



LWD REALTIME LOG

Gamma Ray

Scale:	1:240 MD										Company: Anadarko																																																										
	Driller's Depth										Well: Reese 21-3HZ																																																										
											Field: Wattenberg																																																										
											County: Weld																																																										
											State: Colorado										Country: United States																																																
Status: Final Print										Surface Location:										Other Services:																																																	
API No: 05-123-47873-00										Latitude: 040° 07' 31.796" N										Directional																																																	
Job ID: 109623716										Longitude: 104° 54' 14.324" W																																																											
Permanent Datum (P.D.): Mean Sea Level										Elevation: 0.00 ft																																																											
Log Measured From: Rig Floor										Above P.D. 5019.00 ft										Elev. KB: N/A																																																	
																				Elev. DF: 5019.00 ft																																																	
																				Elev. GL: 4998.00 ft																																																	
Dates										Interval Drilled										Magnetic Field Reference																																																	
Date From: 2019-02-22										Top: (ft) 1884.00										Azi Reference North: True										Dip Angle: (deg) 66.64																																							
Date To: 2019-02-25										Bottom: (ft) 15737.00										Total Magnetic Field Strength: (nT)										52250																																							
Spud Date: 2019-02-22																				Mag to Reference North Correction: (deg)										8.28																																							
Borehole Record										Casing Record																																																											
Hole Size (in)										From (ft)										To (ft)										Size (in)										Weight (lb/ft)										From (ft)										To (ft)									
13.500										21.00										1884.00										9.625										36.00										21.00										1874.00									
7.875										1884.00										15737.00																																																	

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Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours
						Top	Bottom	From	To	Start Logging	End Logging	
						(ft)	(ft)	(ft)	(ft)			
1	1	7.875	PDC	2.50	Steerable	1884.00	15686.00	1884.00	15737.00	2019-02-22 16:05	2019-02-25 15:39	61.66

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Kaewan Gardi	2019-02-22	2019-02-25	Mohammad Odetallah	2019-02-22	2019-02-23	Omar Davalos	2019-02-24	2019-02-25

Mud Properties Record

Date / Time	Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2019-02-22 08:04	1	1884.00	Oil Based Mud	9.2	26	N/A	3.6	76/24	Active Pit	39310	0.00
2019-02-24 03:22	1	7715.00	Oil Based Mud	9.1	16	N/A	4.0	76/24	Active Pit	40952	0.00
2019-02-24 20:18	1	13054.00	Oil Based Mud	9.2	17	N/A	3.6	77/23	Active Pit	43810	0.00

Equipment and Service Data

Run	Tool	Serial	Measurement	Sensor	Bit	Max	Min
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No.		Number		Offset (ft)	Offset (ft)	O.D. (in)	I.D. (in)
1	Sensor Sub	G650-0290	Pressure	0.10	49.56	6.750	4.500
1	Sensor Sub	G650-0290	Gamma (single)	1.56	51.02	6.750	4.500
1	Sensor Sub	G650-0290	Directional (mag)	2.75	52.21	6.750	4.500
1	Sensor Sub	G650-0290	VSS	2.75	52.21	6.750	4.500

Service and Tool Mnemonics

Mnemonic	Name	Description
GAM	NaviTrak UT	EvoOne Electromagnetic and Mudpulse Module

Comments

1	Depth measurements were 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.
2	A sliding indicator is shown to the left edge of track 1 as a heavy line. The indicator has been depth shifted to the Gamma Ray sensor offset to correspond with Gamma Ray data acquired while sliding.
3	Baker Hughes run 1 utilized 6 1/2 inch NaviTrak UT services (Gamma Ray and Directional) behind a 7 7/8 inch bit and steerable assembly from 1844 to 15737 feet MD (1817 to 7401 feet TVD).
4	Gamma Ray (GRAX) scale is presented 0 to 200 API per customer request.

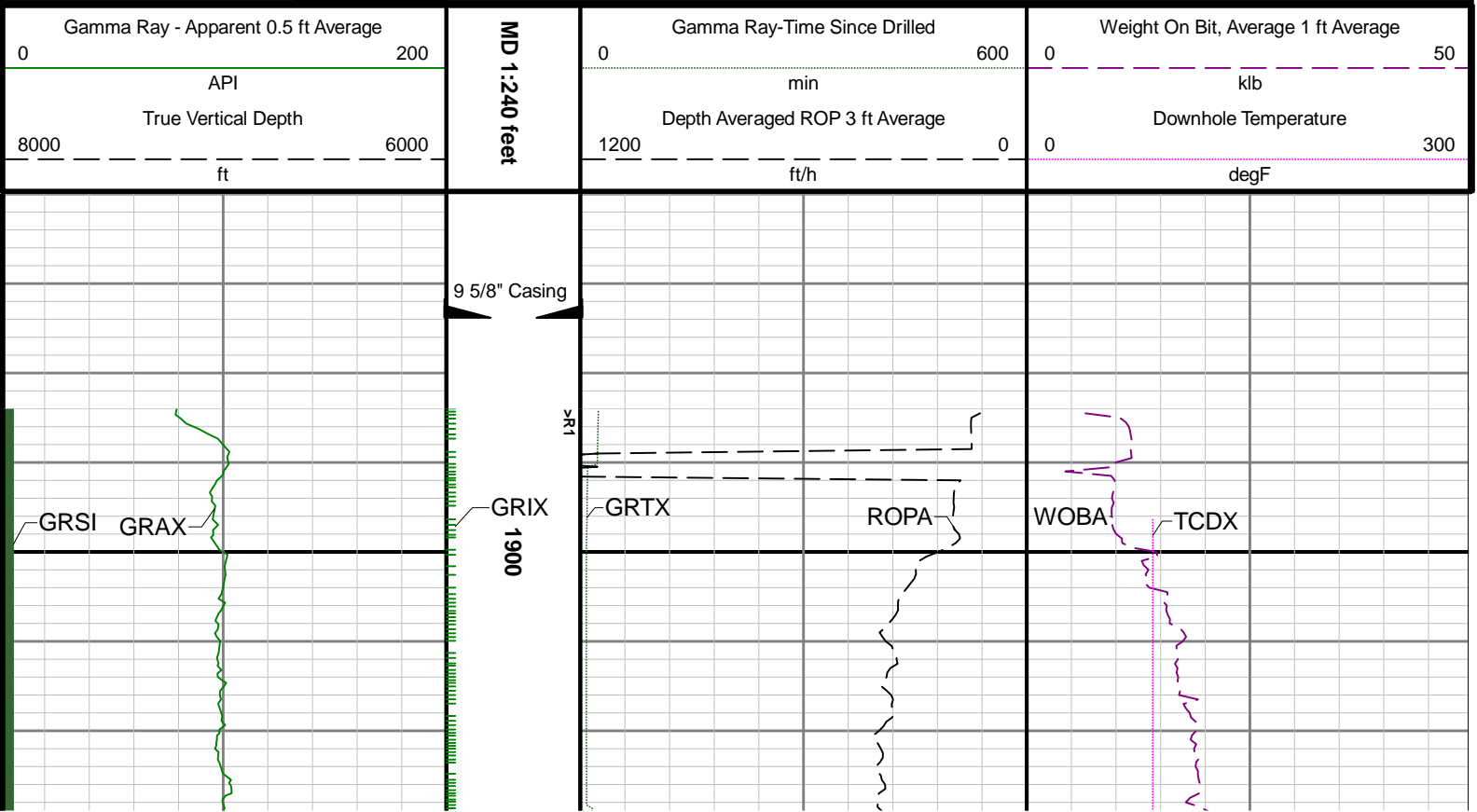
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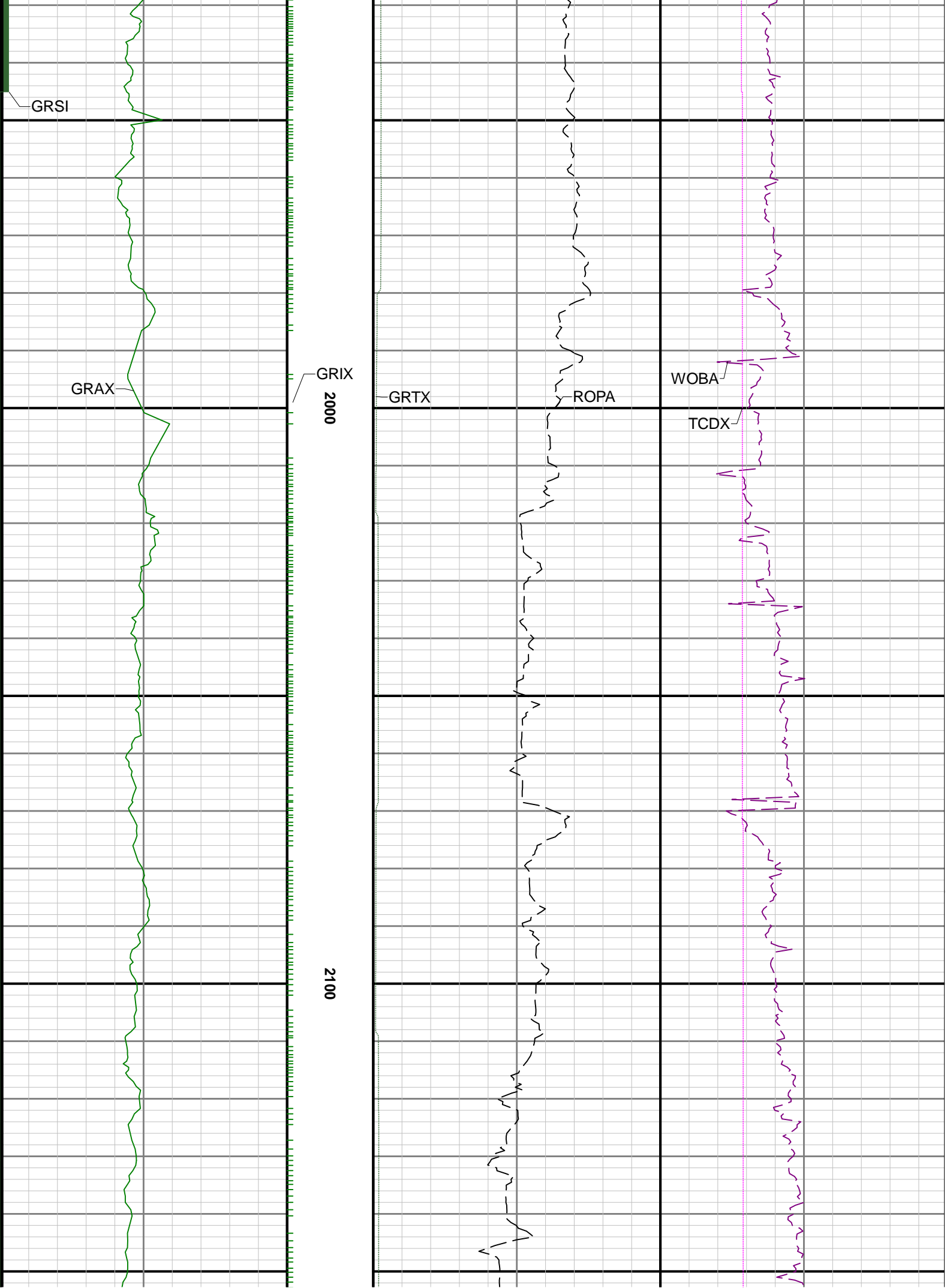
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	15737.00	7.875	1	The interval from 15687 to 15737 feet MD (7405 to 7401 feet TVD) was not logged due to sensor to bit offset at TD.

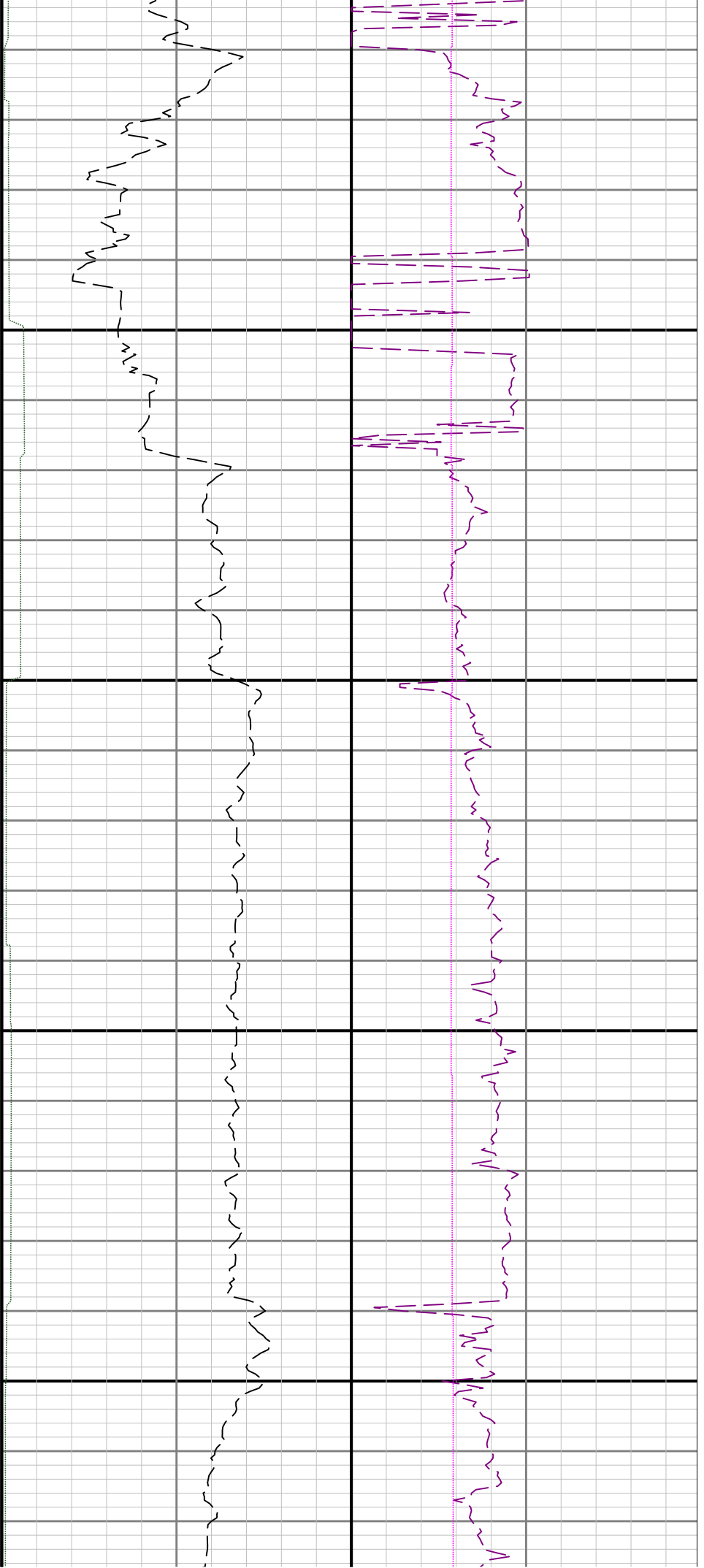
Curve Mnemonics

Presented Curves	Description	Units
TCDX	Downhole Temperature	degF
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAX	Gamma Ray - Apparent - Real-Time 0.5 ft Average	API
GRIX	Gamma Ray - Data Point Indicator - Real-Time	unitless
GRTX	Gamma Ray - Time Since Drilled - Real-Time	min
GRSI	Sliding Indicator Flag	unitless

<div> <div>BAKER HUGHES</div> <div>a GE company</div> </div>	Company	Anadarko	
	Well	Reese 21-3HZ	
	Interval	Date From: 2019-02-22 13:04 Top: 1884.00 ft	Date To: 2019-02-25 16:11 Bottom: 15737.00 ft
	Created	2019-02-25 16:29:26	

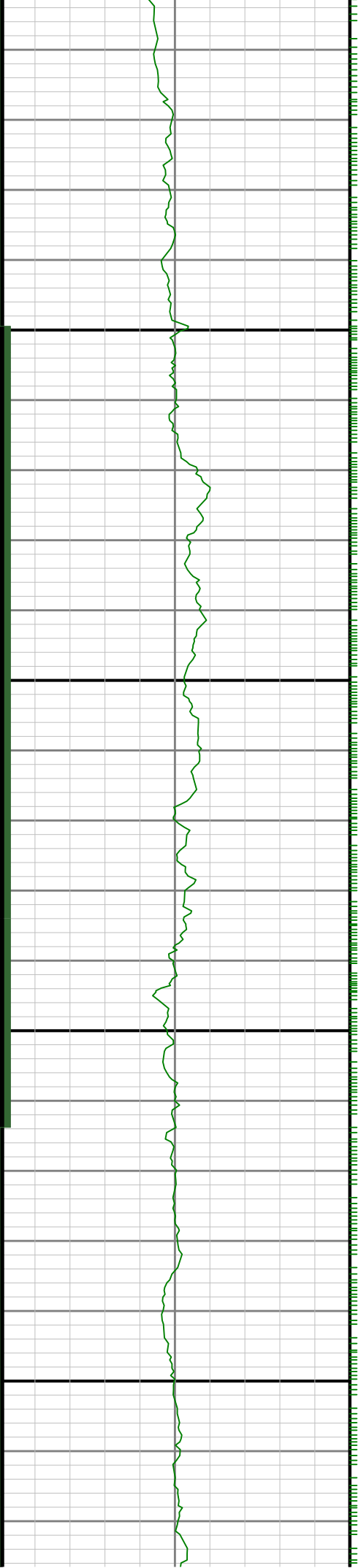


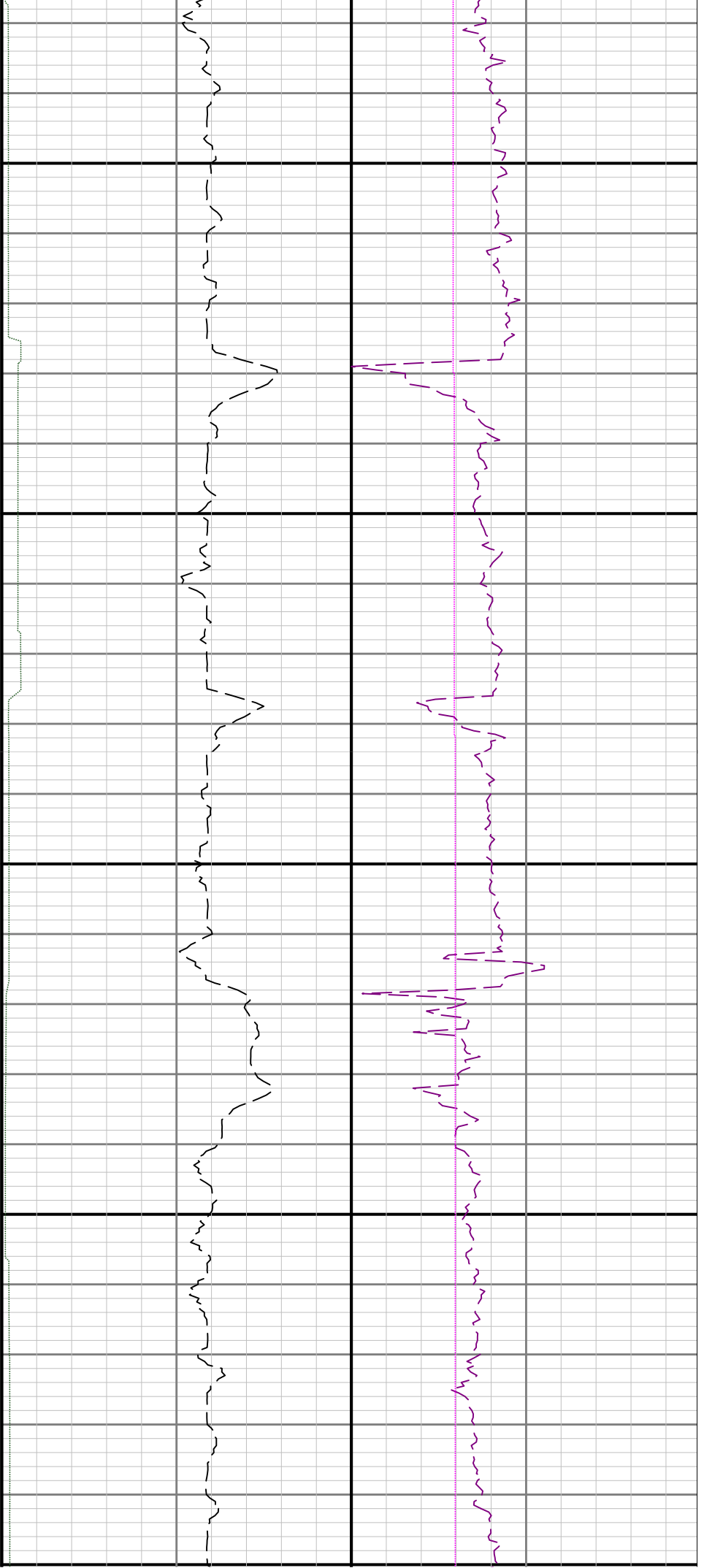




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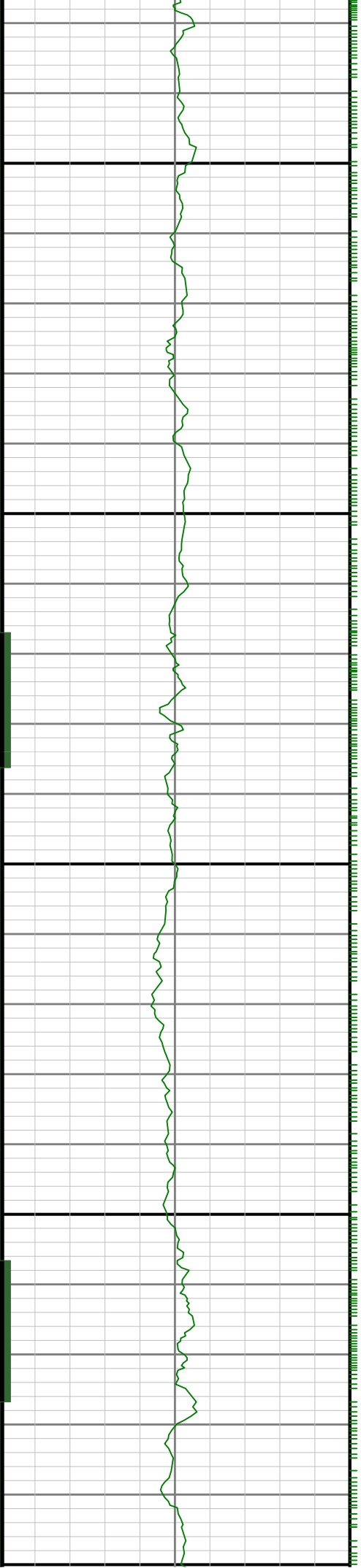


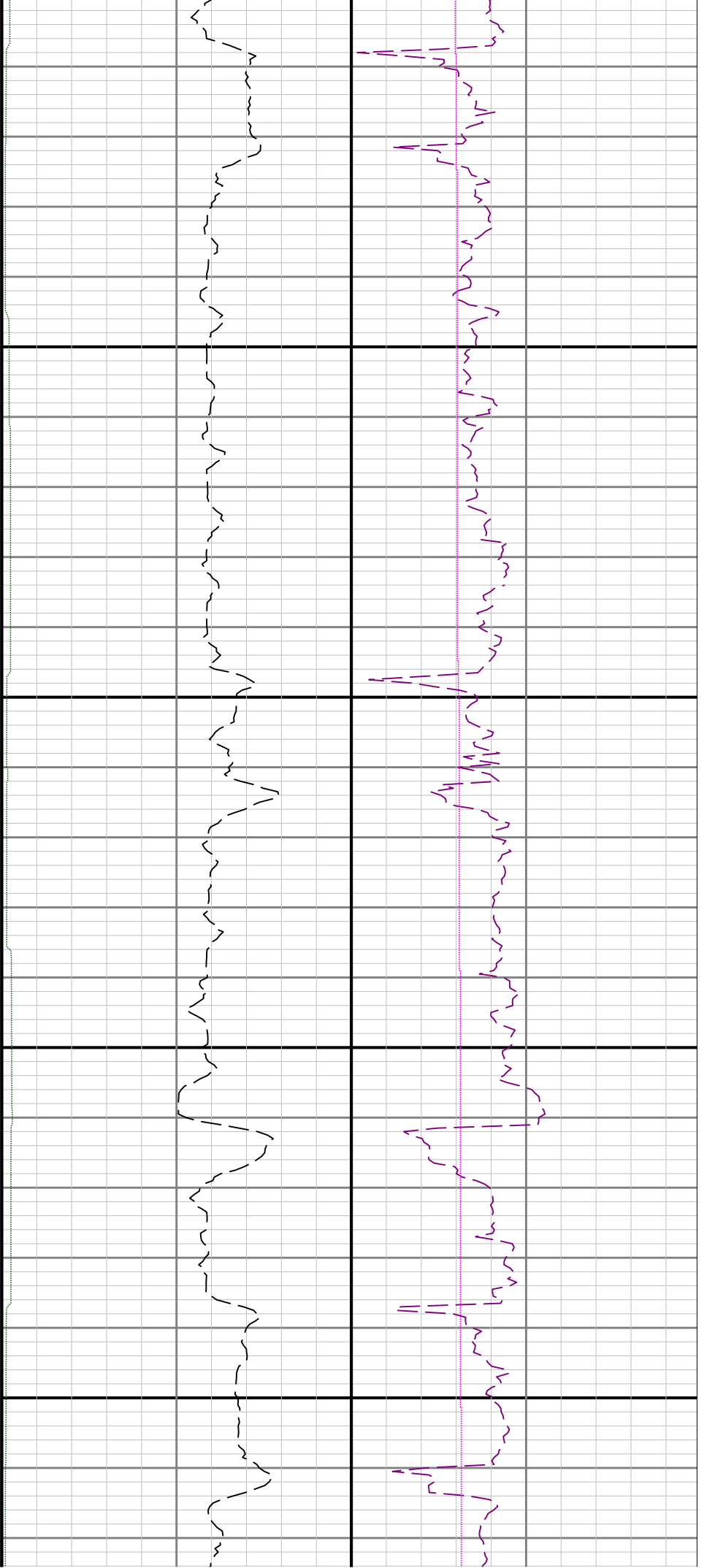


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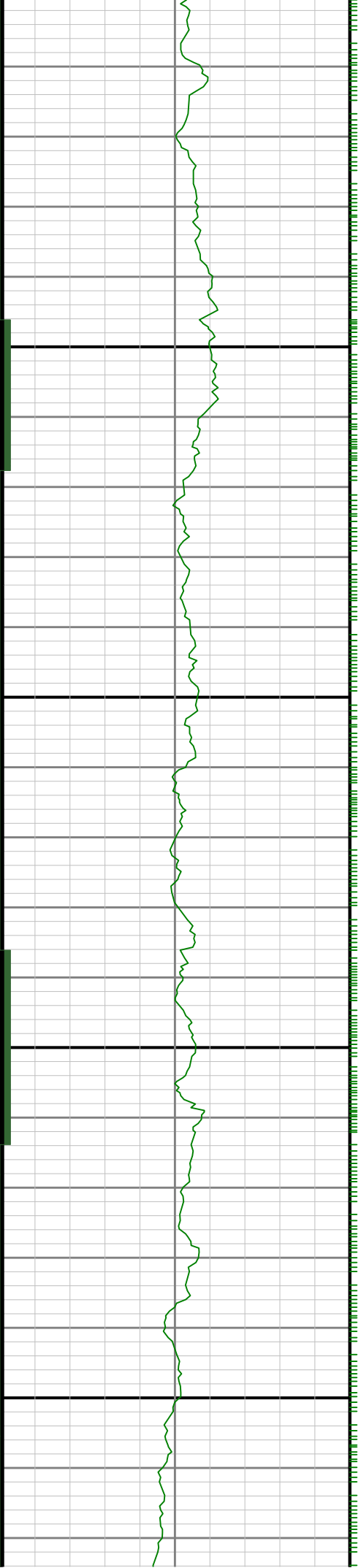


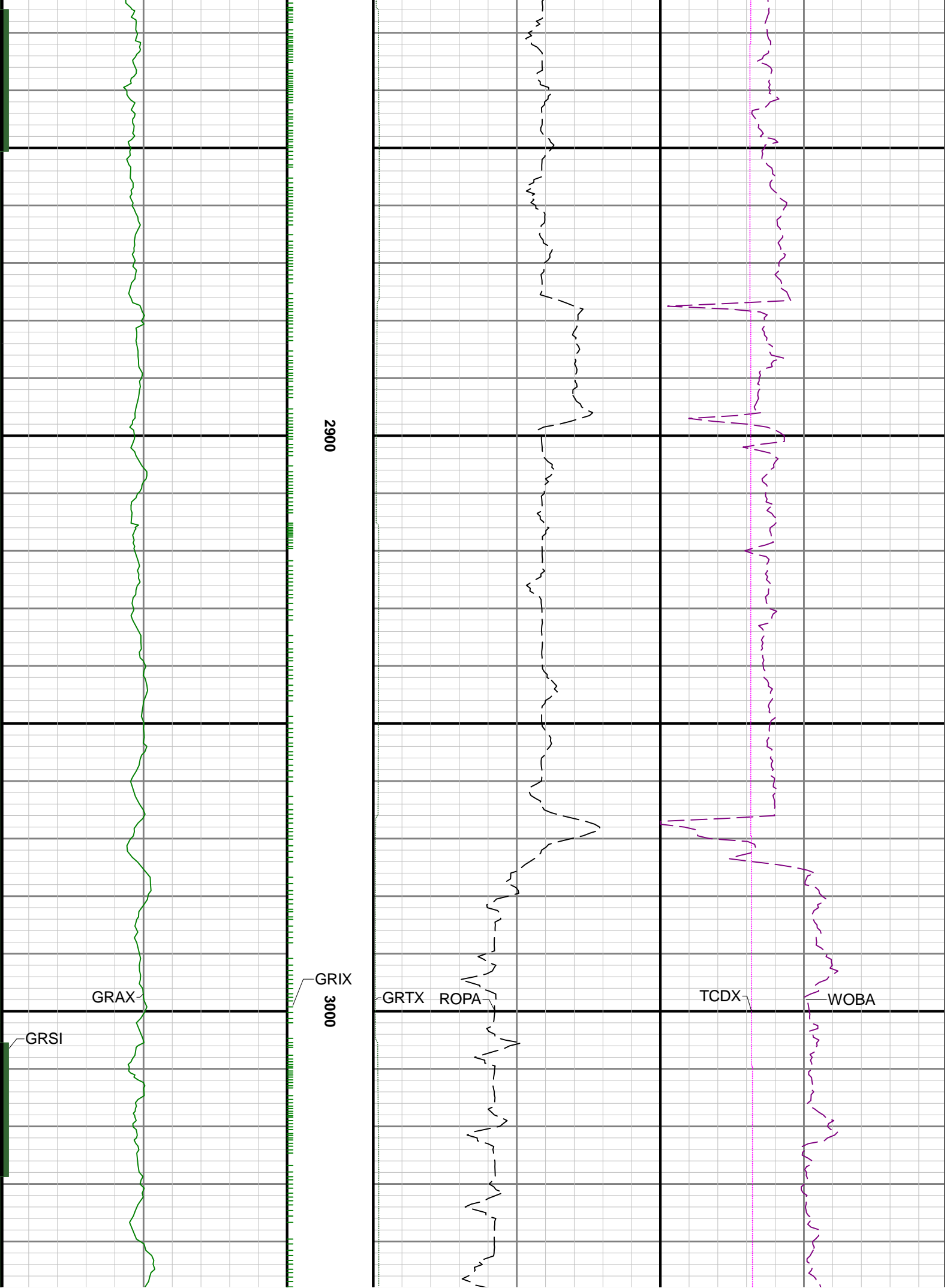


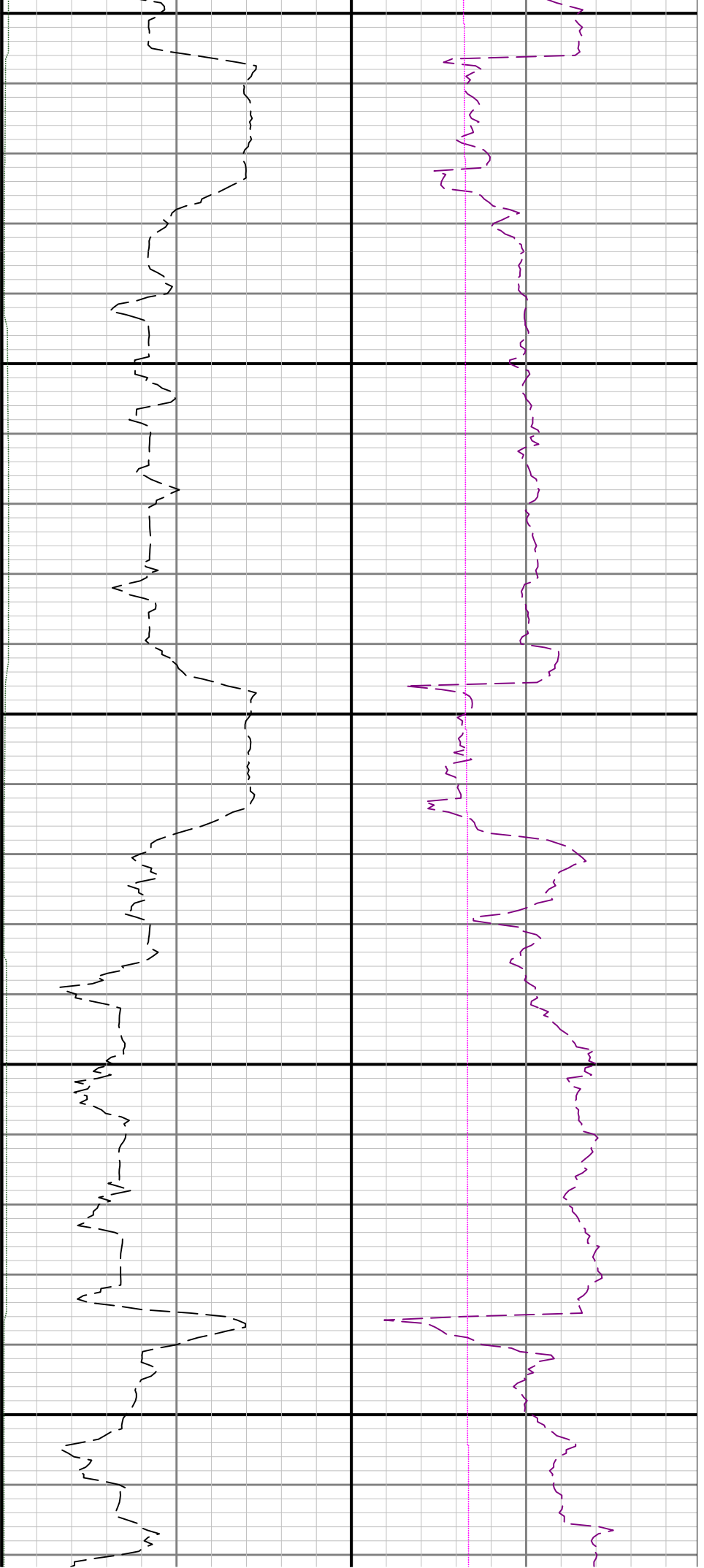
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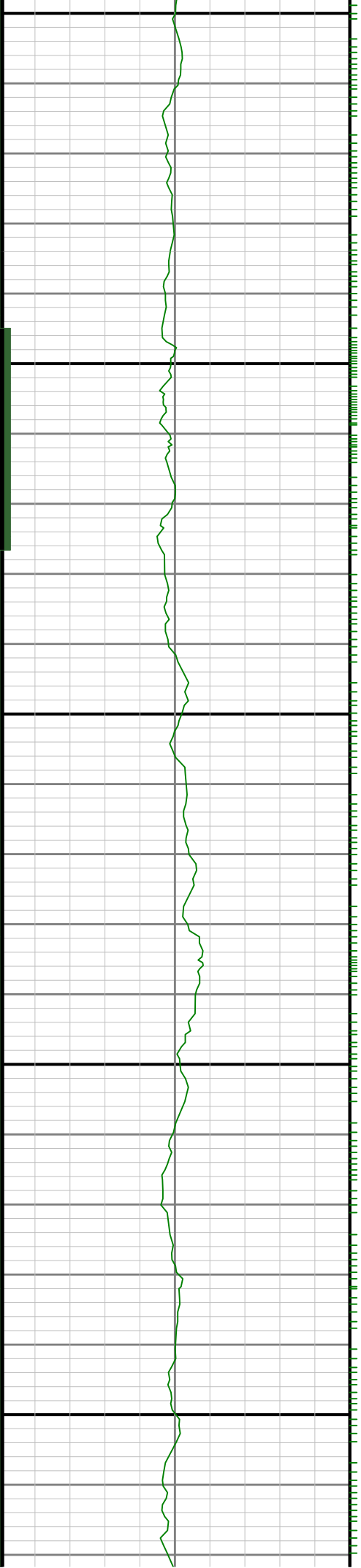


