



Realtime Log

Natural Formation Evaluation  
Gamma Ray

Scale: Company: Anadarko

1:240 Well: Ranchview 3N-11HZ

MEASURED DEPTH Field: Weld County (Kerr McGee)

Status: Region: Continental US State: Colorado

Surface Location: Other Services:

Final Print Latitude: 40° 2' 42.112" N

API Number: 051233997200 Longitude: 104° 58' 18.944" W

Section: 14 TWN: 1N Range 68W

Directional VSS

Permanent Datum (P.D.): Mean Sea Level Elevation: 5169.00 ft.

Elevations:

Log Measured From: Kelly Bushing Elevation: 5169.00 ft.

KB: N/A  
DF: 5169.00 ft.  
GL: 5144.00 ft.

Depth Reference: Driller's Depth

Interval Logged Dates Magnetic Field Reference

Top: 7200 ft. Date From: 11/Oct/14 Dip Angle: 66.50 ° Azi Reference North: True

Bottom: 15450 ft. Date To: 17/Oct/15 Total Mag to Reference

Spud Date: 09/Oct/14 Field Strength: 52750.9 nT North Correction: 8.61 °

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
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8.750 in.	1289 ft.	8225 ft.	9.600 in.	36.00 lb/ft	Surface	1289 ft.
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6.125 in.	8226 ft.	15450 ft.	7.000 in.	26.00 lb/ft	Surface	8209 ft.
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Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
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Water Based Mud	Surface	15450 ft.	8.750 in.	Vert/Curve	0.6 ° / 83.5 °	88.7 ° / 0.7 °
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			6.125 in.	Lateral	88.7 ° / 0.7 °	88.2 ° / 1.5 °
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Acquisition System Software Version

Other

Advantage	2.20U4	Rig: / Contractor:	H&P 307	/ Helmerich & Payne Drilling Co
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PATS	6.4.1.34	Job No.:	6711536	/ D & E
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		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	2	1	8.750	PDC		Steerable	7200	8183	1299	8228	11/Oct/2014 04:12	11/Oct/2014 18:19	32.97
2	2	2	6.125	PDC		Steerable	8184	15450	8225	13341	13/Oct/2014 11:30	16/Oct/2015 16:42	68.5

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Hans Cary	10/09/14	10/17/14	Andy King	10/09/14	10/12/14	David Campbell	10/12/14	10/17/14

Bill Herbers	10/09/14	10/11/14	Dale Miranda	10/09/14	10/17/14	Mike Gurnsey	10/12/14	10/17/14
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Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
GRTX	Gamma Ray Time Since Drilled	Min.
GRIX	Gamma Ray Density, Points	unitless
GRSI	Gamma Ray Slide Indicator	unitless
ROPA	Rate of Penetration, 3.0 ft. Avg.	Ft./Hr.
TCDX	Downhole Temperature	Deg. F.
TVD	True Vertical Depth	Ft.
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	K. lbs.

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	12592567	Directional	46.88	6.750	3.250
1	SRIG	12600748	Gamma	43.51	6.750	3.250
2	DIR	12859420	Directional	51.79	4.750	2.750
2	SRIG	11814653	Gamma	48.37	4.750	2.750

Service and Tool Mnemonics

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

Comments

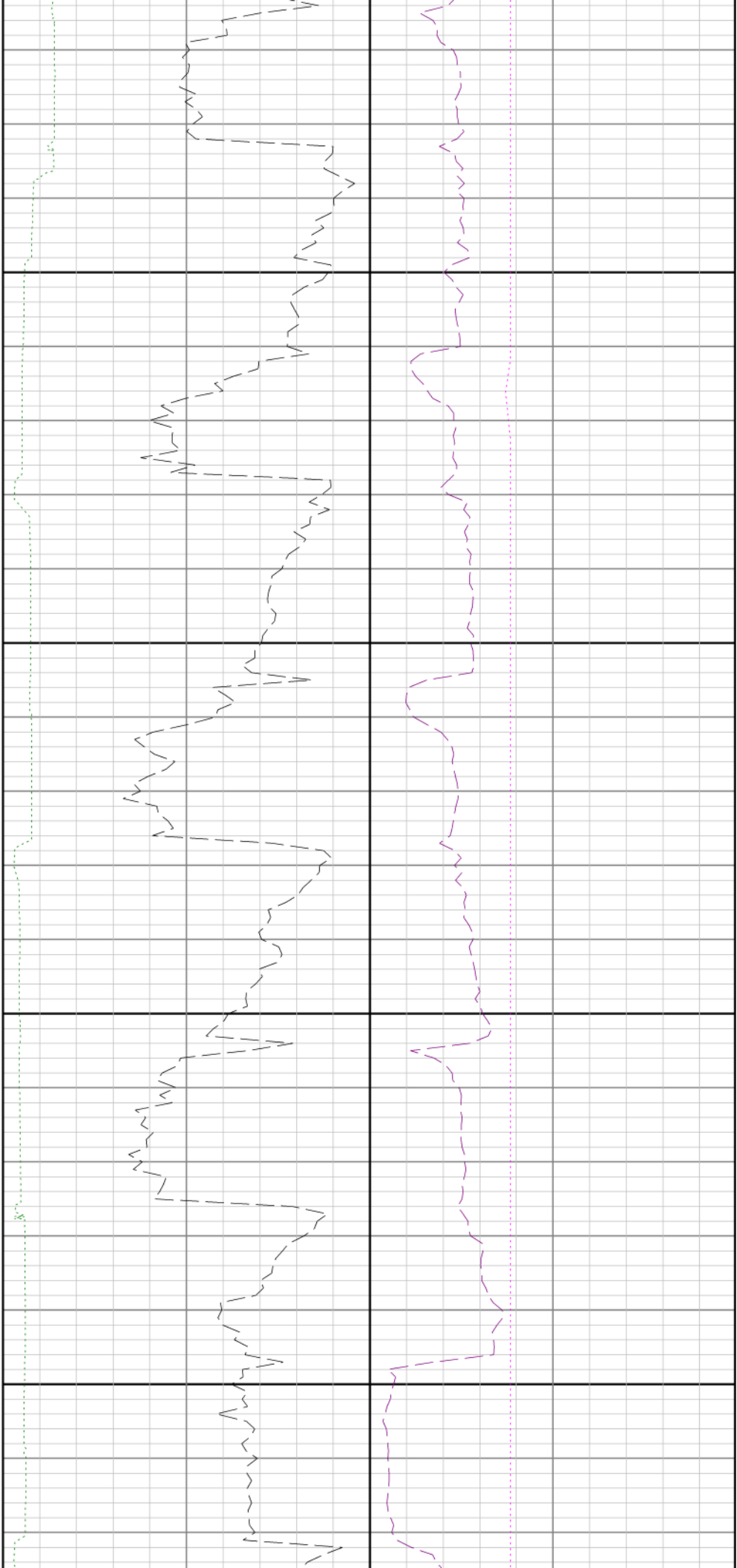
(1) Baker Hughes INTEQ run 1 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 1289 to 8225 ft MD (1288 to 7774 ft TVD).
(2) Baker Hughes INTEQ run 2 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind a 6 3/4 inch bit and steerable assembly from 8225 to 15450 ft MD (7774 to 7817 ft TVD).
(4) Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
(5) A sliding indicator is shown to the left side of track 1 as a heavy line and corresponds to the Gamma Ray sensor offset from the bit.

Remarks

Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	7200	8.750	1	Began logging Gamma from the top of the build section at 7200 ft MD (7108 ft TVD)

1	7200	8.750	1	Began logging Gamma from the top of the build section at 7200 ft MD (7108 ft TVD).
2	8190	8.750	2	The interval from 8183 to 8227 ft MD (7770 to 7774 ft TVD) was logged up to 41 hours after tripping out of hole to pick up lateral assembly for run 2.
3	15450	6.750	2	The interval from 15402 to 15450 ft MD (7816 to 7817 ft TVD) was not logged due to Gamma Ray sensor offset.

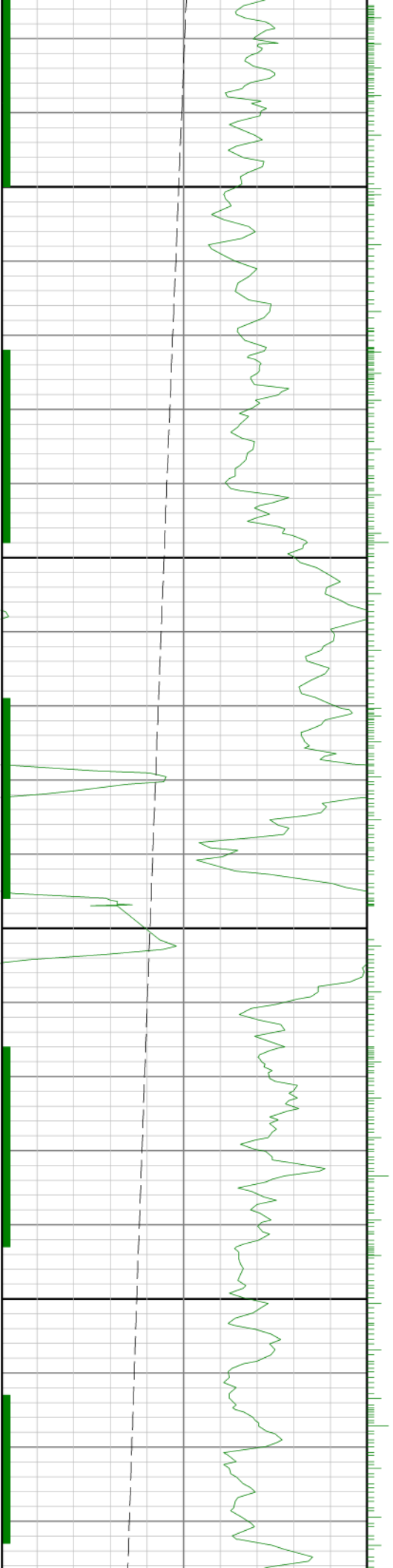
<b>BAKER HUGHES</b> Company : Anadarko Well : Ranchview 3N-11HZ Interval : 7190.00 - 15460.00 feet Created : 16/Oct/2014 5:56:05 PM			
Gamma Ray Apparent 0.5 ft Avg GRAX 0 200 API True Vertical Depth TVD 7950 6900 ft	MD feet 1:240	Gamma Time Since Drilled GRTX 0 600 min Rate of Penetration 3.0 ft Avg ROPA 500 0 ft/hr	Surface Weight On Bit 1.0 ft Avg WOBA 0 100 klbf Downhole Temperature TCDX 100 300 degF
<p>GRAX TVD GRSI</p>	<p>MD feet 1:240</p>	<p>GRTX ROPA Remark 1</p>	<p>WOBA TCDX</p>



7400

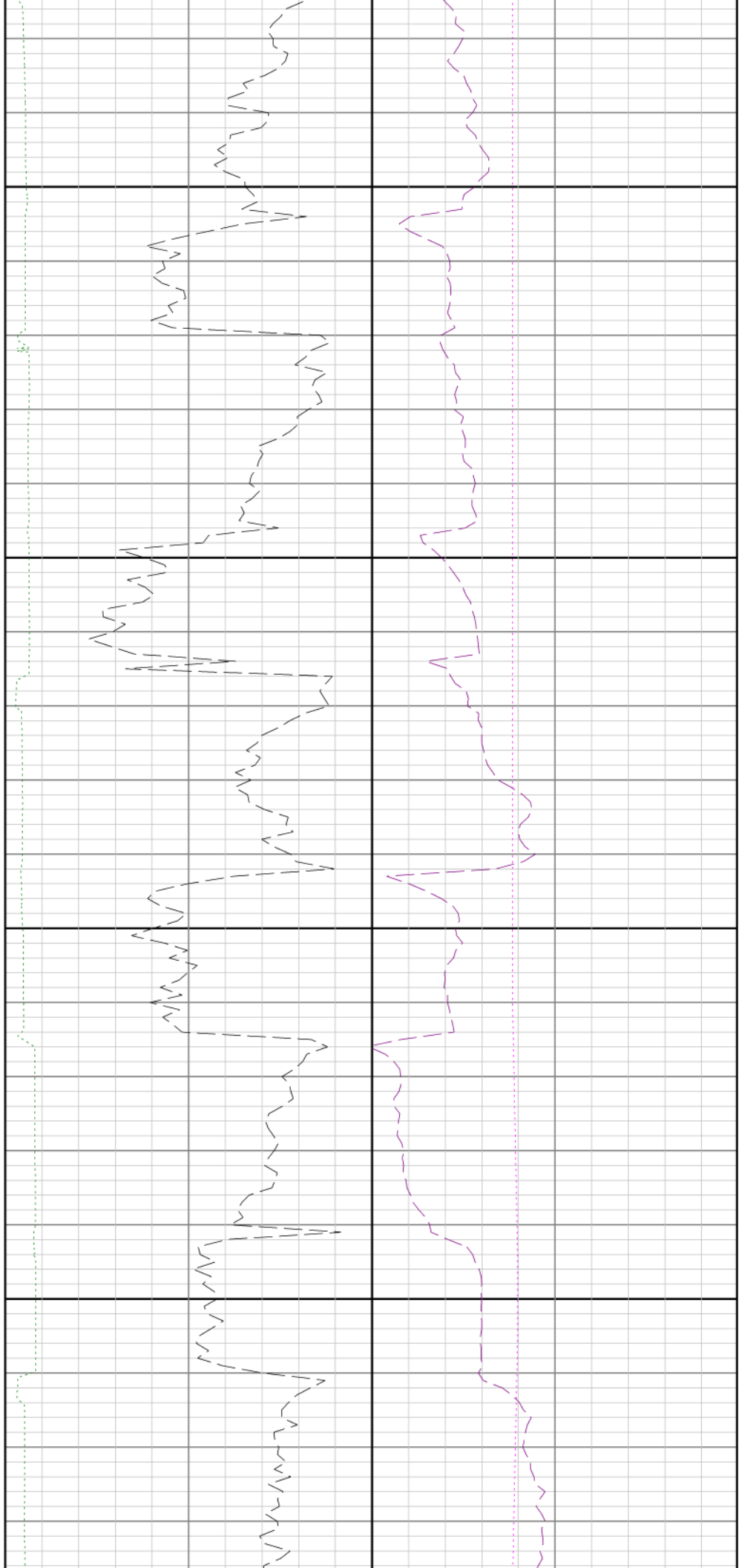
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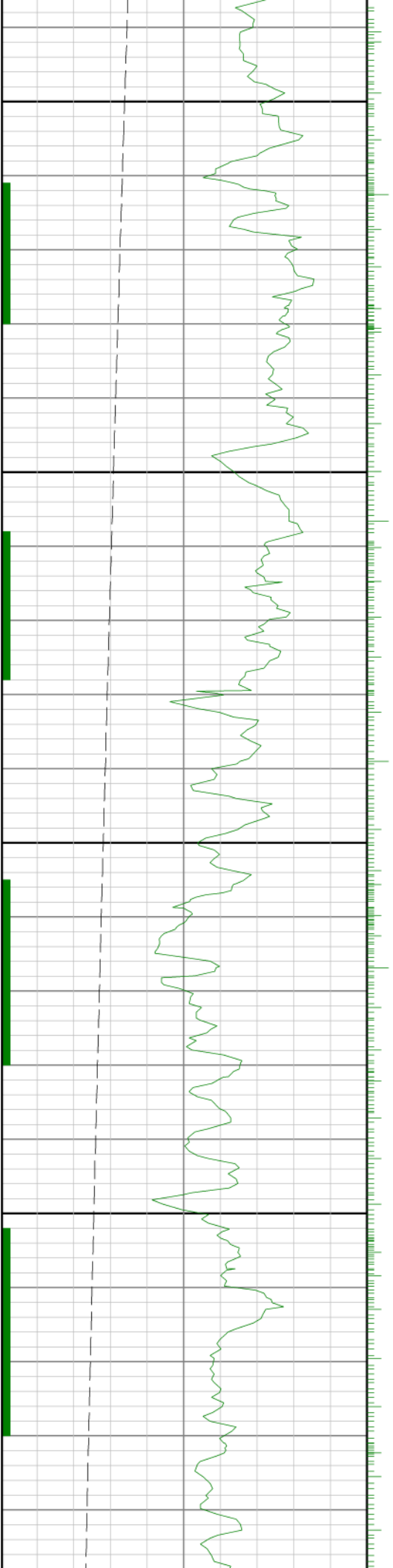




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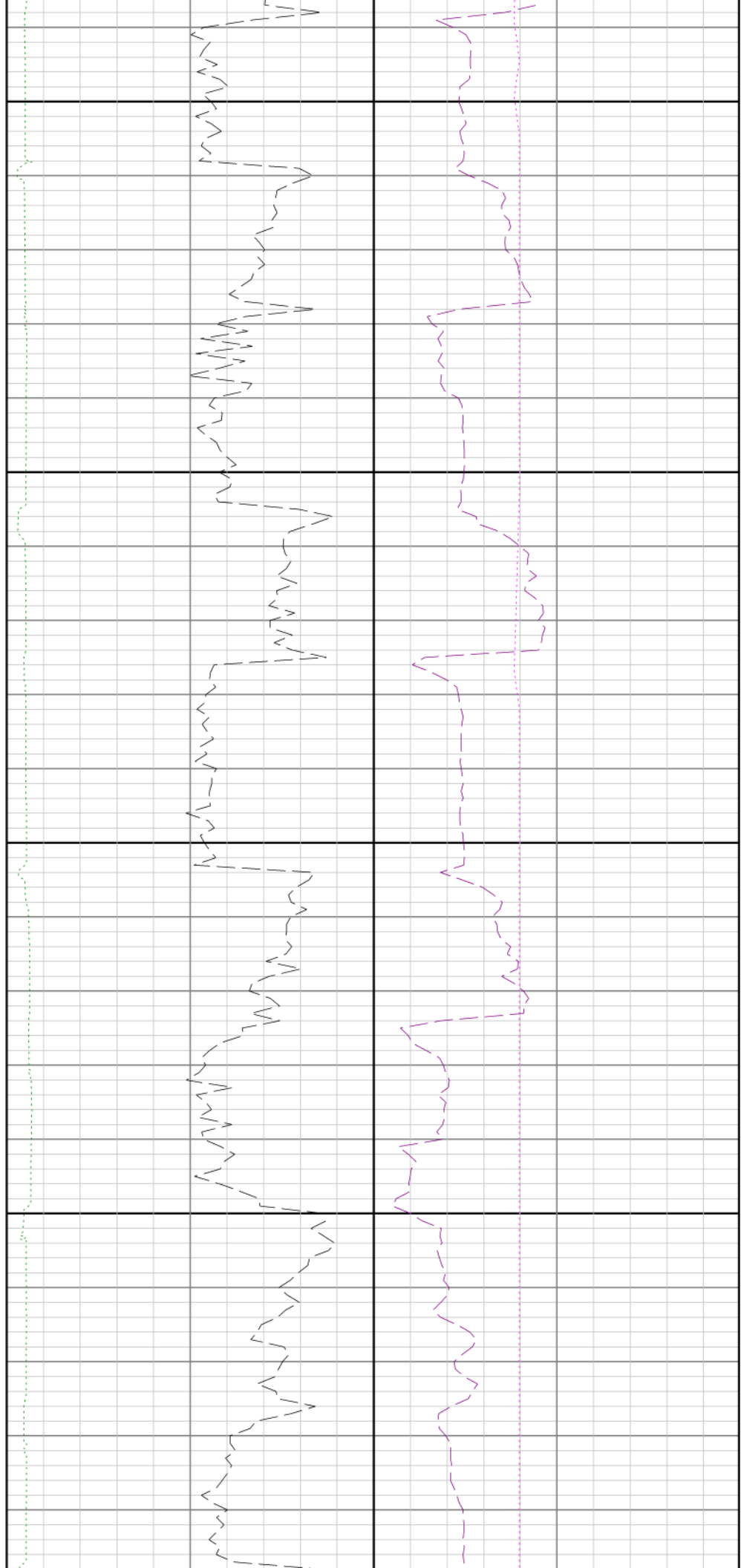
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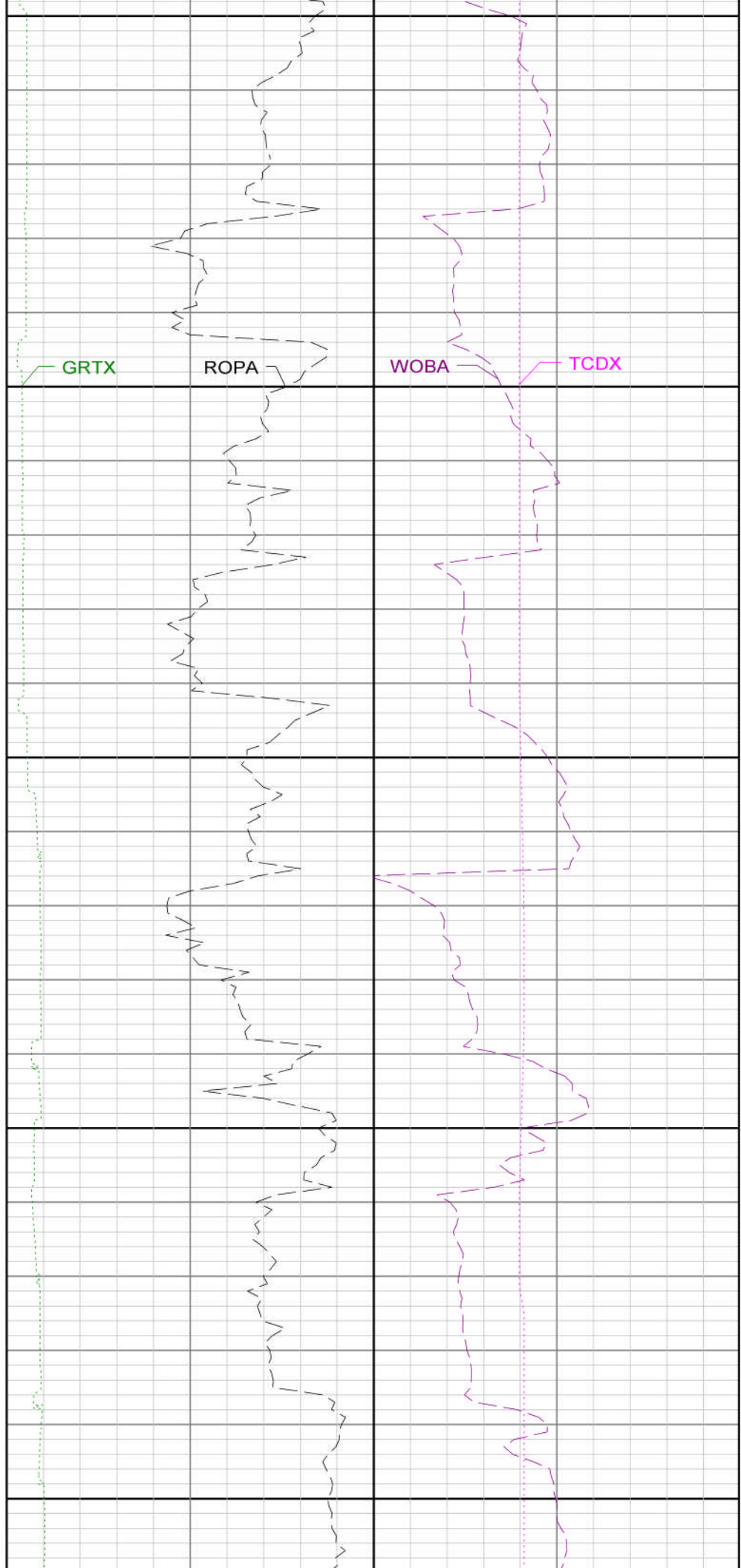
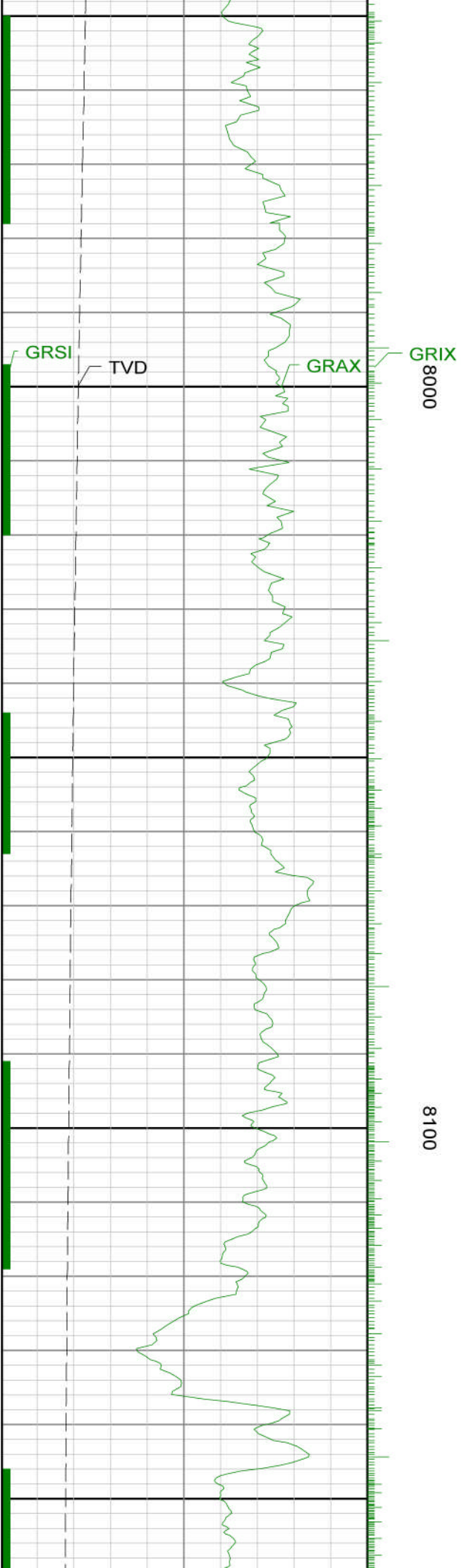


