



Realtime Log

Natural Formation Evaluation
Gamma Ray

Scale: 1:240
True Vertical Depth

Company: Anadarko

Well: NRC 1N-4HZ

Field: Weld County (Kerr McGee)

Region: R.M.D. Country: U.S.A.

Status: Final Print

Surface Location:

Latitude: 40° 3' 32.540" N

Longitude: 104° 53' 19.277" W

Other Services:

Directional VSS

API Number: 051233899600

UTM: 0.00

0.00

ZoneNone

Permanent Datum (P.D.): Ground Level

Elevation: 5046.00 ft.

Rig Floor

16.00 ft.

Above P.D.

Elevations:

KB:

N/A

DF:

5062.00 ft.

GL:

5046.00 ft.

Log Measured From:

Driller's Depth

Interval Logged

Dates

Magnetic Field Reference

Top: 6864.0 ft. Date From: 10/Apr/14 Date To: 15/Apr/15 Dip Angle: 66.49° Azi Reference North: True

Bottom: 17101.0 ft. Spud Date: 10/Apr/14 Field Strength: 52800.0 nT North Correction: 8.47°

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
8.750 in.	1076.0 ft.	7820.0 ft.	9.265 in.	36.00 lb/ft	Surface	1066.0 ft.
6.125 in.	7820.0 ft.	17149.0 ft.	7.000 in.	26.00 lb/ft	Surface	7820.0 ft.

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Drill Water	Surface	7820.0 ft.	8.750 in.	86.0 ft.	0.6° / 336.5°	0.4° / 209.3°
LSND	7820.0 ft.	17149.0 ft.	8.750 in.	42.0 ft.	0.4° / 209.3°	83.1° / 2.8°
			6.125 in.	86.0 ft.	83.1° / 2.8°	90.1° / 357.4°
					/	/
					/	/
					/	/
					/	/

Acquisition System

Software Version

Other

Advantage 2.20U4 Rig / Contractor: Xtreme 24 / Advance Drilling

PATS 6.4.1.34 Job No: 6262027 / D & E

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Log Run Summary

LWD Run No.	BHA Run No.	Bit Run No.	Bit Size (in.)	Bit Type	Bit Gauge Length (in.)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time				Circ. Time (hrs.)
							Top	Bottom	From	To	Start		End		
							(ft.)	(ft.)	(ft.)	(ft.)					
1	1	1	8.750	PDC	2.000	Steerable	6864.0	7768.0	6916.0	7820.0	10/Apr/14	02:15	11/Apr/14	14:30	26
2	2	2	6.125	PDC	6.000	Steerable	7769.0	17101.0	7820.0	17149.0	12/Apr/14	09:30	15/Apr/14	16:49	71.3

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Osagie Otoikhine	09/Apr/14	16/Apr/14	Trey Smith	09/Apr/14	16/Apr/14			

Mud Properties Record

Date / Time	LWD Run No.	Measured Depth (ft.)	Mud Type	Density (ppg)	Viscosity (cp)	pH	Fluid Loss (cc)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
10/Apr/14 18:00	1	5100.0	Drill Water	8.6	1	8.9	N/A	0.0/98.0	Flowline	1800	N/A
11/Apr/14 18:00	1	7820.0	LSND	9.8	12	8.9	N/A	0.0/91.0	Active Pits	1100	N/A
14/Apr/14 18:00	2	14444.0	LSND	9.4	11	9.4	N/A	1.5/92.0	Active Pits	2100	N/A

Mnemonics											
Curve		Description									Units
GRAX		Gamma Ray Apparent 0.5 ft AVG									API
ROPA		Rate of Penetration, 3.0 ft Avg									ft/hr
TCDX		Downhole Temperature									degF
WOBA		Surface Weight on Bit, 1.0 ft Avg									klbs

Equipment and Service Data						
LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	12323378	Directional	55.64	6.750	2.810
1	SRIG	12416860	Gamma	52.27	6.750	2.810
2	DIR	12546344	Directional	54.41	4.750	2.810
2	SRIG	11814653	Gamma	51.03	4.750	2.810

Service and Tool Mnemonics		
Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments
<p>1.) Baker Hughes Run 1 utilized a 6 1/2 inch NaviGamma (Directional and Gamma Ray) tool behind an 8 3/4 inch bit and steerable assembly from 7768 feet to 7820 feet MD (7466 feet to 7469 feet TVD).</p> <p>2.) Baker Hughes Run 2 utilized a 4 3/4 inch NaviGamma (Directional and Gamma Ray) tool behind a 6 1/8 inch bit and steerable assembly from 7820 feet to 17149 feet MD (7469 feet to 7509 feet TVD).</p>

Remarks				
Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	6800	8.750	1	The interval from surface to 6800 feet MD (6788 feet TVD) was not logged since logging services began at kick off point.
2	17101	6.125	2	The interval from 17101 feet to 17149 feet MD (7508 feet to 7509 feet TVD) was not logged due to bit sensor offset at TD.

Curve Mnemonics

Curve	Description	Units
GRAX	Gamma Ray - Apparent	API
GRIX	Gamma Ray - Data Point Indicator	unitless
GRSI	Gamma Slide Ind.	unitless
GRTX	Gamma Time Since Drilled GRTX	min
ROPA	AVERAGE Instantaneous ROP - 5 second ROP	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth TVD	ft
WOBA	AVERAGE Weight On Bit	klbf

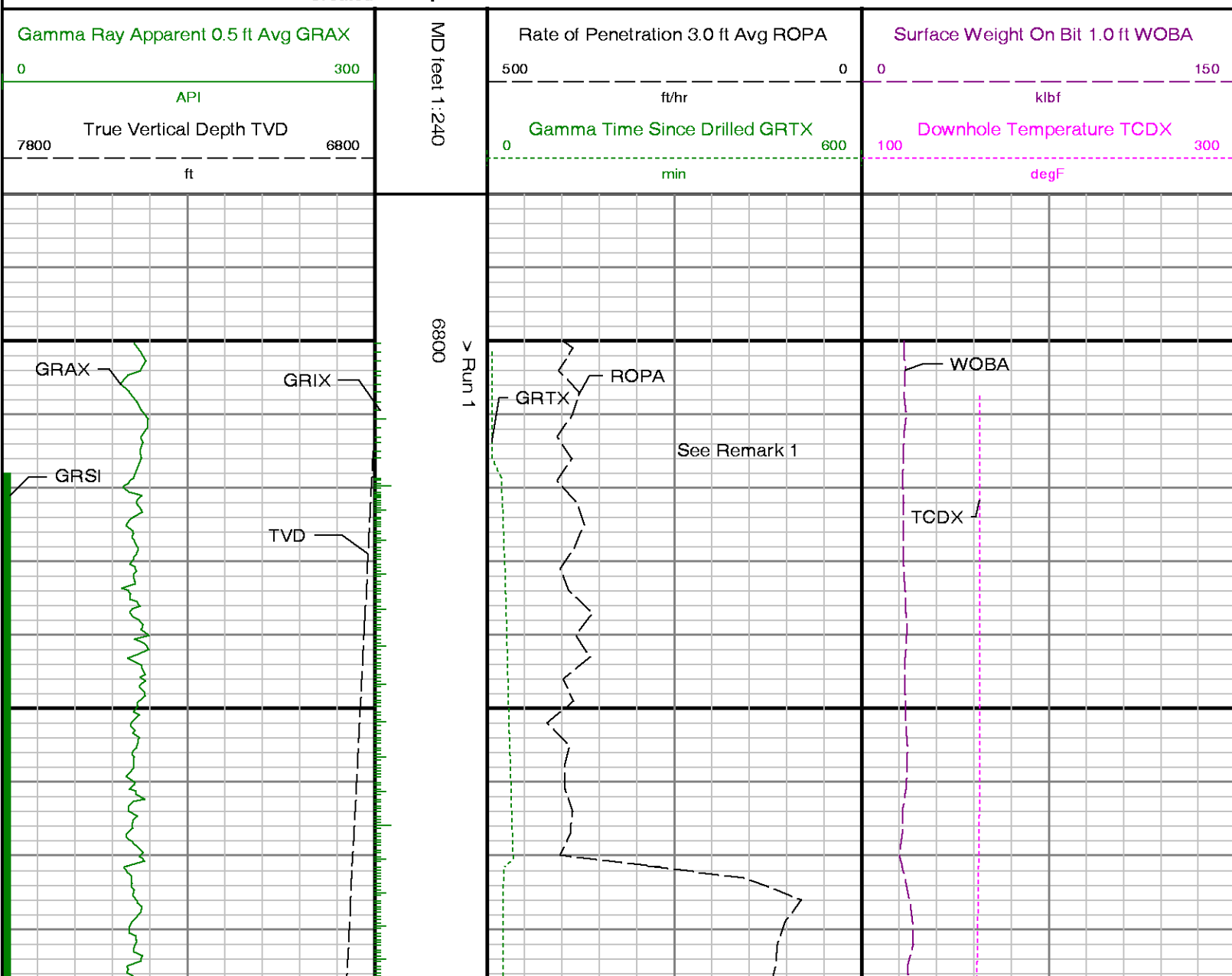


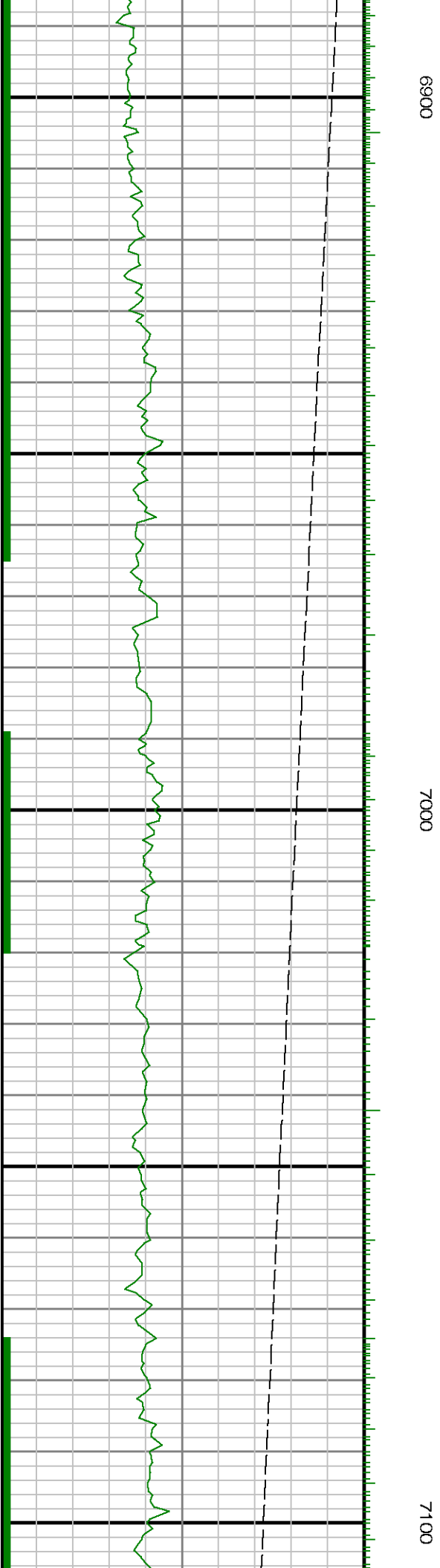
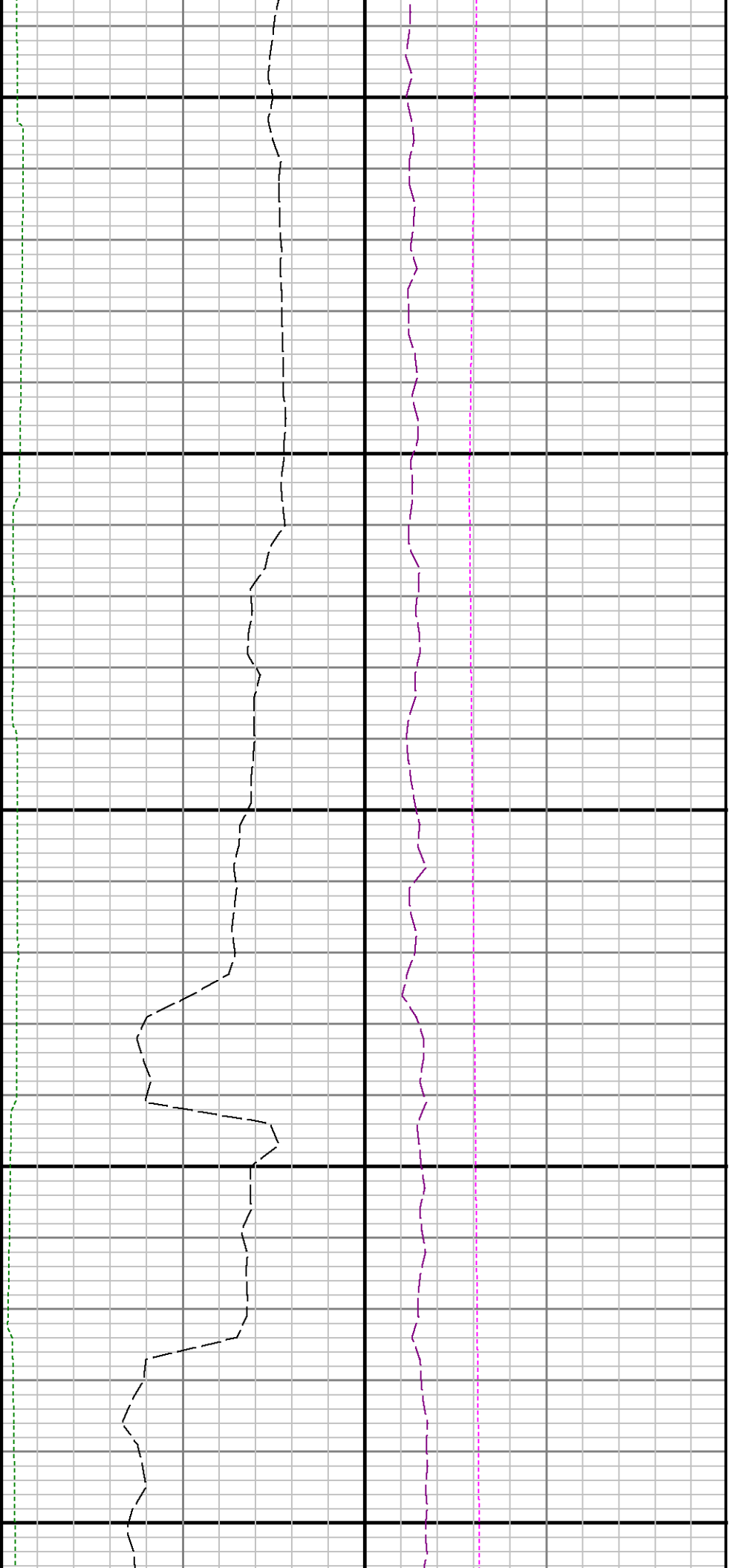
Company : Anadarko

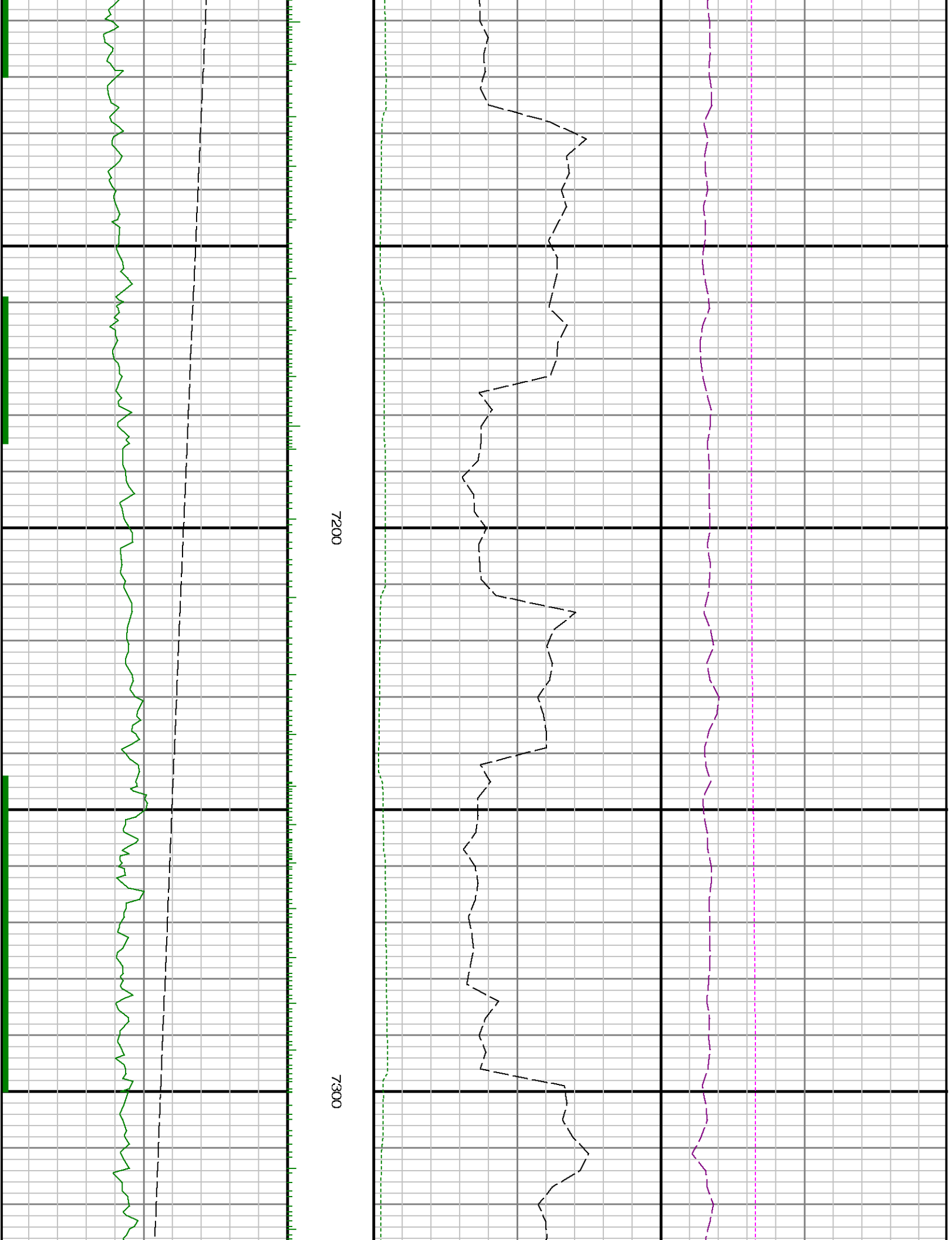
Well : NRC 1N-4HZ

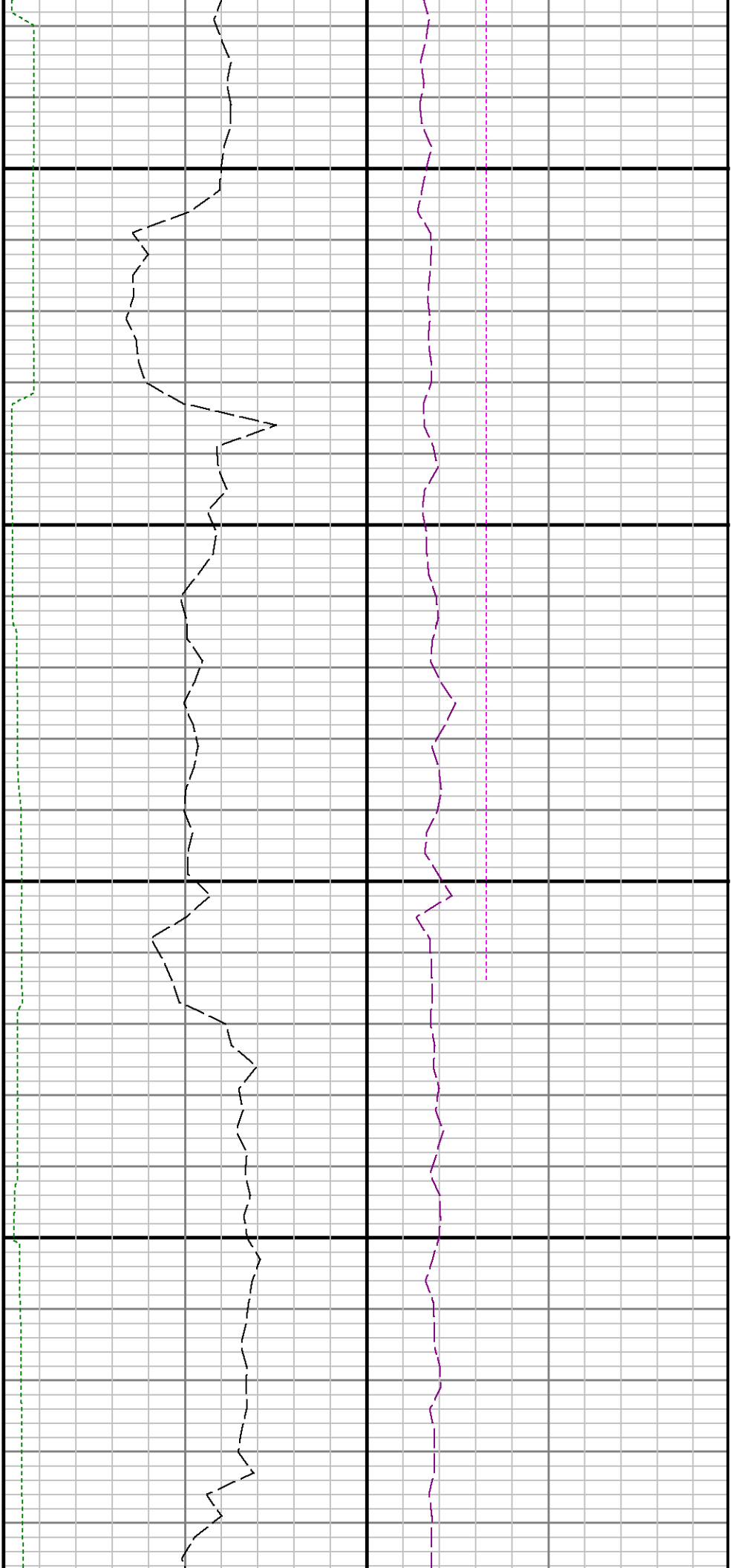
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Created : 16/Apr/2014 4:03:30 AM



