



Realtime Log

Natural Formation Evaluation
Gamma Ray

Scale:

Company: Anadarko

Well: Encore 41N-12HZ

Field: Larimer County

County: Larimer State: Colorado

1:240 MD
Measured Depth

Status:

Final Print

Surface Location:

Latitude: 40° 25' 13.274" N

Longitude: 104° 57' 47.113" W

Other Services:

API Number:
05-069-06477-00

SEC: 12 TWP: 5N RNG: 68W

Directional
VSS

Permanent Datum (P.D.): Ground Level Elevation: 4990.00 ft.

Log Measured From: Rig Floor 5006.00 ft. Above P.D.

Elevations:
KB: N/A
DF: 5006.00 ft.
GL: 4990.00 ft.

Depth Reference: Driller's Depth

Interval Logged

Dates

Magnetic Field Reference

Top: 6170.0 ft. Date From: 08/Aug/15 Dip Angle: 66.77° Azi Reference North: Grid

Bottom: 13853.0 ft. Date To: 11/Aug/15 Total Mag to Reference

Spud Date: 08/Aug/15 Field Strength: 52776.0 nT North Correction: 8.59°

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
13,500 in.	Surface	1874.0 ft.	9.625 in.	36.00 lb/ft	Surface	1857.0 ft.
8,500 in.	1857.0 ft.	13853.0 ft.				

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Oil Based Mud	Surface	13853.0 ft.	13,500 in.	1858.0 ft.	0.0° / 22.7°	15.6° / 255.5°
			8,500 in.	11996.0 ft.	15.5° / 255.3°	90.6° / 91.3°
					/	/
					/	/
					/	/
					/	/
					/	/

Acquisition System Software Version

Other

Advantage	2.20U4	Rig:	Xtreme 23	/ Xtreme Coil Drilling Corp		
PAIS	6.4.1.34	Job No:	7422214	/ D&E		
		District / Unit:	RMD			

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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 (ft.)	Bottom (ft.)	From (ft.)	To (ft.)	Start	End	
1	1	2	8.500	PDC	0.250	Steerable	6170.0	13853.0	1857.0	13853.0	08/Aug/2015 19:00	11/Aug/2015 17:30	51.8

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Matthew Delmore	08/Aug/2015	11/Aug/2015				Hans Cary	09/Aug/2015	11/Aug/2015
Sumanth Belawadi	08/Aug/2015	11/Aug/2015				Scott Petterson	08/Aug/2015	11/Aug/2015

Mud Properties Record

Date / Time		LWD	Measured	Mud	Density	Viscosity	pH	Fluid	Oil /	Source	Total	K+
		Run No.	Depth (ft.)	Type	(ppg)	(cp)		Loss (cc)	Water		Chlorides (ppm)	(%)
08/Aug/2015	18:00	1	1874.0	Oil Based Mud	8.9	12	N/A	10.0	61.5 / 31.0	Active Mud Pit	63000	N/A
09/Aug/2015	06:00	1	4151.0	Oil Based Mud	8.7	9	N/A	8.8	63.8 / 29.5	Active Mud Pit	71000	N/A
09/Aug/2015	18:00	1	6624.0	Oil Based Mud	9.5	14	N/A	8.0	60.5 / 29.0	Active Mud Pit	63000	N/A
10/Aug/2015	06:00	1	9000.0	Oil Based Mud	9.2	14	N/A	8.0	61 / 29.3	Active Mud Pit	70000	N/A
10/Aug/2015	18:00	1	11004.0	Oil Based Mud	9.3	14	N/A	8.0	60 / 29.8	Active Mud Pit	68000	N/A
11/Aug/2015	06:00	1	13285.0	Oil Based Mud	9.4	15	N/A	7.0	60.5 / 28.8	Active Mud Pit	68000	N/A

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
GRIX	Gamma Ray Data Density	points
GRSI	Gamma Ray Sliding Indicator	unitless
GRTX	Gamma Ray Time Since Drilled	min
ROPA	Rate of Penetration, 3.0 ft. Avg.	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth	ft.
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	klbs

Equipment and Service Data

LWD	Tool	Serial	Measurement	Bit	Max	Min
Run		Number		Offset	O.D.	I.D.
No.				(ft)	(in.)	(in.)
1	DIR	11859501	Directional	65.07	6.750	3.250
1	SRIG	12016289	Gamma	61.73	6.750	3.250

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 LWD run 1 utilized 6 3/4 inch NaviTrak Services (VSS, Directional) from 1857 to 6170 feet MD (1822.71 to 5872.92 feet TVD) and NaviGamma Services (VSS, Directional, Gamma Ray) from 6170 to 13853 feet MD (5873.92 to 6985.66 feet TVD) behind an 8 1/2 inch bit and steerable assembly.</p> <p>2.) A sliding indicator is shown on the left edge of track 1 as a heavy line. This indicator has been depth-shifted to the gamma ray sensor offset to correspond with gamma ray data.</p> <p>3.) Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.</p>

Remarks

Number	Measured	Hole	LWD	Remark
	Depth	Section	Run No.	
	(ft)	(in.)		

1 13822 8.500 1

The interval from 13791 to 13853 feet MD (6986.26 to 6985.66 feet TVD) does not contain gamma ray logging data due to the bit to sensor offset.



Company : Anadarko

Well : ENCORE 41N-12HZ

Interval : 6135.00 - 13885.00 feet

Created : 11/Aug/2015 8:14:37 AM

Gamma Ray Apparent 0.5 ft Avg GRAX

0 150

API

True Vertical Depth TVD

7025 6000

ft

MD feet 1:240

Rate of Penetration 3.0 ft Avg ROPA

1000 0

ft/hr

Gamma Time Since Drilled GRTX

0 600

min

Surface Weight On Bit 1.0 ft Avg WOBA

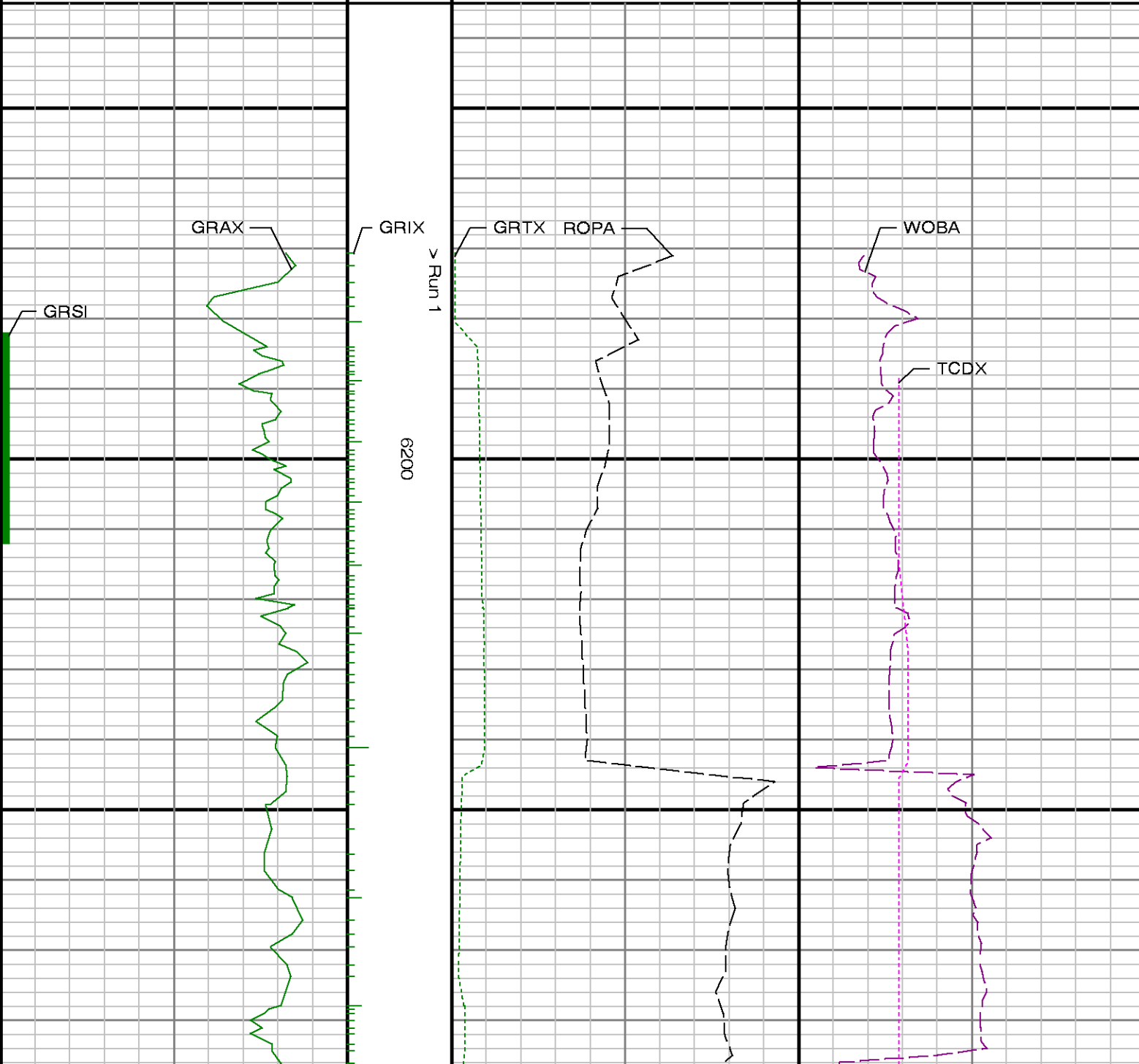
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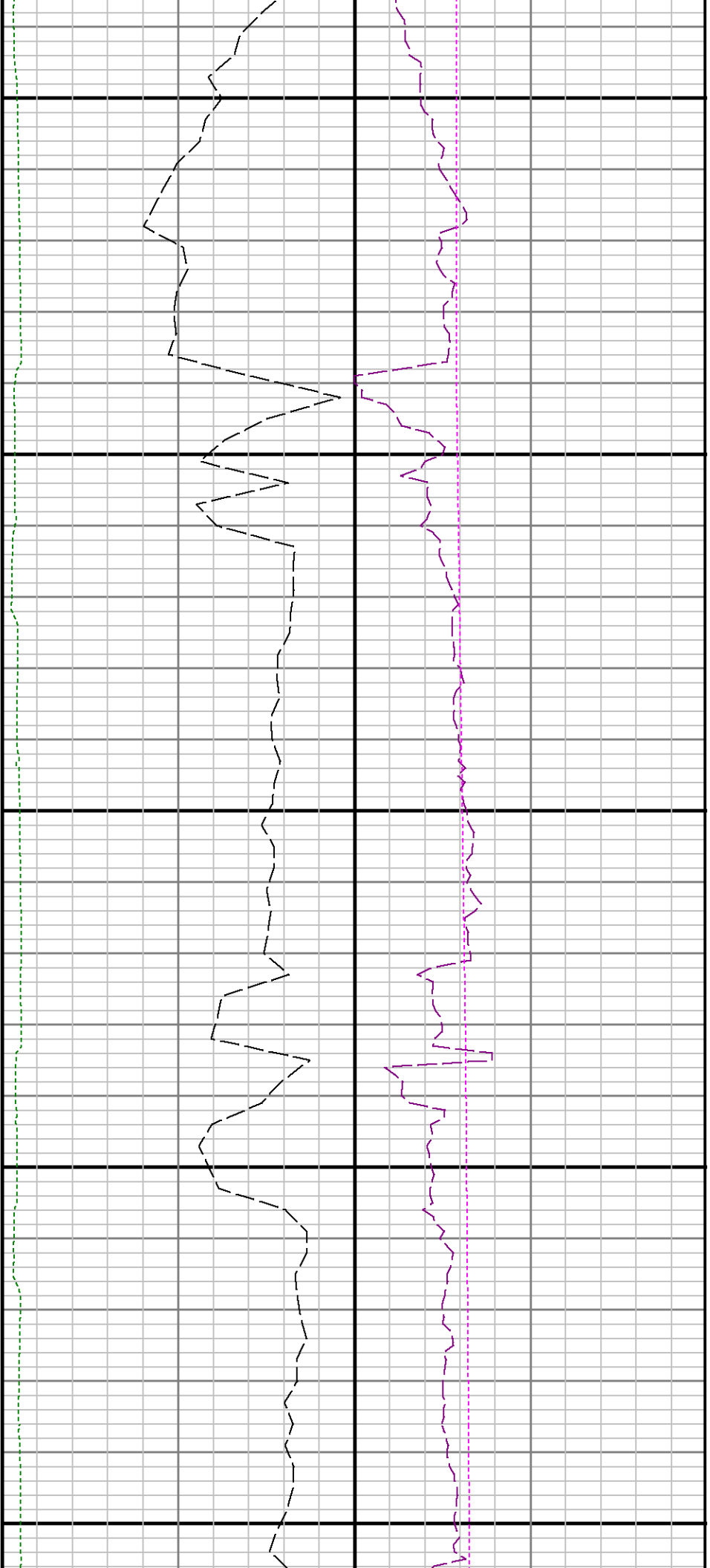
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Downhole Temperature TCDX

100 300

degF



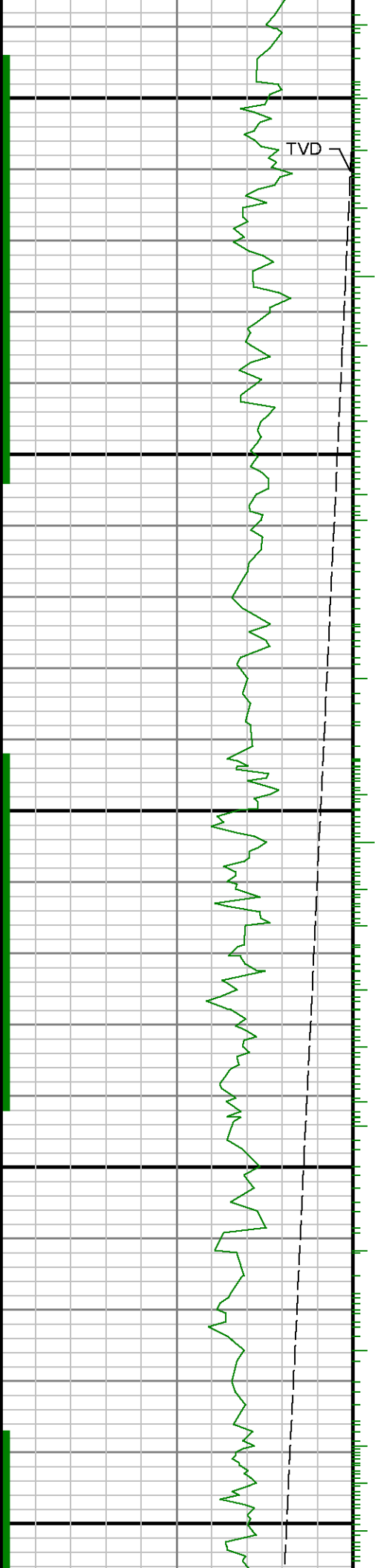


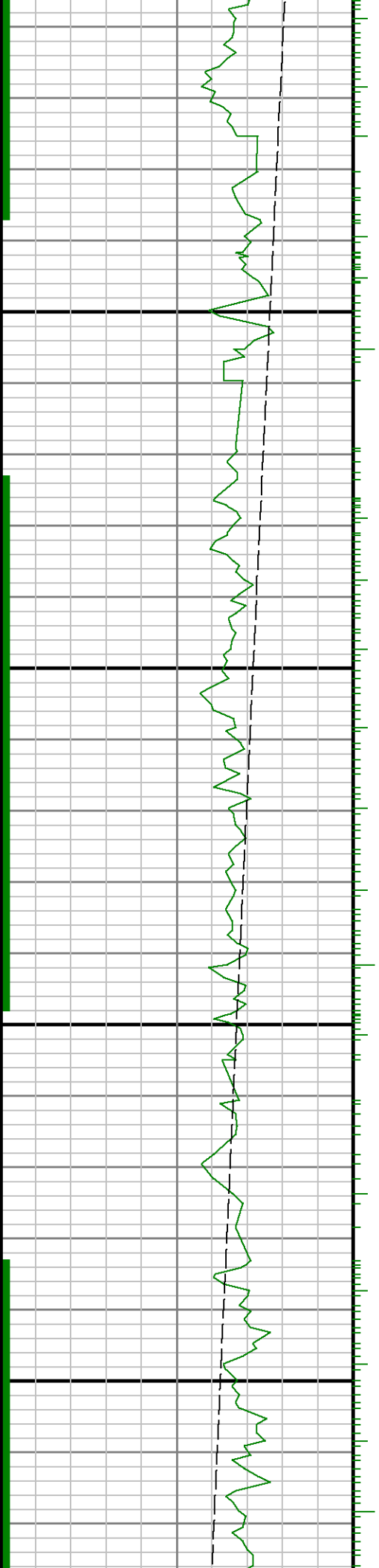
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6400

6500

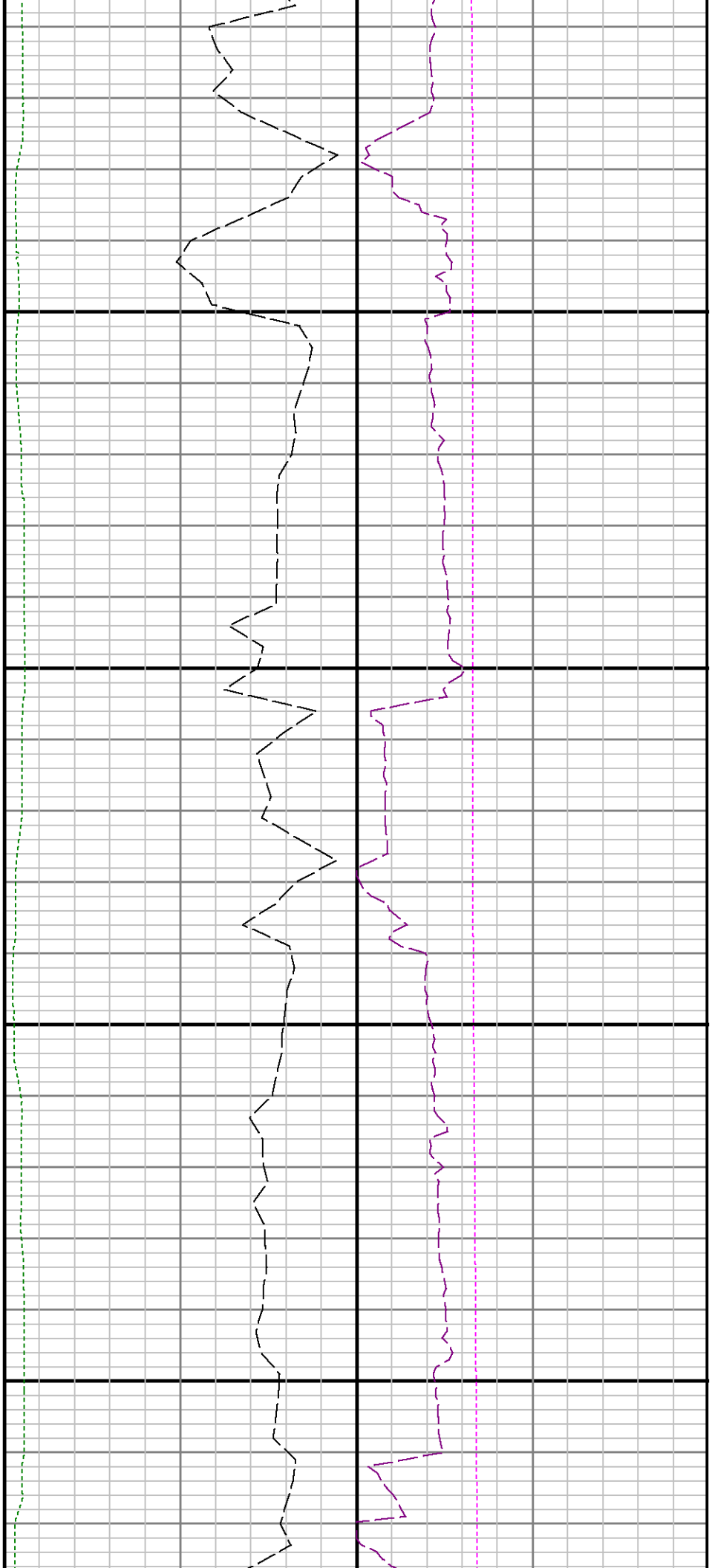
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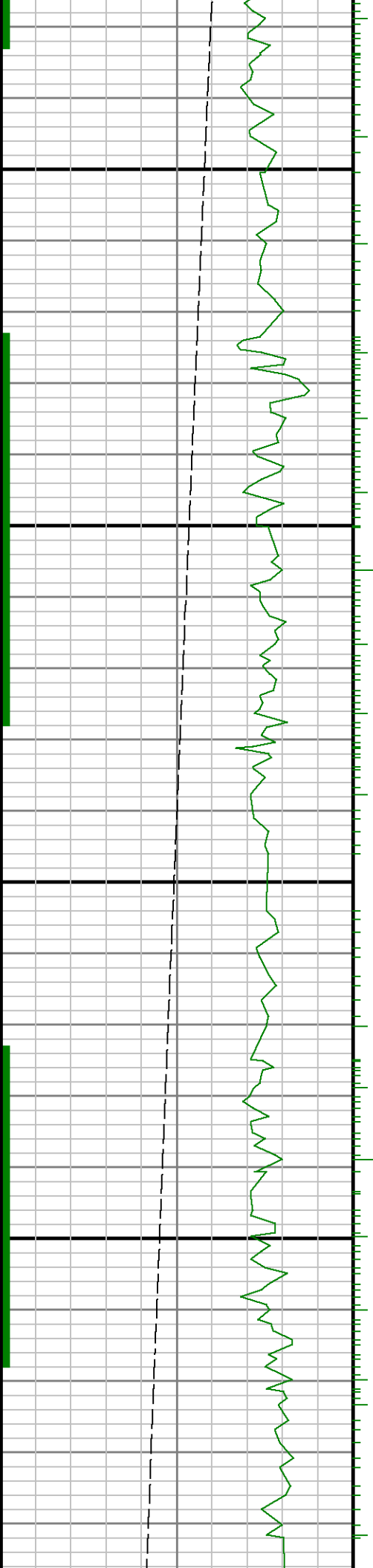




