

	No.	(in)		Length (in)		(ft)	(ft)	(ft)	(ft)			(h)
2	2	8.500	PDC	3.00	AutoTrak Curve	5000.00	16651.00	1634.00	16664.00	2017-08-28 19:52	2017-09-01 23:49	81.89

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
John Bryson	2017-08-26	2017-09-02	Remote Operations	2017-08-28	2017-09-02			

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+ (%)
2017-08-28 00:00	2	1634.00	Diesel-Oil Based Mud	9.2	16	N/A	9.9	75/25	Suction	34000	0.00
2017-08-28 22:00	2	2047.00	Diesel-Oil Based Mud	9.3	16	N/A	9.9	74/26	Suction	32000	0.00
2017-08-29 21:00	2	5685.00	Diesel-Oil Based Mud	9.2	16	N/A	9.8	74/26	Suction	32000	0.00
2017-08-30 21:00	2	8274.00	Diesel-Oil Based Mud	9.4	15	N/A	9.9	74/26	Suction	32000	0.00
2017-08-31 15:00	2	11350.00	Diesel-Oil Based Mud	9.4	18	N/A	9.9	74/26	Suction	35000	0.00
2017-09-01 15:00	2	16130.00	Diesel-Oil Based Mud	9.2	18	N/A	9.8	69/31	Suction	33000	0.00

Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
2	ATC_SU	14178992	Near Bit Inclination	5.93	6.73	6.750	4.330
2	ATC_SU	14178992	Near Bit VSS	5.93	6.73	6.750	4.330
2	ATC_MWD	14281551	Gamma (single)	2.77	12.90	6.750	3.250
2	ATC_MWD	14281551	Directional (mag)	12.27	22.40	6.750	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
ATC_SU	ATC_SU	Auto Trak Curve Steering Unit
ATC_MWD	ATC_MWD	Auto Trak Curve MWD
ATC_LCPM	ATC_LCPM	Auto Trak Curve LCPM

Comments


1	Depth measurements 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	Baker Hughes LWD Run 2 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1634 to 16664 feet MD (1634 to 6480 feet TVD).

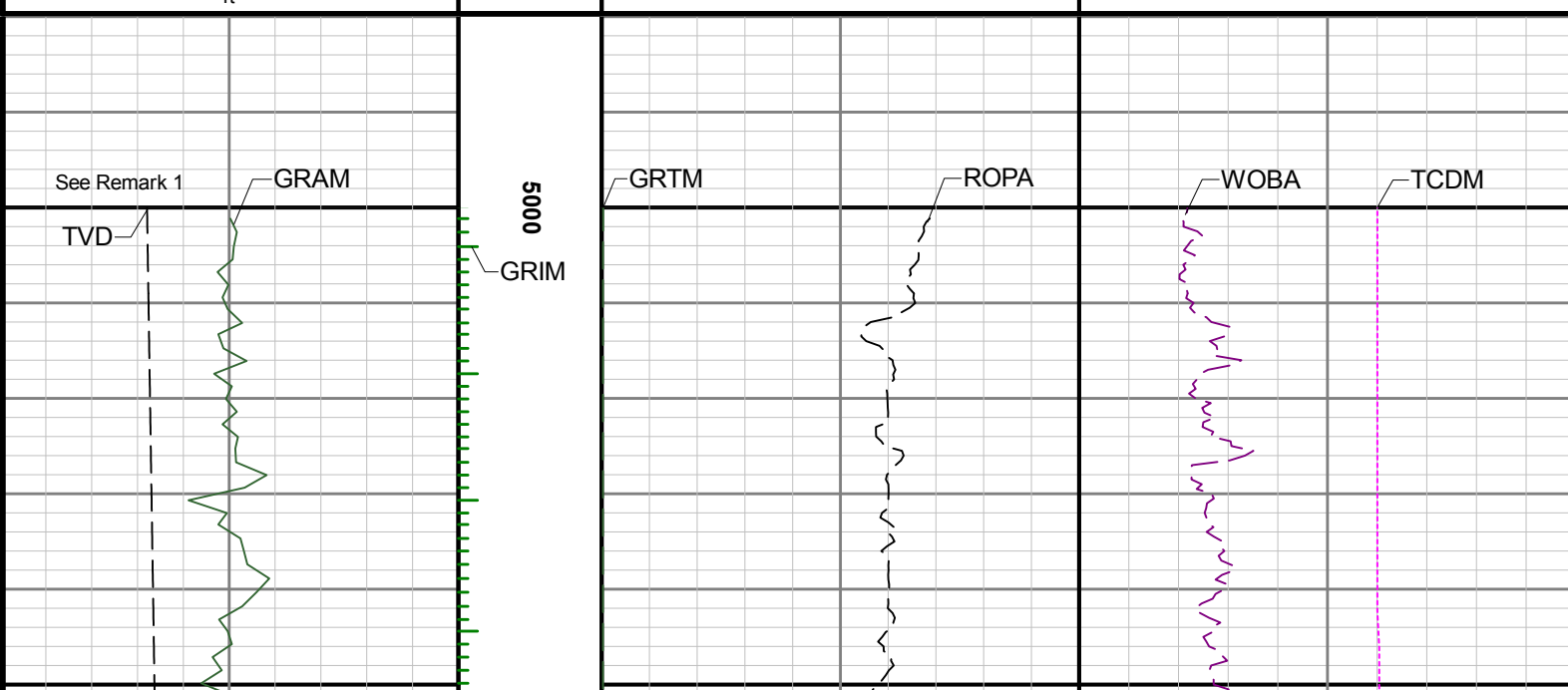
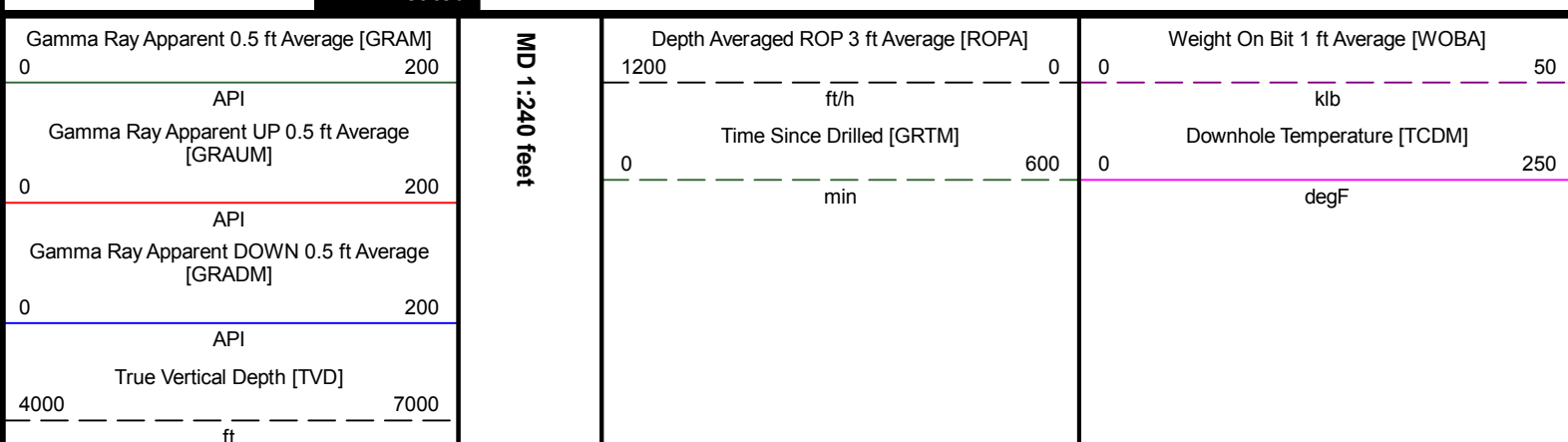
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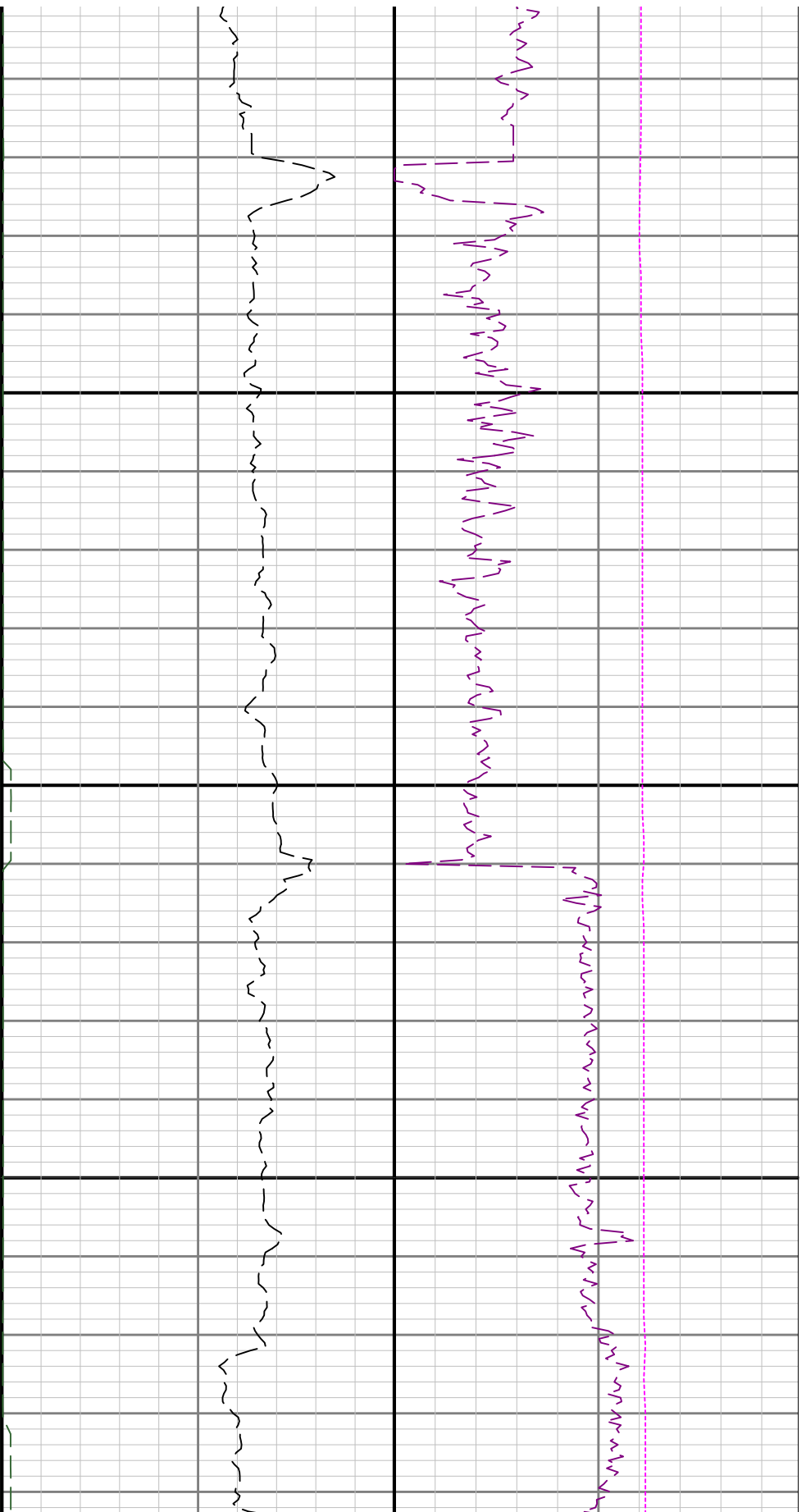
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	5000.00	8.500	2	Baker Hughes LWD began logging services at 5000 feet MD (4962 feet TVD) per client request.
2	16651.00	8.500	2	The interval from 16651 to 16664 feet MD (6480 feet TVD) was not logged due to sensor to bit offset at well TD.

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	Downhole Temperature	degF

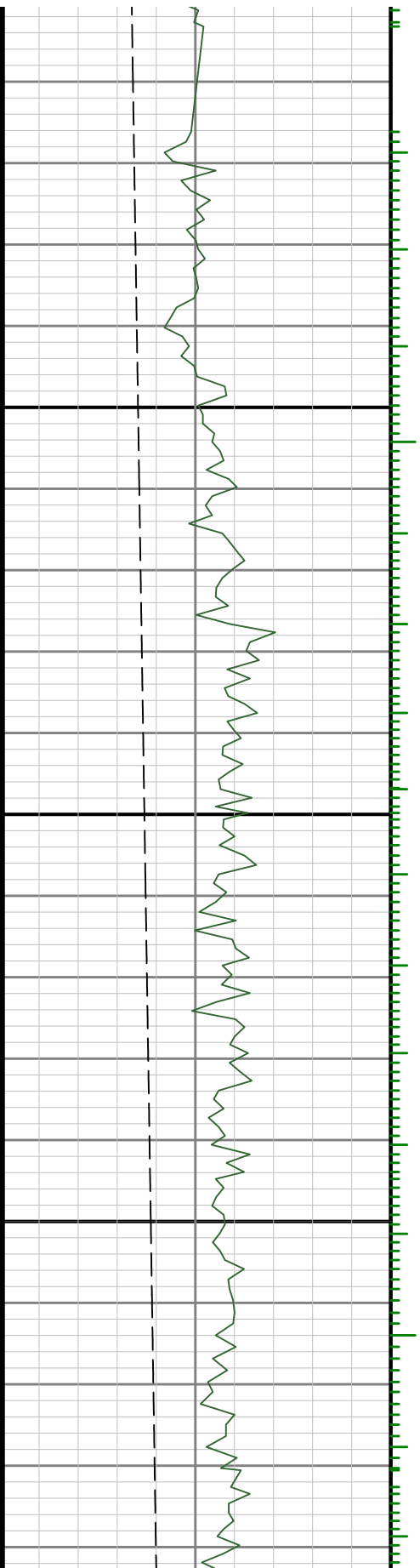
	Company	Bonanza Creek Oil Company			
	Well	State Longhorn D14-11-12XRLNB			
	Interval	Date From:	2017-08-29 17:30:38	Top:	5000.00
	Created	Date To:	2017-09-01 23:47:58	Bottom:	16664.00
		2017-09-02 22:07:24			

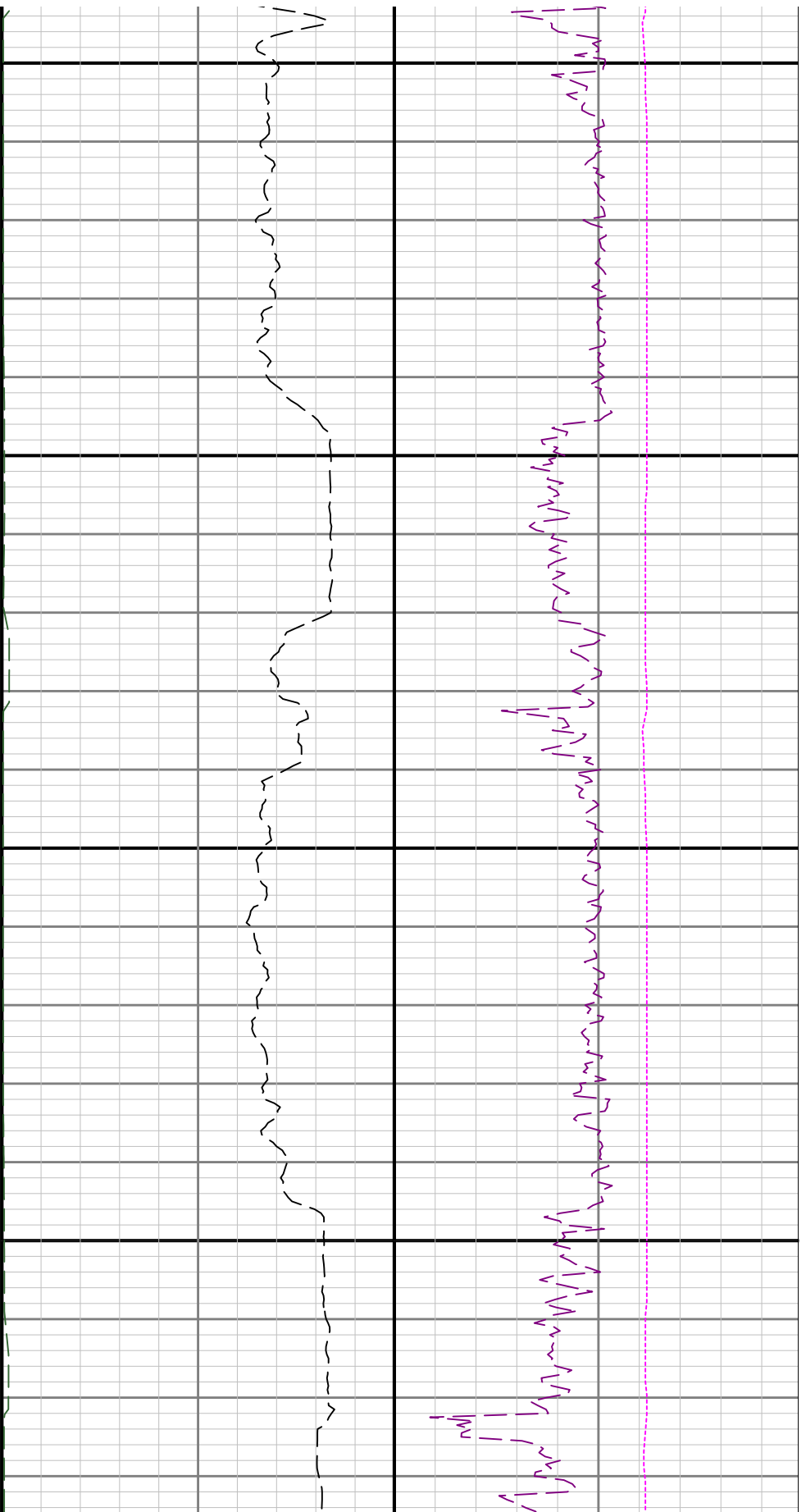




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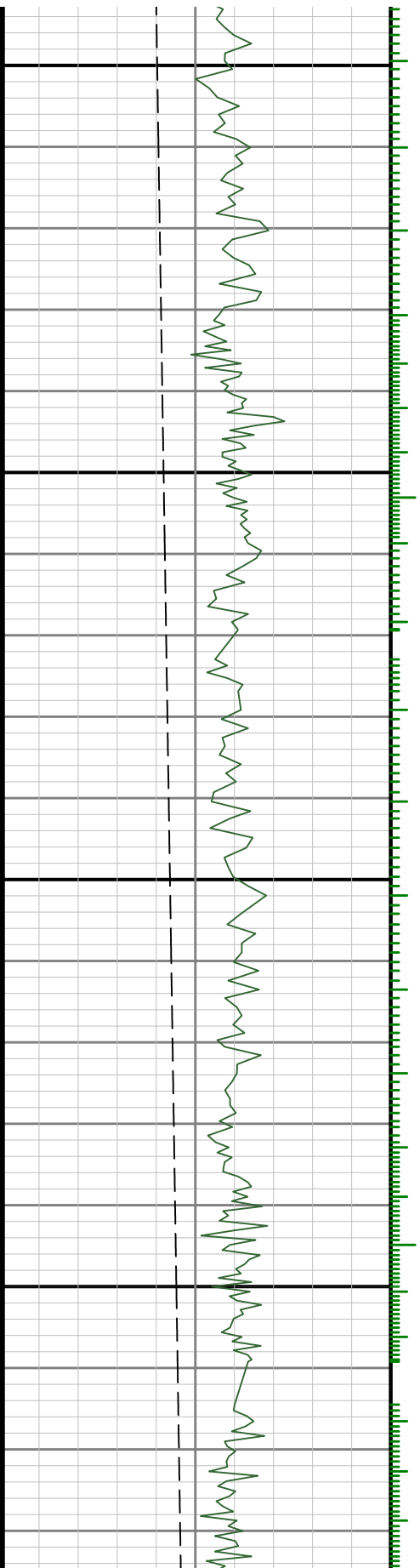
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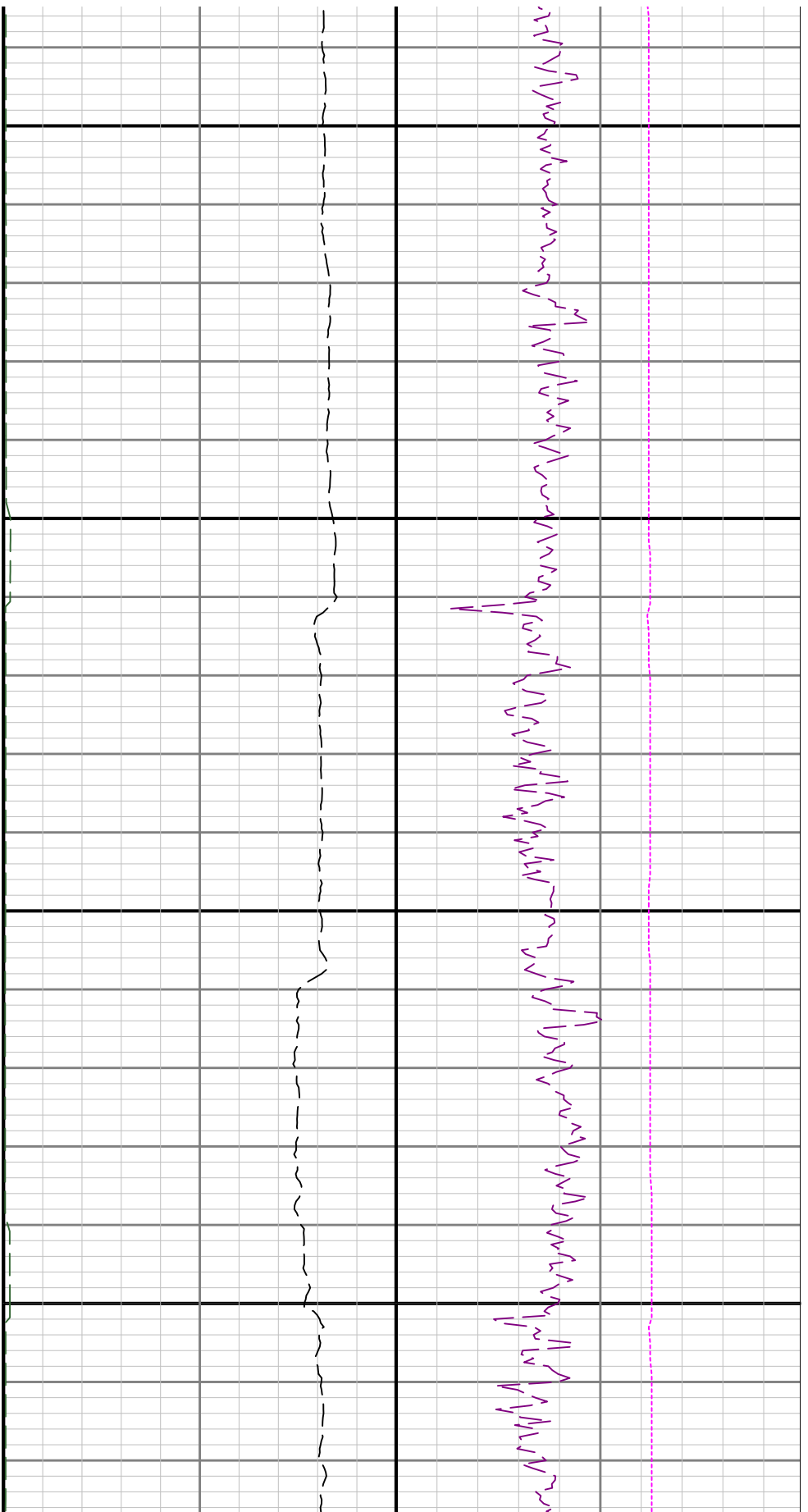




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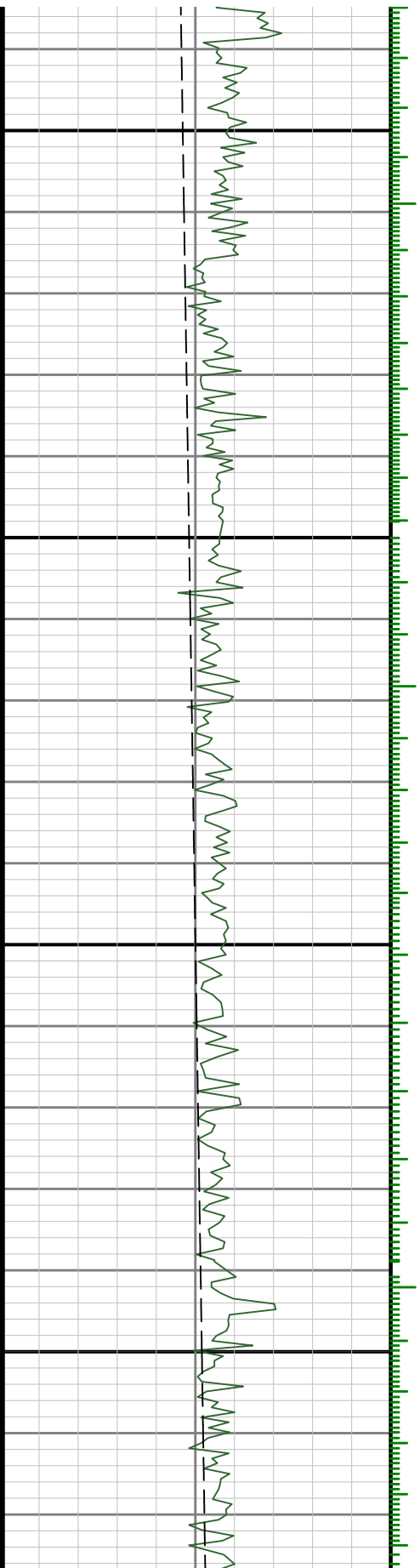
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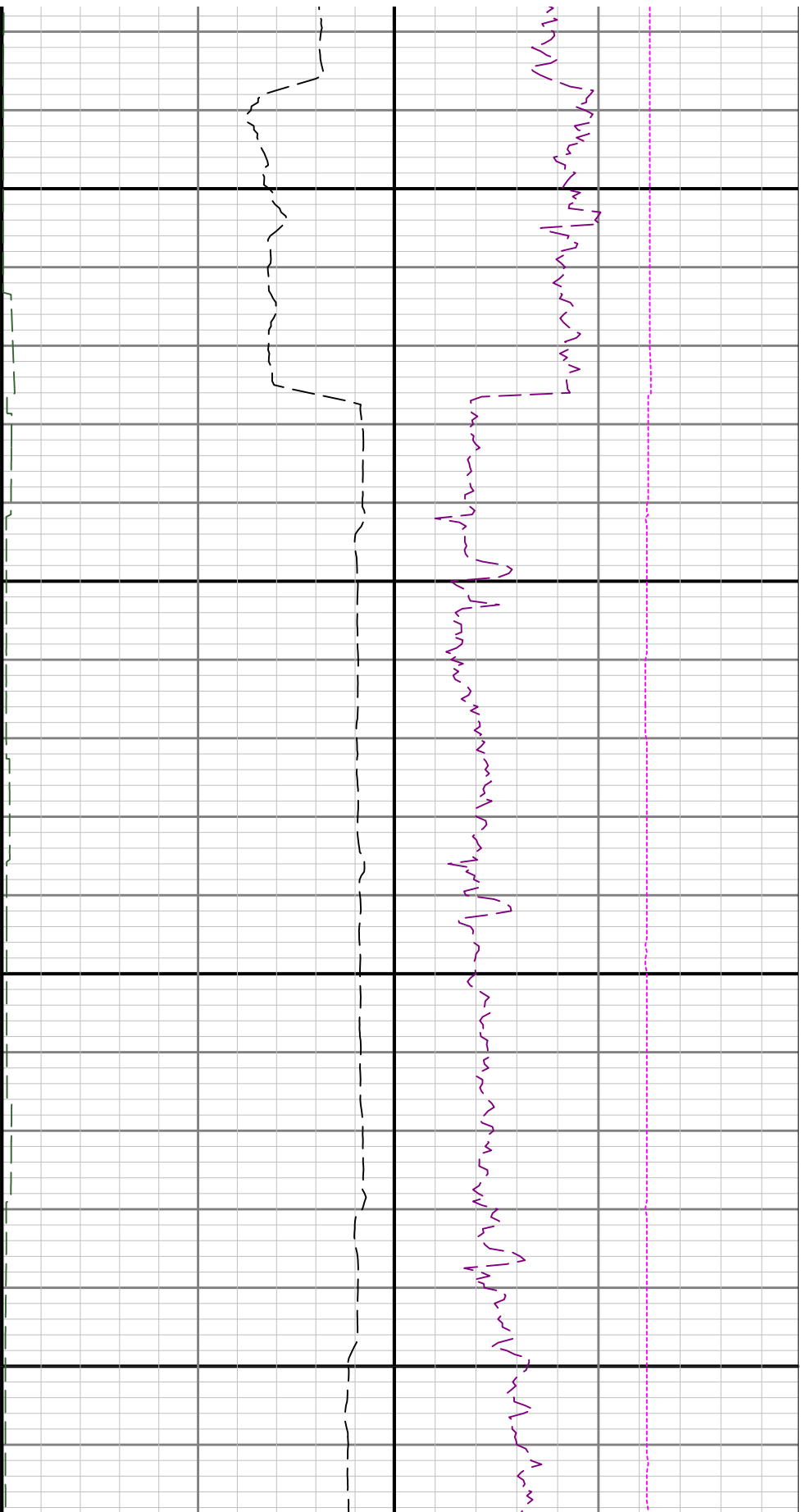




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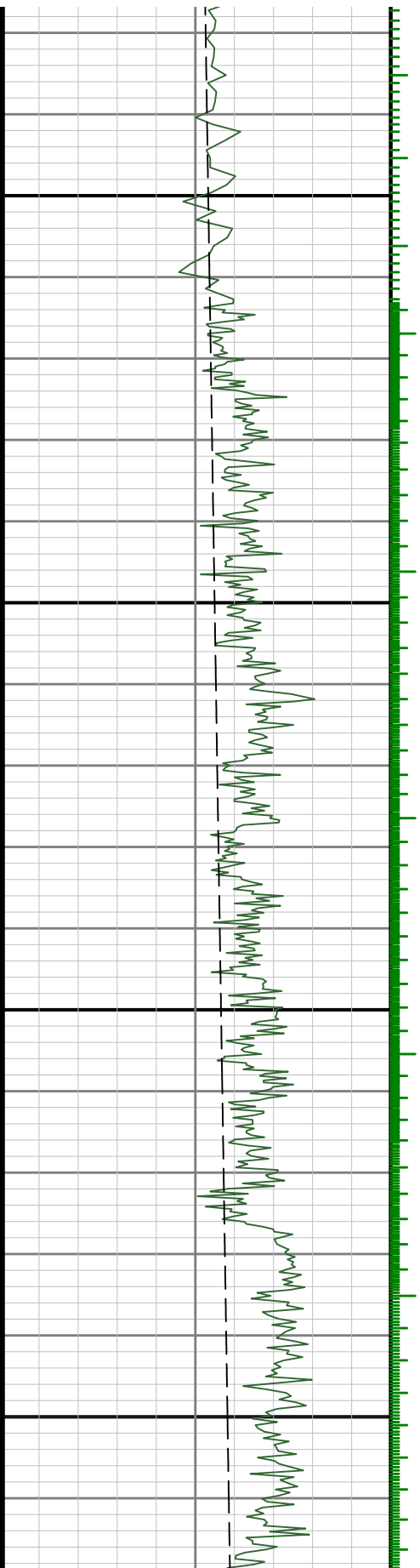
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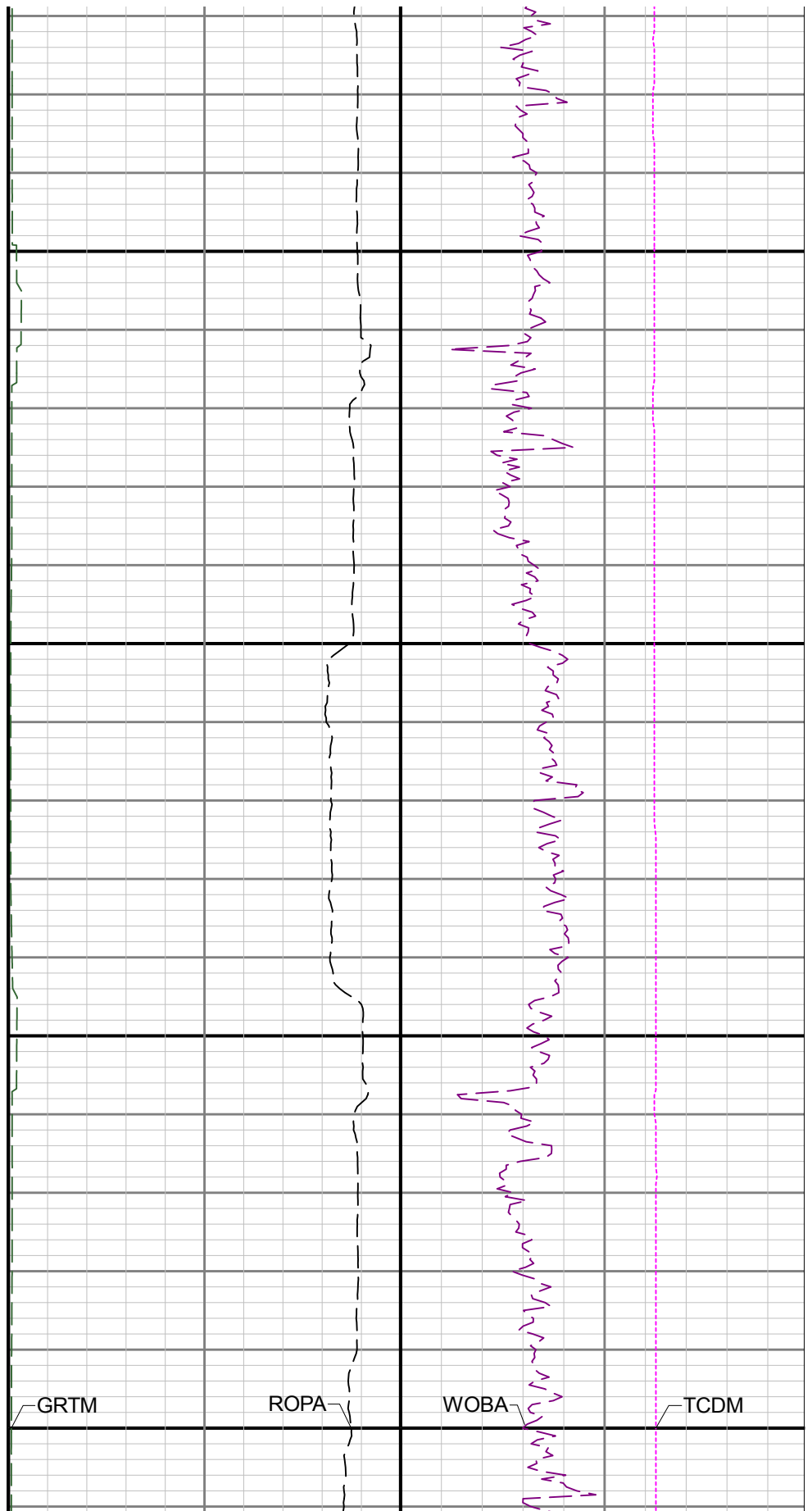
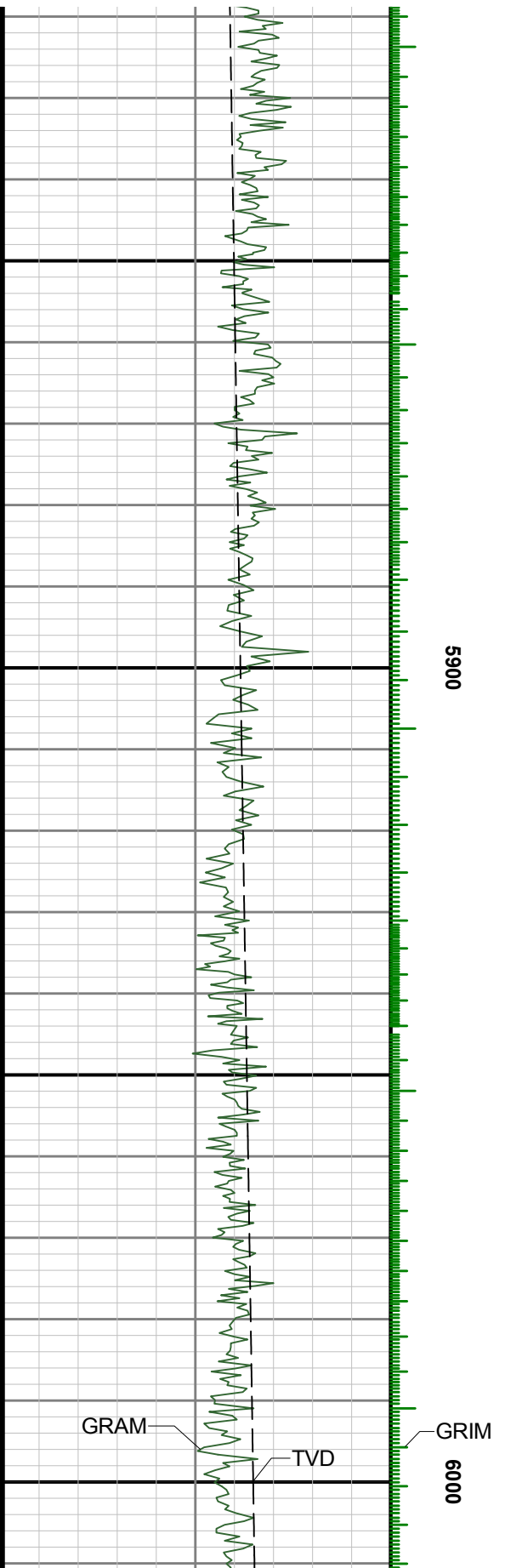


