



SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company LOTUS OPERATING COMPANY, LLC.	
Well #3 MOLZ "L"	
Field STRANATHAN	
County BARBER	
State KANSAS	
Location: API #: 15-007-23692-0000	
SEC 1 TWP 35S RGE 12W	
Permanent Datum GROUND LEVEL	Elevation 1397
Log Measured From KELLY BUSHING 13' A.G.L.	
Drilling Measured From KELLY BUSHING	
Other Services CDL/CNL/PE MEL/SONIC	
Elevation K.B. 1410 D.F. 1408 G.L. 1397	
Date 9/28/11	
Run Number ONE	
Depth Driller 5560	
Depth Logger 5566	
Bottom Logged Interval 5564	
Top Log Interval 00	
Casing Driller 10 3/4"@252'	
Casing Logger 252	
Bit Size 7 7/8"	
Type Fluid in Hole CHEMICAL MUD	CHLORIDES 2,000 PPM
Density / Viscosity 9.3/49	
pH / Fluid Loss 10.0/8.8	
Source of Sample FLOWLINE	
Rm @ Meas. Temp .850@82F	
Rmt @ Meas. Temp .636@82F	
Rmc @ Meas. Temp 1.02@82F	
Source of Rmt / Rmc MEASUREMENT	
Rm @ BHT .536@130F	
Time Circulation Stopped 3 HOURS	
Time Logger on Bottom 6:45 A.M.	
Maximum Recorded Temperature 130F	
Equipment Number 4010	
Location HAYS, KANSAS	
Recorded By JEFF LUEBBERS	
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. (JUNCTION OF HWY 160 & 281) 17S. ON HWY 281 PAST "DRIFTWOOD RD.", W.
INTO CATTLE GUARD THEN BACK NORTH



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MAIN SECTION

Database File: 007456pe.db
Dataset Pathname: pass3.10
Presentation Format: dil2
Dataset Creation: Wed Sep 28 09:42:42 2011
Charted by: Depth in Feet scaled 1:600

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

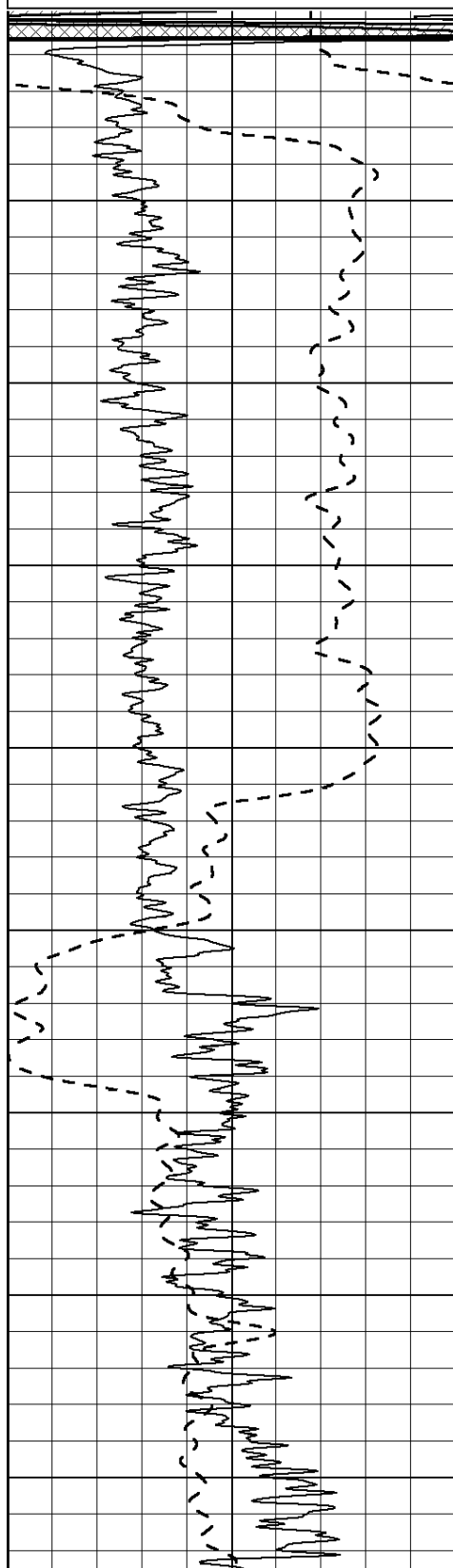
0	RLL3 (Ohm-m)	50
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0	RILD (Ohm-m)	50
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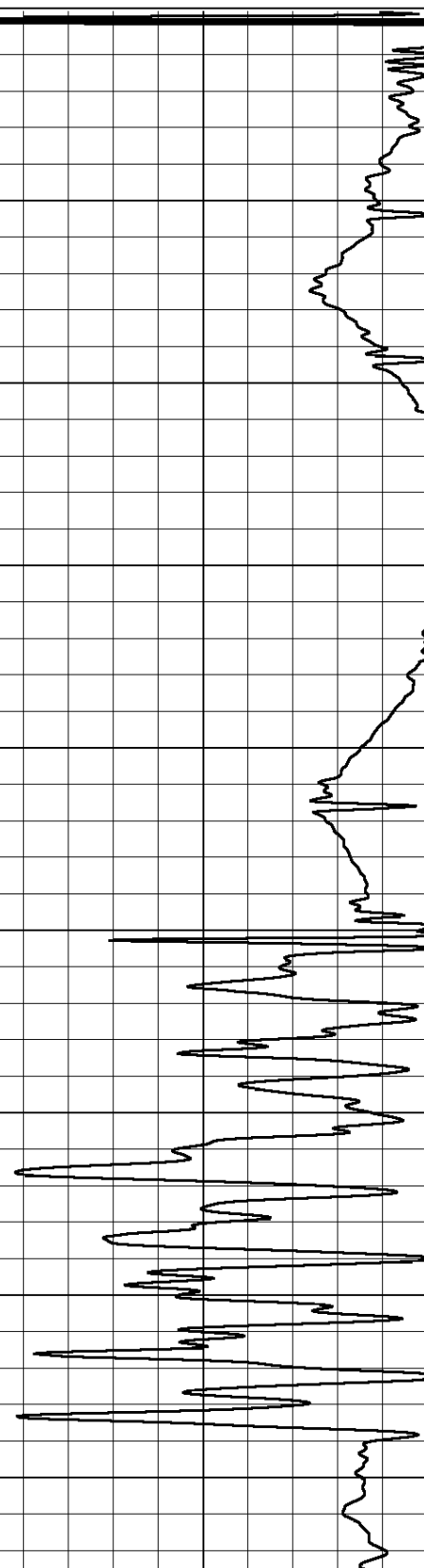
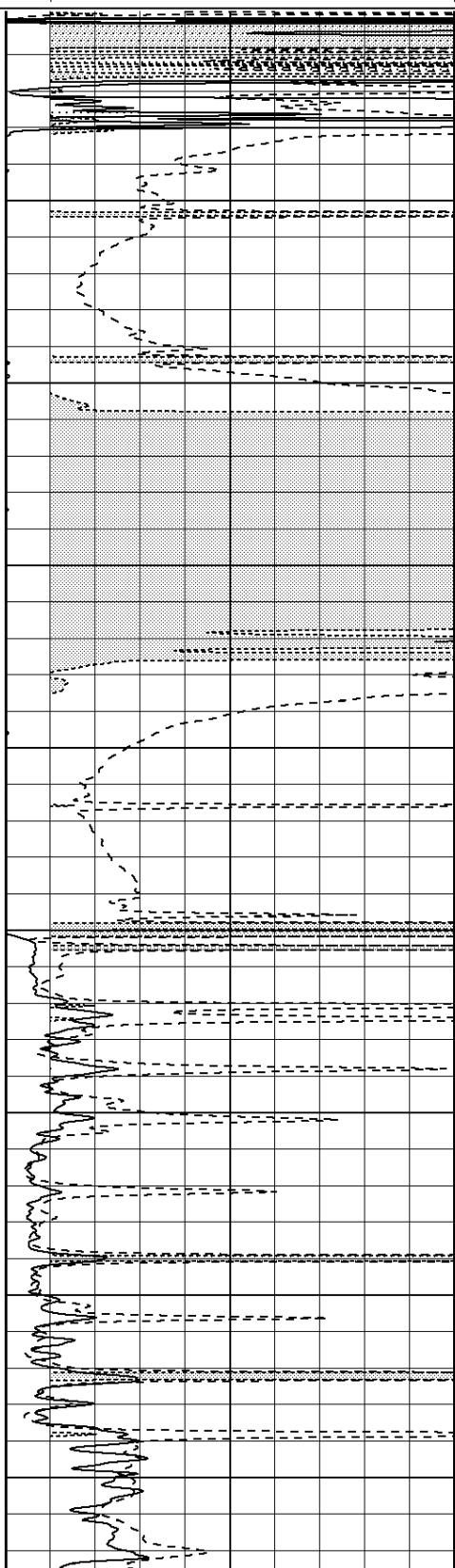
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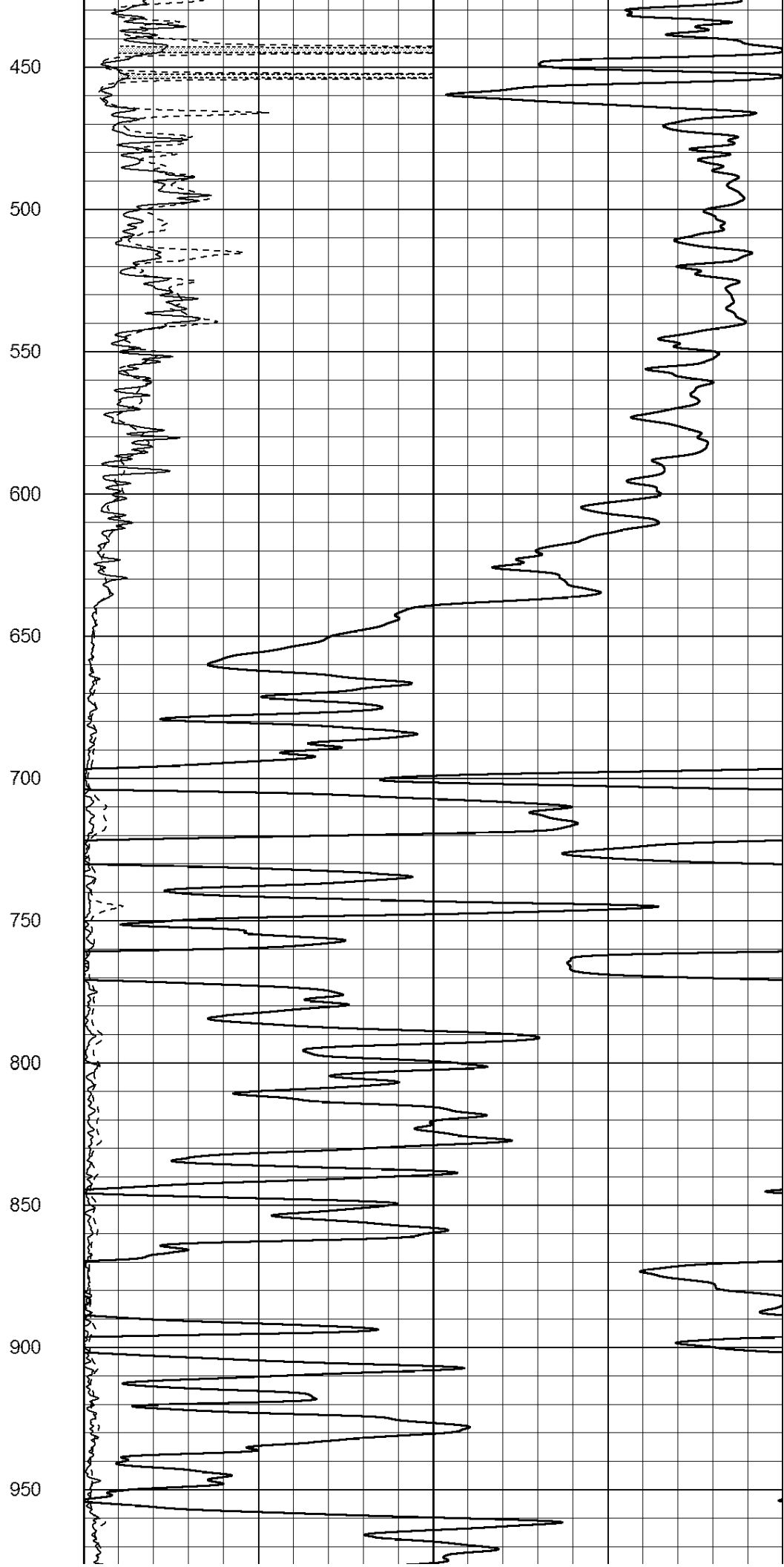
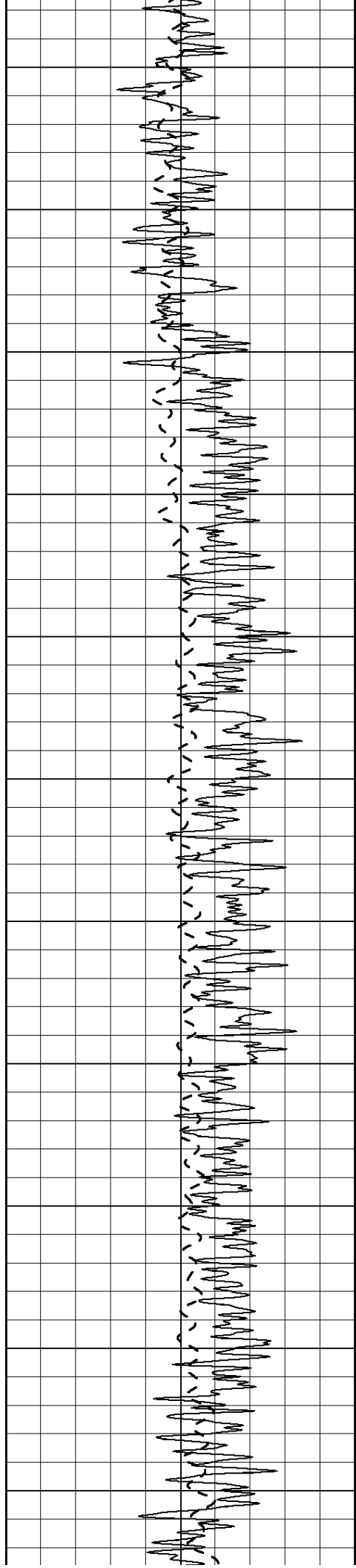
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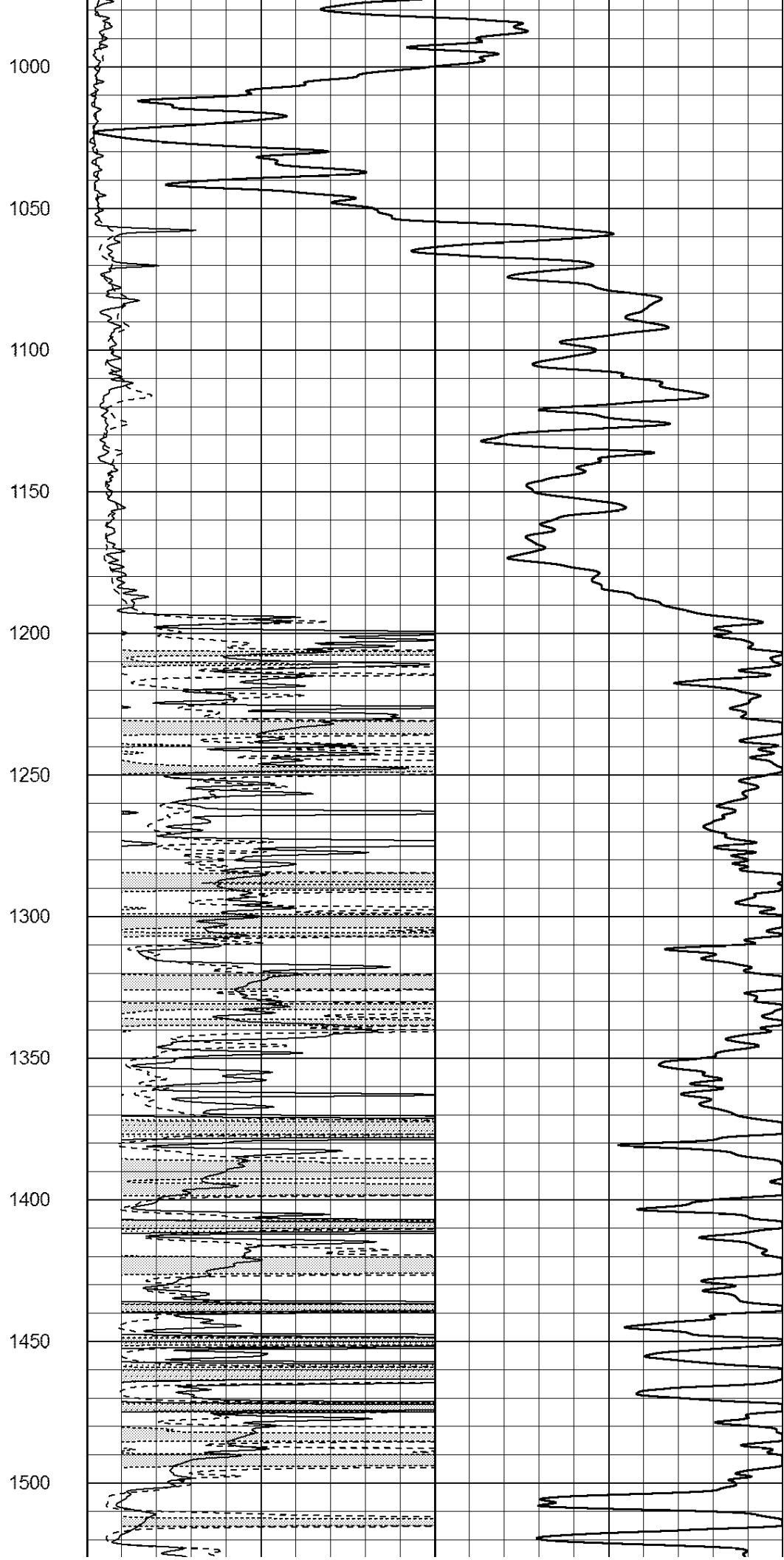
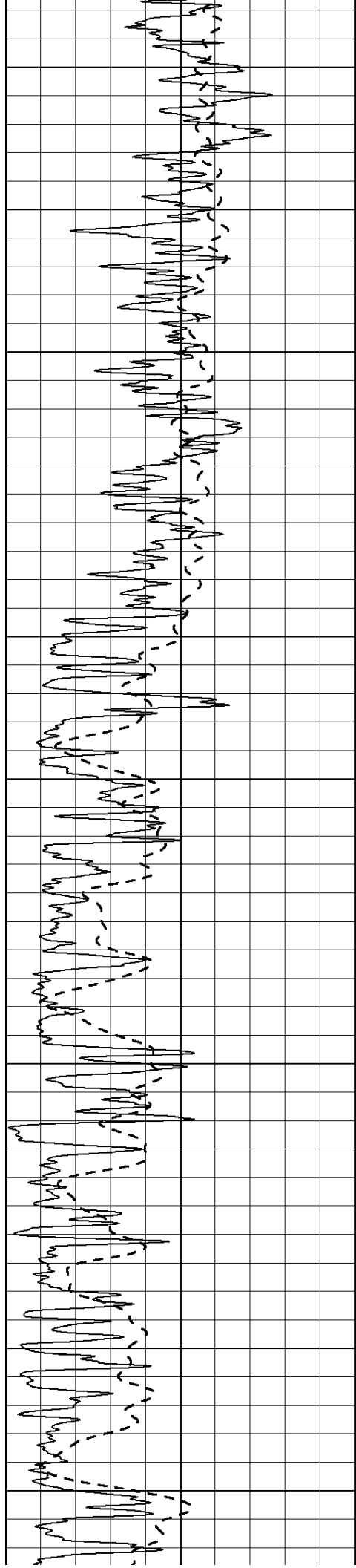
50	RLL3 X10 (Ohm-m)	500
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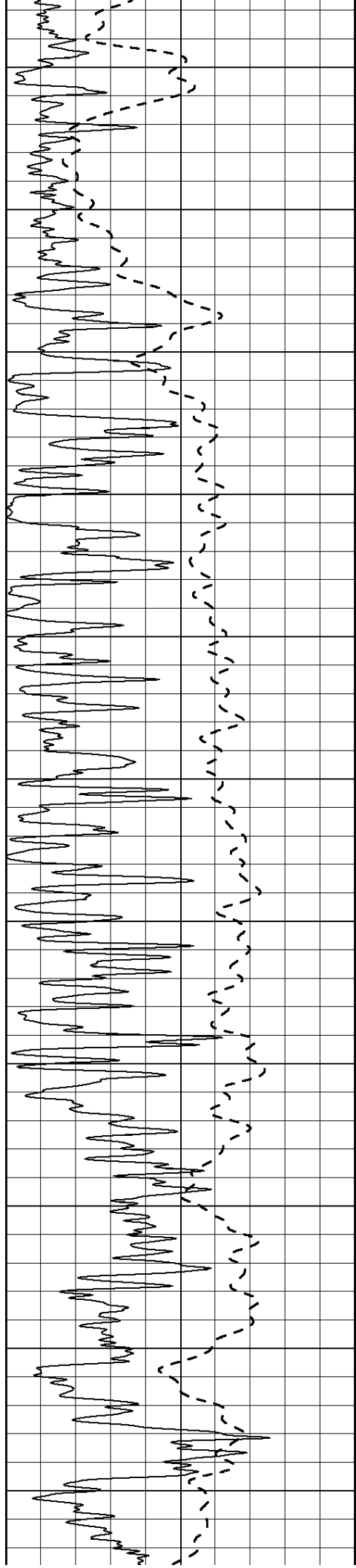


