amy Kansas  
South on 250 to 70 Rd, 1 1/4 West, 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

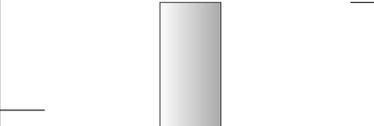
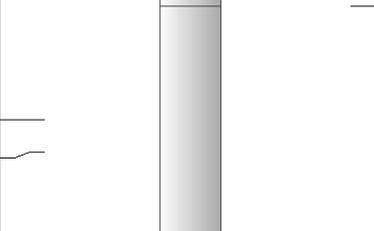
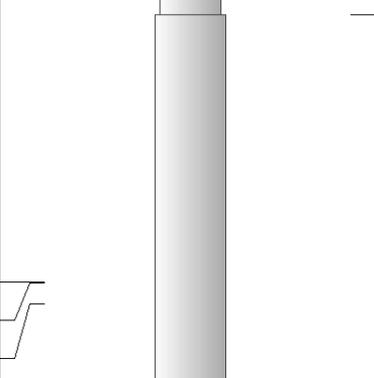
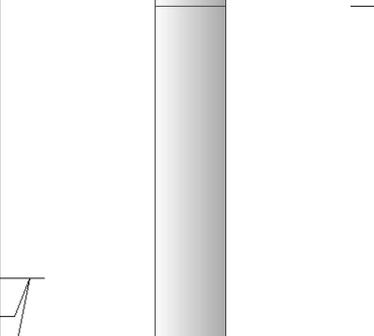
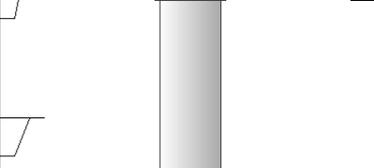
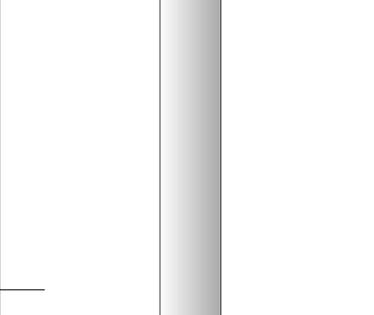
Primary Witness: Max Lovely  
Secondary Witness:  
Secondary Witness:  
Secondary Witness:

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\ritchie\_stucky\_dirks\_1.db  
Dataset field/well/stackml/pass4.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	123	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	-5	0	340	0	Off	0

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (915-956)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-PSI HIGH TEMP (959-1032)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: ritchie\_stucky\_dirks\_1.db: field/well/stackml/pass4.1  
 Total length: 43.08 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in



MIDWEST WIRELINE

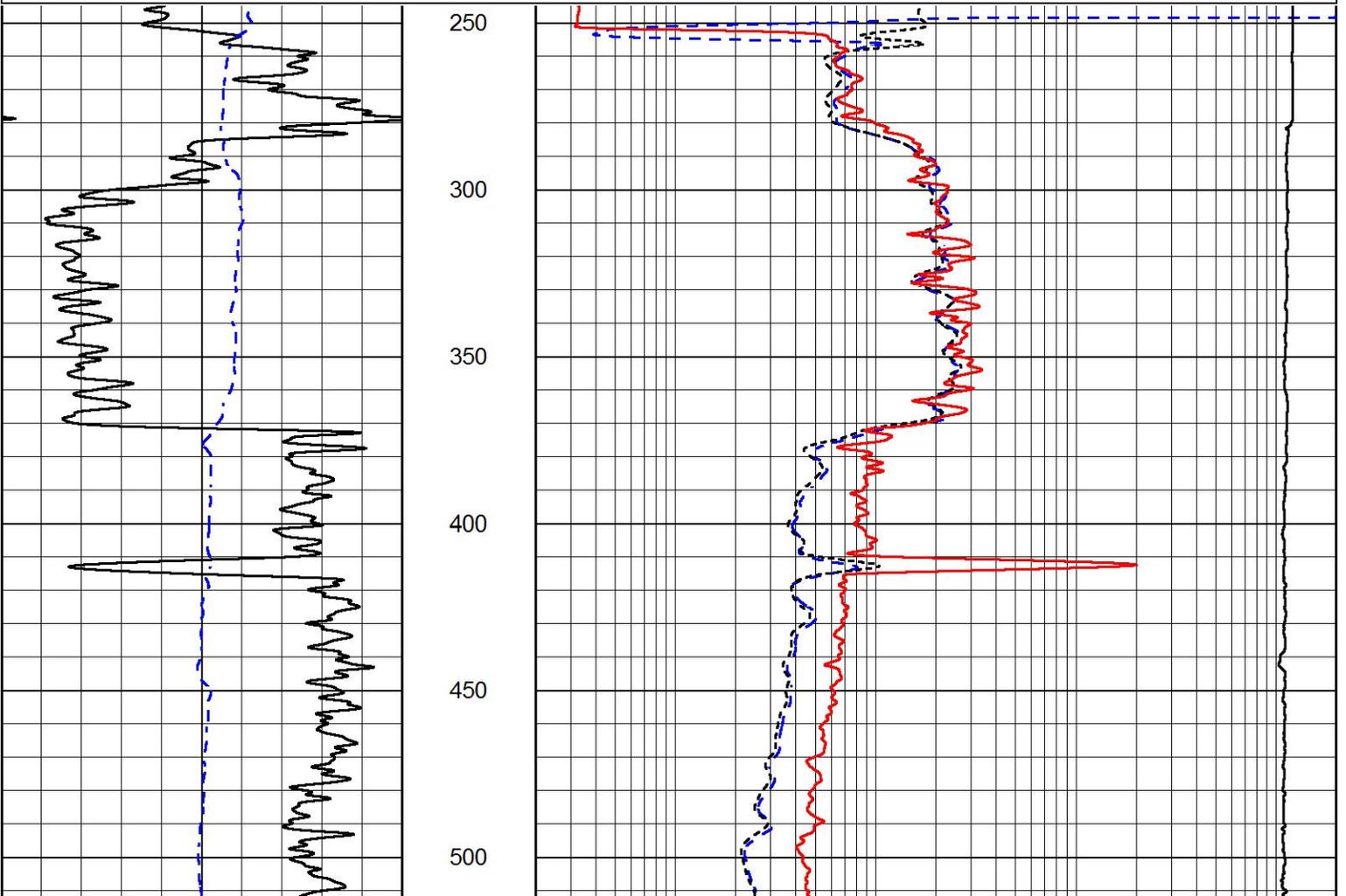
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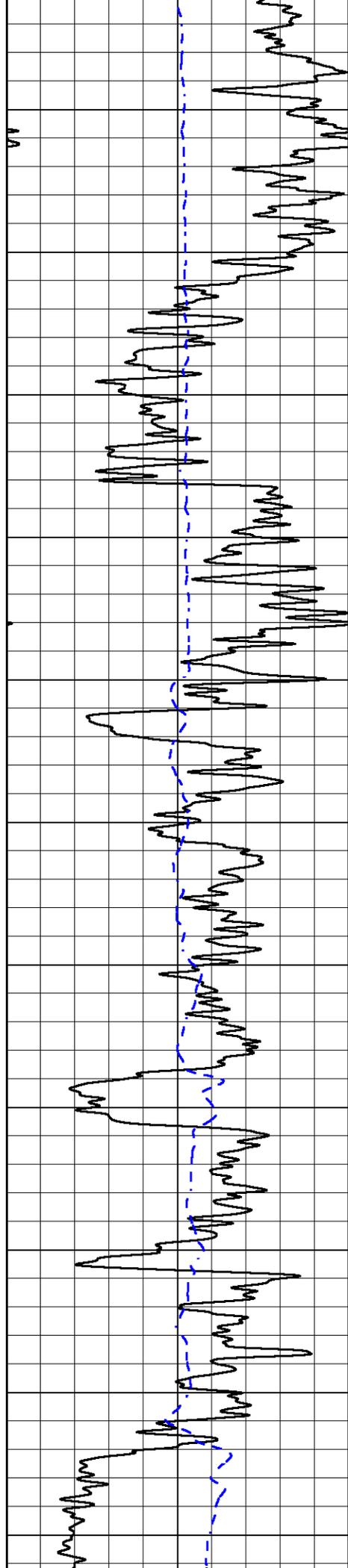
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 Dataset Pathname stackml/pass7.1  
 Presentation Format dil2in  
 Dataset Creation Wed Sep 22 14:58:31 2021  
 Charted by Depth in Feet scaled 1:600

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	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0