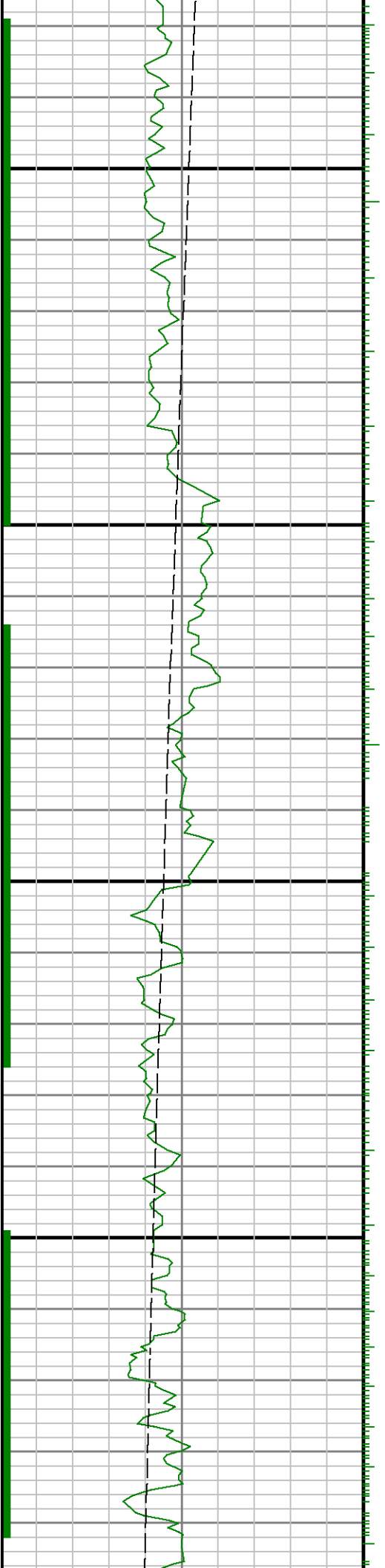


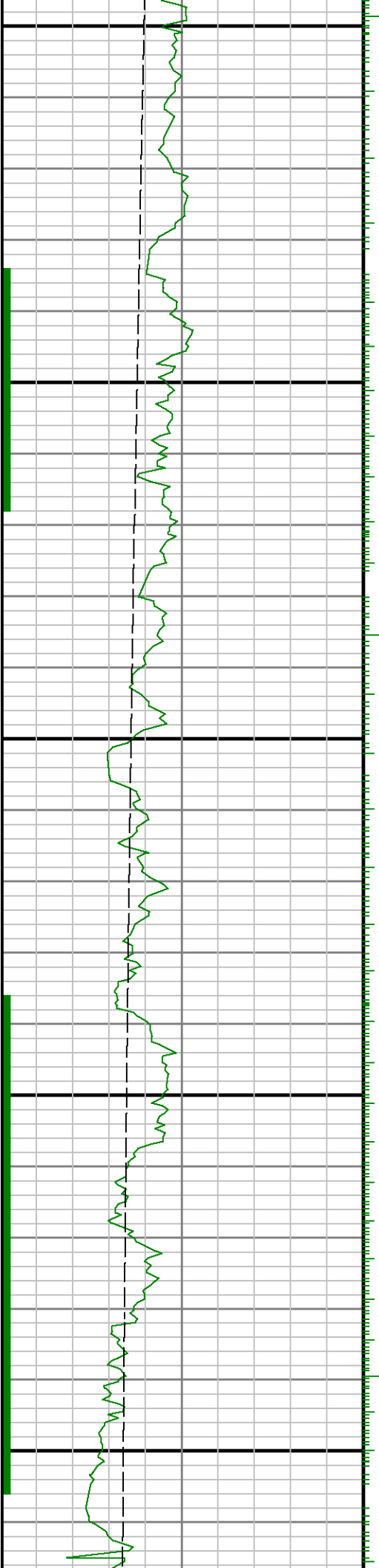




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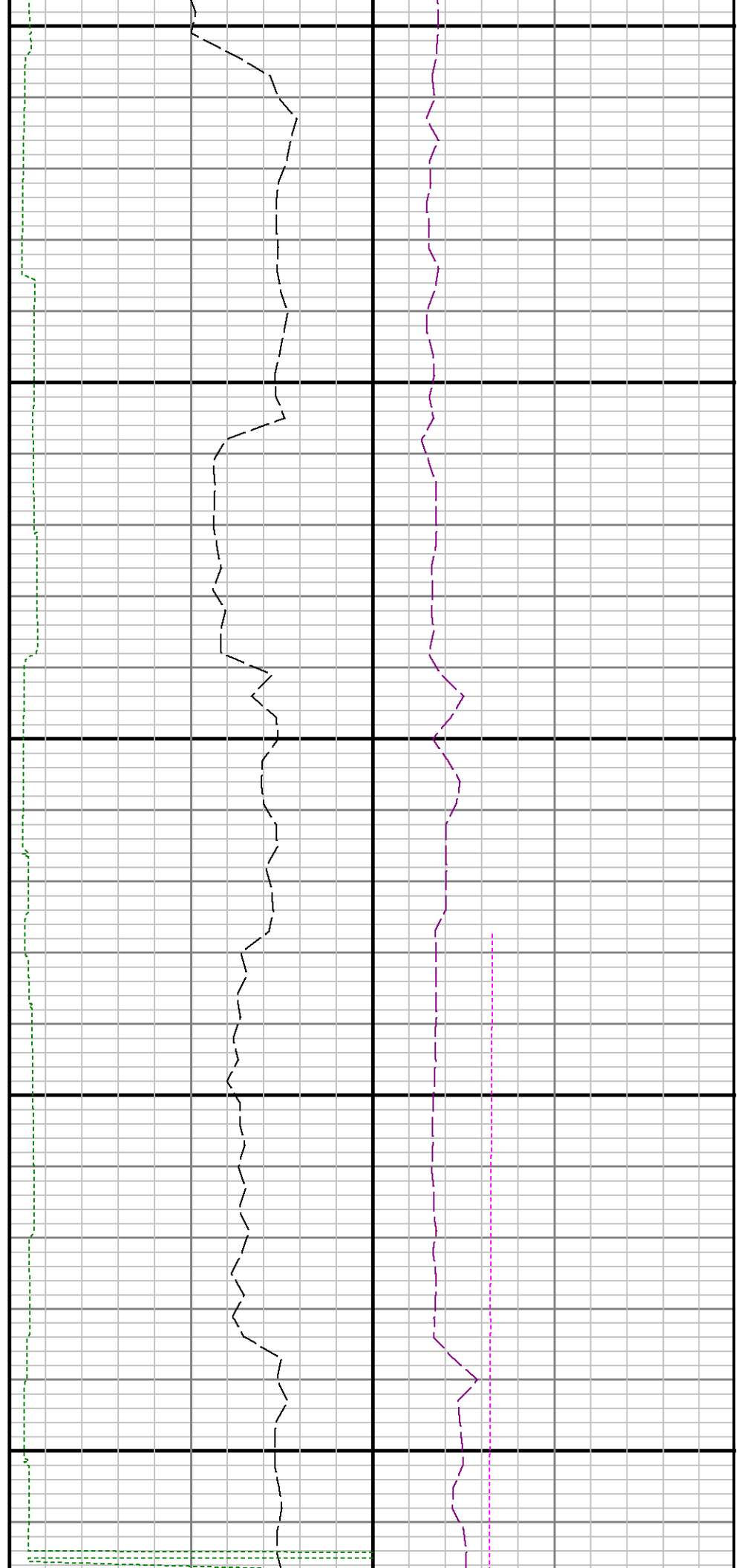
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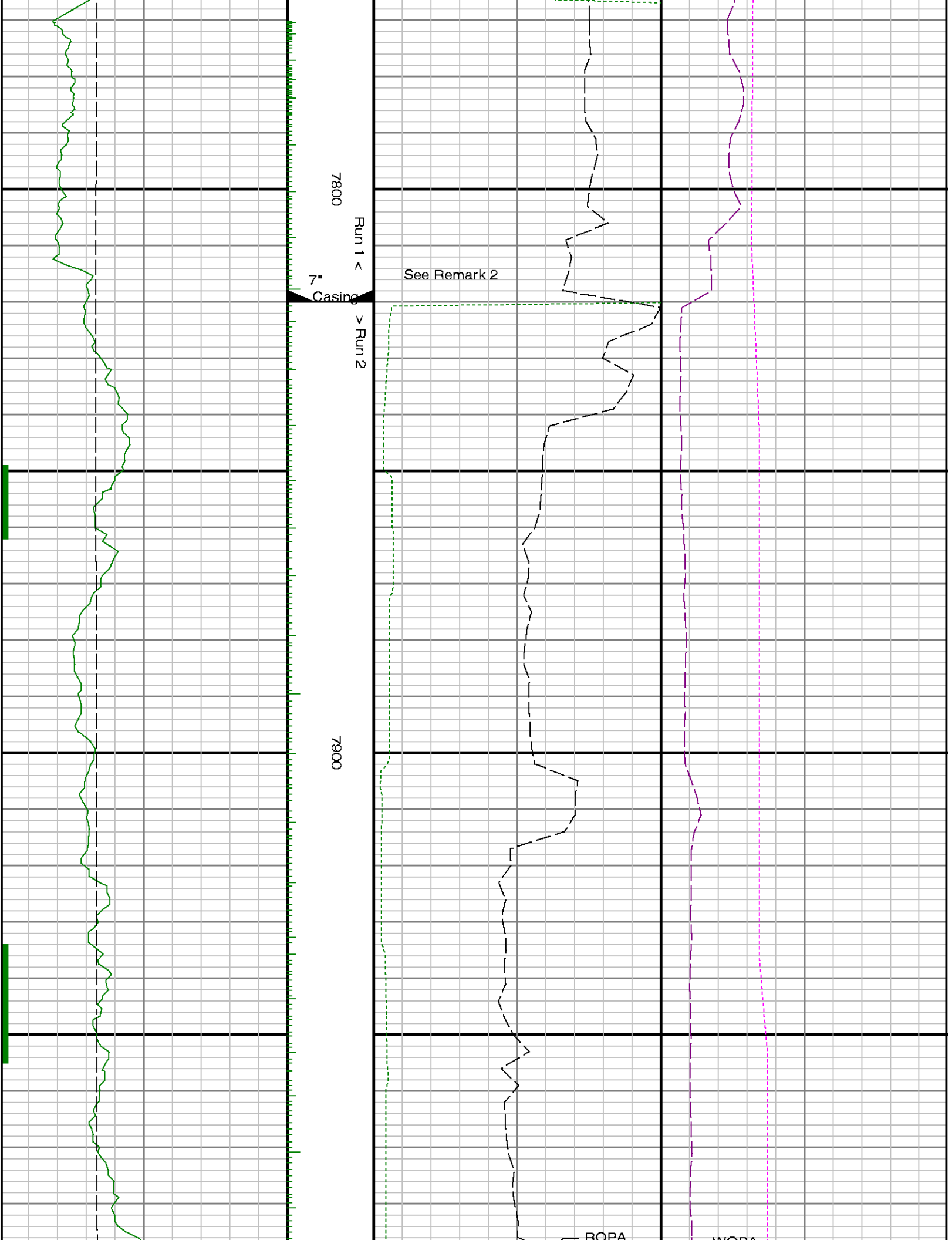


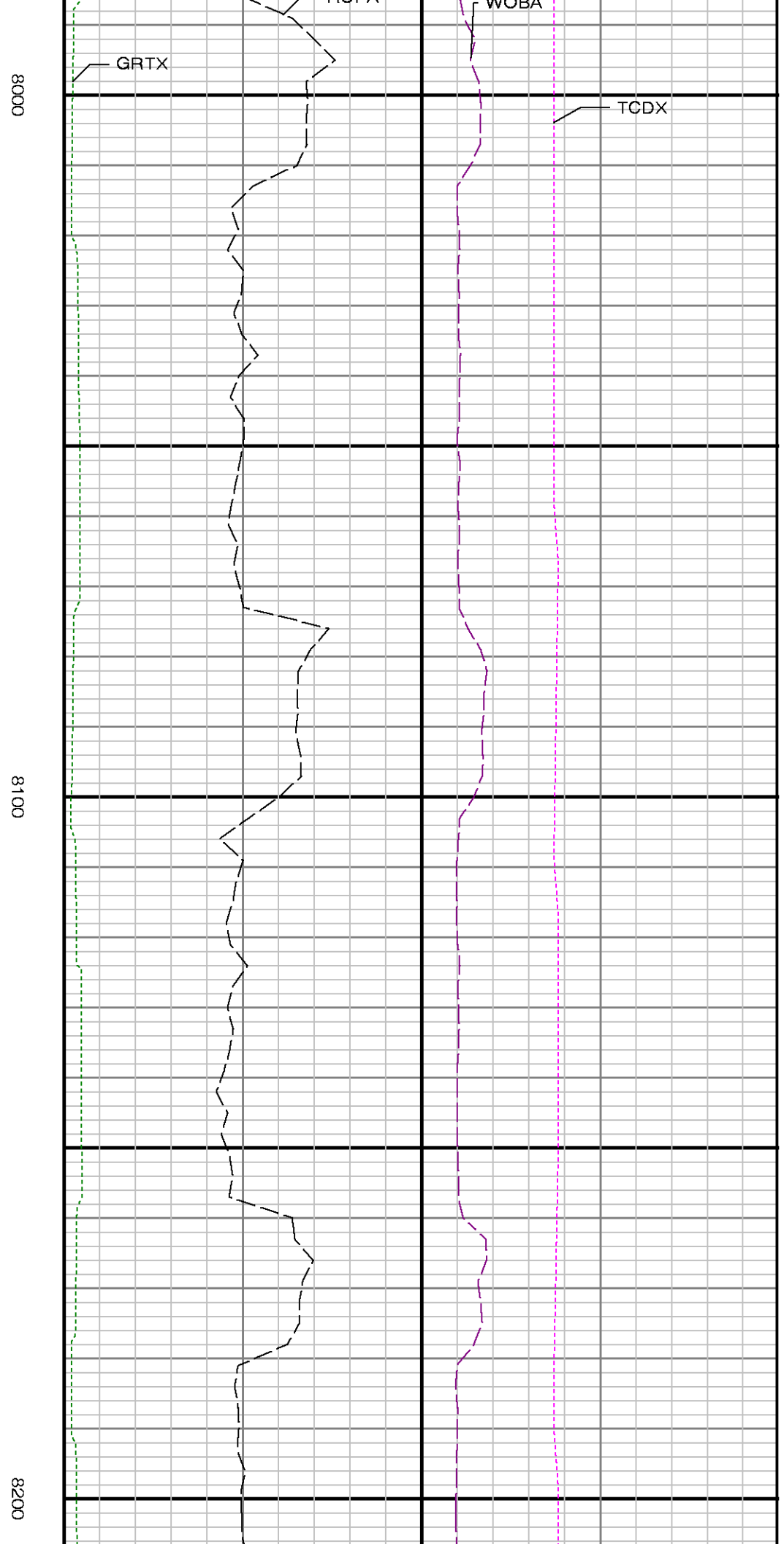
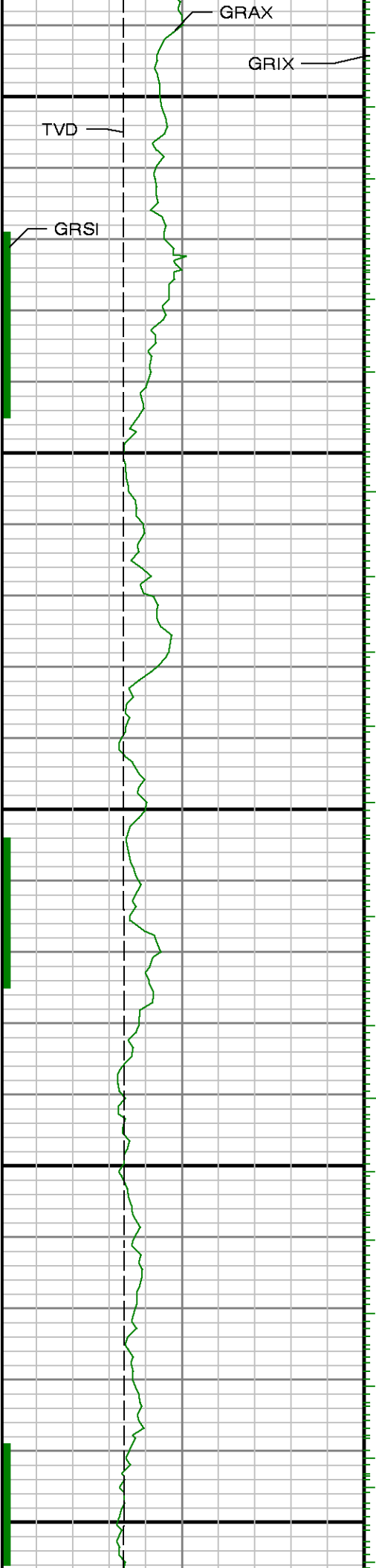


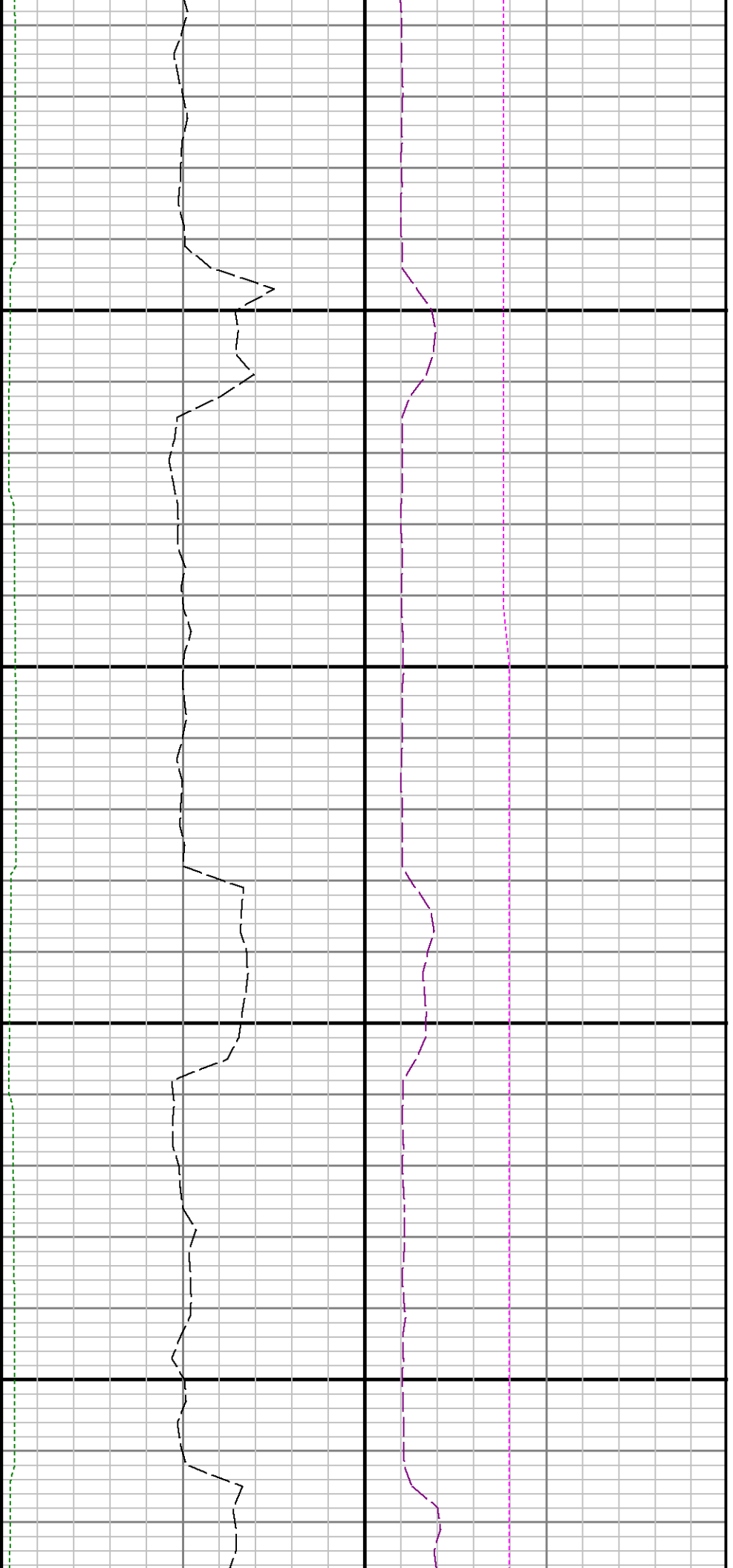
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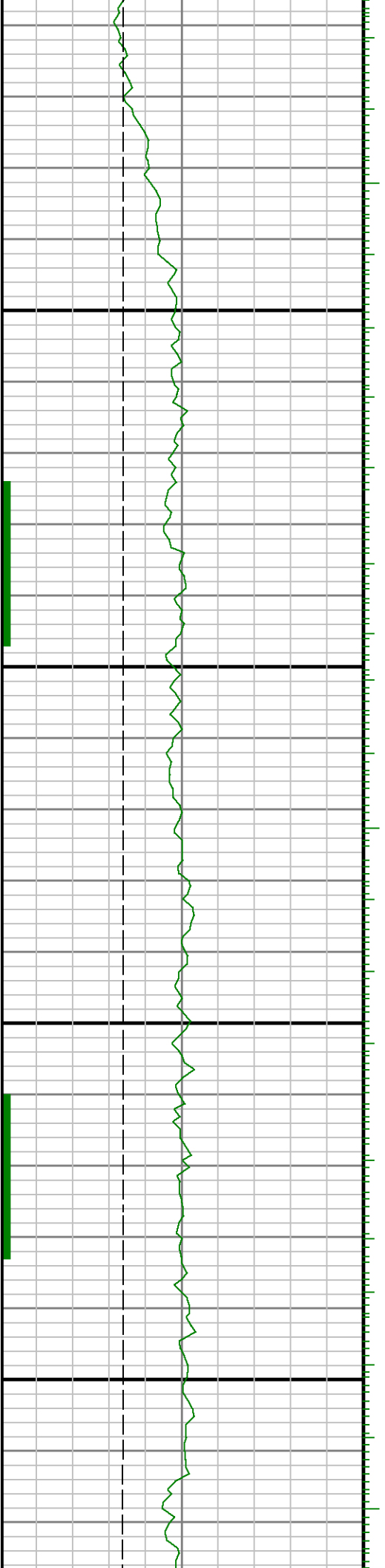


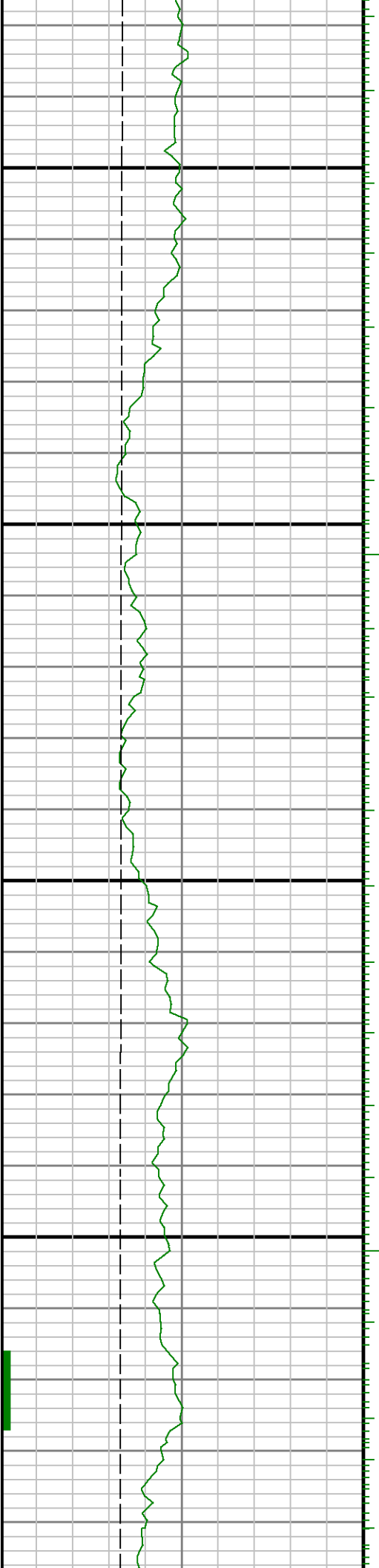




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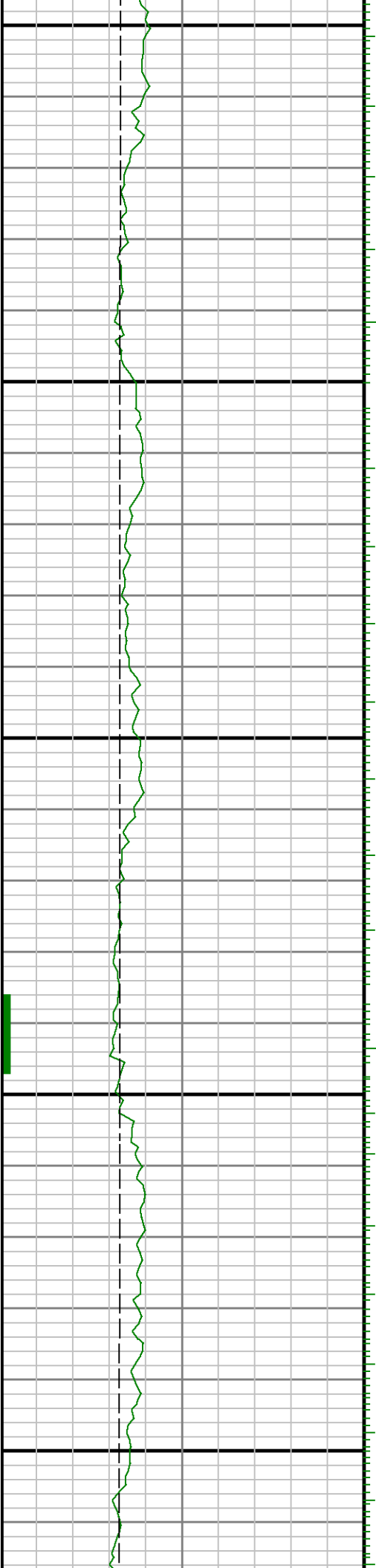




