



Weatherford

**NUCLEAR LOG
MPD-MDN-MCG
SCALE 5":100**

COMPANY	SAVIA PERU S.A			
WELL	LOG-26XD			
FIELD	LOBITOS			
PROVINCE/COUNTY	PIURA			
COUNTRY/STATE	PERU			
LOCATION	N: 9 508 662.12m E: 459 045.17m			
Permanent Datum SEA LVL, Elevation 50 feet Log Measured From KB Drilling Measured From KB.	Other Services MDL MSS		CAL	
			Elevations: KB 50.00 DF 50.00 GL -335.00	
Date	05-JAN-2013	07-JAN-2013		
Run Number	ONE	TWO		
Service Order	796	796		
Depth Driller	9800.00	9800.00	feet	
Depth Logger	6942.00	7899.00	feet	
First Reading	9600.00	9600.00	feet	
Last Reading	3540.00	3540.00	feet	
Casing Driller	5898.00	5898.00	feet	
Casing Logger	5886.75	5886.75	feet	
Bit Size	8.500	8.500	inches	
Hole Fluid Type	WATER BASED		WATER BASED	
Density / Viscosity	1.41 g/cc	19.00 CP	1.41 g/cc	24.00 CP
PH / Fluid Loss	9.40	4.80 CC/30Min	9.30	4.60 CC/30Min
Sample Source	ACTIVE PIT		ACTIVE PIT	
Rm @ Measured Temp	1.40 @ 76.0	ohm-m	1.45 @ 78.0	ohm-m
Rmf @ Measured Temp	0.95 @ 78.0	ohm-m	0.95 @ 78.0	ohm-m
Rmc @ Measured Temp	3.0 @ 78.0	ohm-m	2.60 @ 80.0	ohm-m
Source Rmf / Rmc	PRESS	FILTER	PRESS	FILTER
Rm @ BHT	0.88 @123.0	ohm-m	0.91 @126.0	ohm-m
Time Since Circulation	10:00 05JAN		03:30 07JAN	
Max Recorded Temp	123.00	deg F	126.00	deg F
Equipment / Base	16064	TAL	16064	TAL
Recorded By	YANINA MENDEZ		YANINA MENDEZ	
Witnessed By	CESAR MORALES		CESAR MORALES	

REMARKS

- Objective: to obtain accurate open hole Gamma Ray , SP, Caliper 8 arms, Resistivity (Dual Laterolog), Sonic log in the 8.5" section.
 - This is the First Log done in this well. RULS 206.31ft ;
 - All WFT logging depth control applied.
 - Casing Shoe was found at 5886.75 ft MD.
 - Maximum recorded temperature measured by Gamma Ray sensor: 123°F.
 - Mud resistivity measurements: Rm= 1.4 @ 76 °F, Rmf= 0.95 @ 78 °F, Rmc= 3.00 @ 78 °F.
 - Mud resistivity measurements at BHT: Rm= 0.88 @ 126°F, Rmf = 0.61@ 126°F, Rmc= 1.93 @ 126°F.
 - Well sketch as per driller depth.
 - Main section from TD to 8500ft and from 7900ft to 3540 ft MD as per client requirements.
 - No Repeat Section due to bridges.
 - Hole volume= 1085ft^3
 - Annular volume= 750ft^3 for a 5.5" casing.
 - Average:
X caliper: 10.706"
Y caliper: 9.396"
DI 2-6: 9.222"
DI 4-8: 9.209"
 - The scales and shading of the curves are as per client requirements.
 - Enviromental corrections.
 - Maximun deviation 34.50deg @ 4525 ft and maximun dogleg severity 5.55deg @ 410.00ft
 - Neutron and GR logged to 3550ft as per client request.
 - Toolstring bridged @ 7164ft. Try to pass the point for two hours. Then with client assurance we proceed to log from there to 3550ft.
 - At Second attempt the toolstring bridged again @ 7715ft. The client decided to log this part and removed the sonic (MSS) to decreased the size of the toolstring, and move the SKJ to another position, removed the hole finder which was damaged after two bridgeds. The tool was ran again in the hole and after several attempts to reach TD the maximun depth reached was 7899ft. After these attempts to reach TD the client decided to run TDL to reach TD.
 - The data from the bottom part, obtain by TDL-CWS, is on depth with the mule shoe (8500ft).
 - The data obtain with the TLD-CWS will be rechecked to have a better quality data.
- Gamma Ray: Mud density, Caliper.

Laterolog: Standoff, caliper, mud resistivity.

Crew at your service:

Y. Mendez / J. Jimenez / P. Marcelo / G. Chavez / E. Cruz

BOREHOLE RECORD

Last Edited: 05-JAN-2013 14:44

Bit Size inches	Depth From feet	Depth To feet
17.000	0.00	1898.00
12.250	1898.00	5898.00
8.500	5898.00	9800.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
surf	13.375	0.00	1898.00	54.50
interm	9.625	0.00	5898.00	43.50

WELL DIAGRAM

13.38 in Casing: 0.00 ft

9.63 in Casing: 0.00 ft

17.00 in Bit size: 0.00 - 1898.00 ft

13.38 in Casing shoe: 1898.00 ft

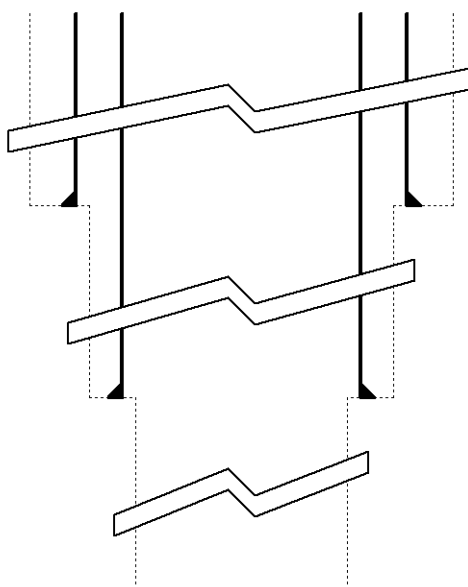
12.25 in Bit size: 1898.00 - 5898.00 ft

9.63 in Casing shoe: 5898.00 ft

8.50 in Bit size: 5898.00 - 9800.00 ft

Total bit depth: 9800.00 ft

Temperature: 123.00 Degrees F



DOWNHOLE EQUIPMENT

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CBH-C, Cablehead, 11 pin

CBH-CC 124 LG: 2.40 ft WT: 24.3 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor

SHA-J.A 229 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Stiff Bridle Electrode Sub.

MBE-C.B 260 LG: 12.33 ft WT: 77.2 lb OD: 2.28 in

Compact Stiff Bridle Electrode Sub.

MBE-C.B 261 LG: 12.33 ft WT: 77.2 lb OD: 2.28 in



SKJ-D.A Compact Knuckle Joint
SKJ-D.A 171 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Comms Gamma
MCG-D.A 261 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

MIS-D.B Compact Inline Bowspring sub
MIS-D.B 755 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron
MDN-C.A 442 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-C.A 238 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
SKJ-E.B 507 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Upper Guard Sub.
MUG-A 47 LG: 8.98 ft WT: 68.3 lb OD: 2.24 in

MIS-E.B Compact Inline Standoff sub
MIS-E.B 633 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Laterolog Electrode Sub.
MLE-D.A 227 LG: 12.34 ft WT: 92.6 lb OD: 2.24 in

MIS-E.A Compact Inline Standoff sub
MIS-E.A 150 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

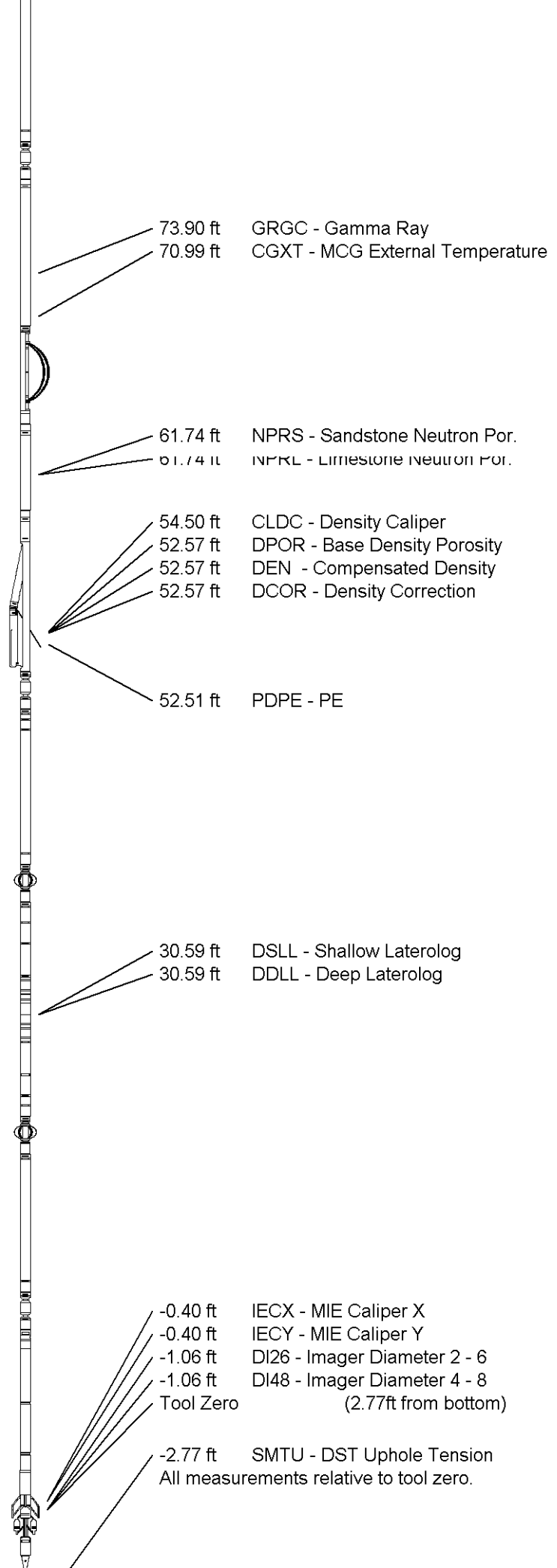
Compact Lower Guard Sub.
MLG-B.A 139 LG: 8.00 ft WT: 55.1 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
SKJ-E.B 547 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

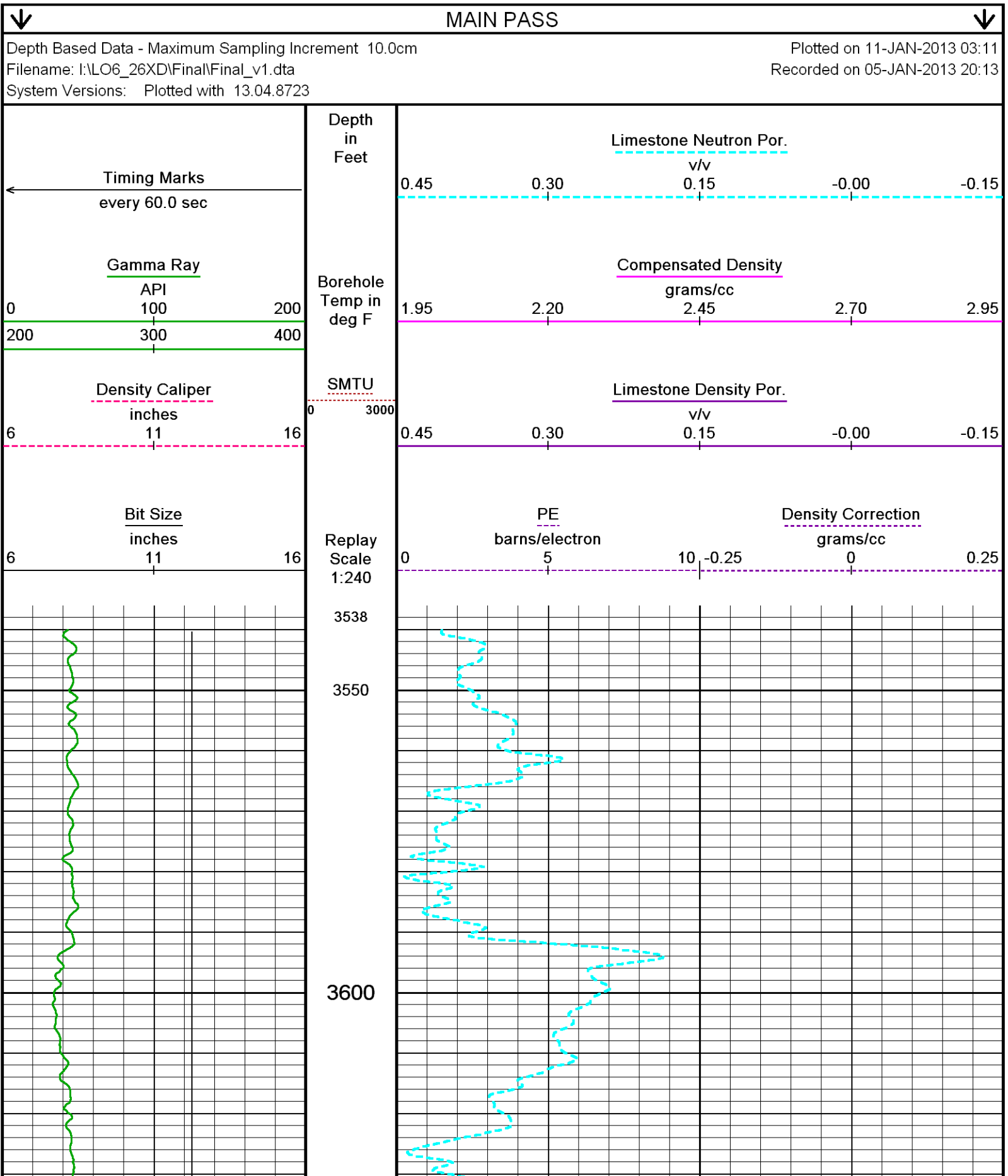
Compact MMI Electrode Section
MIE-A.A 171 LG: 13.96 ft WT: 99.2 lb OD: 2.40 in

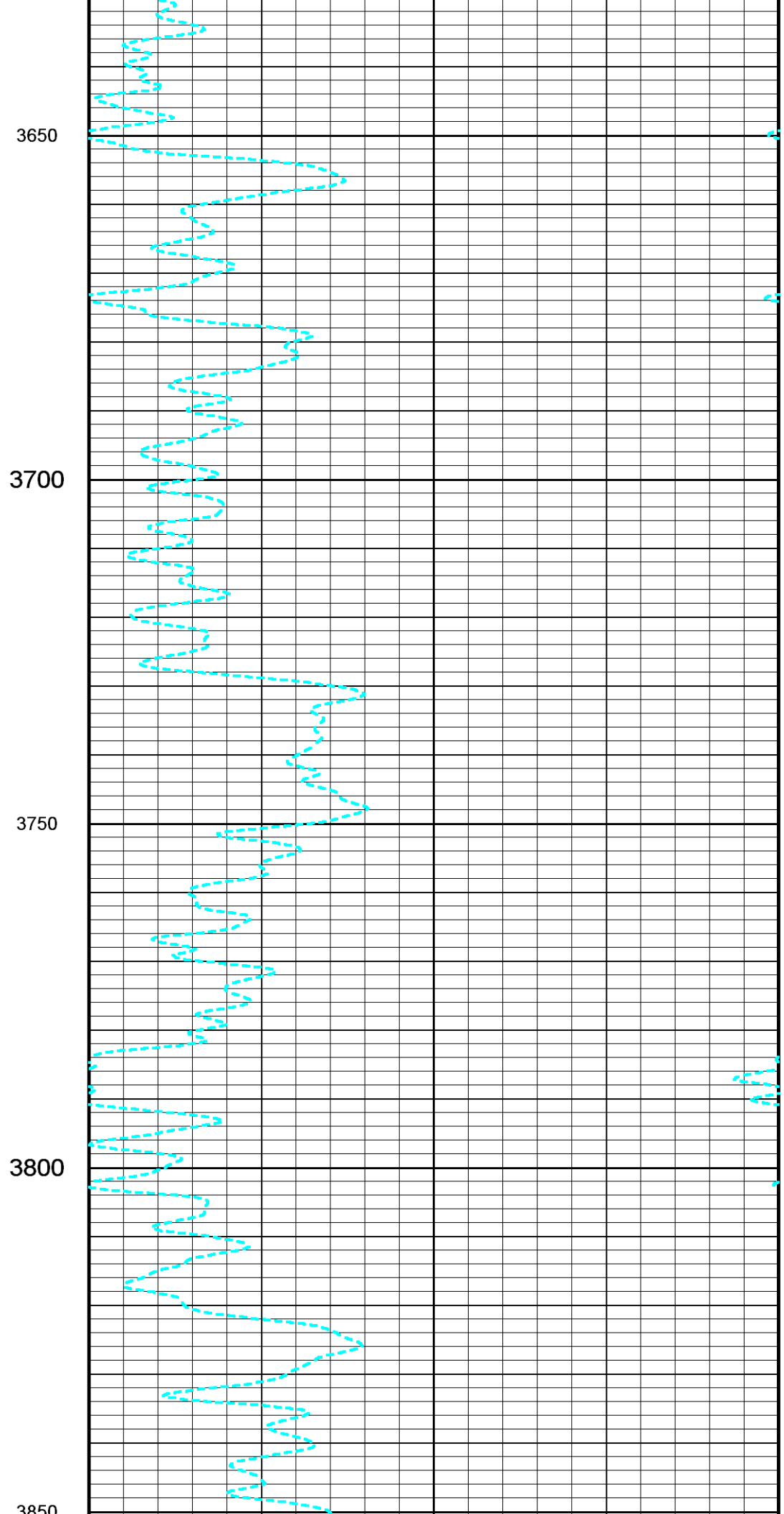
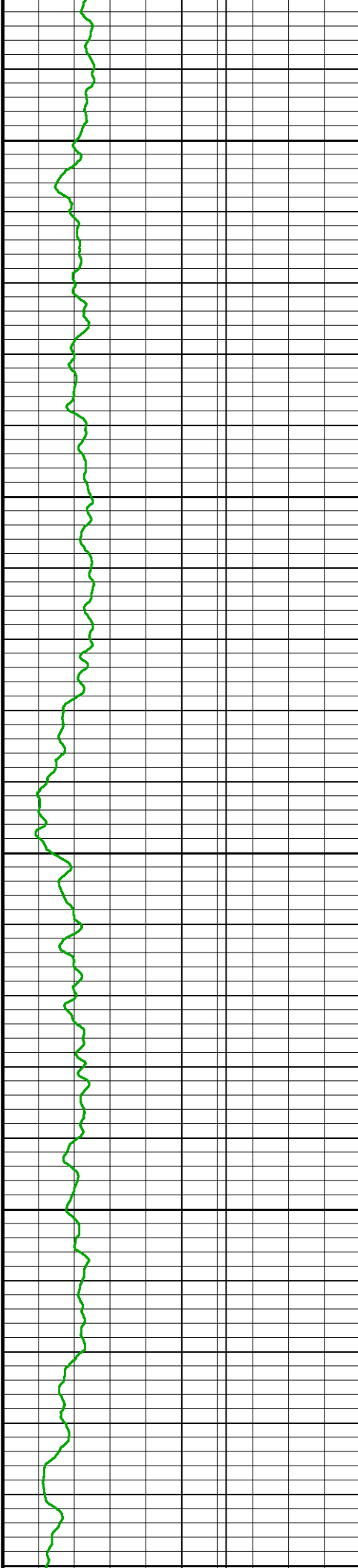
Compact Hole Finder
HFS 1 LG: 0.92 ft WT: 2.2 lb OD: 2.24 in