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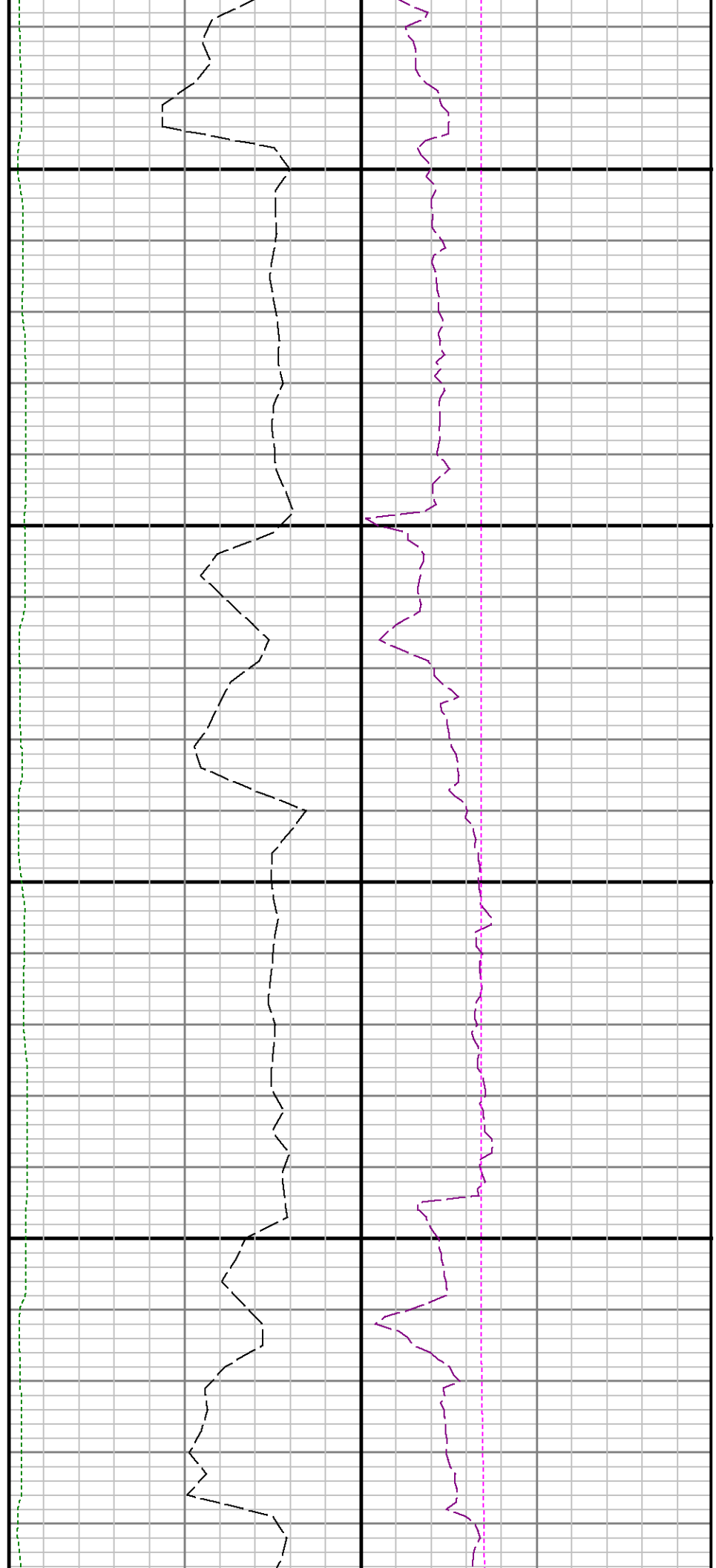
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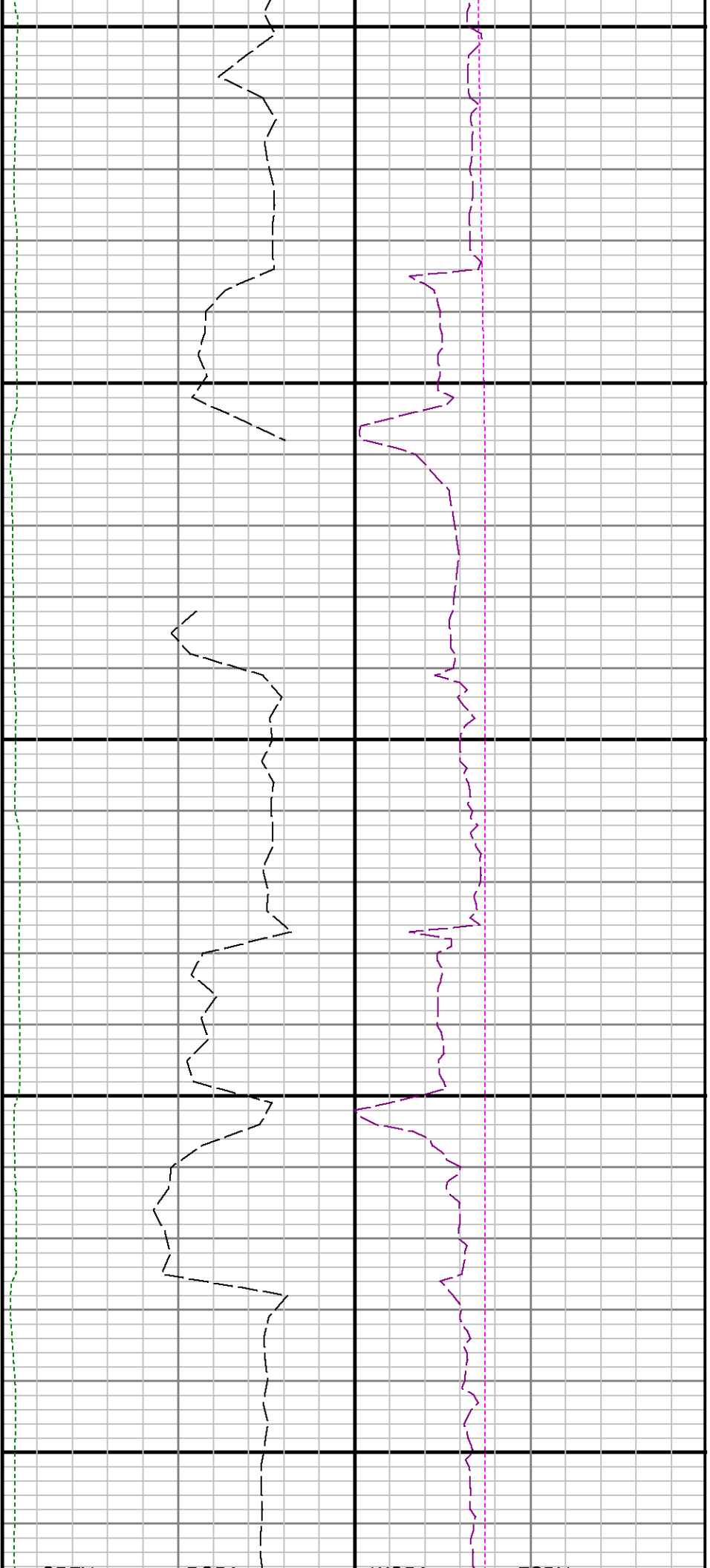




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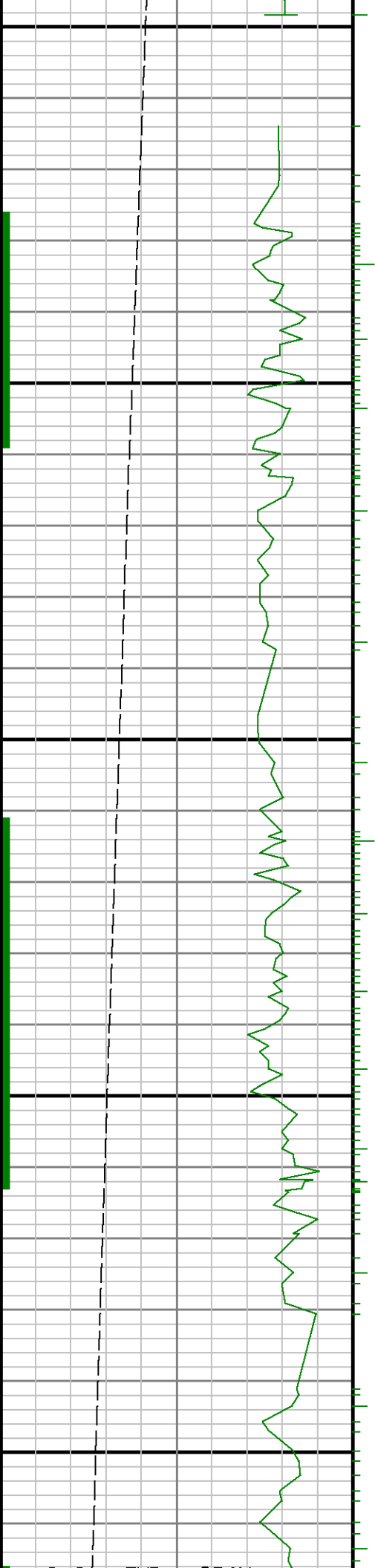
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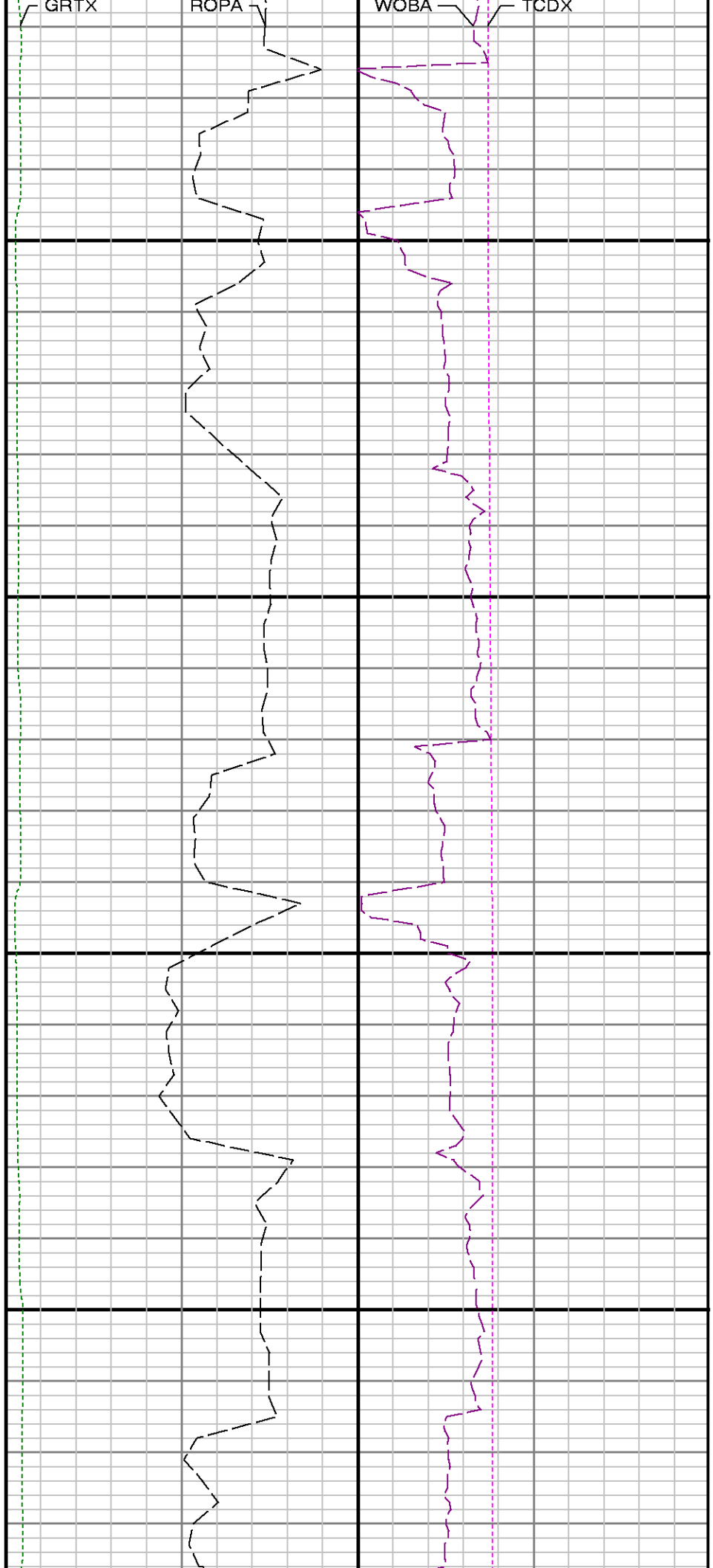
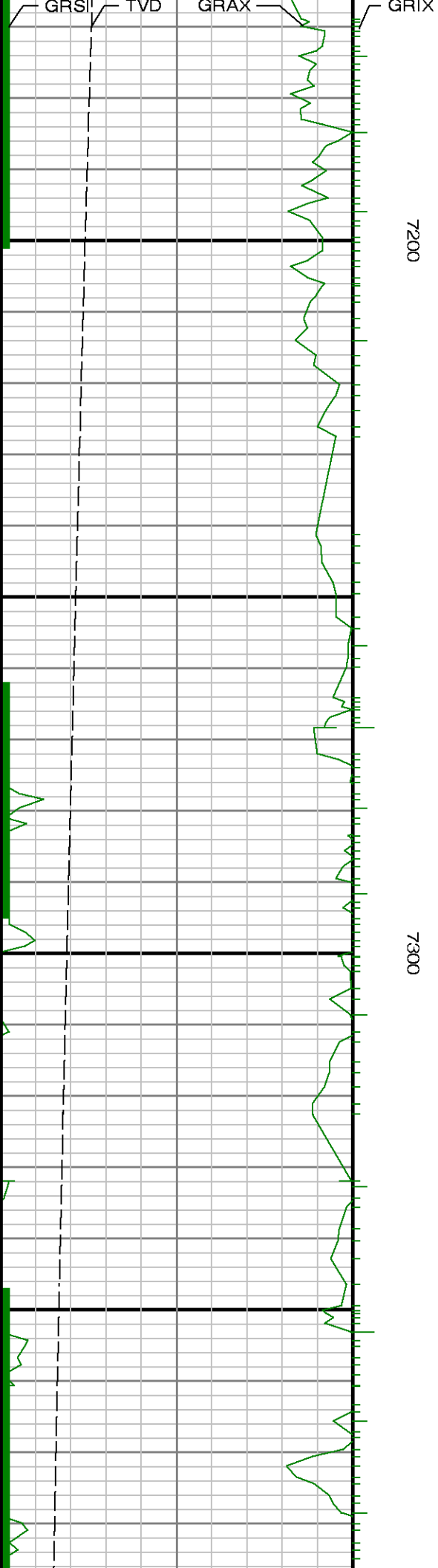


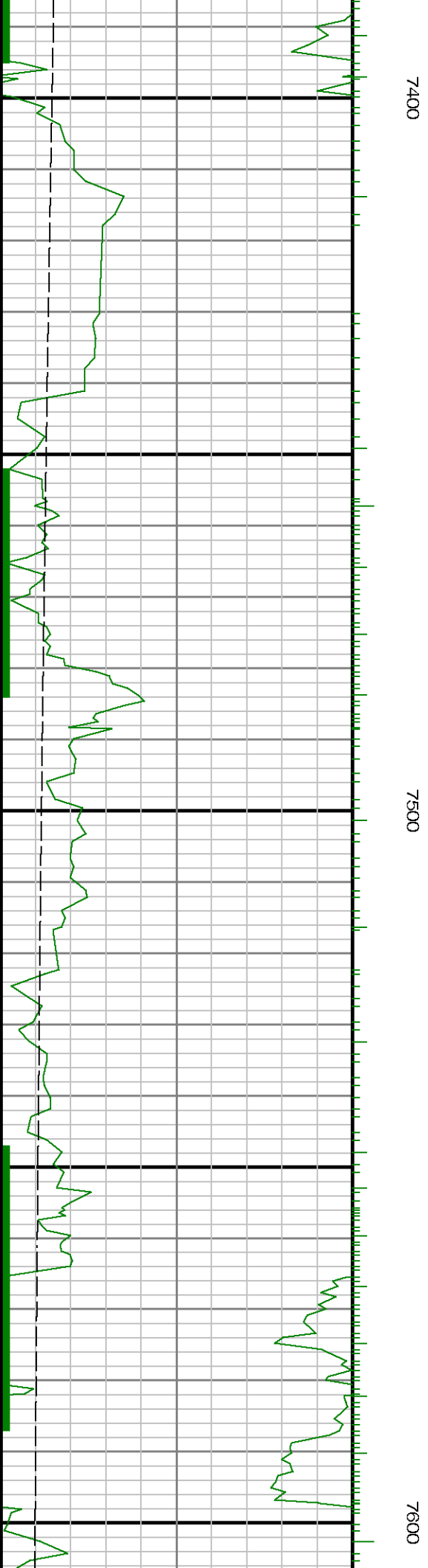
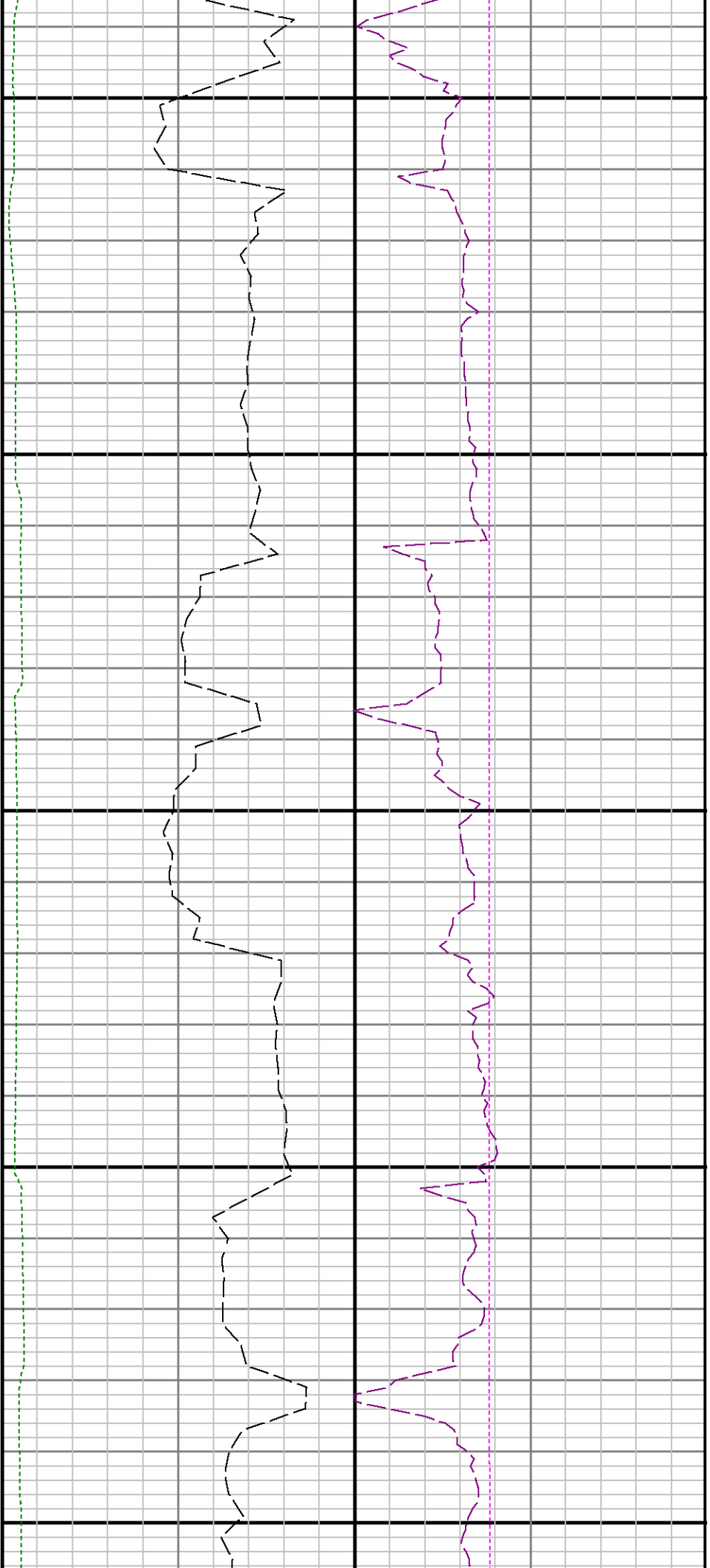