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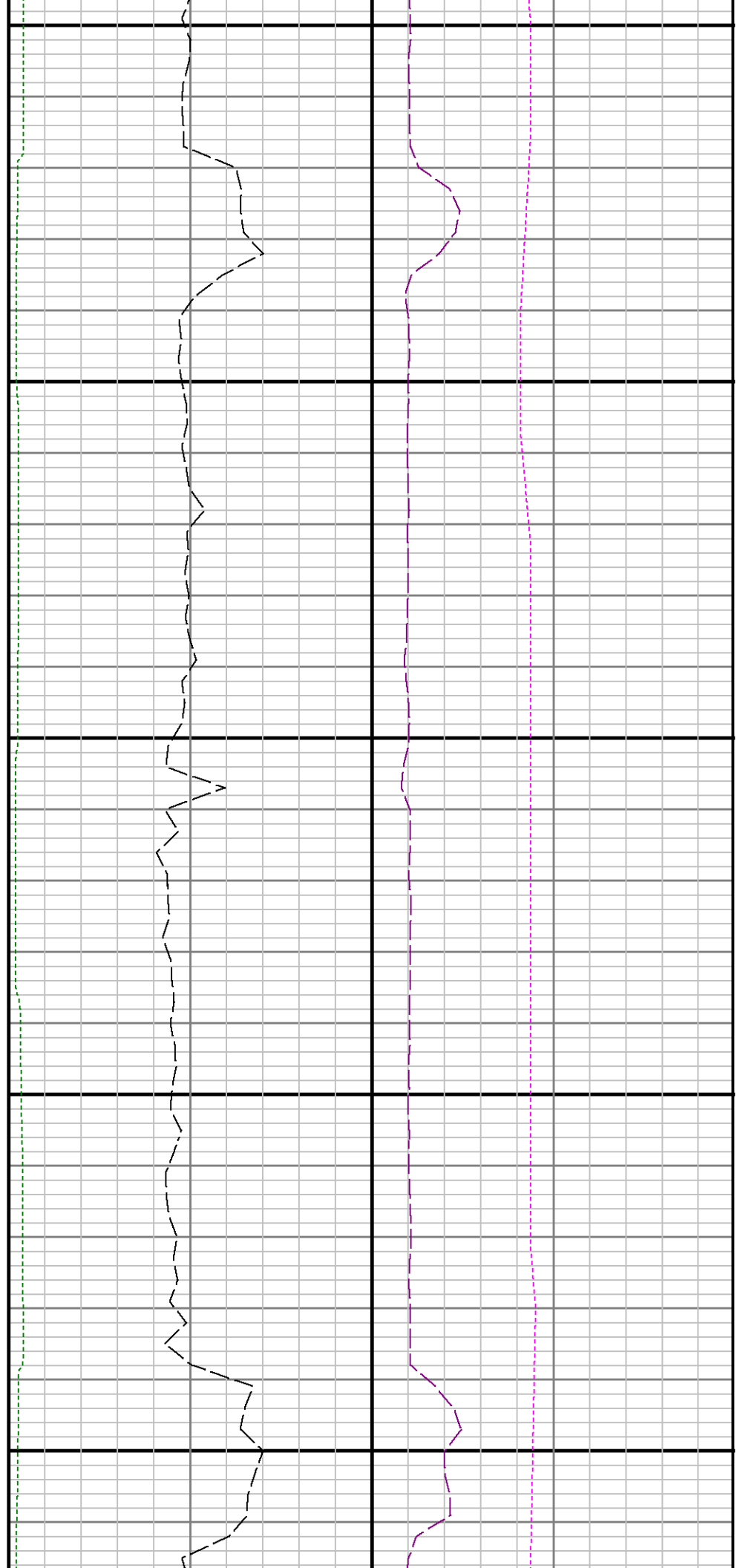
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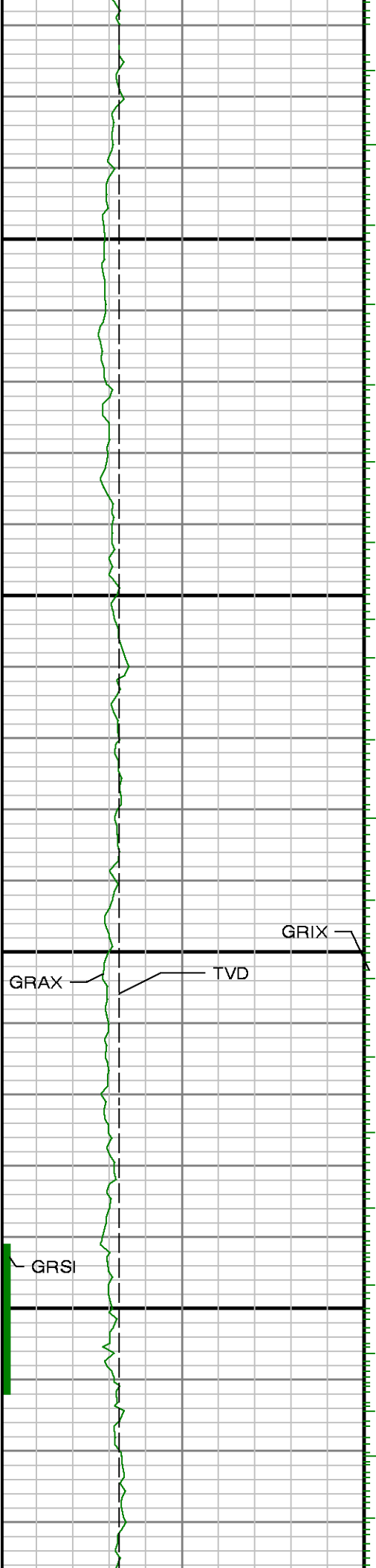




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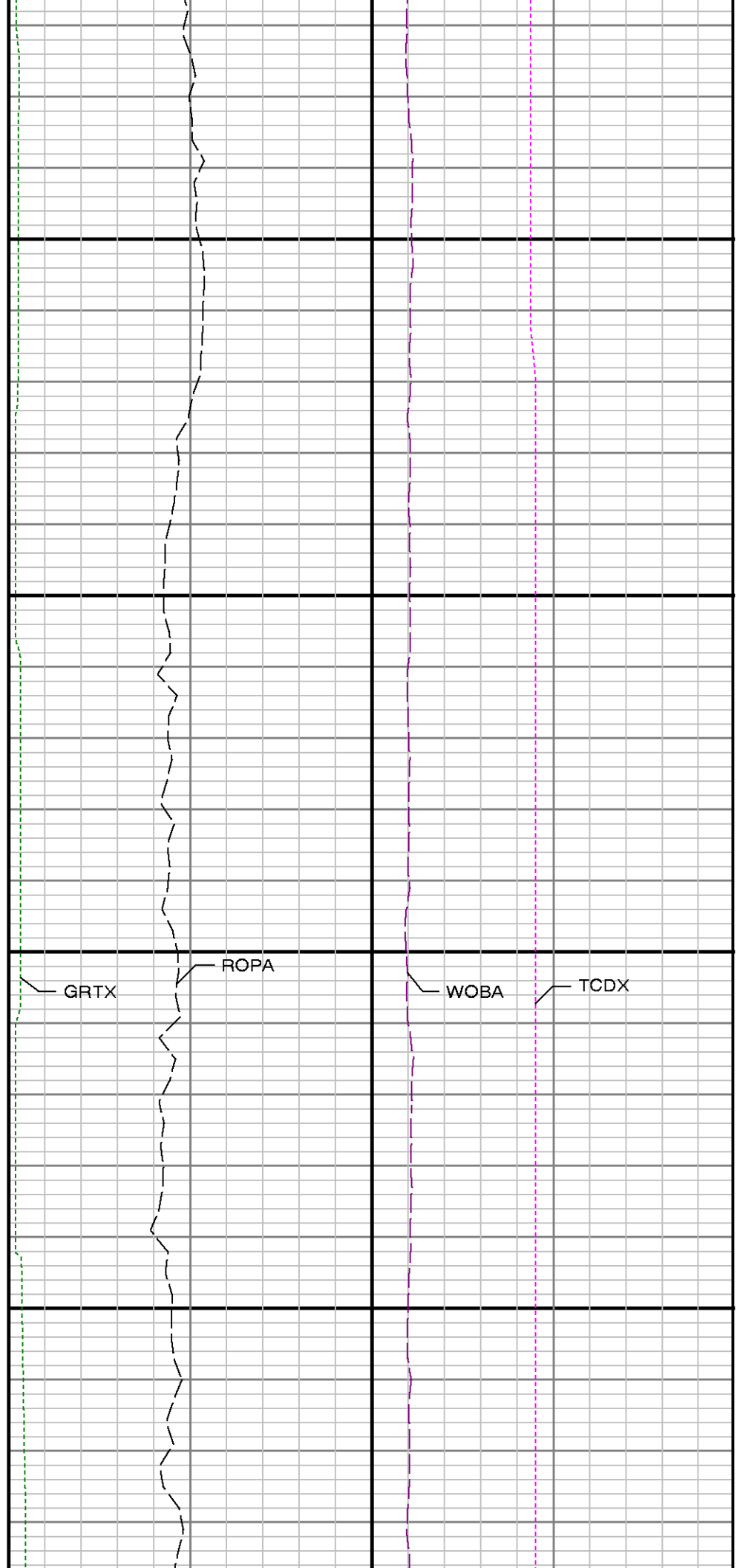
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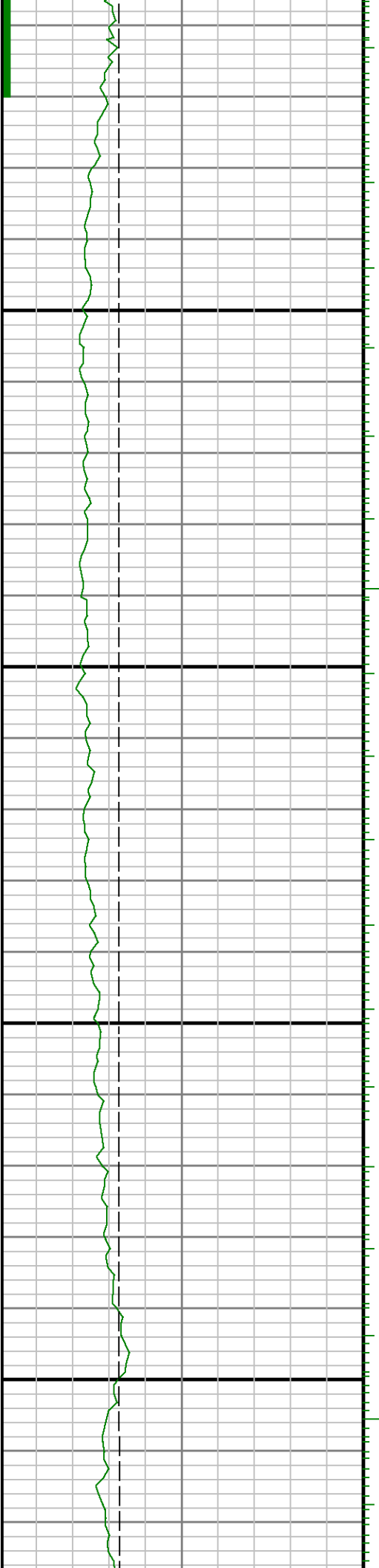




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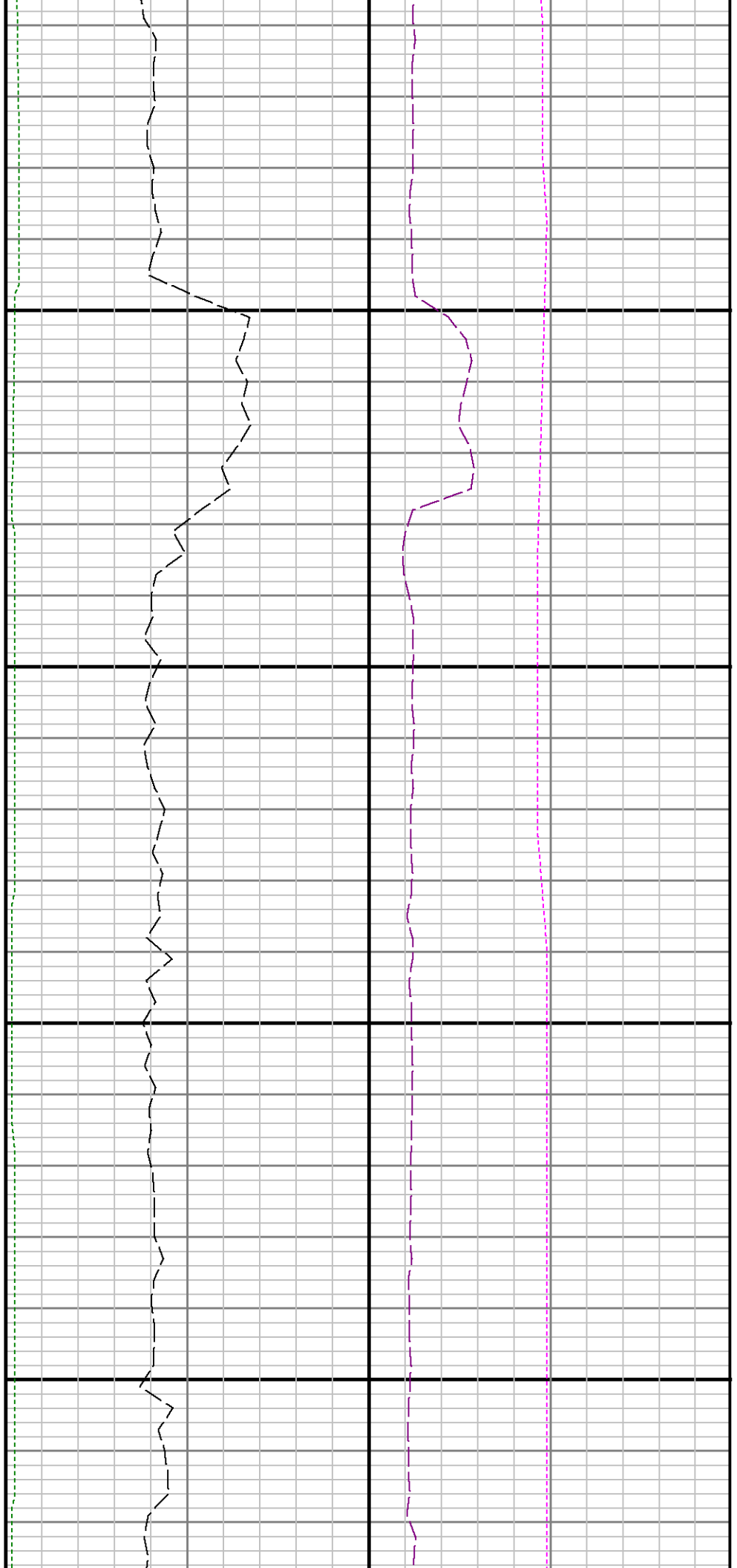
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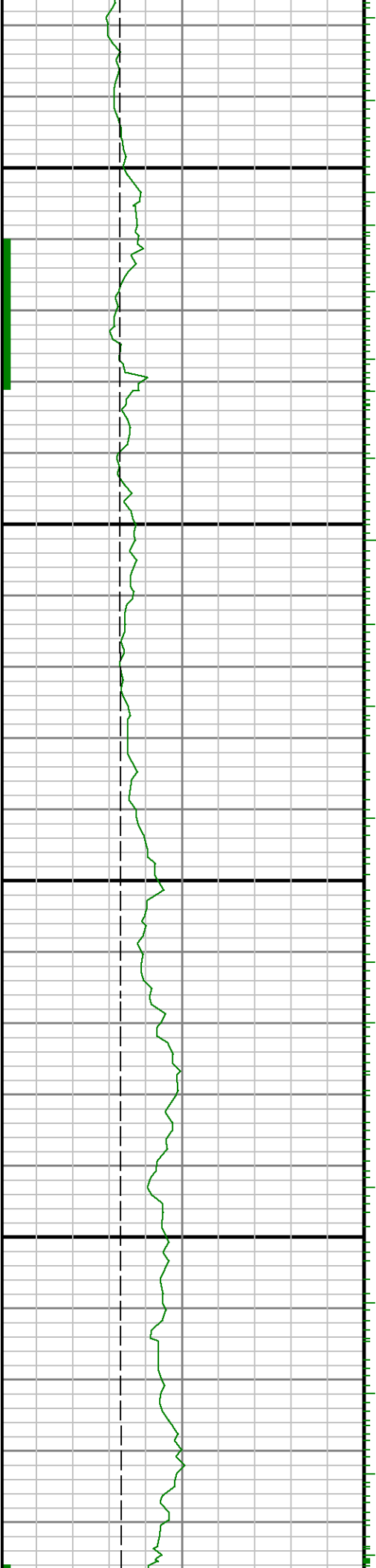




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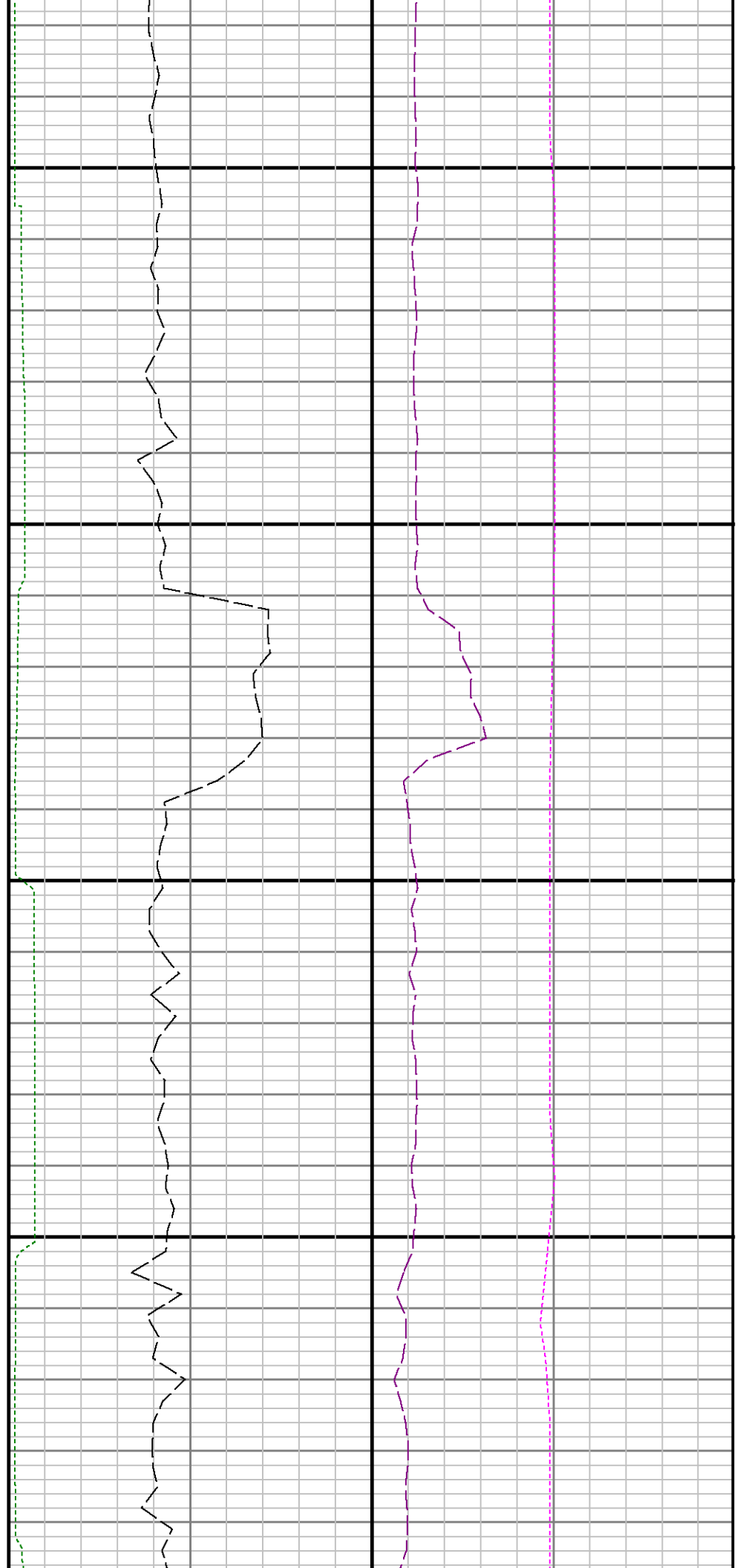
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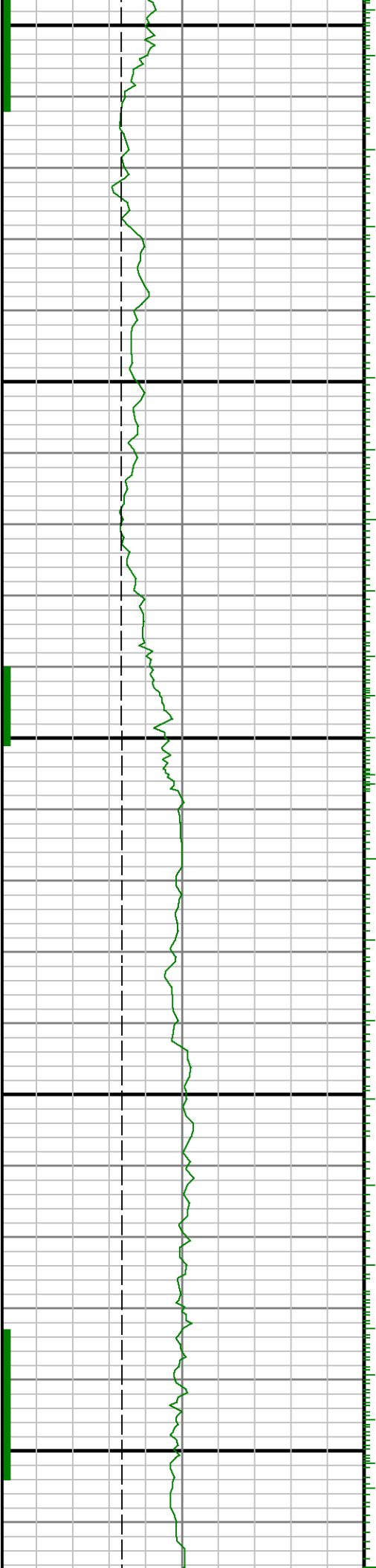




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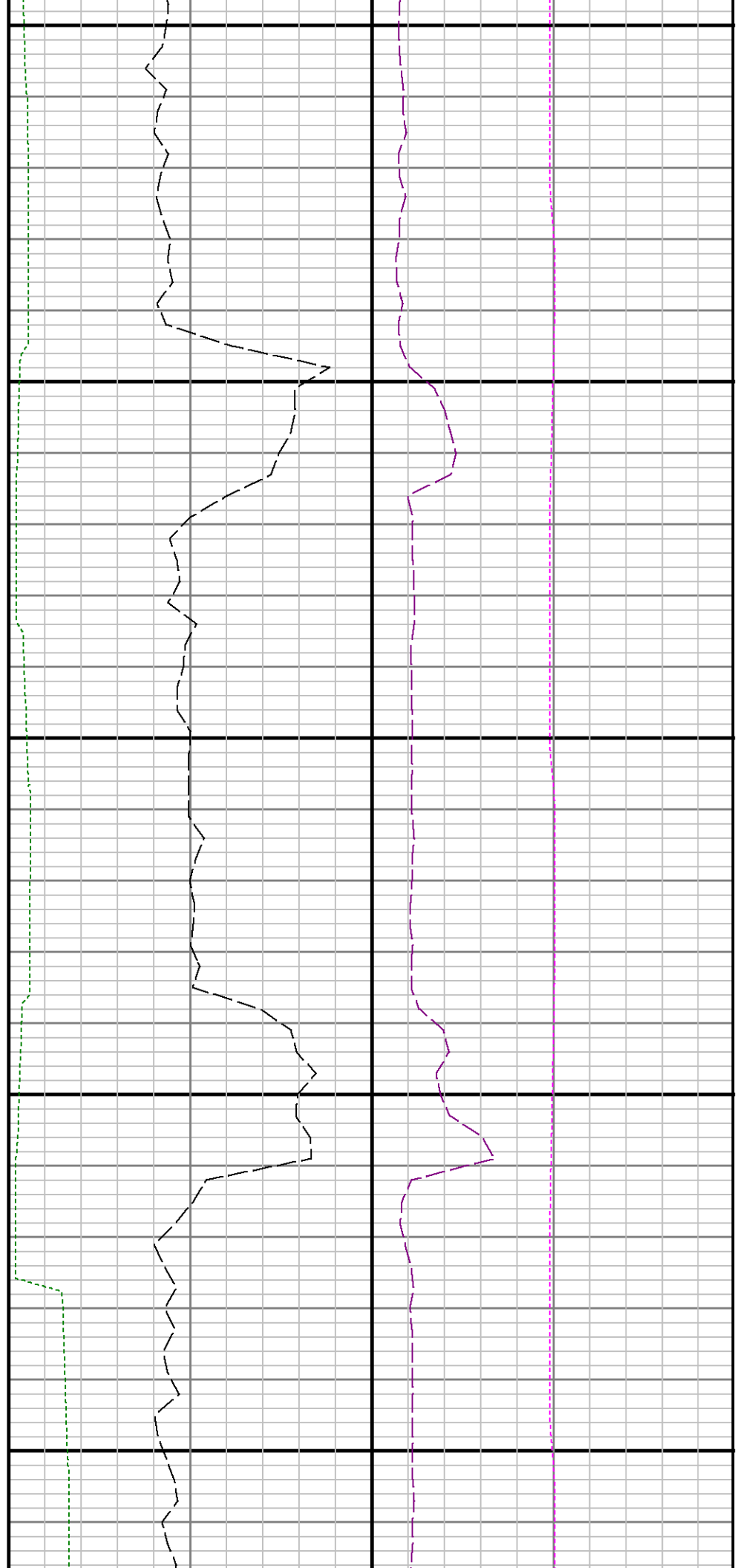
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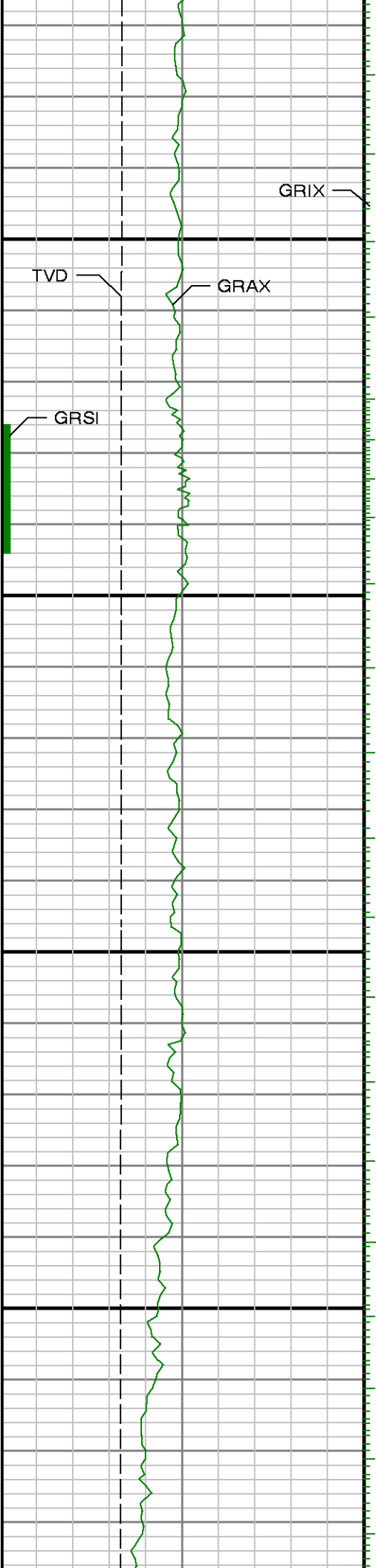




