



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company LOTUS OPERATING CO., LLC.	
Well #8 CR WETZ	
Field STRANATHAN	
County BARBER	
State KANSAS	
Location: API # : 15-007-23732-0000	
SEC 1 TWP 35S RGE 12W	
165' FNL & 660' FWL	
Permanent Datum GROUND LEVEL	Elevation 1417
Log Measured From KELLY BUSHING 9' A.G.L.	
Drilling Measured From KELLY BUSHING	
Other Services CDL/CNL/PE MEL/SON	
Elevation	
K.B. 1426	
D.F. 1424	
G.L. 1417	
Date 7/7/11	
Run Number ONE	
Depth Driller 5580	
Depth Logger 5566	
Bottom Logged Interval 5564	
Top Log Interval 00	
Casing Driller 10 3/4" @ 255	
Casing Logger 255	
Bit Size 7 7/8"	
Type Fluid in Hole CHEMICAL MUD	CHLORIDES 3000 PPM
Density / Viscosity 9.4/45	
pH / Fluid Loss 11.0/10.4	
Source of Sample FLOWLINE	
Rin @ Meas. Temp .85 @ 93F	
Rinf @ Meas. Temp .63 @ 83F	
Rinc @ Meas. Temp 1.02 @ 93F	
Source of Rinf / Rinc MEASUREMENT	
Rin @ BHT .61 @ 129F	
Time Circulation Stopped 2 HOURS	
Time Logger on Bottom	
Maximum Recorded Temperature 129F	
Equipment Number 0836	
Location HAYS, KANSAS	
Recorded By JASON CAPPELLUCCI	
Witnessed By TIM HELLMAN	

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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 HAYS, KANSAS (785) 628-6395
DIRECTIONS
MEDICINE LODGE KS., - 17 S. TO DRIFTWOOD RD. - 3/4 W. - N. INTO.



SUPERIOR
Hays,
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MAIN SECTION

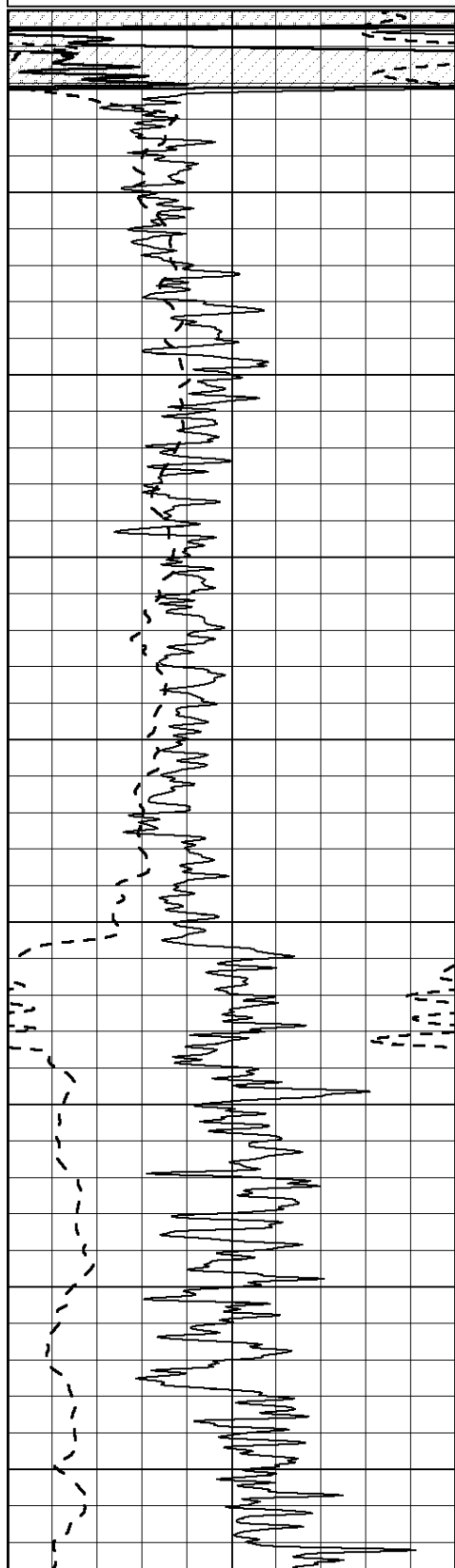
Database File: 006586pe.db
Dataset Pathname: pass3.2
Presentation Format: dil2
Dataset Creation: Thu Jul 07 22:23:43 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:600

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

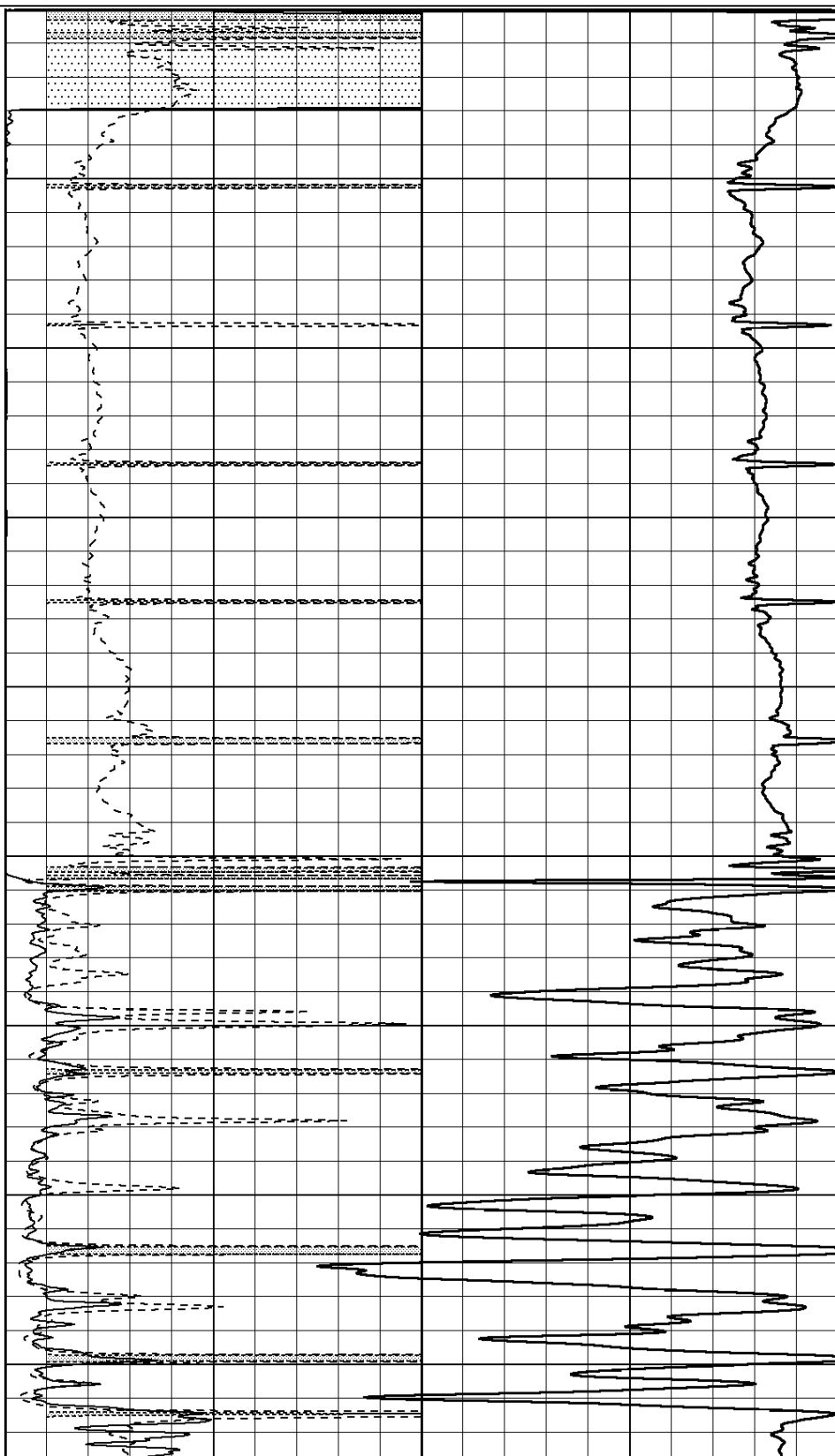
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0	RILD (Ohm-m)	50

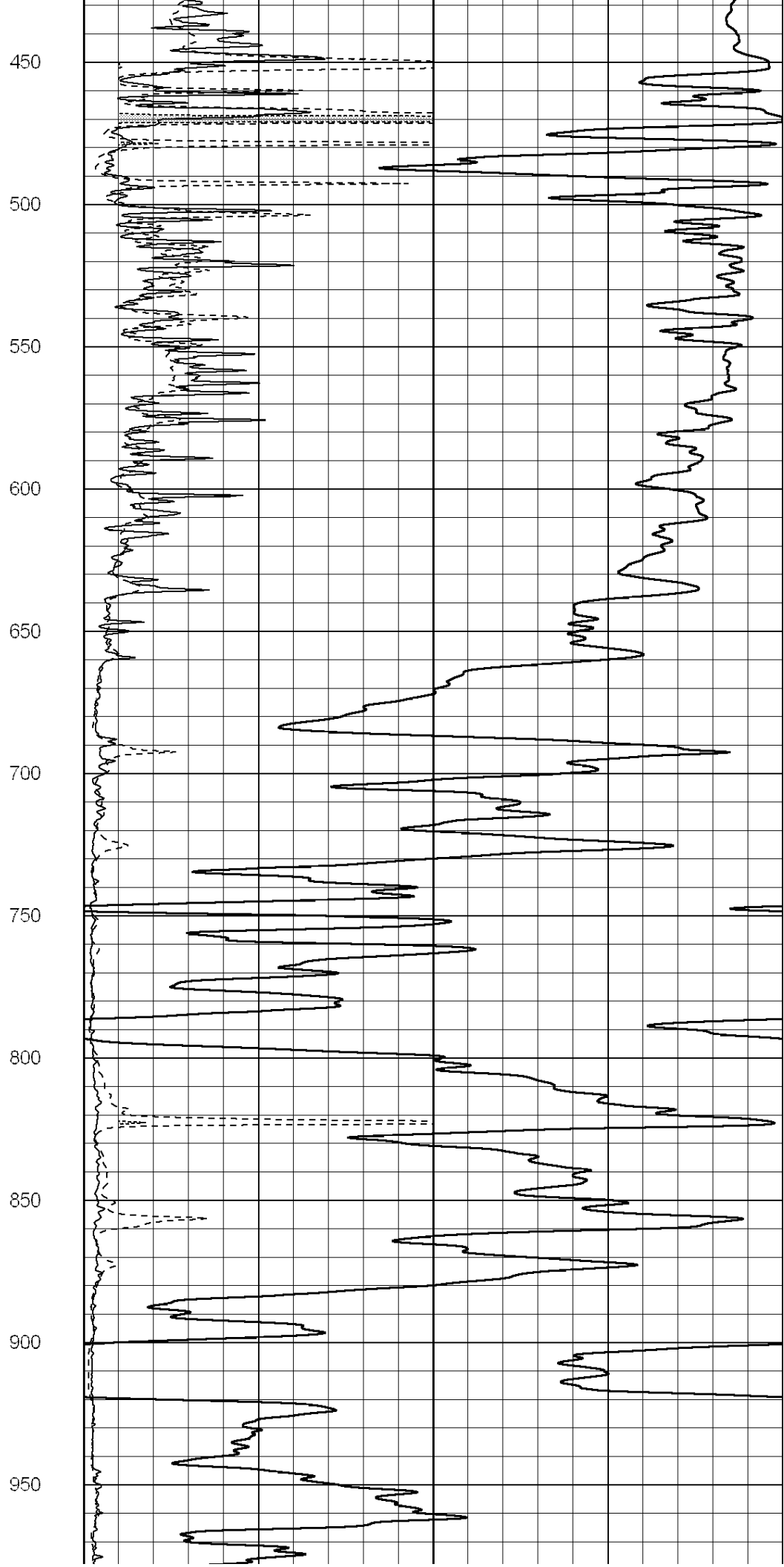
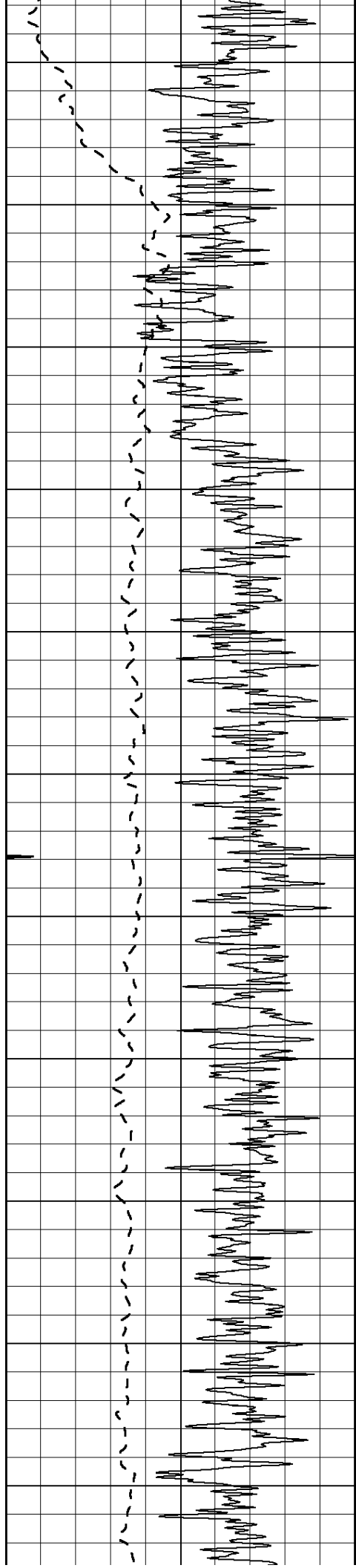
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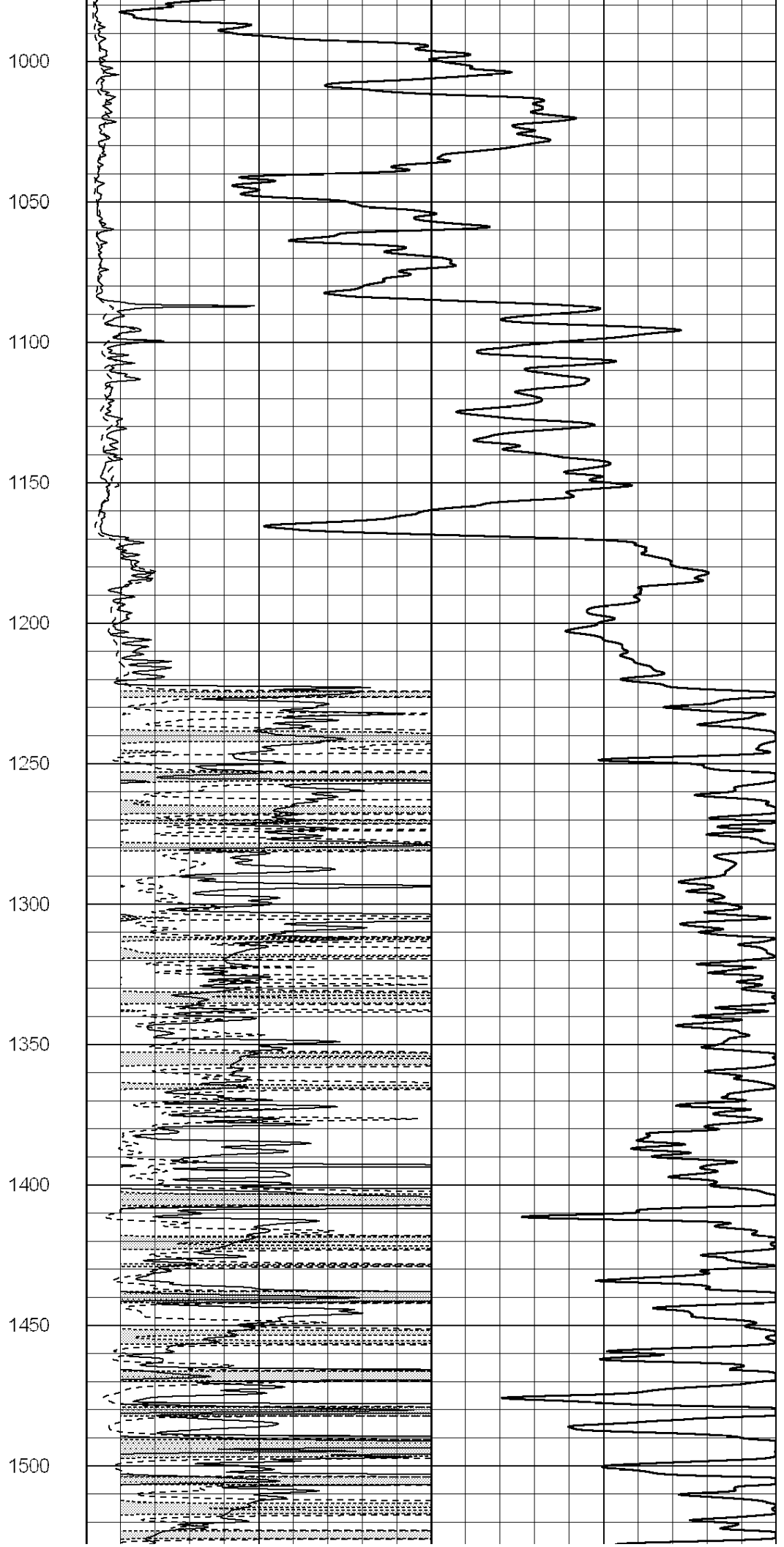
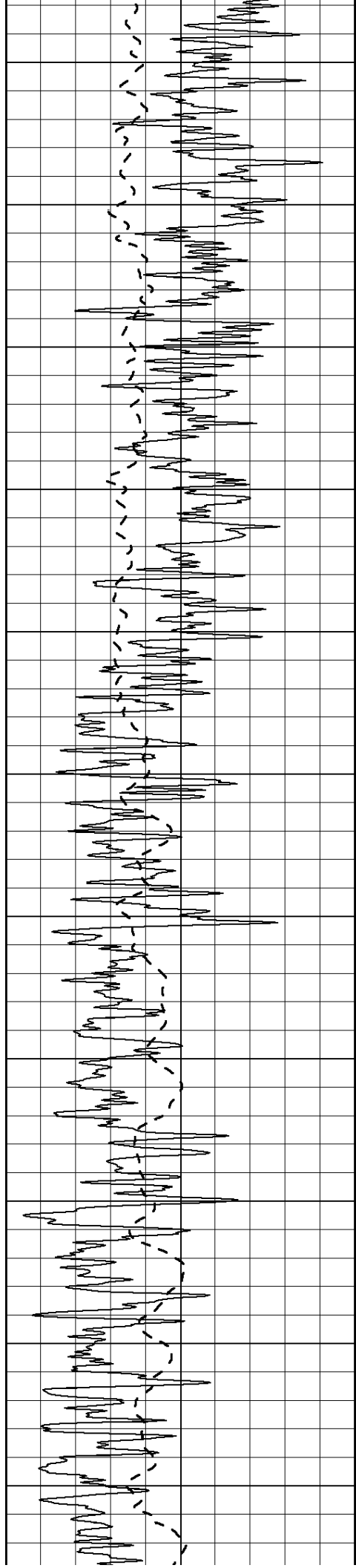
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50	RLL3 X10 (Ohm-m)	500