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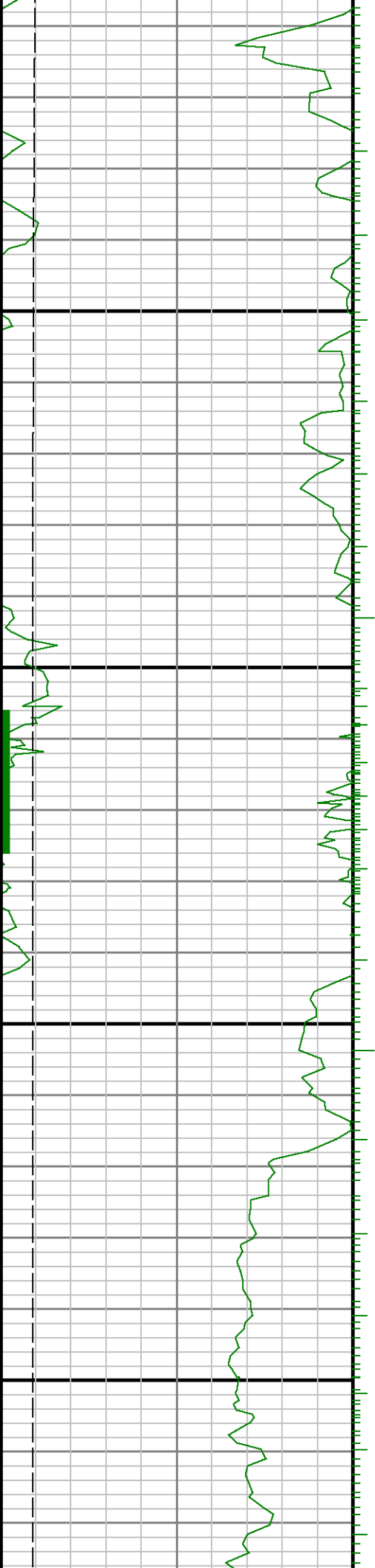


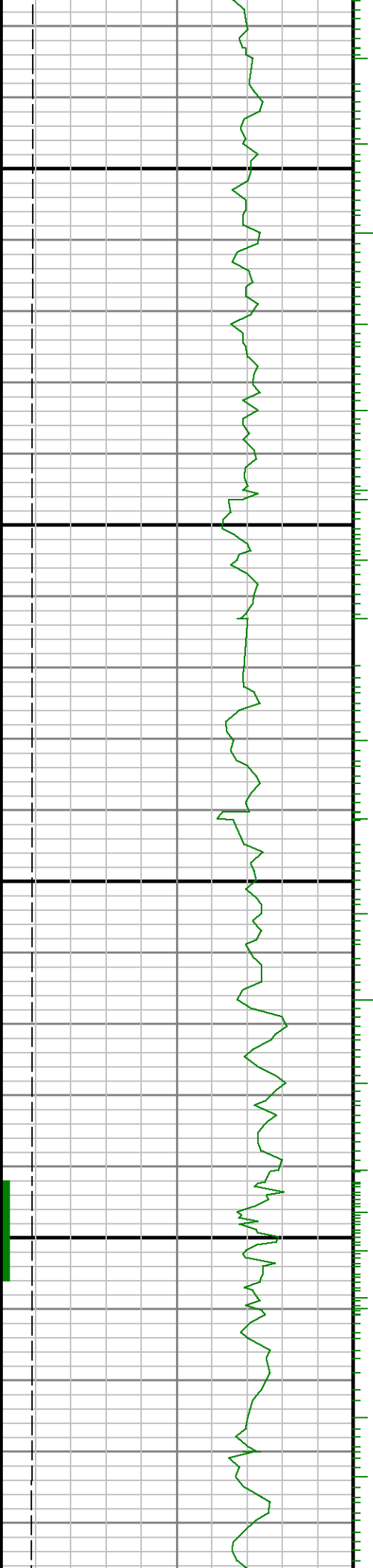




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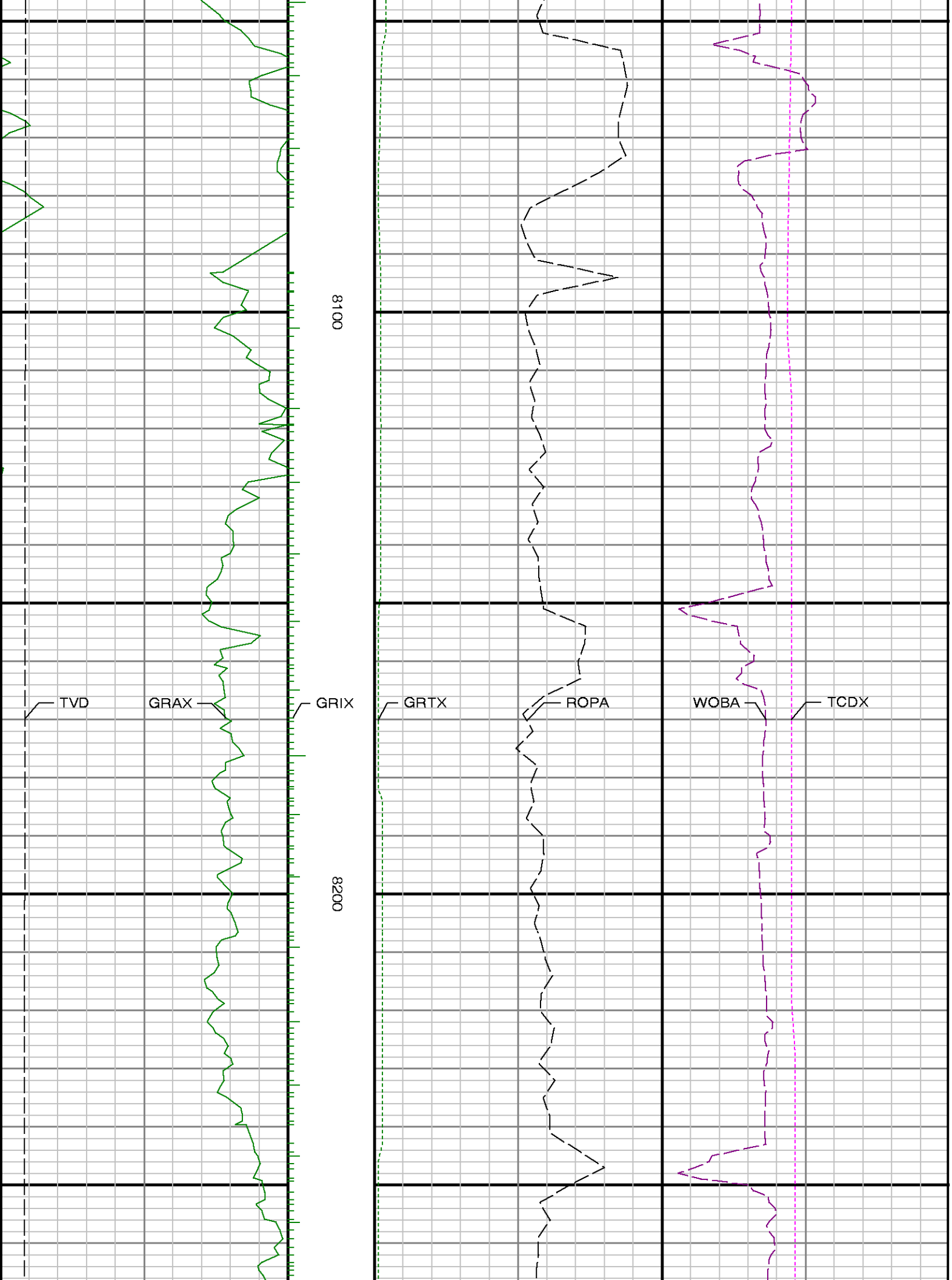


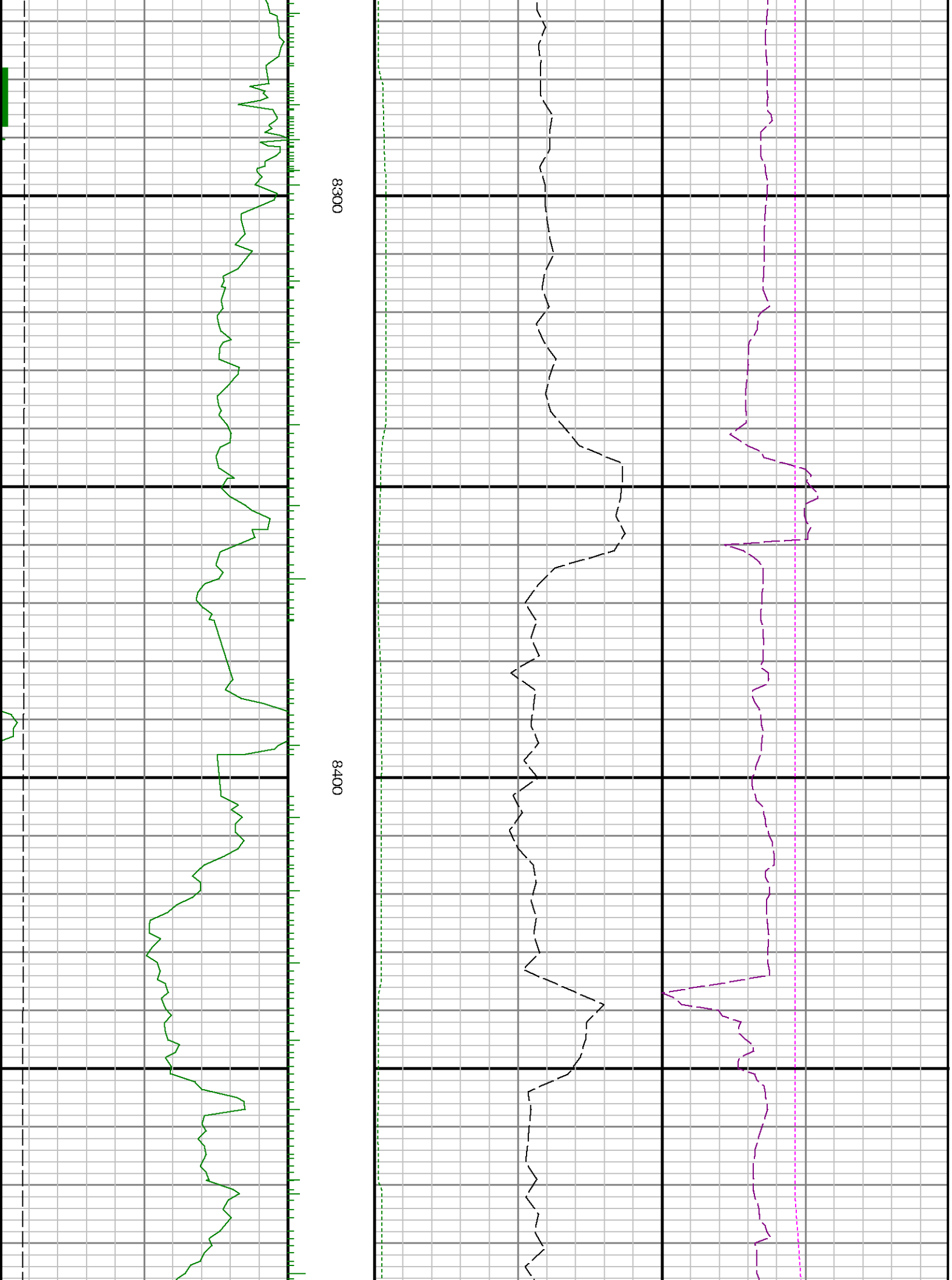


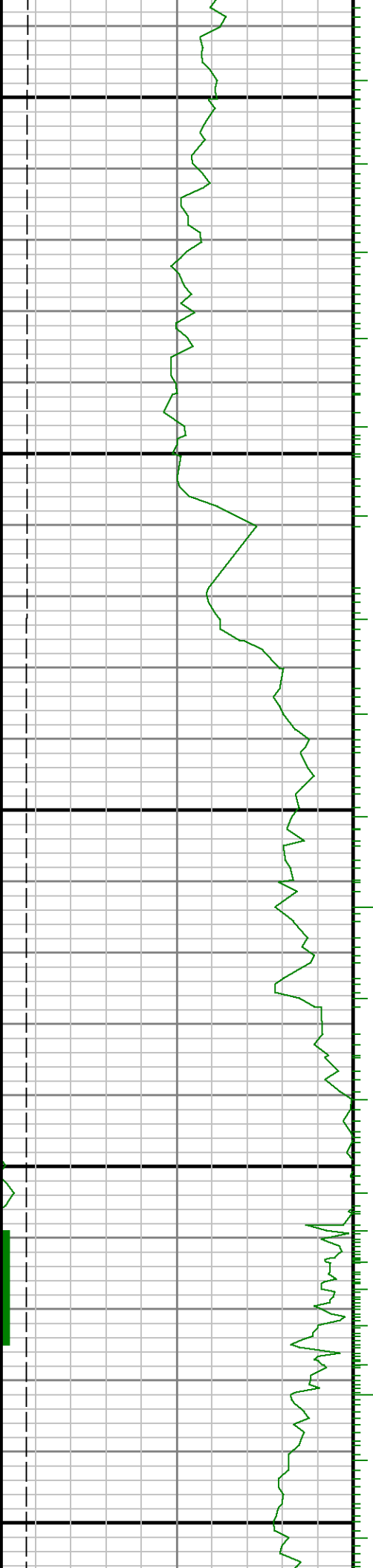
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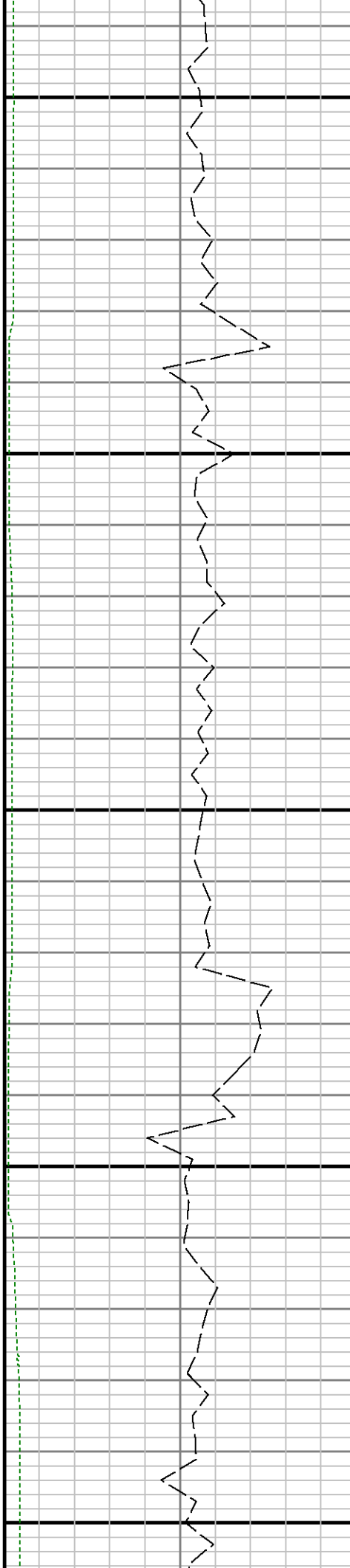


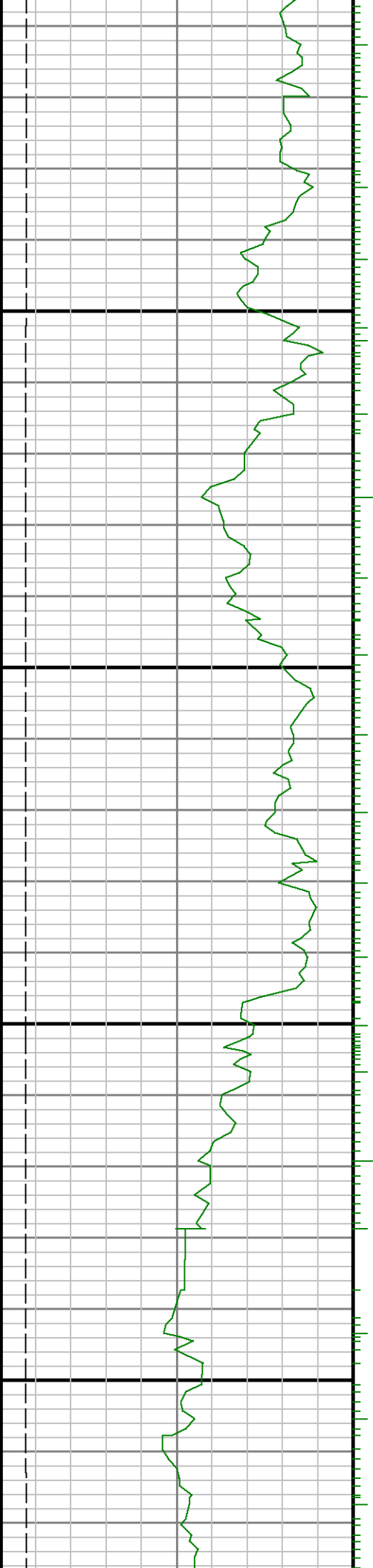


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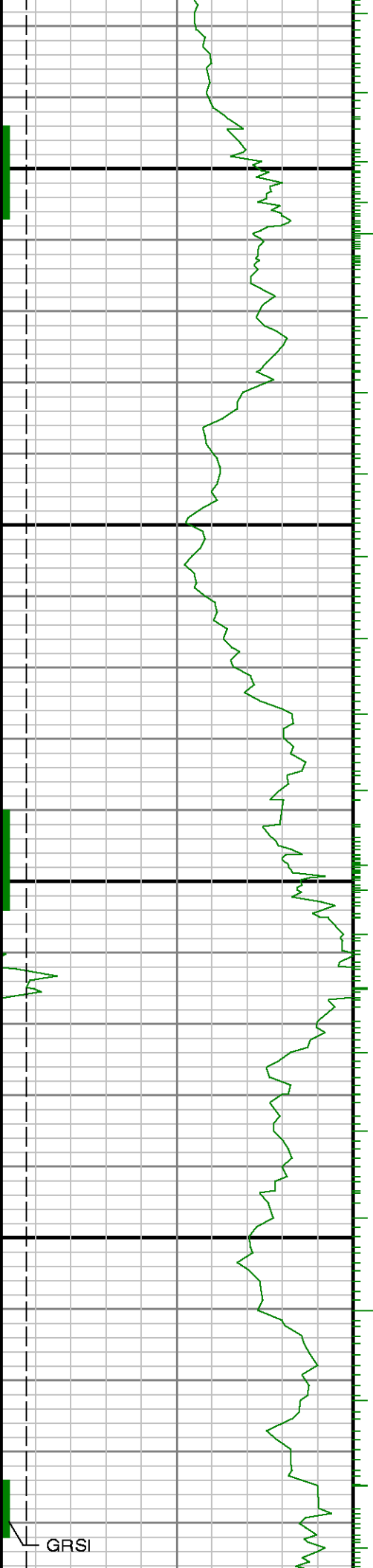