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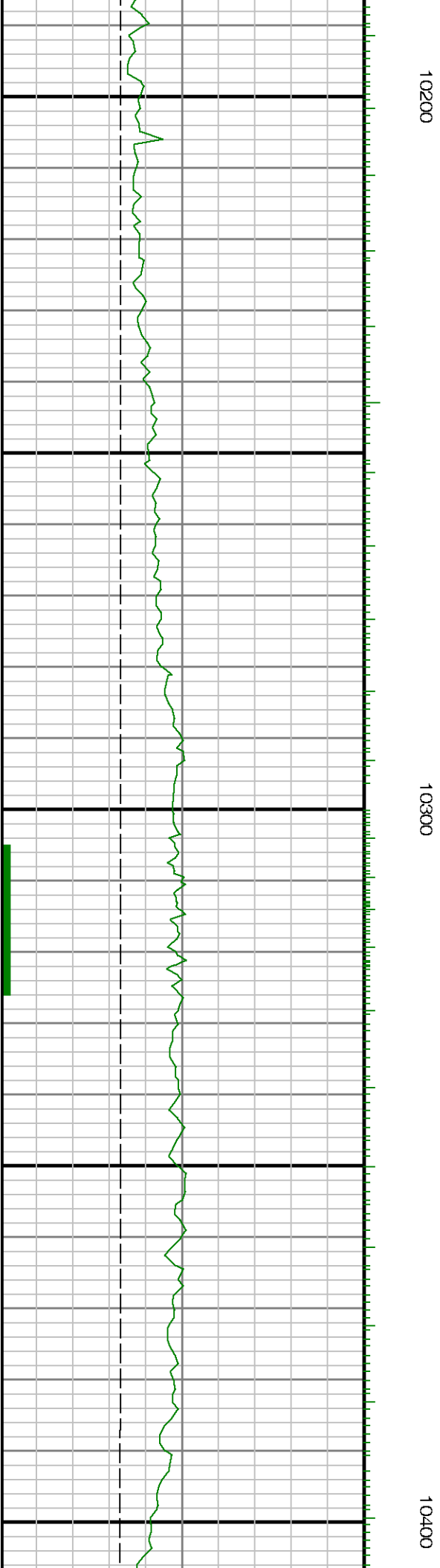




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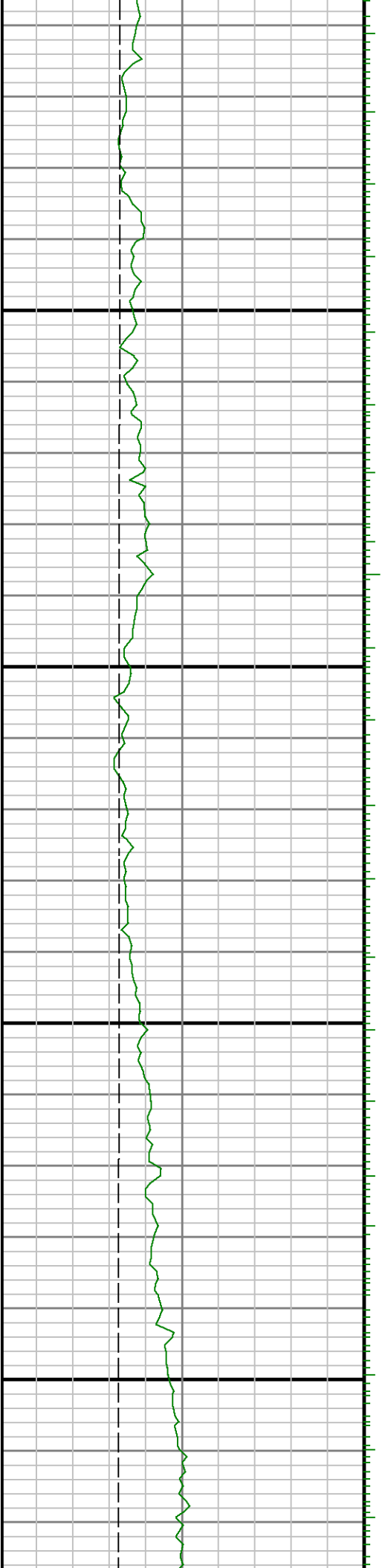






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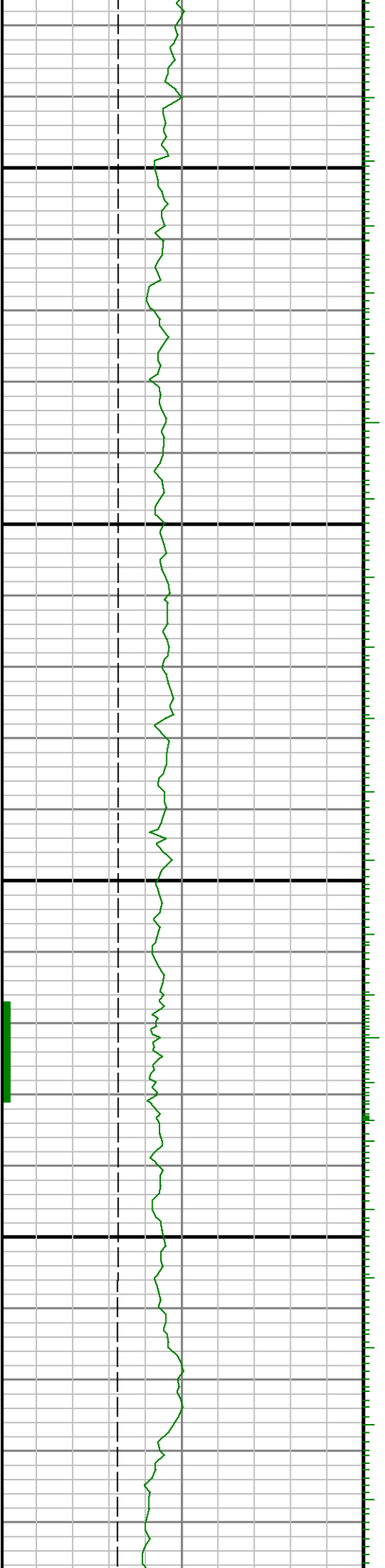
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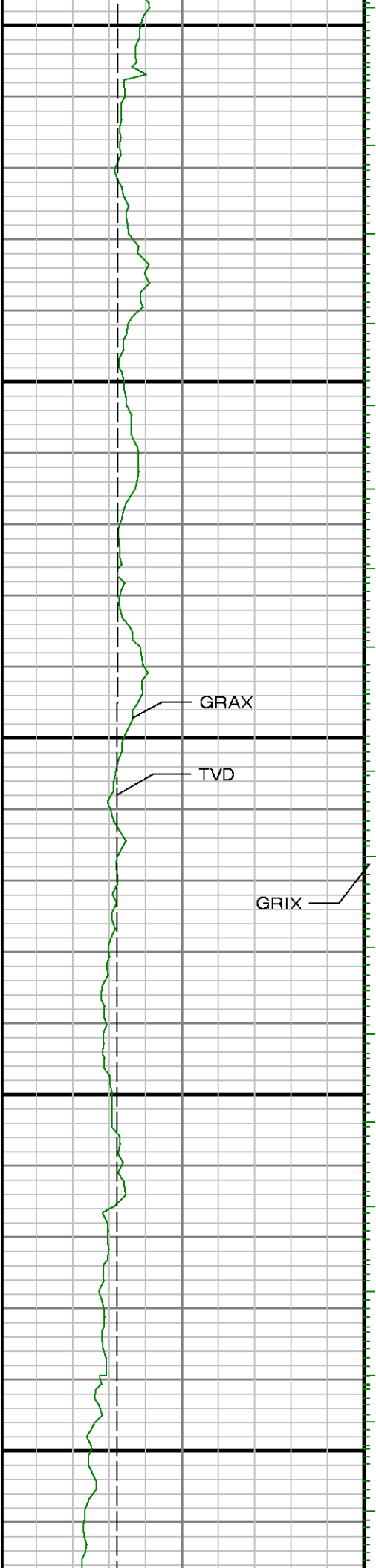




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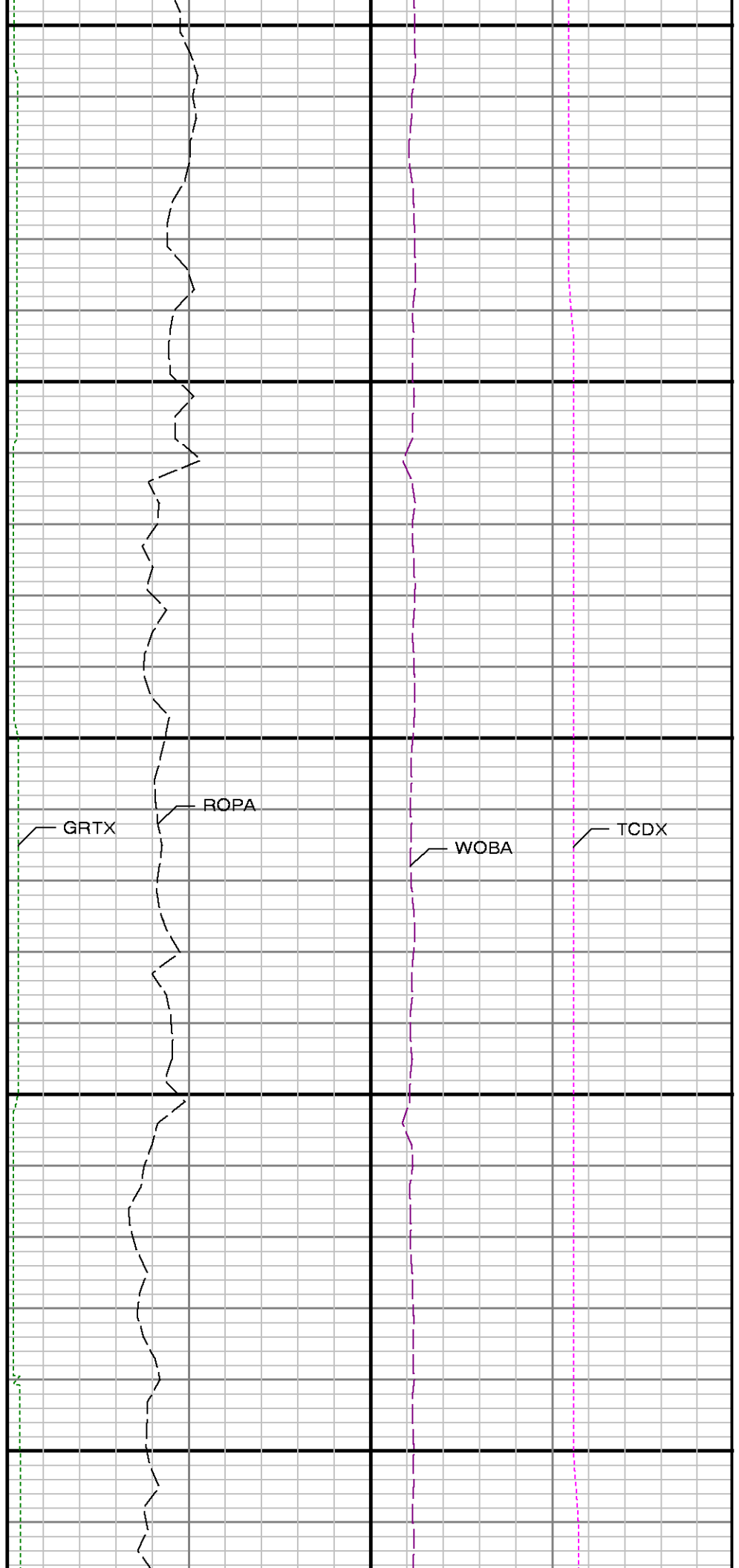
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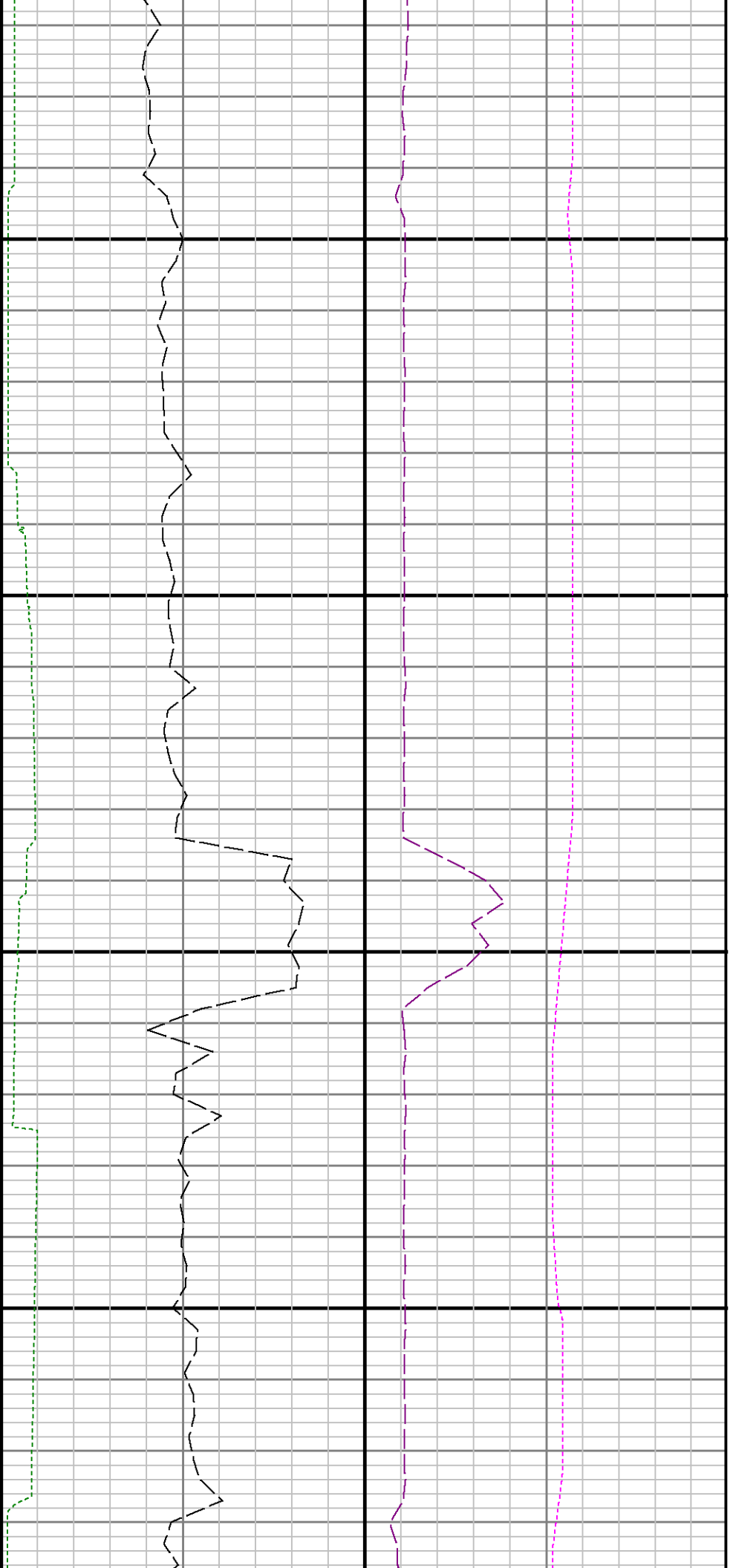




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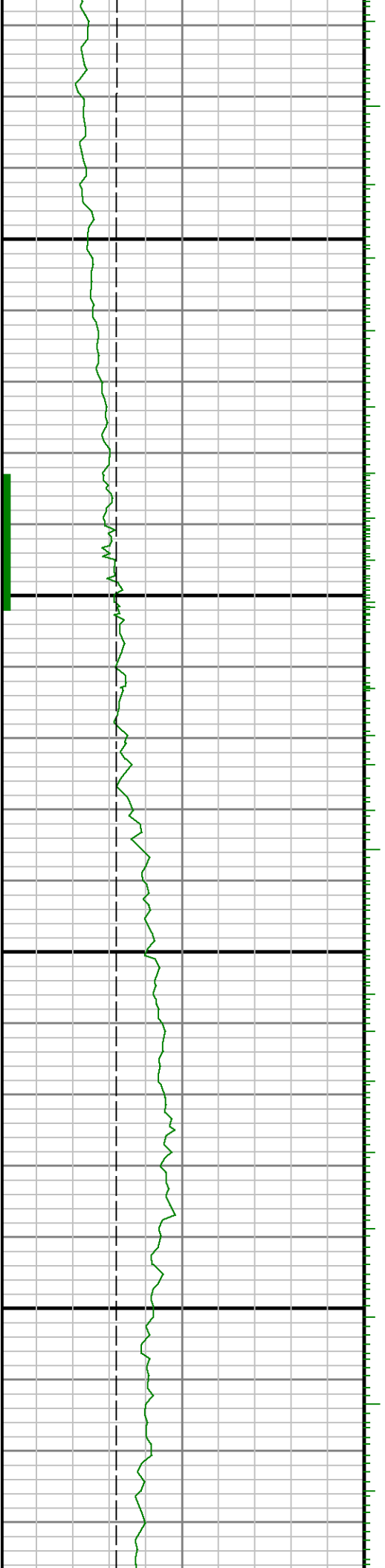
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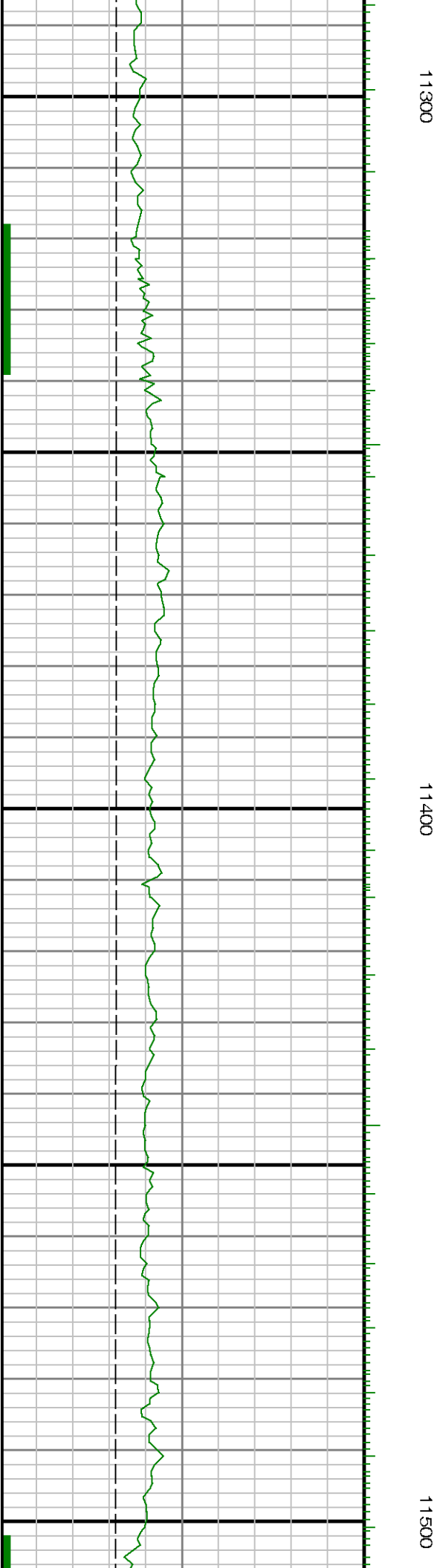
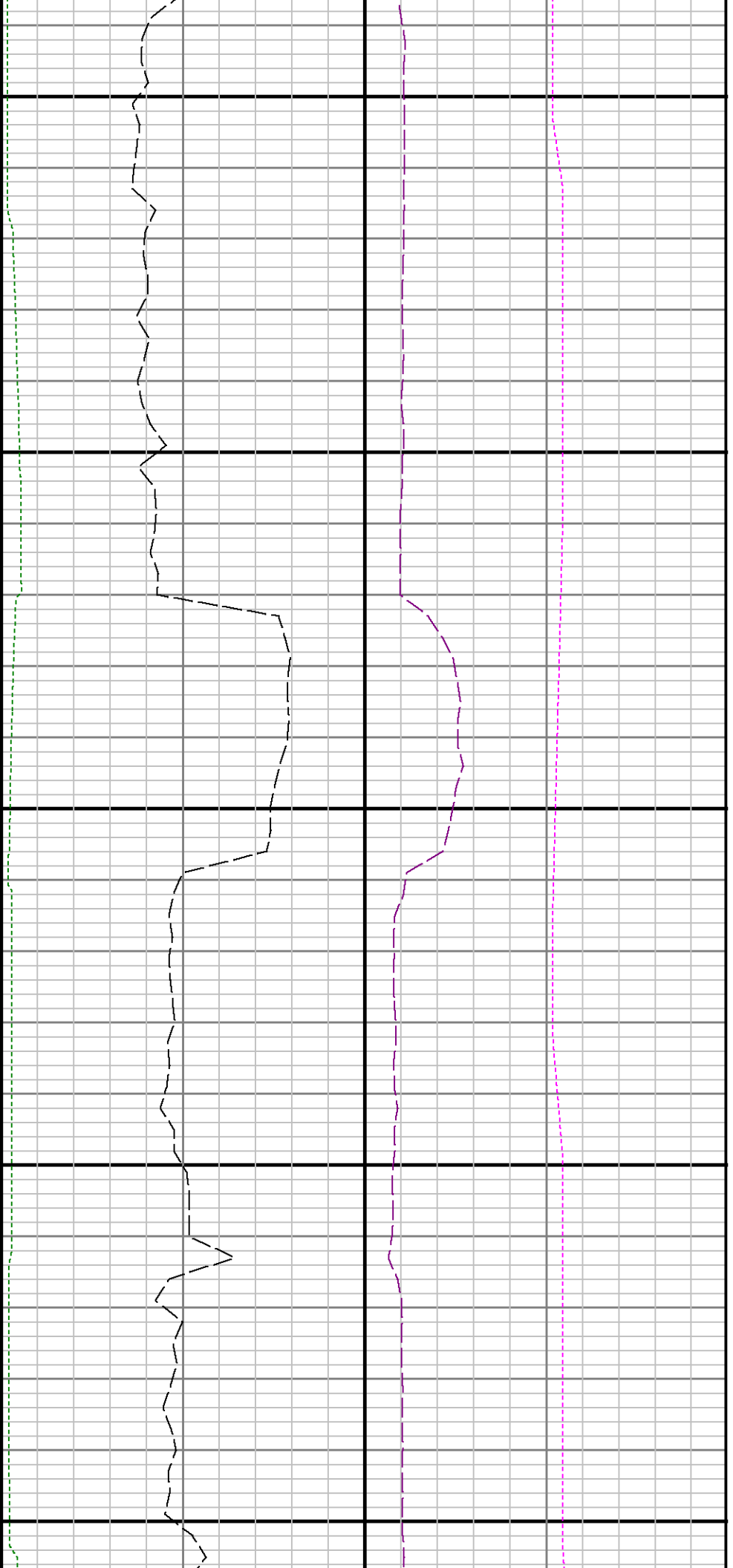




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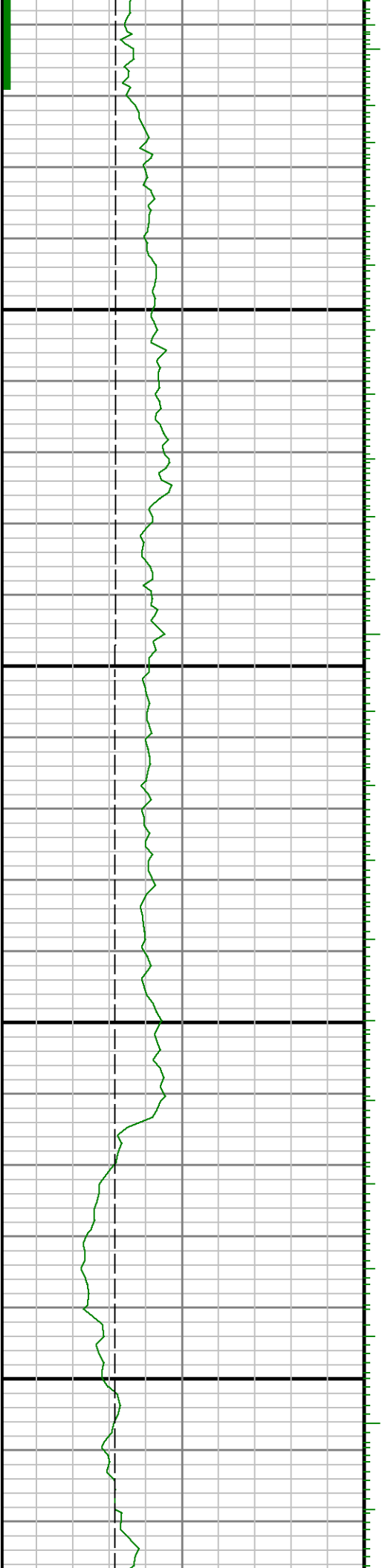


