



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**DUAL INDUCTION  
LOG**

Company	O'BRIEN RESOURCES, LLC.	
Well	JENNISON 1 #3	
Field	WILDCAT	
County	LANE	
State	KANSAS	
Company	O'BRIEN RESOURCES, LLC.	
Well	JENNISON 1 #3	
Field	WILDCAT	
County	LANE	State KANSAS
Location:	API # : 15-101-22444-0000	Other Services CDL/CNL/PE MEL
	1938' FNL & 436' FWL NE - SW - SW - NW	Elevation
	SEC 1 TWP 17S RGE 30W	K.B. 2857 D.F. 2855 G.L. 2846
Permanent Datum	GROUND LEVEL	Elevation 2846
Log Measured From	KELLY BUSHING 11' A.G.L.	
Drilling Measured From	KELLY BUSHING	

Date	8/10/13	
Run Number	ONE	
Depth Driller	4670	
Depth Logger	4668	
Bottom Logged Interval	4668	
Top Log Interval	00	
Casing Driller	8 5/8"@266'	
Casing Logger	266	
Bit Size	7 7/8"	
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 700 PPM
Density / Viscosity	9.0/55	
pH / Fluid Loss	10.5/7.4	
Source of Sample	FLOWLINE	
Rim @ Meas. Temp	1.30@80F	
Rmf @ Meas. Temp	.975@80F	
Rmc @ Meas. Temp	1.56@80F	
Source of Rmf / Rmc	MEASUREMENT	
Rim @ BHT	.852@122F	
Time Circulation Stopped	2.5 HOURS	
Time Logger on Bottom	6:15 A.M.	
Maximum Recorded Temperature	122F	
Equipment Number	4854	
Location	HAYS, KANSAS	
Recorded By	JEFF LUEBBERS	
Witnessed By	KURT TALBOTT	

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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 "NABORS" HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
HEALY, KS., 1E. ON HWY4 TO "EAGLE RD.", 3/4N., E. INTO THEN BACK S. BEHIND HOUSE



**MAIN SECTION**

Database File: 011652pe.db  
 Dataset Pathname: pass3.7  
 Presentation Format: dil2  
 Dataset Creation: Sat Aug 10 07:40:06 2013 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:600

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

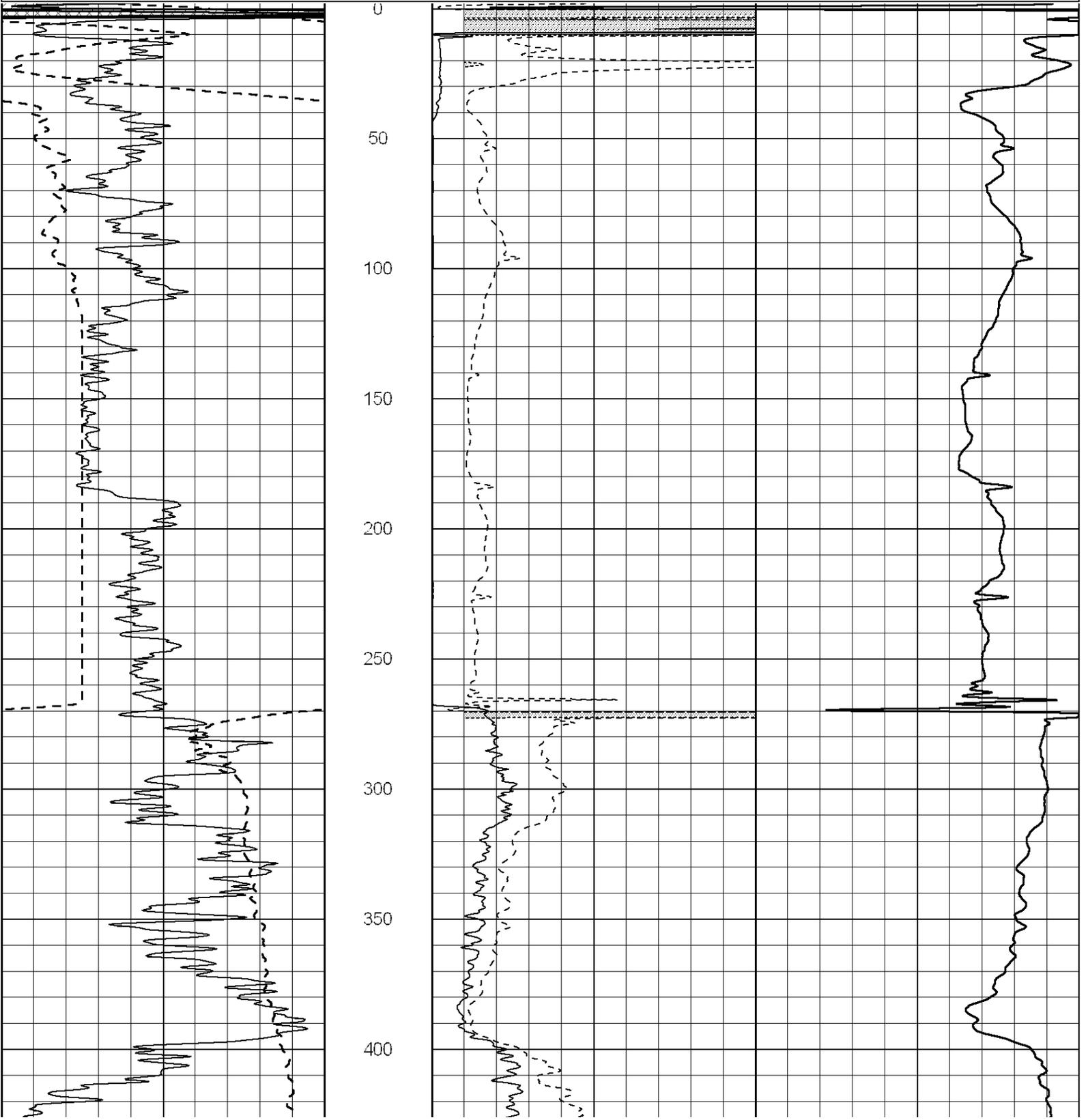
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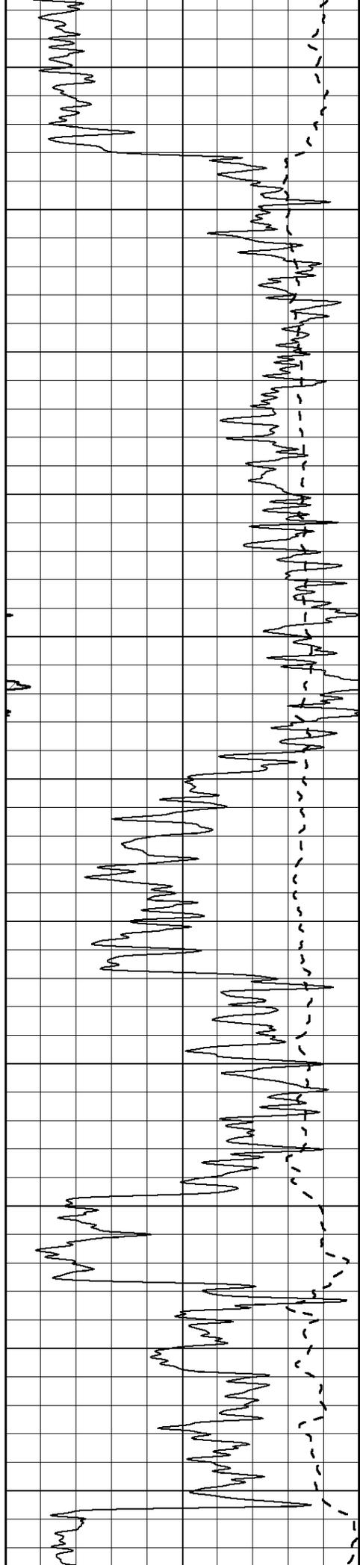
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1000	CILD (mmho/m)	0
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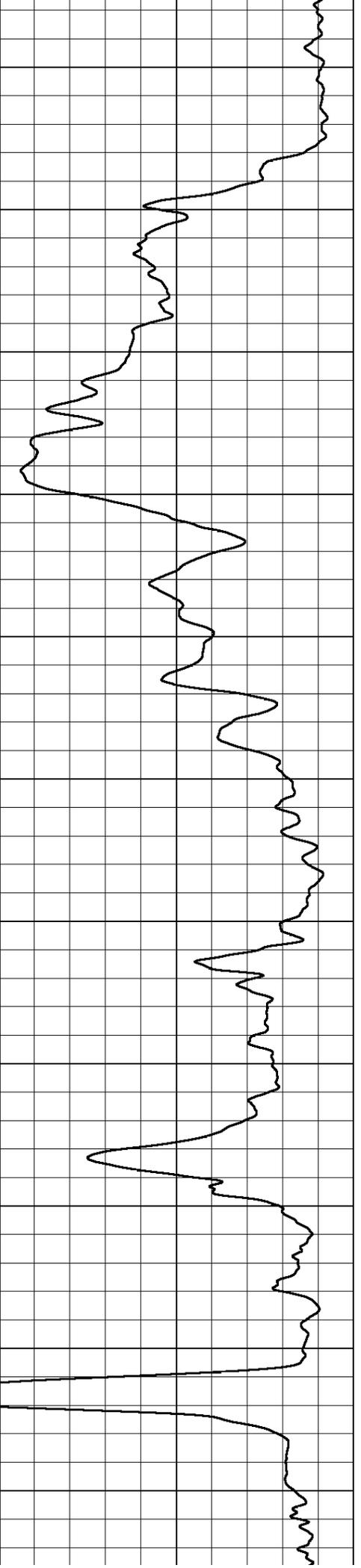
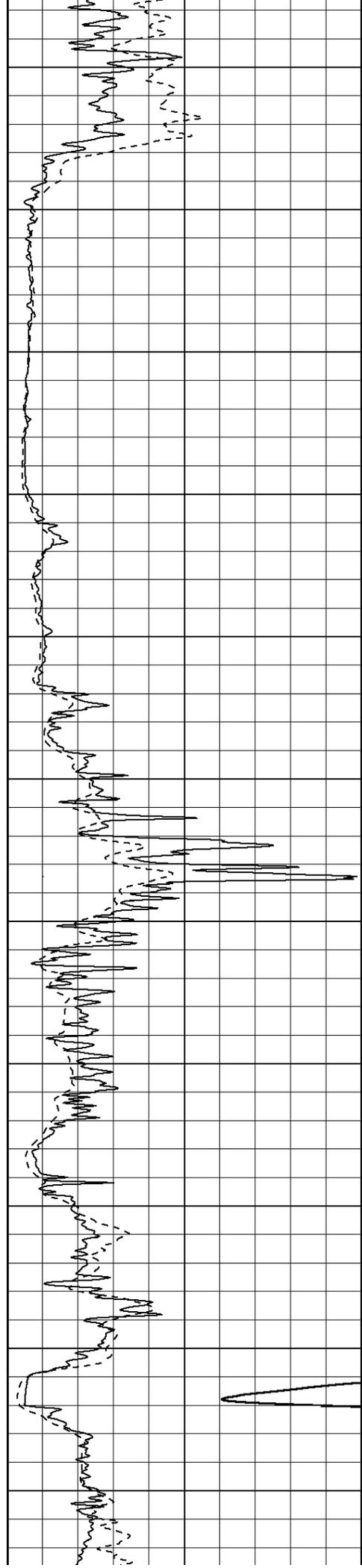
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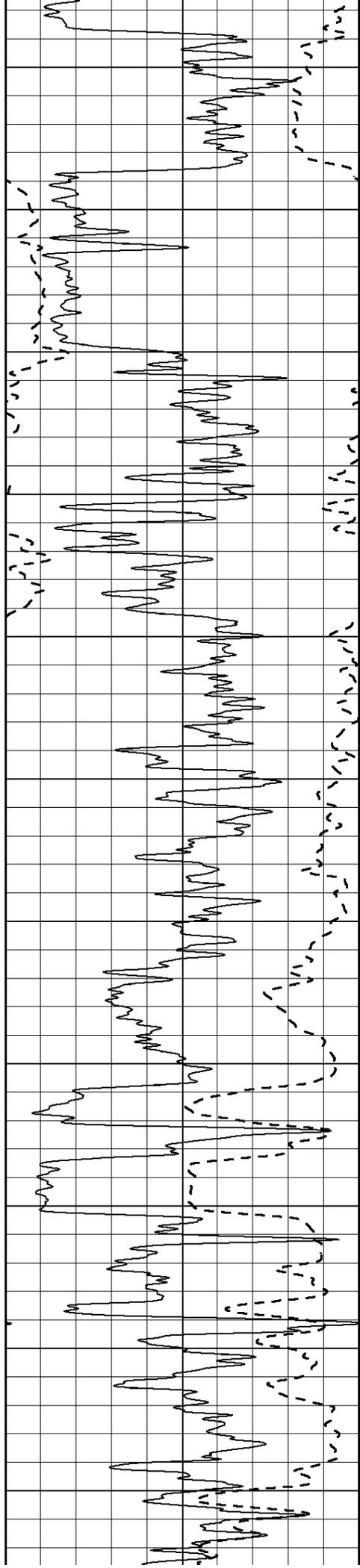
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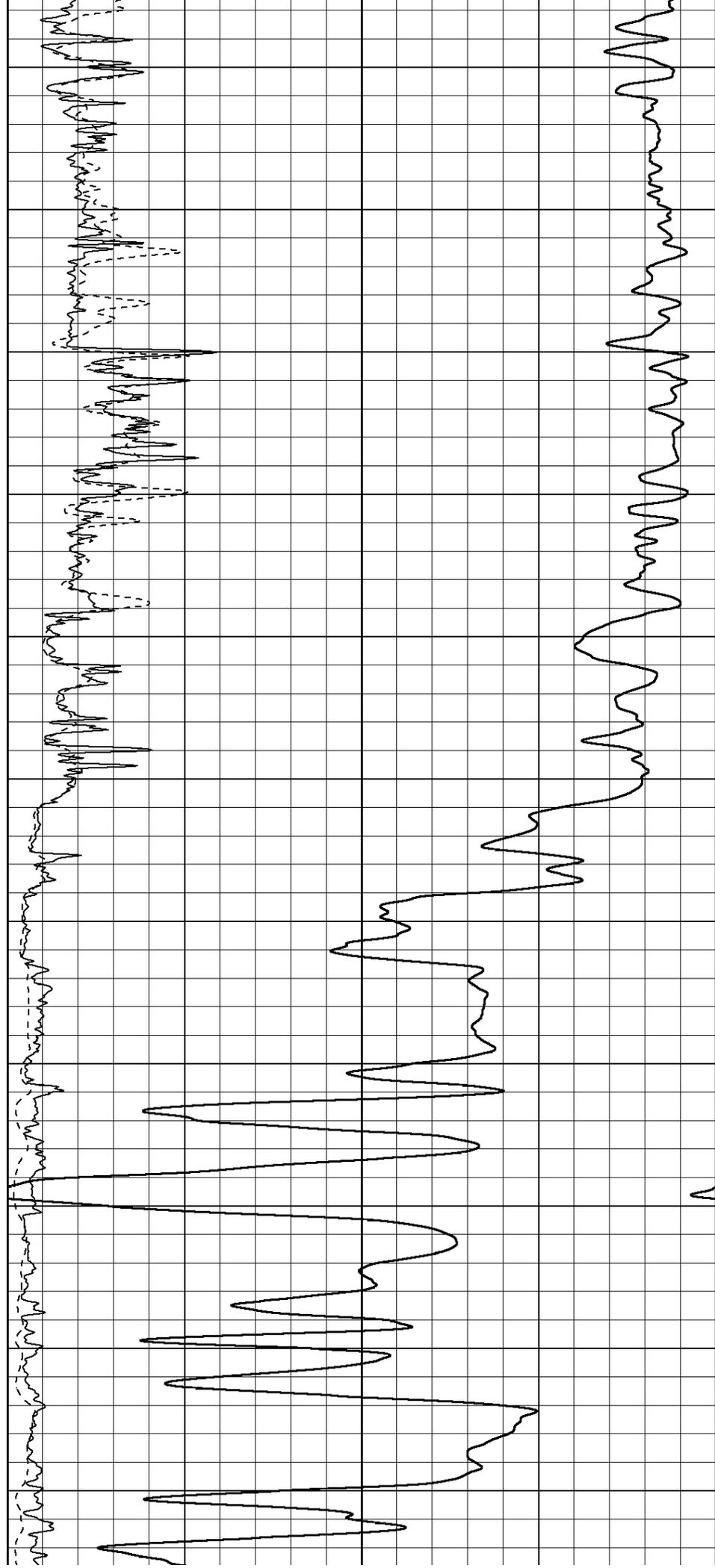


