



SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company LOTUS OPERATING COMPANY, LLC.	
Well CR WETZ #6	
Field STRANATHAN	
County BARBER	State KANSAS
Location: API # : 15-007-23582-0000	
850' FSL & 1815' FEL	
SEC 36 TWP 34S RGE 12W	
Permanent Datum GROUND LEVEL Elevation 1417	Other Services CDL/CNL/PE MEL/SONIC
Log Measured From KELLY BUSHING 9' A.G.L.	
Drilling Measured From KELLY BUSHING	Elevation K.B. 1426 D.F. 1424 G.L. 1417
Date 8/18/10	
Run Number ONE	
Depth Driller 5199	
Depth Logger 5198	
Bottom Logged Interval 5196	
Top Log Interval 00	
Casing Driller 10 3/4"@280'	
Casing Logger 280	
Bit Size 7 7/8"	
Type Fluid in Hole CHEMICAL MUD	CHLORIDES 5,000 PPM
Density / Viscosity 9.4/58	
pH / Fluid Loss 10.0/9.6	
Source of Sample FLOWLINE	
Rin @ Meas. Temp .620@100F	
Rmf @ Meas. Temp .465@100F	
Rmc @ Meas. Temp .744@100F	
Source of Rmf / Rmc MEASUREMENT	
Rin @ BHT .488@127F	
Time Circulation Stopped 3 HOURS	
Time Logger on Bottom 6:45 P.M.	
Maximum Recorded Temperature 127F	
Equipment Number 0836	
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. (HWY 160 & 281 JUNCTION) 17S. ON HWY 281 TO (MM#7) "DRIFTWOOD RD.",
1/4W., N. INTO @TANK BATTERY



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MAIN SECTION

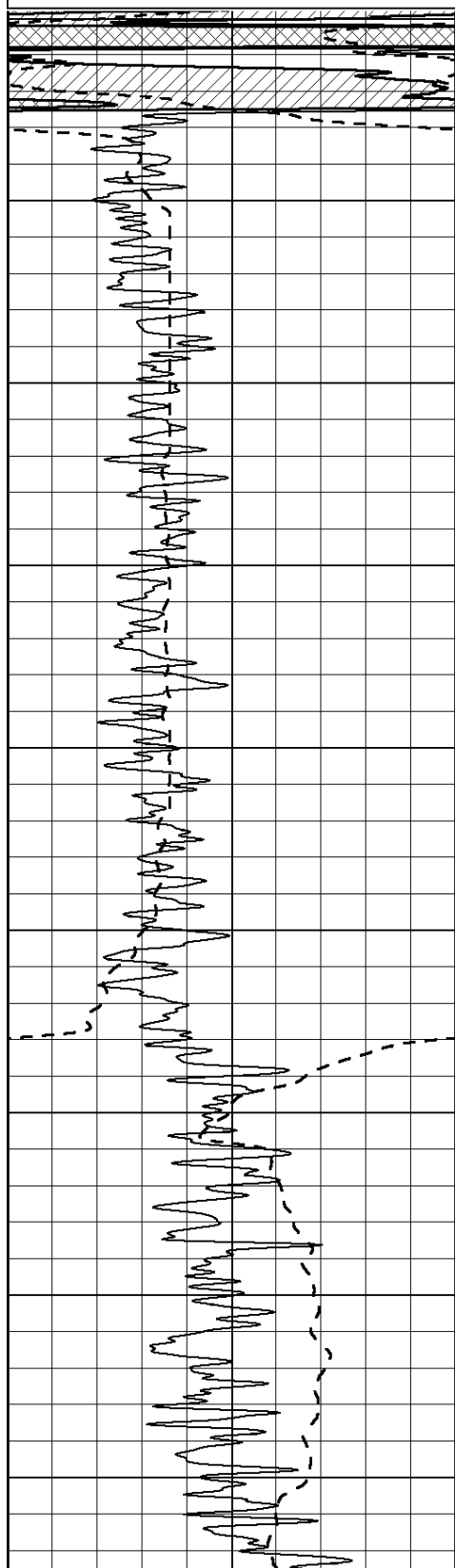
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 Dataset Pathname: pass3.3
 Presentation Format: dil2
 Dataset Creation: Wed Aug 18 20:19:33 2010 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:600

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

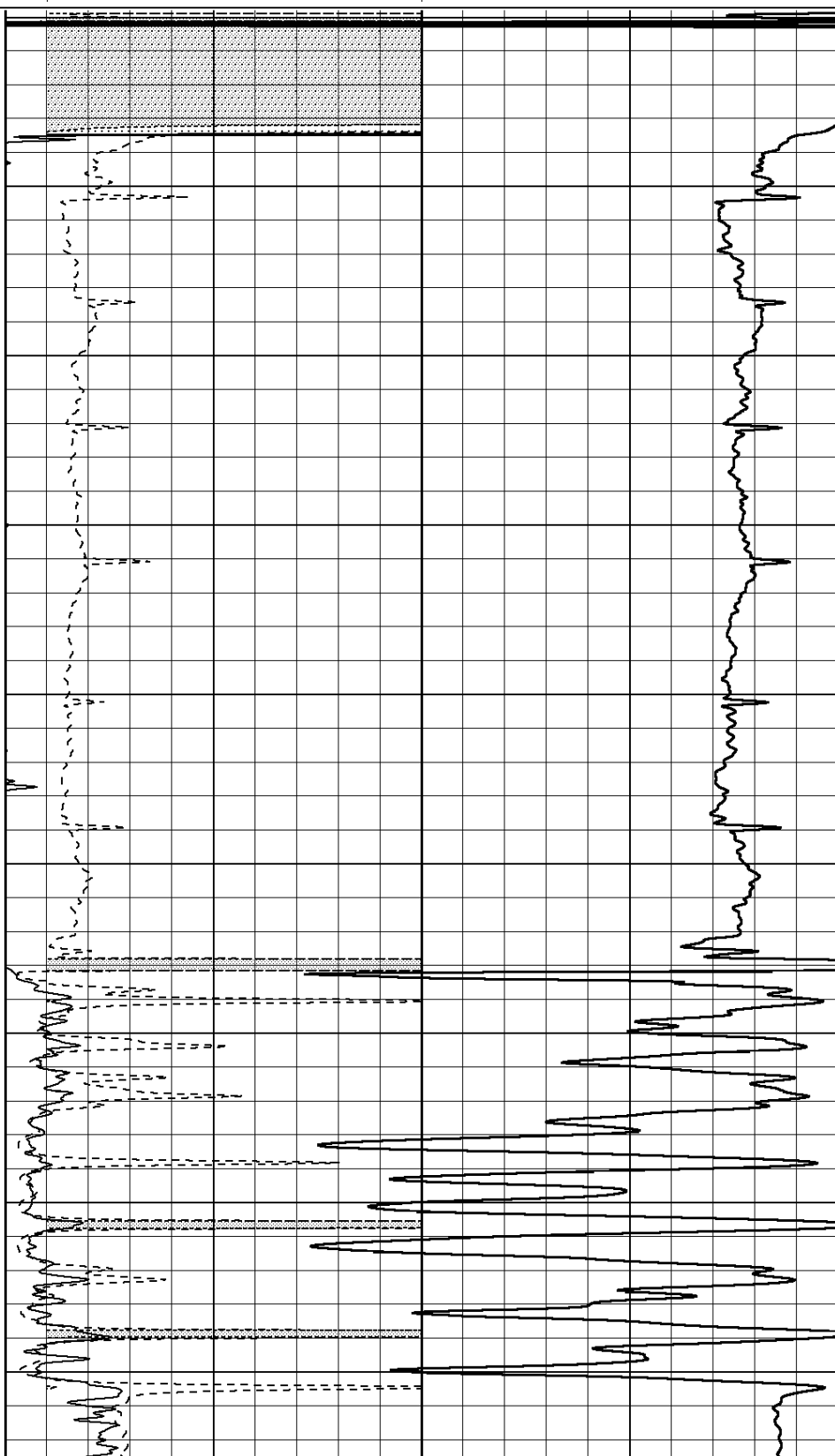
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0	RILD (Ohm-m)	50

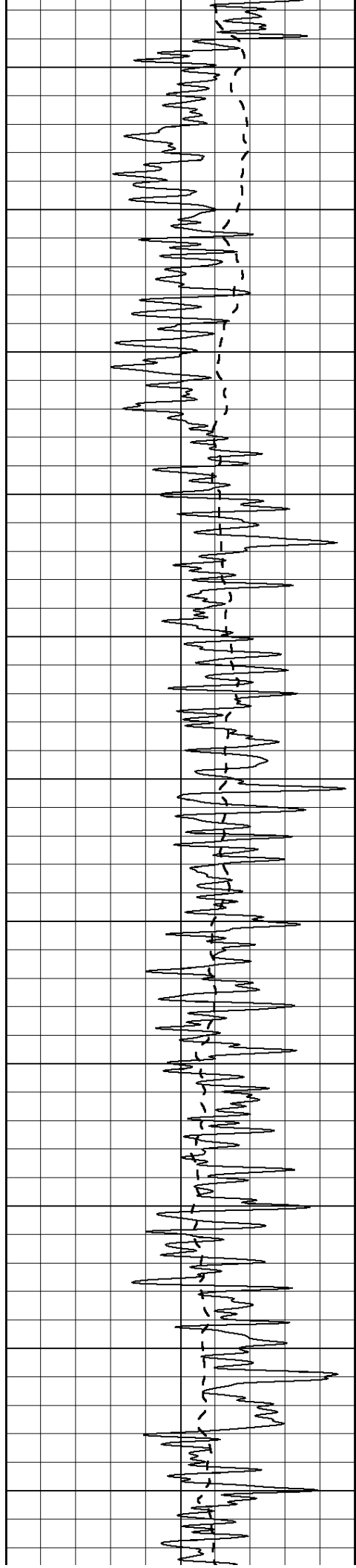
1000	CILD (mmho/m)	0
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50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500



0
50
100
150
200
250
300
350
400





450

500

550

600

650

700

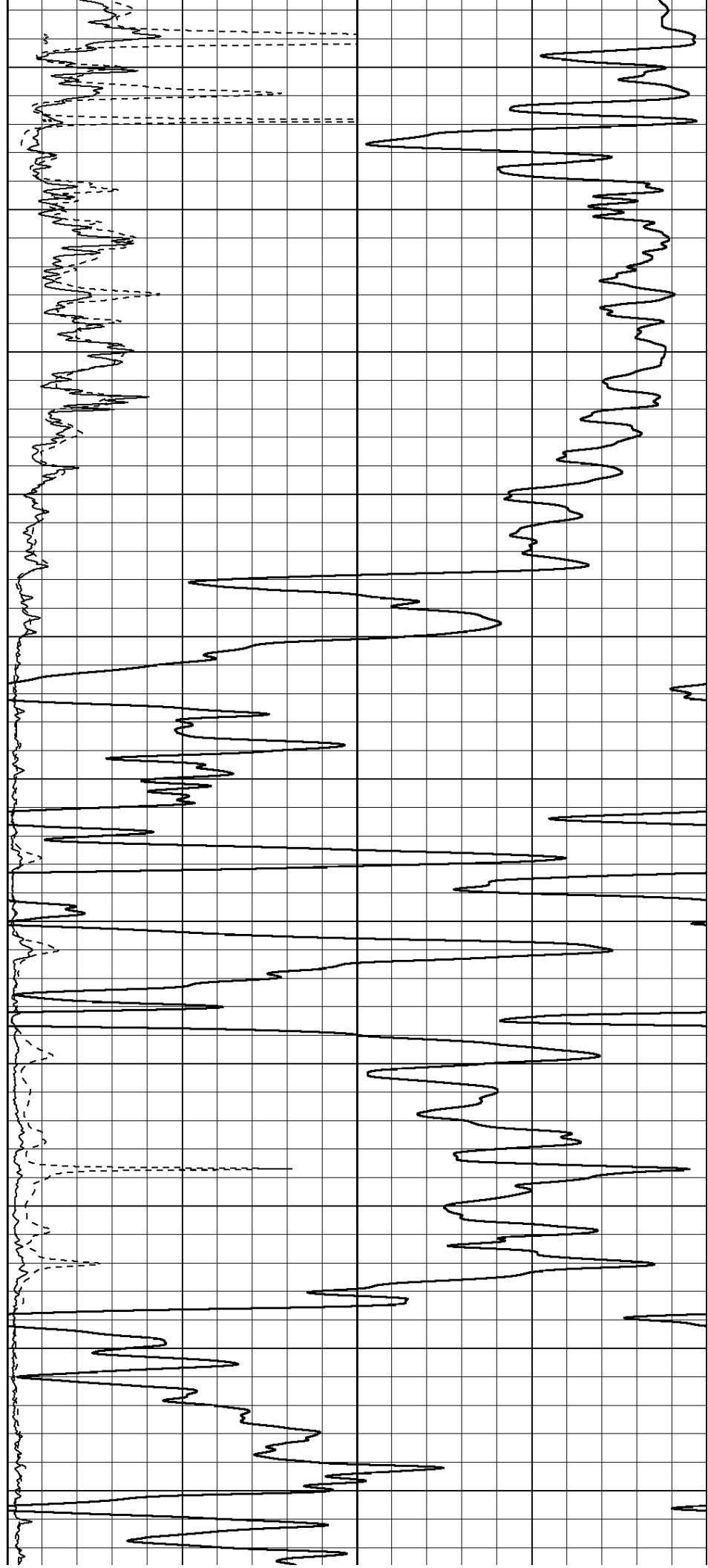
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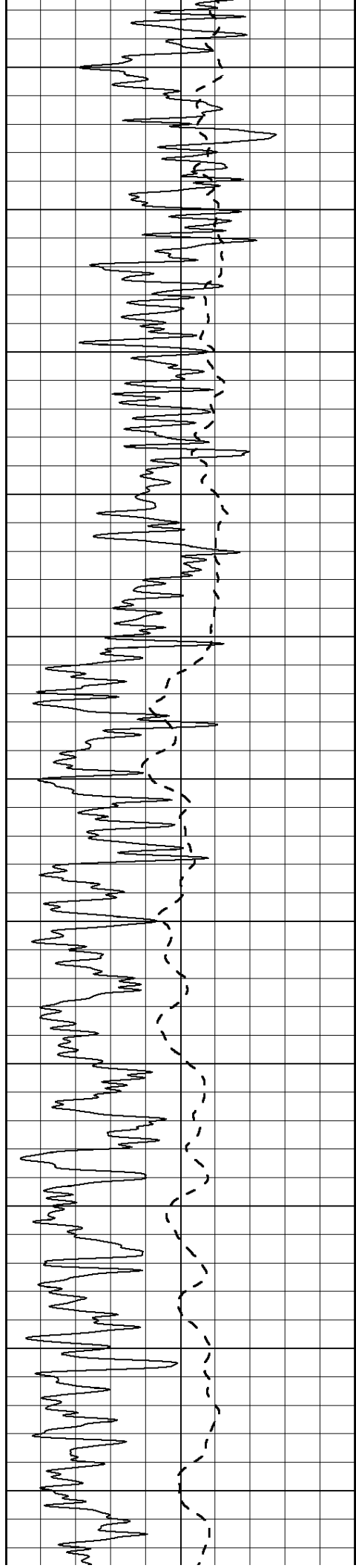
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850