0
50
100
150
200
250
300
350
400









1550

1600

1650

1700

1750

1800

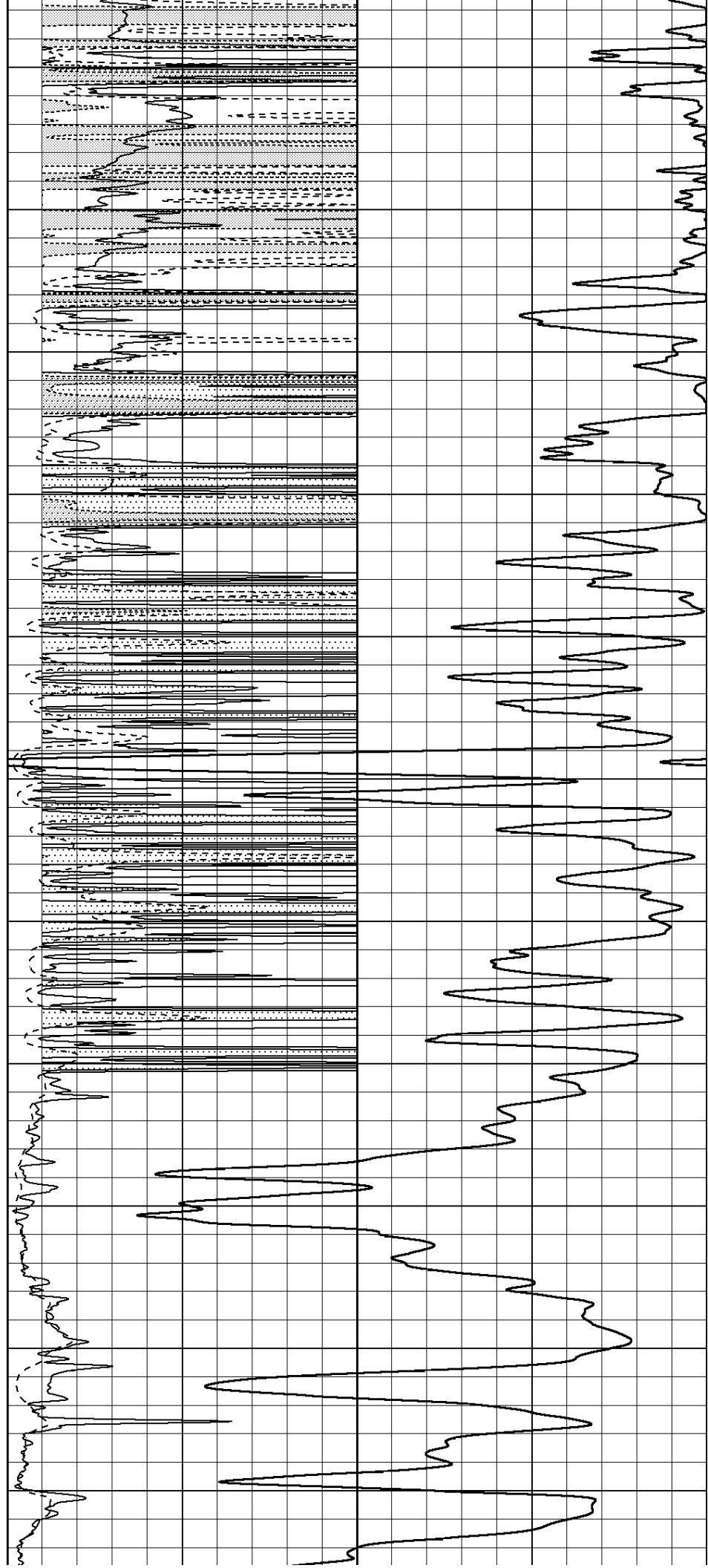
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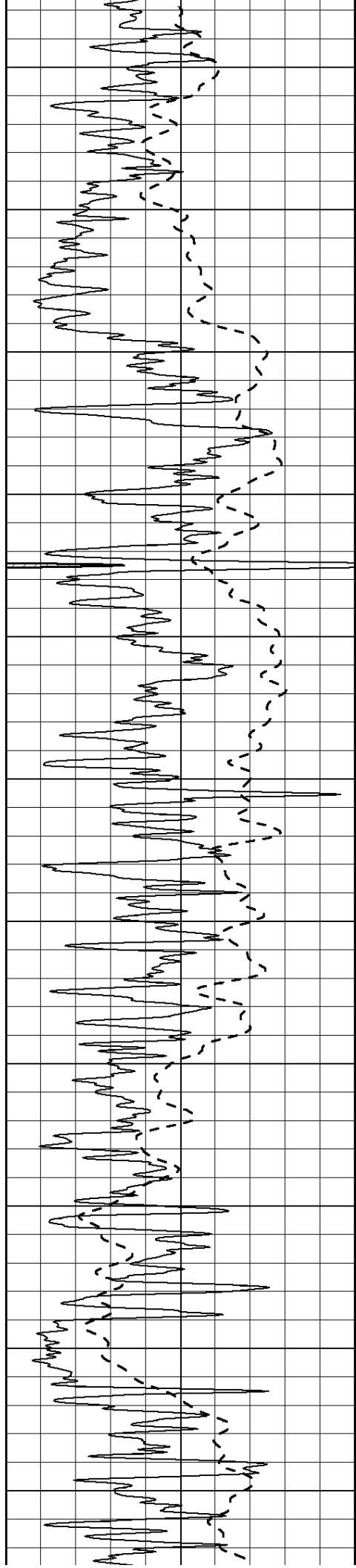
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

