



DUAL INDUCTION LOG

Company THOROUGHbred ASSOCIATES, LLC.

Well MILLER FARMS #32-1

Field

County COMANCHE State KANSAS

Location: API # : 15-033-21791-0000

673' FSL & 1116' FWL

SEC 32 TWP 31S RGE 18W

Permanent Datum GROUND LEVEL Elevation 2140

Log Measured From KELLY BUSHING 11' A.G.L.

Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL/PE
MEL/SON

Elevation

K.B. 2151
D.F. 2149
G.L. 2140

Date 11/7/21

Run Number ONE

Depth Driller 6060

Depth Logger 6070

Bottom Logged Interval 6068

Top Log Interval 00

Casing Driller 8 5/8" @ 681

Casing Logger 681

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/50

pH / Fluid Loss 8.5/11.2

Source of Sample FLOWLINE

Rm @ Meas. Temp .85 @ 65F

Rmf @ Meas. Temp .63 @ 65F

Rmc @ Meas. Temp 1.02 @ 65F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .41 @ 134F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom

Maximum Recorded Temperature 134F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By AARON YOUNG

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

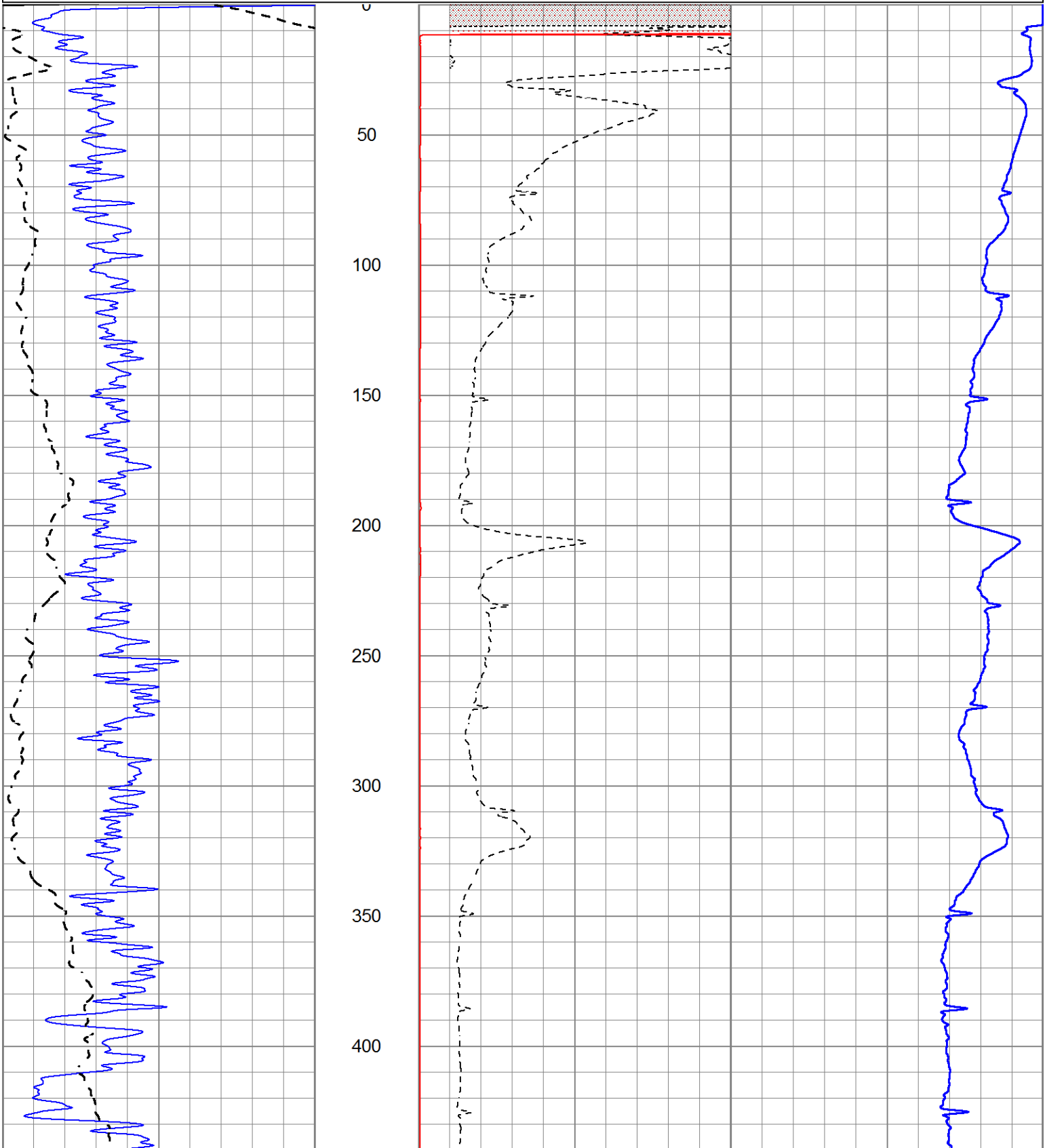
Comments

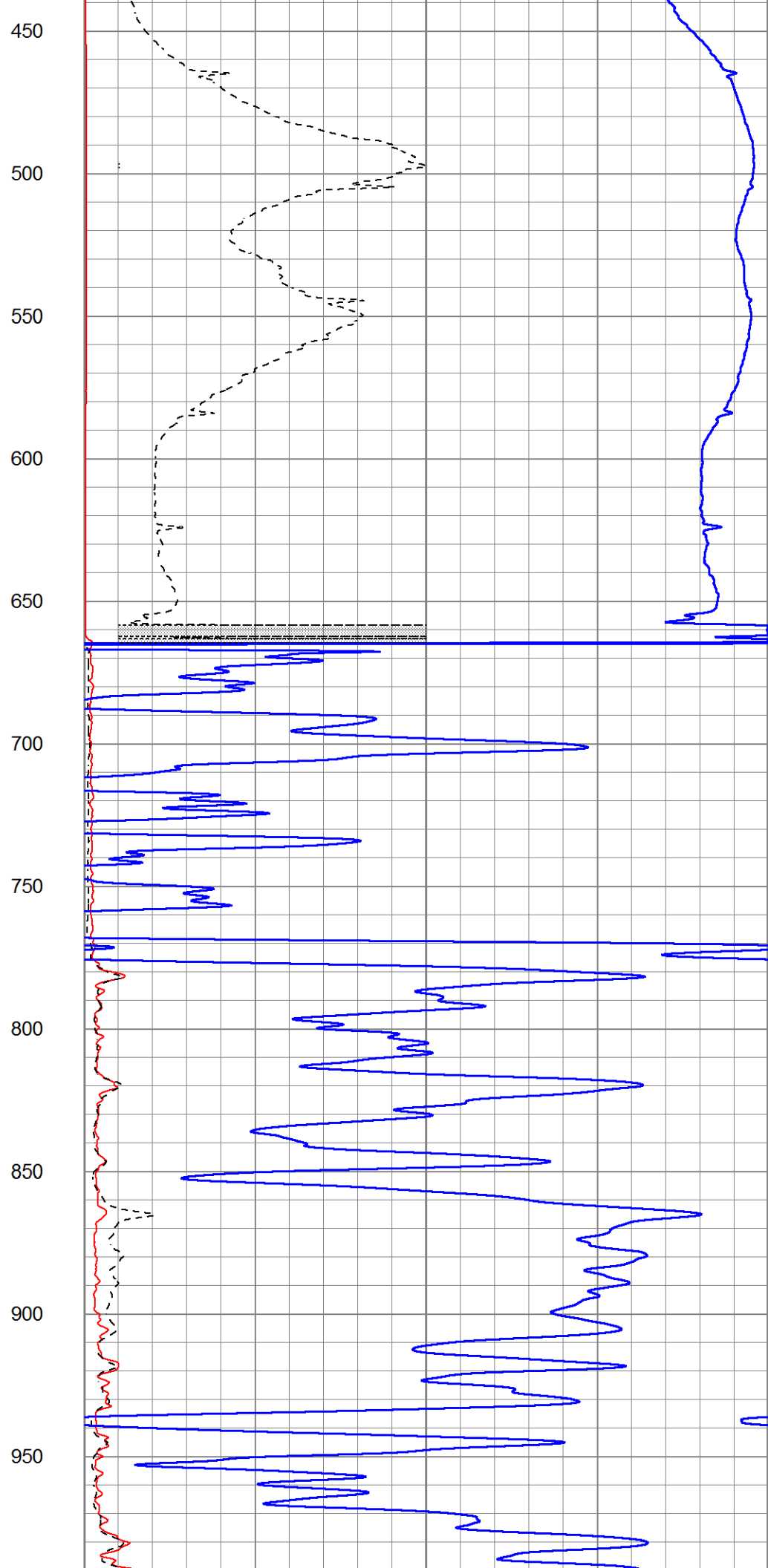
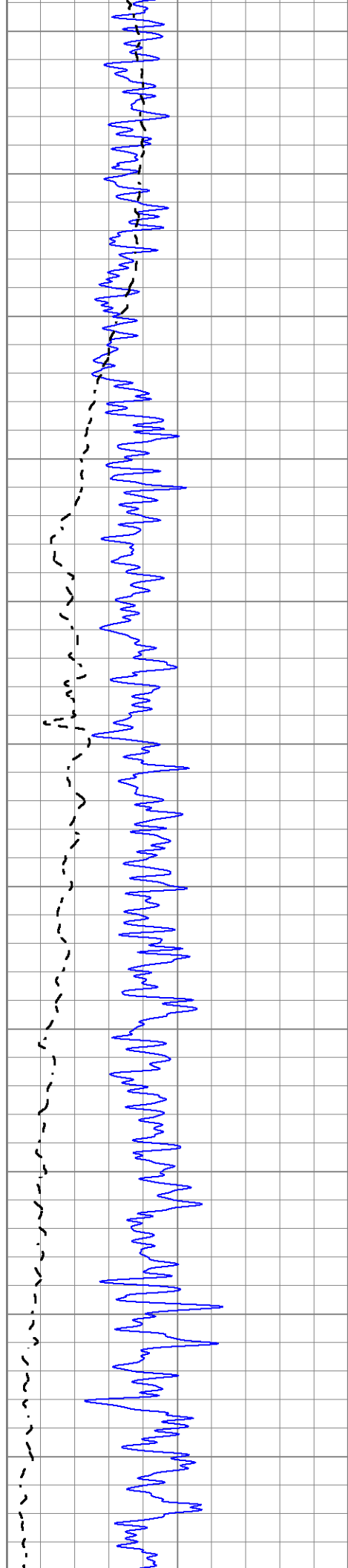
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
COLDWATER, KS. - 2 NORTH TO AVE. F - 1 EAST - 3/4 SOUTH - WEST INTO

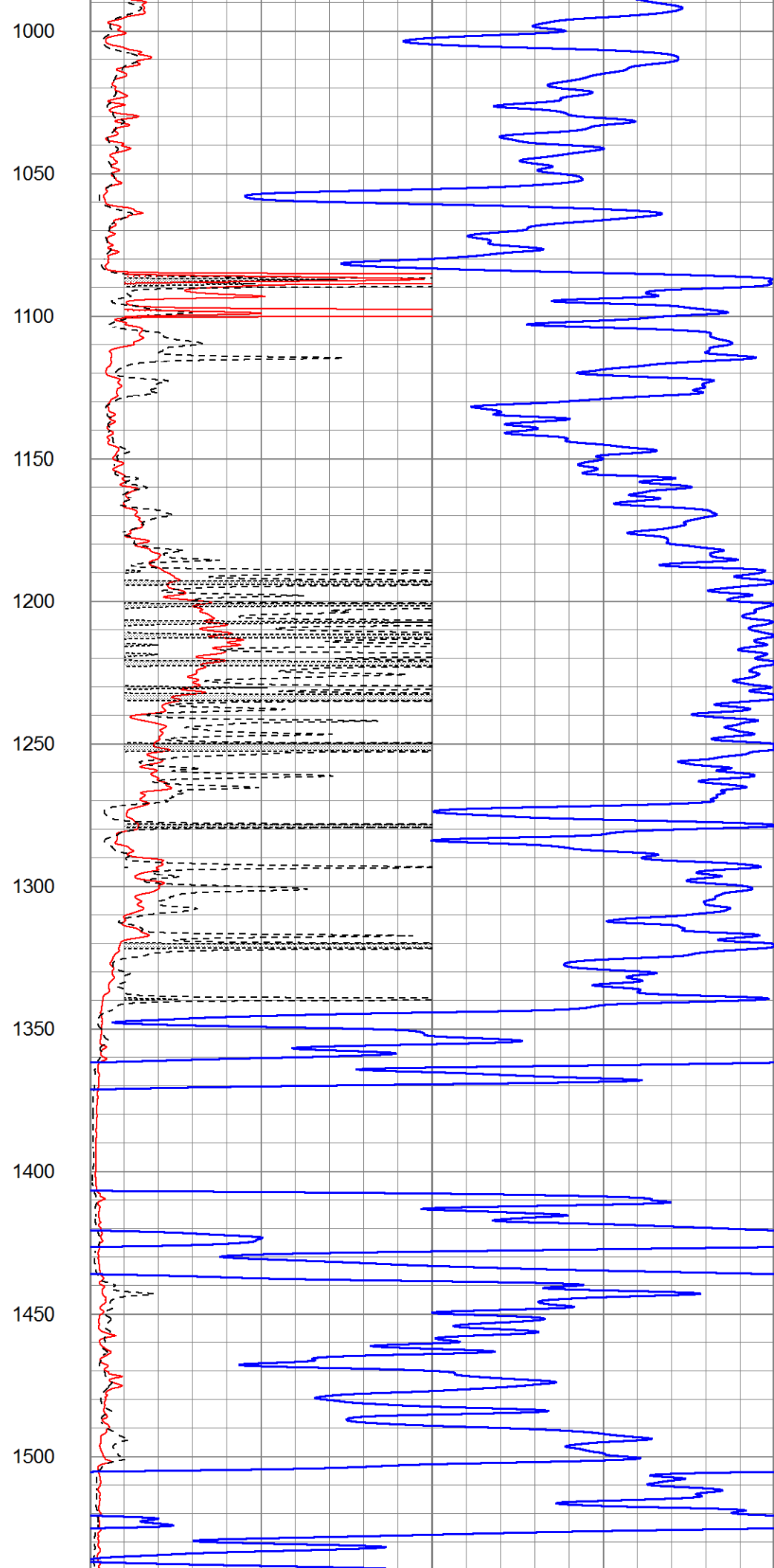
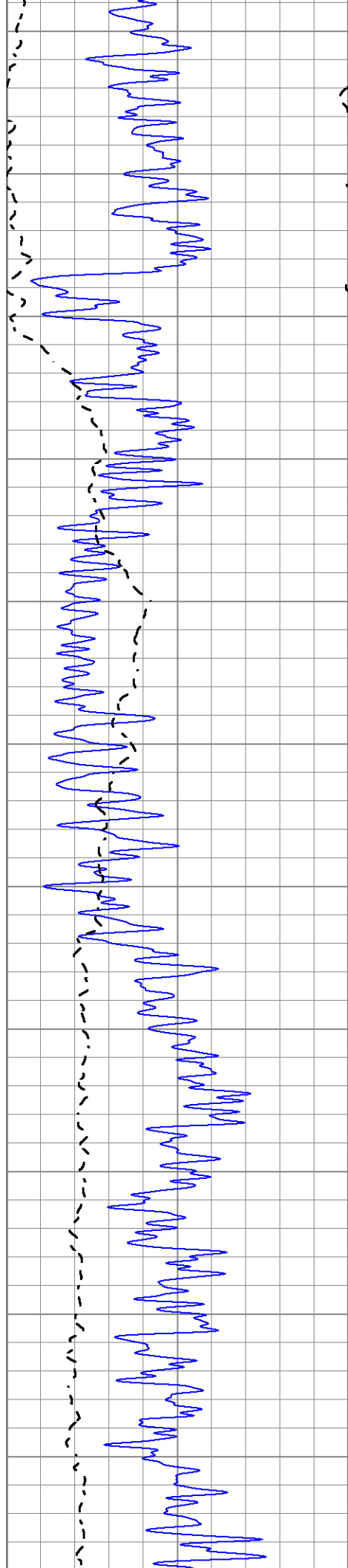


