

BAKER HUGHES				Realtime Logs			
				Natural Formation Evaluation Gamma Ray			
Scale:	Company: Anadarko						
1:240 MD Measured Depth	Well: Houston 34N-8HZ						
	Field: Weld County (Kerr McGee)						
	Region: Continental US Country: United States						
Status:	Surface Location:			Other Services:			
Final Print	Latitude: 40 ° 14' 16.080" N Longitude: 104 ° 54' 24.188" W			Directional Gamma			
API Number: 05-123-38943	Section: 8 TWN: 3N Range: 67E						
Permanent Datum (P.D.): Ground Level		Elevation: -17.00 ft.		Elevations: 17.00 ft.			
Log Measured From: Kelly Bushing		17.00 ft.		Above P.D. KB: 17.00 ft. DF: N/A			
Depth Reference: Driller's Depth				GL: 4823.00 ft.			
Interval Logged		Dates		Magnetic Field Reference			
Top: 6577.0 ft.	Date From: 29/Apr/14	Dip Angle: 66.87 °		Azi Reference North: True			
Bottom: 11930.0 ft.	Date To: 08/May/14	Total		Mag to Reference			
Spud Date: 29/Apr/14		Field Strength: 52578.0 nT		North Correction: 8.57 °			
Borehole Record				Casing Record			
Hole Size	From	To	Size	Weight	From	To	
13,500 in.	730.0 ft.	5242.0 ft.	9,000 in.	36.00 lb/ft	0.0 ft.	730.0 ft.	
8,750 in.	5242.0 ft.	7522.0 ft.	7,000 in.	36.00 lb/ft	730.0 ft.	7522.0 ft.	
6,125 in.	7522.0 ft.	11930.0 ft.					
Mud Record				Deviation Record			
Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)	
Water Base	Surface	11930.0 ft.	13,500 in.	Surface	0.0 ° / 0.0 °	0.4 ° / 256.9 °	
			8,750 in.	Vert / Curve	0.6 ° / 177.2 °	89.3 ° / 272.2 °	
			6,125 in.	Lateral	89.3 ° / 272.2 °	90.4 ° / 270.1 °	
					/	/	
					/	/	
					/	/	
Acquisition System Software Version				Other			
Advantage	2.20U4	Rig / Contractor:	Xtreme8	/ Xtreme Coil Drilling			
PAITS	6.4.1.34	Job No:	6325562				
		District / Unit:	RMD	/ 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.)					
3	3	3	8.750	PDC		Mud Motor	6577.0	7457.0	6577.0	7524.0	03/May/2014 21:30		05/May/2014 4:30		19.8
4	4	4	6.125	PDC		Mud Motor	7457.0	11863.0	7524.0	11930.0	06/May/2014 22:58		08/May/2014 22:58		43.25

Crew								
Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Kevin Sheridan	04/29/14	05/04/14	Shirley Arimah	04/29/14	05/02/14	Shirley Arimah	05/05/14	05/08/14
Eric Smith	05/02/14	05/08/14						

Mud Properties Record

Date / Time	LWD Run No.	Measured Depth (ft.)	Mud Type	Density (sg)	Viscosity (cp)	pH	Fluid Loss (cc)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
05/03/14	3	6575.0	Water Base	9.4	40	N/A	0.0	1/91	Active Mud Pits	1800	N/A
05/06/14	4	8415.0	Water Base	9.7	40	N/A	0.0	1/90	Active Mud Pits	1900	N/A

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent	API 0.5 ft. avg.
GRIX	Gamma Ray Density	Points
GRSI	Gamma Ray Sliding Indicator	Unitless
GRTX	Gamma Ray Time Since Drilled	Minutes
ROPA	Rate of Penetration	ft/hr 3.0 ft. avg.
TCDX	Downhole Temperature	deg F
TVD	True Vertical Depth	ft.
WOBA	Surface Weight On Bit	klbf 1.0 ft. avg.

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
3	SRIG	12578112	Gamma	51.31	6.750	2.625
3	DIR	12546334	Directional	54.35	6.750	3.250
4	DIR	12815870	Directional	65.44	4.750	2.625
4	SRIG	12023982	Gamma	62.61	4.750	2.625

Service and Tool Mnemonics

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

Comments

1) Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes INTEQ. Due to lack of control by Baker Hughes INTEQ logging engineers depth calibrations and measures could not be independently verified.
2) A sliding indicator is shown on the left side of track 1 as a heavy line. This indicator has been shifted to the Gamma Ray sensor offset to correspond with Gamma Ray data acquired while sliding.
3) Baker Hughes INTEQ run 3 utilized a 6.5 inch NaviGamma (Gamma Ray and Directional) tool behind a 8.75 inch bit and steerable assembly from 6577 to 7524 ft. MD (6336.07 to 6932.35 ft. TVD).
4) Baker Hughes INTEQ run 4 utilized a 4.75 inch NaviGamma (Gamma Ray and Directional) tool behind a 6 inch bit and steerable assembly from 7524 to 11930 ft. MD (6932.35 to 6938.20 ft. TVD).

Remarks

Number	Measured	Hole	LWD	Remark
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	Depth (ft.)	Section (in.)	Run No.	
1	7466	8.750	3	The interval from 7466 to 7511 feet MD (6929 to 6932 feet TVD) was logged 23 hours after drilling for casing operations. Gamma data is attenuated due to logging behind casing
2	11867	6.125	4	The interval from 11867 to 11930 feet MD (6934 to 6933 feet TVD) was not logged due to sensor offsets to bit at TD.

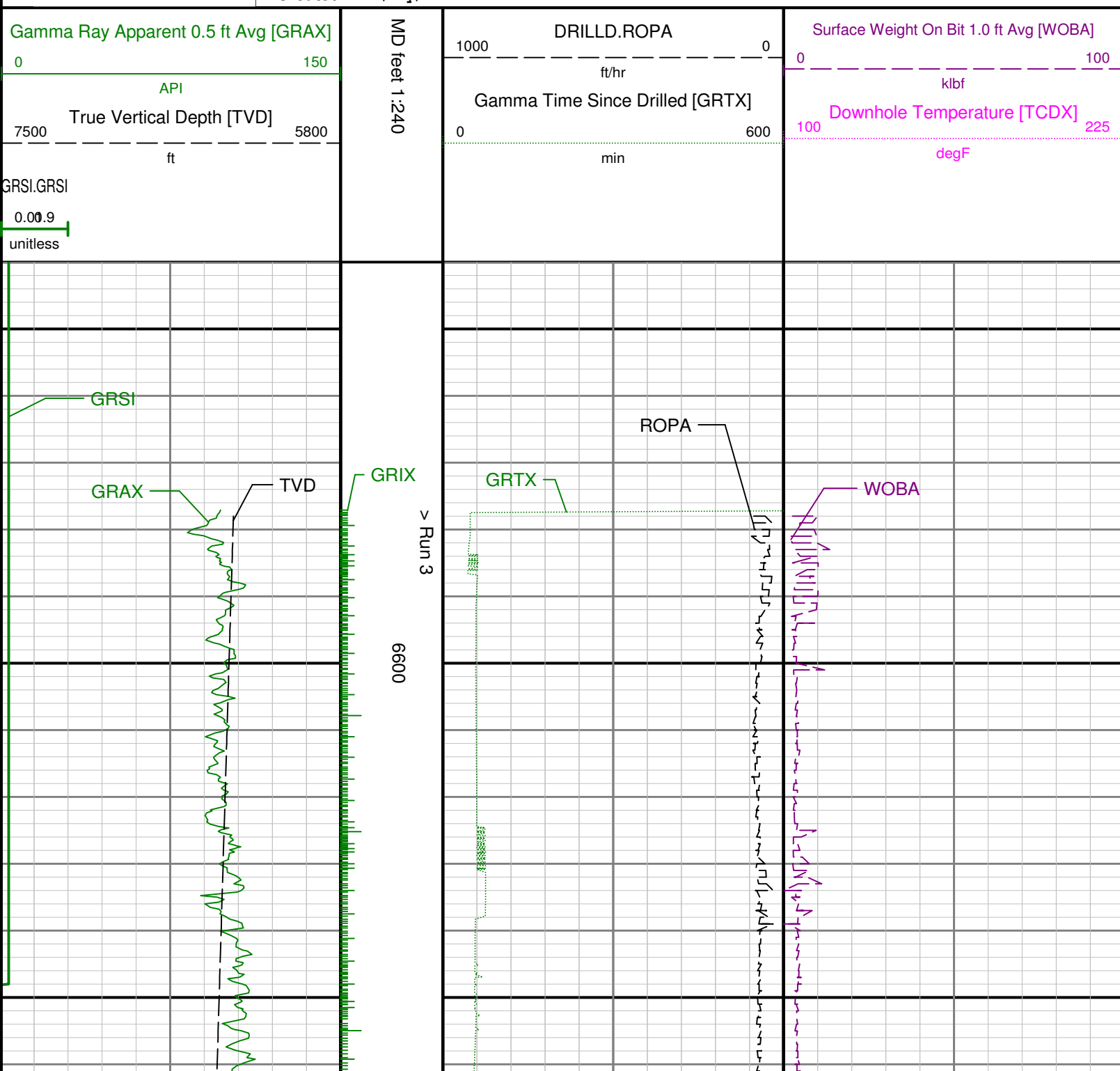


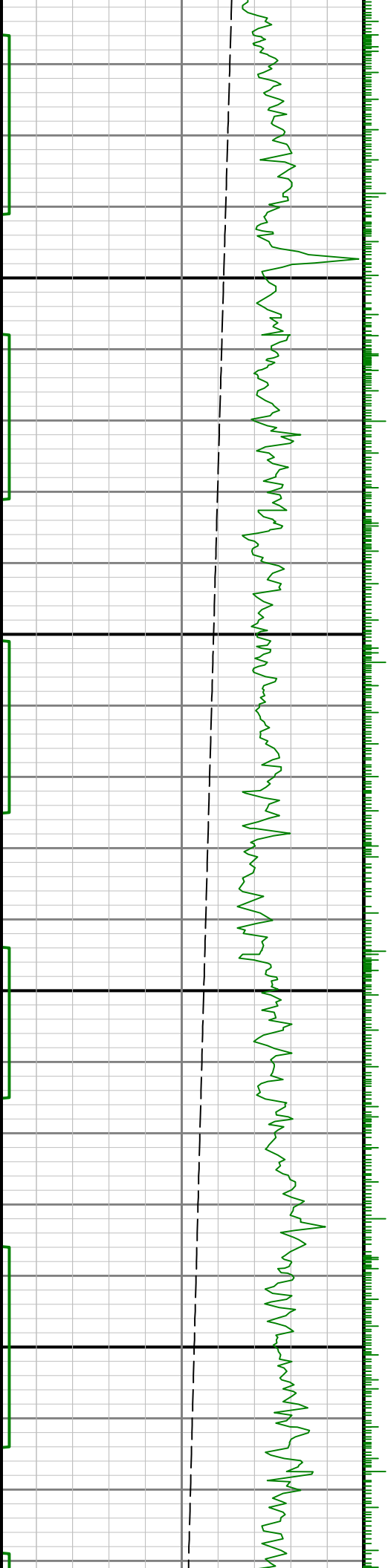
Company : Anadarko

Well : Houston 34N-8HZ

Interval : 6540.00 - 11940.00 feet

Created : 08/May/2014 7:08:42 PM

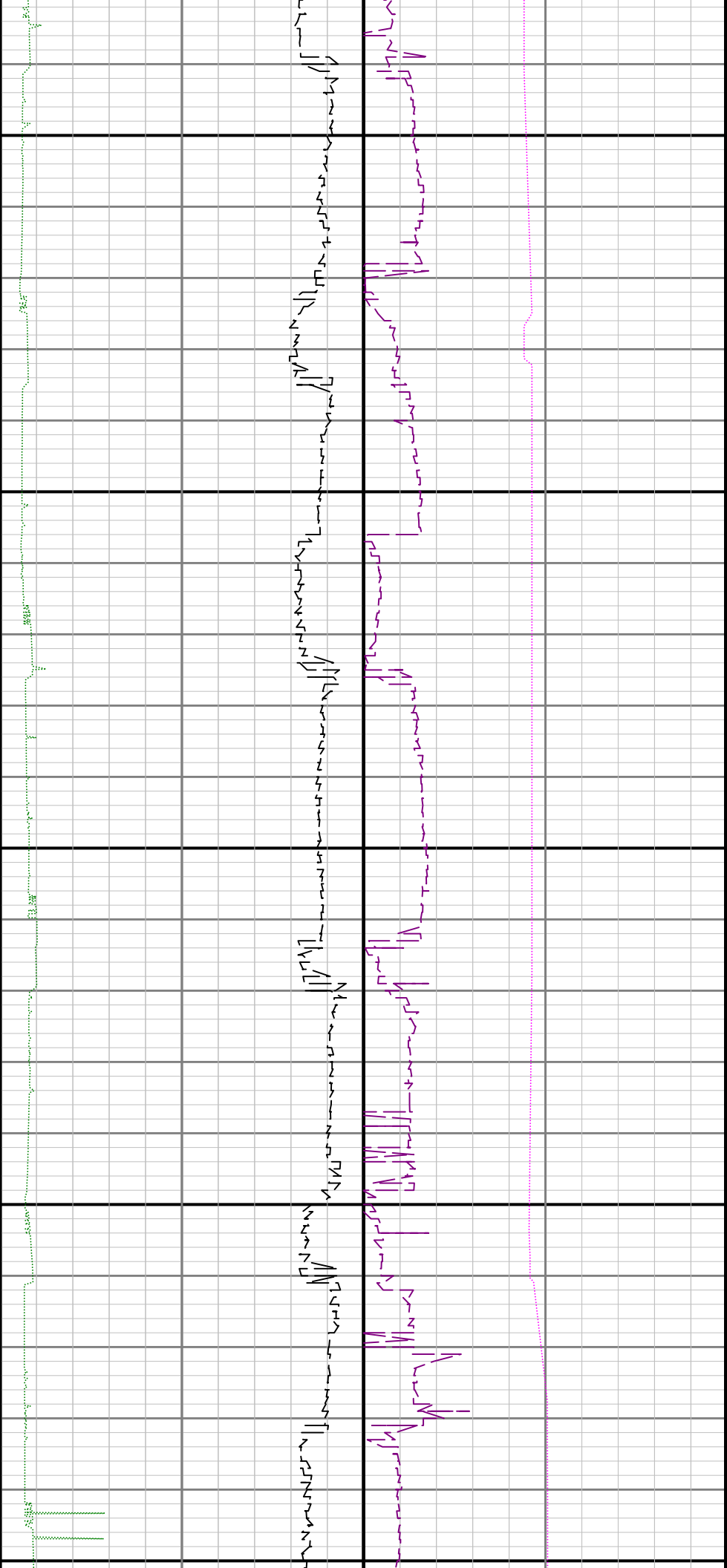




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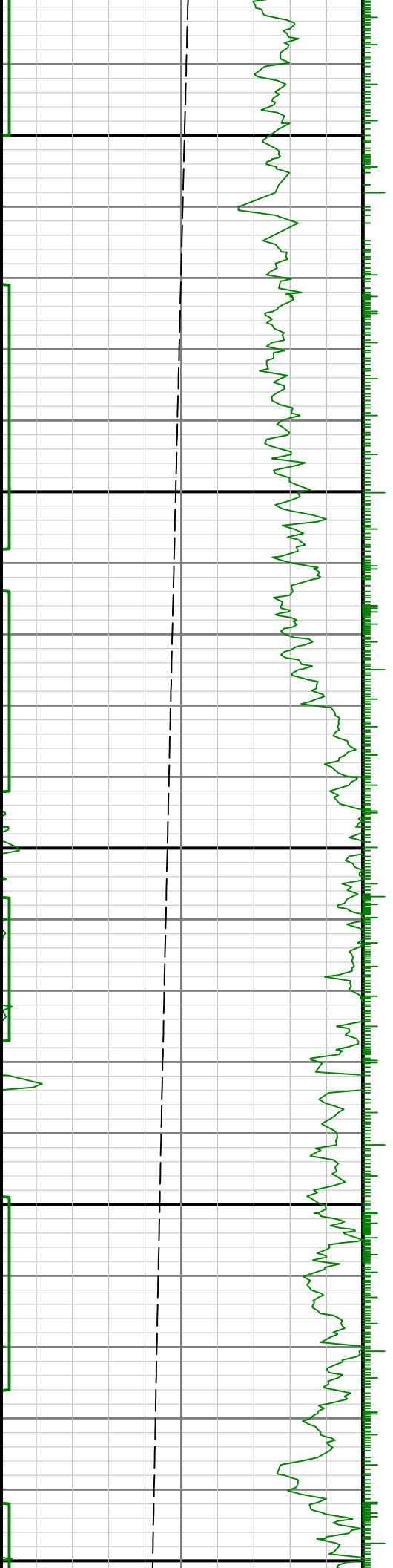