900

950





1000

1050

1100

1150

1200

1250

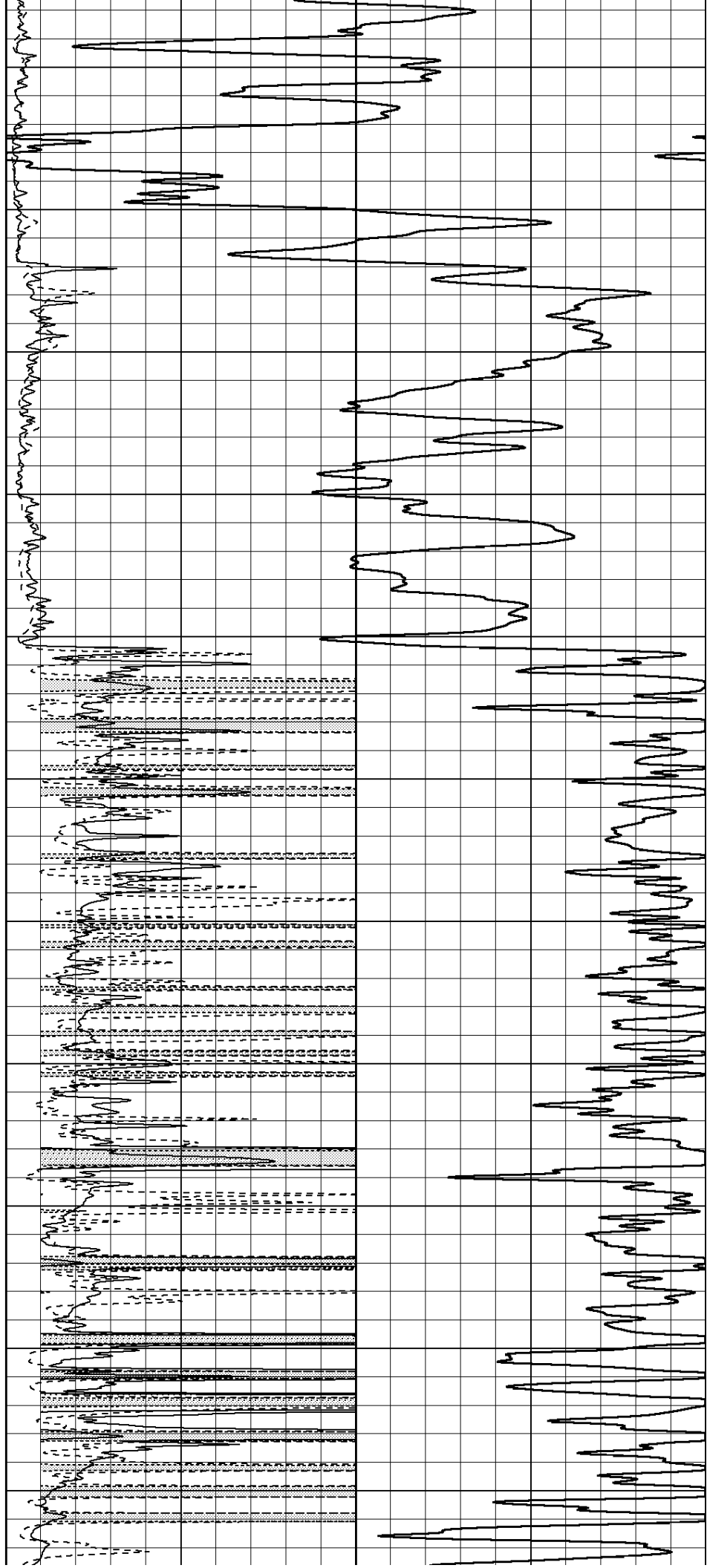
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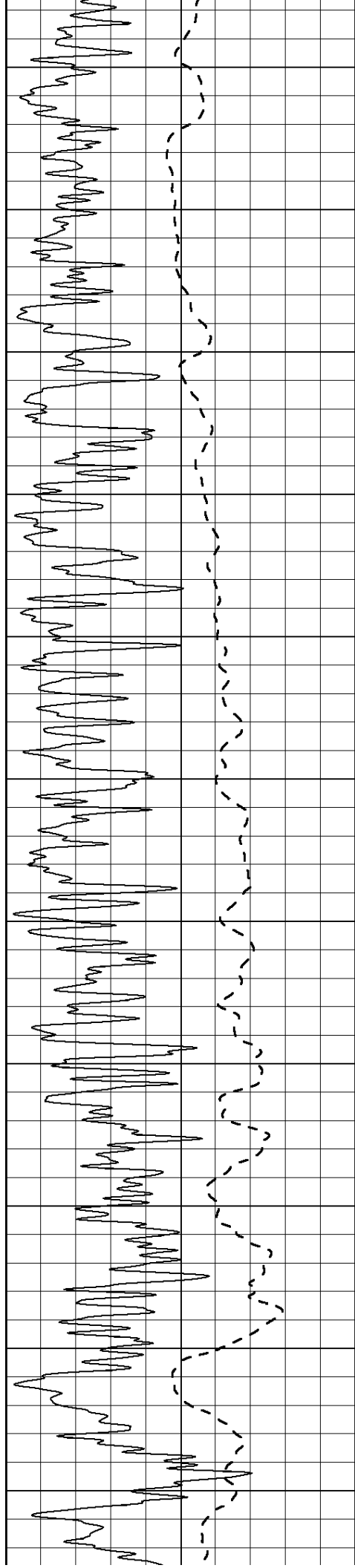
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1400

1450

1500





1550

1600

1650

1700

1750

1800

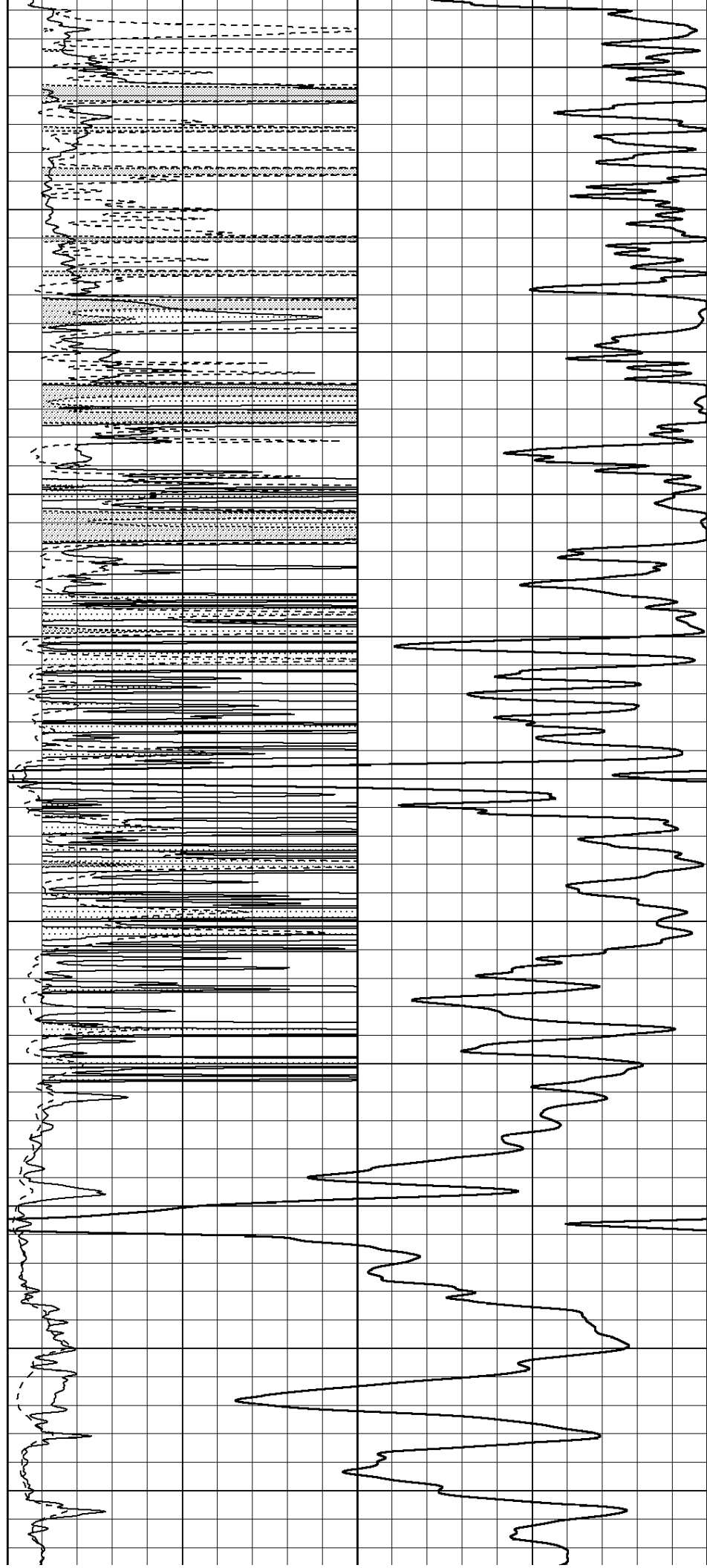
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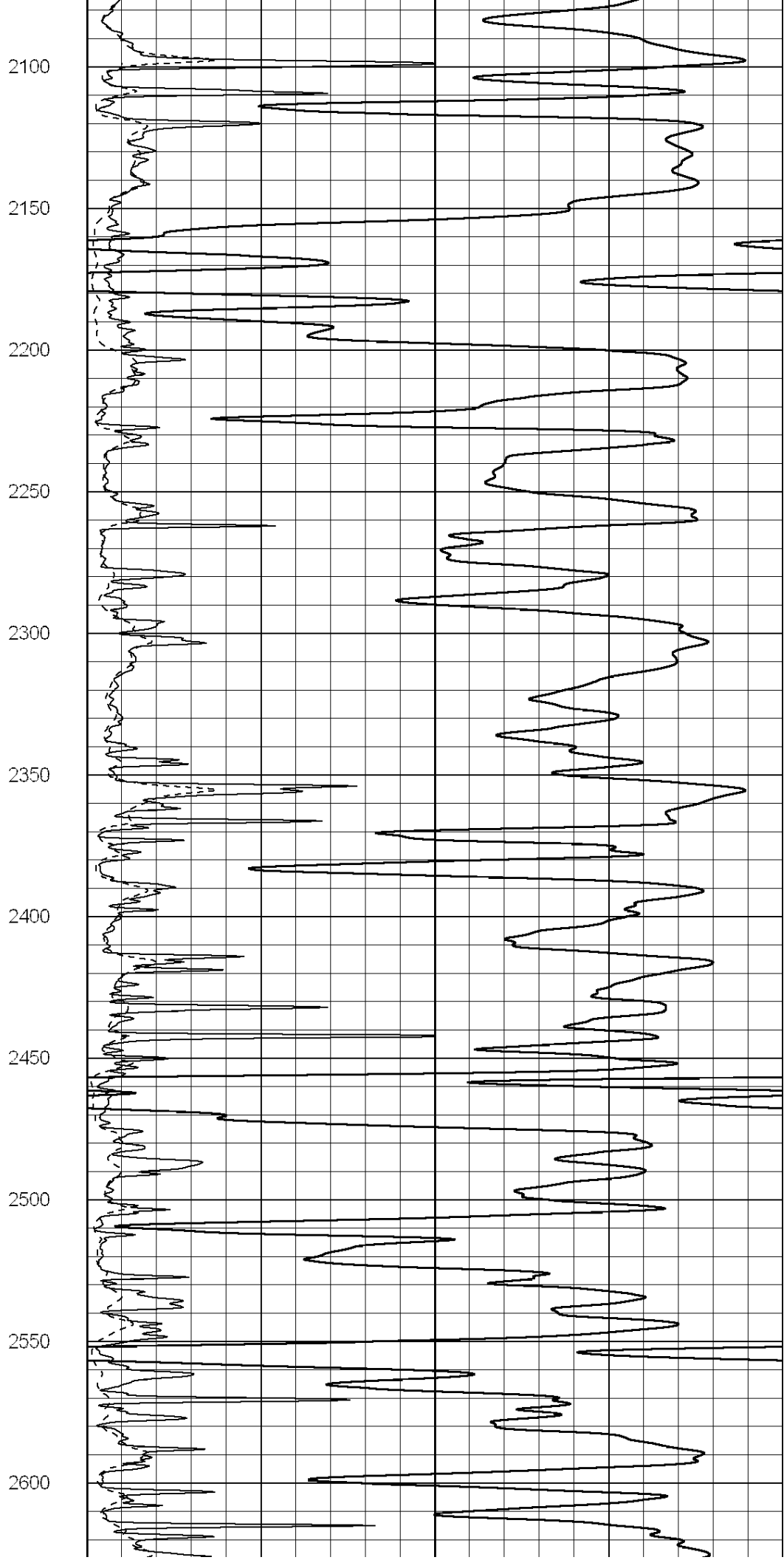
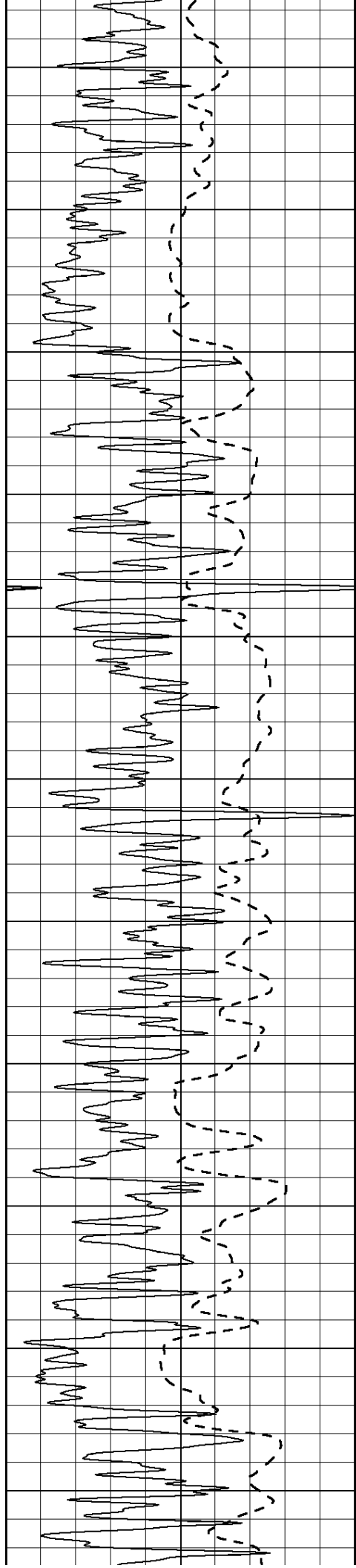
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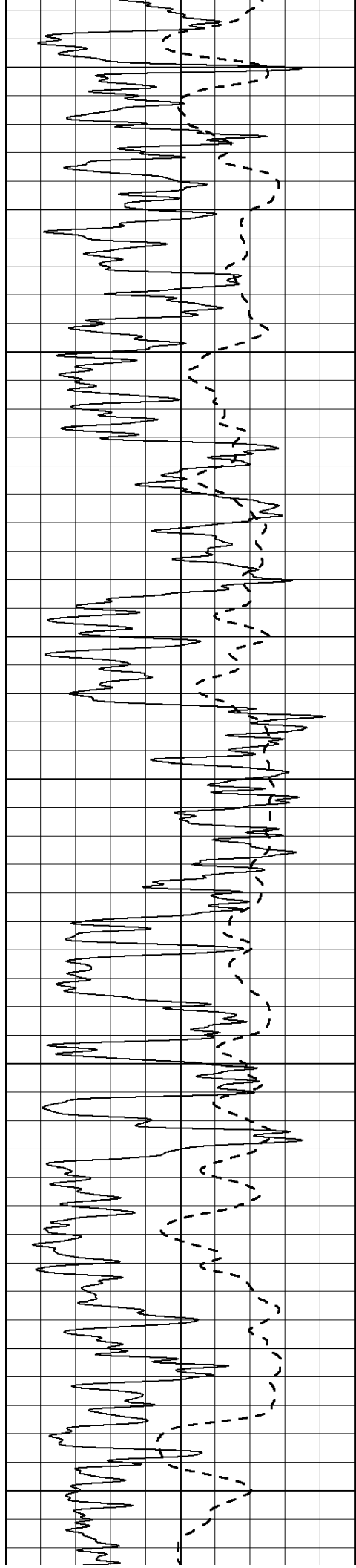
1950

