



**SUPERIOR
Hays,
Kansas**

**DUAL
INDUCTION
LOG**

Company	RITCHIE EXPLORATION, INC.	
Well	MAVERICK #1	
Field	WILDCAT	
County	FORD	State KANSAS
Location:	API # : 15-057-20647-0000	Other Services
	721' FNL & 870' FWL	CDL/CNL
	SEC 21 TWP 27S RGE 23W	Elevation
Permanent Datum	GROUND LEVEL	Elevation 2408
Log Measured From	KELLY BUSHING 12' A.G.L.	
Drilling Measured From	KELLY BUSHING	

Date	12-04-09
Run Number	ONE
Depth Driller	5105
Depth Logger	5104
Bottom Logged Interval	5102
Top Log Interval	0
Casing Driller	8 5/8" @ 437
Casing Logger	436
Bit Size	7 7/8
Type Fluid In Hole	CHEMICAL MUD
Density / Viscosity	9.3/65
pH / Fluid Loss	9.5/9.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.2 @ 45F
Rmf @ Meas. Temp	.9 @ 45F
Rmc @ Meas. Temp	1.92 @ 45F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.425 @ 125F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	125F
Equipment Number	680
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	MIKE ENGELBRECHT

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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.

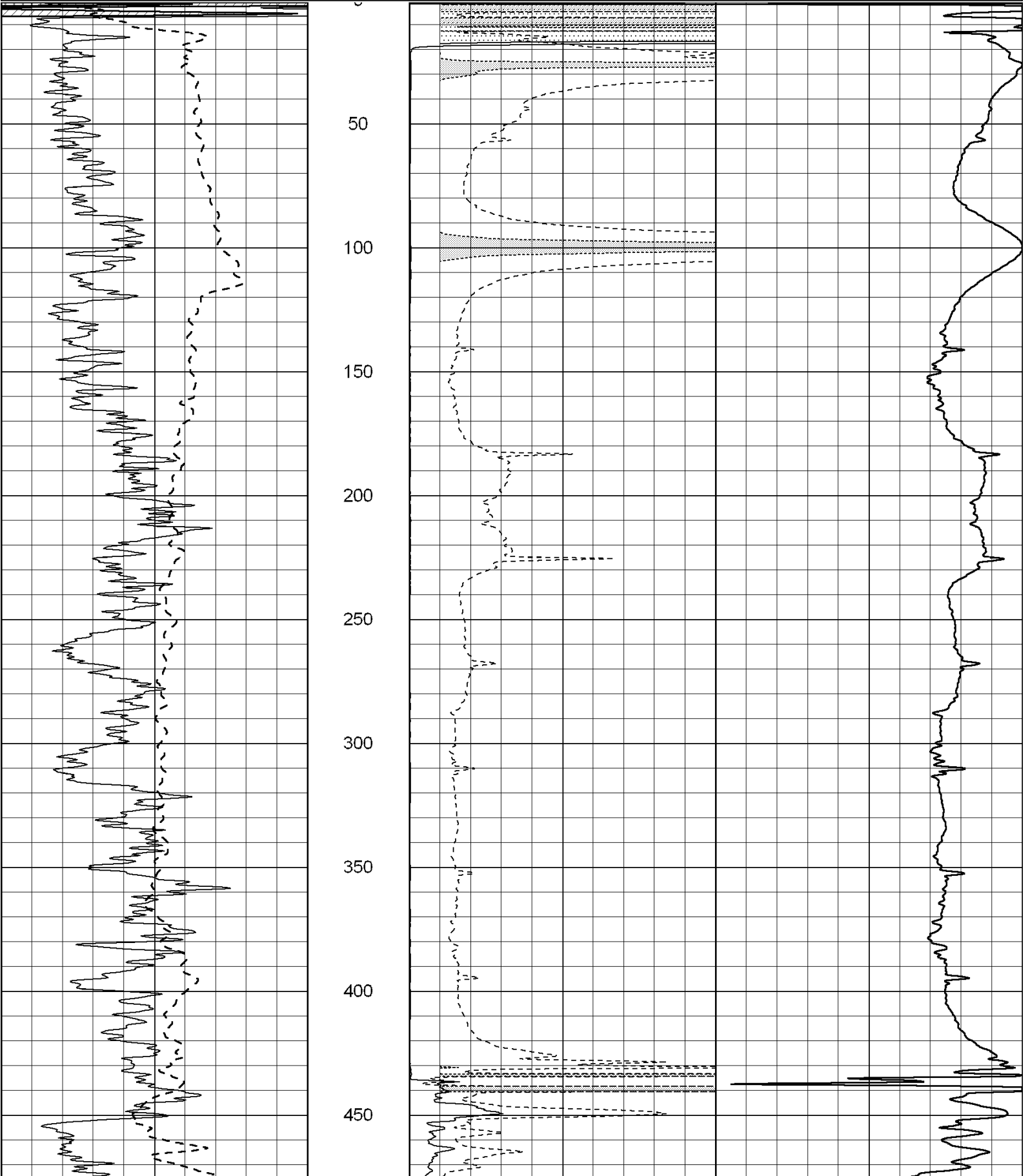
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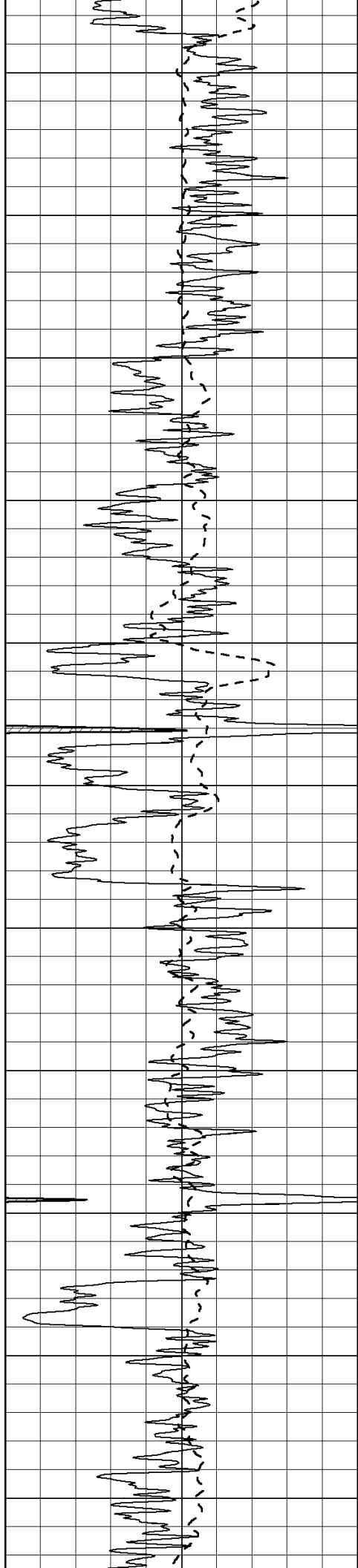
THANK YOU FOR USING SUPERIOR WELL SERVICES HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 WRIGHT KS. S. ON 117 RD, STRAIGHT ACROSS HWY 400 - 1 1/2 S
 TO ELEVATOR RD. - 3 E. - N. TO TANK BATTERY - N. & E. INTO