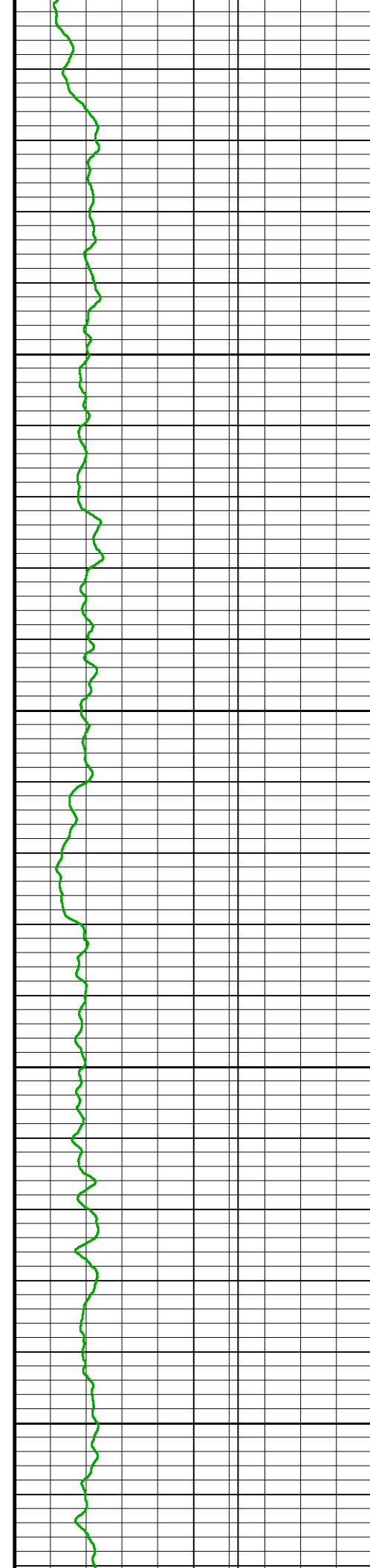
Total Length: 113.35 ft Weight: 859.8 lb



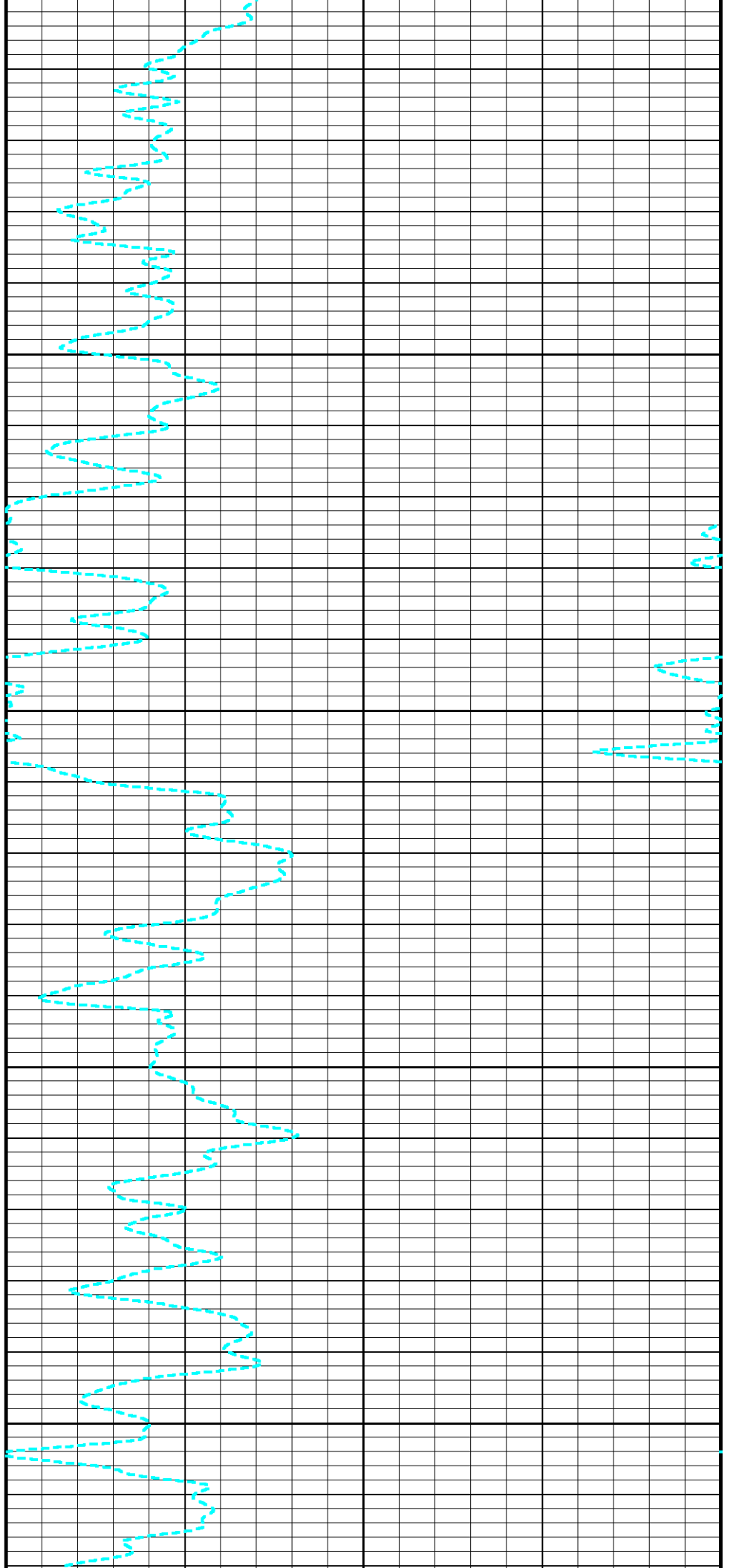
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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 in our price schedule.

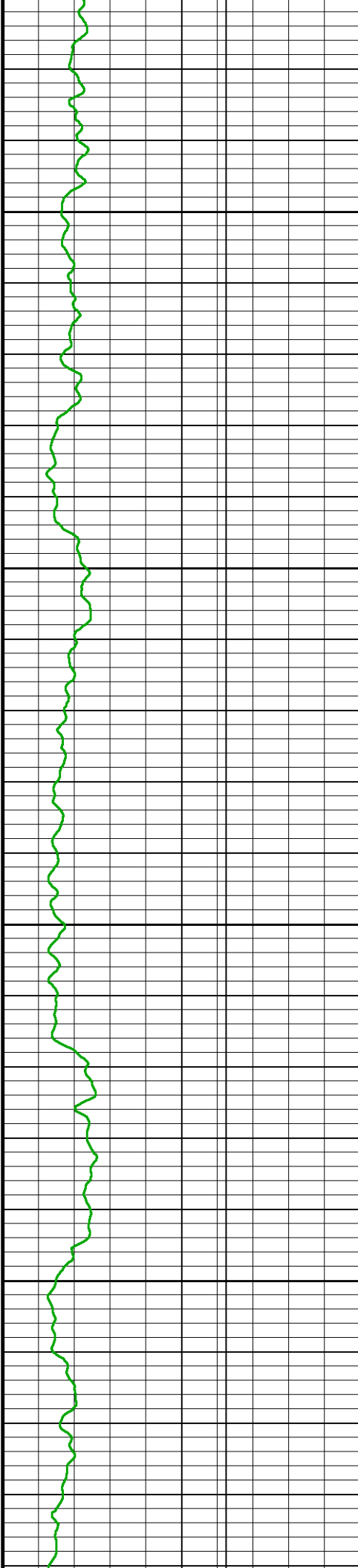






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3950
4000
4050



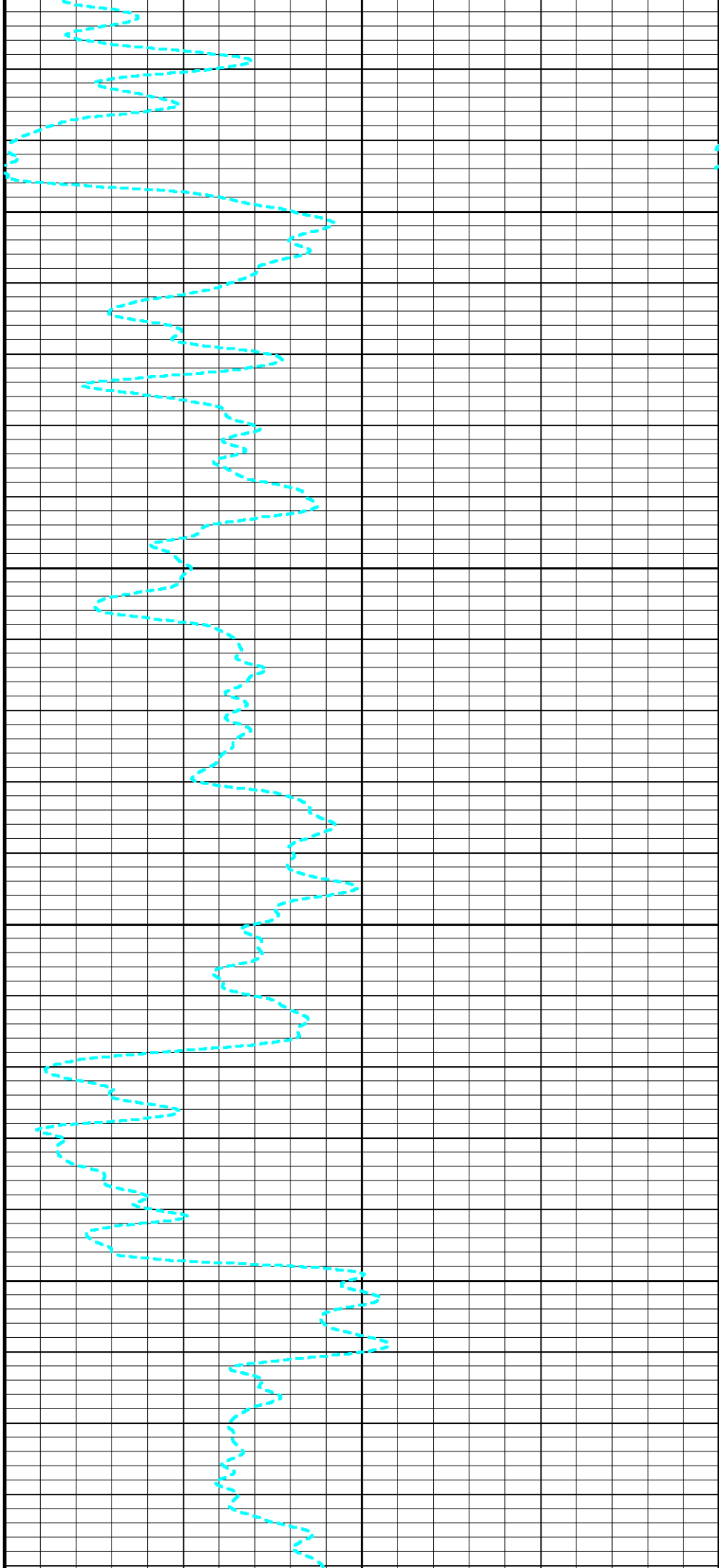


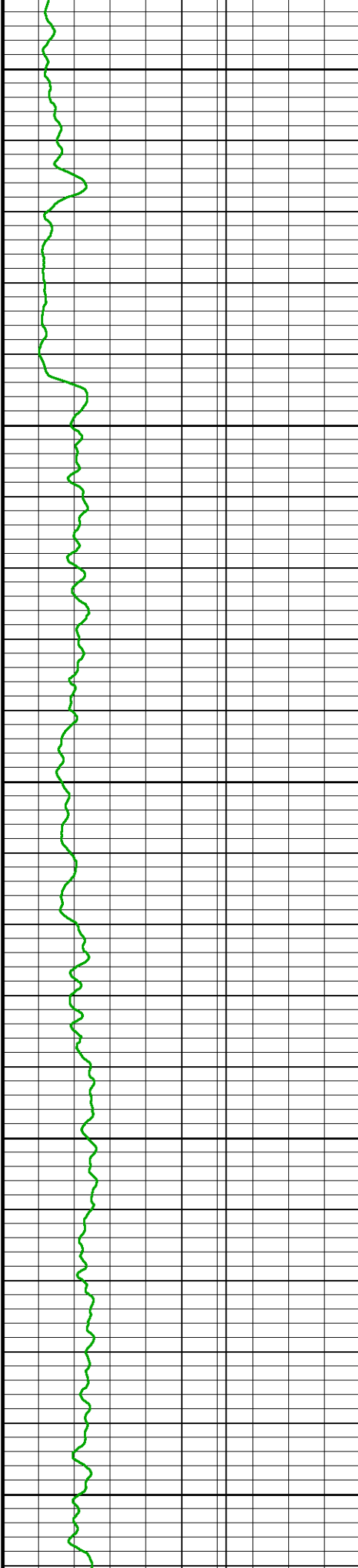
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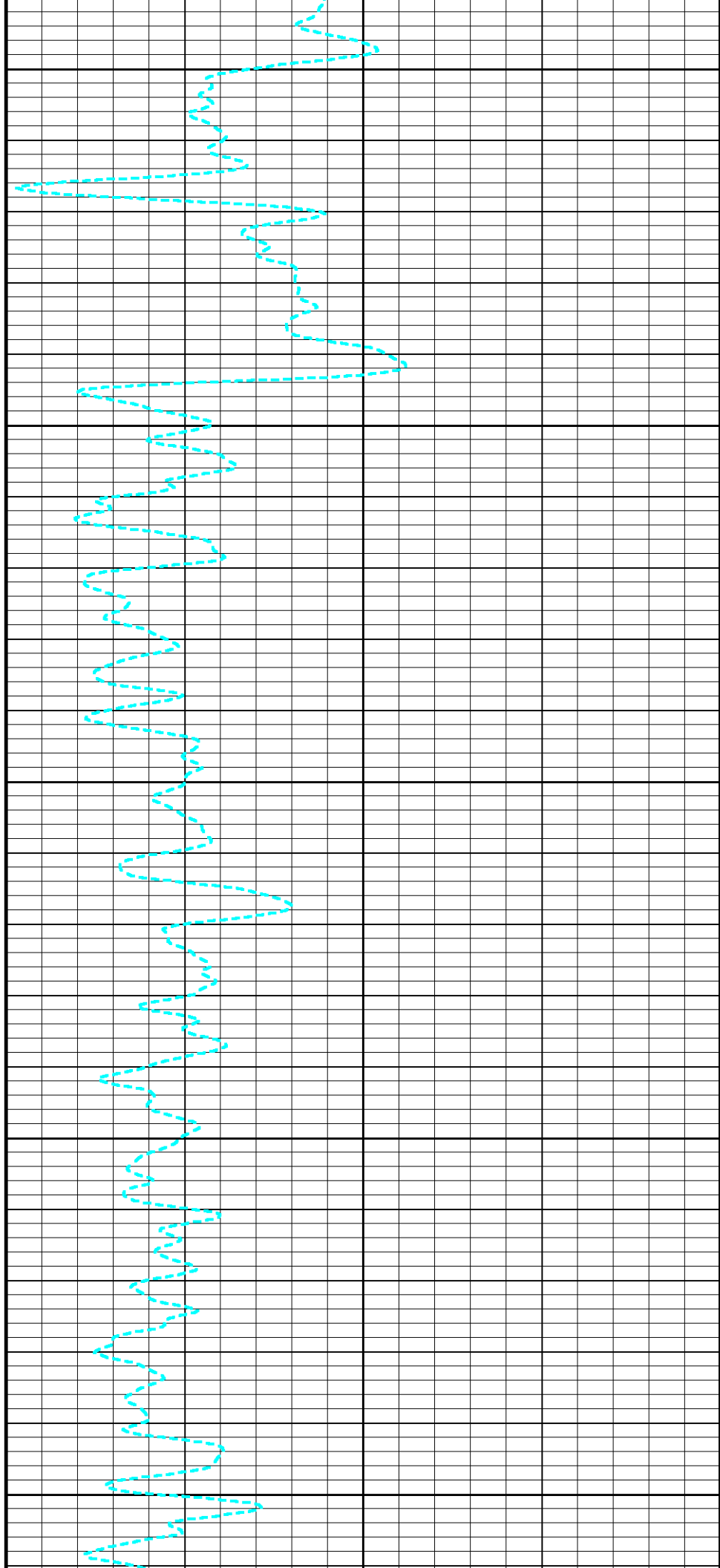
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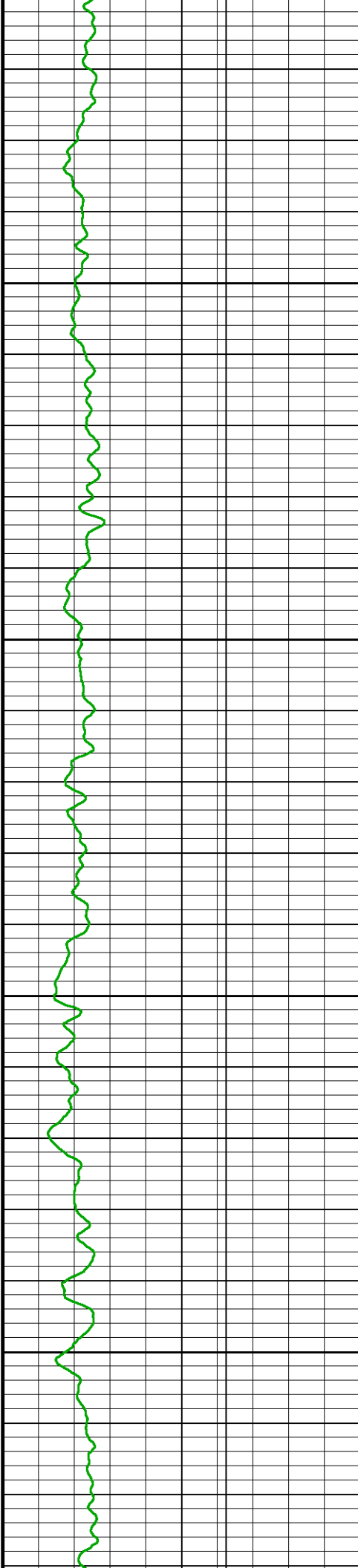
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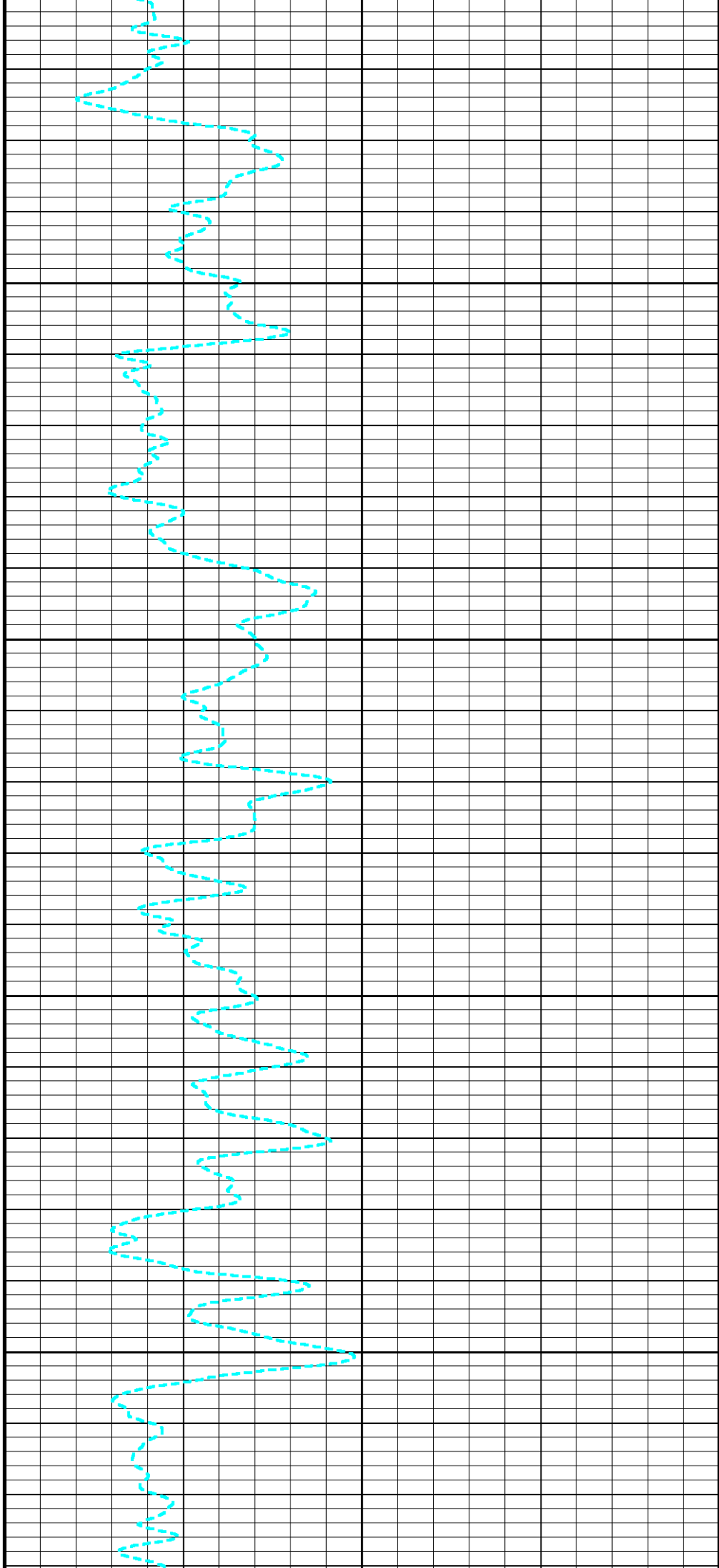