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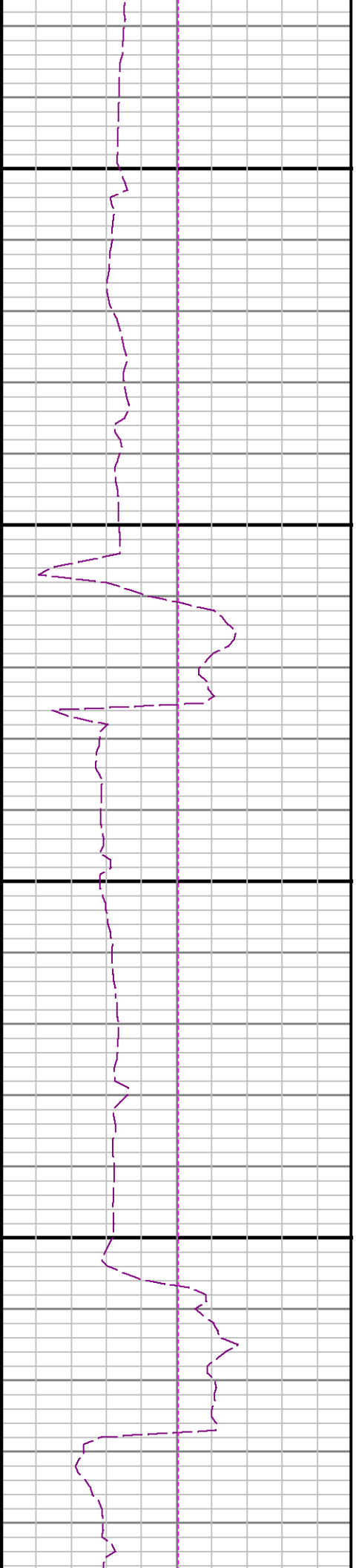
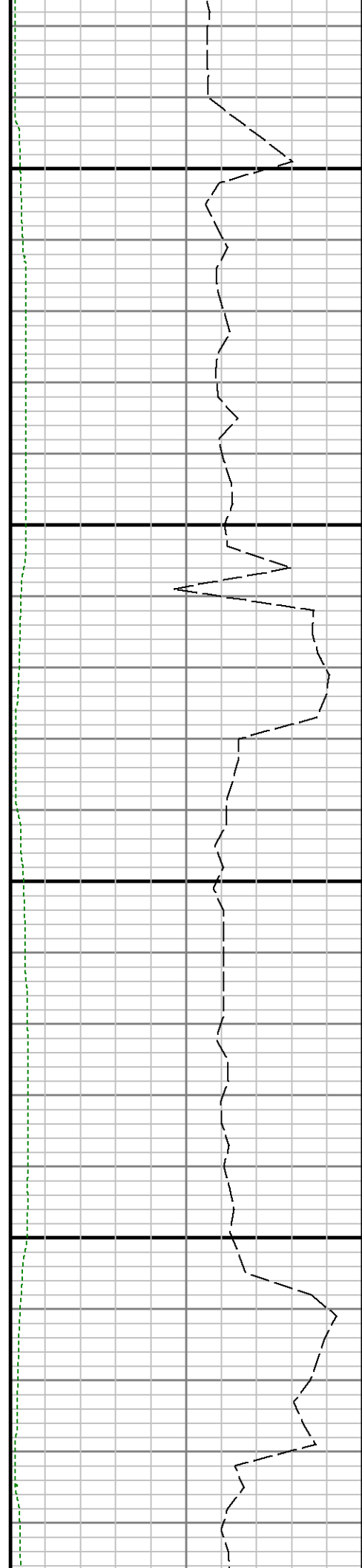
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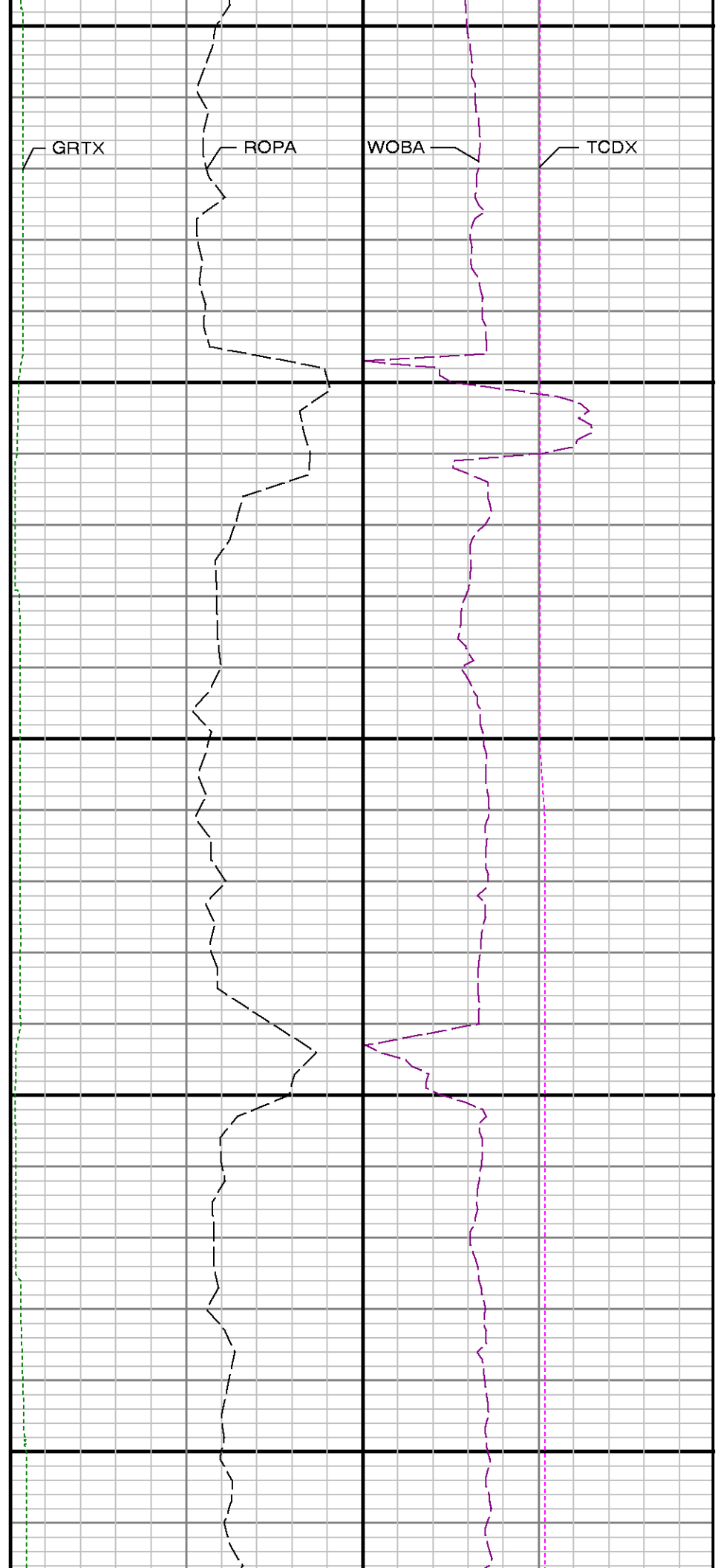
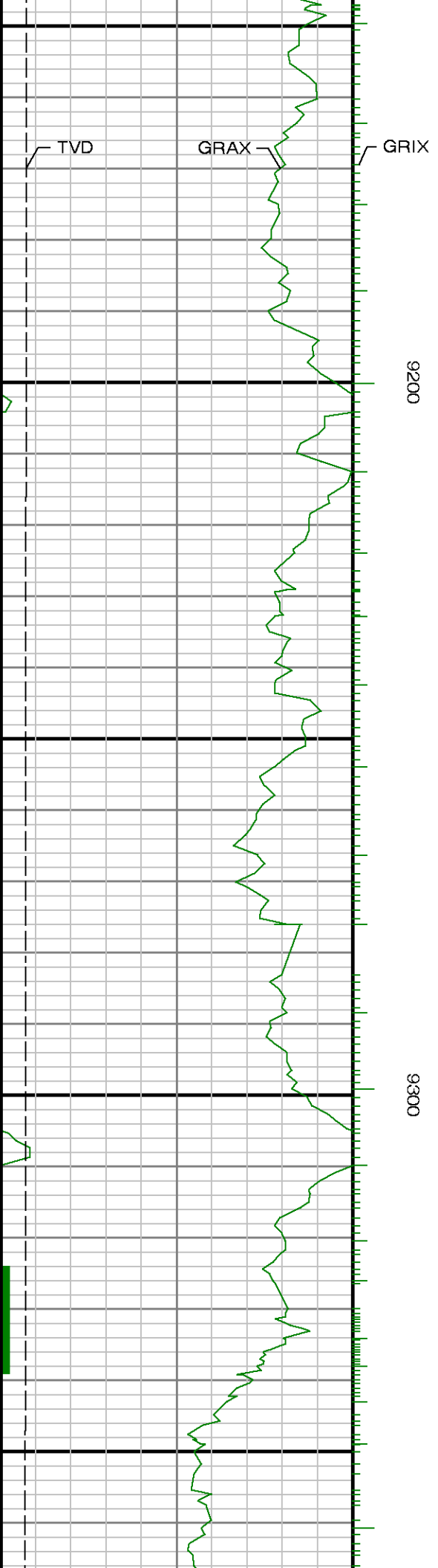


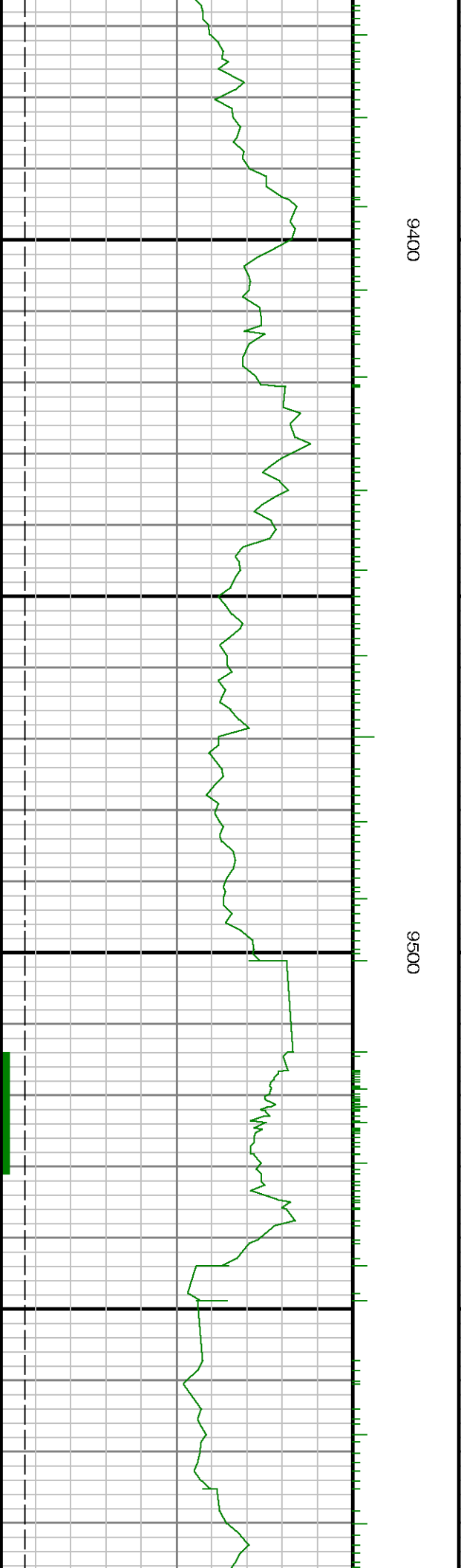
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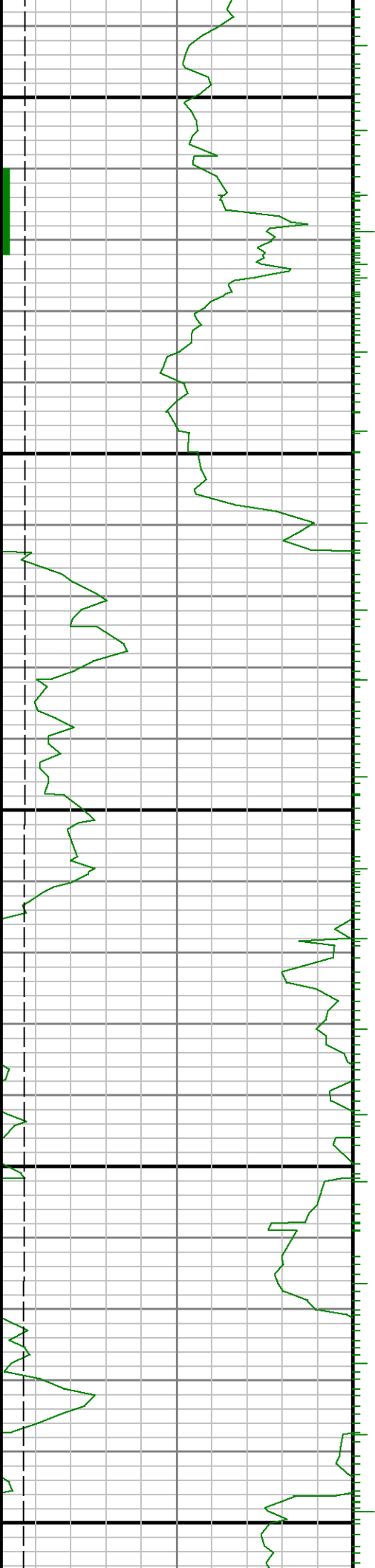
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GRSI



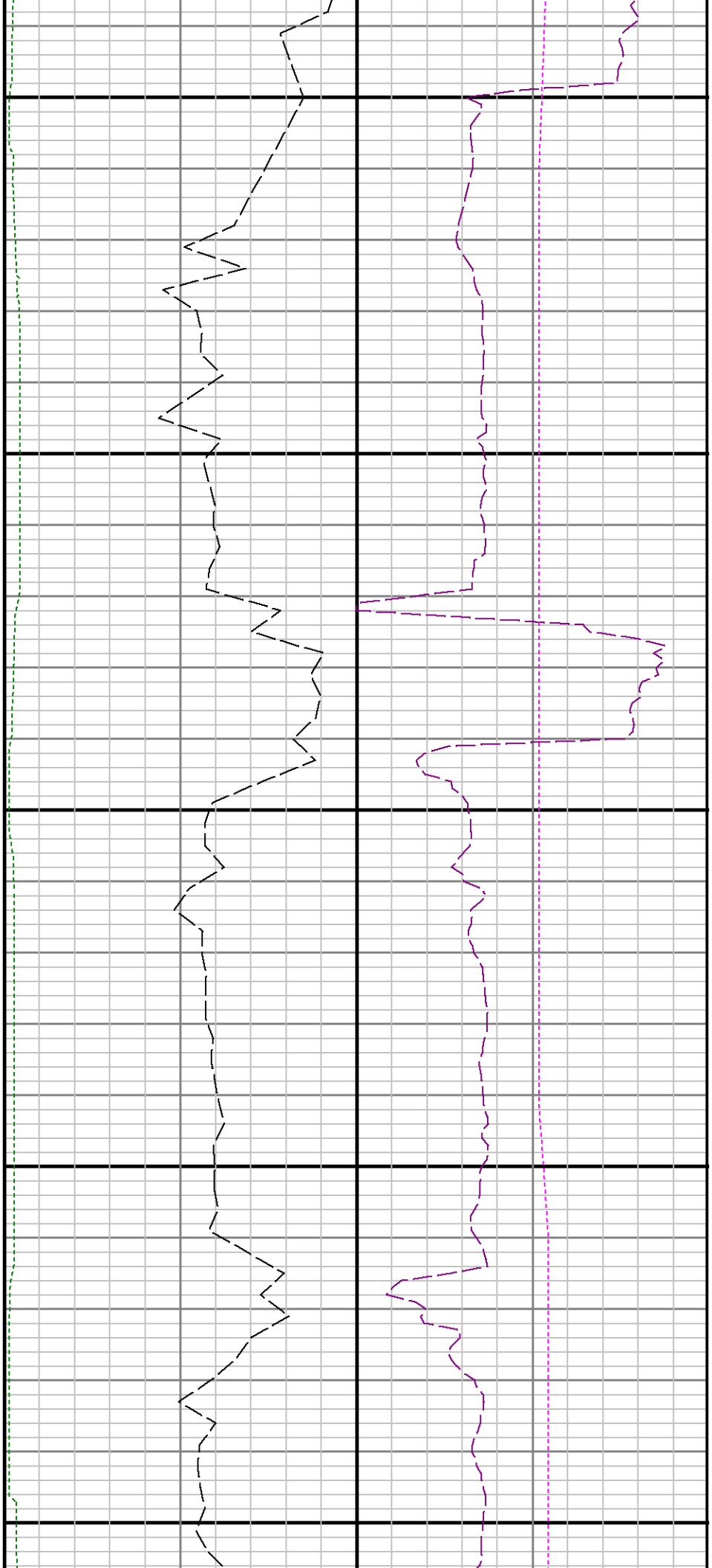


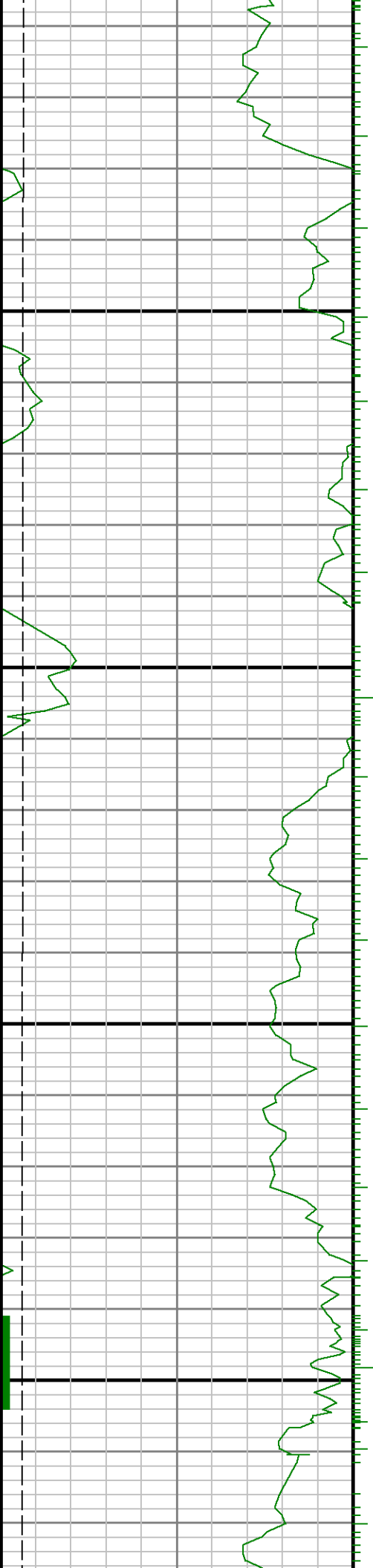


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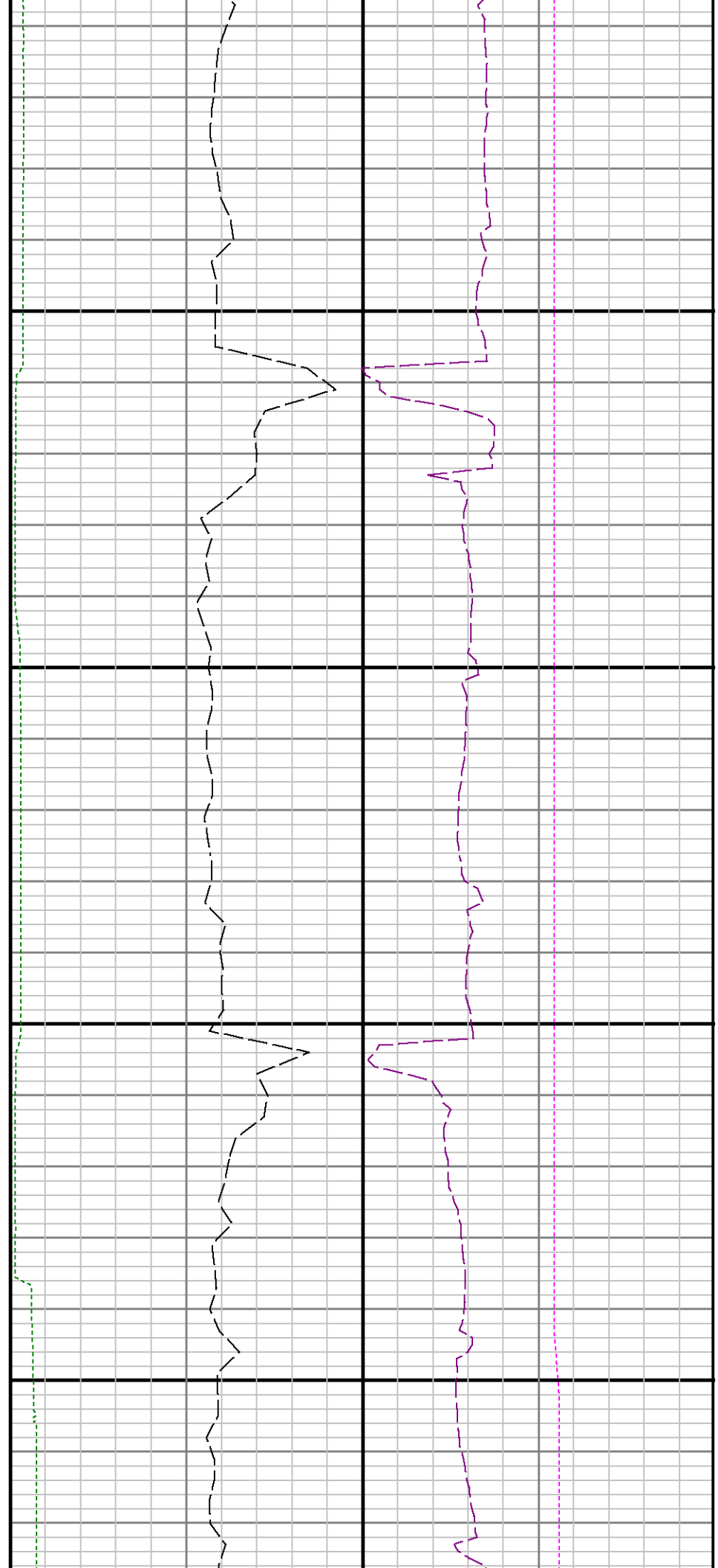
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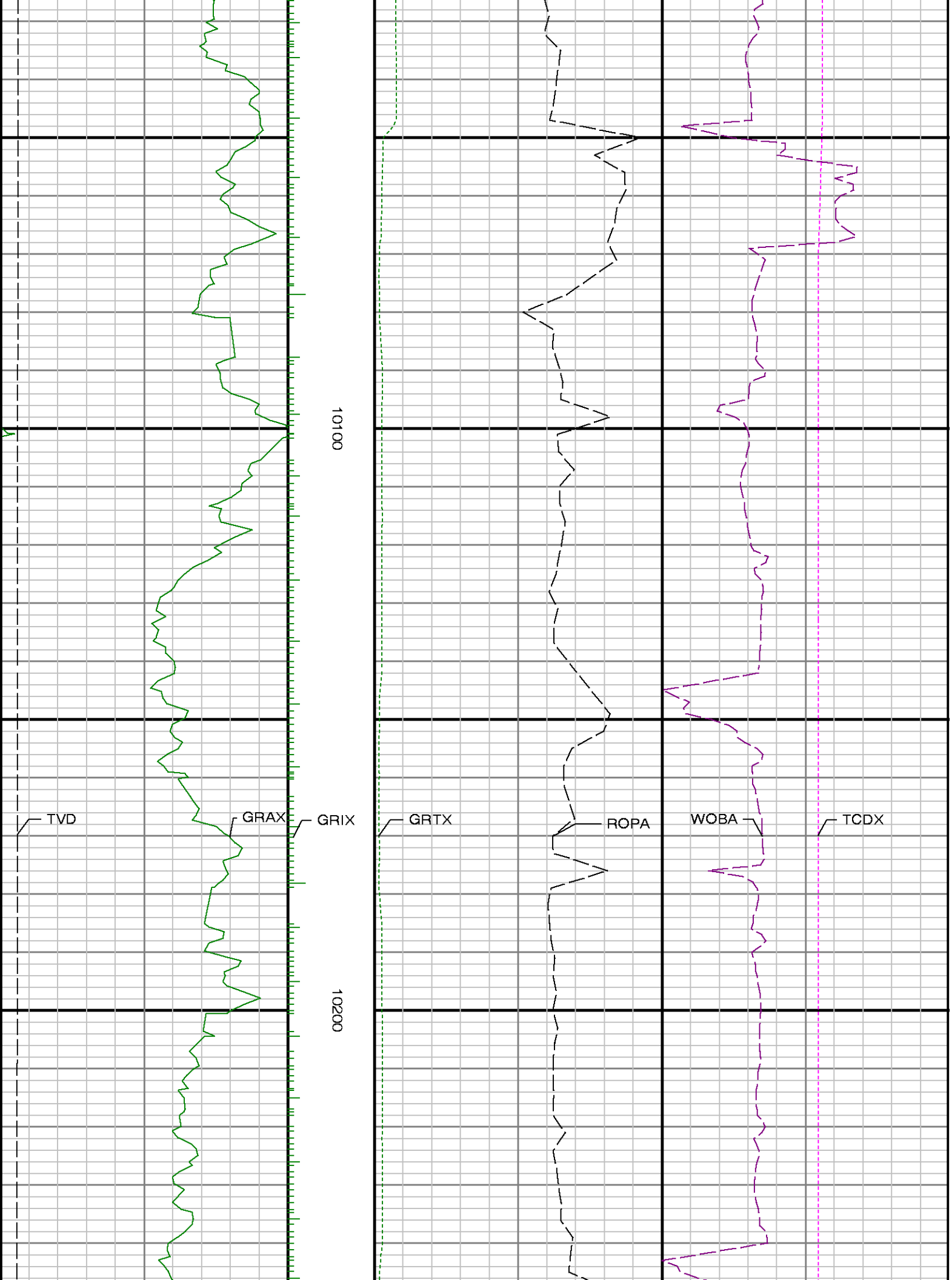