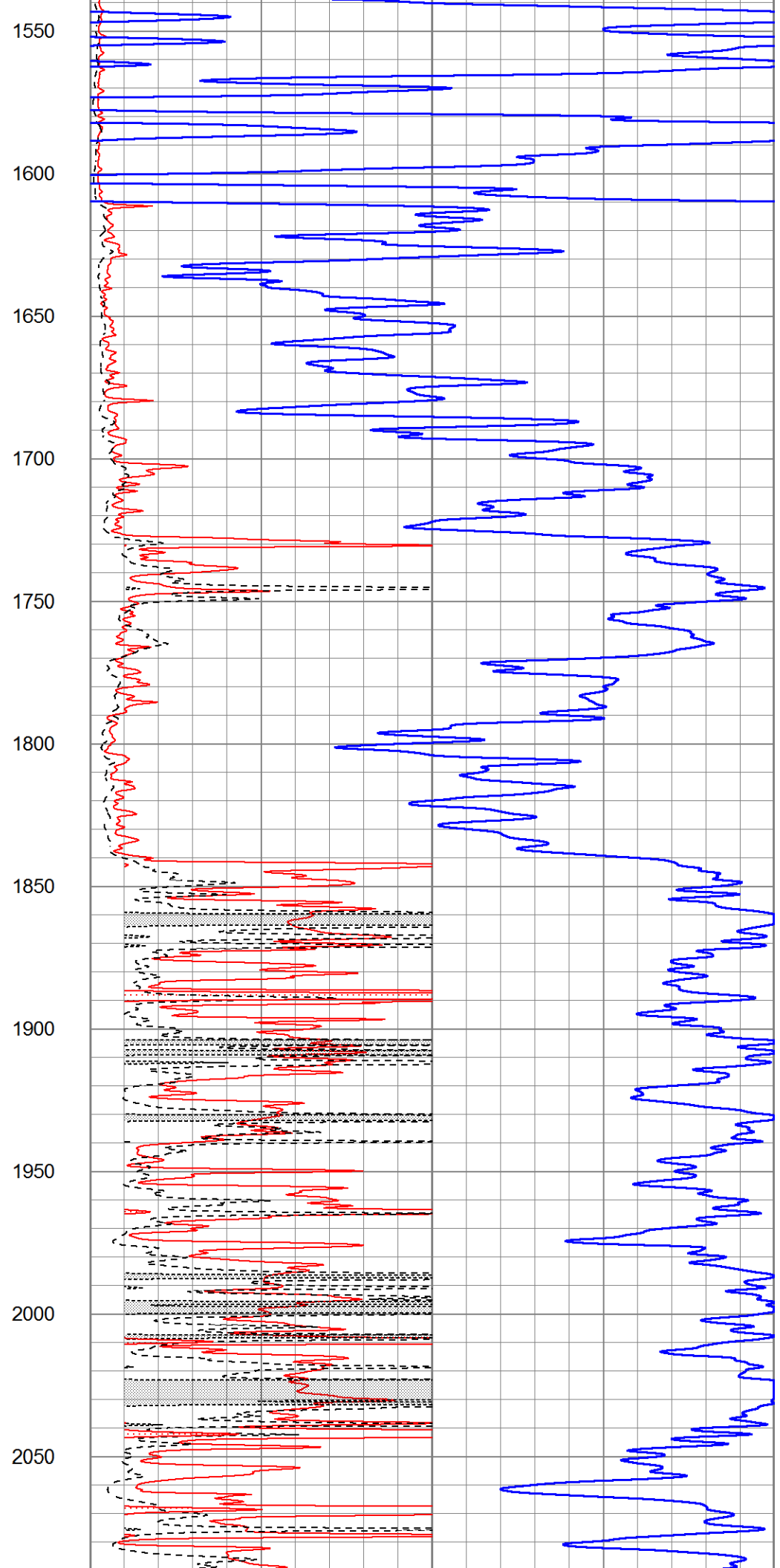
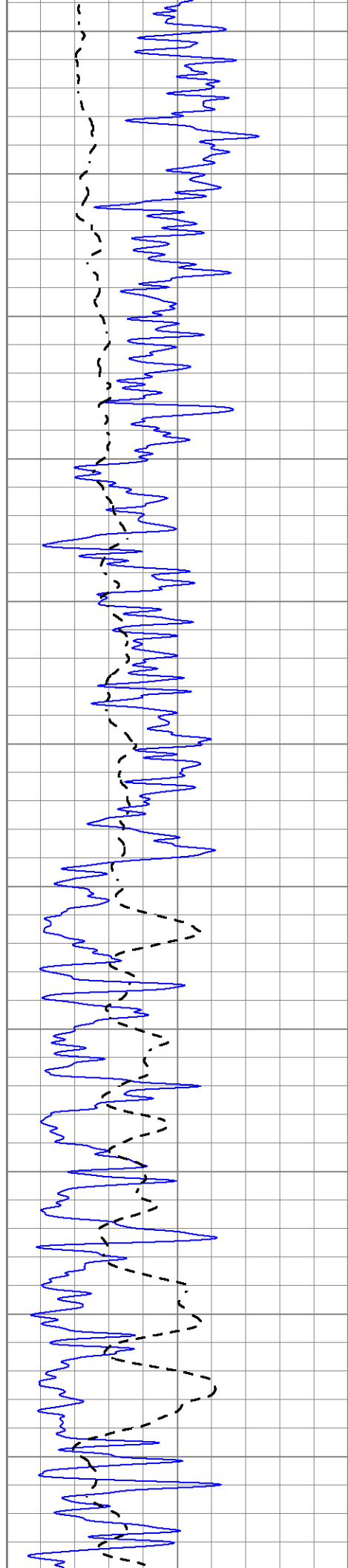
MAIN SECTION

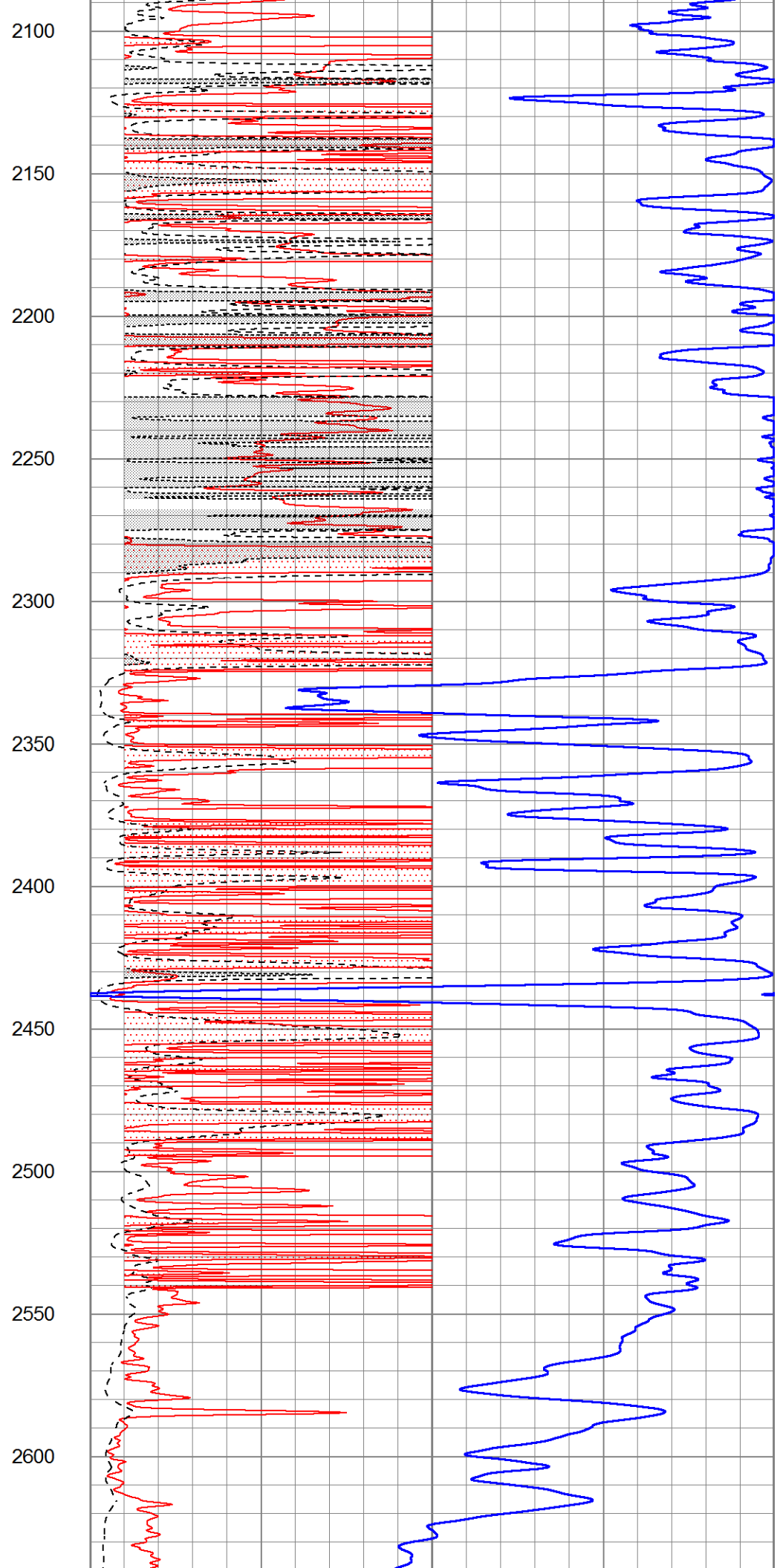
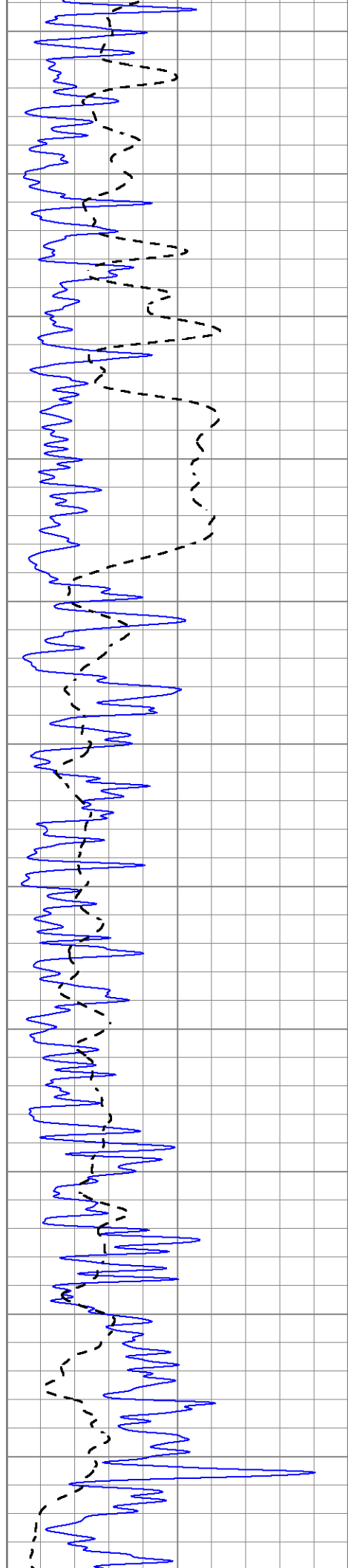
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	Deep Induction (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

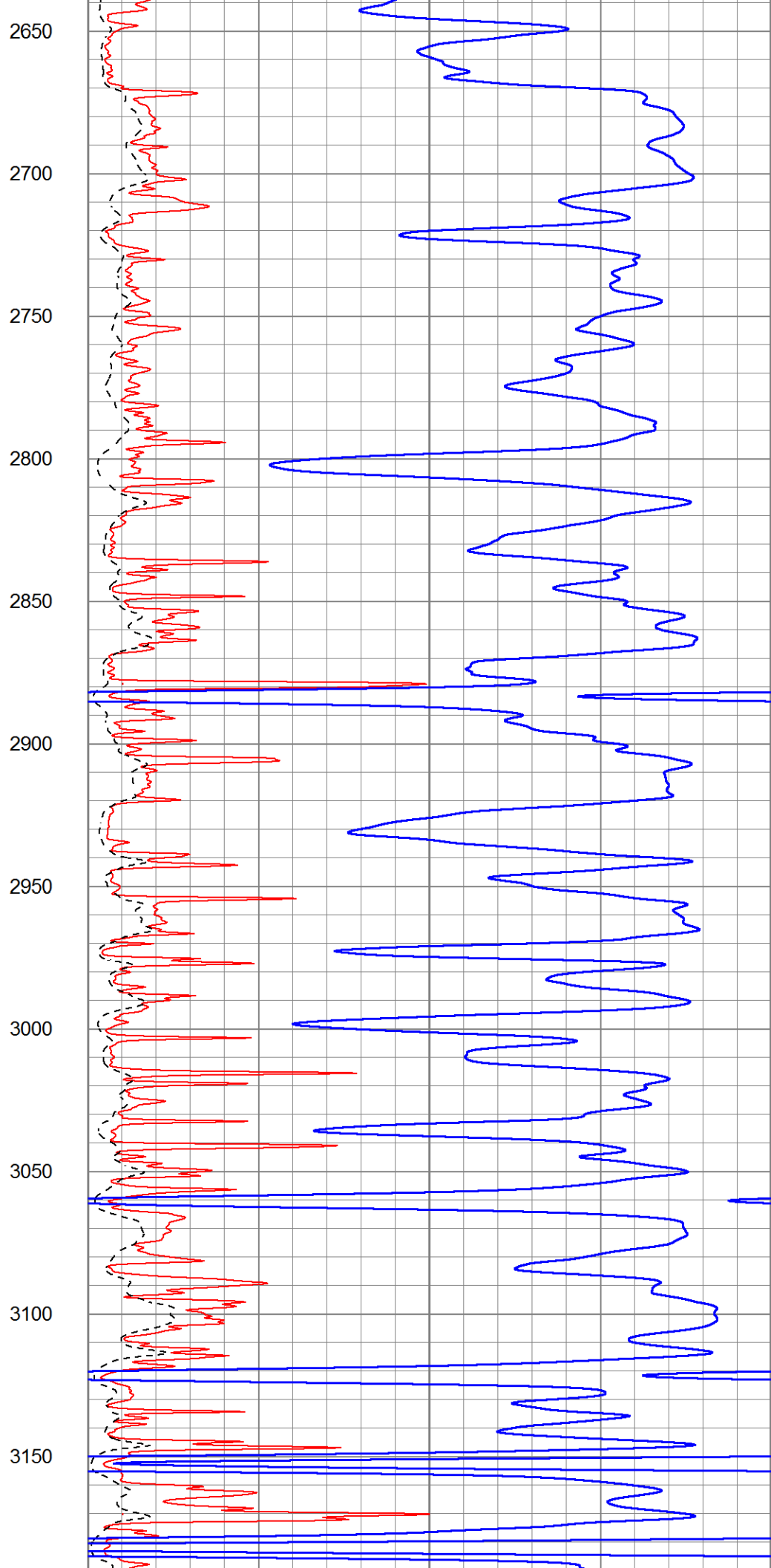
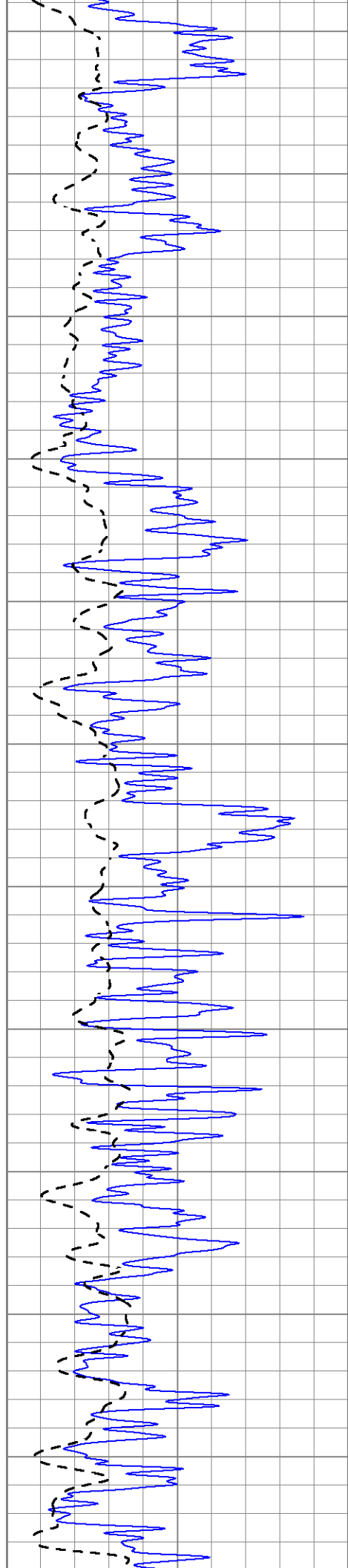


