



**SUPERIOR**  
Hays,  
Kansas

**DUAL INDUCTION  
LOG**

Company CAPTIVA II  
Well EAKIN UNIT #1-7  
Field WILDCAT  
County PAWNEE  
State KANSAS

Company CAPTIVA II  
Well EAKIN UNIT #1-7  
Field WILDCAT  
County PAWNEE State KANSAS

Location: API # : 15-145-21625-0000  
2676' FNL & 423' FEL  
SEC 7 TWP 22S RGE 16W  
Permanent Datum GROUND LEVEL Elevation 2007  
Log Measured From KELLY BUSHING 11' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
CDL/CNL  
MEL/SONIC  
Elevation  
K.B. 2018  
D.F. 2016  
G.L. 2007

Date	1/24/11
Run Number	ONE
Depth Driller	3990
Depth Logger	3988
Bottom Logged Interval	3986
Top Log Interval	00
Casing Driller	8 5/8" @1019'
Casing Logger	1020
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/52
pH / Fluid Loss	10.5/8.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.850 @.68F
Rmf @ Meas. Temp	.638 @.68F
Rmc @ Meas. Temp	1.02 @.68F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.498 @116F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	3:00 A.M.
Maximum Recorded Temperature	116F
Equipment Number	0836
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	CHARLIE STURDAVANT

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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  
LARNED, KS. SOUTHWEST ON HWY 56 ACROSS PAWNEE RIVER BRIDE - 1/2 MILE PAST BRIDGE - 1/2  
SOUTH - WEST INTO



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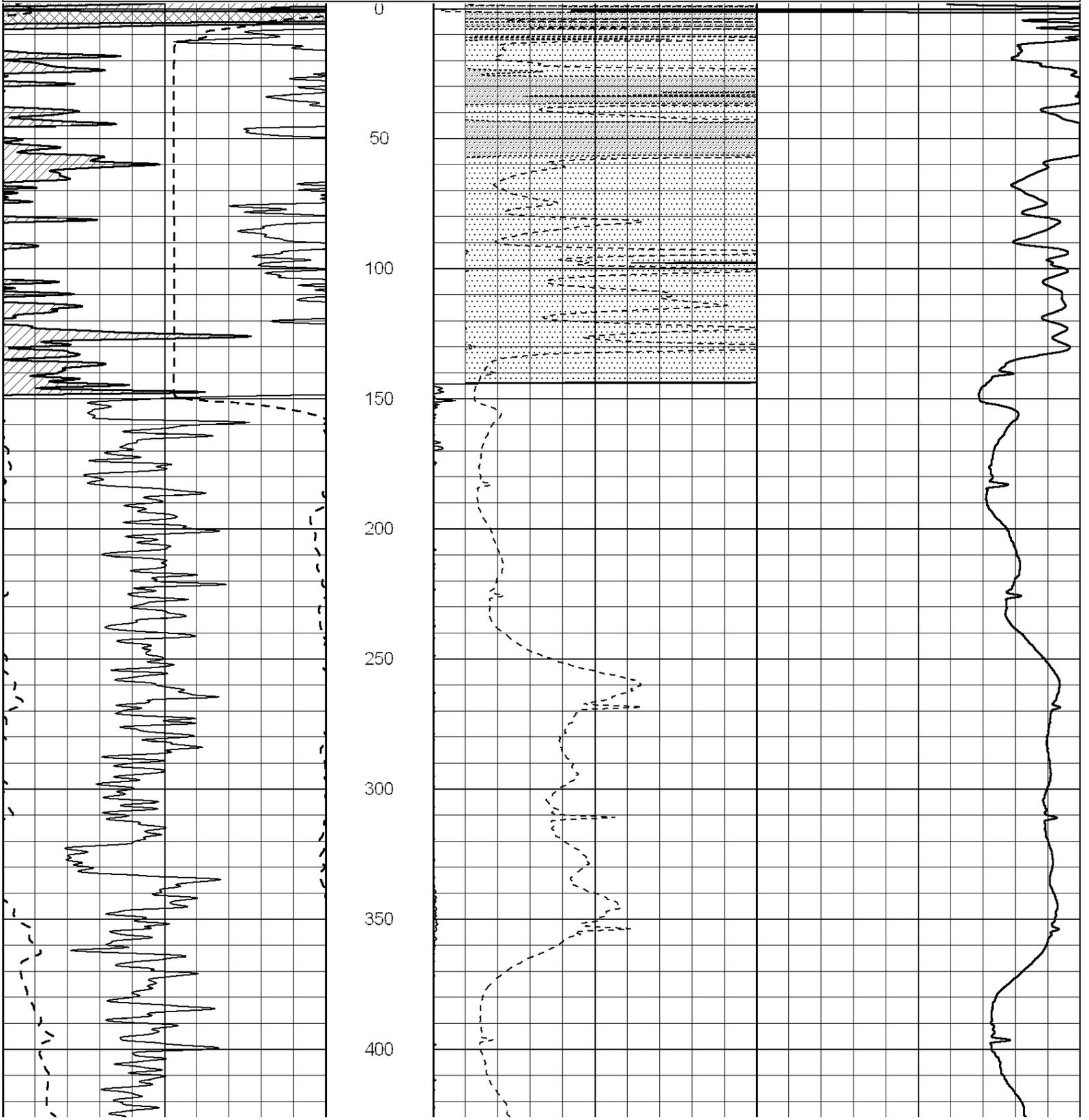
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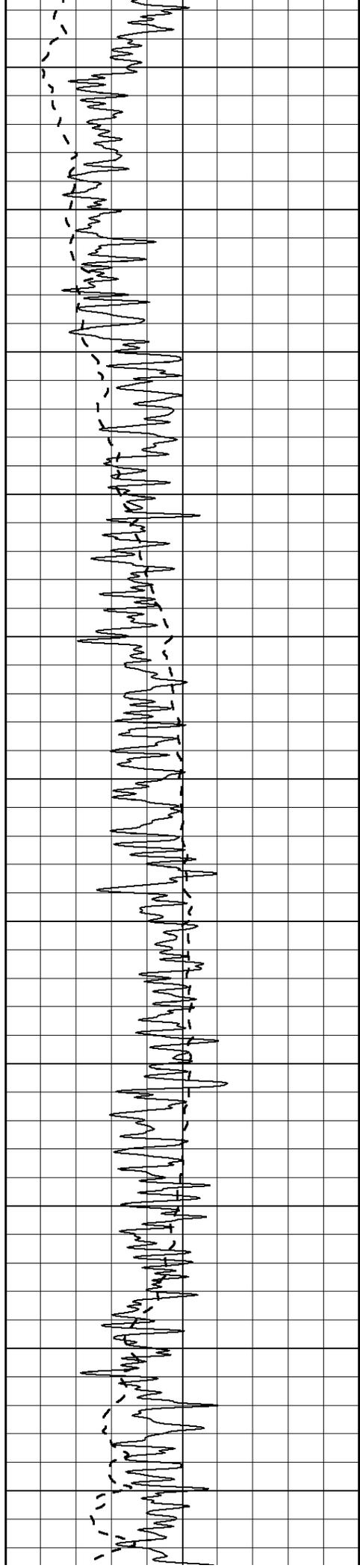
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0 Gamma Ray (GAPI) 150  
 -100 SP (mV) 100

