


LWD MEMORY LOG													
<div><div><div>BAKER HUGHES</div><div>a GE company</div></div><div></div></div>				Gamma Ray									
Scale:		Company: SRC Energy											
1:240 MD		Well: Boomerang 25N-3A-L											
Depth Reference:		Field: Weld County											
Driller's Depth		County: Weld Country: United States											
Status:		State: Colorado				Other Services:							
Final Print		Surface Location:				Latitude: 040° 26' 00.582" N Longitude: 104° 48' 12.726" W Directional							
API No: 05-123-46000-00		SEC: 5 TWN: 5N RGE: 66W											
Job ID: 8924866													
Permanent Datum (P.D.):		Ground Level		Elevation: 4769.00 ft		Elev. KB: 4789.00 ft		N/A					
Log Measured From:		Rig Floor		Above P.D. 20.00 ft		Elev. DF: 4769.00 ft		Elev. GL:					
Dates		Interval Logged				Magnetic Field Reference							
Date From: 2018-03-30		Top: (ft) 1846.00		Azi Reference North: True		Dip Angle: (deg) 66.65							
Date To: 2018-04-03		Bottom: (ft) 17617.00		Total Magnetic Field Strength: (nT)		52422							
Spud Date: 2017-12-30				Mag to Reference North Correction: (deg)		7.48 E							
Borehole Record				Casing Record									
Hole Size (in)		From (ft)		To (ft)		Size (in)		Weight (lb/ft)		From (ft)		To (ft)	
13.500		20.00		1846.00		9.625		36.00		20.00		1832.00	
8.500		1846.00		17630.00									
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2018-03-31 04:00	2	5414.00	Diesel-Oil Based Mud	10.1	17	N/A	9.4	77/23	Suction	44500	0.00
2018-03-31 16:00	2	7929.00	Diesel-Oil Based Mud	10.0	17	N/A	8.8	78/22	Suction	50000	0.00
2018-04-01 04:00	2	10547.00	Diesel-Oil Based Mud	10.3	20	N/A	7.4	77/23	Suction	47000	0.00
2018-04-01 16:00	2	12527.00	Diesel-Oil Based Mud	10.2	22	N/A	7.5	78/22	Suction	45000	0.00
2018-04-02 04:00	2	14644.00	Diesel-Oil Based Mud	10.1	18	N/A	6.8	78/22	Suction	44000	0.00
2018-04-02 16:00	2	16046.00	Diesel-Oil Based Mud	10.2	21	N/A	6.5	79/21	Suction	41000	0.00
2018-04-03 04:00	2	17630.00	Diesel-Oil Based Mud	10.3	23	N/A	6.5	79/21	Suction	41000	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	Sensor Sub	ZAPS230925	Gamma (single)	8.52	58.70	8.000	3.250
1	Sensor Sub	ZAPS230925	Directional (mag)	9.93	60.11	8.000	3.250
1	Sensor Sub	ZAPS230925	VSS	9.93	60.11	8.000	3.250
1	Sensor Sub	ZAPS230925	Pressure	30.52	80.70	8.000	3.250
2	ATC_SU	14169980	Near Bit Inclination	5.93	6.73	7.000	4.330
2	ATC_SU	14169980	Near Bit VSS	5.93	6.73	7.000	4.330
2	ATC_MWD	14270075	Gamma (single)	2.76	12.90	7.000	3.250
2	ATC_MWD	14270075	Directional (mag)	12.26	22.40	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
GAM	APS	APS EM Module
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 1 utilized 8 inch APS EM Services (Directional only) behind a 13 1/2 inch bit and steerable assembly from surface to 1846 feet MD (surface to 1830 feet TVD). No logging data was acquired during this run.
3	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 1846 to 17630 feet MD (1830 to 6977 feet TVD).
4	Gamma Ray Curve (GRAM) is presented 0 to 300 API per customer request.

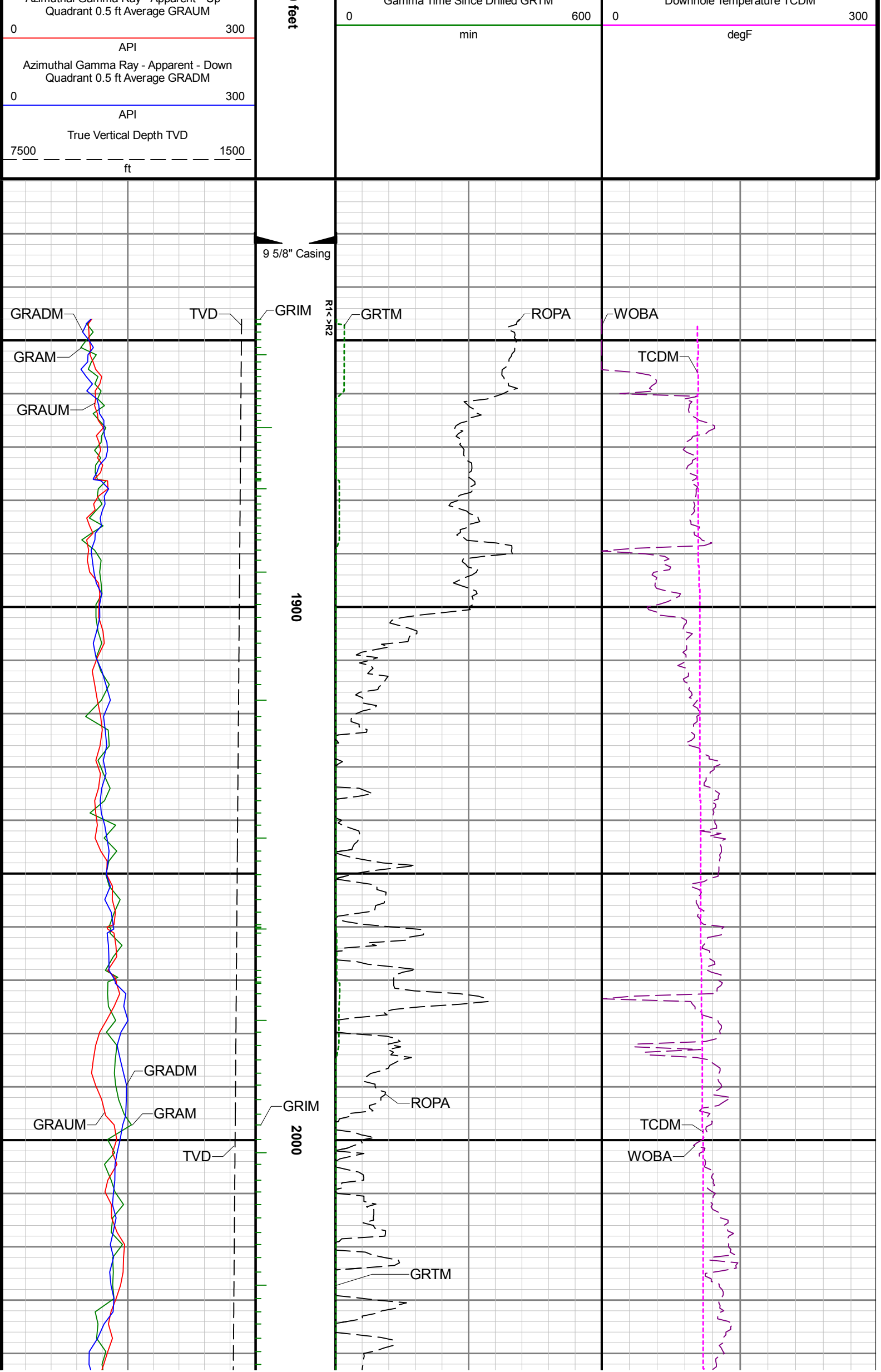
Remarks

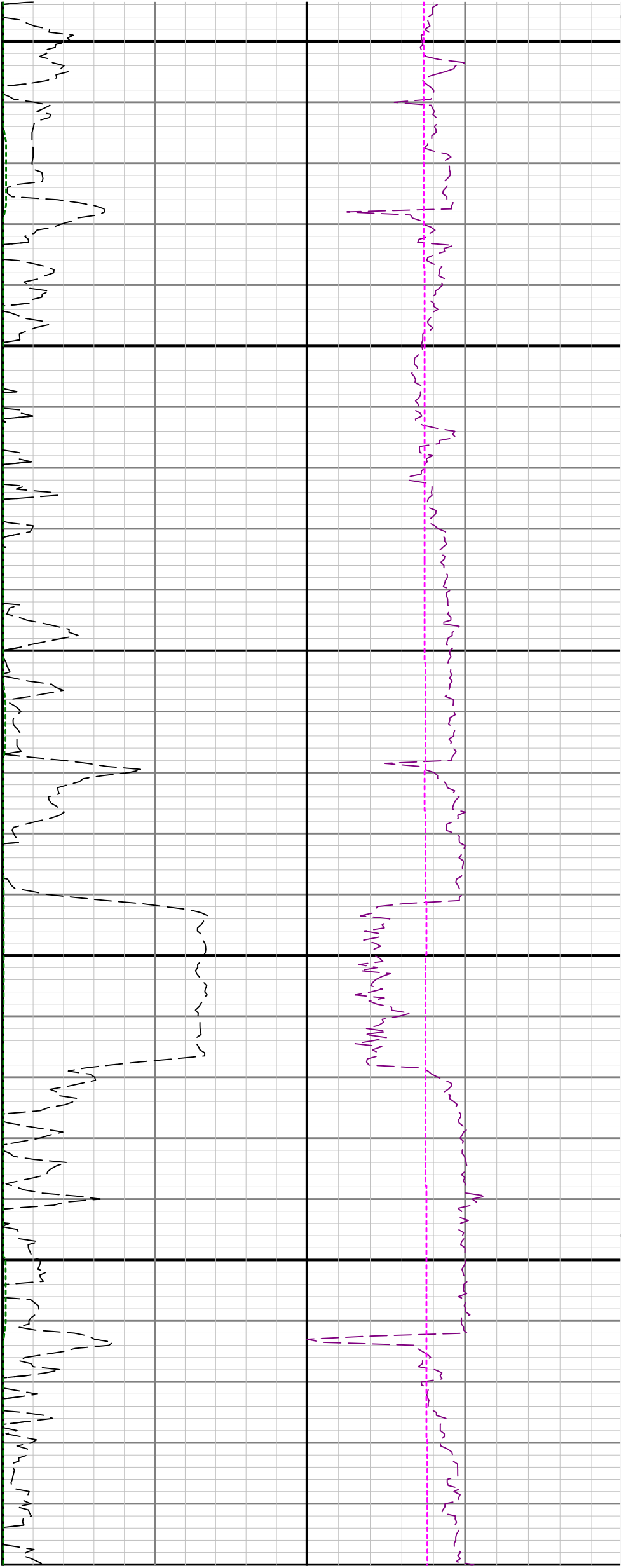
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	17617.00	8.500	2	The interval from 17617 to 17630 feet MD (6977 feet TVD) was not logged due to sensor to bit offset at well TD.

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

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	Well	Boomerang 25N-3A-L			
	Interval	Date From:	2018-03-30 15:30:00	Top:	1846.00
	Created	Date To:	2018-04-03 03:40:00	Bottom:	17630.00
		2018-04-04 02:39:51			
Gamma Ray - Apparent 0.5 ft Average GRAM	MD 11,240	Depth Averaged ROP 3 ft Average ROPA	Weight On Bit, Average 1 ft Average WOBA		
0 300		1000 0	0 50		
API		ft/h	klb		
Azimuthal Gamma Ray - Apparent - Up		Gamma Time Since Drilled GRTM	Downhole Temperature TCDM		