2000

2050







2650

2700

2750

2800

2850

2900

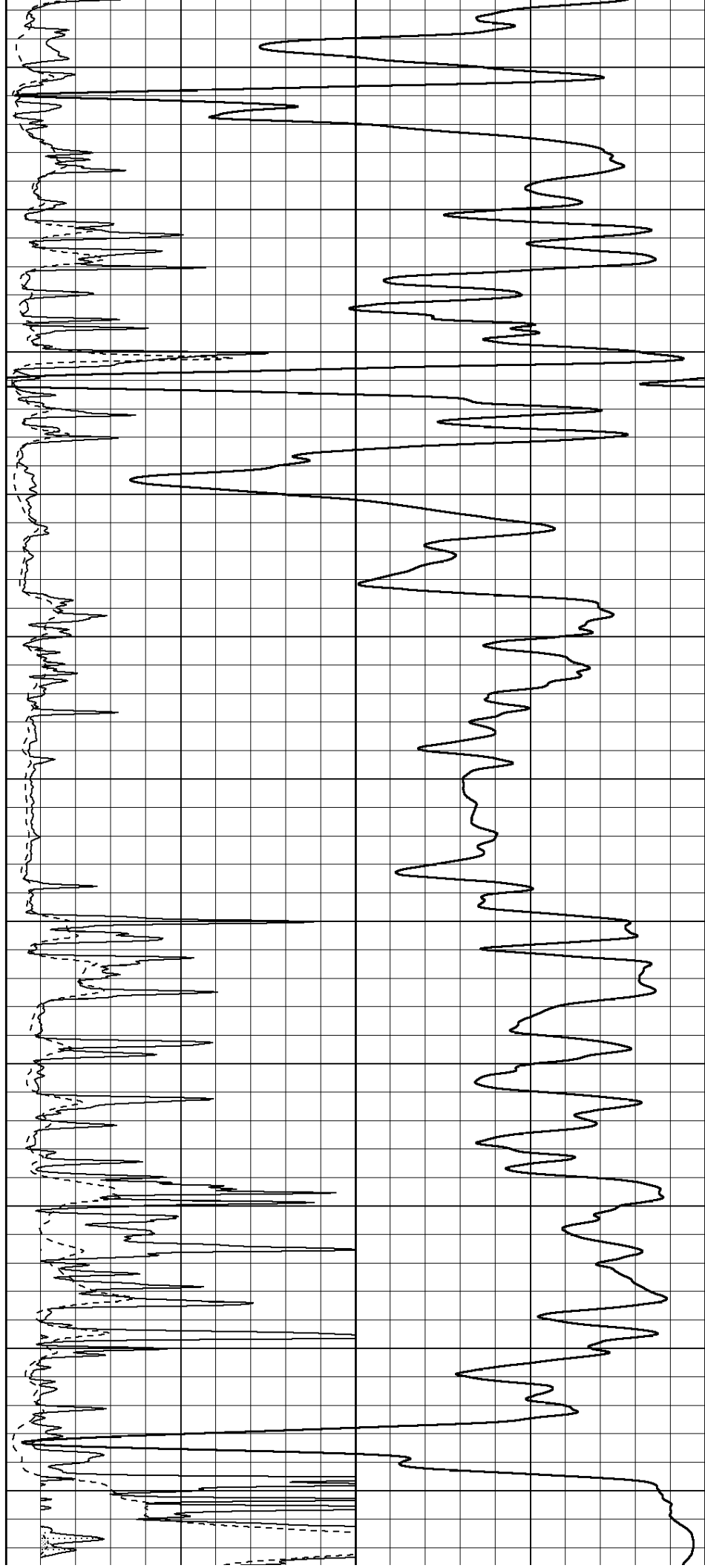
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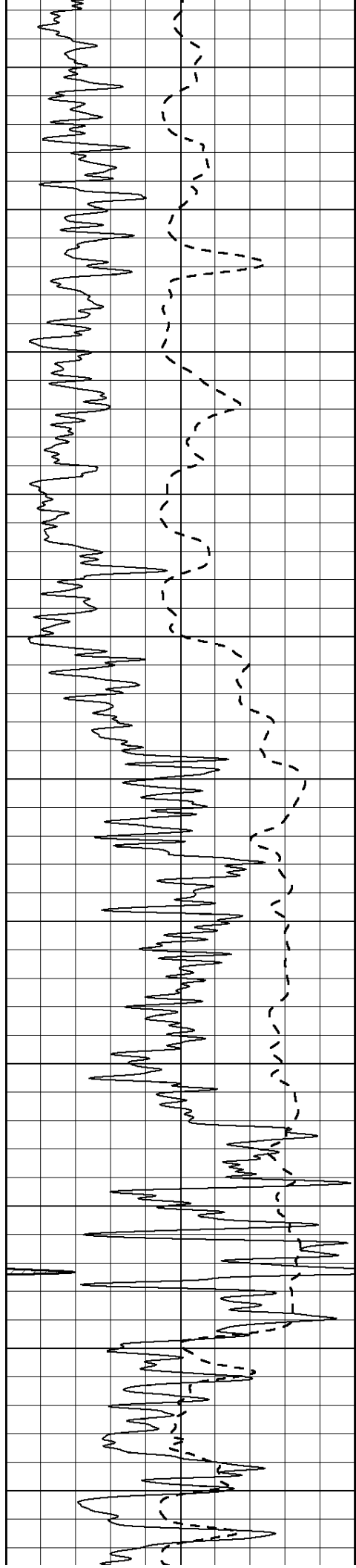
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3050

