



SUPERIOR
Hays,
Kansas

**DUAL
INDUCTION
LOG**

Company LOTUS OPERATING CO., LLC.
Well KOPPITZ #1
Field STRANATHAN
County BARBER
State KANSAS

Company LOTUS OPERATING COMPANY, LLC
Well KOPPITZ #1
Field STRANATHAN
County BARBER State KANSAS

Location: API # : 15-007-23565-0000
900' FNL & 600' FWL
SEC 2 TWP 35S RGE 12W
Permanent Datum GROUND LEVEL Elevation 1391
Log Measured From KELLY BUSHING 13' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MEL/SON
Elevation
K.B. 1404
D.F. 1402
G.L. 1391

Date	8-5-10
Run Number	ONE
Depth Driller	5200
Depth Logger	5203
Bottom Logged Interval	5201
Top Log Interval	0
Casing Driller	10 3/4" @ 260'
Casing Logger	260
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/46
pH / Fluid Loss	10.0/10.4
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.70 @ 97F
Rmf @ Meas. Temp	.52 @ 97
Rmc @ Meas. Temp	.84 @ 97F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	.53 @ 126F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	126F
Equipment Number	680
Location	HAYS, KS.
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 (785) 628-6395
DIRECTIONS
MEDICINE LODGE KS. - S. TO MM 8 (RATTLESNAKE TRAIL) - 1 W. - 1 S.
1 W. - S. INTO



SUPERIOR
Hays,
Kansas

MAIN SECTION

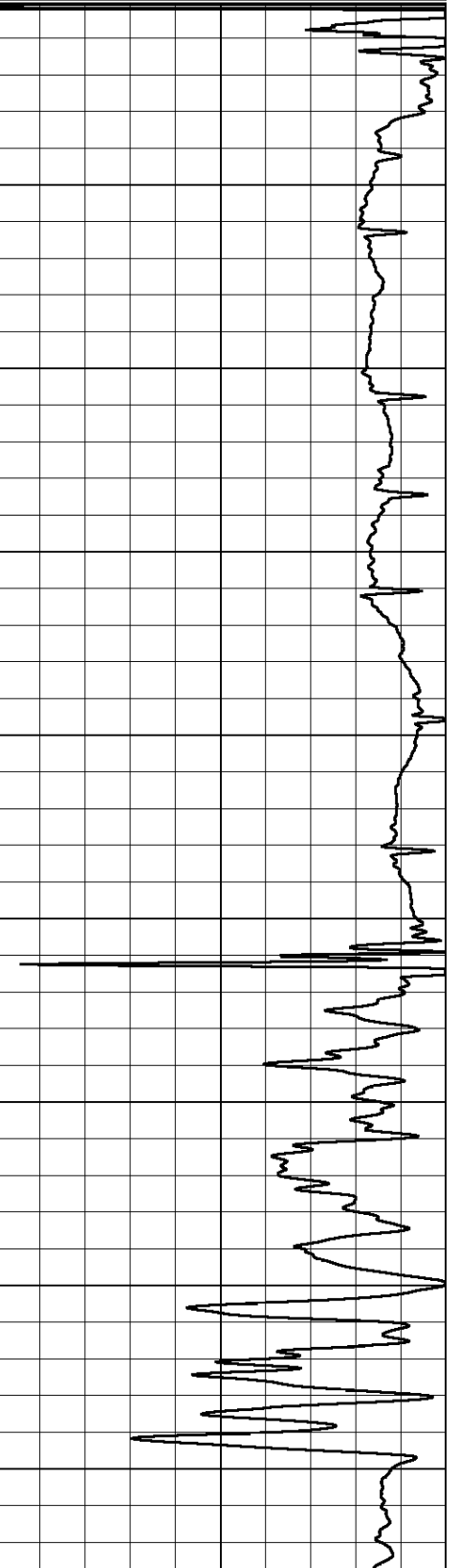
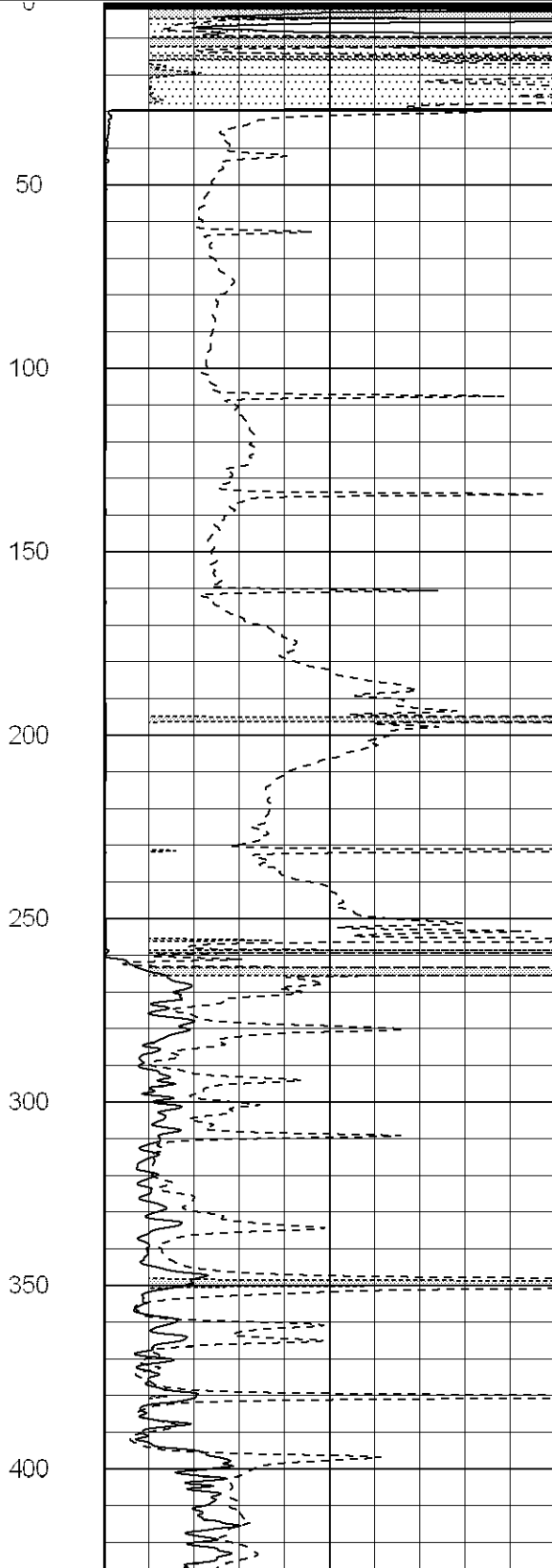
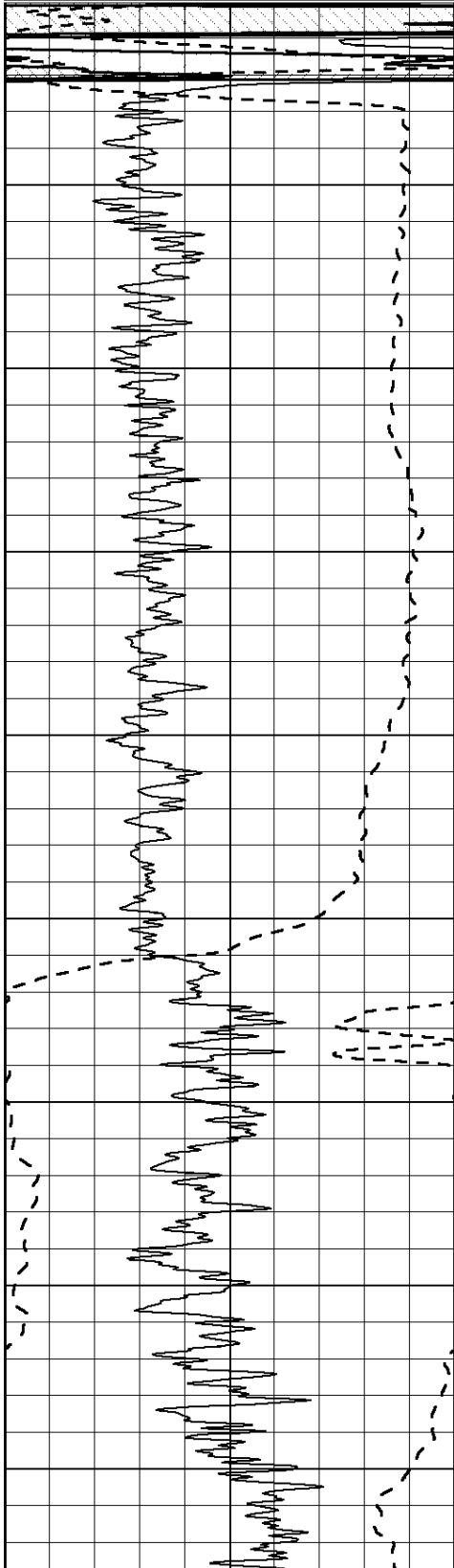
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 Charted by: Depth in Feet scaled 1:600

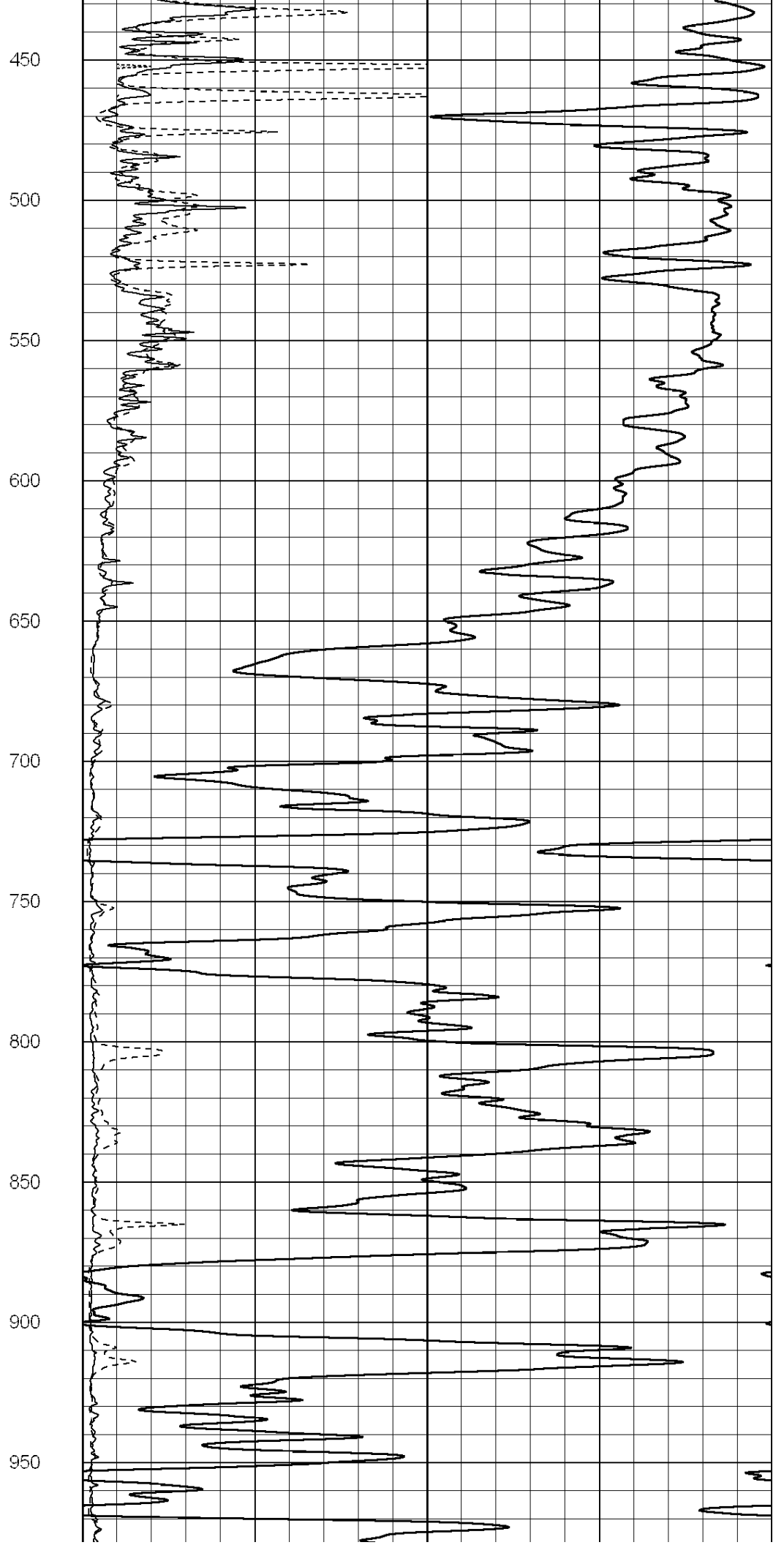
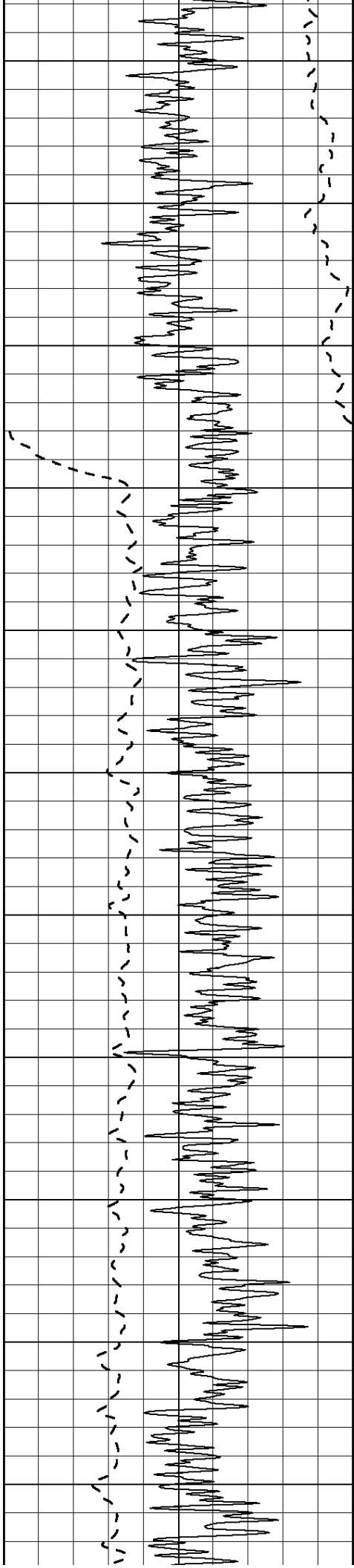
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-100	SP (mV)	100

