

	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Osagie Otoikhine	21/Jun/14	30/Jun/14	Andrew Overbey	21/Jun/14	24/Jun/14	David Belek	25/Jun/14	30/Jun/14

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 (ppm)	K+ (%)
22/Jun/14	18:00	1	4751.0	Drill Water	8.5	30	9.2	N/A	0.0/98.5	Active Pits	1200	N/A
25/Jun/14	18:00	2	9943.0	LSND	9.3	45	9.4	N/A	2.0/93.0	Active Pits	2000	N/A
27/Jun/14	18:00	4	12063.0	LSND	9.5	45	9.7	N/A	5.0/88.0	Active Pits	1800\	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 Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	11954358	Directional	57.53	6.750	2.750
1	SRIG	10266573	Gamma	54.16	6.750	2.750
2	DIR	12546334	Directional	57.75	4.750	2.813
2	SRIG	12600744	Gamma	54.37	4.750	2.813
3	DIR	13134419	Directional	59.22	4.750	2.688
3	SRIG	12342306	Gamma	55.84	4.750	2.688
4	DIR	12546374	Directional	59.83	4.750	2.813
4	SRIG	12622667	Gamma	56.45	4.750	2.813

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 Run 1 utilized a 6 1/2 inch NaviGamma (Directional and Gamma Ray) tool behind an 8 3/4 inch bit and steerable assembly from 6749 feet to 7695 feet MD (6719 feet to 7331 feet TVD).

2.) Baker Hughes Runs 2,3, and 4 utilized a 4 3/4 inch NaviGamma (Directional and Gamma Ray) tool behind a 6 1/8 inch bit and steerable assembly from 7695 feet to 14517 feet MD (7331 feet to 7291 feet TVD).

3.) A sliding indicator is shown on the left side 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 acquired while sliding.

Remarks

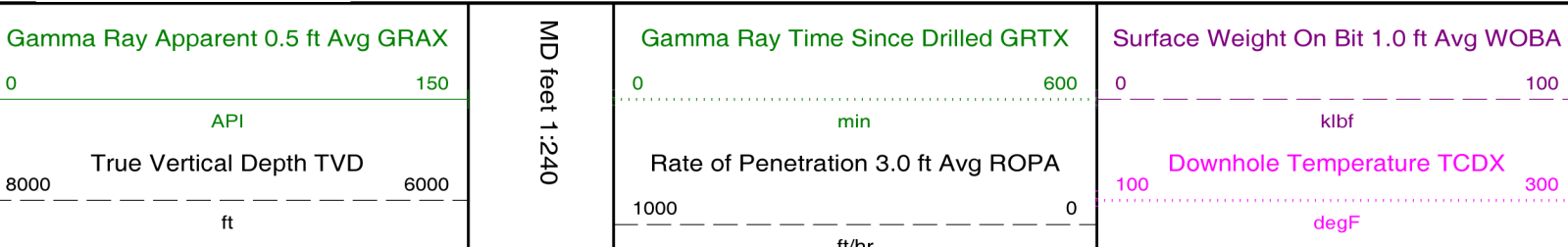
Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	6732	8.750	1	The interval from surface to 6749 feet MD (6719 feet TVD) was not logged since logging services began at kick off point.
2	7654	8.750	1	The Interval from 7636 feet to 7695 feet MD (7327 feet to 7331 feet TVD) was logged more than 9 hours after drilling due to tripping for casing and picking up lateral BHA.
3	9905	6.125	2	The Interval from 9875 feet to 9938 feet MD (7316 feet to 7314 feet TVD) was logged more than 9 hours after drilling due to tripping to change MWD tool for possible failure.
4	10226	6.125	3	The Interval from 10209 feet to 10270 feet MD (7308 feet to 7308 feet TVD) was logged more than 9 hours after drilling due to tripping to change MWD for possible failure.
3	14477	6.125	2	The interval from 17344 feet to 17396 feet MD (7716 feet to 7715 feet TVD) was not logged due to bit sensor offset at TD.

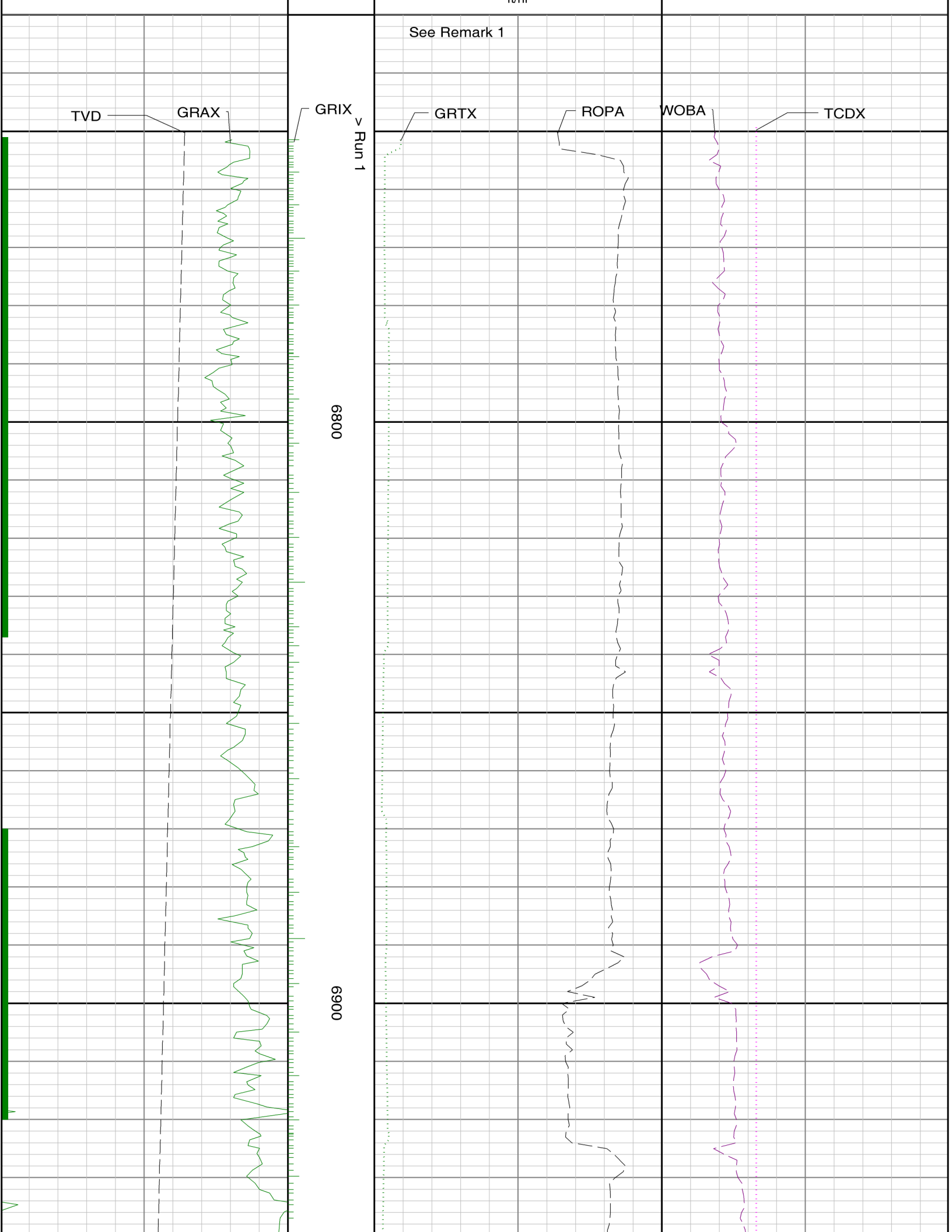
Curve Mnemonics

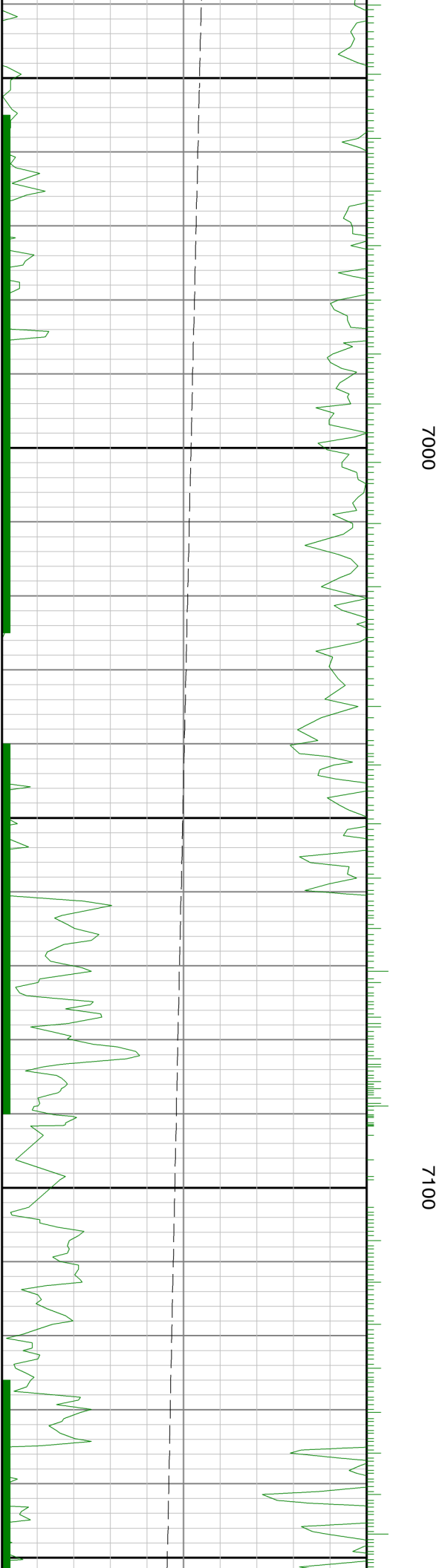
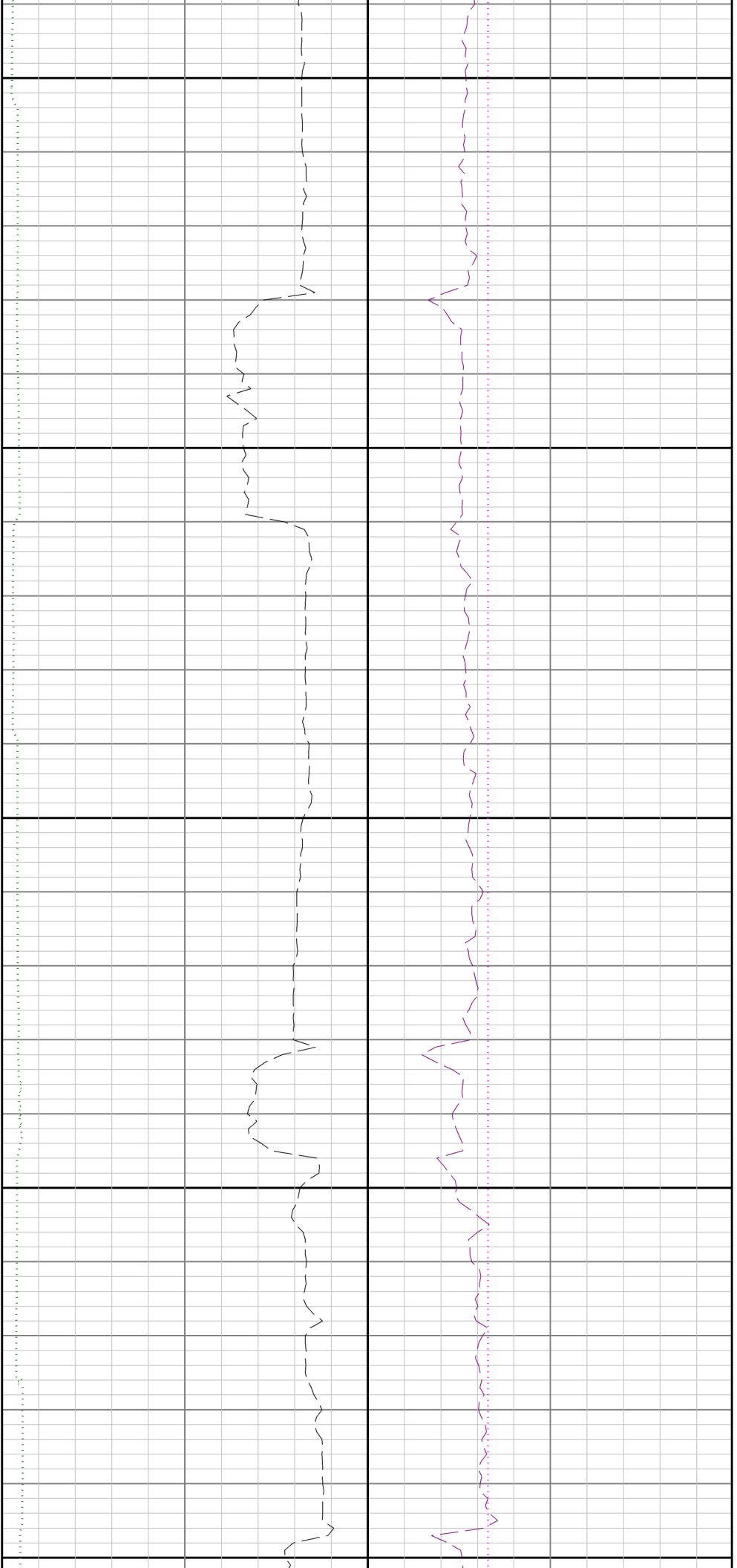
Curve	Description	Units
GRAX	Gamma Ray - Apparent	API
GRIX	Gamma Ray - Data Point Indicator	unitless
GRSI	Gamma Slide Ind.	unitless
GRTX	Gamma Ray Time Since Drilled GRTX	min
ROP_AVG	Depth Averaged ROP	ft/hr
TCDX	Downhole Temperature	degF
TVD	True Vertical Depth TVD	ft
WOB_AVG	AVERAGE Weight On Bit	klbf

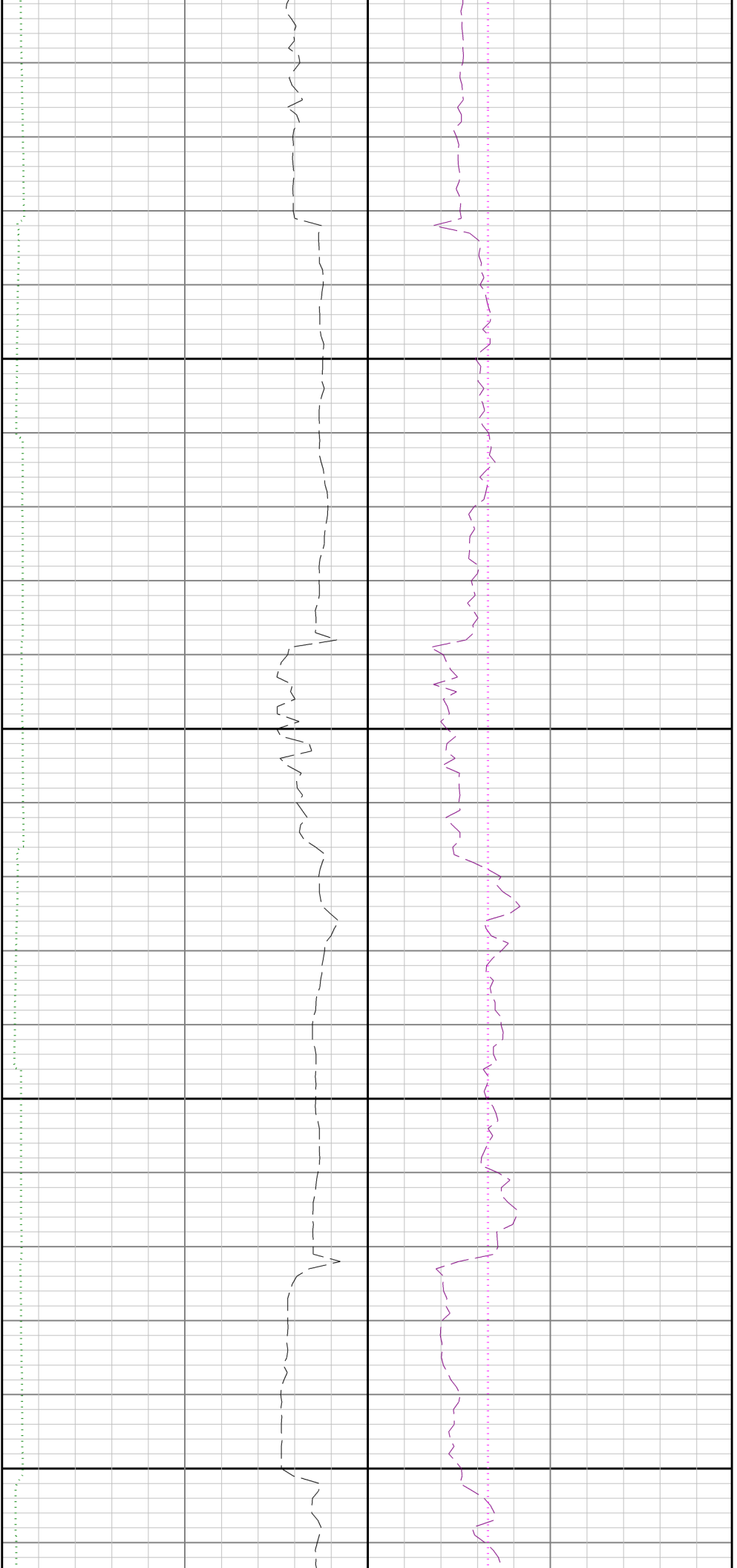


Company : Kerr-McGee Oil & Gas Onshore, LP
Well : Benson Farms 23C-19HZ
Interval : 6730.00 - 14535.00 feet
Created : 29/Jul/2014 2:11:26 PM



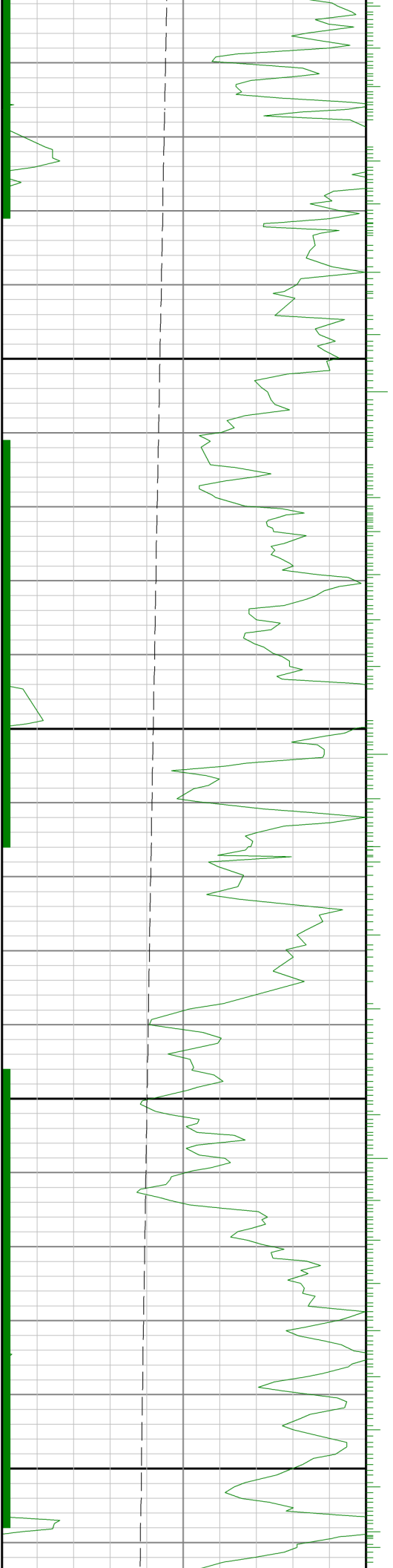


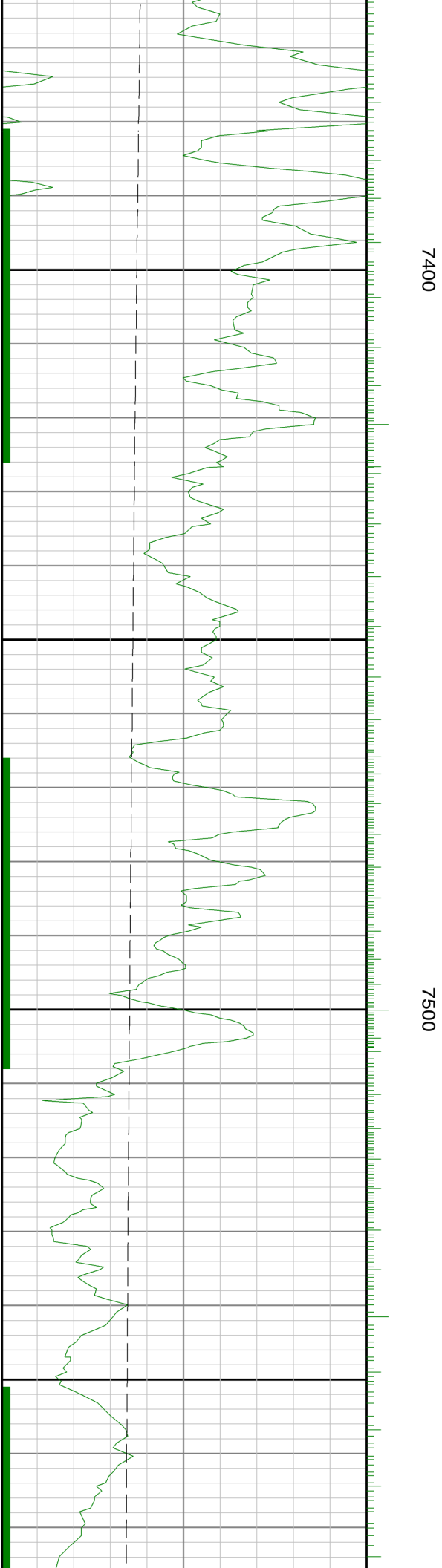
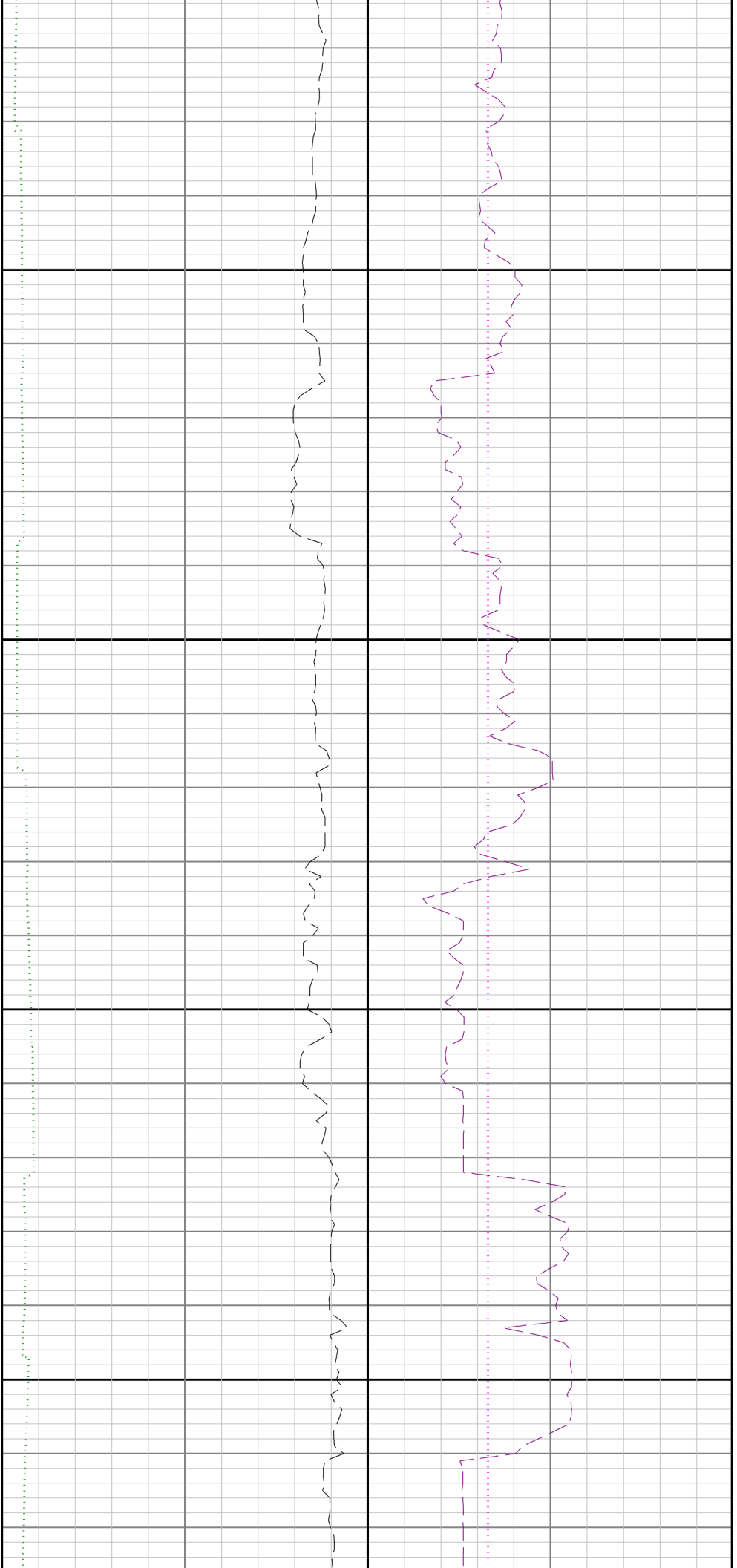