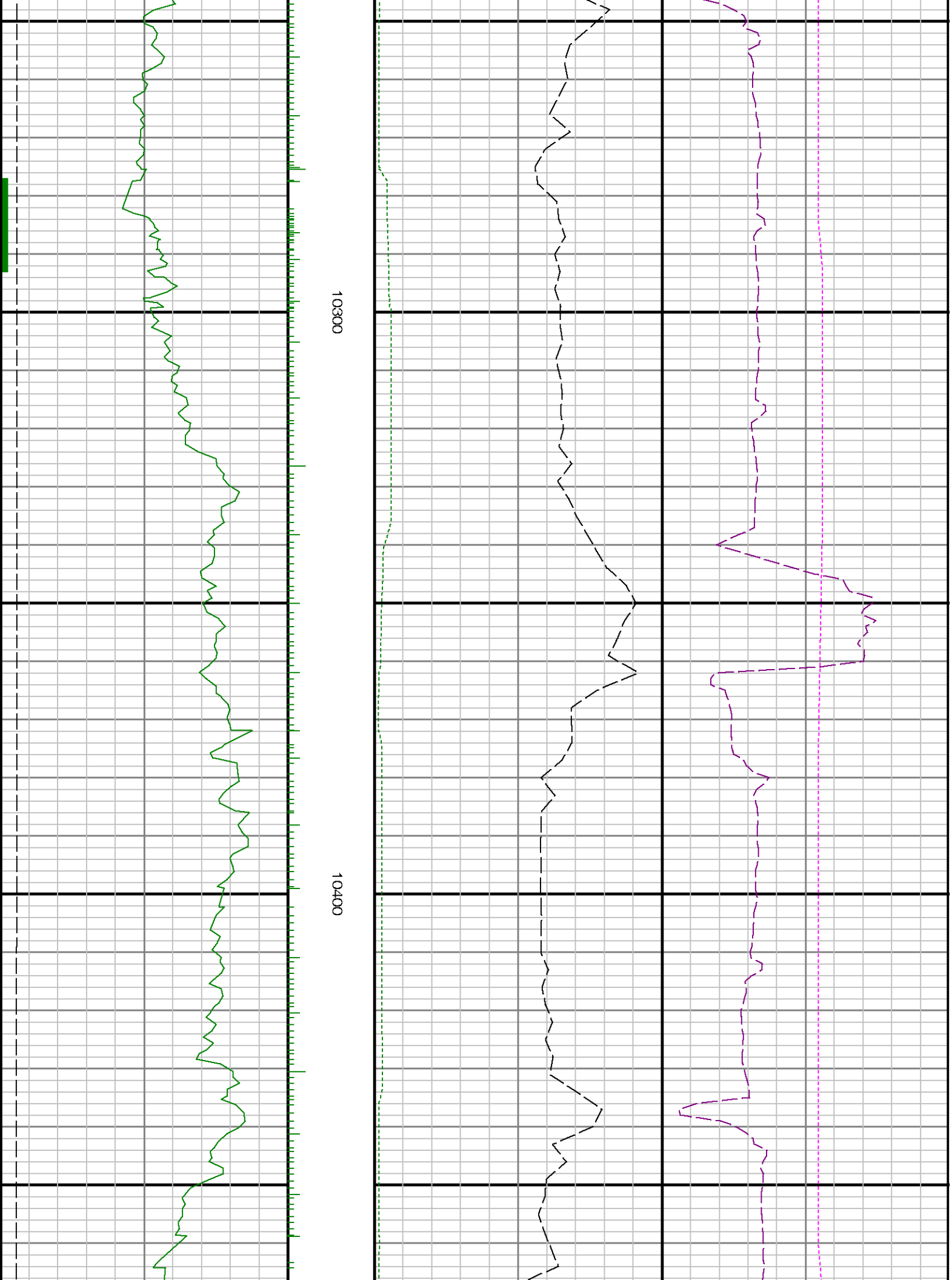


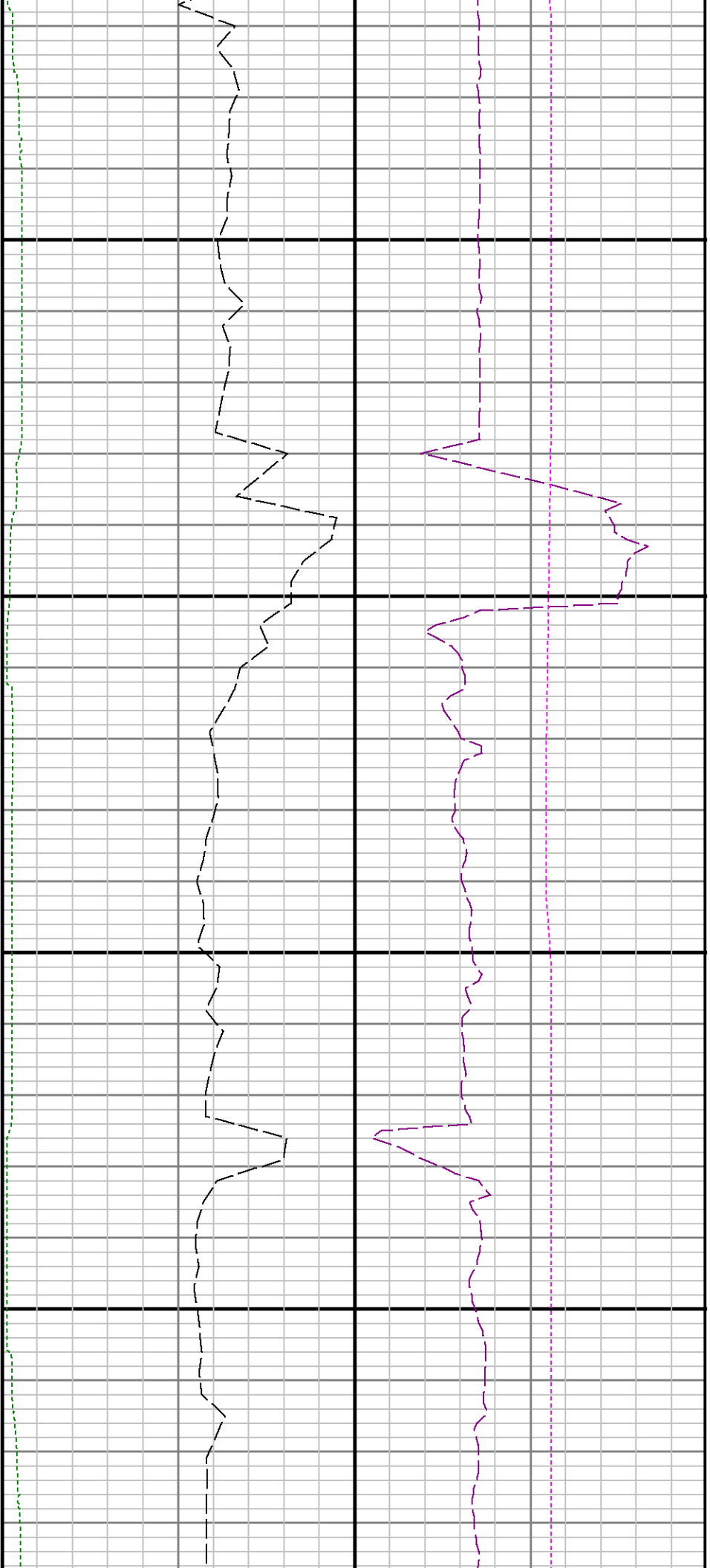
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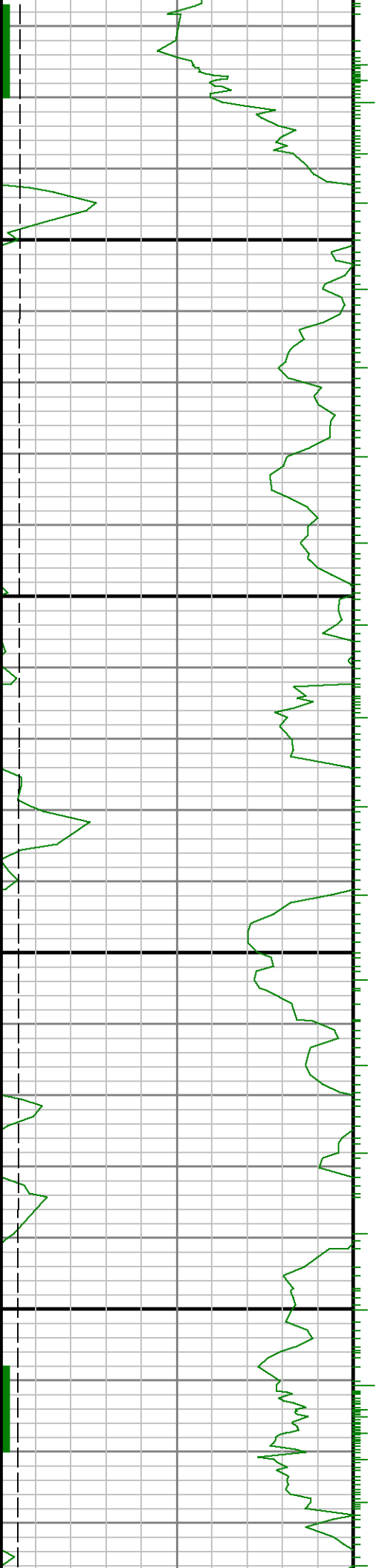


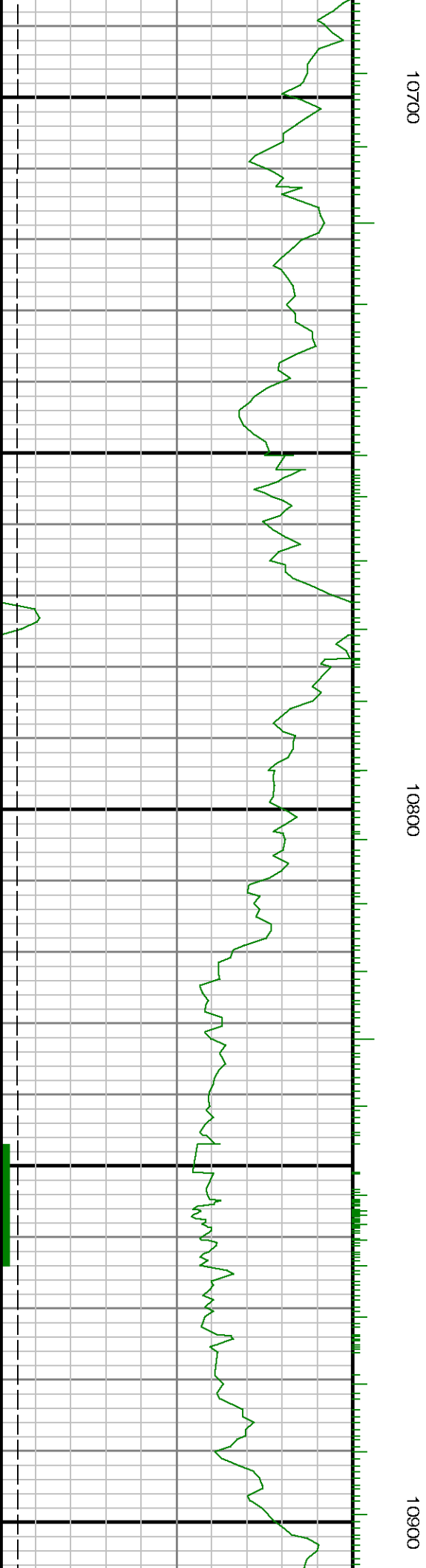
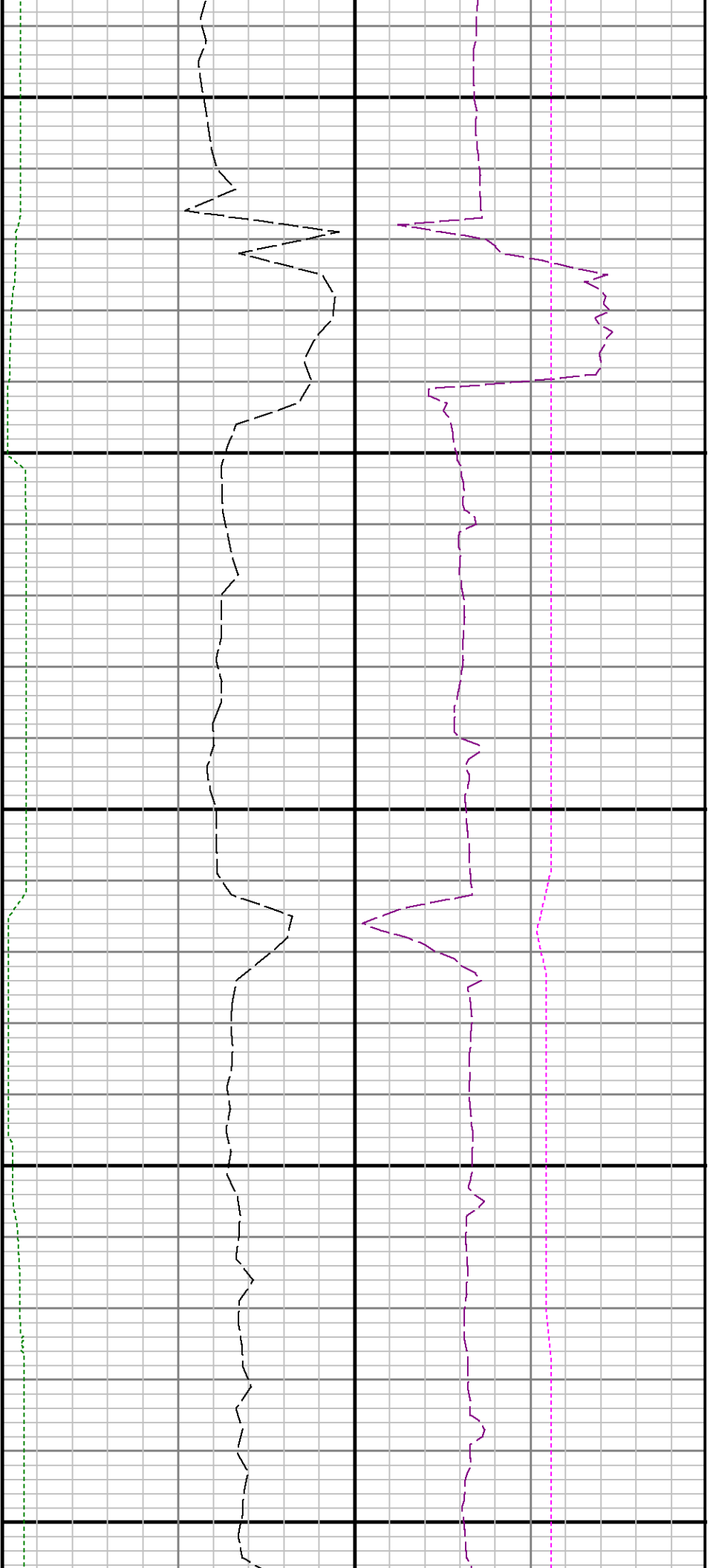


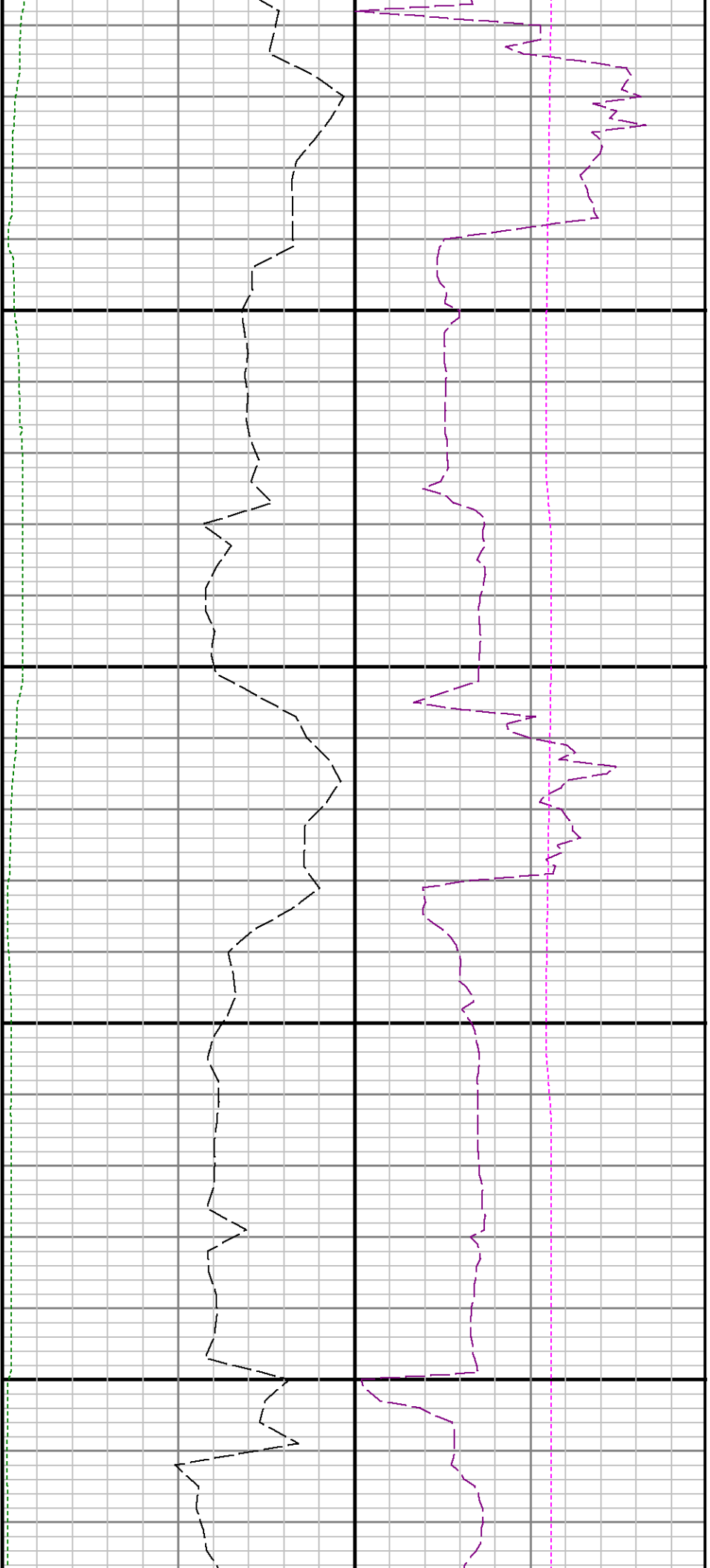


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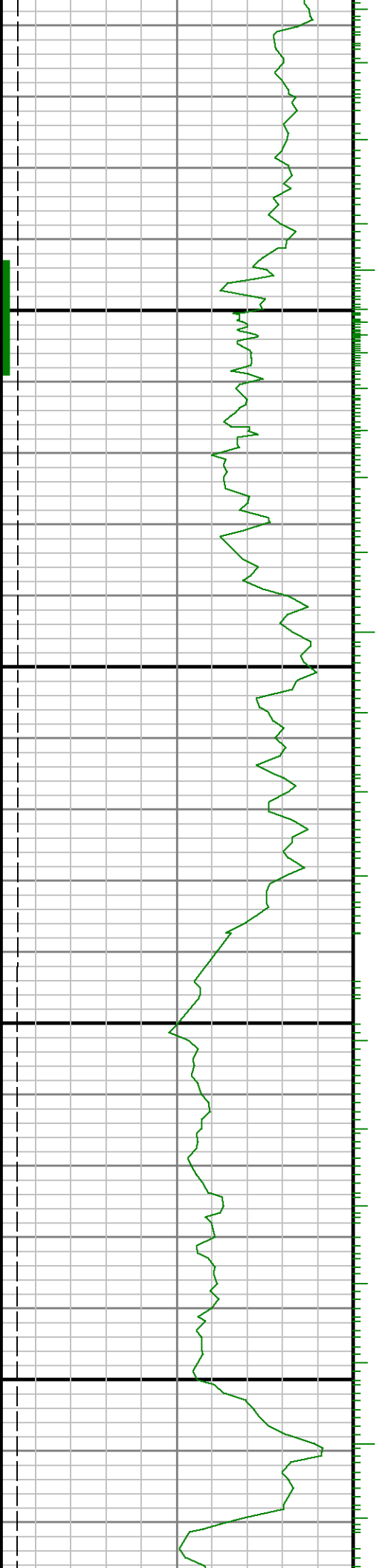