3100

3150





3200

3250

3300

3350

3400

3450

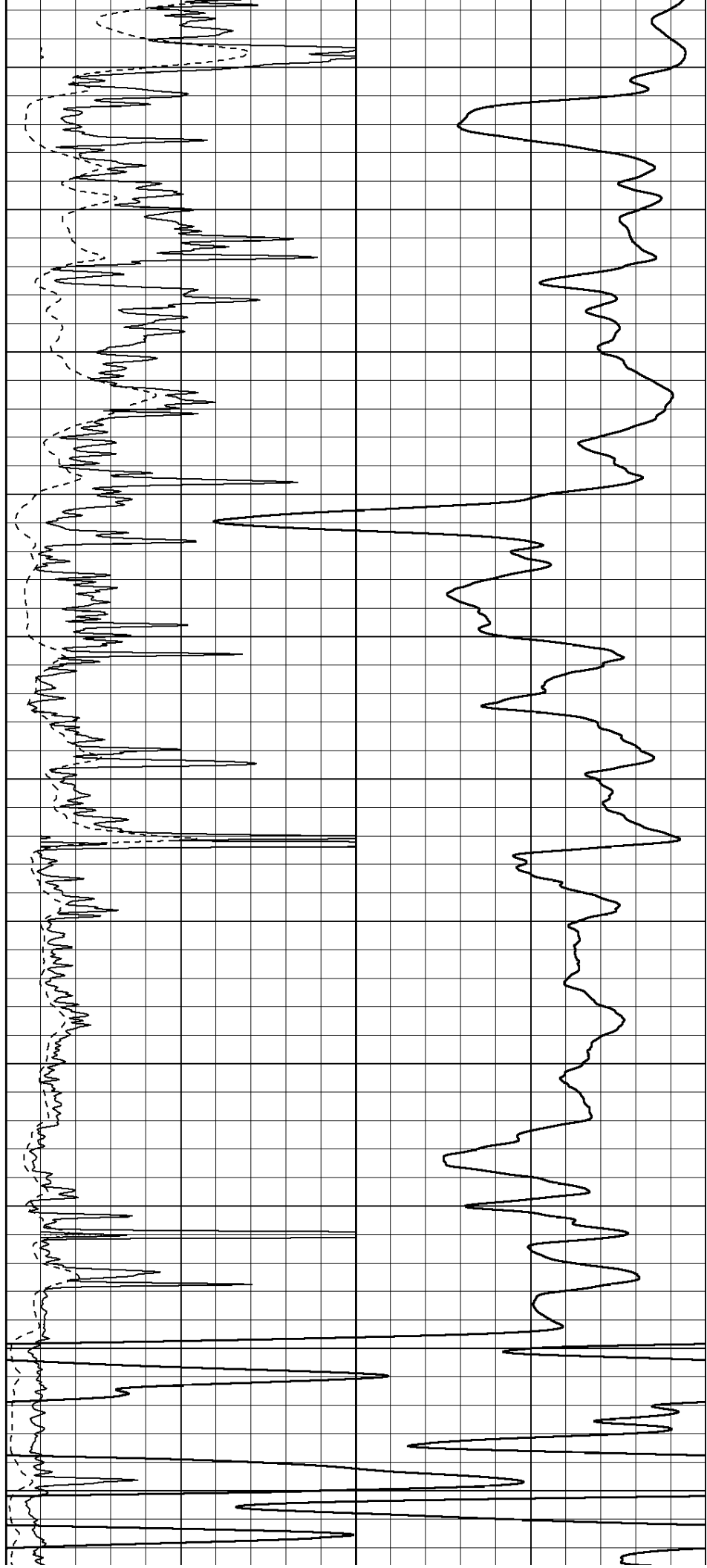
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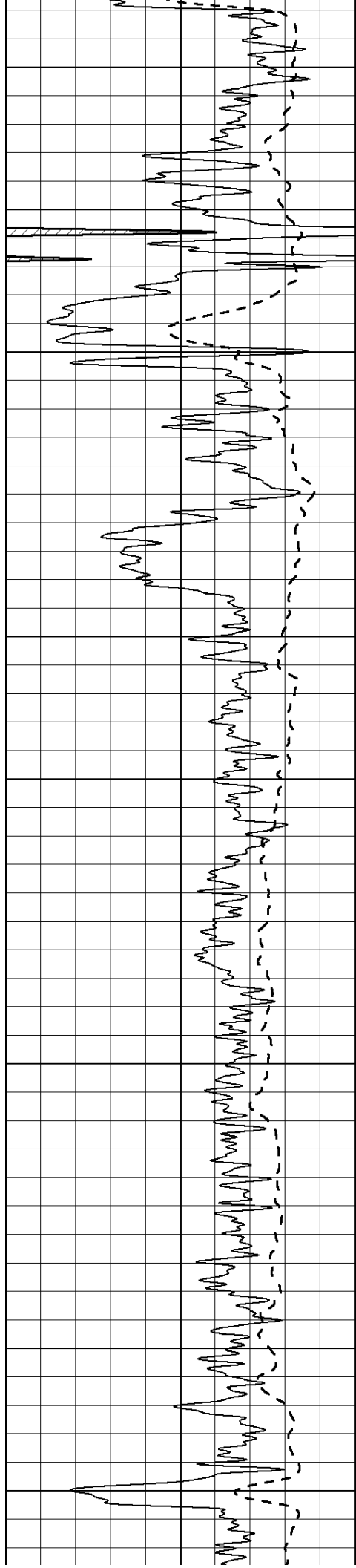
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3700





3750

3800

3850

3900

3950

4000

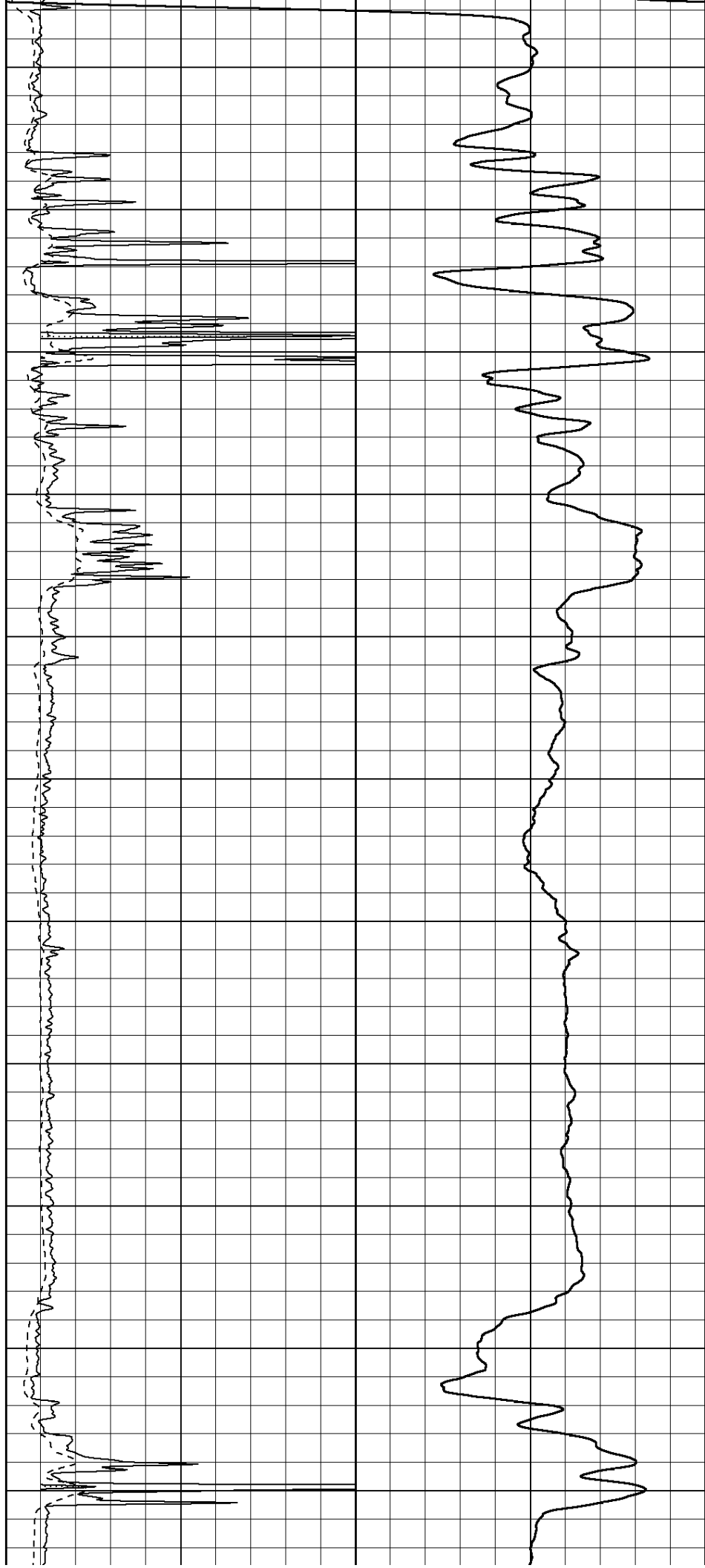
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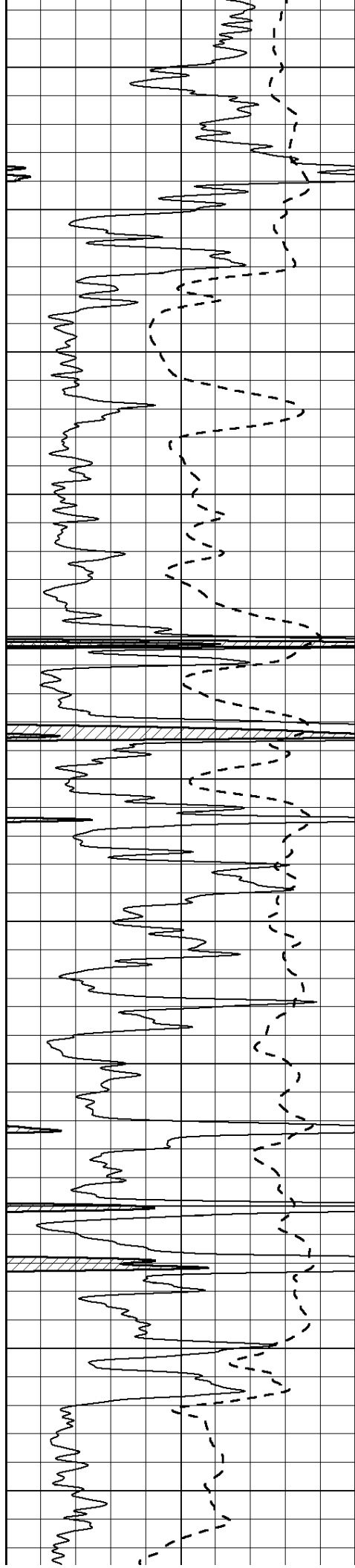
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4150

4200

4250





4300

4350

4400

4450

4500

4550

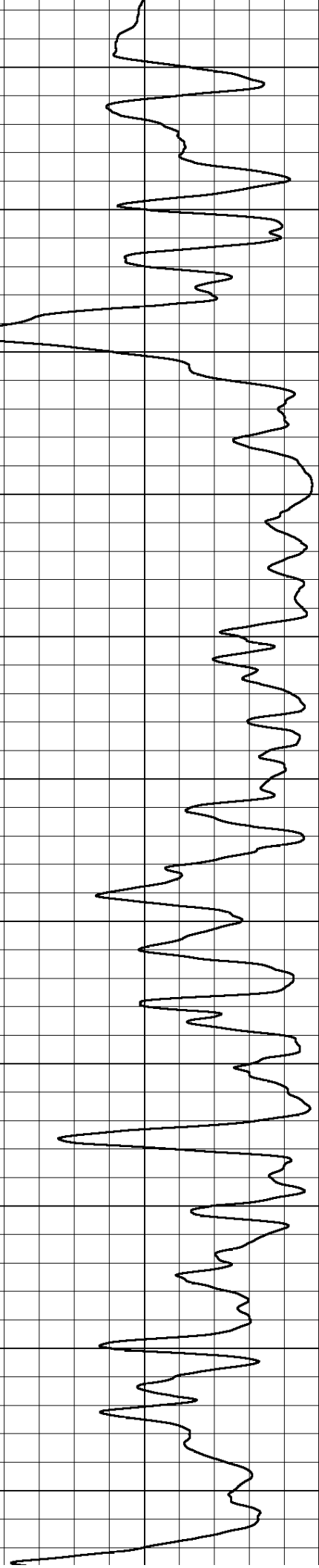
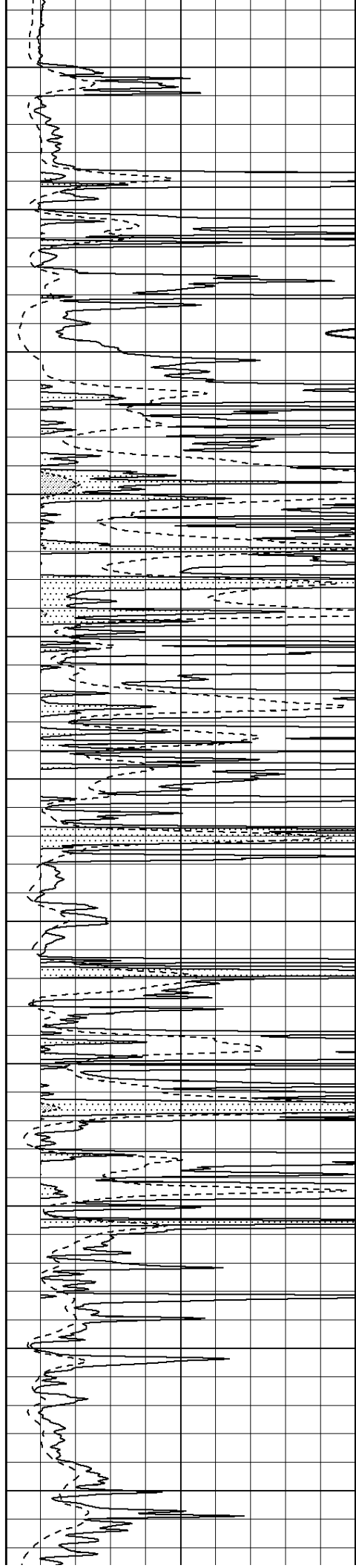
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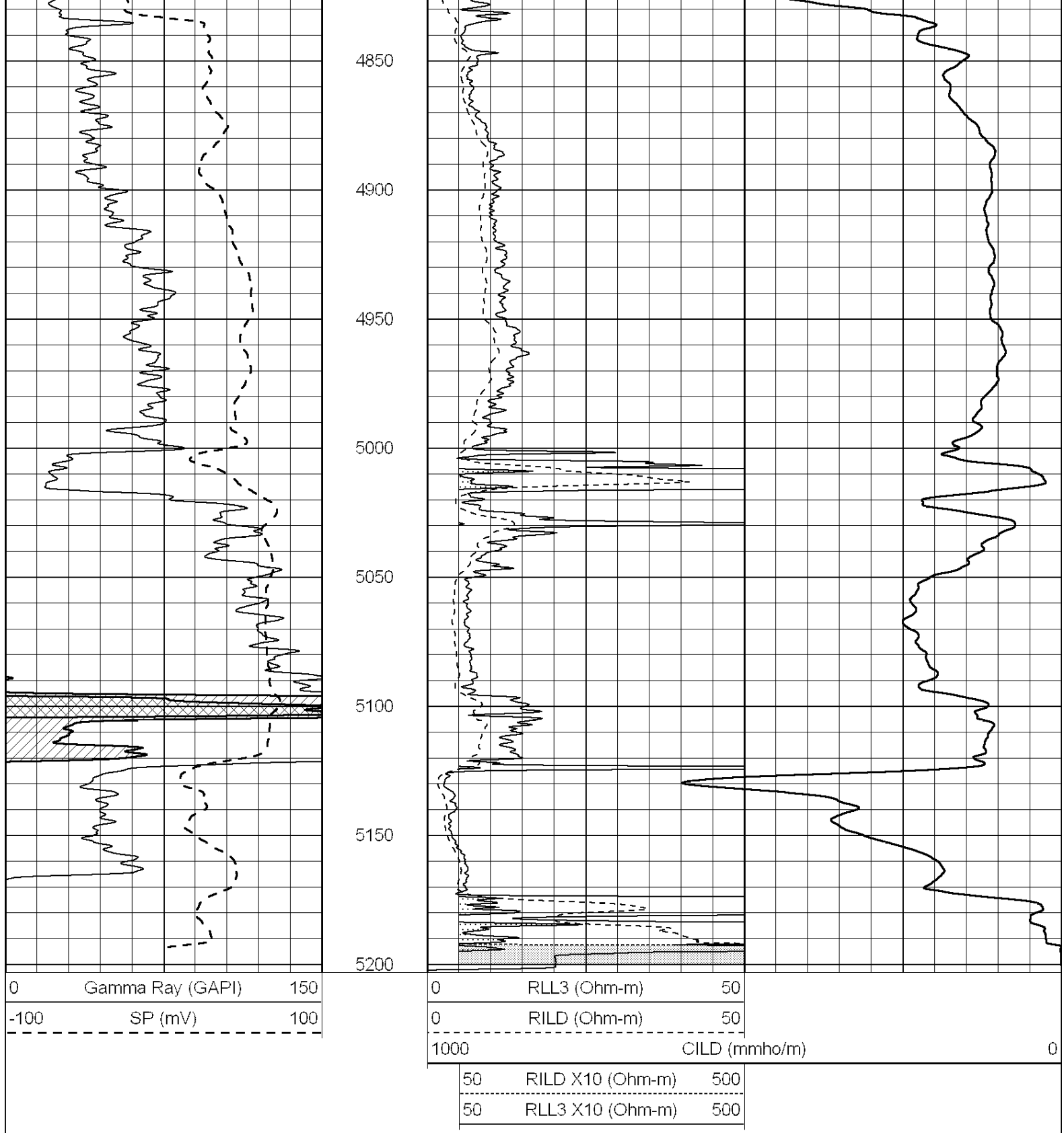
4650

