


LWD MEMORY LOG													
<div></div>			Azimuthal Gamma Ray										
Scale:			Company: SRC Energy										
1:240 MD			Well: Falken 32C-9-L										
Depth Reference:			Field: Weld County										
Driller's Depth			County: Weld County Country: United States										
State: Colorado			Other Services:										
Status: Final Print			Surface Location:				Latitude: 040° 30' 02.869" N Longitude: 104° 44' 09.402" W						
API No: 05-123-45115			SEC: 11 TWN: 6N RGE: 66W				Wellbore Survey						
Job ID: 8728057			Permanent Datum (P.D.): Ground Level				Elev. KB: 4835.00 ft Elev. DF: 4810.00 ft						
Log Measured From: Rig Floor			Above P.D. 25.00 ft				Elev. GL: 4810.00 ft						
Dates			Interval Logged			Magnetic Field Reference							
Date From: 2017-09-19			Top: (ft) 1825.00			Azi Reference North: True			Dip Angle: (deg) 66.98				
Date To: 2017-09-23			Bottom: (ft) 19120.00			Total Magnetic Field Strength: (nT)			52698				
Spud Date: 2017-09-16						Mag to Reference North Correction: (deg)			7.44 E				
Borehole Record													
Casing Record													
Hole Size (in)			From (ft)		To (ft)		Size (in)		Weight (lb/ft)				
13.500			25.00		1825.00		9.625		36.00				
8.500			1825.00		19120.00								
Mud Record													
Deviation Record													
Type		From (ft)		To (ft)		Hole Size (in)		Interval (ft)		Inc Az (Start)		Inc Az (End)	
Water Based Mud		25.00		1825.00		13.500		1732.00		0.66 74.26		10.59 67.53	
Oil Based Mud		1825.00		19121.58		8.500		17295.00		10.59 67.53		89.88 269.13	
Acquisition System										Software Version		Other	
Baker Hughes Cadence			RT4.1			Rig: PD 562		Precision Drilling					
PlotStudio			4.1.7763.3			Contractor: RMD		Unit: D&E					

2017-09-23 04:00	3	16861.00	Oil Based Mud	9.8	29	N/A	9.0	77/23	Active Pit	40000	0.00
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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	ZAPS230931	Gamma (single)	9.12	52.83	8.000	3.250
1	Sensor Sub	ZAPS230931	VSS	10.45	54.16	8.000	3.250
1	Sensor Sub	ZAPS230931	Directional (mag)	10.45	54.16	8.000	3.250
1	Sensor Sub	ZAPS230931	Pressure	31.29	75.00	8.000	3.250
2	ATC_SU	14169946	Near Bit Inclination	5.93	6.73	7.000	4.330
2	ATC_SU	14169946	Near Bit VSS	5.93	6.73	7.000	4.330
2	ATC_MWD	14270075	Gamma (single)	2.77	12.90	7.000	3.250
2	ATC_MWD	14270075	Directional (mag)	12.29	22.42	7.000	3.250
3	ATC_SU	11994999	Near Bit VSS	5.93	6.73	7.000	4.330
3	ATC_SU	11994999	Near Bit Inclination	5.93	6.73	7.000	4.330
3	ATC_MWD	14219812	Gamma (single)	2.20	12.35	7.000	3.250
3	ATC_MWD	14219812	Directional (mag)	12.27	22.42	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 NaviTrak service (Directional only) behind a 13 1/2 inch bit and steerable assembly from surface to 1825 feet MD (surface to 1796 feet TVD). No logging data was acquired during this run.
3	Baker Hughes LWD Runs 2 and 3 utilized 6 ¾ inch NaviGamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly from 1825 to 19120 feet MD (1796 to 7281 feet TVD).
4	Gamma Ray Curves (GRAM-GRAUM-GRADM) are presented 0 to 300 API per customer request.

Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	19113.00	8.500	3	The interval from 19107 to 19120 feet MD (7281 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	OnTrak - Gamma Ray - Apparent - Memory 0.5 ft Average	API
GRIM	OnTrak - Gamma Ray - Data Point Indicator - Memory	unitless
GRTM	OnTrak - Gamma Ray - Time Since Drilled - Memory	min
GRADM	OnTrak - Gamma Ray - Apparent - Down Quadrant - Memory 0.5 ft Average	API
GRAUM	OnTrak - Gamma Ray - Apparent - Up Quadrant - Memory 0.5 ft Average	API
TCDM	Downhole Temperature	degF