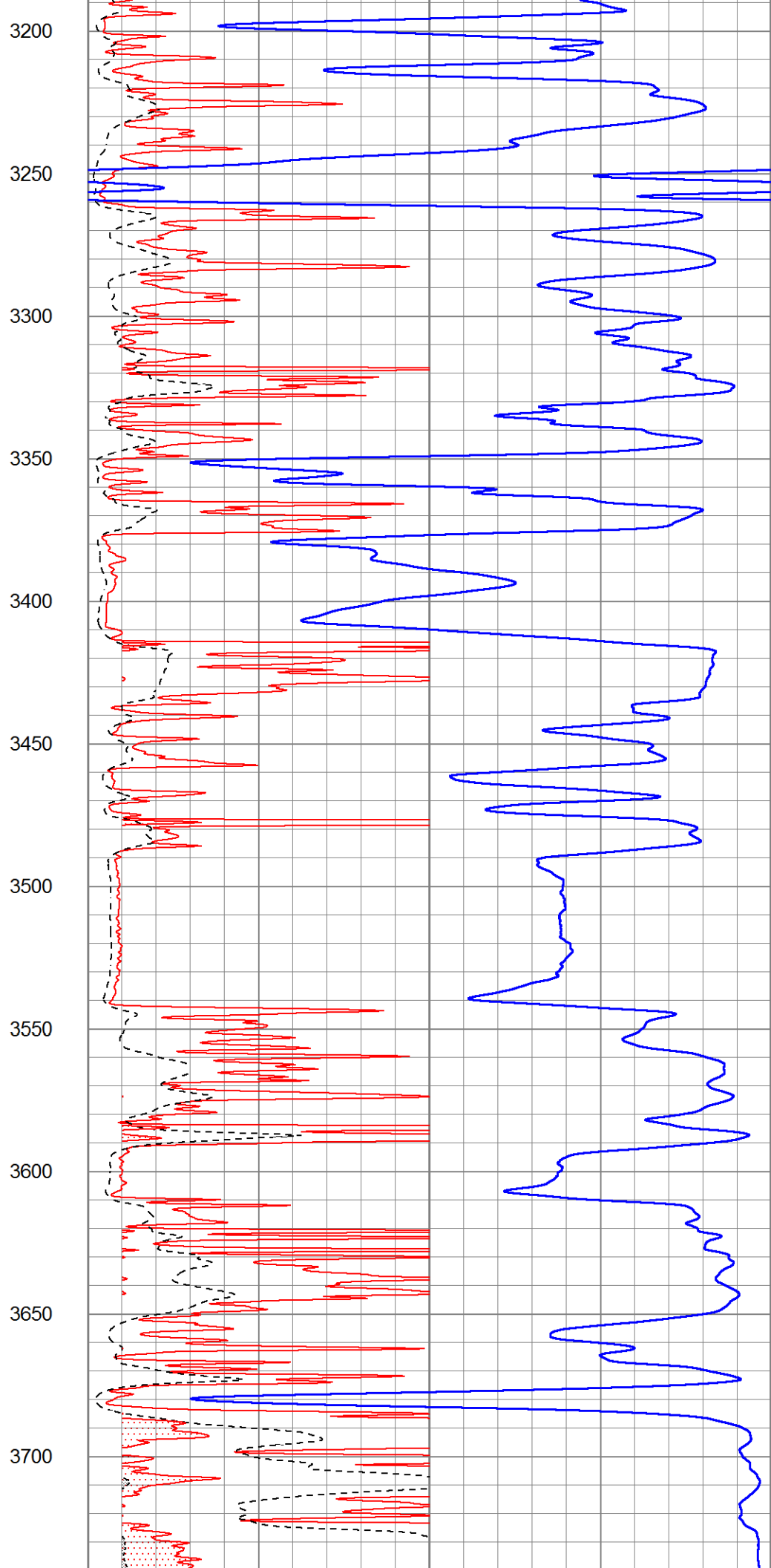
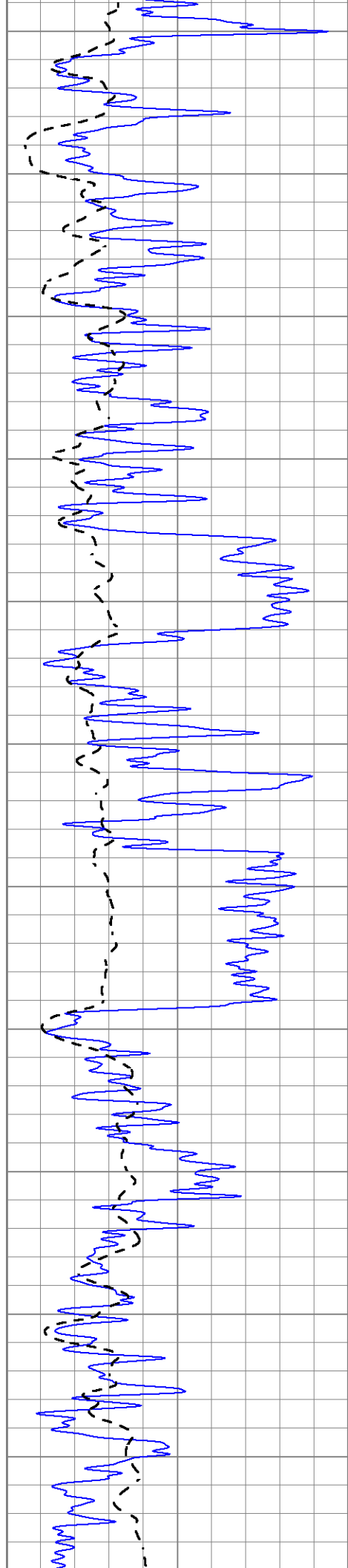


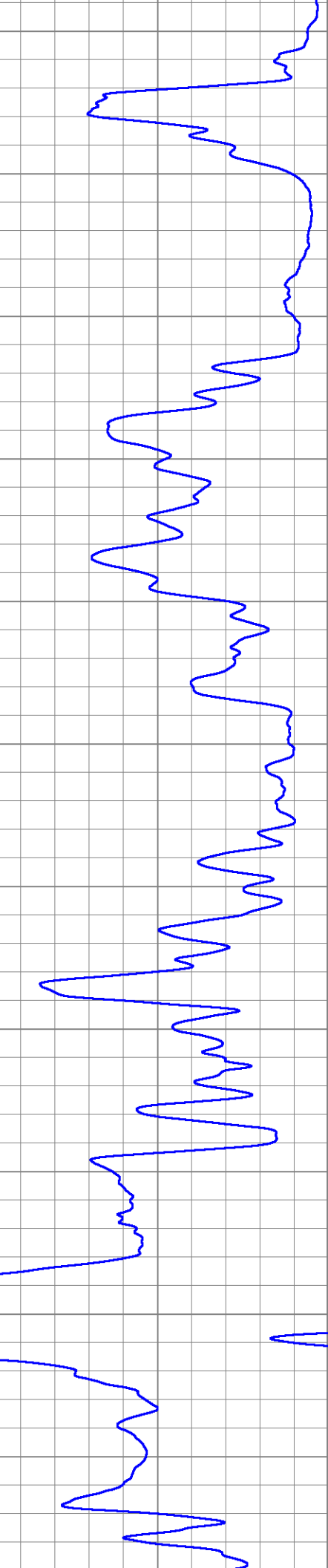
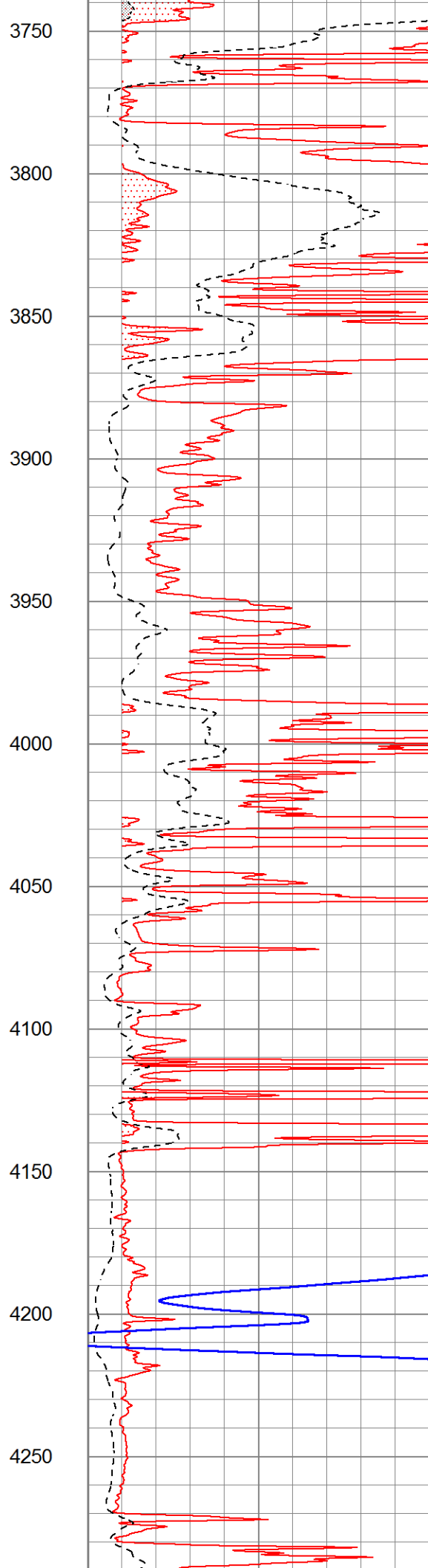
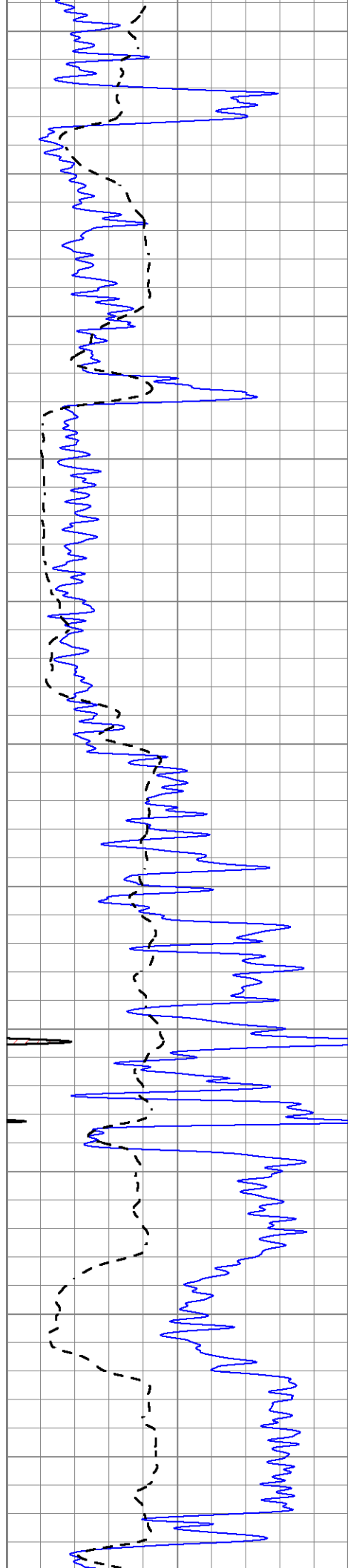