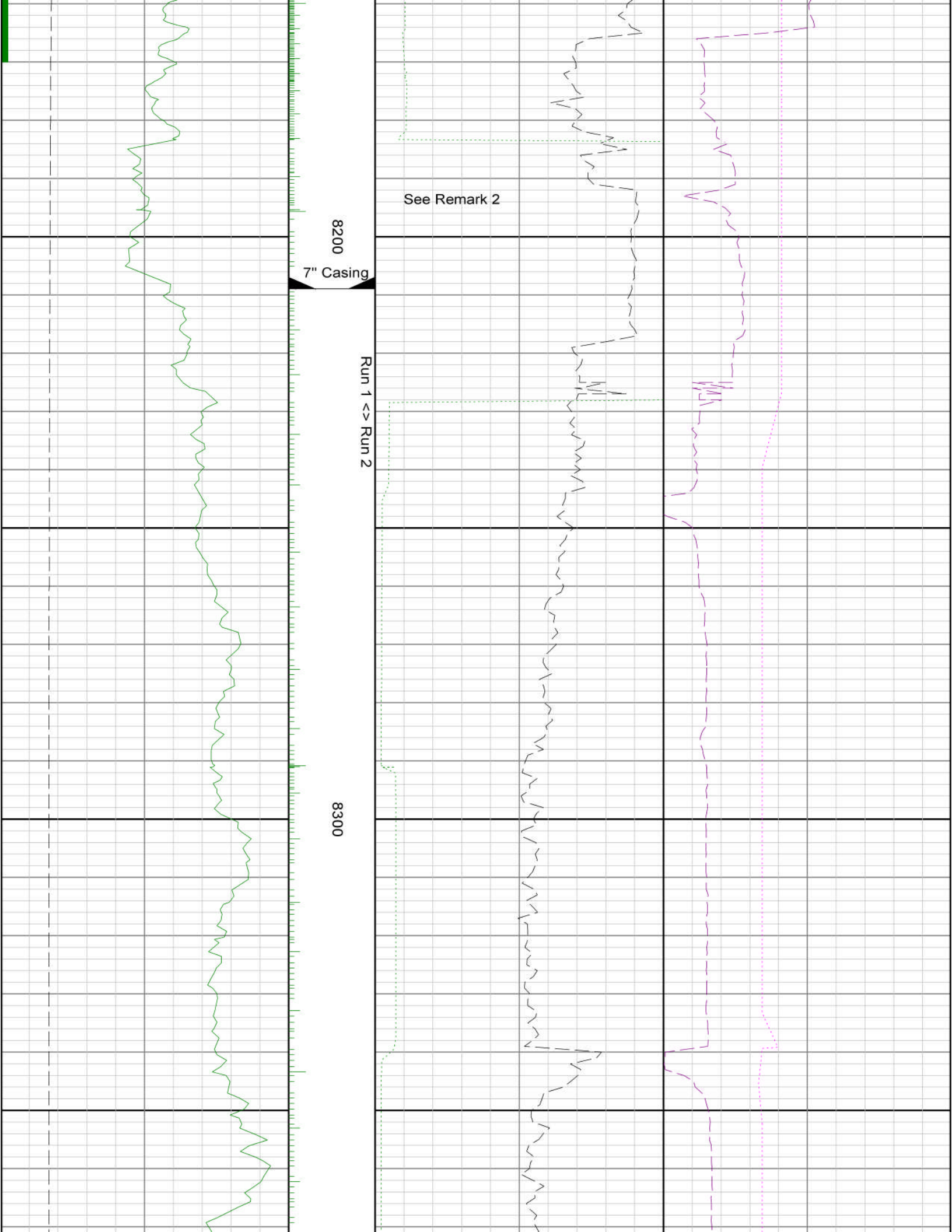


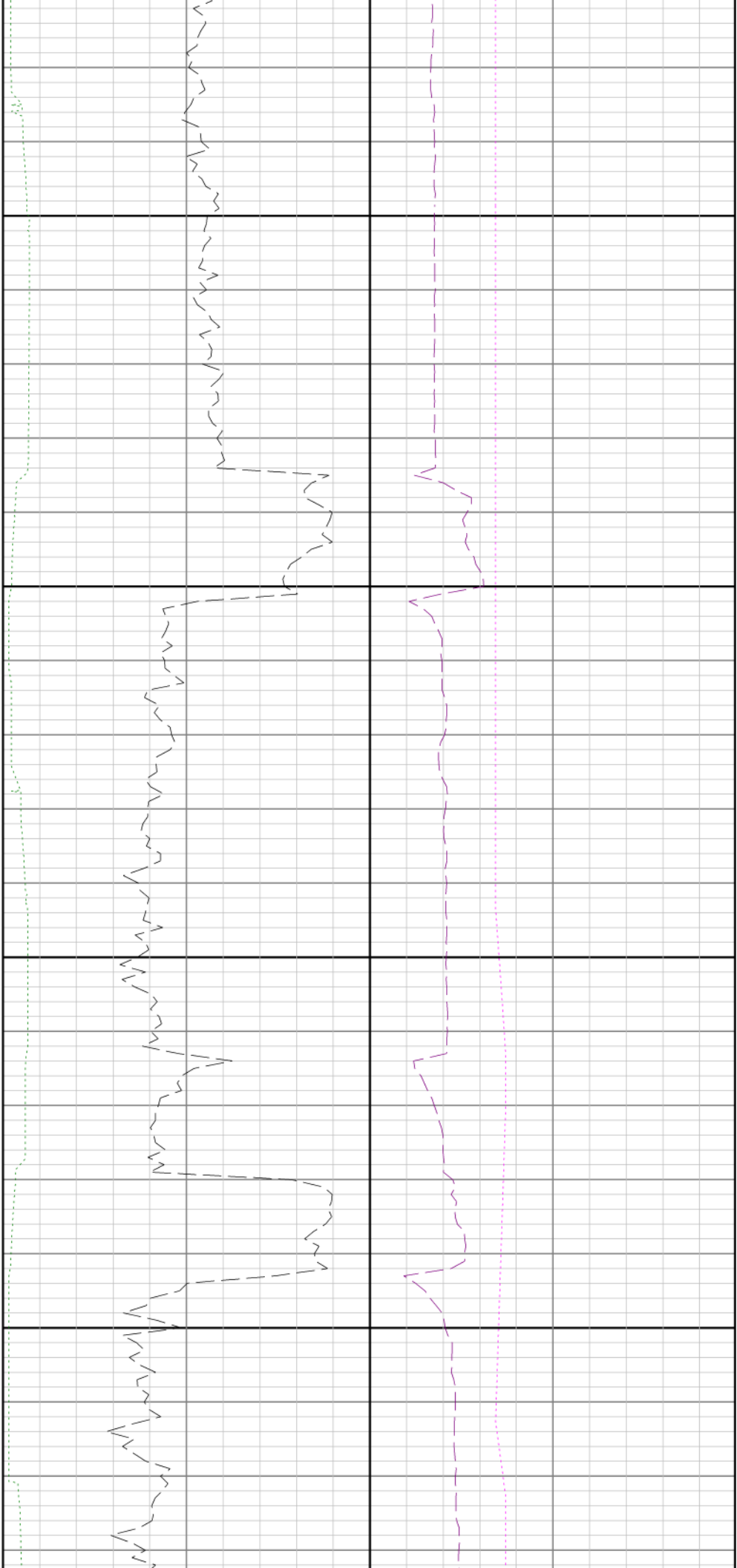
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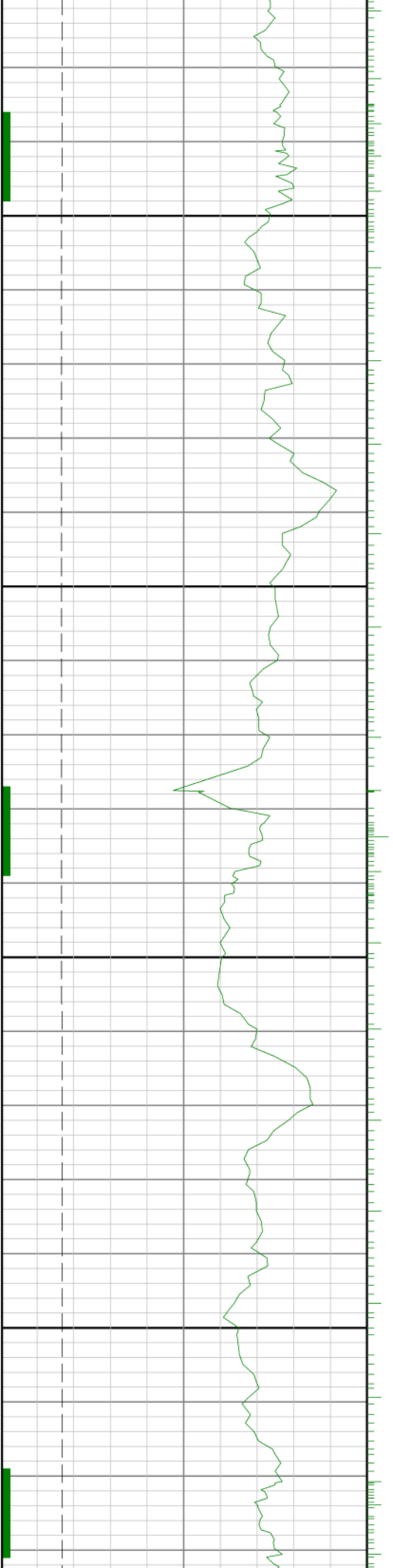


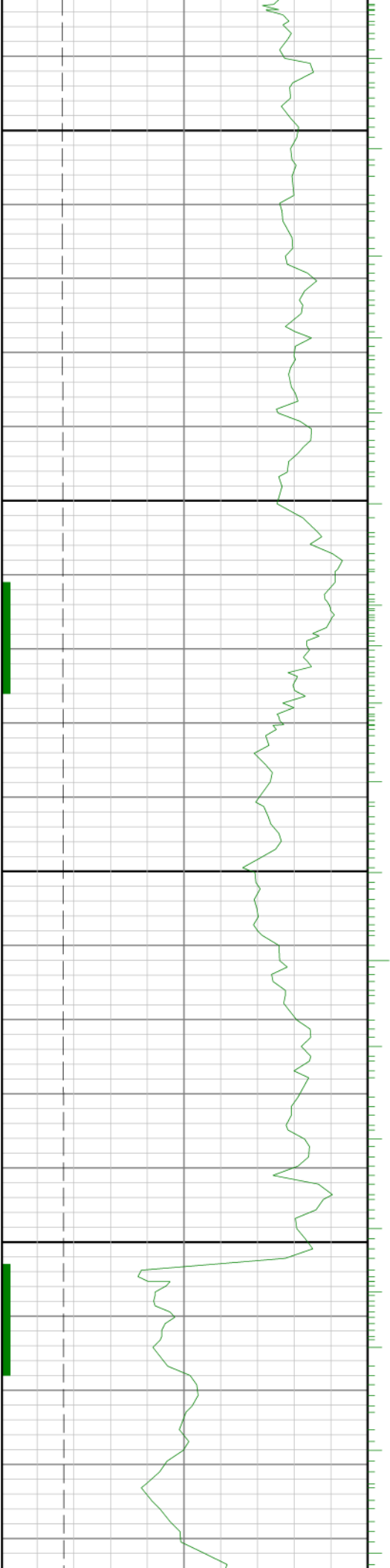




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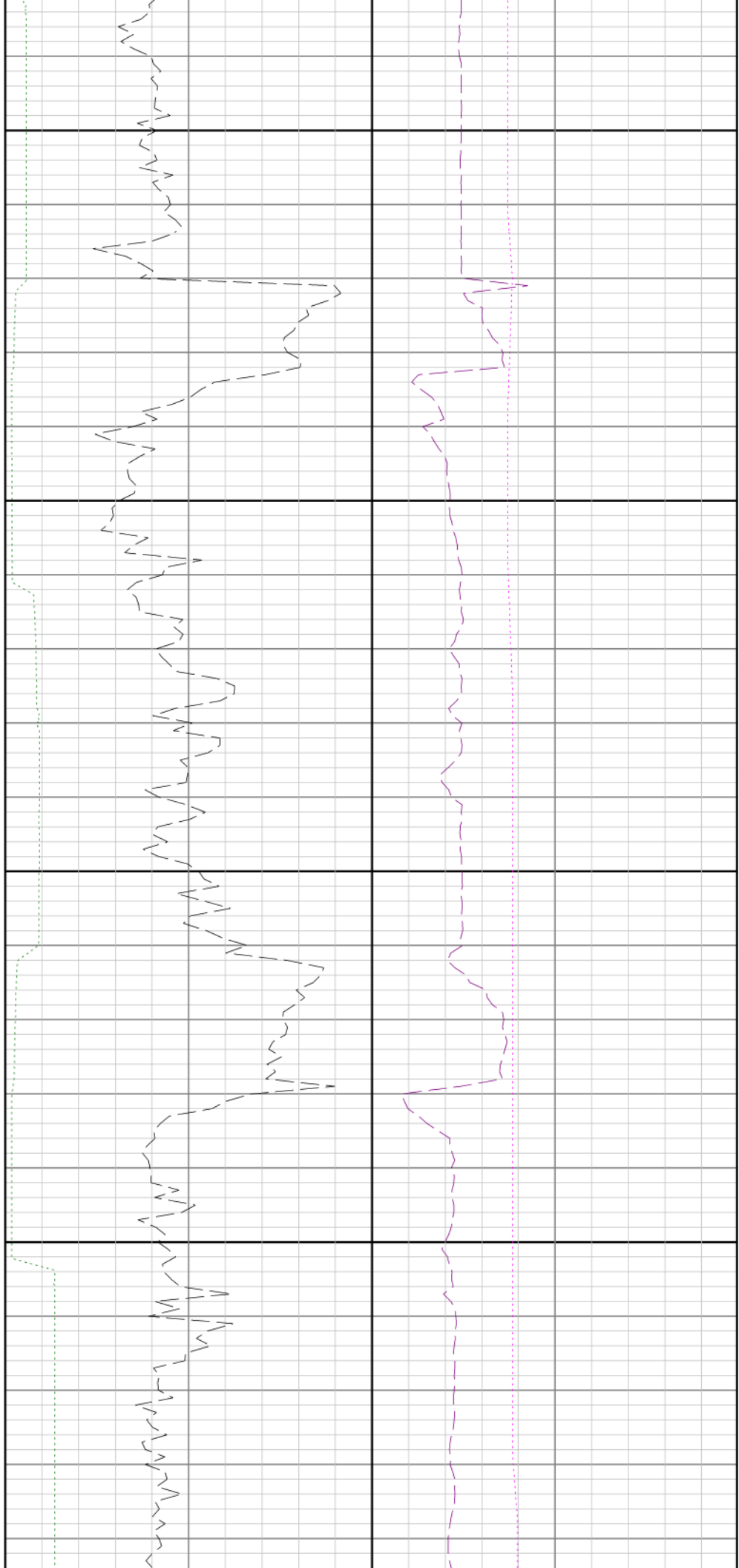
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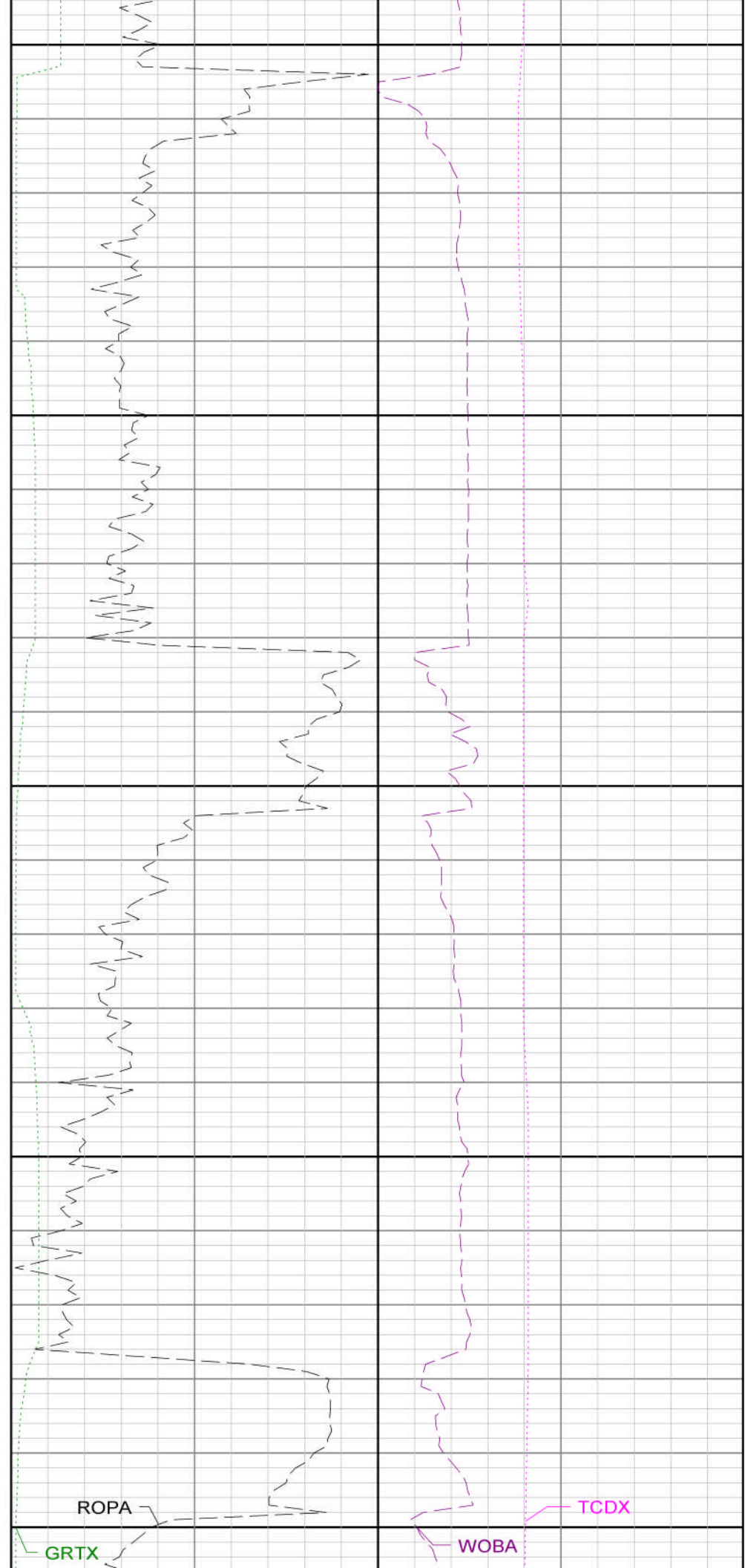
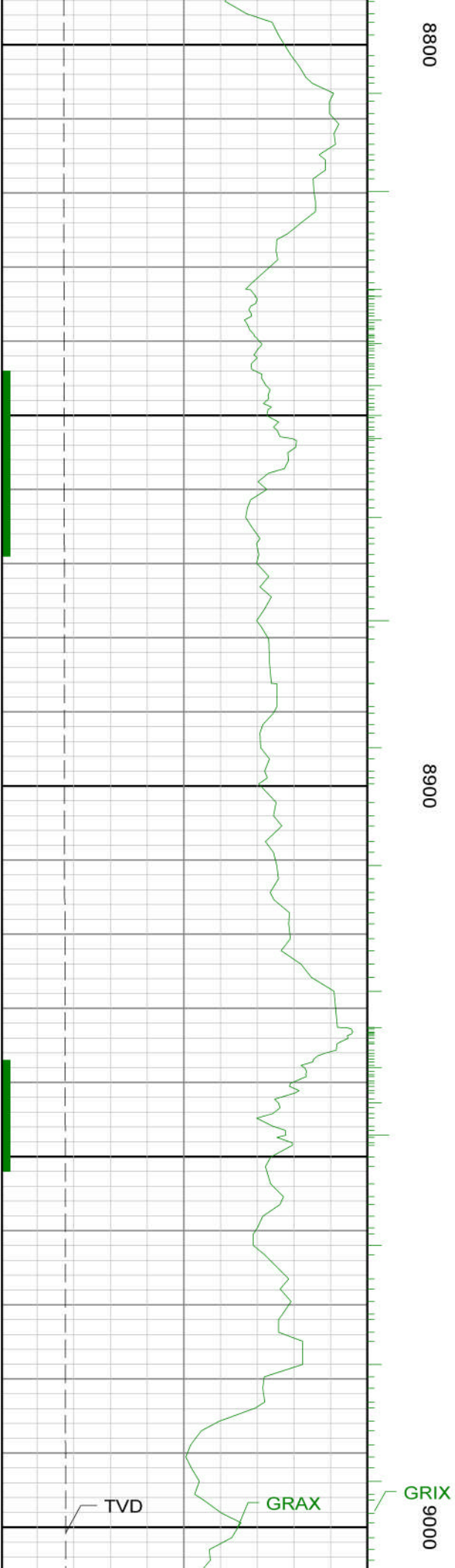