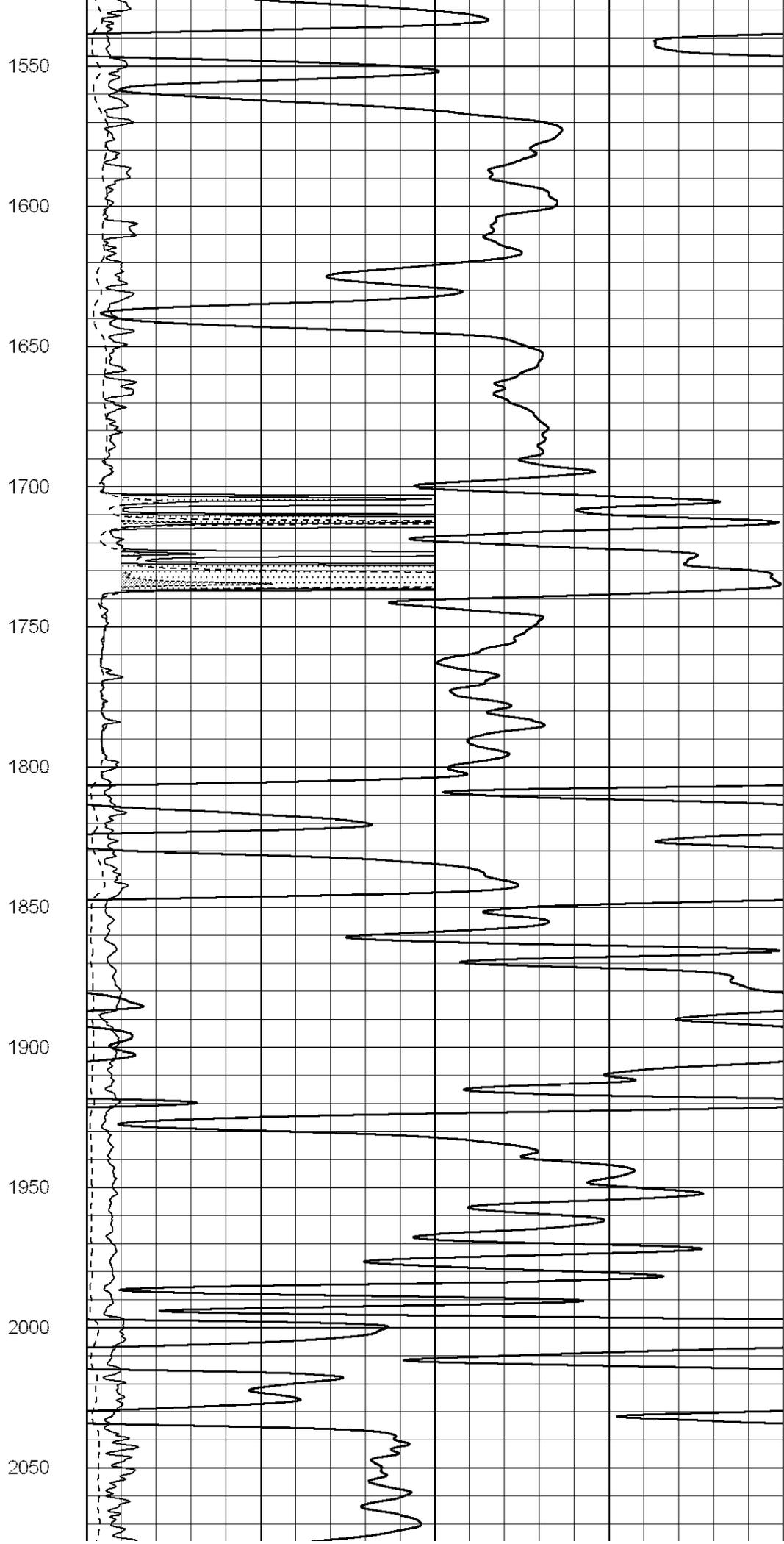
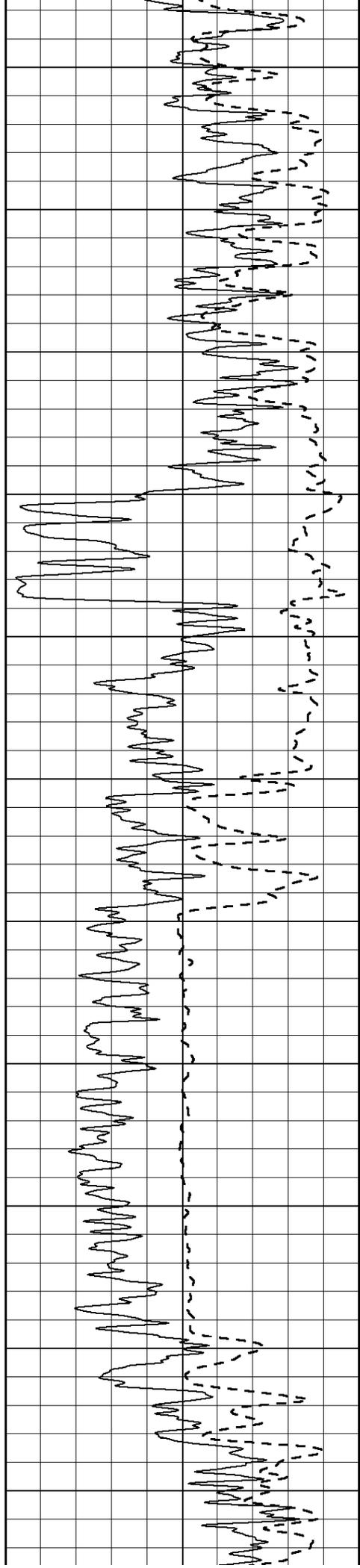
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500  
550  
600  
650  
700  
750  
800  
850  
900  
950