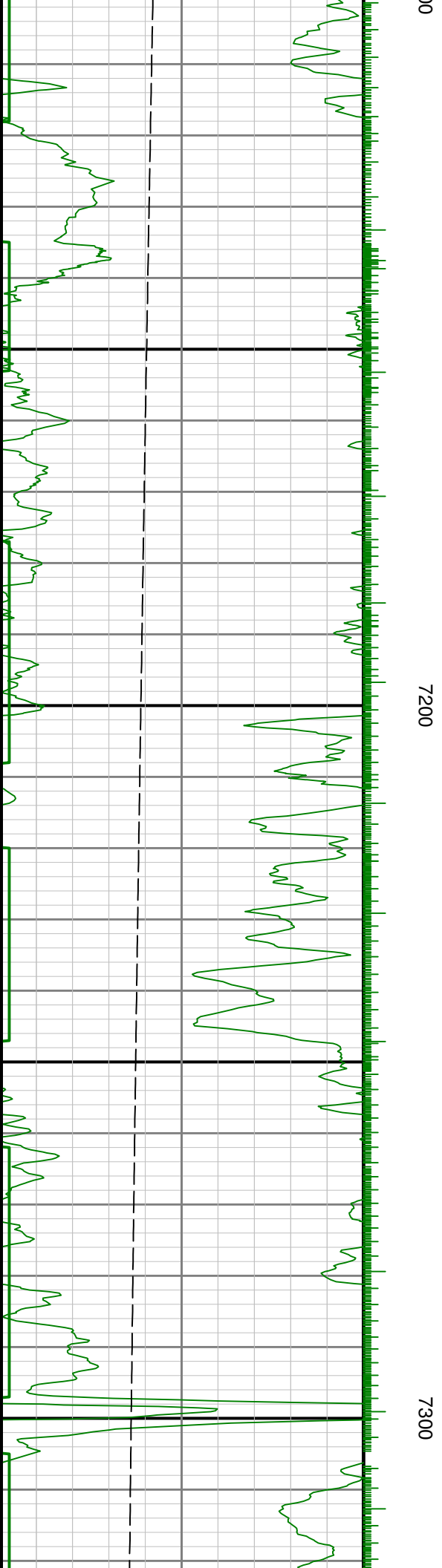
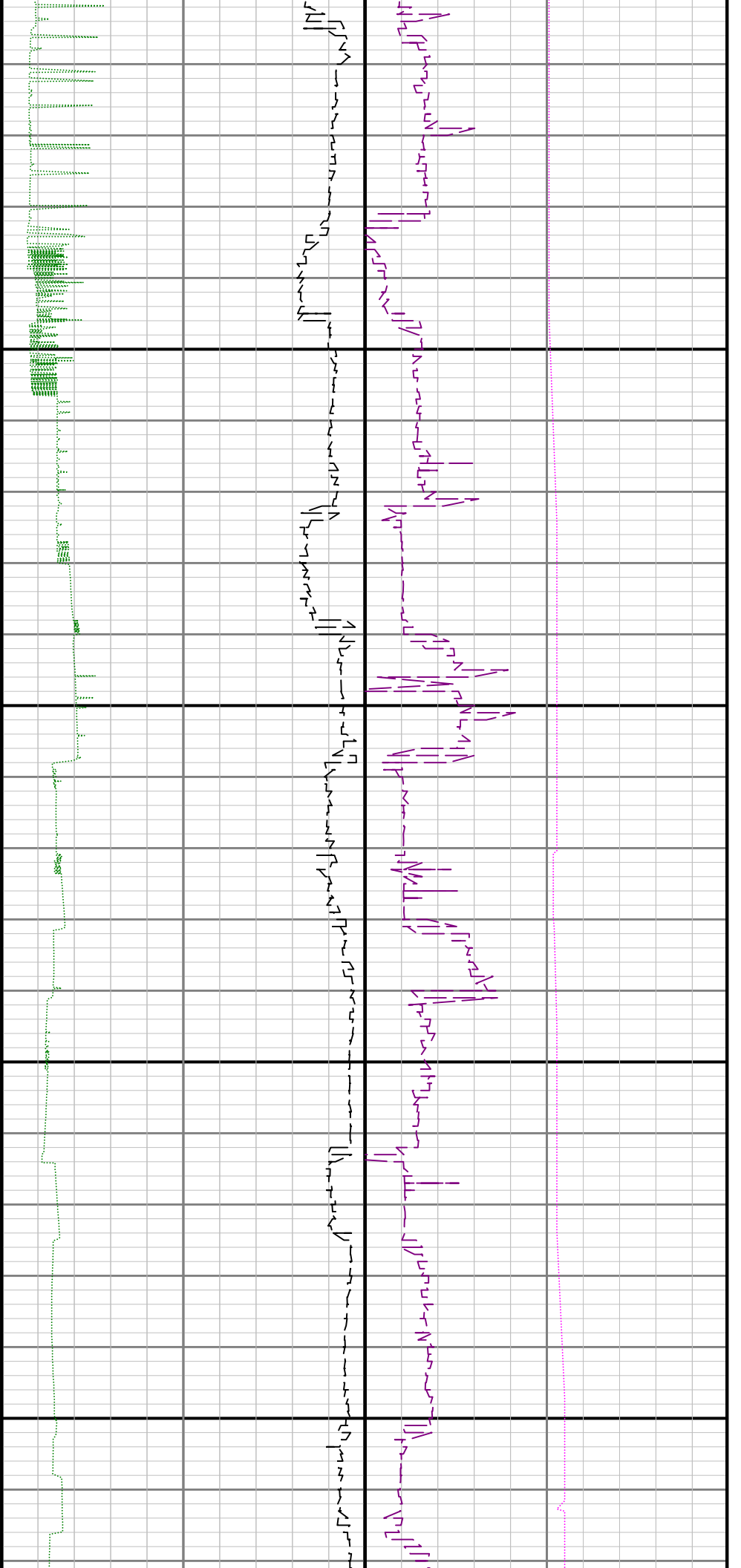