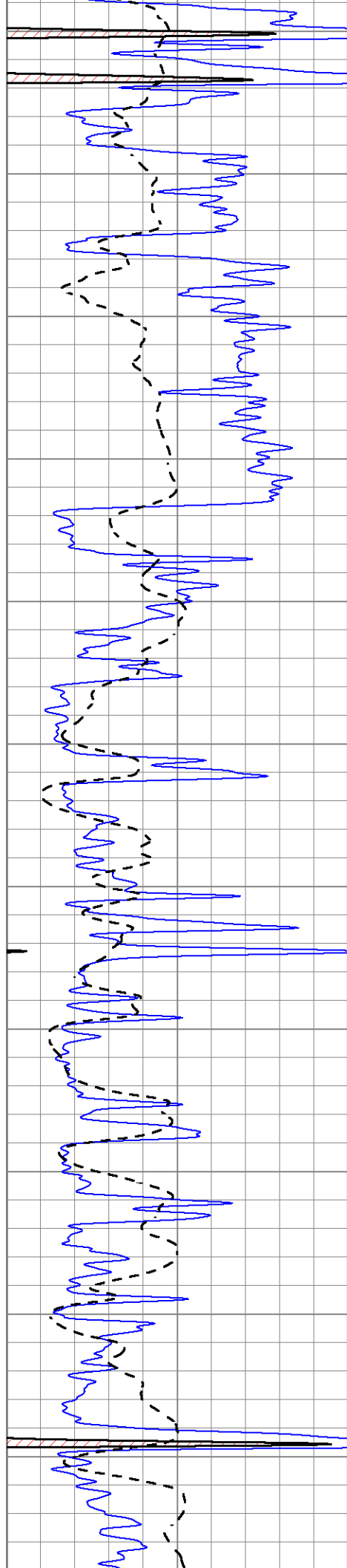












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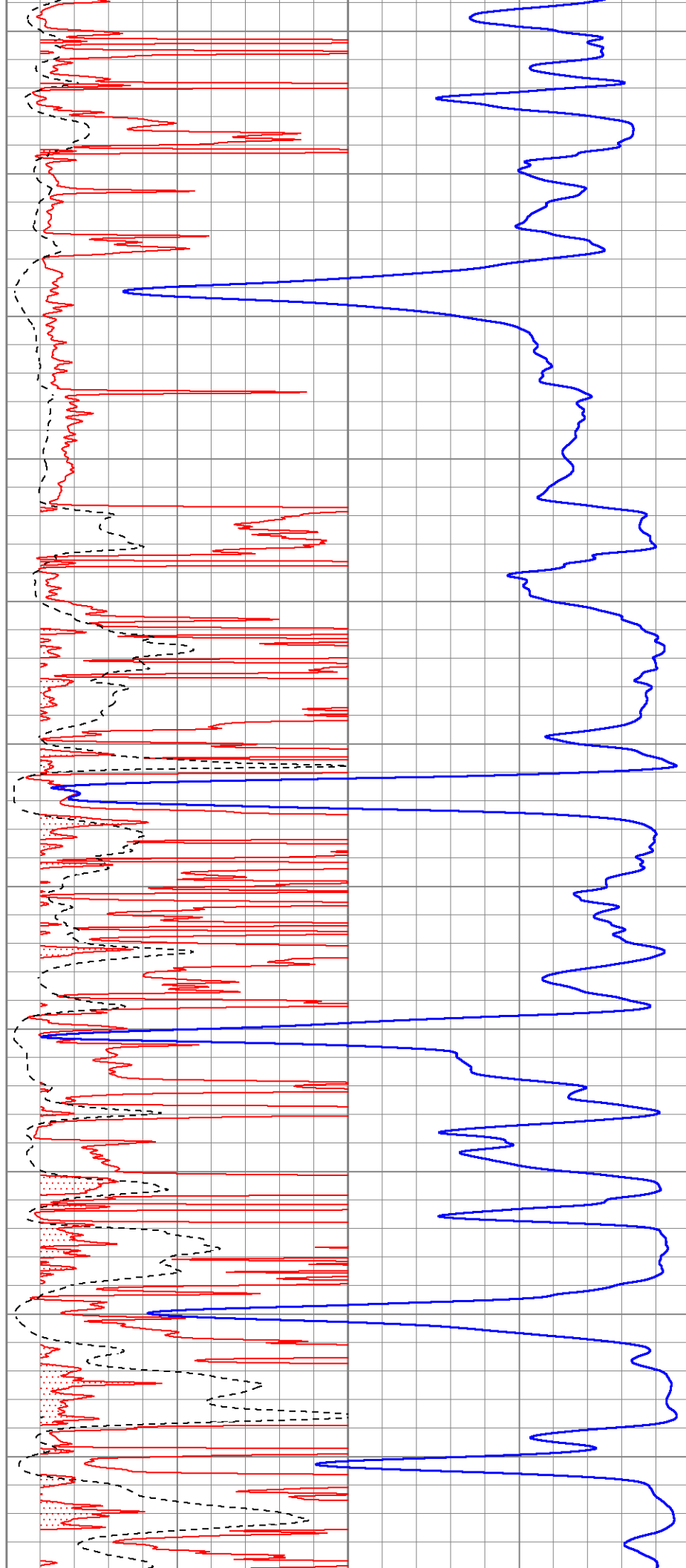
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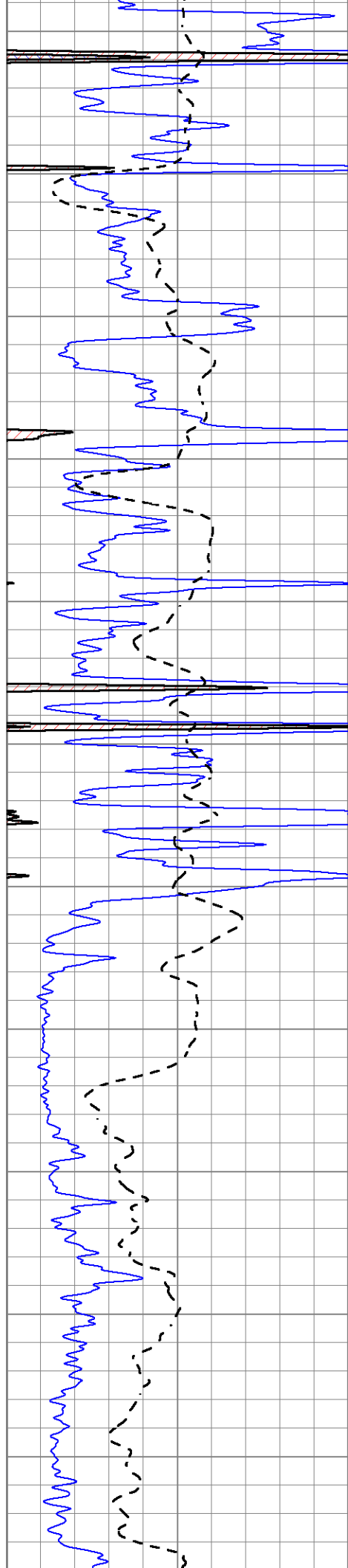
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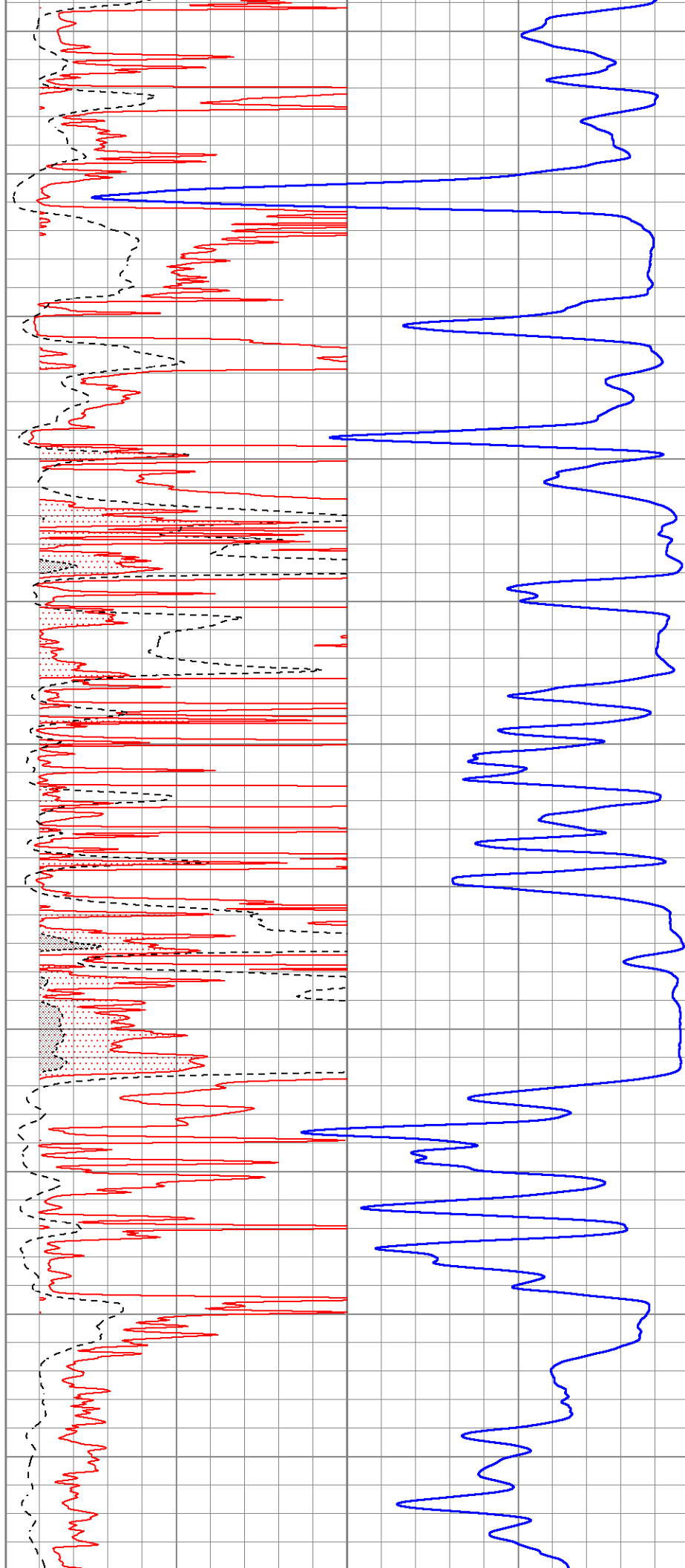
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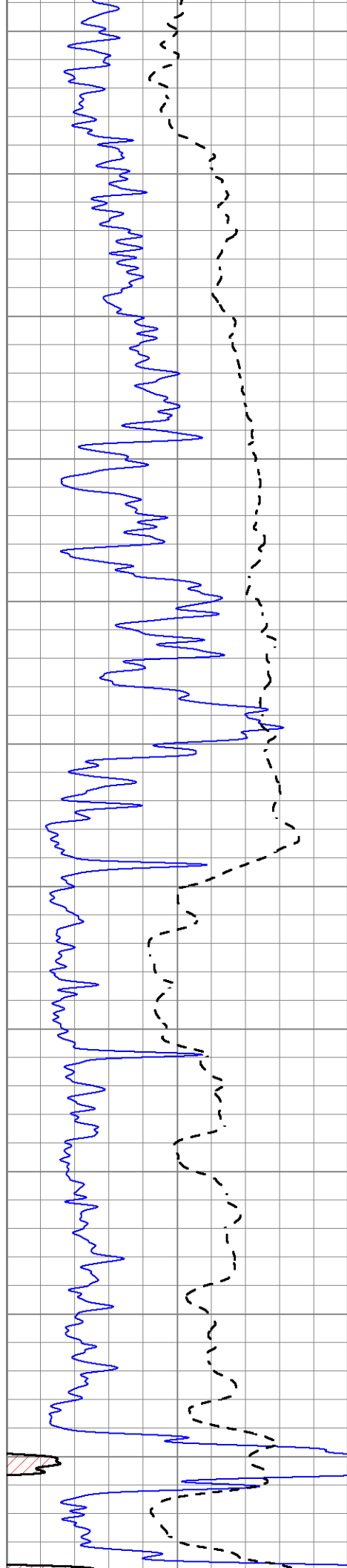
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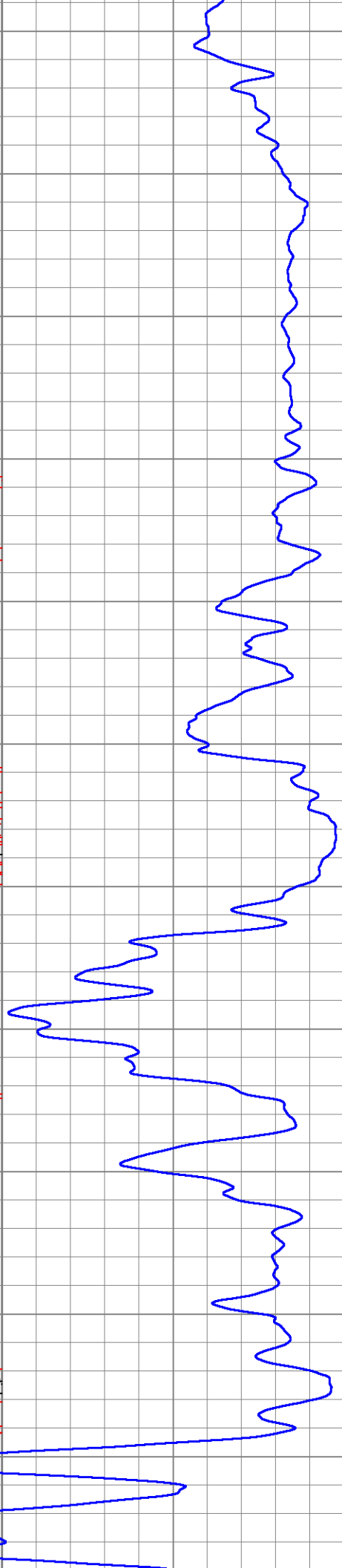
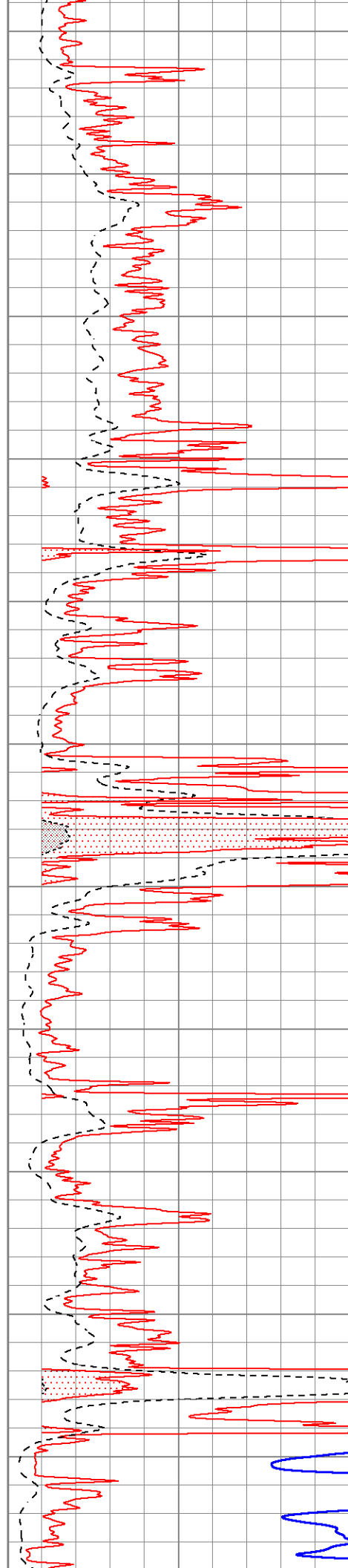
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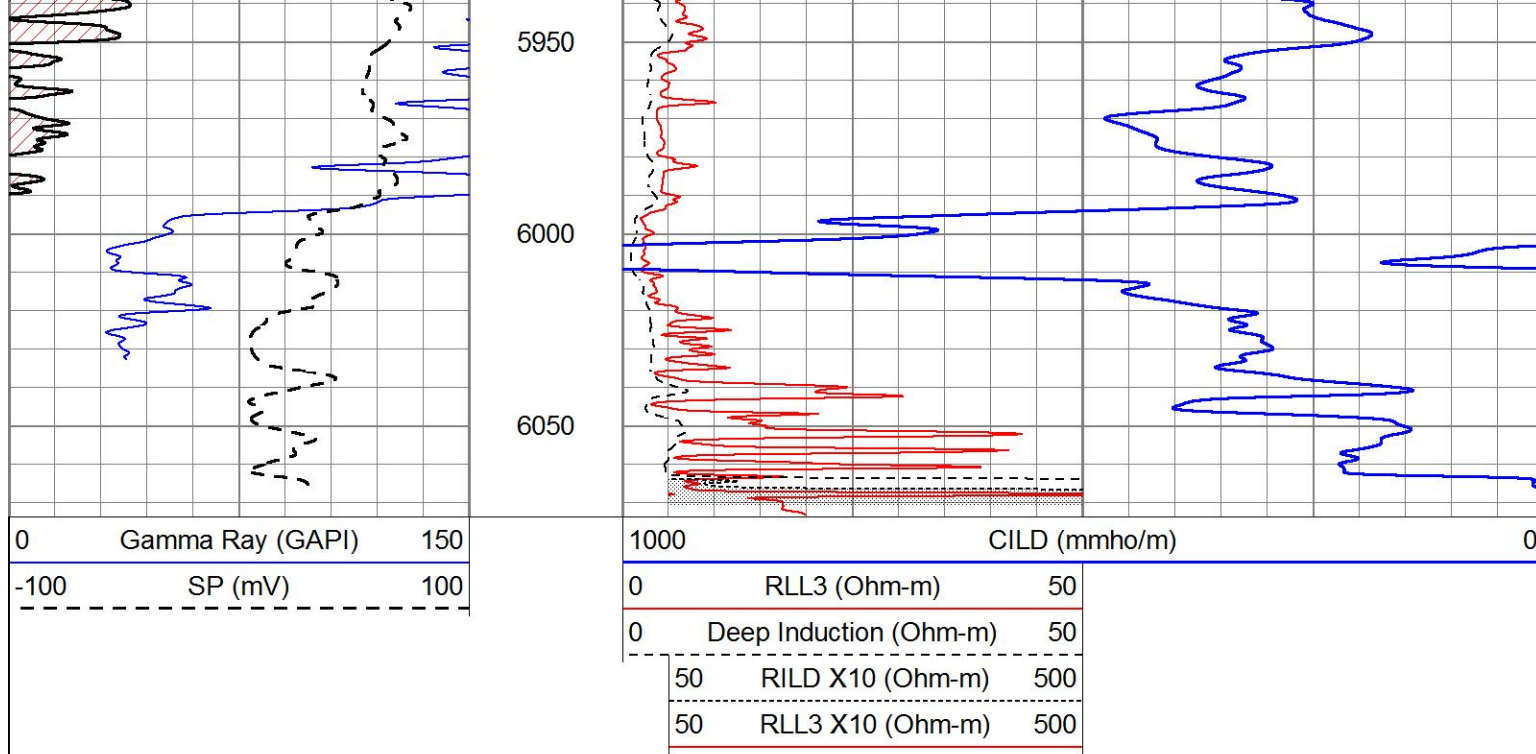
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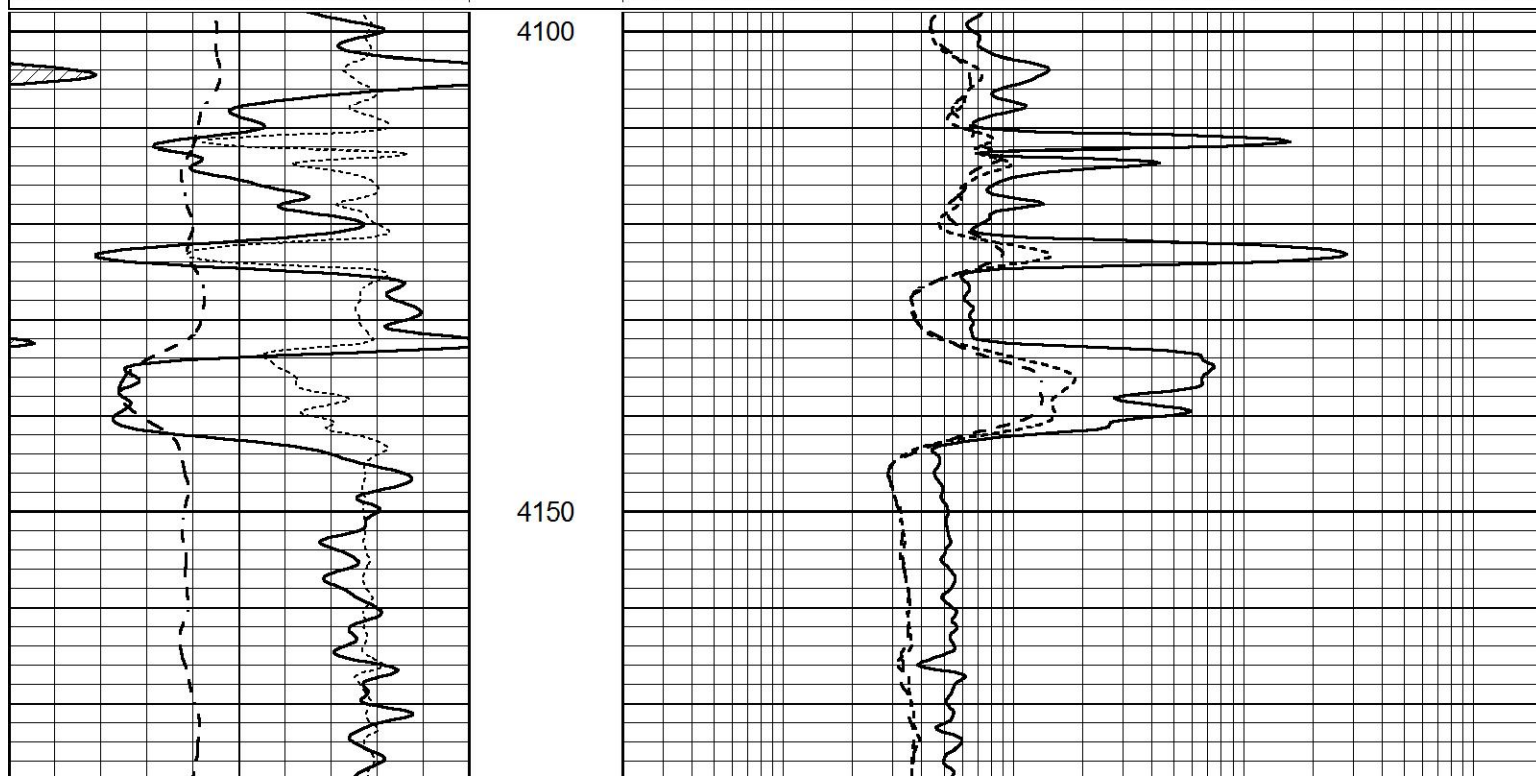