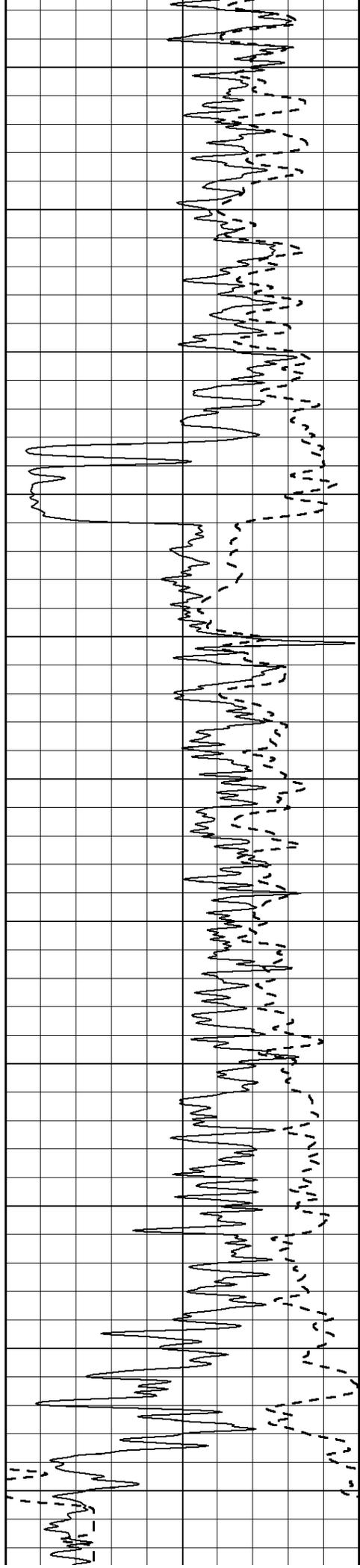




1000  
1050  
1100  
1150  
1200  
1250  
1300  
1350  
1400  
1450  
1500







2100

2150

2200

2250

2300

2350

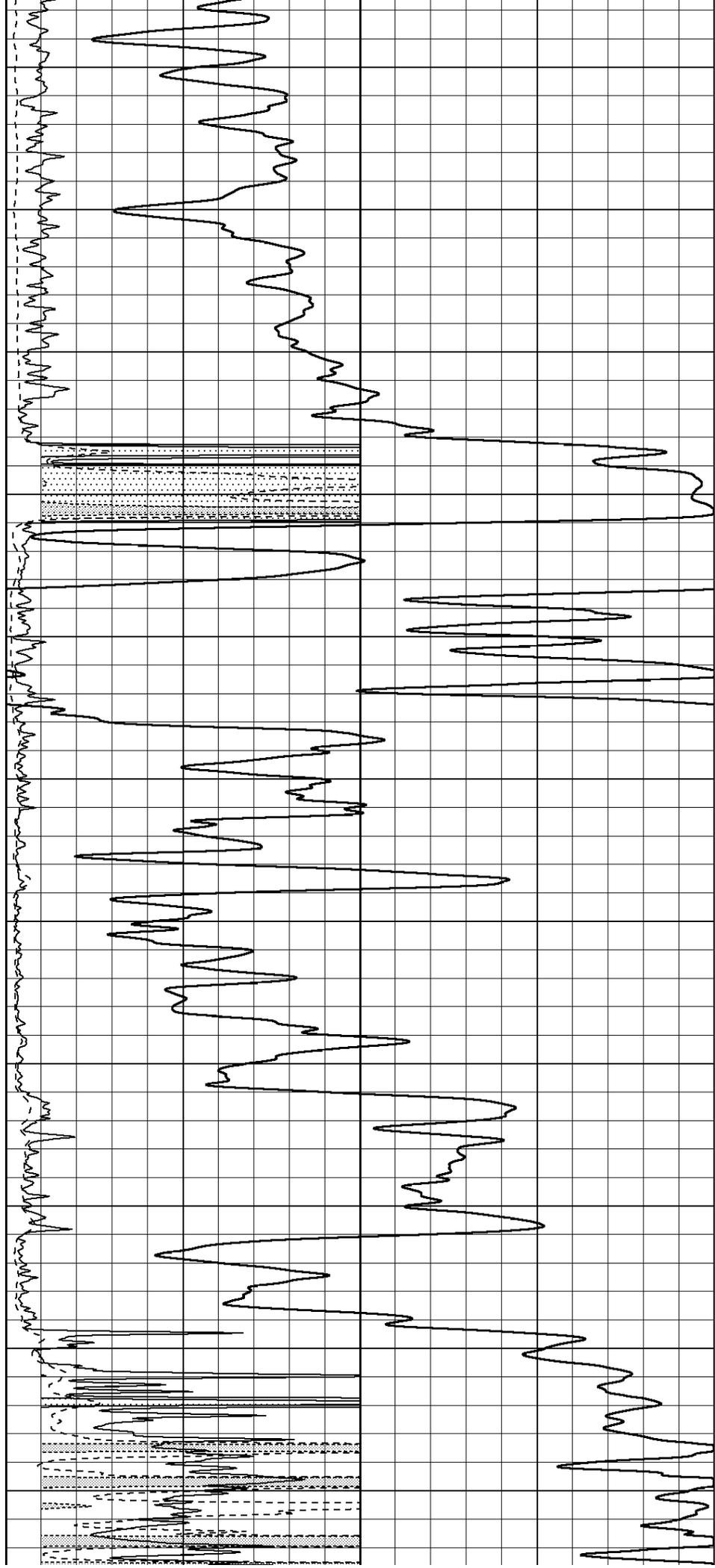
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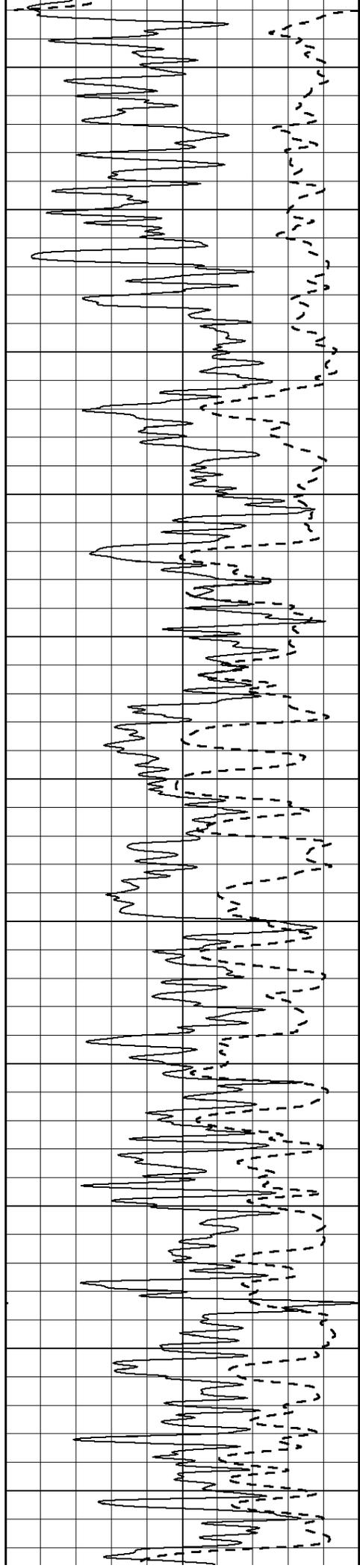
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2500

2550

2600





2650

2700

2750

2800

2850

2900

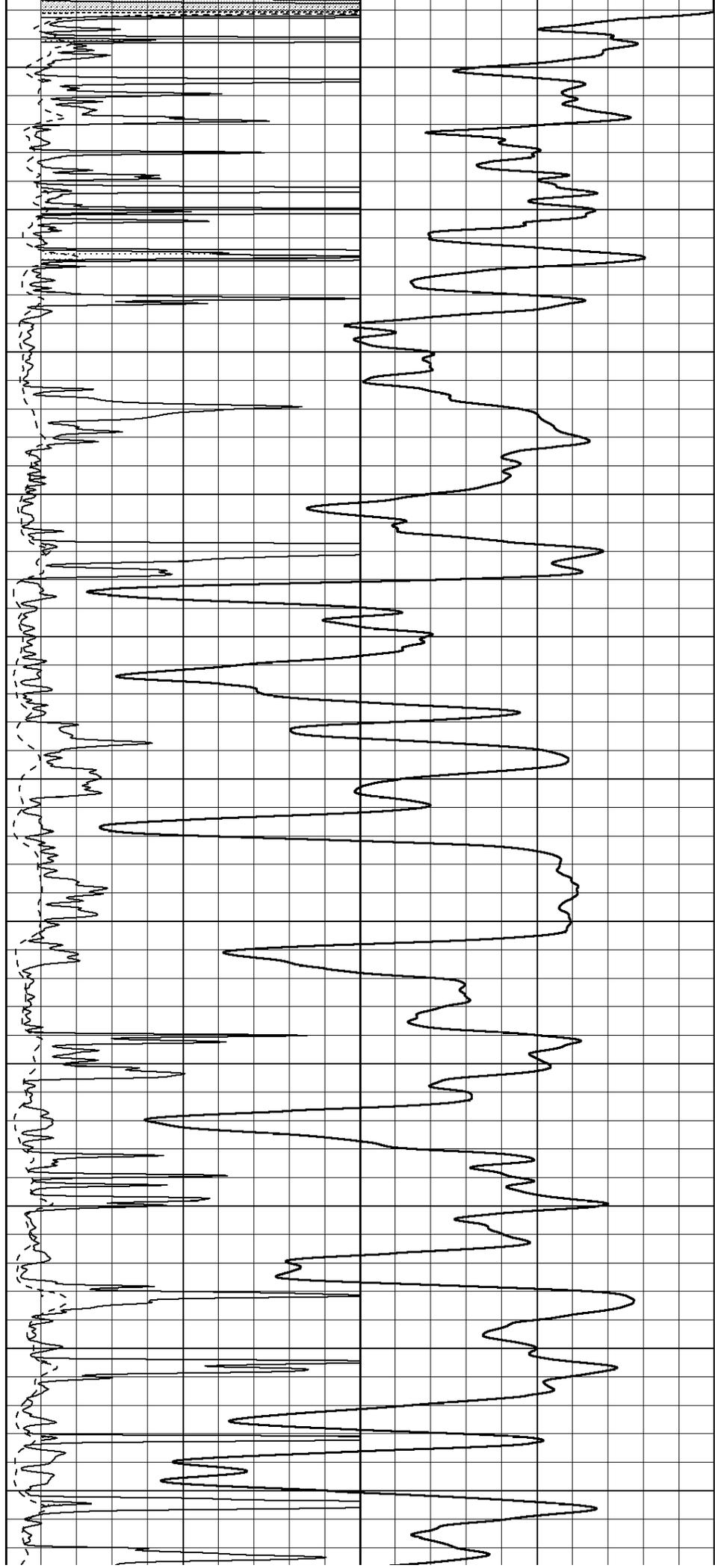
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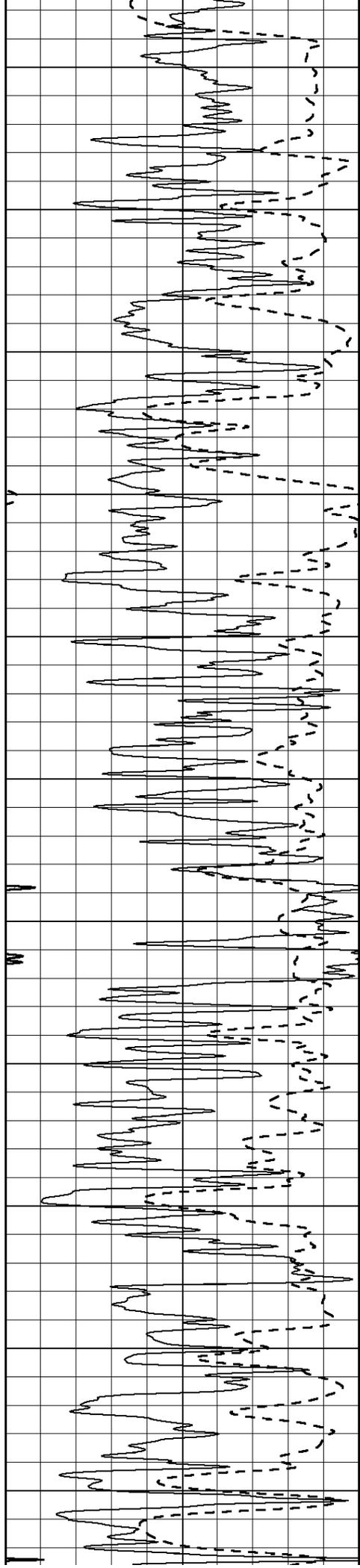
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3050

