



REALTIME LOG

Natural Formation Evaluation
Gamma Ray

Scale:

Company: Anadarko

1:240

Well: Sekich State 40N-17HZ

MEASURED DEPTH

Field: Weld County (Kerr McGee)

County: Weld State: Colorado

Status:

Final Print

Surface Location:

Latitude: 40° 13' 29.014" N

Longitude: 104° 56' 25.397" W

Other Services:

API Number:

Section 18 TOWN: 3N Range 67W

Directional
VSS

Permanent Datum (P.D.): Mean Sea Level Elevation: 0.00 ft.

Elevations: N/A

Log Measured From: Rig Floor 4880.00 ft. Above P.D.

KB: N/A
DF: 4880.00 ft.
GL: 4854.00 ft.

Depth Reference:

Driller's Depth

GL: 4854.00 ft.

Interval Logged

Dates

Magnetic Field Reference

Top: 6400.0 ft. Date From: 11/Apr/14 Dip Angle: 66.89° Azi Reference North: True

Bottom: 16697.0 ft. Date To: 18/Apr/14 Total Mag to Reference

Spud Date: 09/Apr/14 Field Strength: 52597.1 nT North Correction: 8.57°

Borehole Record

Casing Record

Hole Size	From	To	Size	Weight	From	To
13.500 in.	Surface	1241.0 ft.	9.600 in.	36.00 lb/ft	Surface	1241.0 ft.
8.750 in.	1241.0 ft.	7377.0 ft.	7.000 in.	26.00 lb/ft	Surface	7363.0 ft.
6.125 in.	7377.0 ft.	16766.0 ft.				

Mud Record

Deviation Record

Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
Water Based Mud	Surface	16766.0 ft.	13.500 in.	Surface	0.0° / 29.5°	0.8° / 244.2°
			8.750 in.	Vert/Curve	0.8° / 244.2°	84.3° / 92.9°
			6.125 in.	Lateral	84.3° / 92.9°	92.2° / 88.3°
					/	/
					/	/
					/	/
					/	/

Acquisition System Software Version

Other

Advantage	2.20U4	Rig: / Contractor:	H&P307	/ Helmerich & Payne Drilling Co
PATS	6.4.1.34	Job No:	6247785	
		District / Unit:	Rocky Mountains	/ 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		Mud Motor	6400.0	6914.0	1241.0	6973.0	11/Apr/2014	22:40	12/Apr/2014	09:57	41
2	2	2	8.750	PDC		Mud Motor	6914.0	6927.0	6973.0	6979.0	13/Apr/2014	01:39	13/Apr/2014	03:44	3
3	3	3	8.750	PDC		Mud Motor	6927.0	7329.0	6979.0	7377.0	13/Apr/2014	16:15	14/Apr/2014	03:08	17
4	4	4	6.125	PDC		Mud Motor	7329.0	11507.0	7377.0	11577.0	16/Apr/2014	14:56	18/Apr/2014	13:33	49
5	5	5	6.125	PDC		Mud Motor	11507.0	16697.0	11577.0	16766.0	19/Apr/2014	07:08	19/Apr/2014	19:45	65

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite

Andrew King	10 April 2014	17 April 2014	Nick Roosen	10 April 2014	22 April 2014	John Nguyen	17 April 2014	22 April 2014				

Mud Properties Record												
Date / Time		LWD Run No.	Measured Depth (ft.)	Mud Type	Density (ppg)	Viscosity (sec/qt)	pH	Fluid Loss (cc)	Oil / Water	Source	Total Chlorides (mg/L)	K+ (%)
10 April 2014	13:45	1	7650.0	Water Based	10.0	40	9.0	N/A	4/87	Active	900	N/A
13 April 2014	00:00	3	7200.0	Water Based	10.3	44	9.0	N/A	1/89	Active	600	N/A
15 April 2014	20:00	4	7377.0	Water Based	10.5	43	9.0	N/A	2/87	Active	500	N/A
17 April 2014	21:30	4	10810.0	Water Based	9.6	45	9.4	N/A	2/90	Active	500	N/A
19 April 2014	22:00	5	12980.0	Water Based	9.5	44	9.0	N/A	3/90	Active	1200	N/A
21 April 2014	20:00	5	16766.0	Water Based	9.6	40	8.9	N/A	5/89	Active	1000	N/A

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 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	10427972	Directional	60.43	6.750	3.250
1	SRIG	10595781	Gamma	57.06	6.750	3.250
2	DIR	10427972	Directional	53.71	6.750	3.250
2	SRIG	10595781	Gamma	50.34	6.750	3.250
3	DIR	10427972	Directional	53.71	6.750	3.250
3	SRIG	10595781	Gamma	50.34	6.750	3.250
4	DIR	13051163	Directional	72.08	4.770	2.750
4	SRIG	12023982	Gamma	68.70	4.770	2.750
5	DIR	13051163	Directional	72.13	4.770	2.750
5	SRIG	12023982	Gamma	68.75	4.770	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

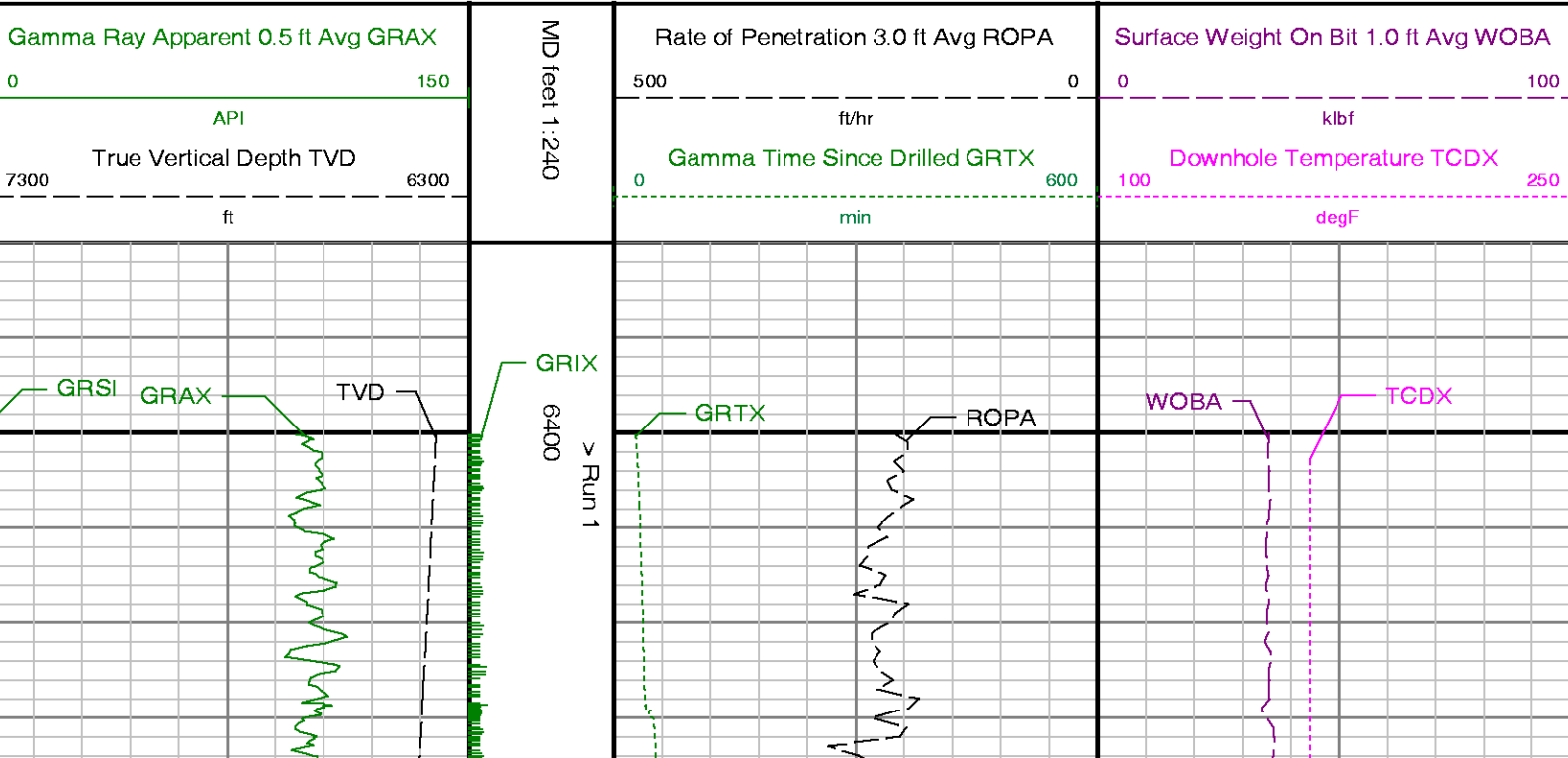
- (1) Baker Hughes INTEQ run 1 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 bit and steerable assembly from 1241 to 7377 feet MD (1241 to 7006 feet TVD)
- (2) Baker Hughes INTEQ run 4 and 5 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 6 1/8 bit and steerable assembly from 7377 to 16766 feet MD (7006 to 6990 feet TVD)
- (3) Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to the of control by Baker Hughes logging engineers, depth calibrations, and measurements could not be independently verified.
- (4) A sliding indicator is shown to the right edge of track 1 as a heavy line.

Remarks

Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	6973	8.750	1	The interval from 6914 to 6973 feet MD (6834 to 6874 TVD) was logged up to 16 hours after being drilled due to the motor being laid down as a precautionary measure due to low ROP and to pickup new bit.
2	6979	8.750	2	The interval from 6927 to 6979 feet MD (6843 to 6878 TVD) was logged up to 12 hours after being drilled due to the motor being laid down as a precautionary measure due to low ROP.
3	7377	8.750	3	The interval from 7329 to 7377 feet MD (7002 to 7006 TVD) was logged up to 60 hour after being drilled due to running casing and cement operations prior to the beginning of Run 4.
4	11577	6.125	4	The interval from 11507 to 11577 feet MD (7000 to 7000 TVD) was logged up to 18 hours after being drilled due to the motor being laid down as a precautionary measure due to low ROP and to pickup new bit.
5	16700	6.125	5	The interval from 16697 to 16766 feet MD (7001 to 6990 feet TVD) contains no logging data due to sensor offset from the bit at well TD.



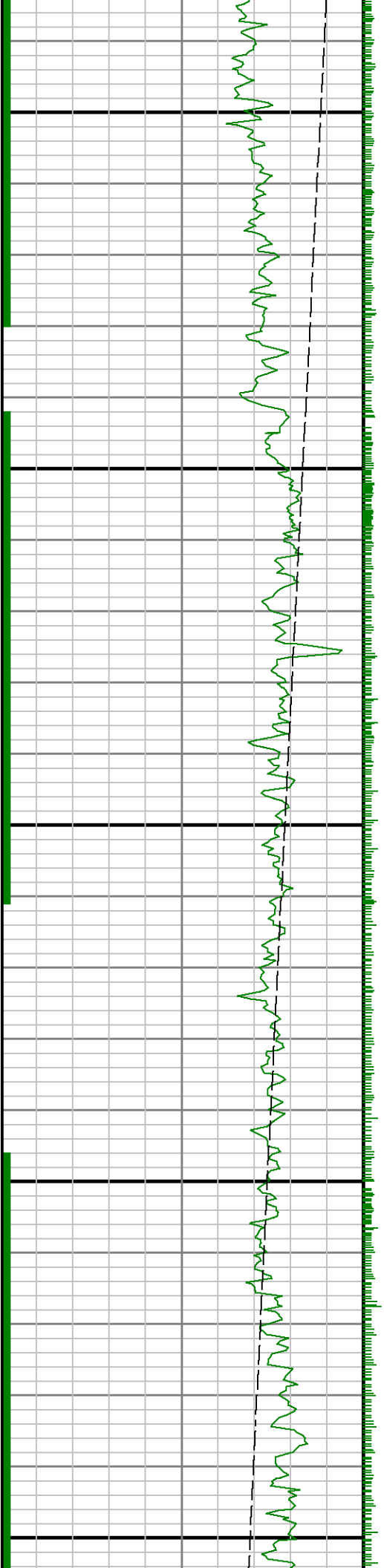
Company : Anadarko
Well : Sekich State 40N-17HZ
Interval : 6380.00 - 16780.00 feet
Created : 21/Apr/2014 5:55:12 PM

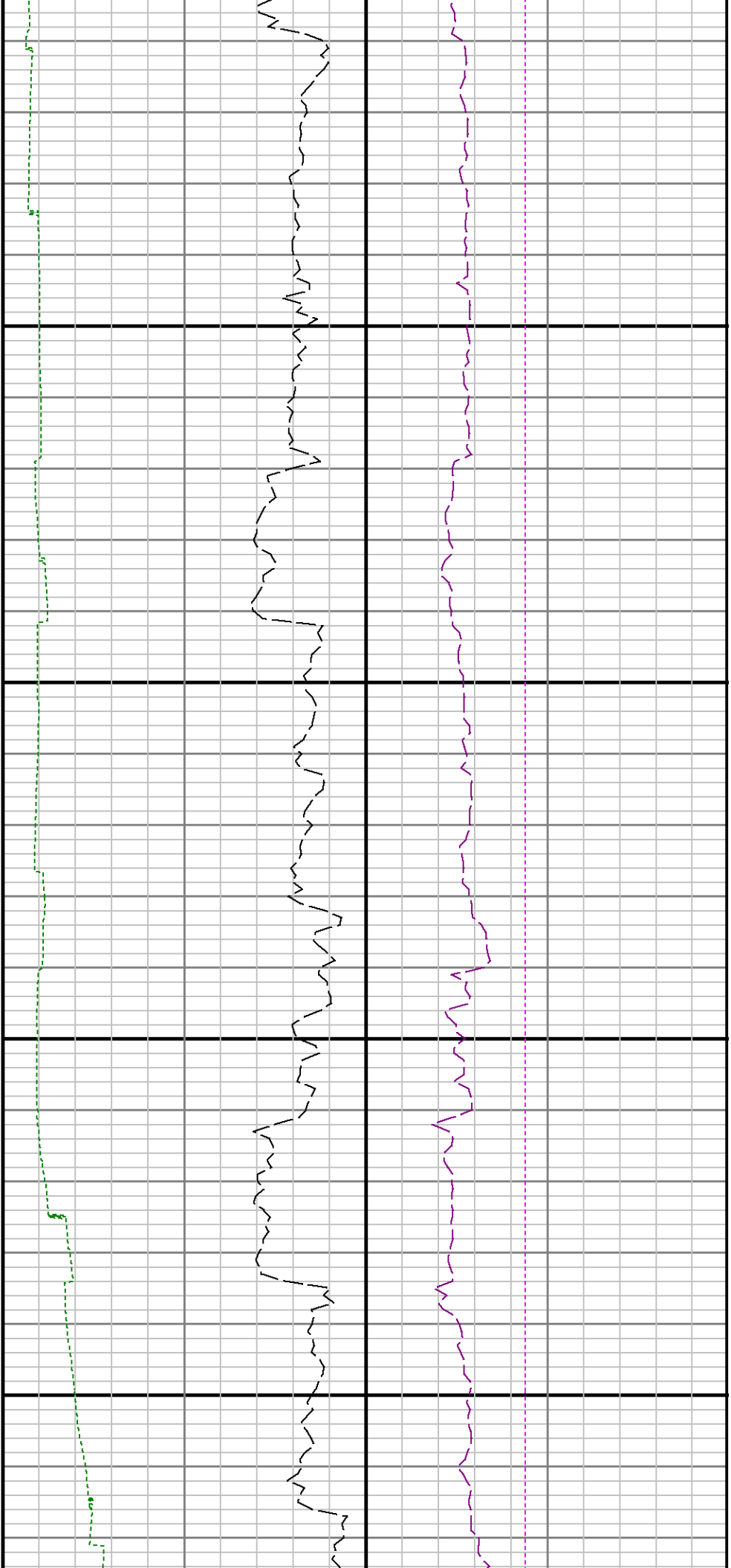




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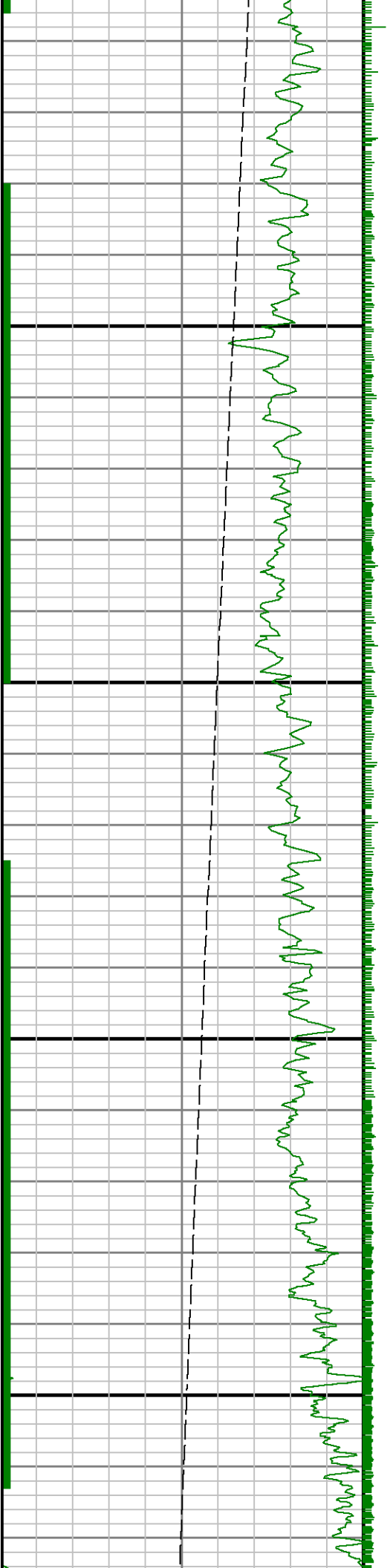
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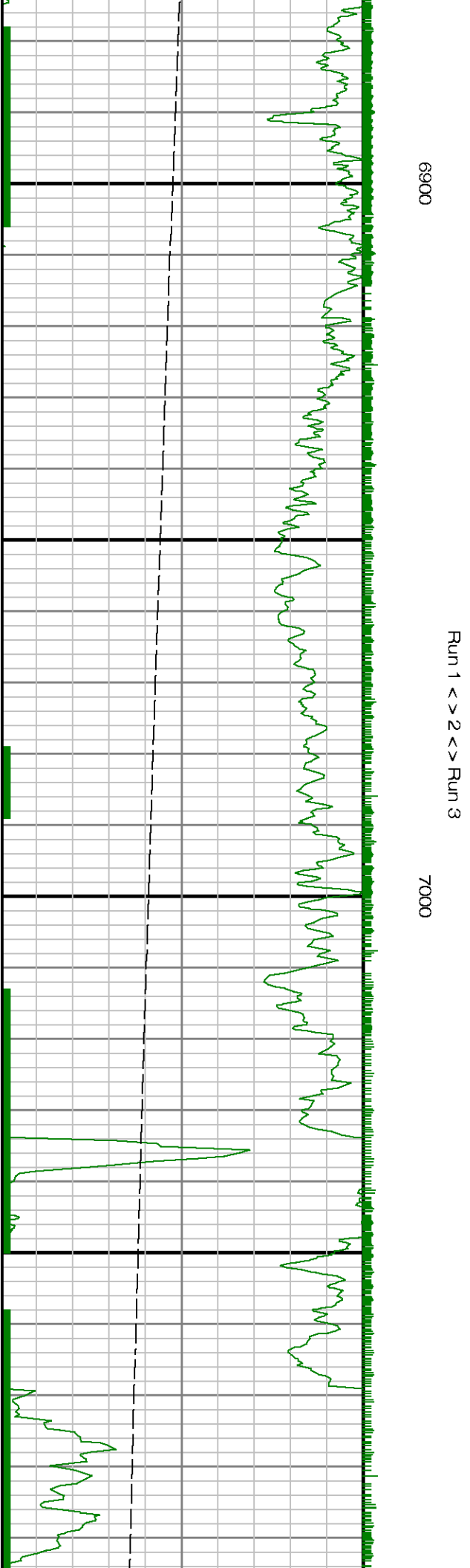
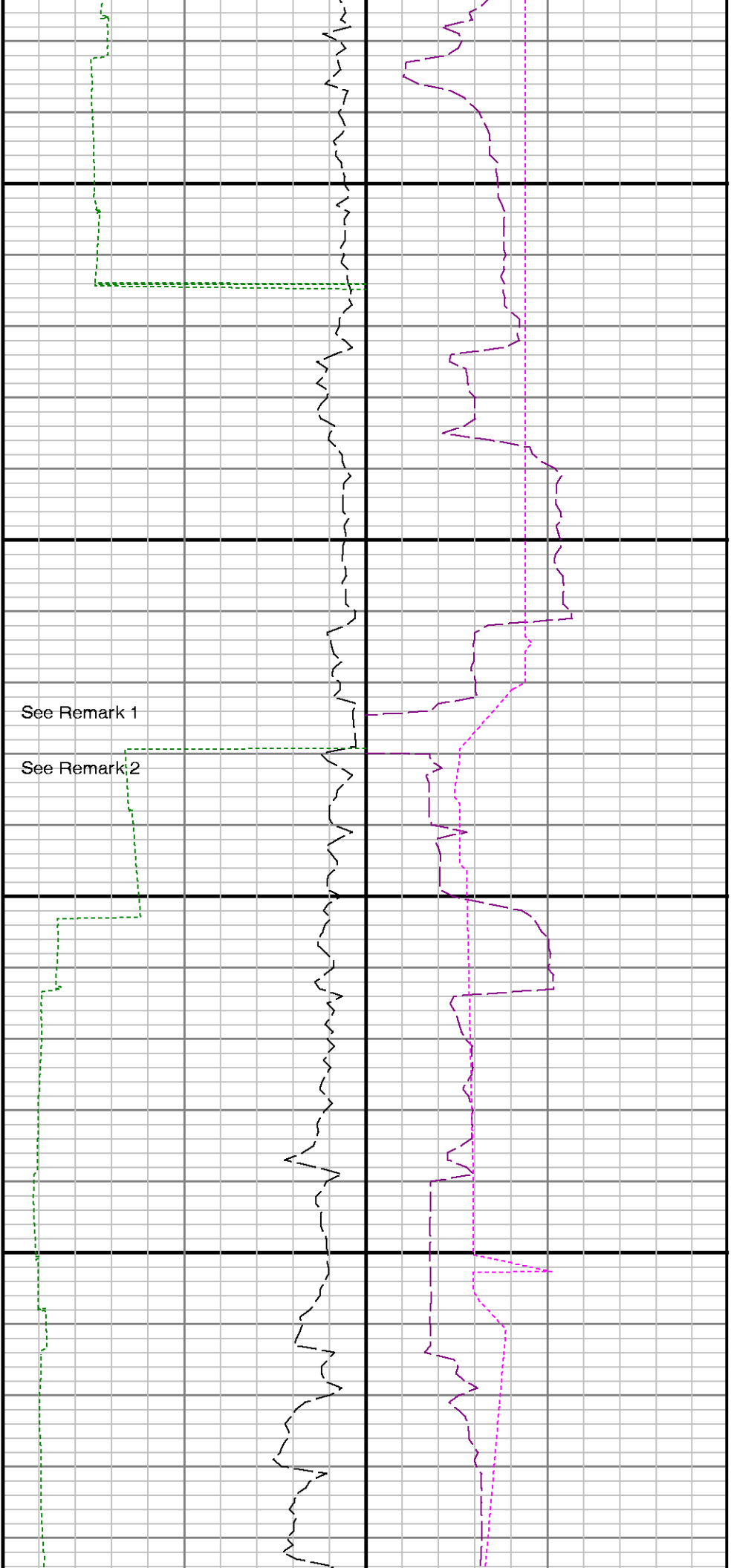


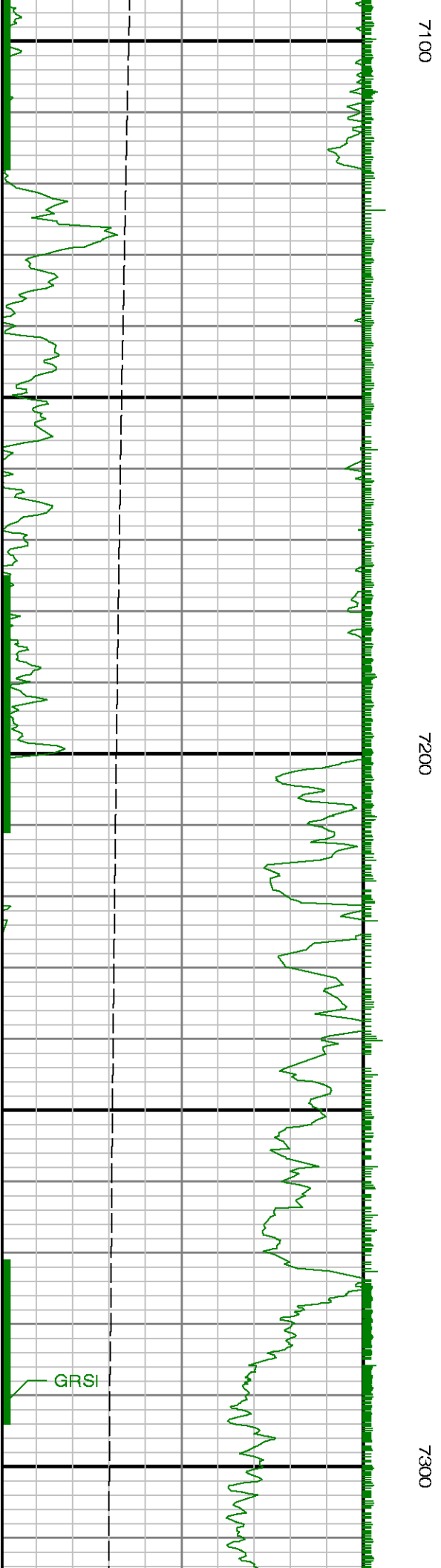
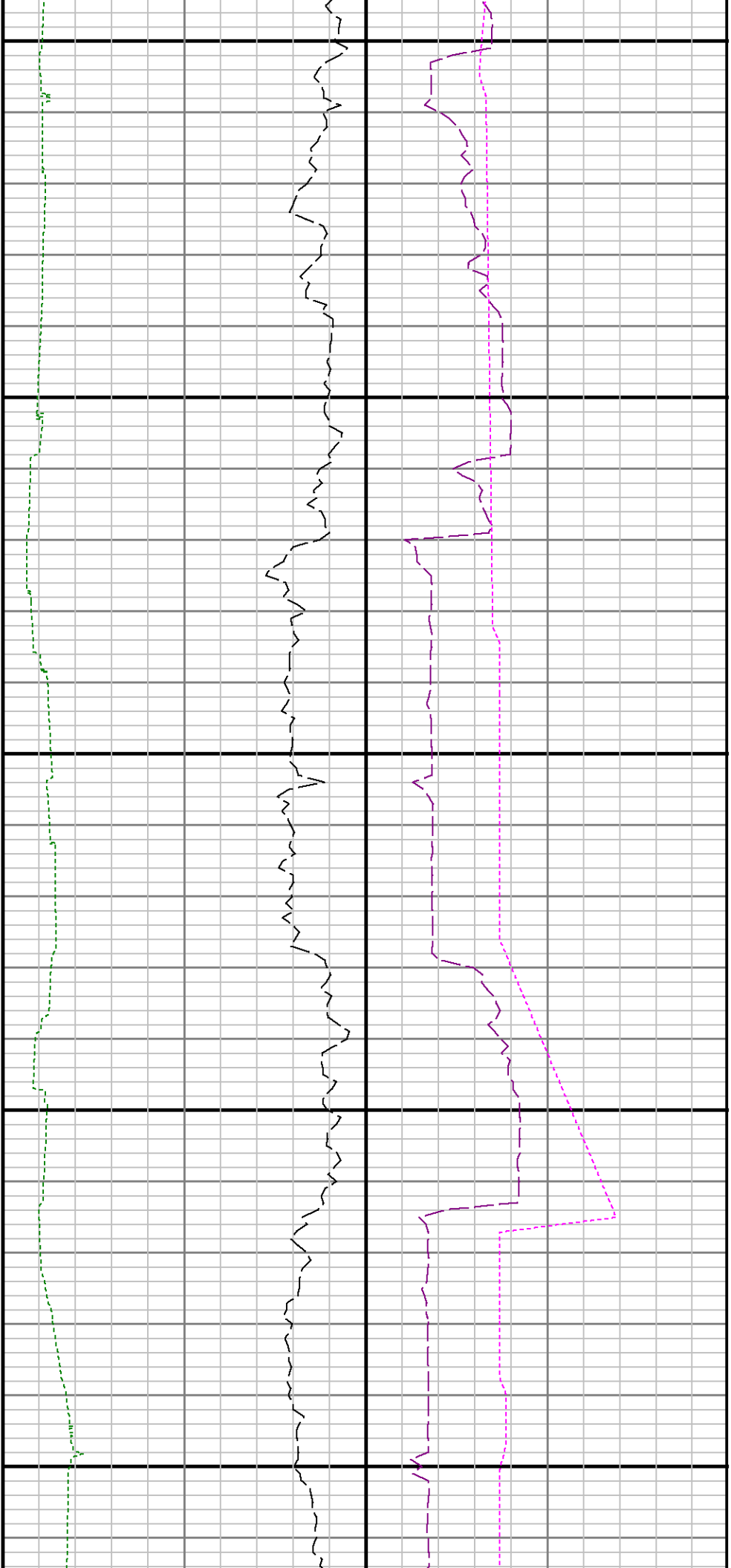