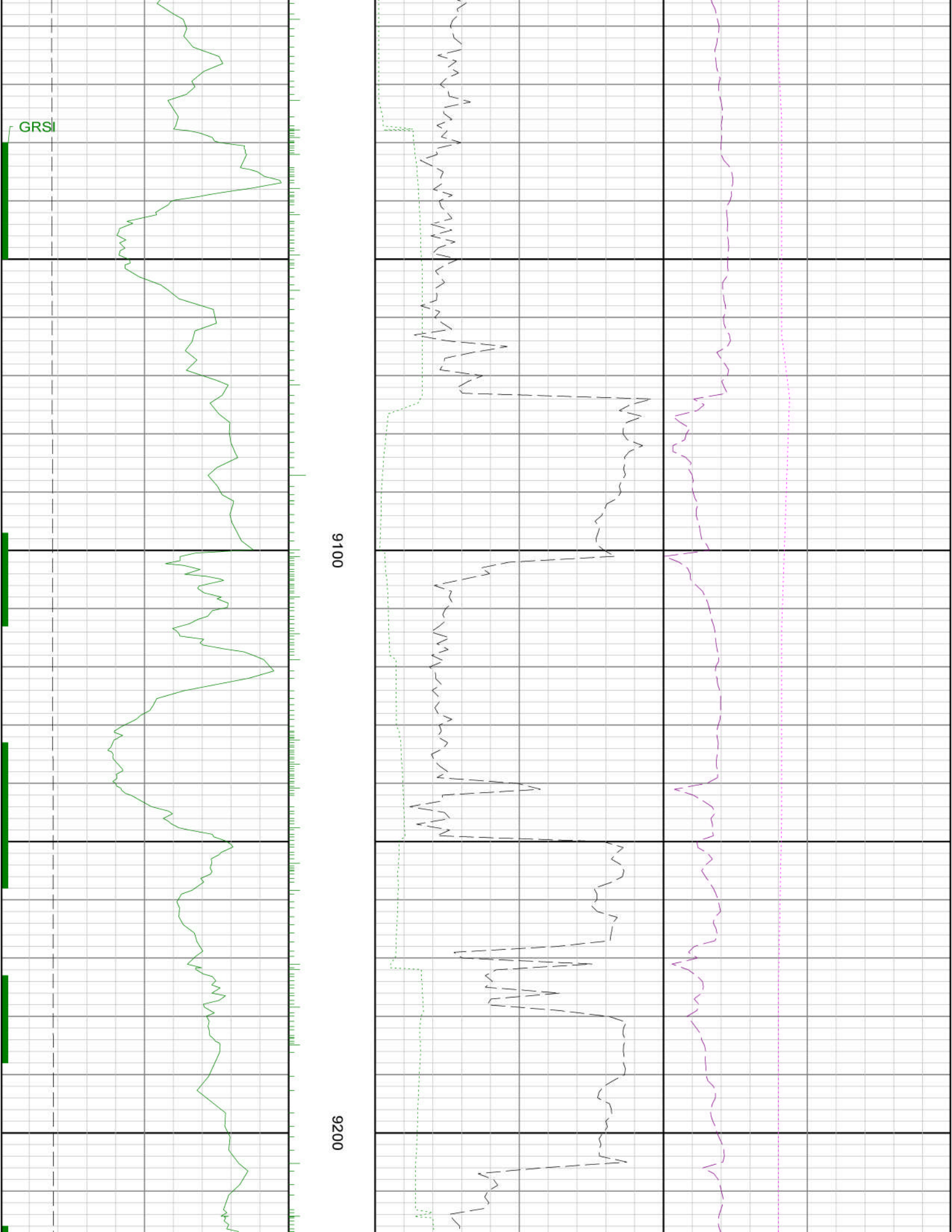
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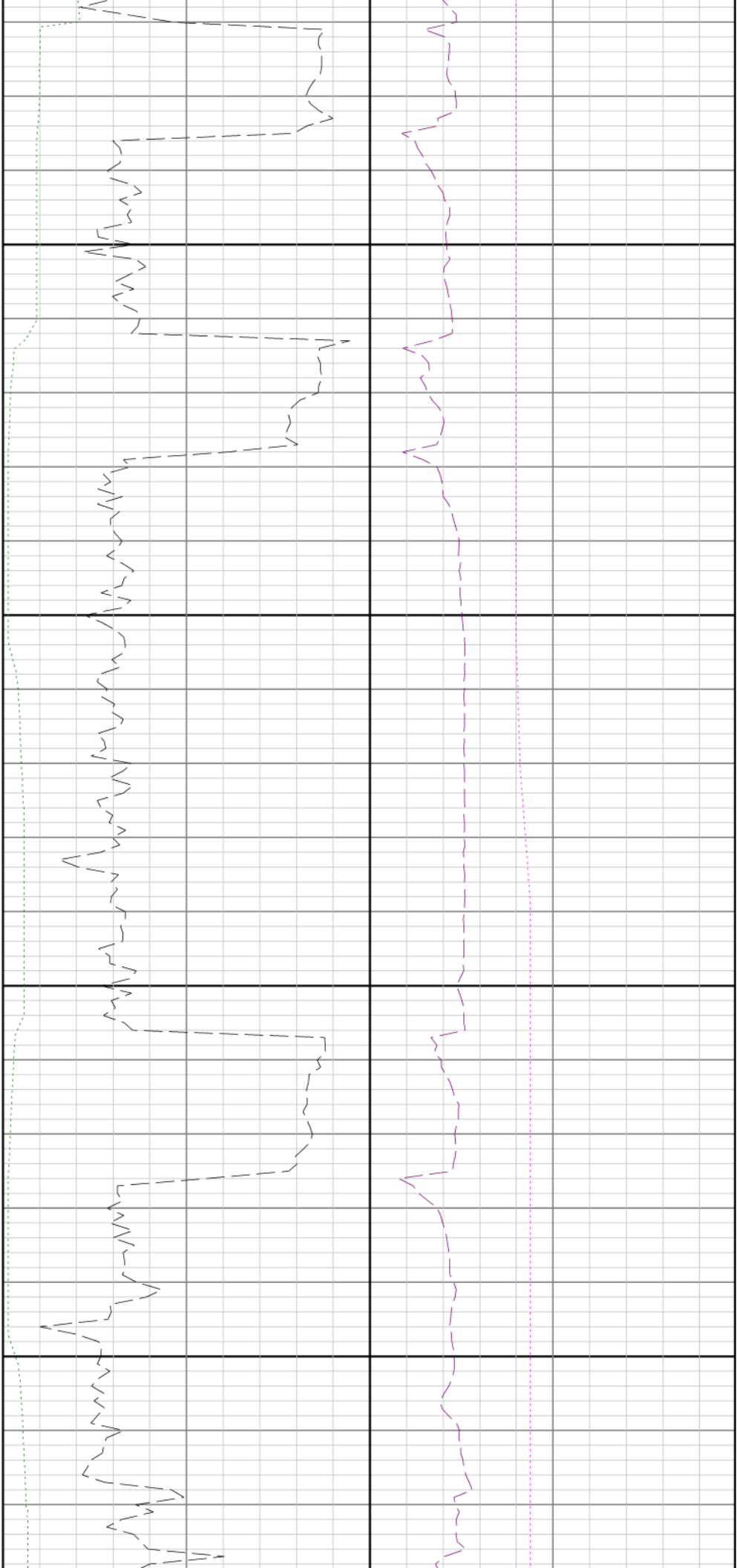






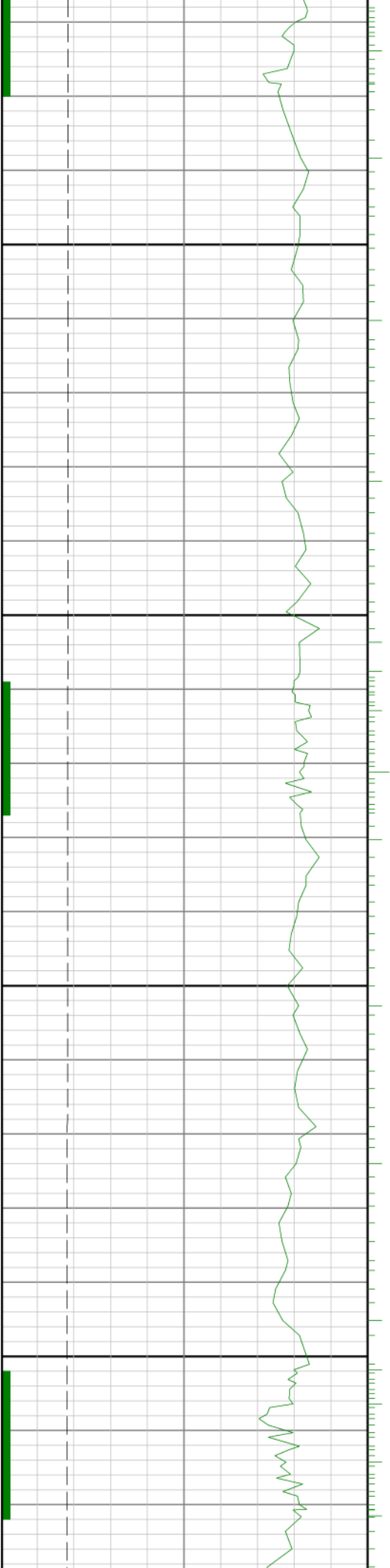


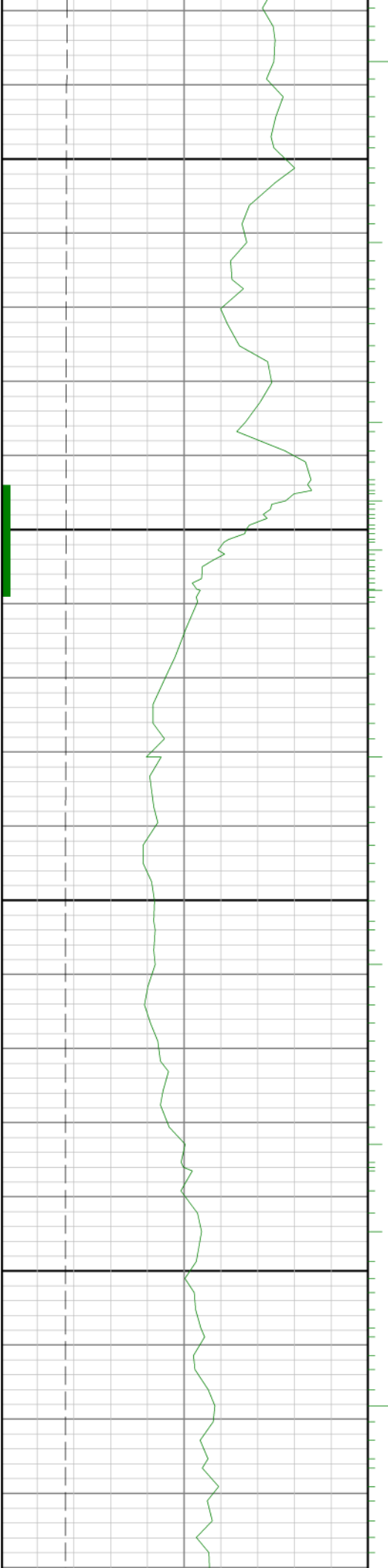




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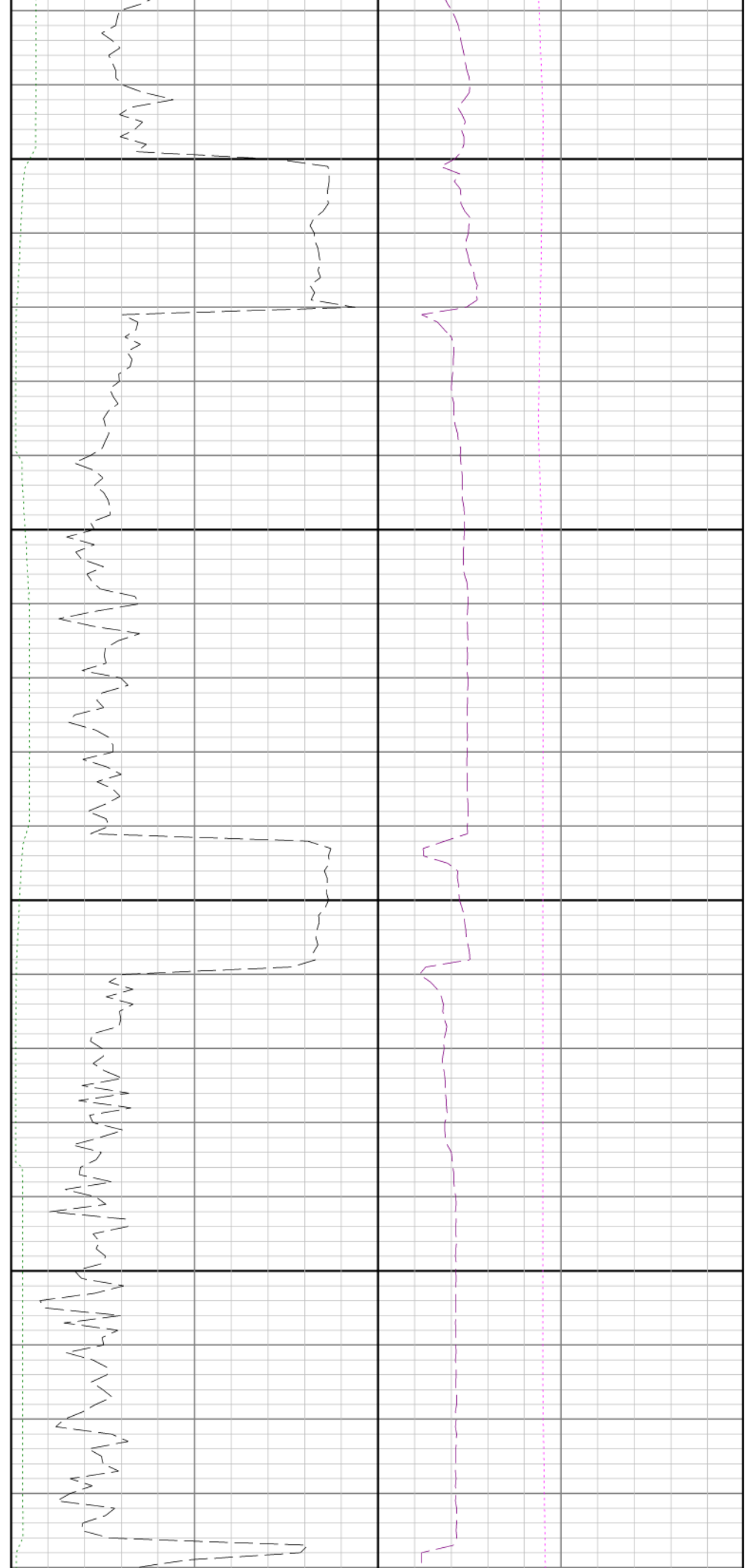
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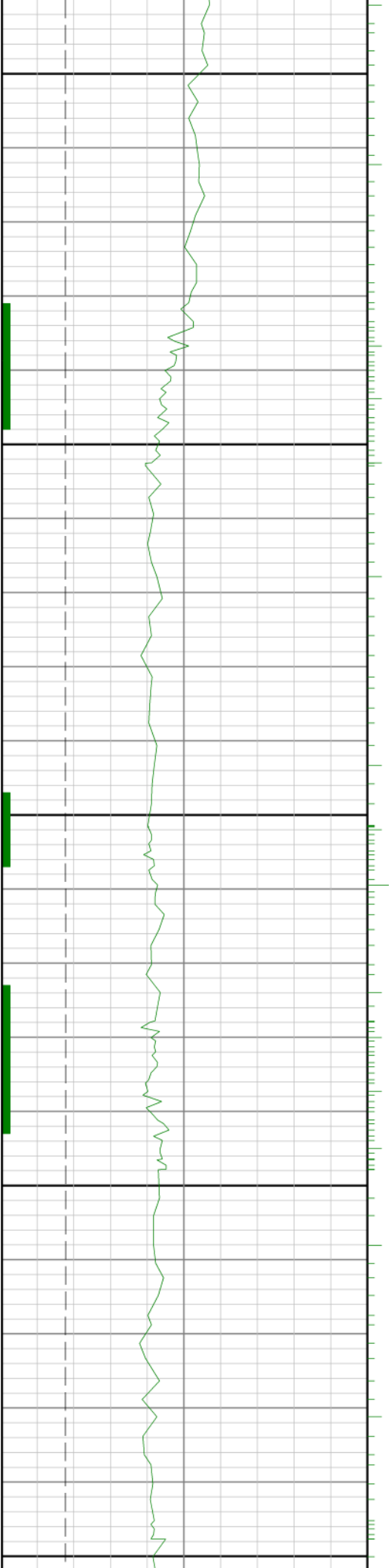




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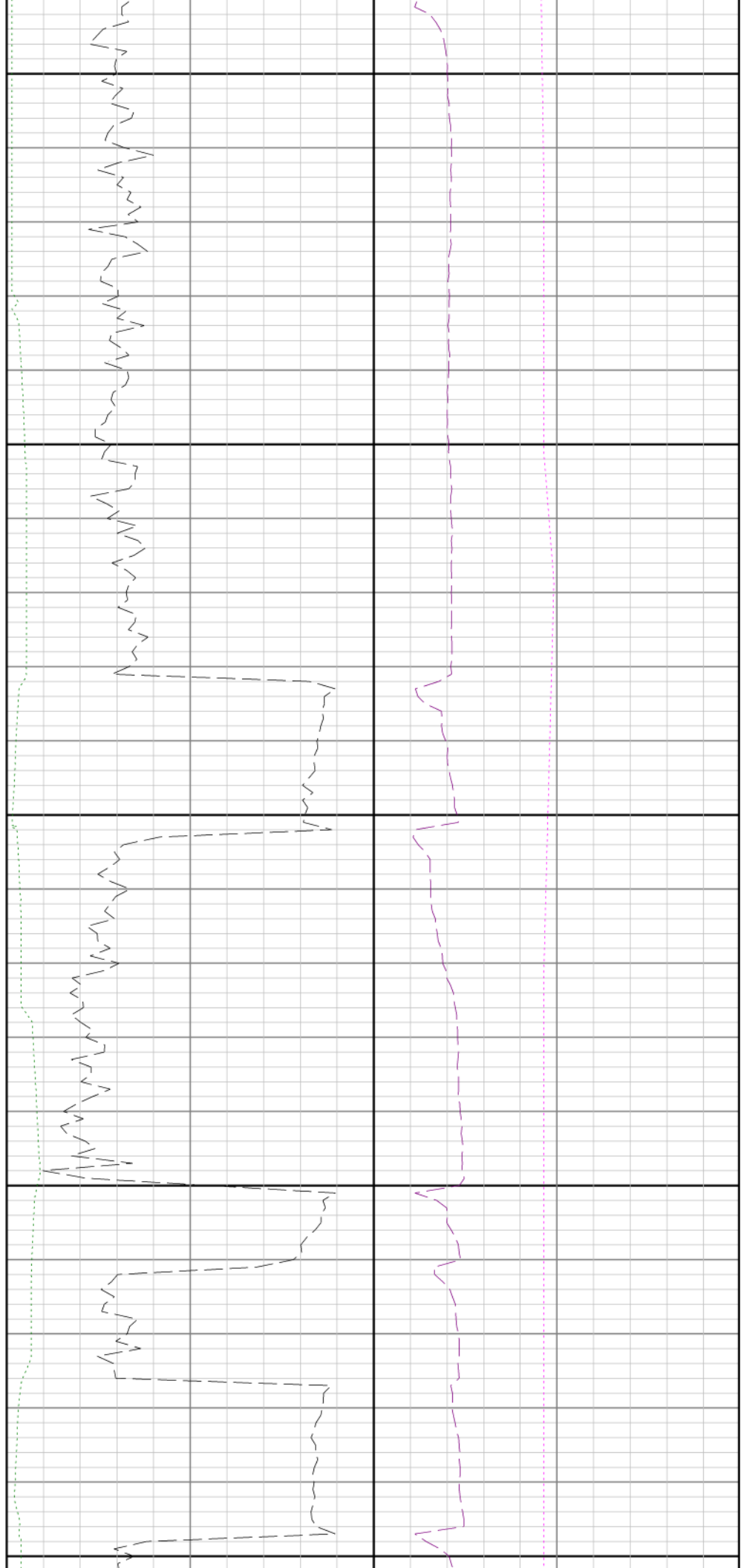
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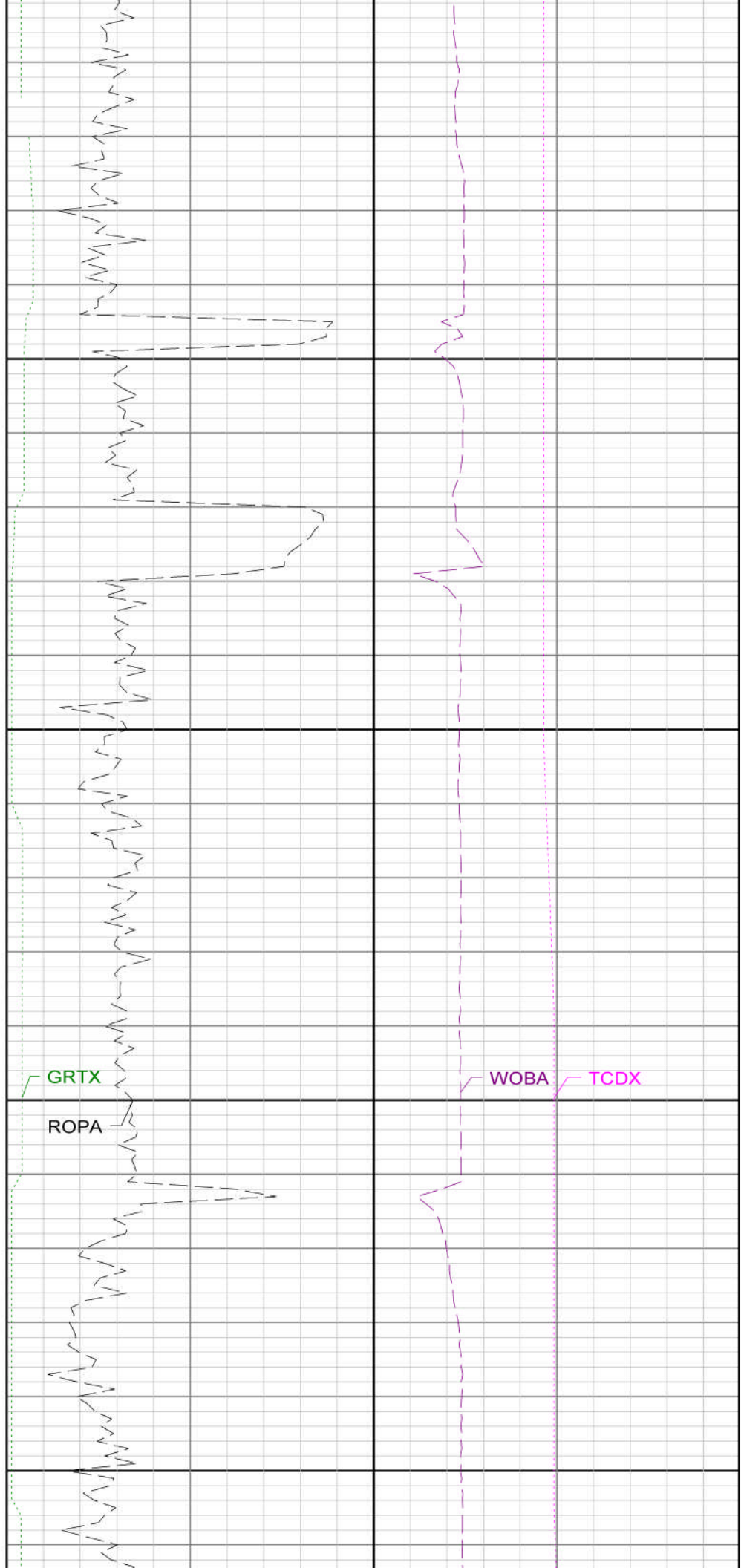
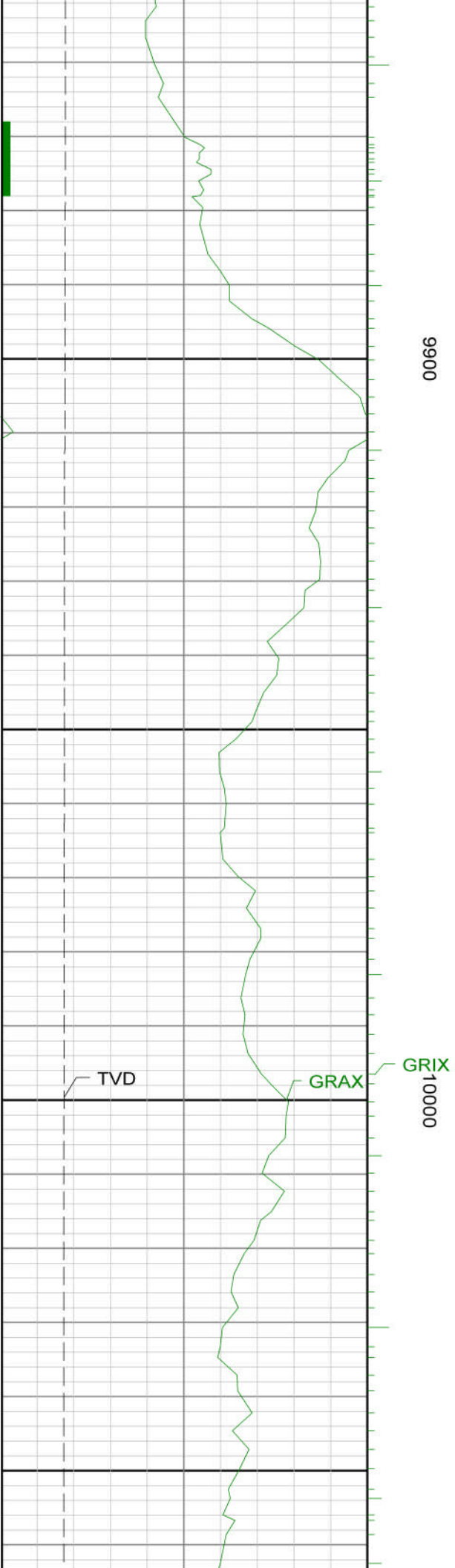