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

1000	CILD (mmho/m)	0
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500





500

550

600

650

700

750

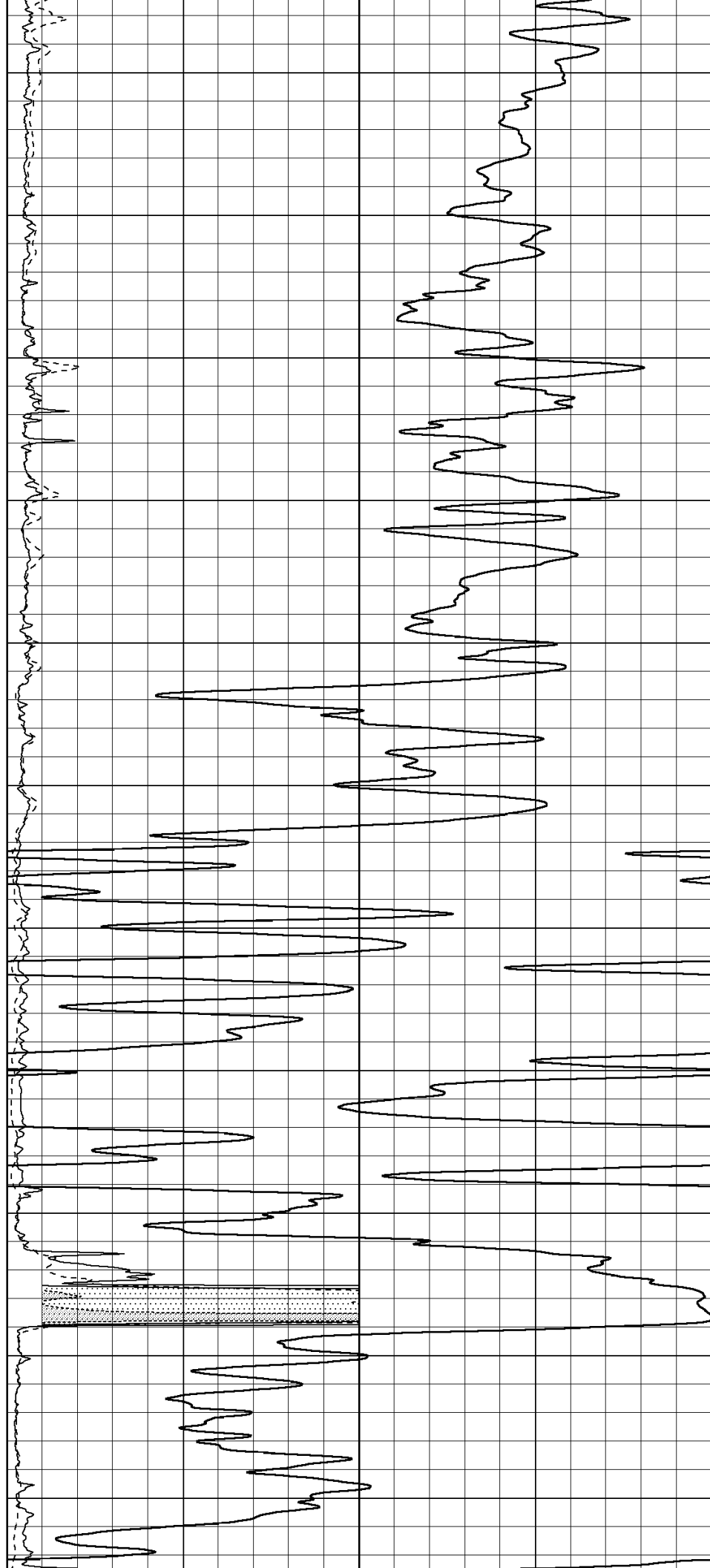
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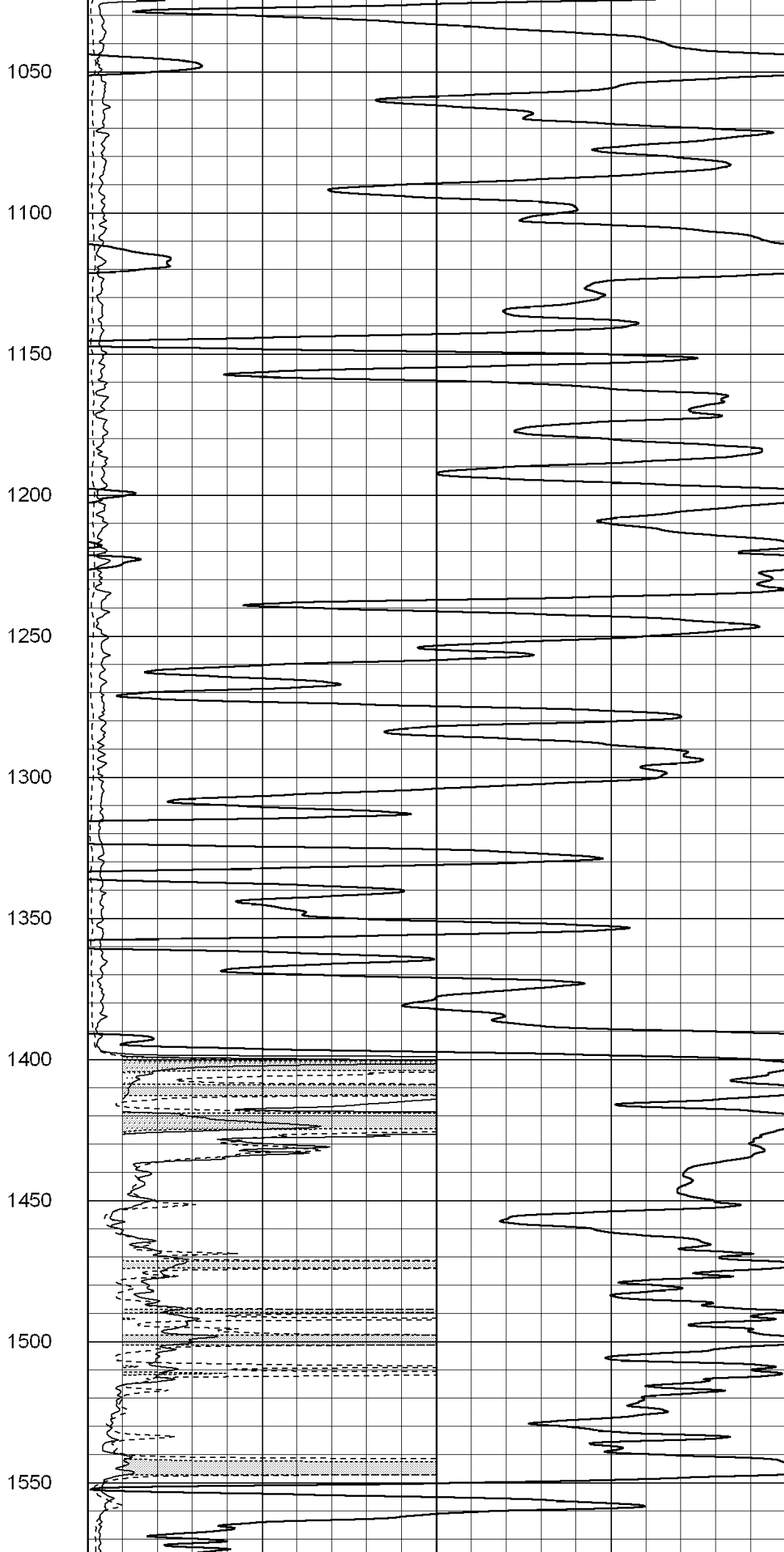
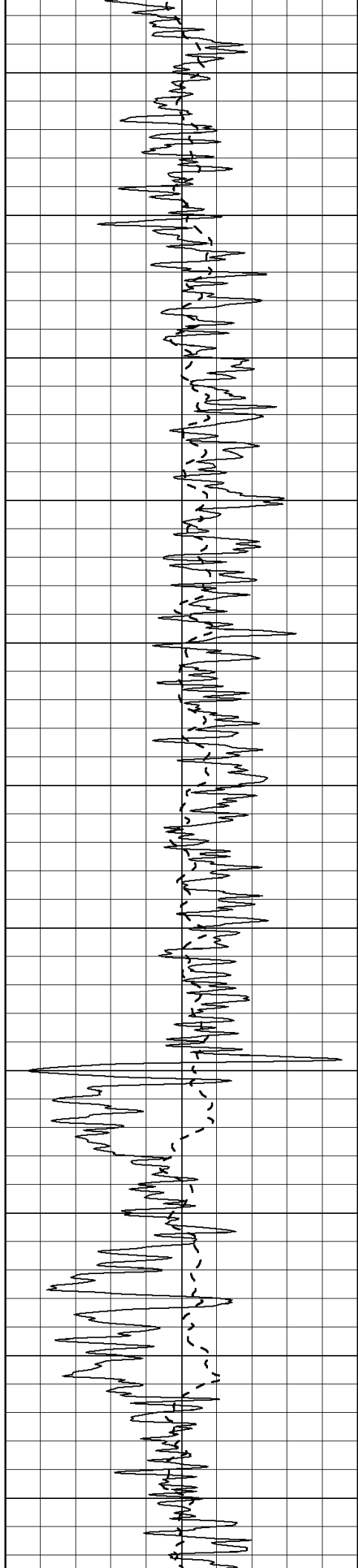
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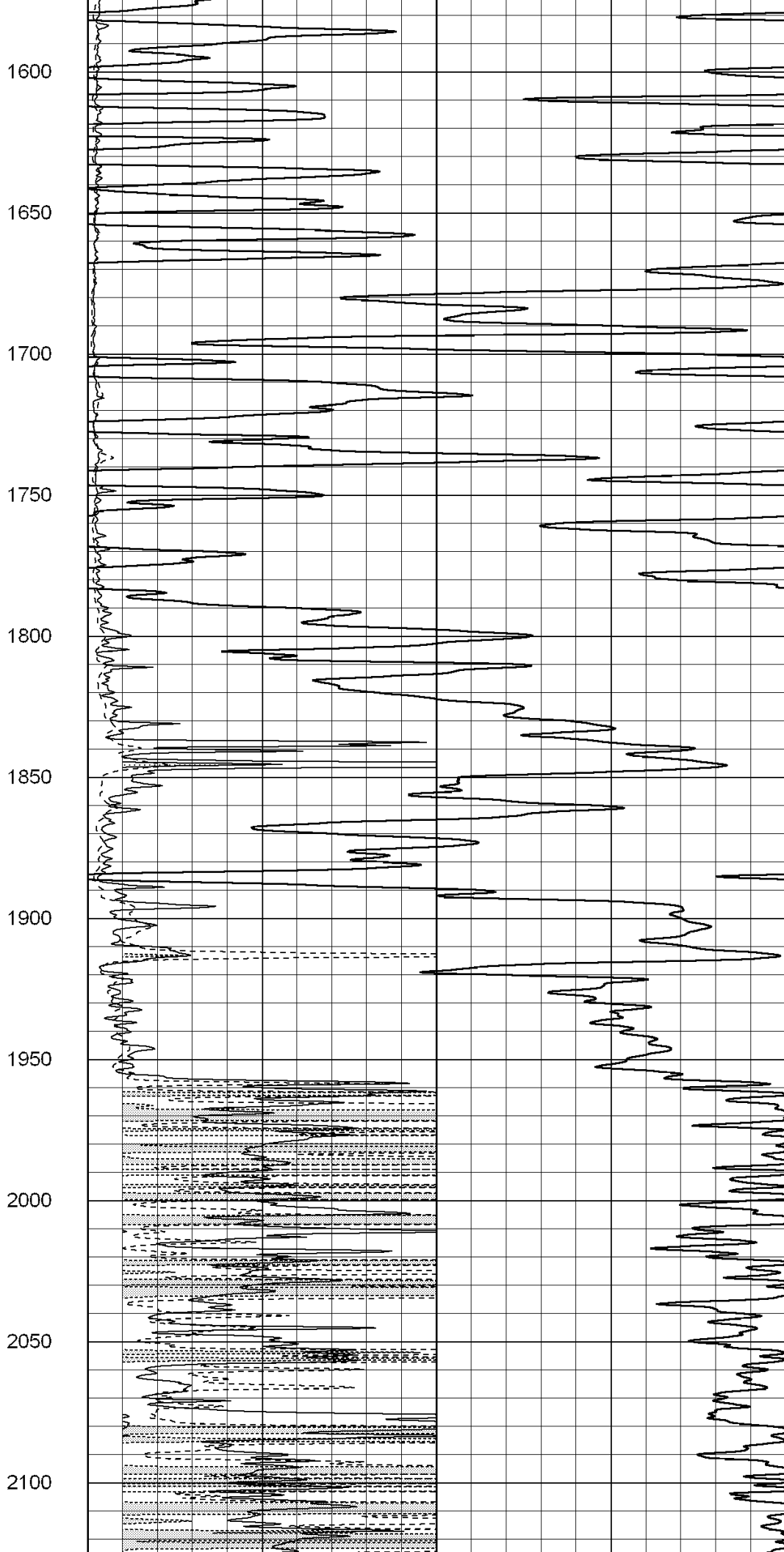
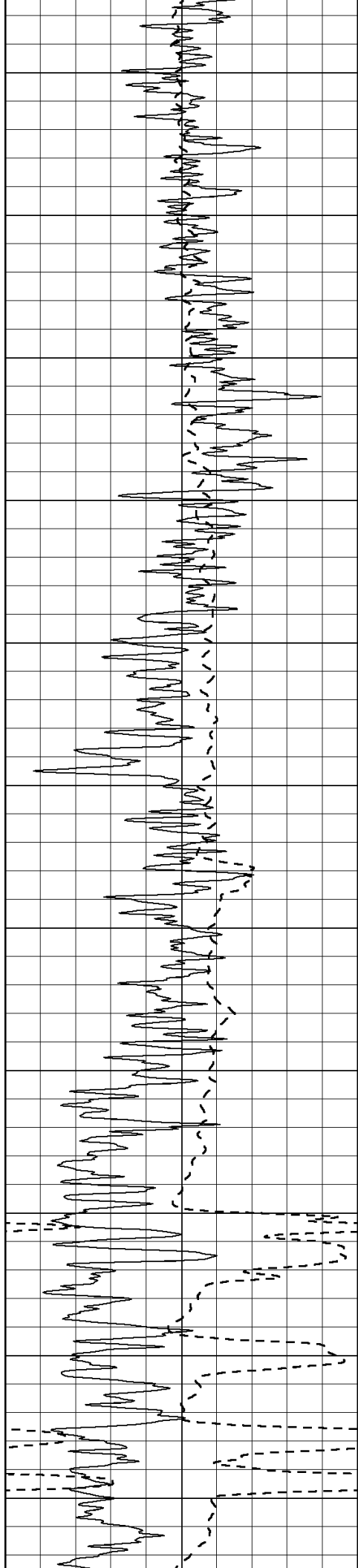
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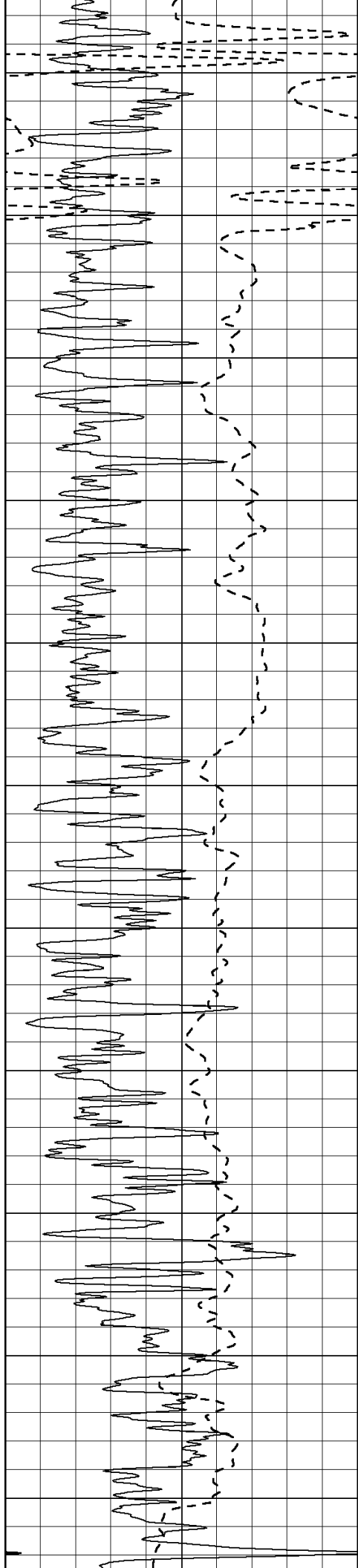
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1000









2150

2200

2250

2300

2350

2400

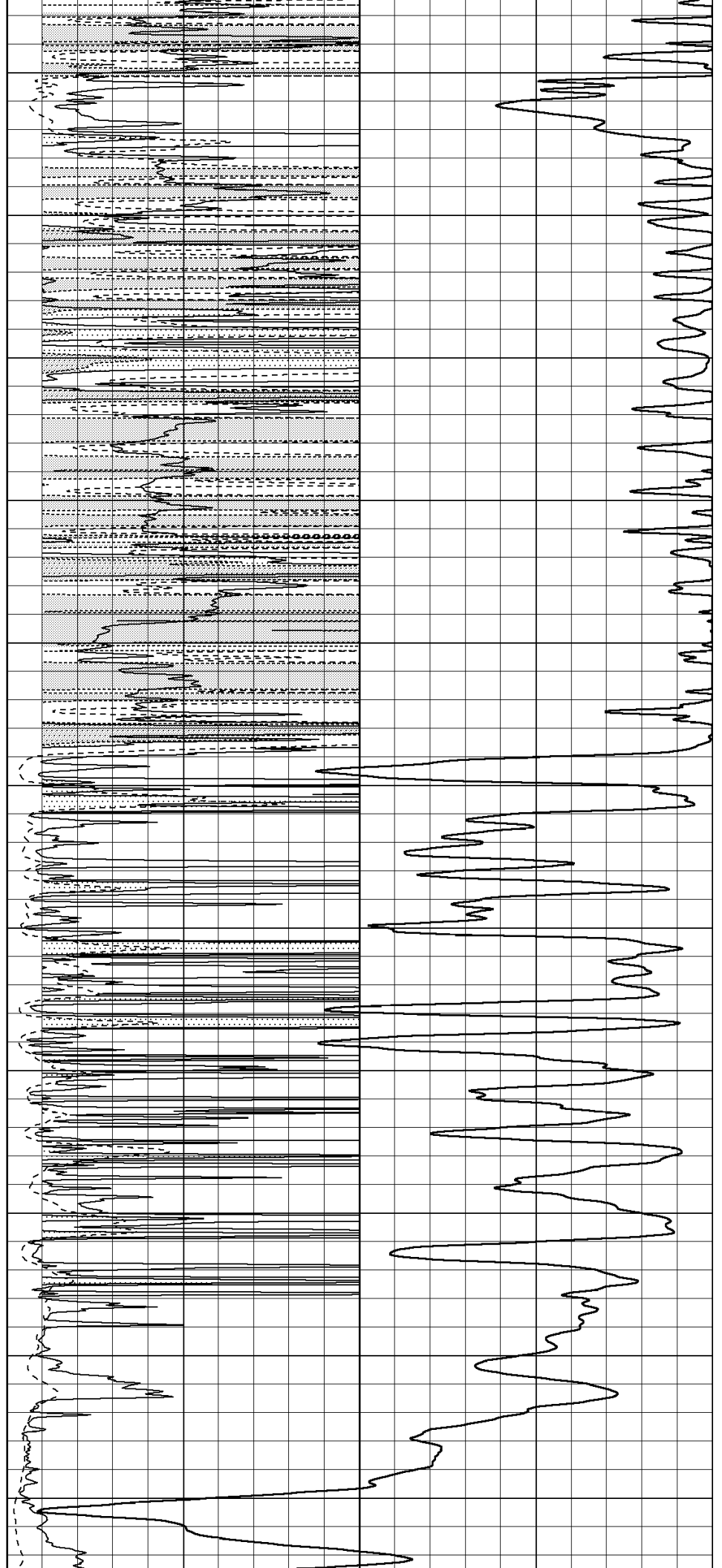
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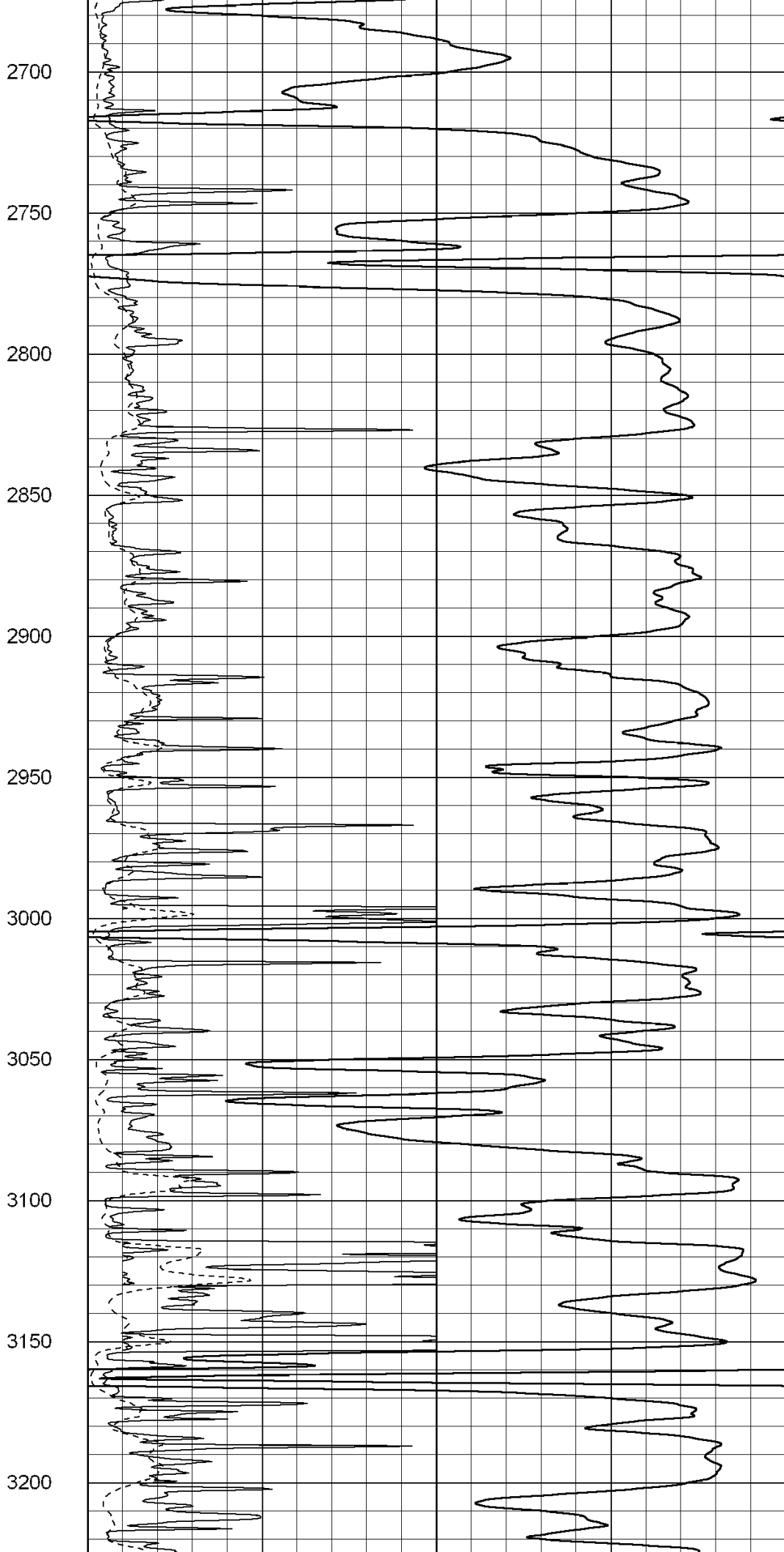
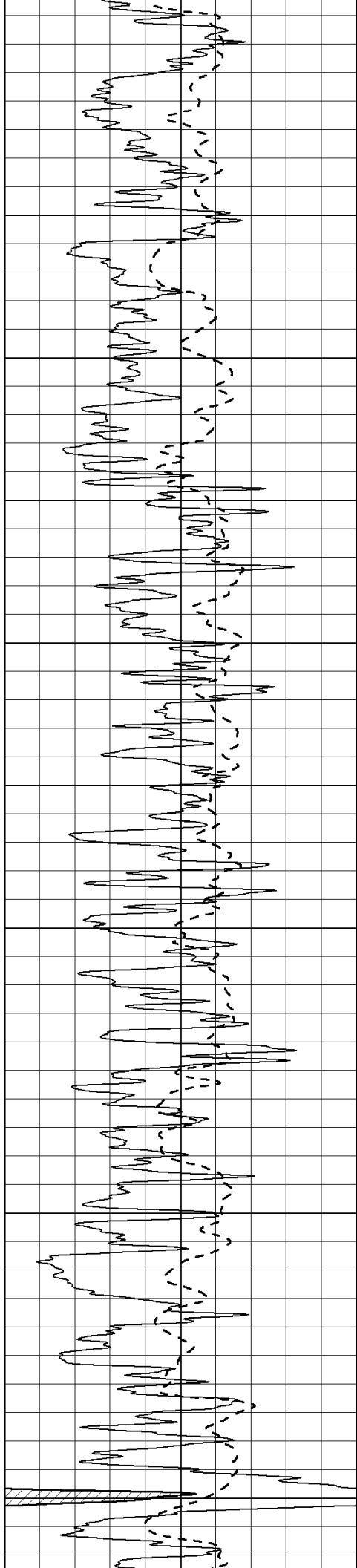
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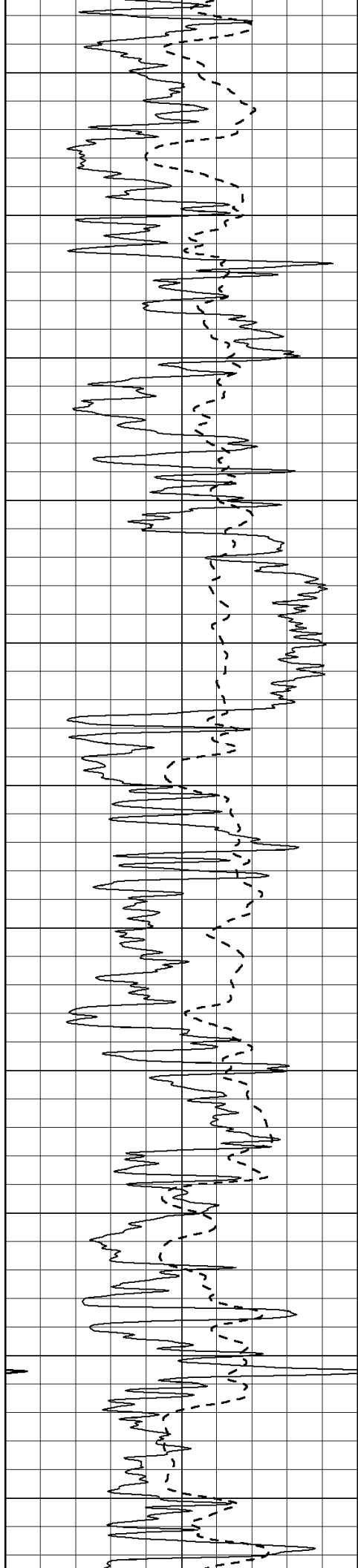
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3400