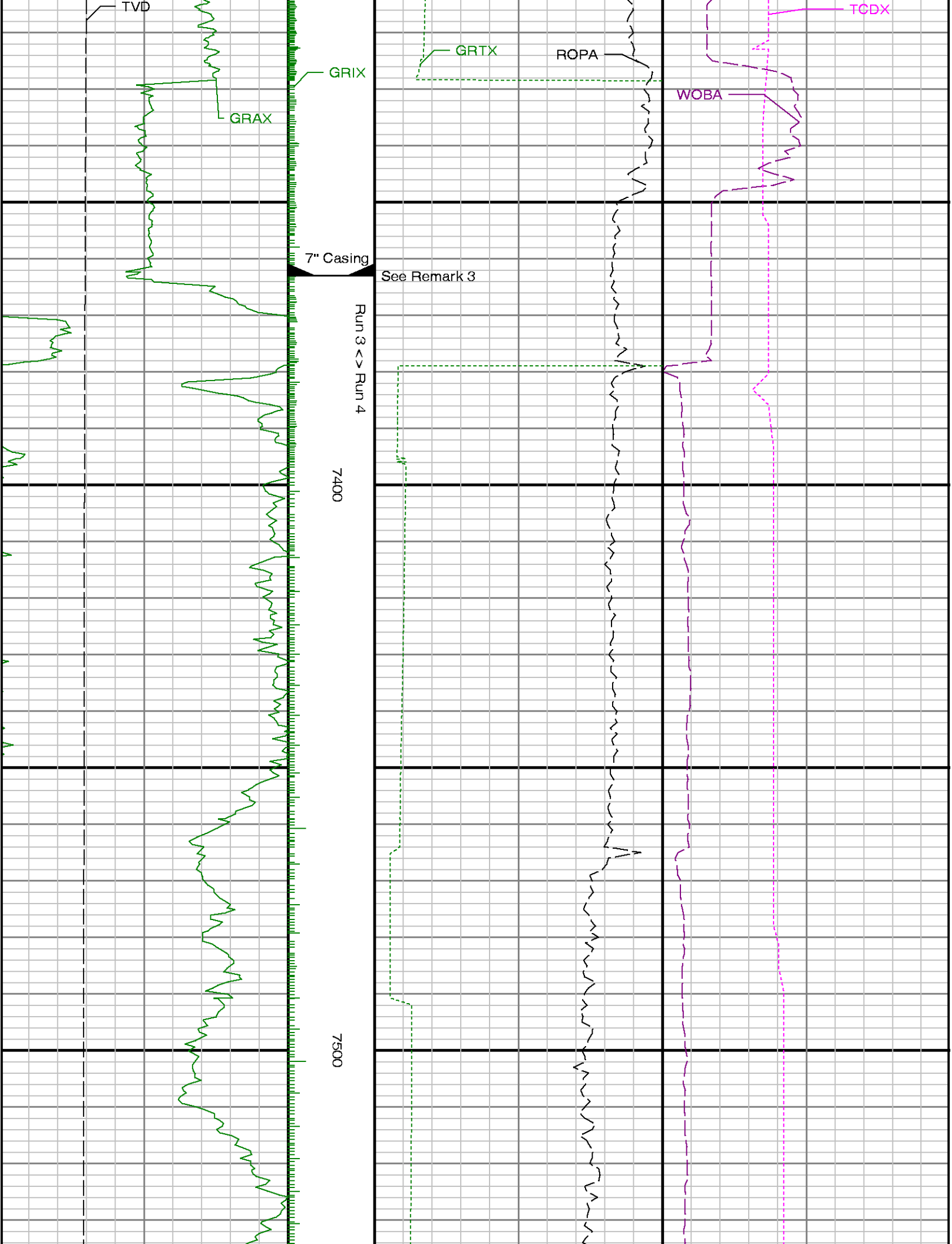
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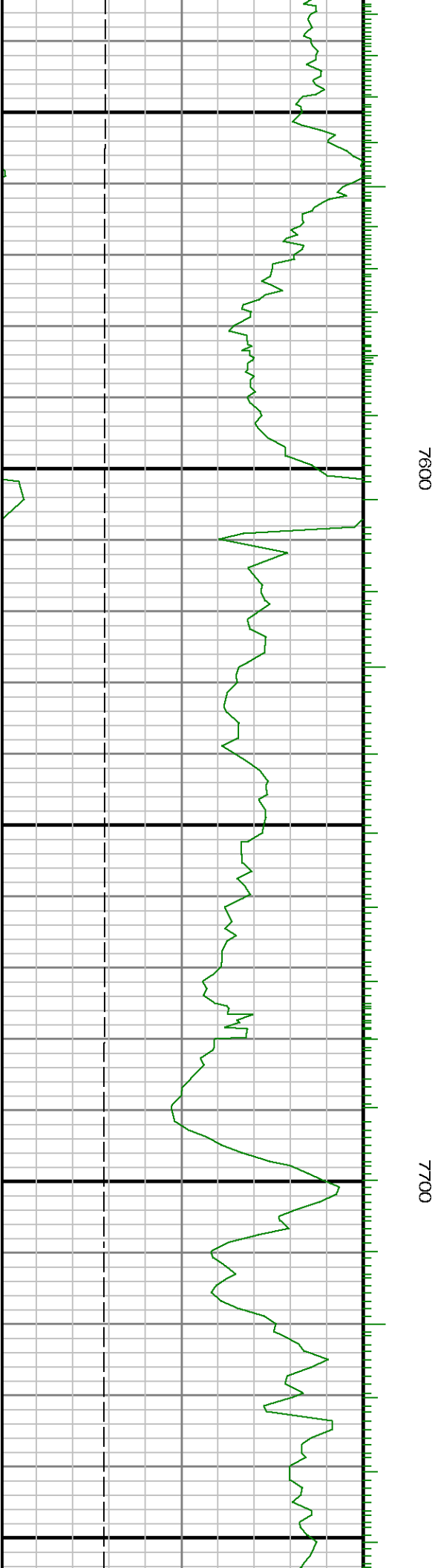
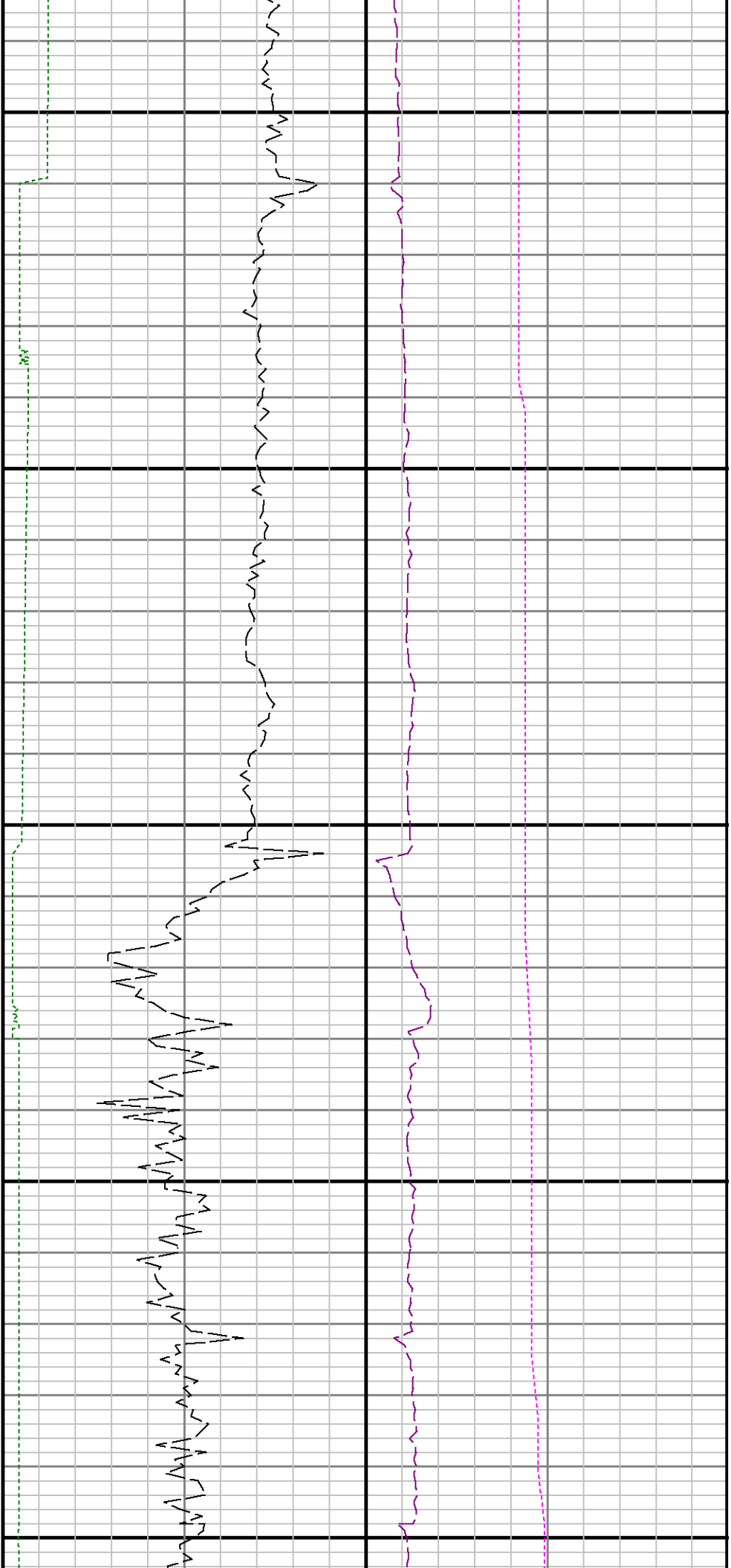
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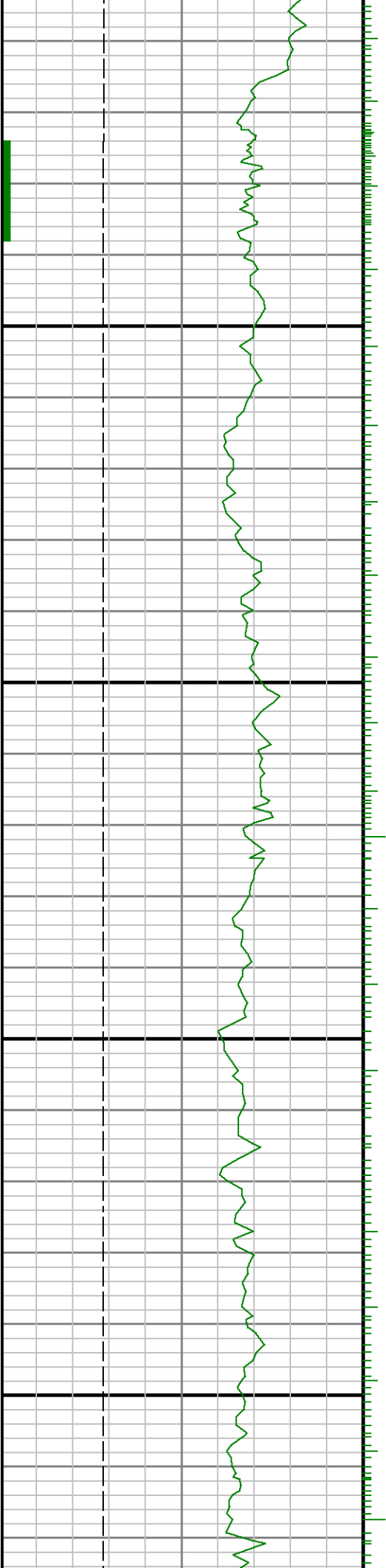






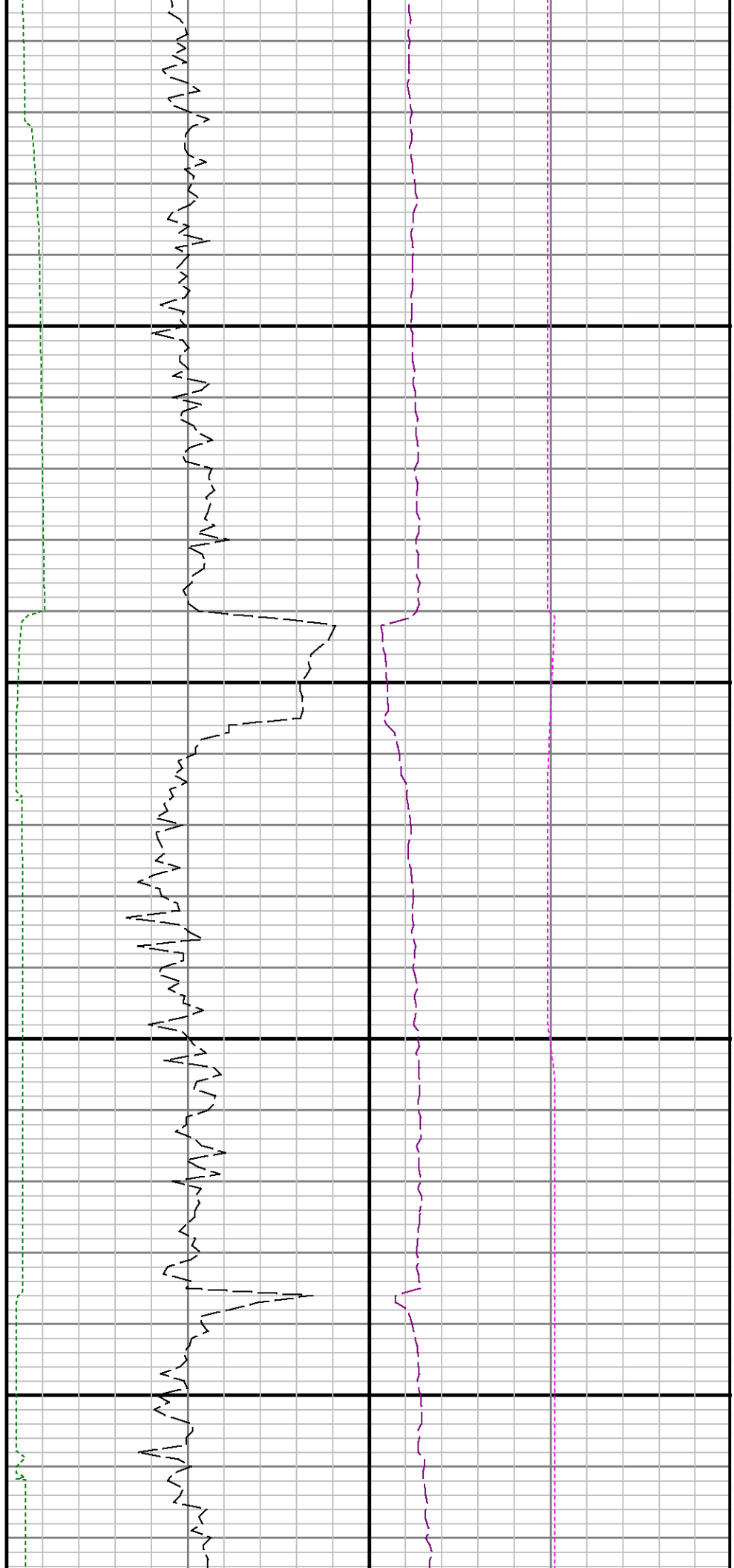


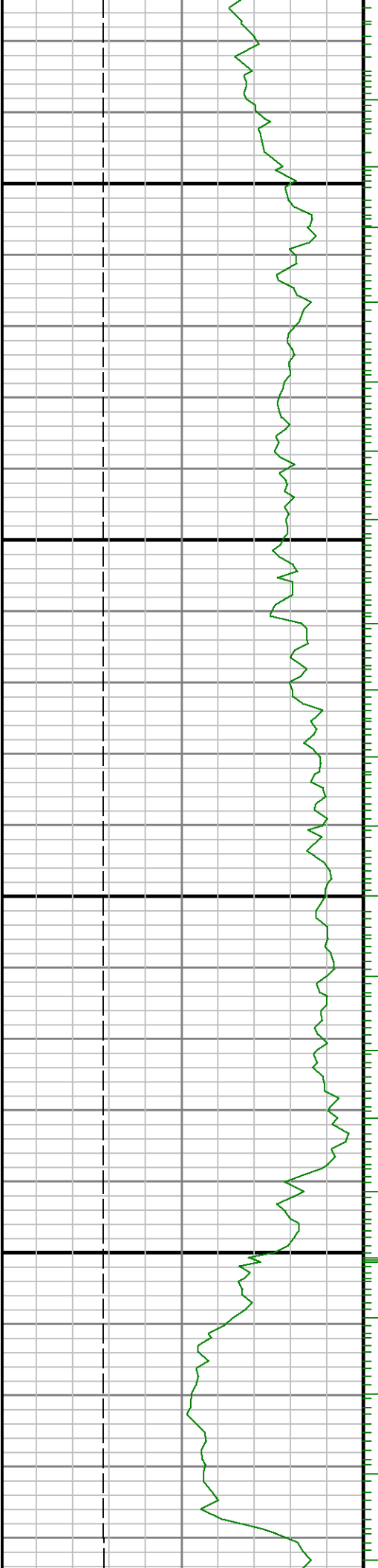




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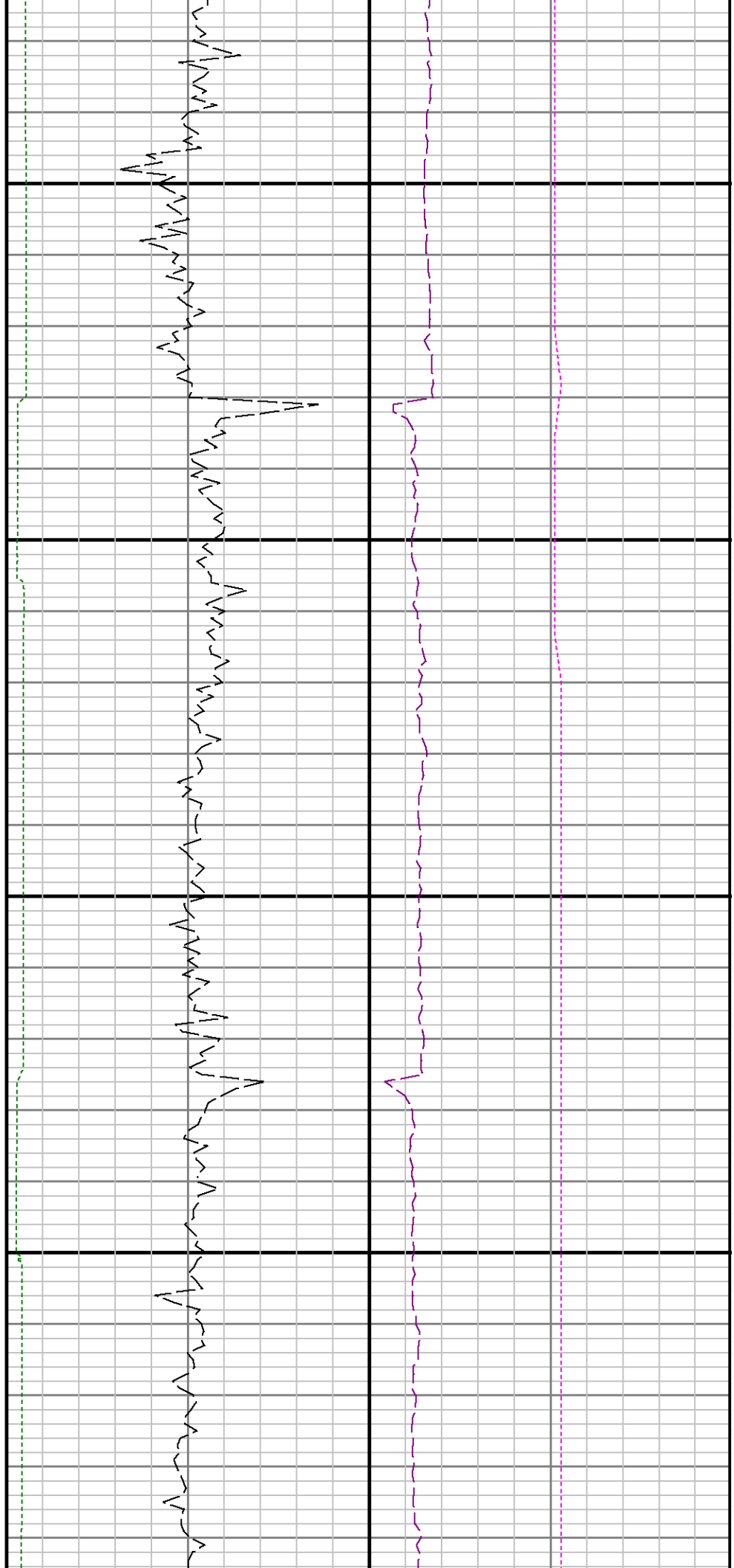
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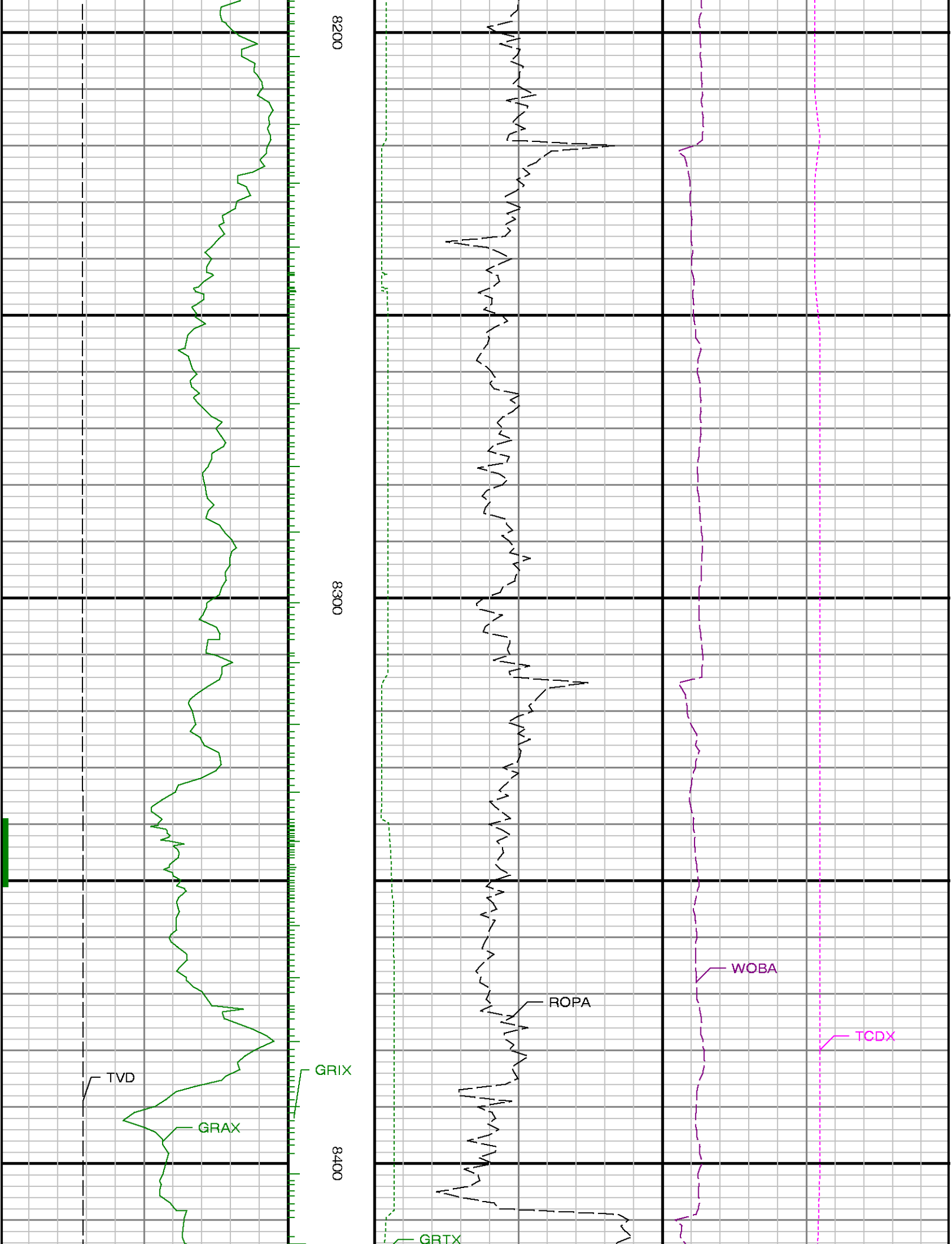


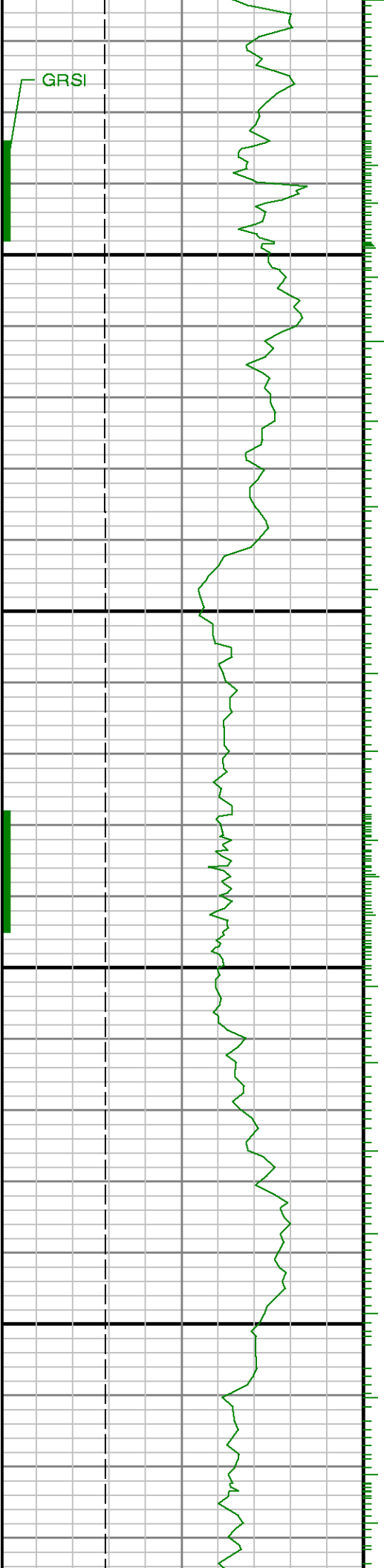


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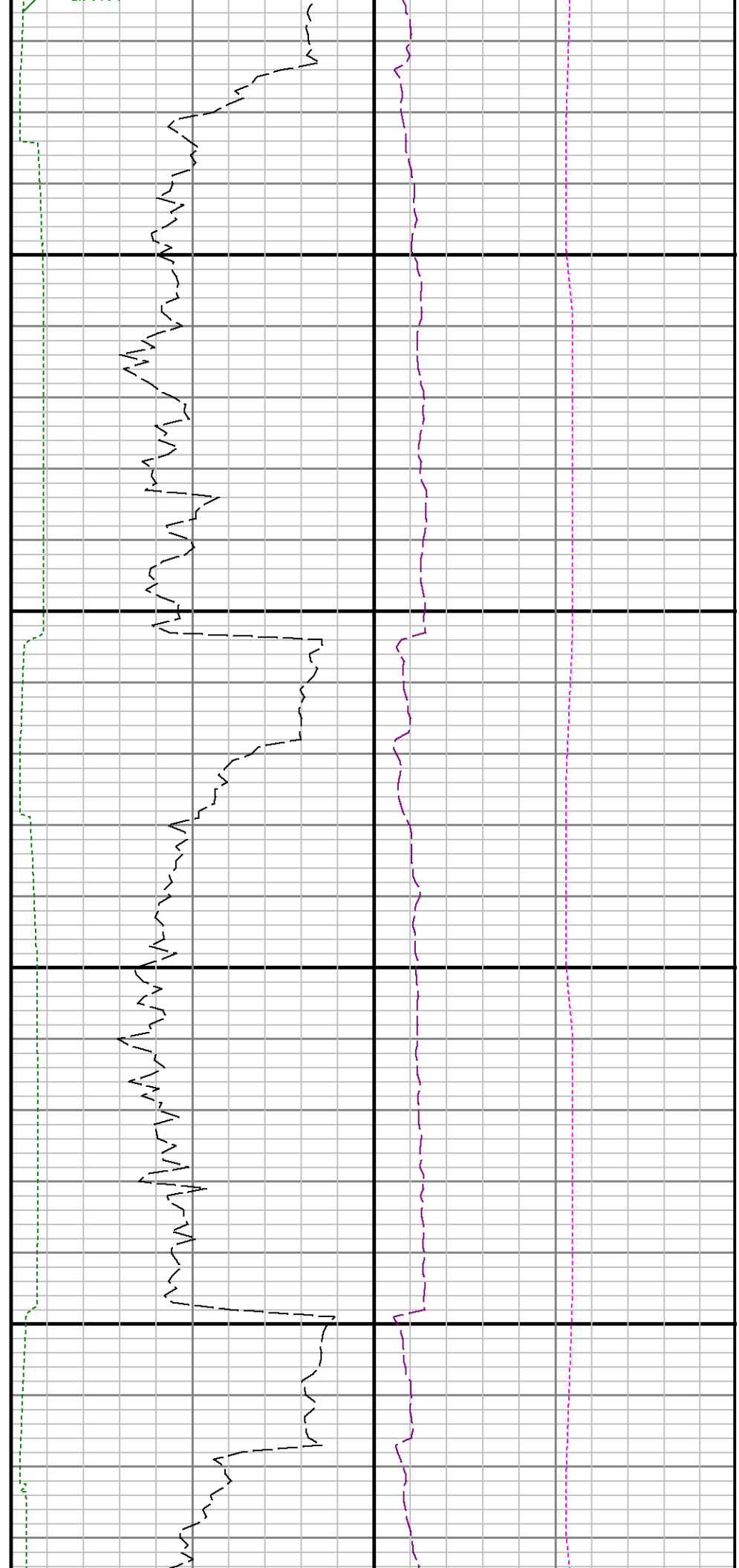