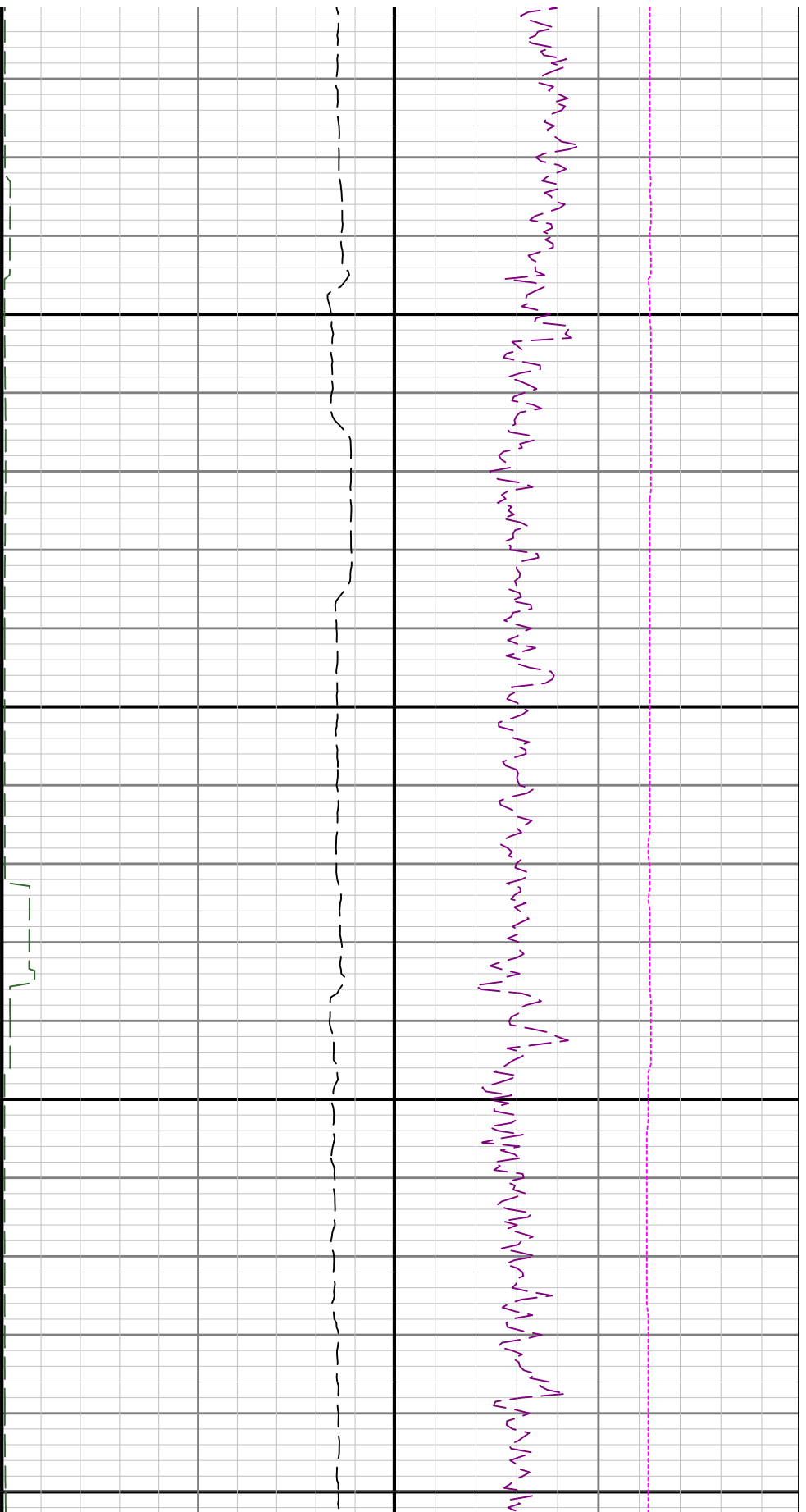


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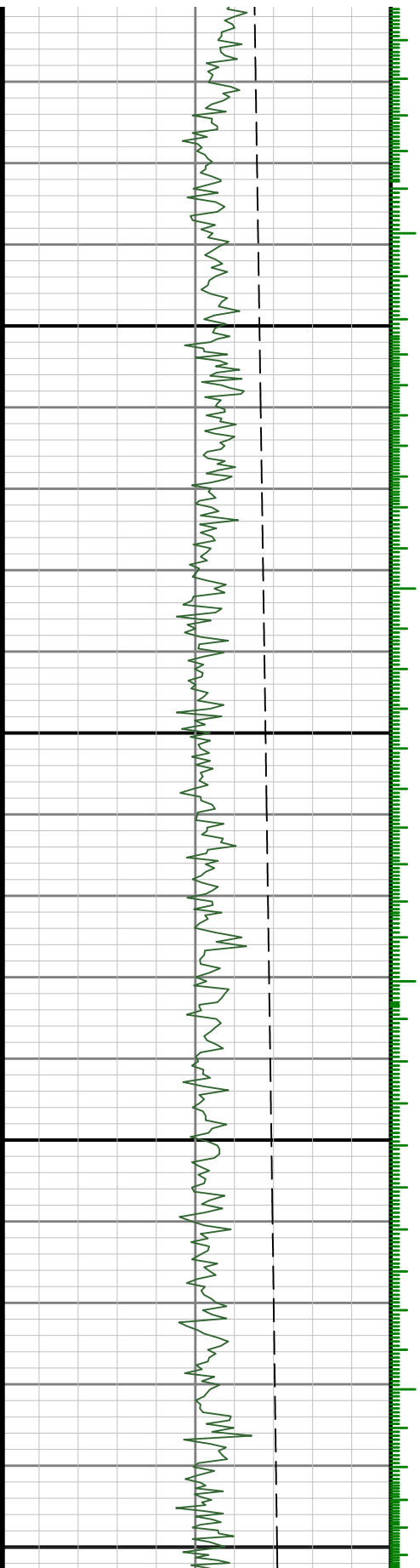


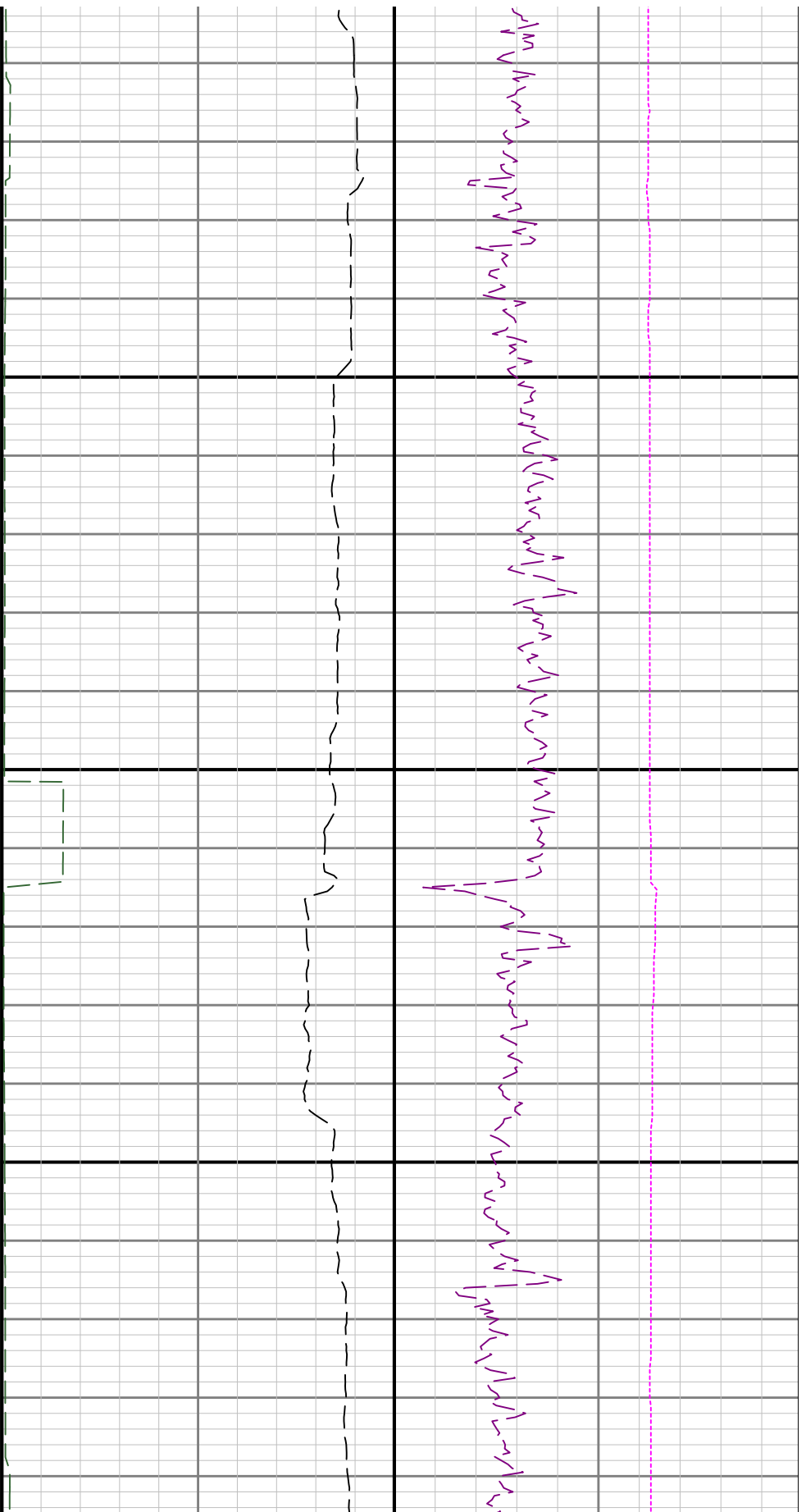




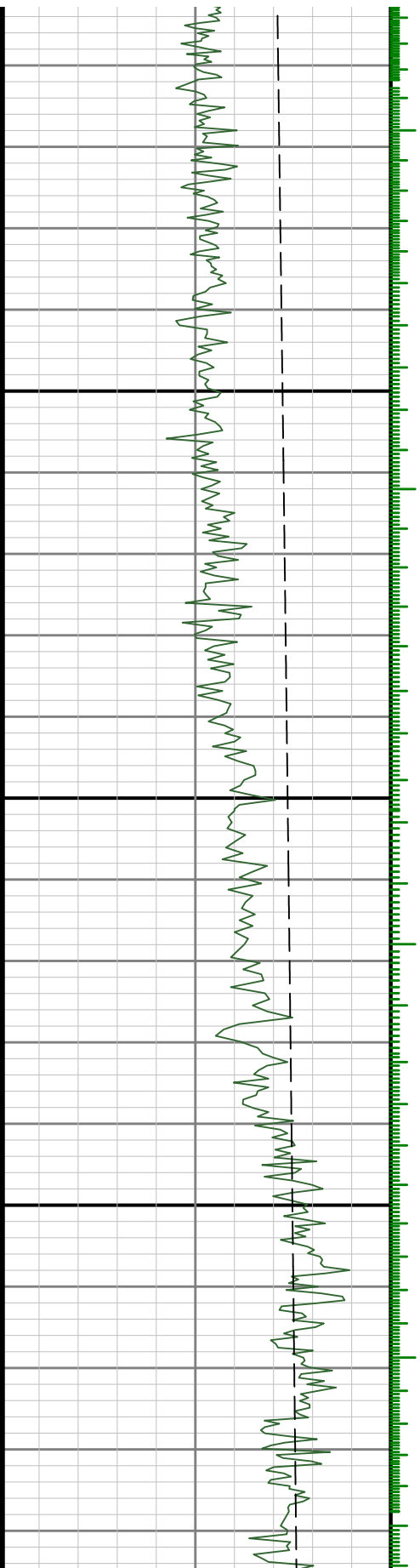
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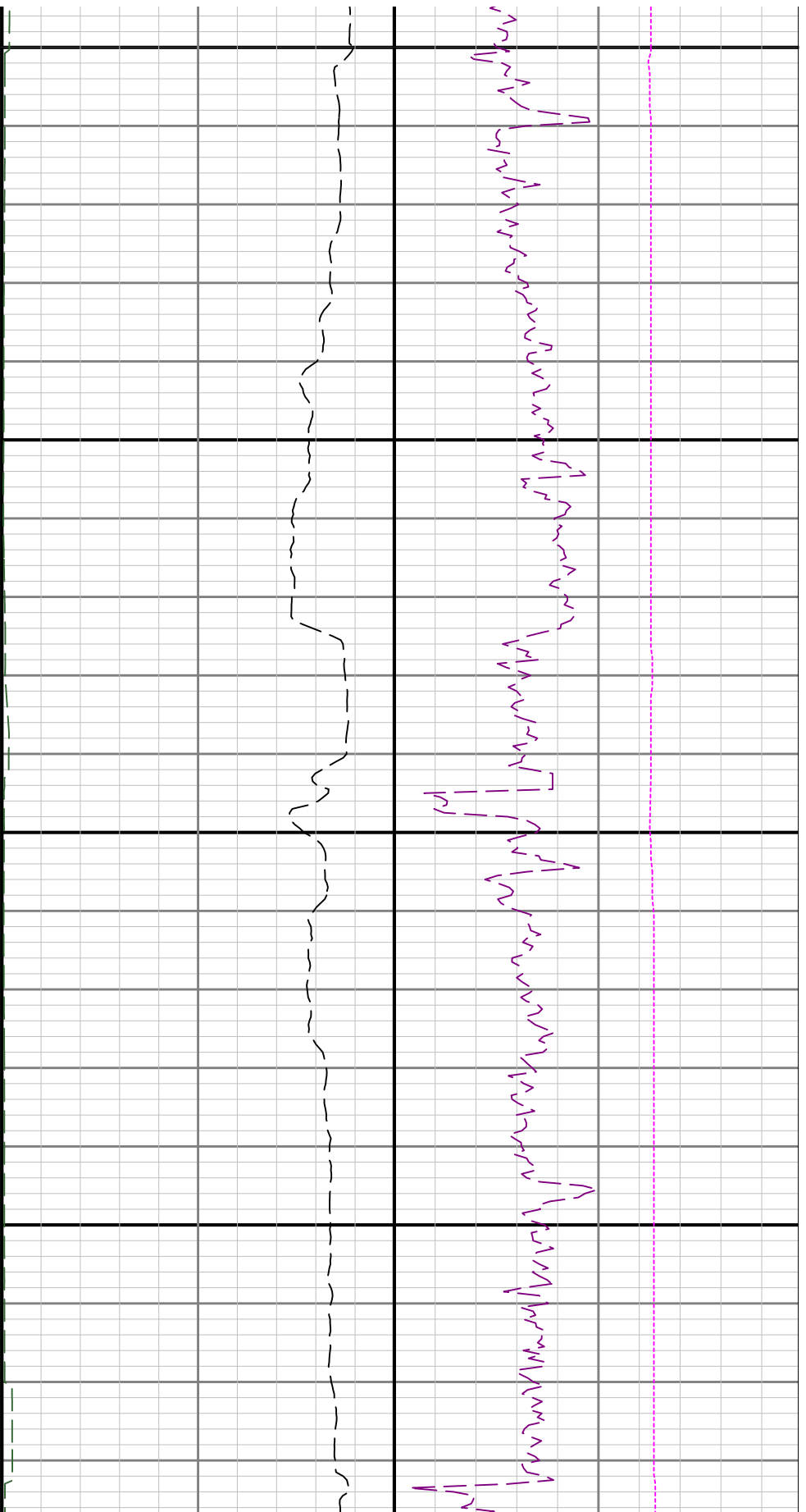
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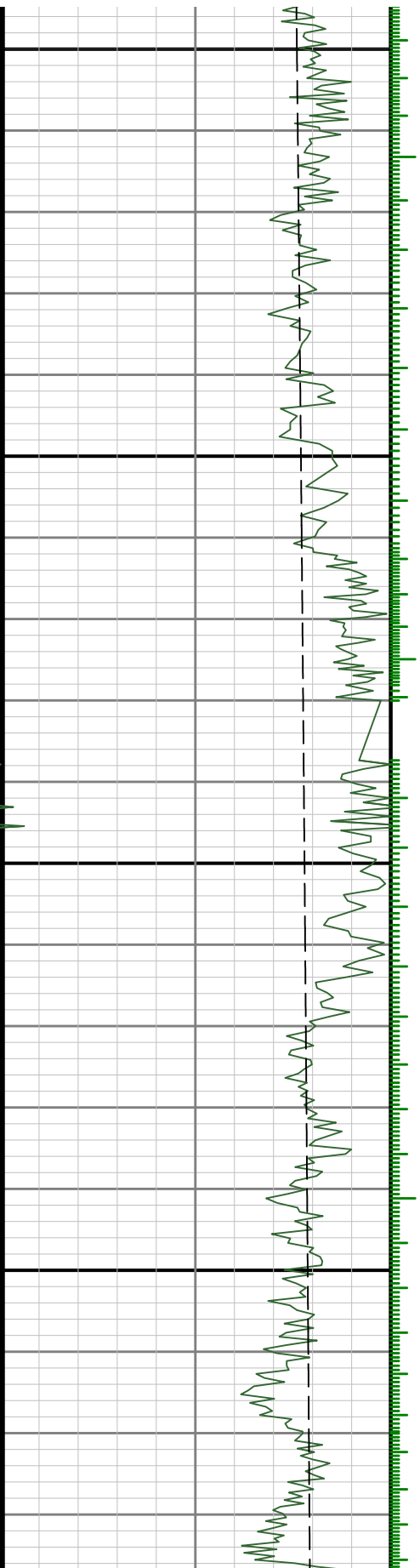
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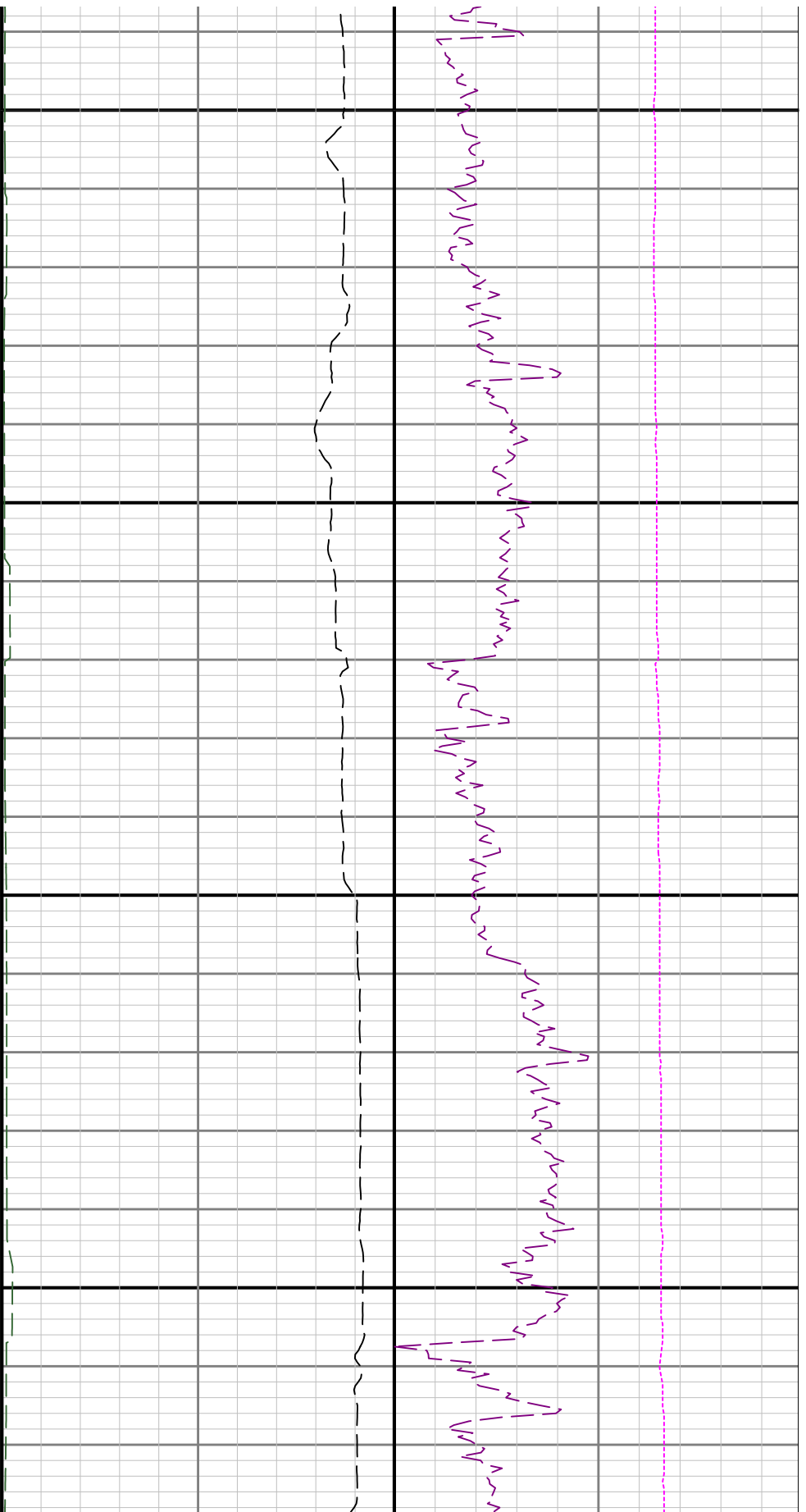




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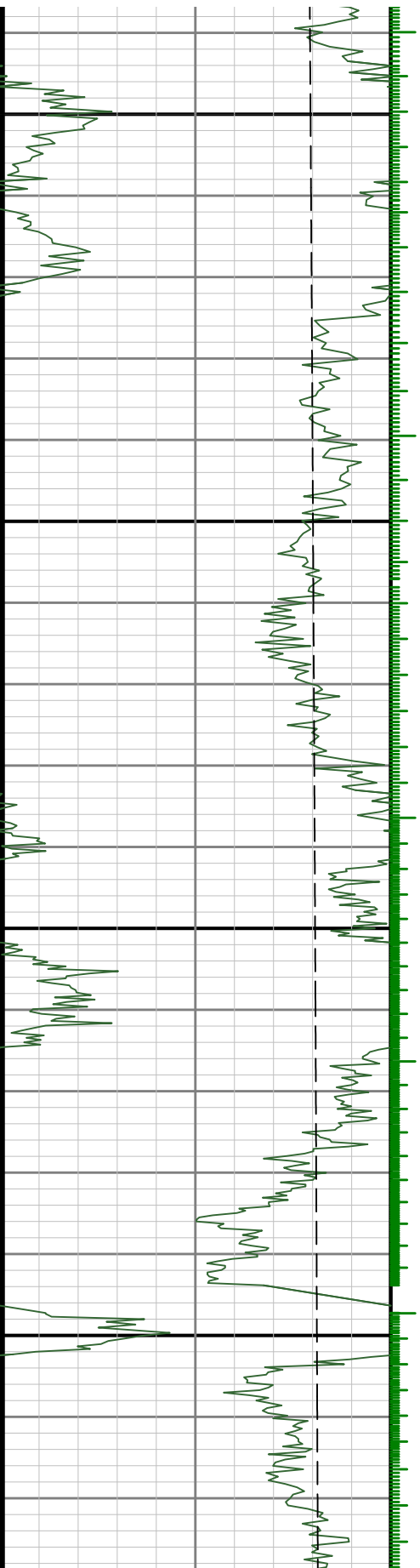
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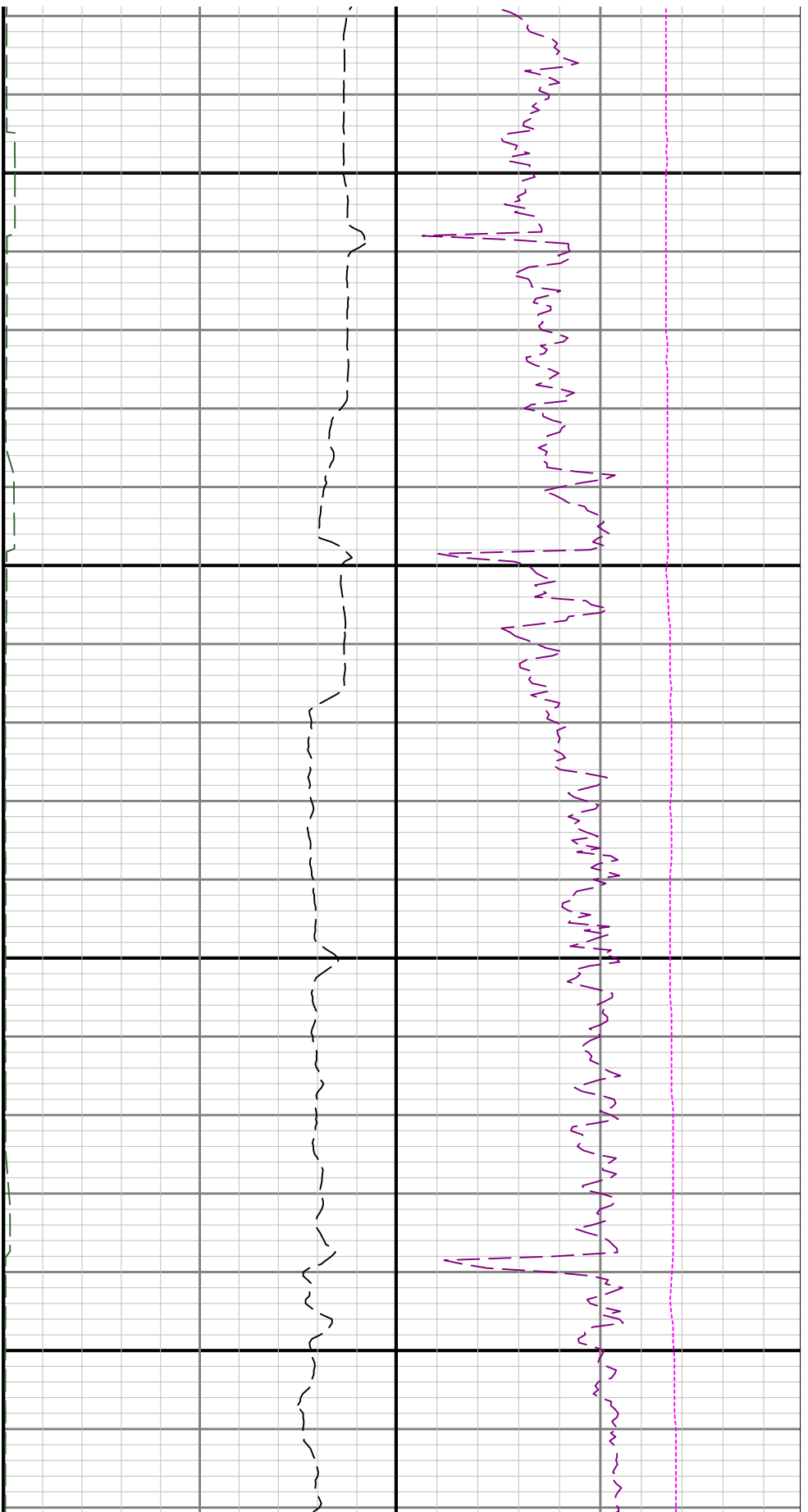




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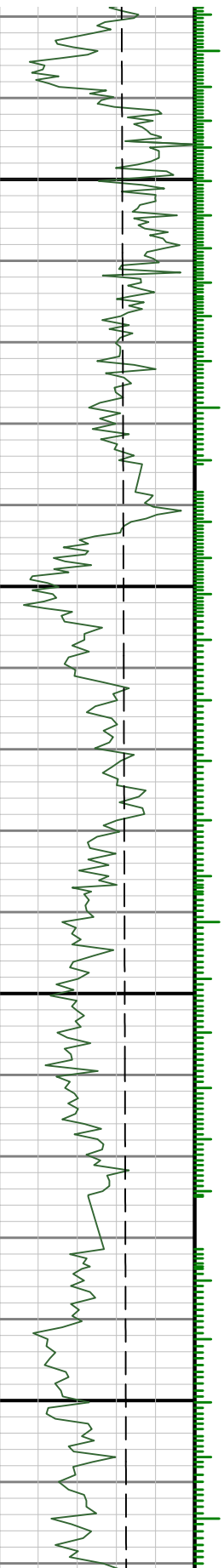
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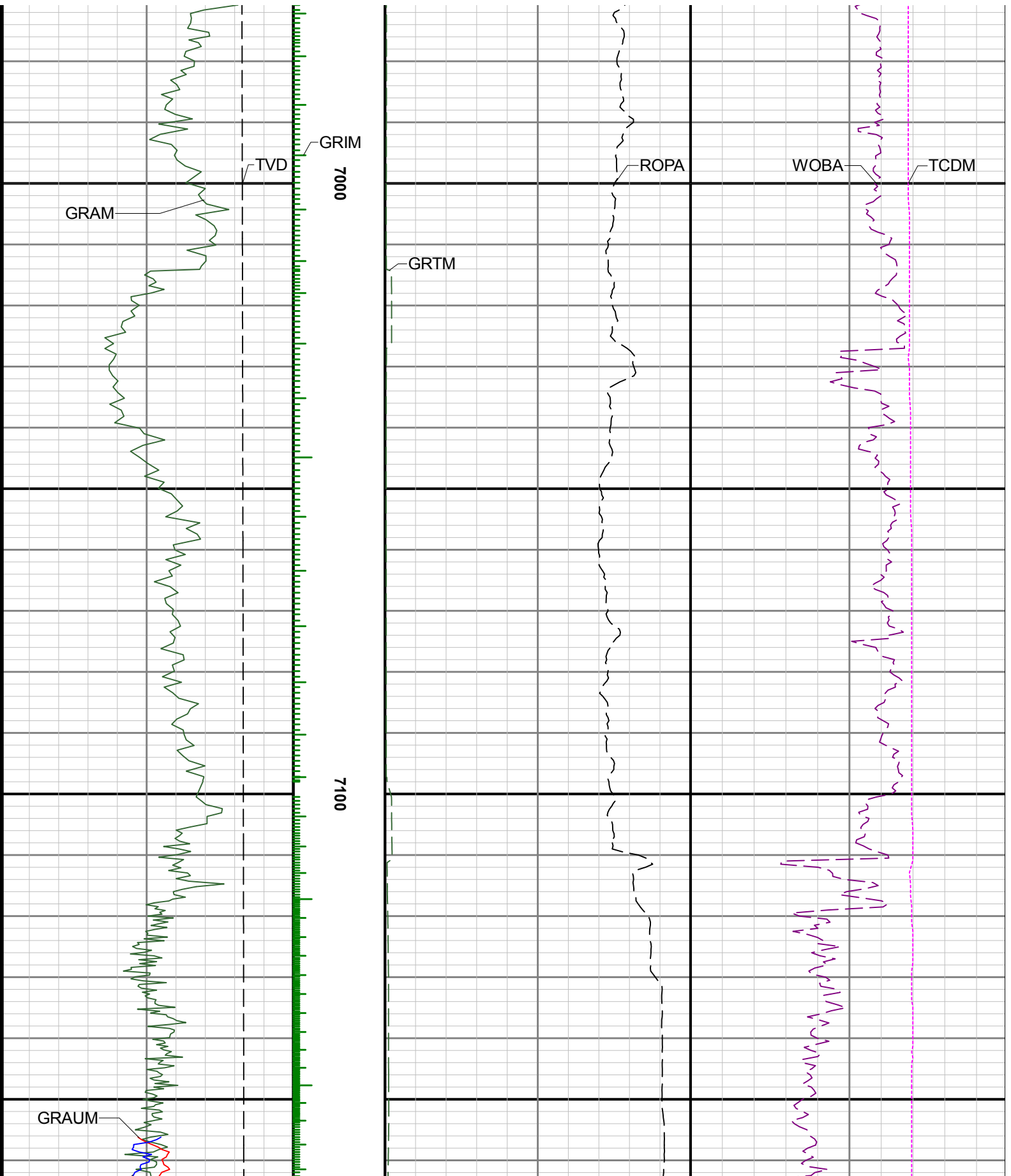


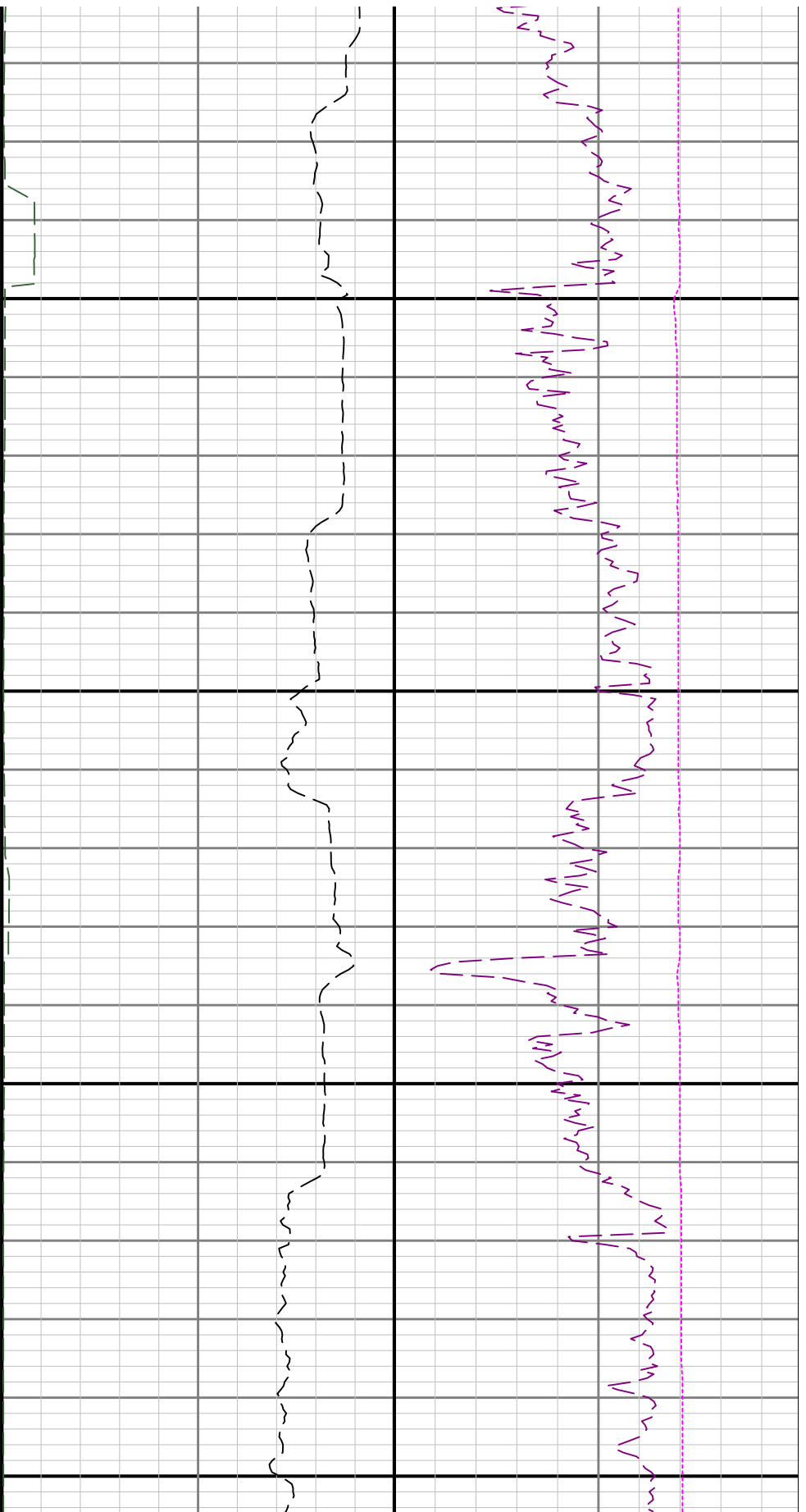


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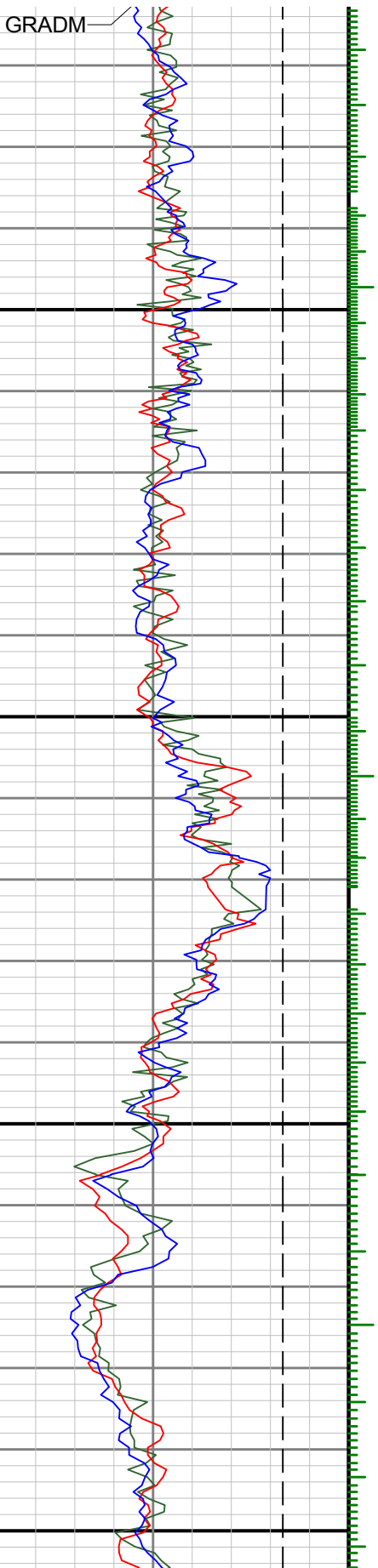


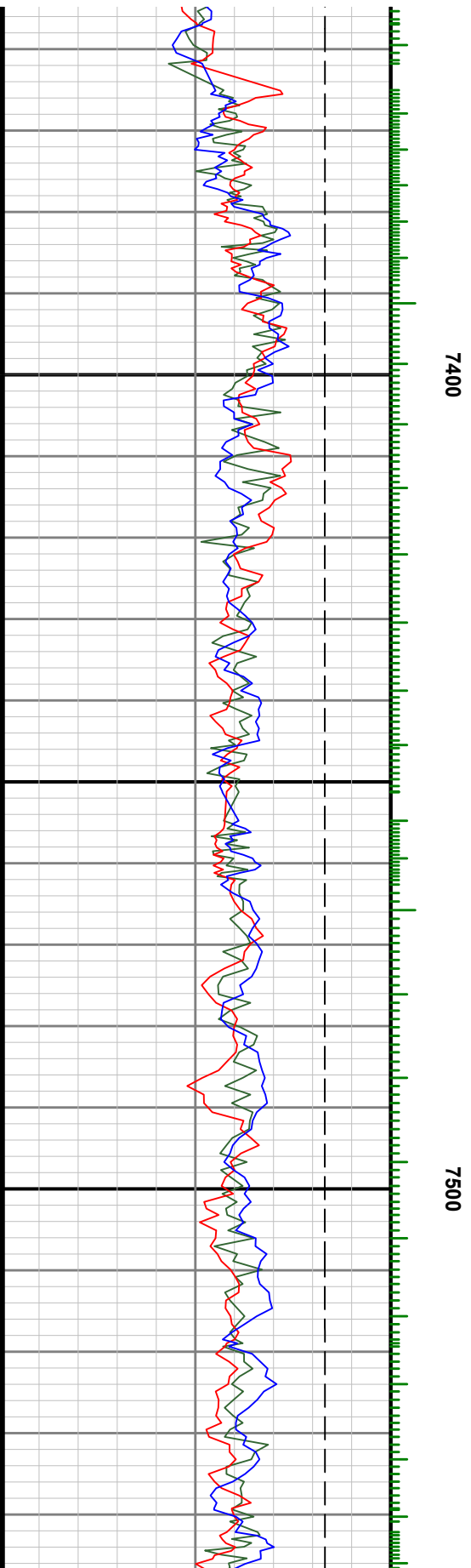
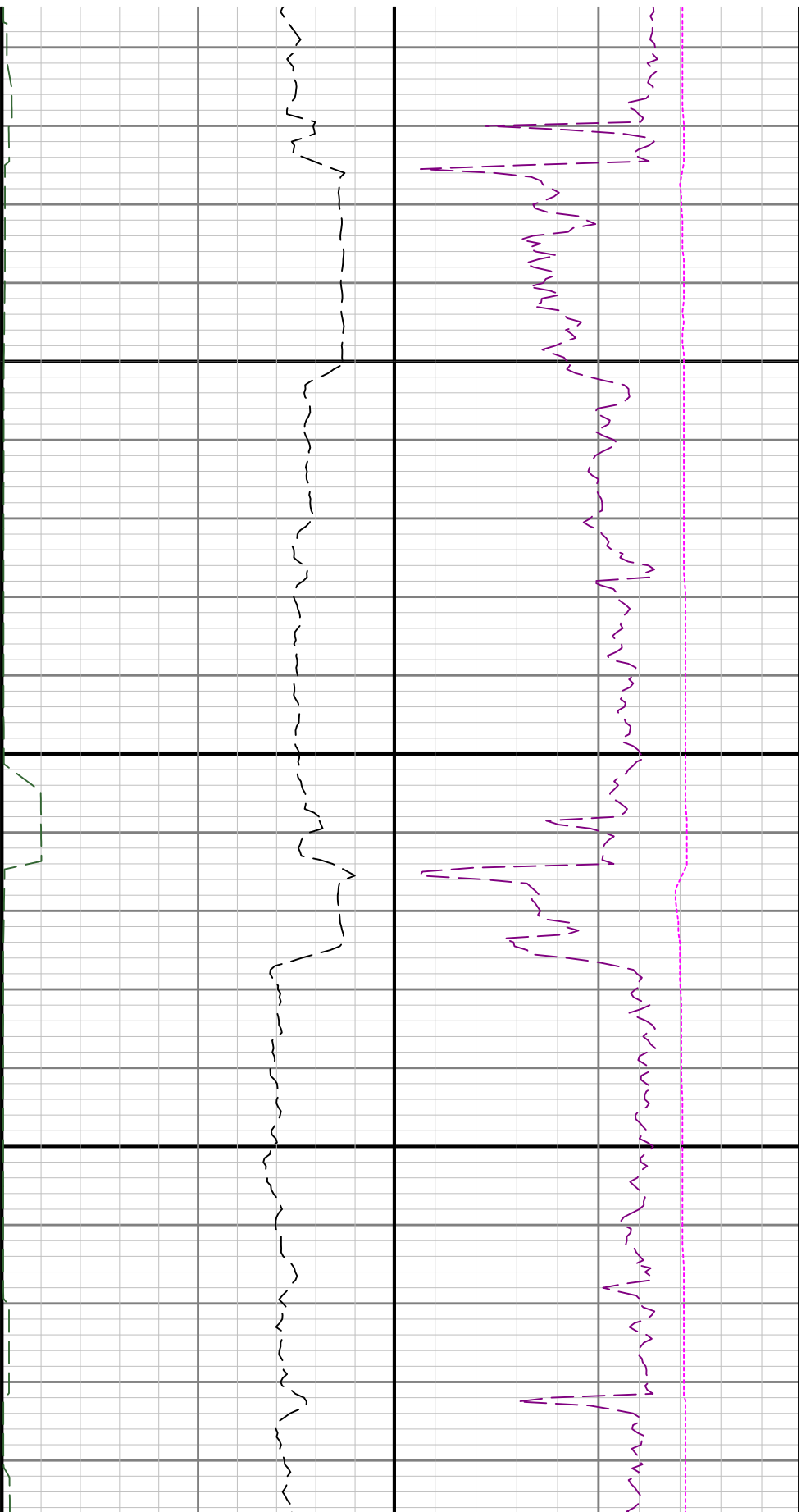


