



SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company		RITCHIE EXPLORATION, INC.	
Well		IMEL-NAU #1	
Field			
County		FORD	
State		KANSAS	
Company		RITCHIE EXPLORATION, INC.	
Well		IMEL-NAU #1	
Field			
County		FORD	
State		KANSAS	
Location:		API # : 15-057-20727-0000	
Permanent Datum		GROUND LEVEL	
Log Measured From		KELLY BUSHING 12' A.G.L.	
Drilling Measured From		KELLY BUSHING	
SEC 5		TWP 26	
RGE		22W	
Elevation		2411	
K.B. 2423		D.F. 2421	
G.L. 2411			
CDL/CNL			
Date		5/21/11	
Run Number		ONE	
Depth Driller		4967	
Depth Logger		4970	
Bottom Logged Interval		4968	
Top Log Interval		00	
Casing Driller		8 5/8" @ 384	
Casing Logger		383	
Bit Size		7 7/8	
Type Fluid in Hole		CHEMICAL MUD	
Density / Viscosity		9.2/55	
pH / Fluid Loss		10.0/8.0	
Source of Sample		FLOWLINE	
Rim @ Meas. Temp		.75 @ 86F	
Rmf @ Meas. Temp		.56 @ 86F	
Rmc @ Meas. Temp		.90 @ 86F	
Source of Rmf / Rmc		MEASURED	
Rim @ BHT		.52 @ 124F	
Time Circulation Stopped		2 HOURS	
Time Logger on Bottom			
Maximum Recorded Temperature		124F	
Equipment Number		680	
Location		HAYS, KS.	
Recorded By		JASON CAPPELLUCCI	
Witnessed By		ADAM ELDANI	