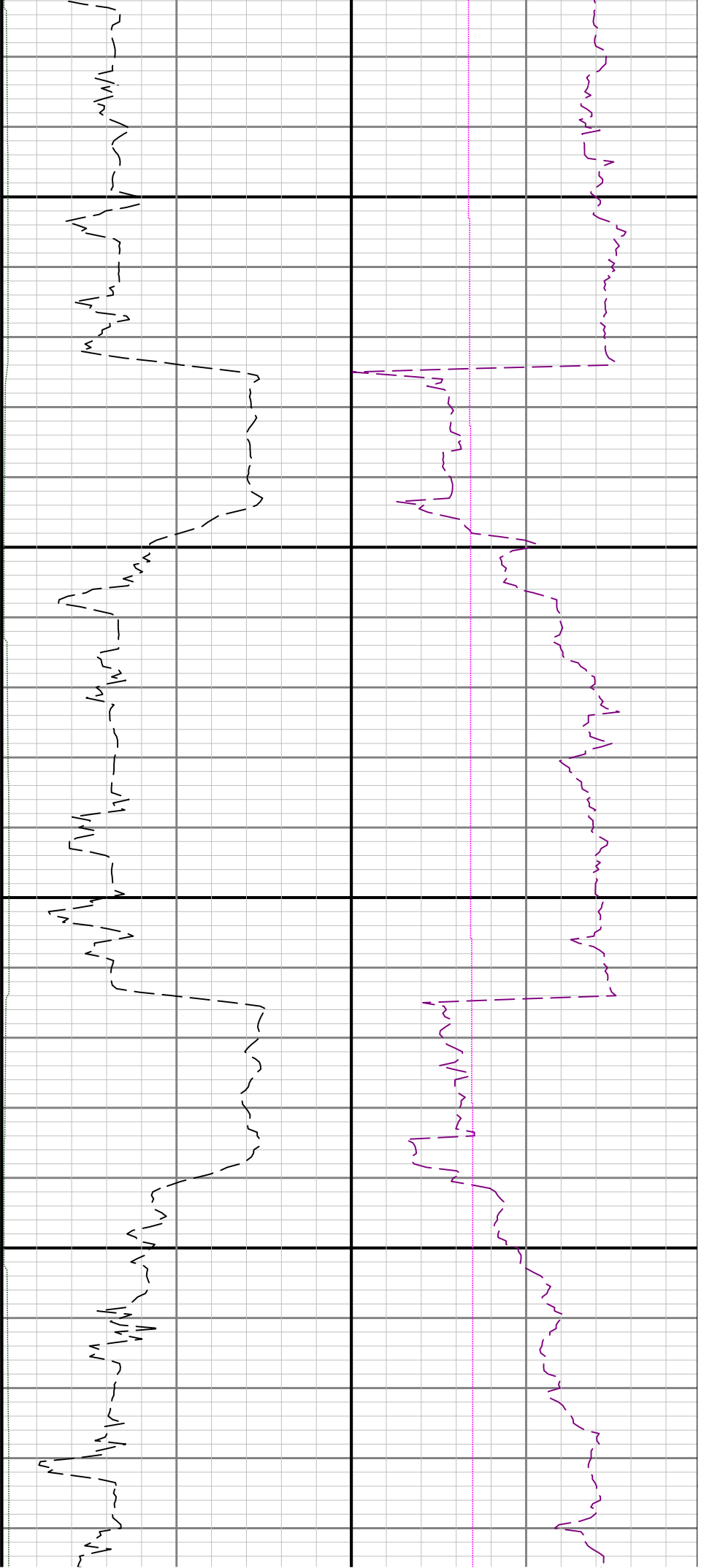




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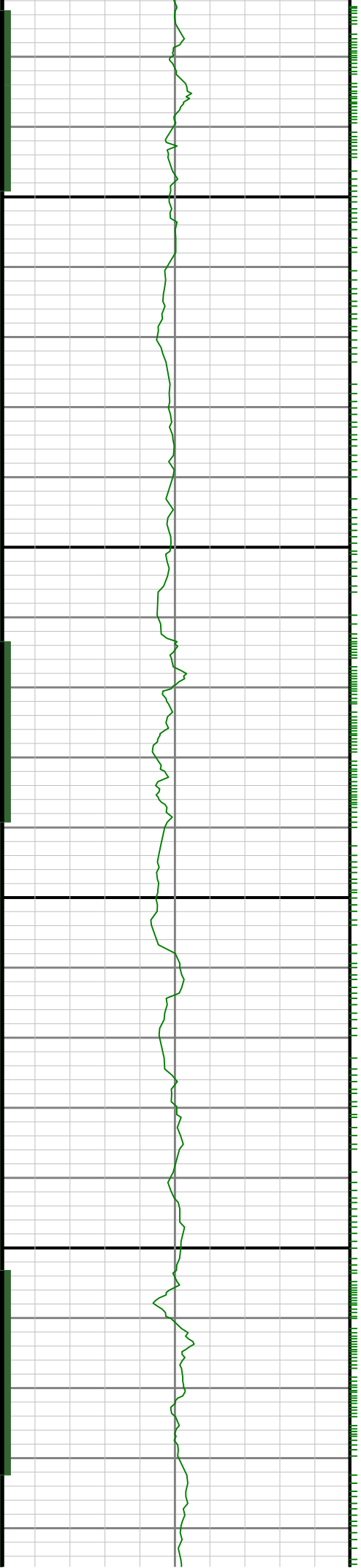
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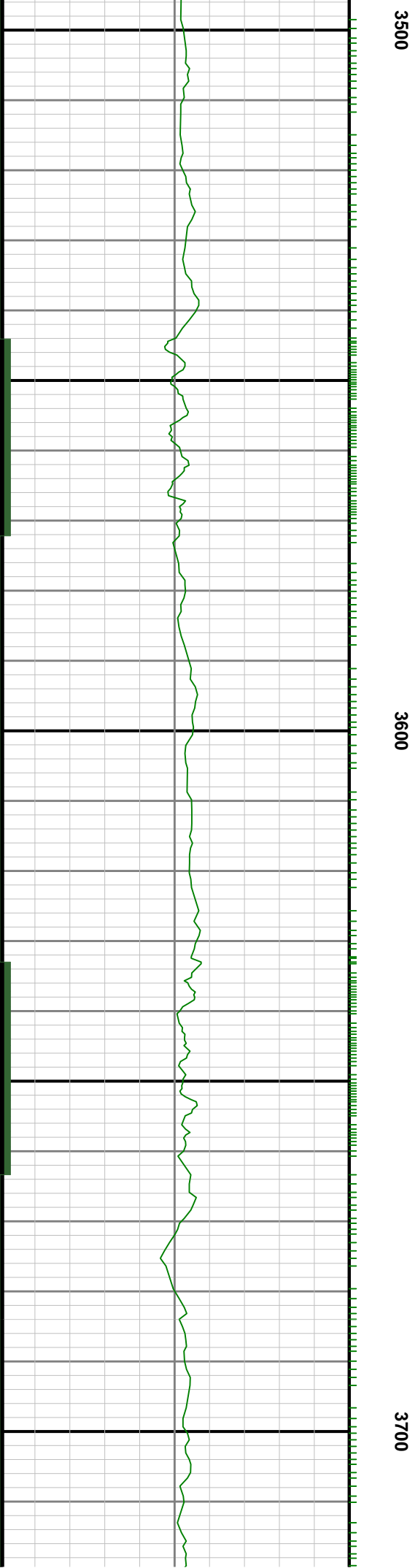
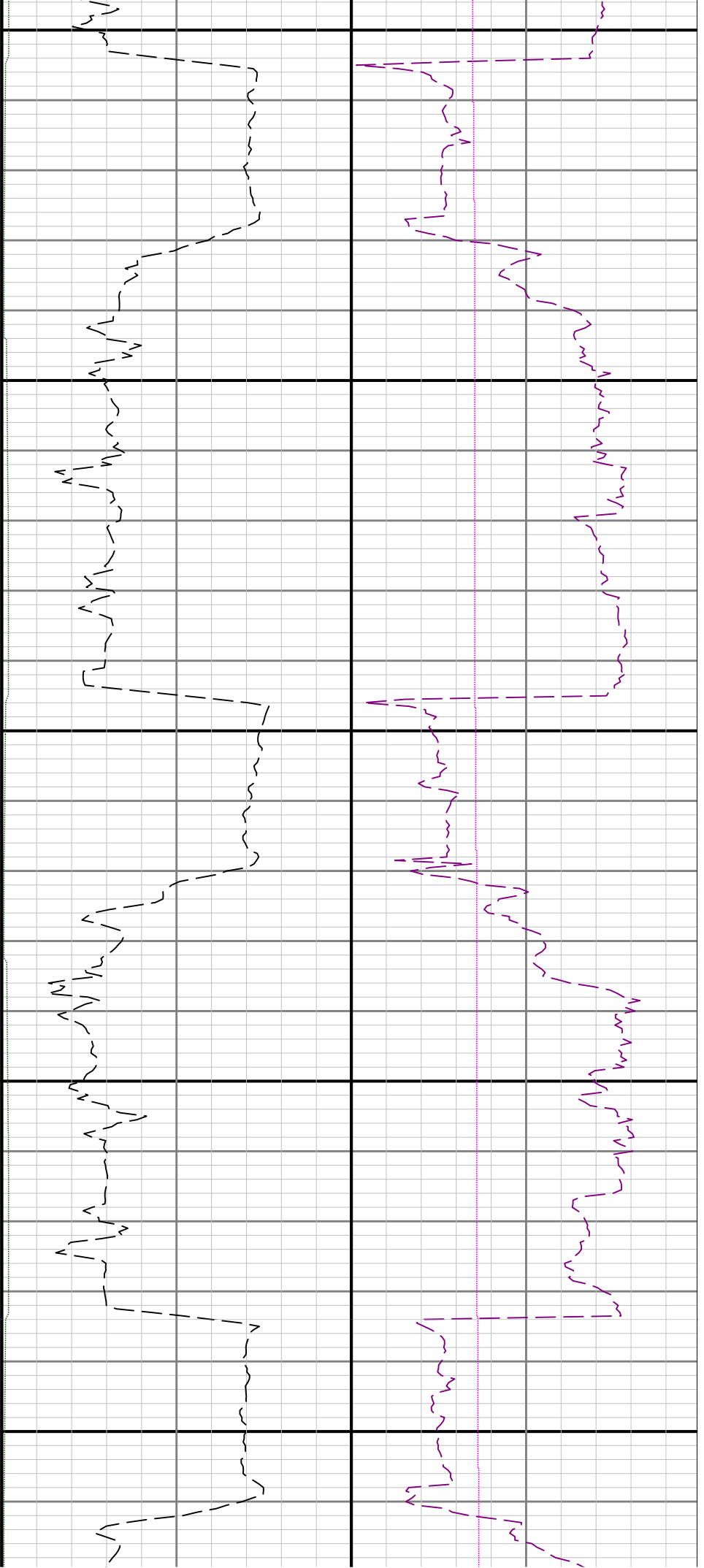


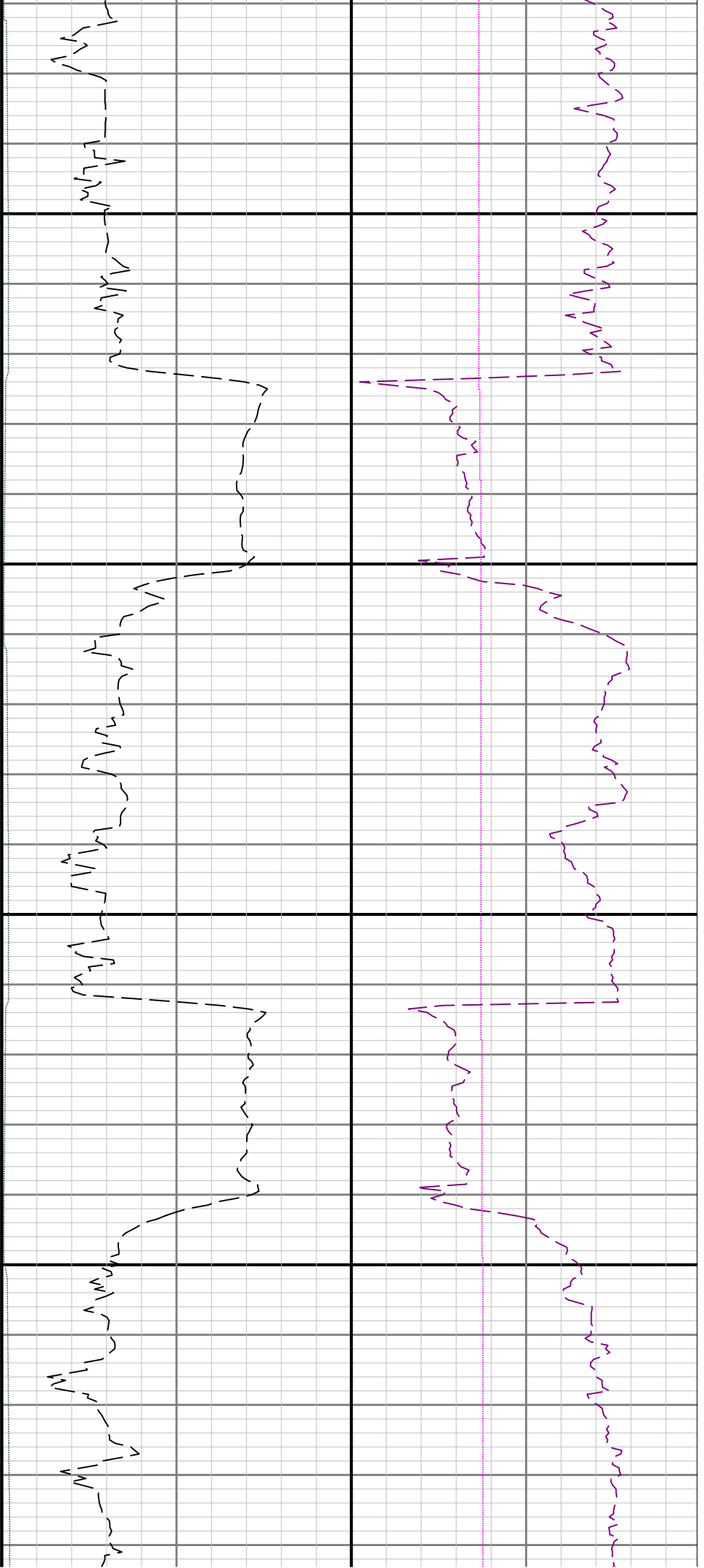


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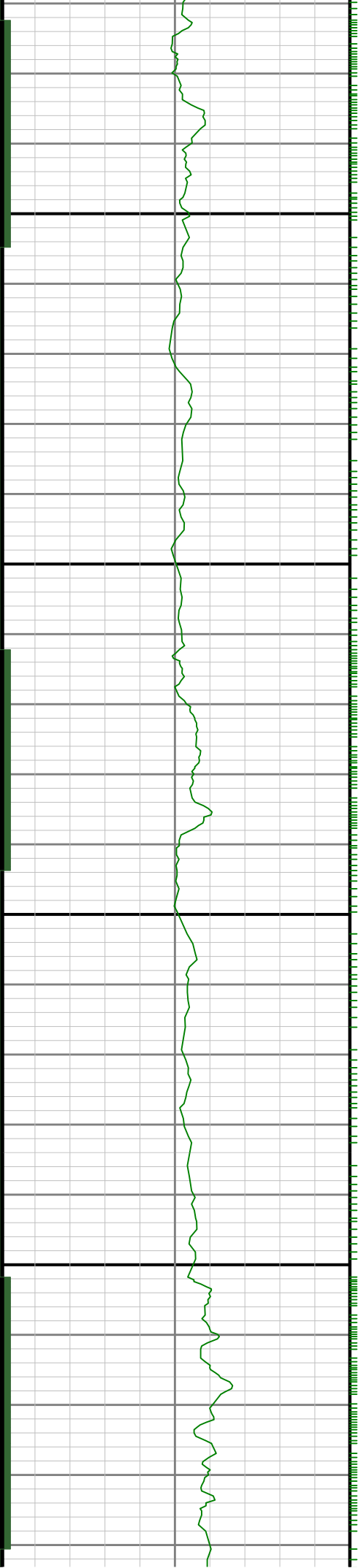


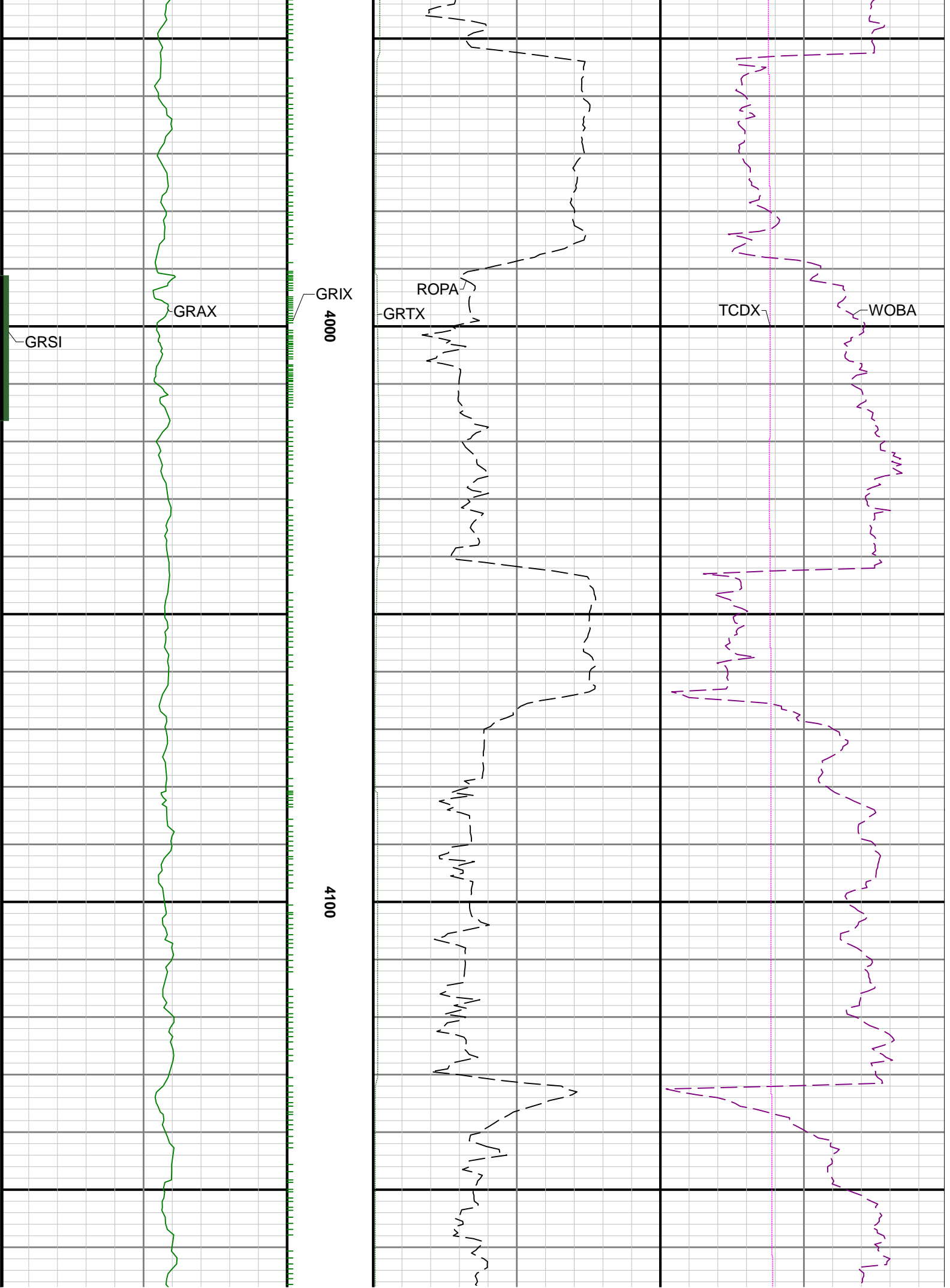


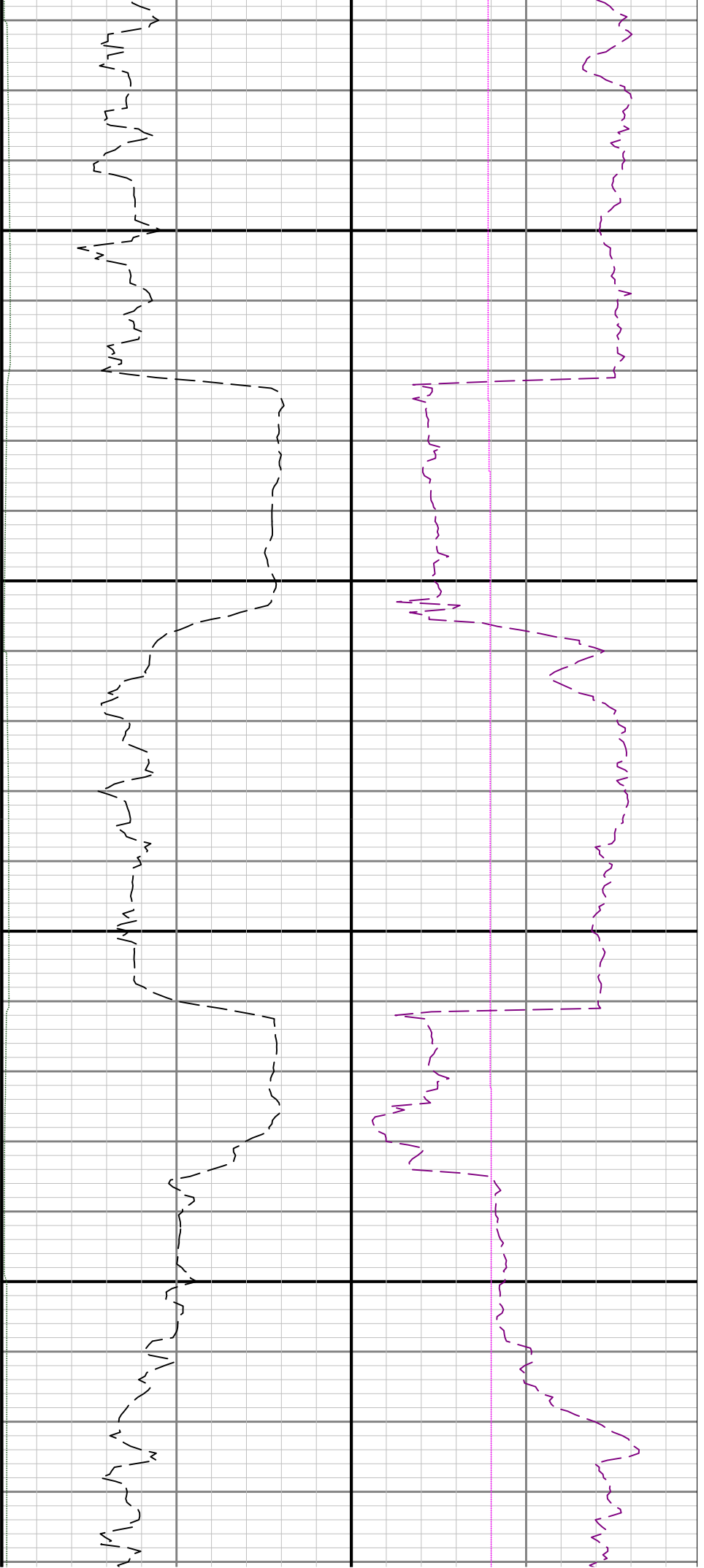


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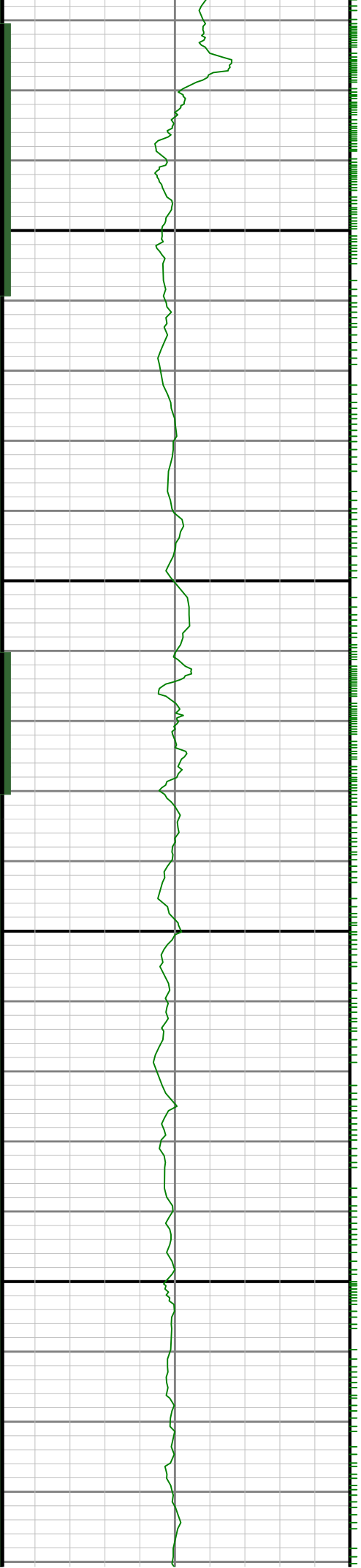


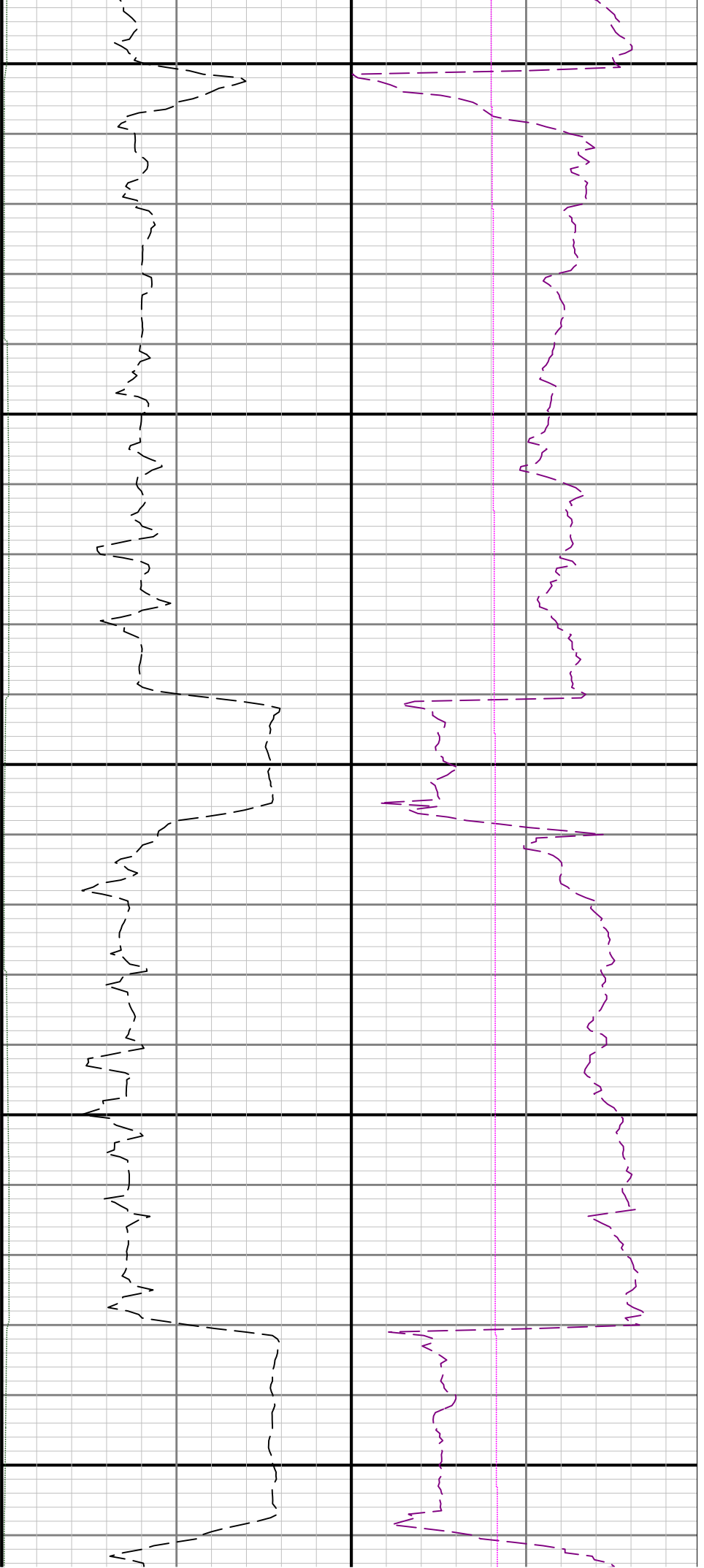




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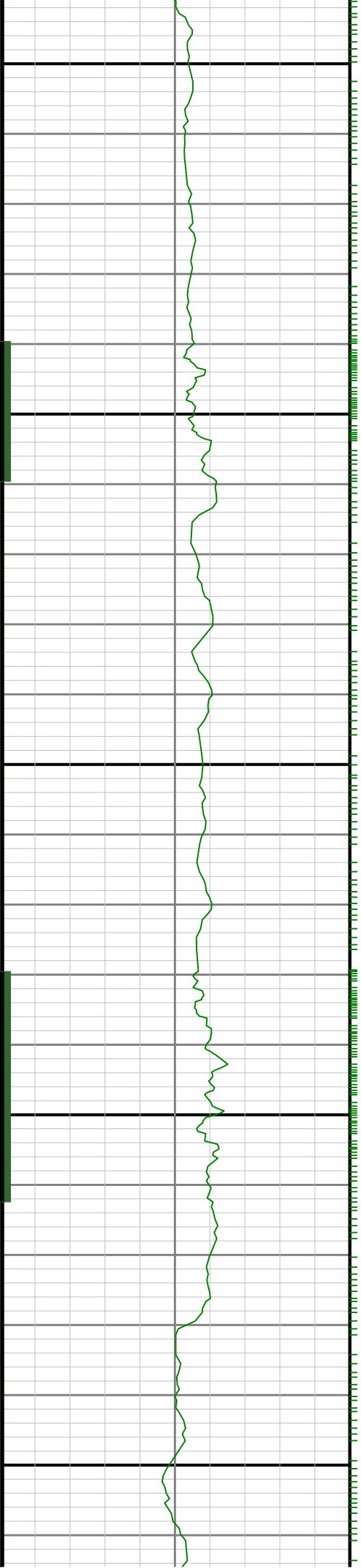