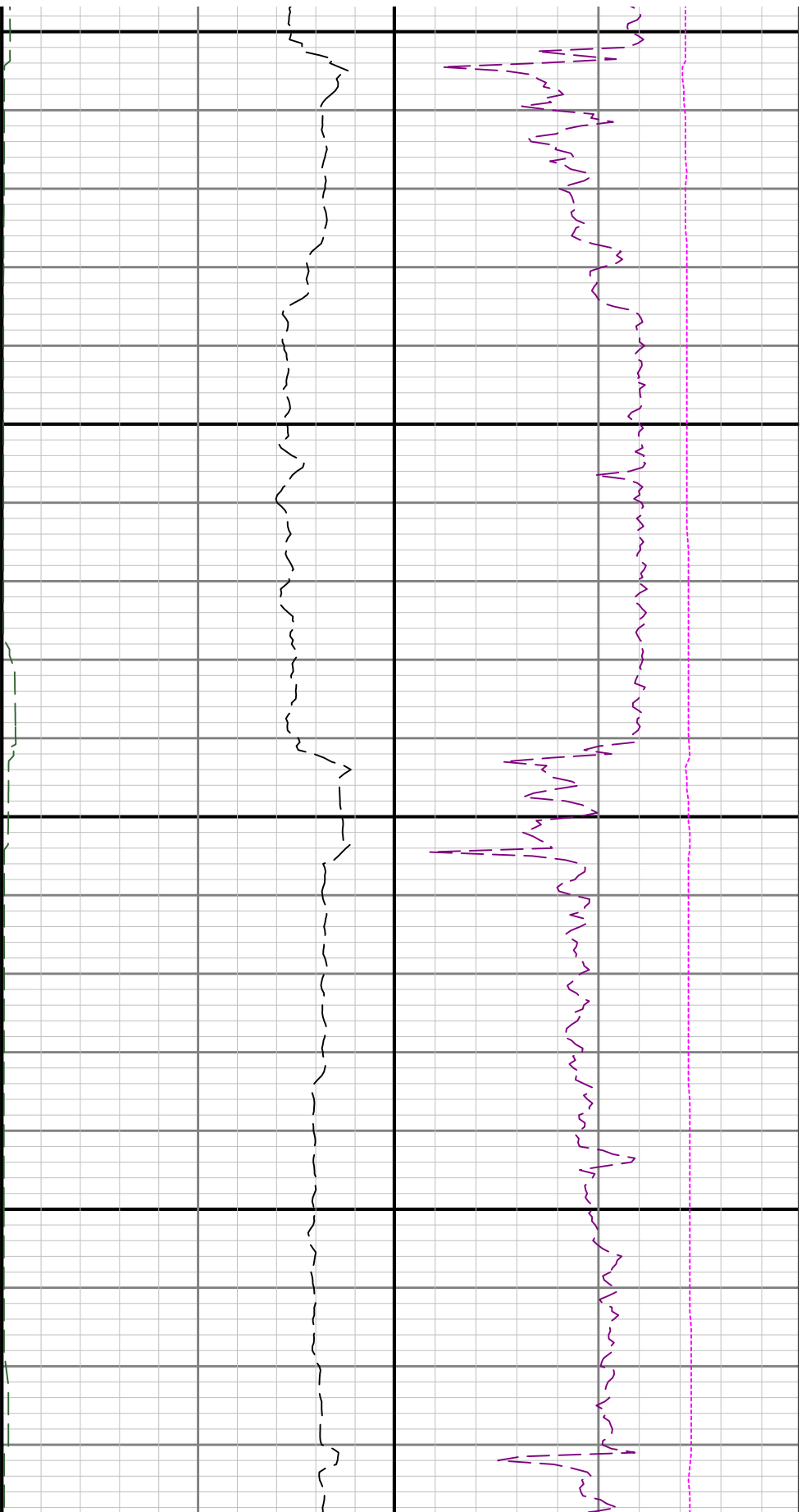


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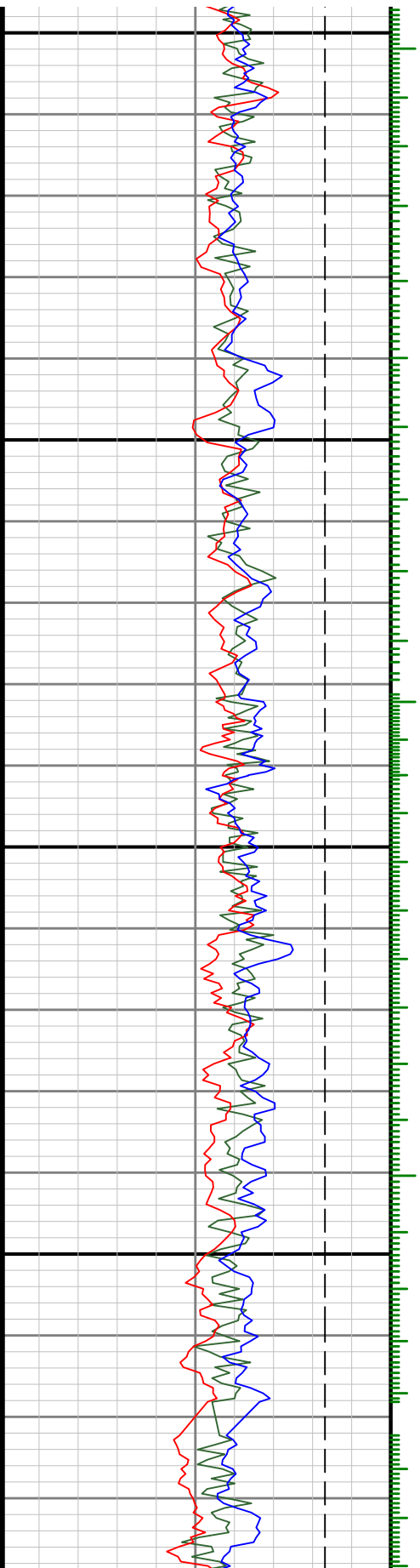


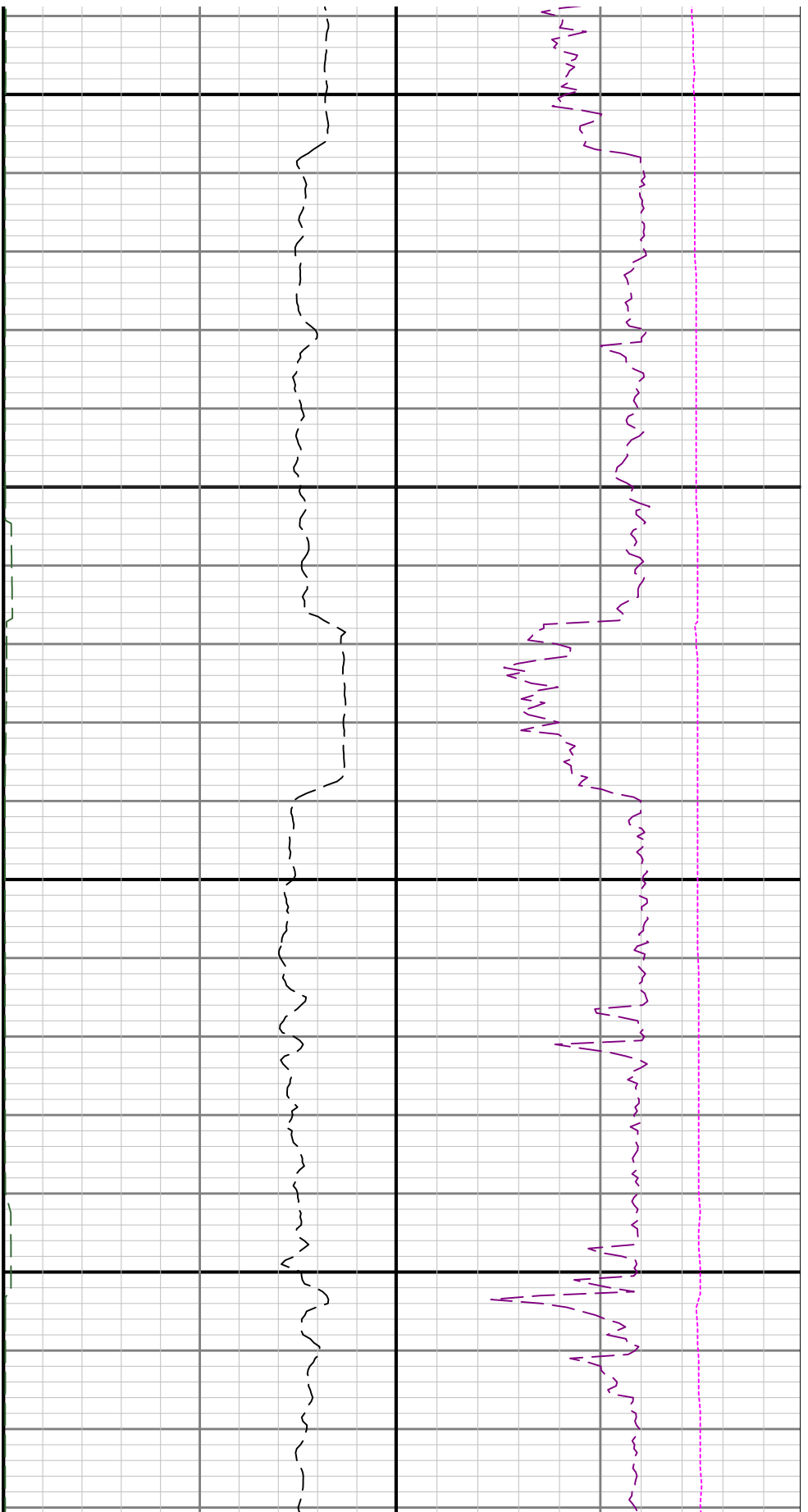




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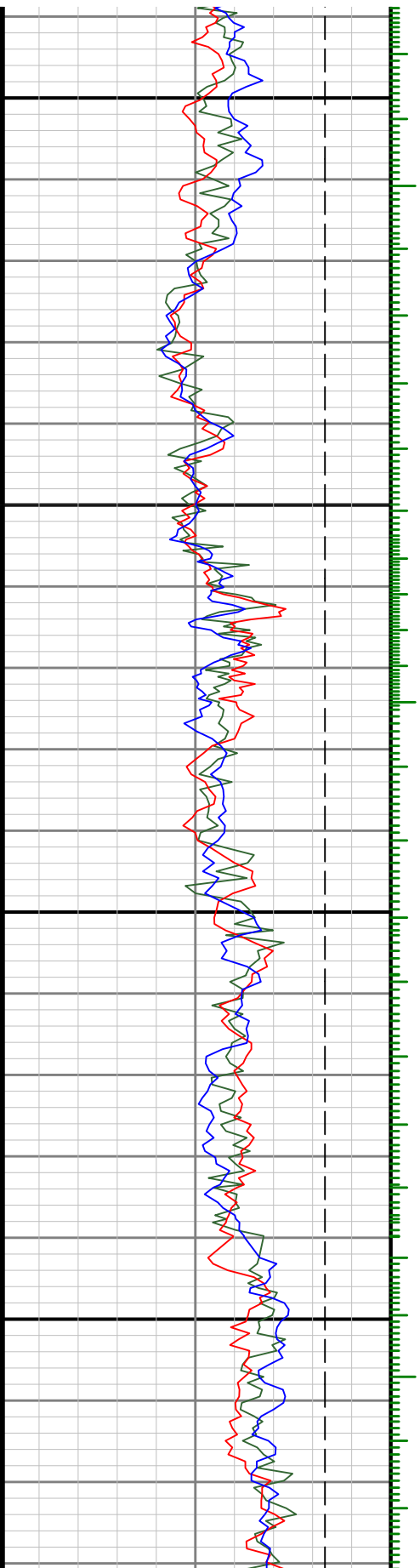
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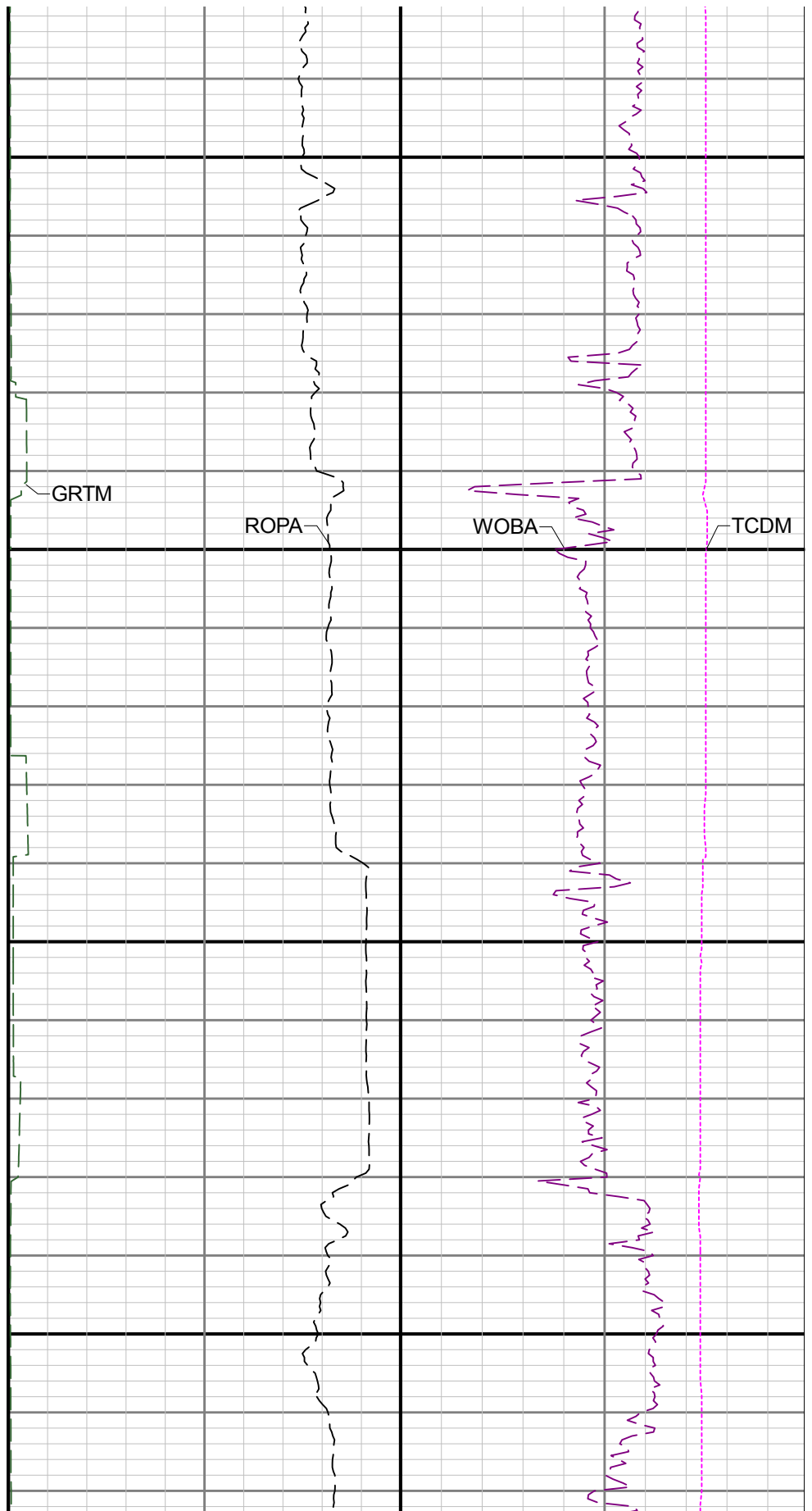
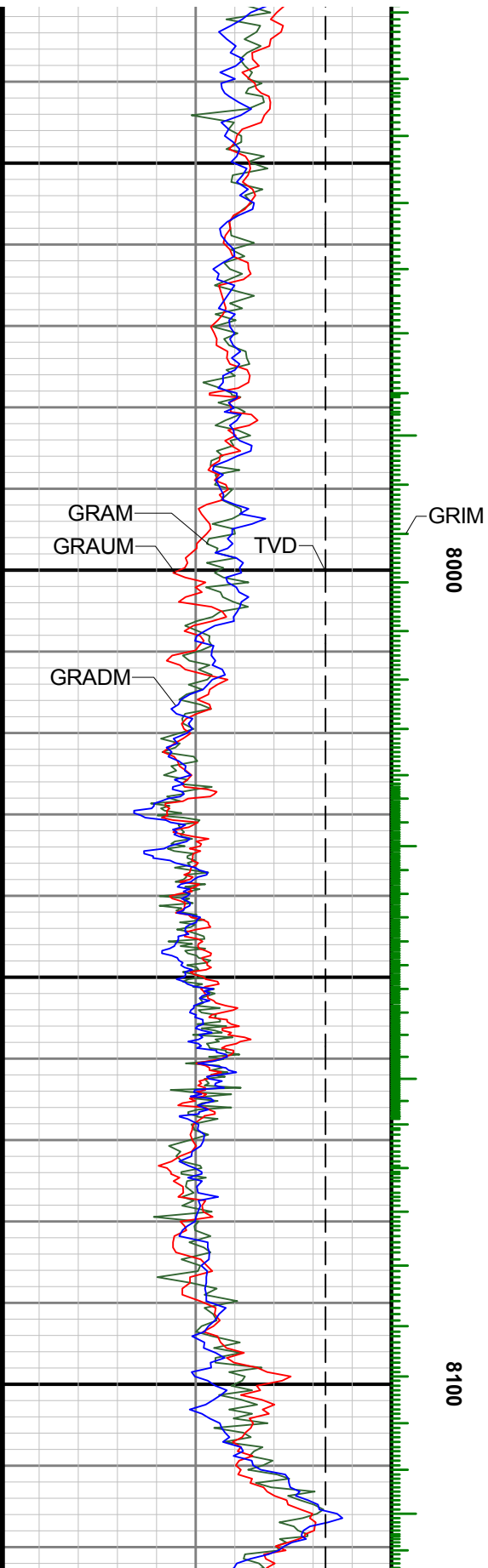


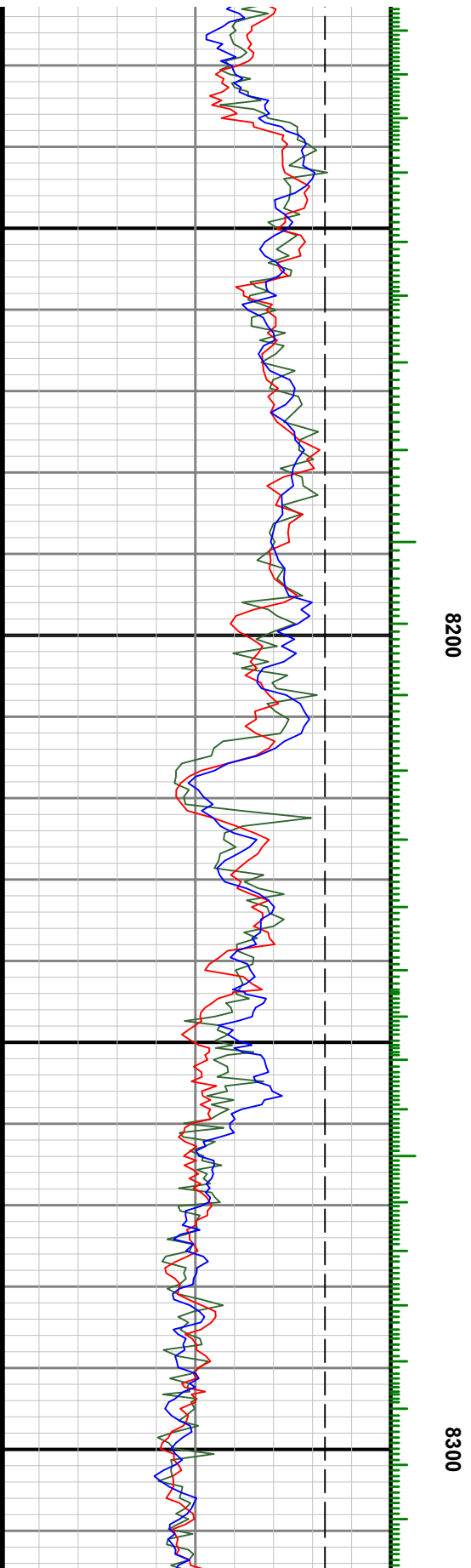


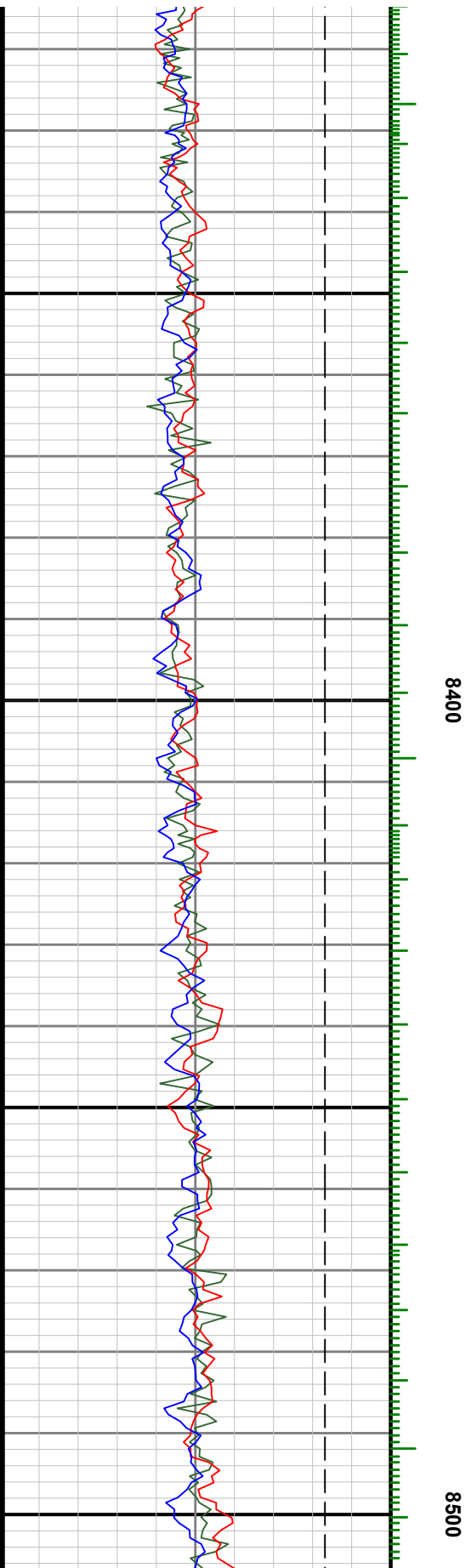
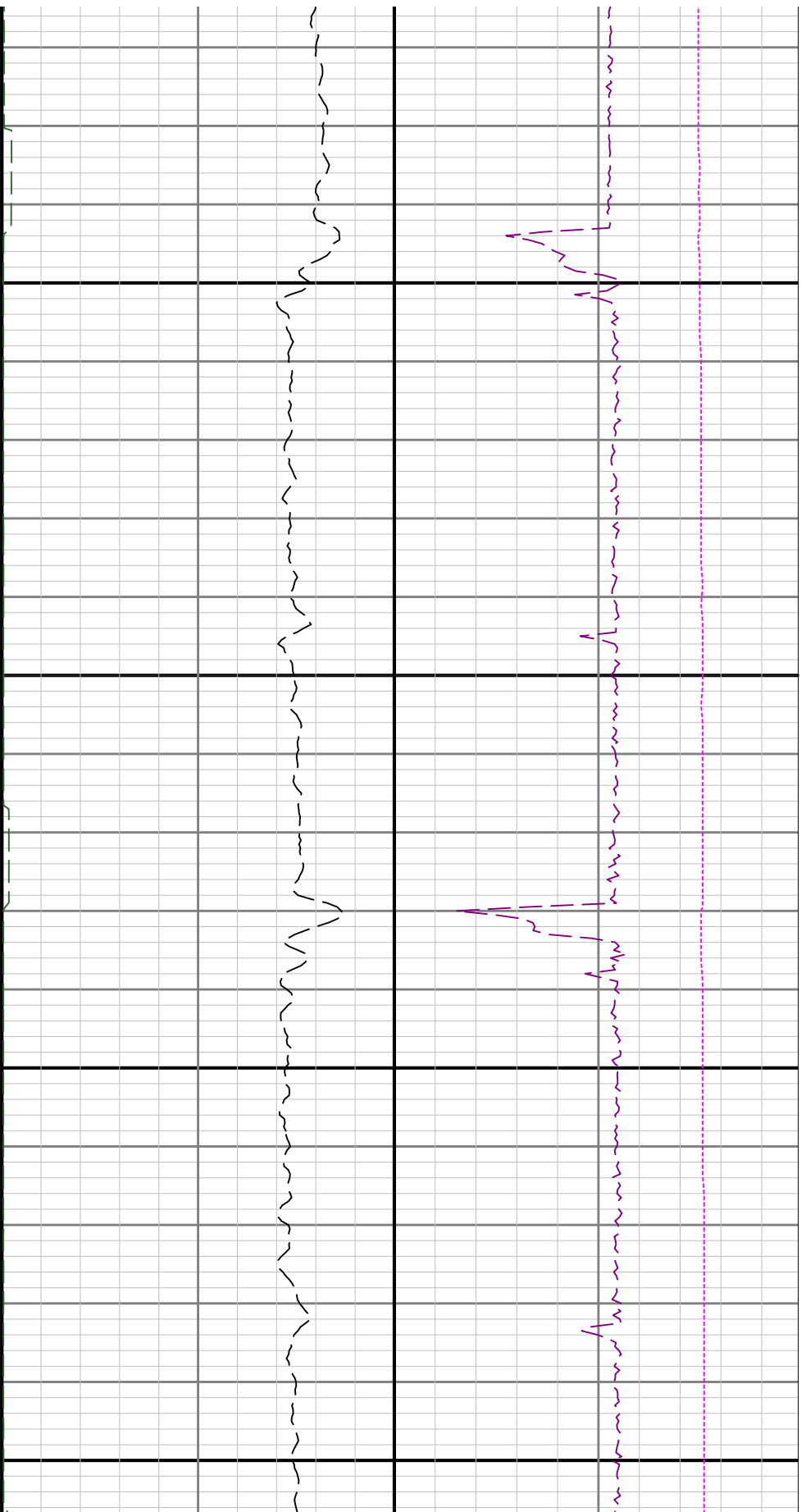
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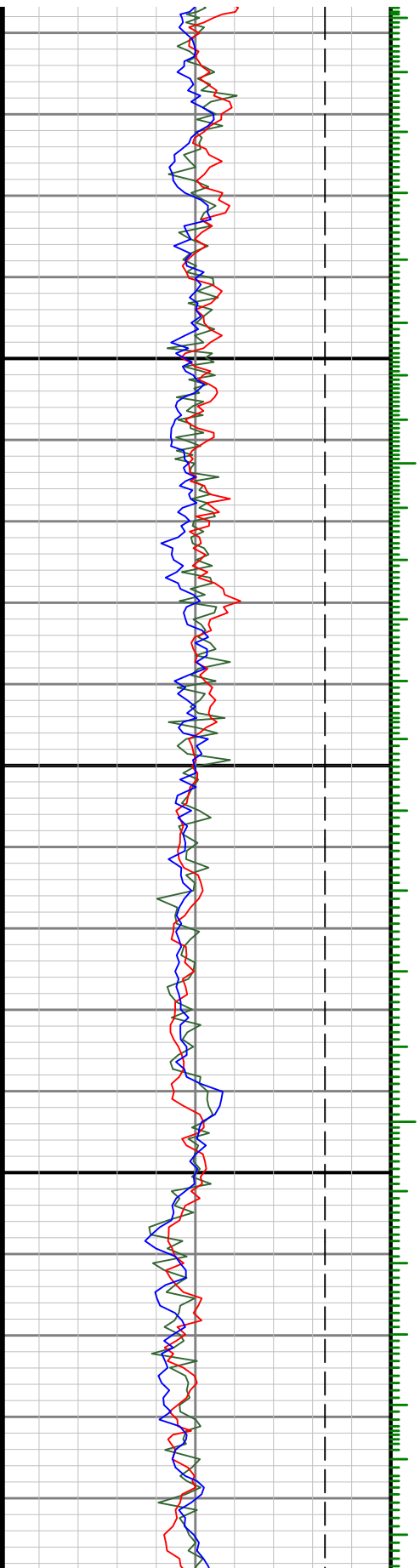
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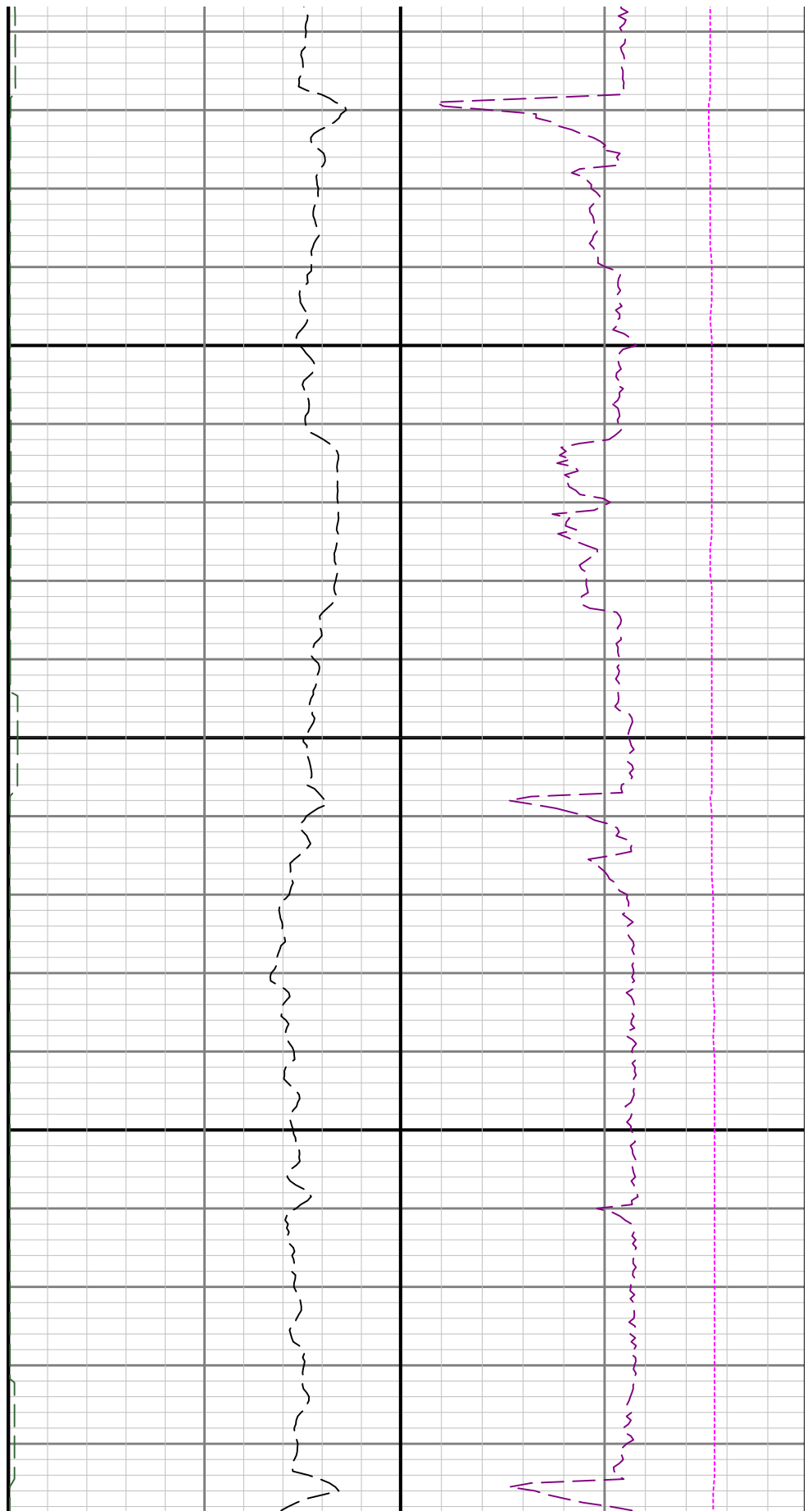


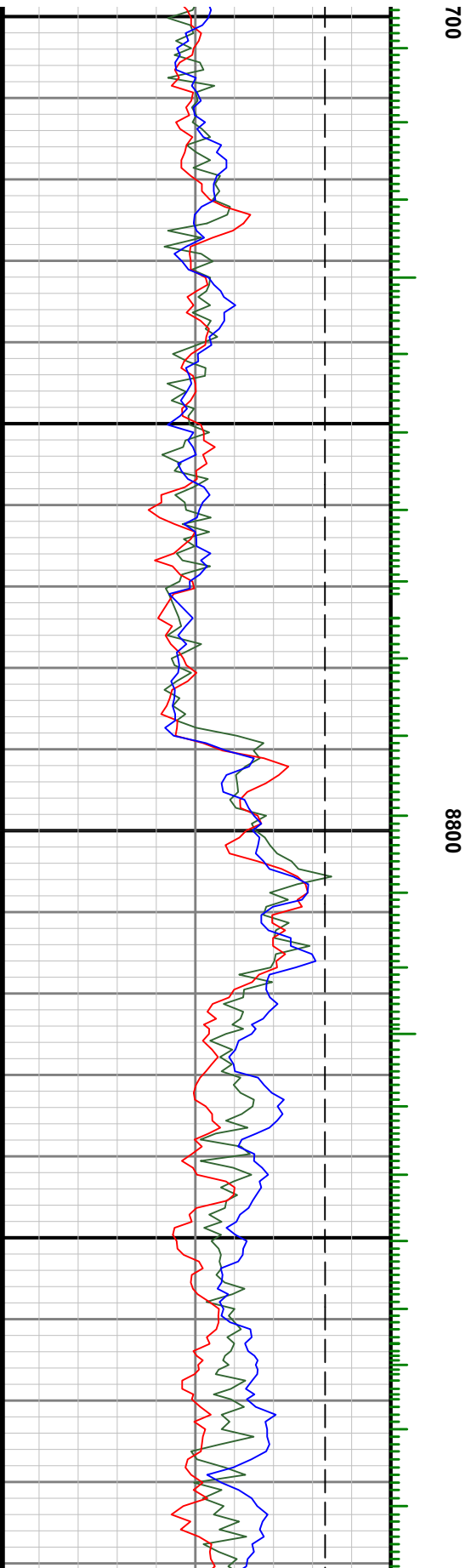
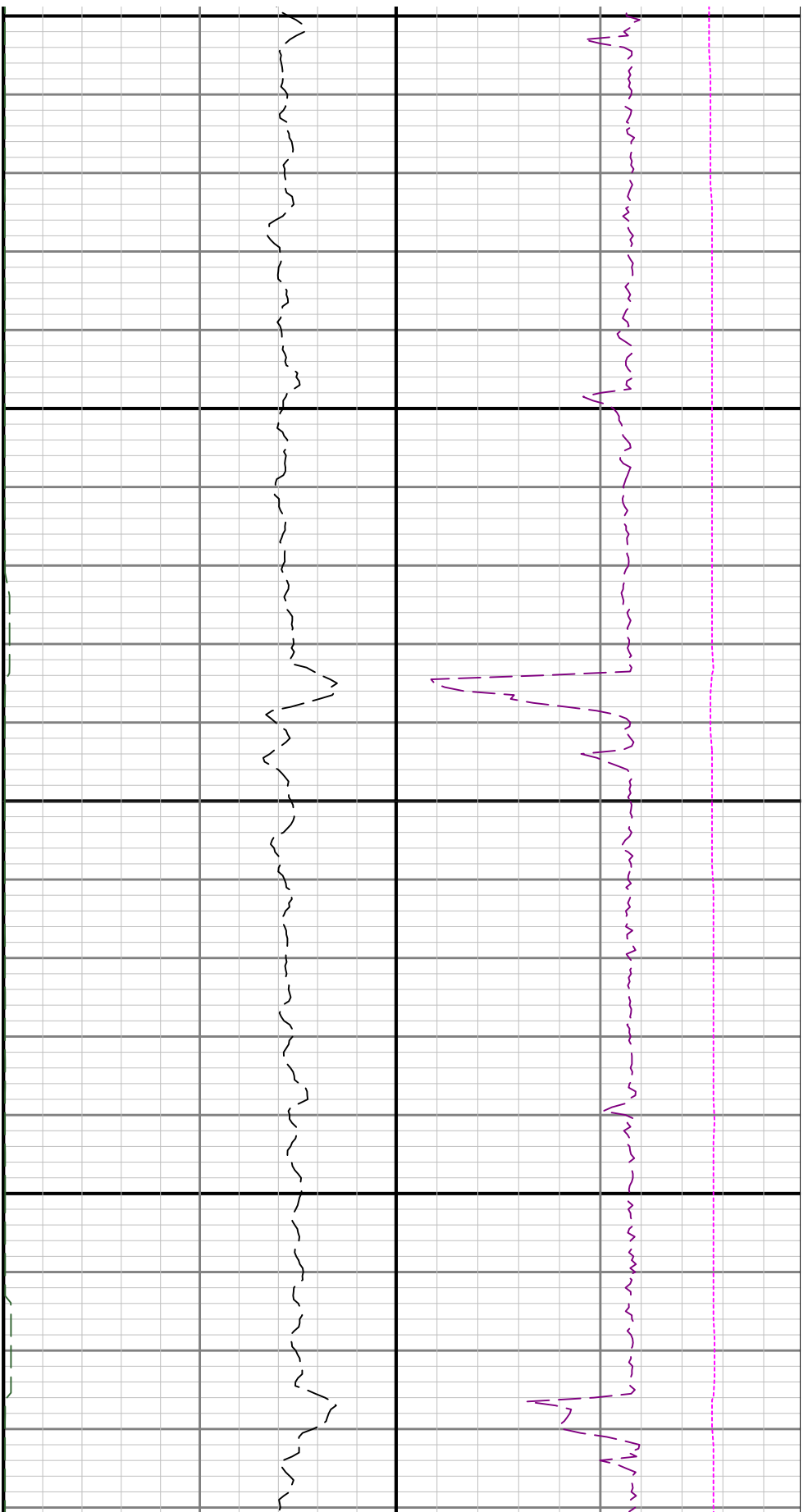