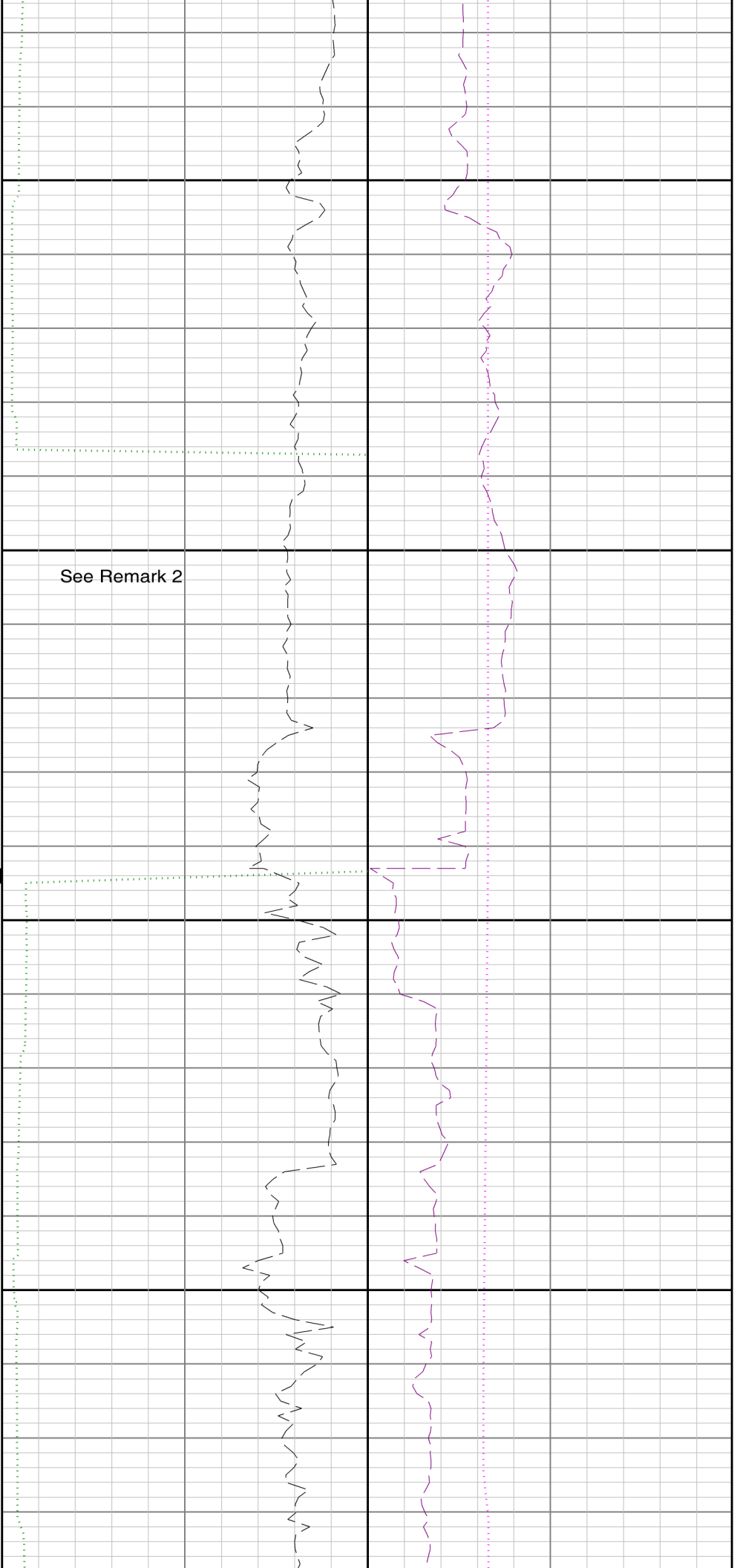


7200

7300



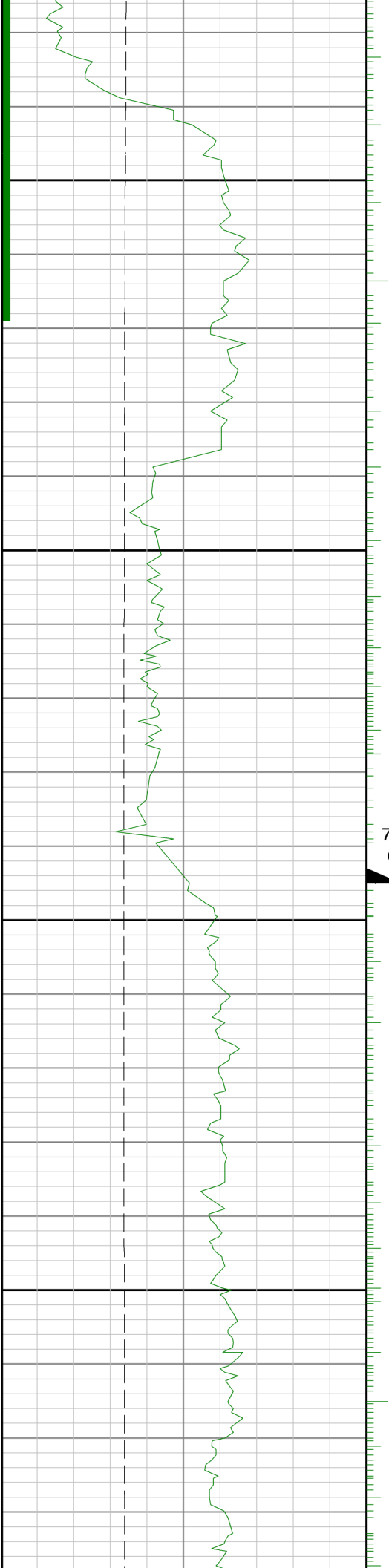


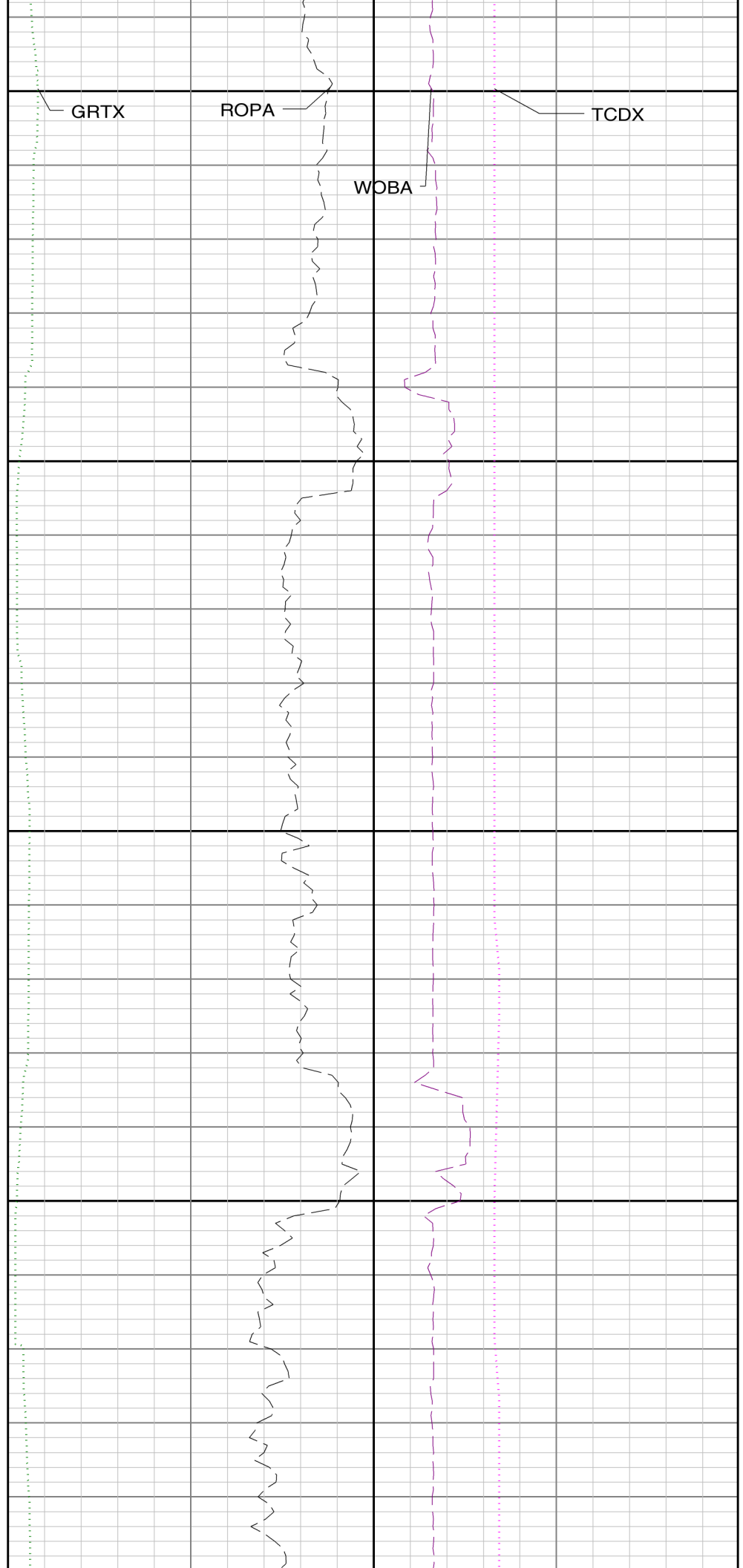
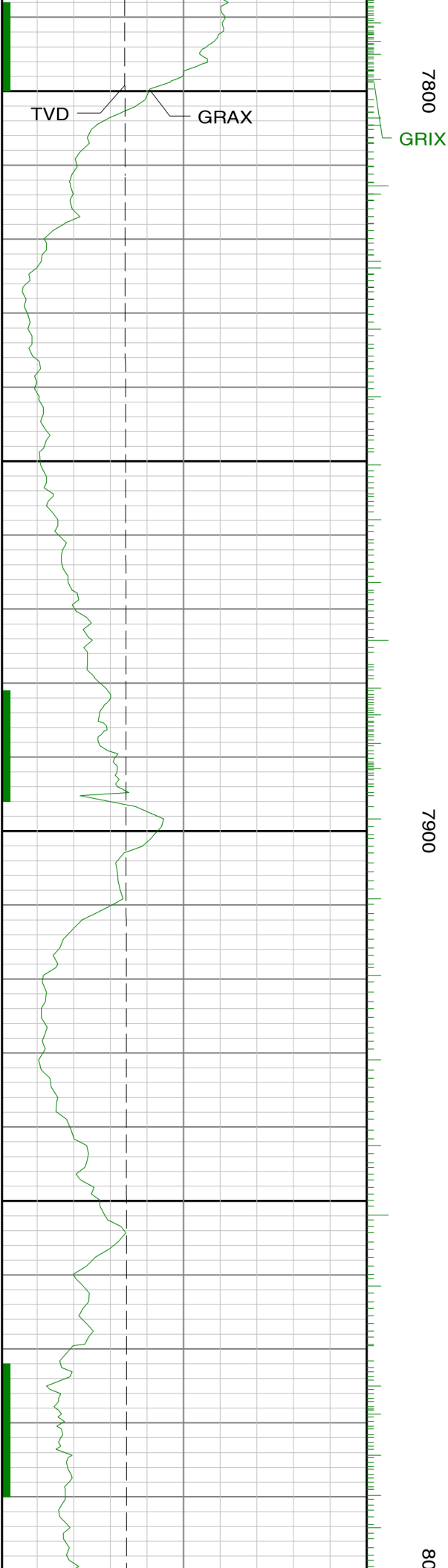


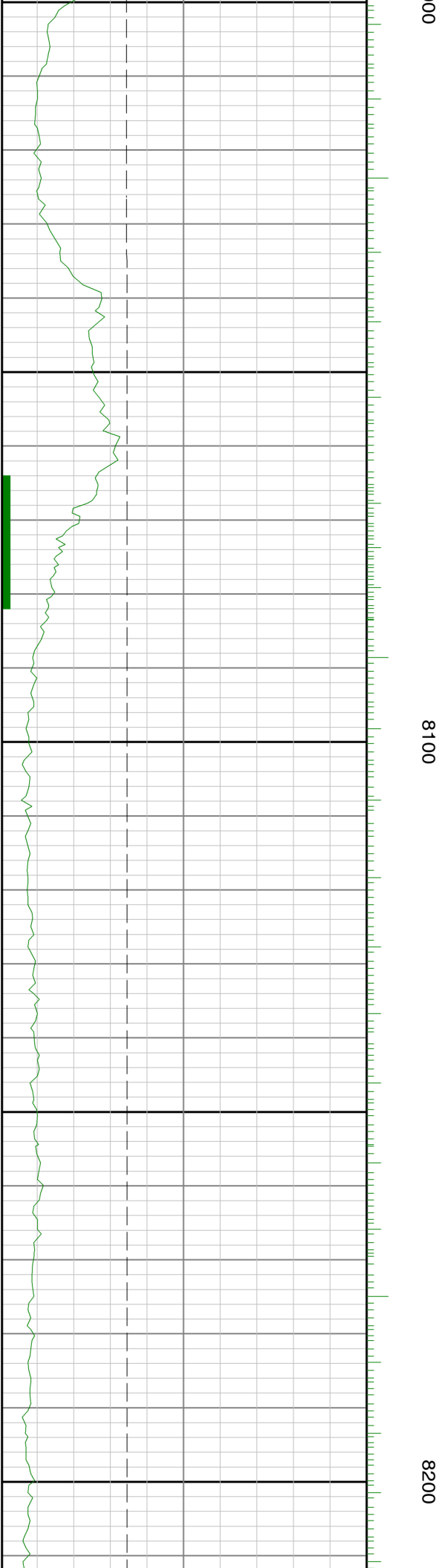
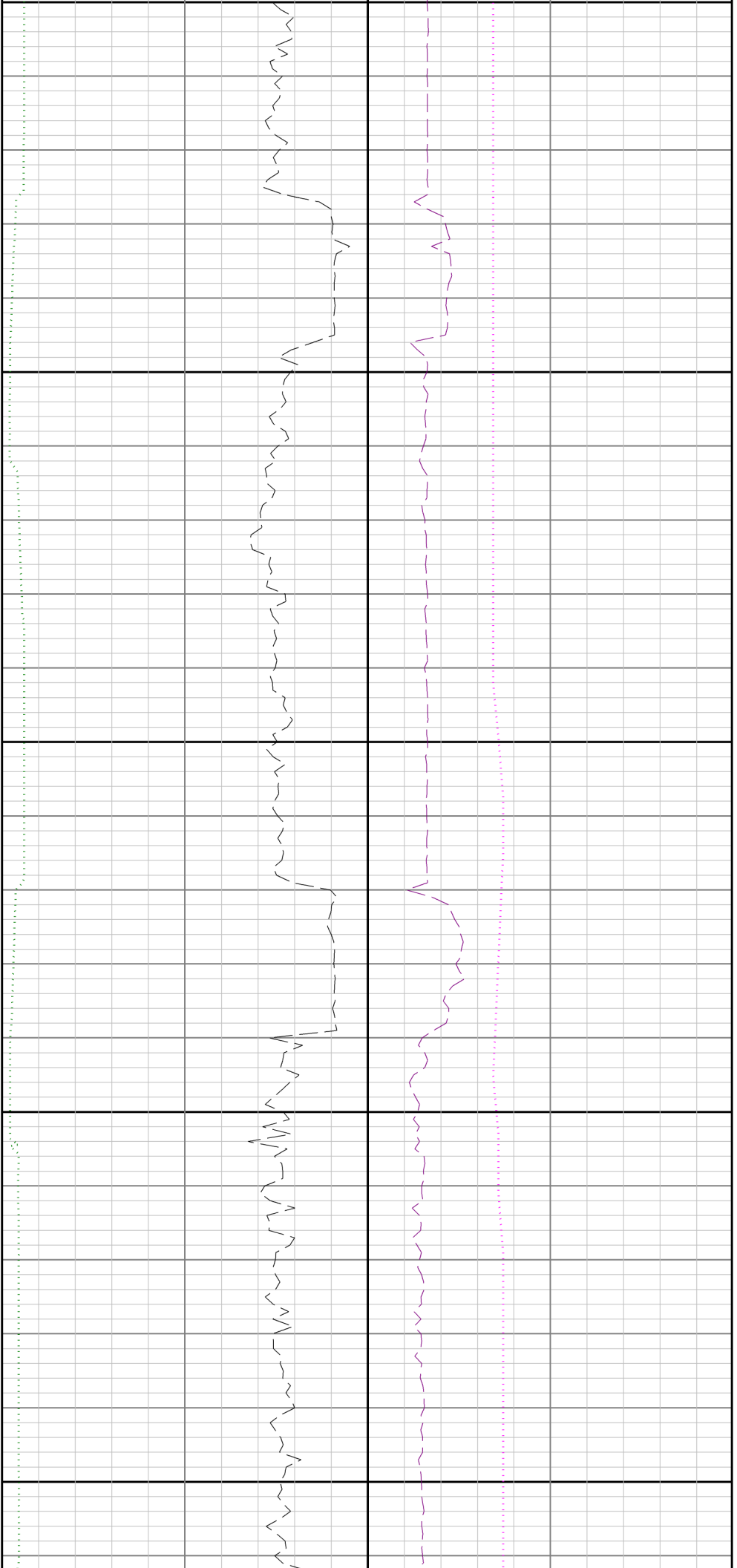
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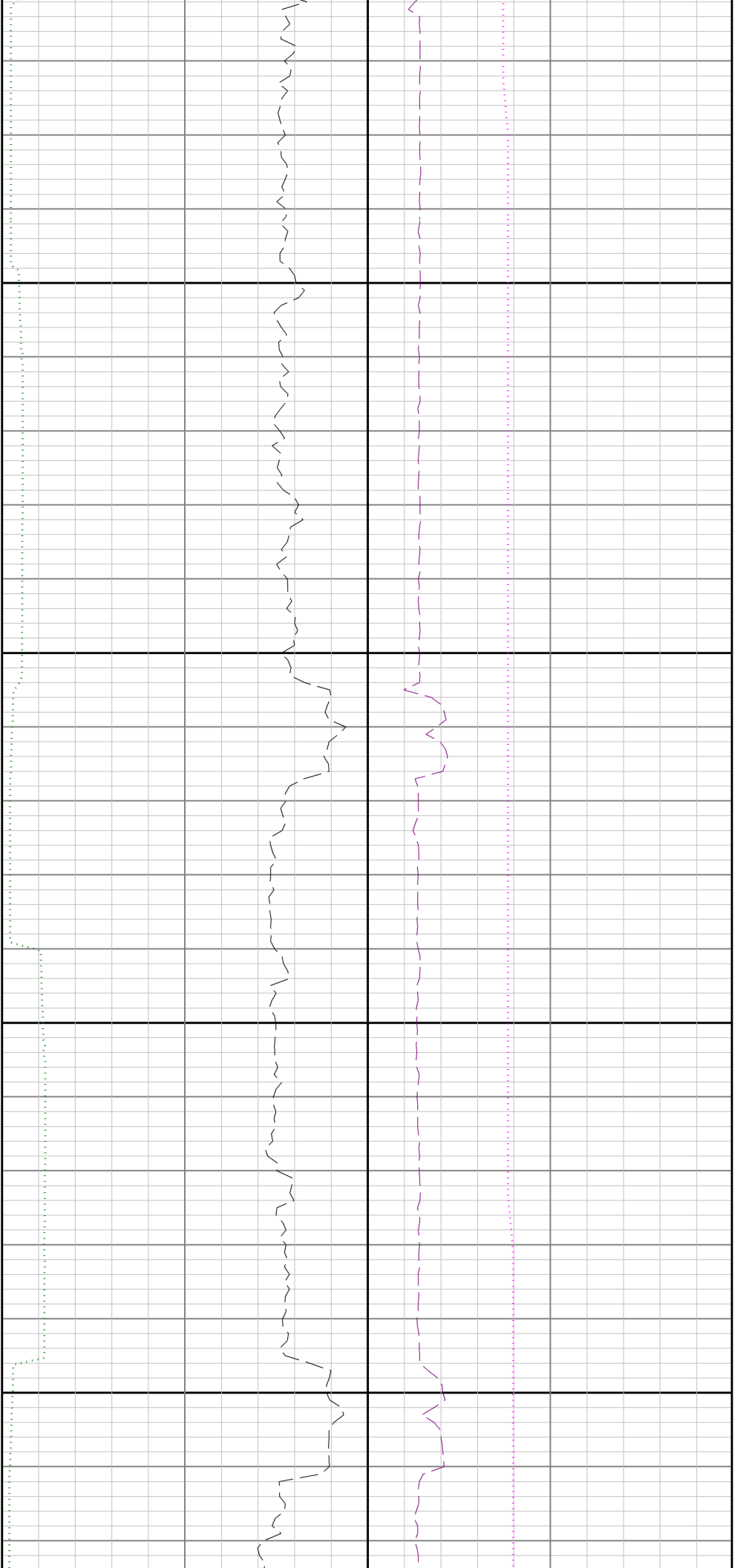
7" Casing