0 RLL3 (Ohm-m) 50  
 0 RILD (Ohm-m) 50

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





450

500

550

600

650

700

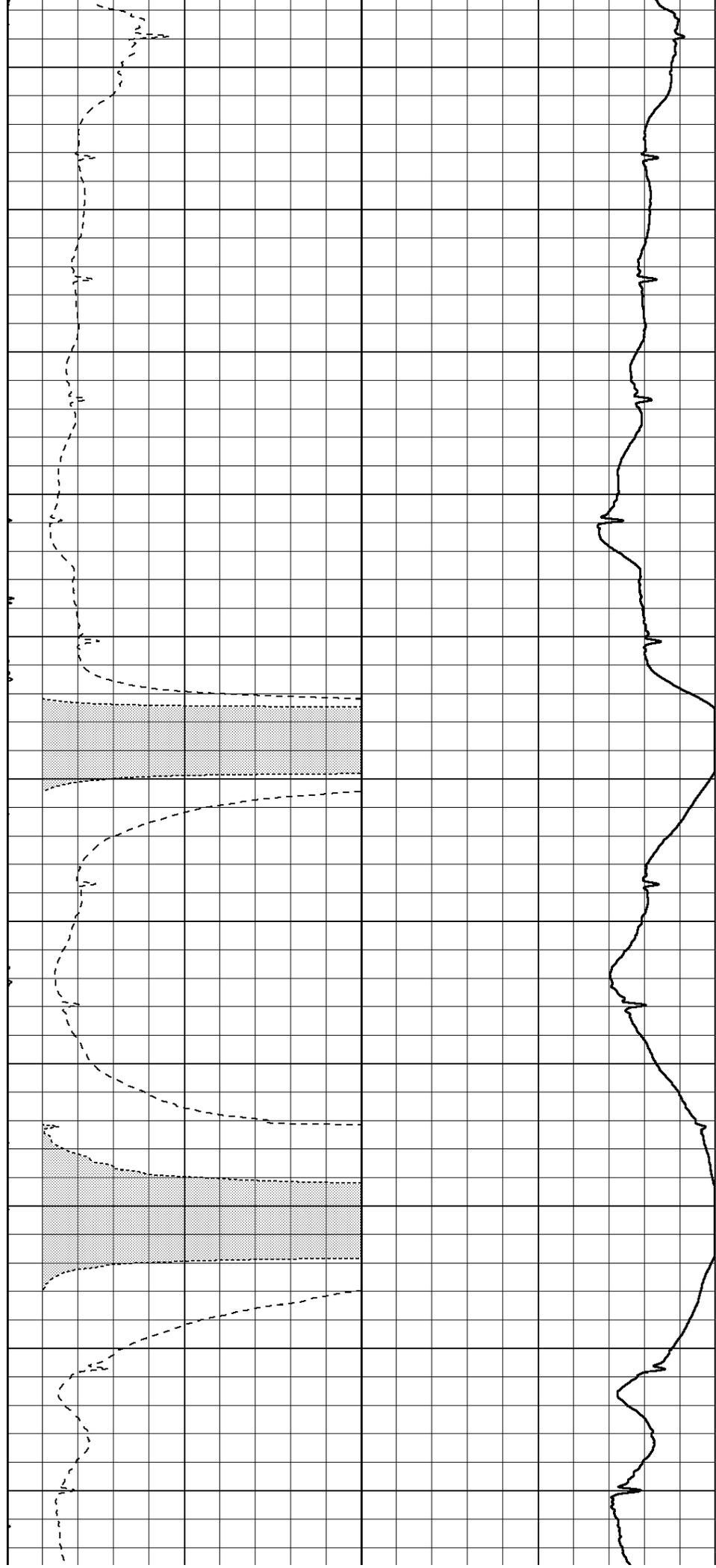
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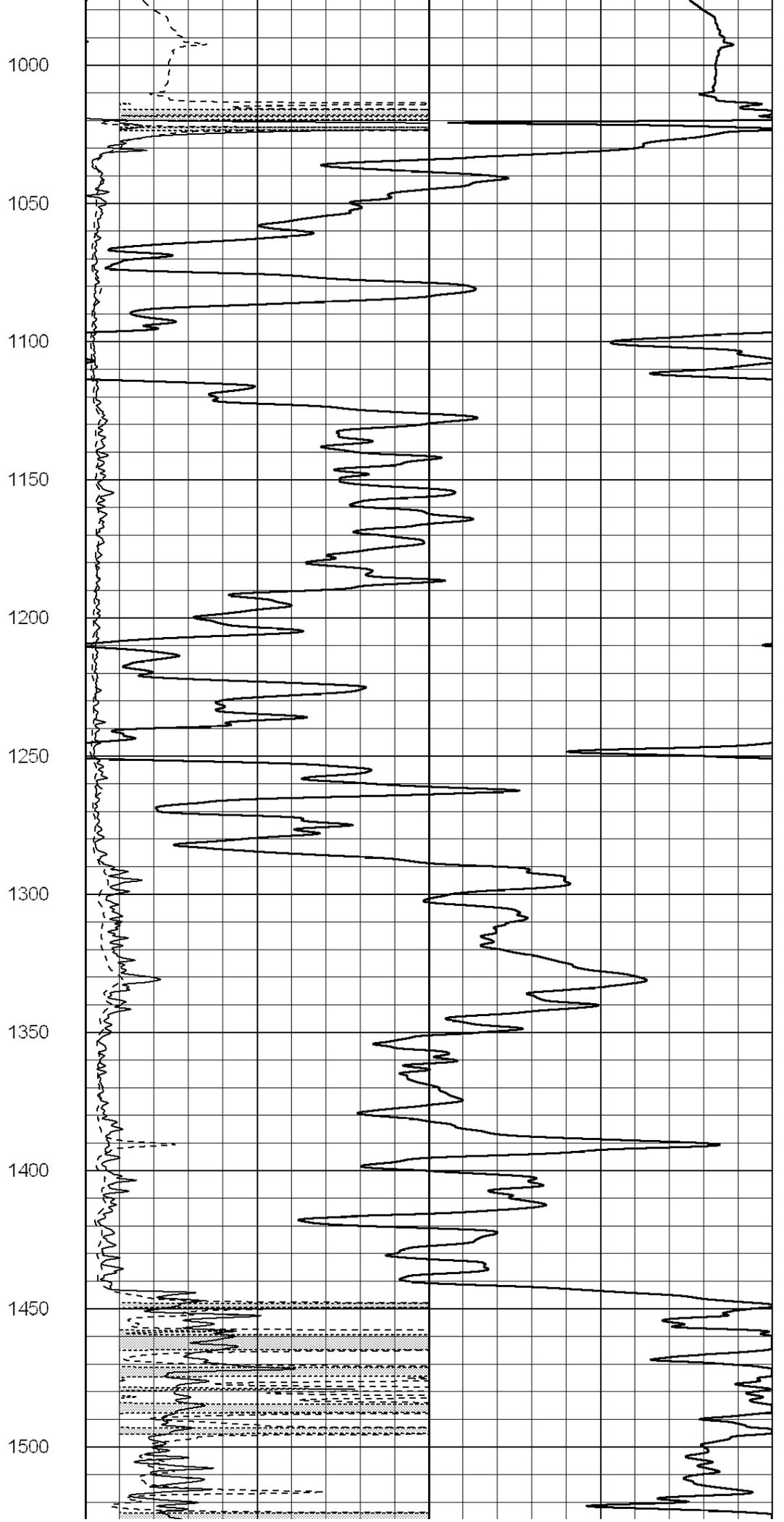
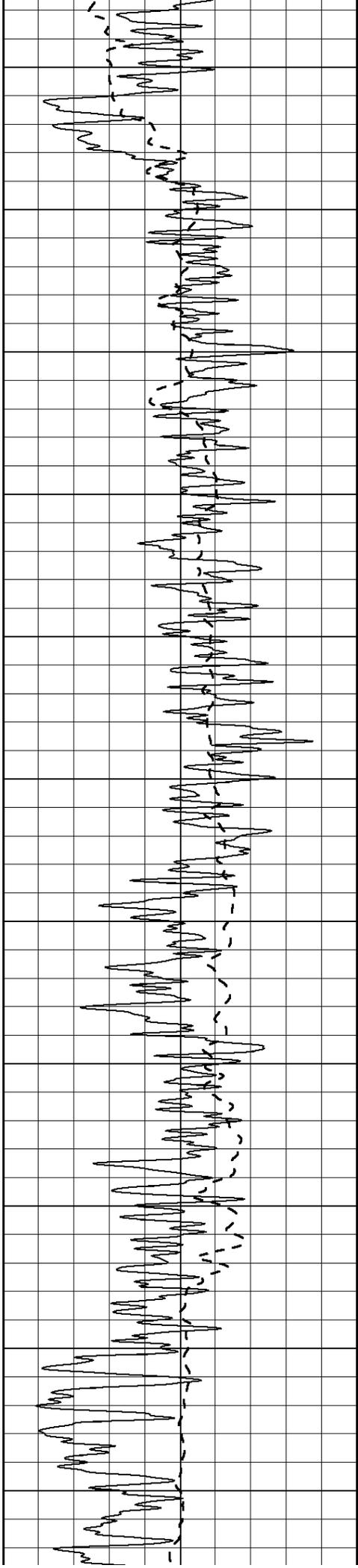
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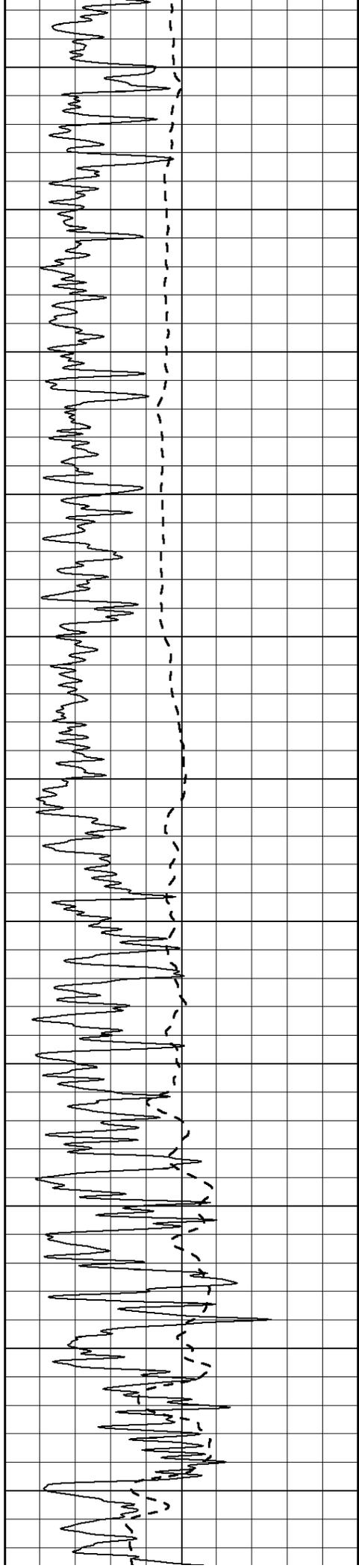
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900