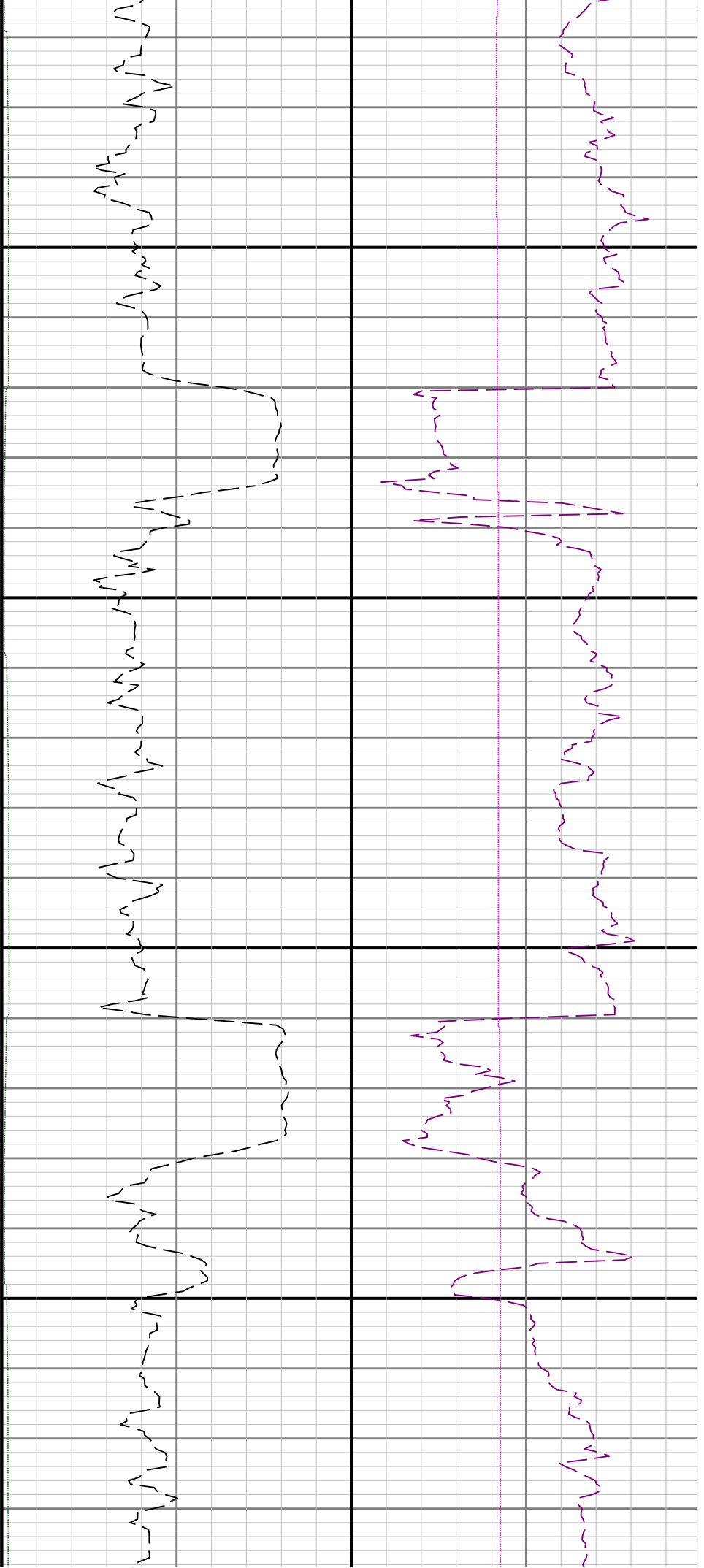


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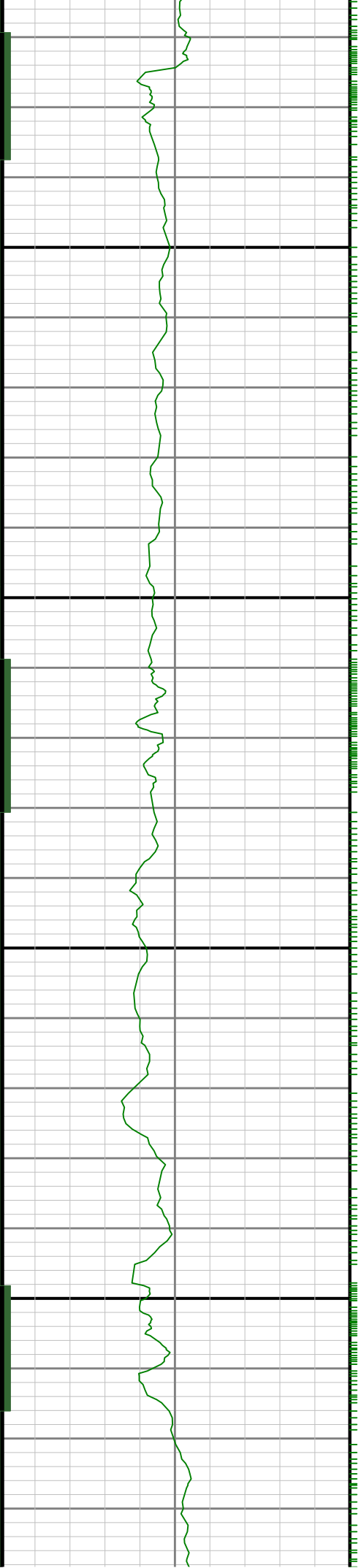
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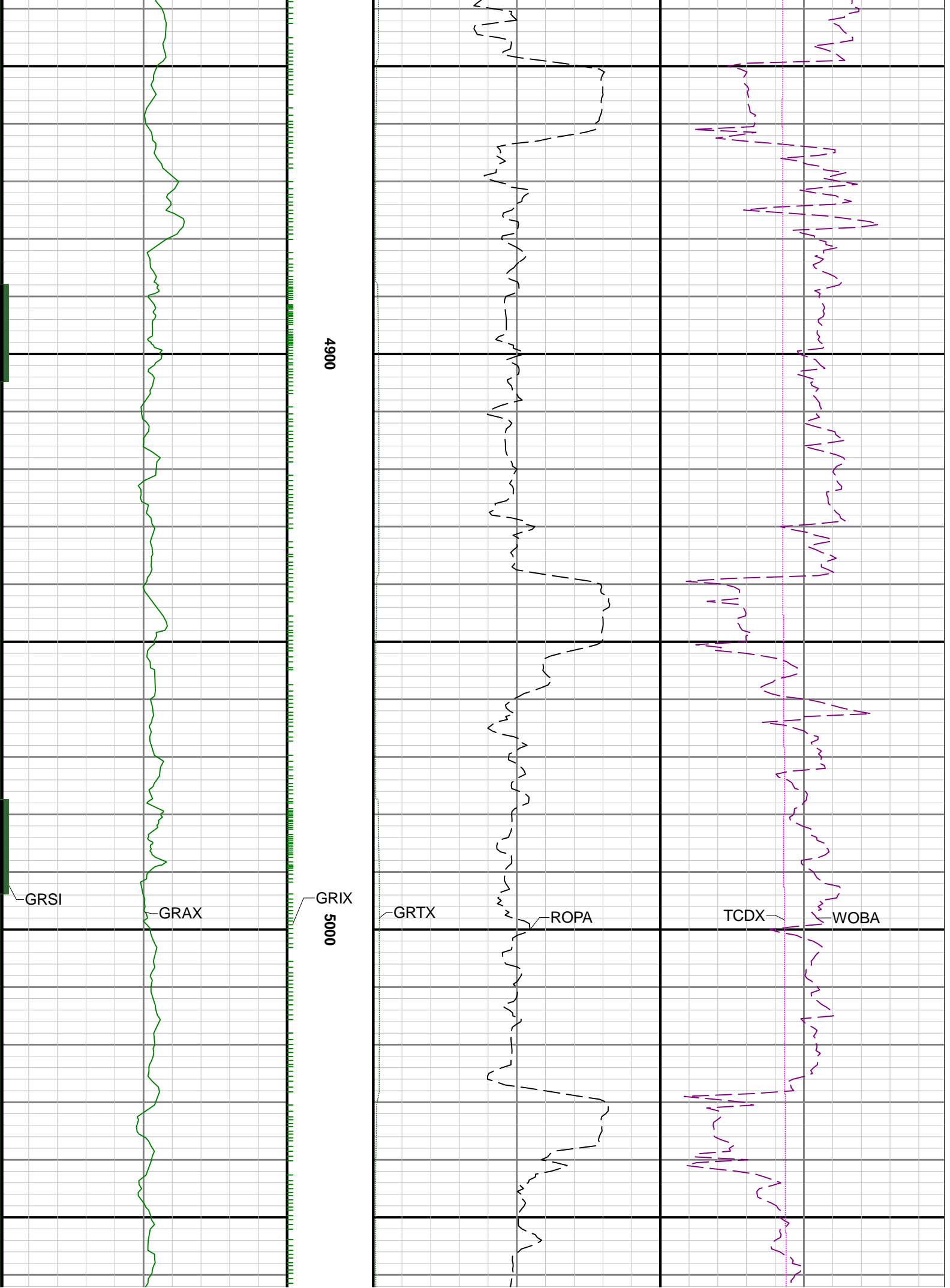


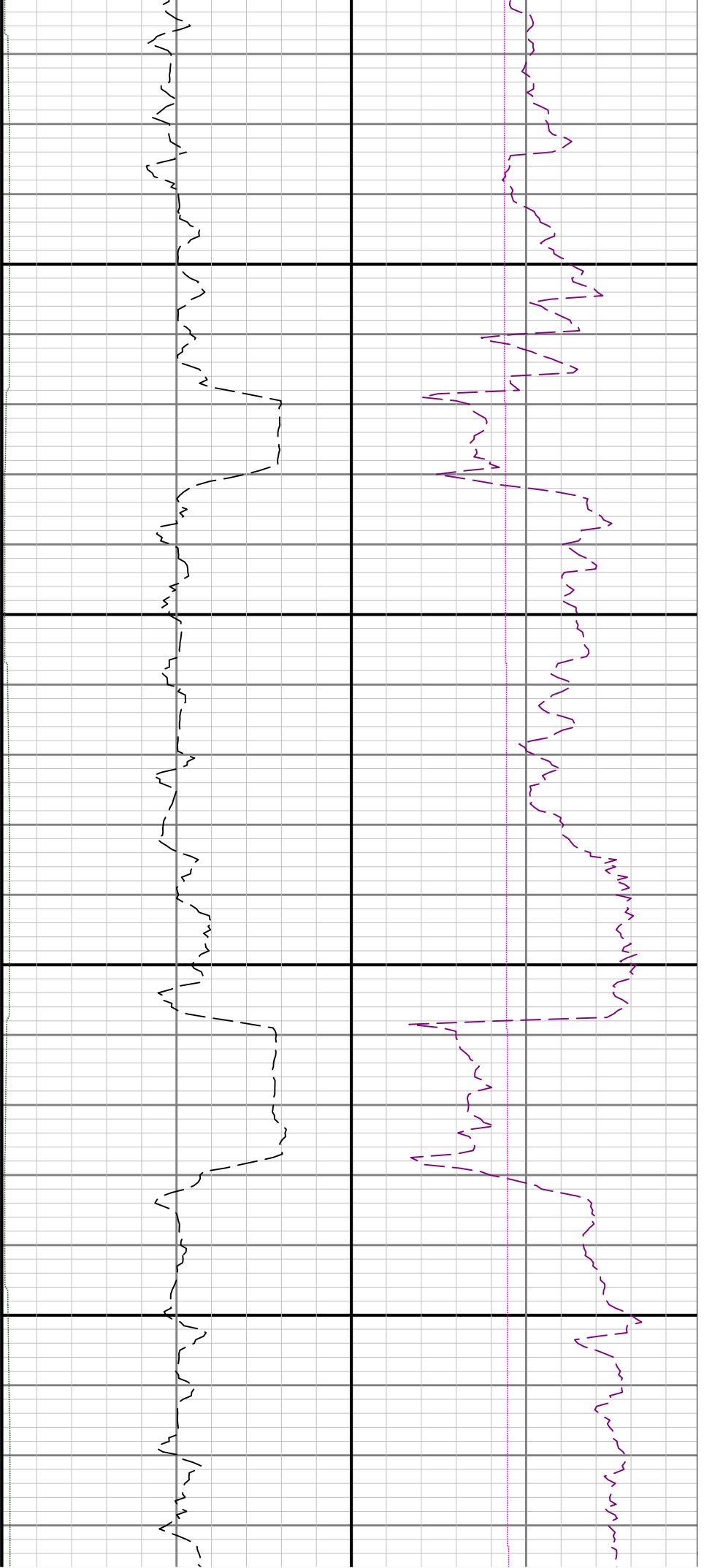


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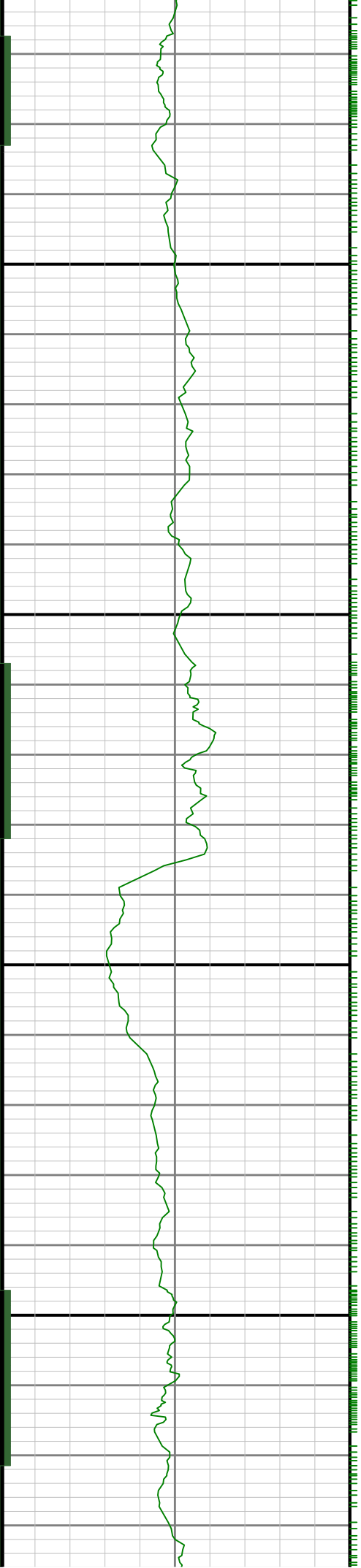


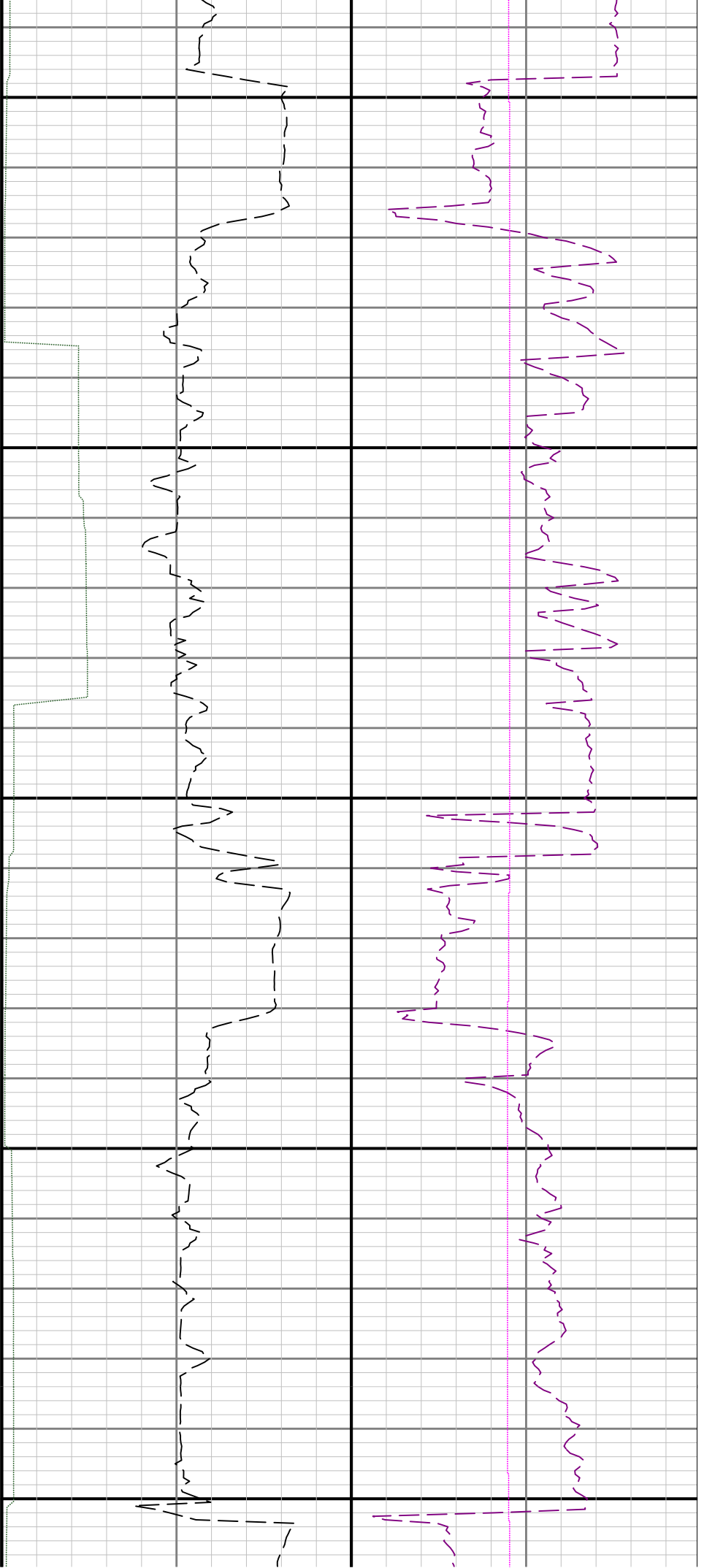




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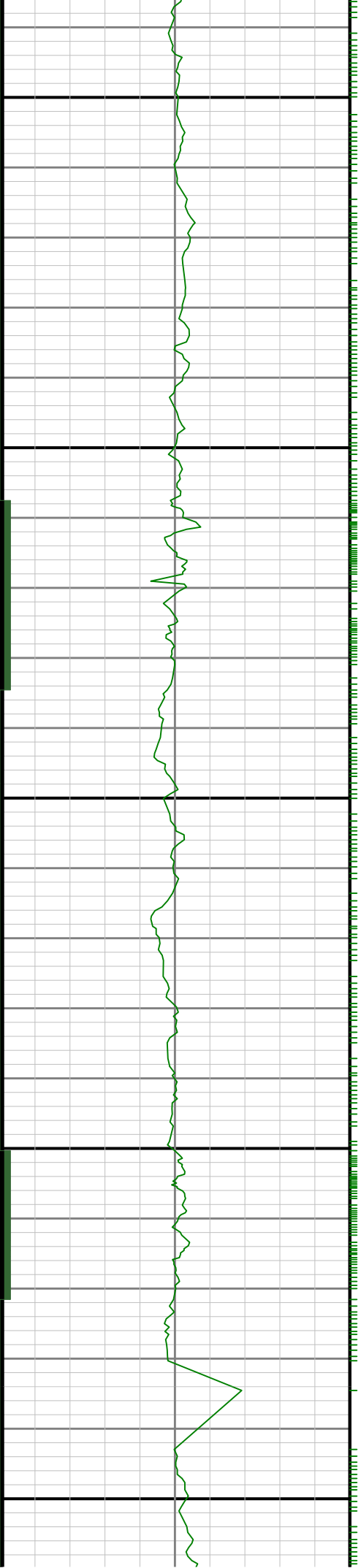


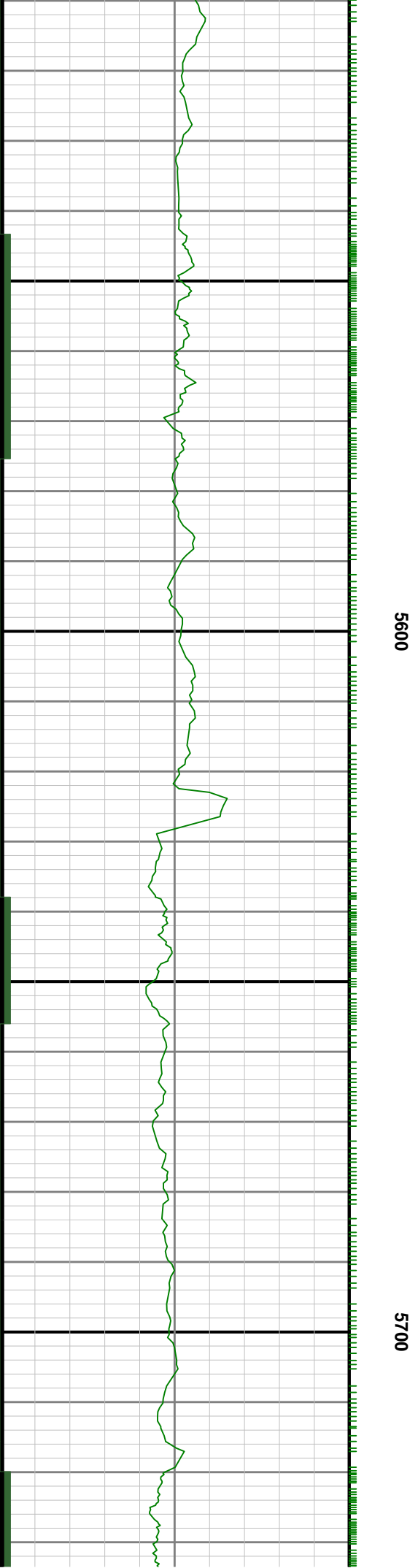
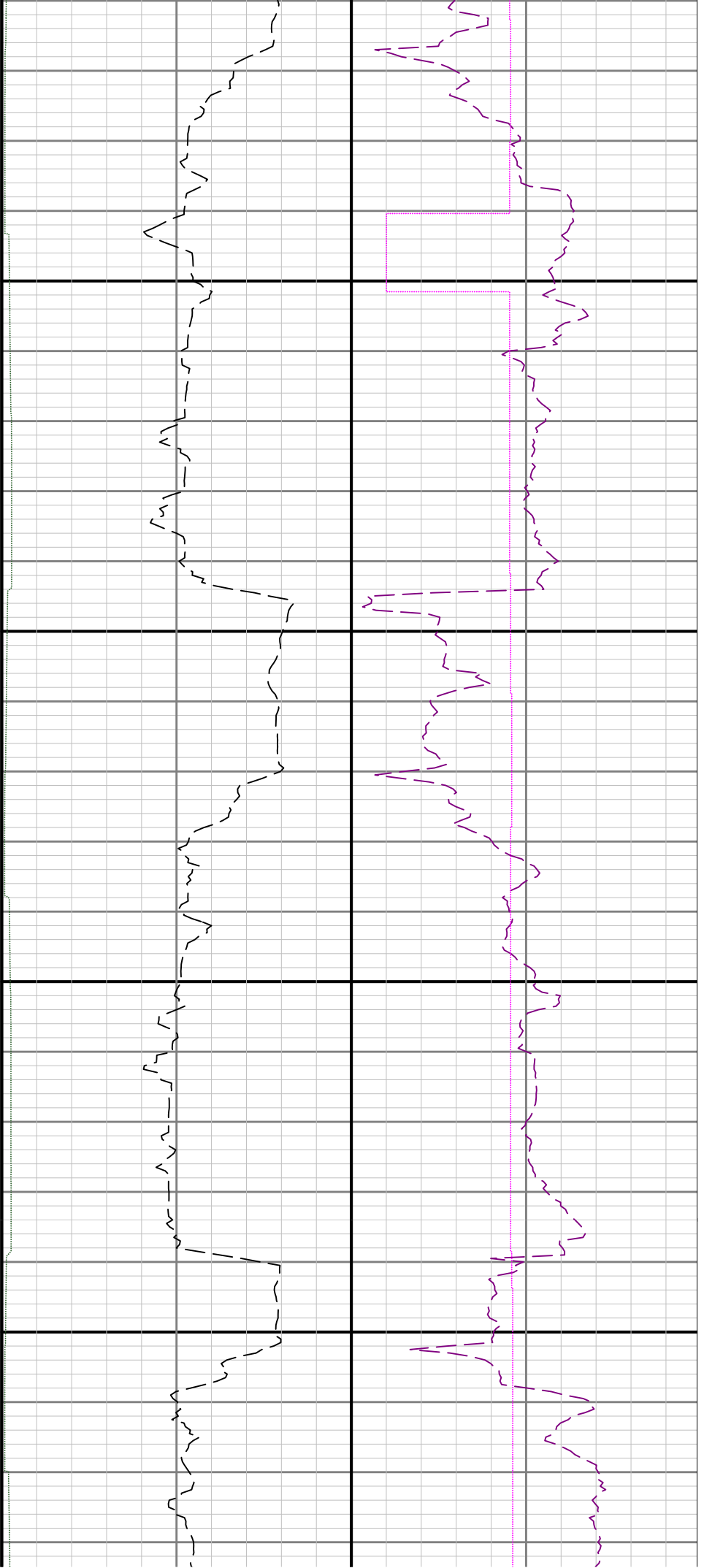


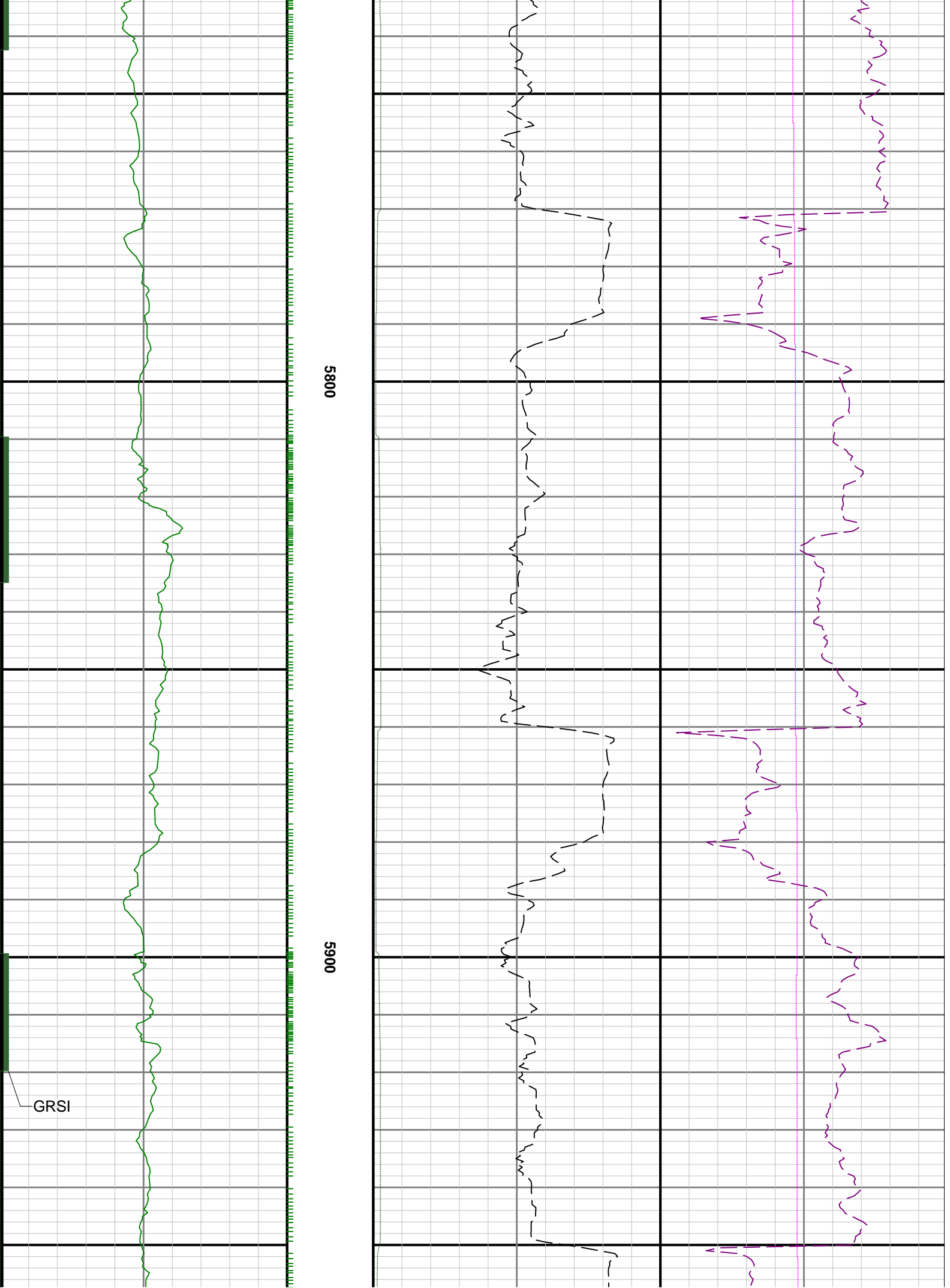
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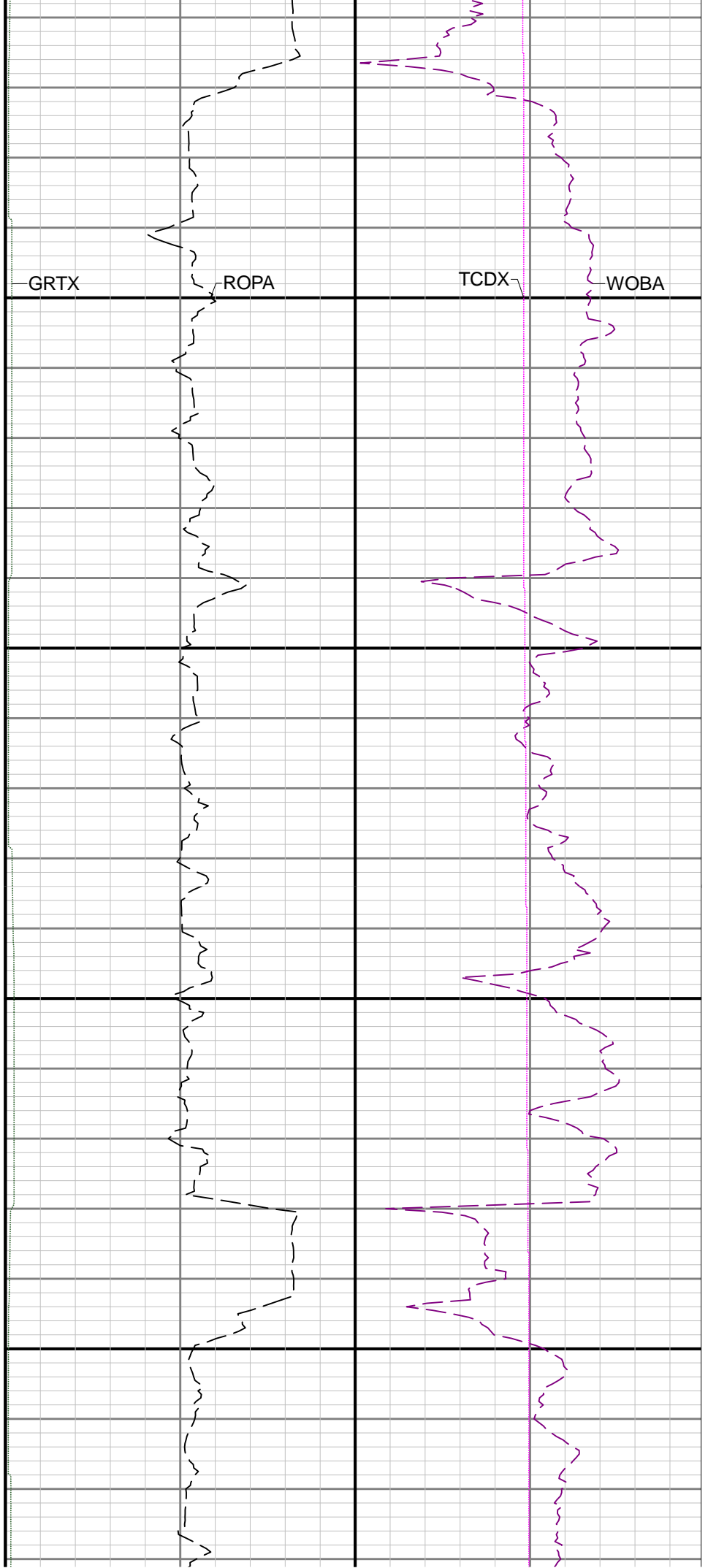
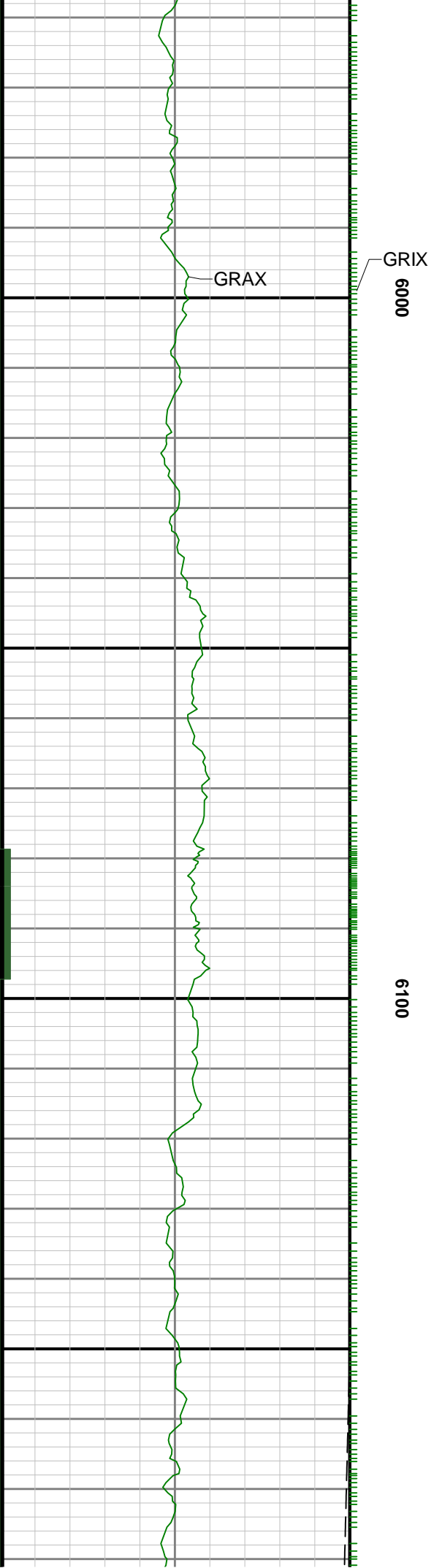
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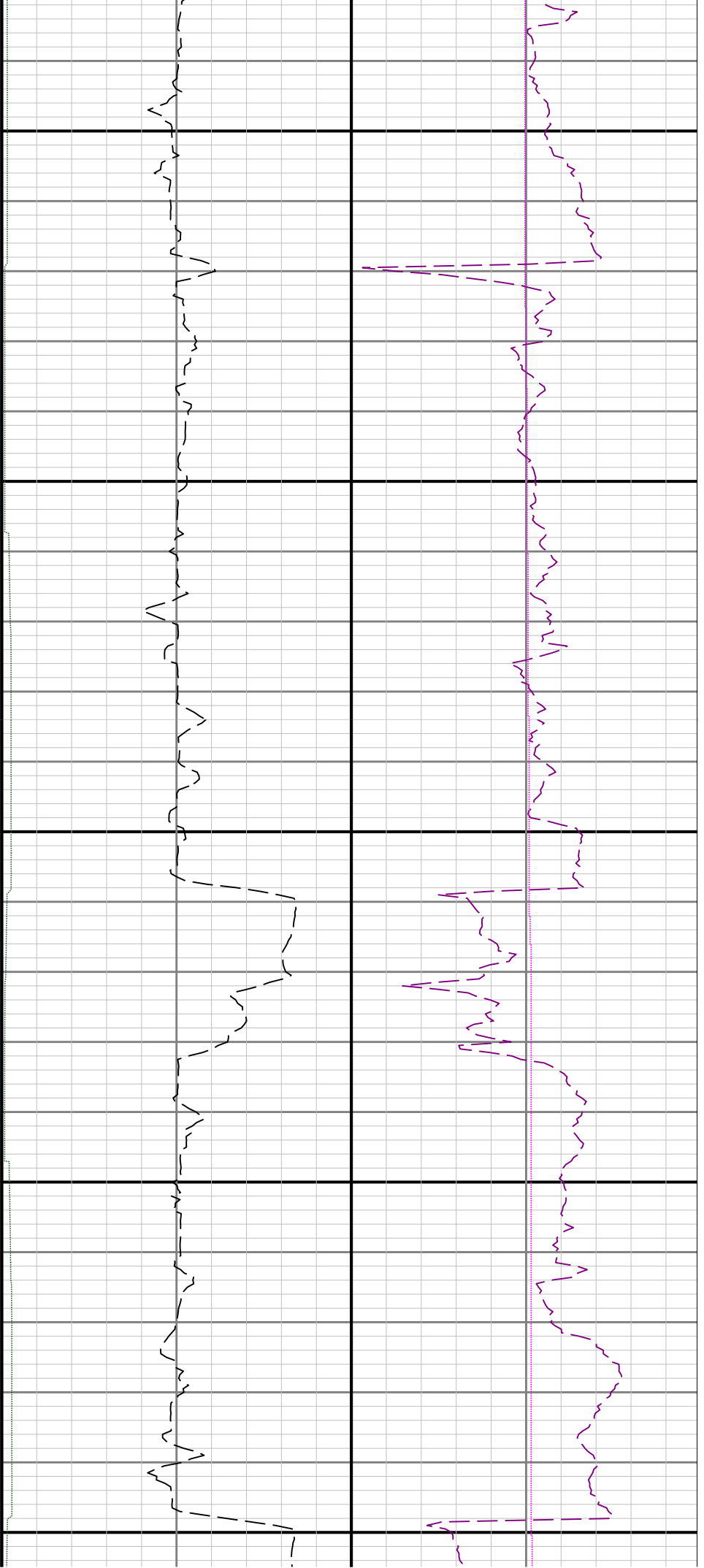
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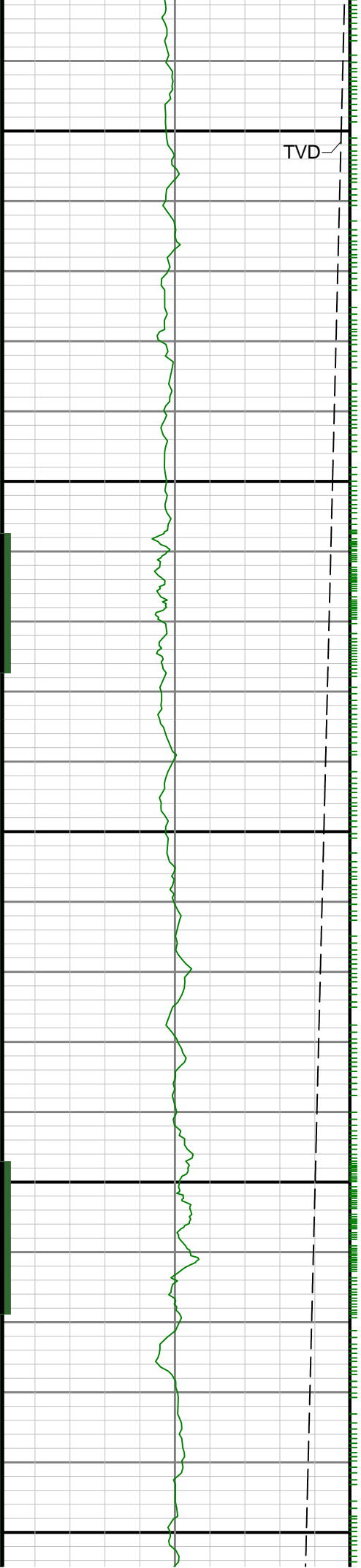