4700

4750

4800



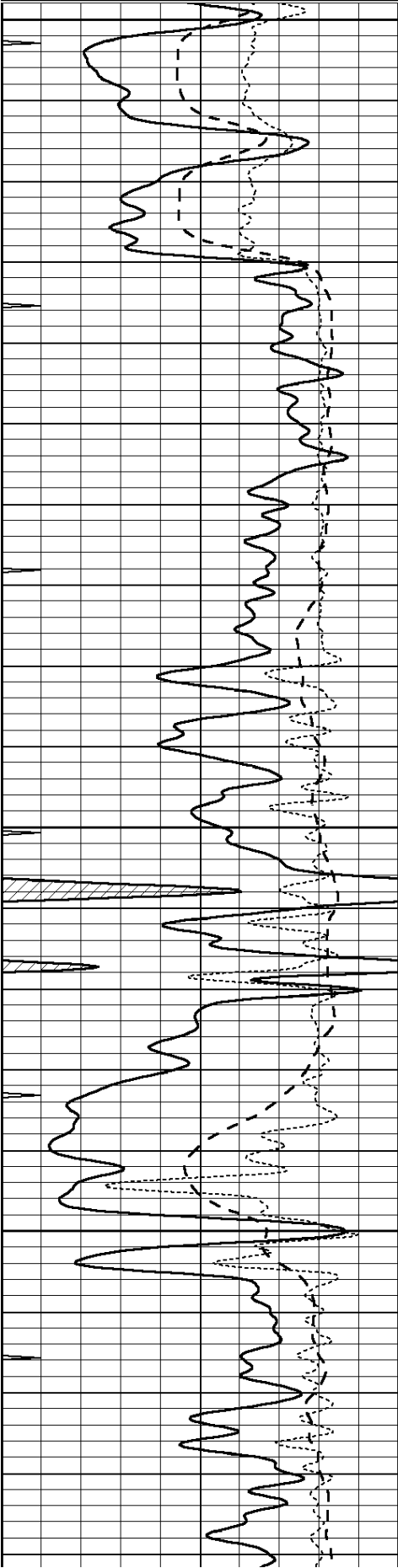


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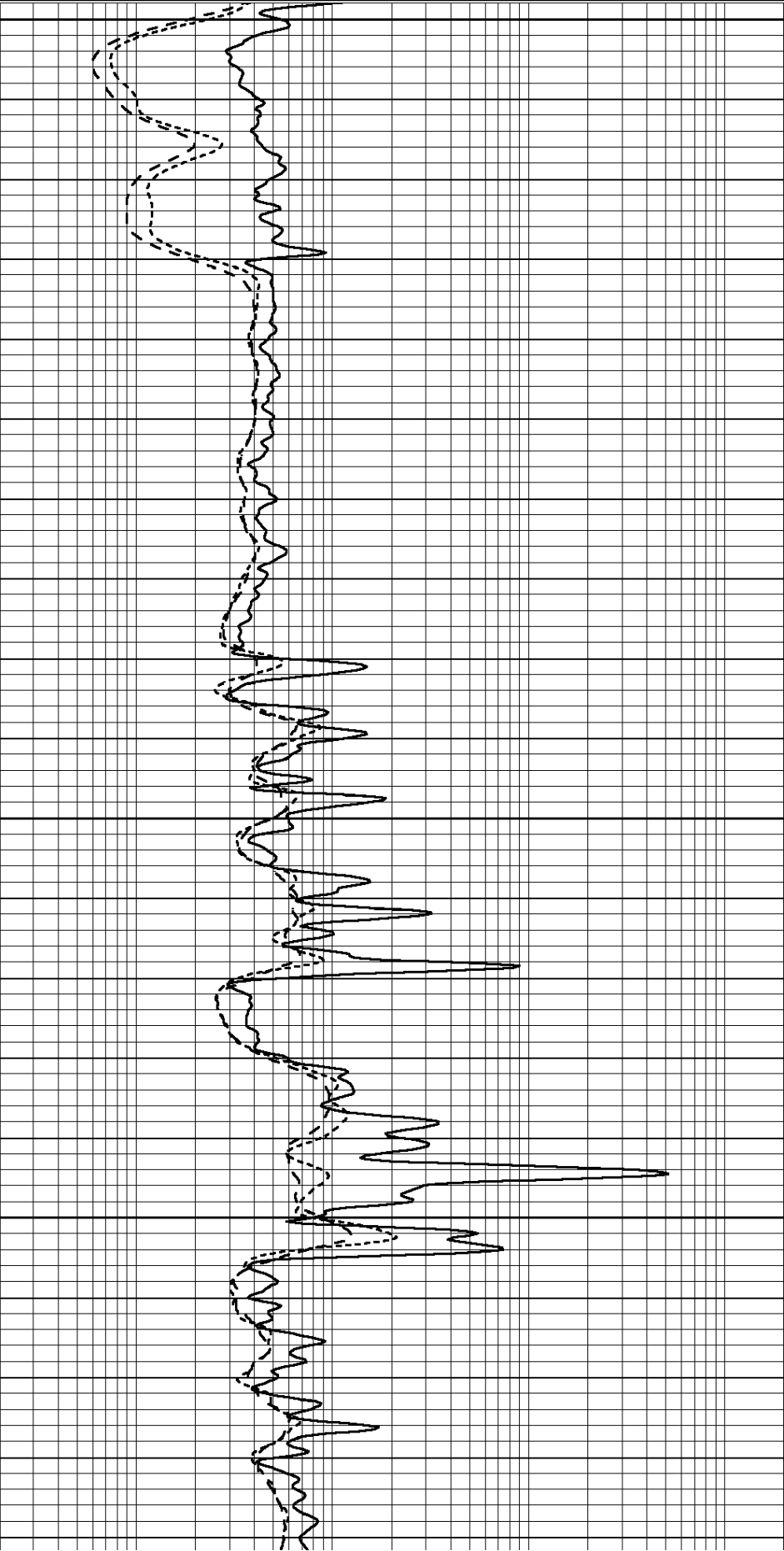
MAIN SECTION

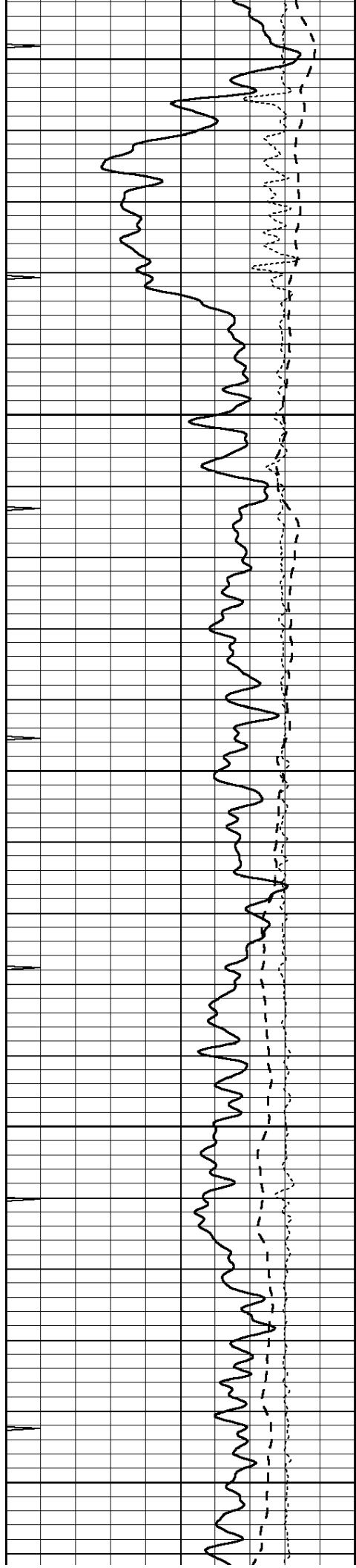
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 Dataset Pathname: pass3.3
 Presentation Format: dil
 Dataset Creation: Wed Aug 18 20:19:33 2010 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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