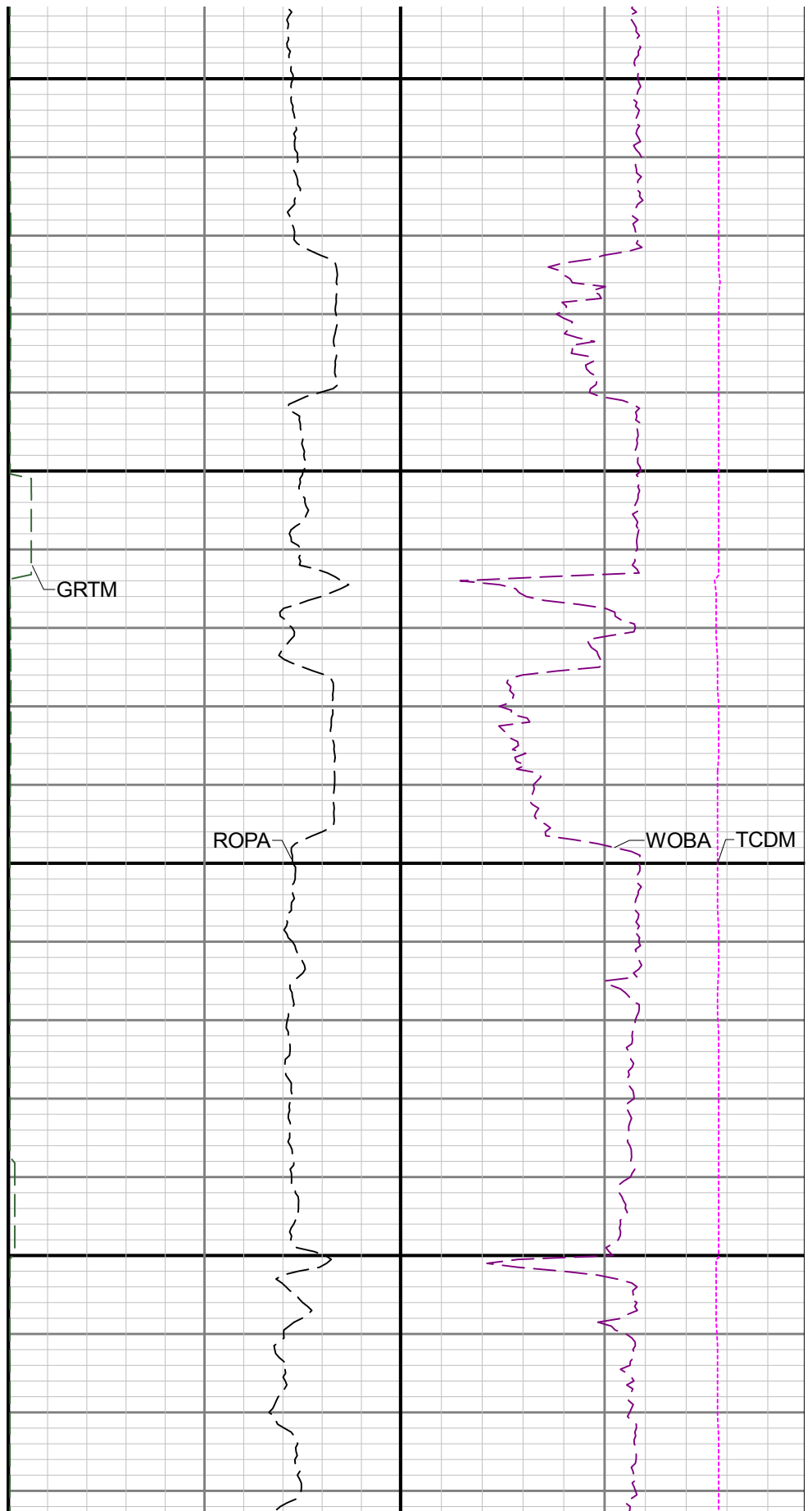
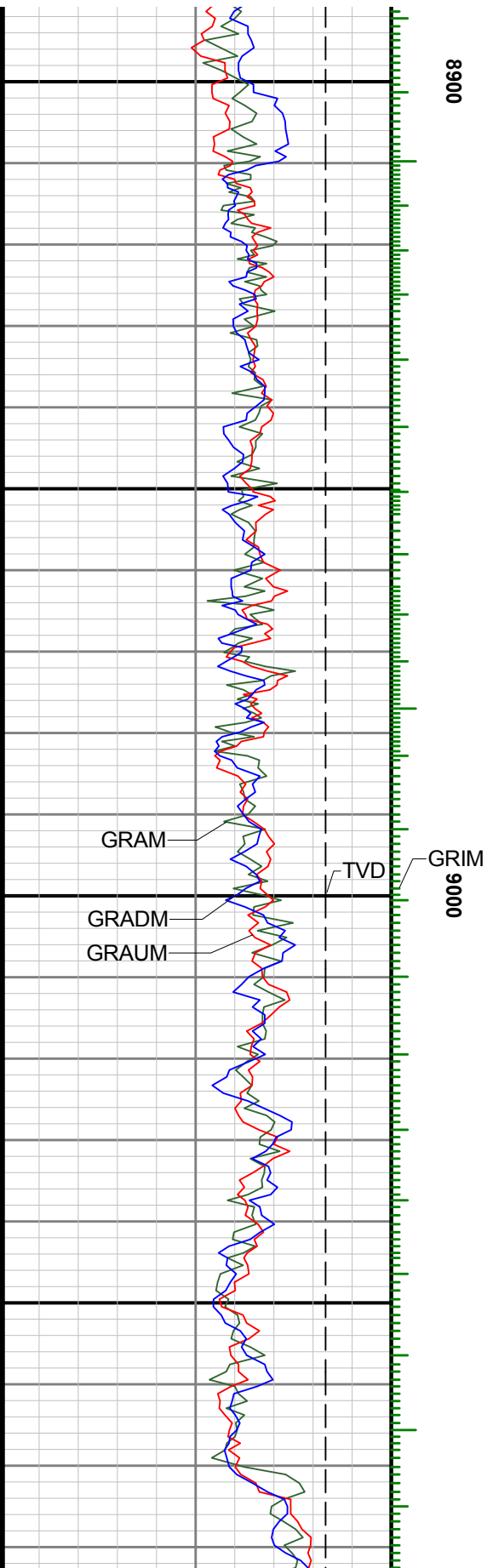


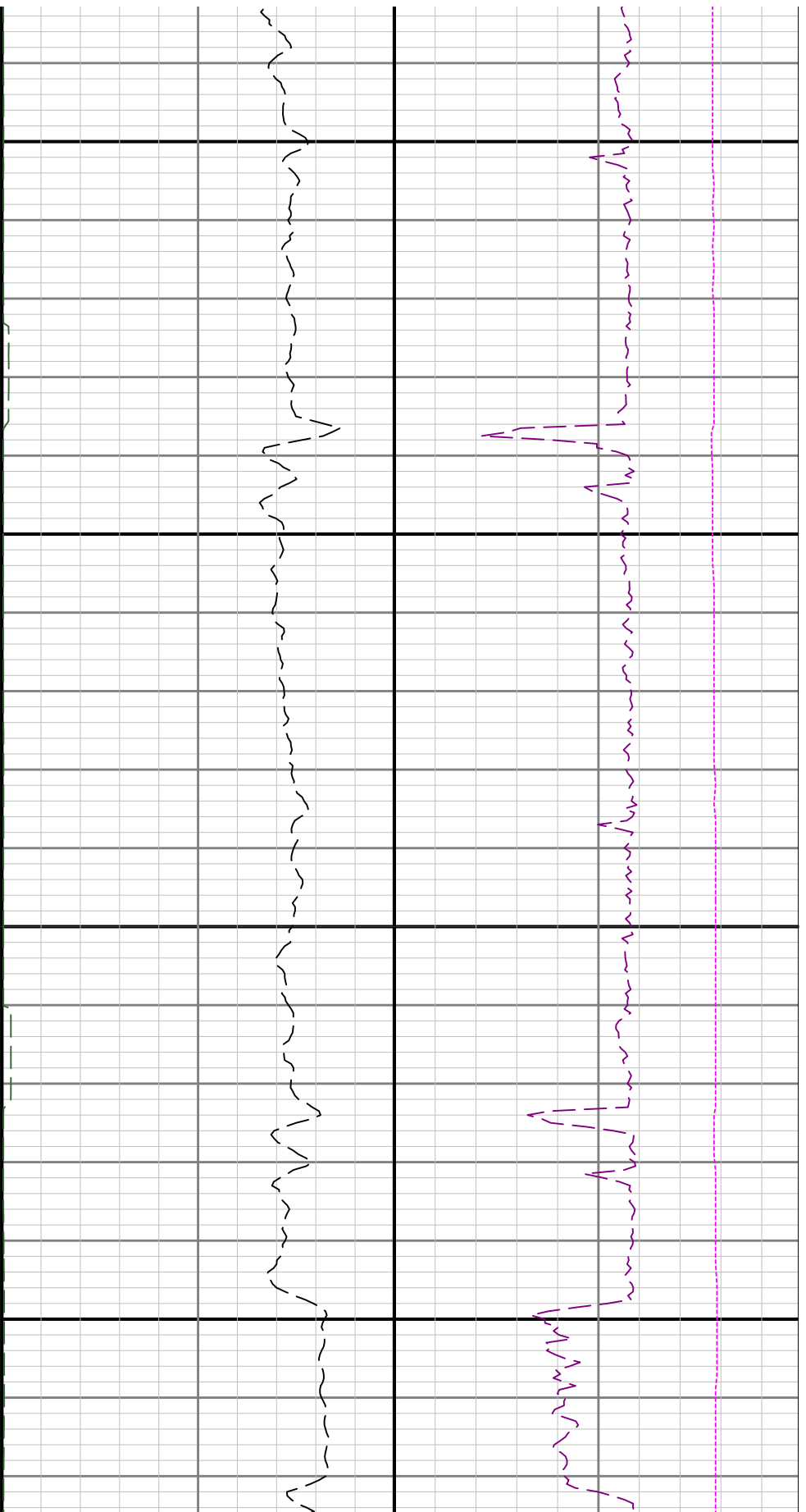
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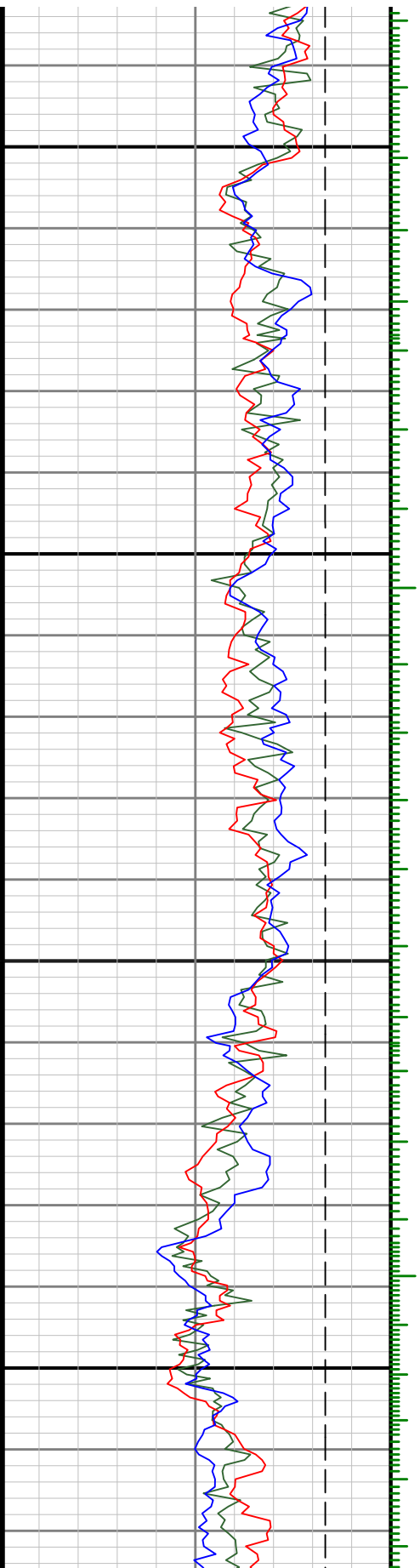


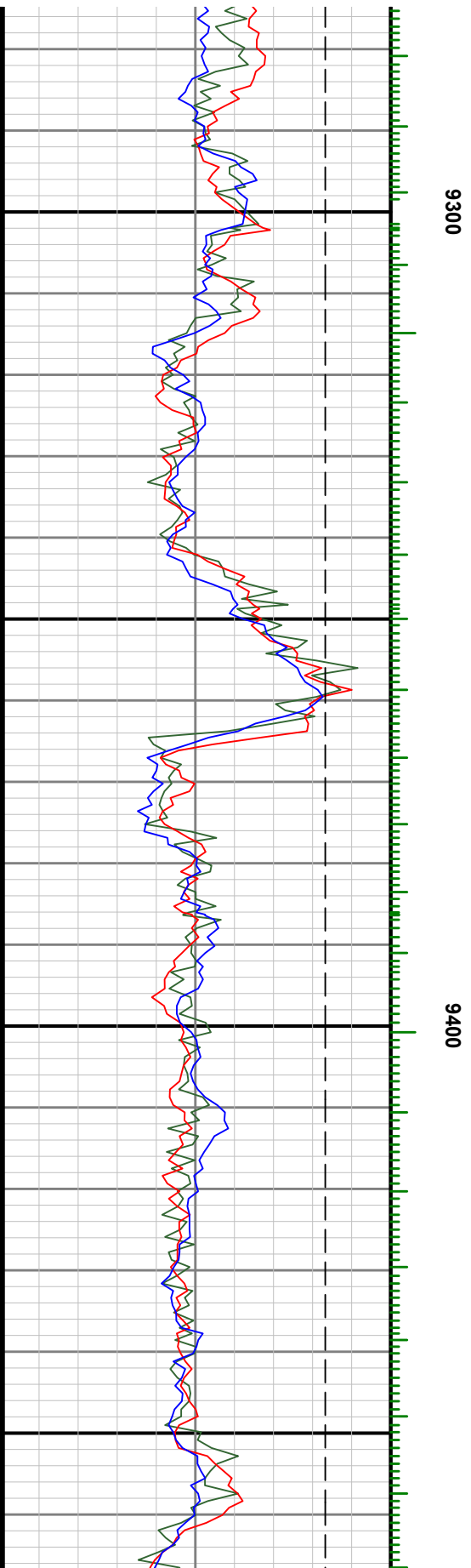
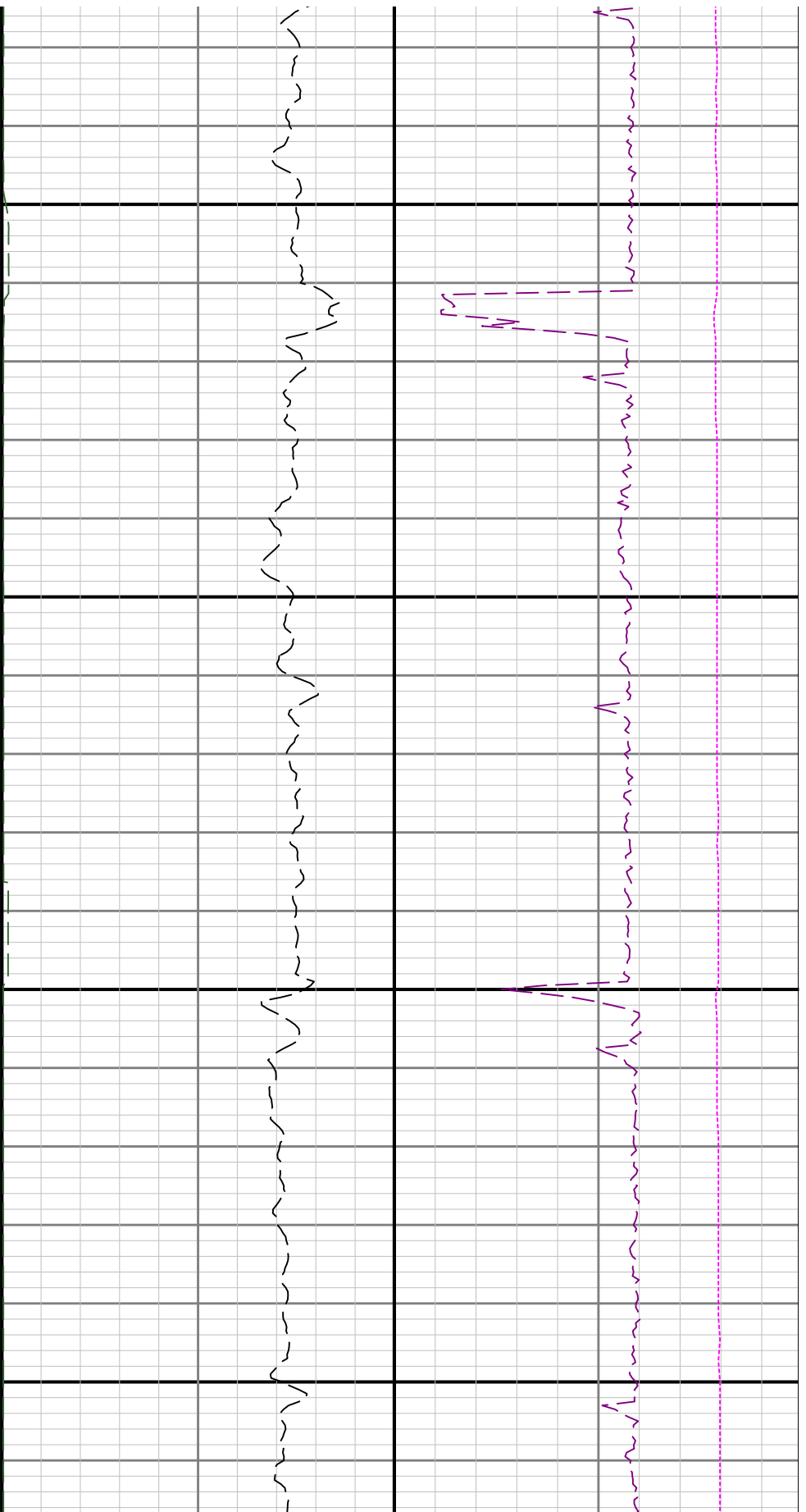


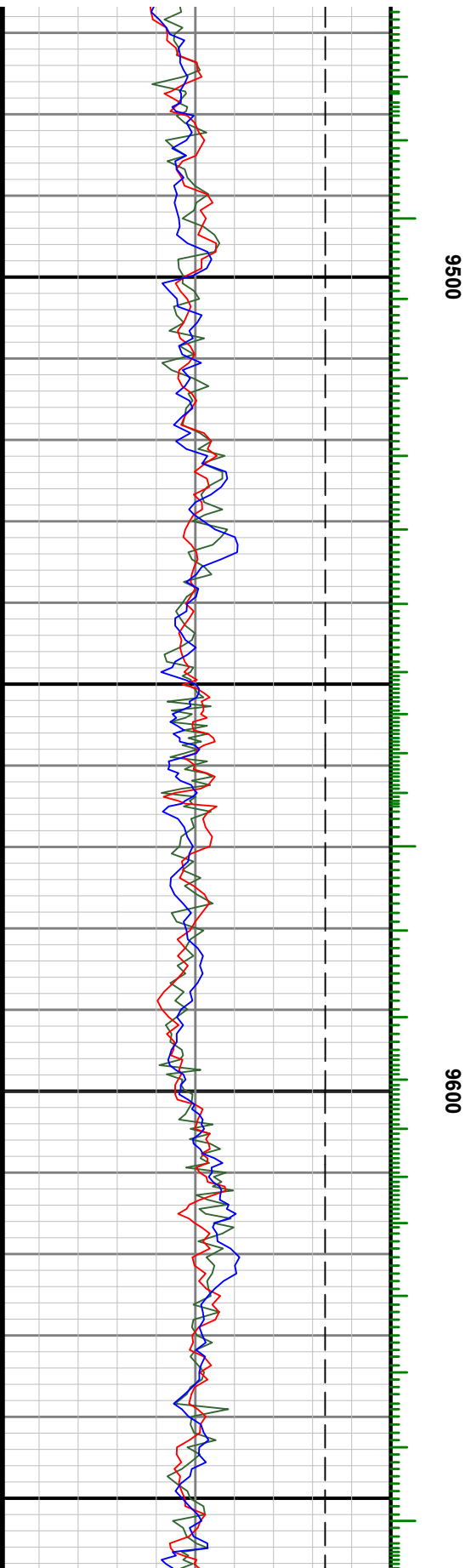
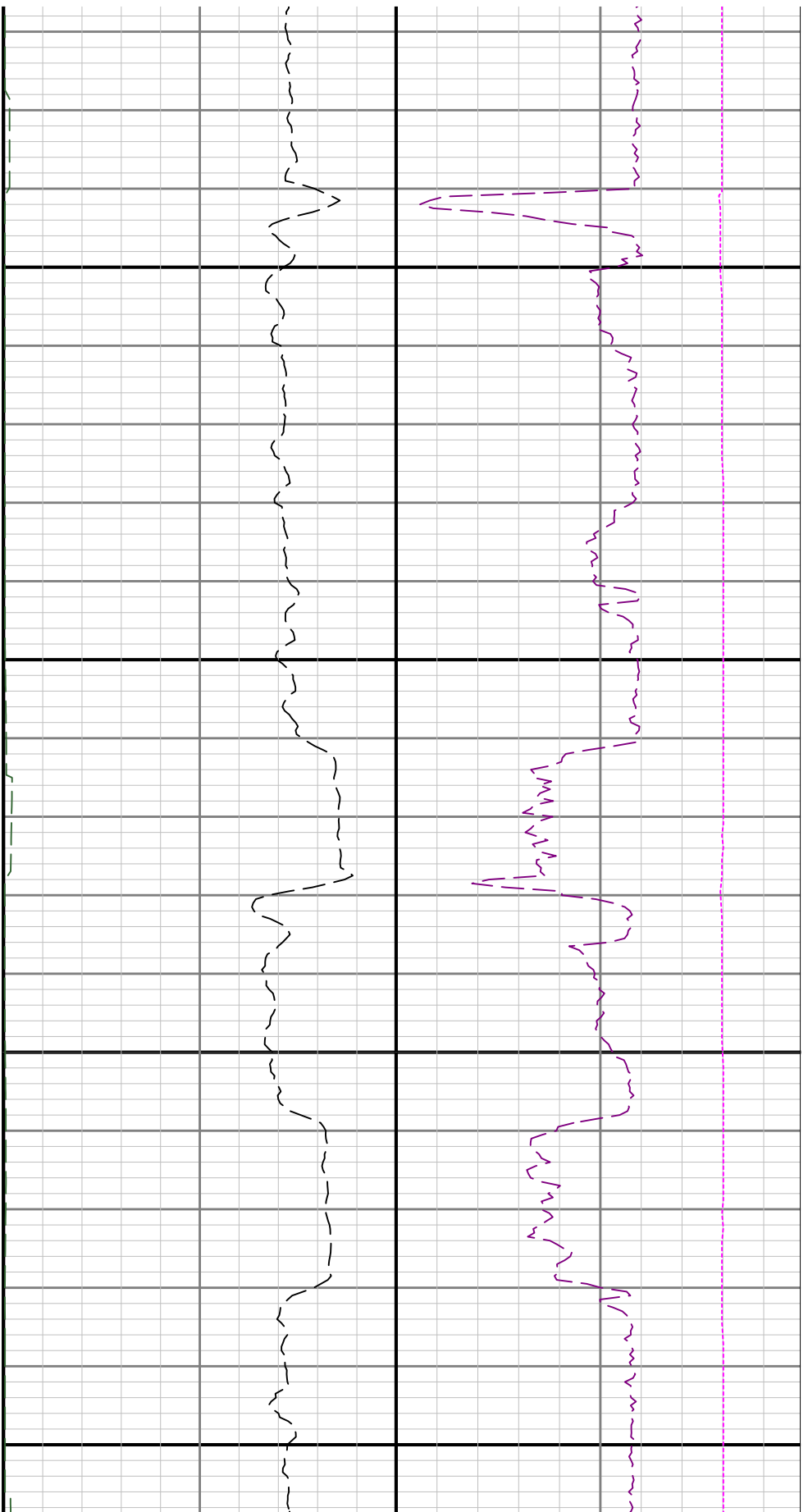


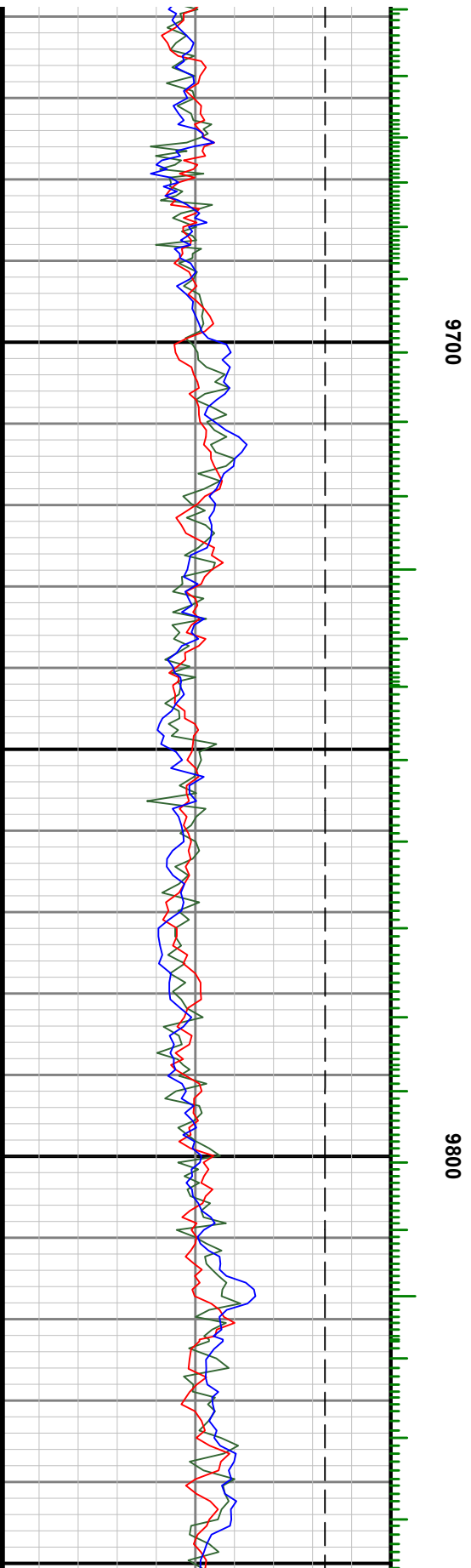
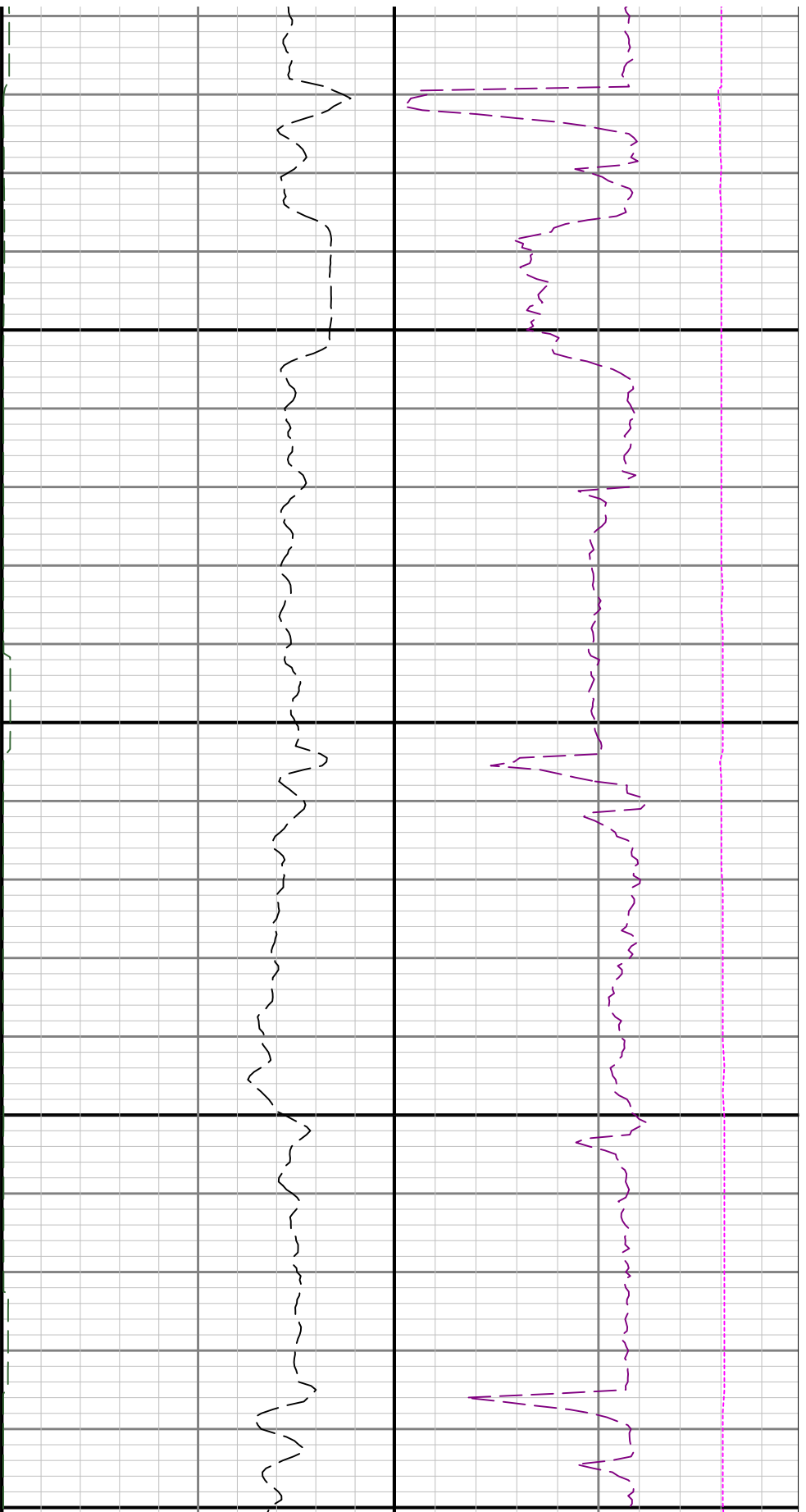
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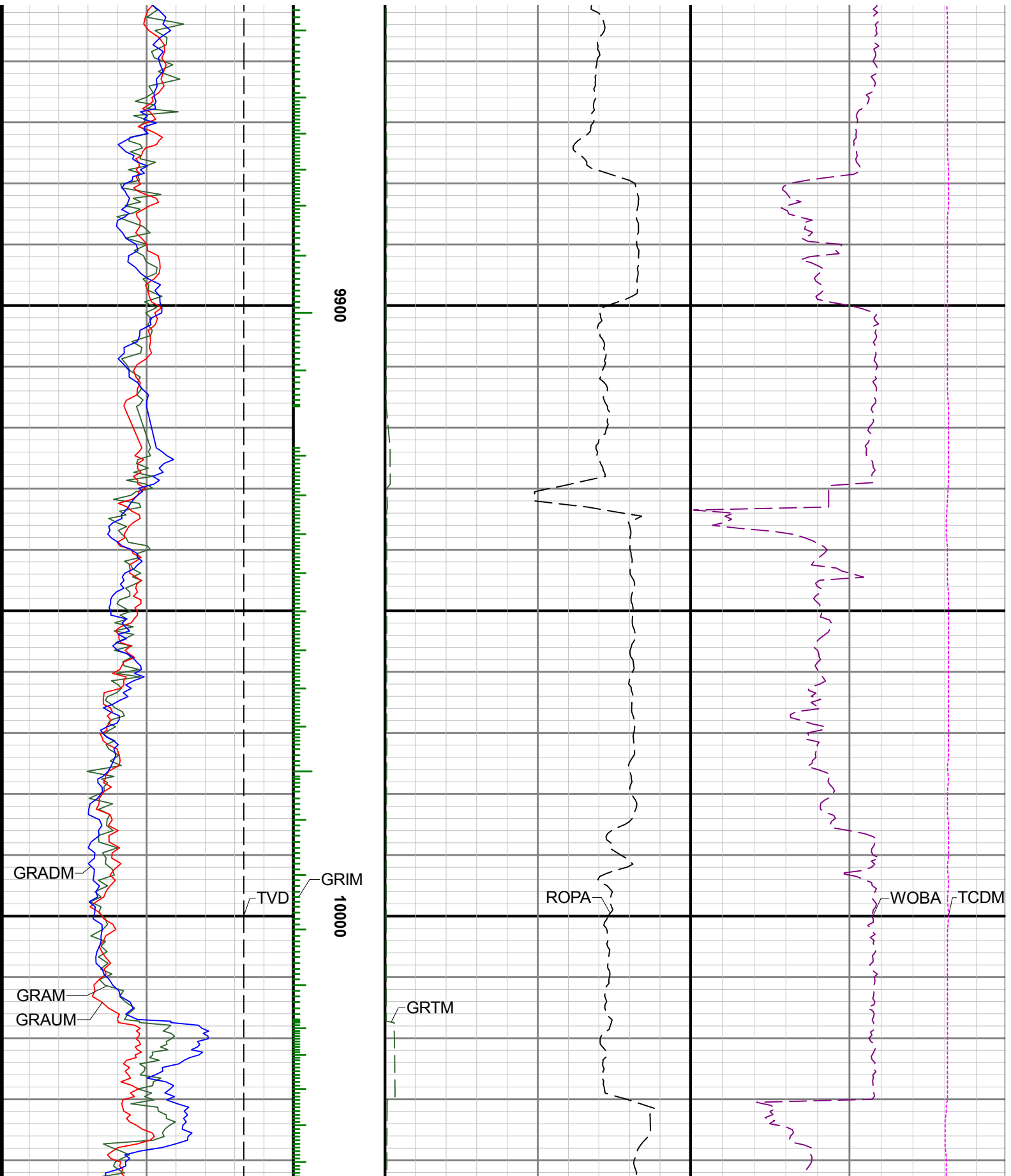
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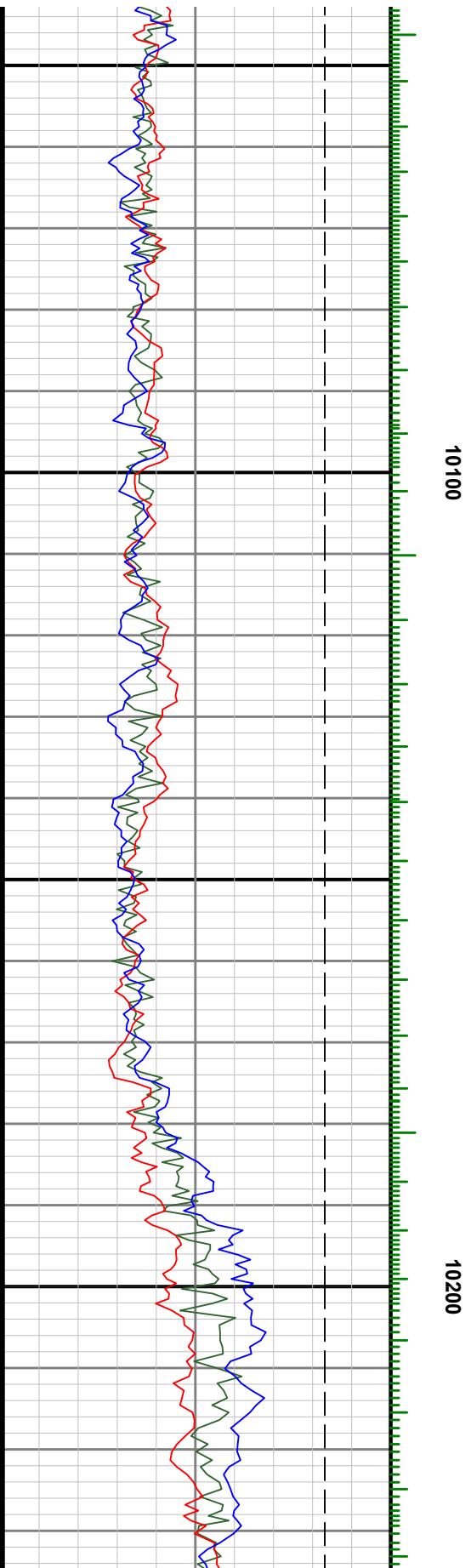
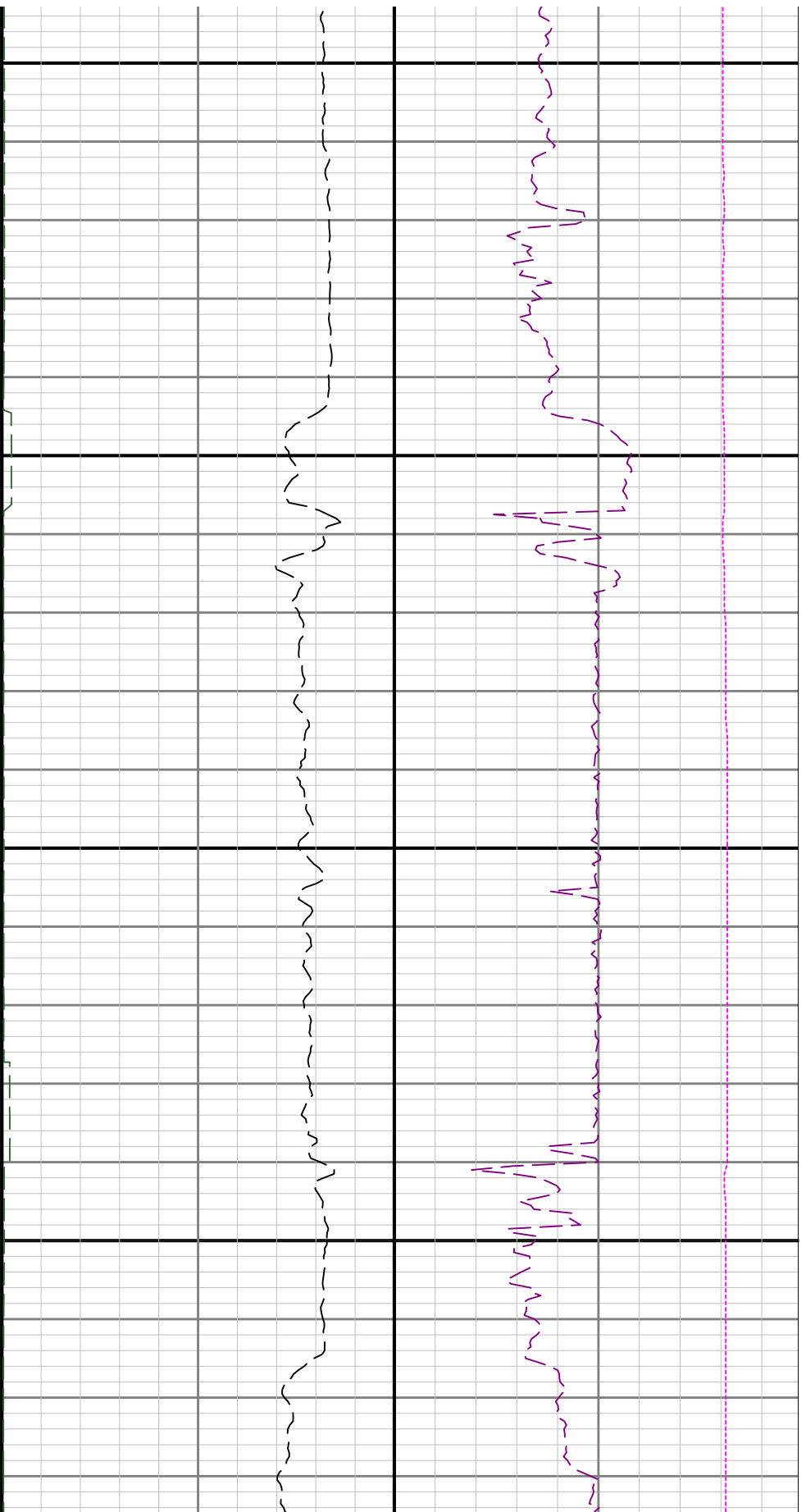