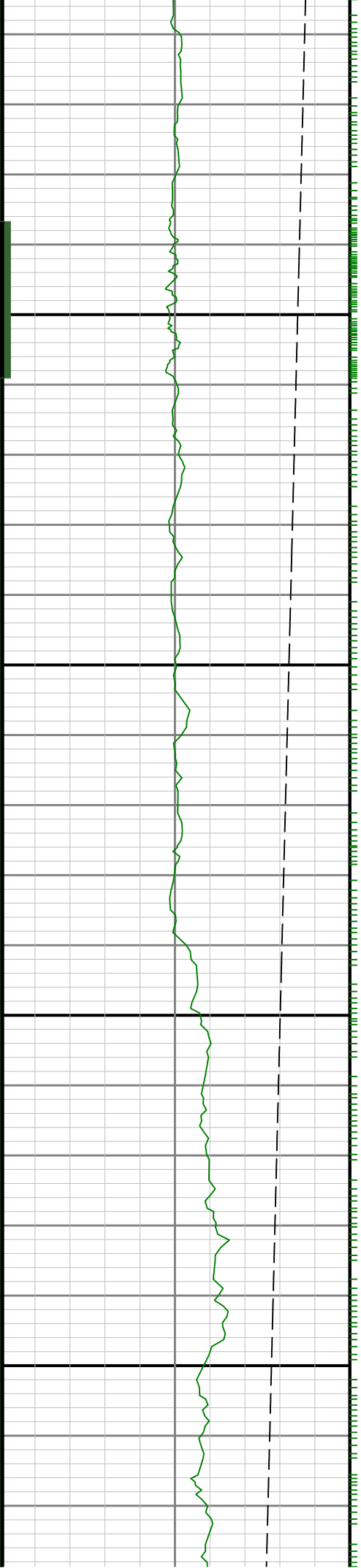
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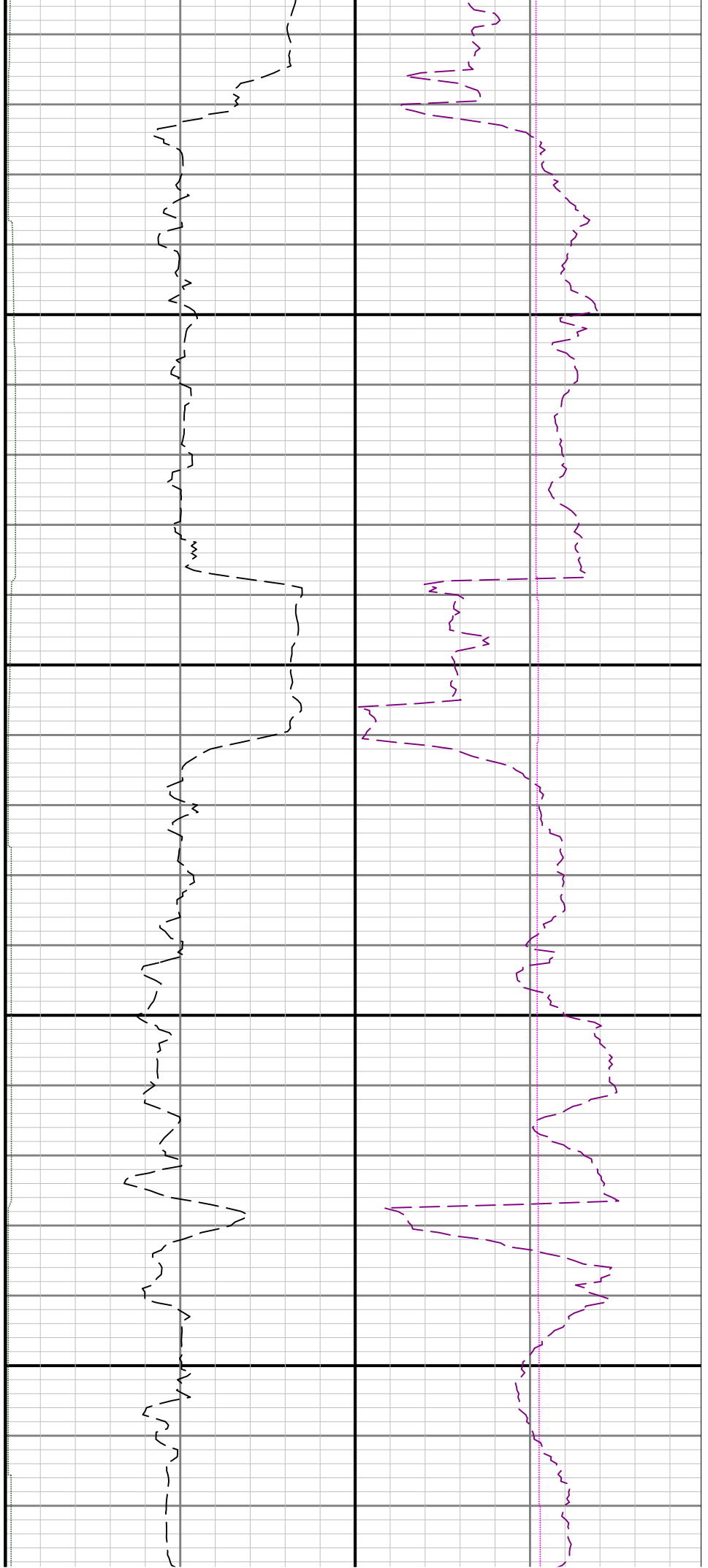
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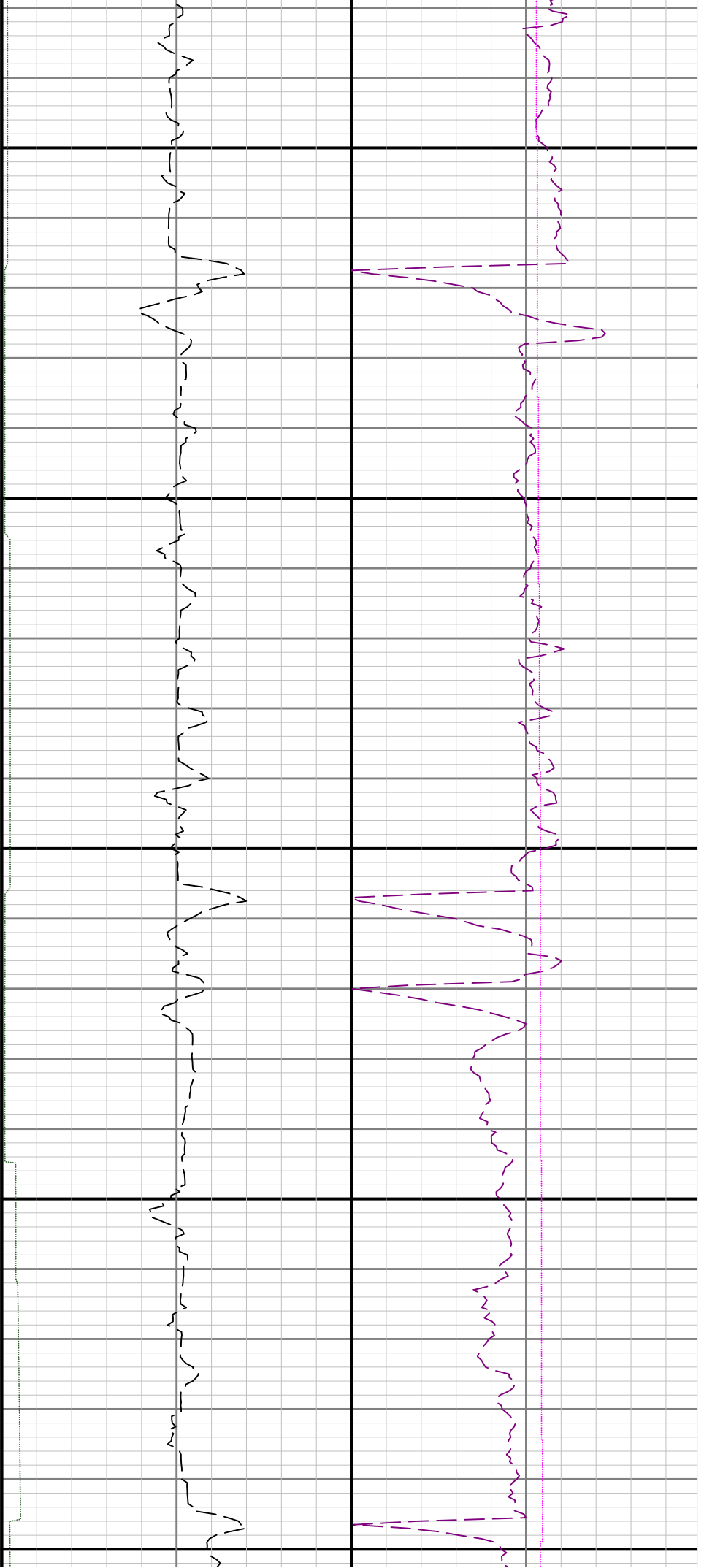




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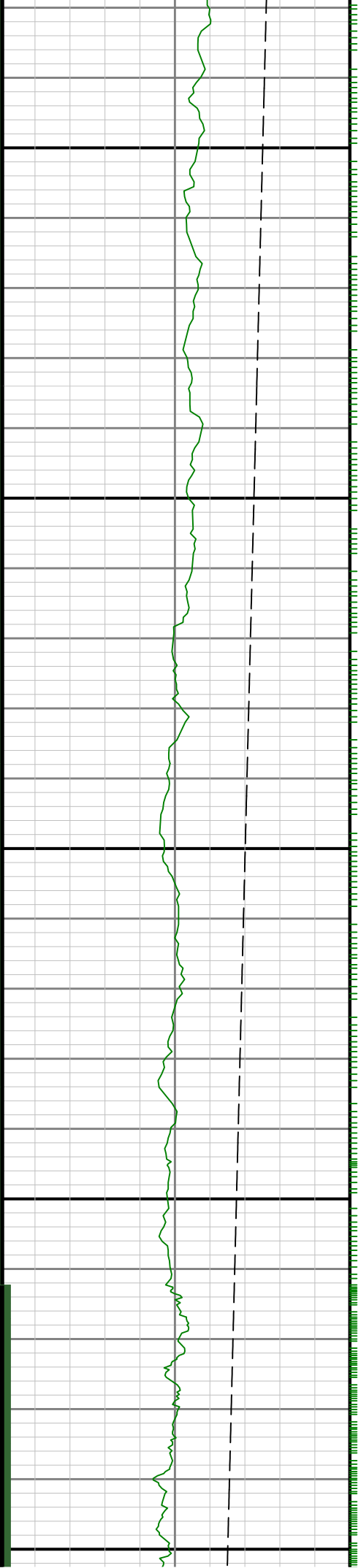
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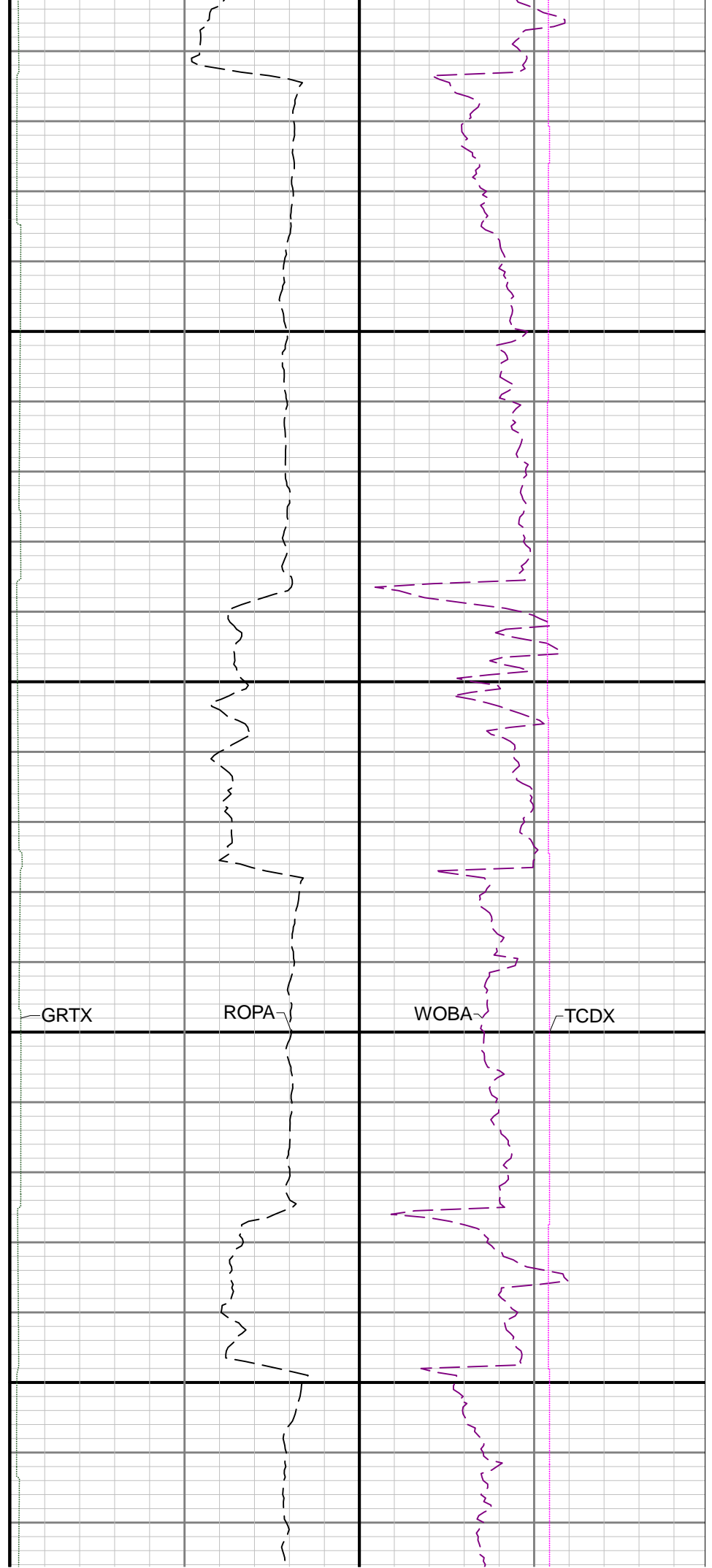
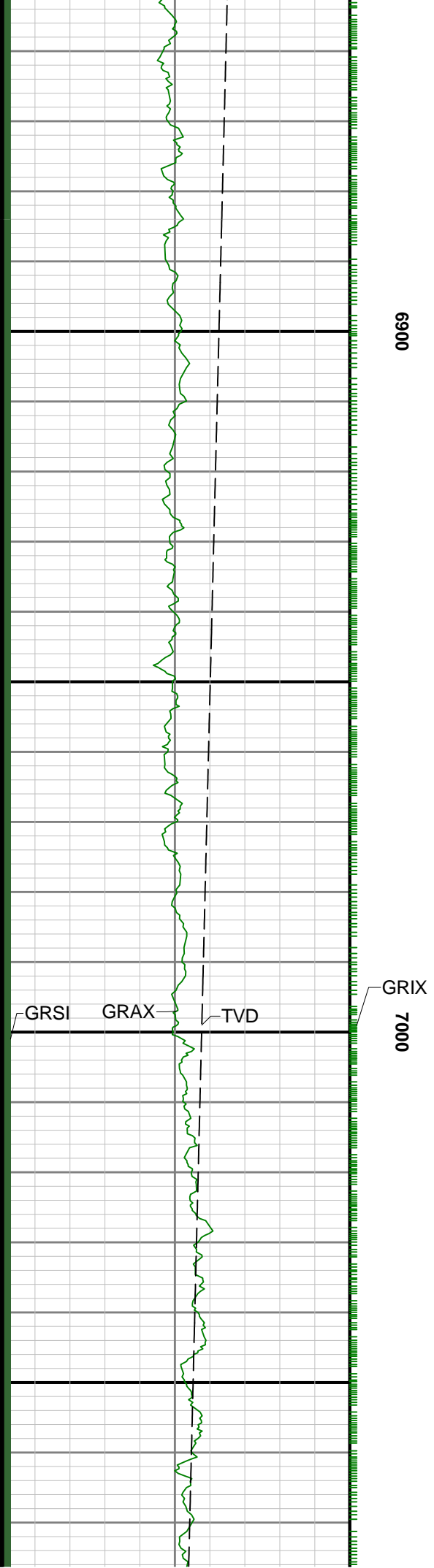


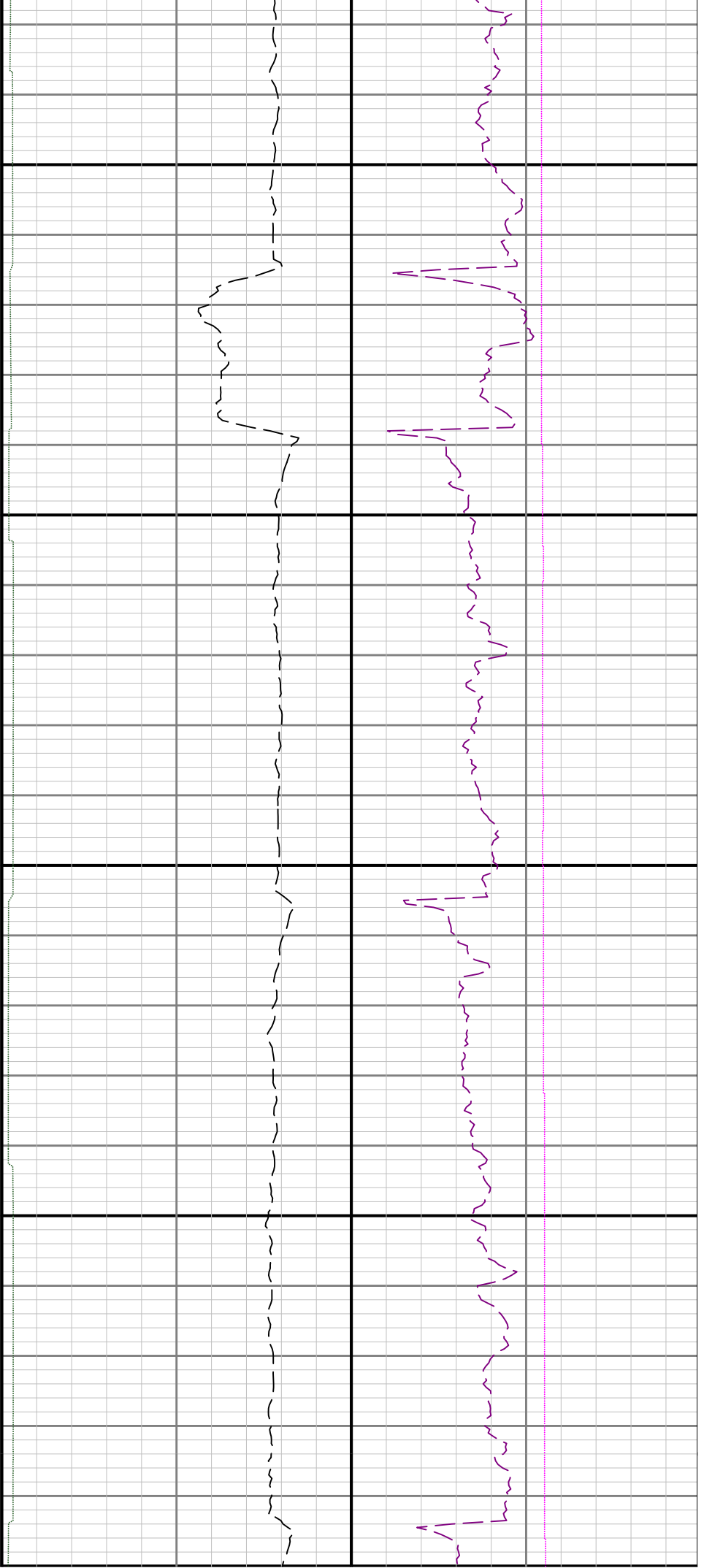


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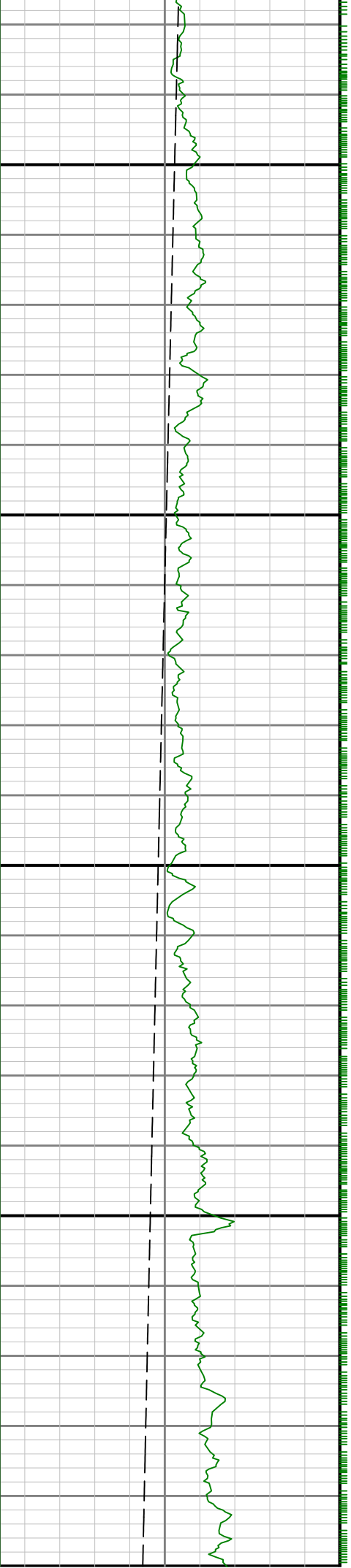


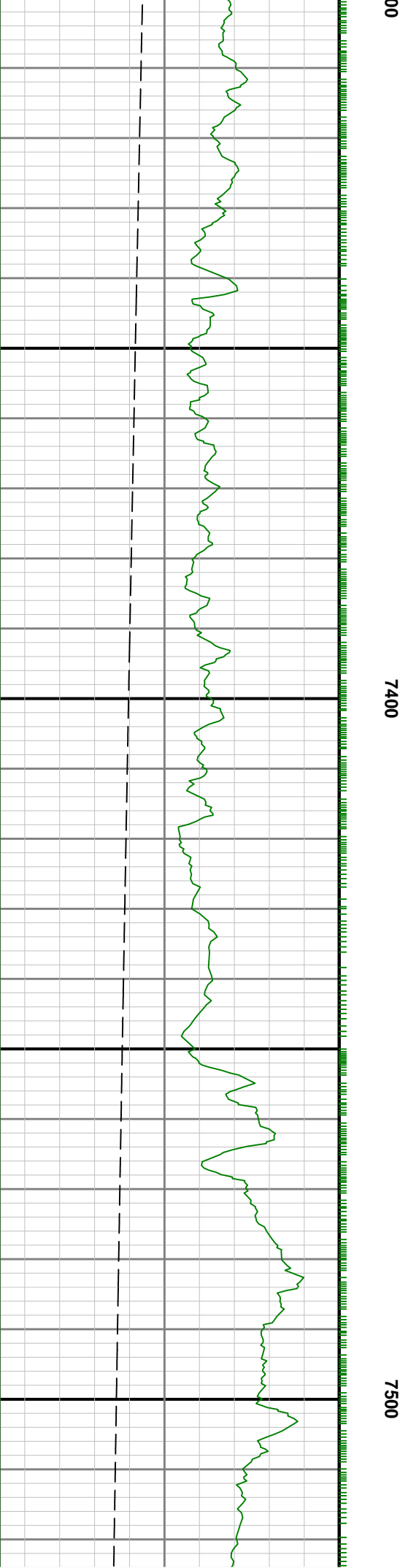
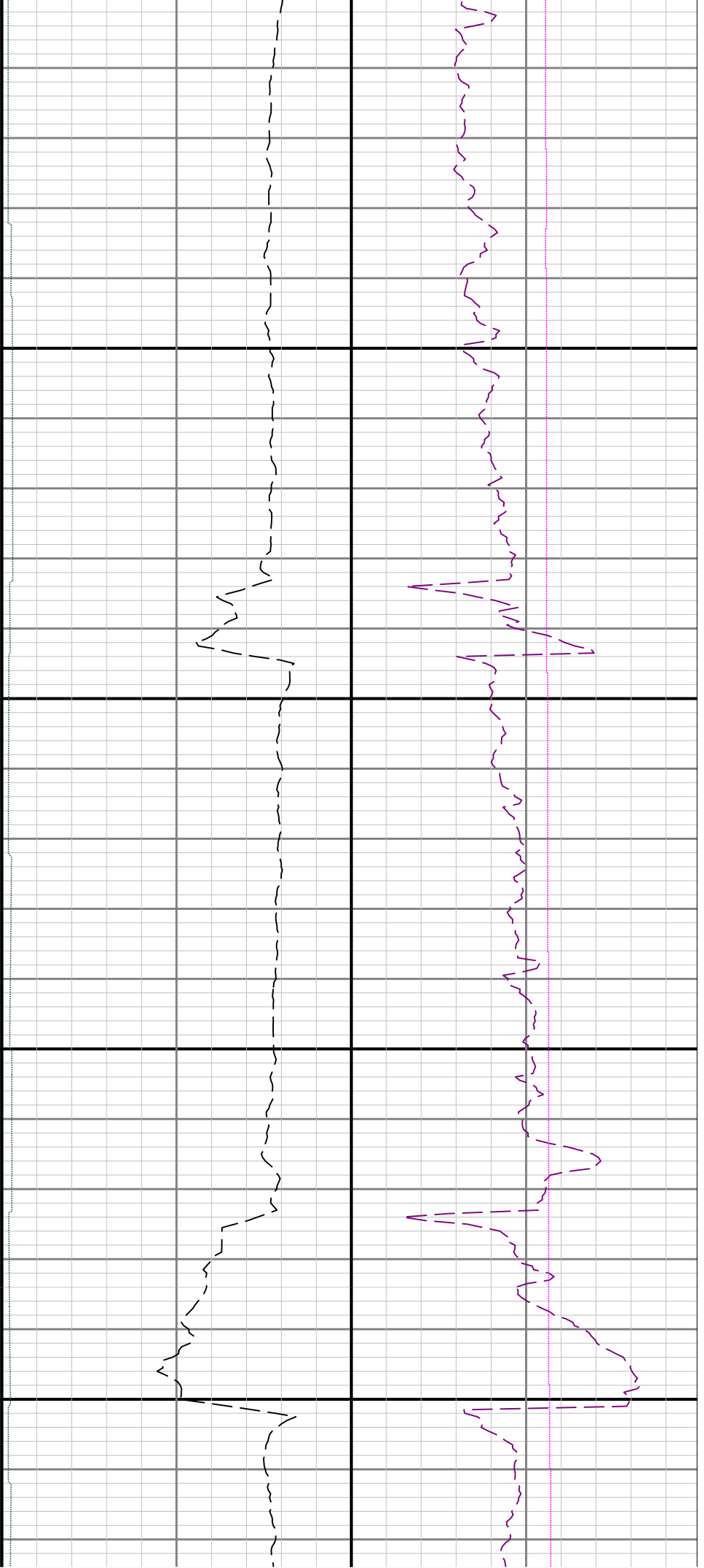


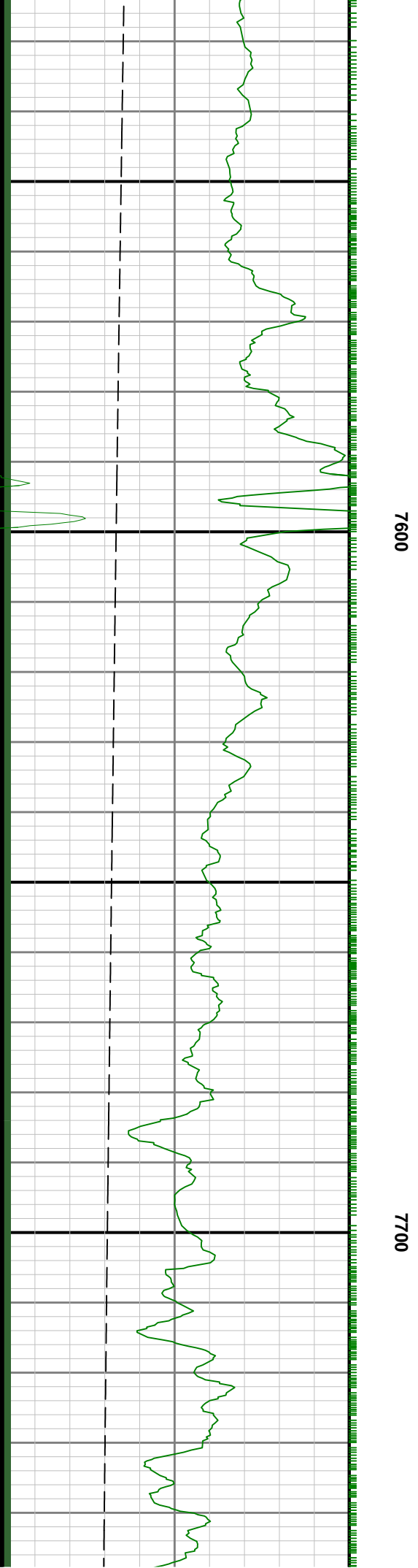
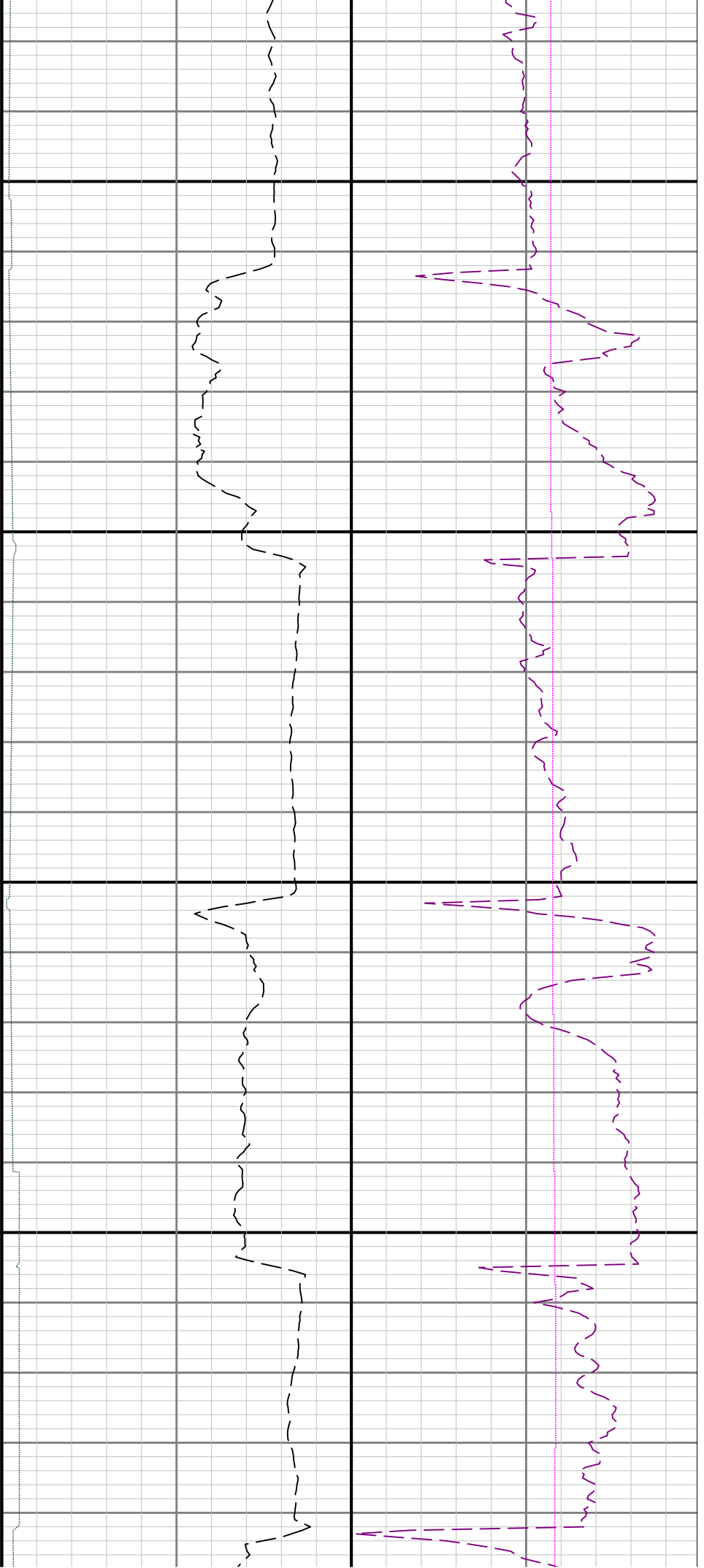
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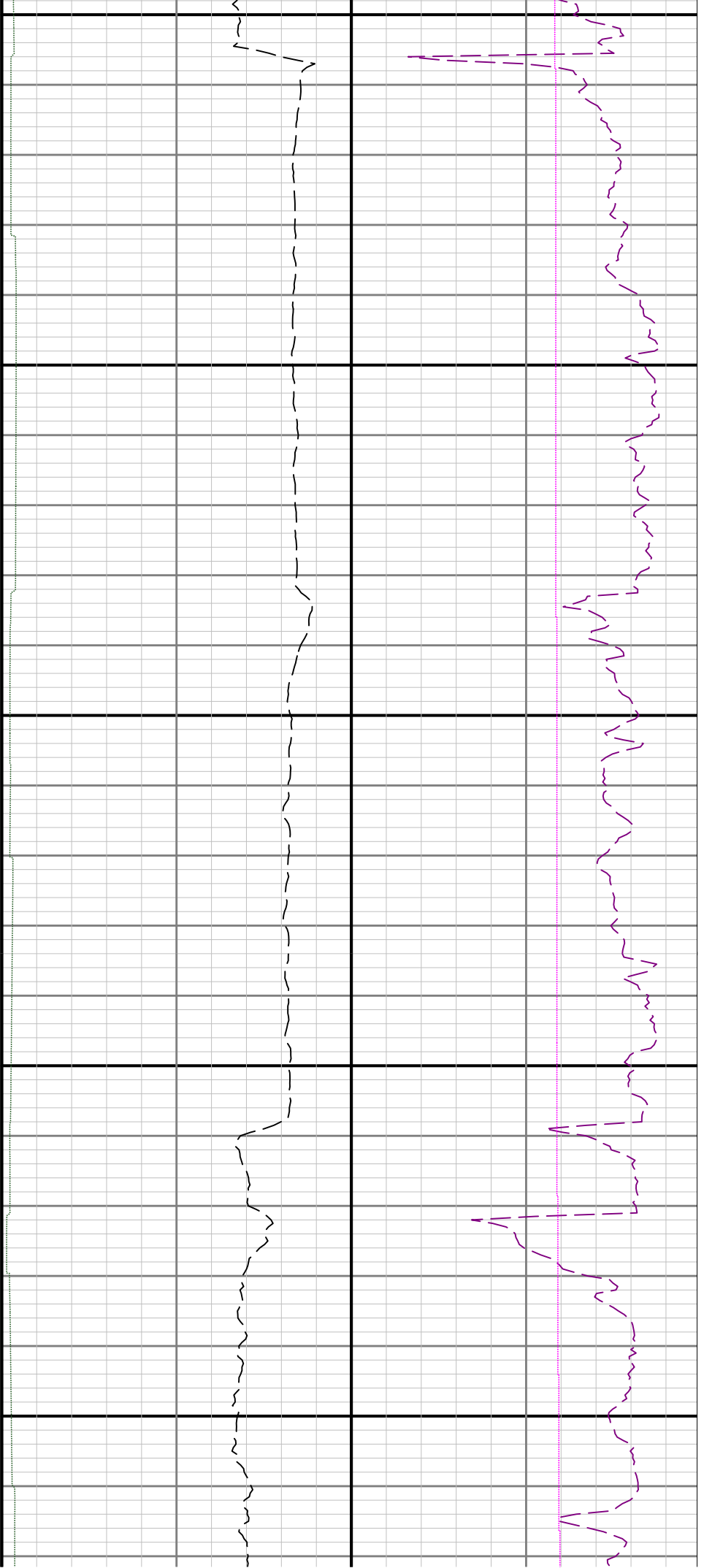
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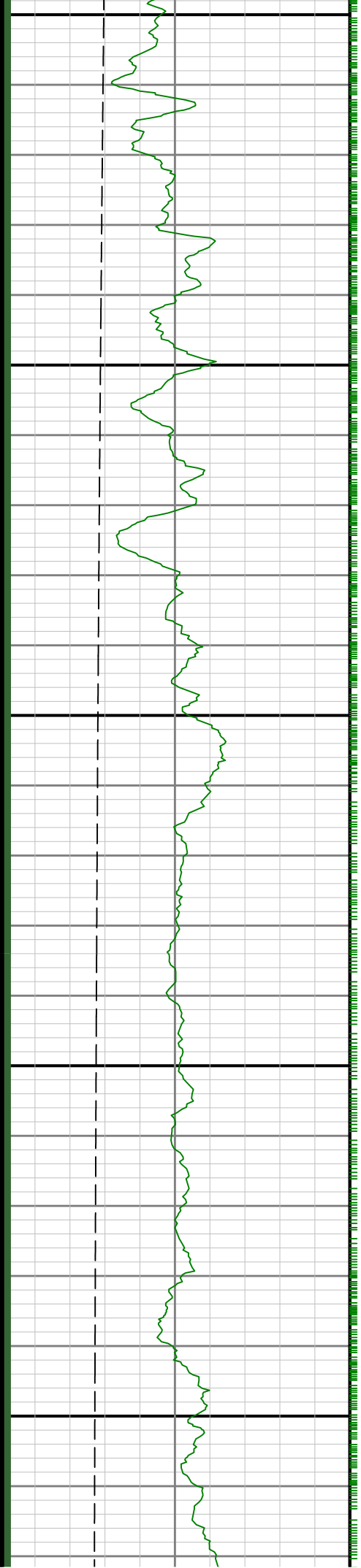