3450

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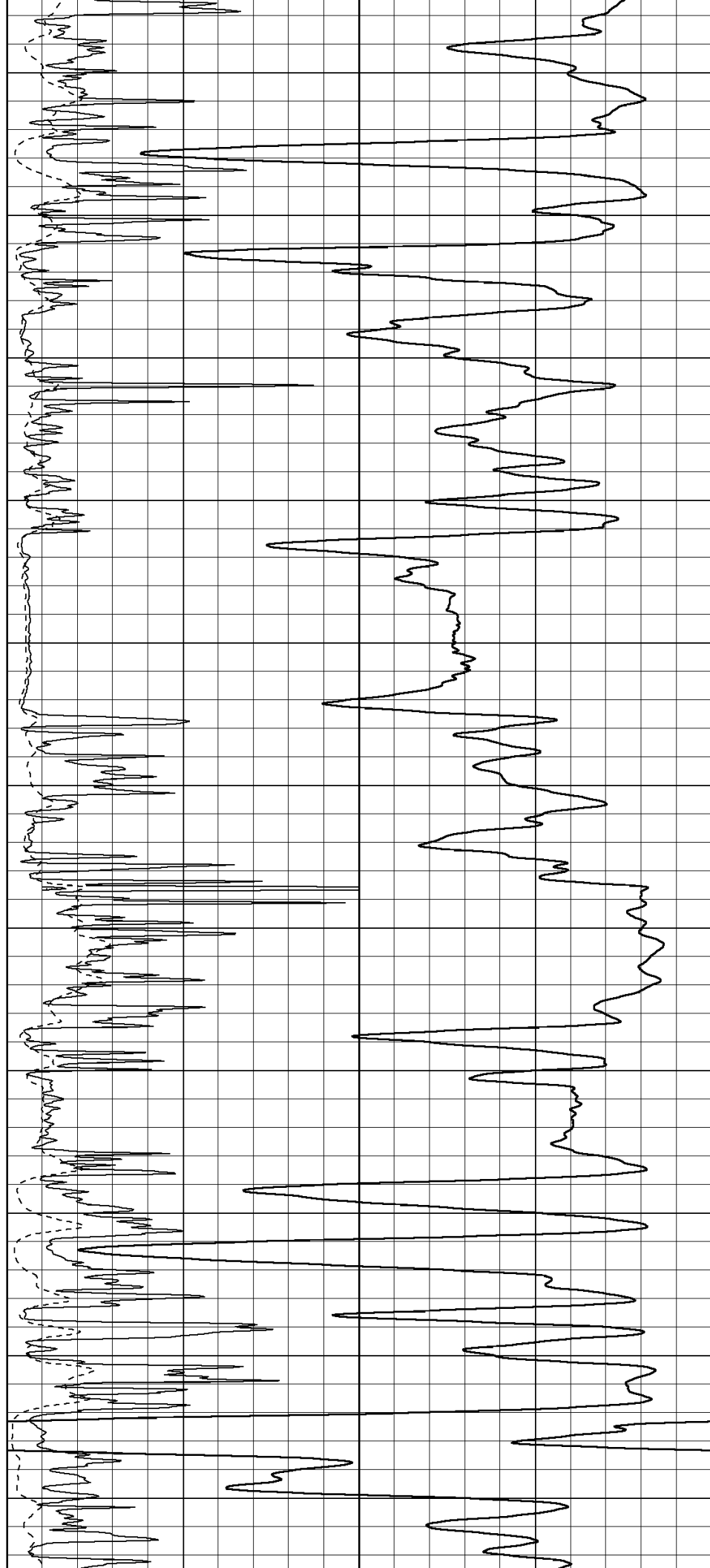
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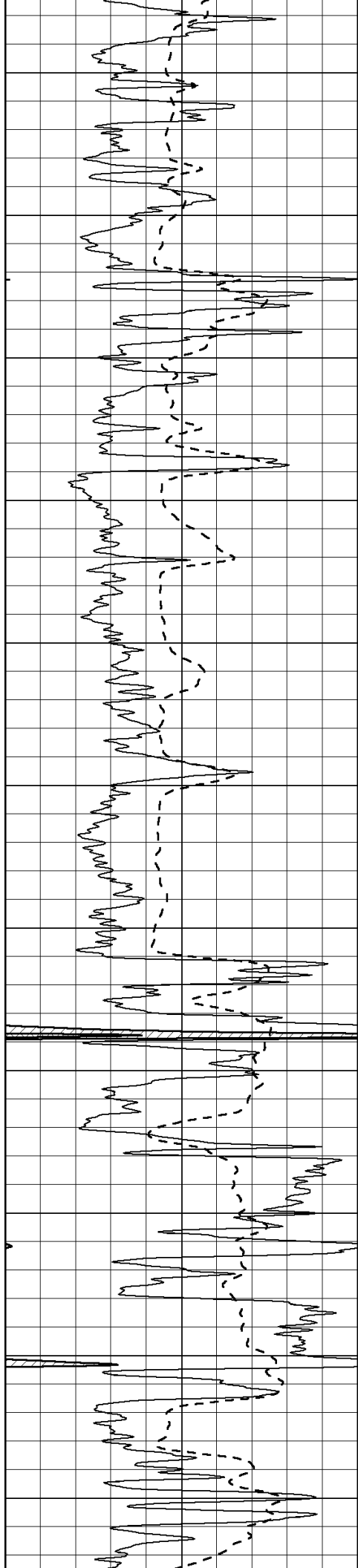
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3850

