

2020-01-19 15:21	2	1612.00	Diesel-Oil Based Mud	9.1	9	N/A	13.4	77/13	Active Pit	46314	0.00
2020-01-20 16:00	2	5450.00	Diesel-Oil Based Mud	9.0	6	N/A	13.4	77/15	Active Pit	40000	0.00
2020-01-21 16:00	3	8144.00	Diesel-Oil Based Mud	9.1	9	N/A	12.9	75/15	Active Pit	40000	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)
1	NaviTrak	12366182	VSS	0.00	35.87	8.000	0.000
1	NaviTrak	12366182	Directional (mag)	16.56	52.43	8.000	0.000
2	AutoTrak Curve Steering Unit	14547137	Near Bit Inclination	5.93	6.73	7.000	4.330
2	AutoTrak Curve Steering Unit	14547137	Near Bit VSS	5.93	6.73	7.000	4.330
2	AutoTrak Curve MWD	12304786	Gamma (single)	2.08	12.90	7.000	3.250
2	AutoTrak Curve MWD	12304786	Directional (mag)	12.27	23.09	7.000	3.250
3	AutoTrak Curve Steering Unit	14858684	Near Bit Inclination	5.93	6.73	7.000	4.330
3	AutoTrak Curve Steering Unit	14858684	Near Bit VSS	5.93	6.73	7.000	4.330
3	AutoTrak Curve MWD	12284825	Gamma (single)	2.79	12.90	7.000	3.250
3	AutoTrak Curve MWD	12284825	Directional (mag)	12.27	22.38	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. Due to lack of control by Baker Hughes, depth calibrations and measurements could not be independently verified.
2	Baker Hughes LWD Run 1 used the 8 inch NaviTrak service (Directional) behind a 13 1/2 inch bit and steerable assembly to drill from 17 to 1612 feet MD (17 to 1605 feet TVD). No logging data was acquired throughout this run.
3	Baker Hughes LWD Run 2 and 3 used the 6 3/4 inch NaviGamma service (Azimuthal Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly to drill from 1612 to 11265 feet MD (1605 to 6140 feet TVD).
4	The Gamma Ray Apparent (GRAM) data is presented from 0 to 200 API, per customer's request.

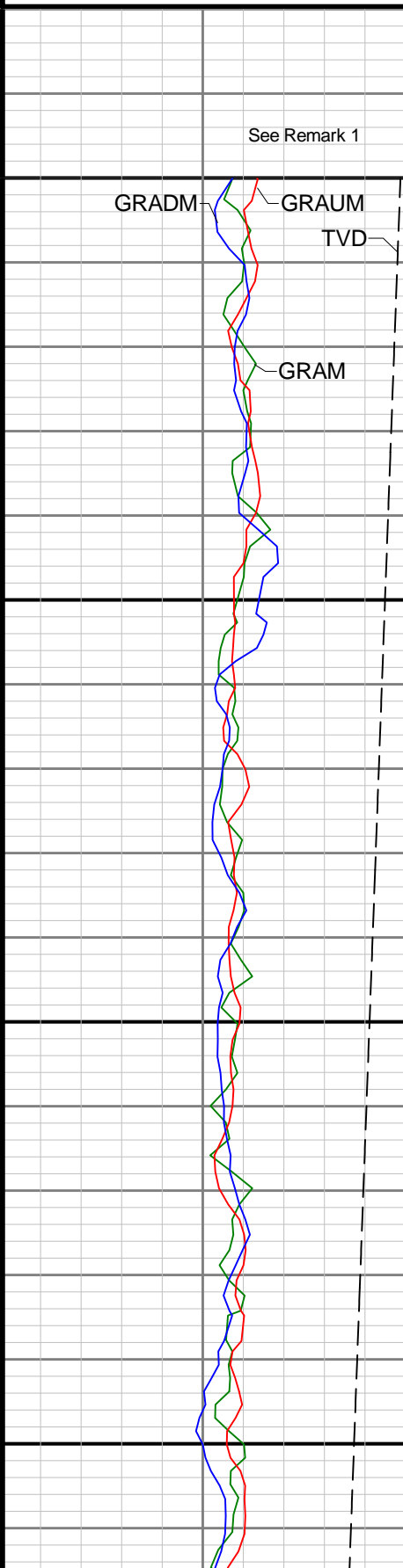
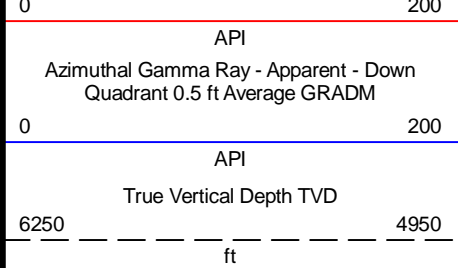
Remarks

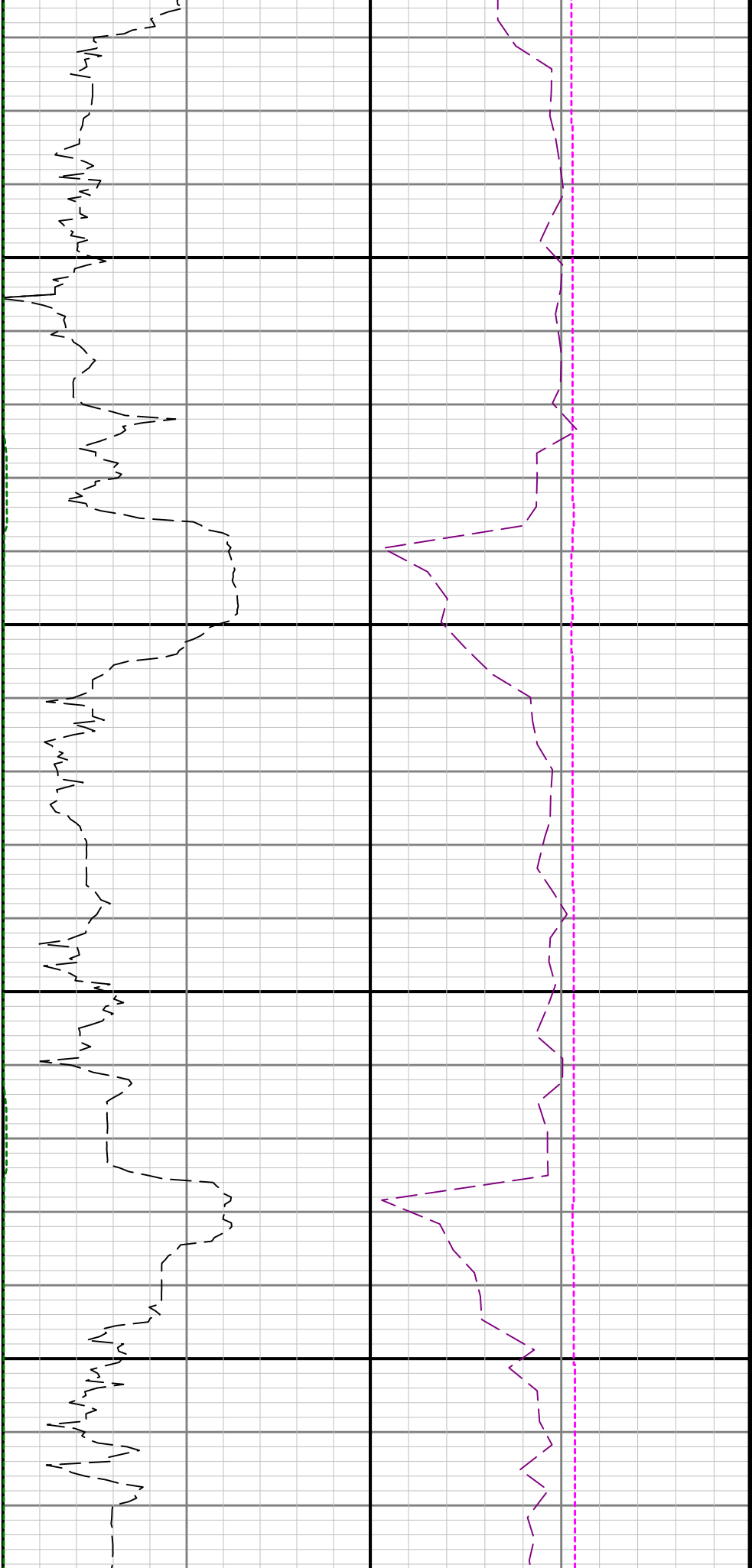
Number	Depth (ft)	Hole Section (in)	Run No.	Remark
1	5100.00	8.500	2	The Gamma Ray Apparent (GRAM) log starts at 5000 feet, per customer's request.
2	7206.00	8.500	3	The GRTM curve exceeds the 600 min scale in the interval from 7196 to 7235 feet MD (6144 TVD) because it was not logged for 10.5 hours due to a trip out of hole to change out BHA.
3	7210.00	8.500	3	Memory Gamma Ray and Azimuthal Gamma Ray data was not logged from 7196 to 7235 feet (6144 feet TVD) due to drilling ahead during tool failure.
4	11255.00	8.500	2	The interval from 11252 to 11265 feet MD (6140 feet TVD) was not logged due to sensor to bit offset at well TD.

Curve Mnemonics

Presented Curves	Description	Units
WOBA	Weight On Bit	klb
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
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

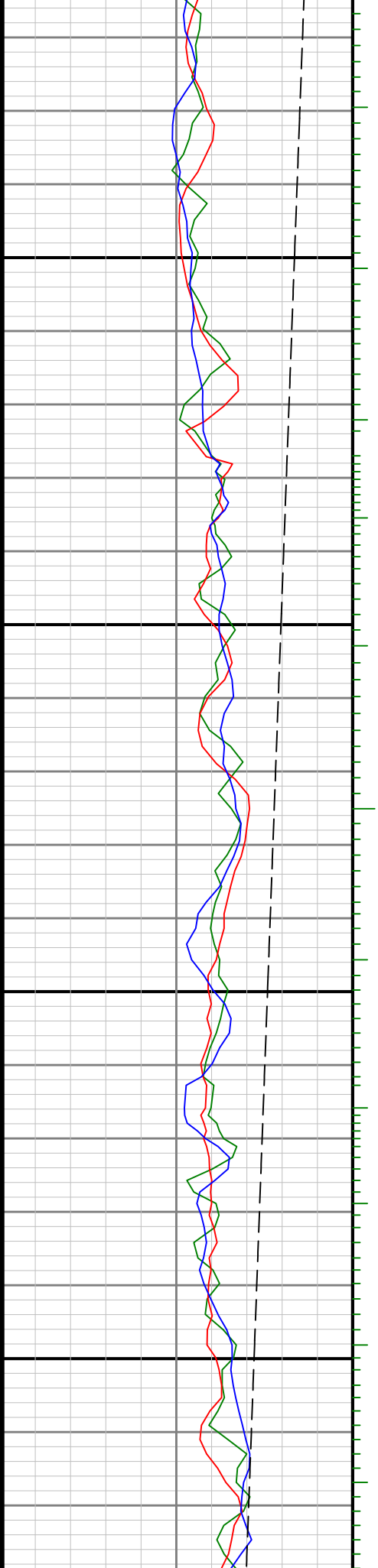
	Company	Bonanza Creek Energy				
	Well	State Antelope W42-C12-13HNB				
	Interval	Date From:	2020-01-06 20:00	Interval Drilled: (ft)	17.00	- 11265.00
		Date To:	2020-01-22 03:15	Interval Logged: (ft)	5000.00	- 11252.00
	Created	2020-01-22 11:37:15				
Gamma Ray - Apparent 0.5 ft Average GRAM		MD 1:240 feet	Depth Averaged ROP 3 ft Average ROPA		Downhole Temperature TCDM	
0 200			1000 0		0 300	
API			ft/h		degF	
Azimuthal Gamma Ray - Apparent - Up Quadrant 0.5 ft Average GRAUM			Gamma Time Since Drilled GRTM		Weight On Bit, Average WOBA	
0 200			0 600		0 50	