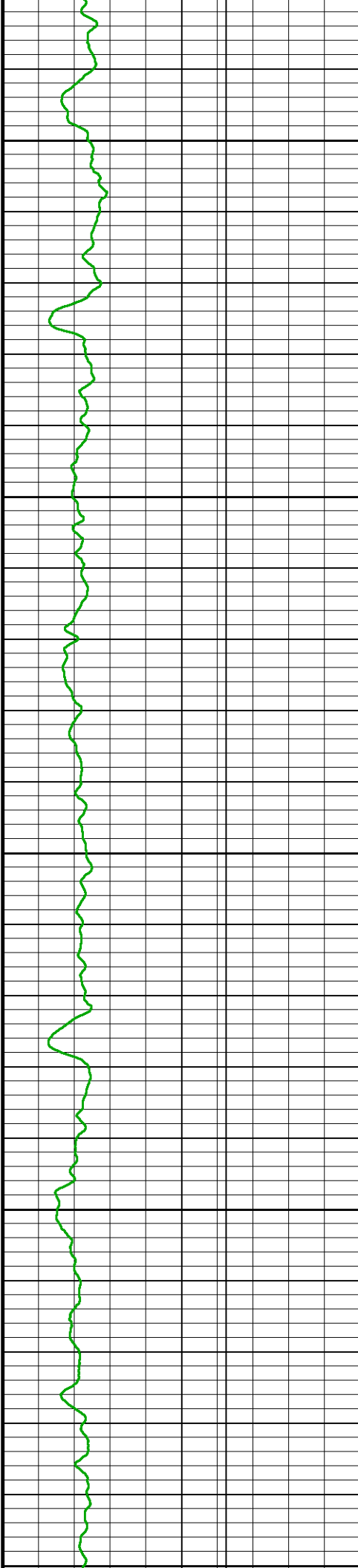
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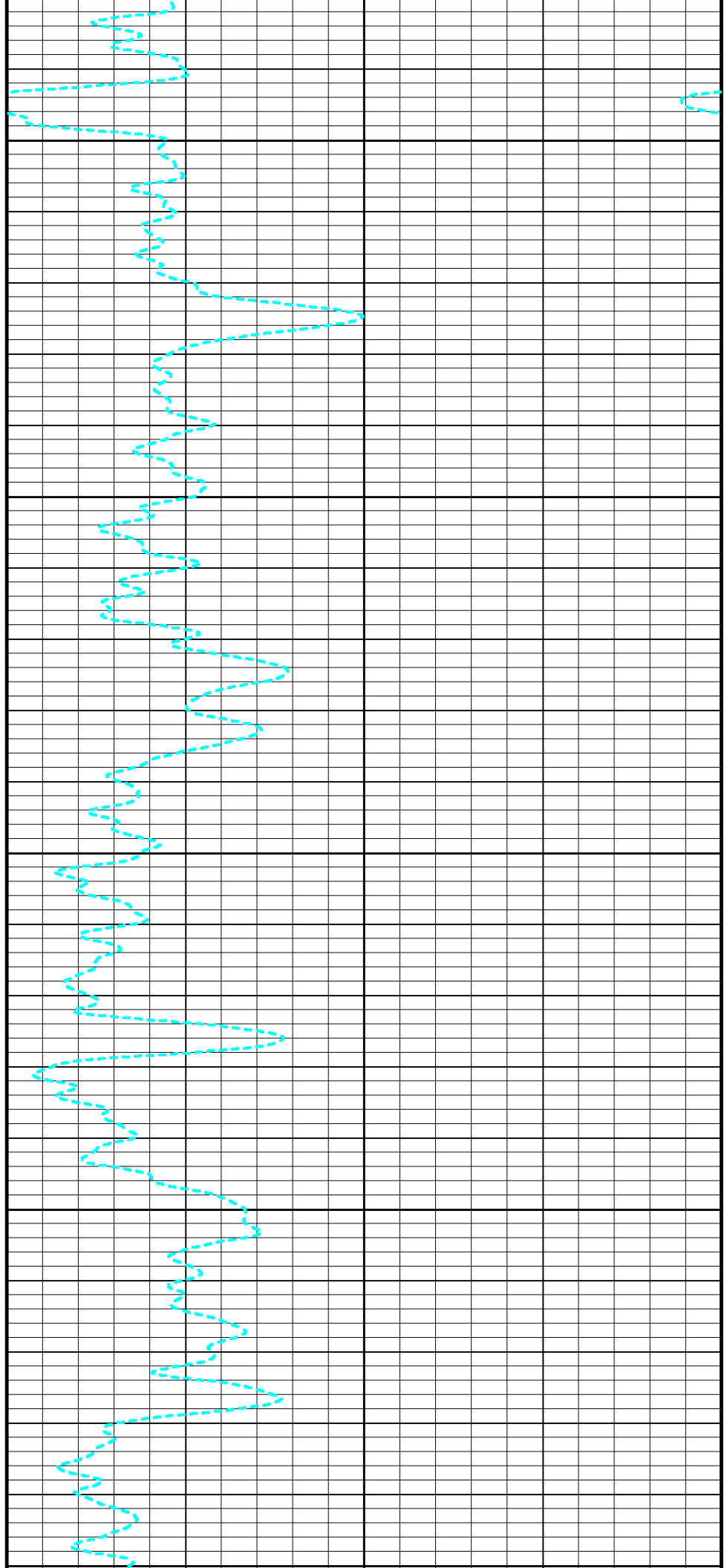
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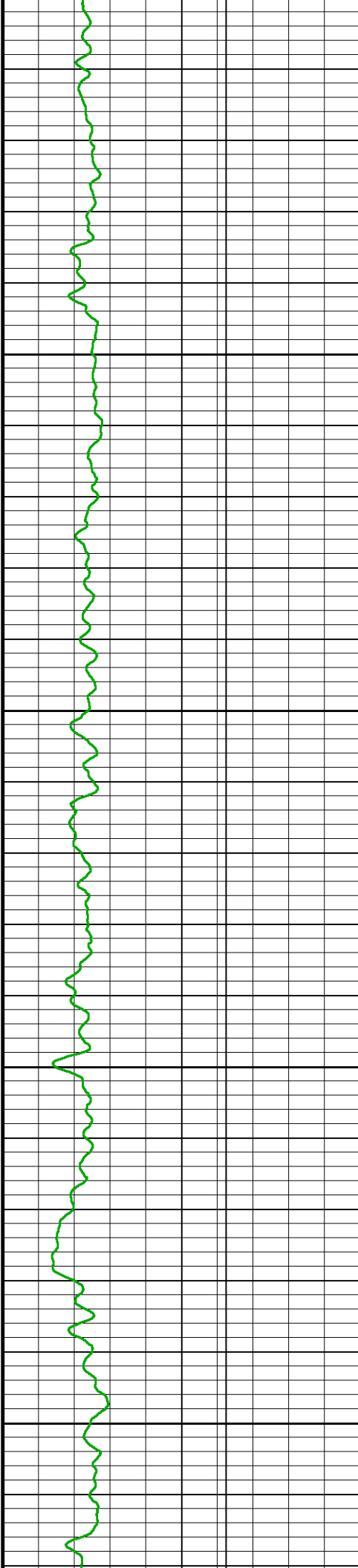
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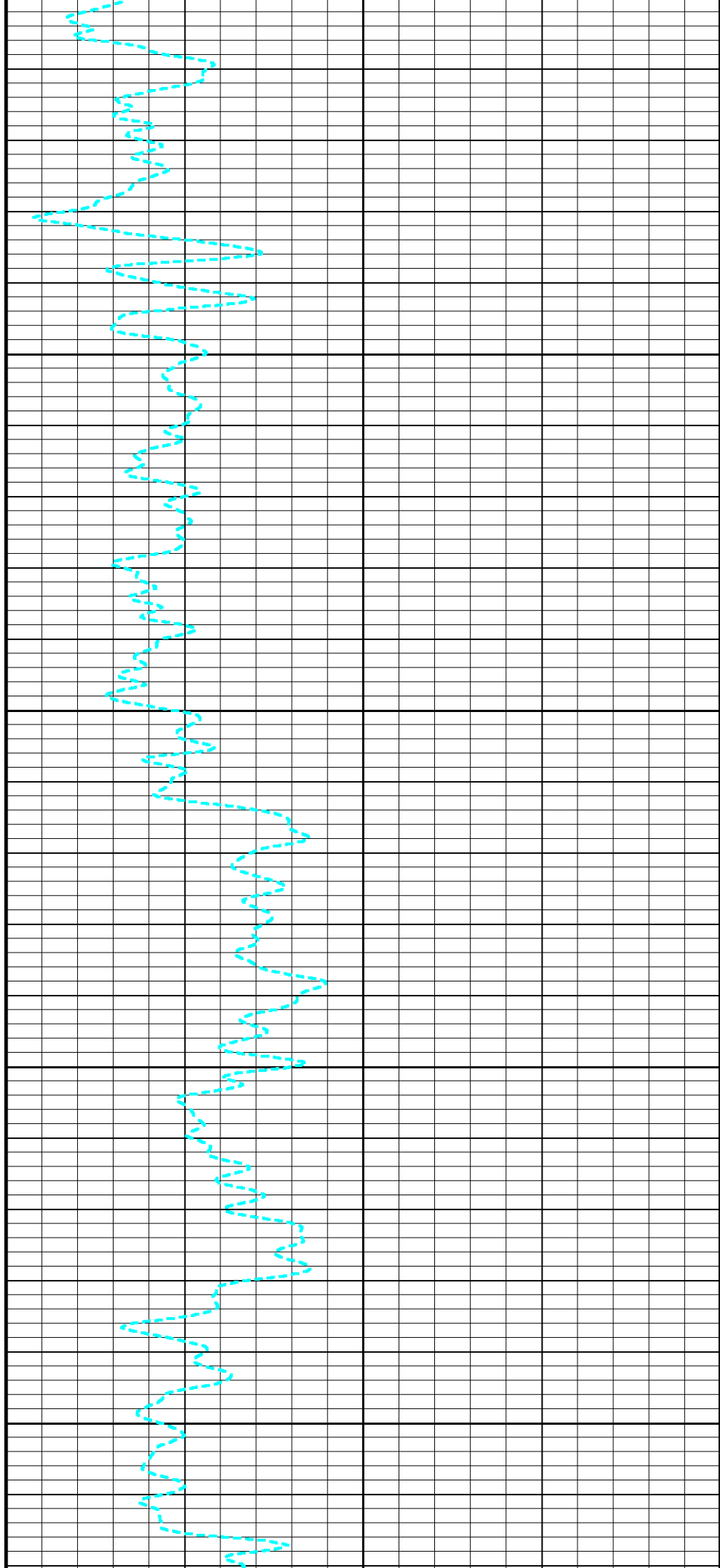
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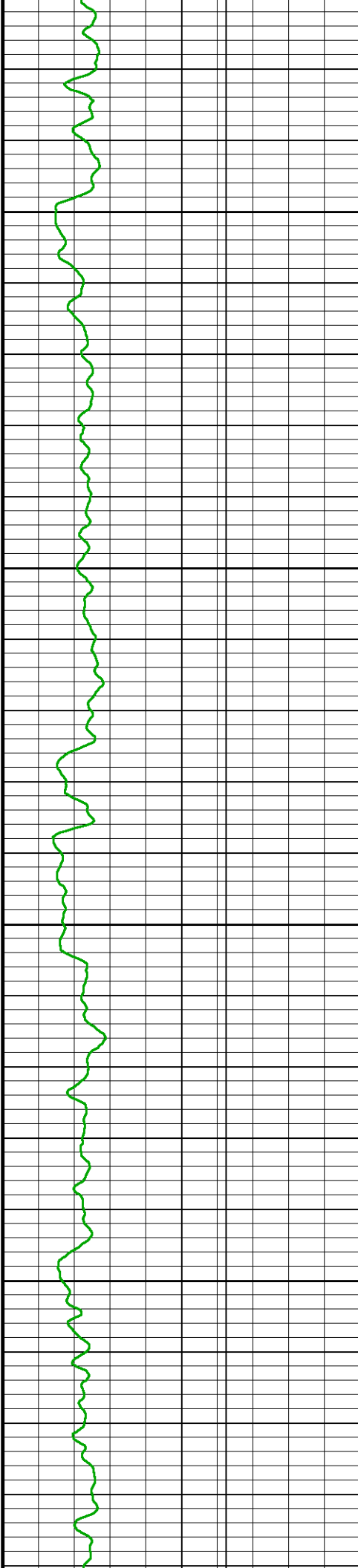
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5000
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5100
5150