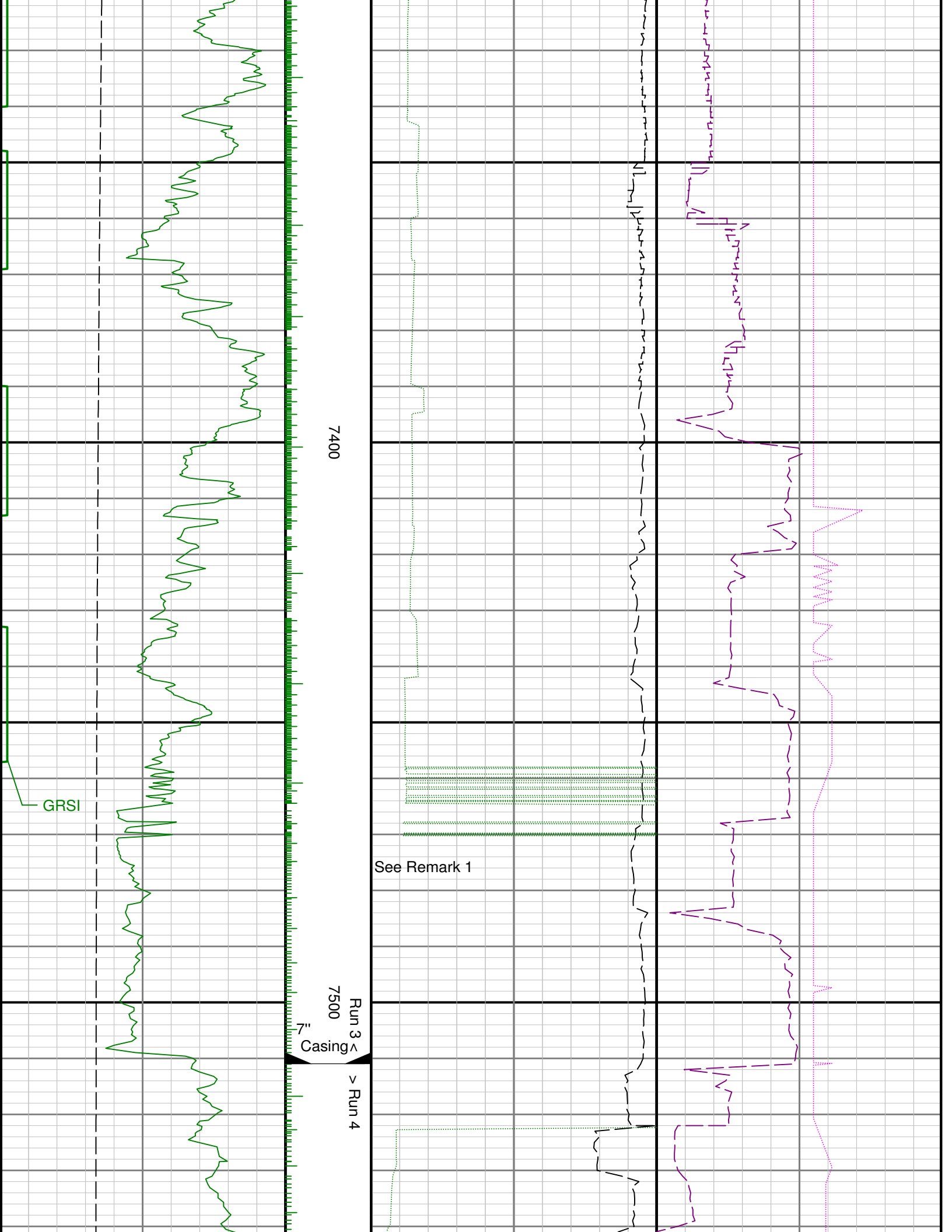
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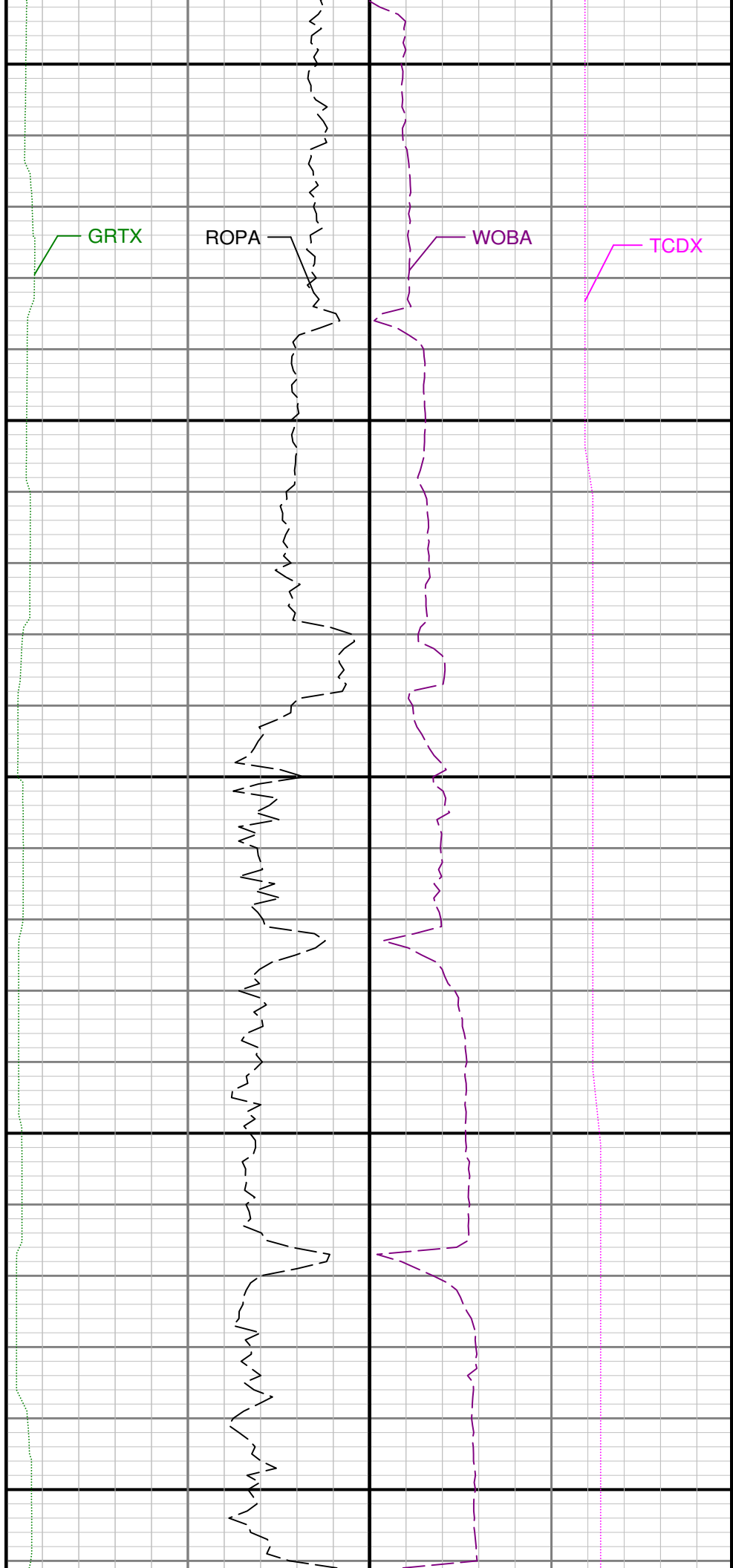
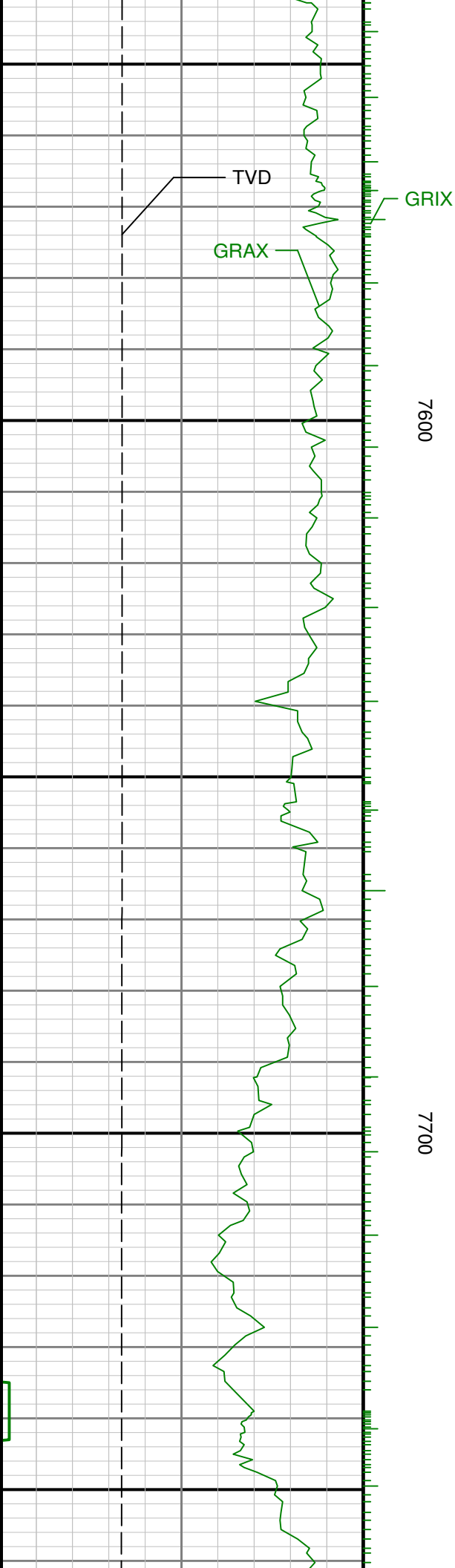
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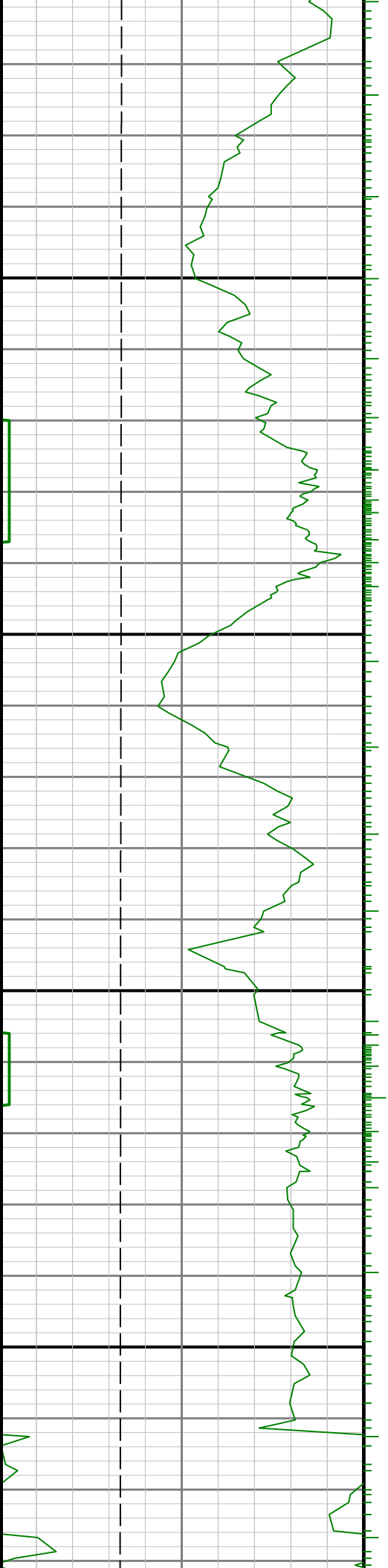
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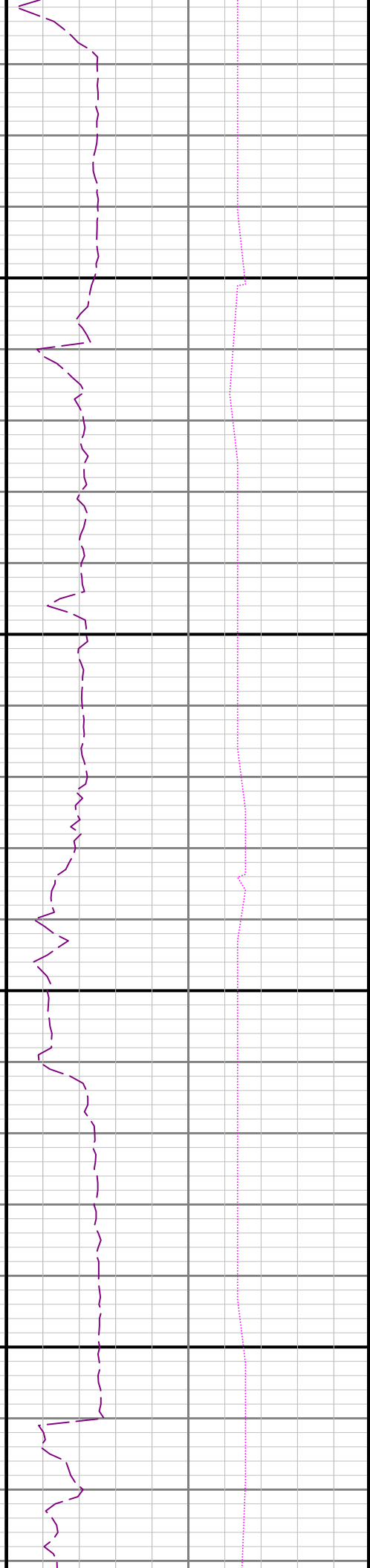


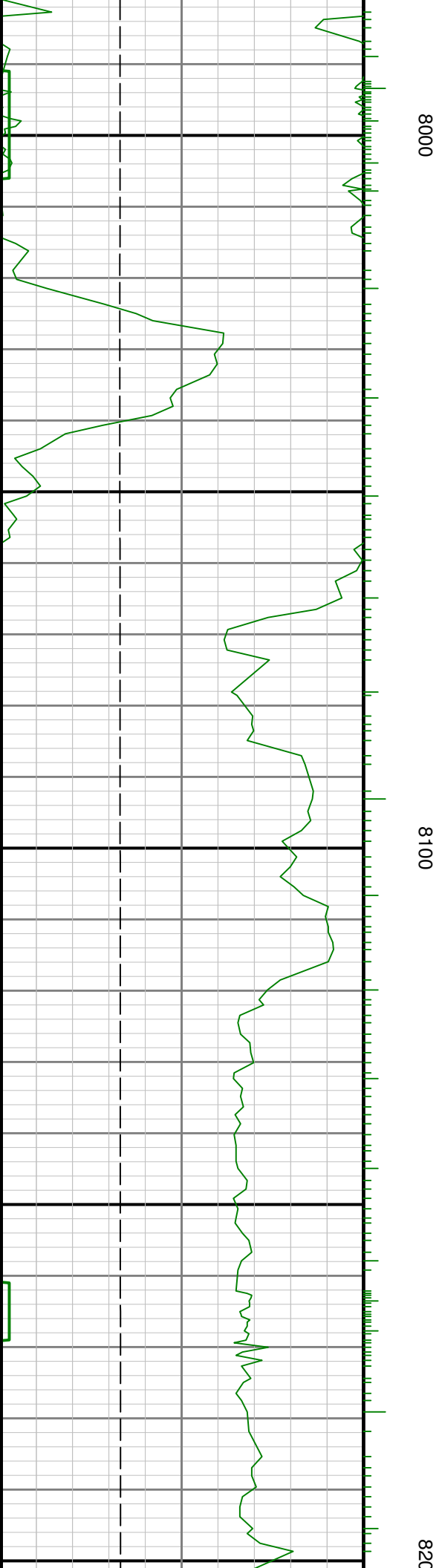
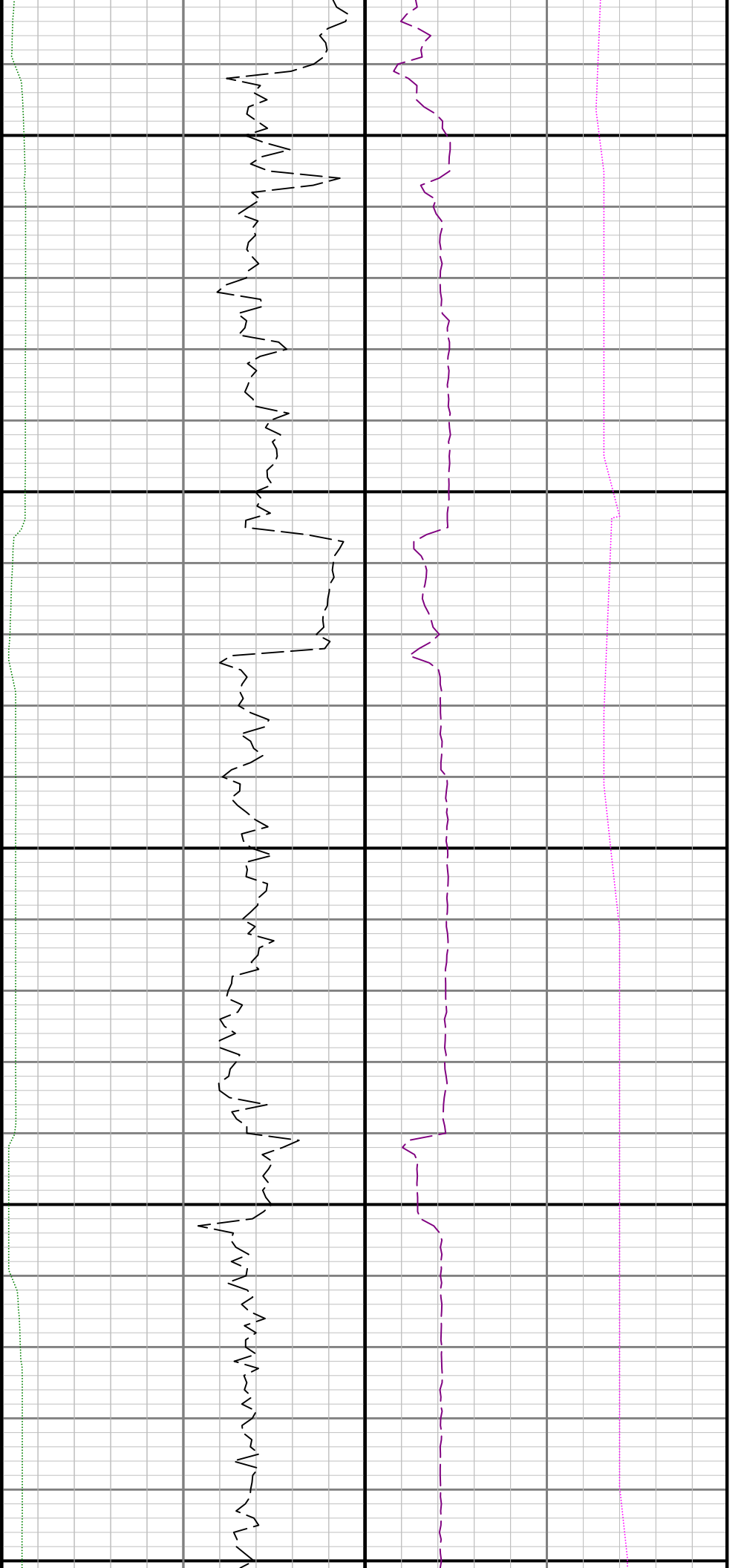