Run 1 <=> Run 2
7700



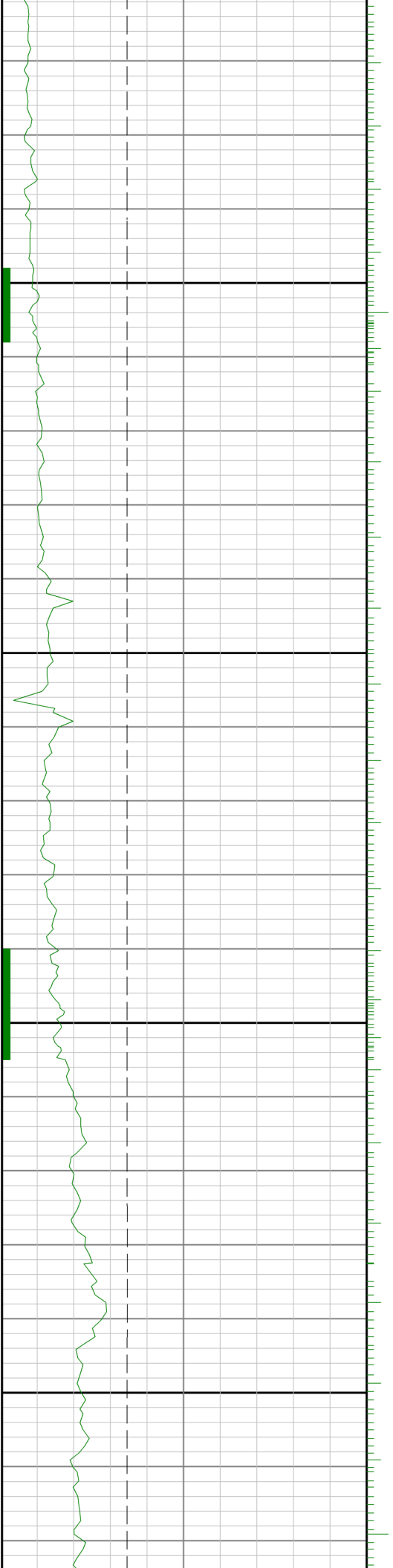


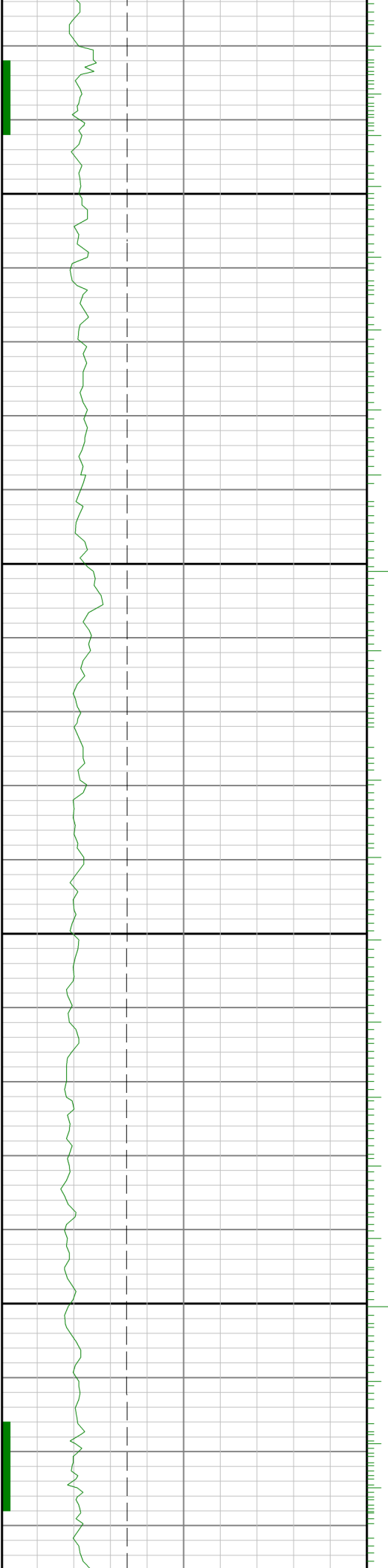




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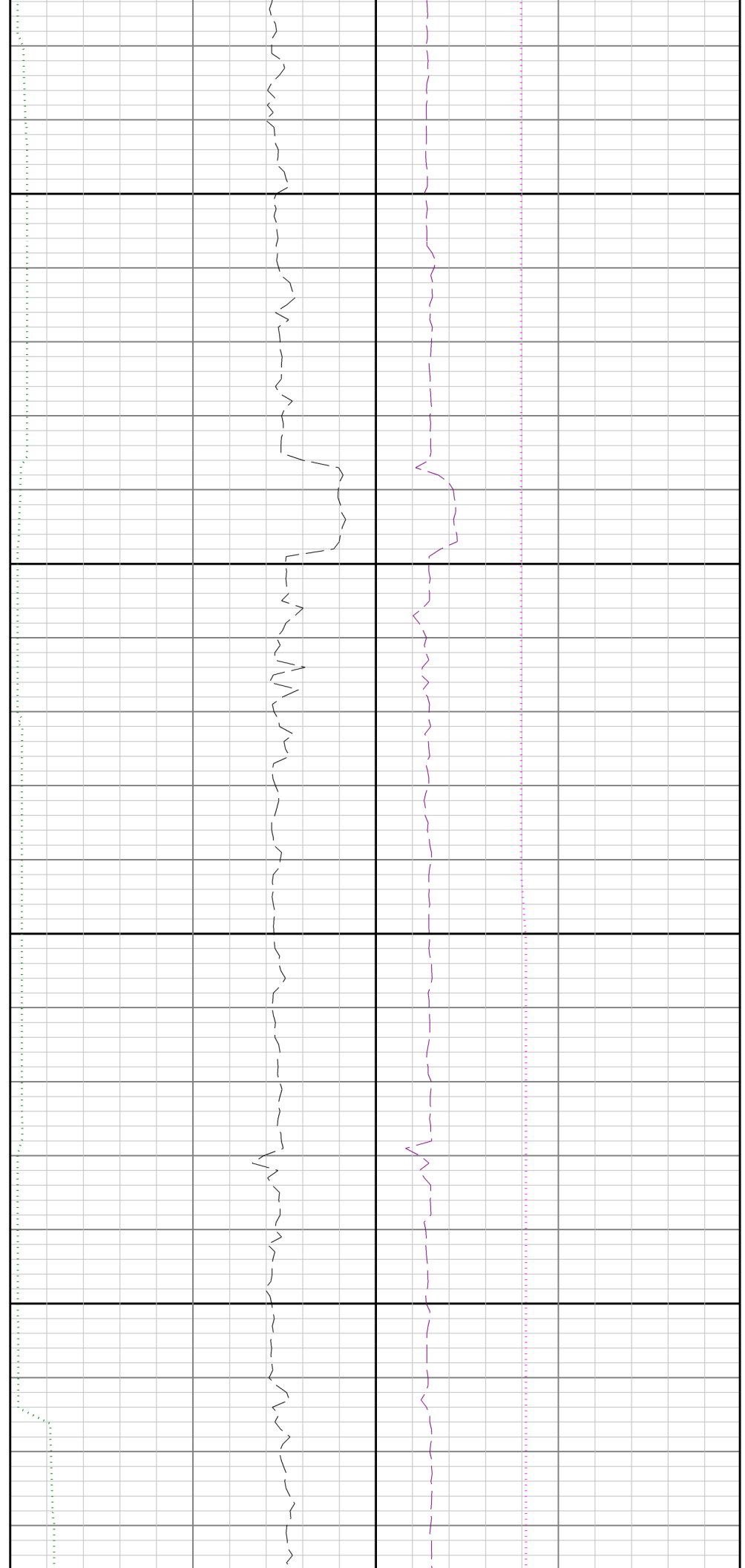
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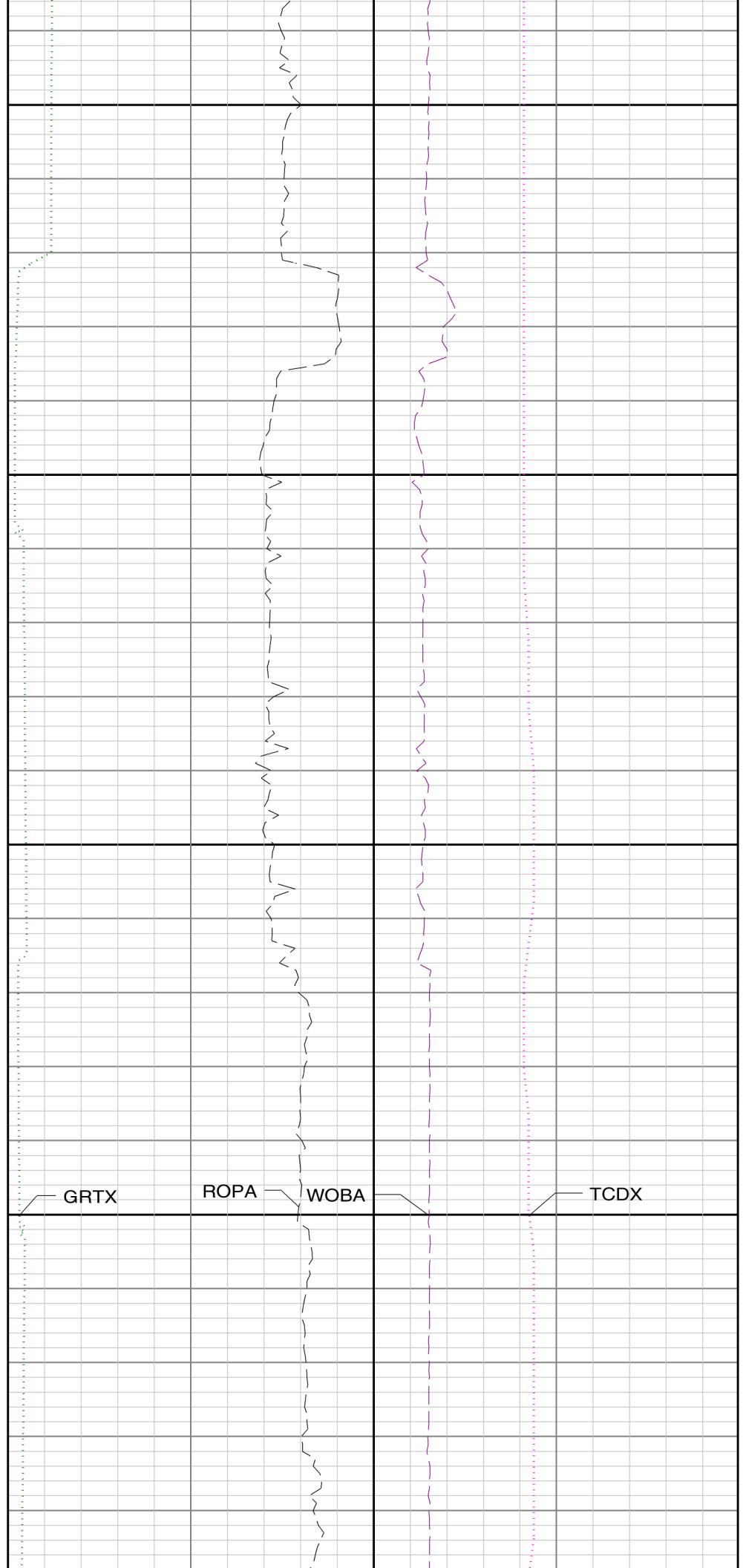
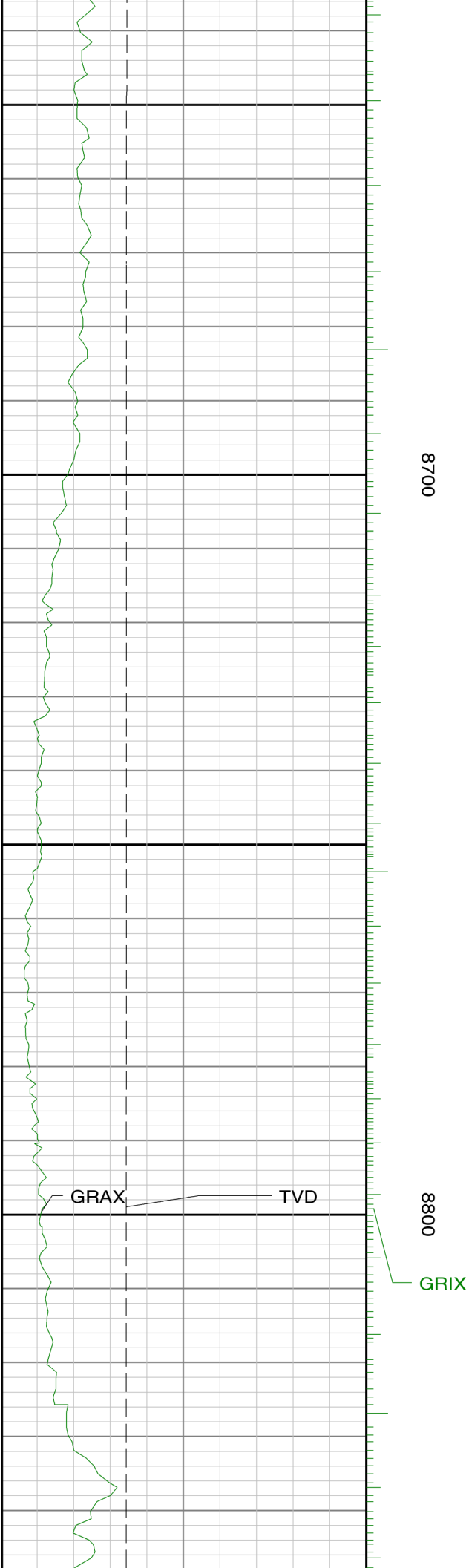


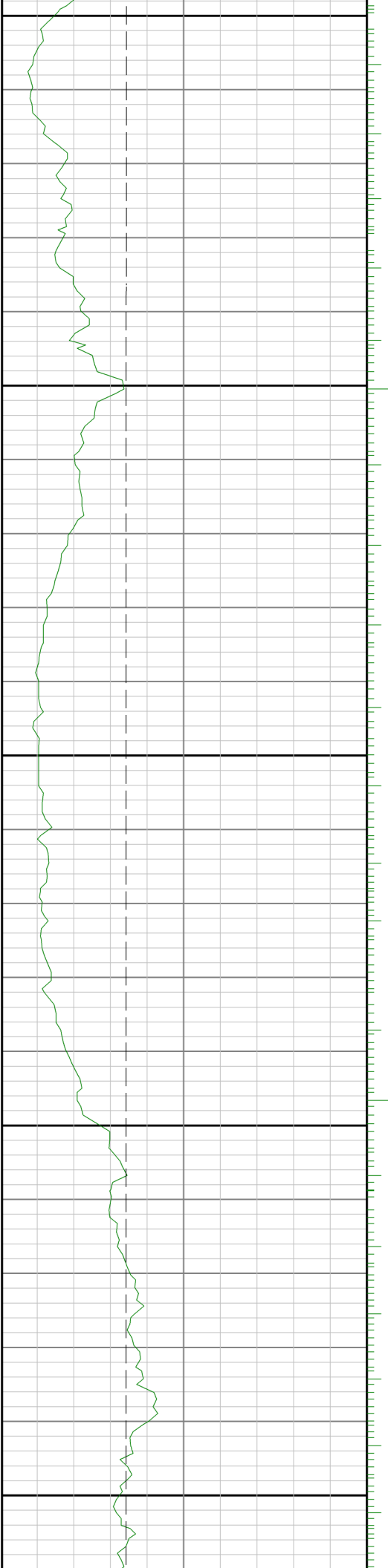


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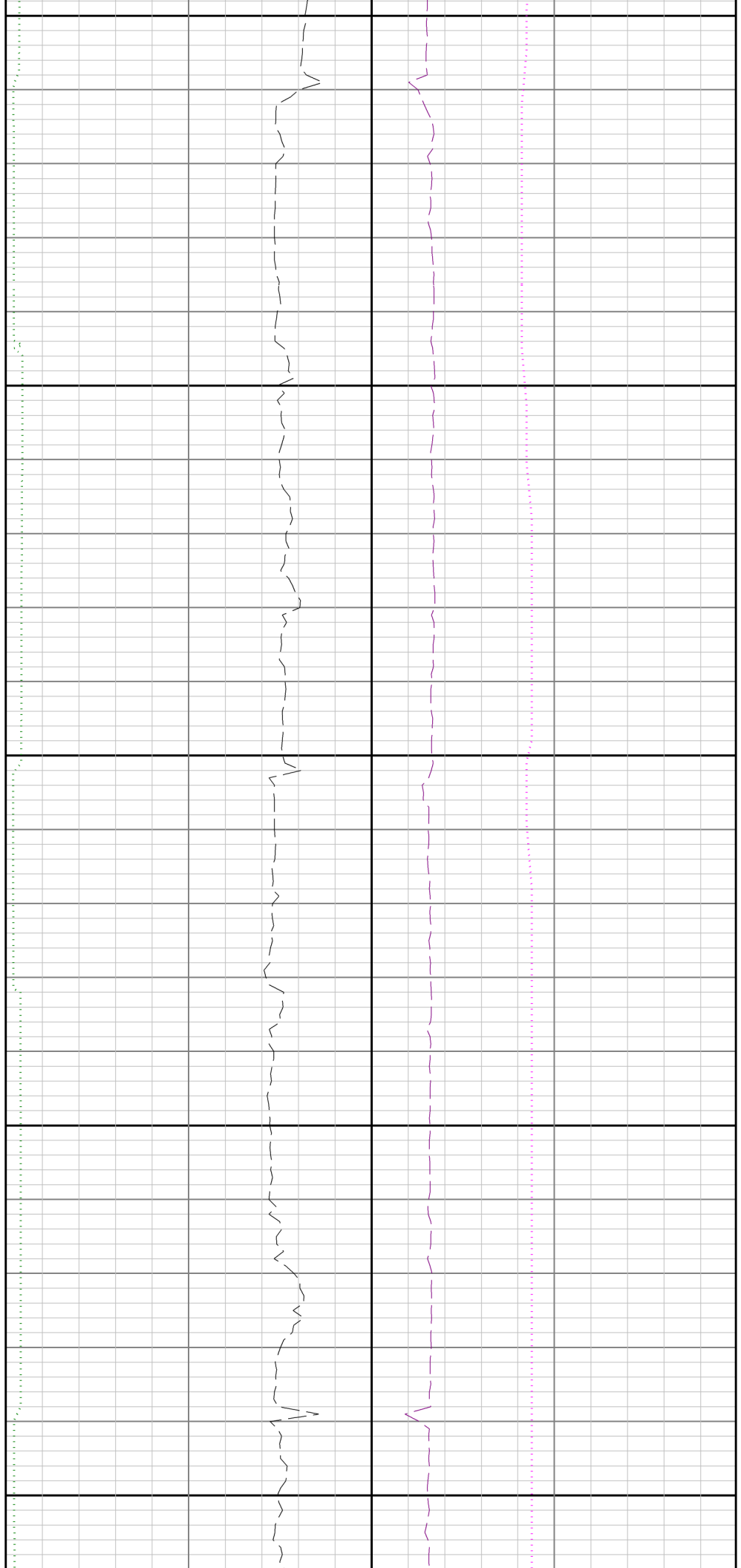