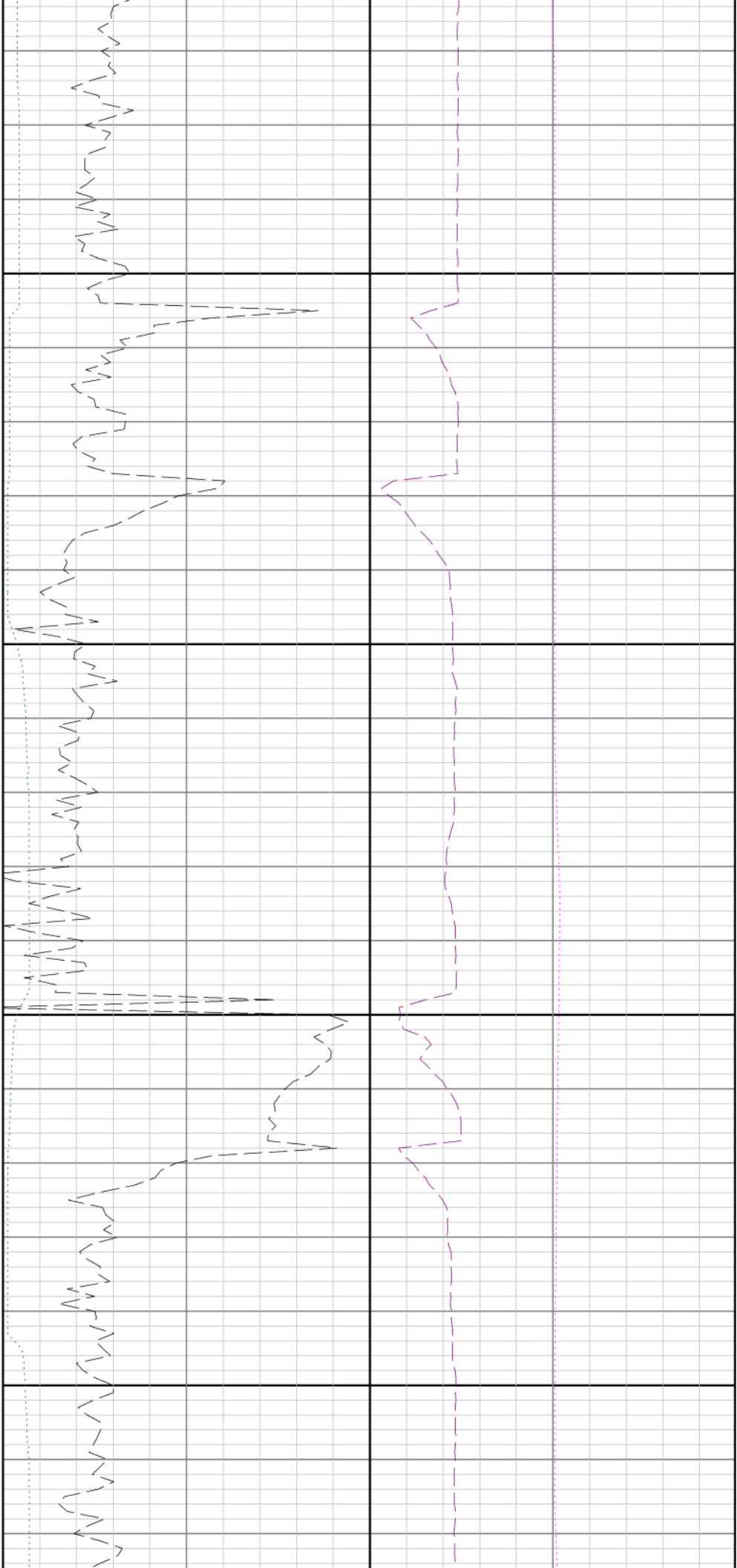


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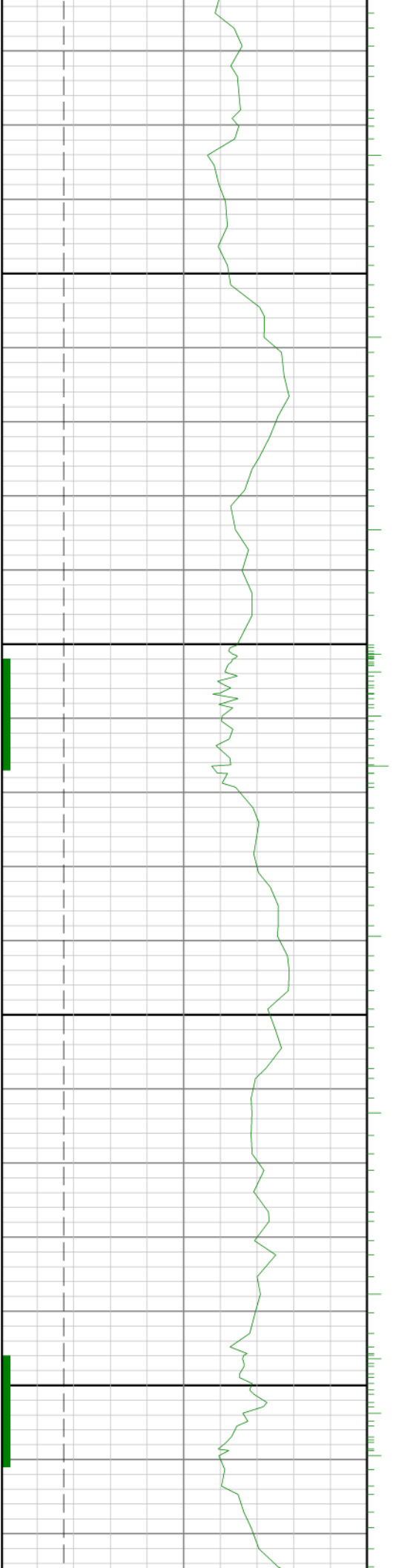


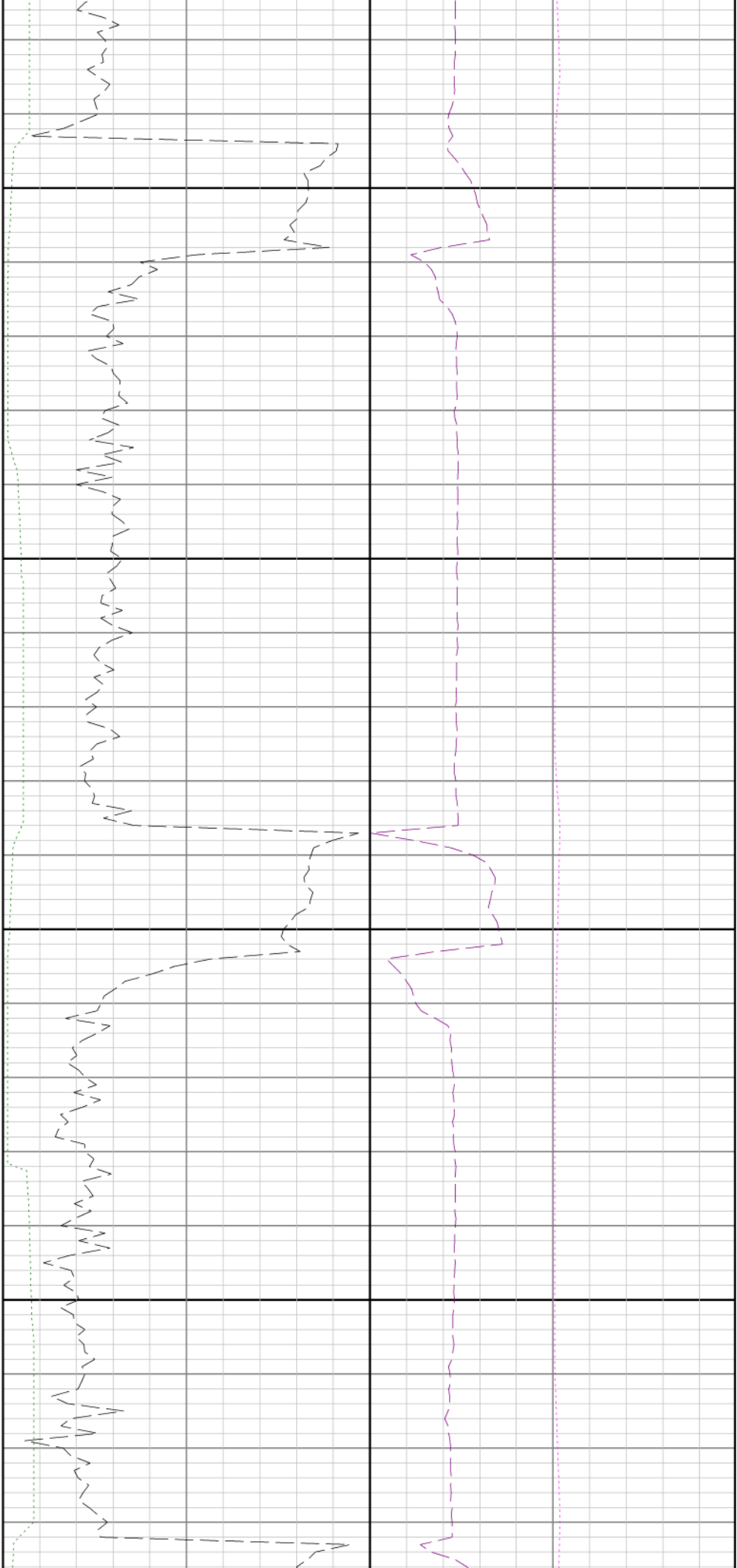




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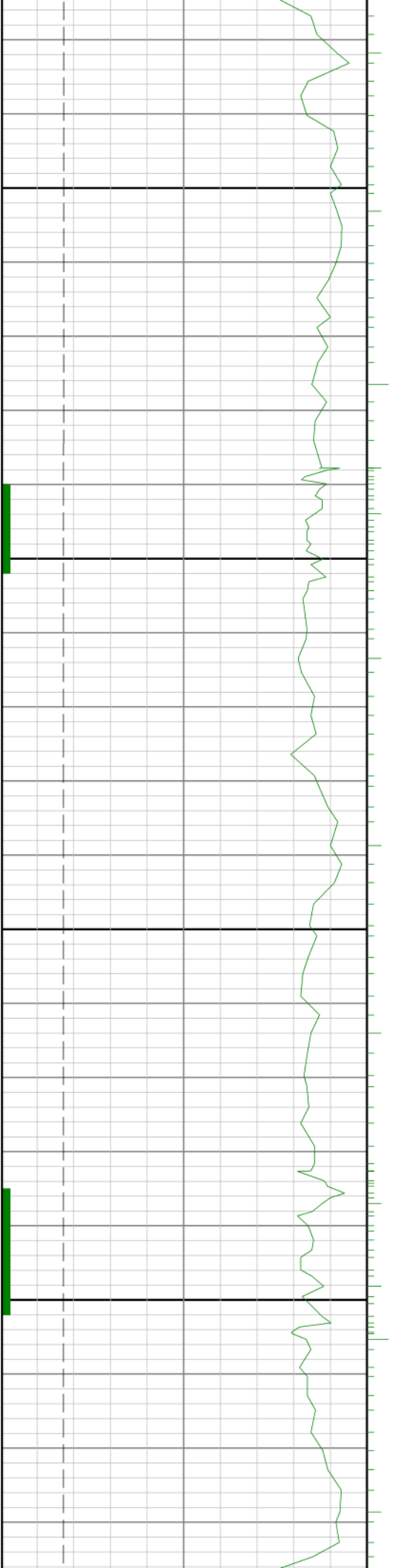
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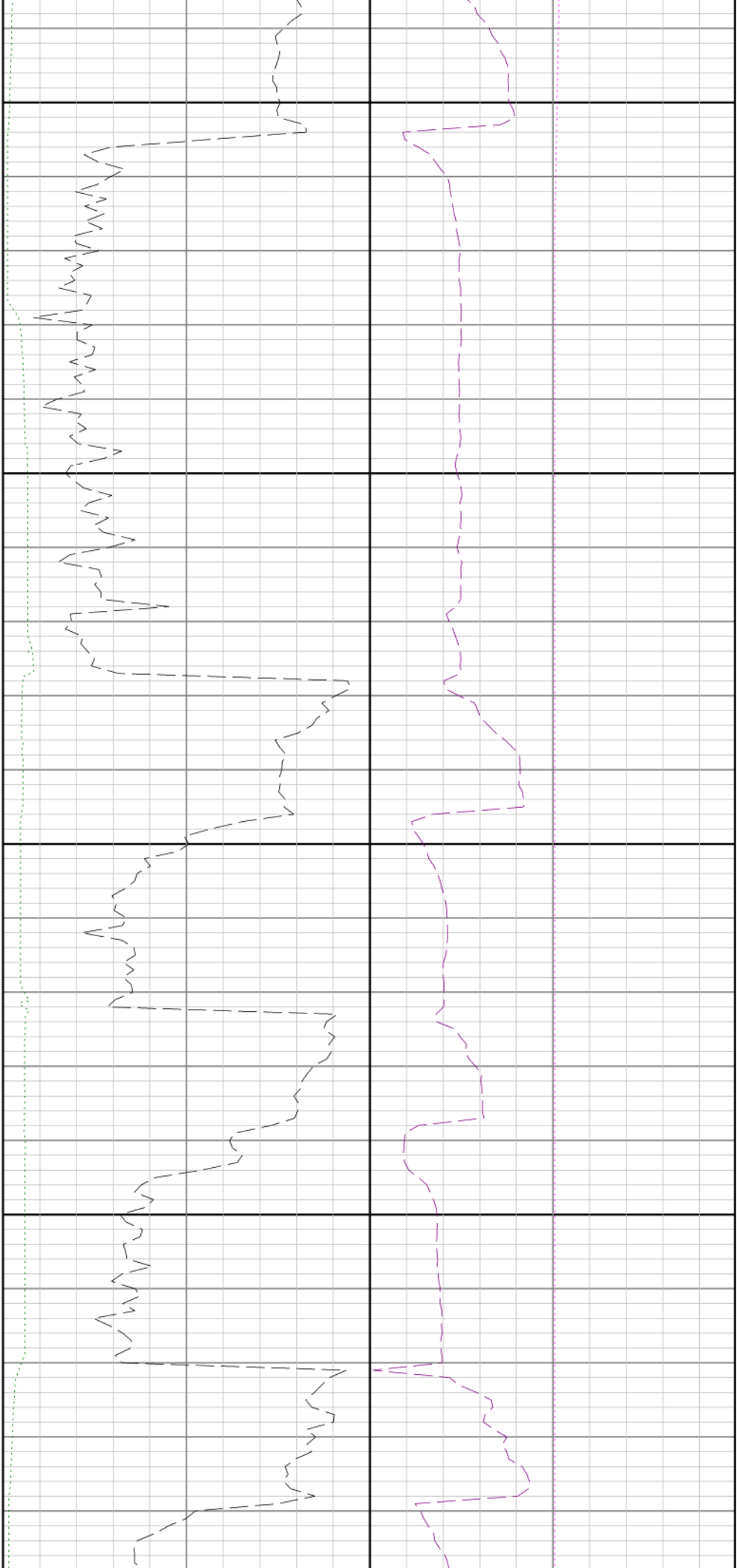




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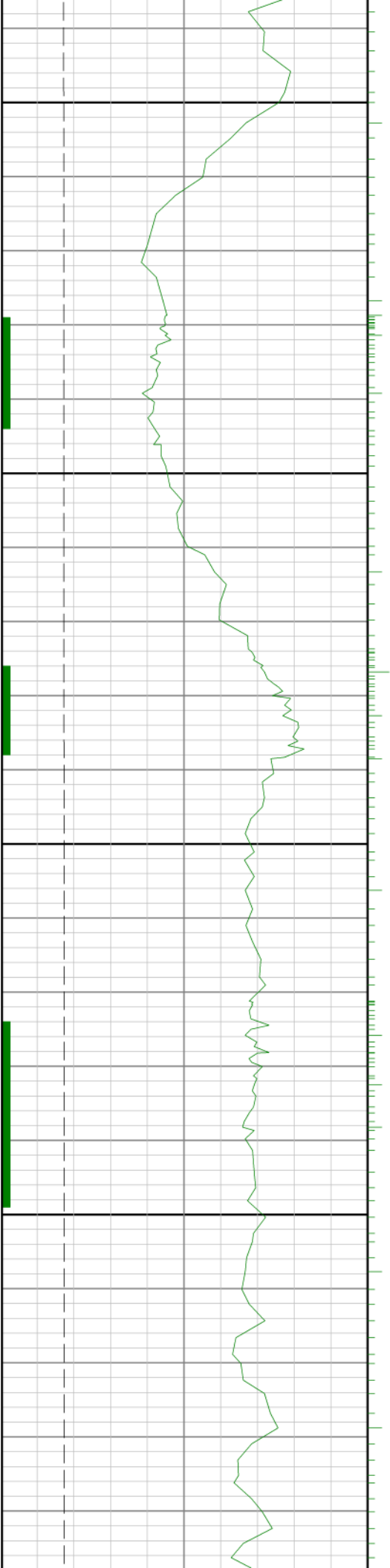


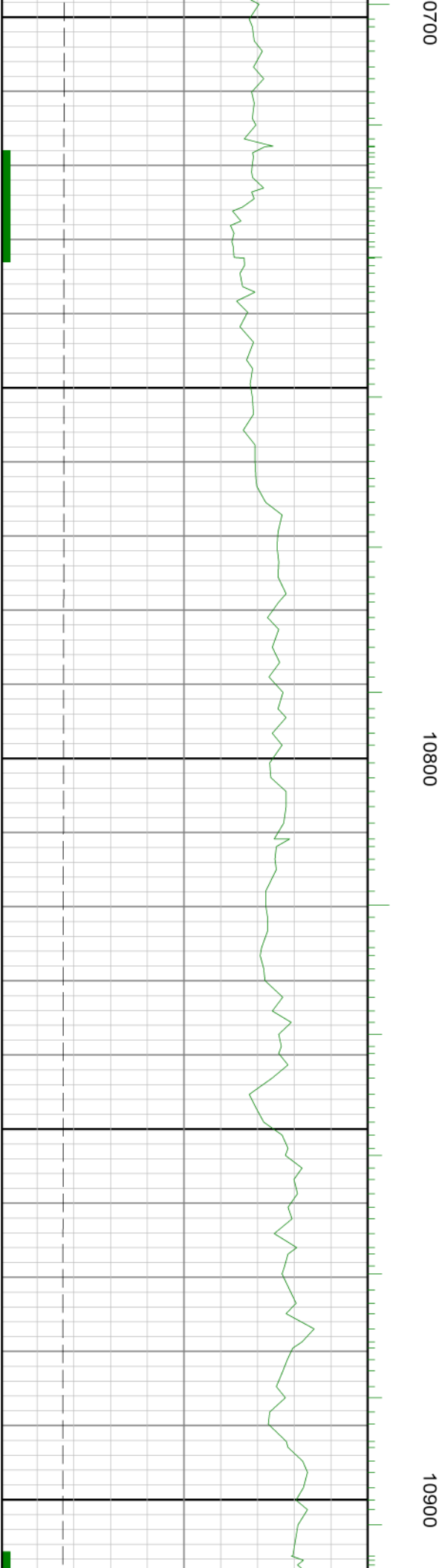
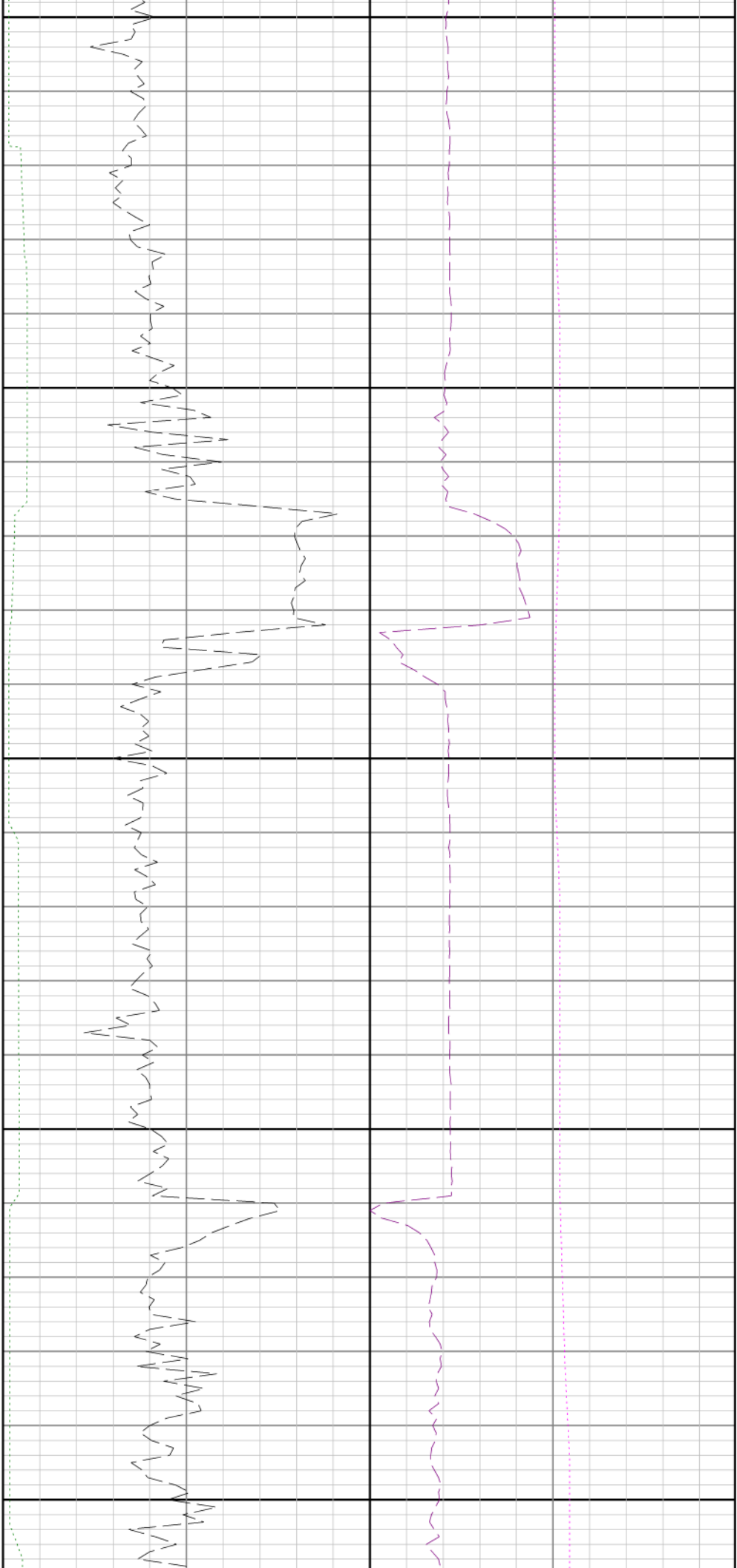