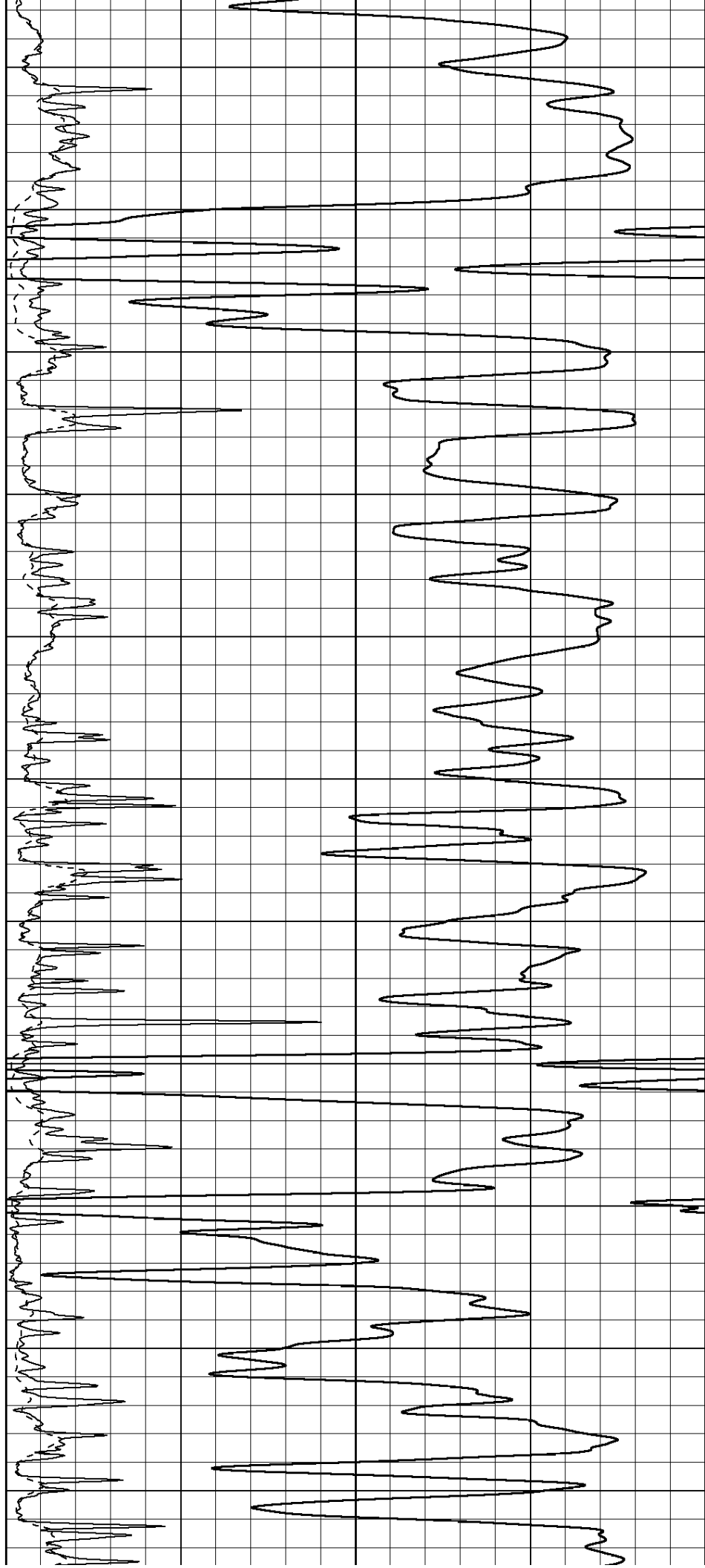
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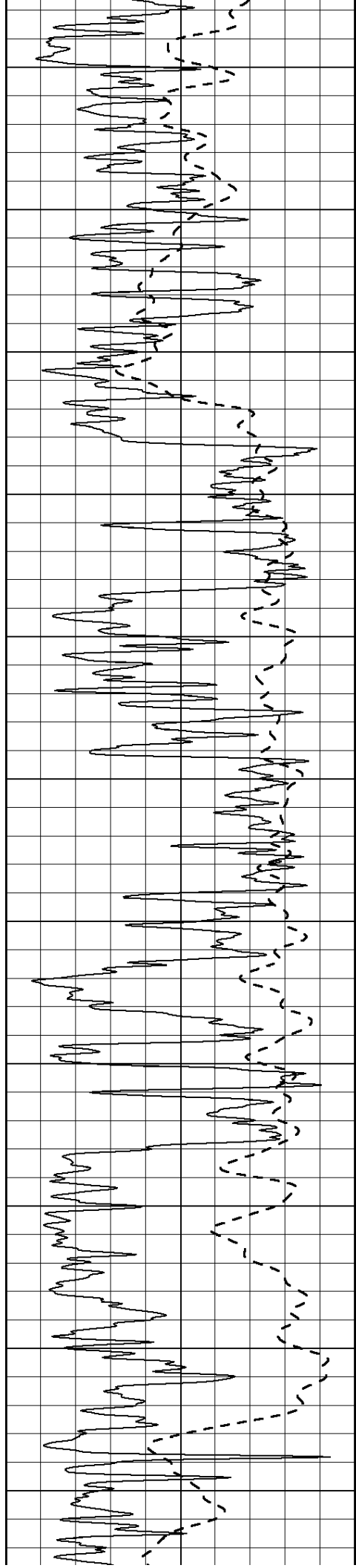
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2500

2550

2600





2650

2700

2750

2800

2850

2900

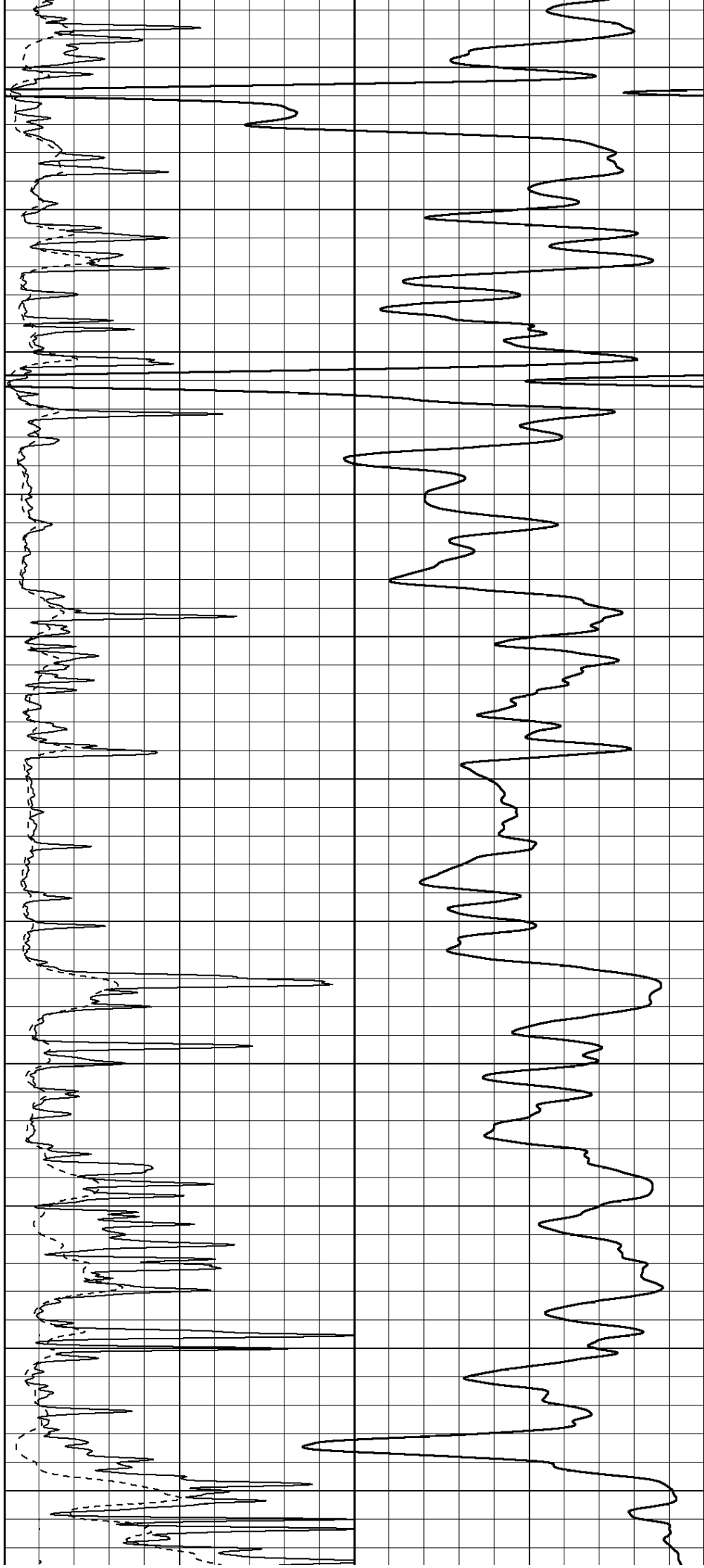
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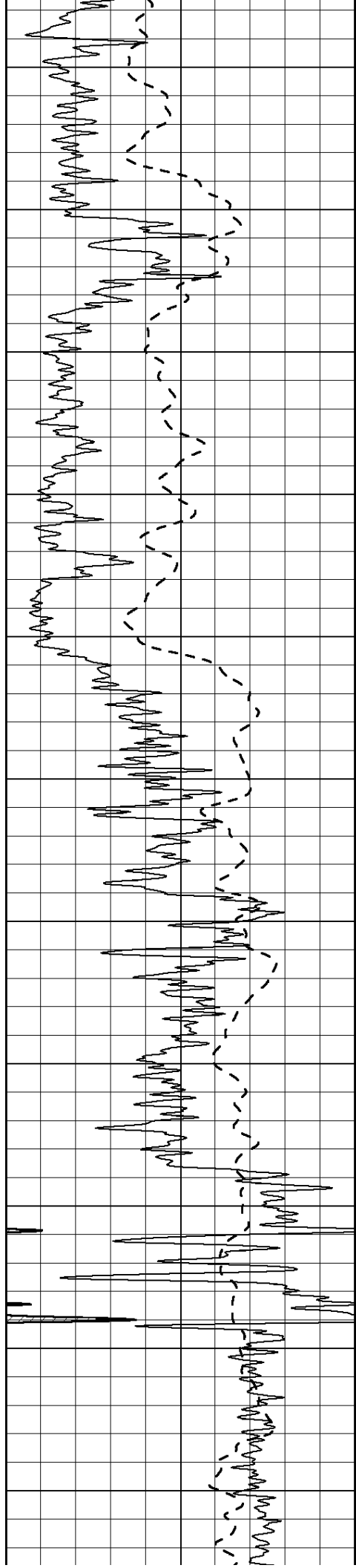
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3050

3100

3150





3200

3250

3300

3350

3400

3450

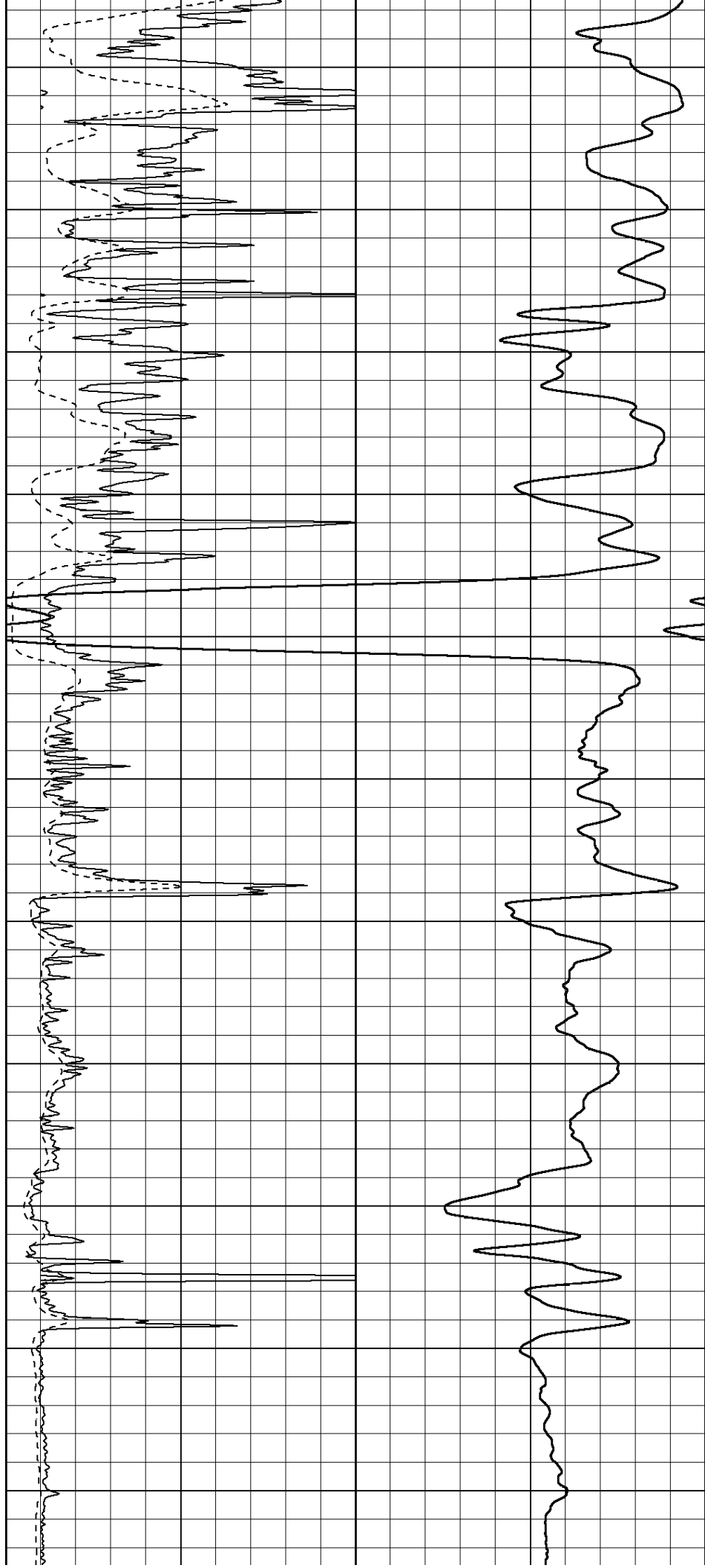
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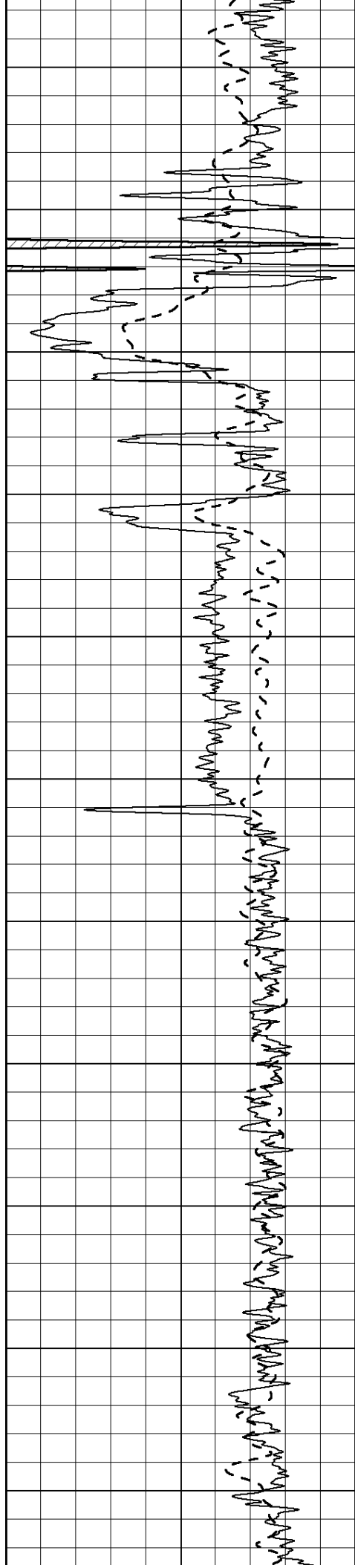
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3650