550

600

650

700

750

800

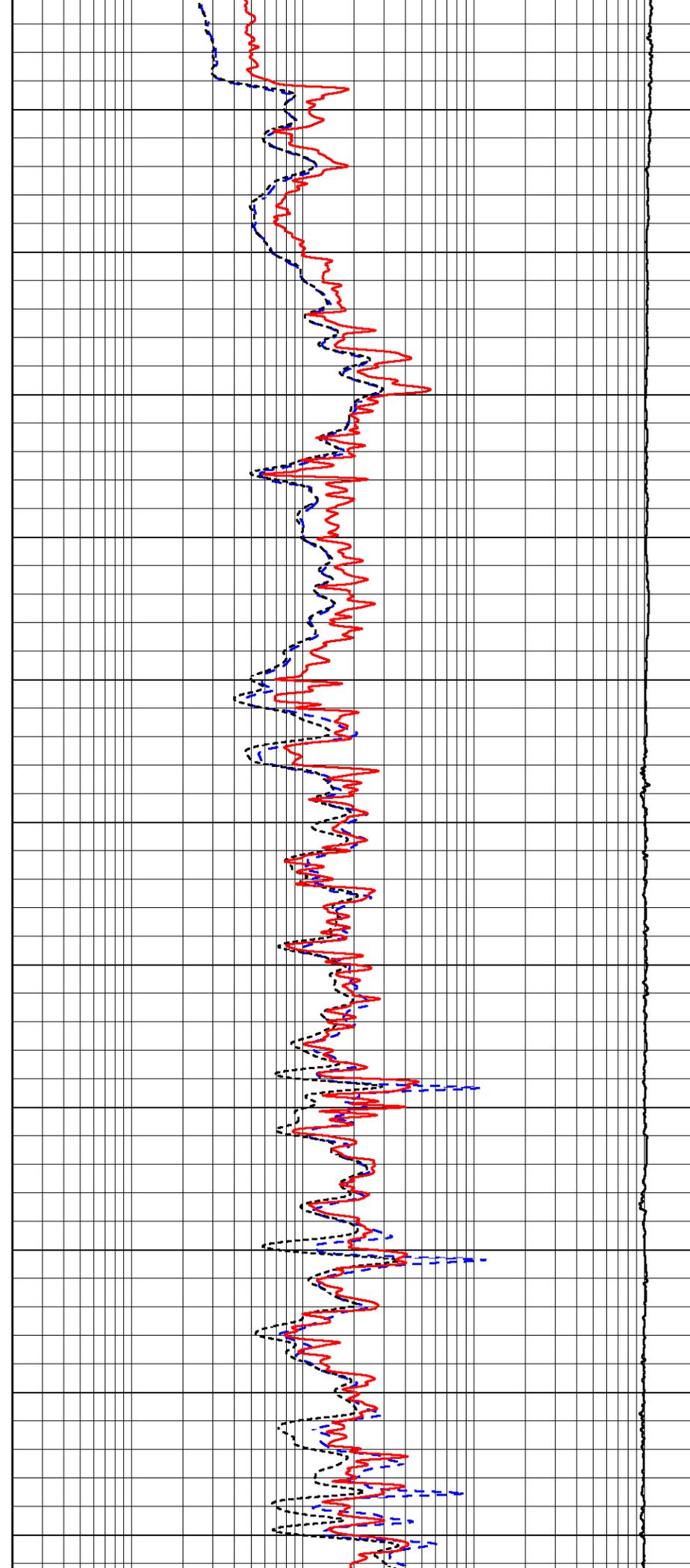
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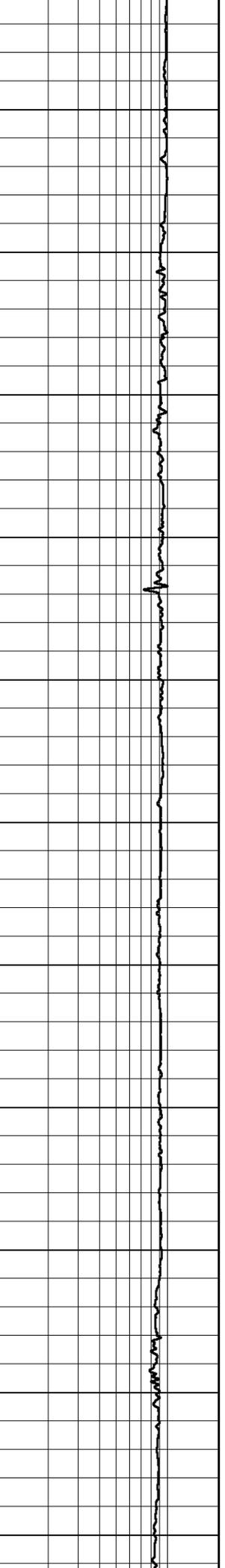
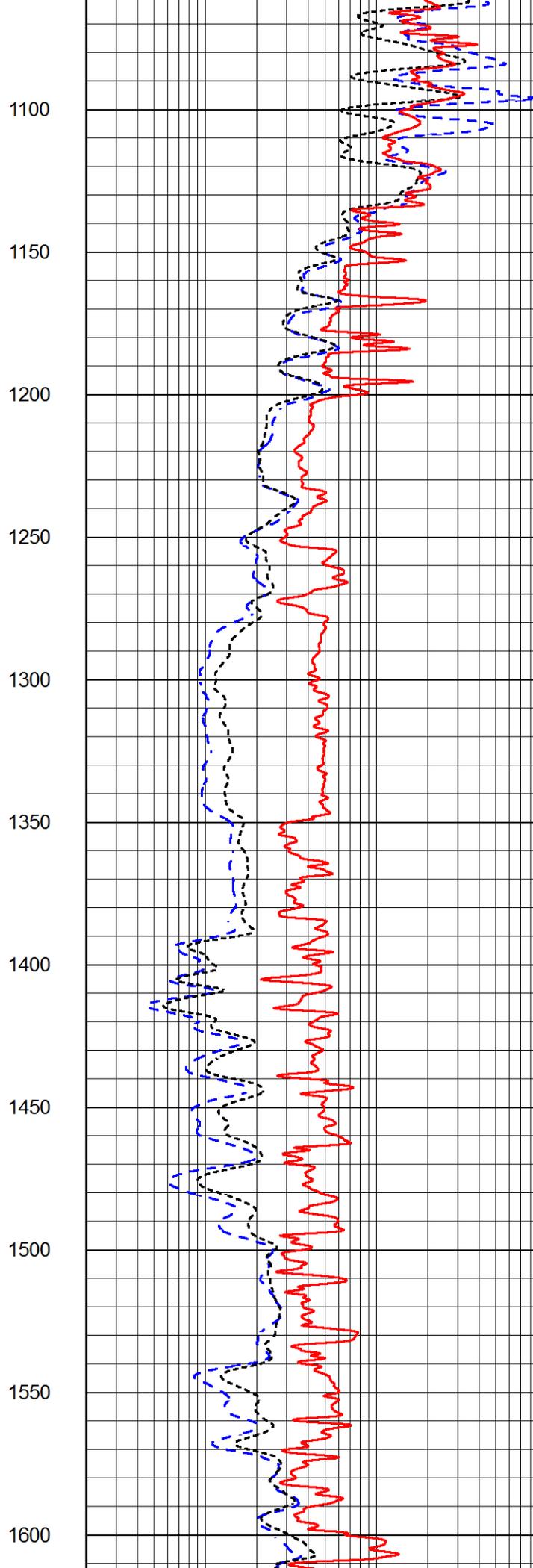
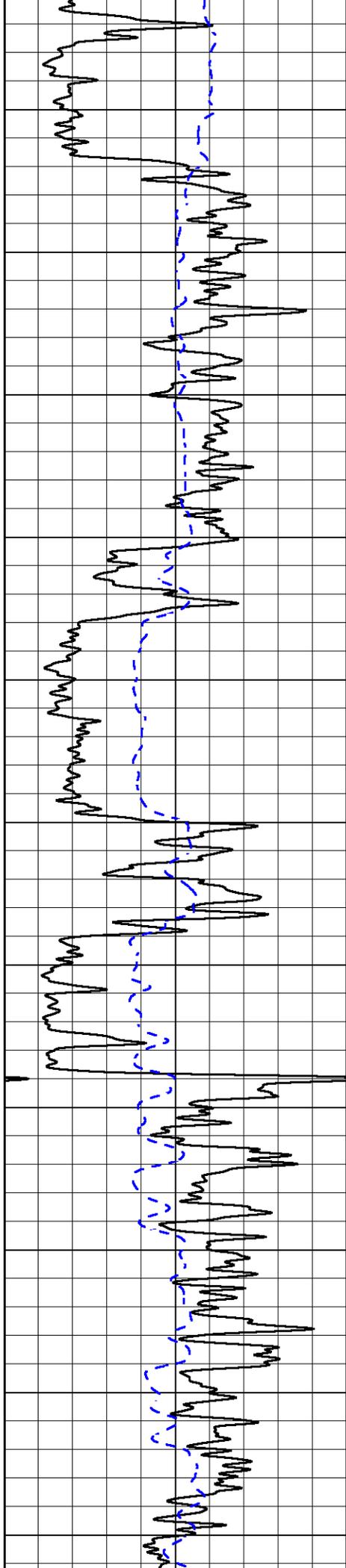
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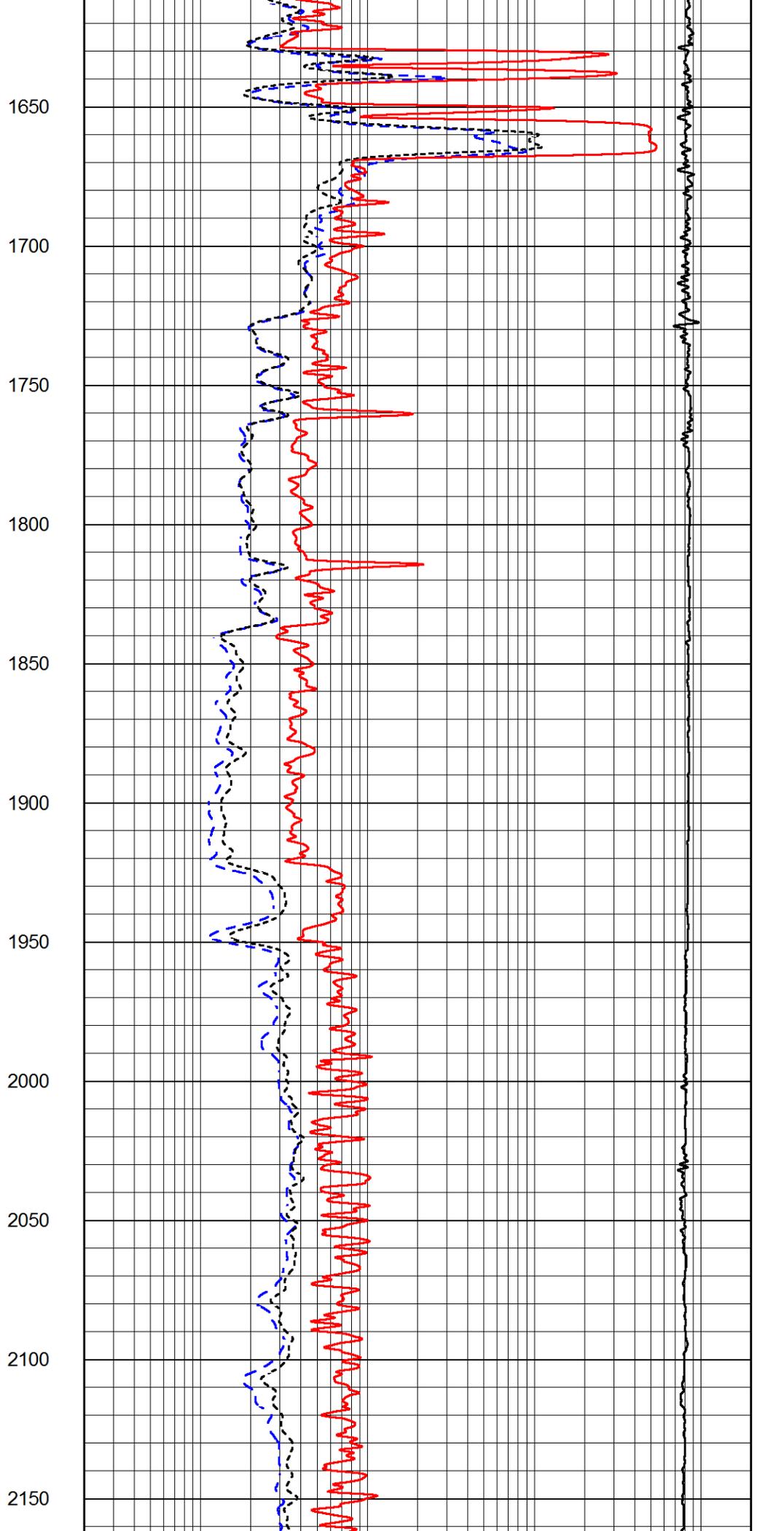
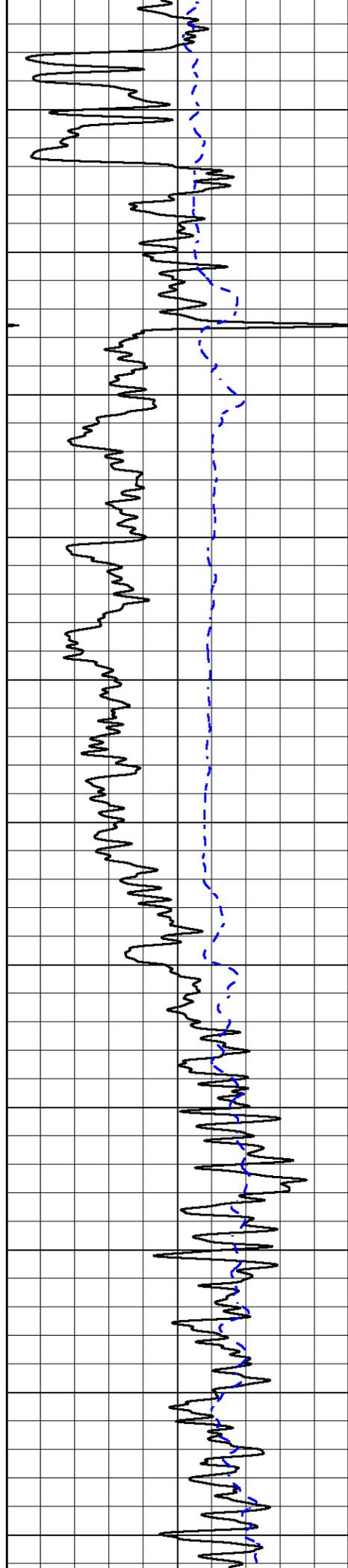
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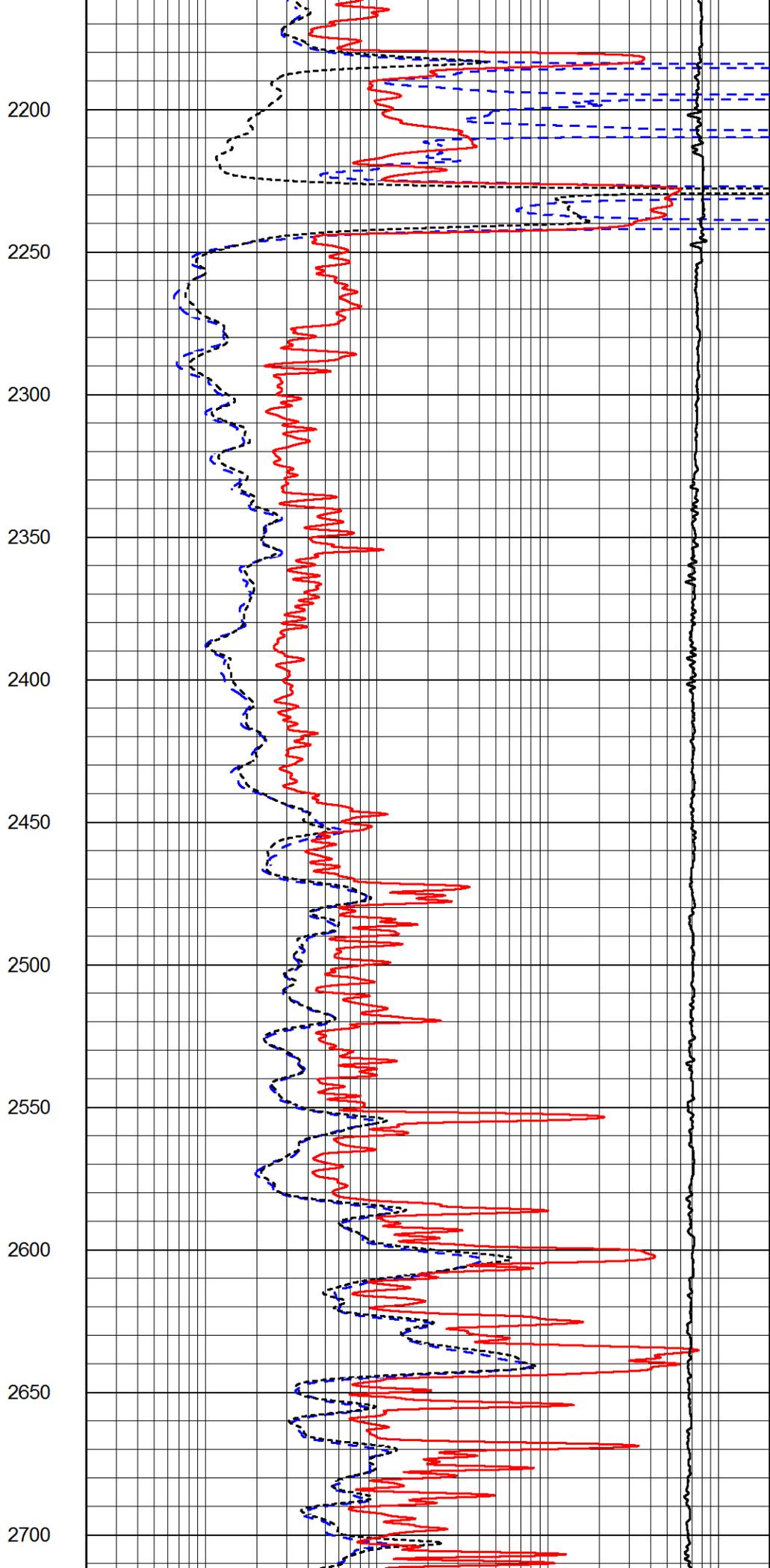
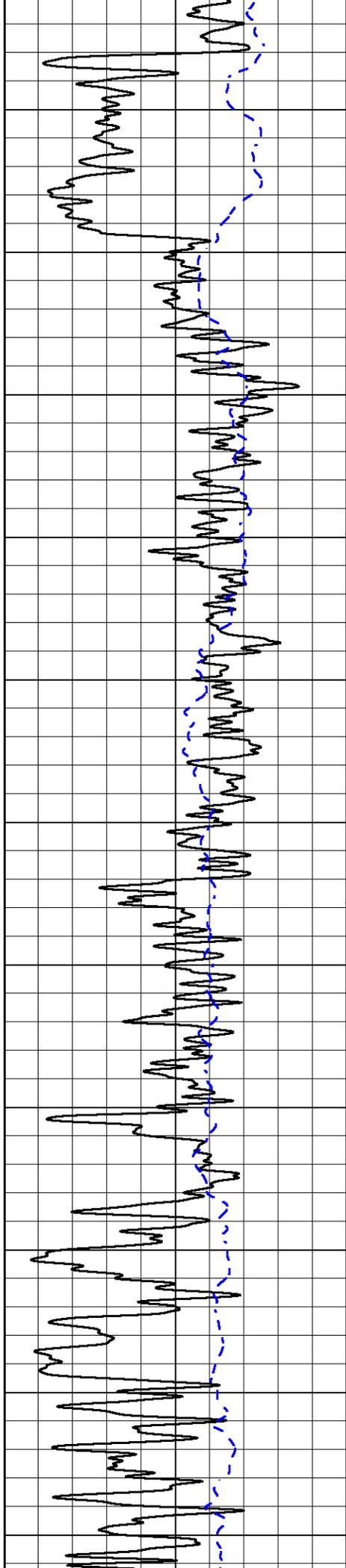
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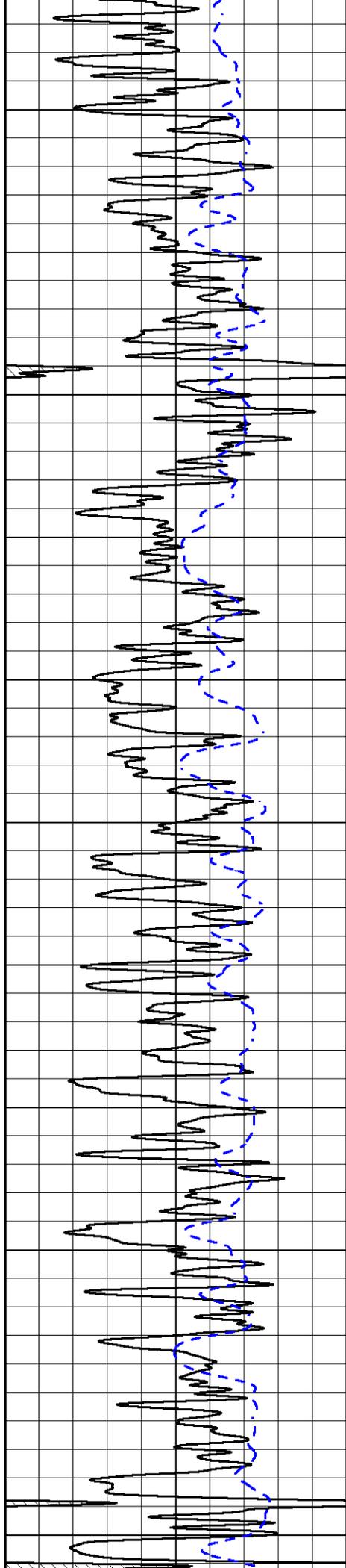
1050