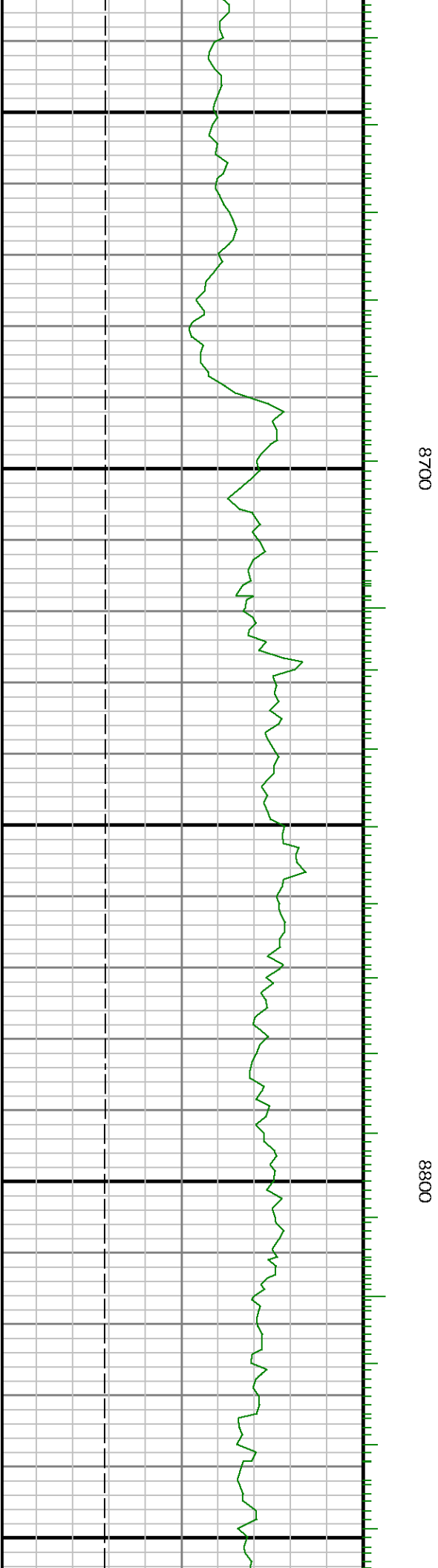
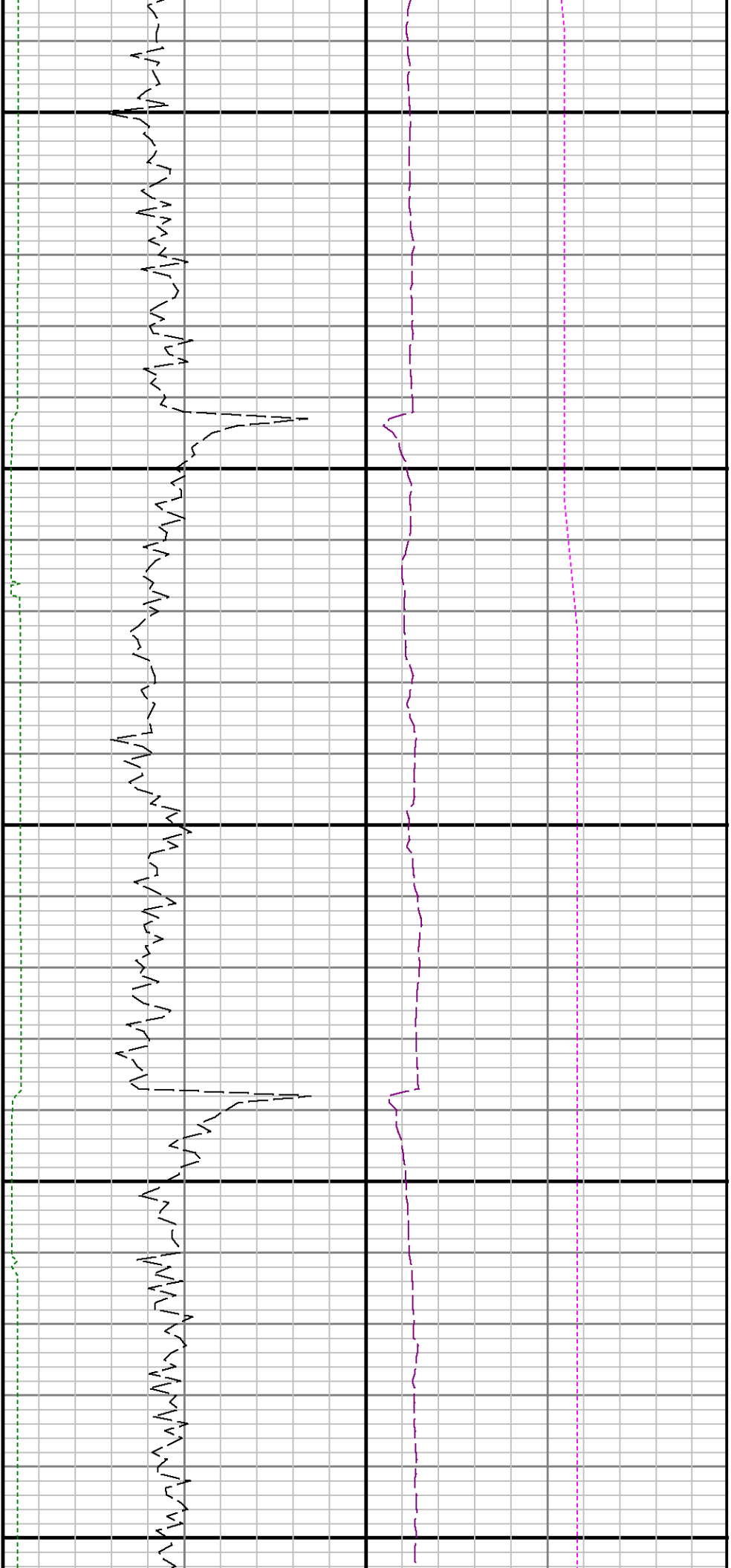


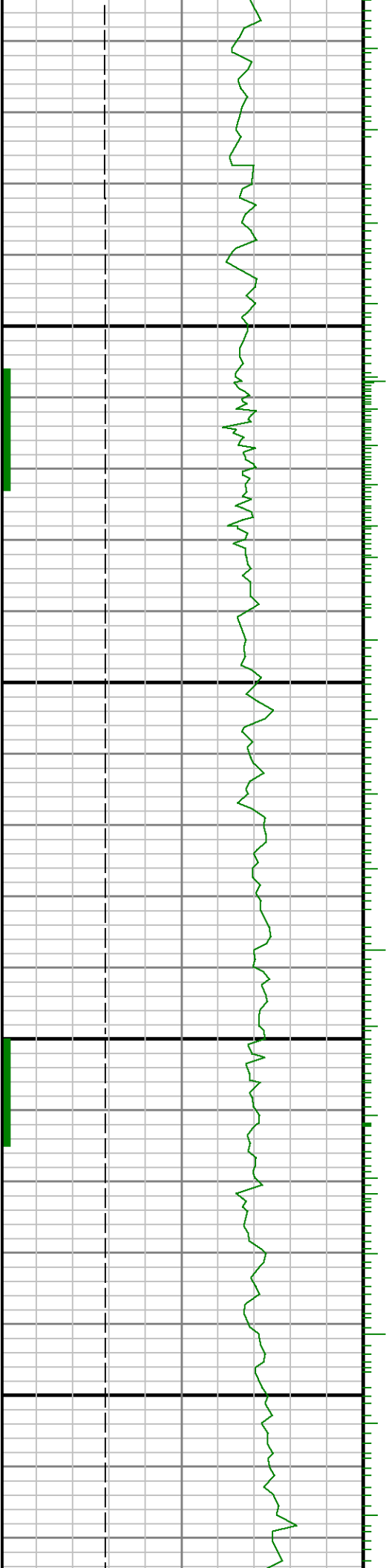


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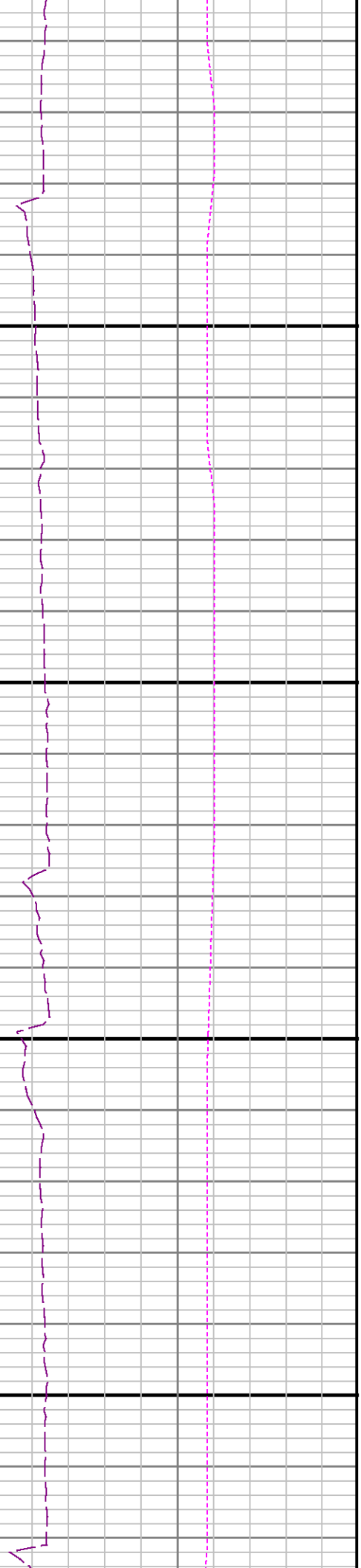
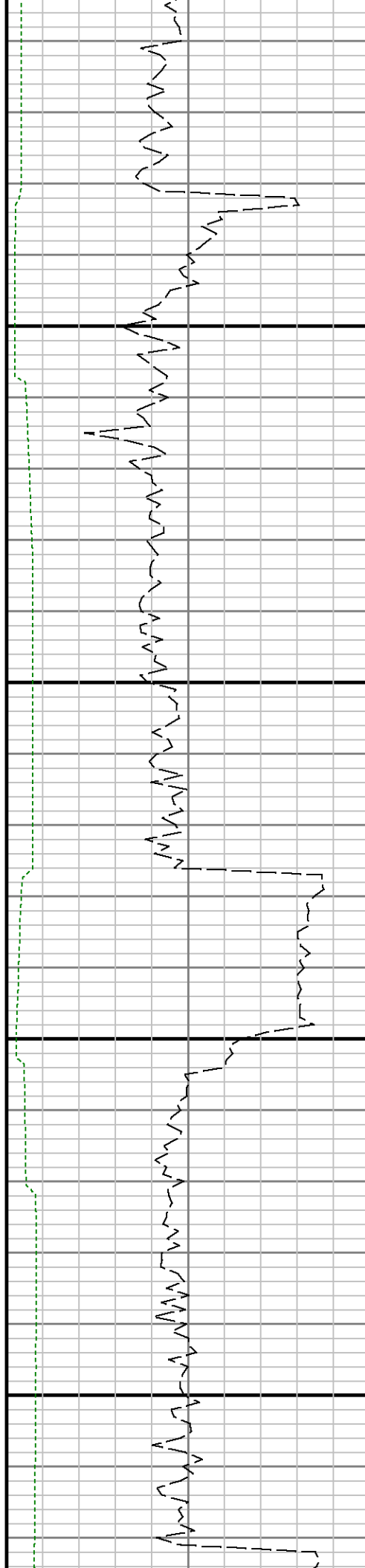


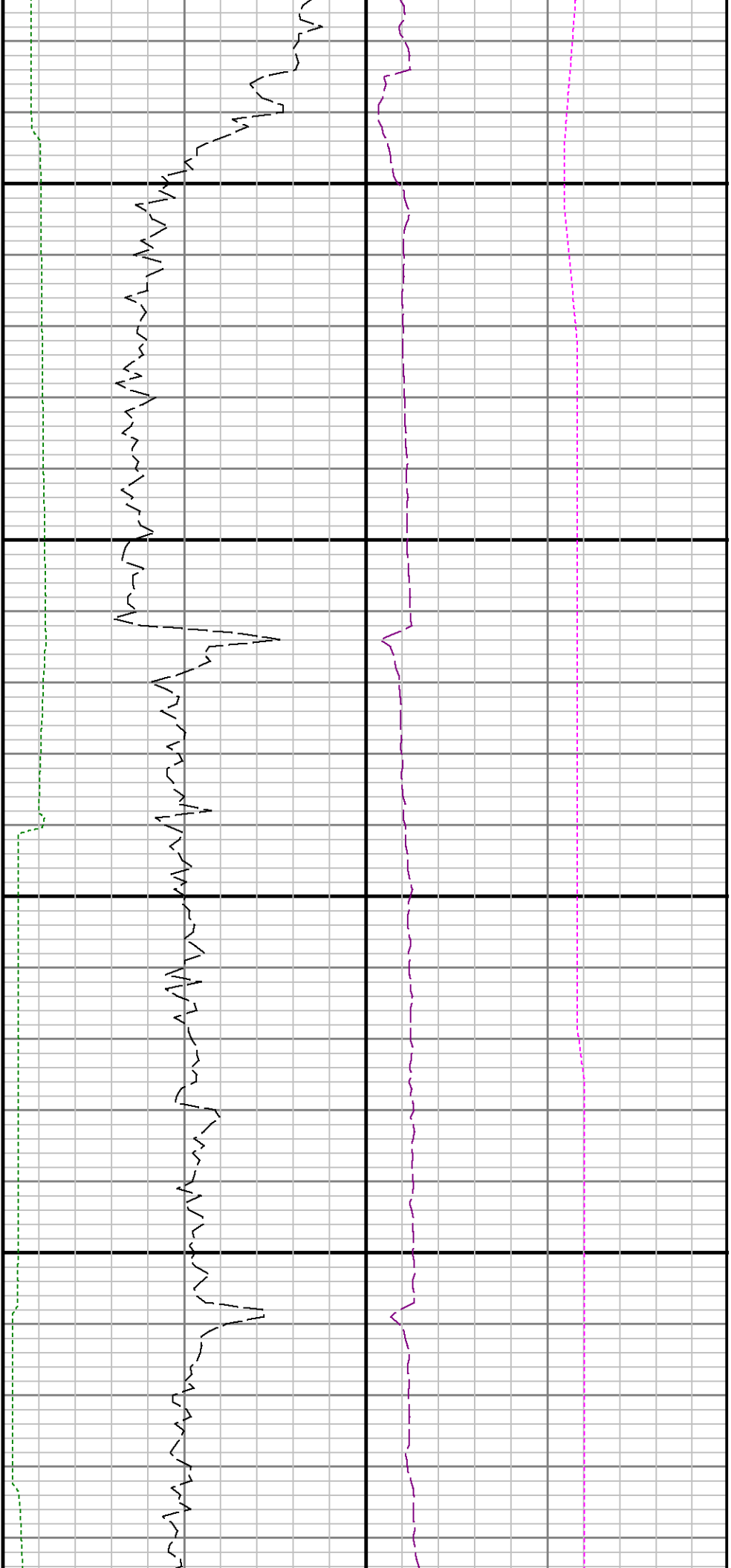




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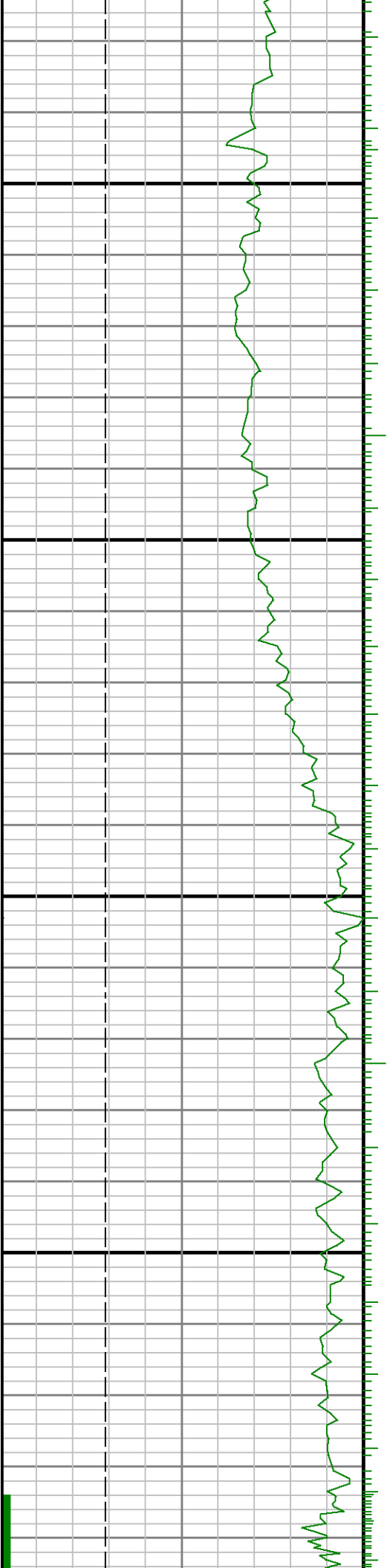
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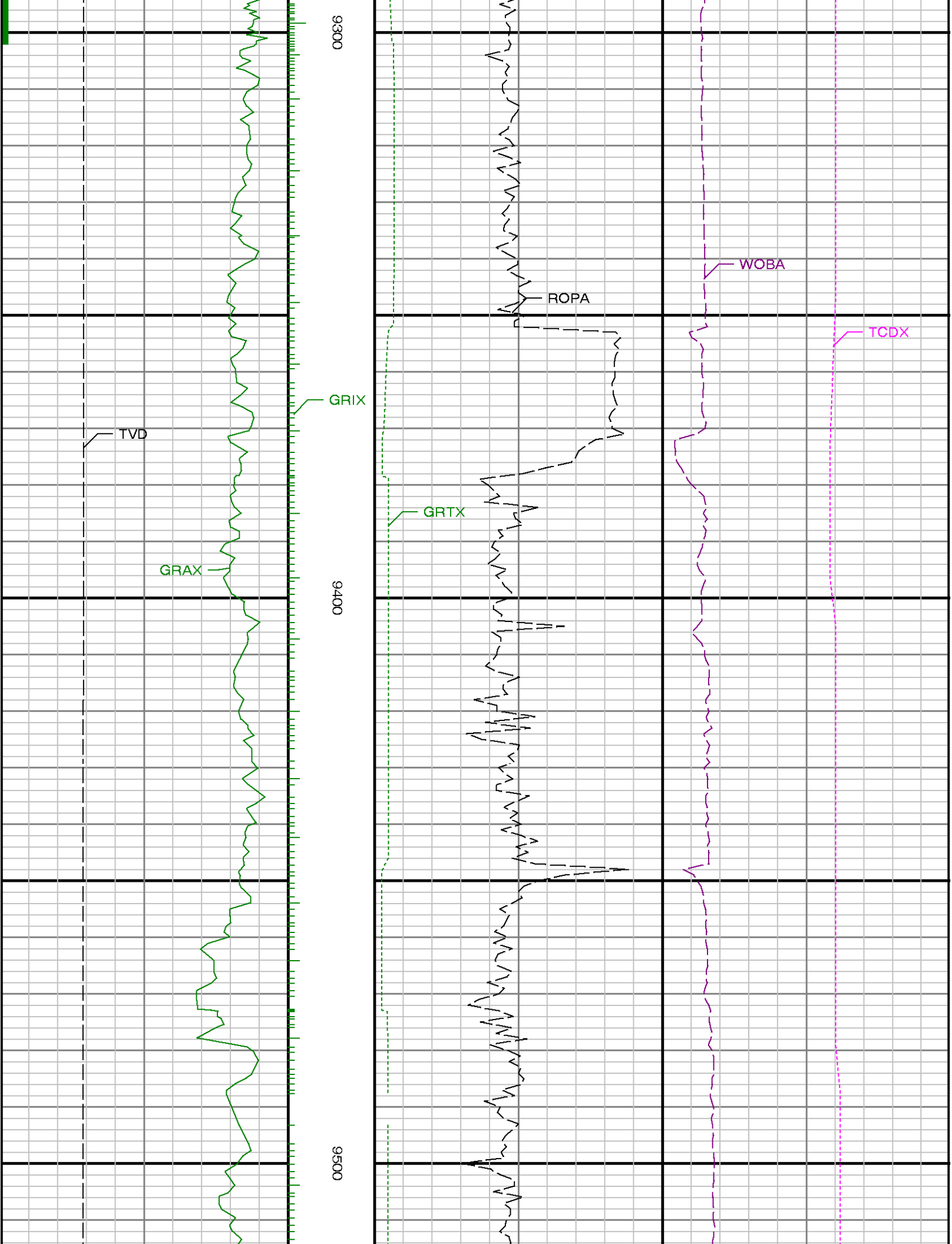


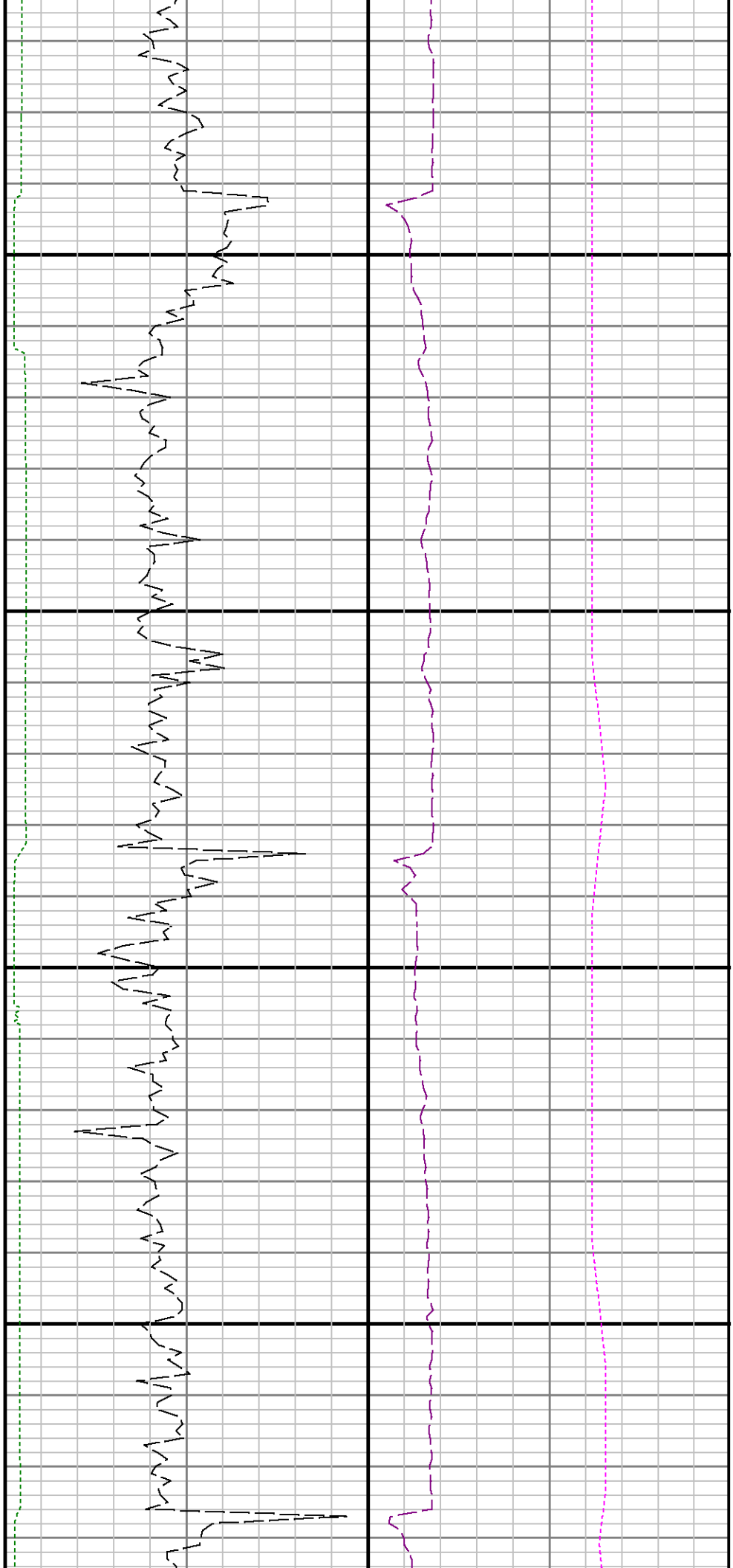


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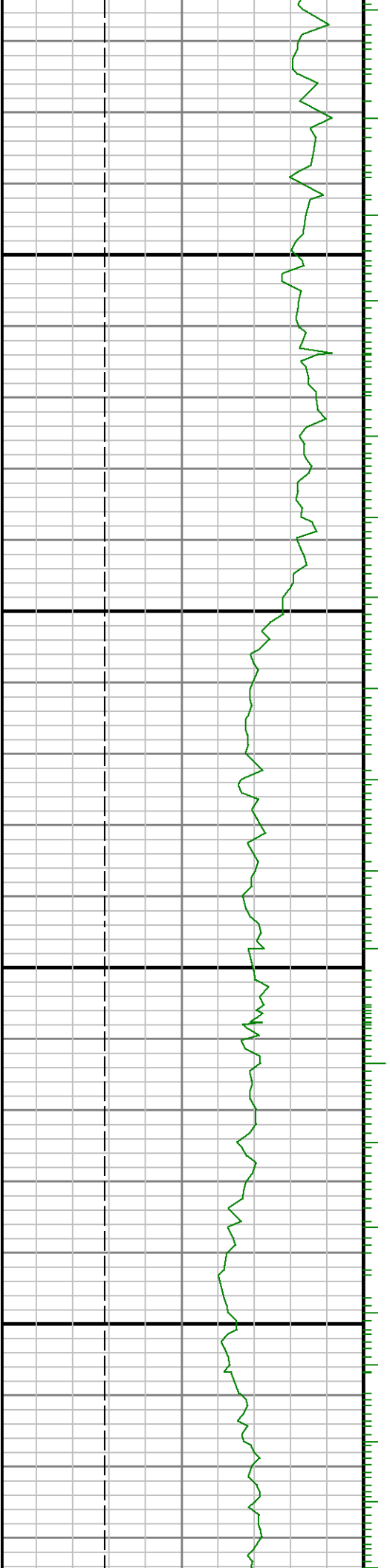