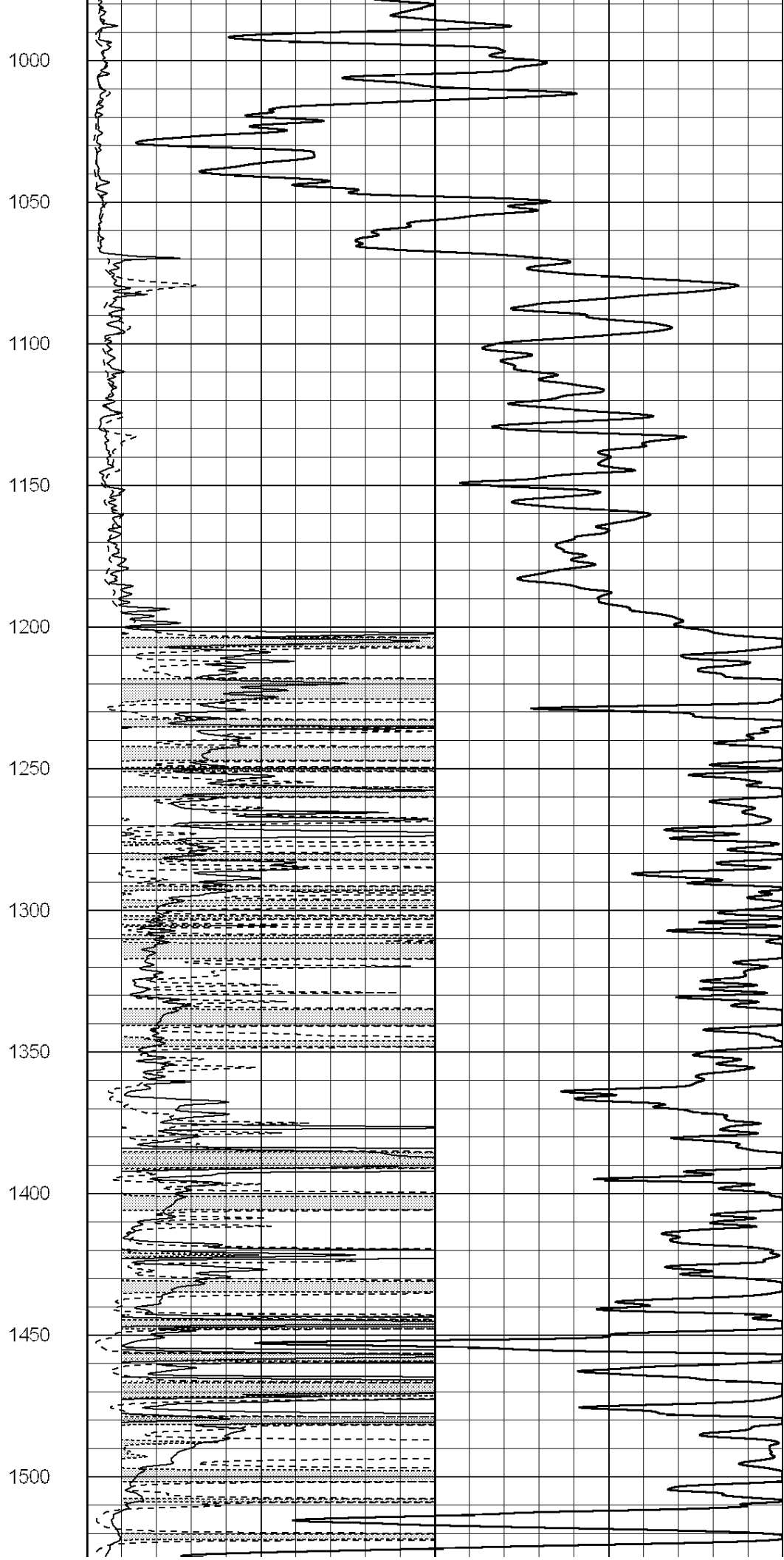
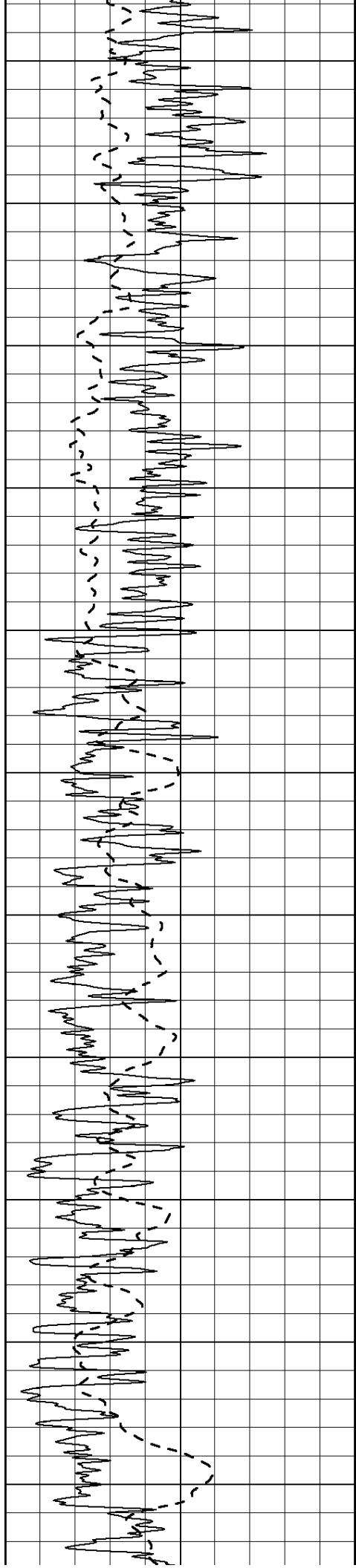
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

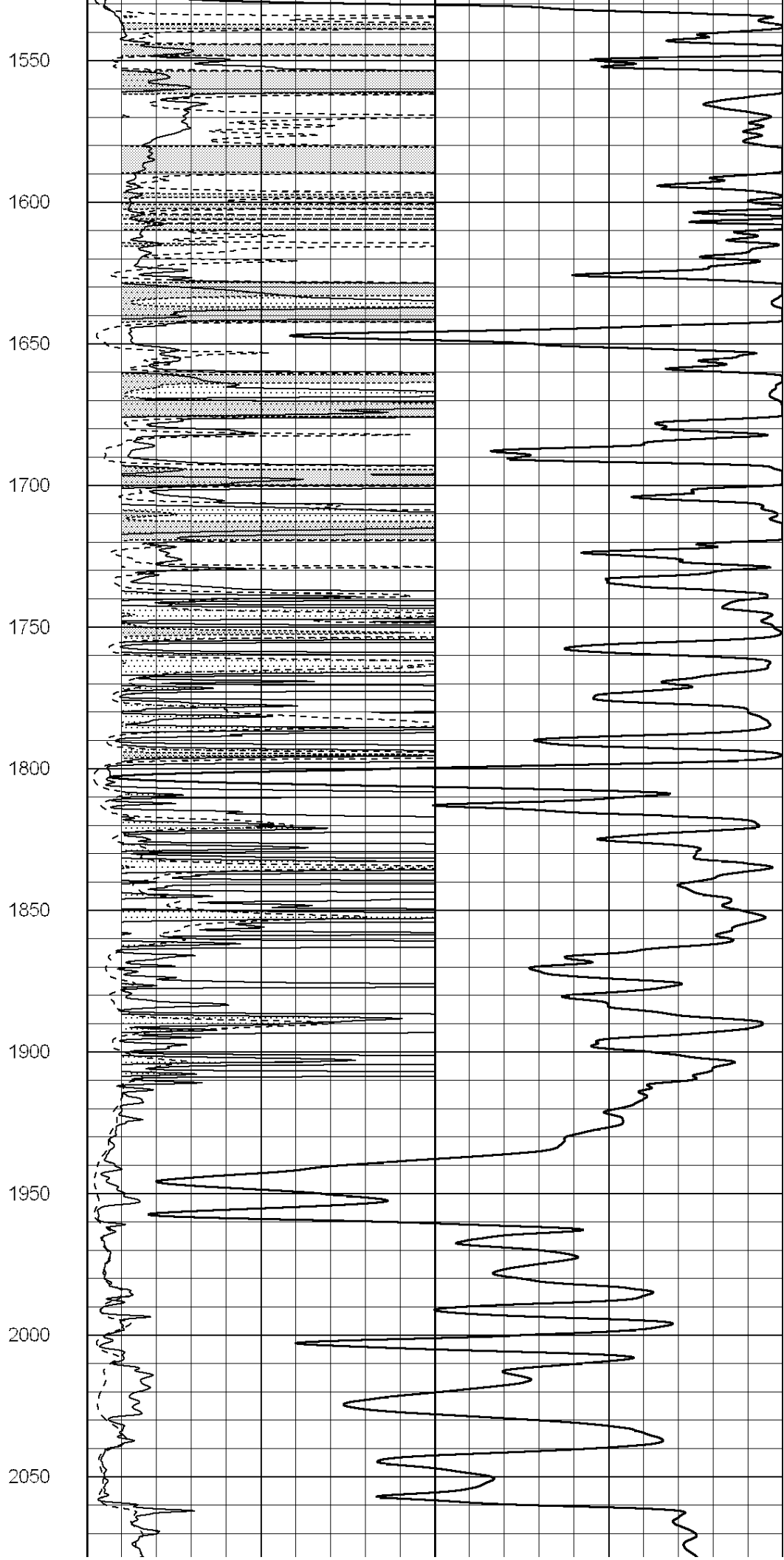
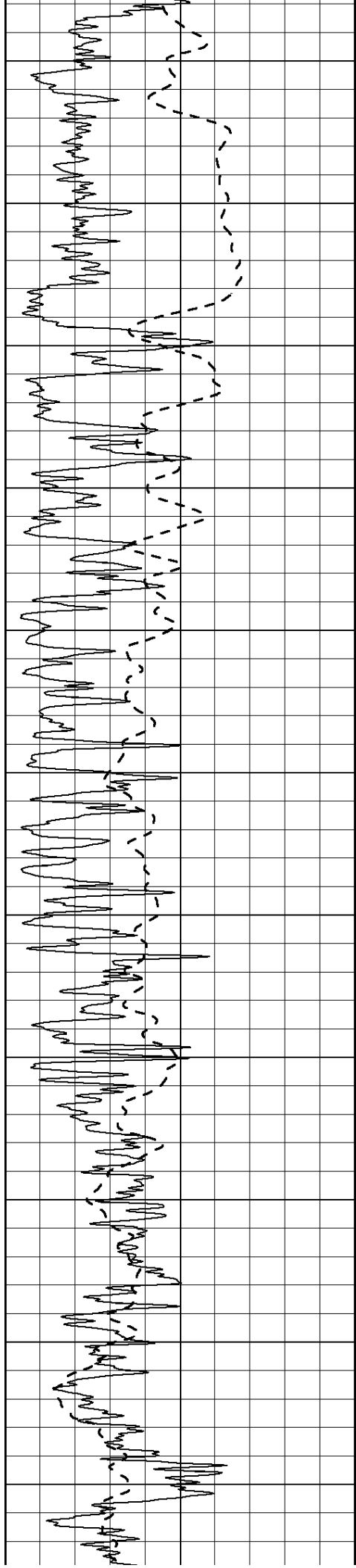
1000	CILD (mmho/m)	0
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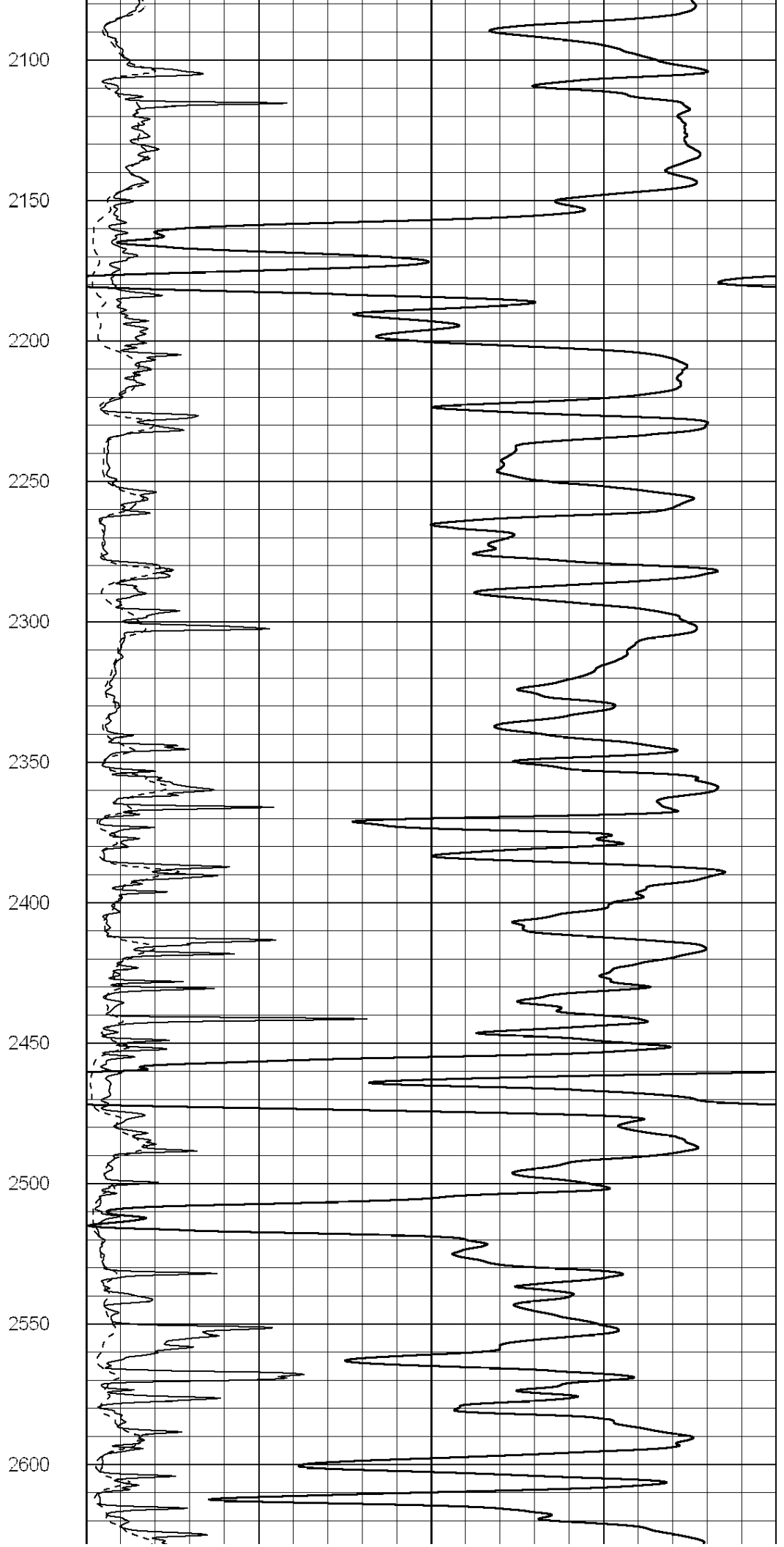
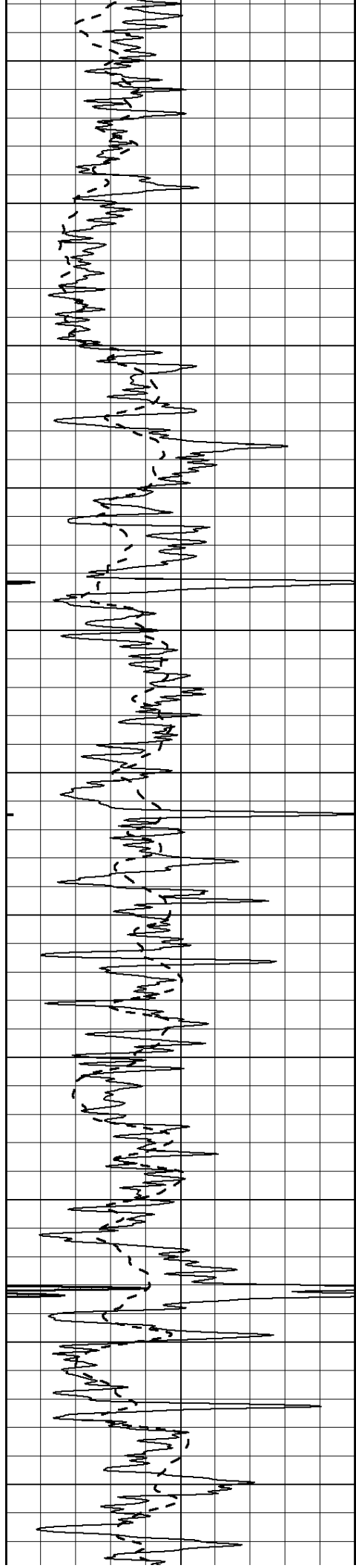
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