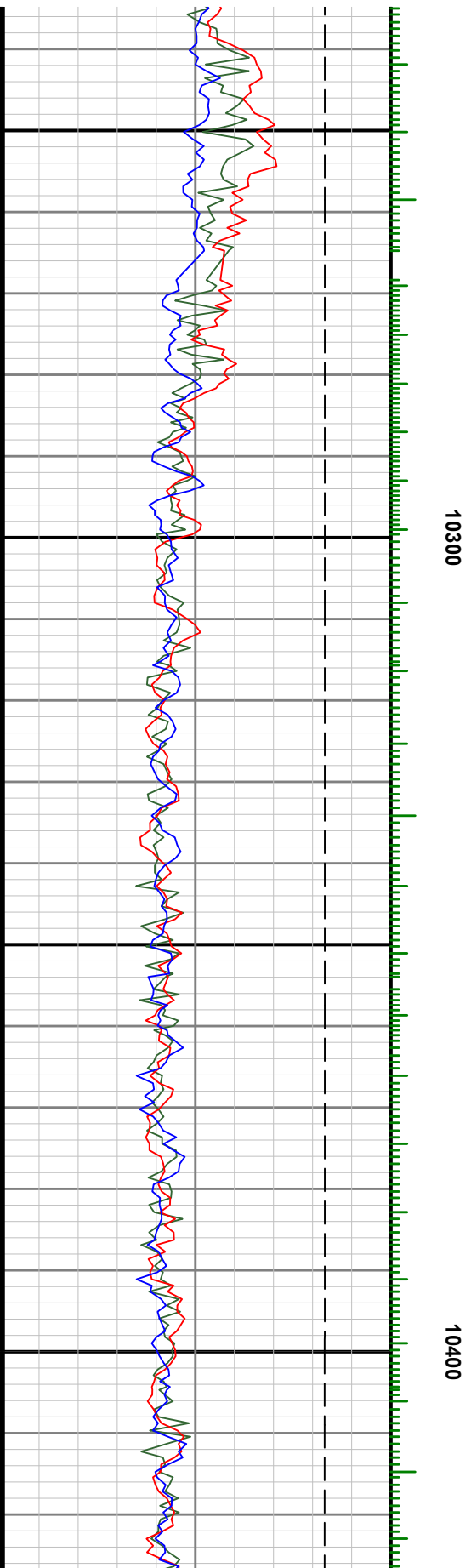
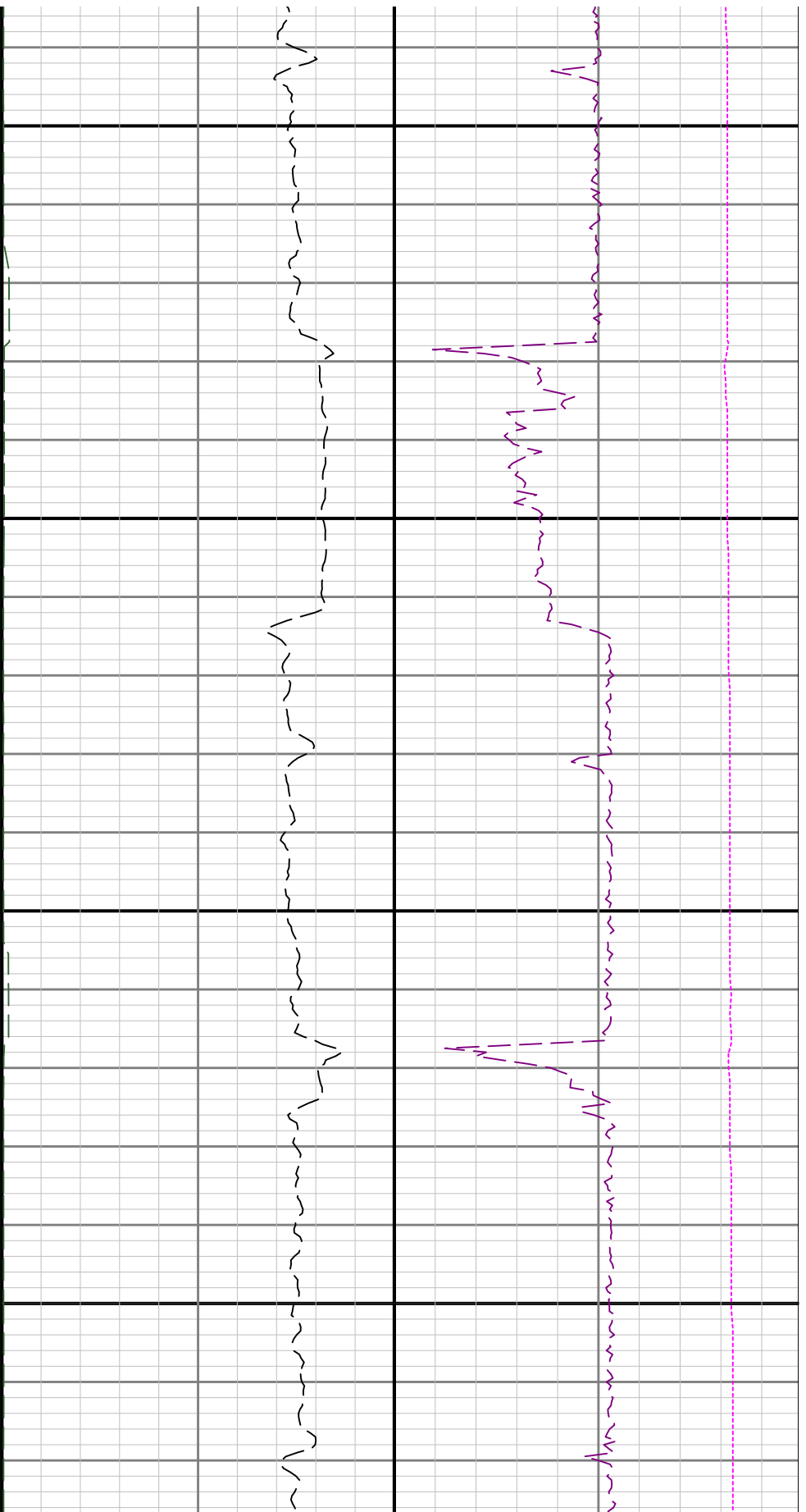


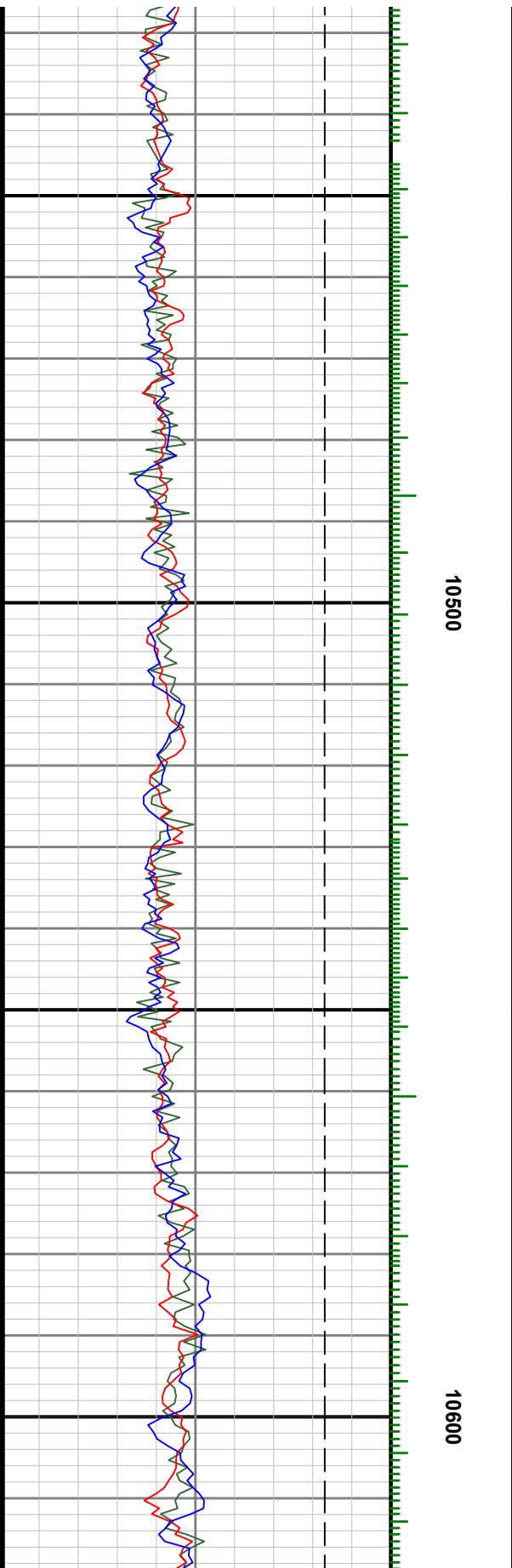
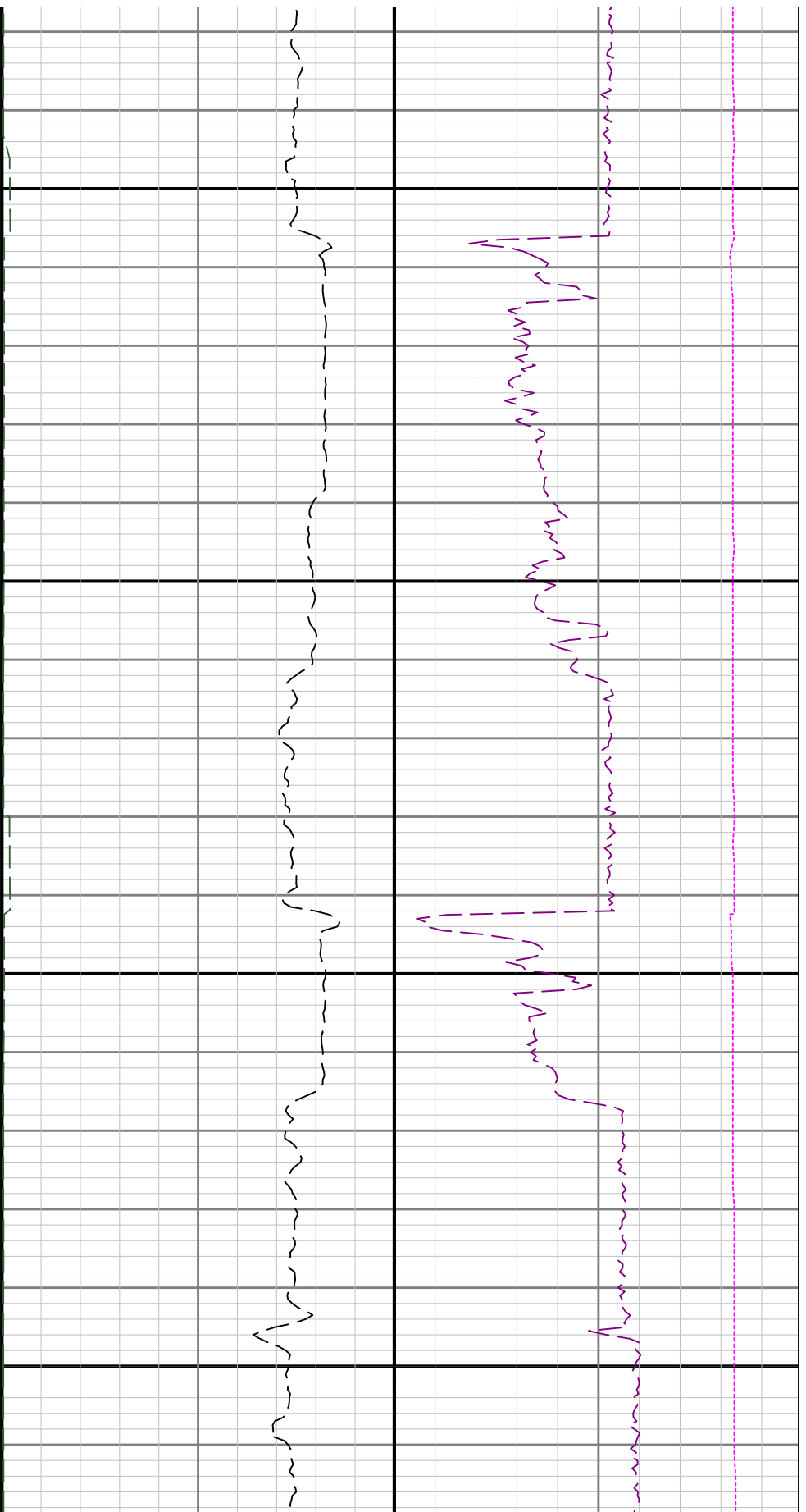


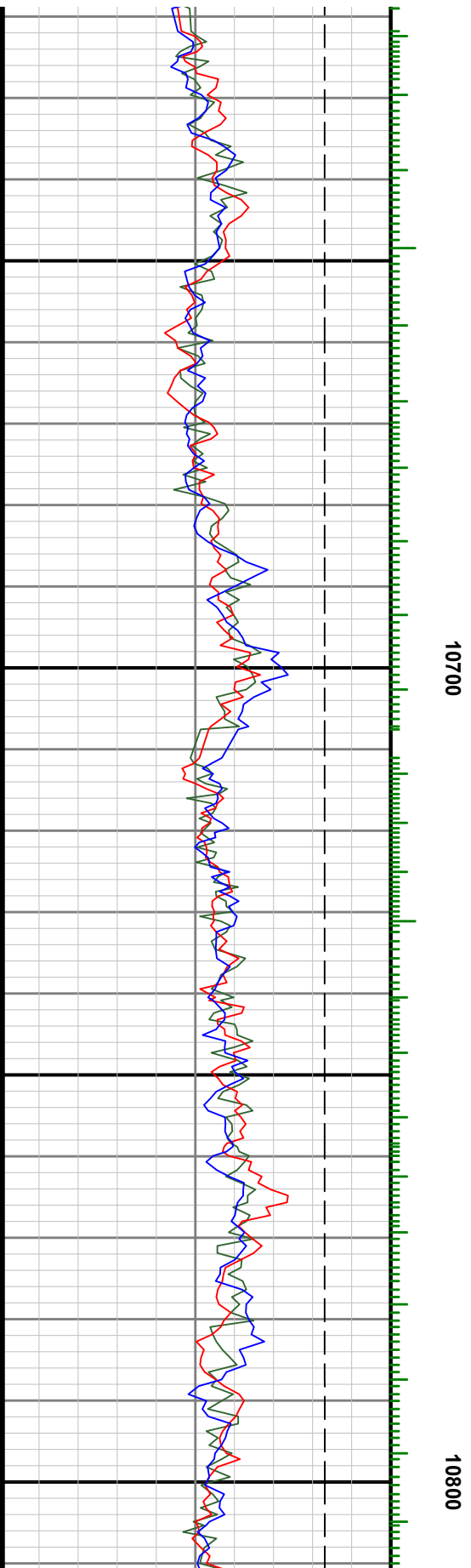
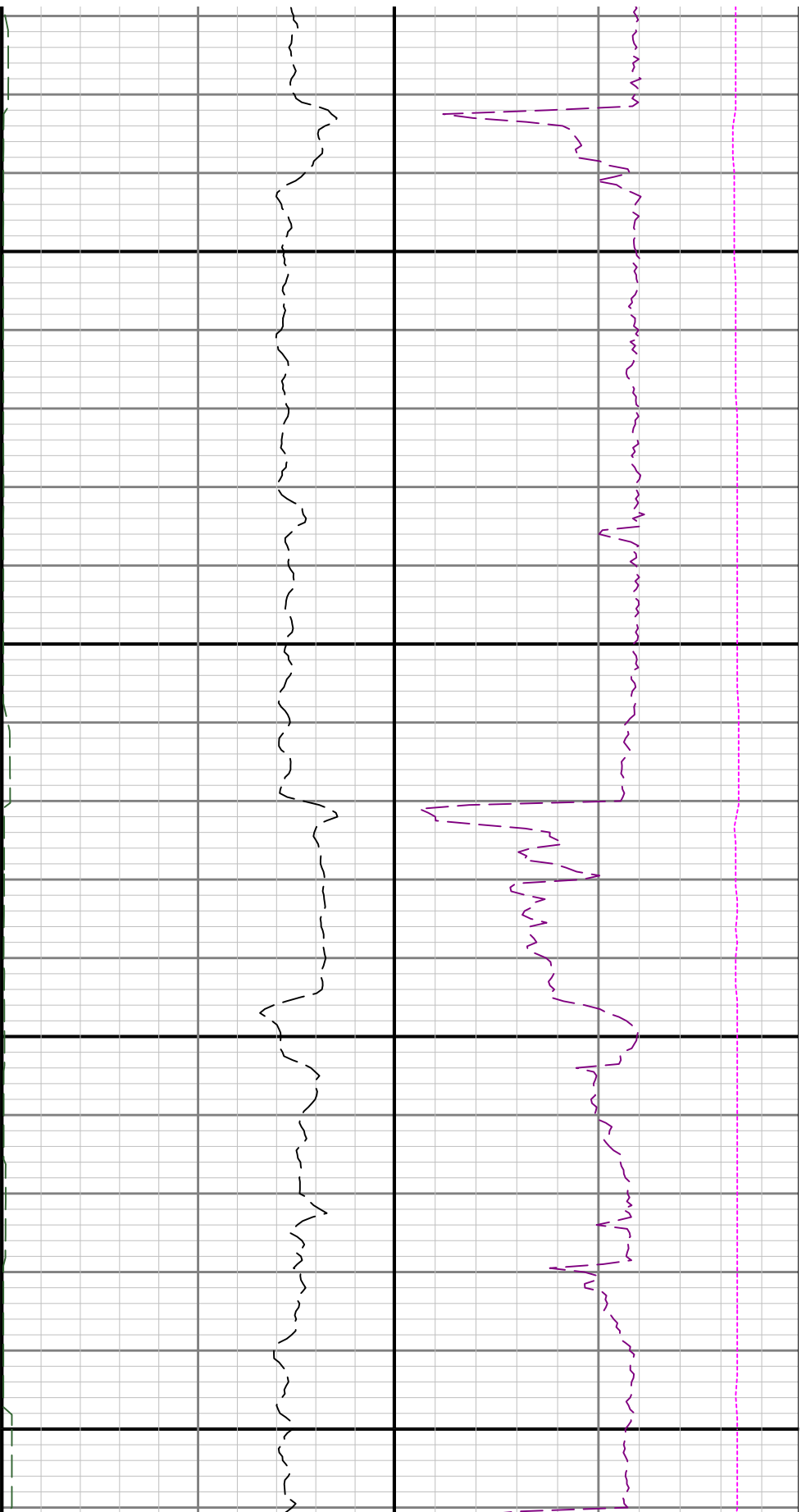


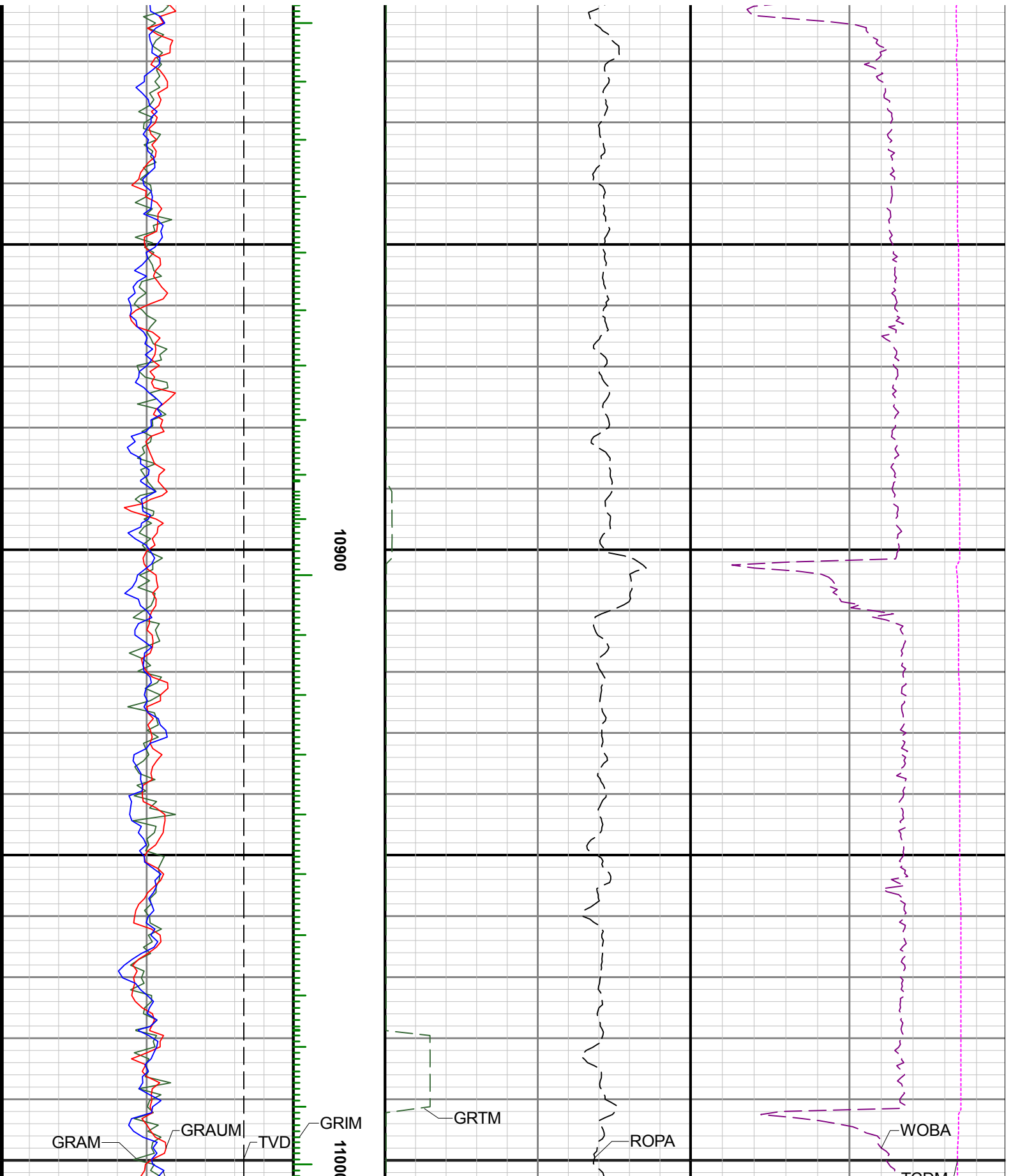


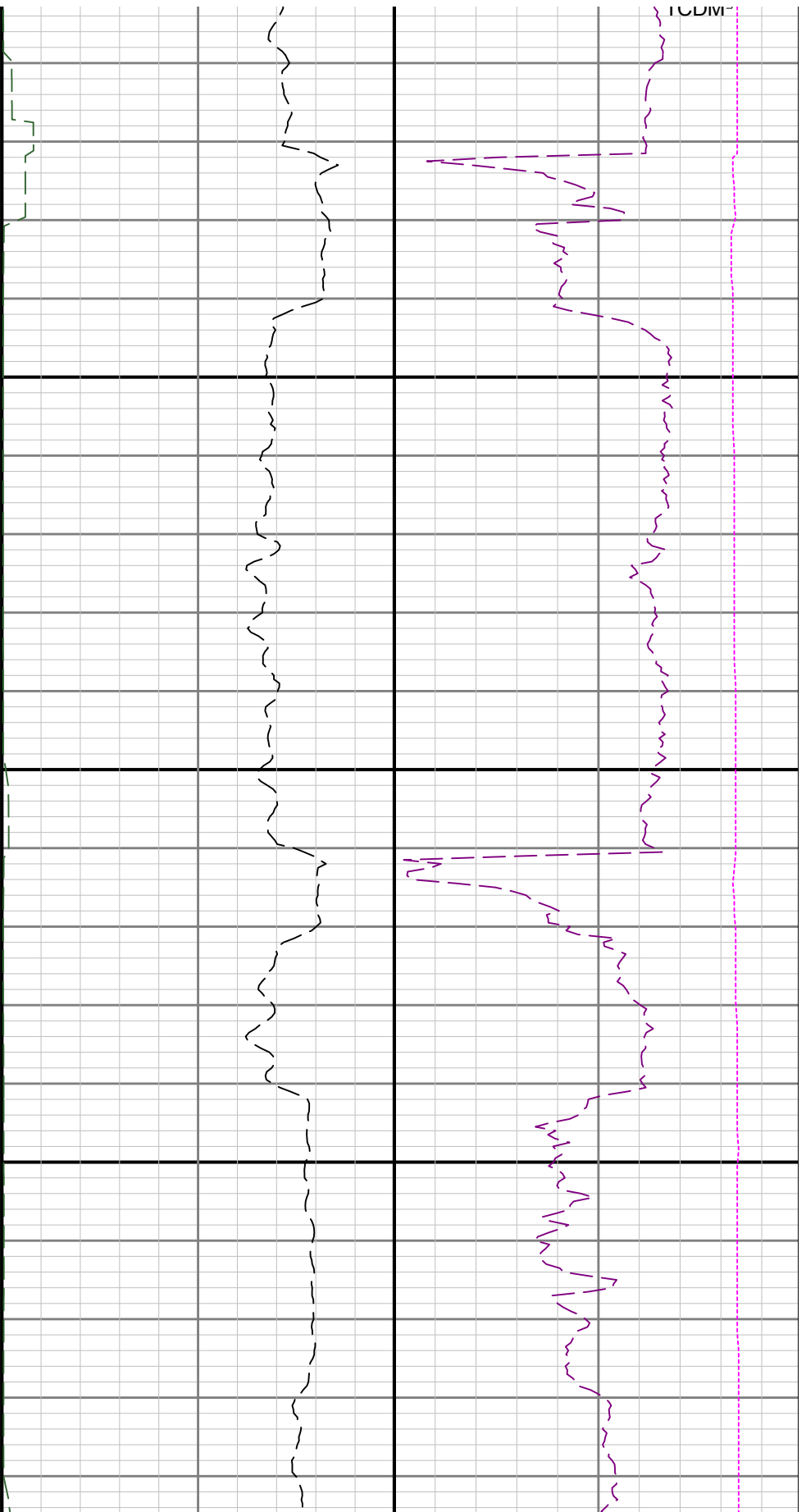




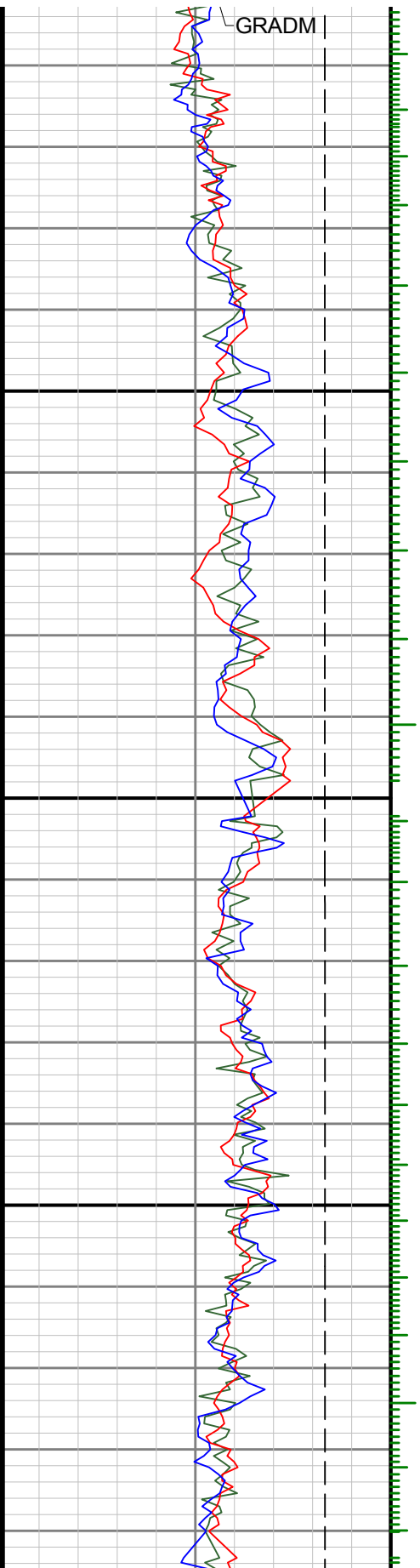


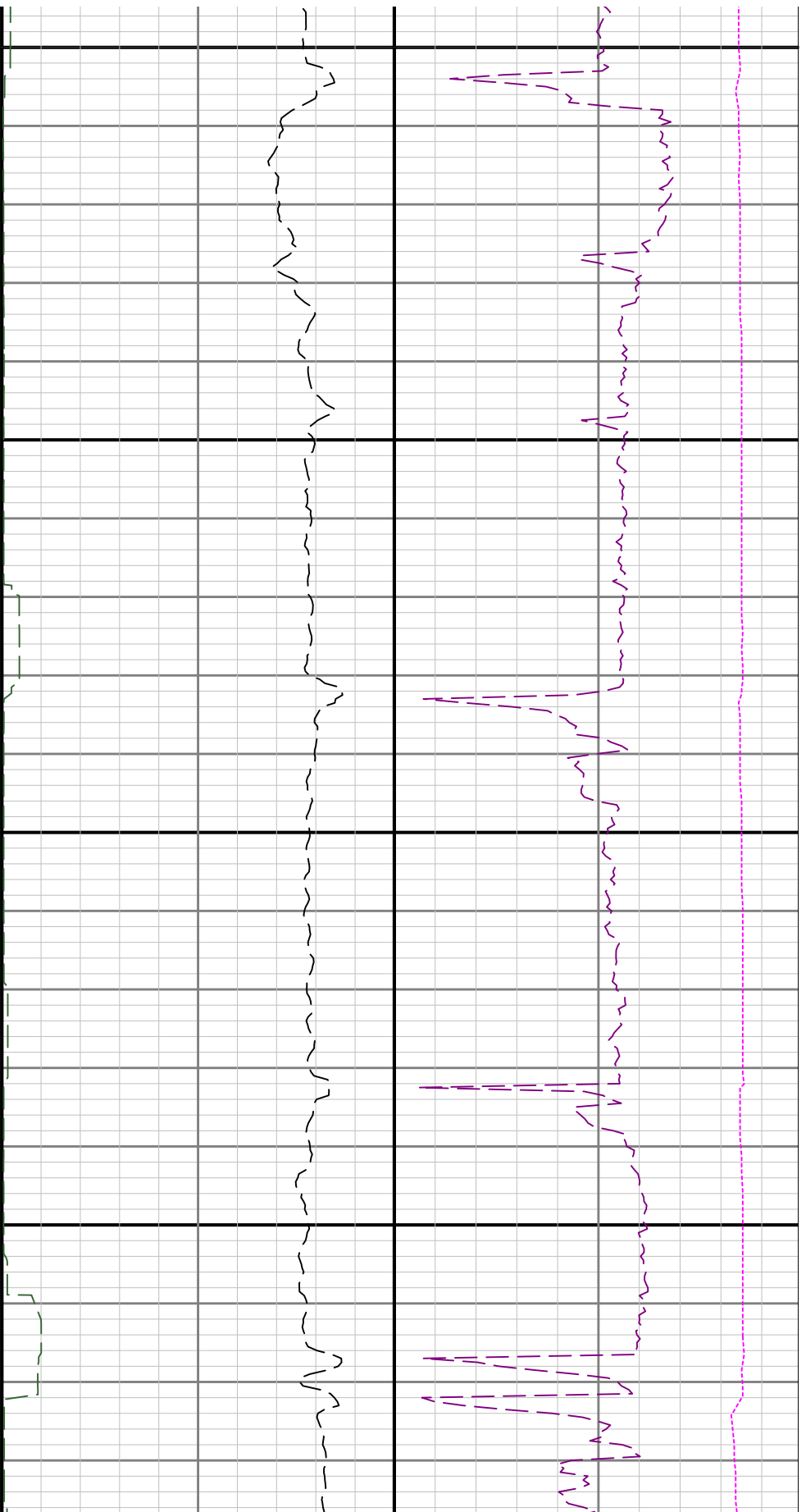






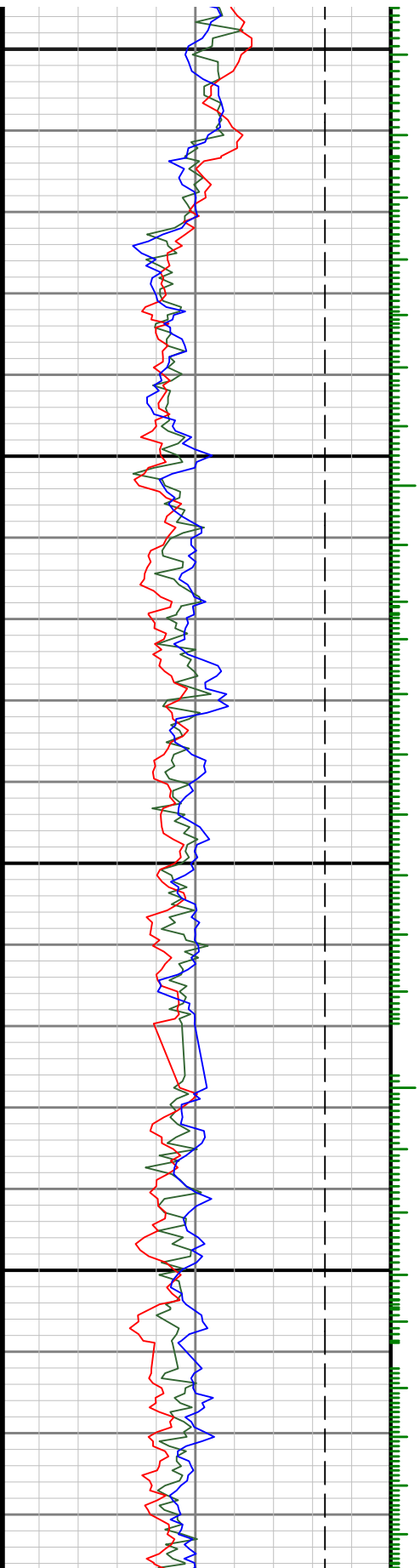
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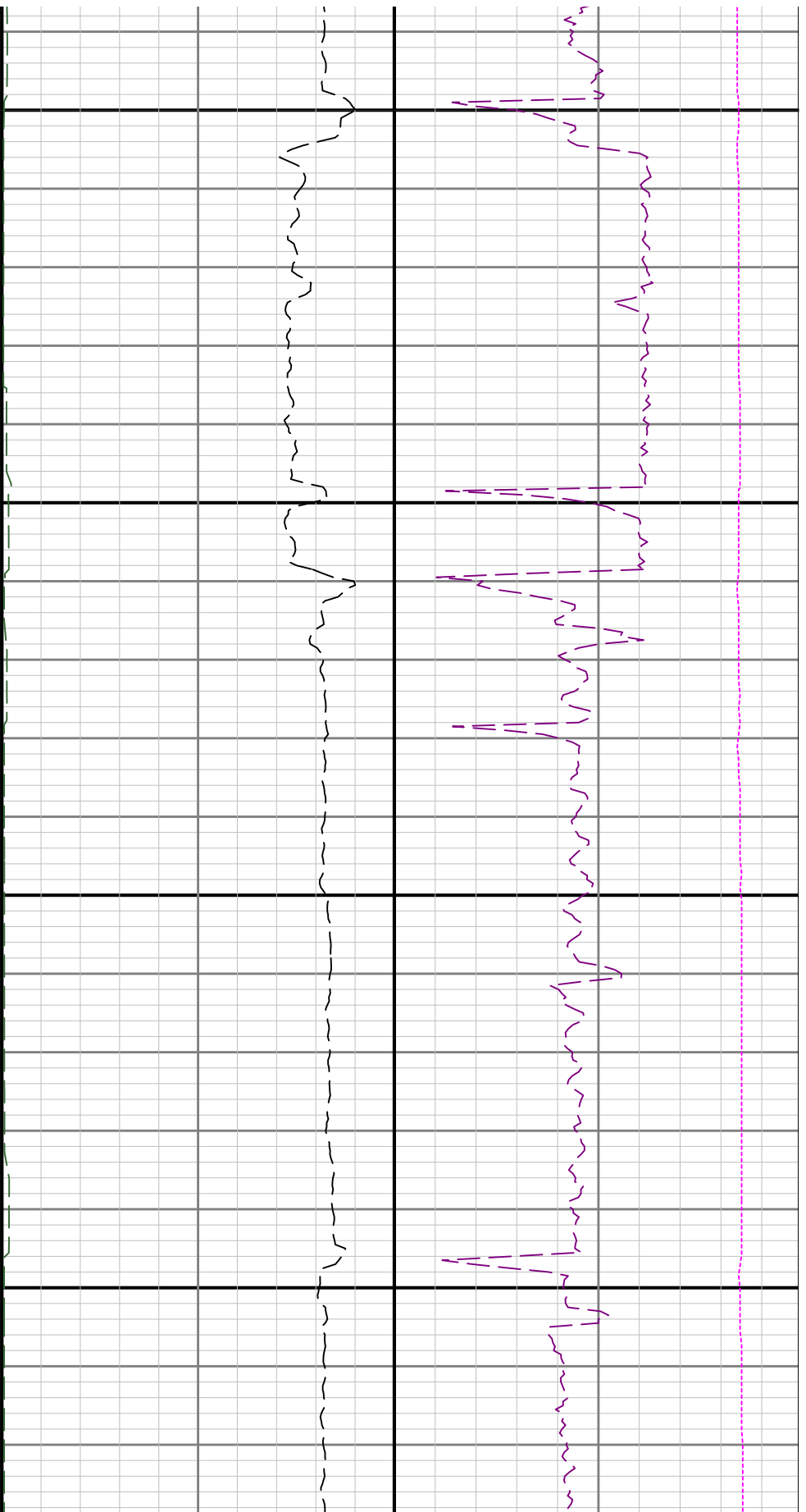




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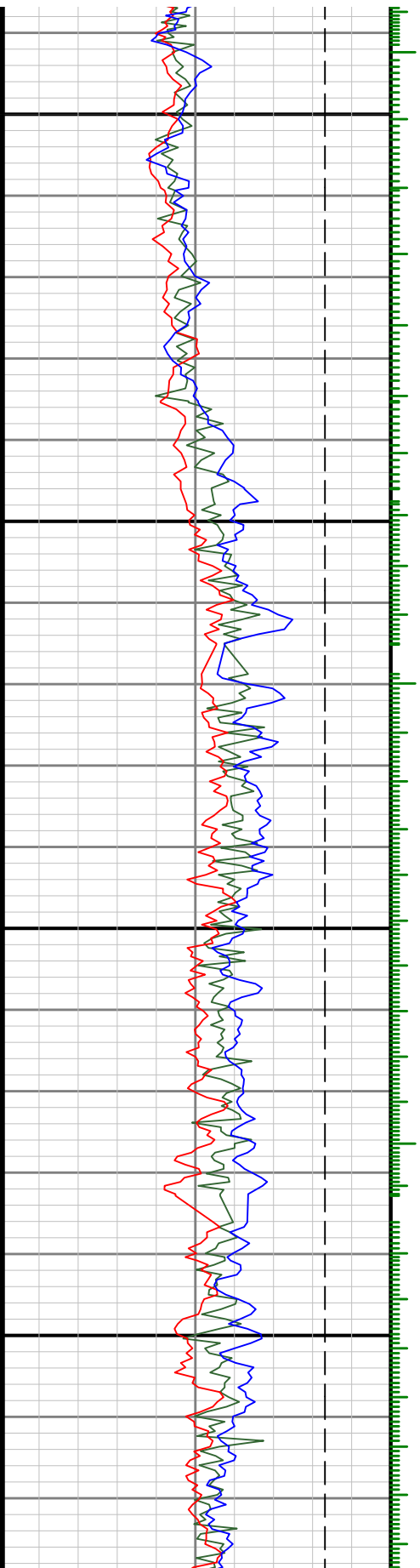
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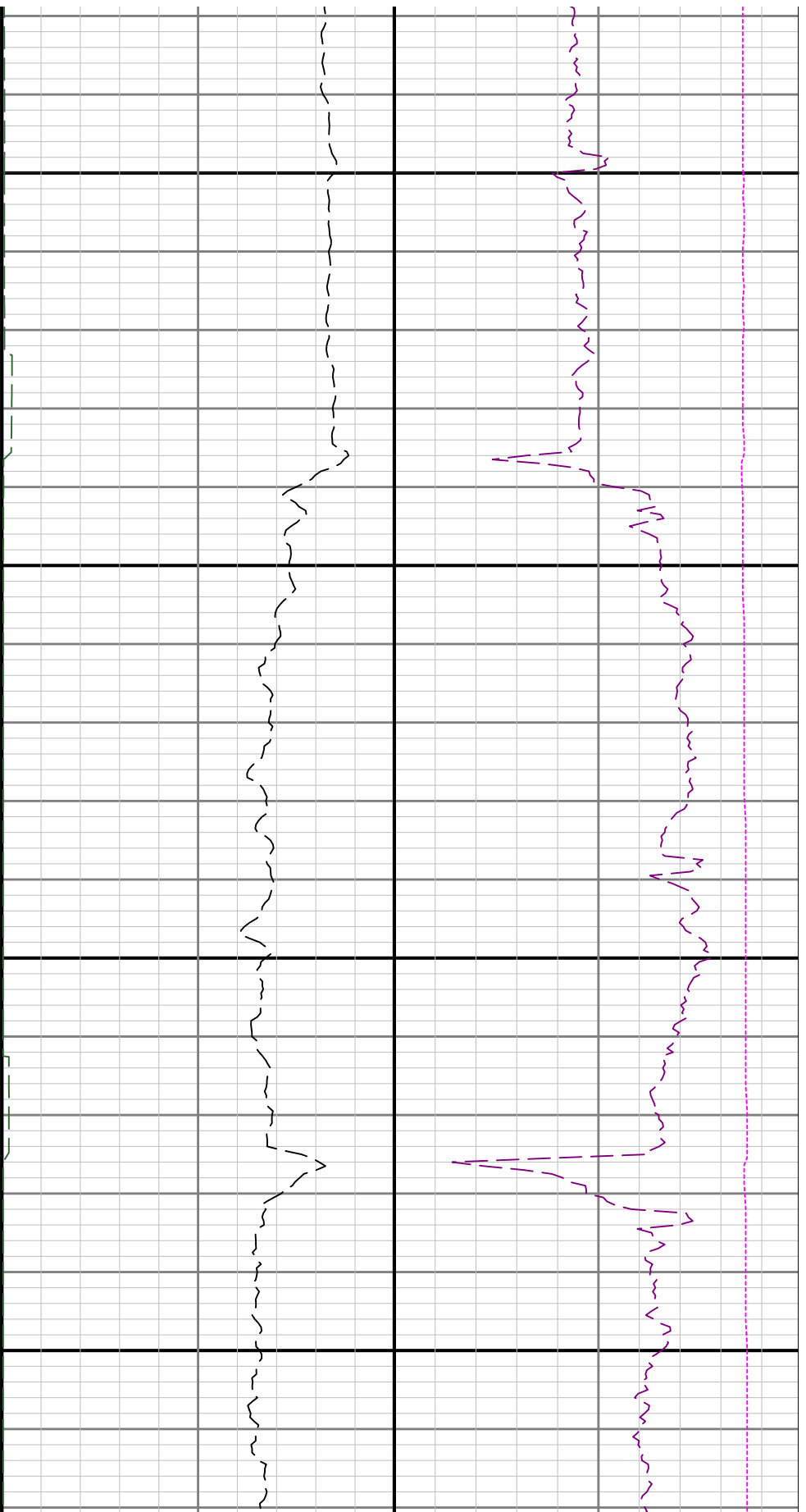