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





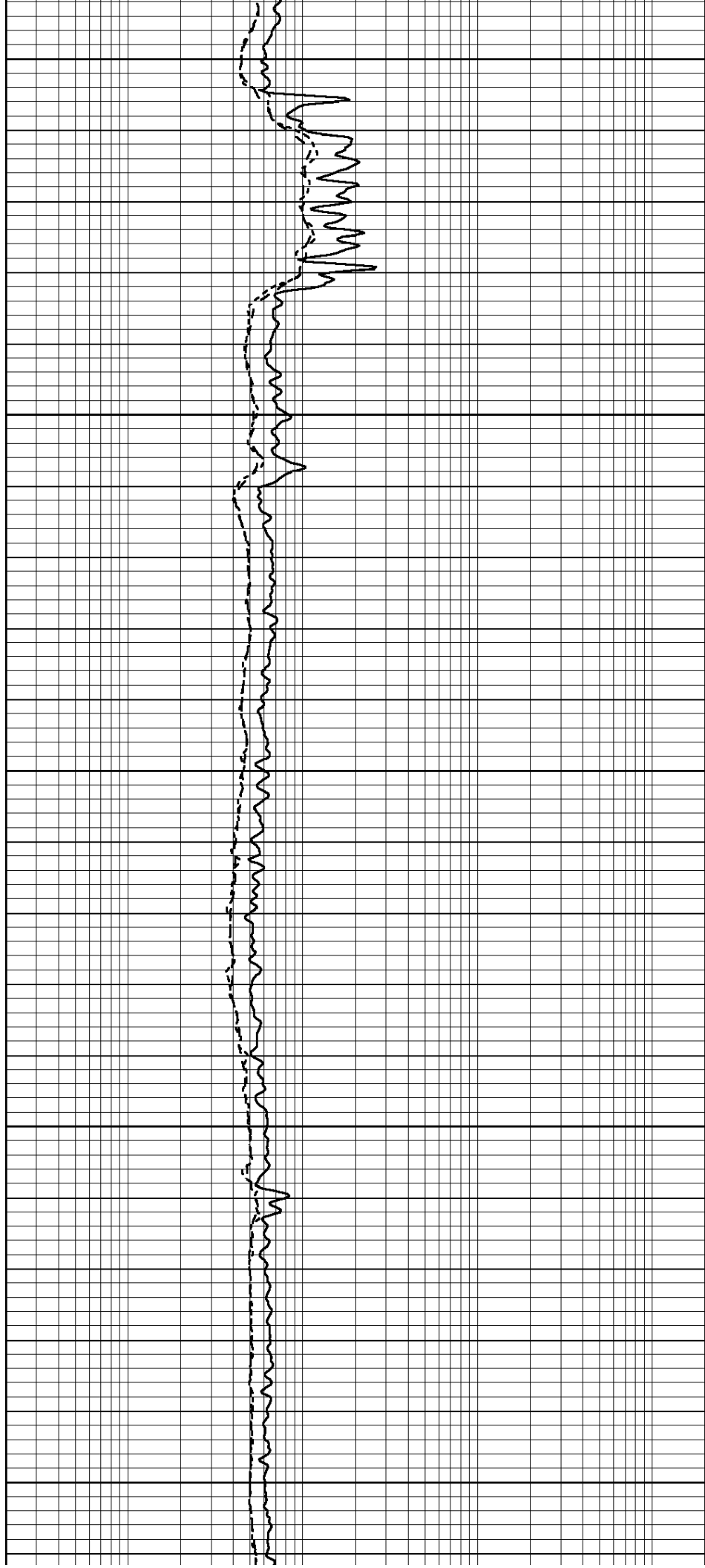
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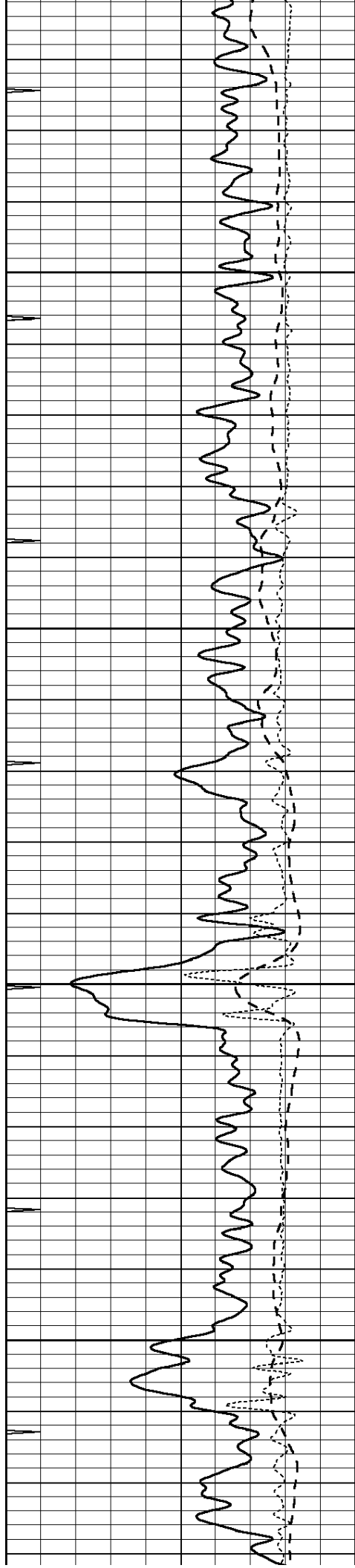
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4000

4050

4100



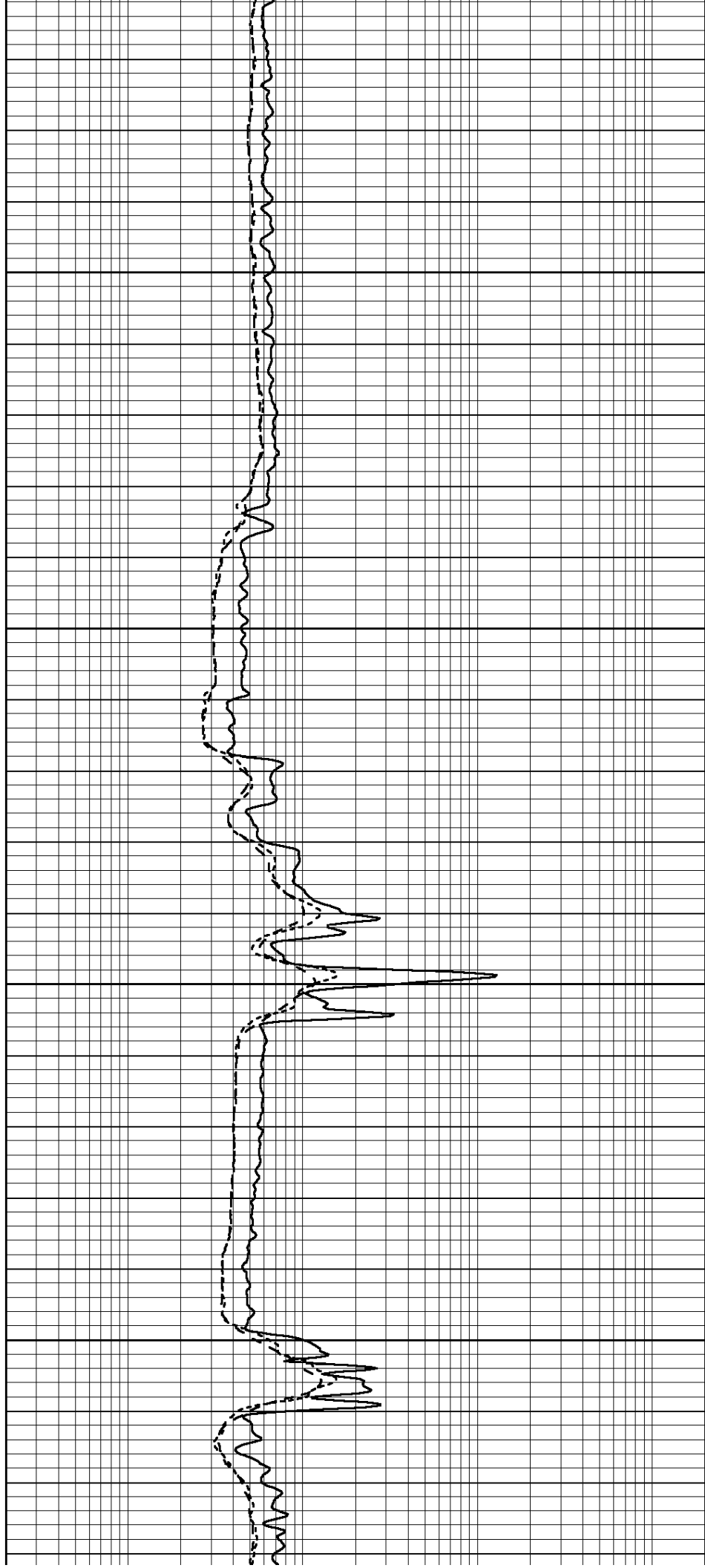


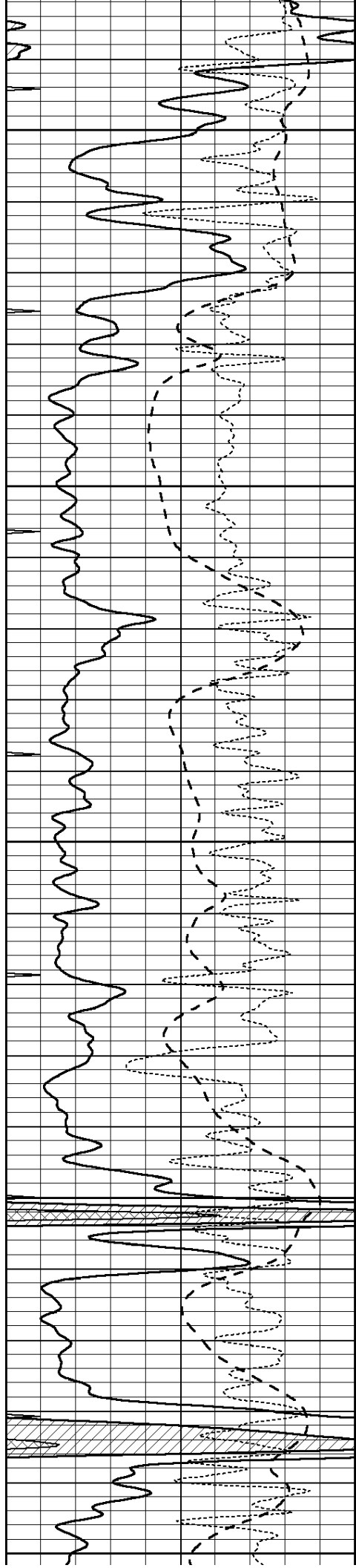
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4200

4250

4300





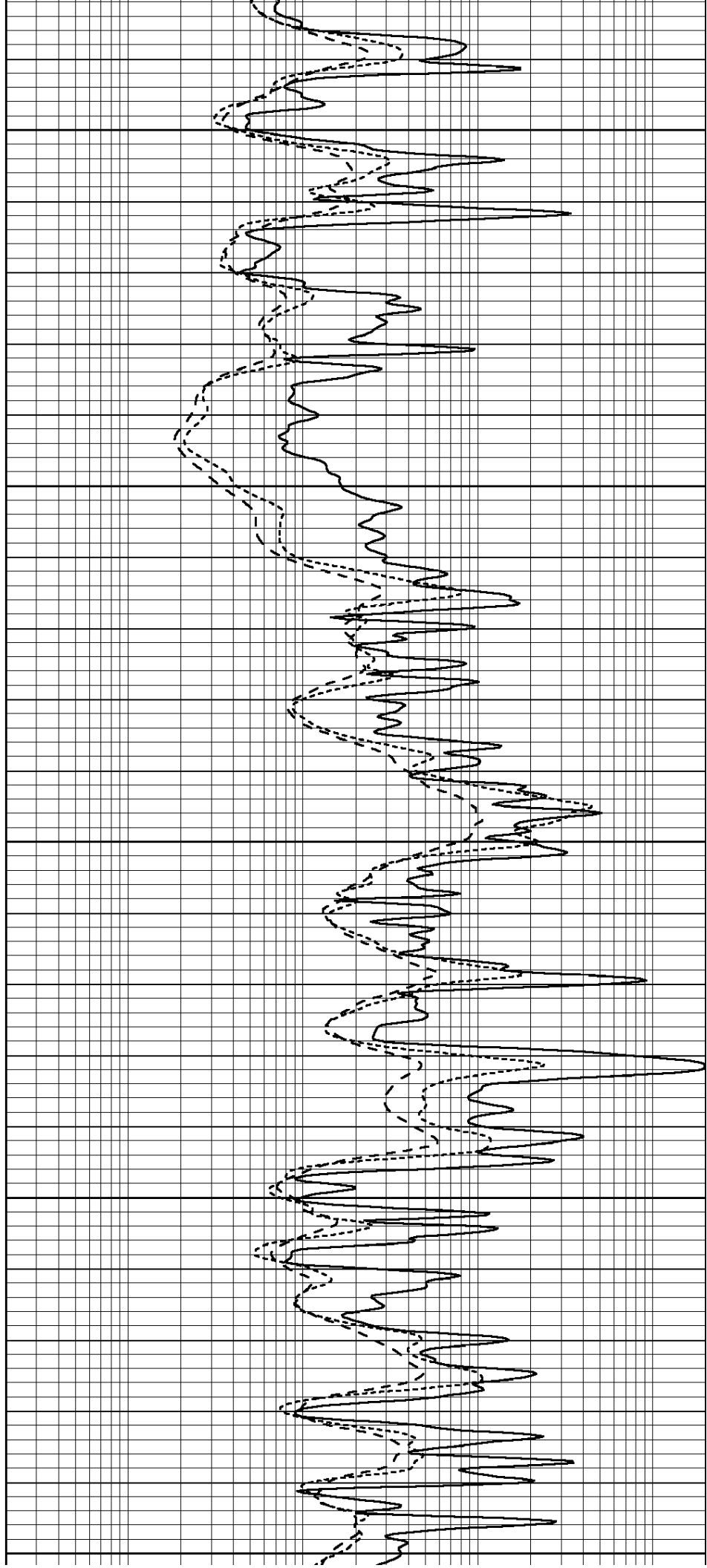
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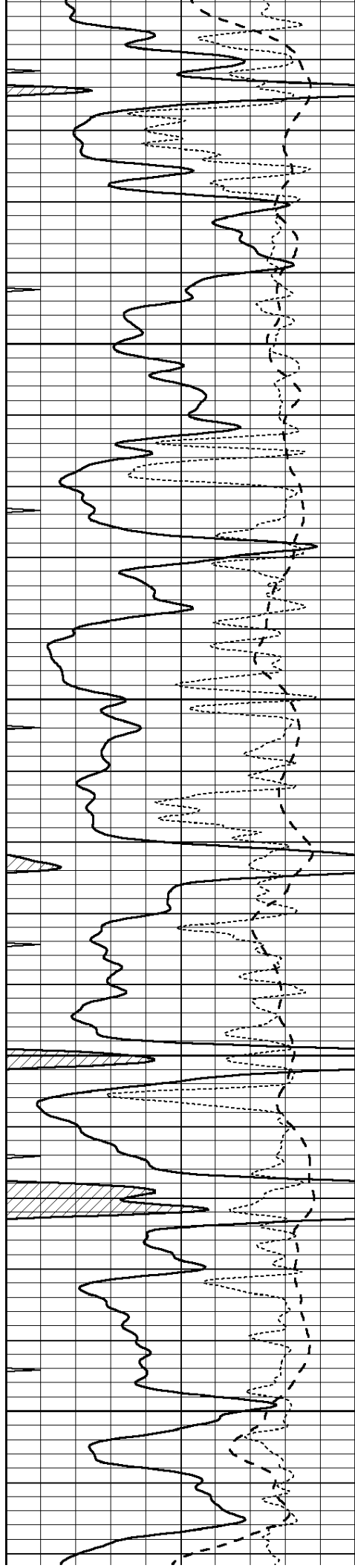
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4500