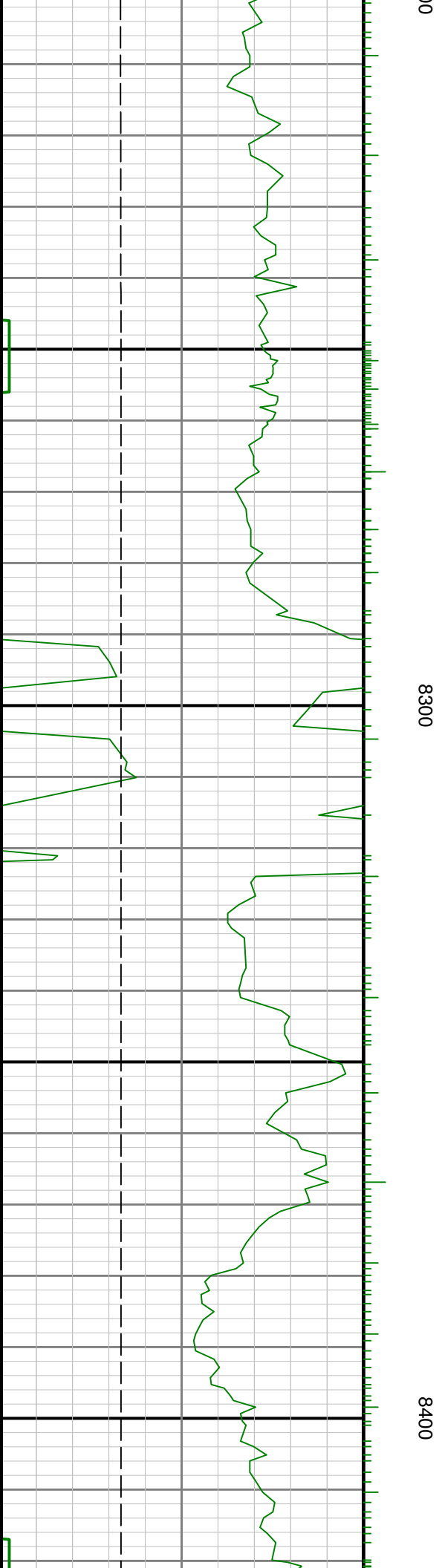
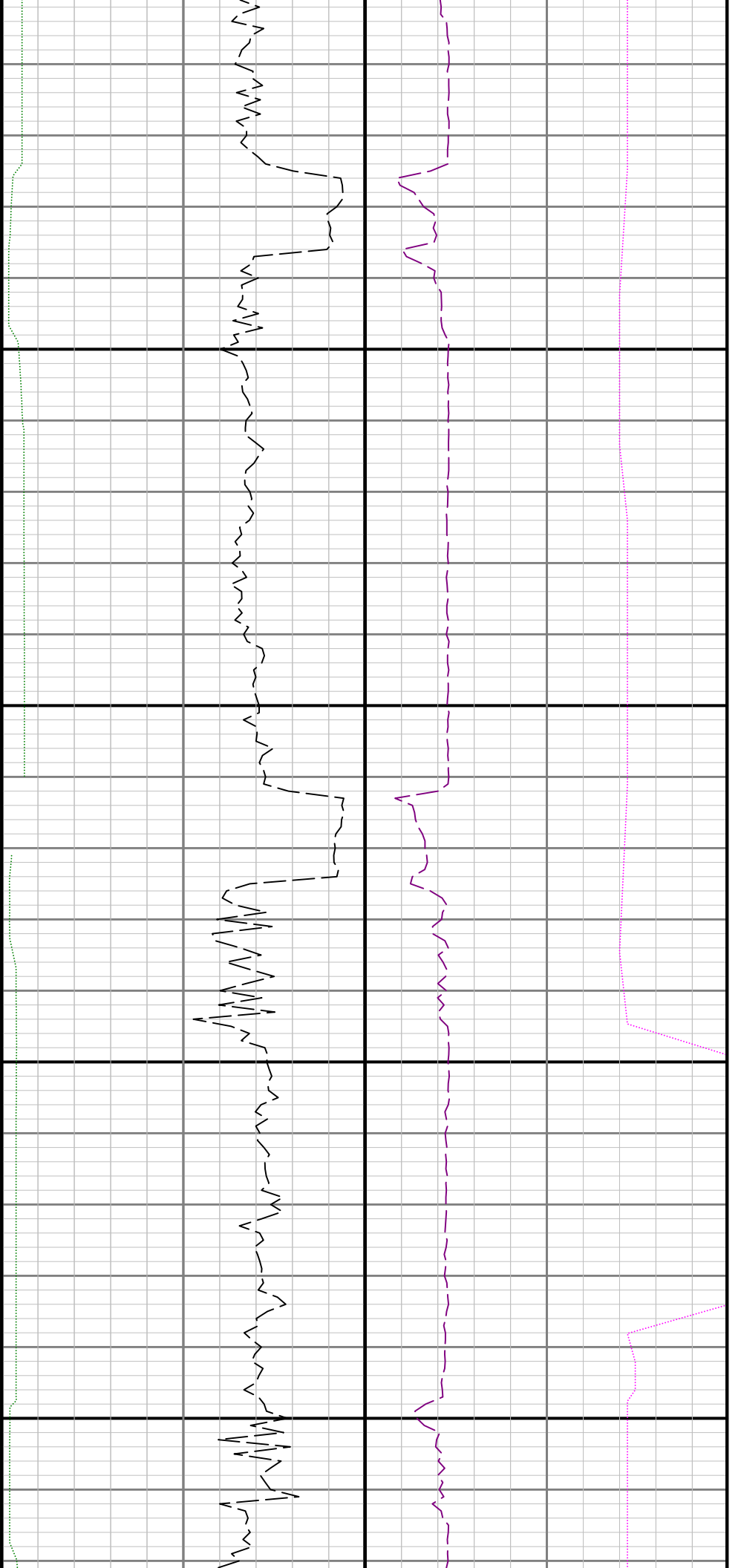


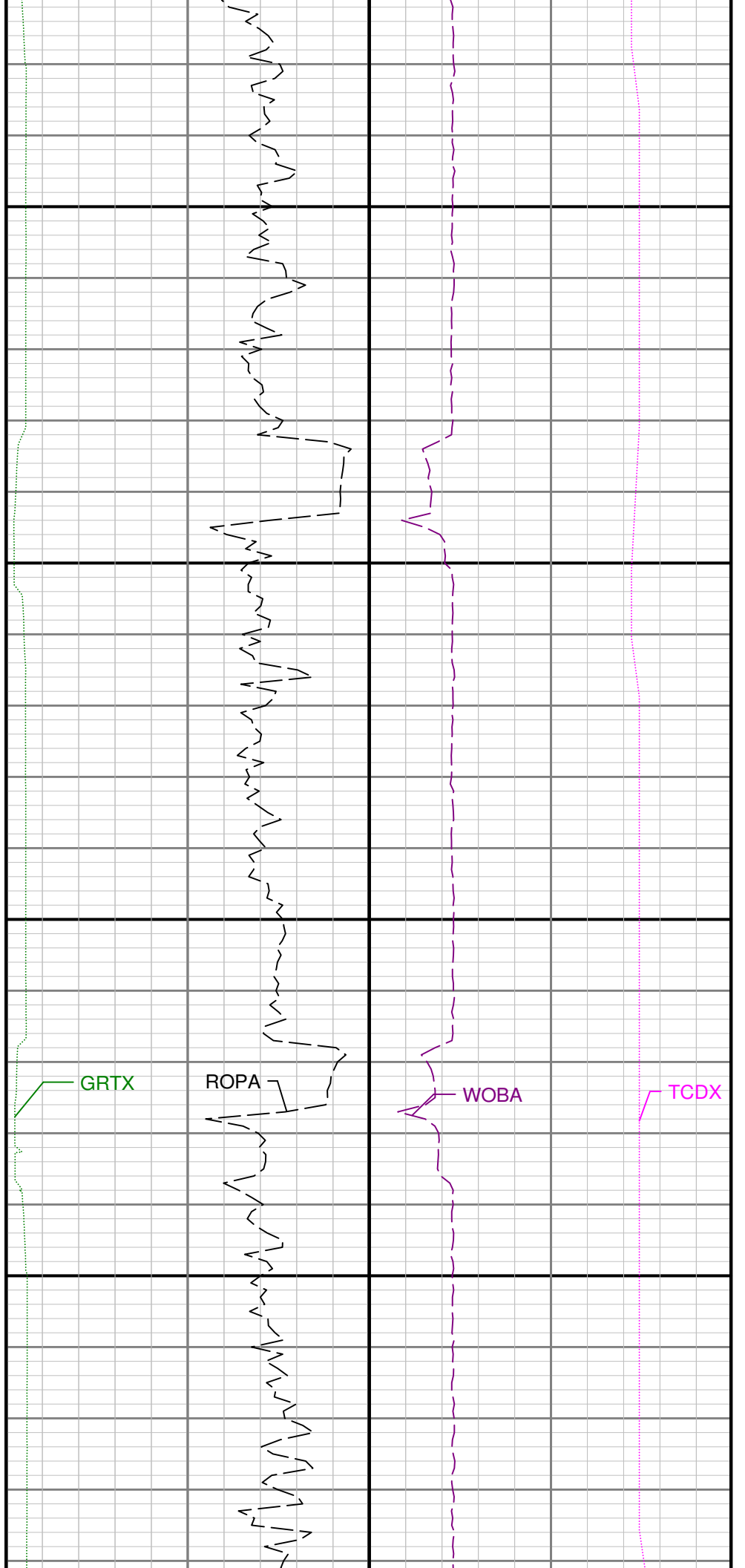
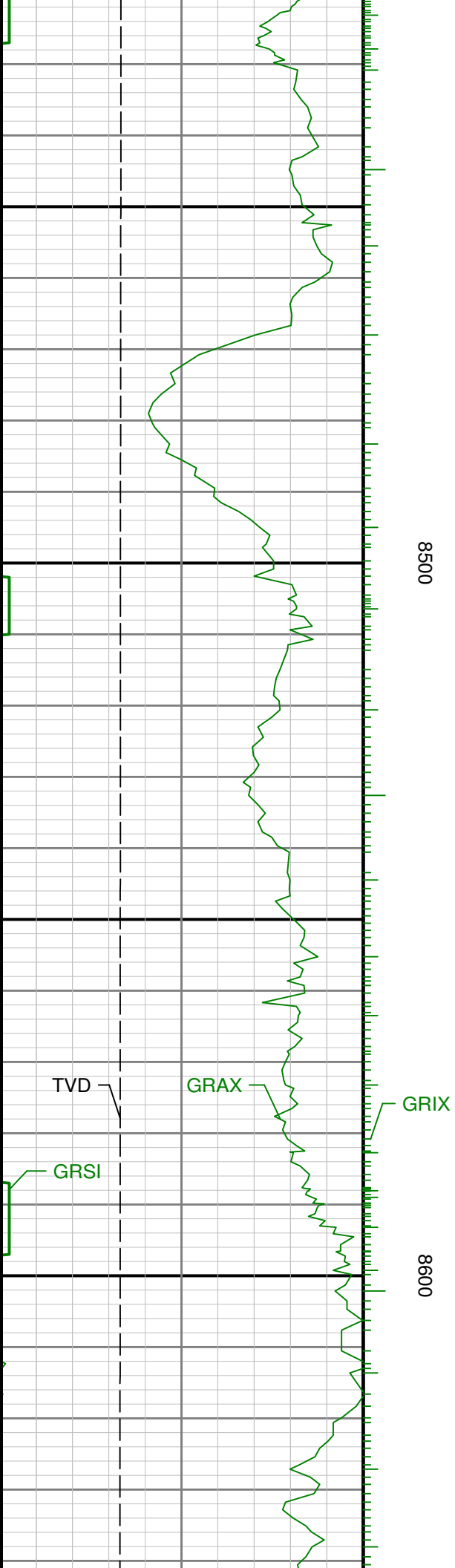
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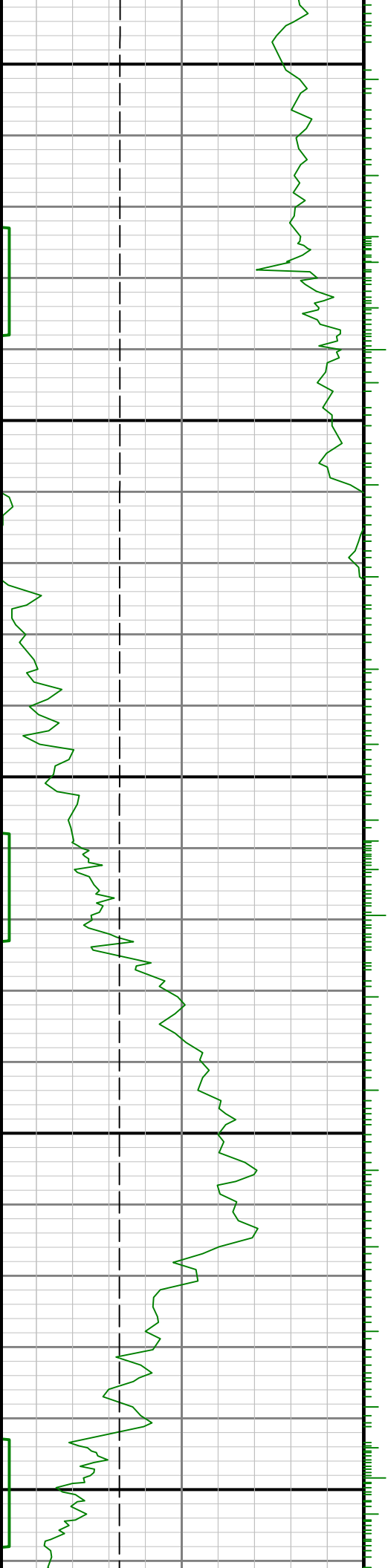
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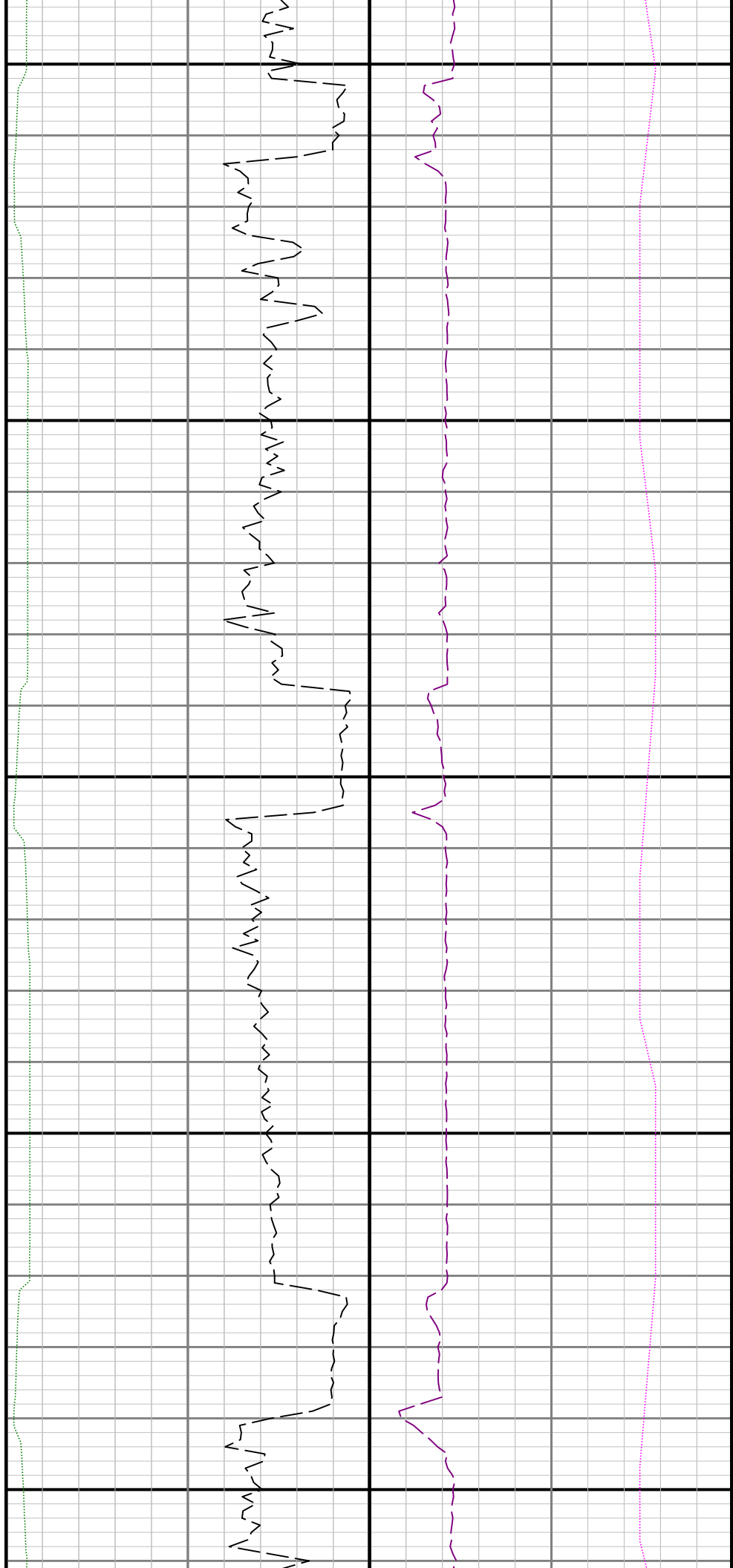


