

1	NaviTrak	13249128	Directional (mag)	16.47	52.54	8.000	3.250
2	AutoTrak Curve Steering Unit	14127268	Near Bit Inclination	5.93	6.73	7.000	4.330
2	AutoTrak Curve Steering Unit	14127268	Near Bit VSS	5.93	6.73	7.000	4.330
2	AutoTrak Curve MWD	14205167	Gamma (single)	2.75	12.90	7.000	3.250
2	AutoTrak Curve MWD	14205167	Directional (mag)	12.26	22.41	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
NTK	NaviTrak	Probe Based Directional Module, NaviTrak Platform
ATC SU	AutoTrak Curve SU	Auto Trak Curve Steering Unit
ATC MWD	AutoTrak Curve MWD	Auto Trak Curve MWD
ATC LCPM	AutoTrak Curve LCPM	Auto Trak Curve LCPM

Comments

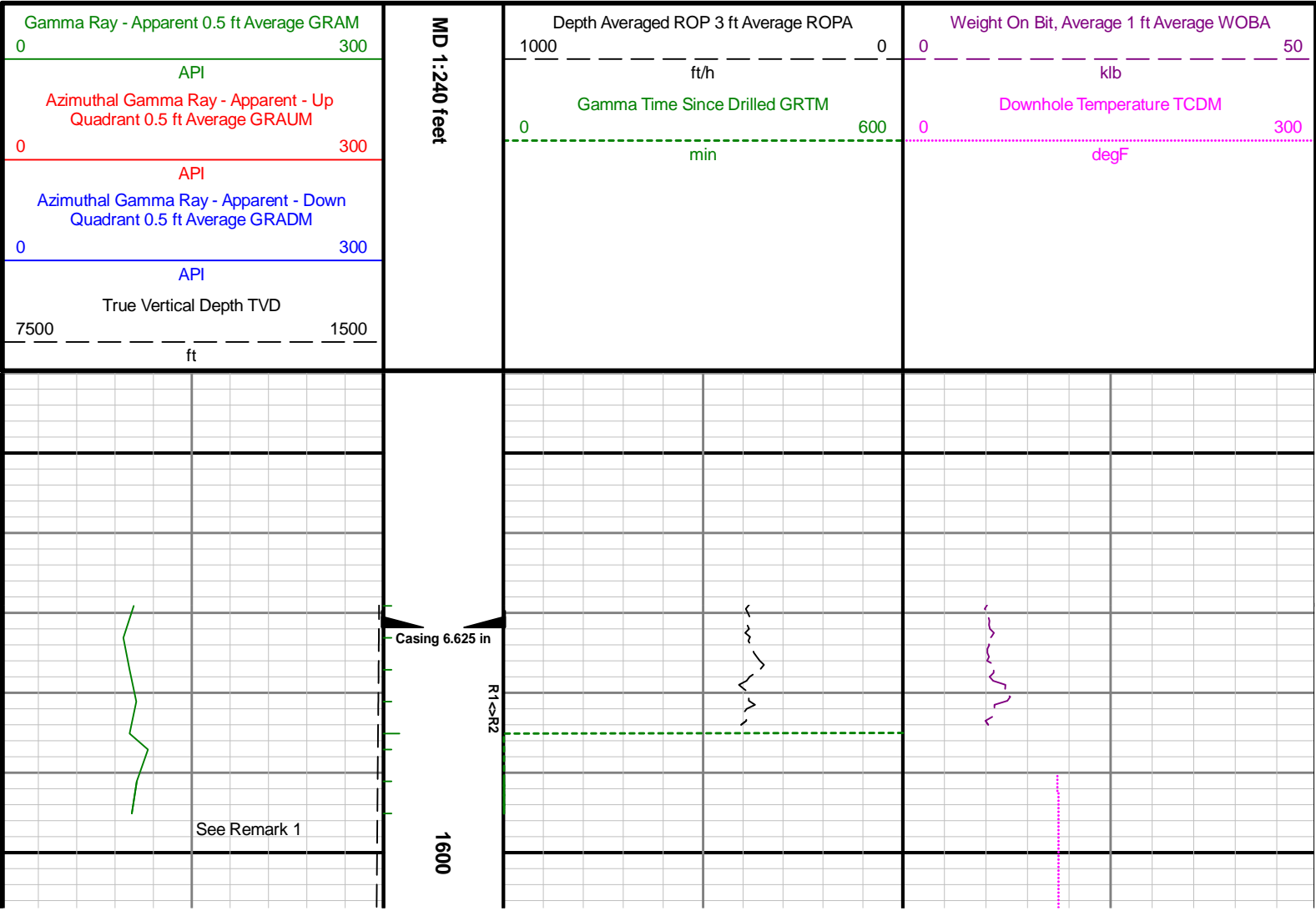
1	Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes, a GE company. Due to a lack of control by Baker Hughes, a GE company logging engineers, depth calibrations and measurements could not be independently verified and the unverified depths as supplied to Baker Hughes, a GE company are being used to present logging data.
2	Baker Hughes, a GE company run 1 utilized 8 inch Directional-only with NaviTrak service behind a 13 ½ inch bit an 8 inch steerable assembly from 23 to 1582 feet MD (23 to 1582 feet TVD) therefore, no logging data was acquired for this run.
3	Baker Hughes, a GE company run 2 utilized 6 ¾ inch NaviGamma services (Gamma Ray and Directional) behind 8 ½ inch bit and rotary steerable assembly from 1582 to 16676 feet MD (1582 to 6534 feet TVD).
4	Gamma Ray Apparent (GRAM, GRAUM, GRADM) is presented 0 to 300 API per customer request.

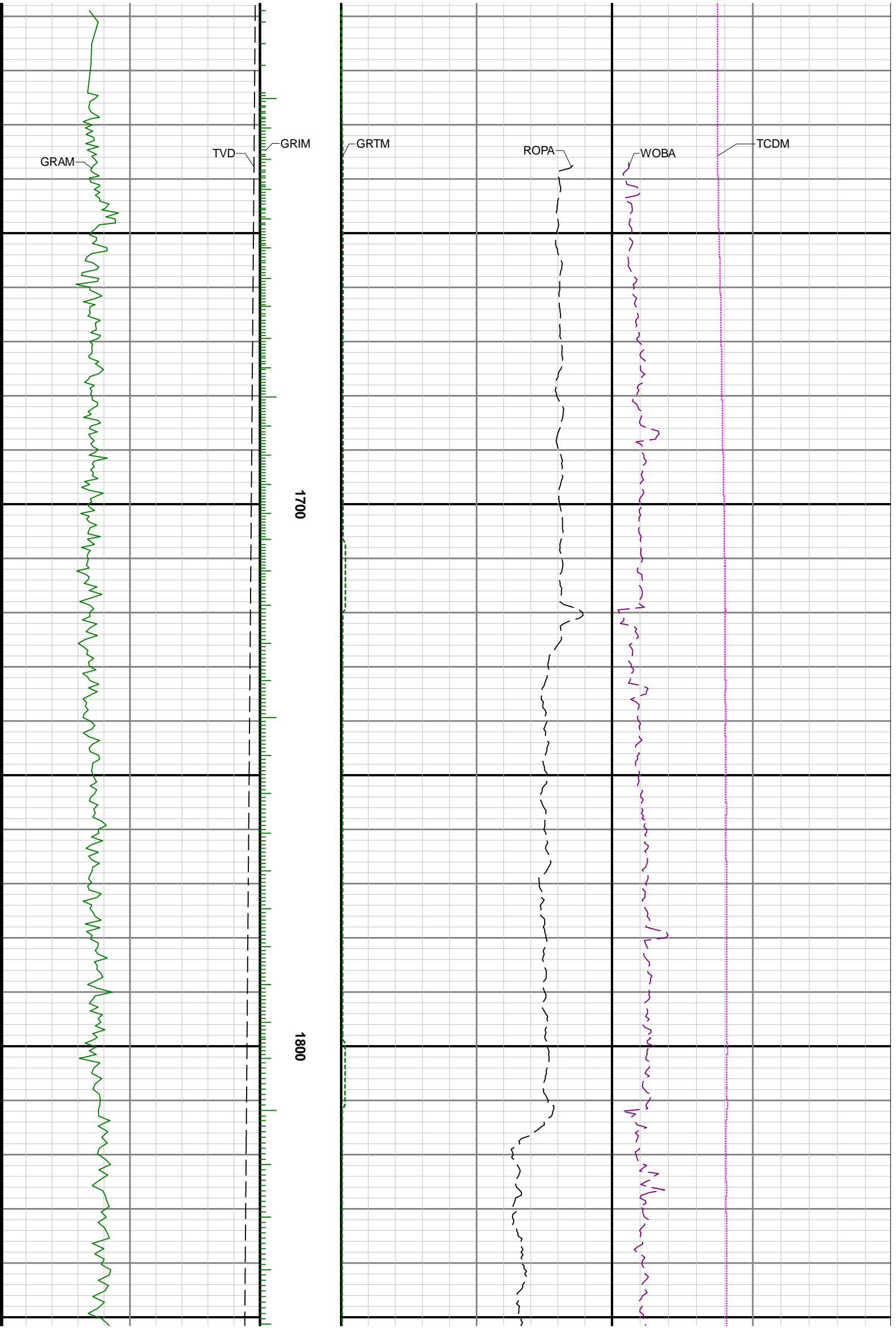
Remarks

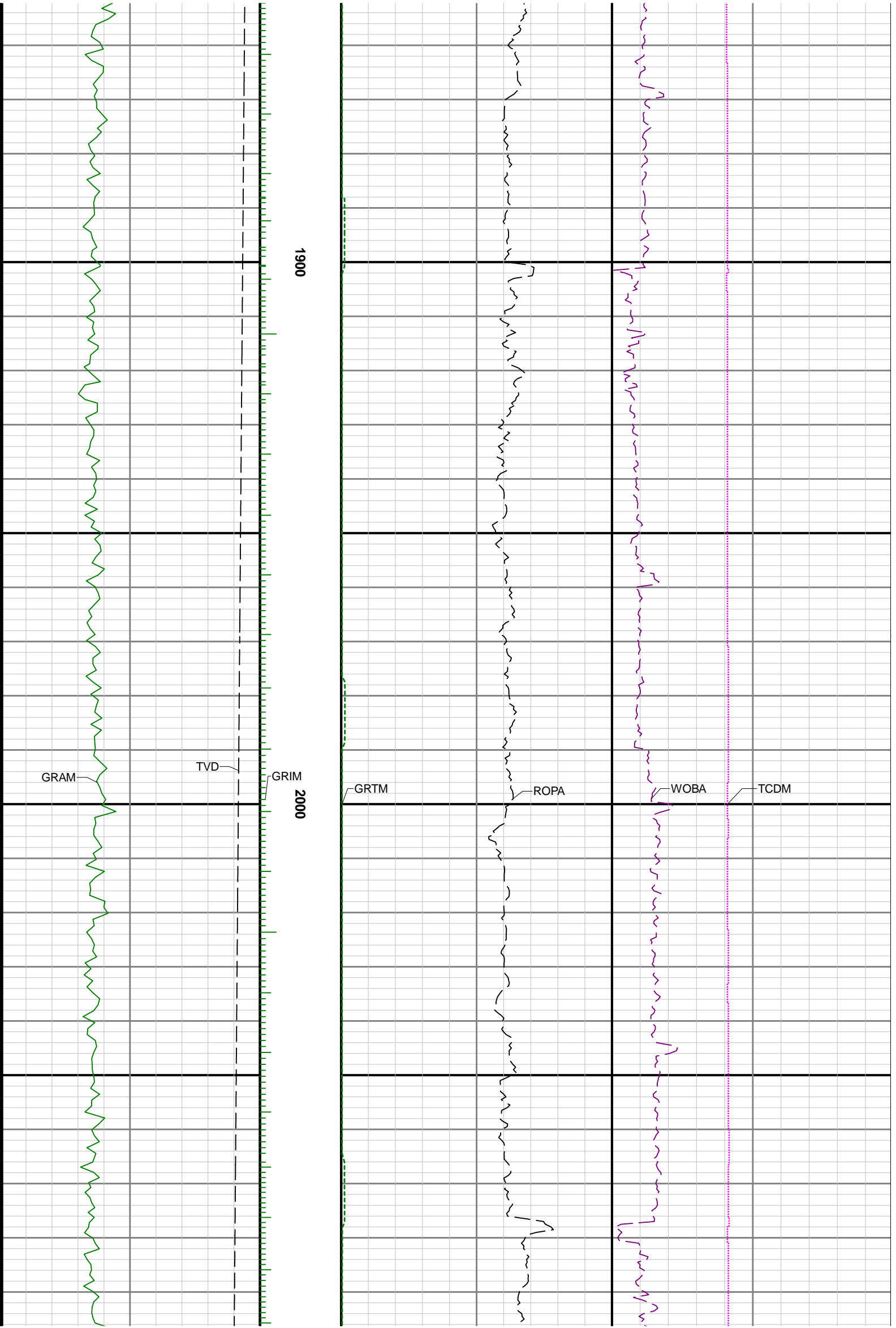
Number	Depth (ft)	Hole Section (in)	Run No.	Remark
1	1595.00	8.500	2	The interval from 1595 to 1606 feet MD (1595 to 1606 feet TVD) data was not logged due to depth tracking issue.
2	5995.00	8.500	2	Gamma Ray Apparent (GRAUM and GRADM) logging operations began at 5995 feet (5912 feet TVD).
3	16663.00	8.500	2	The interval from 16663 to 16676 feet MD (6534 feet TVD) was not logged due to sensor to bit offset at well TD.

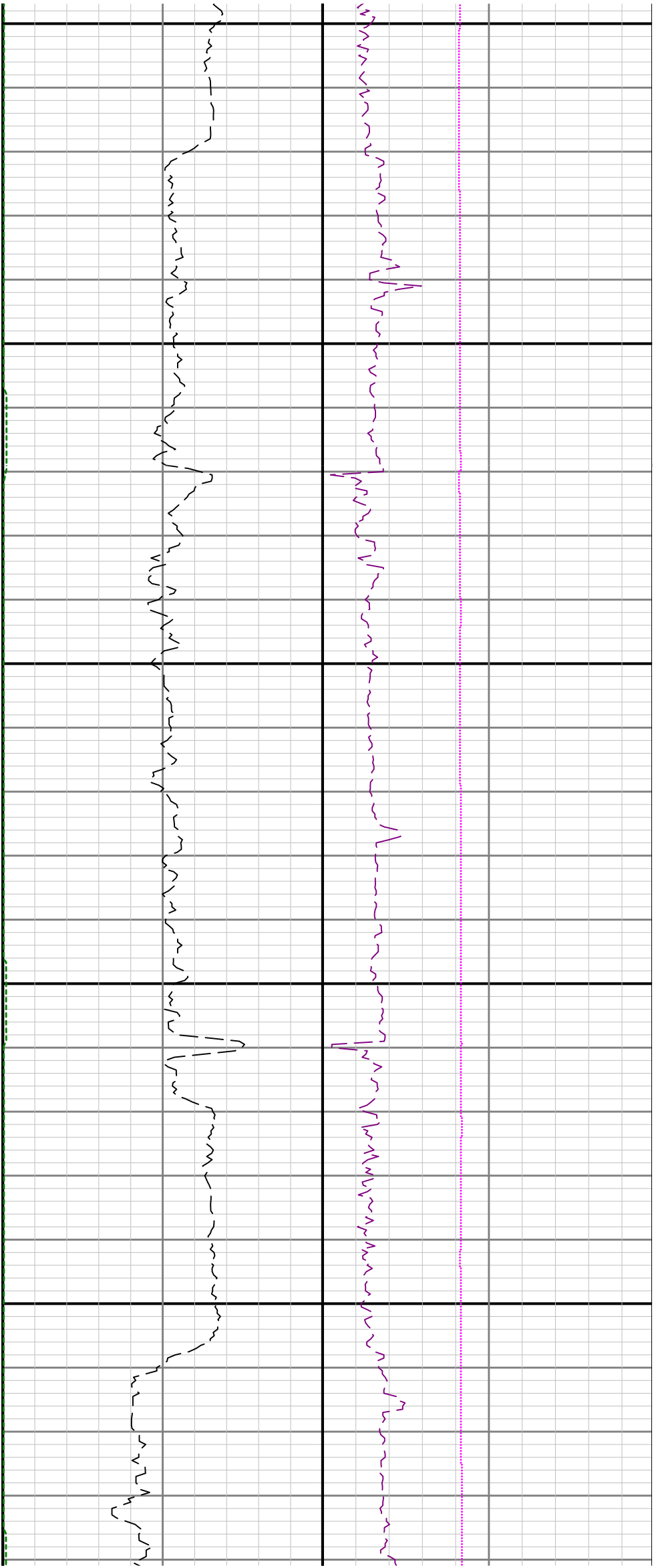
Curve Mnemonics

Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent - Memory 0.5 ft Average	API
GRIM	Gamma Ray - Data Point Indicator - Memory	unitless
GRTM	Gamma Ray - Time Since Drilled - Memory	min
GRADM	Gamma Ray - Apparent - Down Quadrant - Memory 0.5 ft Average	API
GRAUM	Gamma Ray - Apparent - Up Quadrant - Memory 0.5 ft Average	API
TCDM	Directional Real-Time Survey Temperature	degF