950







1550

1600

1650

1700

1750

1800

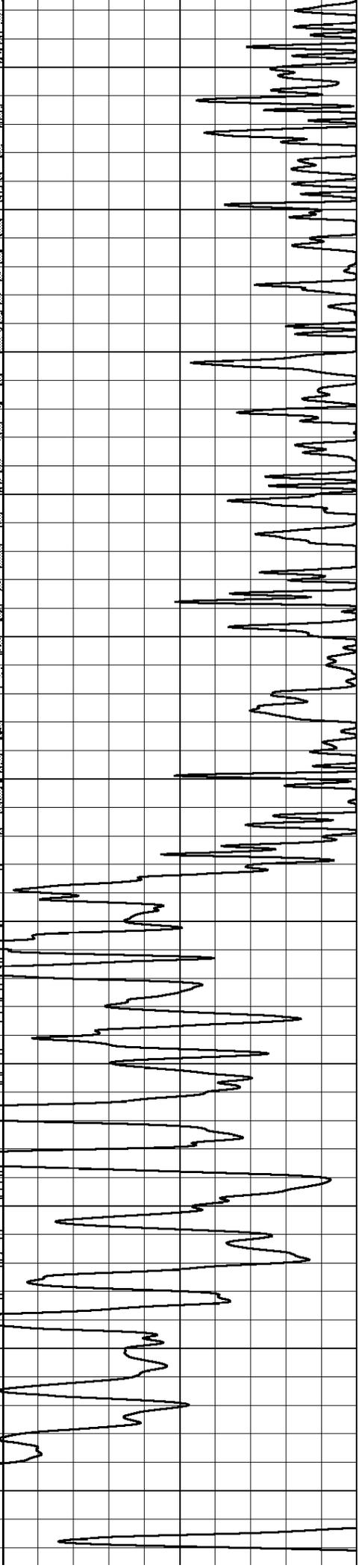
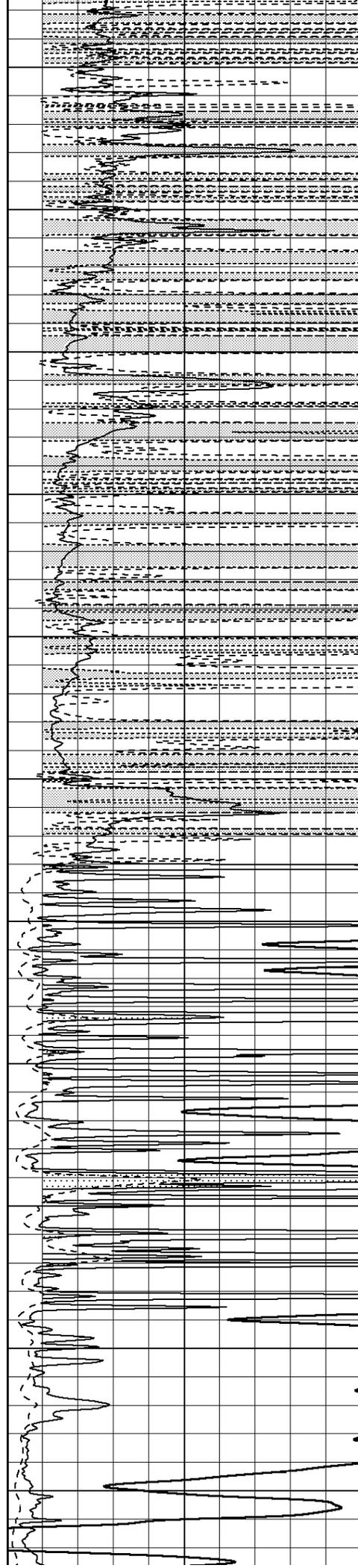
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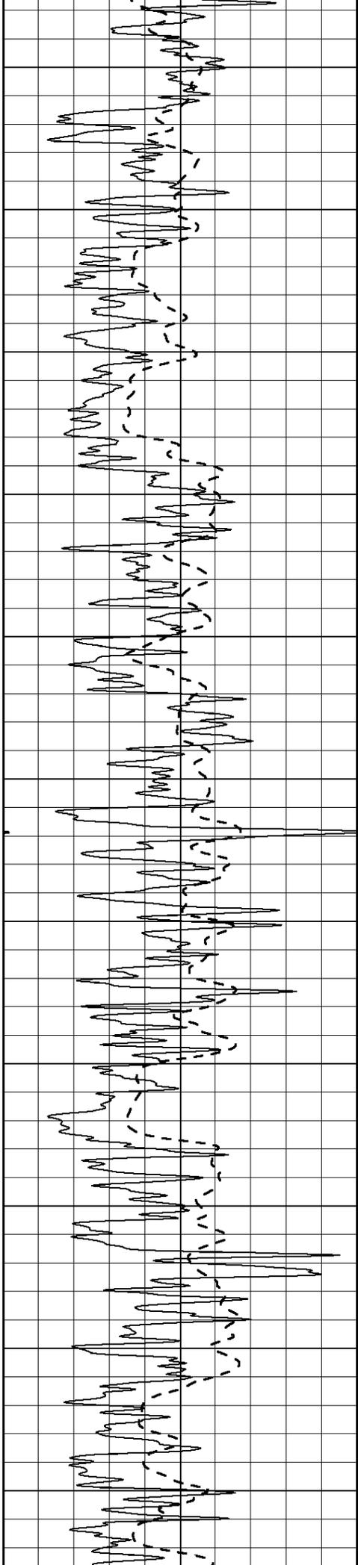
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1950

2000

2050





2100

2150

2200

2250

2300

2350

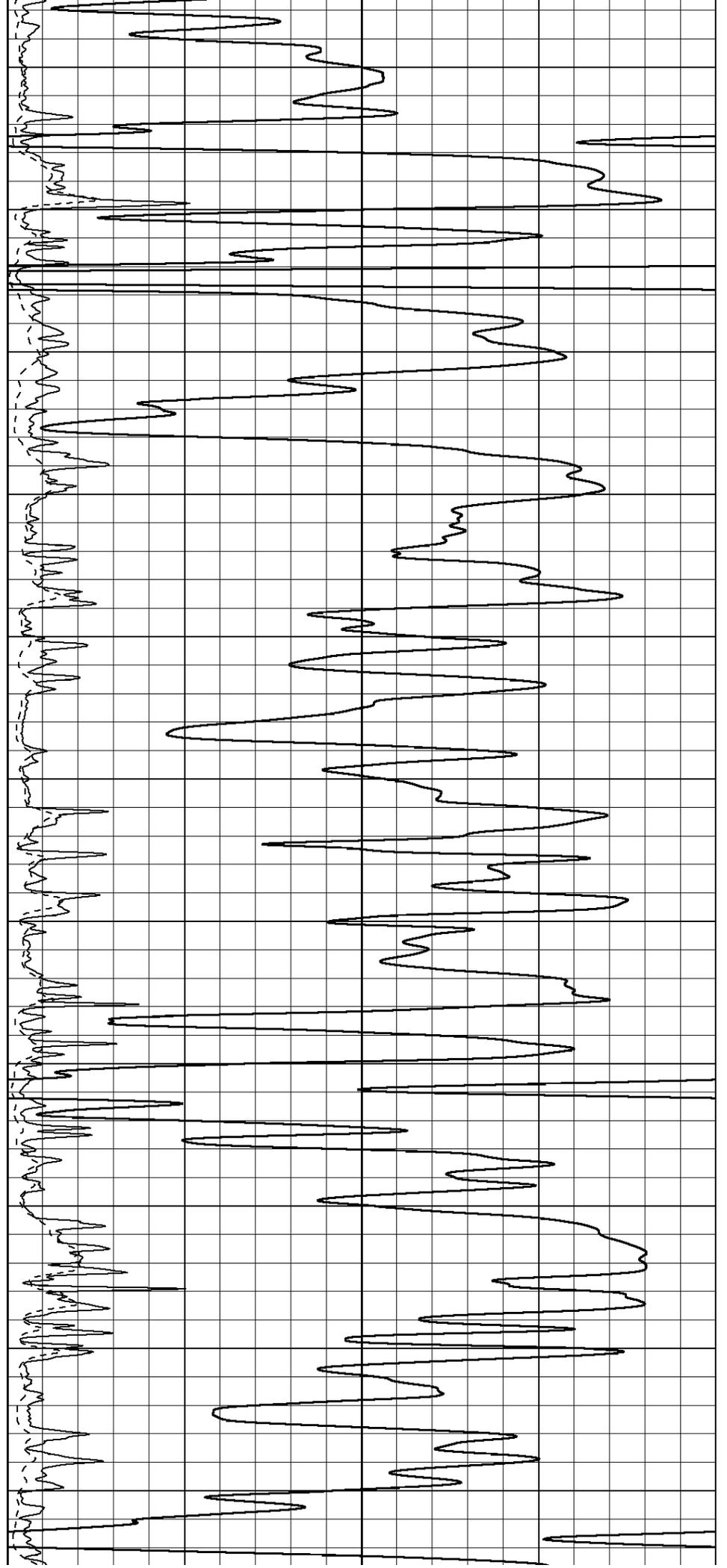
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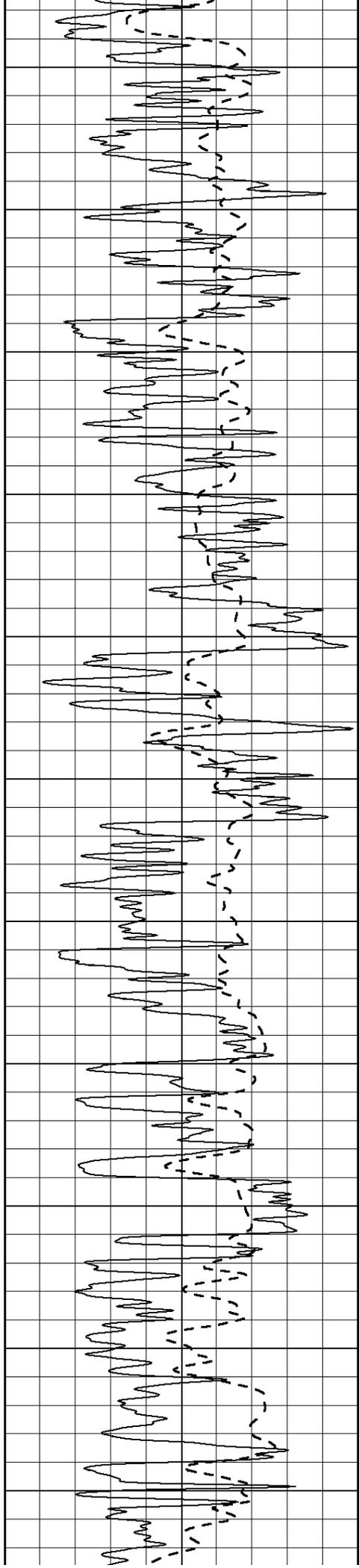
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2500