4550



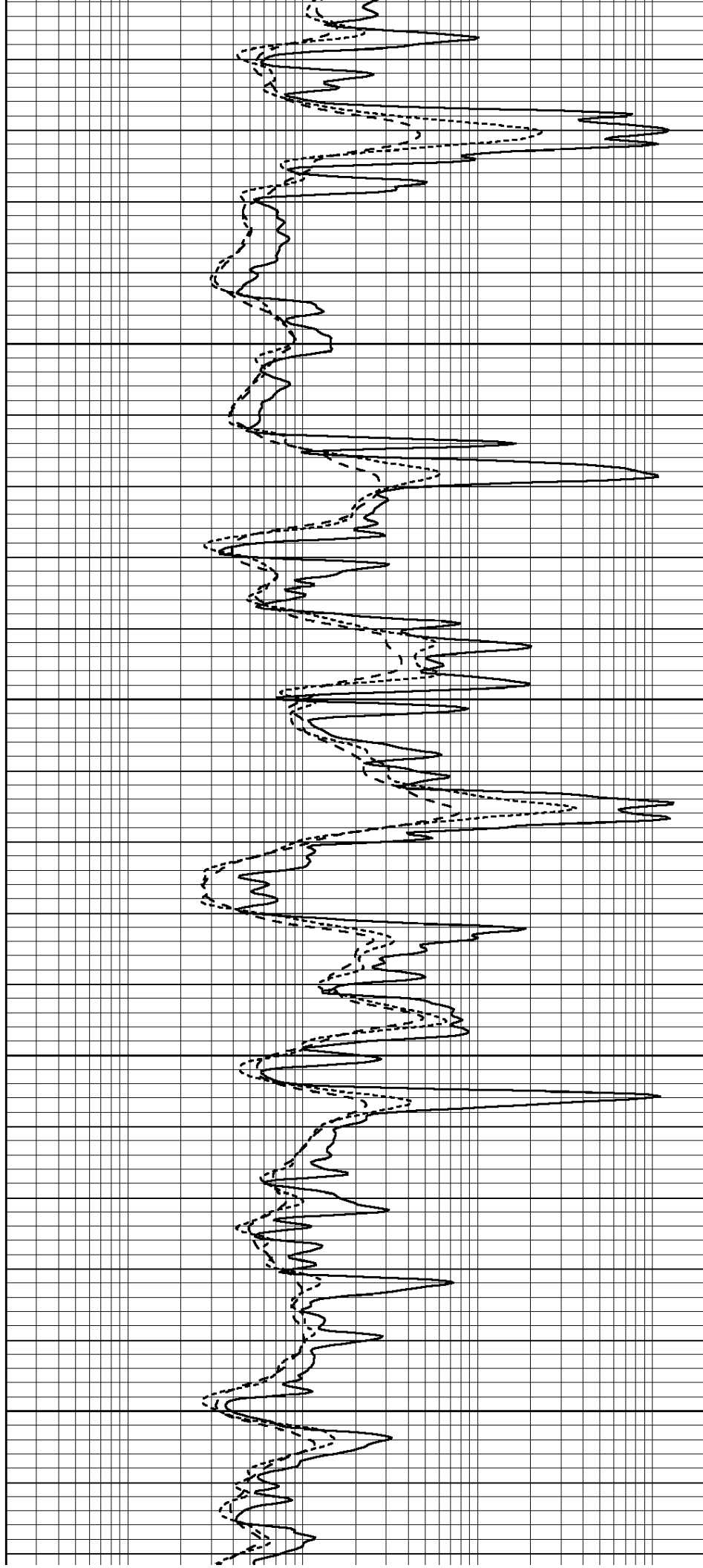


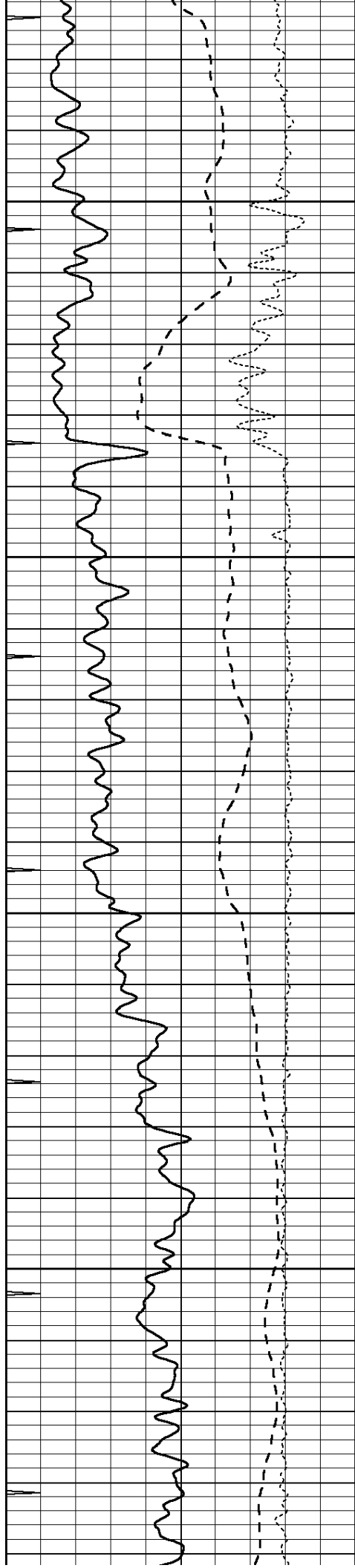
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4750



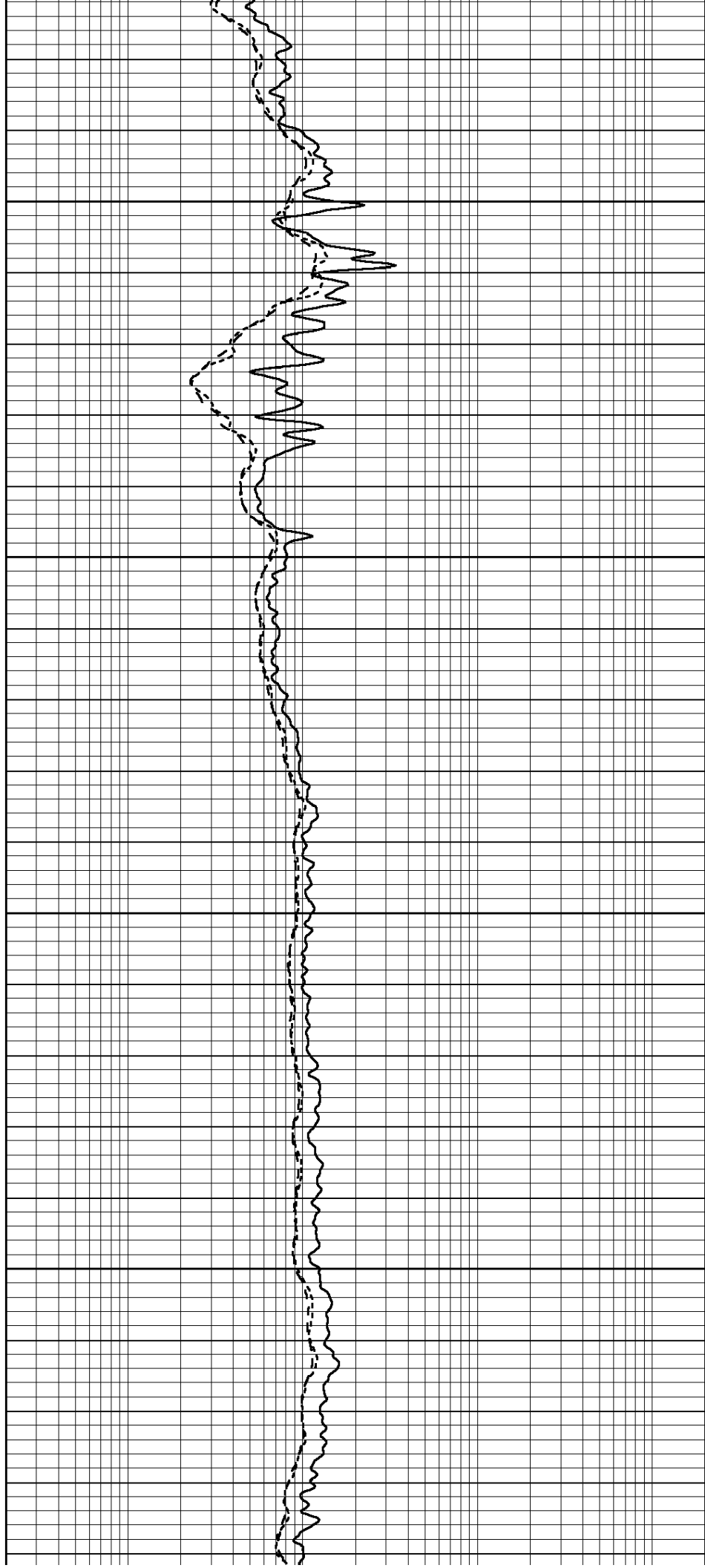


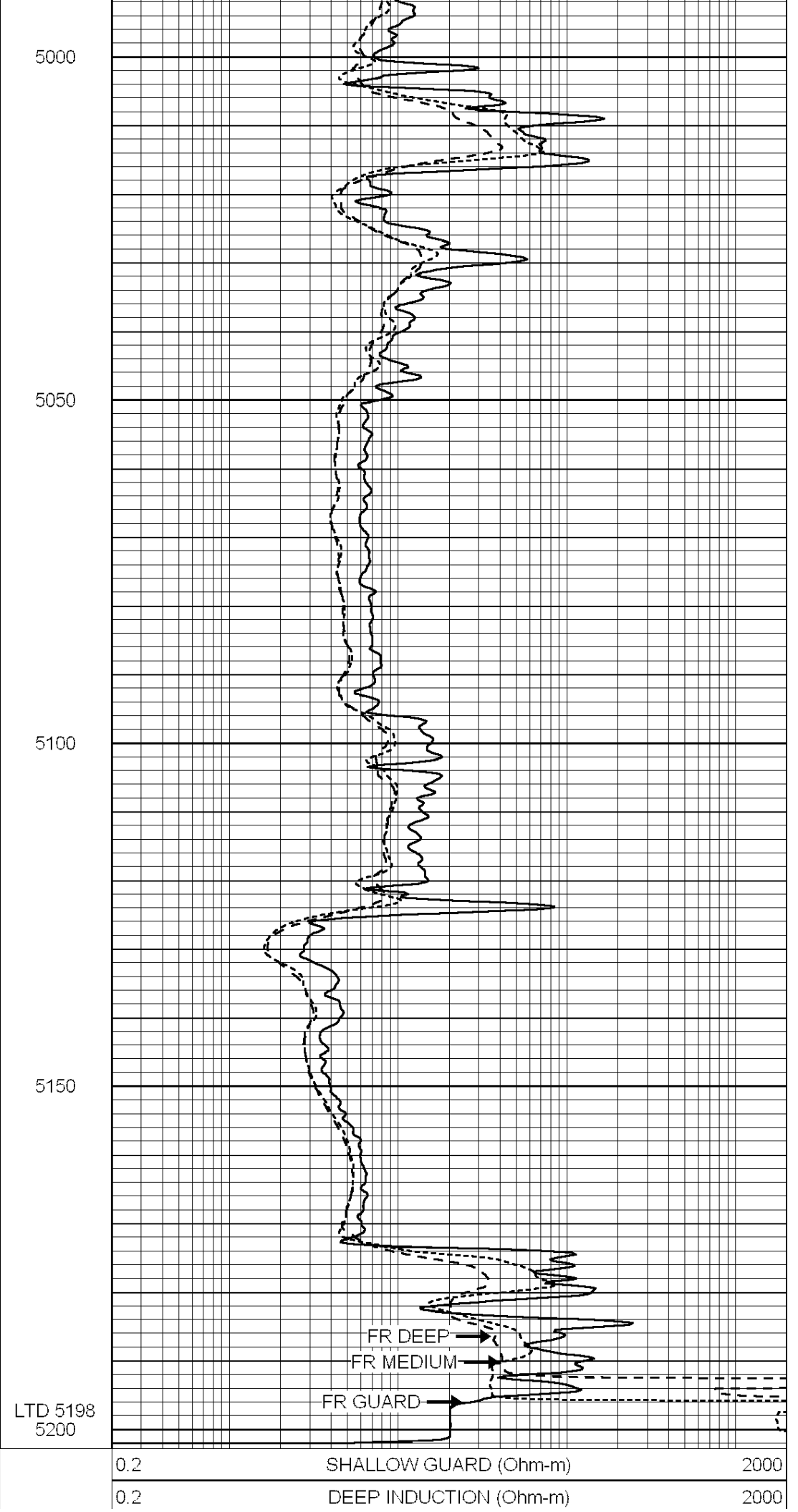
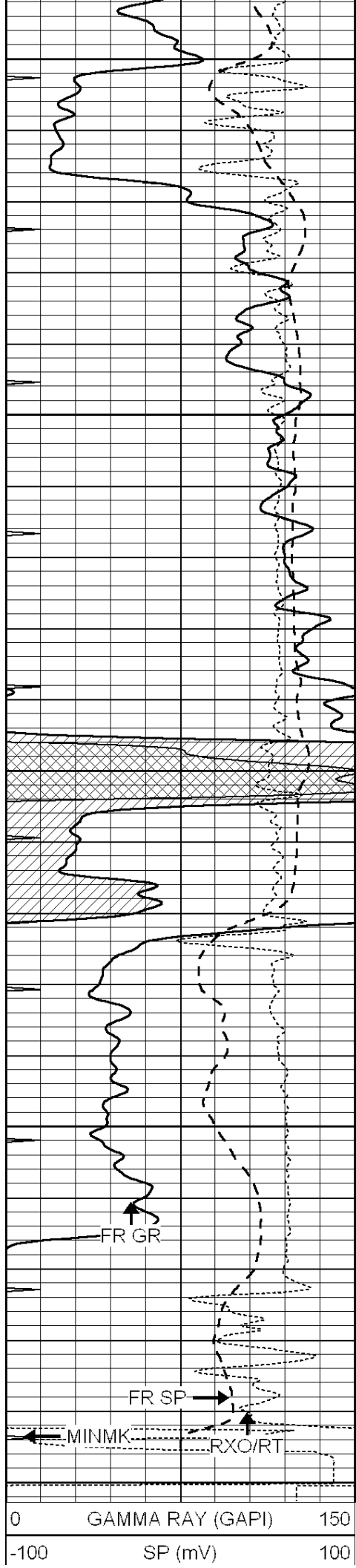
4800