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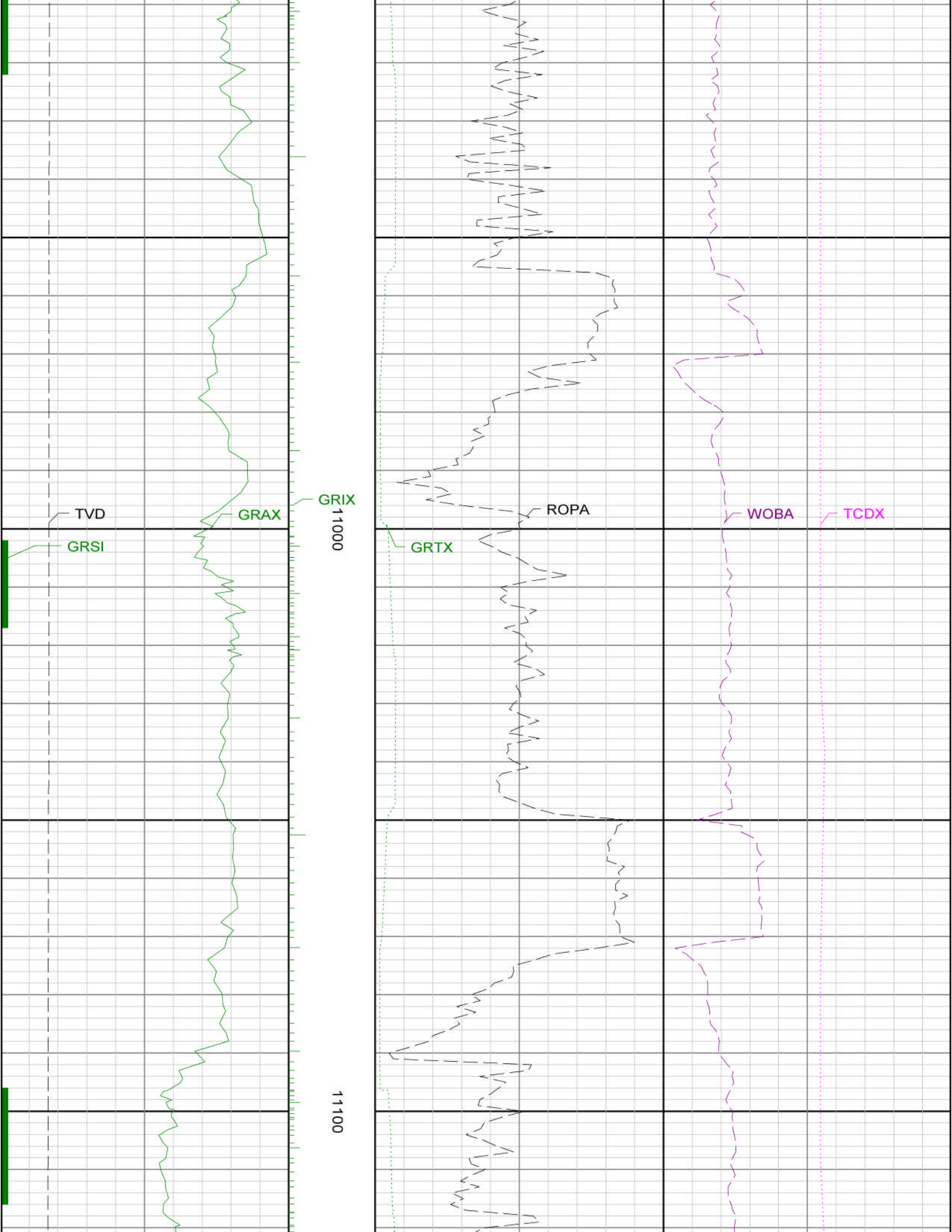
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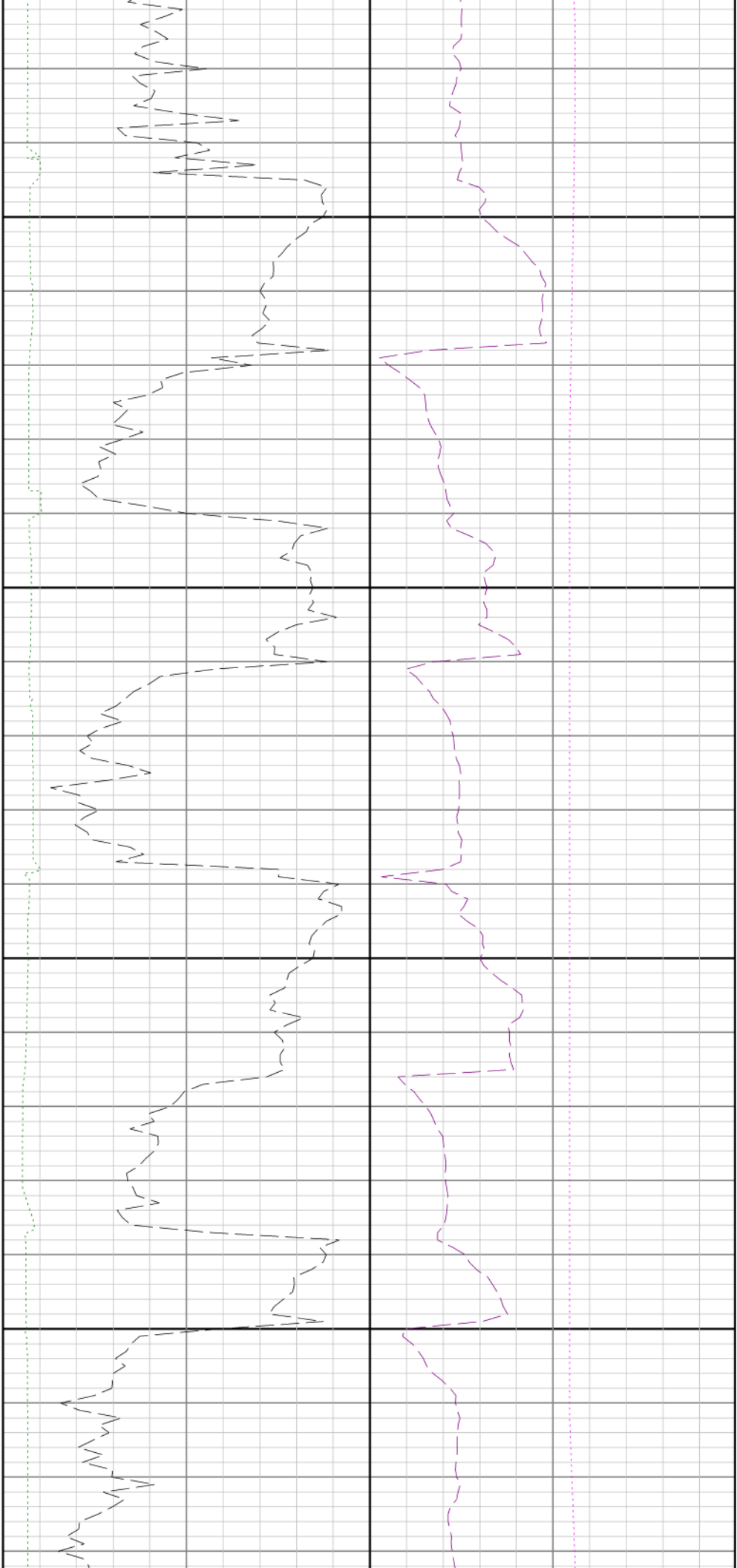
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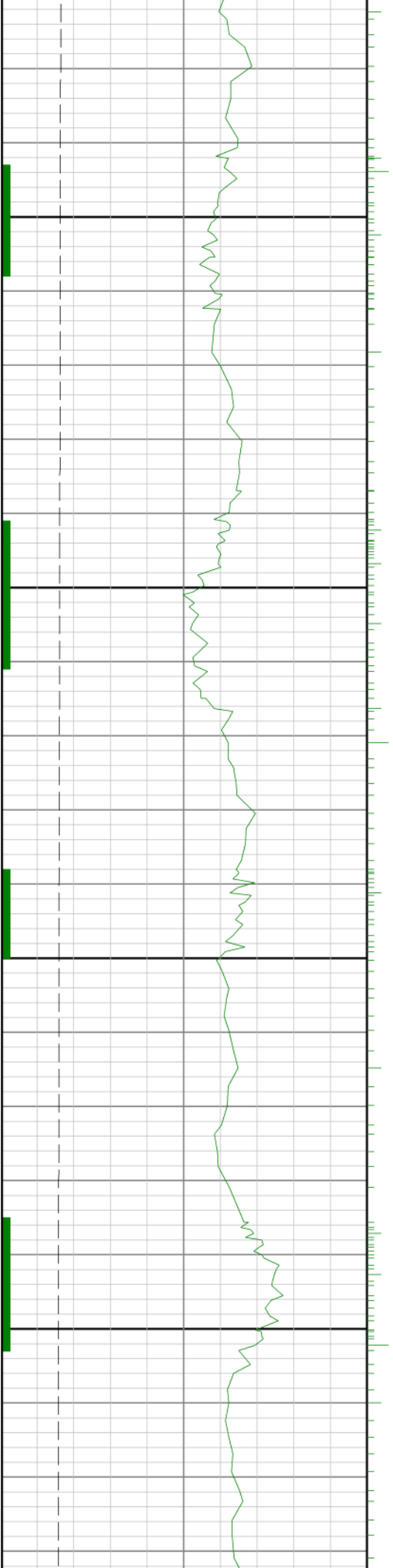


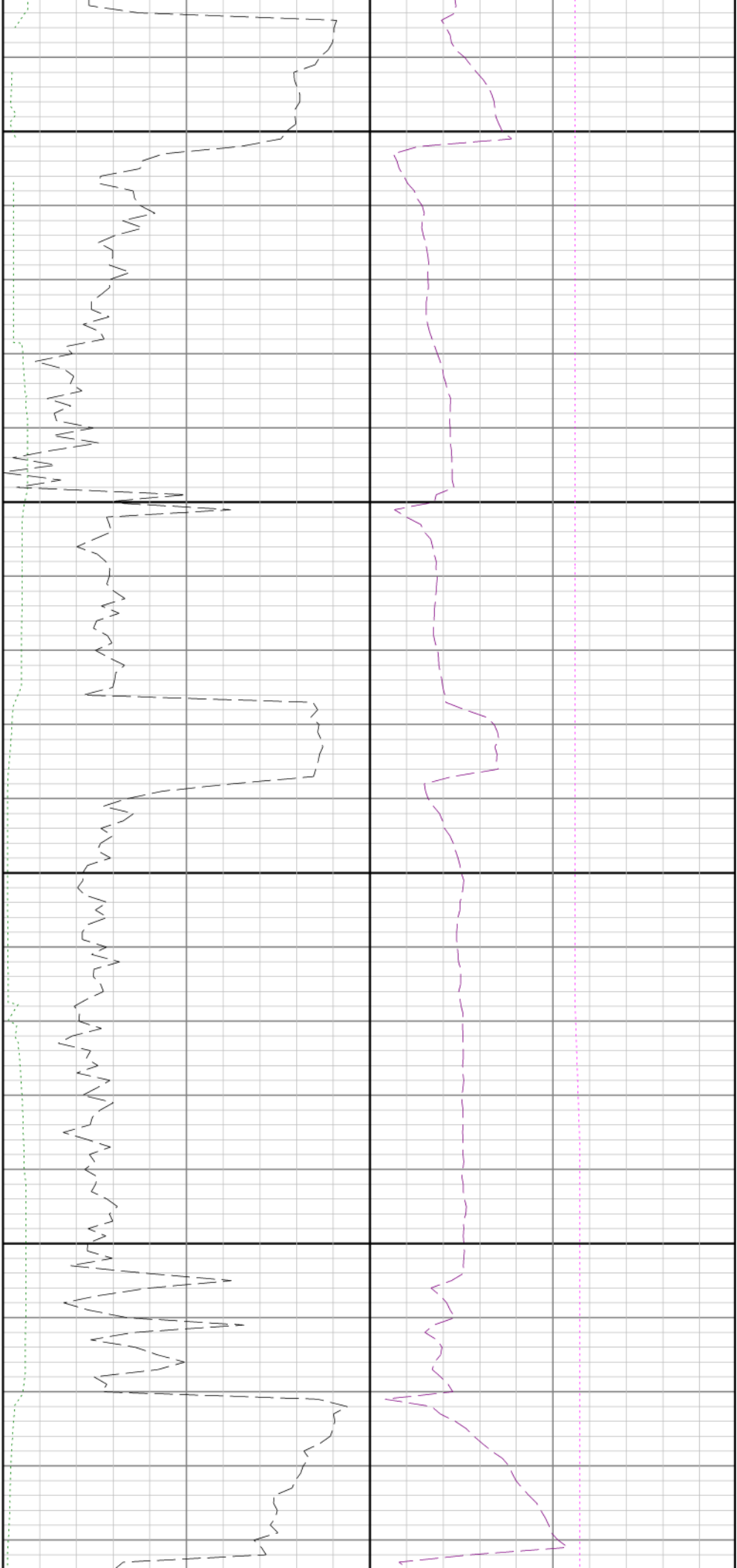




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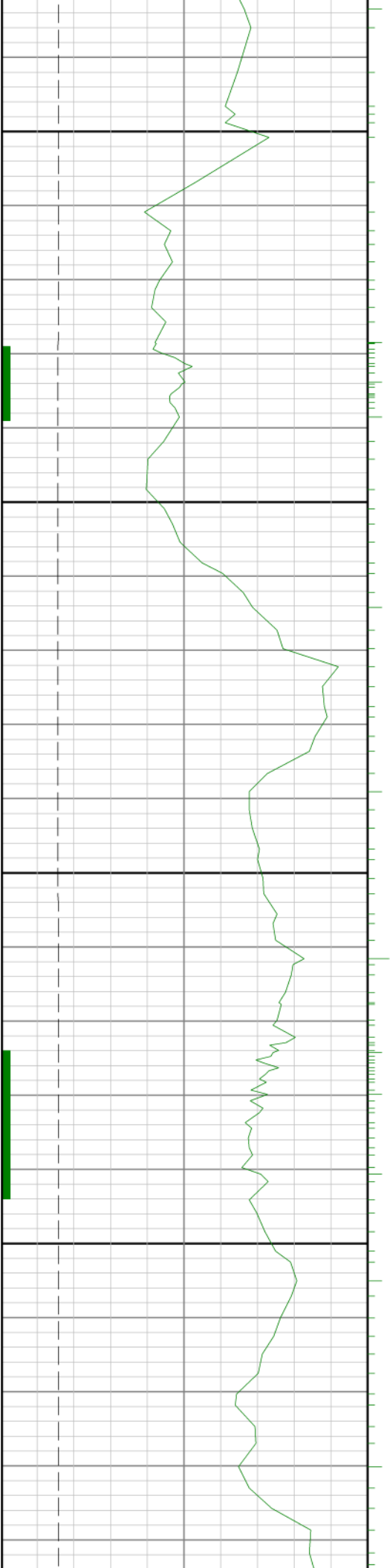
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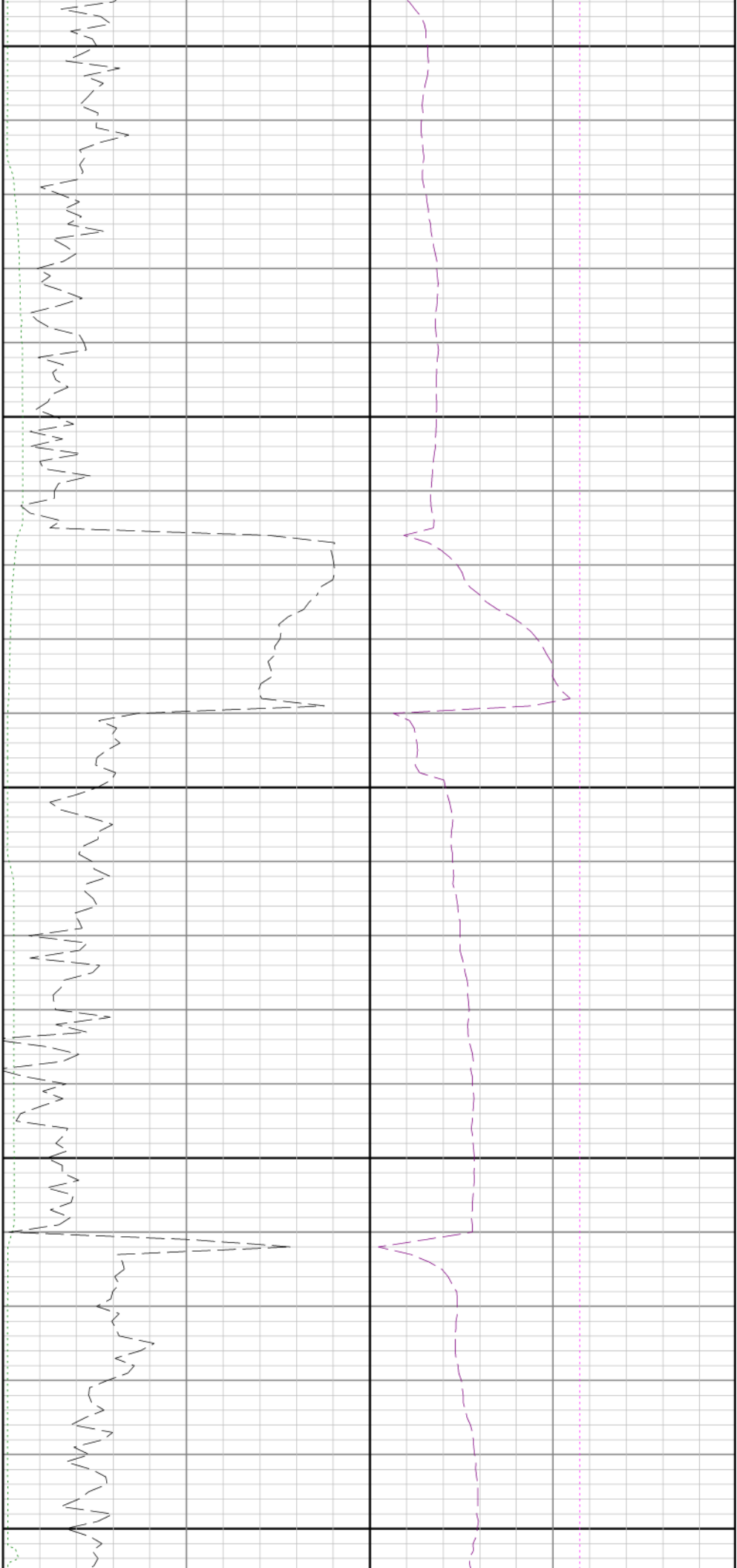