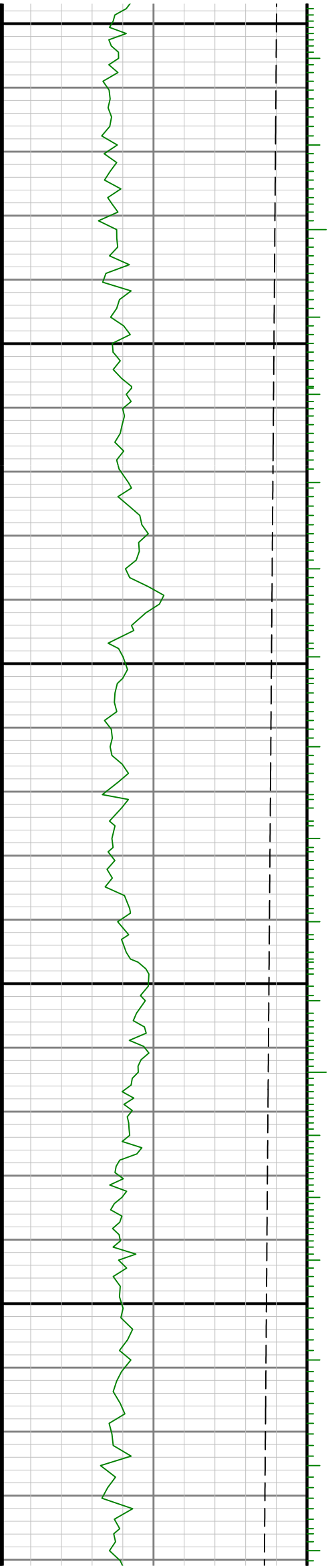


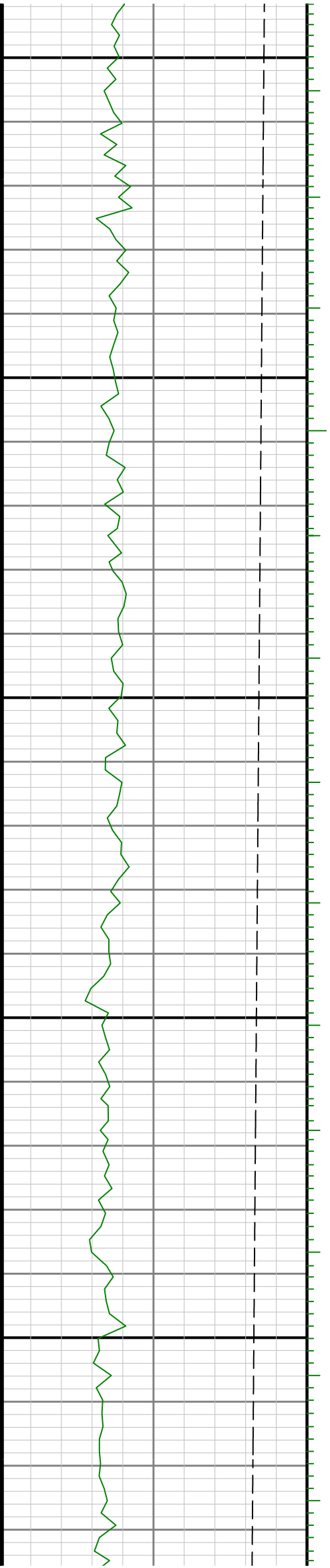
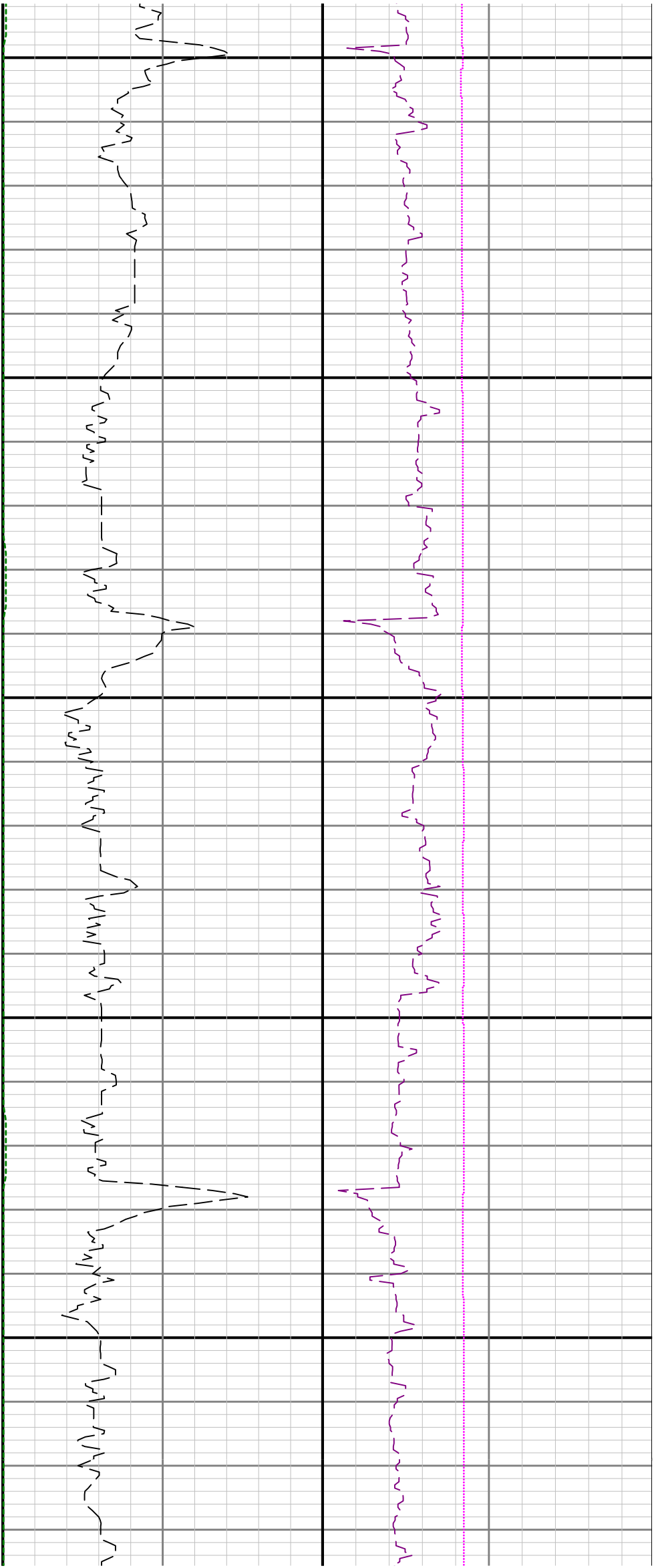


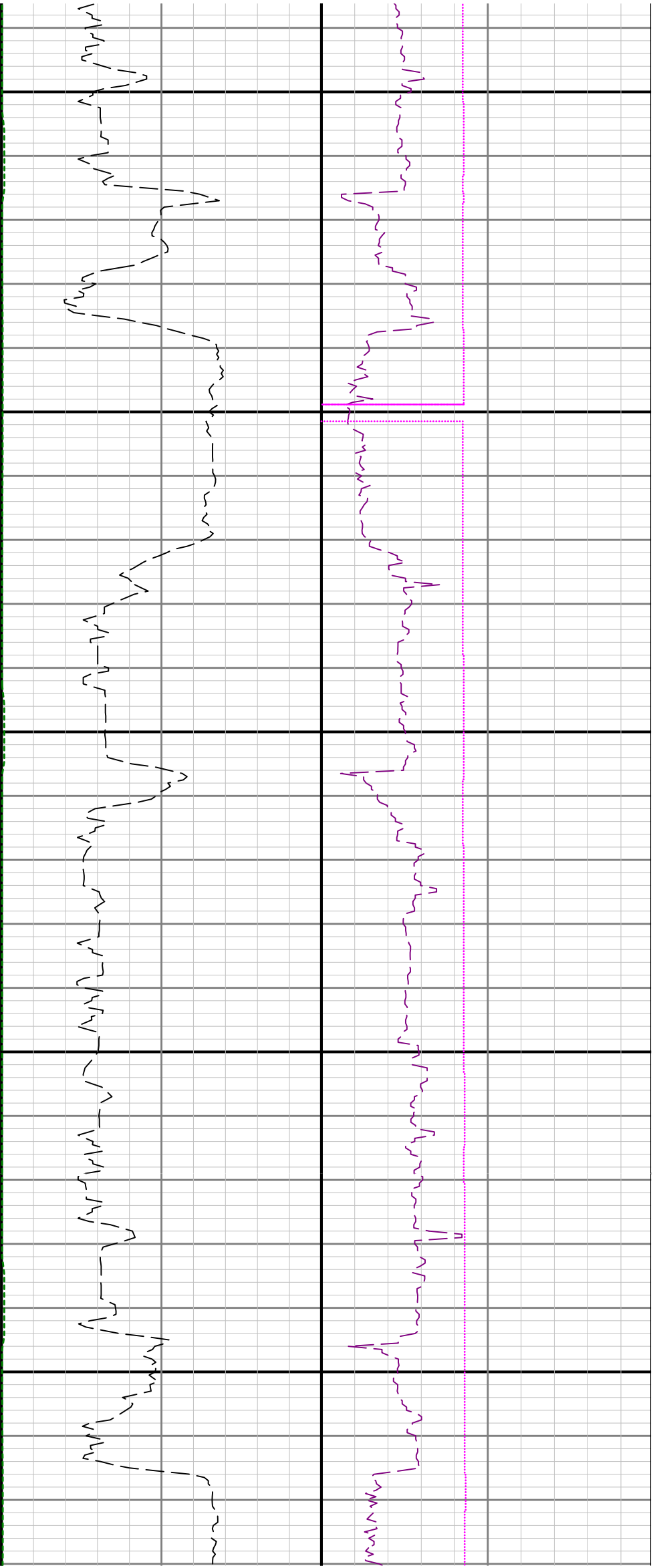
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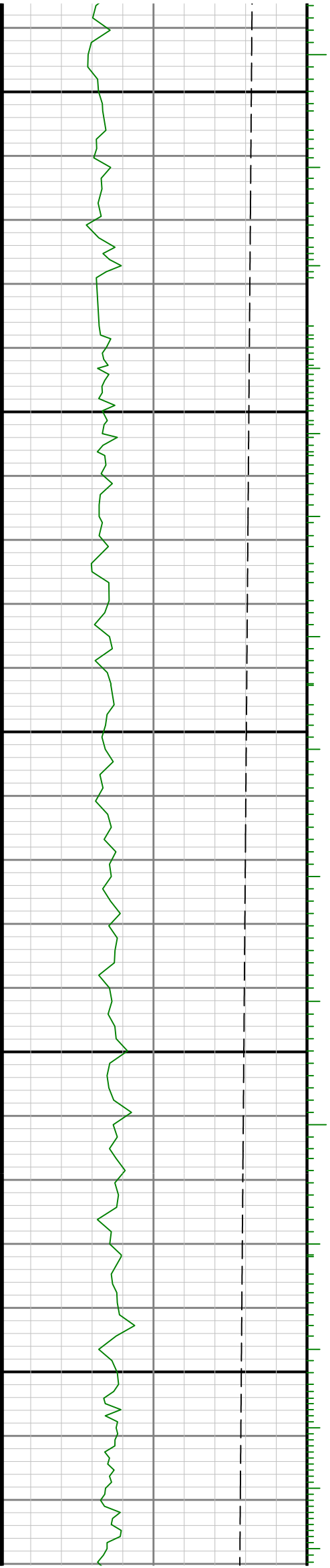


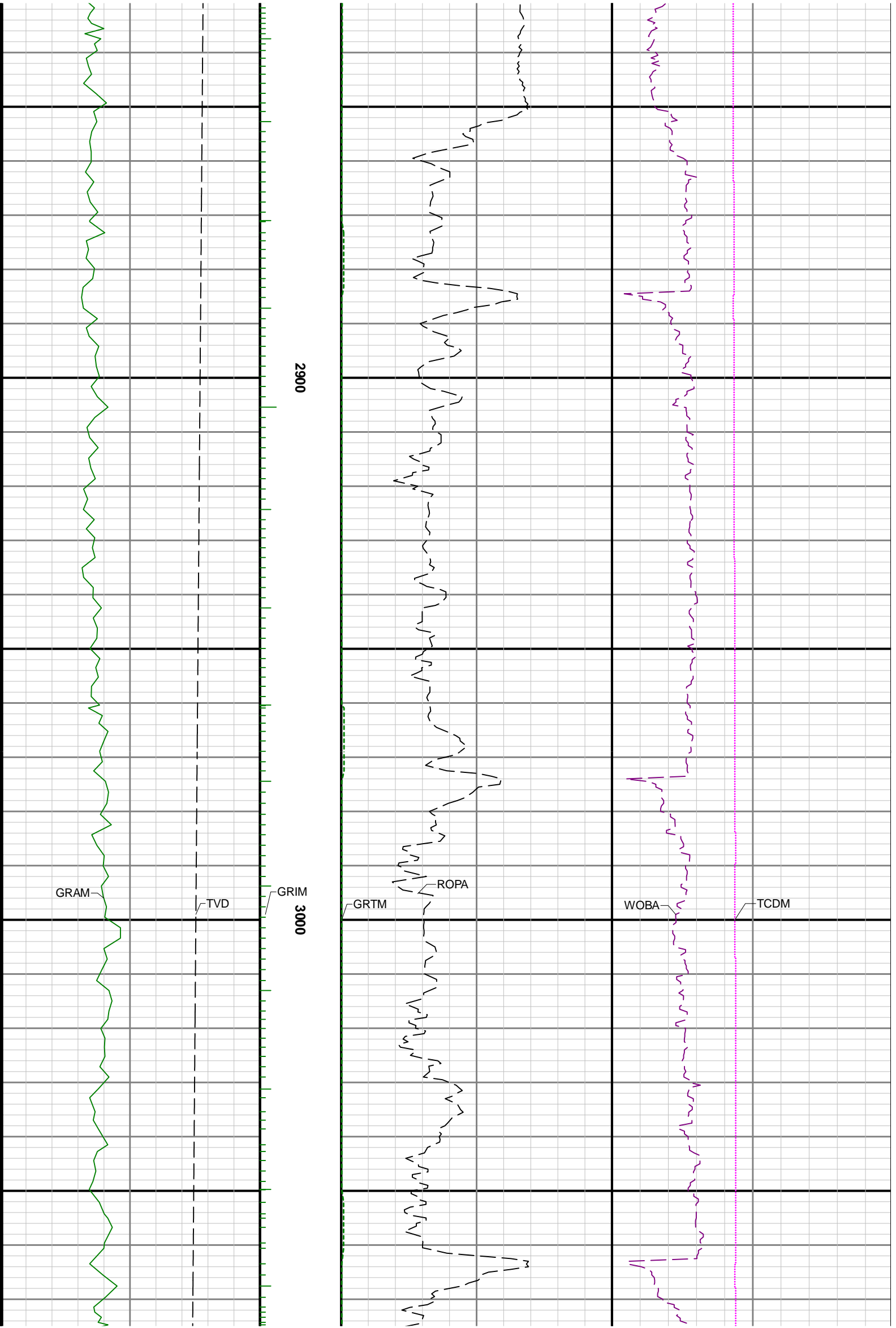


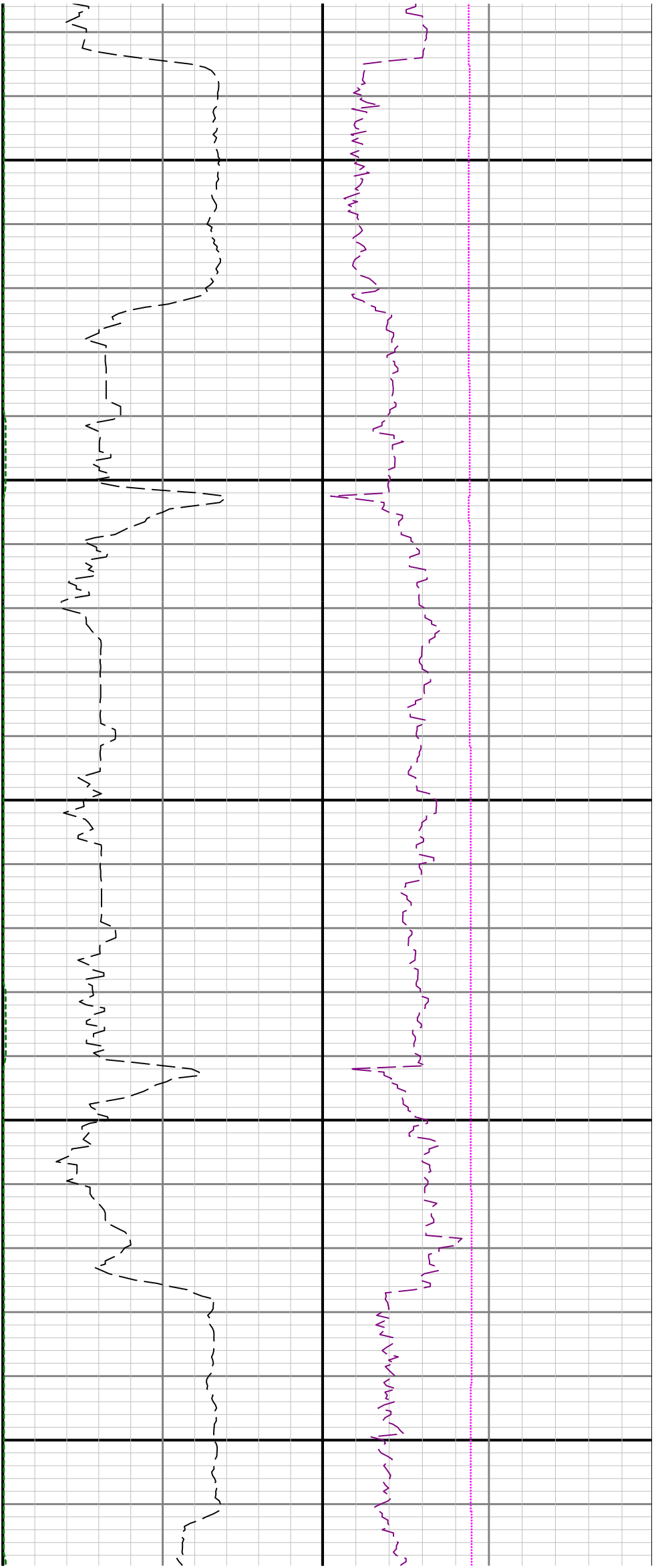
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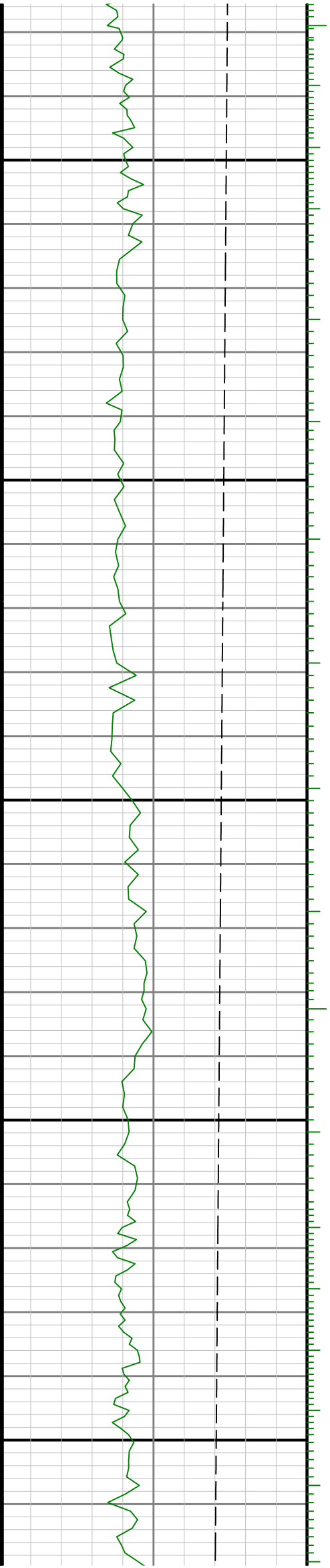