2550

2600





2650

2700

2750

2800

2850

2900

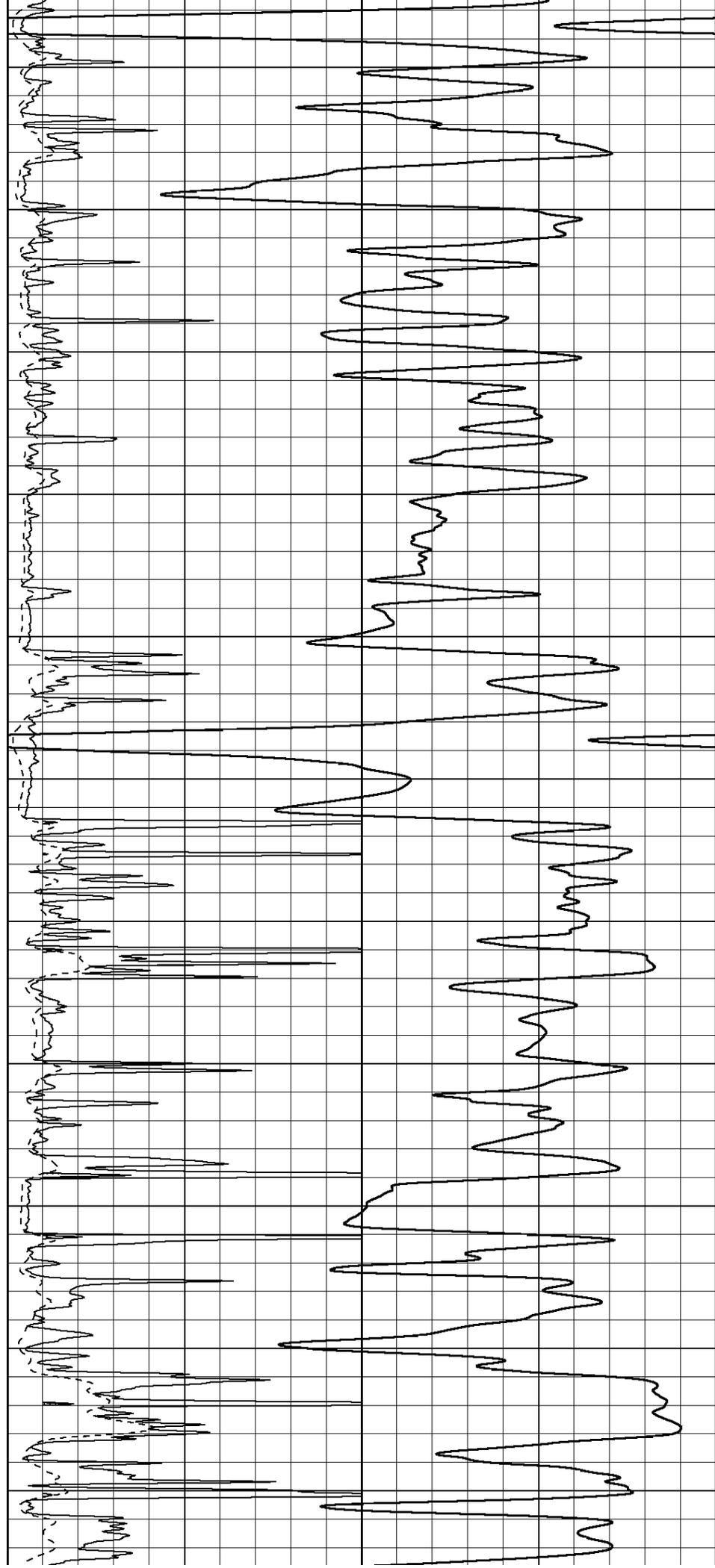
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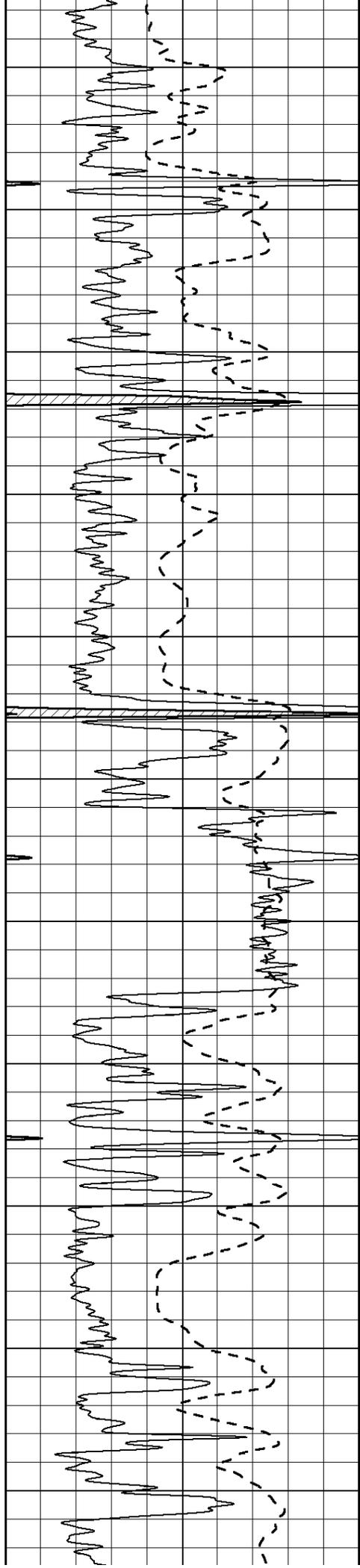
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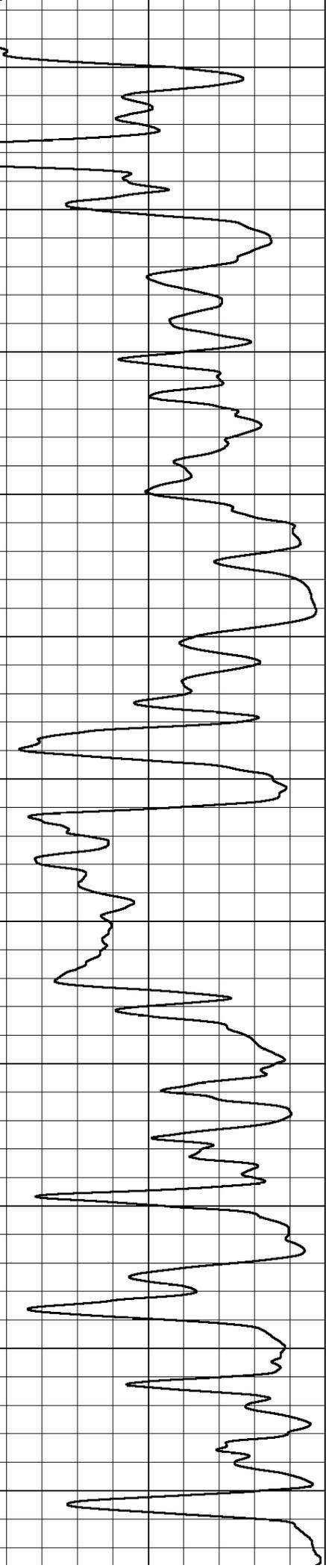
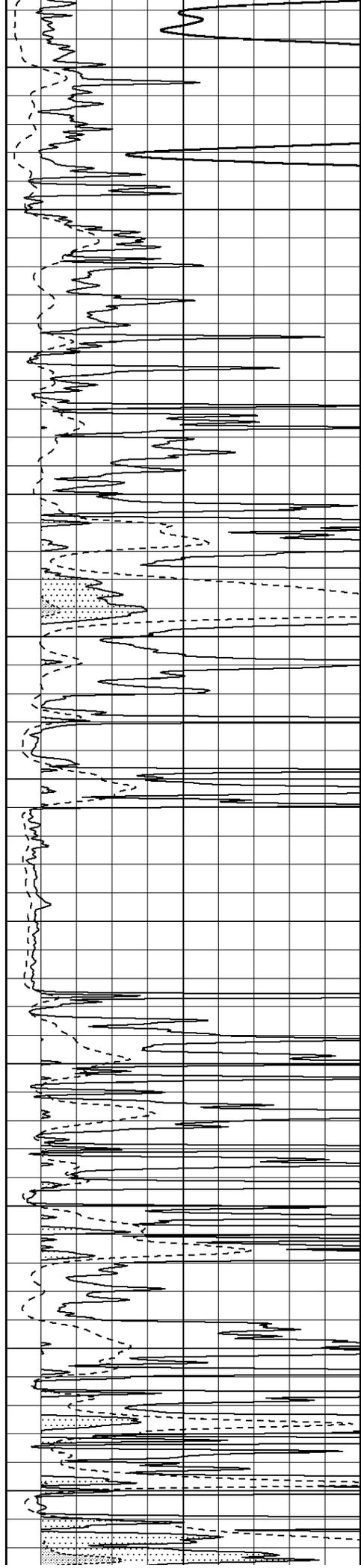
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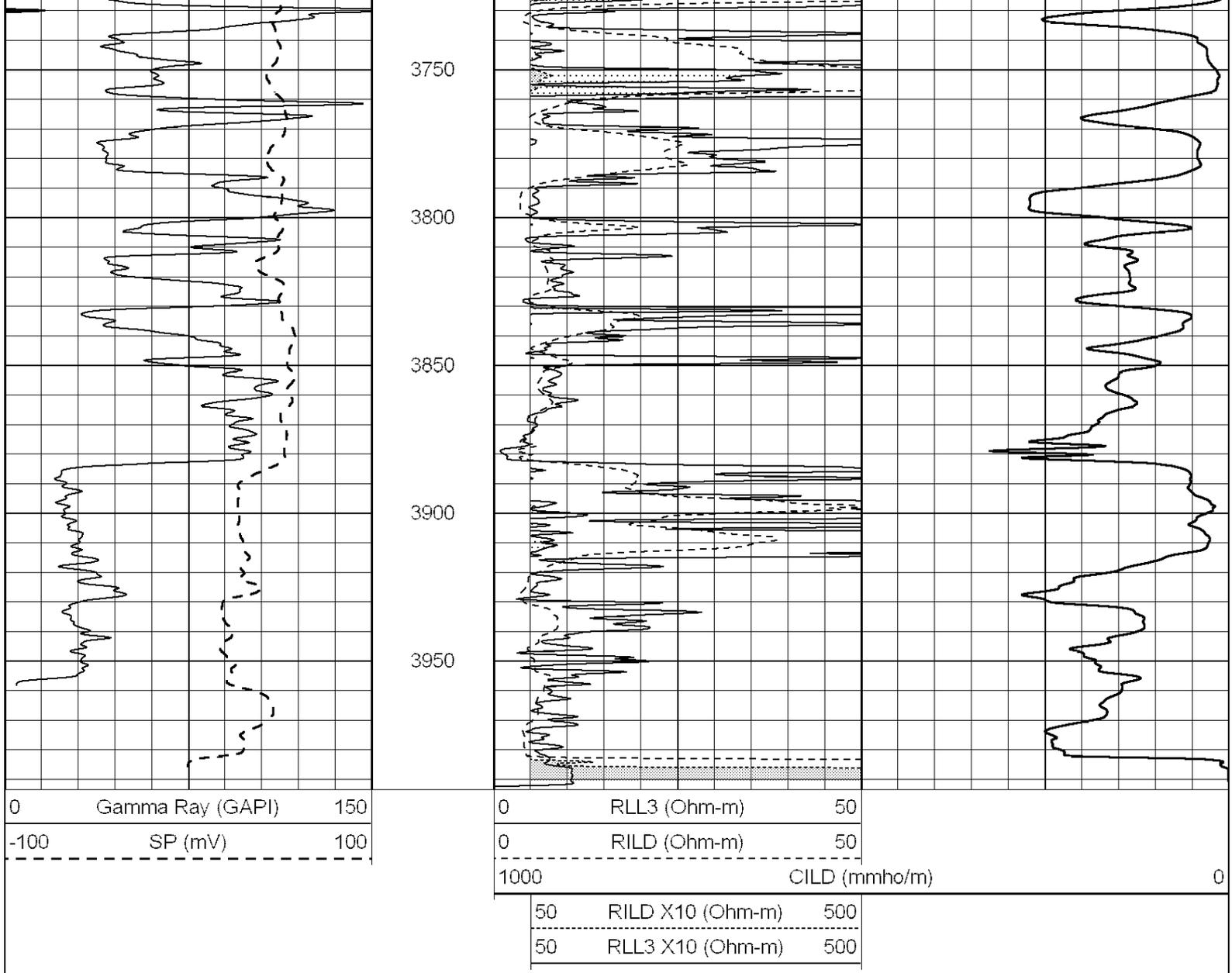
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3200  
3250  
3300  
3350  
3400  
3450  
3500  
3550  
3600  
3650  
3700