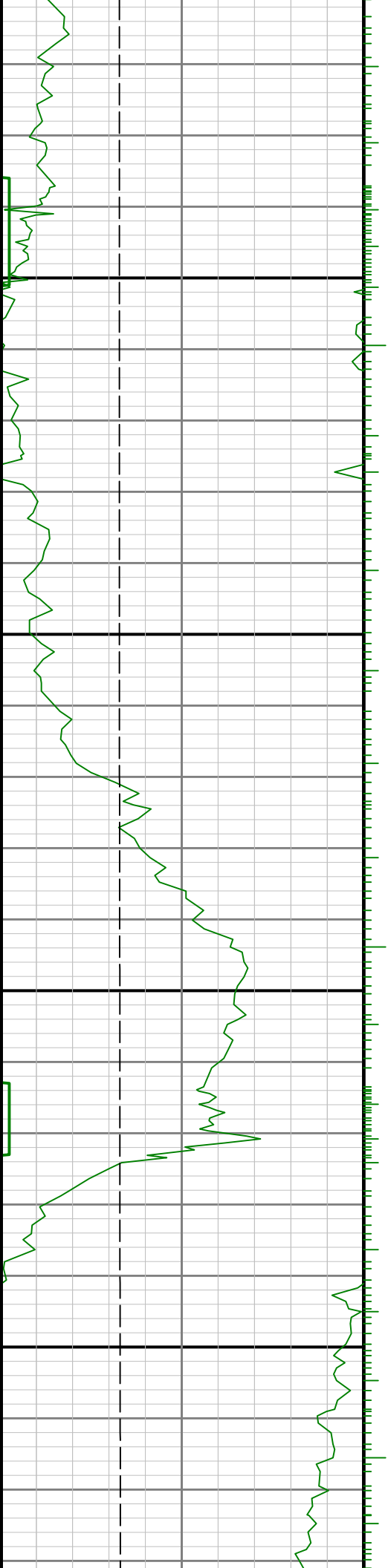




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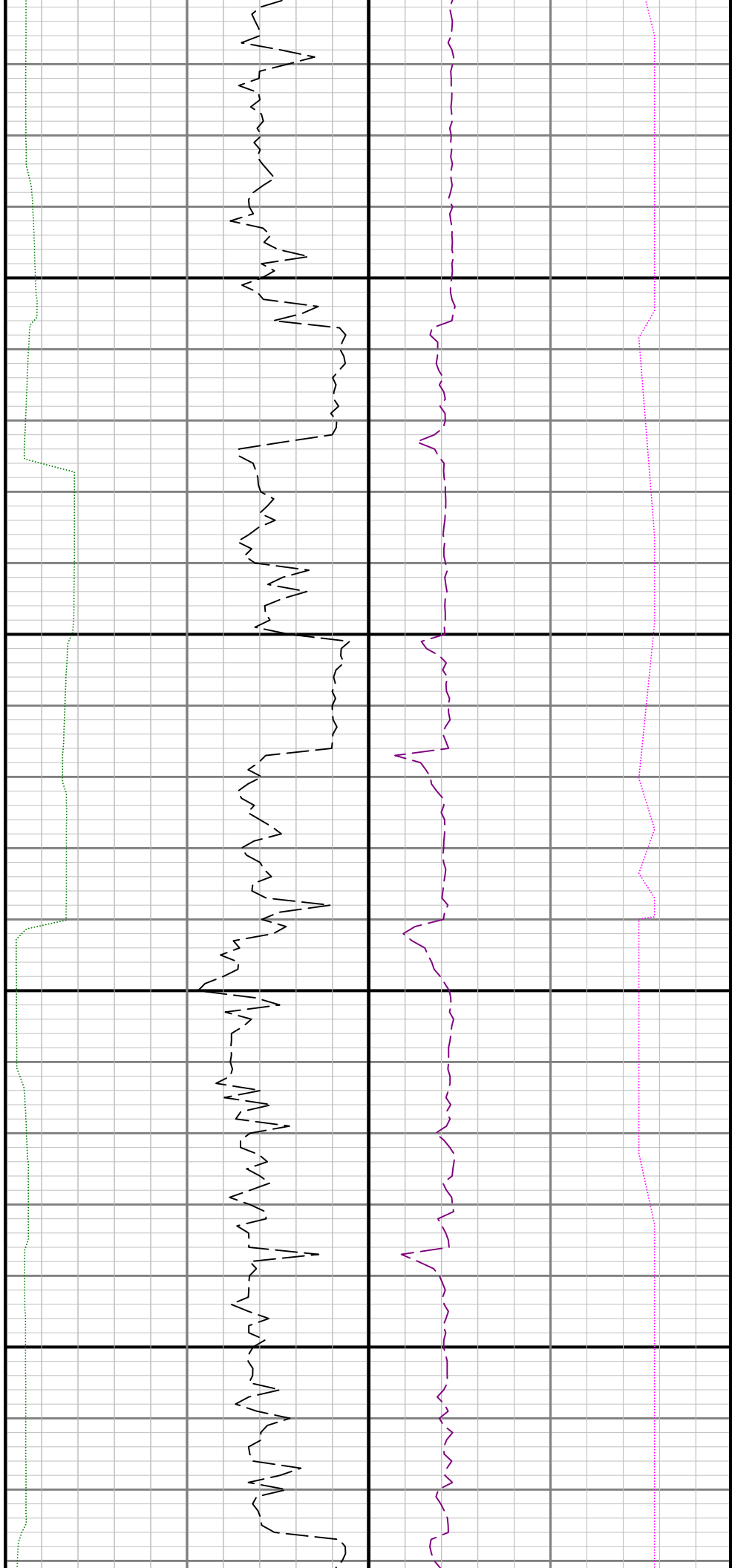
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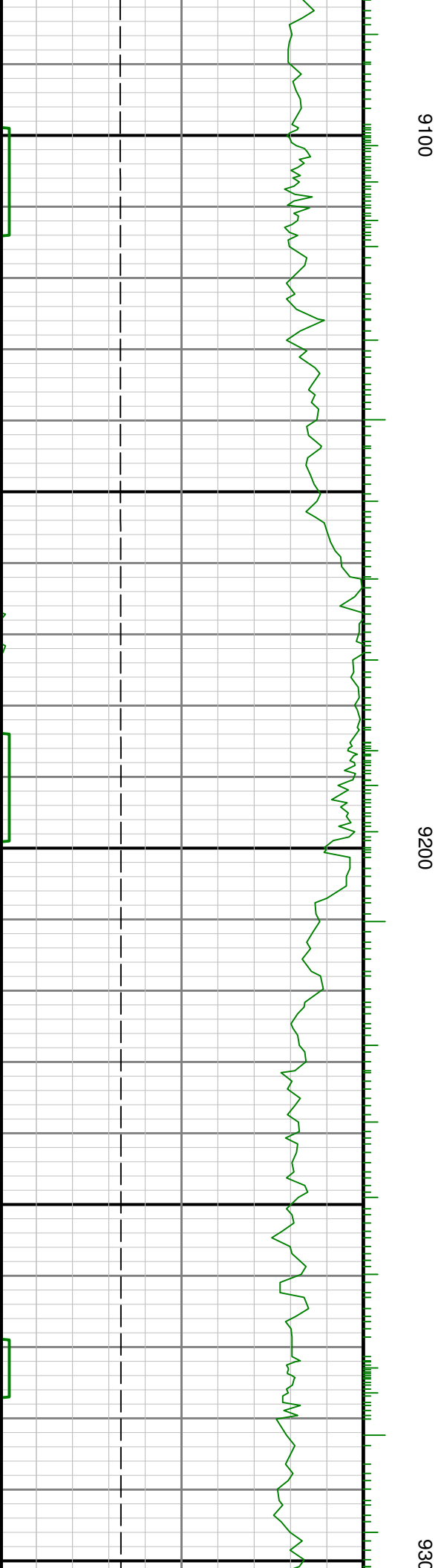


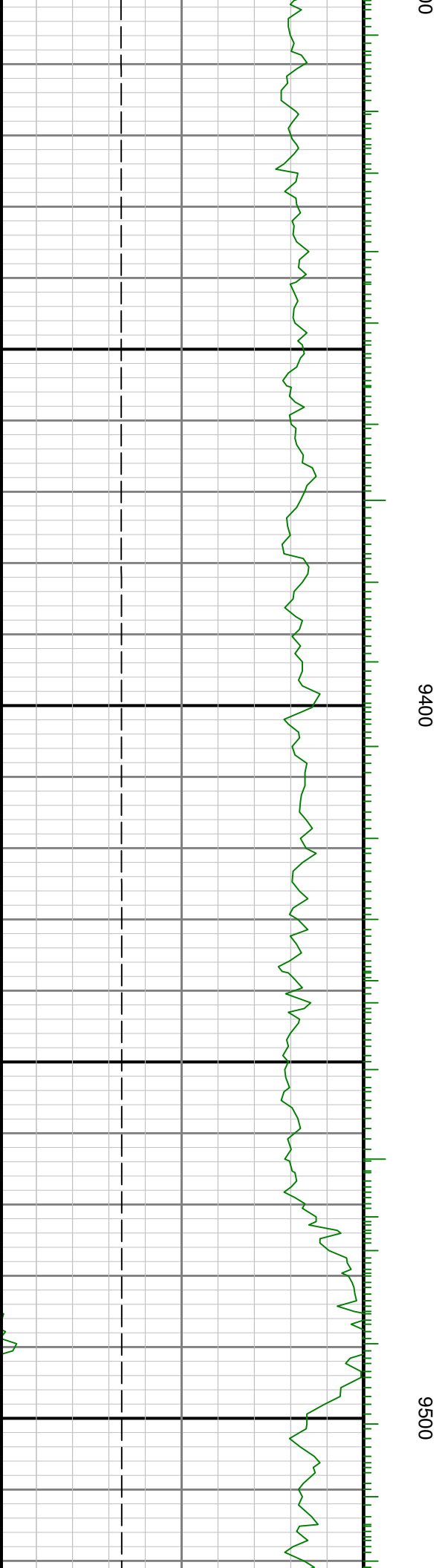
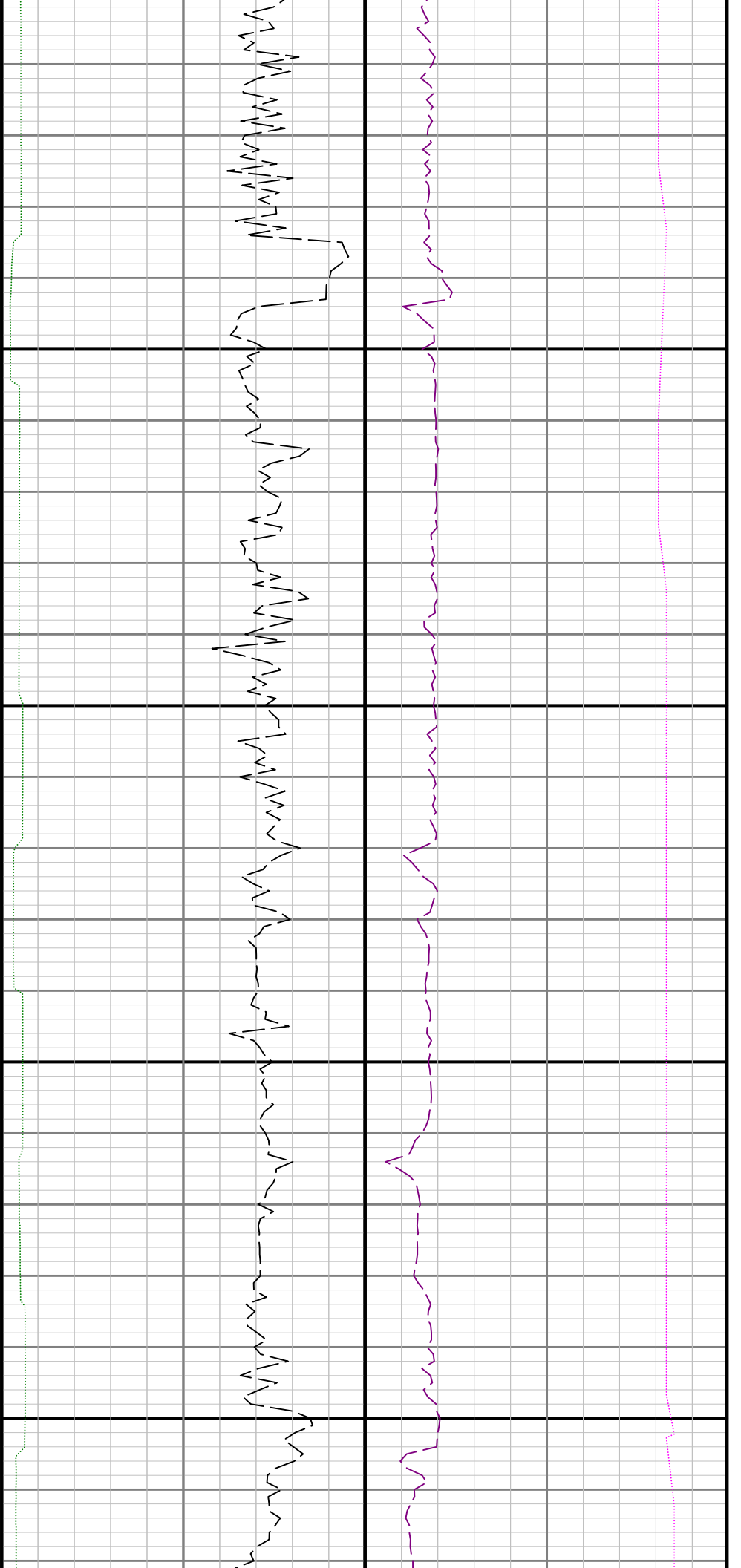