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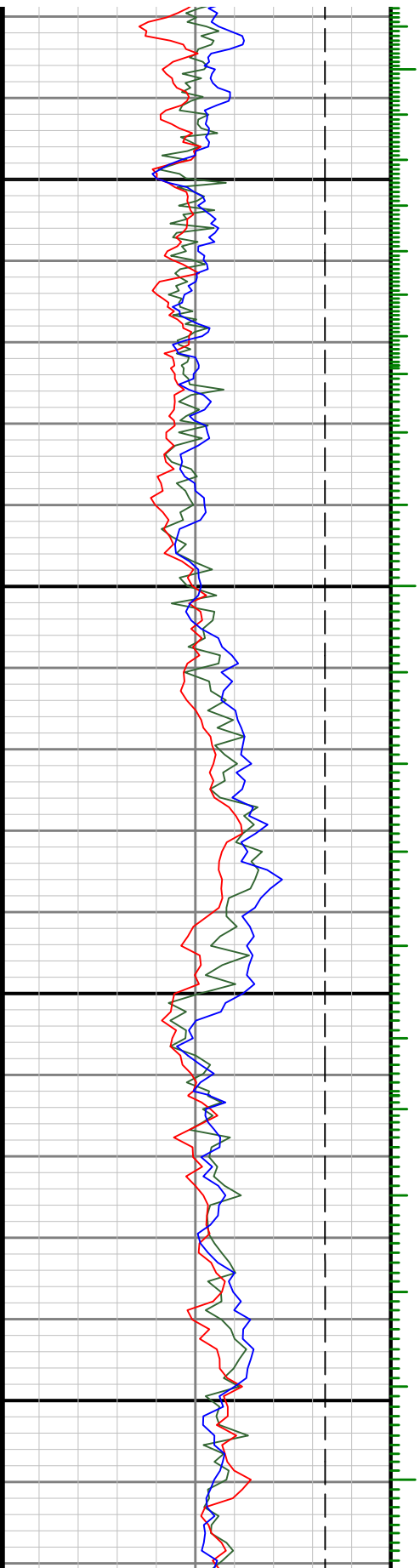
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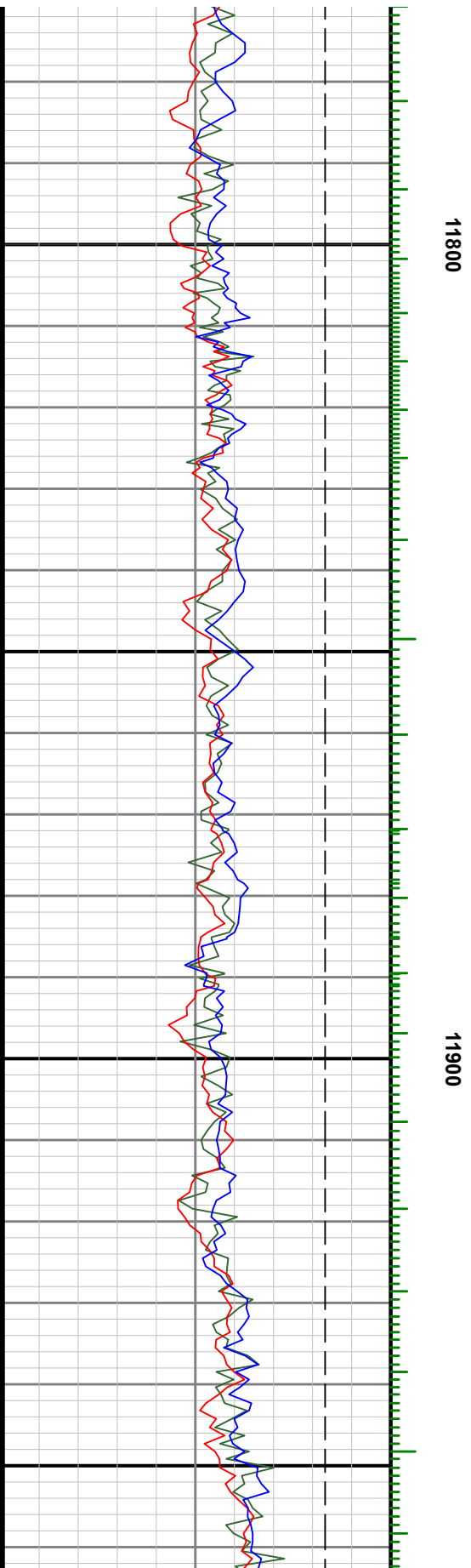
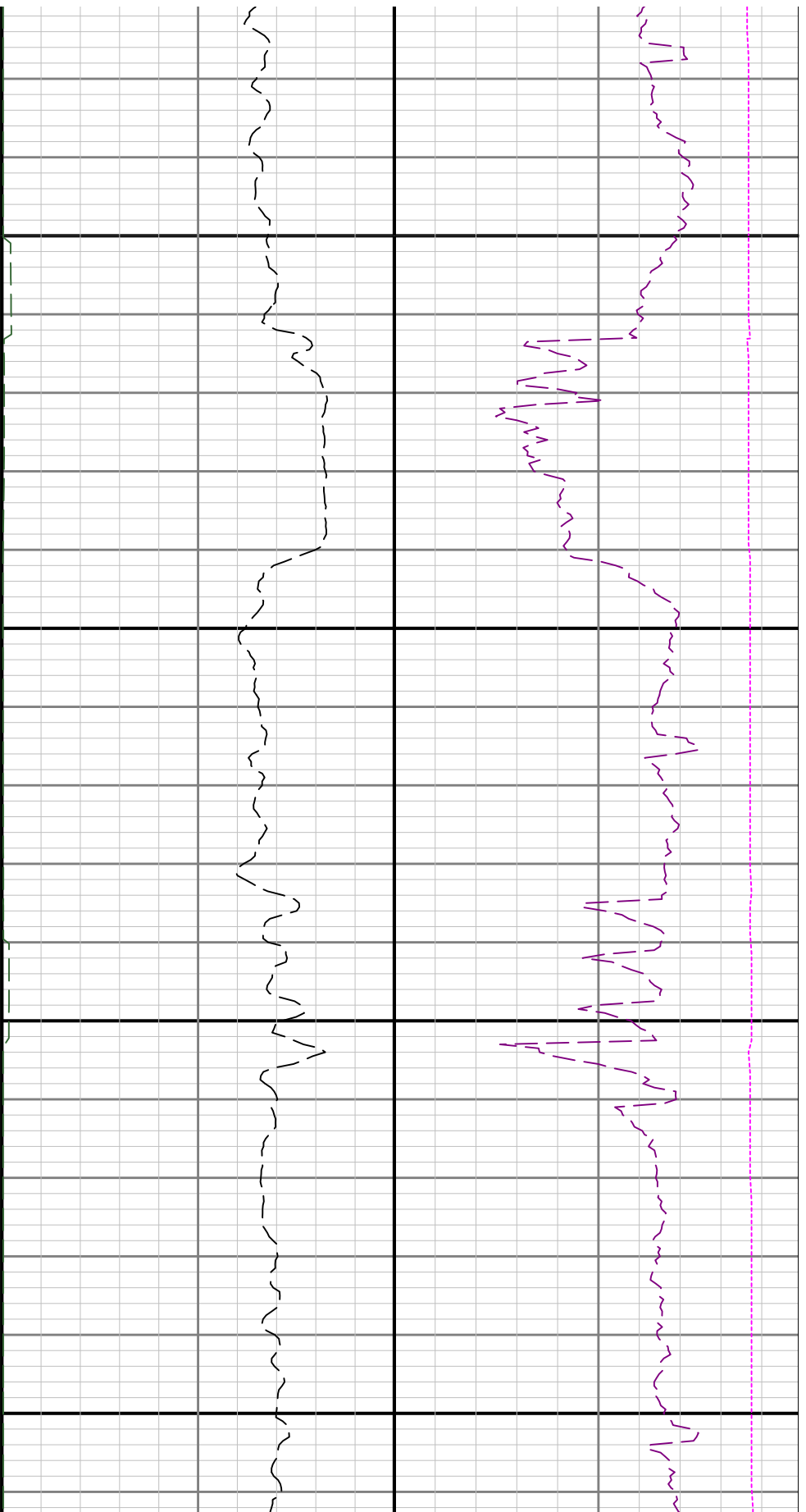


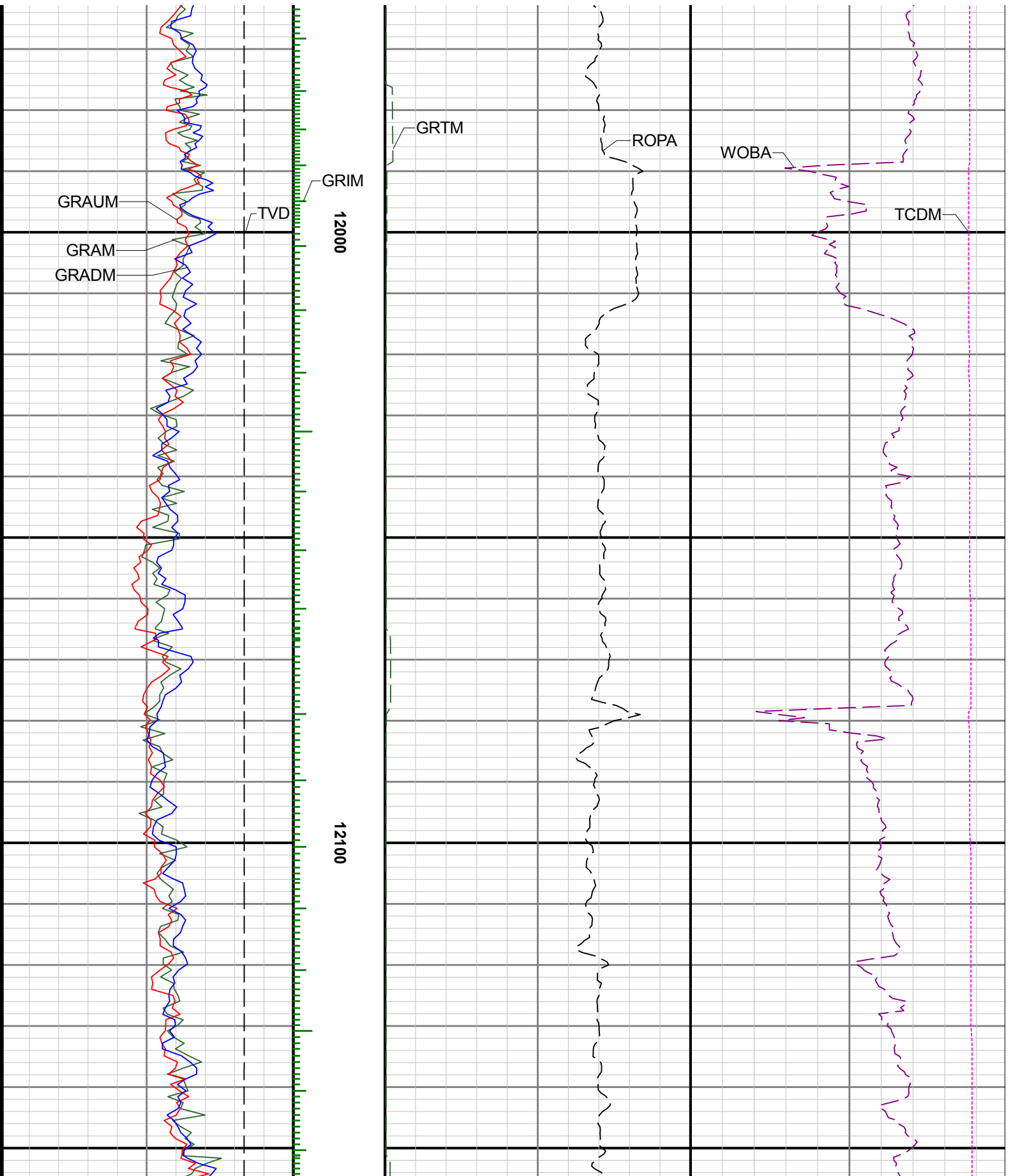


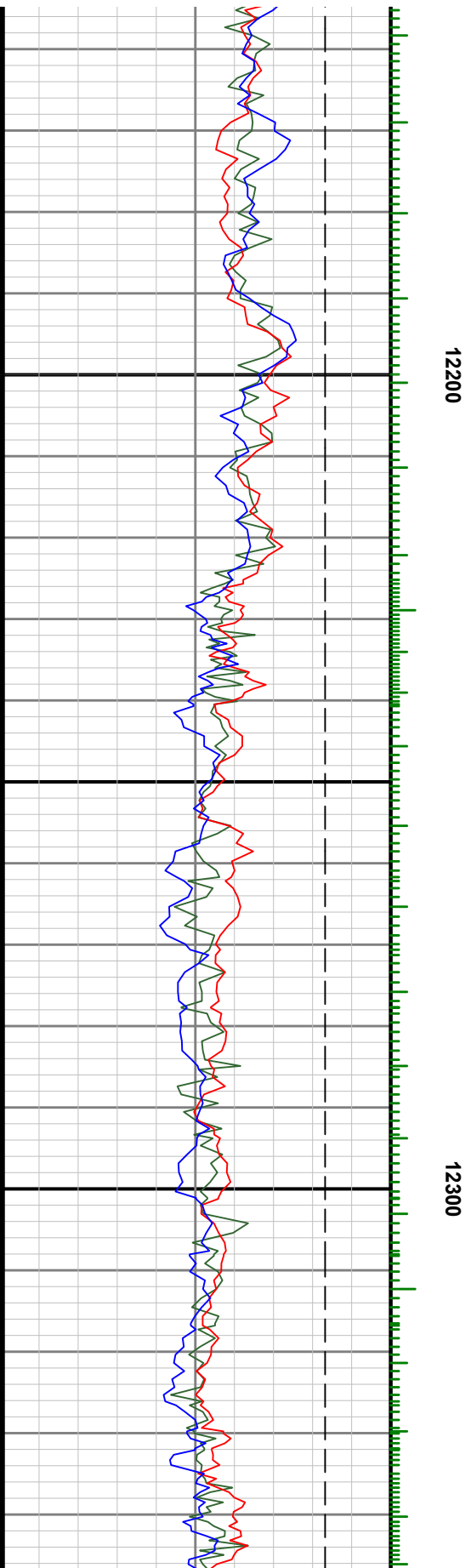
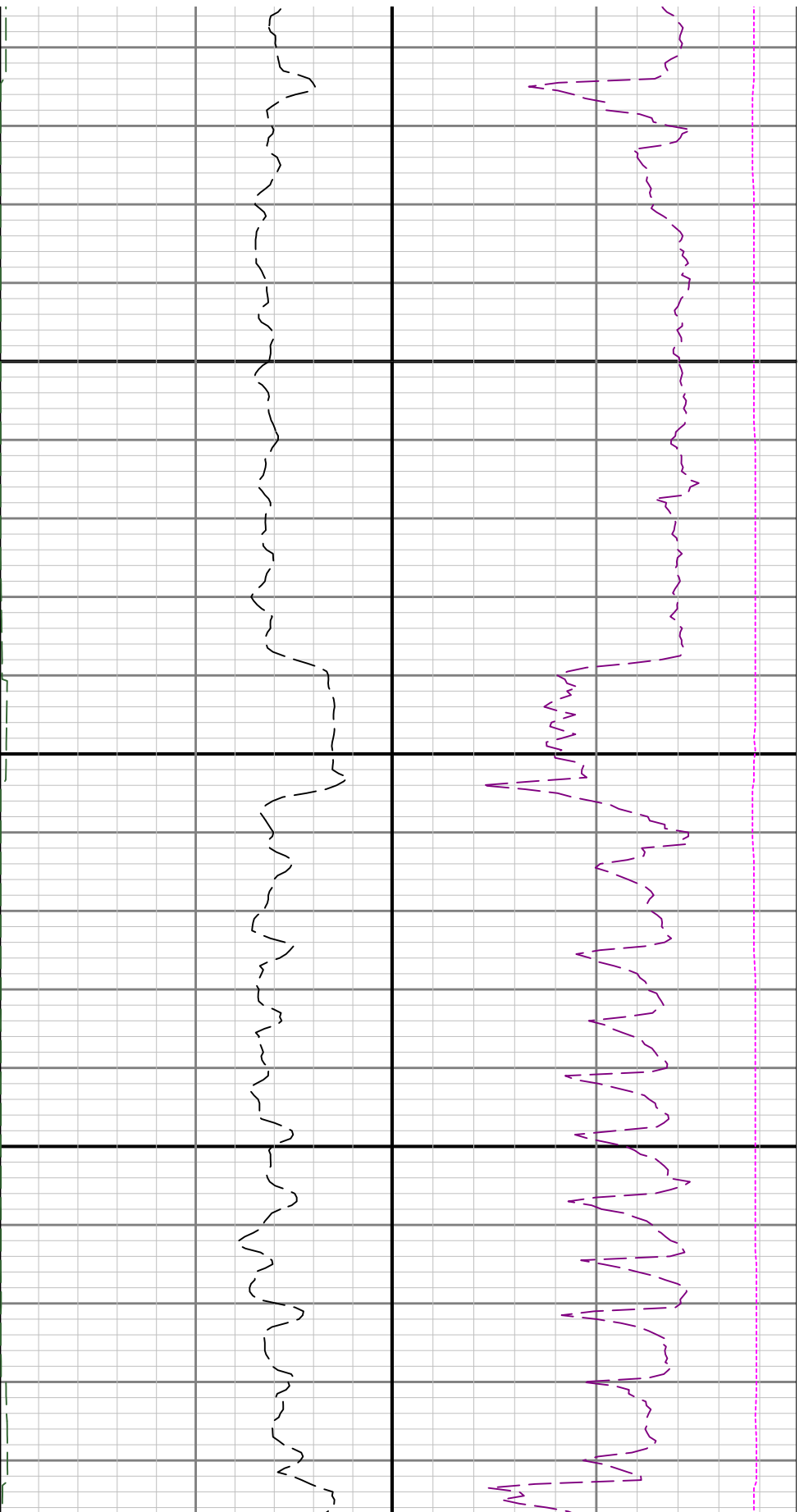
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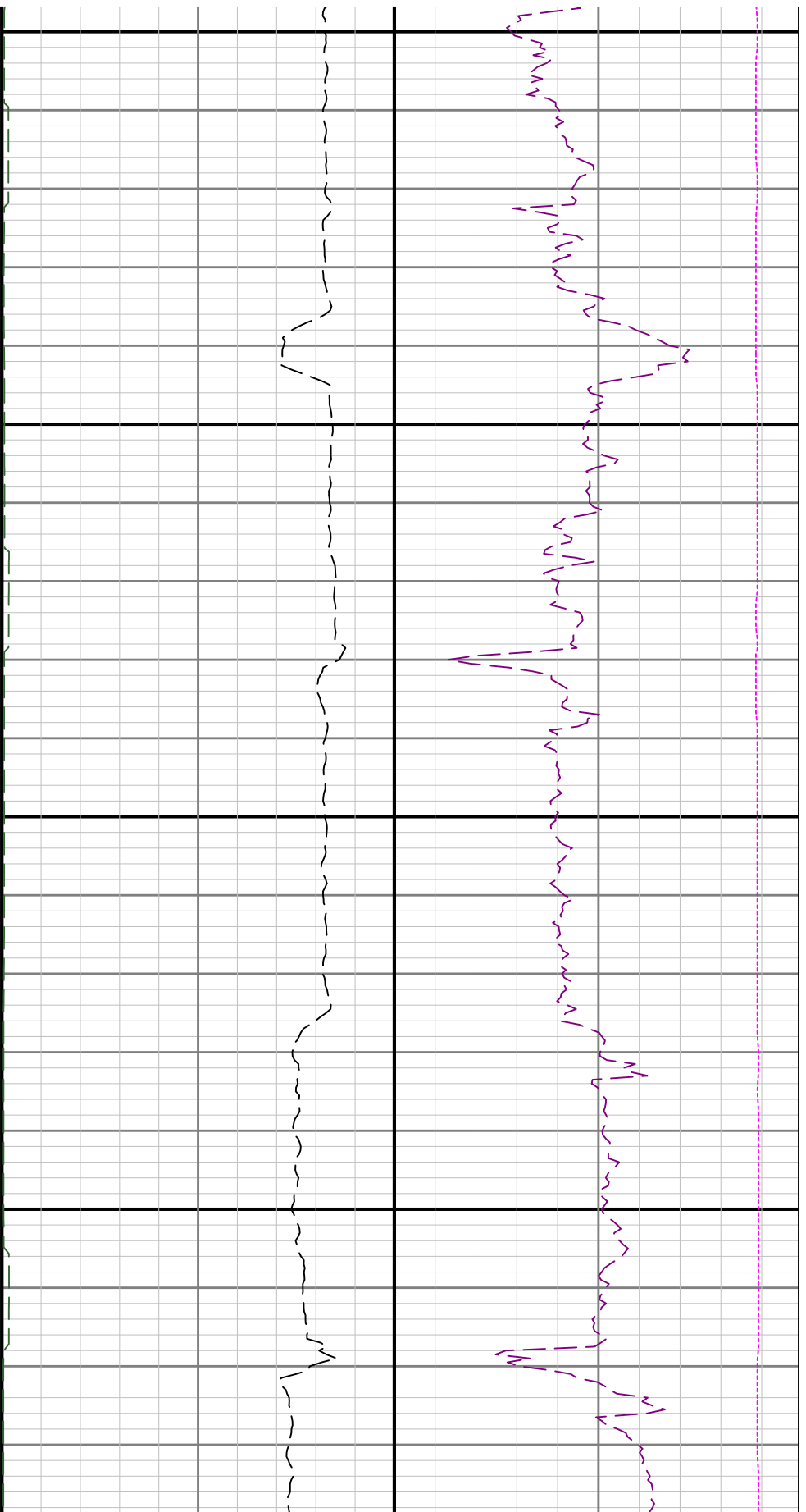
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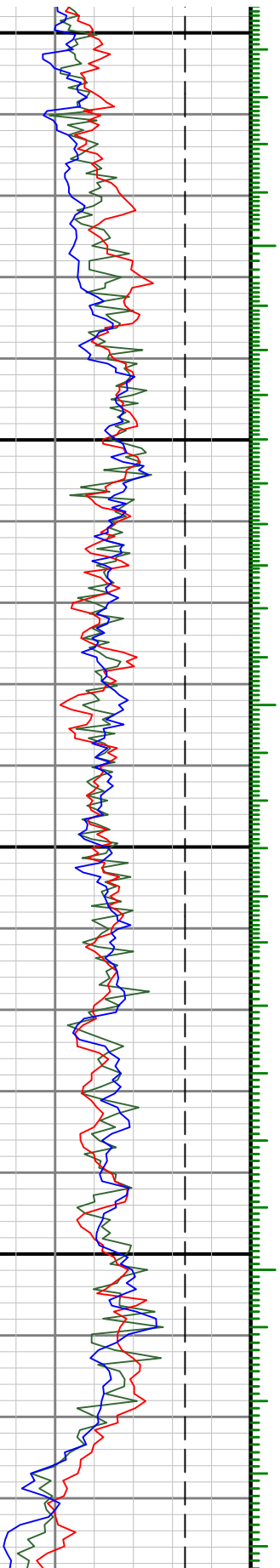


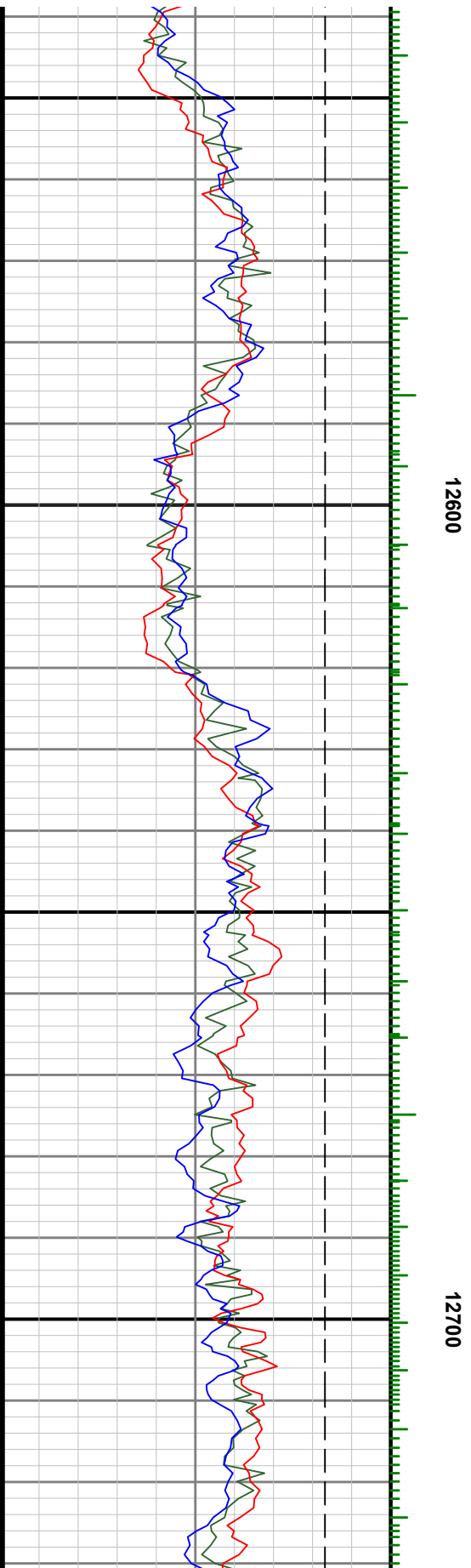
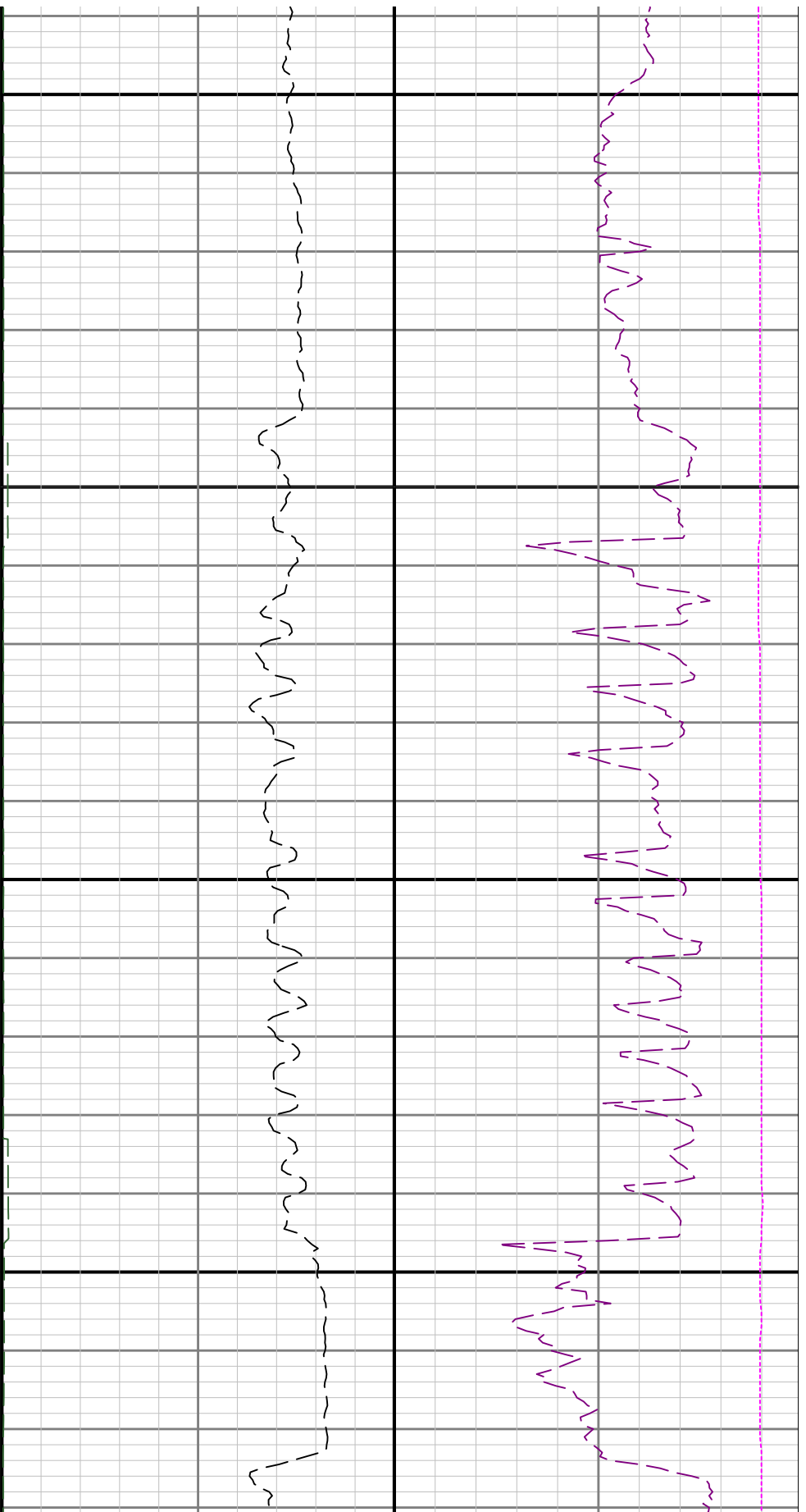


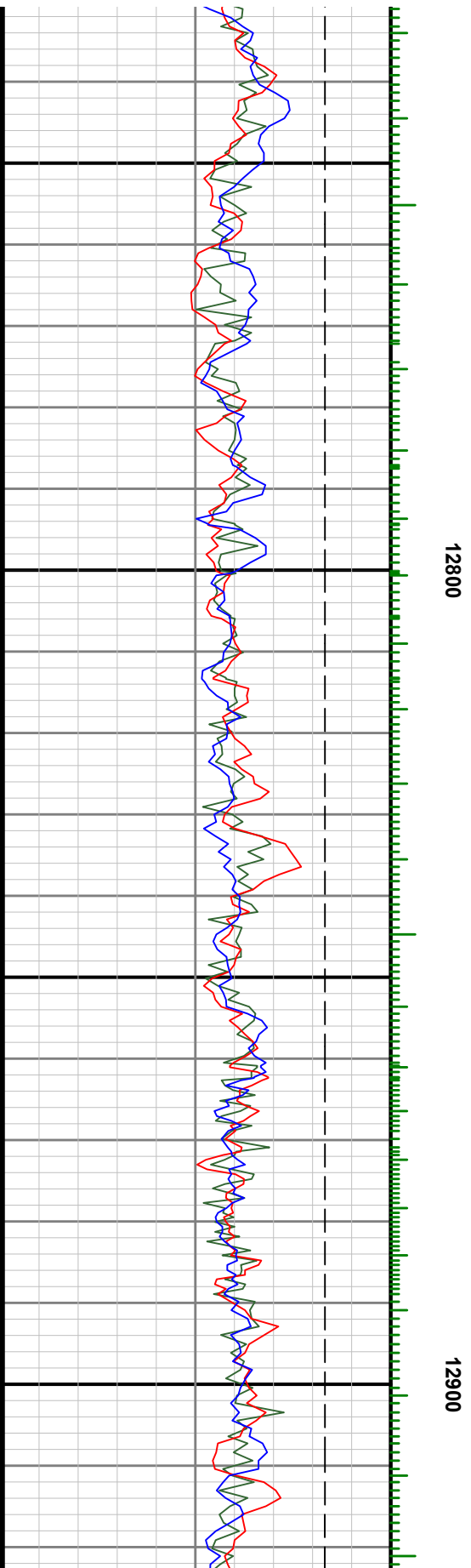
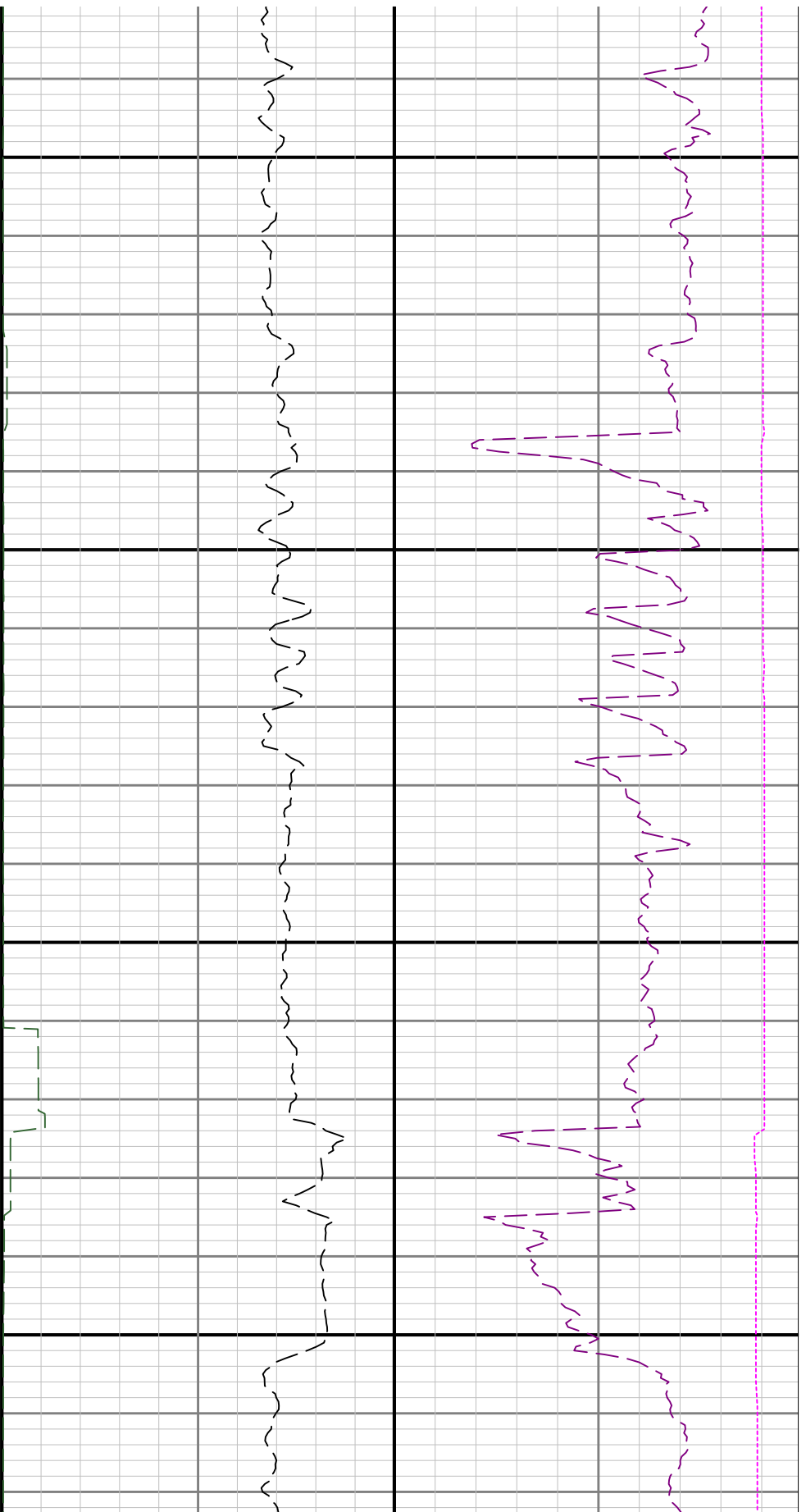