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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
SPEARVILLE KS. - 3 S. - W. INTO



SUPERIOR
Hays,
Kansas

Database File: 007066ddn.db
Dataset Pathname: pass3.4
Presentation Format: _dil2
Dataset Creation: Sat May 21 13:05:42 2011
Charted by: Depth in Feet scaled 1:600

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

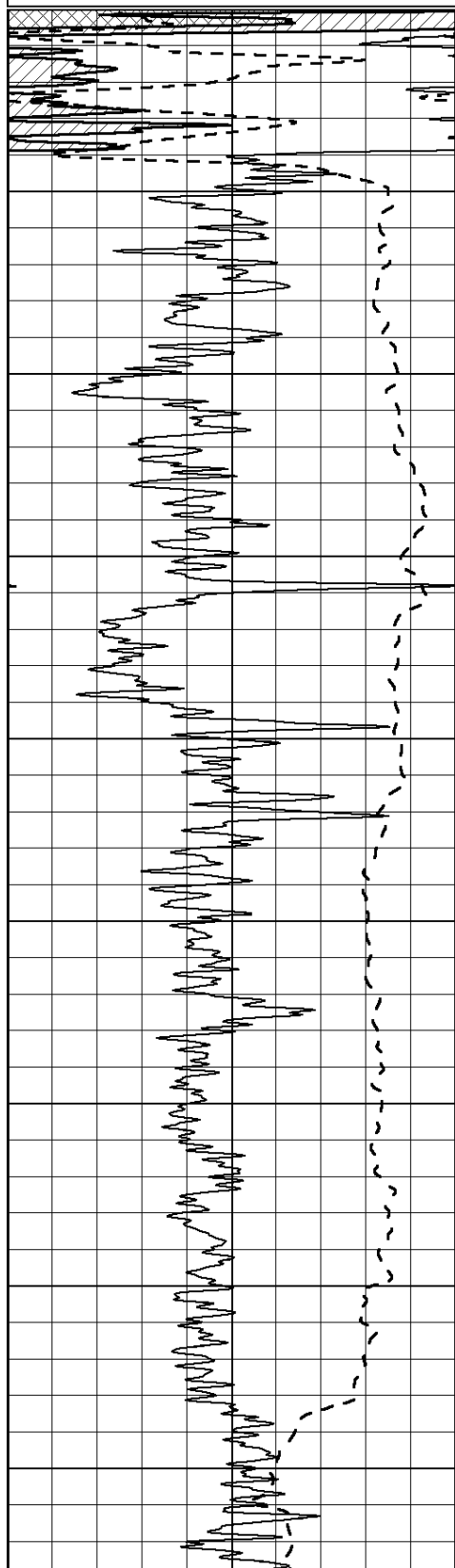
0	RLL3 (Ohm-m)	50
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0	Deep Induction (Ohm-m)	50
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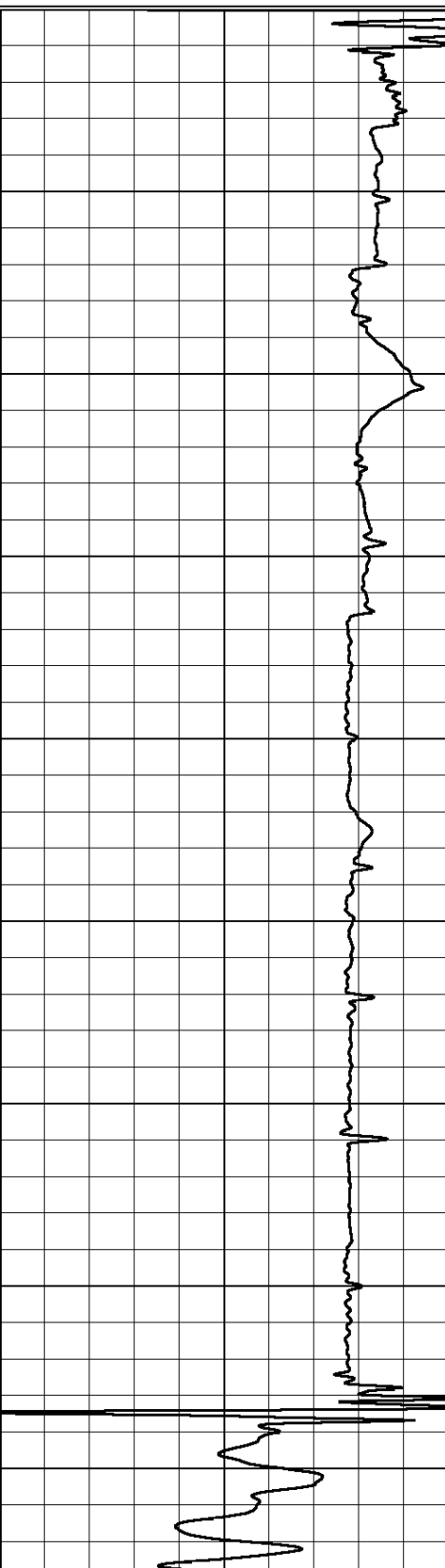
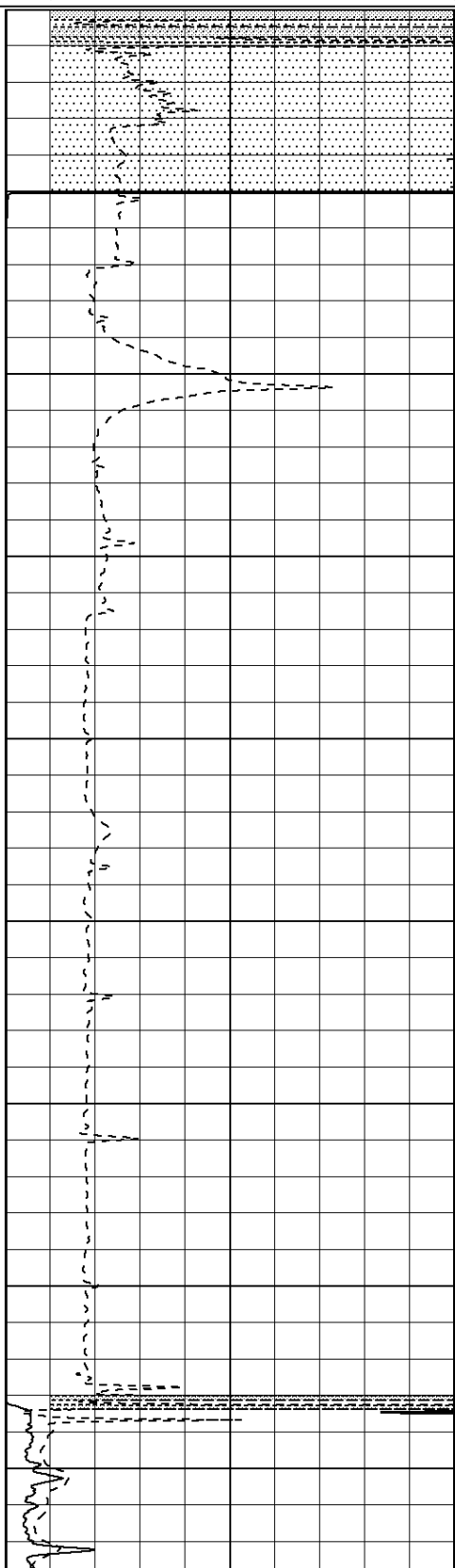
1000	CILD (mmho/m)	0
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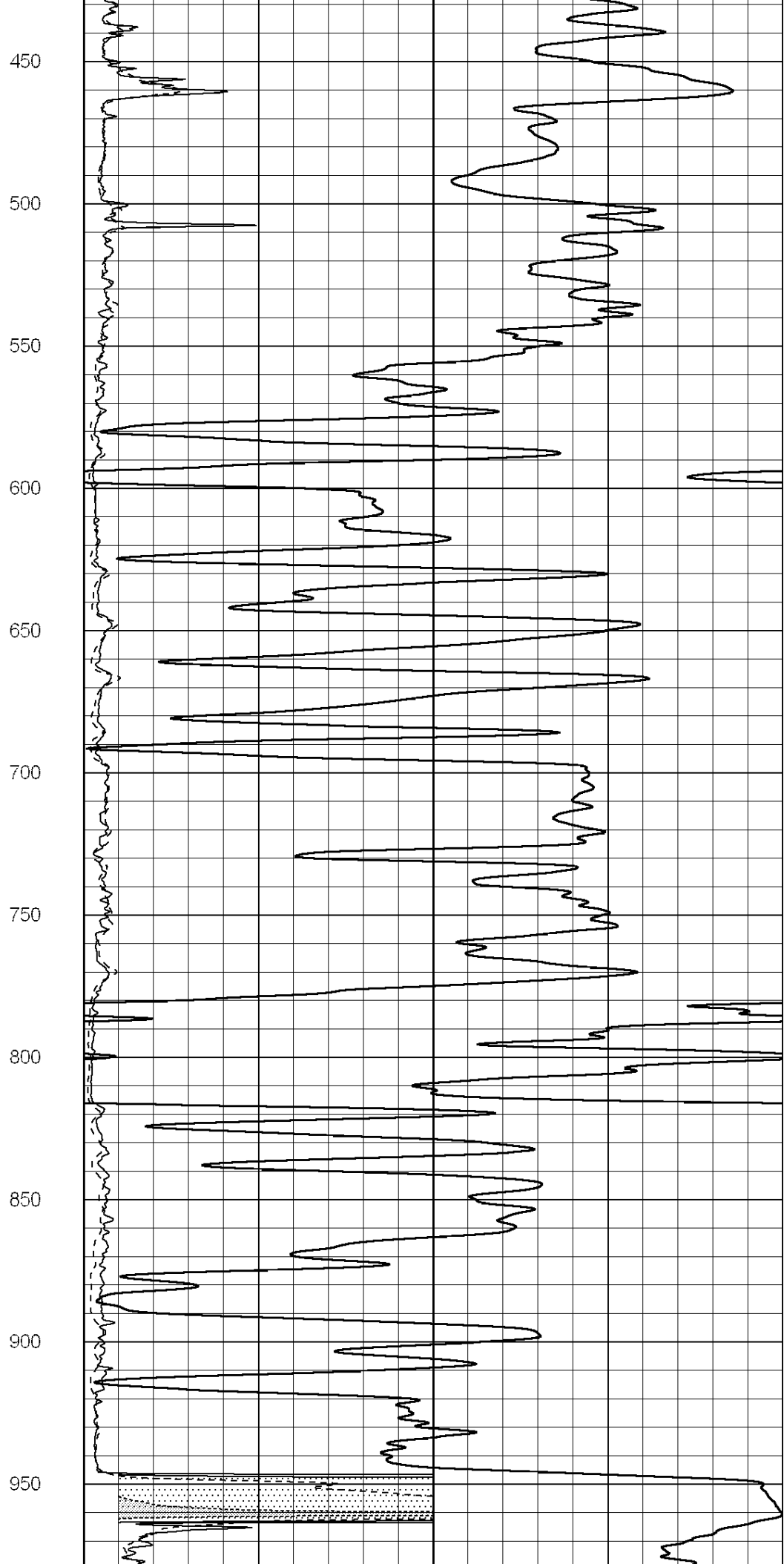
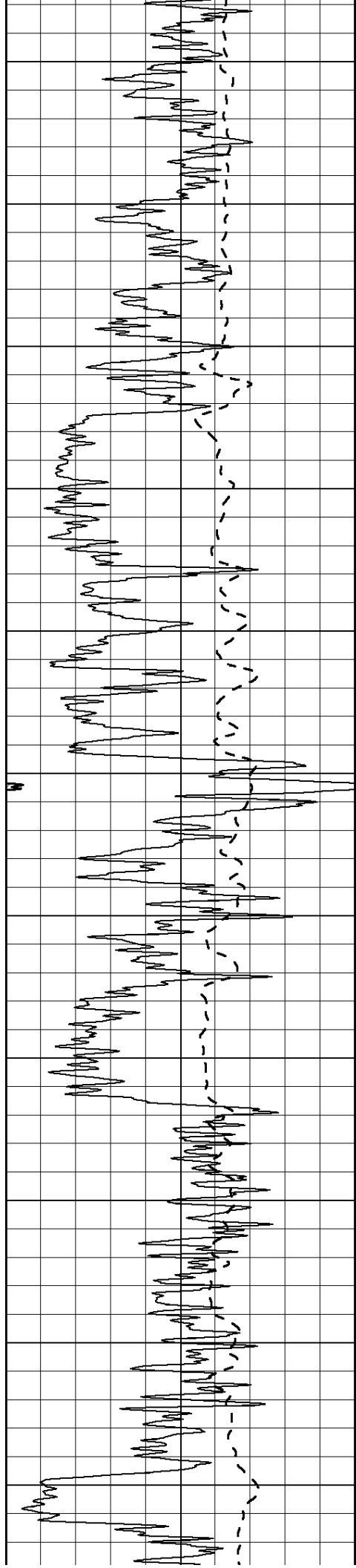
50	RILD X10 (Ohm-m)	500
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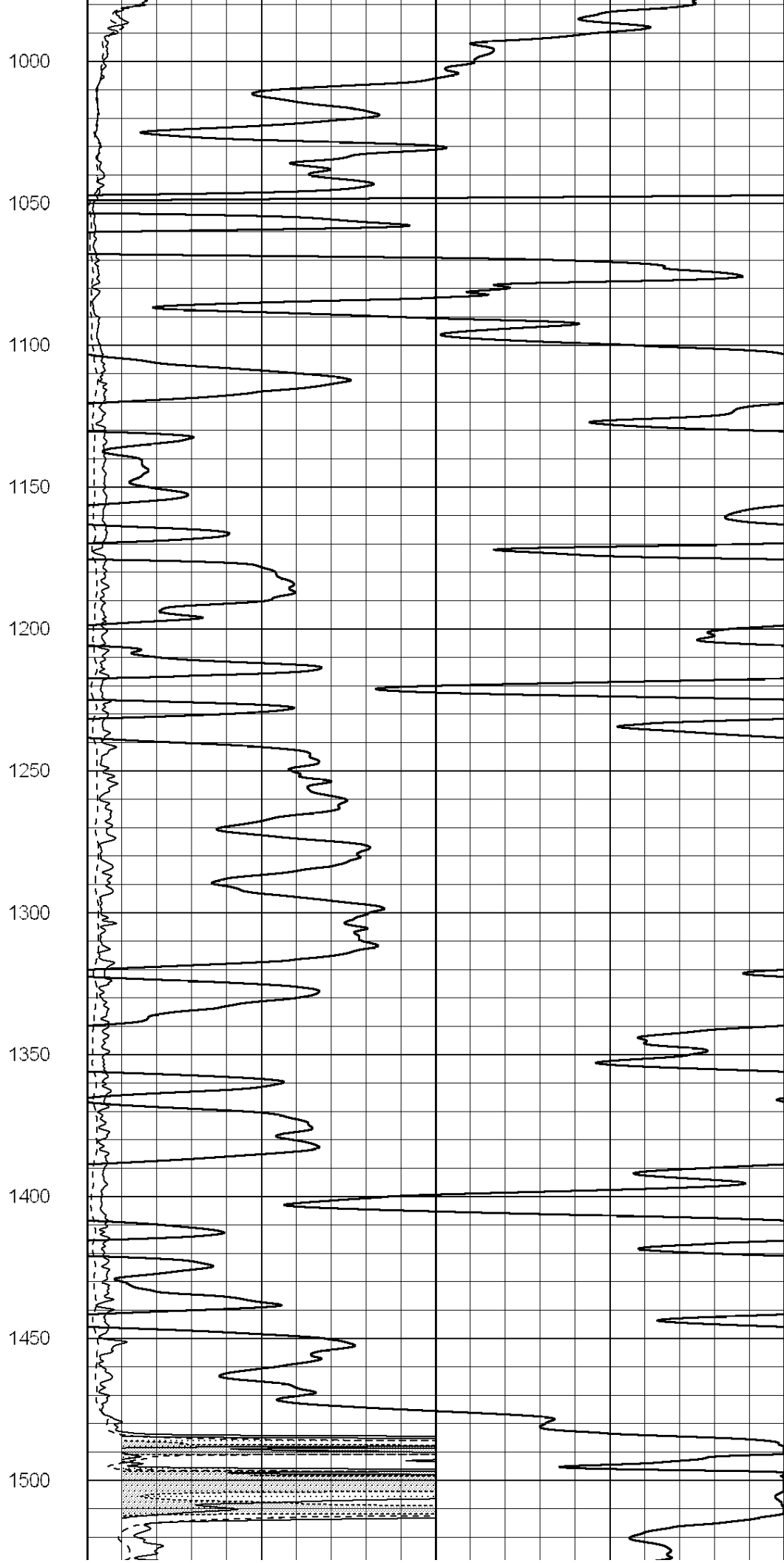
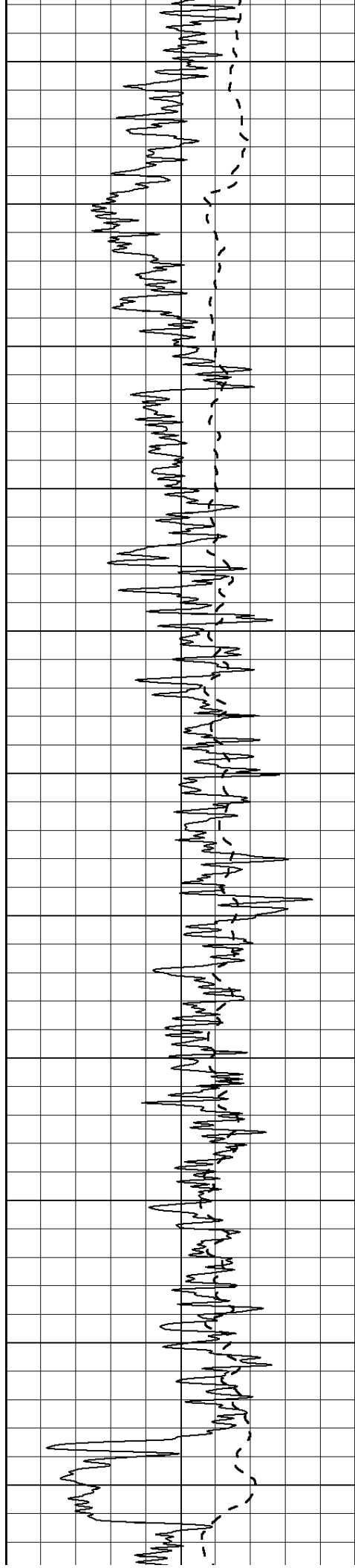
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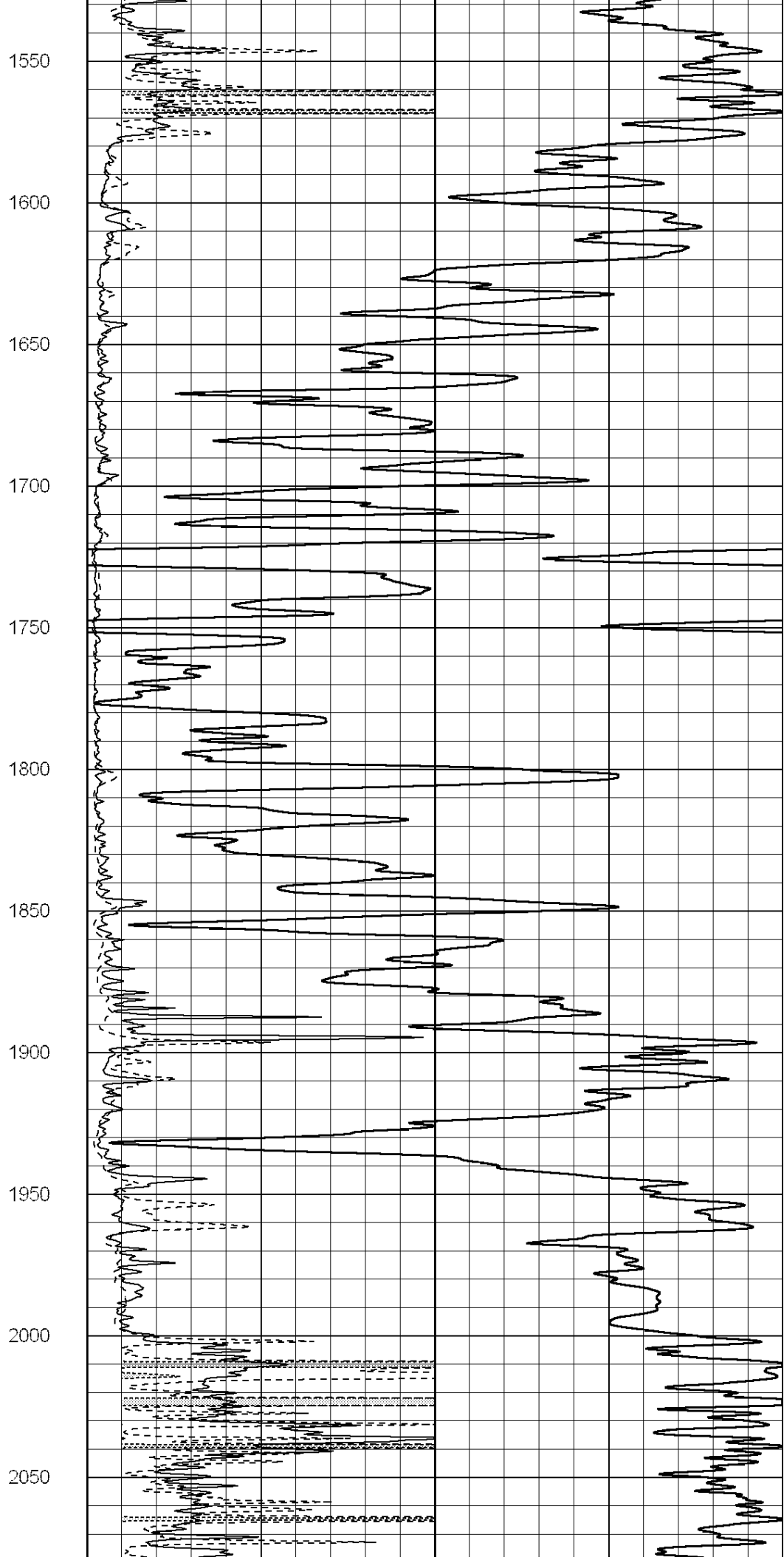
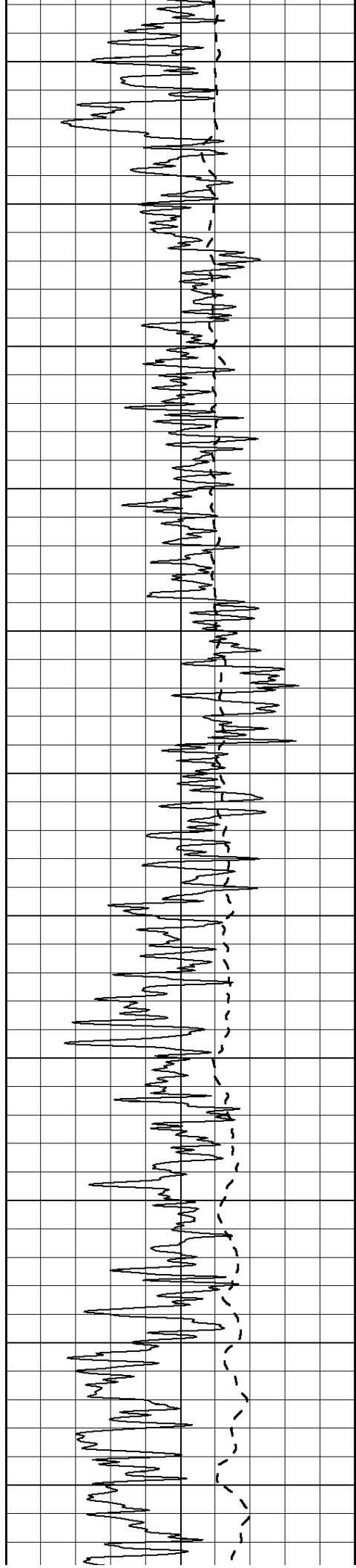