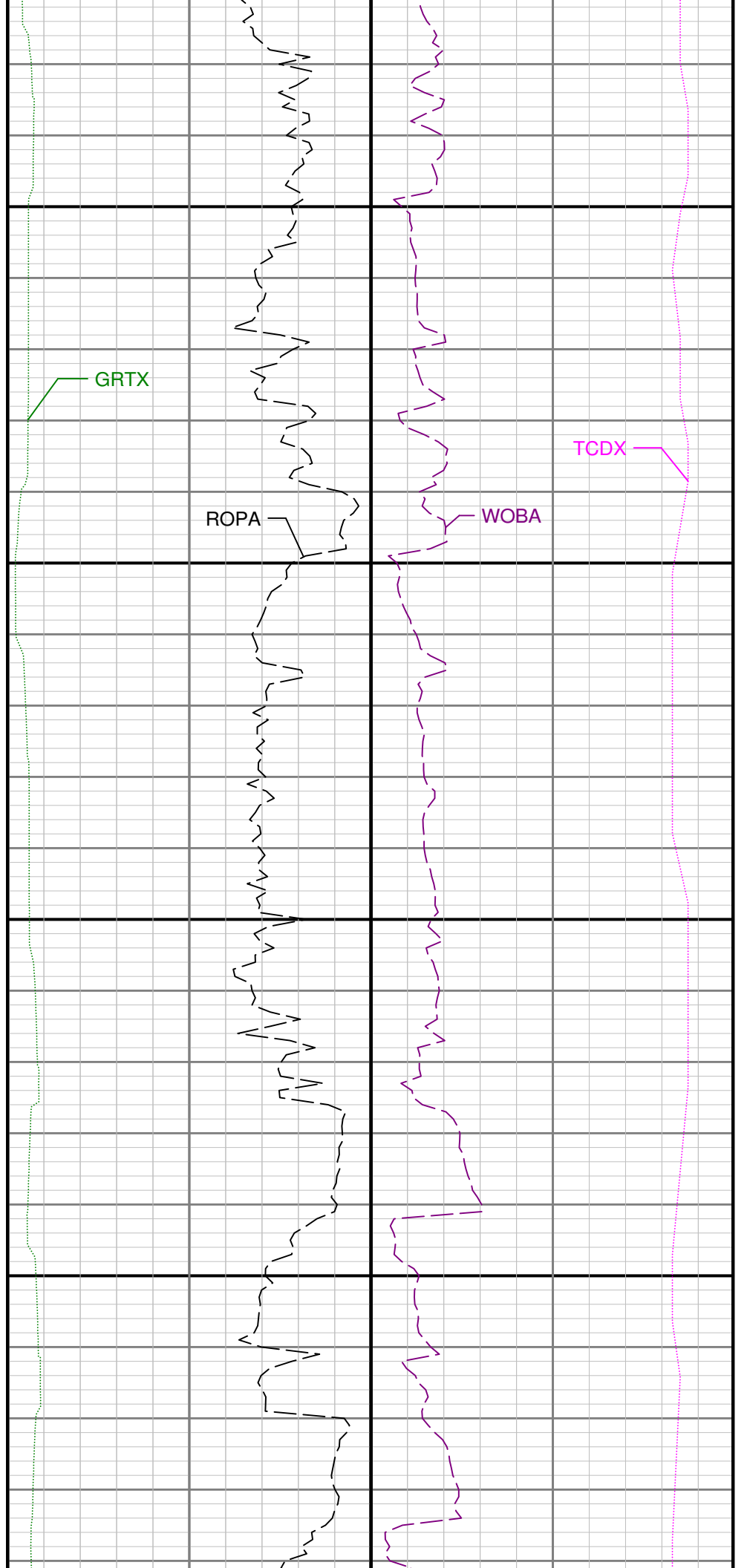
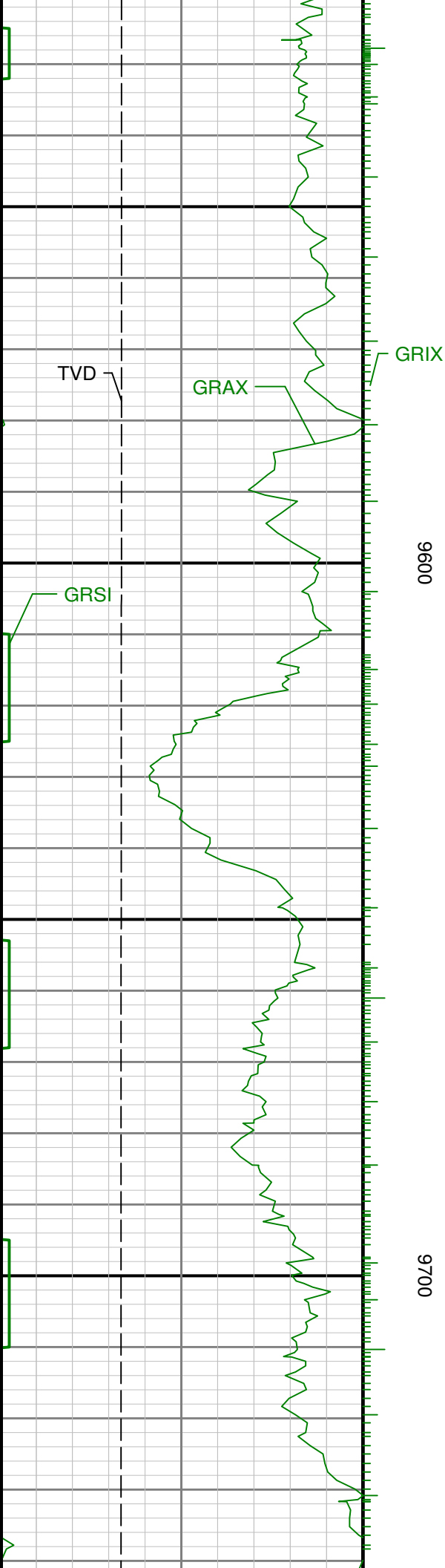
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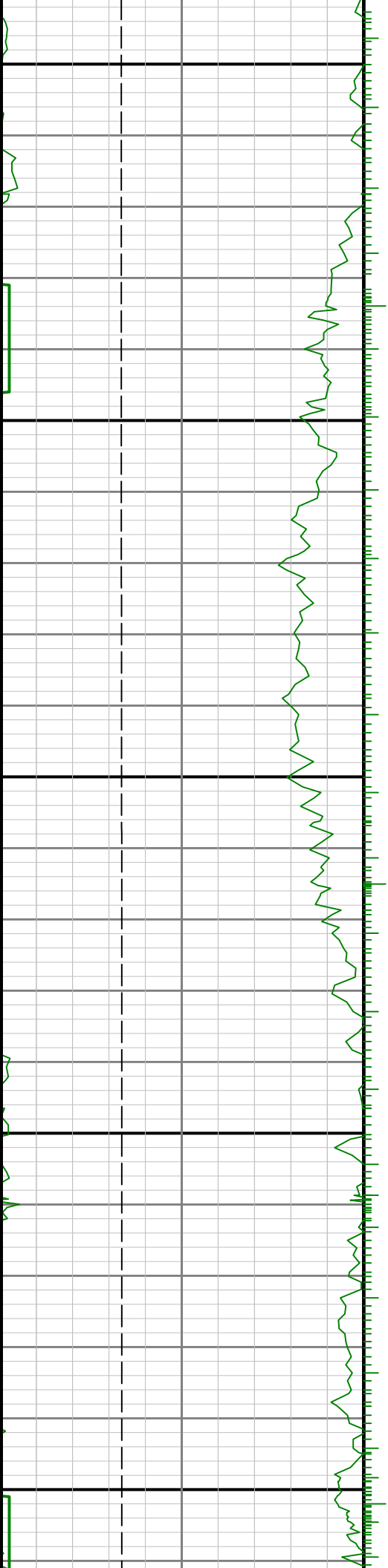
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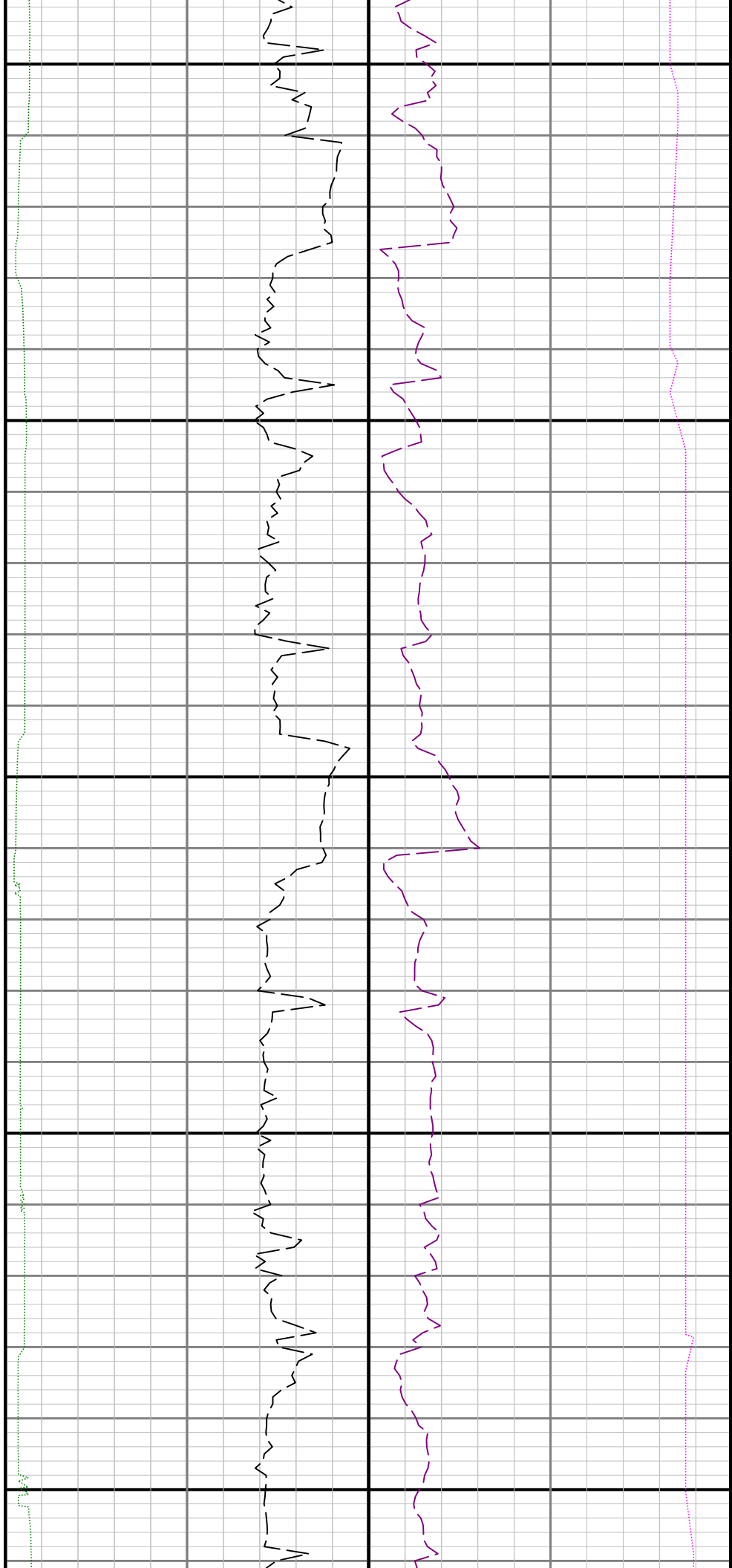


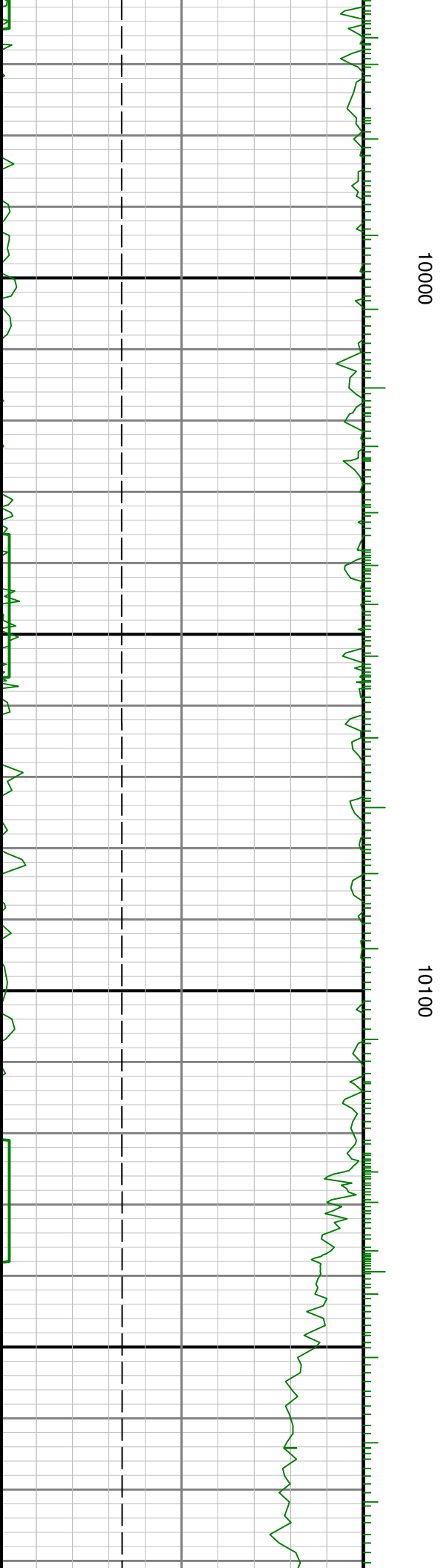
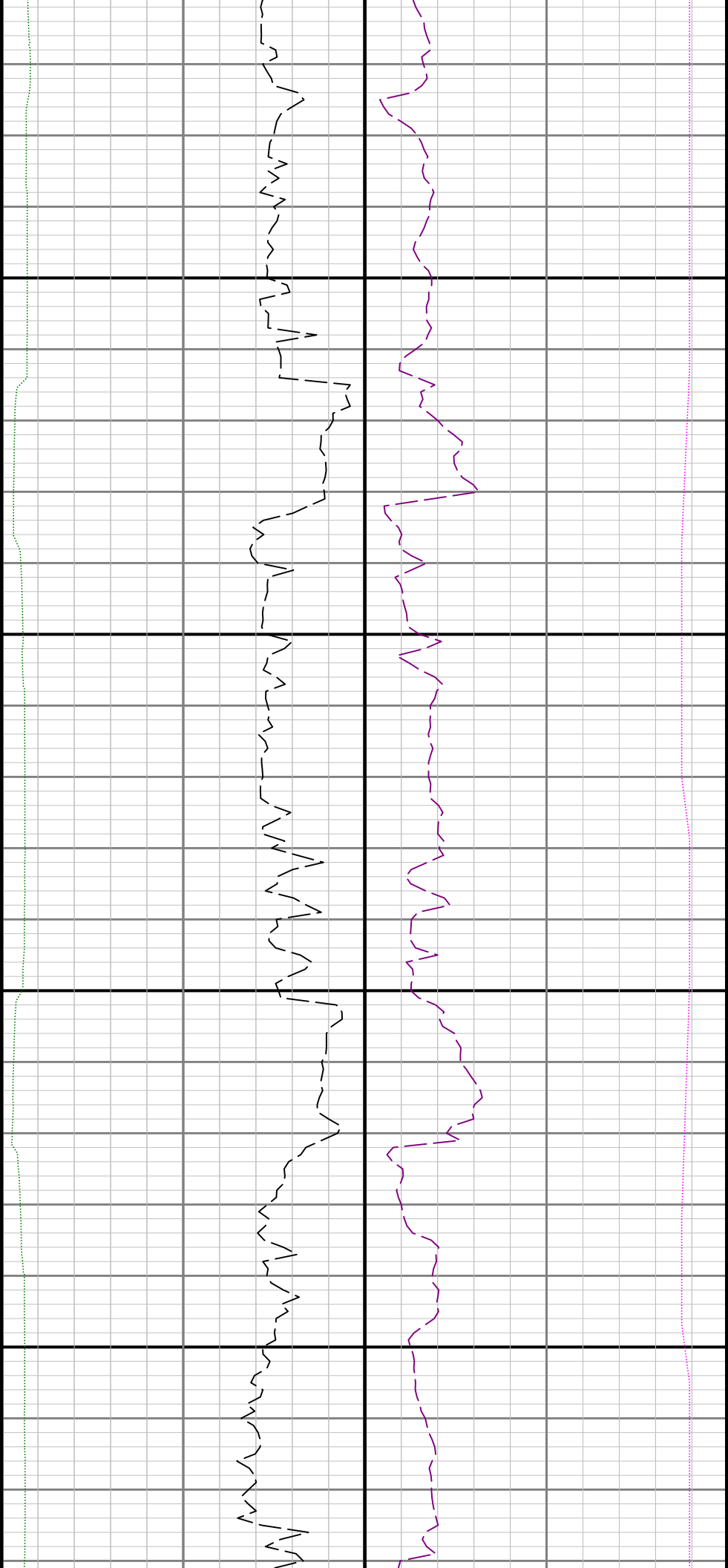