2750

2800

2850

2900

2950

3000

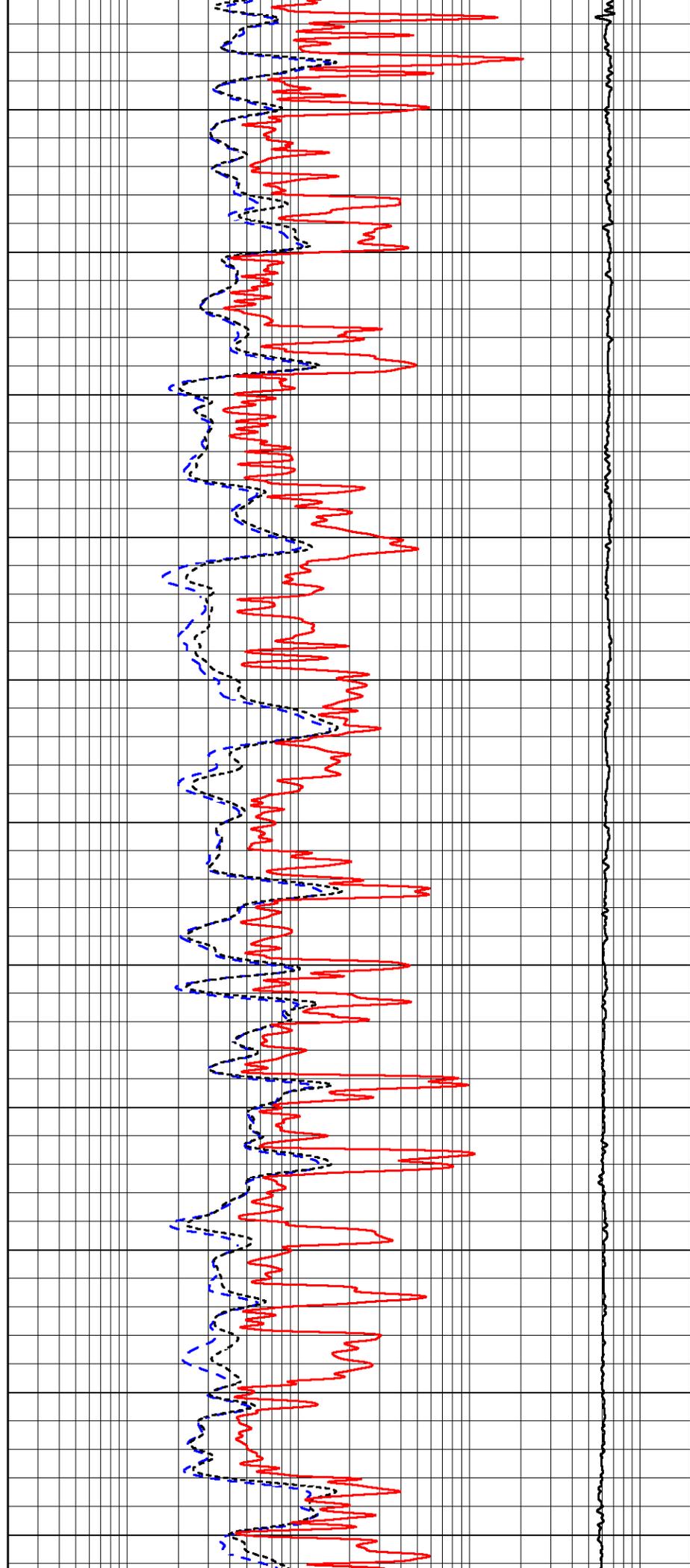
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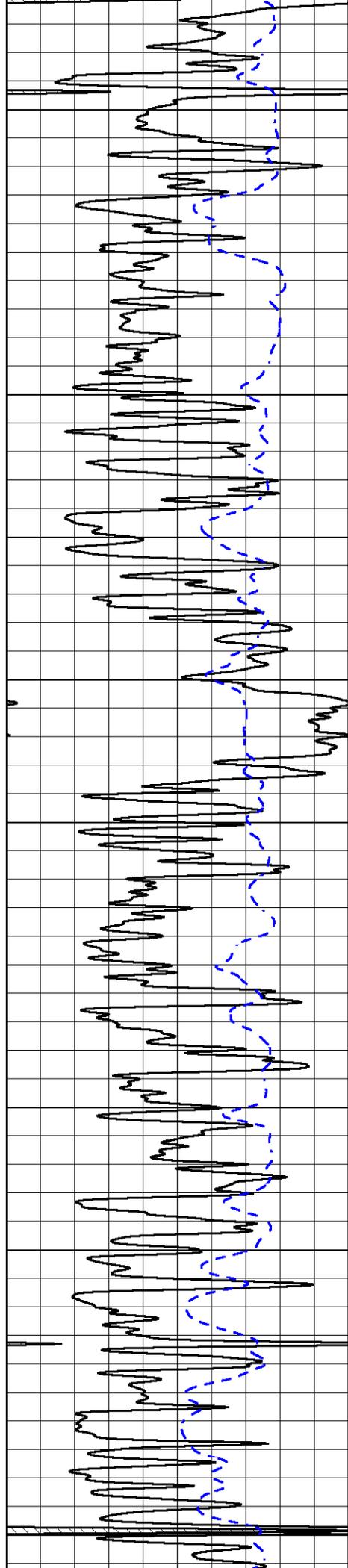
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3150