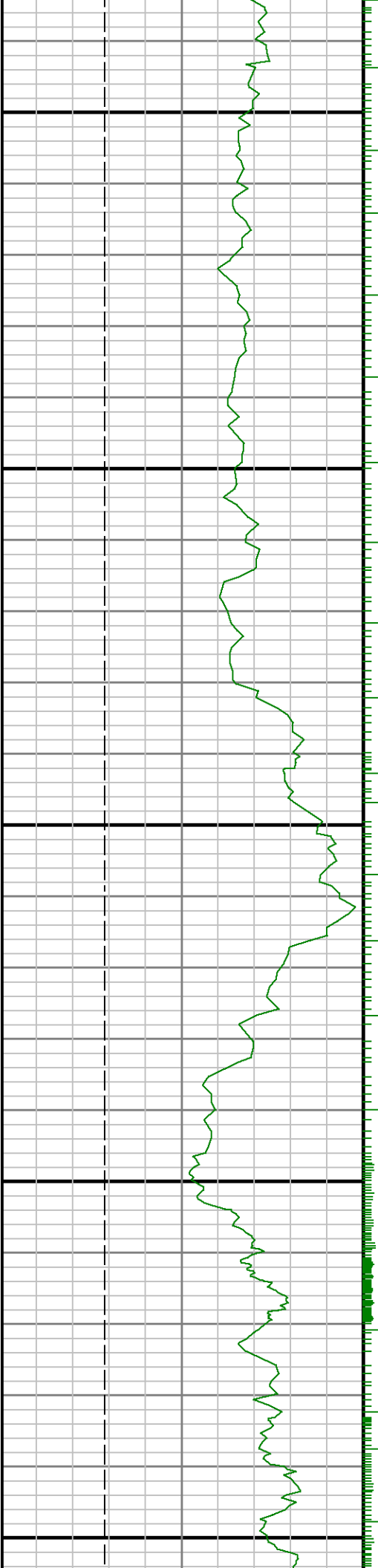




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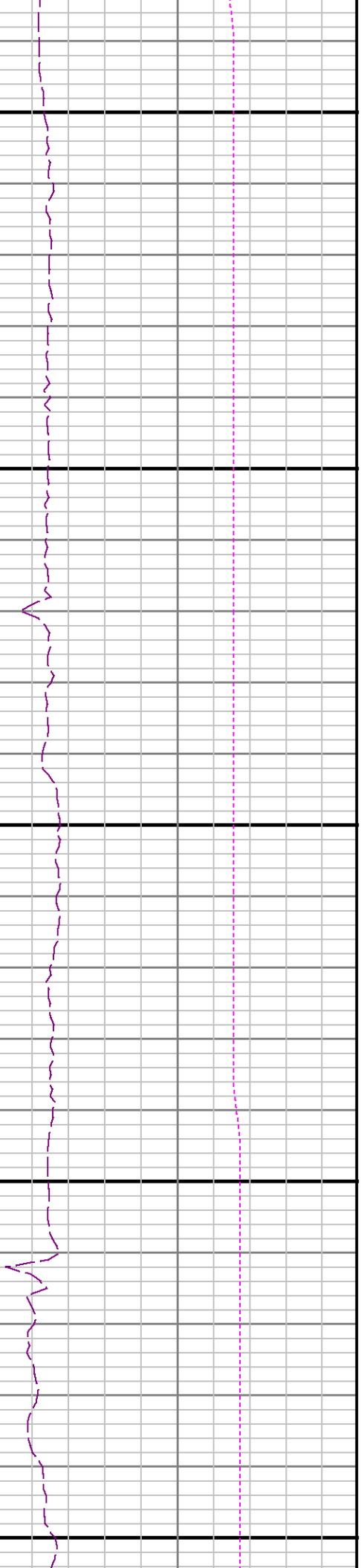
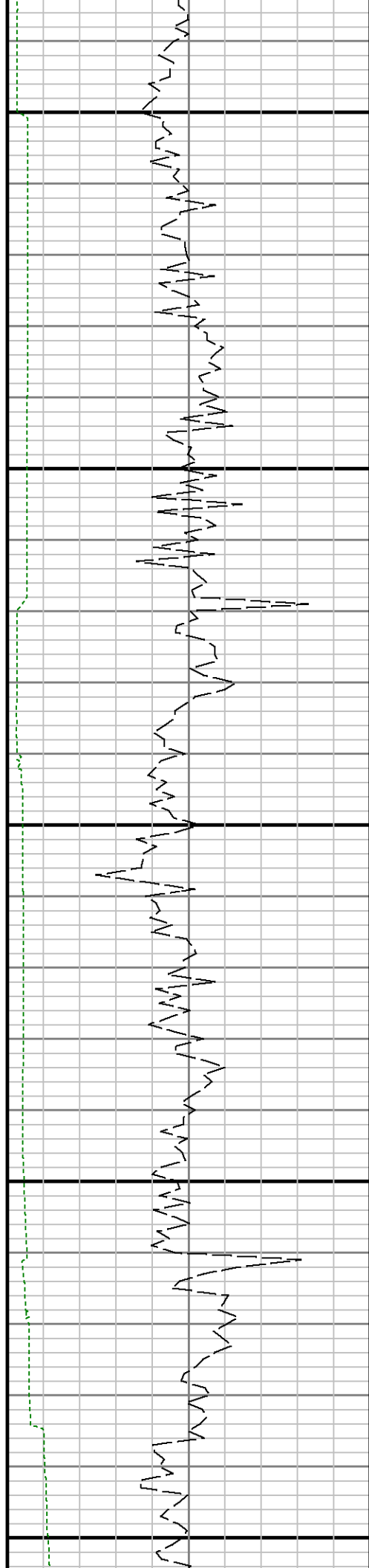
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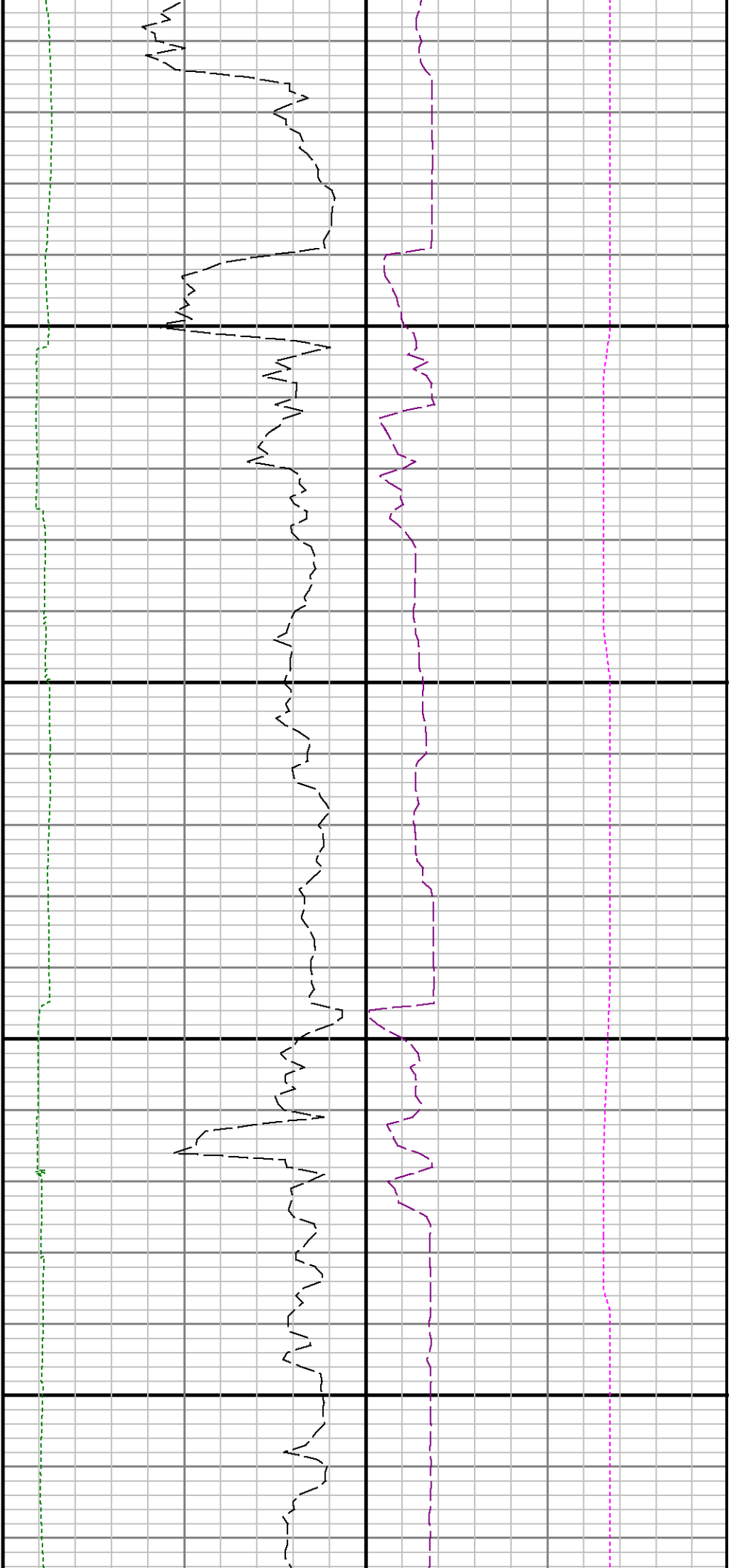




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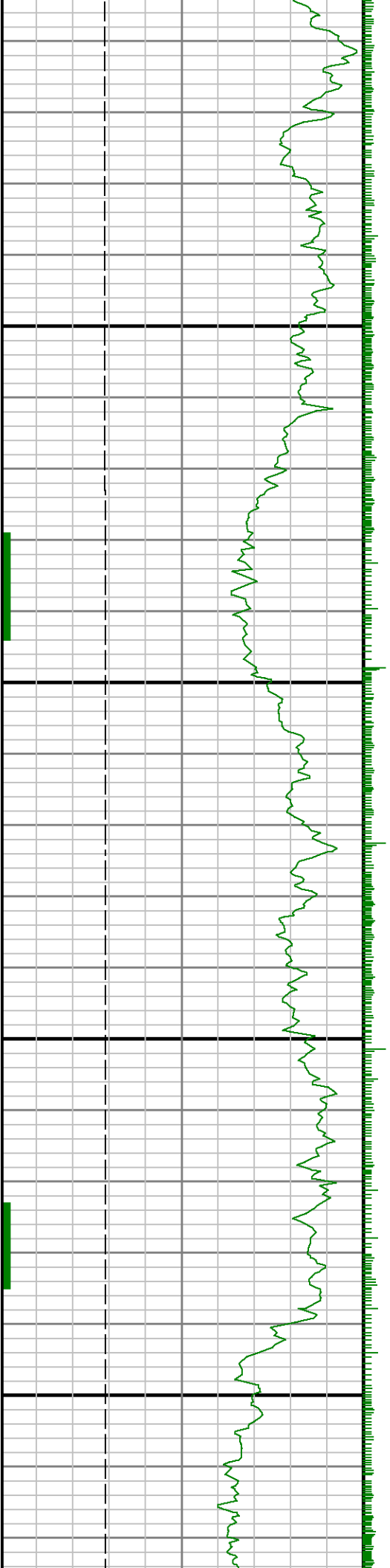
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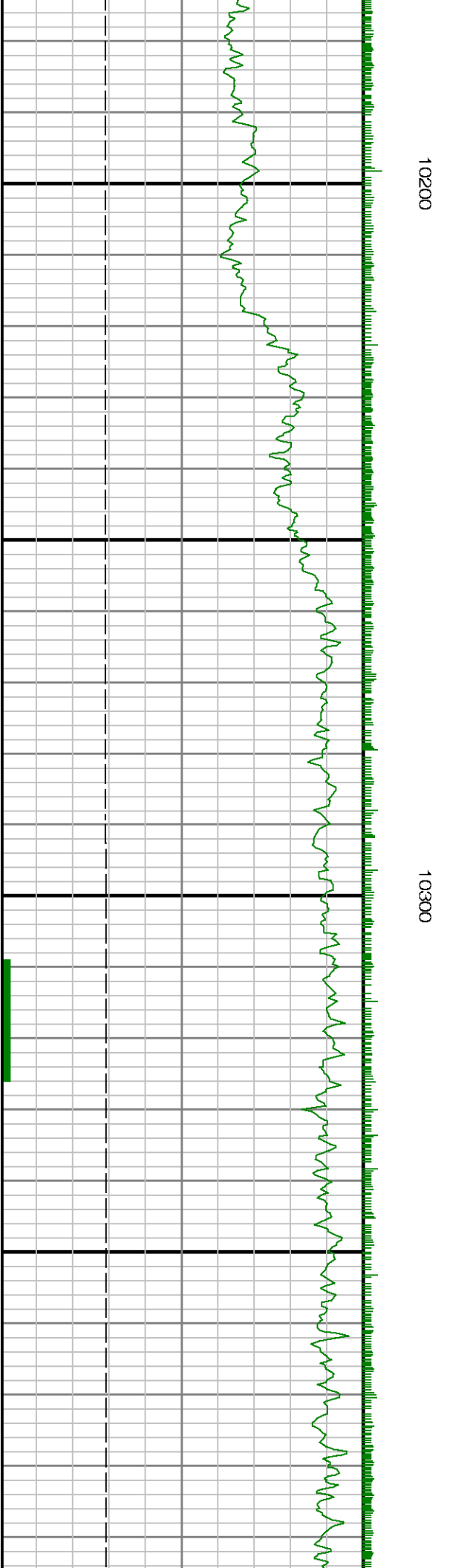
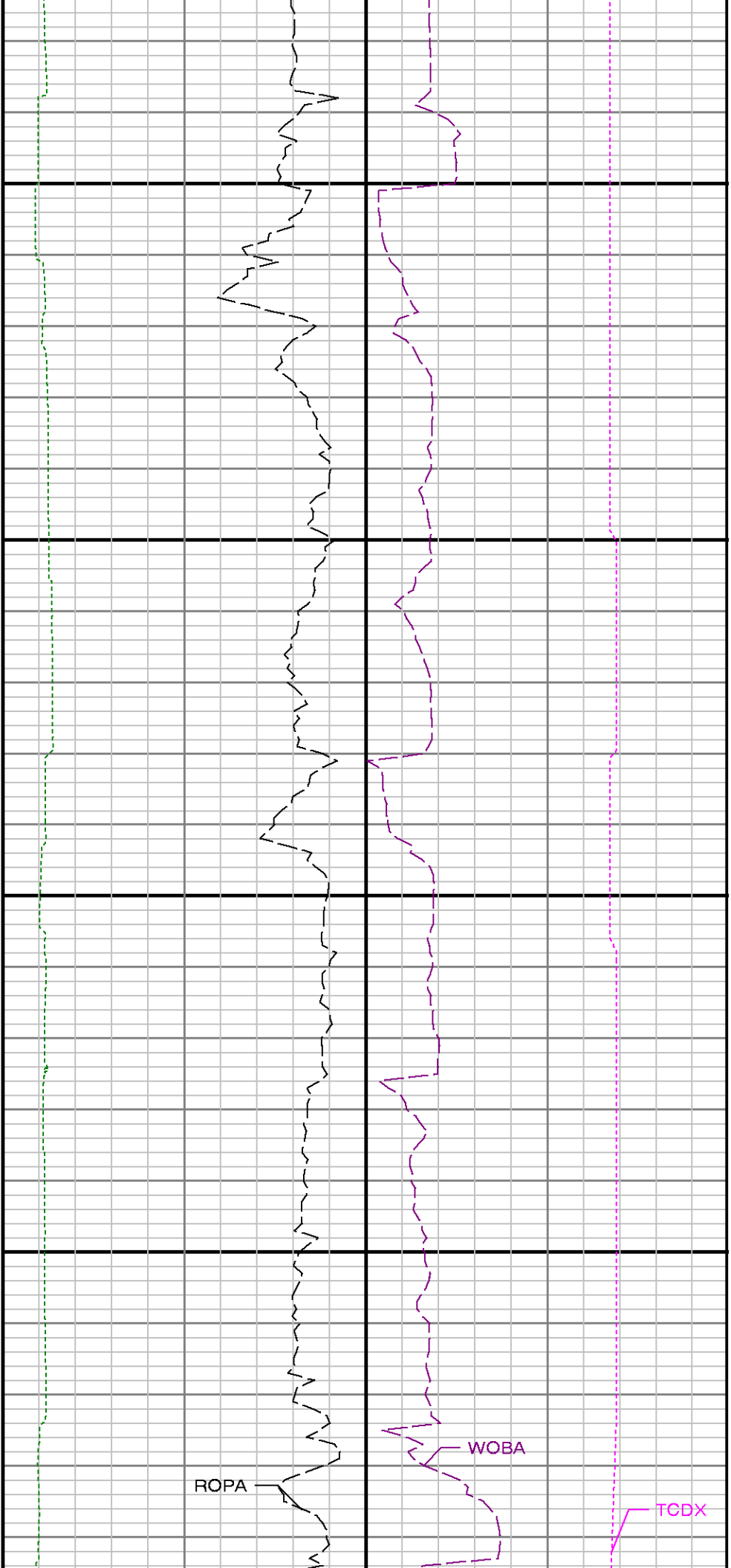


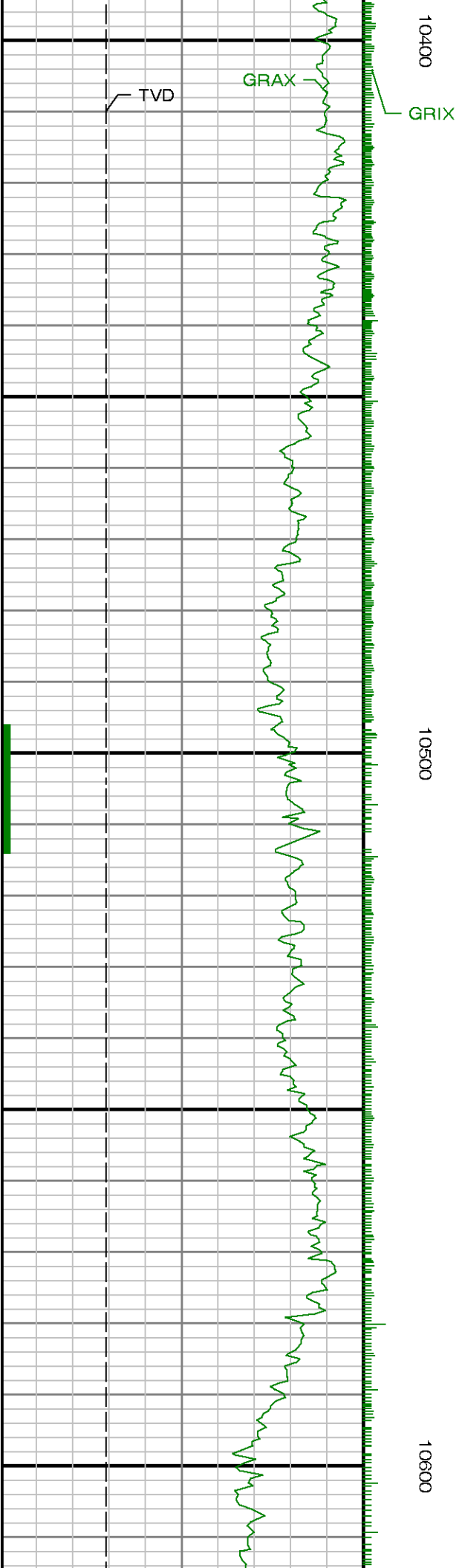
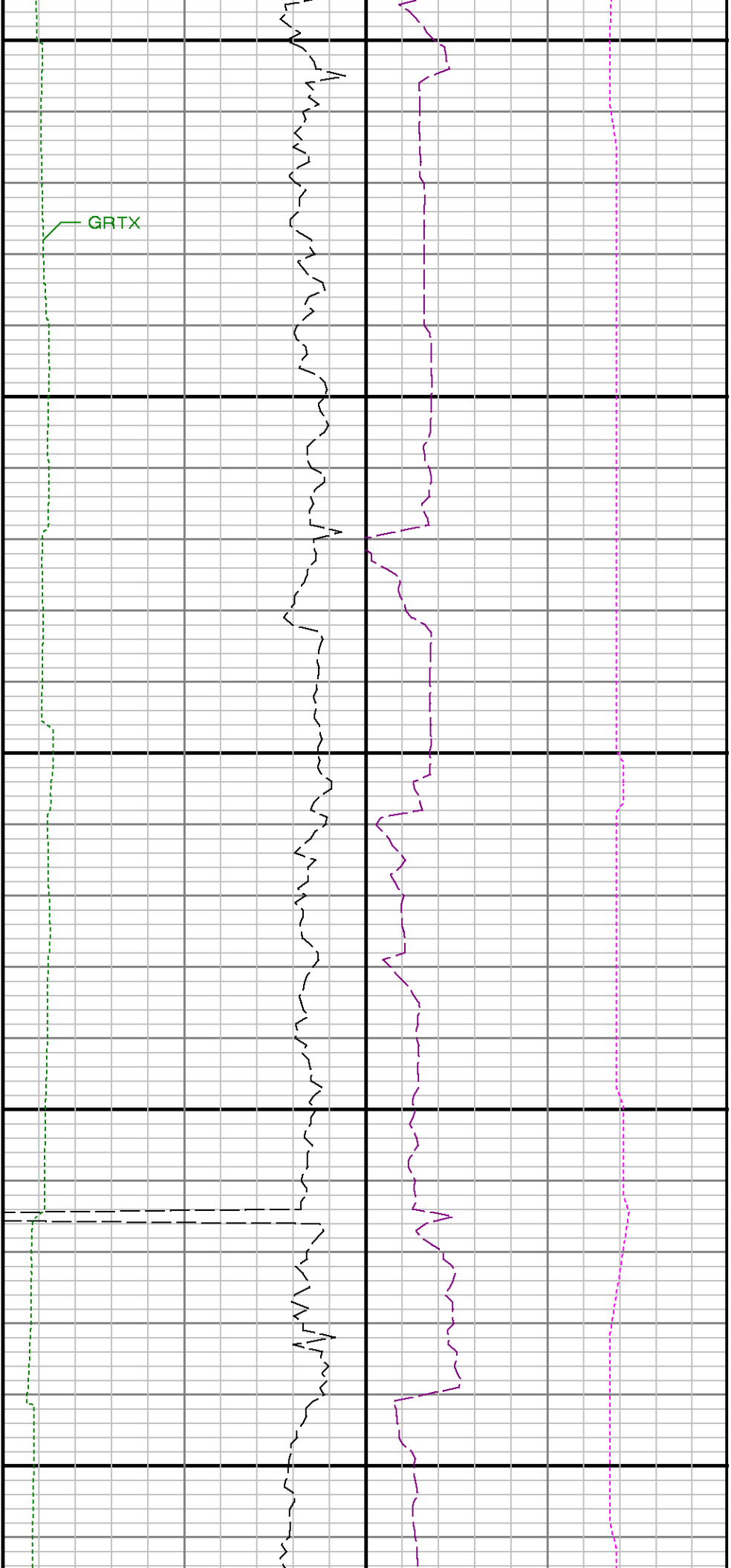


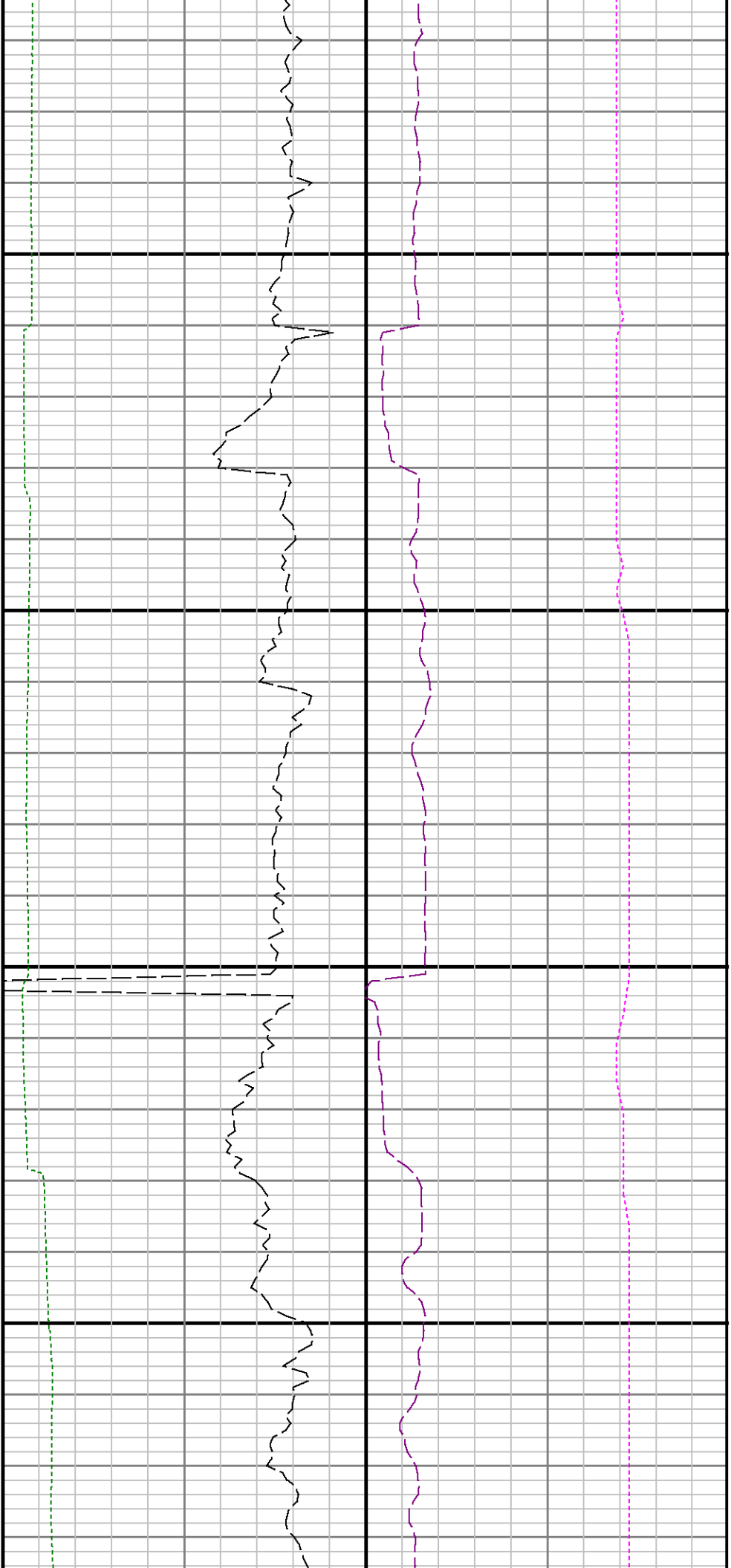
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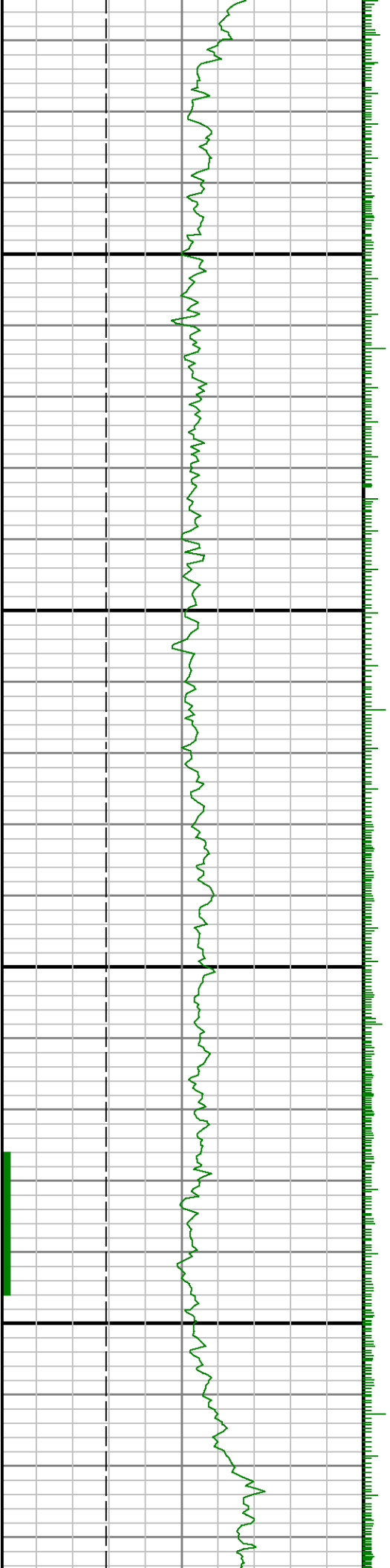


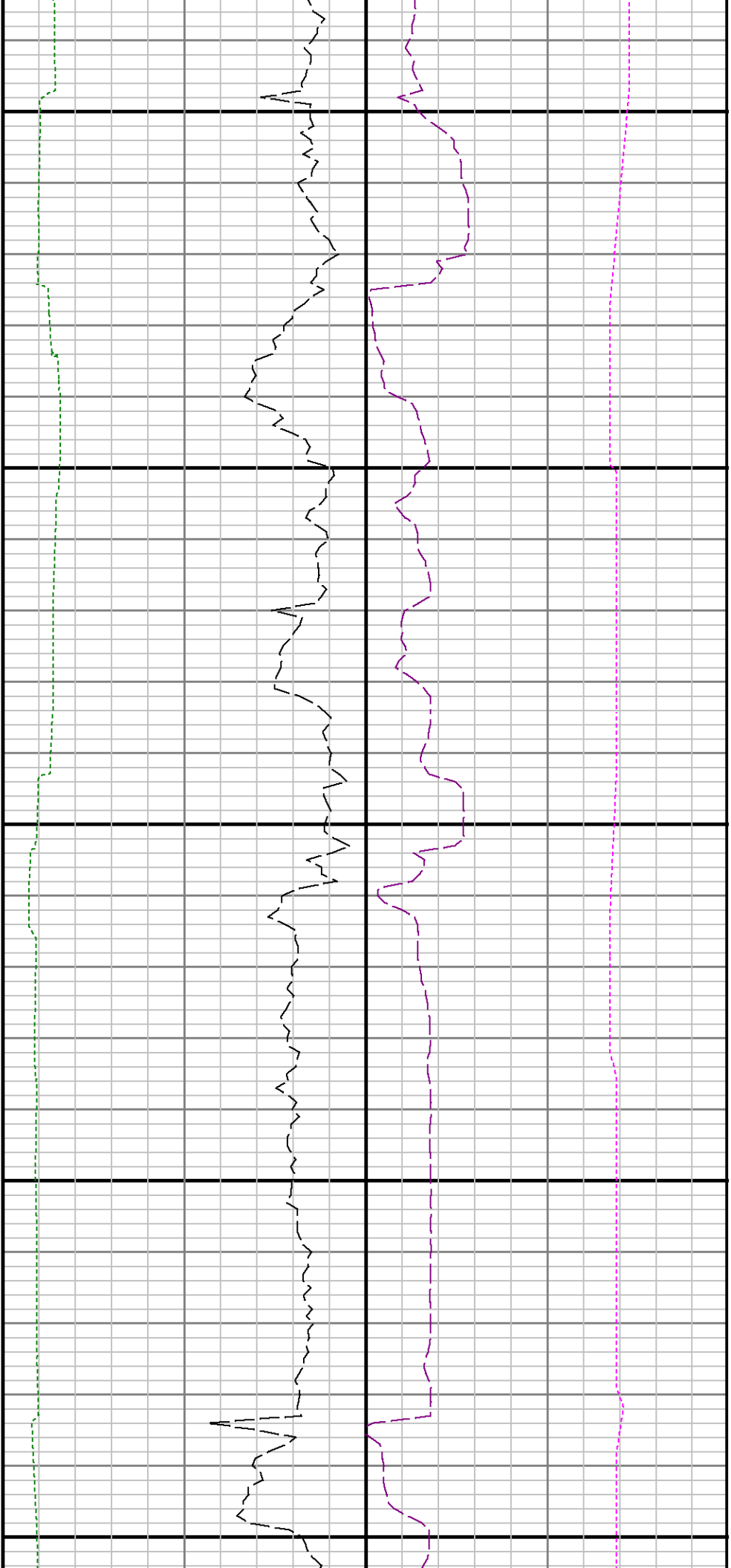




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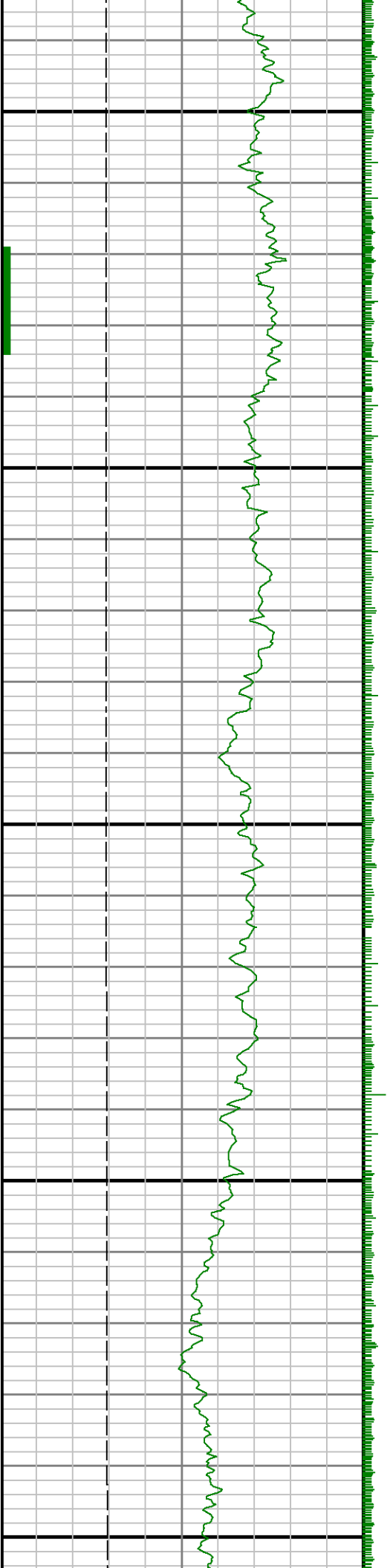
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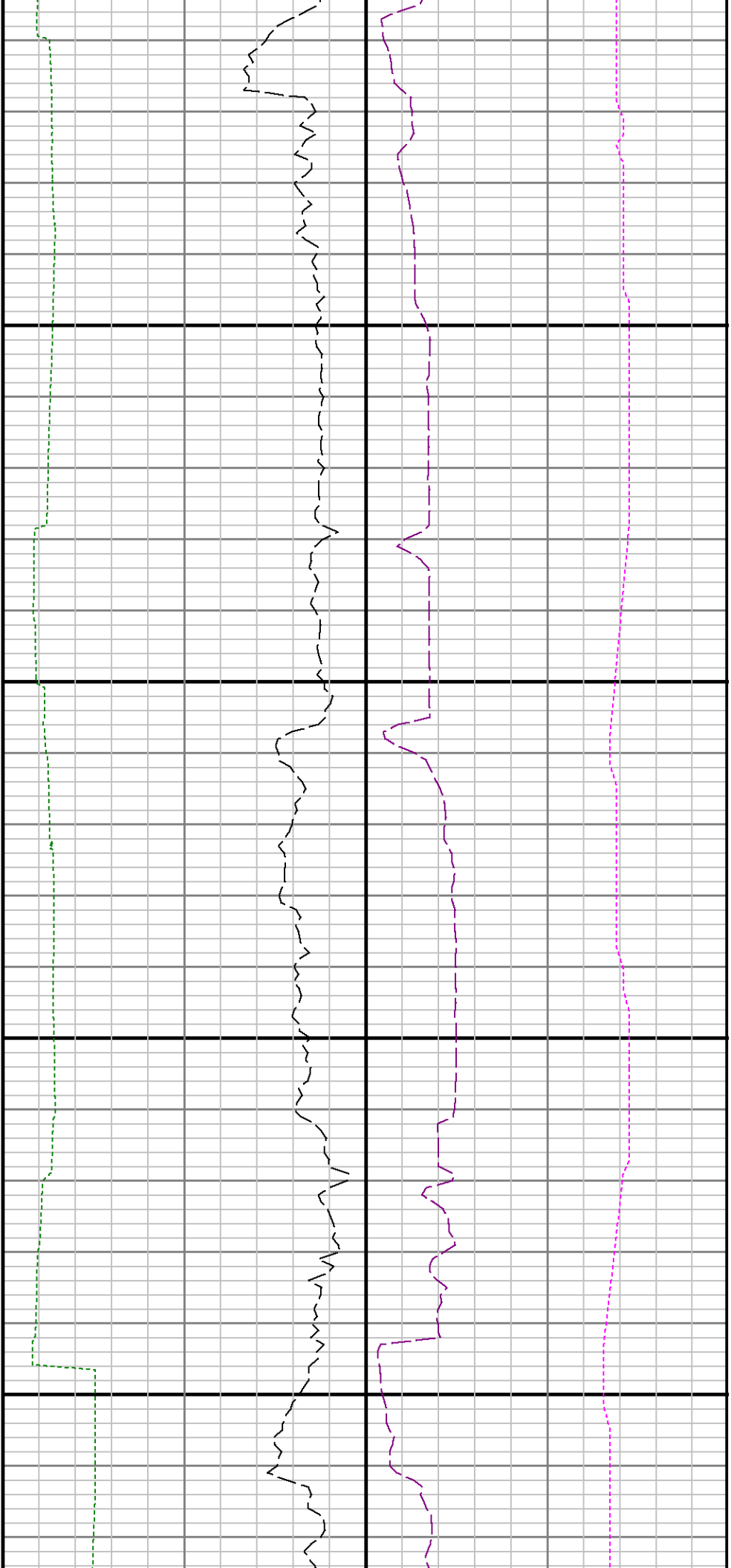