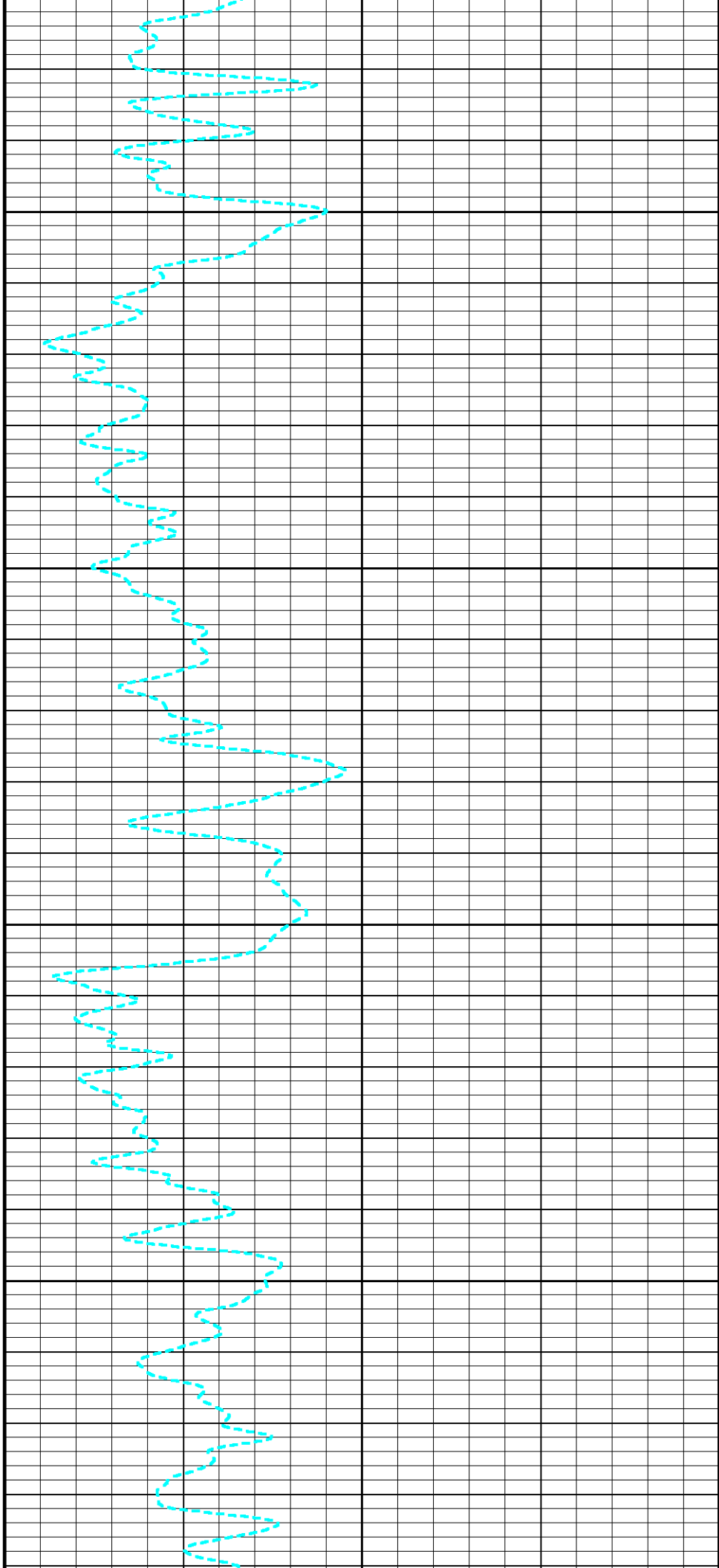


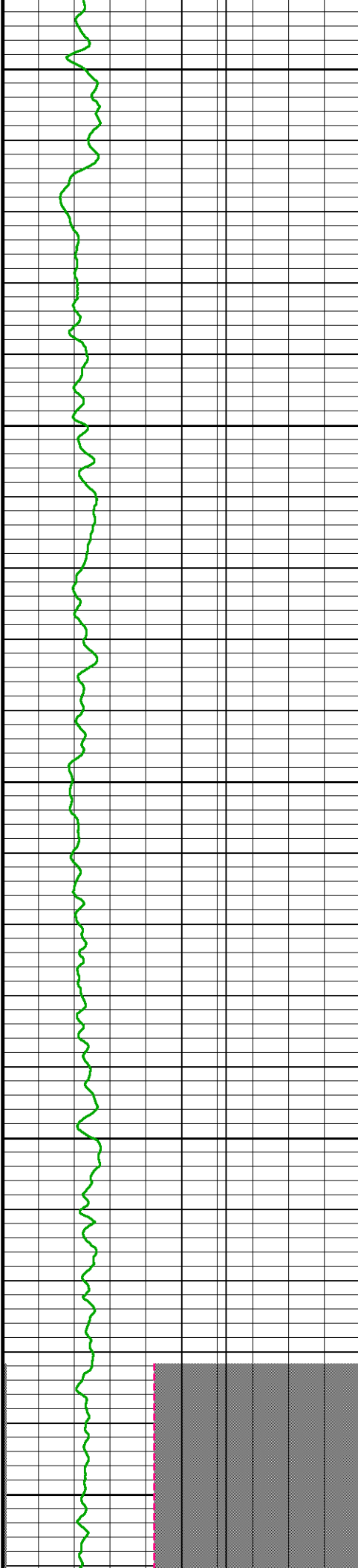
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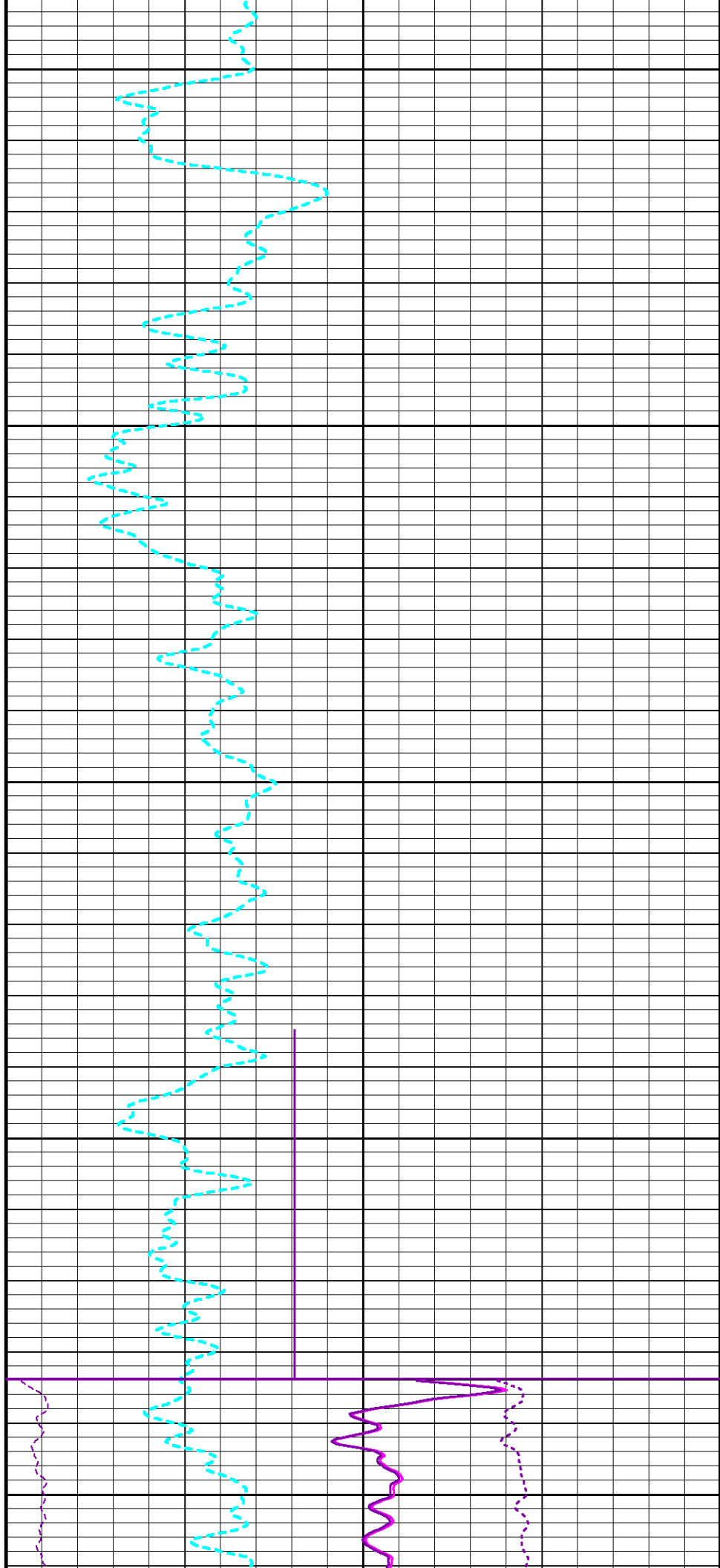
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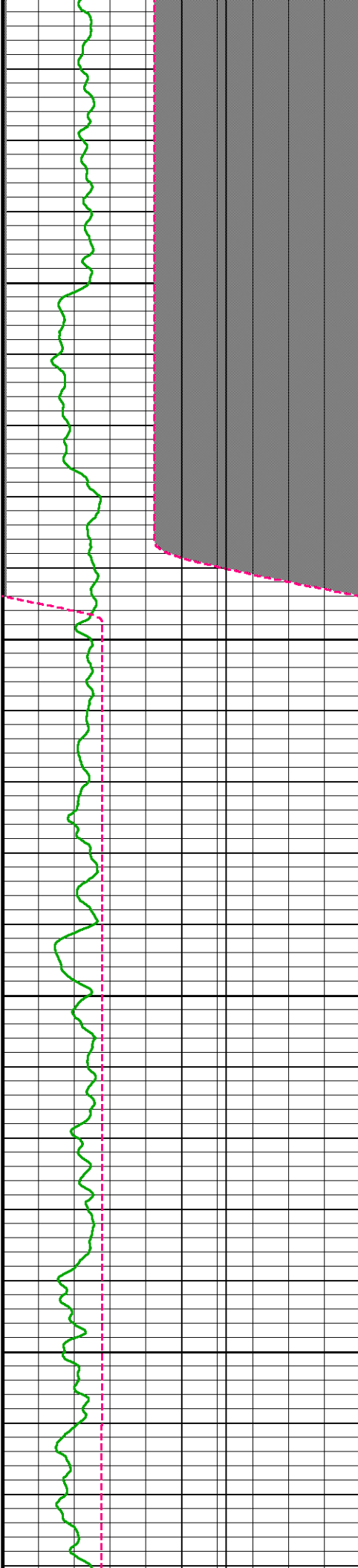
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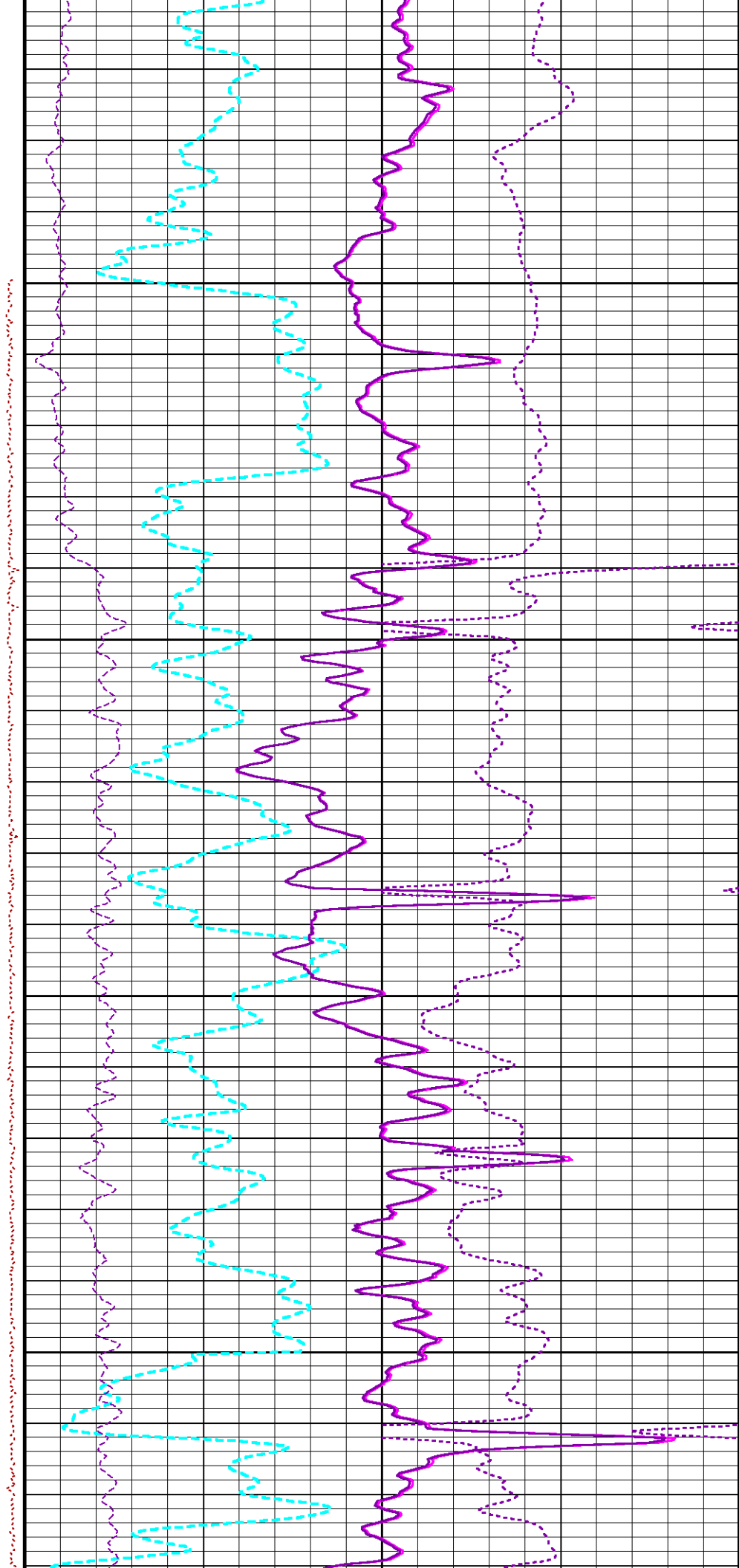


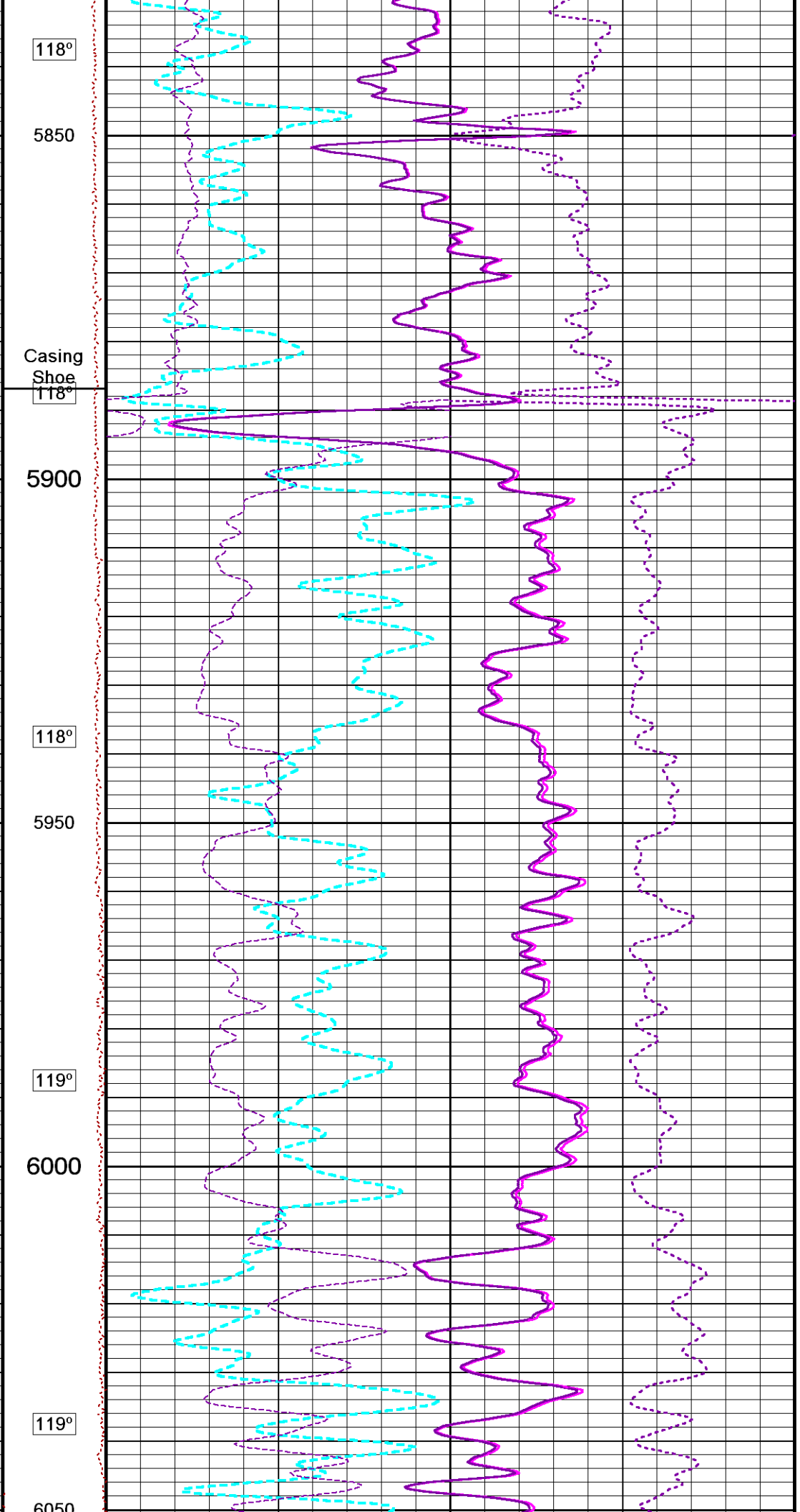
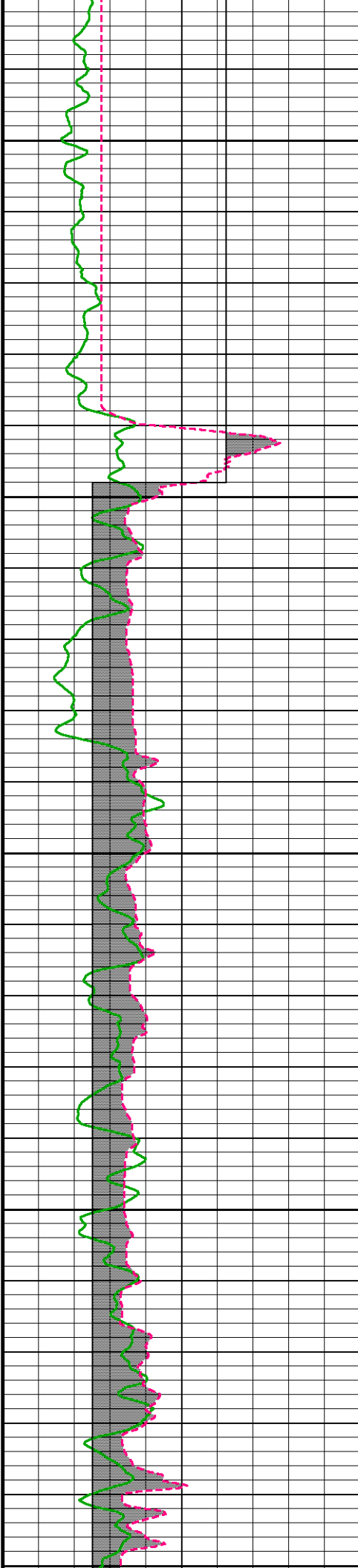
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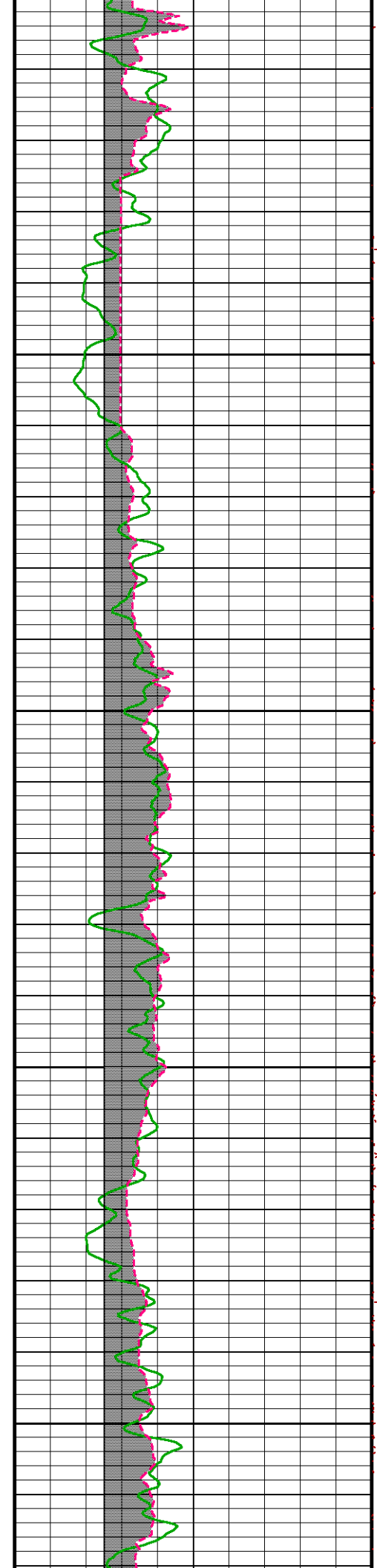
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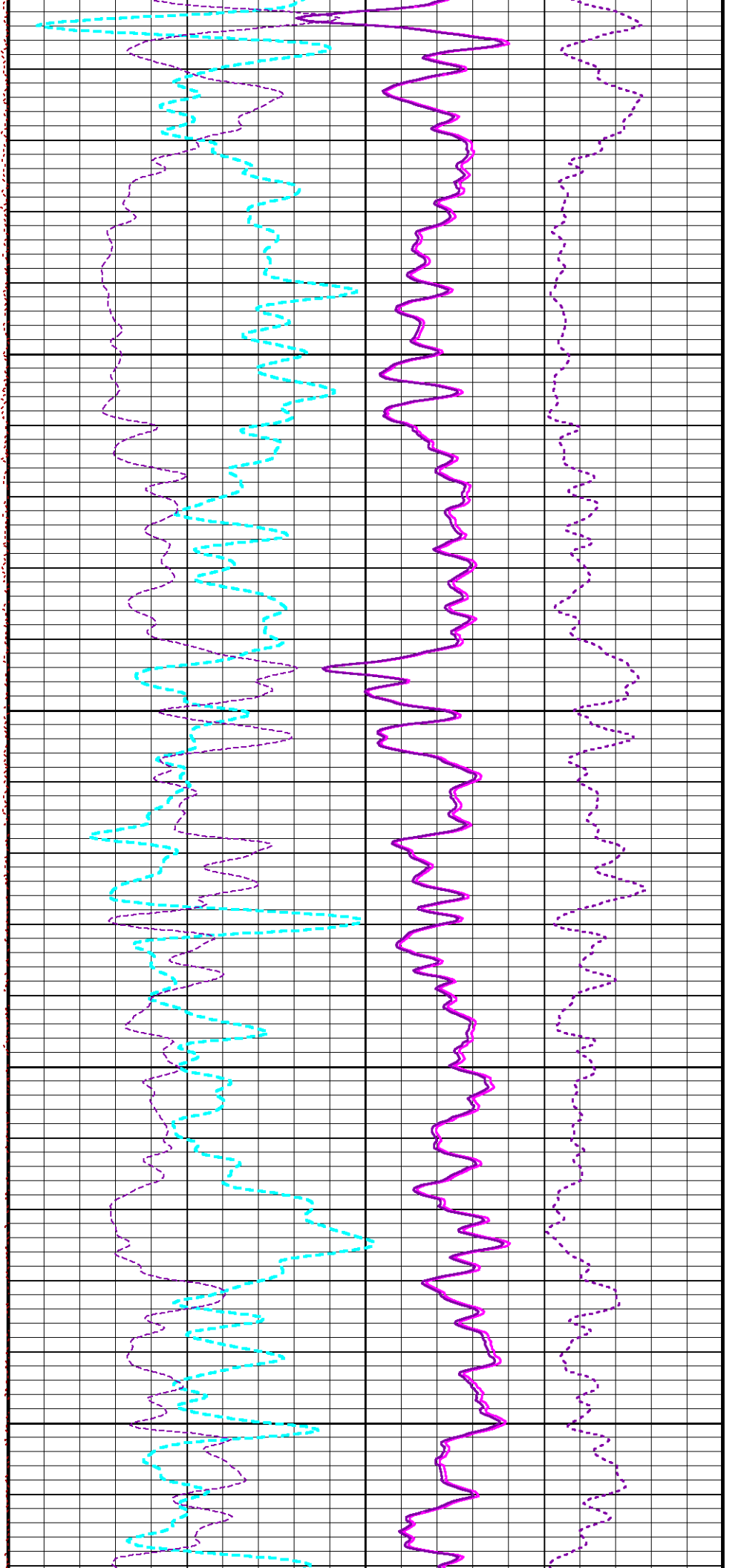
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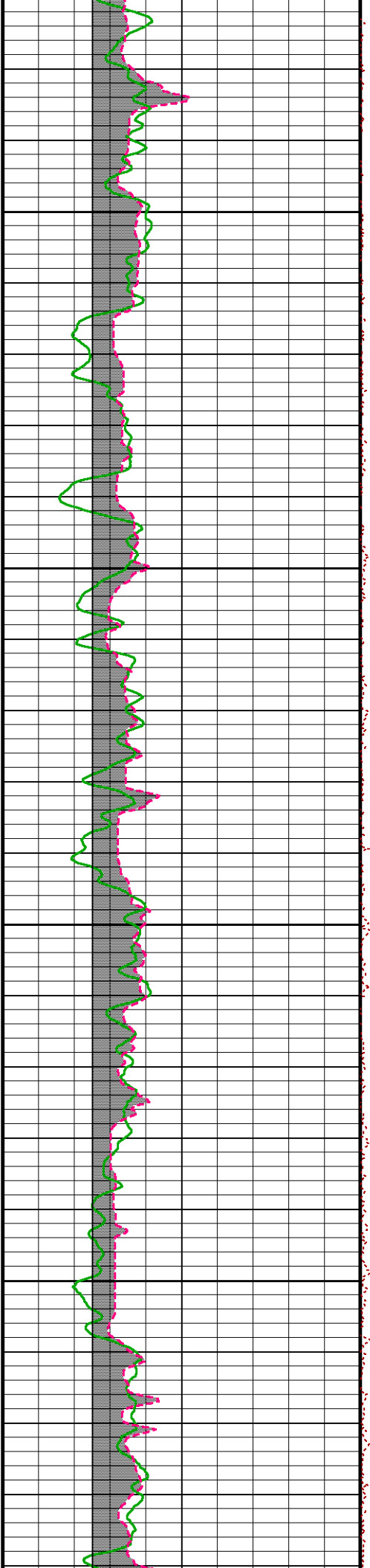