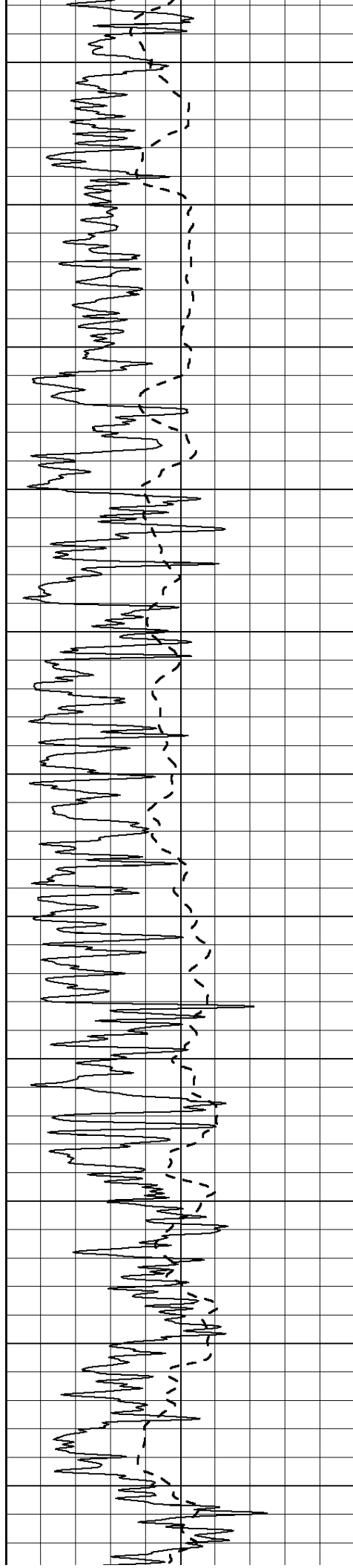


0
50
100
150
200
250
300
350
400









1550

1600

1650

1700

1750

1800

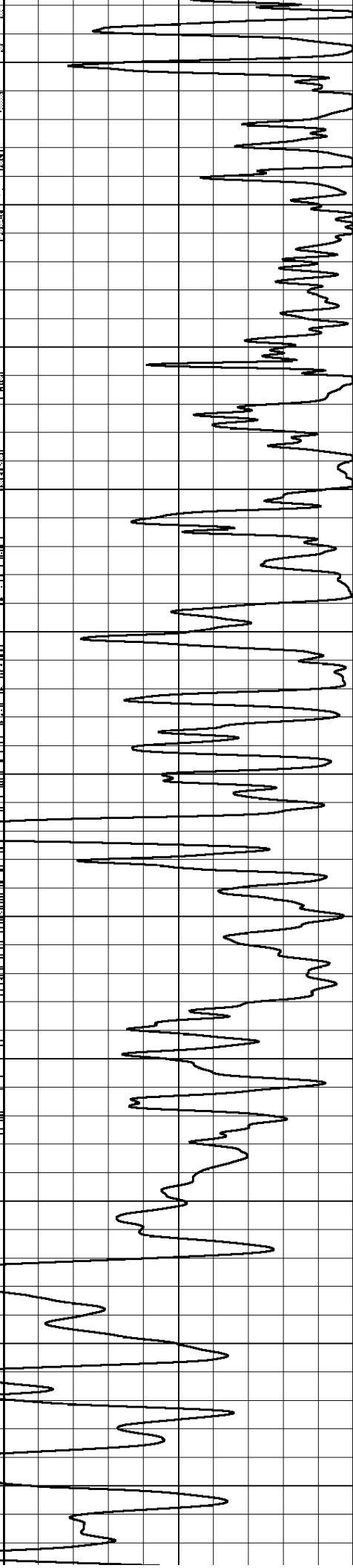
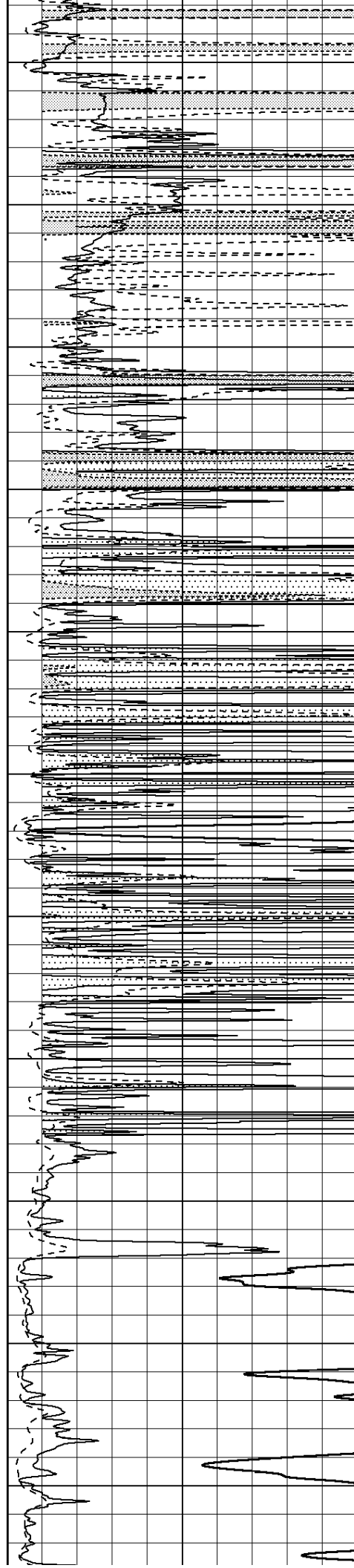
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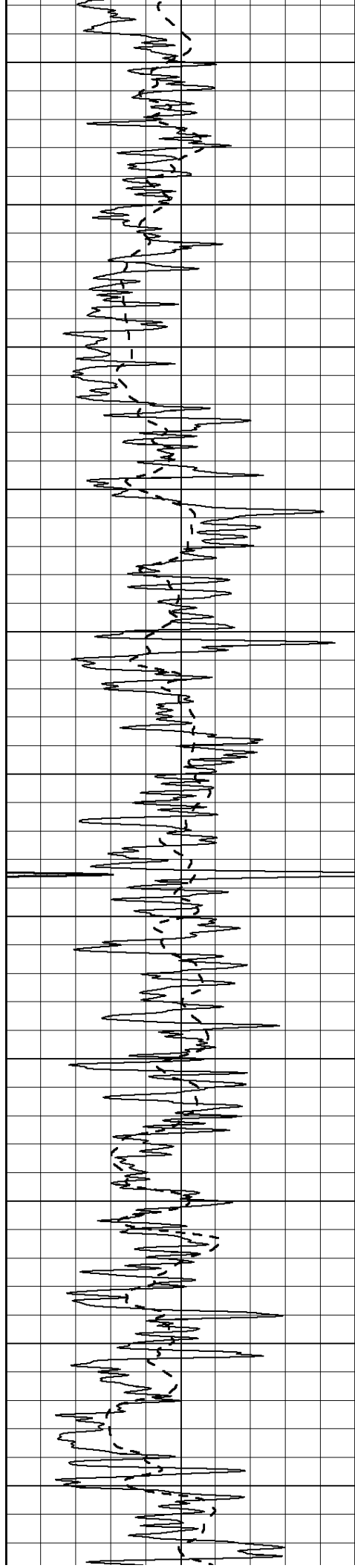
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2100

2150

2200

2250

2300

2350

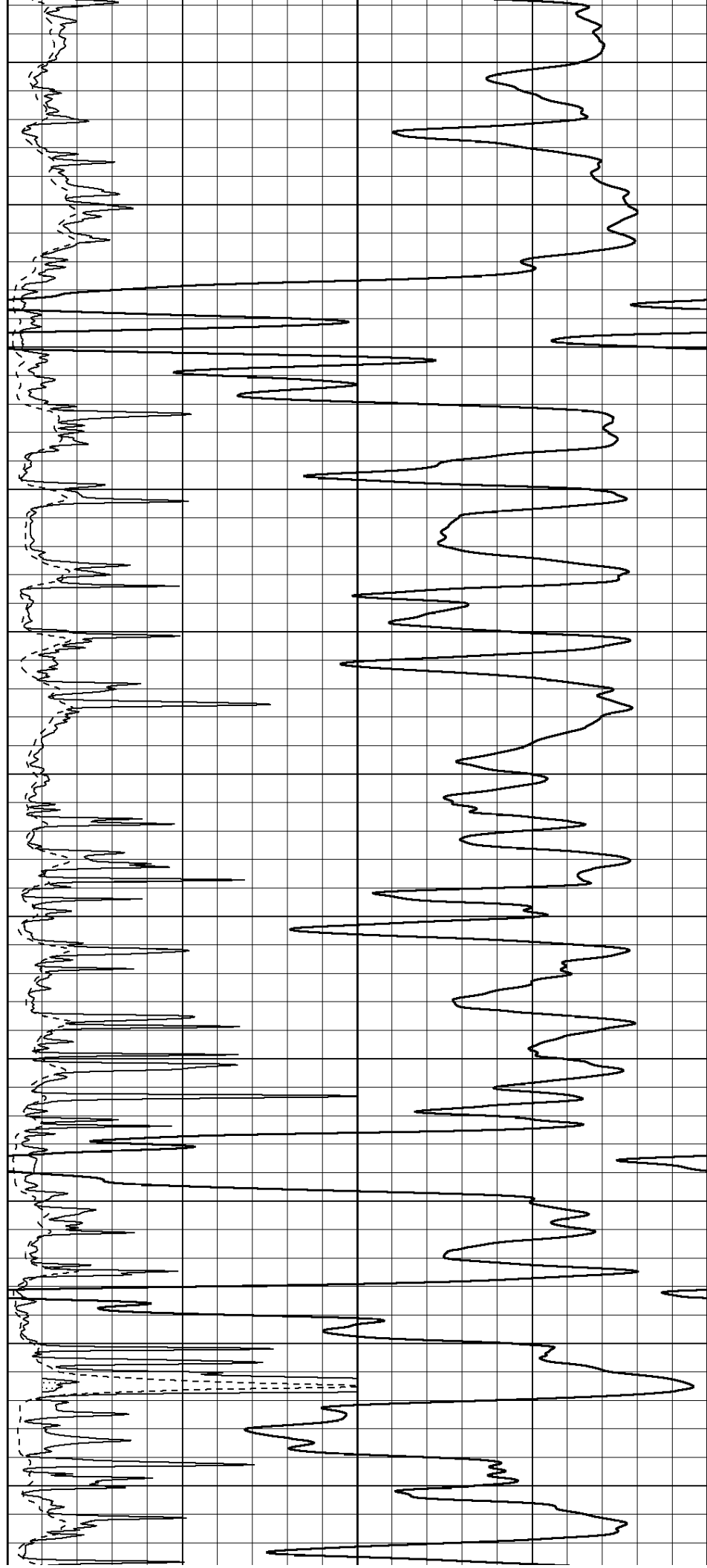
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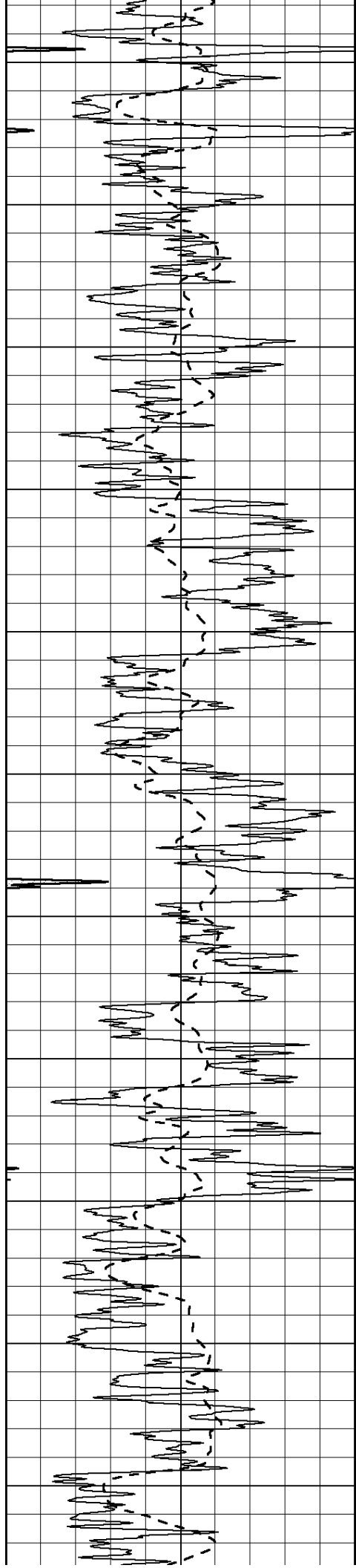
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2600