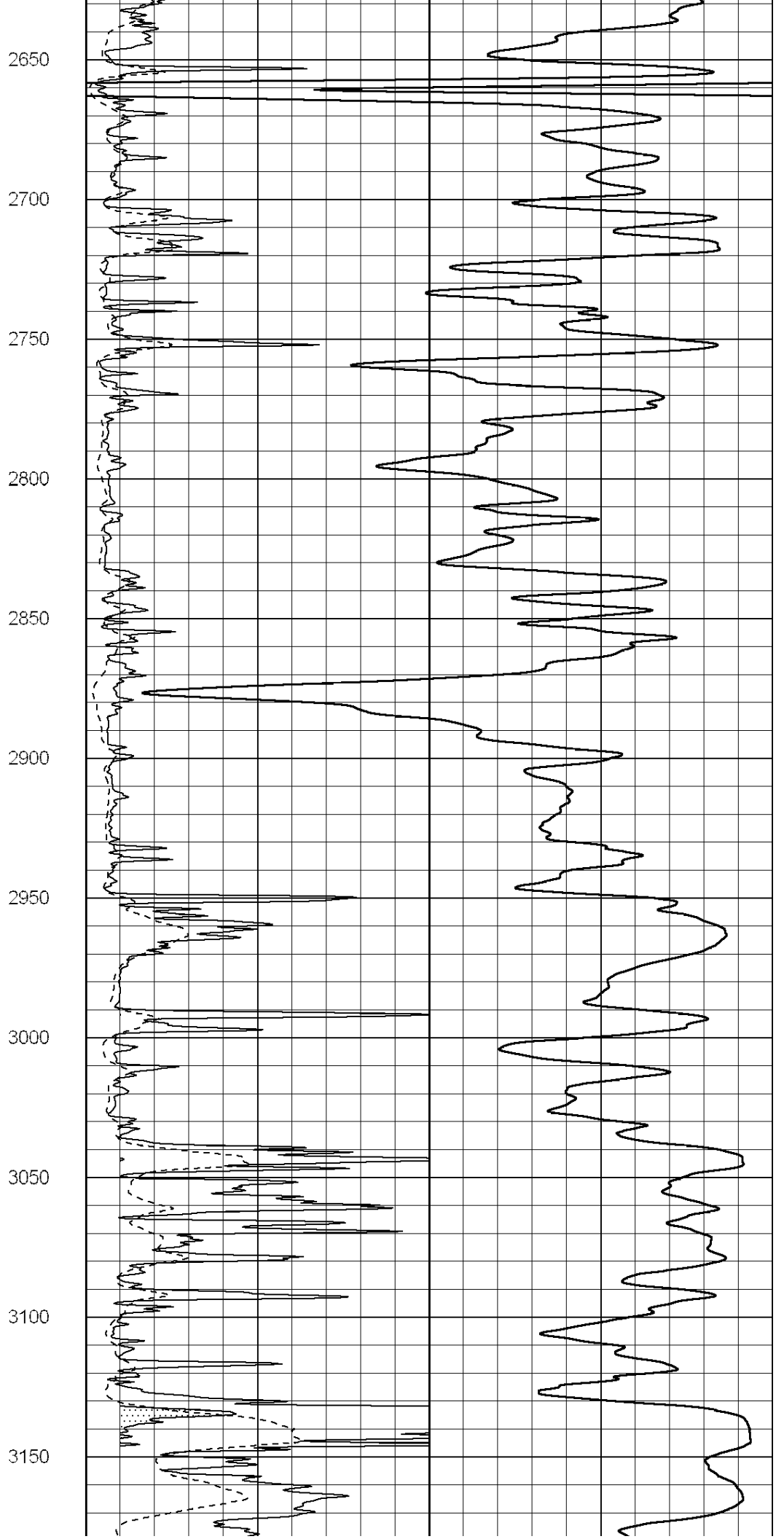
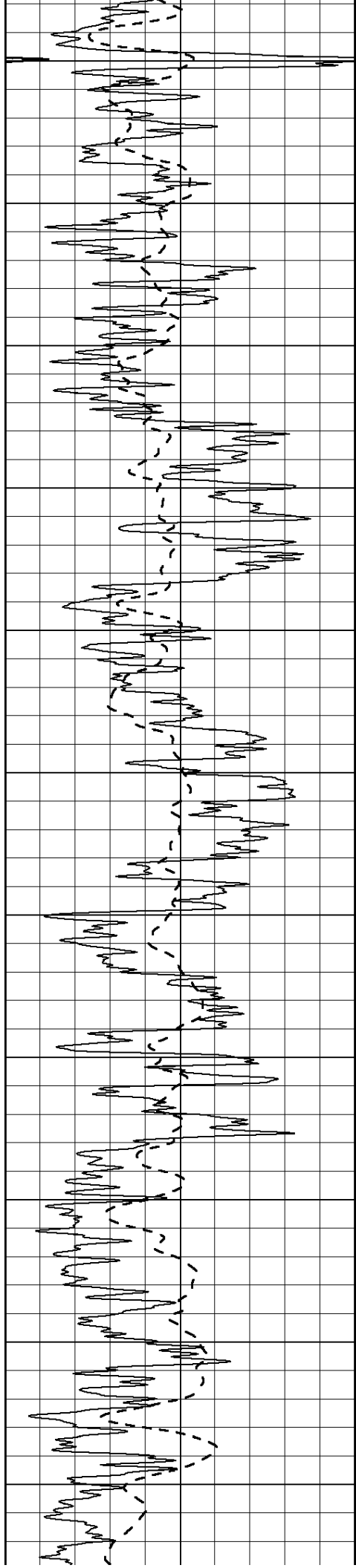