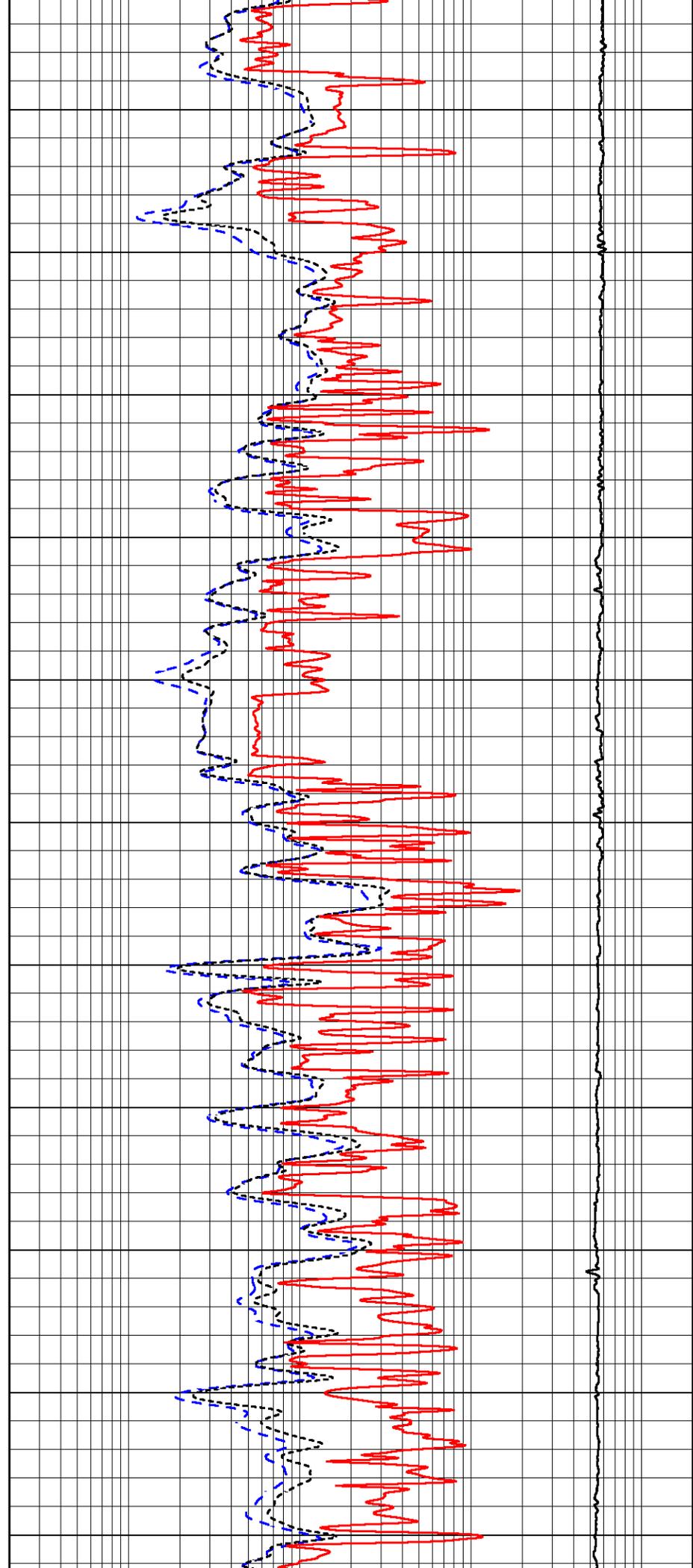
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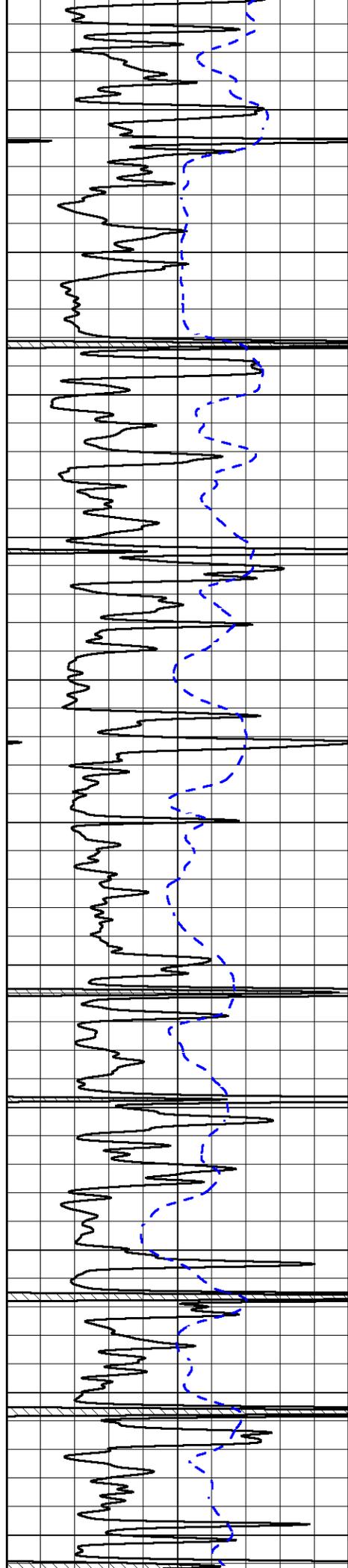
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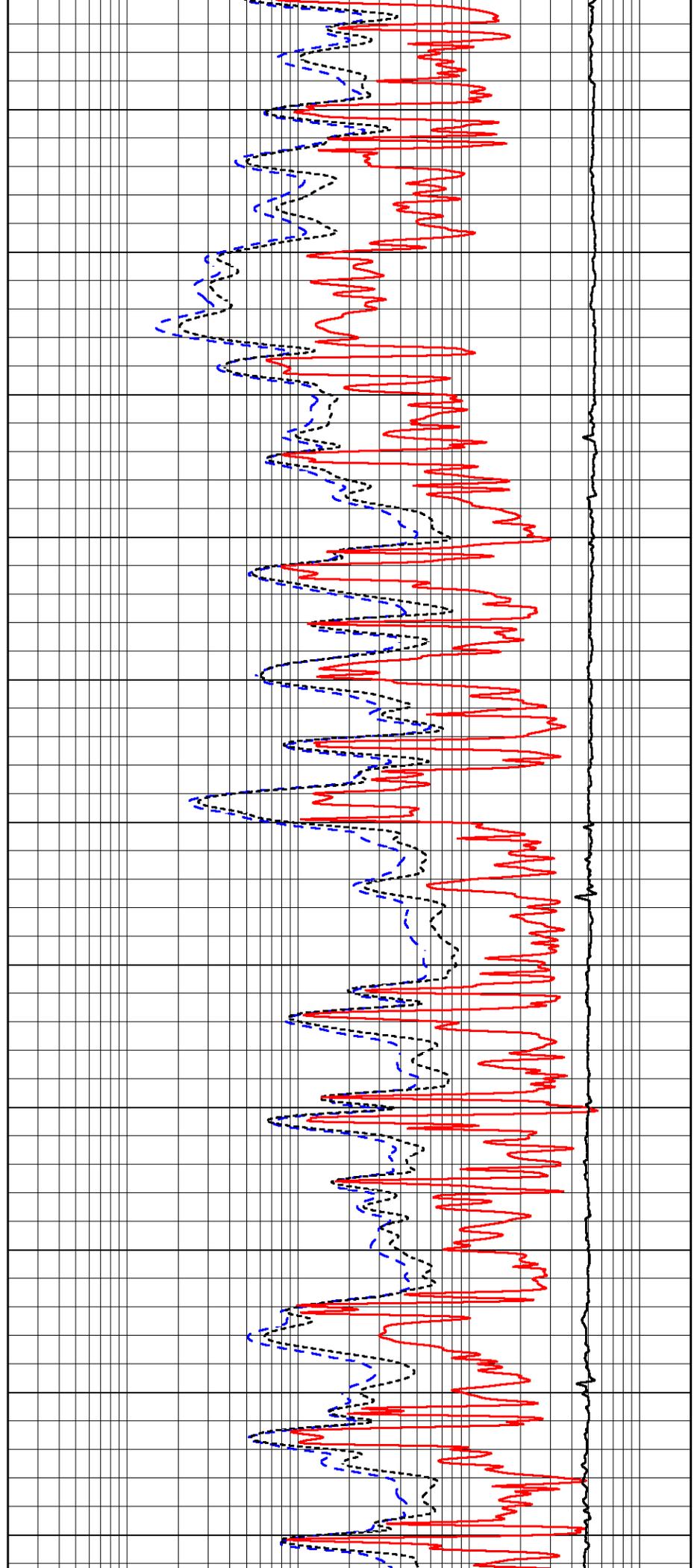


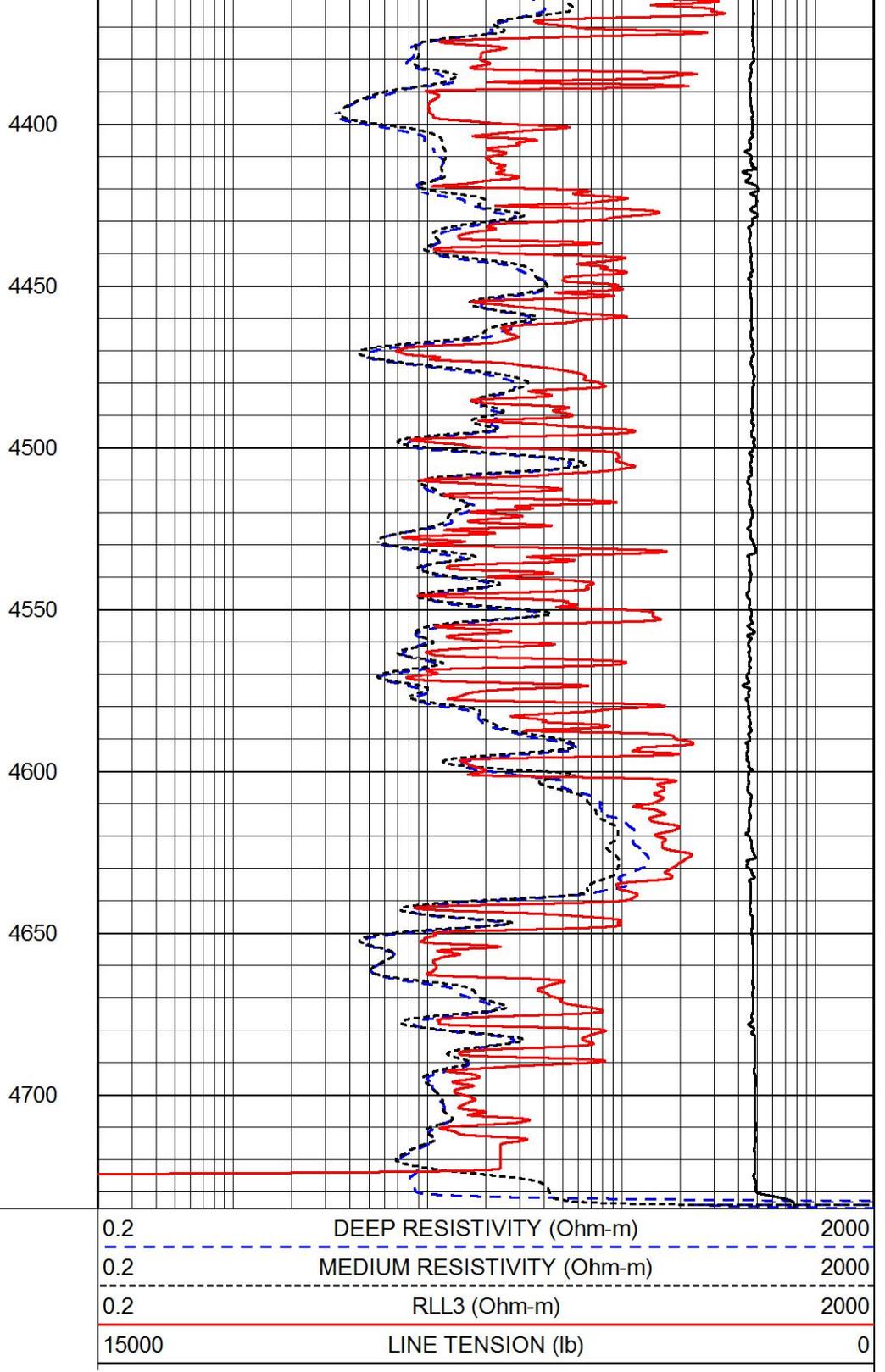
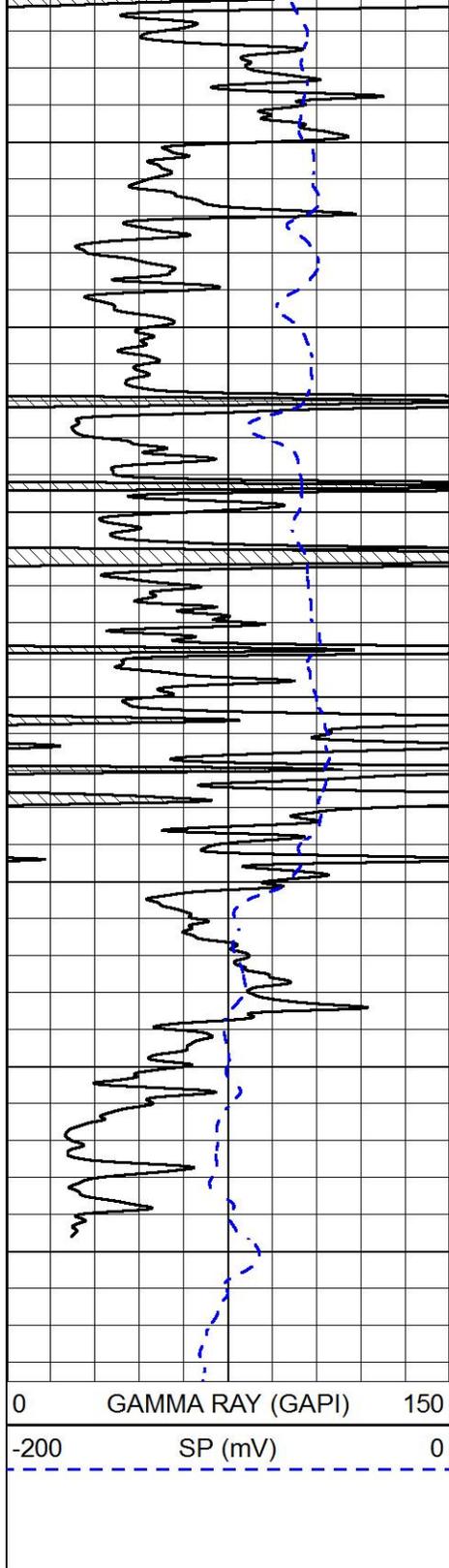
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3350  
3400  
3450  
3500  
3550  
3600  
3650  
3700  
3750  
3800