2650

2700

2750

2800

2850

2900

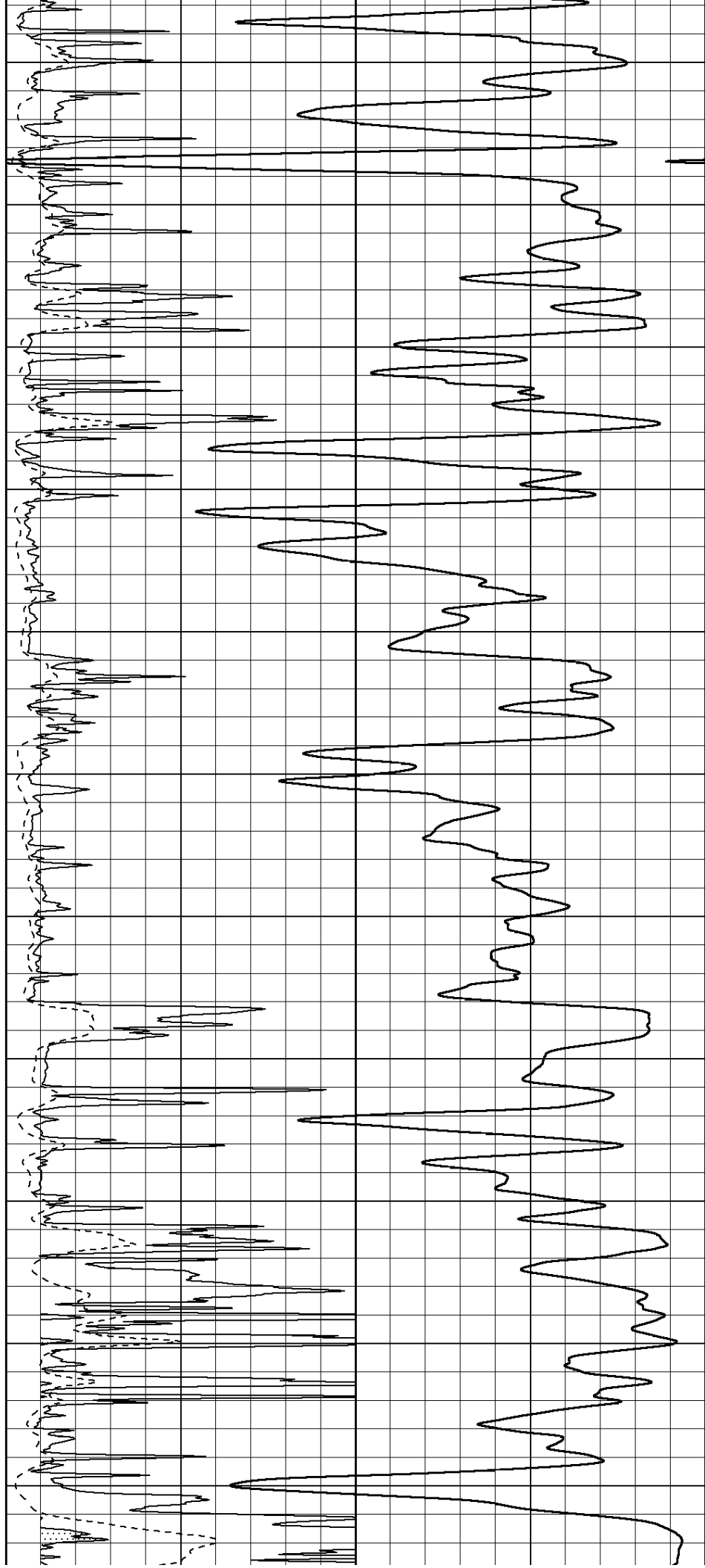
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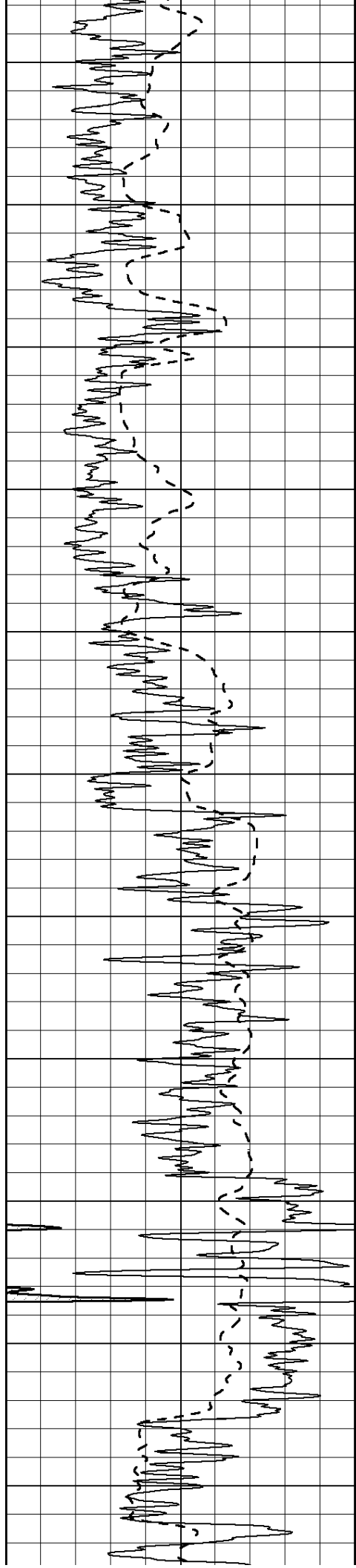
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3150





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3300

3350

3400

3450

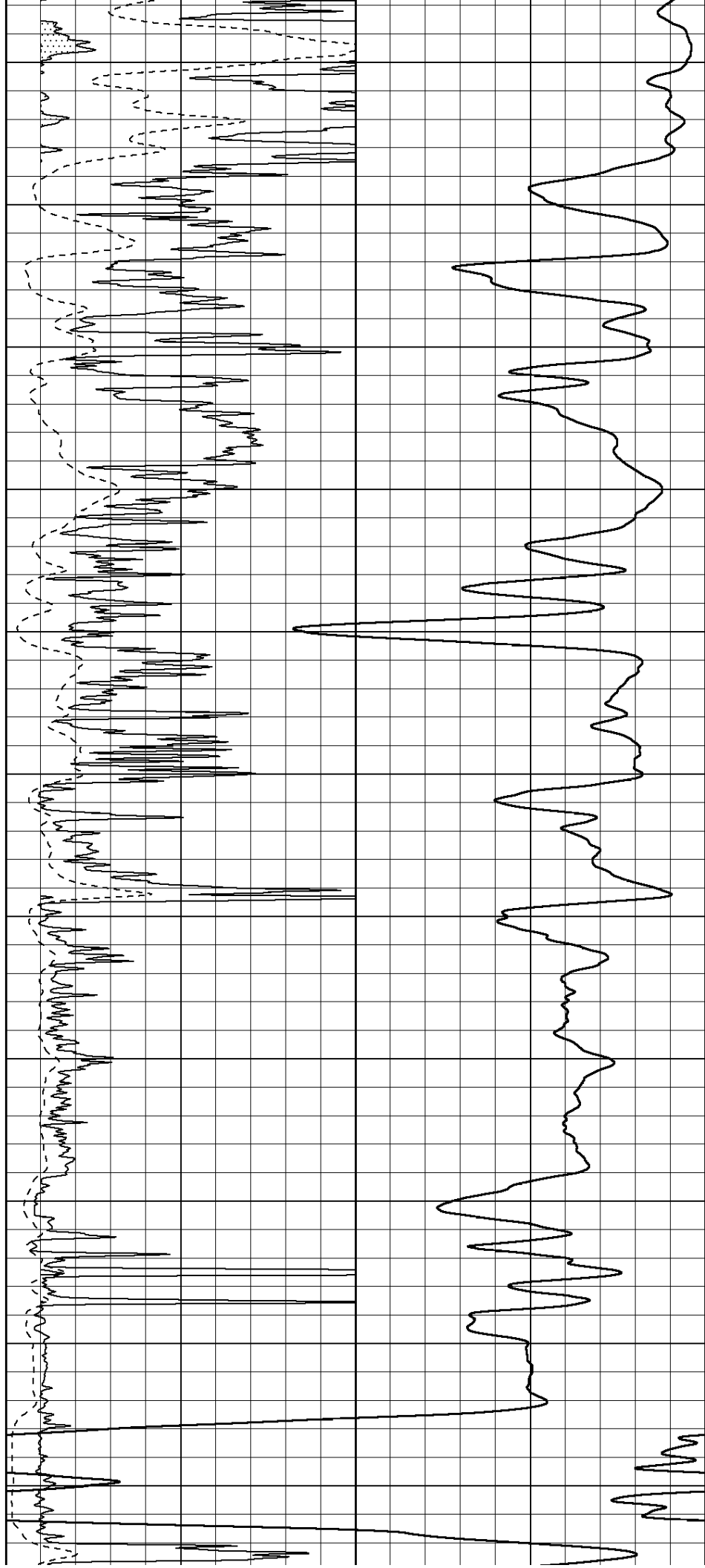
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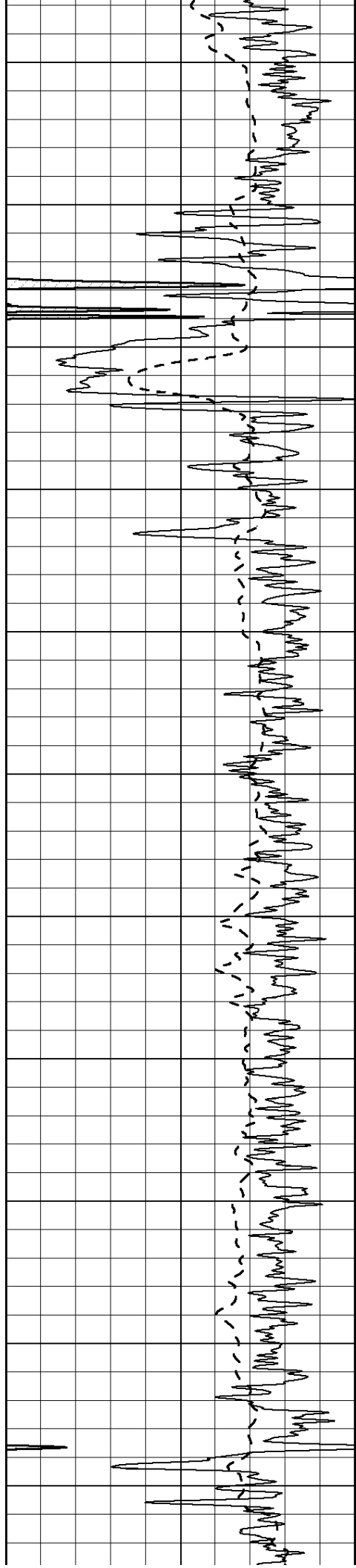
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3700





3750

3800

3850

3900

3950

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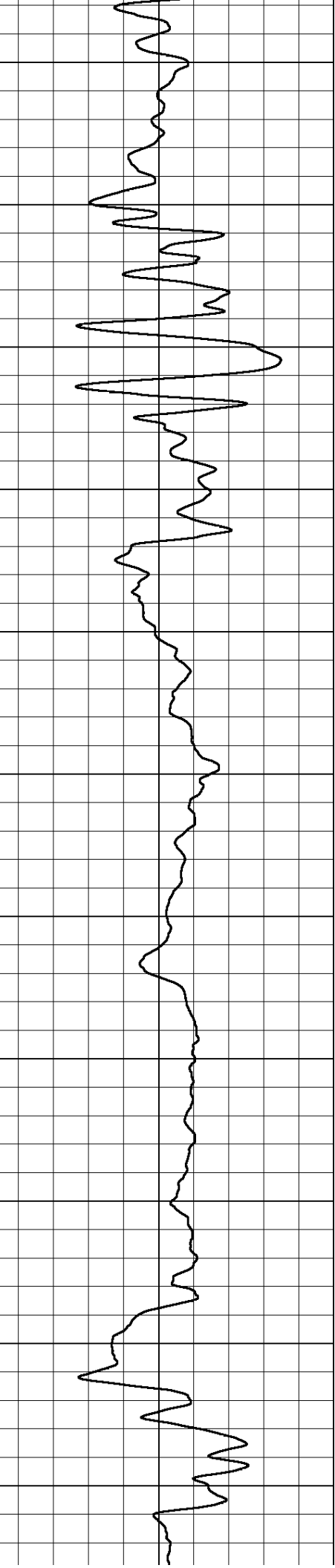
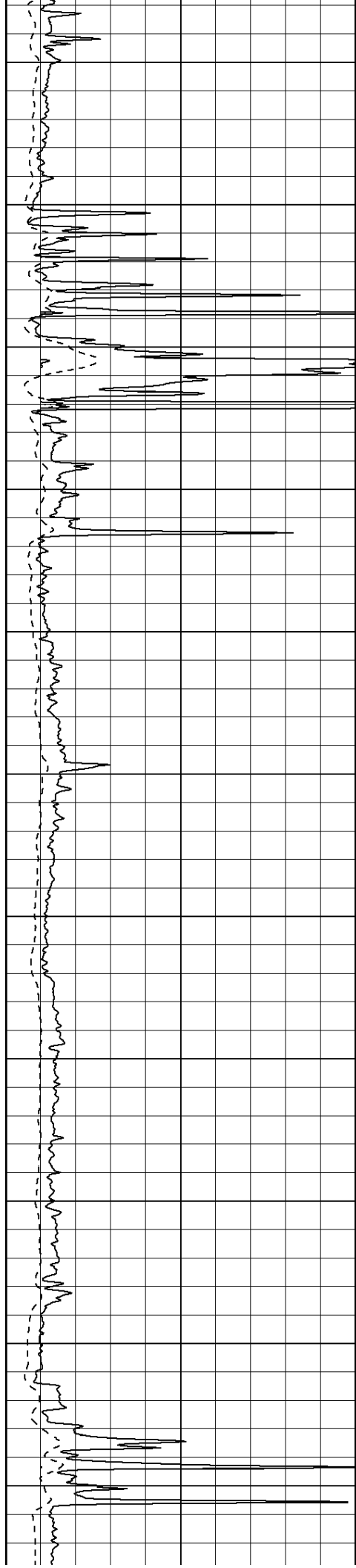
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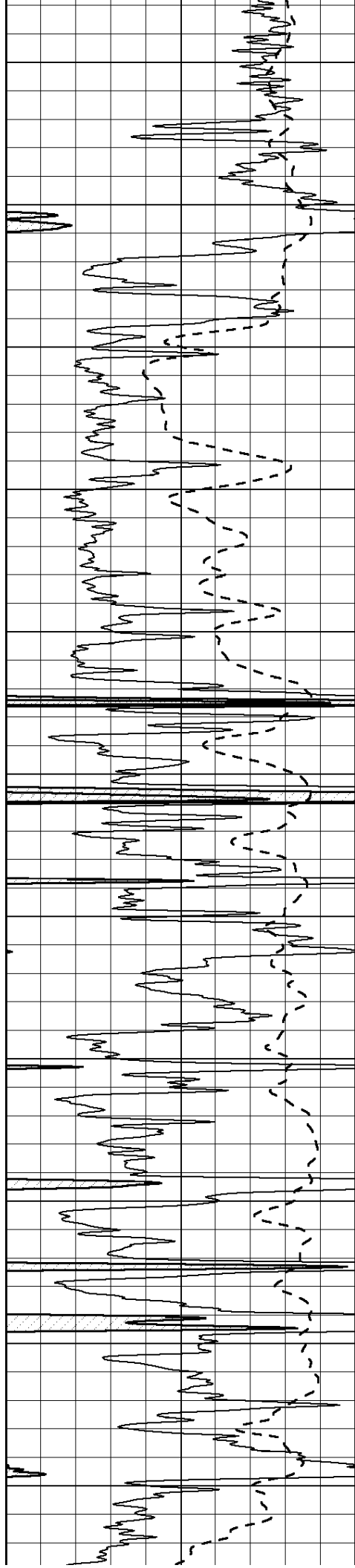
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4300