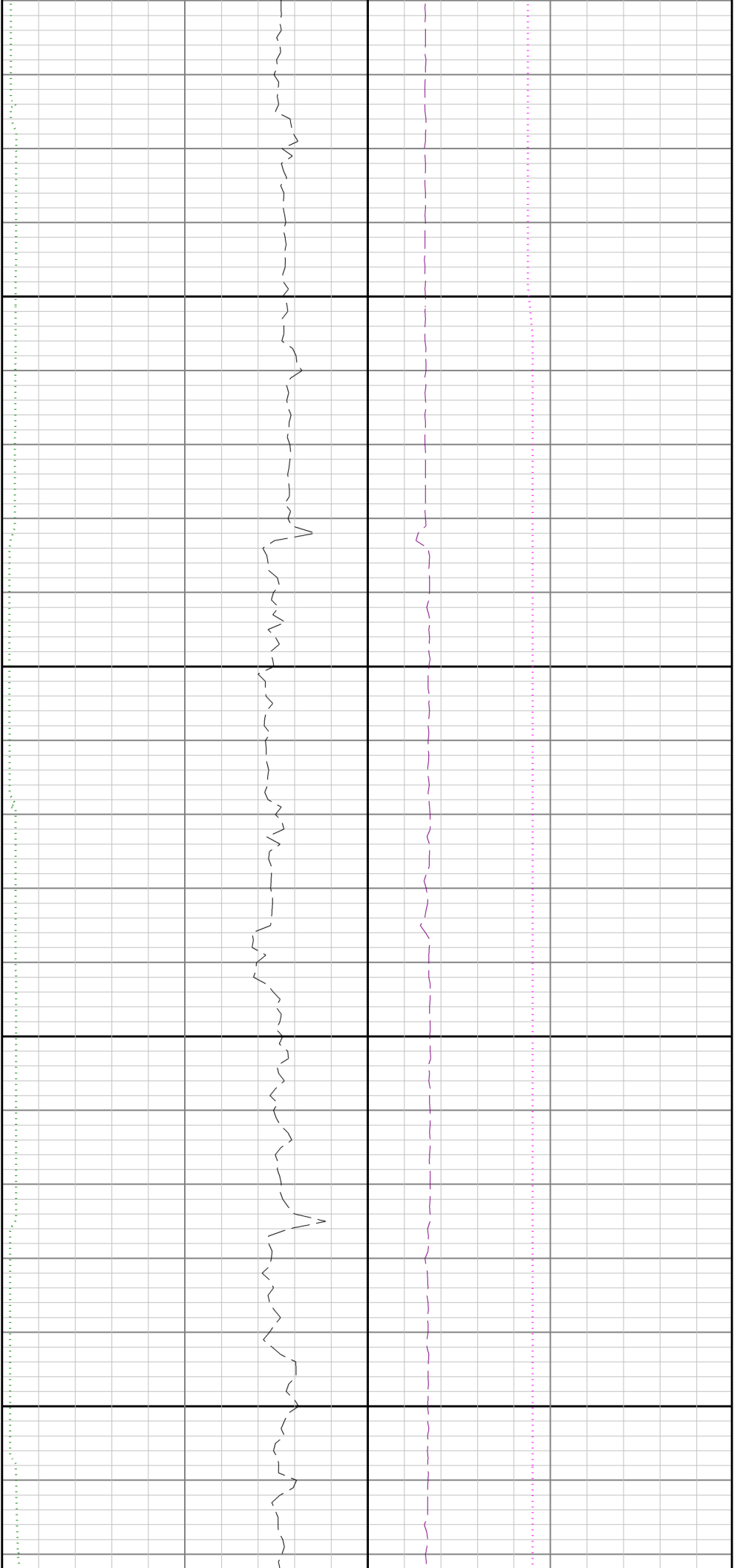




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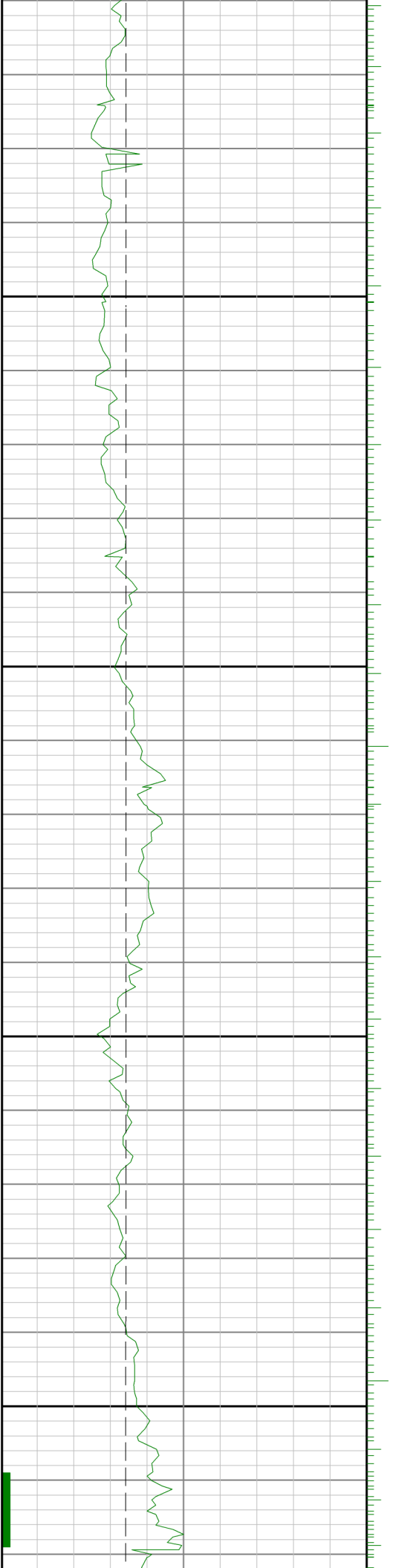
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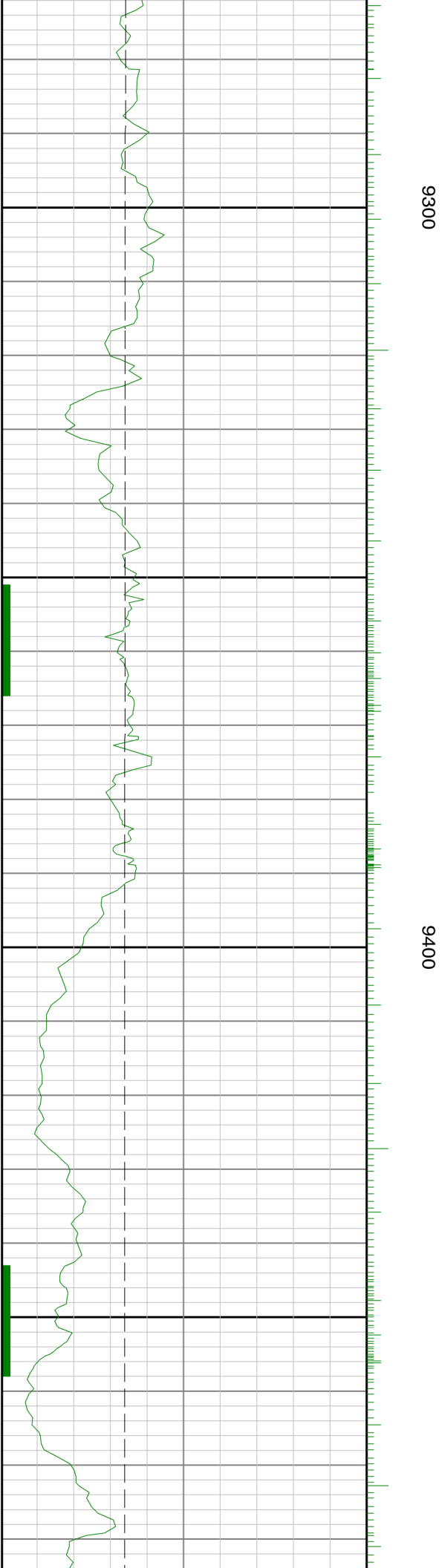
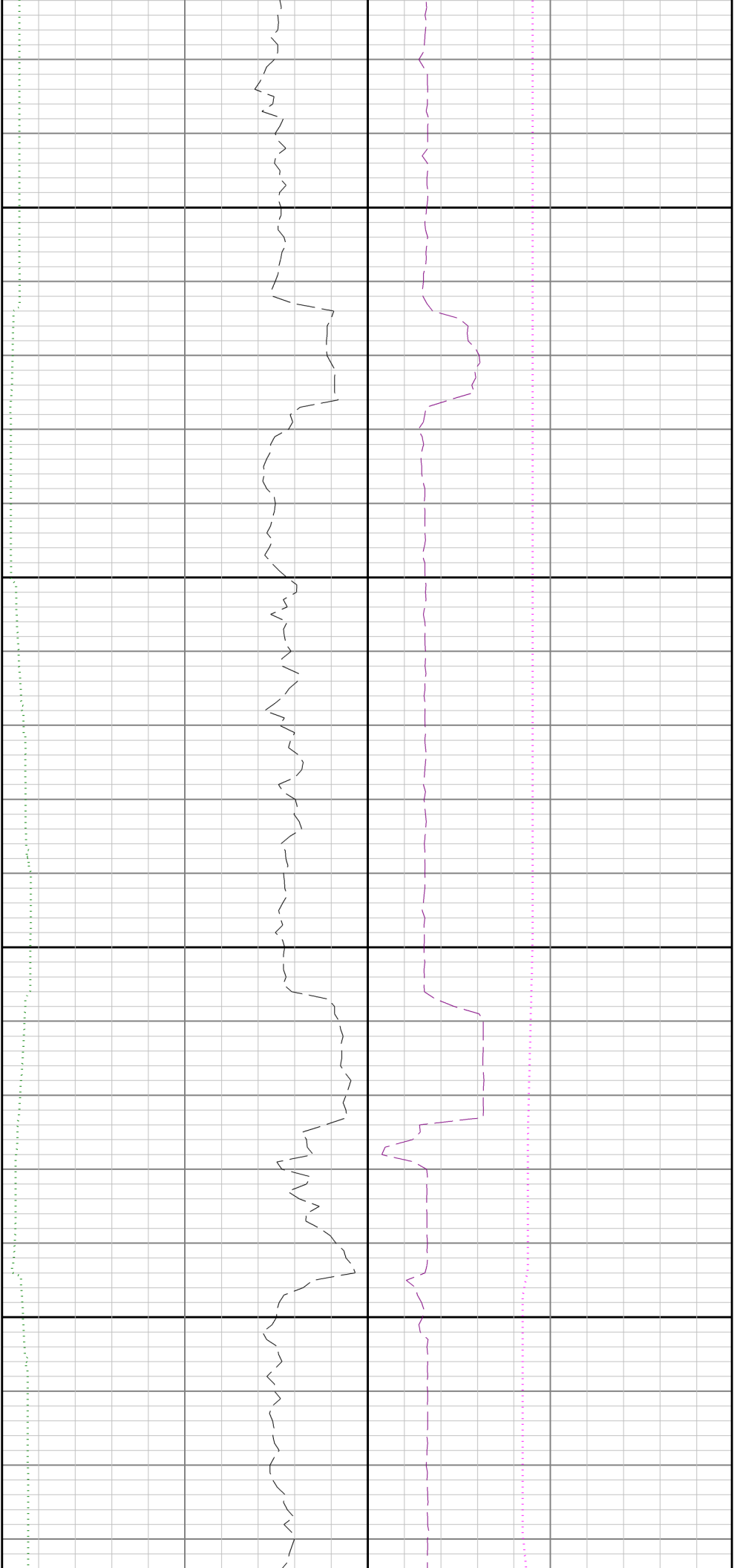


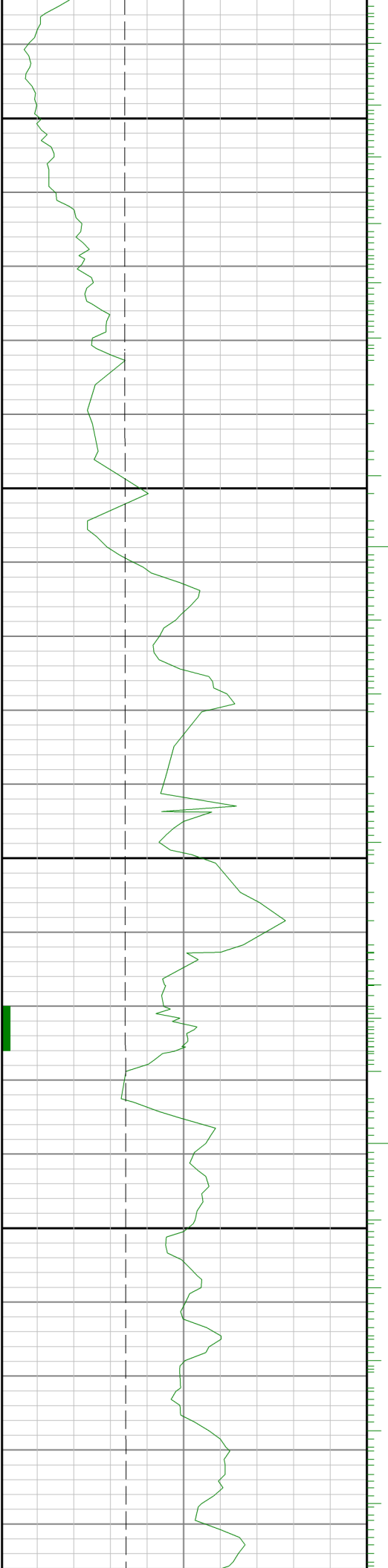


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9200

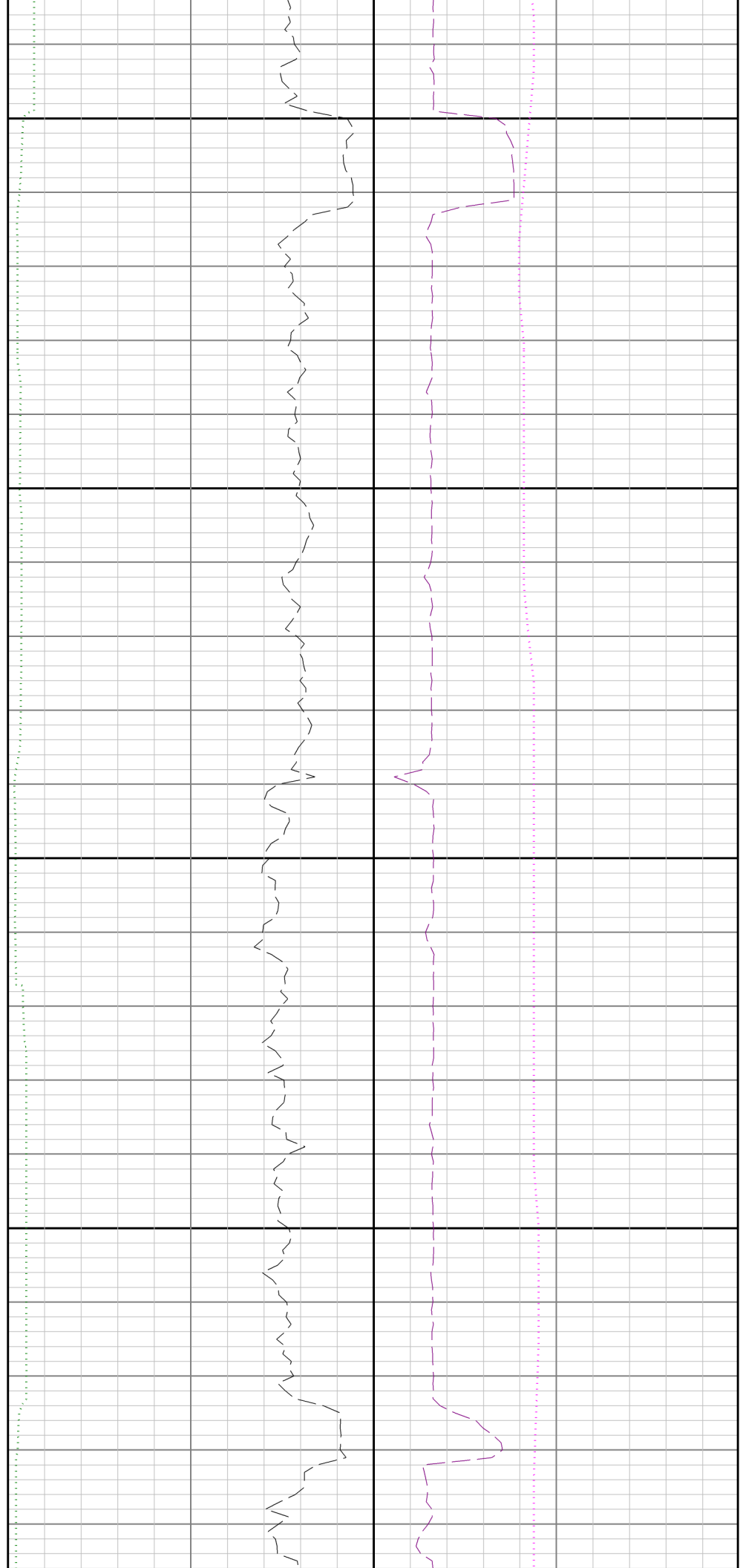


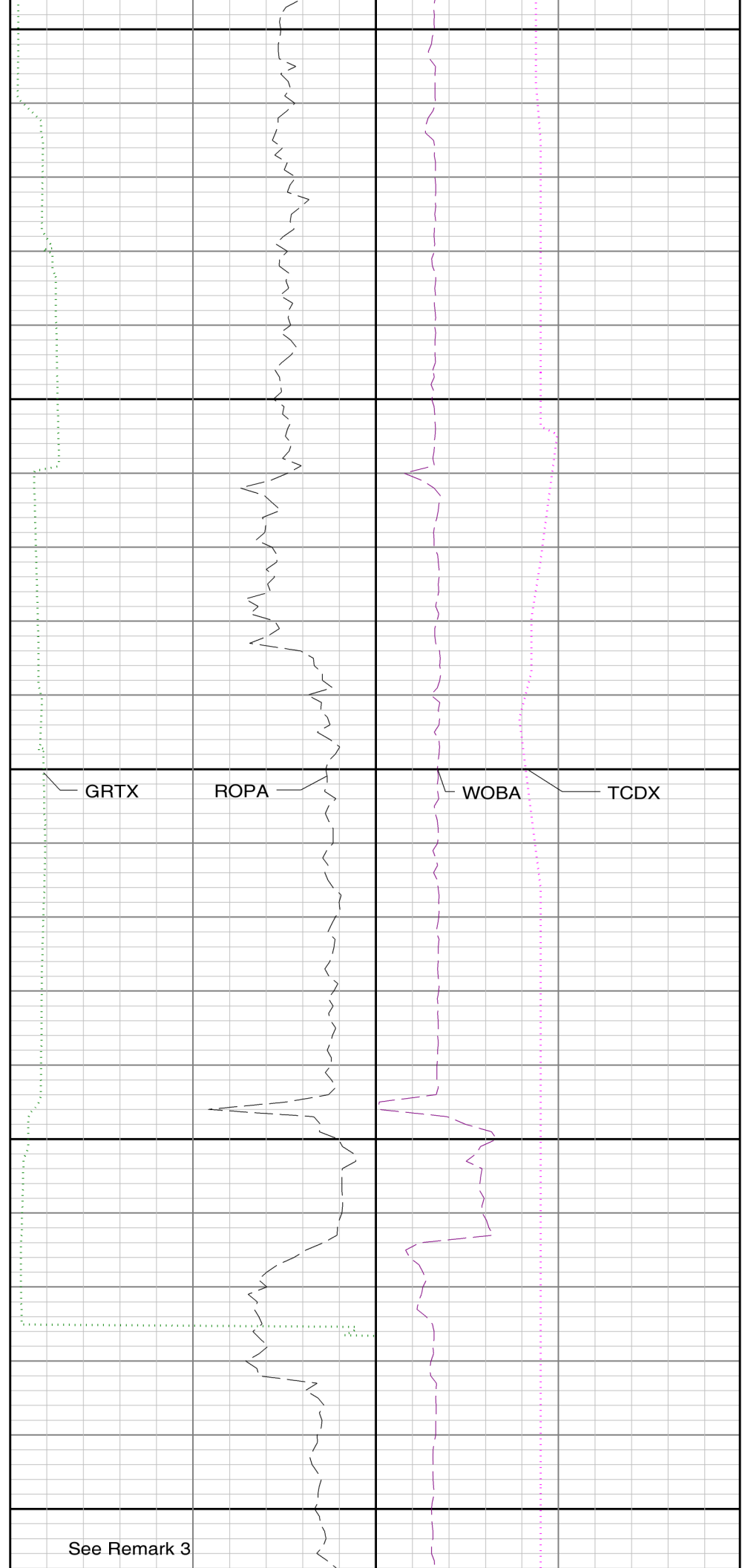
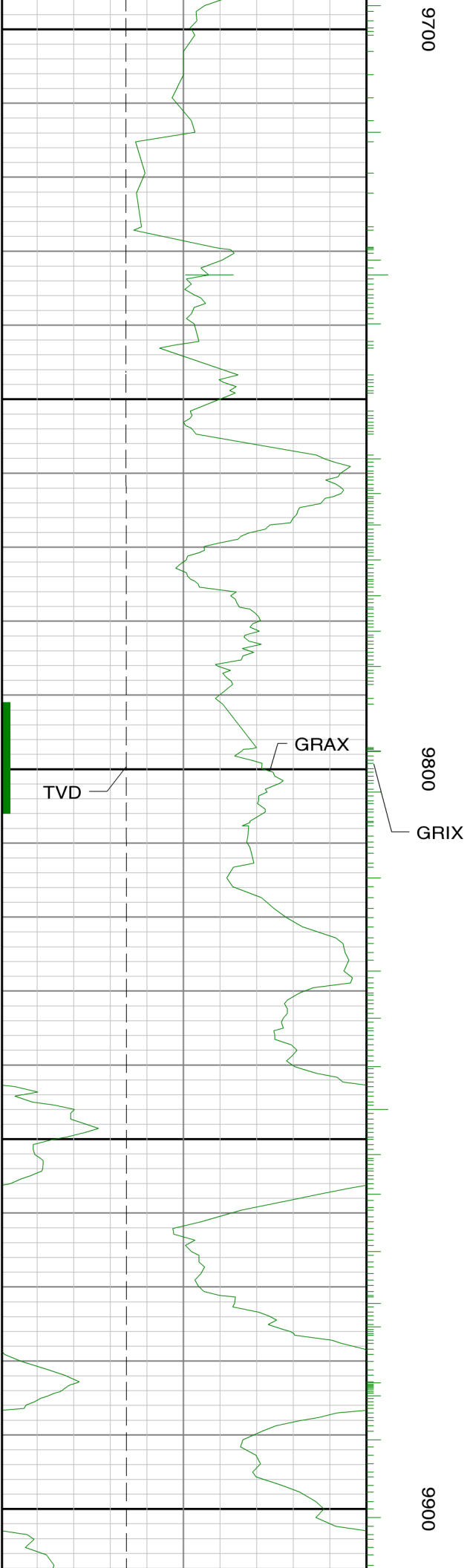