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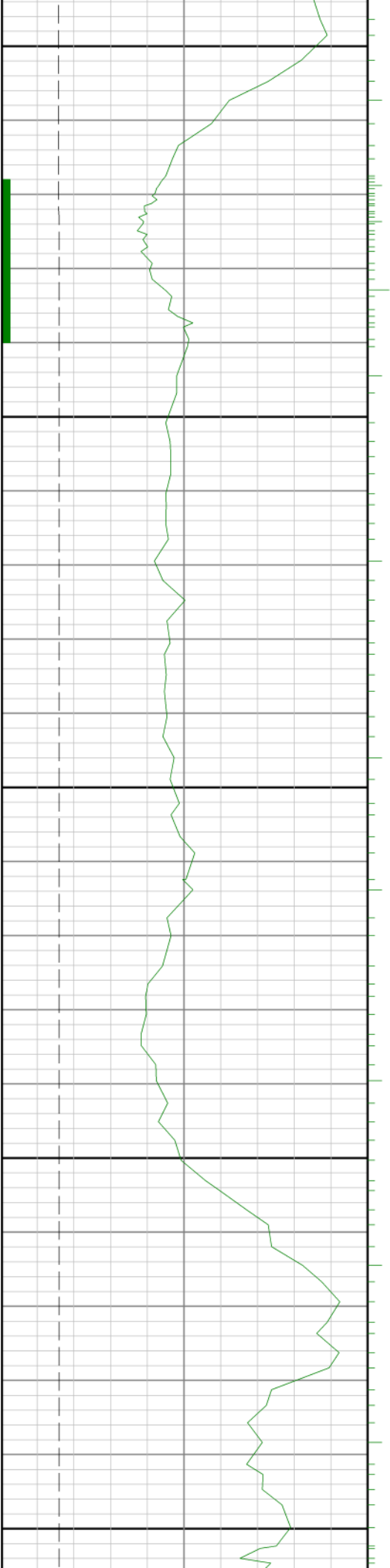
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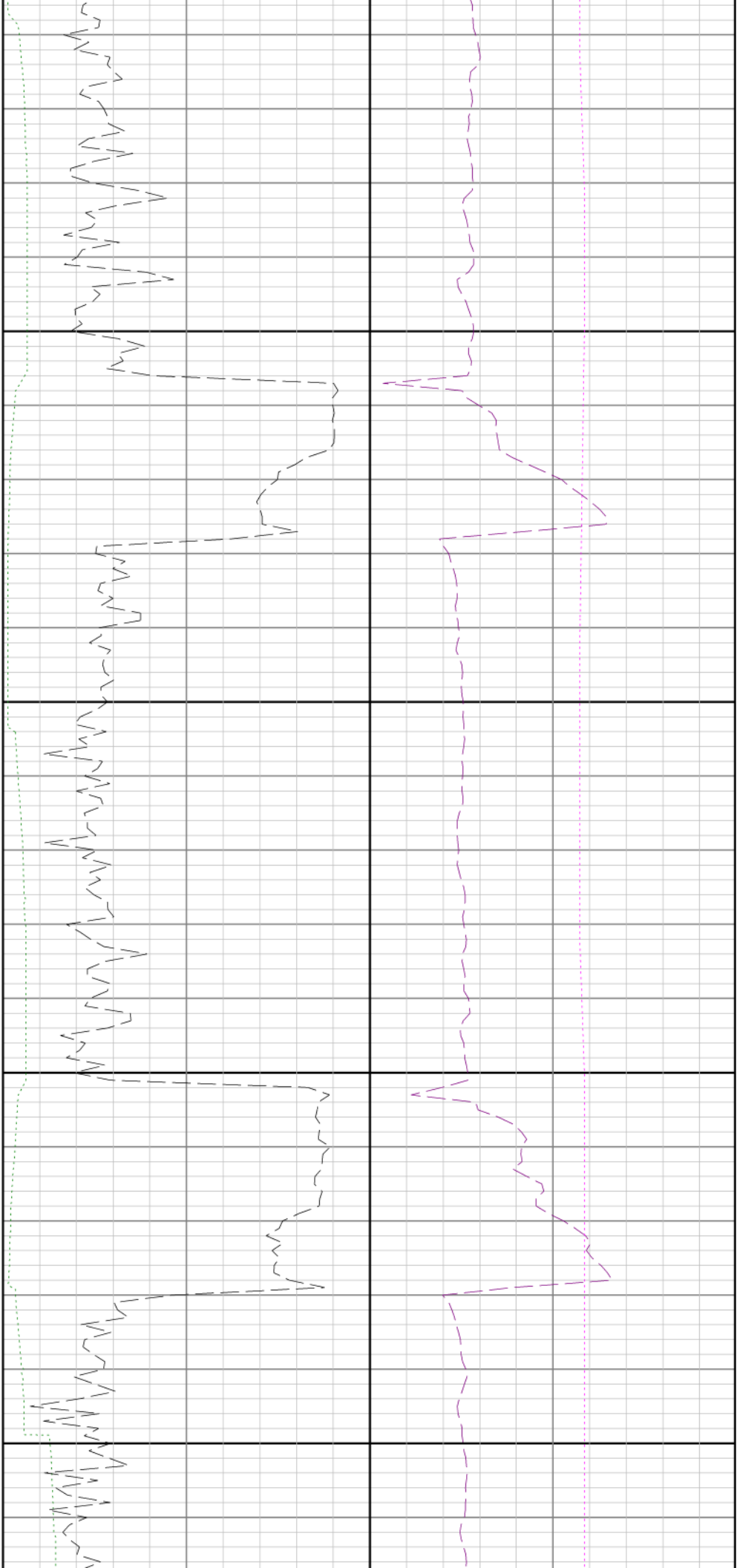




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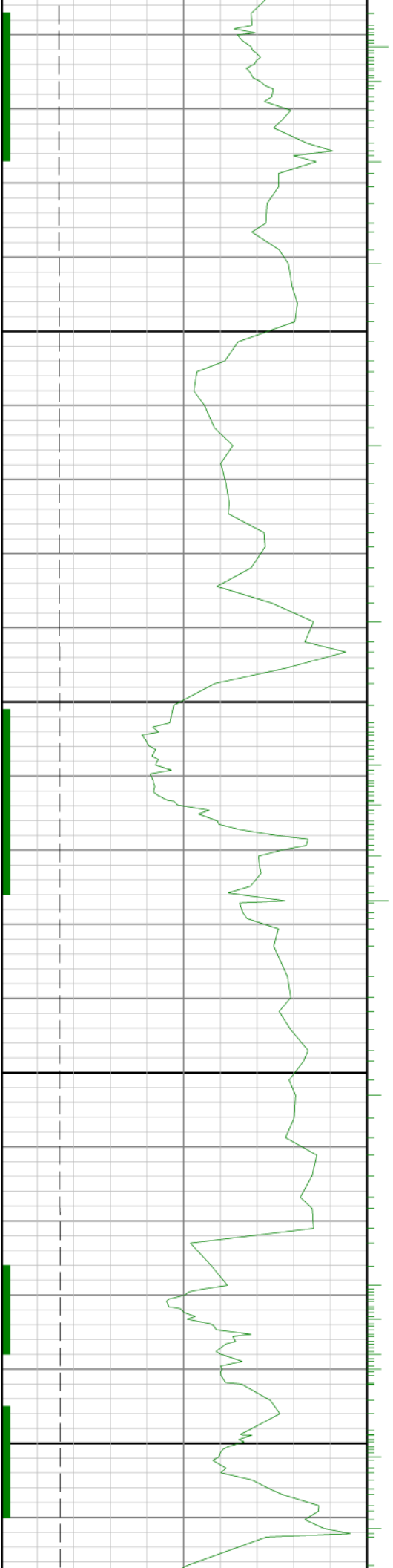
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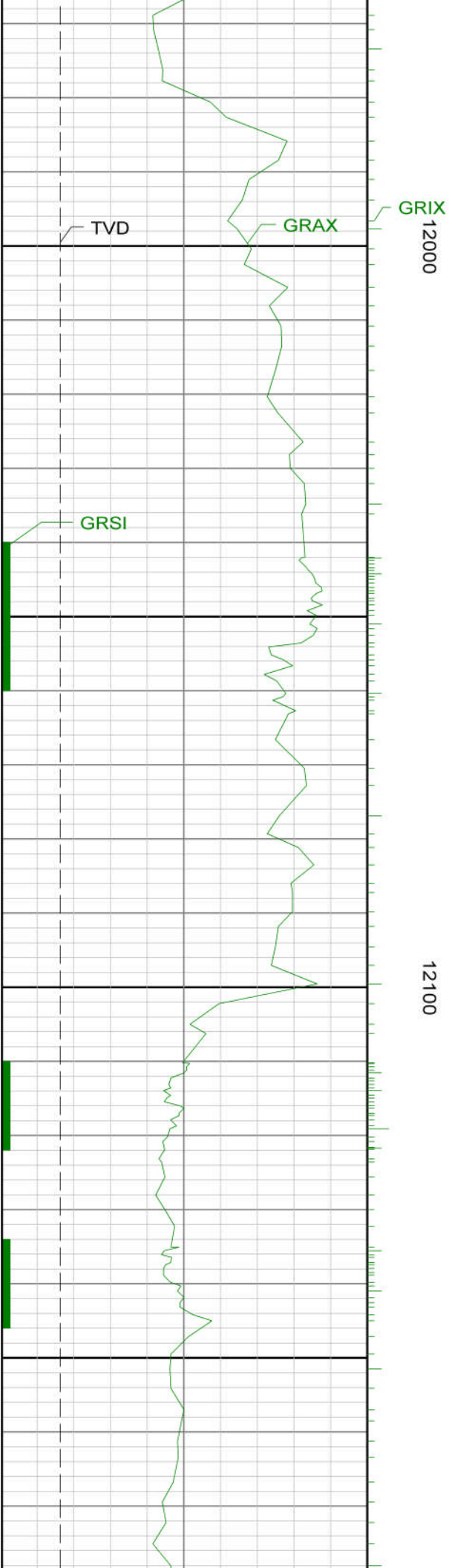


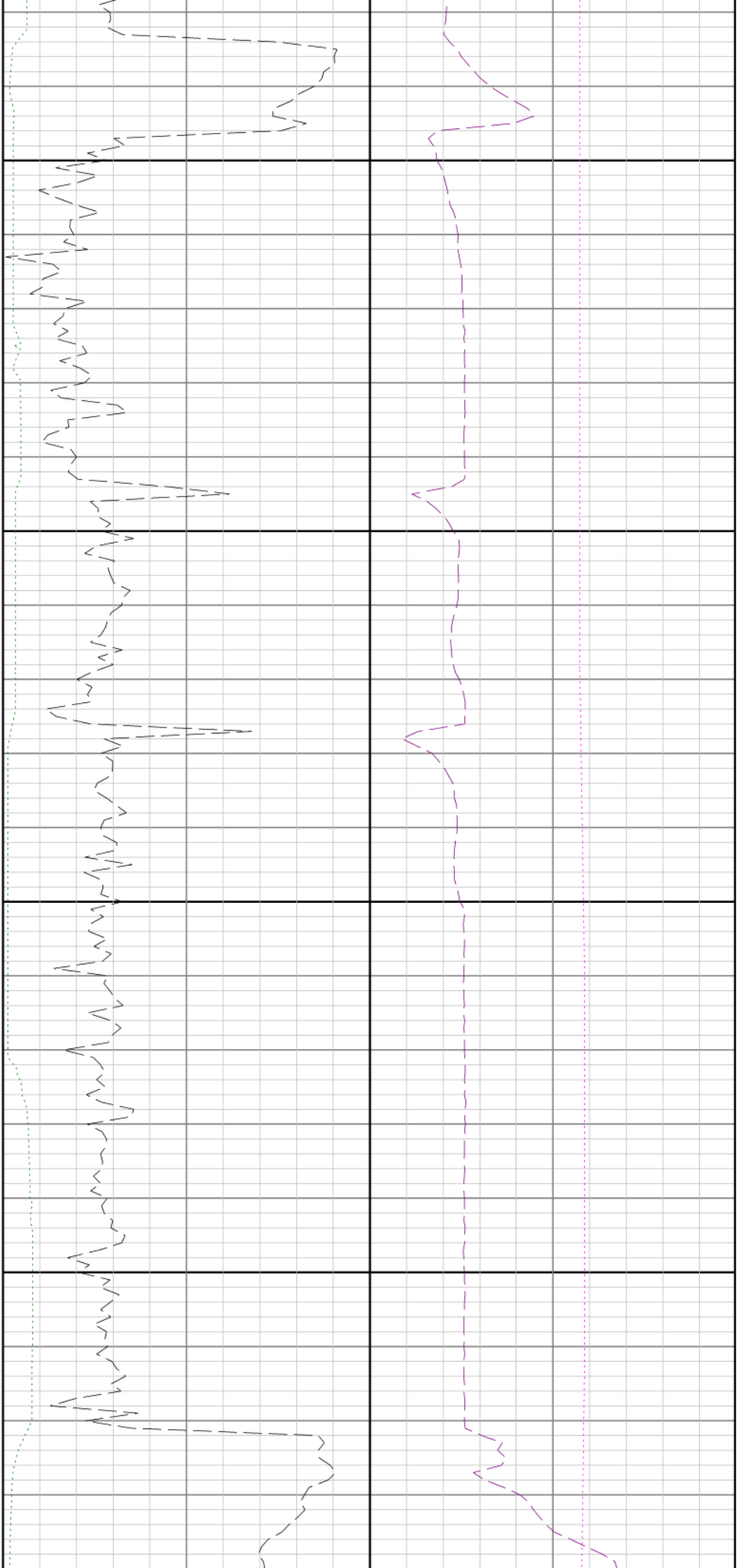


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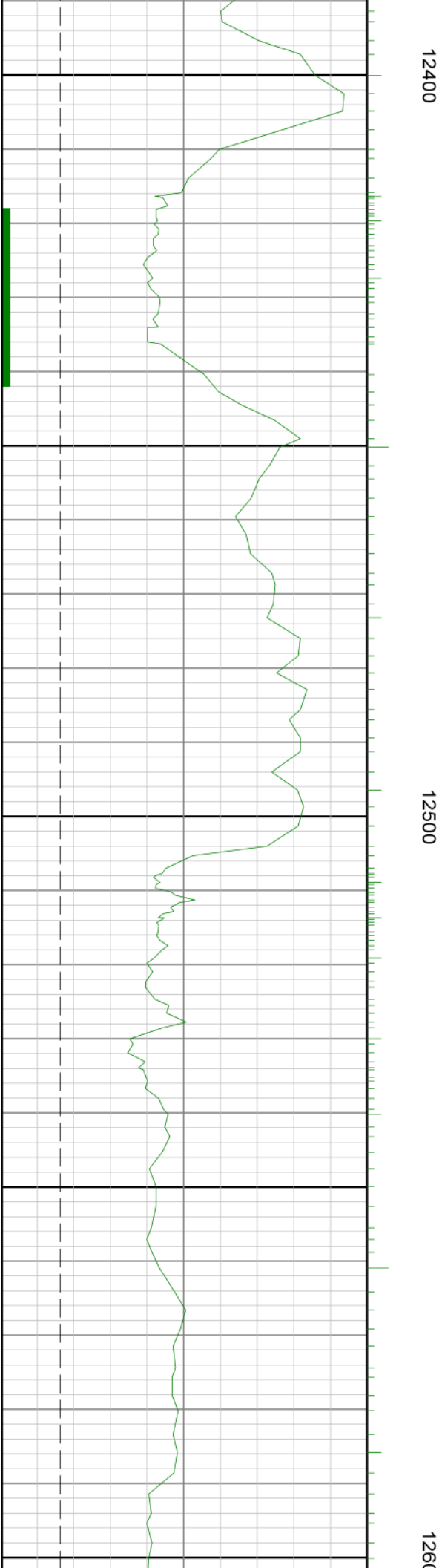
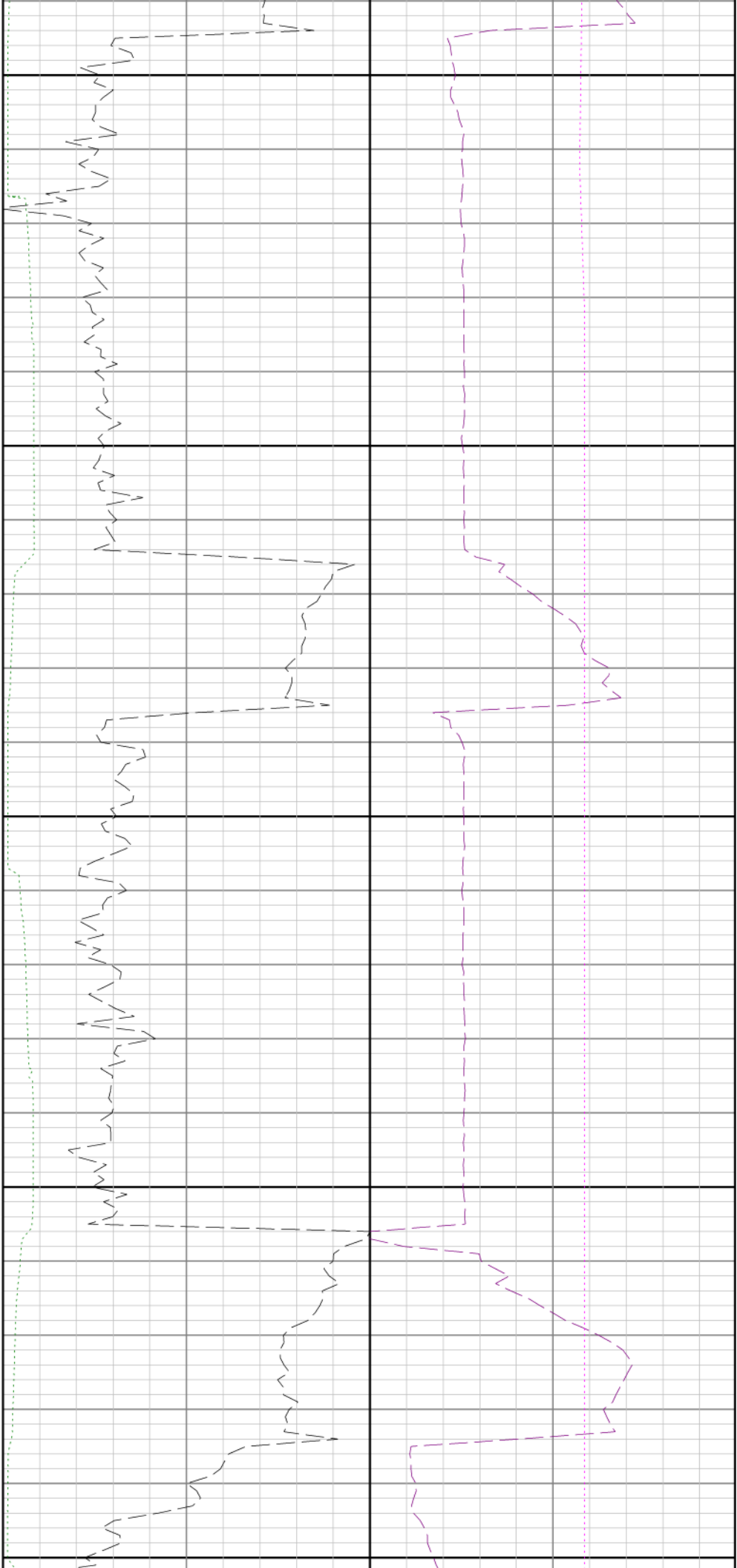


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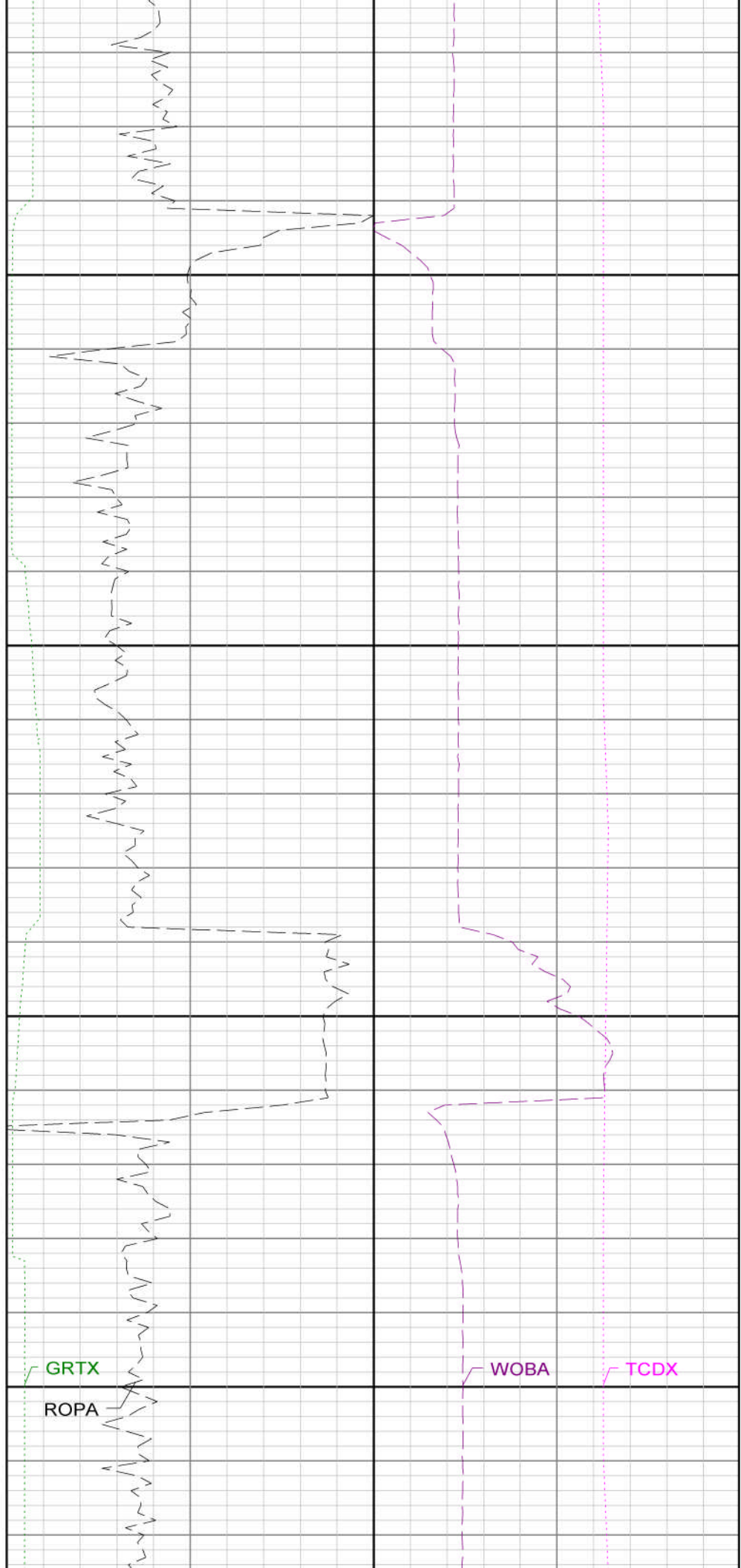
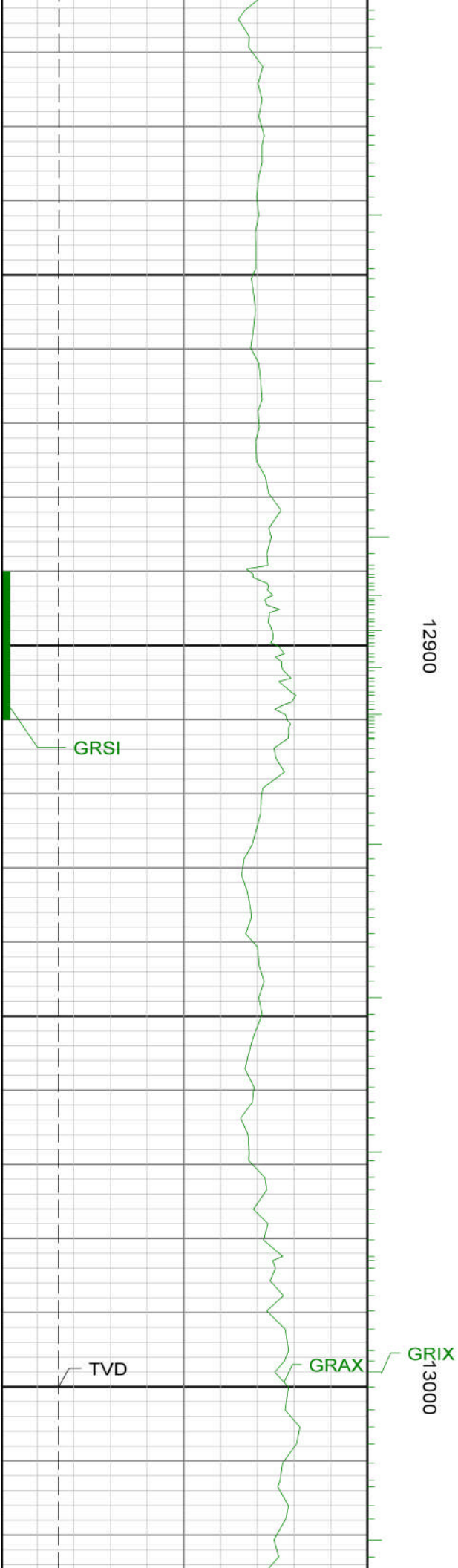