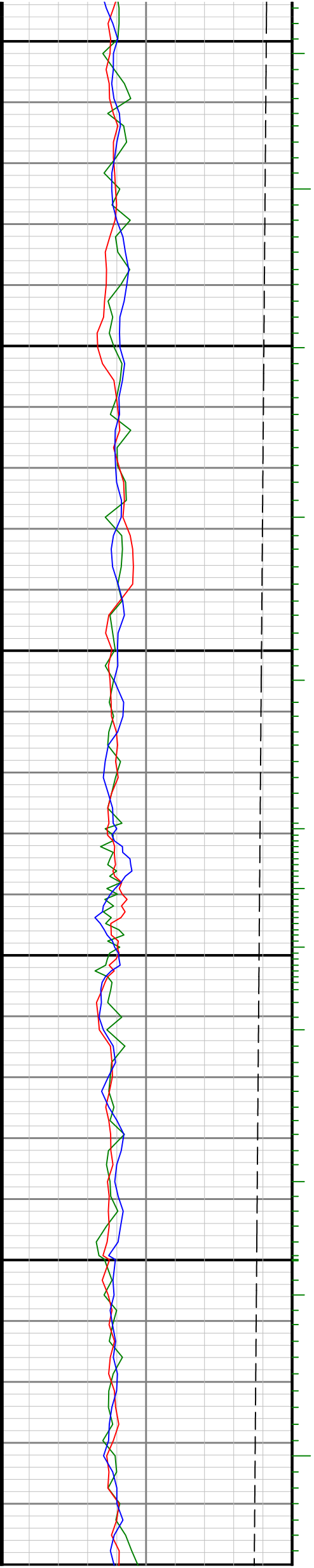


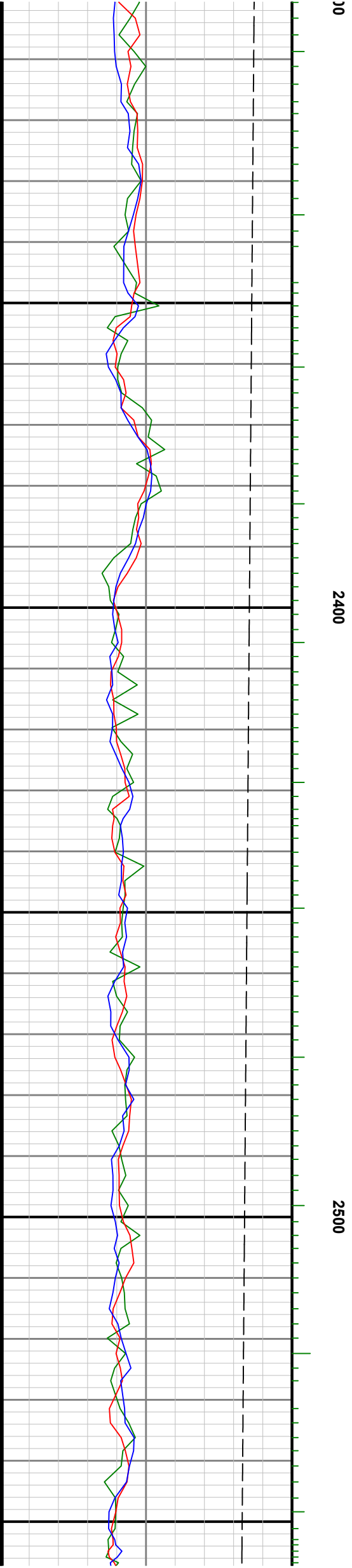
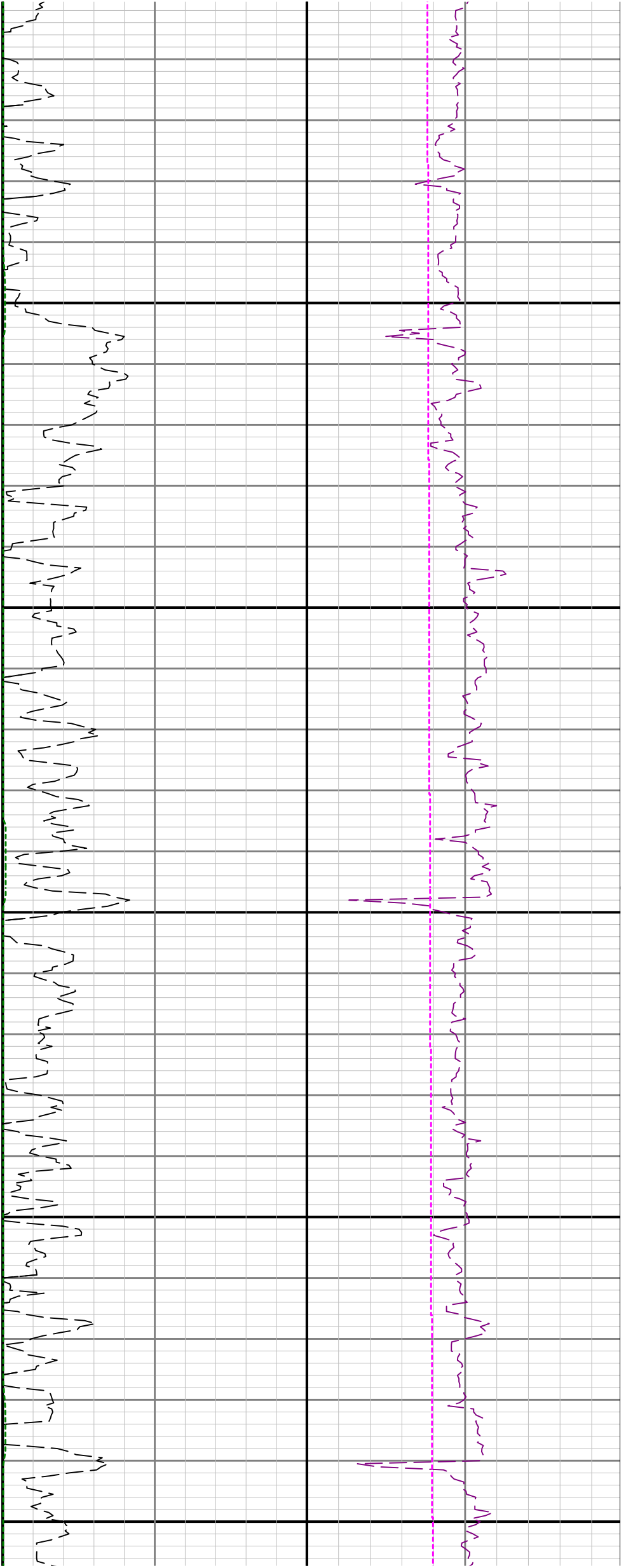


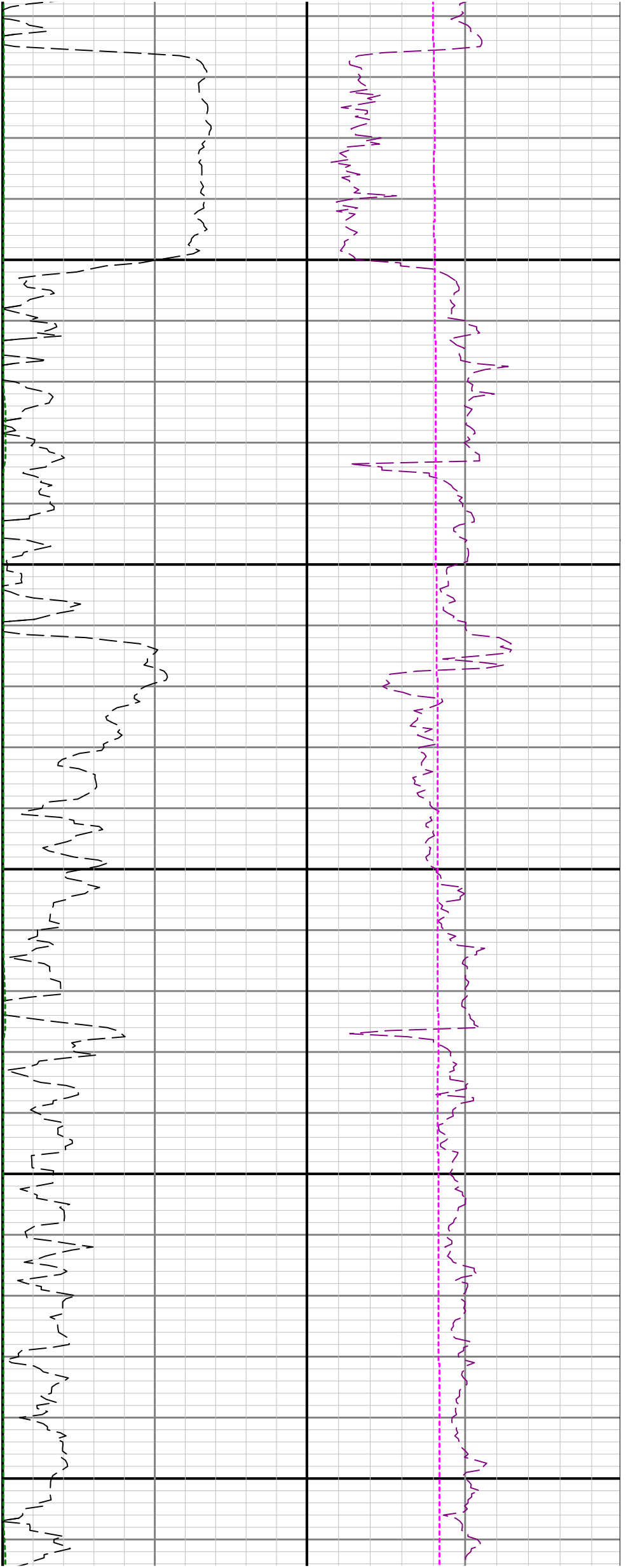
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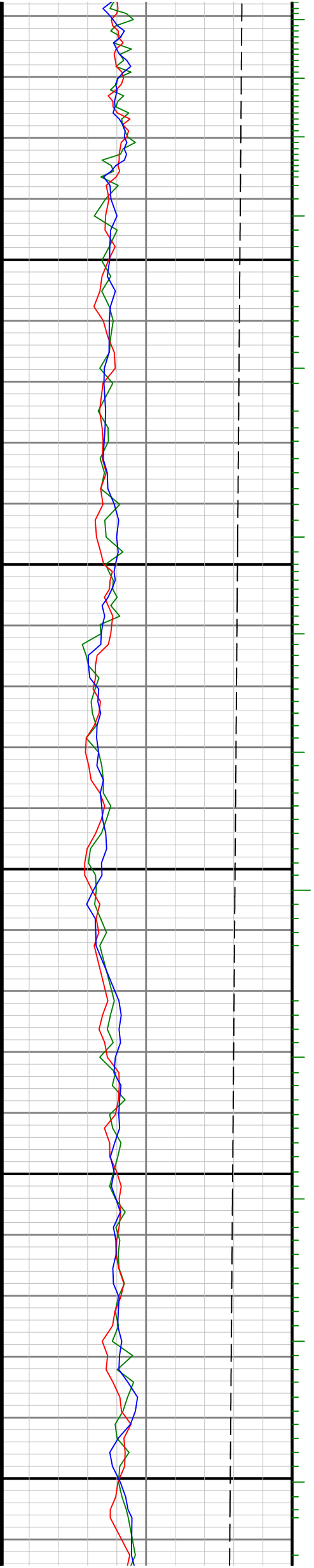