3850  
3900  
3950  
4000  
4050  
4100  
4150  
4200  
4250  
4300  
4350





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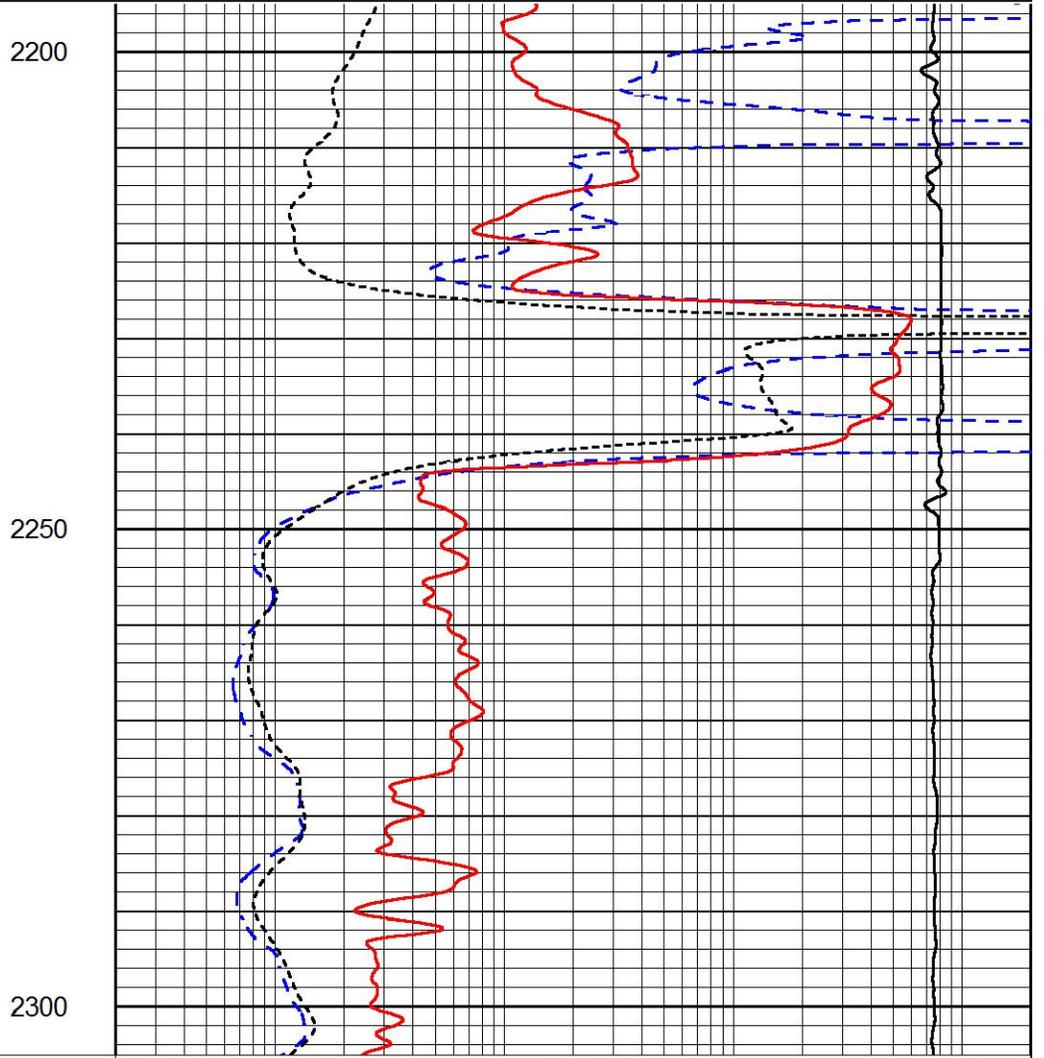
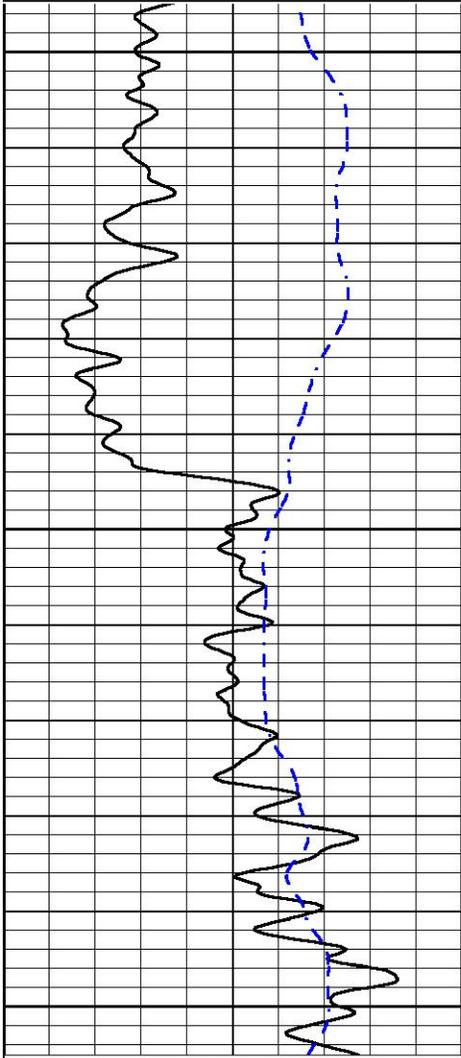
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 Dataset Pathname      stackml/pass6.1  
 Presentation Format      dil  
 Dataset Creation      Wed Sep 22 14:28:16 2021  
 Charted by      Depth in Feet scaled 1:240



-200	SP (mV)	0
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0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



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	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



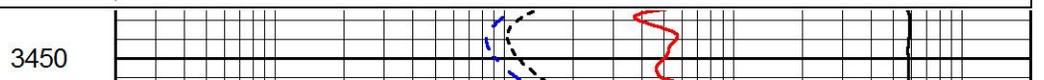
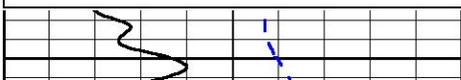
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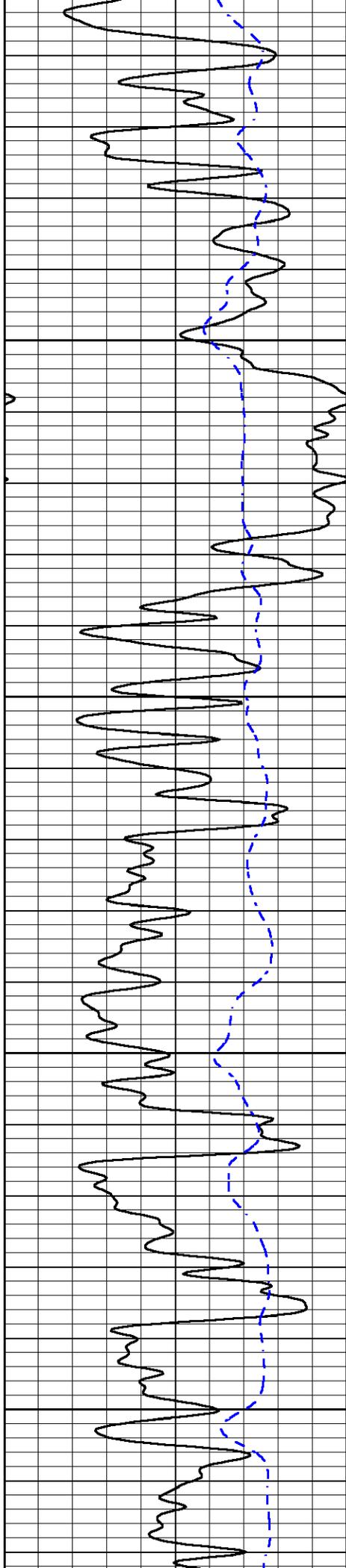
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 Dataset Pathname    stackml/pass5.1  
 Presentation Format    dil  
 Dataset Creation      Wed Sep 22 14:10:48 2021  
 Charted by            Depth in Feet scaled 1:240

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	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