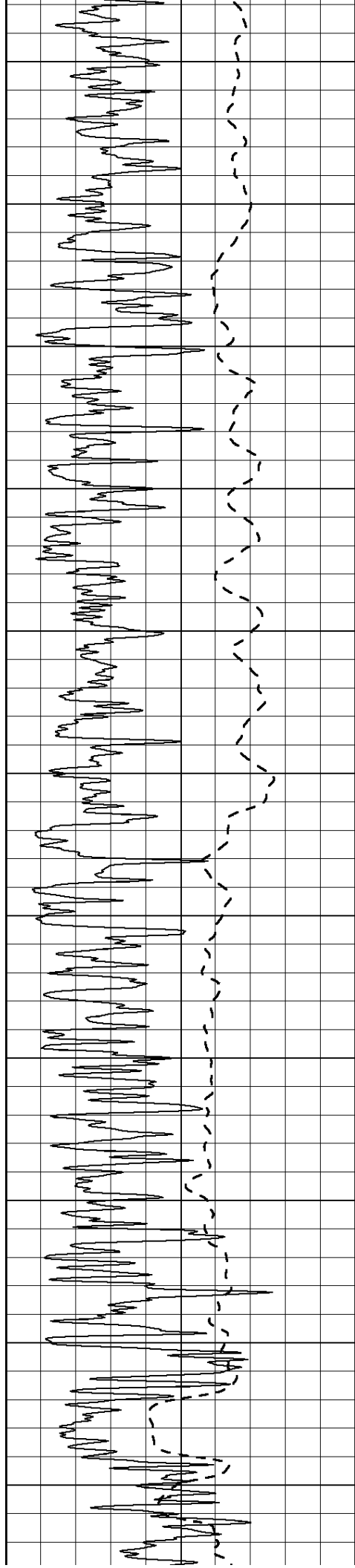
0
50
100
150
200
250
300
350
400











2100

2150

2200

2250

2300

2350

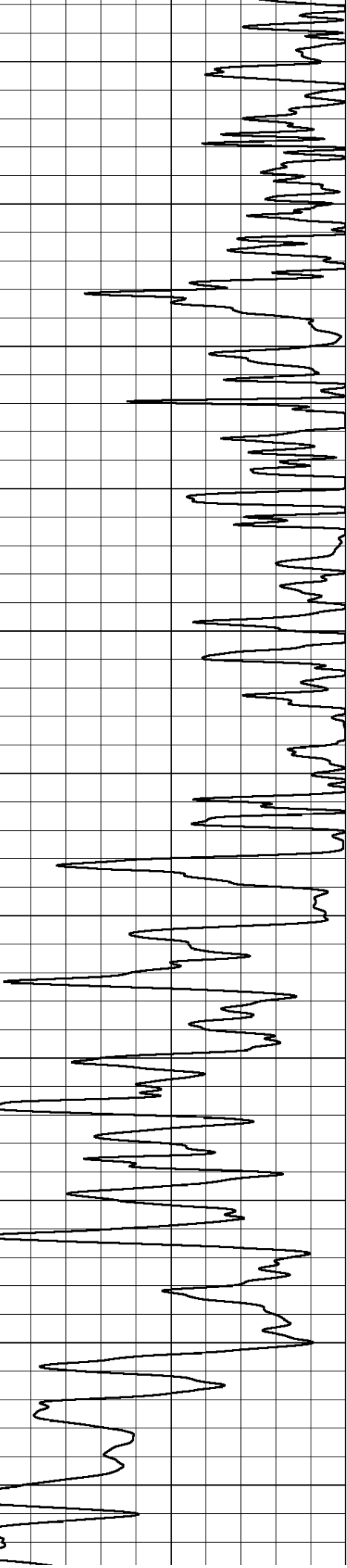
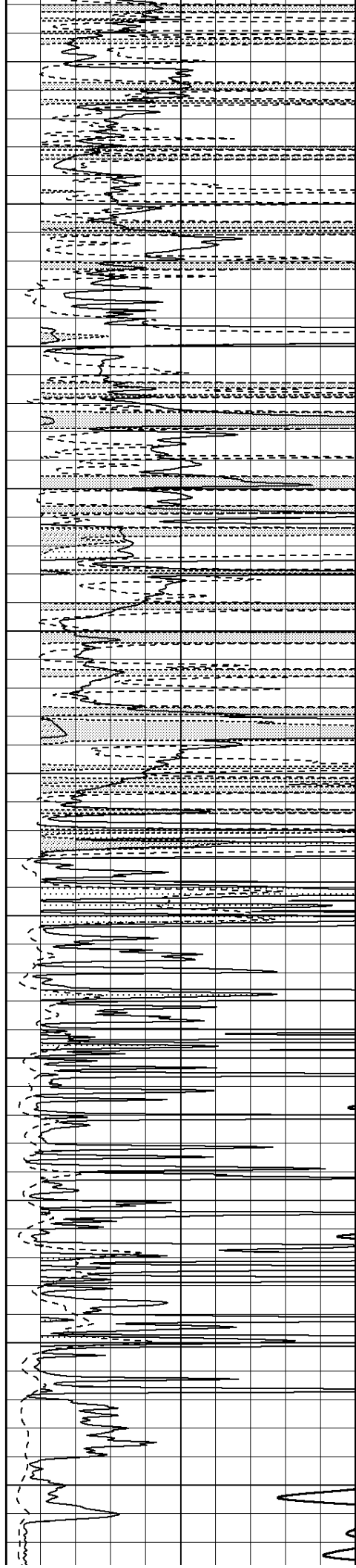
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2450

2500

2550

2600



2650

2700

2750

2800

2850

2900

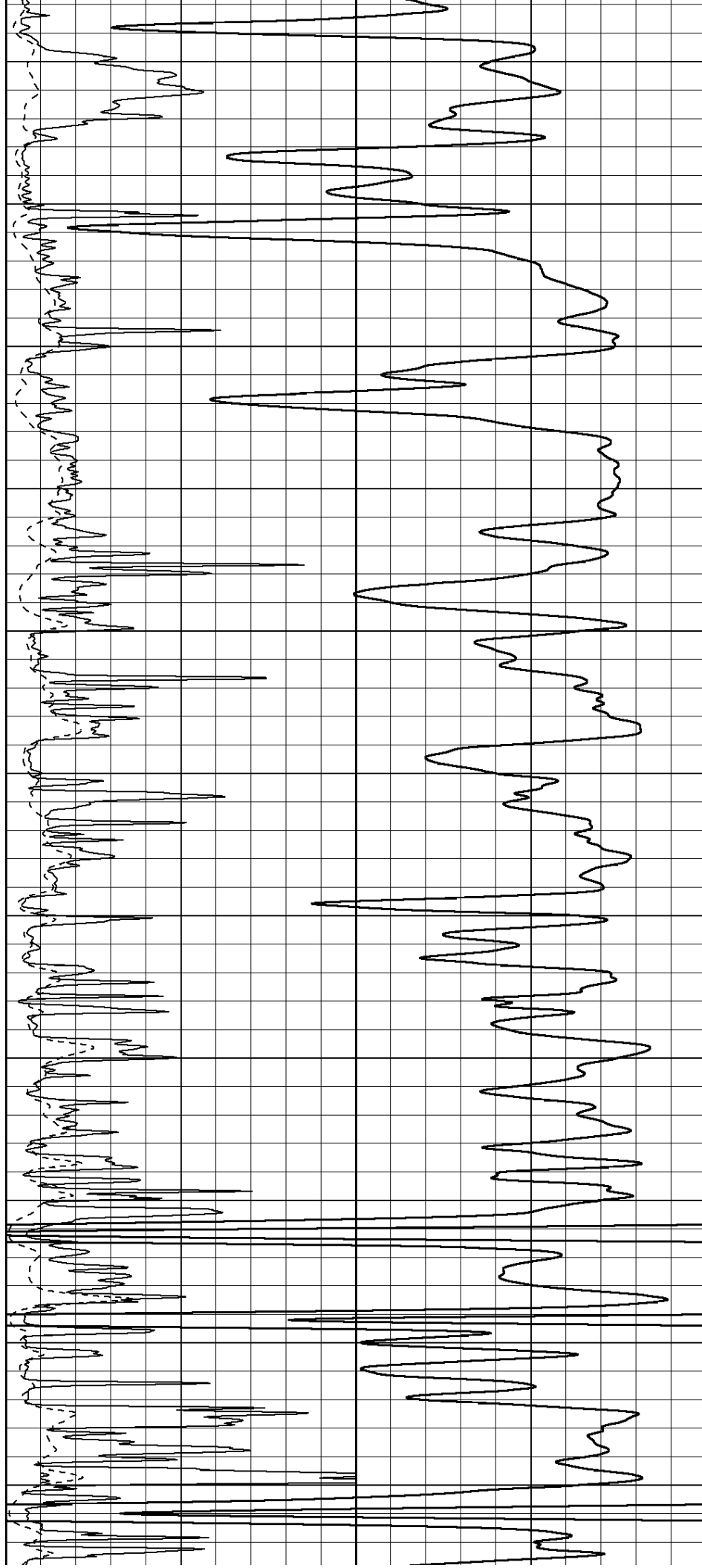
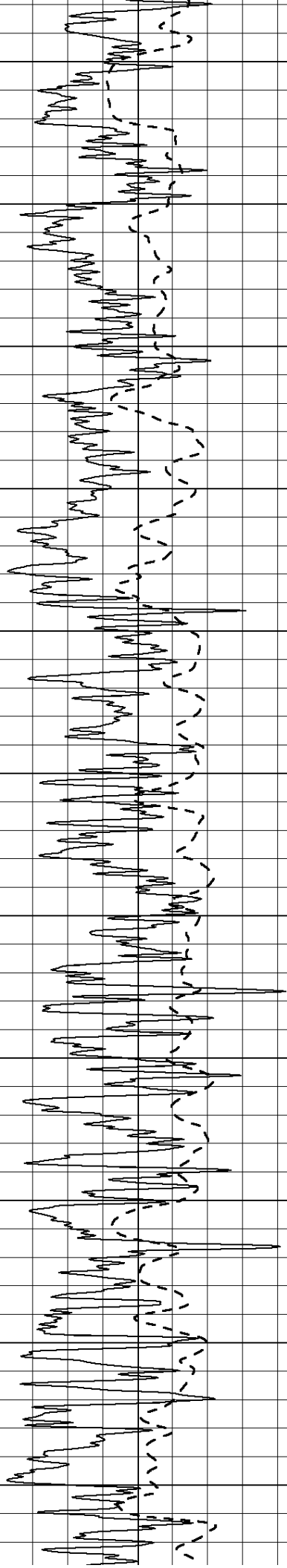
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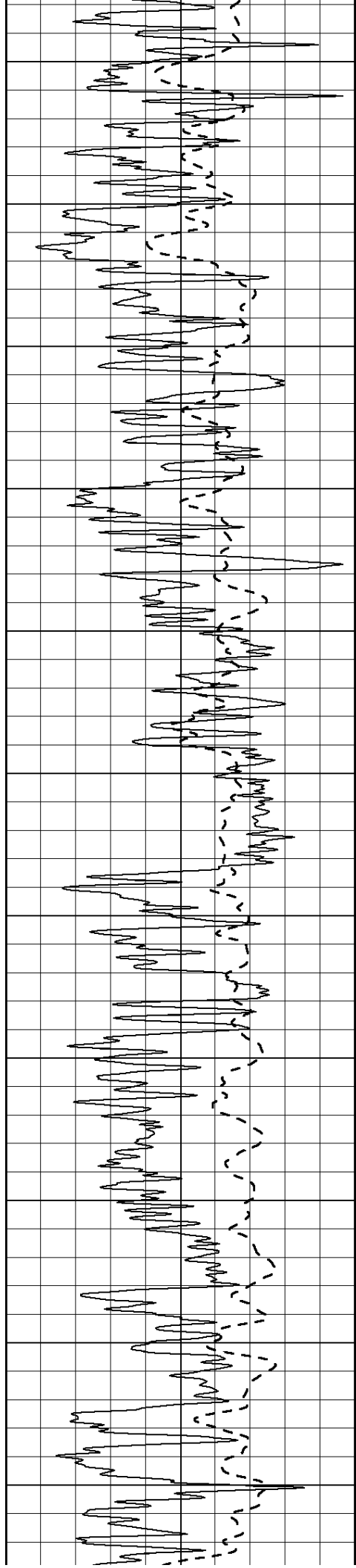
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3050

3100

3150





3200

3250

3300

3350

3400

3450

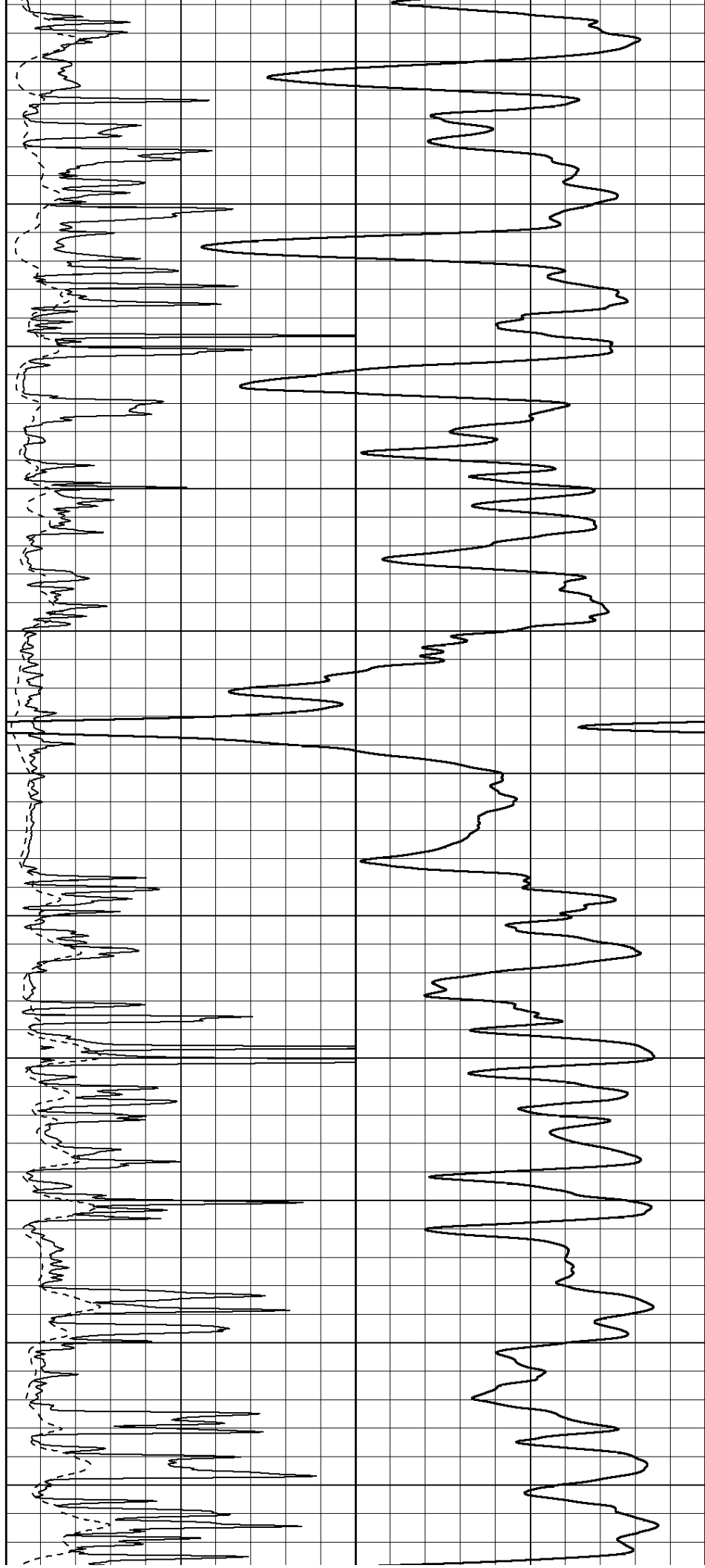
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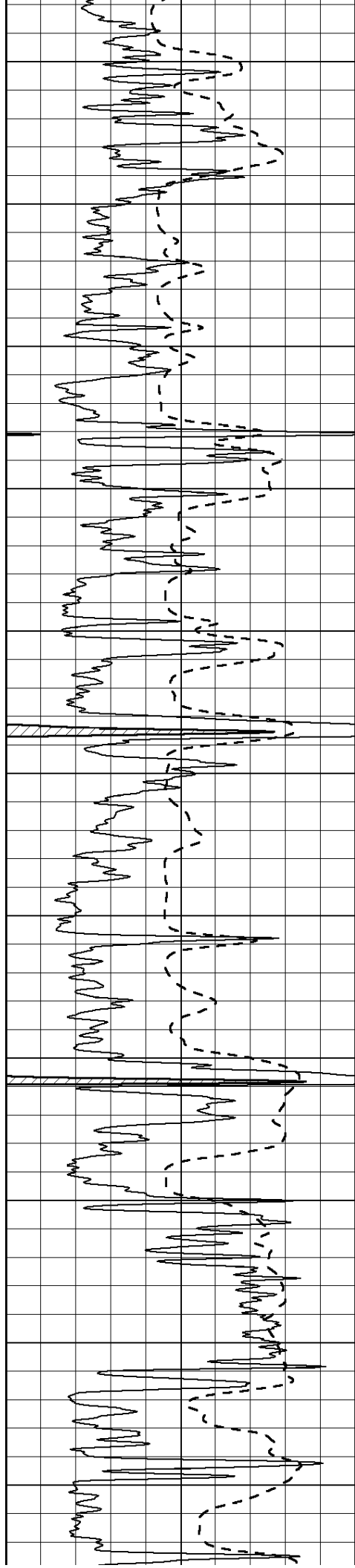
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3650