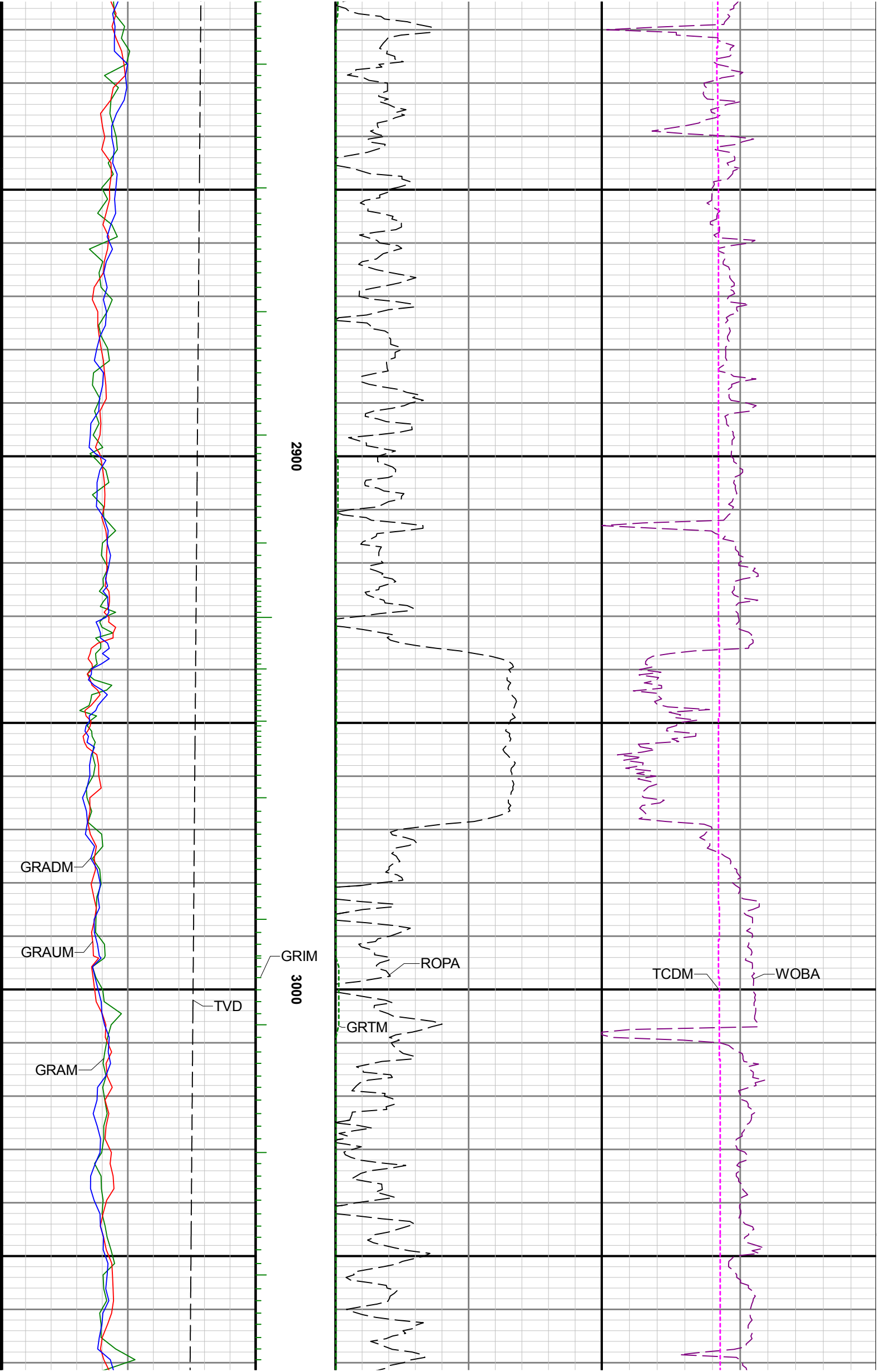


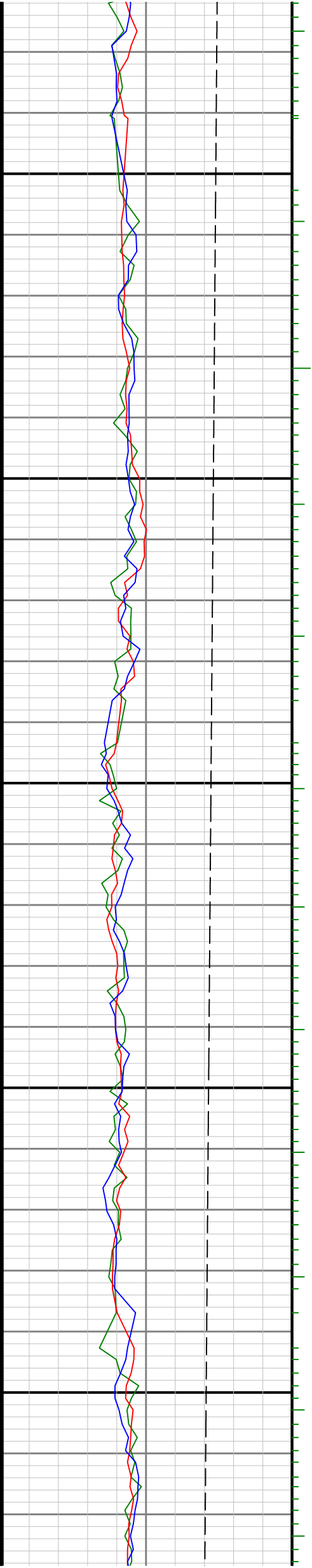
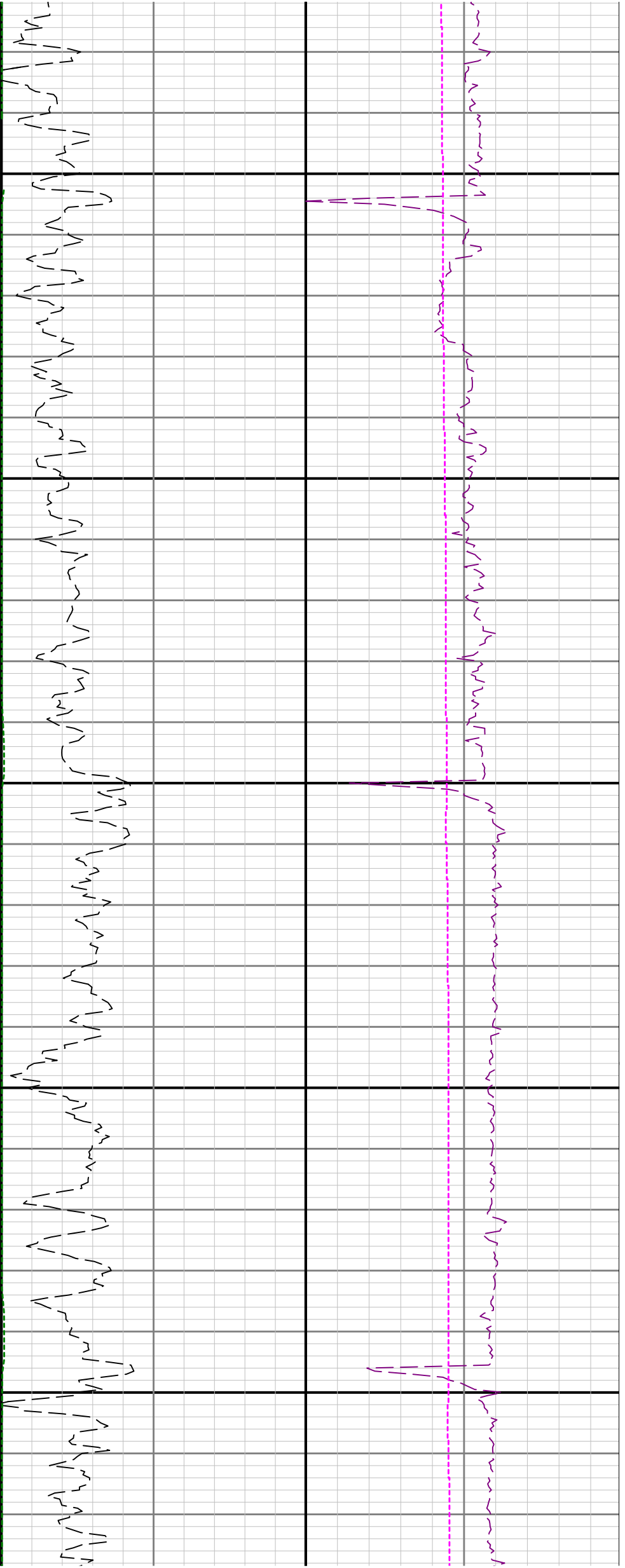
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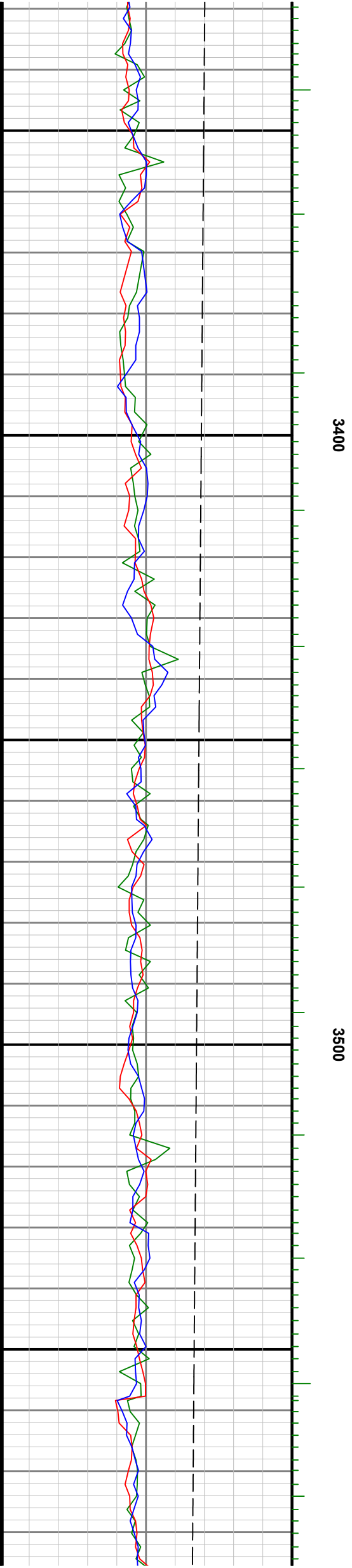
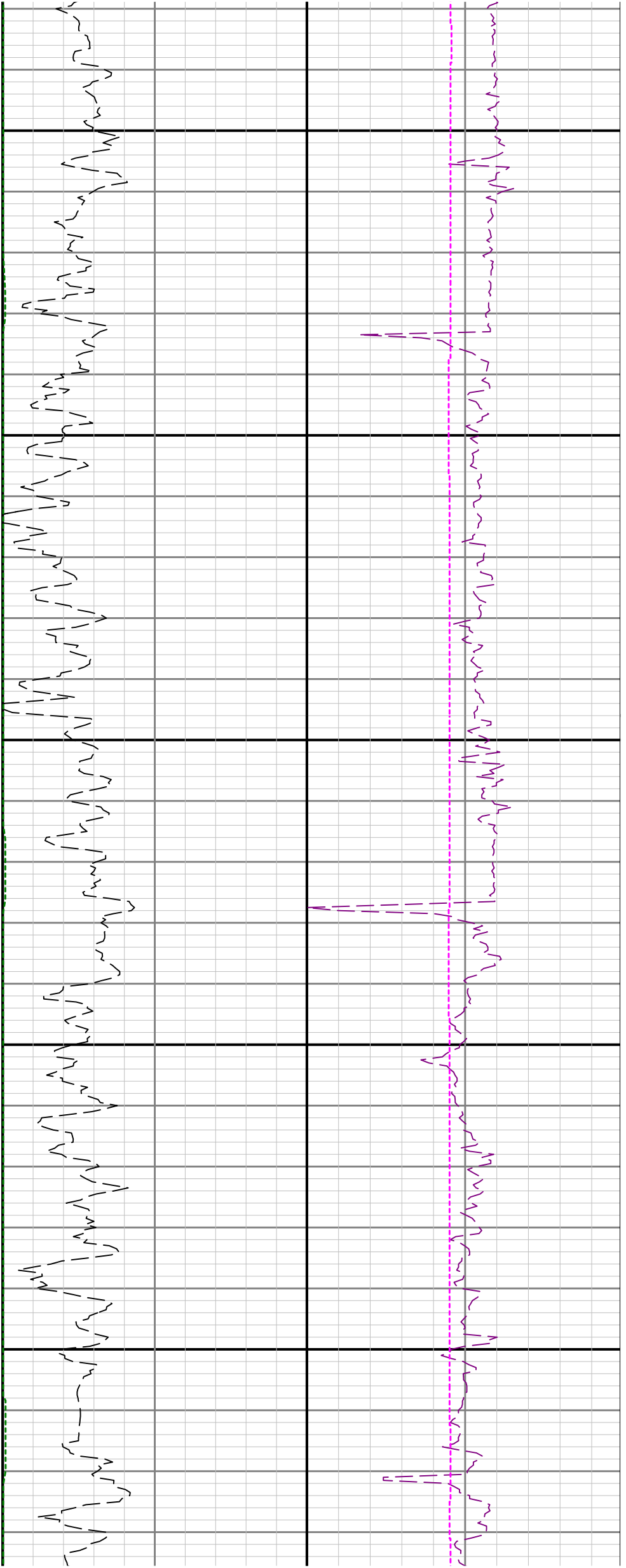
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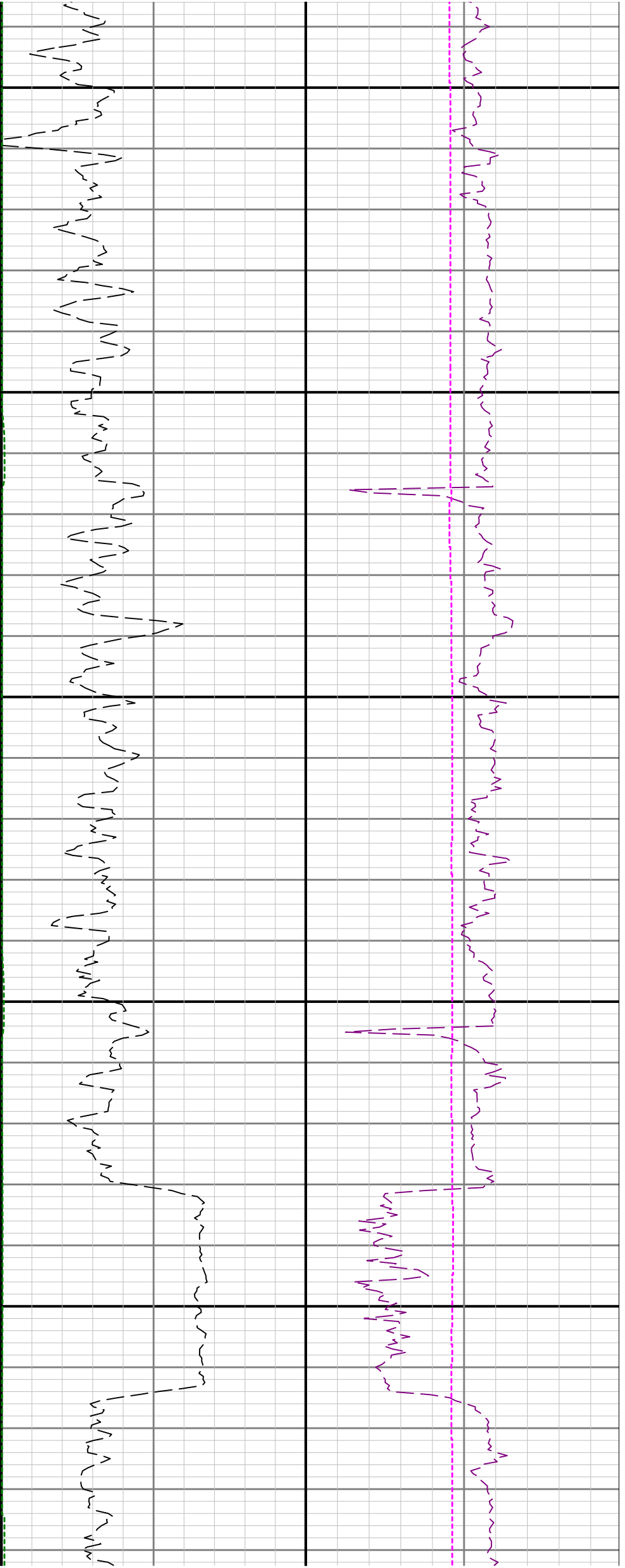