3100

3150





3200

3250

3300

3350

3400

3450

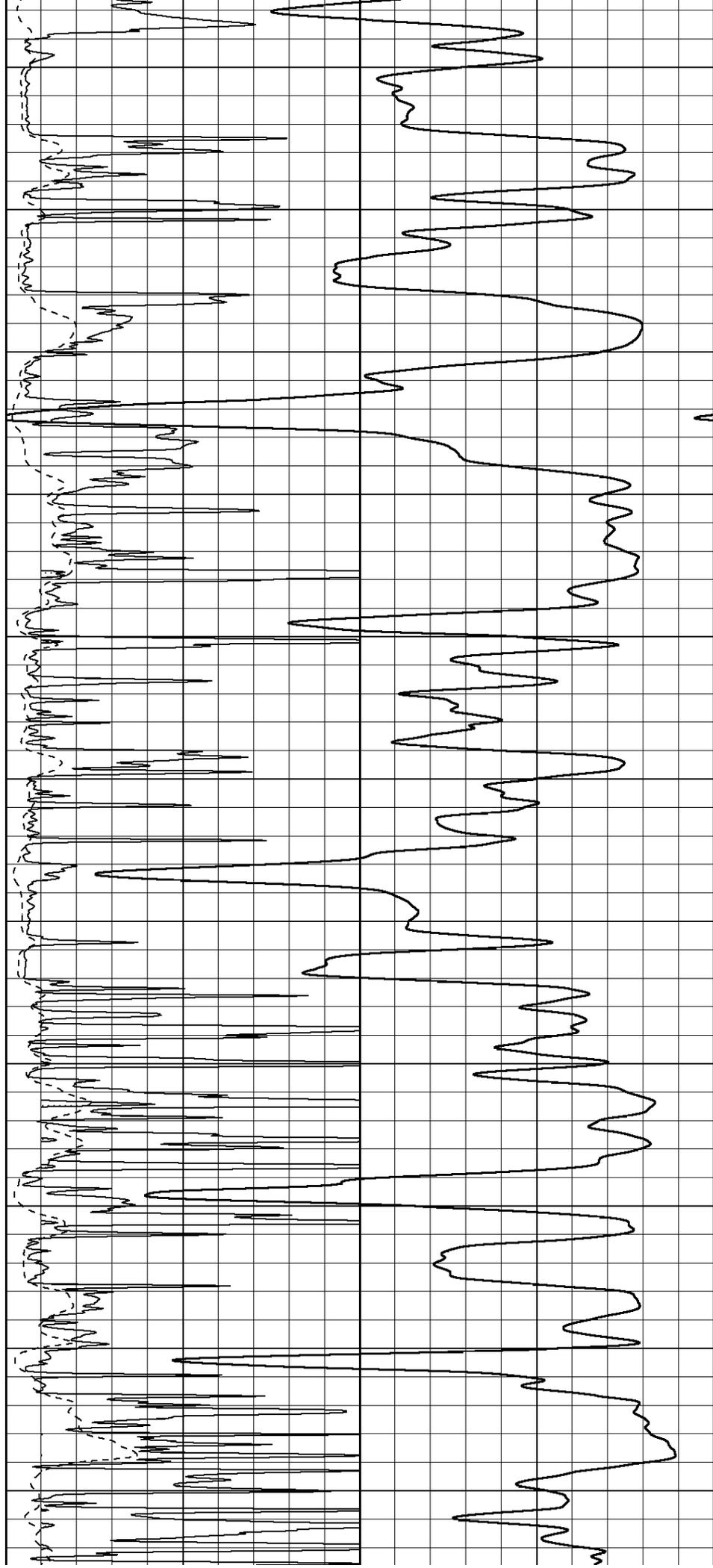
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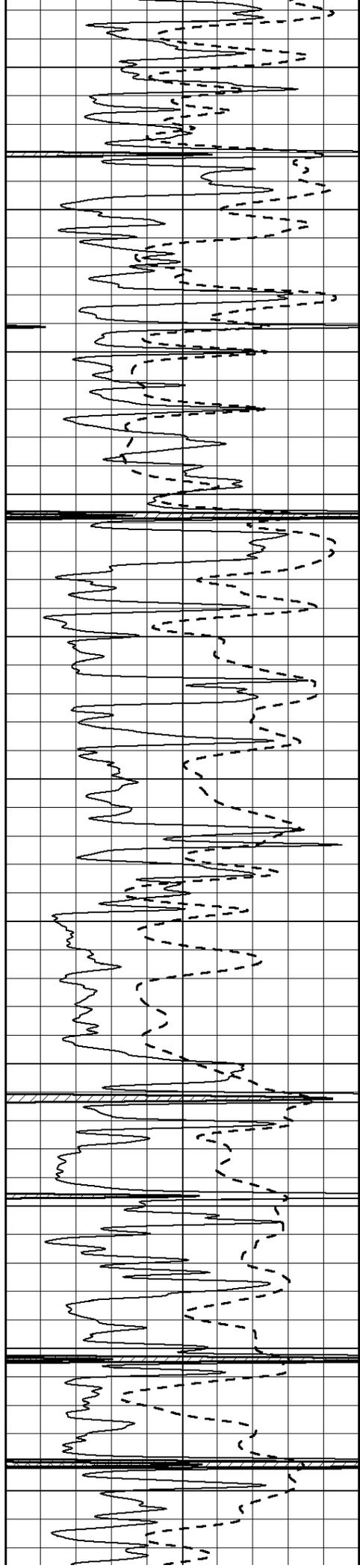
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3600

3650

3700





3750

3800

3850

3900

3950

4000

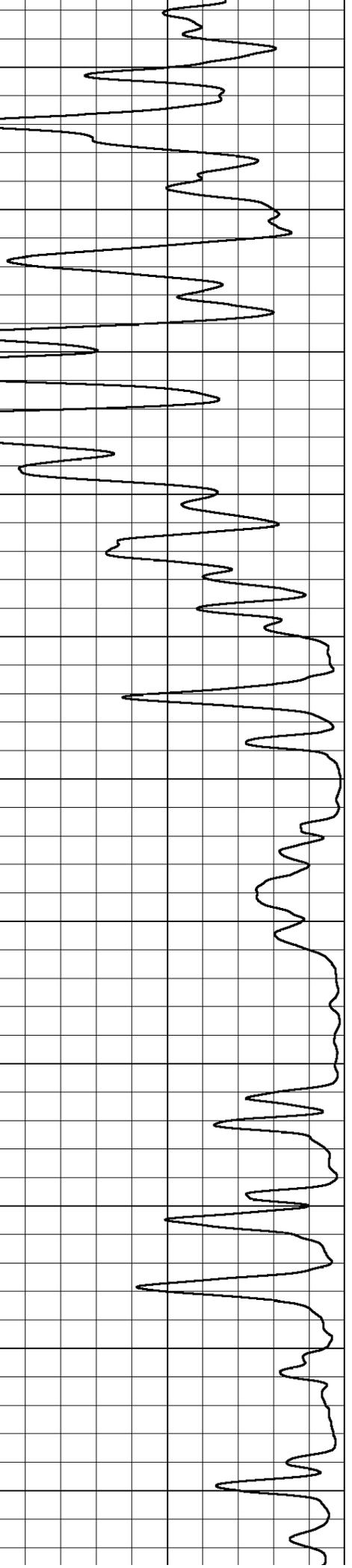
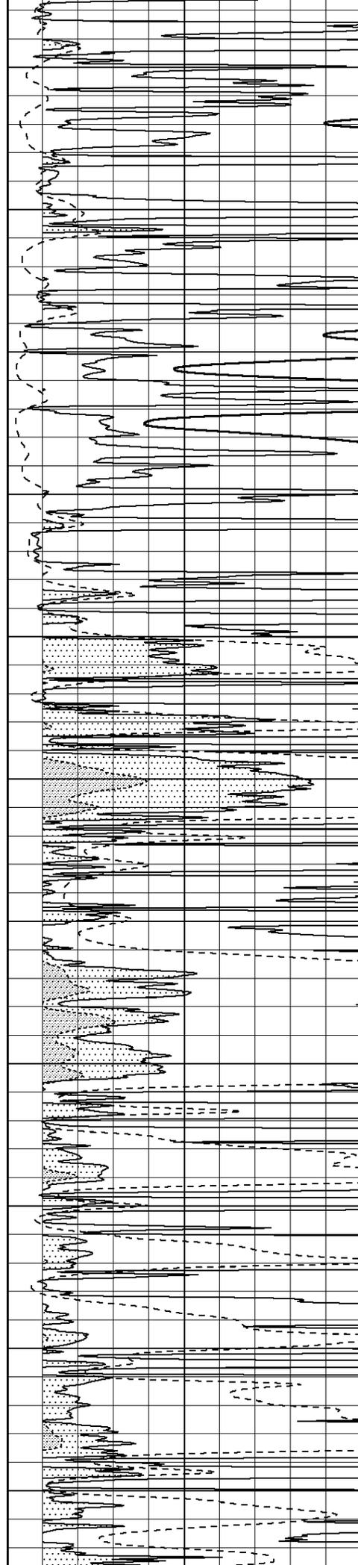
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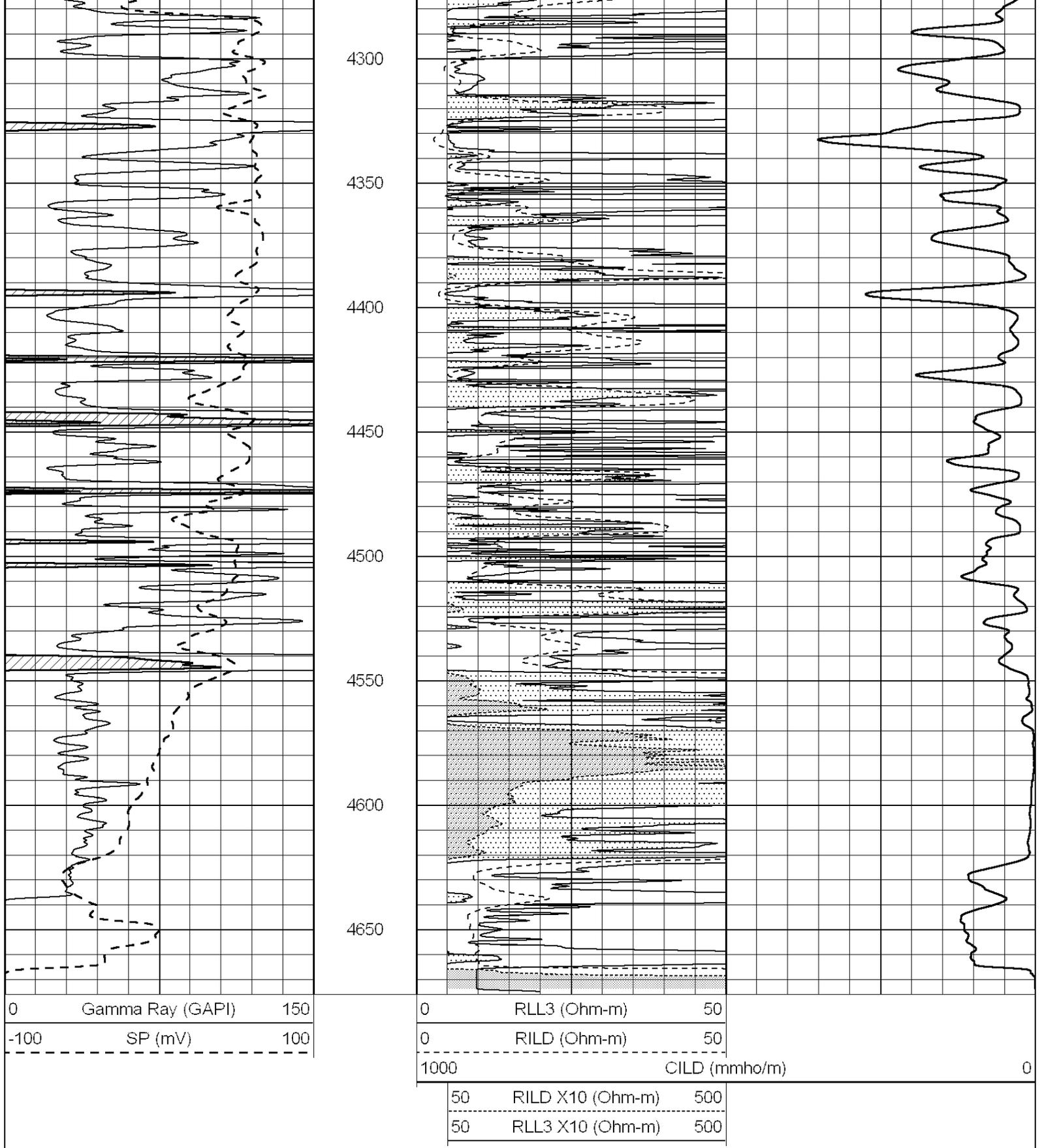
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4150