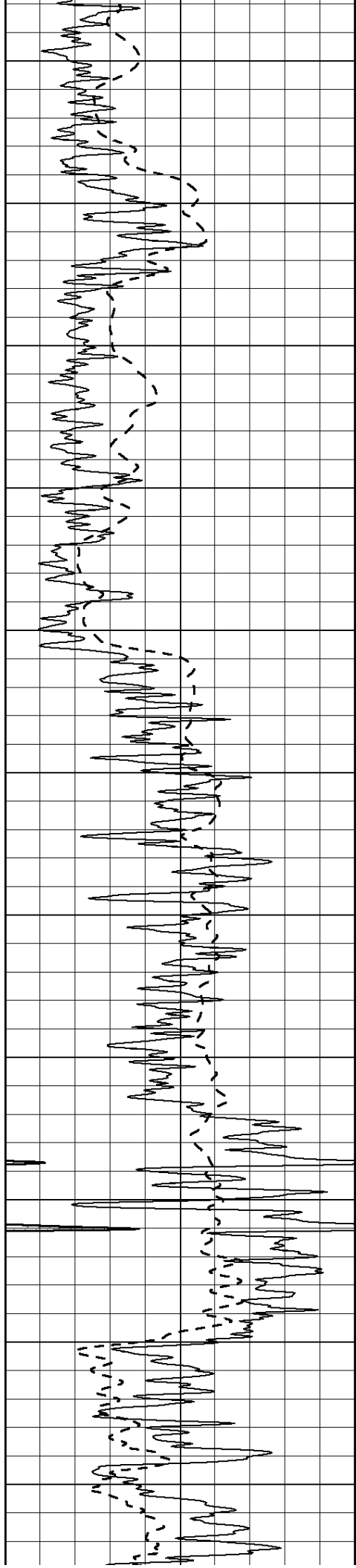












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3250

3300

3350

3400

3450

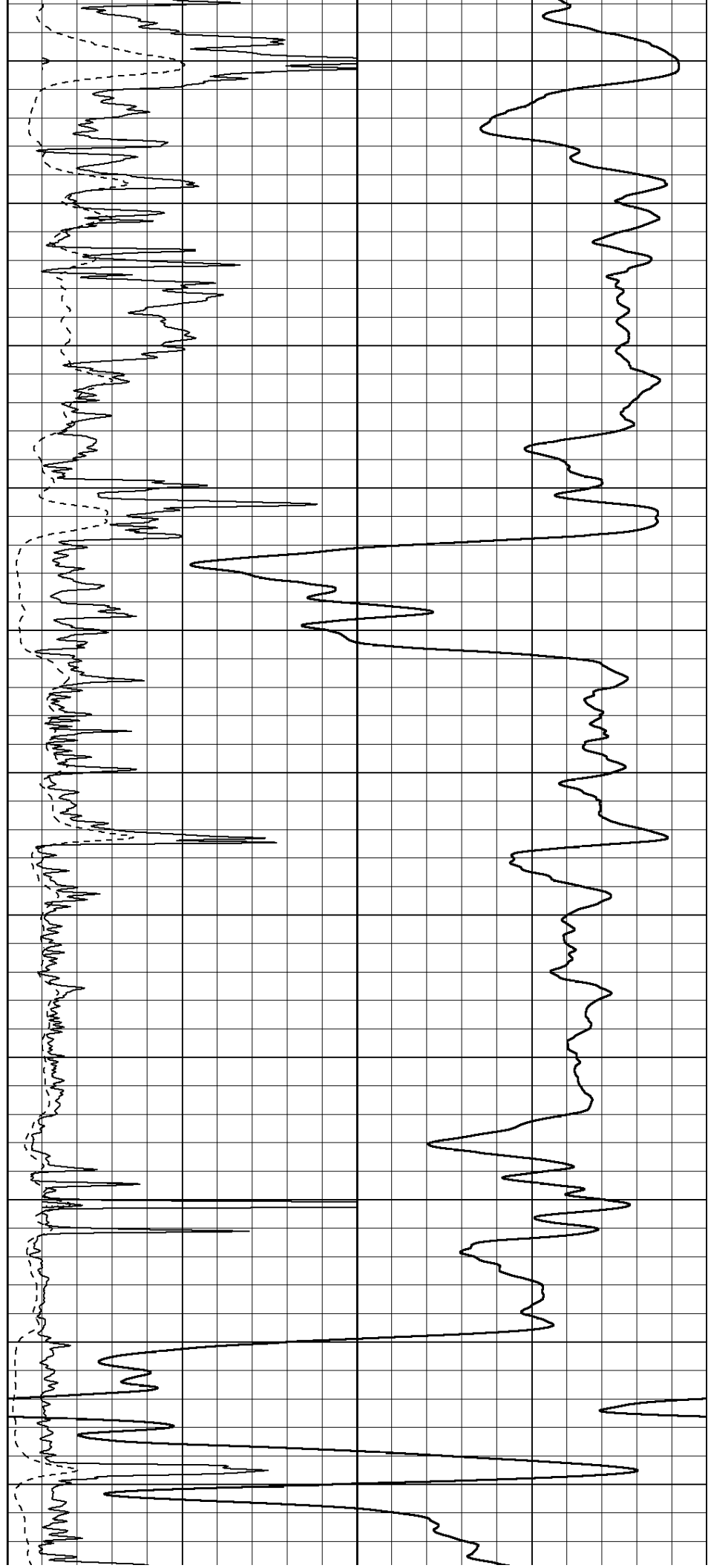
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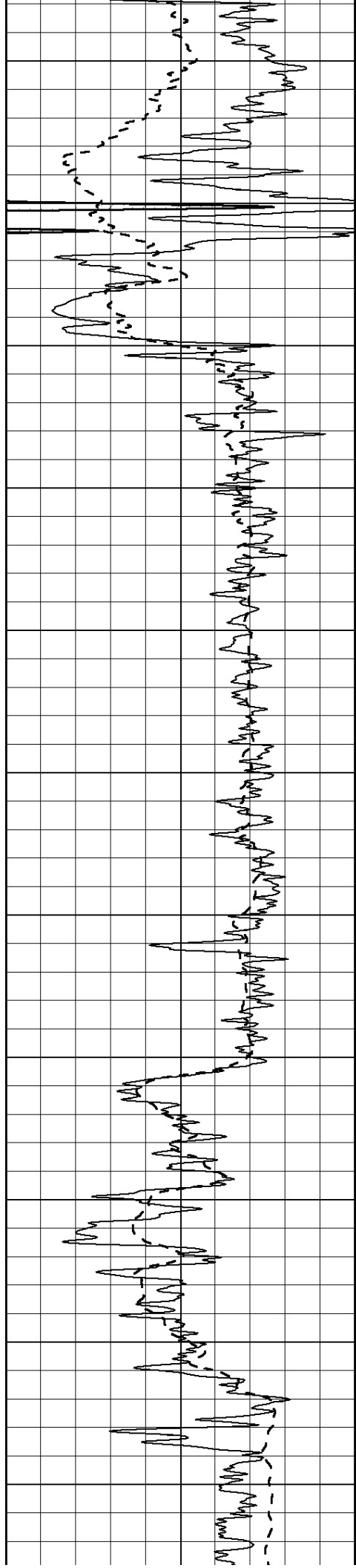
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3600

3650

3700





3750

3800

3850

3900

3950

4000

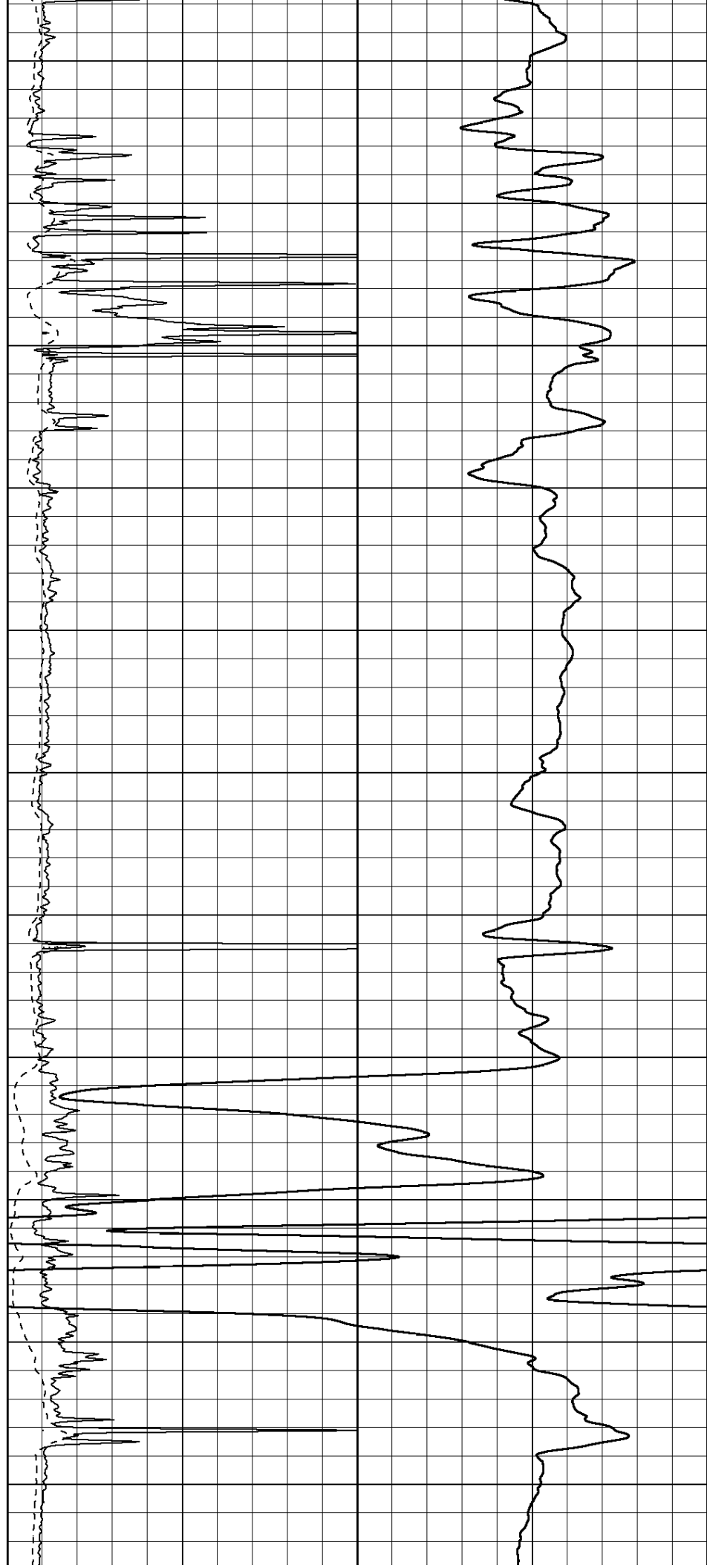
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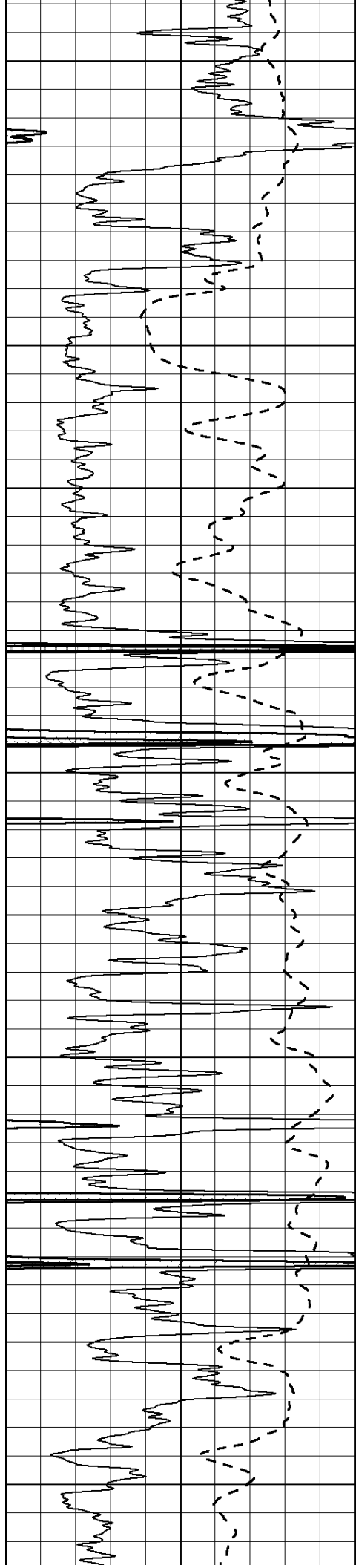
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4150