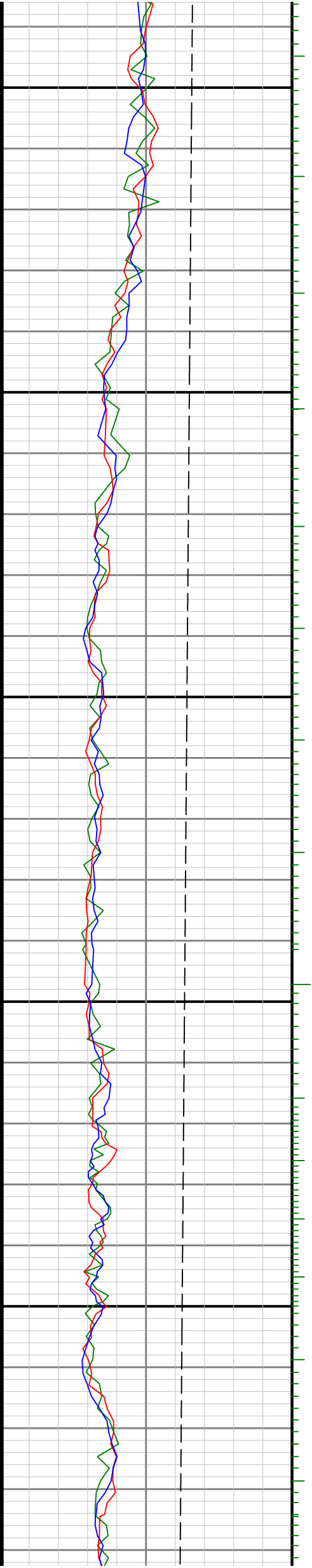


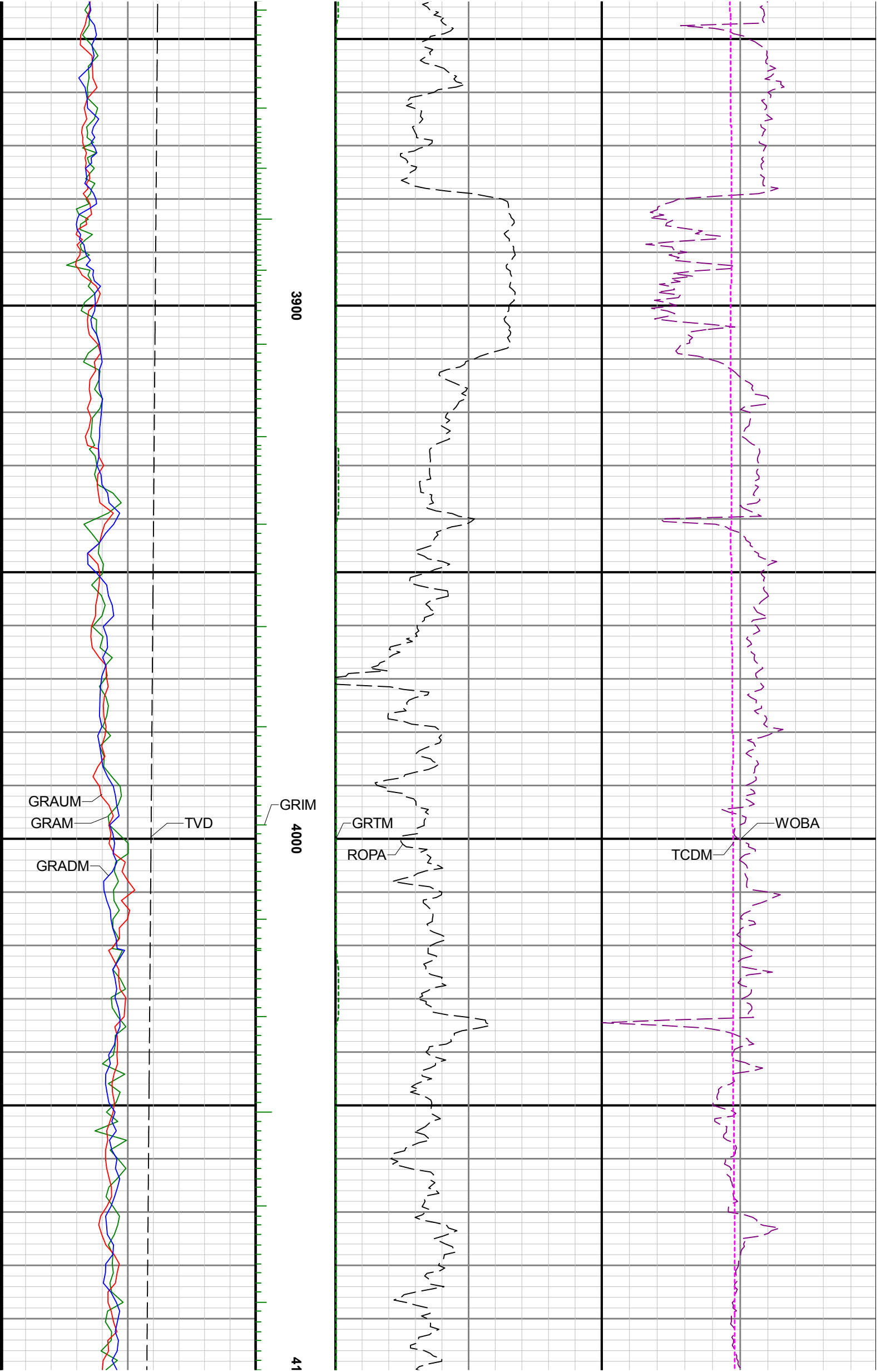


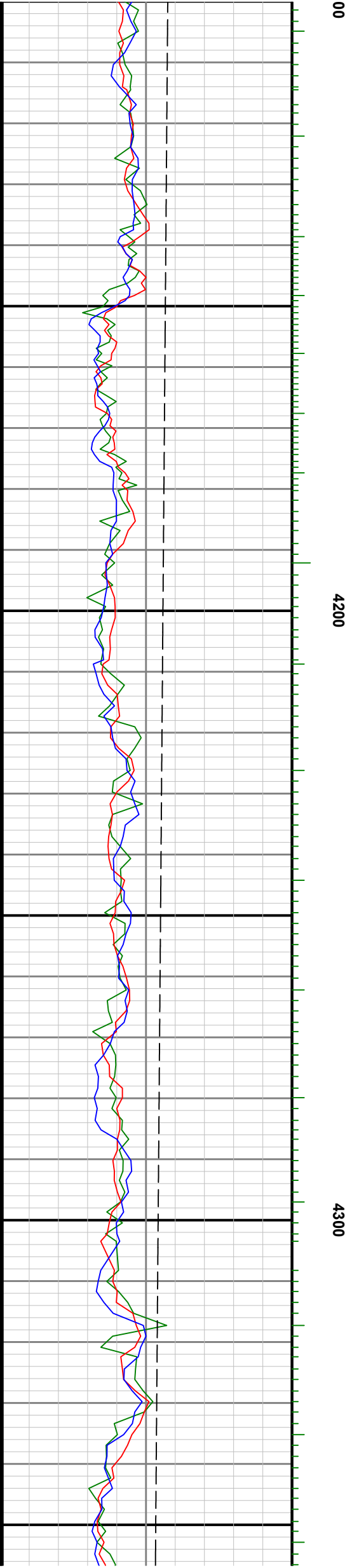
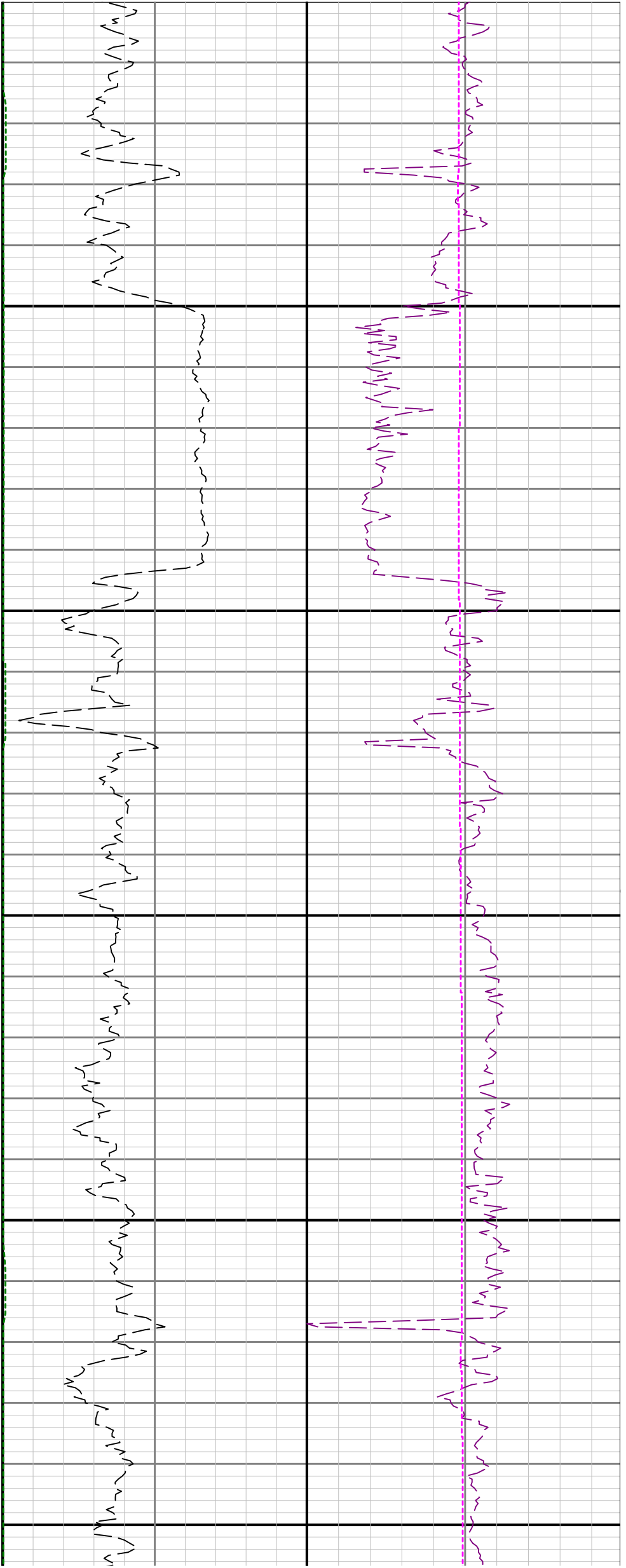
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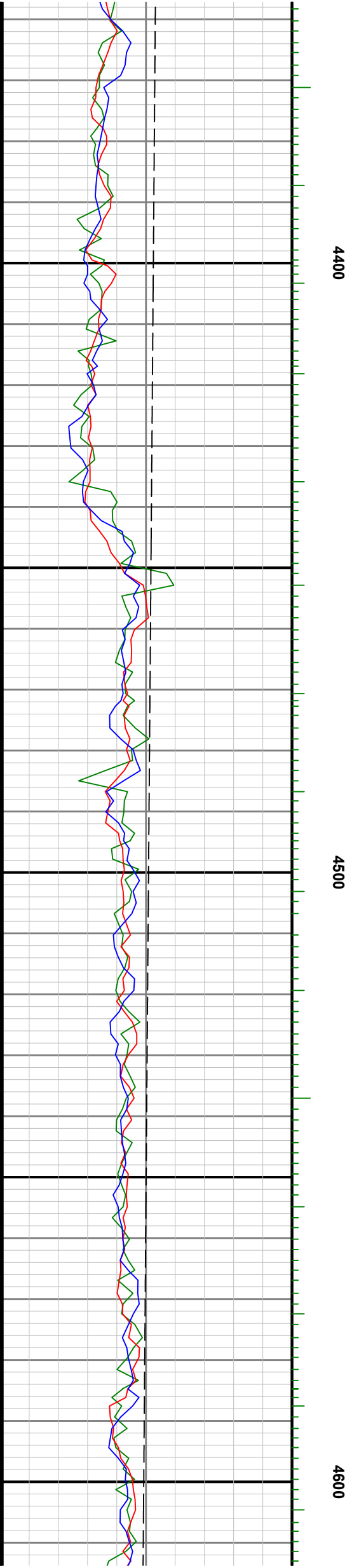
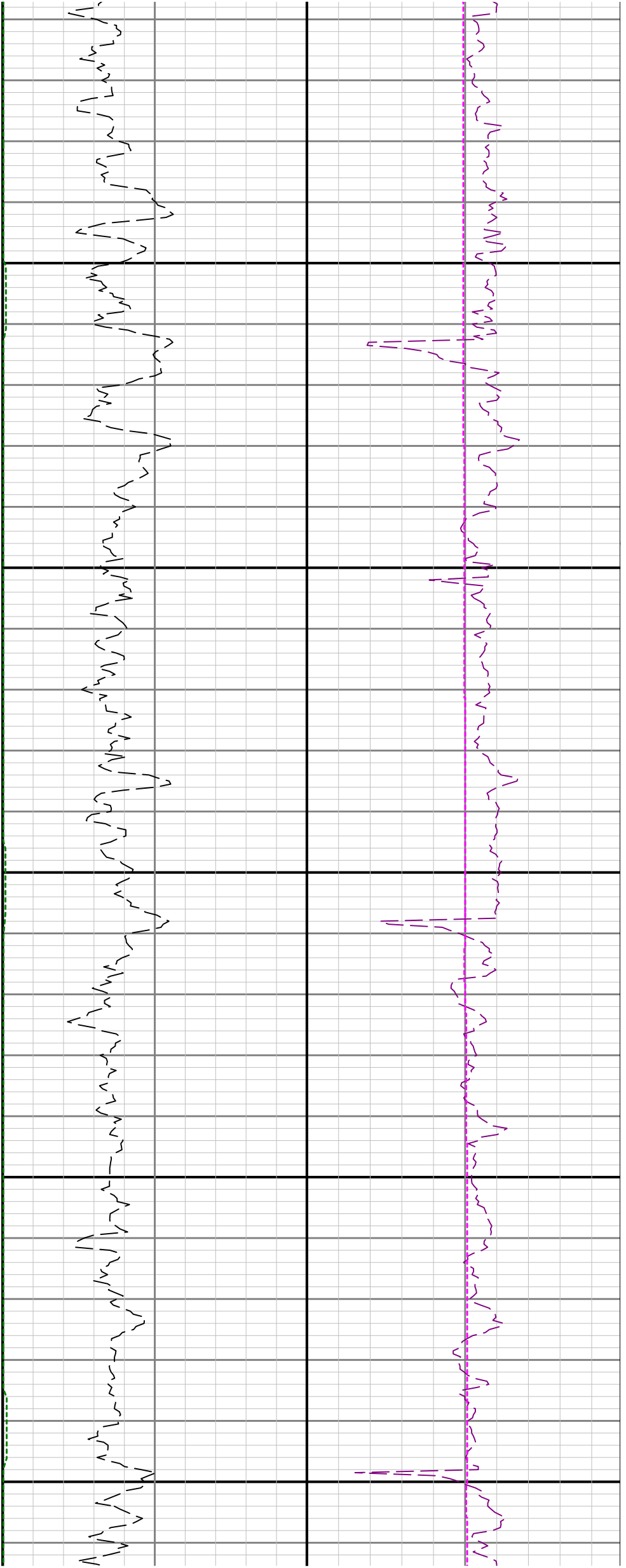
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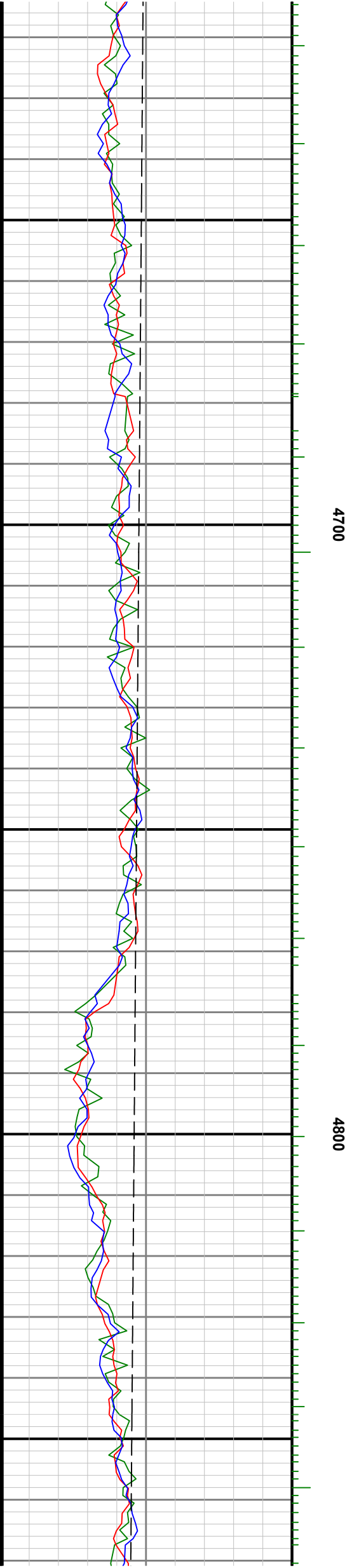
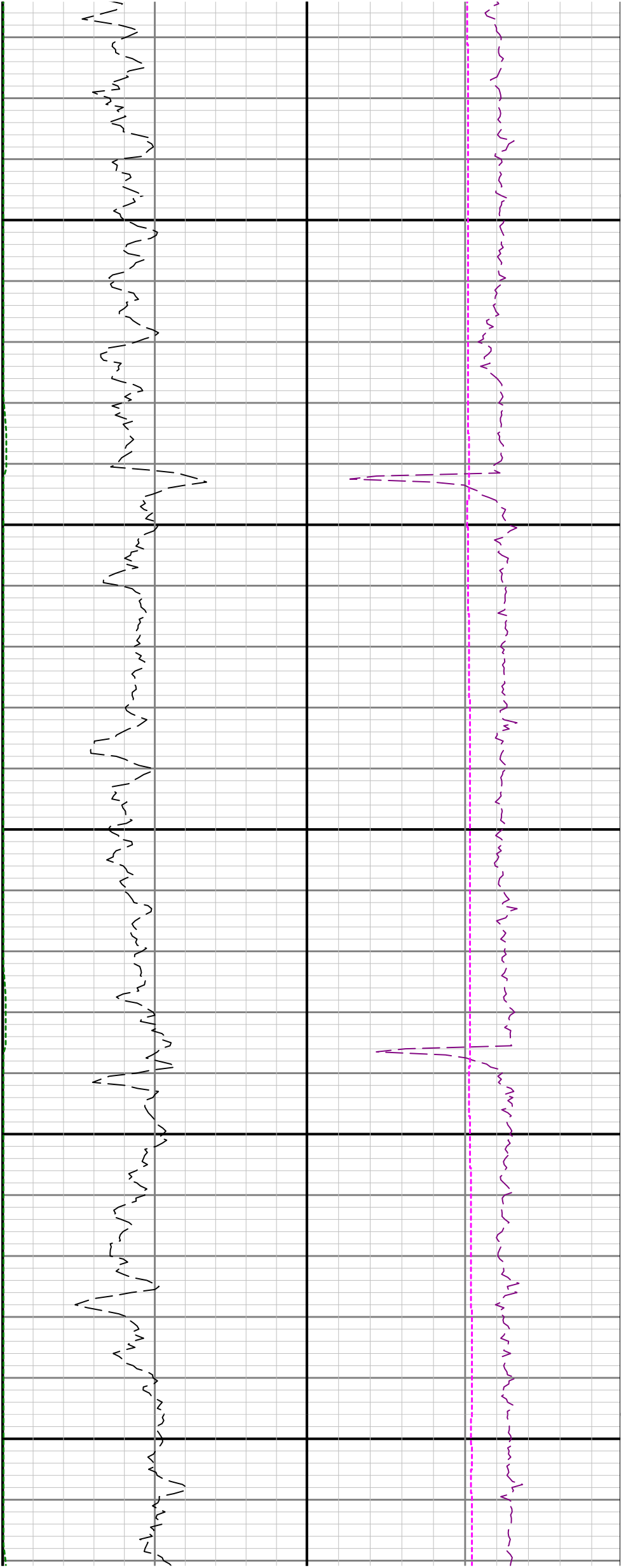
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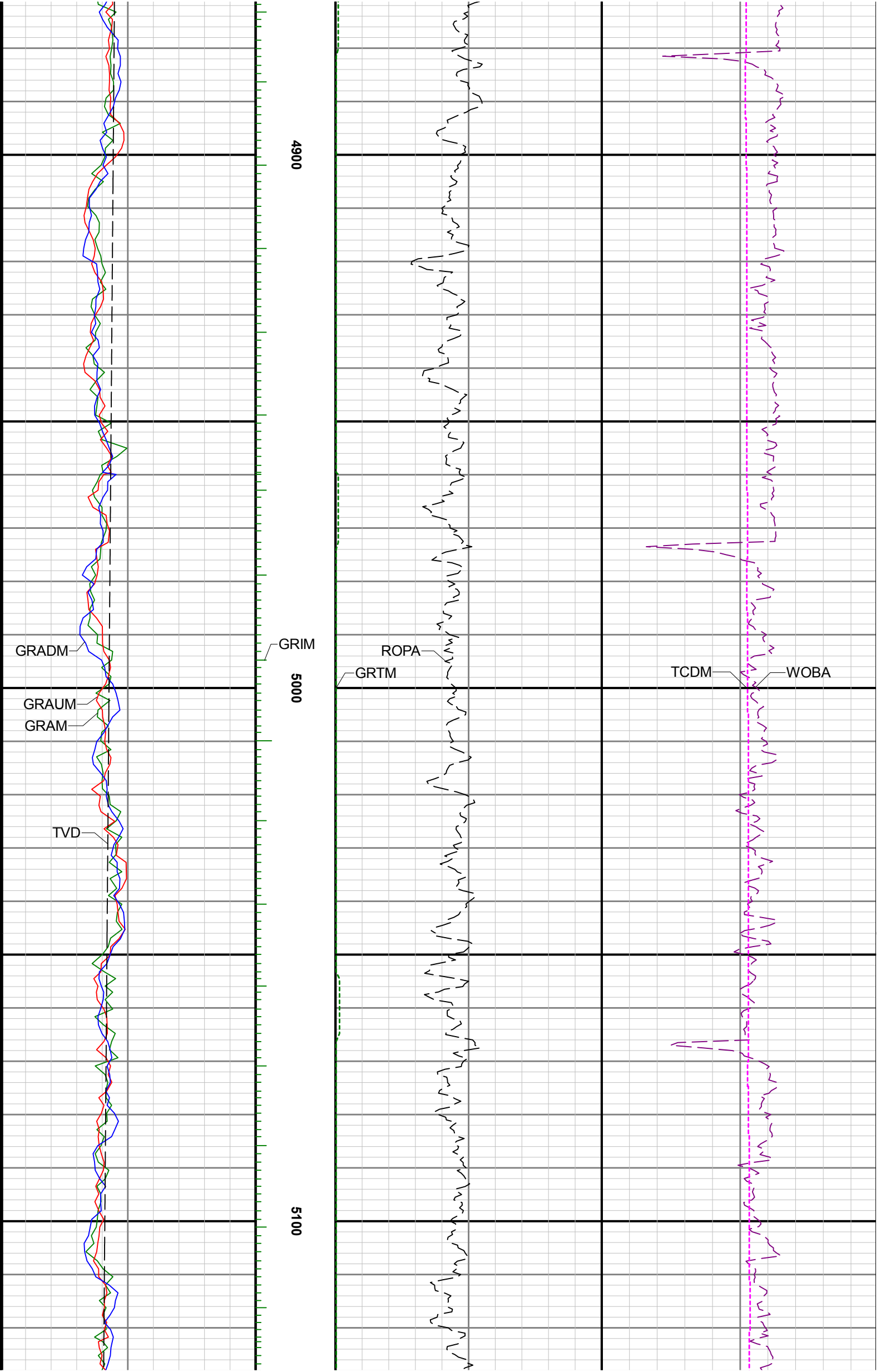