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4500

4550

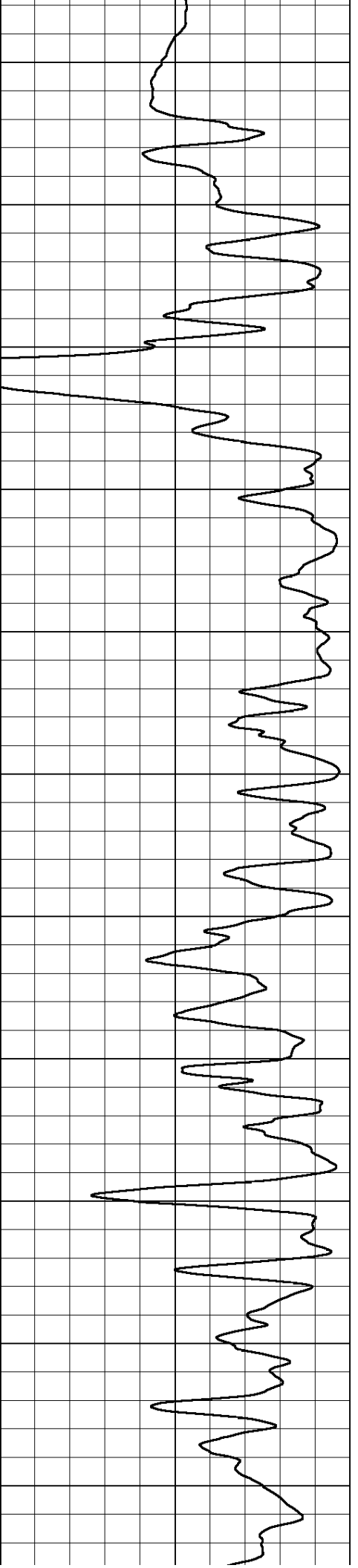
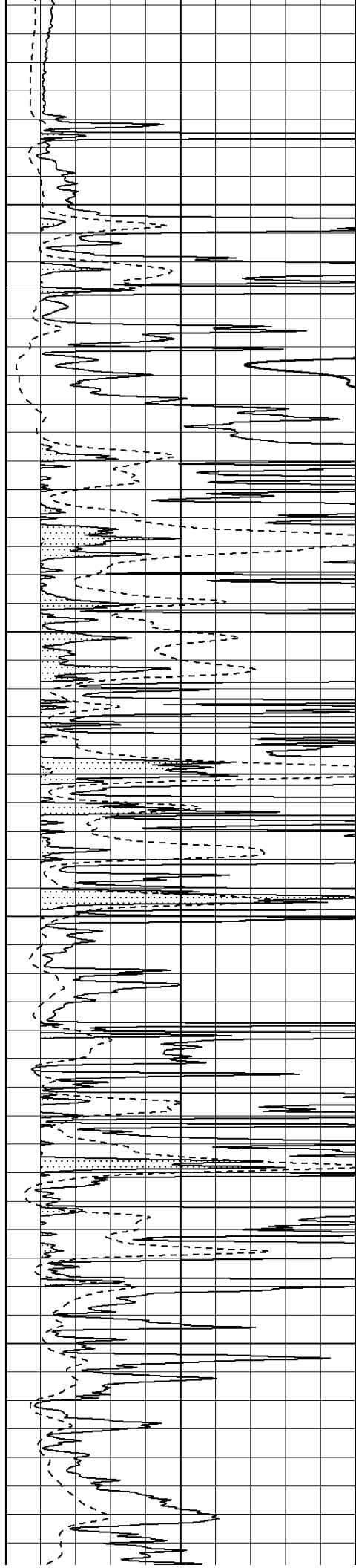
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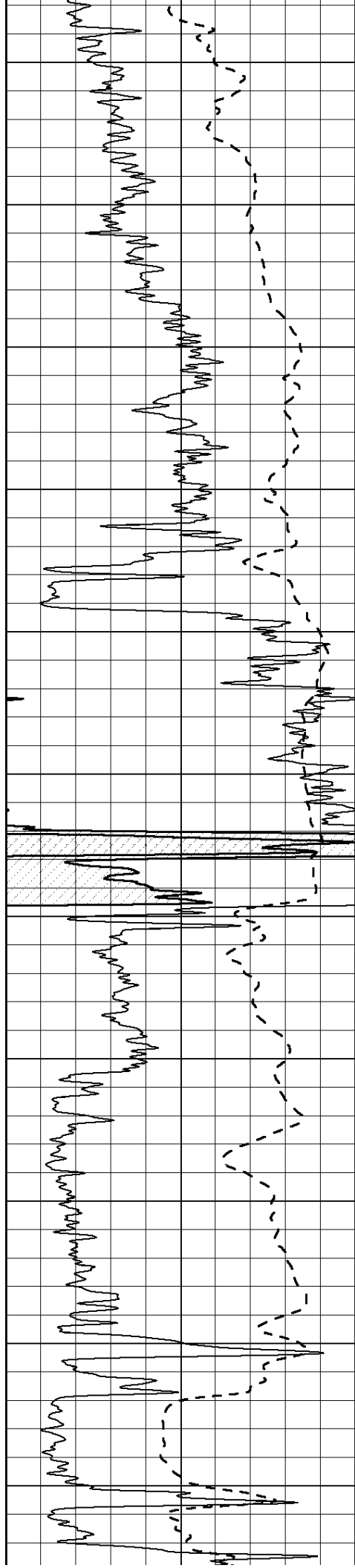
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4800





4850

4900

4950

5000

5050

5100

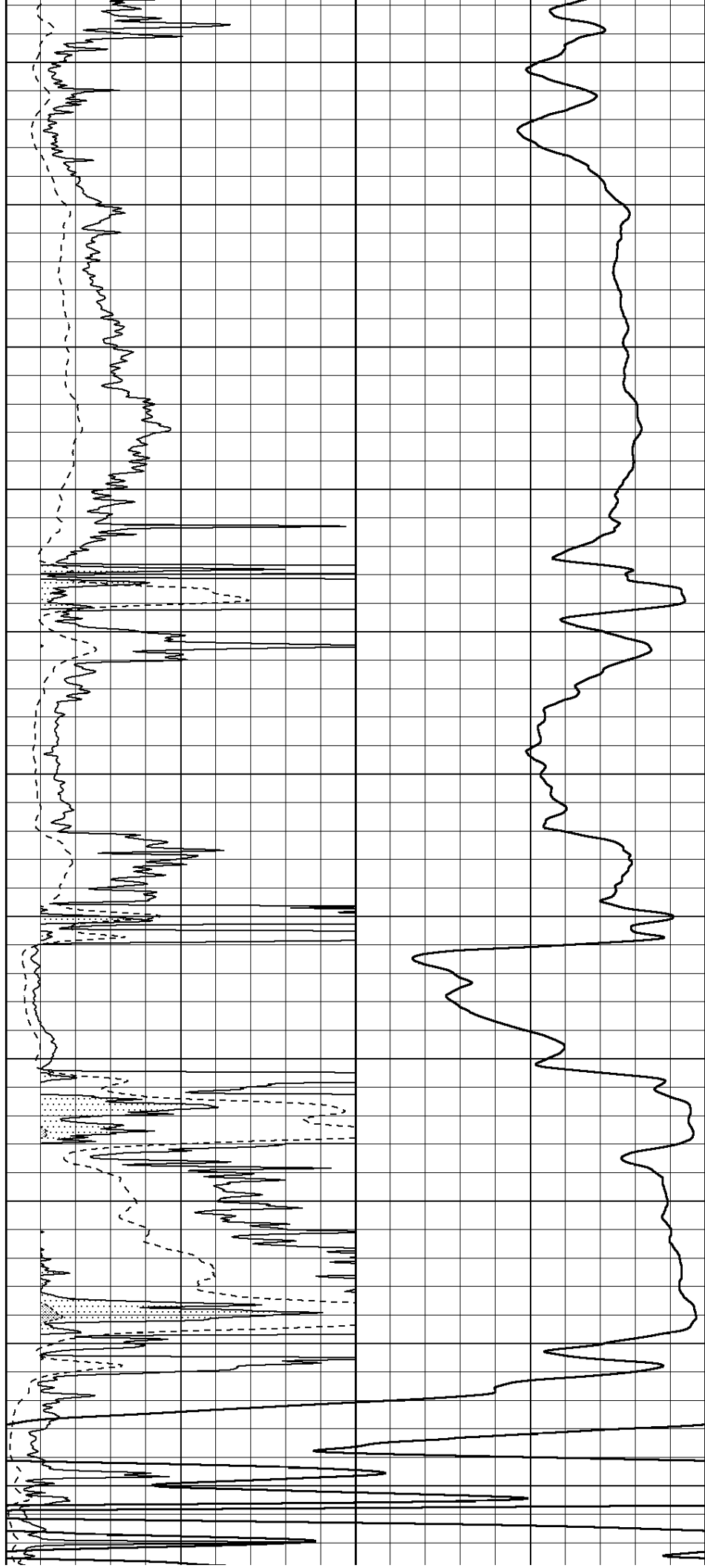
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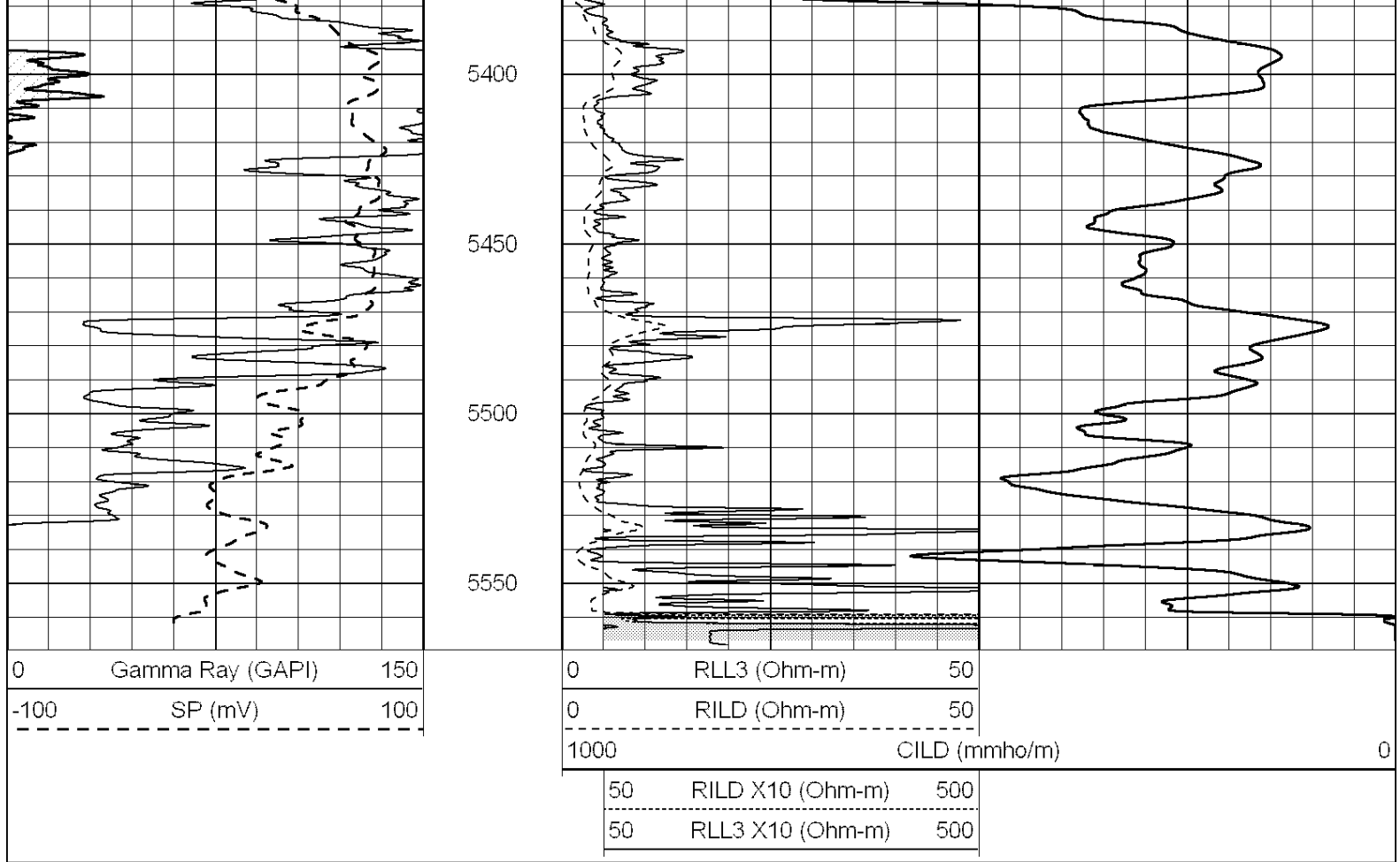
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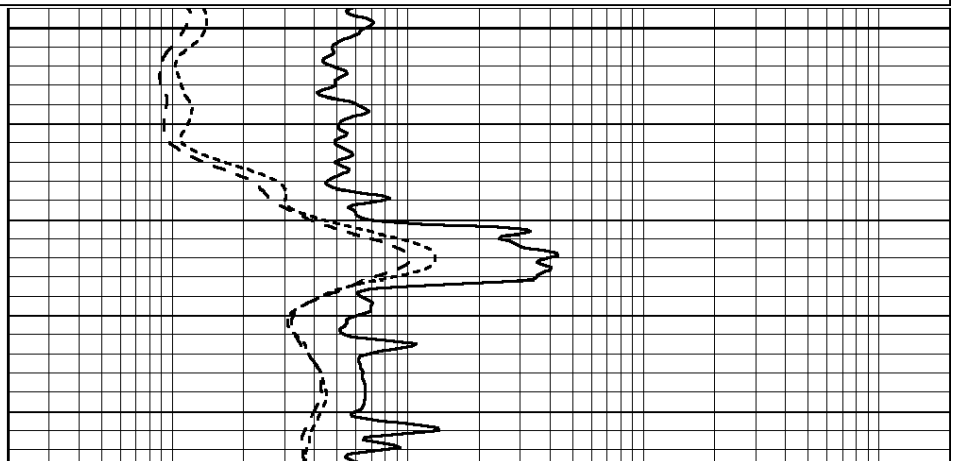
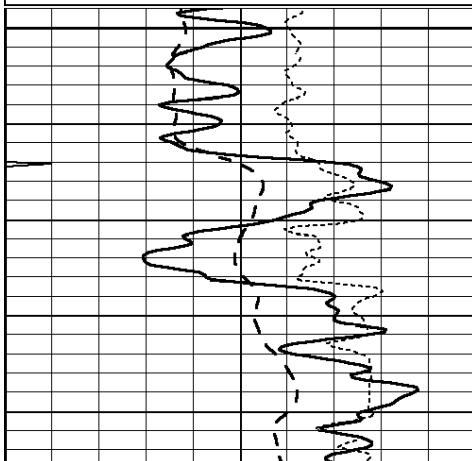
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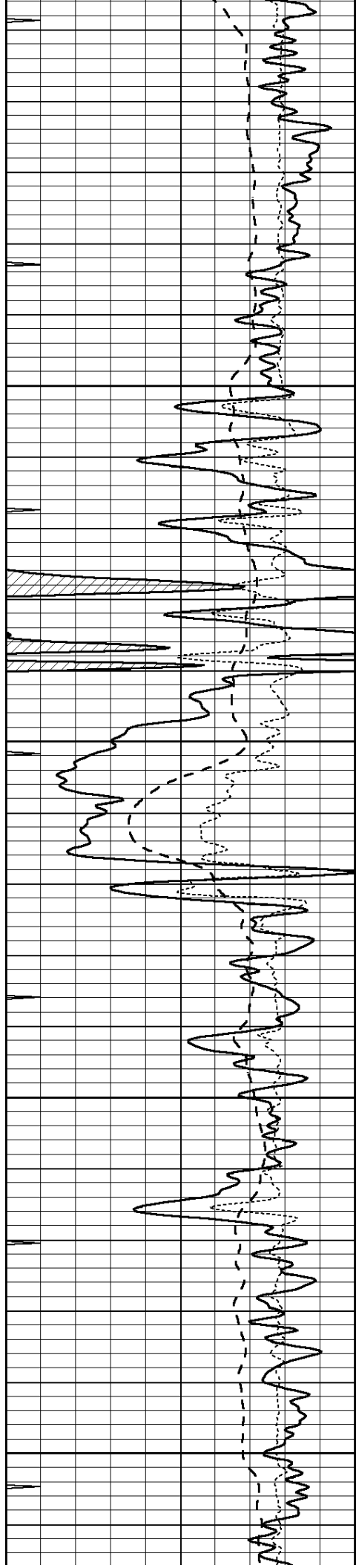
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Database File: 006586pe.db
 Dataset Pathname: pass3.1
 Presentation Format: dil
 Dataset Creation: Thu Jul 07 21:29:33 2011 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