3900

3950

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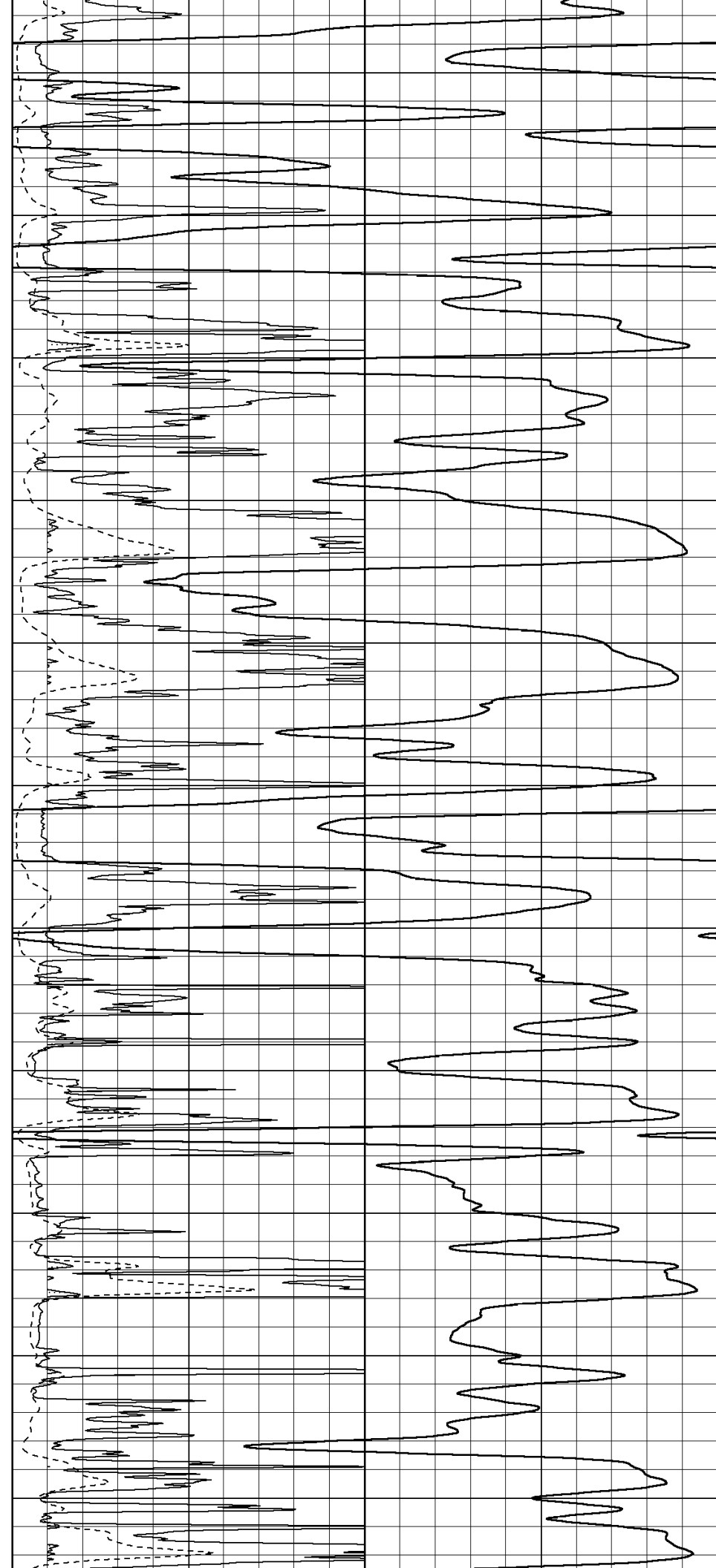
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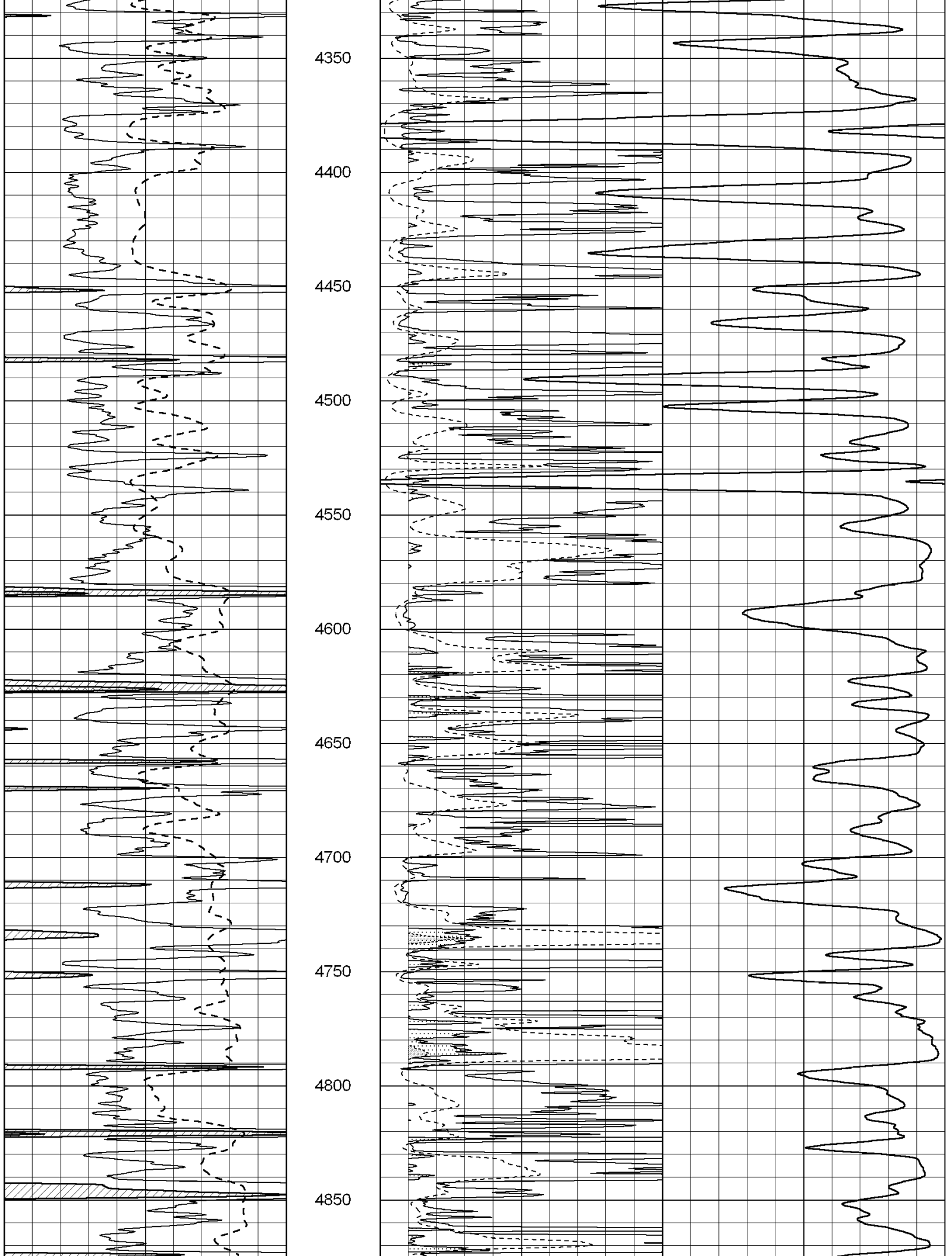
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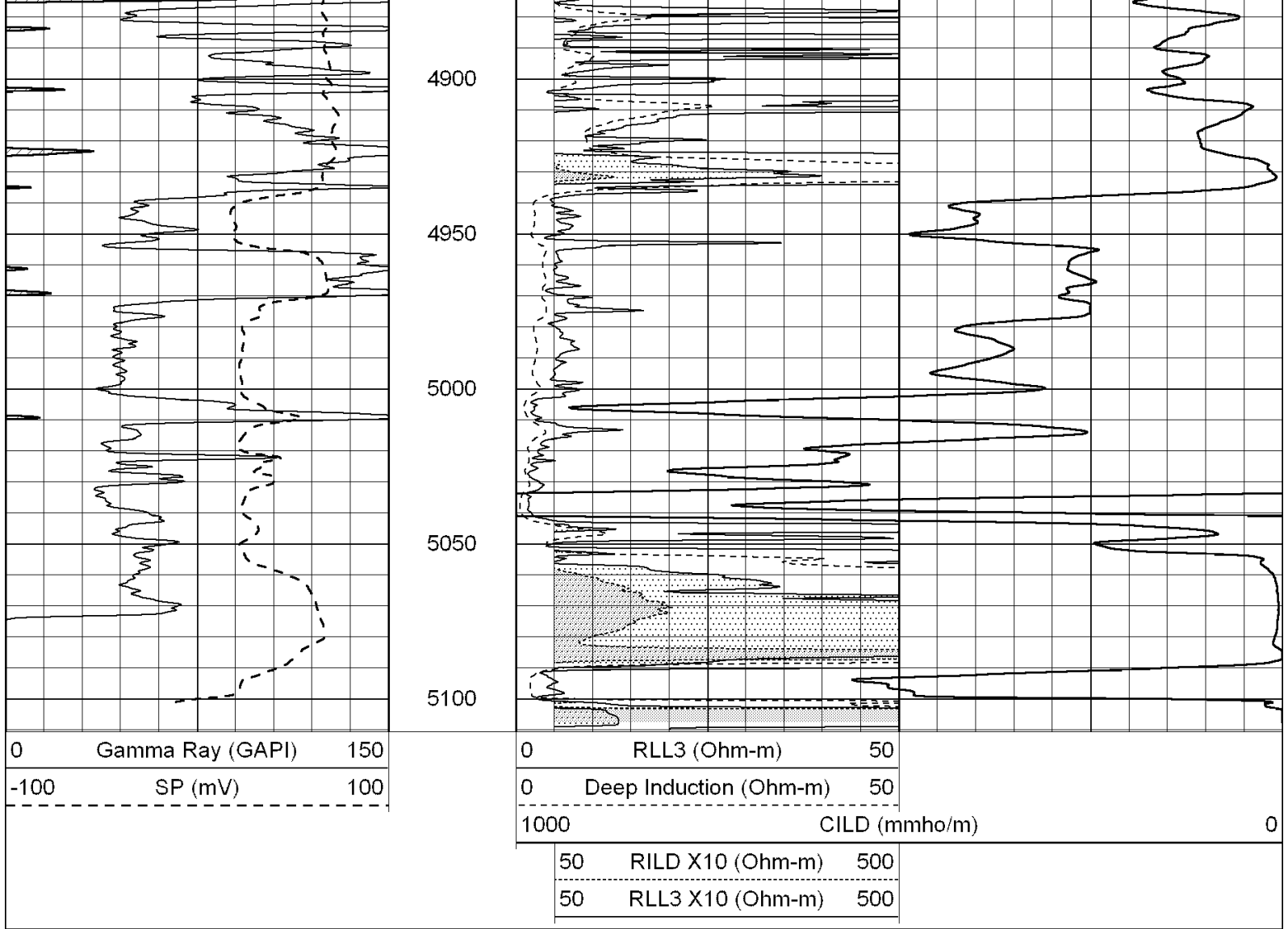
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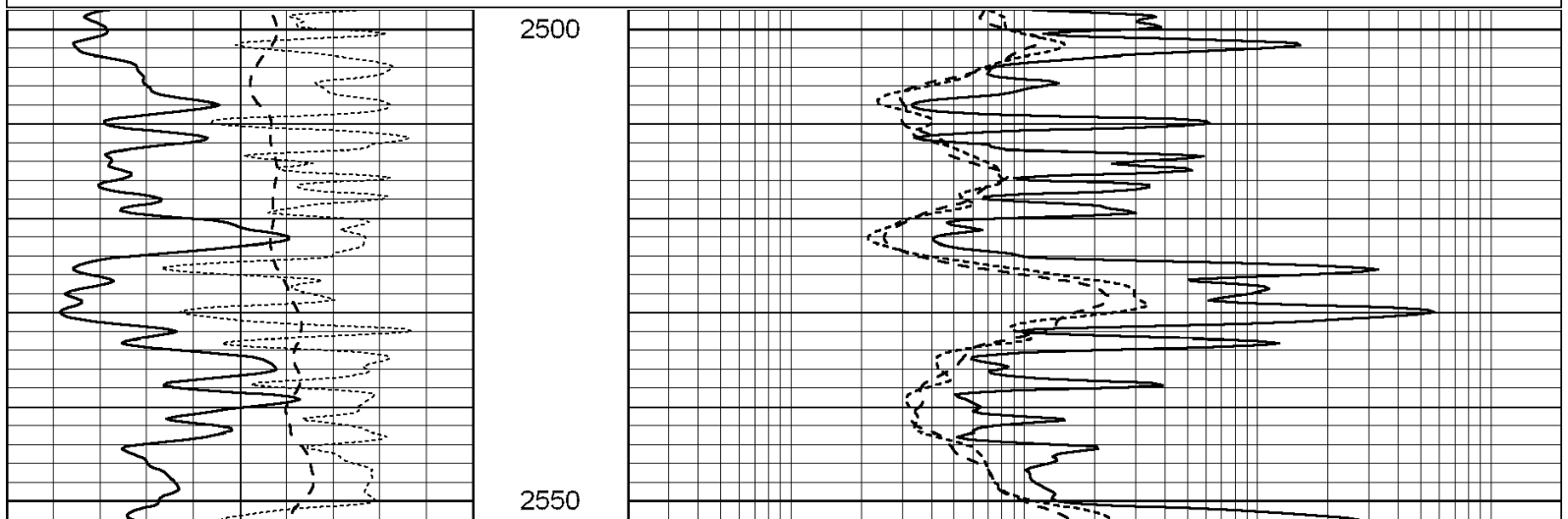


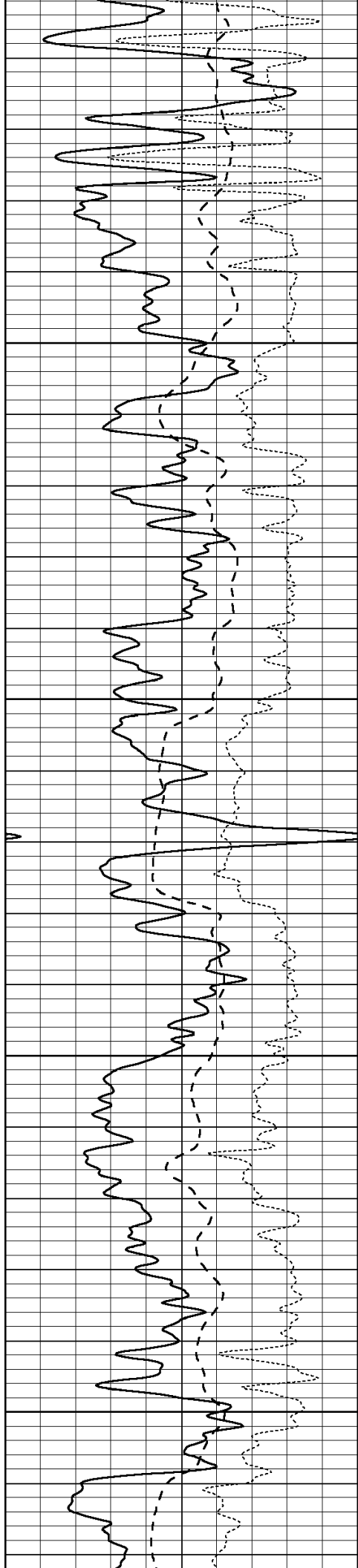




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 Presentation Format: _dil
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 Charted by: Depth in Feet scaled 1:240

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



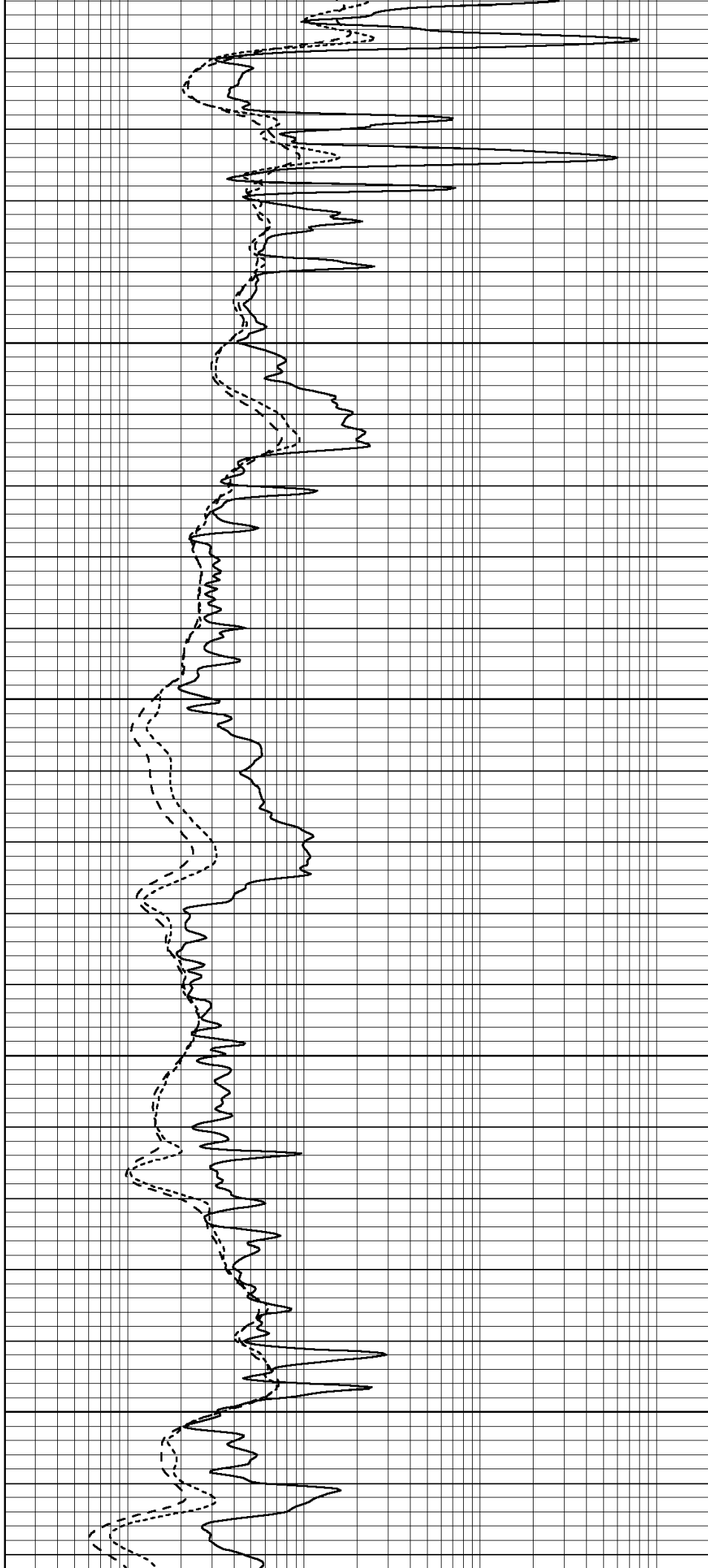


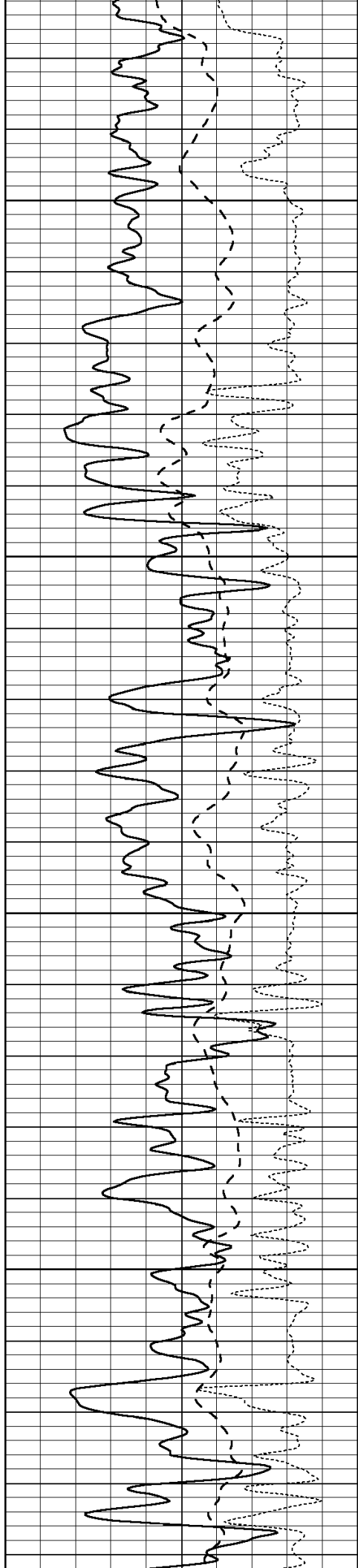
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2700