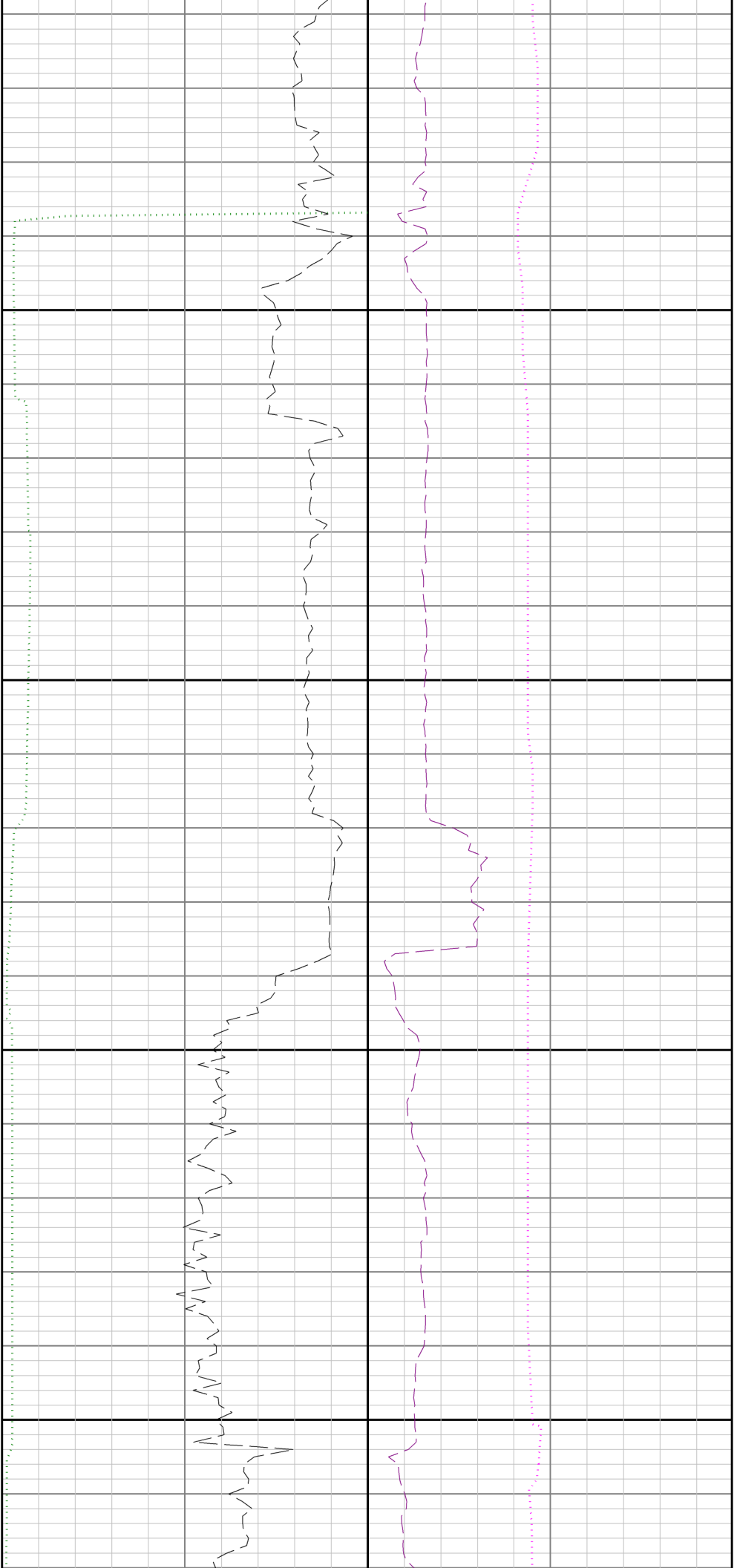


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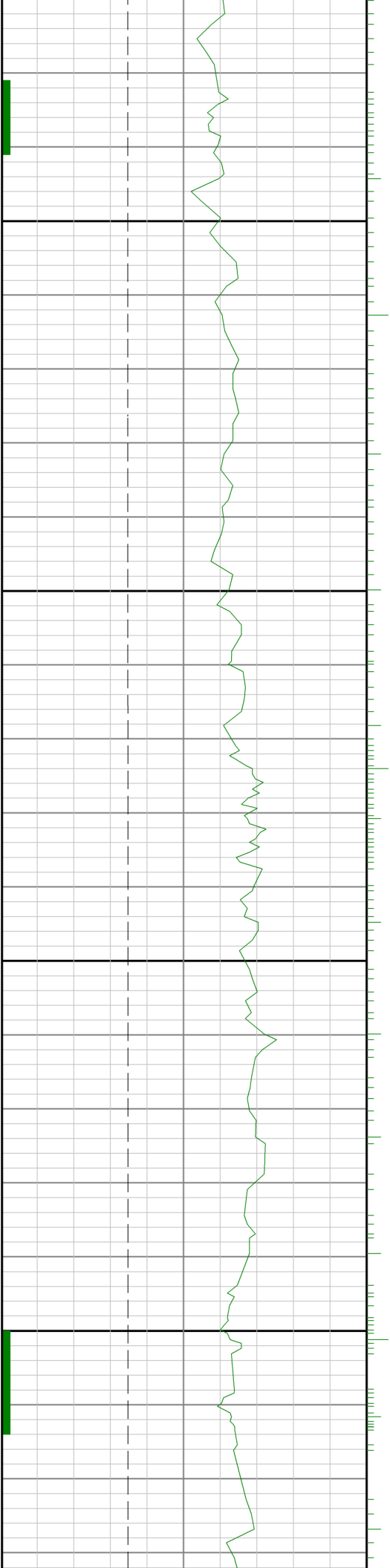
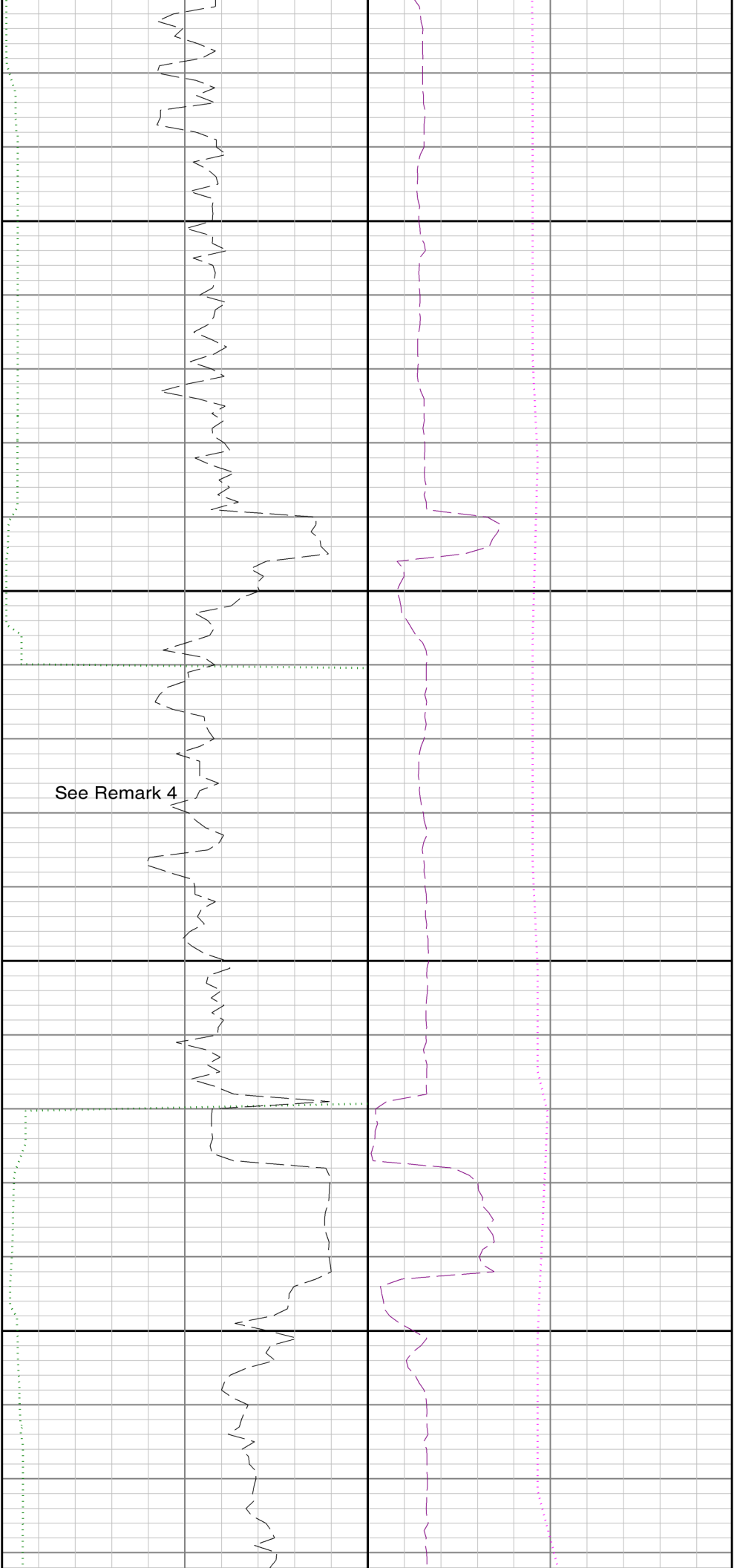


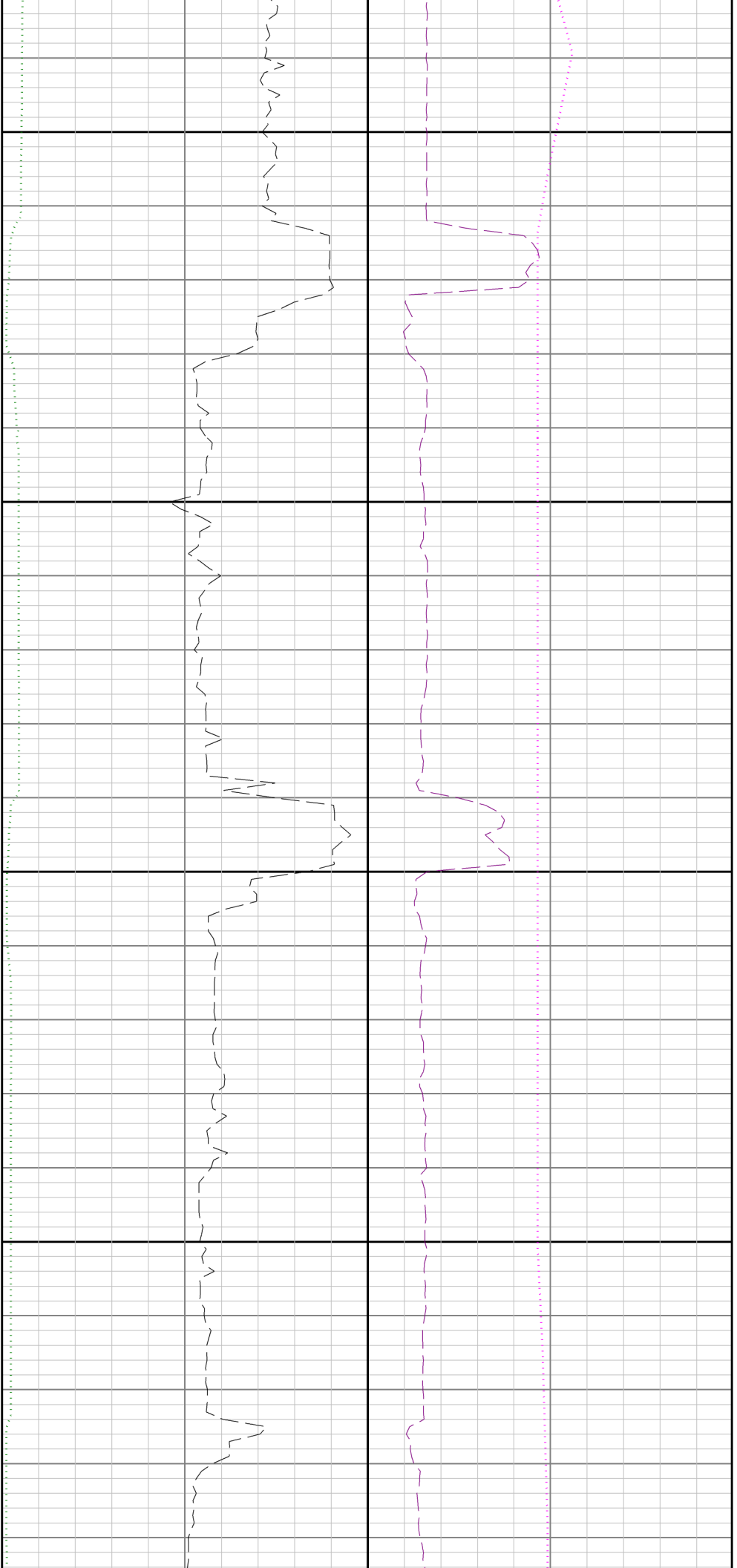


Run 2 <=> Run 3

10000

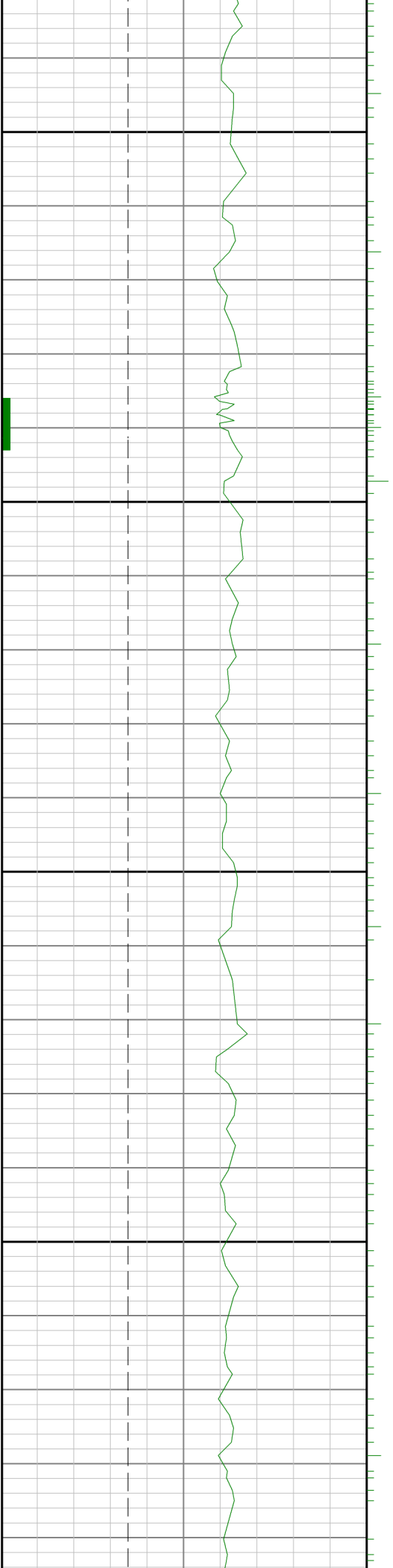
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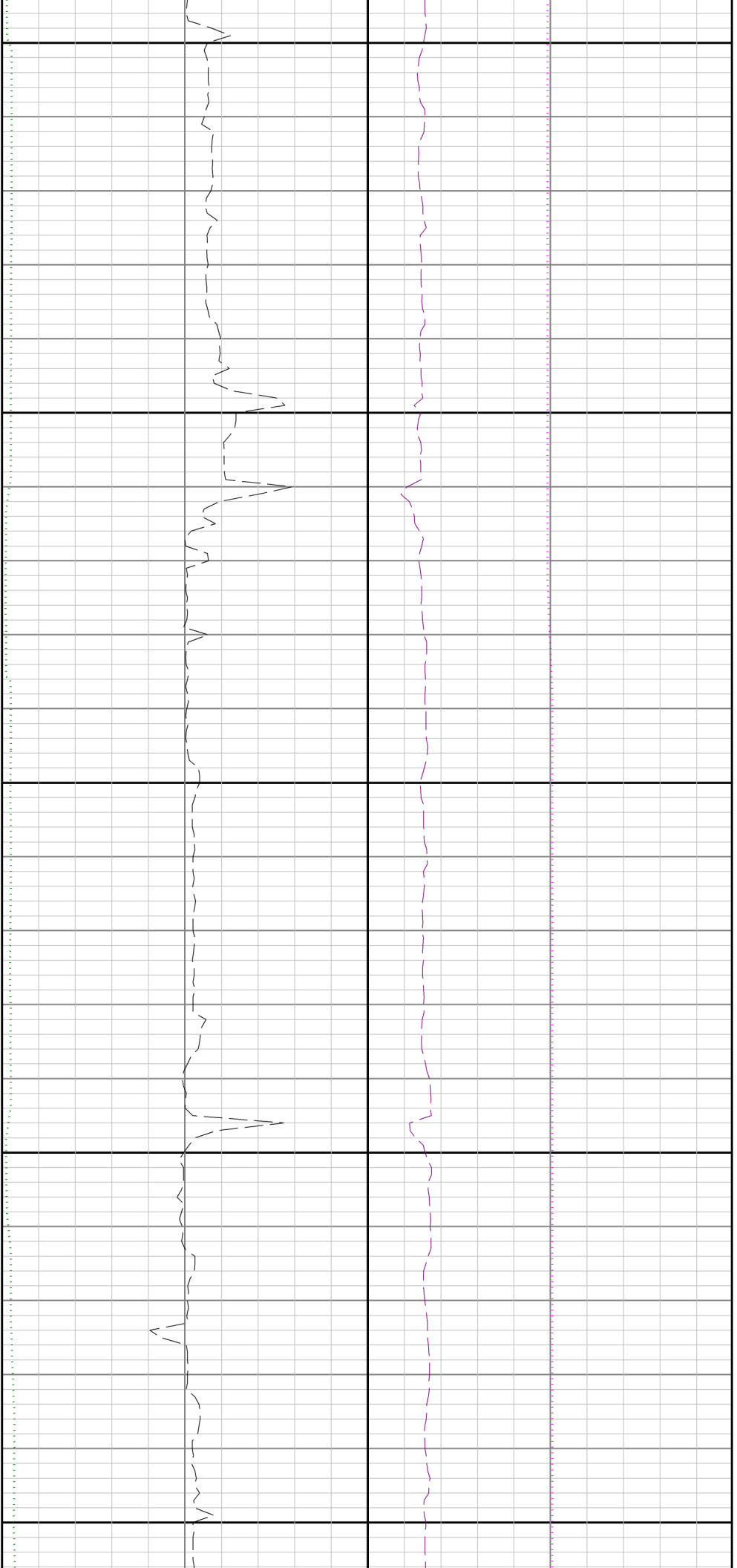




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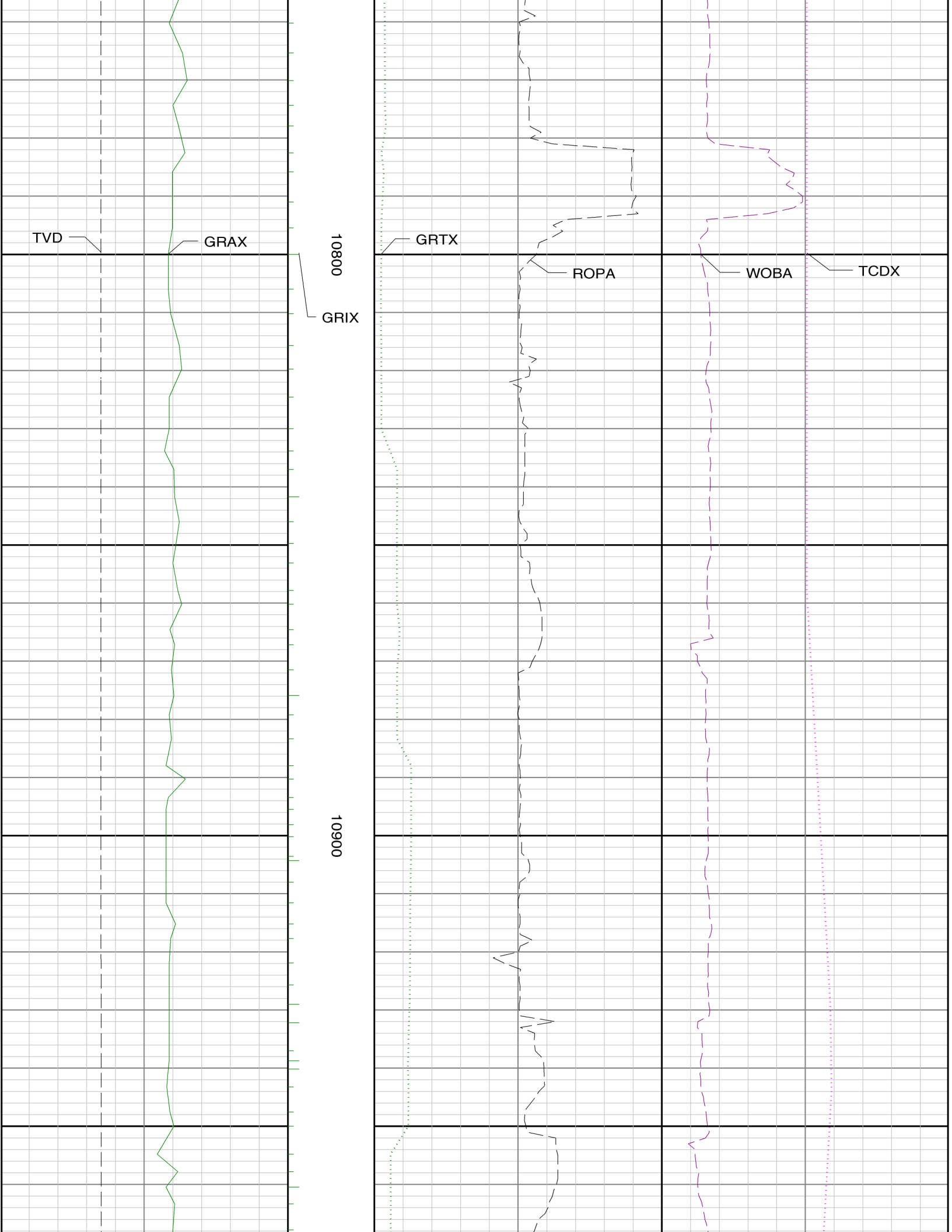


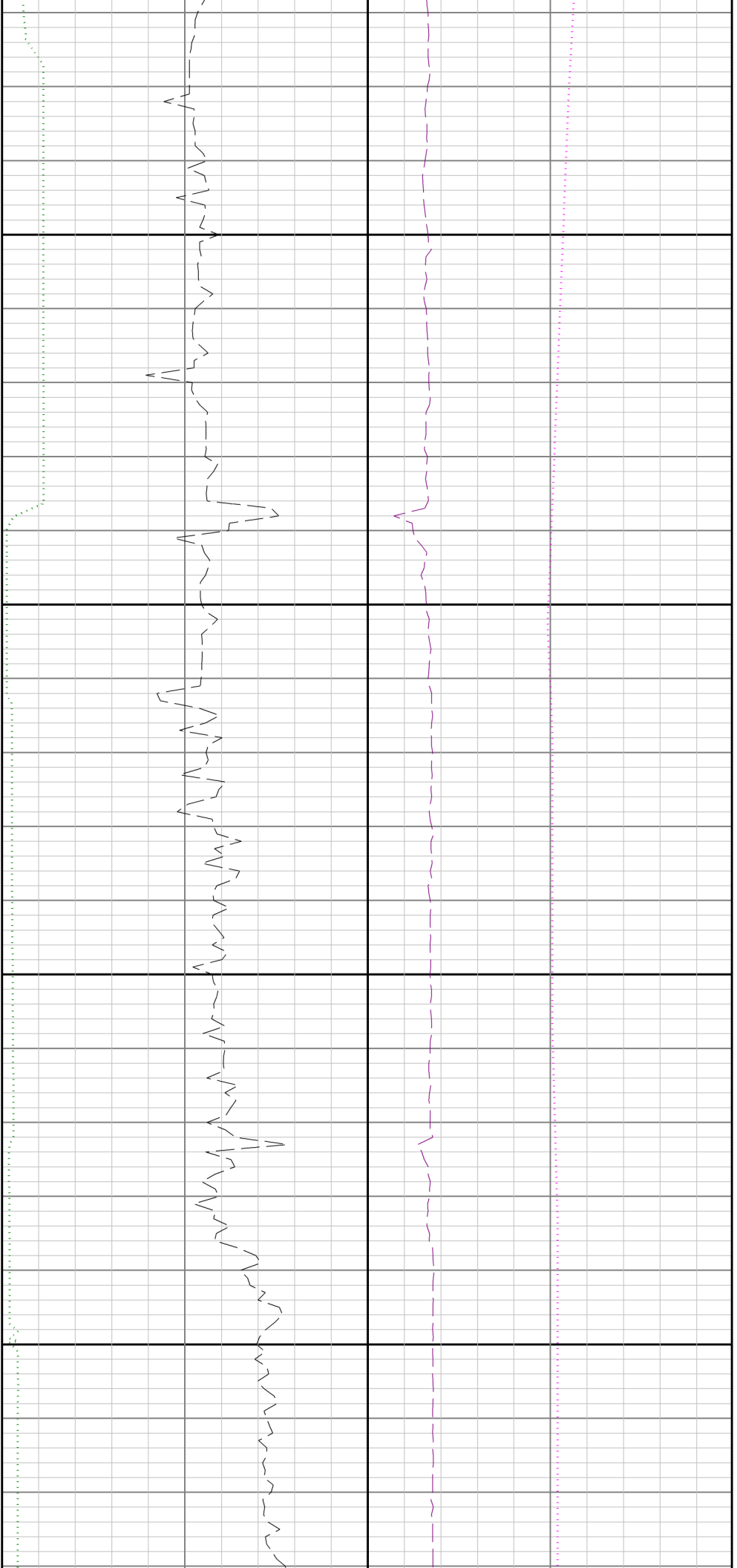


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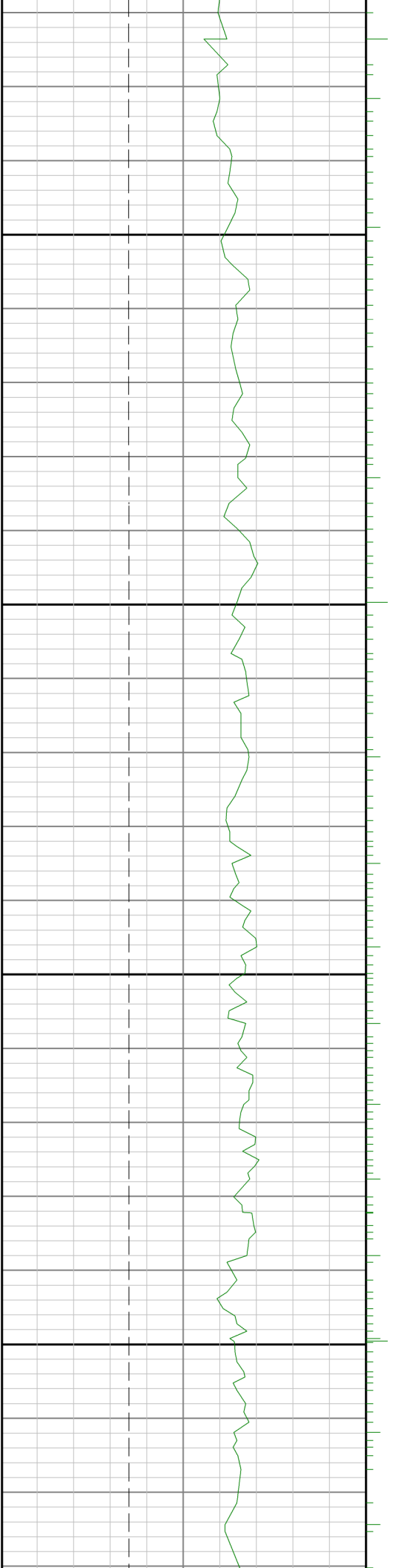