3700





3750

3800

3850

3900

3950

4000

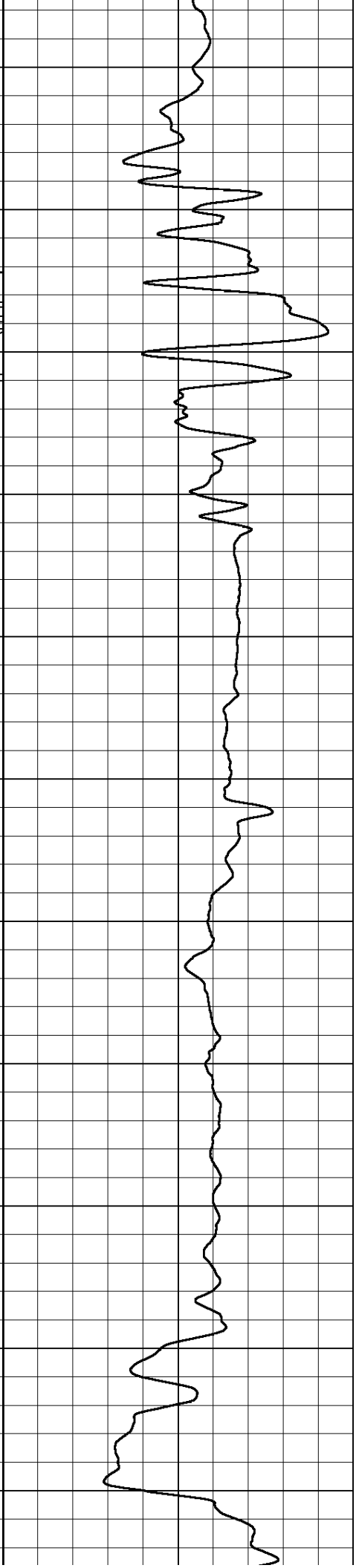
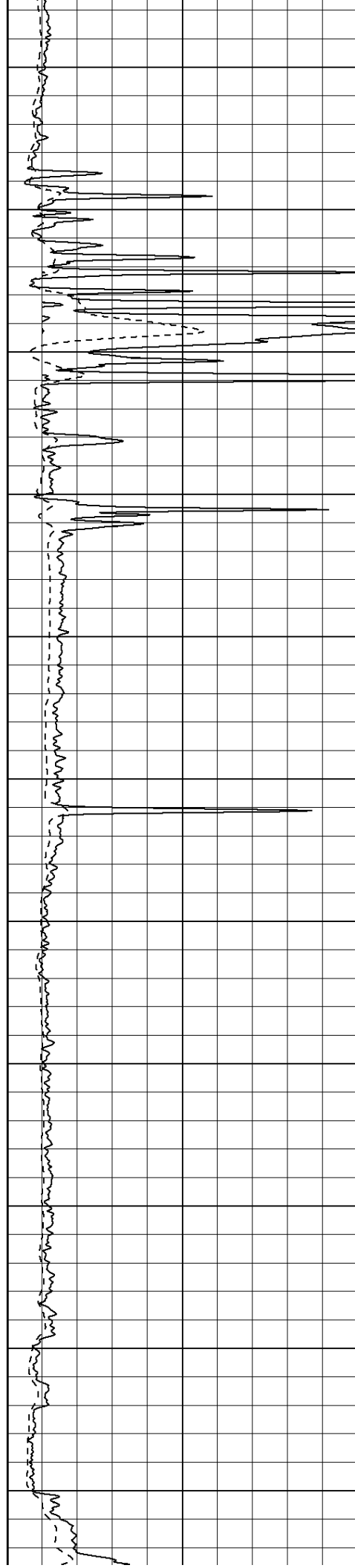
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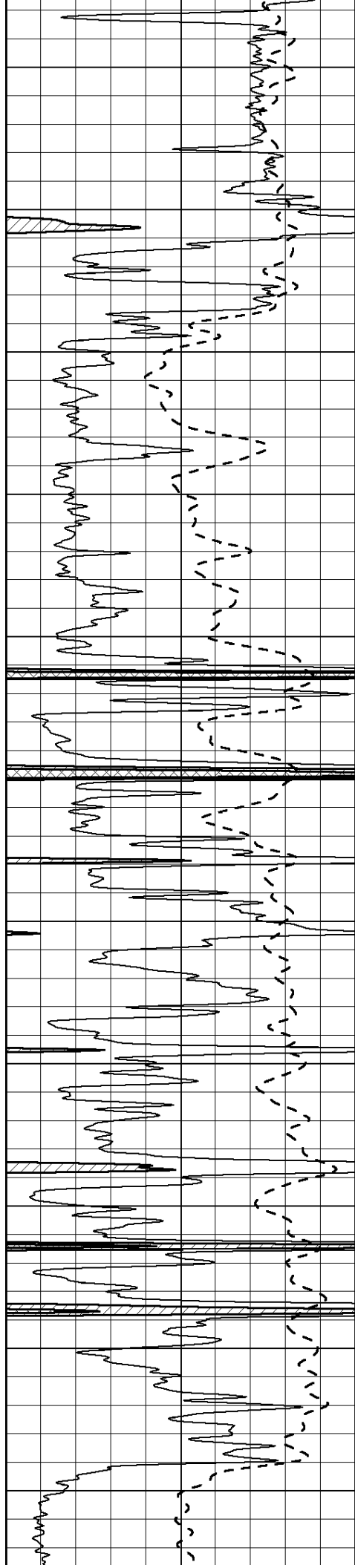
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4150

4200

4250





4300

4350

4400

4450

4500

4550

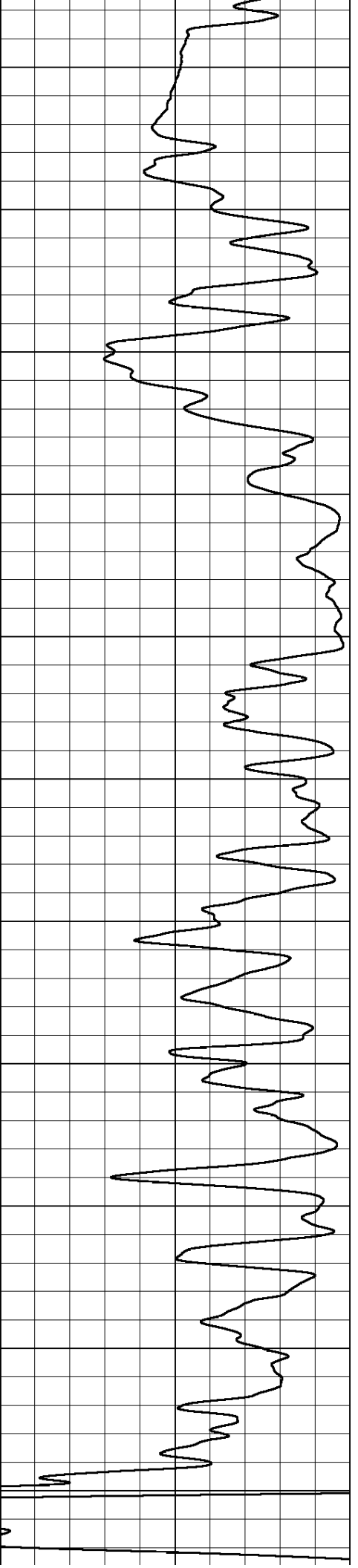
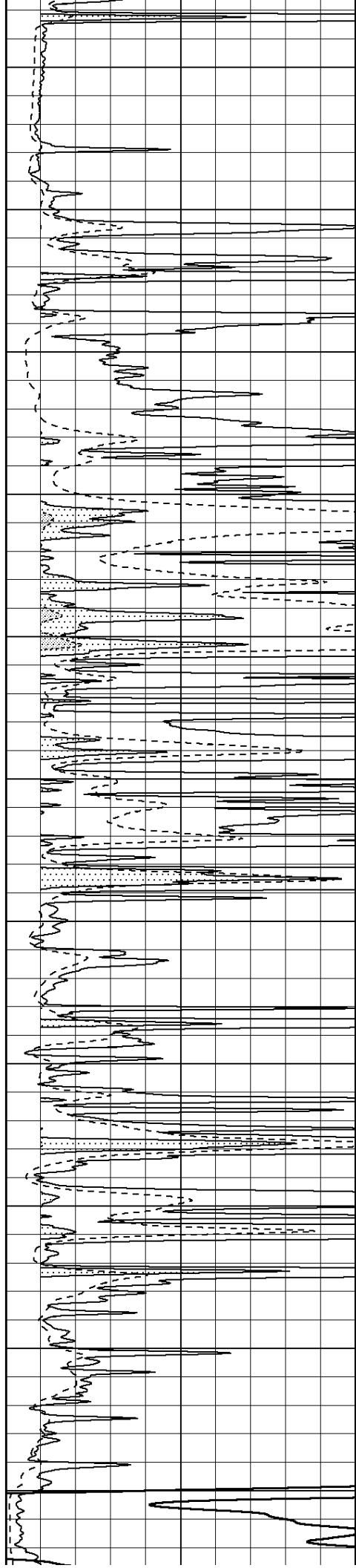
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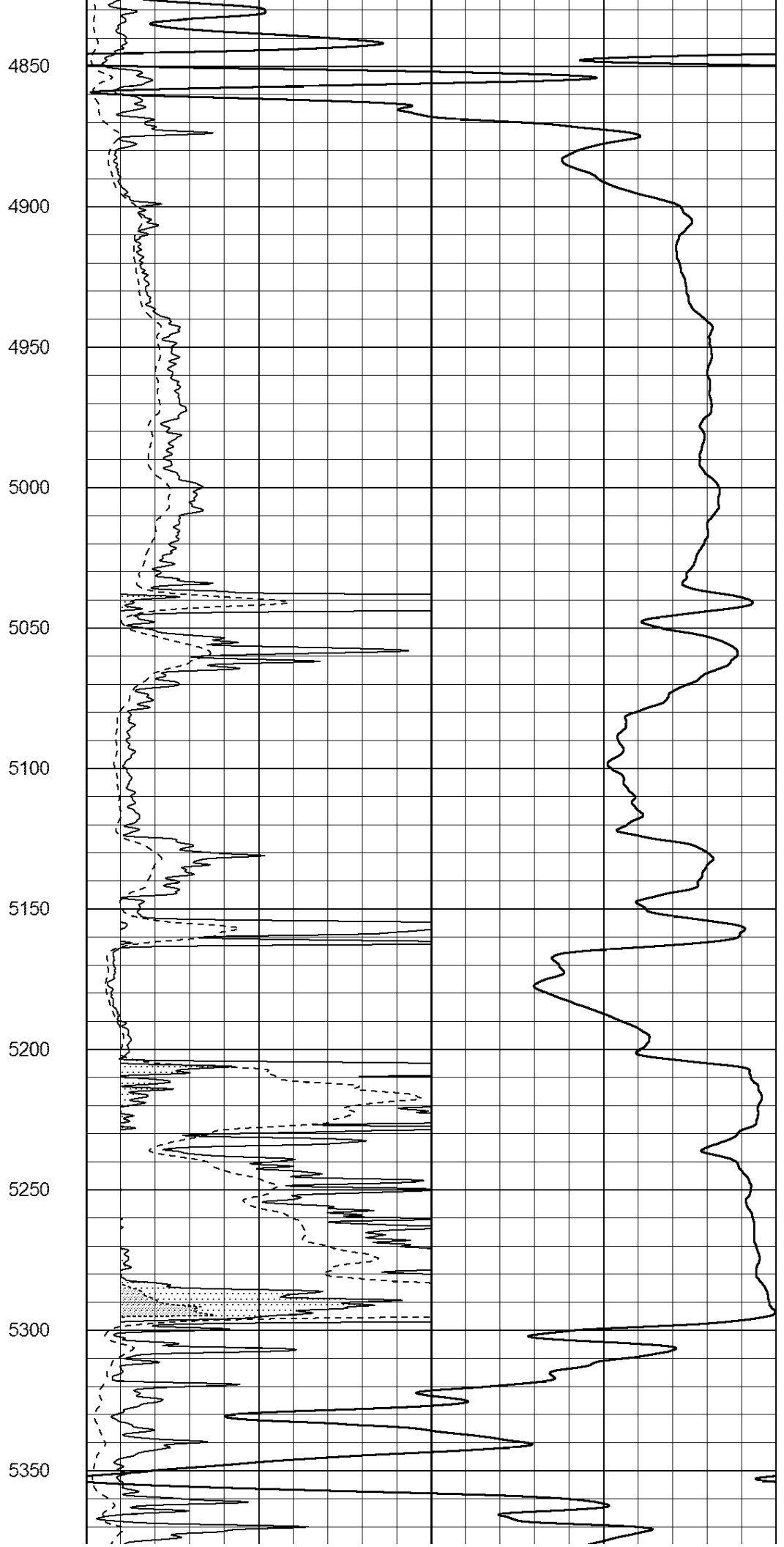
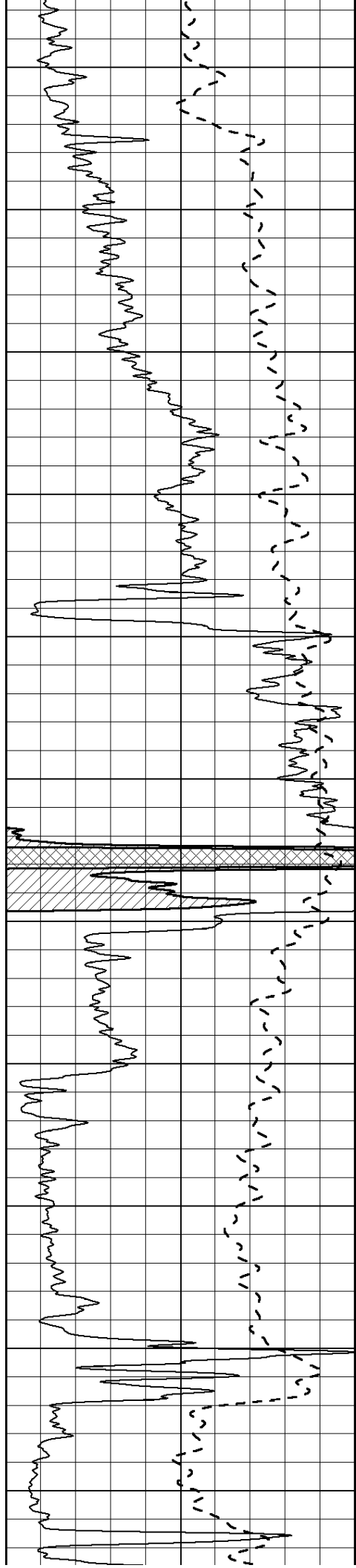
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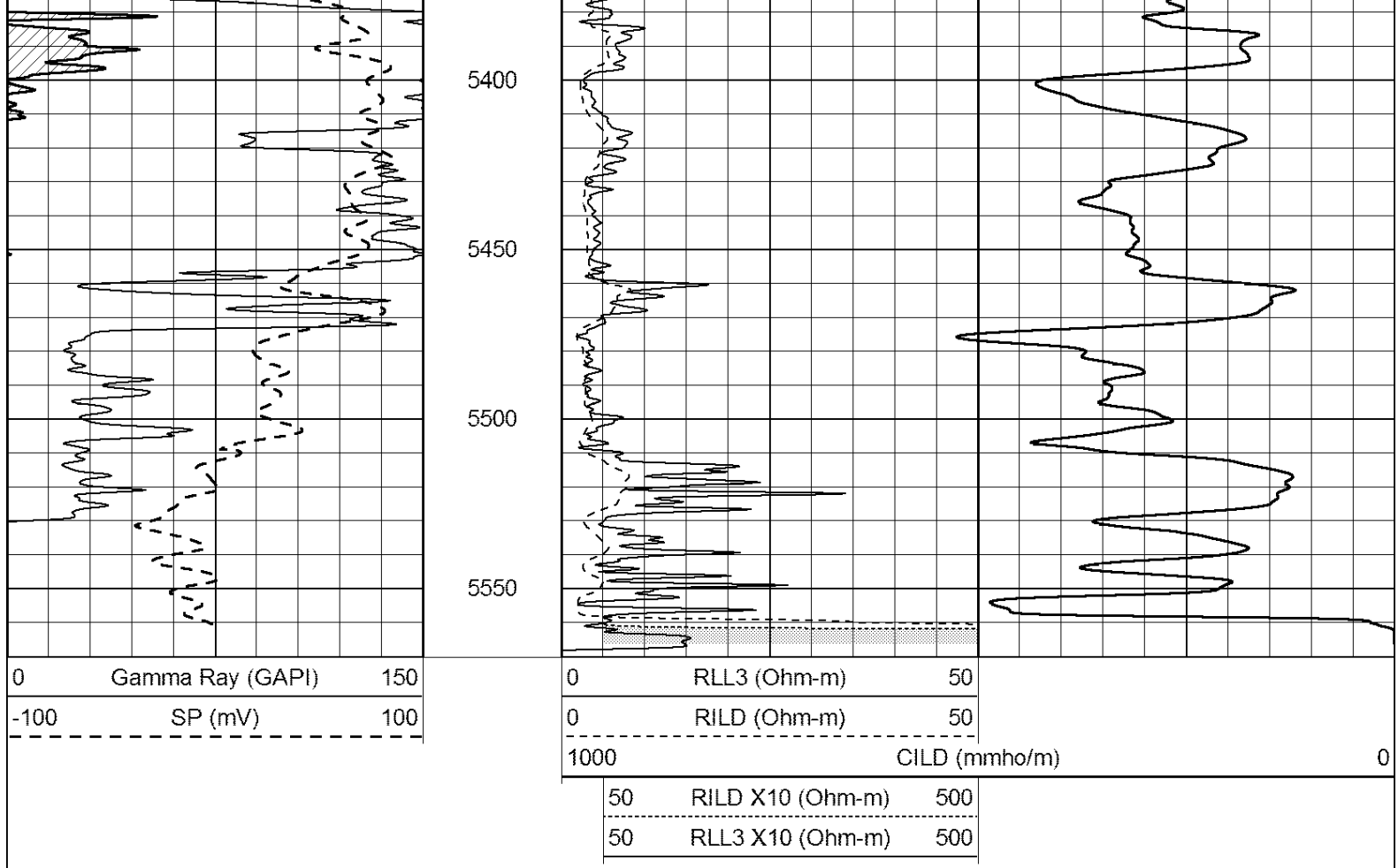
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4750