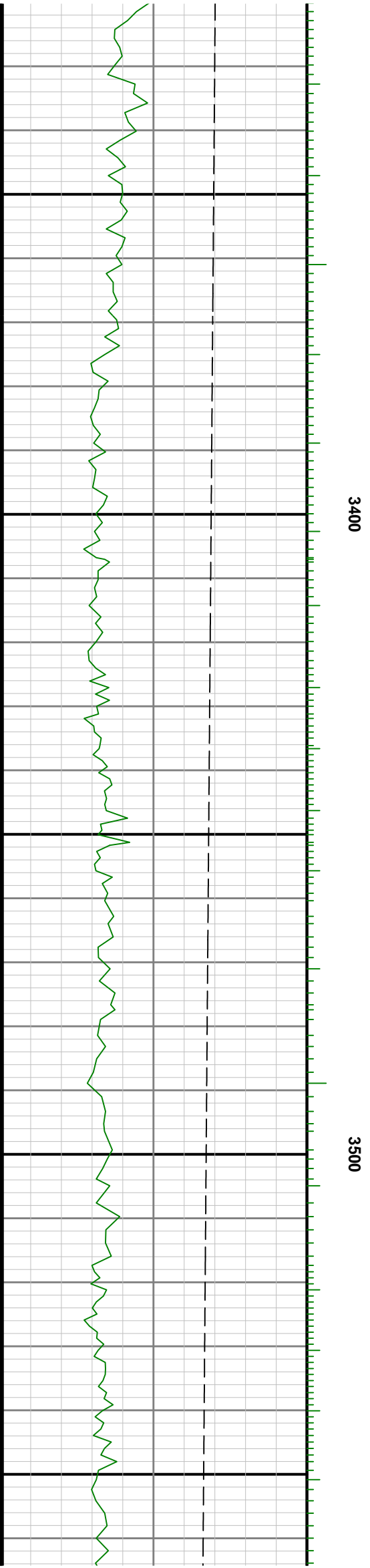
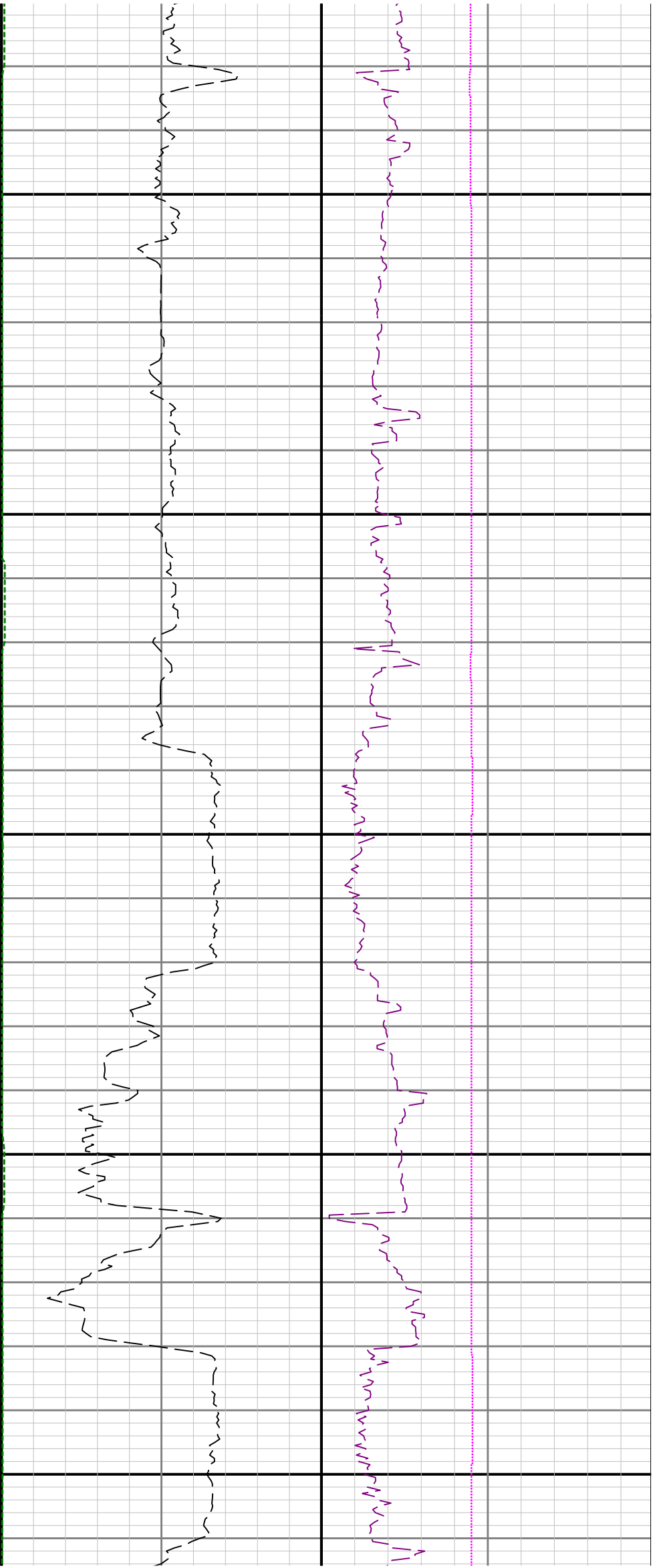


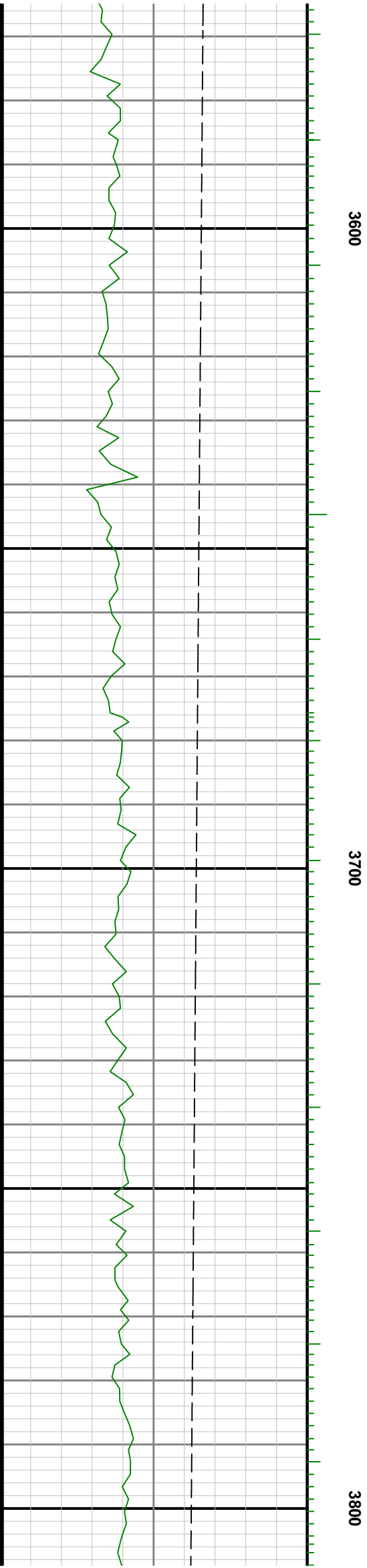
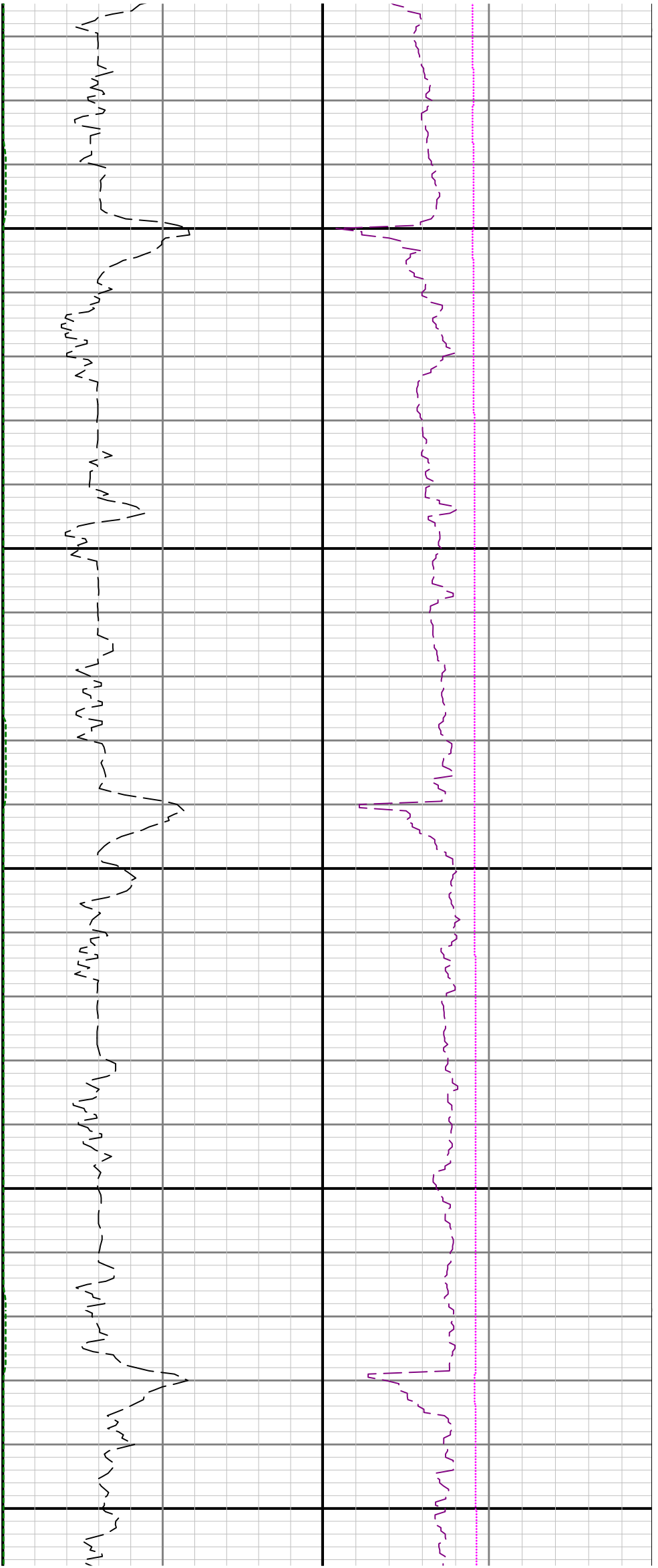
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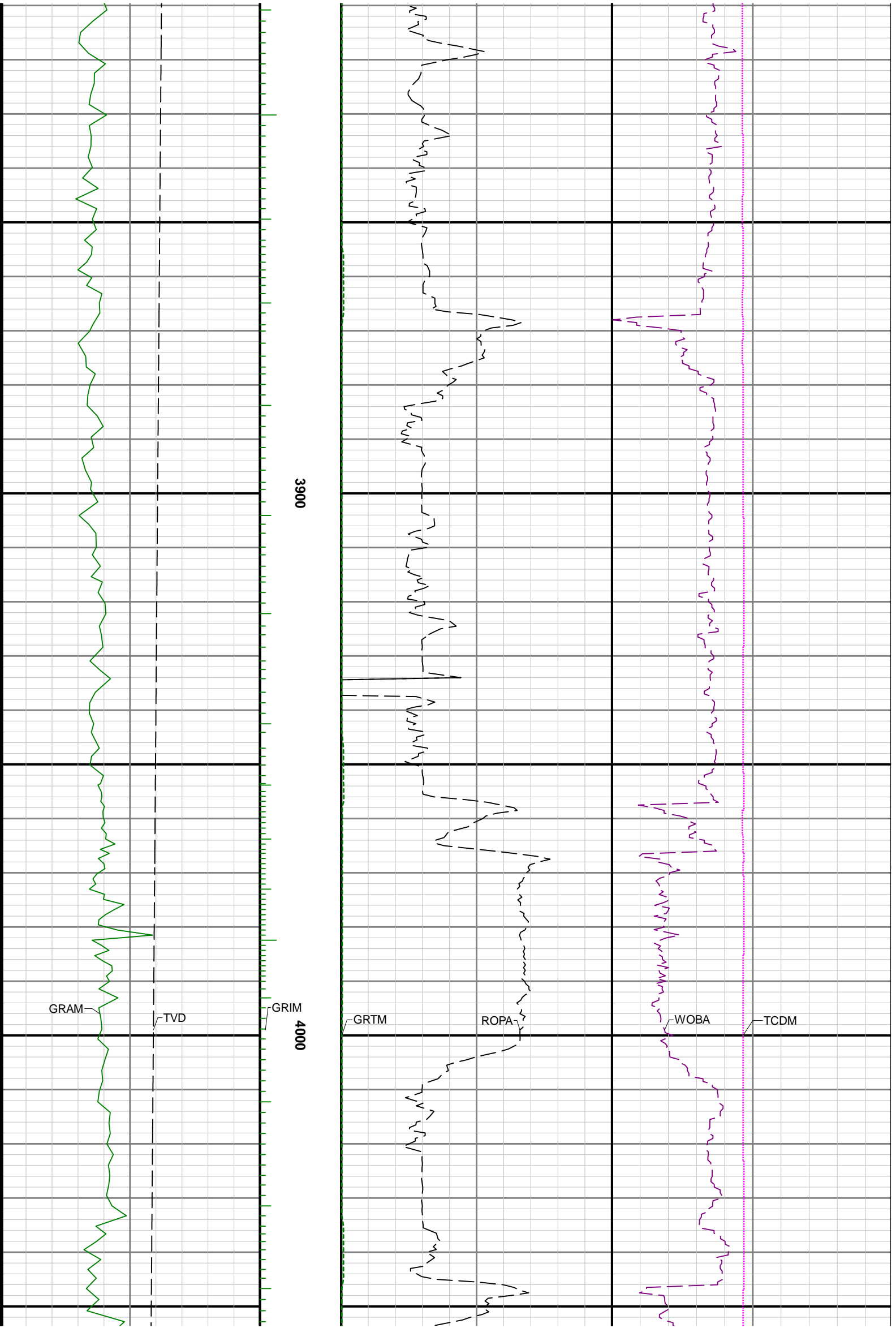
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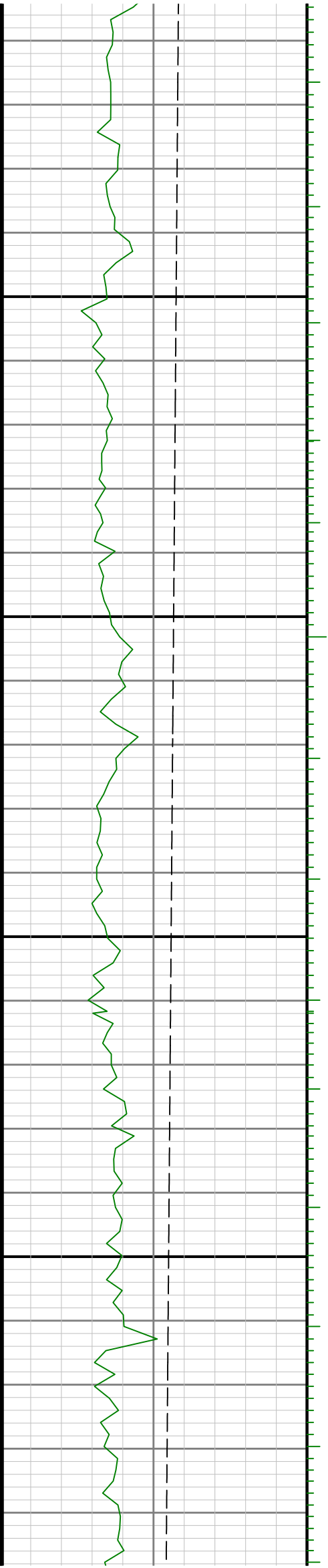
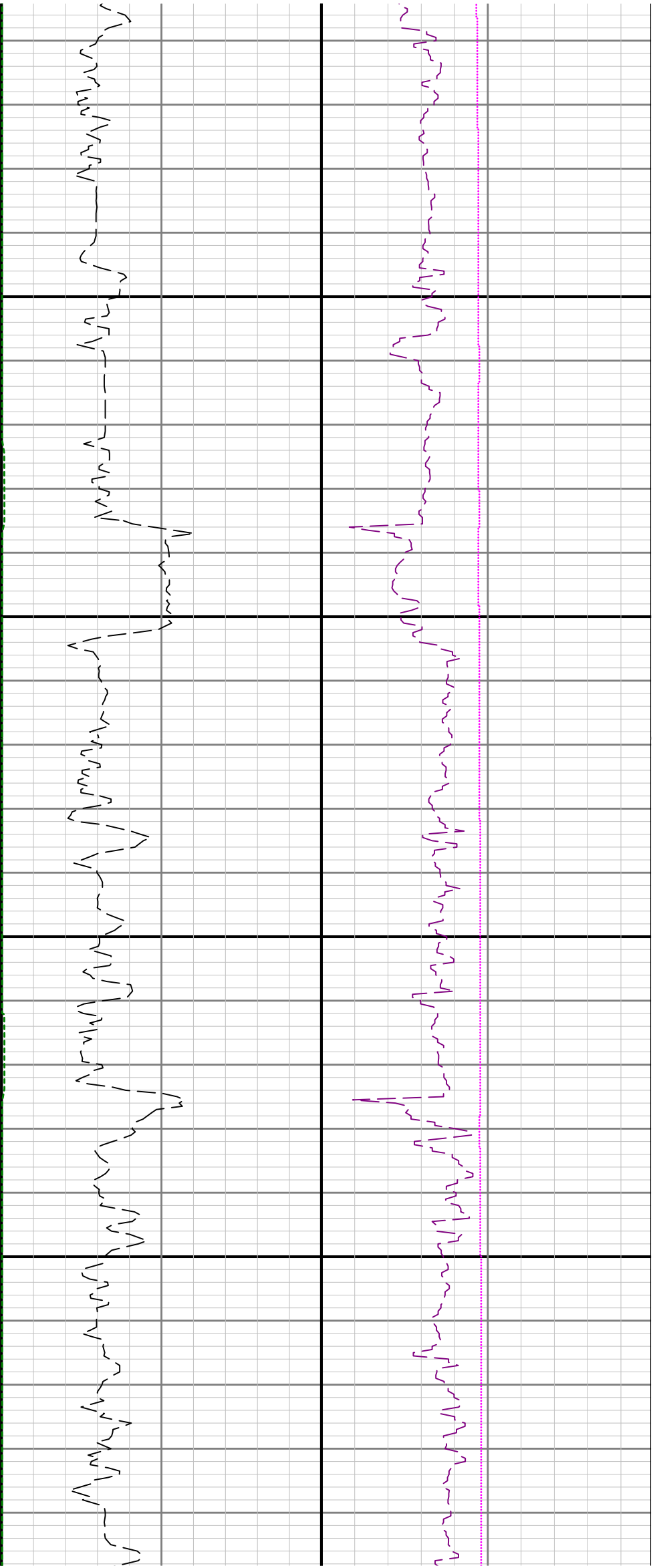
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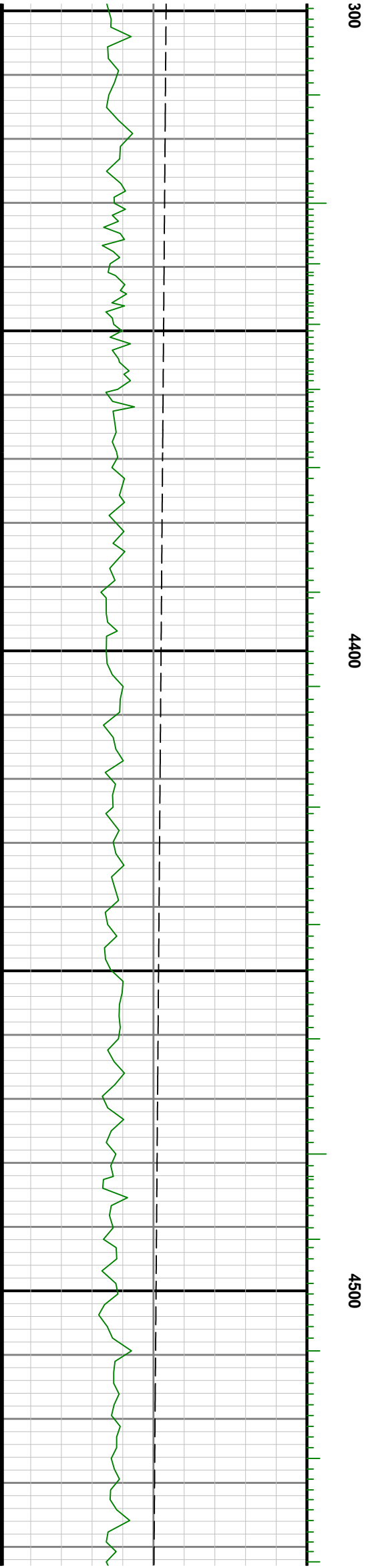