4200

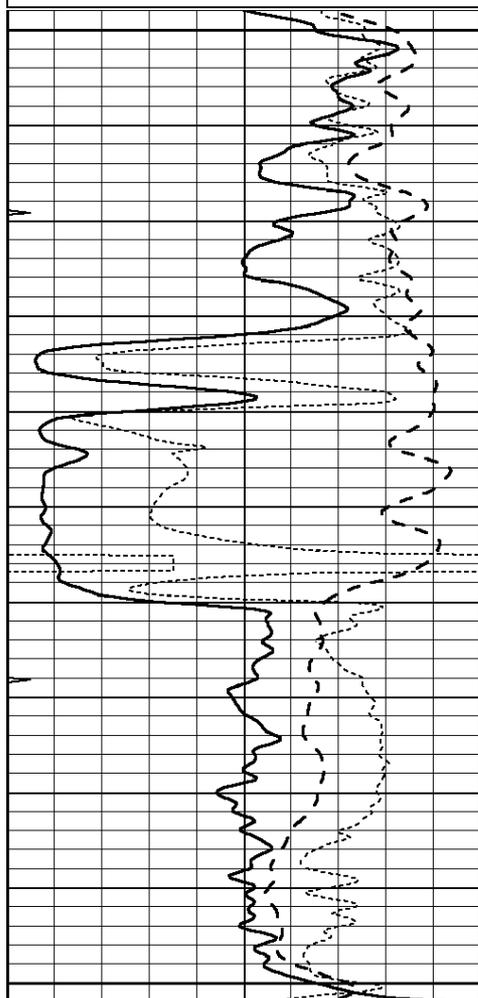
4250





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

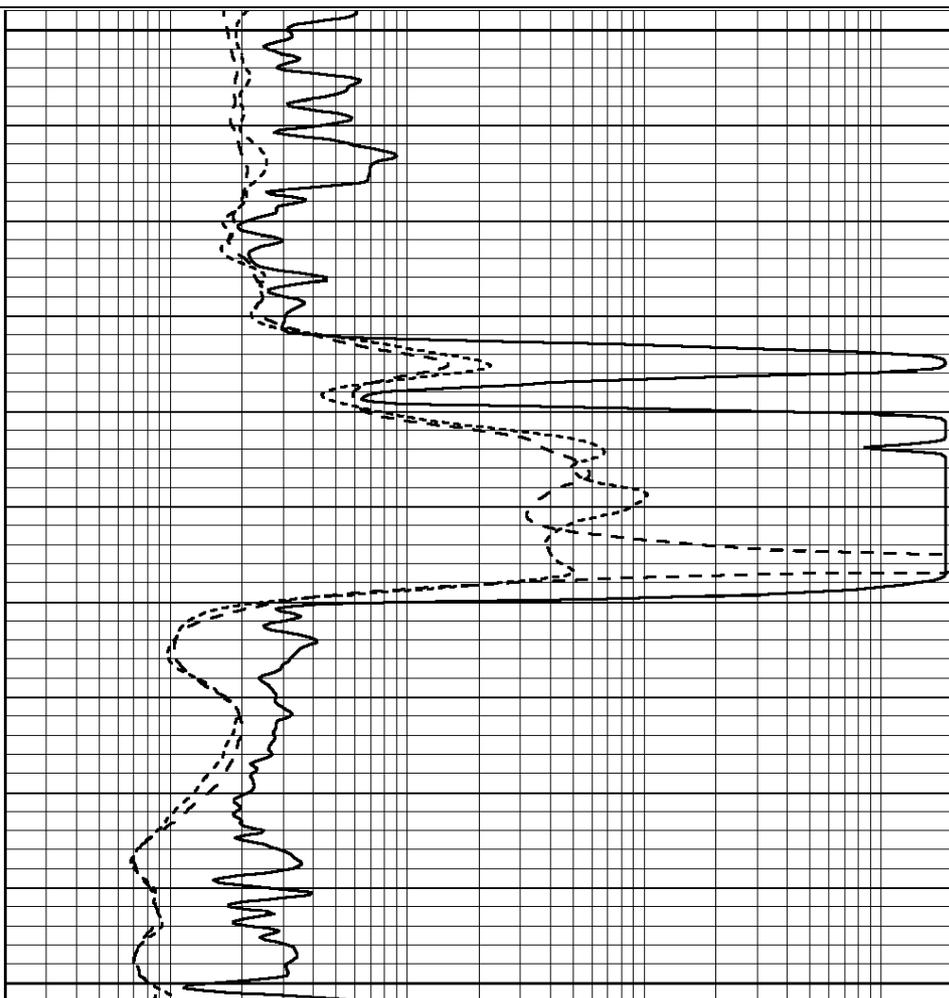
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