4800





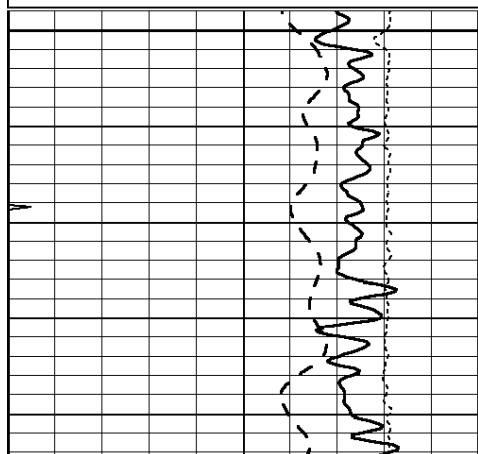


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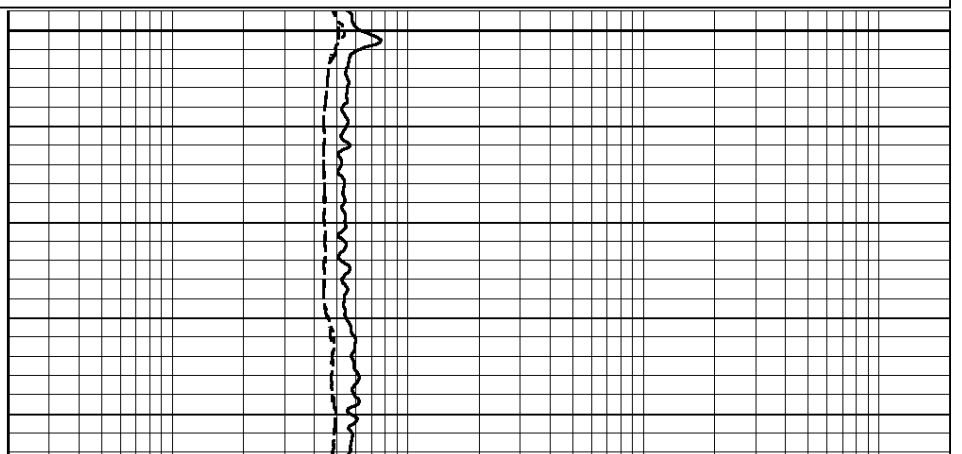
MAIN SECTION

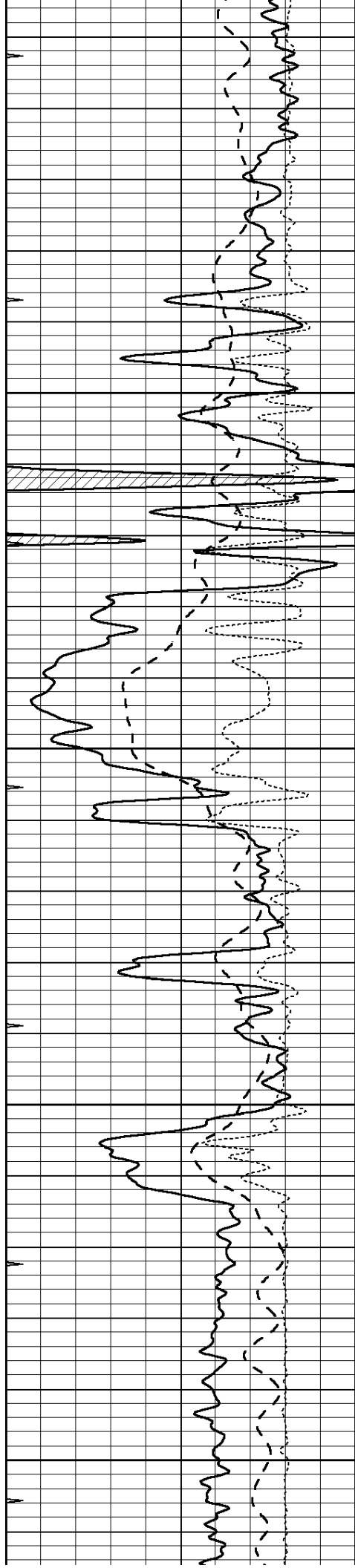
Database File: 007456pe.db
Dataset Pathname: pass3.10
Presentation Format: dil
Dataset Creation: Wed Sep 28 09:42:42 2011
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



3700





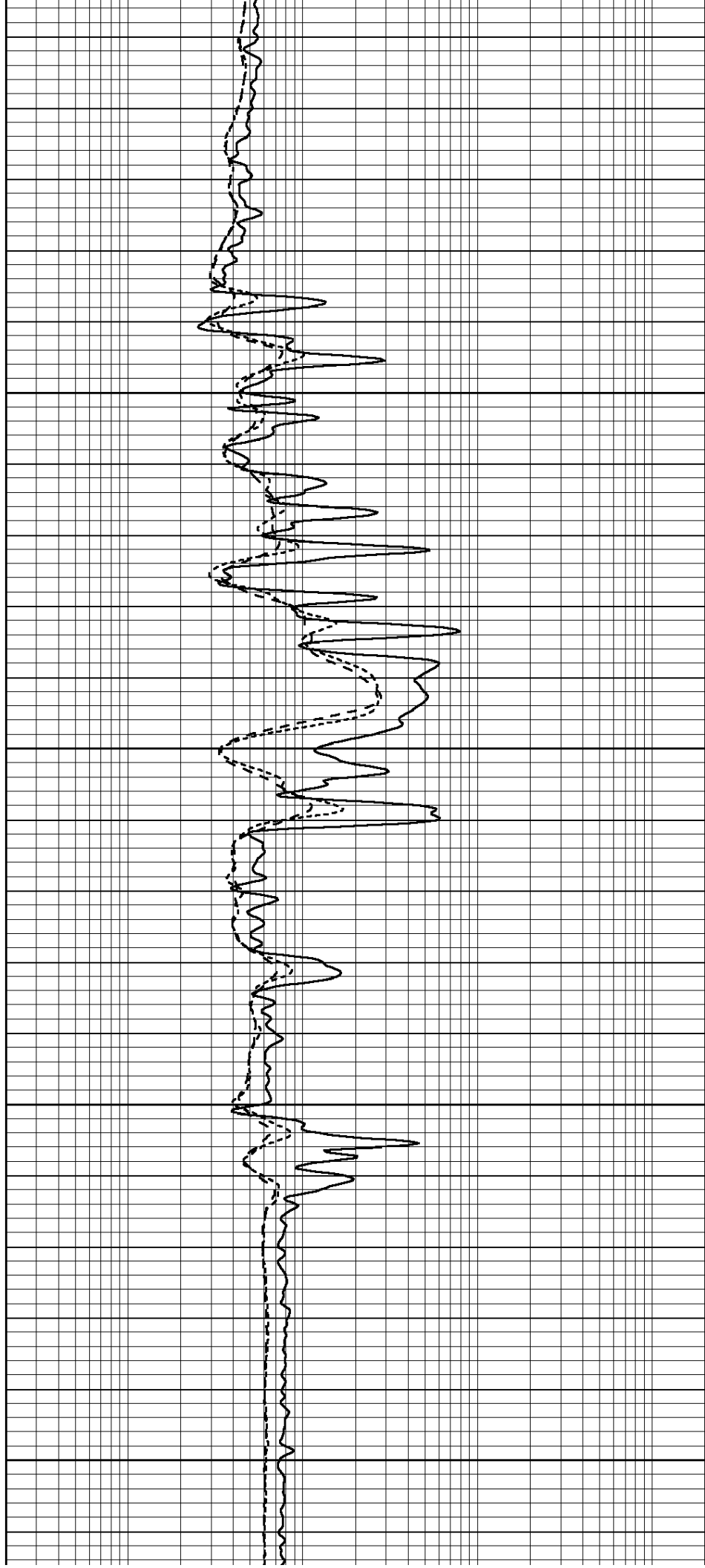
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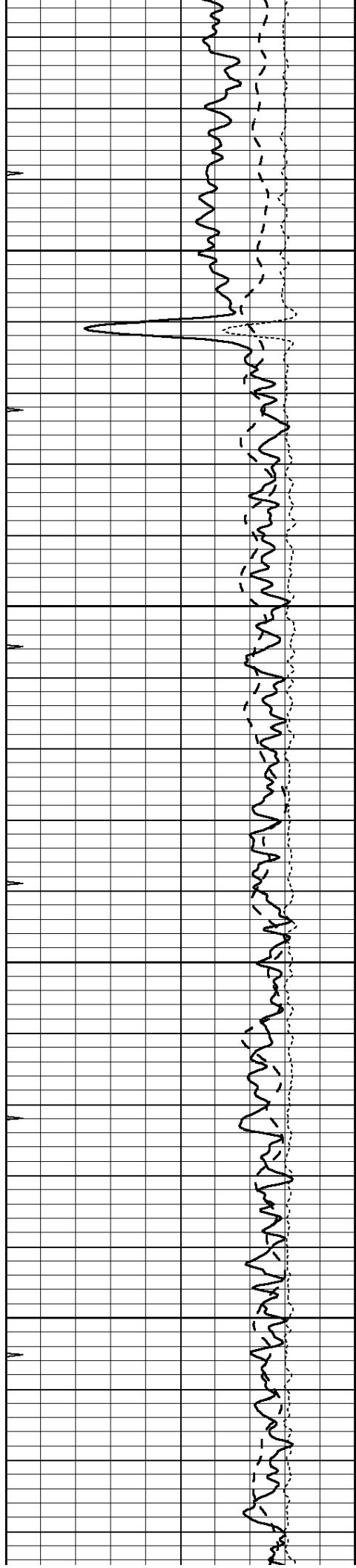
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3850

3900

3950



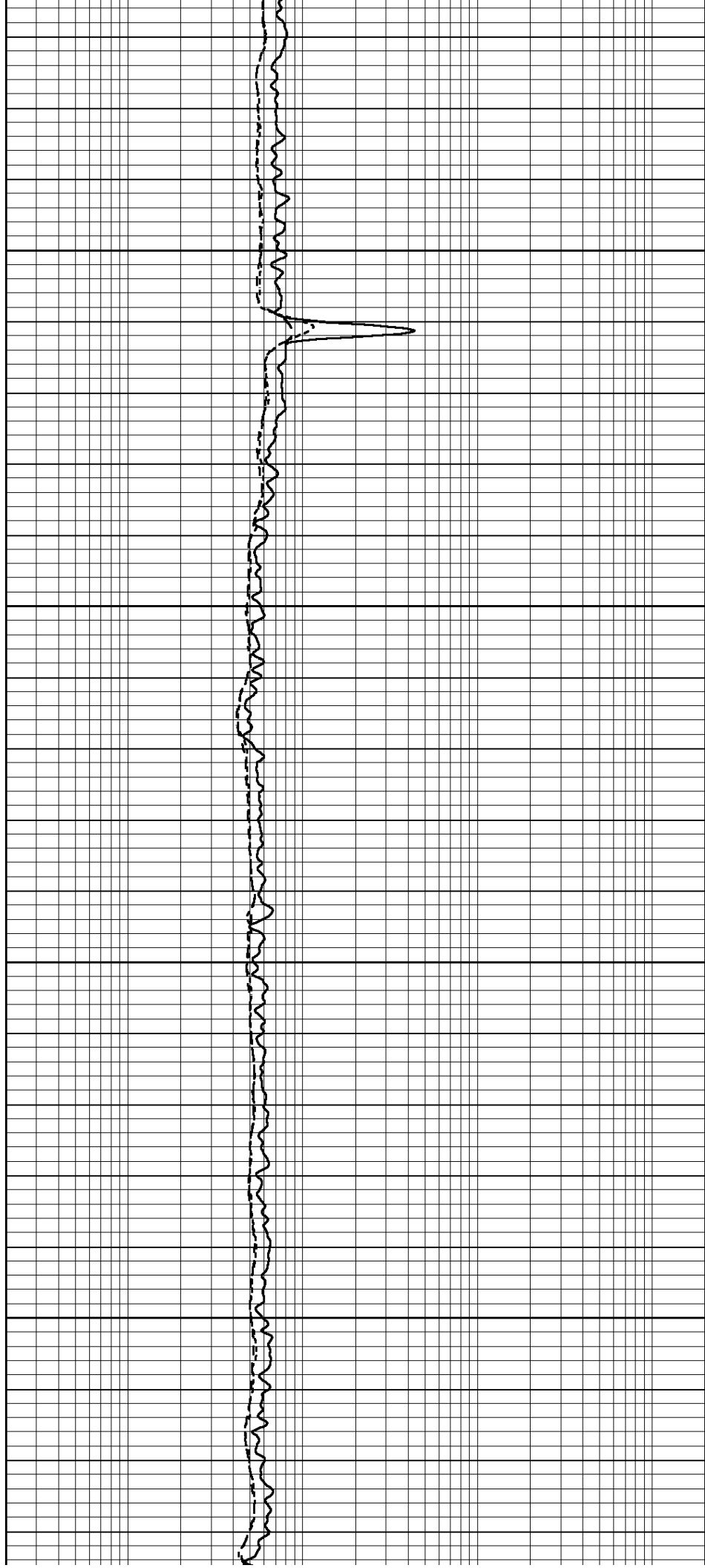


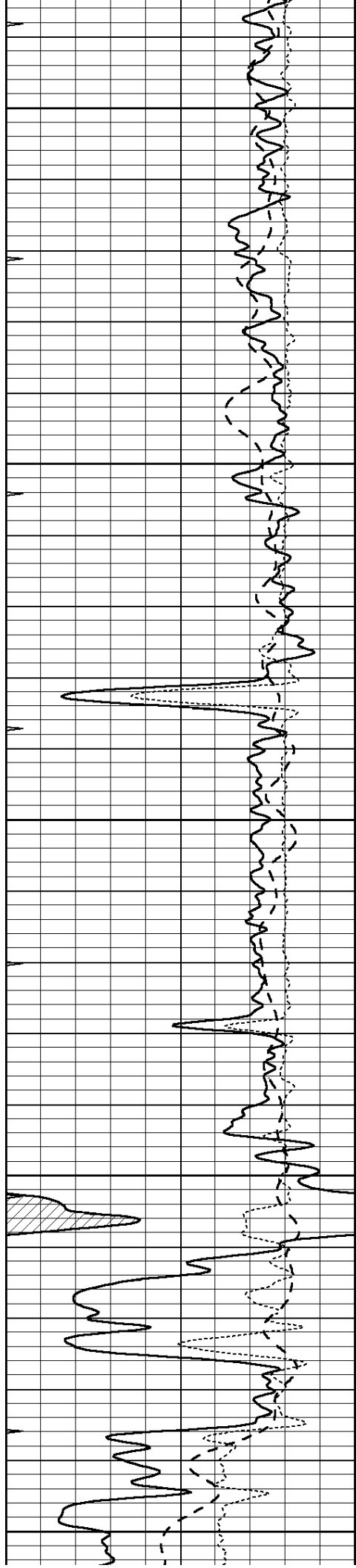
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4050