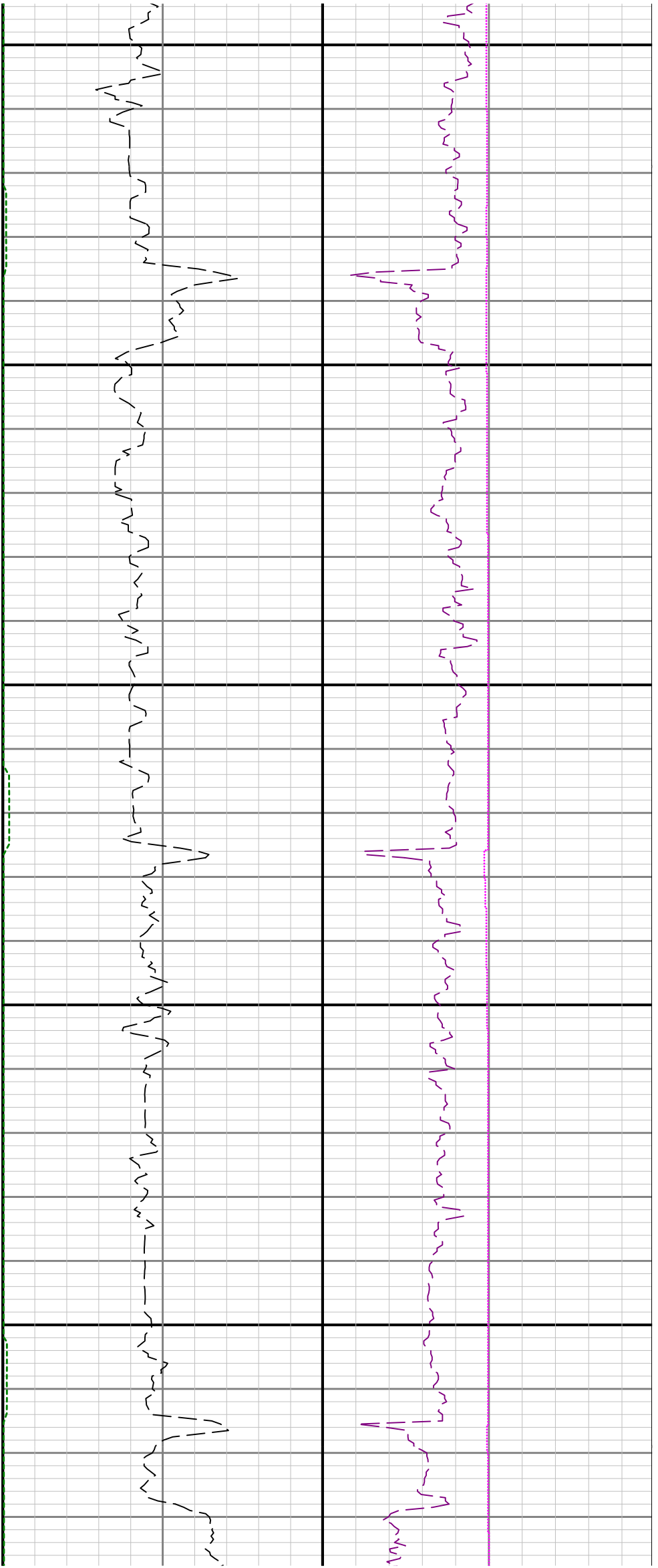






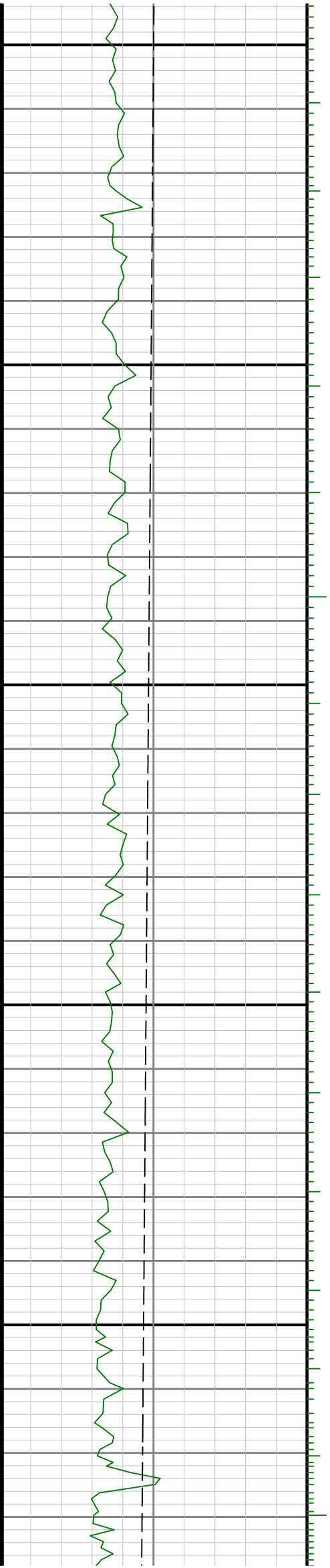


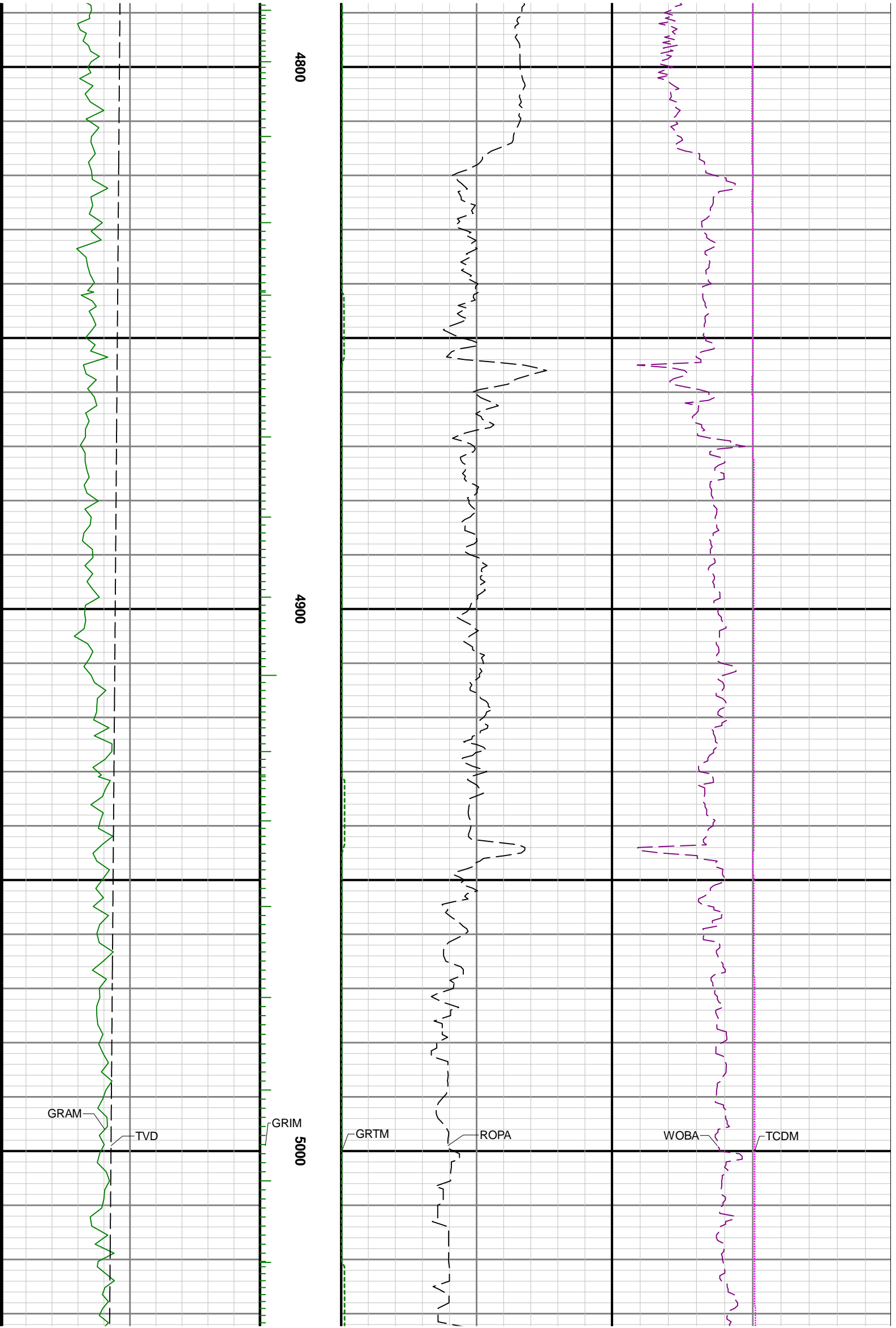


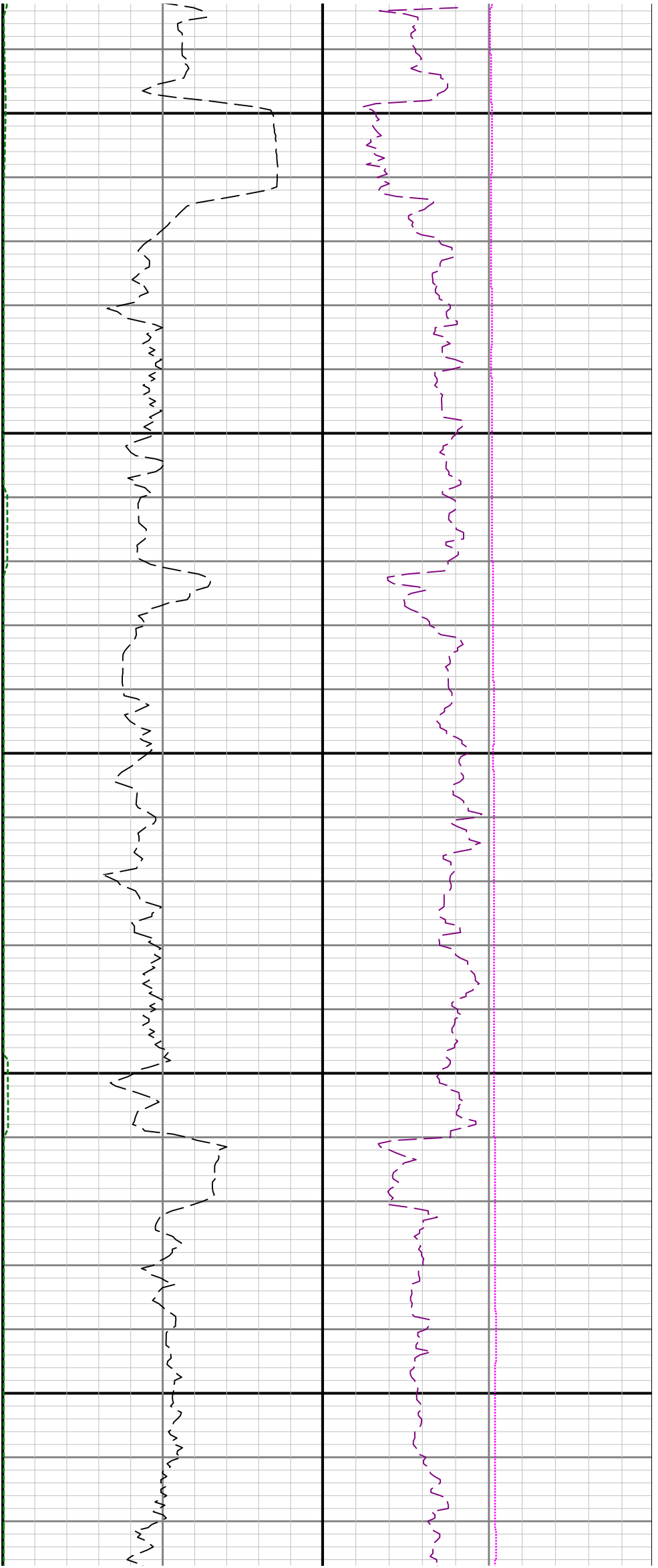


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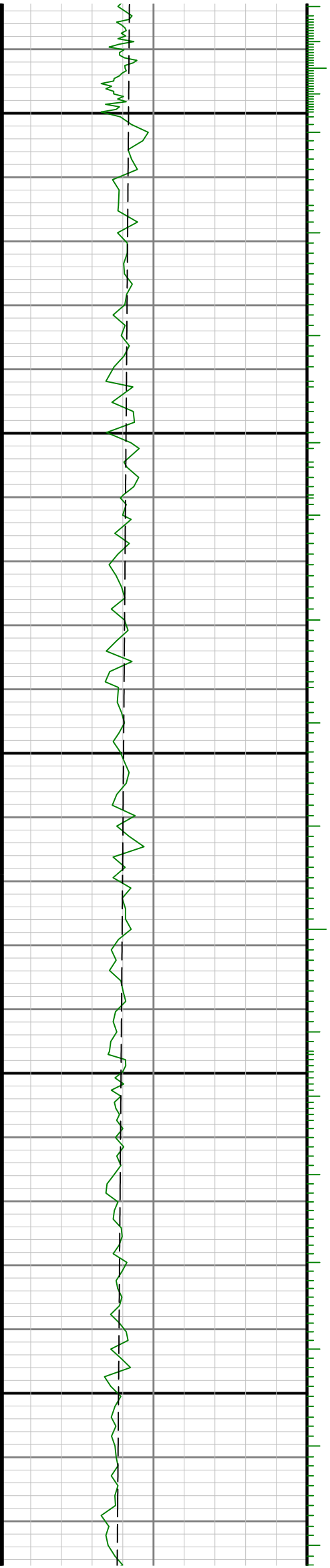