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





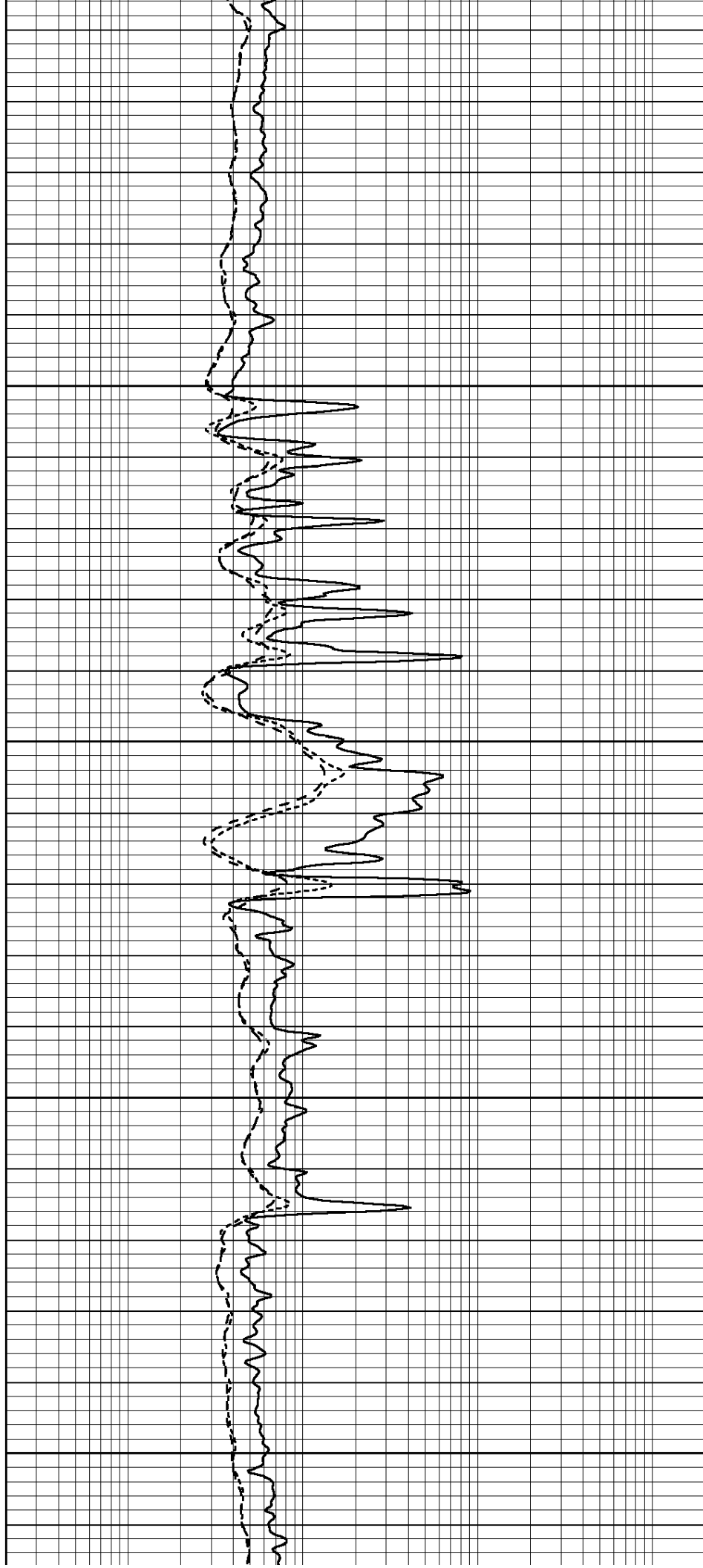
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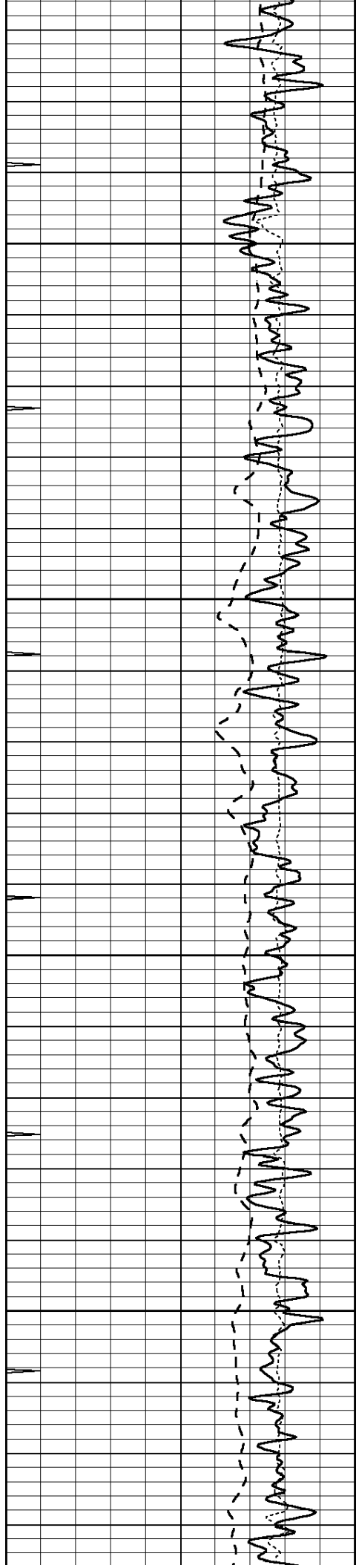
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3950



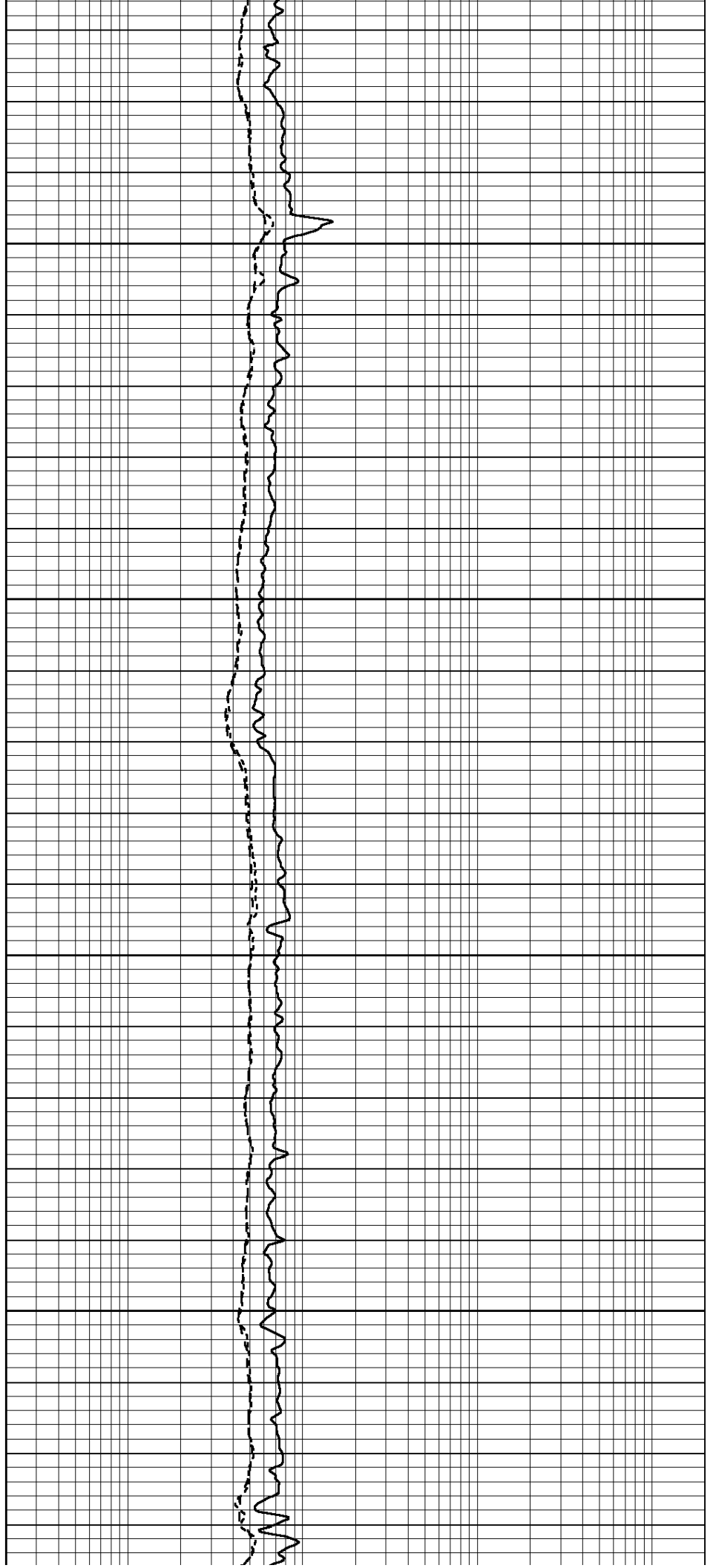


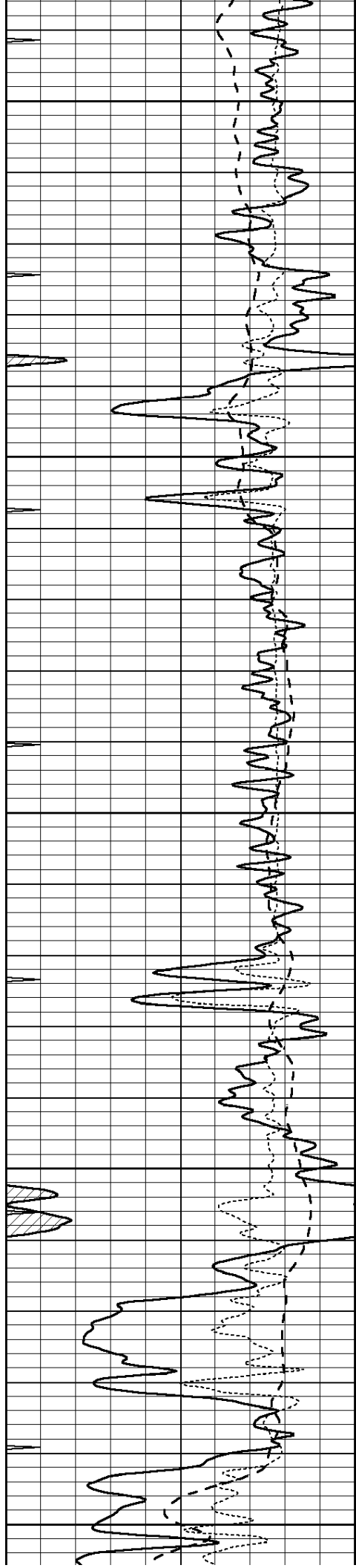
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4050