4100

4150





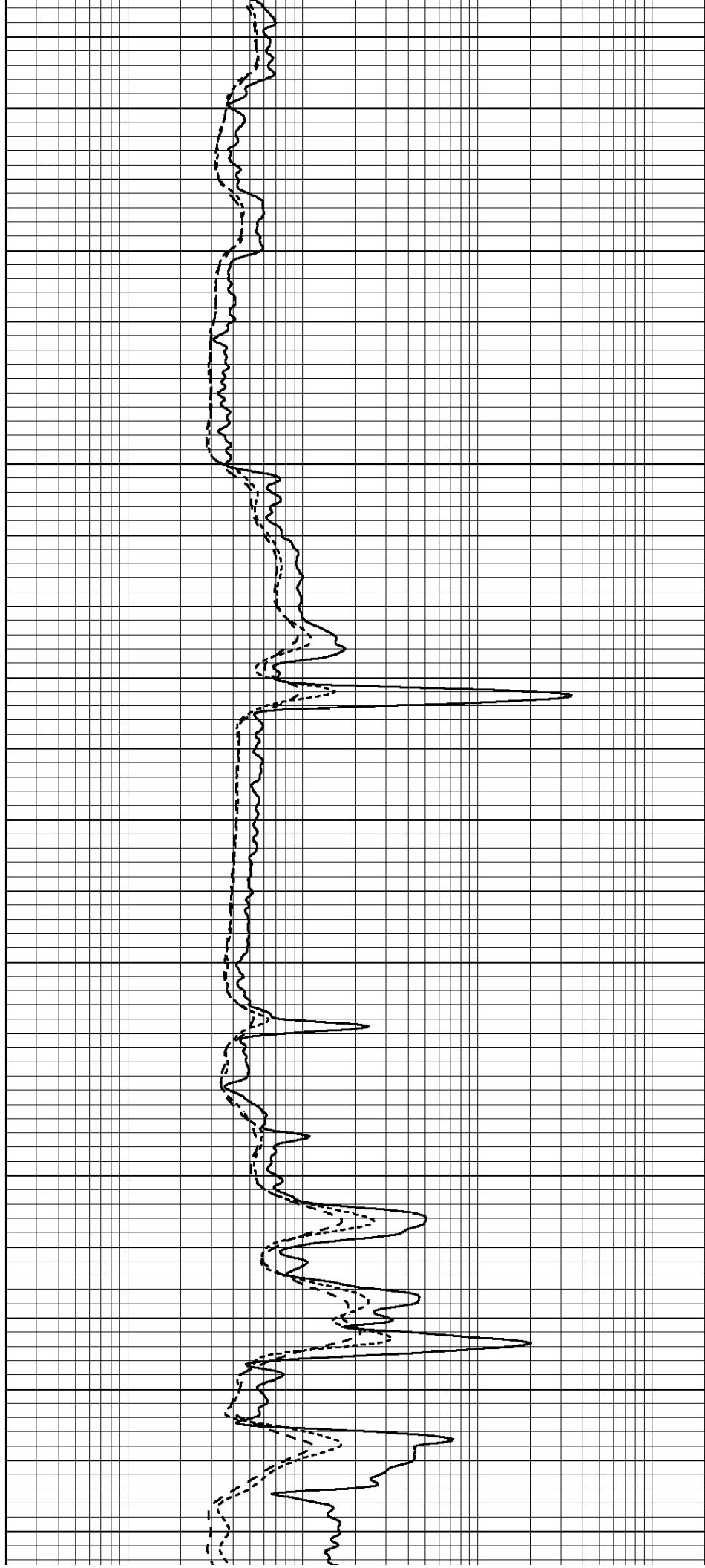
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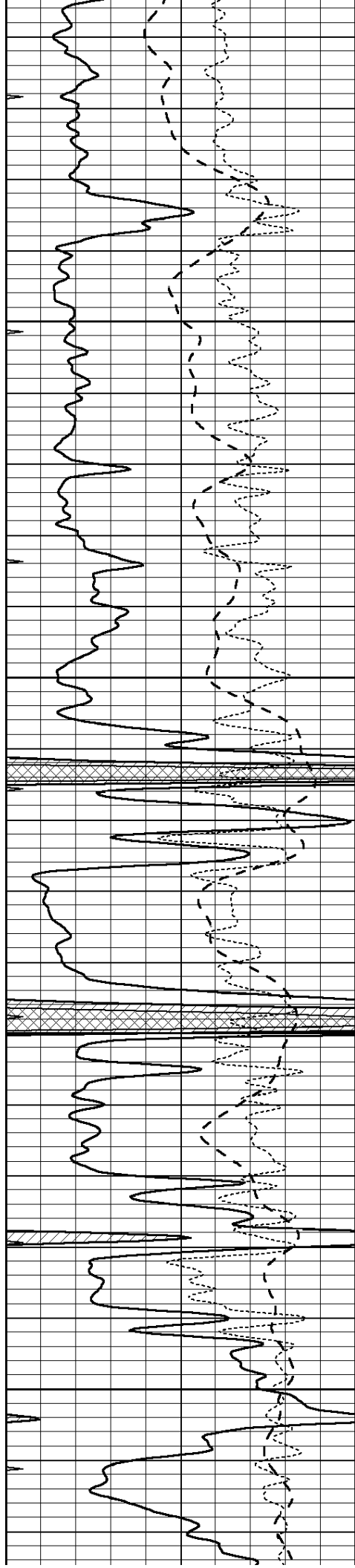
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4300

4350

4400



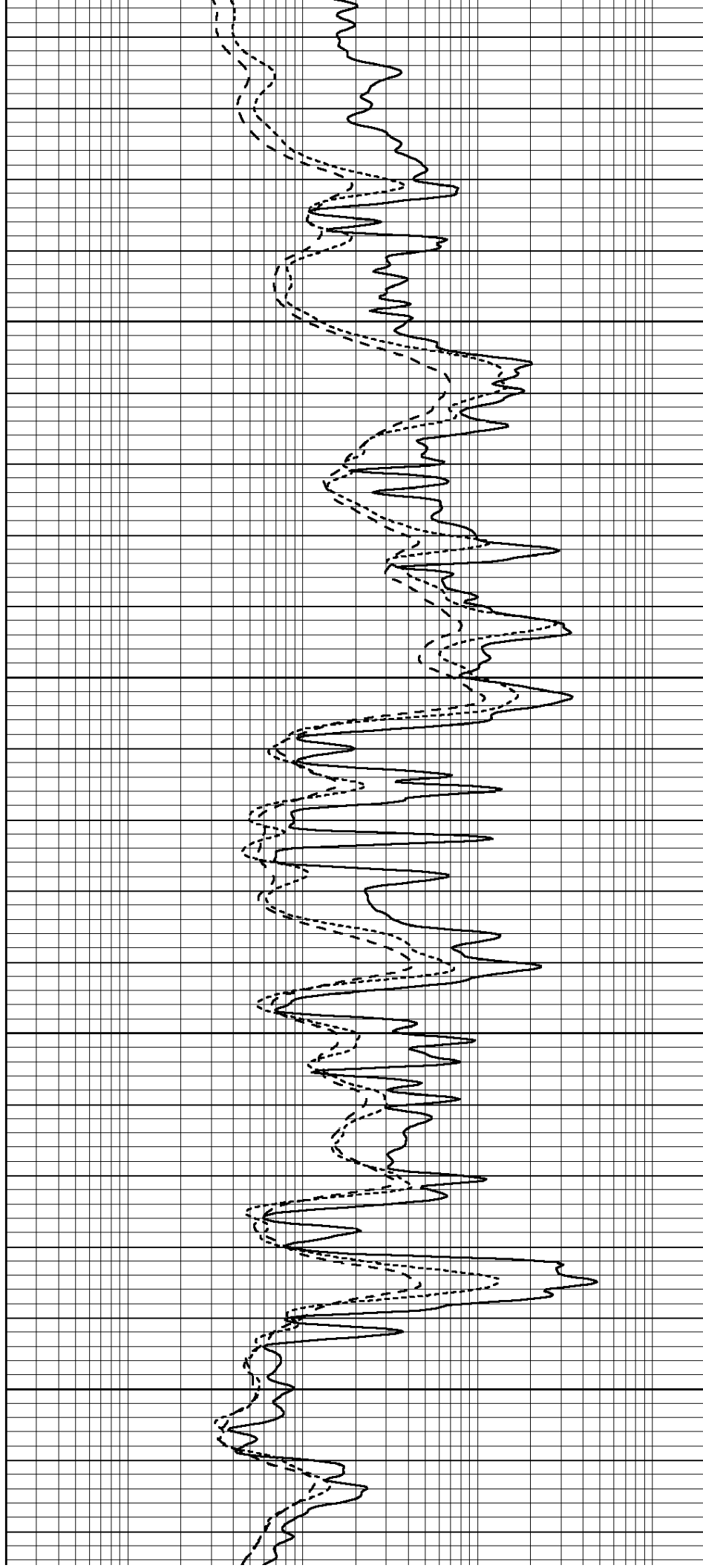


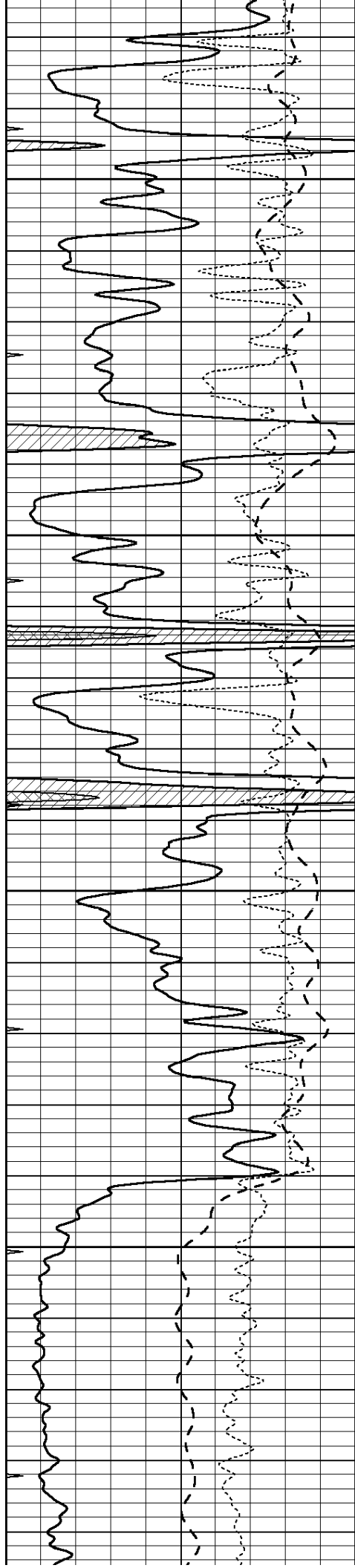
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4550