3700





3750

3800

3850

3900

3950

4000

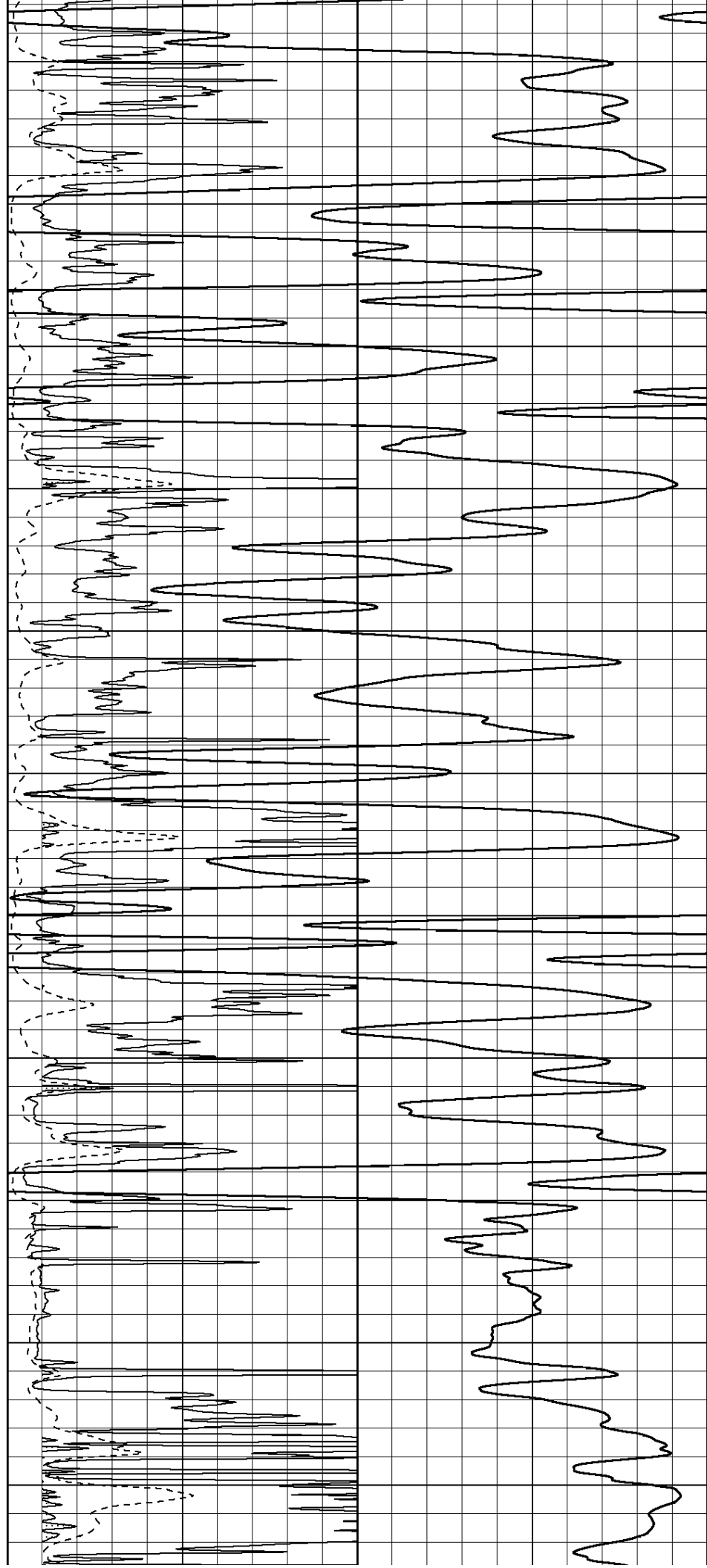
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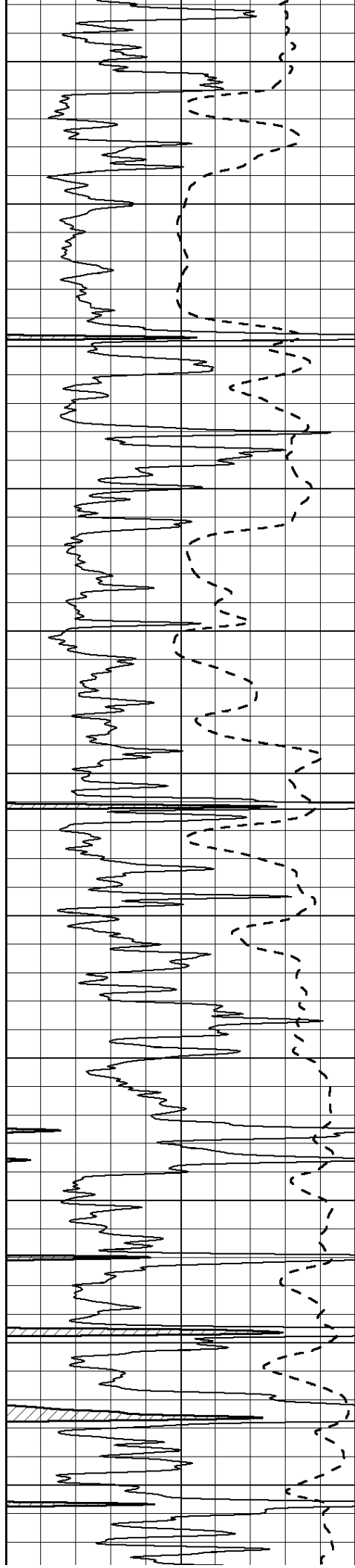
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4150

4200

4250





4300

4350

4400

4450

4500

4550

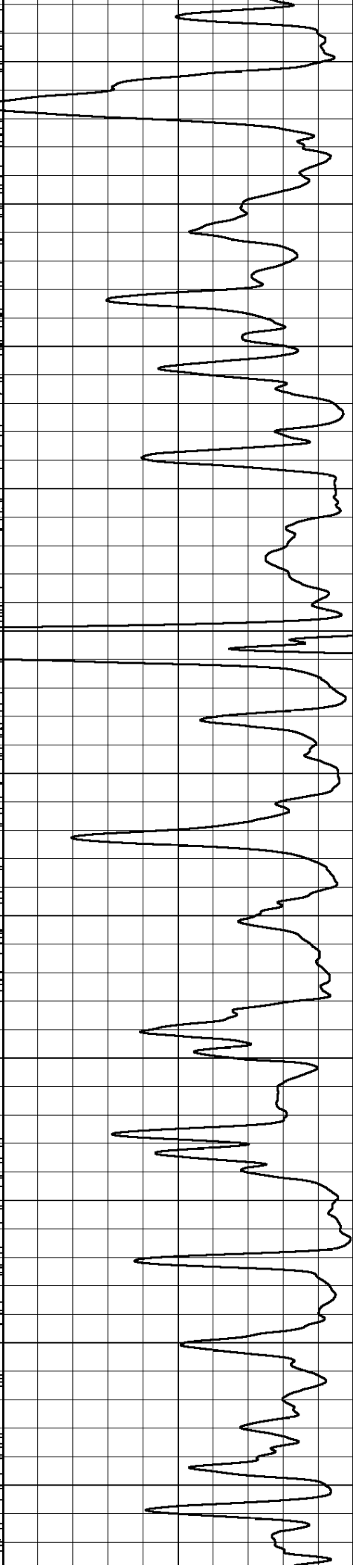
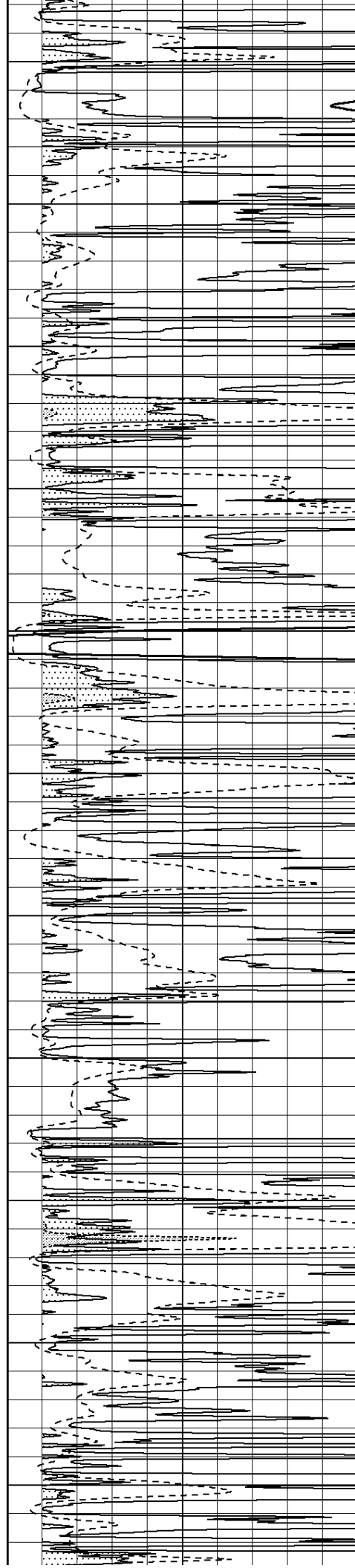
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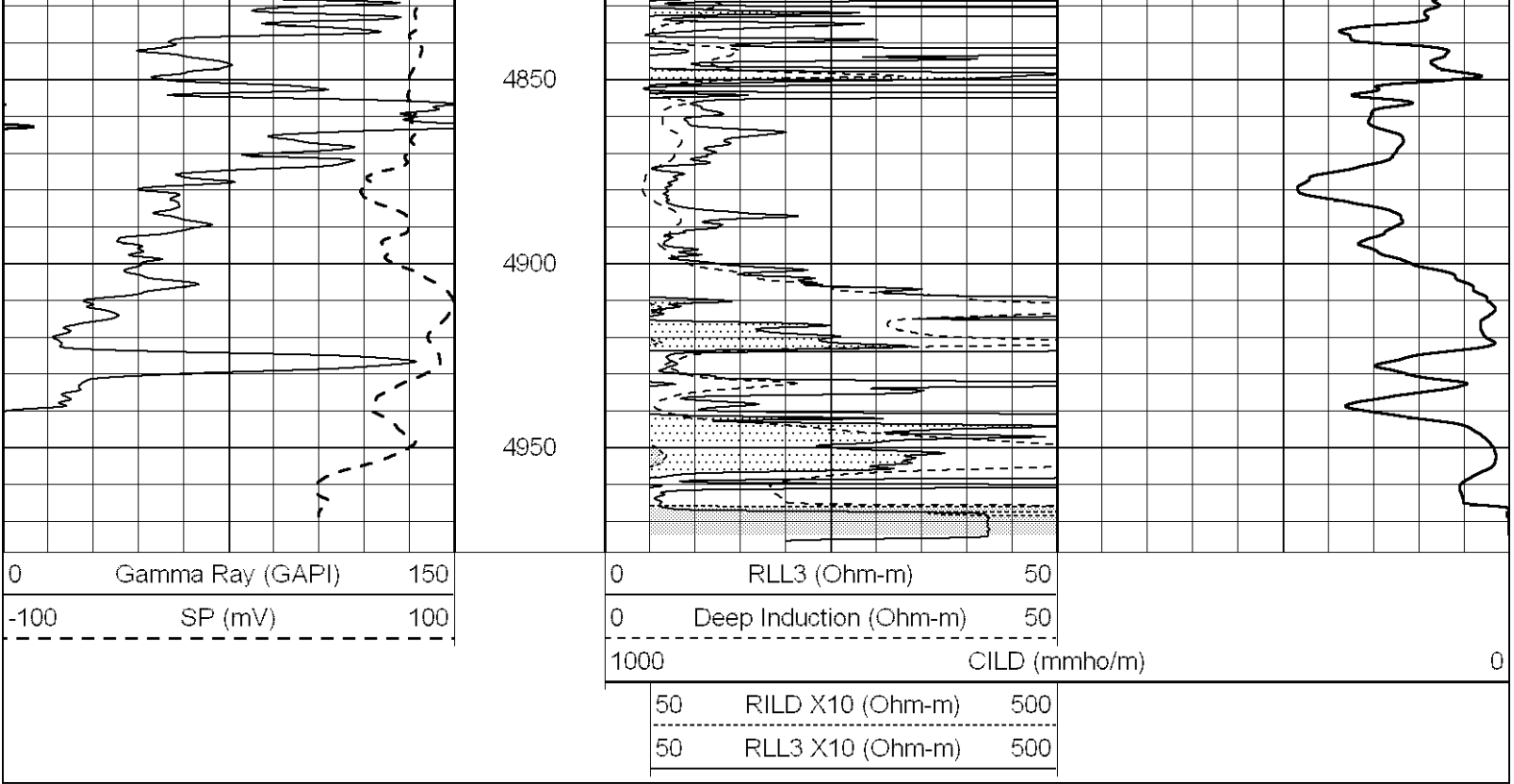
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4700