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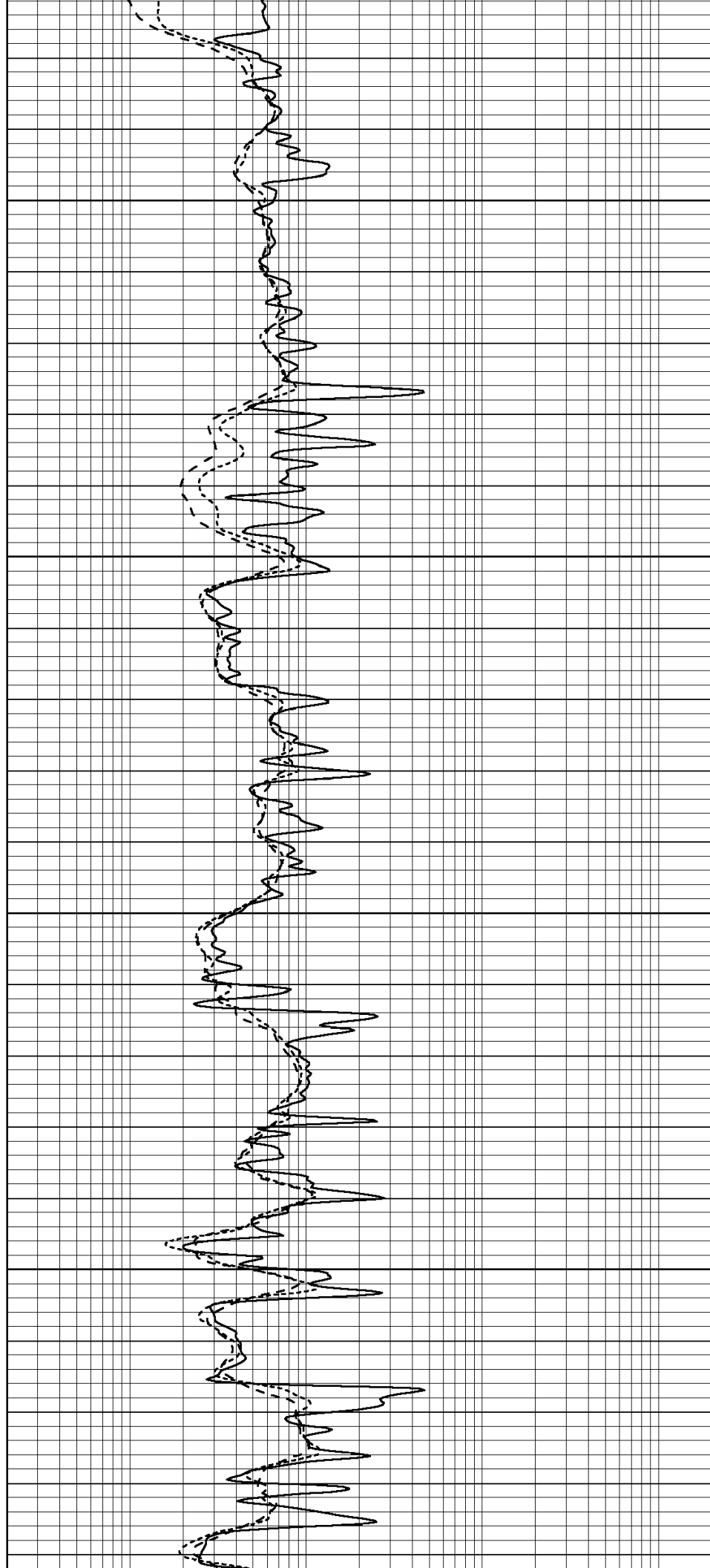


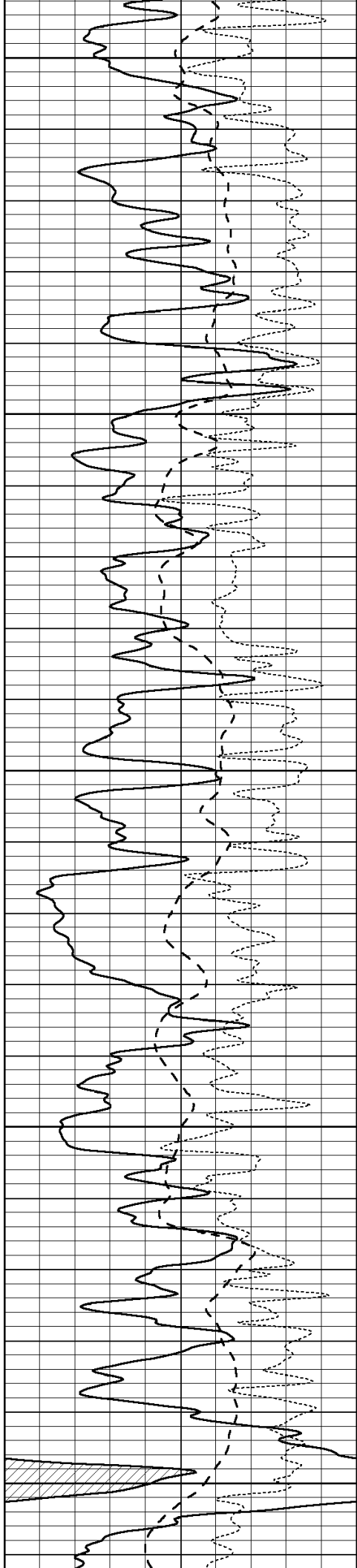
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2900

2950





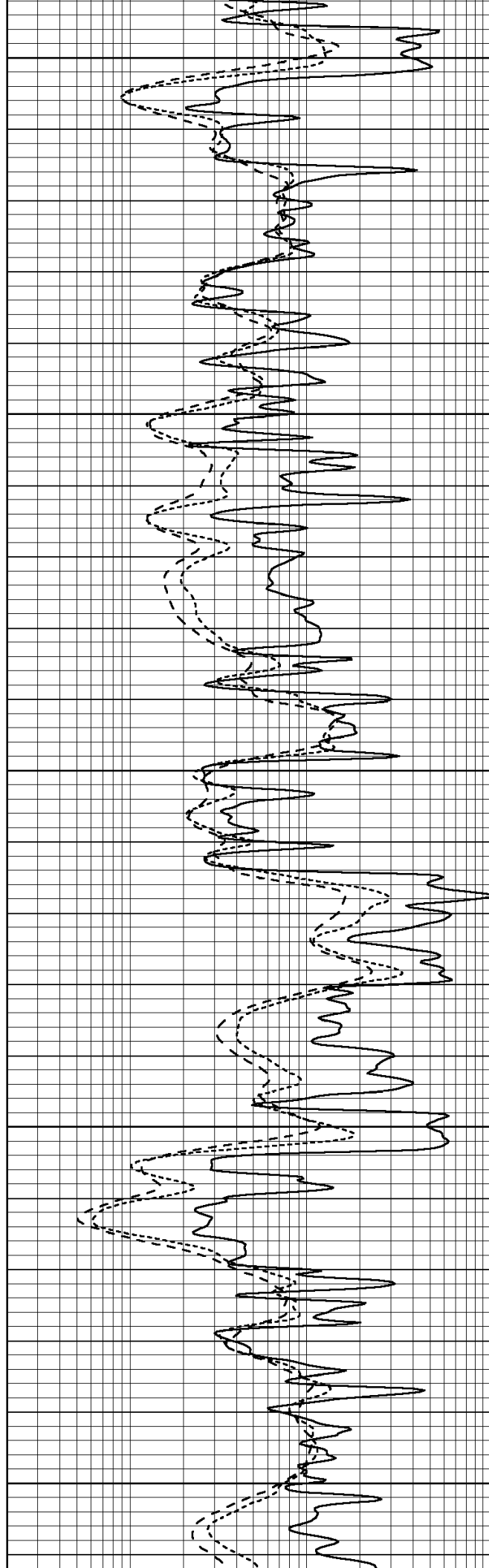
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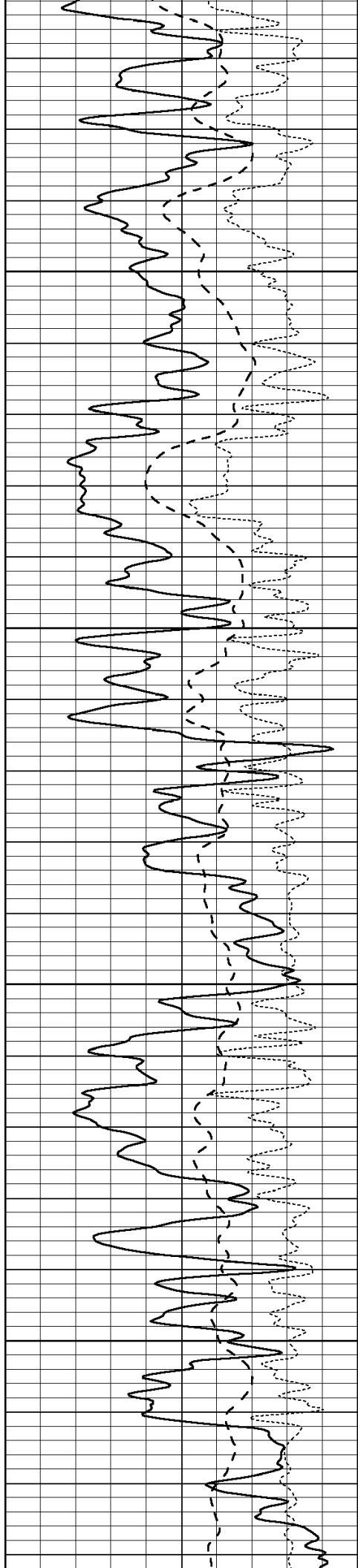
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3200