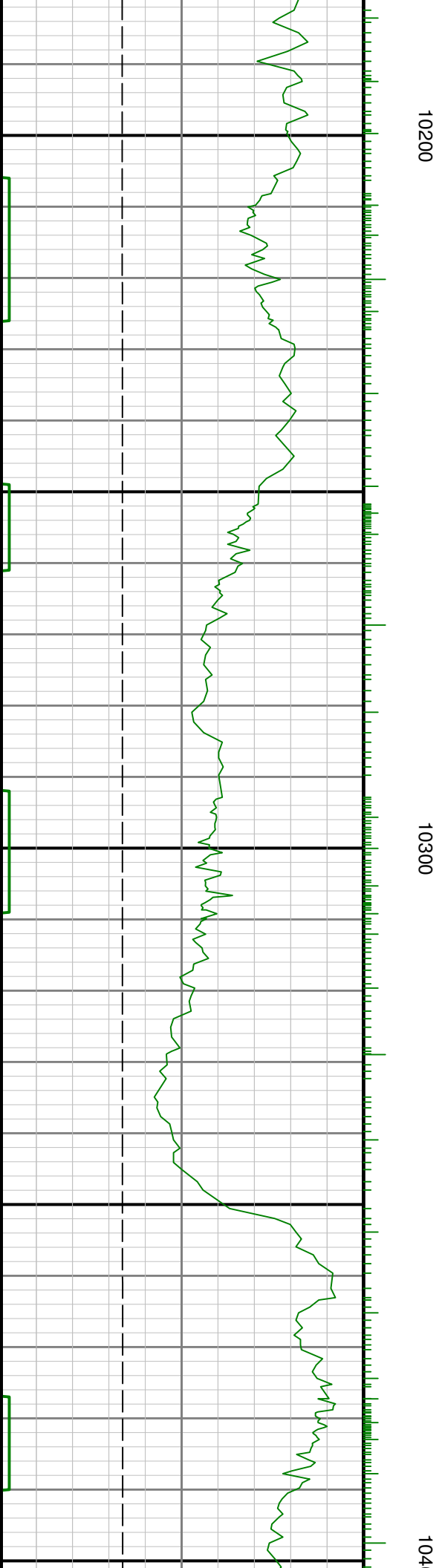
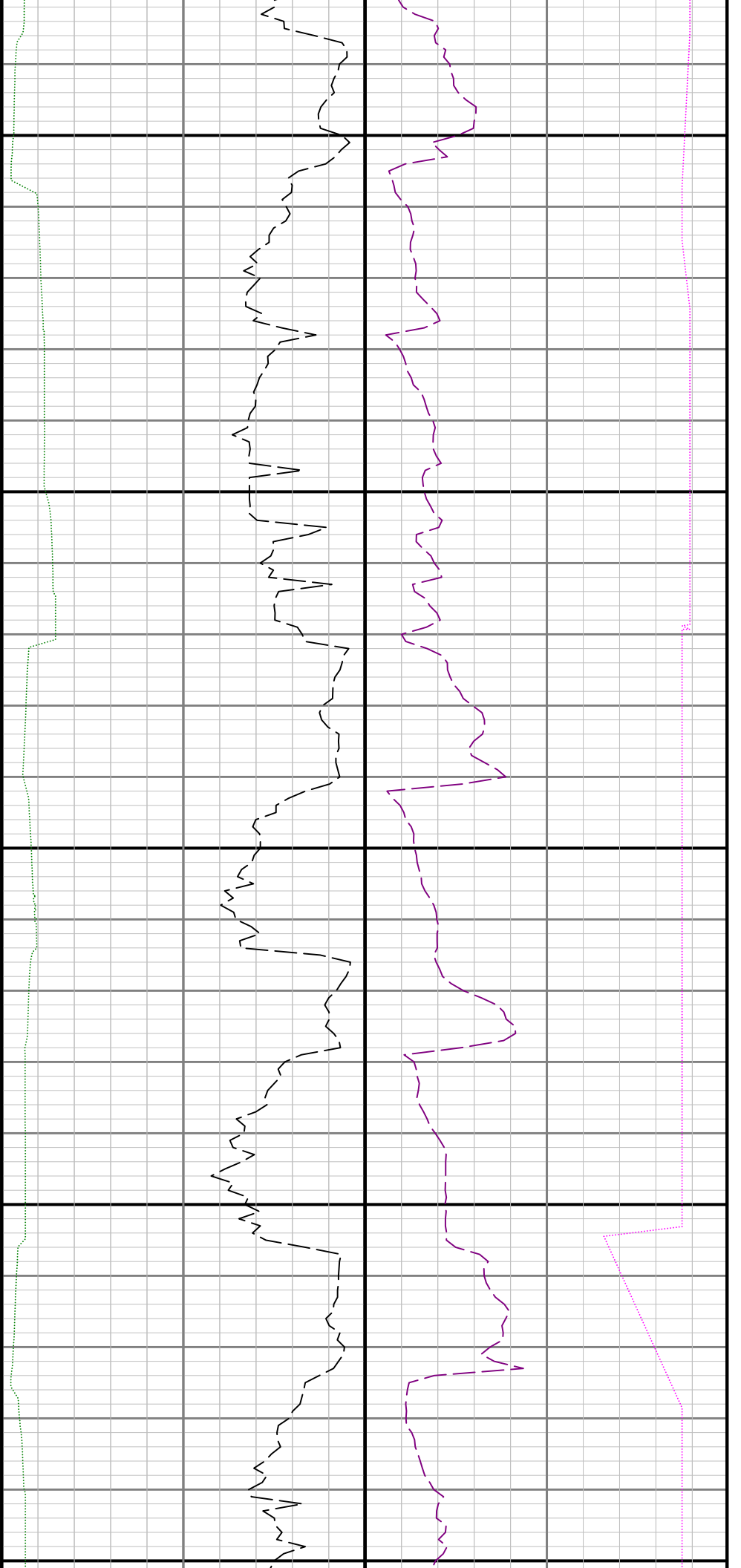