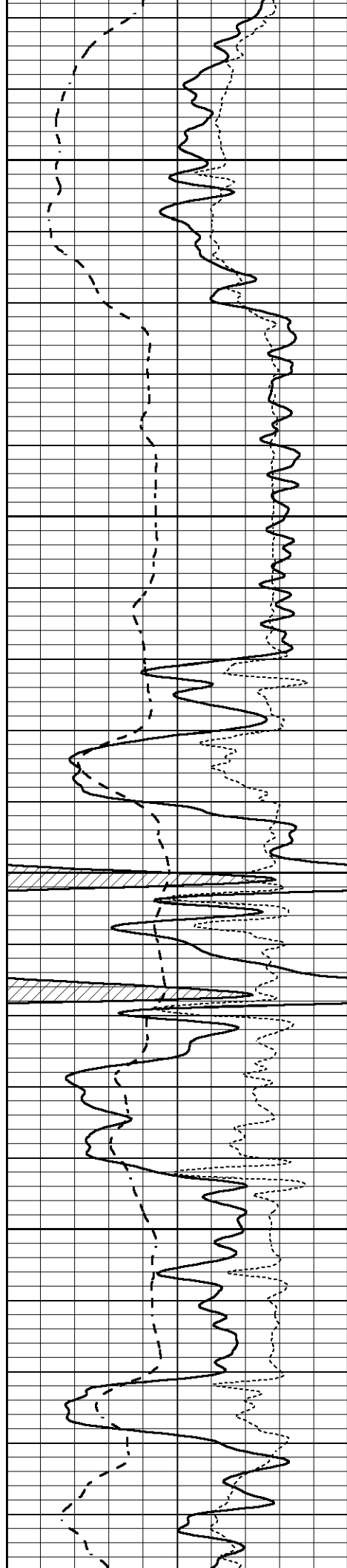


MAIN SECTION

Database File 5874pe.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Sun Nov 07 23:54:33 2021
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000