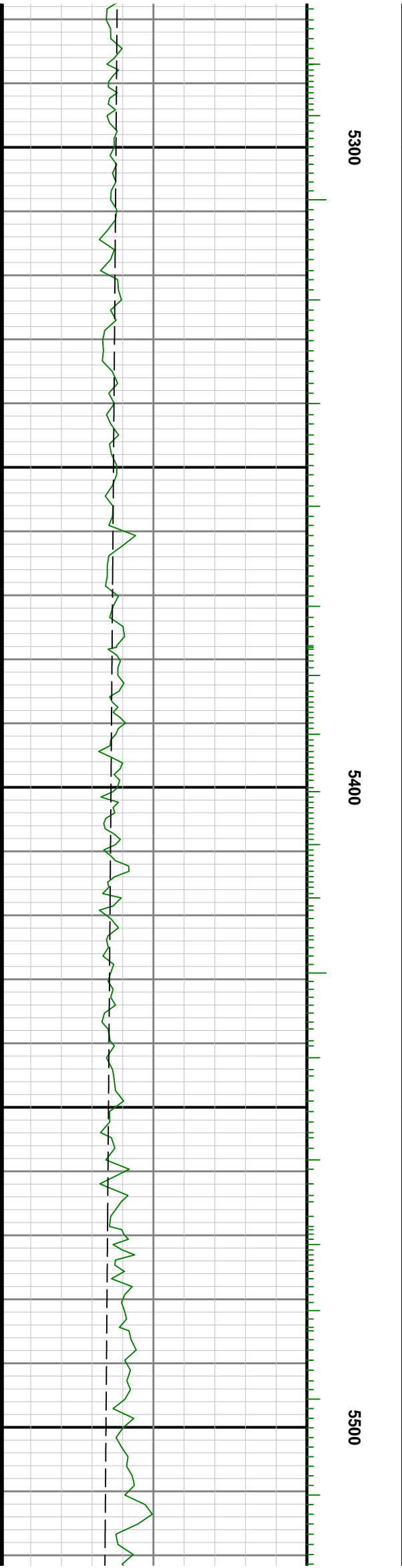
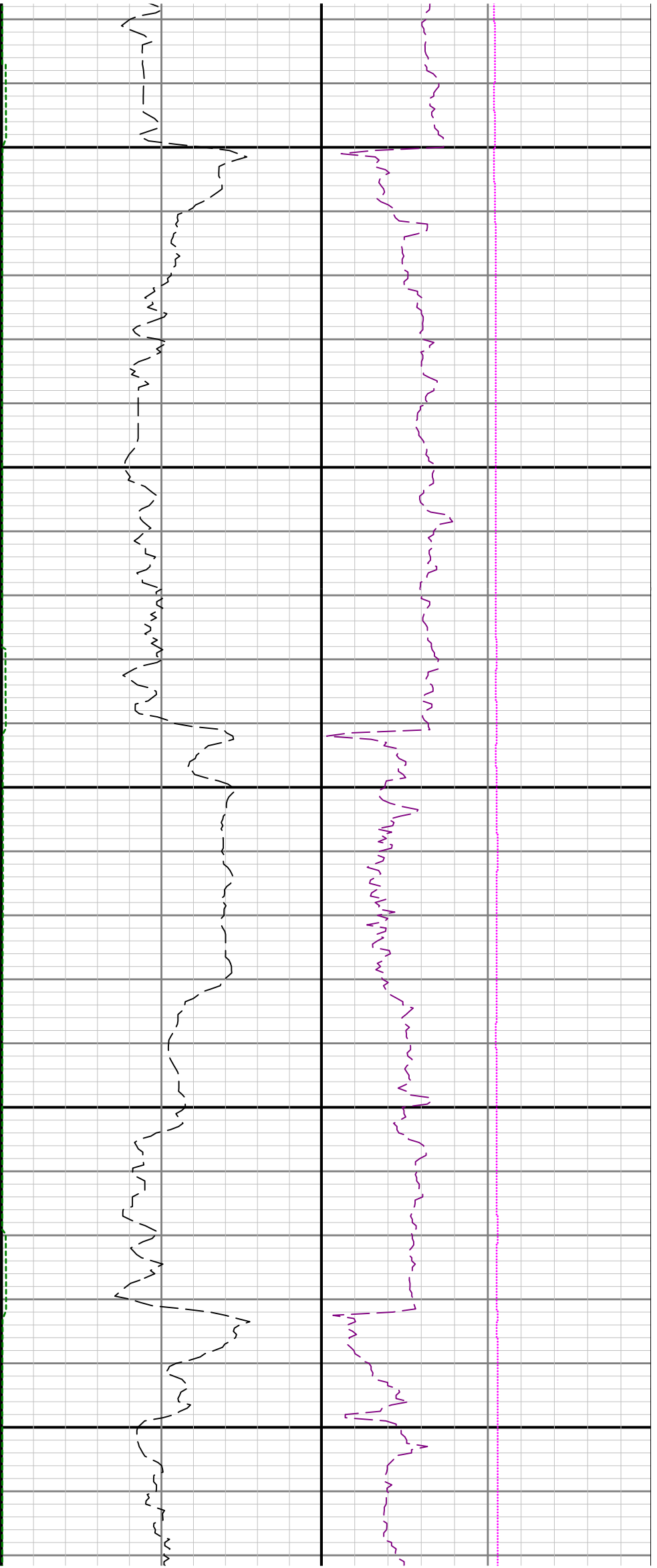


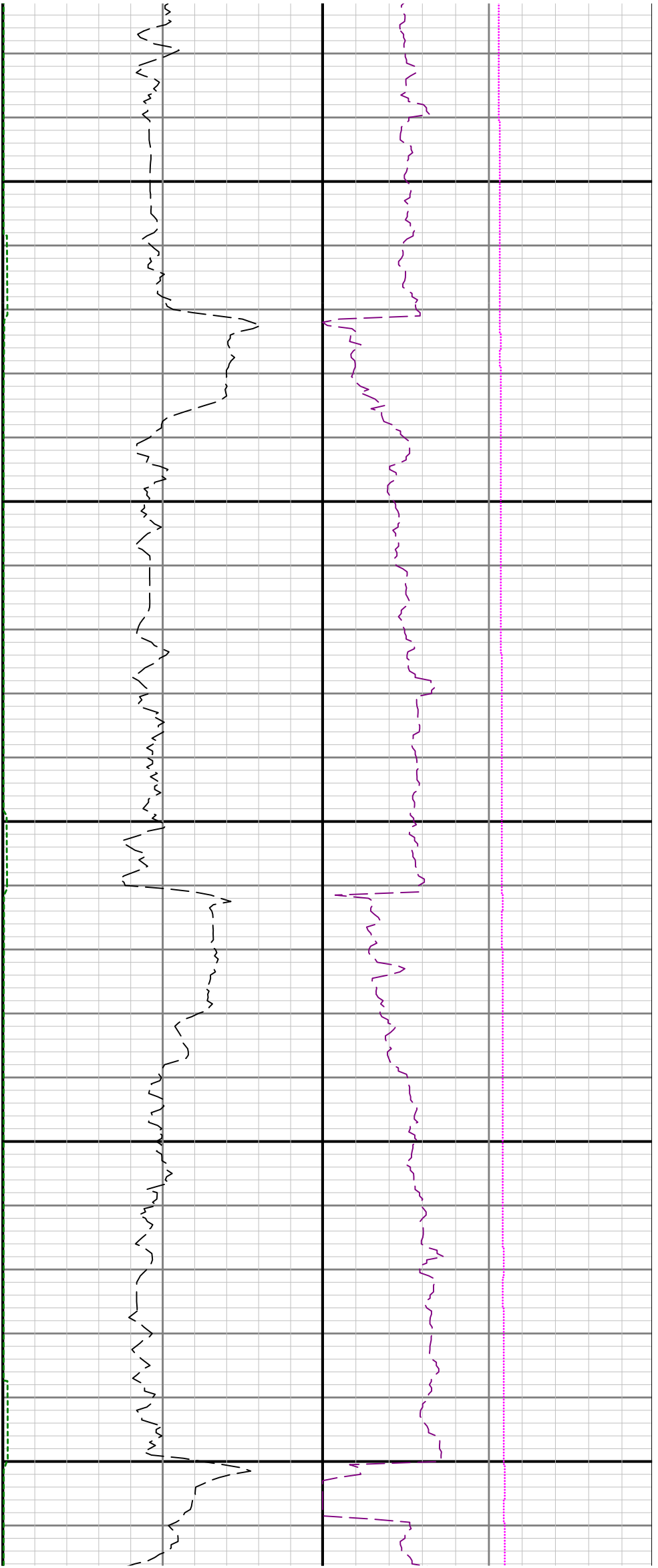


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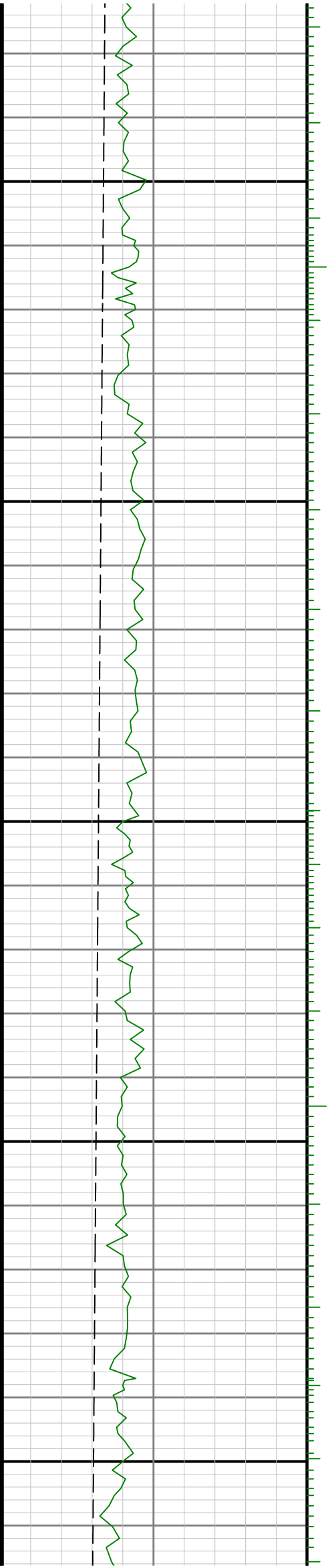


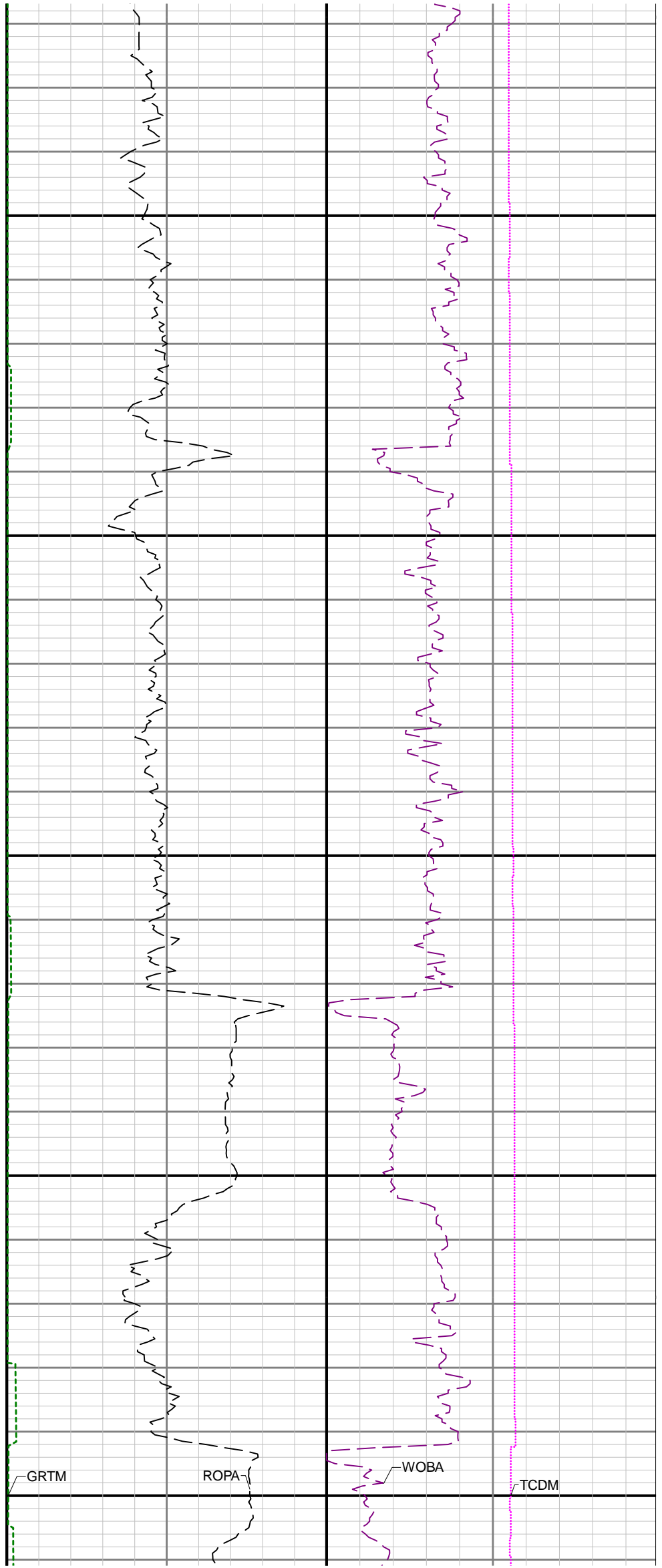
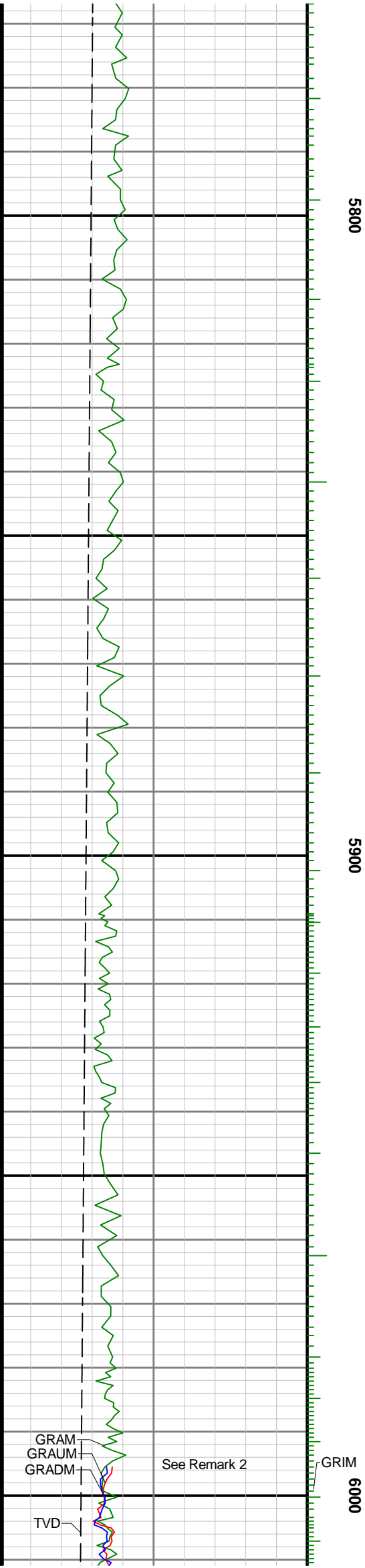