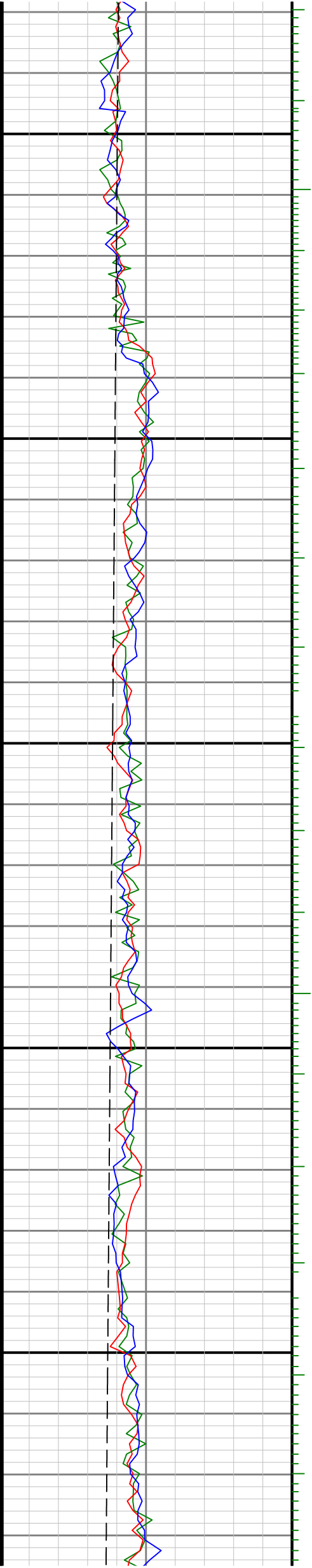
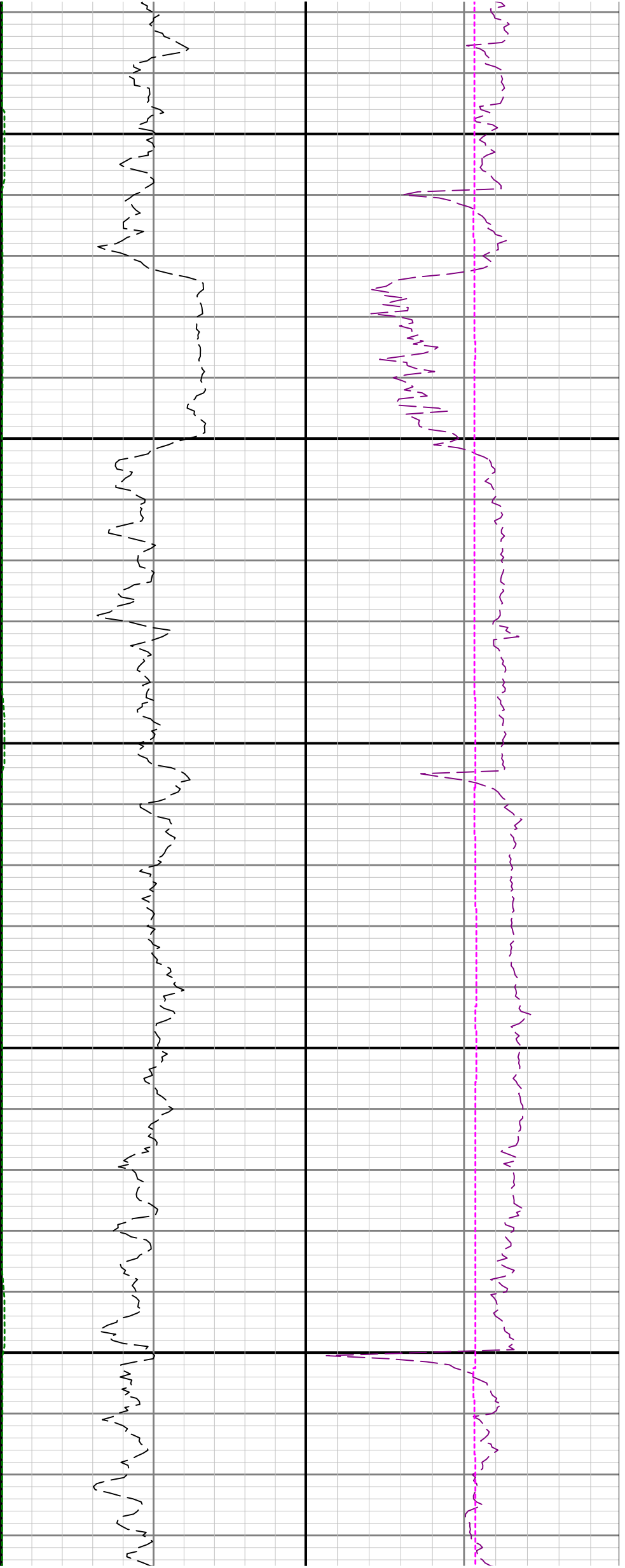




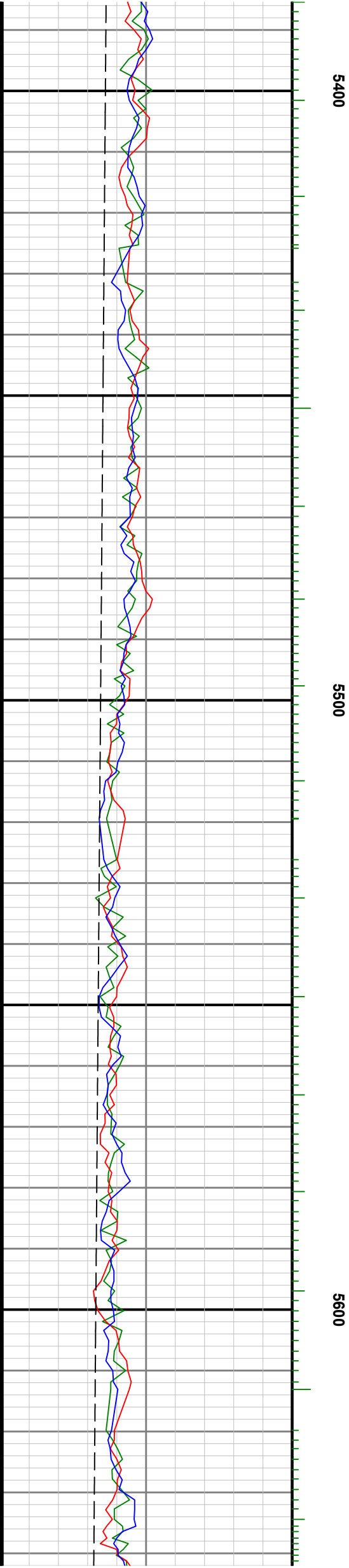
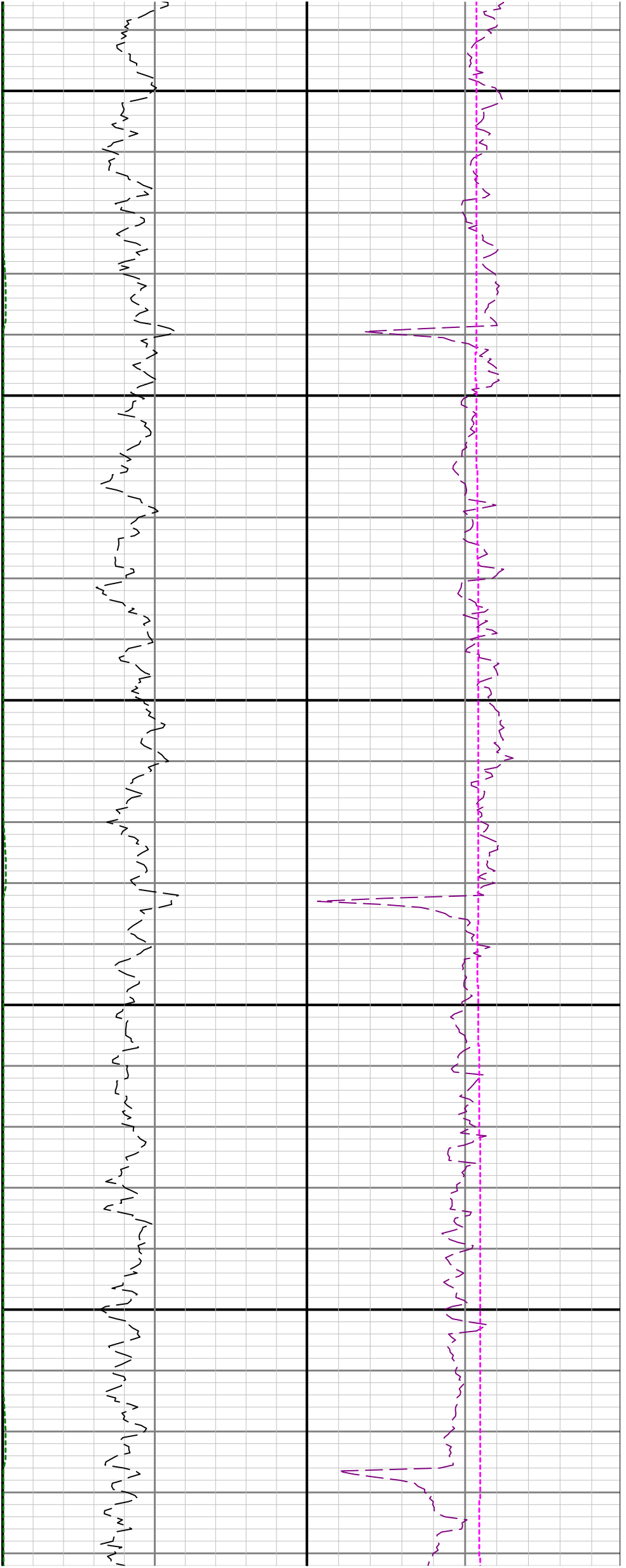


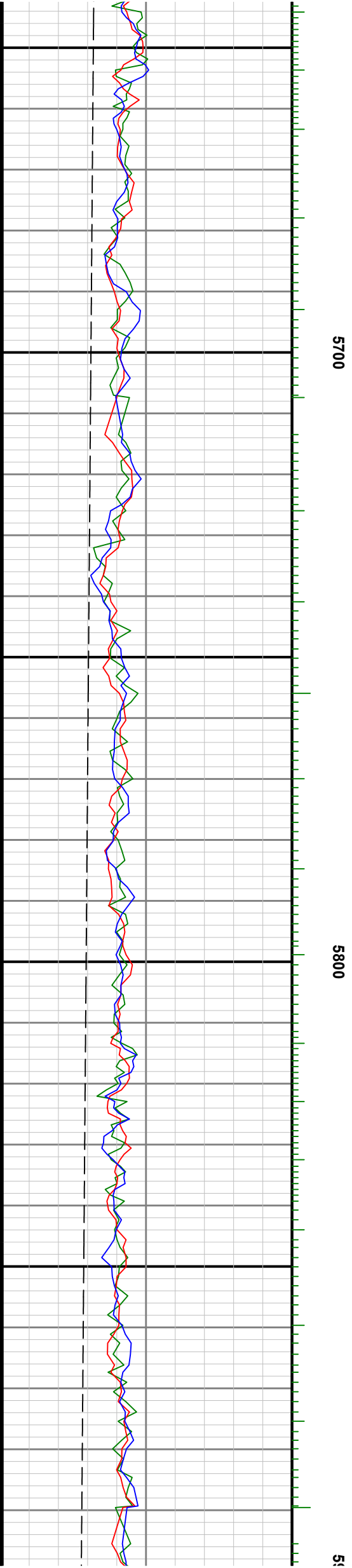
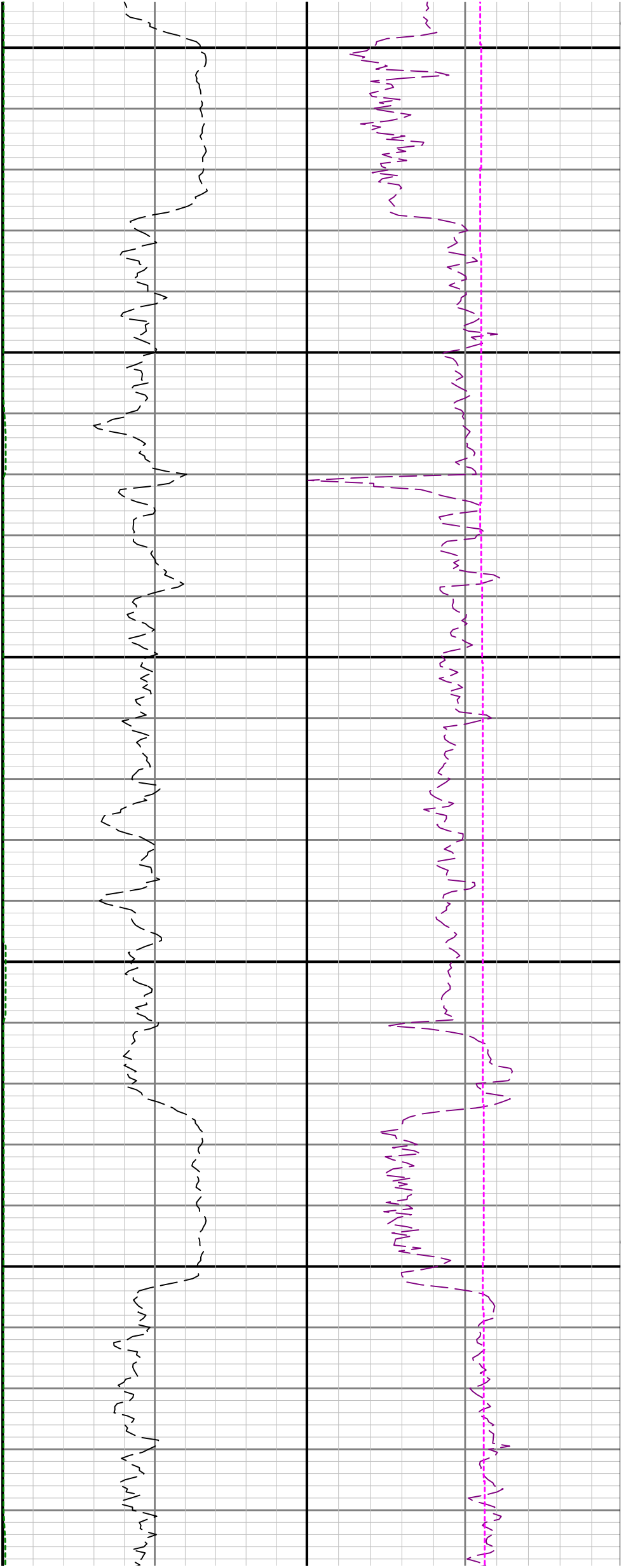