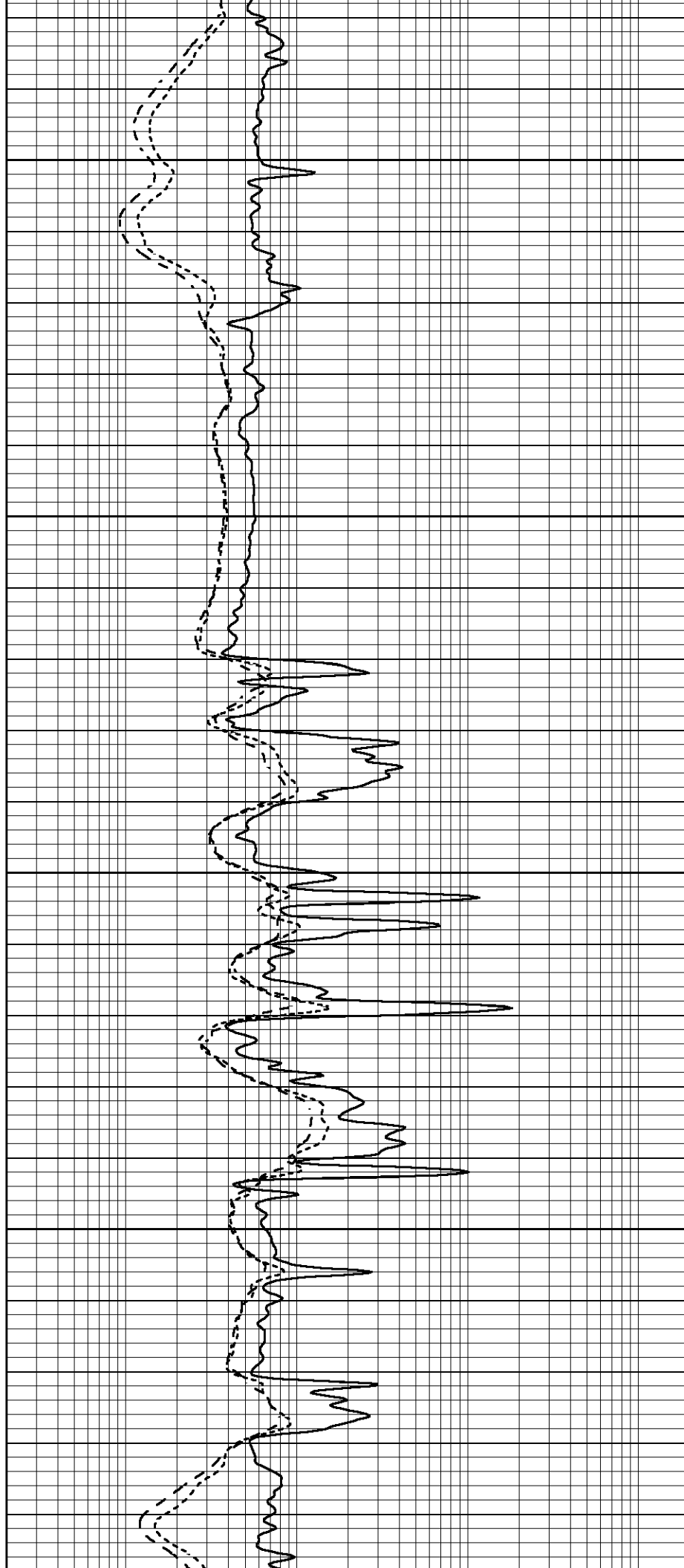


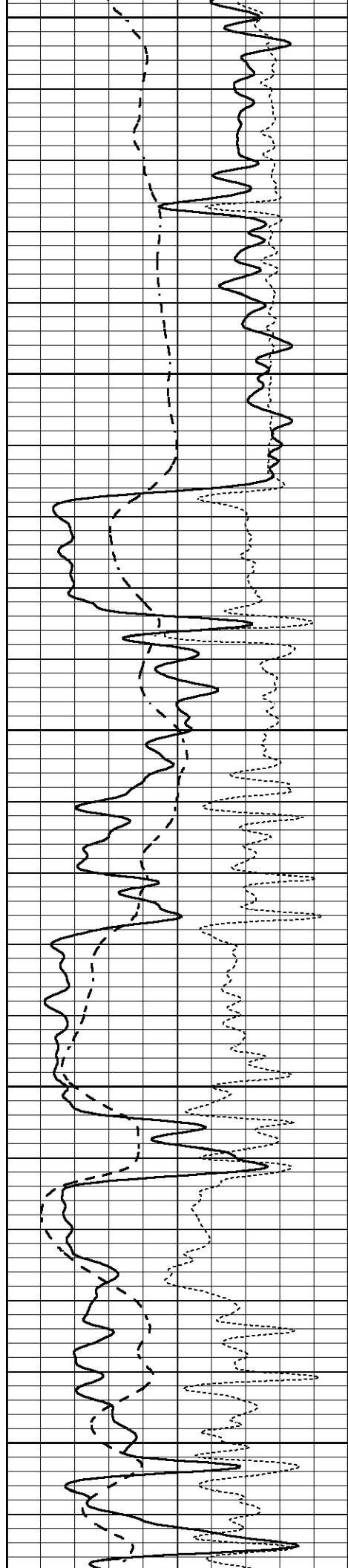
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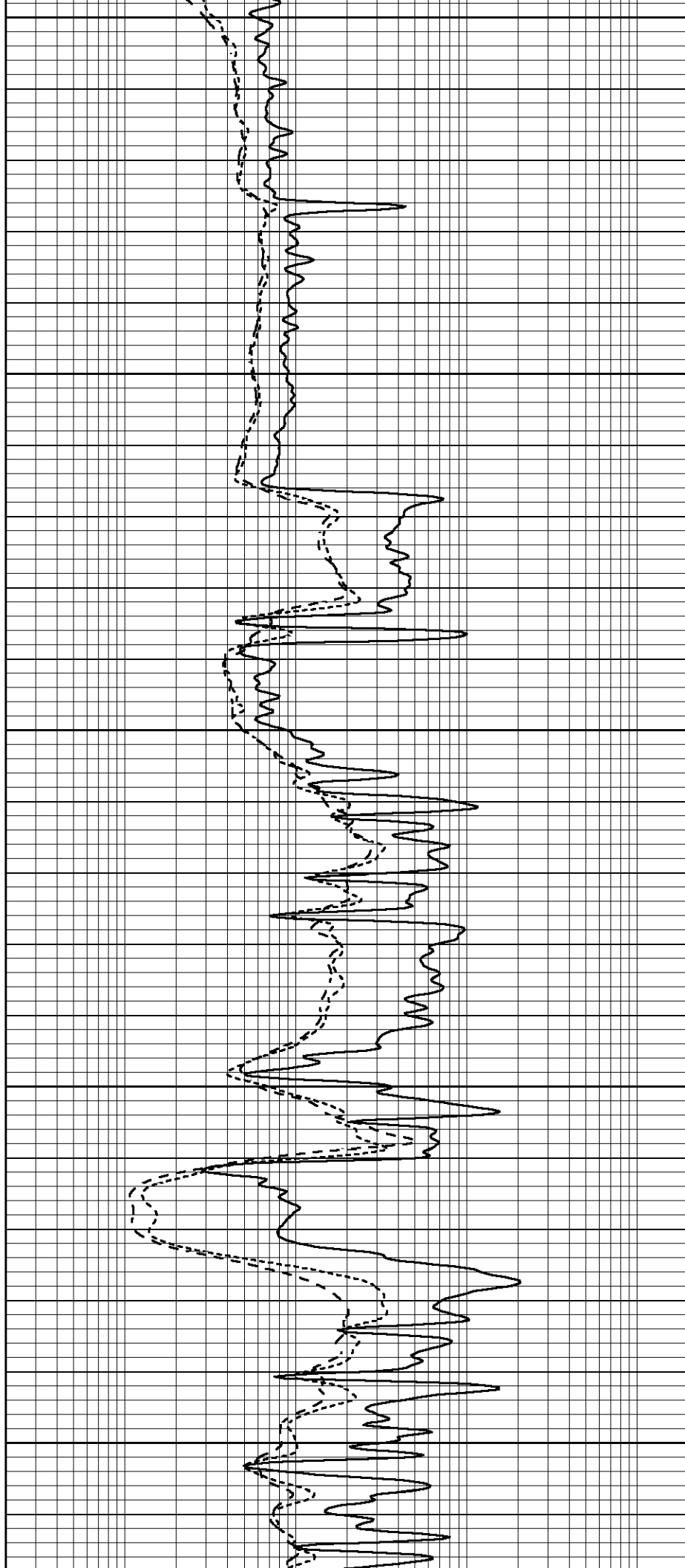
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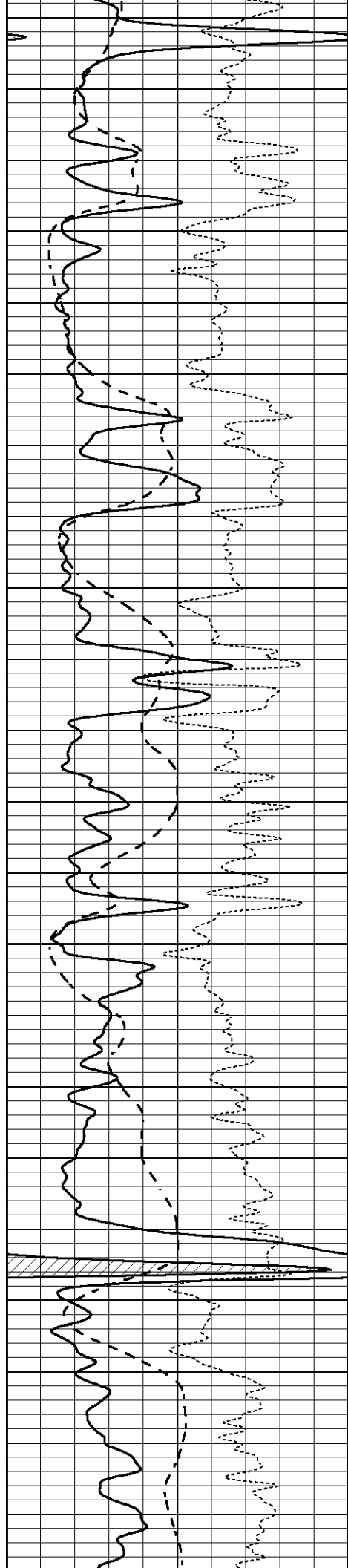
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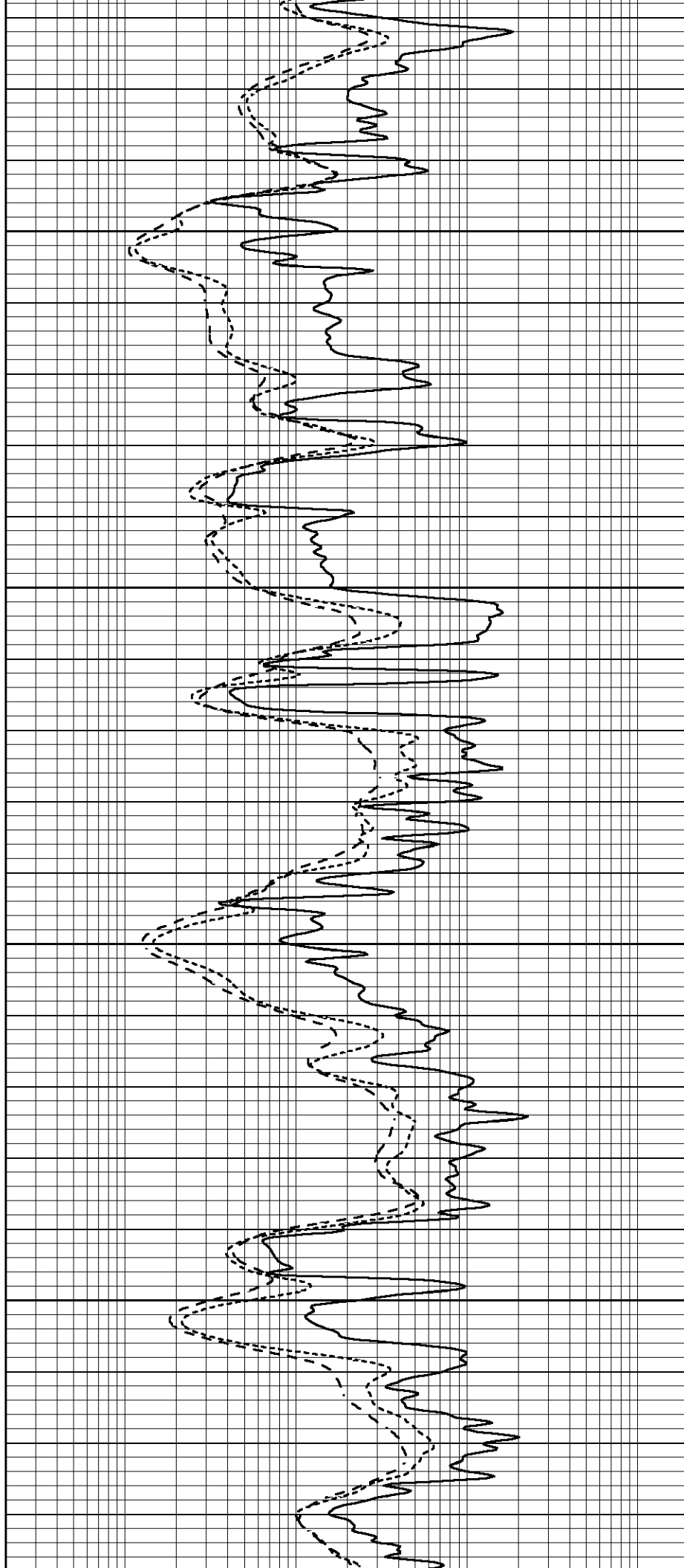


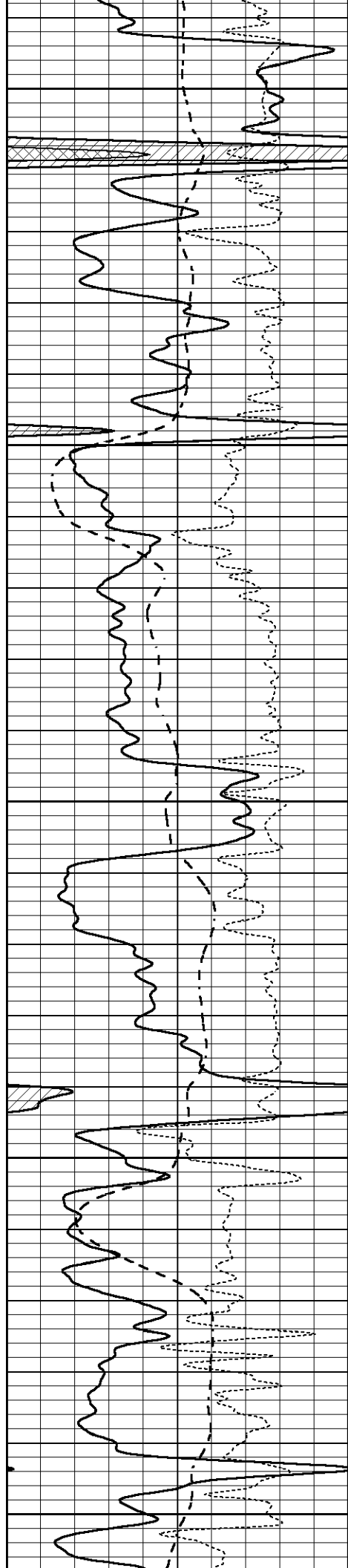
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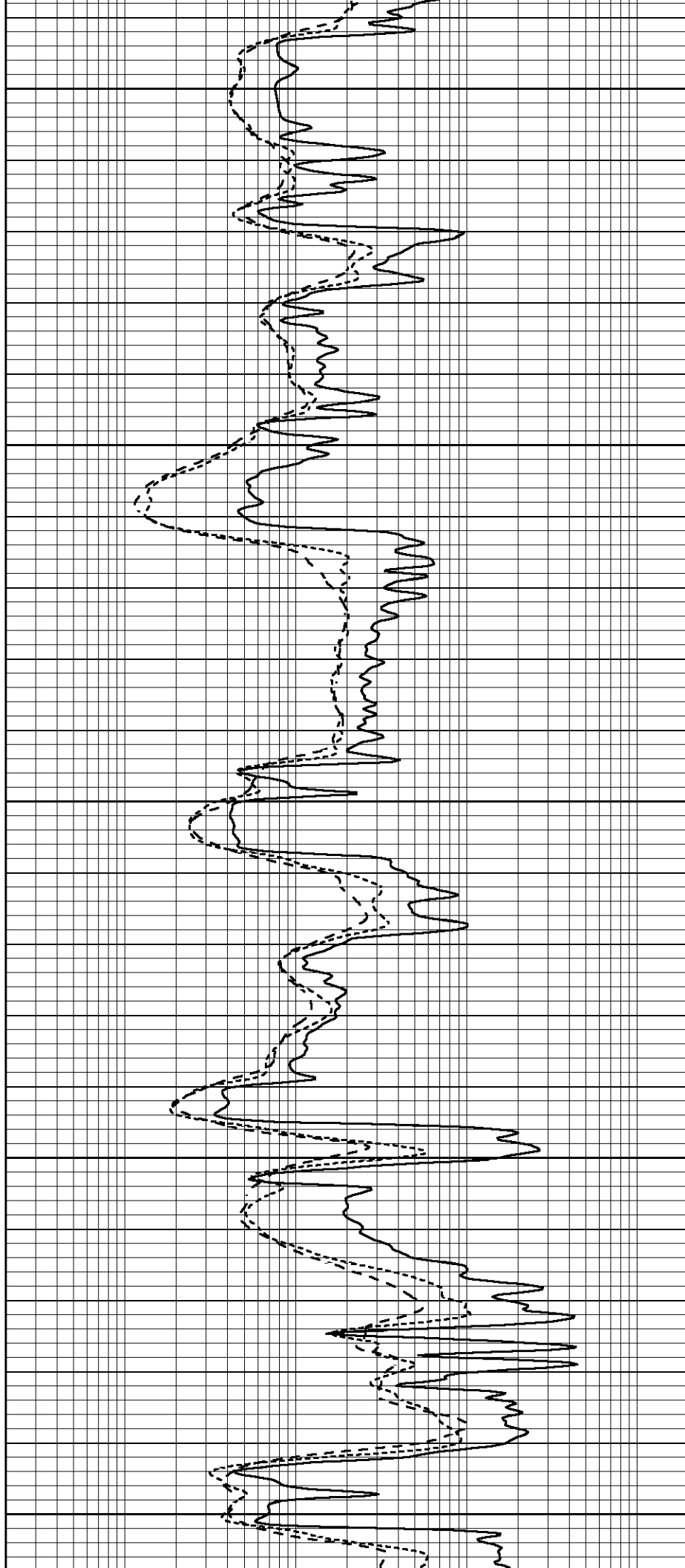
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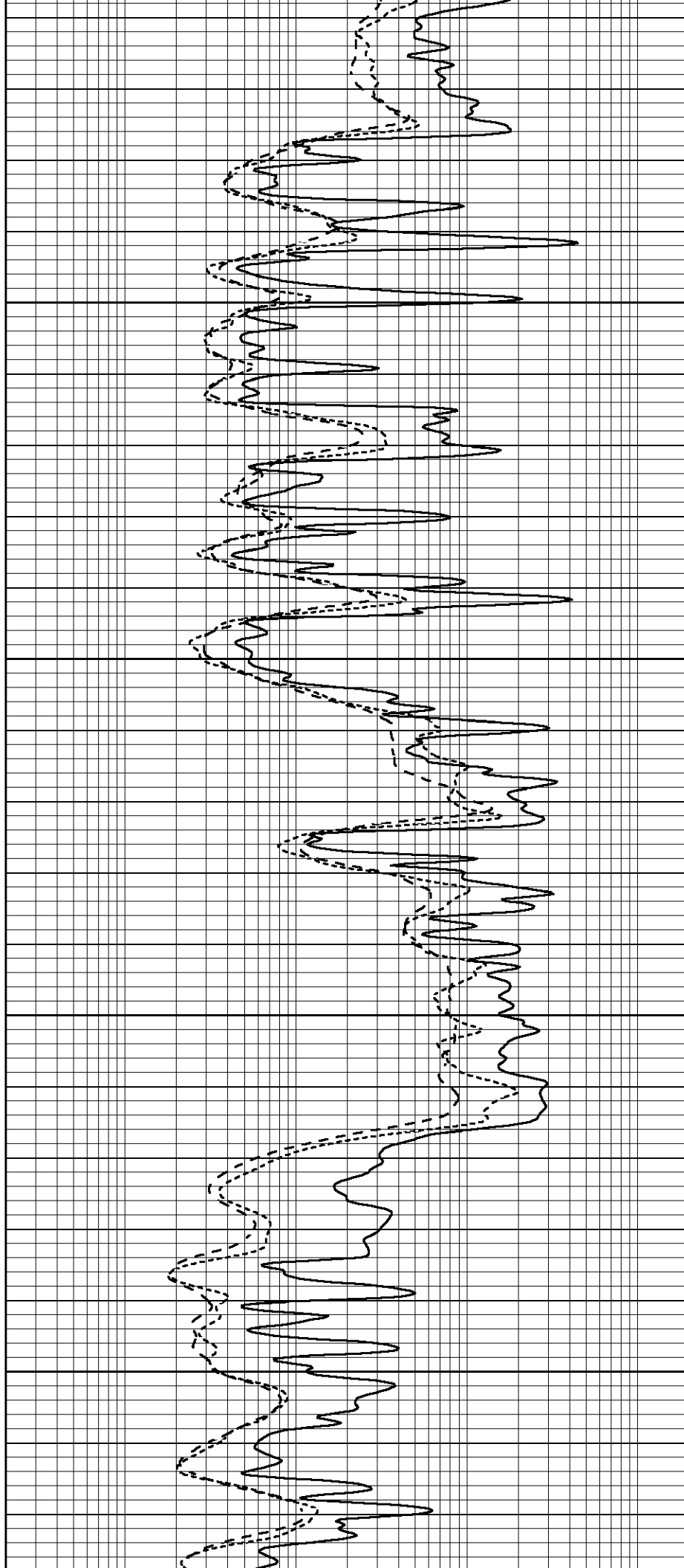