4200

4250





4300

4350

4400

4450

4500

4550

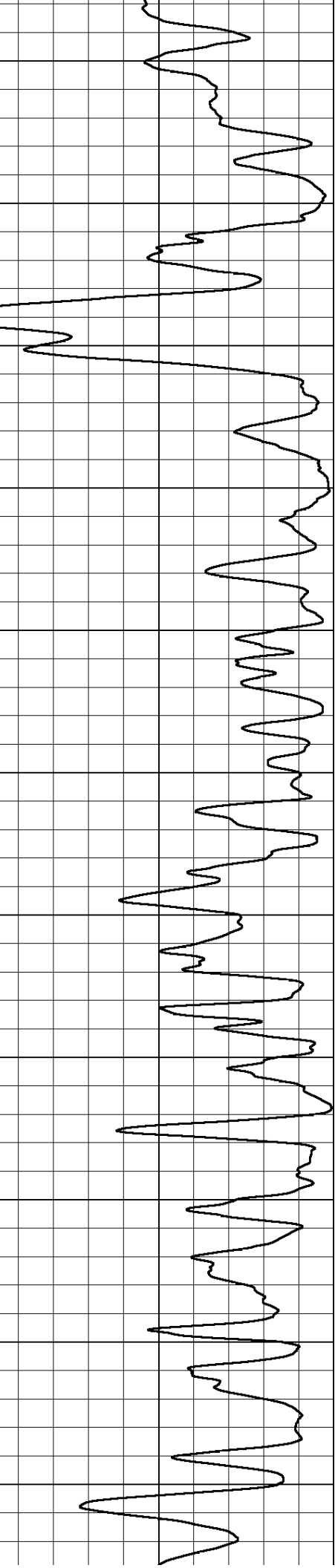
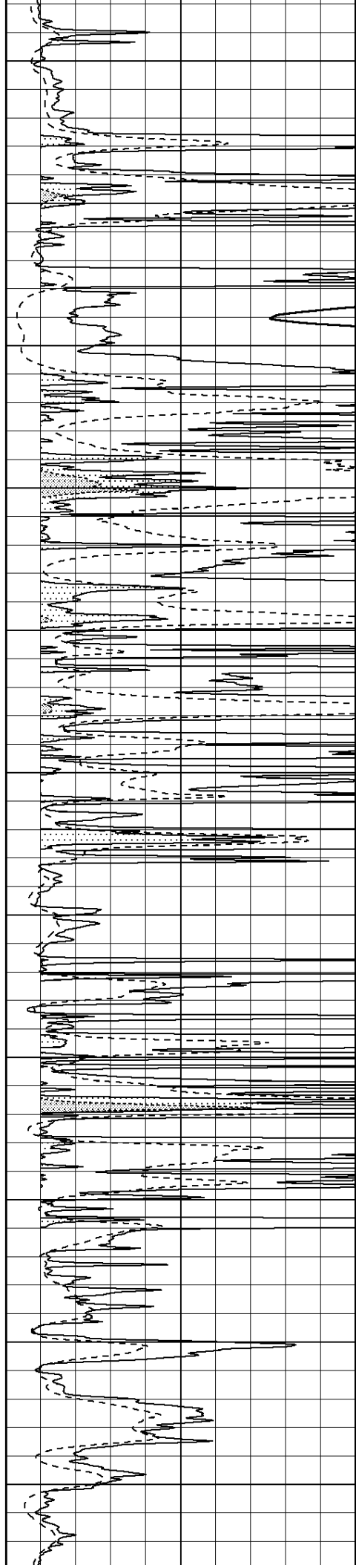
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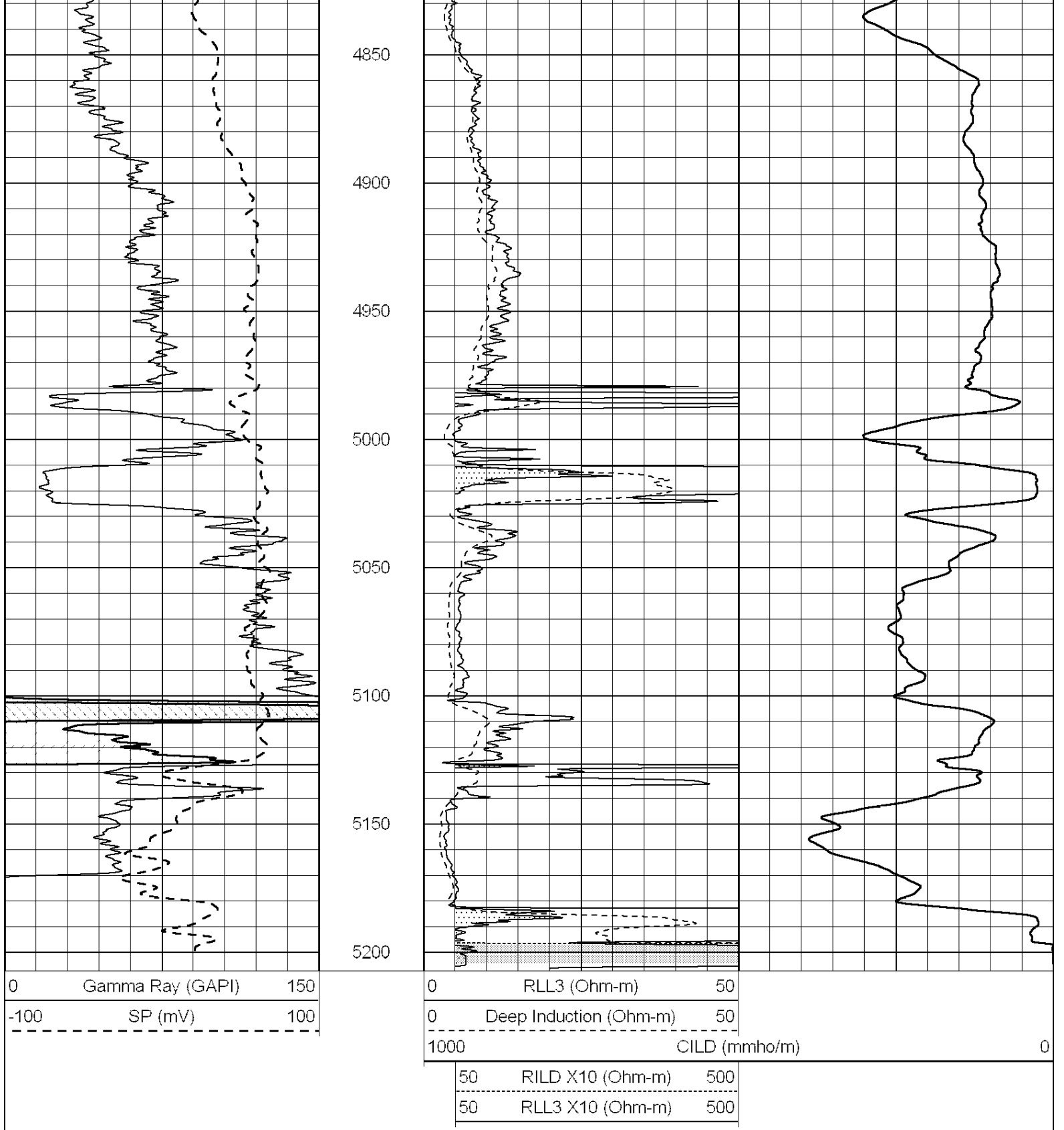
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4700

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4800





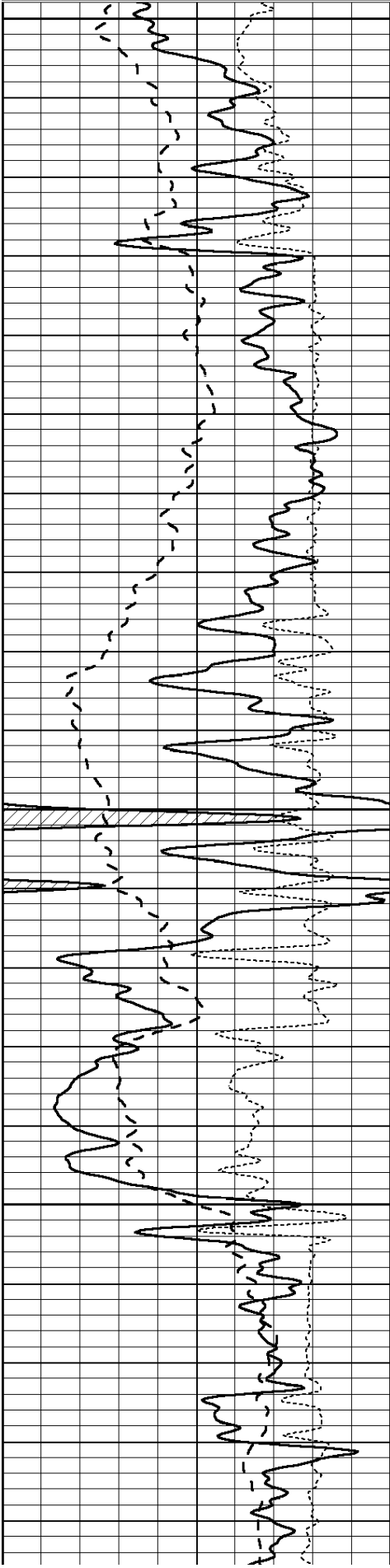
SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 005422pe.db
 Dataset Pathname: pass3.1
 Presentation Format: _dil
 Dataset Creation: Thu Aug 05 11:54:17 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