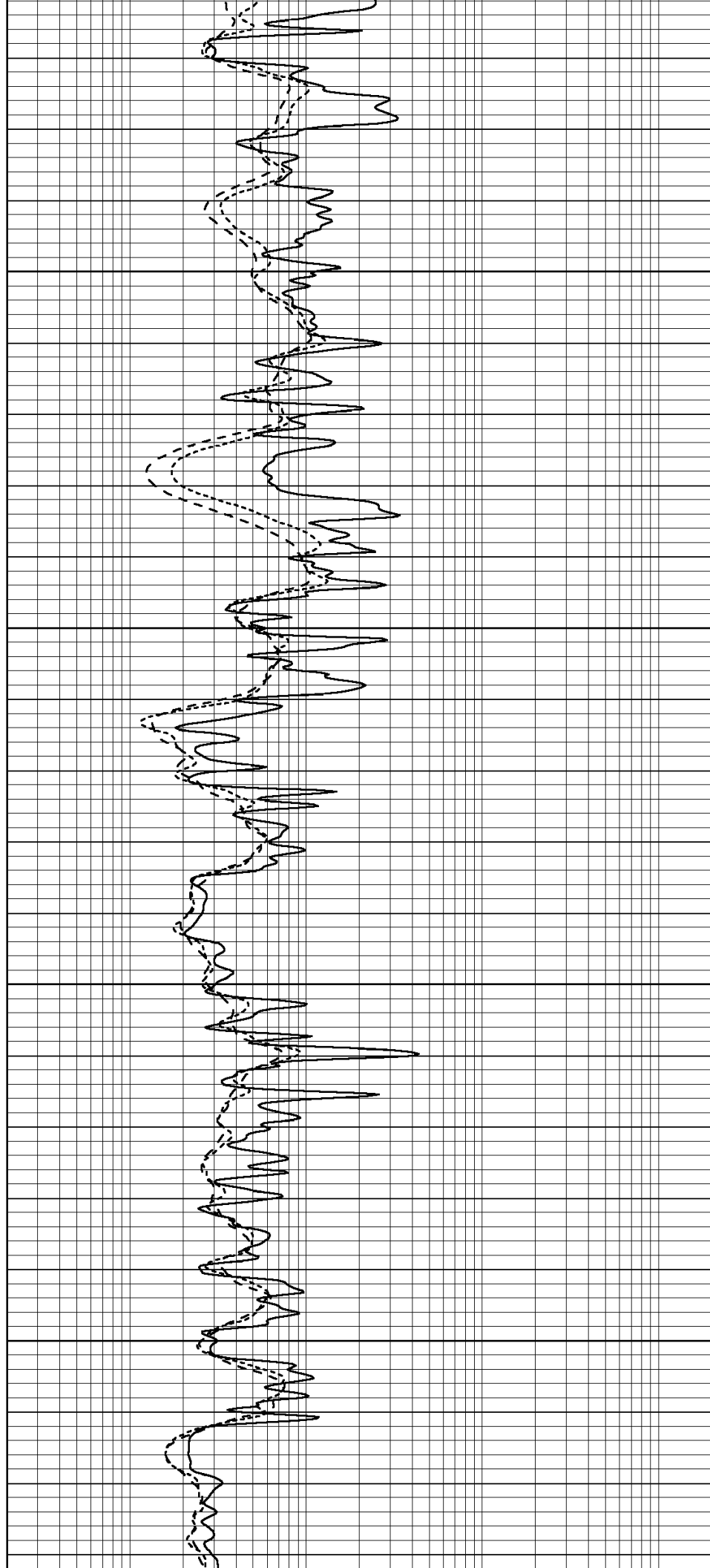


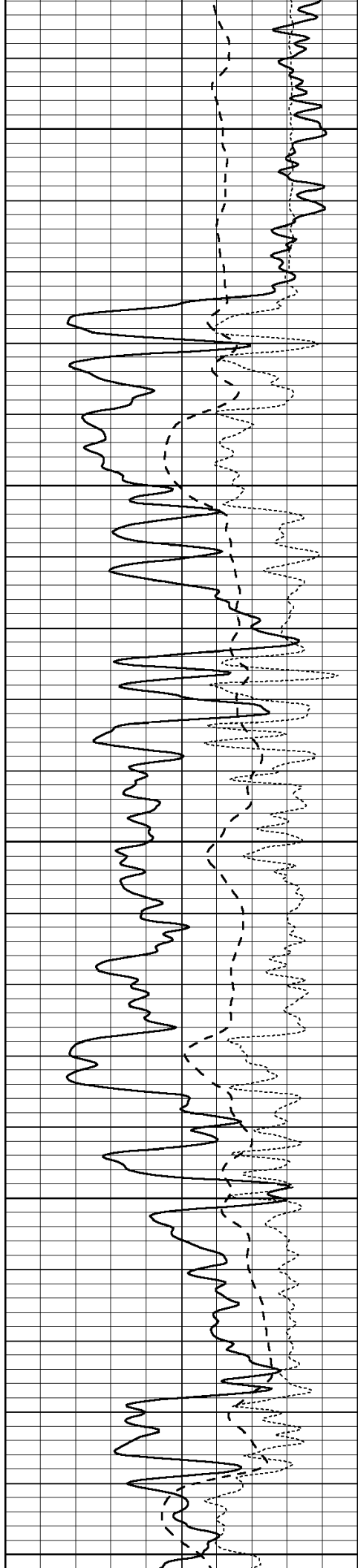
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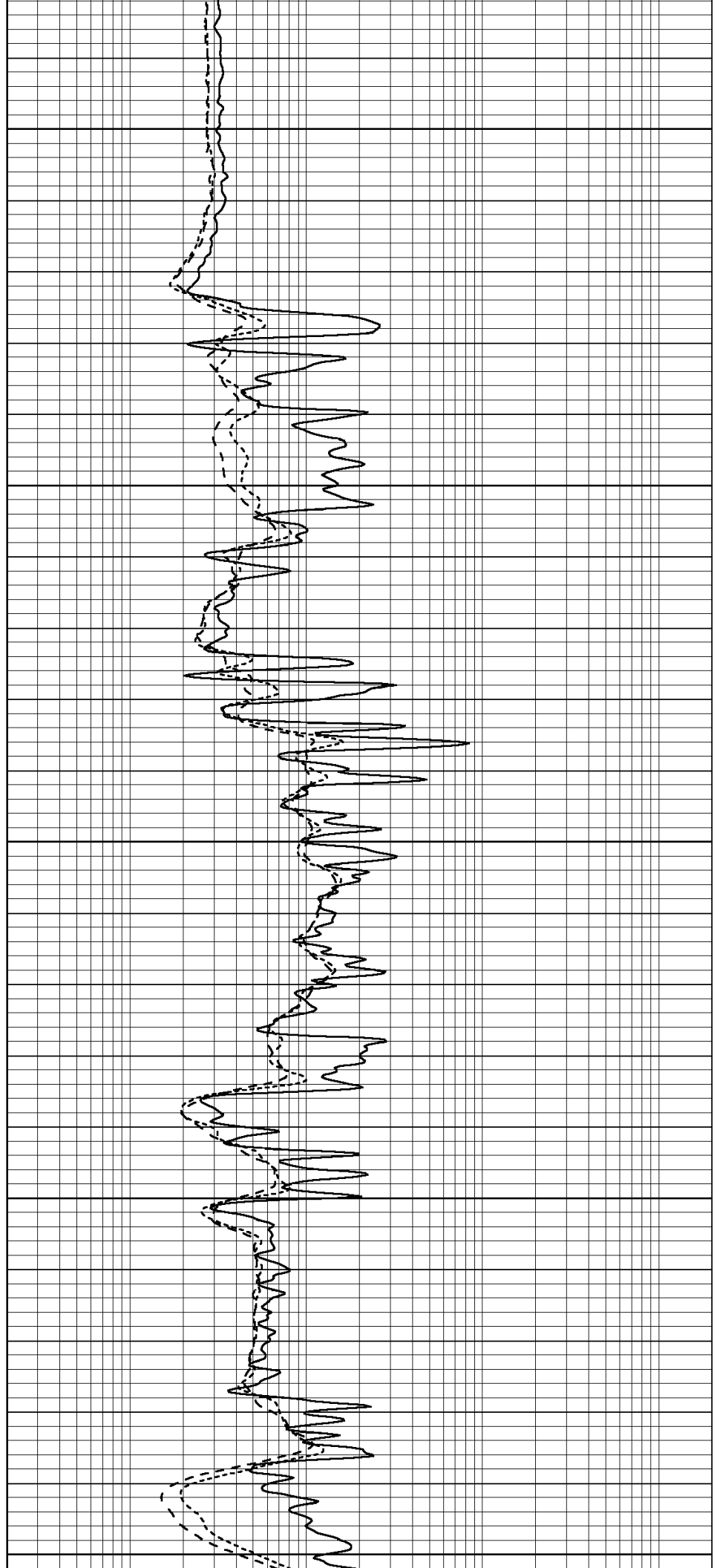
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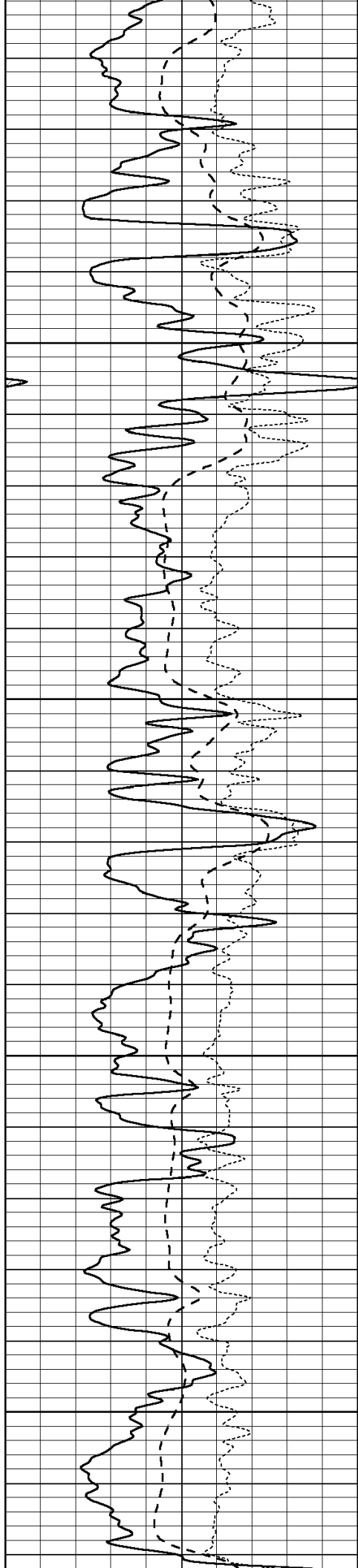
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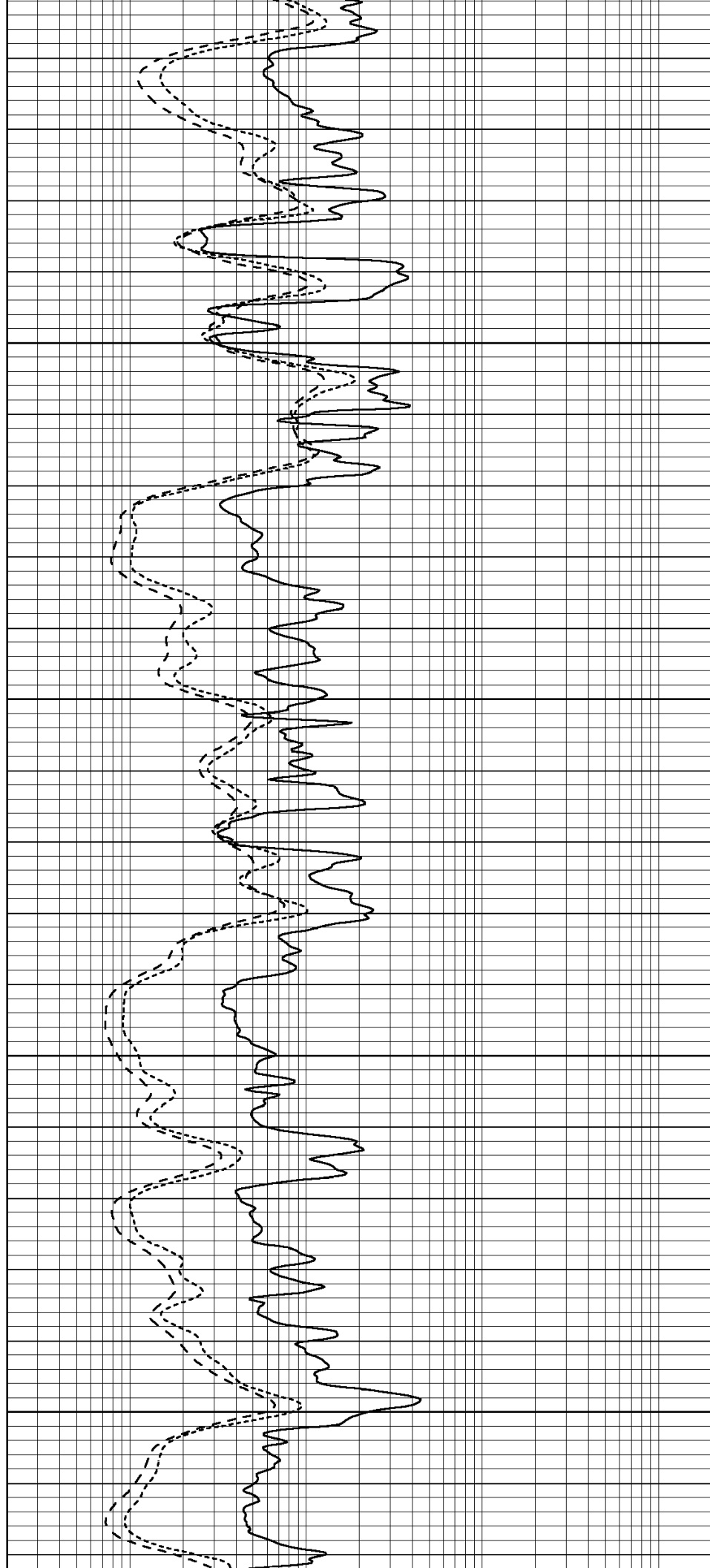


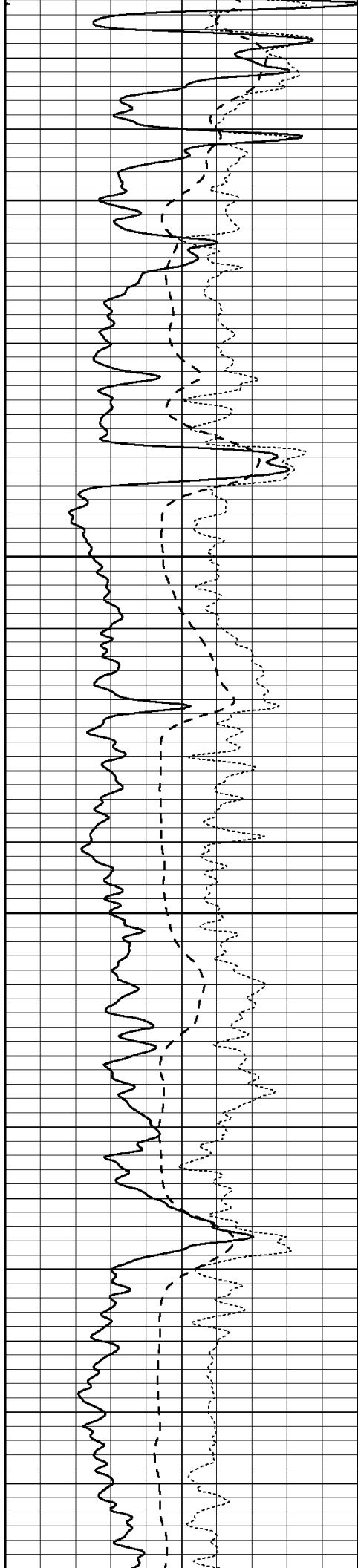
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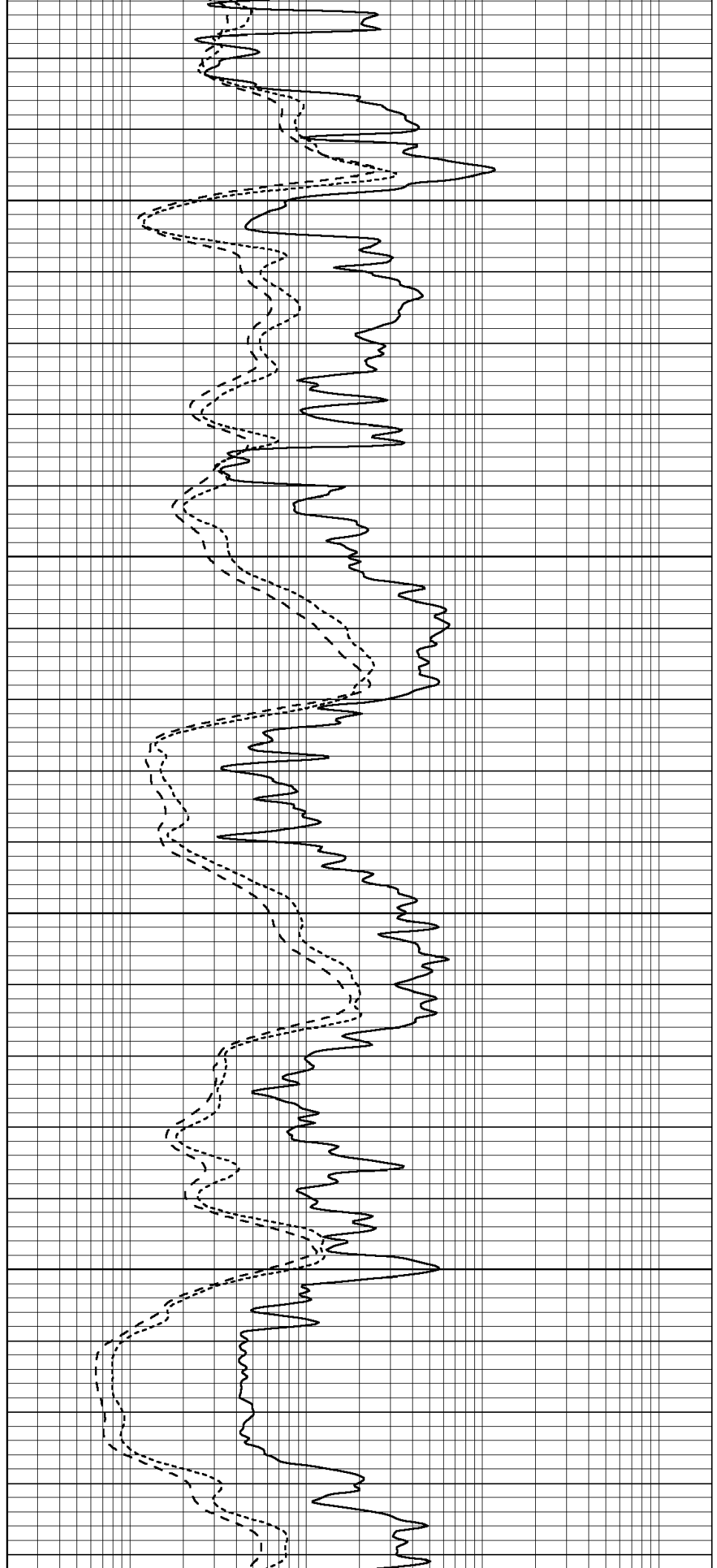