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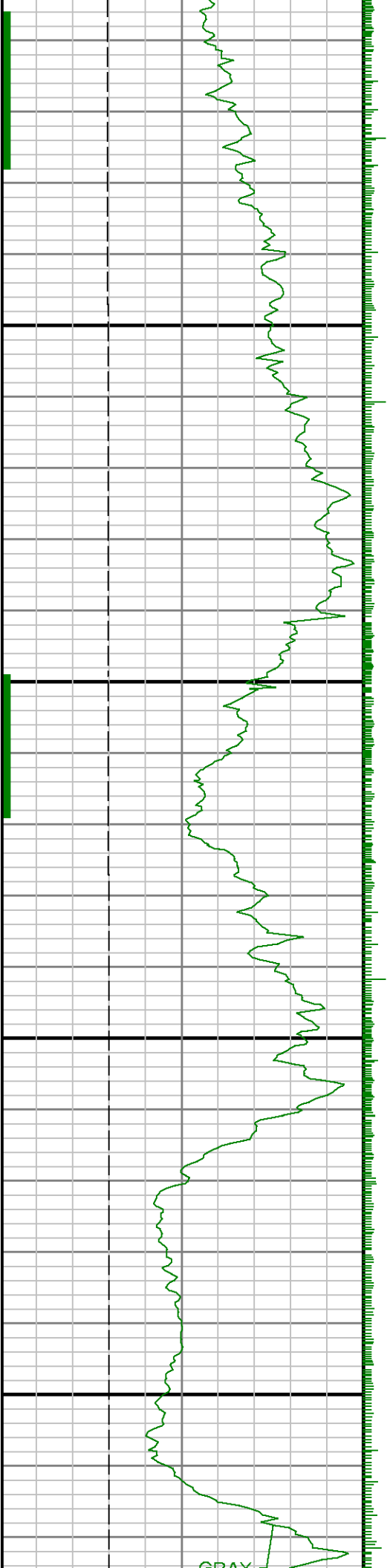
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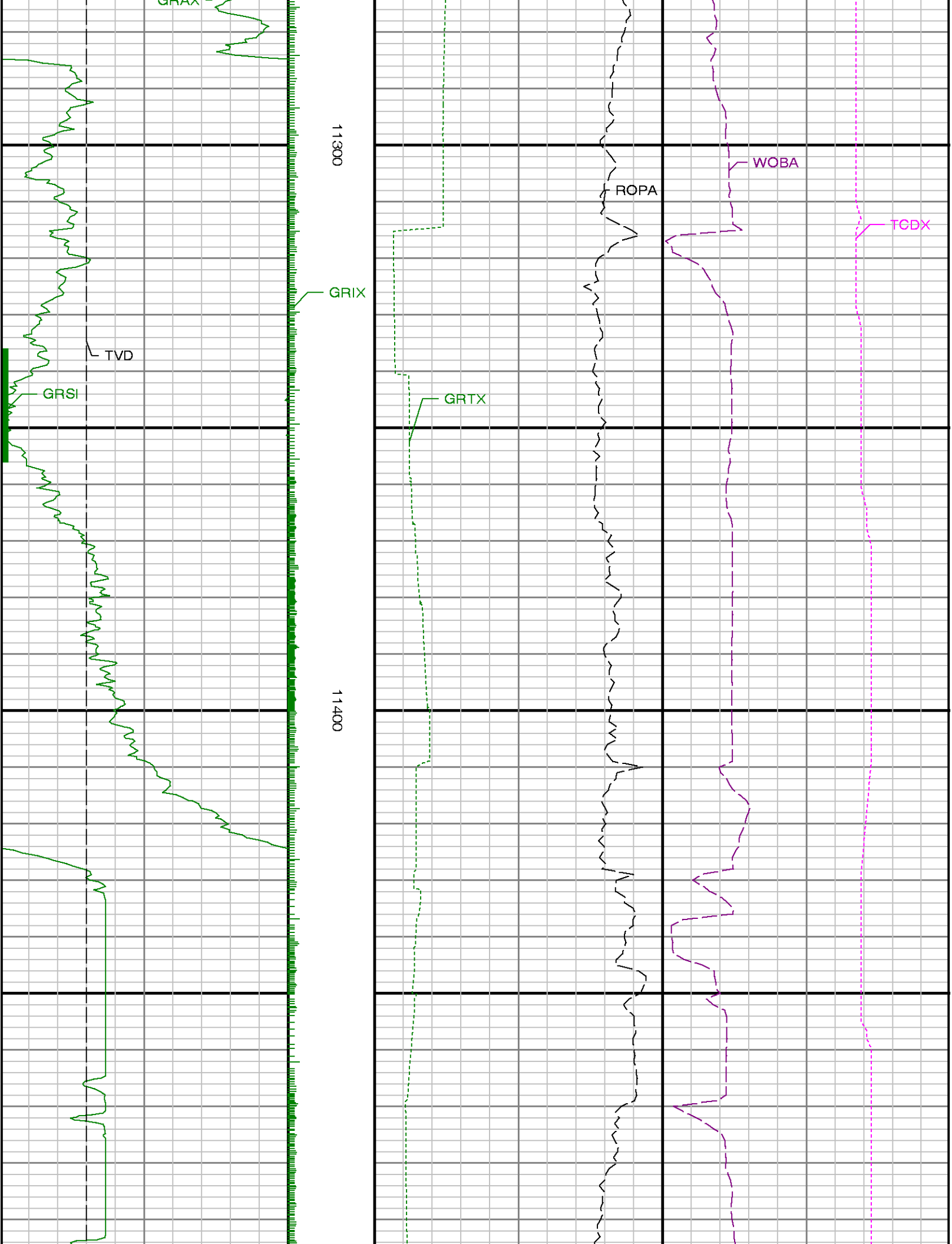


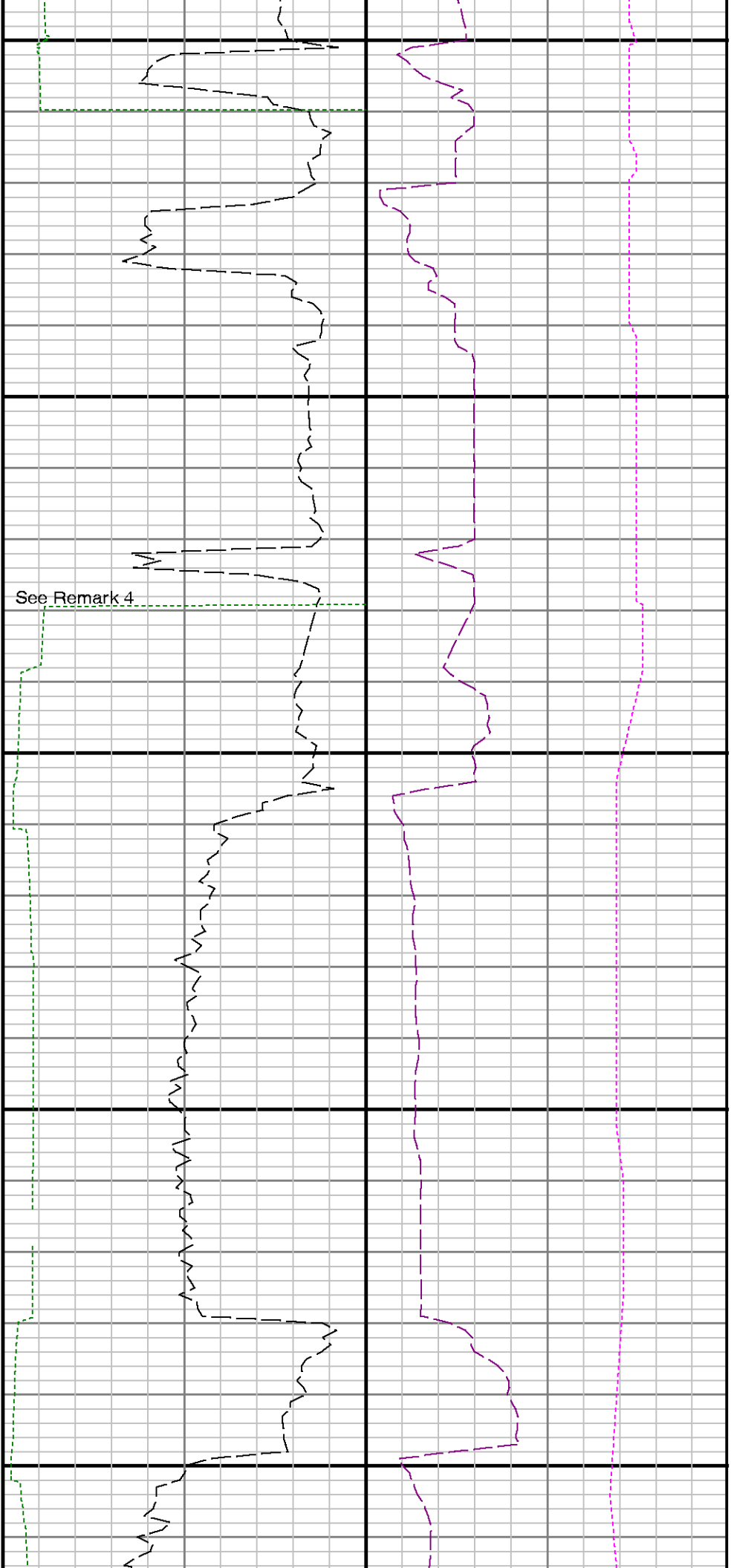


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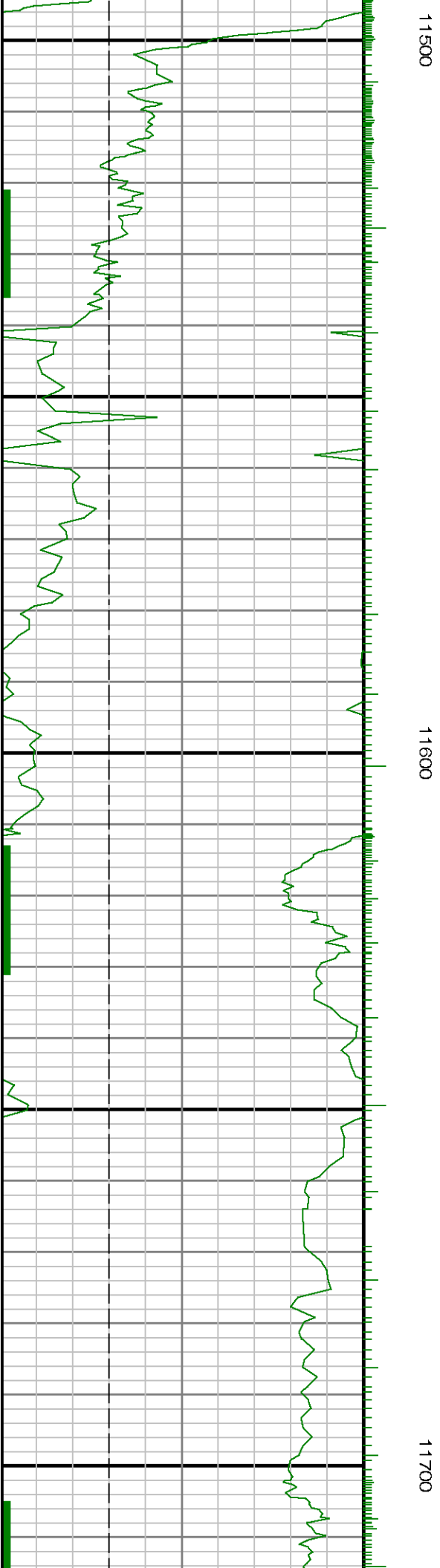
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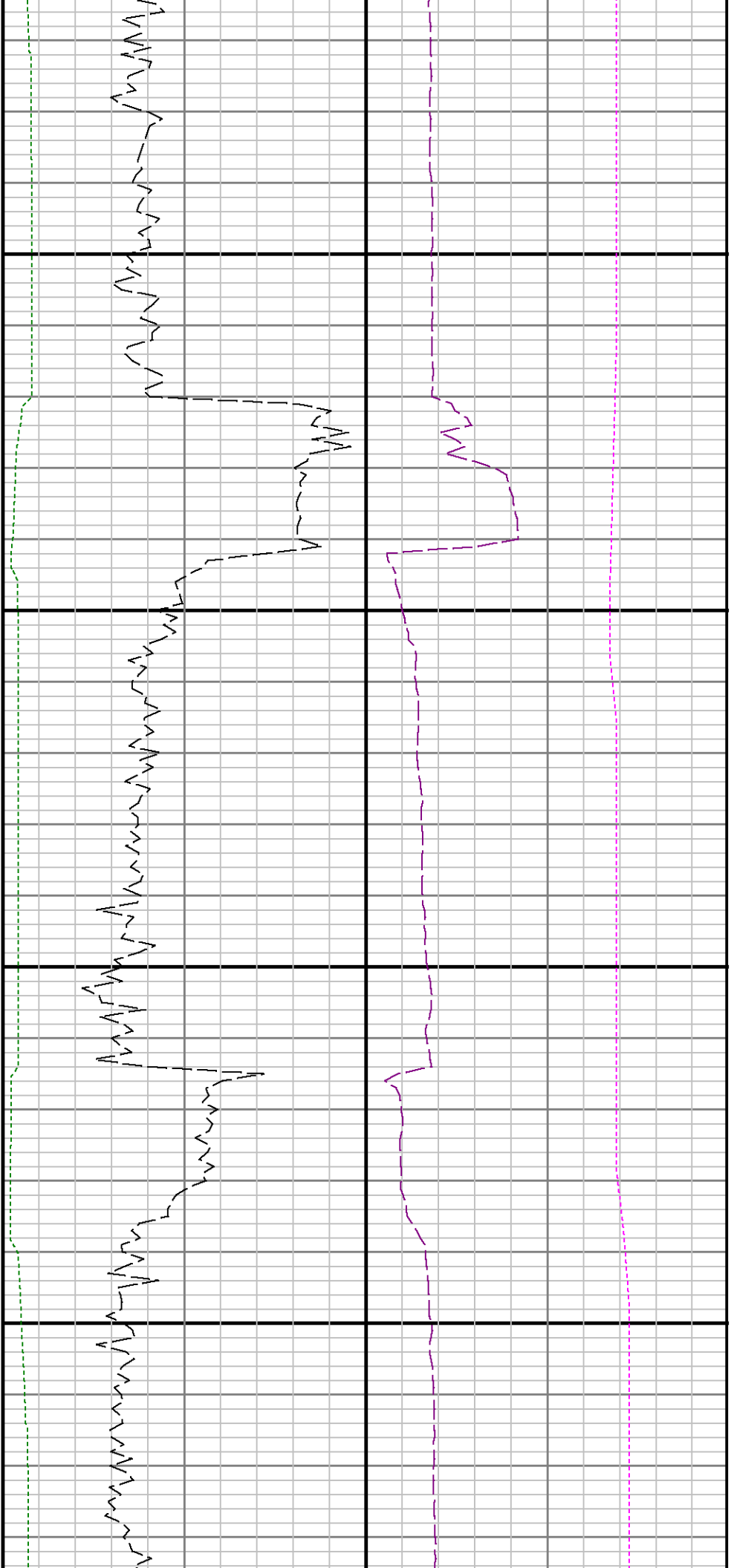






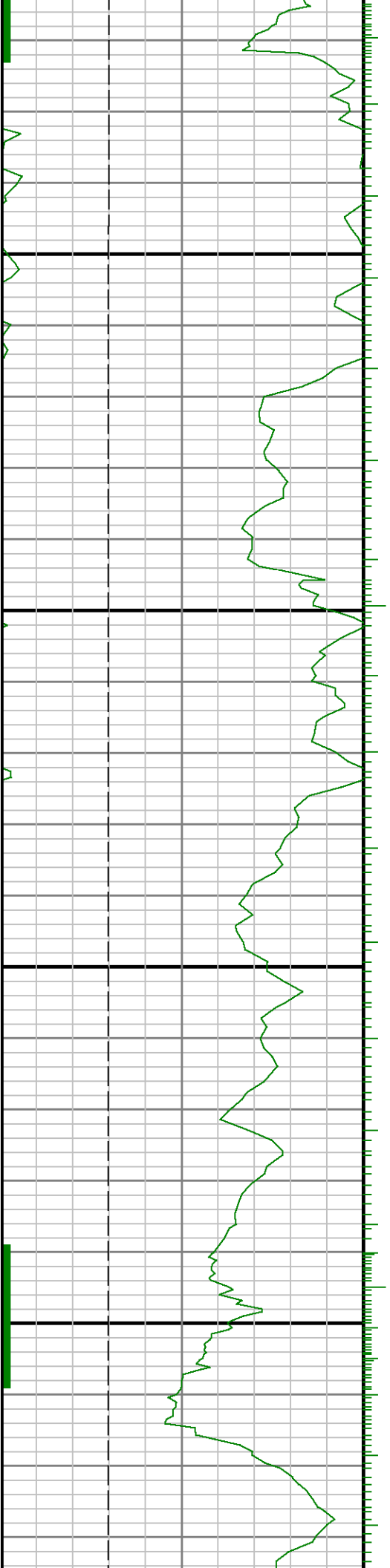
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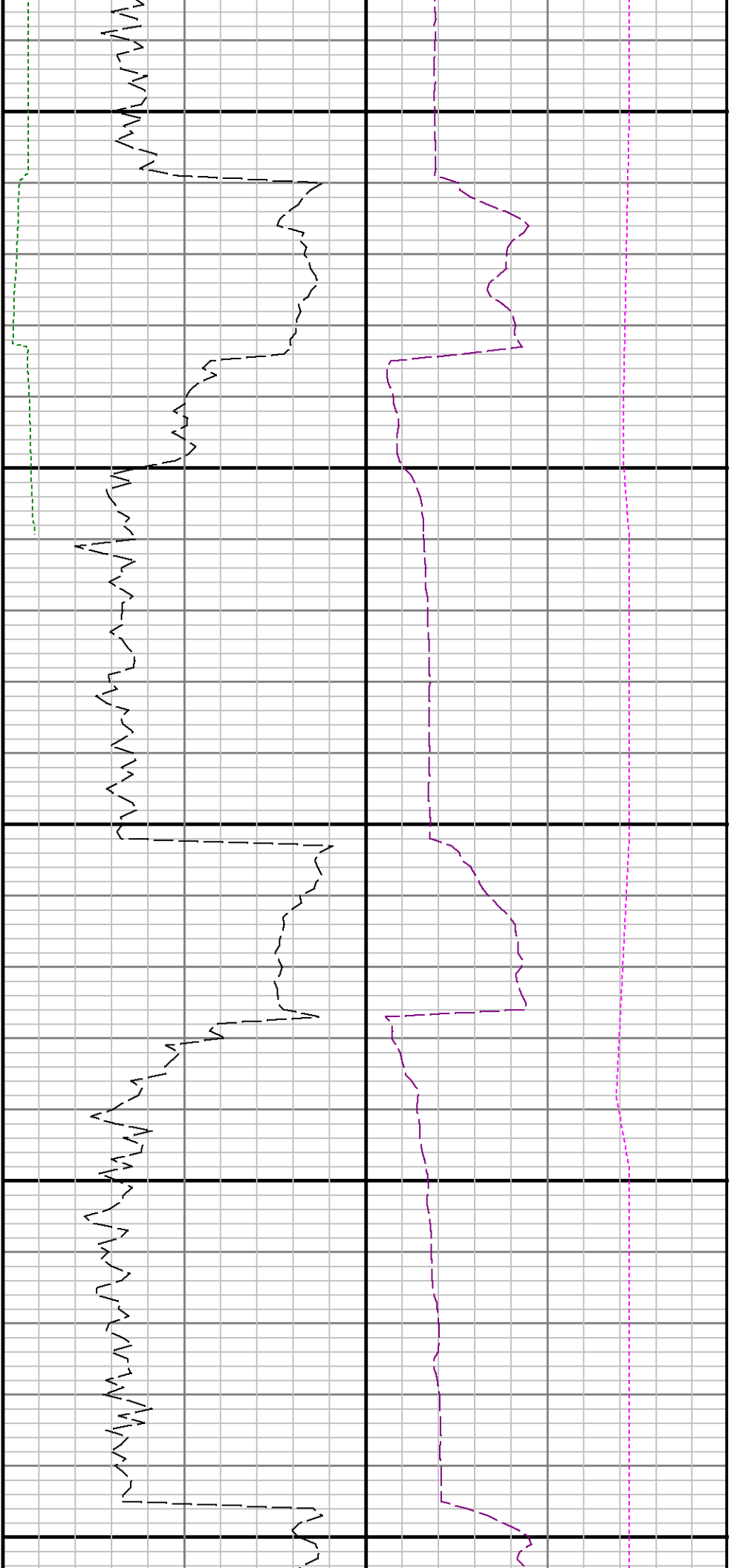




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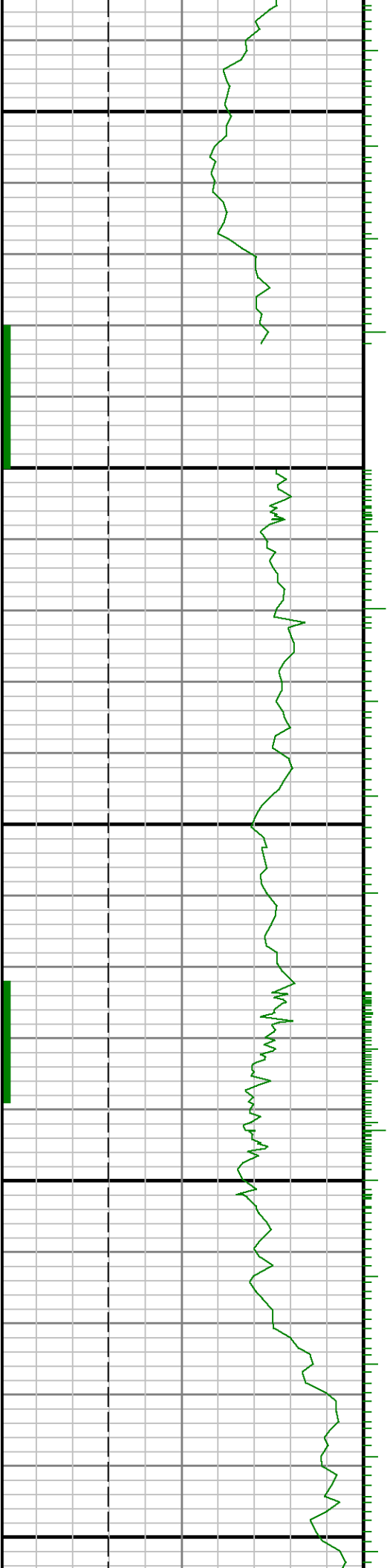
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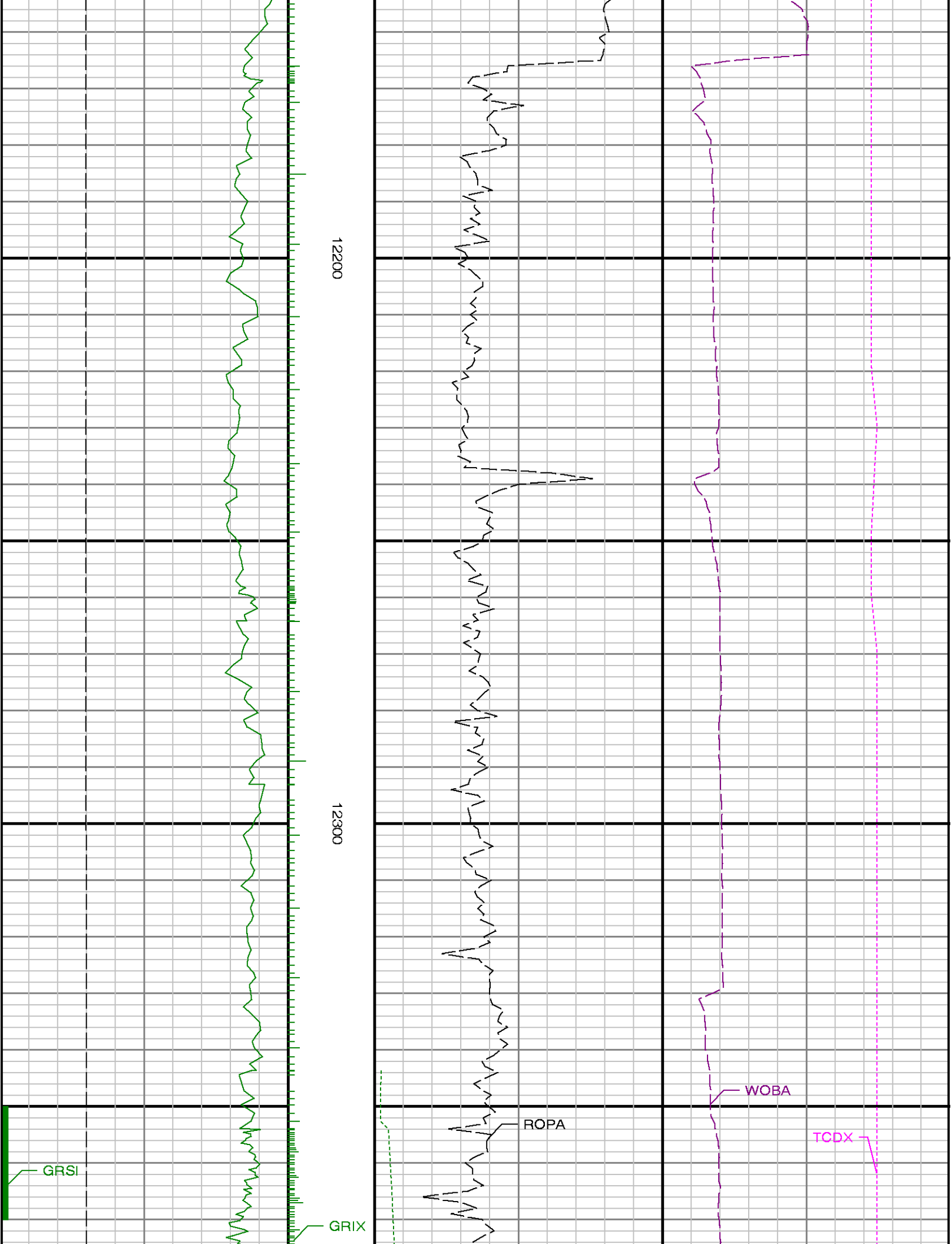