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

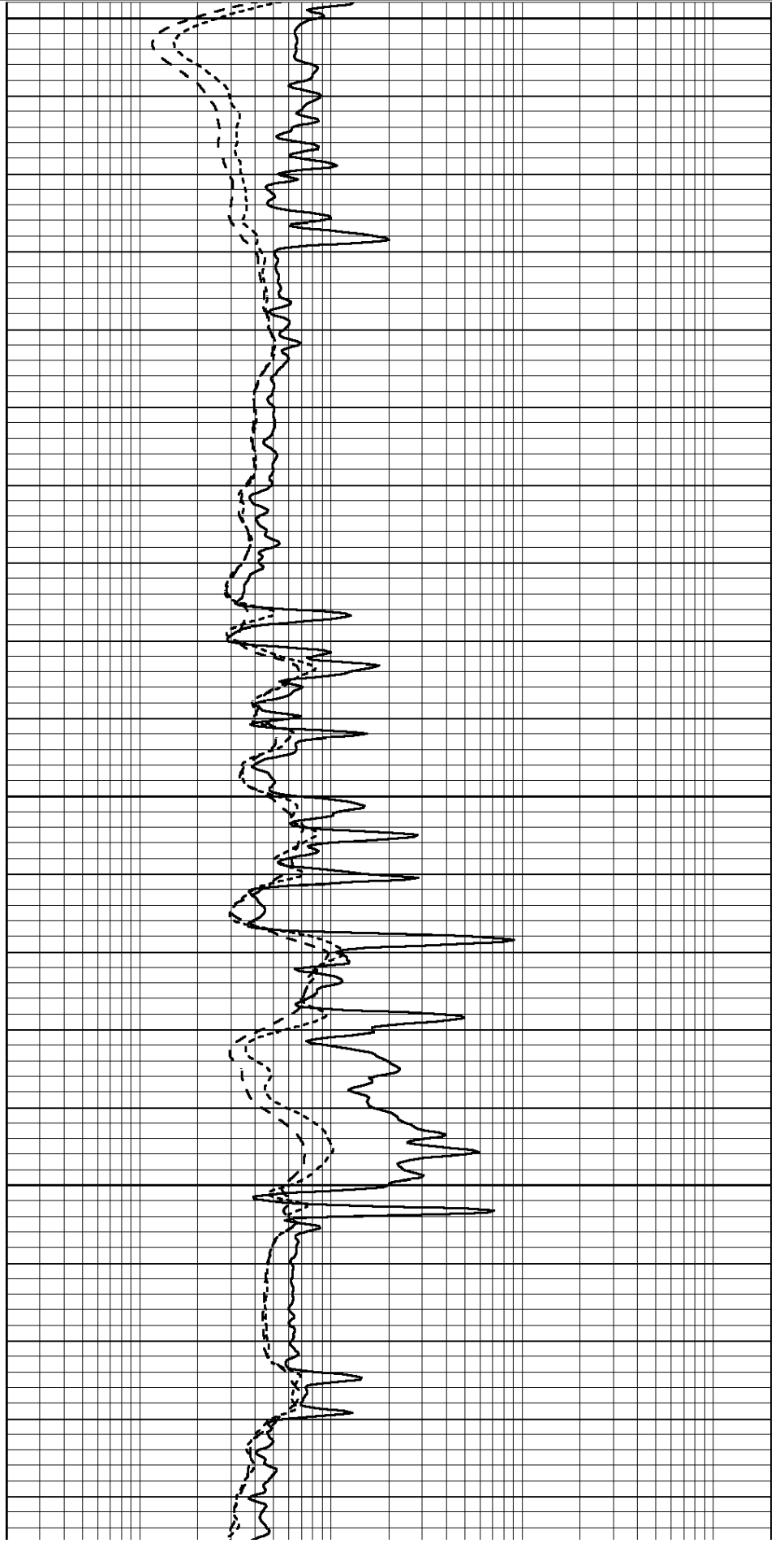


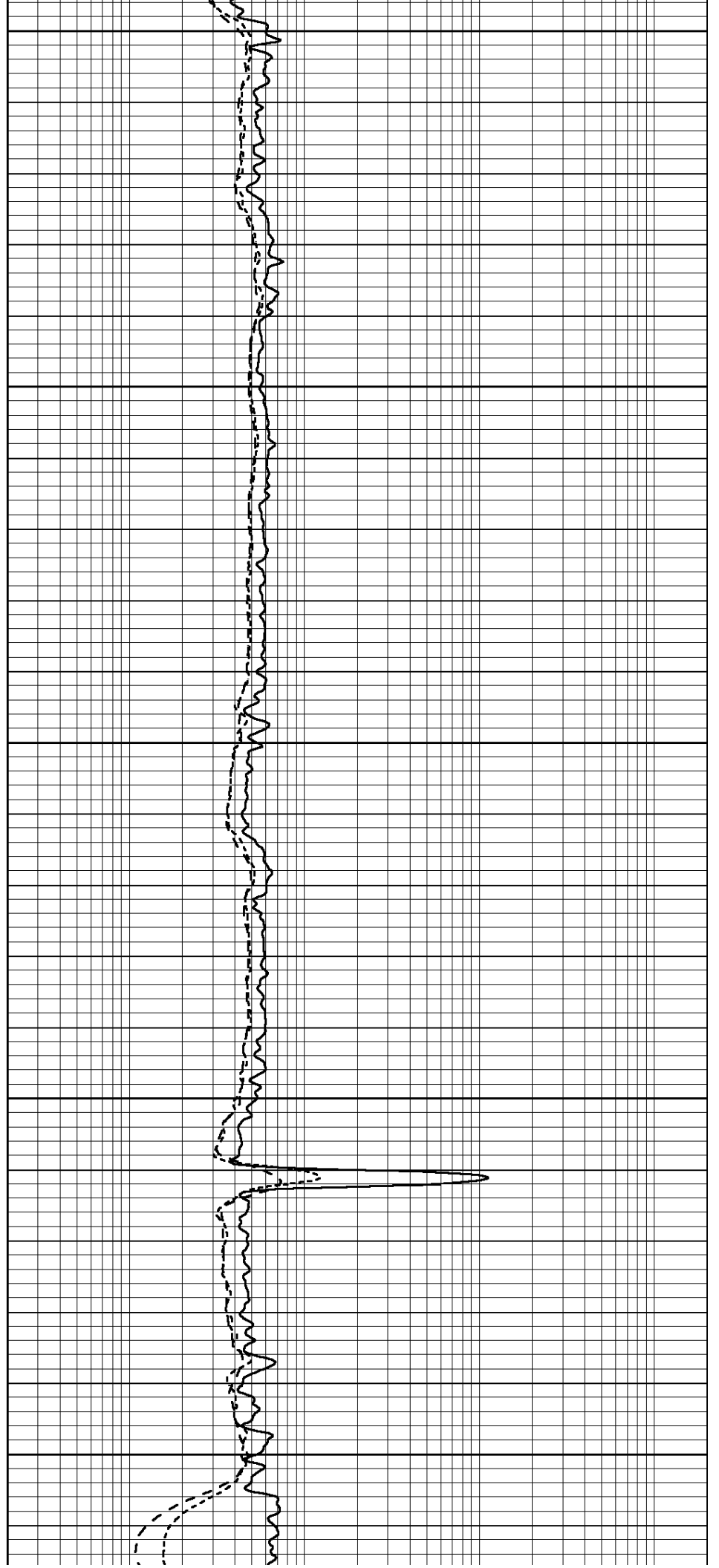
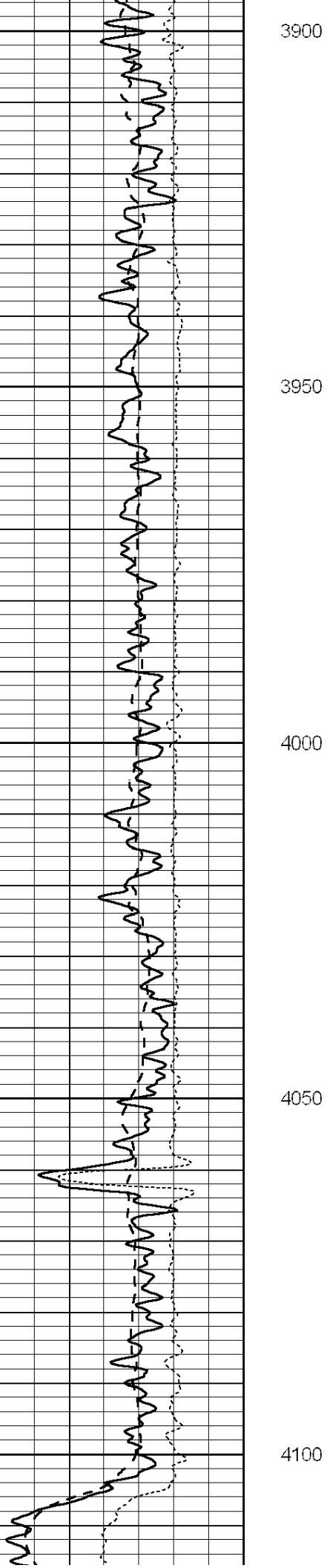
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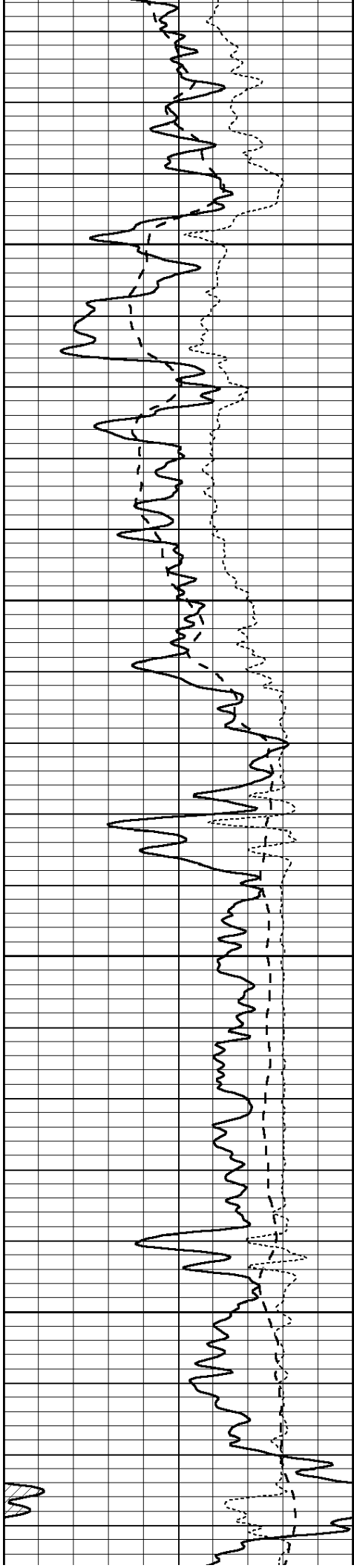
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3800

3850





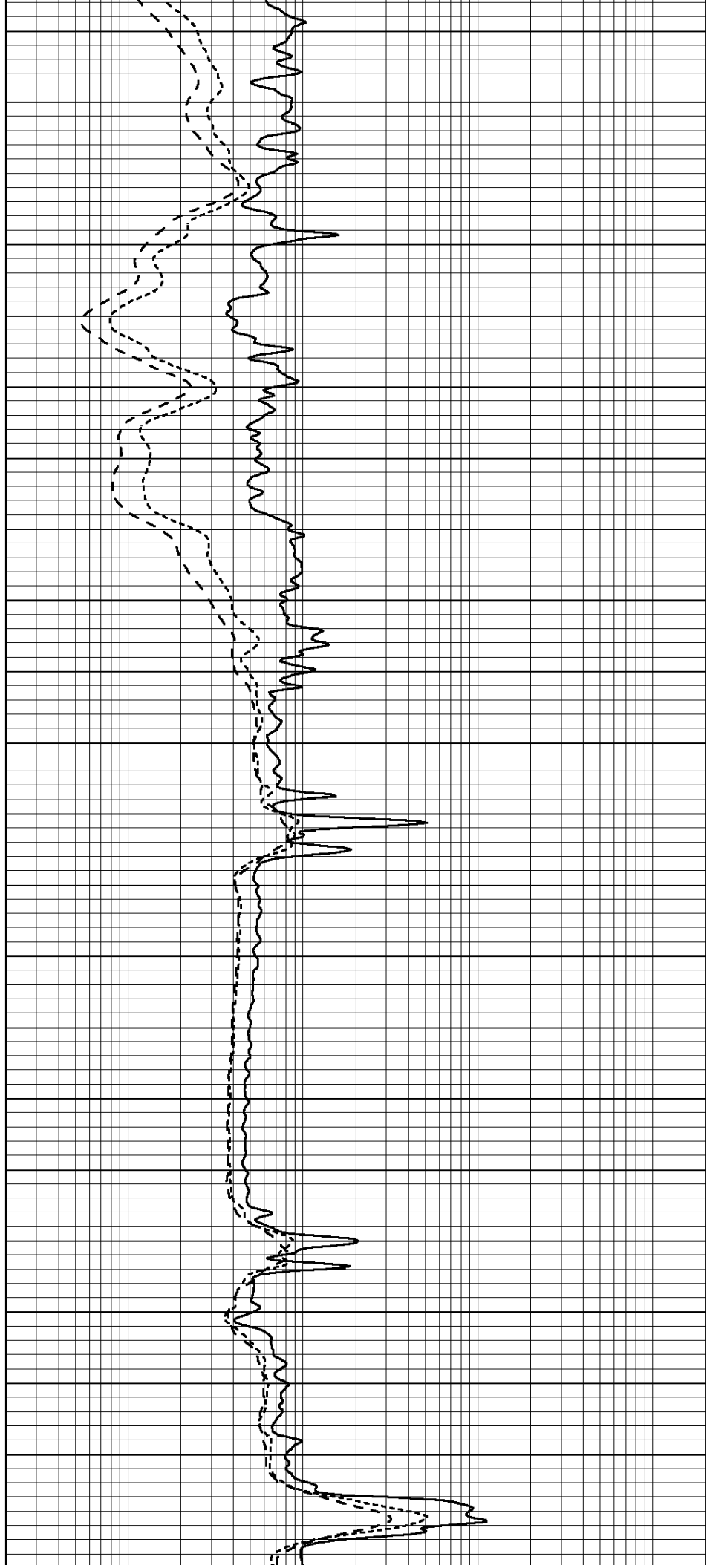


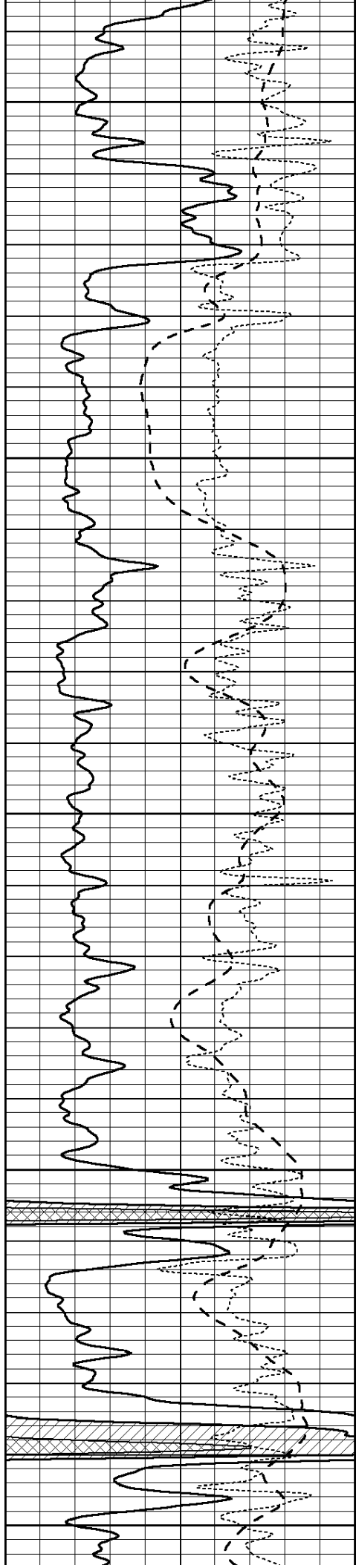
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4200