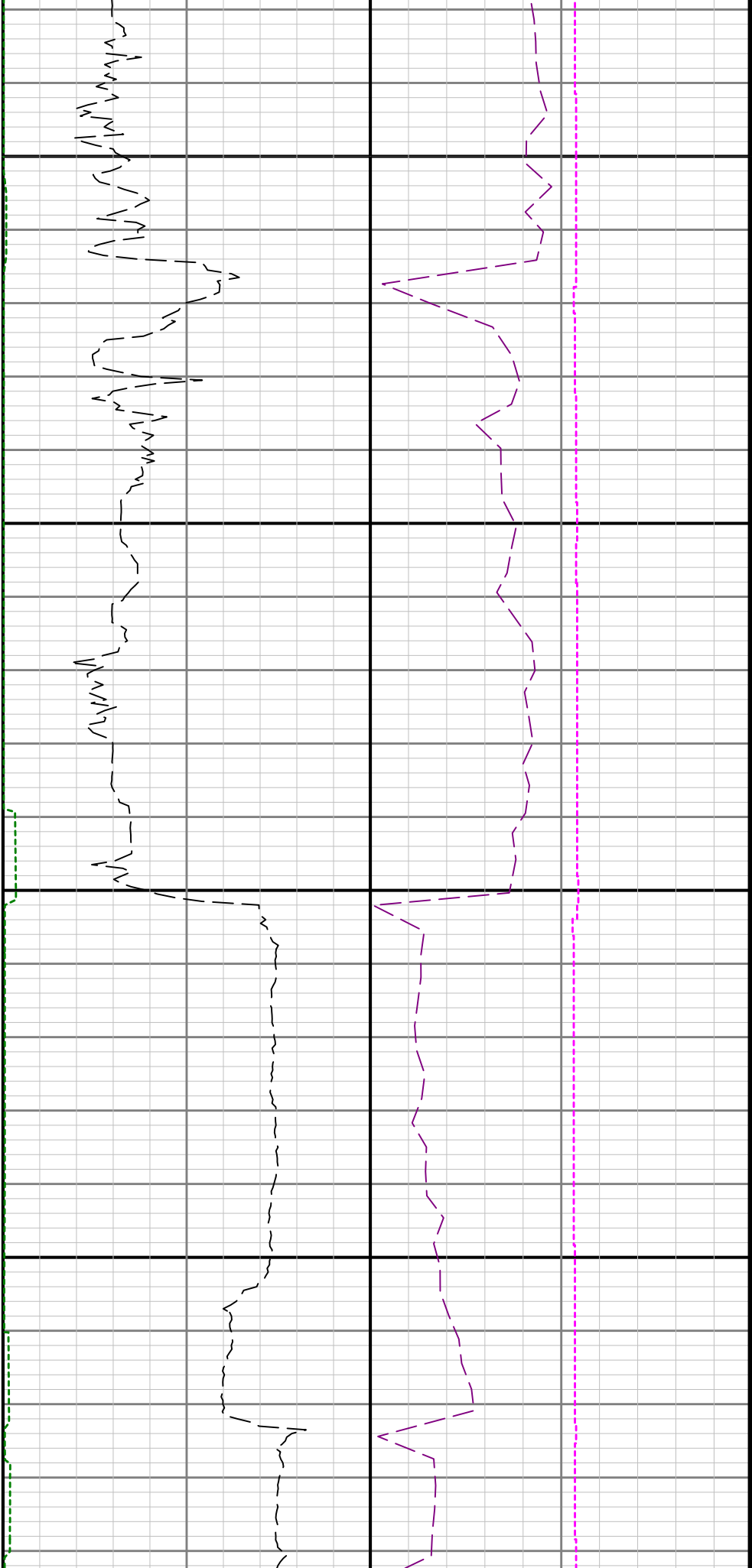




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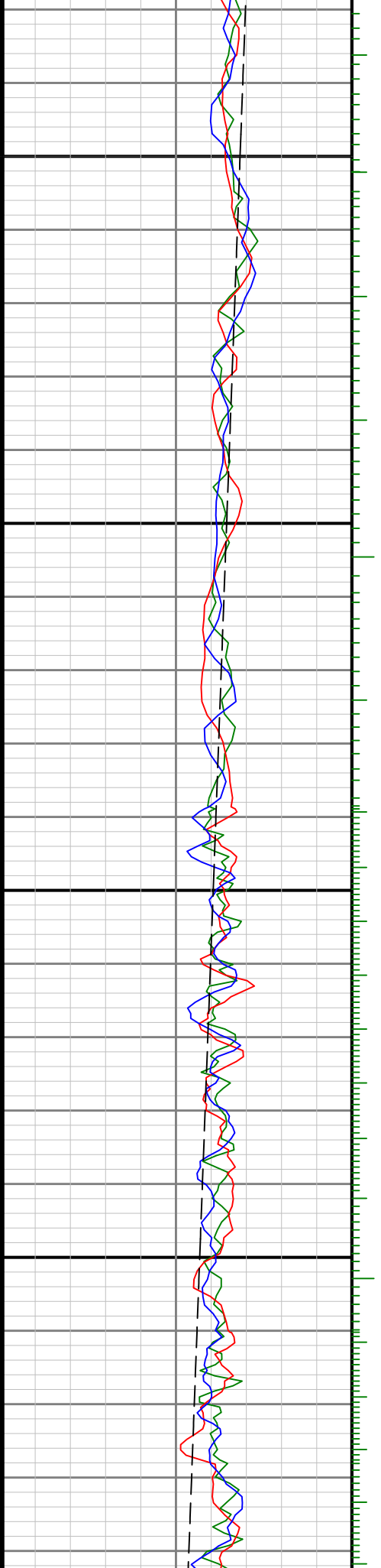
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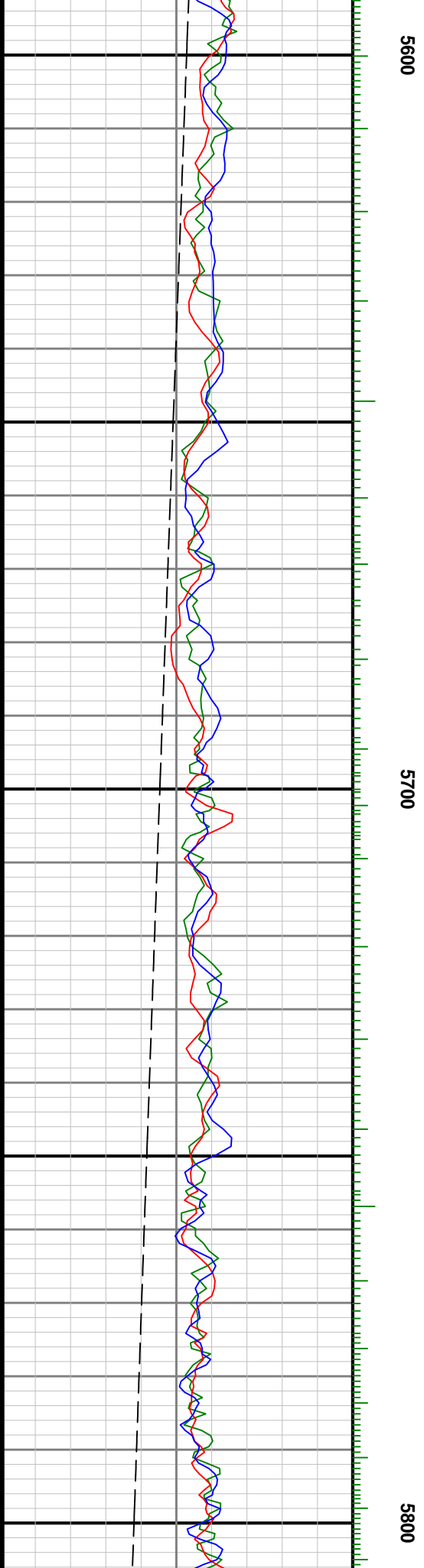
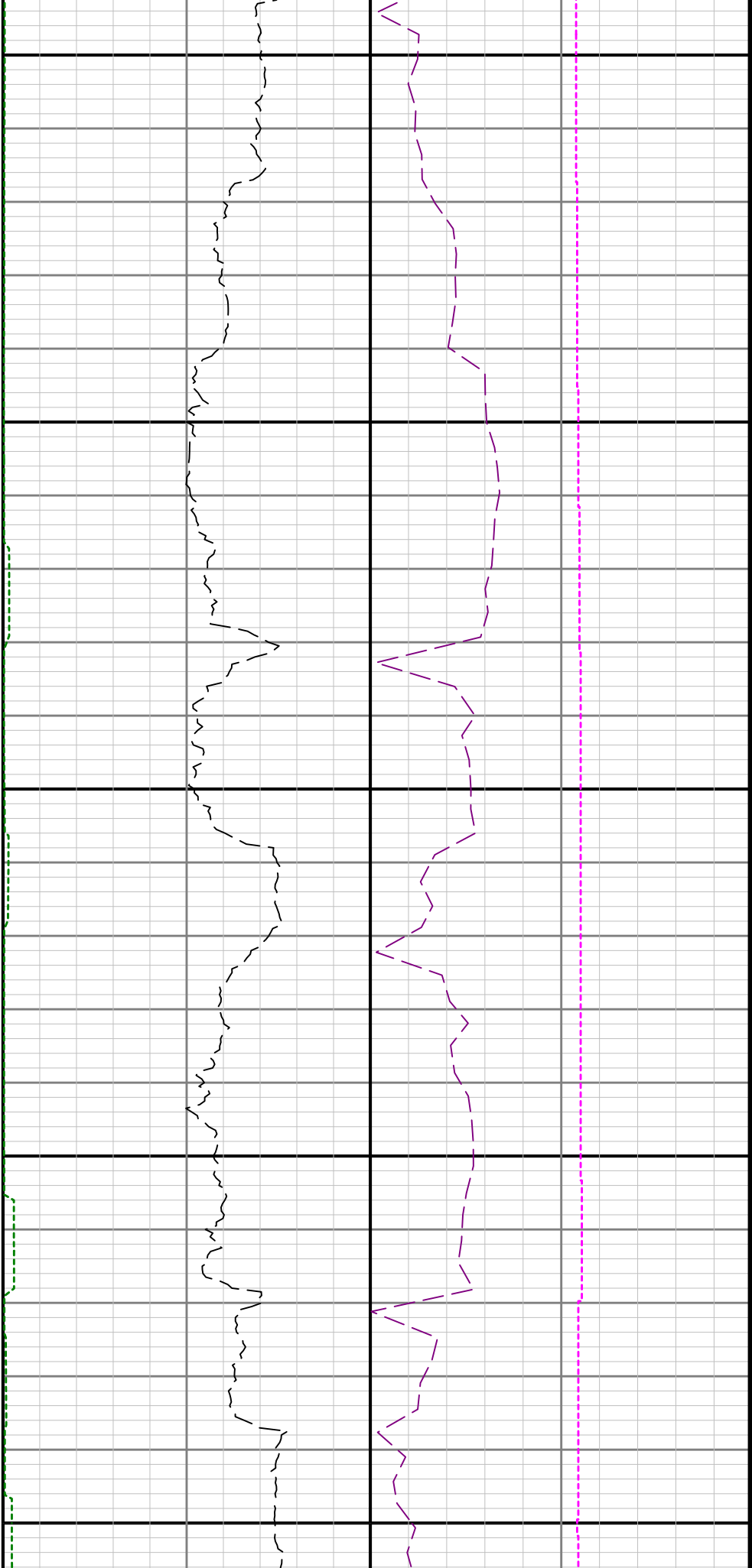