2200

2250

2300



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

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



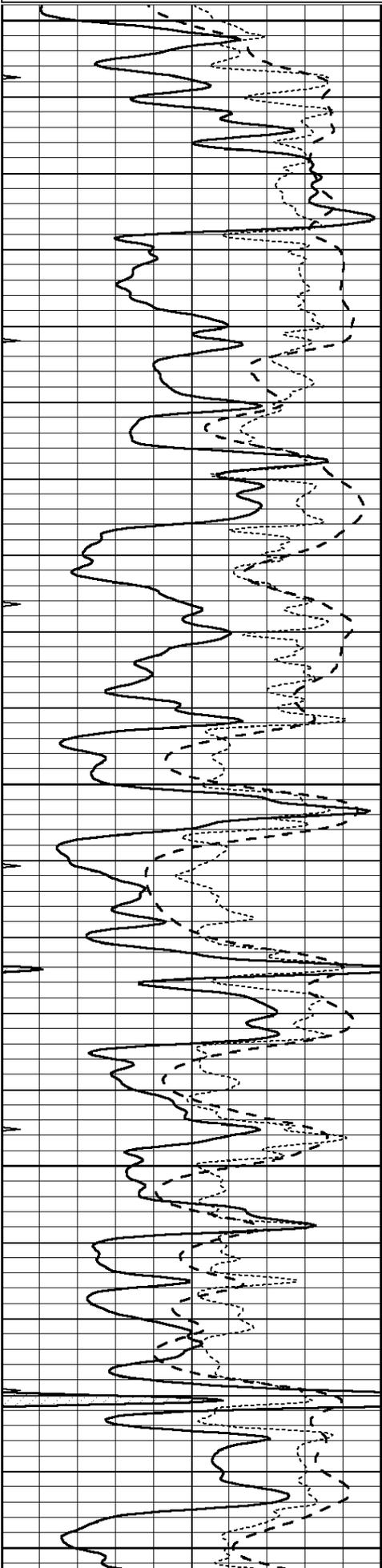
# MAIN SECTION

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100

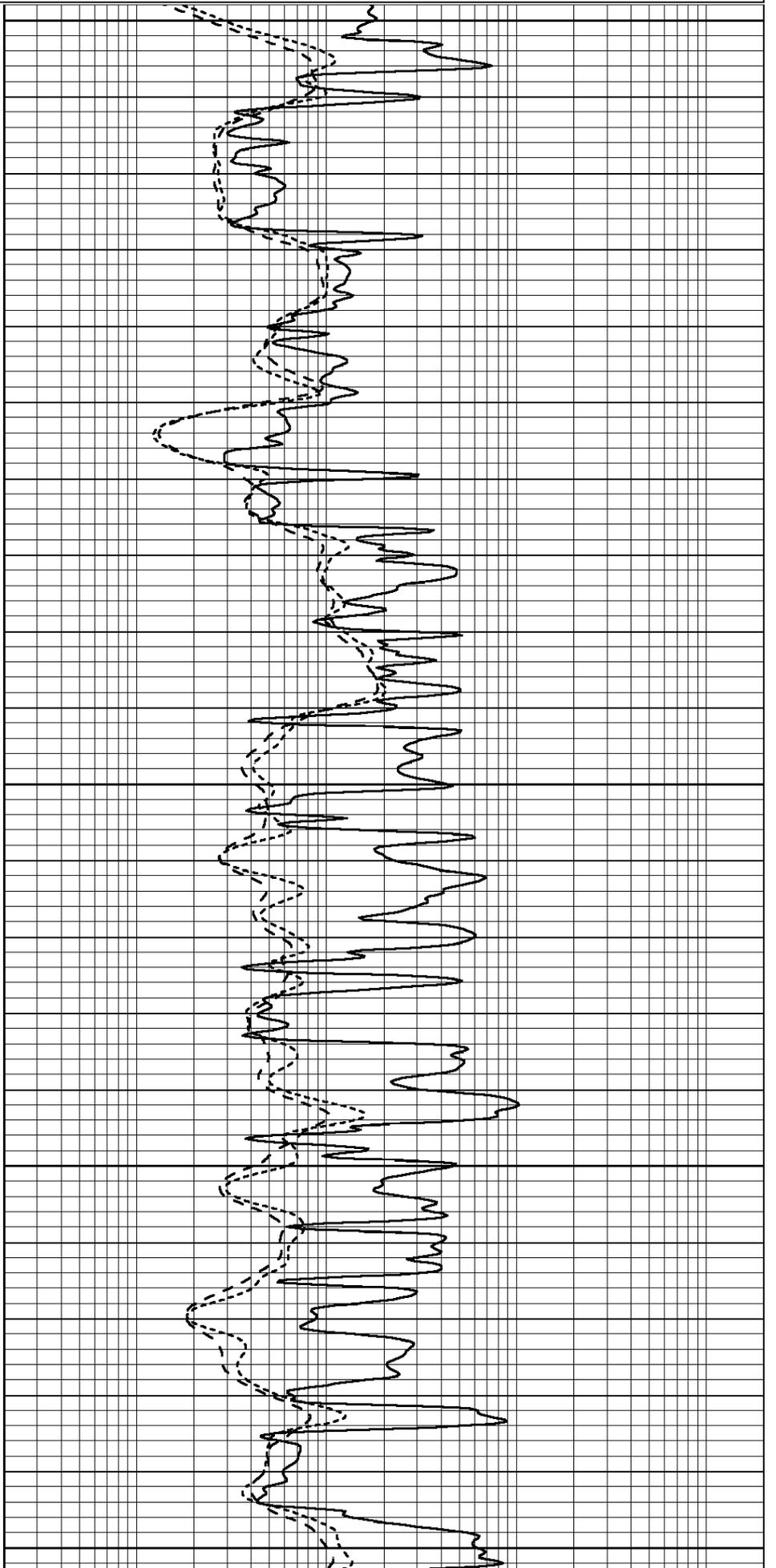
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0.2	DEEP INDUCTION (Ohm-m)	2000