4600



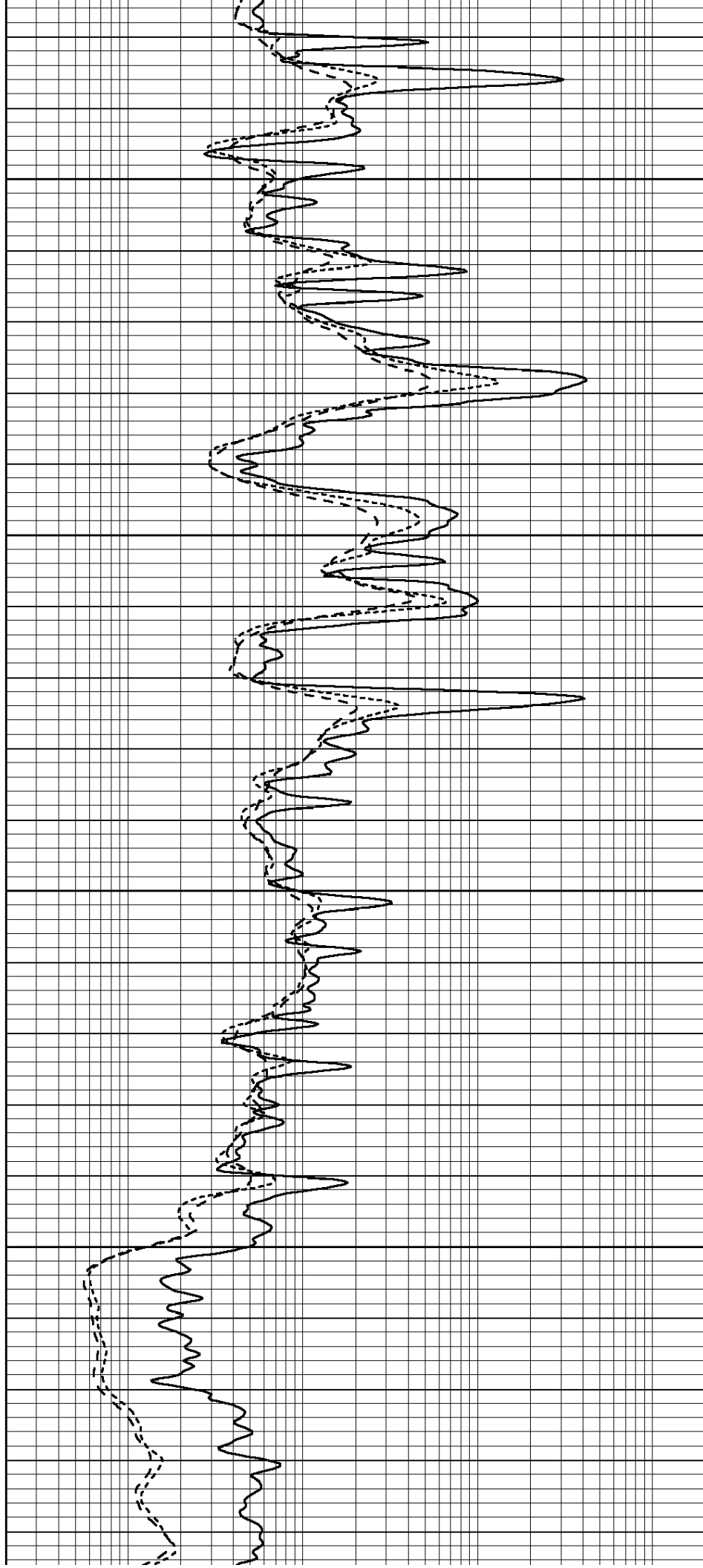


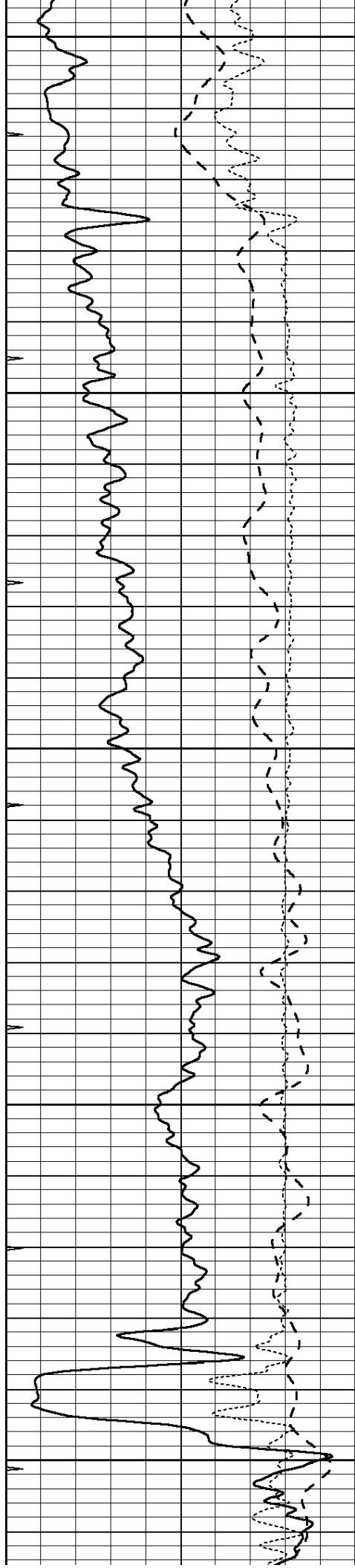
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4700

4750

4800





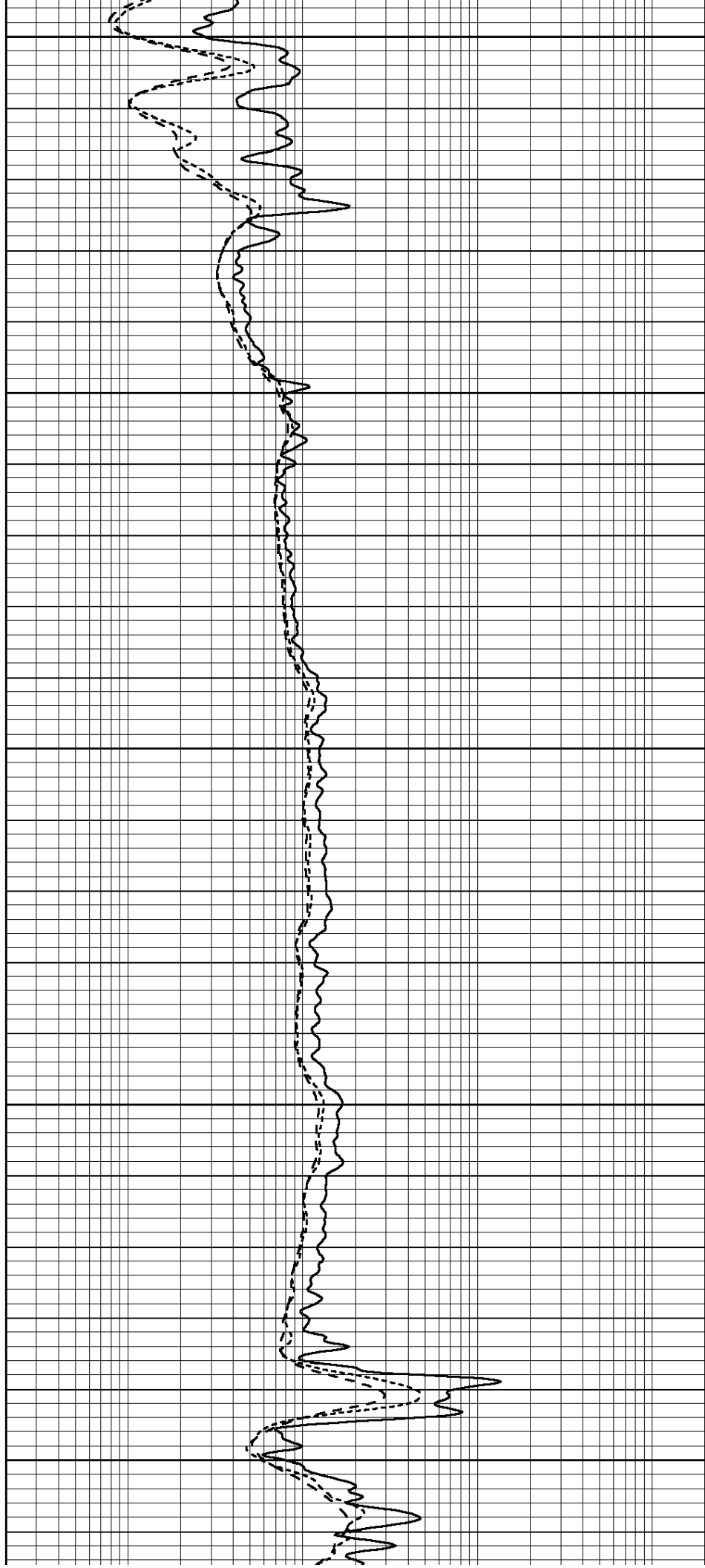
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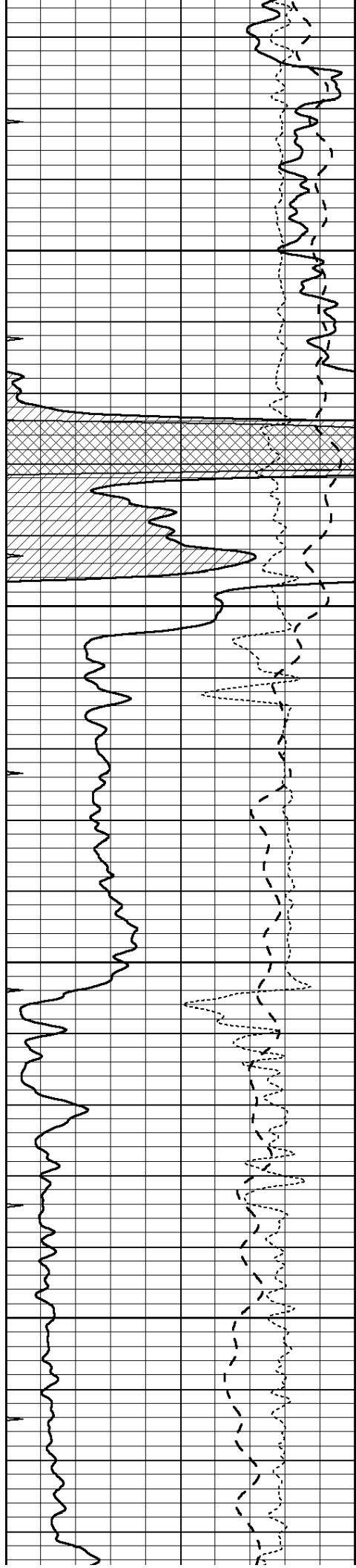
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4950

5000

5050



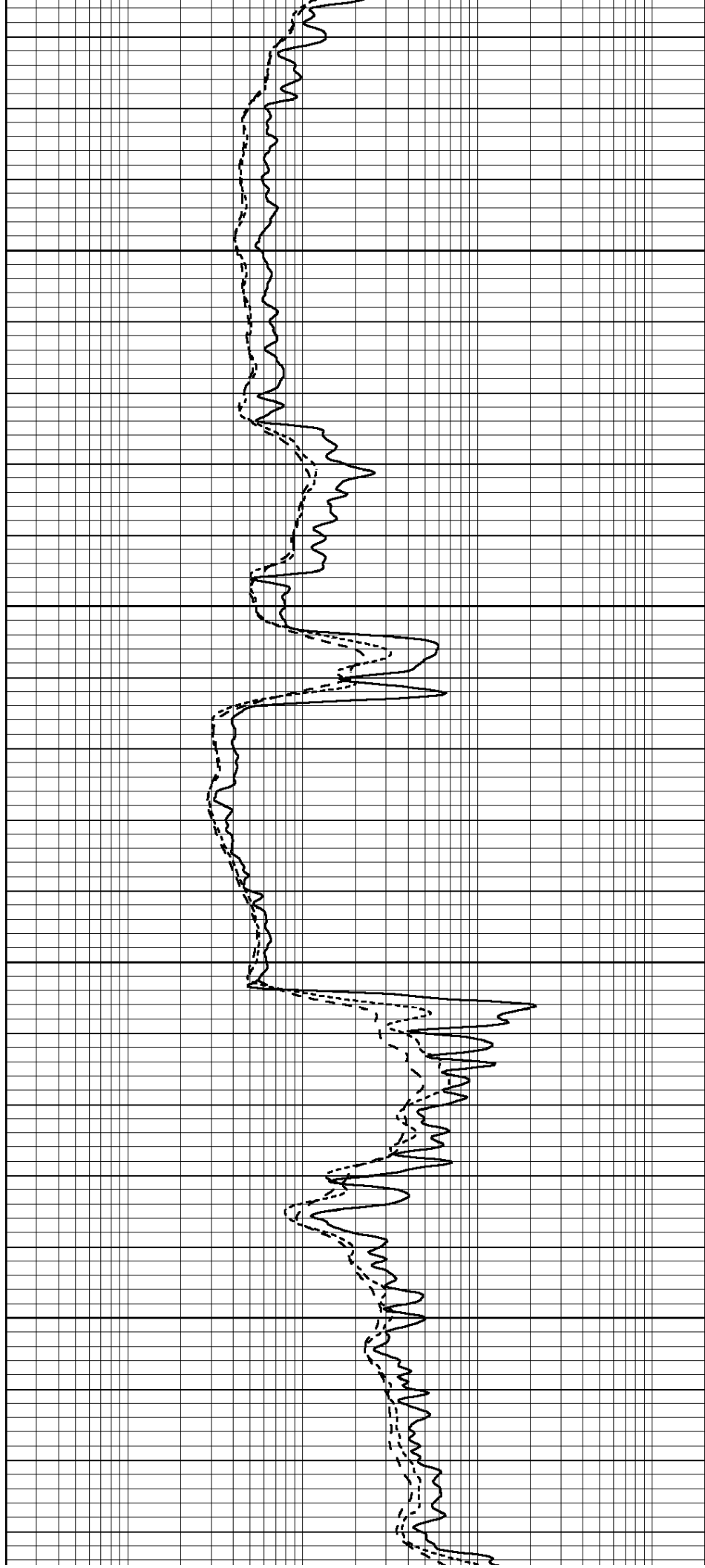


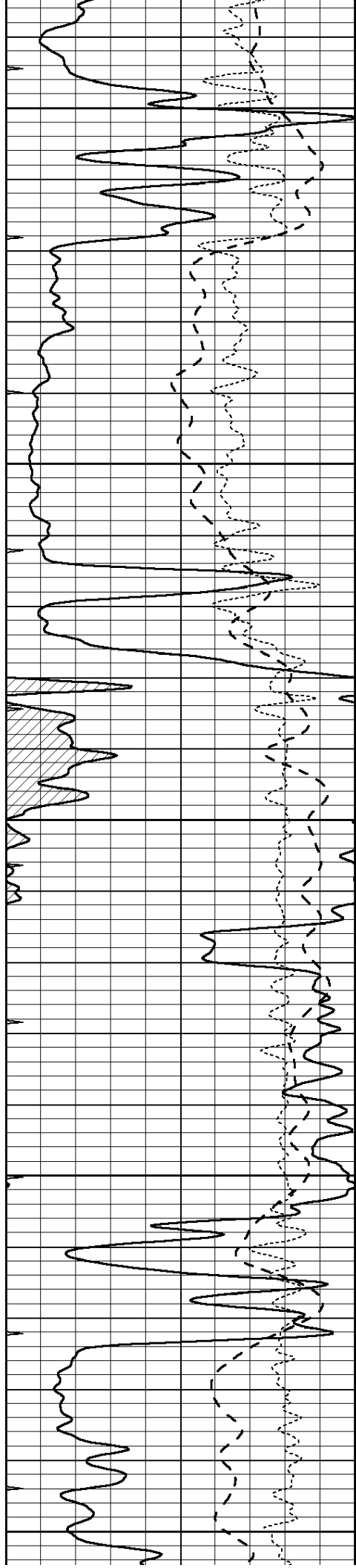
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5150