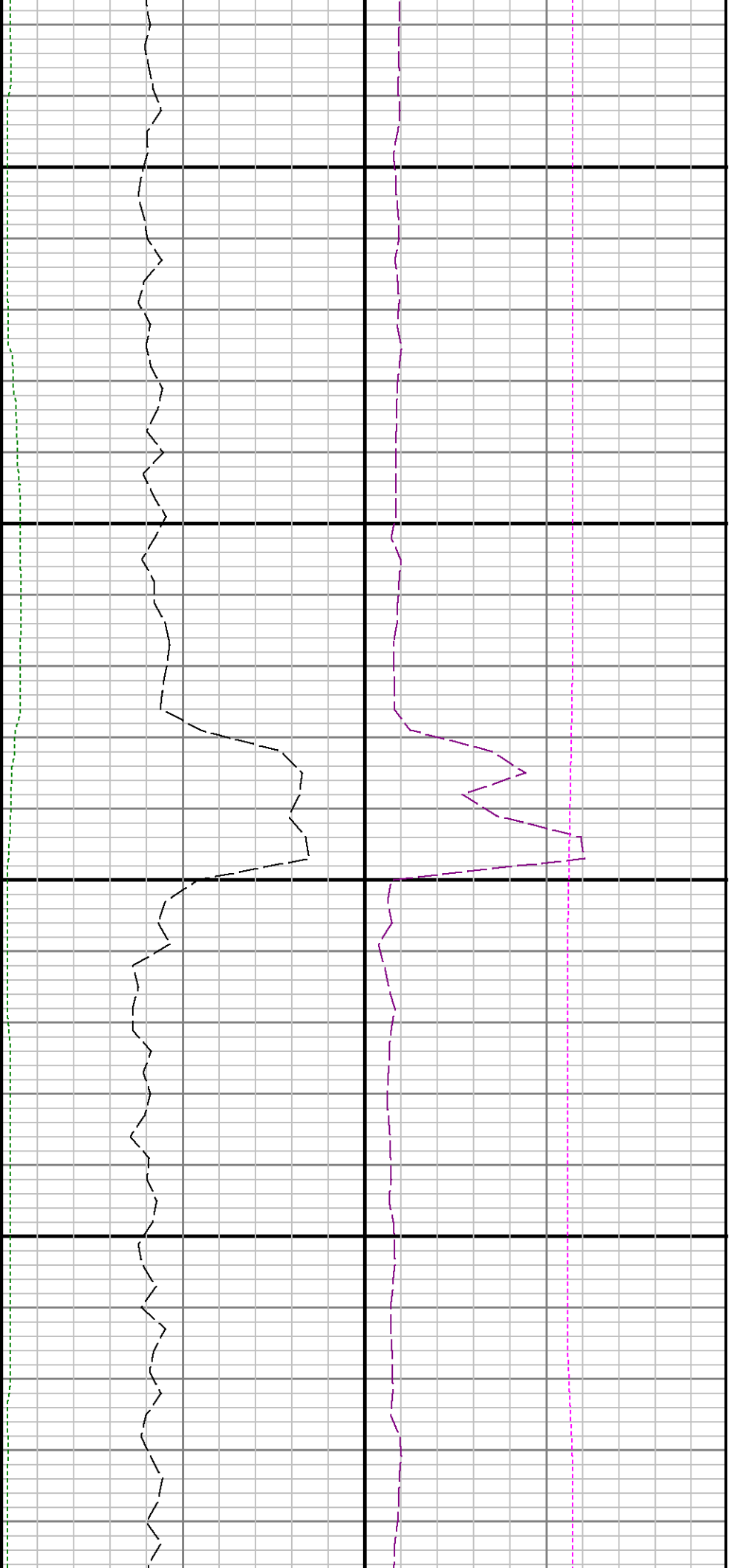




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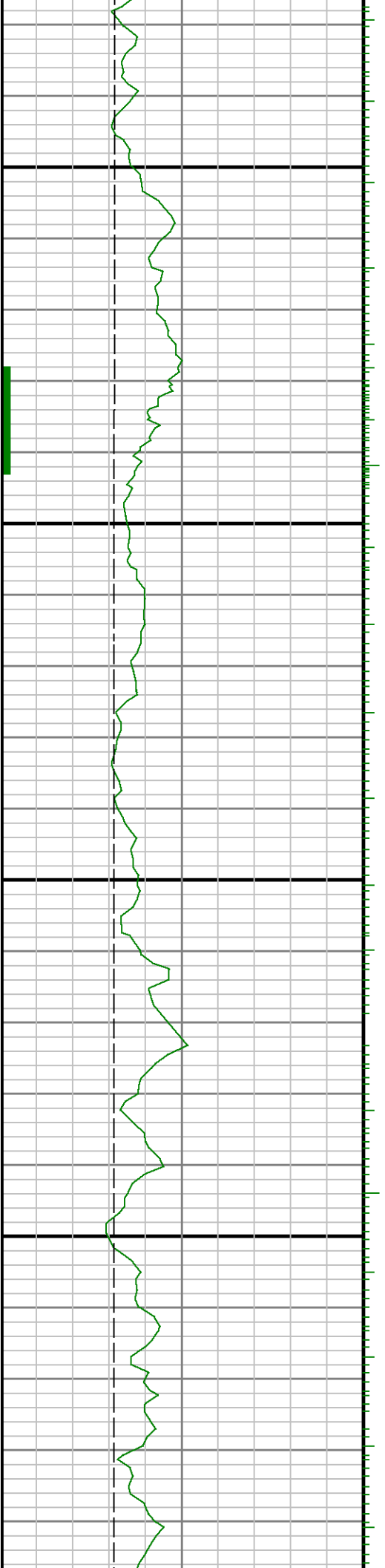
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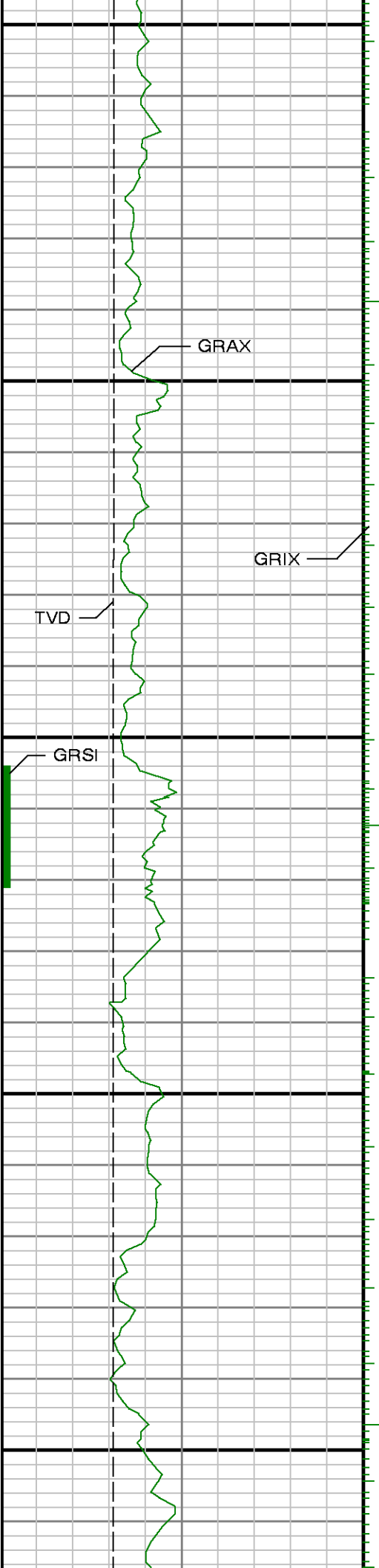




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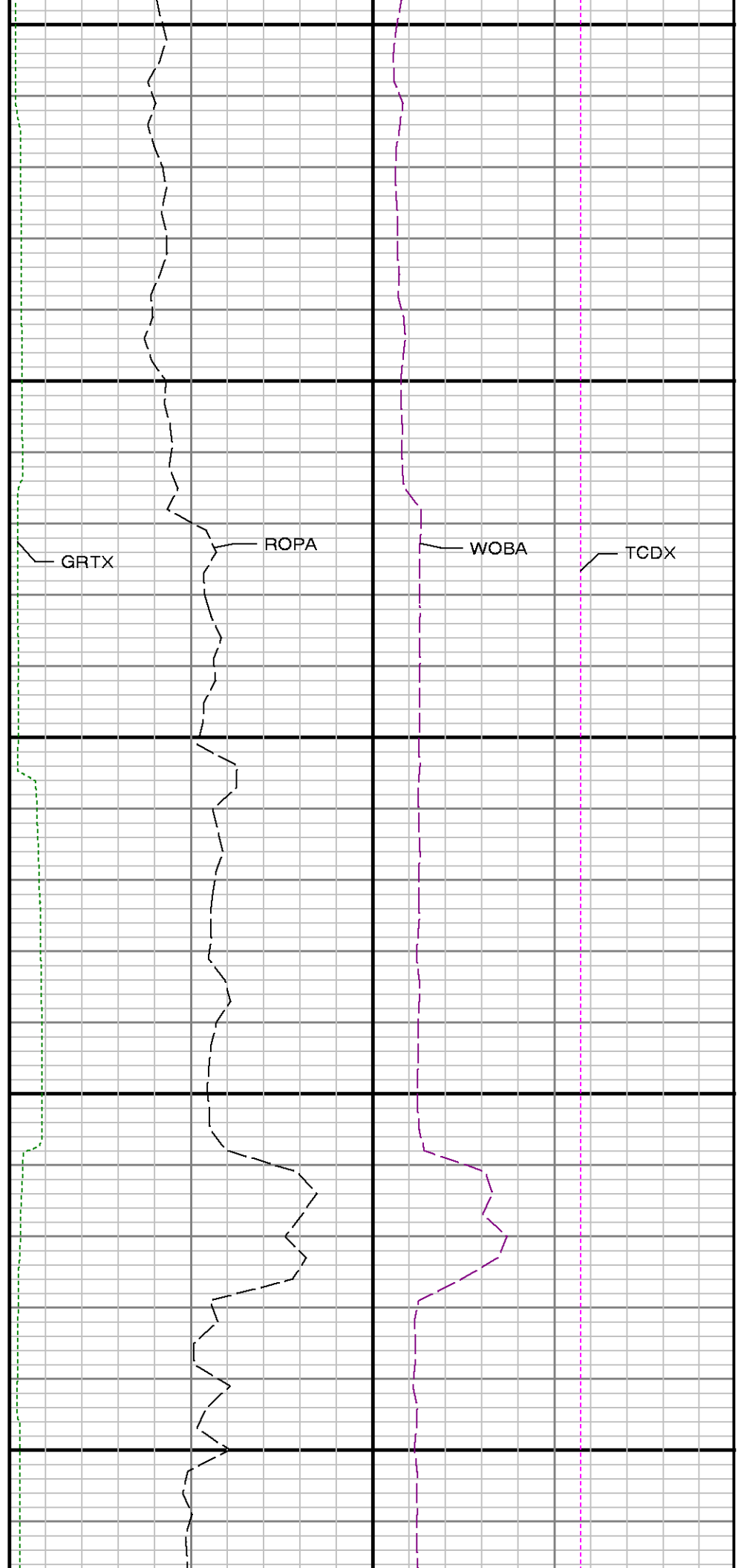
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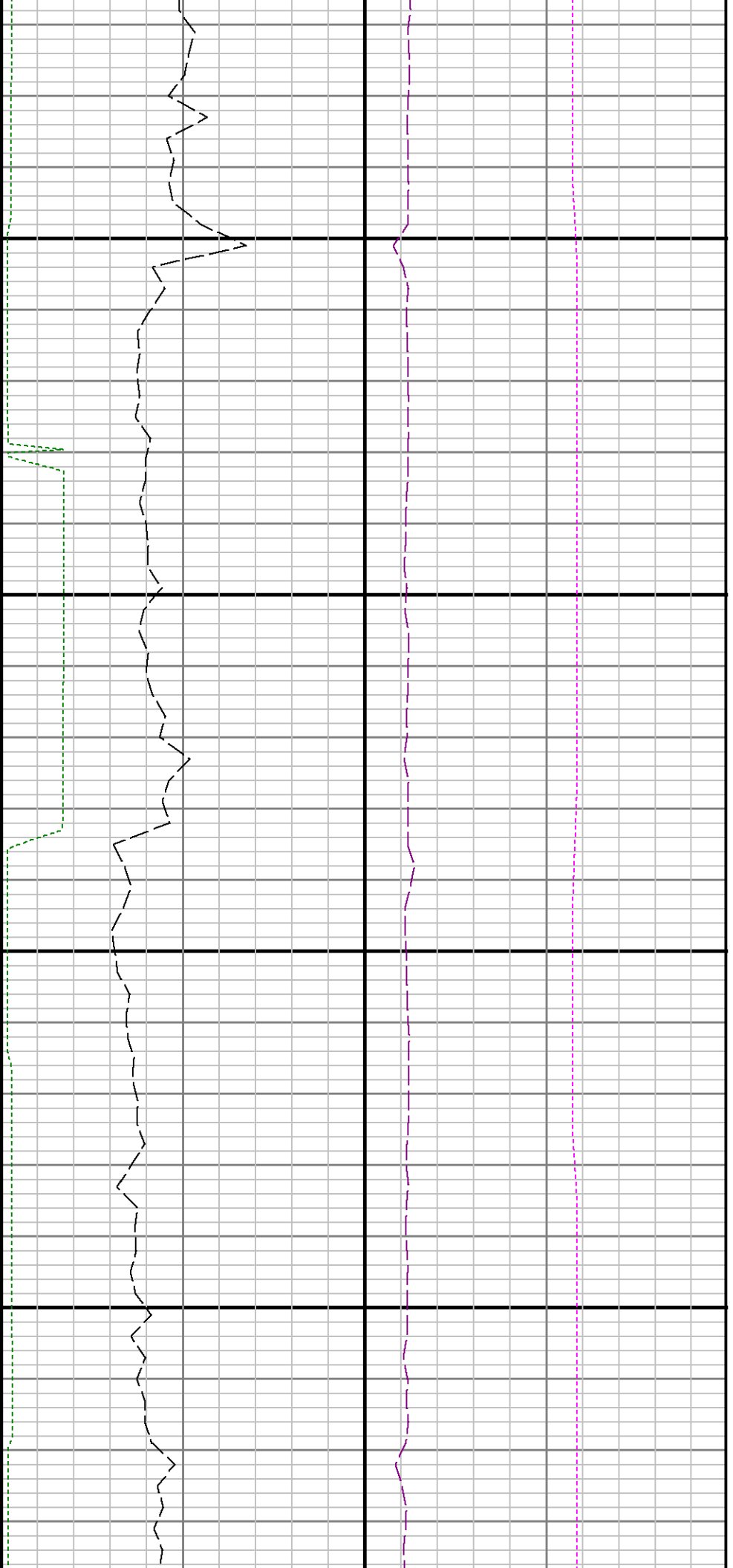




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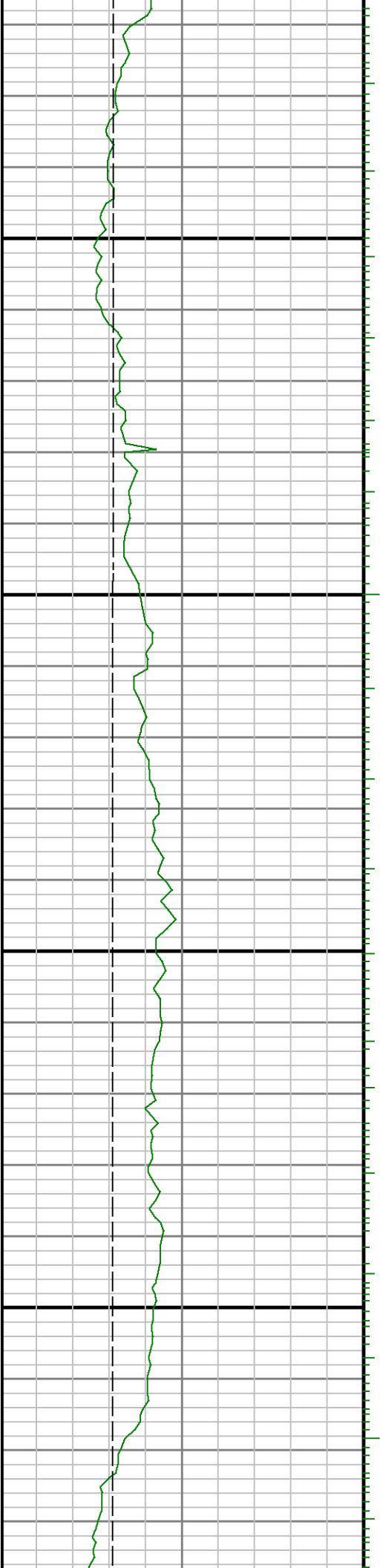
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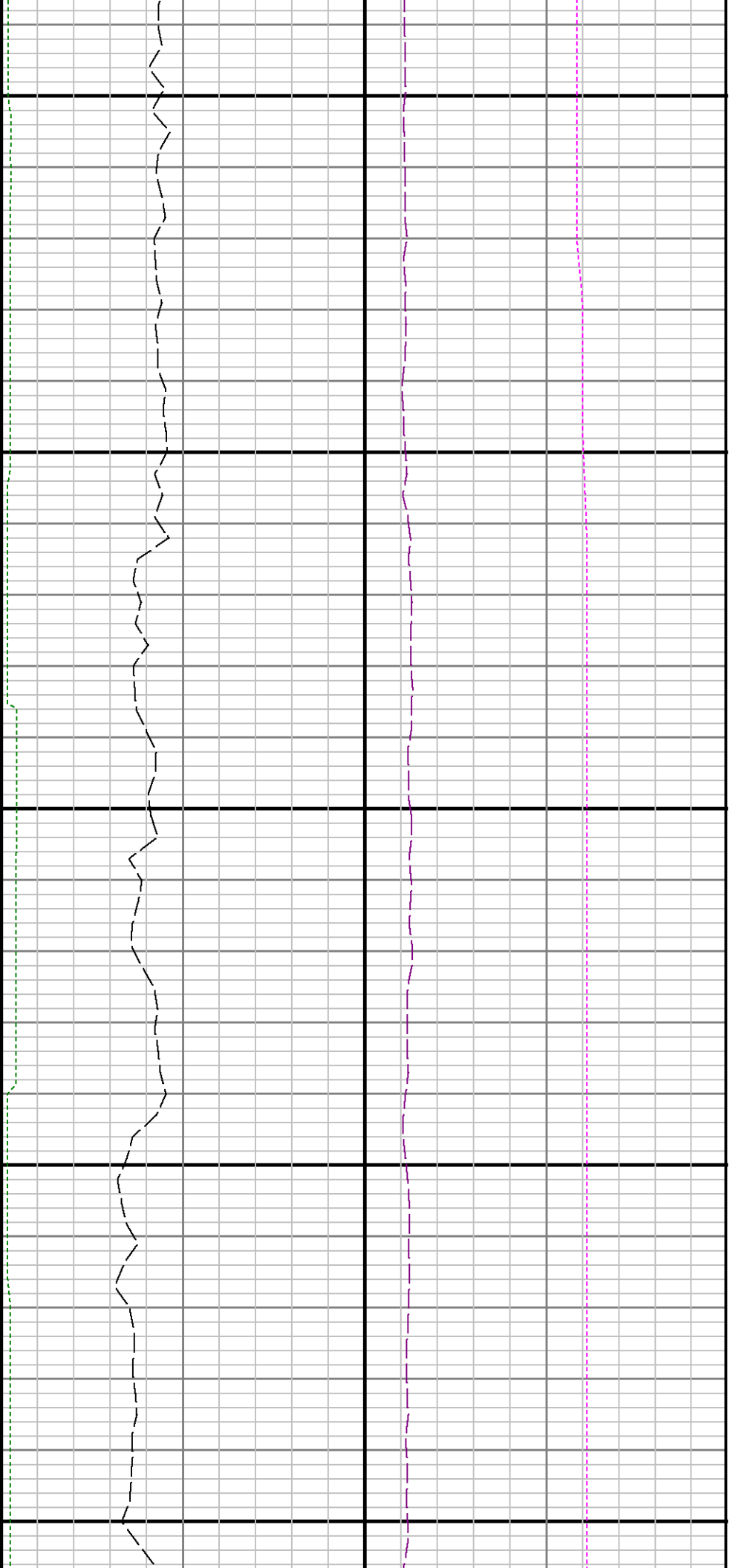




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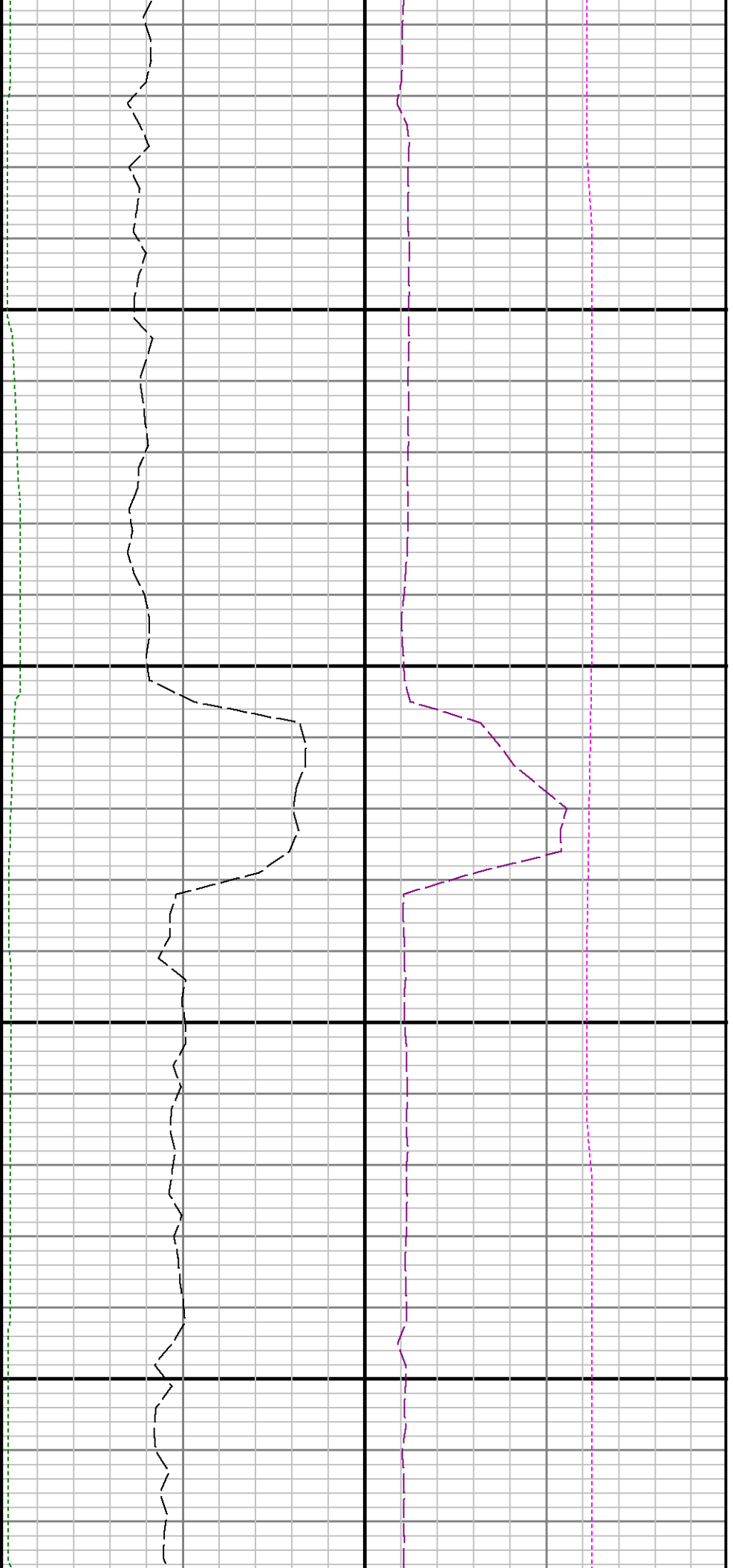