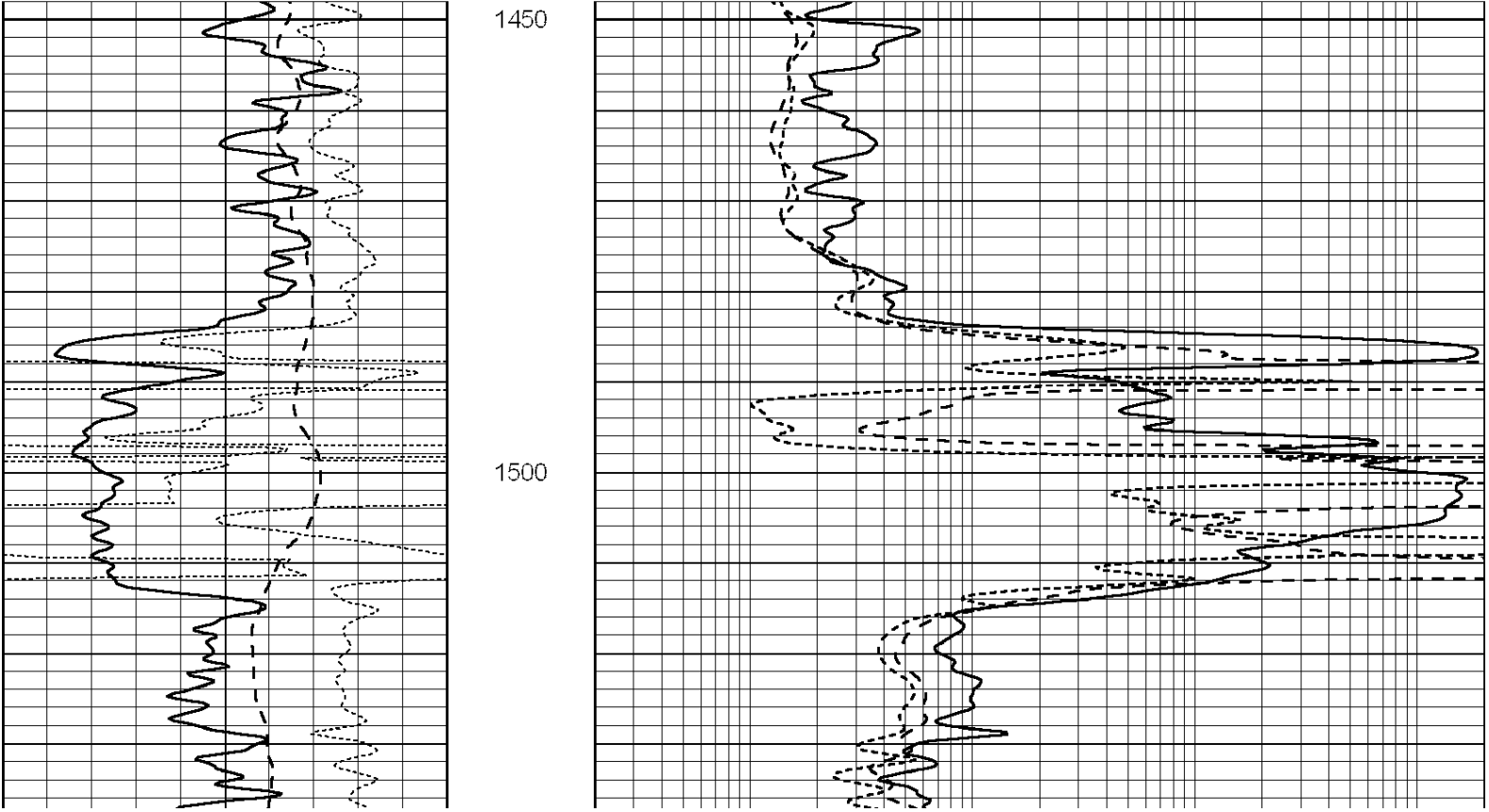
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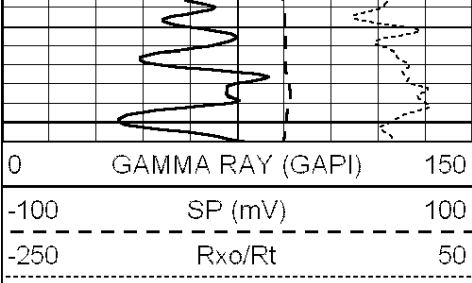
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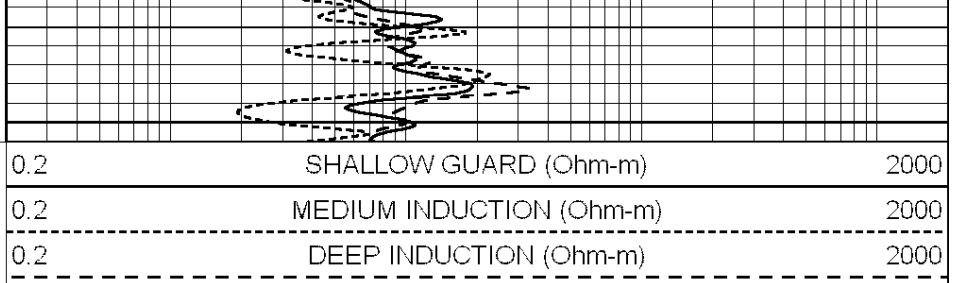


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Presentation Format: _dil					
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Charted by: Depth in Feet scaled 1:240					
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

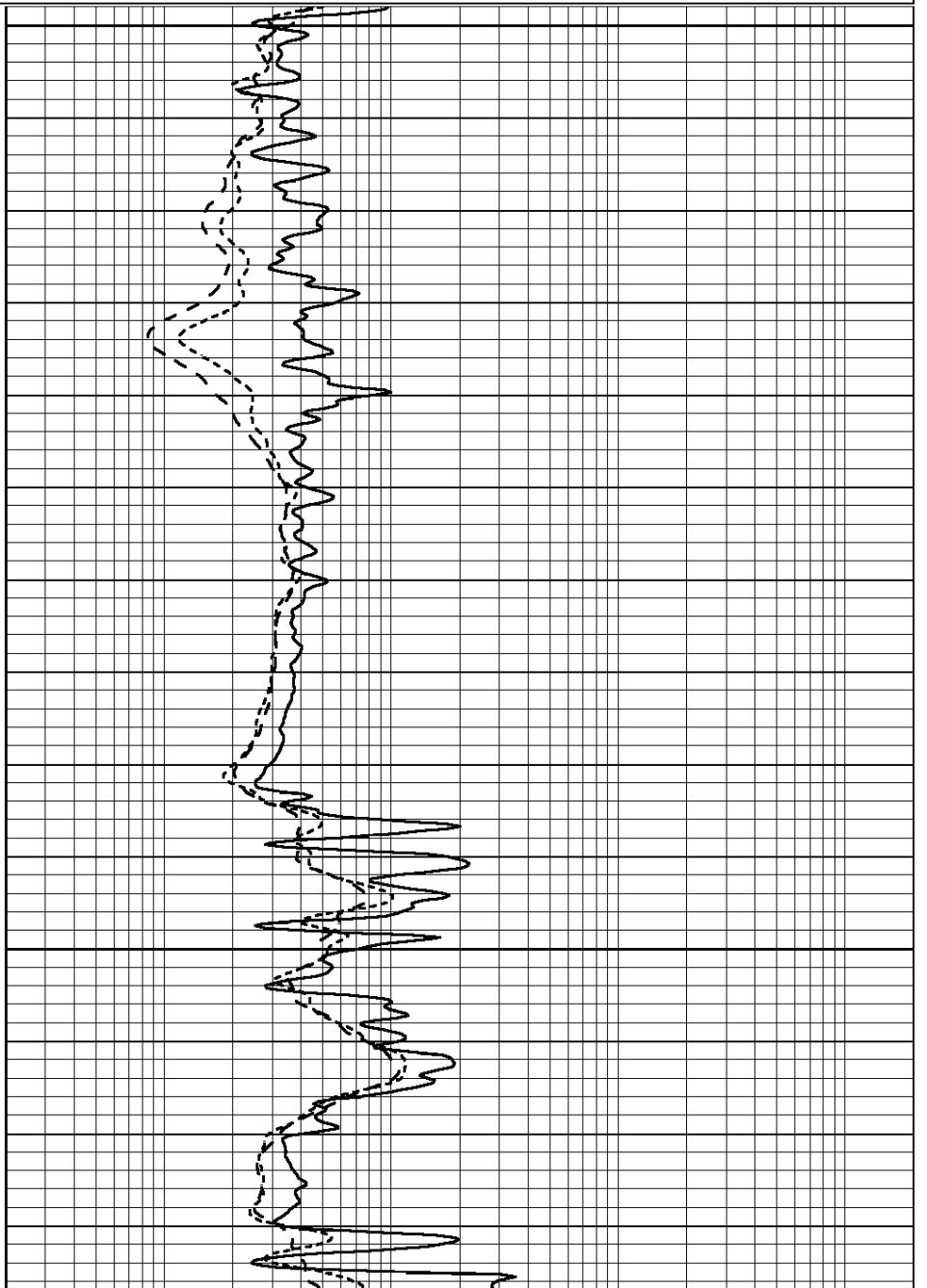
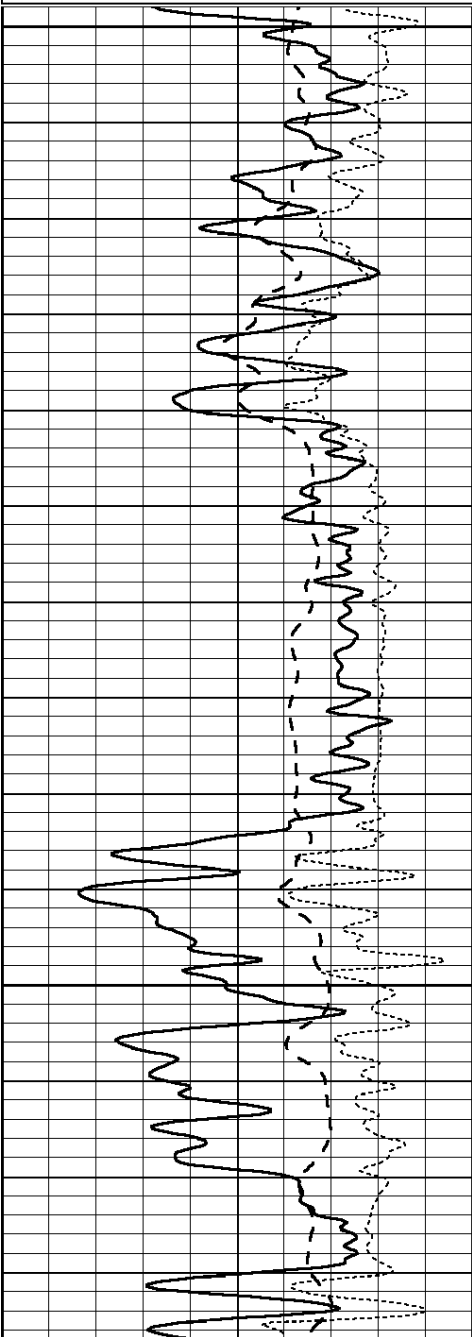
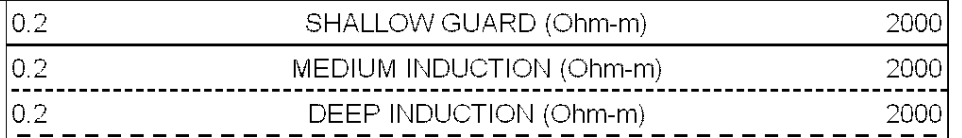
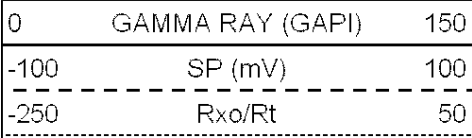


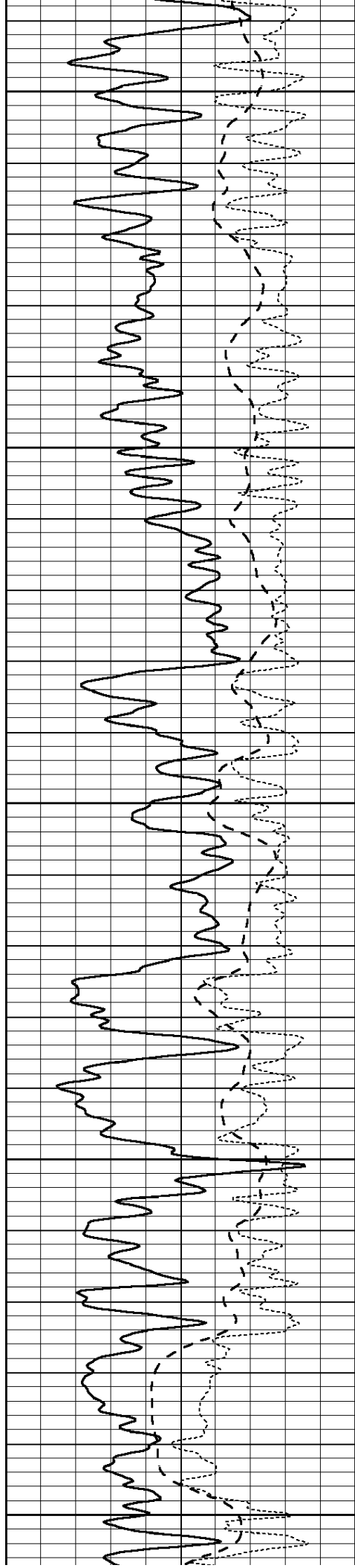


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Presentation Format: _dil
Dataset Creation: Sat May 21 13:07:59 2011 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240