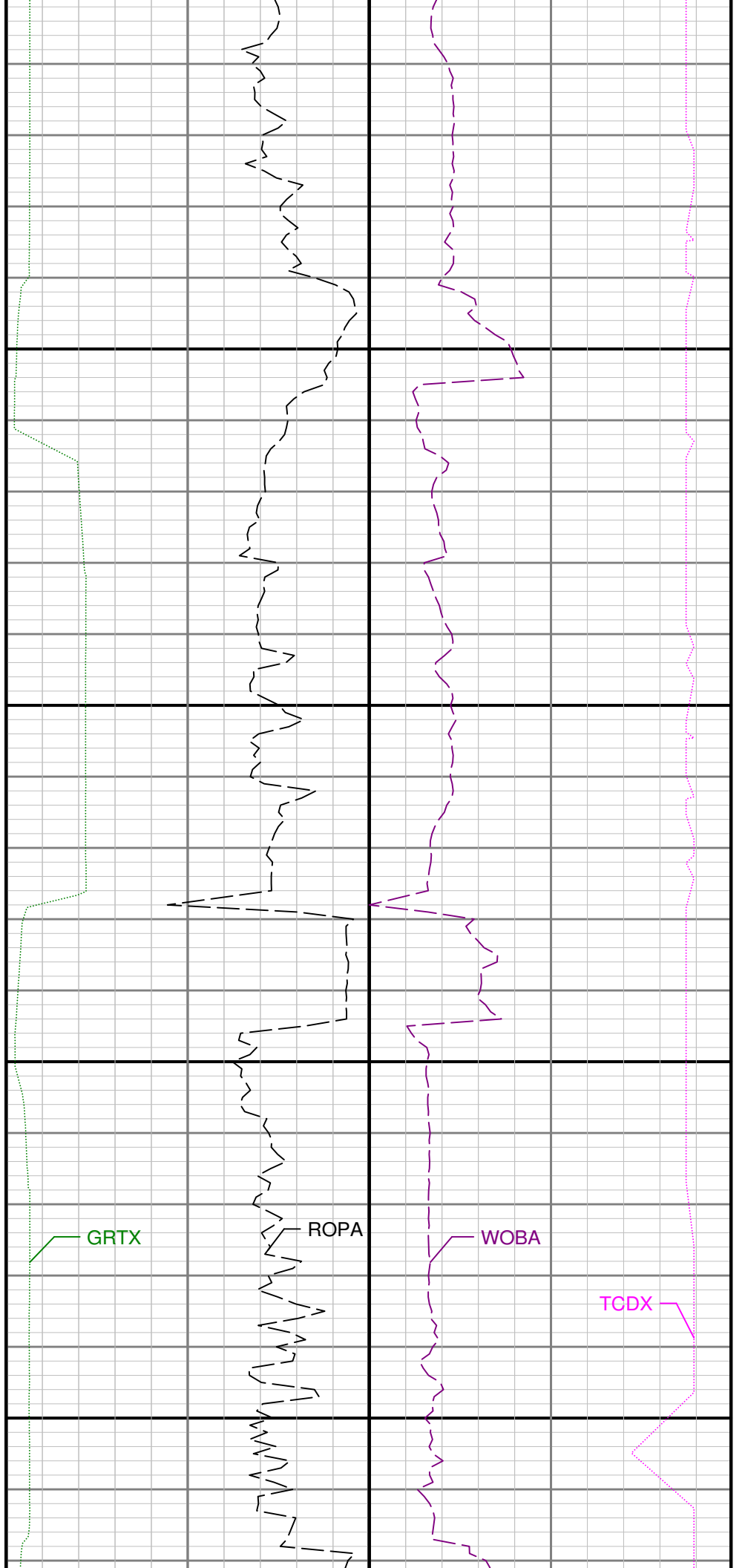
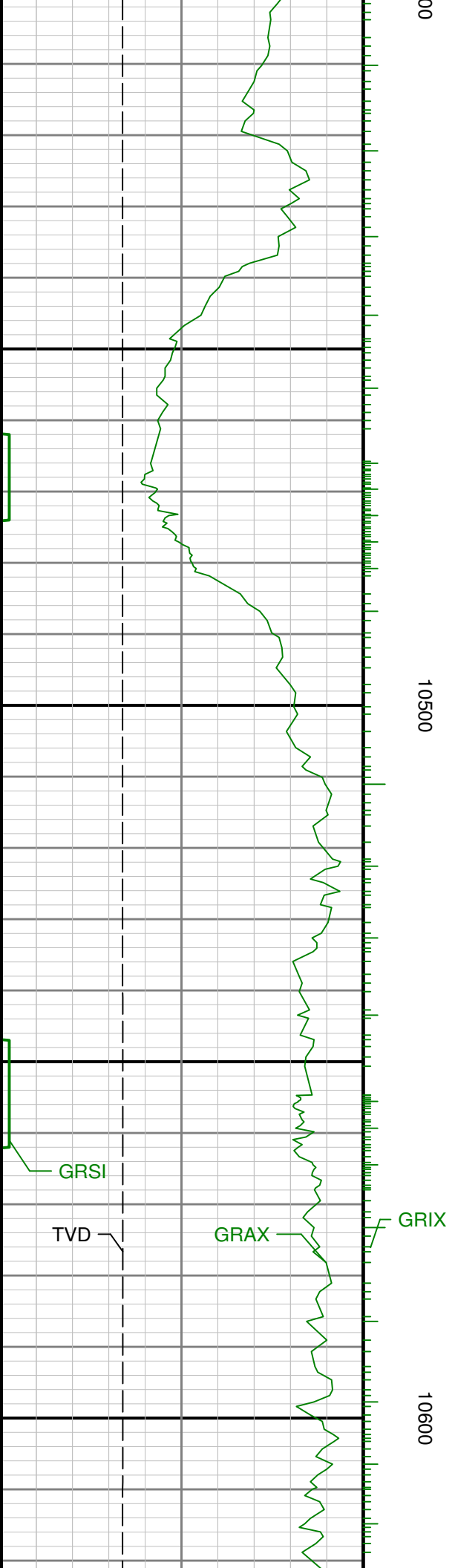
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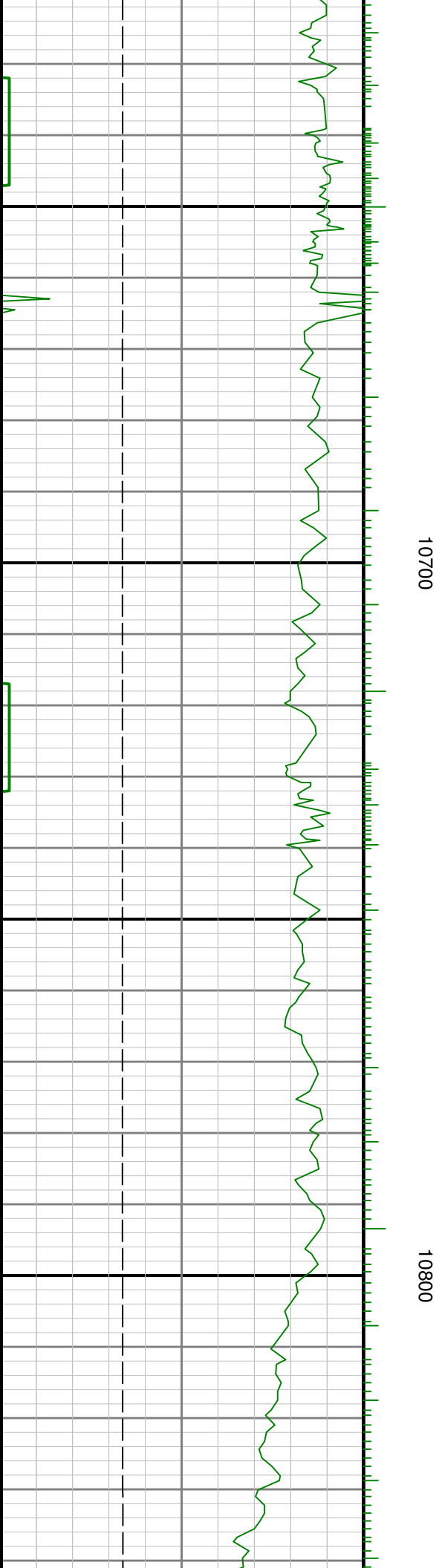
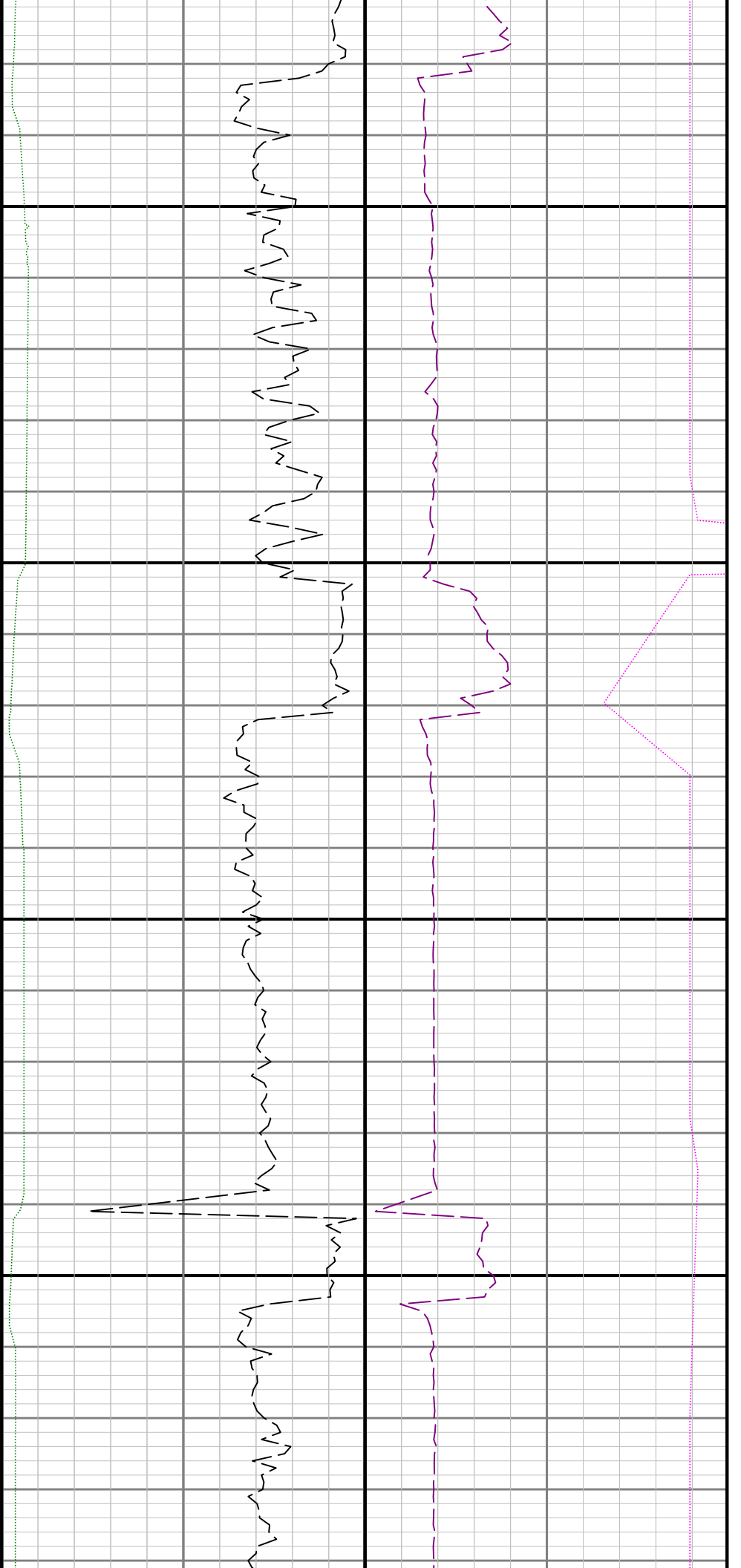
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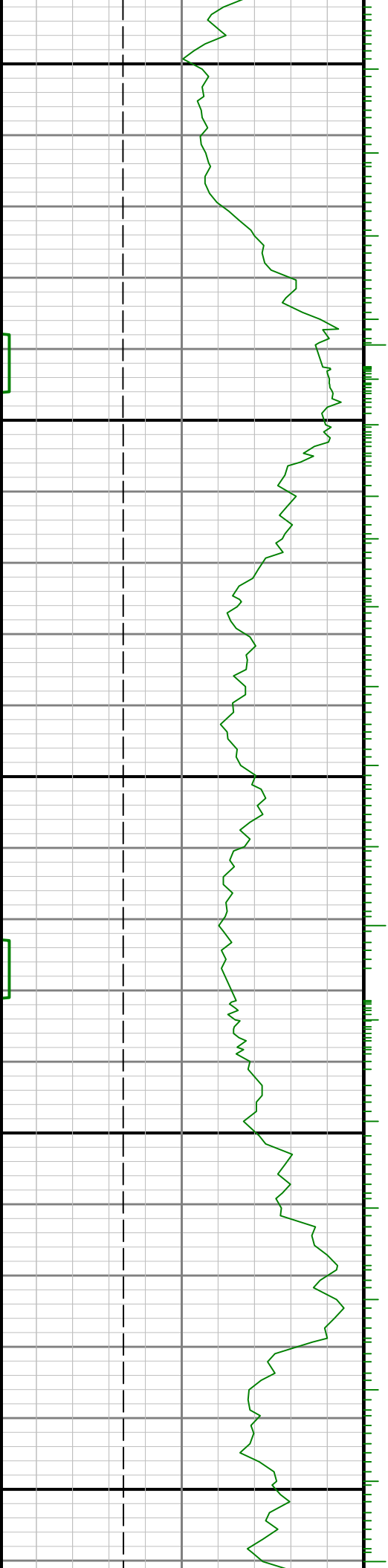






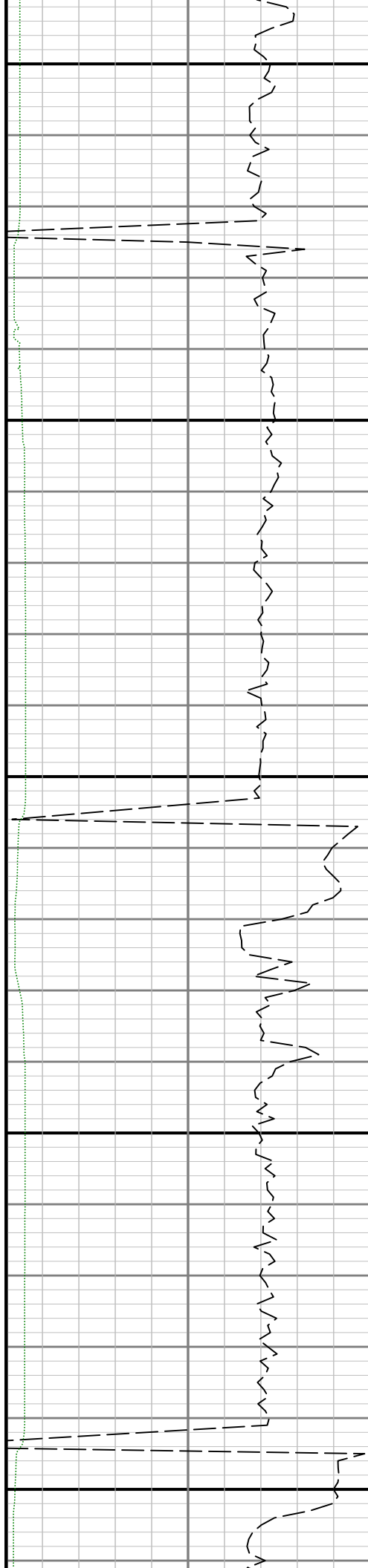


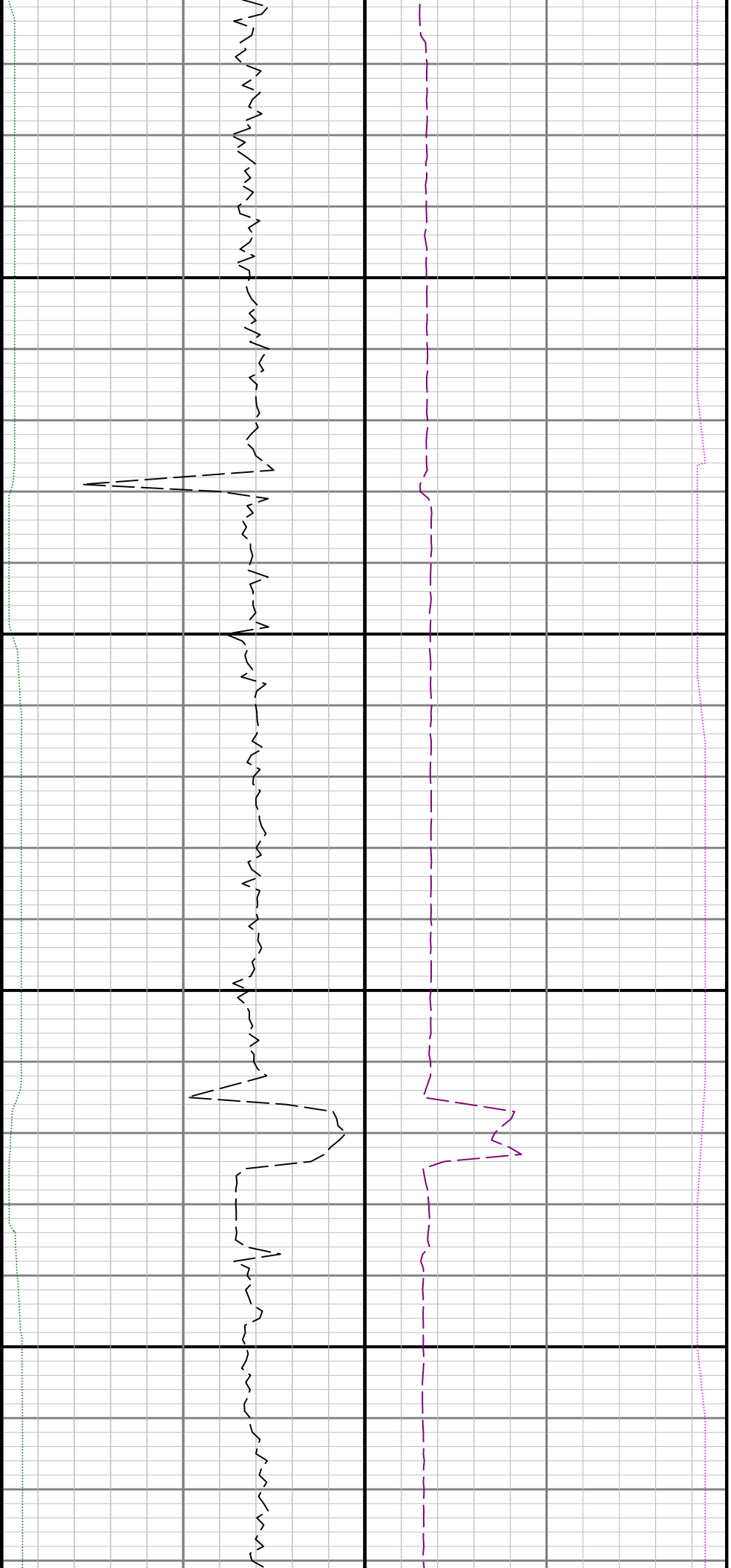




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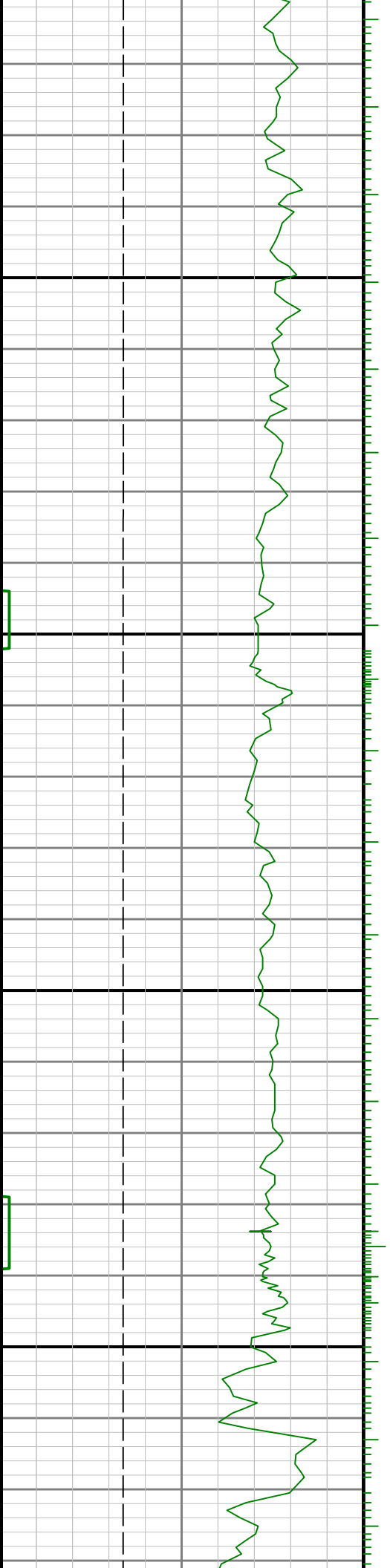
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