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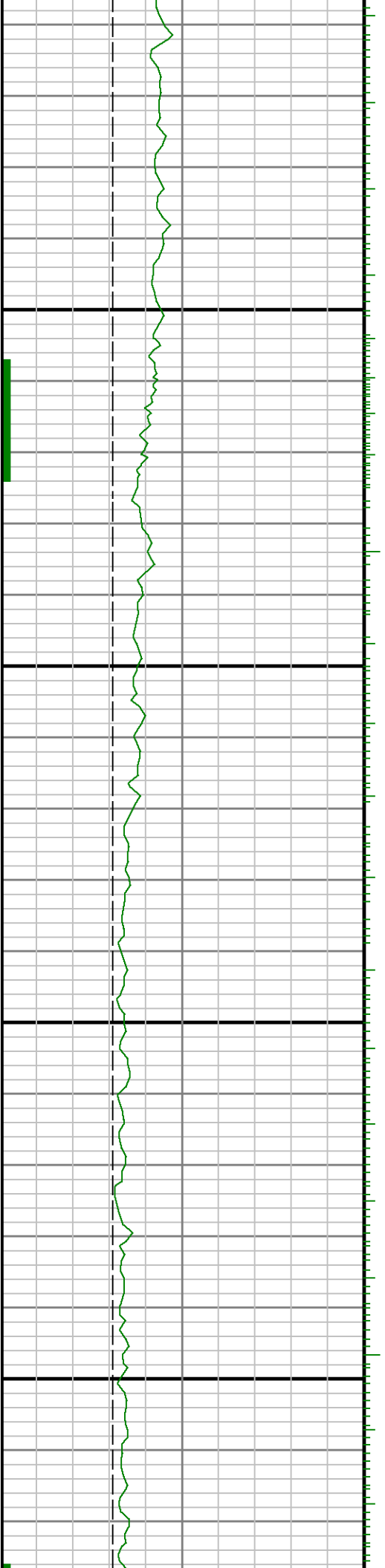
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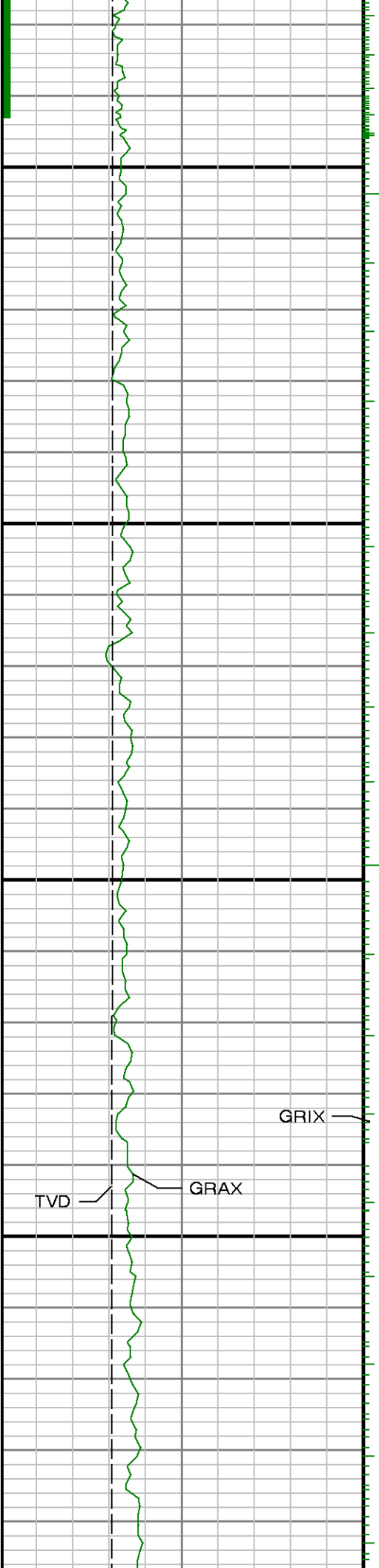
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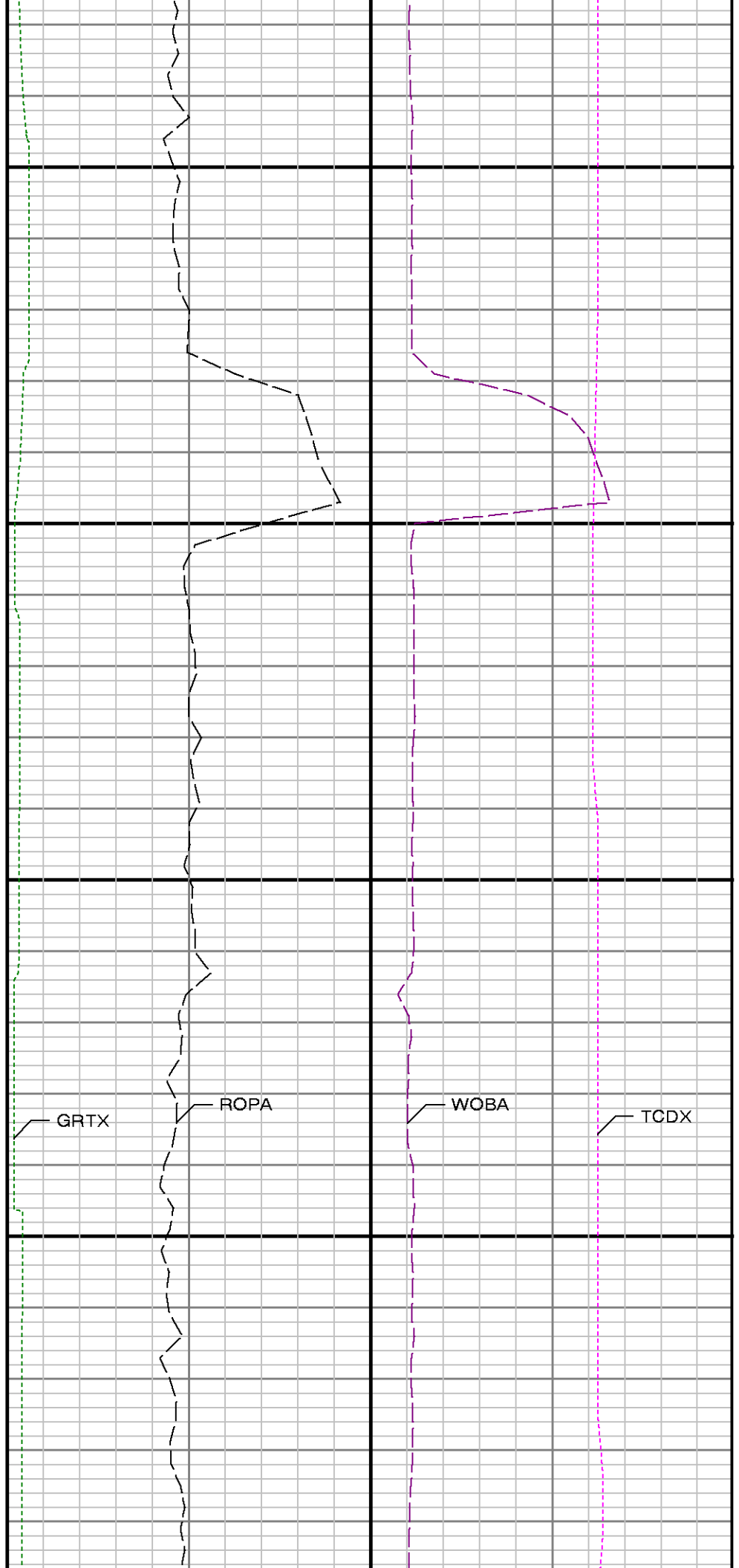
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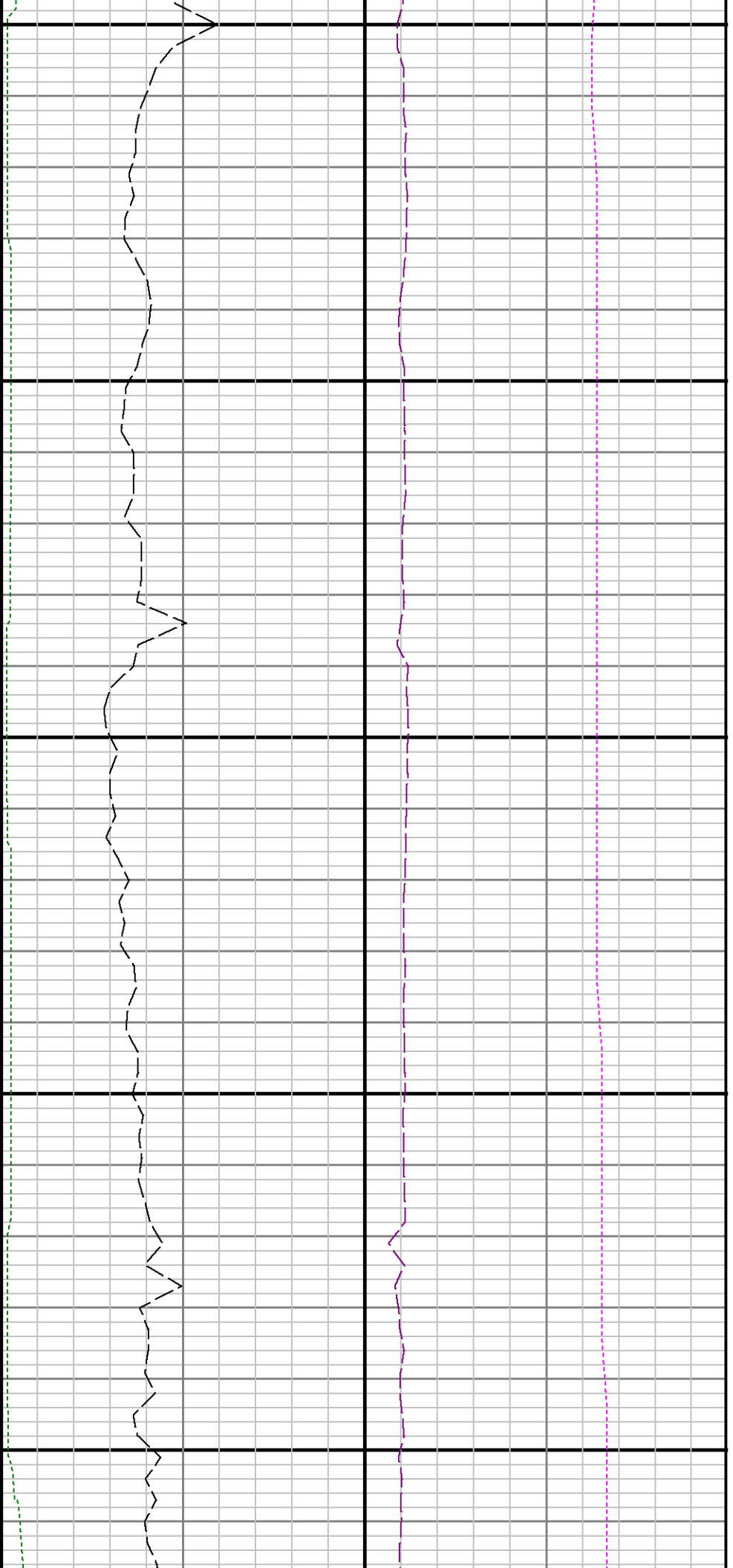




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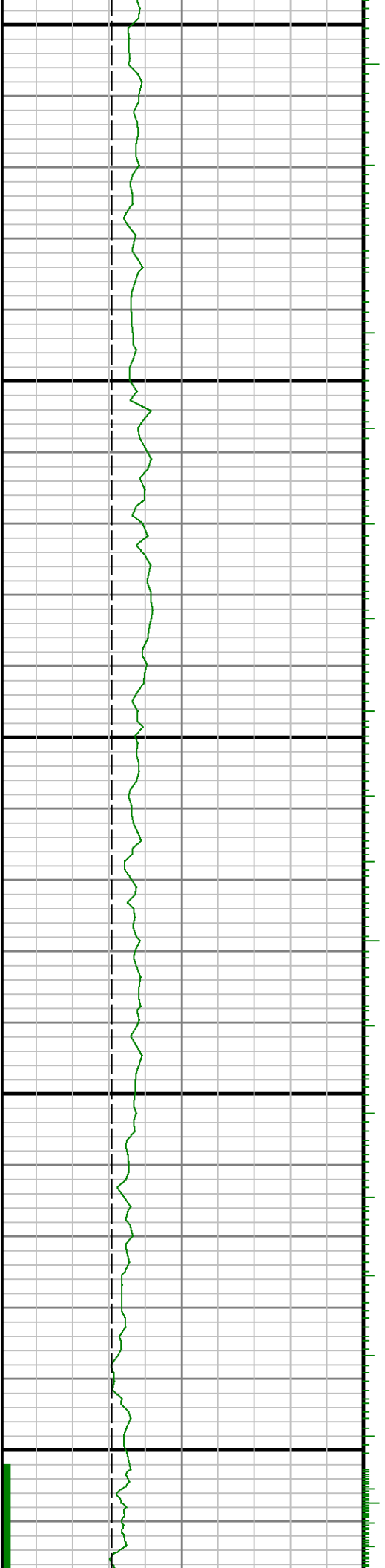
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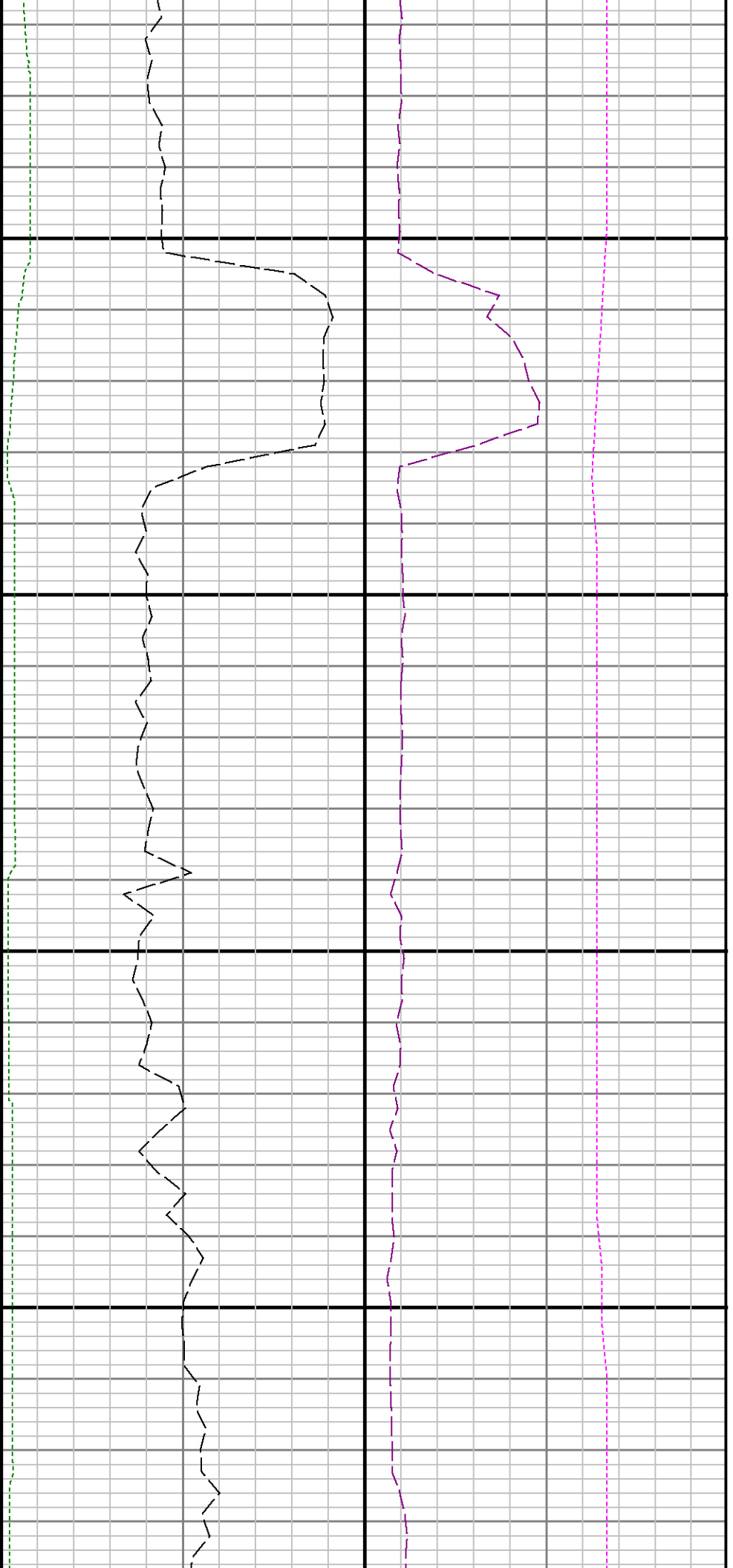




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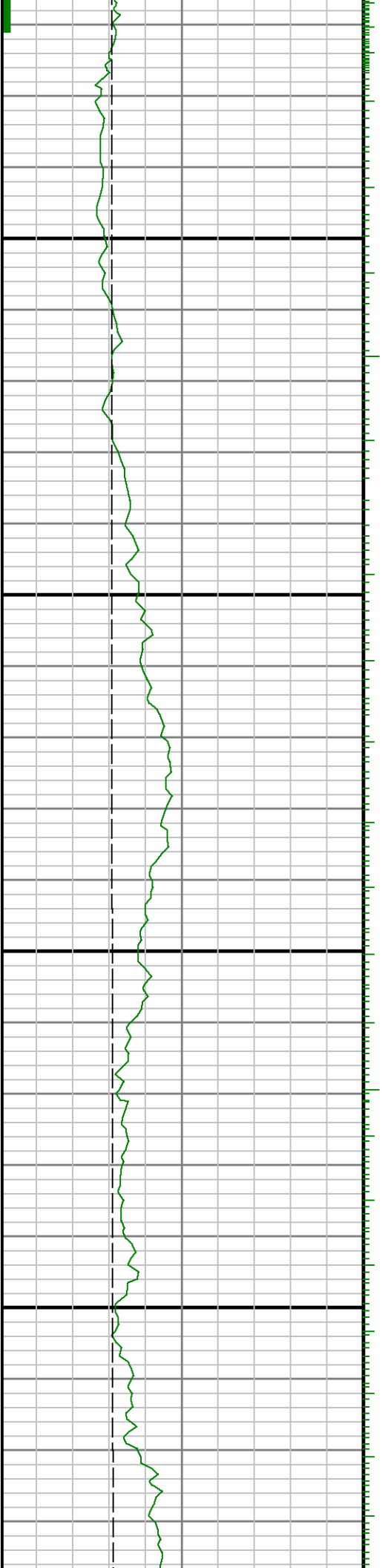
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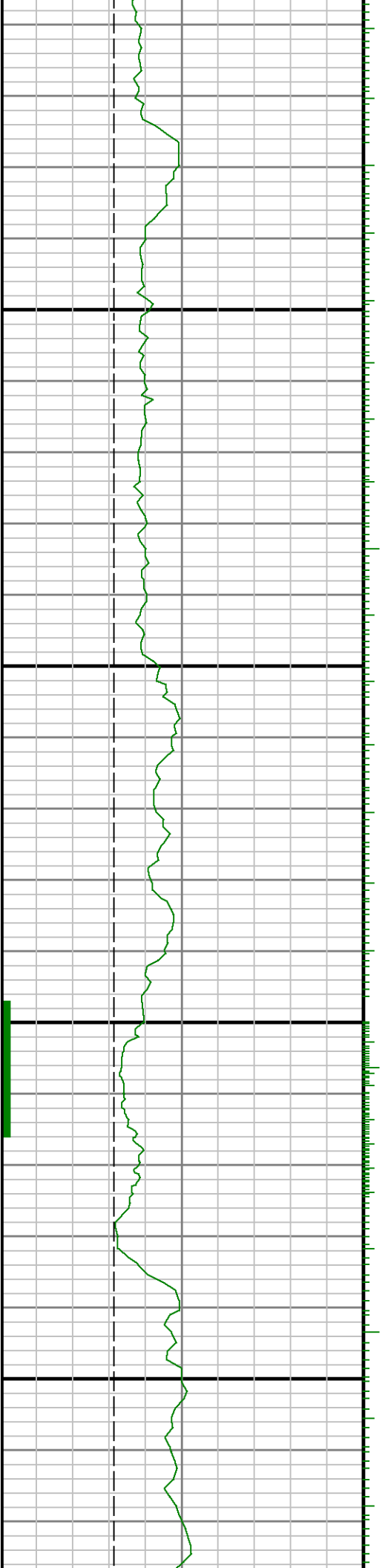
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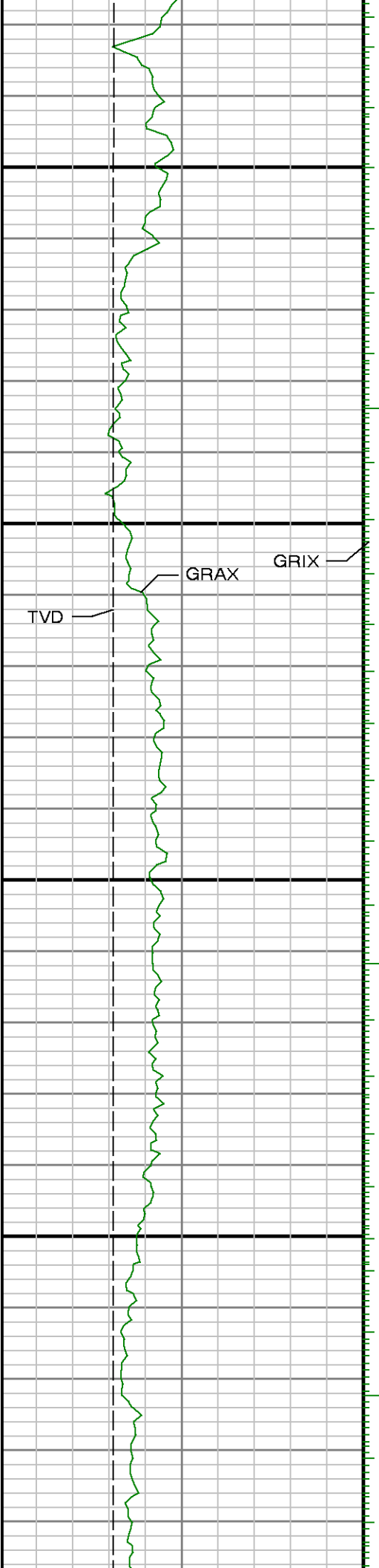
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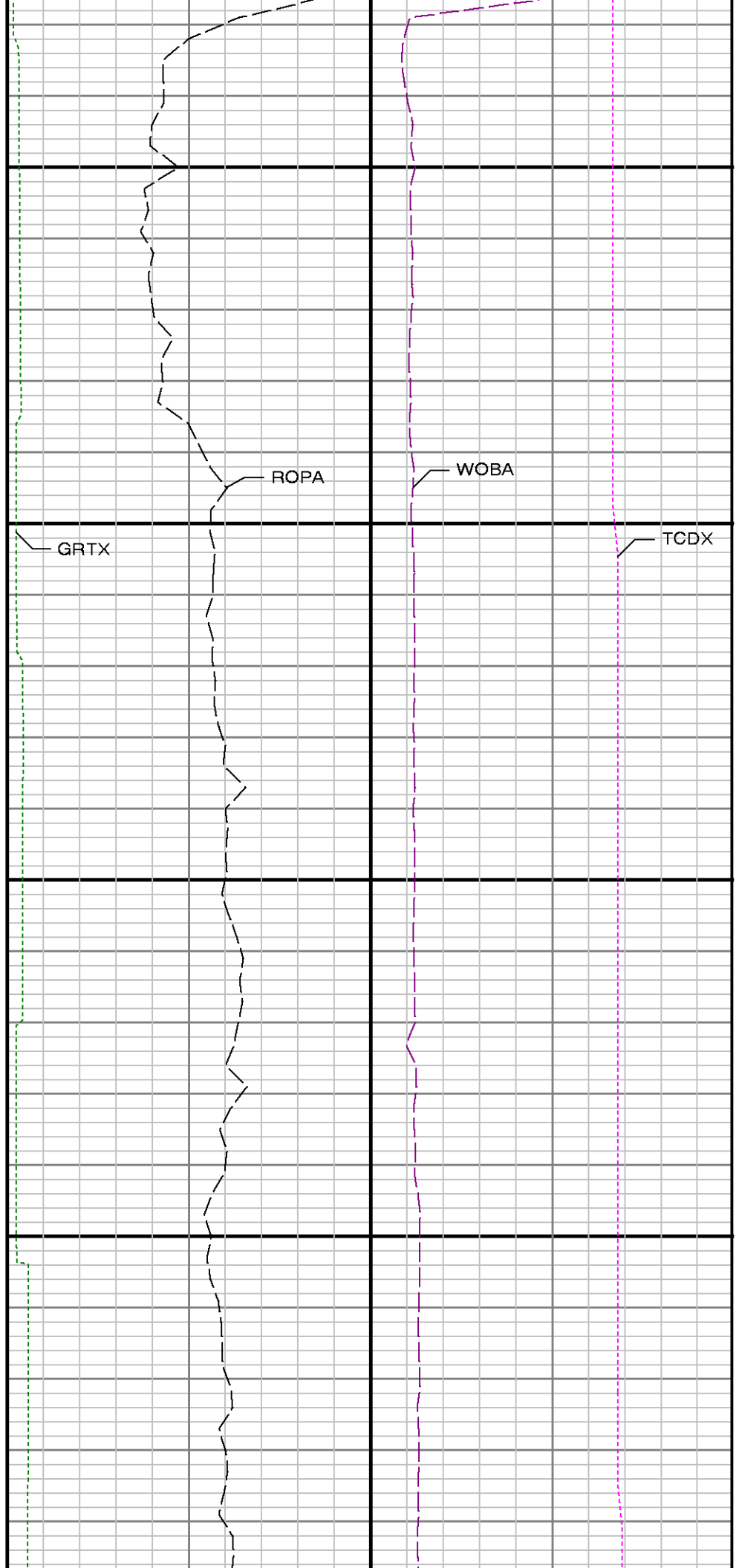
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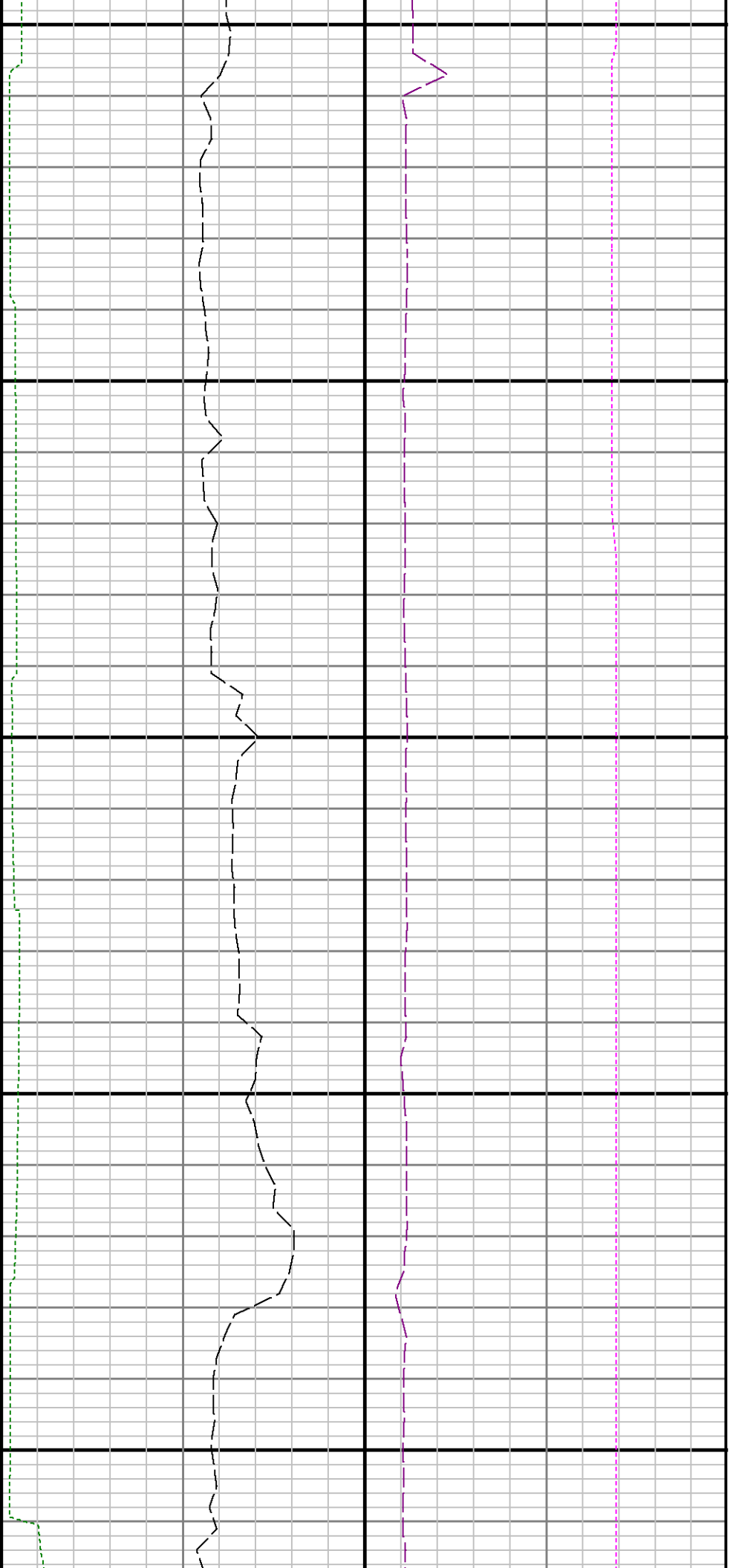