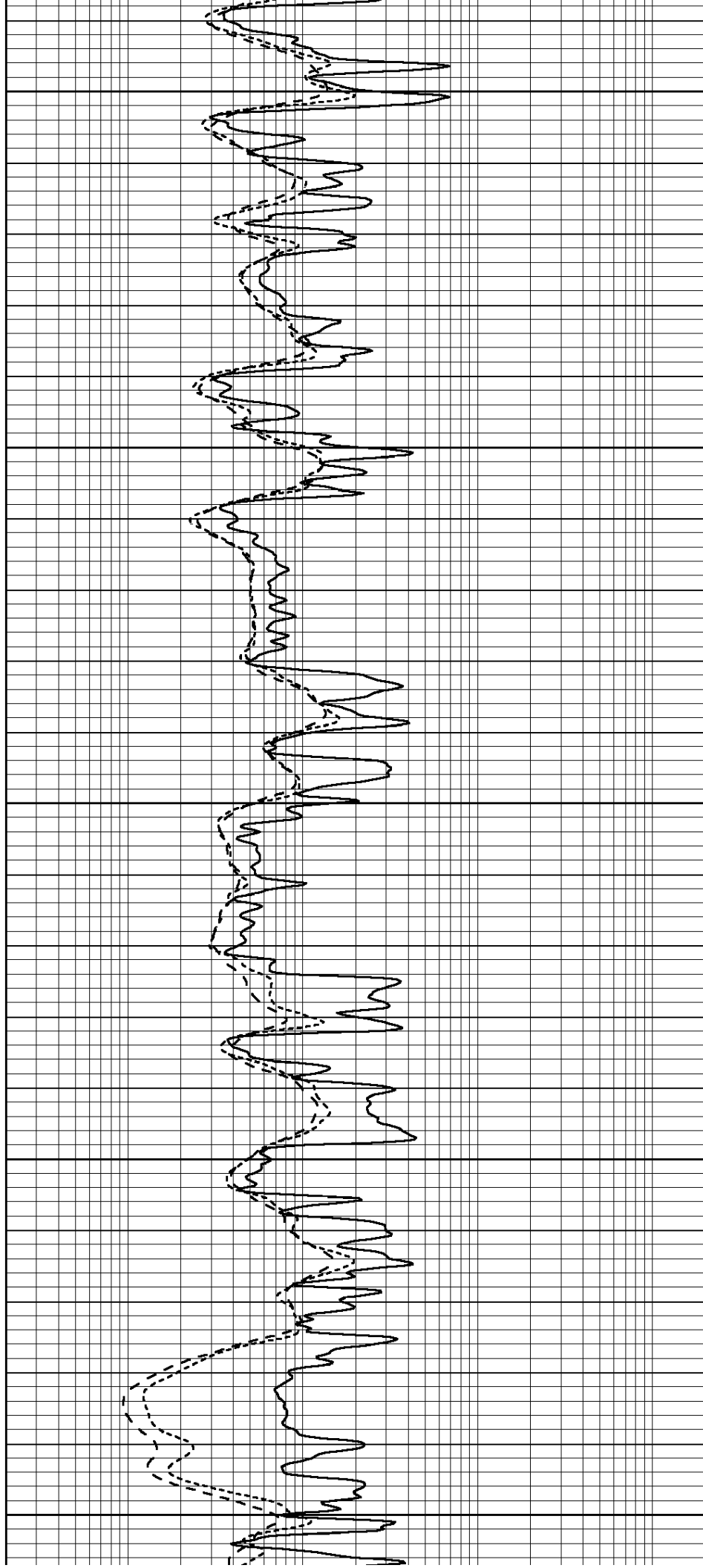
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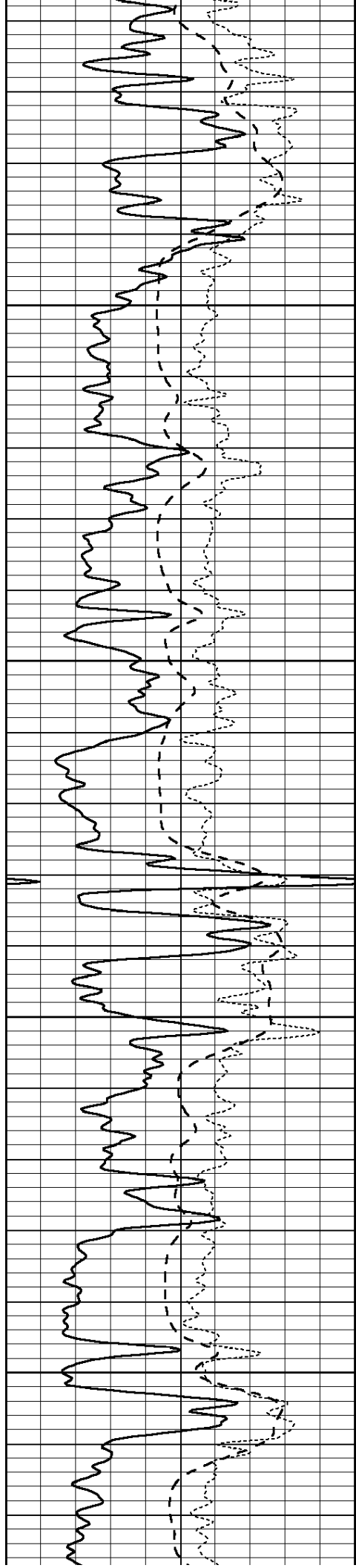
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3650

3700

3750



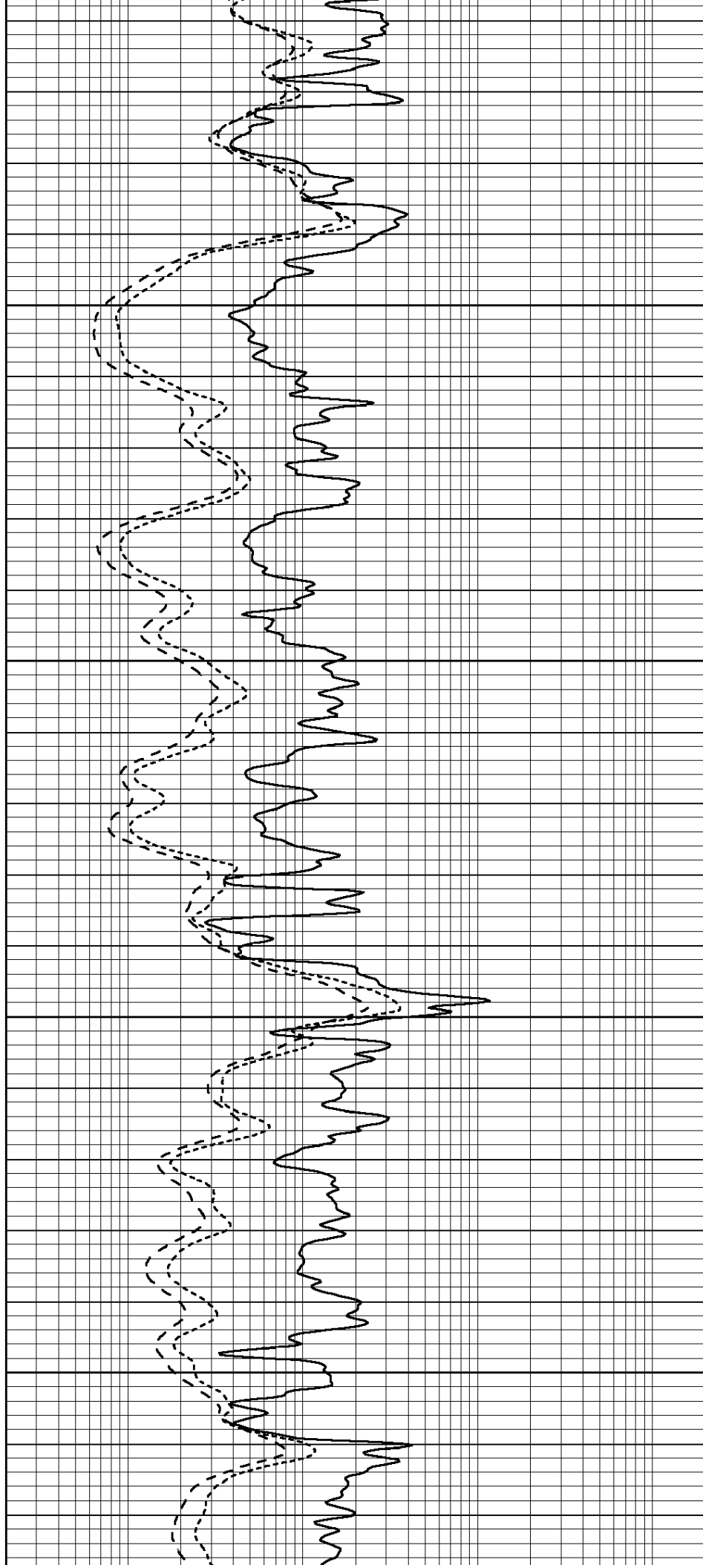


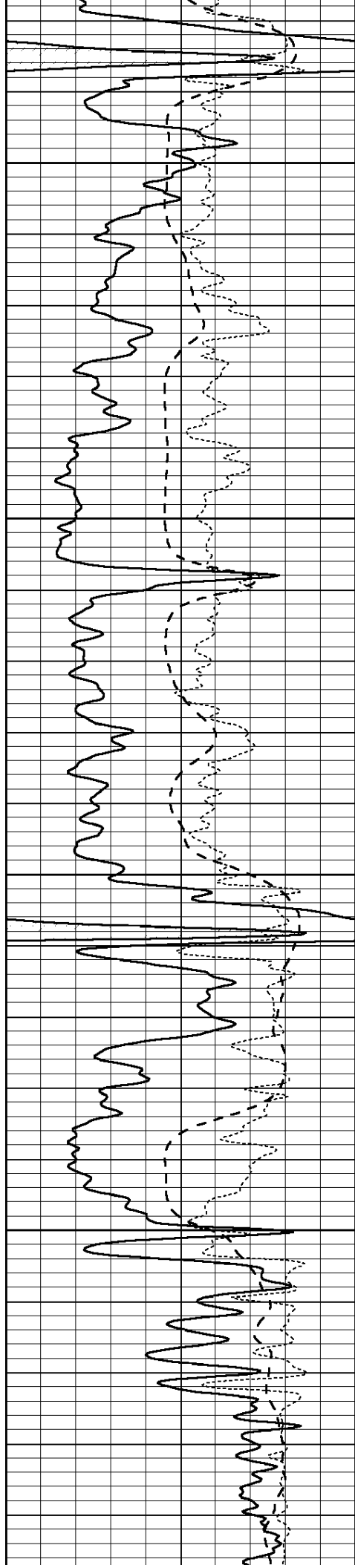
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3850

3900

3950



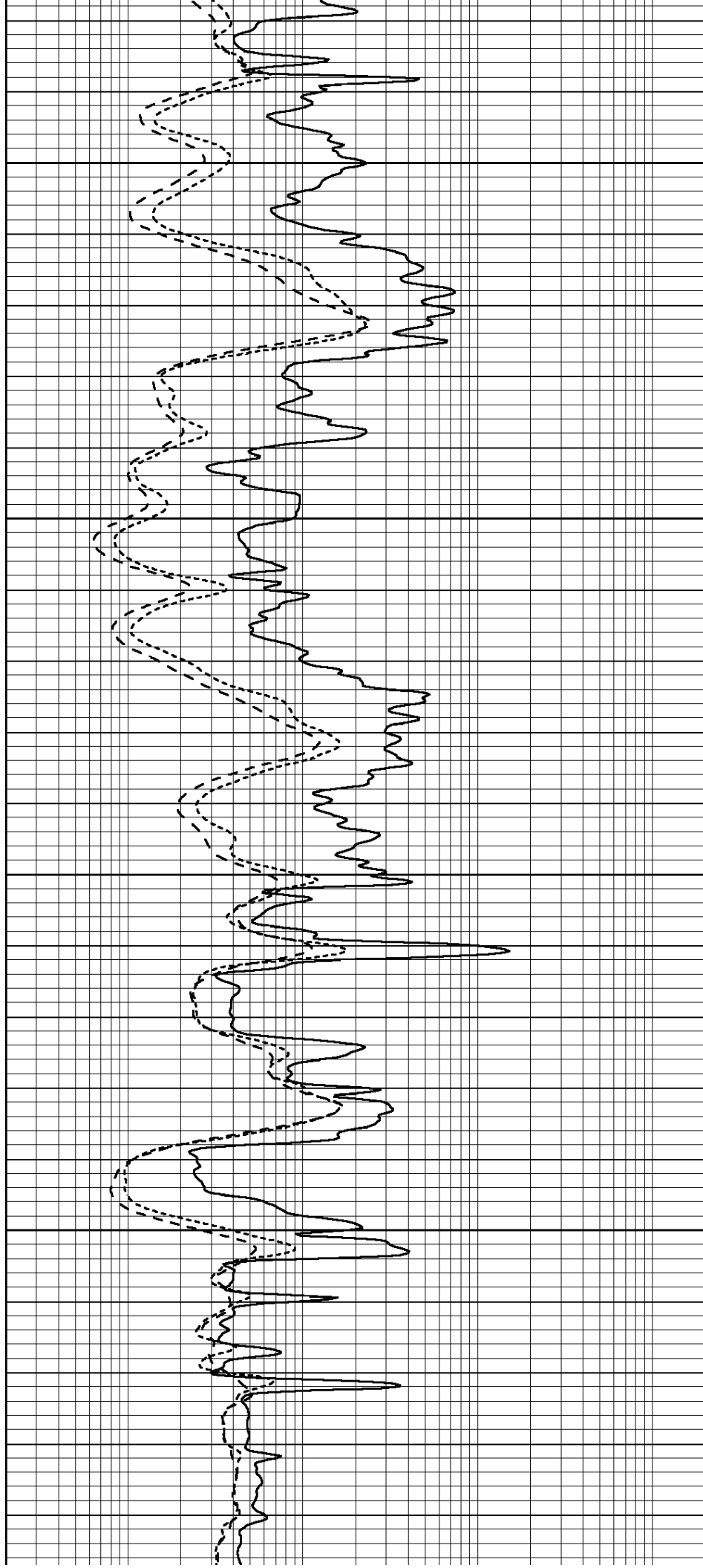


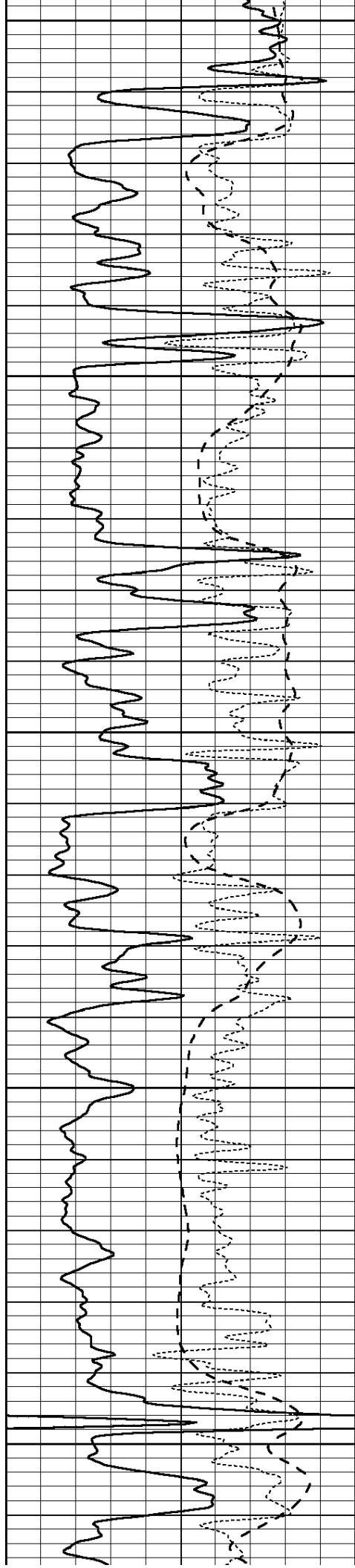
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4050