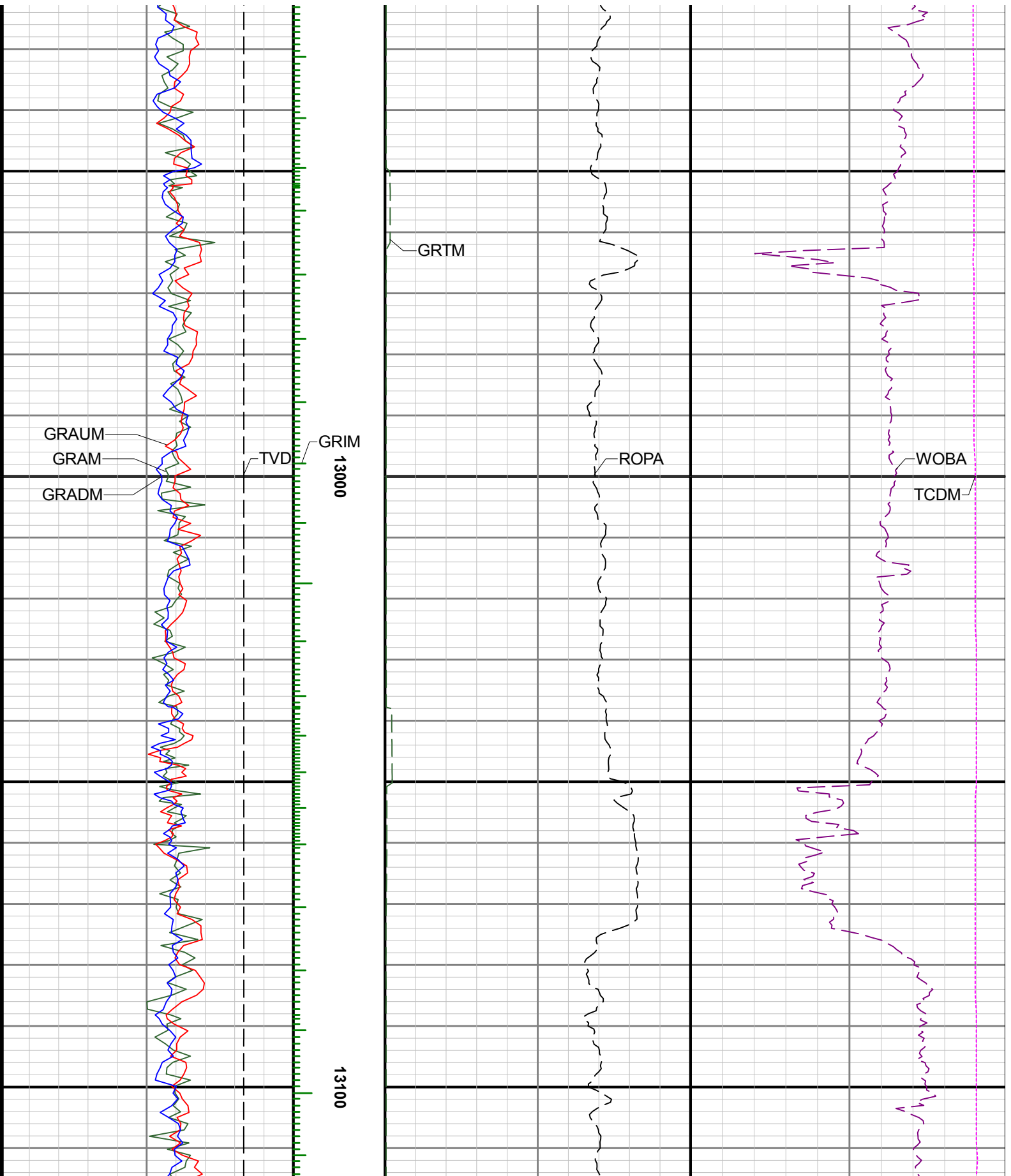
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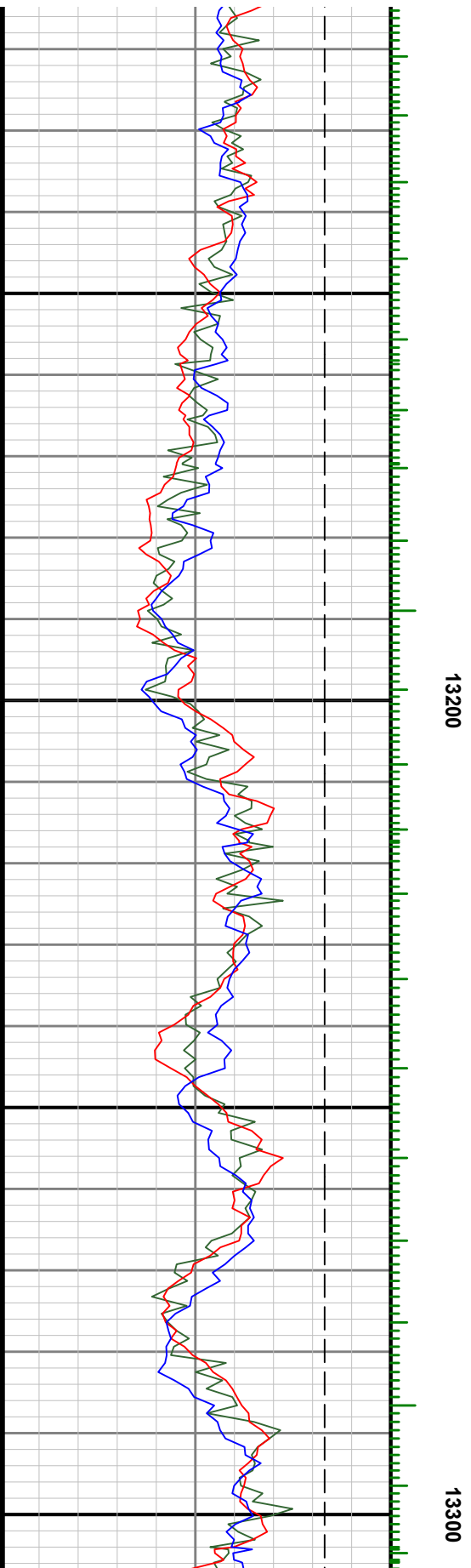
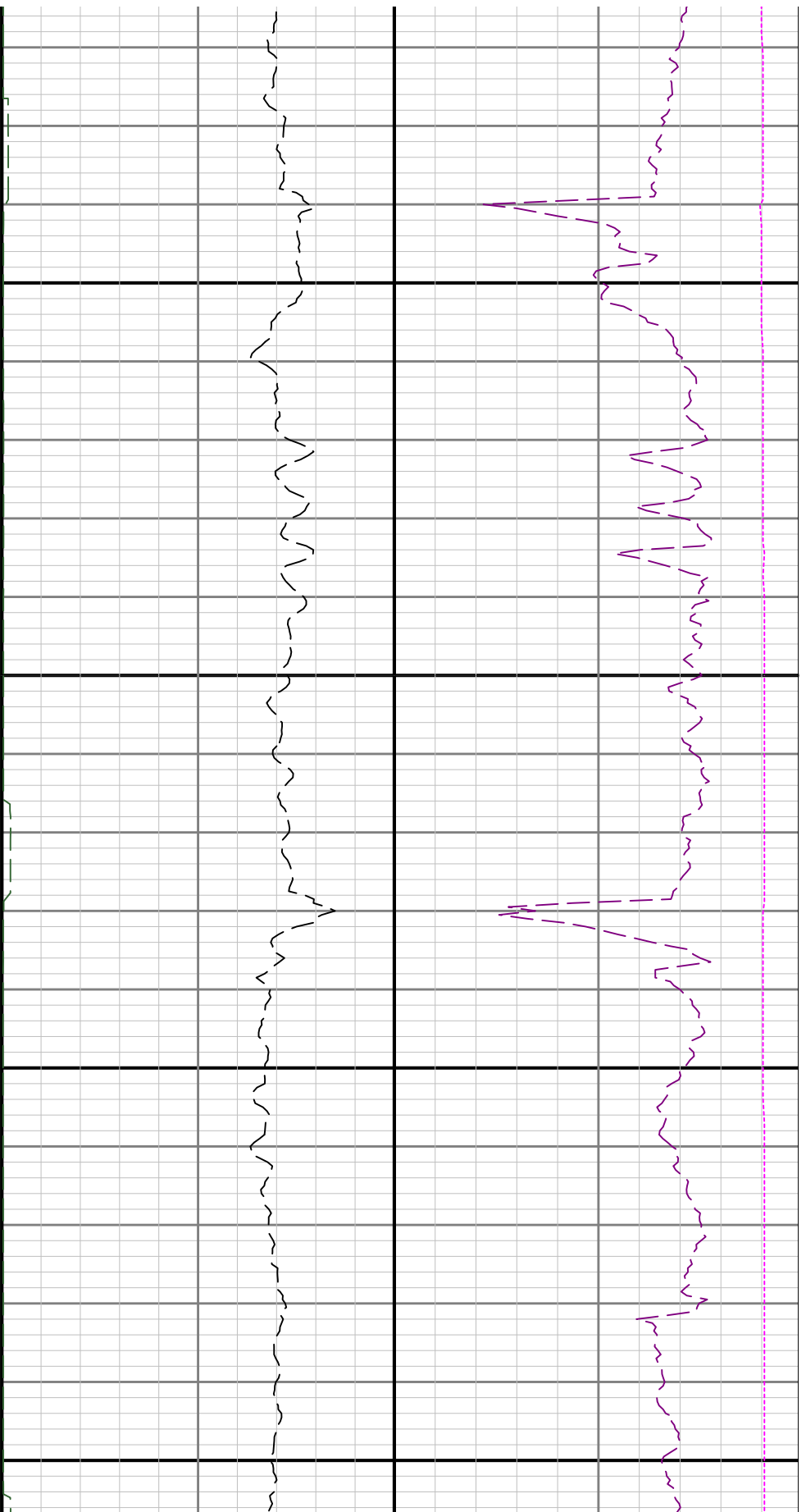
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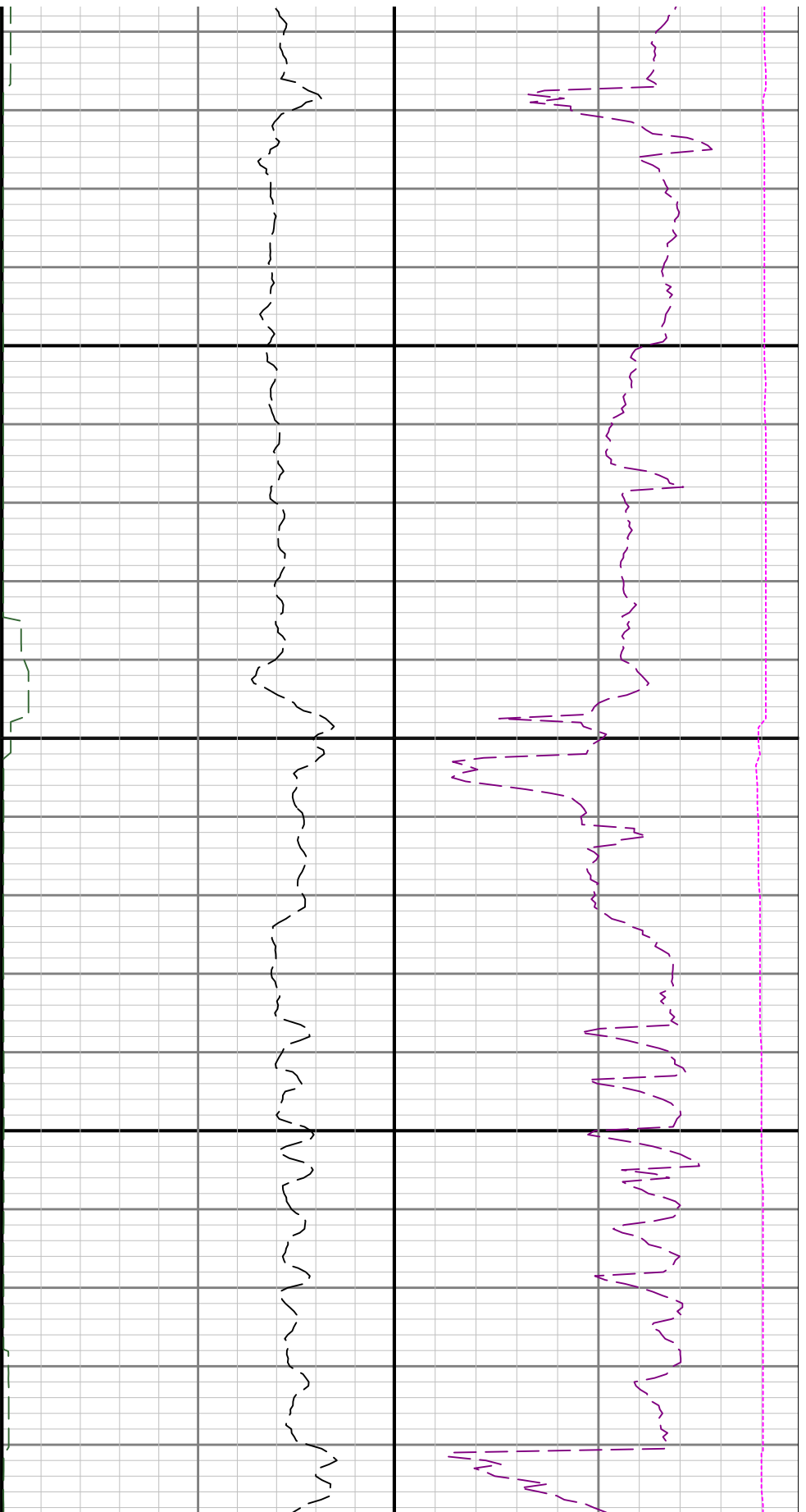






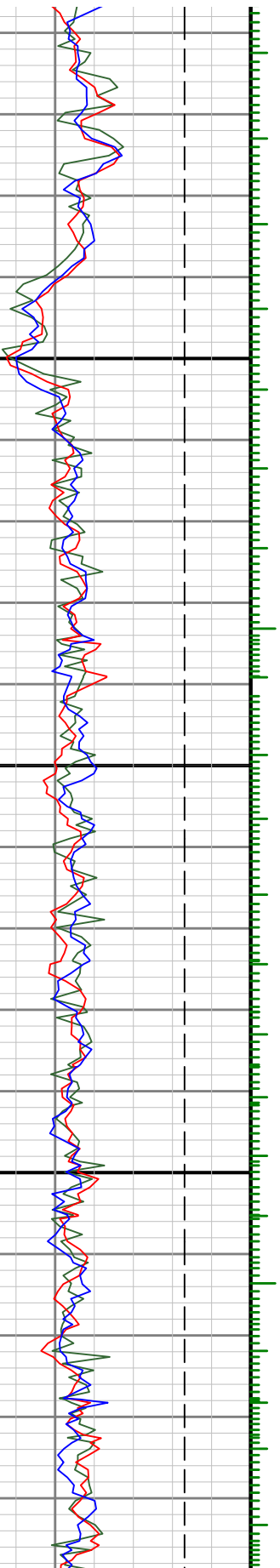


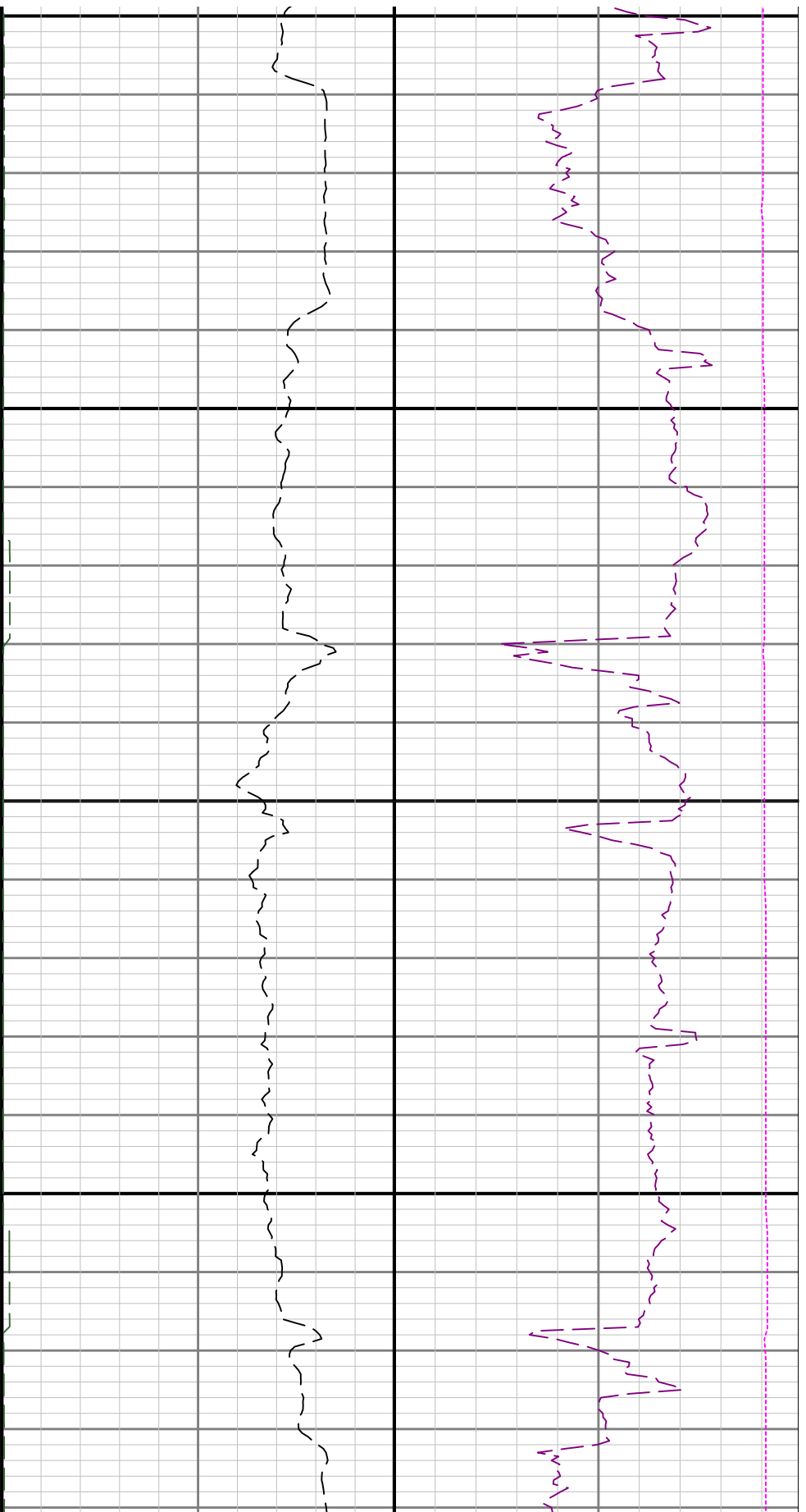




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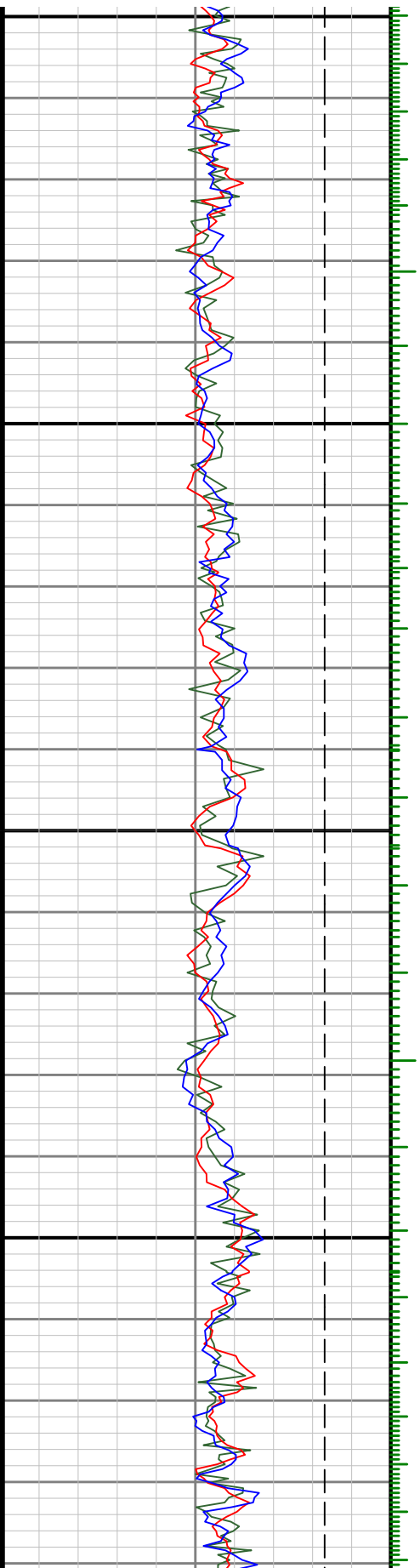
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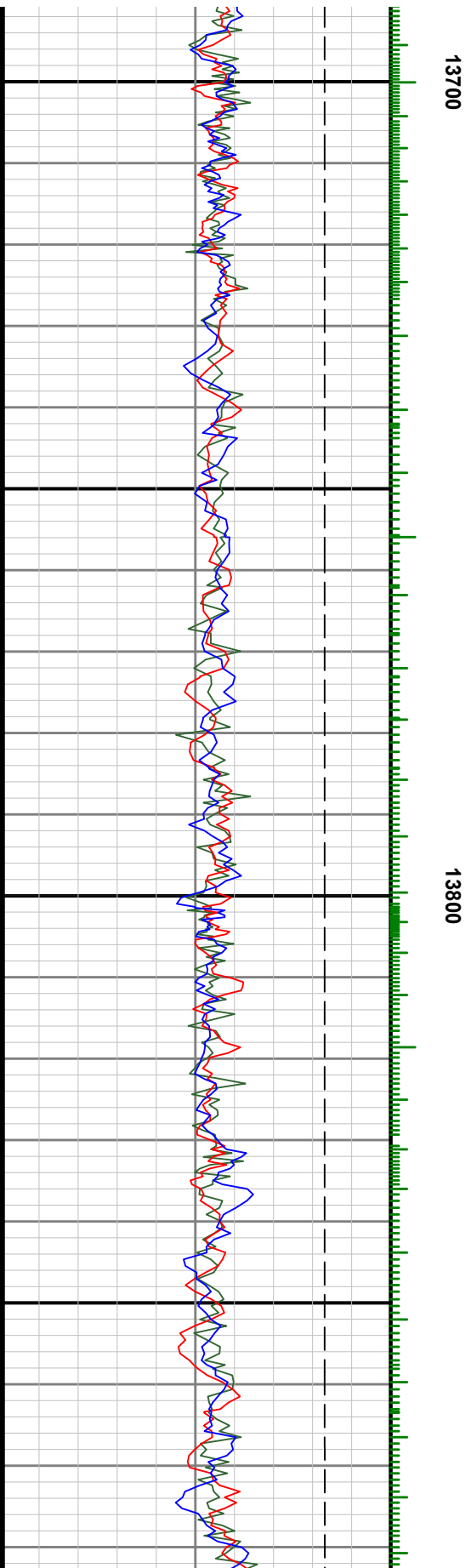
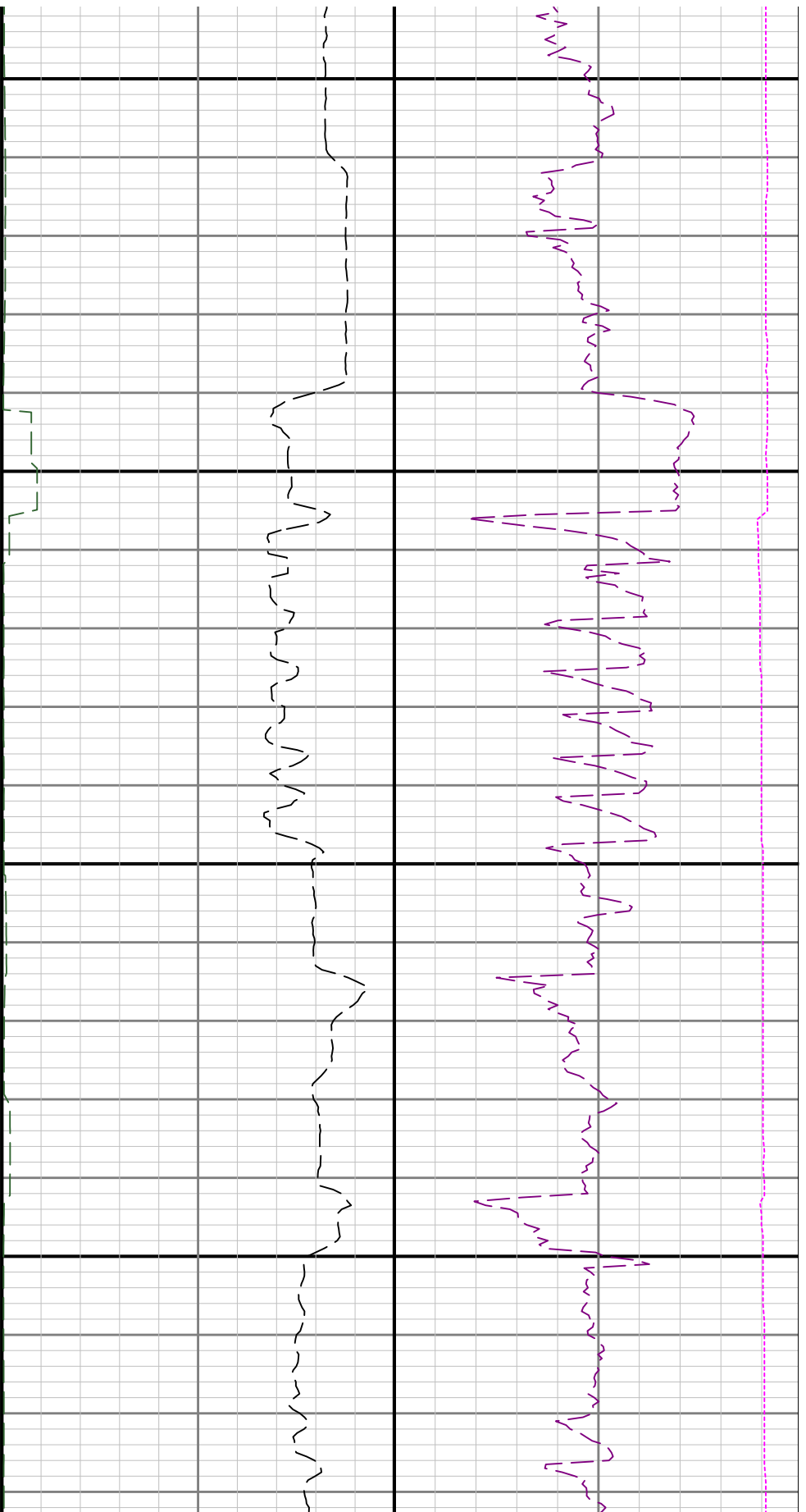


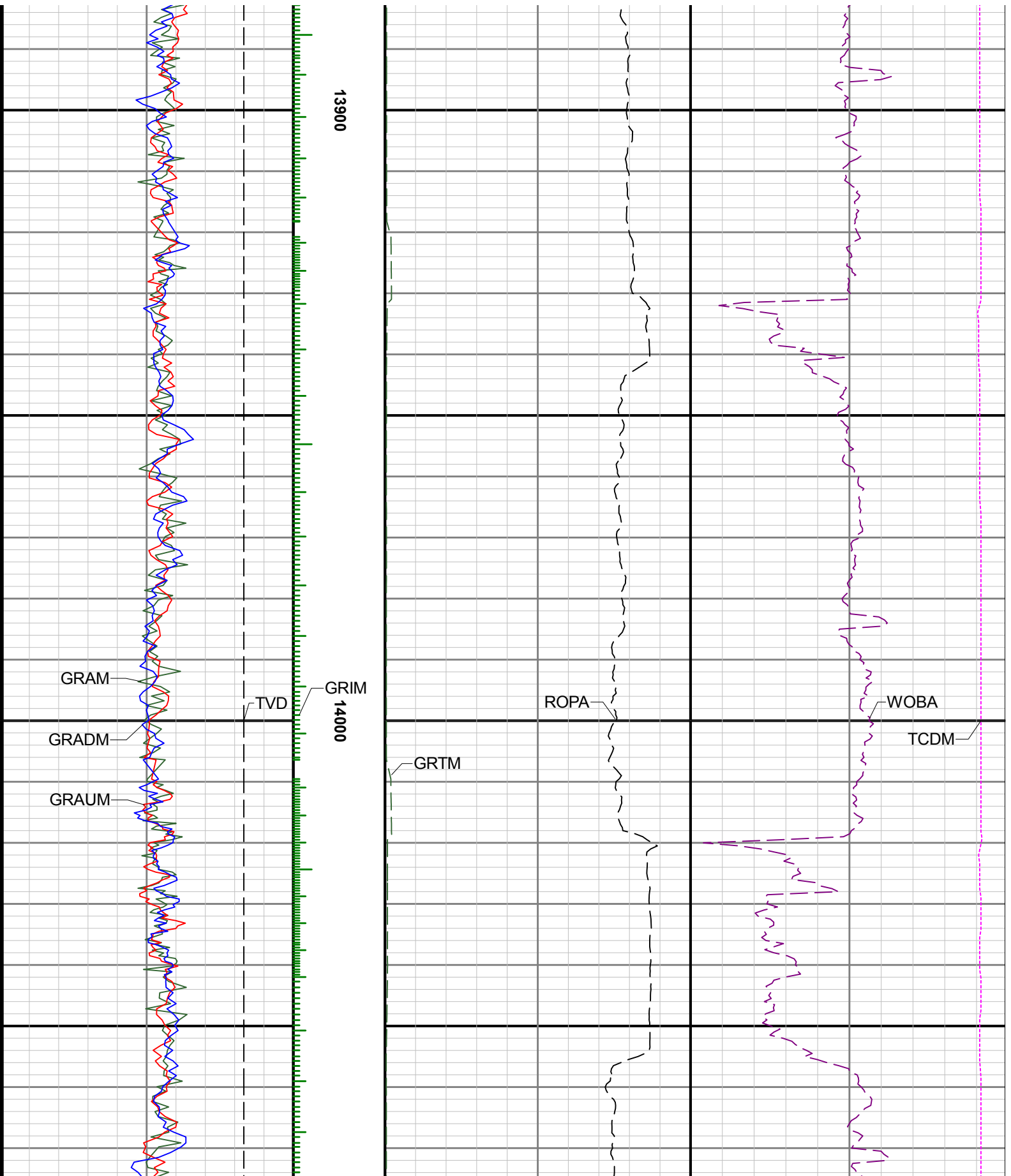


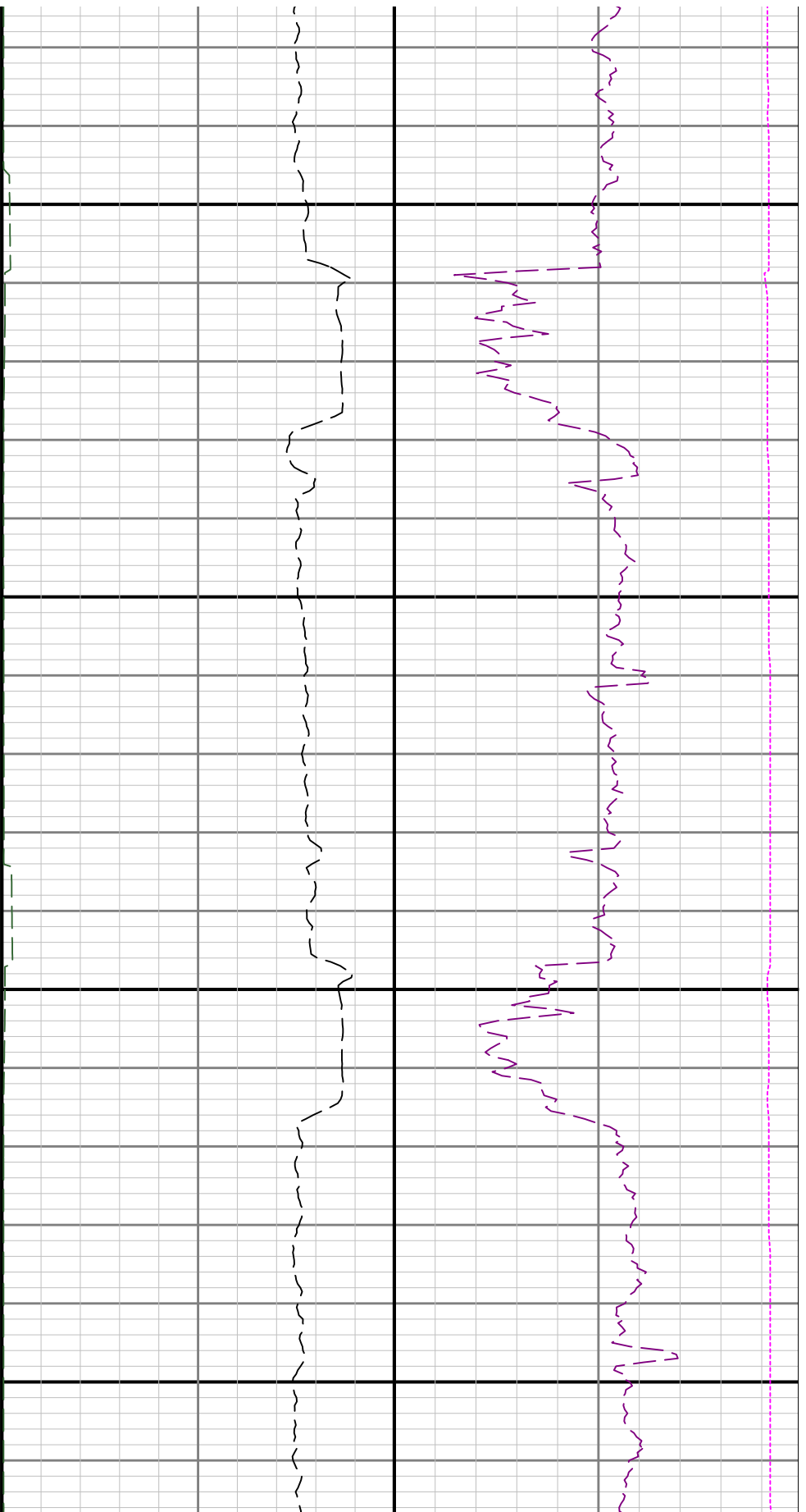
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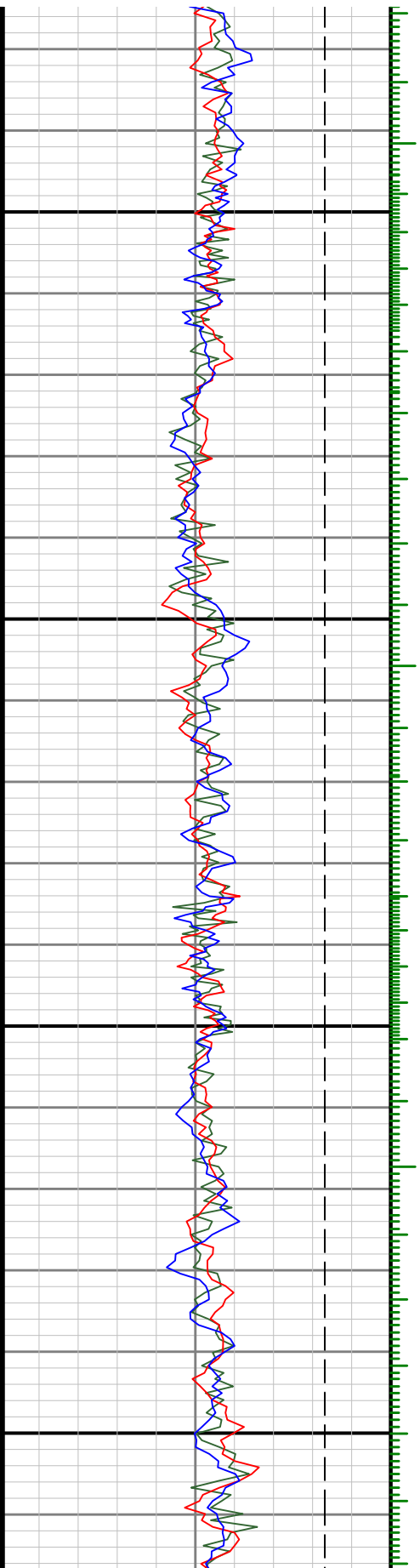


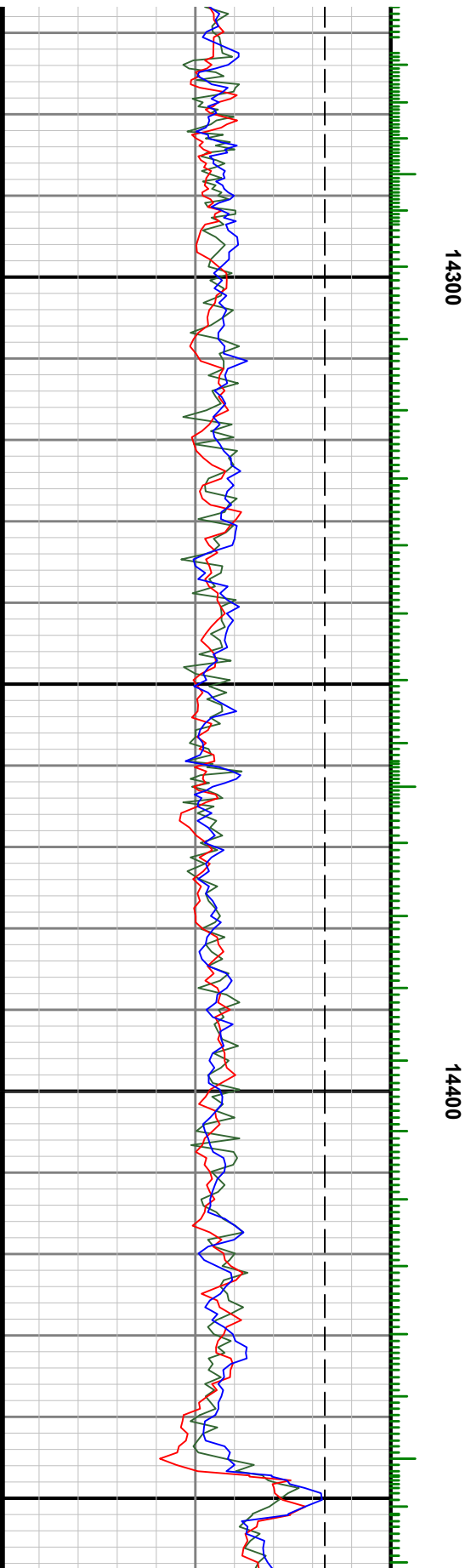
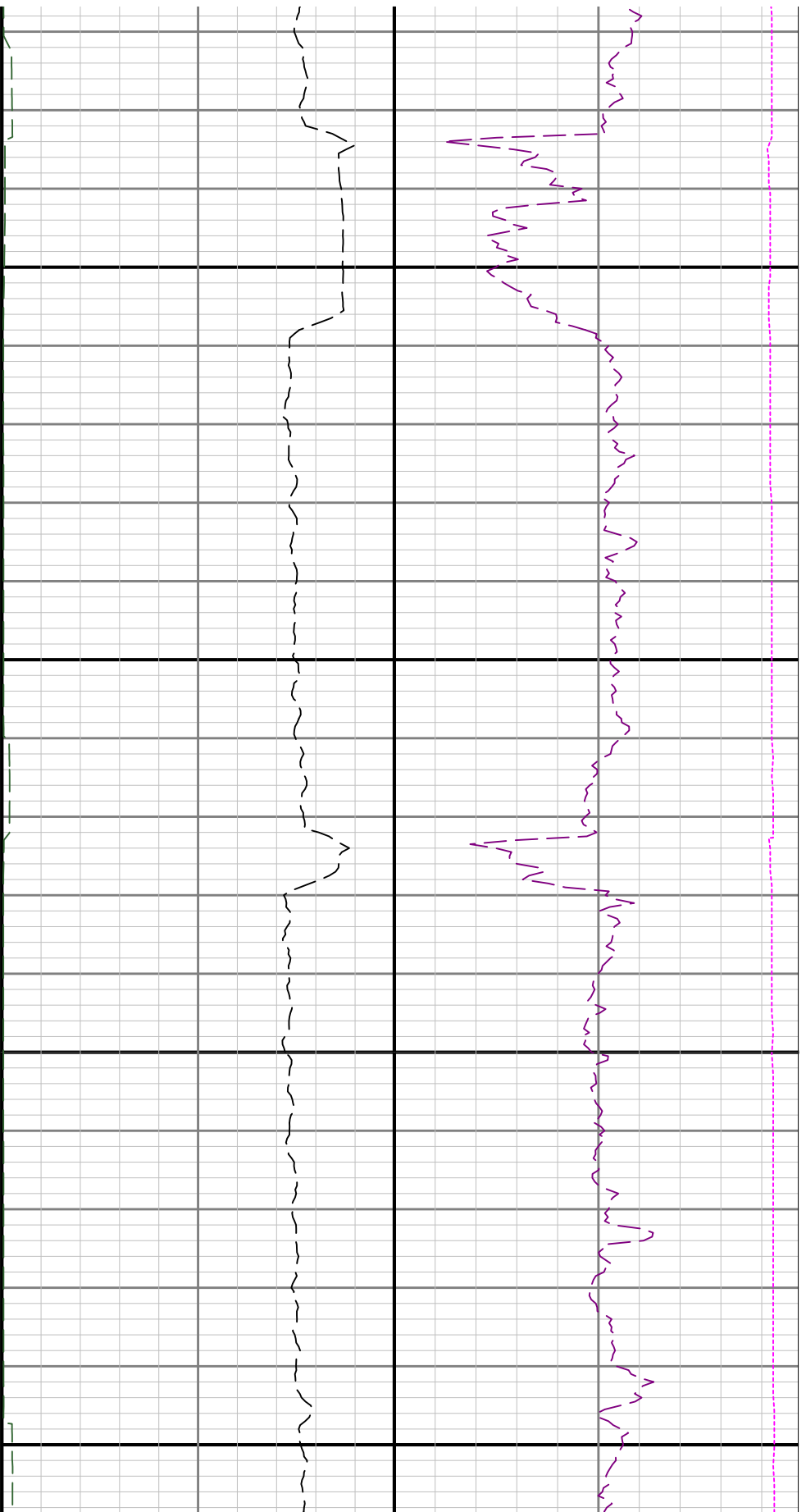