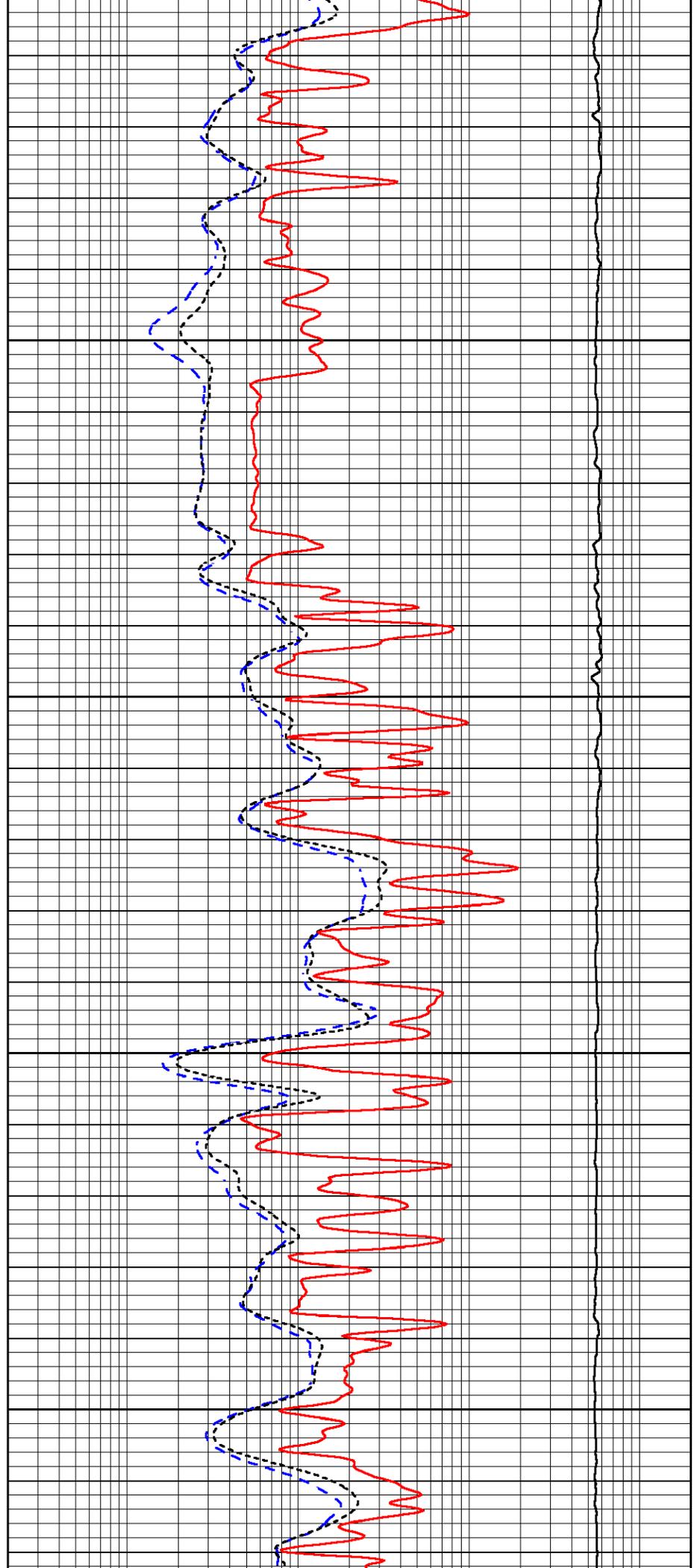


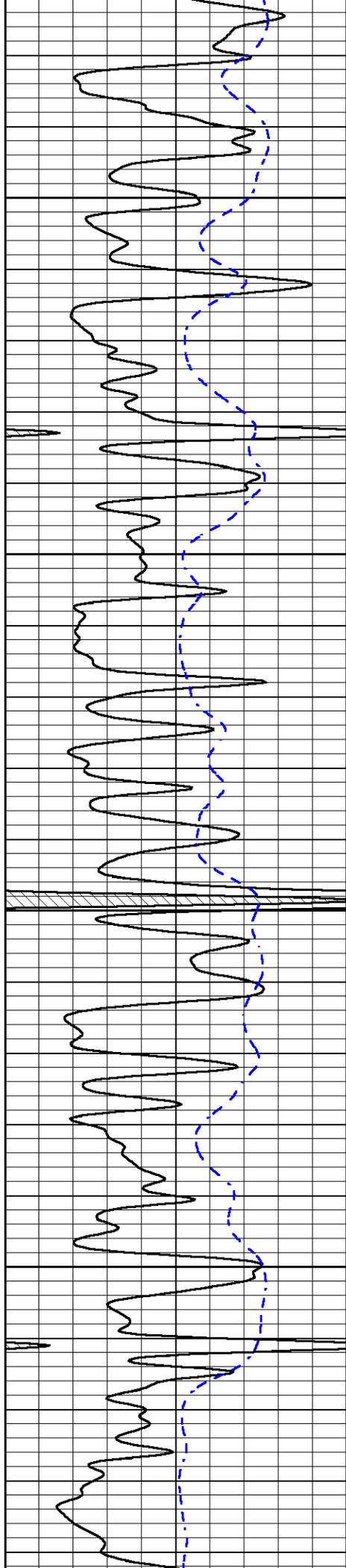
3500

3550

3600

3650



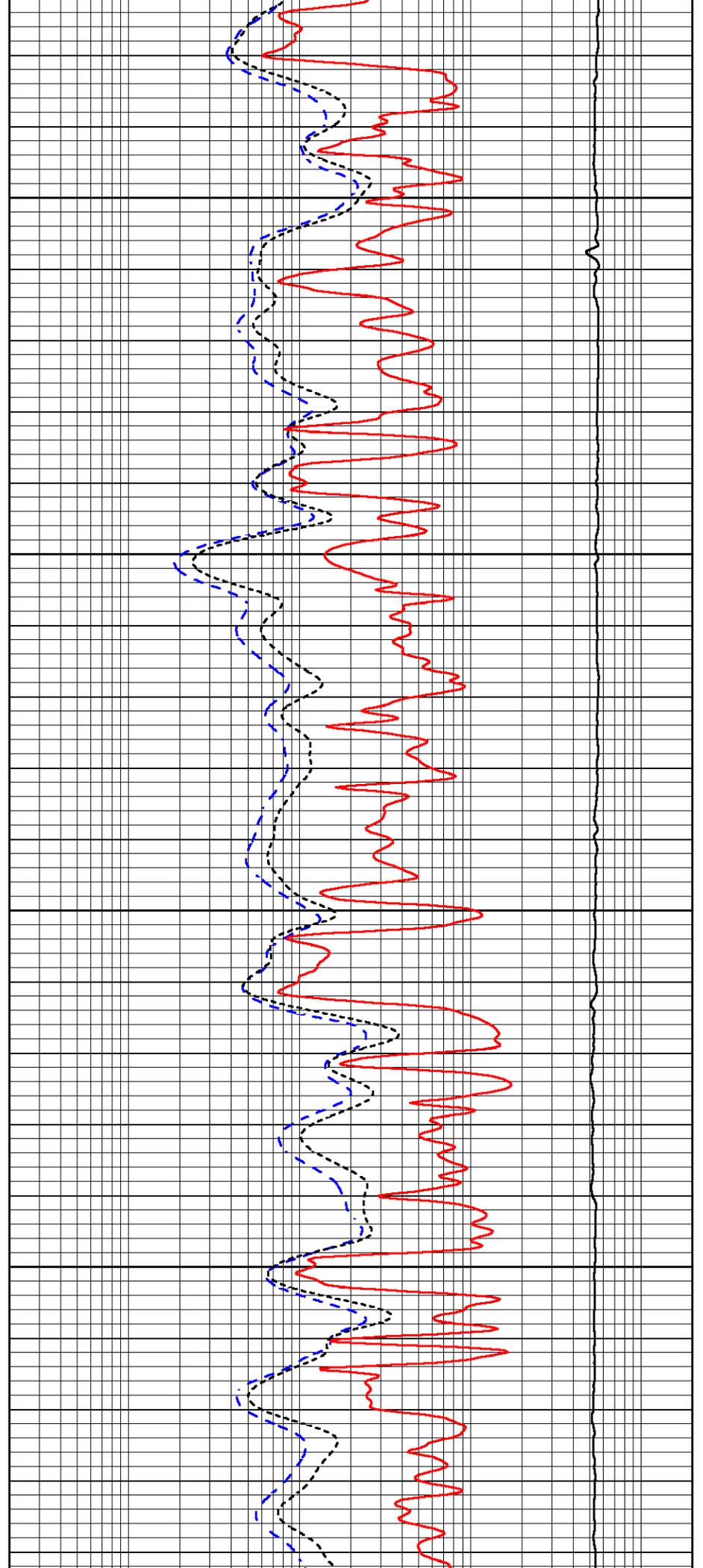


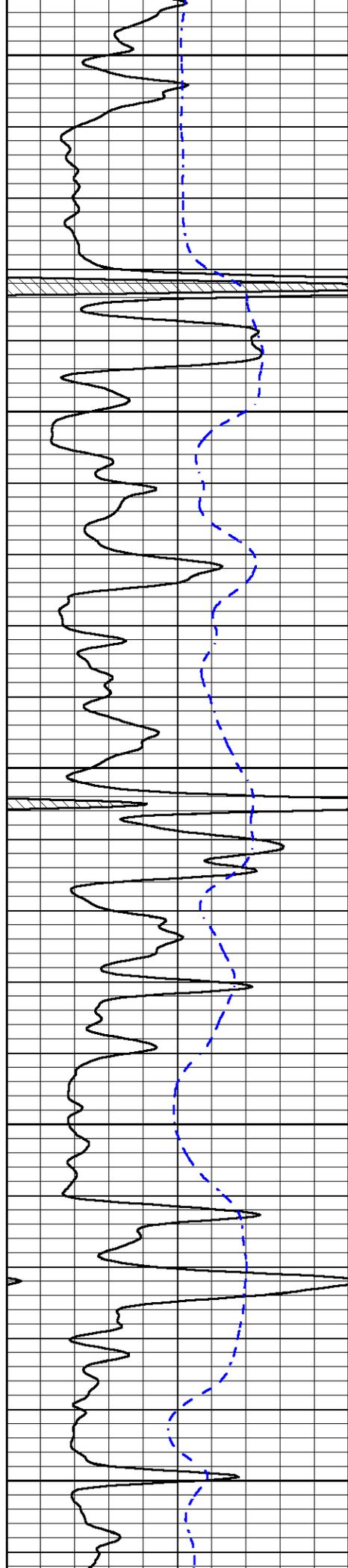
3700

3750

3800

3850





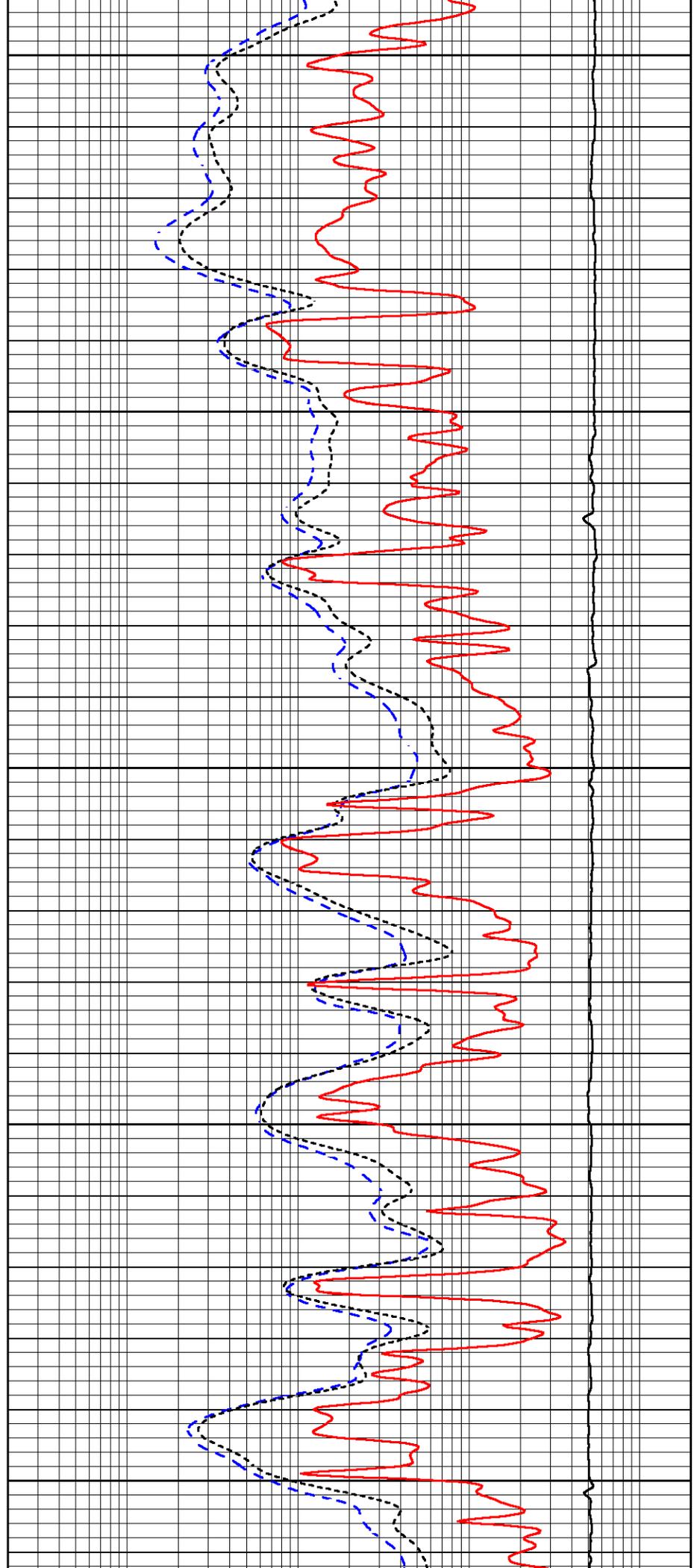
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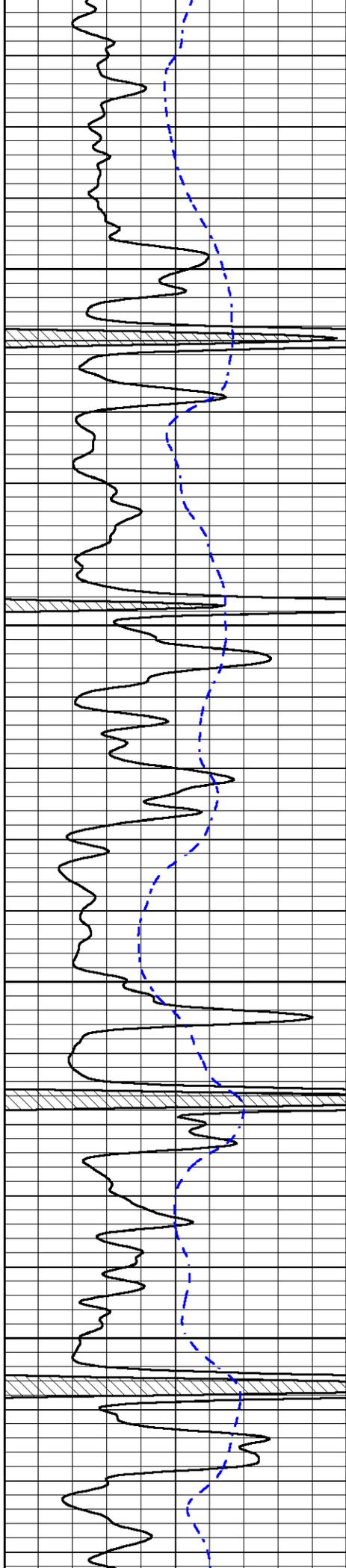
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4000