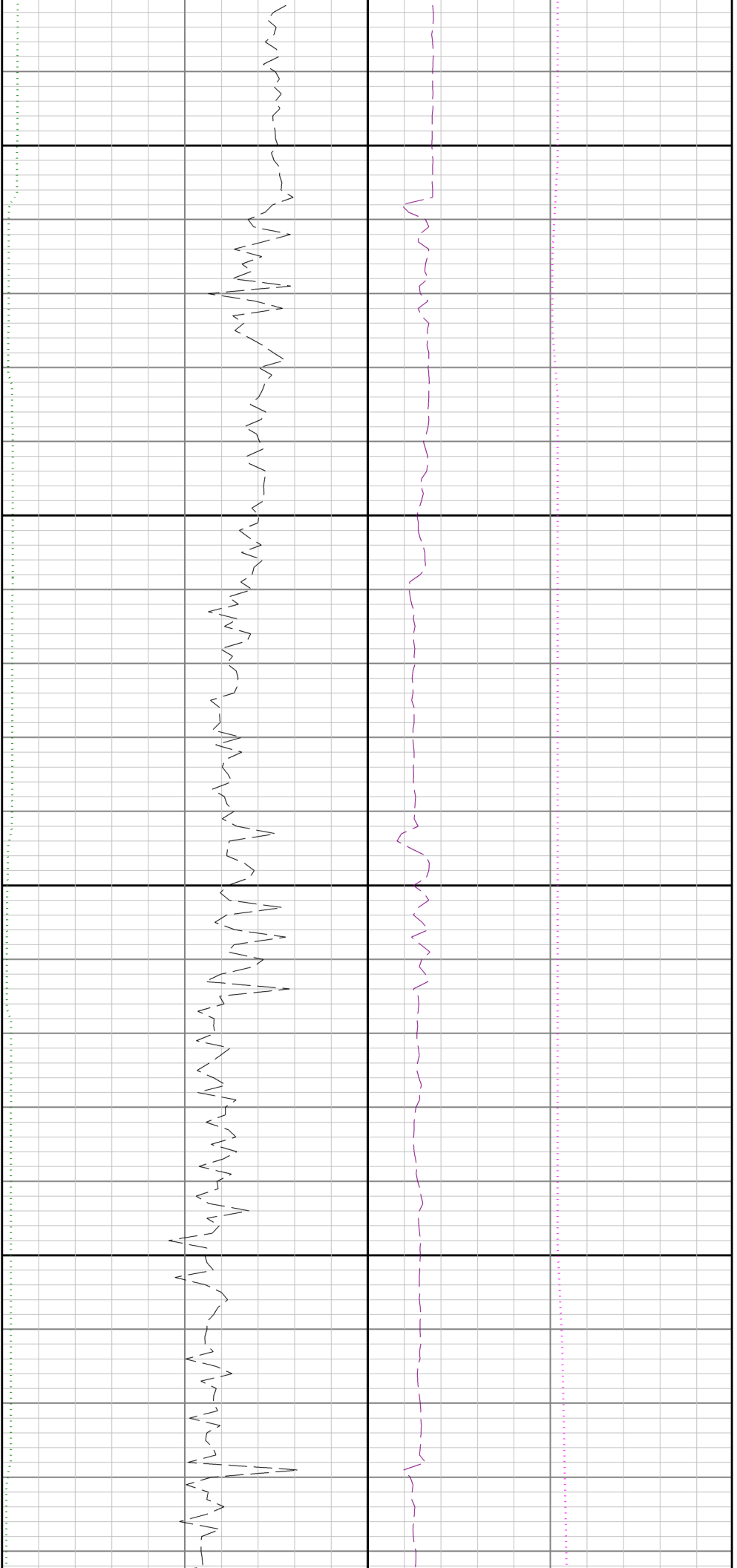




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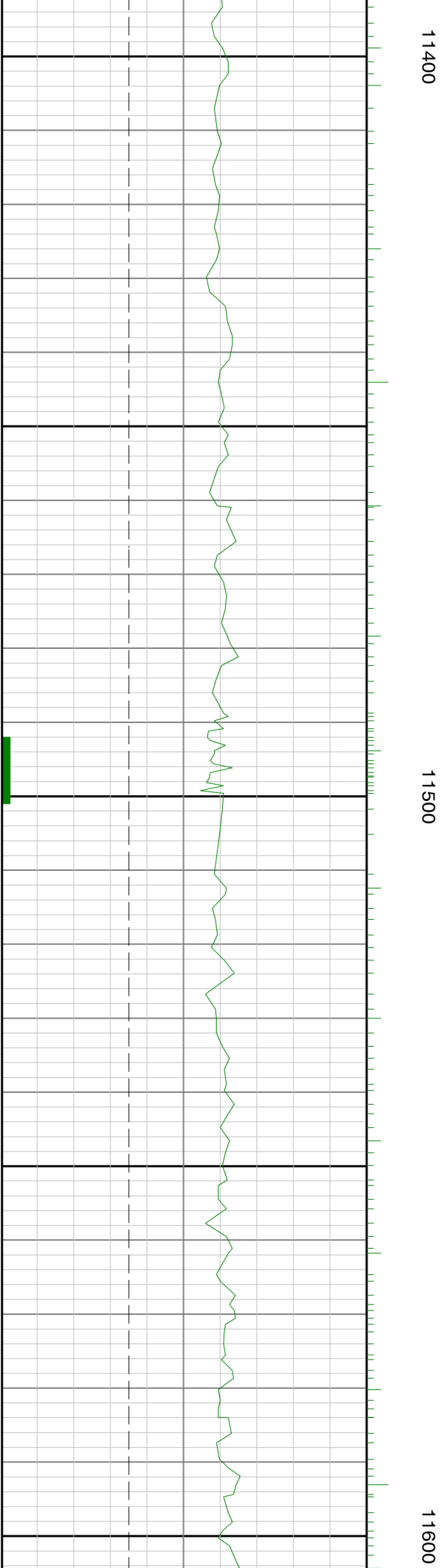
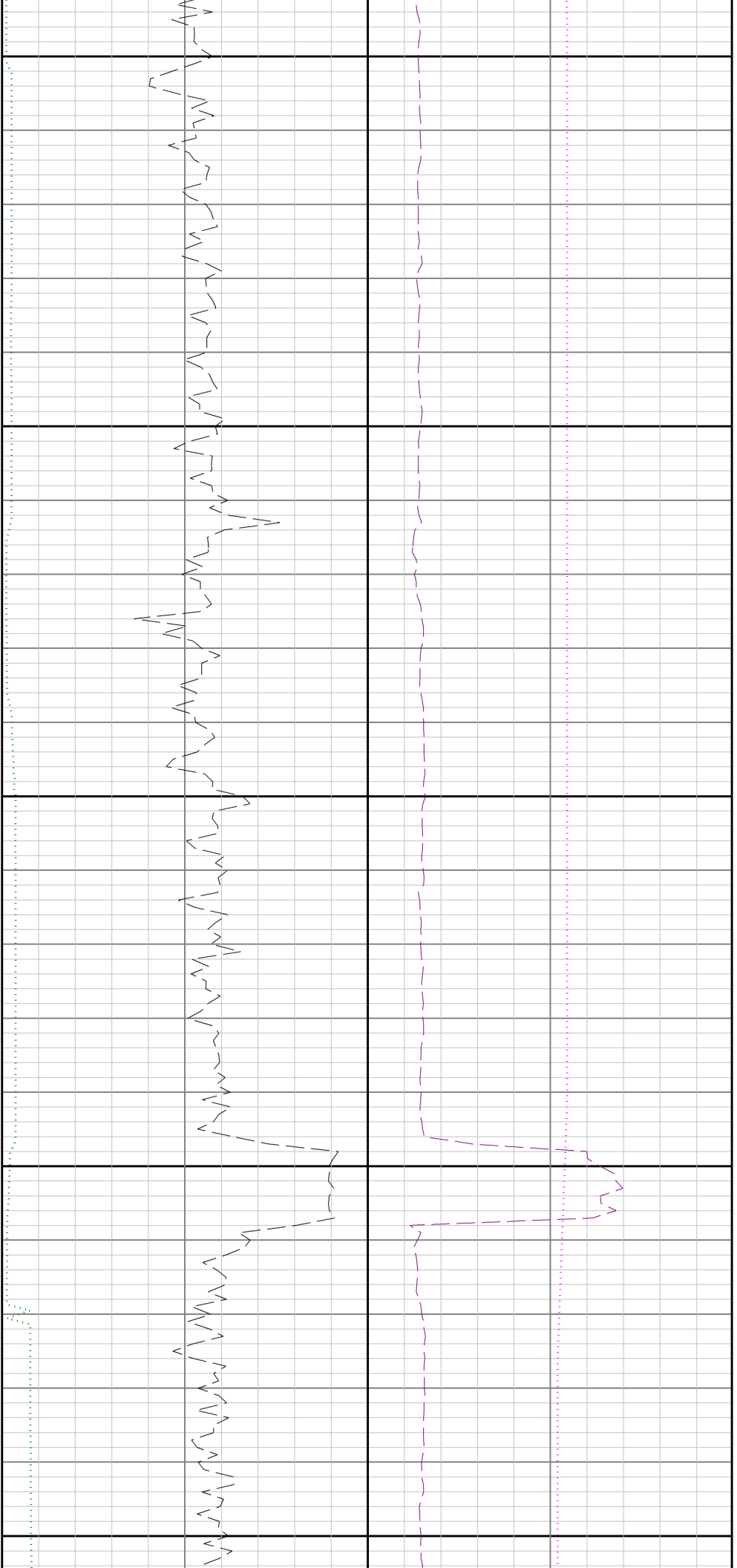
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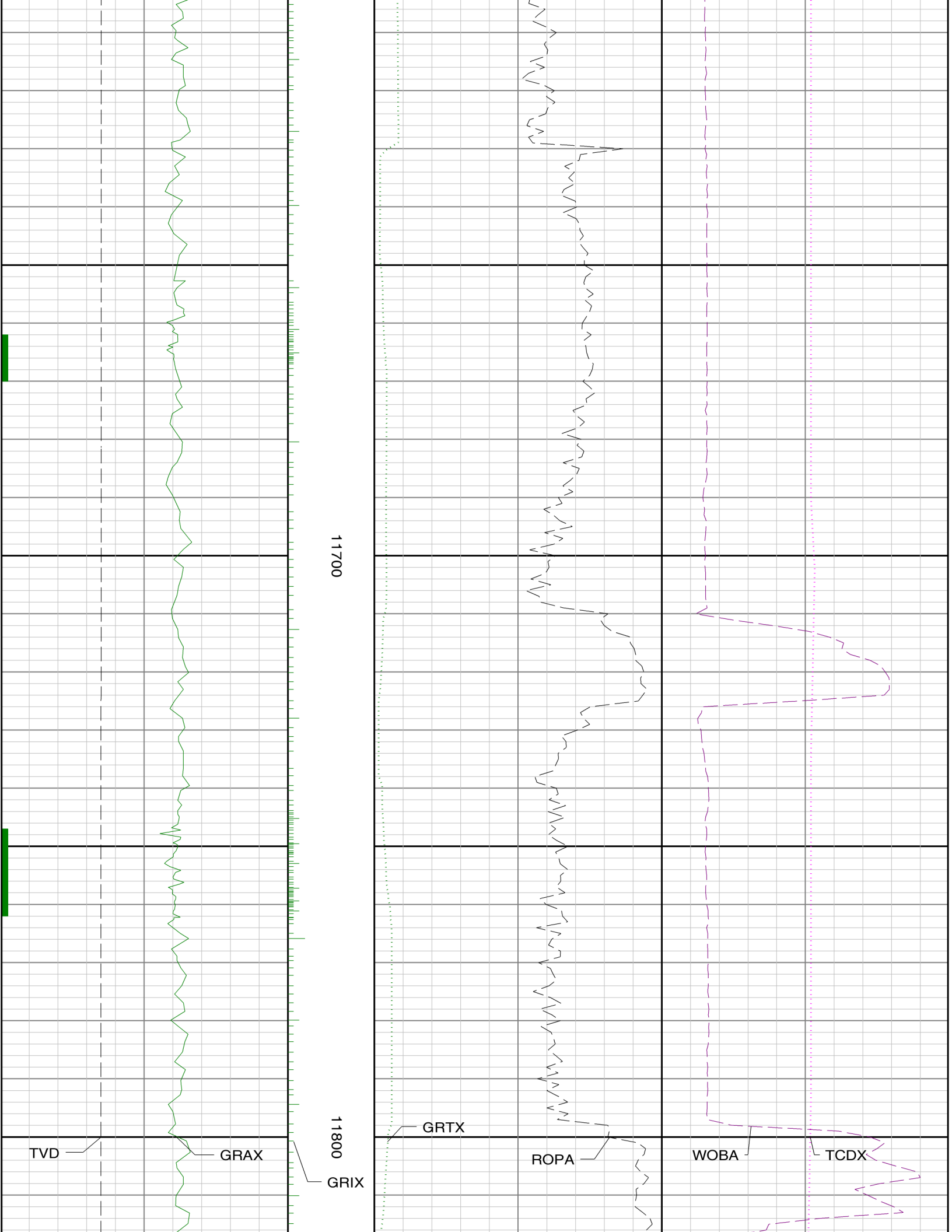


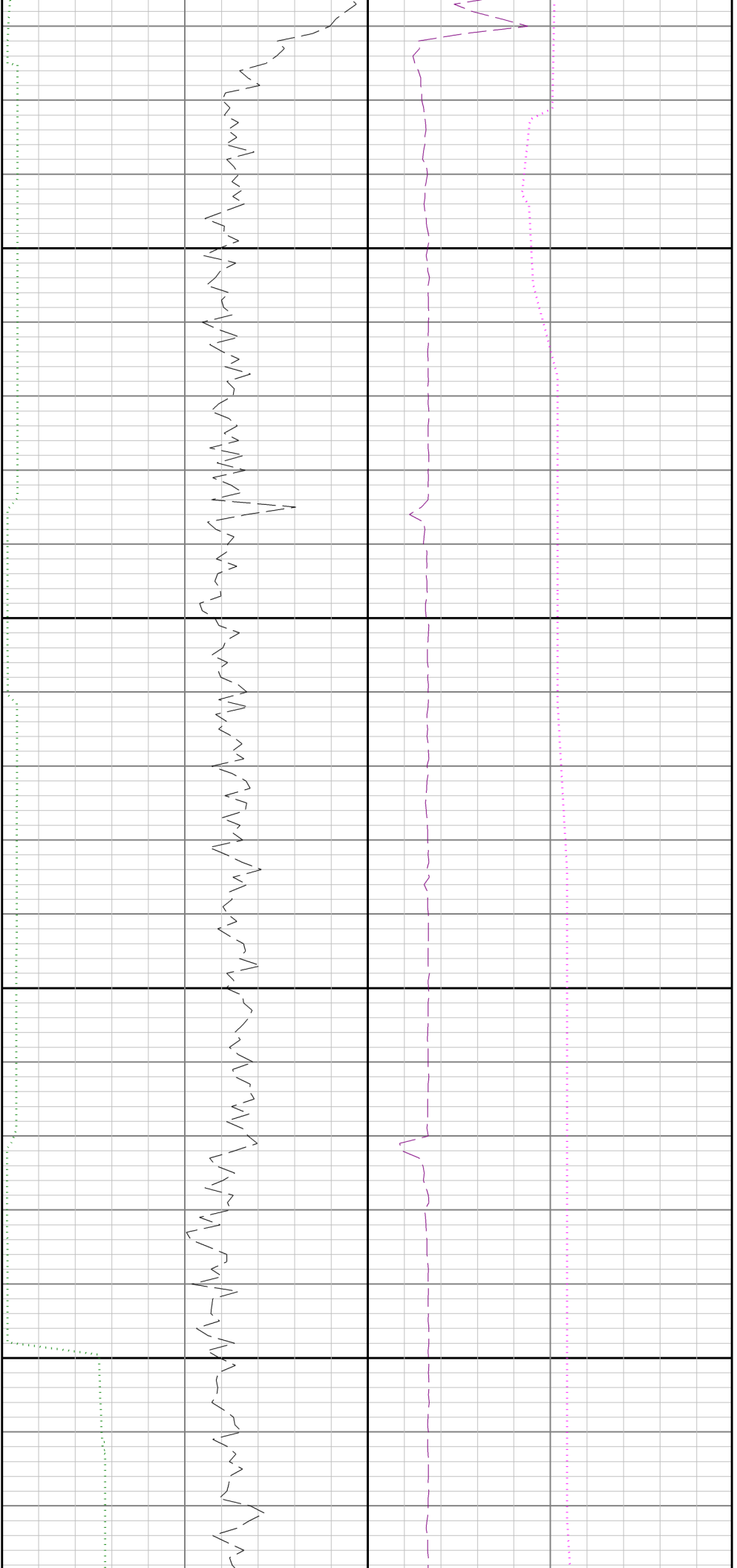


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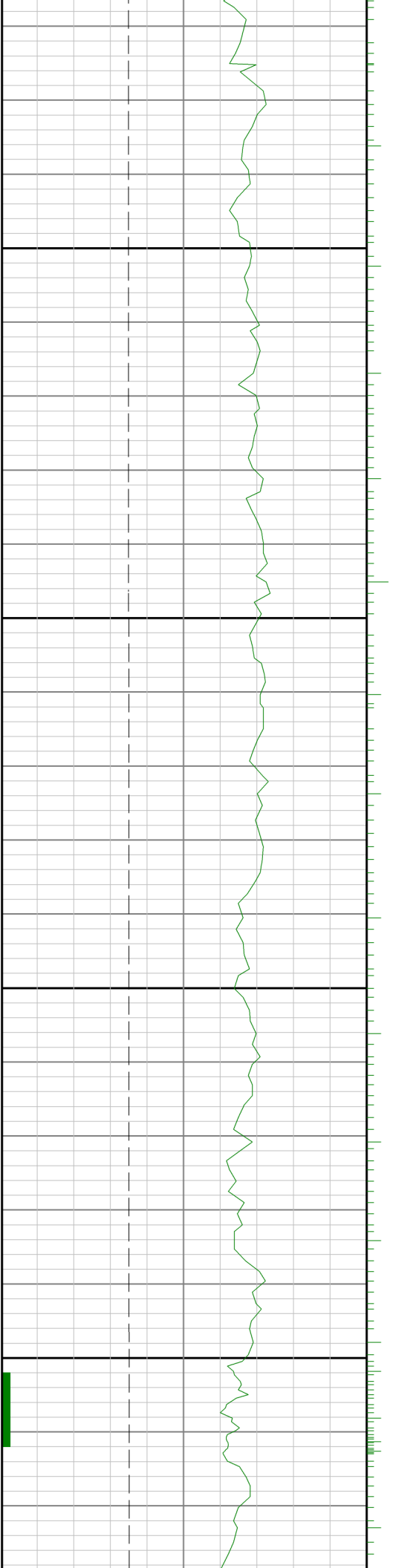


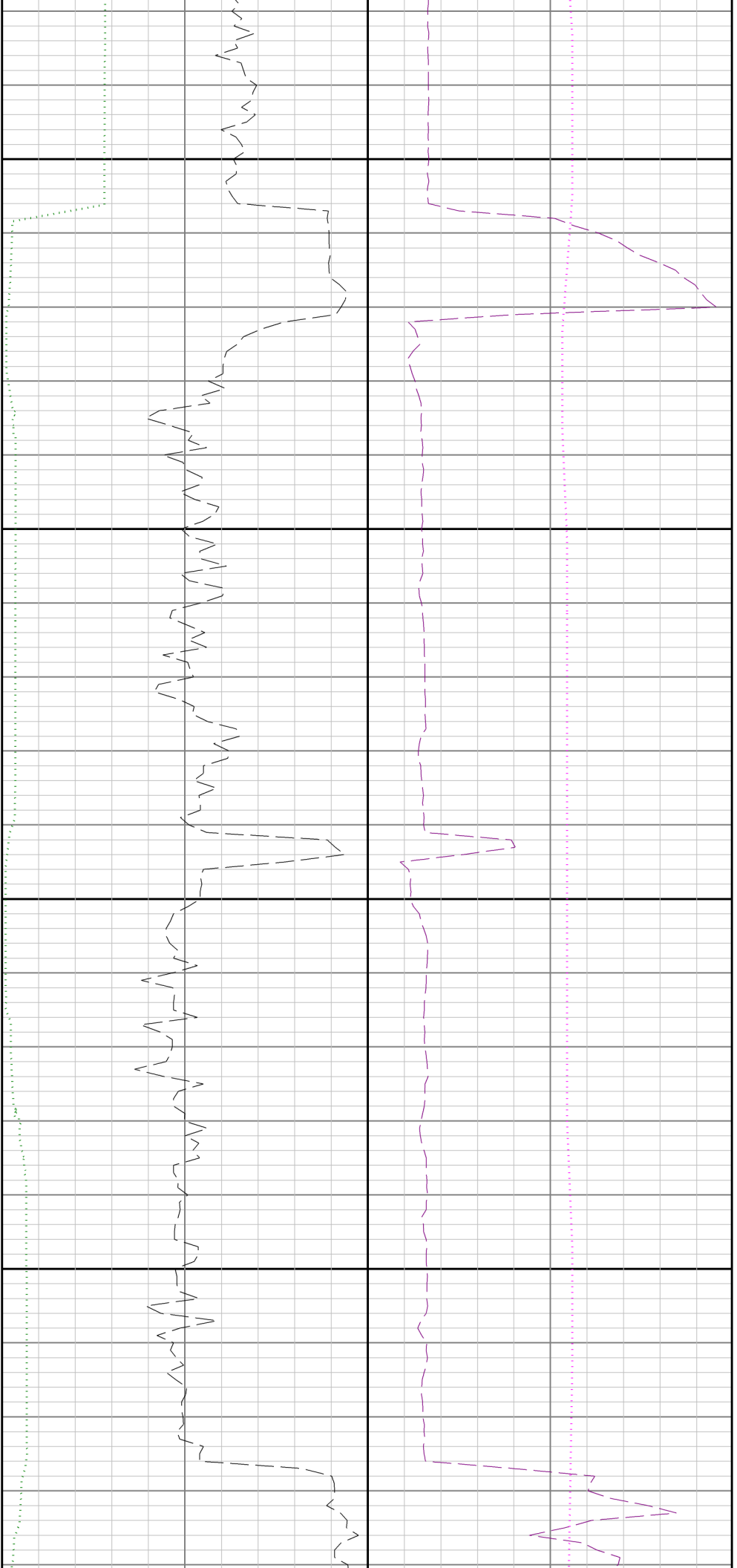




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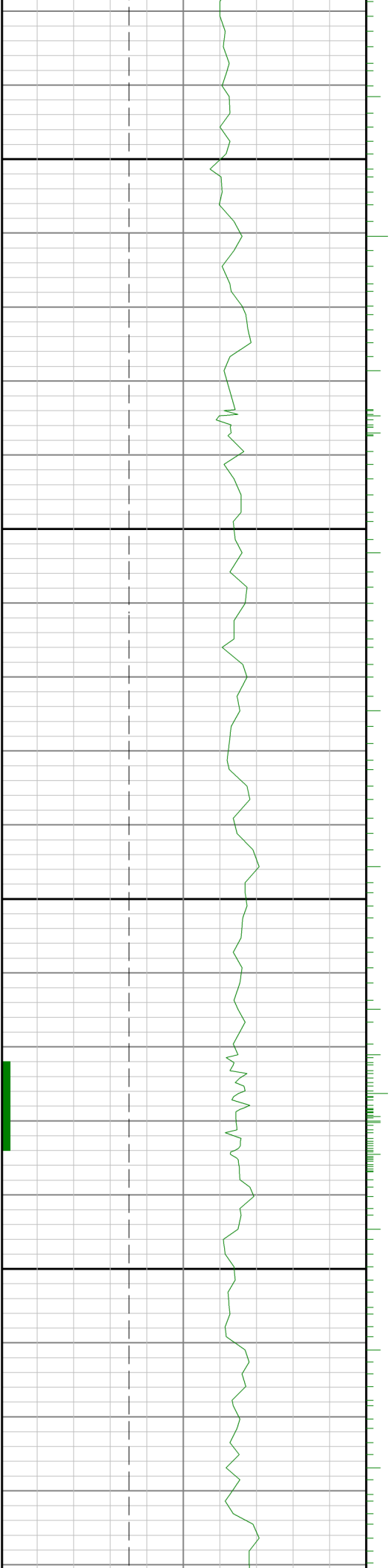
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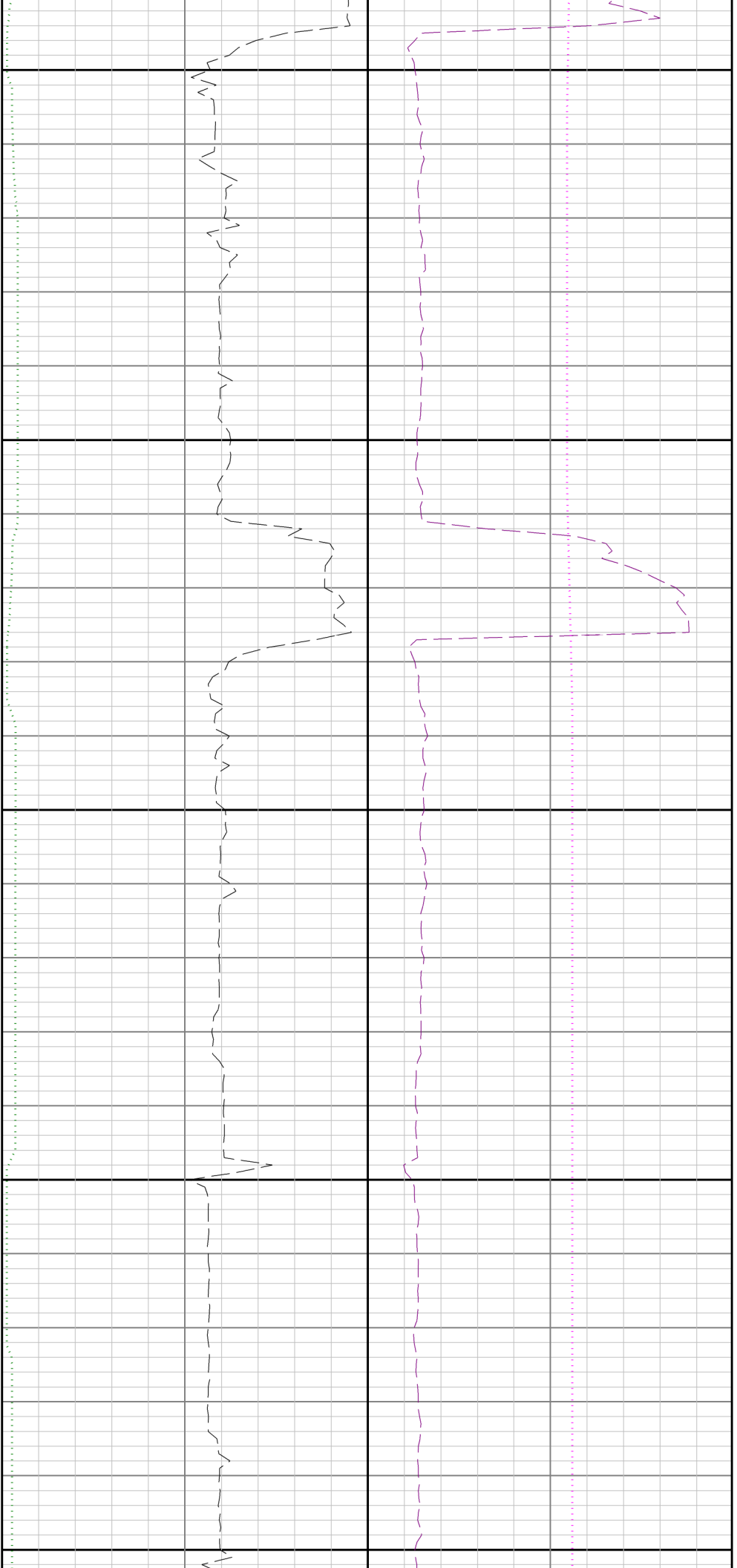