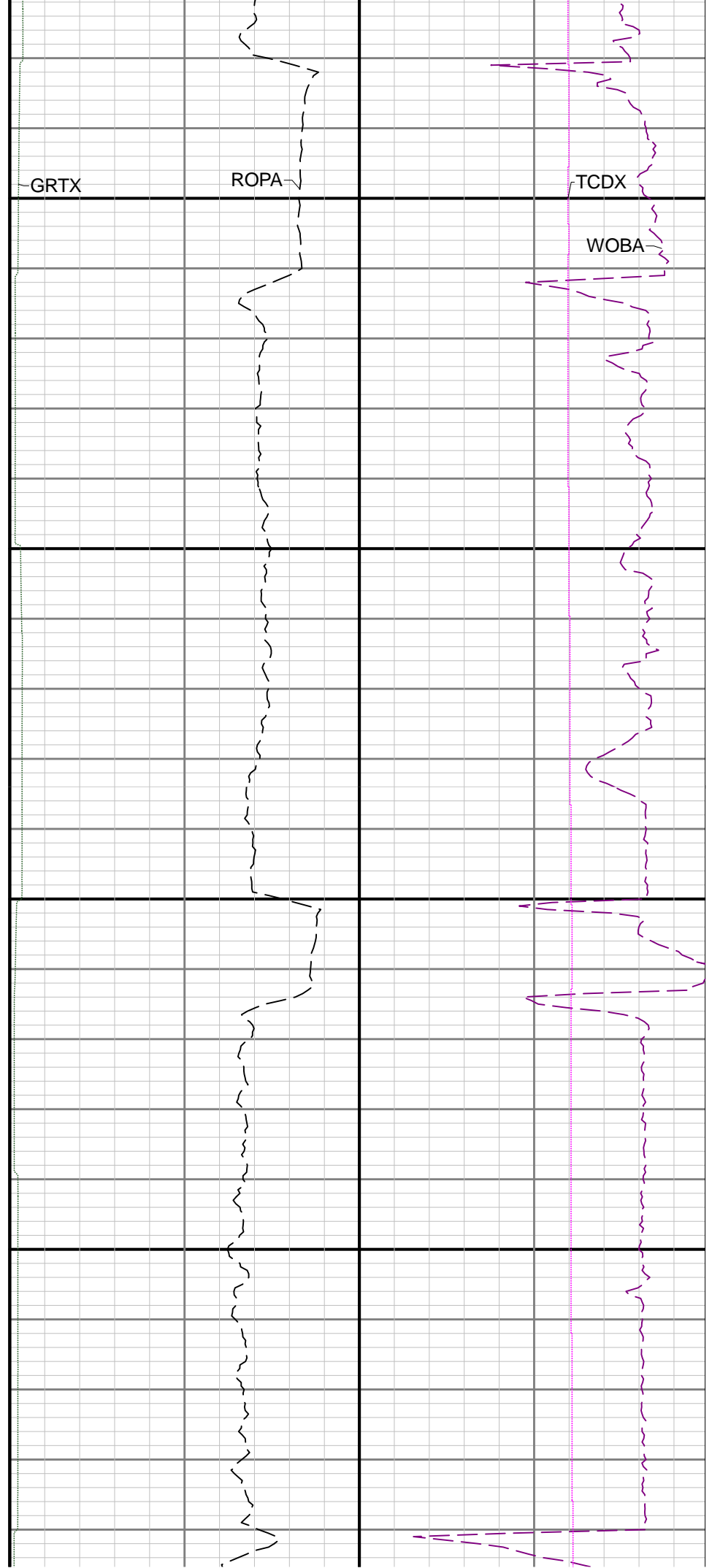
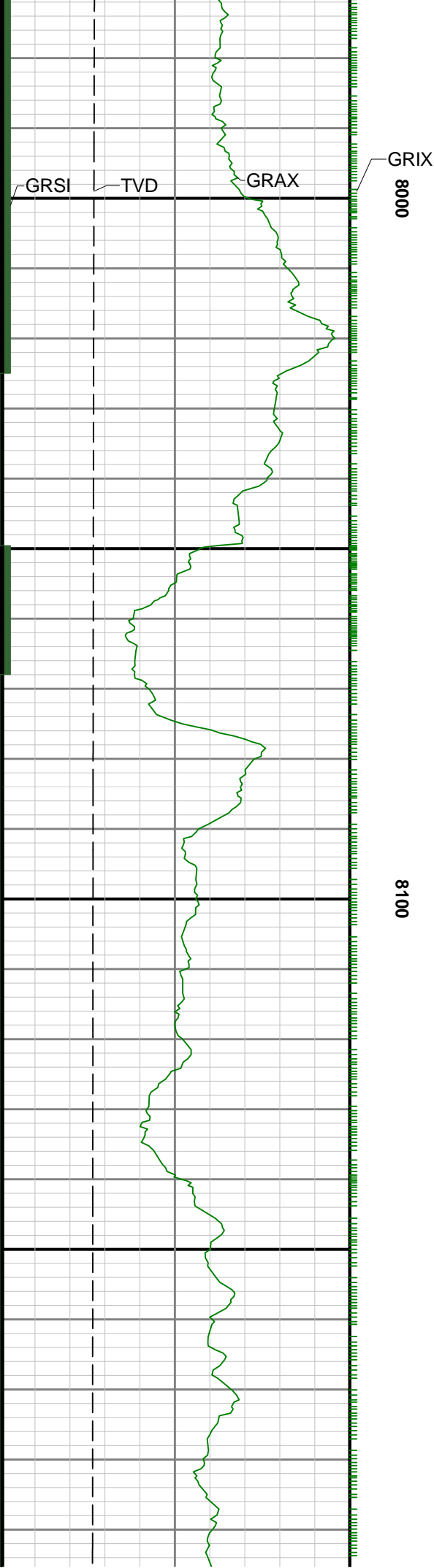




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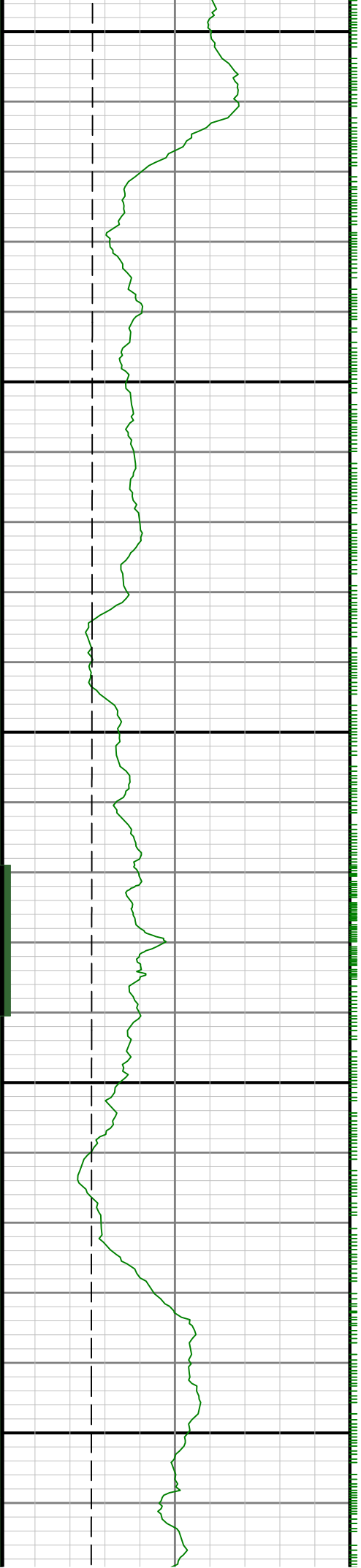


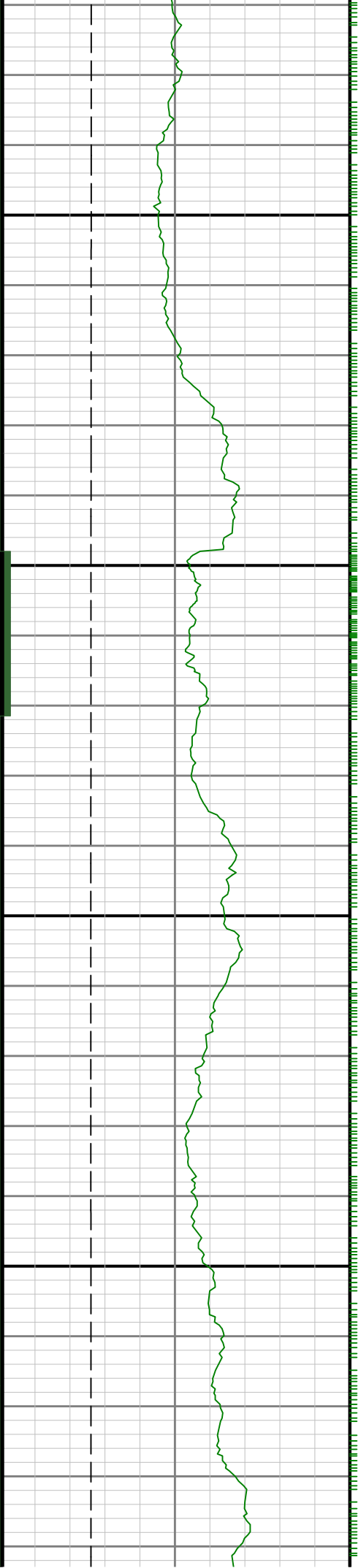


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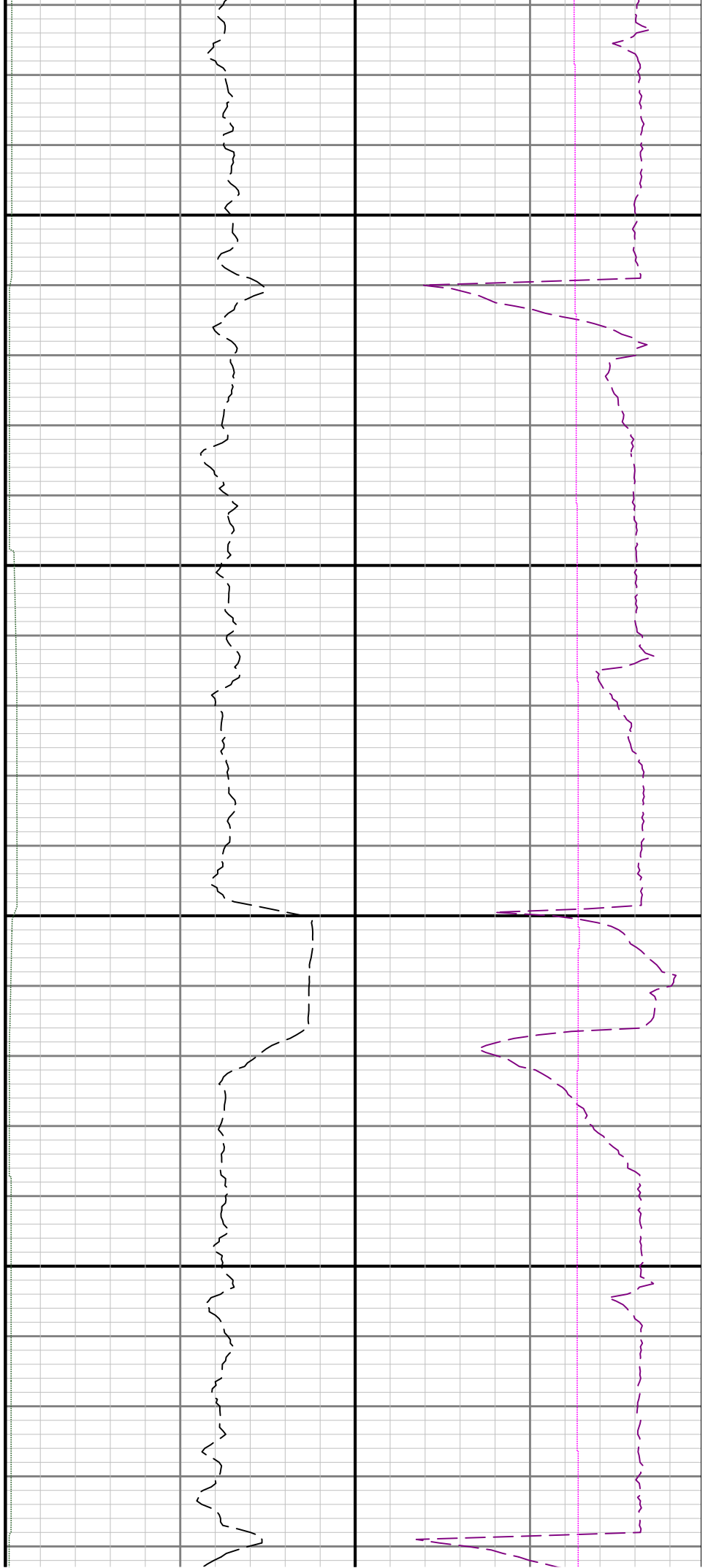
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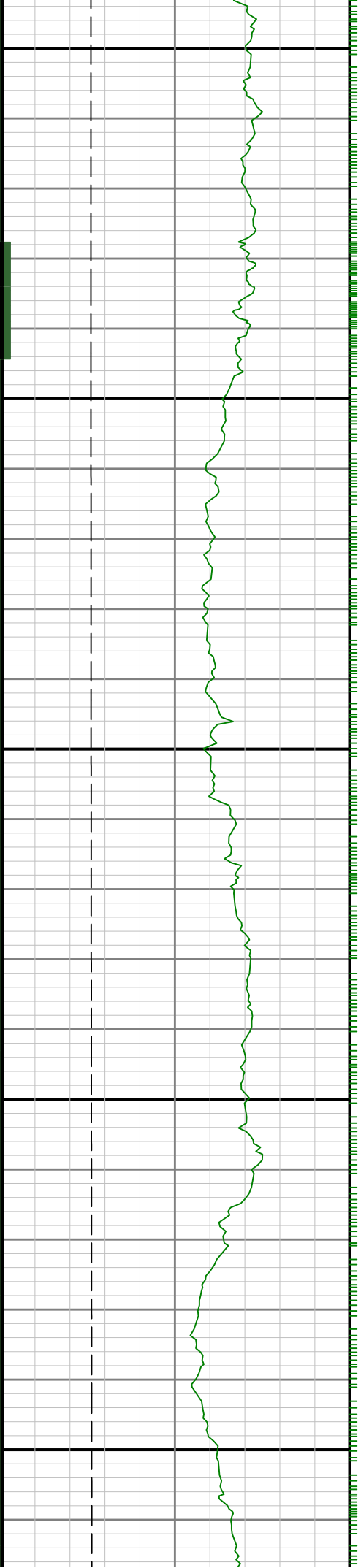




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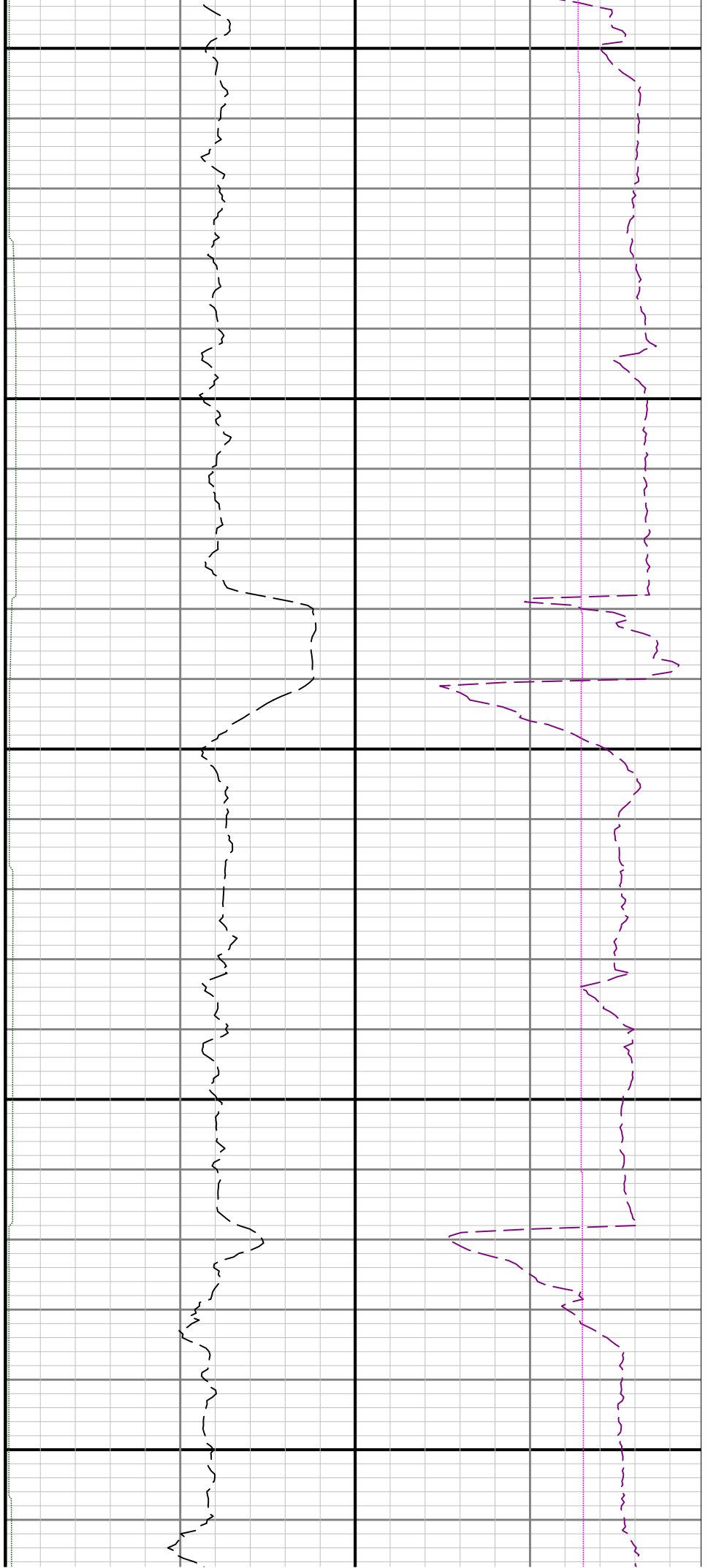
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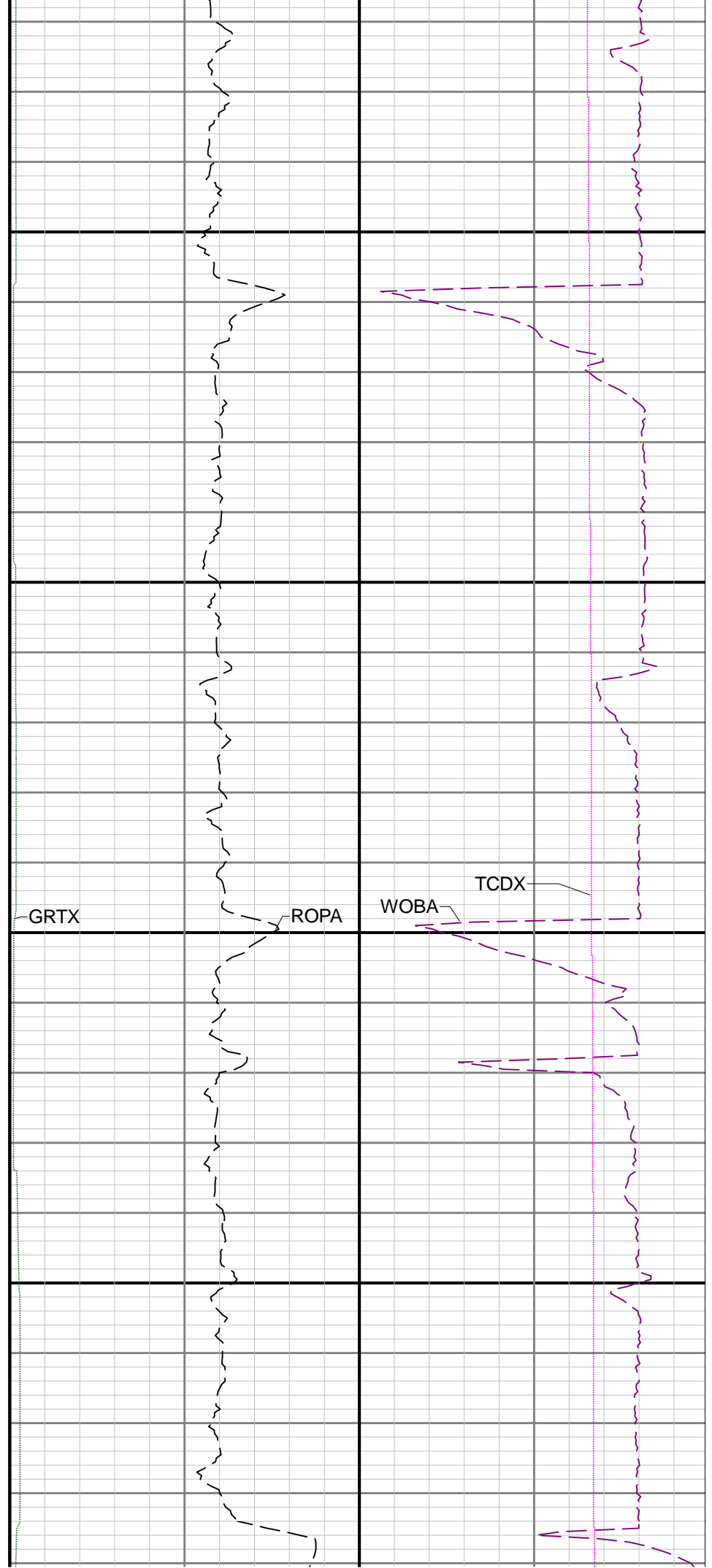
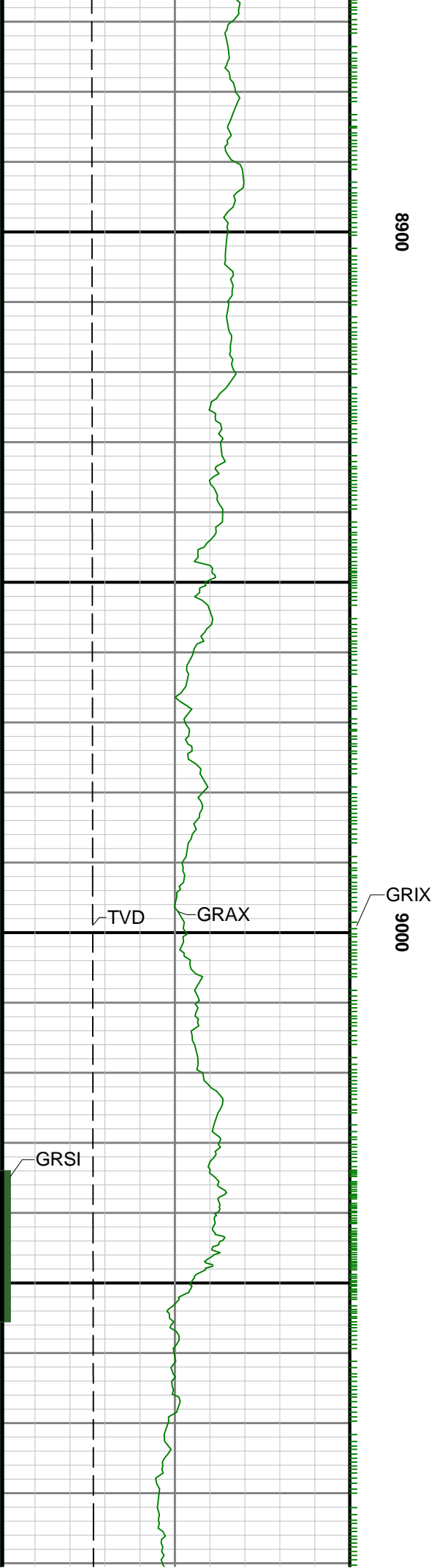




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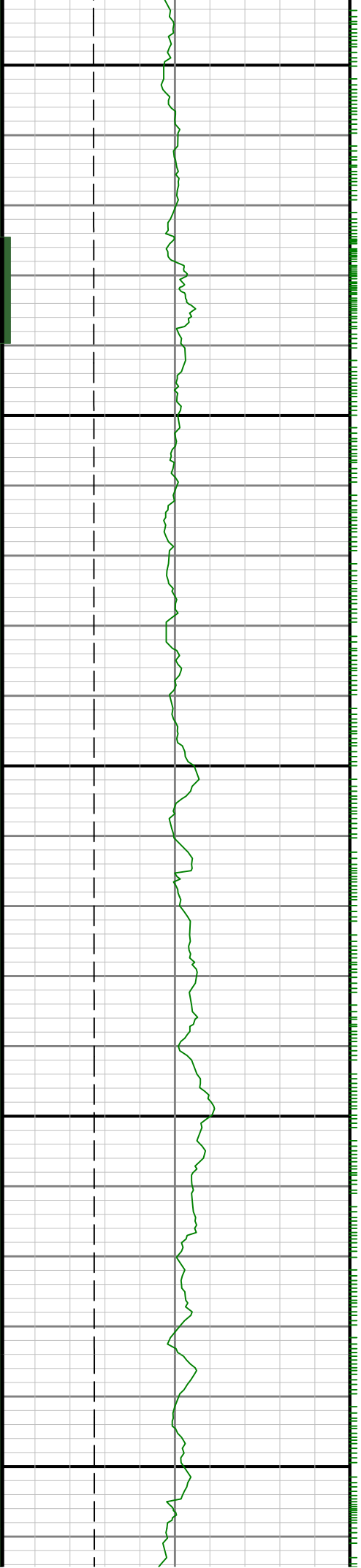


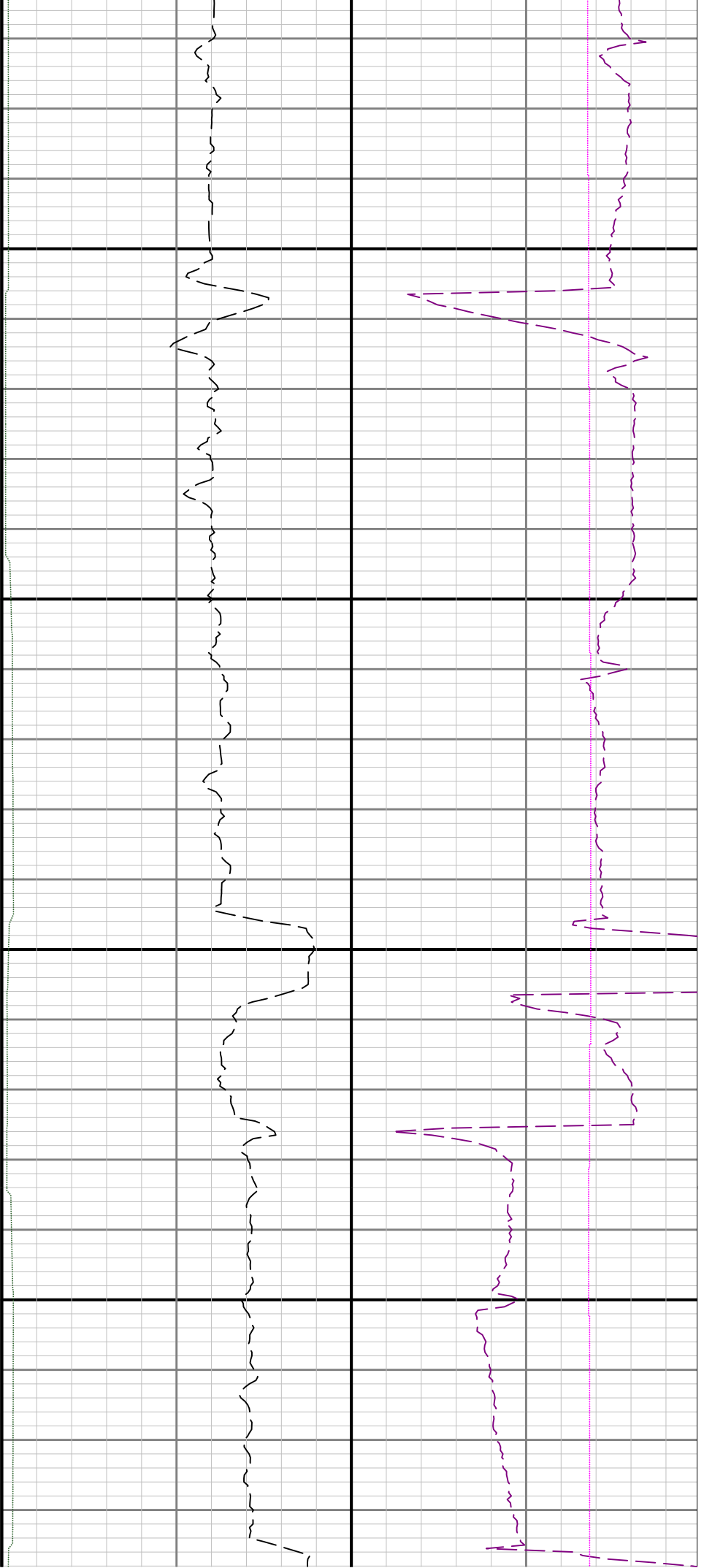


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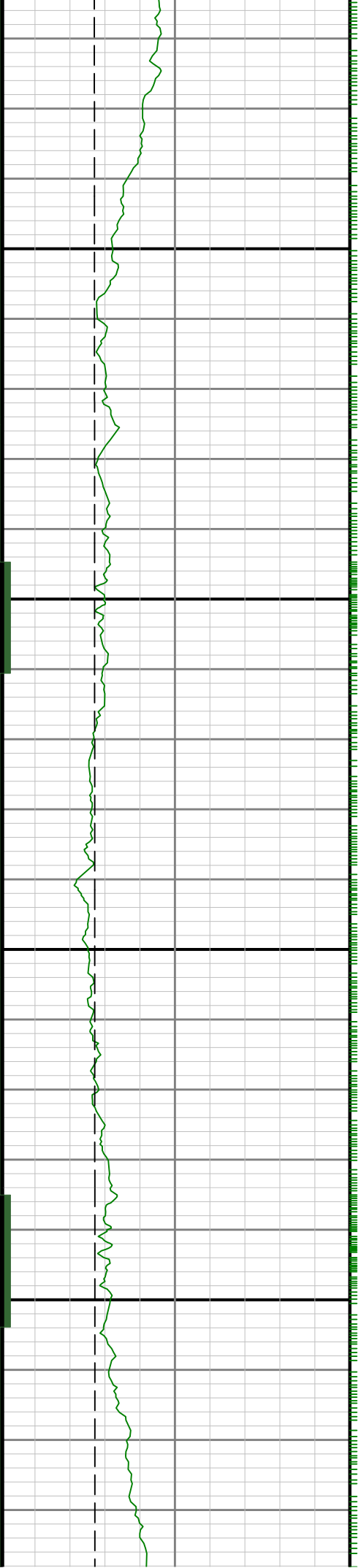
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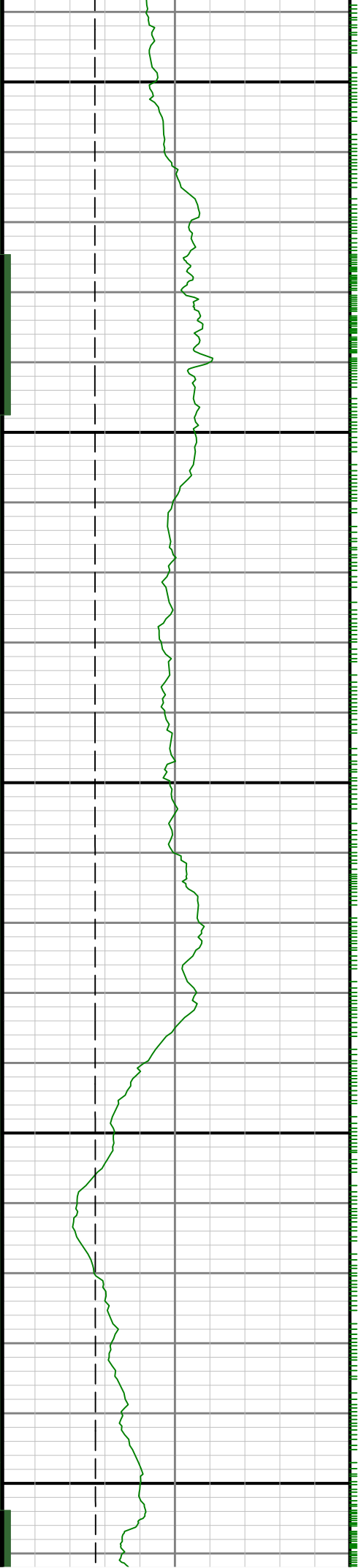