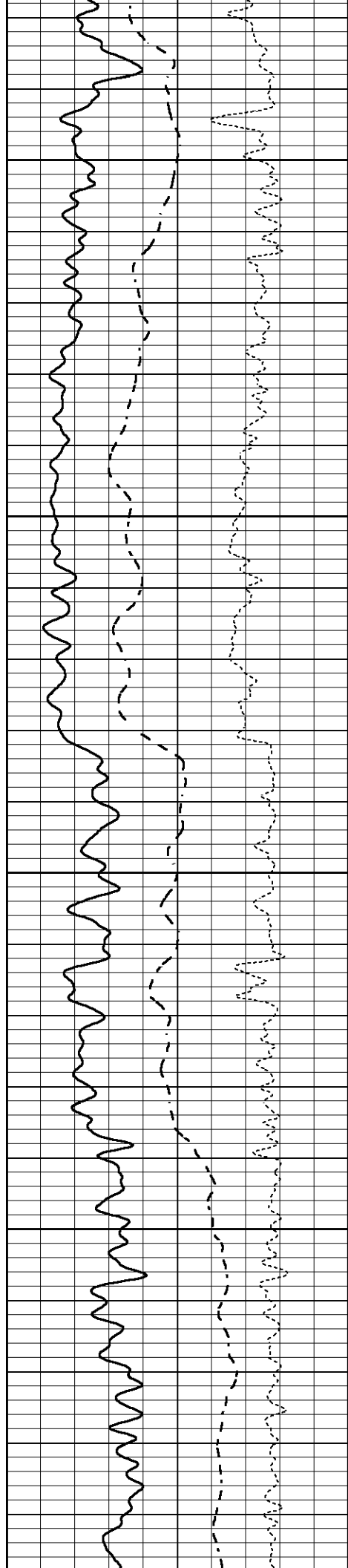
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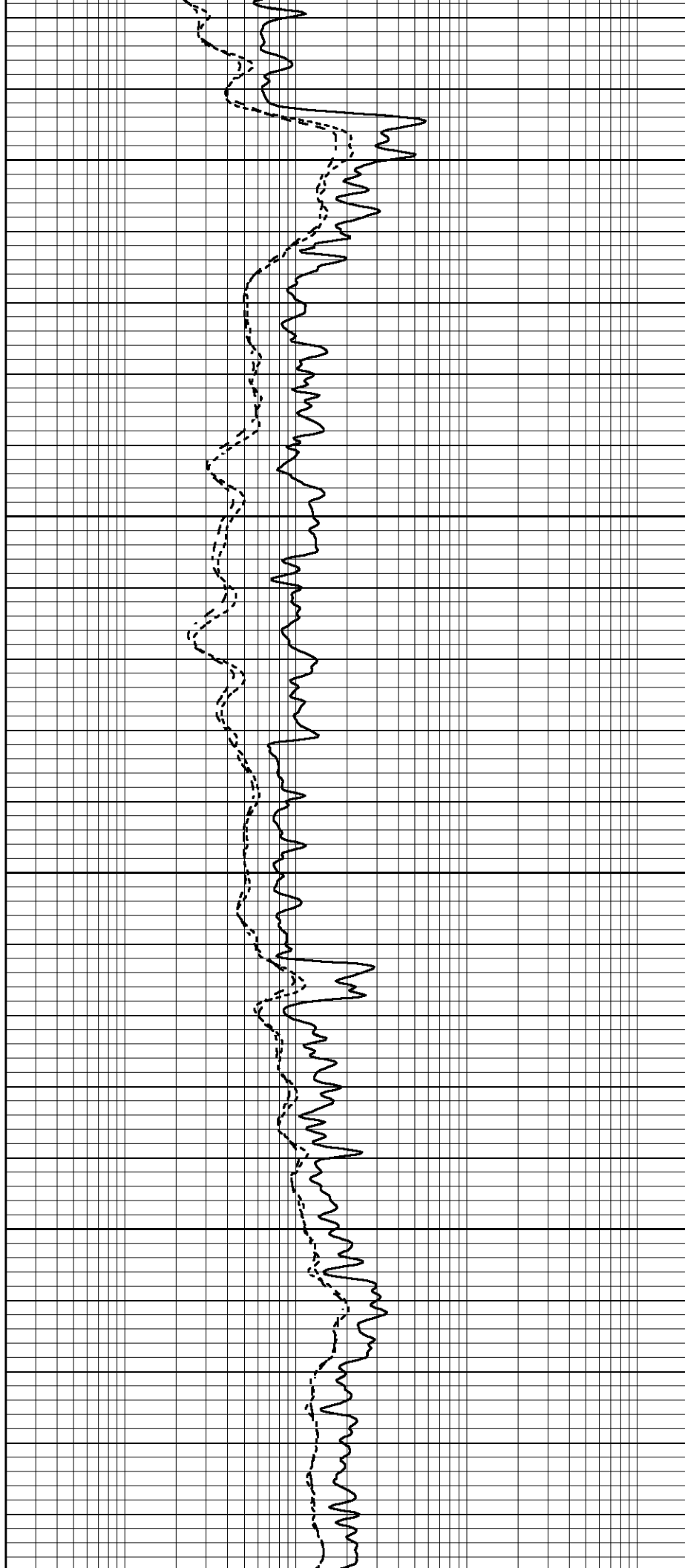


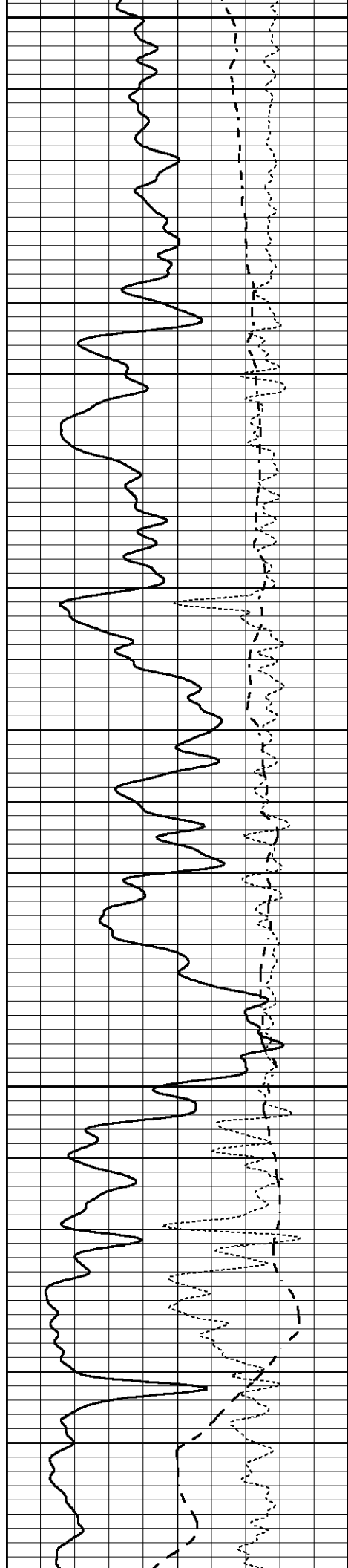
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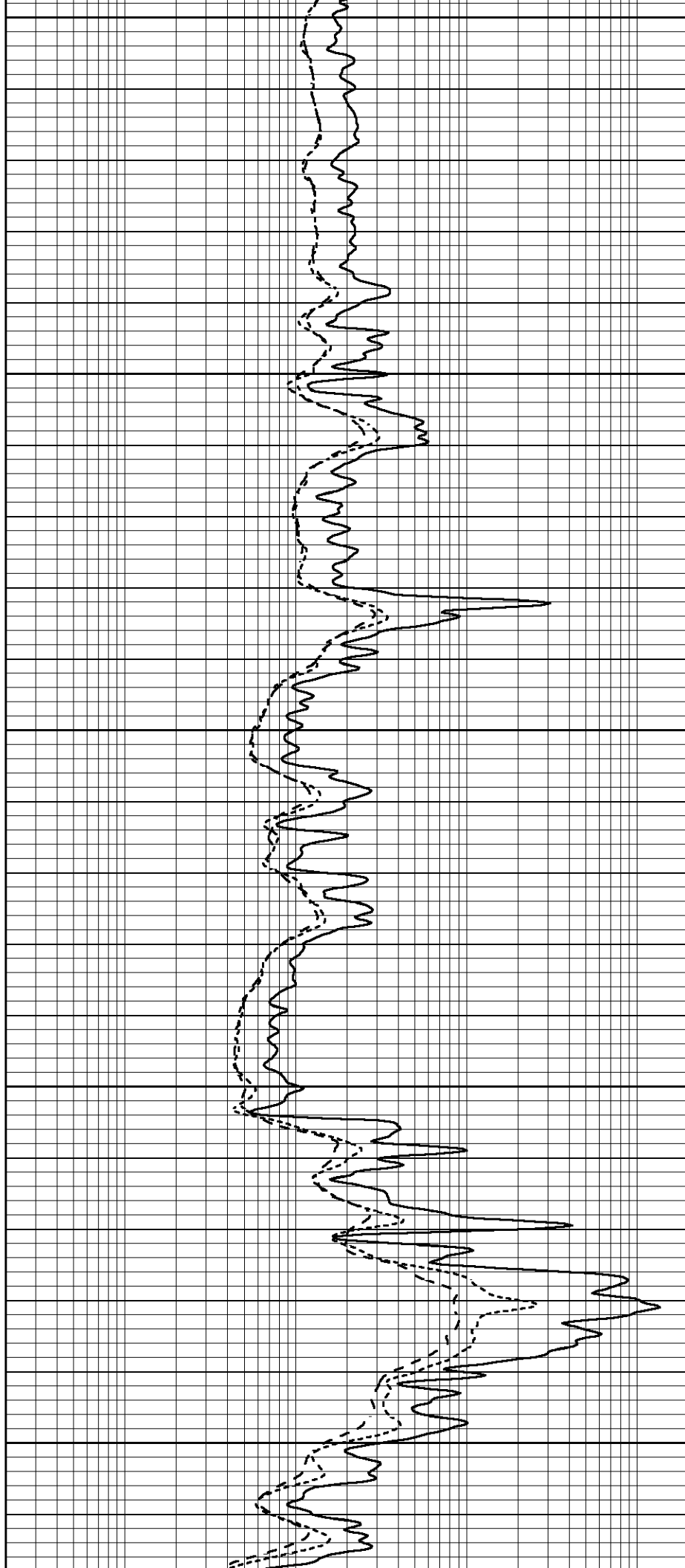
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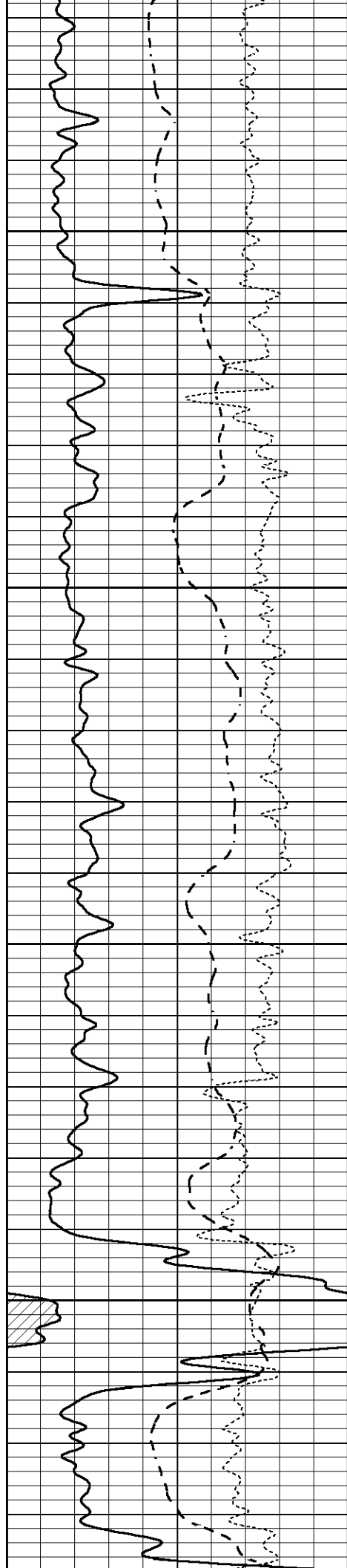
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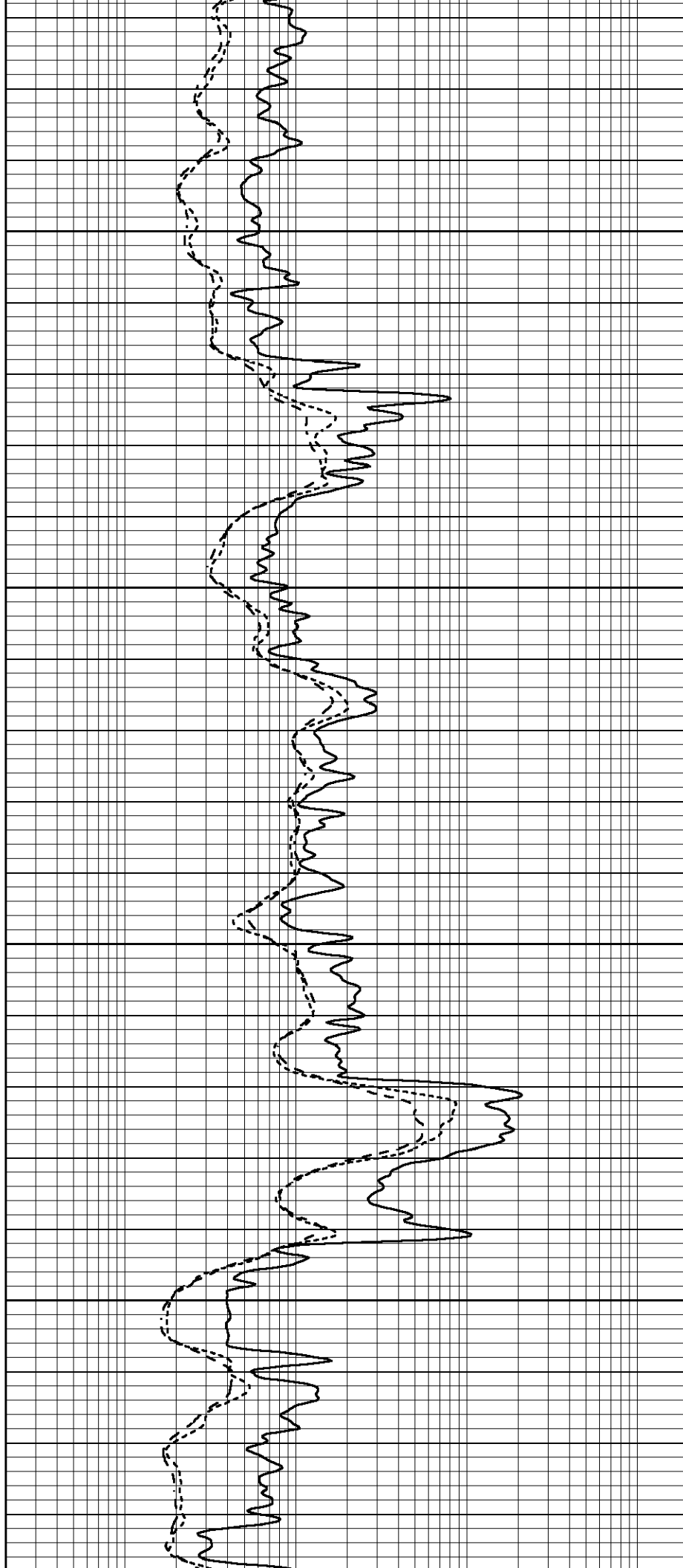