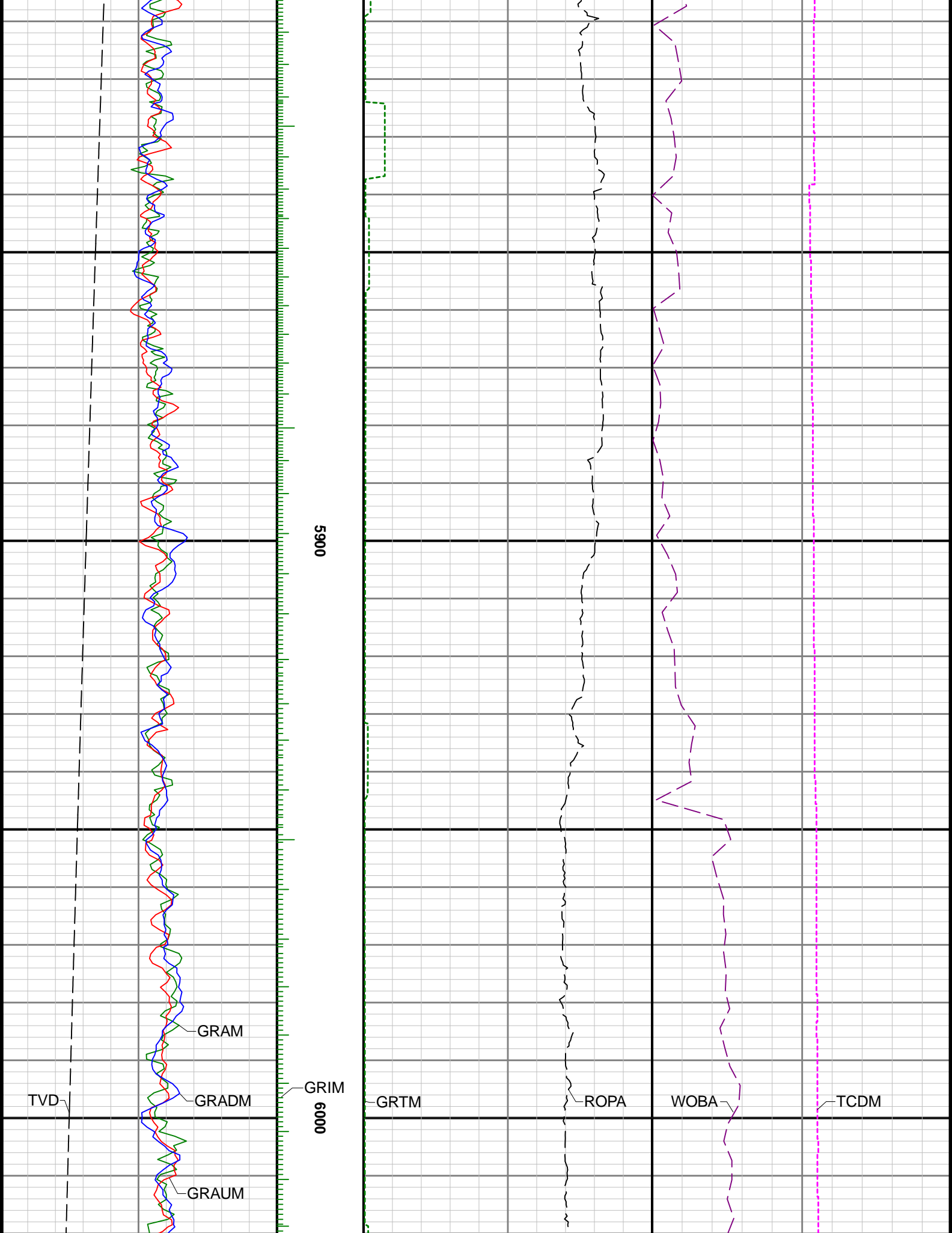


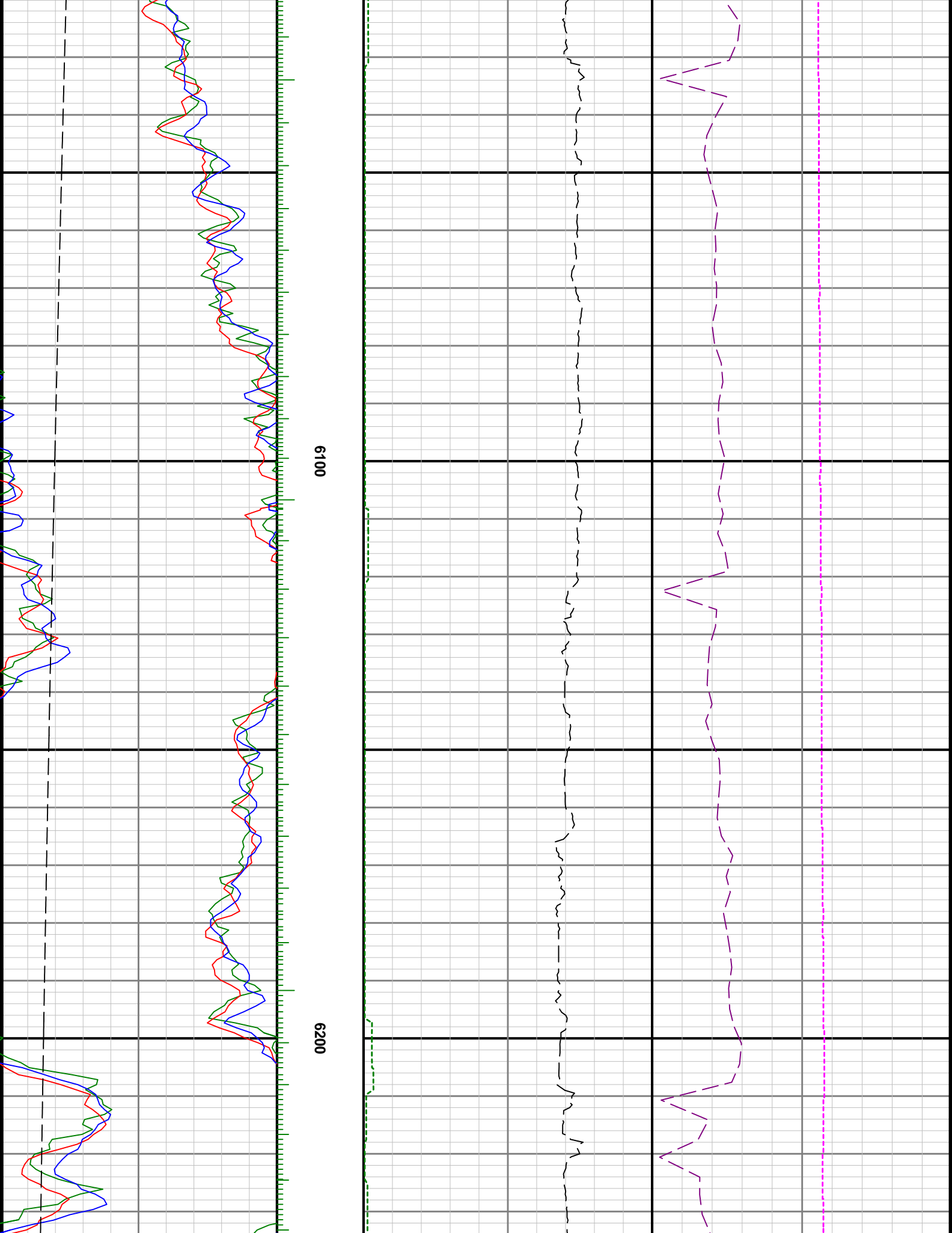
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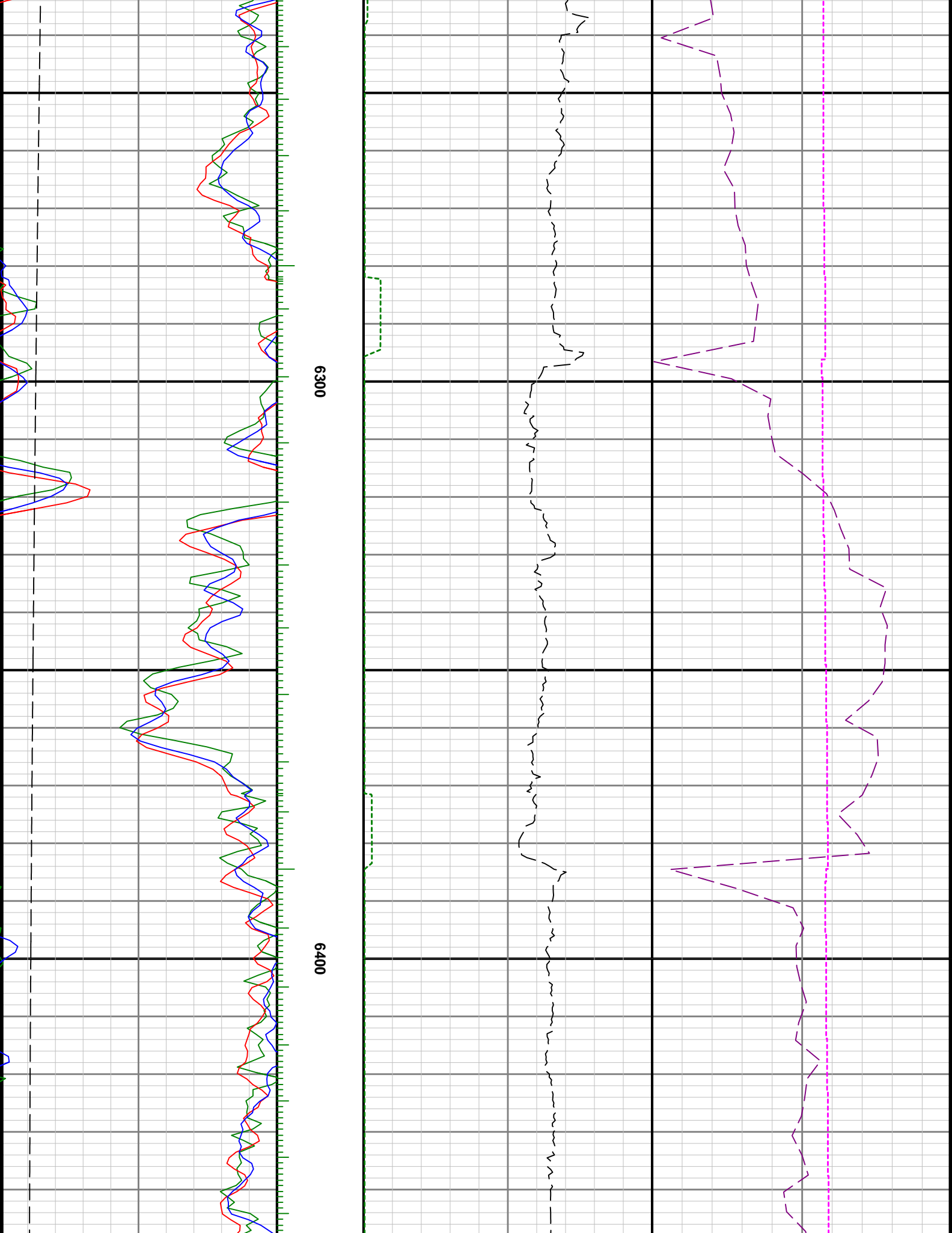
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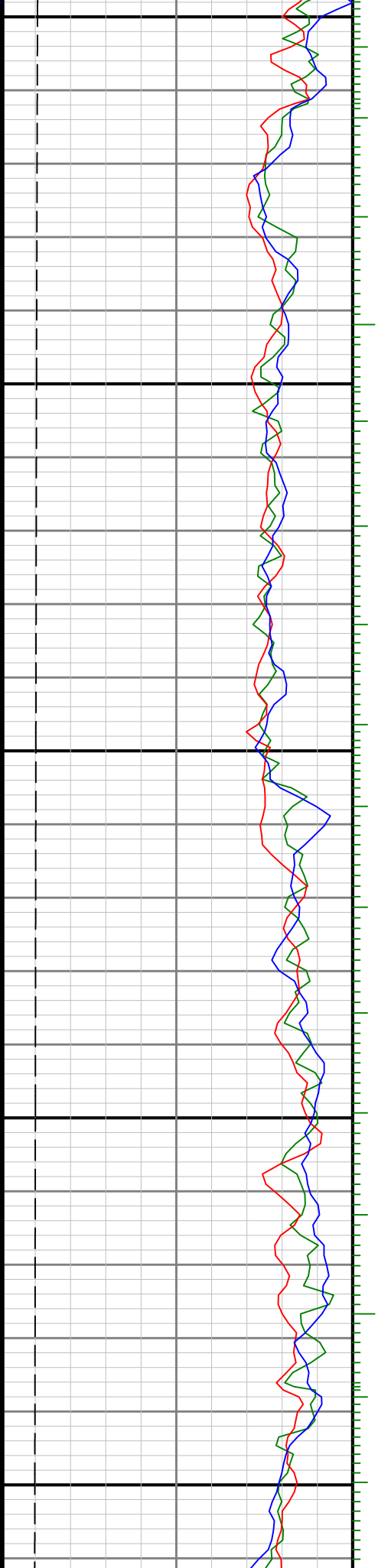