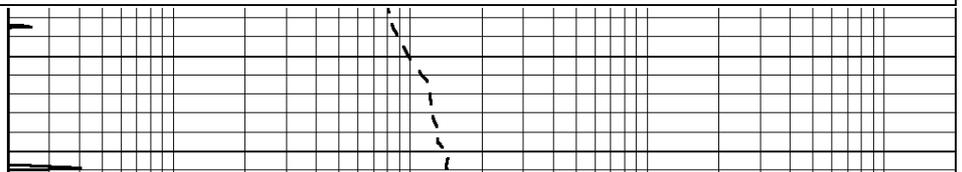
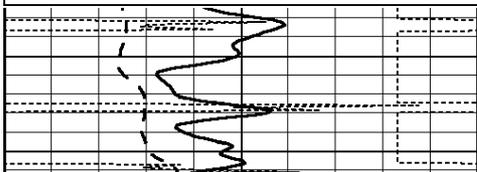


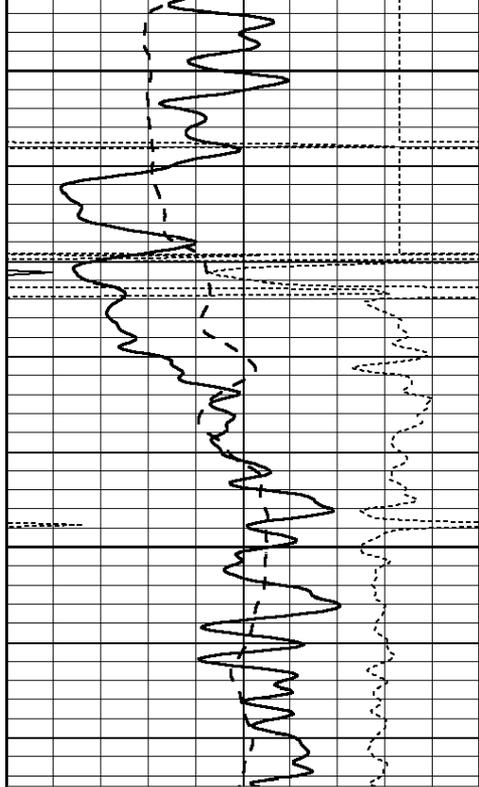
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# ANHYDRITE

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0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	10			

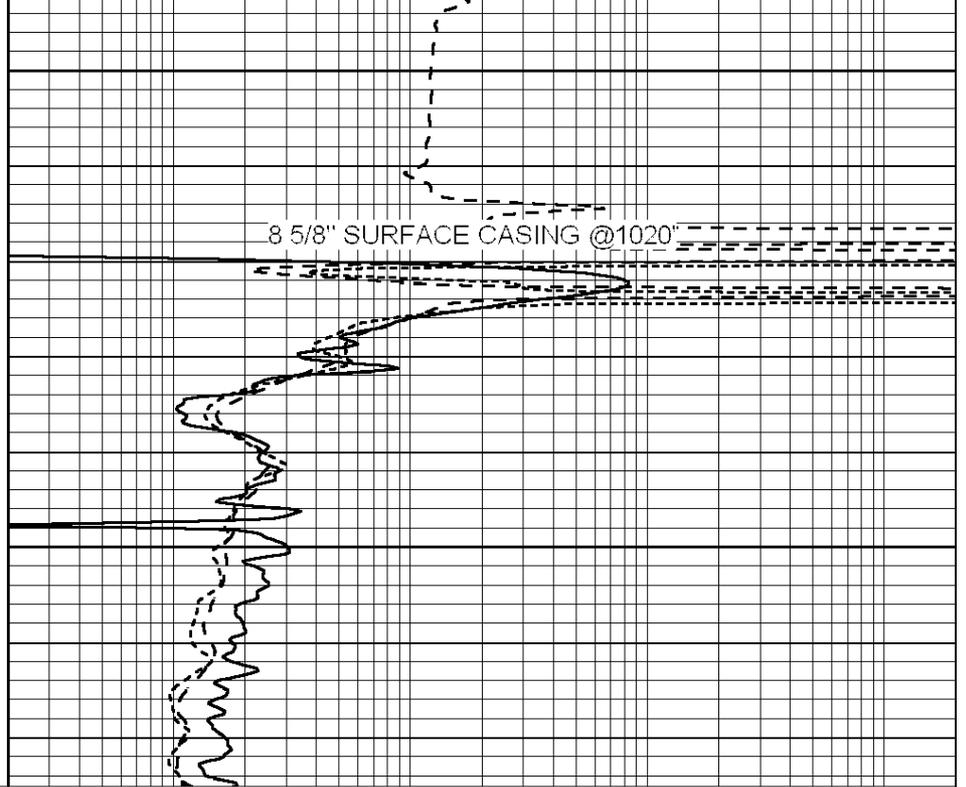




1000

1050

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



8 5/8" SURFACE CASING @1020'

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



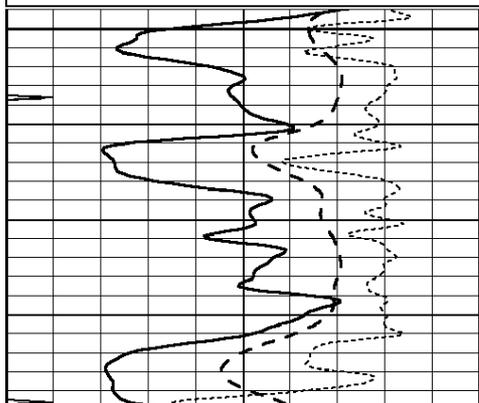
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# MAIN SECTION

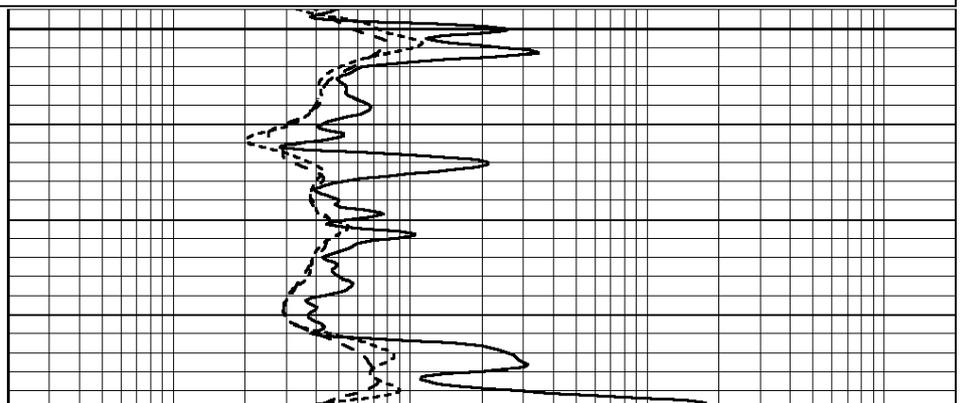
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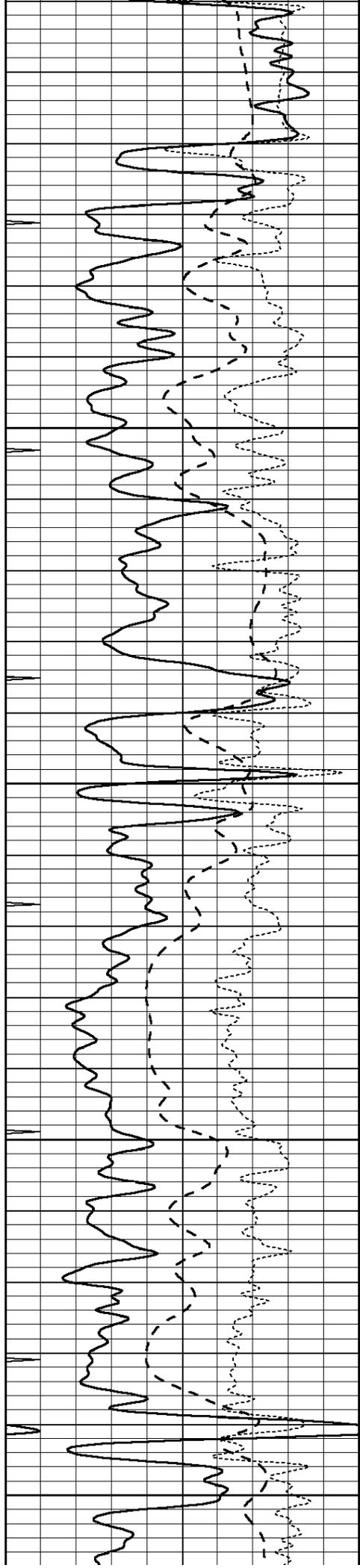
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