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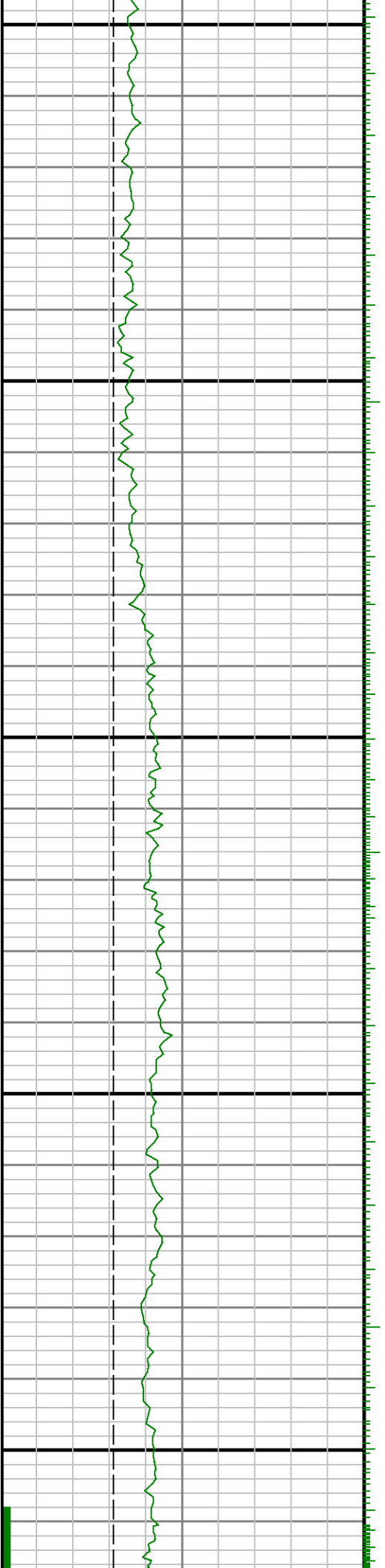
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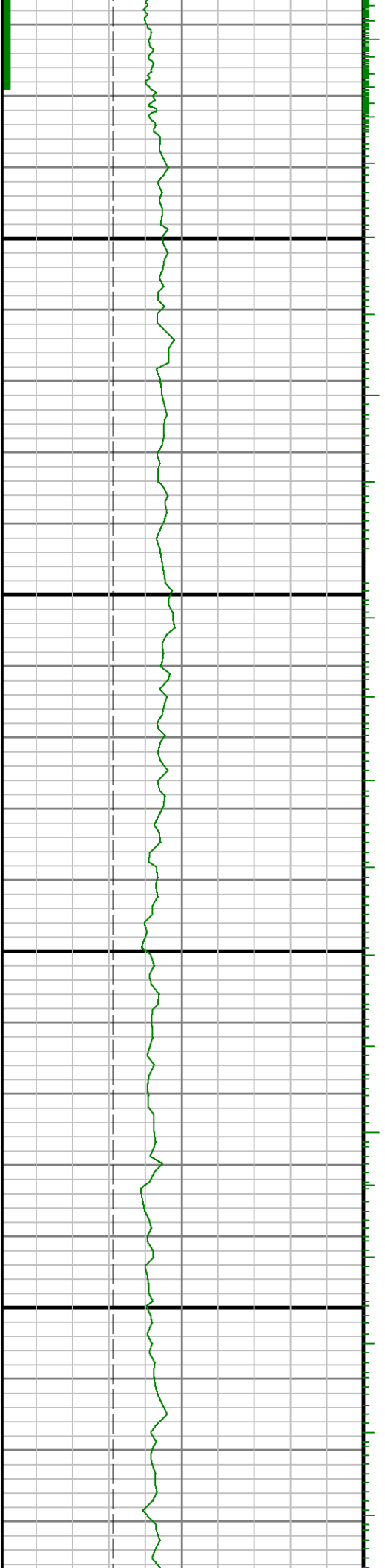
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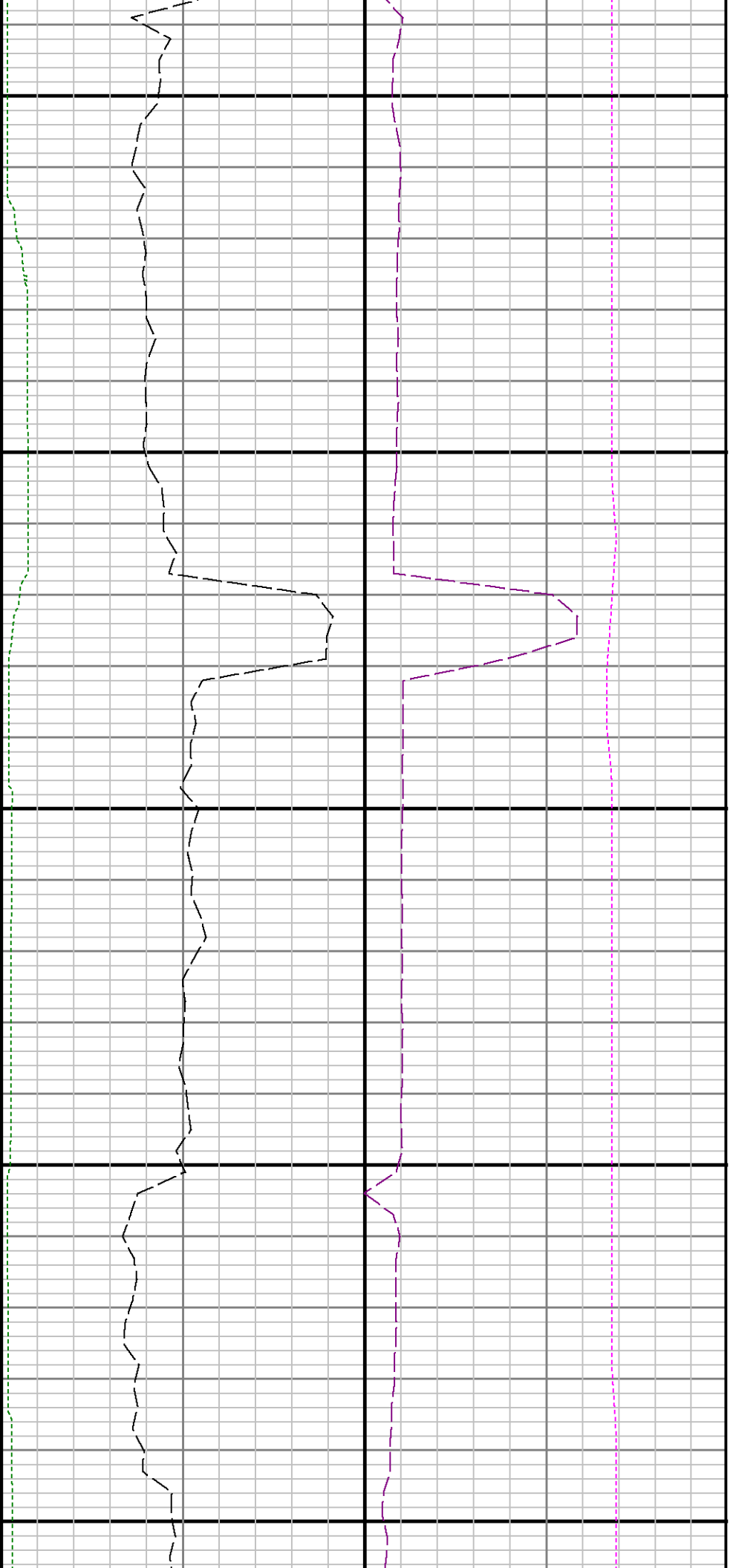




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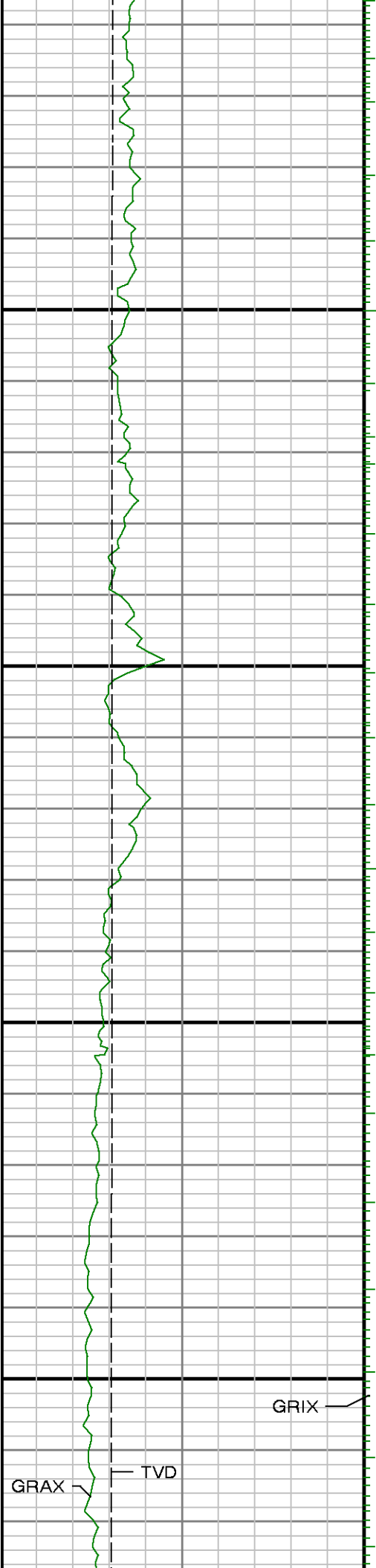




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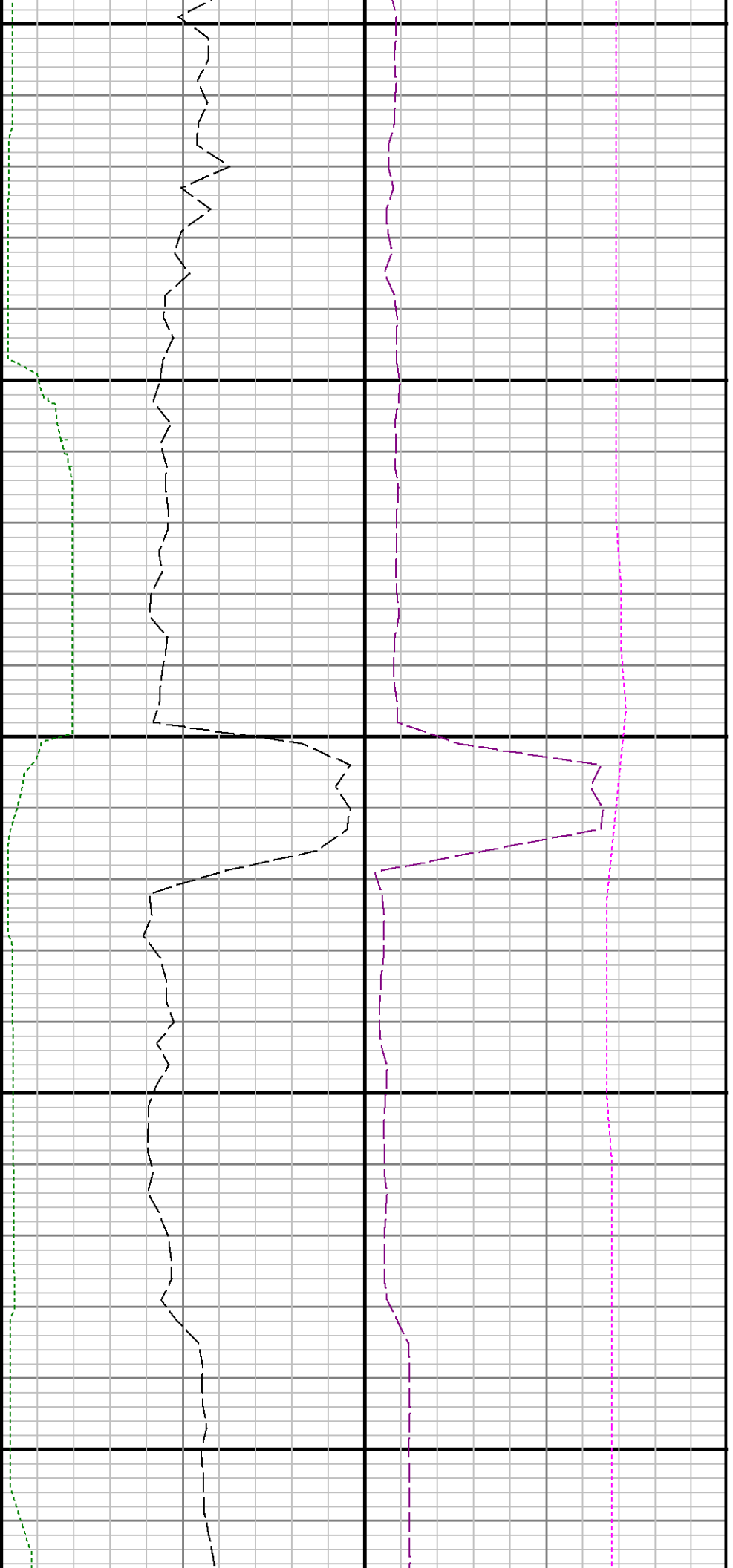
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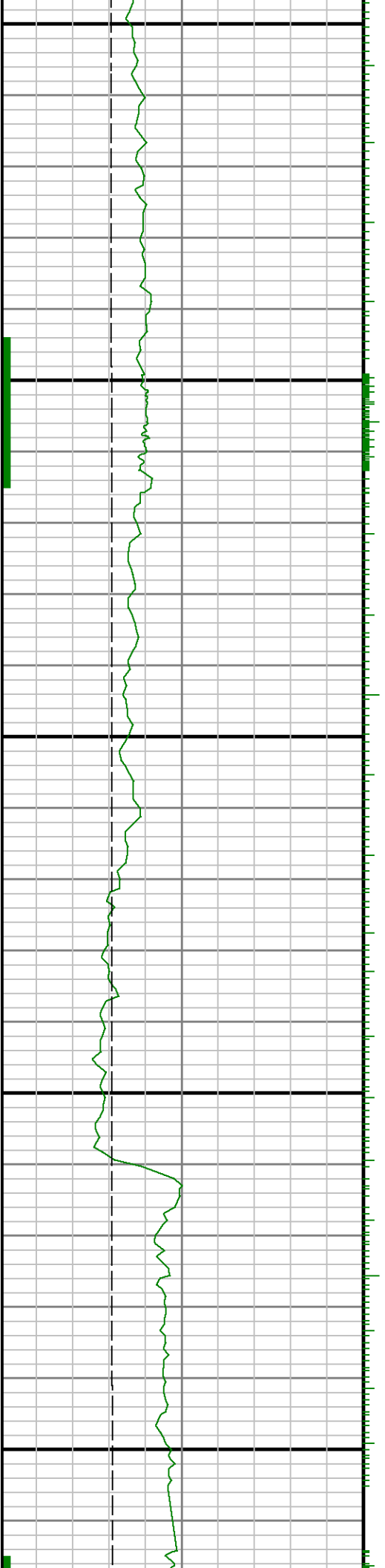
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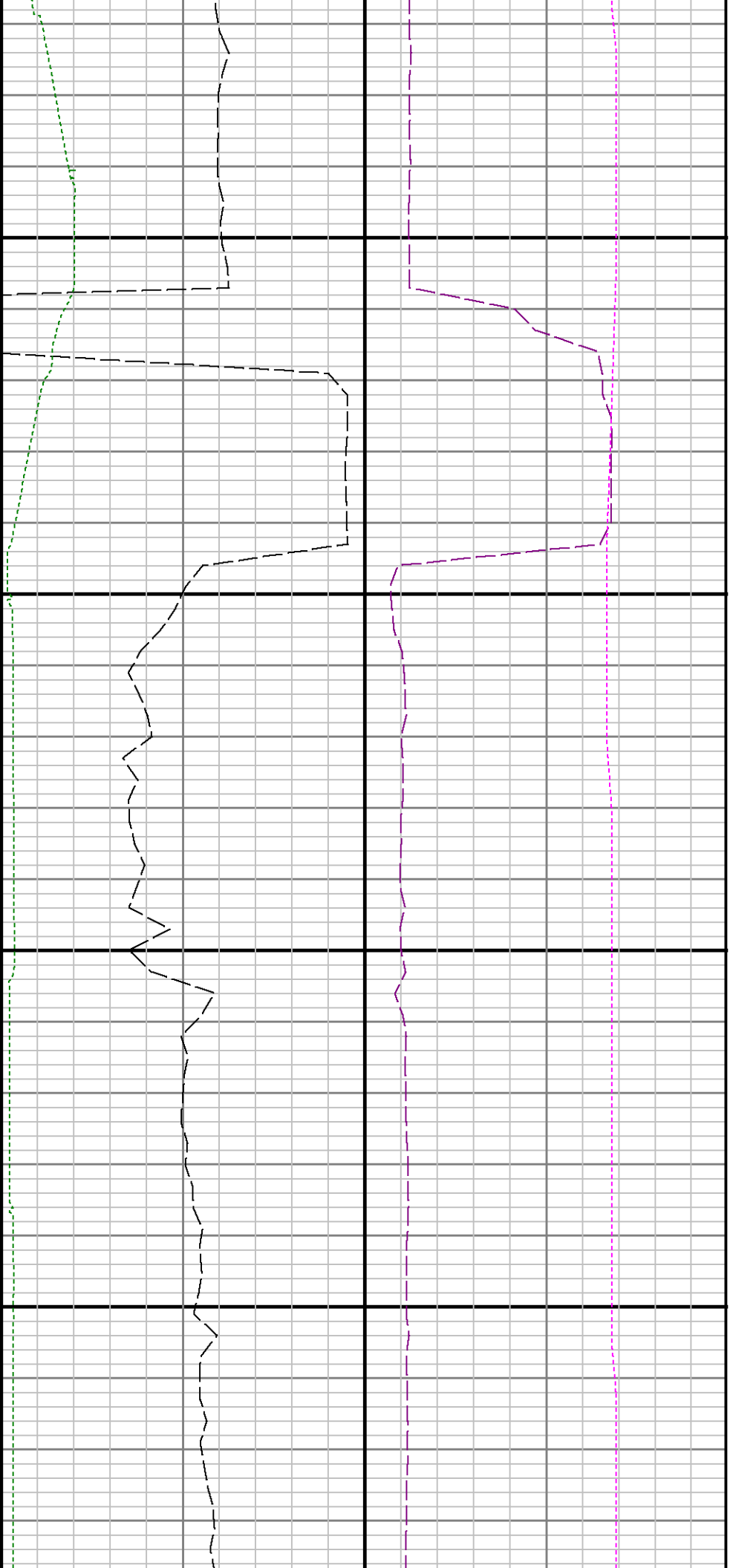