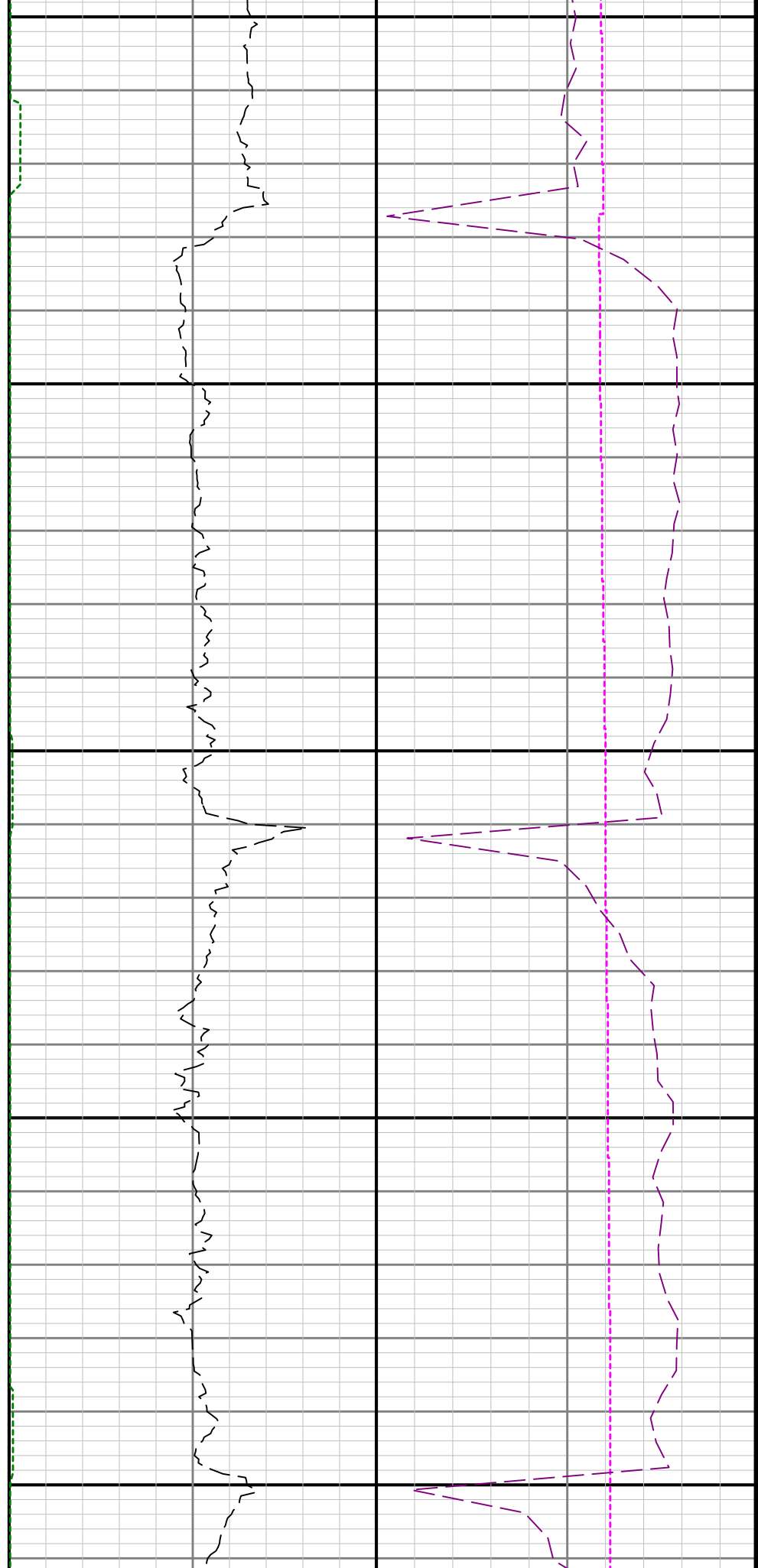


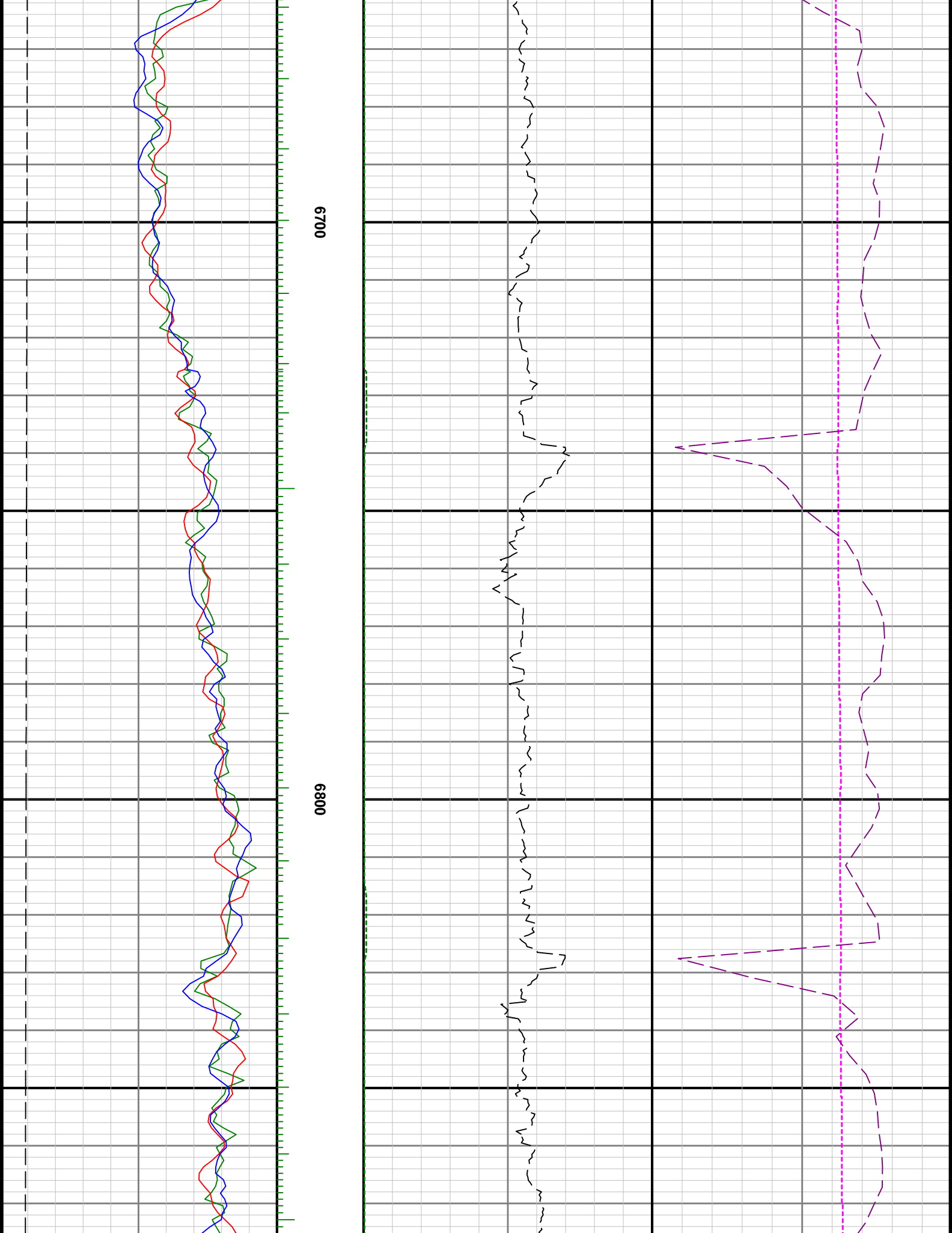


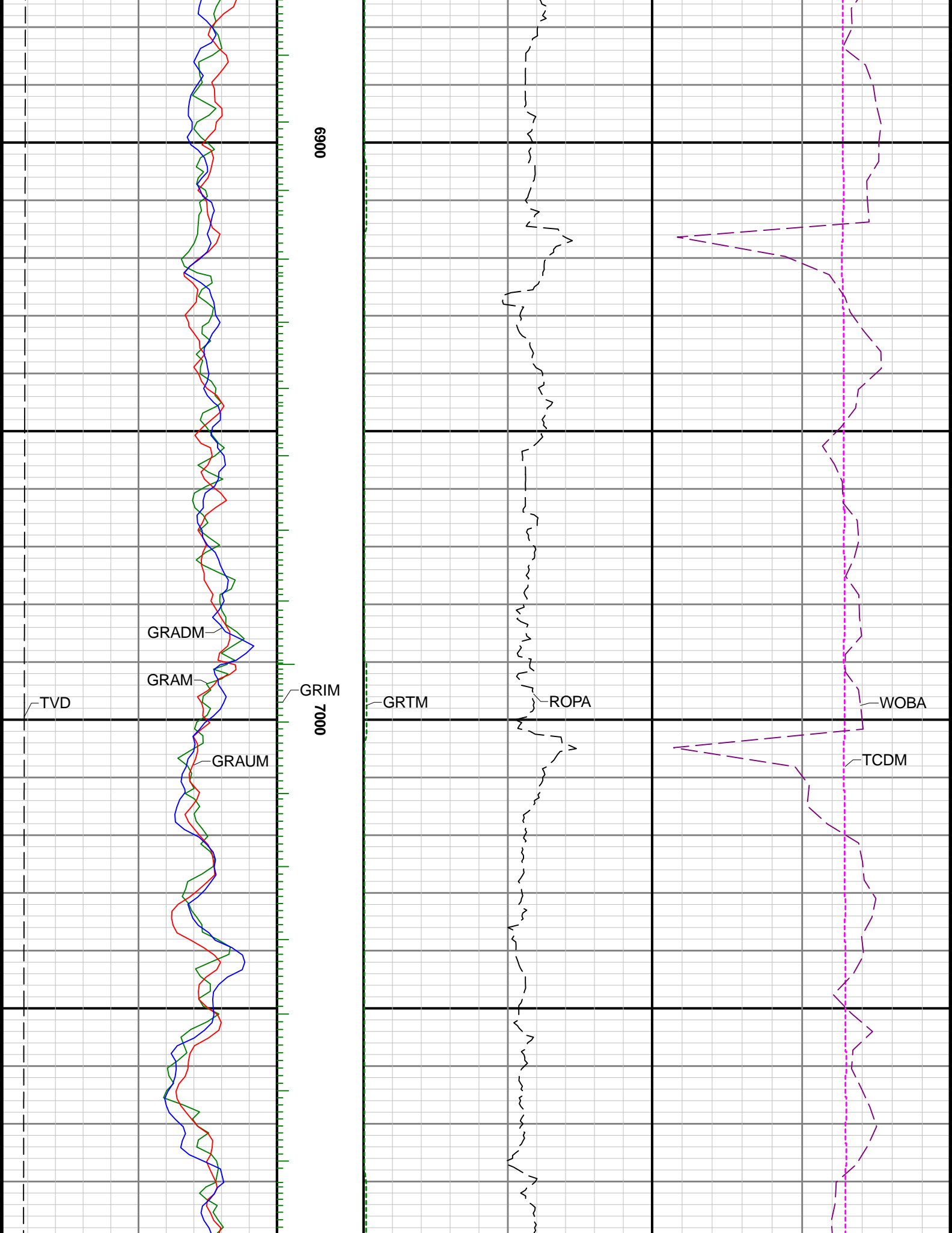


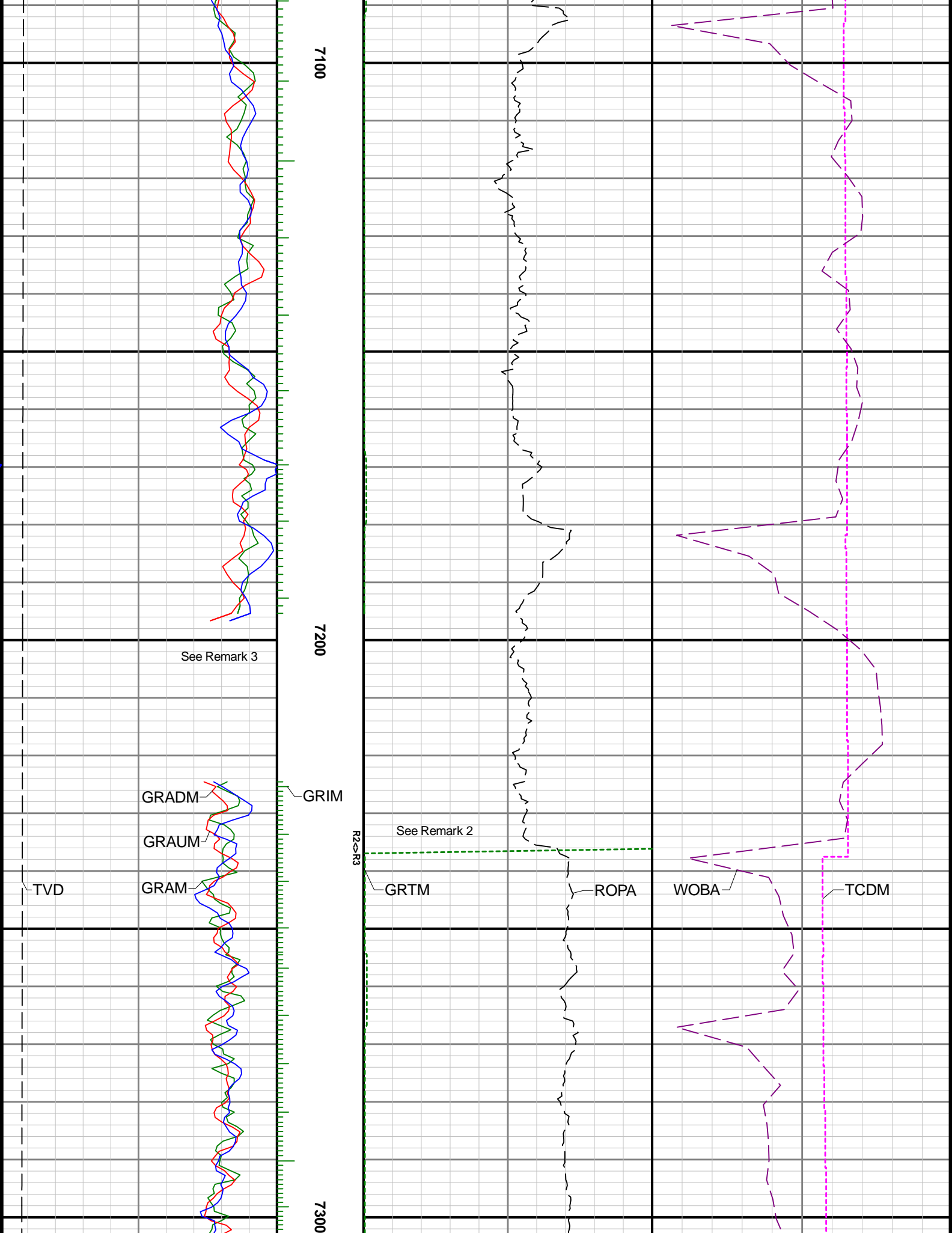
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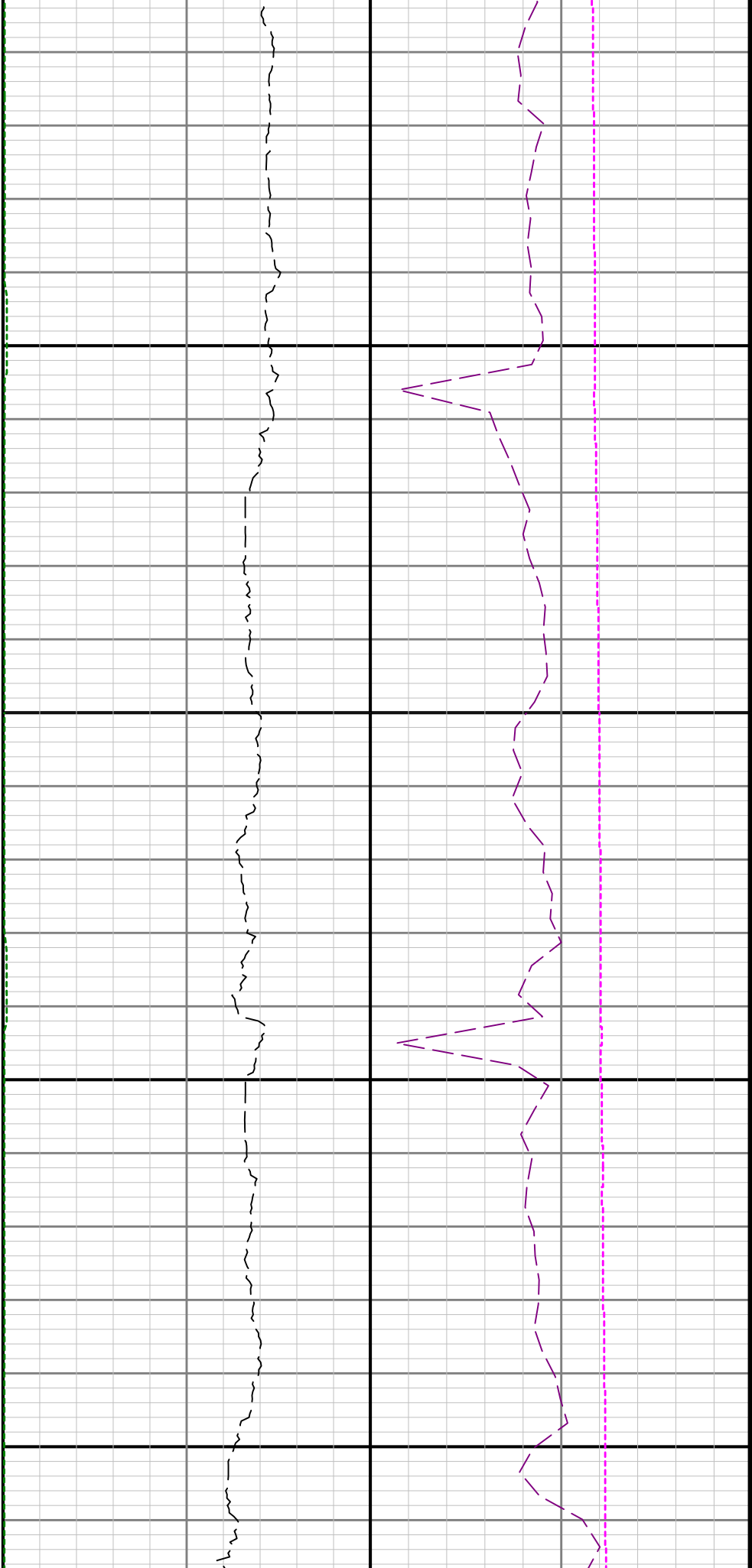
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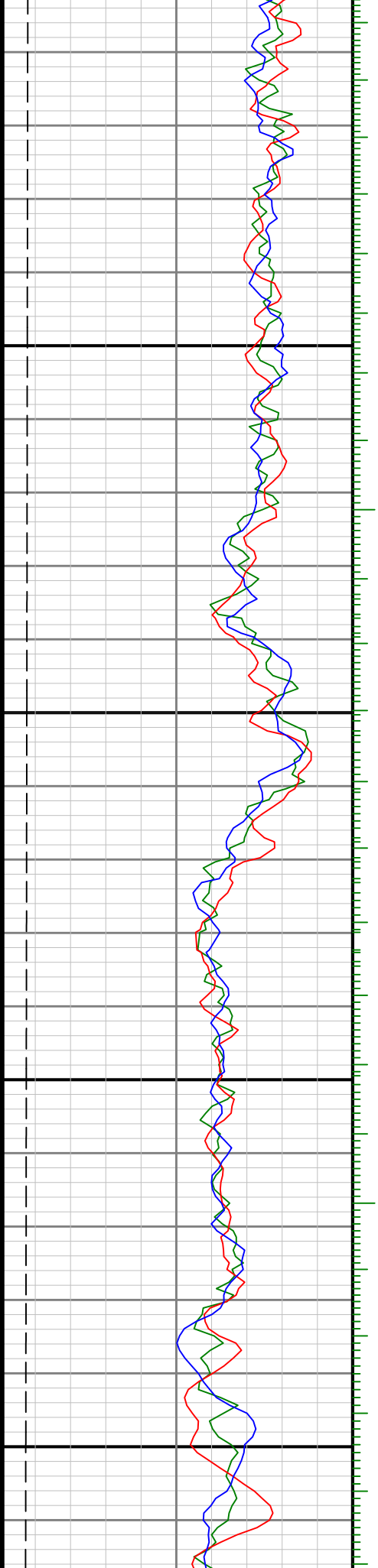