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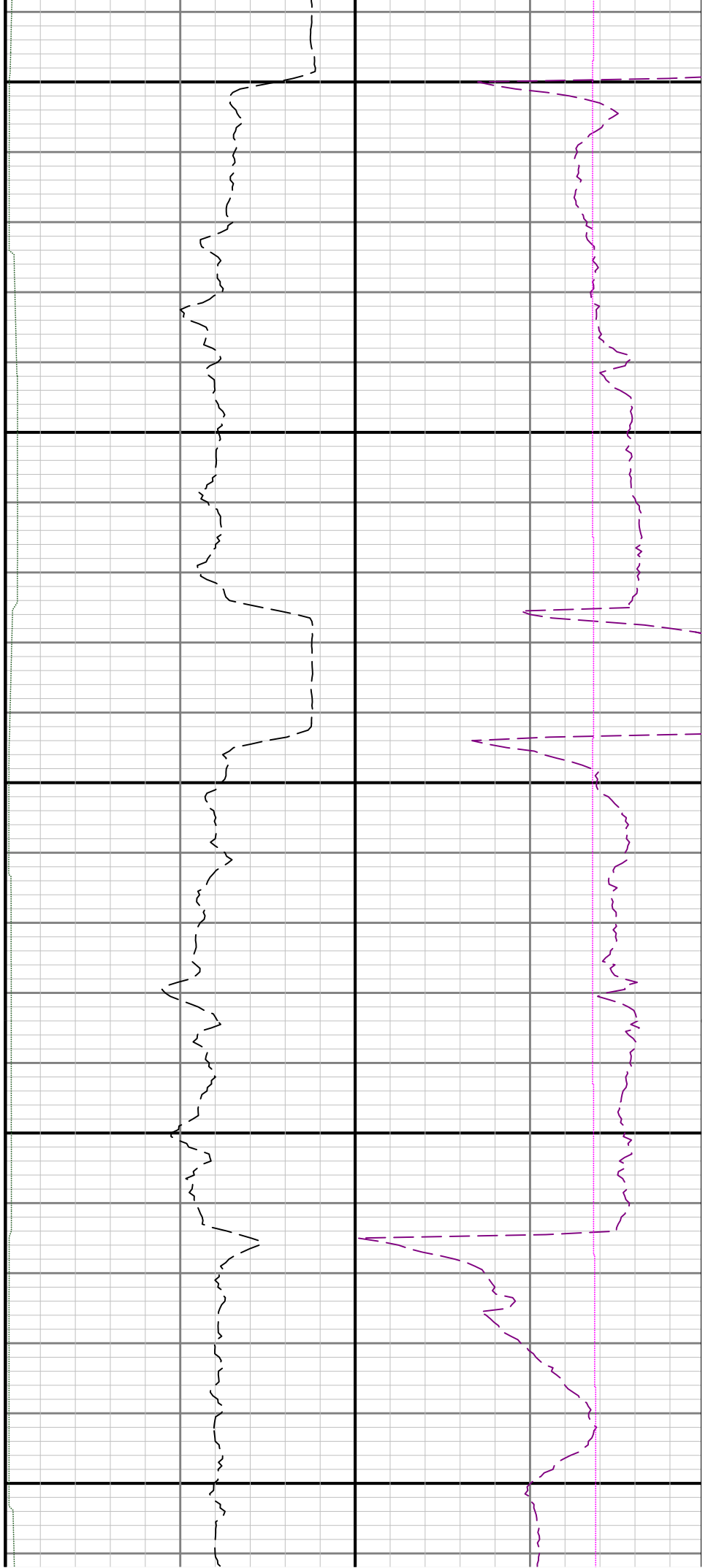
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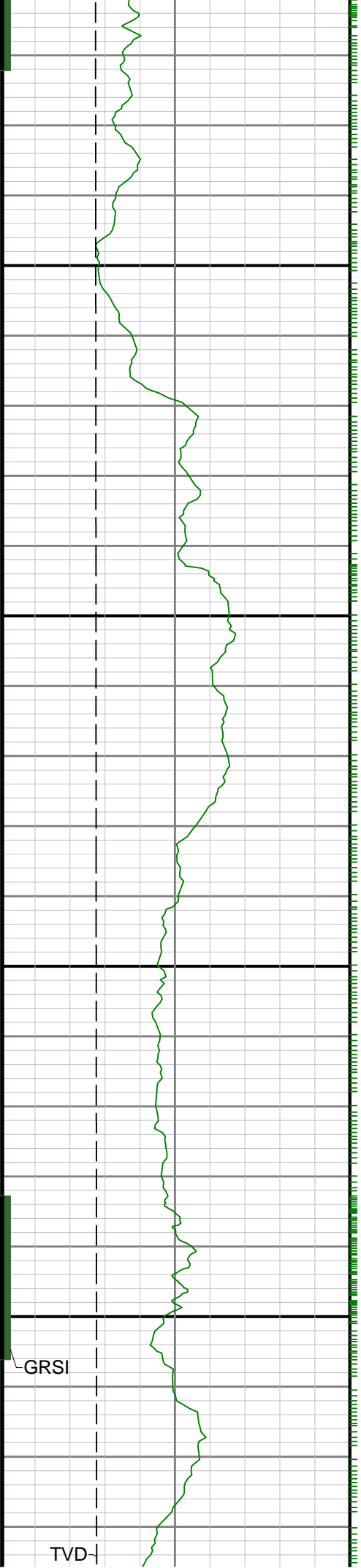




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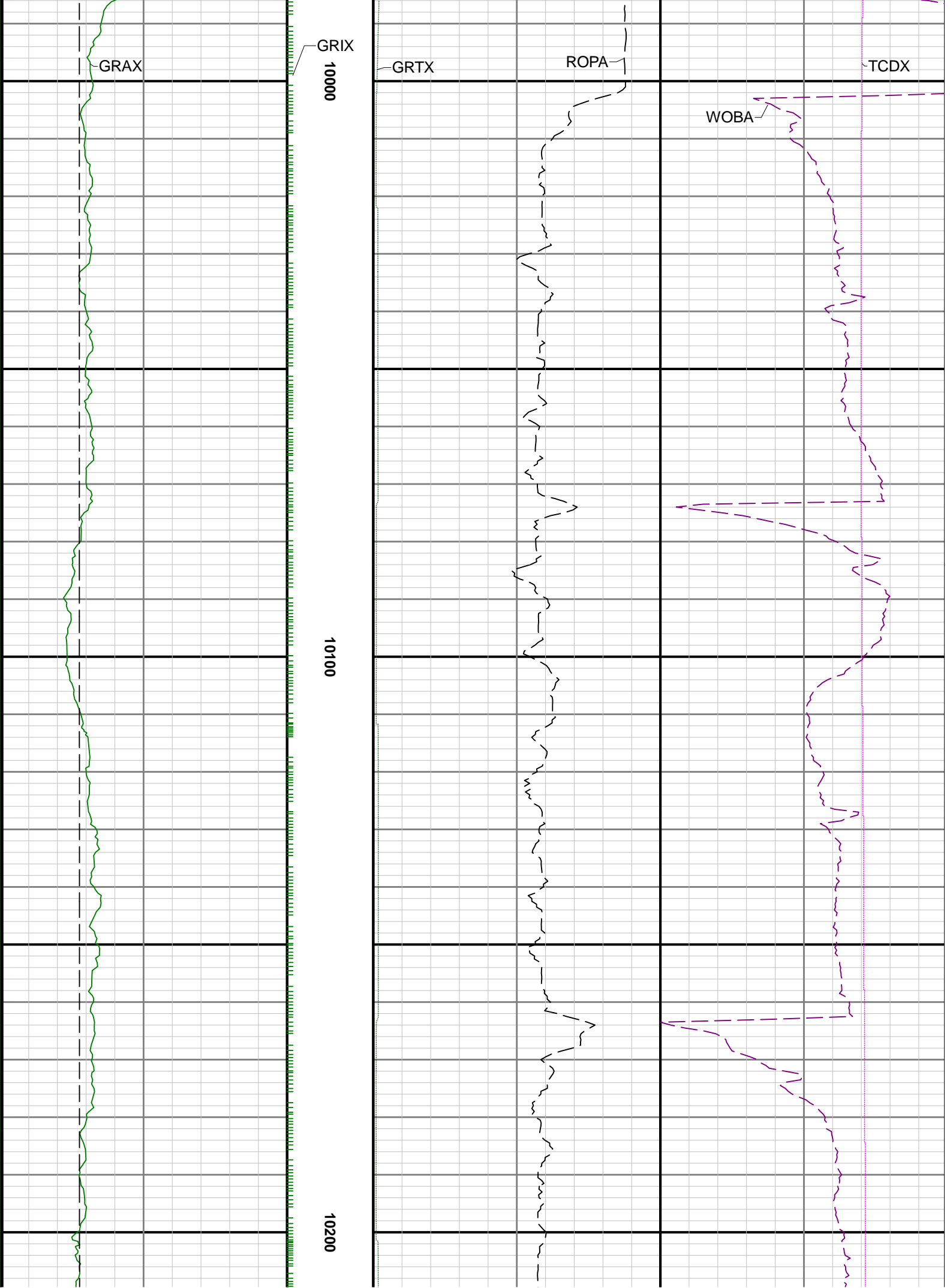


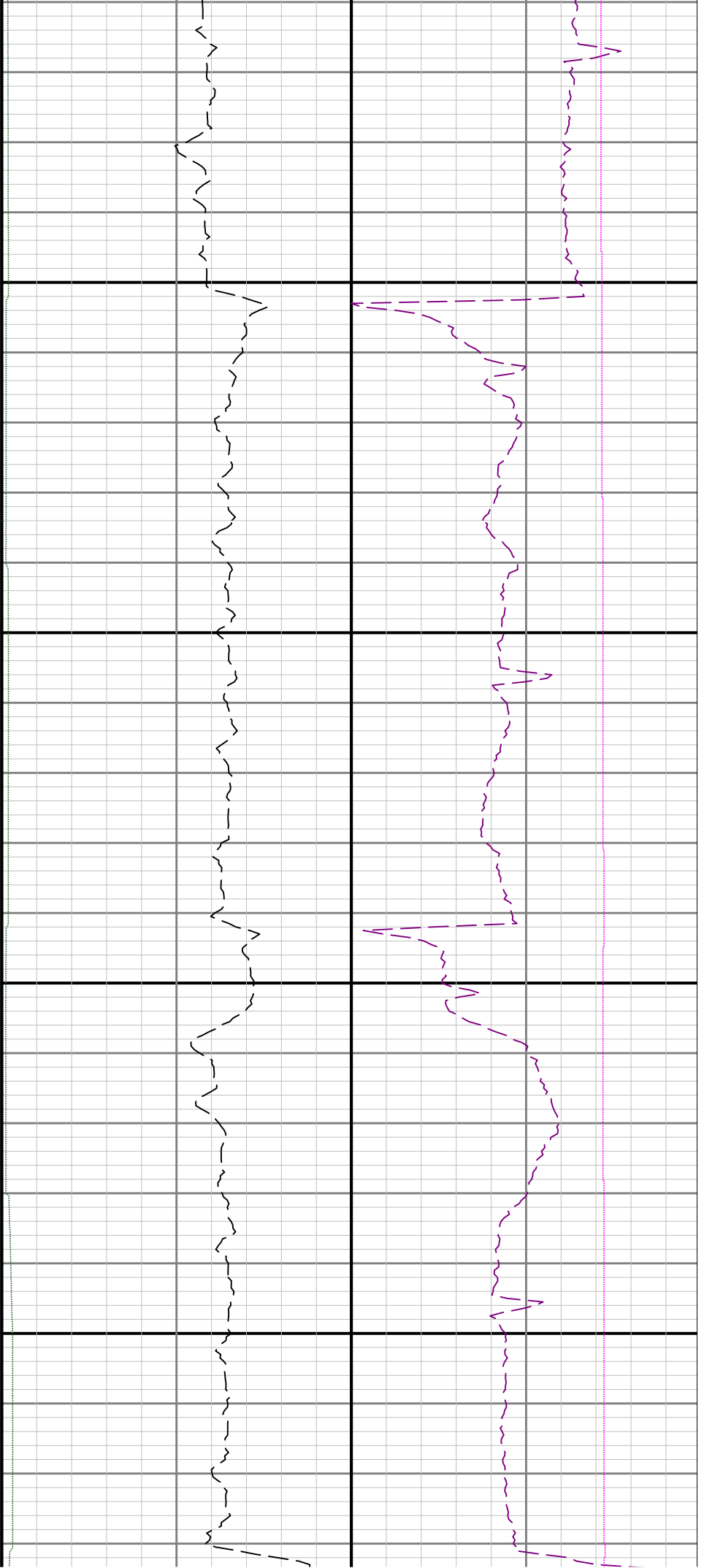


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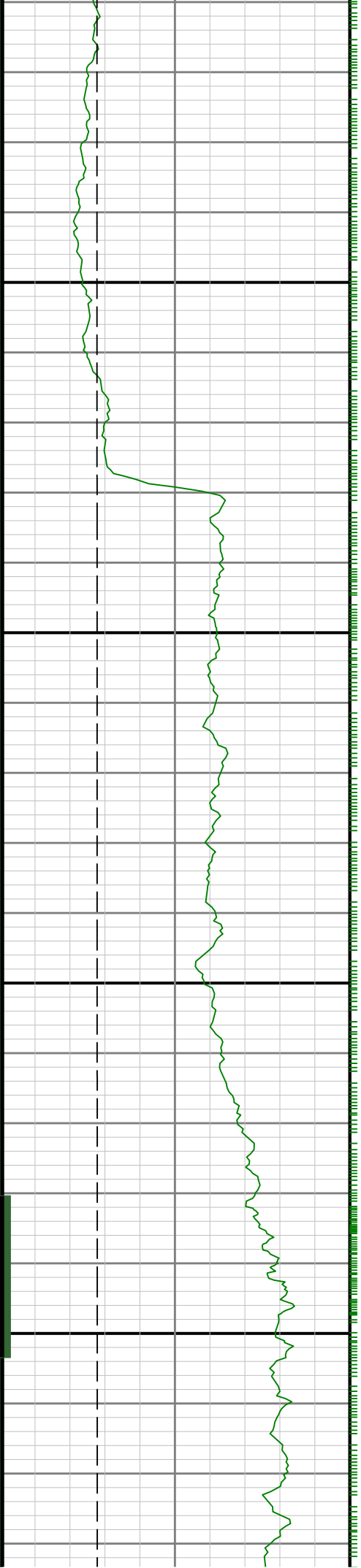






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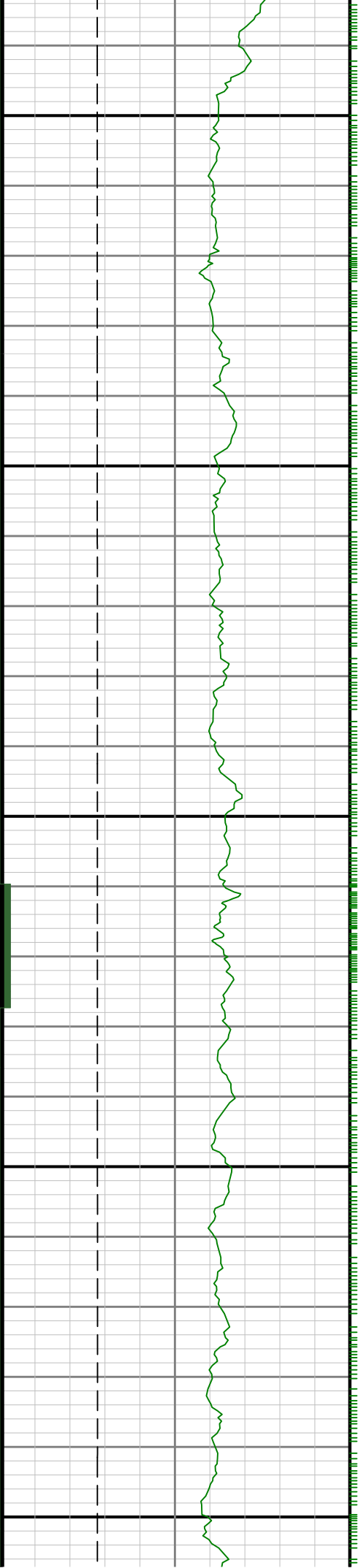
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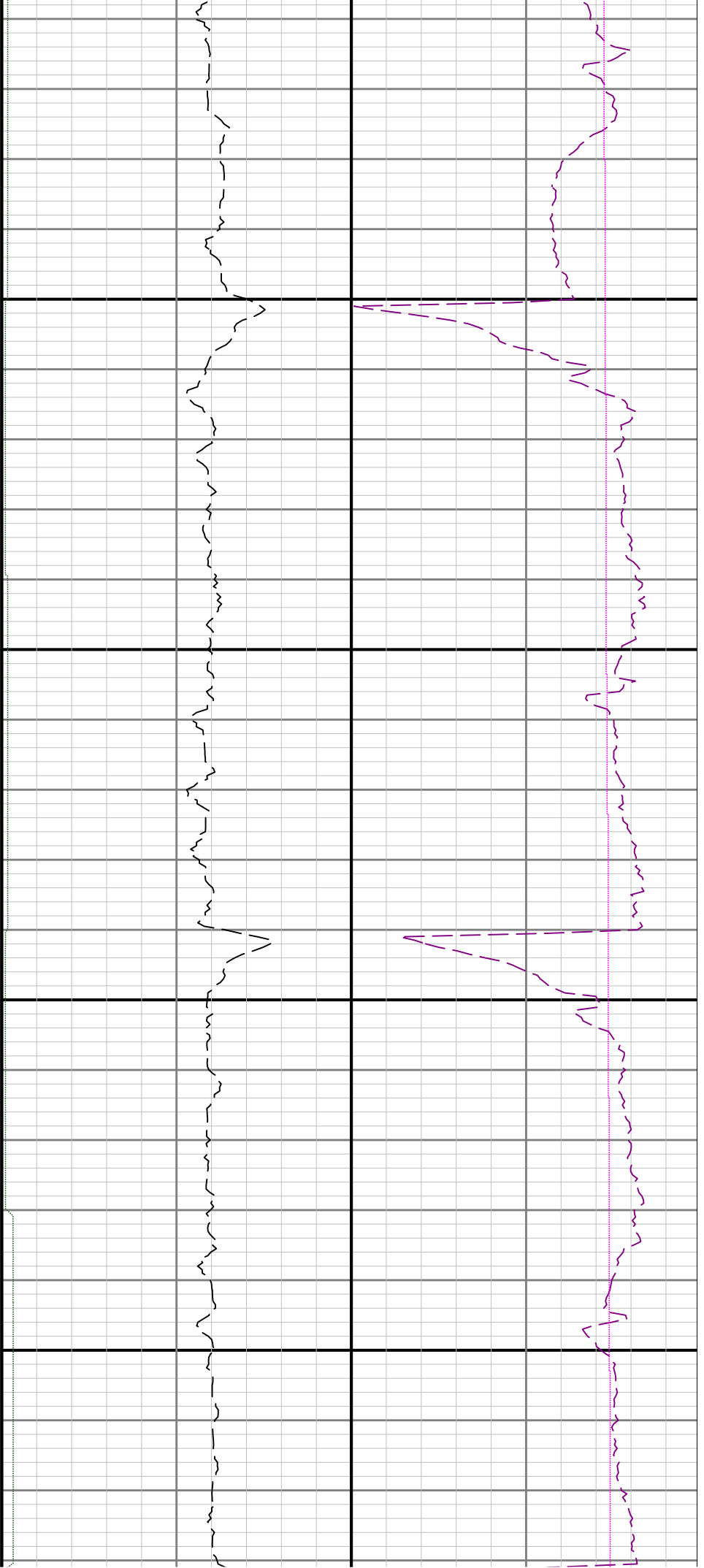




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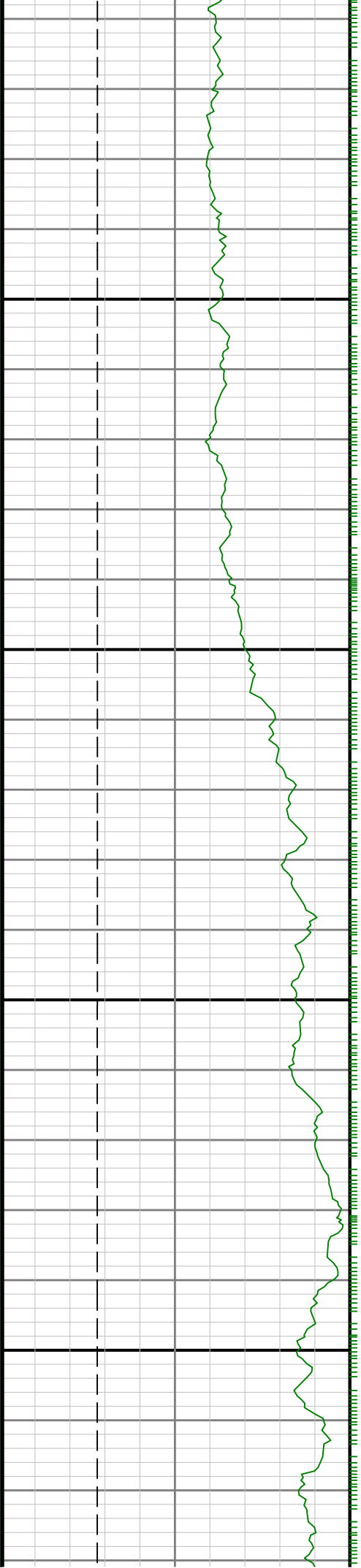
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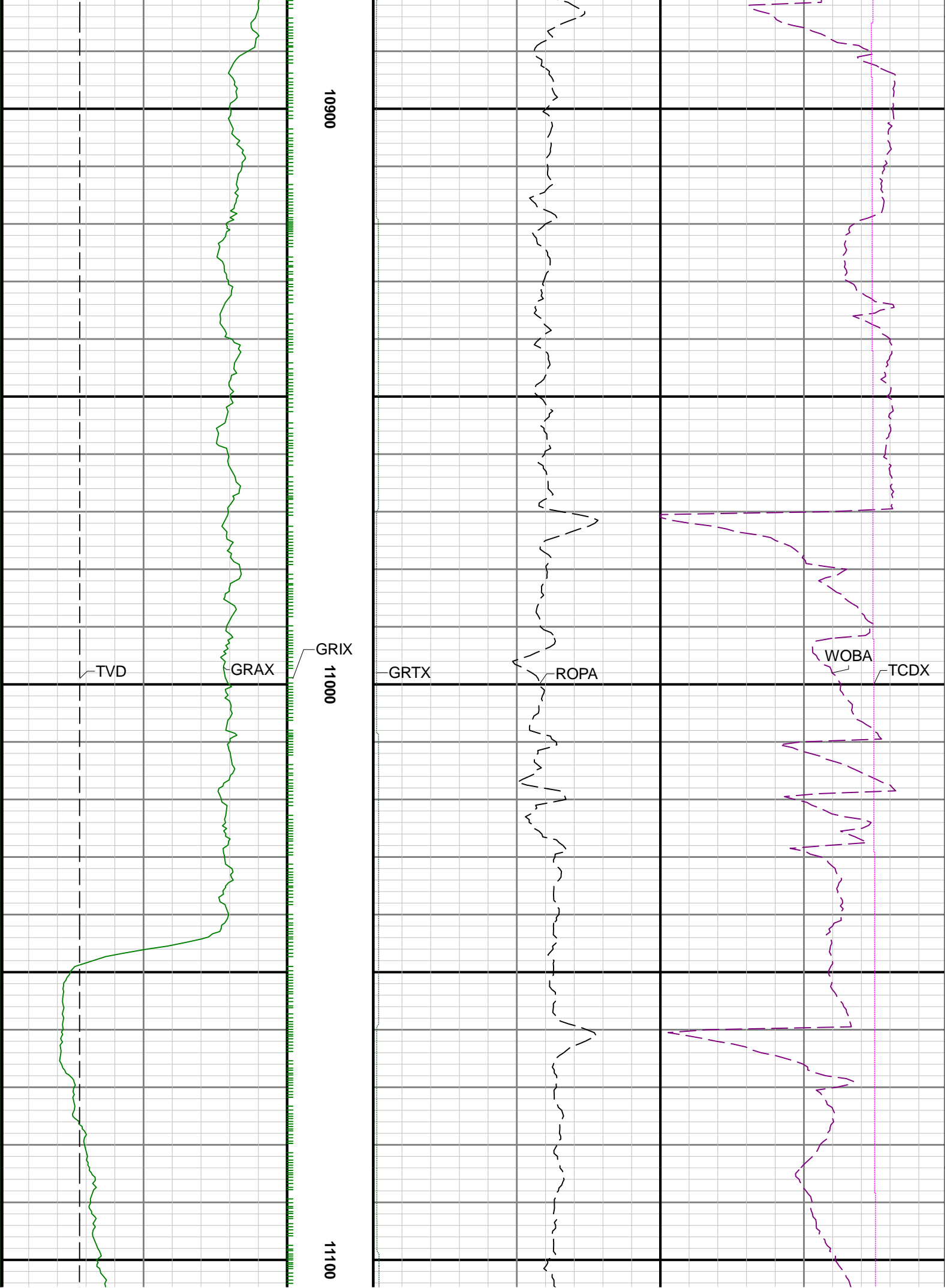




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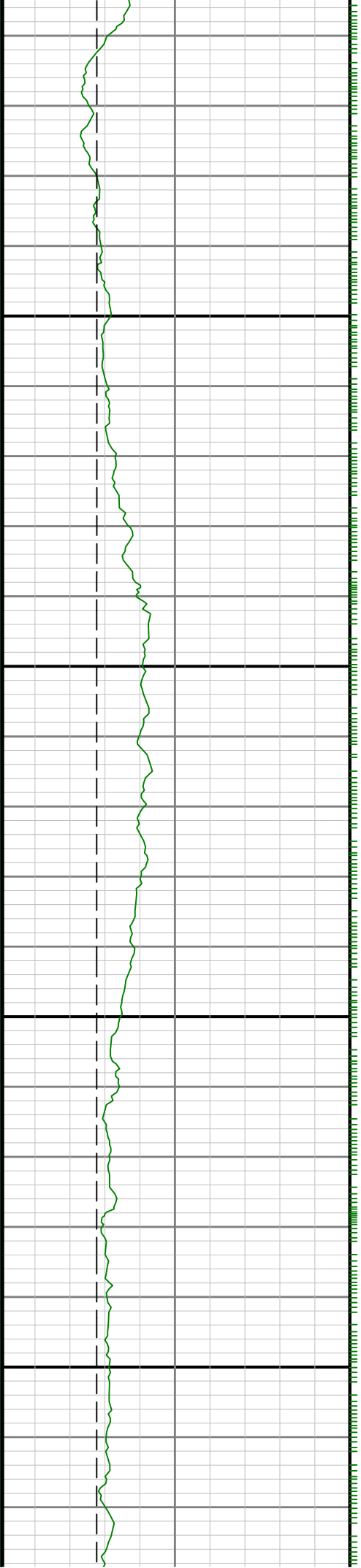


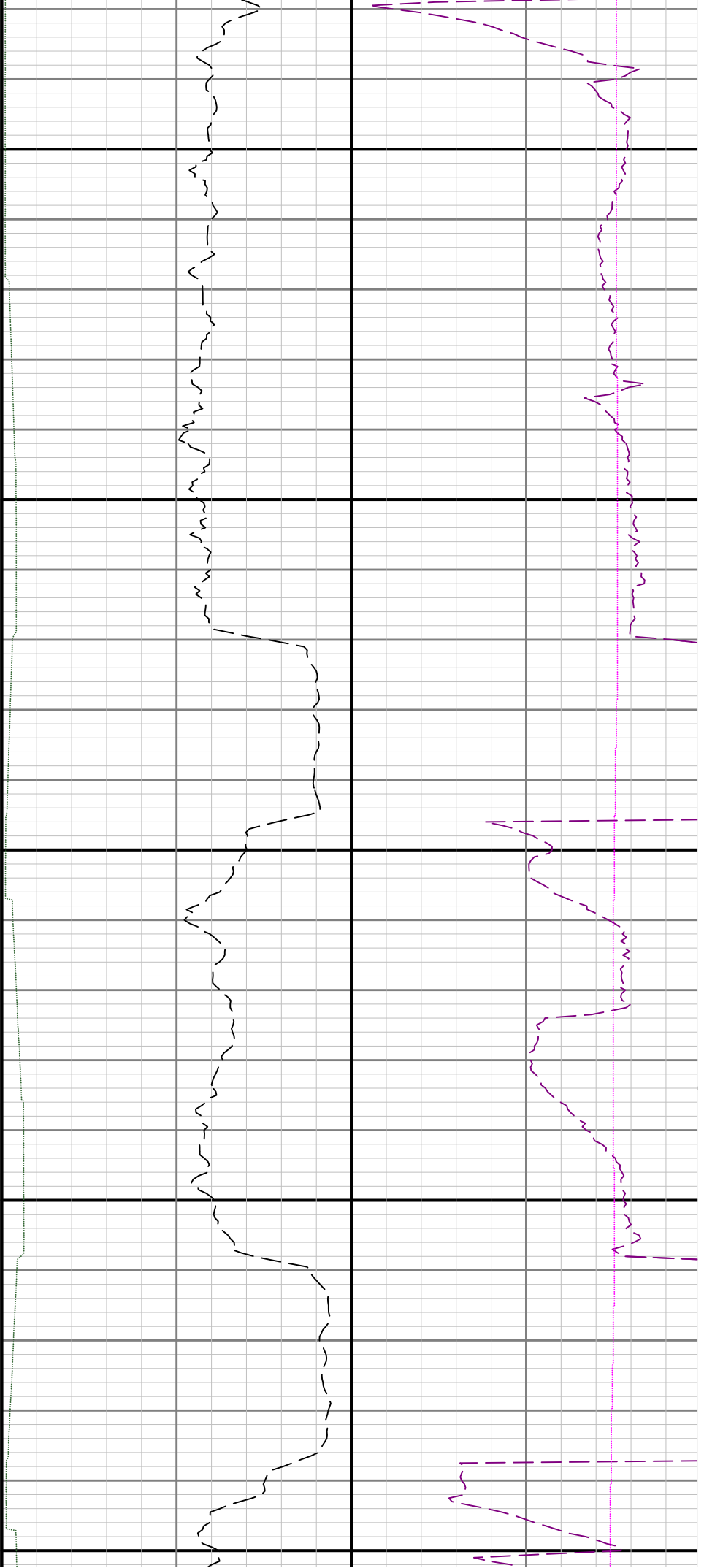




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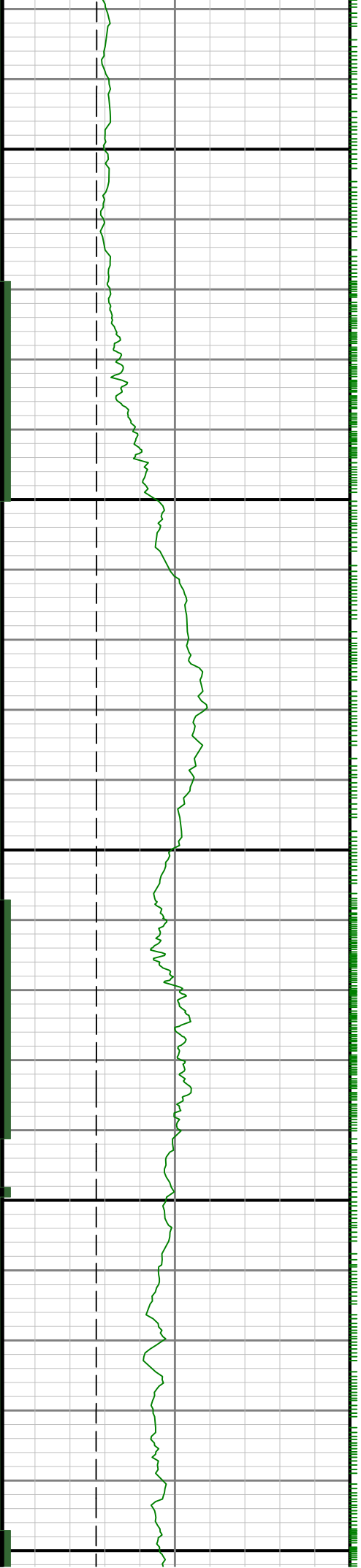
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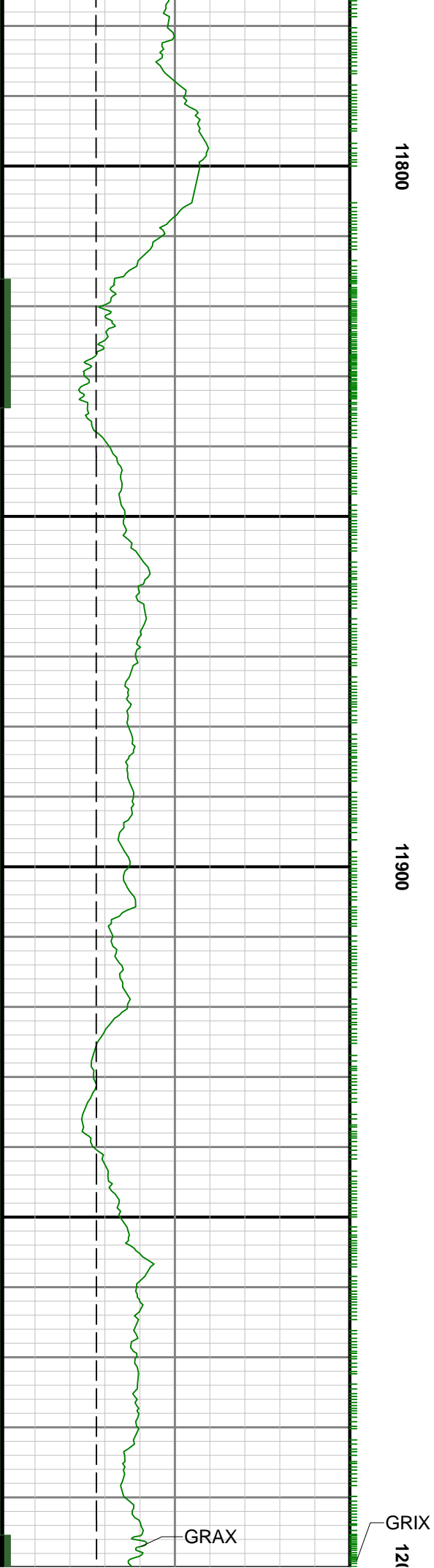
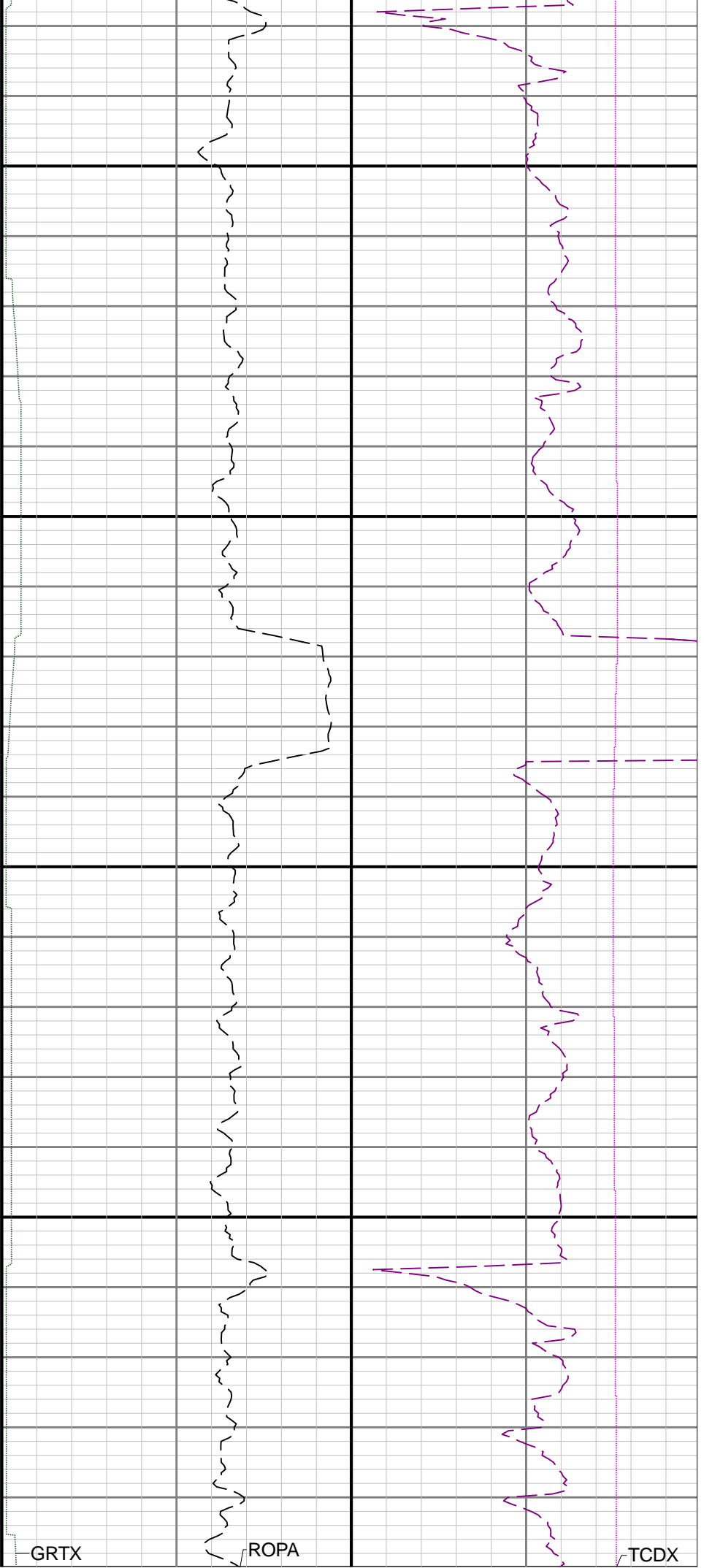