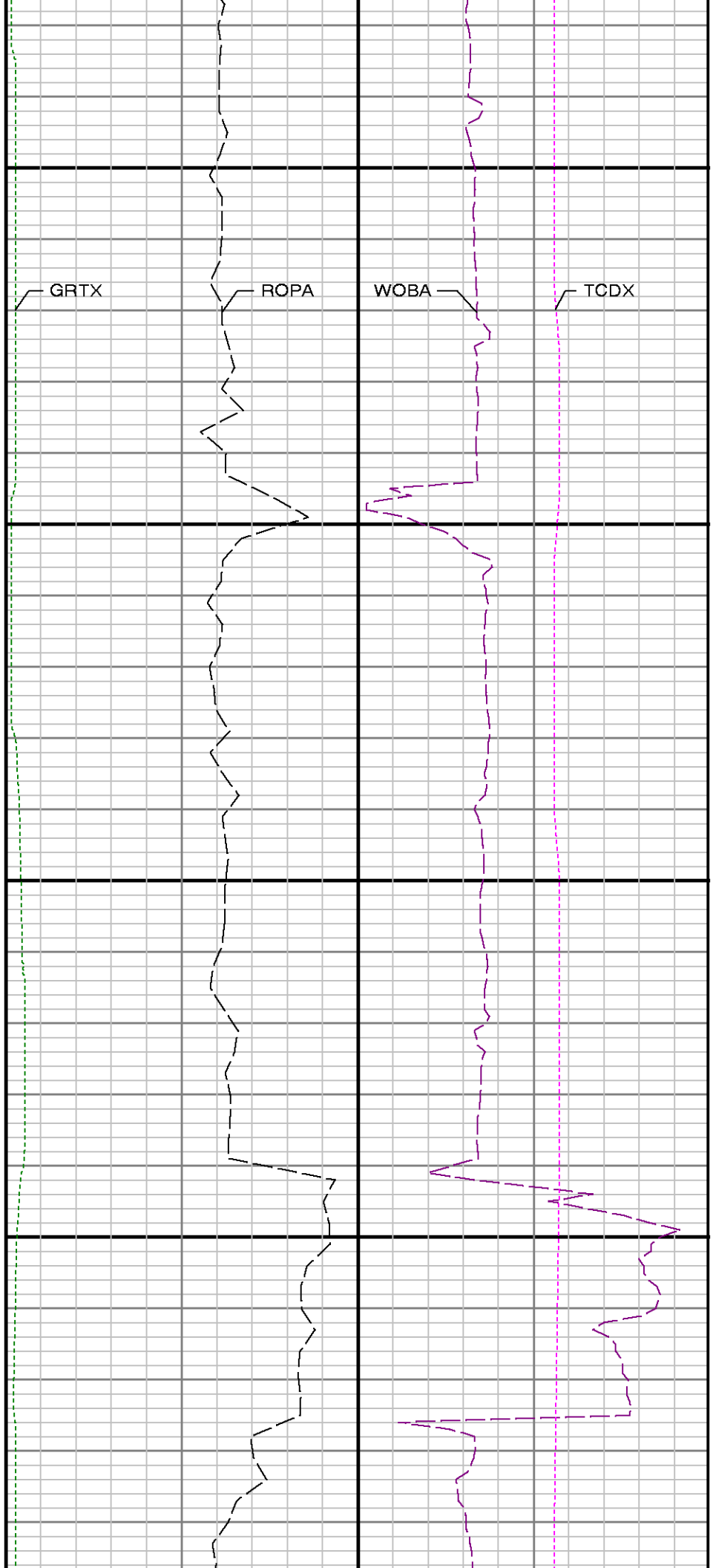
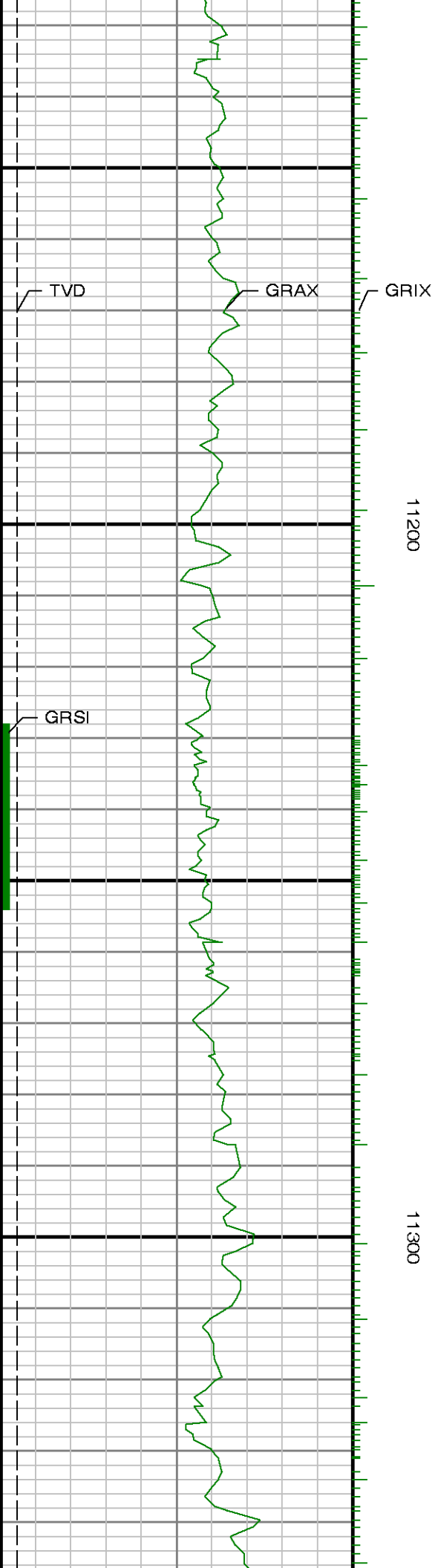


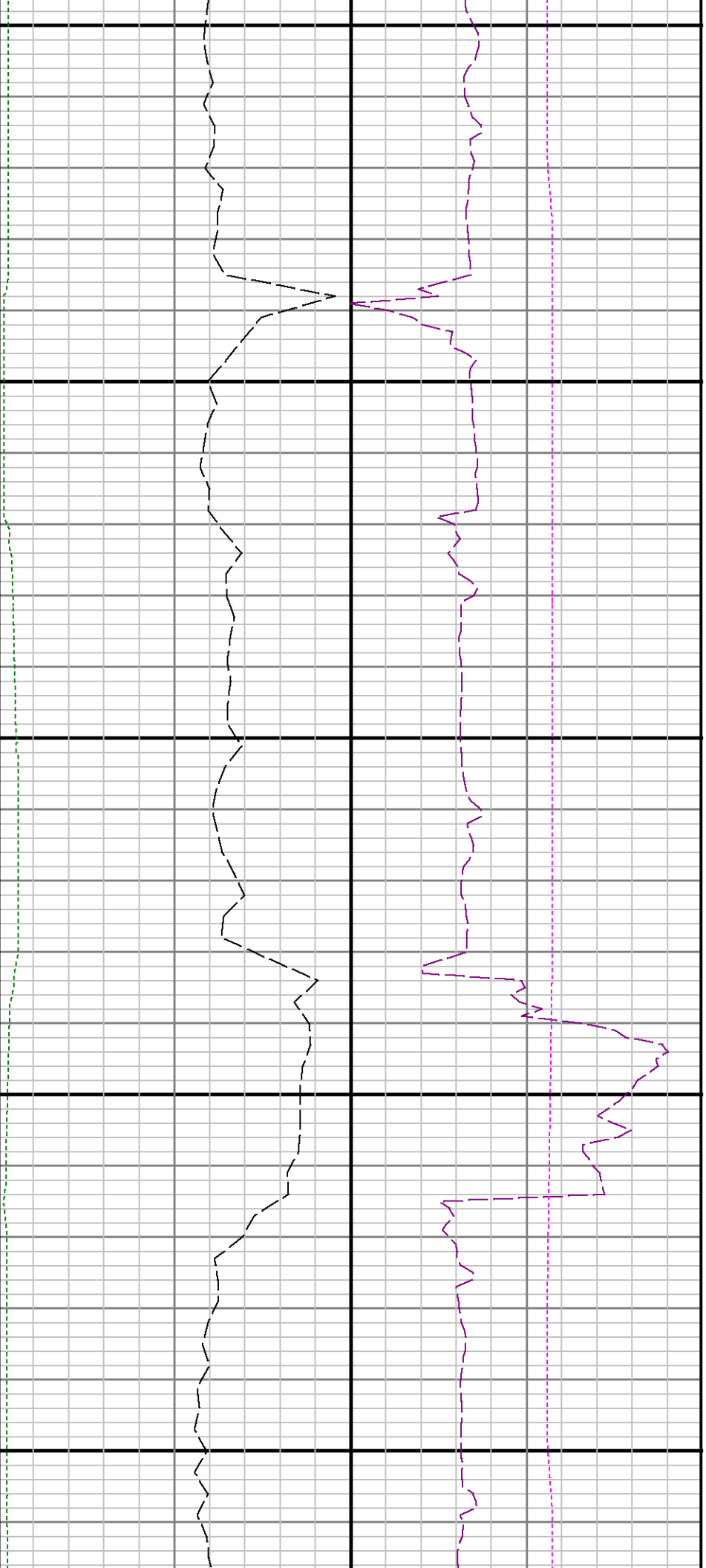


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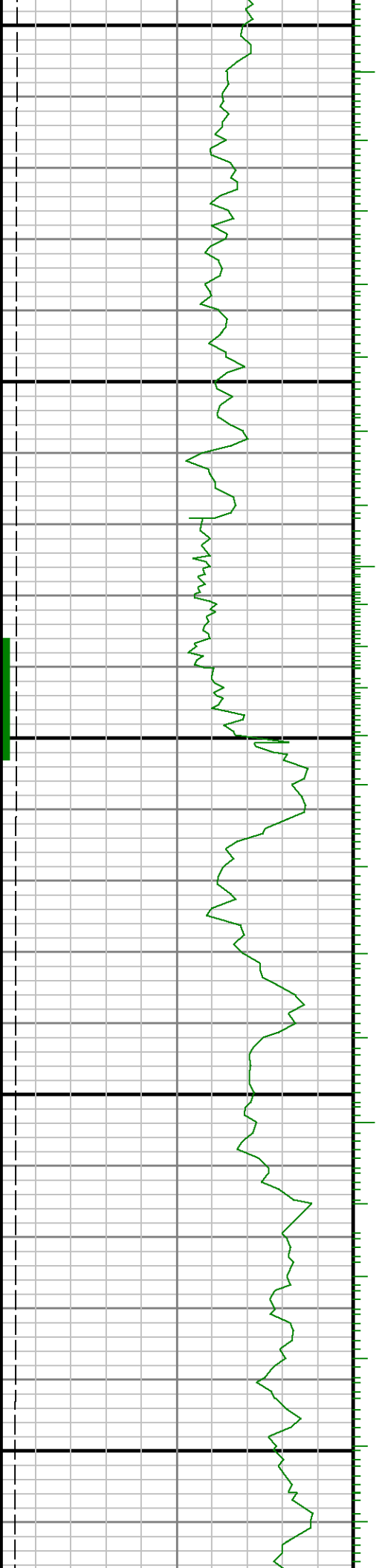


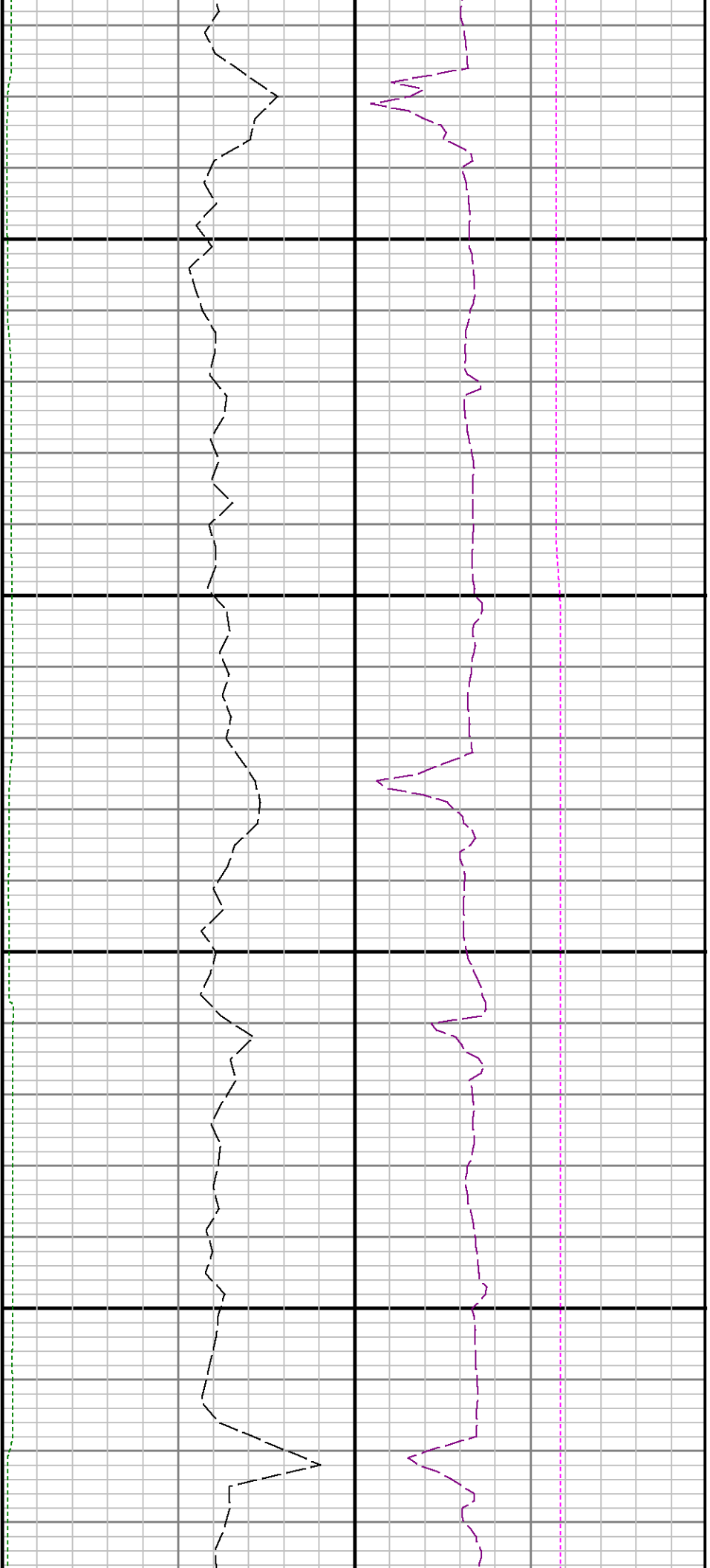




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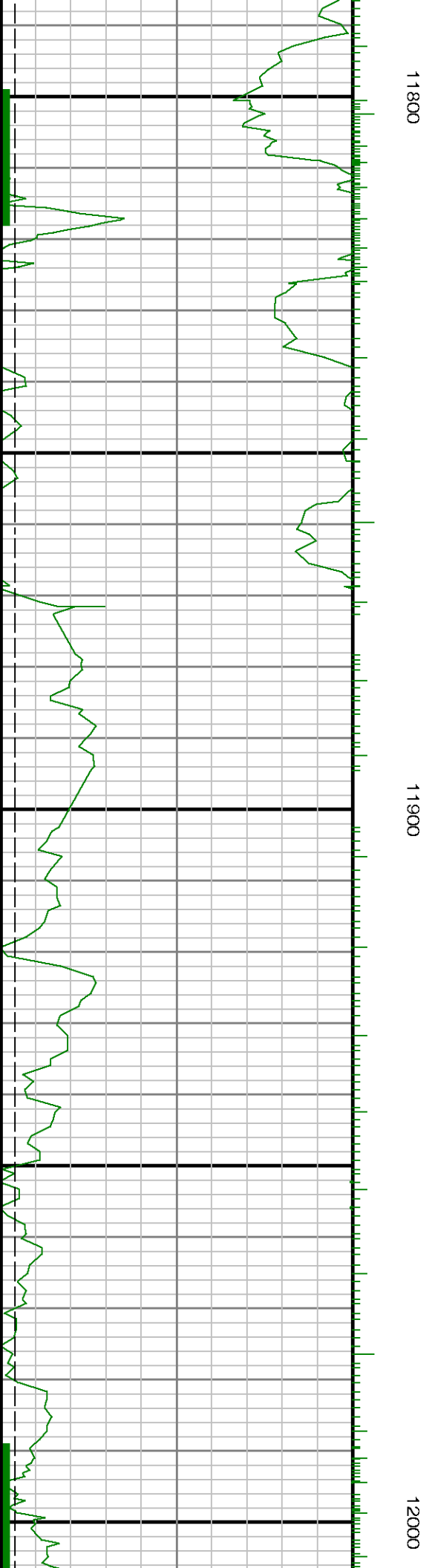
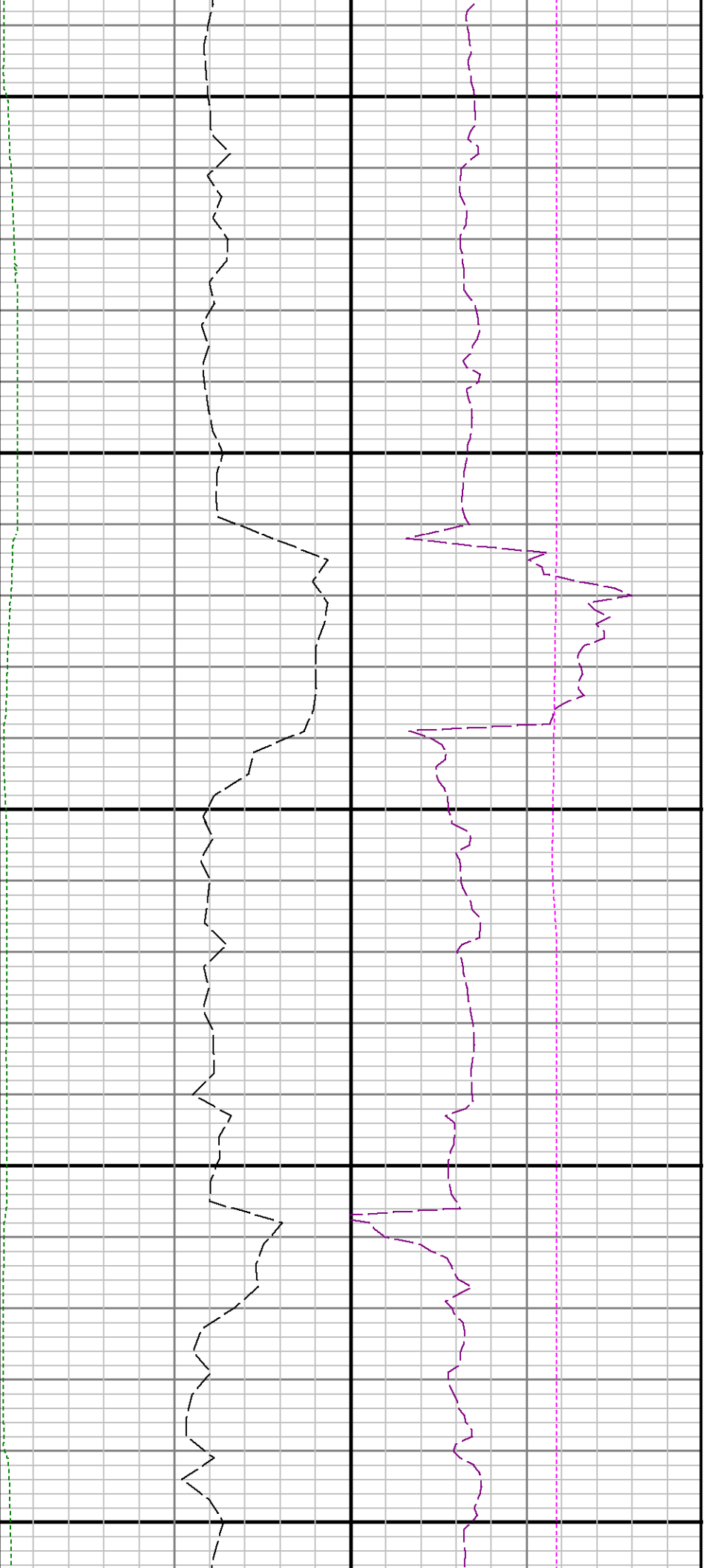
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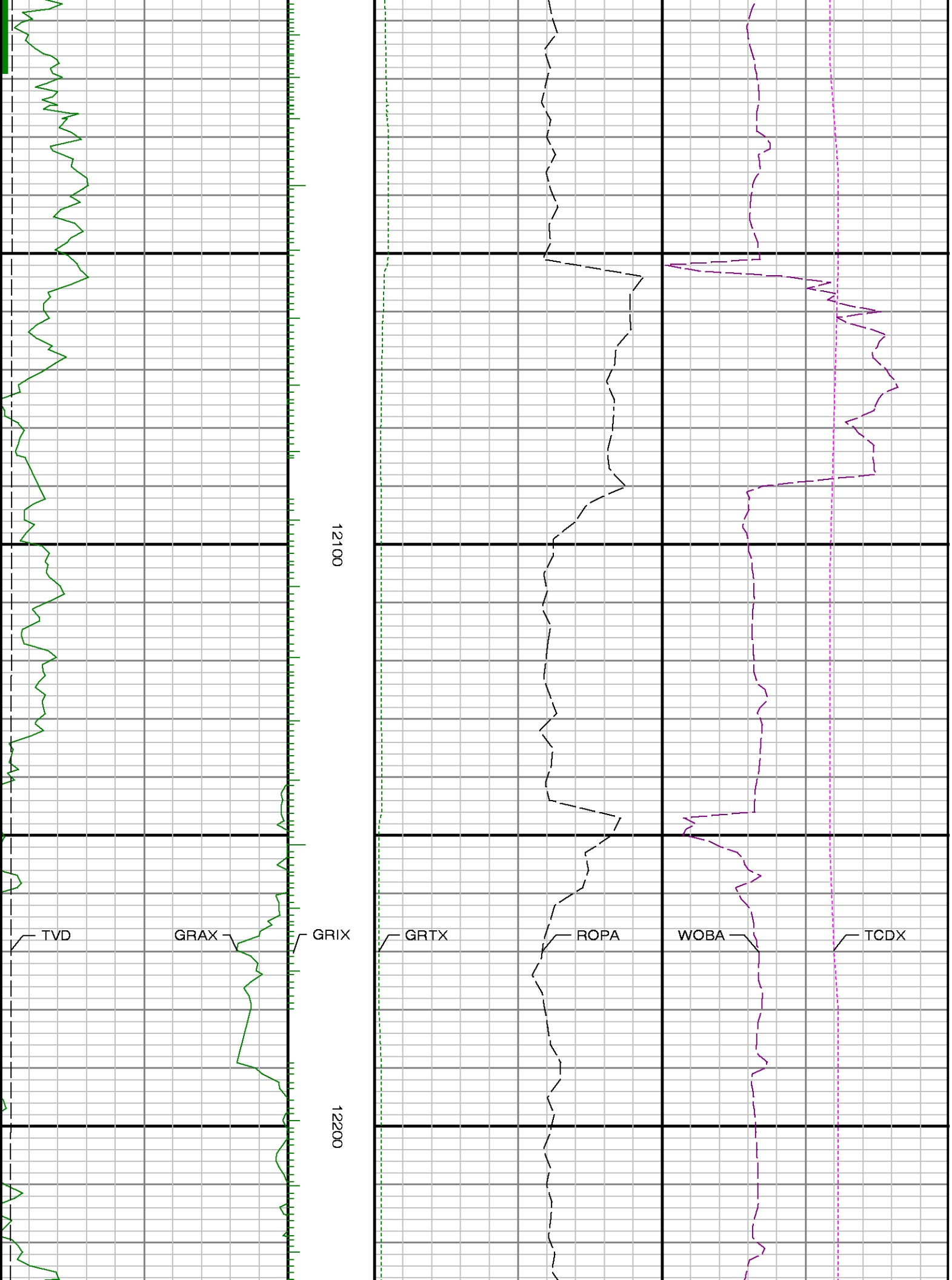


