



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

DUAL INDUCTION LOG

Company	LOTUS OPERATING COMPANY, LLC		
Well	EADS #2		
Field	WILDCAT		
County	PRATT	State	KANSAS
Location:	API # : 15-151-22420-00-00 1290' FNL & 1650' FWL		Other Services CNL/CDL/PE MEL/SONIC
Permanent Datum	SEC 26 TWP 29S RGE 15W	Elevation	
Log Measured From	GROUND LEVEL	Elevation	K.B. 1989
Drilling Measured From	KELLY BUSHING 13' A.G.L.		D.F. 1987
	KELLY BUSHING		G.L. 1976
Date	7-13-13		
Run Number	ONE		
Depth Driller	5000		
Depth Logger	5002		
Bottom Logged Interval	5000		
Top Log Interval	00		
Casing Driller	270		
Casing Logger	269		
Bit Size	10.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.4 / 54		
pH / Fluid Loss	10.0 / 10.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.5 @ 93F		
Rmf @ Meas. Temp	0.38 @ 93F		
Rmc @ Meas. Temp	0.60 @ 93F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.37 @ 125F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	125F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	HARLEY SAYLES		

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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

NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: CULLISON, KS. & HWY 54 - SOUTH 1 MILE - WEST 1 MILE - SOUTH 8 MILES - WEST 1/2 MILE
- SOUTH INTO

0 Gamma Ray (GAPI) 150

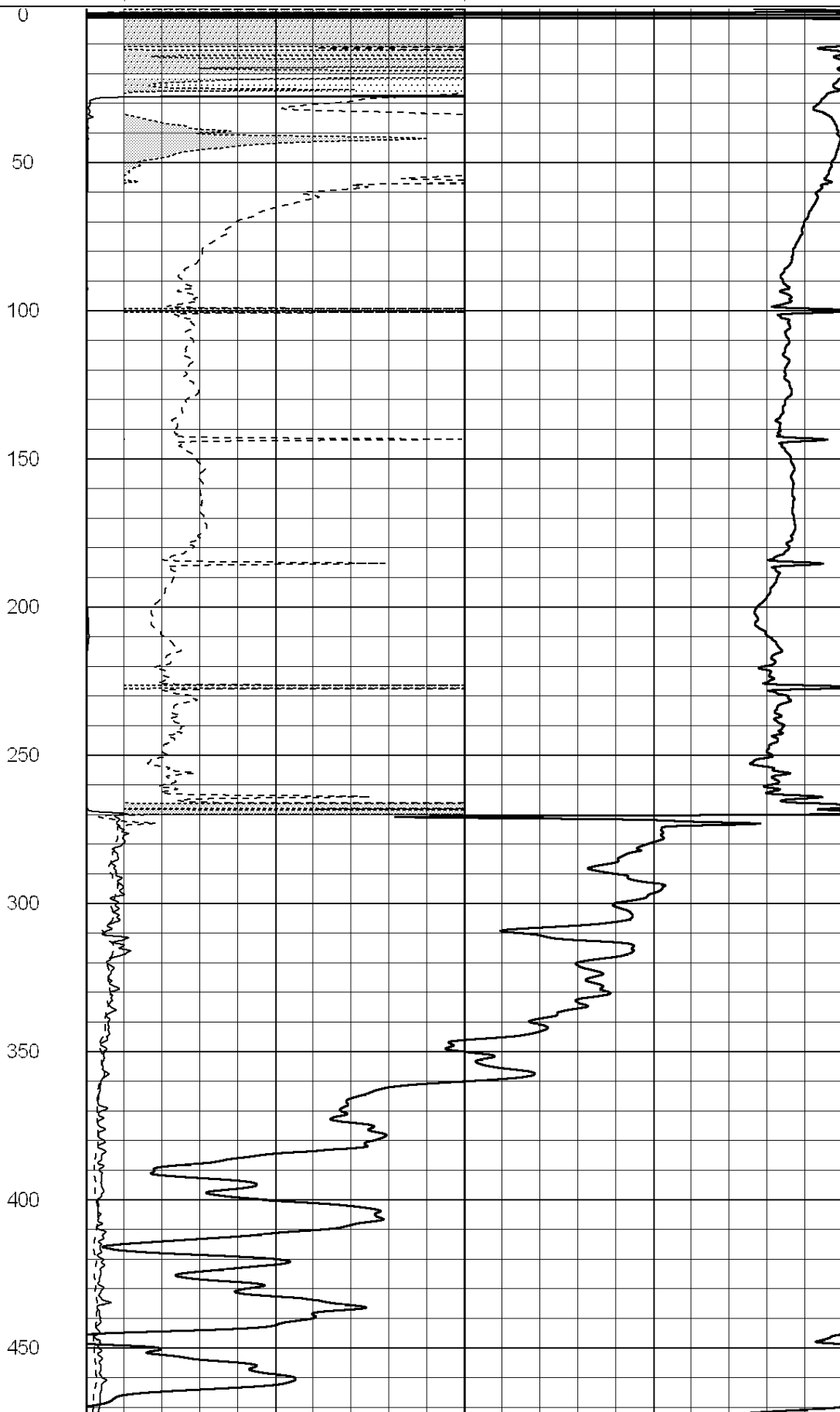
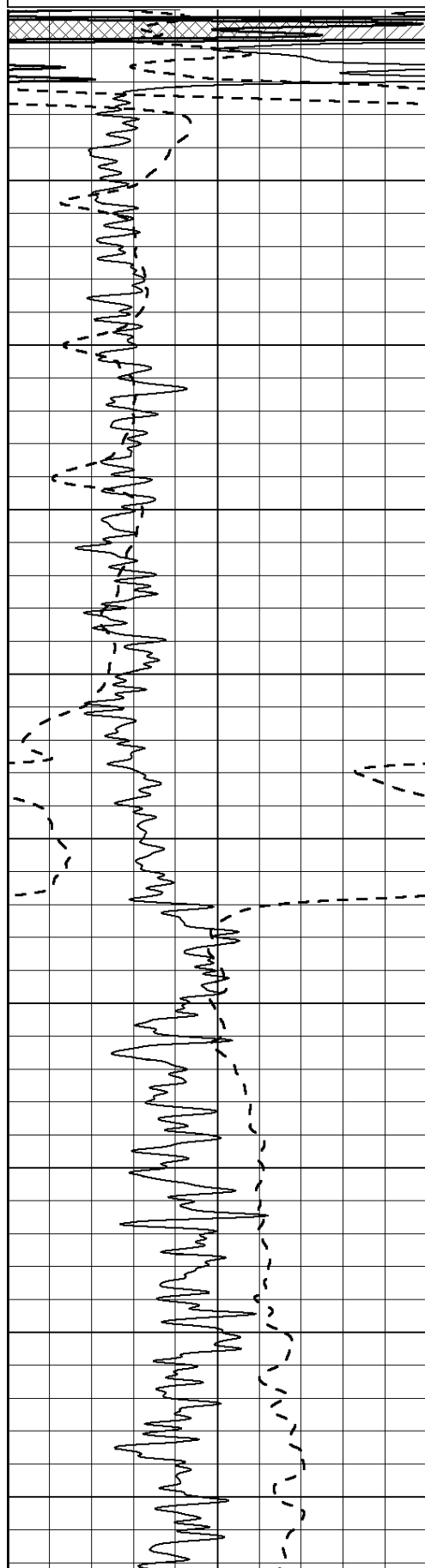
0 RLL3 (Ohm-m) 50

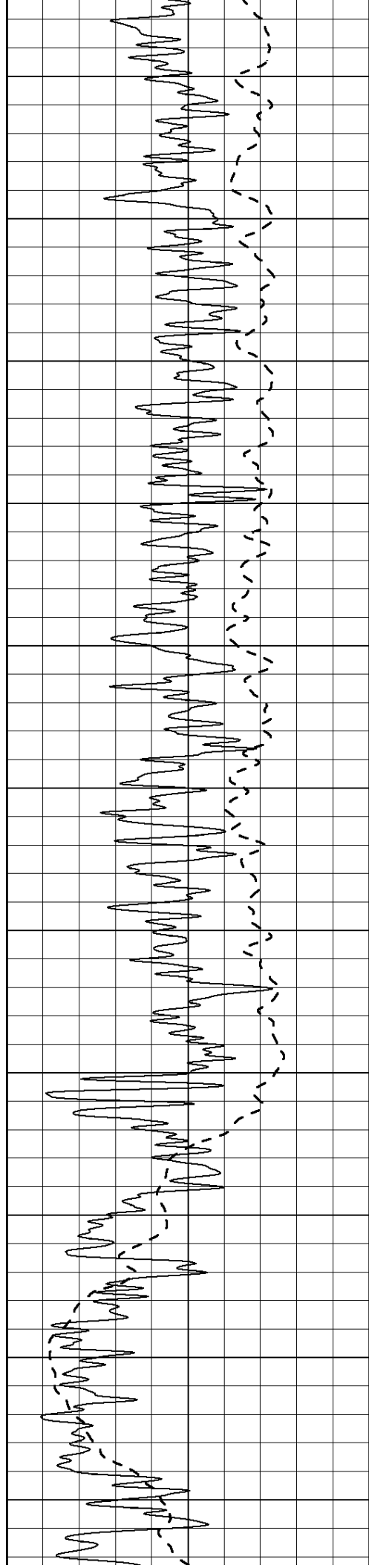
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1000 CILD (mmho/m) 0