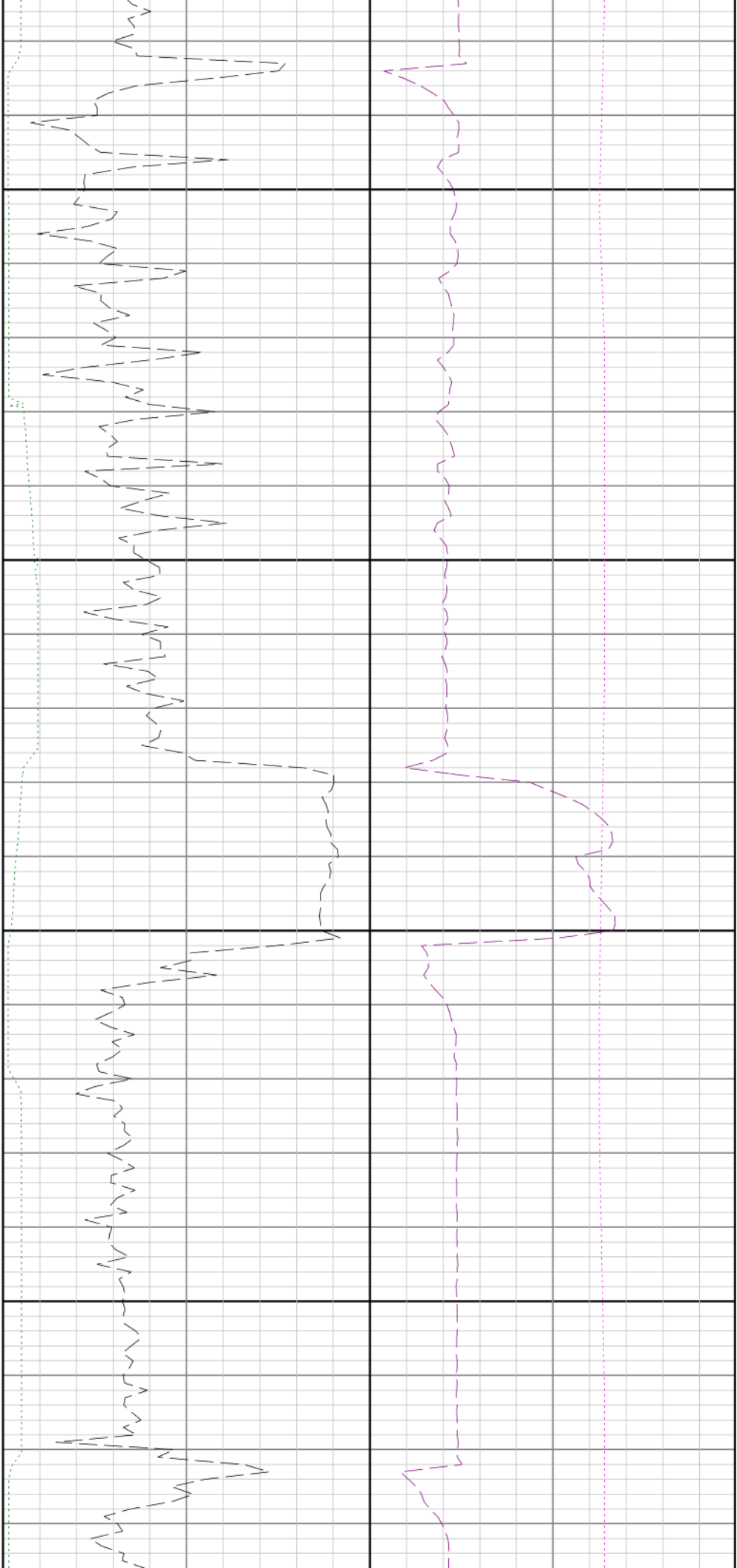






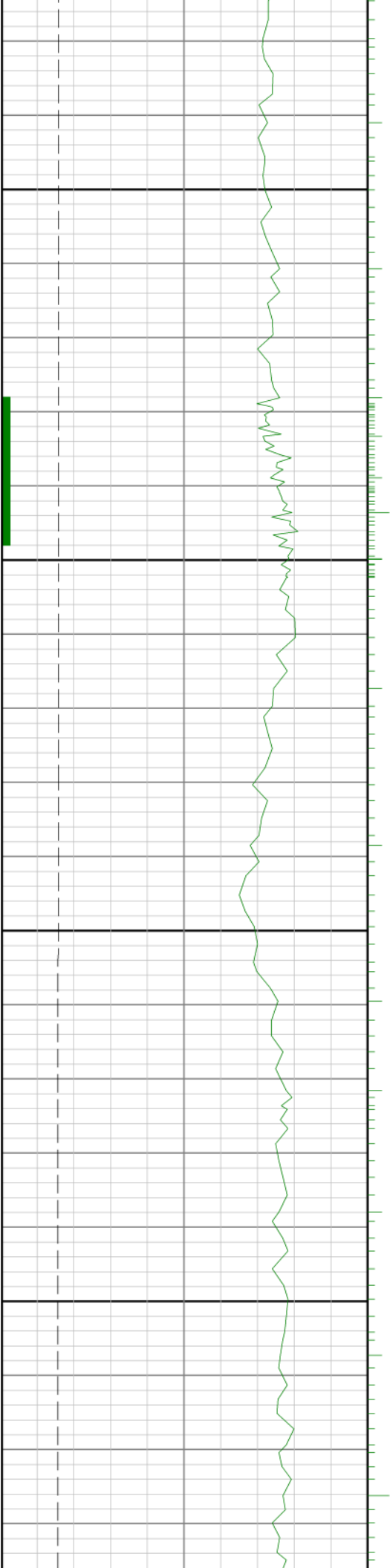


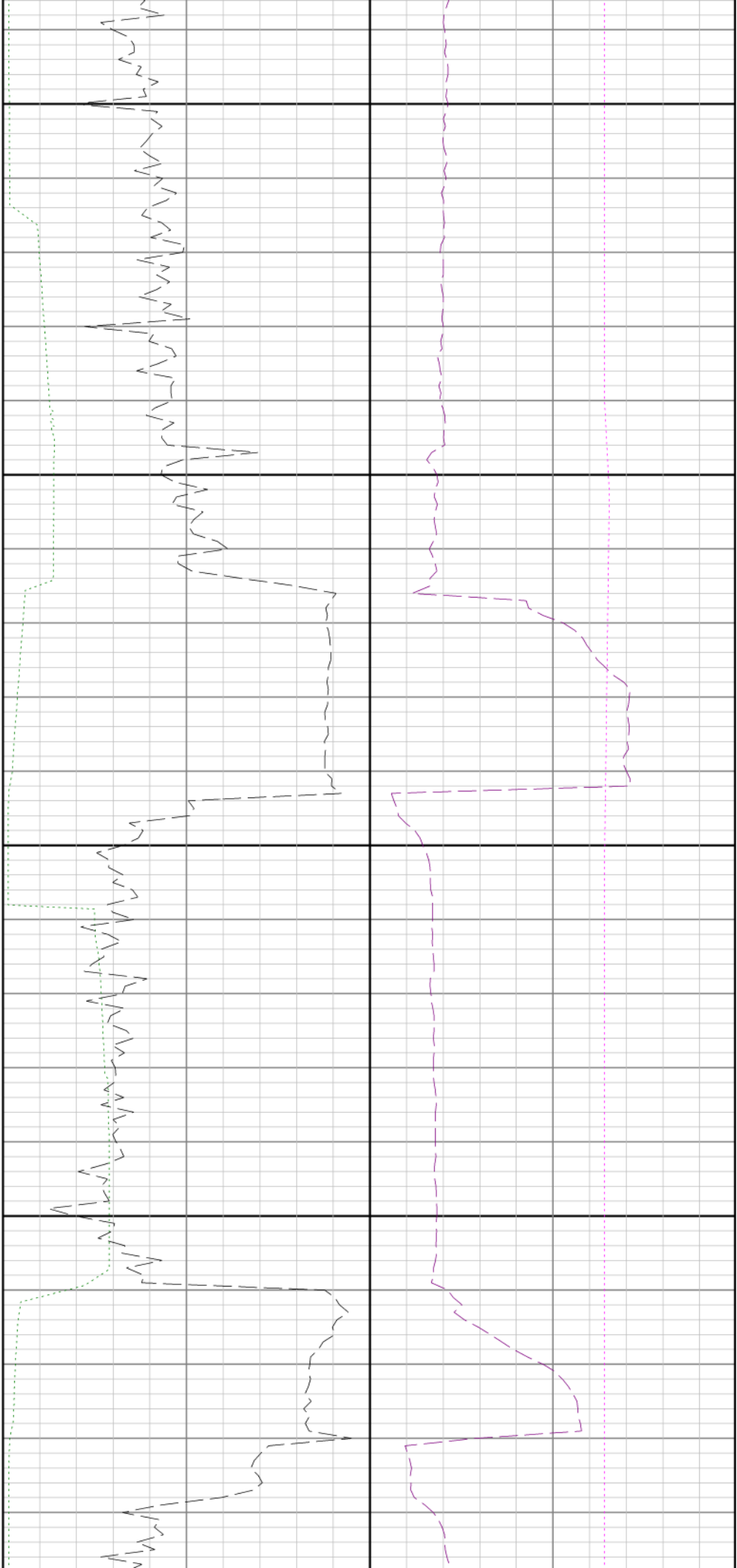




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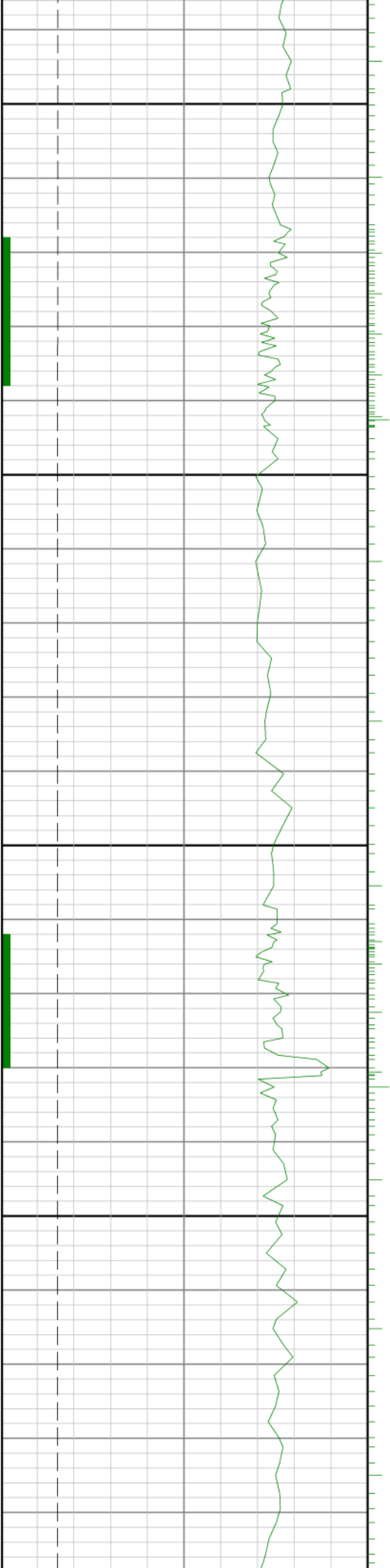
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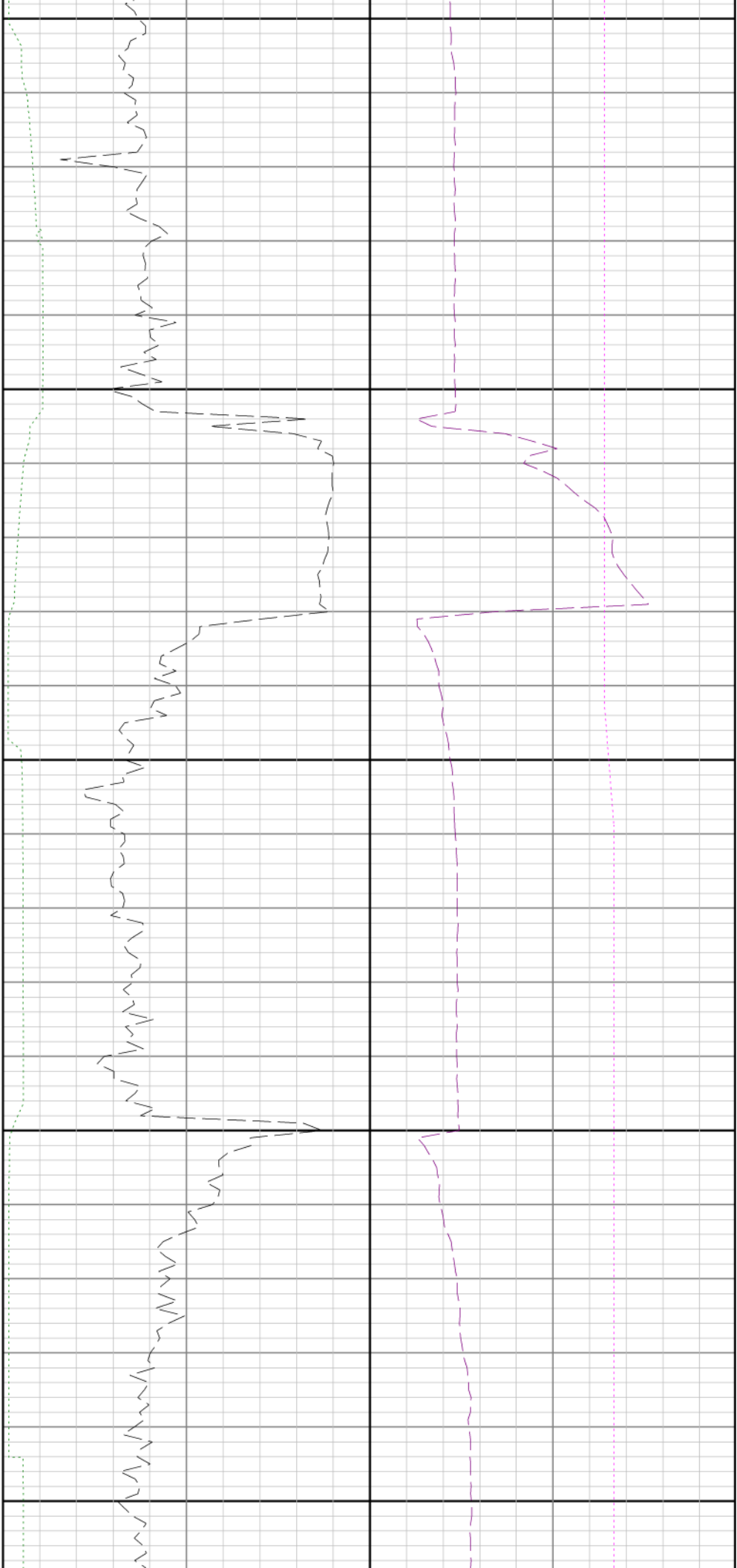




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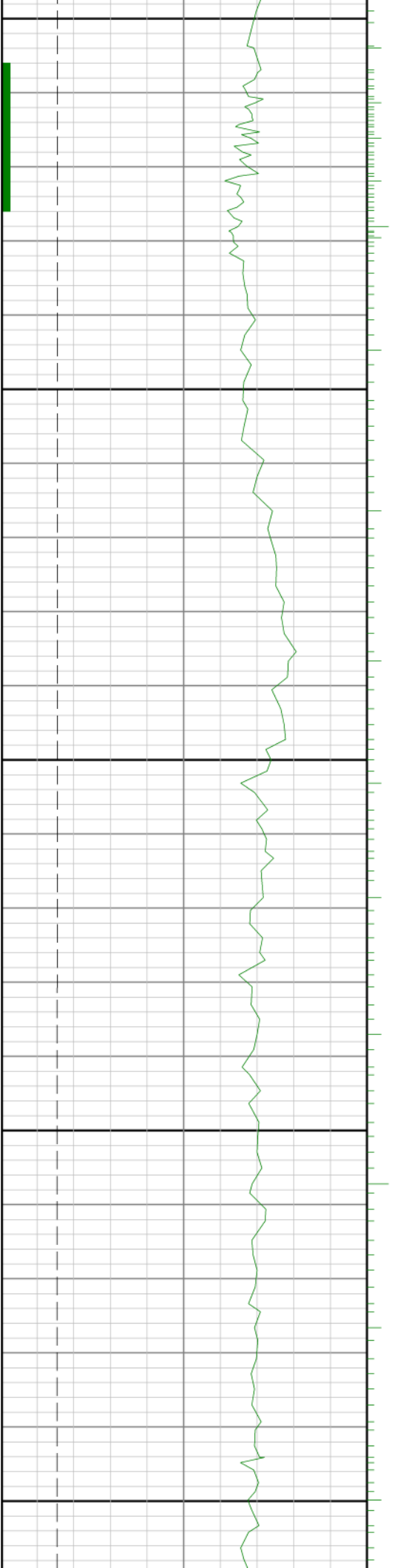
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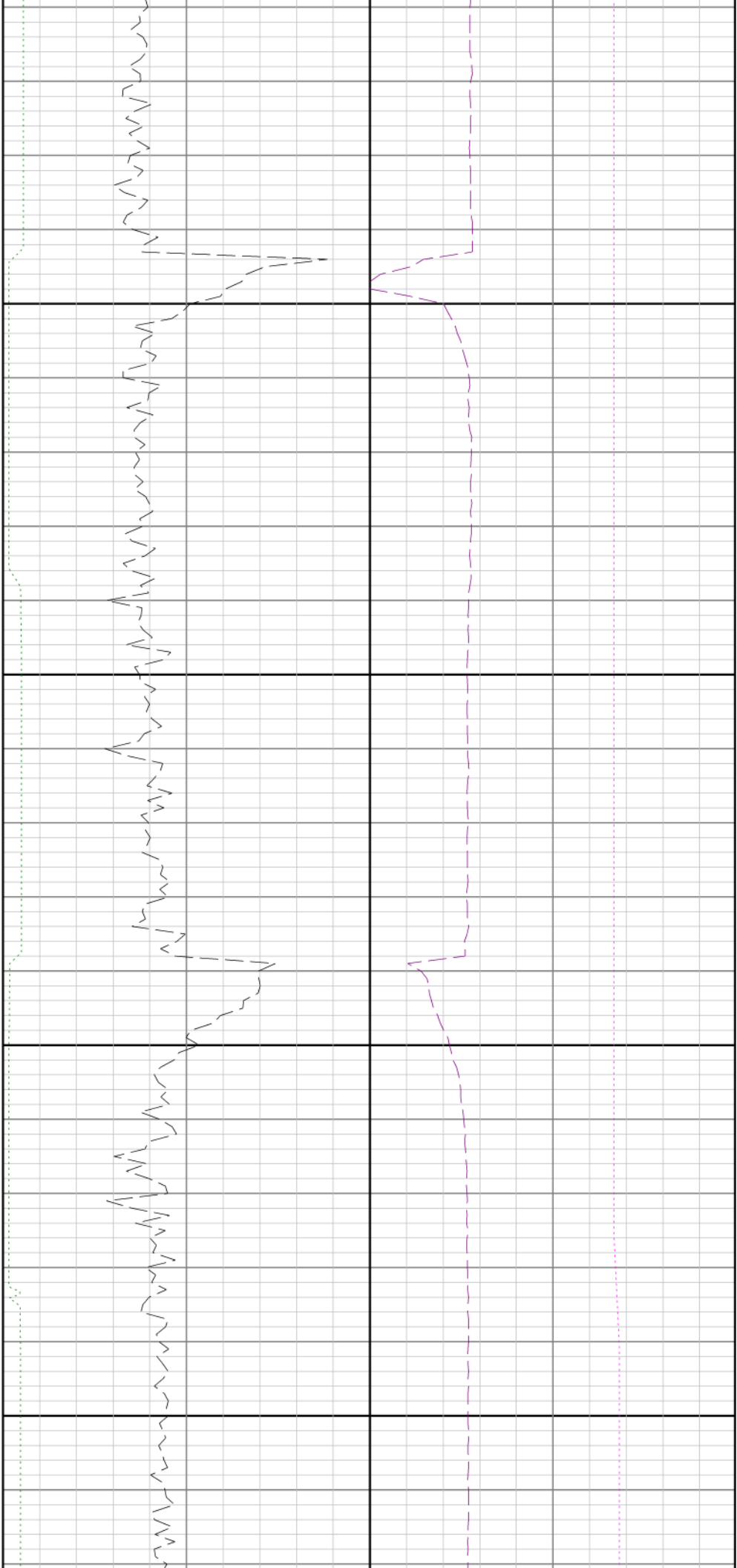




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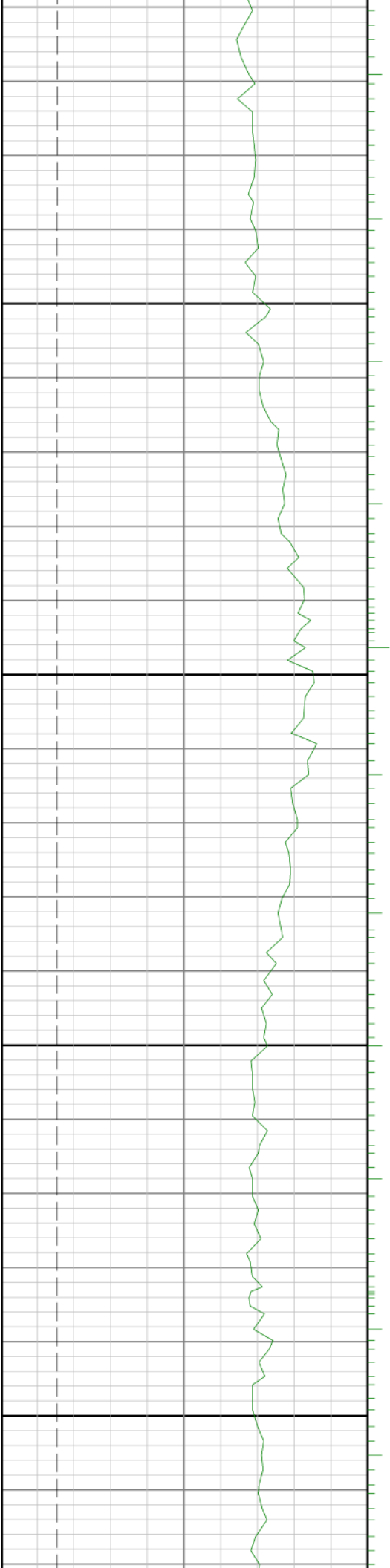
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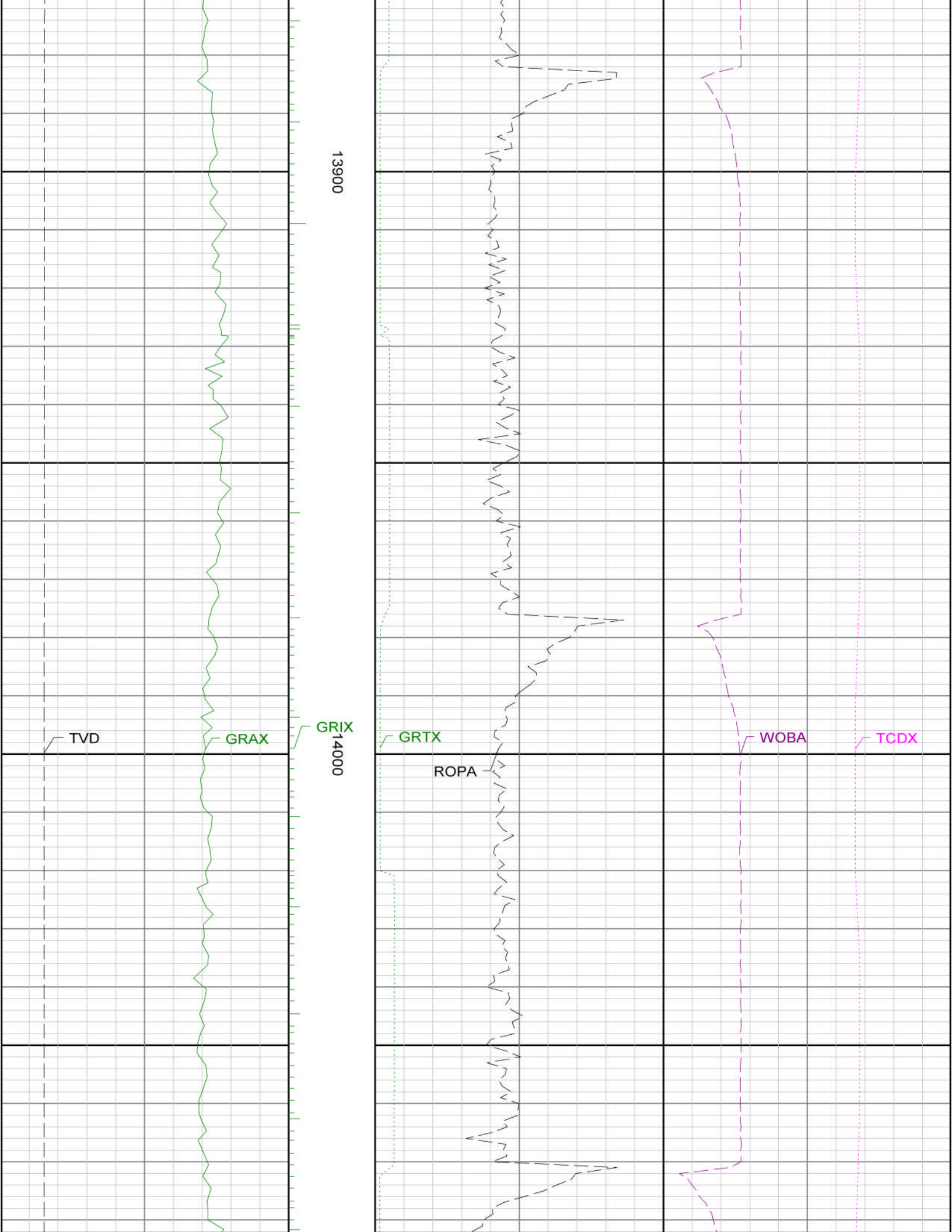