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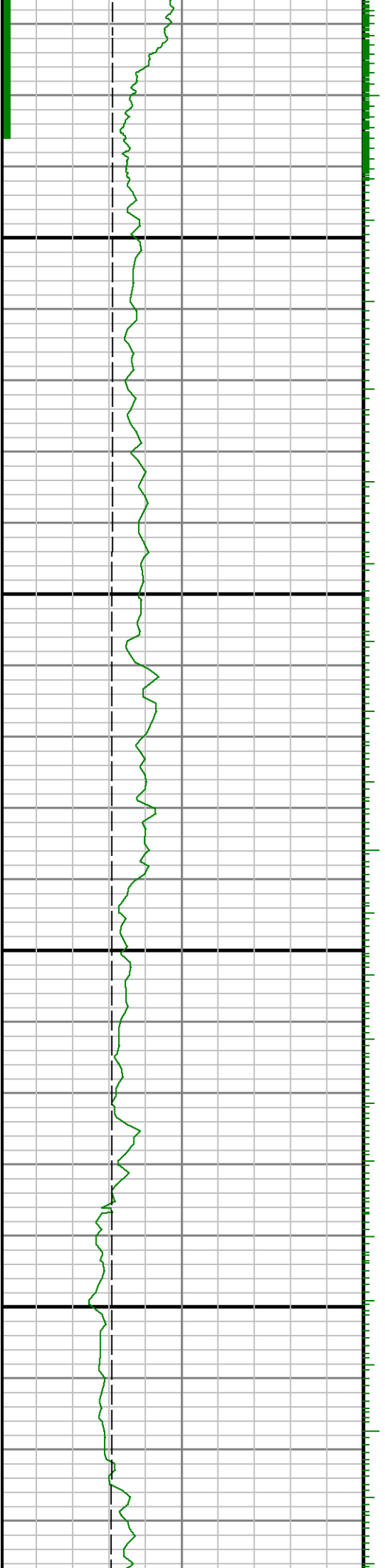
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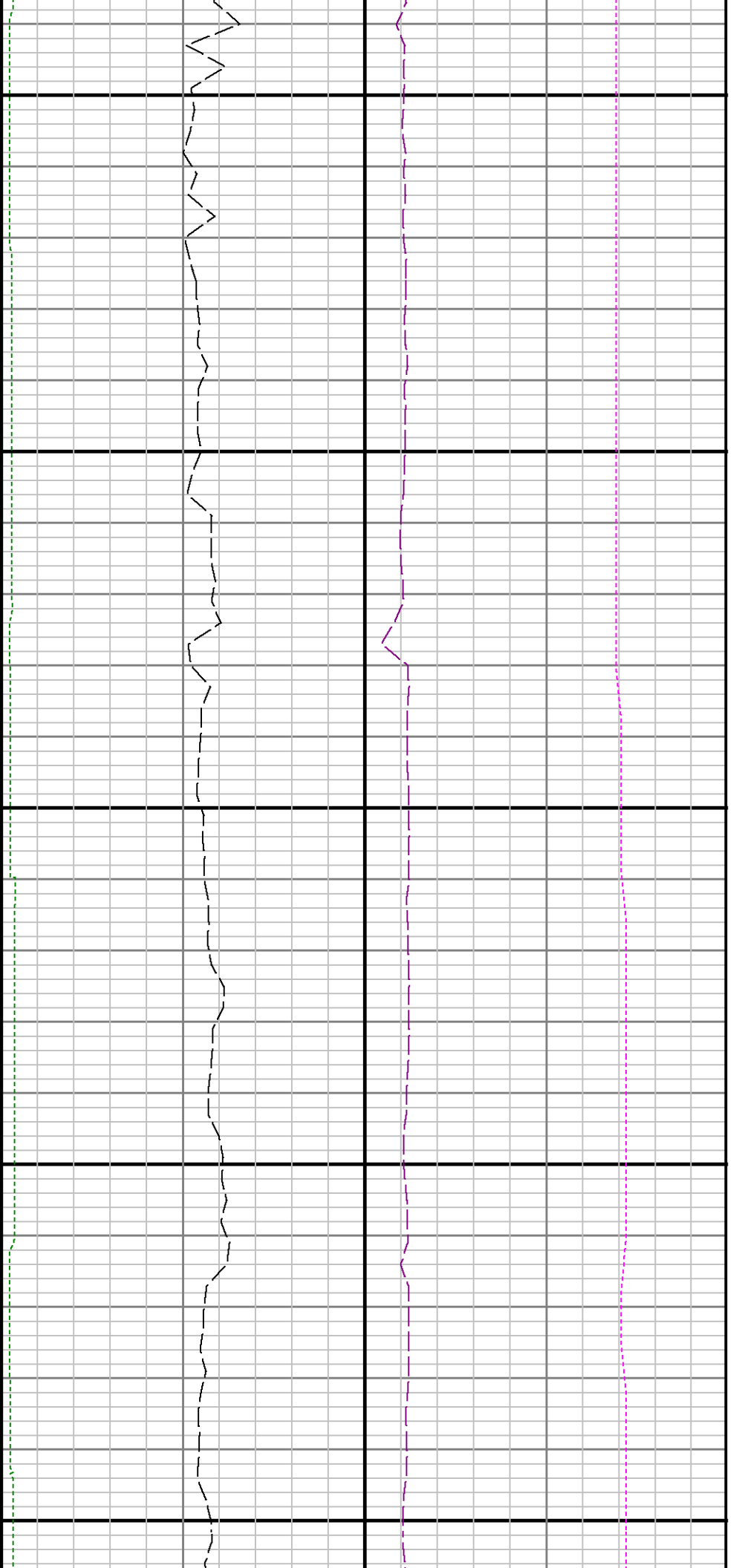




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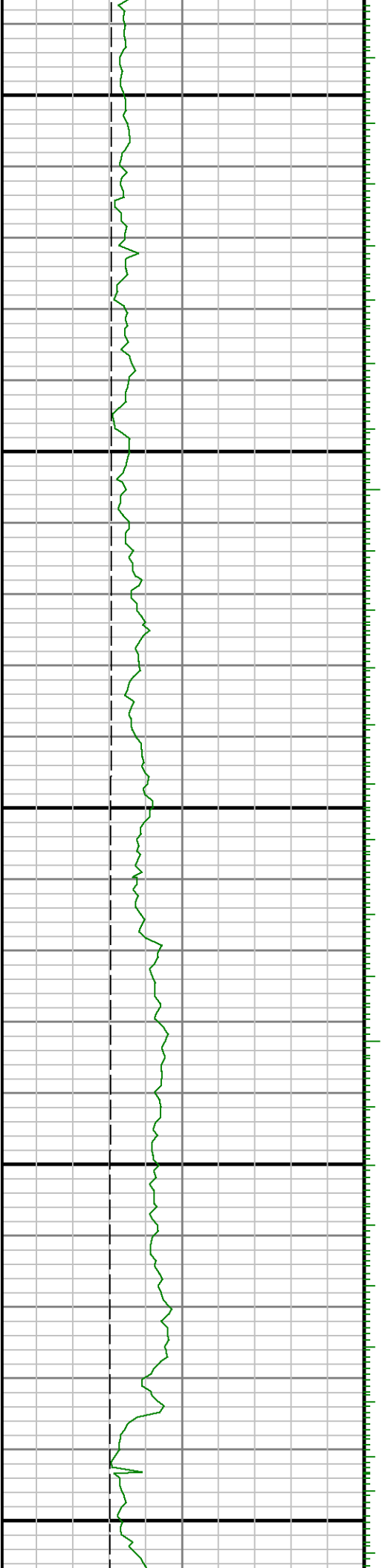


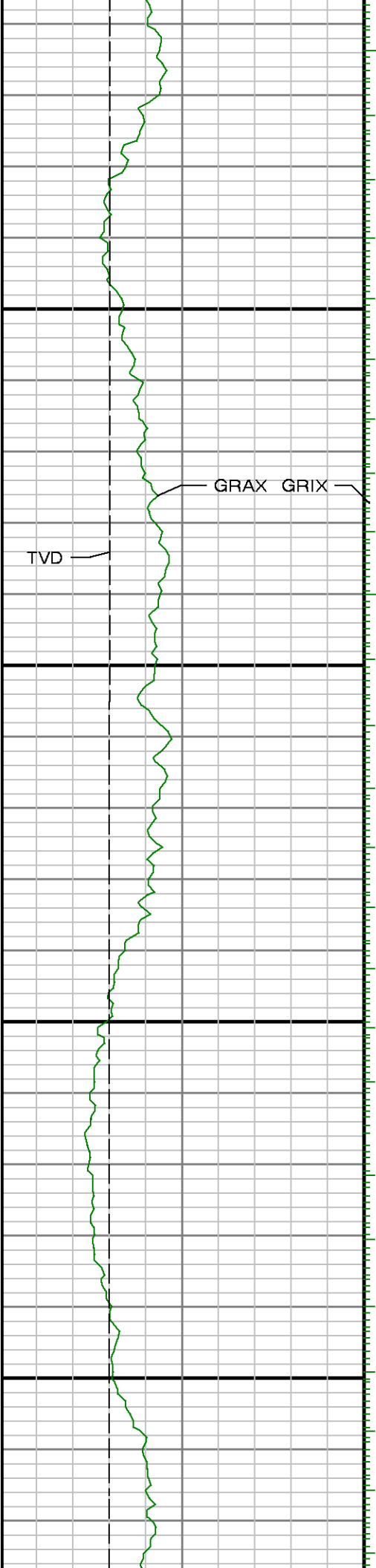


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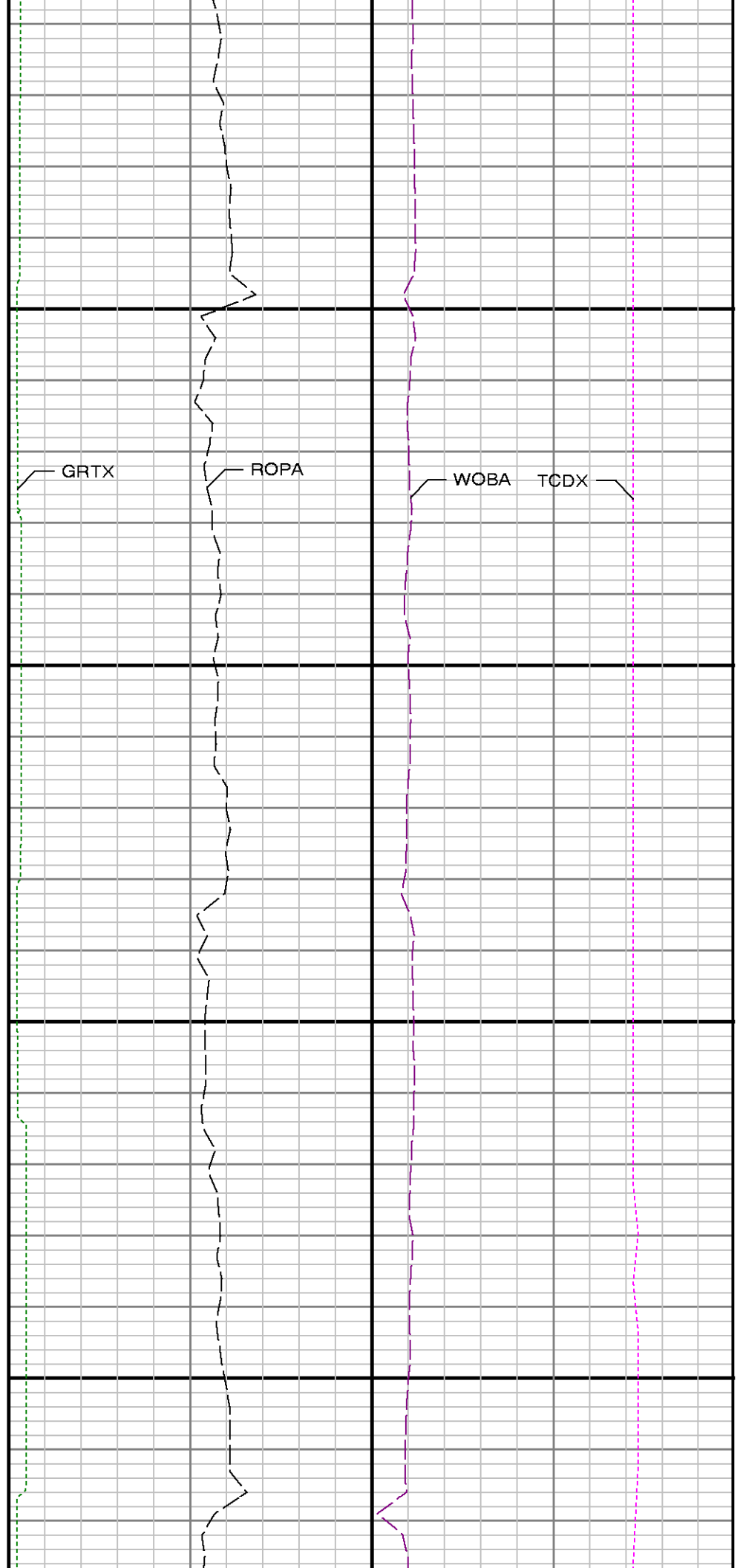
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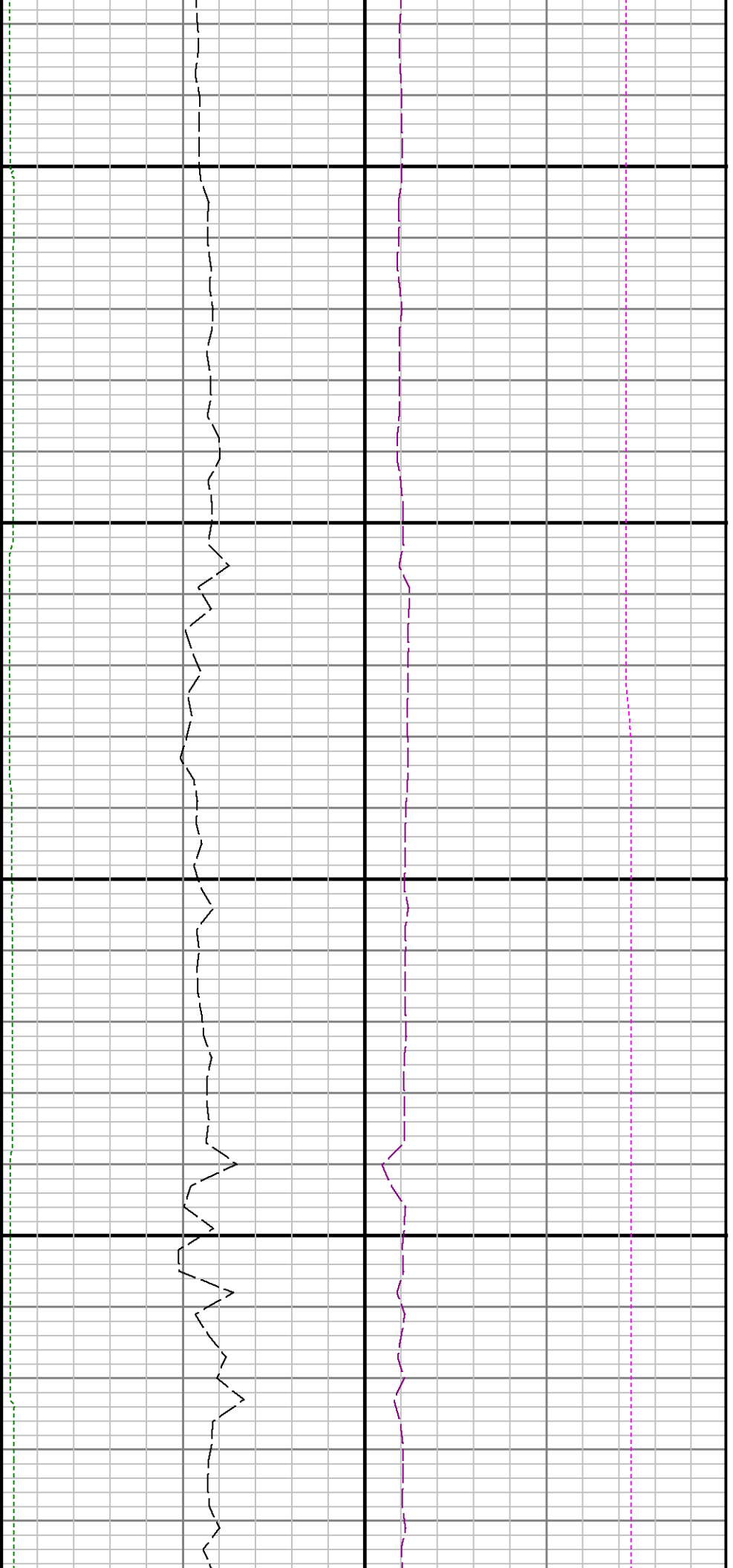




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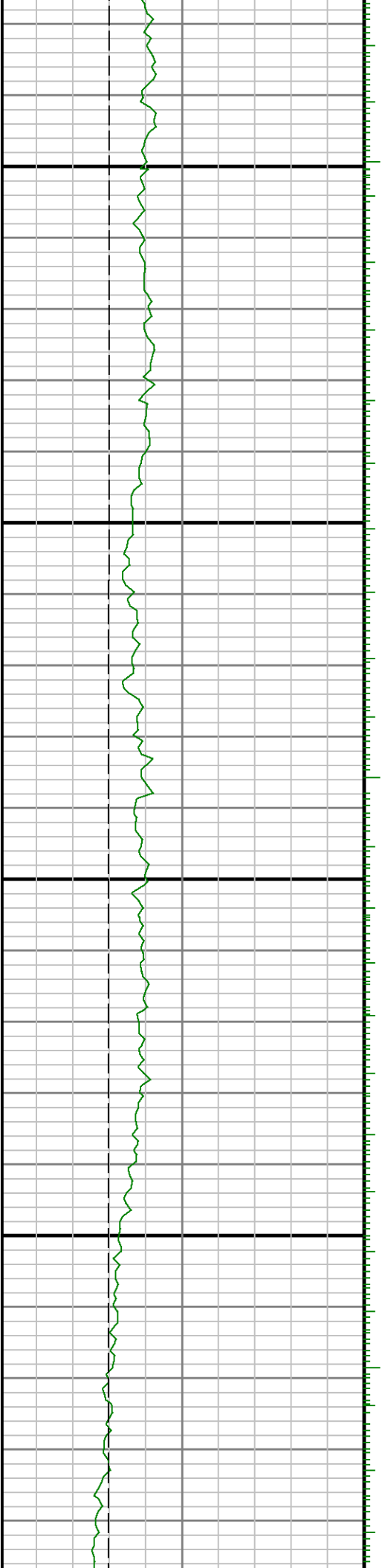
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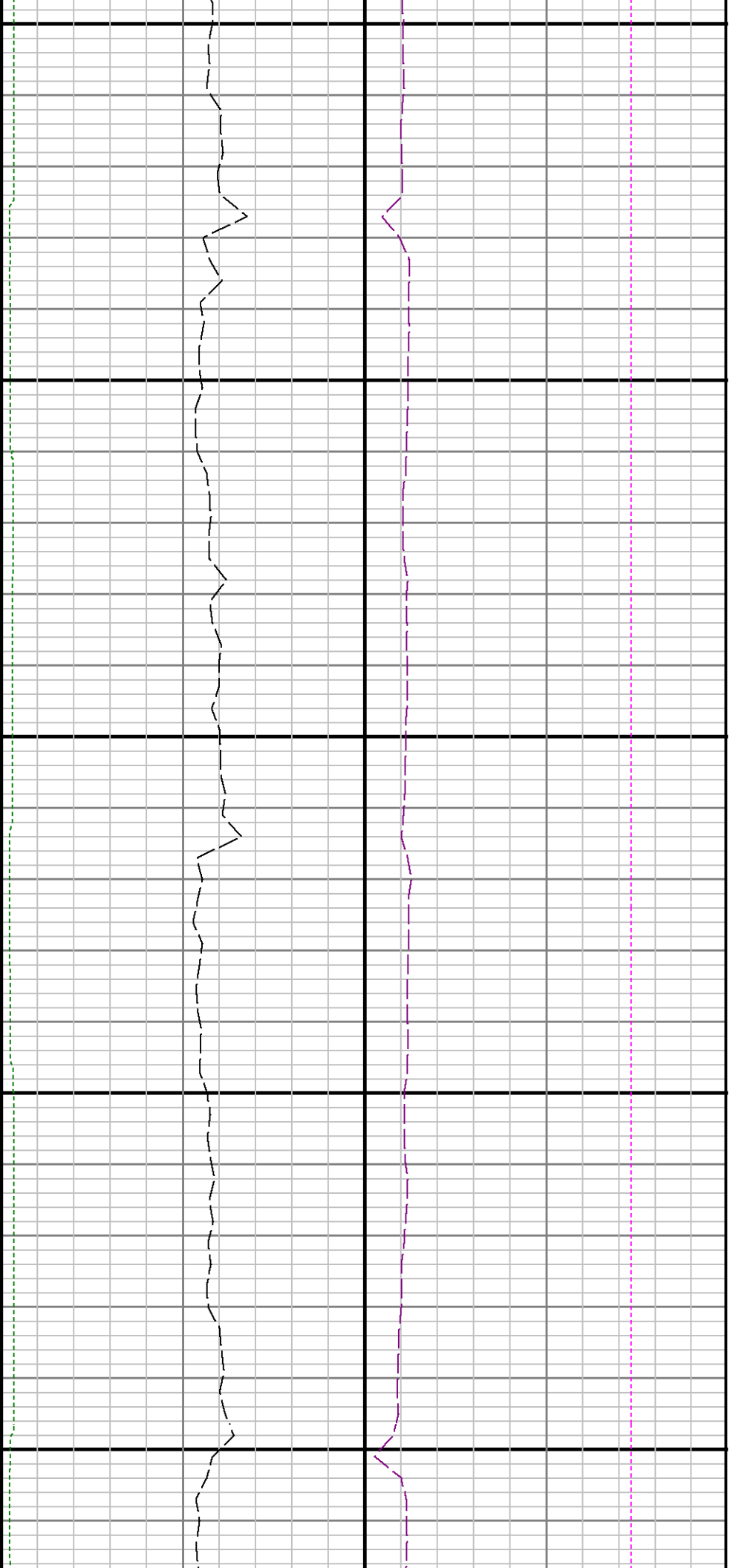




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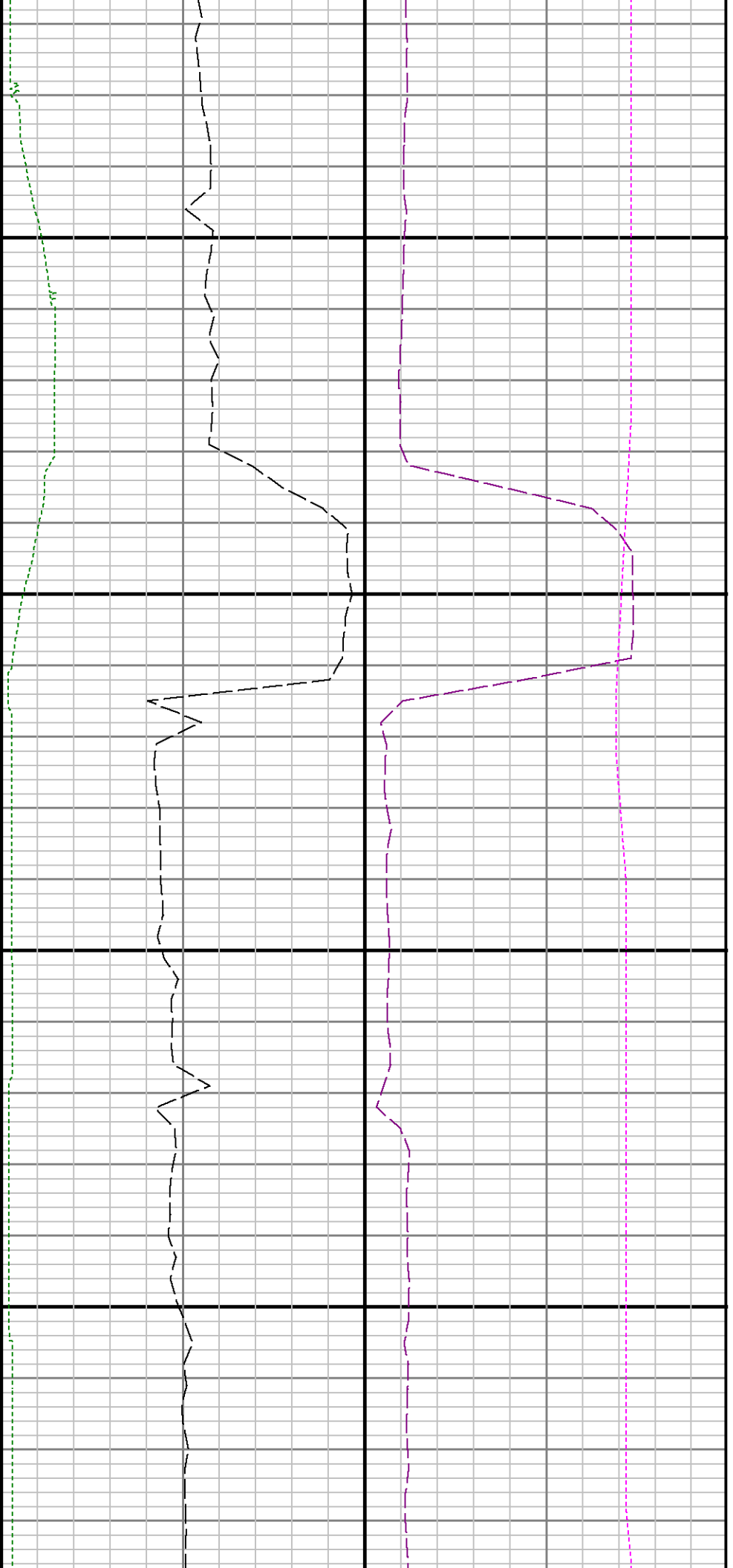
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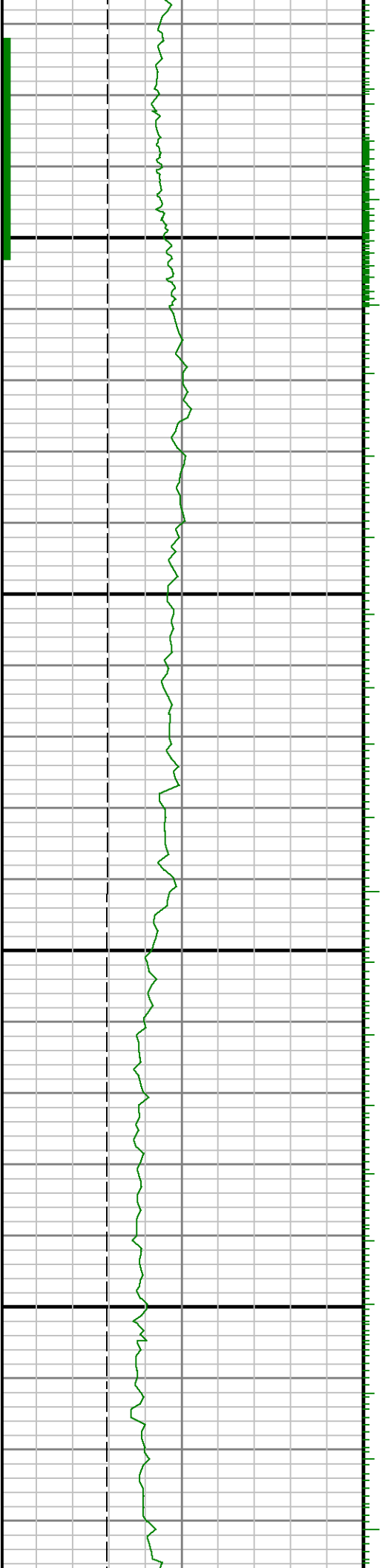
16400

16500



16600

16700





16800

16900

17000