50 RILD X10 (Ohm-m) 500

50 RLL3 X10 (Ohm-m) 500





500

550

600

650

700

750

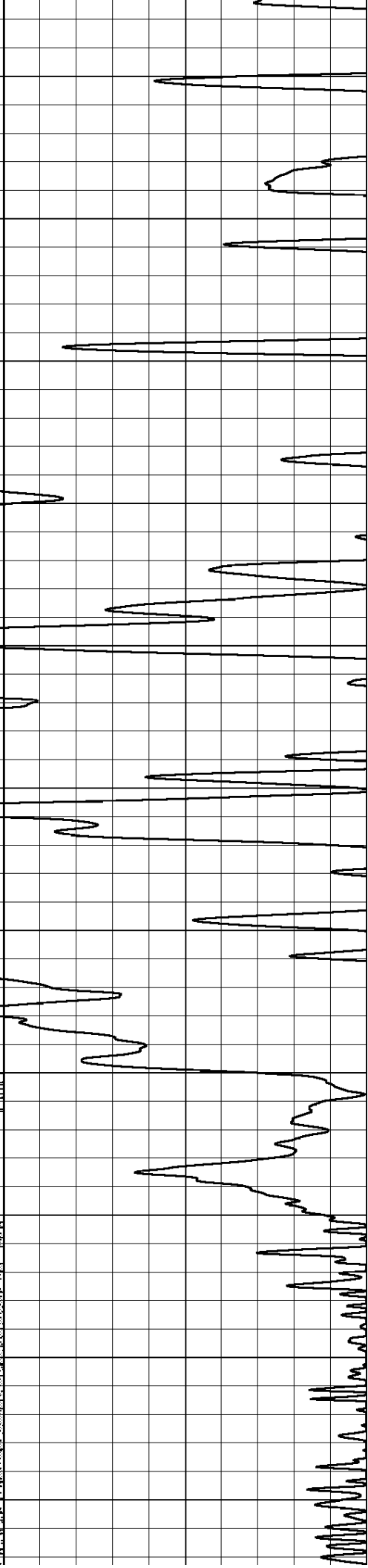
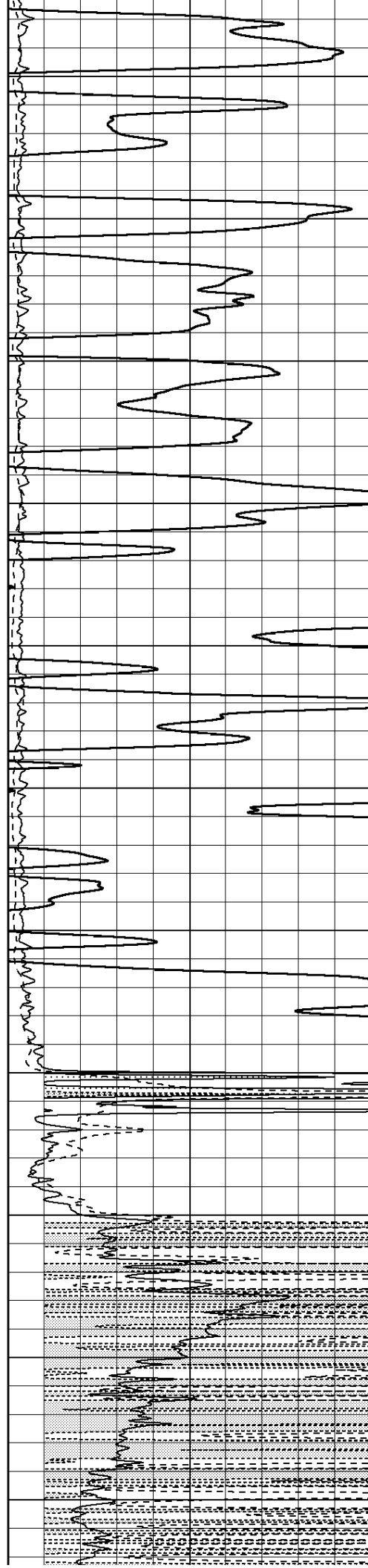
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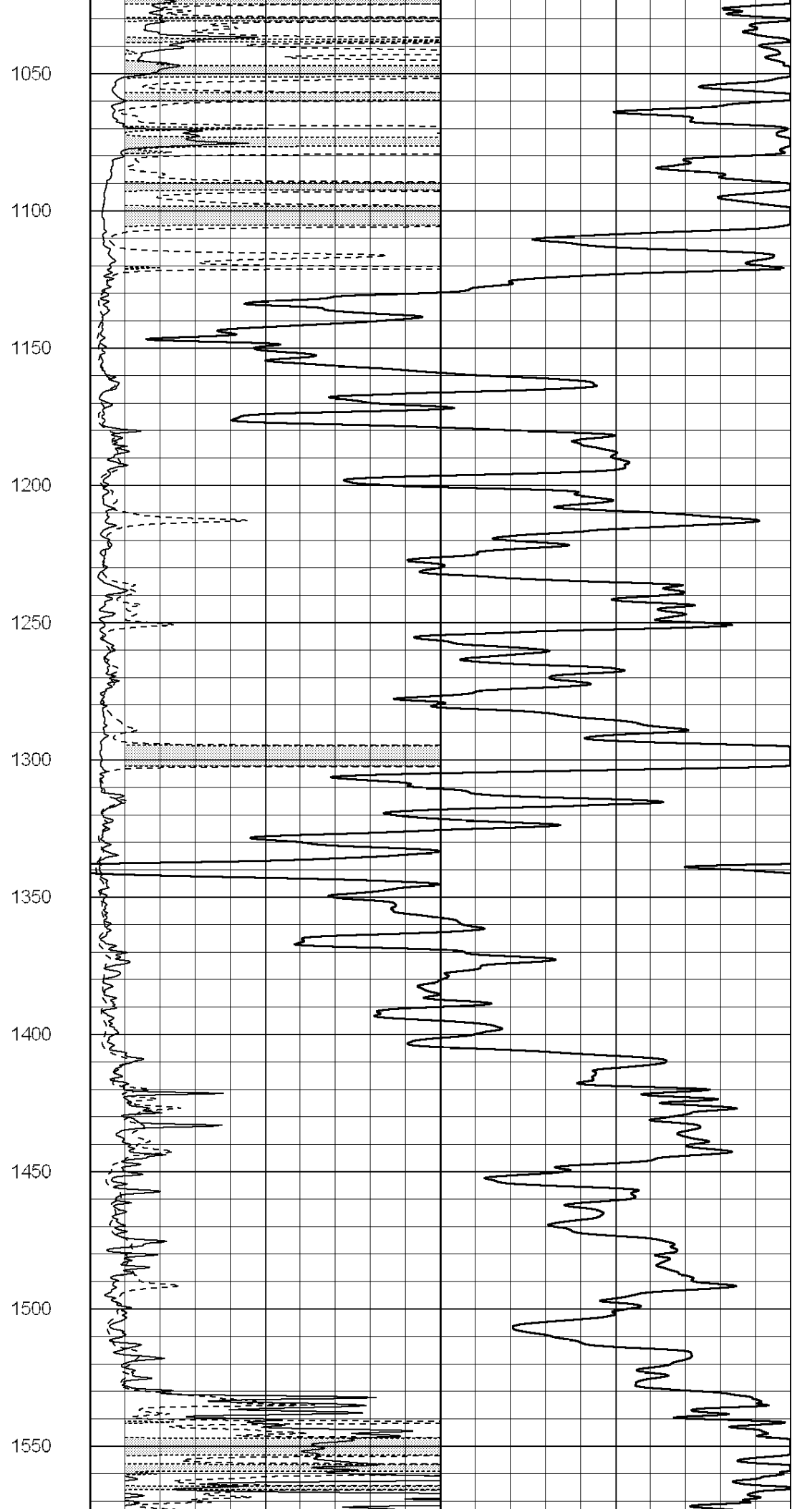
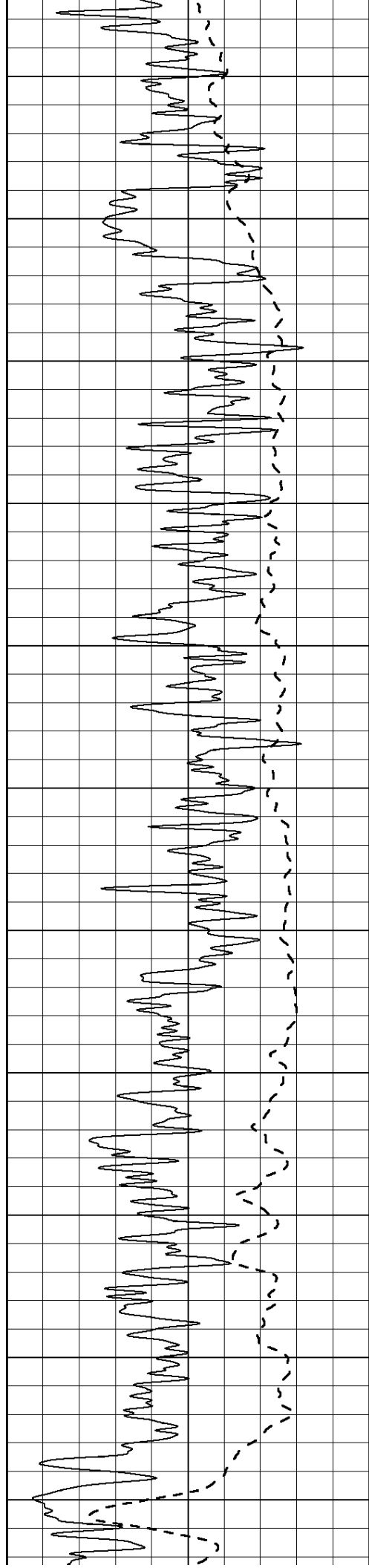
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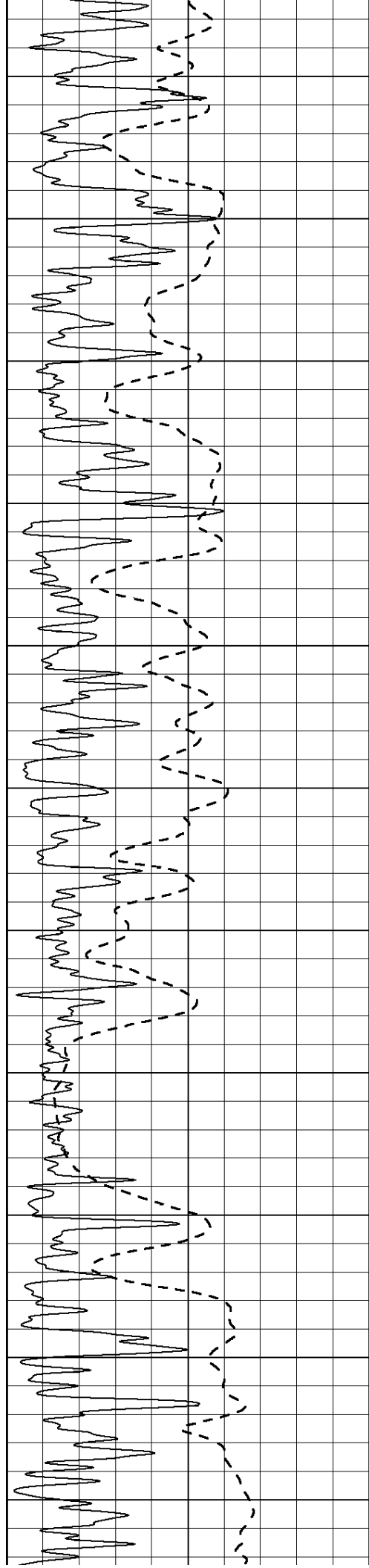
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950

1000







1600

1650

1700

1750

1800

1850

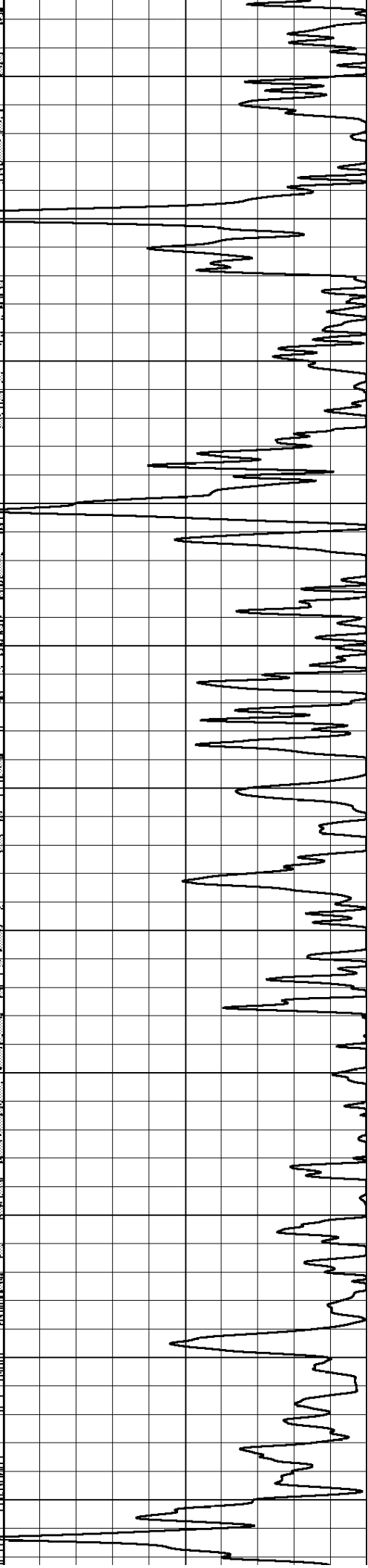
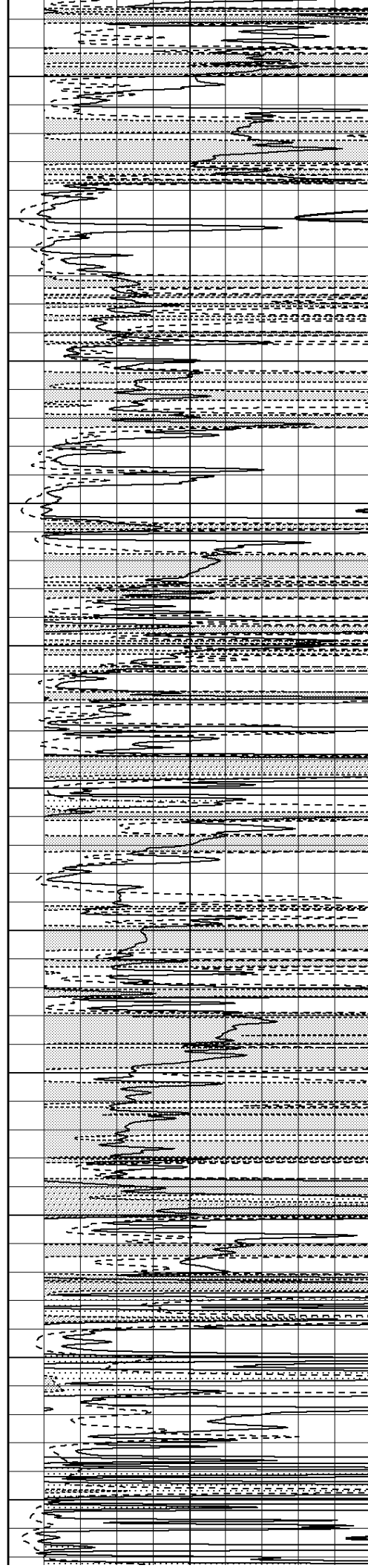
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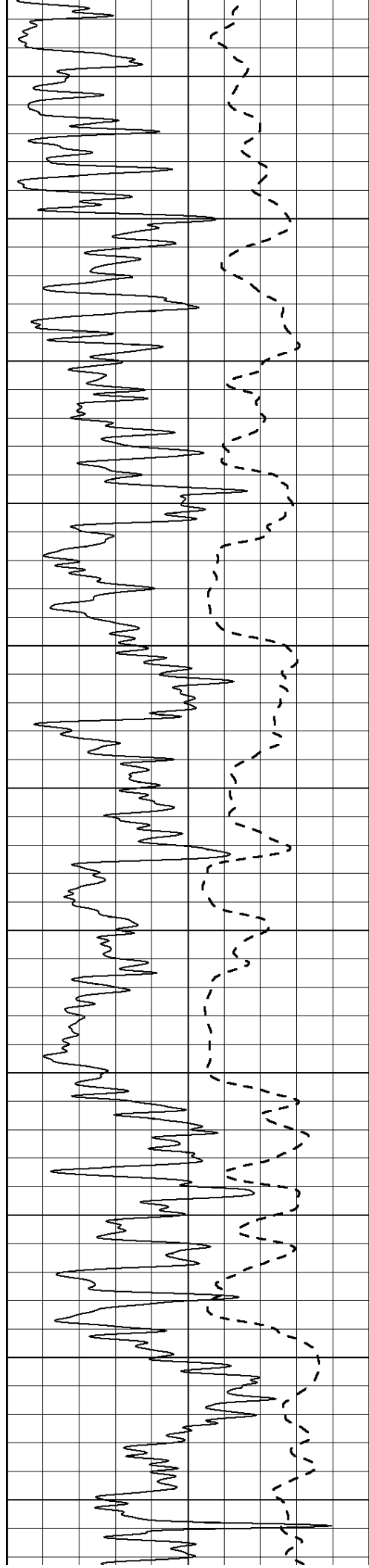
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2000