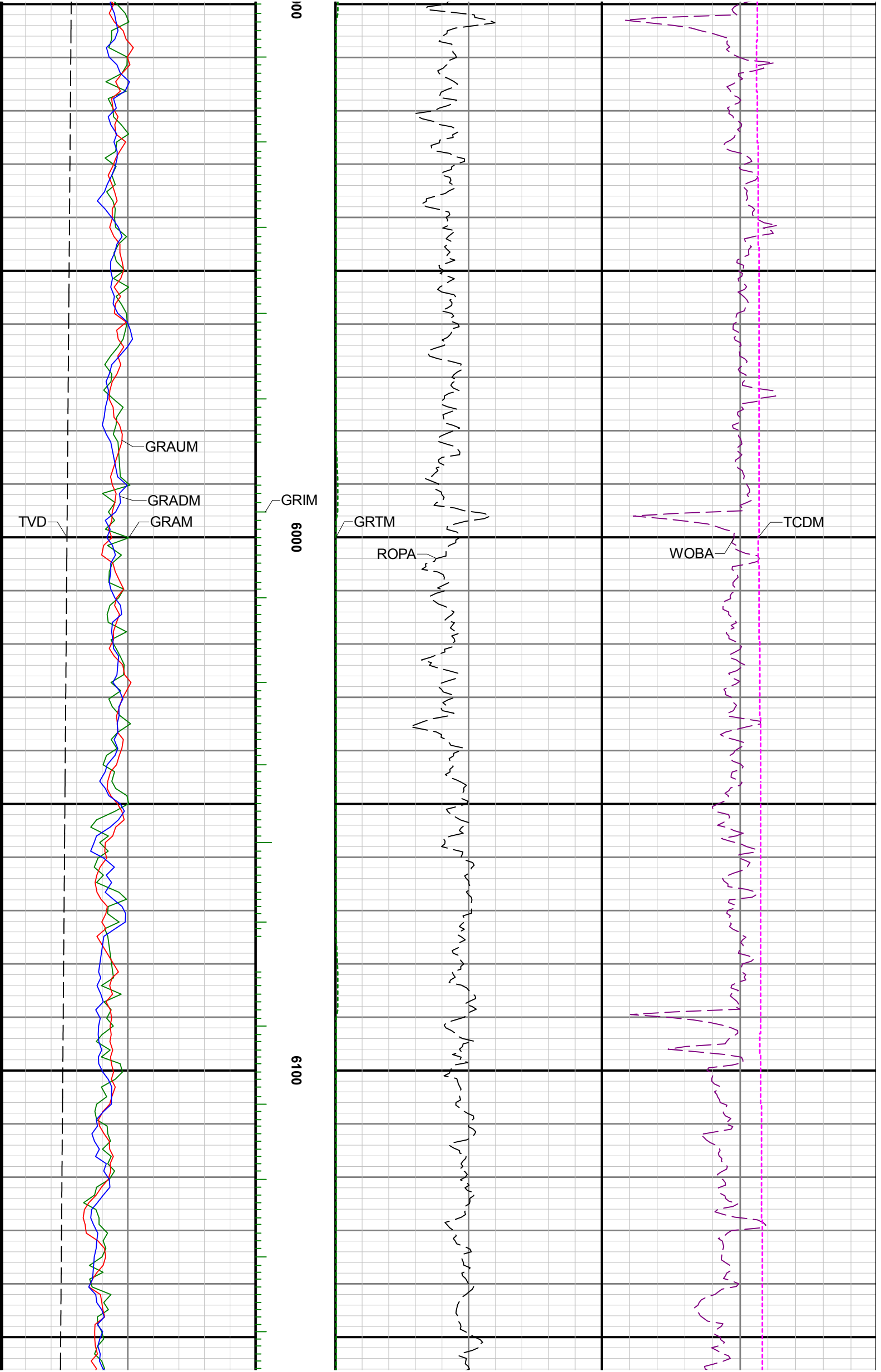


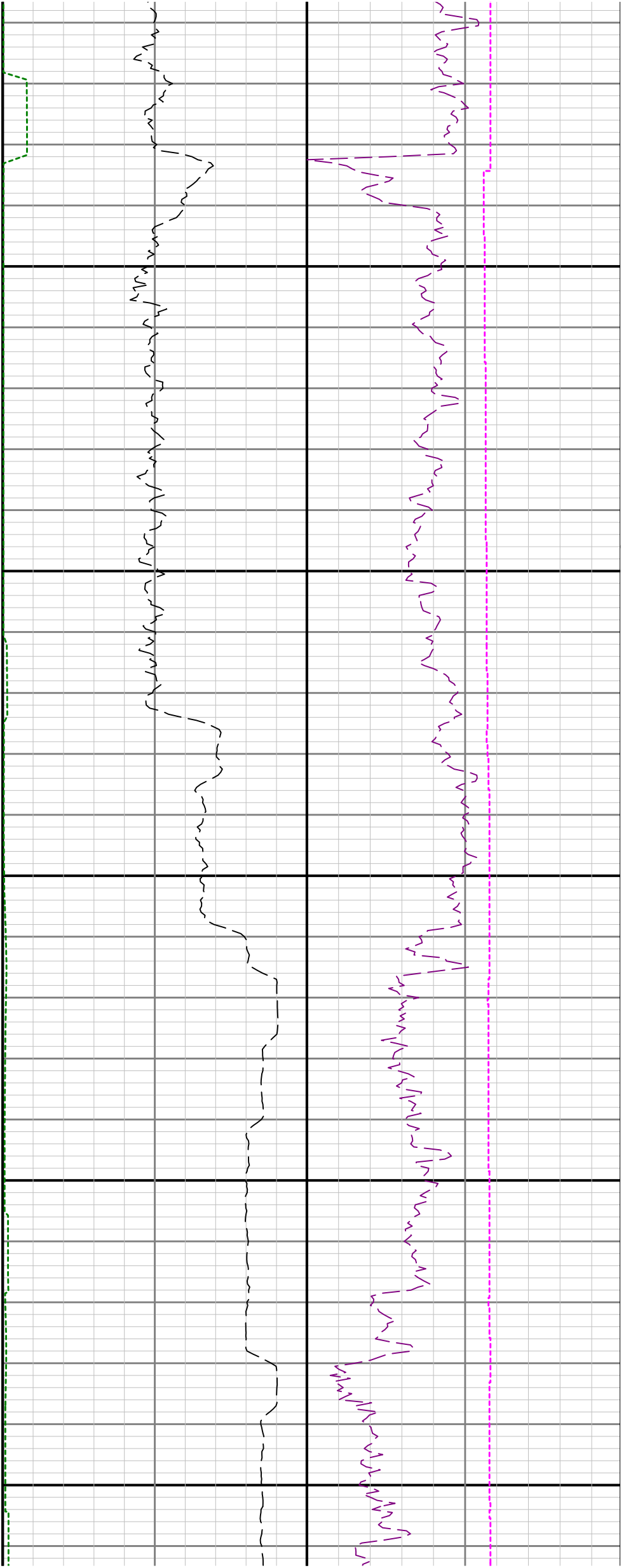








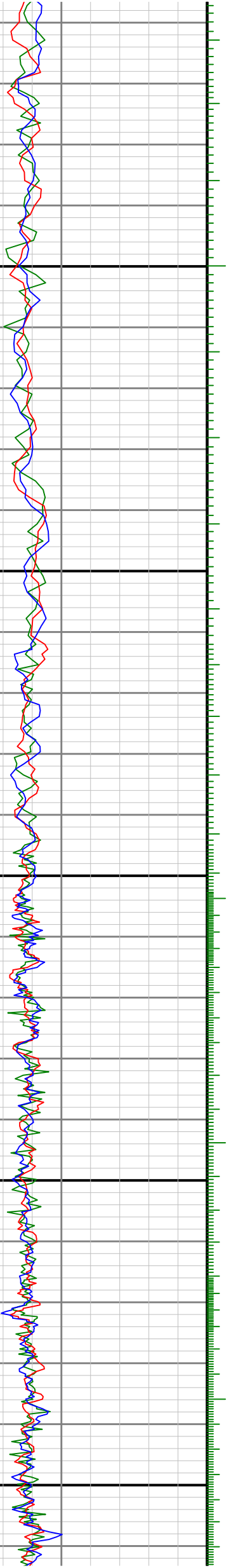


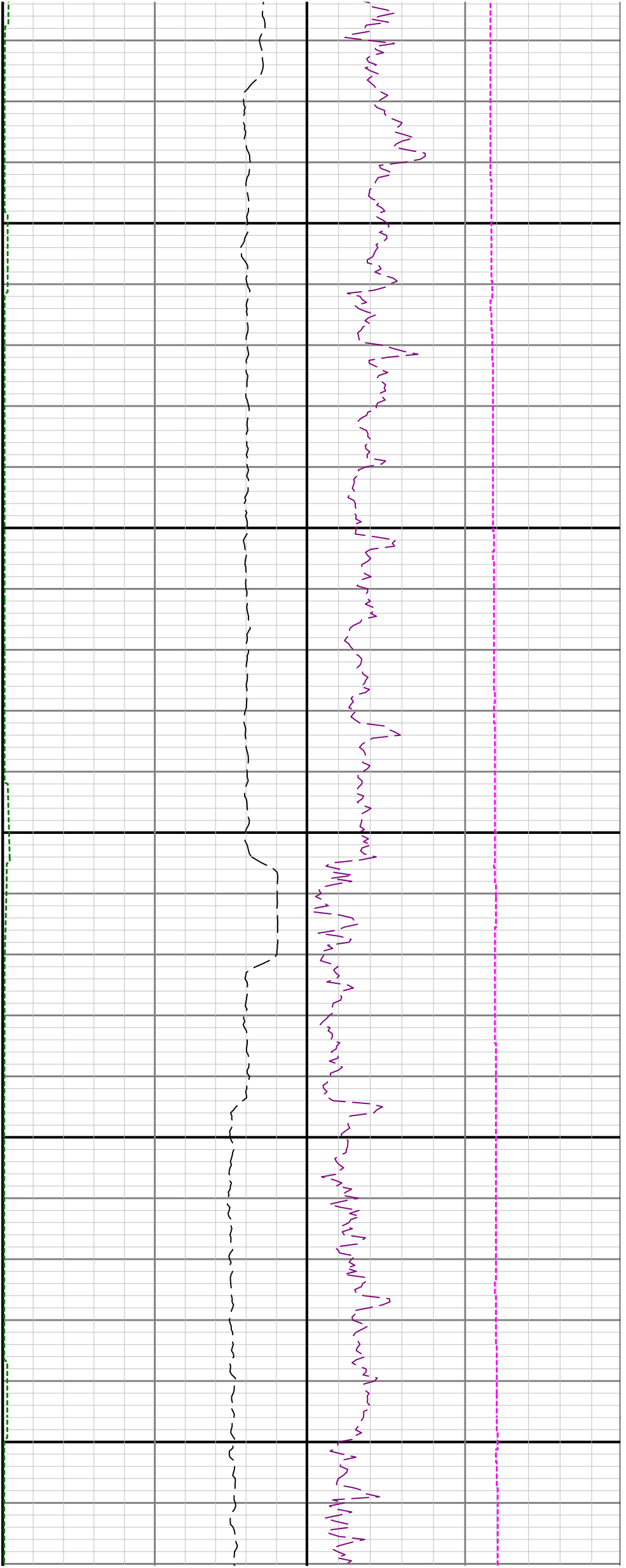


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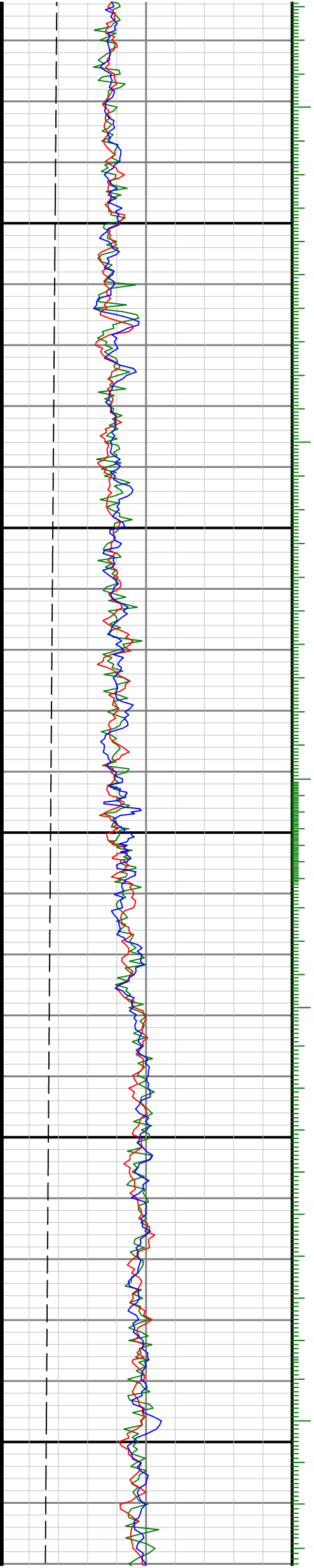
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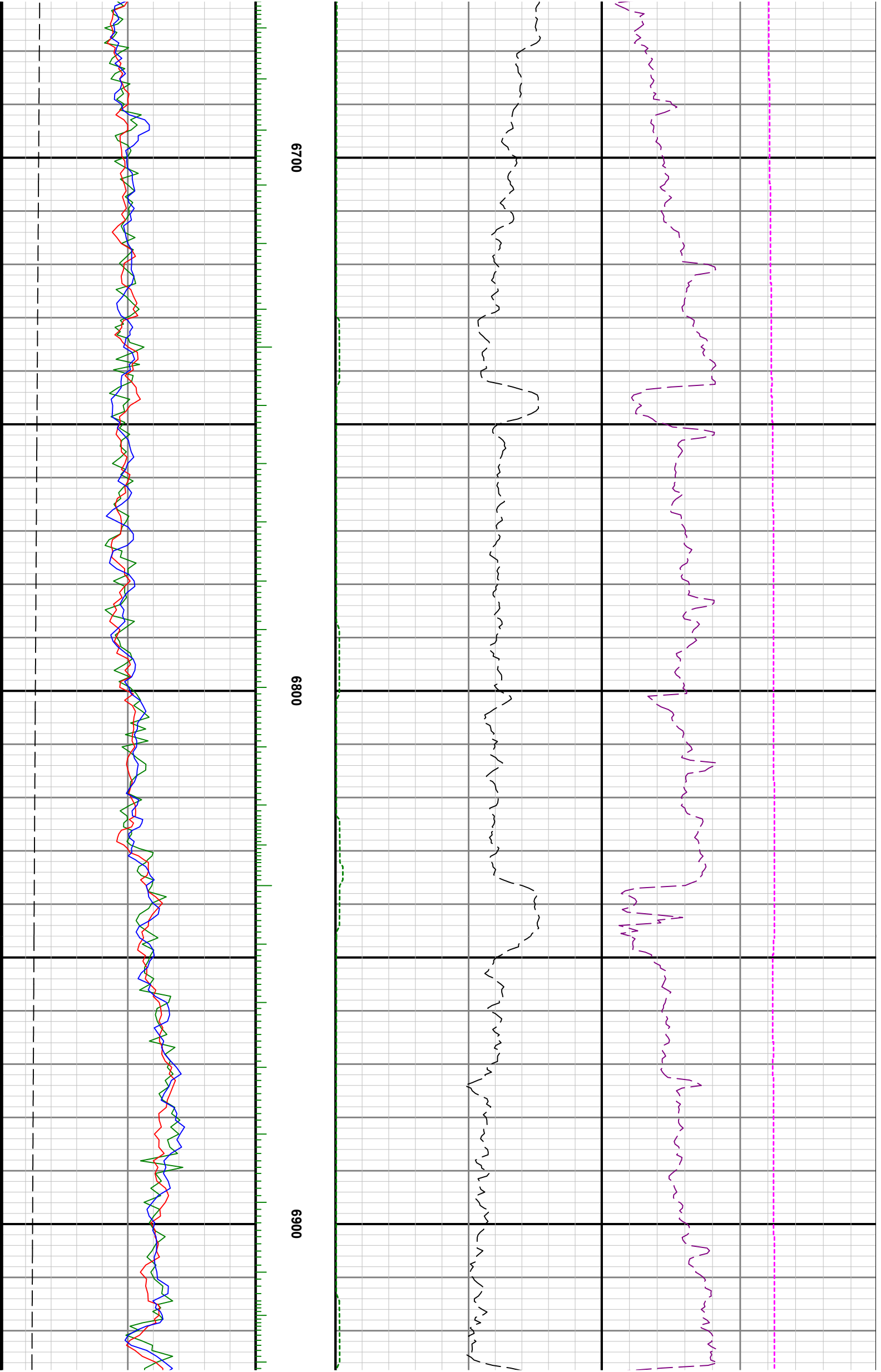