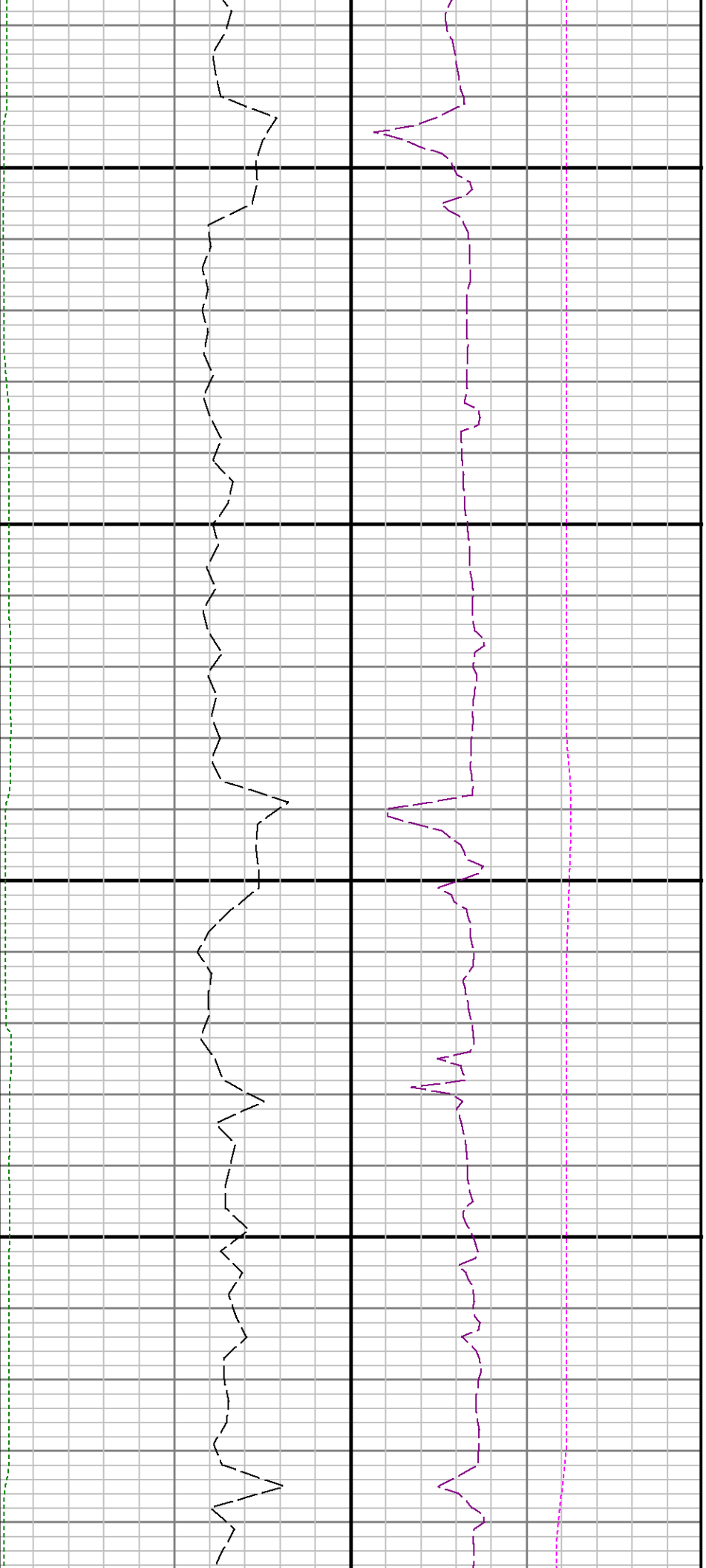


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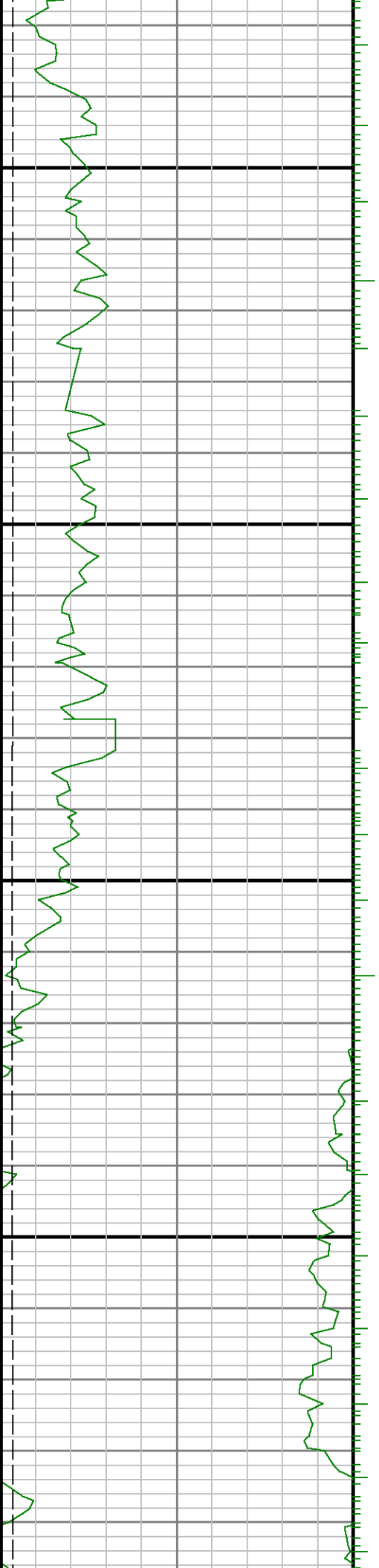


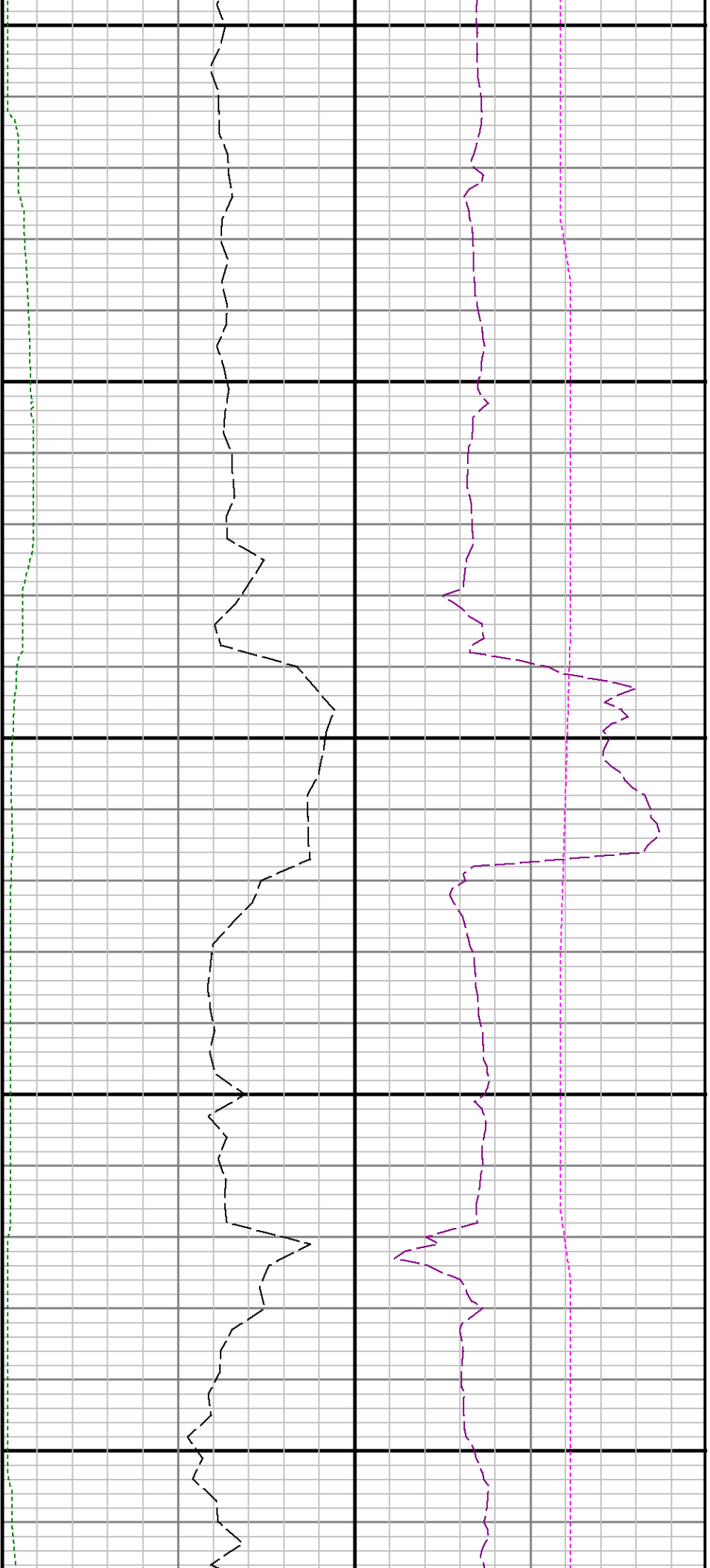




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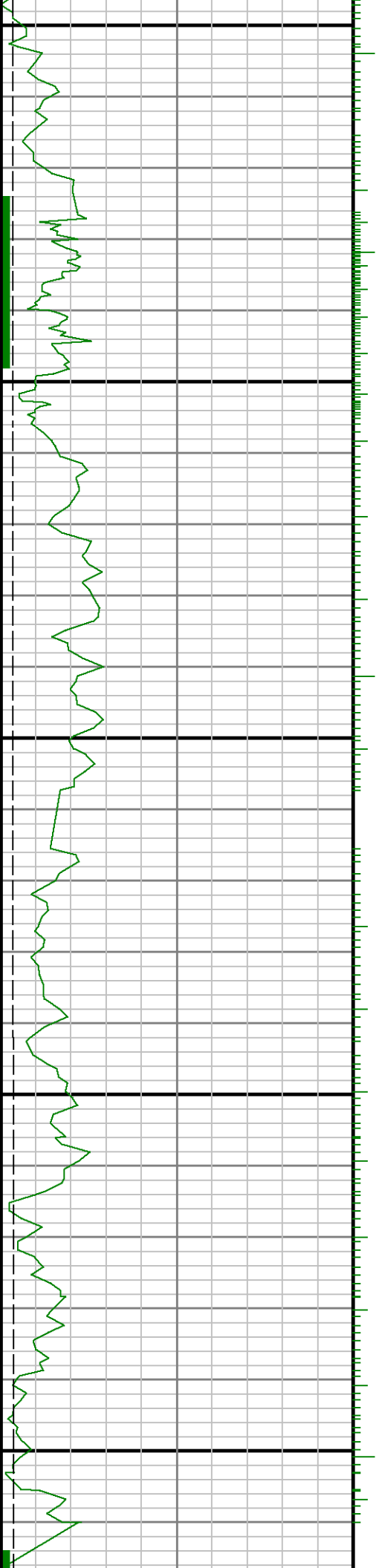
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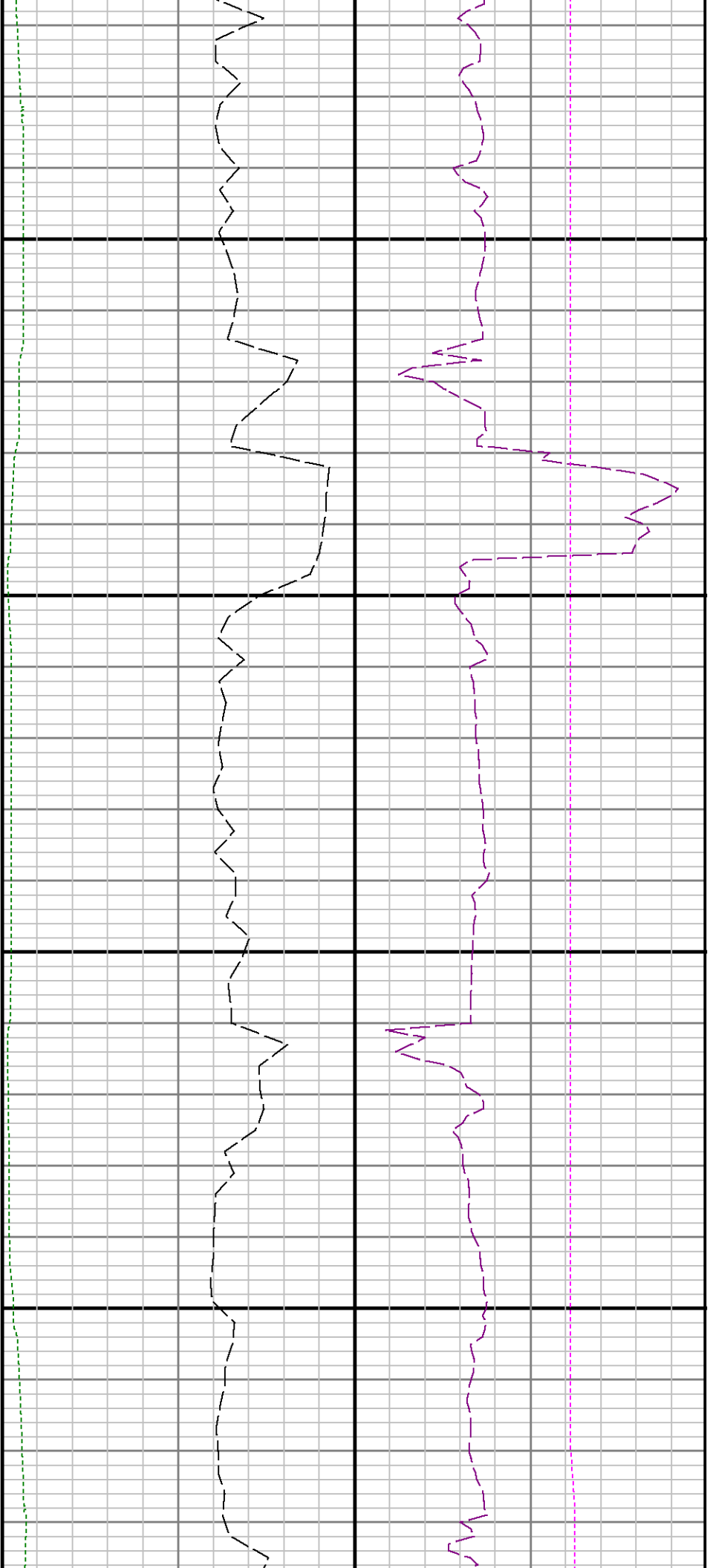