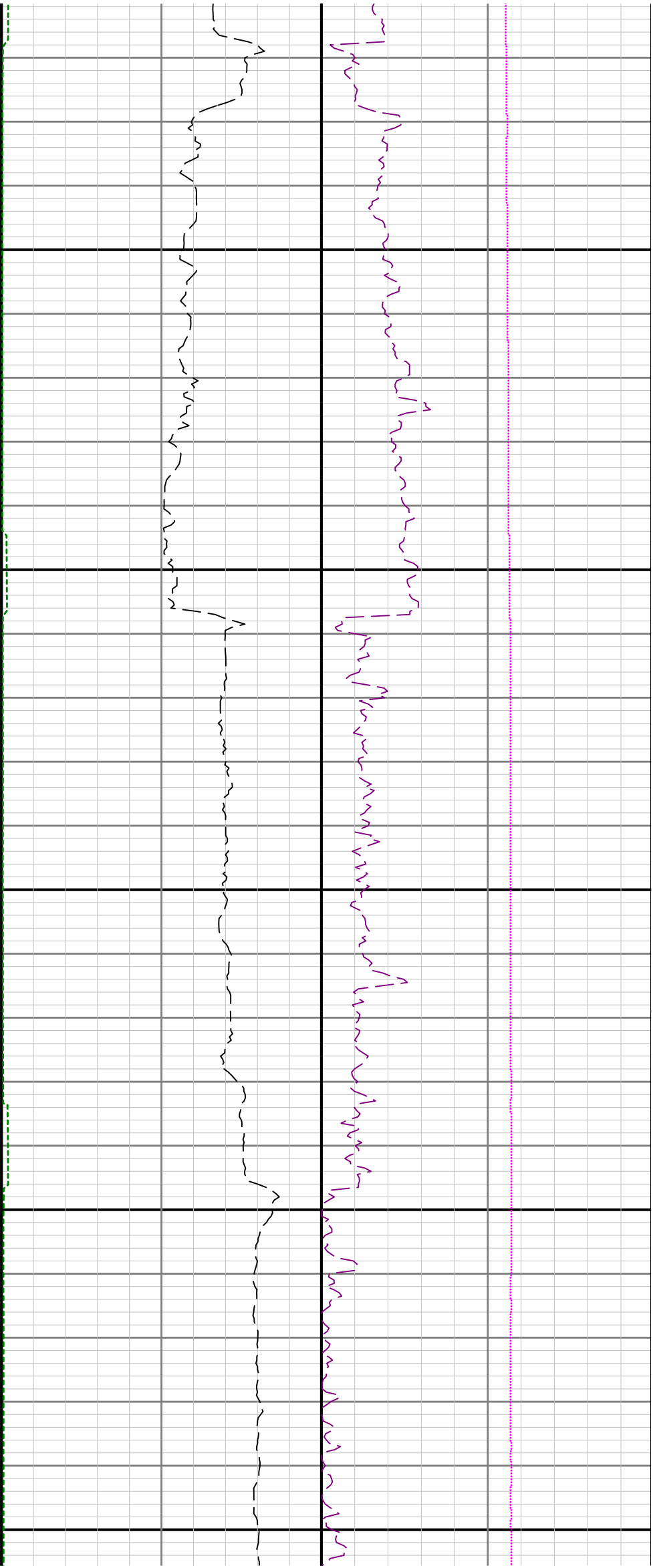


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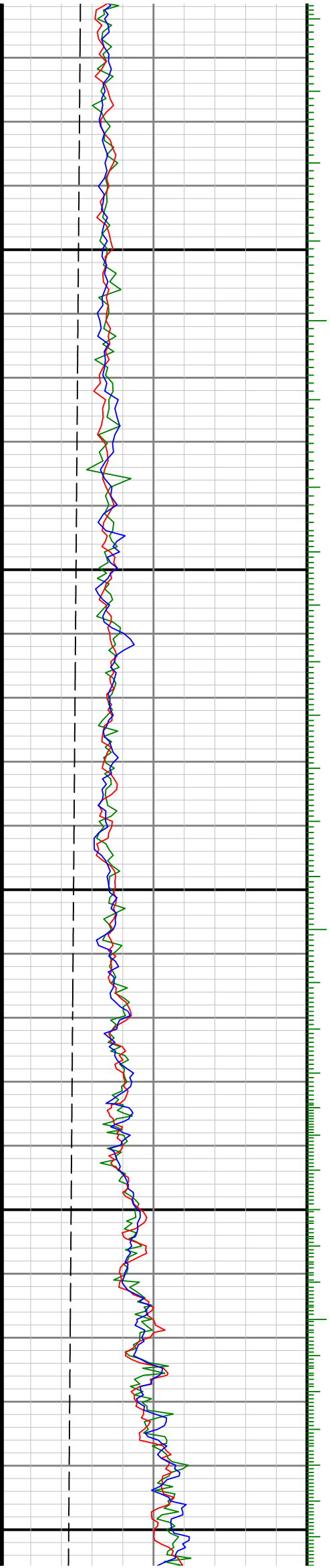


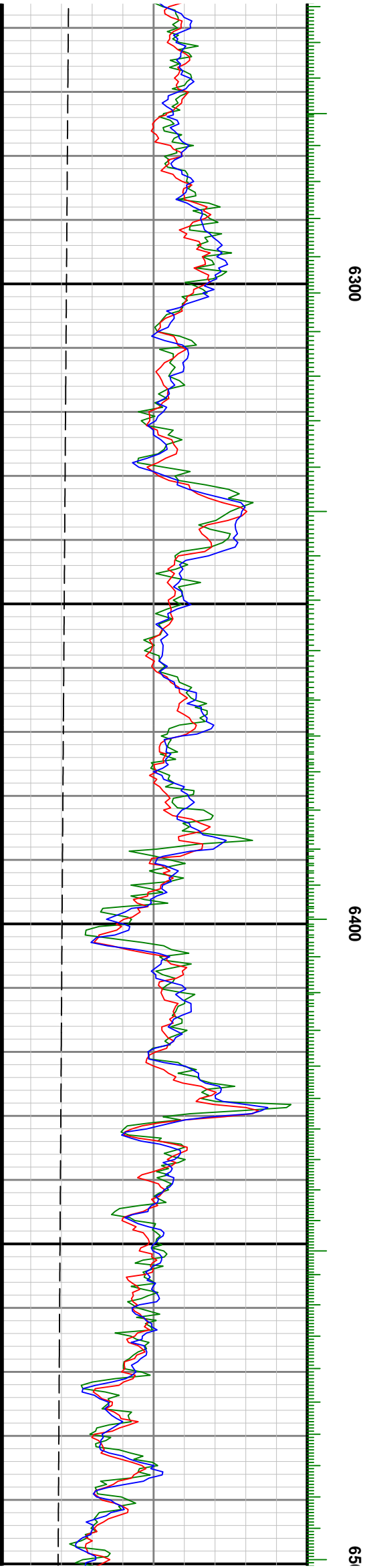
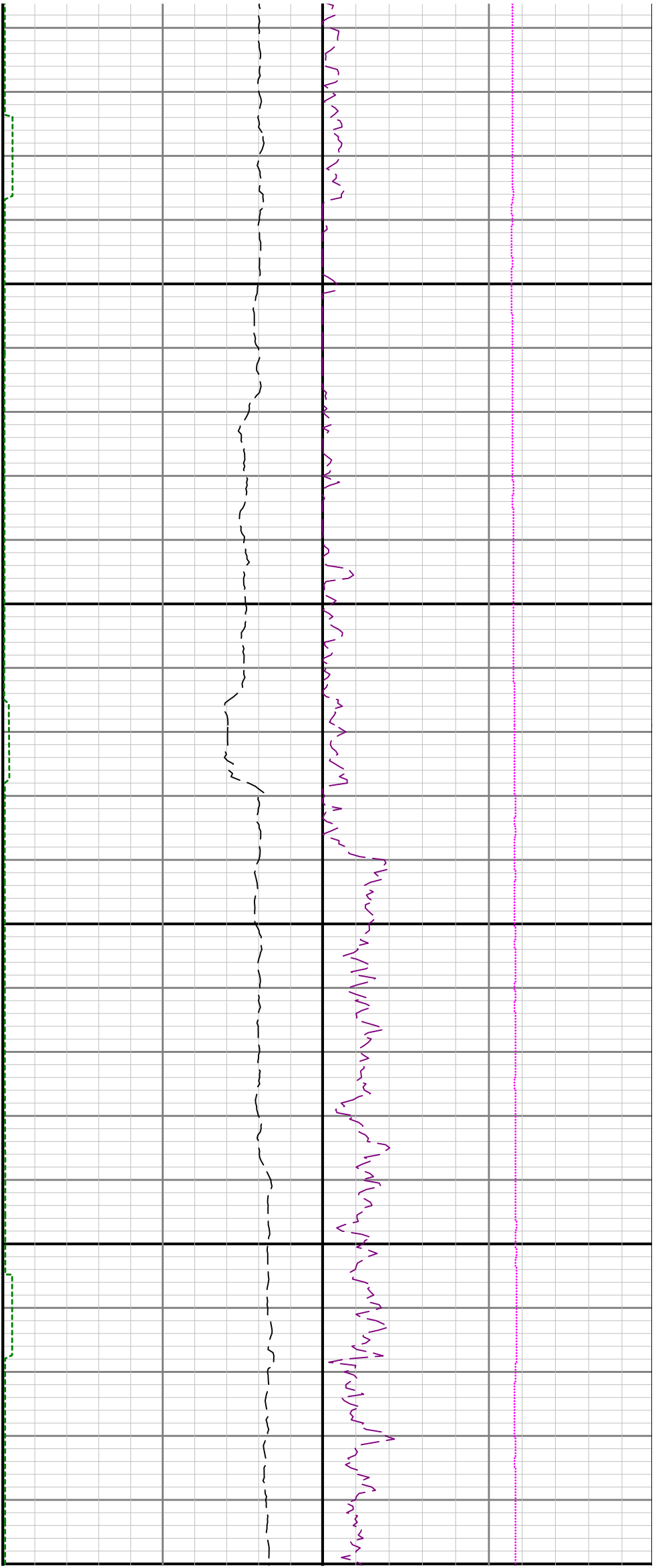


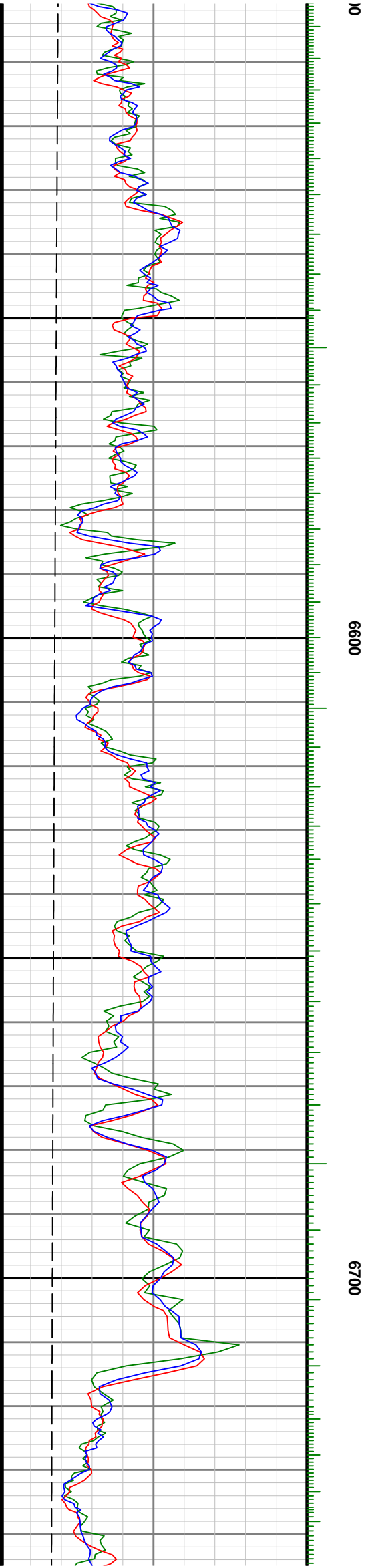
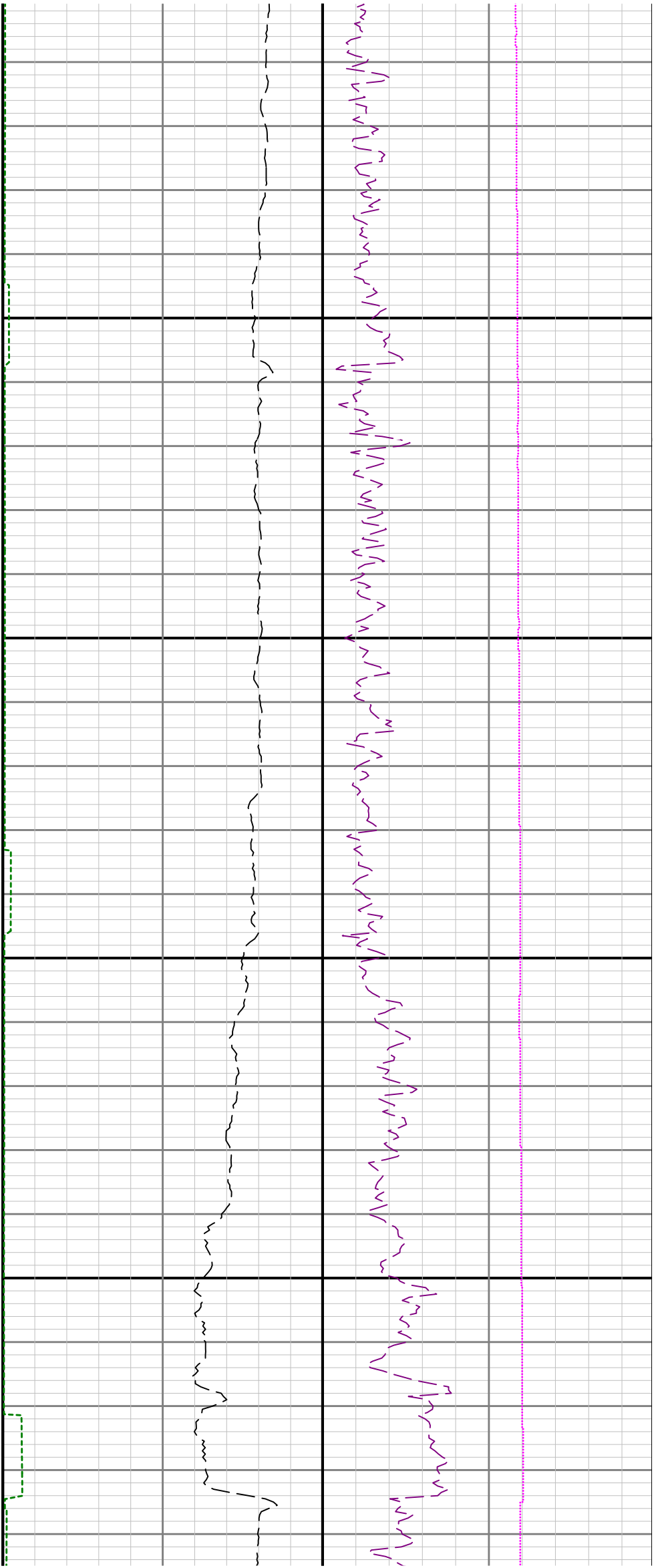


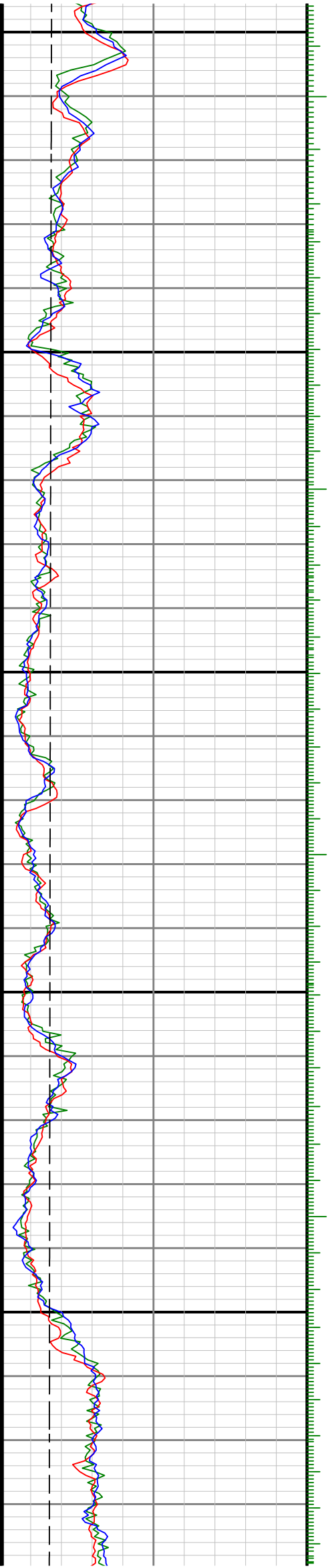
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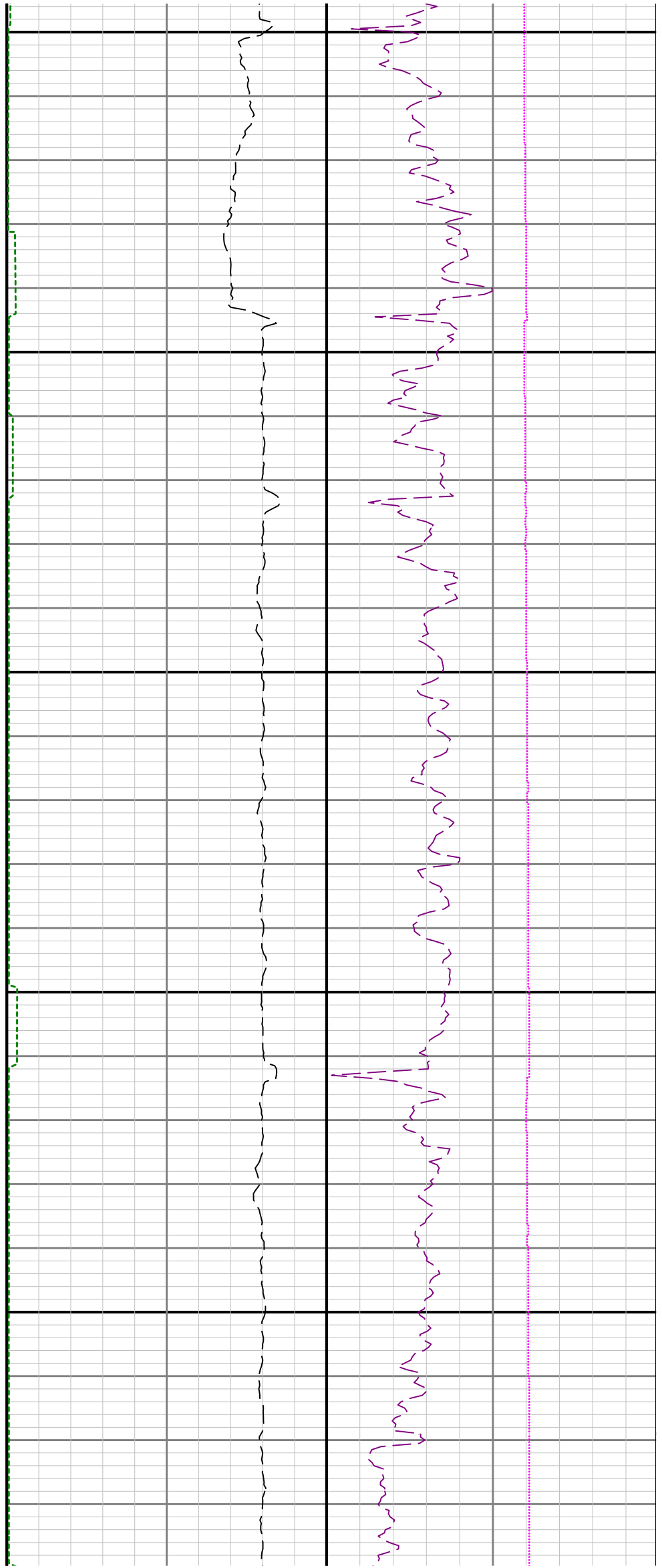