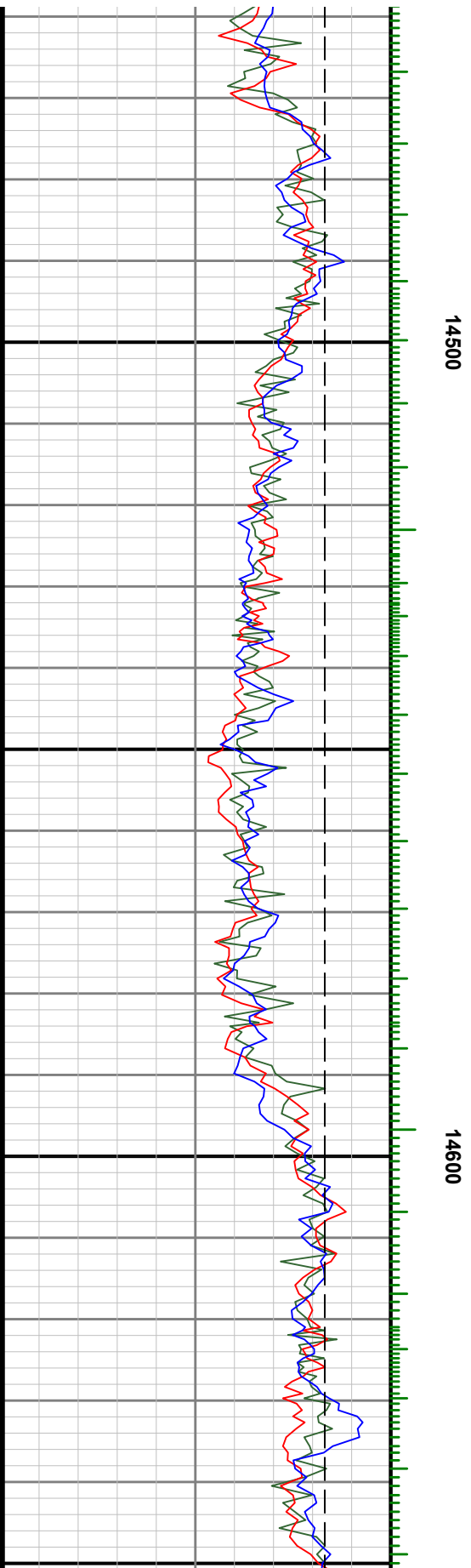
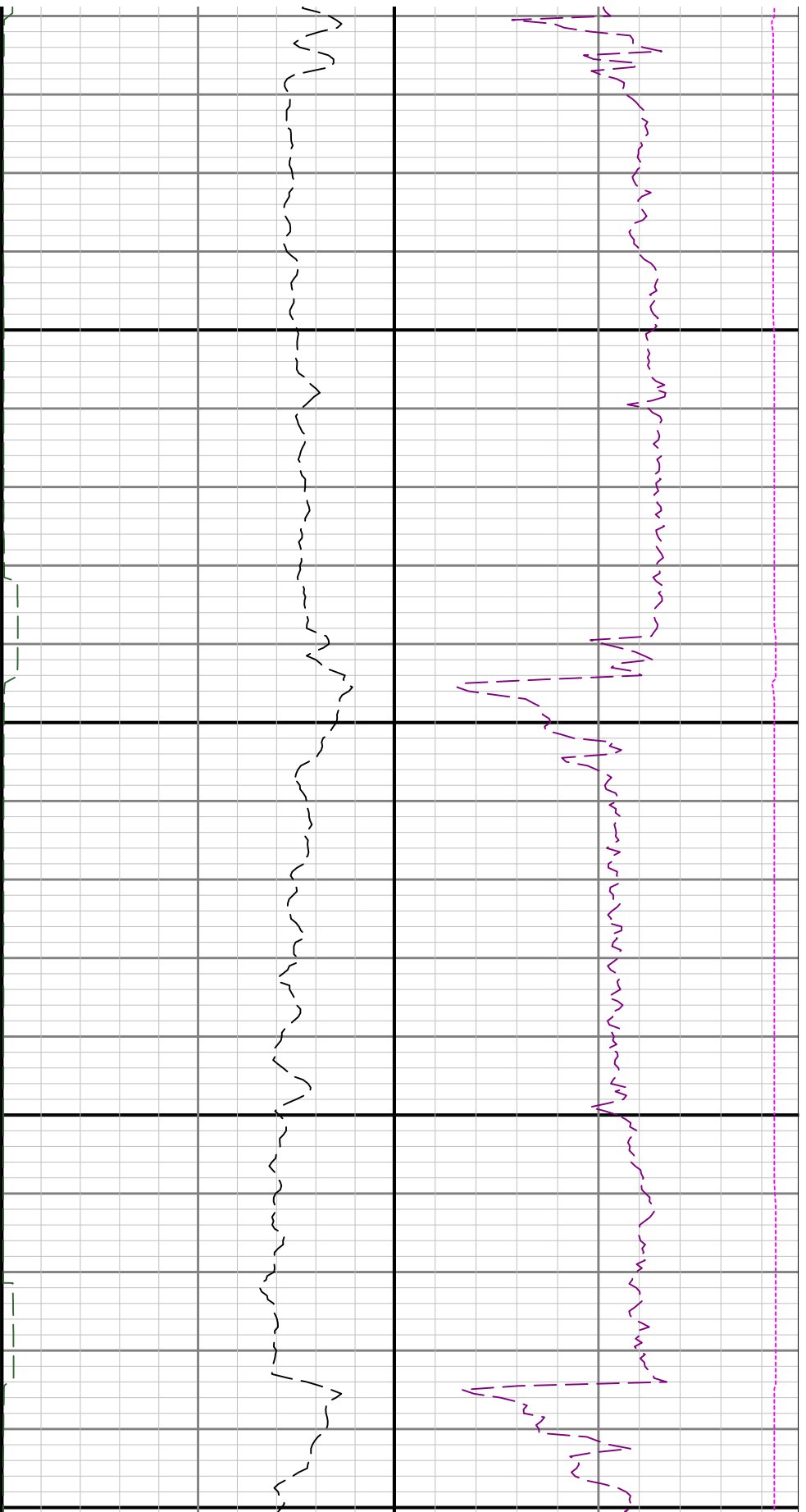


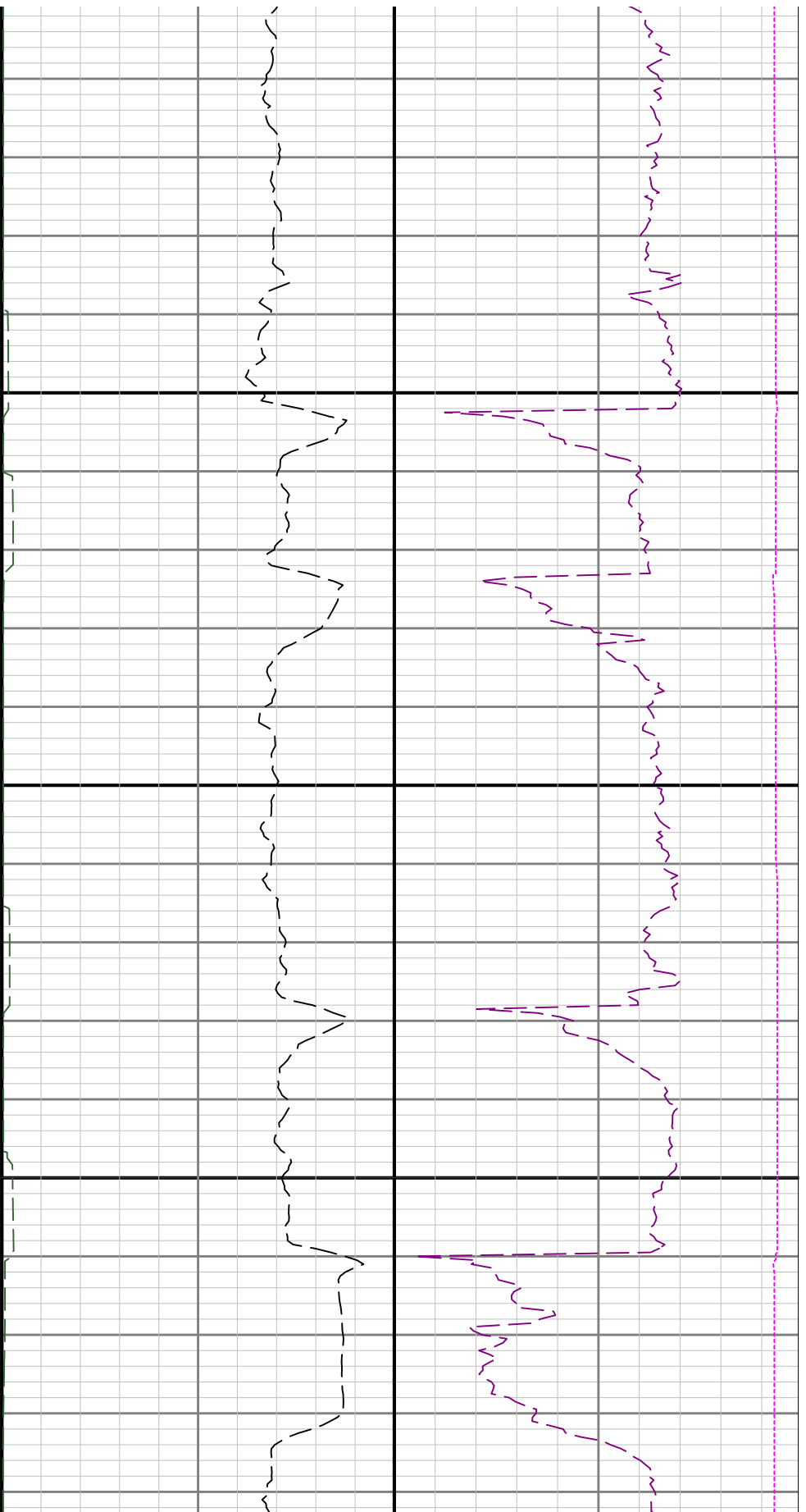
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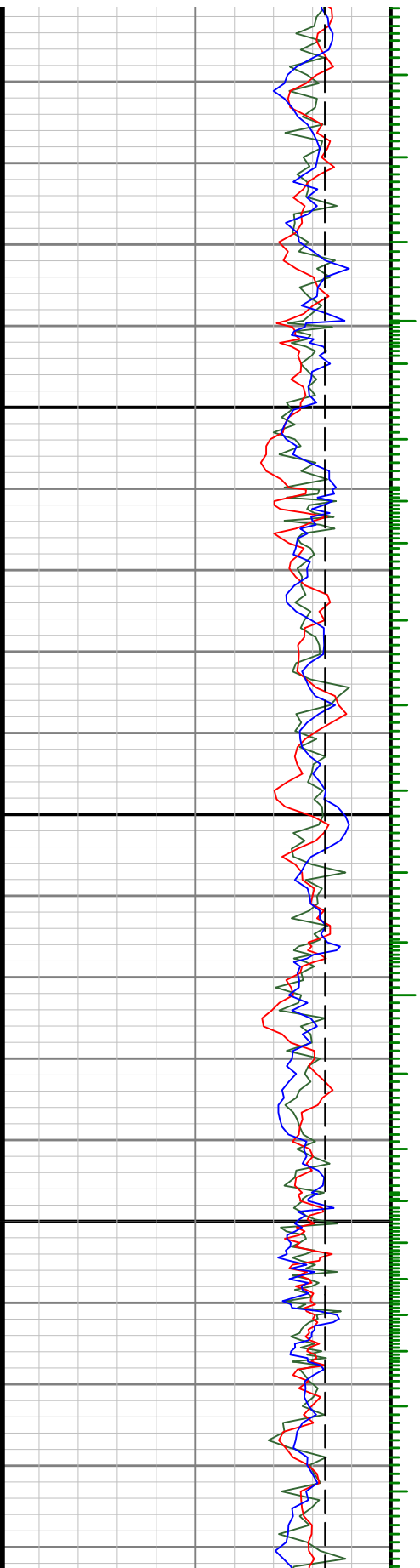


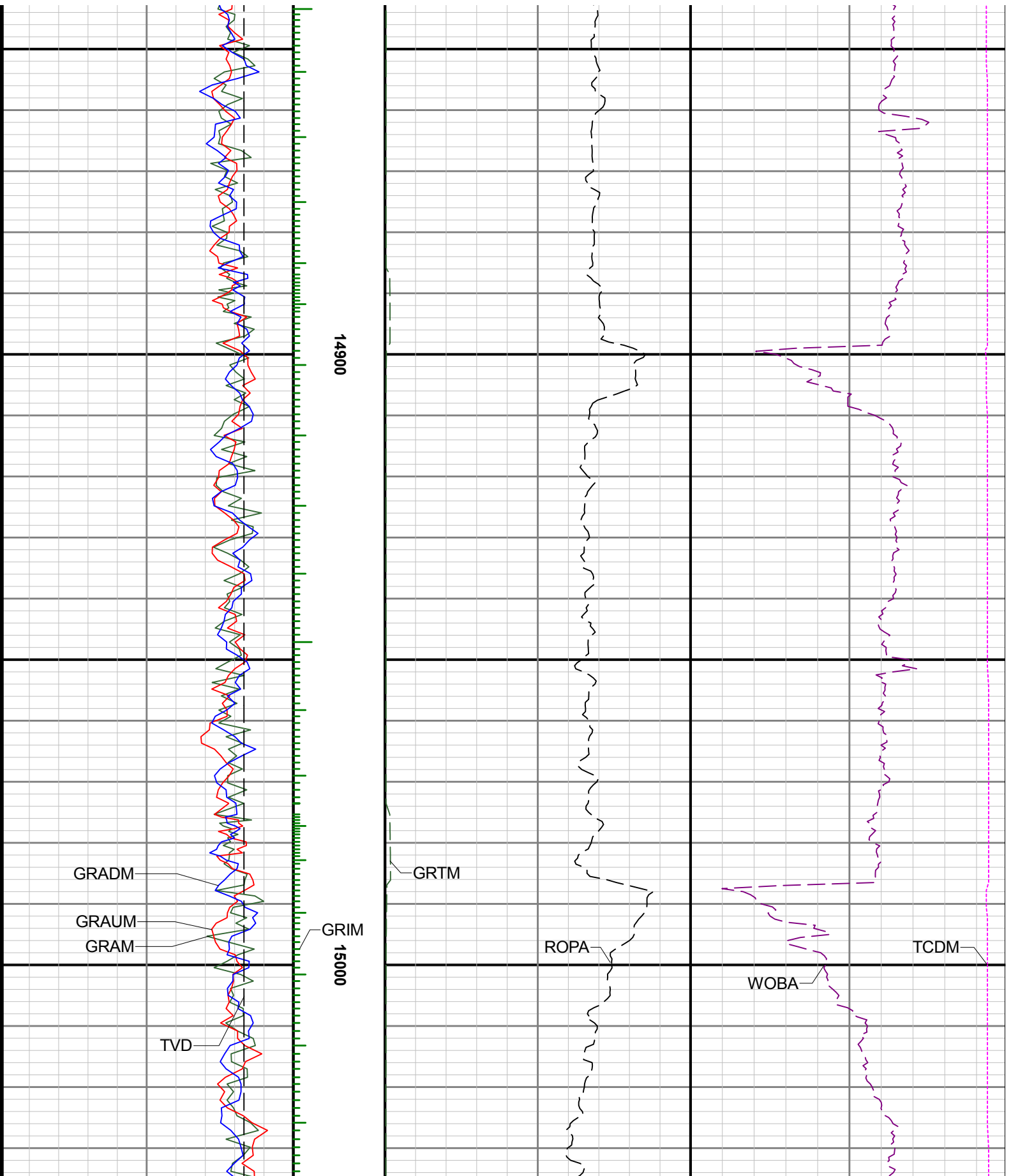


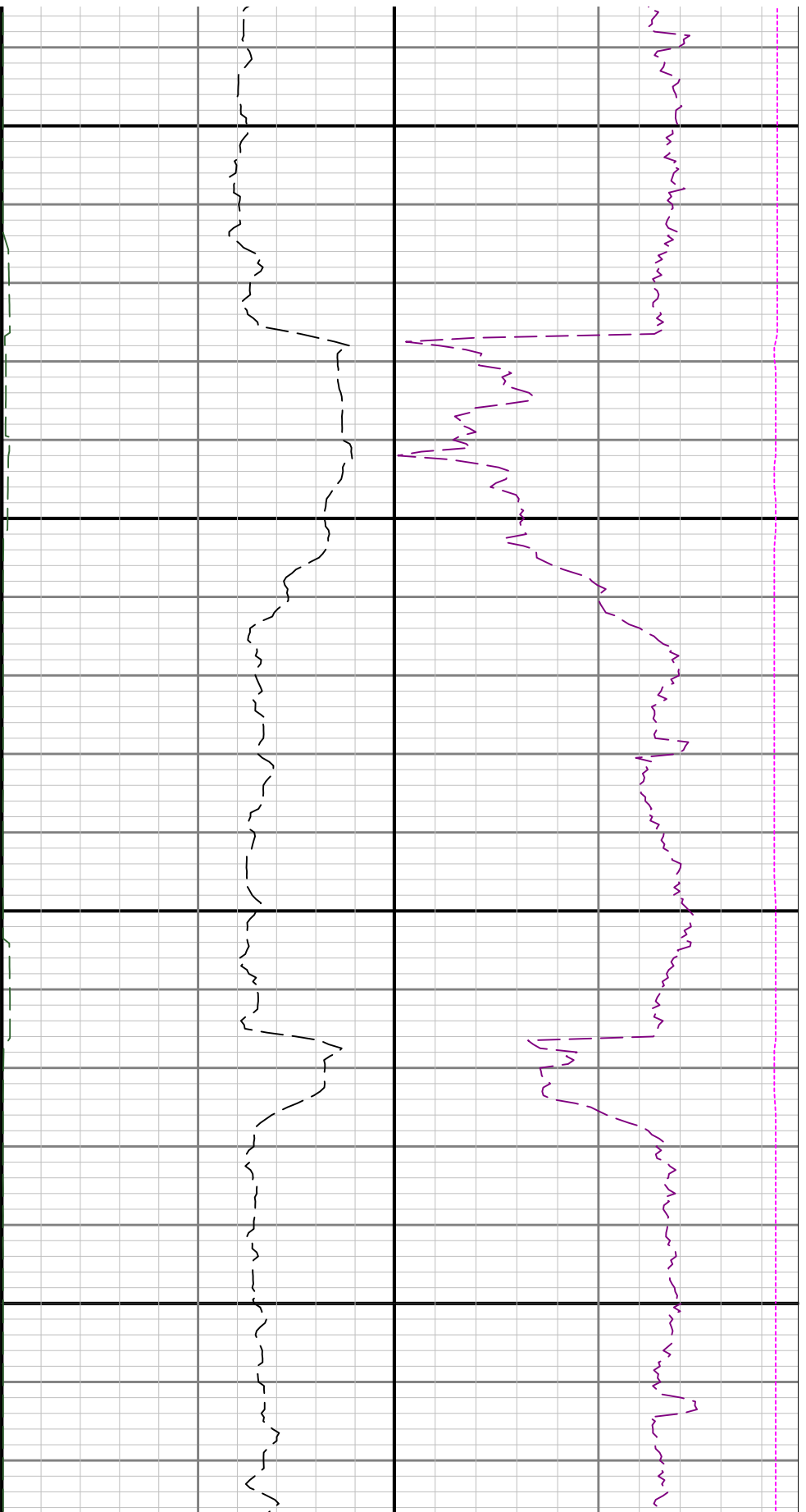


14700

14800

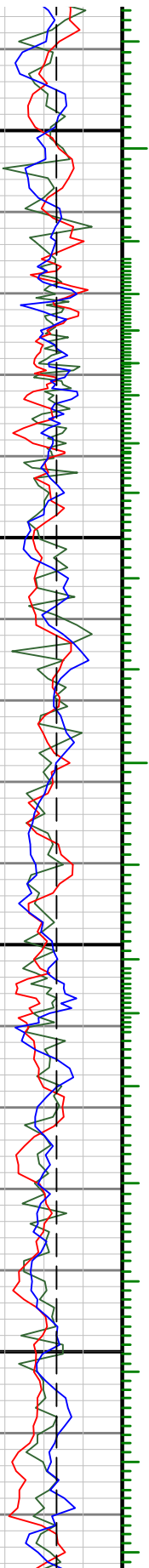


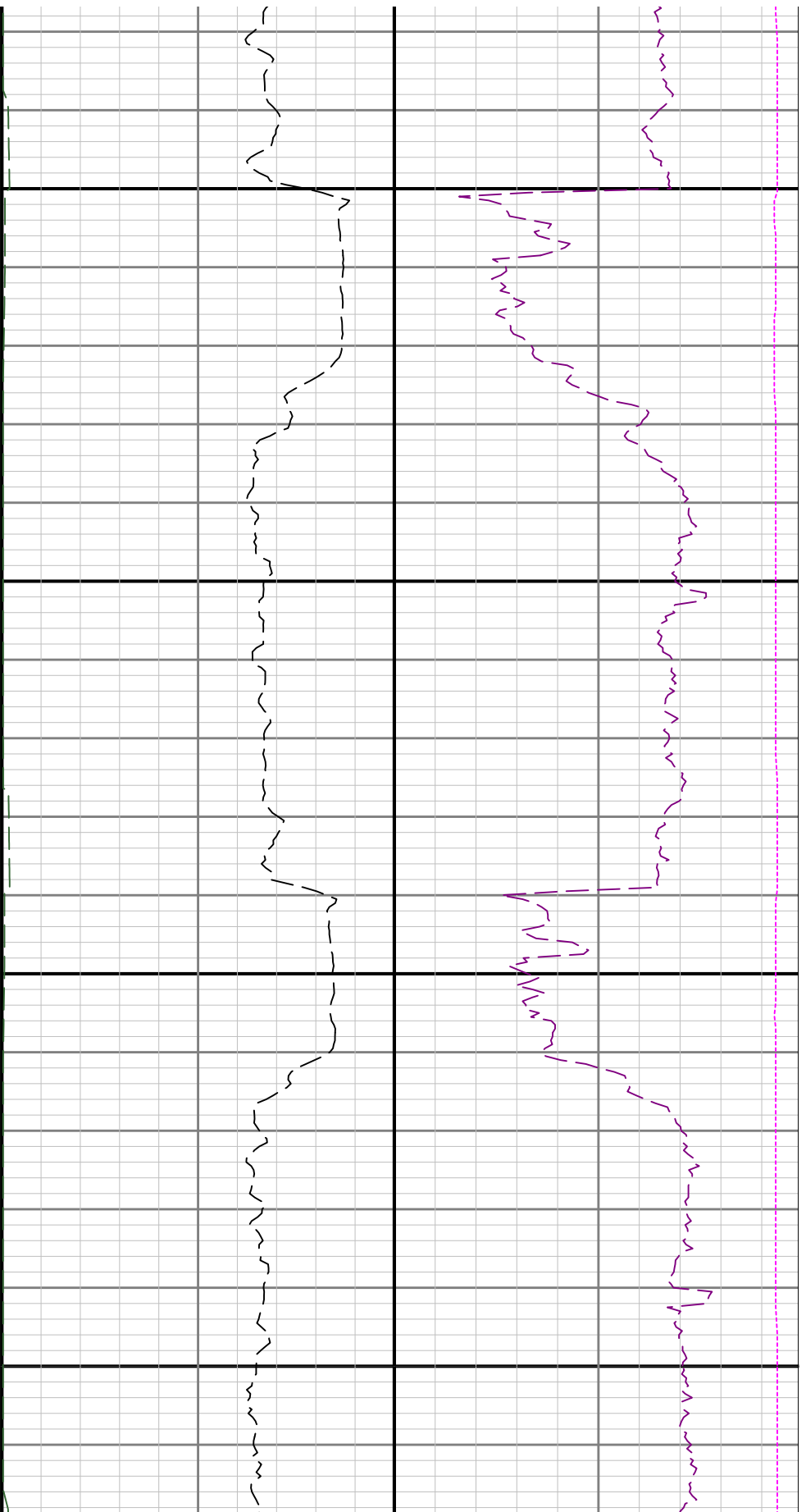




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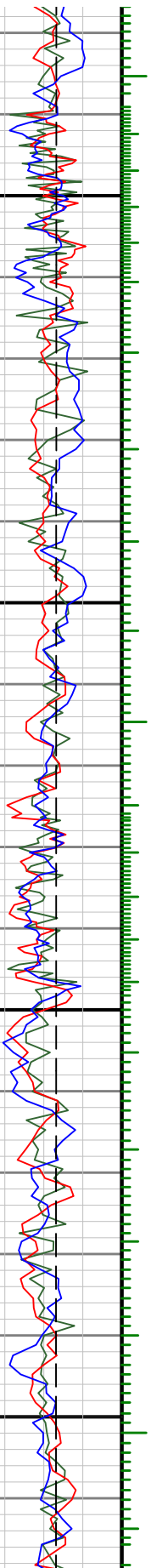
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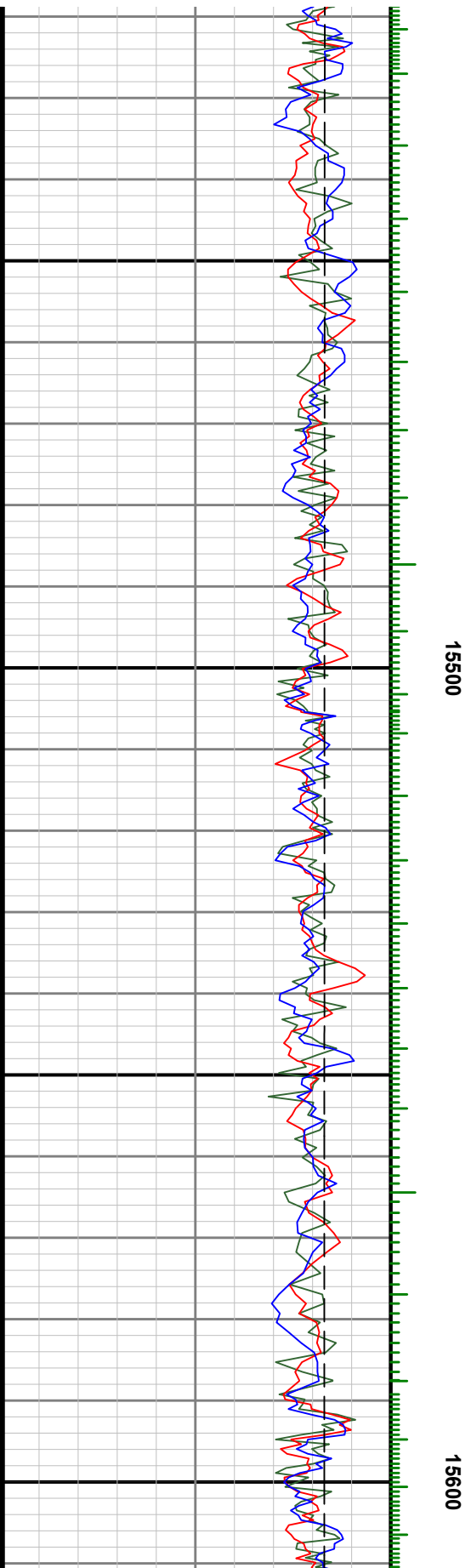
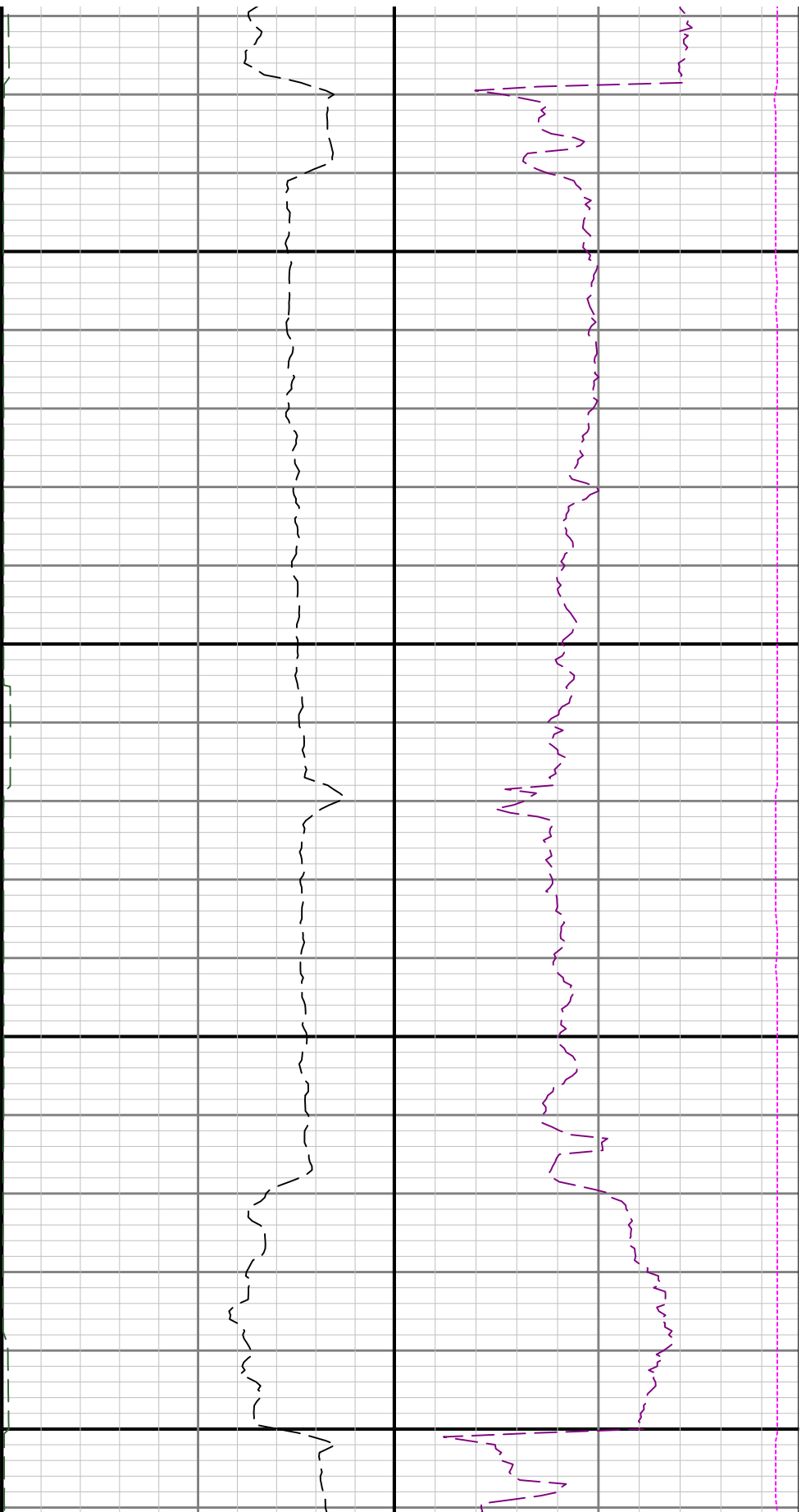


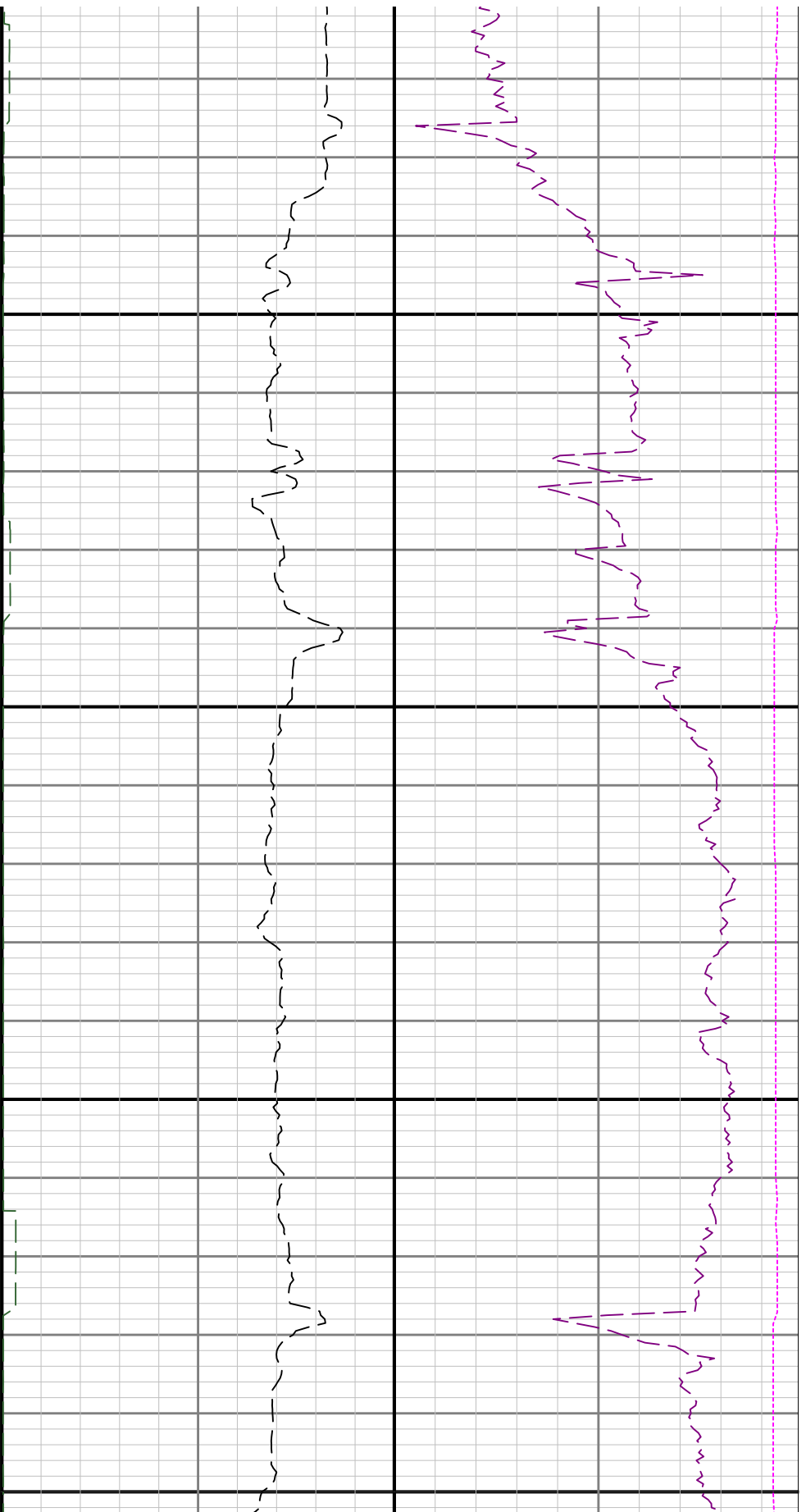


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15400

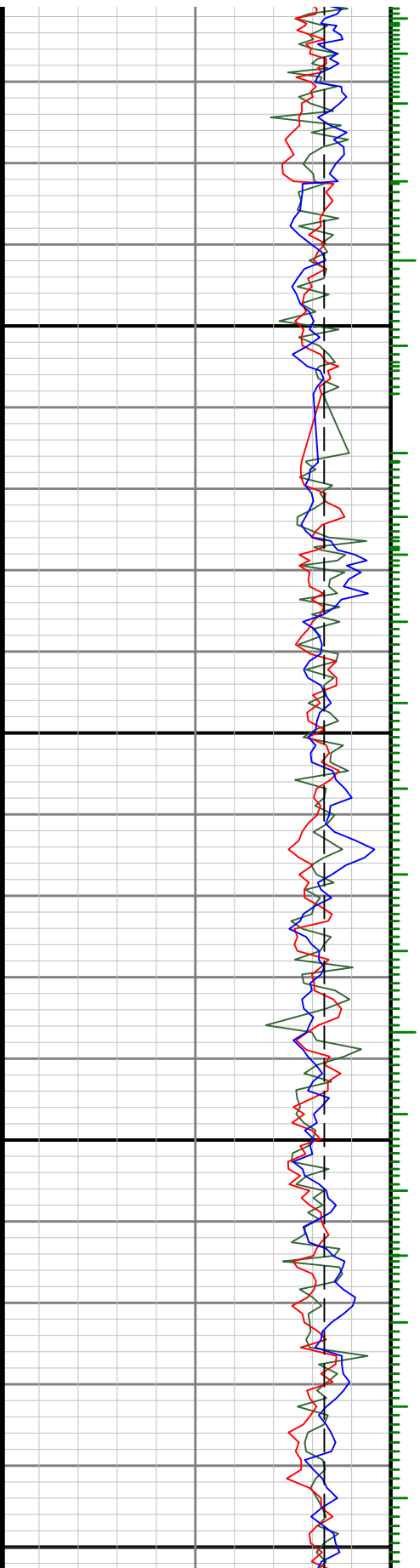


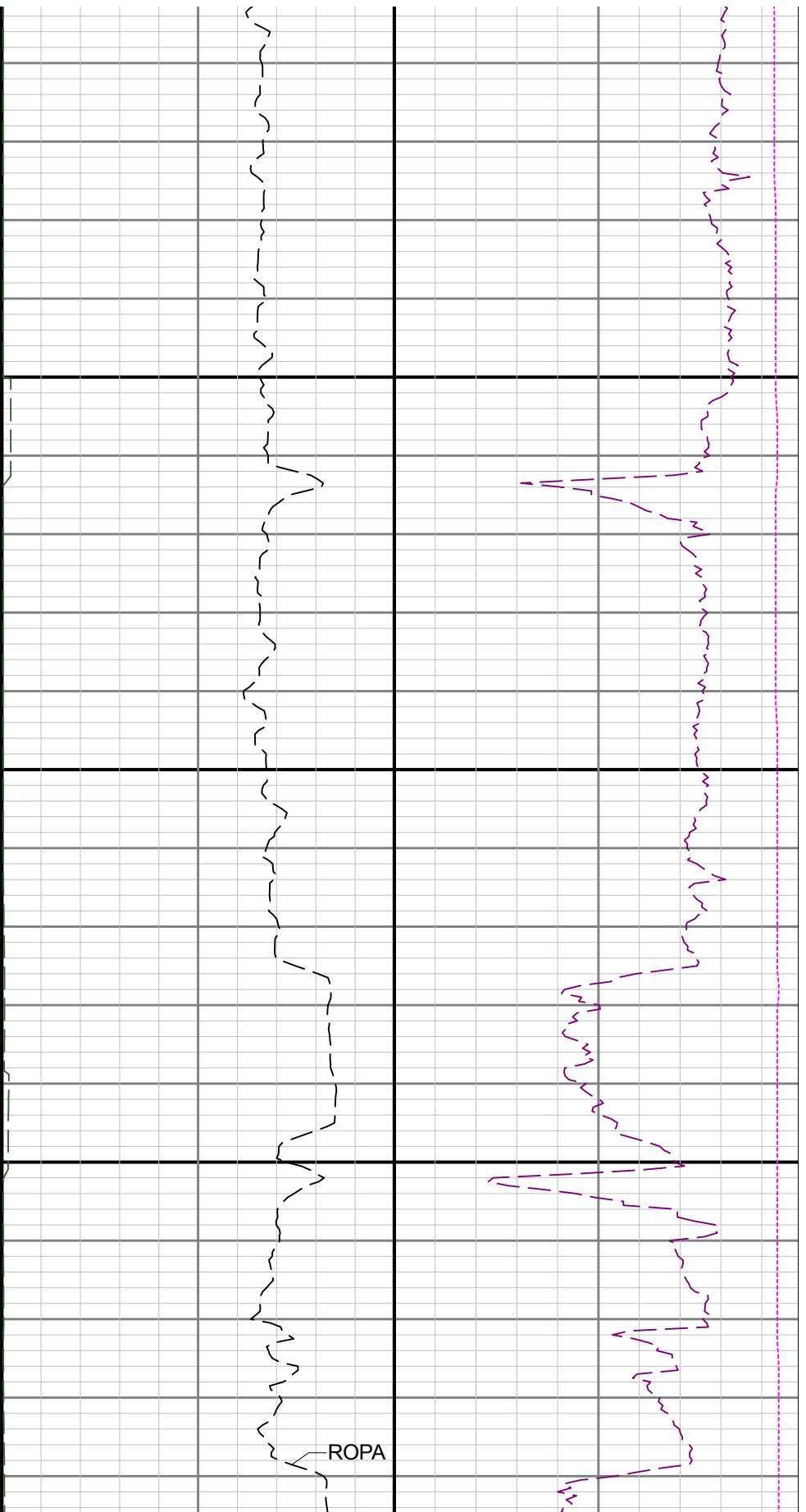




15700

15800





ROPA

15900

GRIM

GRADM