4250

4300





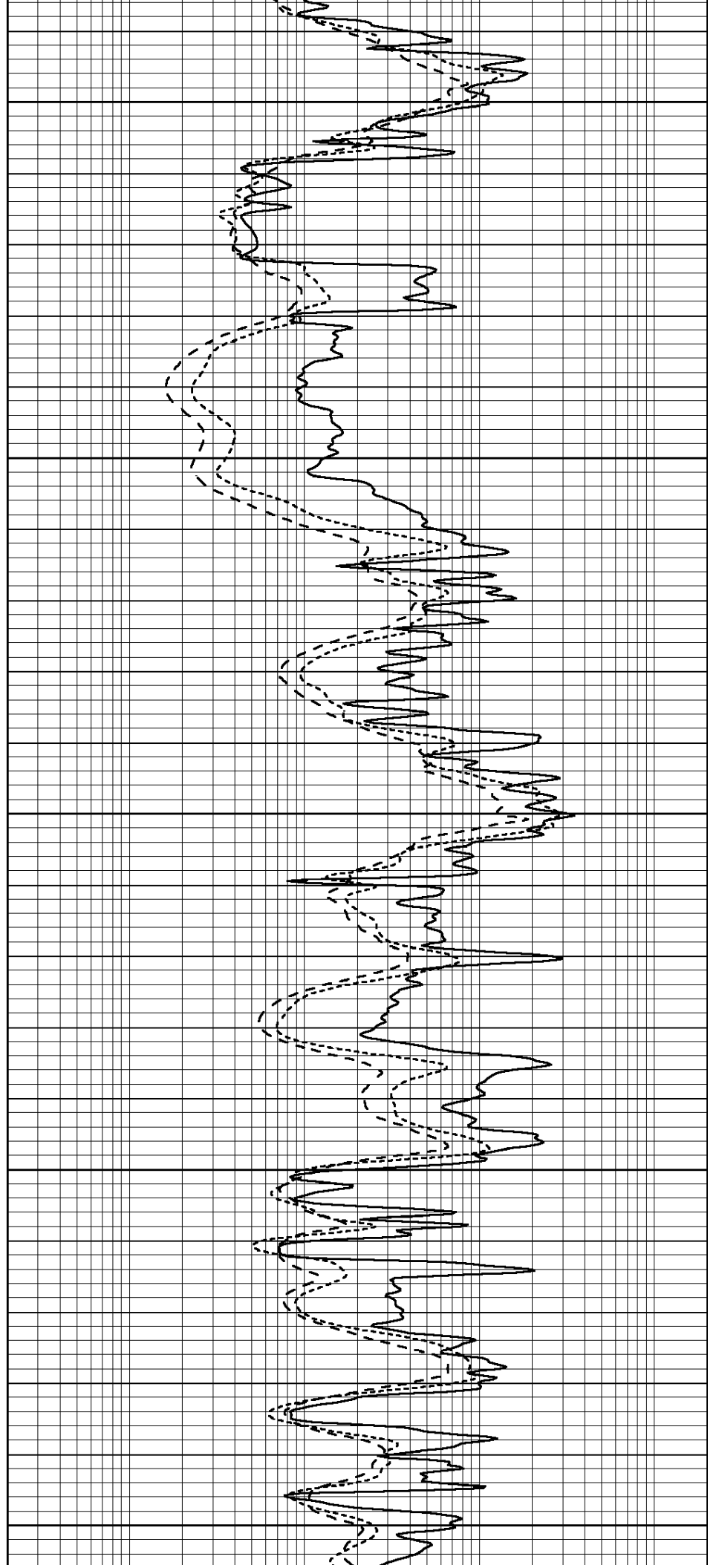
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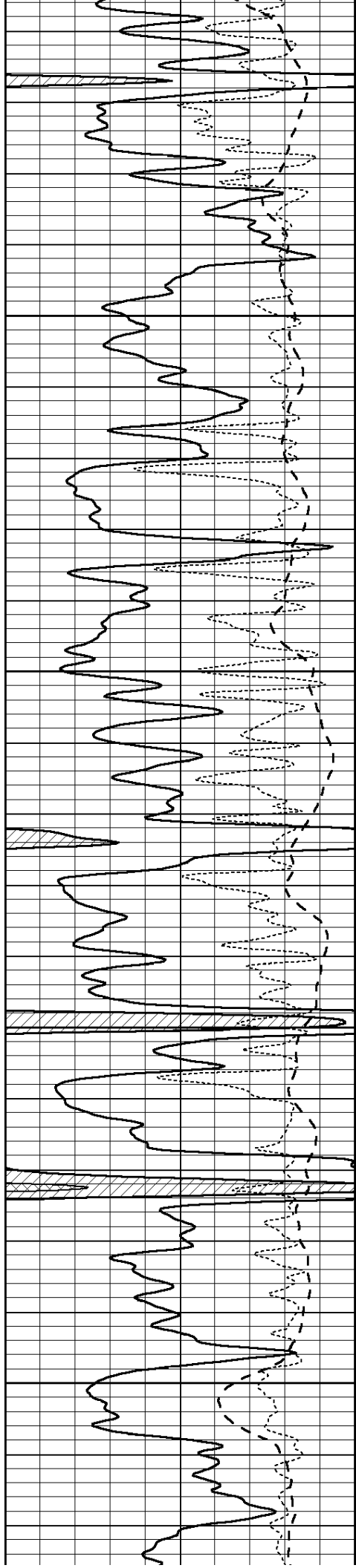
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4500

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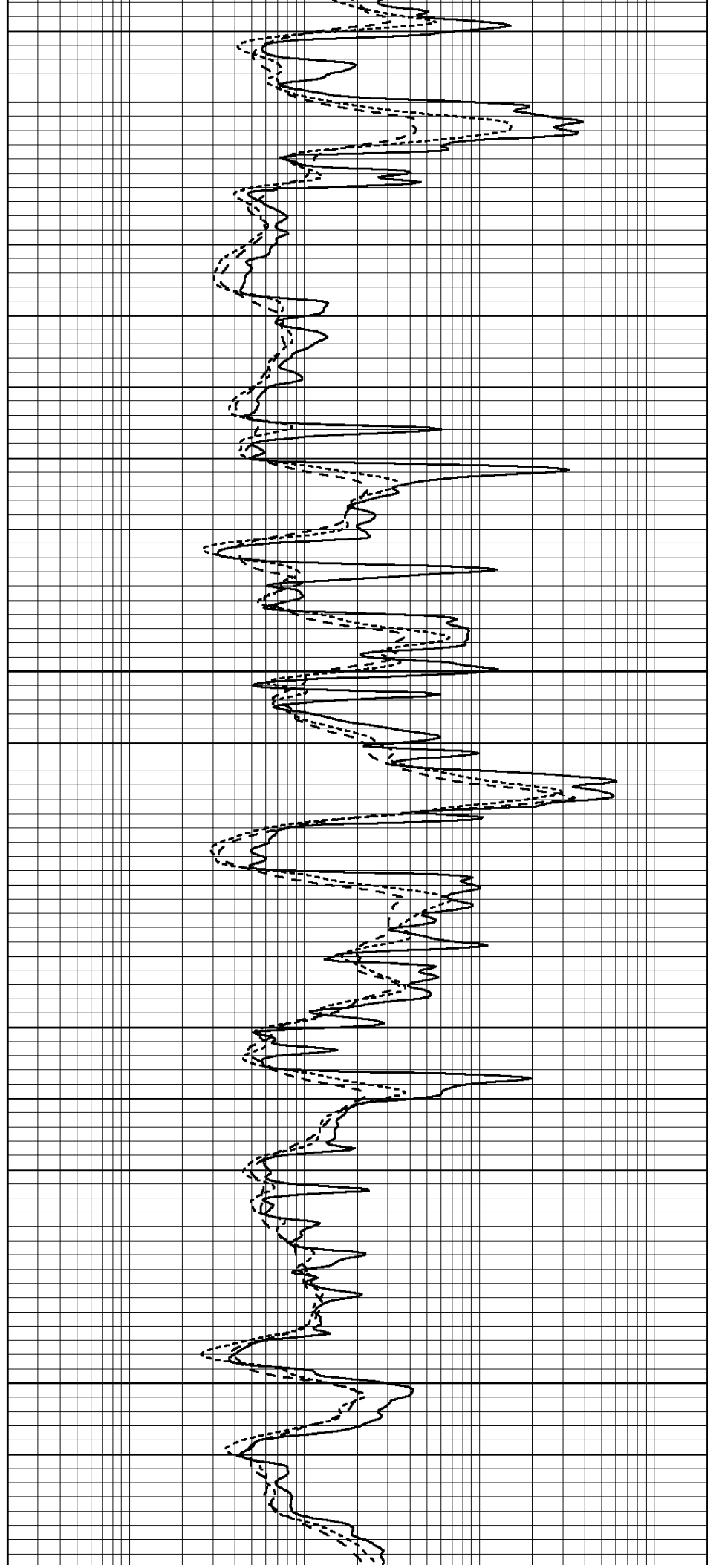


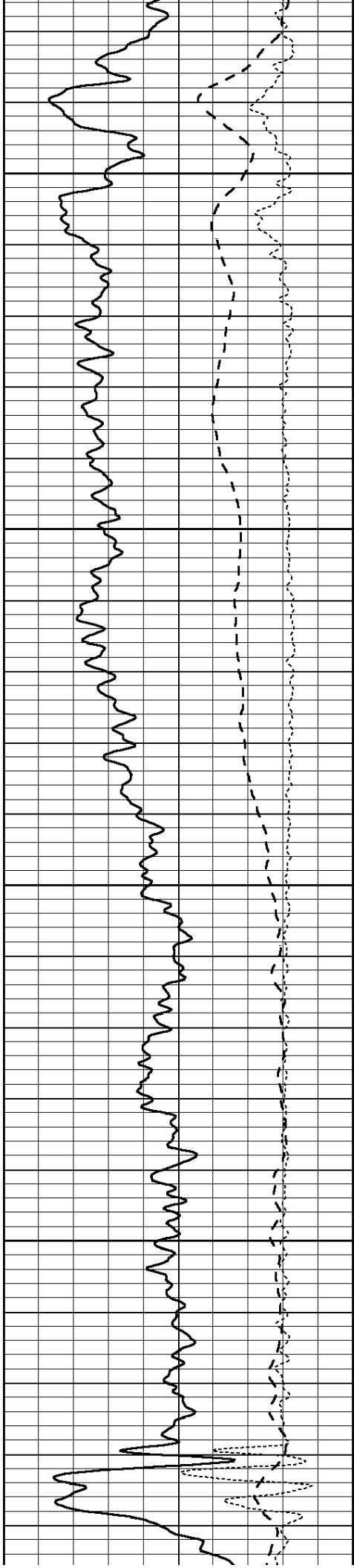
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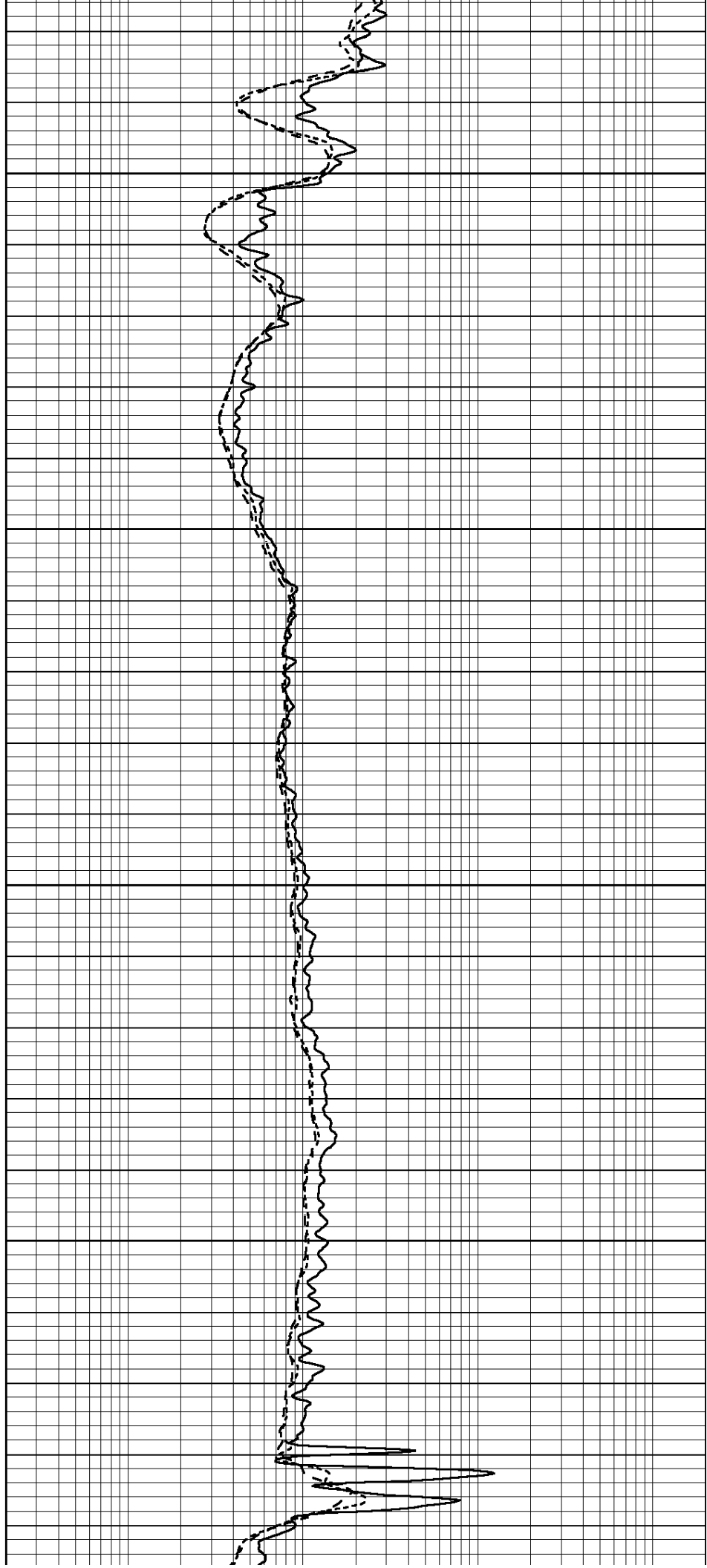