4050

4100



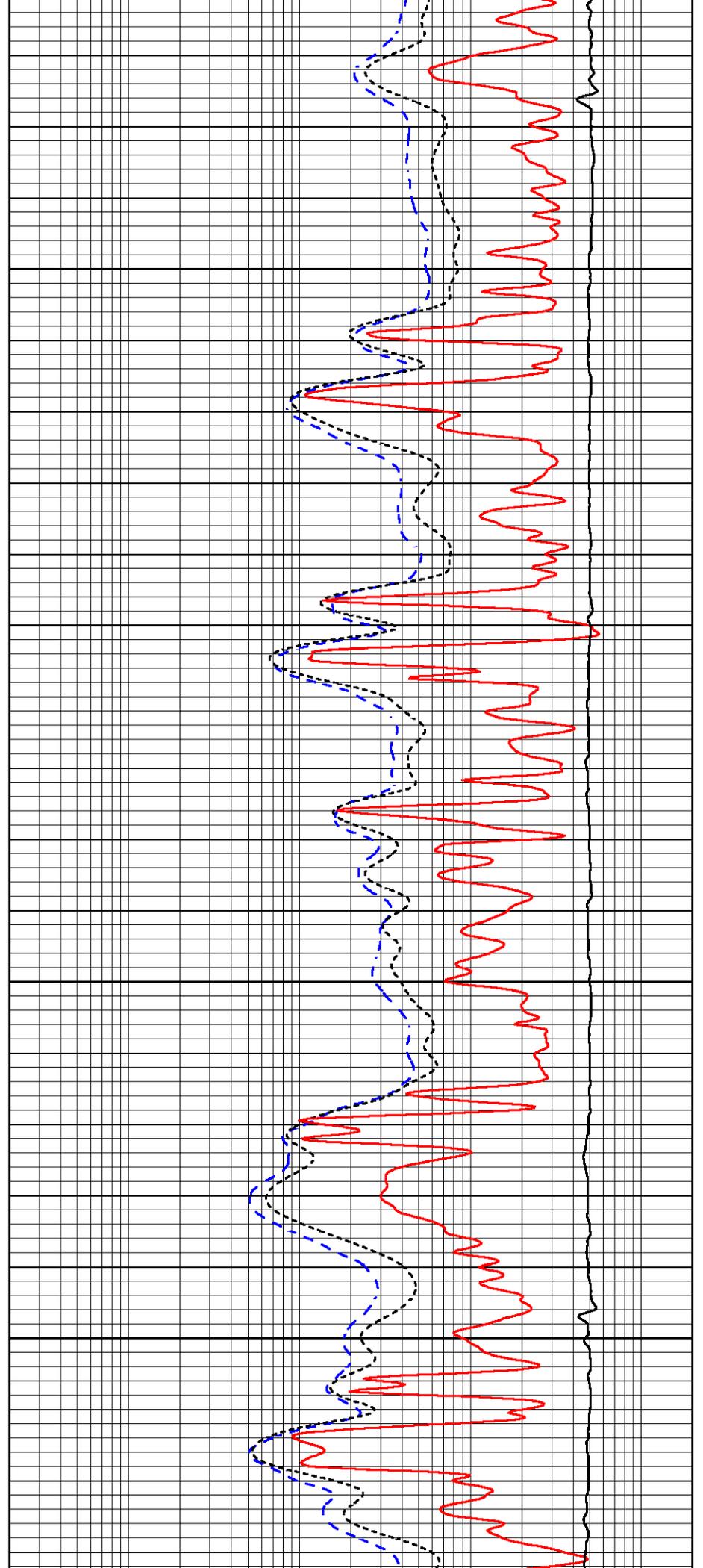


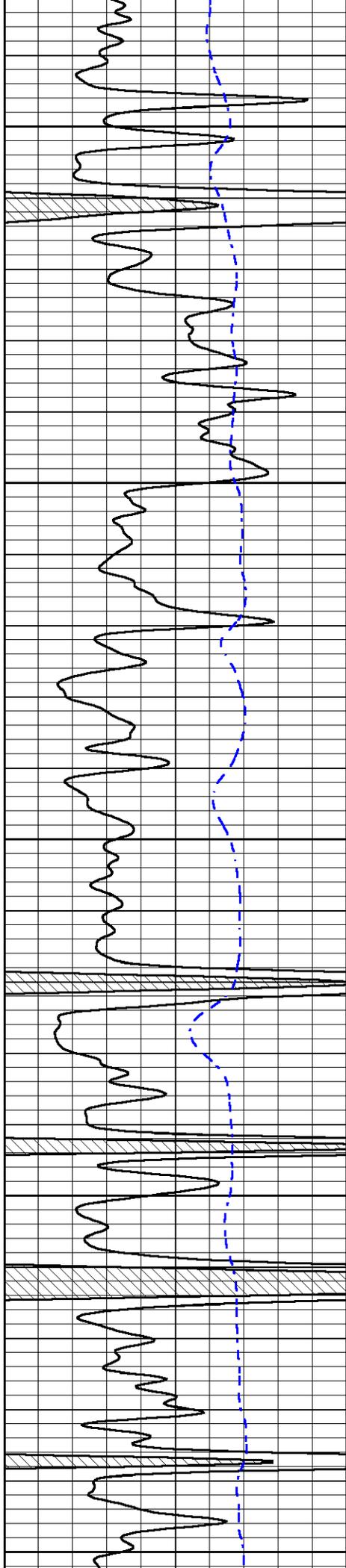
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4200

4250

4300





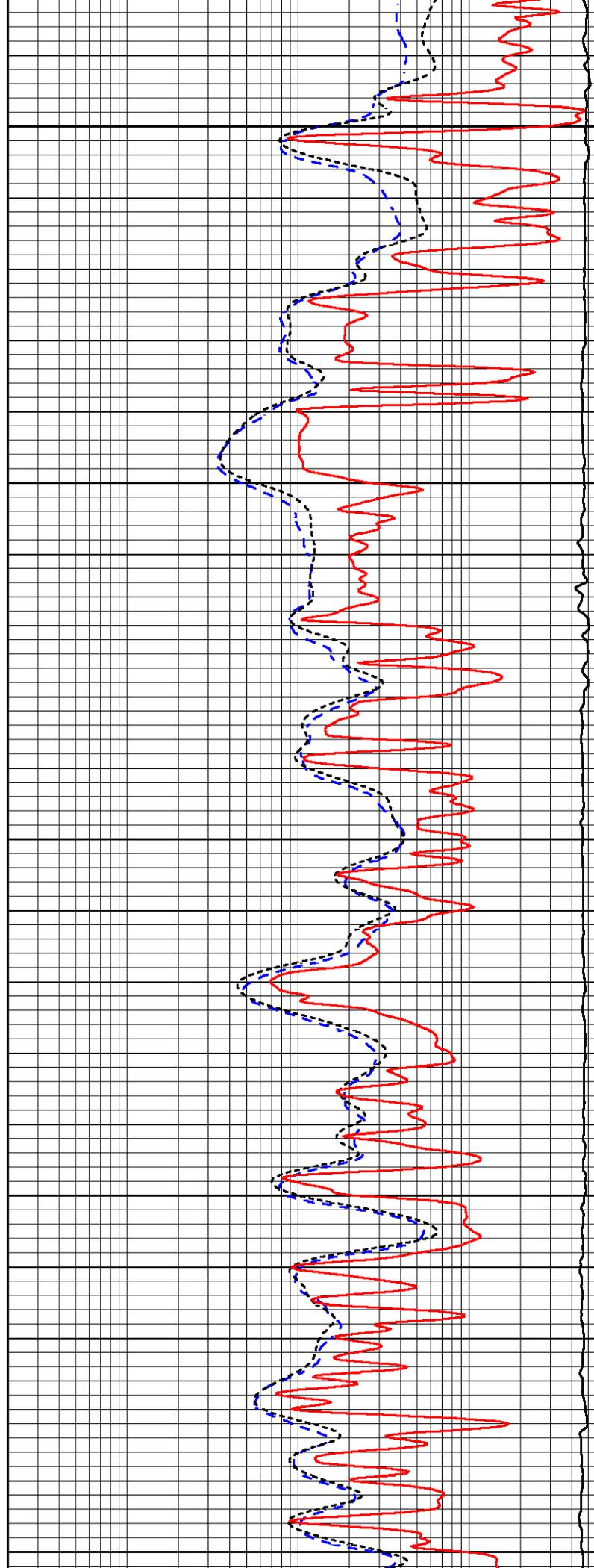
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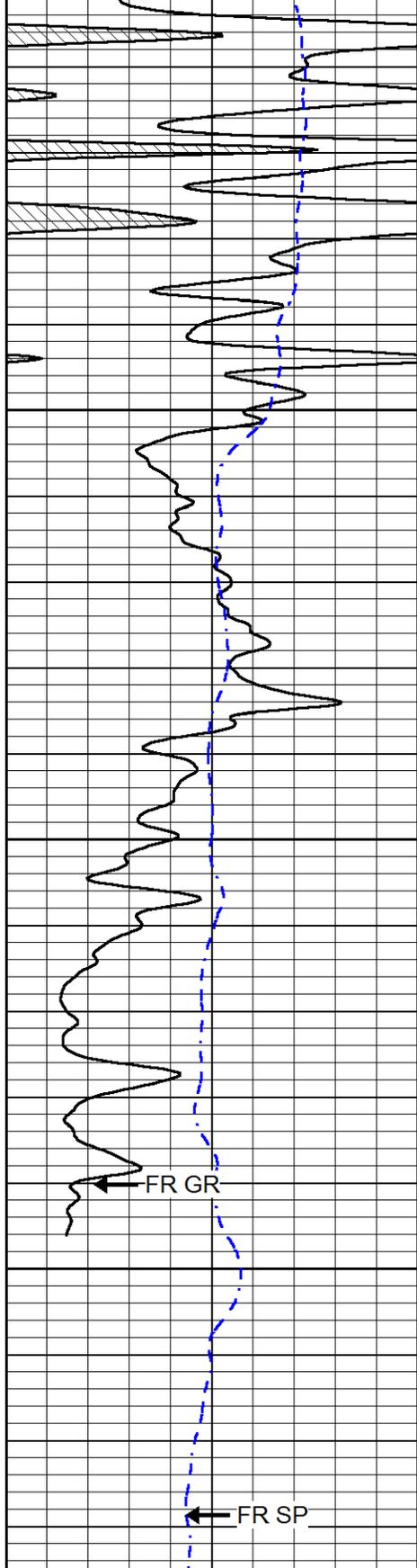
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4450