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119°
6100
119°
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119°
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120°
6250





120°

6300

120°

6350

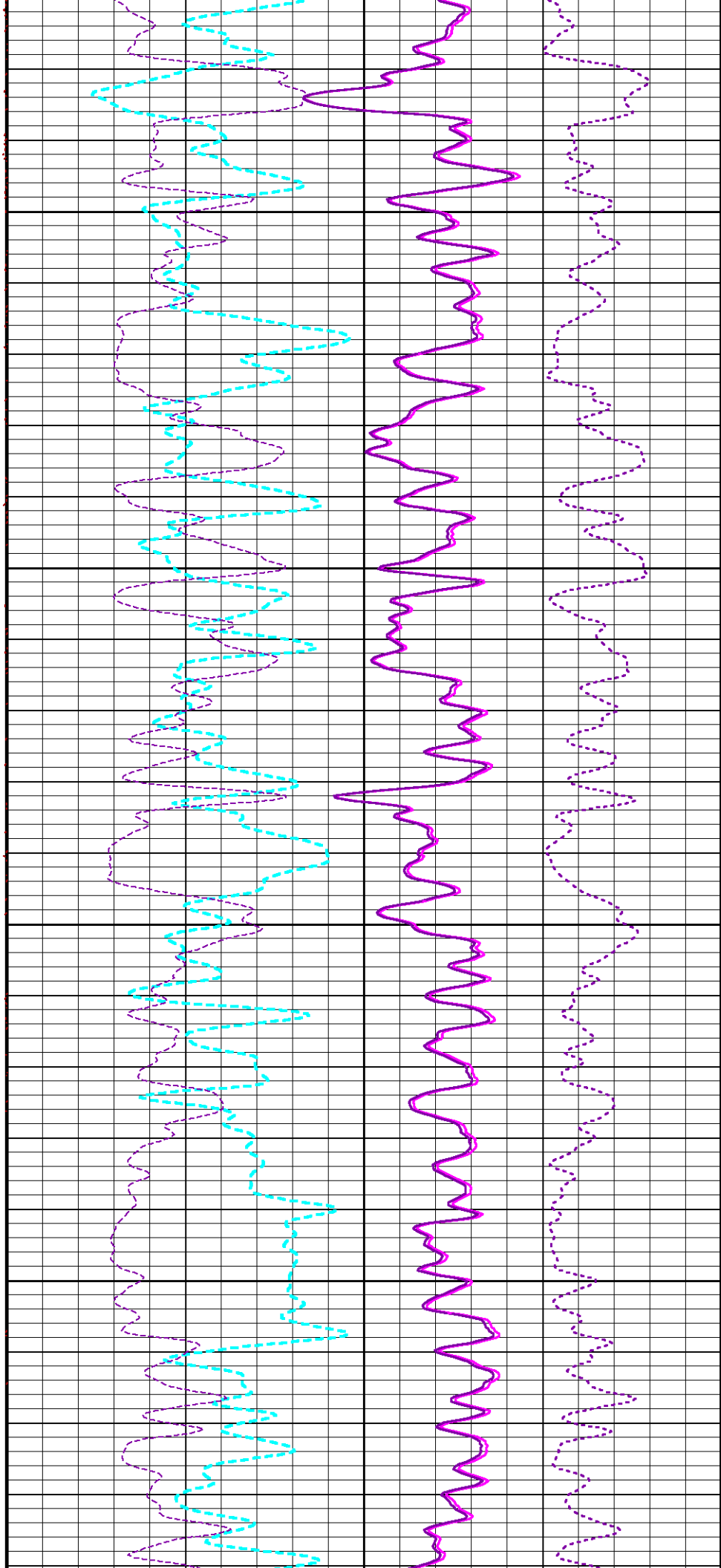
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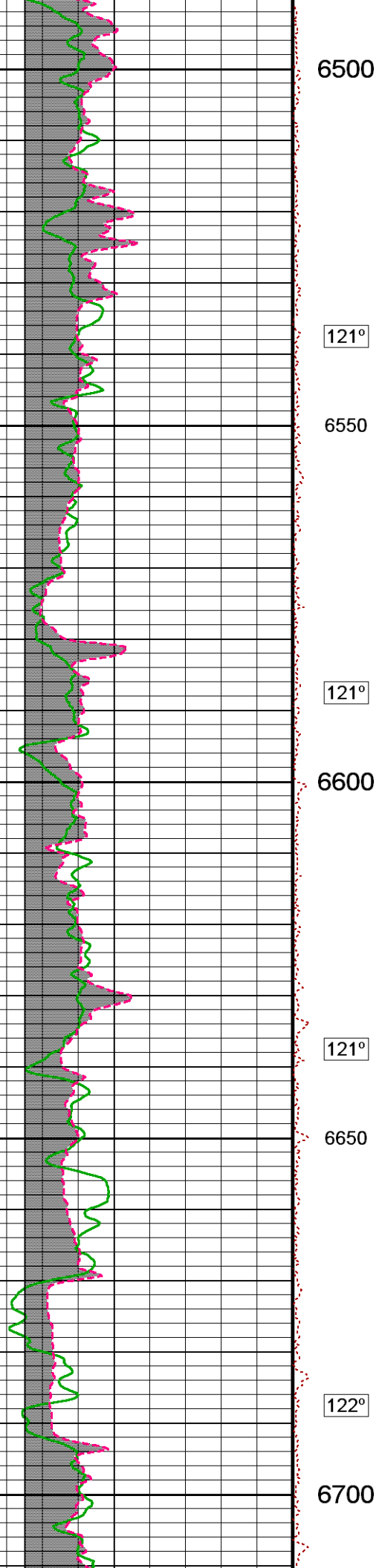
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121°





6500

121°

6550

121°

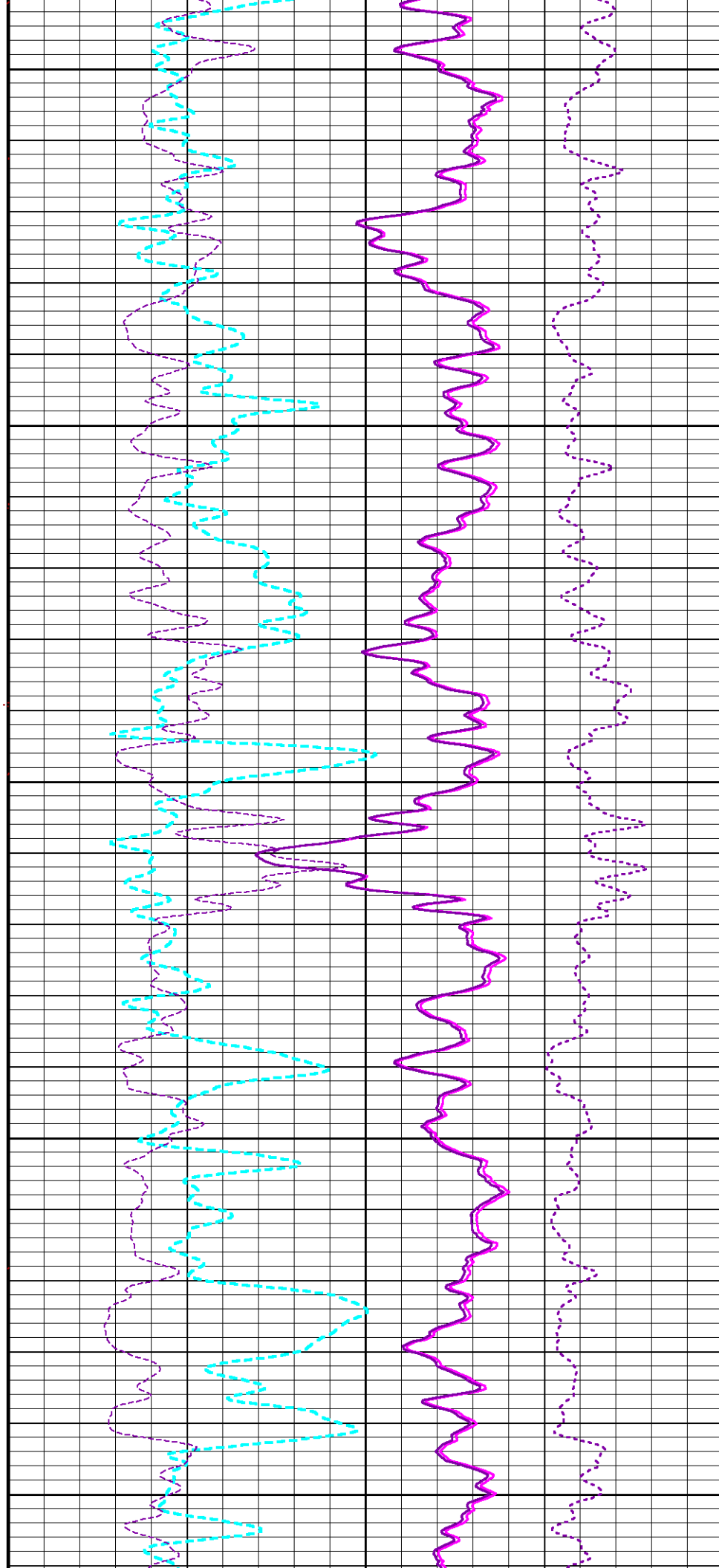
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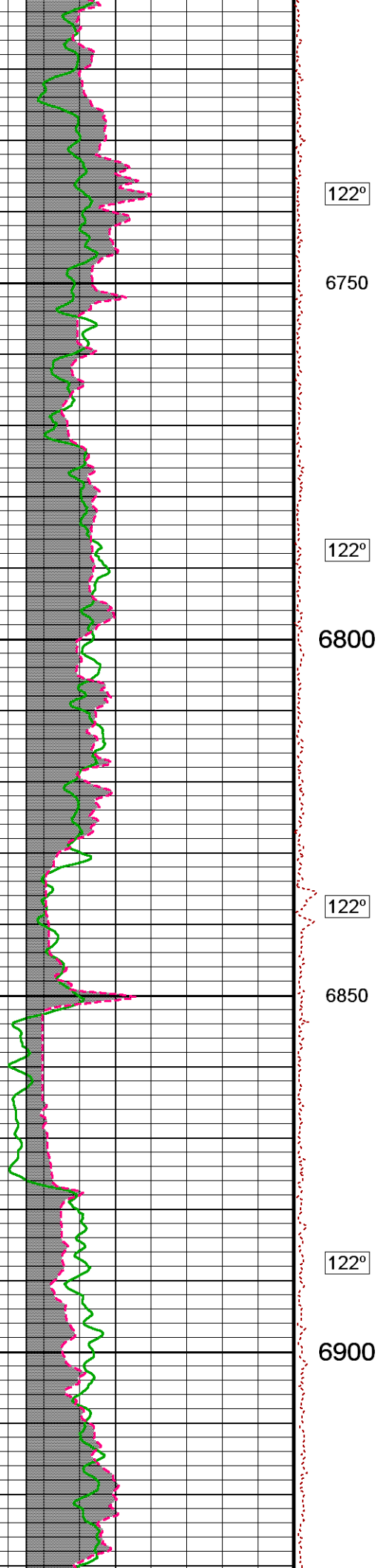
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122°