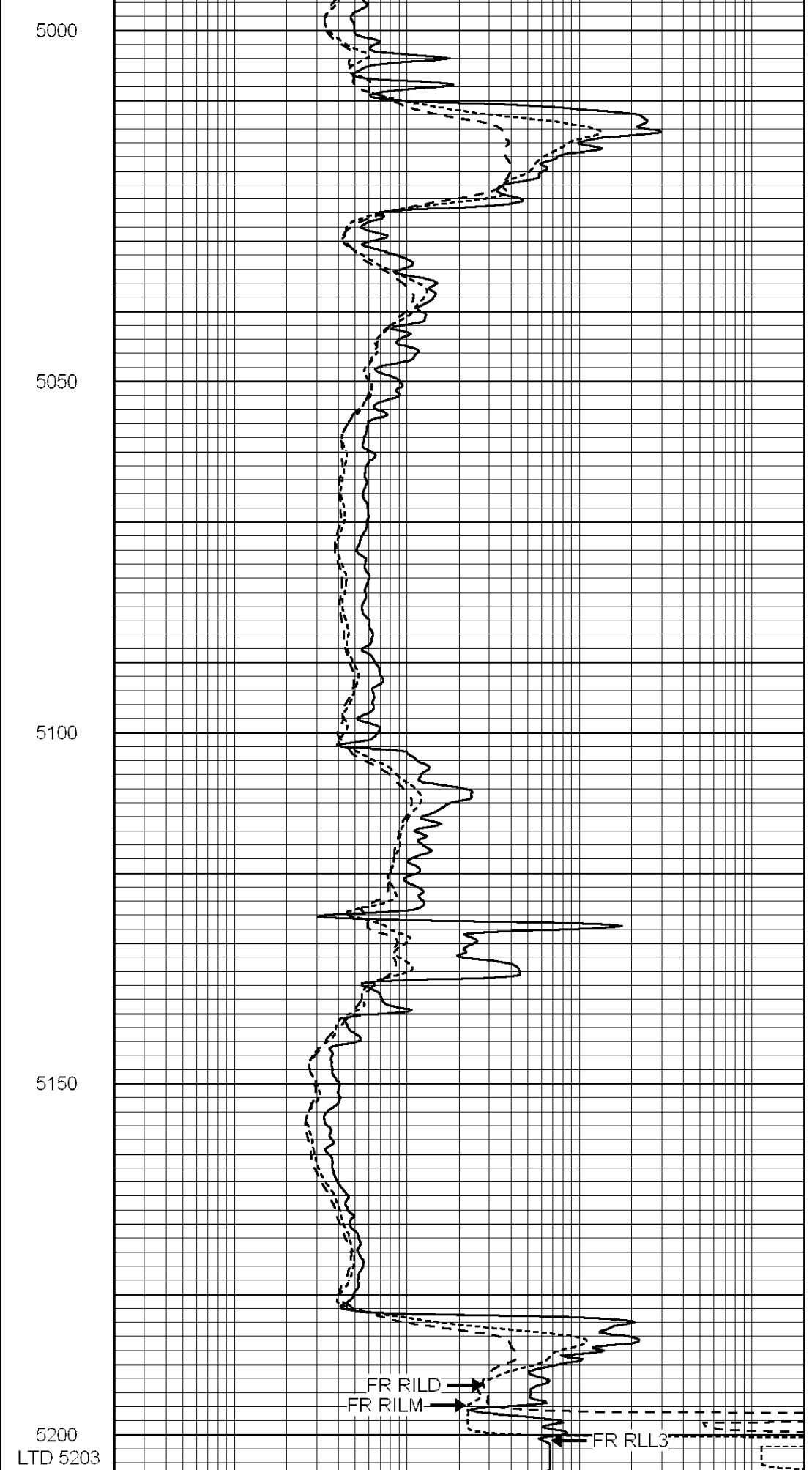
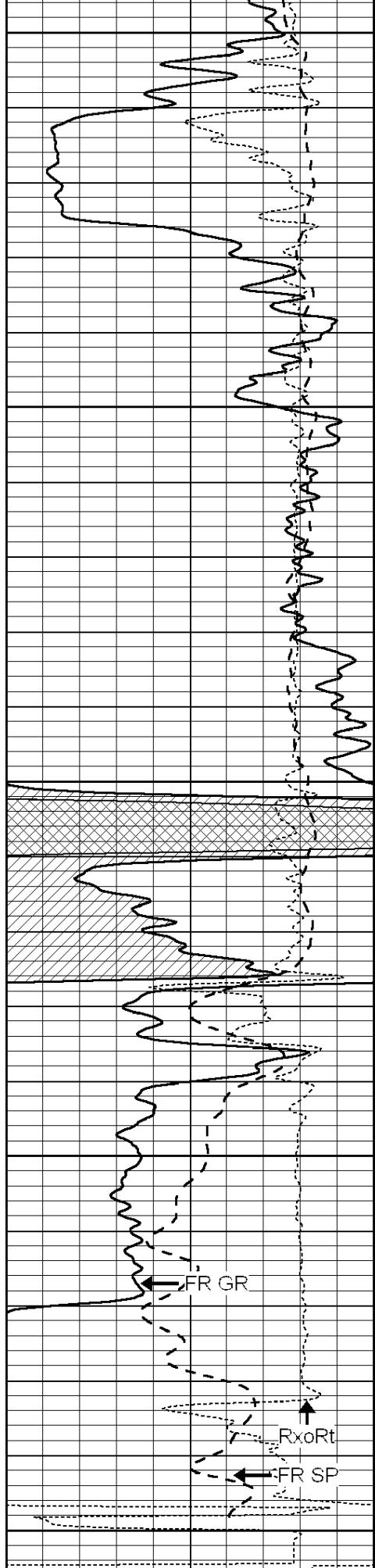
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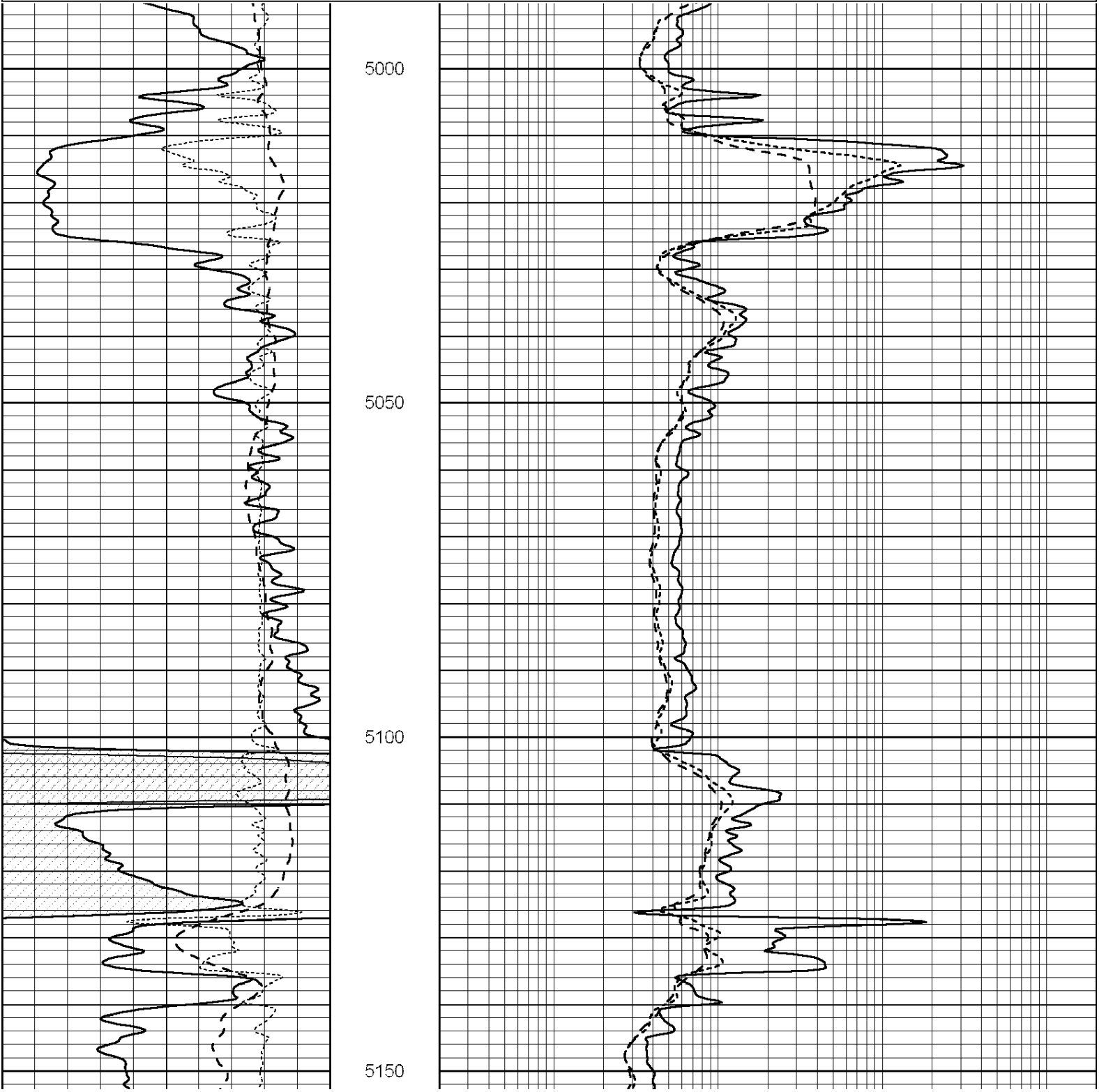
-250 Rxo/Rt 50

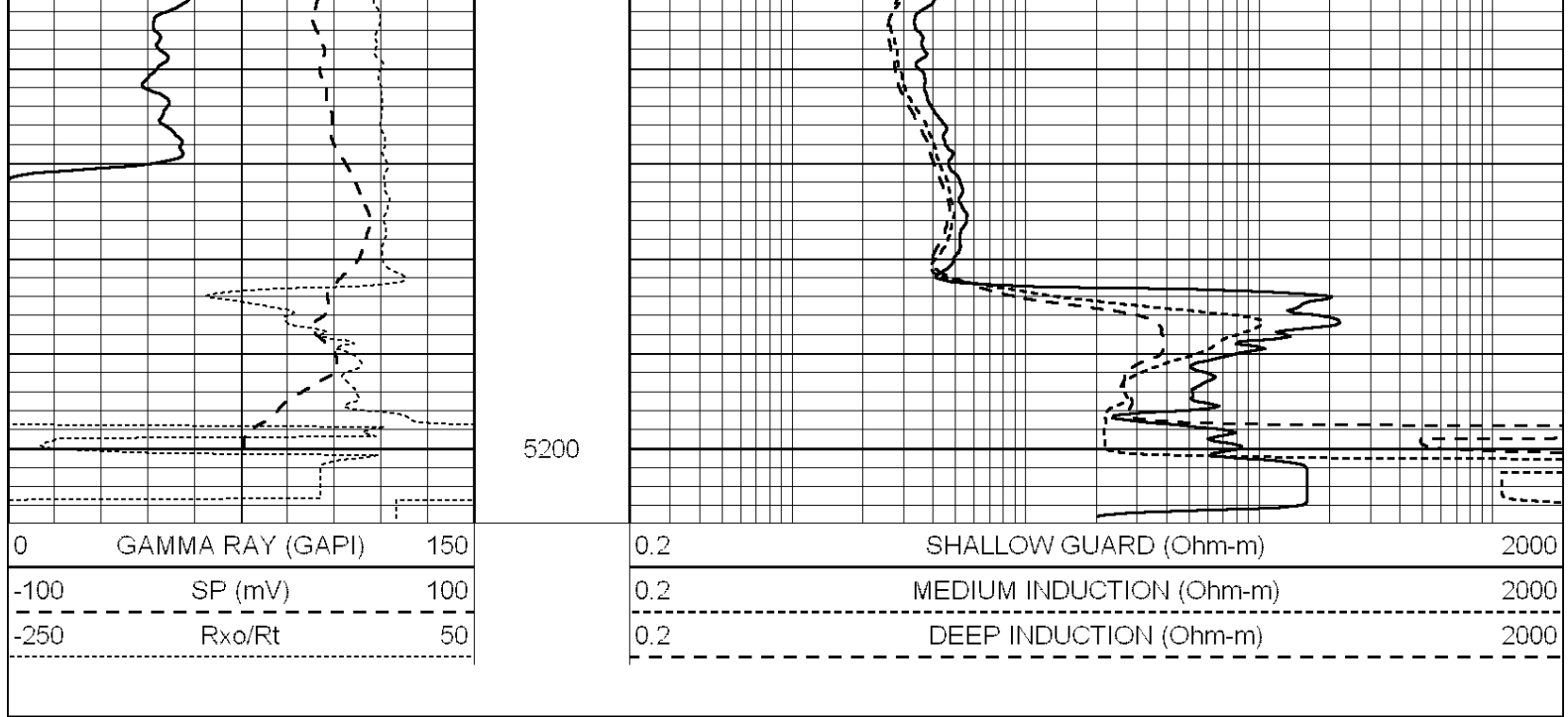
0.2 DEEP INDUCTION (Ohm-m) 2000

Database File: 005422pe.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Thu Aug 05 11:56:25 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

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





Calibration Report

Database File: 005422pe.db
 Dataset Pathname: pass2.1
 Dataset Creation: Thu Aug 05 11:56:25 2010 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings				References		Results	
	Air	Loop			Air	Loop	m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings				References		Results	
	Zero	Cal			Zero	Cal	m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-6.500	V		3800.000	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		

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	3.1	8.0	
High Ref	5.4	14.0	
	Gain: 2.5		Offset: 1.3

Compensated Neutron Calibration Report

Serial Number: 5I
 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:	GR6
Tool Model:	OPEN
Performed:	Wed Jul 14 14:14:30 2010
Calibrator Value:	150.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	276.0 cps
Sensitivity:	0.5335 GAPI/cps