2050

2100





2150

2200

2250

2300

2350

2400

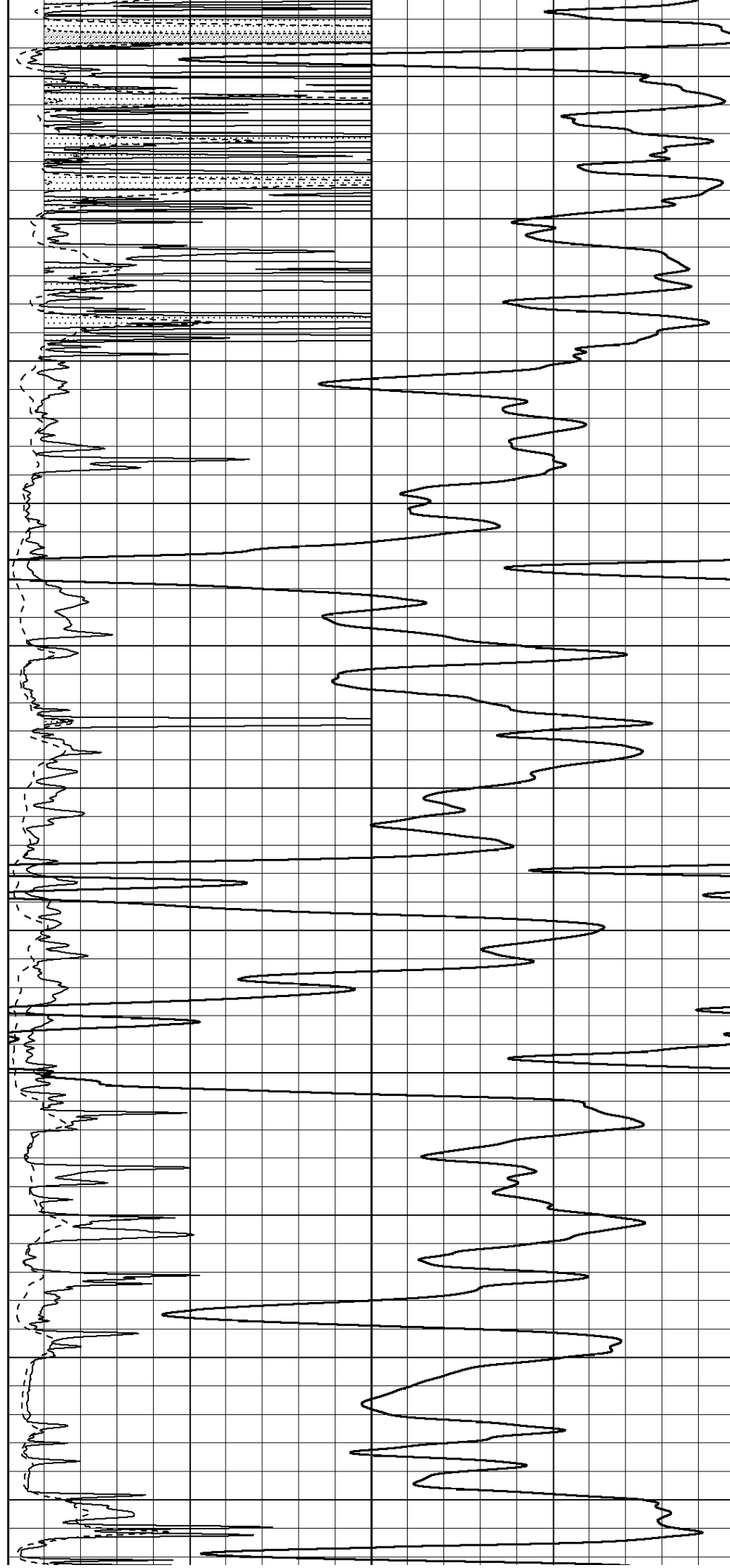
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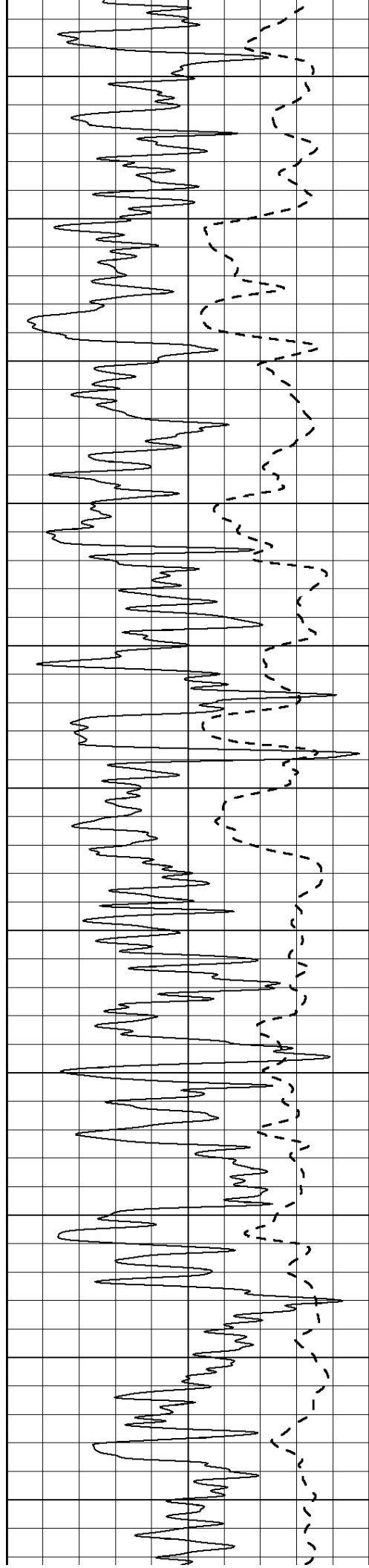
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2550

2600

2650





2700

2750

2800

2850

2900

2950

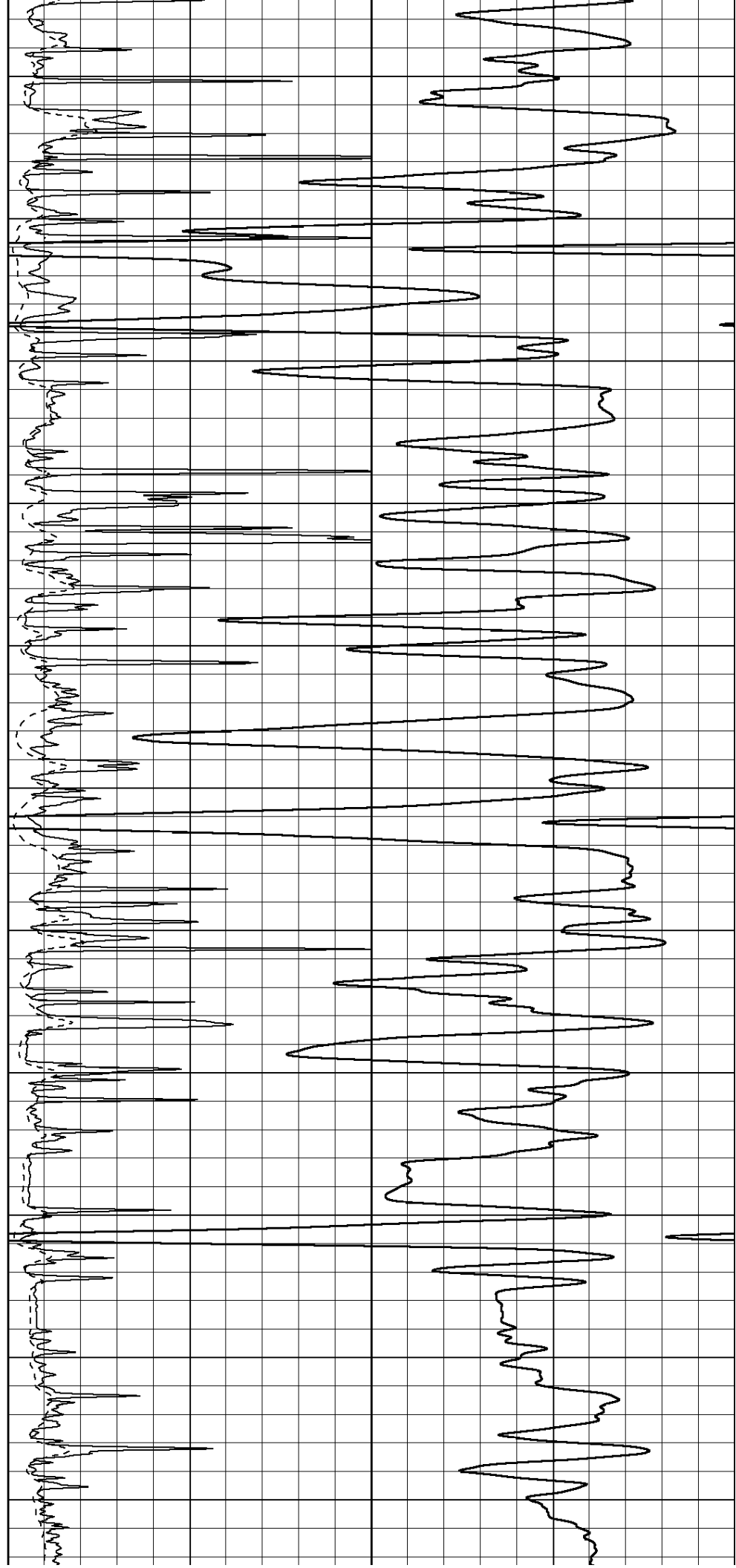
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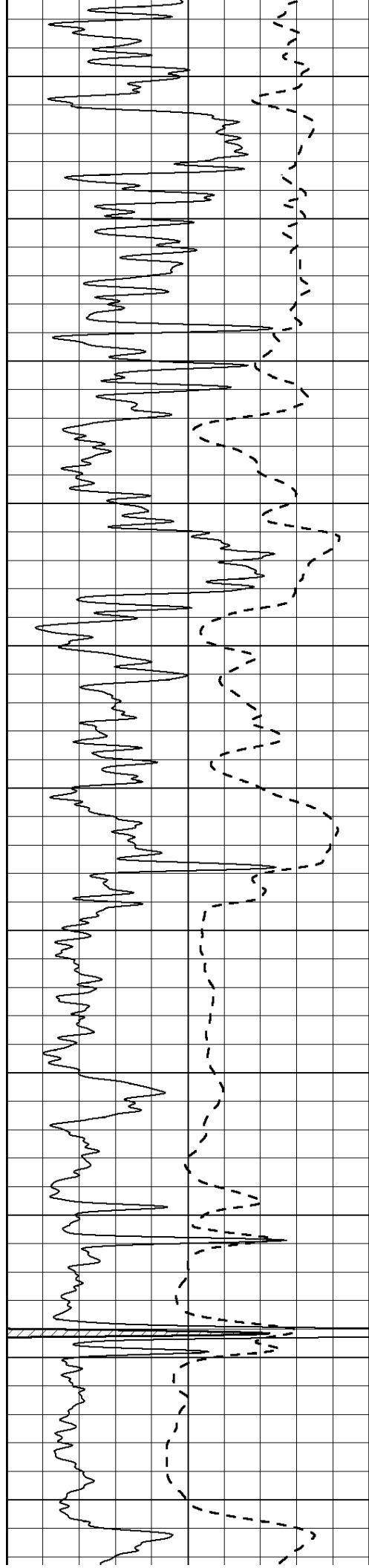
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3150