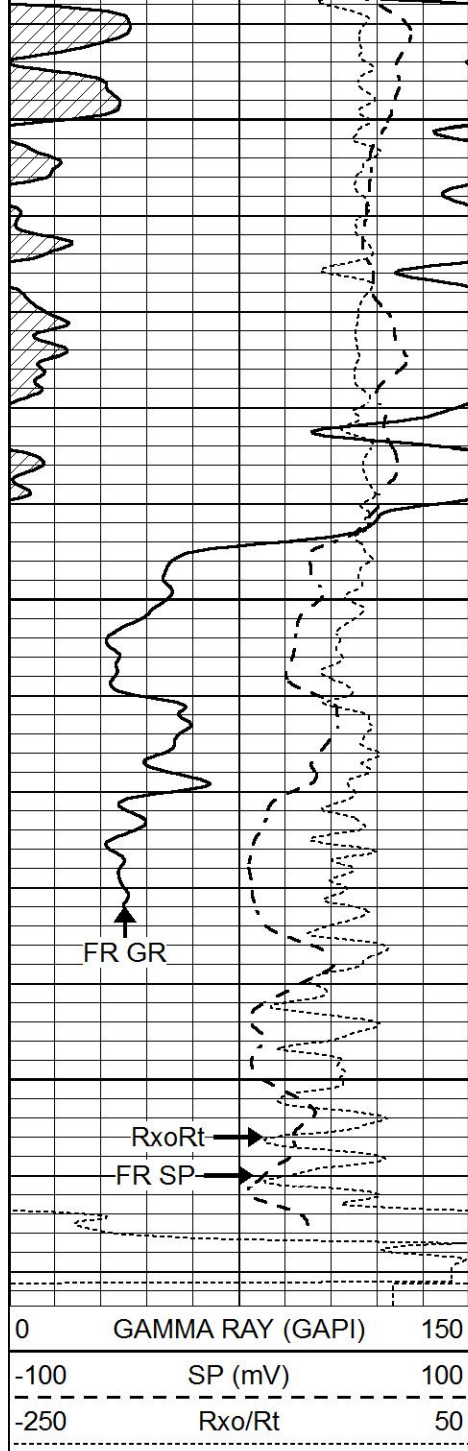
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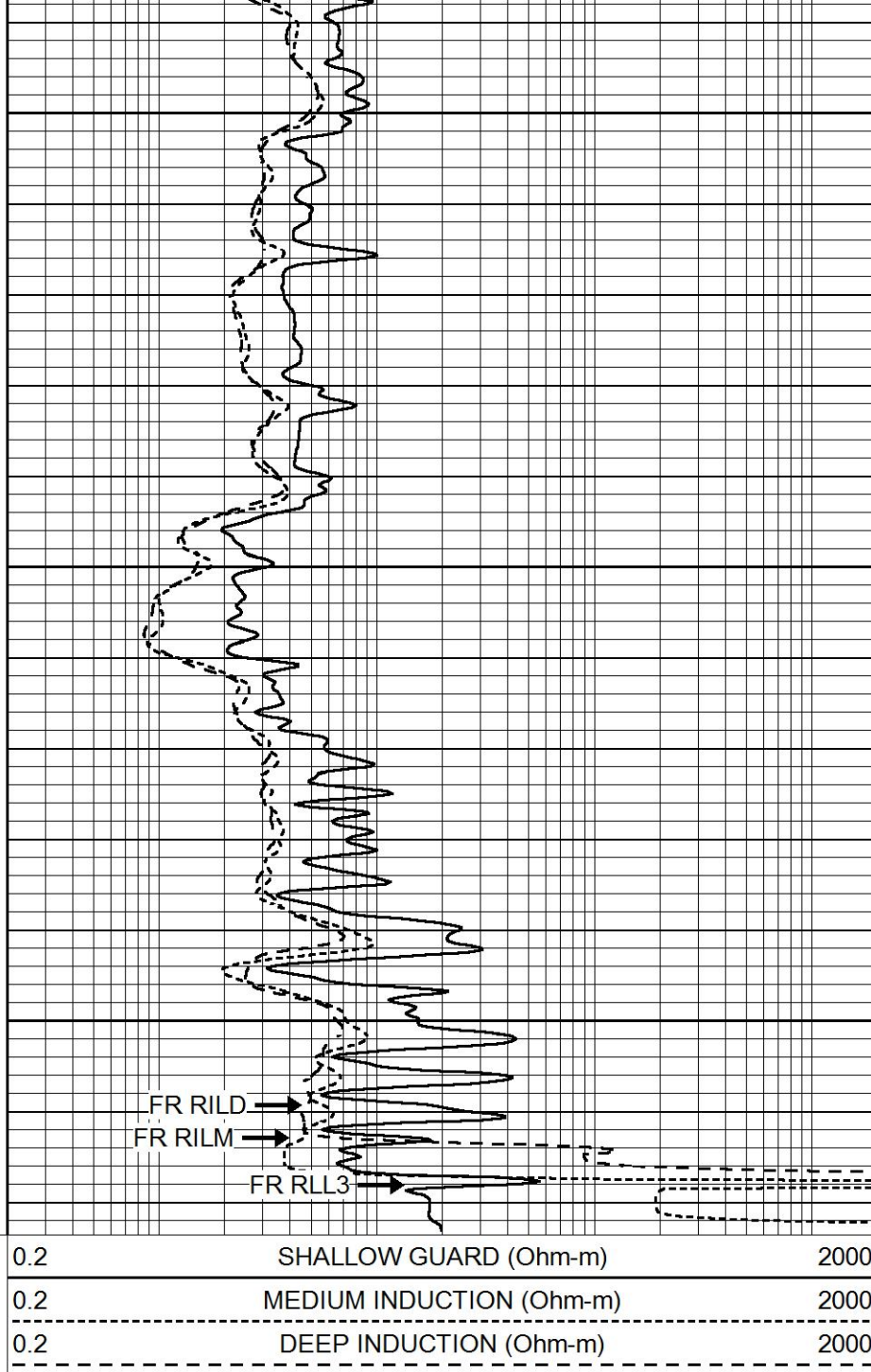


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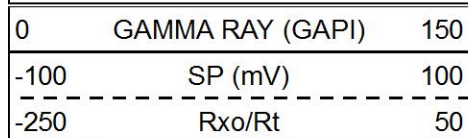
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LTD 6070

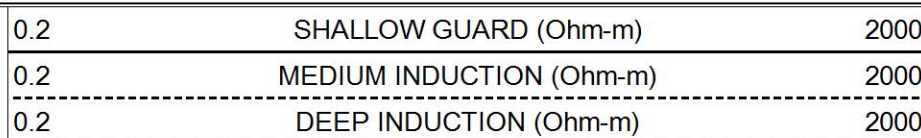


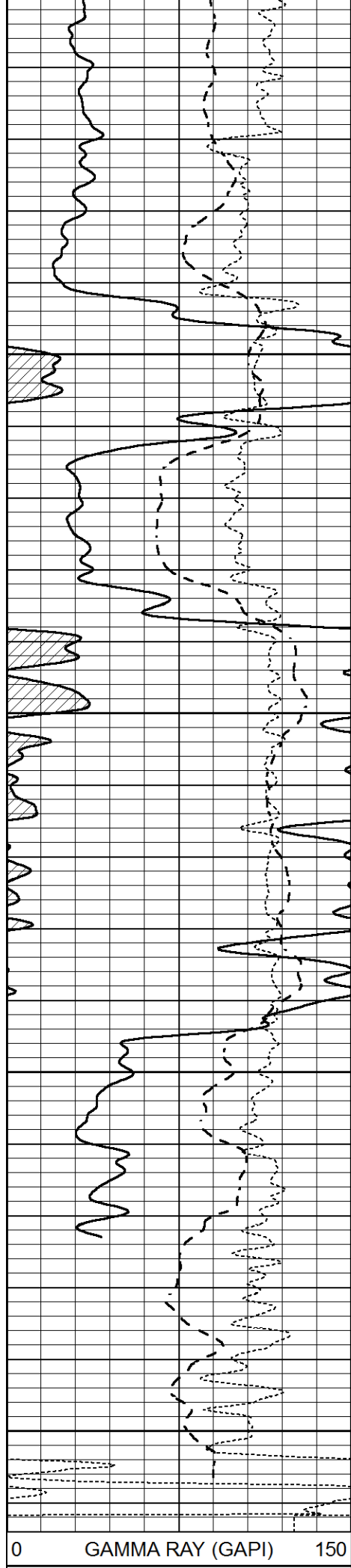
REPEAT SECTION

Database File 5874pe.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Sun Nov 07 23:52:12 2021
 Charted by Depth in Feet scaled 1:240



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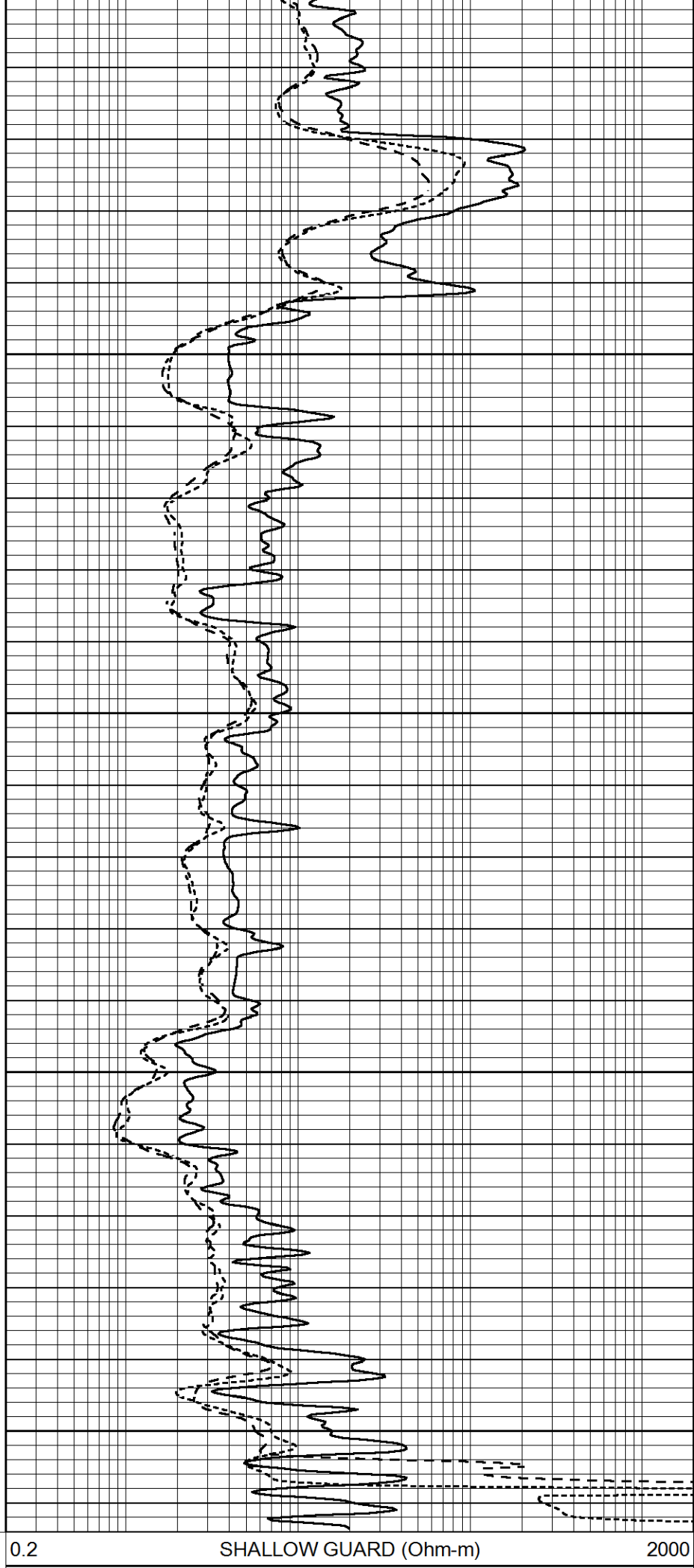
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5950

6000

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0 GAMMA RAY (GAPI) 150



0.2 SHALLOW GUARD (Ohm-m) 2000

-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

Calibration Report	
Database File	5874pe.db
Dataset Pathname	pass2.1
Dataset Creation	Sun Nov 07 23:52:12 2021

Dual Induction Calibration Report

Serial-Model:	FW1410-55-Probe
Surface Cal Performed:	Tue Feb 19 11:44:18 2019
Downhole Cal Performed:	Tue Feb 19 11:44:24 2019
After Survey Verification Performed:	Tue Feb 19 11:44:27 2019

Surface Calibration		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	430.000	mmho/m	665.106	-6.015
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration		Readings		References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification		Readings		Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report	
Serial:	140704
Model:	V4_10P
Source Number:	74GBq-19

Master Calibration		Performed: Mon Dec 07 12:12:14 2020		
	Background	Aluminum	Magnesium	
Window 1	557.73	5525.14	24361.20	cps
Window 2	47.08	1245.09	5901.17	cps
Window 4	239.06	1250.70	5456.76	cps
Window 5	564.08	8300.56	16134.07	cps
Window 6	44.21	1356.78	2705.40	cps
Window 8	267.87	2686.97	5150.30	cps

Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8719	SS Alpha:	: -0.8000	LS CPE:	: 1.1424
LS Beta:	: 135562.6841	SS Beta:	: 20128.7209	SS CPE:	: 1.5489

Before Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

After Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

Lithodensity Caliper Calibration			Performed: Mon Dec 07 12:12:14 2020		
Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
5852.8	8972.7	8.0	14.0	0.0	-3.3

Before Survey Caliper Verification			Performed:		
	Reference	Reading			
	_____	_____			
Caliper (in)					

After Survey Caliper Verification			Performed:		
	Reference	Reading			
	_____	_____			
Caliper (in)					

Compensated Neutron Calibration Report

Serial Number:	080621PMC
Tool Model:	NABORS

PRE-SURVEY VERIFICATION				
Detector	Readings	Measured	Target	
Short Space	cps			
Long Space	cps	pu	pu	

POST-SURVEY VERIFICATION				
Detector	Readings	Measured	Target	
Short Space	cps			

Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	7		
Tool Model:	Probe1		
Performed:	Tue Jan 19 17:50:08 2021		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.5300	GAPI/cps	