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



3000





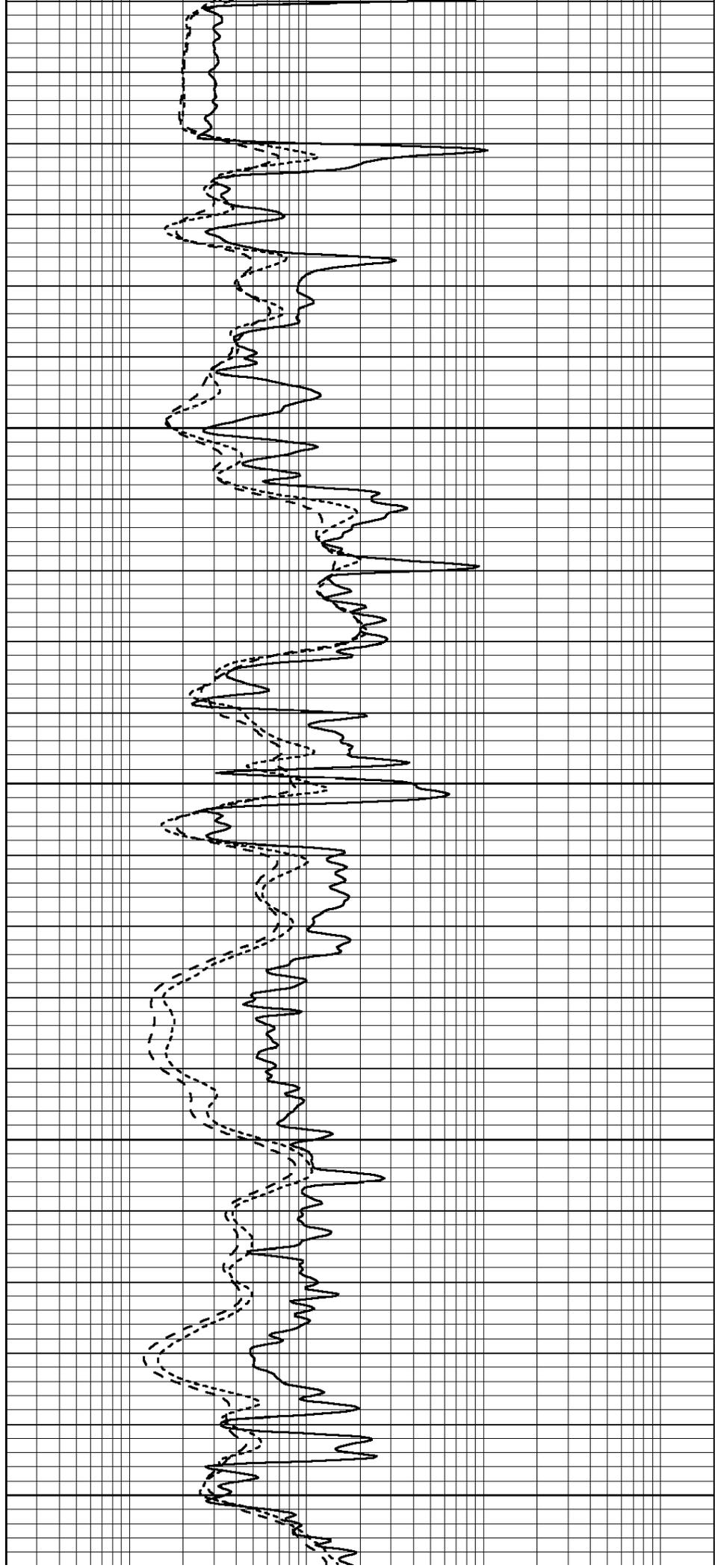
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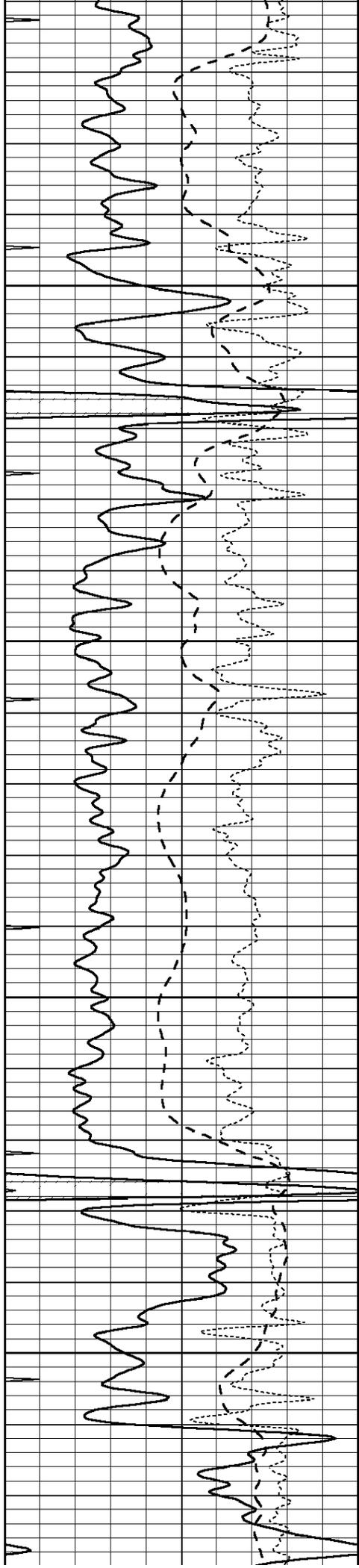
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3150

3200

3250



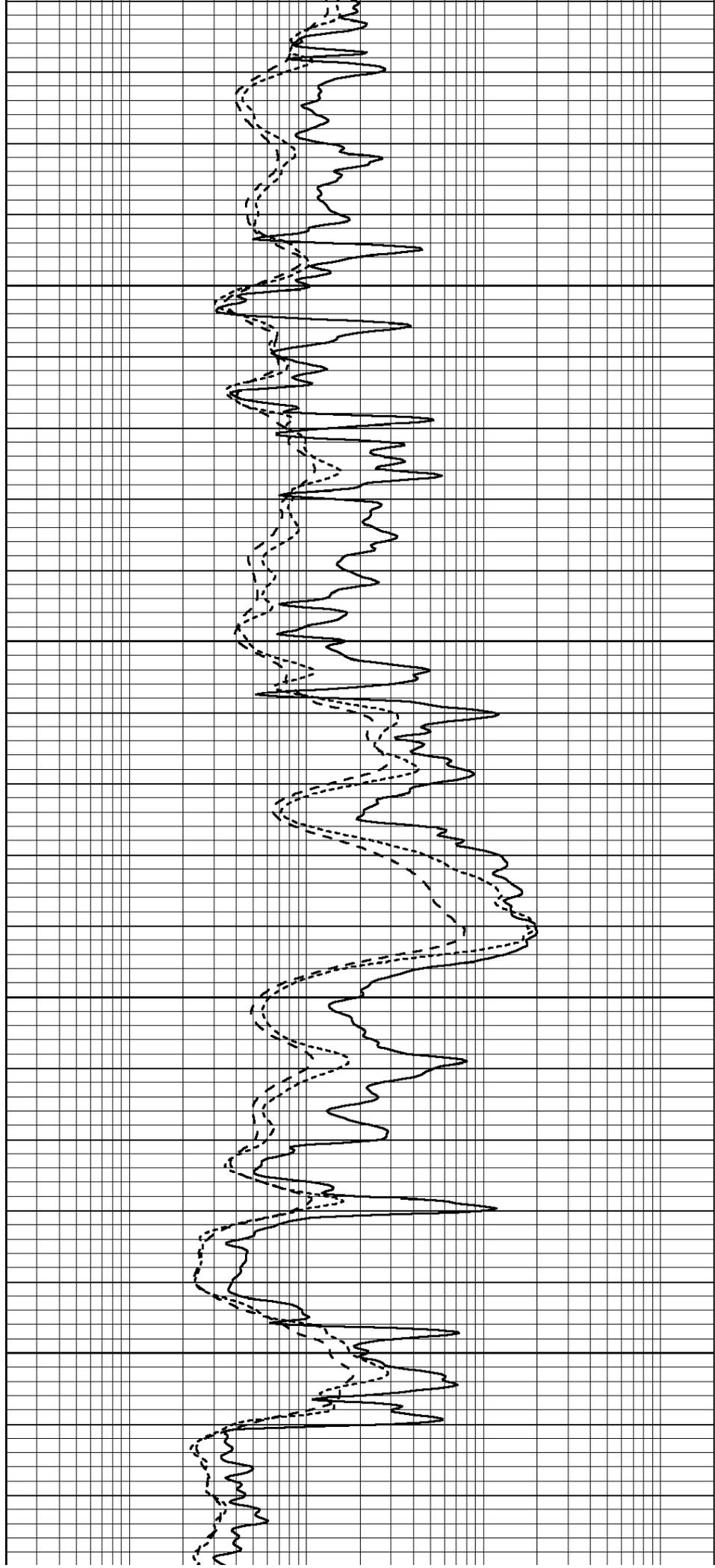


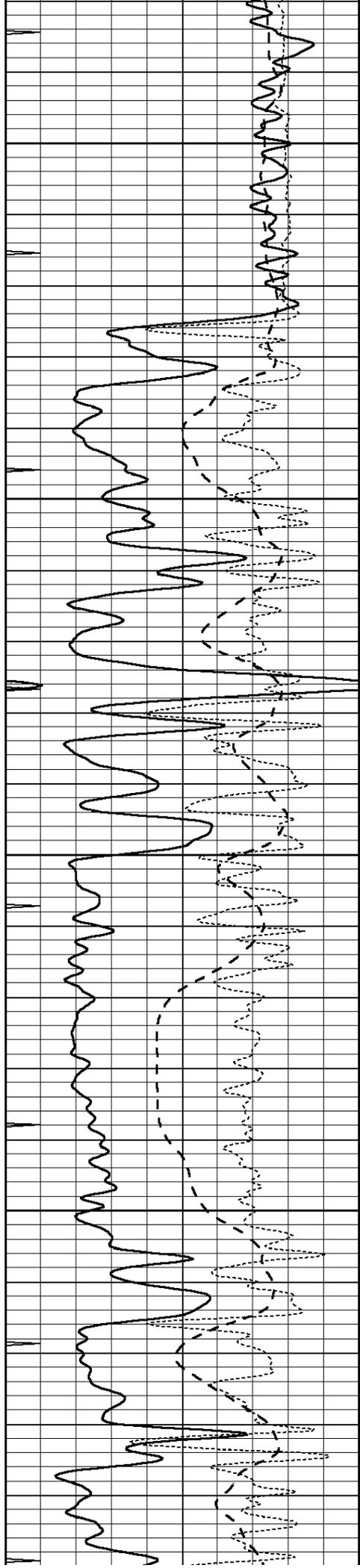
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3400