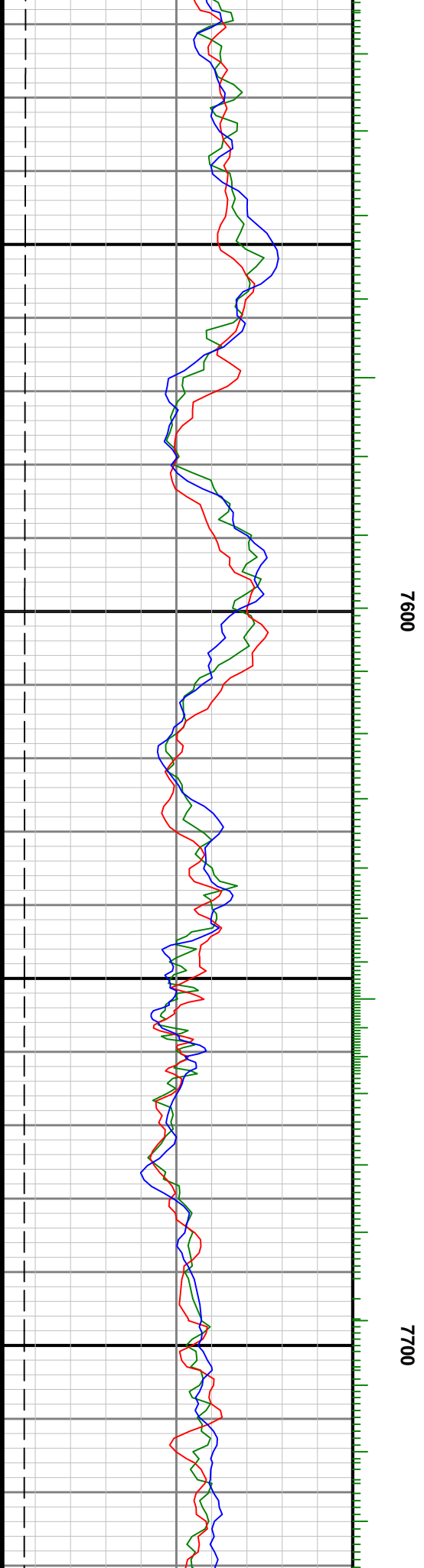
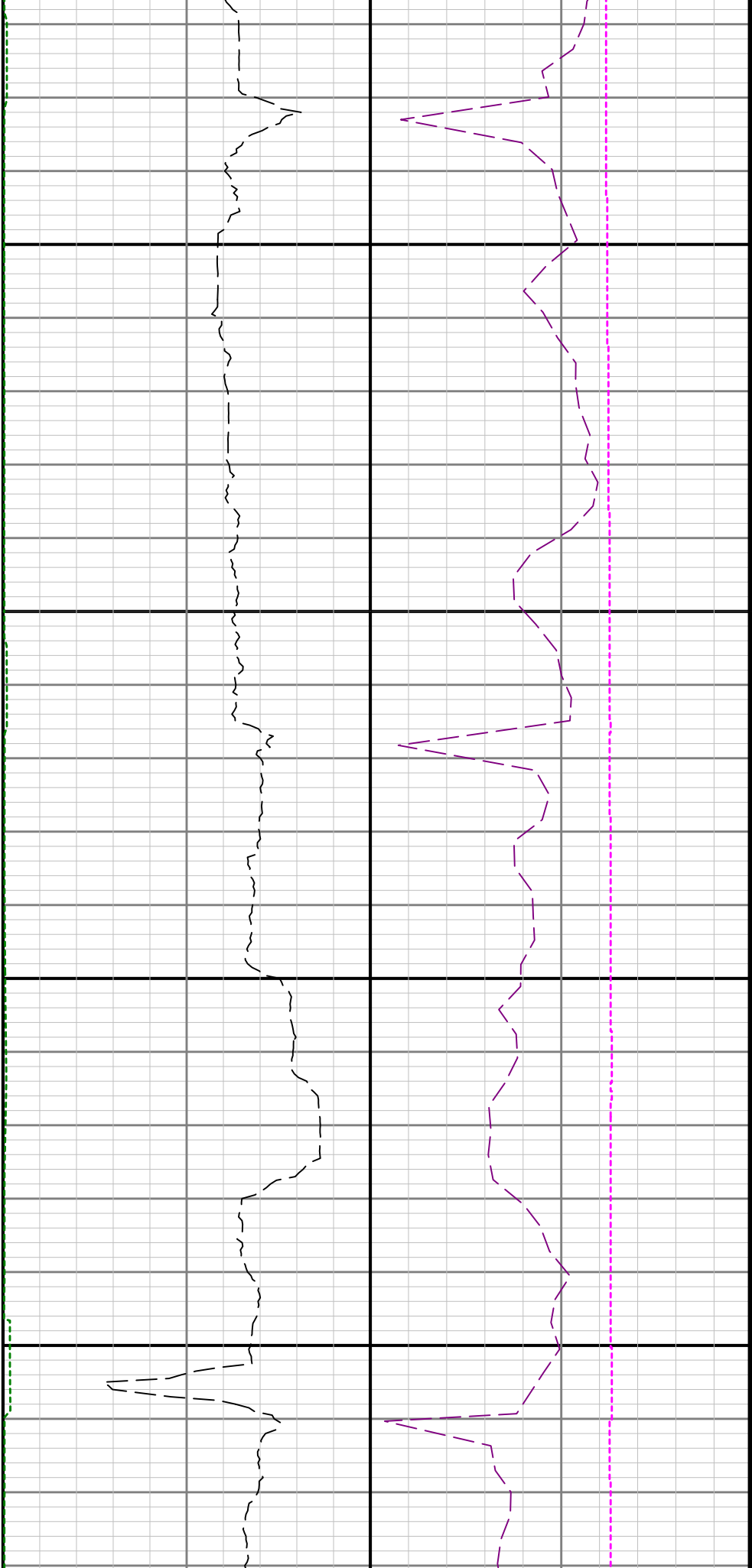