4100

4150





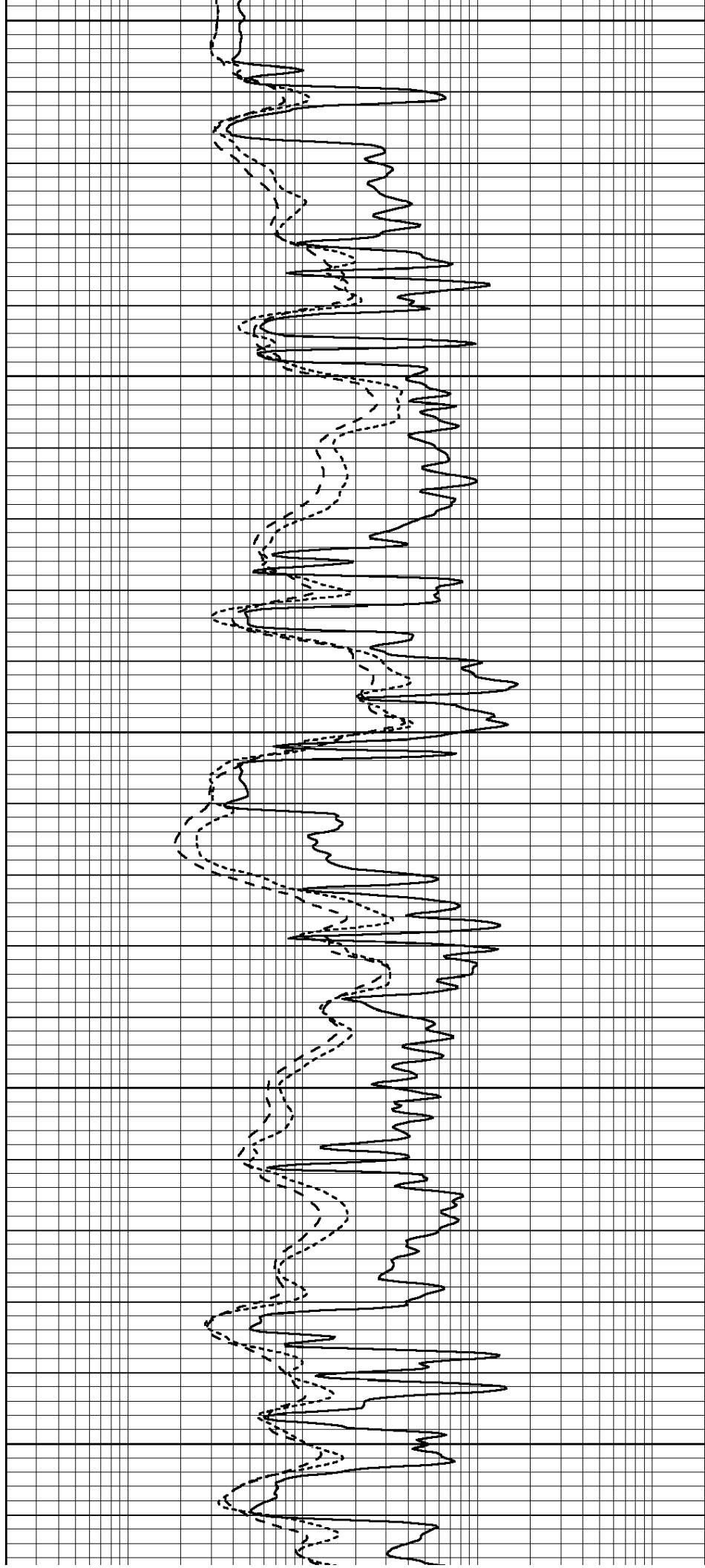
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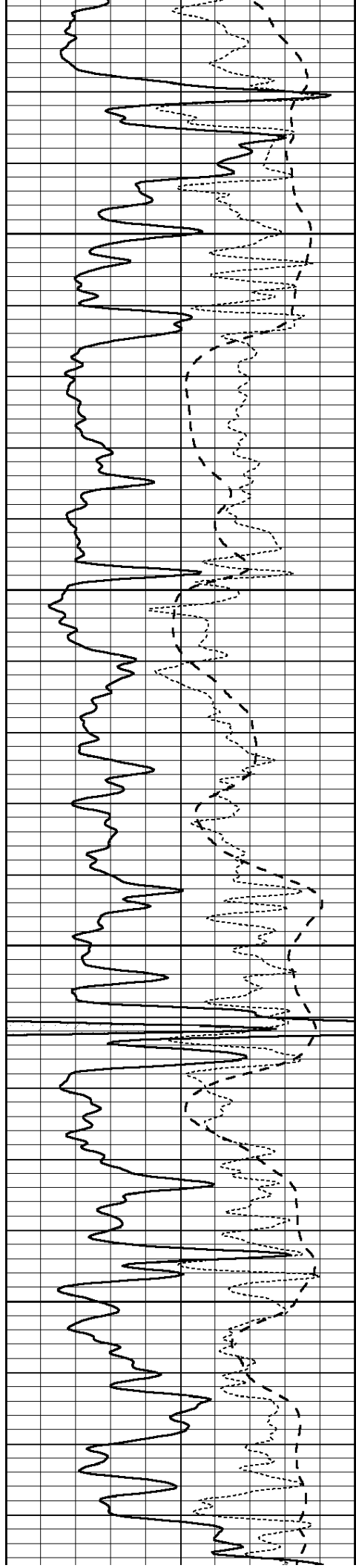
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4300

4350

4400



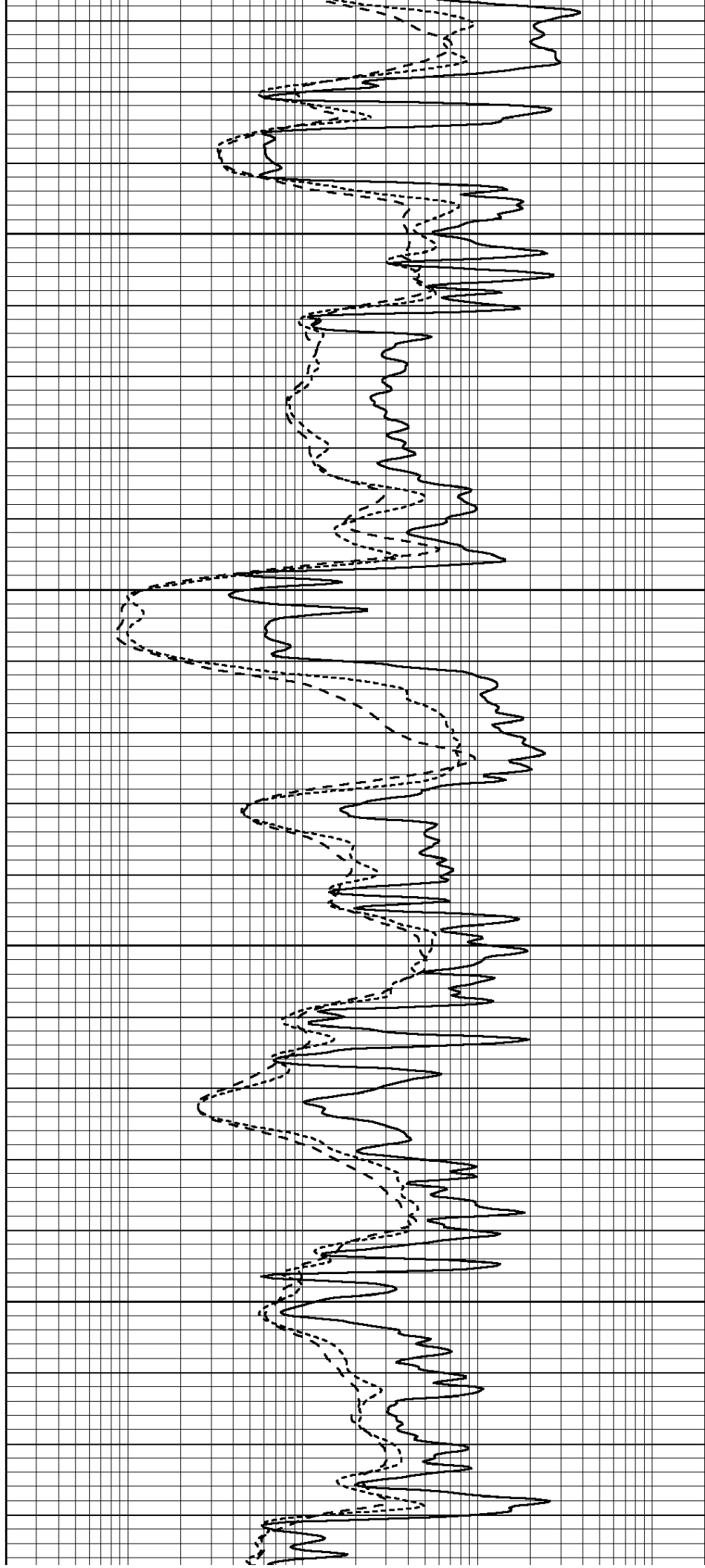


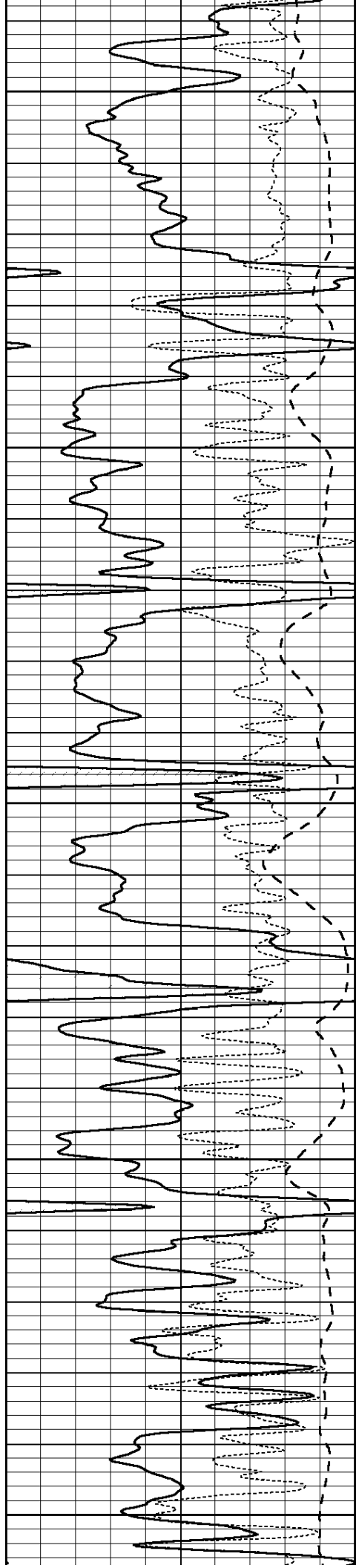
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4500