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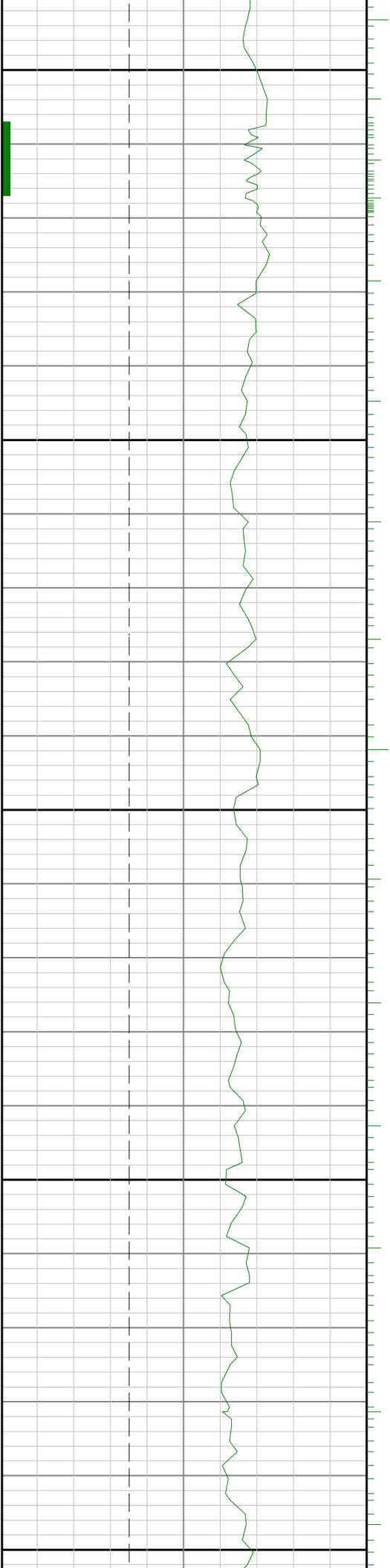
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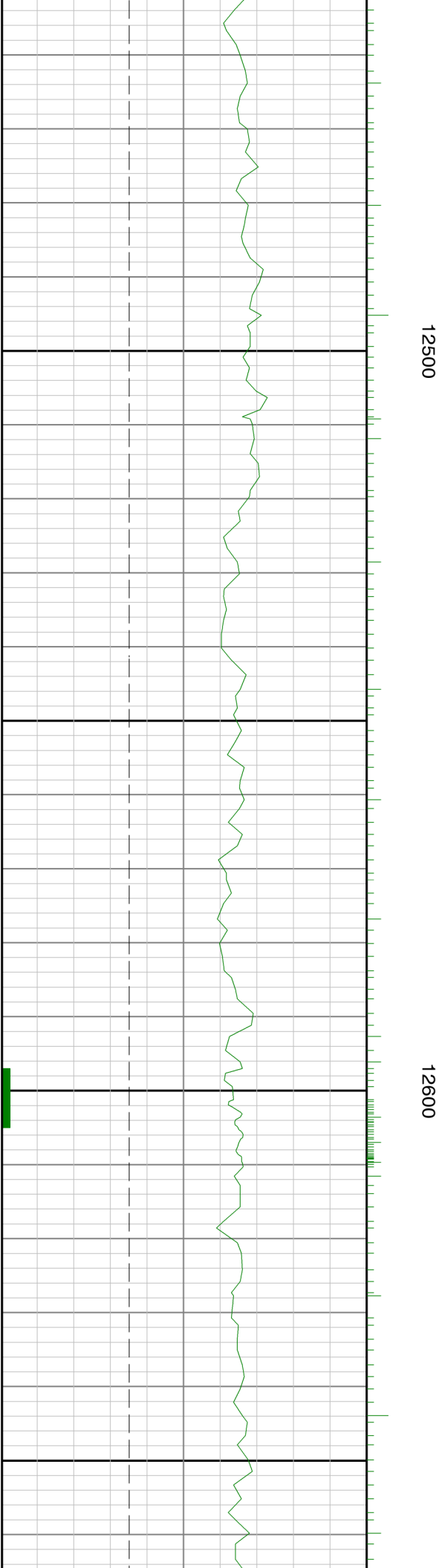
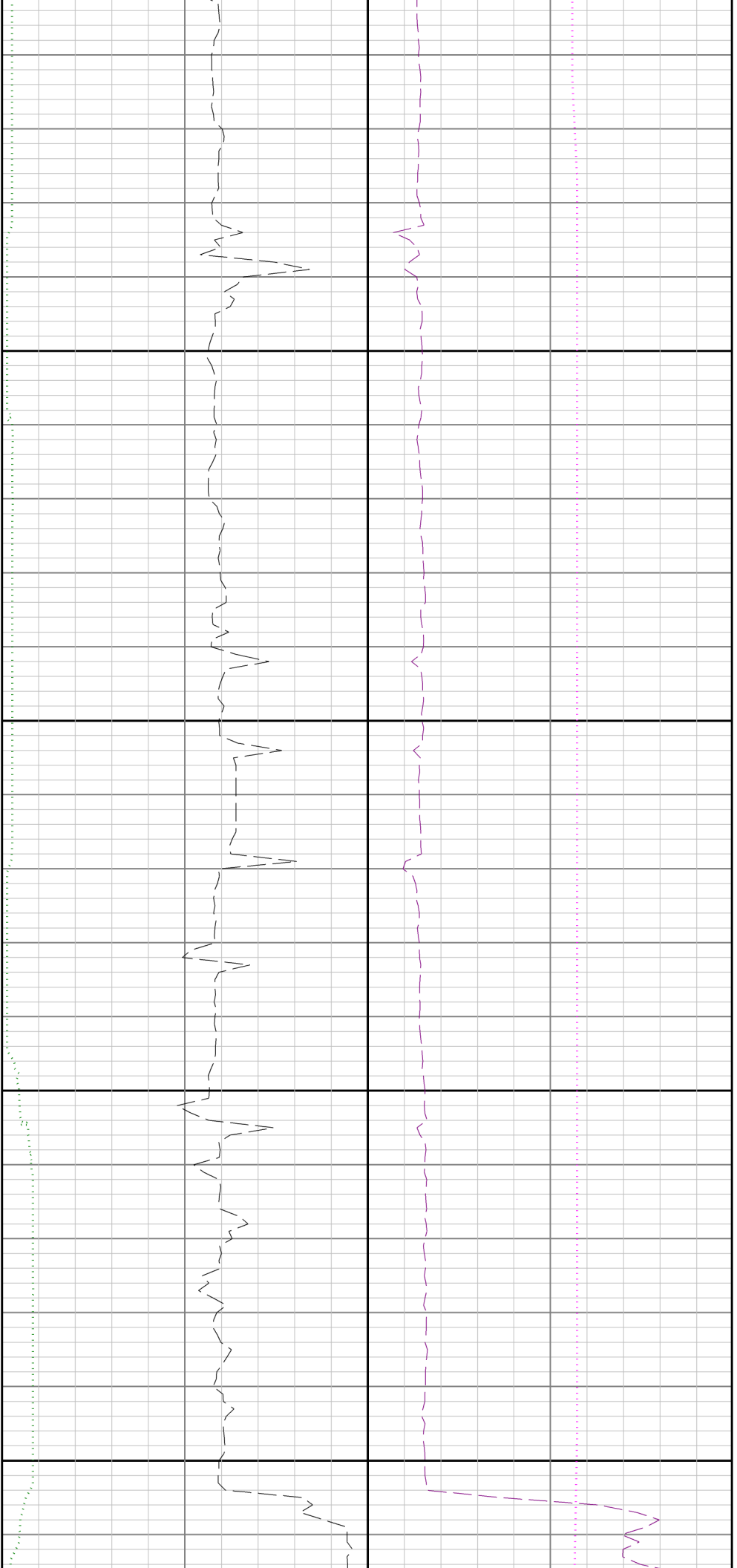


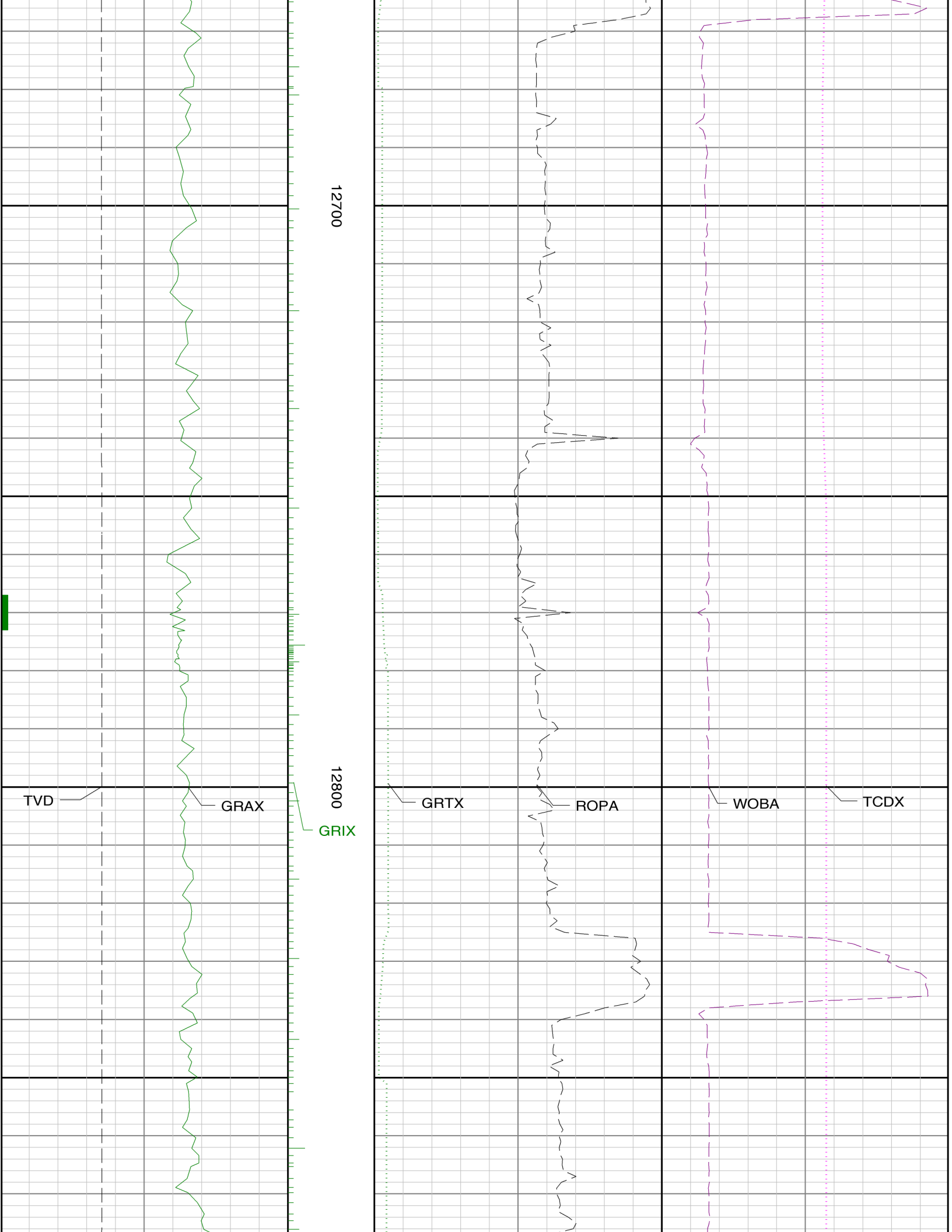


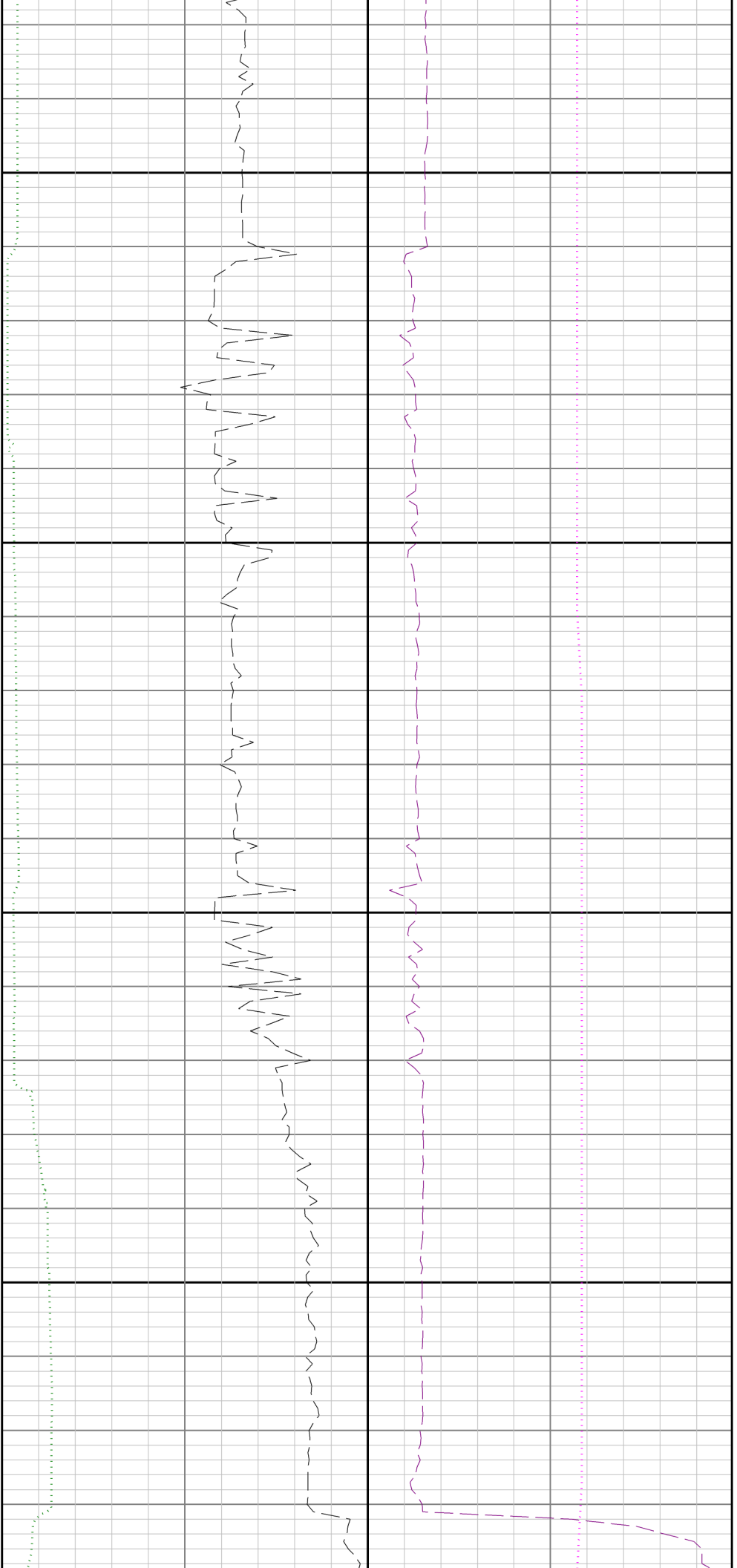
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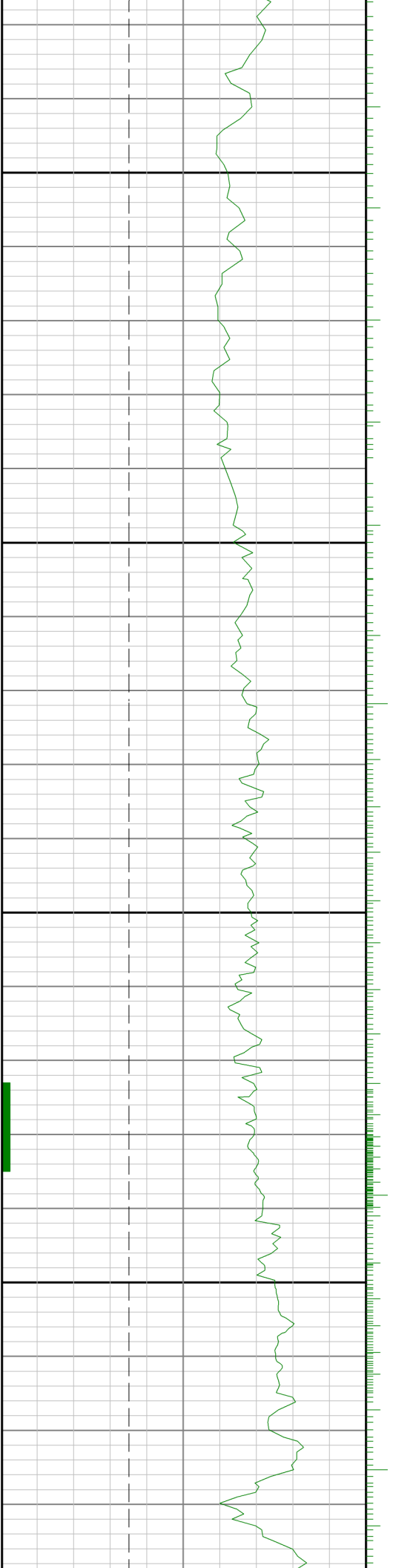






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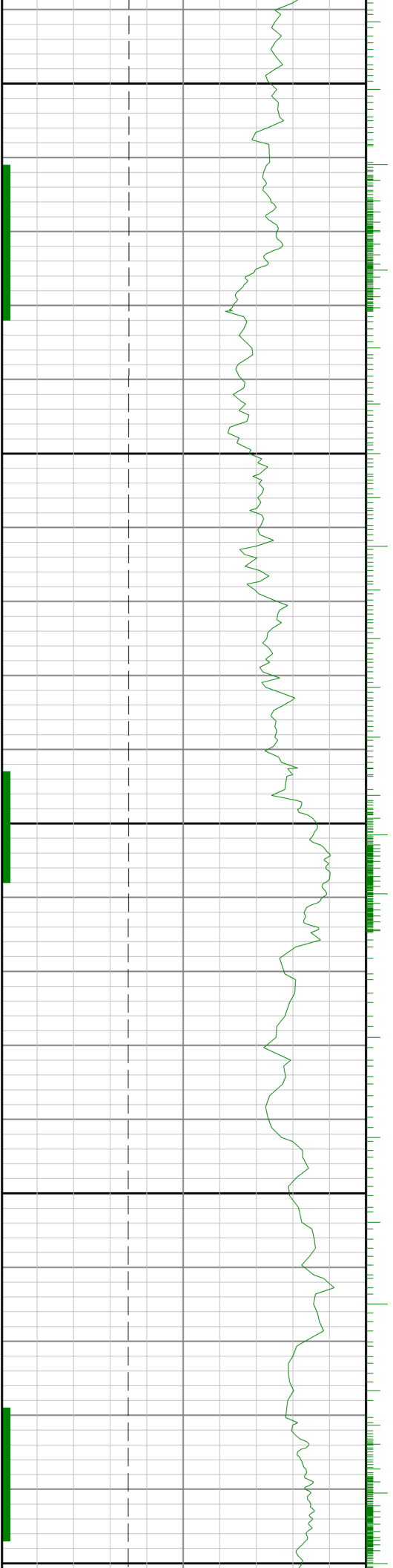