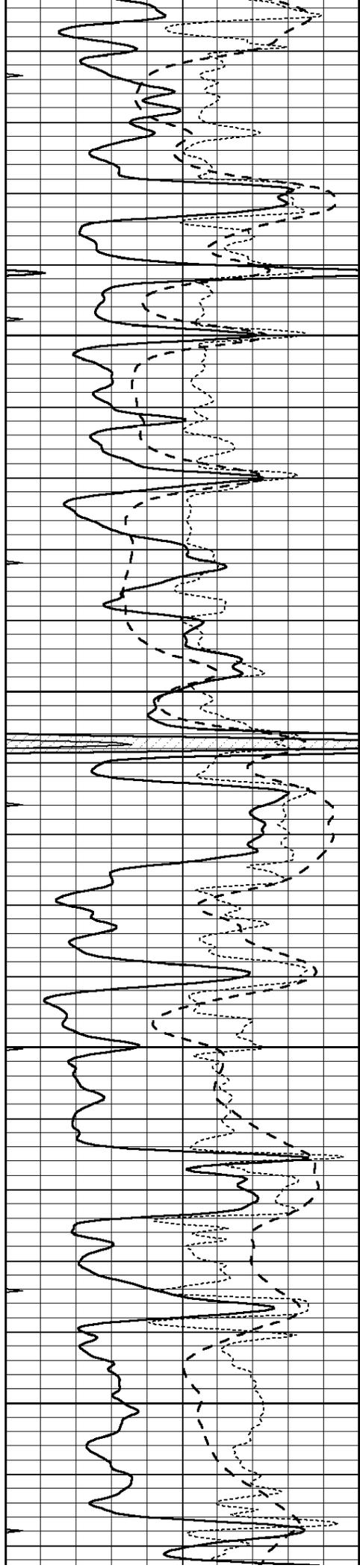
-250 Rxo/Rt 50  
0 MINMK 20

0.2 MEDIUM INDUCTION (Ohm-m) 2000



3600  
3650  
3700  
3750  
3800



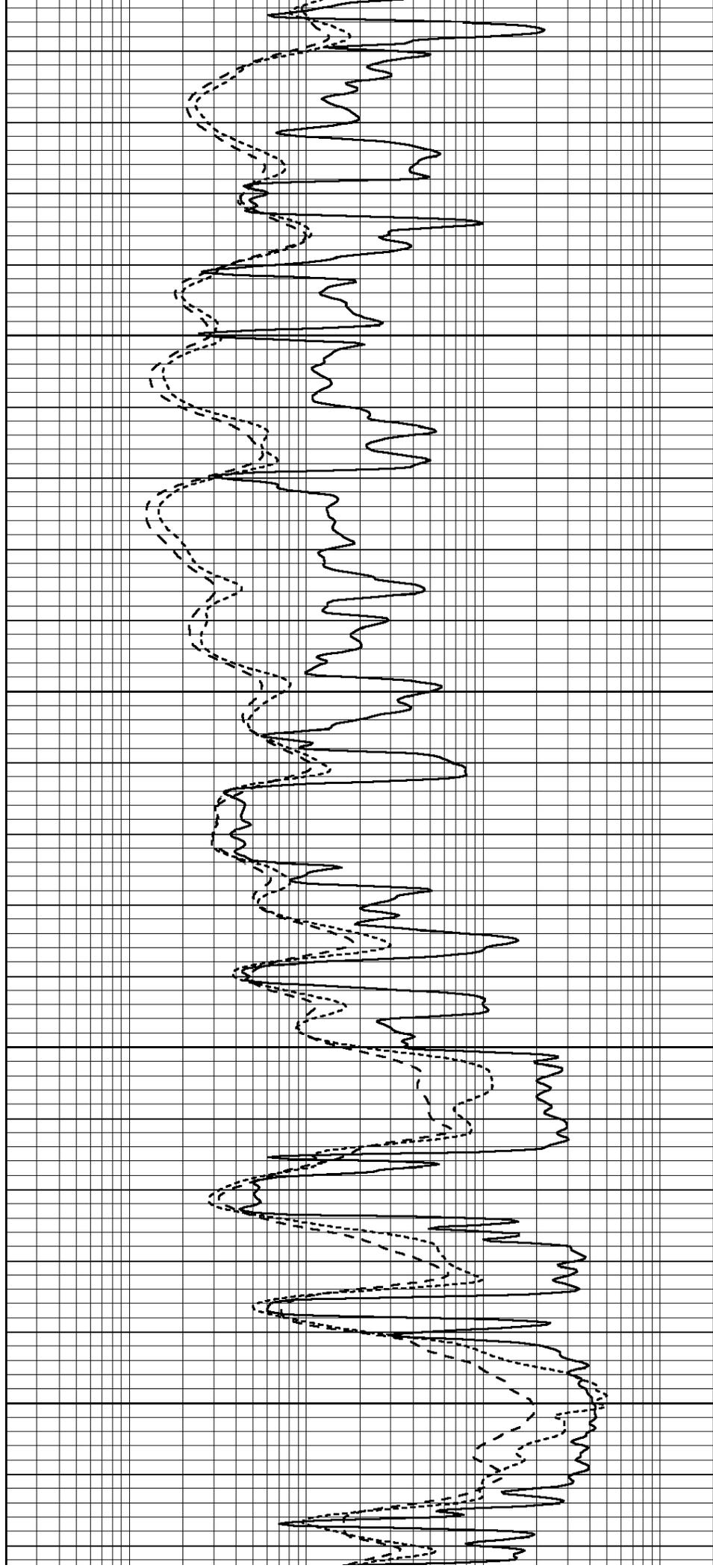


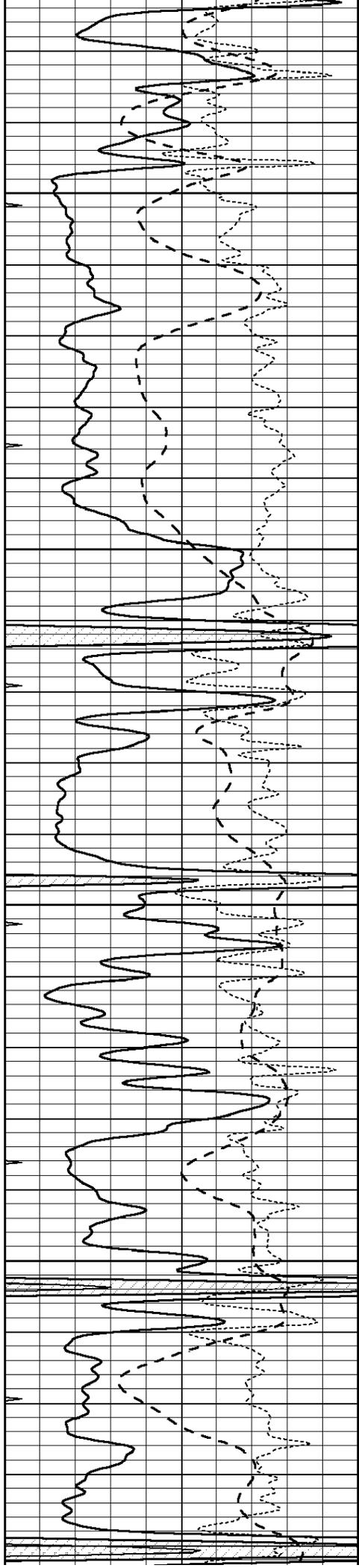
3850

3900

3950

4000



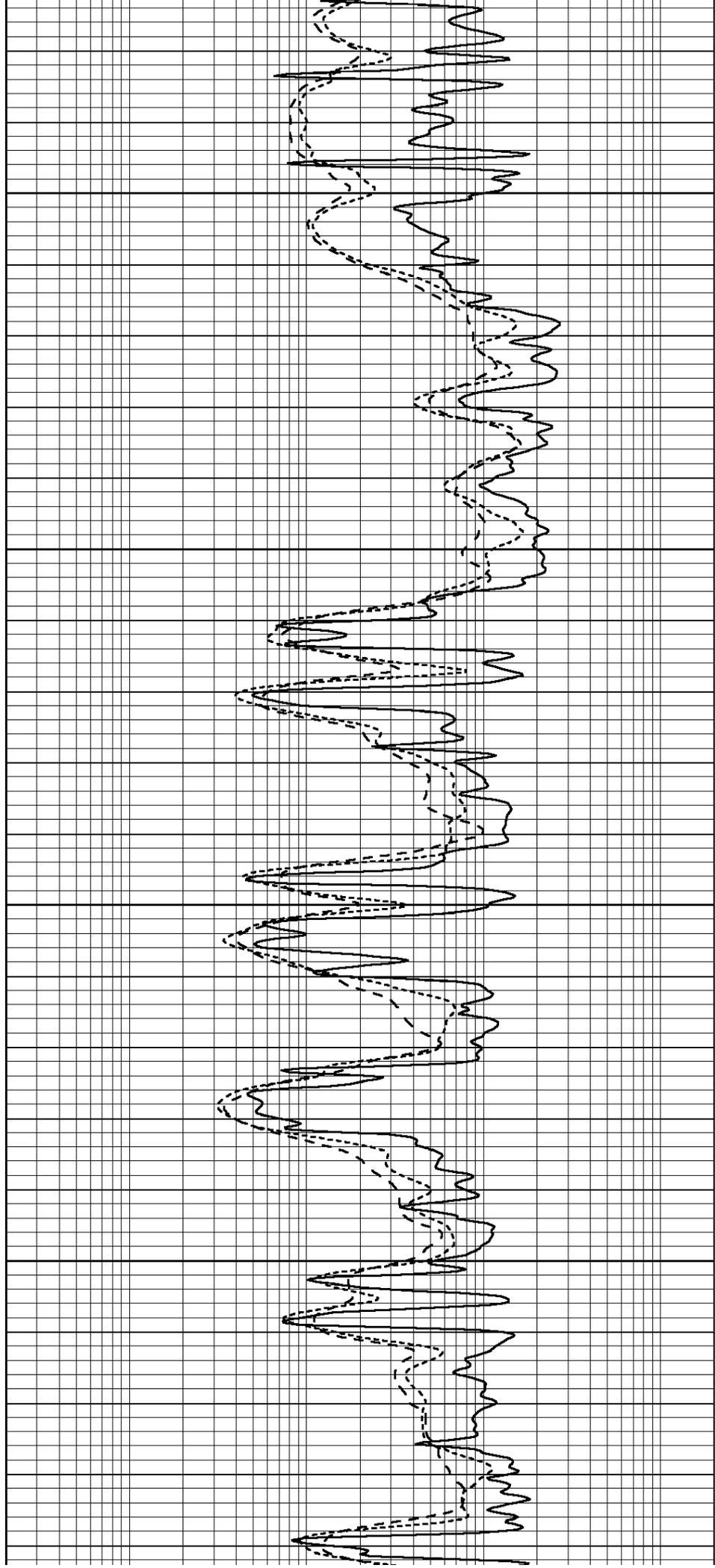


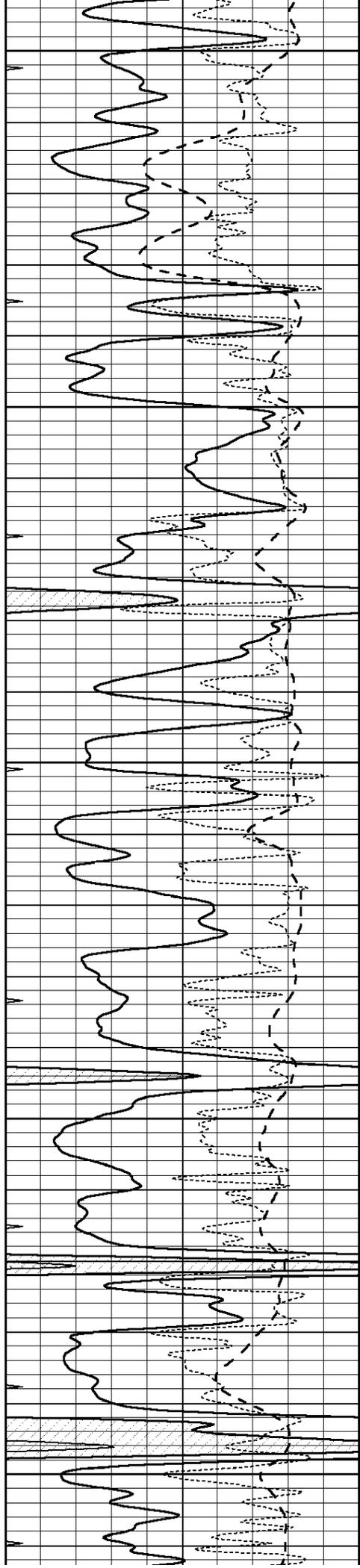
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4100

4150

4200





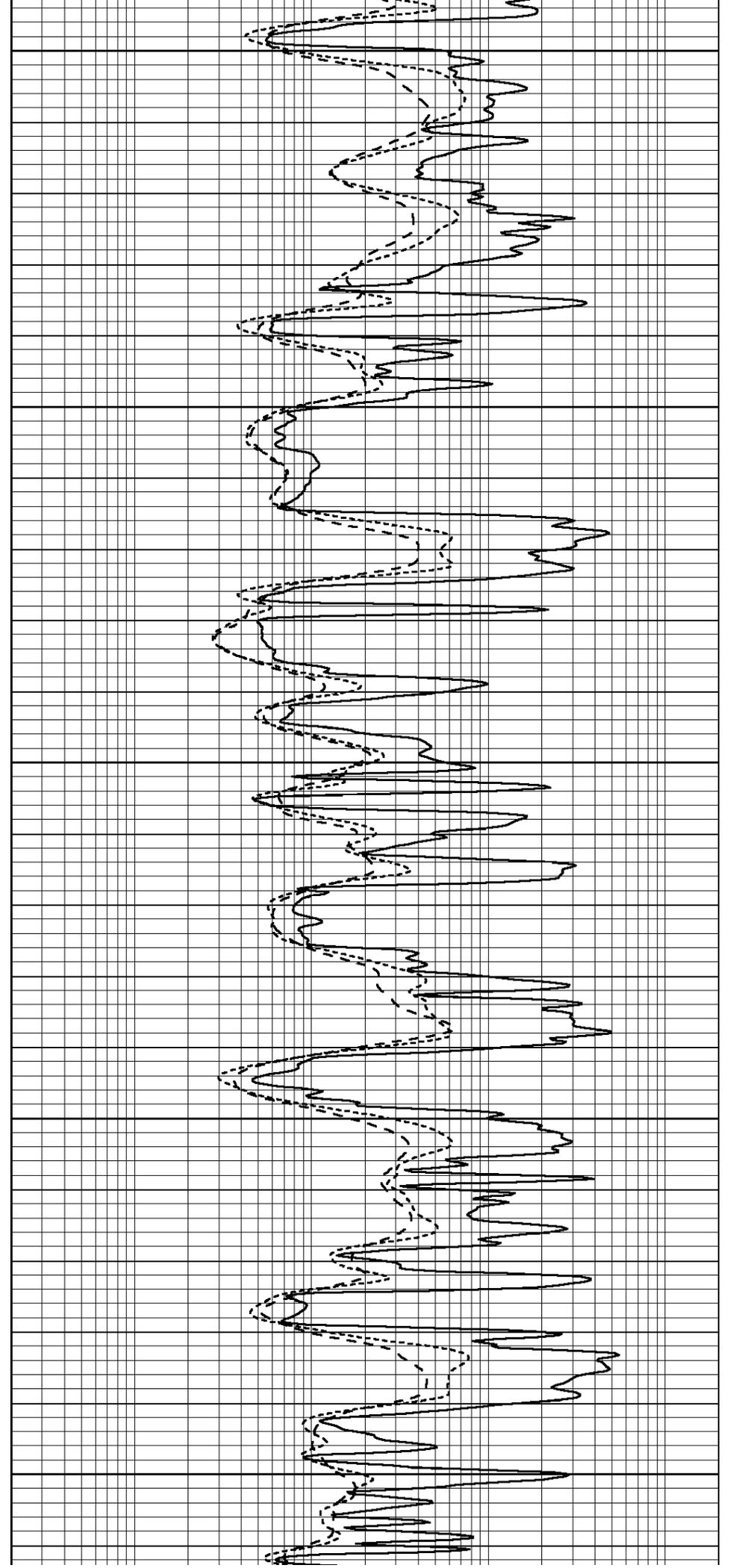
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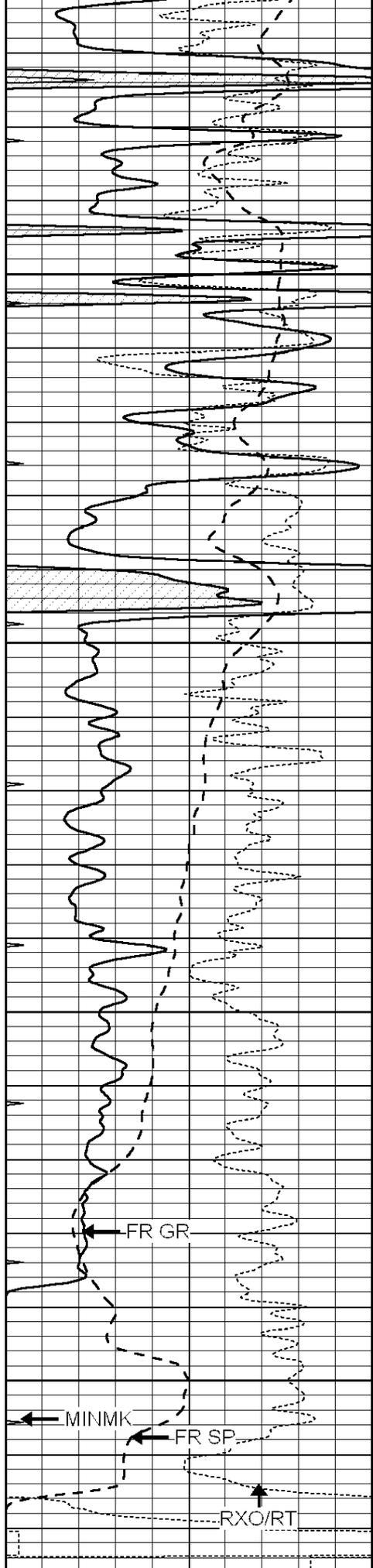
4300