4100

4150





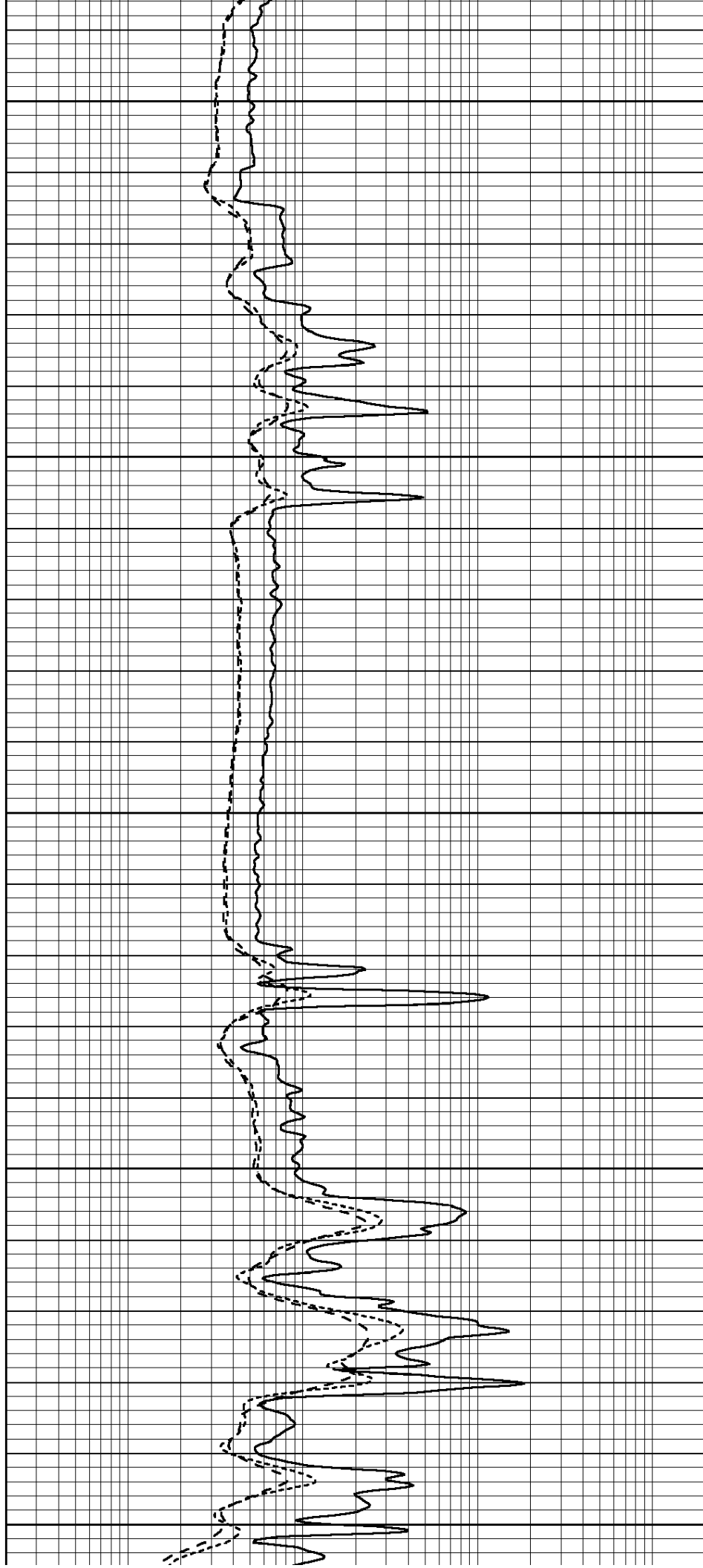
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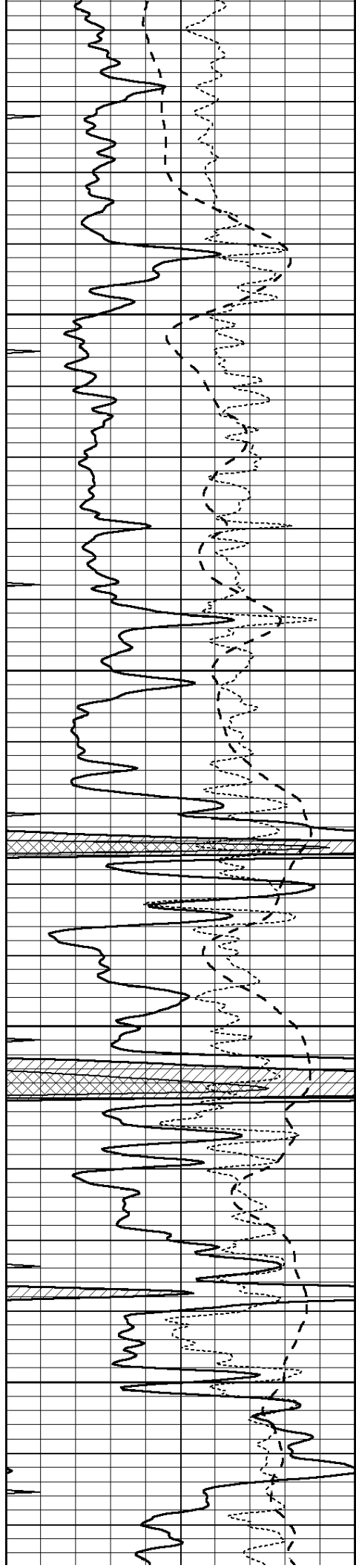
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4400



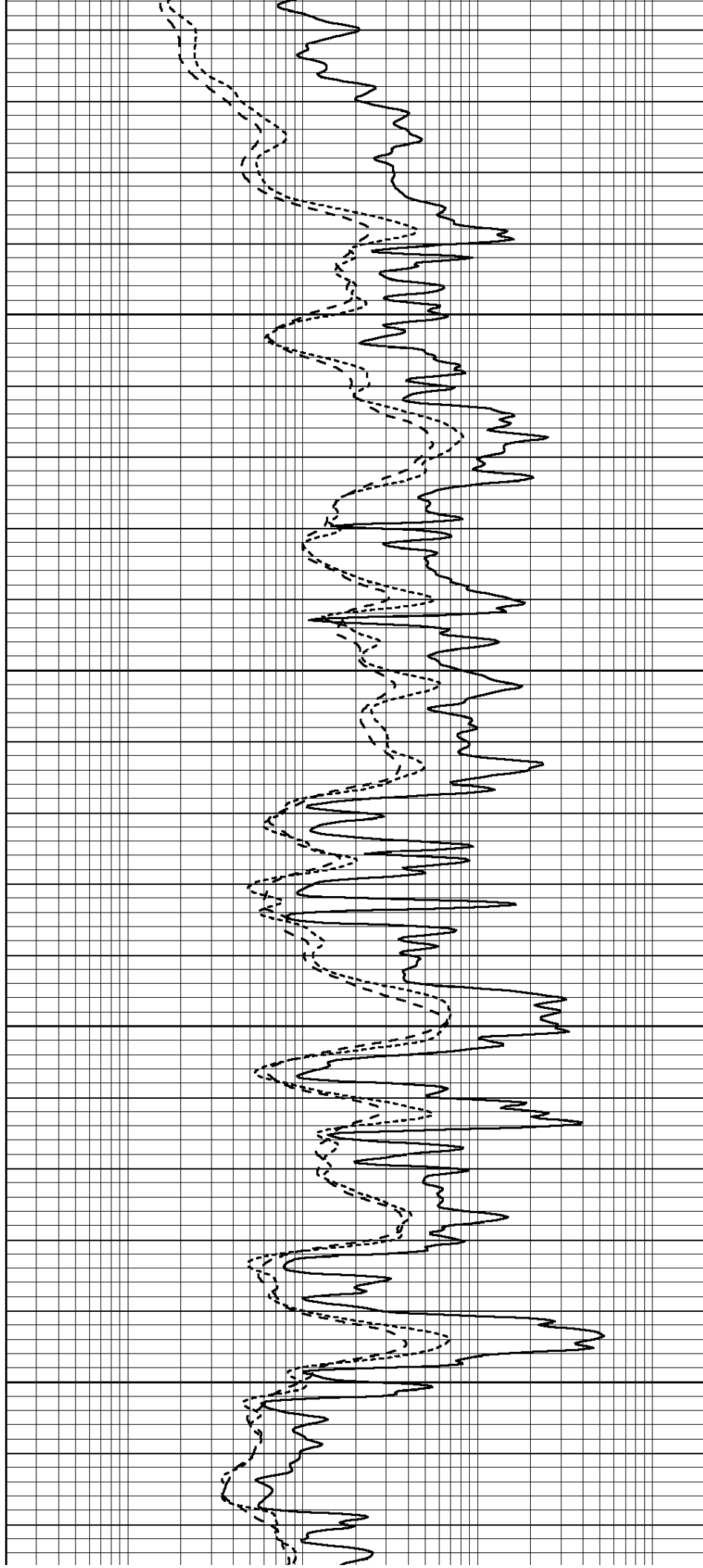


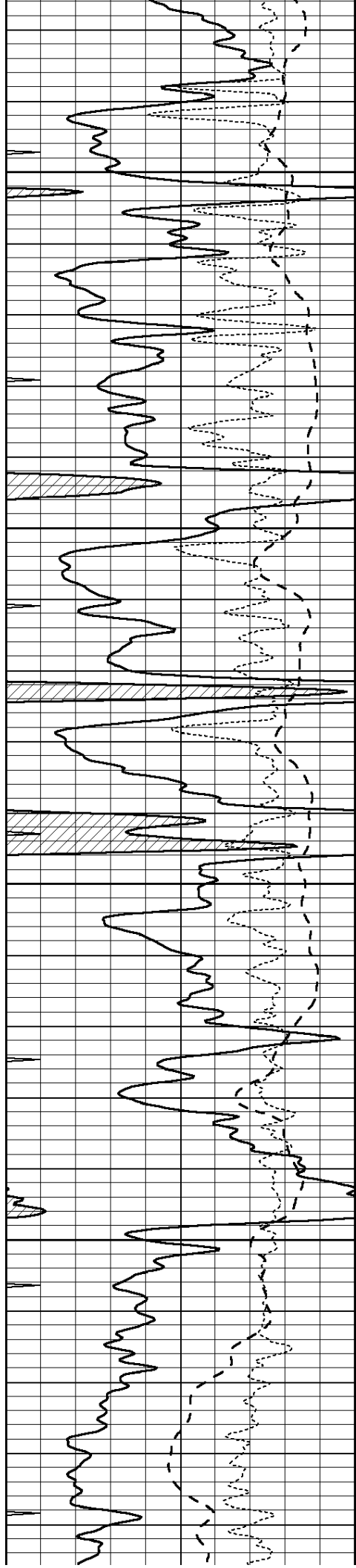
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4600



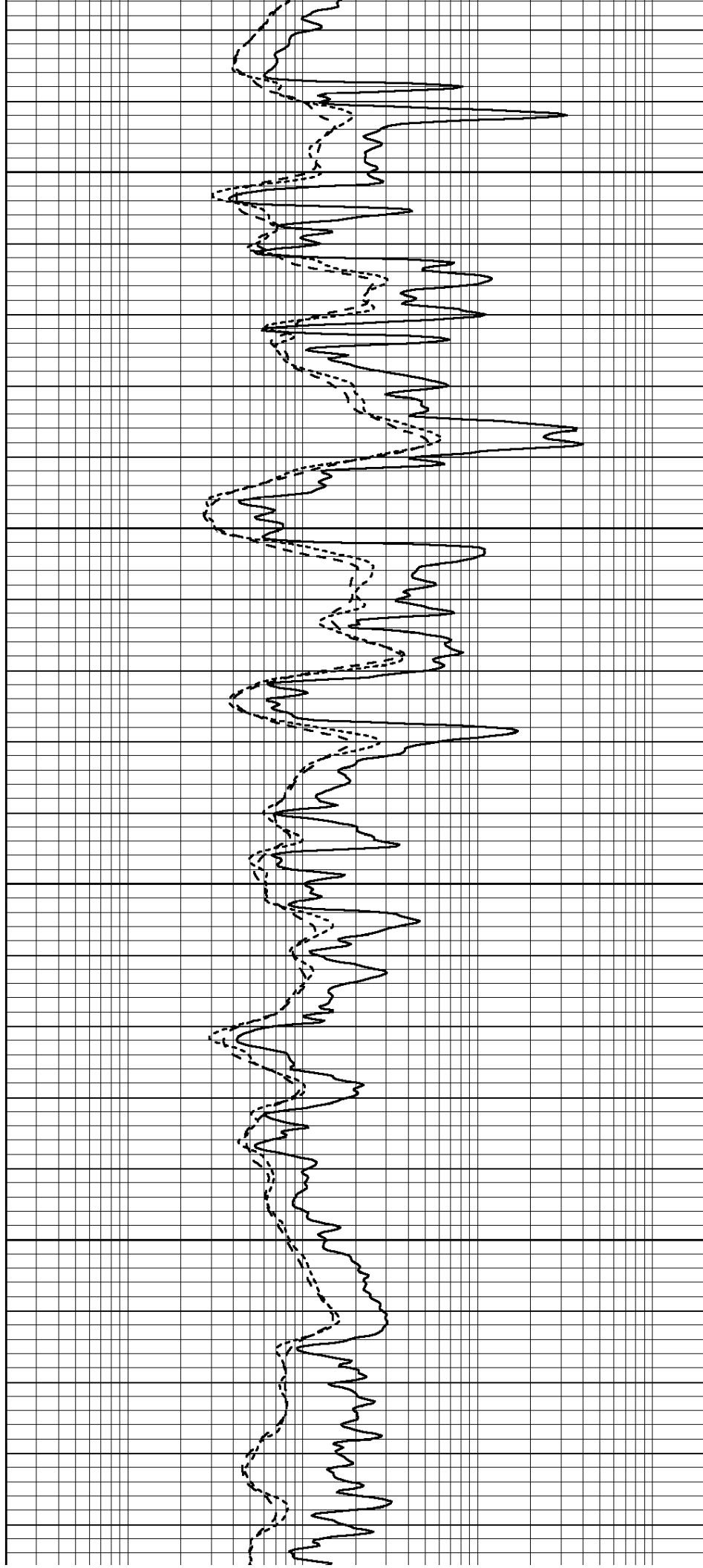


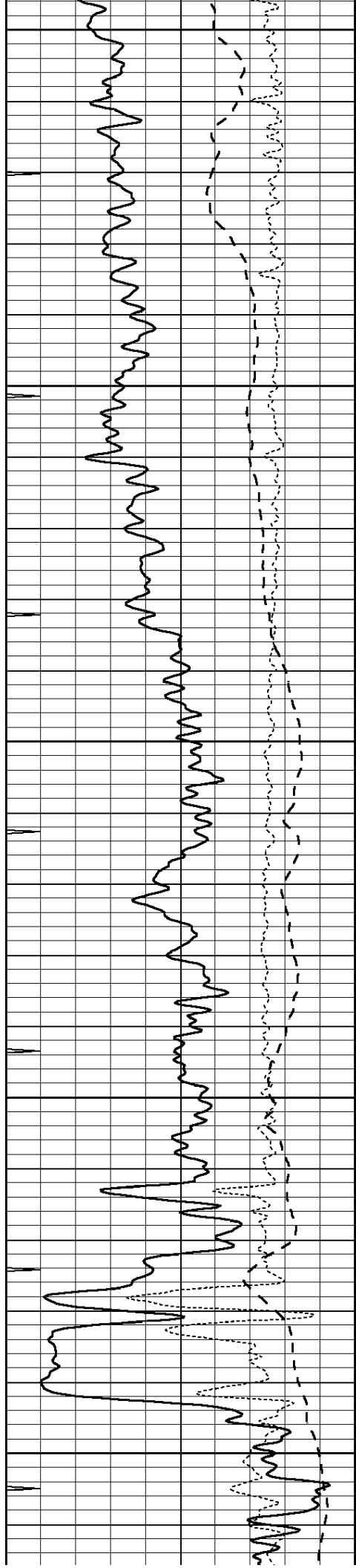
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4800