3200





3250

3300

3350

3400

3450

3500

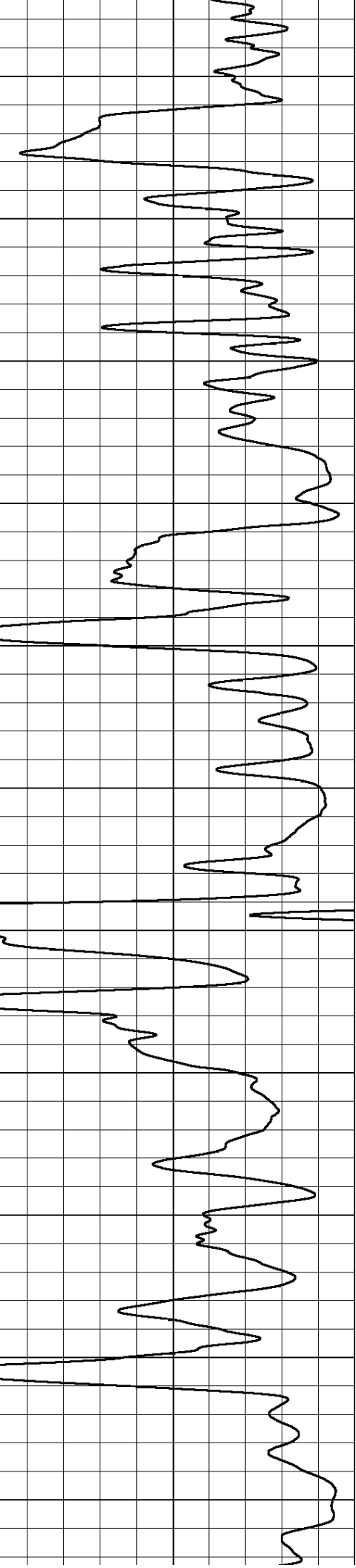
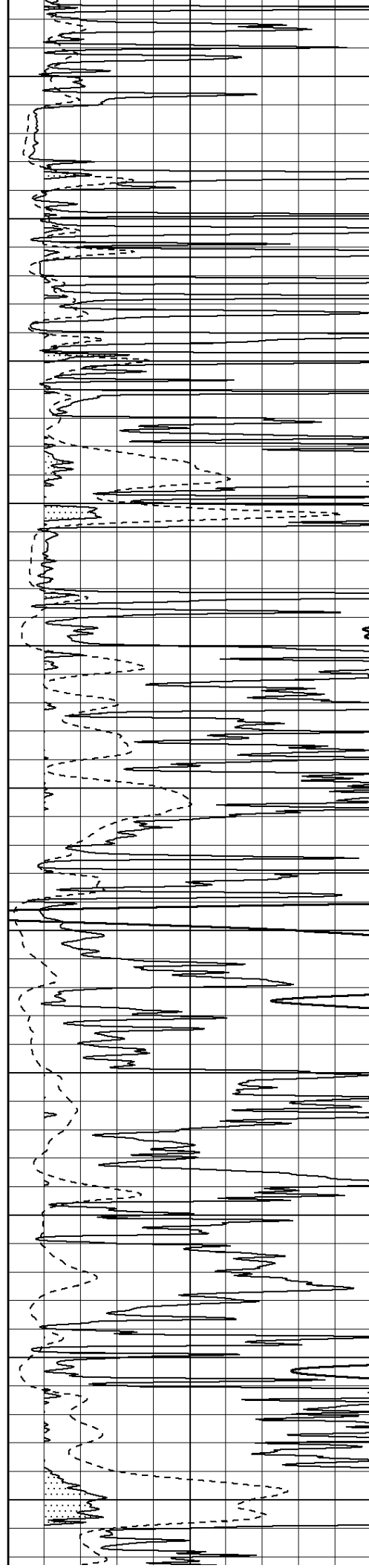
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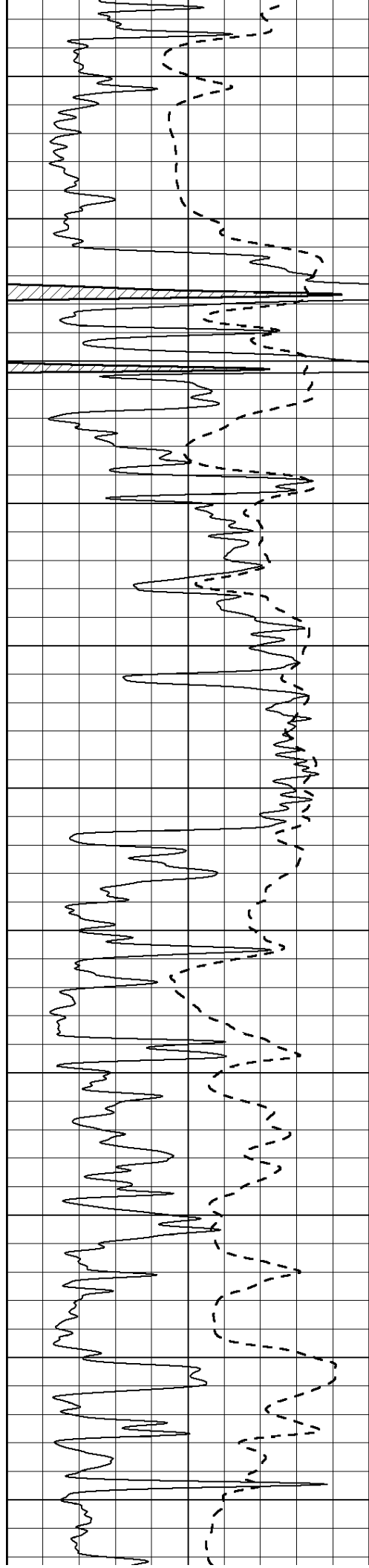
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3700

3750





3800

3850

3900

3950

4000

4050

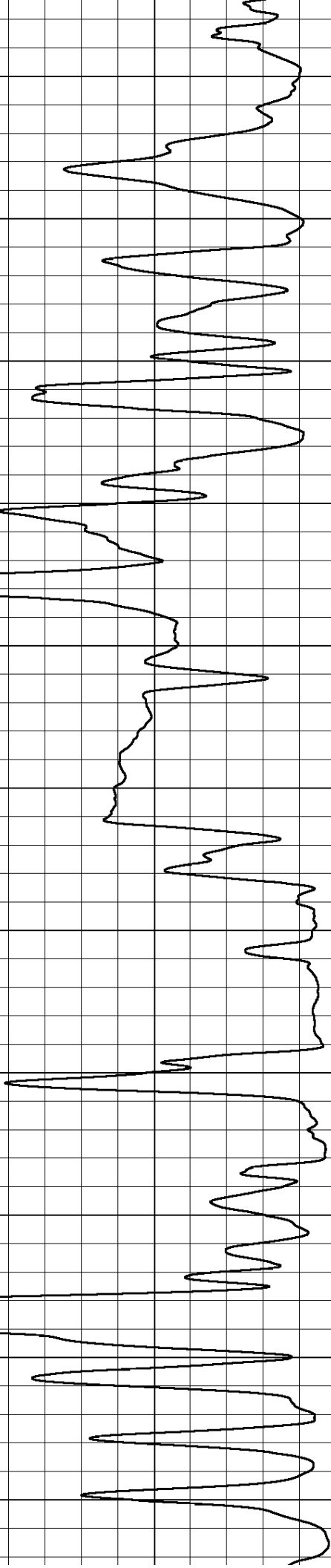
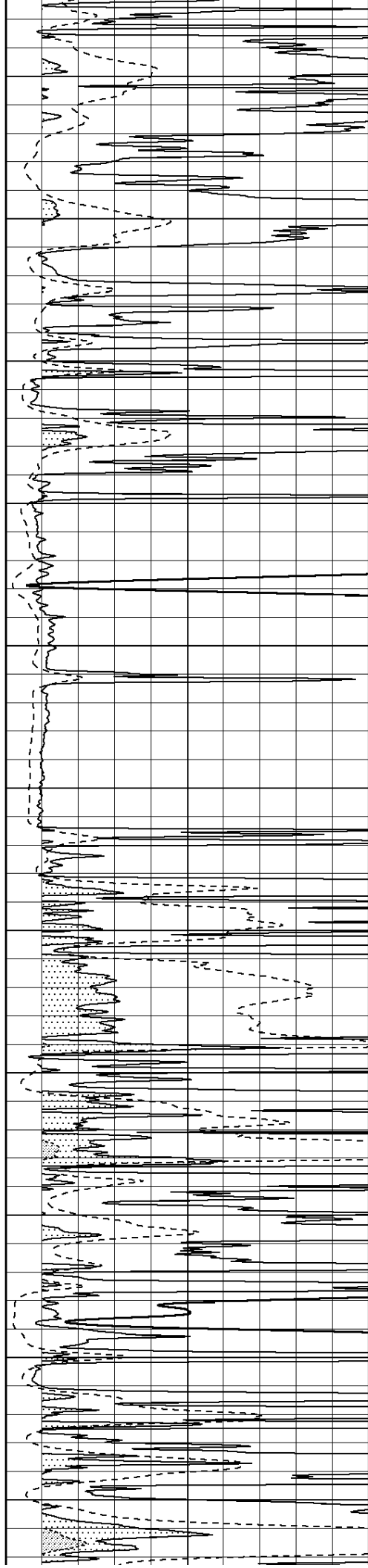
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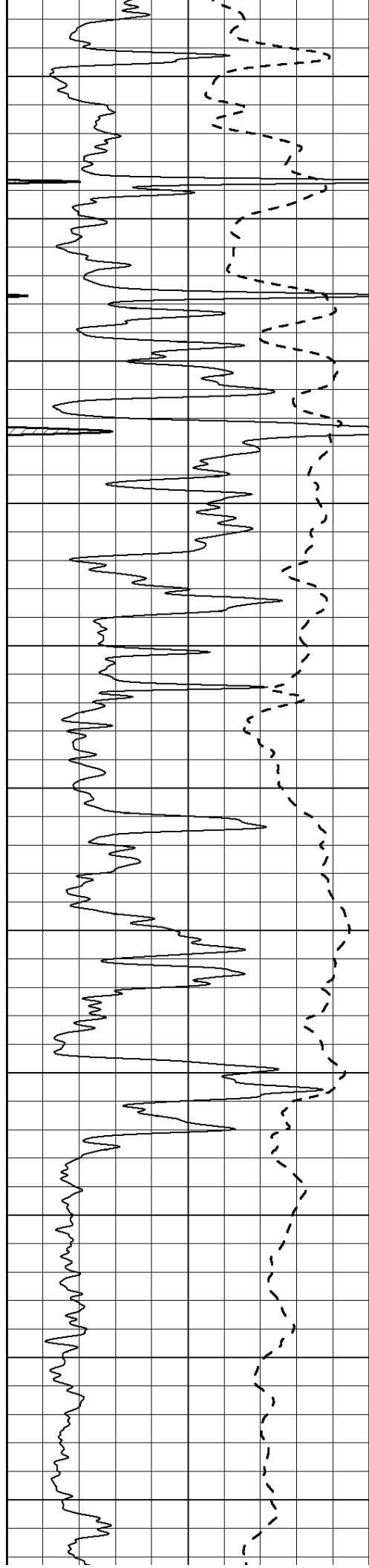
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4200