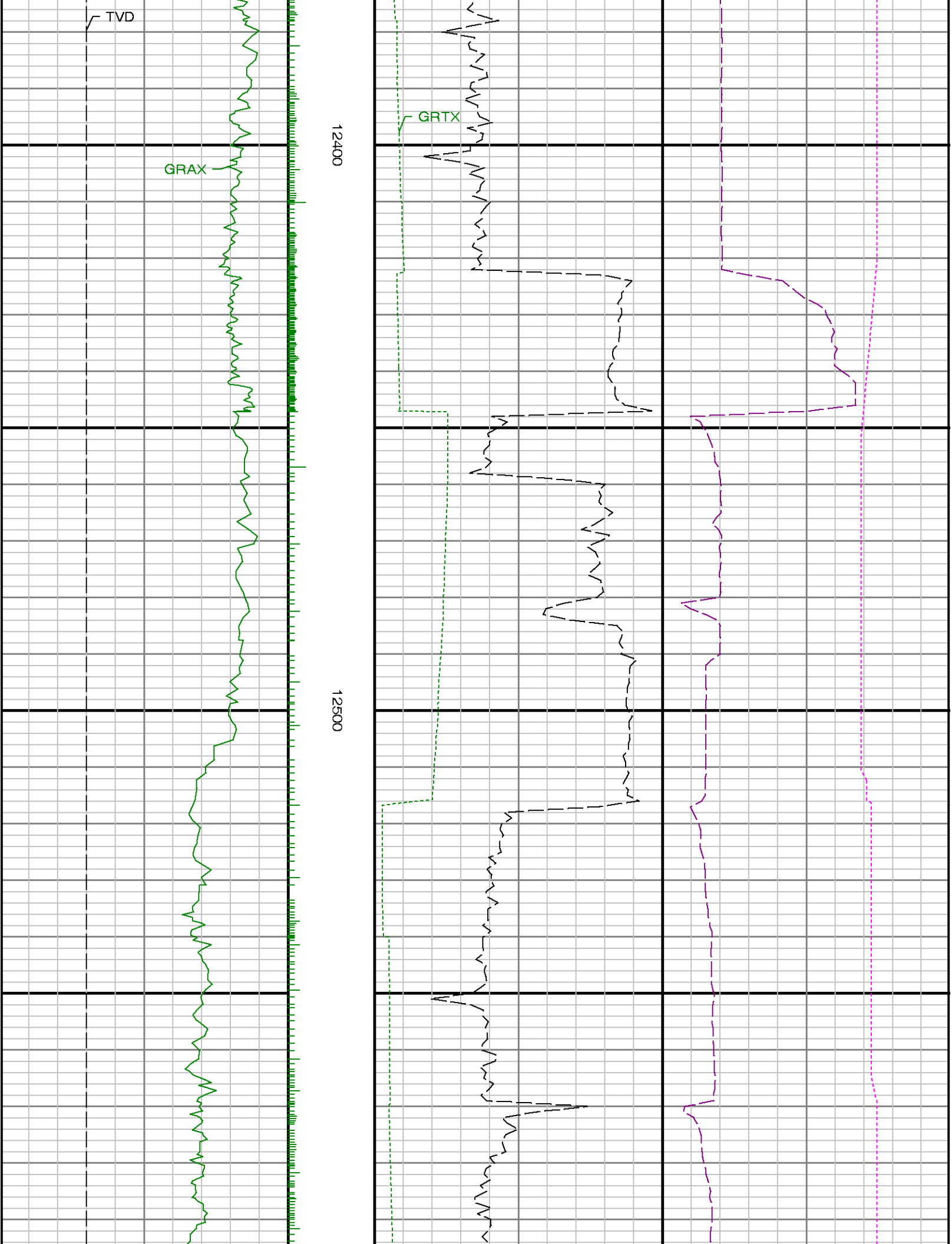


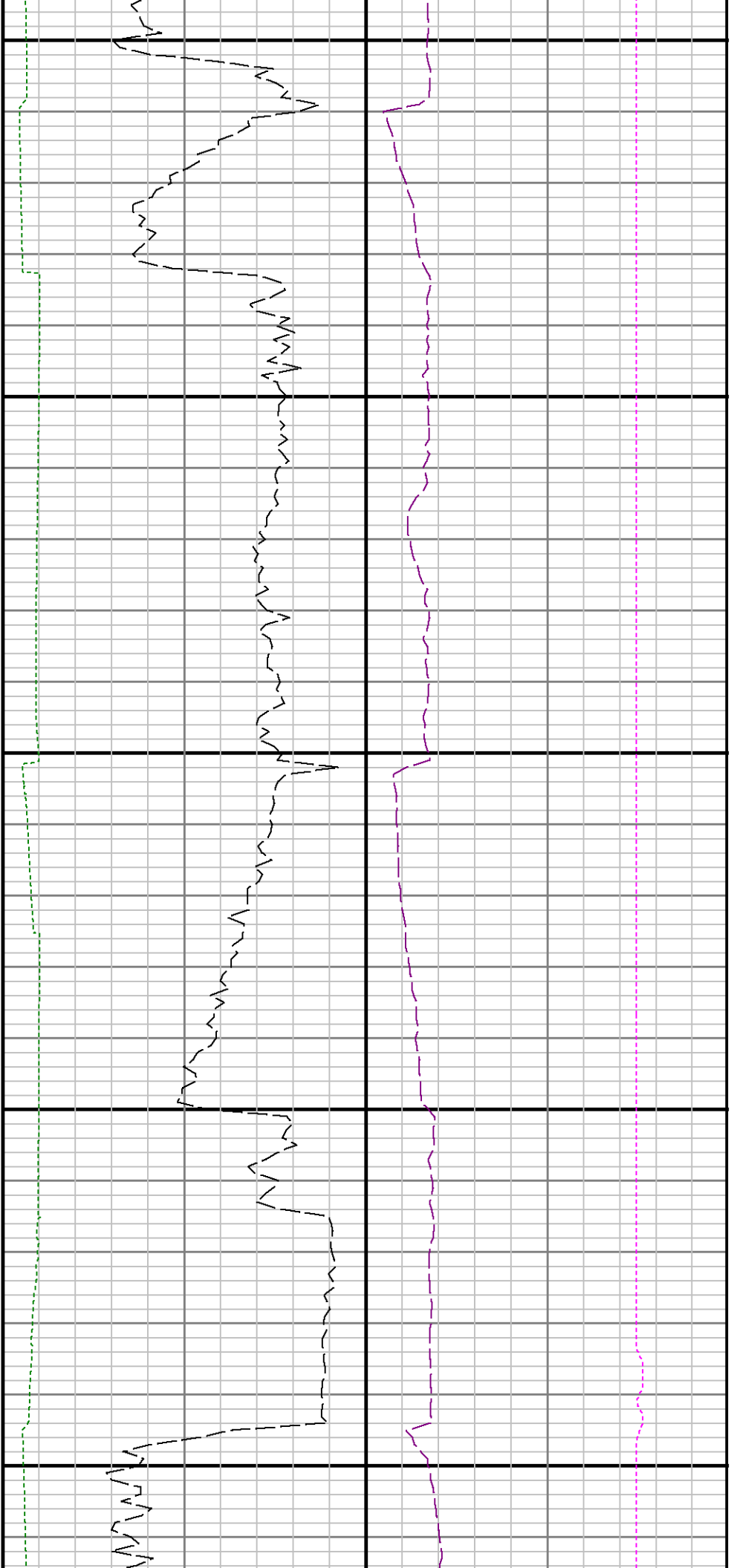
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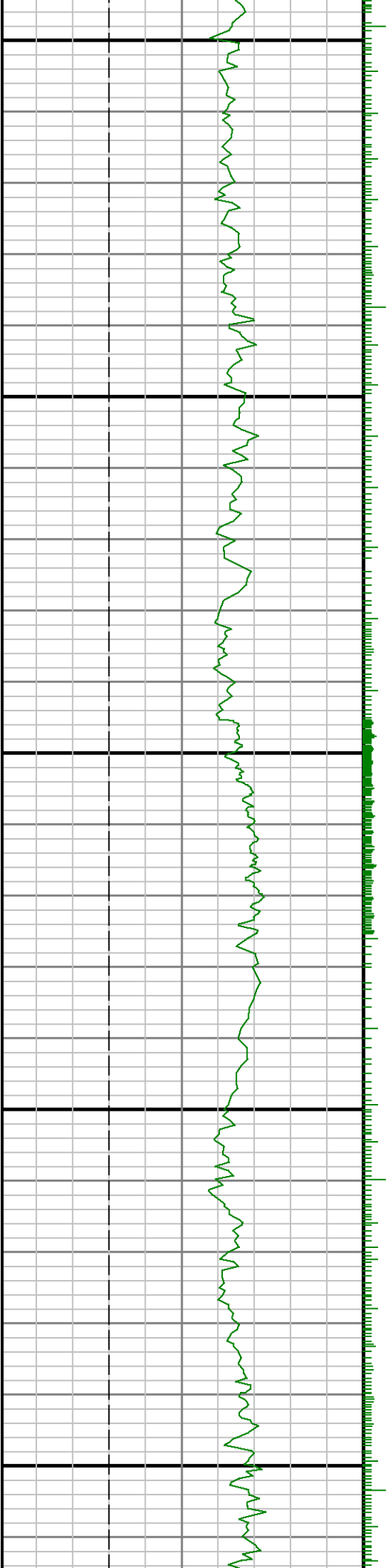


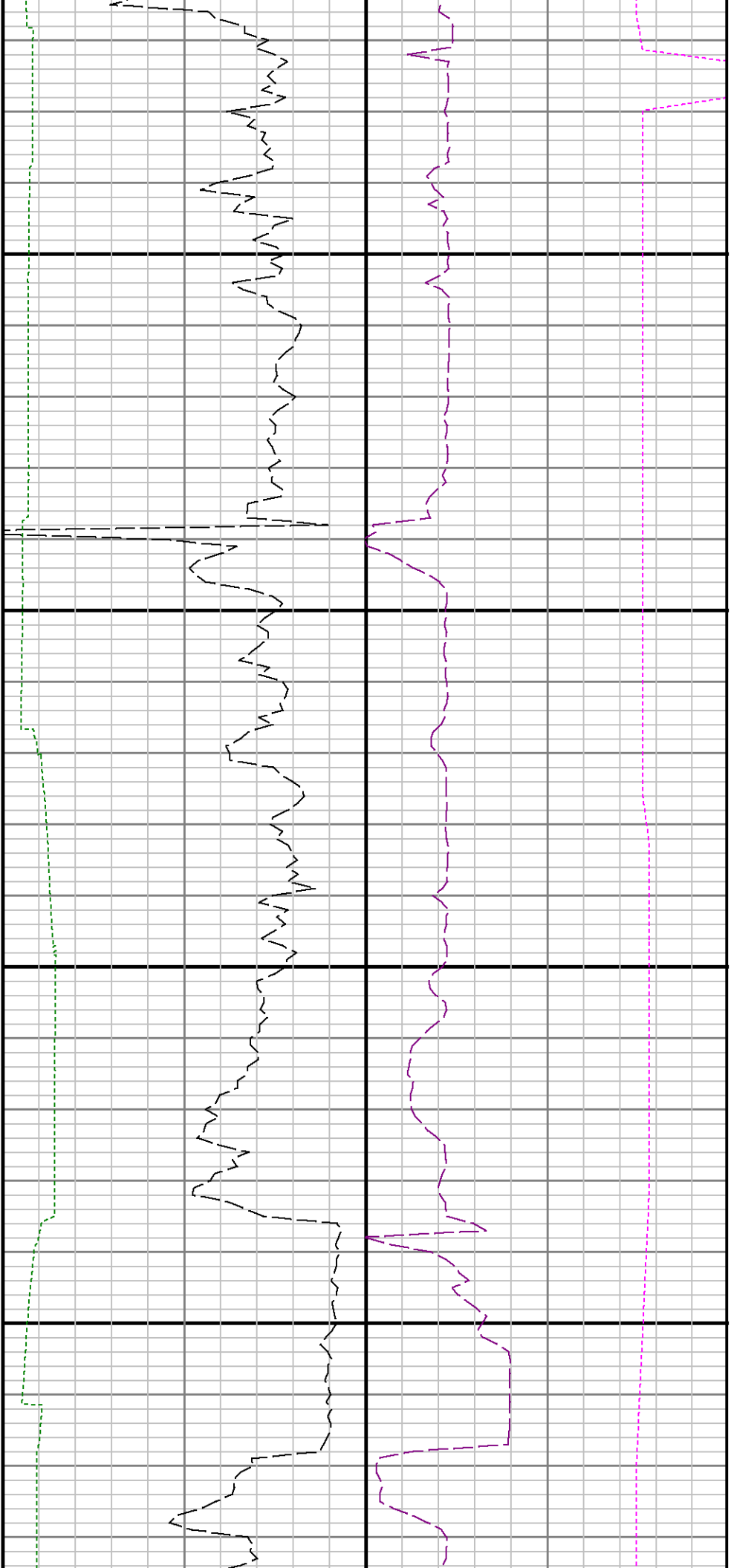


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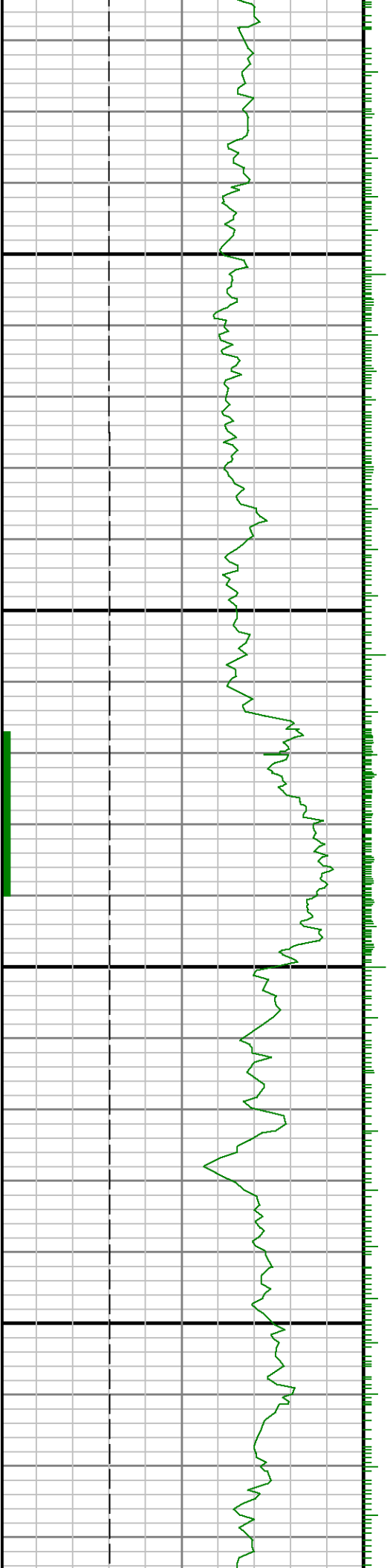
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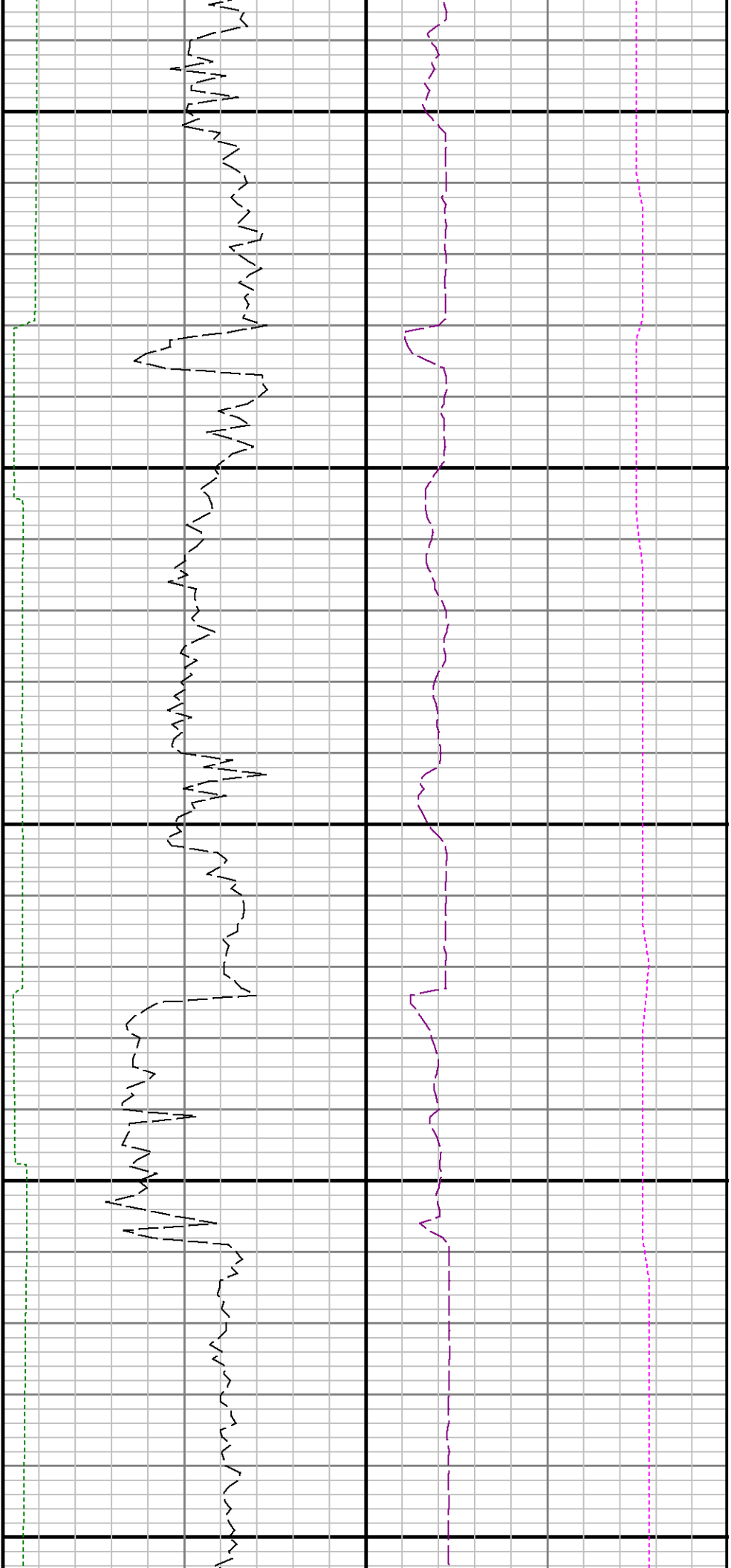




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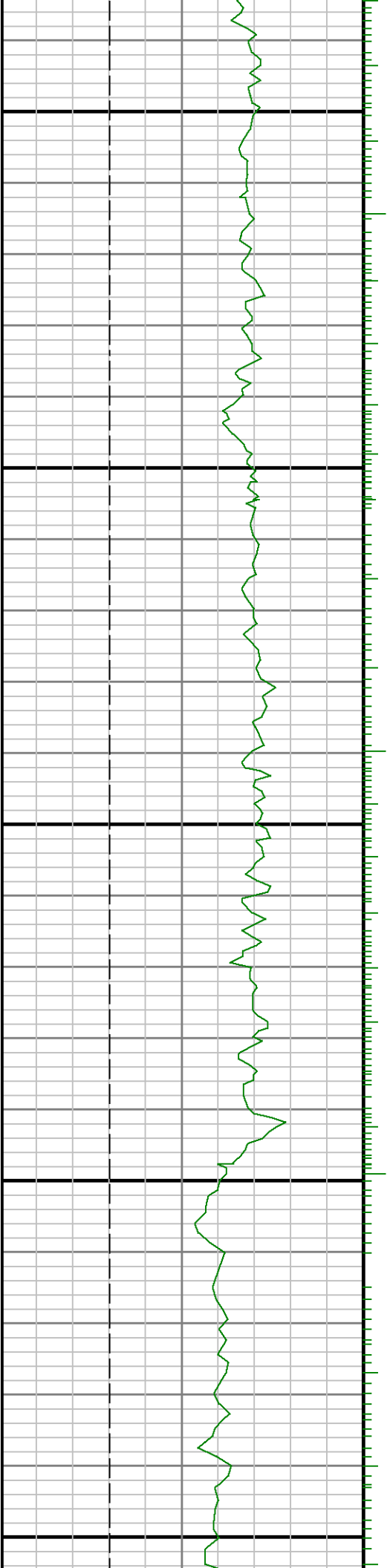
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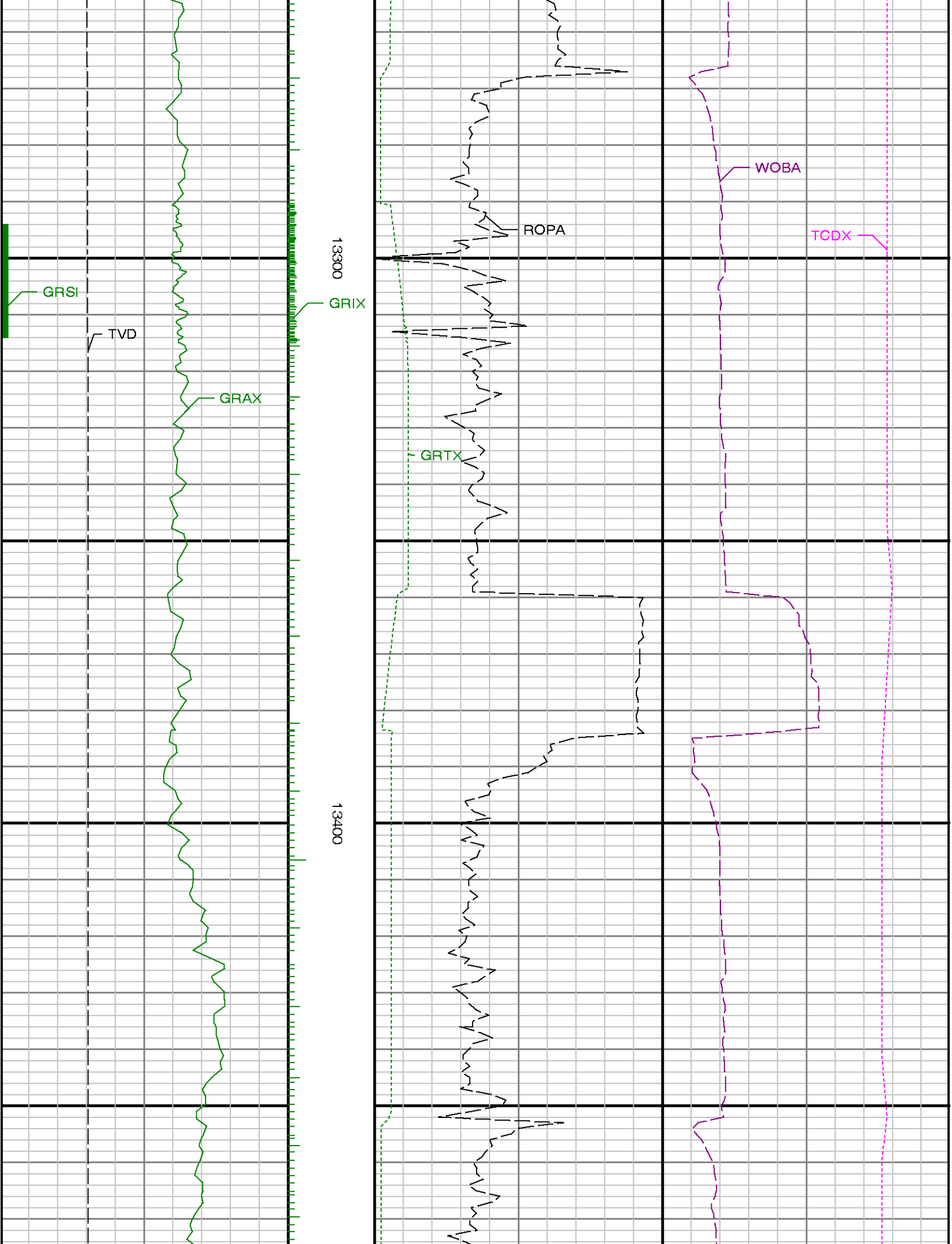


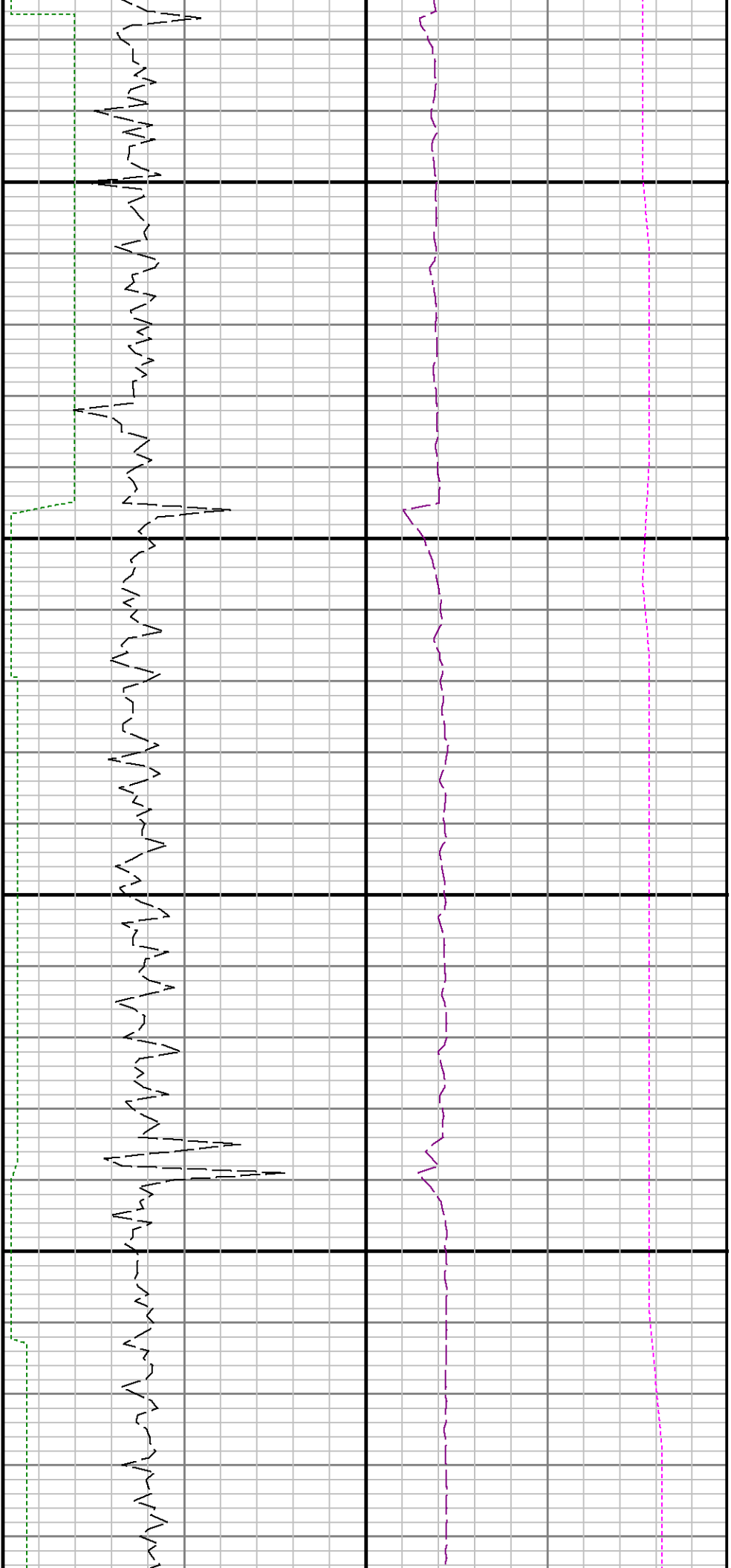


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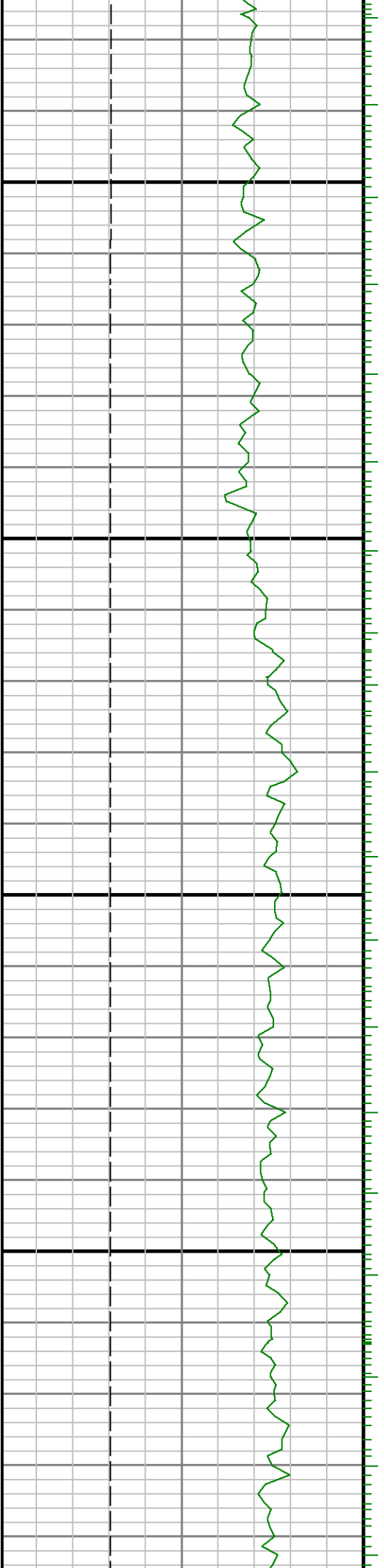