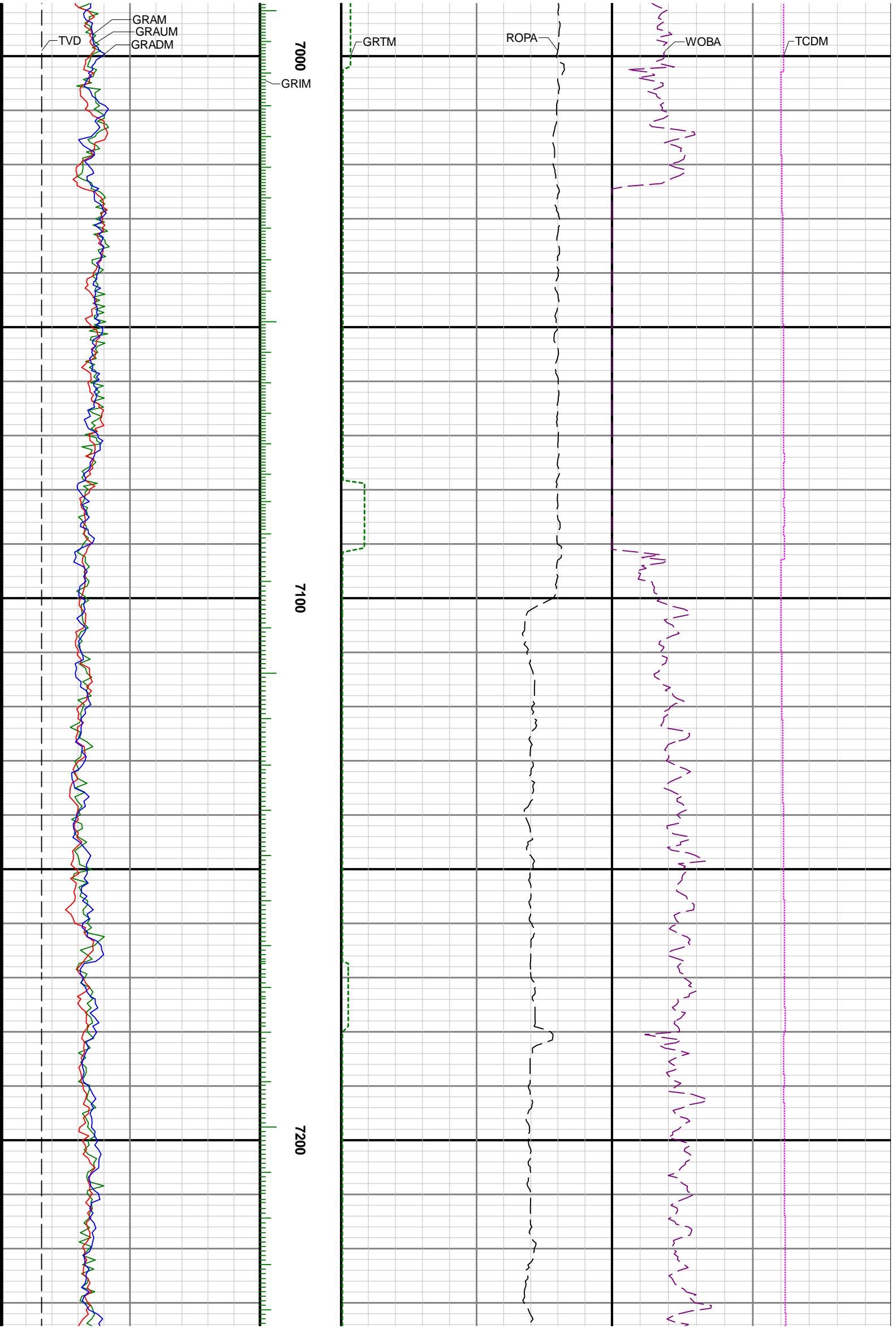


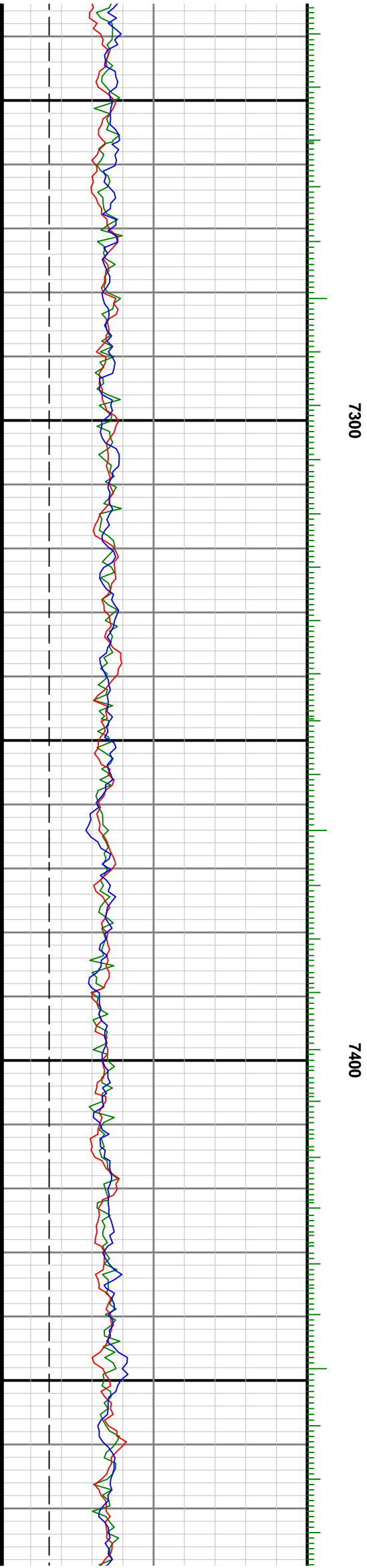
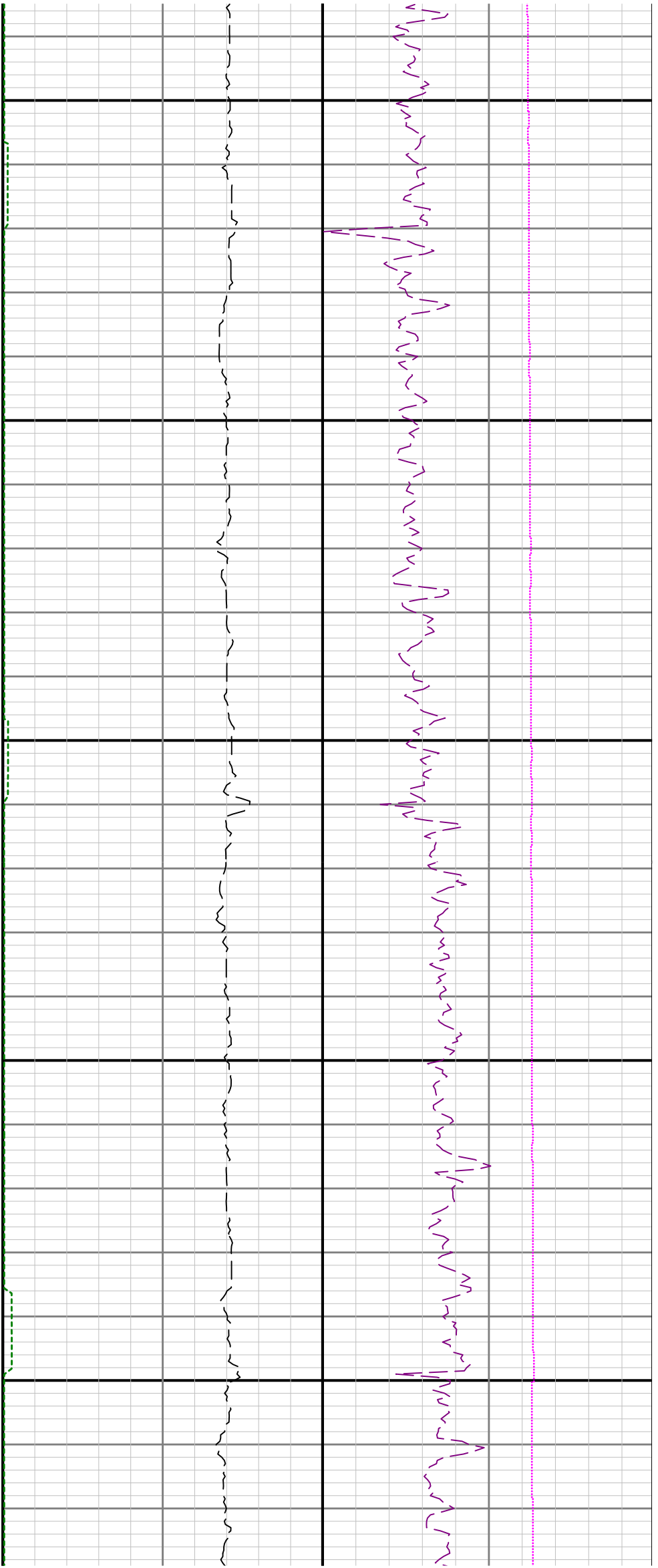