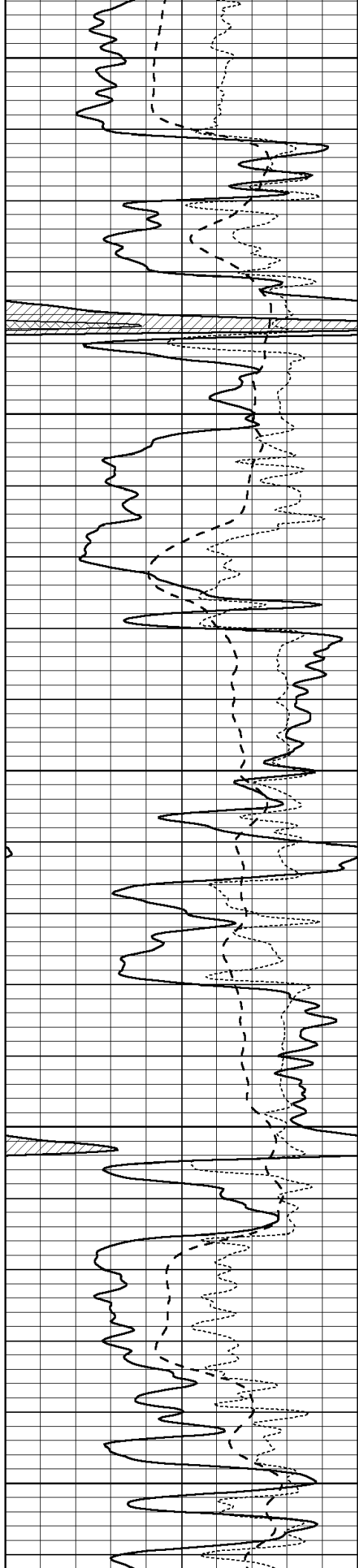
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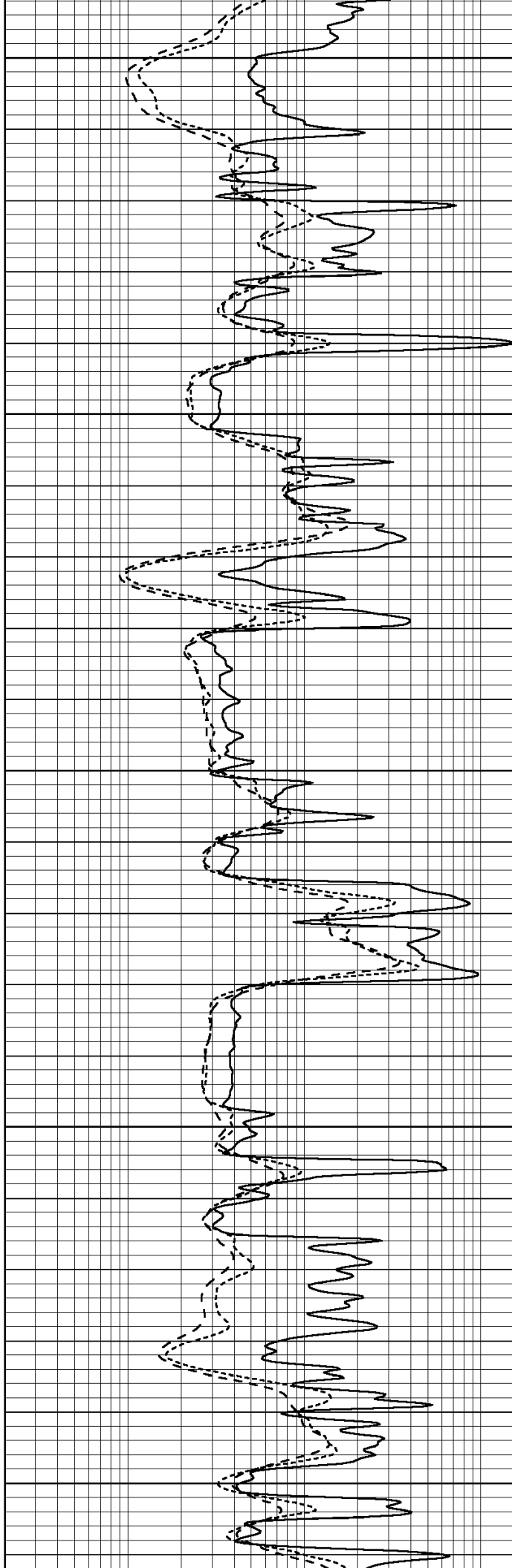
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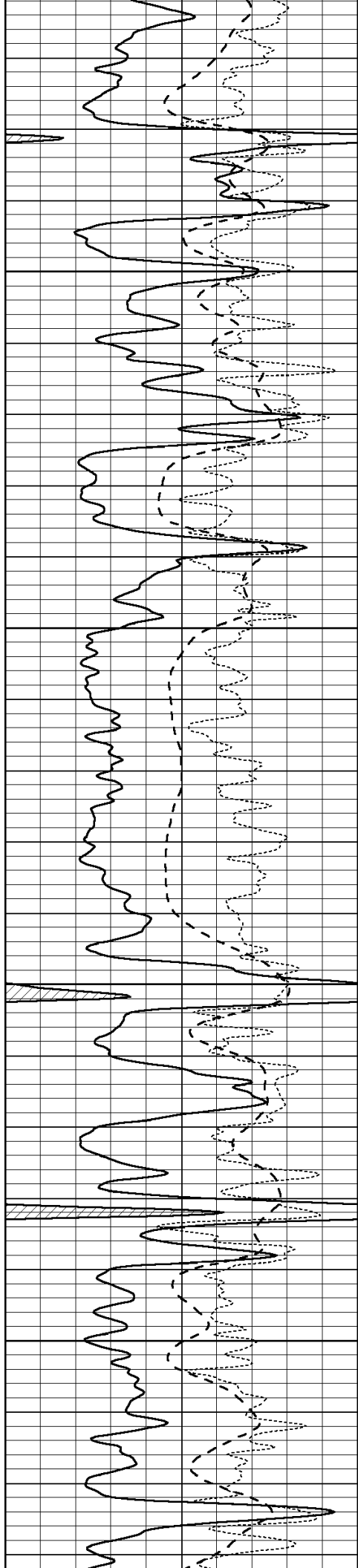
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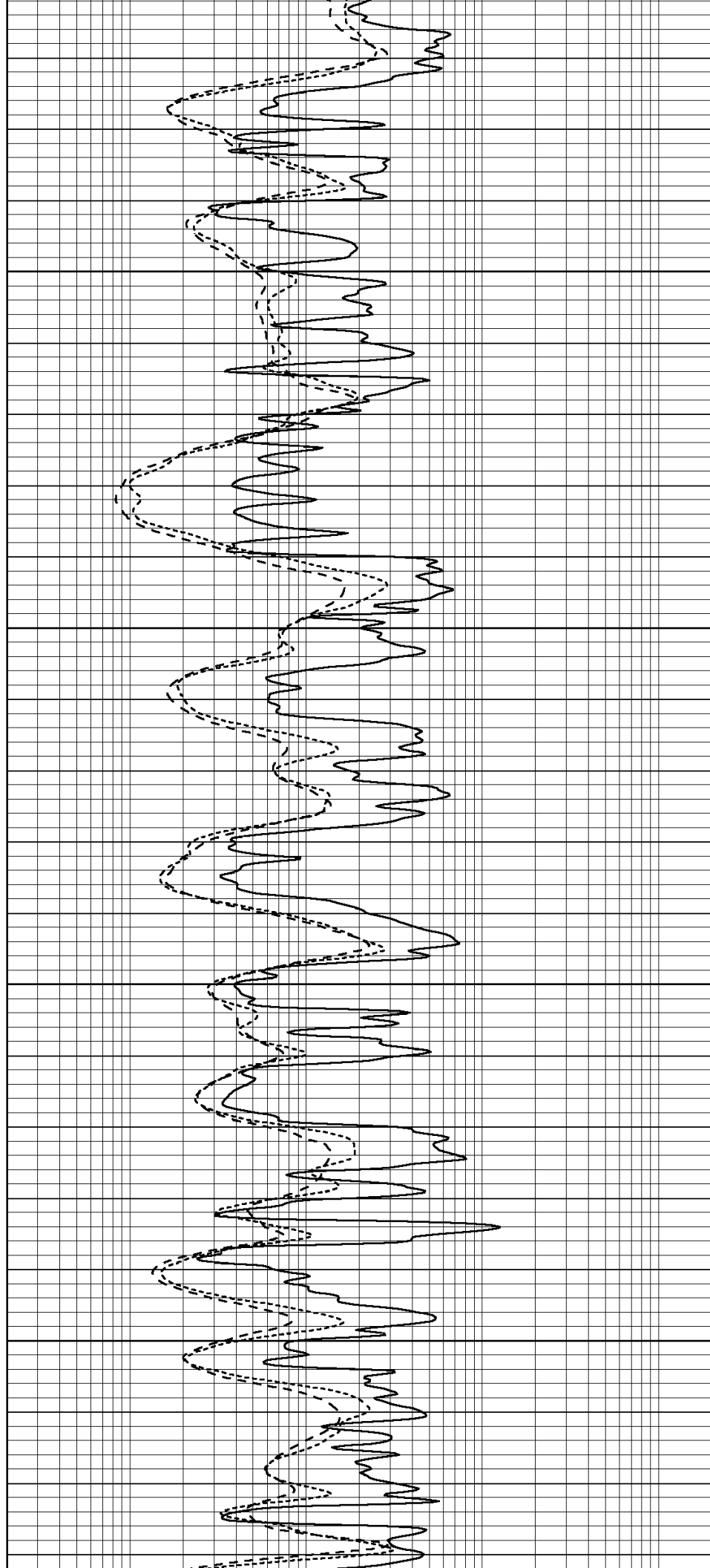


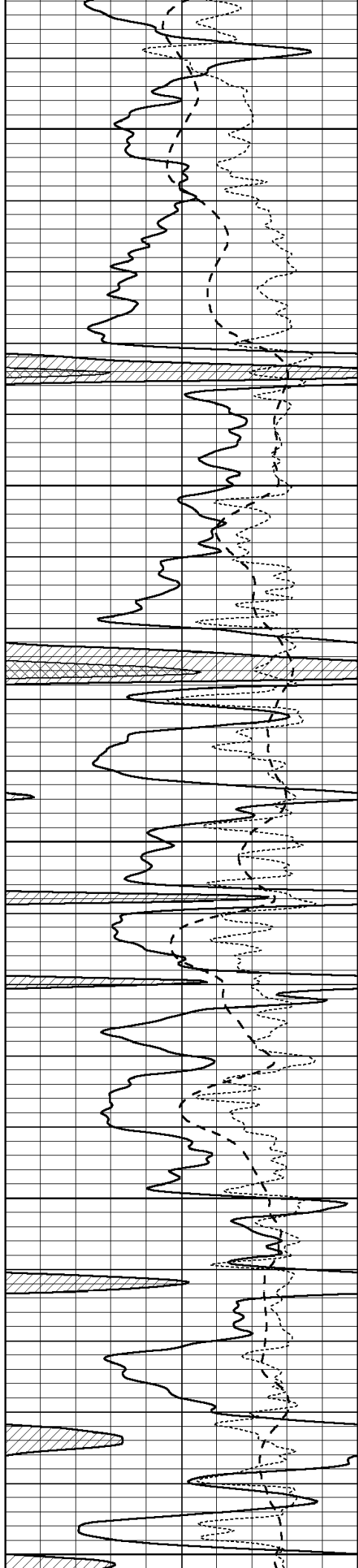
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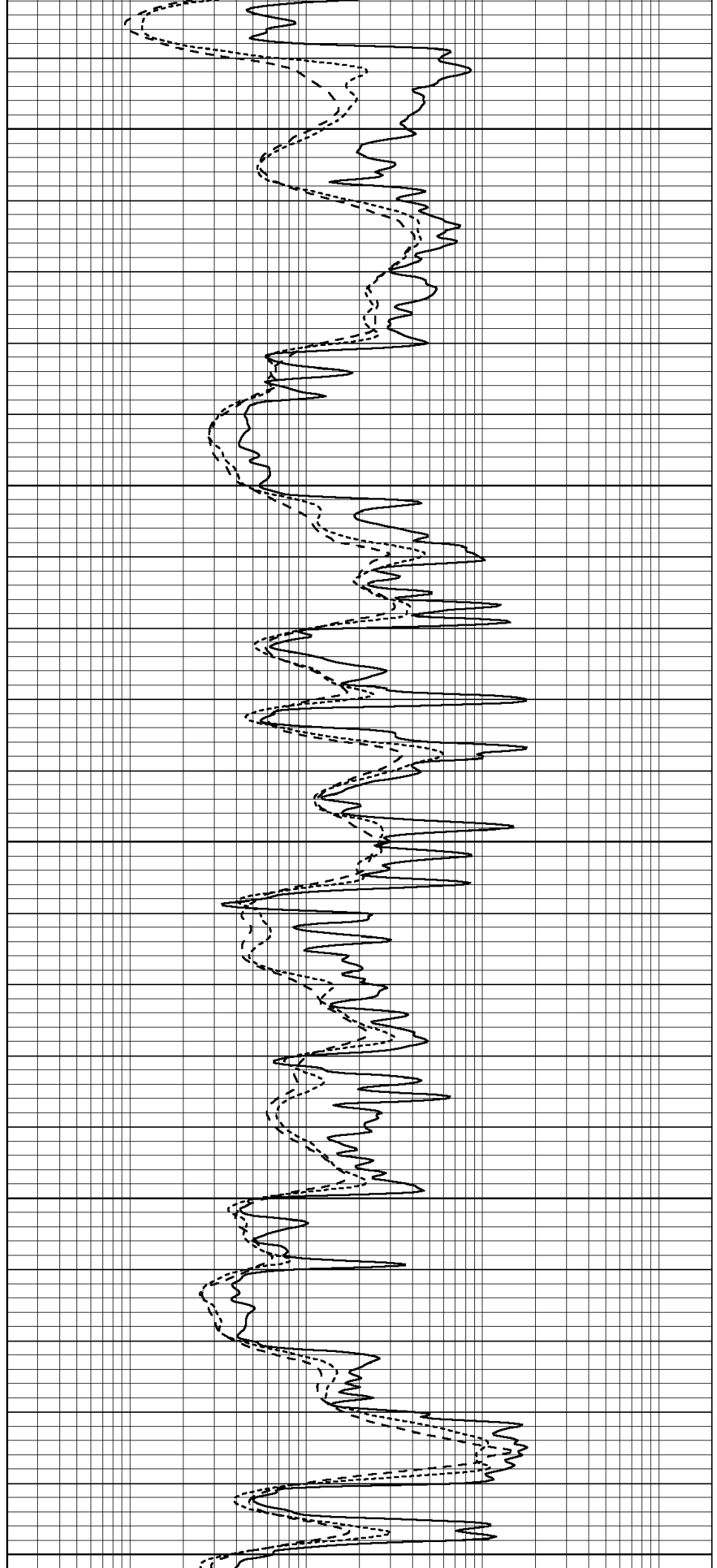
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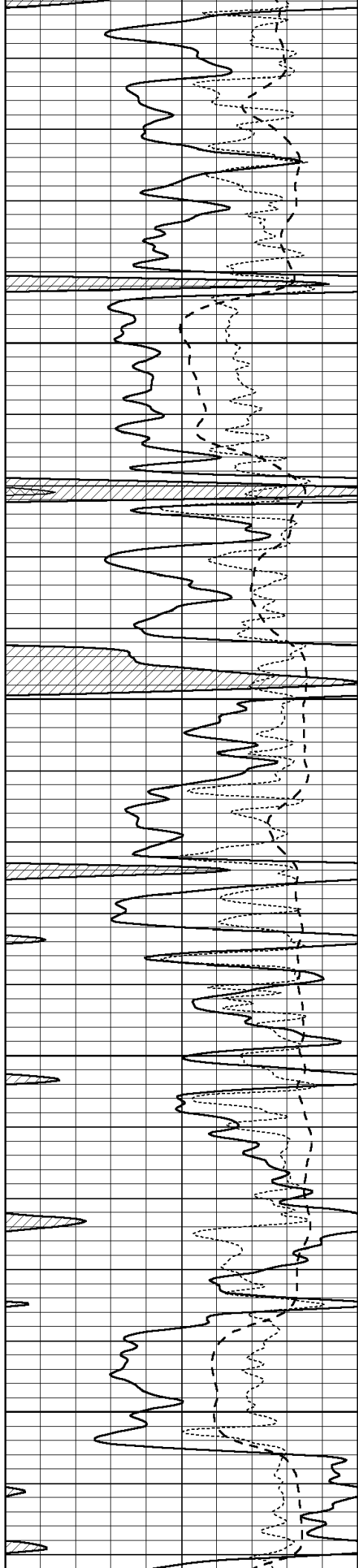
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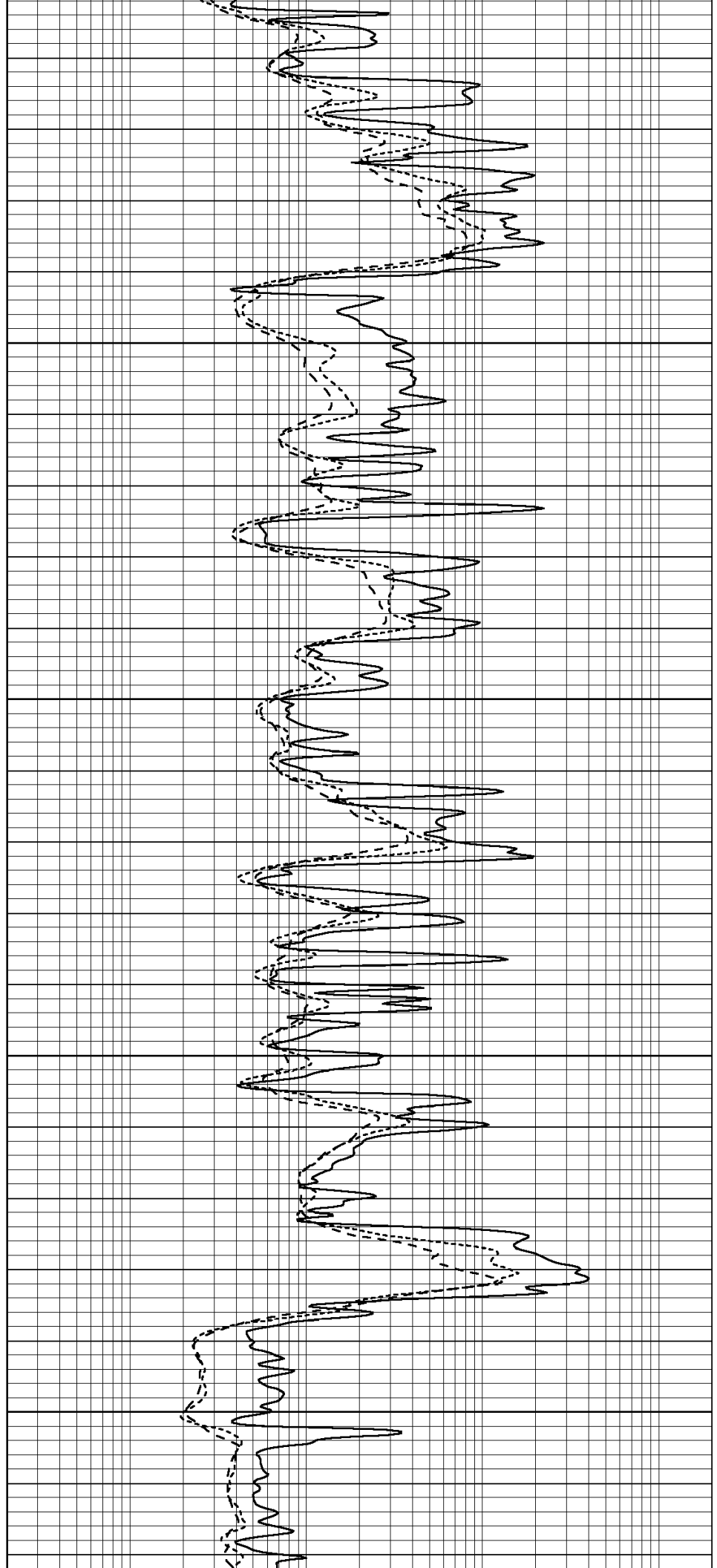