4250

4300





4350

4400

4450

4500

4550

4600

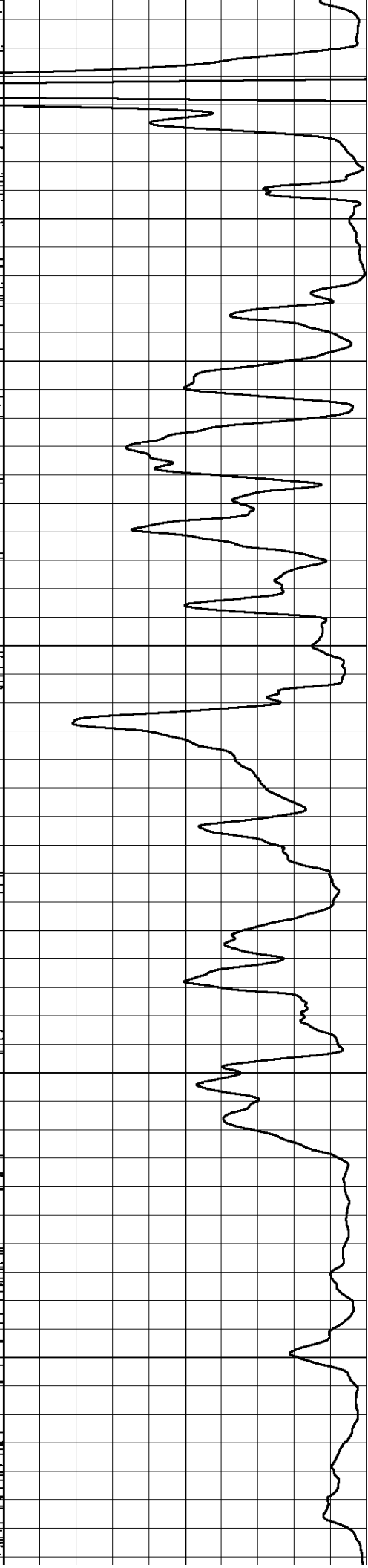
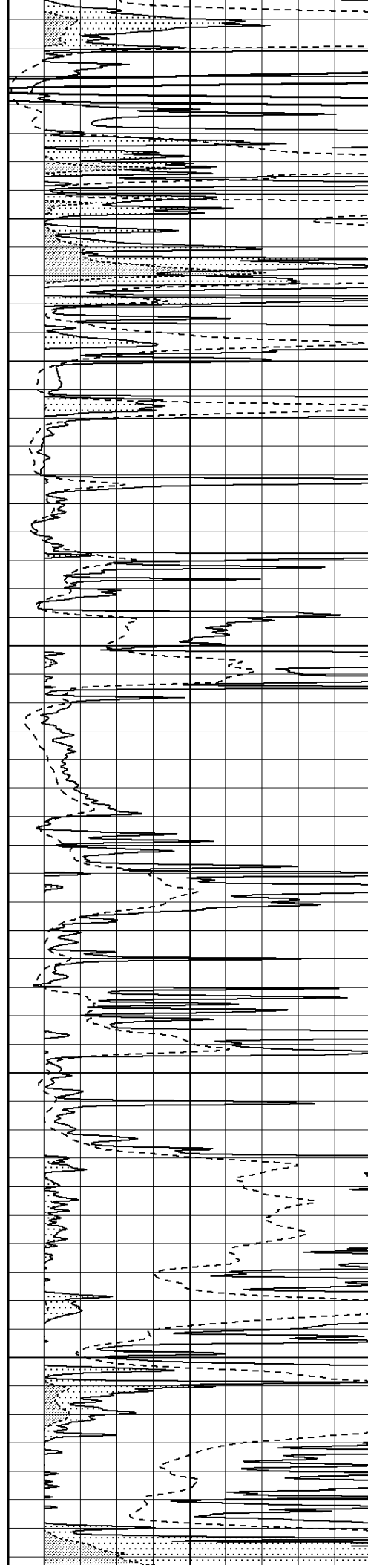
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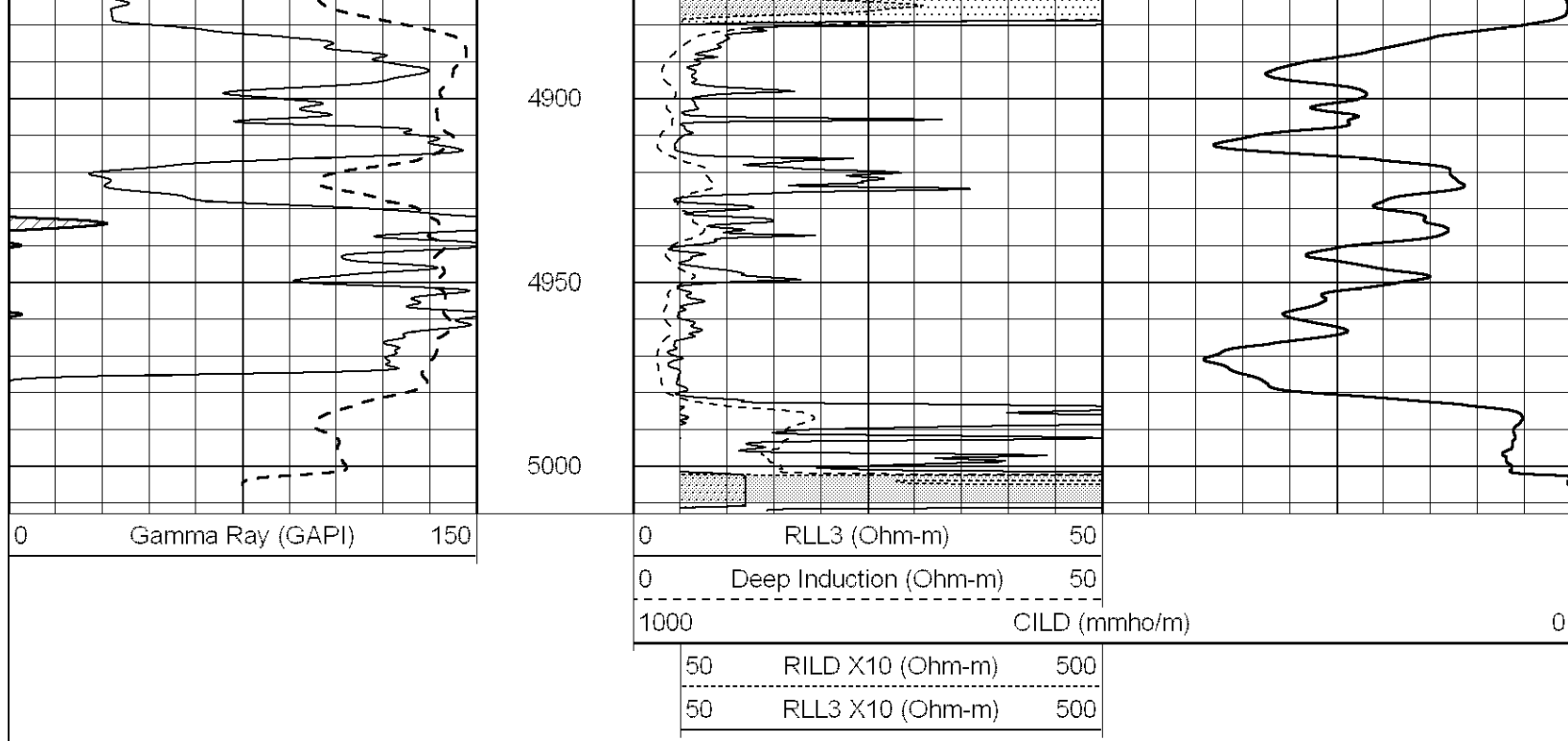
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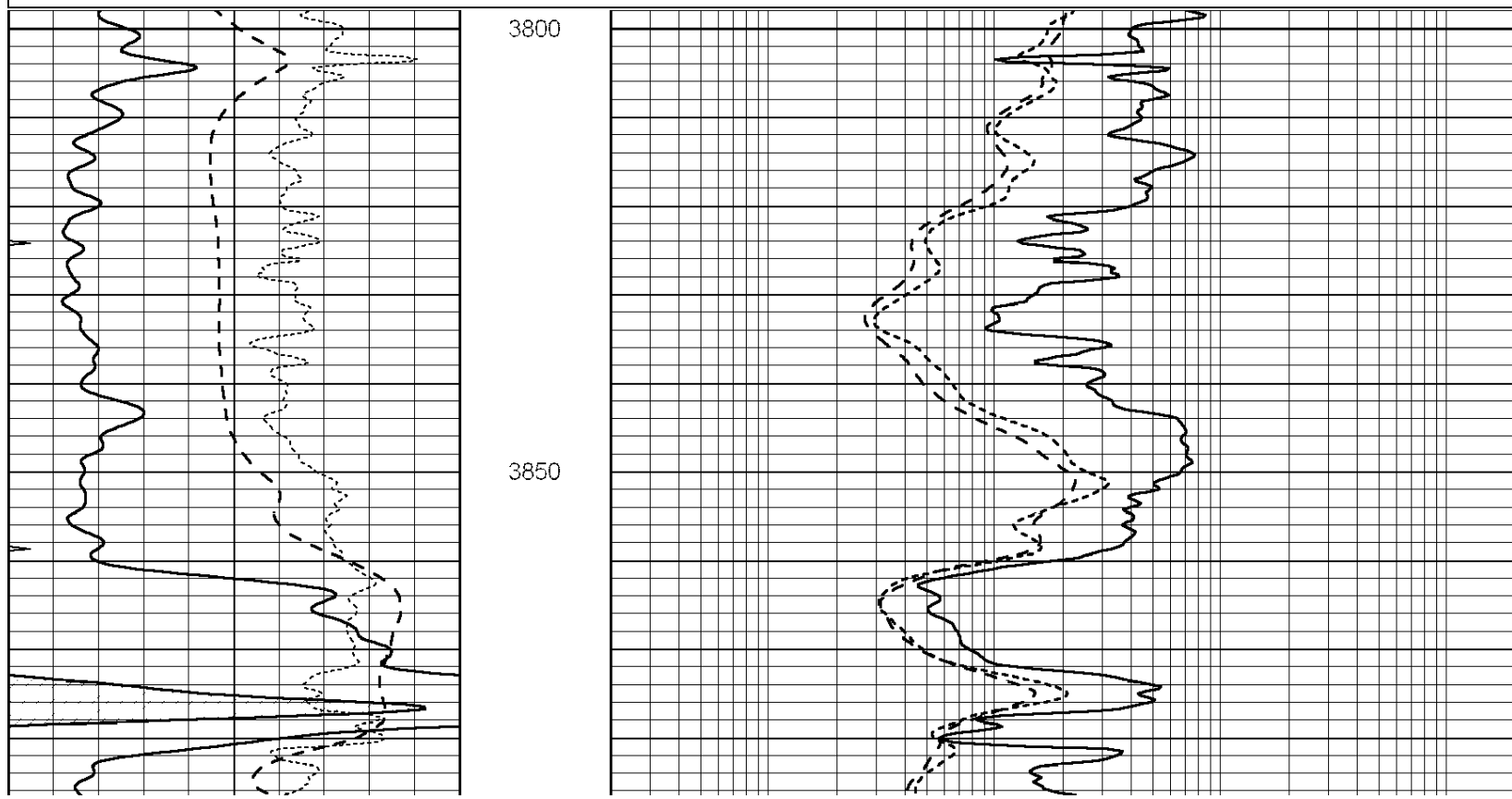
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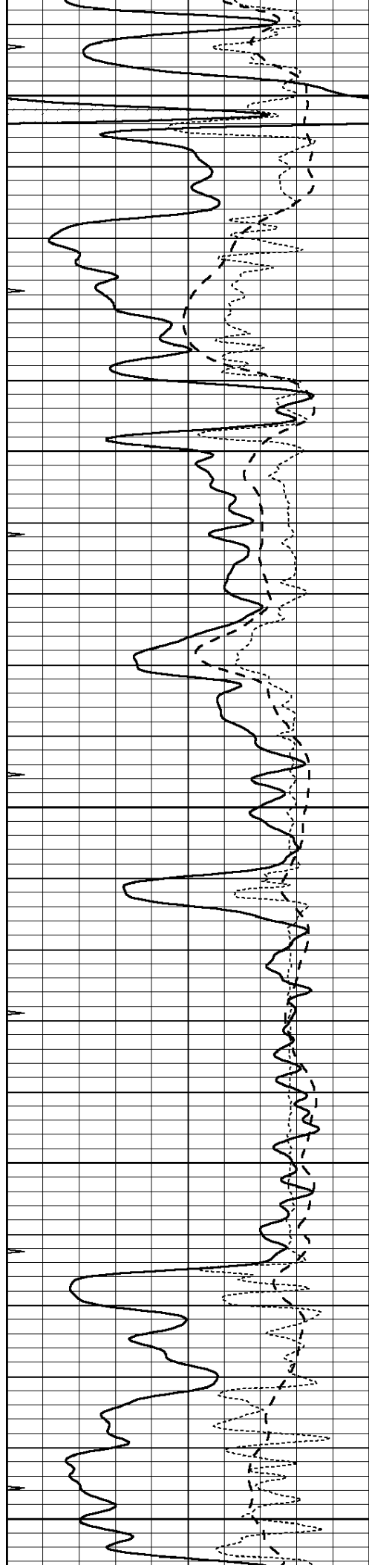




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 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	RLL3 (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	RxoRt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			