4350

4400

4450





4500

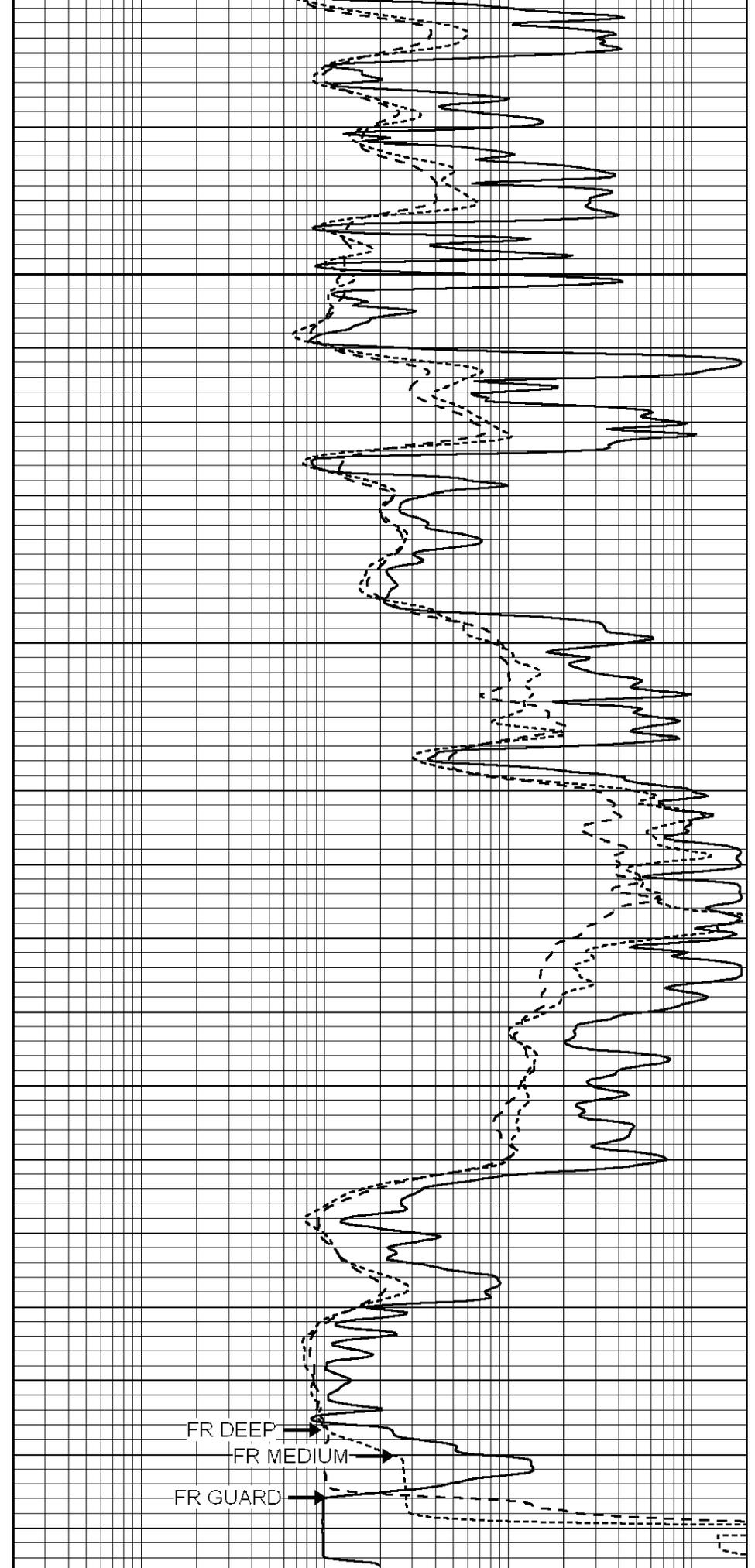
4550

4600

4650

LTD 4668

0 GAMMA RAY (GAPI) 150  
100 SP (mV) 100



FR DEEP  
FR MEDIUM  
FR GUARD

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

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

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



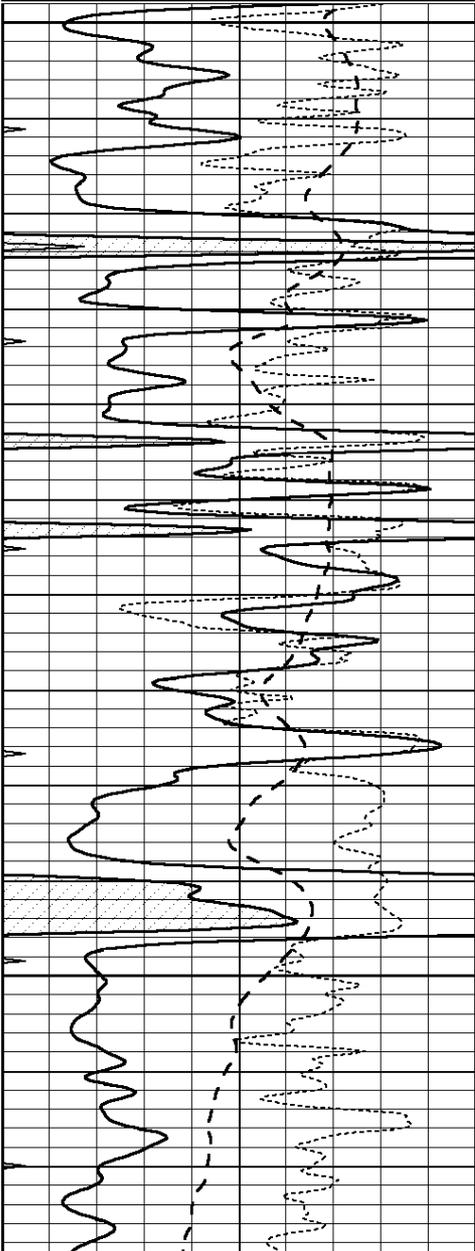
**COMPLETION  
& PRODUCTION  
SERVICES CO.**

# REPEAT SECTION

Database File: 011652pe.db  
 Dataset Pathname: pass2.9  
 Presentation Format: \_dil  
 Dataset Creation: Sat Aug 10 07:58:29 2013  
 Charted by: Depth in Feet scaled 1:240

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

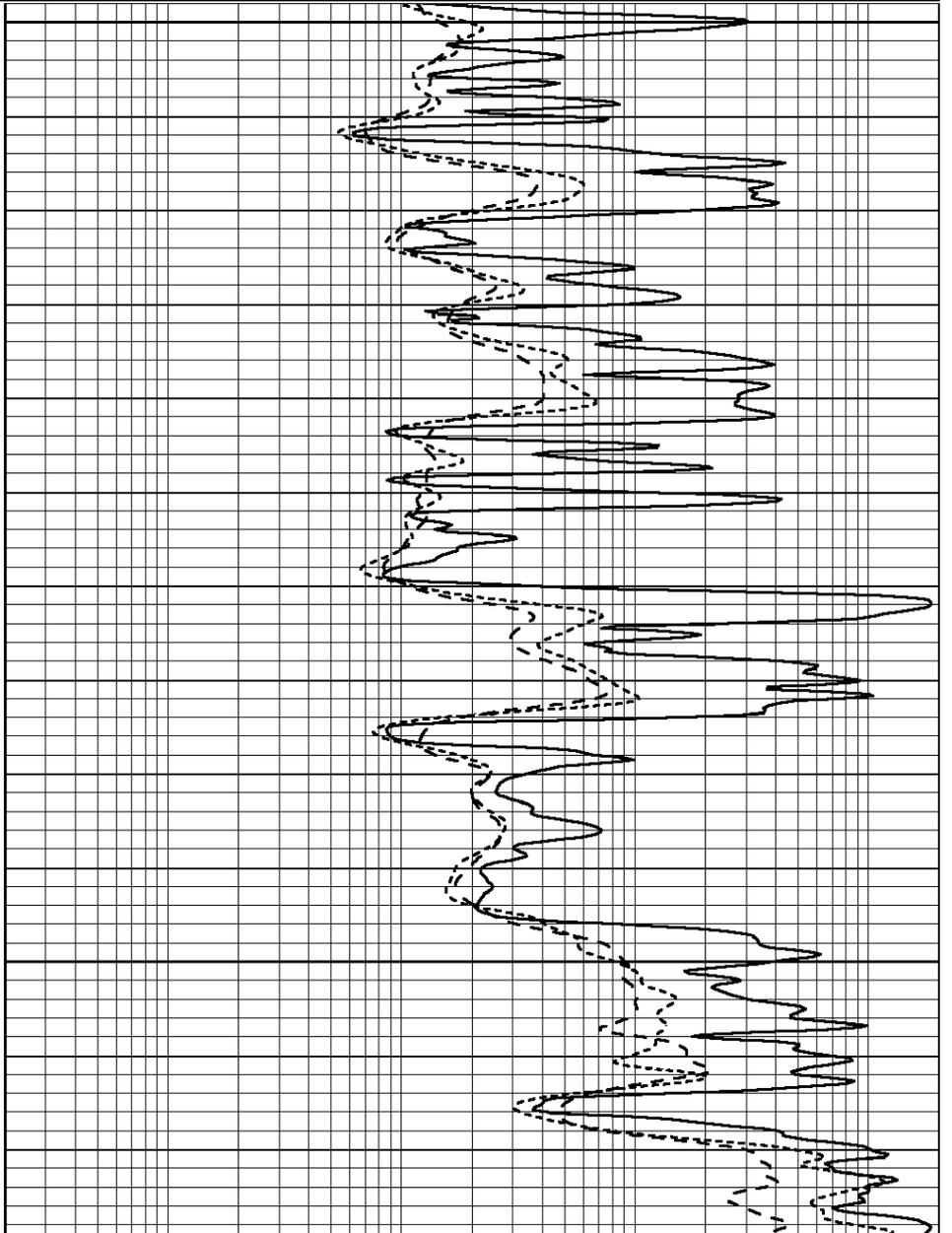
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



4450

4500

4550





	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		

Litho Density Calibration Report  
Serial: 004N      Model: PRB

Master Calibration		Performed Mon Jun 03 09:36:56 2013						
	Background	Magnesium	Aluminum	Sandstone				
Window 1	1417.6	10391.4	3464.6	11537.5			cps	
Window 2	1295.0	8959.7	3050.1	9816.4			cps	
Window 3	1105.1	5464.2	2051.0	5838.8			cps	
Window 4	315.0	317.7	312.9	319.8			cps	
Long Space	0.0	7664.6	1755.0	8521.3			cps	
Short Space	1.8	1582.4	1040.8	1699.4			cps	
Rho		1.7100	2.5900	1.3800			g/cc	
Pe		0.0000	2.5700	1.5500				
Rib Angle	: 44.1	Rib Slope	: 0.970	Density/Spine Ratio			: 0.574	
Spine Angle	: 74.1	Spine Slope	: 3.519	Spine Intercept			: -17.0	

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969						
Window 1	0.0	0.0	0.0	0.0			cps	
Window 2	0.0	0.0	0.0	0.0			cps	
Window 3	0.0	0.0	0.0	0.0			cps	
Window 4	0.0	0.0	0.0	0.0			cps	
Long Space	0.0	0.0	0.0	0.0			cps	
Short Space	0.0	0.0	0.0	0.0			cps	
Measured Rho		0.0000	0.0000	0.0000			g/cc	
Measured Correction		0.0000	0.0000	0.0000			g/cc	
Measured Pe			0.0000	0.0000				

After Survey Verification		Performed Wed Dec 31 18:00:00 1969						
Window 1	0.0	0.0	0.0	0.0			cps	
Window 2	0.0	0.0	0.0	0.0			cps	
Window 3	0.0	0.0	0.0	0.0			cps	
Window 4	0.0	0.0	0.0	0.0			cps	
Long Space	0.0	0.0	0.0	0.0			cps	
Short Space	0.0	0.0	0.0	0.0			cps	
Measured Rho		0.0000	0.0000	0.0000			g/cc	
Measured Correction		0.0000	0.0000	0.0000			g/cc	
Measured Pe			0.0000	0.0000				

Compensated Neutron Calibration Report

Serial Number: 070808  
 Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070559	
Tool Model:	OPEN_GR	
Performed:	Wed Jun 12 18:25:42 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3500	GAPI/cps