3450





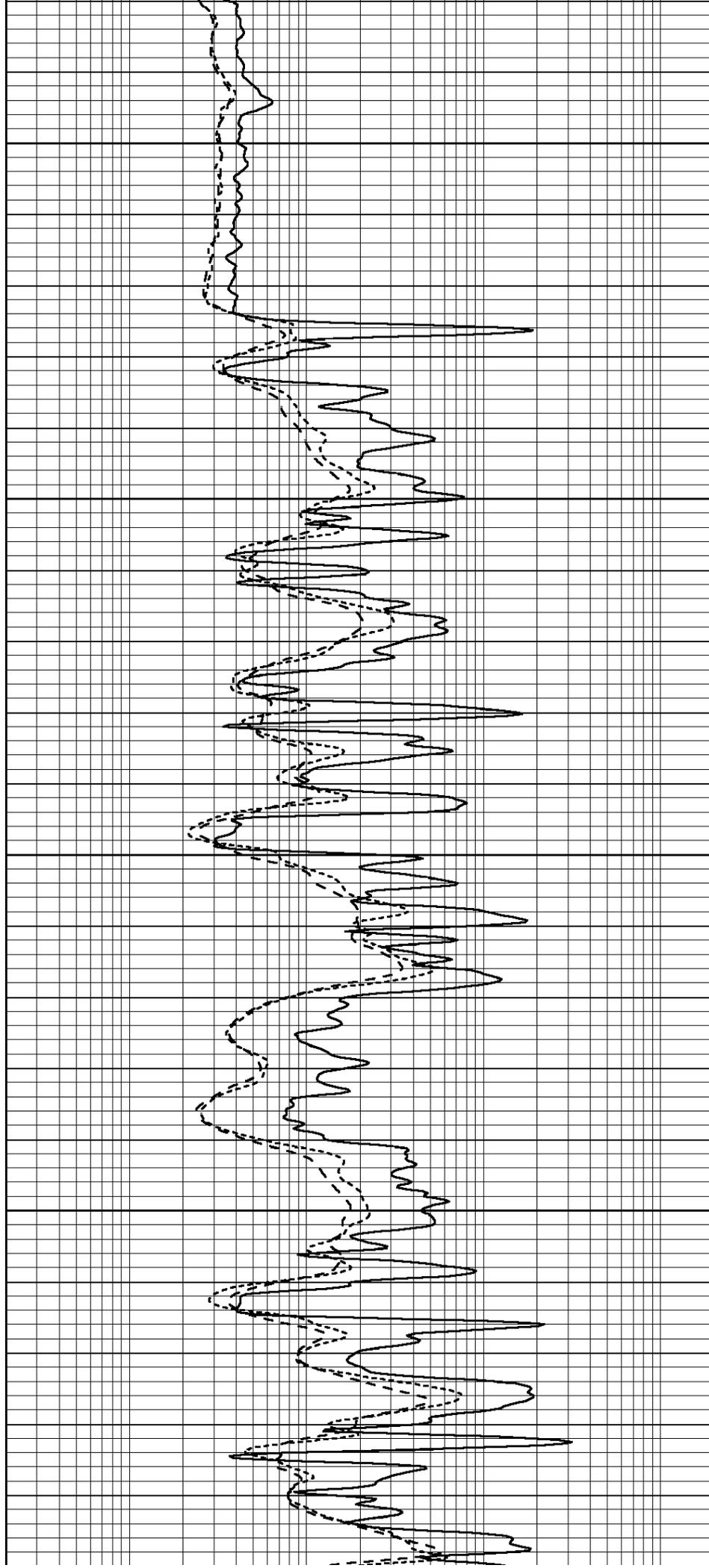
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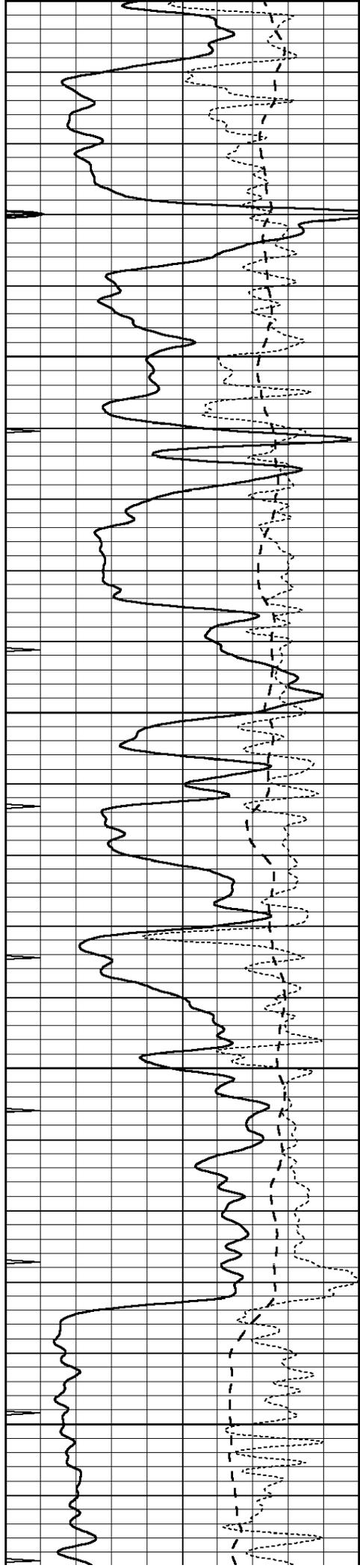
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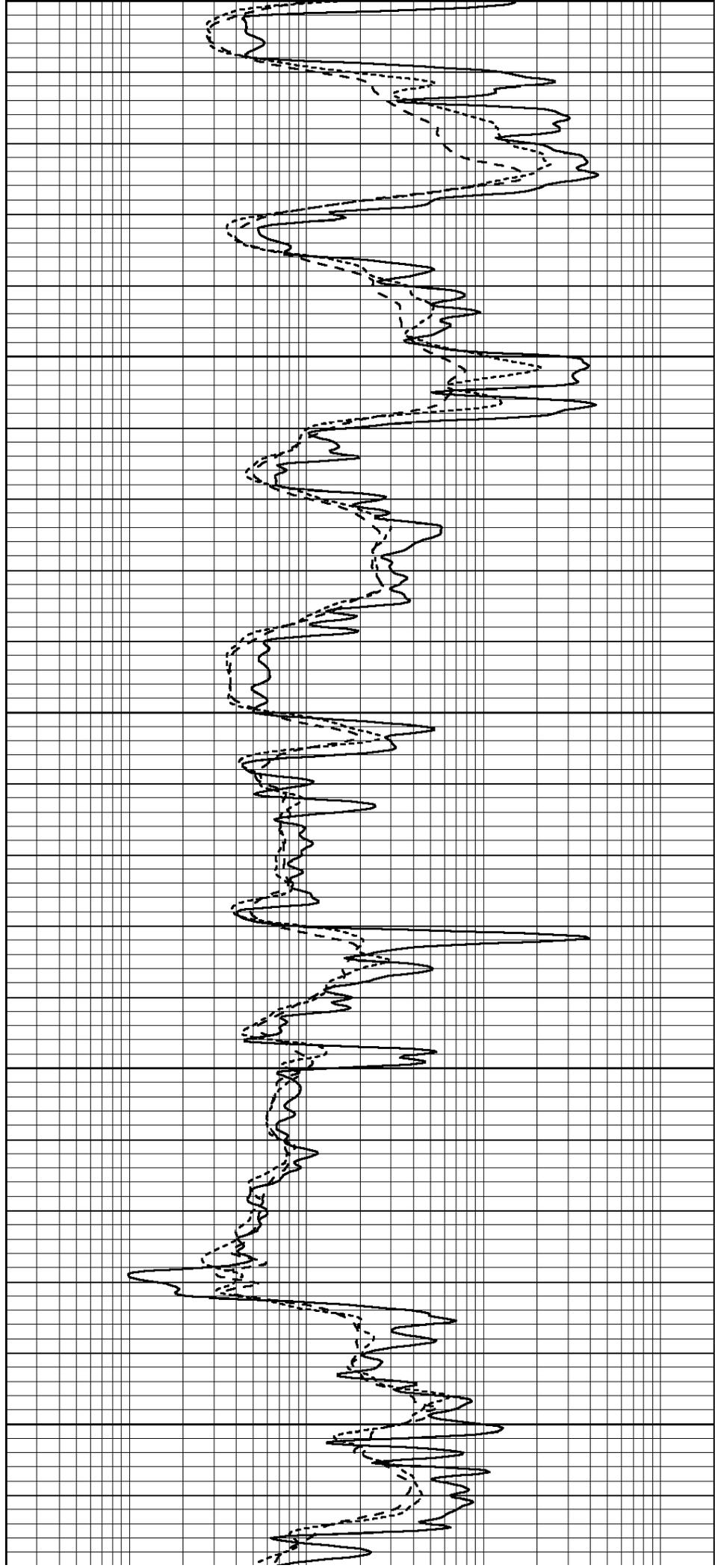
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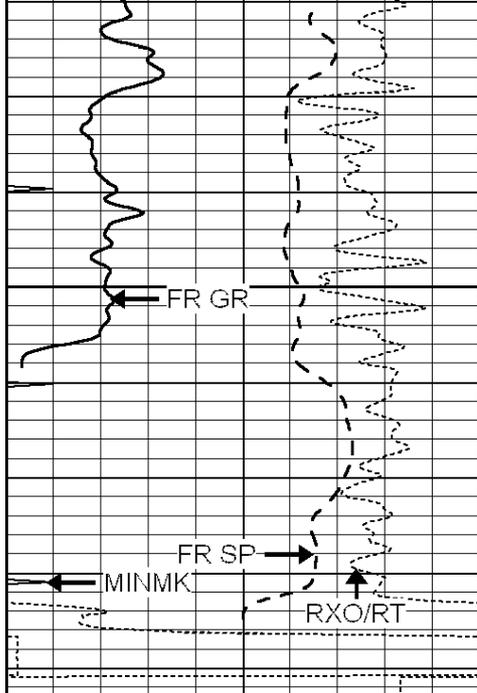
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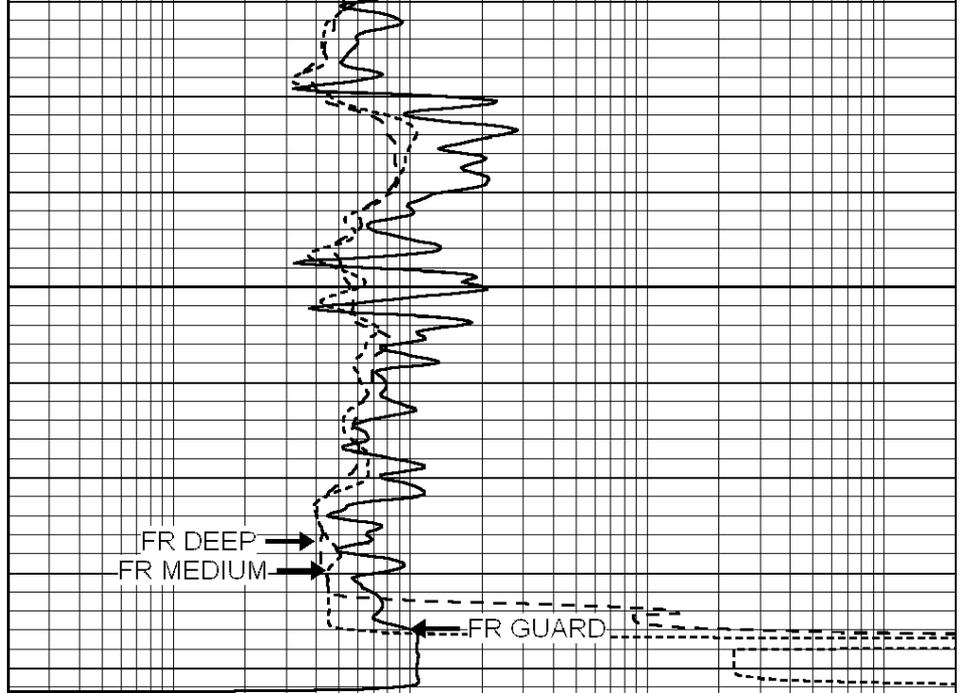