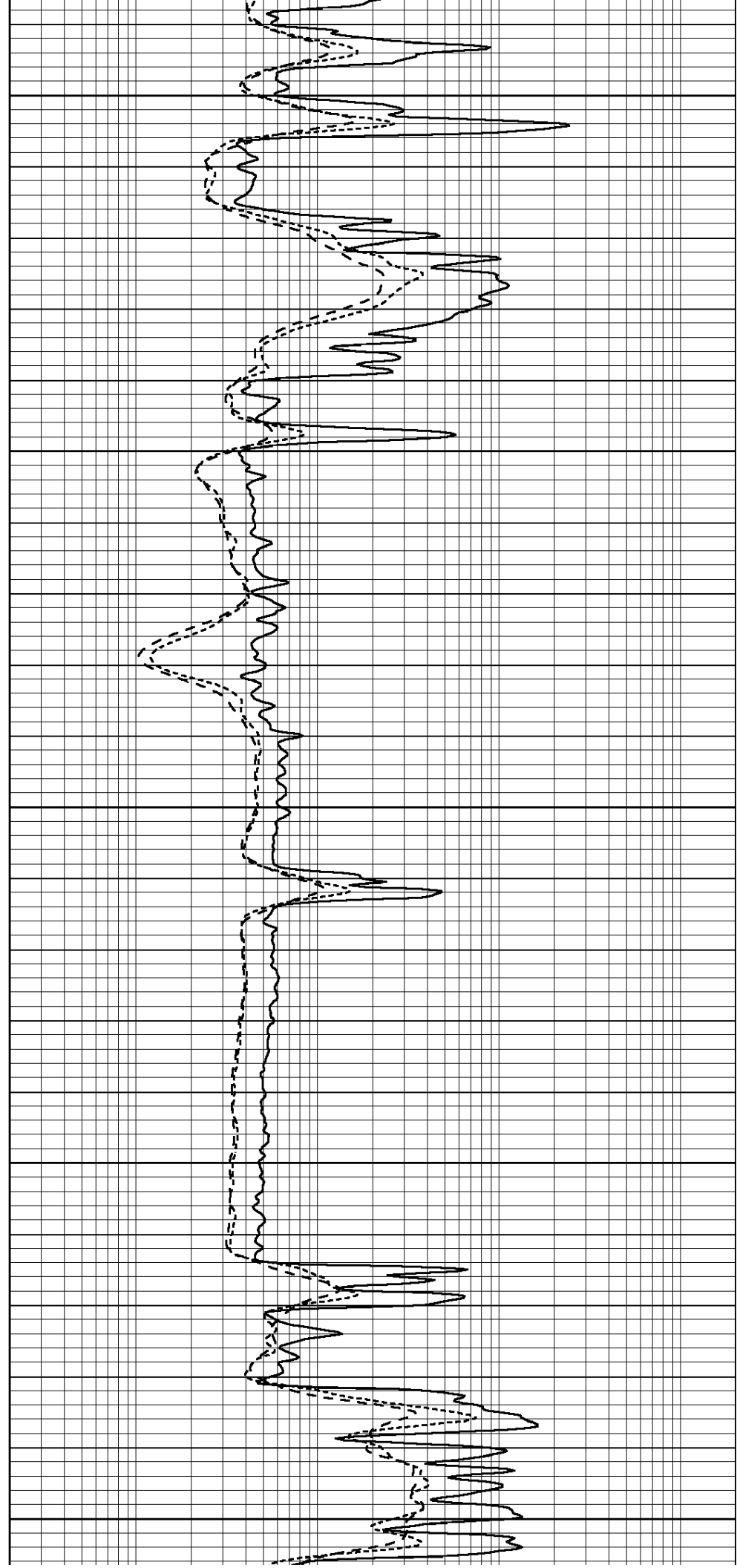
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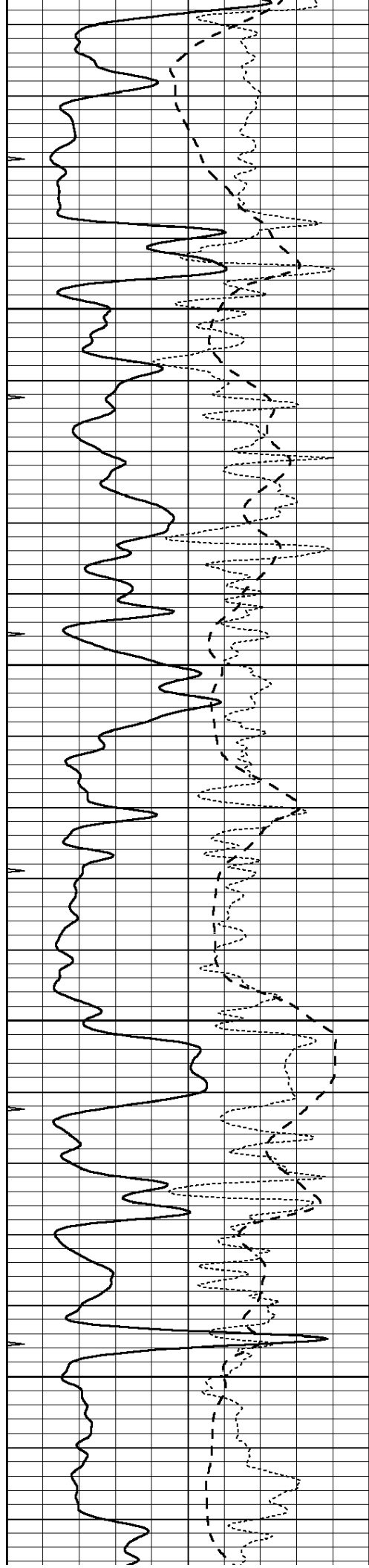
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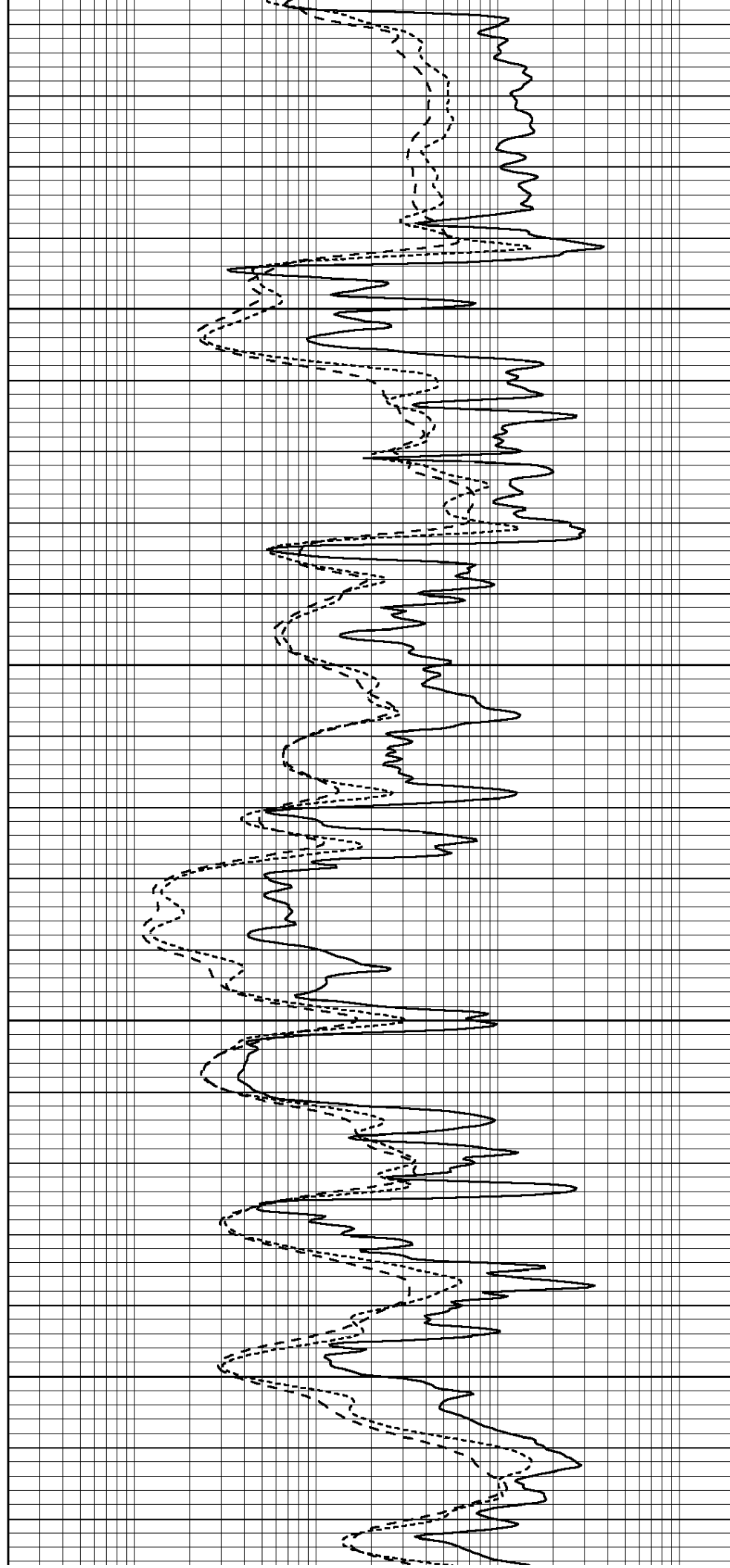


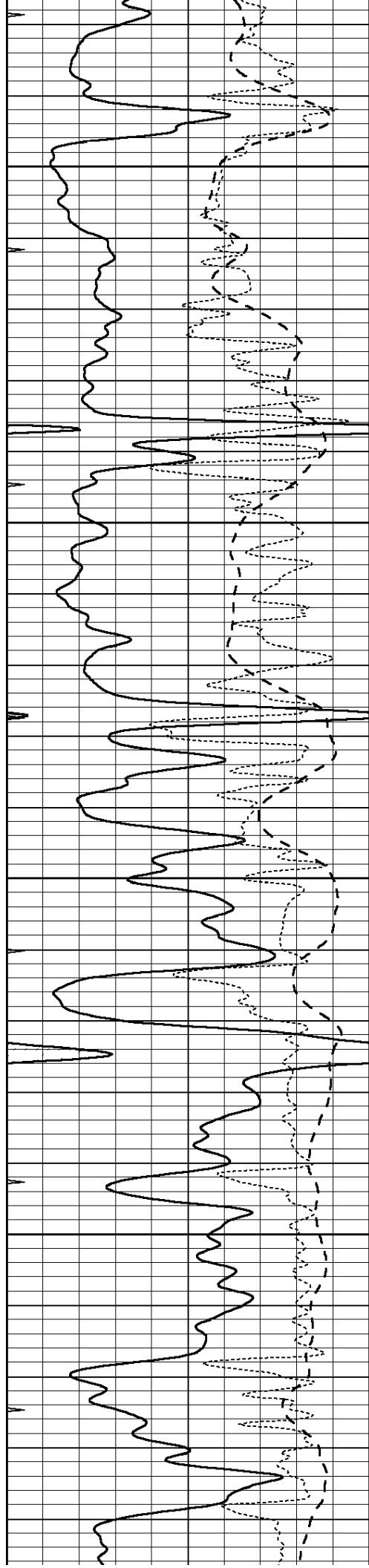
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4200