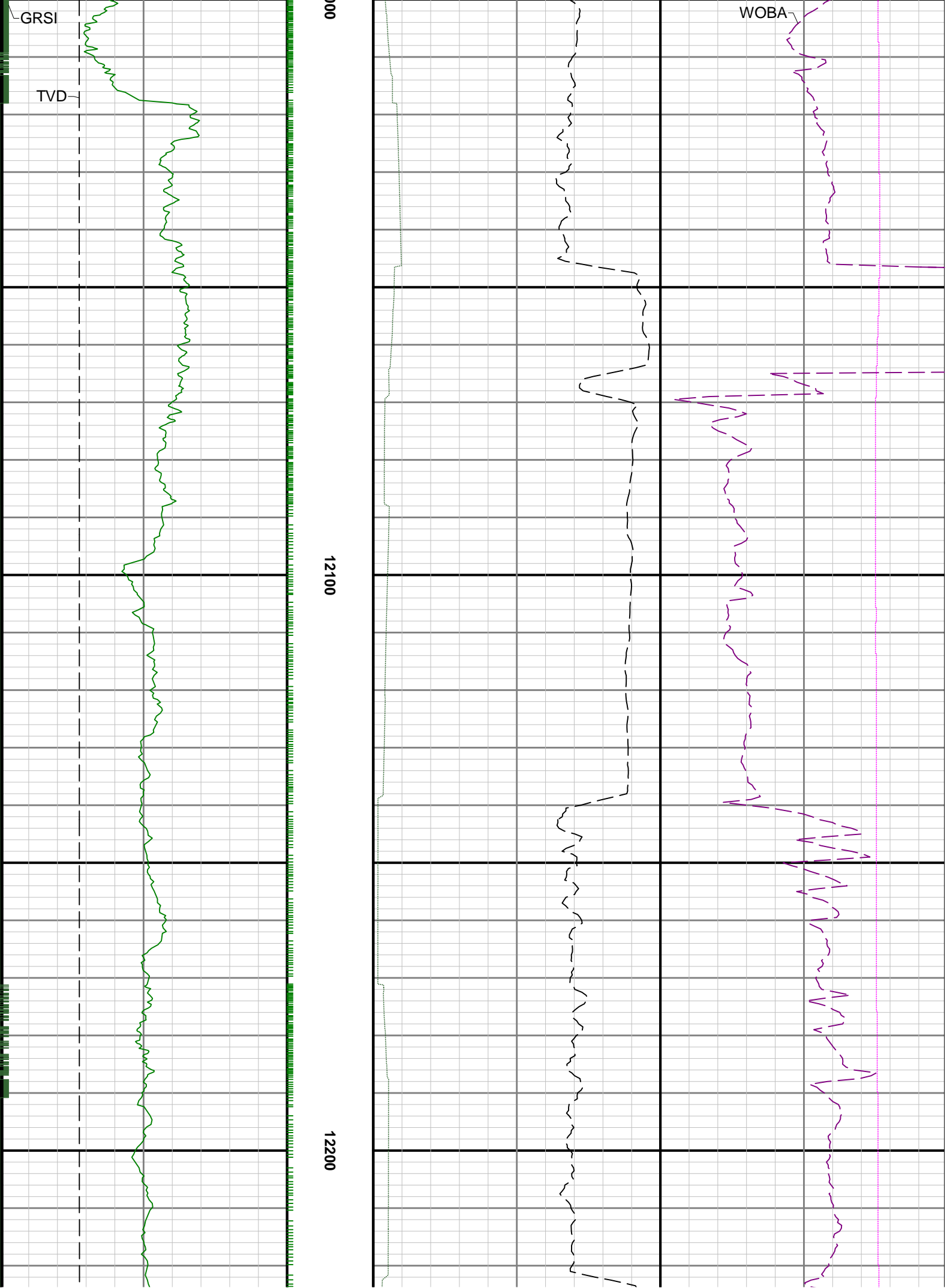


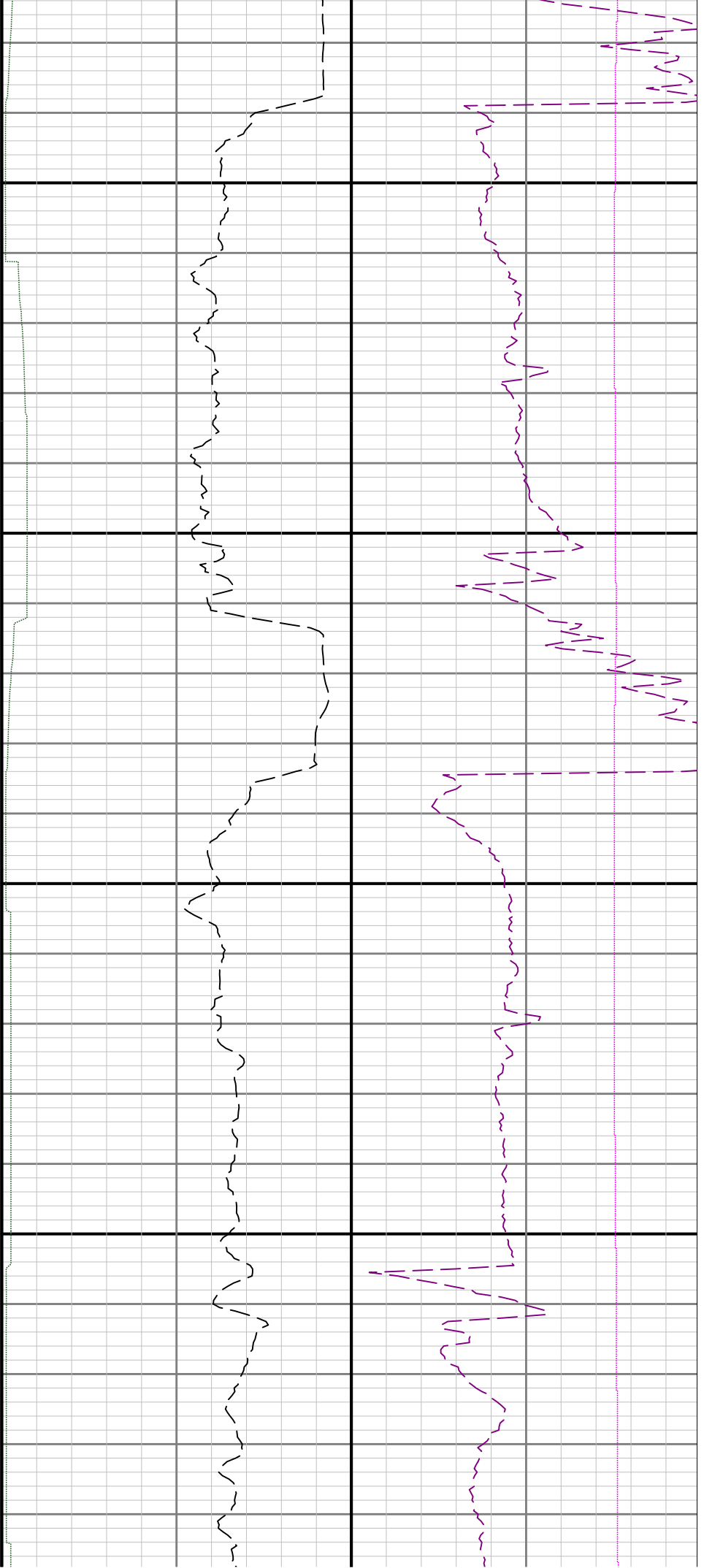
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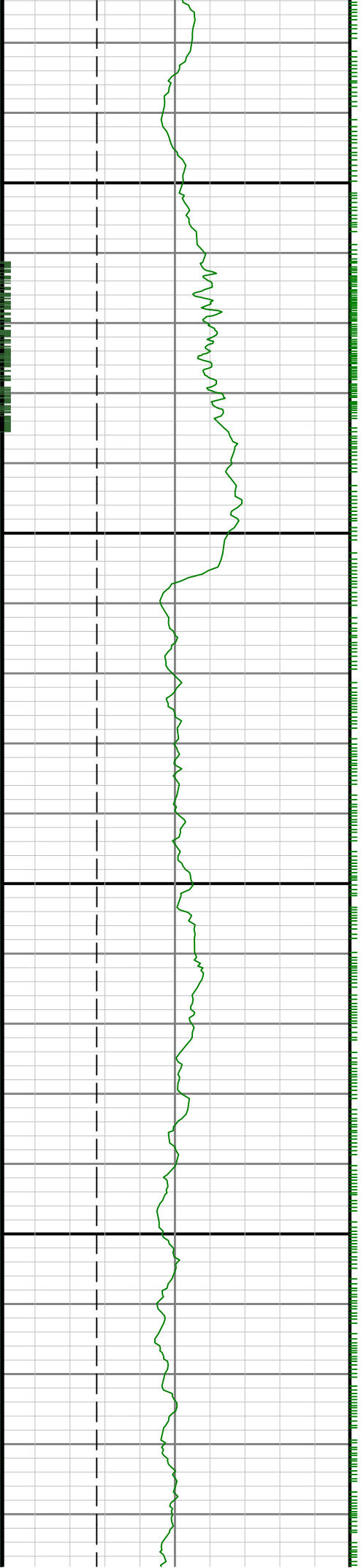


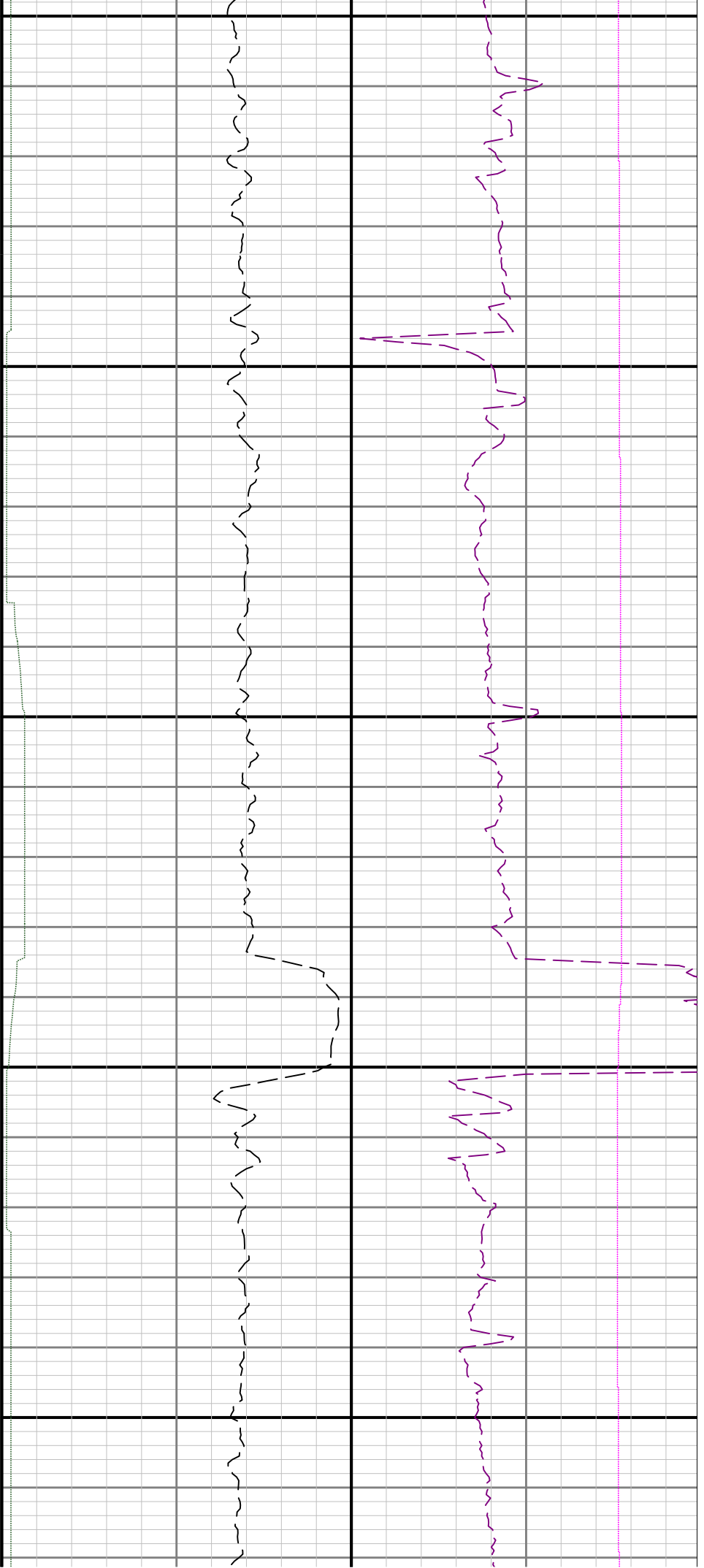




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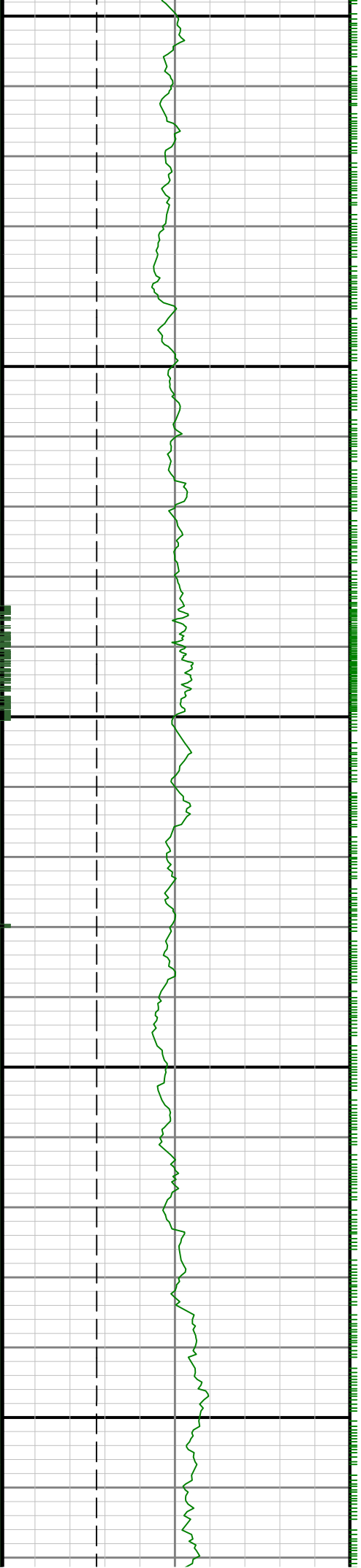
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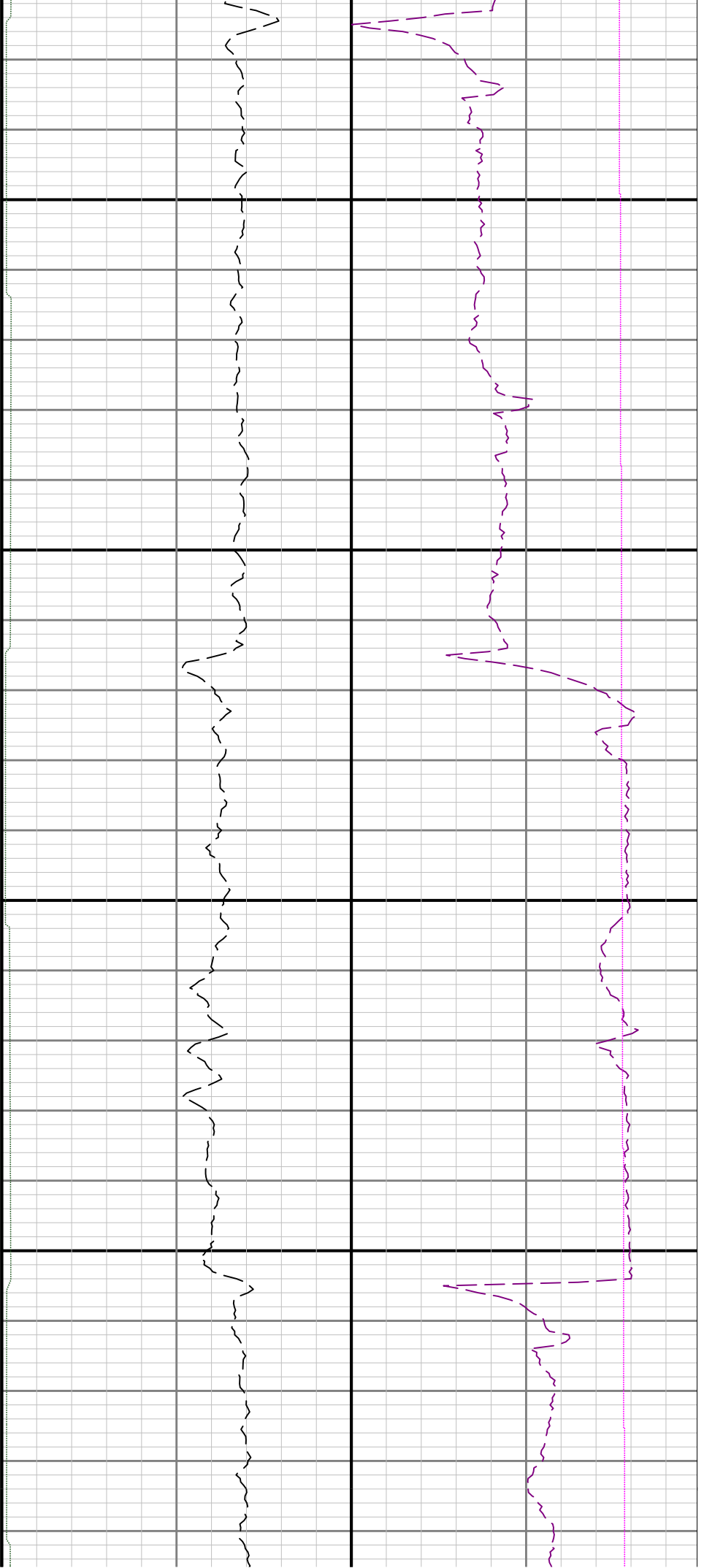




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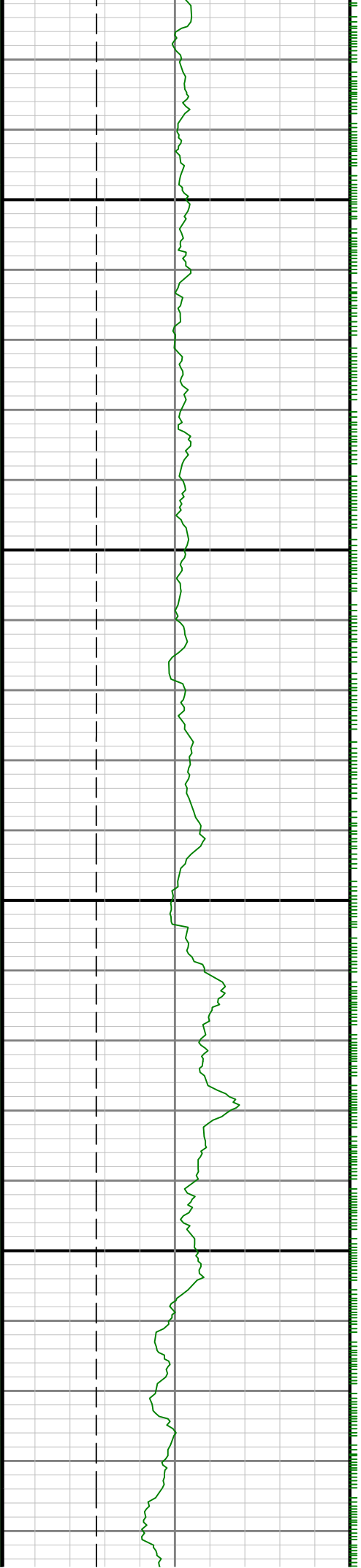
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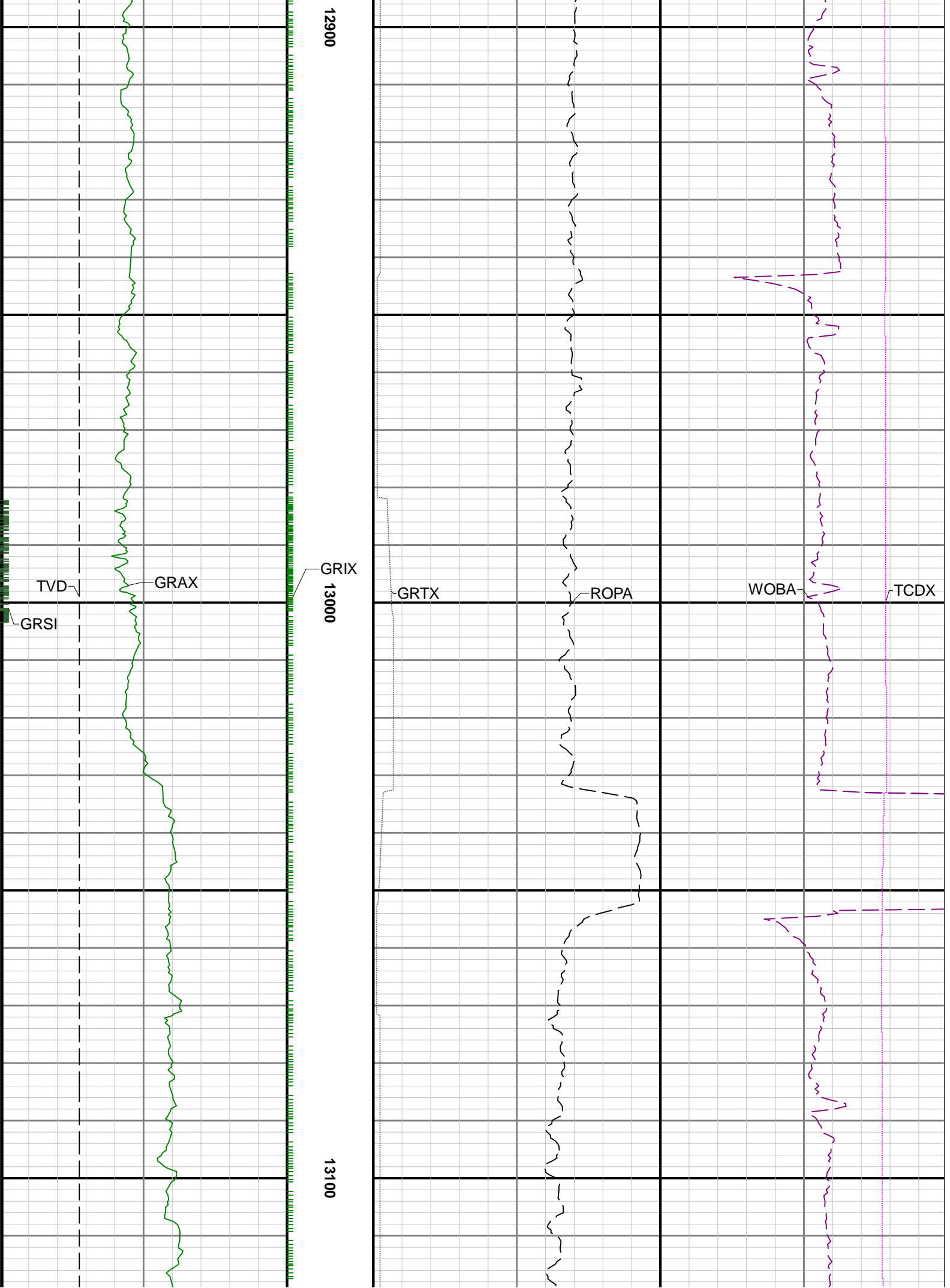


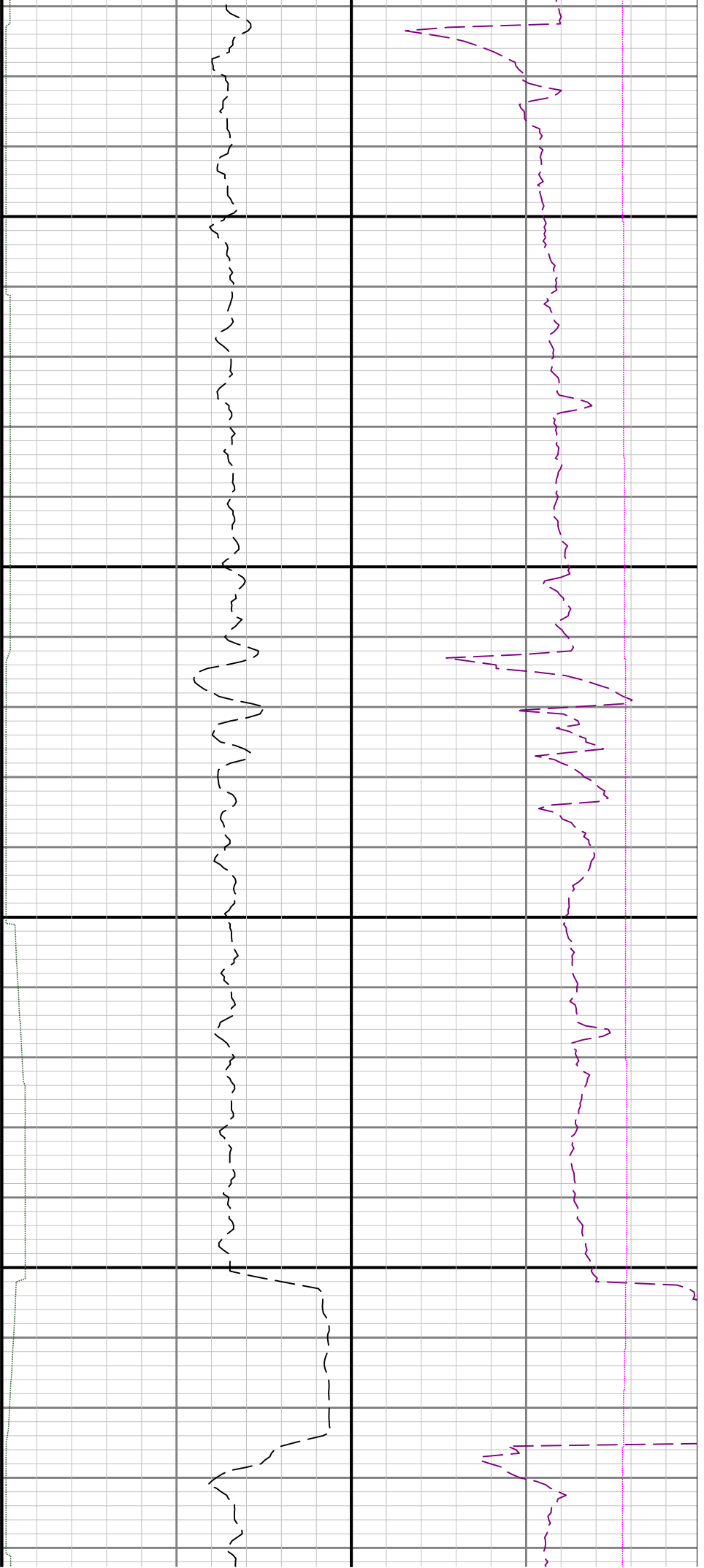


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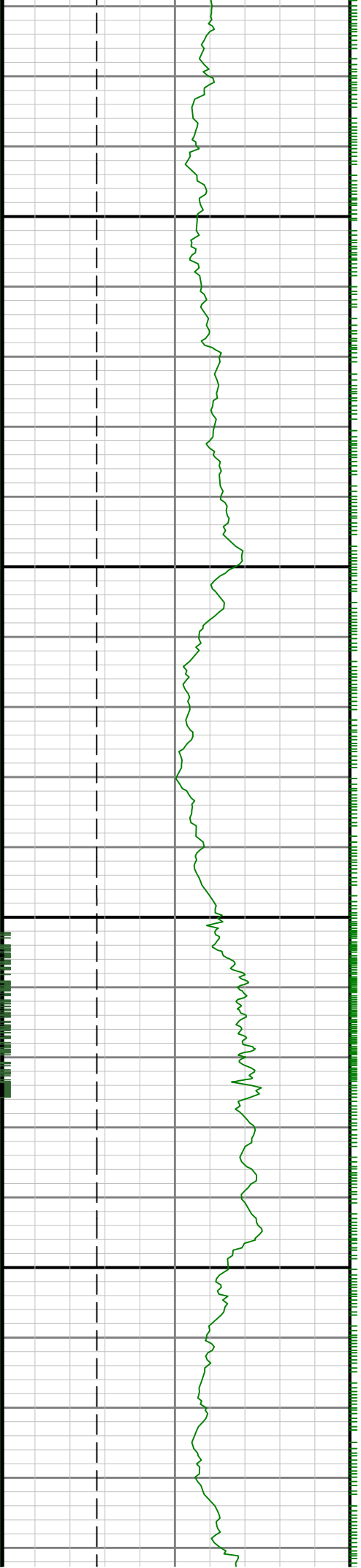


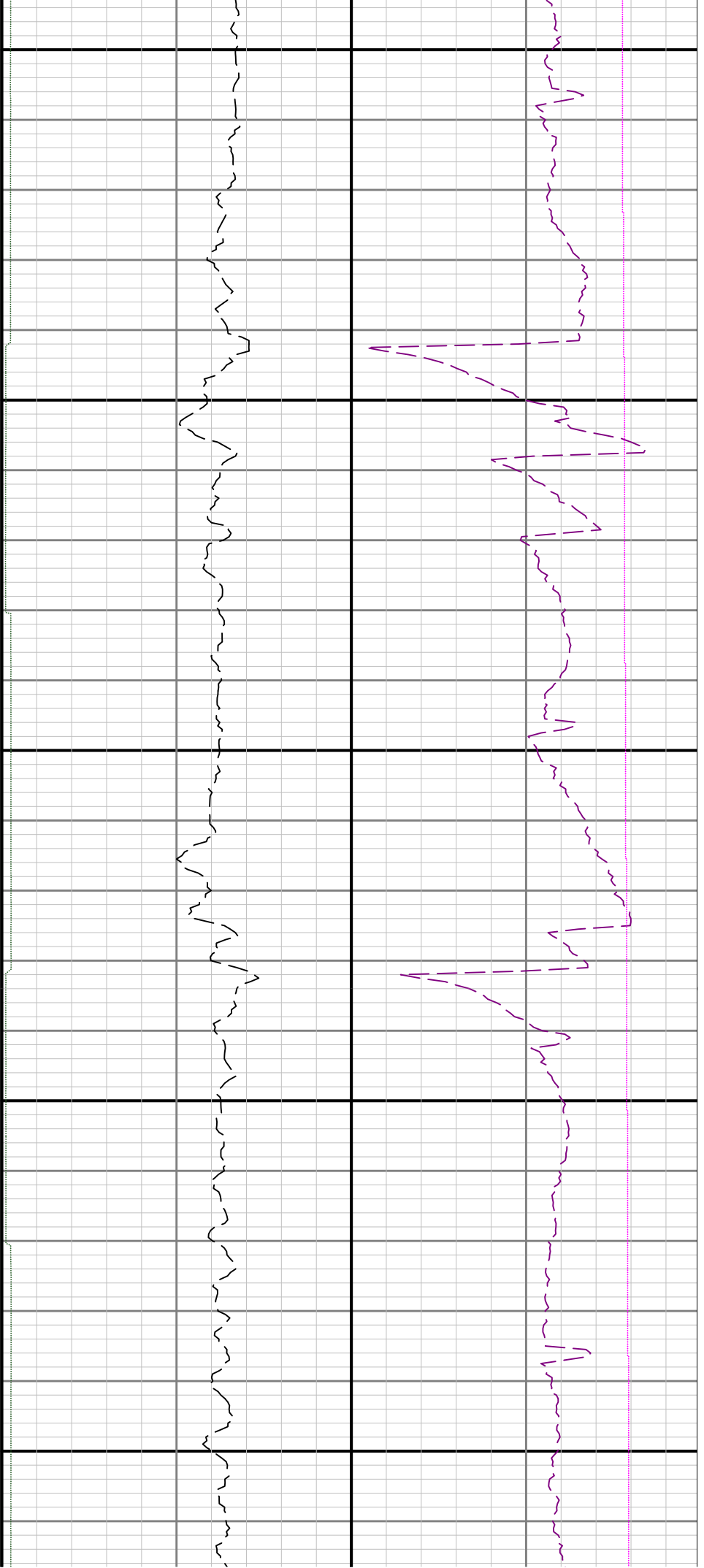




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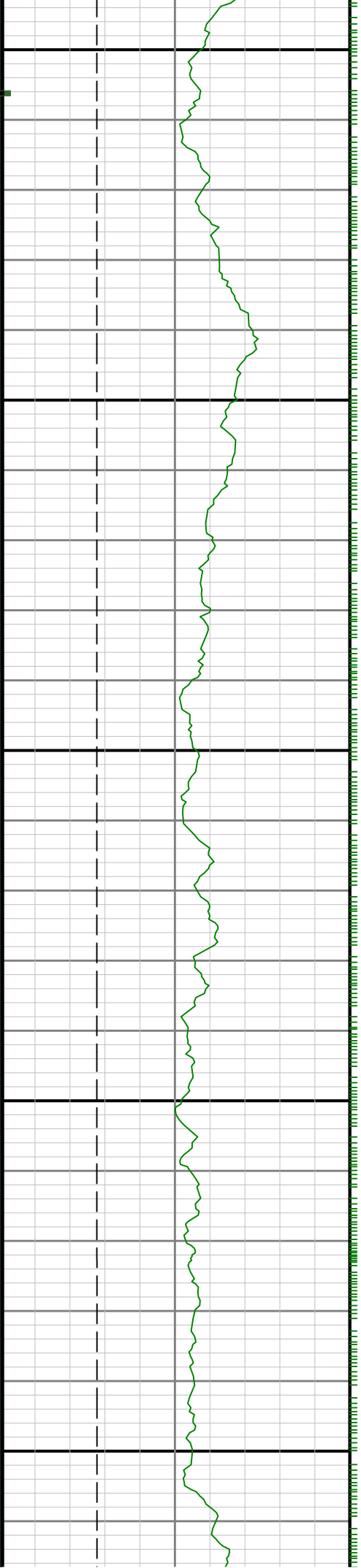
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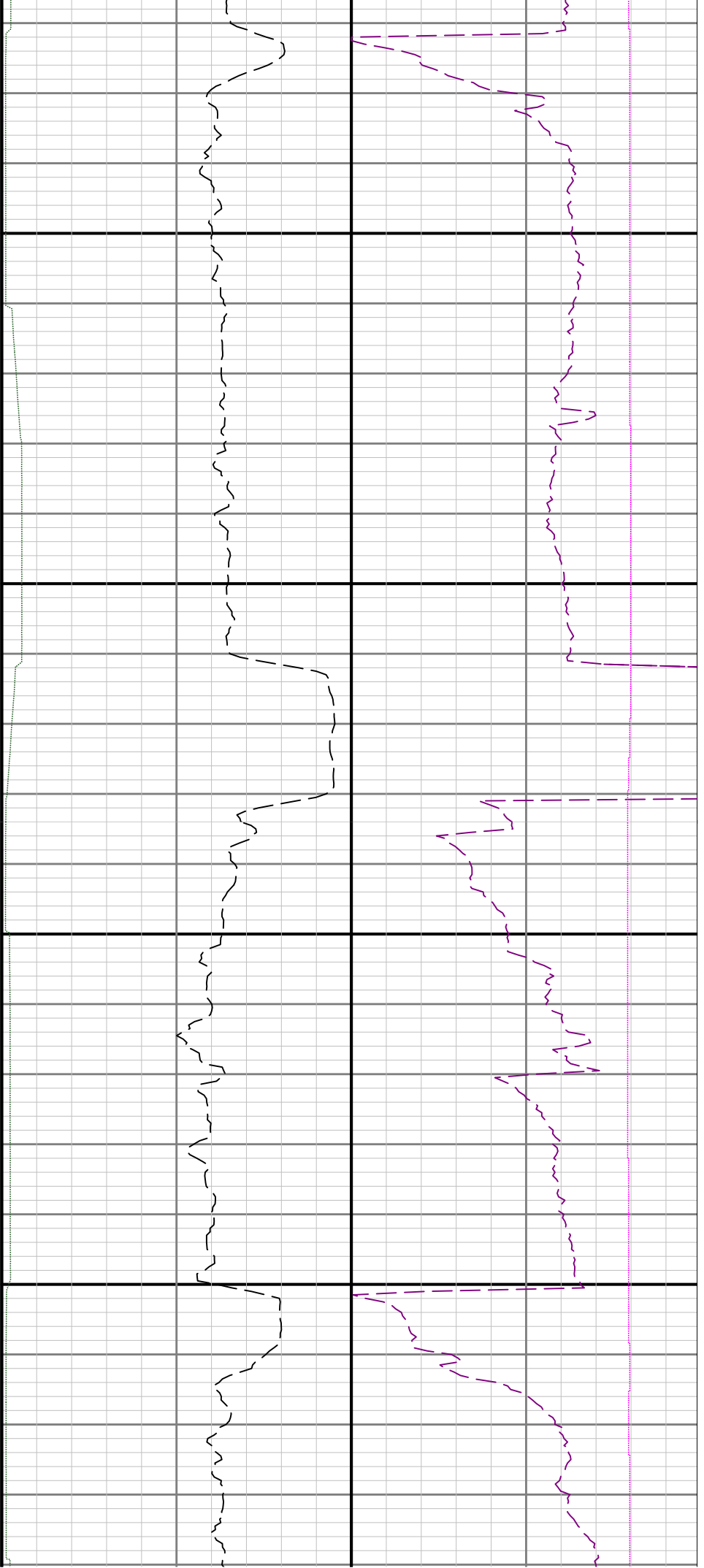