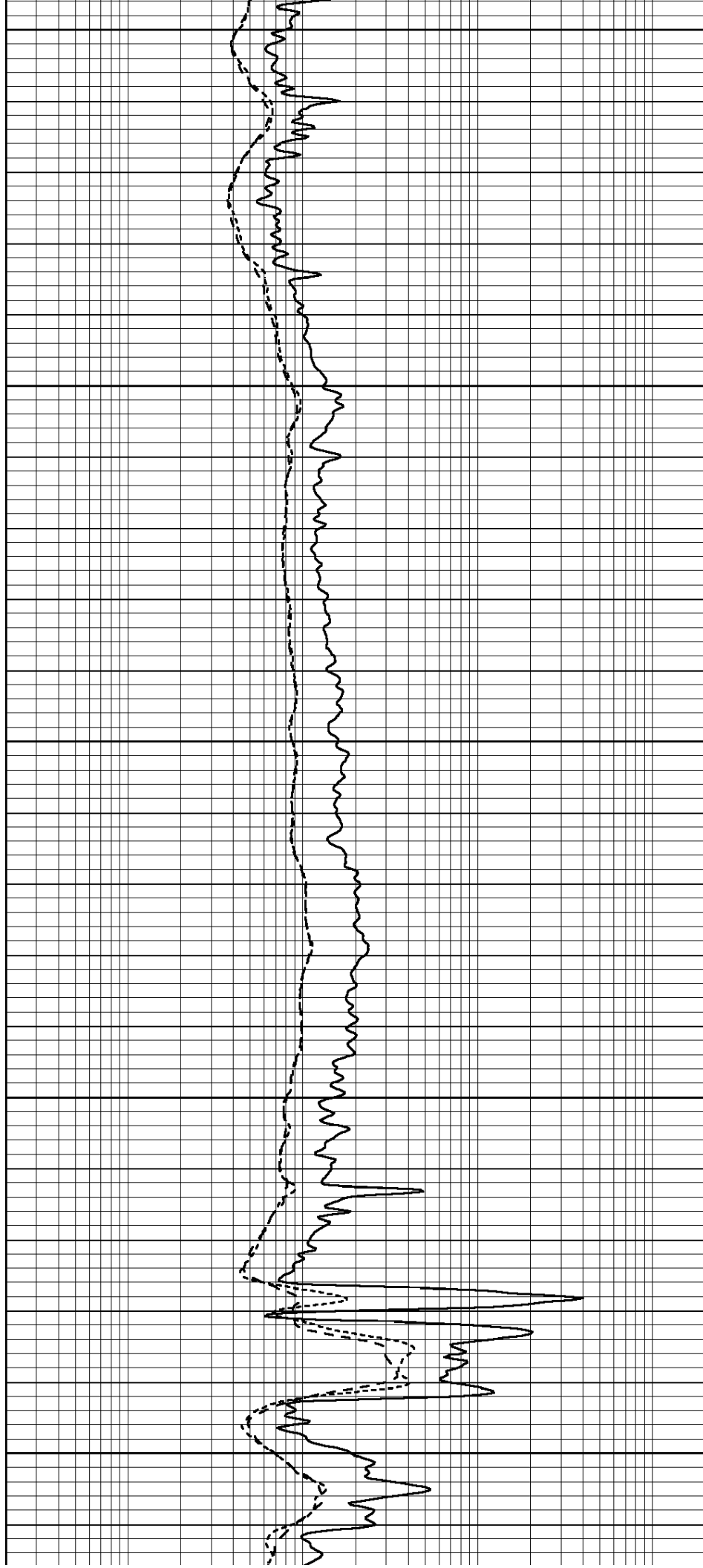
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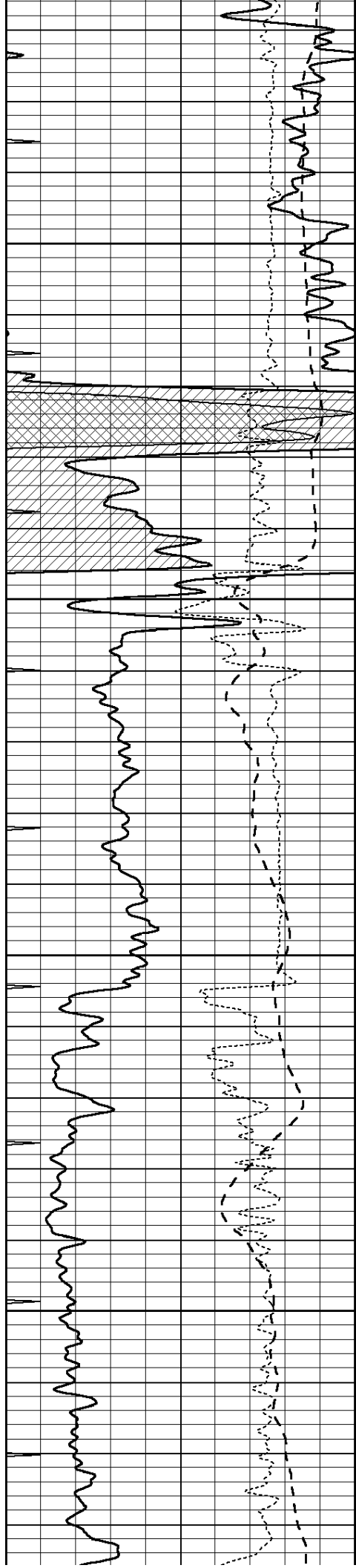
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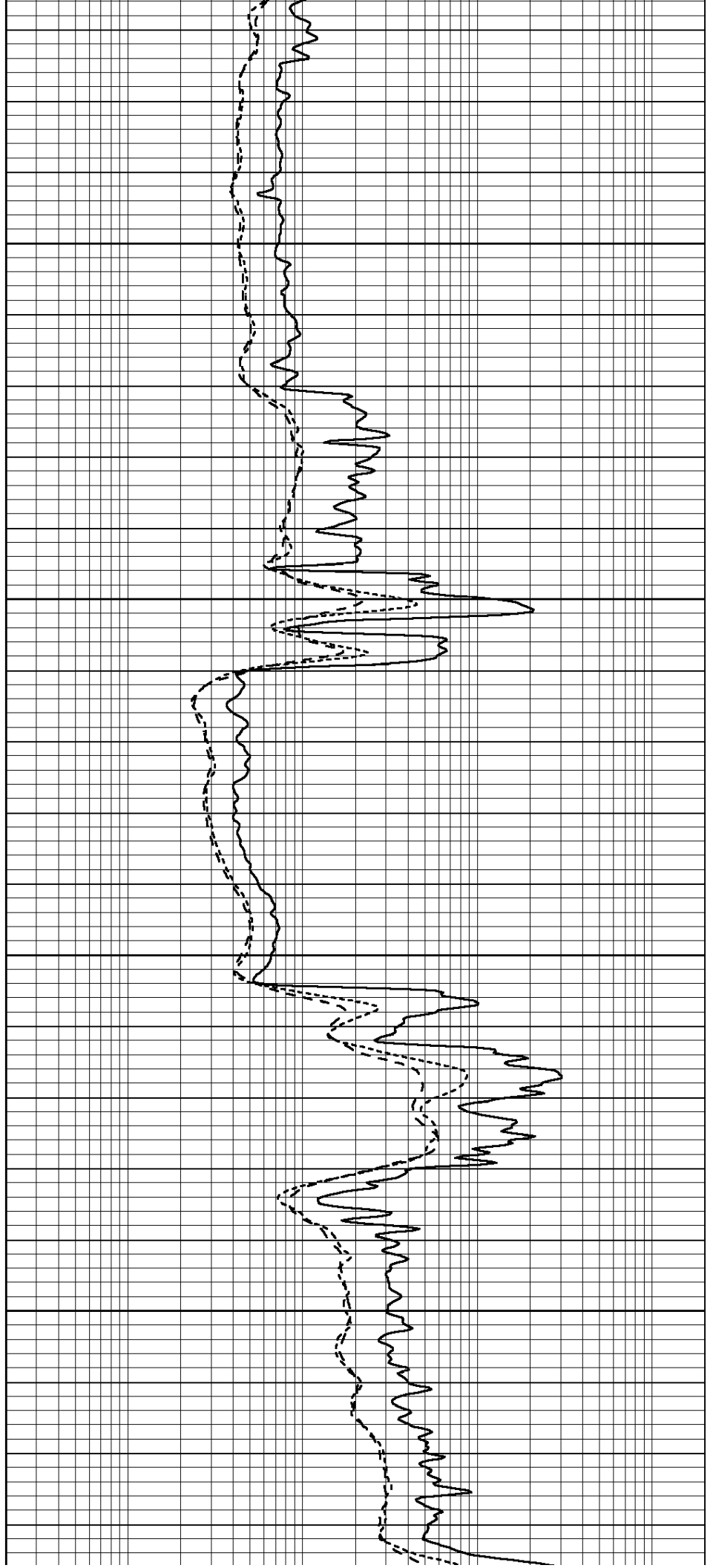


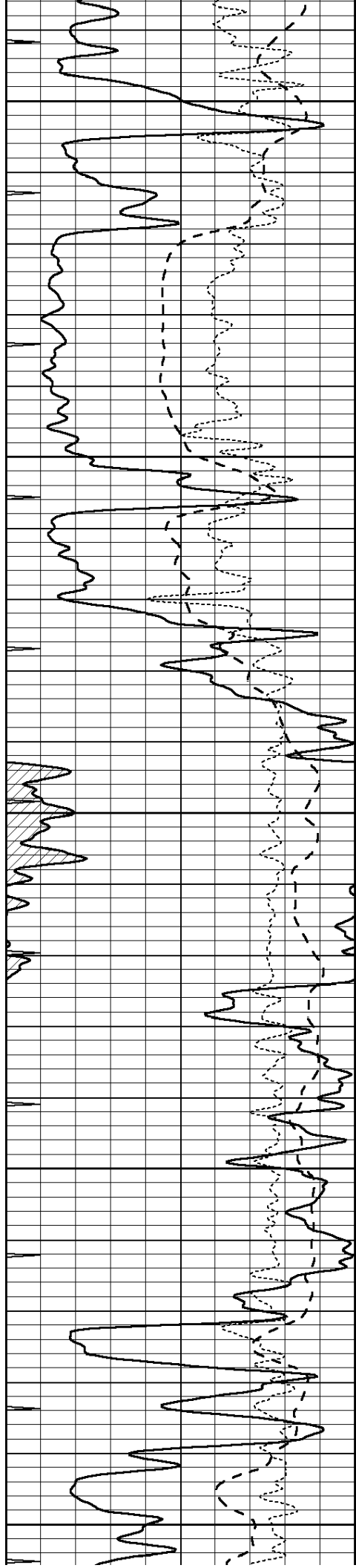
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5150

5200

5250





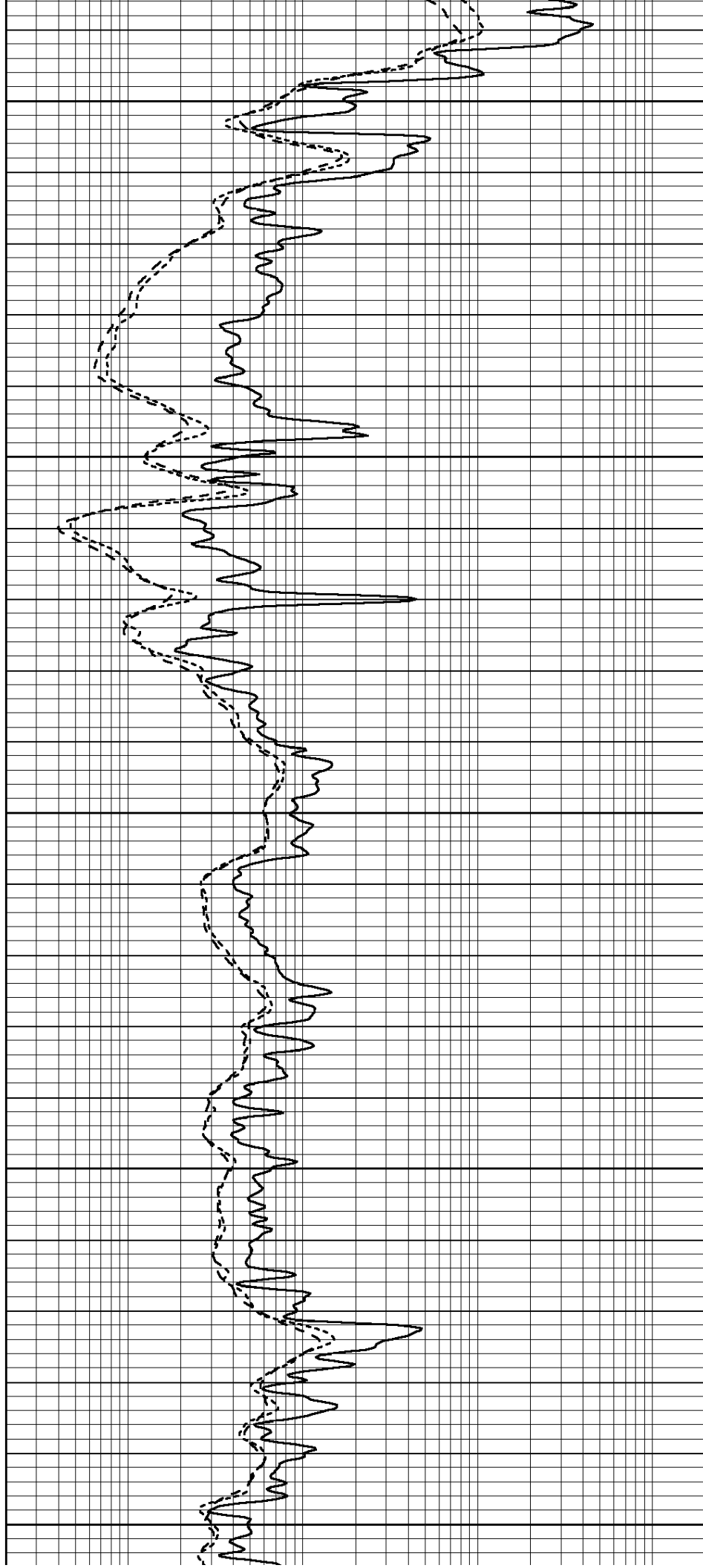
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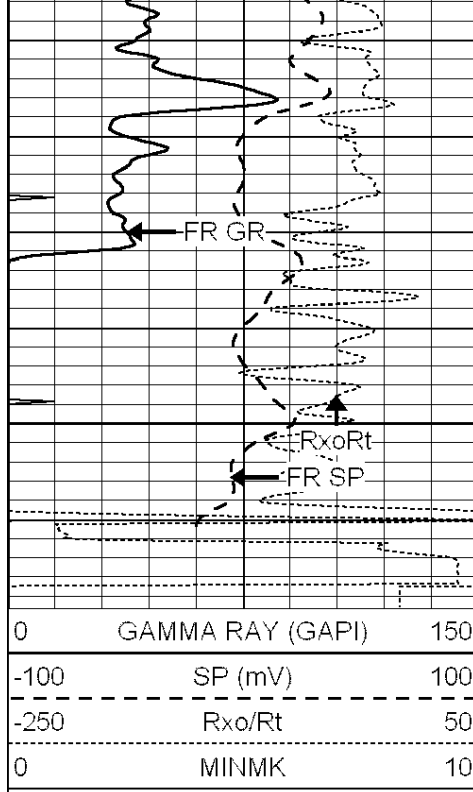
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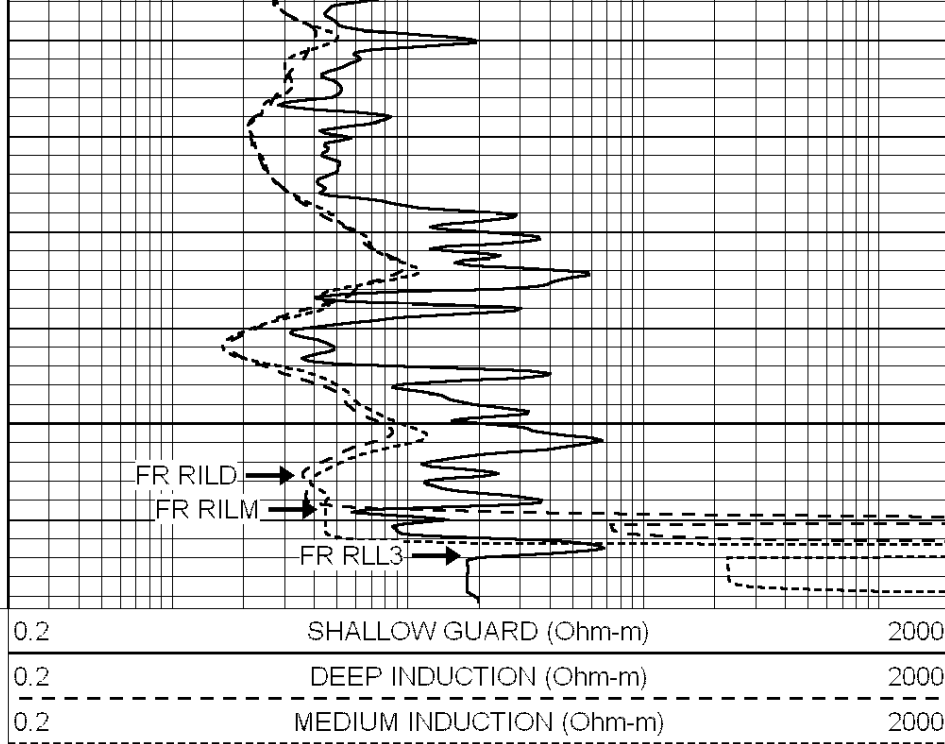
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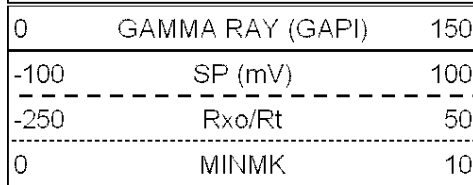
5550
LTD 5566