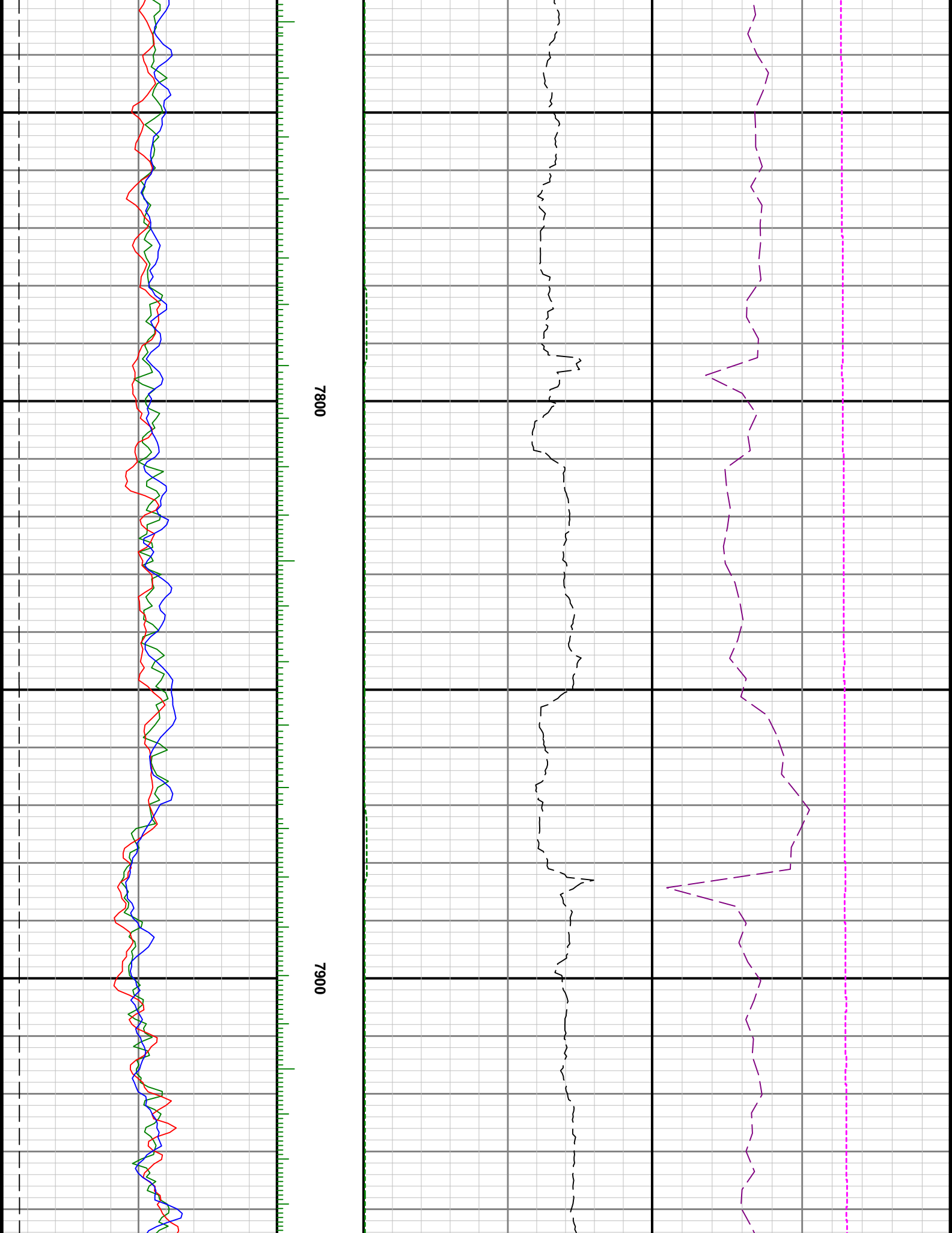


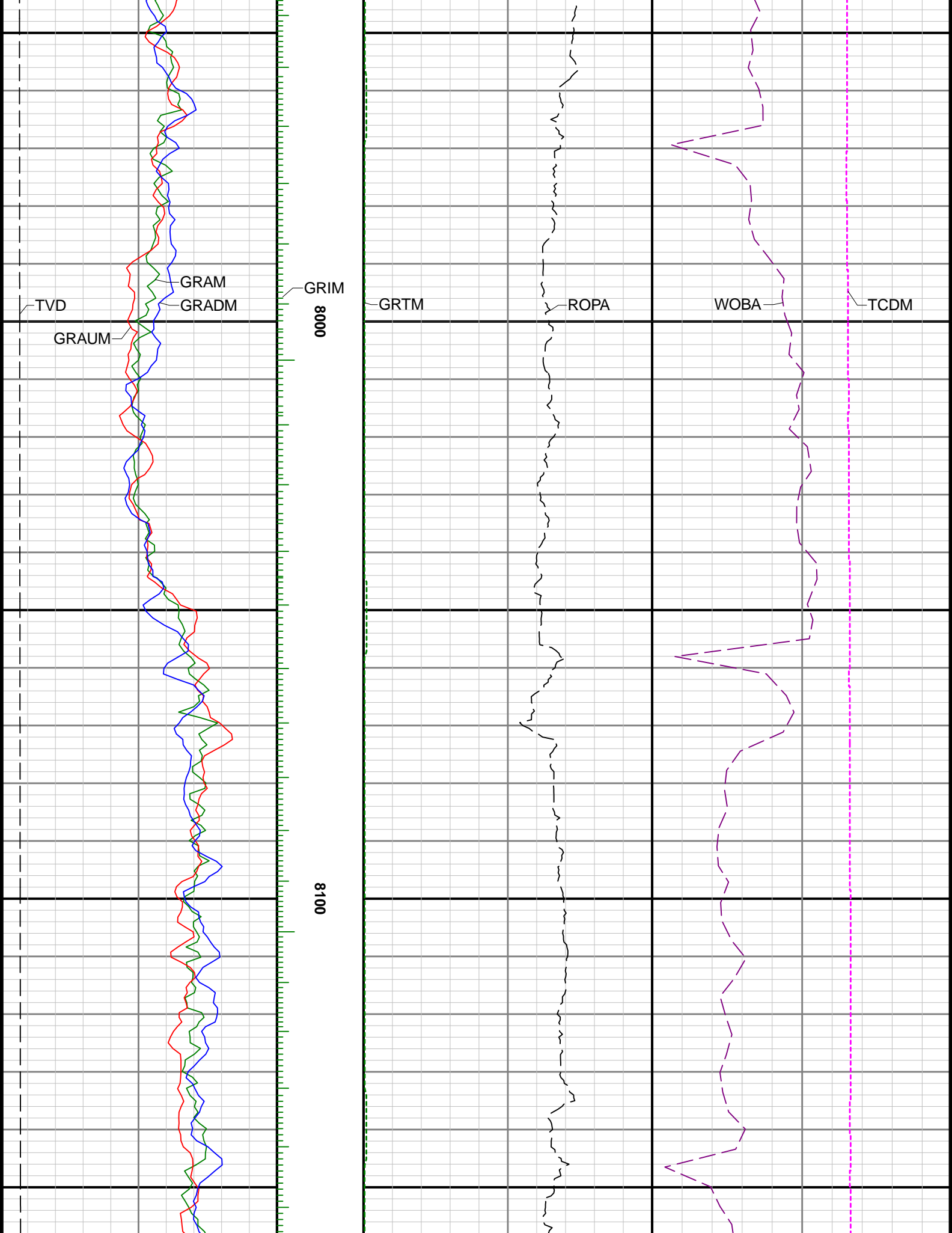
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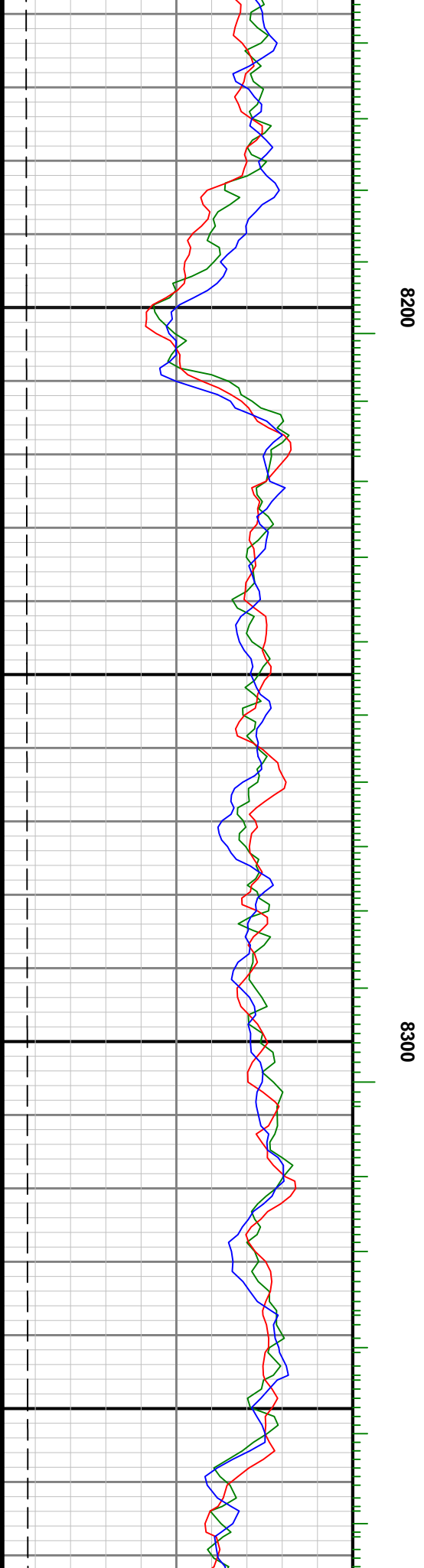
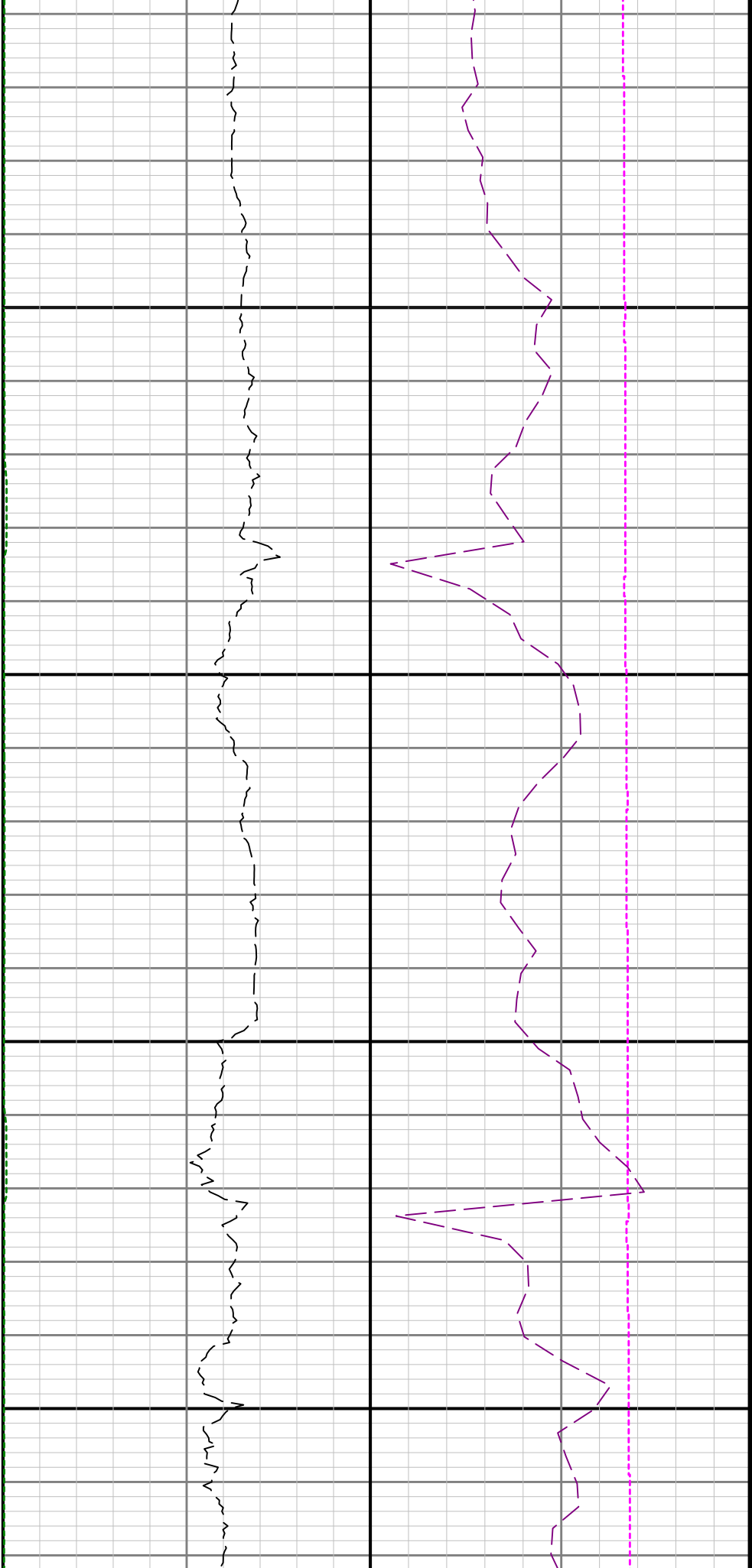
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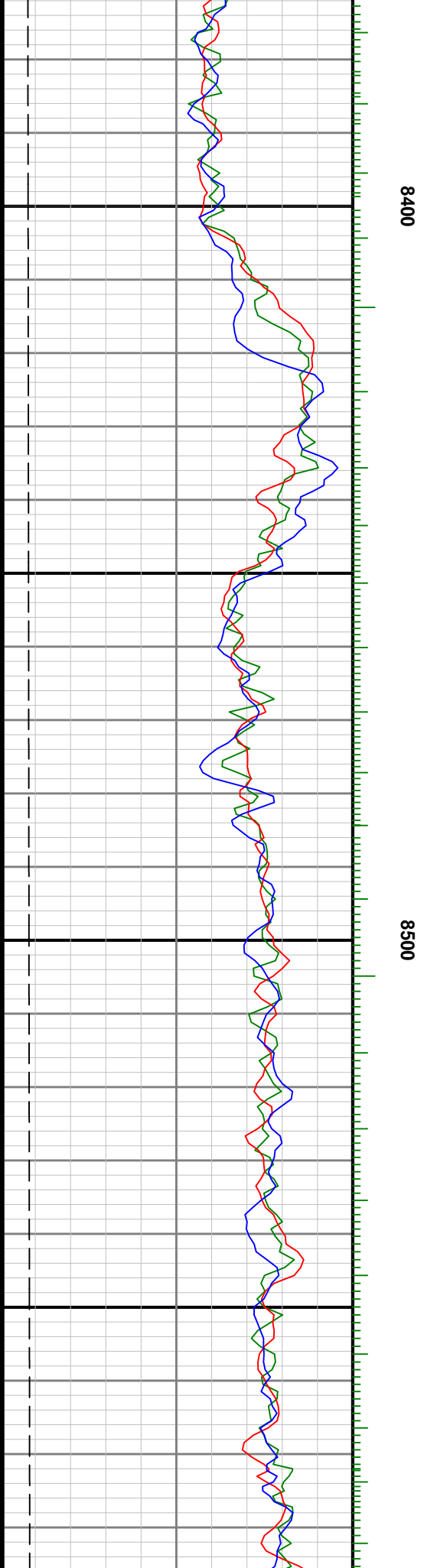
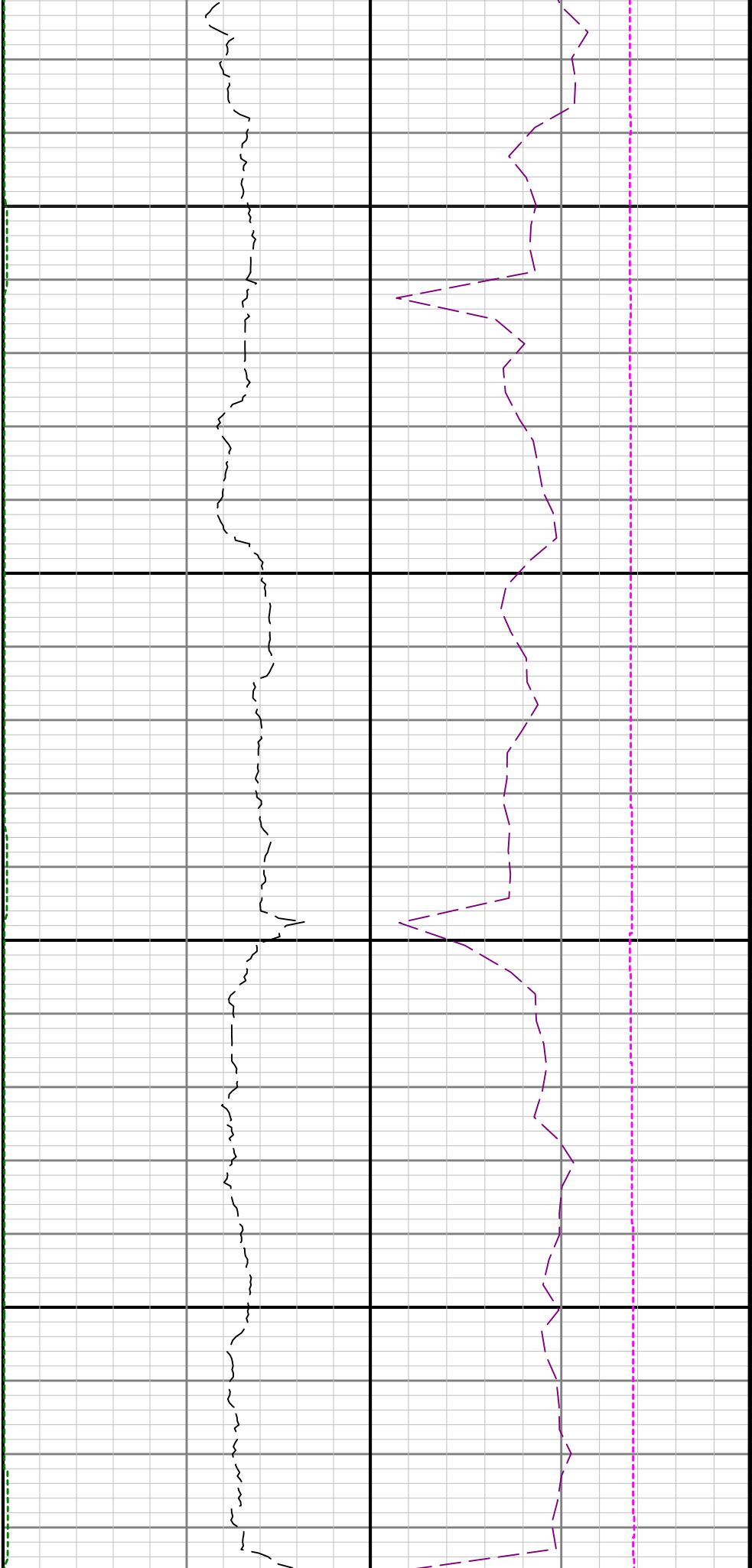