5200

5250





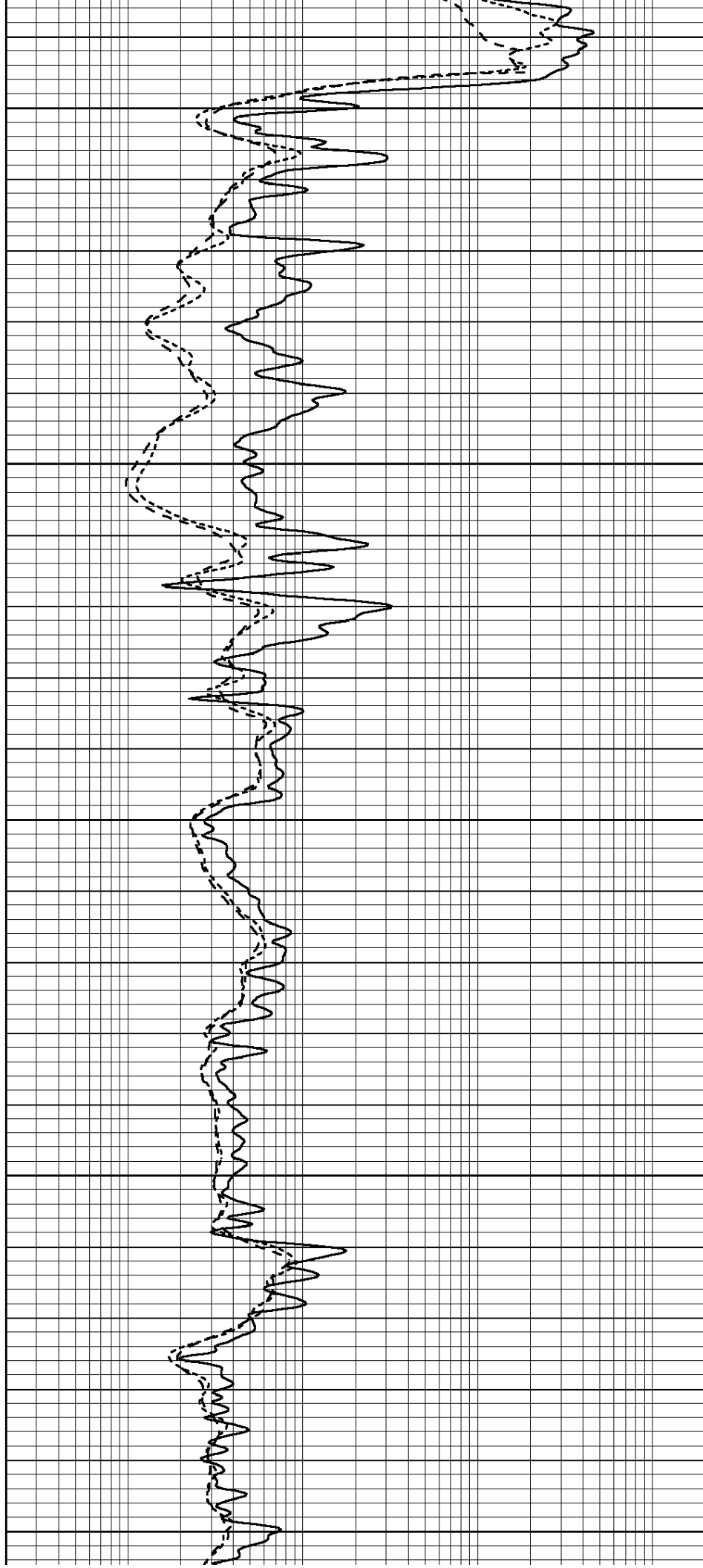
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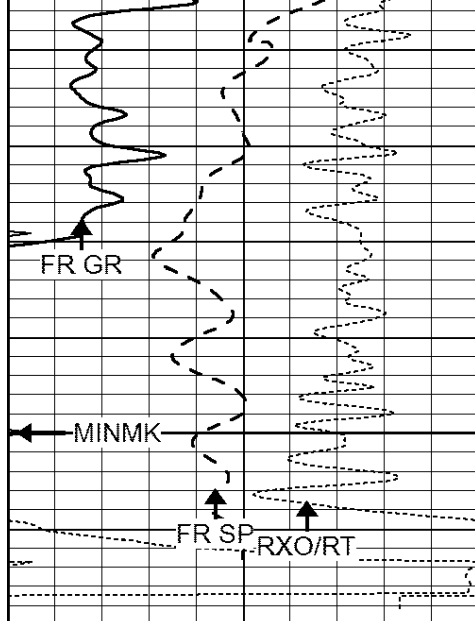
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5400

5450

5500

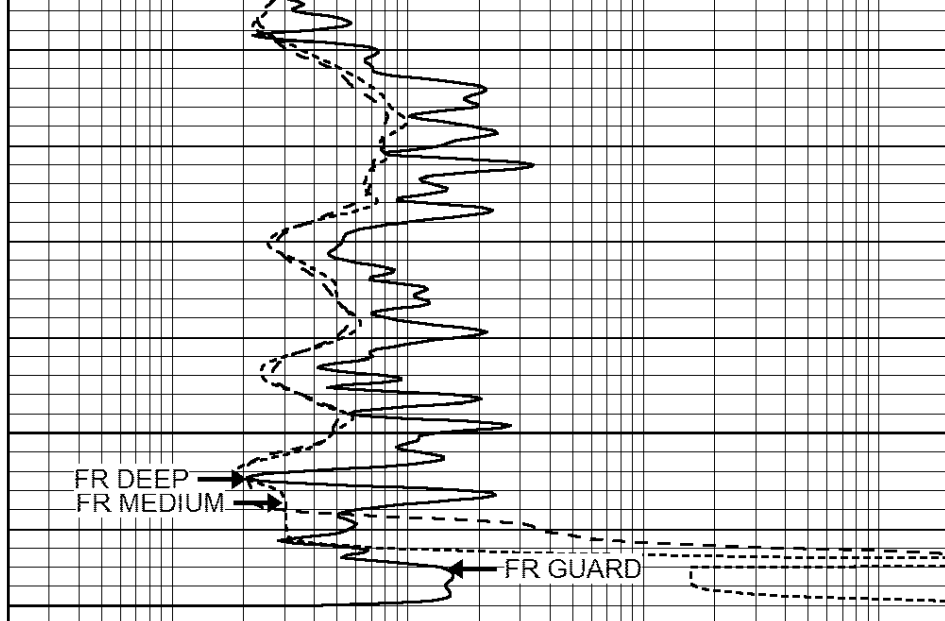




0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

5550

LTD 5566



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



SUPERIOR
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REPEAT SECTION

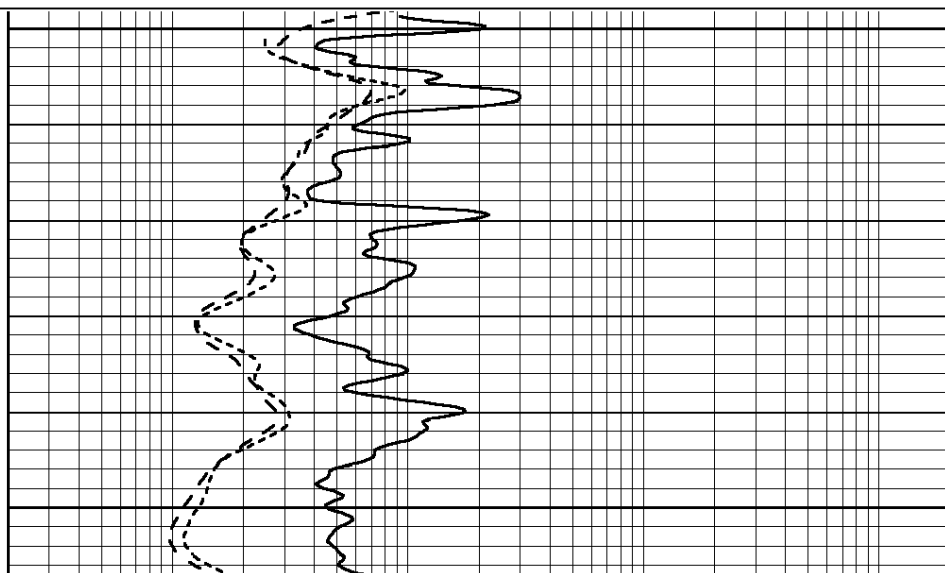
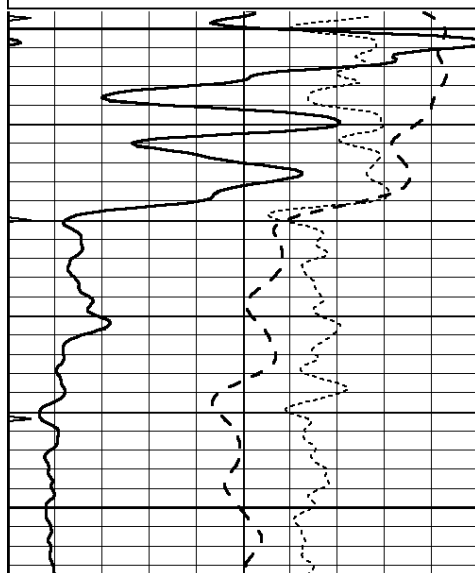
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 Presentation Format: dil
 Dataset Creation: Wed Sep 28 08:16:15 2011 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:240

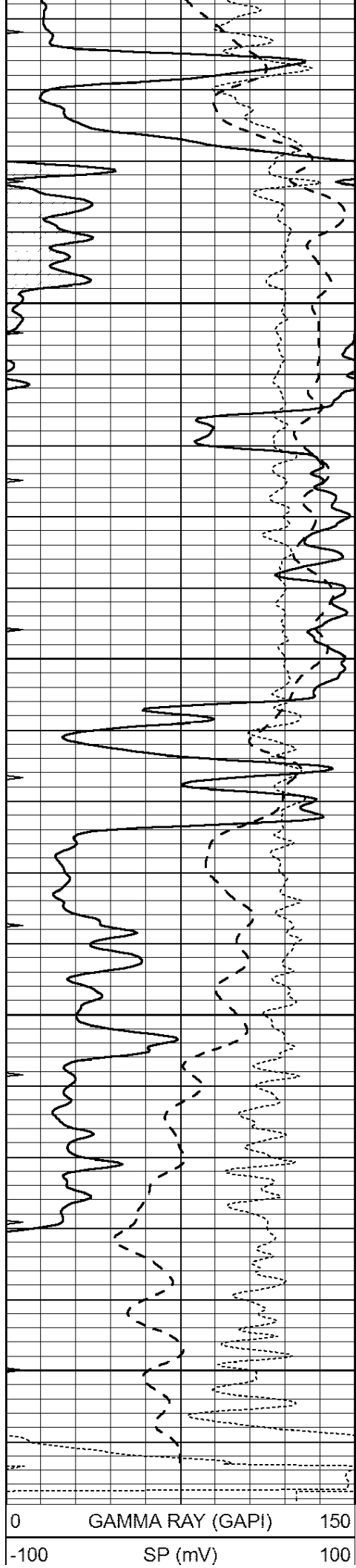
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

5300

5350

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



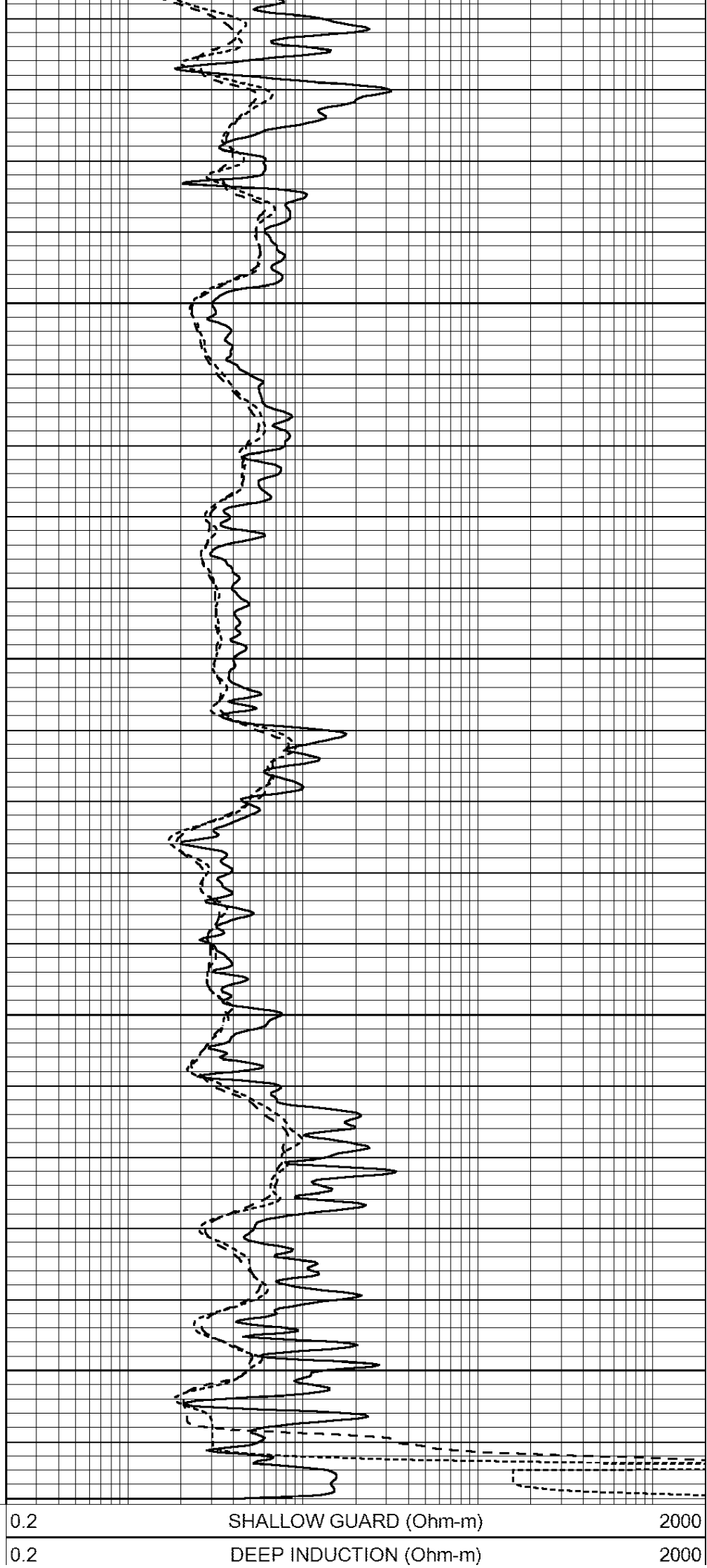


5400

5450

5500

5550



-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			

Calibration Report		
Database File:	007456pe.db	
Dataset Pathname:	pass3.10	
Dataset Creation:	Wed Sep 28 09:42:42 2011	

Dual Induction Calibration Report

Serial-Model:	DIL3-GEAR
Performed:	Wed Sep 28 08:01:26 2011

Readings			References			Results	
Loop:	Air	Loop		Air	Loop	m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000
Internal:	Zero	Cal		Zero	Cal	m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	622.059
Medium	0.007	0.740	V	0.000	462.500	mmho/m	631.393

Litho Density Calibration Report		
Serial:	006	Model: PRB
Performed	Sun Aug 15 09:48:41 2010	

Litho Density Calibration					
	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper		
Readings	Reference	
Low Ref	3.9	8.1
High Ref	6.0	15.0
Gain: 3.2	Offset: -4.6	

Compensated Neutron Calibration Report
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Serial Number:	NEU_1I
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:	GR1
Tool Model:	OPEN
Performed:	Wed Sep 28 07:13:31 2011

Calibrator Value:	200.0	GAPI
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Background Reading:	3.0	cps
Calibrator Reading:	186.0	cps

Sensitivity:	0.2500	GAPI/cps
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