4850

4900

4950





-250	Rxo/Rt	50
0	MINMK	10

0.2	MEDIUM INDUCTION (Ohm-m)	2000
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SUPERIOR

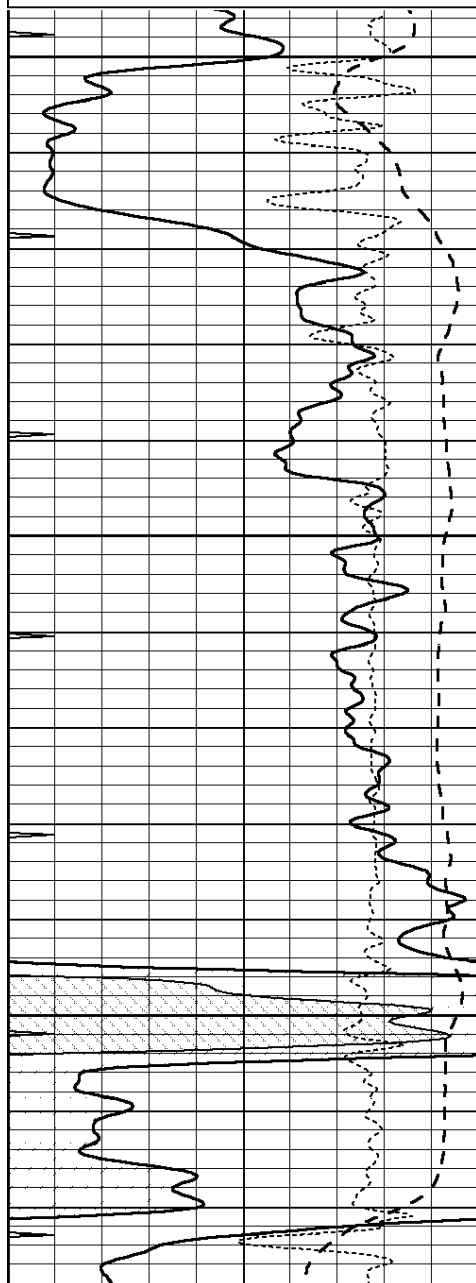
Hays,
Kansas

REPEAT SECTION

Database File: 005586pe.db
Dataset Pathname: pass2.4
Presentation Format: dil
Dataset Creation: Wed Aug 18 19:46:35 2010 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	MINMK	10

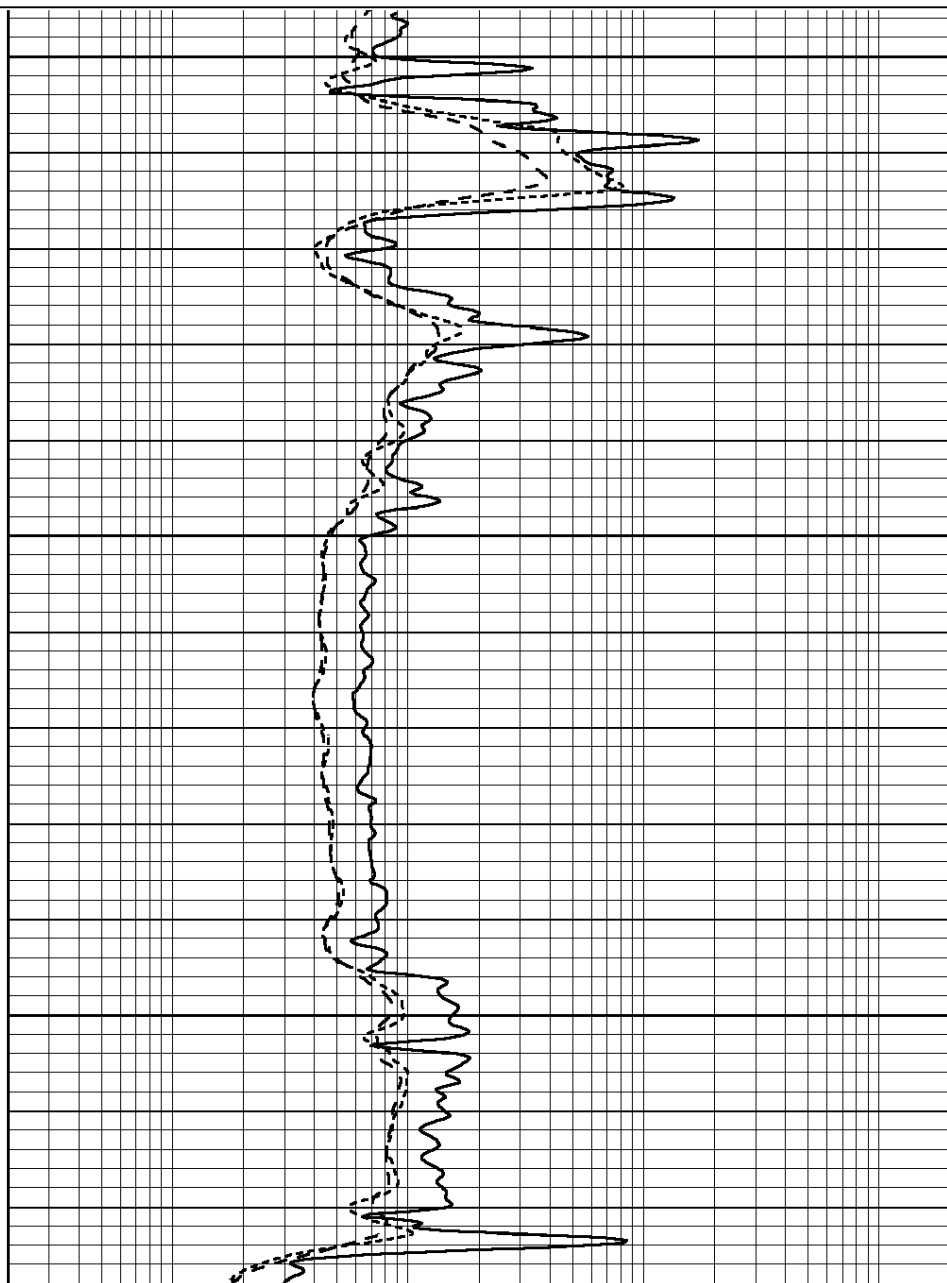
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

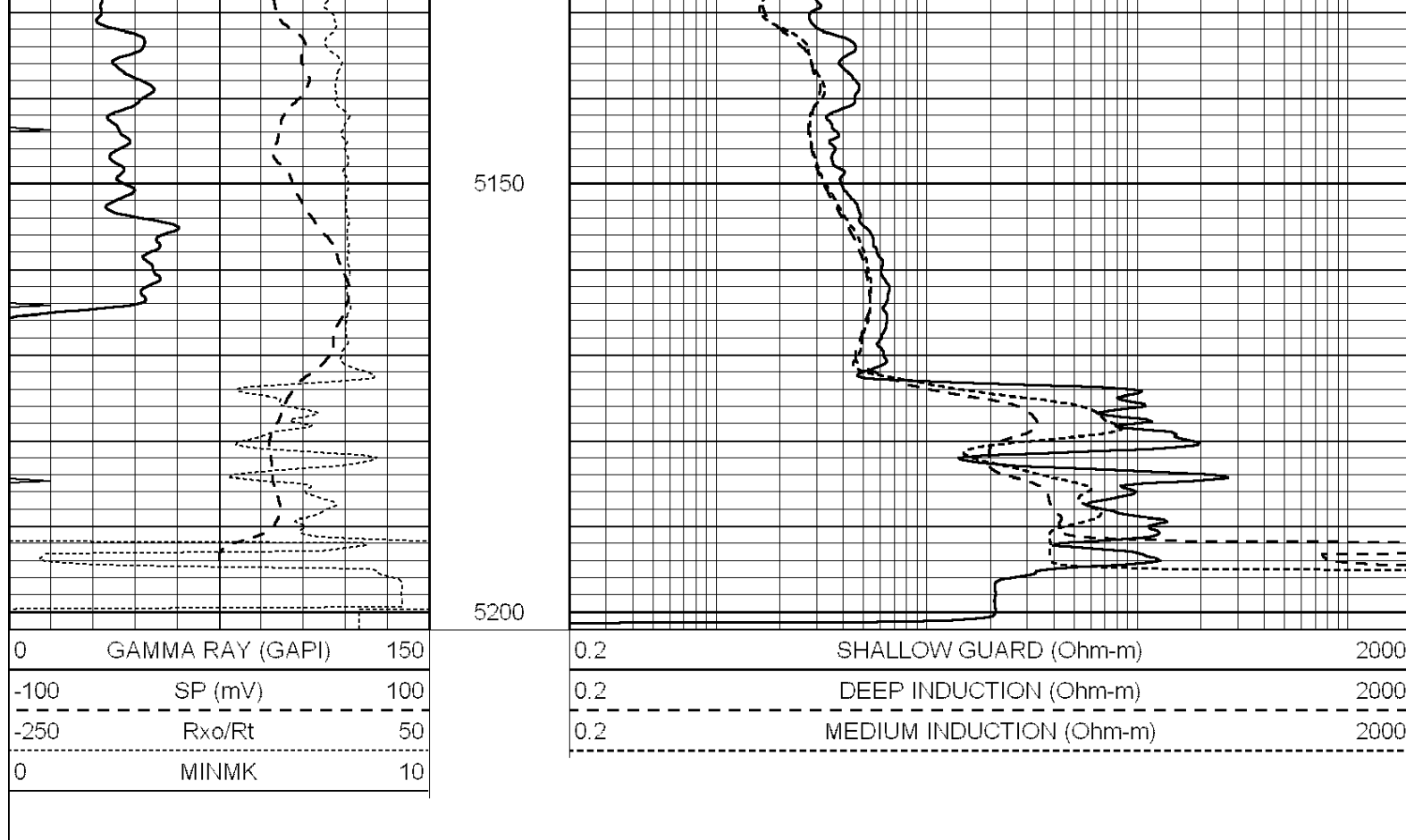


5000

5050

5100





Calibration Report

Database File: 005586pe.db
 Dataset Pathname: pass3.3
 Dataset Creation: Wed Aug 18 20:19:33 2010 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
 Performed: Wed Aug 18 15:46:00 2010

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho/m	660.000	-7.000
Medium	0.020	0.738	V	0.000	462.500	mmho/m	740.000	-26.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000

Litho Density Calibration Report

Serial: 004N Model: PRB
 Performed Tue Sep 08 13:49:55 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps
Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps

Rho		1.7100		2.5900		1.3800		g/cc
Pe				2.5700		1.5500		
Rib Angle	:	45.5	Rib Slope	:	1.017	Density/Spine Ratio	:	0.573
Spine Angle	:	75.5	Spine Slope	:	3.865	Spine Intercept	:	-19.7
Caliper								
Low Ref	Readings		Reference					
High Ref	1.2		6.7					
	3.2		14.0					
	Gain: 3.7				Offset: 2.2			
Compensated Neutron Calibration Report								
			Serial Number:		NEU_4I			
			Tool Model:		G			
CALIBRATION								
	Detector		Readings		Target		Normalization	
	Short Space		996.00 cps		1000.00 cps		1.0000	
	Long Space		977.00 cps		1000.00 cps		1.0000	
Gamma Ray Calibration Report								
	Serial Number:		GR4					
	Tool Model:		OPEN					
	Performed:		Wed Aug 18 18:32:57 2010					
	Calibrator Value:		200.0		GAPI			
	Background Reading:		0.0		cps			
	Calibrator Reading:		189.0		cps			
	Sensitivity:		1.3500		GAPI/cps			