4550

4600





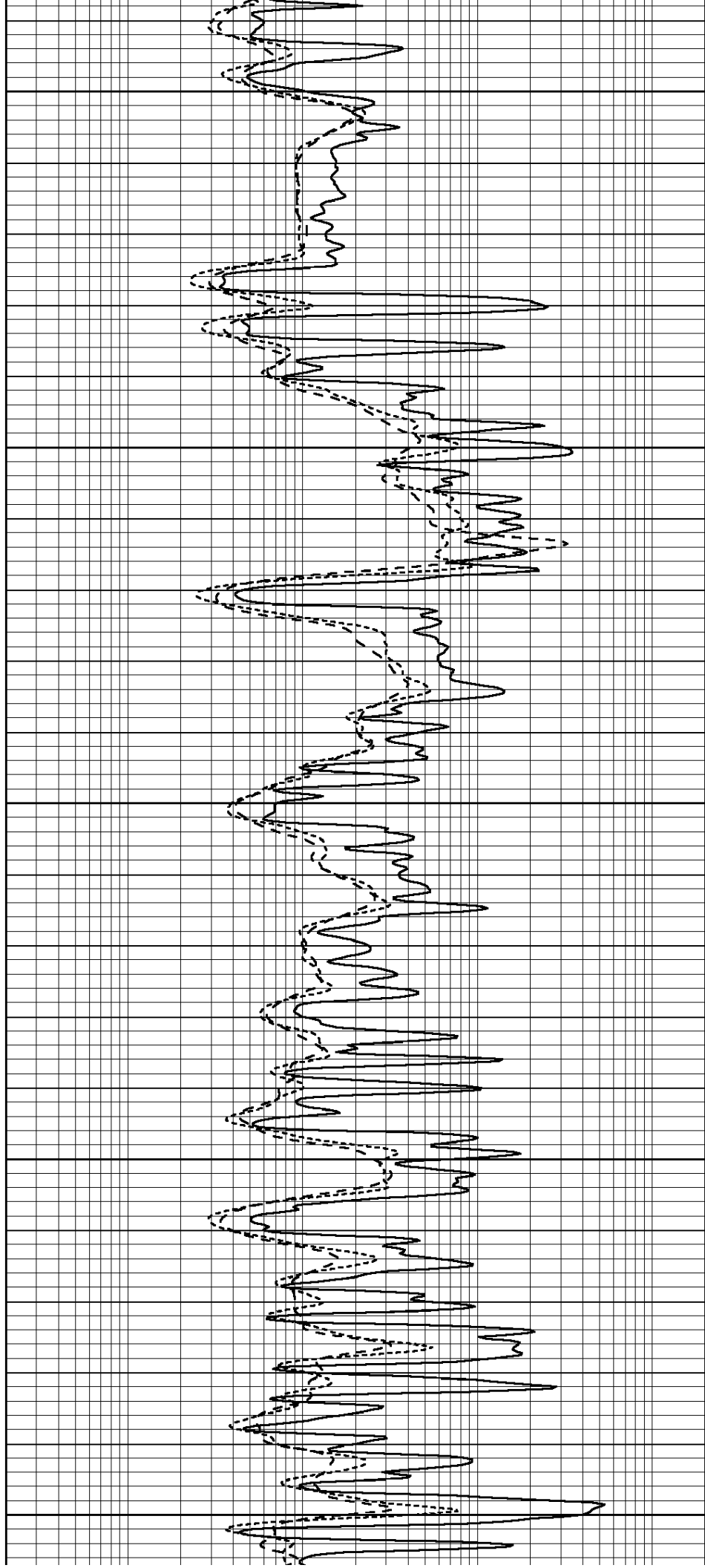
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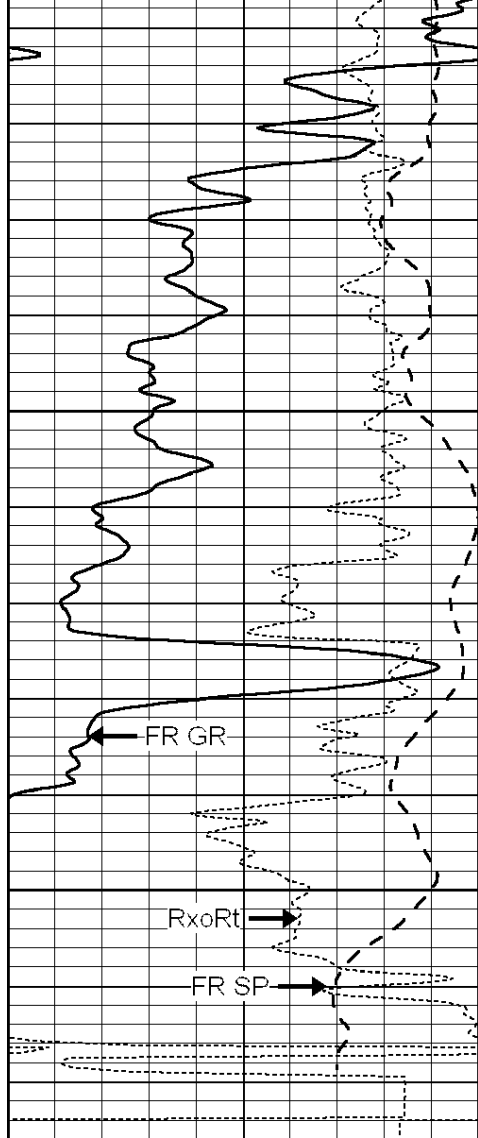
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4800

4850



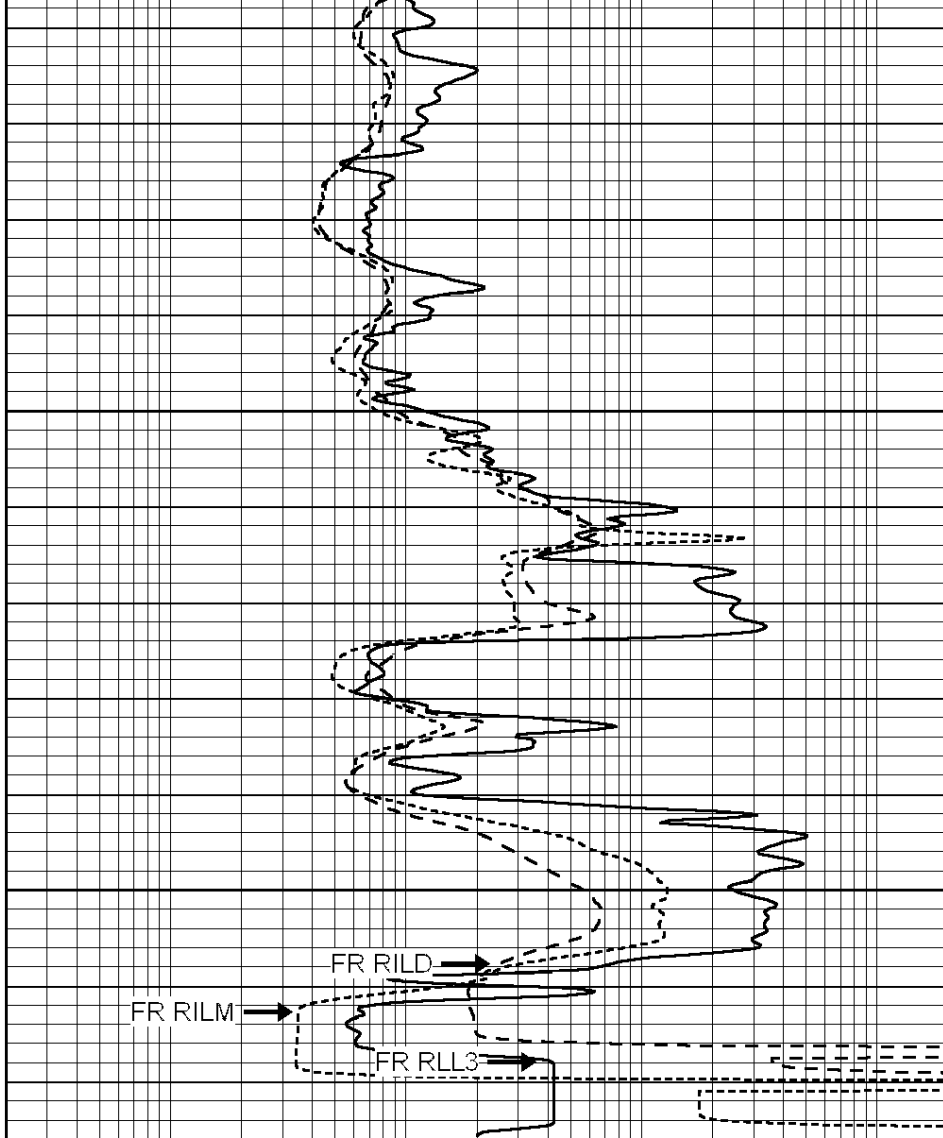


4900

4950

LTD 4970

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



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

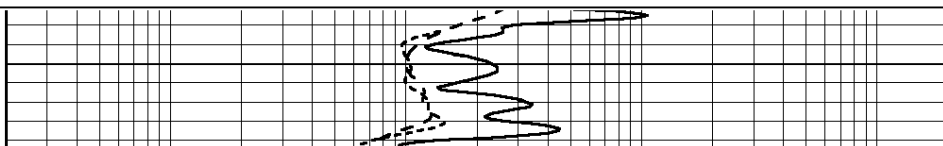
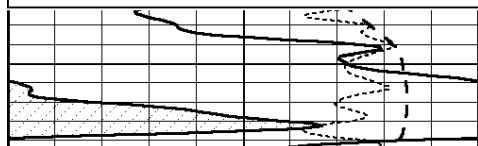


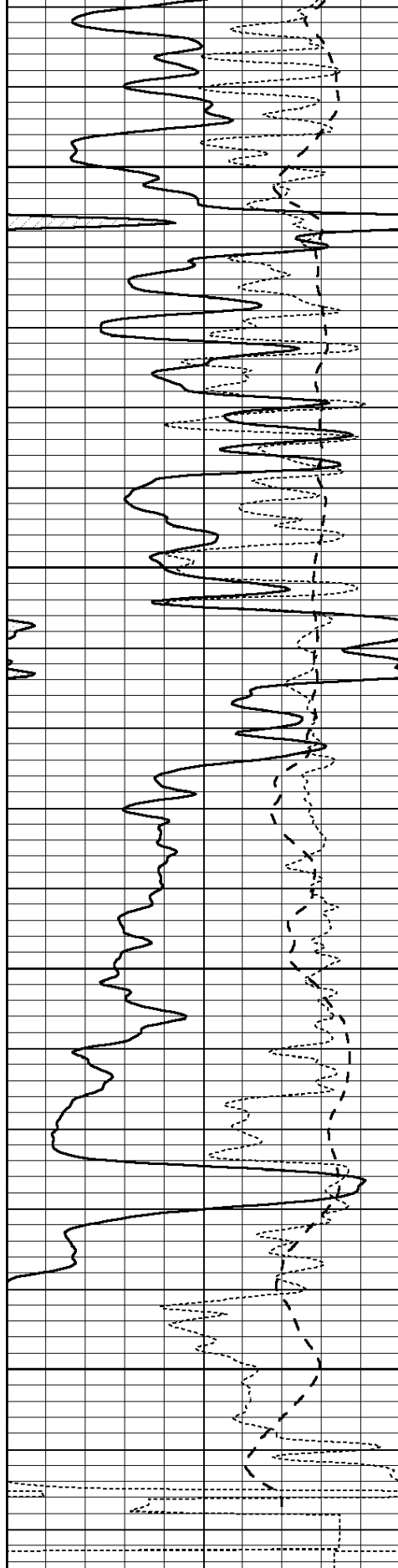
SUPERIOR
Hays,
Kansas

Database File: 007066ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: _dil
 Dataset Creation: Sat May 21 11:49:32 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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

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





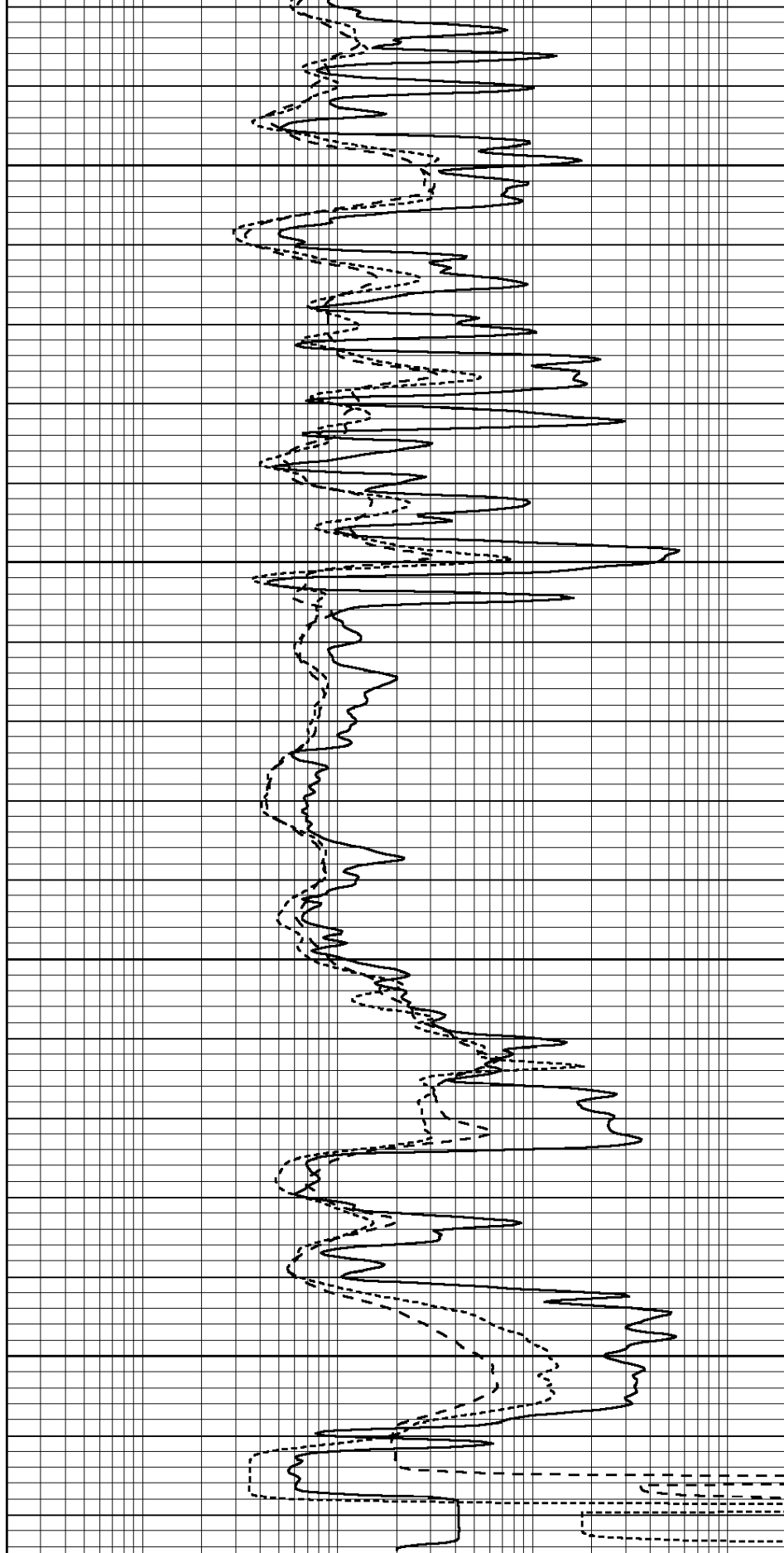
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

4800

4850

4900

4950



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

Calibration Report

Database File: 007066ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Sat May 21 11:49:32 2011 by Calc Open-Cased 090629

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		

Compensated Density Calibration Report

Serial-Model: GEAR4-GEARHART
 Source / Verifier: 143 / 143
 Master Calibration Performed: Wed Jan 26 17:58:17 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	2.50	V		
Large Ring	14.00	in	4.70	V		

Compensated Neutron Calibration Report

		Serial Number:		6I	
		Tool Model:		G	
CALIBRATION					
Detector		Readings		Target	
				Normalization	
Short Space		1.00	cps	1.00	cps
Long Space		1.00	cps	1.00	cps
Gamma Ray Calibration Report					
Serial Number:		#8			
Tool Model:		OPEN			
Performed:		Sun Apr 10 22:50:36 2011			
Calibrator Value:		150.0		GAPI	
Background Reading:		0.0		cps	
Calibrator Reading:		175.0		cps	
Sensitivity:		0.8971		GAPI/cps	