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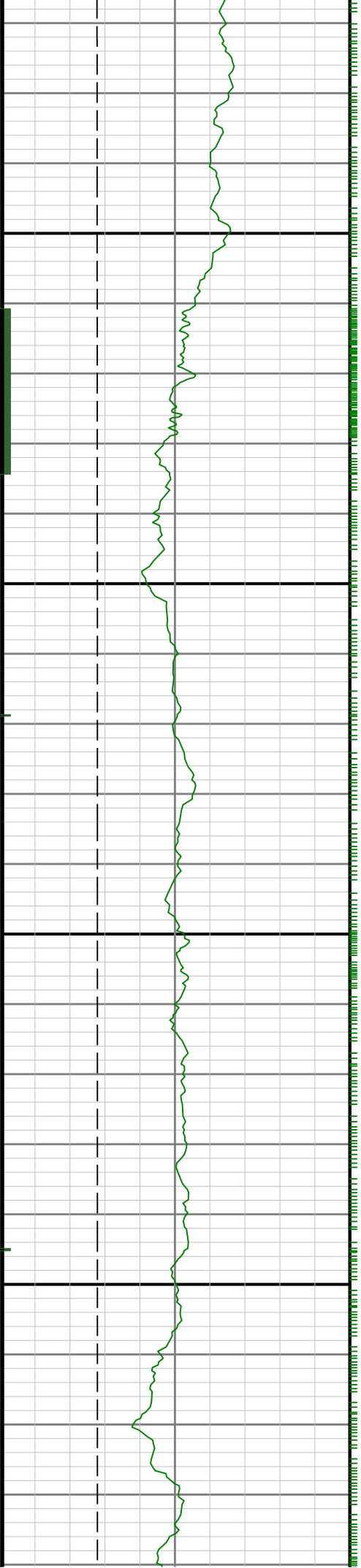
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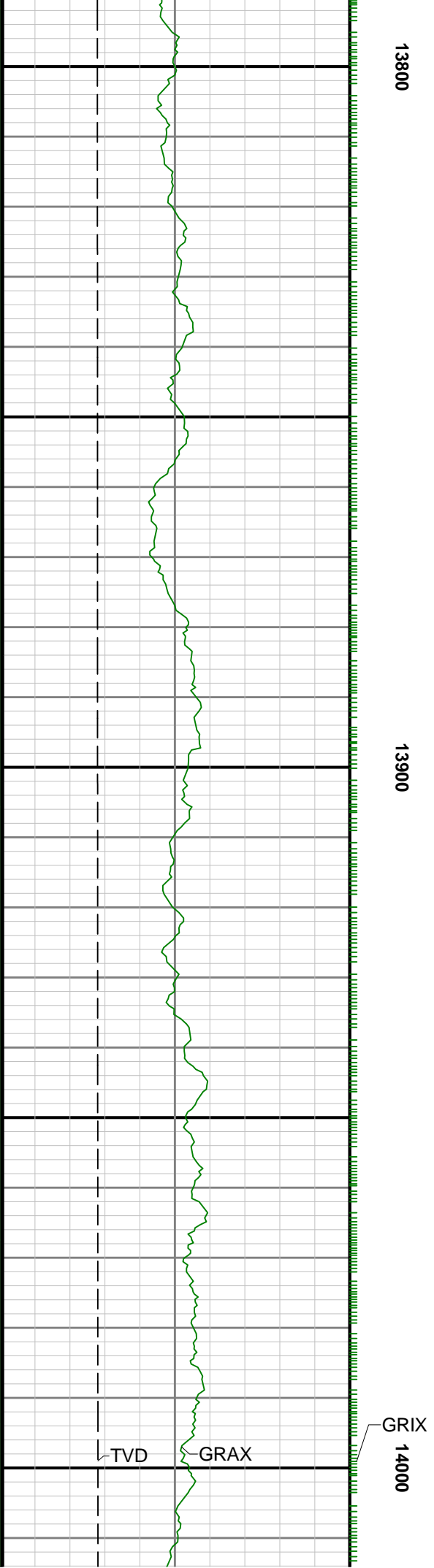
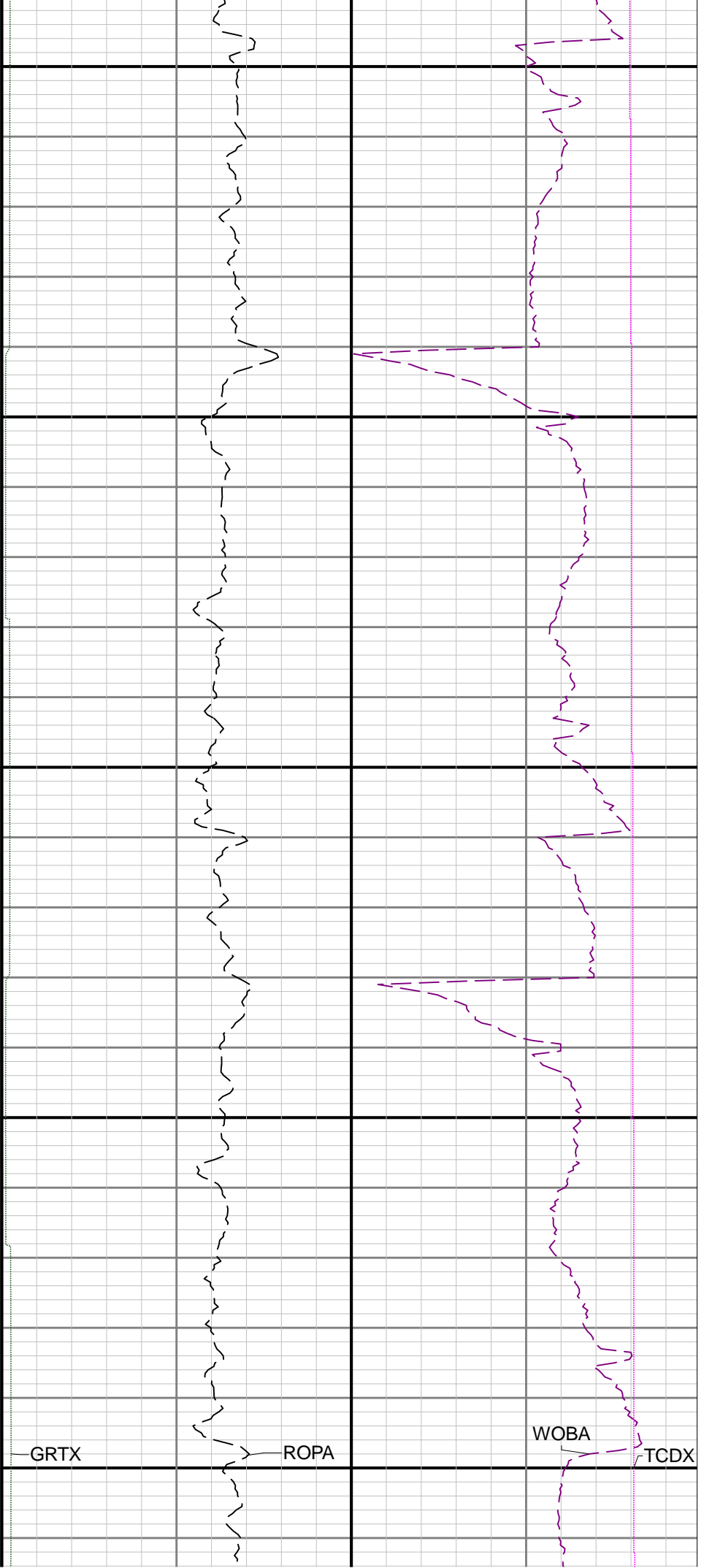


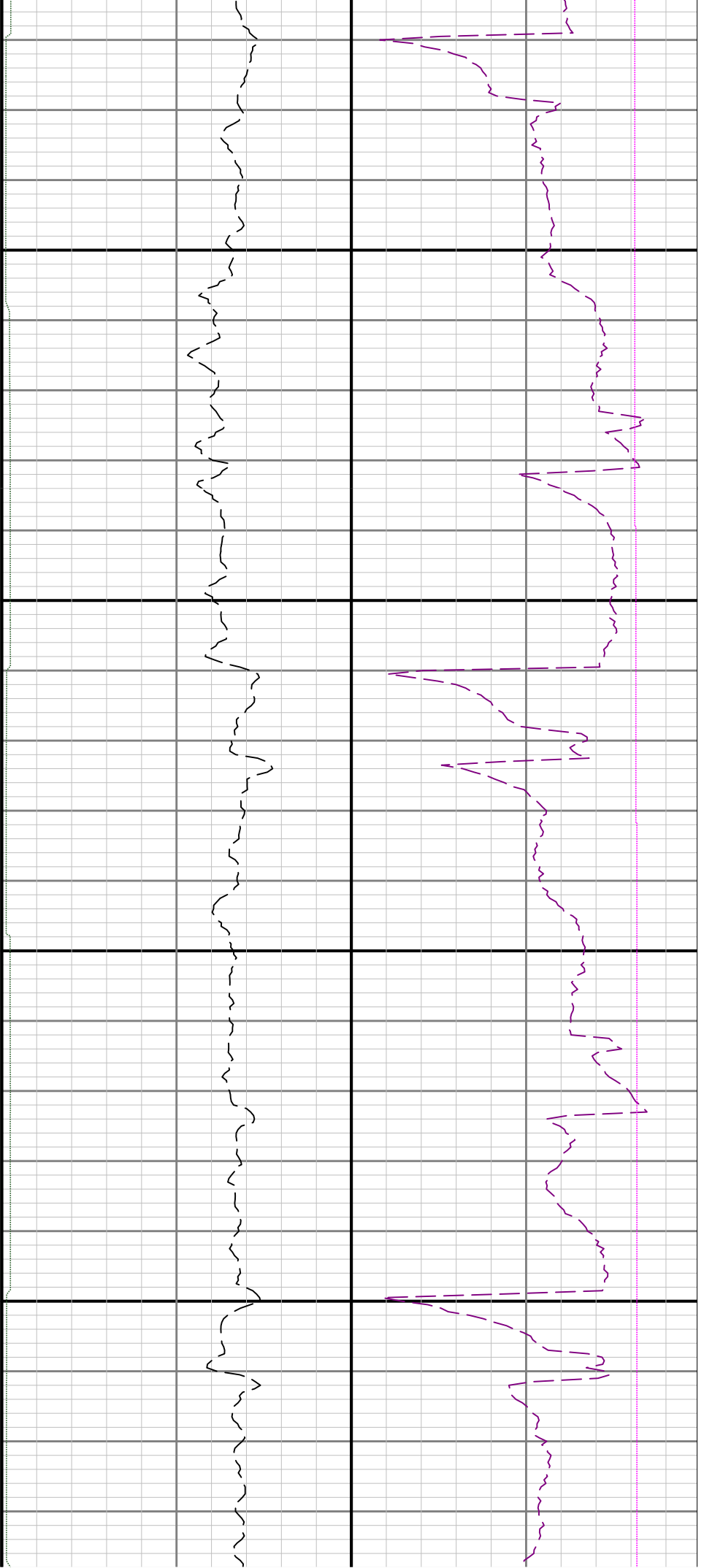


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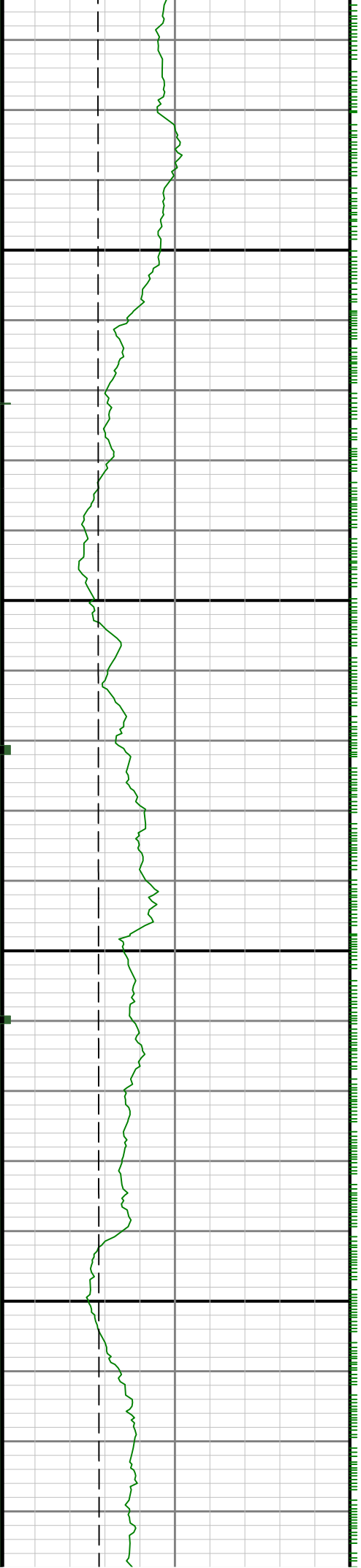






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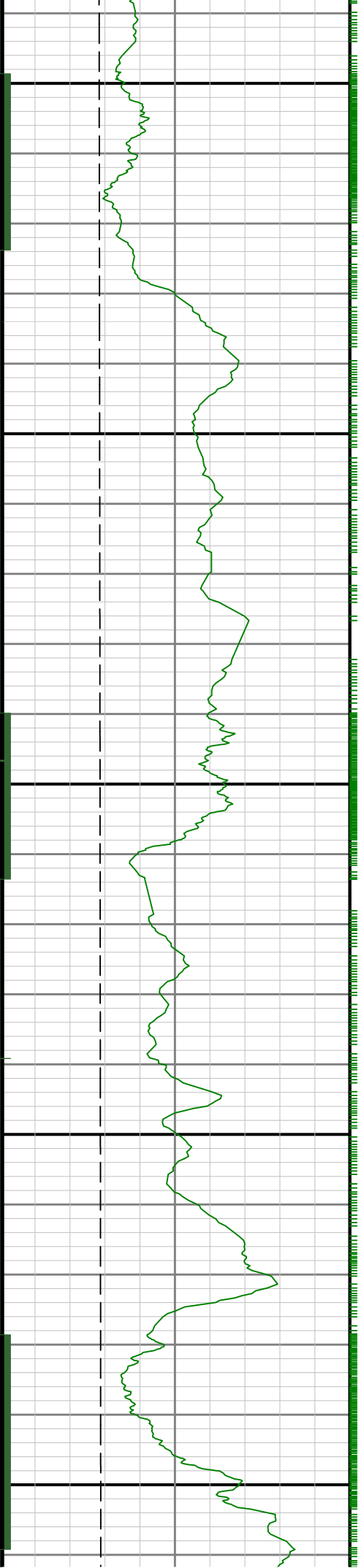
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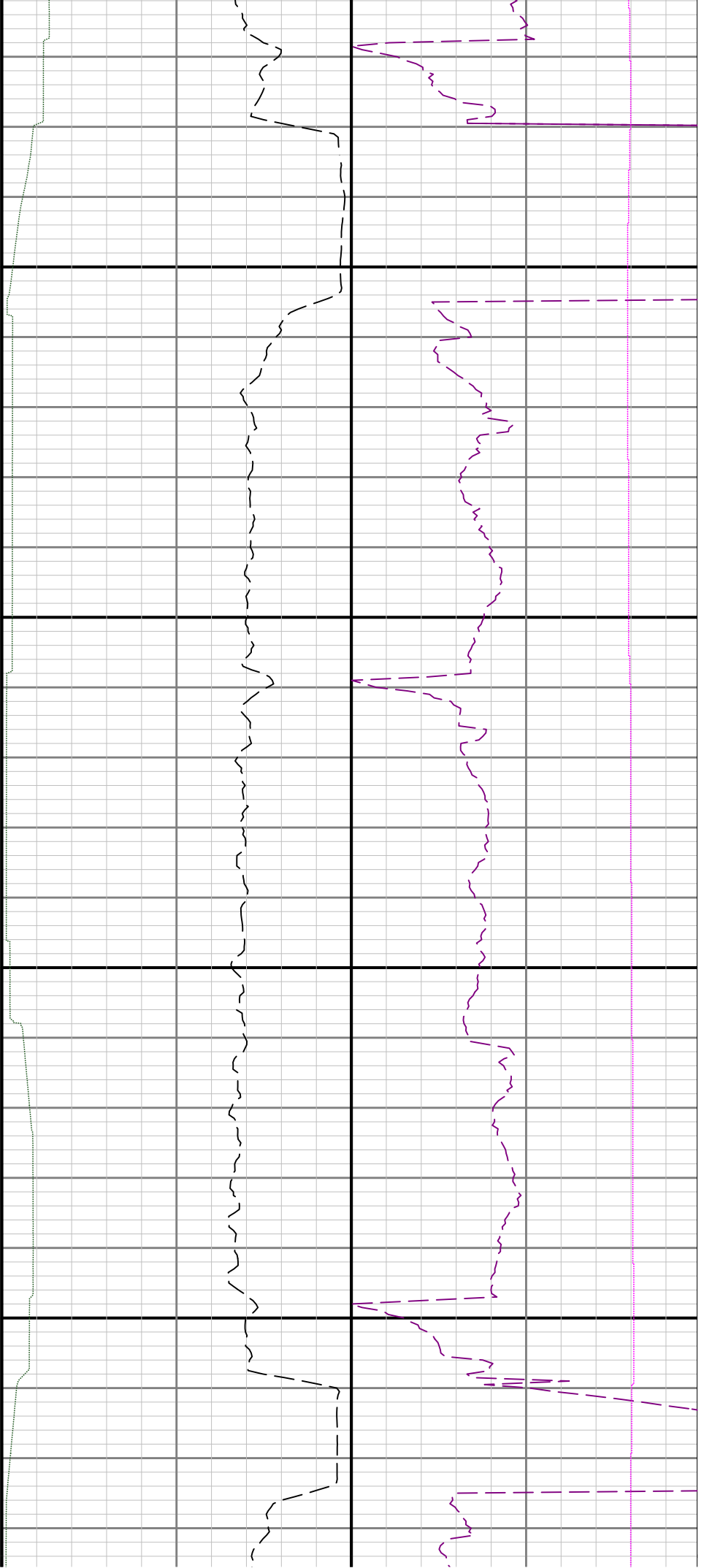




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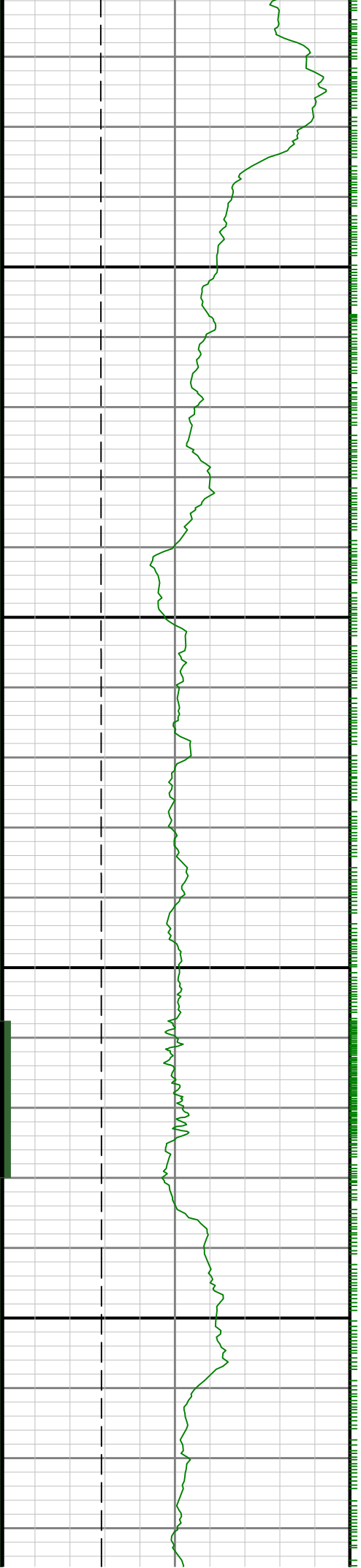
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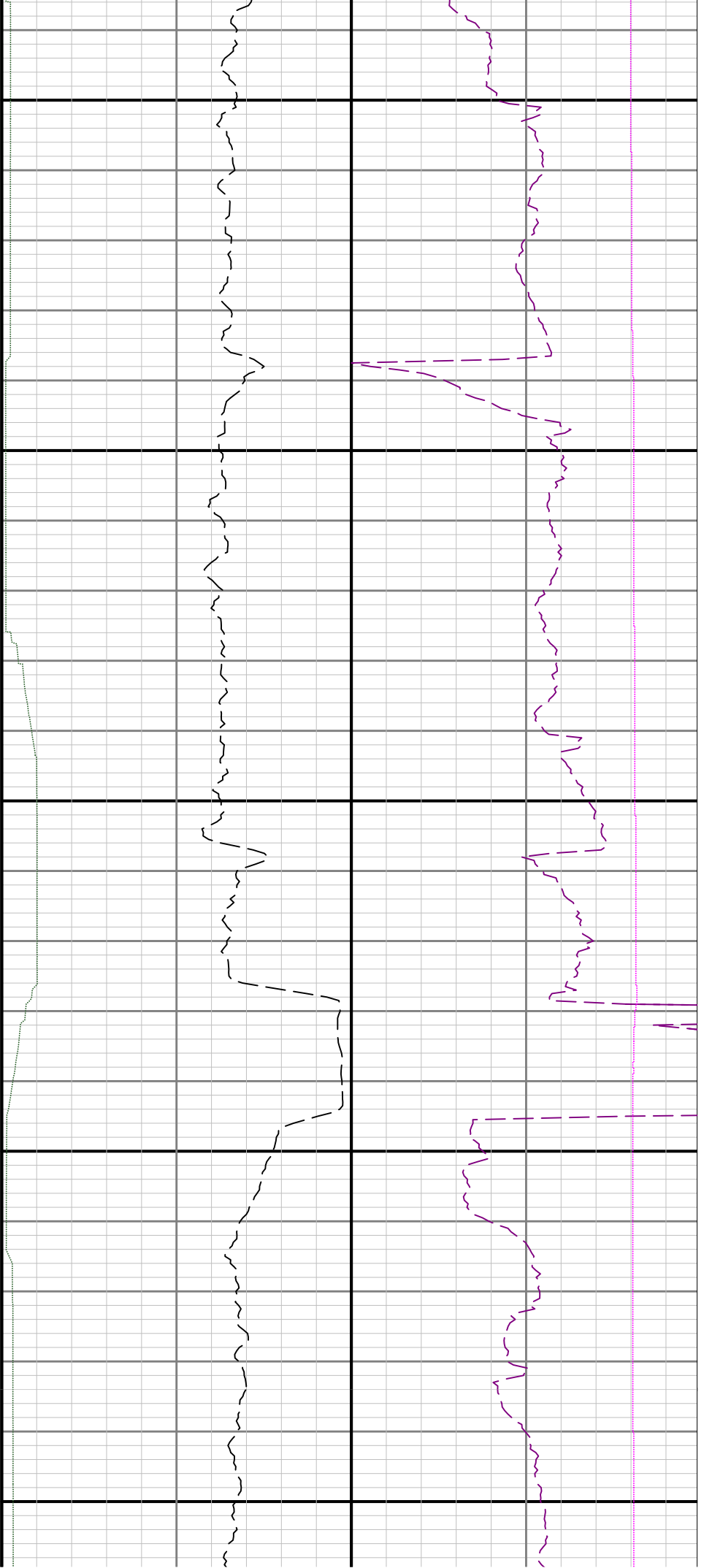




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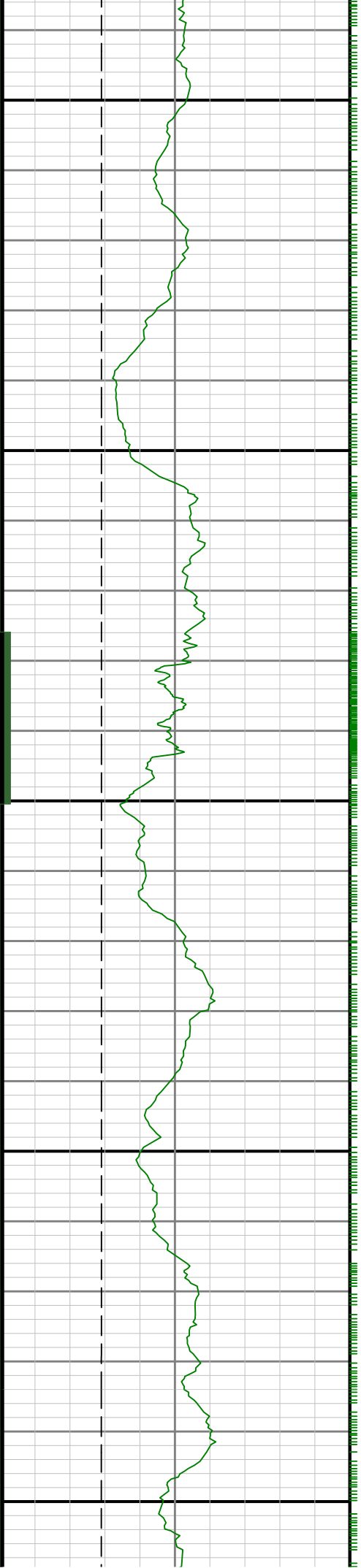


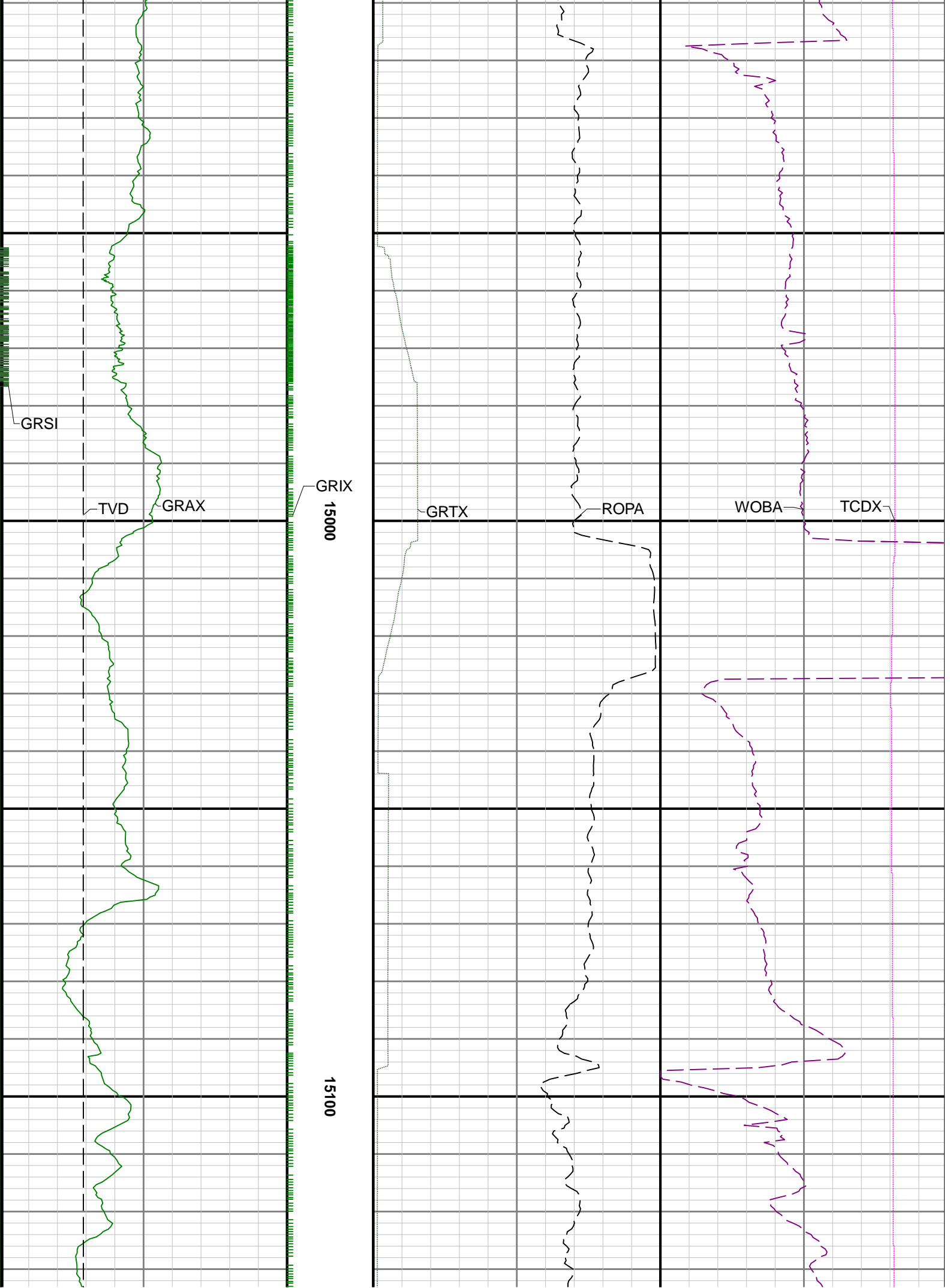


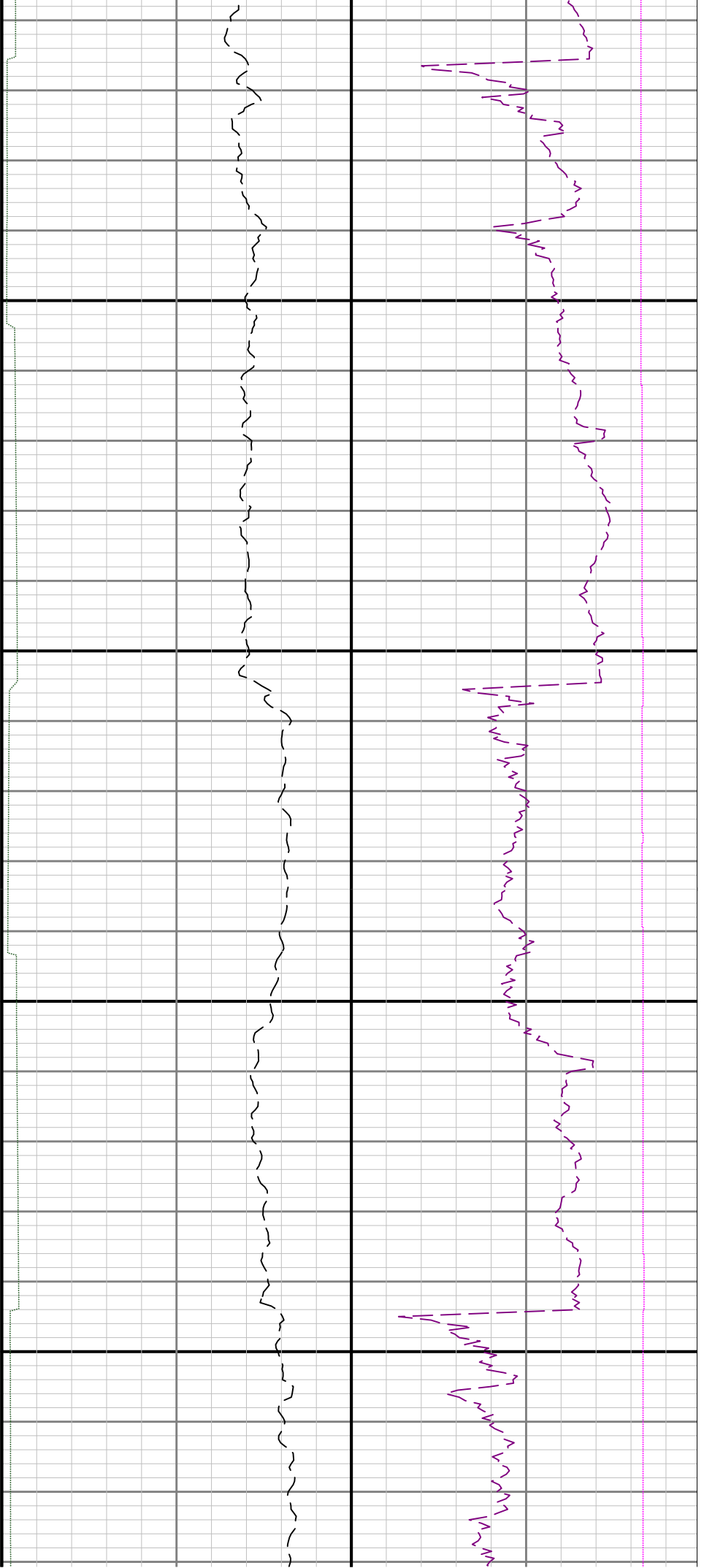
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