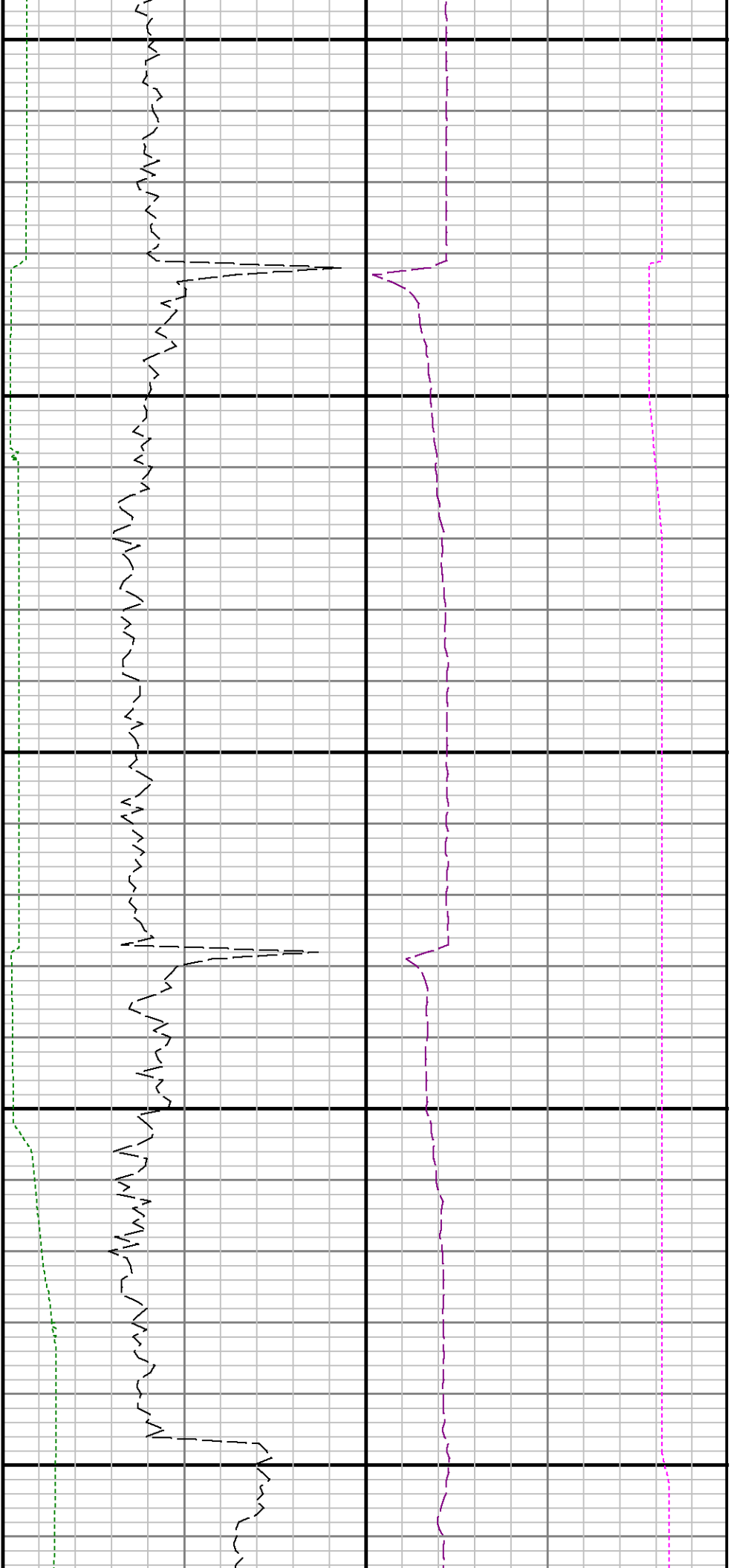




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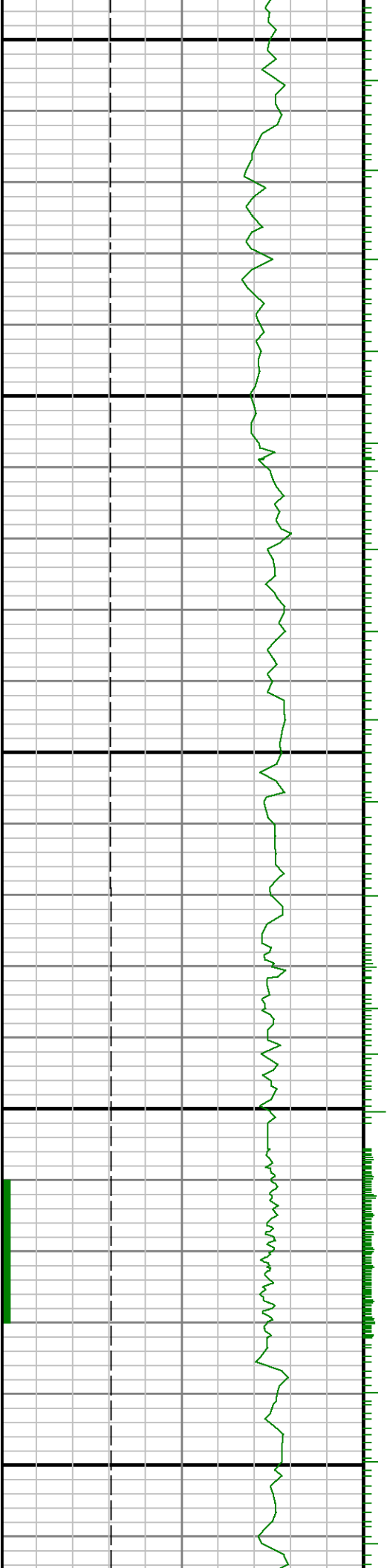




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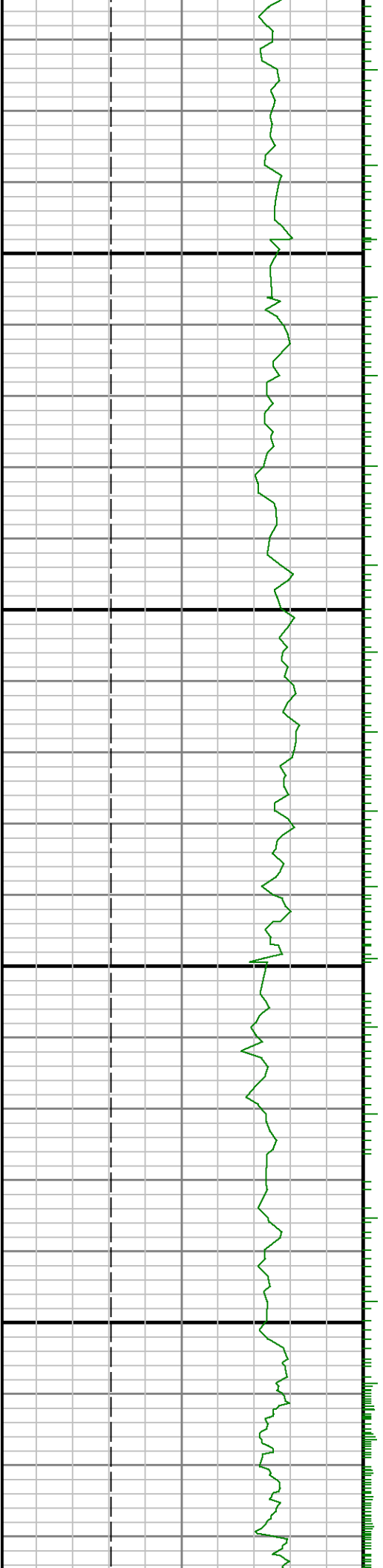
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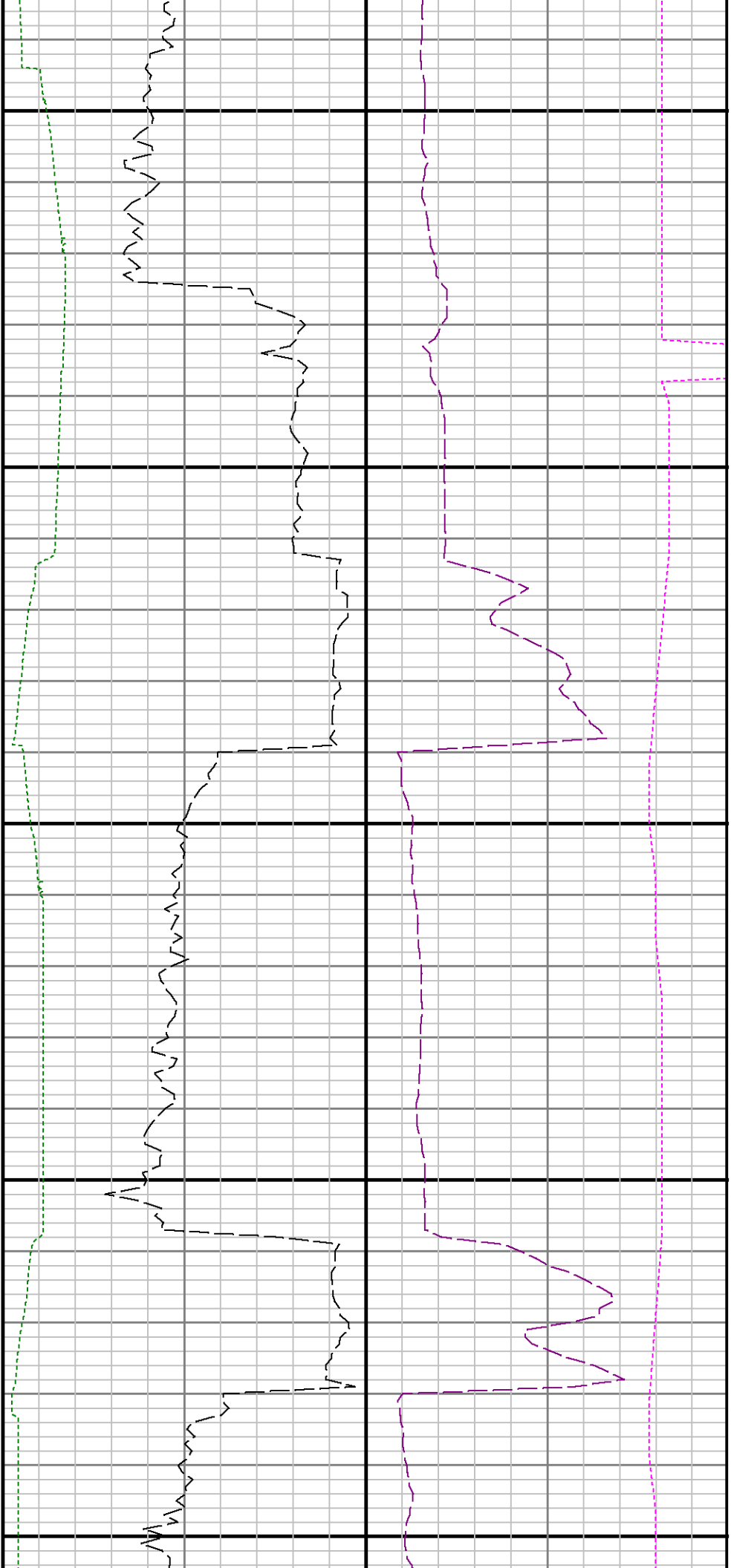




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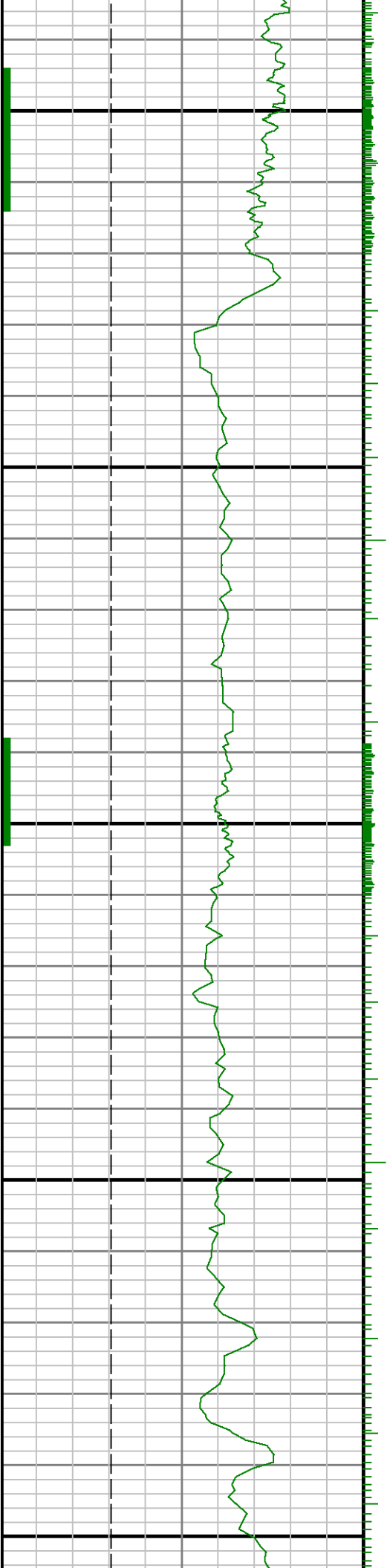
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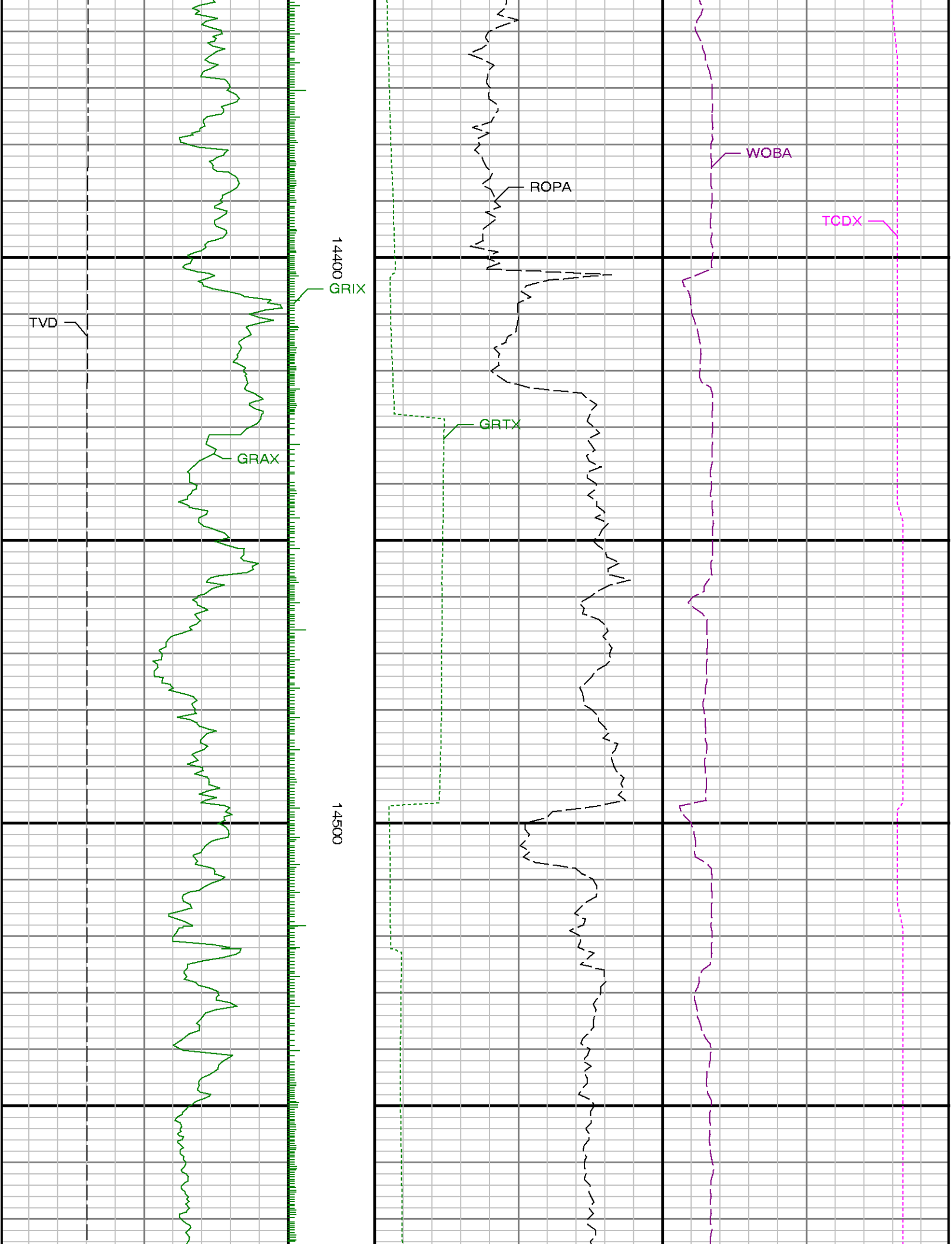


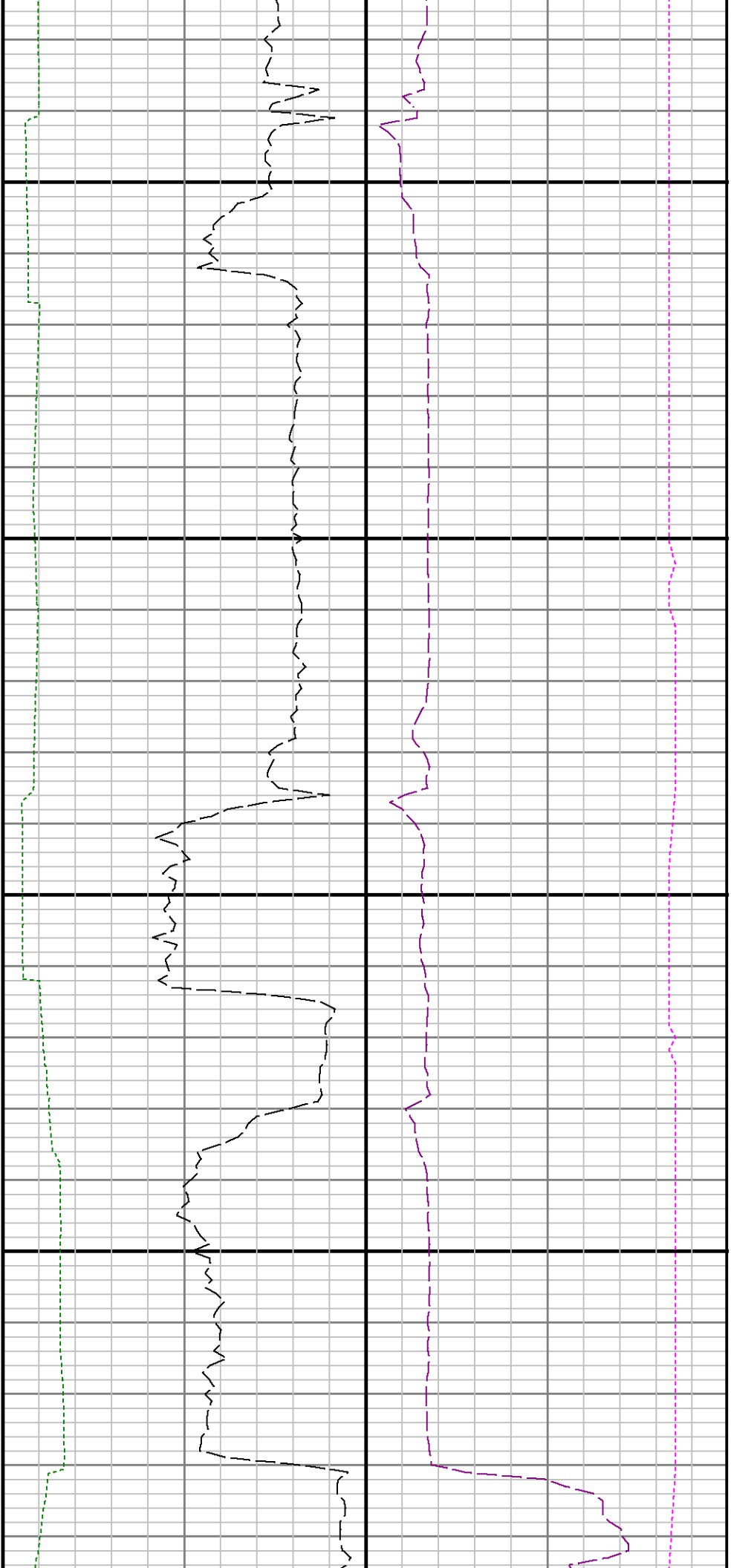


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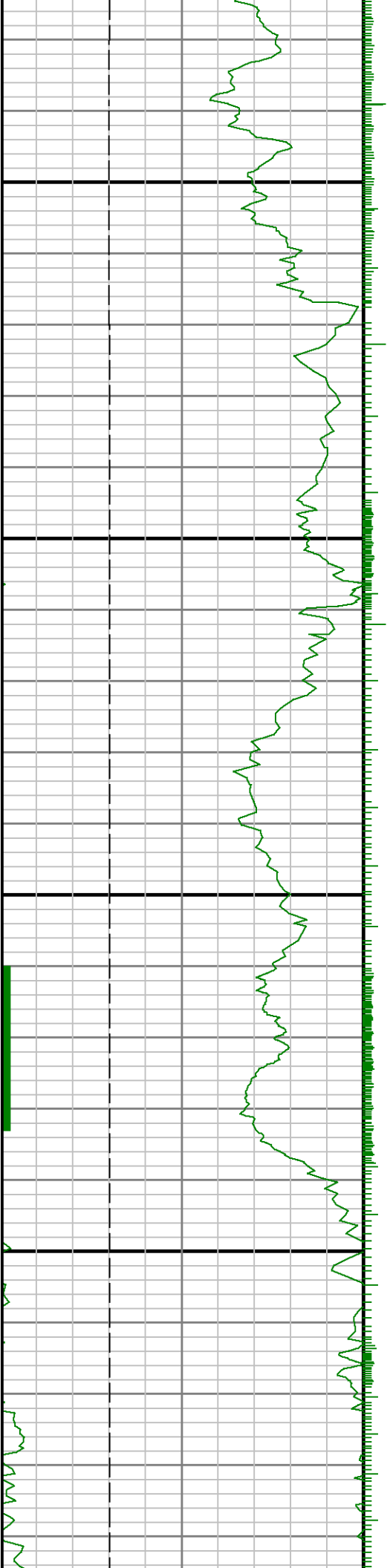


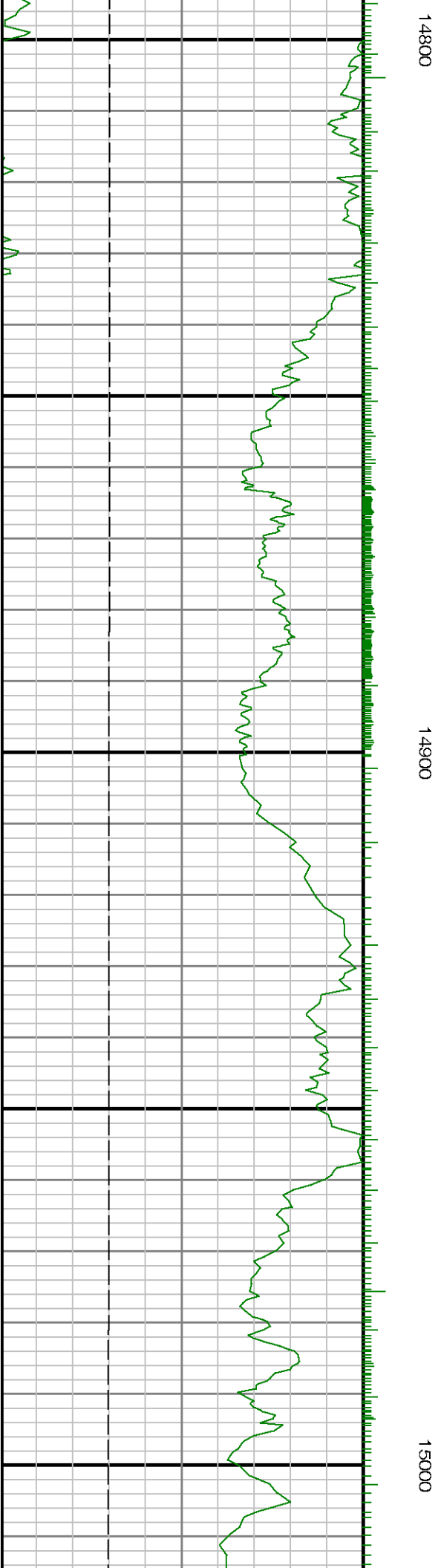
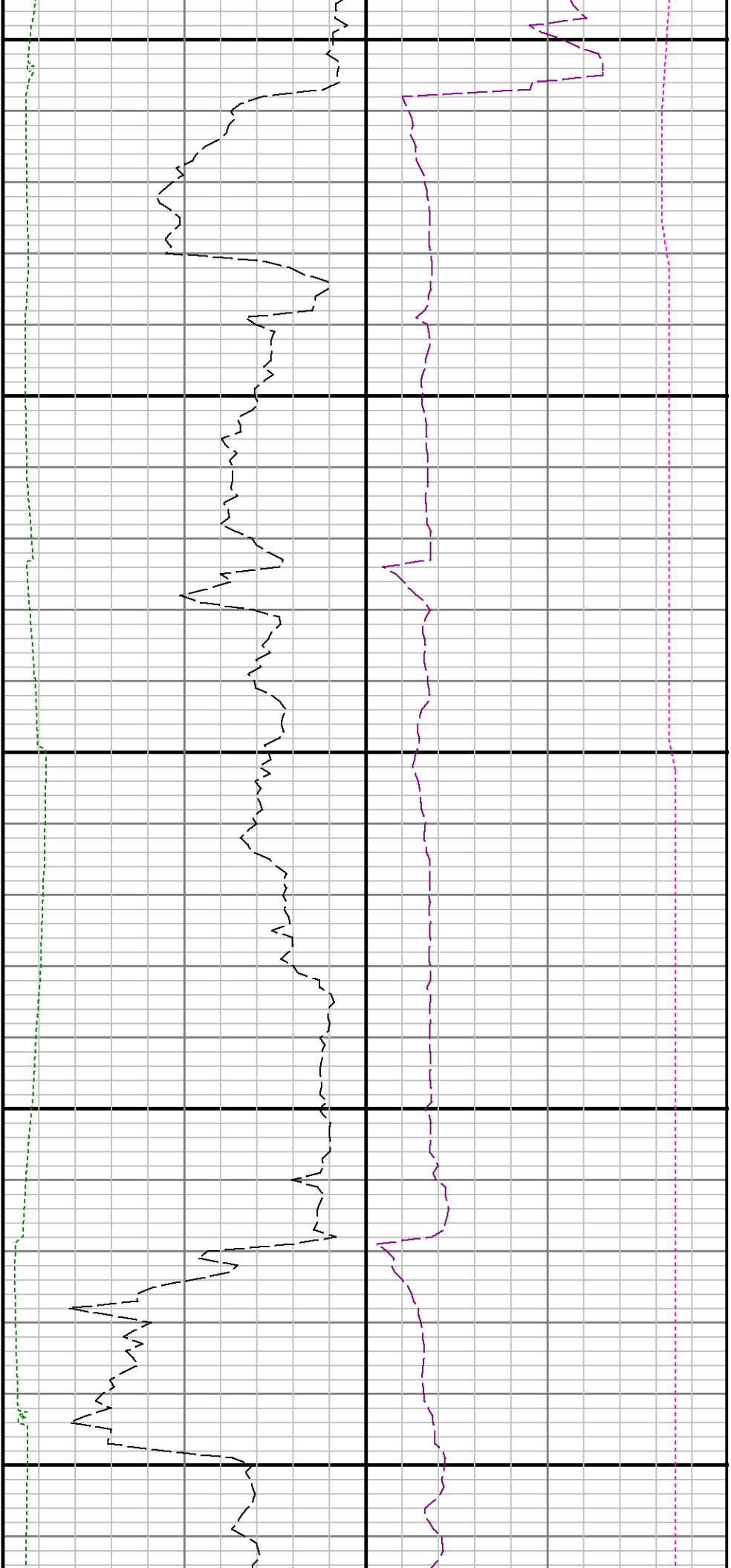