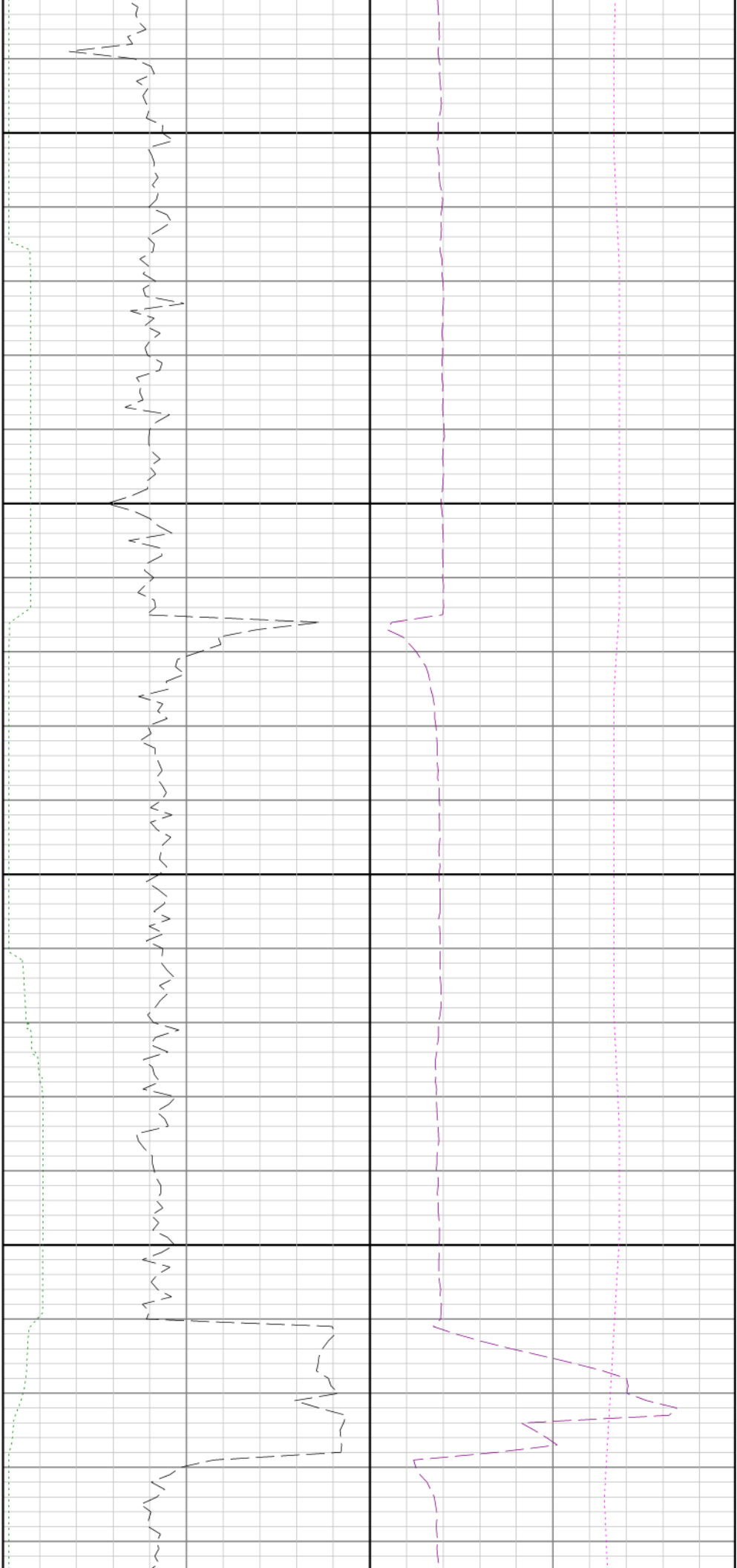


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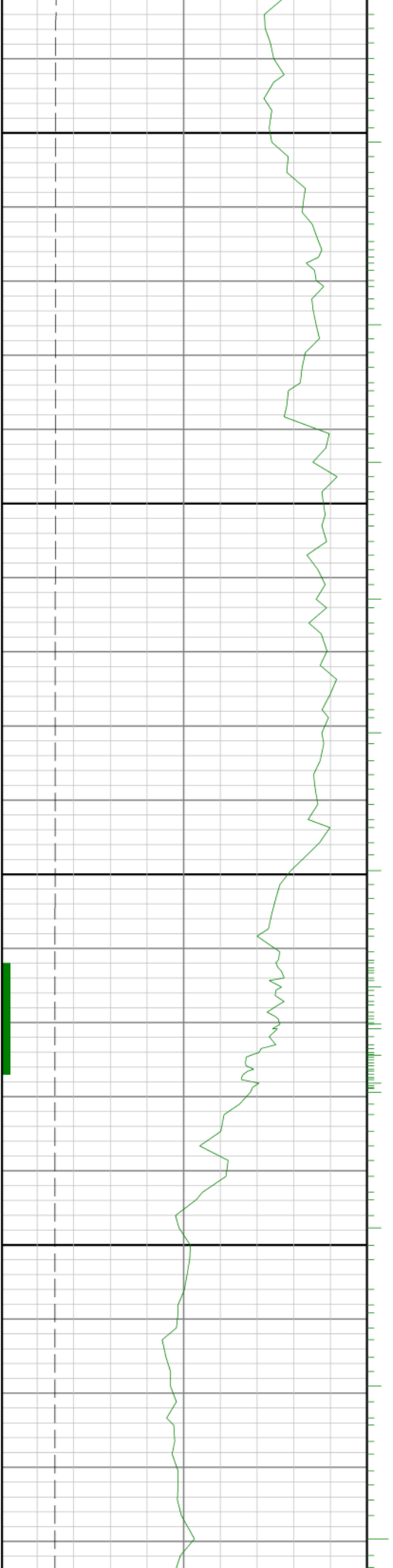




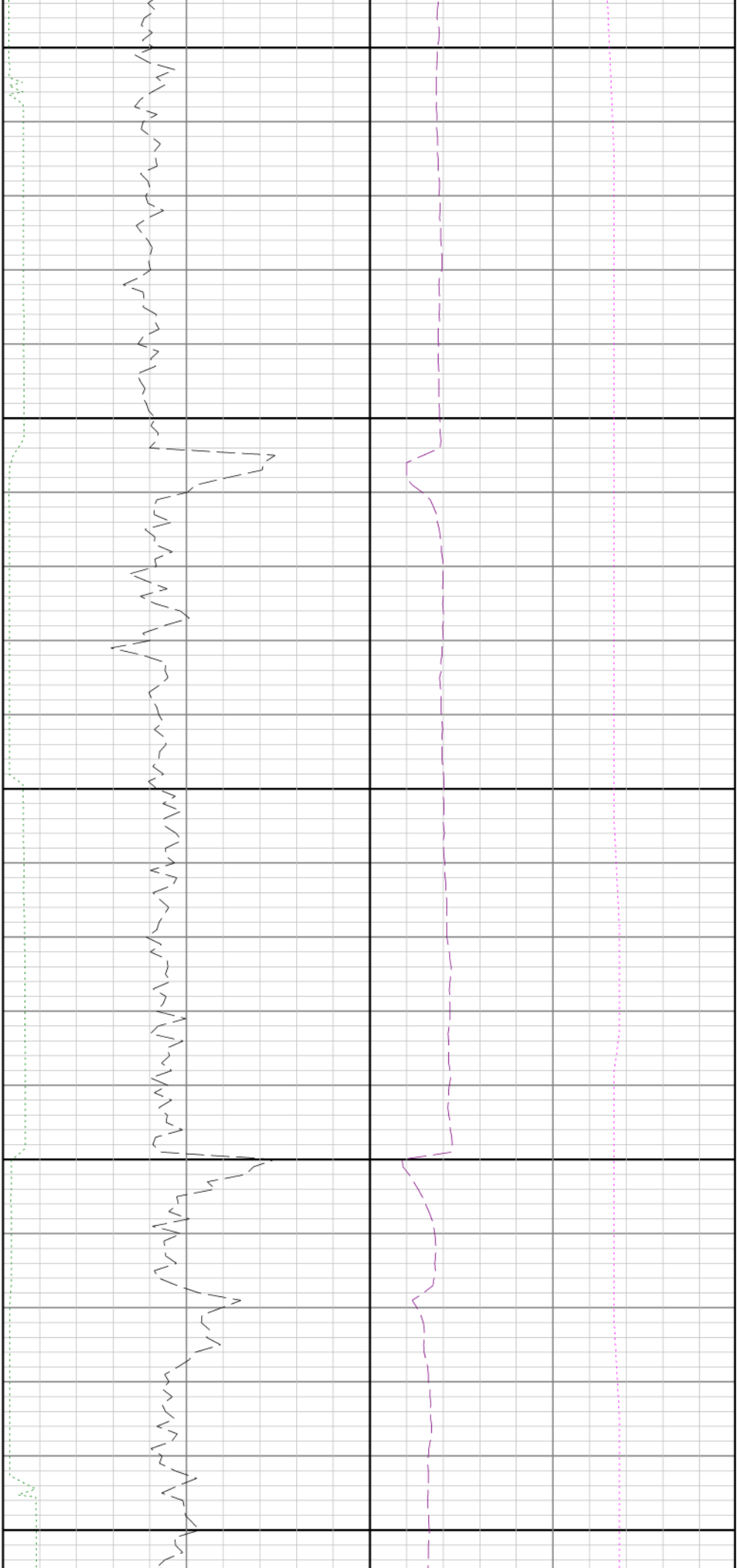


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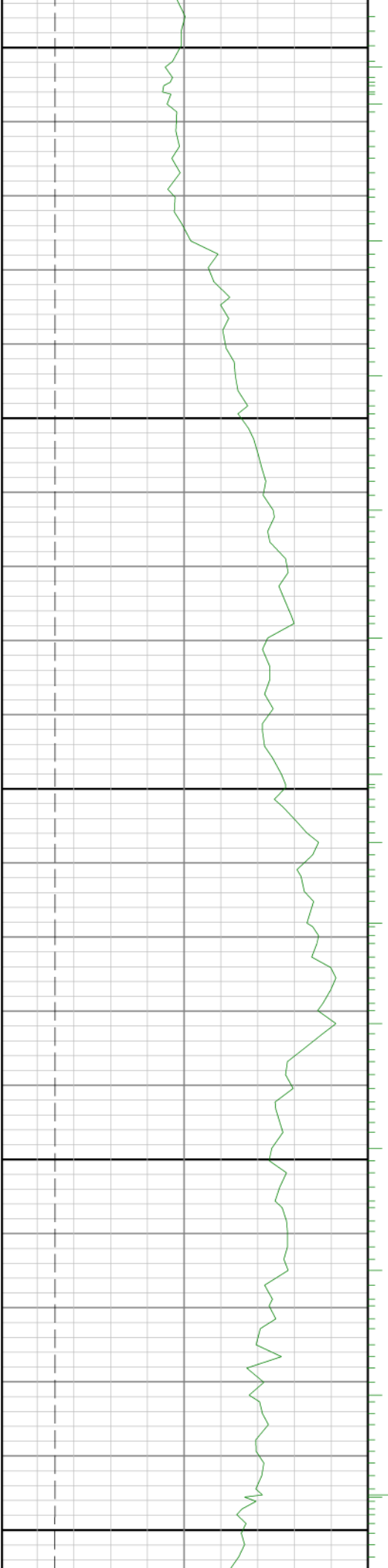


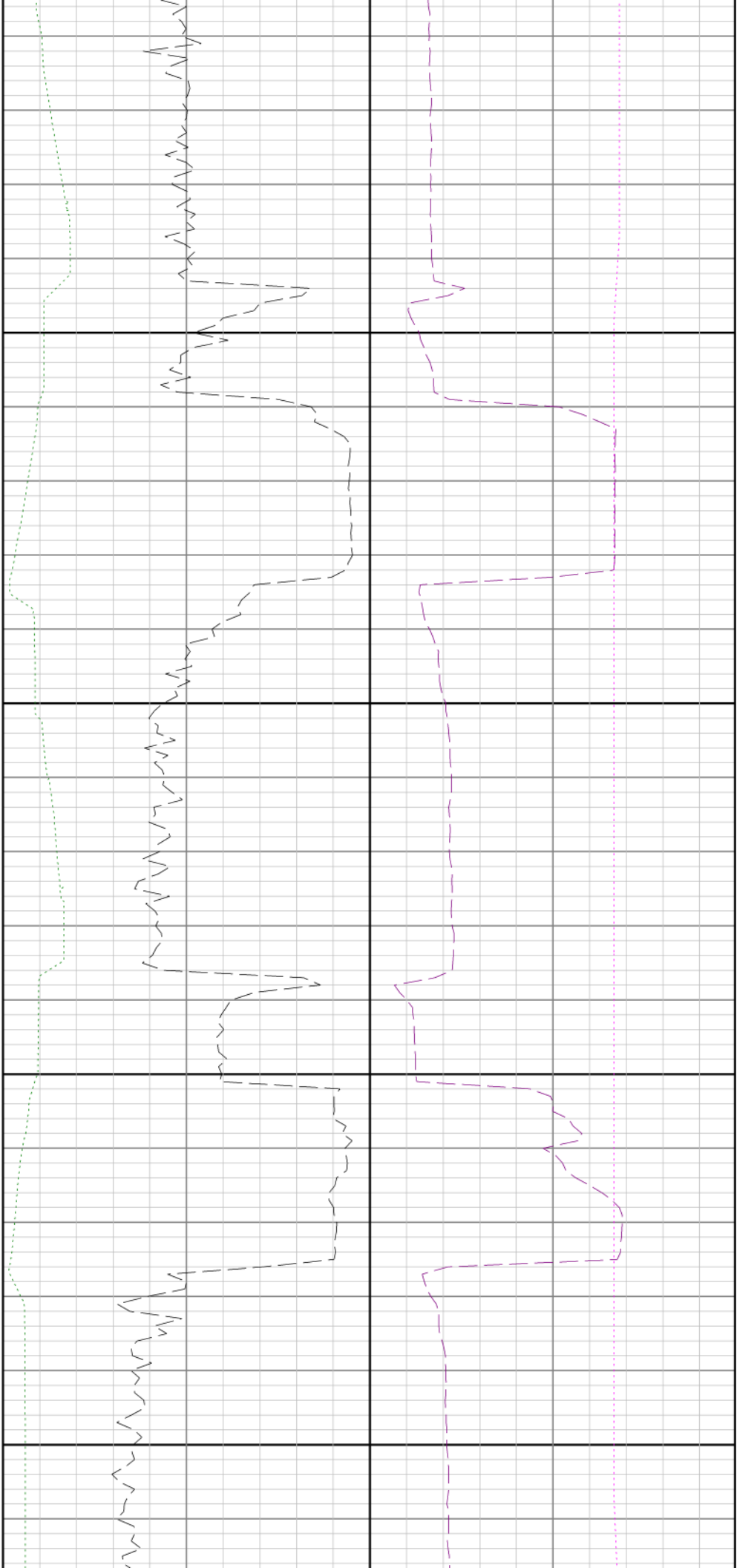


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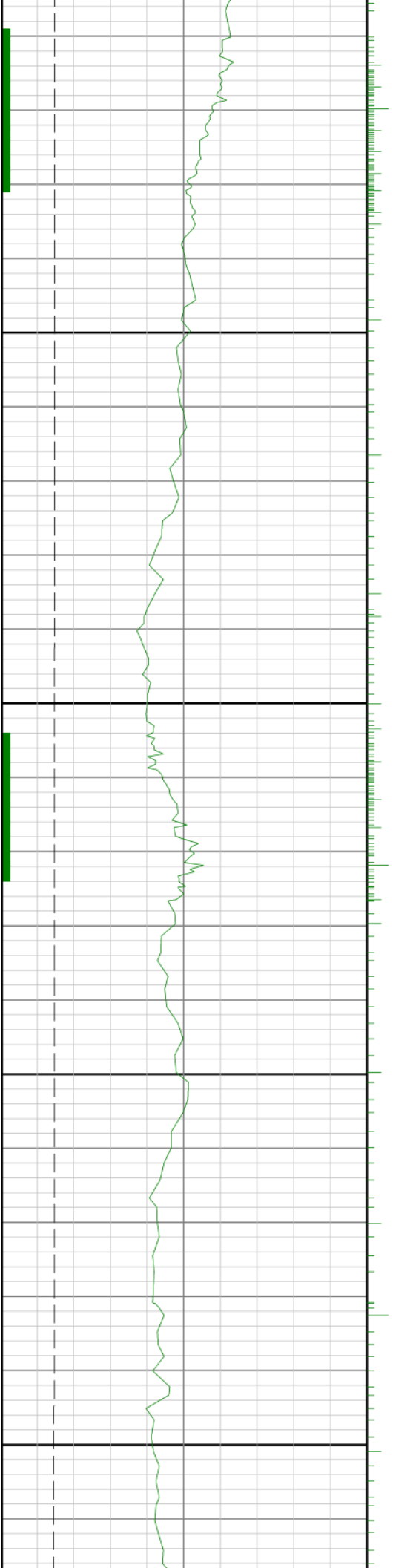
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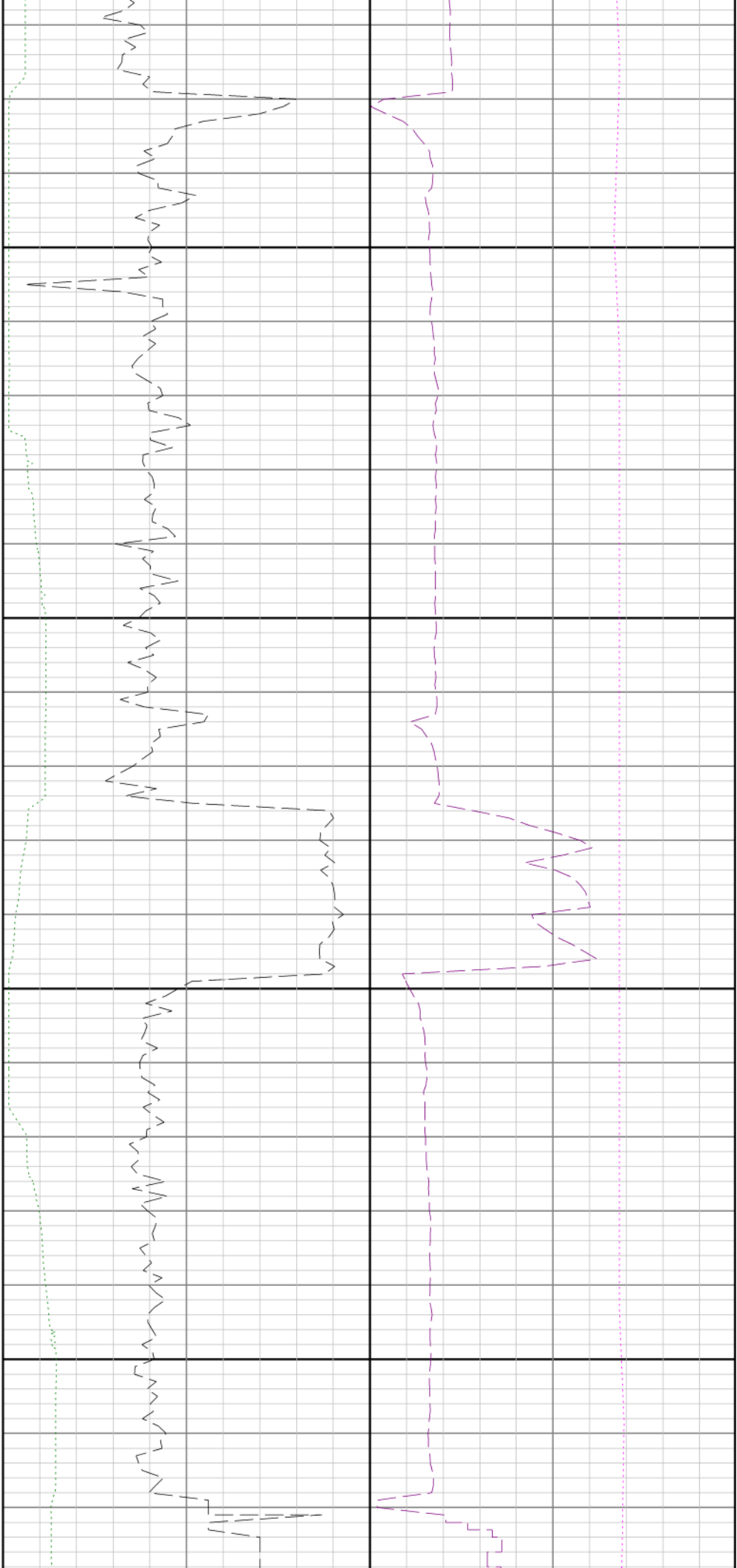




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