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122°

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122°

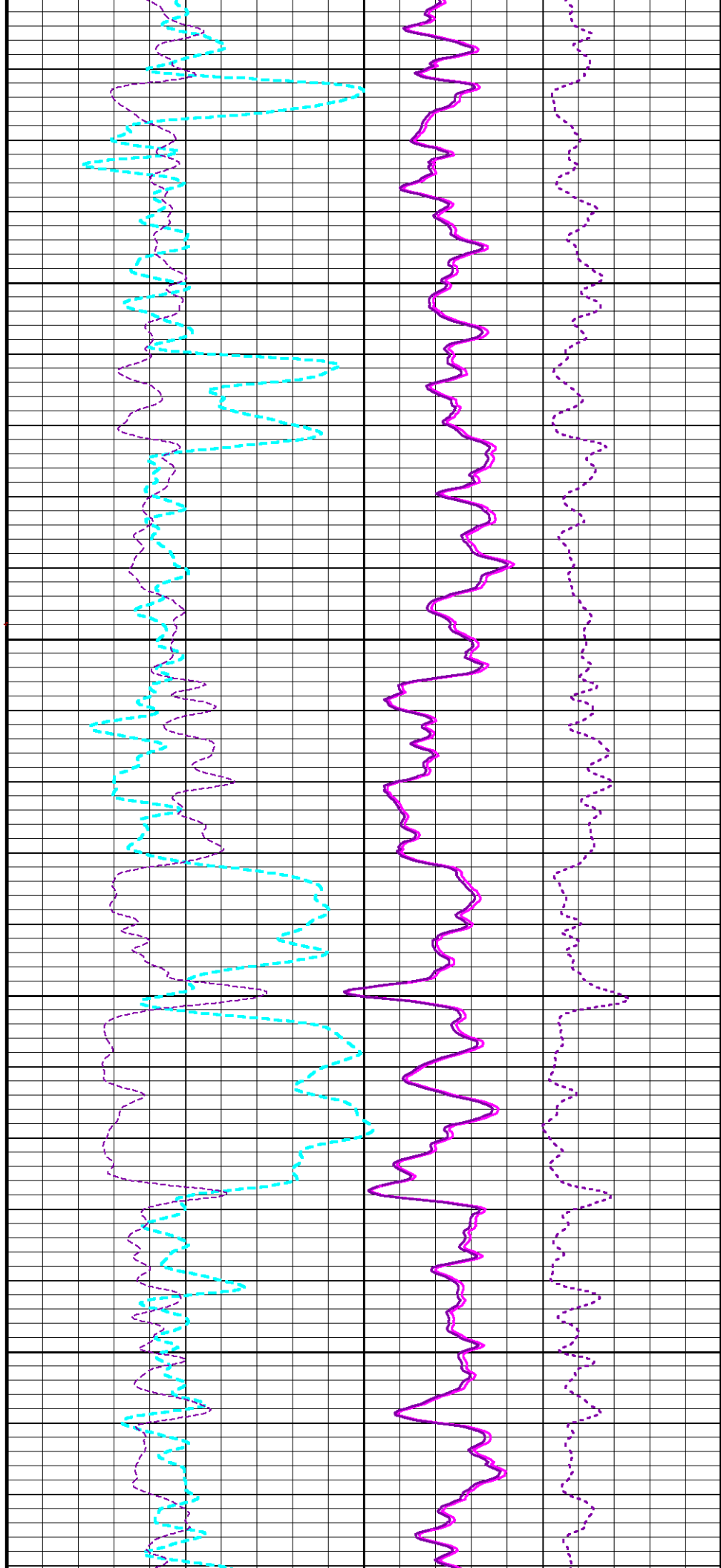
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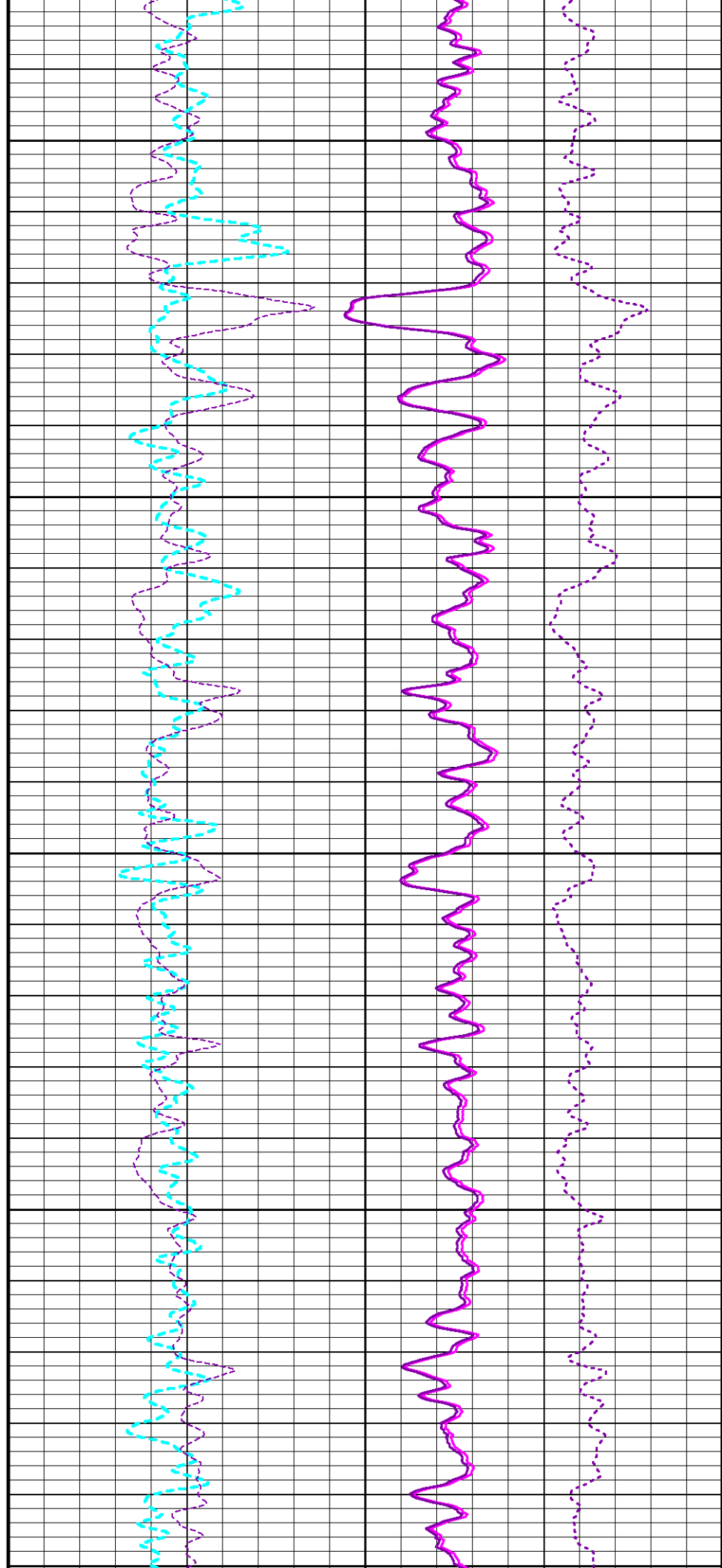
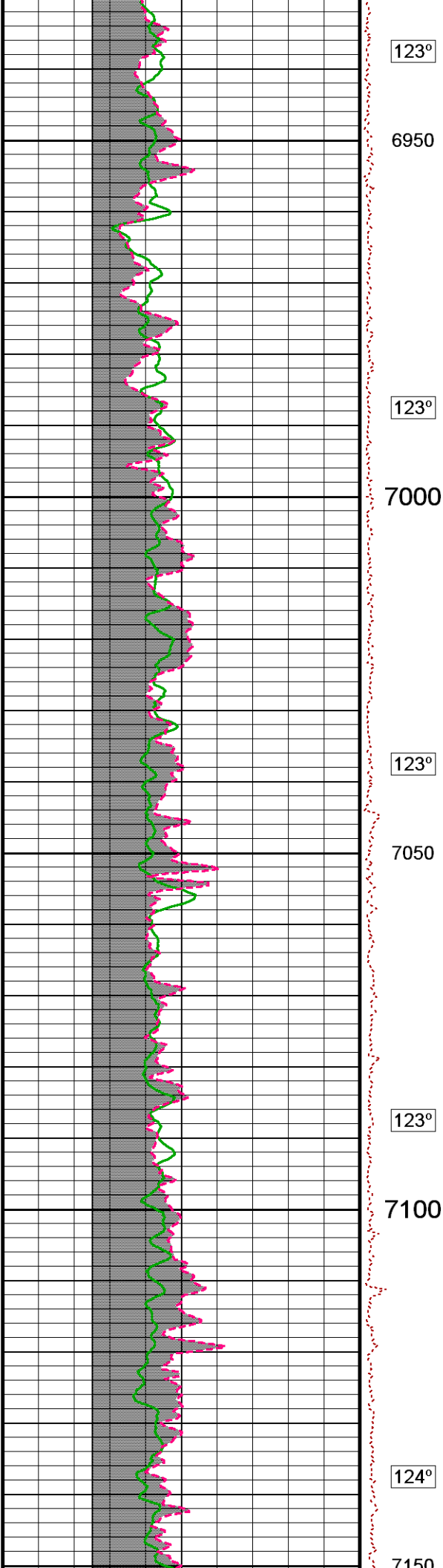
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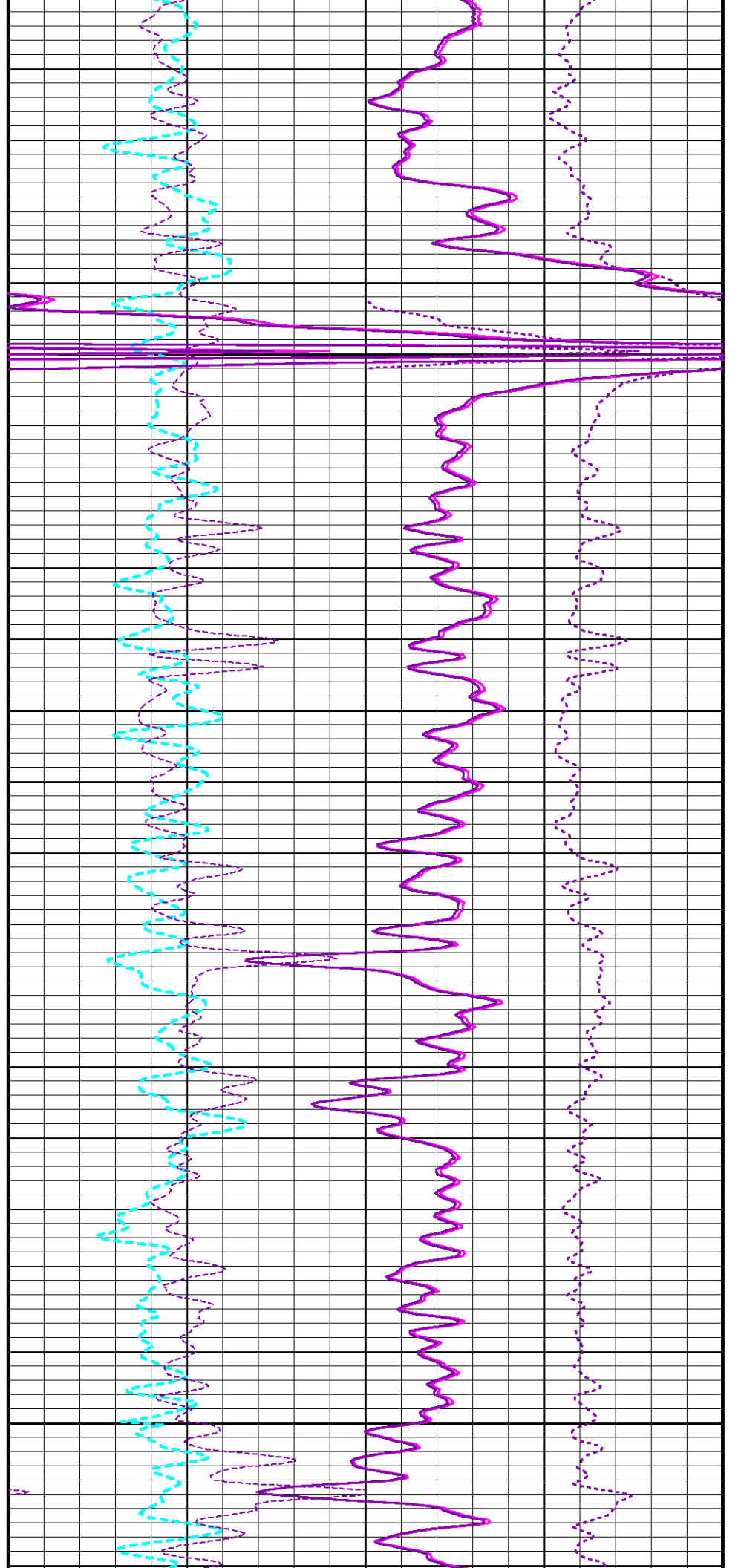
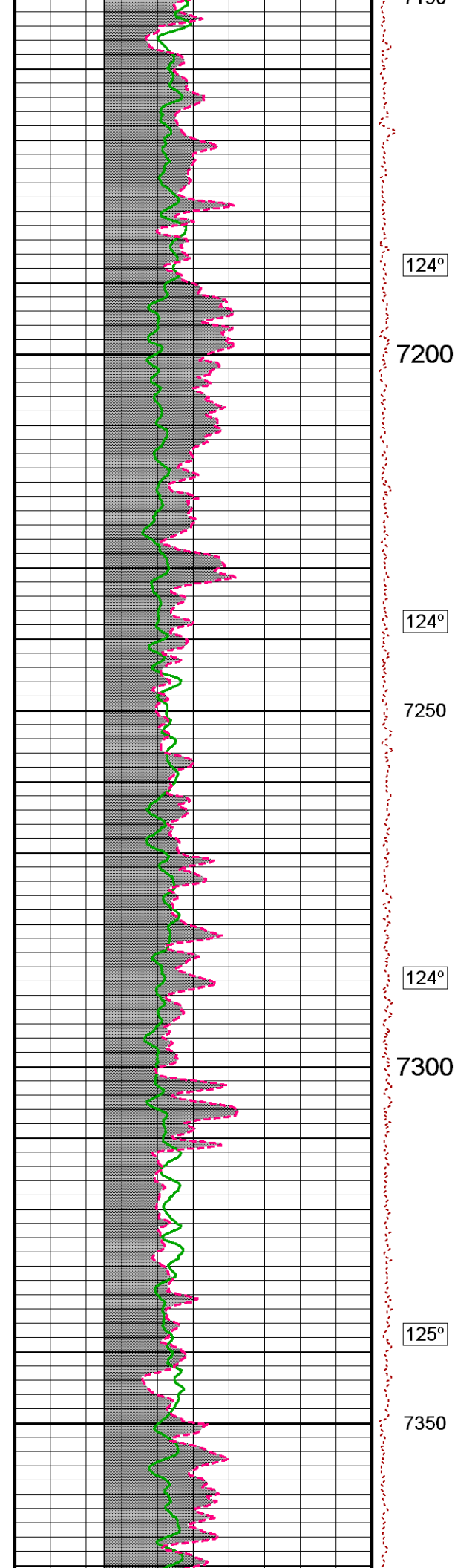
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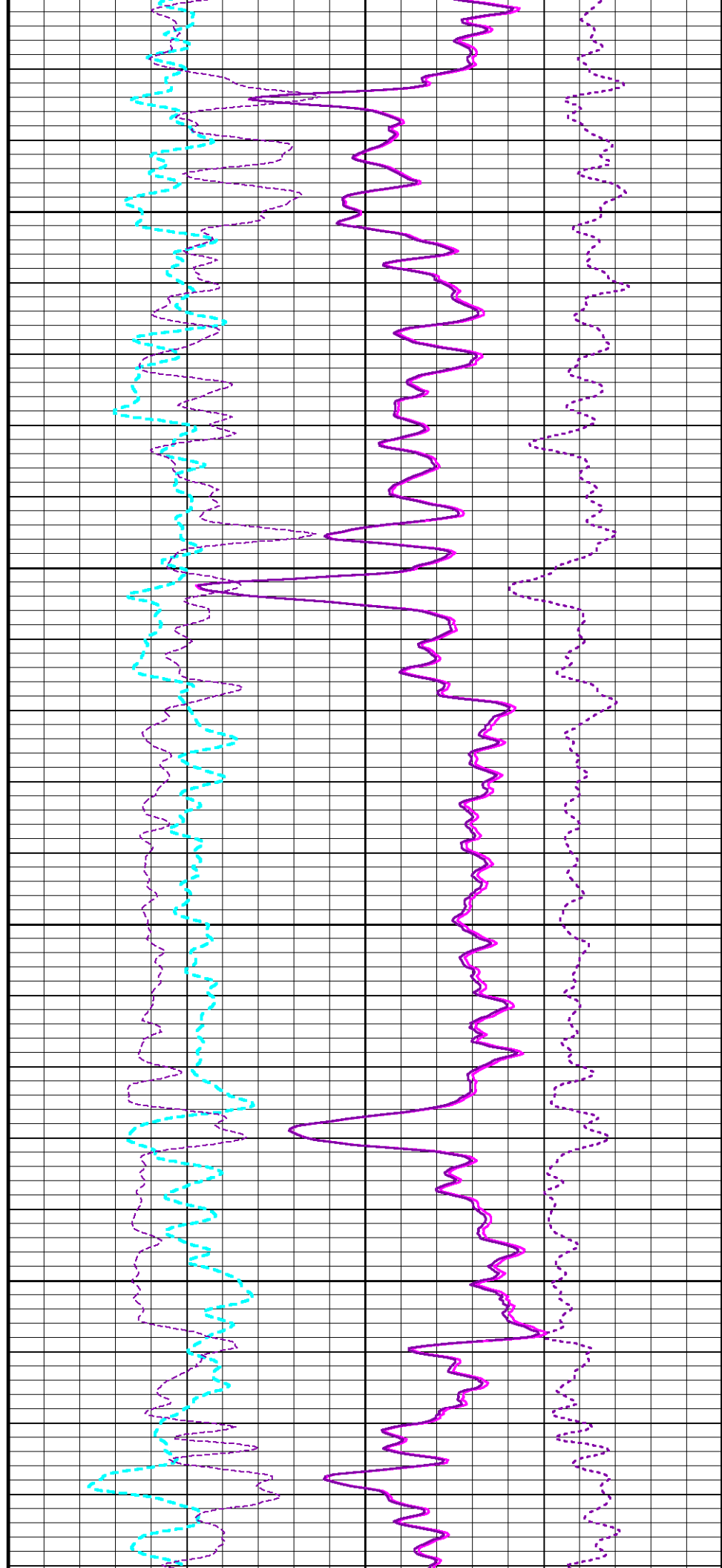
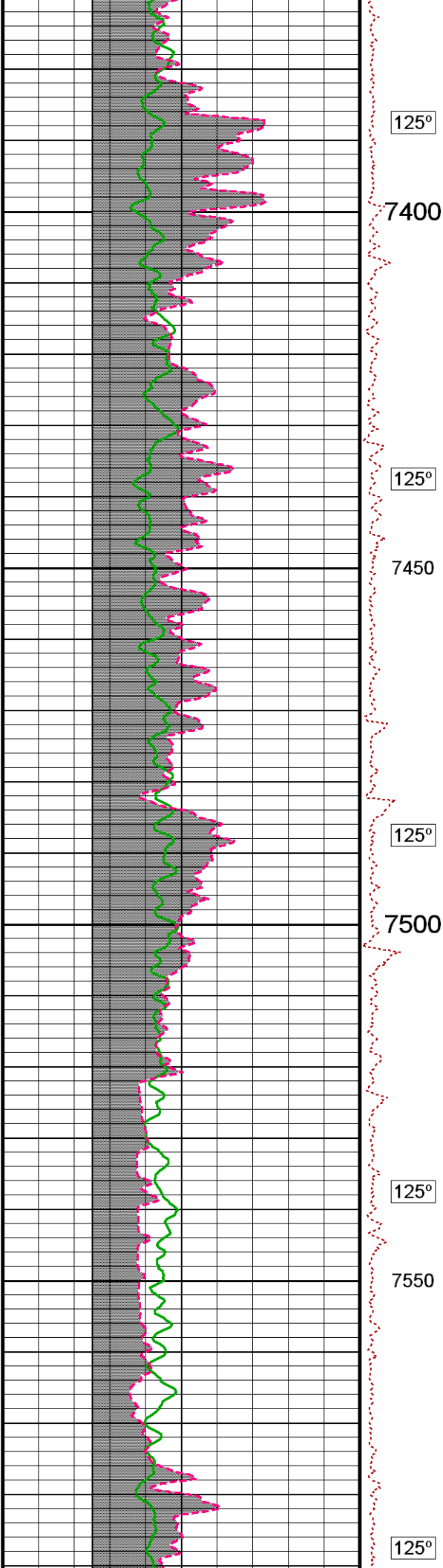
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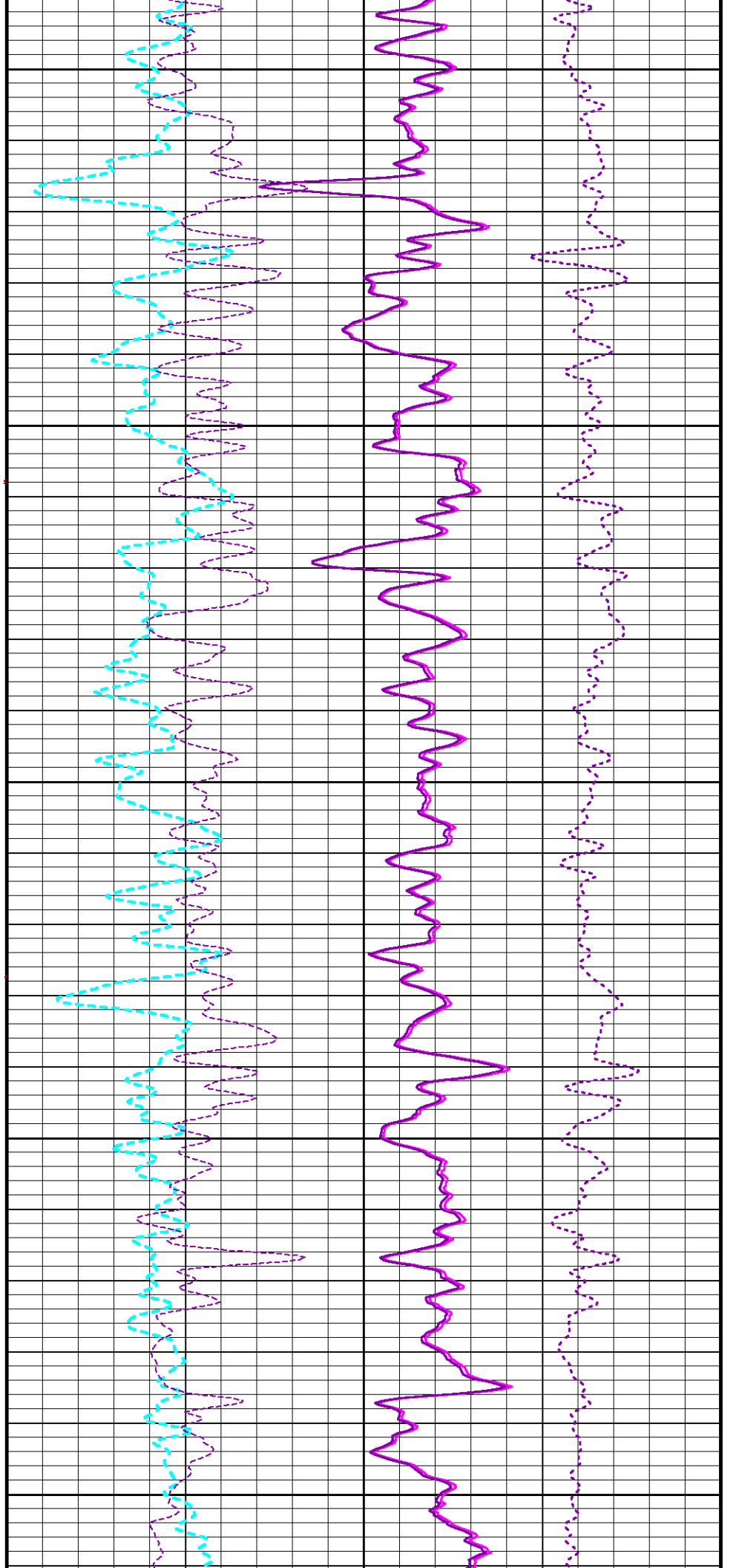
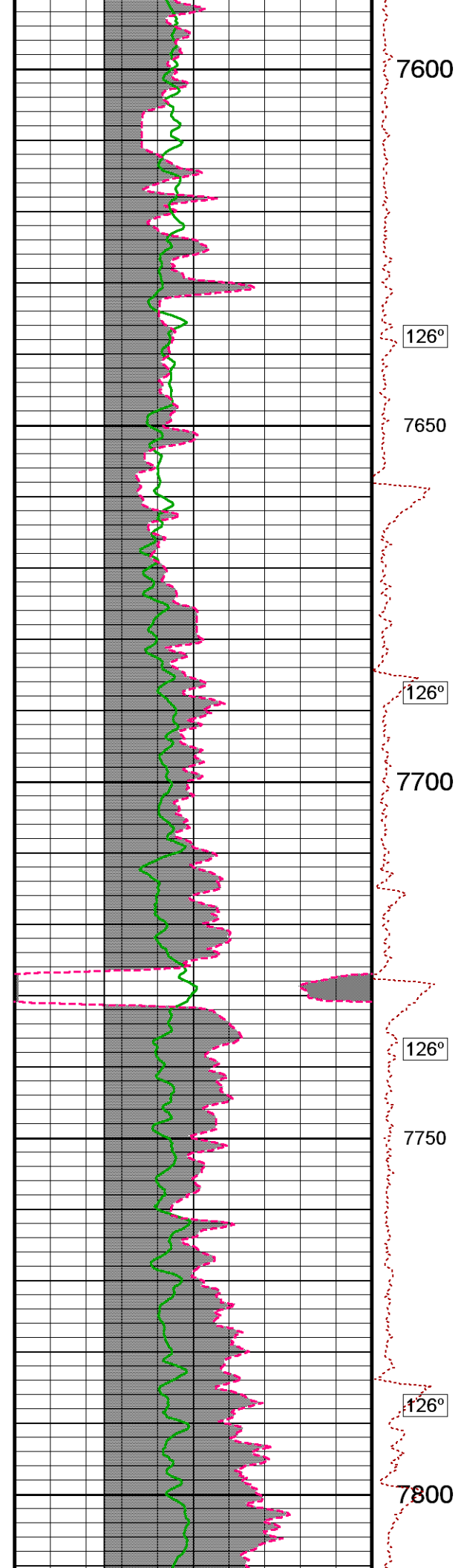
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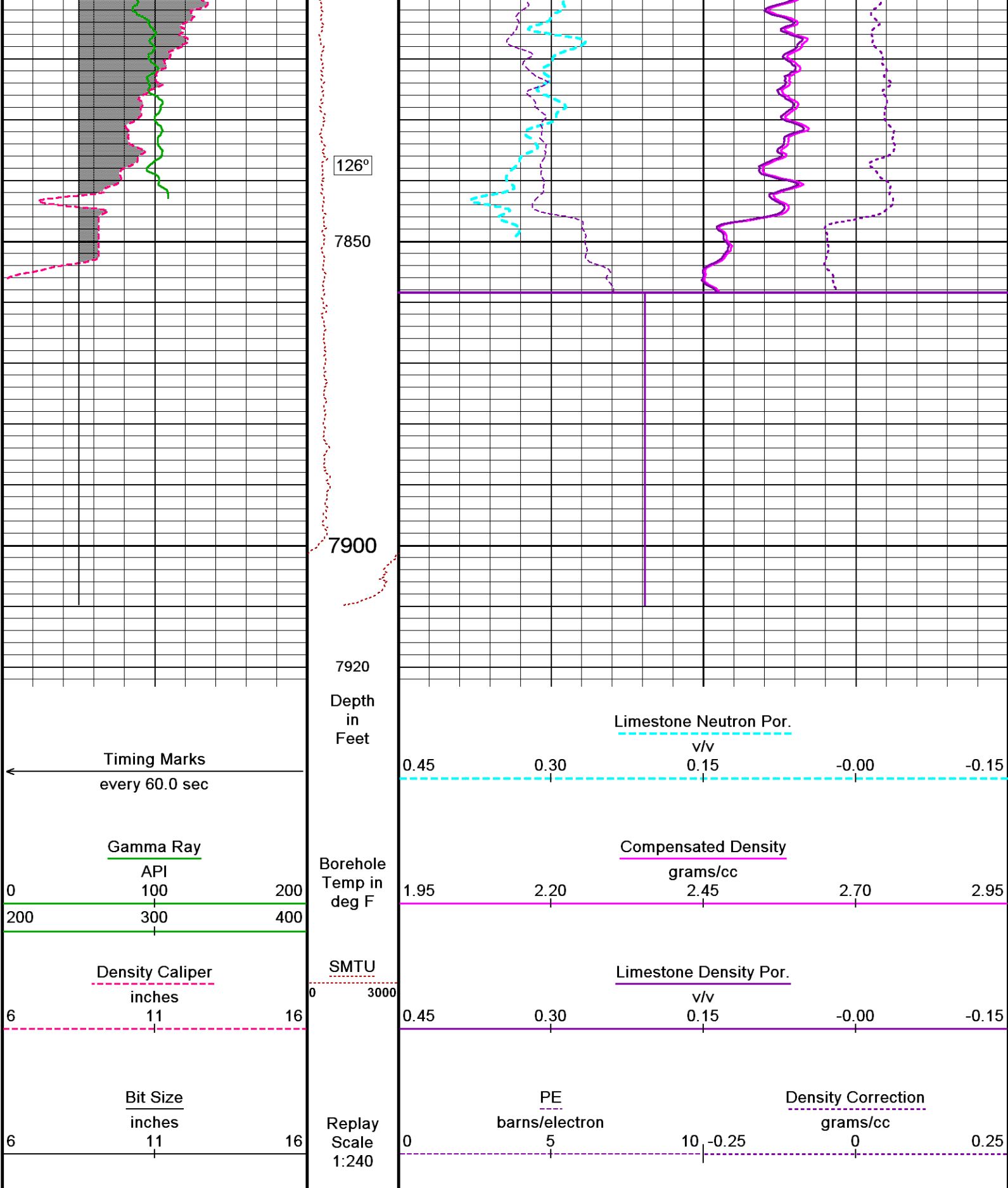