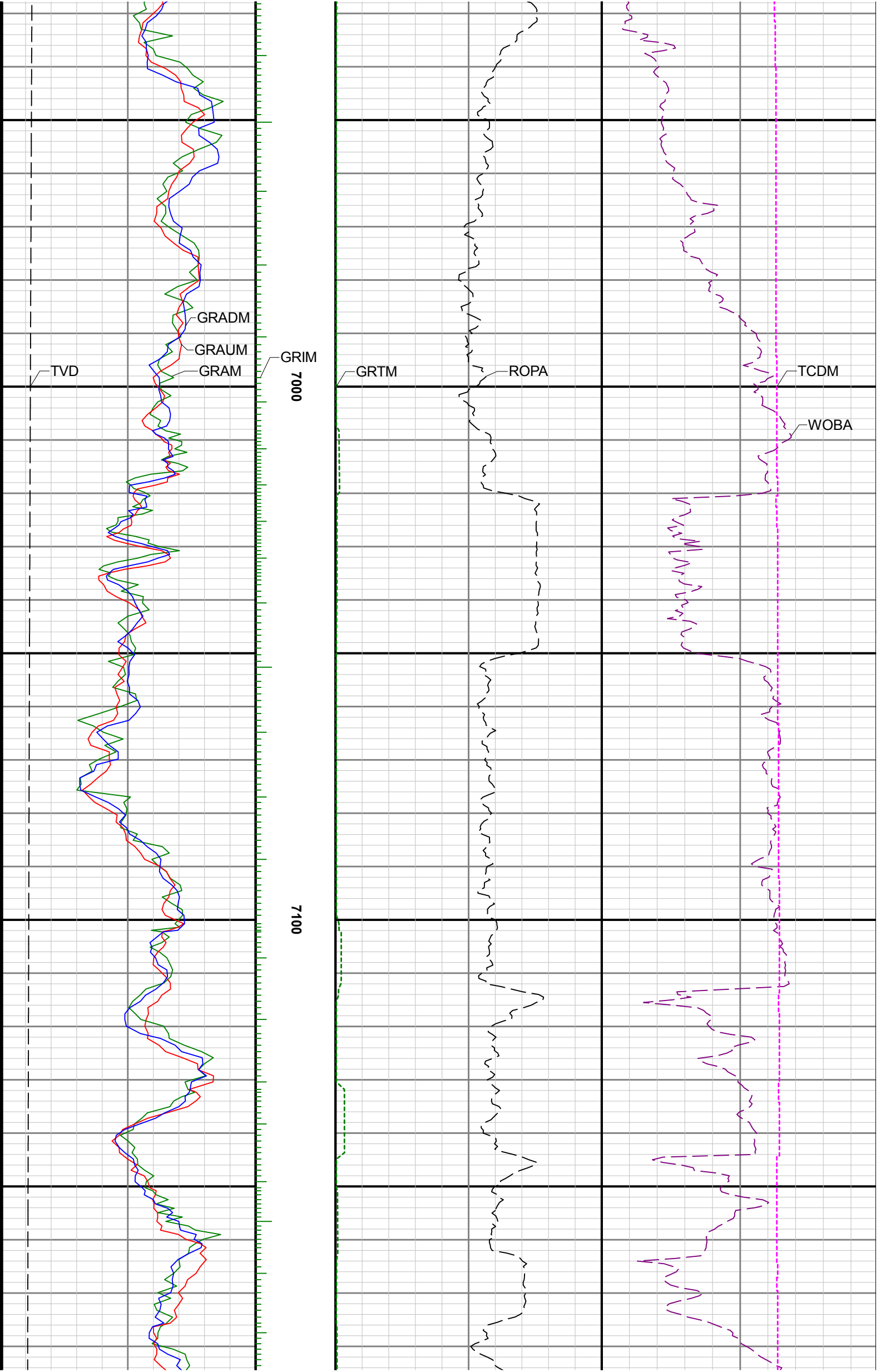


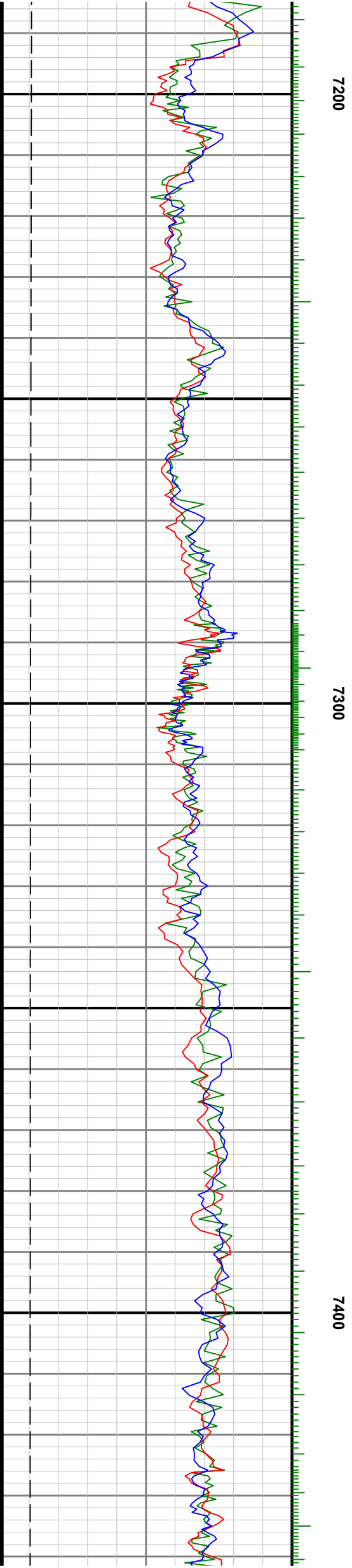
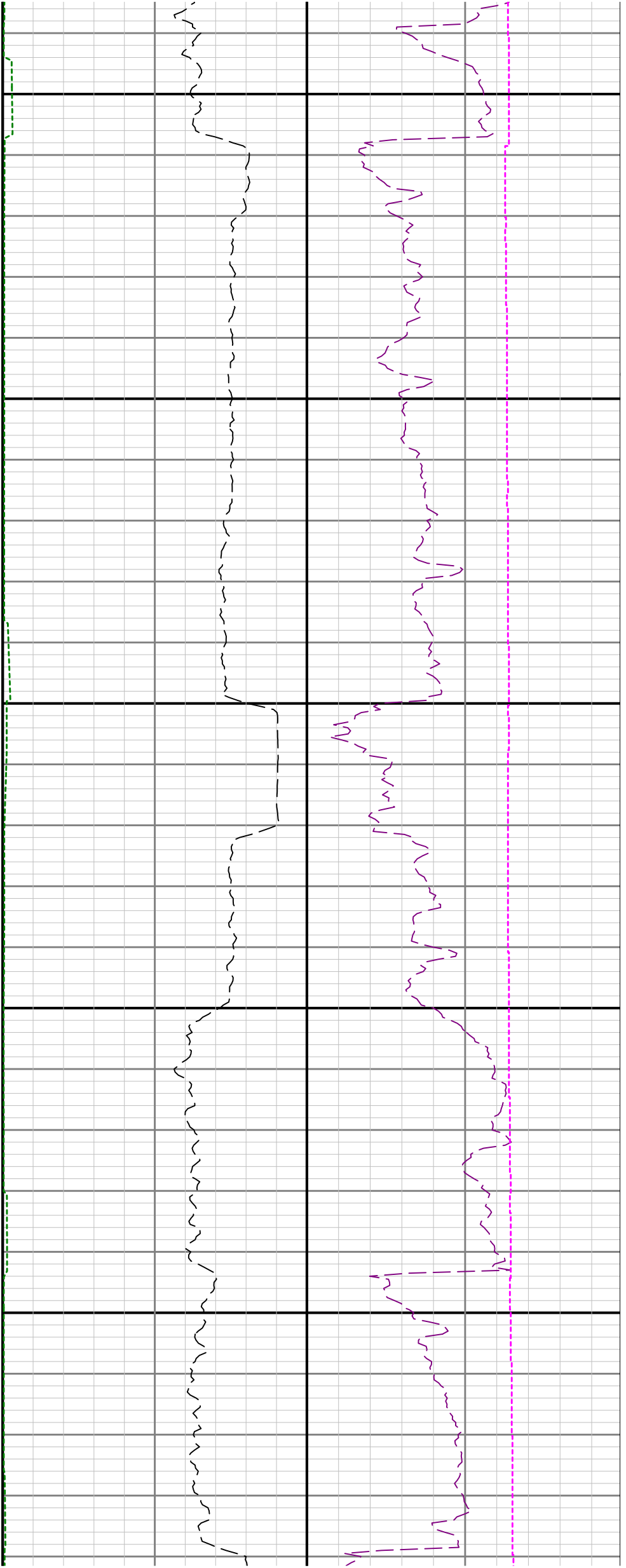
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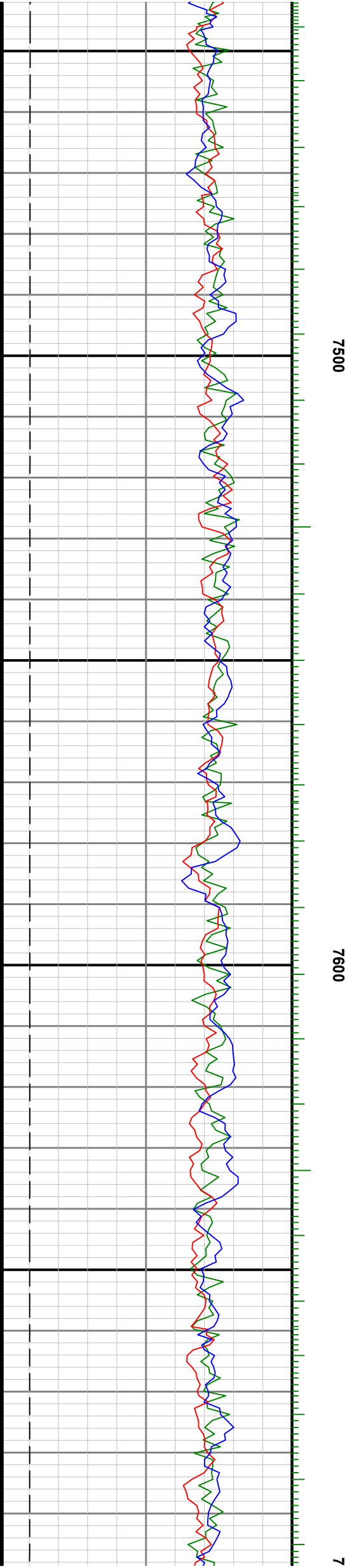
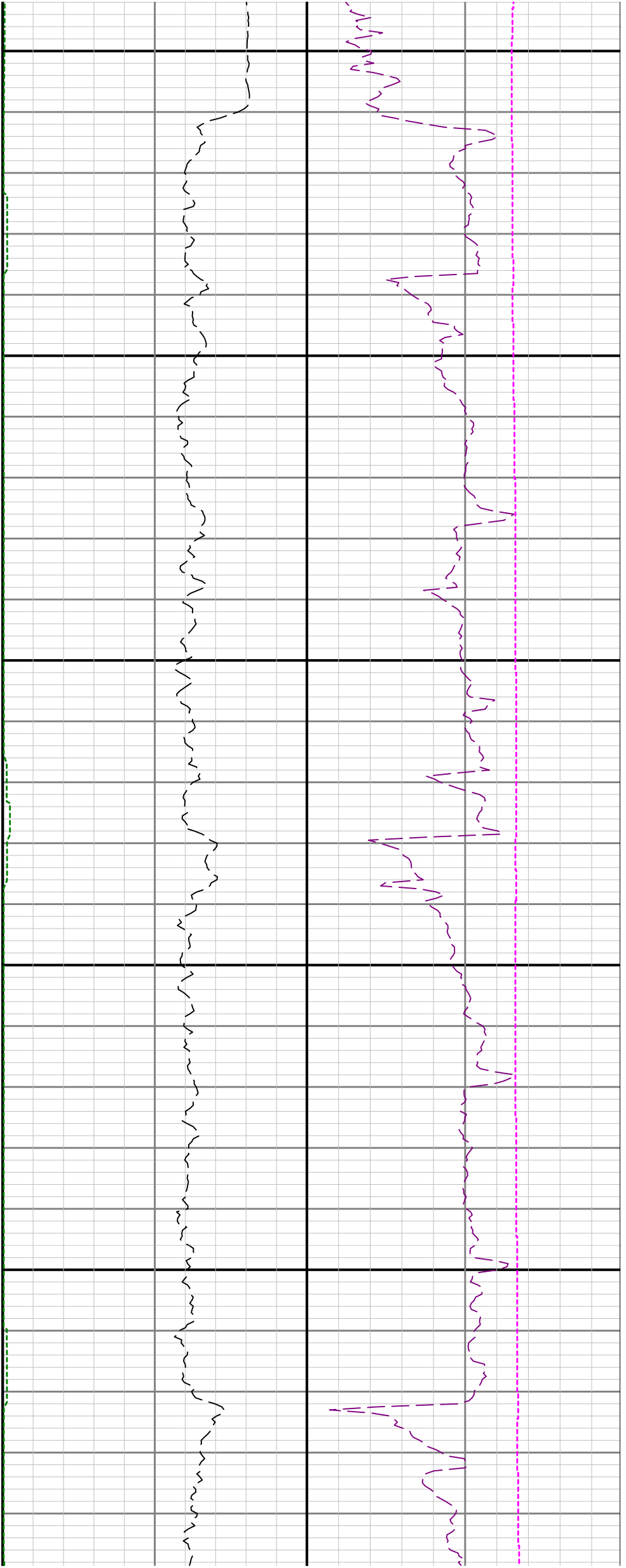