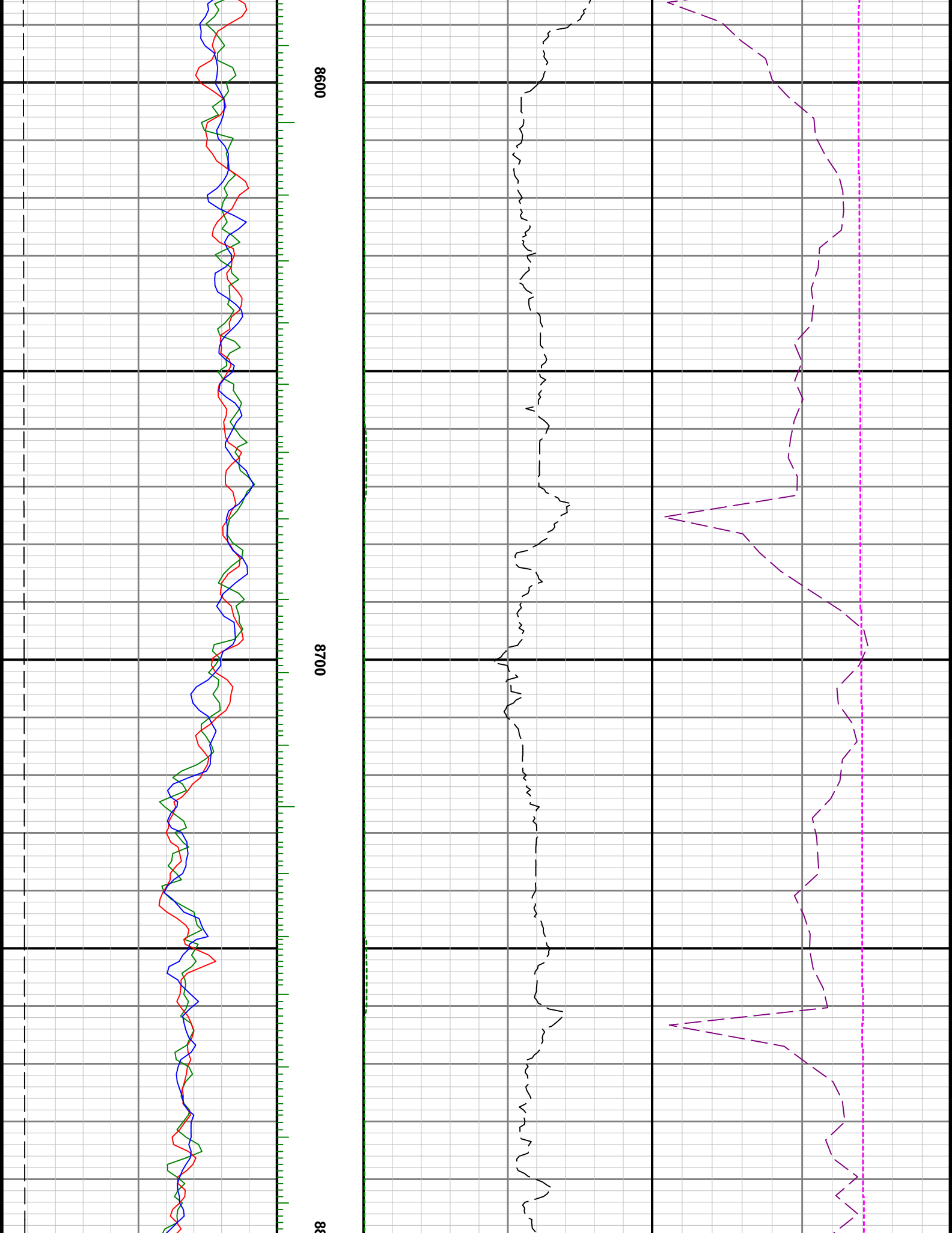


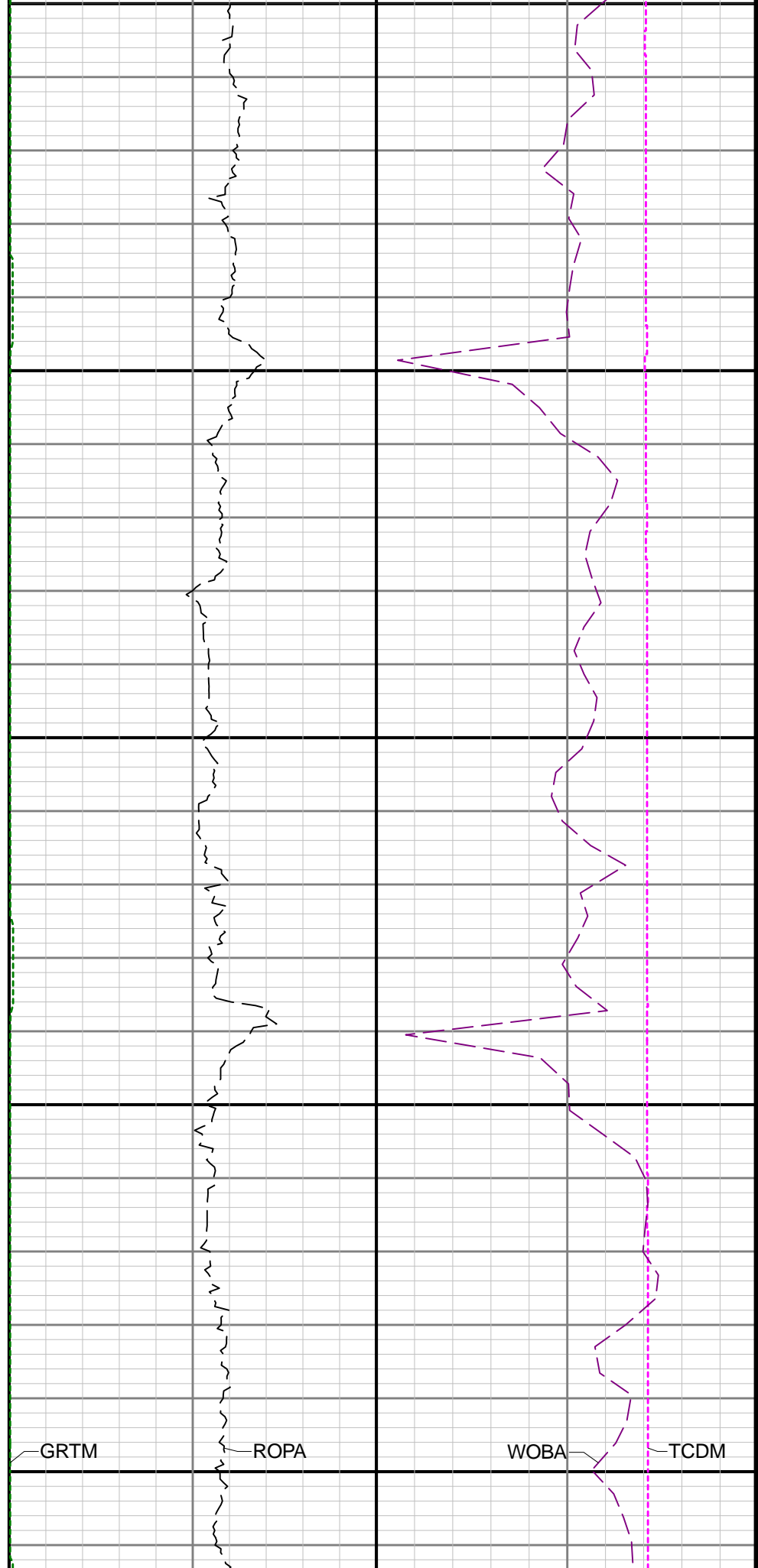
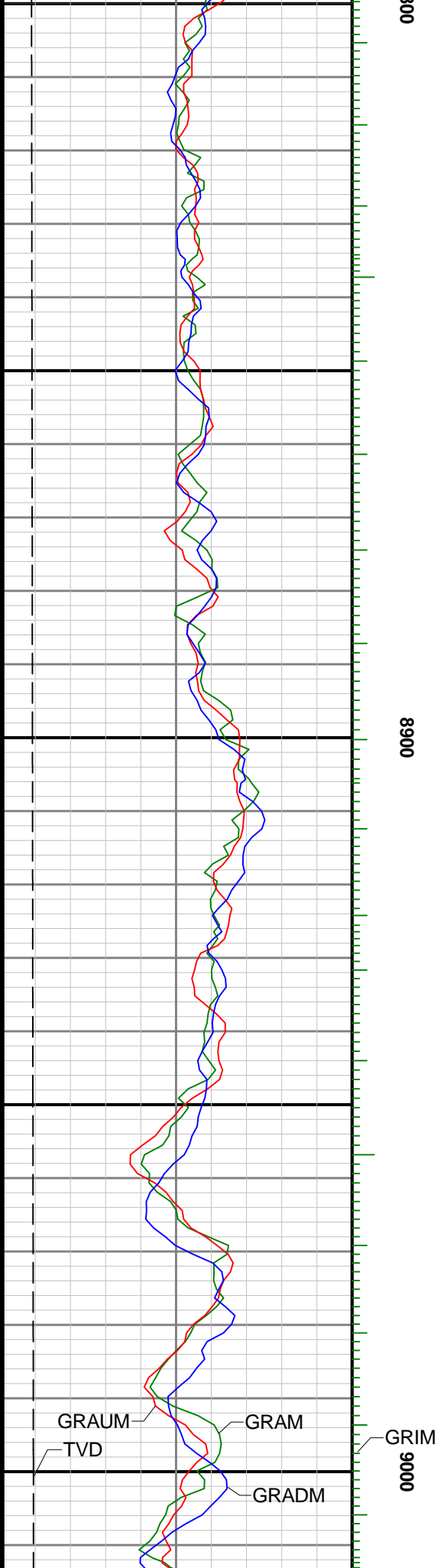