4250

4300



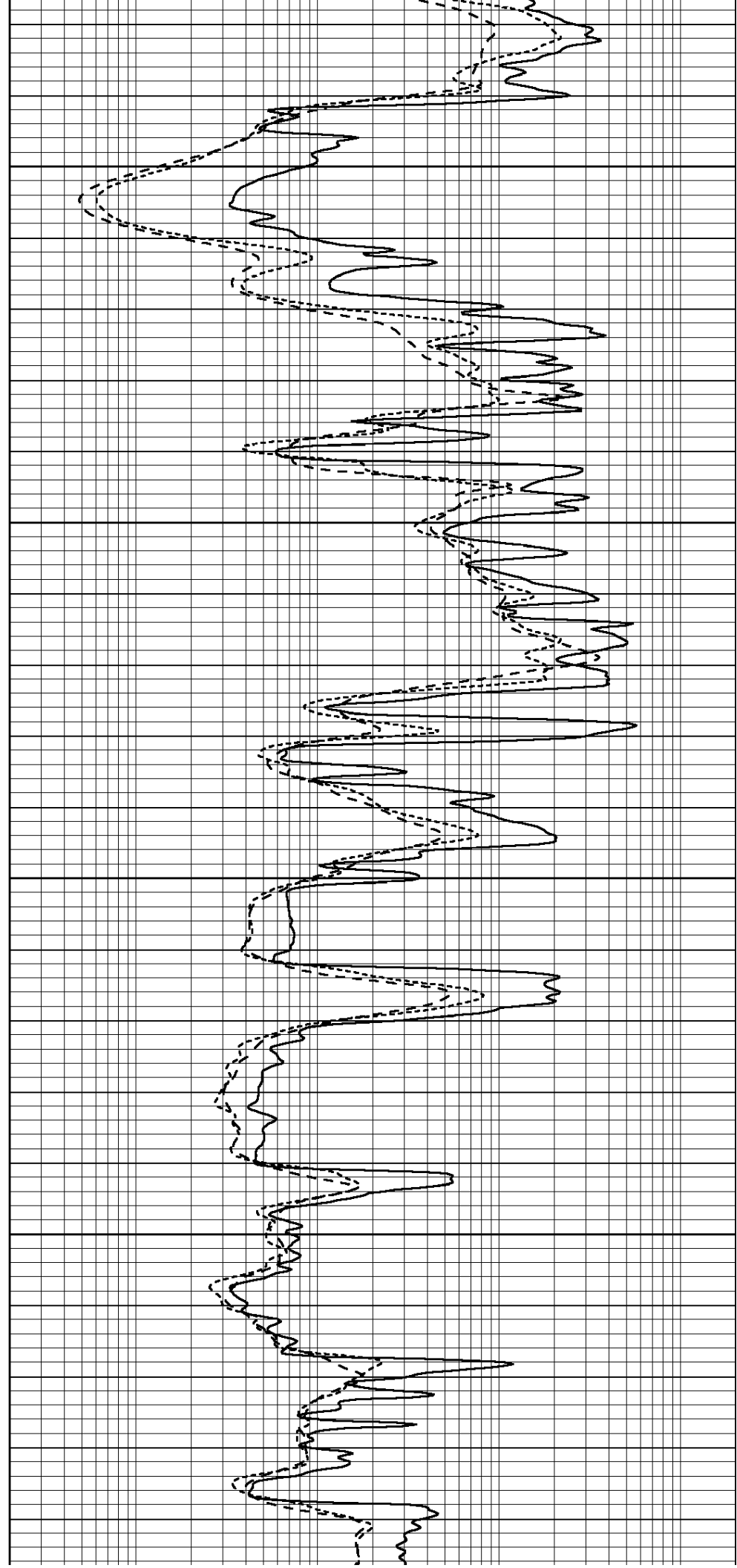


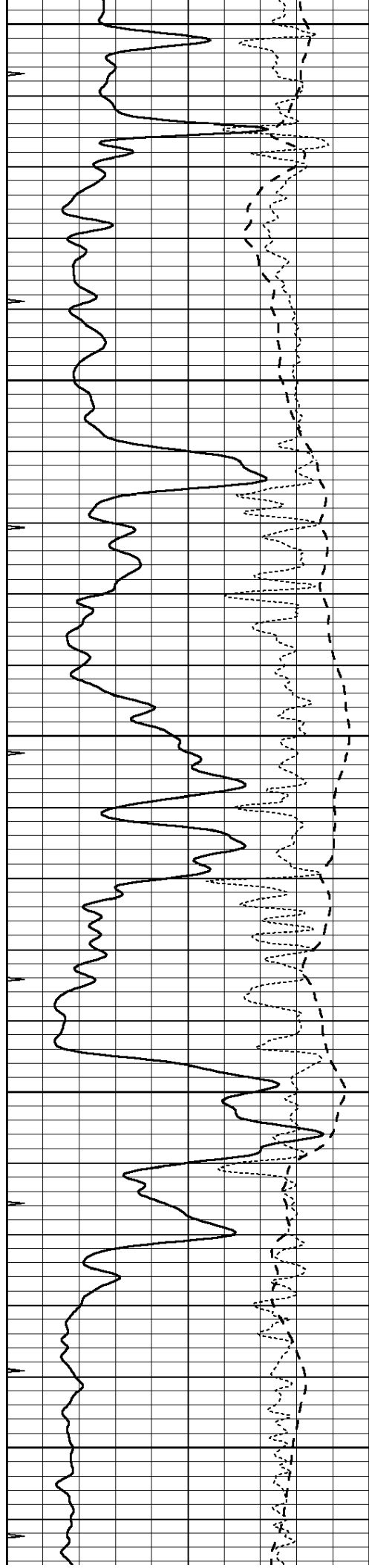
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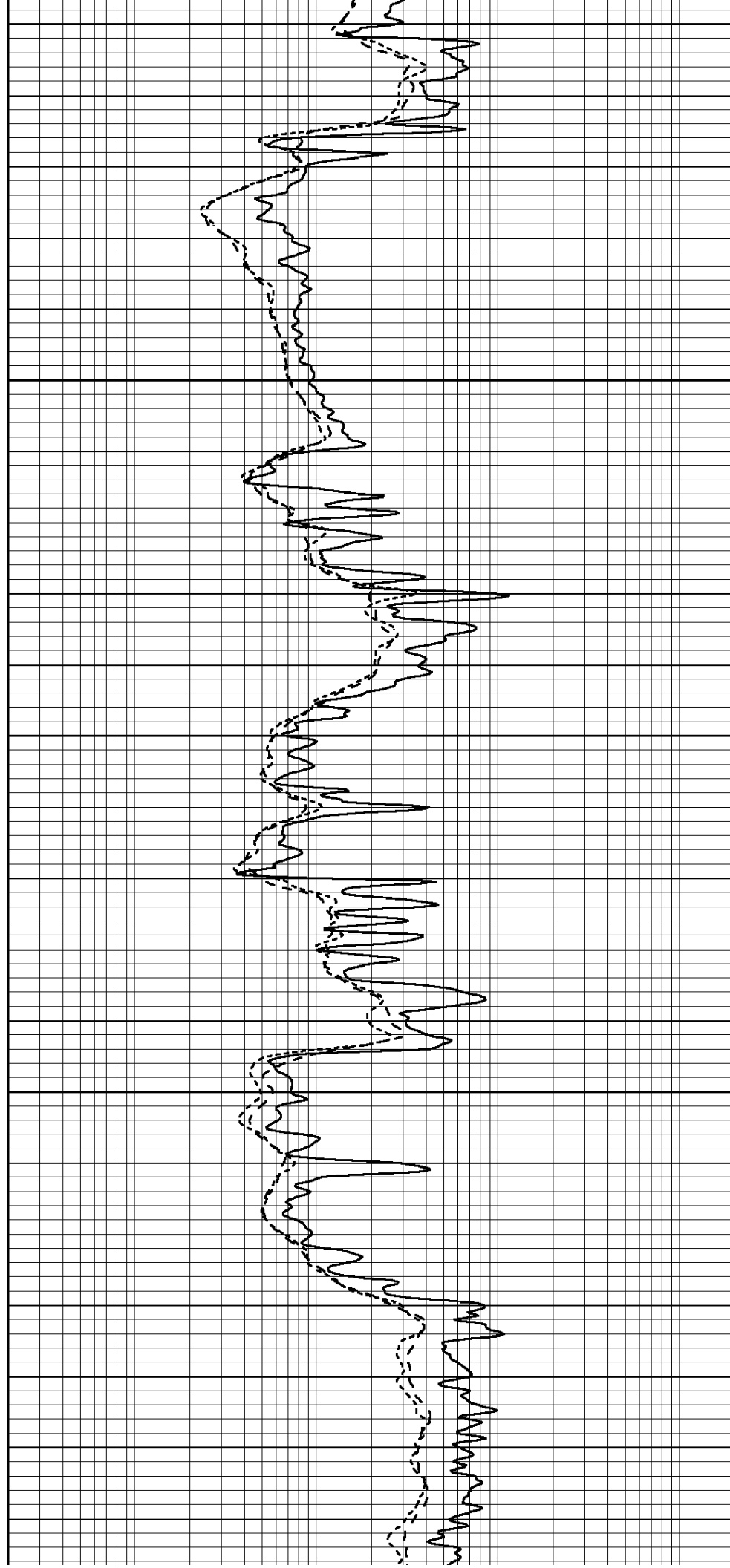
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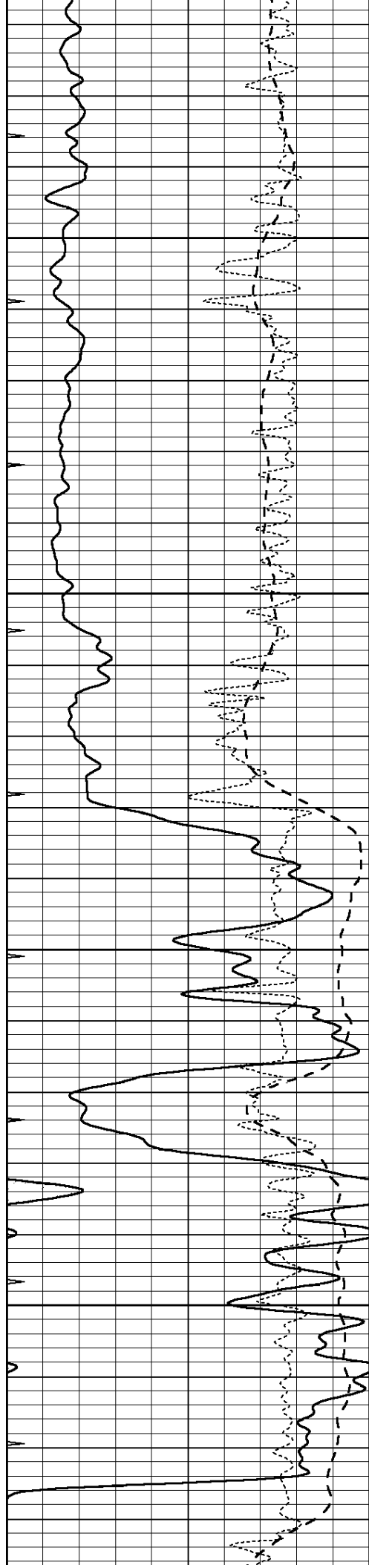
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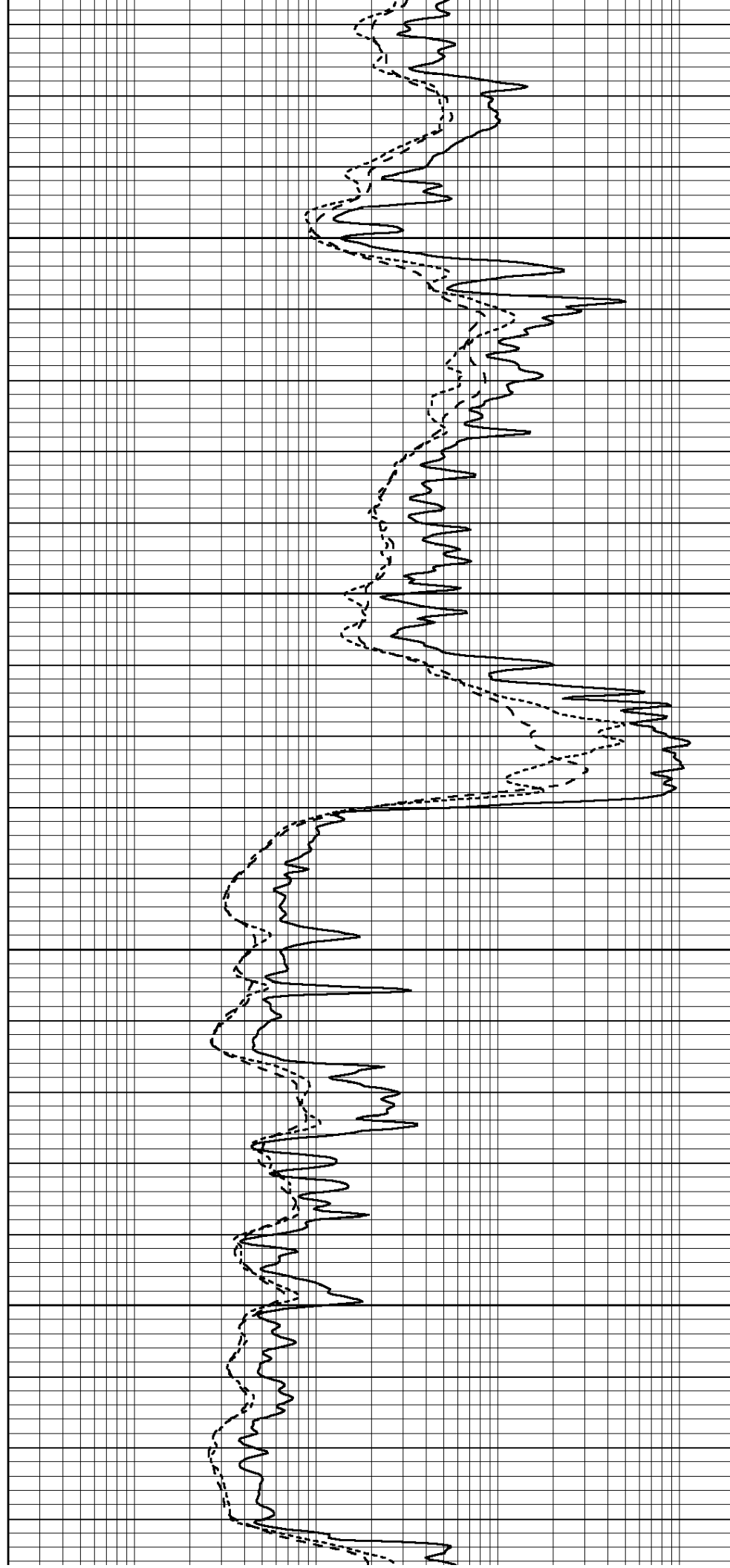