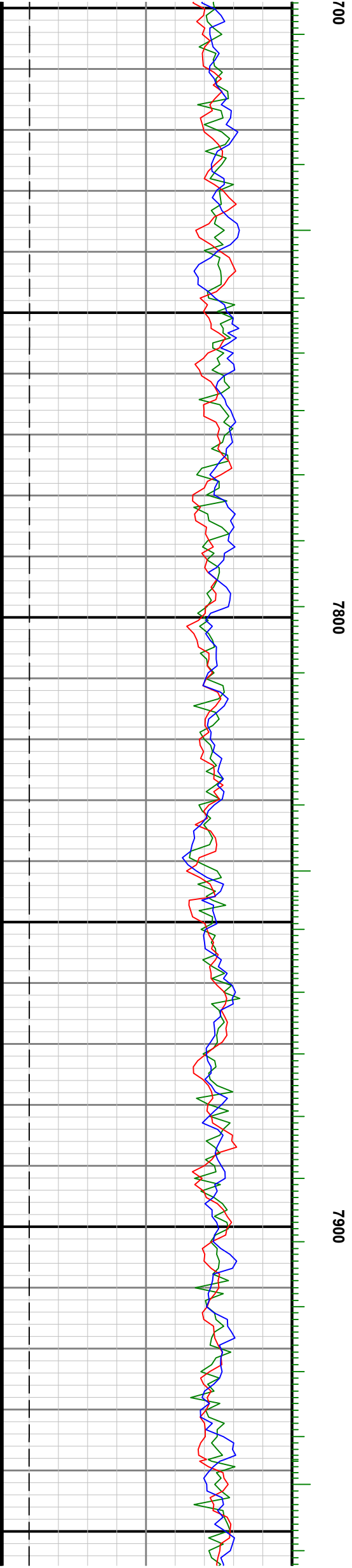
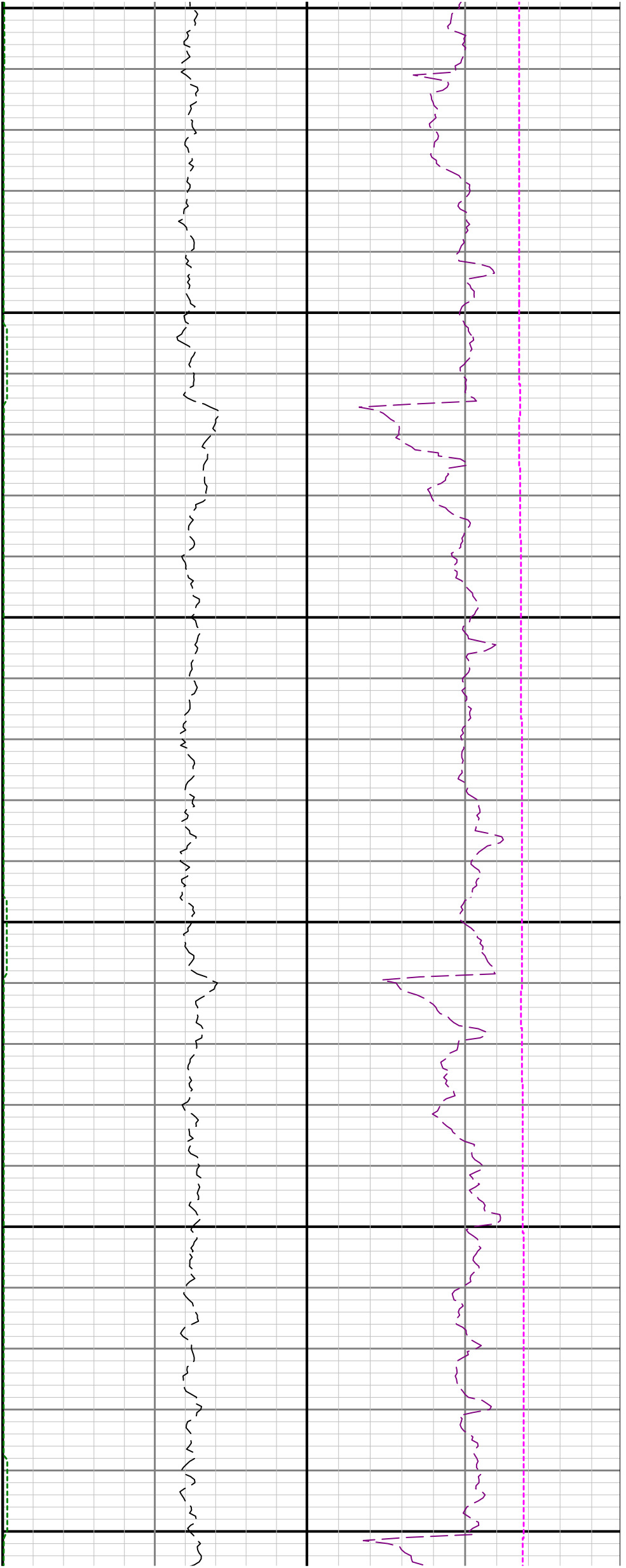


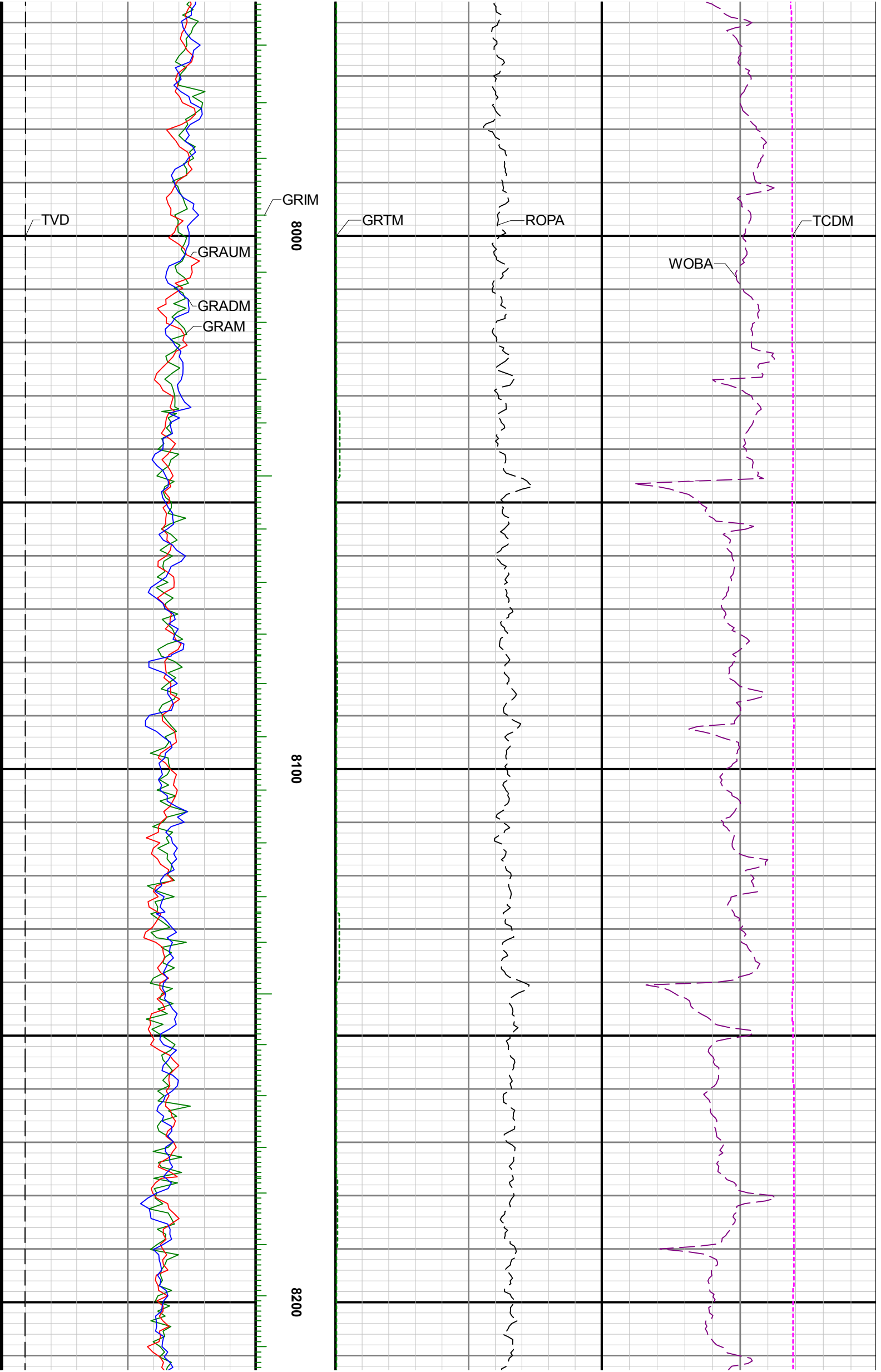








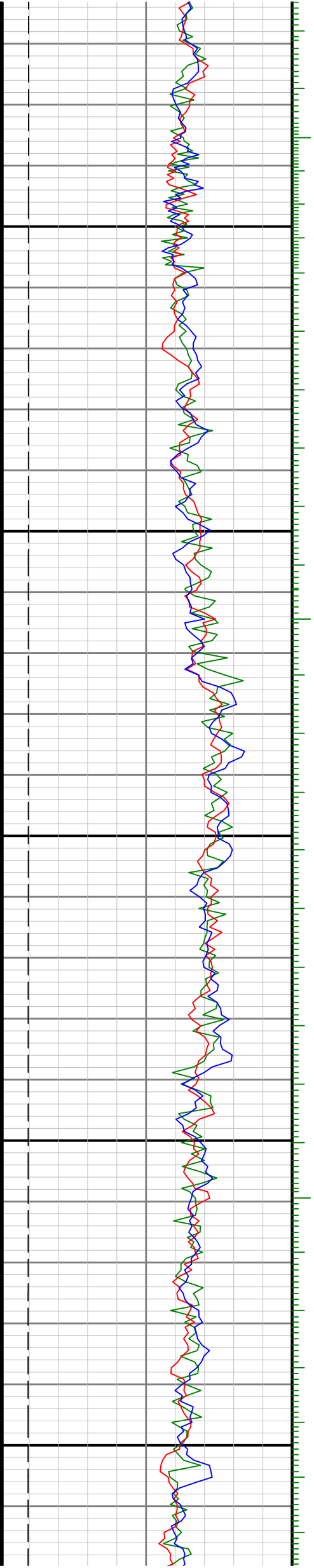


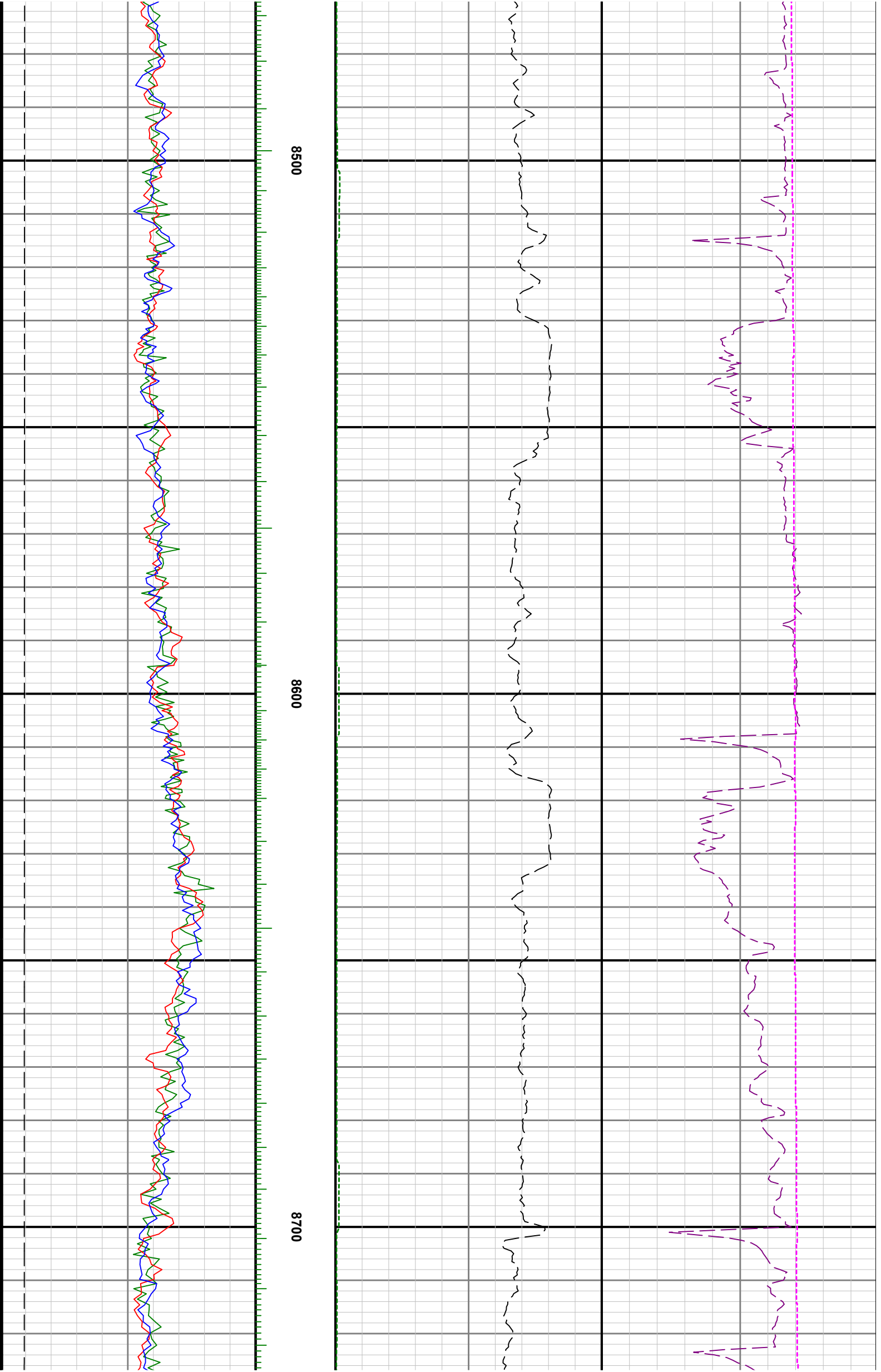


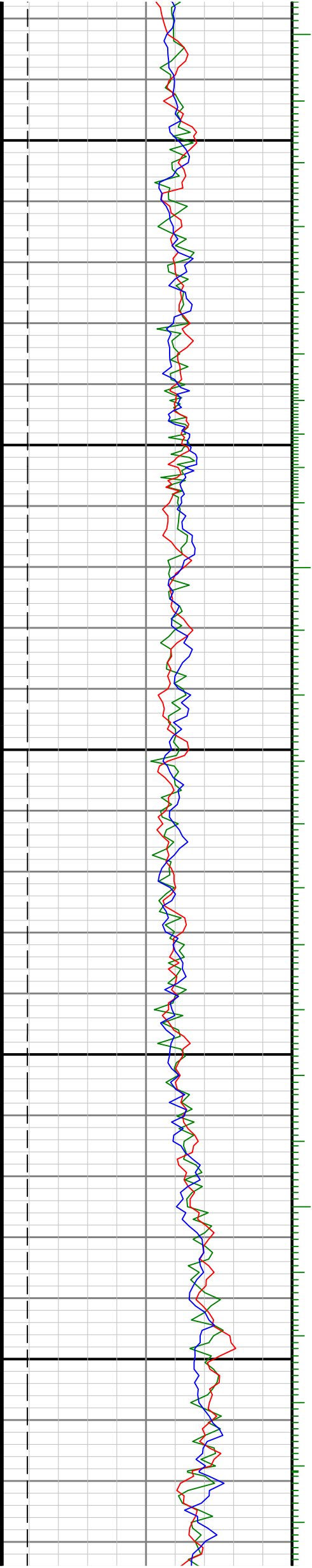


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