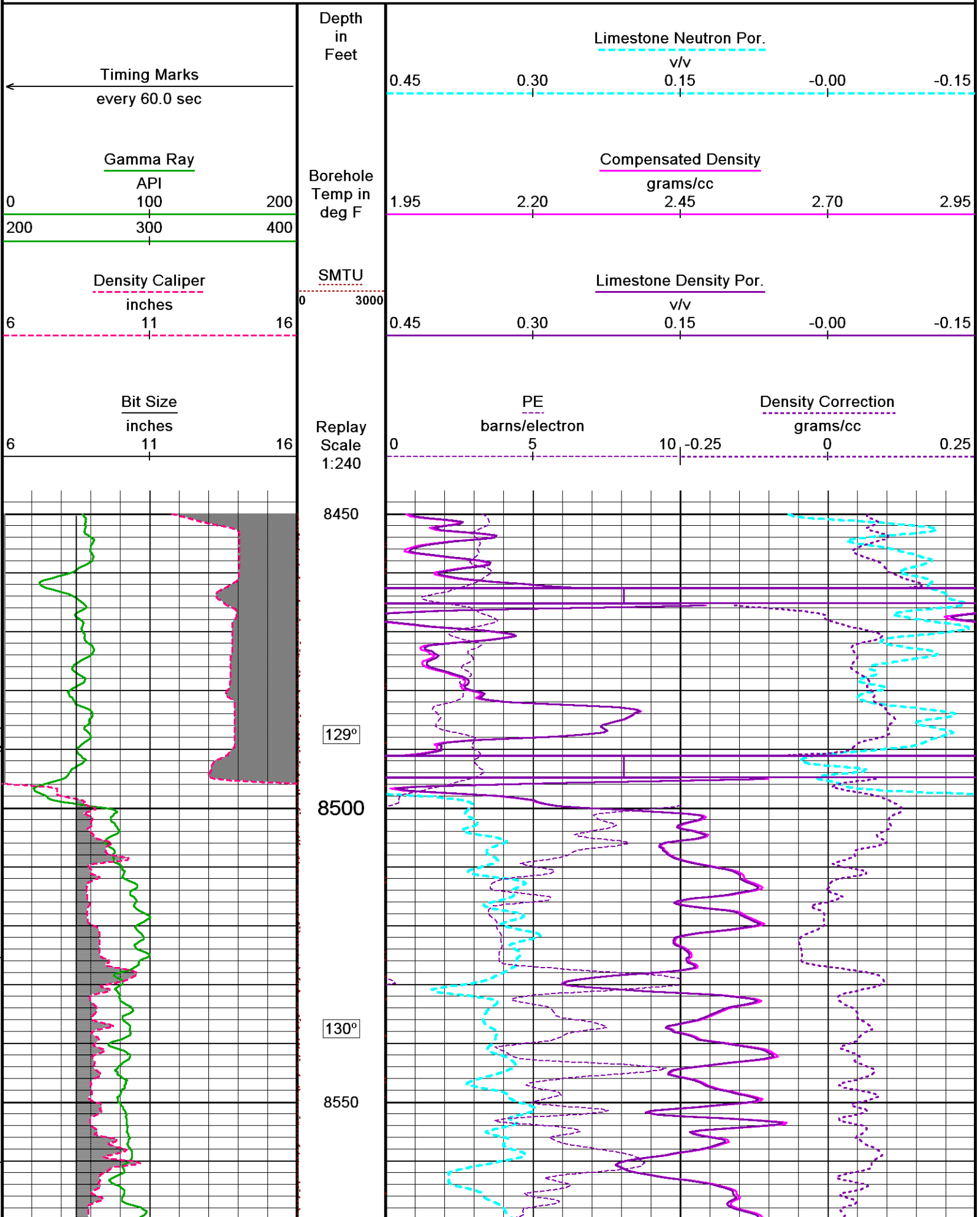


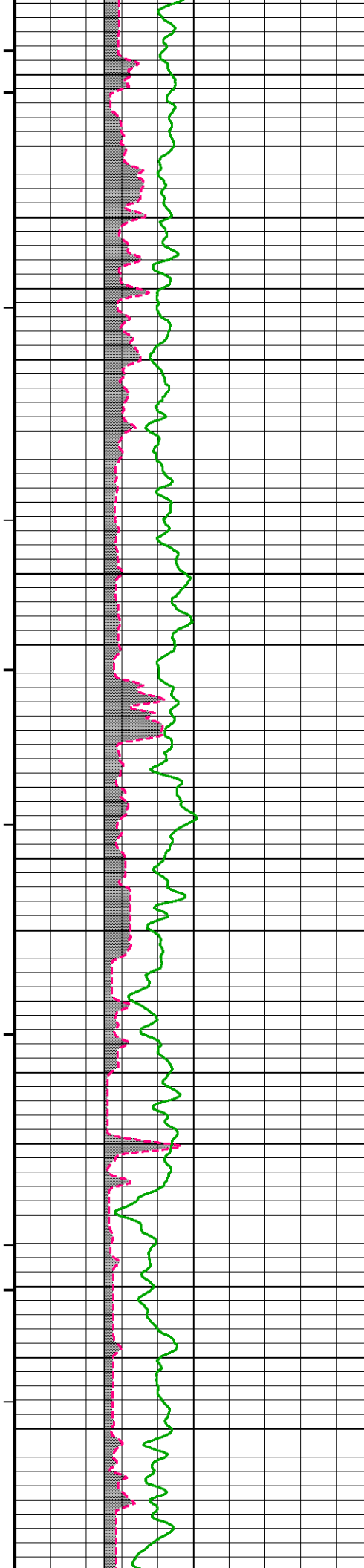












130°

8600

130°

8650

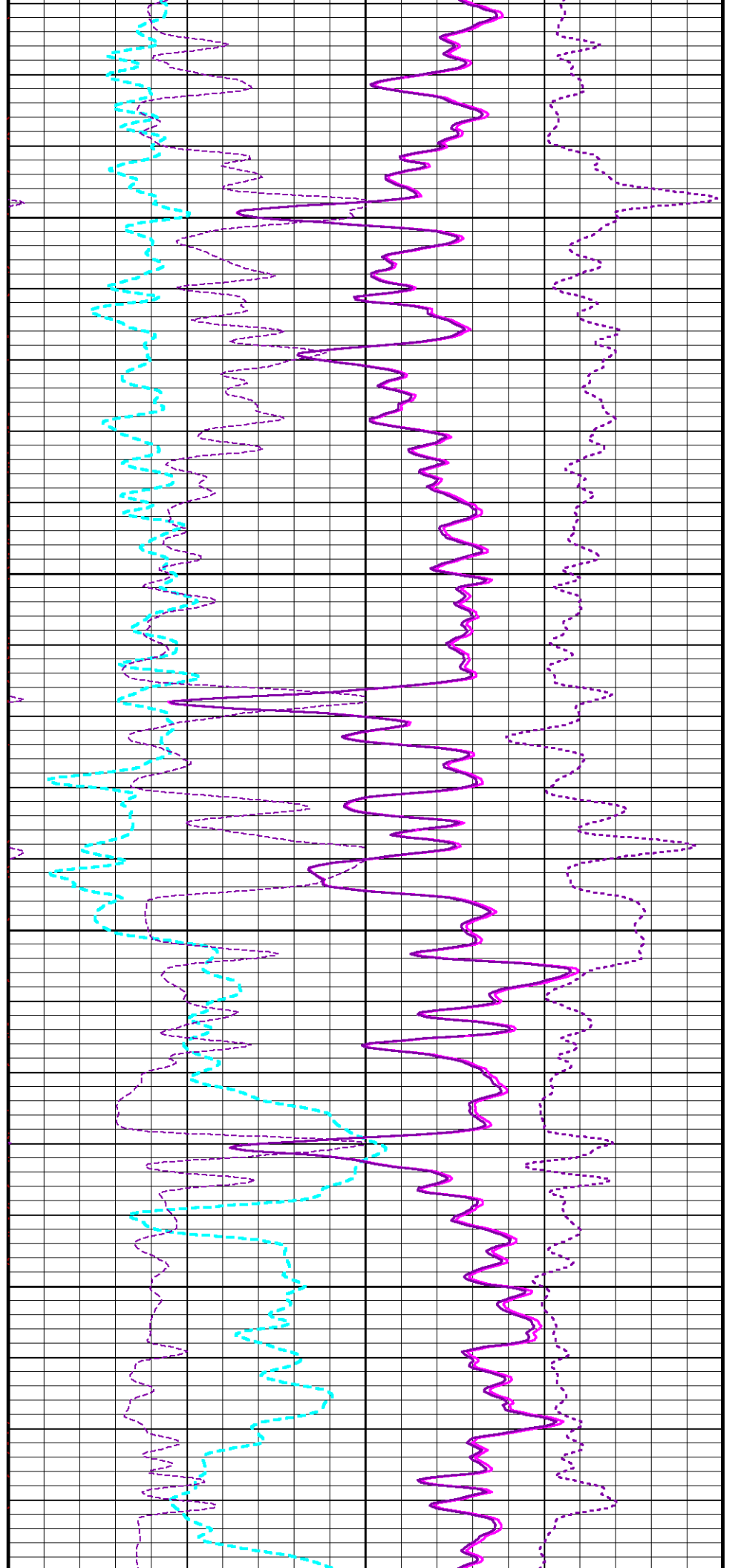
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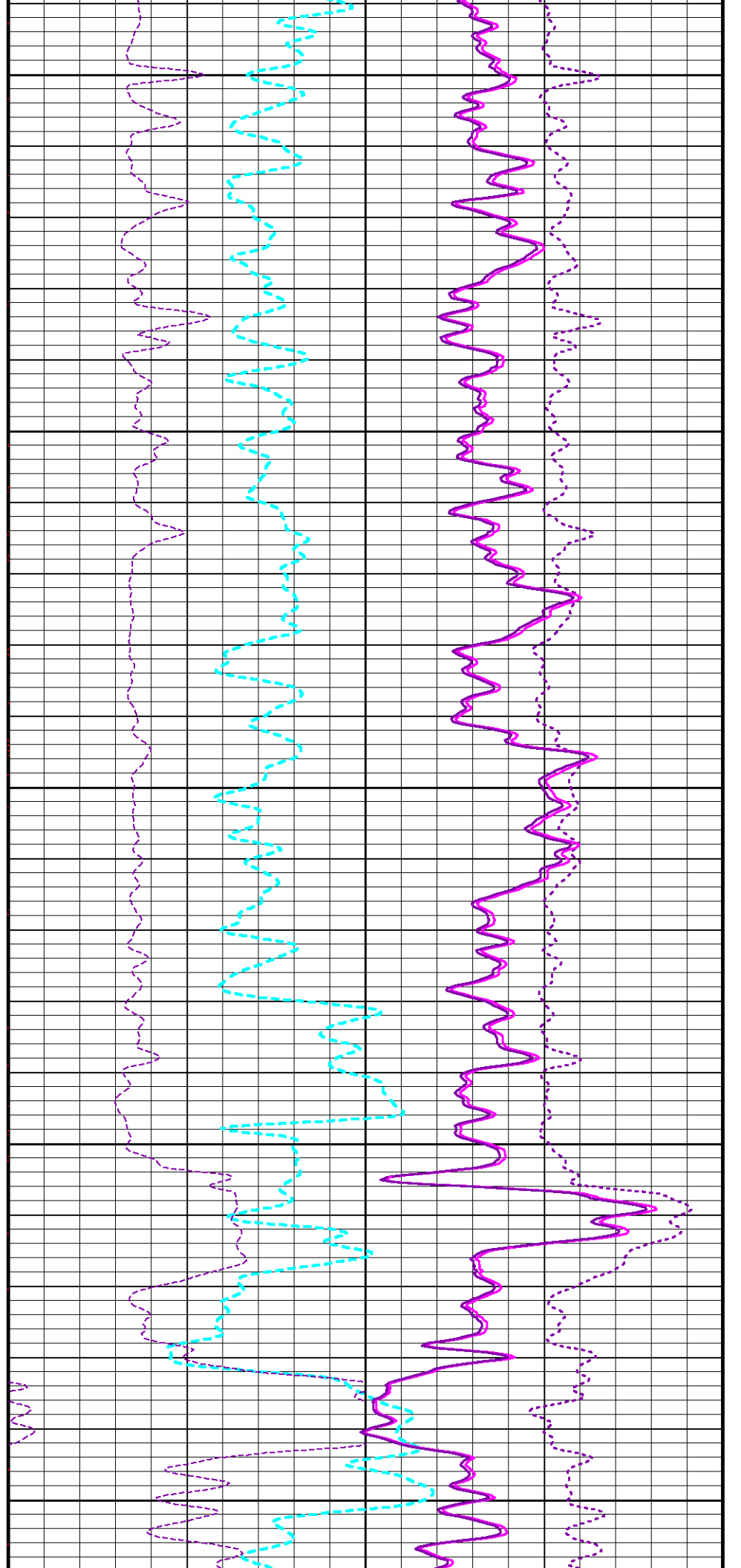
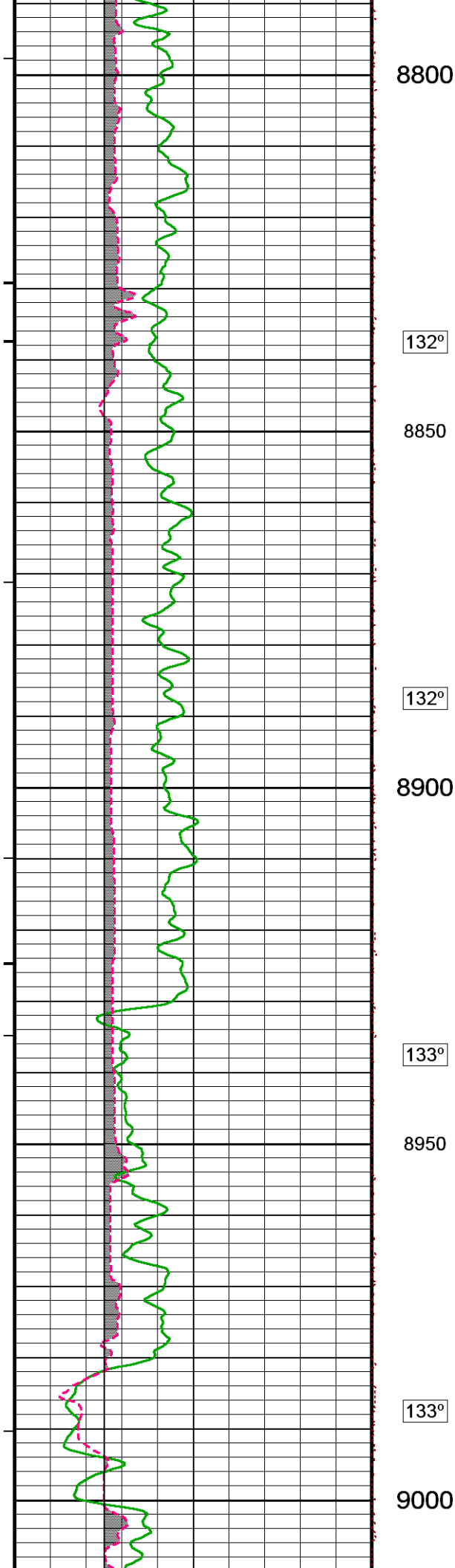
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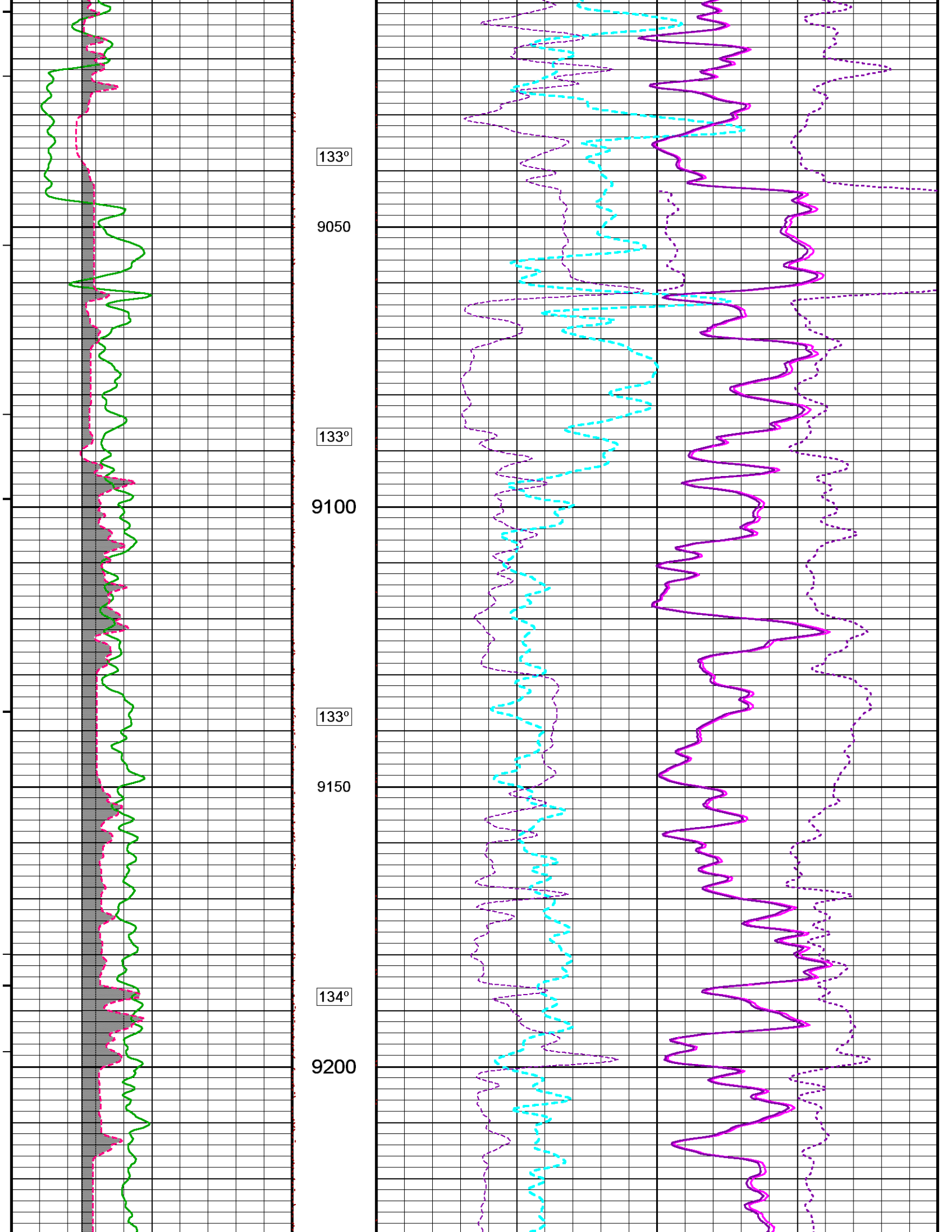
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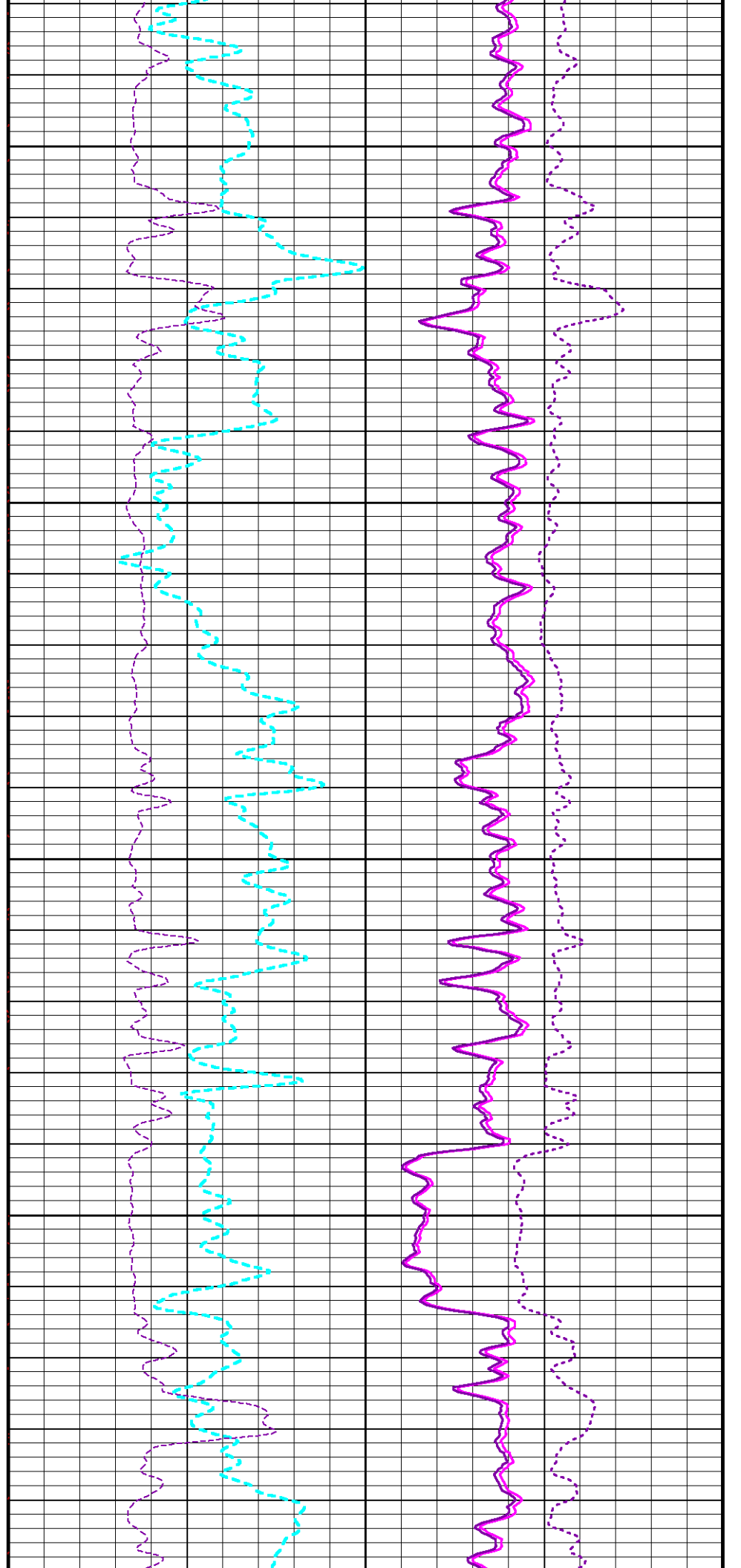
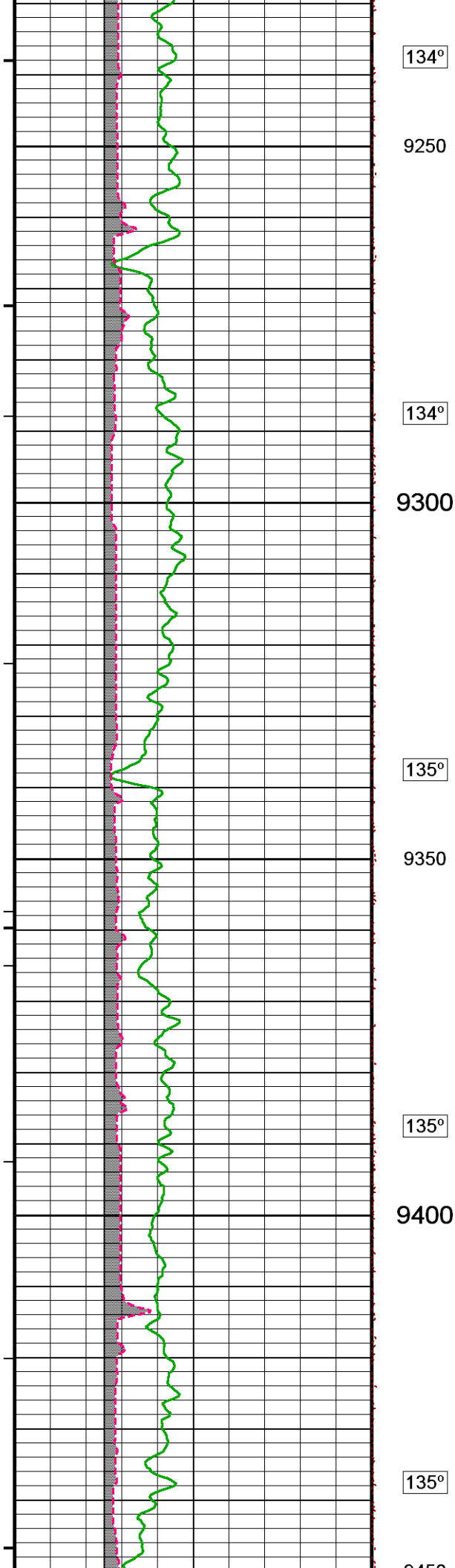
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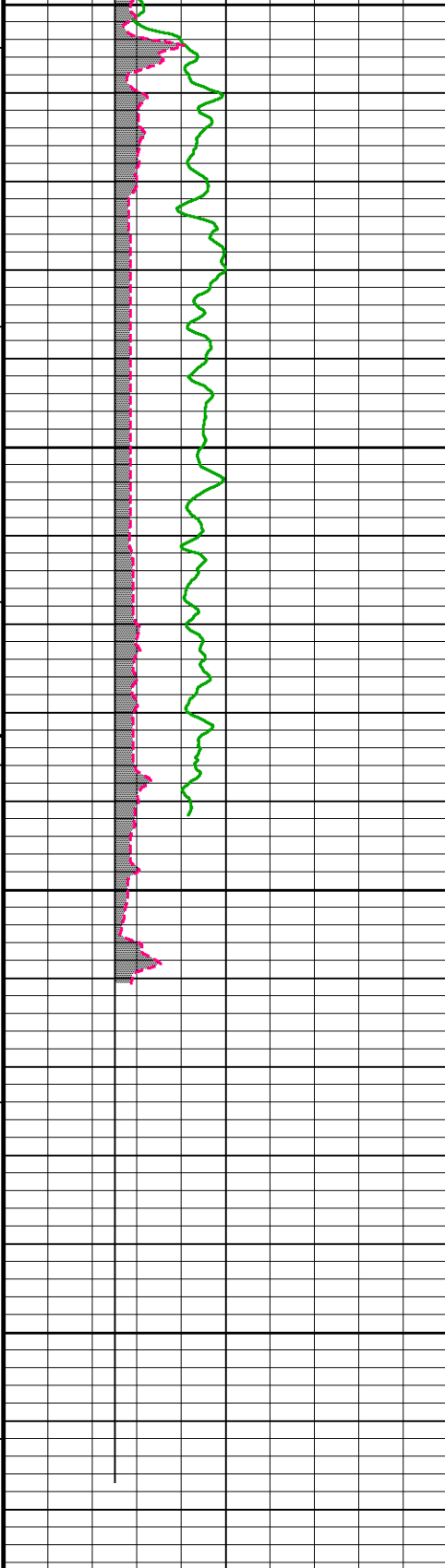