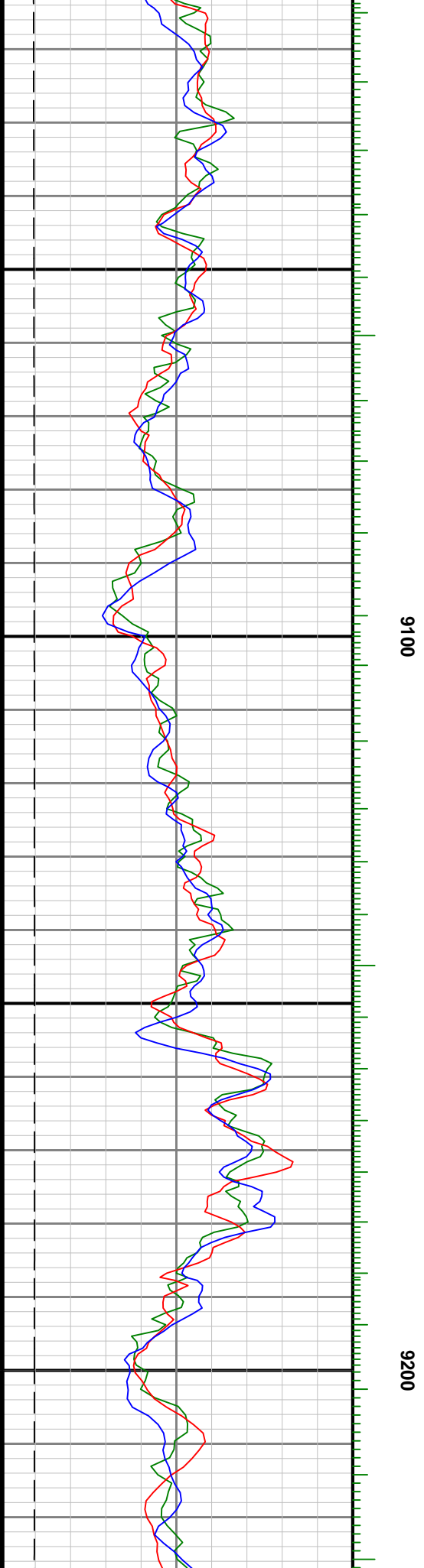
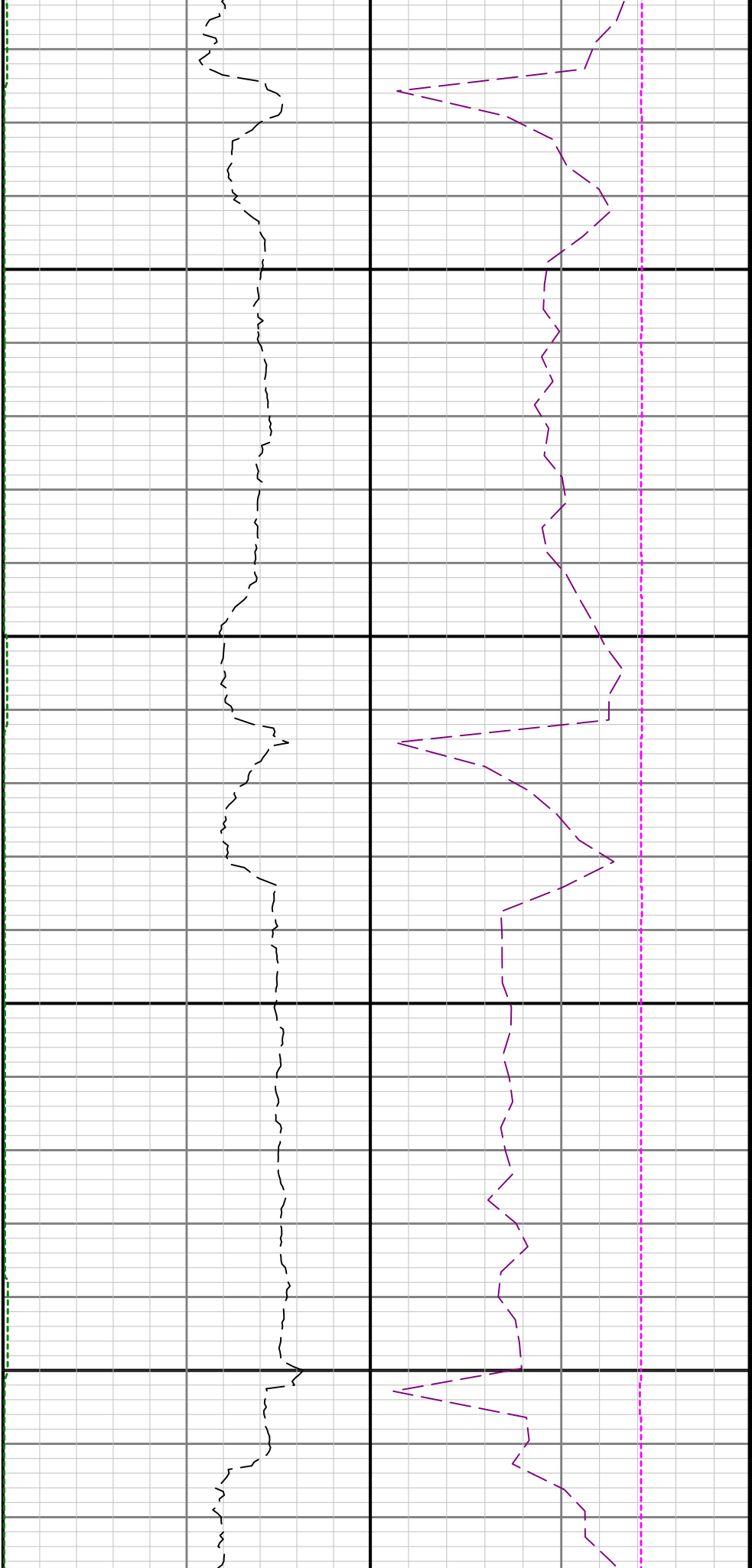


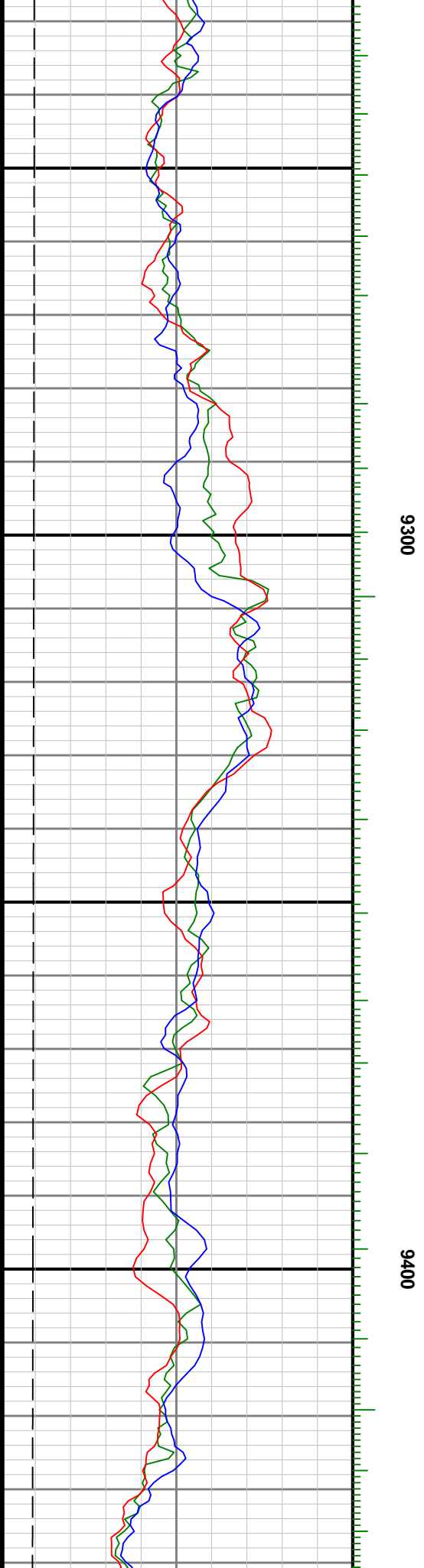
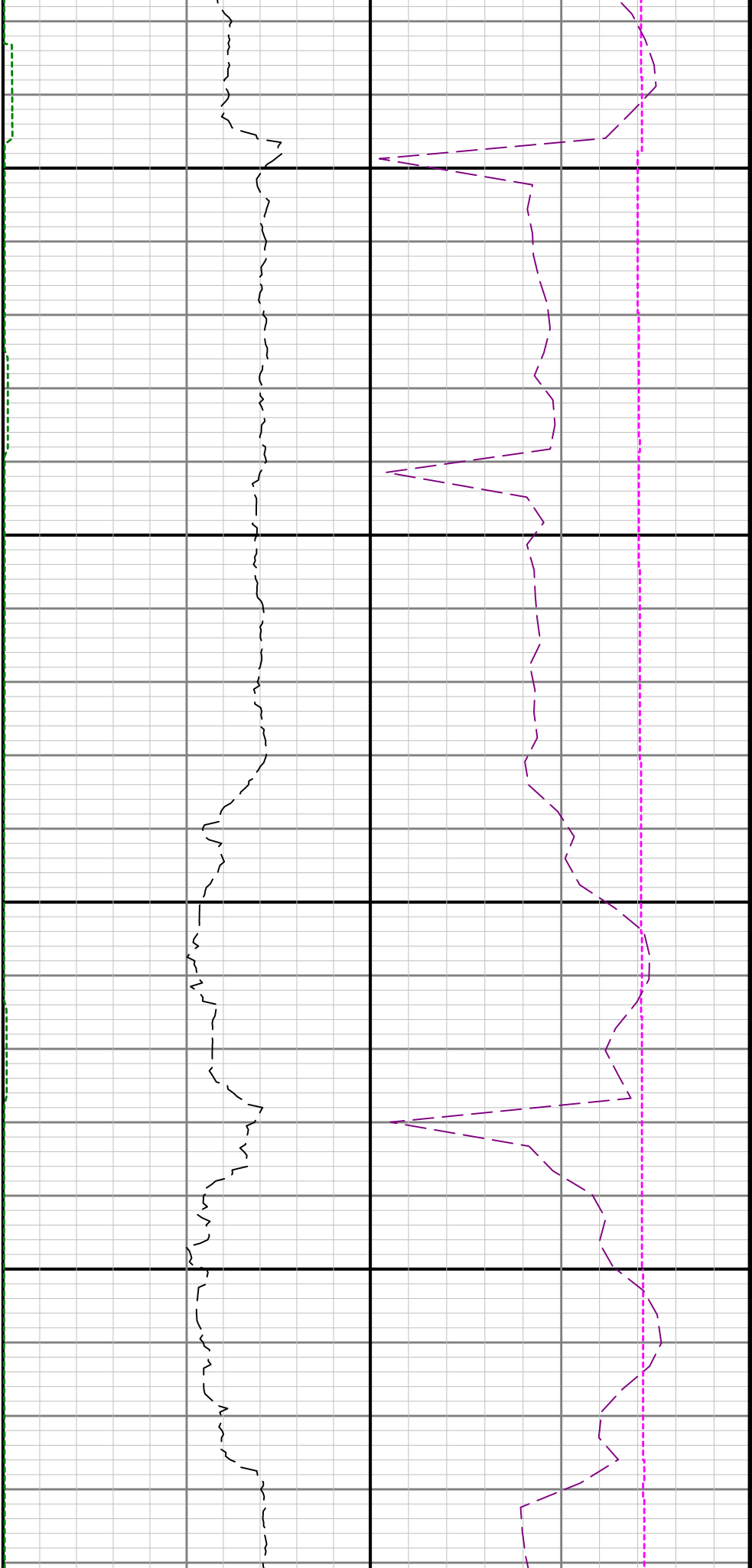


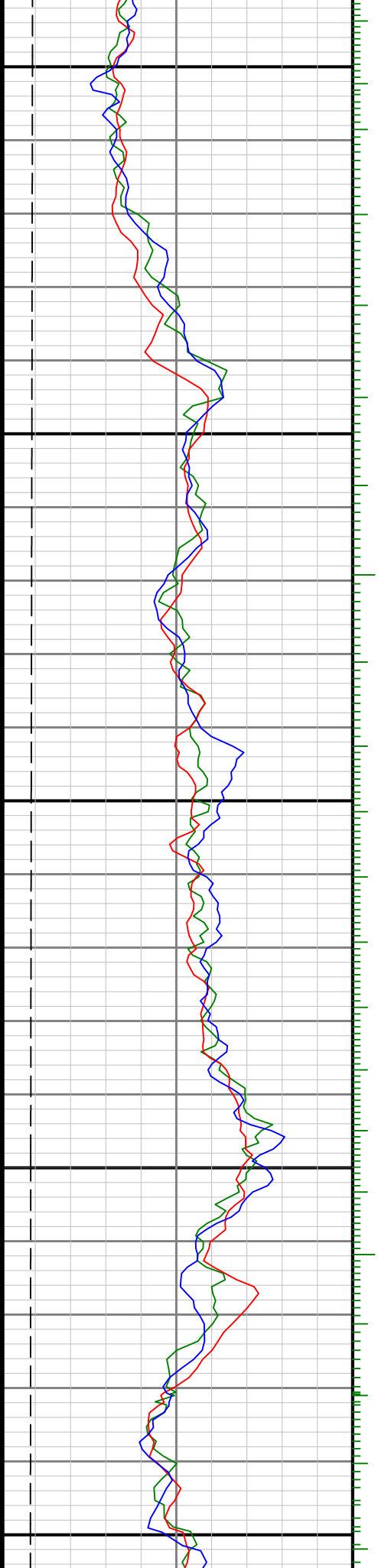












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