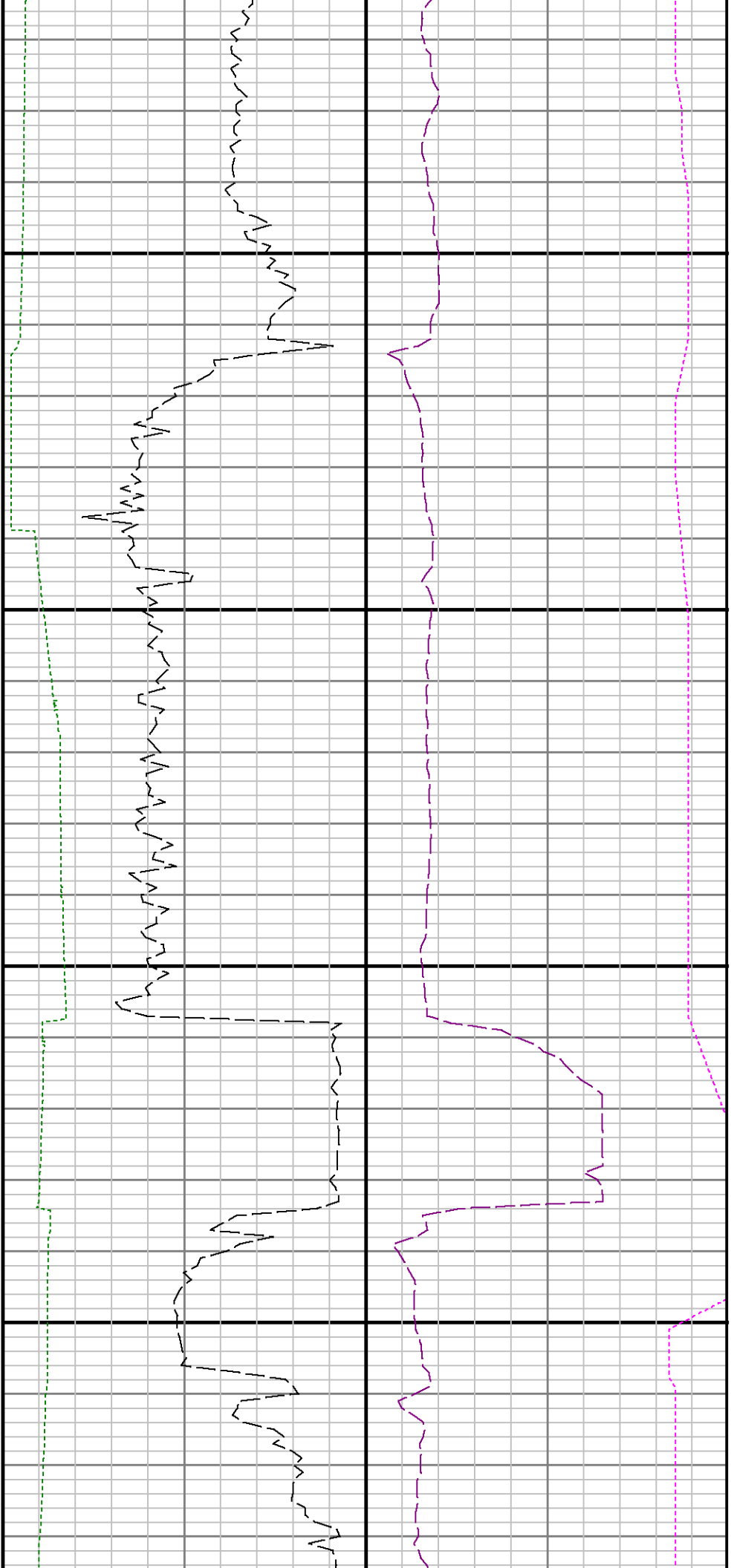


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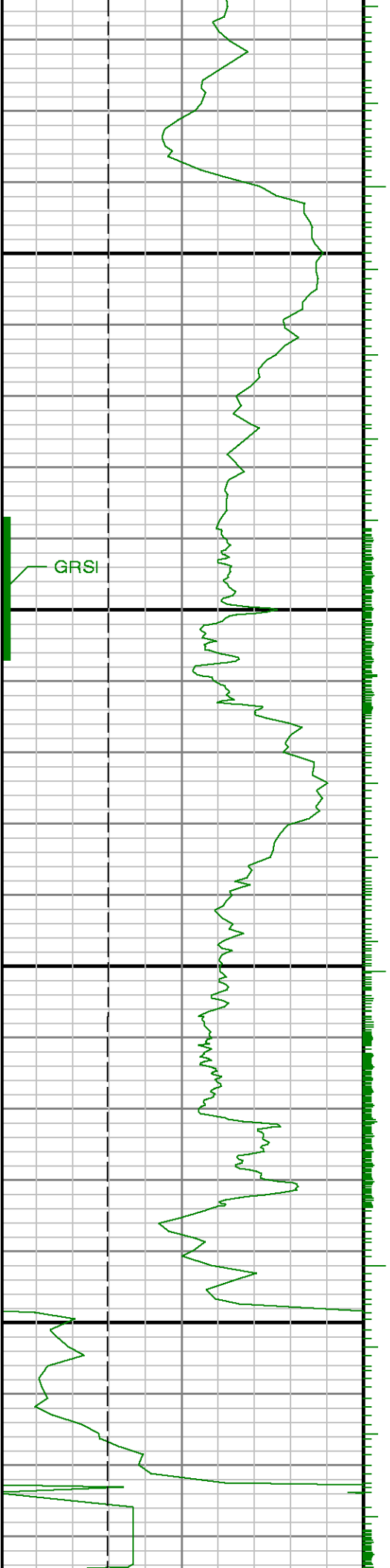


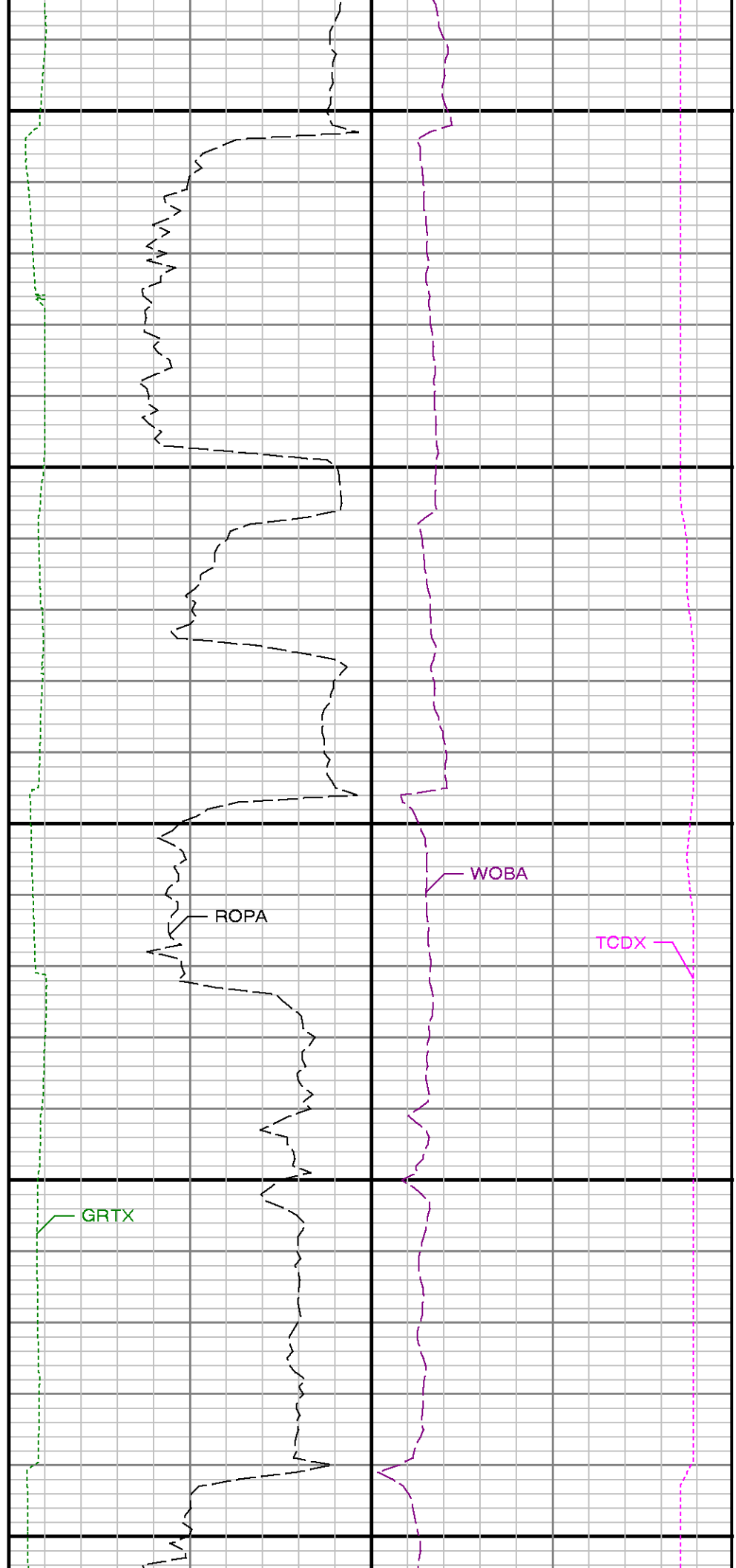
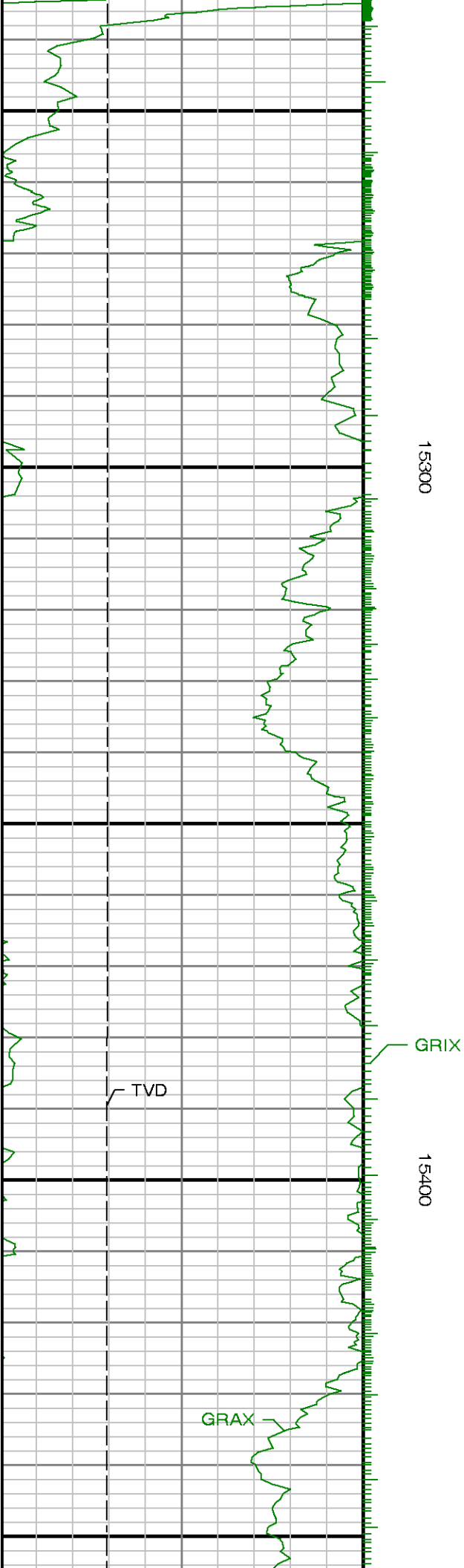




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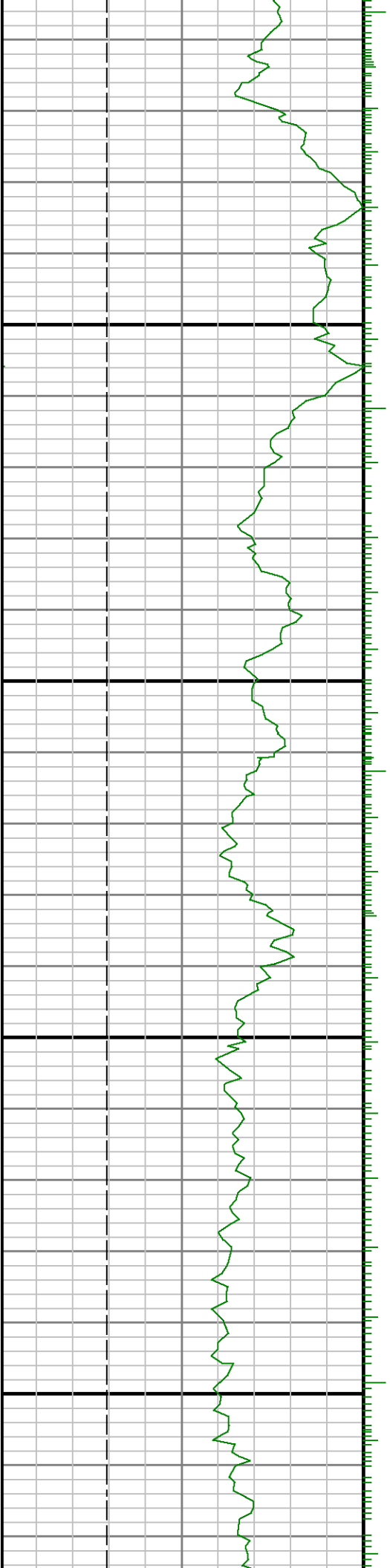






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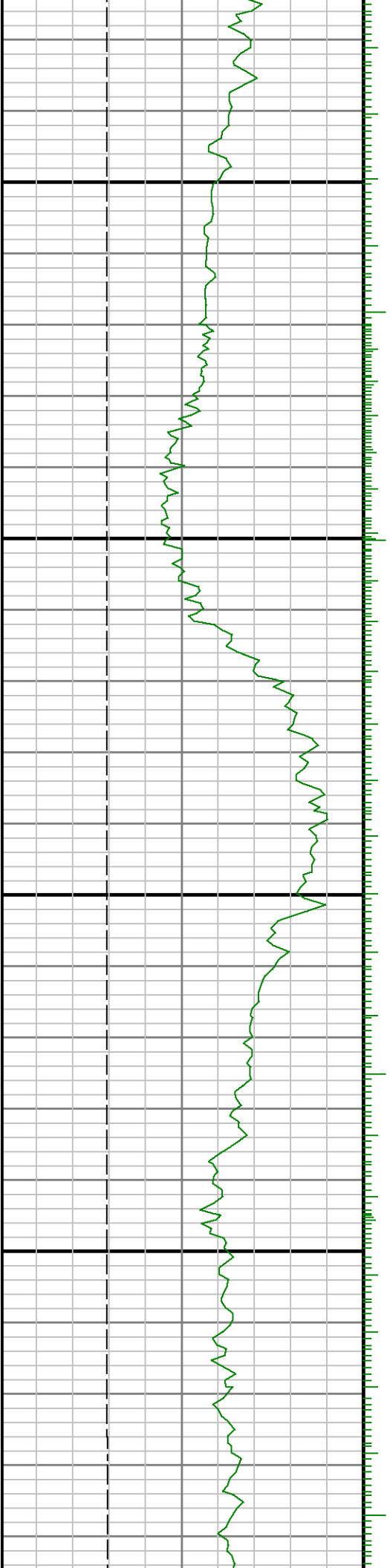
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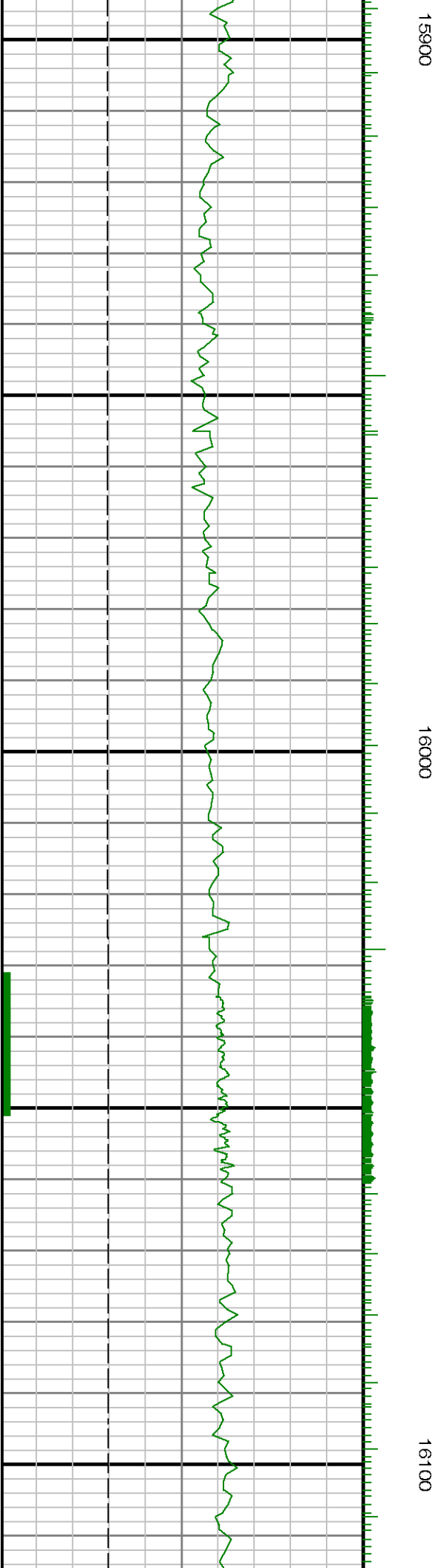
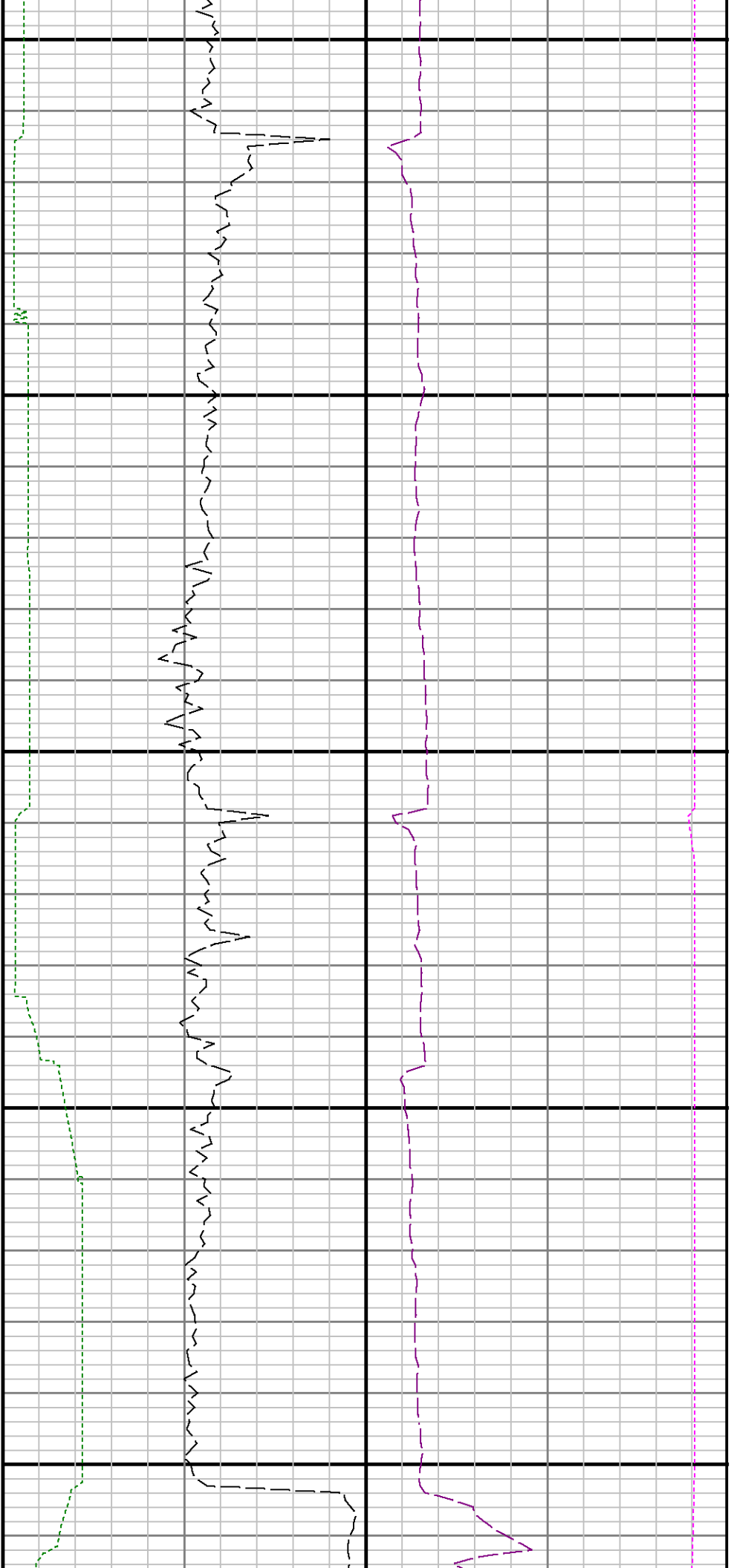


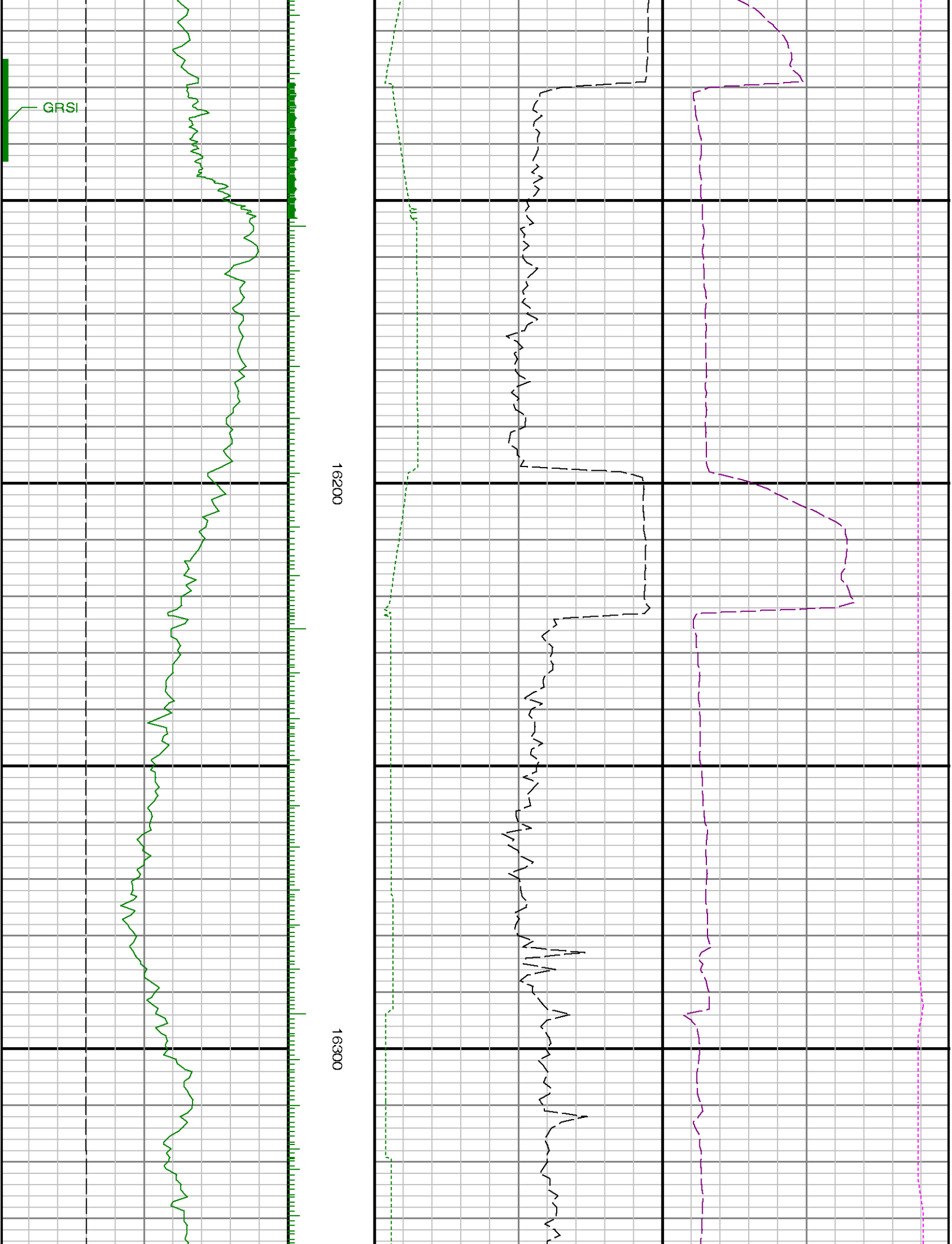


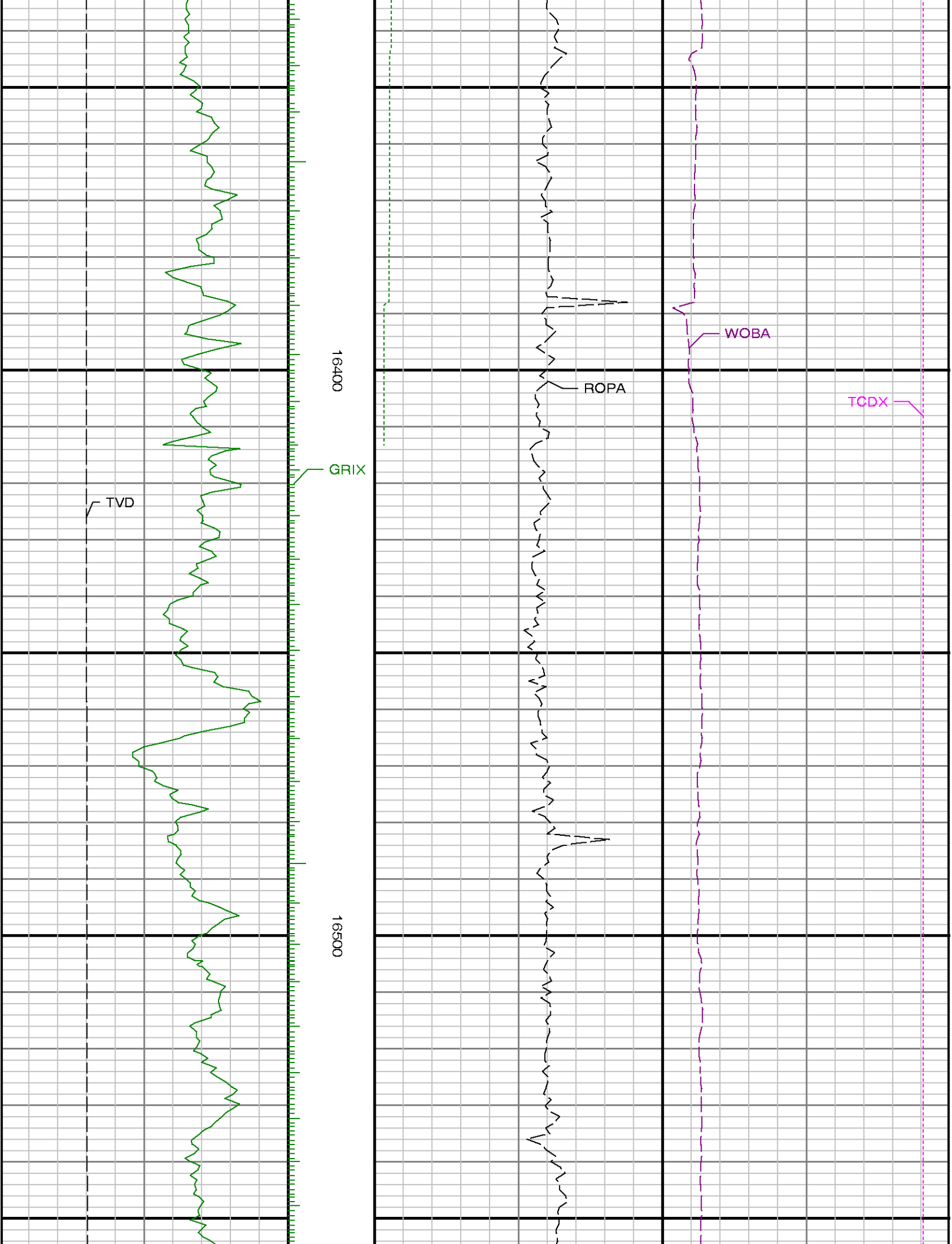
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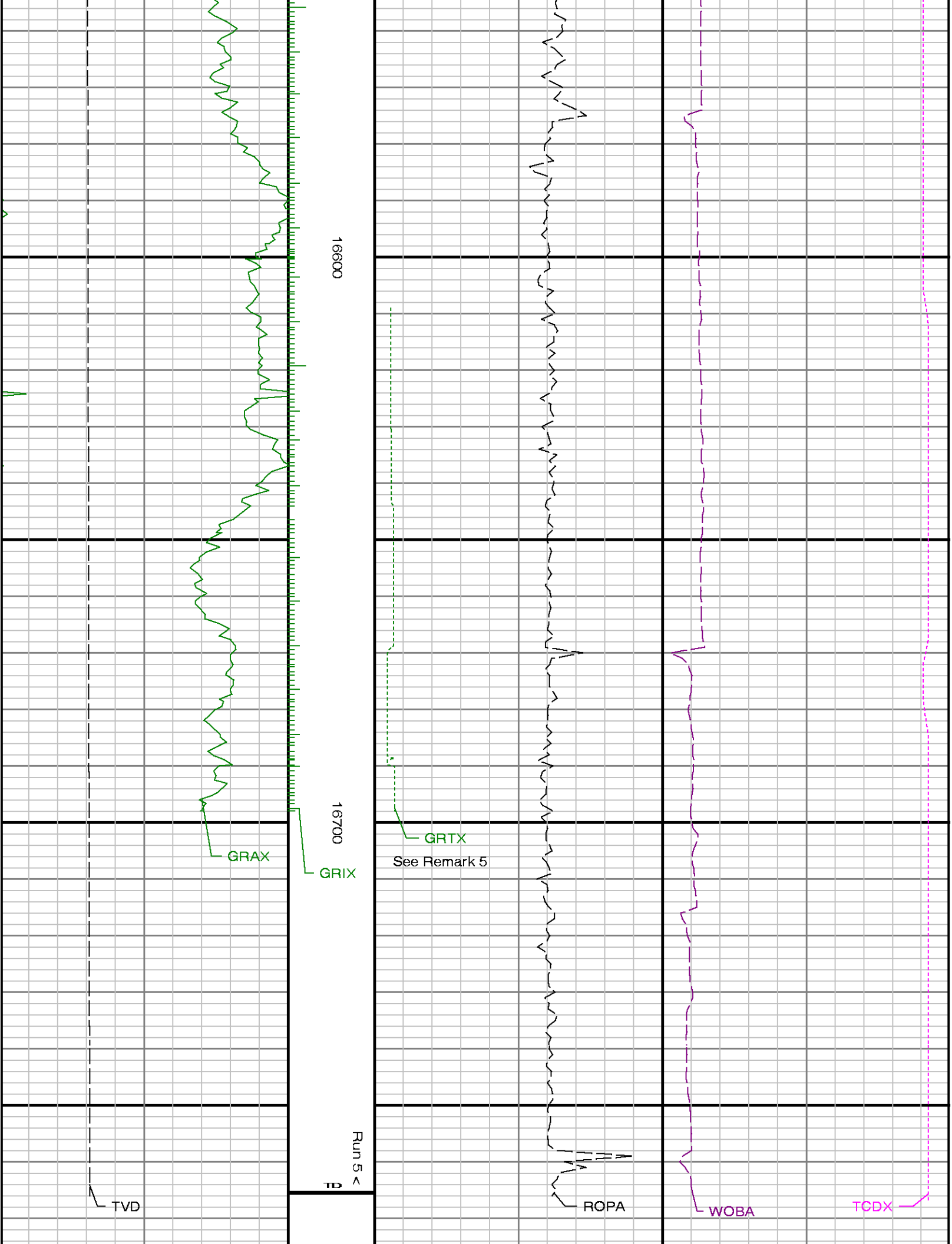
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