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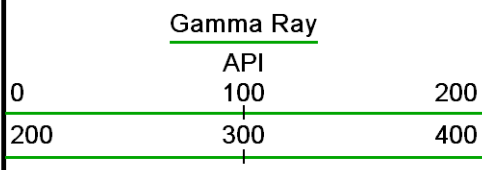




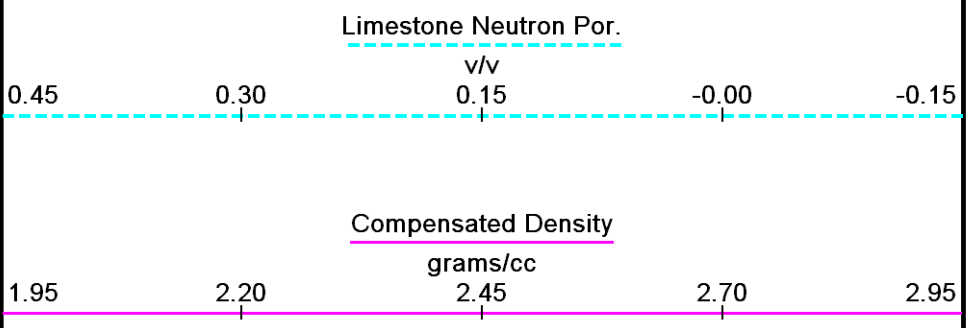
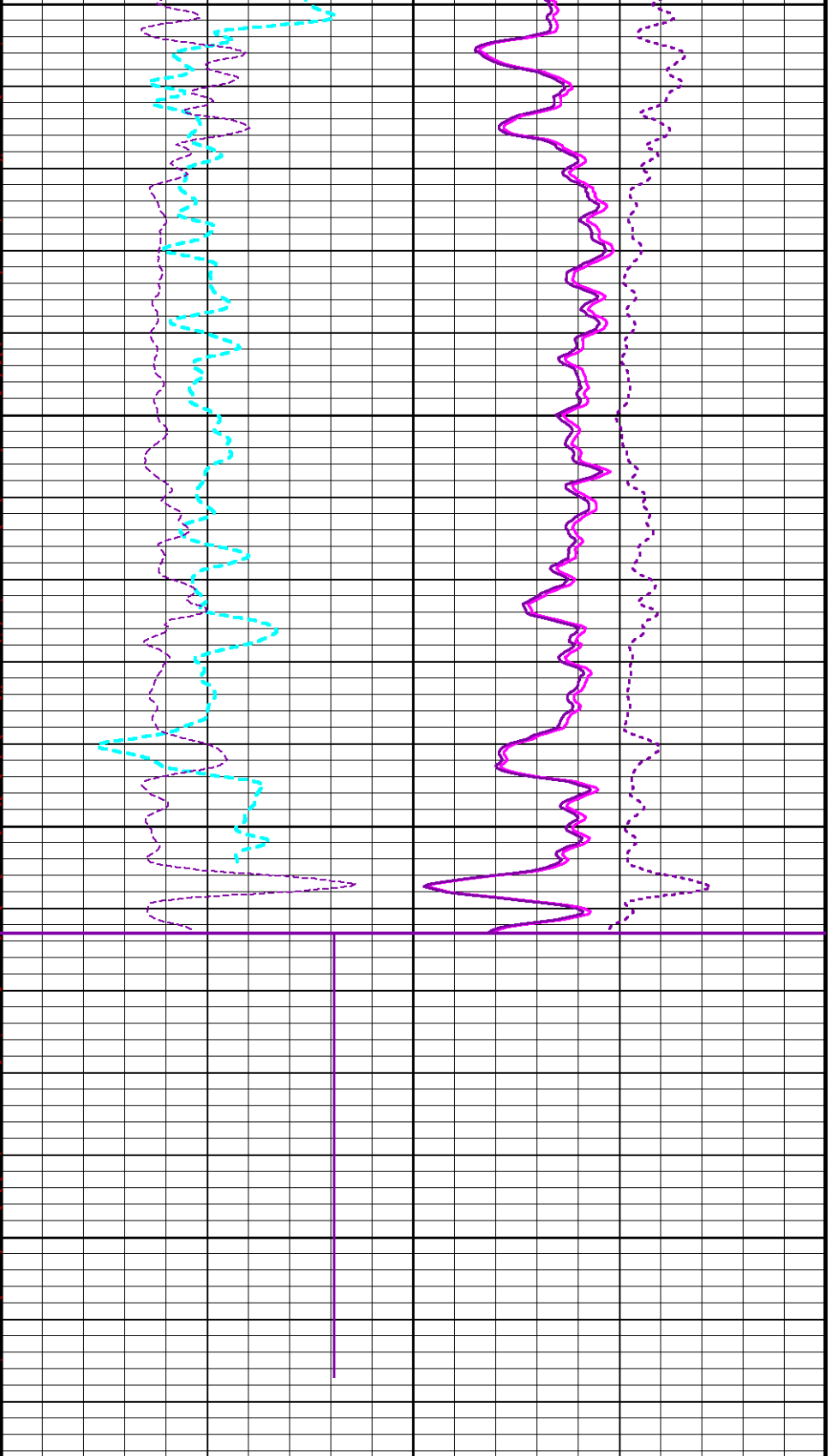


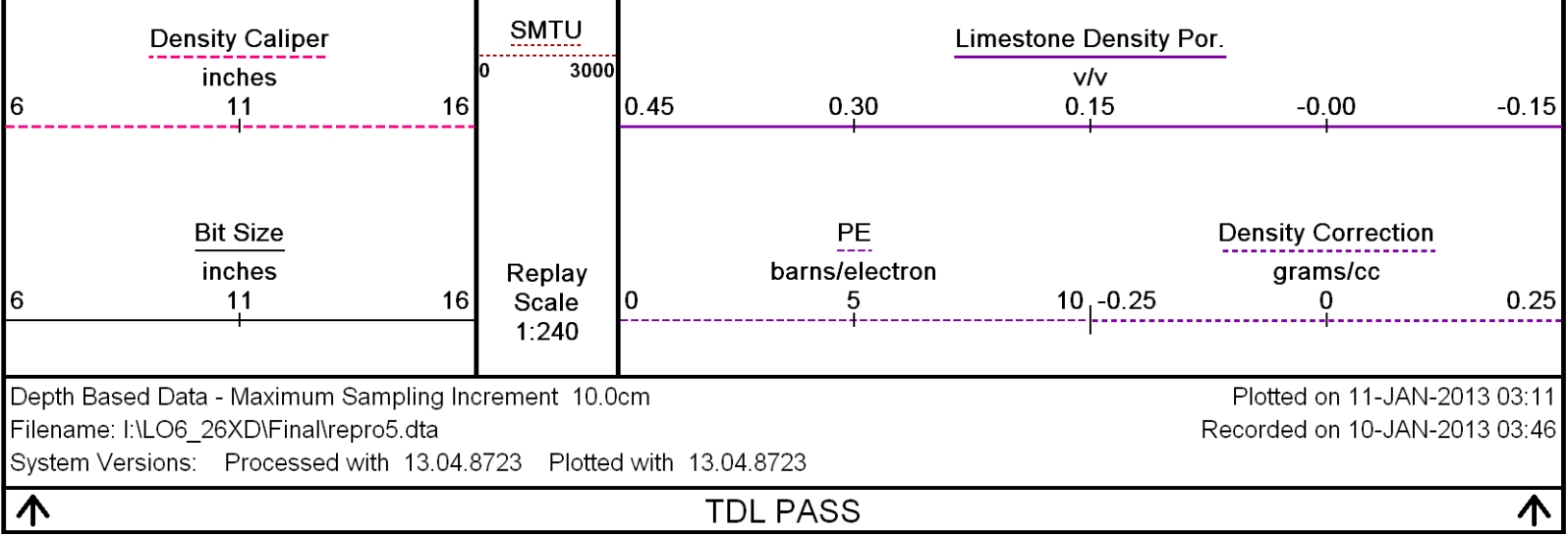


← Timing Marks
every 60.0 sec



Borehole
Temp in
deg F





COMPANY	SAVIA PERU S.A
WELL	LO6-26XD
FIELD	LOBITOS
PROVINCE/COUNTY	PIURA
COUNTRY/STATE	PERU
Elevation Kelly Bushing50.00feet	First Reading9600.00feet
Elevation Drill Floor50.00feet	Depth Driller9800.00feet
Elevation Ground Level-335.00feet	Depth Logger6942.00feet



NUCLEAR LOG

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SCALE 5":100