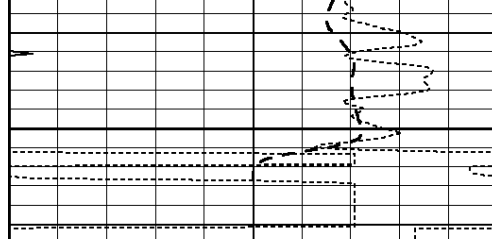
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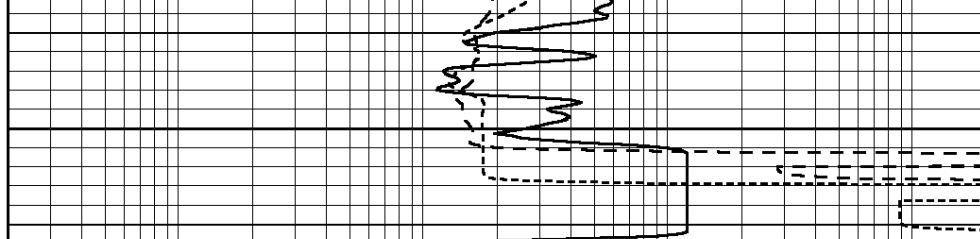
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5000

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20



0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



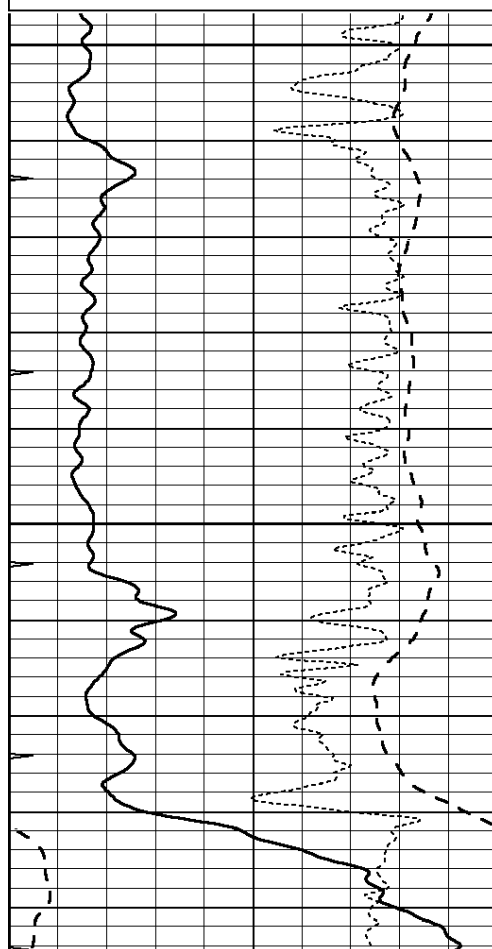
**COMPLETION
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SERVICES CO.**

REPEAT SECTION

Database File: 011361pe.db
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 Charted by: Depth in Feet scaled 1:240

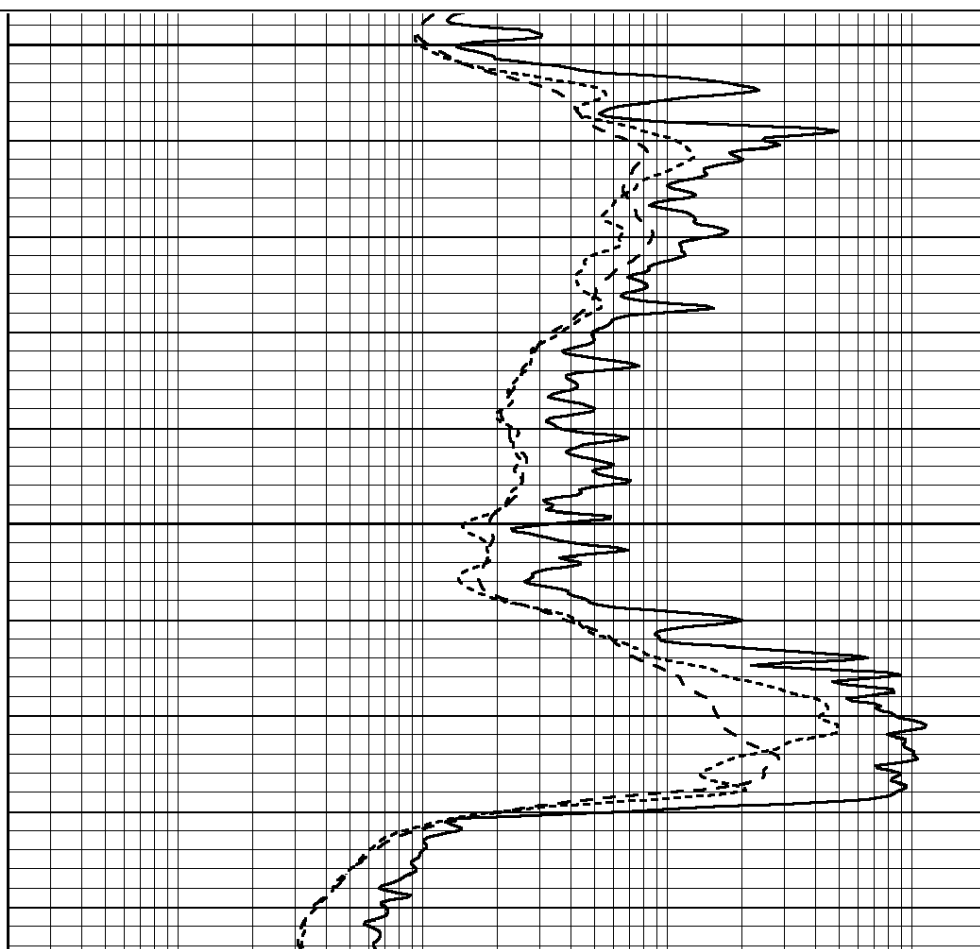
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-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

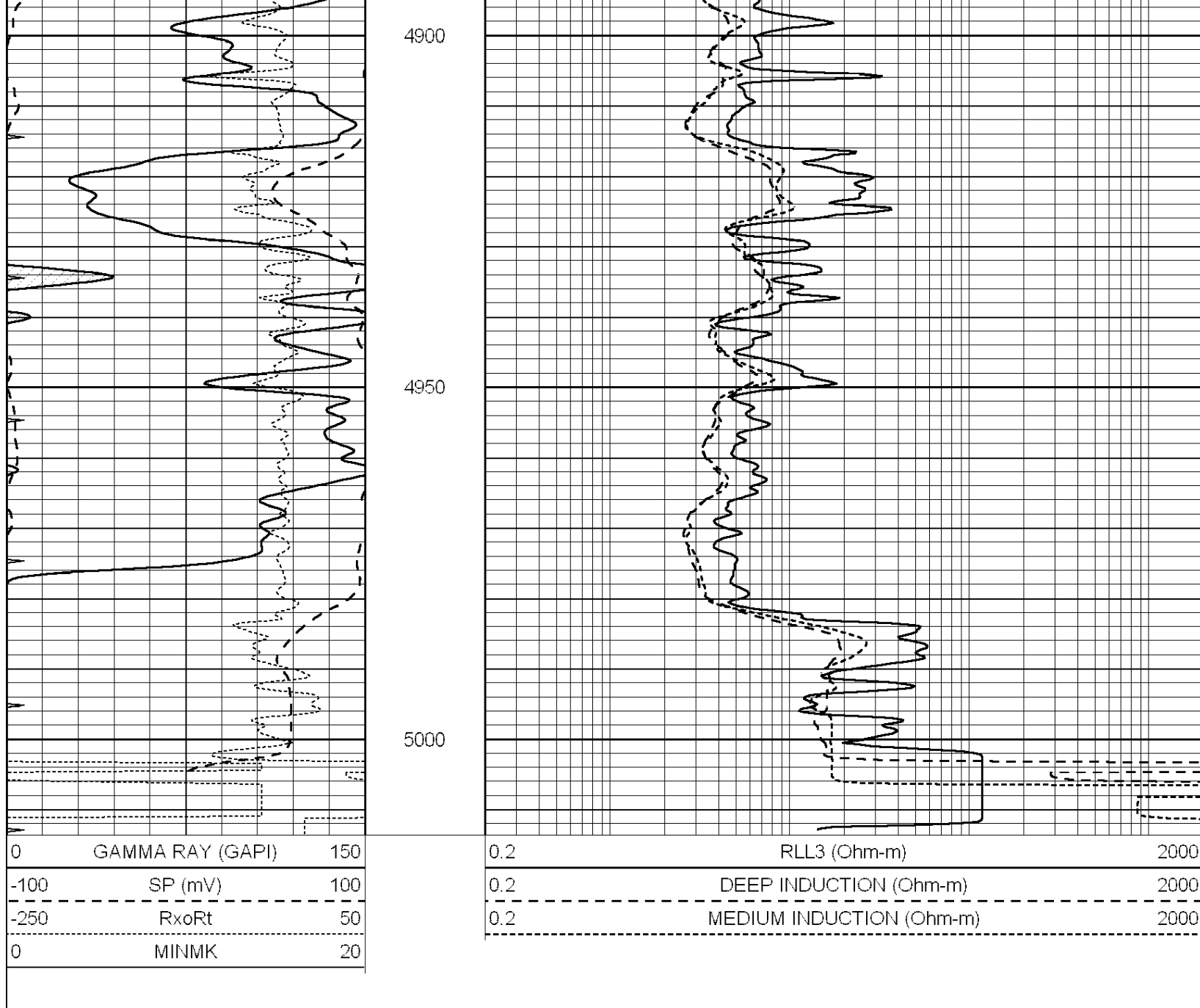
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



4800

4850





Calibration Report								
Database File:		011361pe.db						
Dataset Pathname:		pass3.3.5						
Dataset Creation:		Mon Jul 15 10:40:24 2013 by Calc Open-Cased 090629						
Dual Induction Calibration Report								
Serial-Model:		PROBE7-DILG						
Surface Cal Performed:		Mon Jul 01 07:10:41 2013						
Downhole Cal Performed:		Sat Jan 19 19:51:38 2013						
After Survey Verification Performed:		Sat Jan 19 19:51:38 2013						
Surface Calibration								
		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	620.000	22.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	660.000	-30.000
Internal:	Zero	Cal		Zero	Cal		m	b

Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration								
			Readings		References		Results	
							m'	b'
			Zero	Cal	Zero	Cal		
Deep	135384.000	27094.500	mmho/m		135400.000	27082.400	mmho/m	1.000
Medium	-47330.100	-9381.740	mmho/m		-47327.100	-9389.280	mmho/m	1.000
LL3		7.322	V		1400.000		Ohm-m	
		0.038	V		20.000		Ohm-m	
		-7.273	V		4000.000		mmho-m	

After Survey Verification								
			Readings		Targets		Results	
							m'	b'
			Zero	Cal	Zero	Cal		
Deep	0.000	0.000	mmho/m		135384.000	27094.500	mmho/m	1.000
Medium	0.000	0.000	mmho/m		-47330.100	-9381.740	mmho/m	1.000
LL3		0.000	Ohm-m		1400.000		Ohm-m	
		0.000	Ohm-m		20.000		Ohm-m	
		0.000	mmho-m		4000.000		mmho-m	

Litho Density Calibration Report Serial: 002 Model: PRB Performed Mon Apr 02 17:56:53 2012								
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Litho Density Calibration								
			Background	Magnesium	Aluminum	Sandstone		
Window 1	872.3	7266.3			2292.6	7931.5		cps
Window 2	822.9	5957.5			1958.0	6389.6		cps
Window 3	670.4	3219.9			1211.9	3388.2		cps
Window 4	201.6	201.1			202.3	204.6		cps
Long Space	0.0	5134.6			1135.0	5566.6		cps
Short Space	1.1	994.2			674.4	1059.2		cps
Rho		1.7100			2.5960	1.3800		g/cc
Pe					2.5700	1.5500		
Rib Angle	: 45.6	Rib Slope	: 1.020	Density/Spine Ratio	: 0.569			
Spine Angle	: 75.6	Spine Slope	: 3.888	Spine Intercept	: -18.3			

Caliper	Readings	Reference						
Low Ref	1.8	8.4						
High Ref	6.1	14.0						
	Gain: 2.0		Offset: -0.2					

Compensated Neutron Calibration Report								
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Serial Number:			NEU_4I					
Tool Model:			G					

CALIBRATION								
			Readings		Target		Normalization	
Short Space	1.00	cps	1.00	cps	1.00	cps	1.0000	
Long Space	1.00	cps	1.00	cps	1.00	cps	1.0000	

Gamma Ray Calibration Report								
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Serial Number:			GR5					
Tool Model:			OPEN					
Performed:			Mon Jul 01 05:22:08 2013					

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.9000	GAPI/cps