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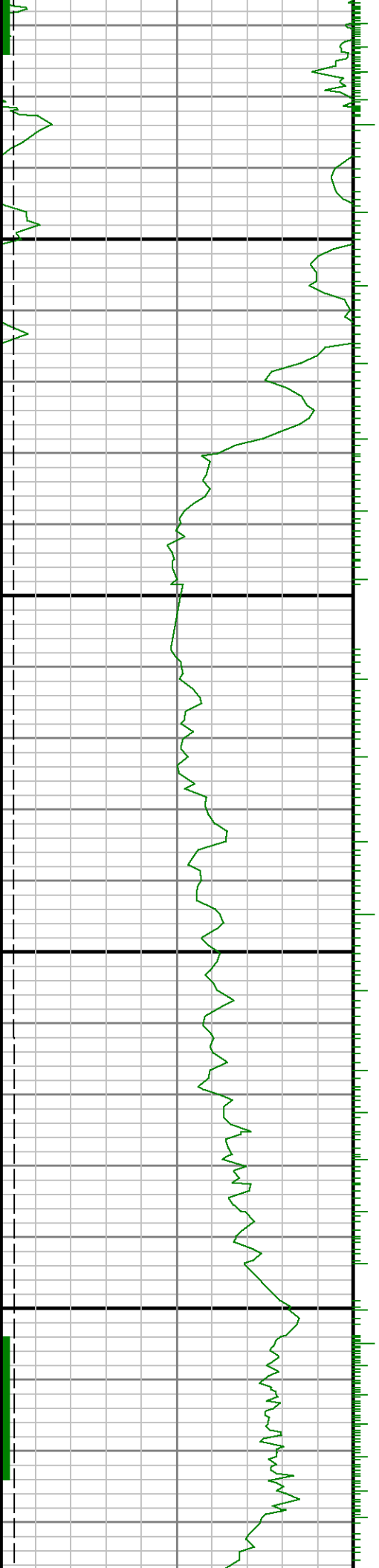
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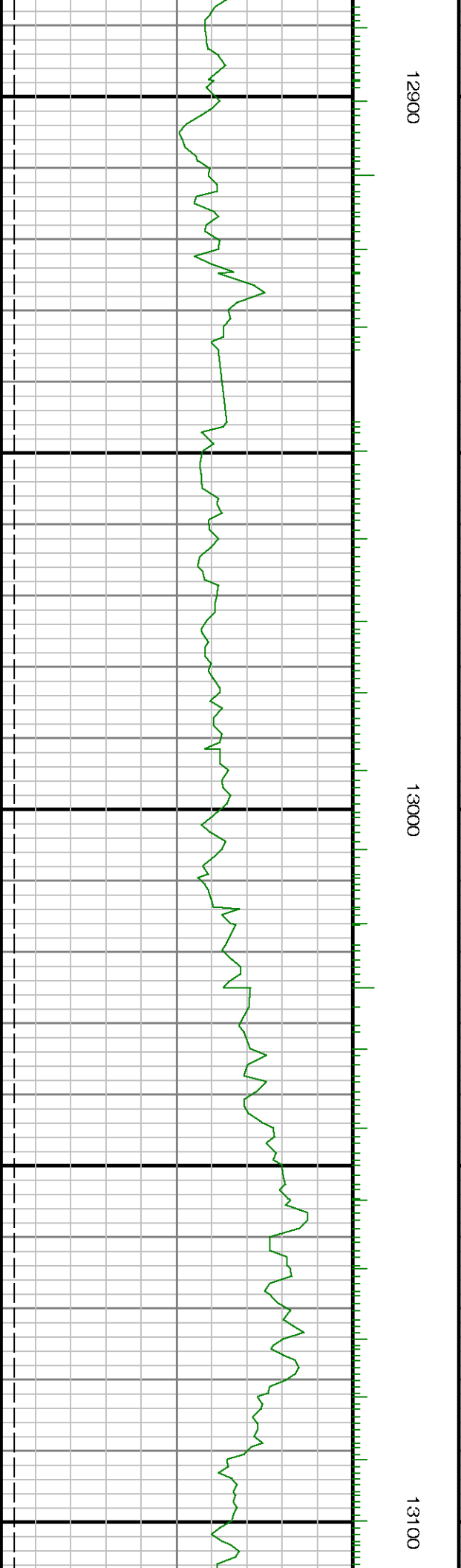
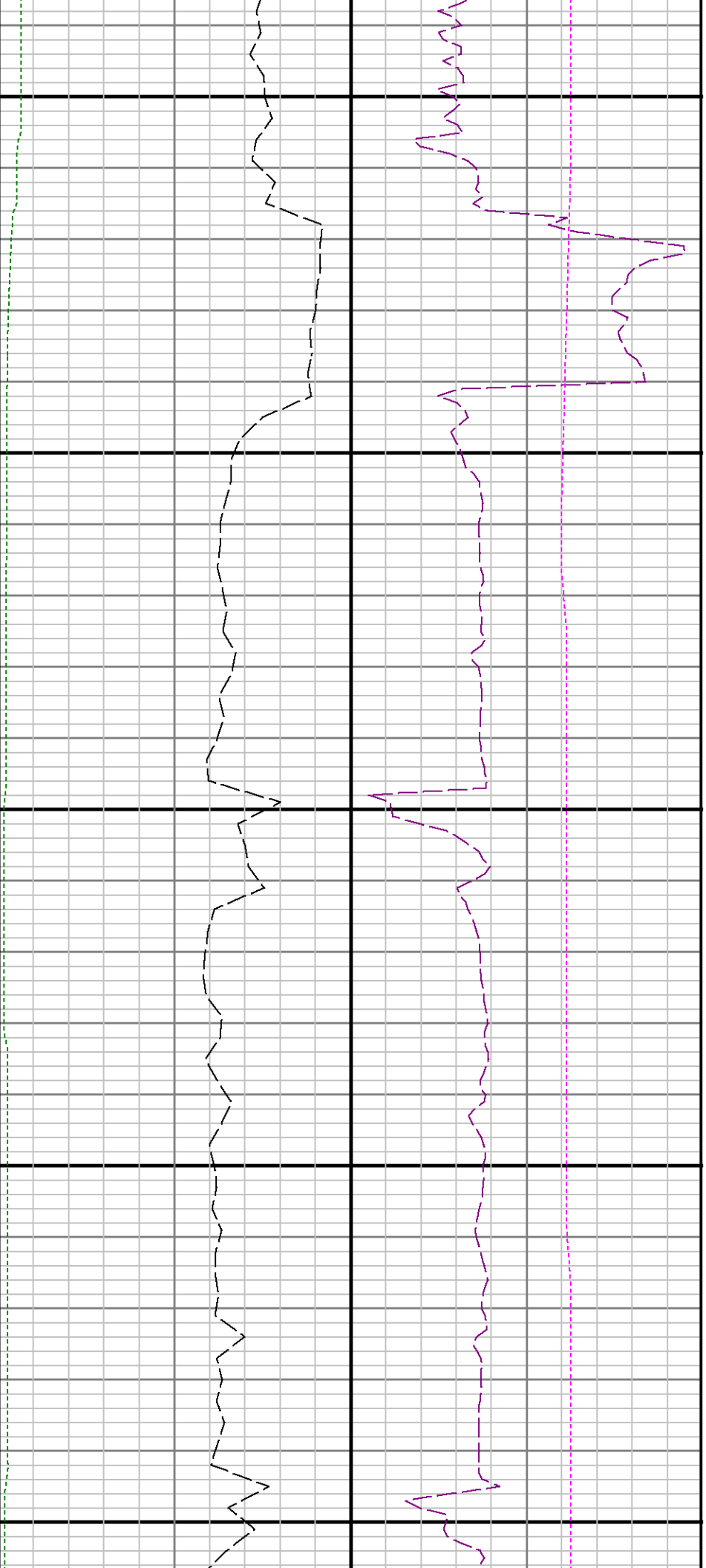


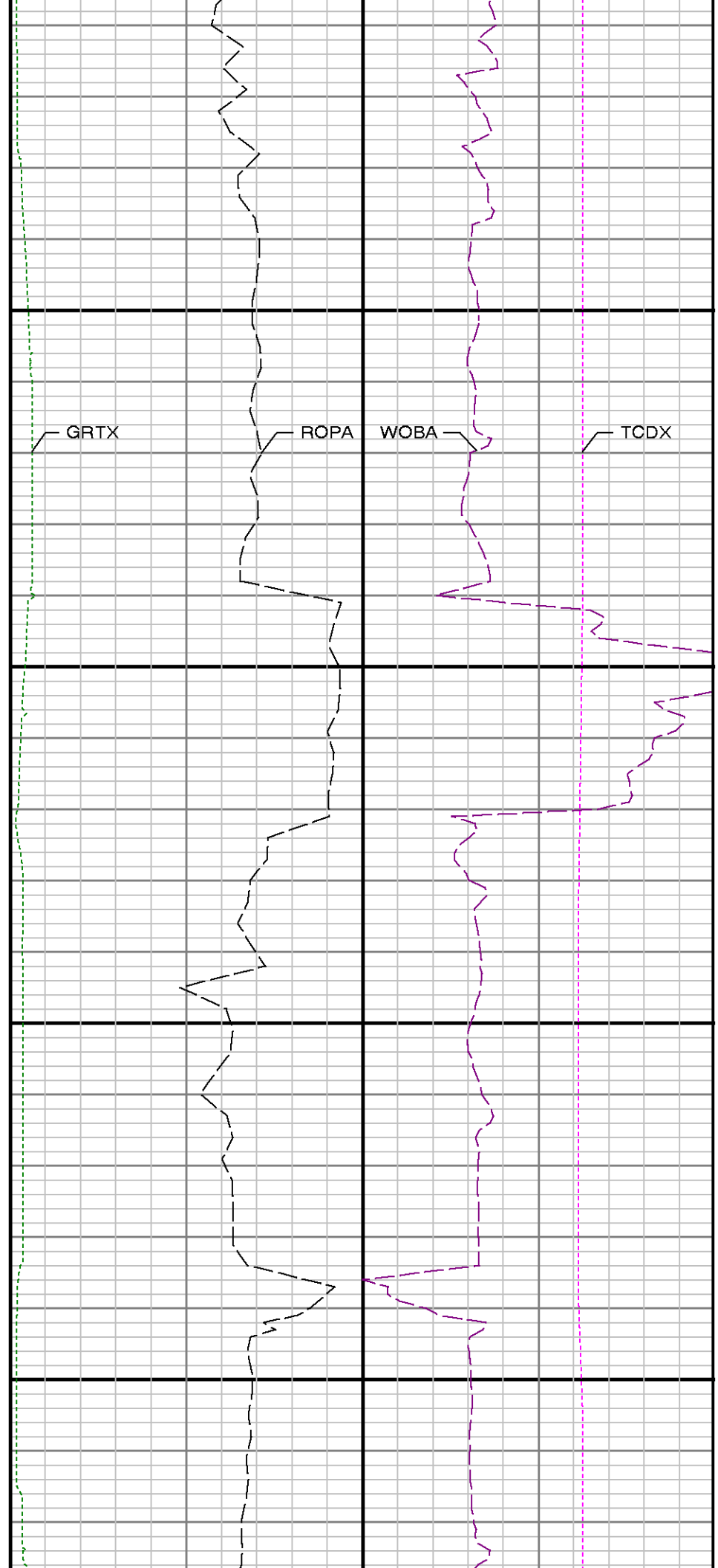
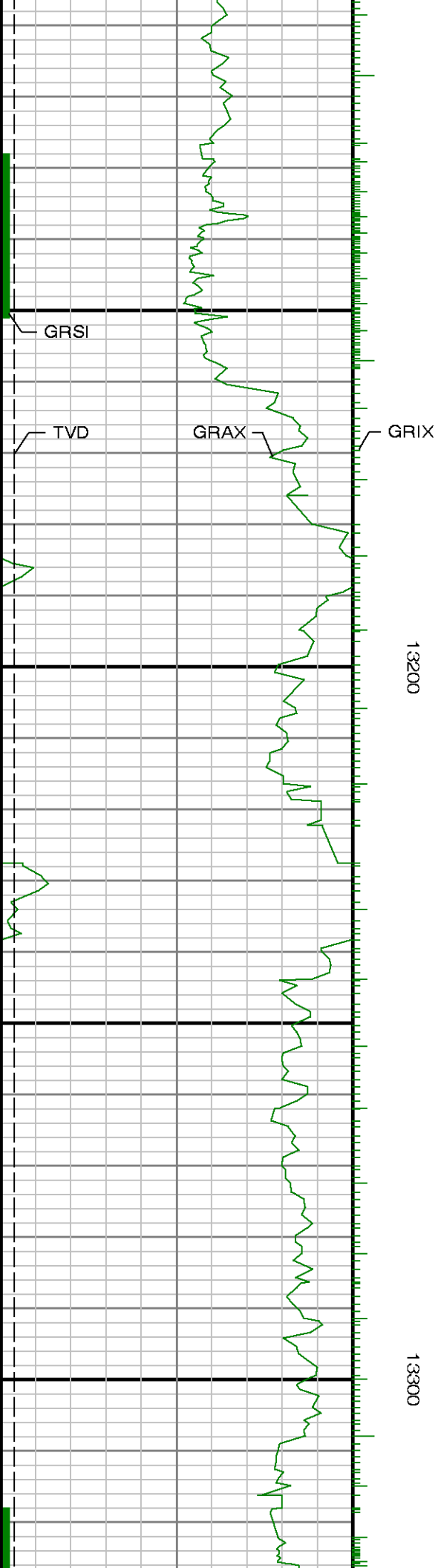


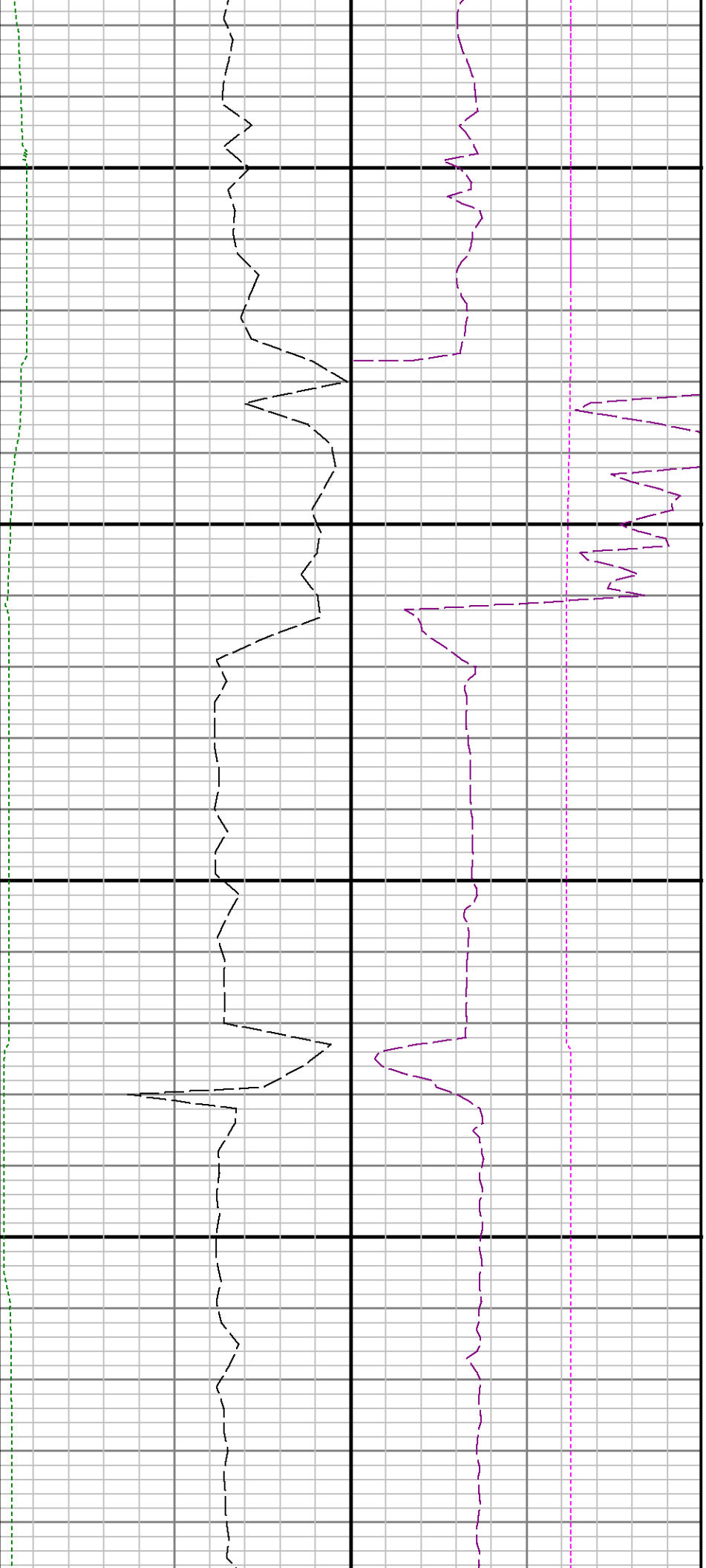
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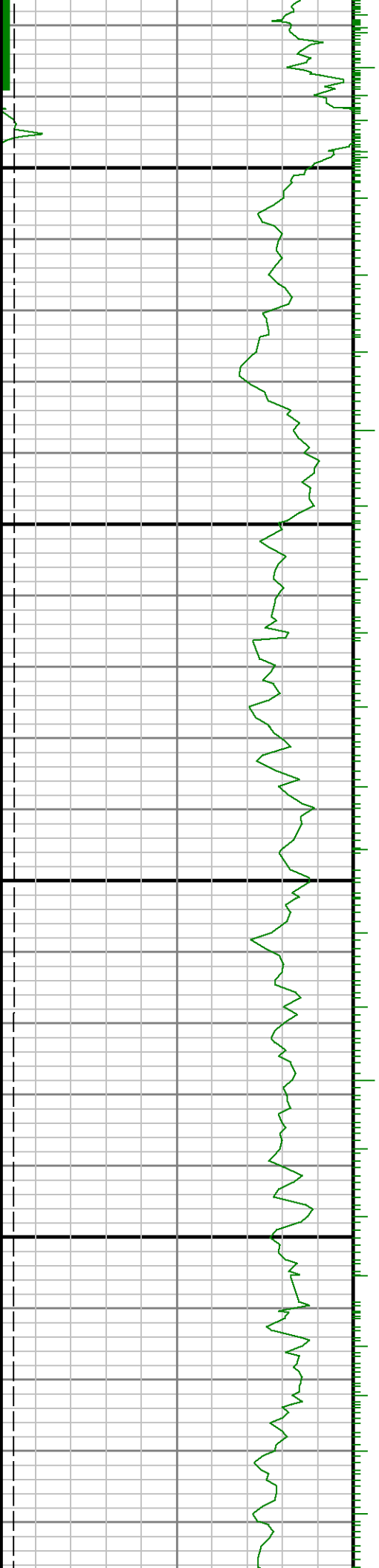


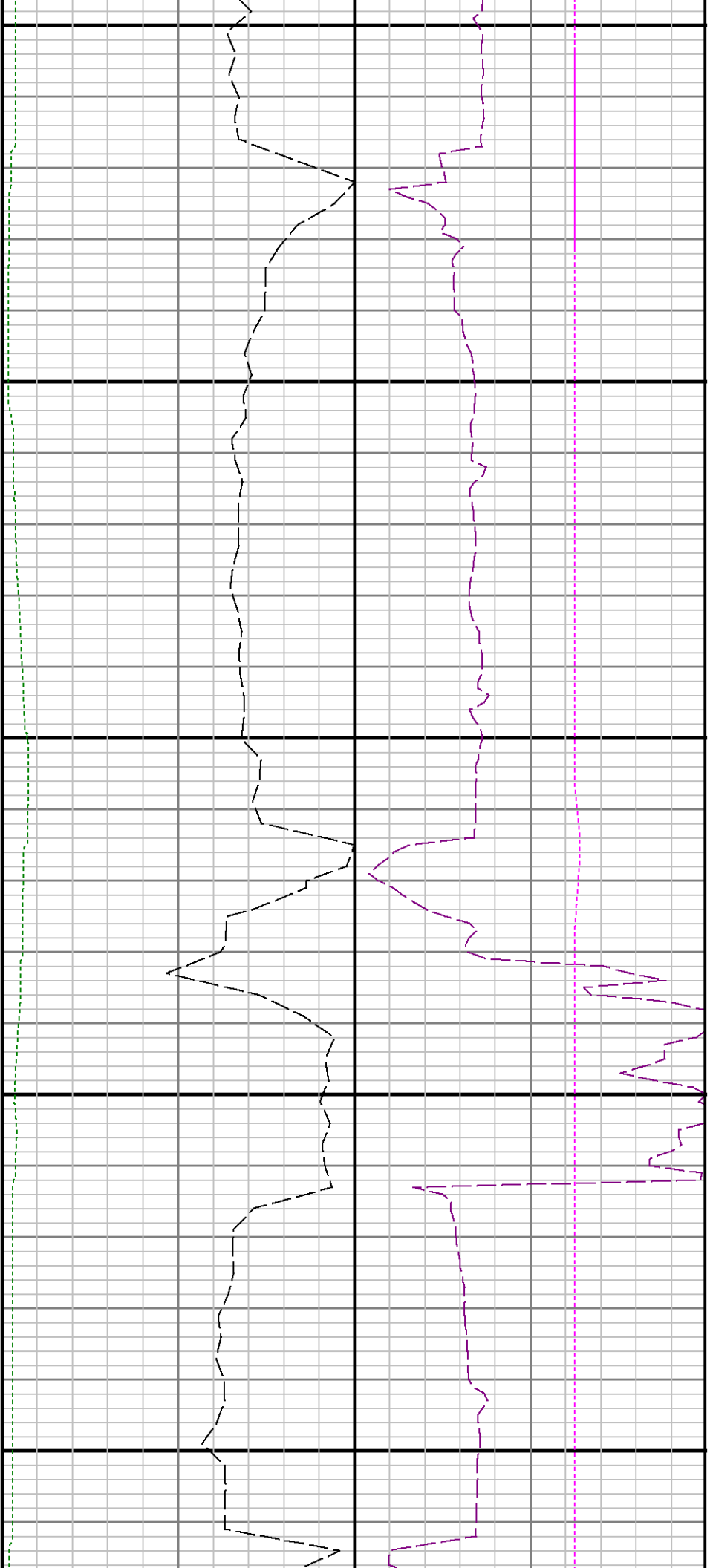




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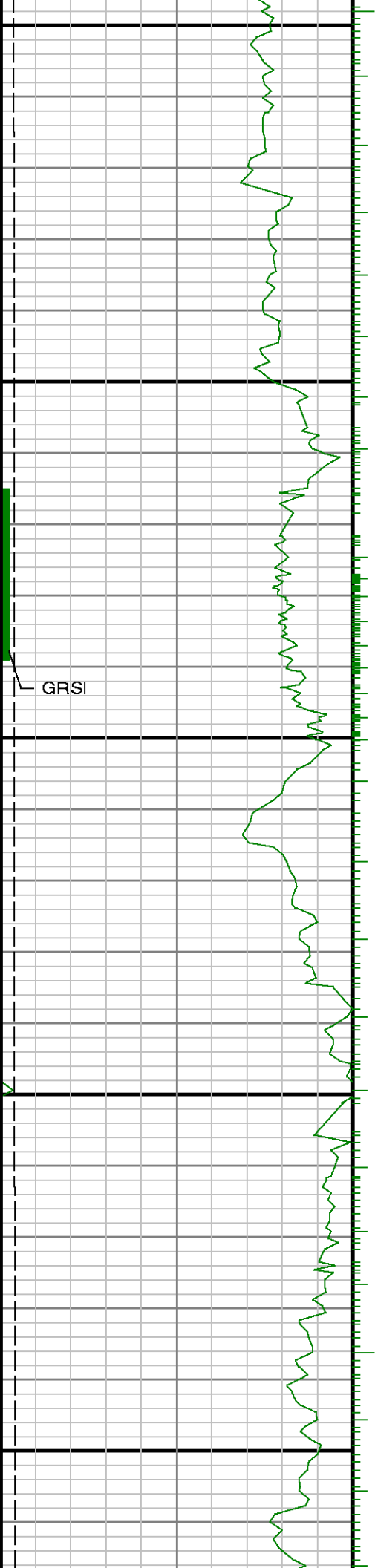
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13600

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GRSI