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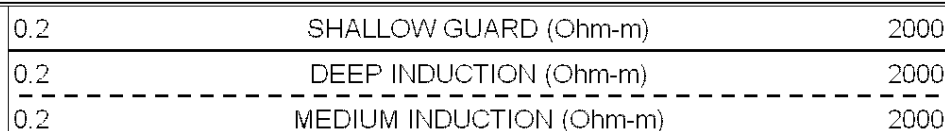
REPEAT SECTION

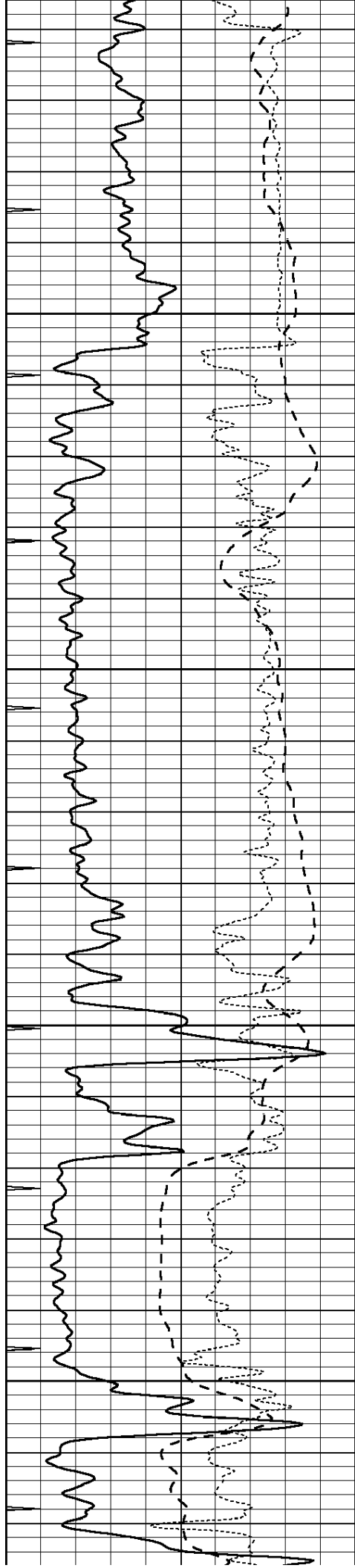
Database File: 006586pe.db
Dataset Pathname: pass2.1
Presentation Format: dil
Dataset Creation: Thu Jul 07 20:53:04 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240



5100

5150



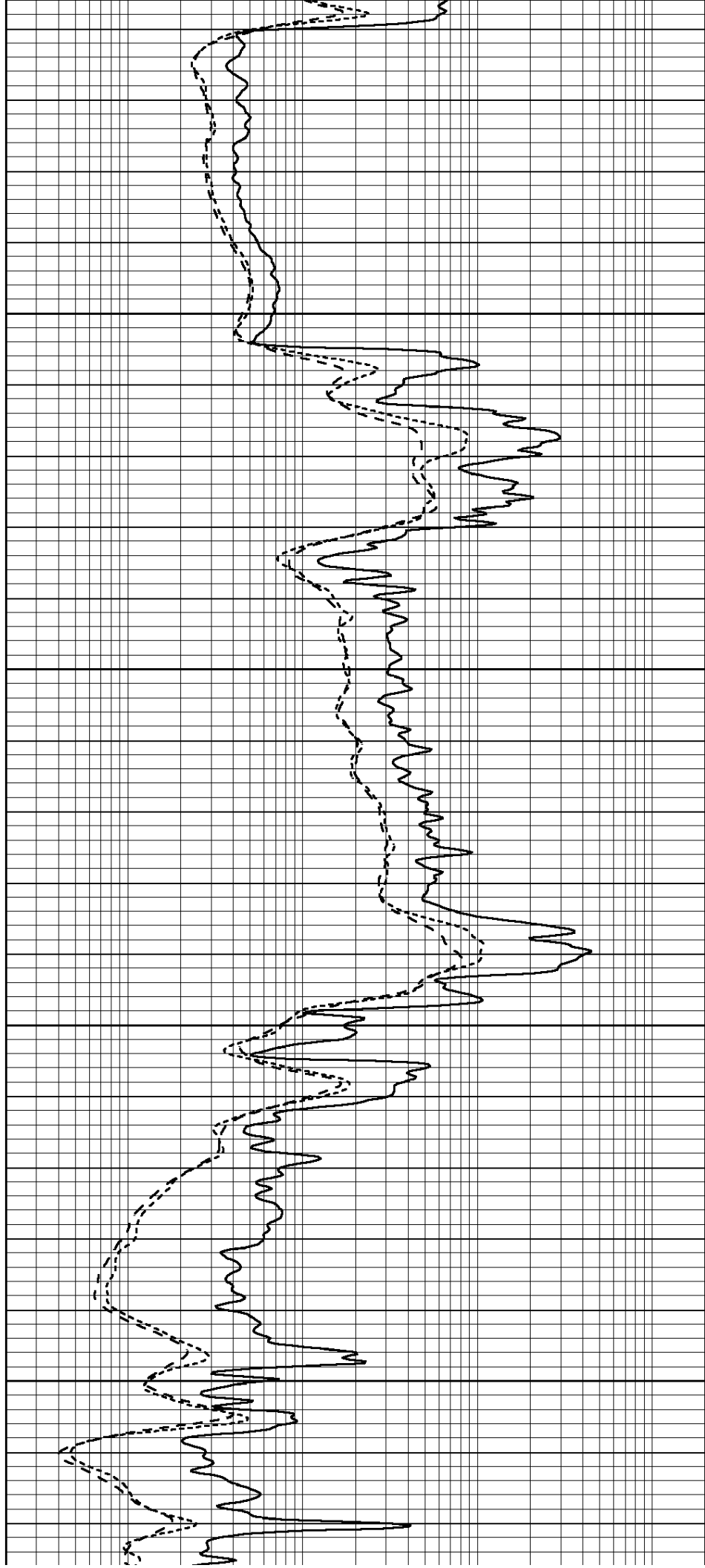


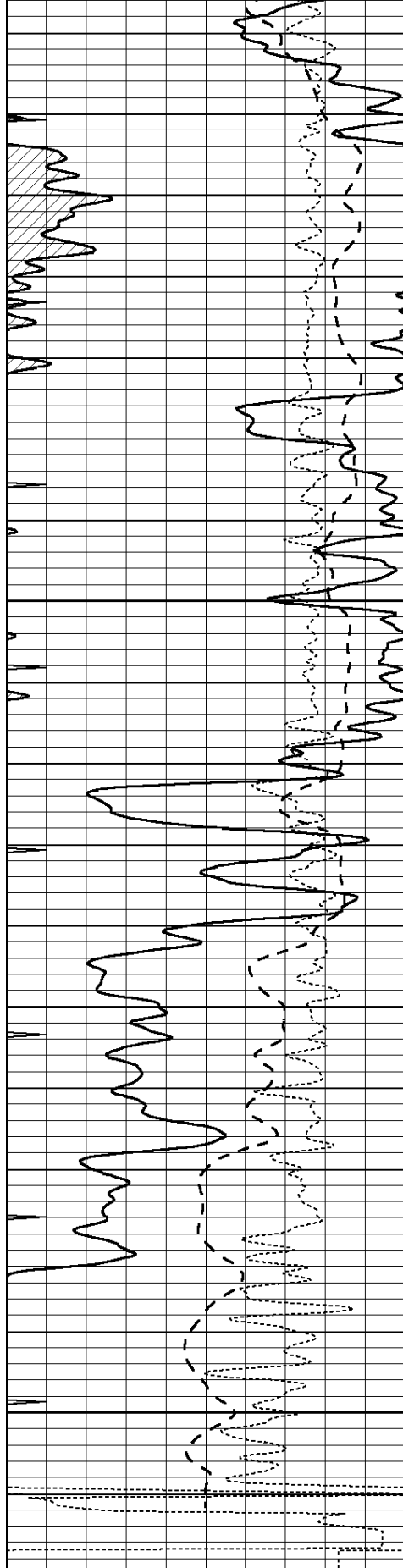
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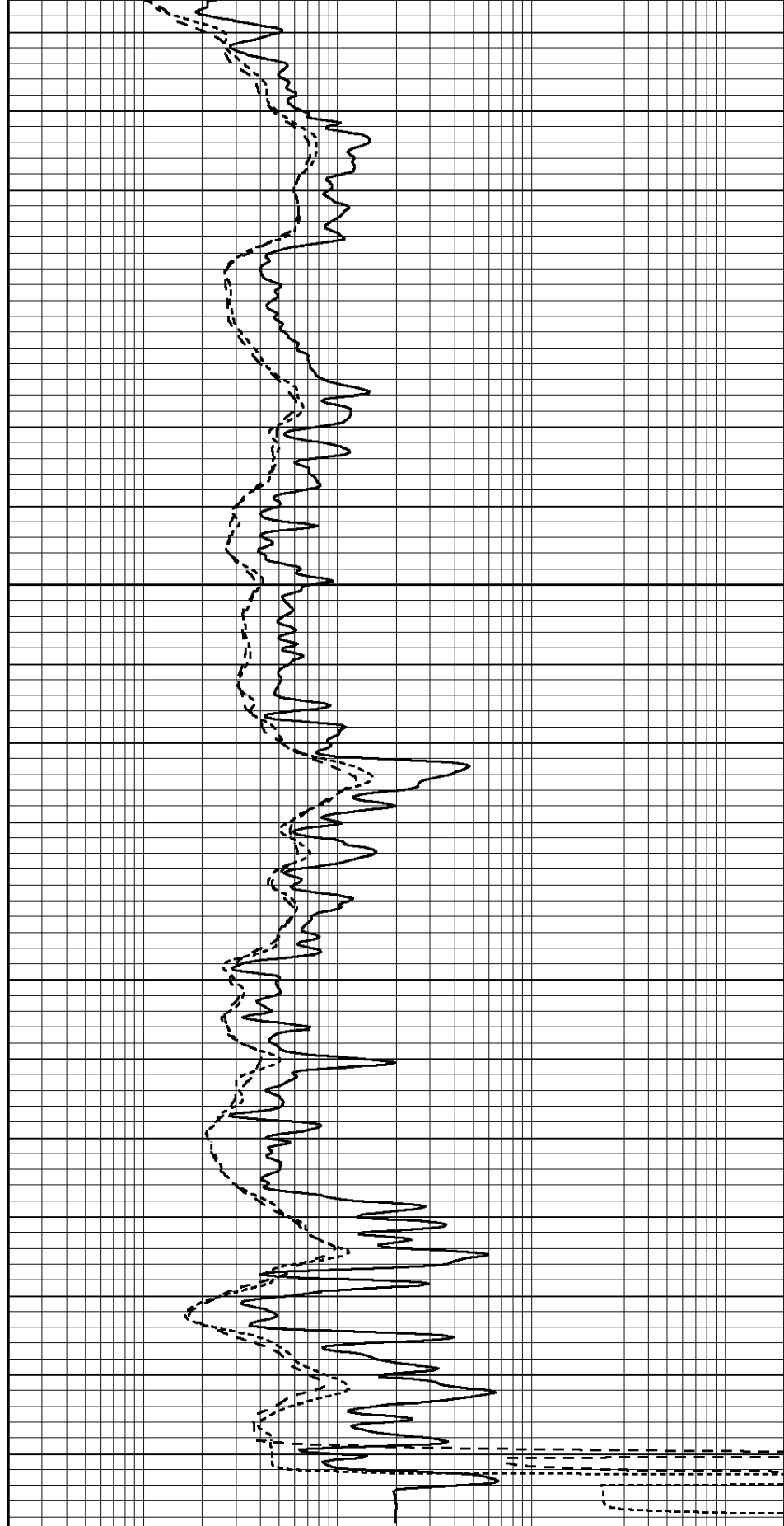
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

5400

5450

5500

5550



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: 006586pe.db
 Dataset Pathname: pass2.1
 Dataset Creation: Thu Jul 07 20:53:04 2011 by Calc Open-Cased 110302

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Wed Jul 30 06:14:24 2008
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	8.759
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	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		

Litho Density Calibration Report

Serial: 002 Model: PRB
 Performed Mon Oct 29 15:40:49 2007

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1056.3	9118.0	2809.7	10378.4	cps
Window 2	969.9	7671.9	2431.6	8565.8	cps
Window 3	683.8	2939.8	1161.0	3161.8	cps
Window 4	231.4	231.6	226.7	230.8	cps
Long Space	0.0	6702.0	1461.7	7595.9	cps
Short Space	1.2	1433.6	959.4	1568.6	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.559
Spine Angle	: 75.2	Spine Slope	: 3.791	Spine Intercept	: -18.7

Caliper	Readings	Reference	
Low Ref	2.1	7.0	
High Ref	3.7	14.0	
	Gain: 4.5		Offset: -6.1
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:	Fri Jul 01 17:54:58 2011	
	Calibrator Value:	150.0	GAPI
	Background Reading:	0.0	cps
	Calibrator Reading:	175.0	cps
	Sensitivity:	0.8971	GAPI/cps