

DUAL INDUCTION LOG

Company	HERMAN L. LOEB, LLC.	Company	HERMAN L. LOEB, LLC.
Well	NINA #1-10	Well	NINA #1-10
Field	FRALICK WEST	Field	FRALICK WEST
County	KIOWA	County	KIOWA
State	KANSAS	State	KANSAS
Location:	API # : 15-097-21857-0000 1800' FSL & 465' FWL	Other Services CDL/CNL ML	
Permanent Datum	SEC 10 TWP 28S RGE 20W	Elevation	
Log Measured From	GROUND LEVEL Elevation 2307	K.B. 2318	
Drilling Measured From	KELLY BUSHING 11' A.G.L. KELLY BUSHING	D.F. 2316	
		G.L. 2307	
Date	06/03/21		
Run Number	ONE		
Depth Driller	5000		
Depth Logger	4999		
Bottom Logged Interval	4998		
Top Log Interval	00		
Casing Driller	8 5/8" @ 510		
Casing Logger	510		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.0/55		
pH / Fluid Loss	11.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.75@ 70F		
Rmf @ Meas. Temp	.56@ 70F		
Rmc @ Meas. Temp	.90 @ 70F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.42@ 125F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	125F		
Equipment Number	1523		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	JON CHRISTENSEN		

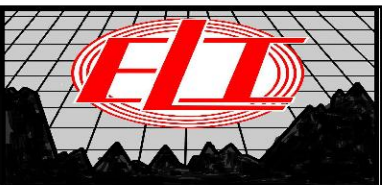
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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, HAYS, KS. (785) 628-6395

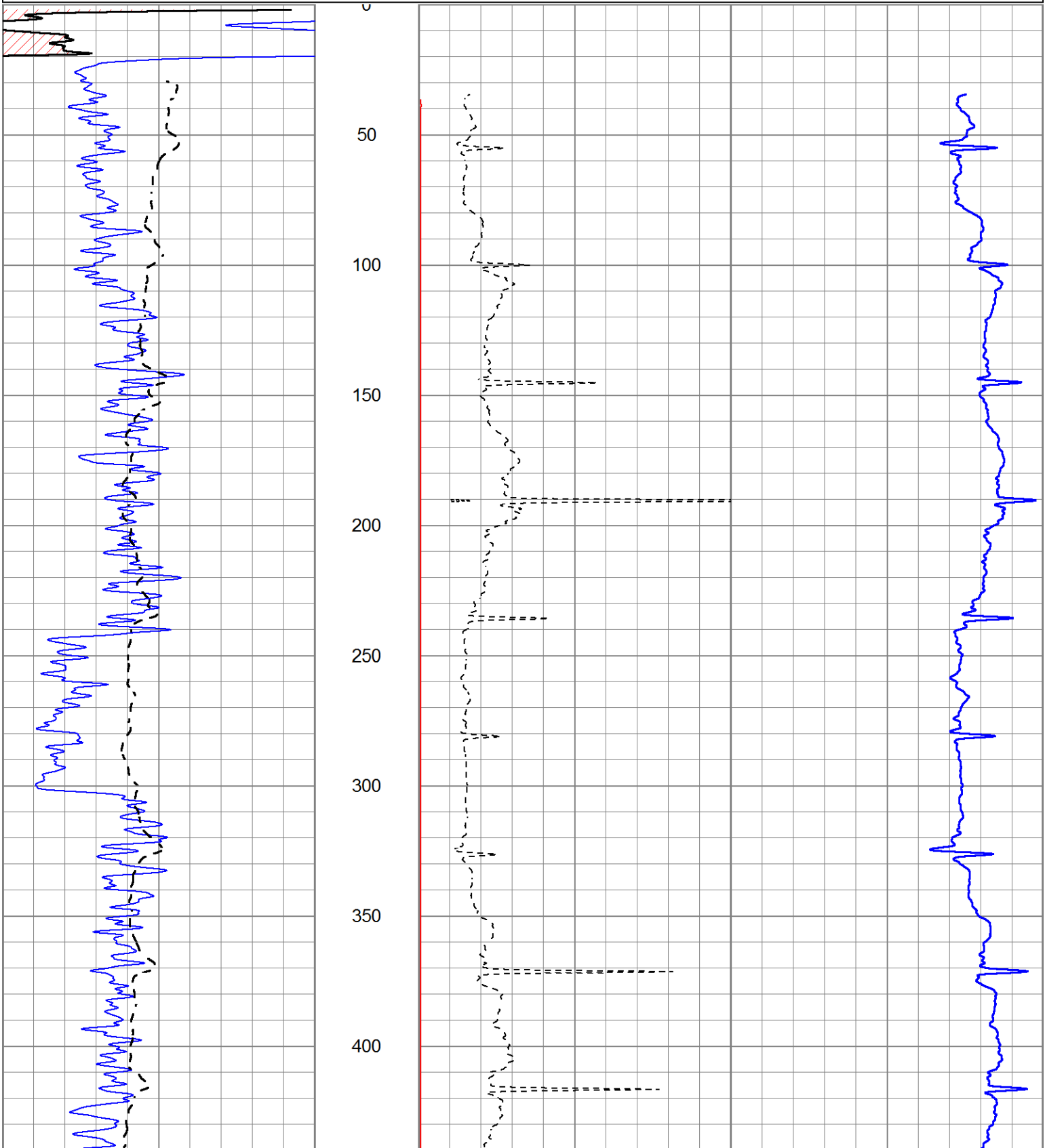
DIRECTIONS:MULLINVILLE NORTH ON 10 TH ST,1.5 MILES TO 1-5 RD,
WEST TO 7TH ST, 1 MILE NORTH, EAST INTO.



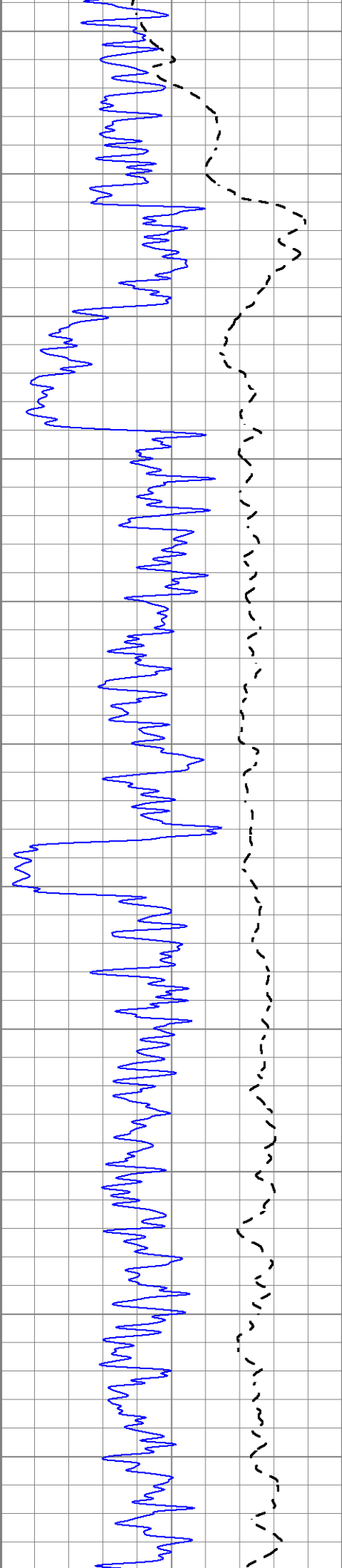
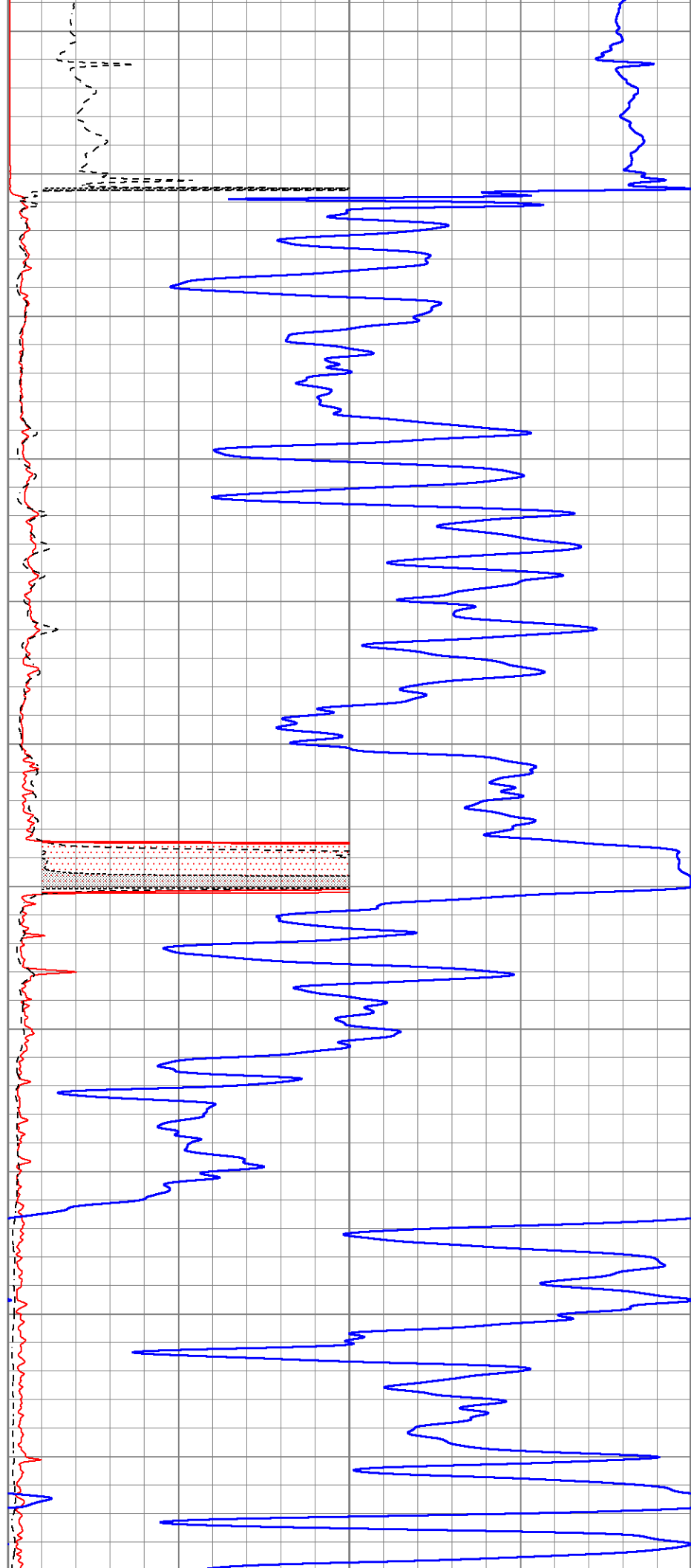
MAIN PASS

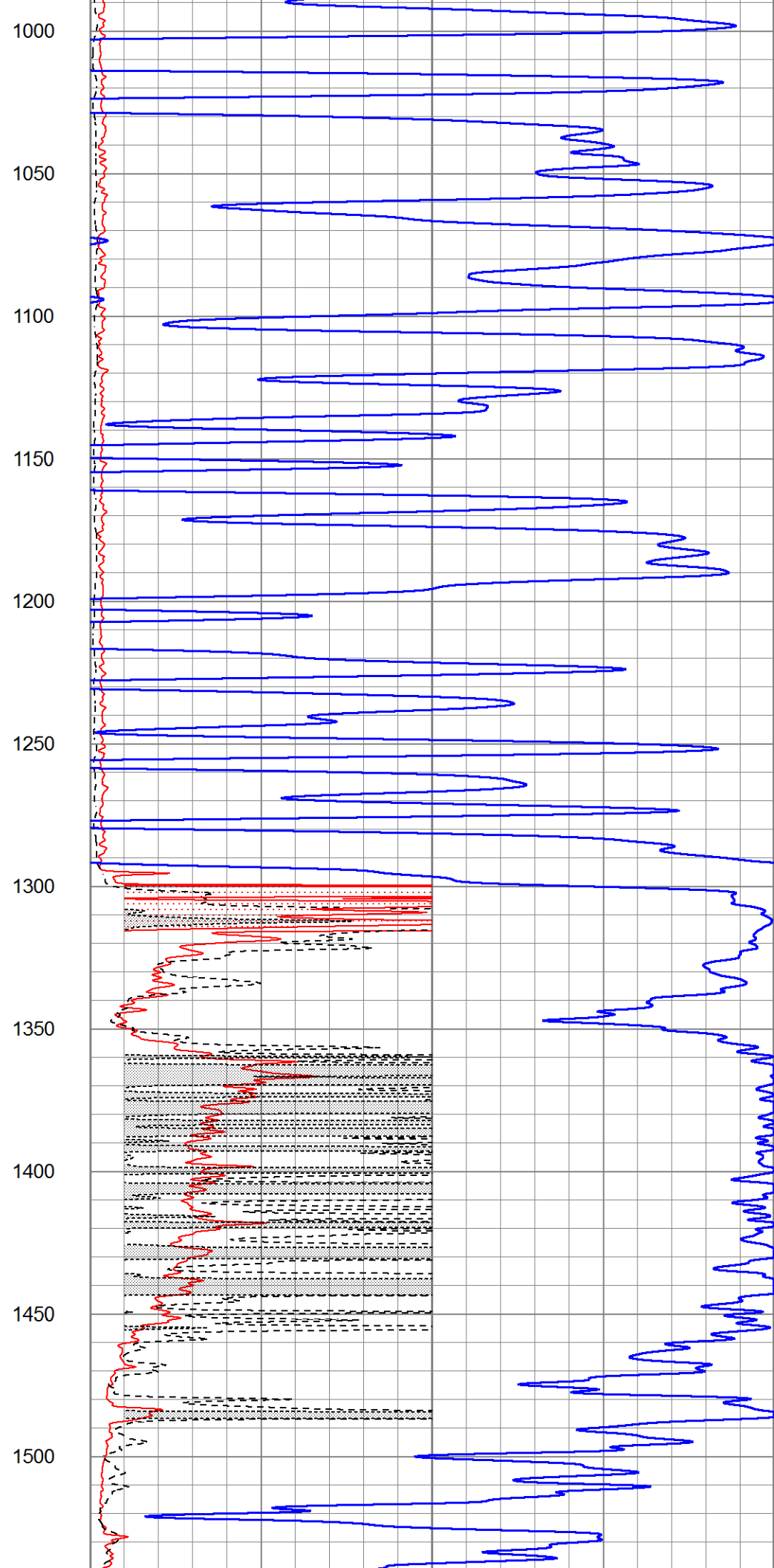
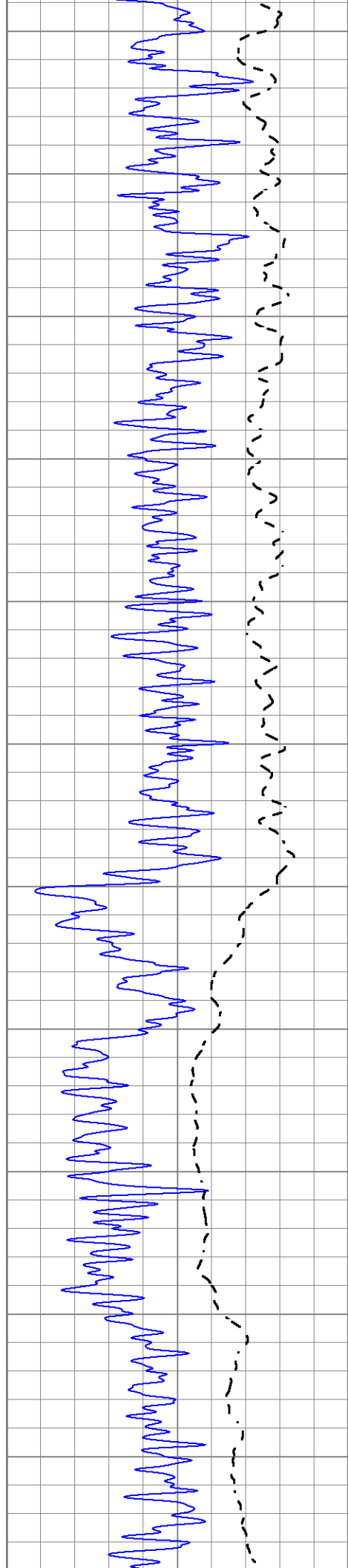
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Dataset Pathname	pass3.1
Presentation Format	_dil2
Dataset Creation	Thu Jun 03 07:29:27 2021
Charted by	Depth in Feet scaled 1:600

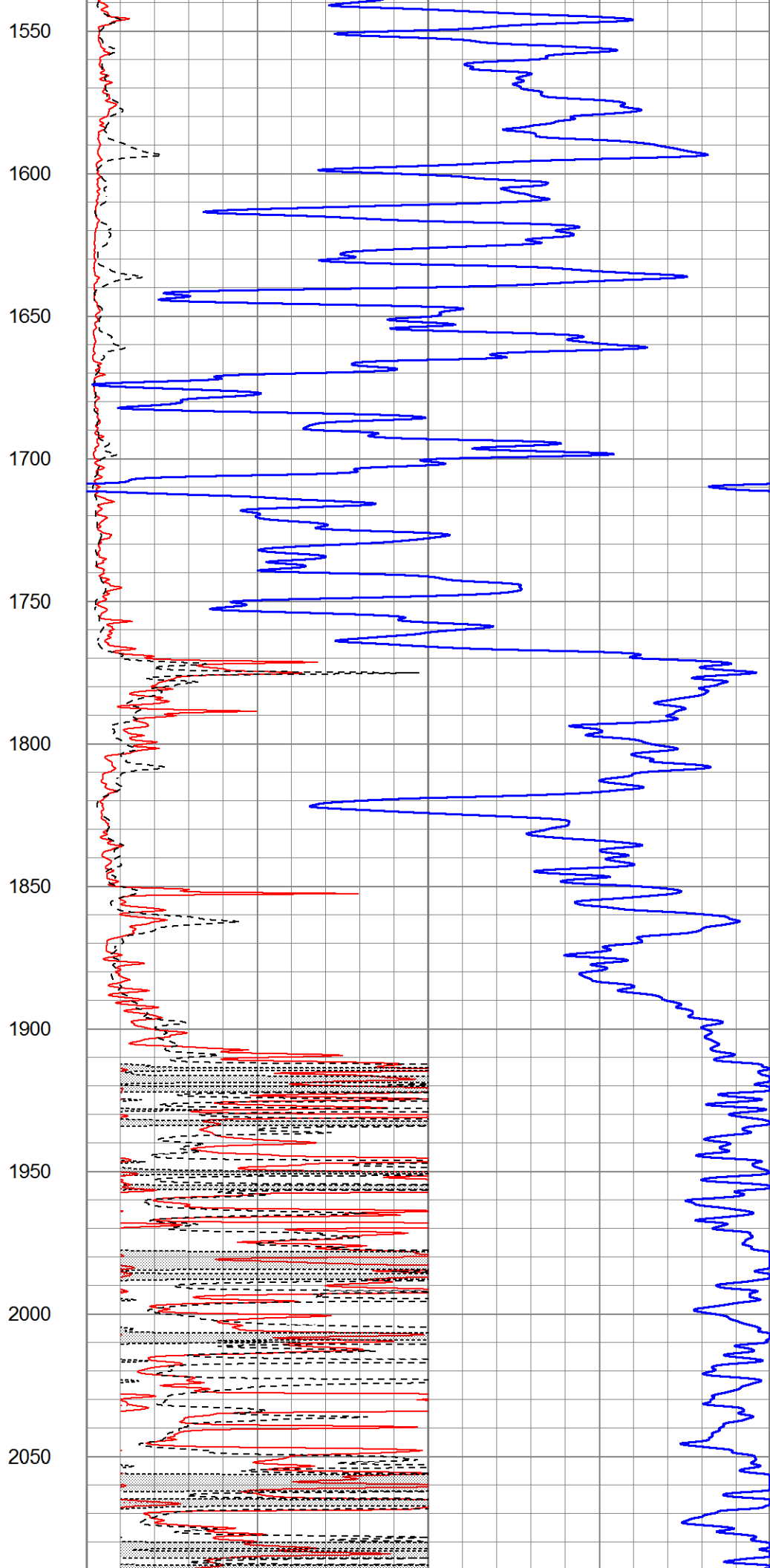
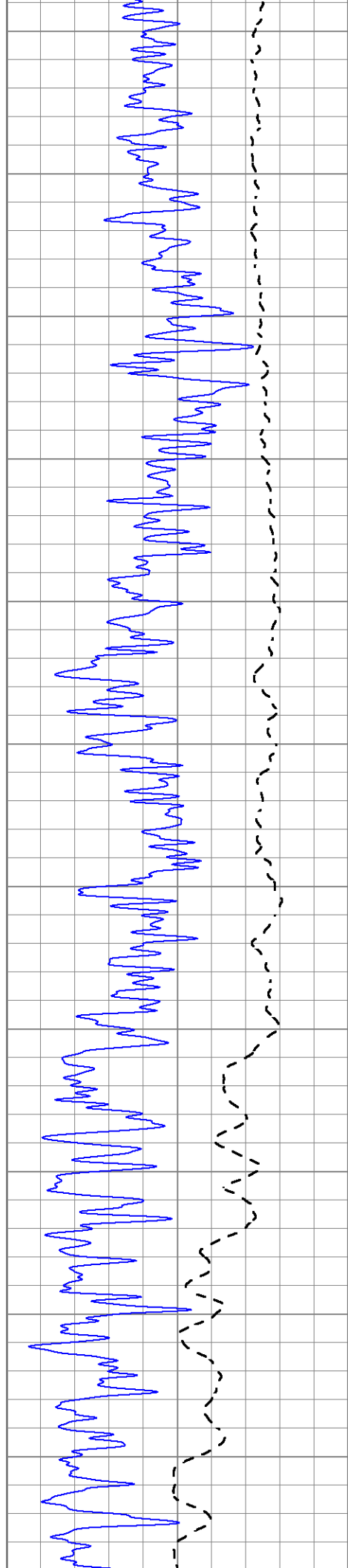
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-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

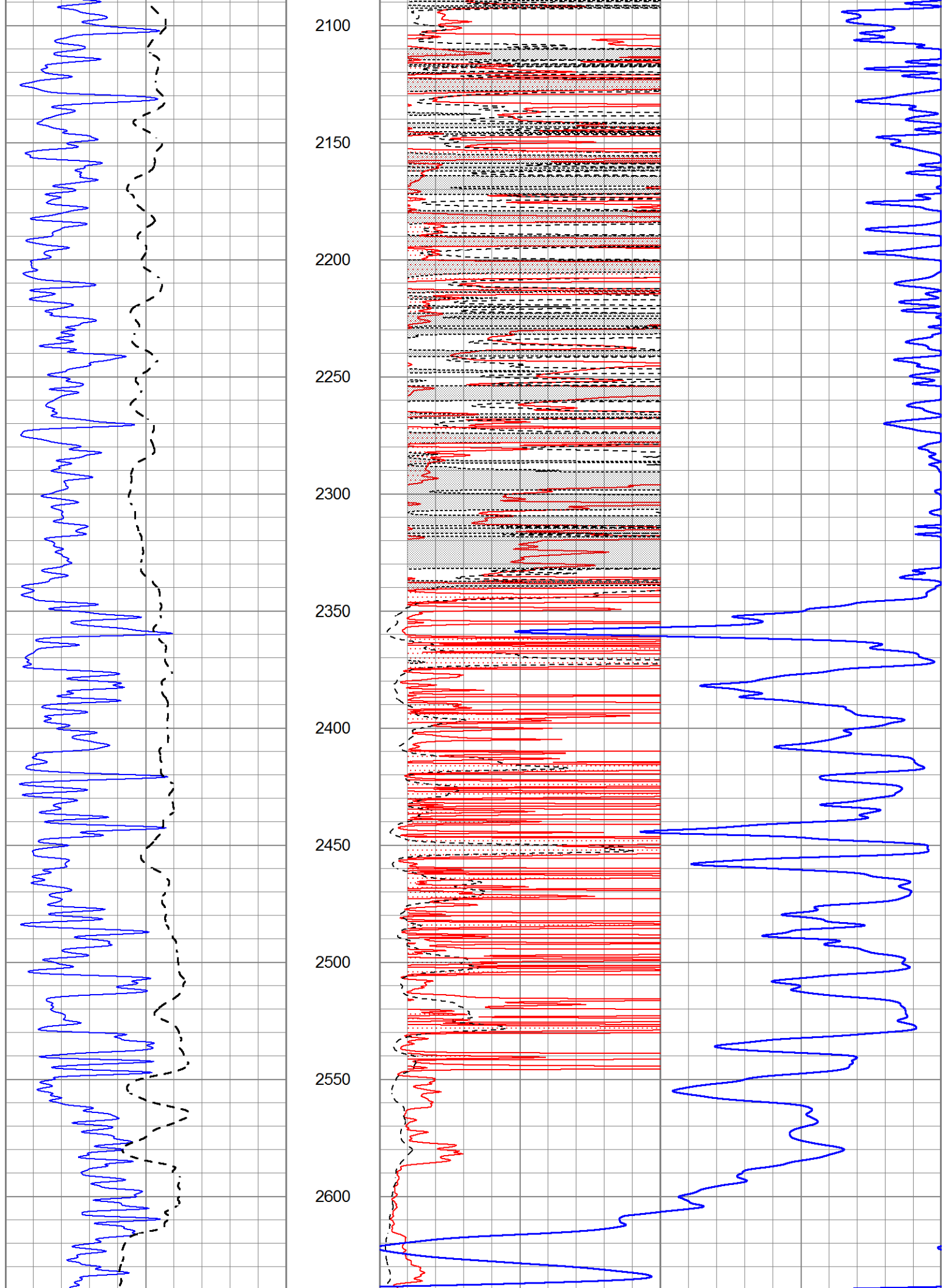


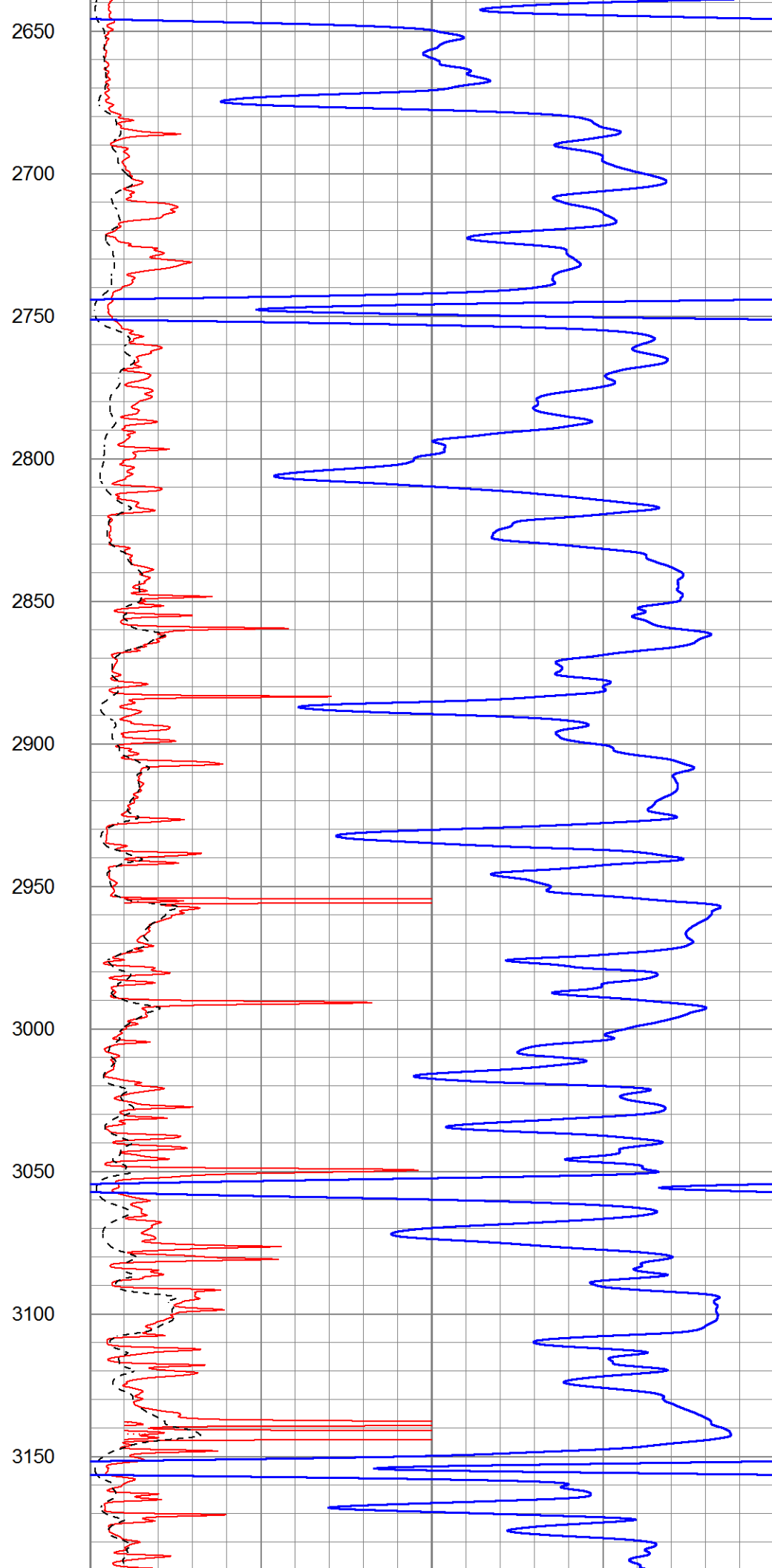
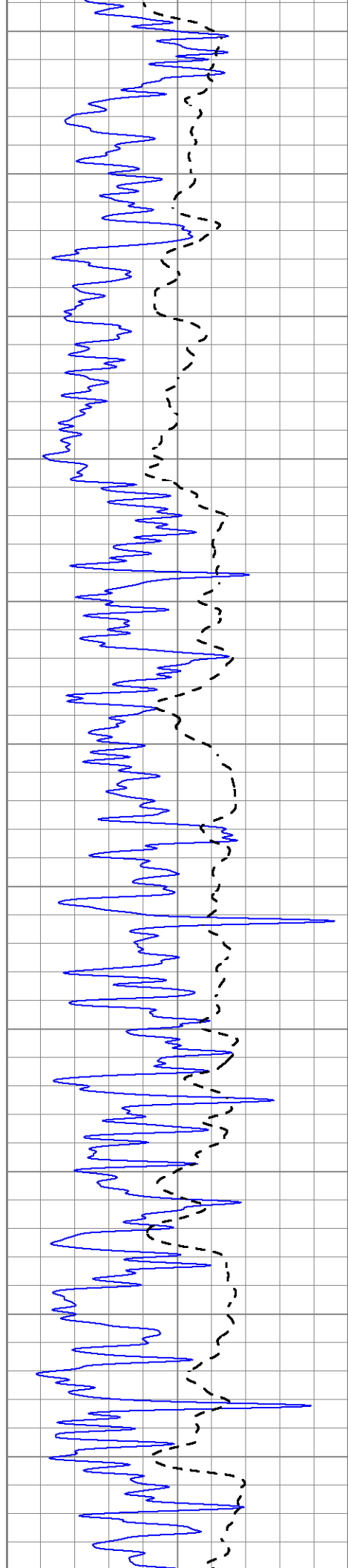
450
500
550
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650
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750
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850
900
950











3200

3250

3300

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3450

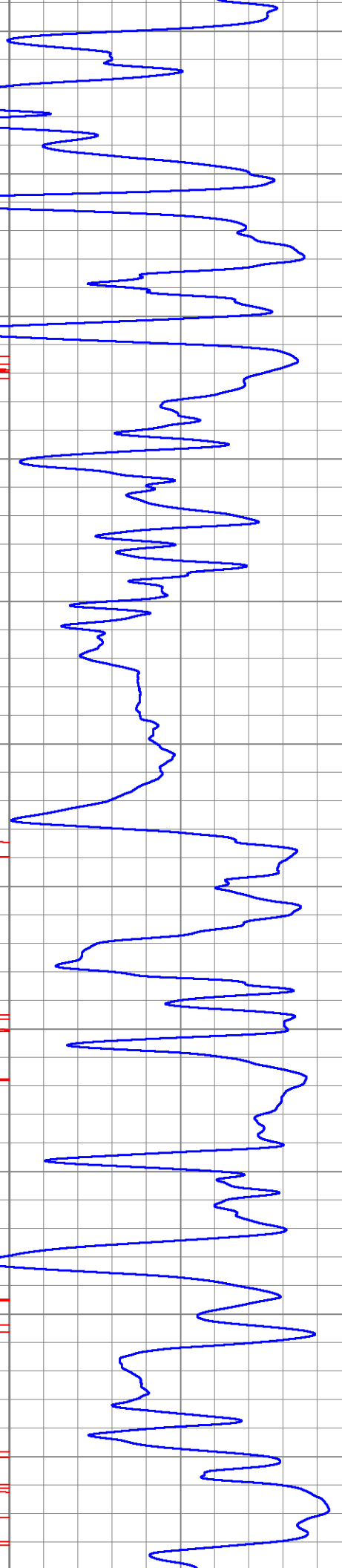
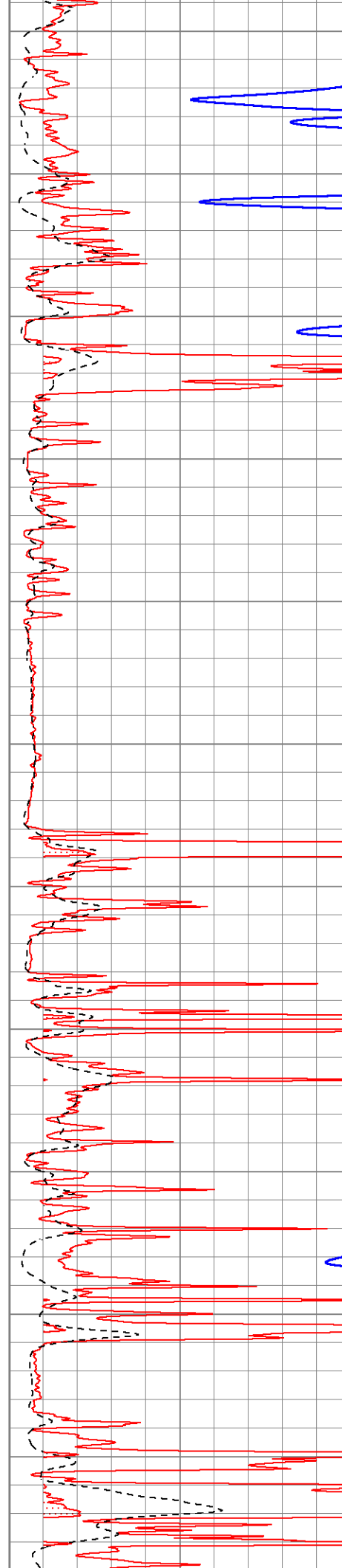
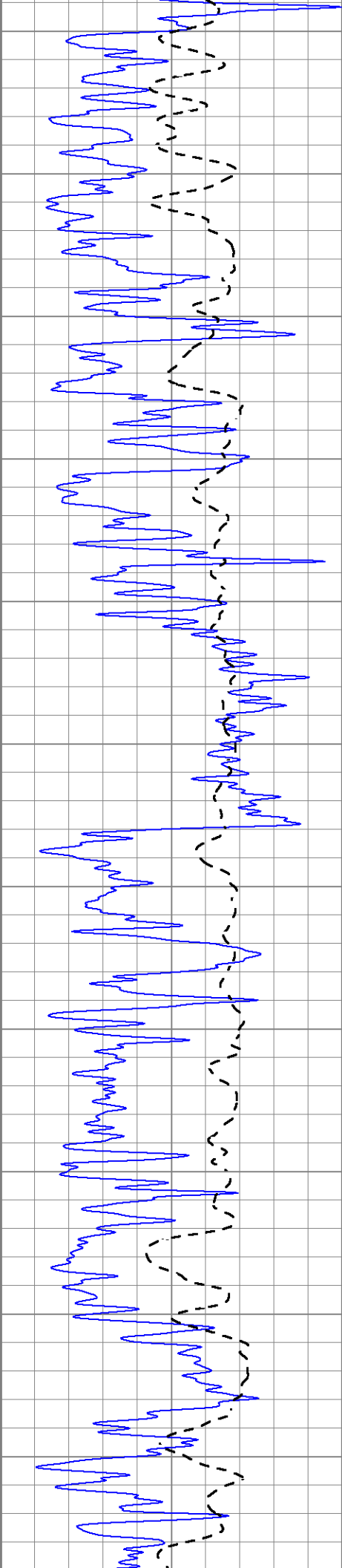
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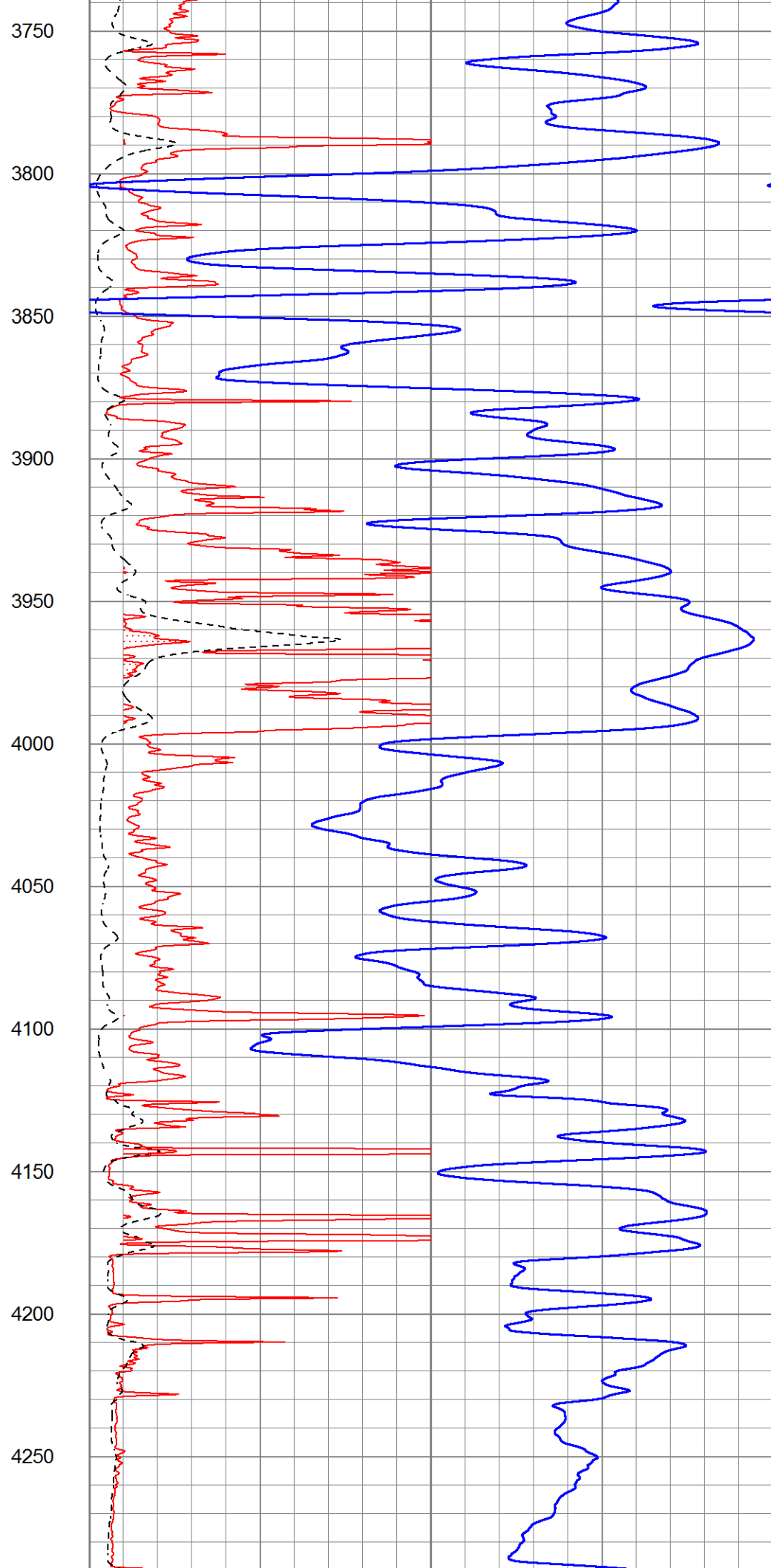
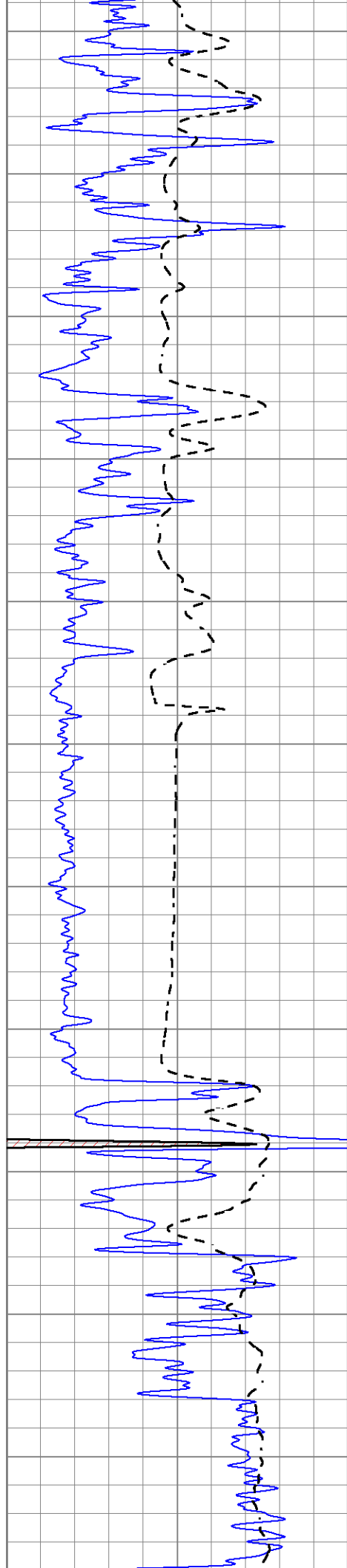
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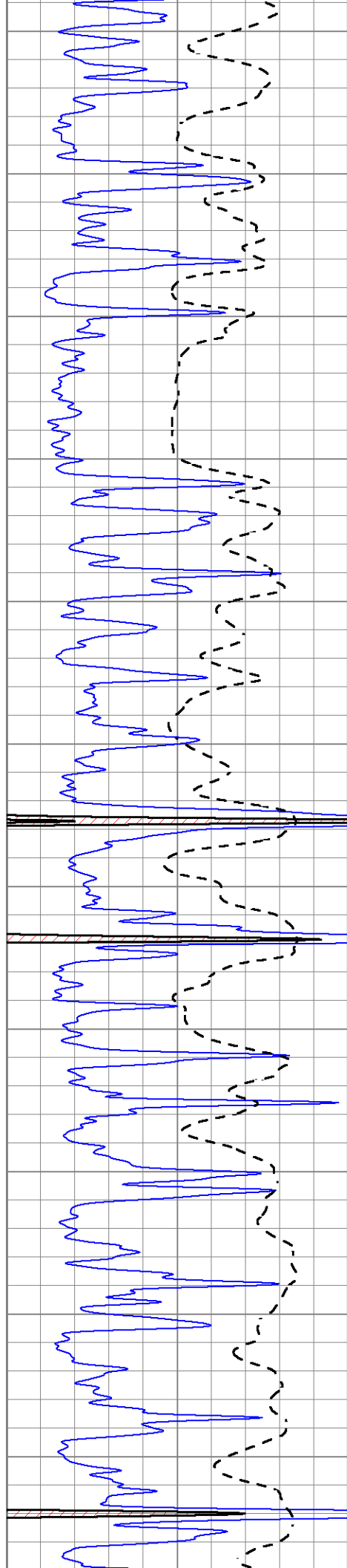
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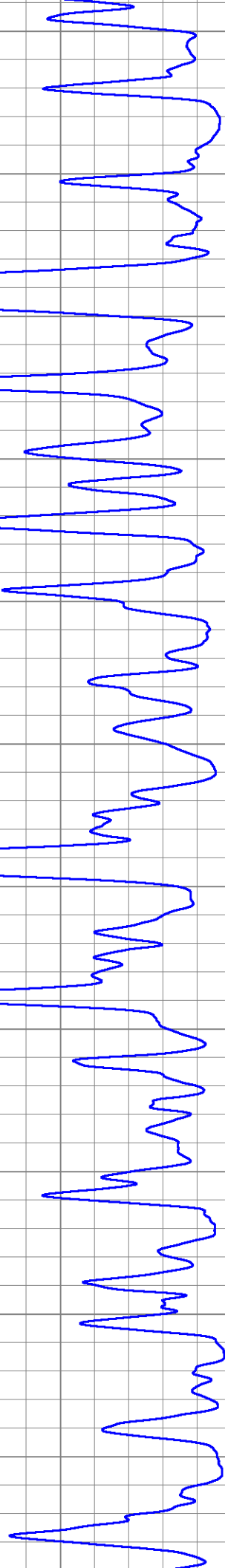
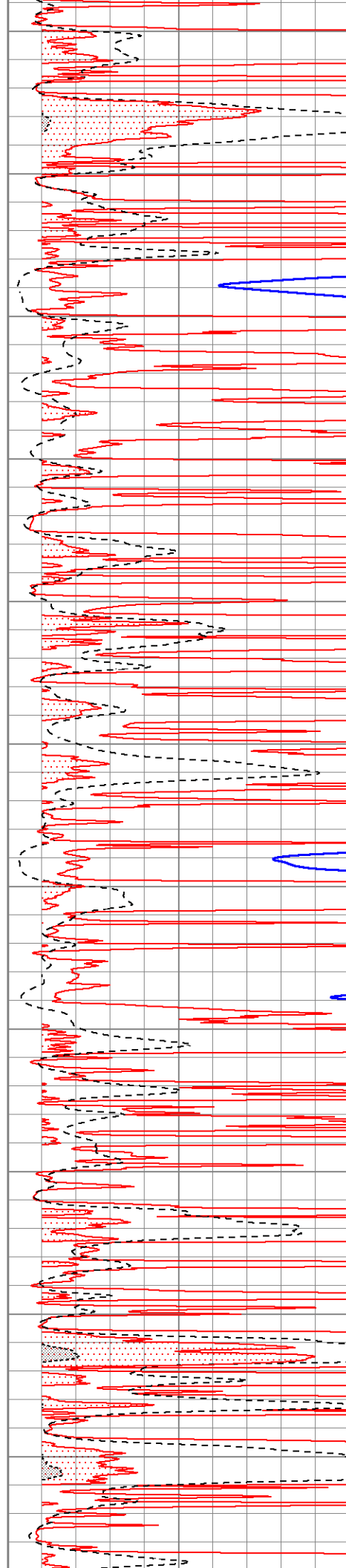
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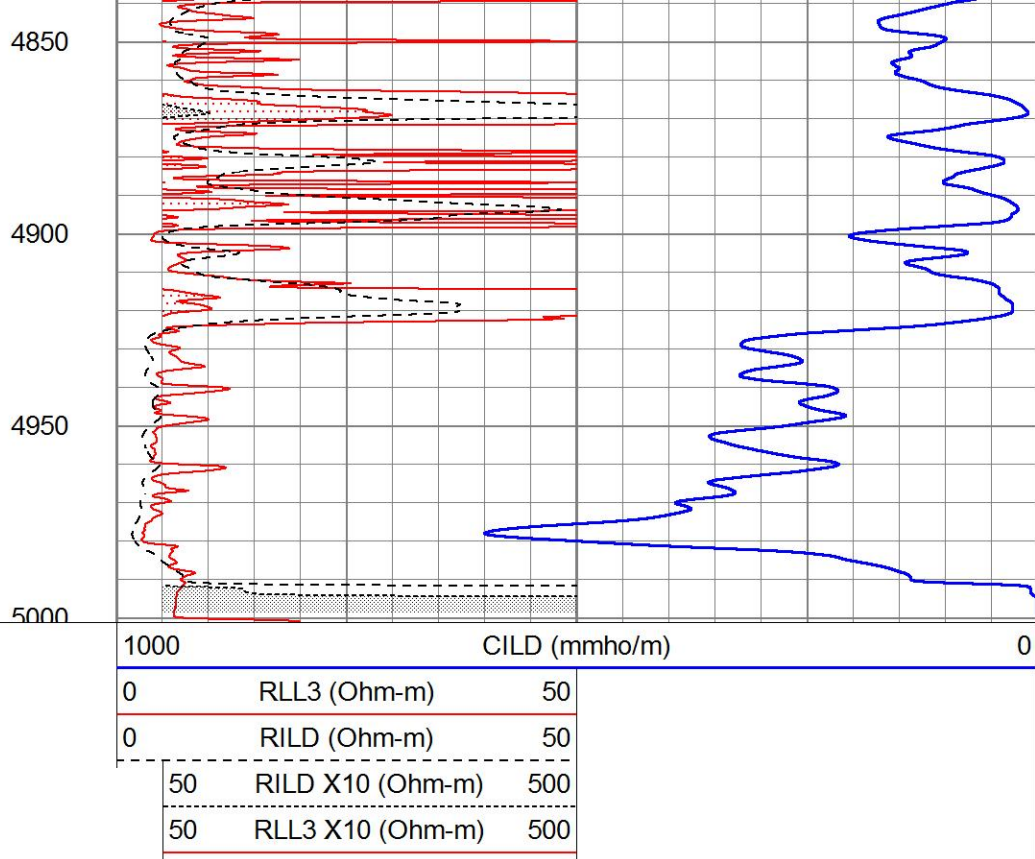
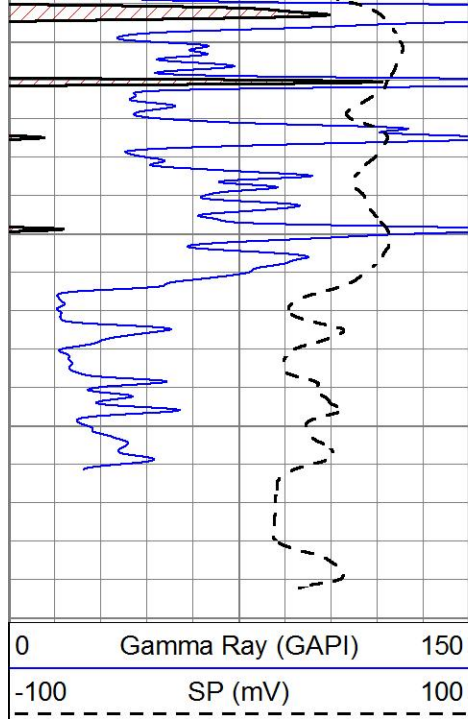
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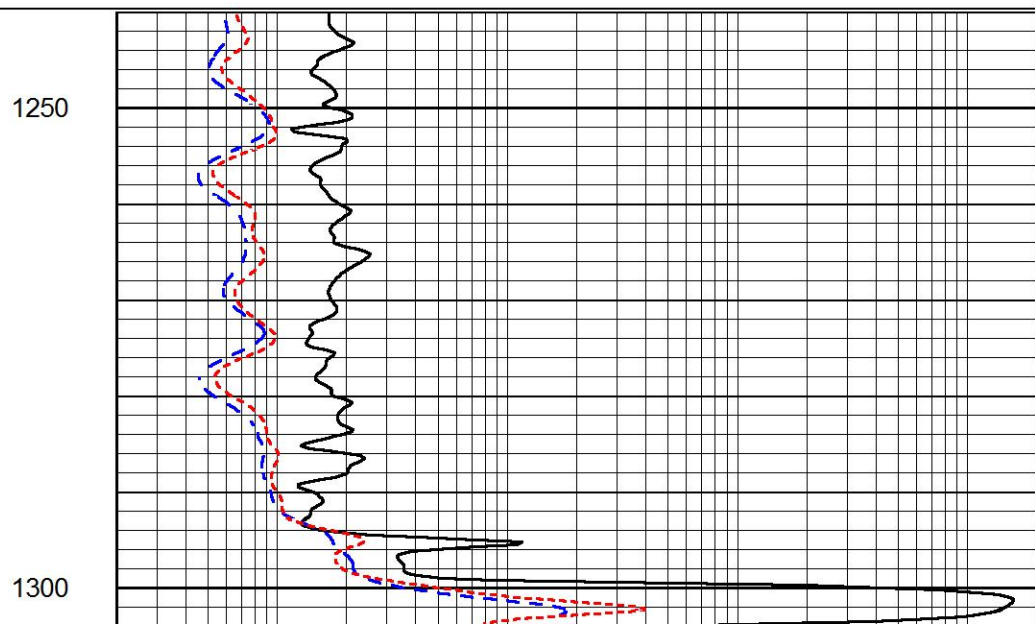
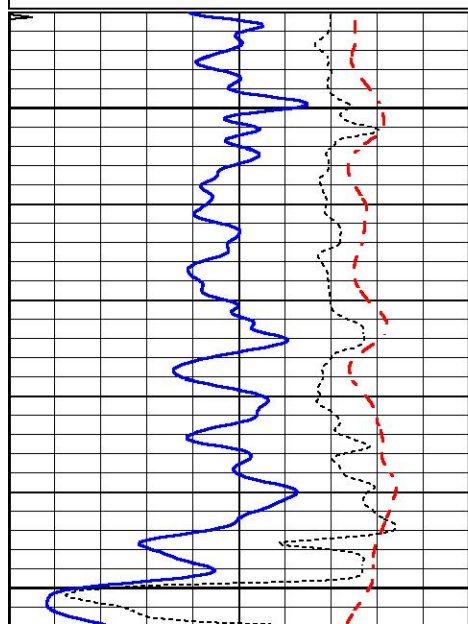
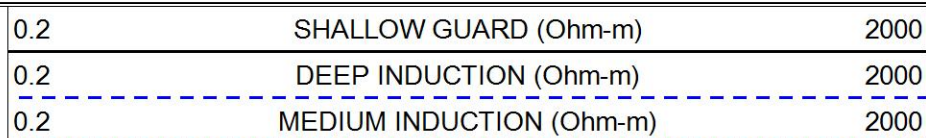
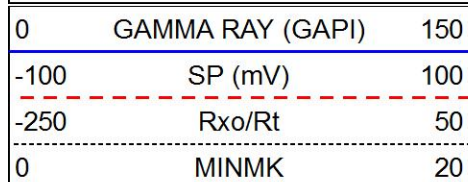
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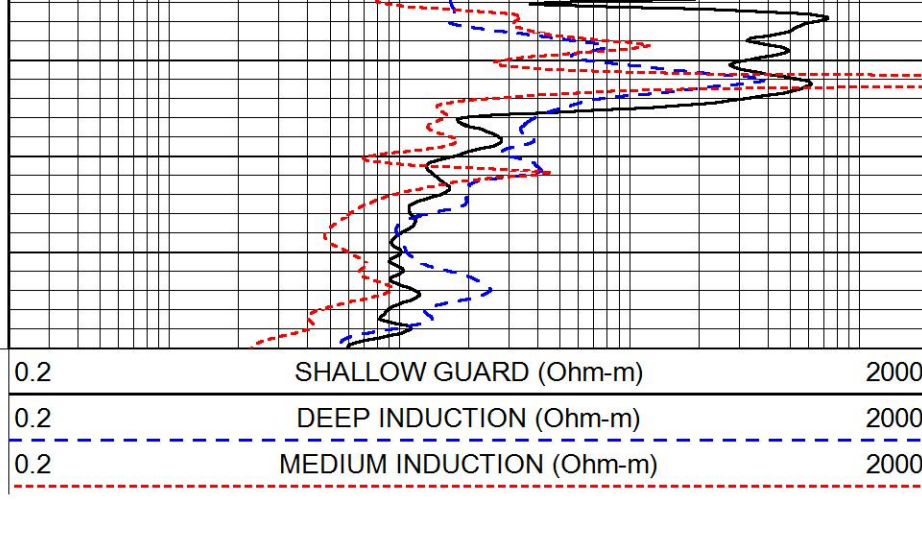
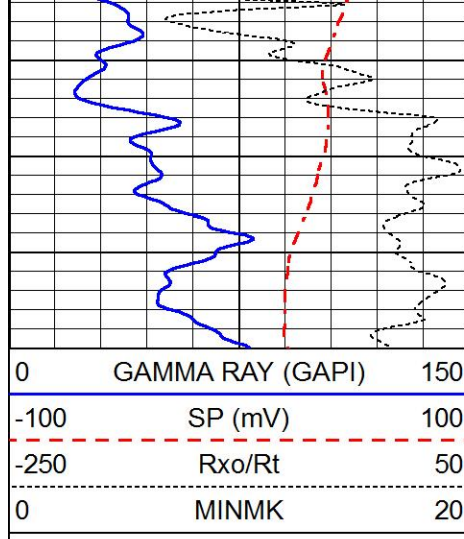




MAIN PASS

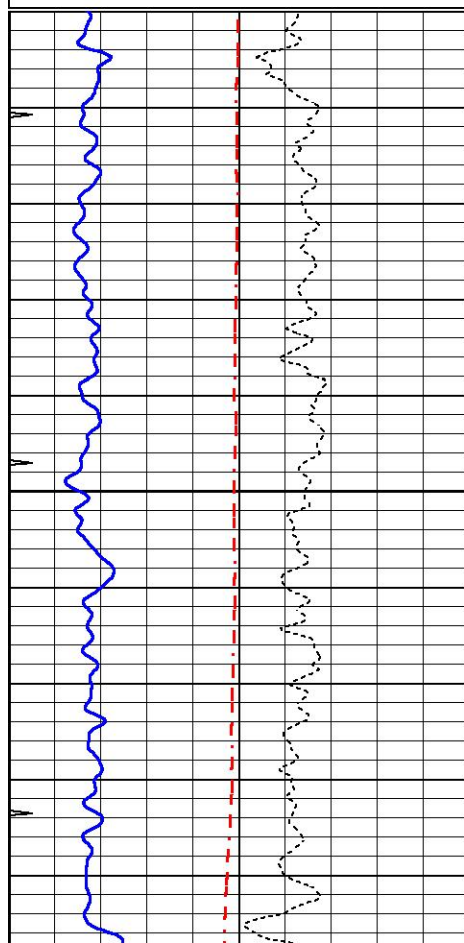
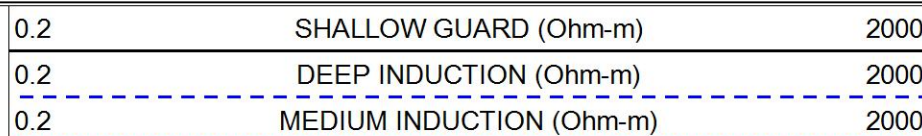
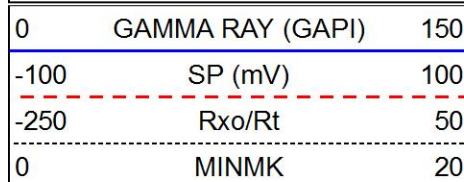
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 Presentation Format _dil
 Dataset Creation Thu Jun 03 07:29:27 2021
 Charted by Depth in Feet scaled 1:240





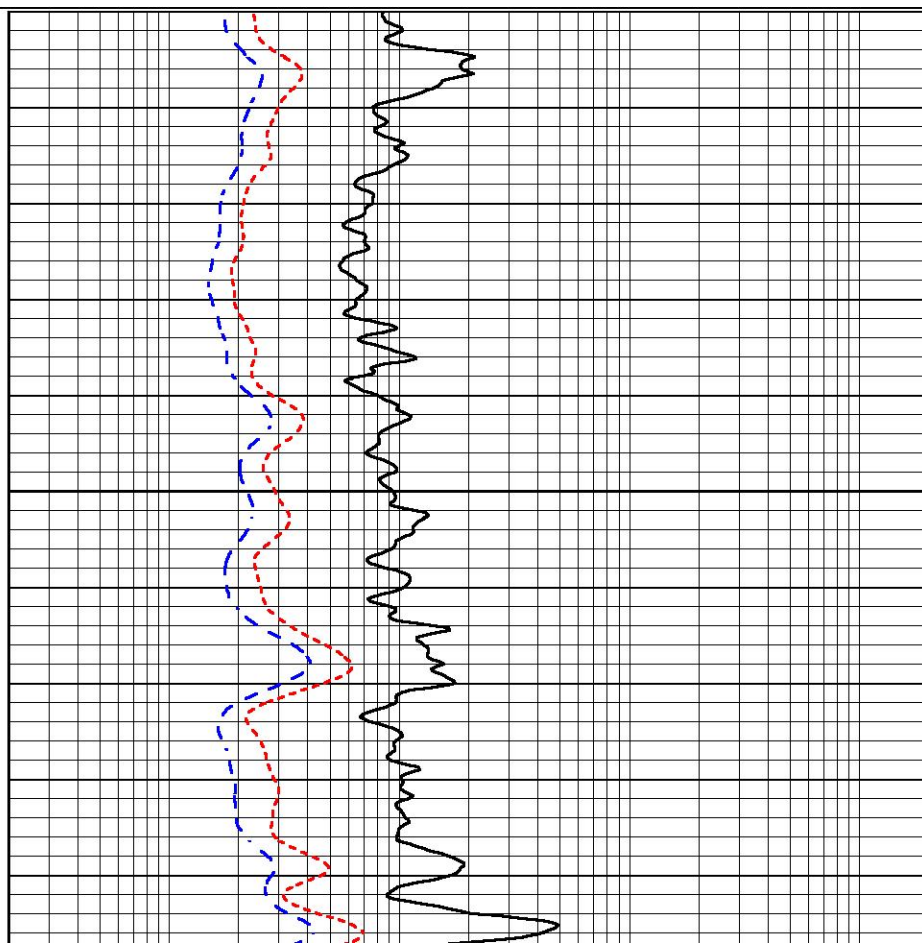
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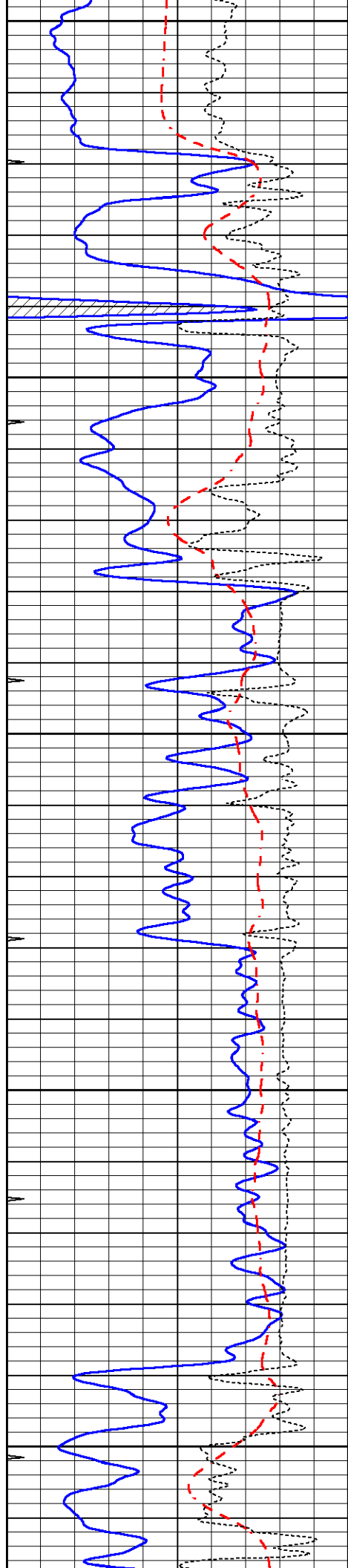
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4050





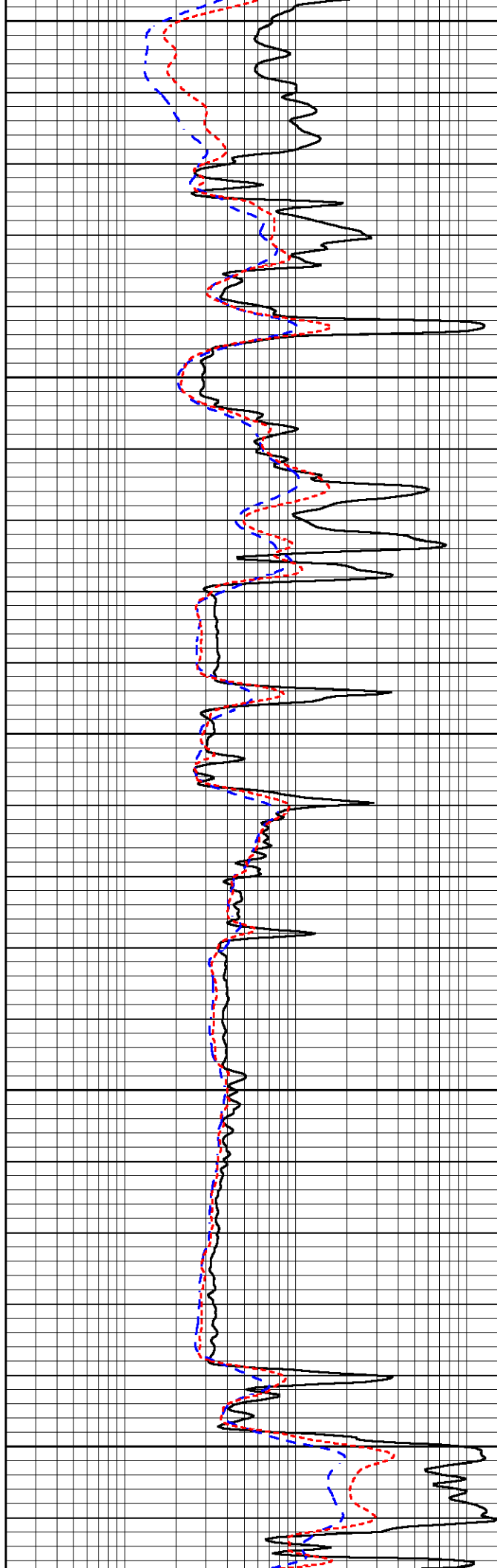
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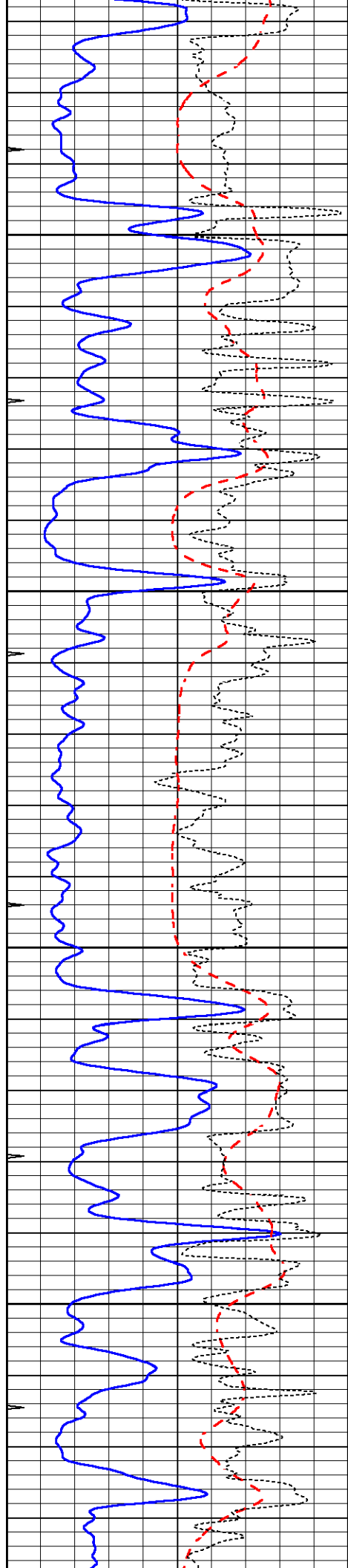
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4300



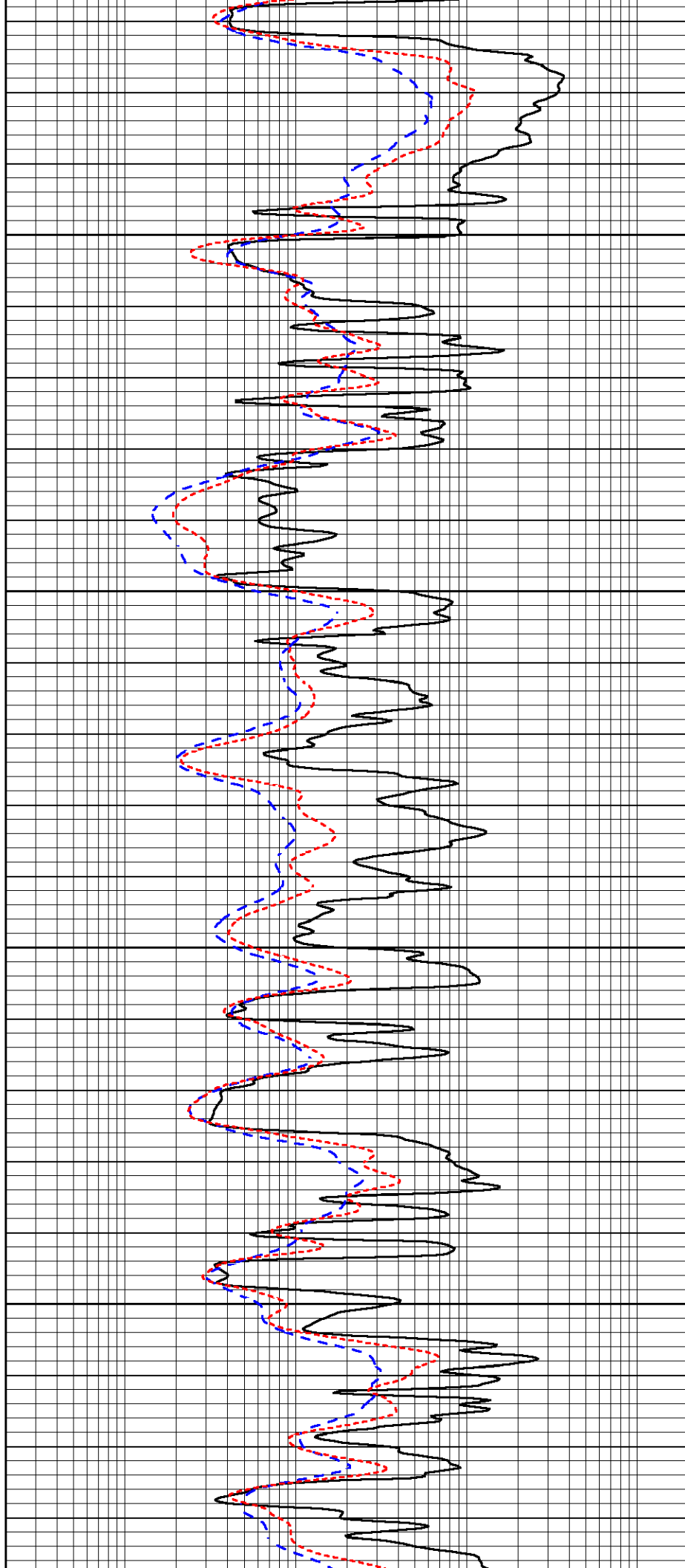


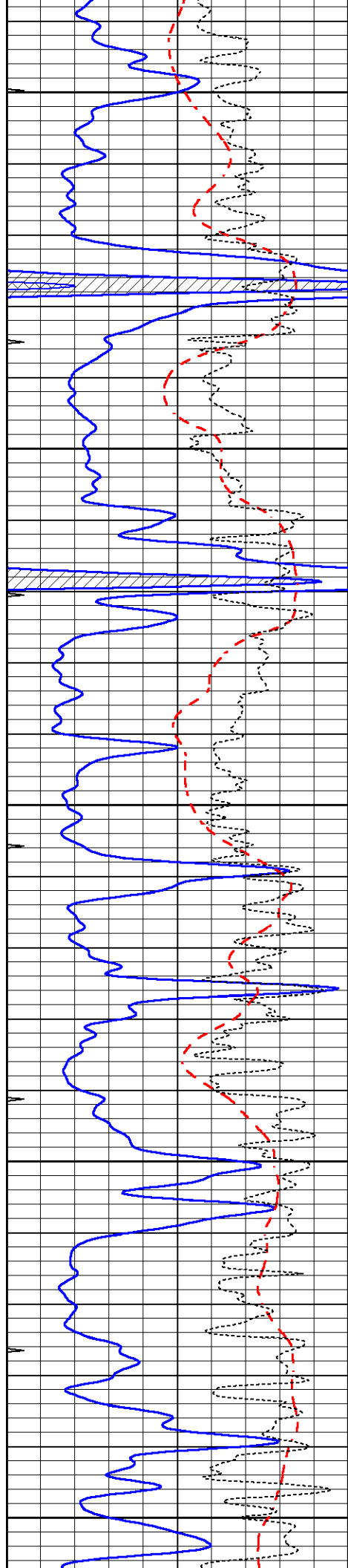
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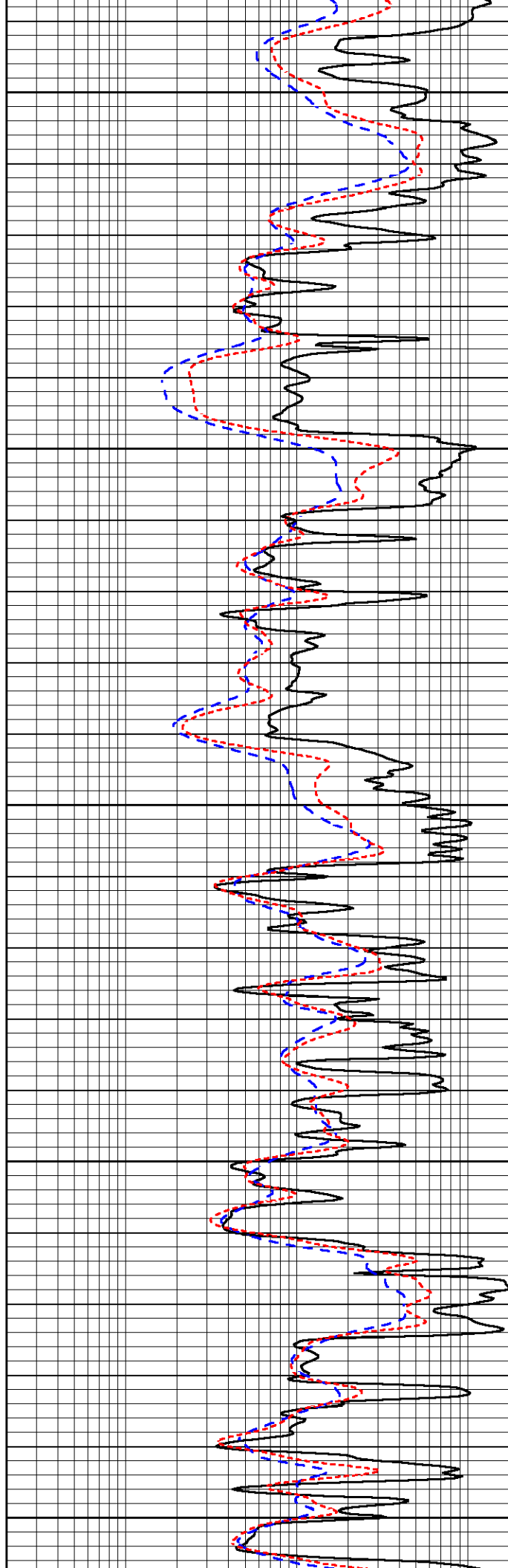
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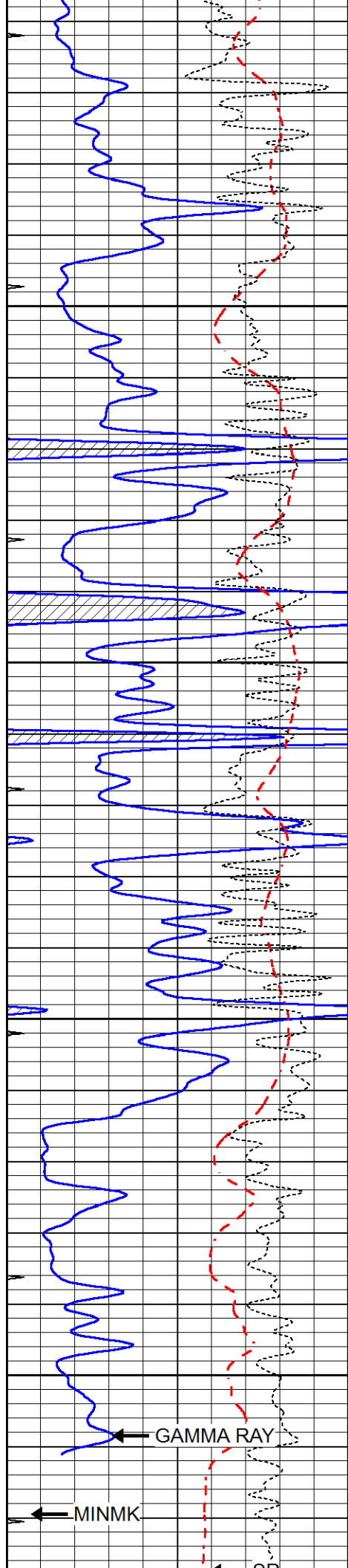
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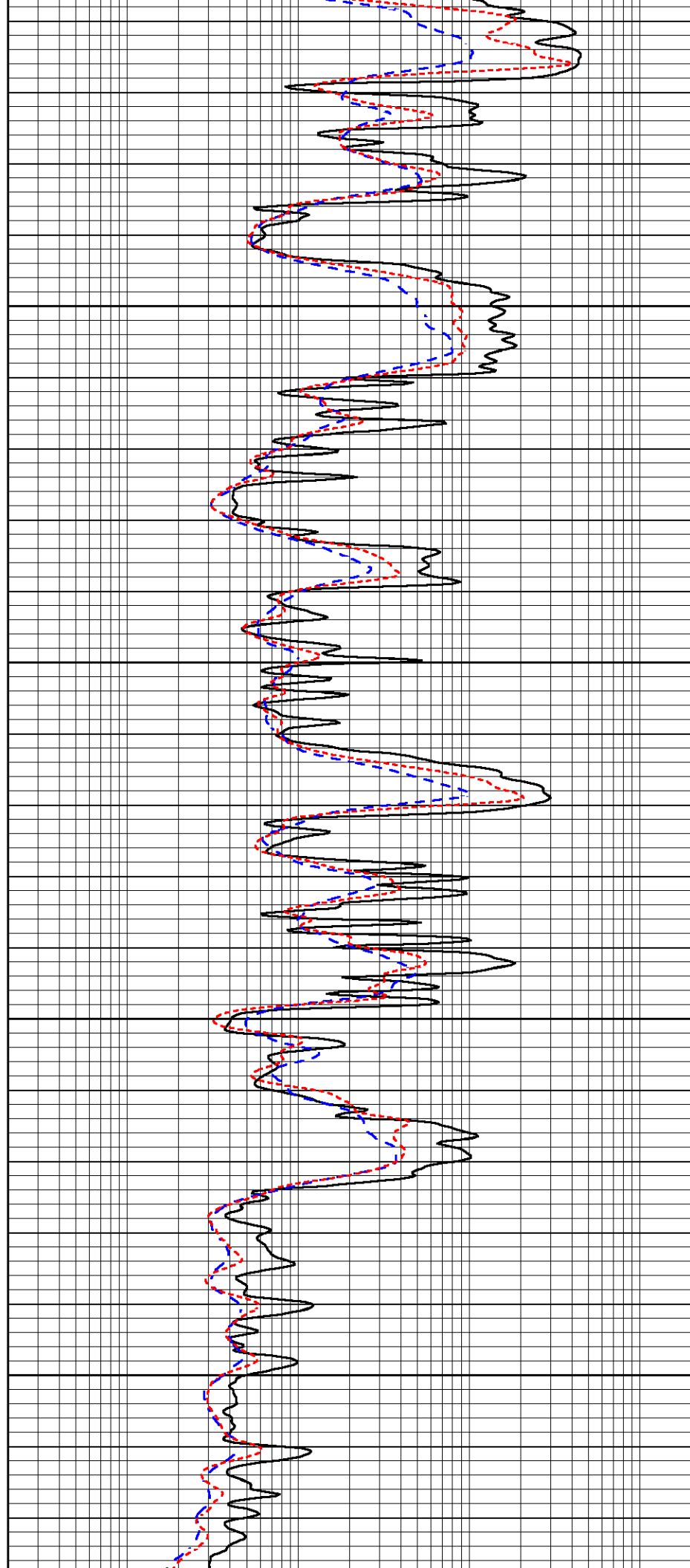


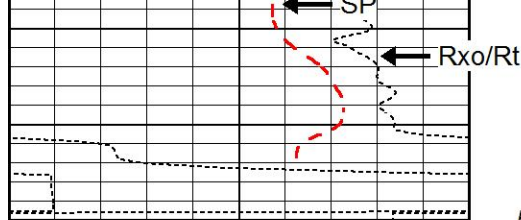
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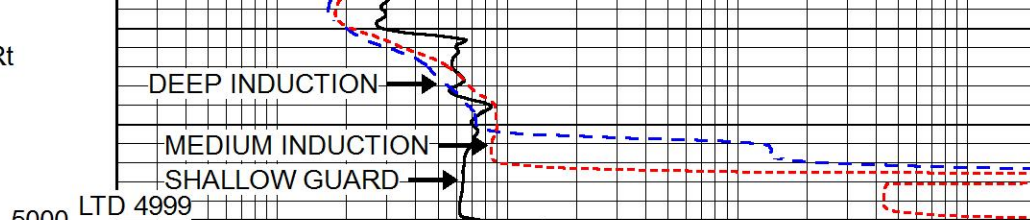
4900

4950





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

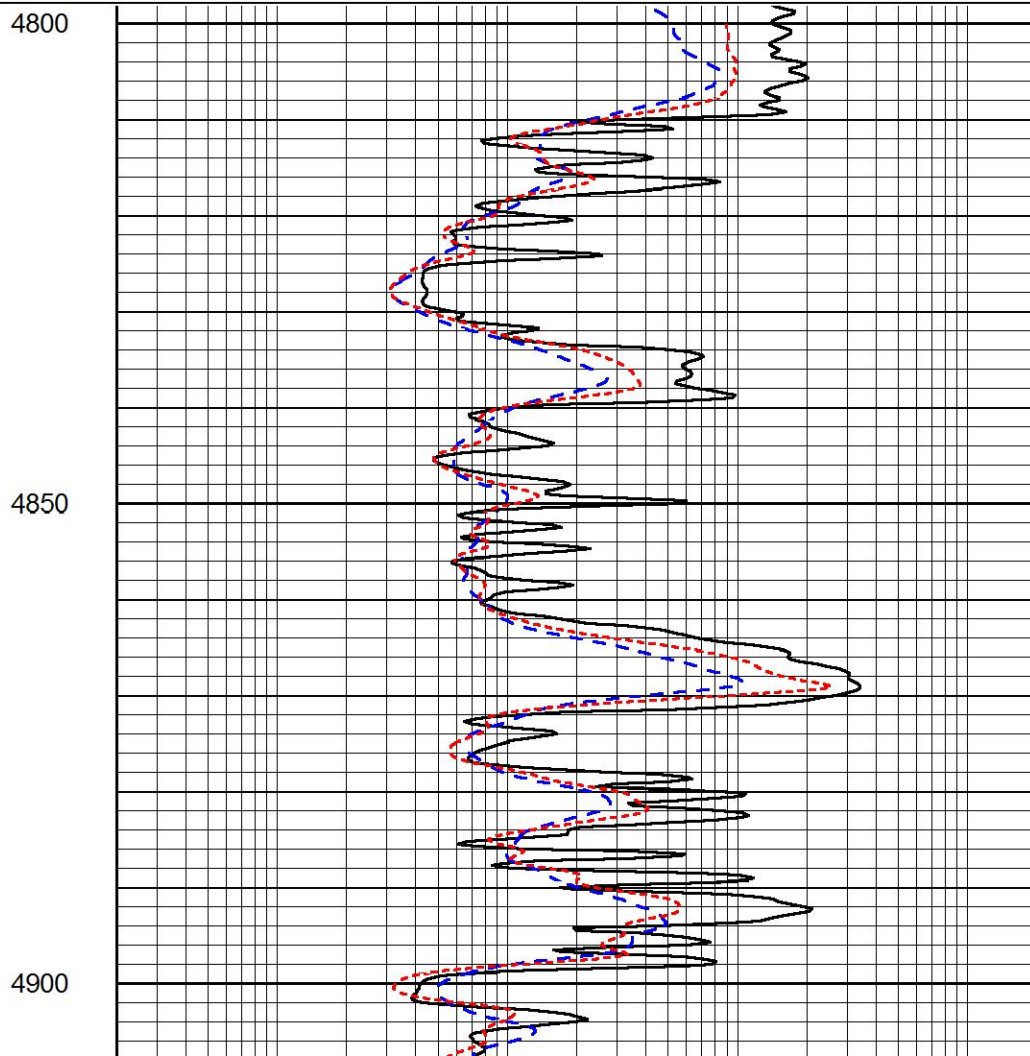
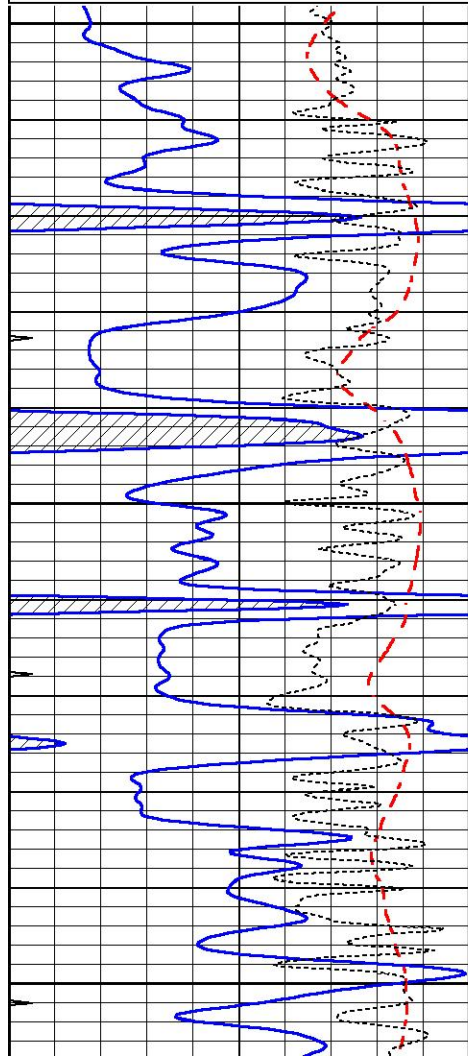


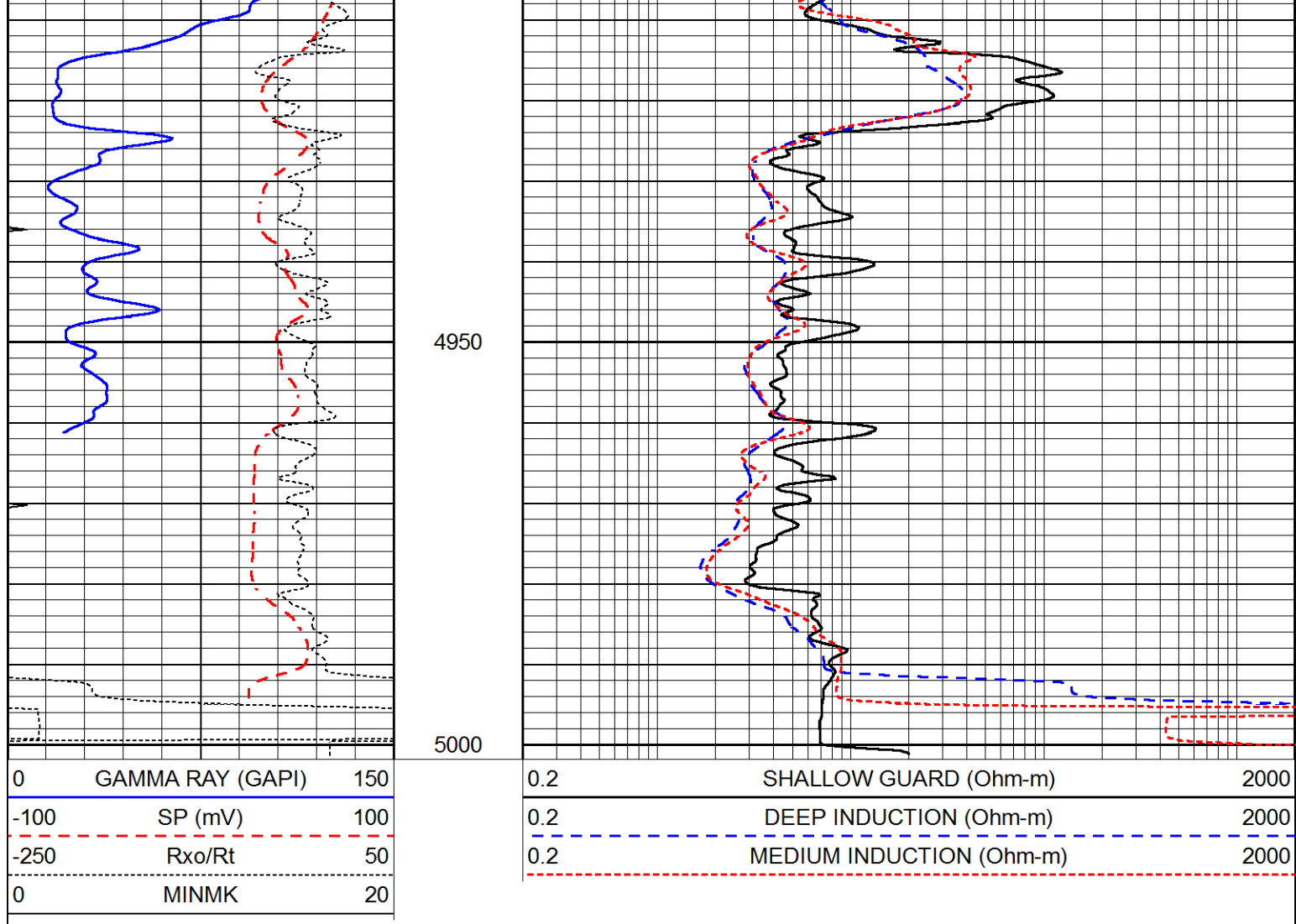
REPEAT SECTION

Database File 5438pe.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Thu Jun 03 06:56:48 2021
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





Calibration Report

Database File 5438pe.db
 Dataset Pathname pass2.1
 Dataset Creation Thu Jun 03 06:56:48 2021

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Mon Sep 10 14:28:35 2018
 Downhole Cal Performed: Mon Sep 10 14:28:38 2018
 After Survey Verification Performed: Mon Sep 10 14:28:40 2018

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000

		Serial Number: Tool Model:		6I G		
CALIBRATION						
	Detector	Readings		Target		Normalization
	Short Space	1.00	cps	1.00	cps	1.0000
	Long Space	1.00	cps	1.00	cps	1.0000
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:		GR6				
Tool Model:		OPEN				
Performed:		Thu Jul 30 20:04:35 2020				
Calibrator Value:		150.0		GAPI		
Background Reading:		0.0		cps		
Calibrator Reading:		276.0		cps		
Sensitivity:		0.7500		GAPI/cps		