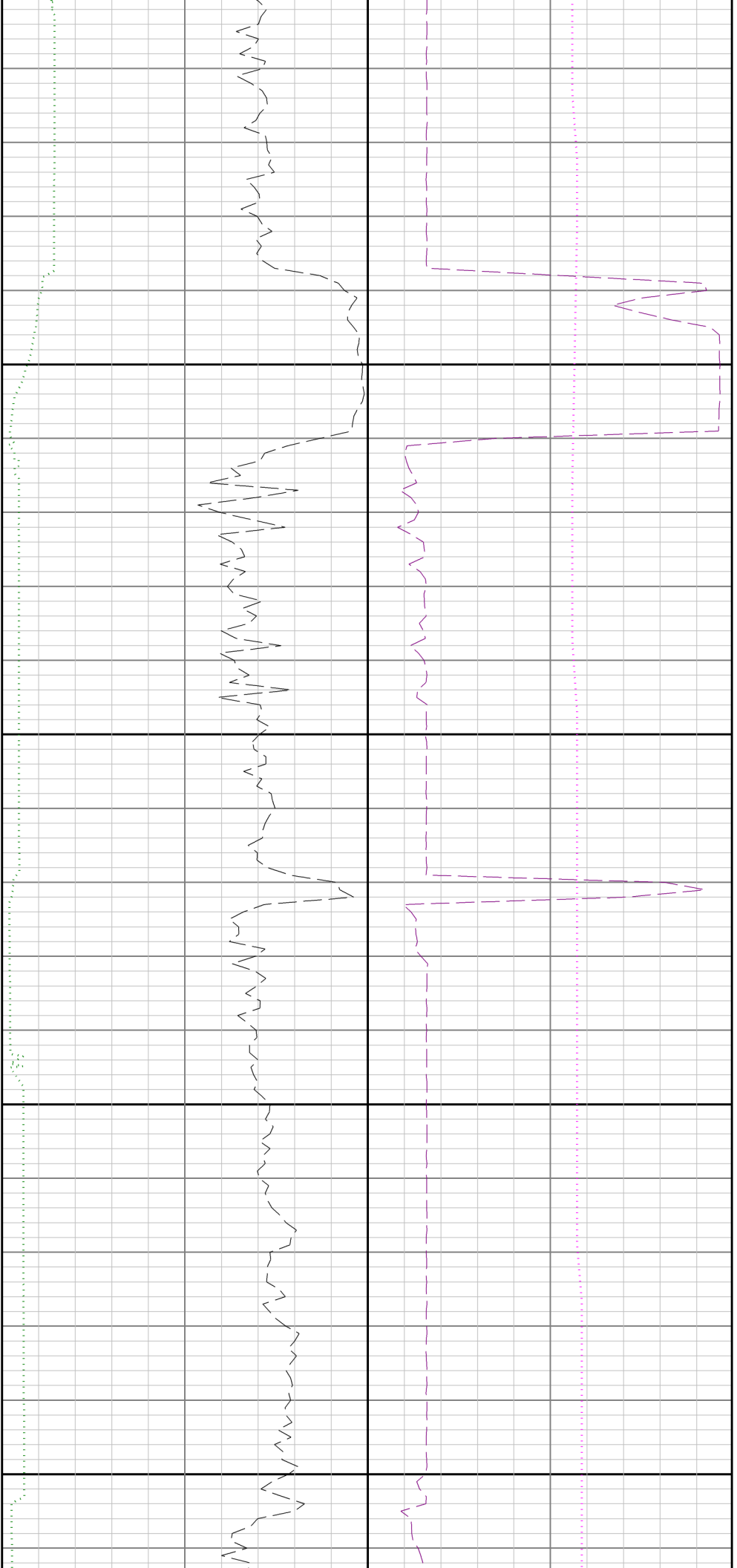


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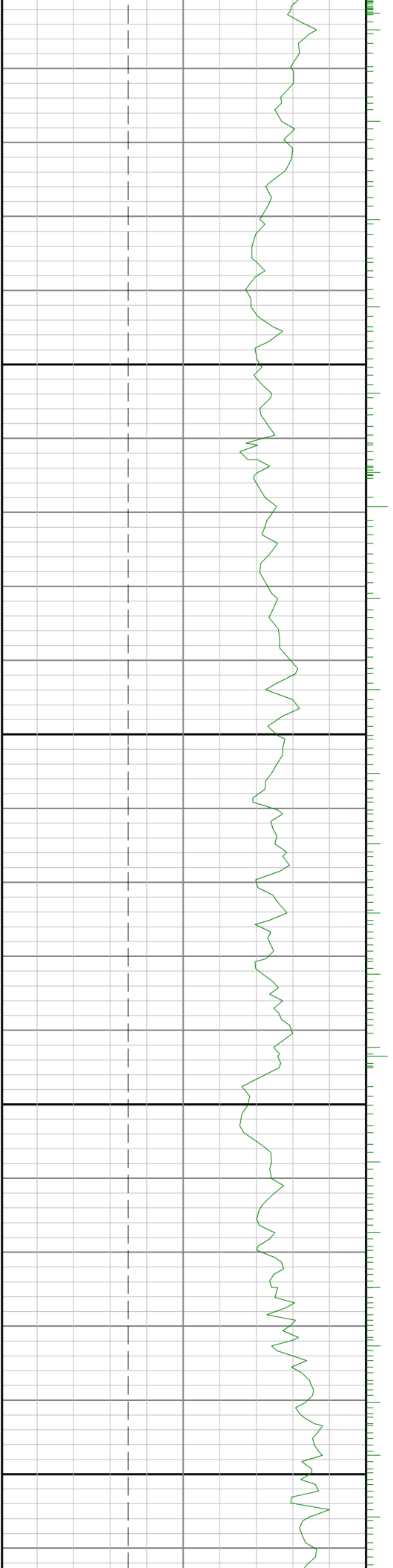


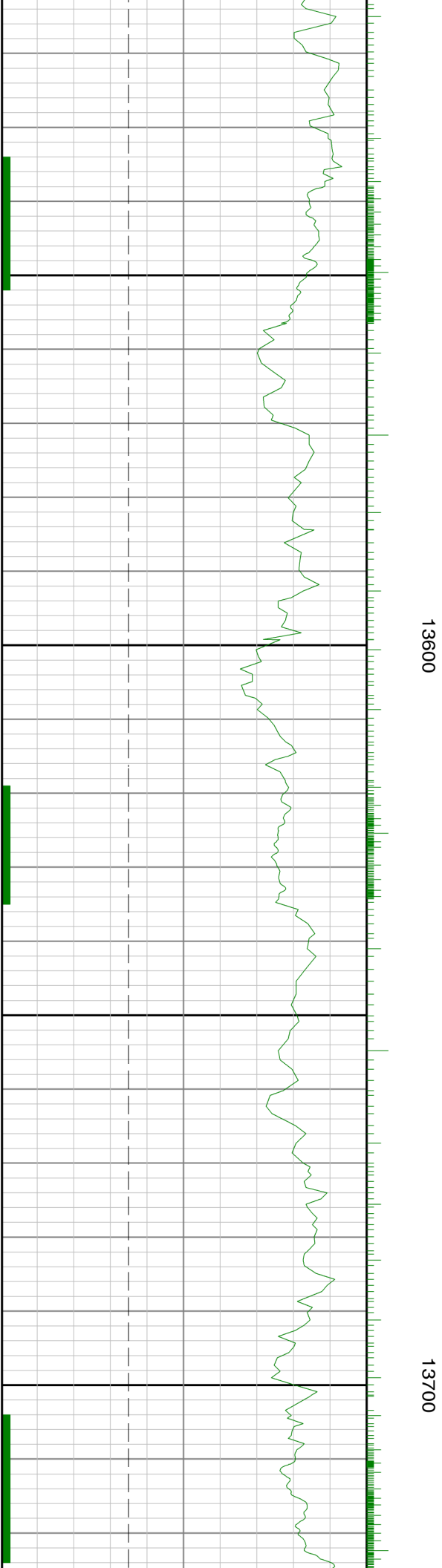
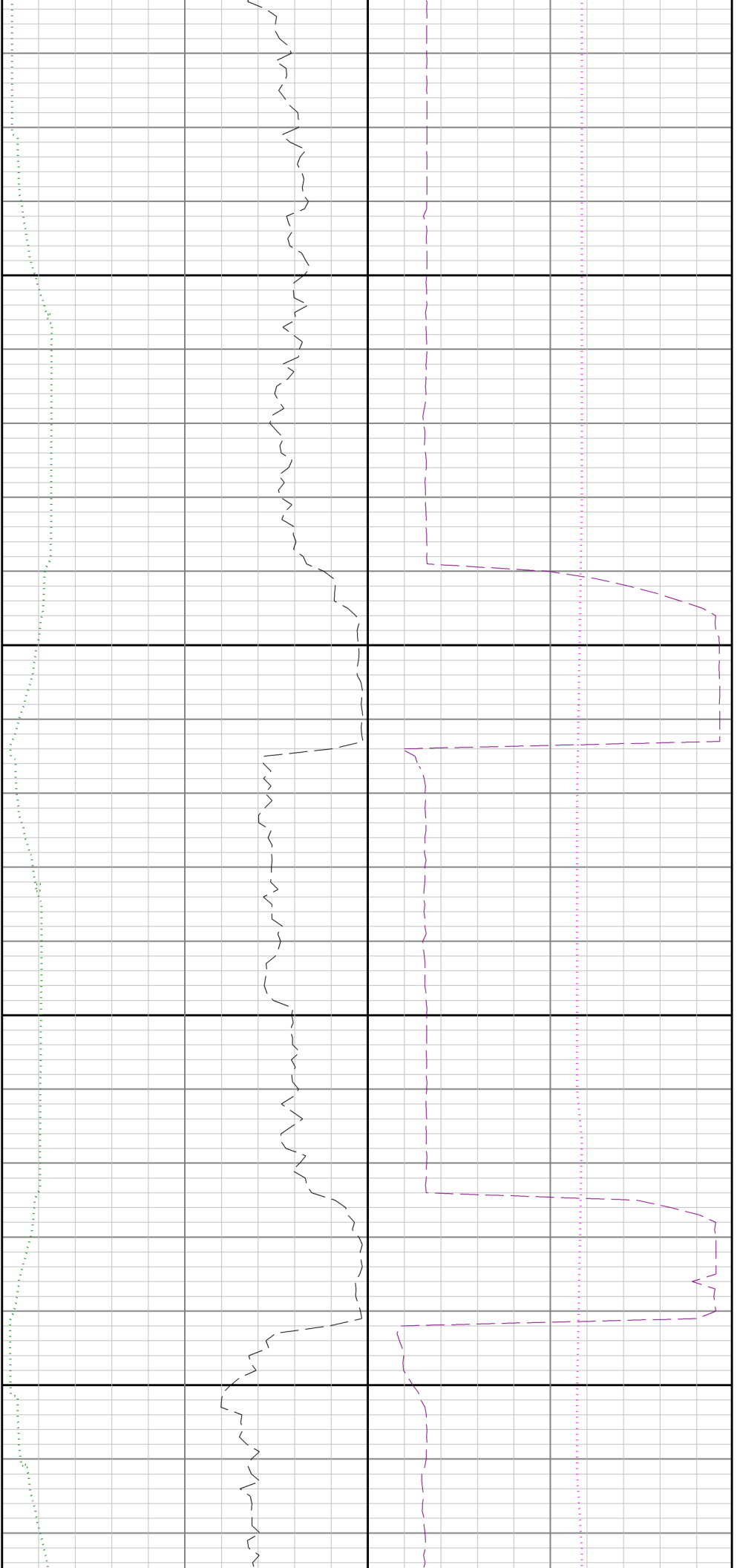


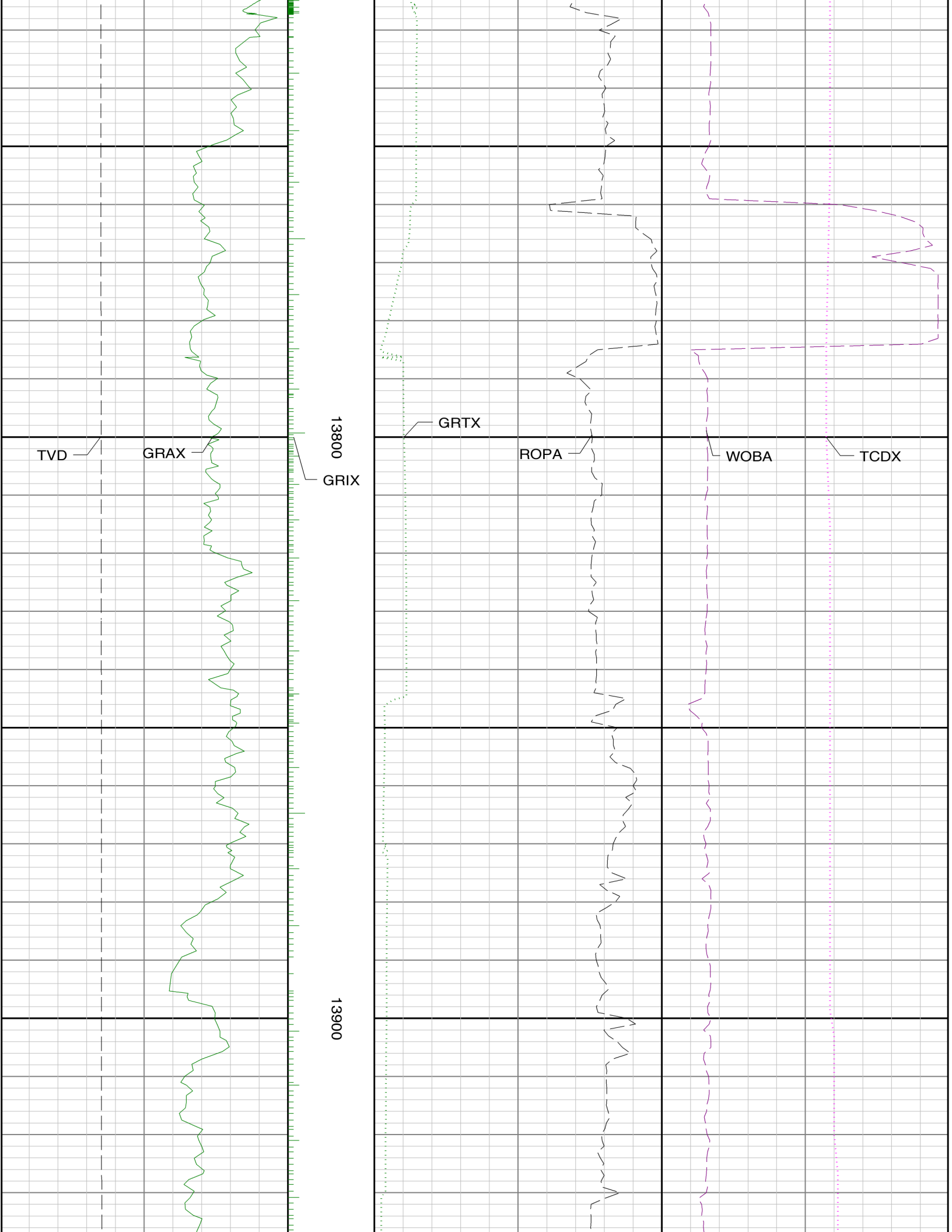
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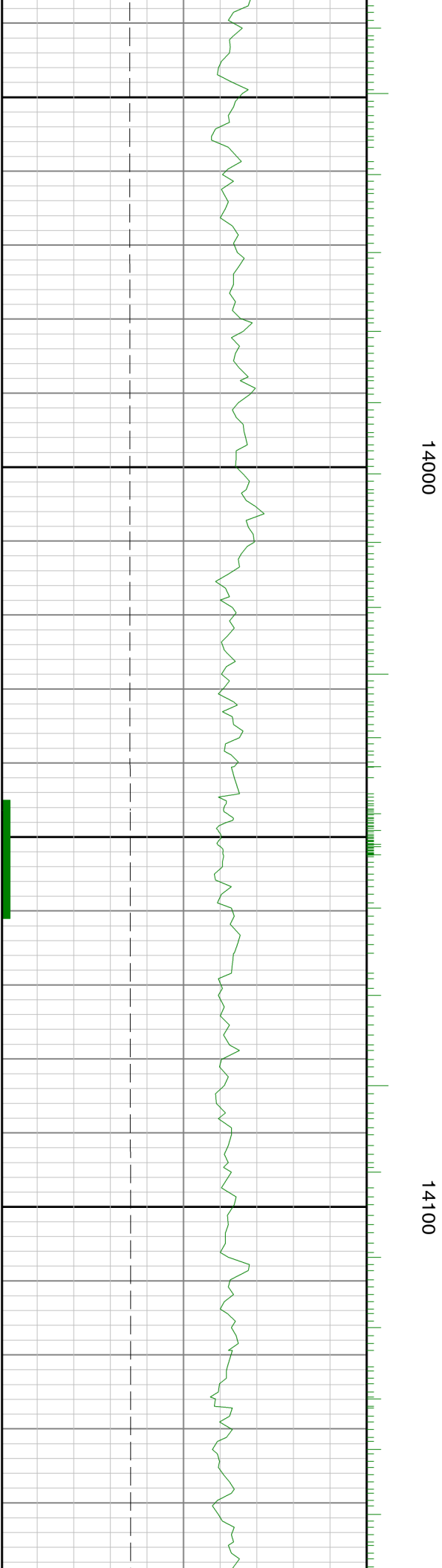
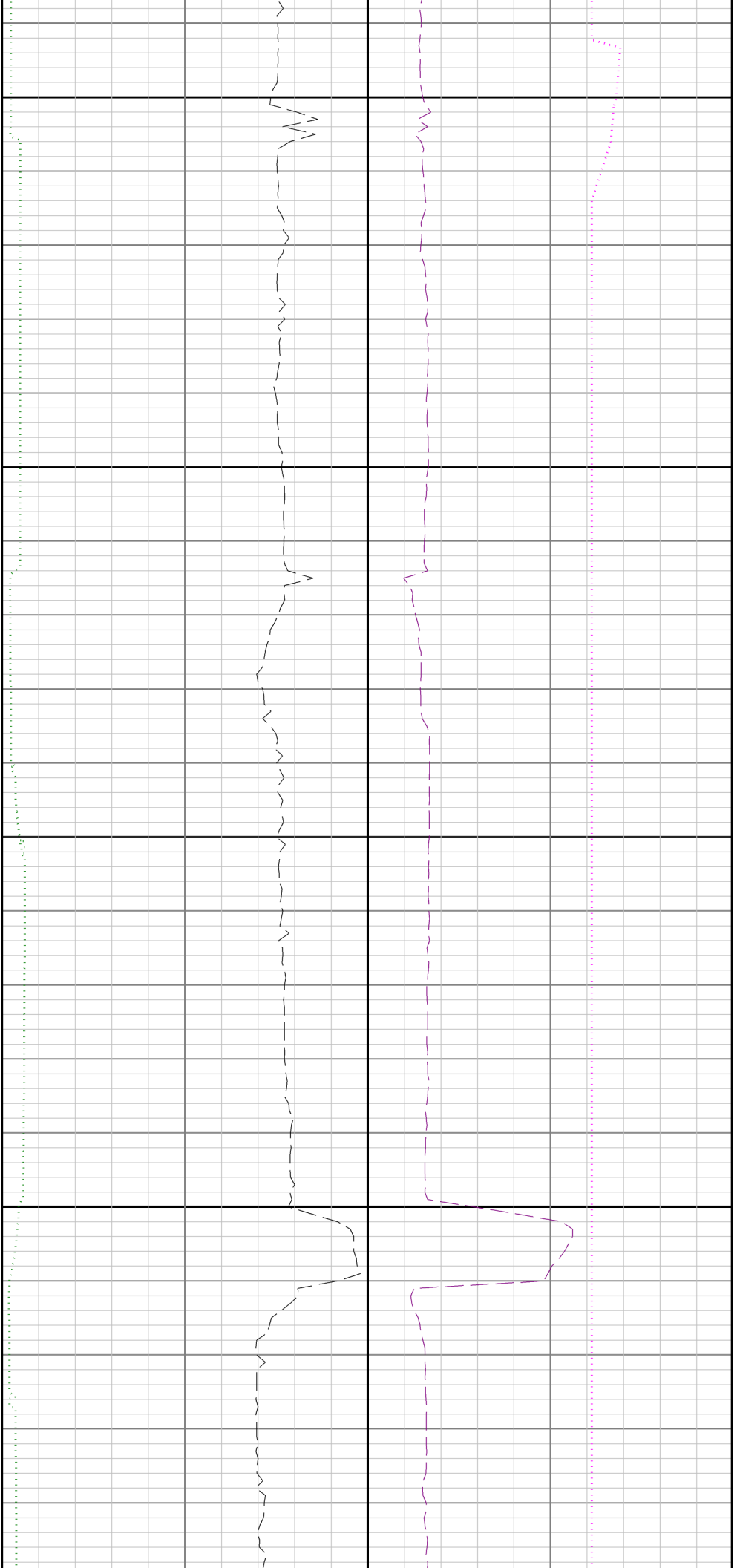
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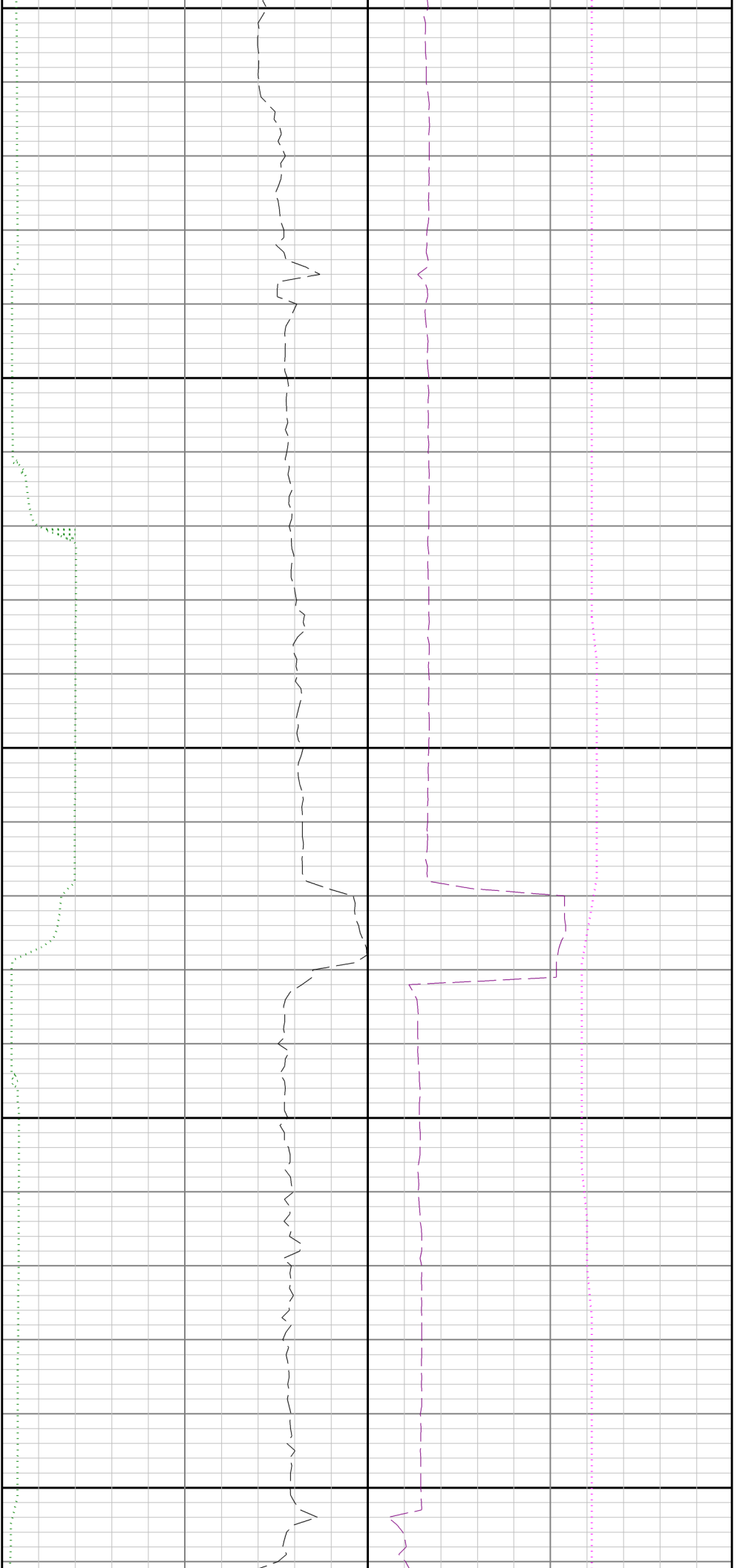
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14200

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