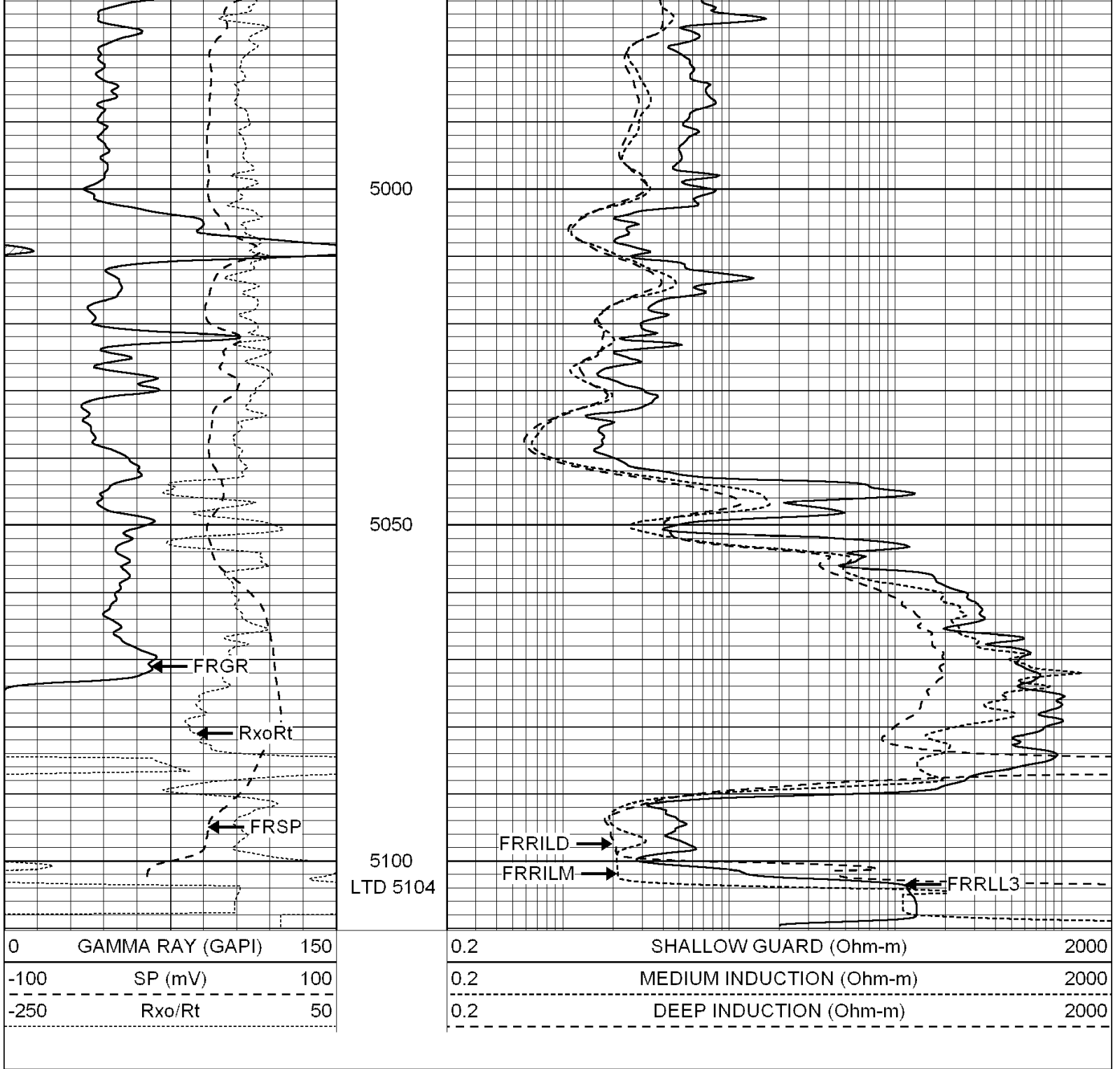
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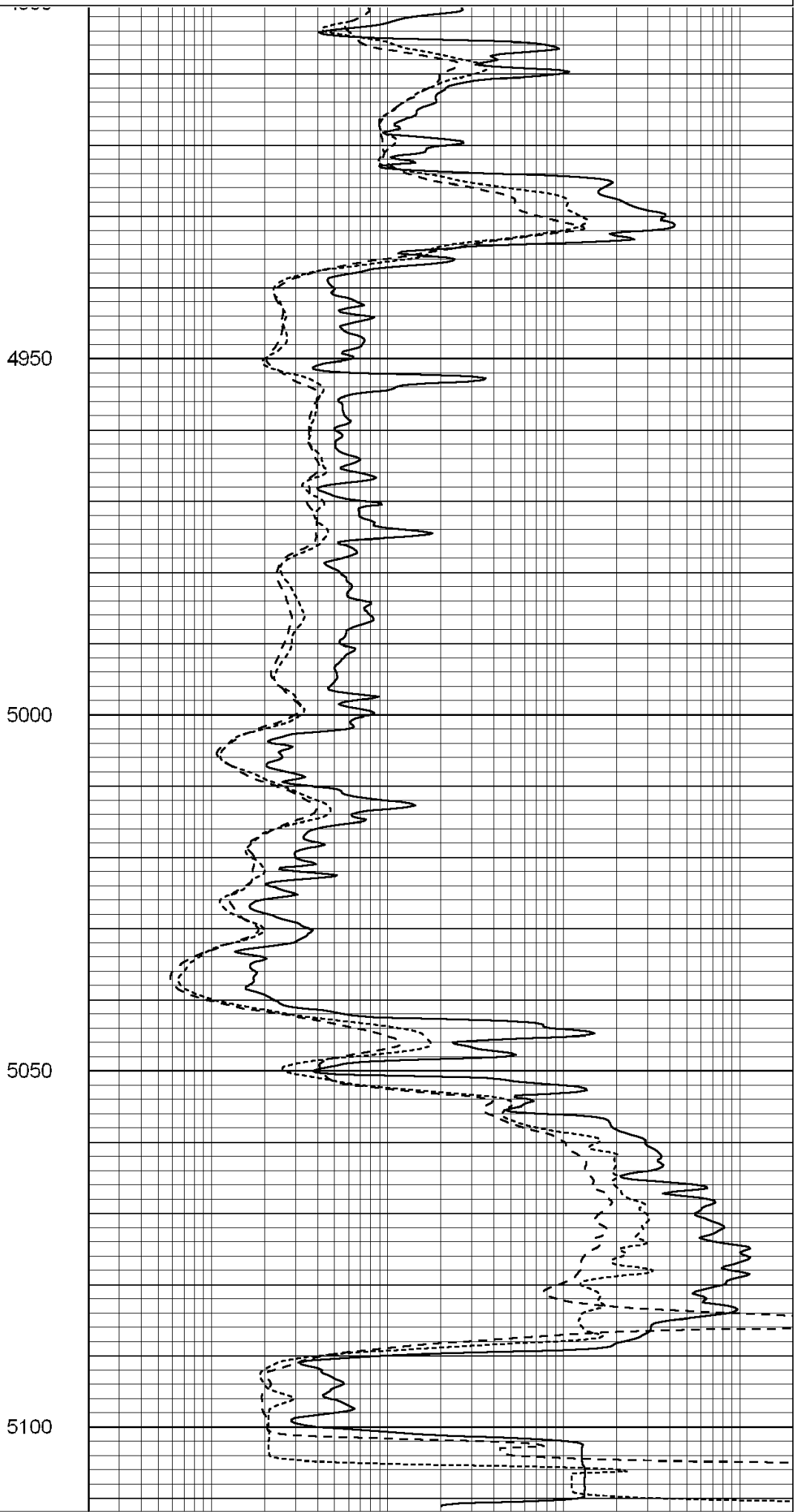
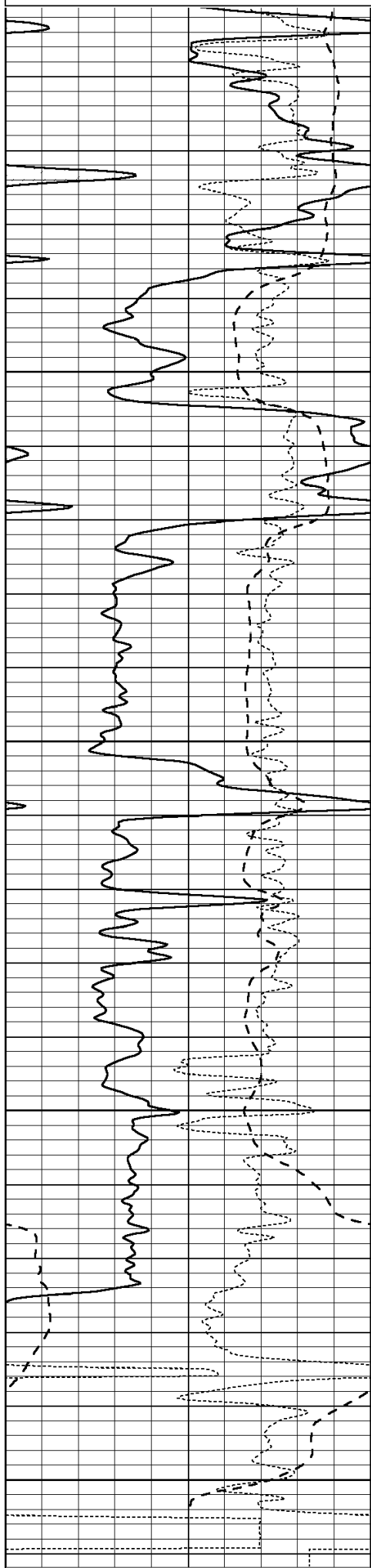


SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 004655ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: _dil
 Dataset Creation: Fri Dec 04 03:43:58 2009 by Calc Open-Cased 090629
 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



0 GAMMA RAY (GAPI) 150

0.2 SHALLOW GUARD (Ohm-m) 2000

-100	SP (mV)	100
-250	Rxo/Rt	50

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

Calibration Report

Database File: 004655ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Fri Dec 04 03:43:58 2009 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'
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		
		-6.500	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: Fri Jan 16 10:06:35 2009

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1358.55	649.93	cps
Aluminum	2.580	g/cc	325.11	479.52	cps

Spine Angle = 78.00

Density/Spine Ratio = 0.595

	Size		Reading	
Small Ring	8.00	in	3.56	V
Large Ring	14.00	in	6.65	V

Compensated Neutron Calibration Report

Serial Number: 5I
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:	GR6	
Tool Model:	OPEN	
Performed:	Tue Nov 10 08:32:36 2009	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.5535	GAPI/cps