3950

LTD 3988

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



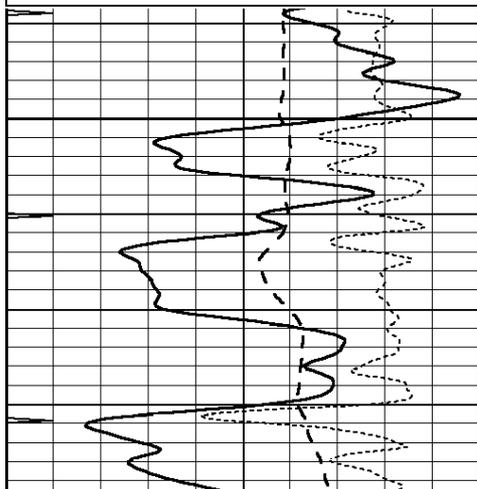
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# REPEAT SECTION

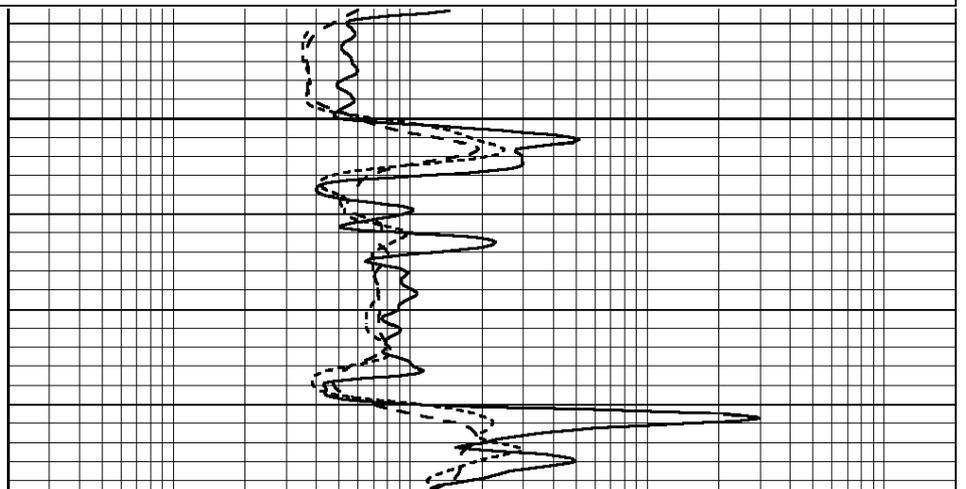
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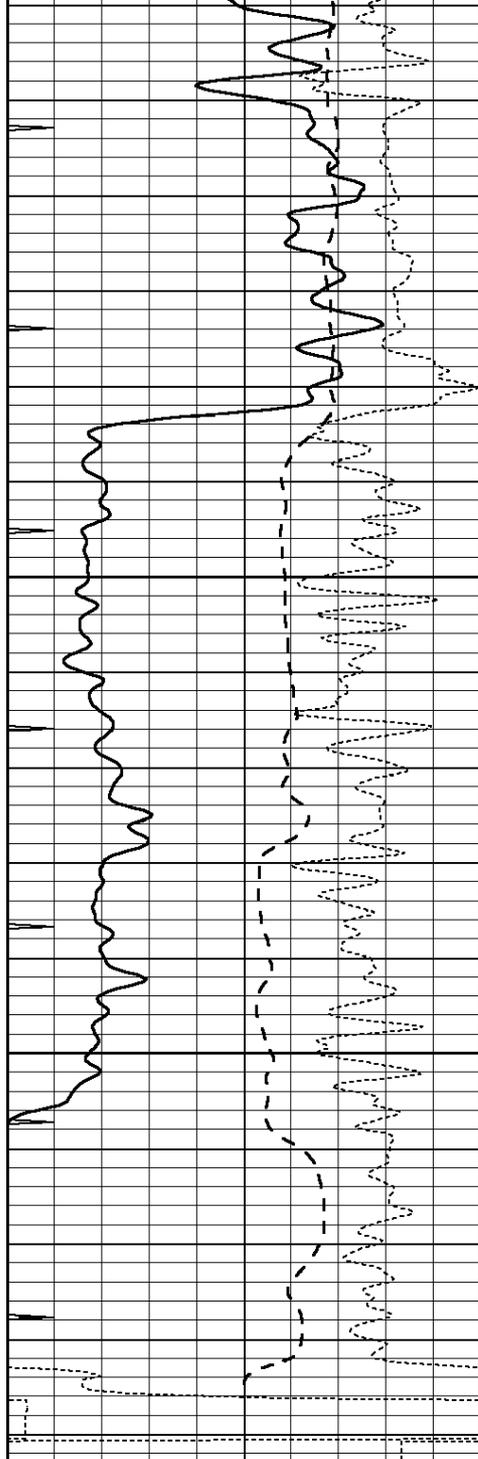
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	10

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



3800



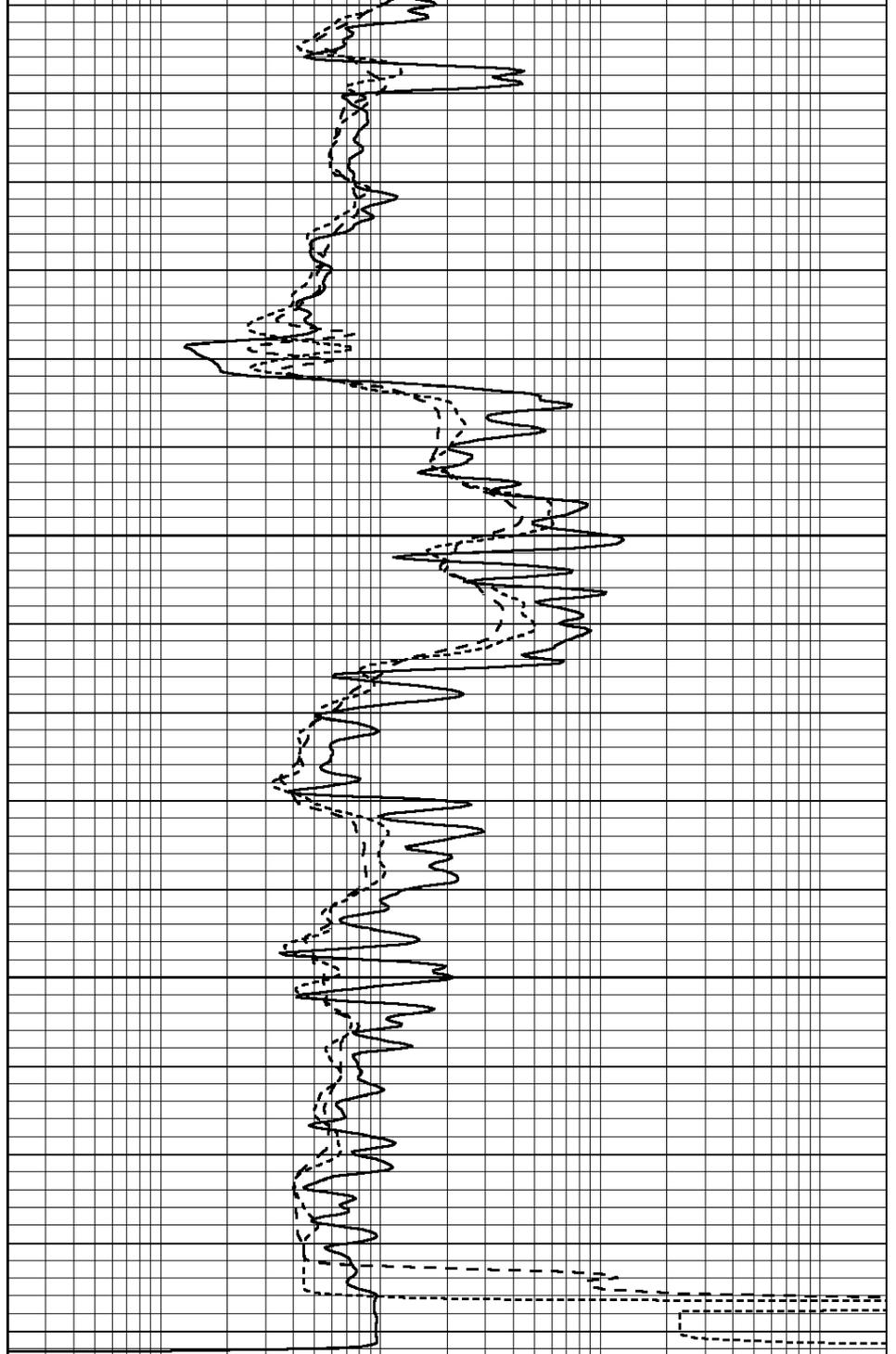


3850

3900

3950

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

Calibration Report

Database File: 006274ddn.db  
 Dataset Pathname: pass3.4  
 Dataset Creation: Tue Jan 25 04:13:24 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR  
 Performed: Mon Jan 24 23:41:17 2011

Readings

References

Results

Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho/m	660.000	-4.000
Medium	0.020	0.738	V	0.000	462.500	mmho/m	740.000	-22.000
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

	Readings	Reference	
Low Ref	2.1	6.2	
High Ref	4.1	14.0	
Gain:	4.1		Offset: -2.5

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: Tue Jan 25 03:07:43 2011

Calibrator Value: 200.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 189.0 cps

Sensitivity: 1.2000 GAPI/cps