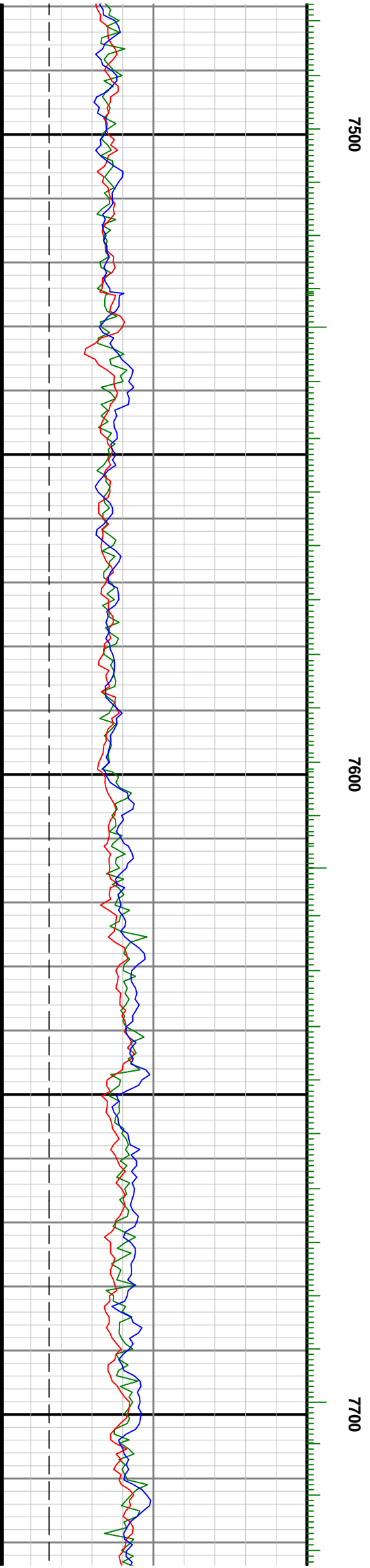
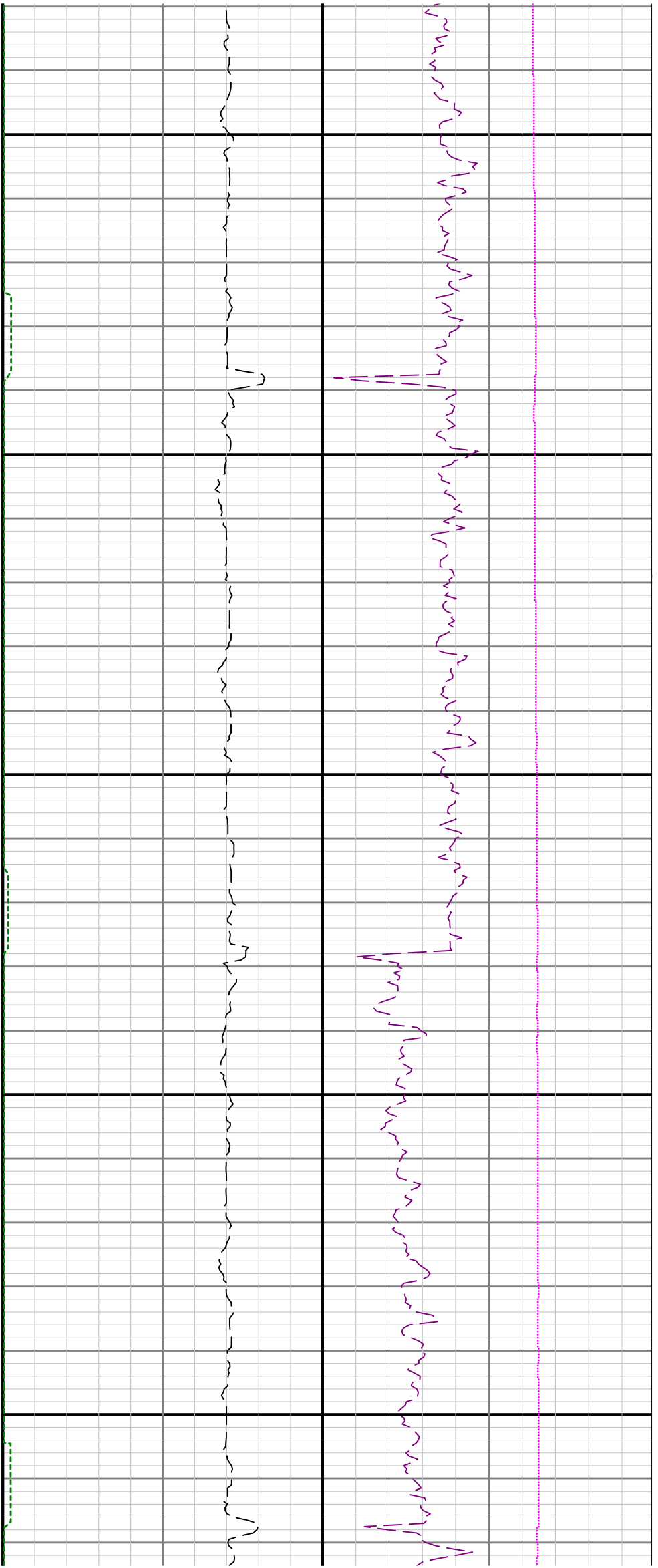
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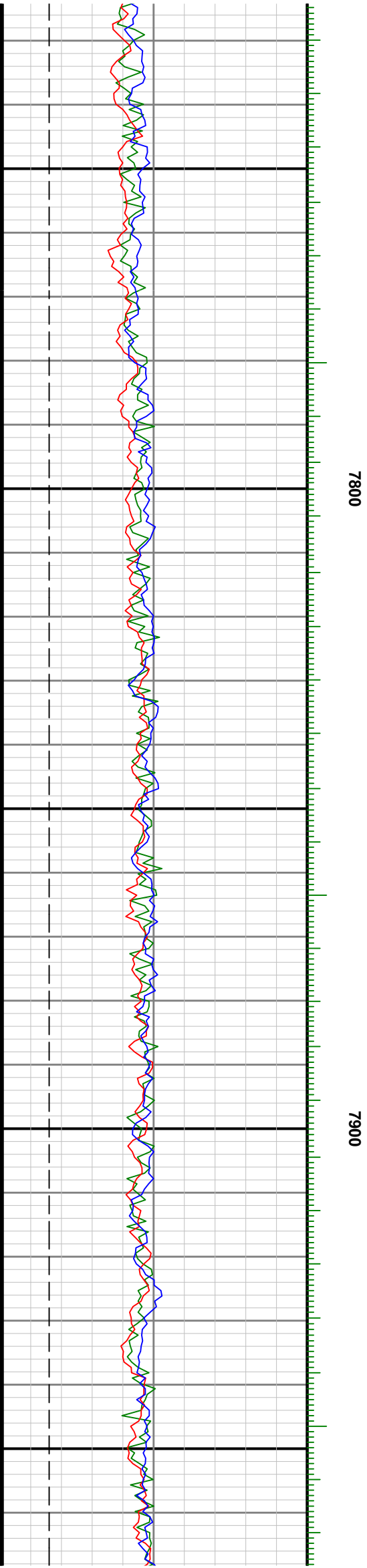
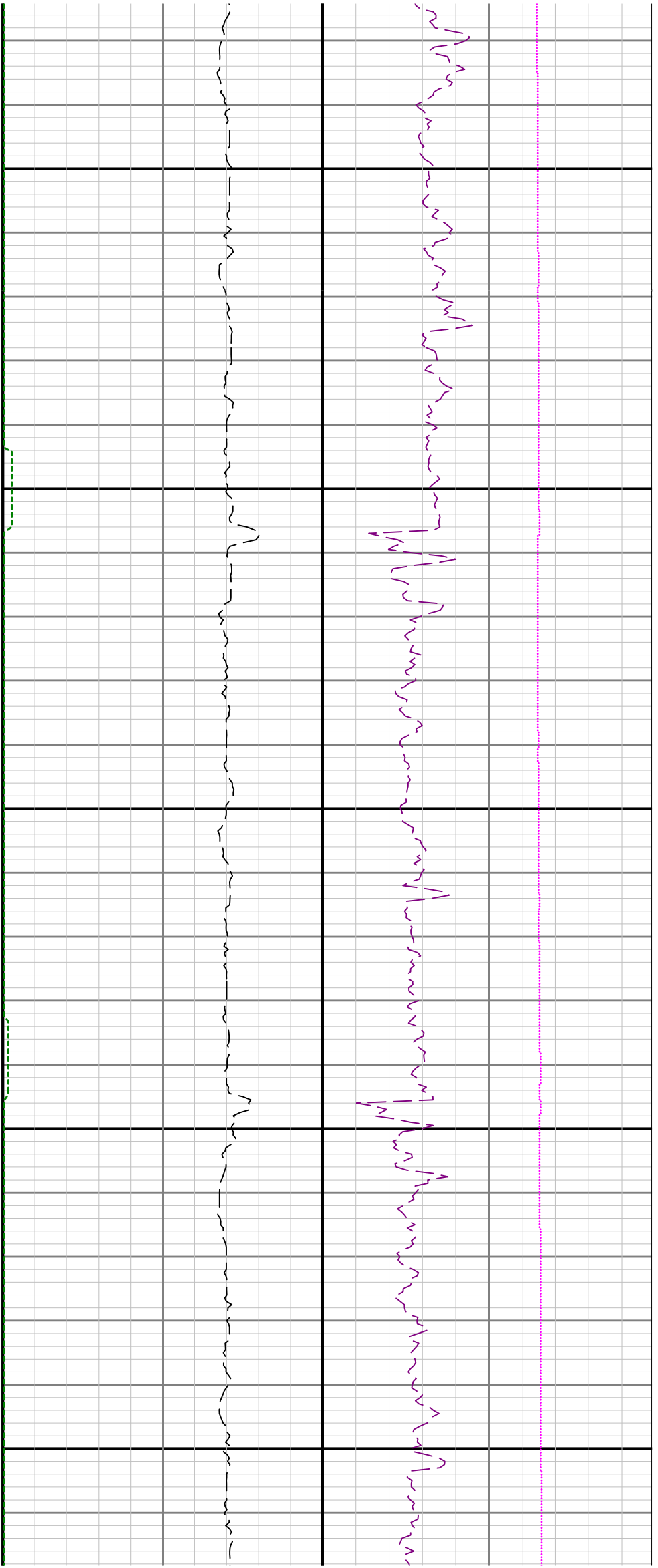
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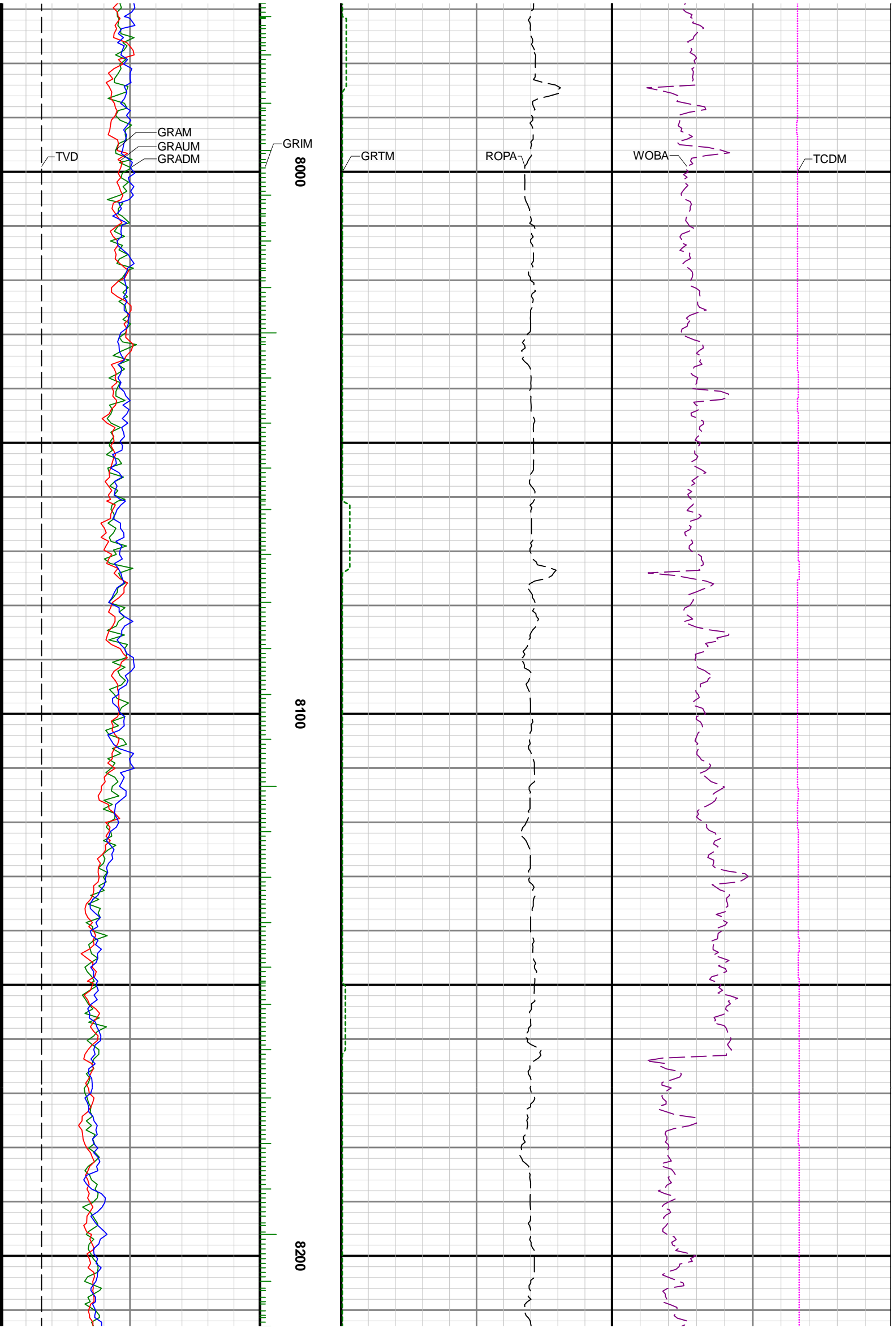


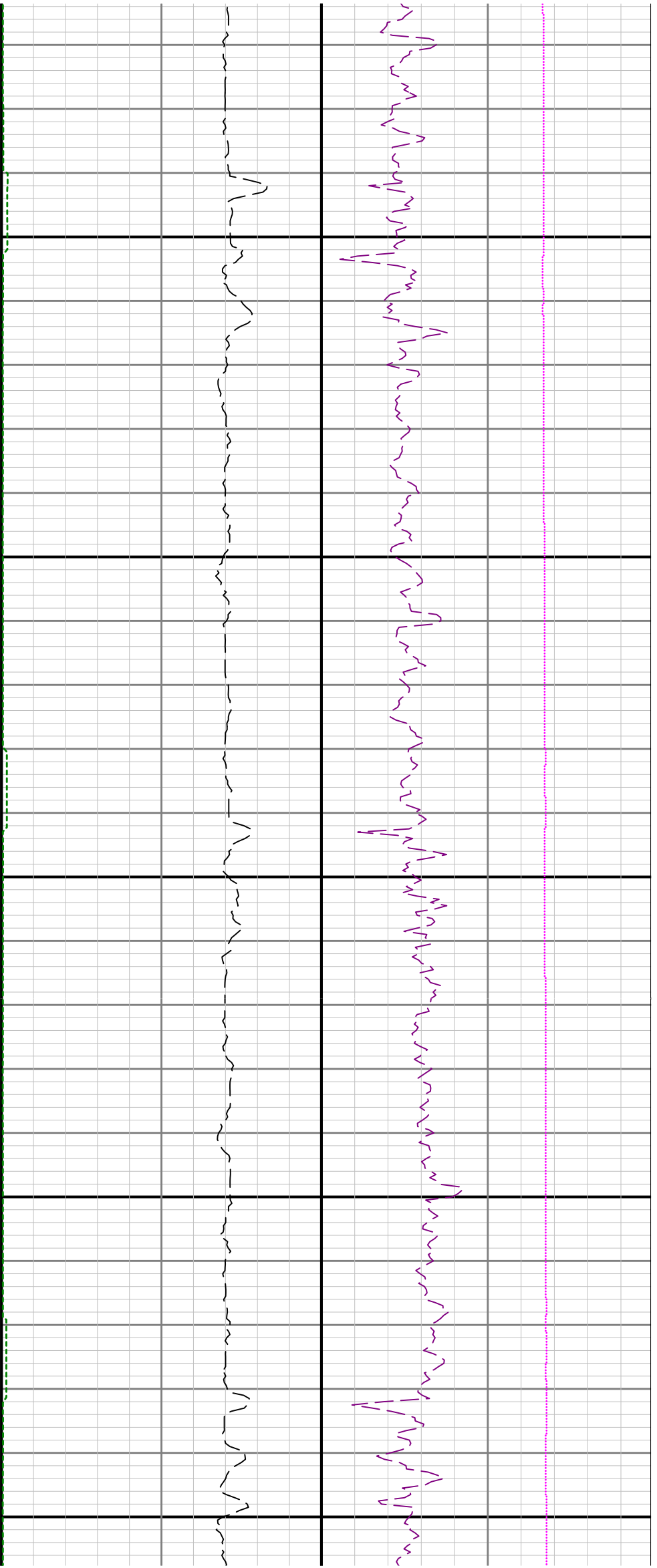






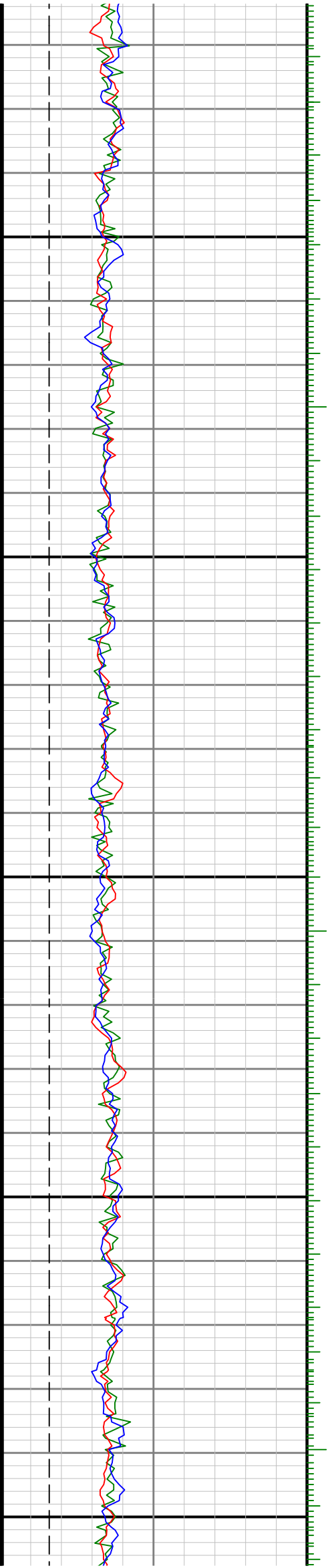


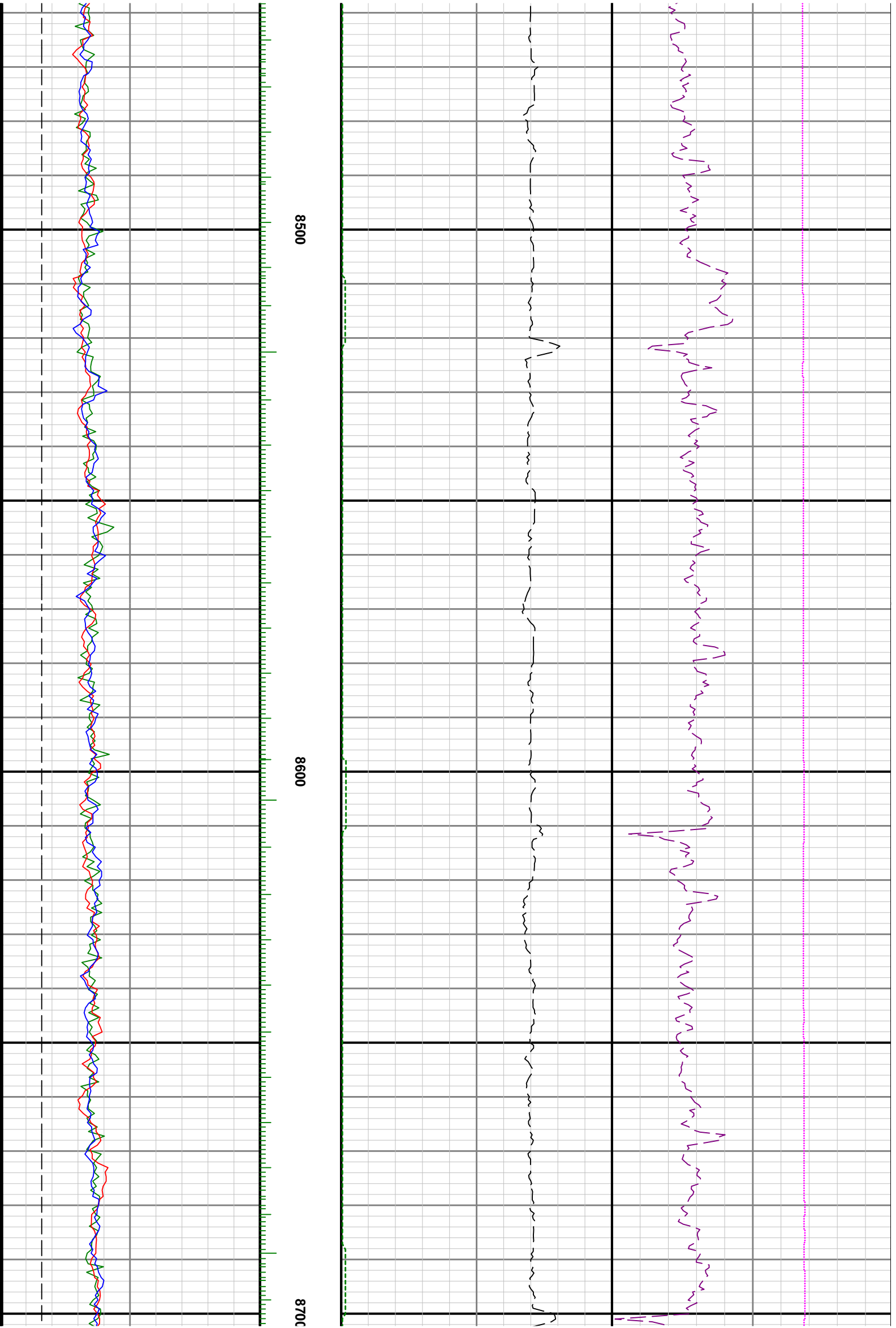


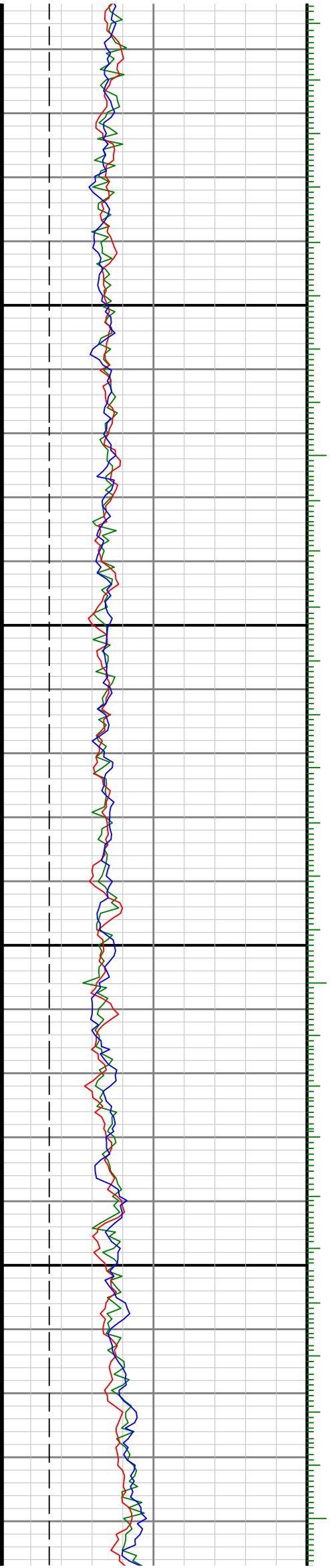


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