4500

4550



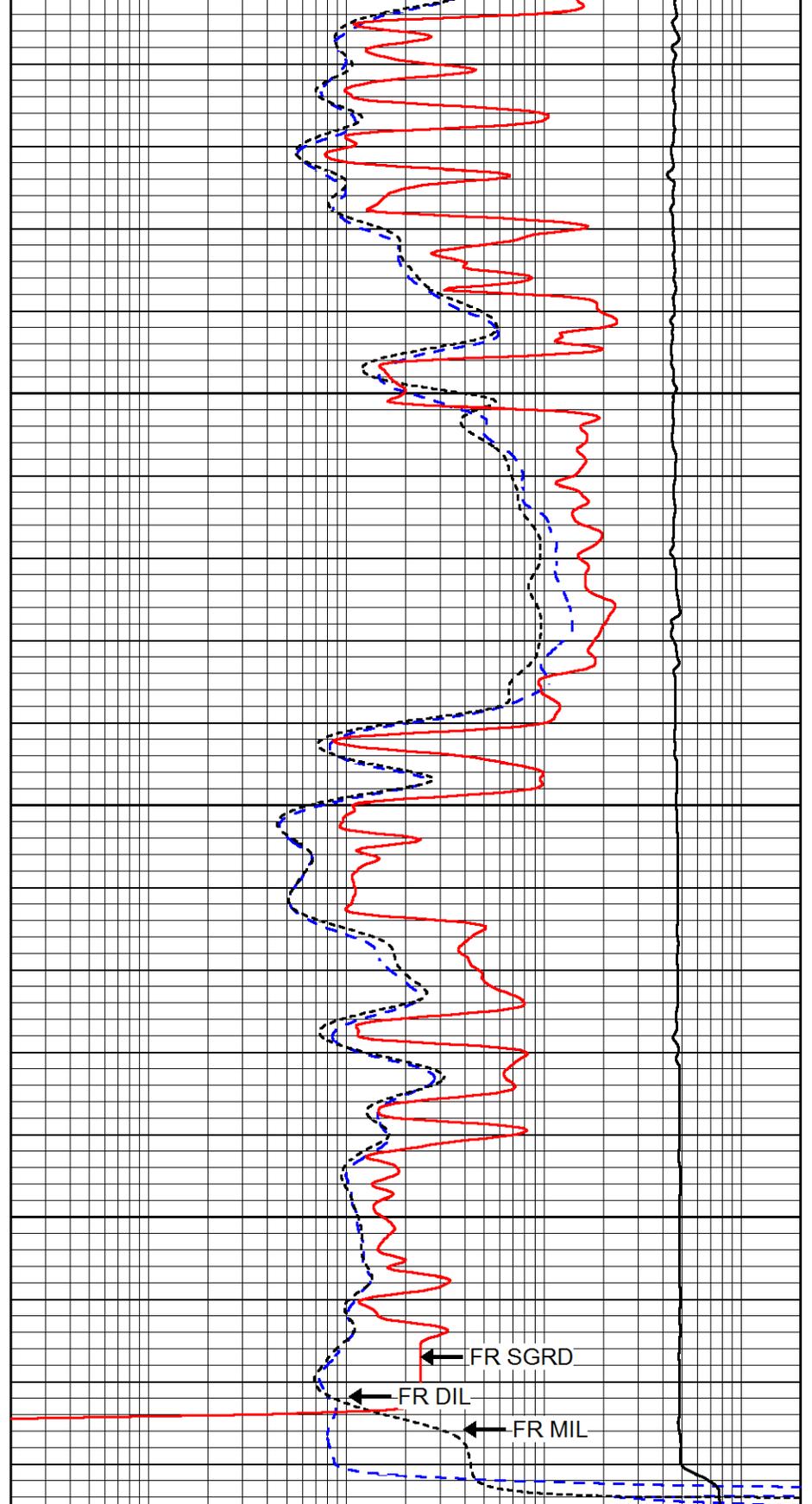


4600

4650

4700

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      RLL3 (Ohm-m)      2000  
 15000      LINE TENSION (lb)      0

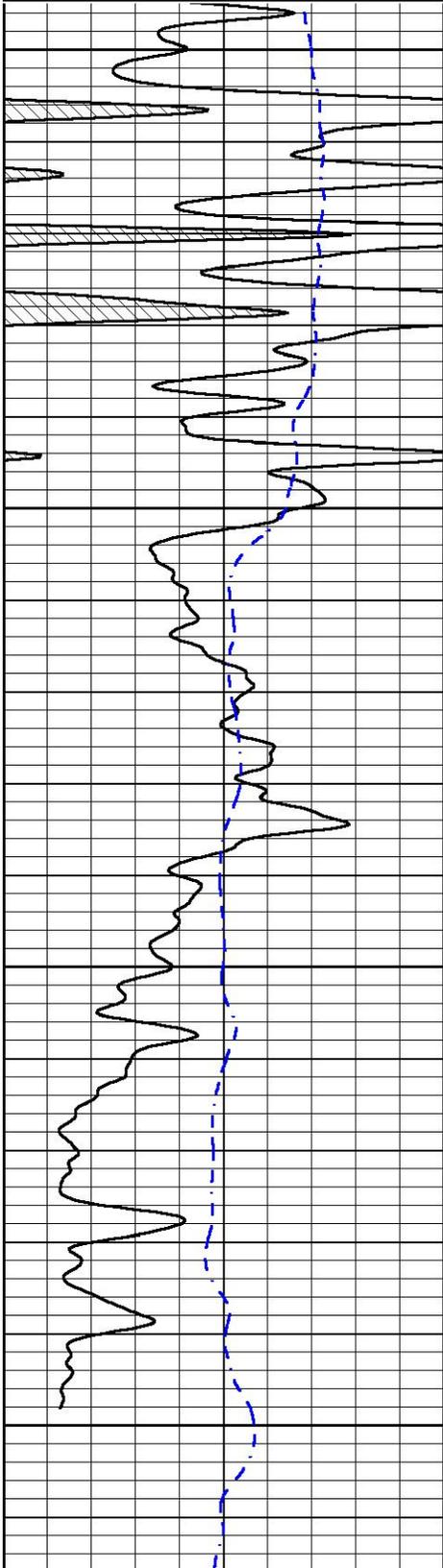


REPEAT SECTION

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 Presentation Format    dil  
 Dataset Creation      Wed Sep 22 13:59:08 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	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0

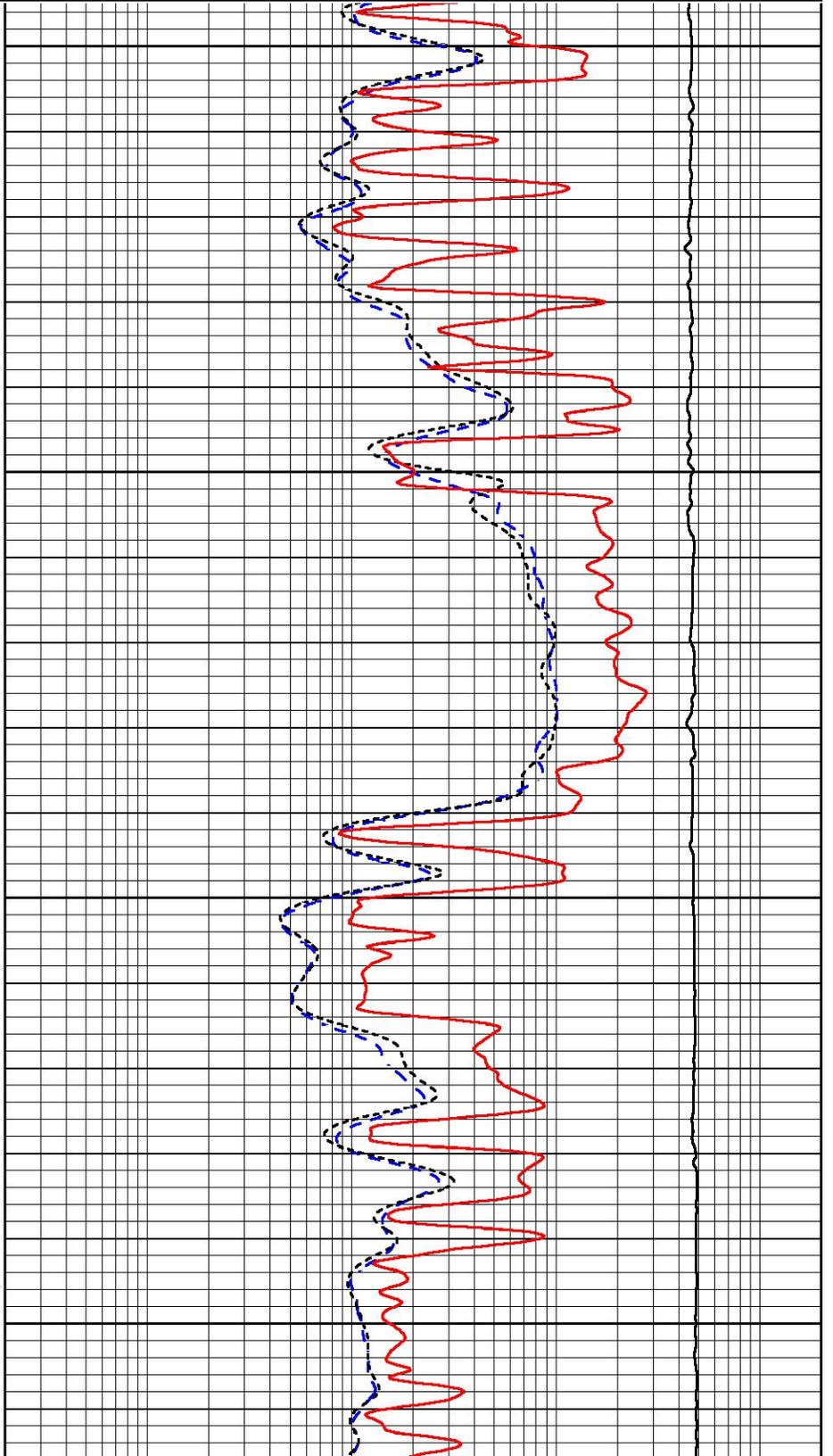


4550

4600

4650

4700





Compensated Neutron Calibration Report

Serial Number: tk10-MW  
Tool Model: M&W  
Calibration Performed: Wed Nov 16 11:21:36 2016

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: 89-M&W  
Tool Model: M&W  
Calibration Performed: Mon May 10 06:44:25 2021

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps