



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company		ATLAS OPERATING, LLC.	
Well		SANDERS SCHMISSER #3	
Field		SPIVEY-GRABS-BASIL	
County		HARPER	
State		KANSAS	
Location:		API # : 15-077-21776-0000 660' FNL & 380' FWL	
SEC 28 TWP 31S RGE 8W		Other Services CDL/CNL MEL	
Permanent Datum Log Measured From Drilling Measured From		GROUND LEVEL Elevation KELLY BUSHING 10' A.G.L. KELLY BUSHING	
Date		12/21/11	
Run Number		ONE	
Depth Driller		4950	
Depth Logger		4951	
Bottom Logged Interval		4949	
Top Log Interval		0	
Casing Driller		8 5/8" @ 271	
Casing Logger		269	
Bit Size		7 7/8	
Type Fluid in Hole		CHEMICAL MUD	
Density / Viscosity		9.4/48	
pH / Fluid Loss		9.5/12.4	
Source of Sample		FLOWLINE	
Rim @ Meas. Temp		0.80 @ 76F	
Rmf @ Meas. Temp		0.60 @ 76F	
Rmc @ Meas. Temp		0.96 @ 76F	
Source of Rmf / Rmc		MEASURED	
Rim @ BHT		0.49 @ 125F	
Time Circulation Stopped		2 HOURS	
Time Logger on Bottom			
Maximum Recorded Temperature		125F	
Equipment Number		680	
Location		HAYS, KS.	
Recorded By		JEFF GRONEMEG	
Witnessed By		SEAN DEENIHAN	

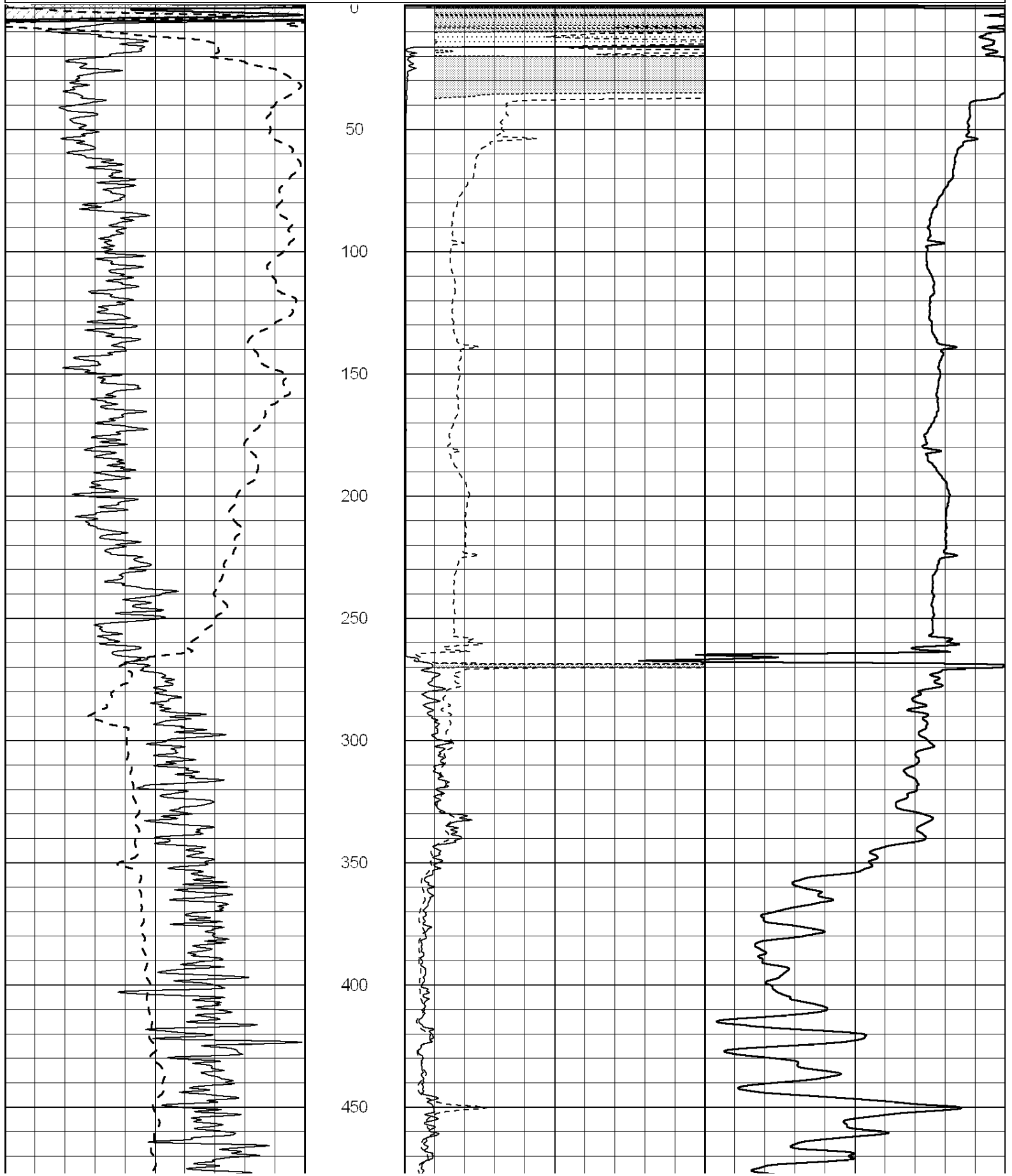
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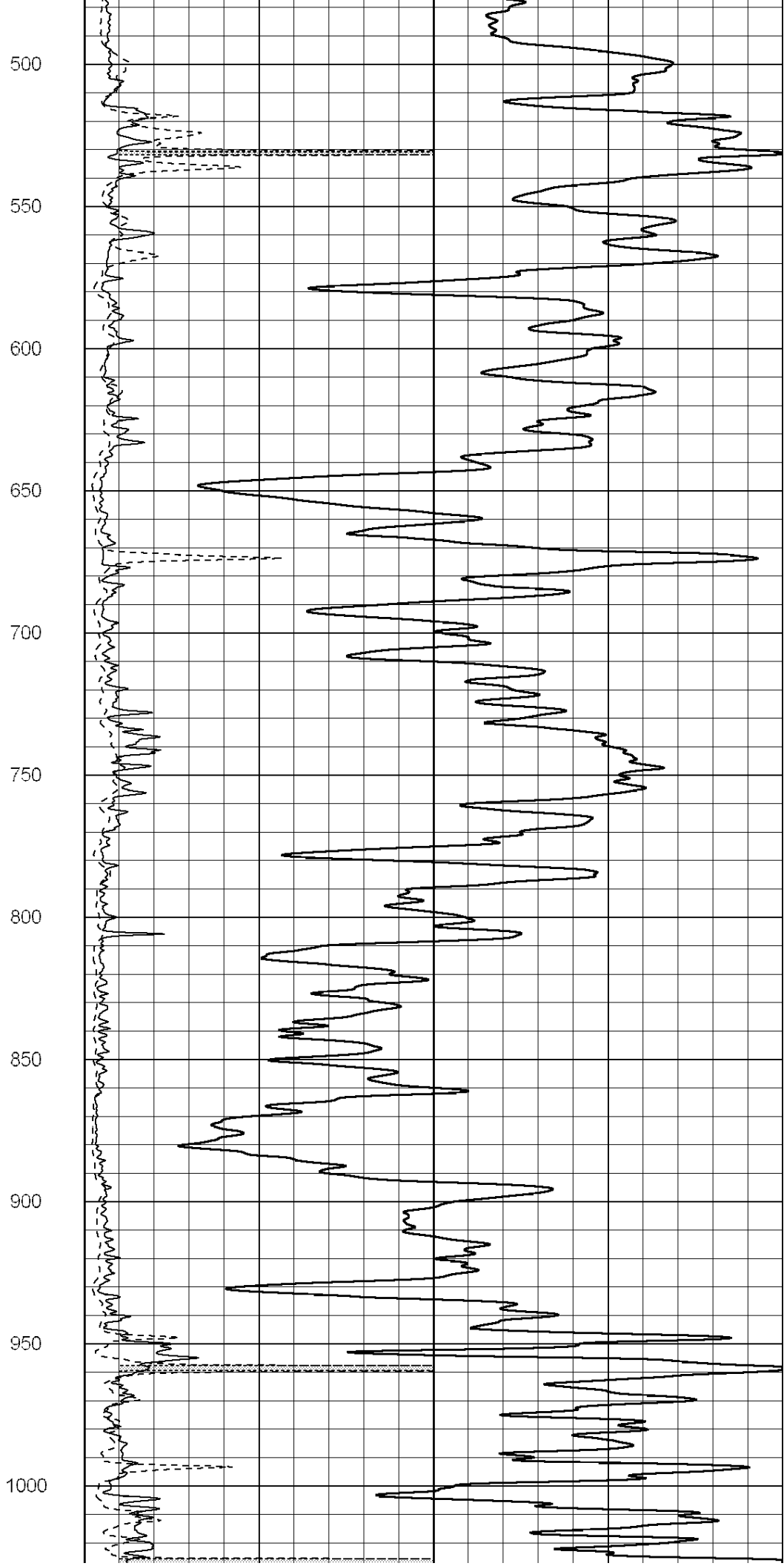
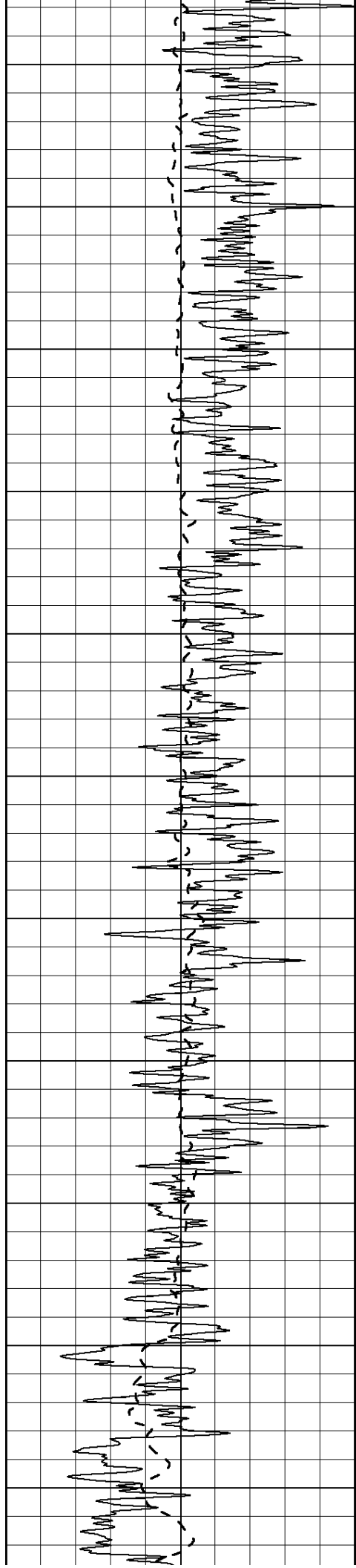
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

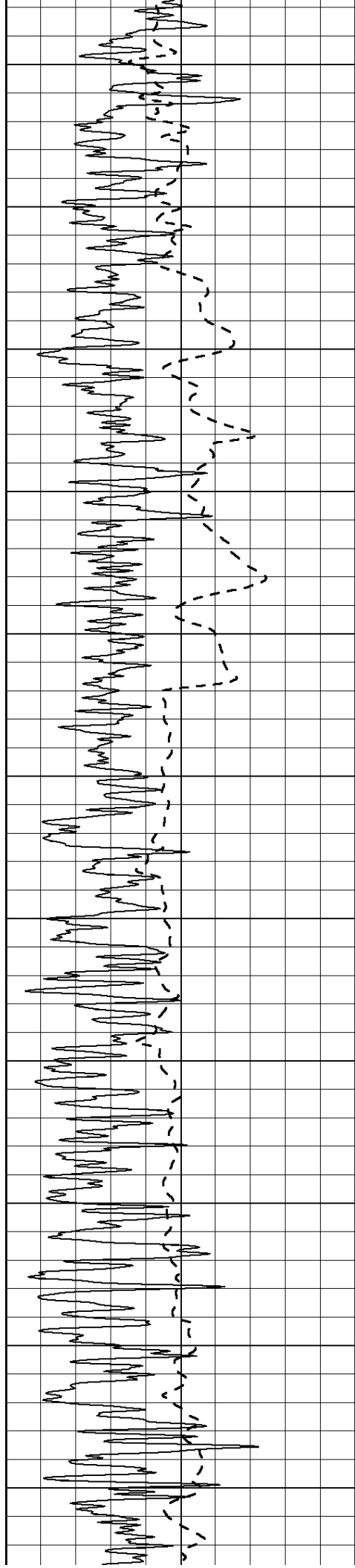
Comments

THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
ZENDA, KS - 4 MILES EAST TO RD SW50 - SOUTH TO SPIVEY GAS PLANT
2 MILES SOUTH TO NW 130 - 2 MILES EAST TO NW80TH
1/2 SOUTH - EAST INTO

Charted by: Depth in Feet scaled 1:500					
0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50
-100	SP (mV)	100	0	Deep Induction (Ohm-m)	50
-----			-----		
			1000	CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500







1050

1100

1150

1200

1250

1300

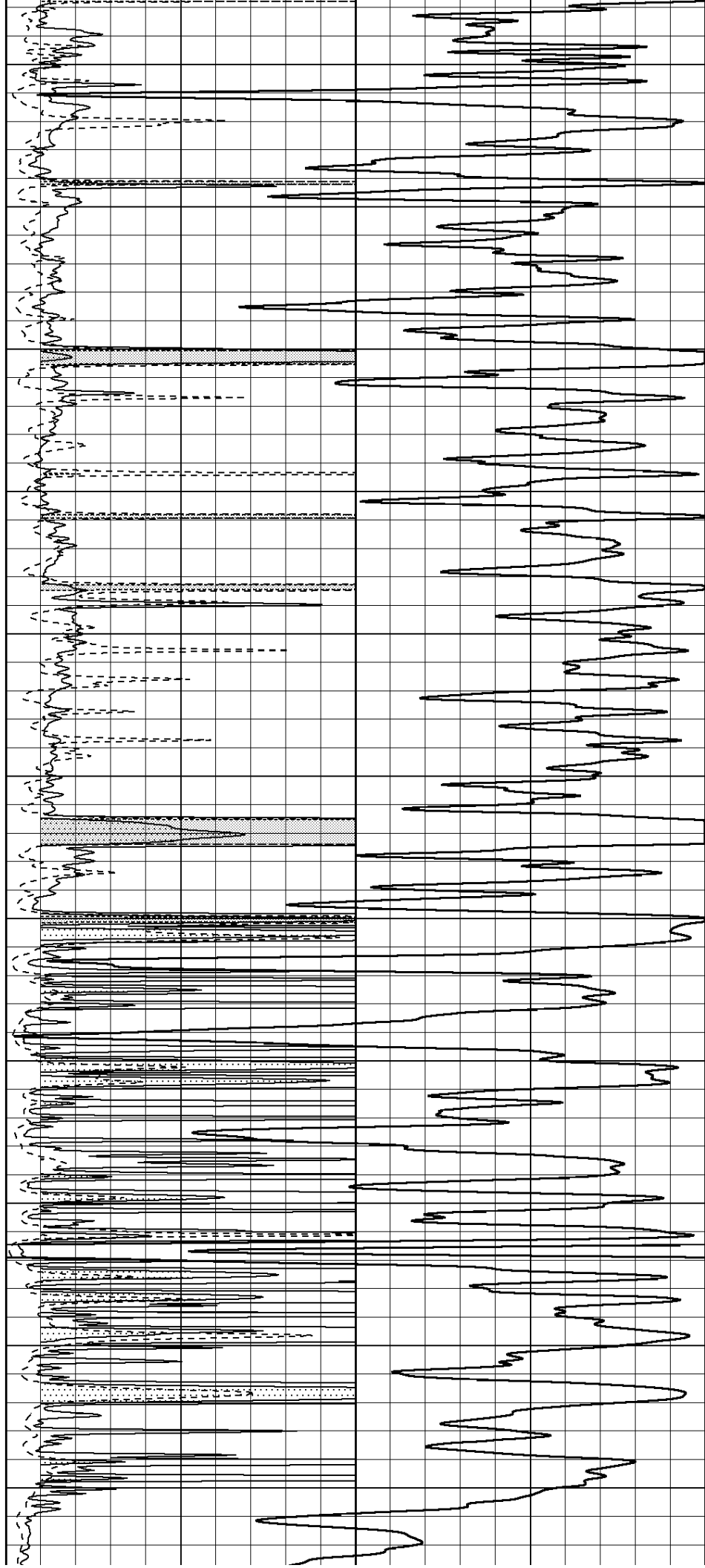
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1400

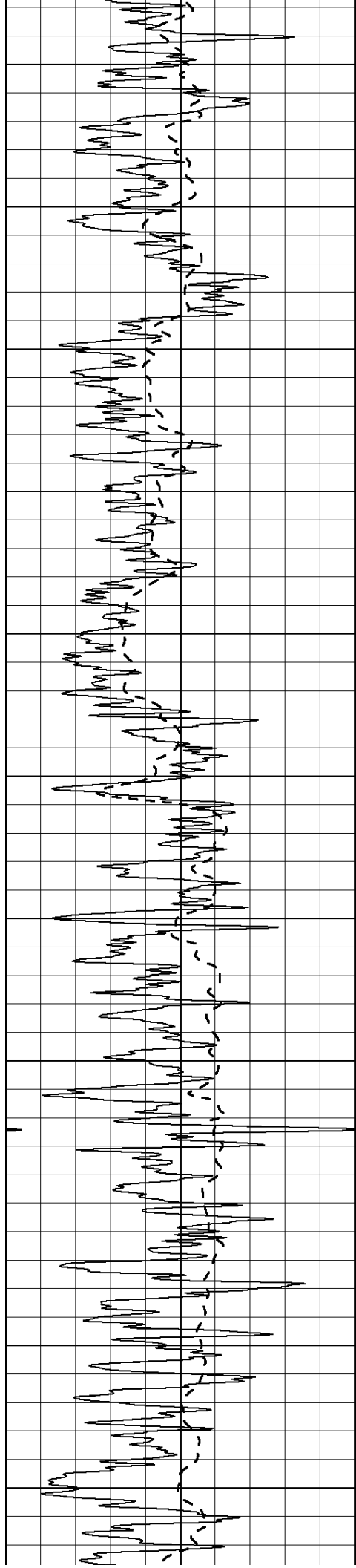
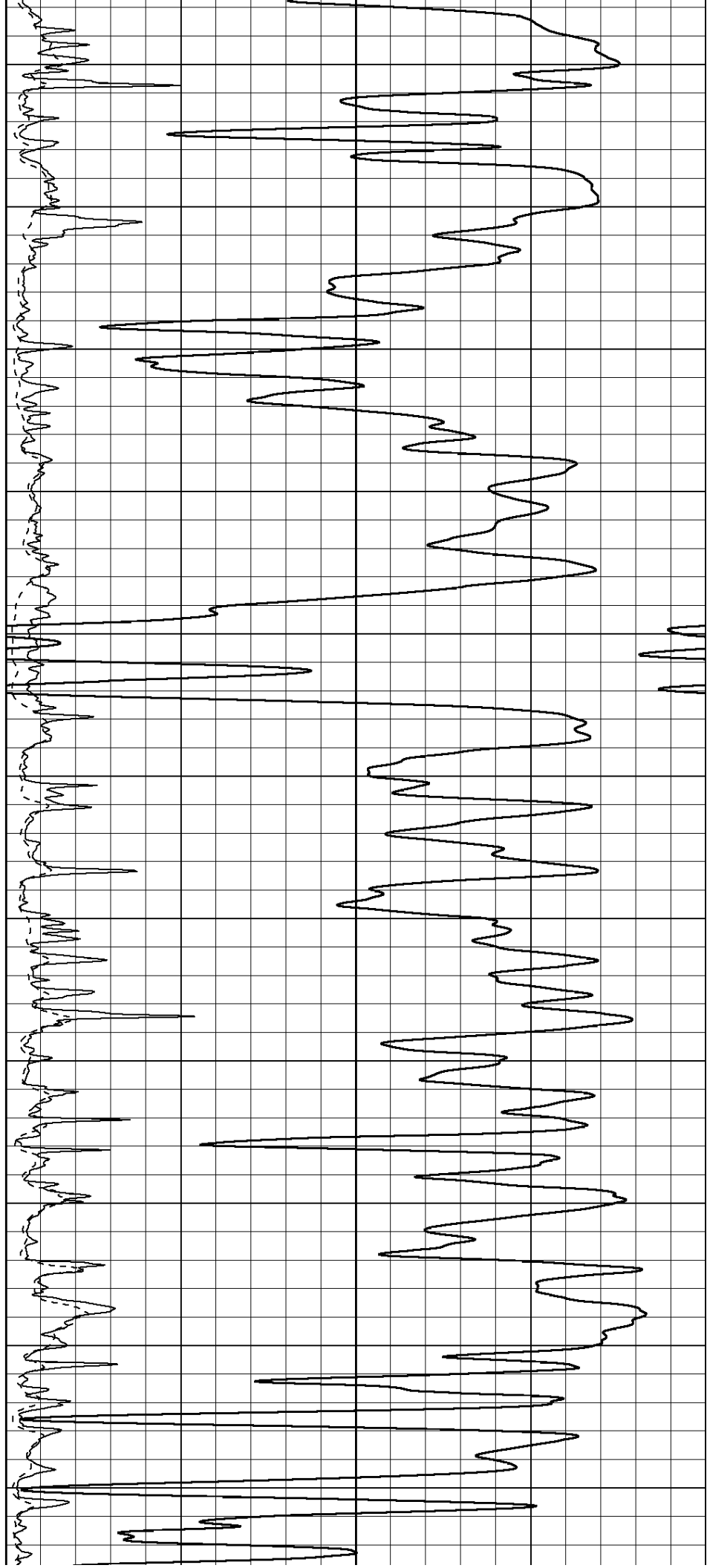
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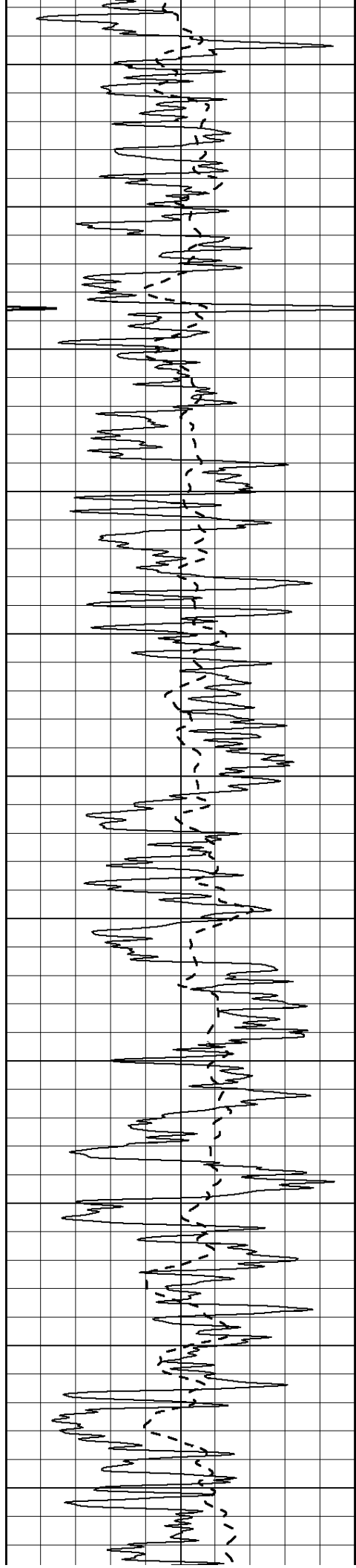
1500

1550



1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100





2150

2200

2250

2300

2350

2400

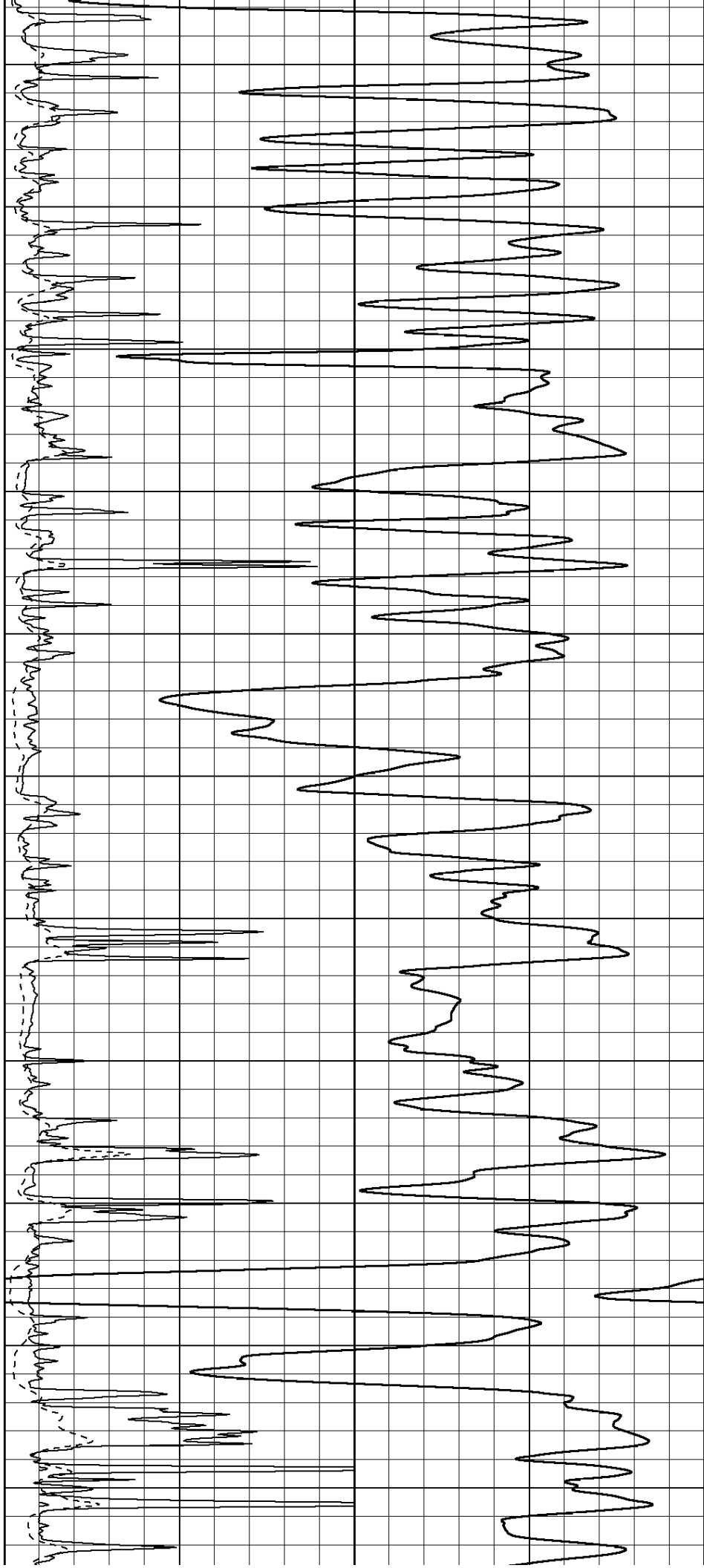
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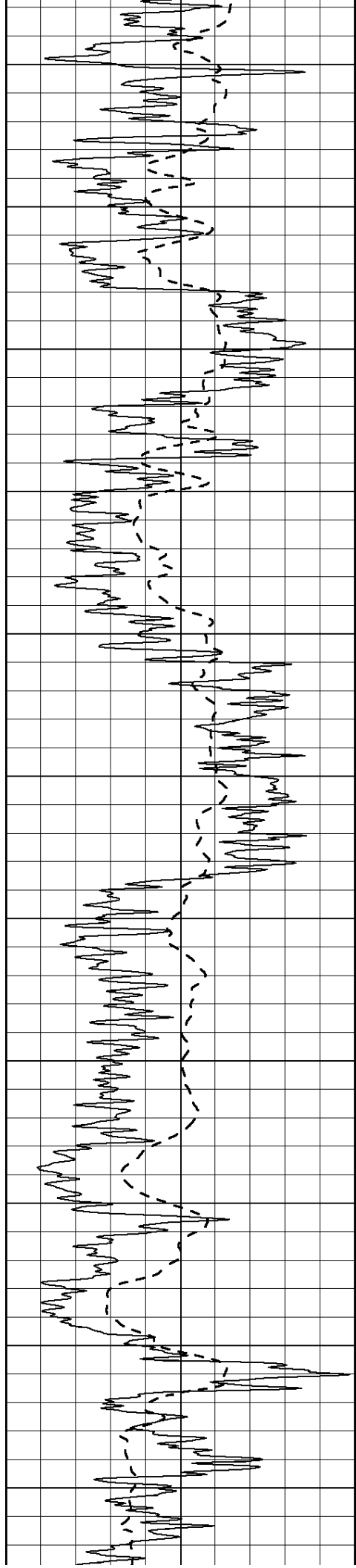
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2600

2650





2700

2750

2800

2850

2900

2950

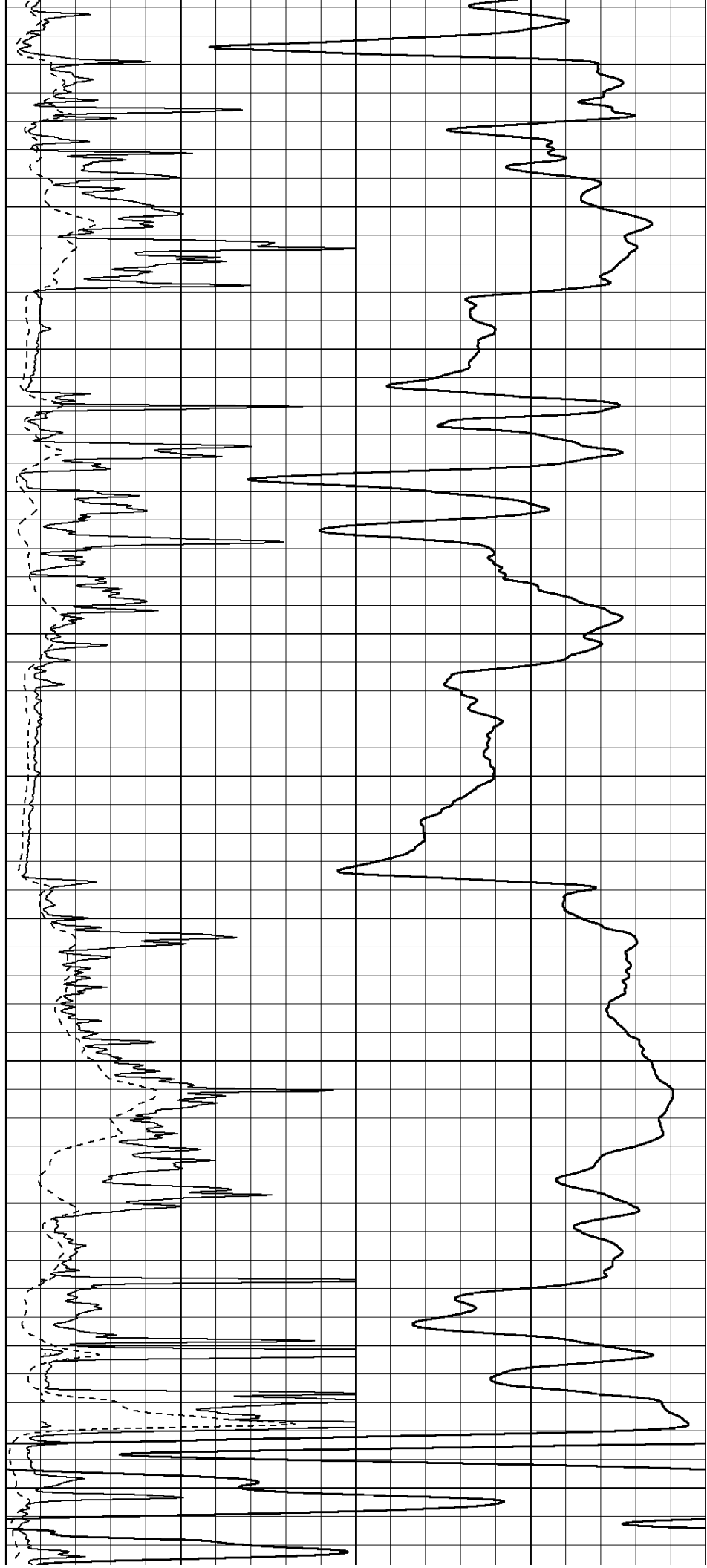
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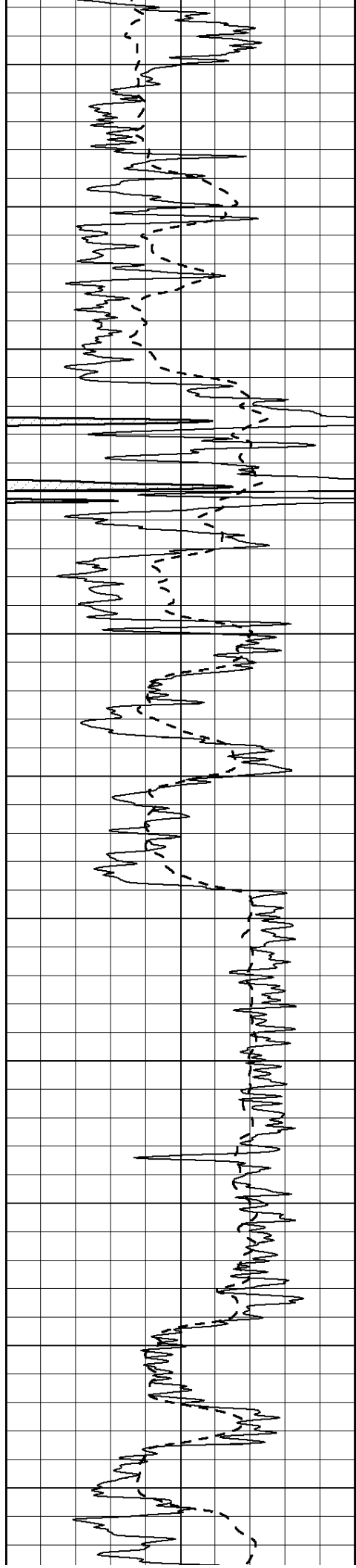
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3100

3150

3200





3250

3300

3350

3400

3450

3500

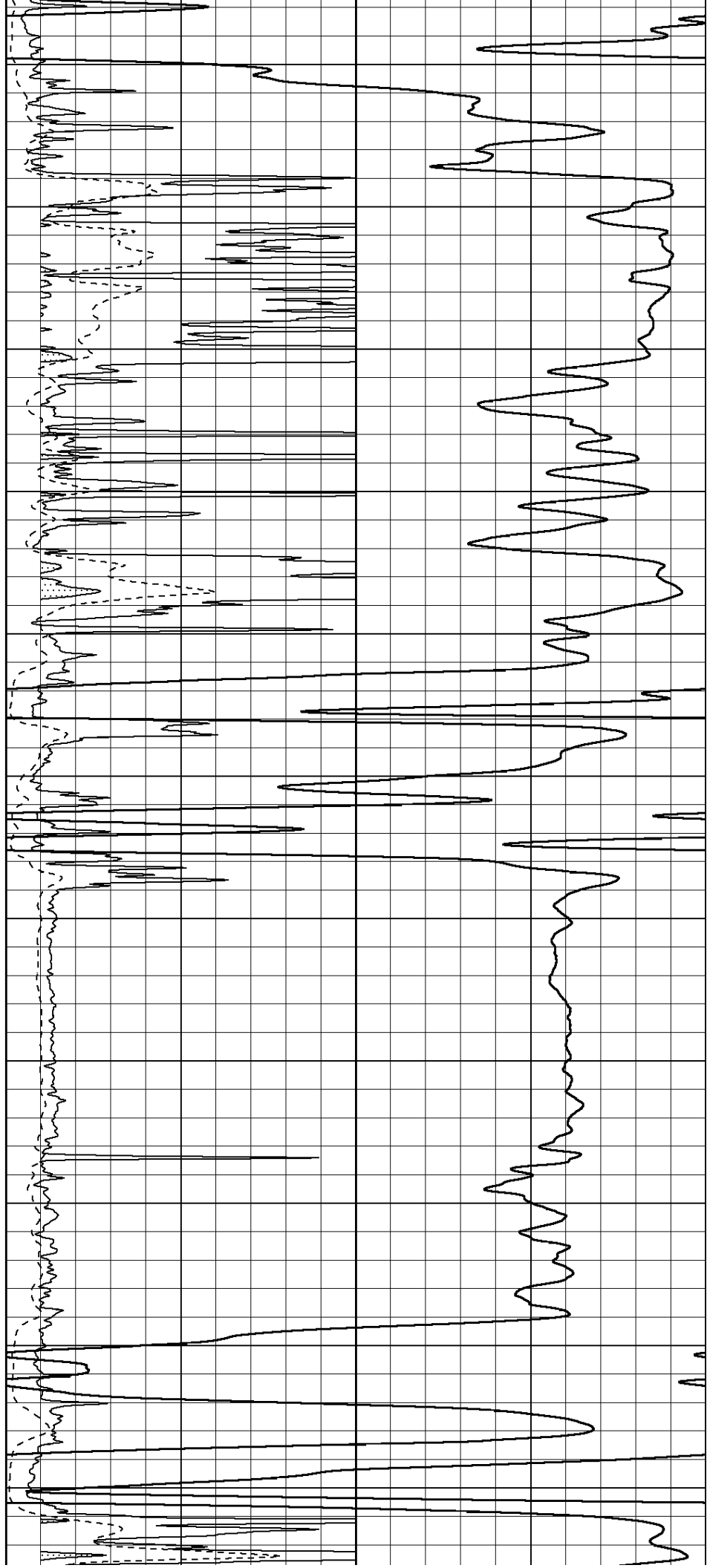
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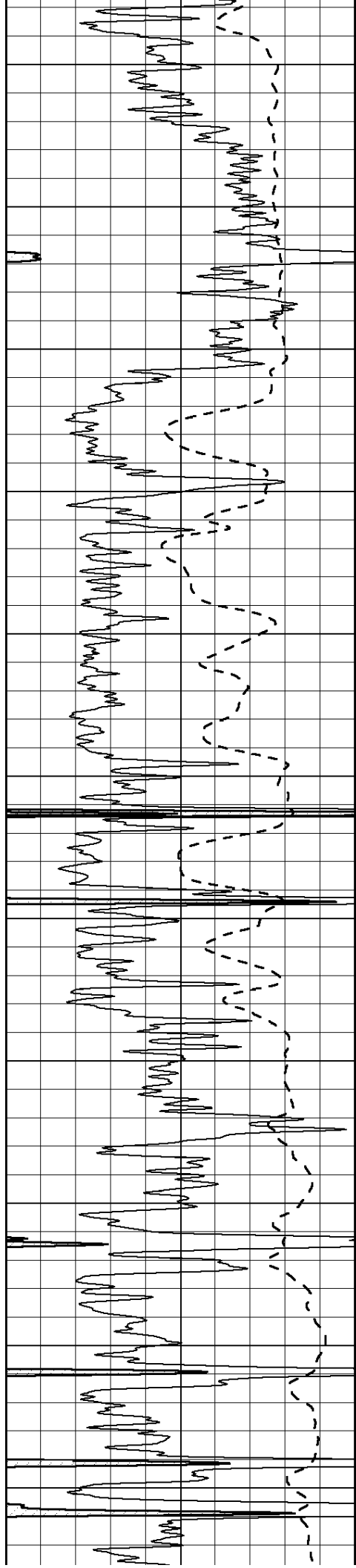
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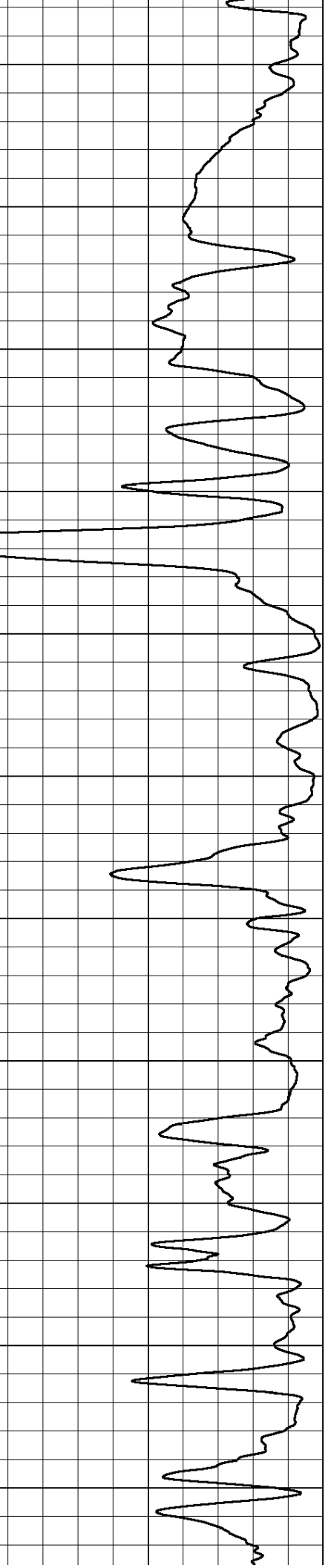
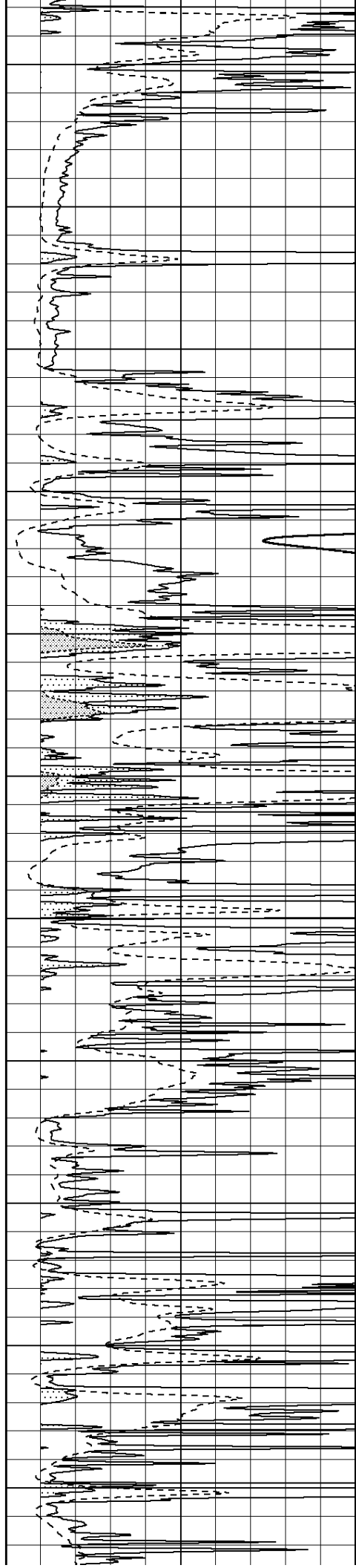
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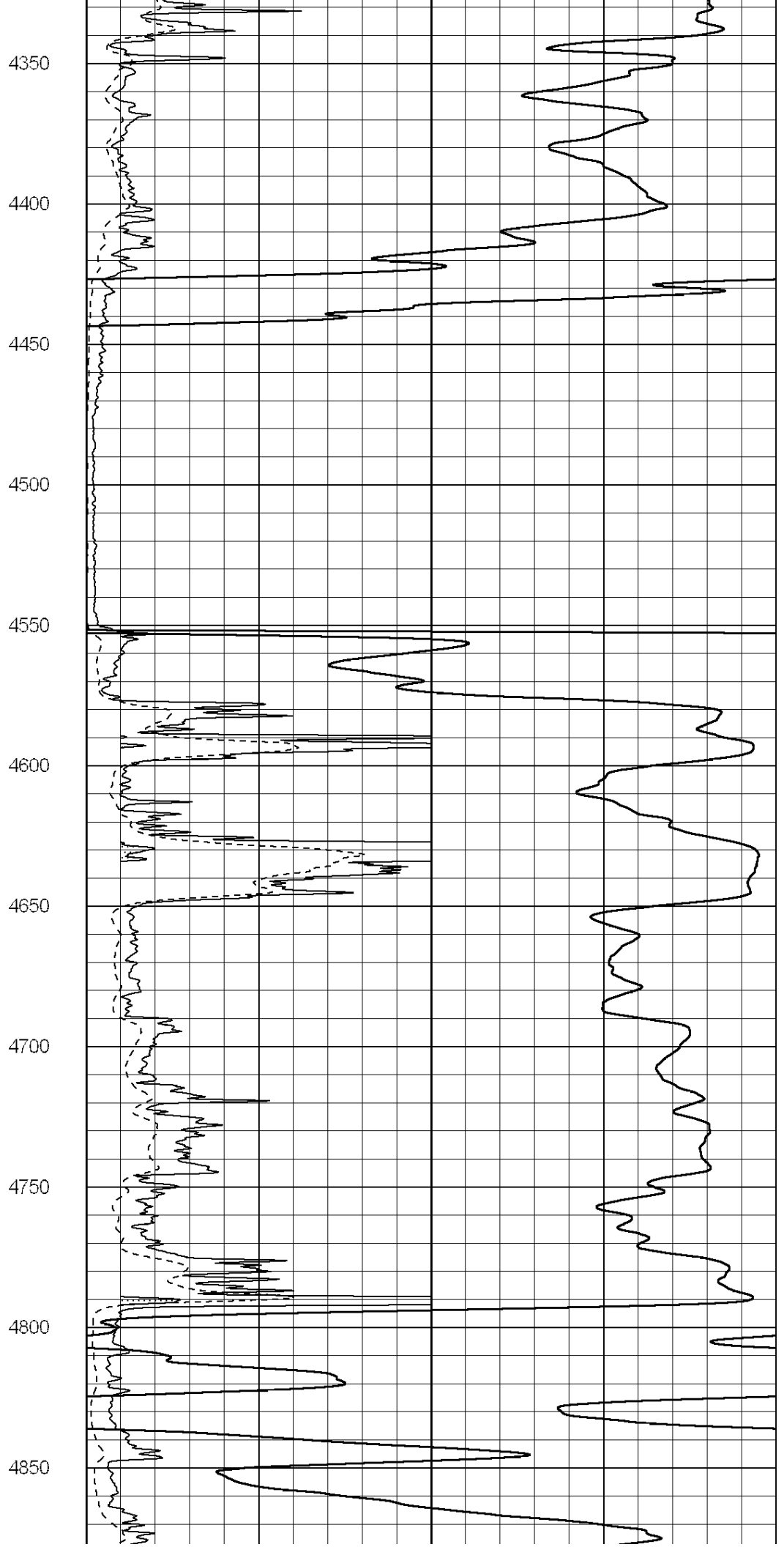
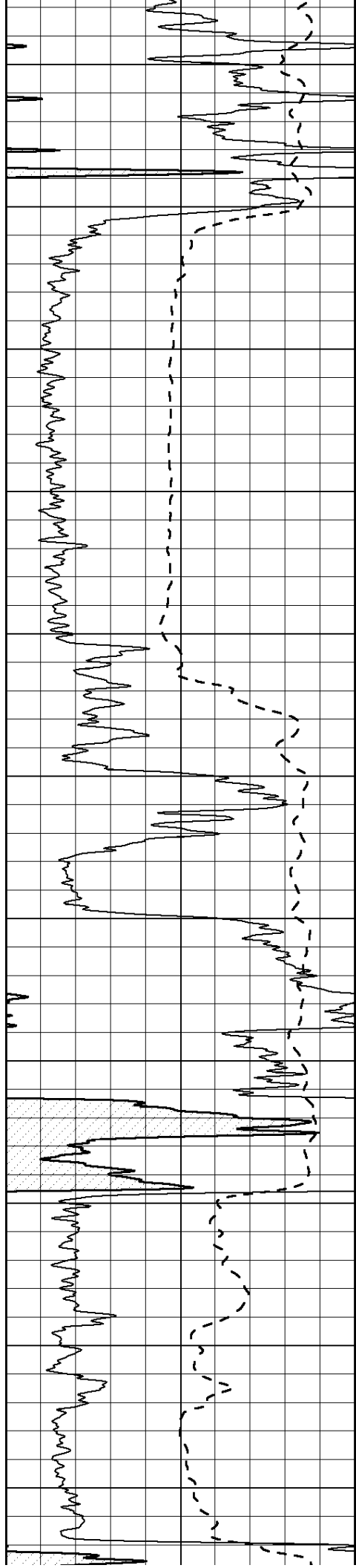
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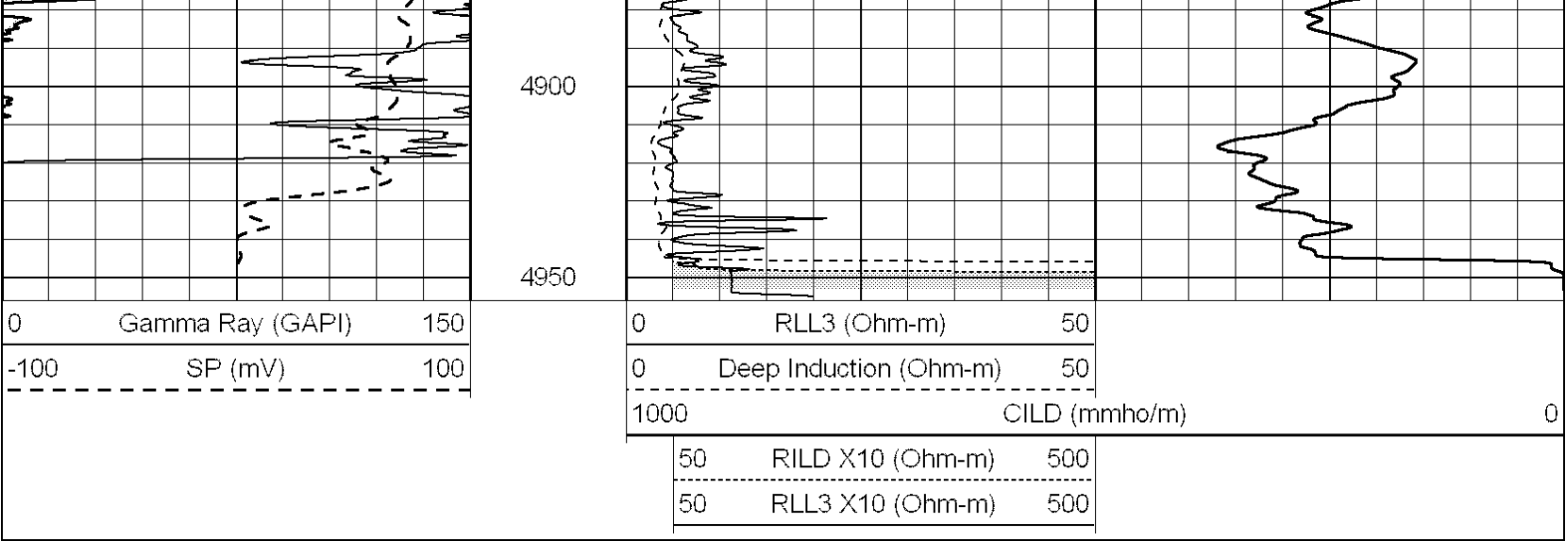




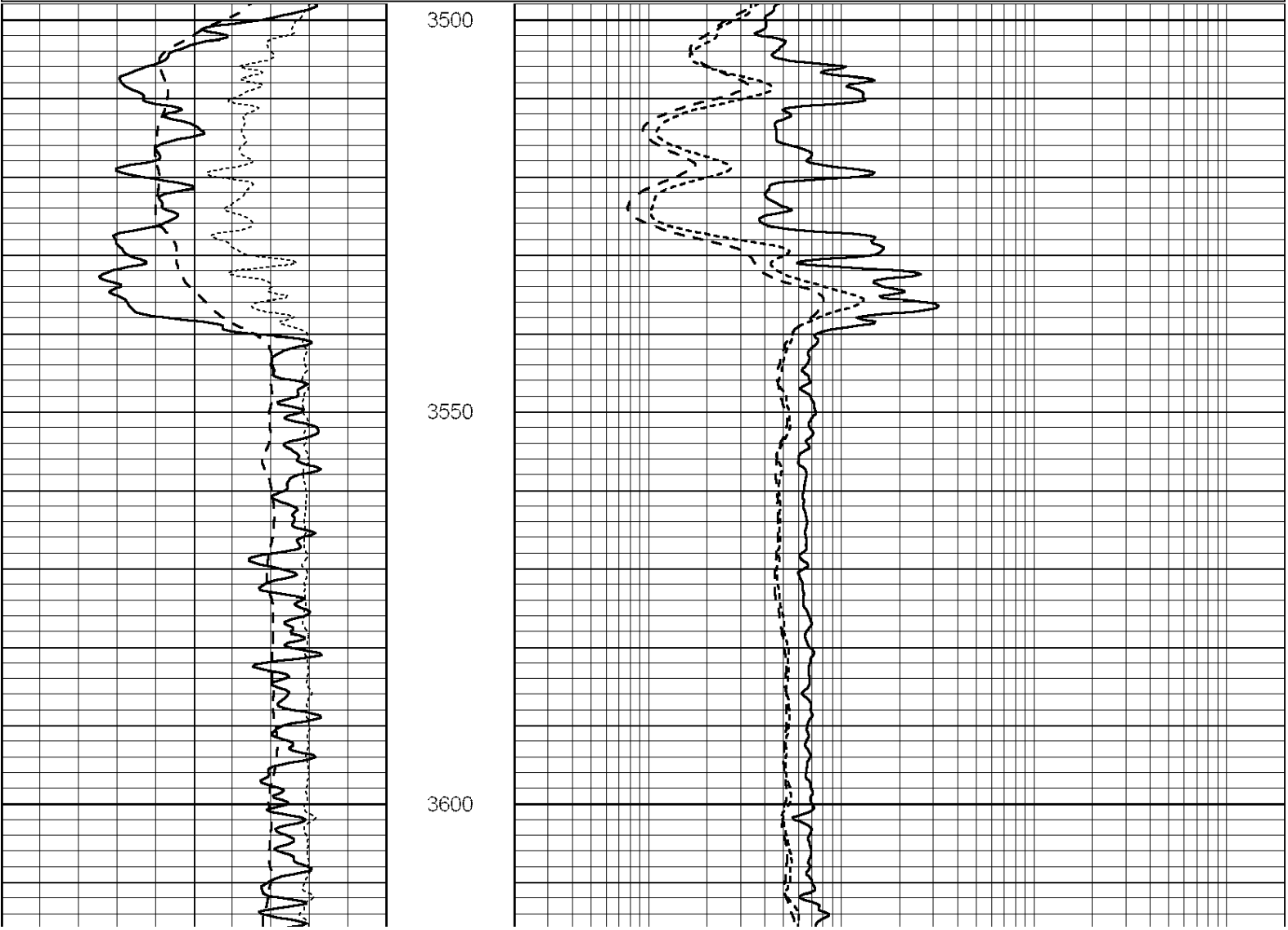
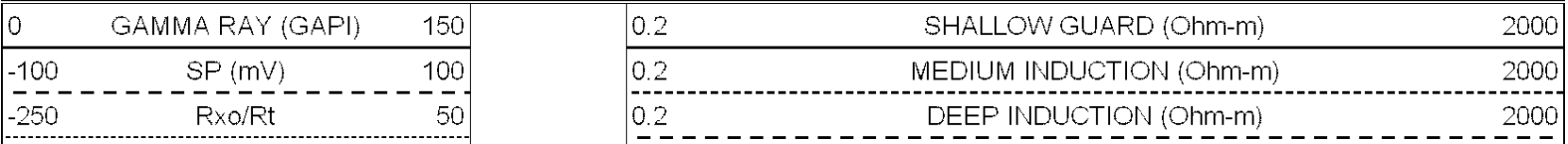
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3850
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4000
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4100
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4200
4250
4300

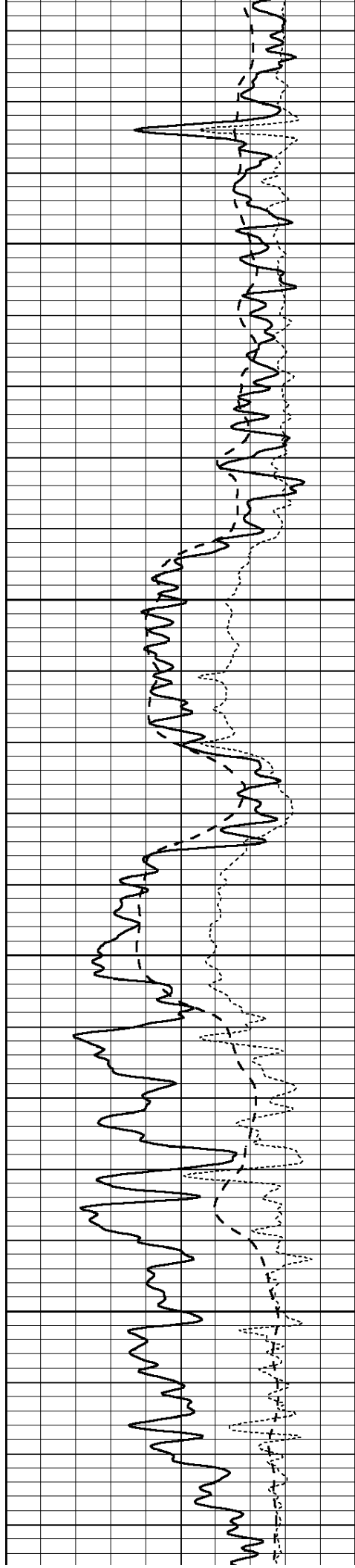






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 Charted by: Depth in Feet scaled 1:240



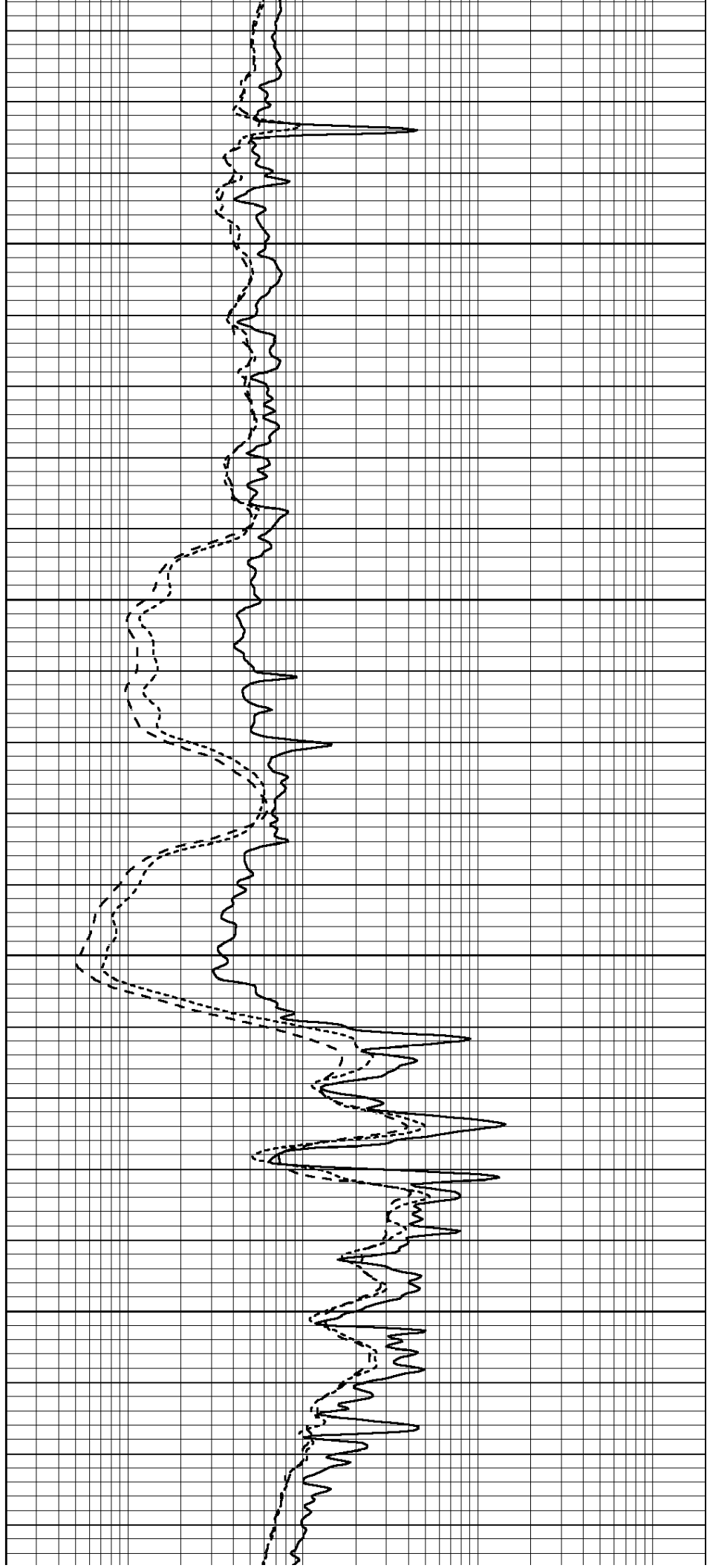


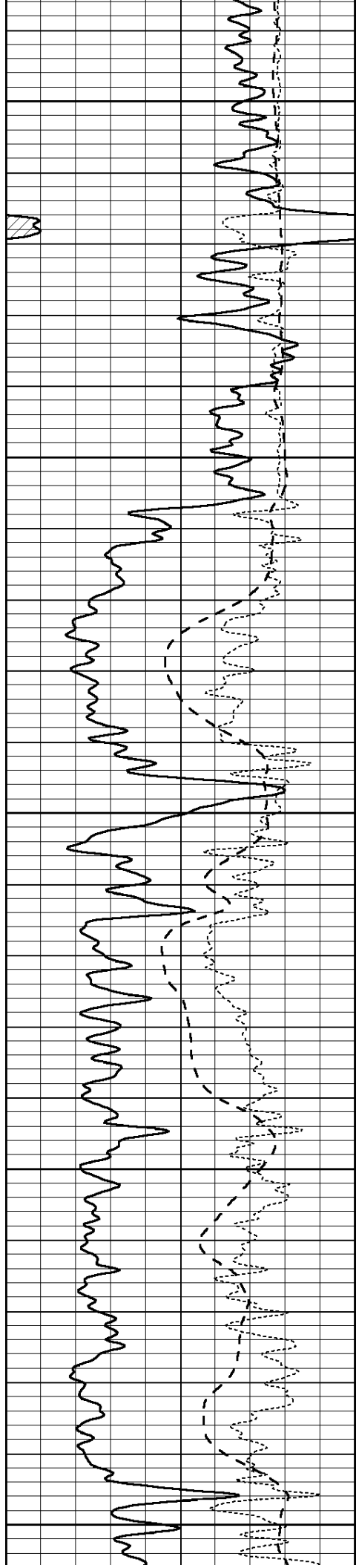
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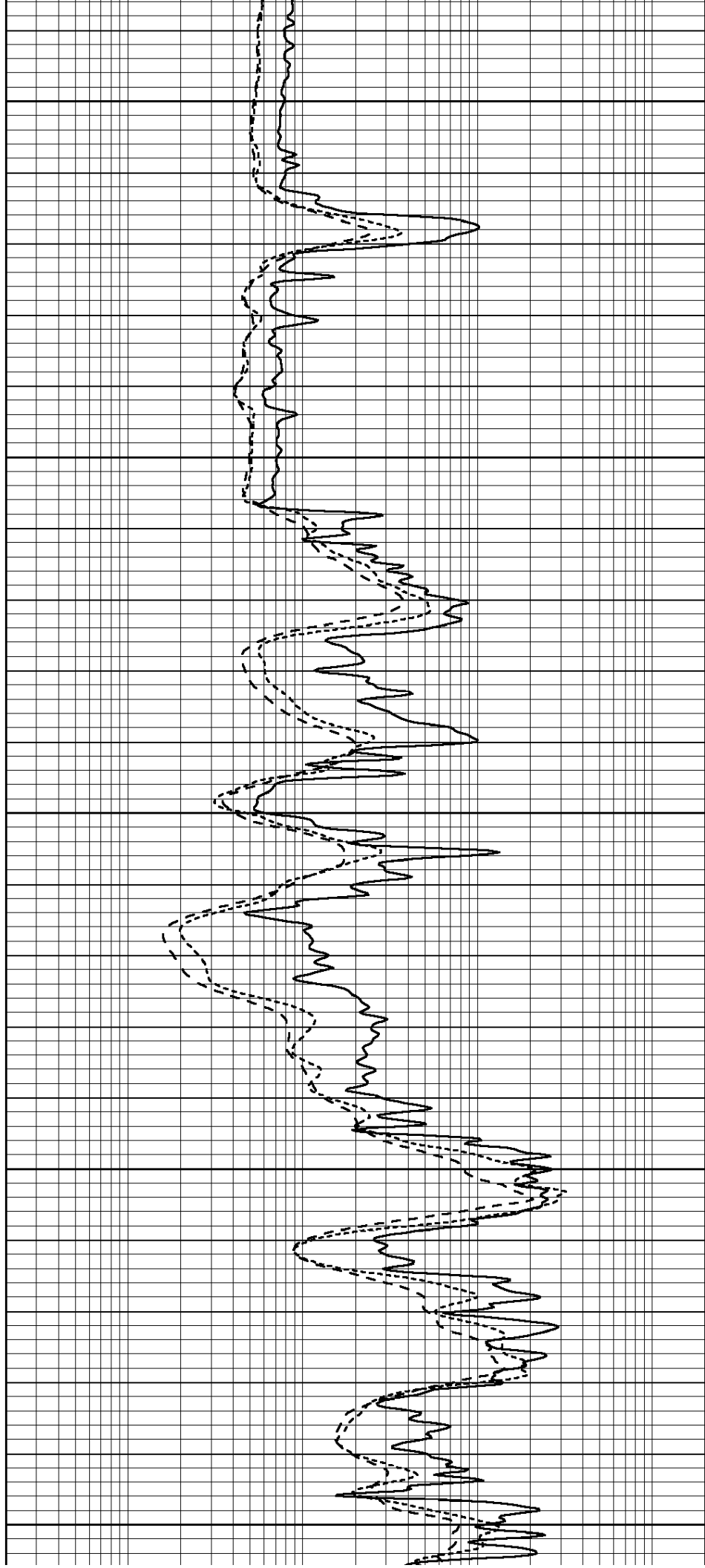
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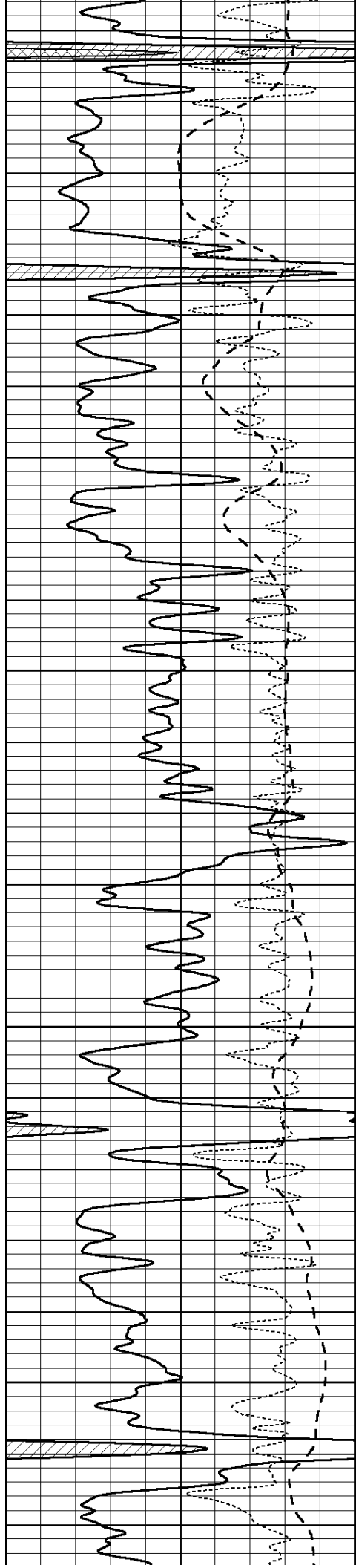
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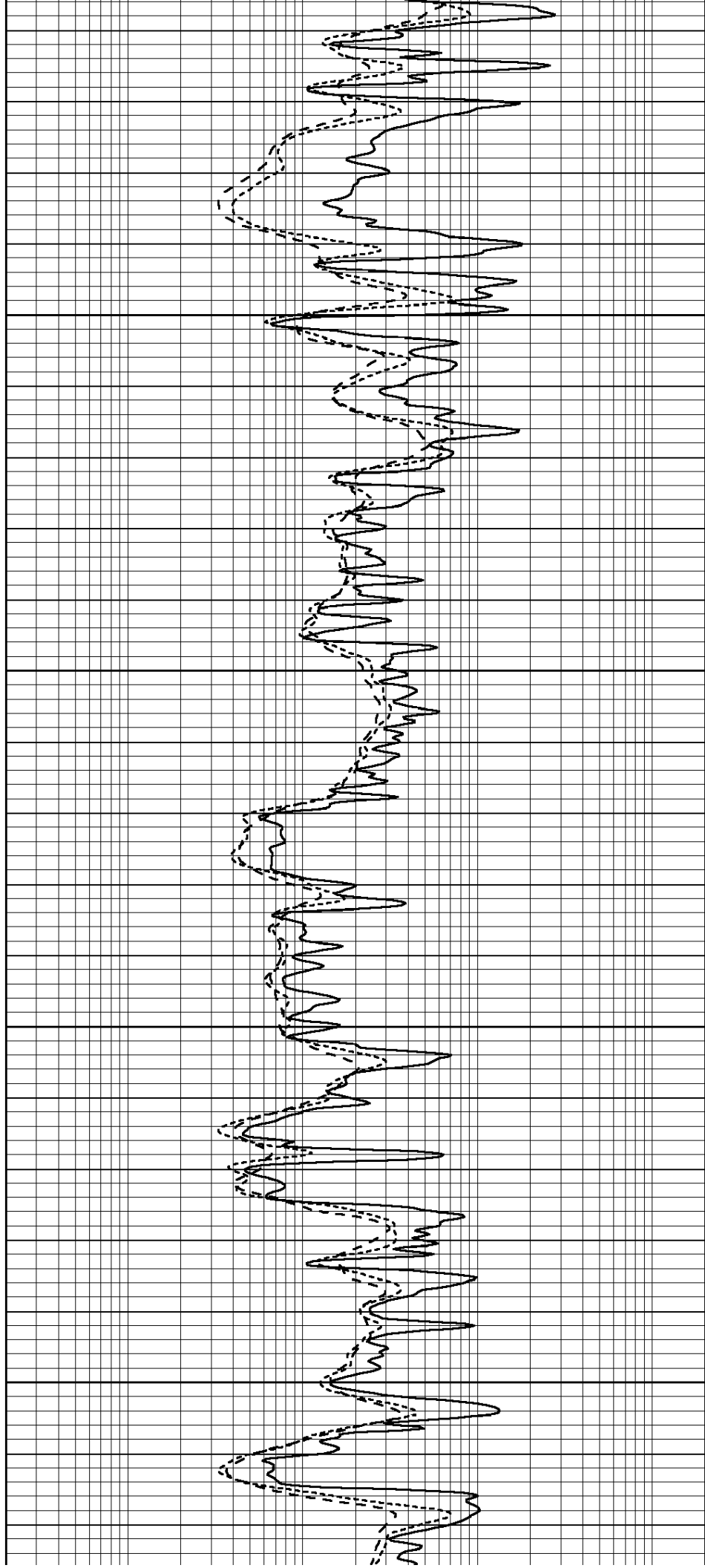


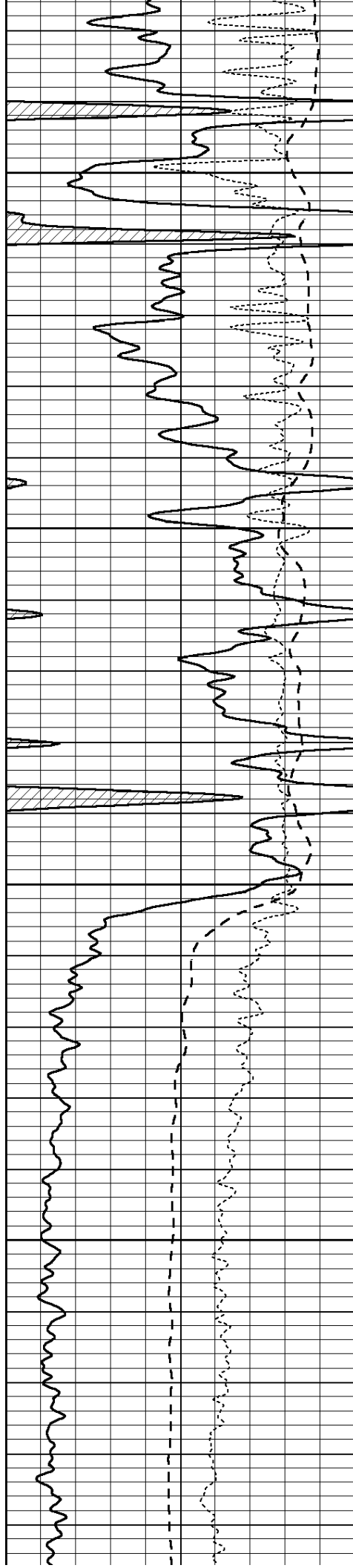
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4250



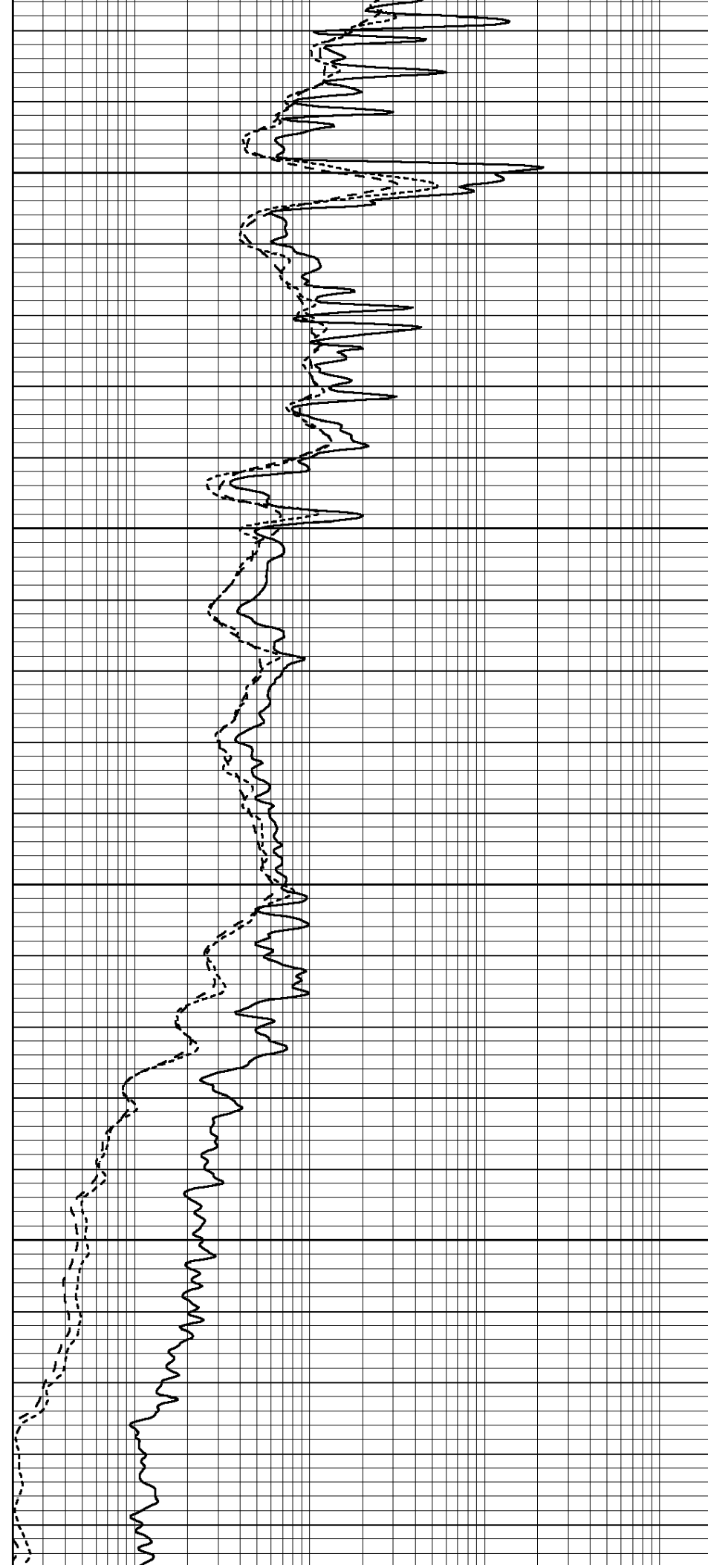


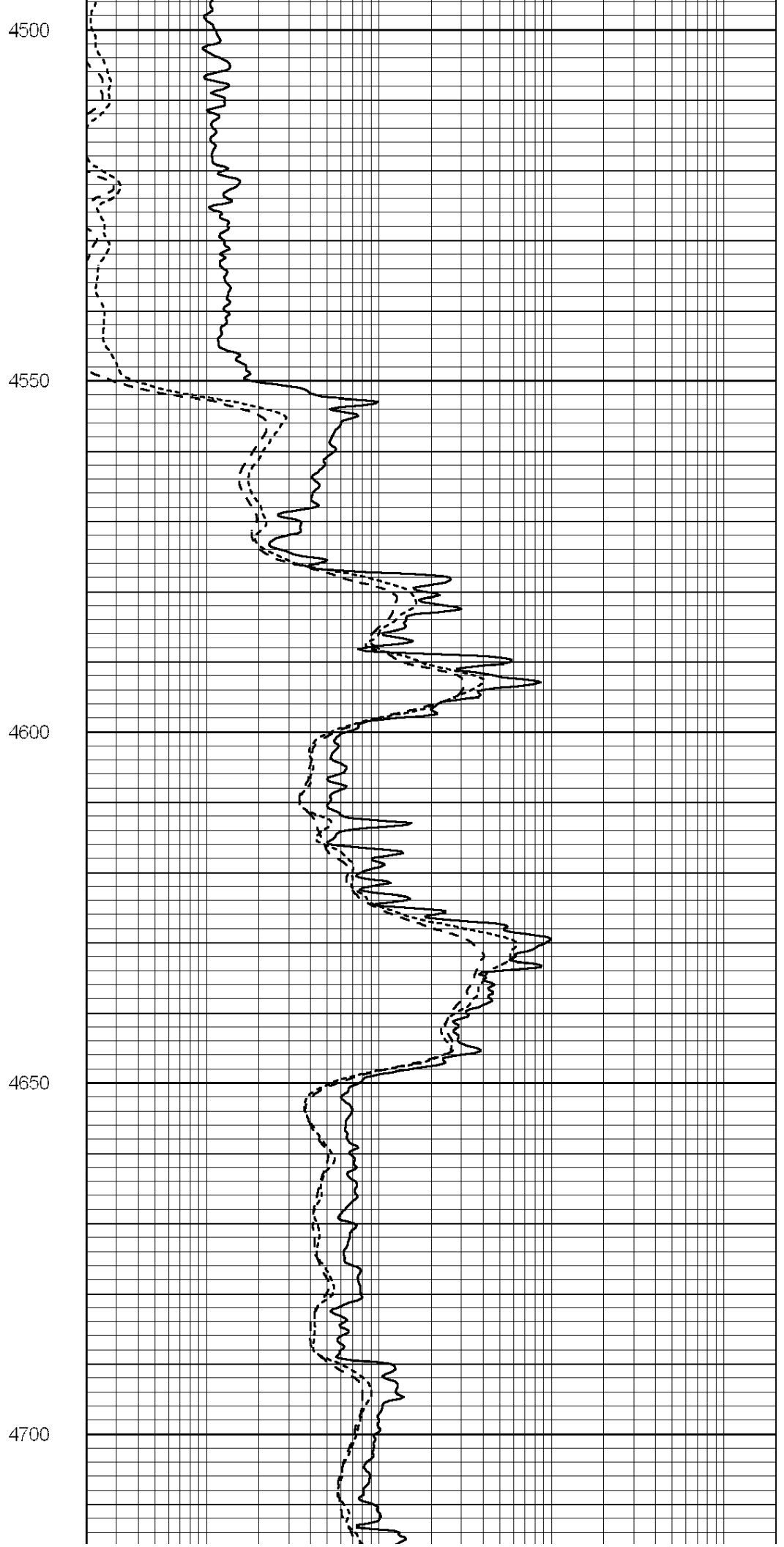
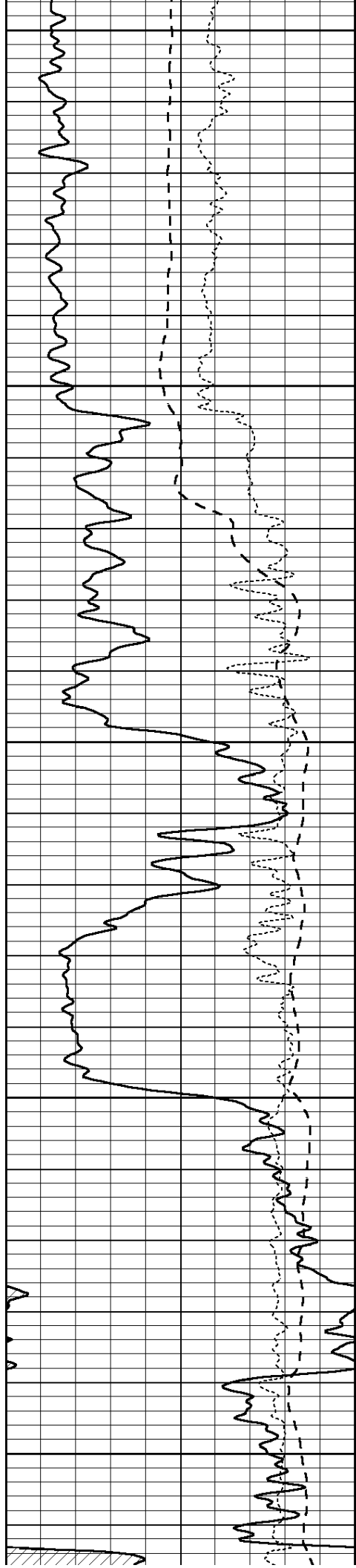
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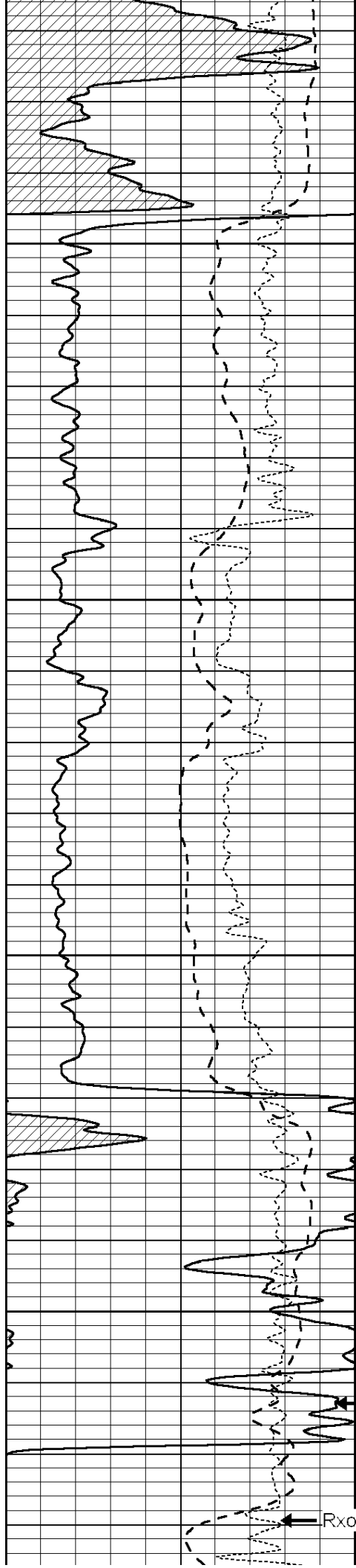
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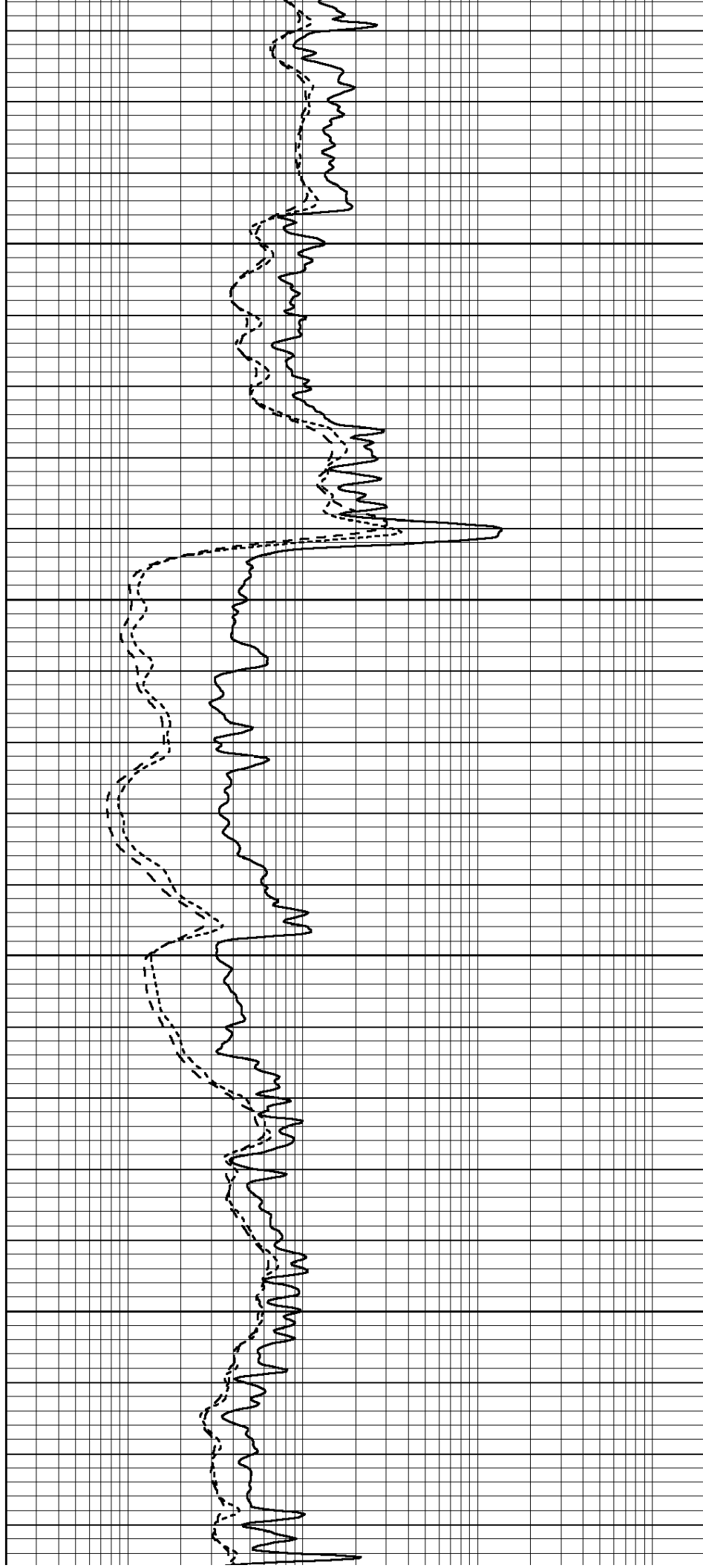
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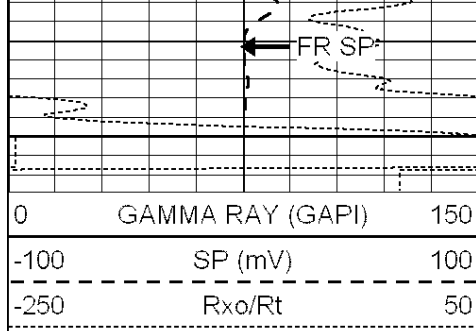
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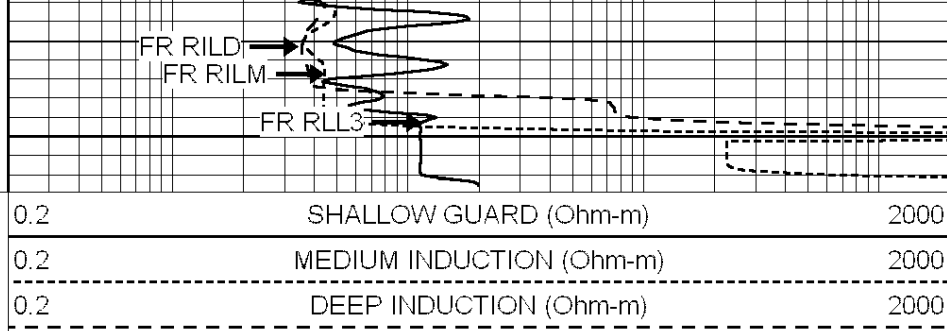
FR GR

RxoRt





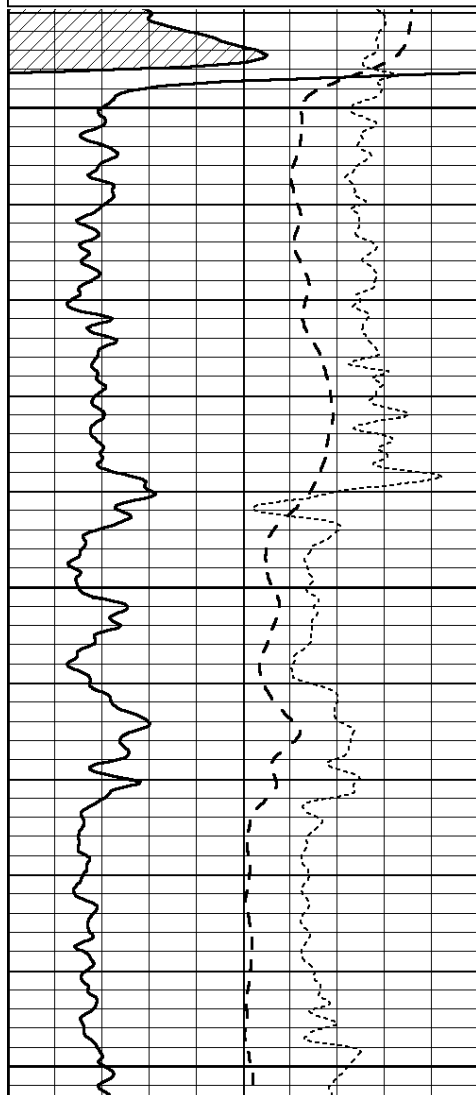
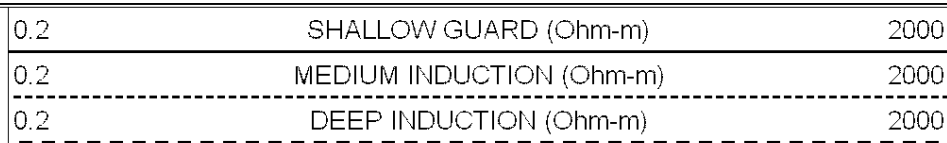
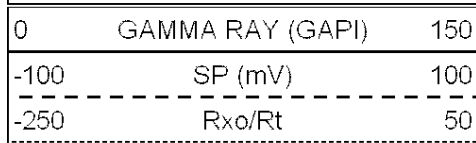
LTD 4951



SUPERIOR
Hays,
Kansas

REPEAT SECTION

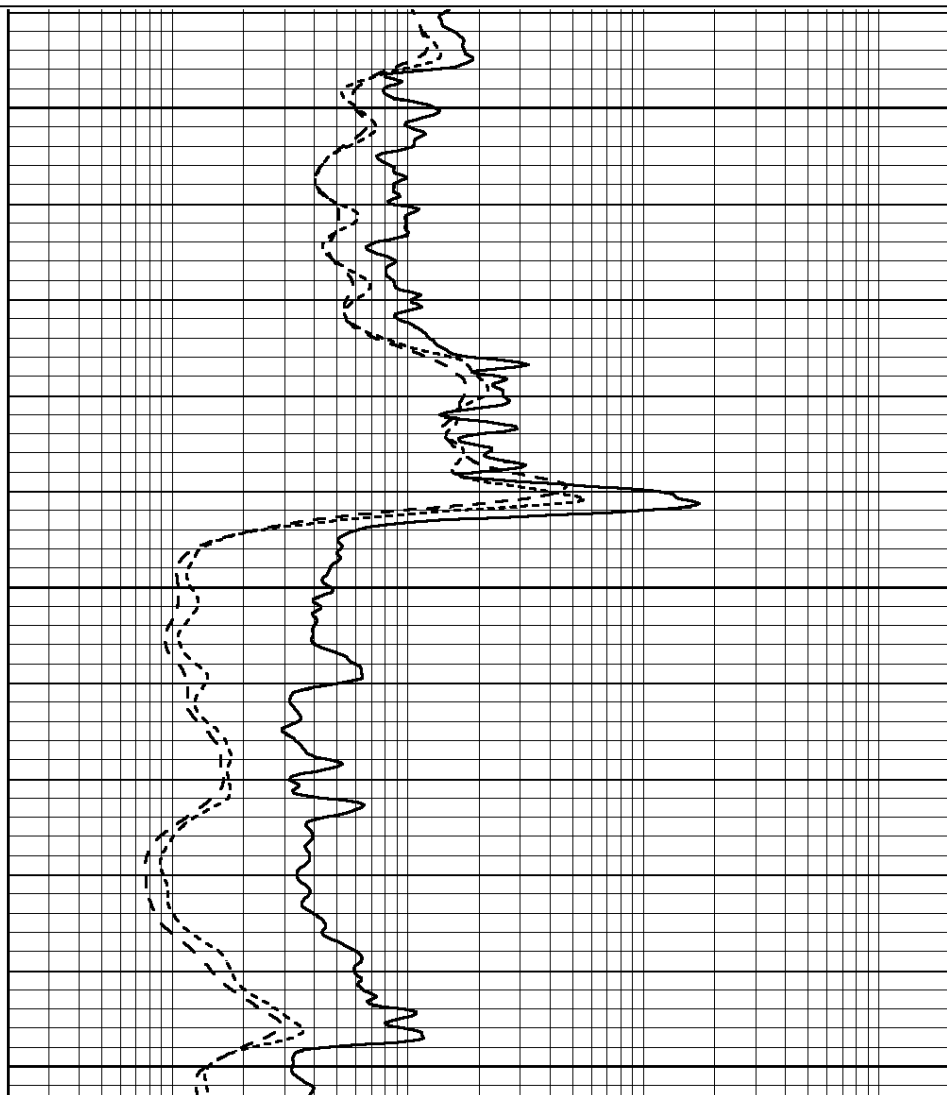
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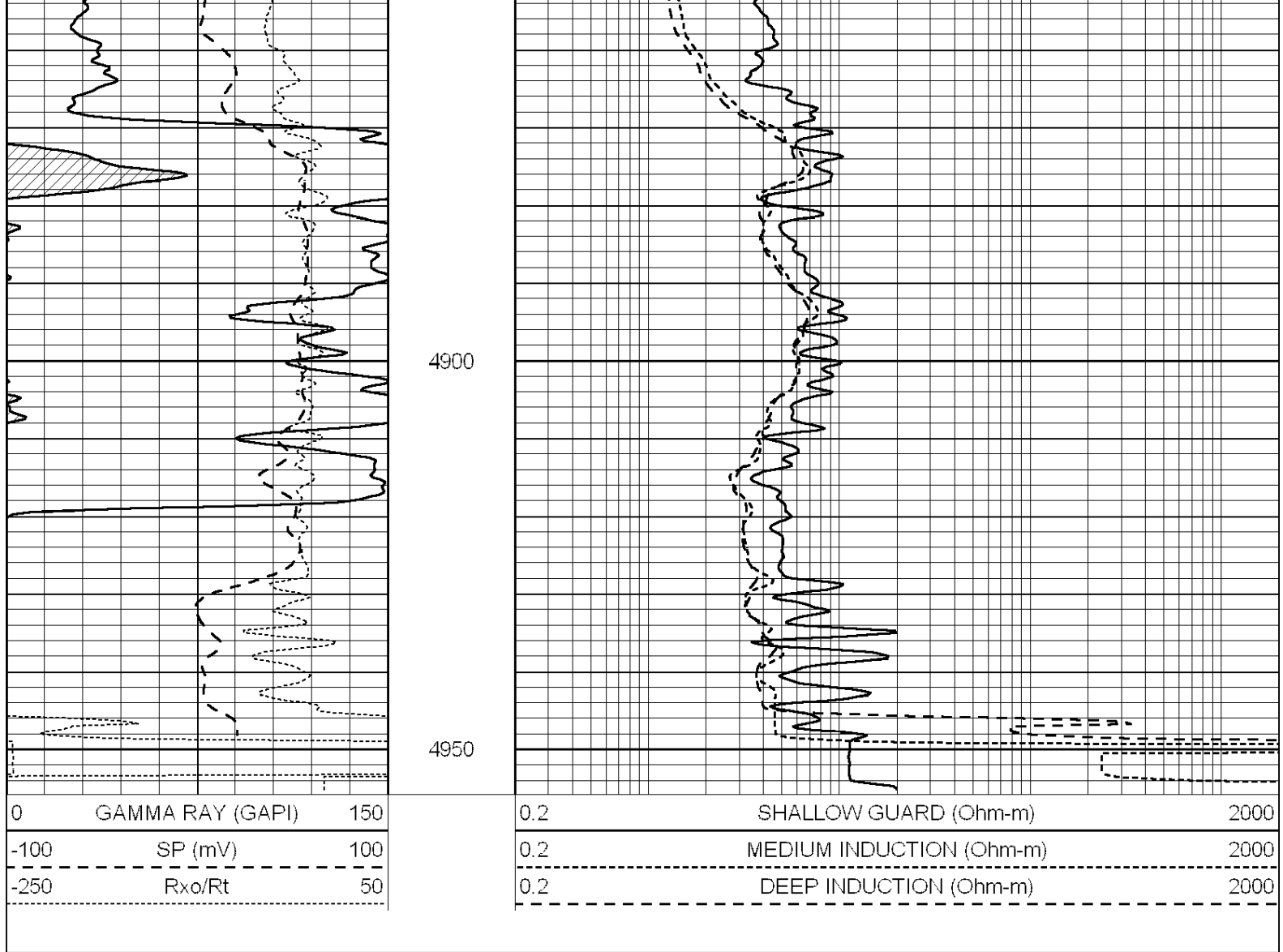


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Calibration Report

Database File: 008658ddn.db
 Dataset Pathname: pass3.2
 Dataset Creation: Wed Dec 21 11:45:53 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
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'

	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		
After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		
Compensated Density Calibration Report								
Serial-Model:				GEAR4-GEARHART				
Source / Verifier:				143 / 143				
Master Calibration Performed:				Sat Jul 16 17:35:04 2011				
Master Calibration								
	Density			Far Detector		Near Detector		
Magnesium	1.710	g/cc		1015.91		497.51	cps	
Aluminum	2.600	g/cc		227.67		350.20	cps	
Spine Angle = 76.79				Density/Spine Ratio = 0.579				
	Size			Reading				
Small Ring	8.00	in		2.25	V			
Large Ring	14.00	in		4.37	V			
Compensated Neutron Calibration Report								
Serial Number:				6I				
Tool Model:				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		
Gamma Ray Calibration Report								
Serial Number:			#8					
Tool Model:			OPEN					
Performed:			Mon Jun 13 16:56:43 2011					
Calibrator Value:			150.0	GAPI				
Background Reading:			0.0	cps				
Calibrator Reading:			175.0	cps				
Sensitivity:			0.8371	GAPI/cps				