Company Well

Interval

Created

SRC Energy

Falken 32C-9-L

Date From: 2017-09-19 00:00:00

Date To: 2017-09-23 19:02:01

2017-09-24 21:08:37

Top: 1825.00

Bottom: 19120.00

Gamma Ray - Apparent 0.5 ft Average GRAM

0300

API

Azimuthal Gamma Ray - Apparent - Up Quadrant 0.5 ft Average GRAUM

0300

API

Azimuthal Gamma Ray - Apparent - Down Quadrant 0.5 ft Average GRADM

0300

API

True Vertical Depth TVD

80001500

ft

MD 1:240 feet

Gamma Time Since Drilled GRTM

0600

min

Depth Averaged ROP 3 ft Average ROPA

10000

ft/h

Weight On Bit, Average 1 ft Average WOBA

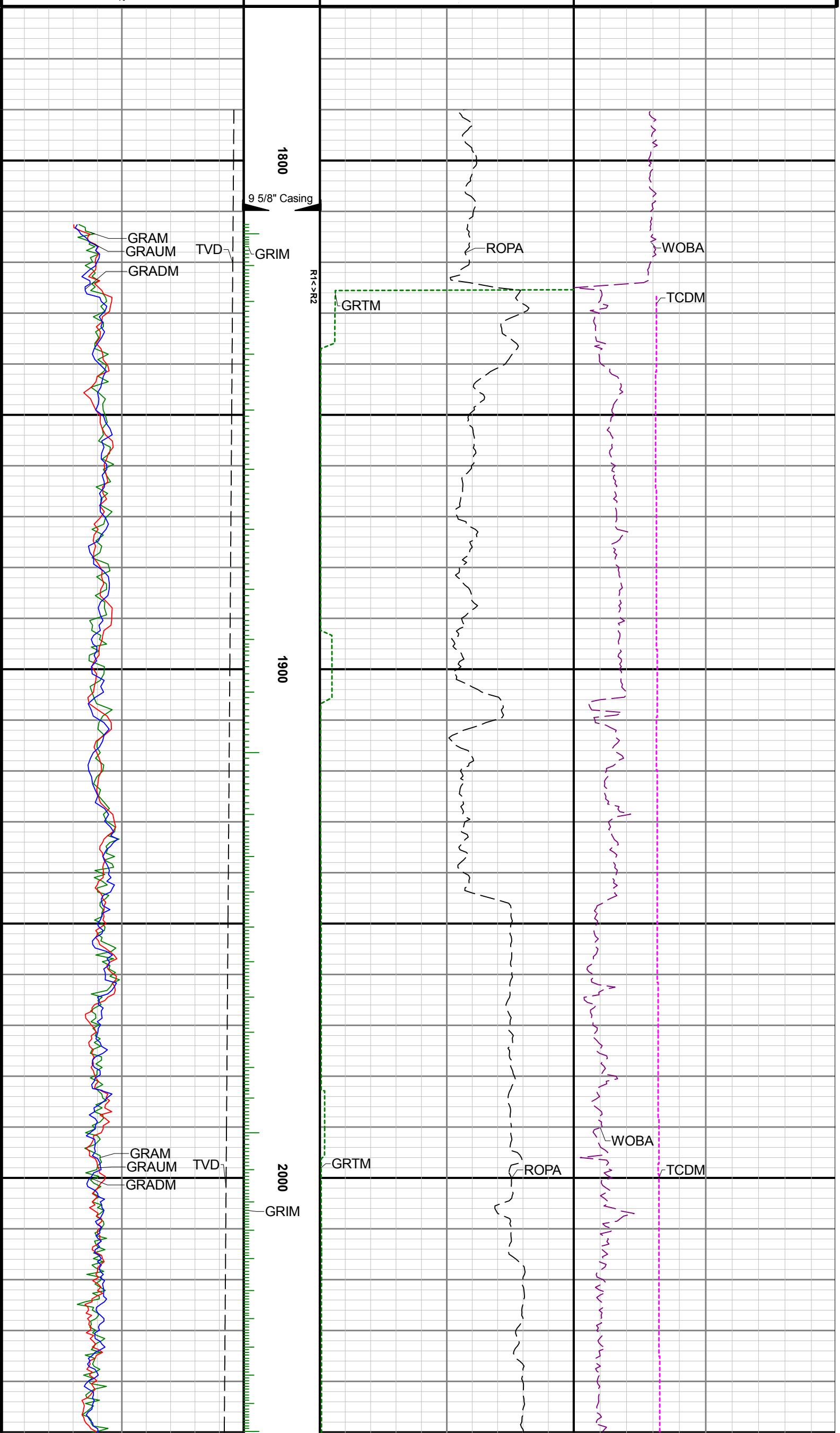
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klb

Downhole Temperature TCDM

0275

degF

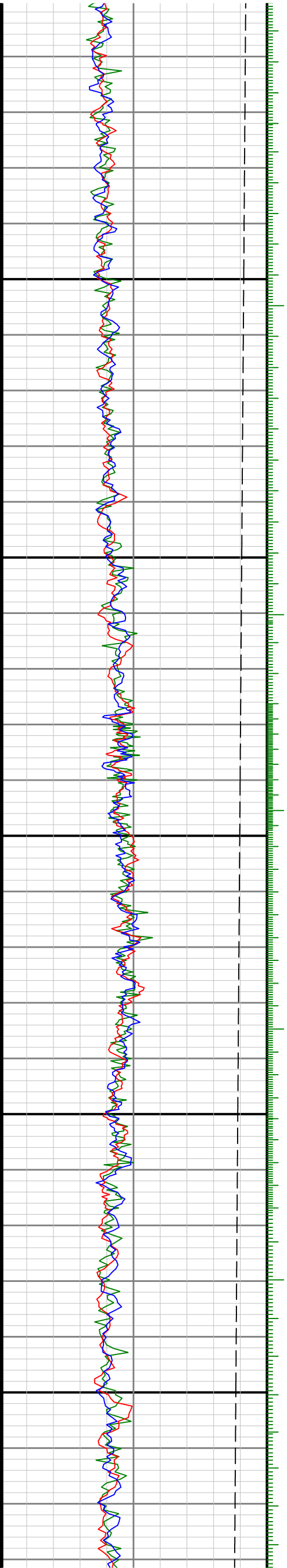


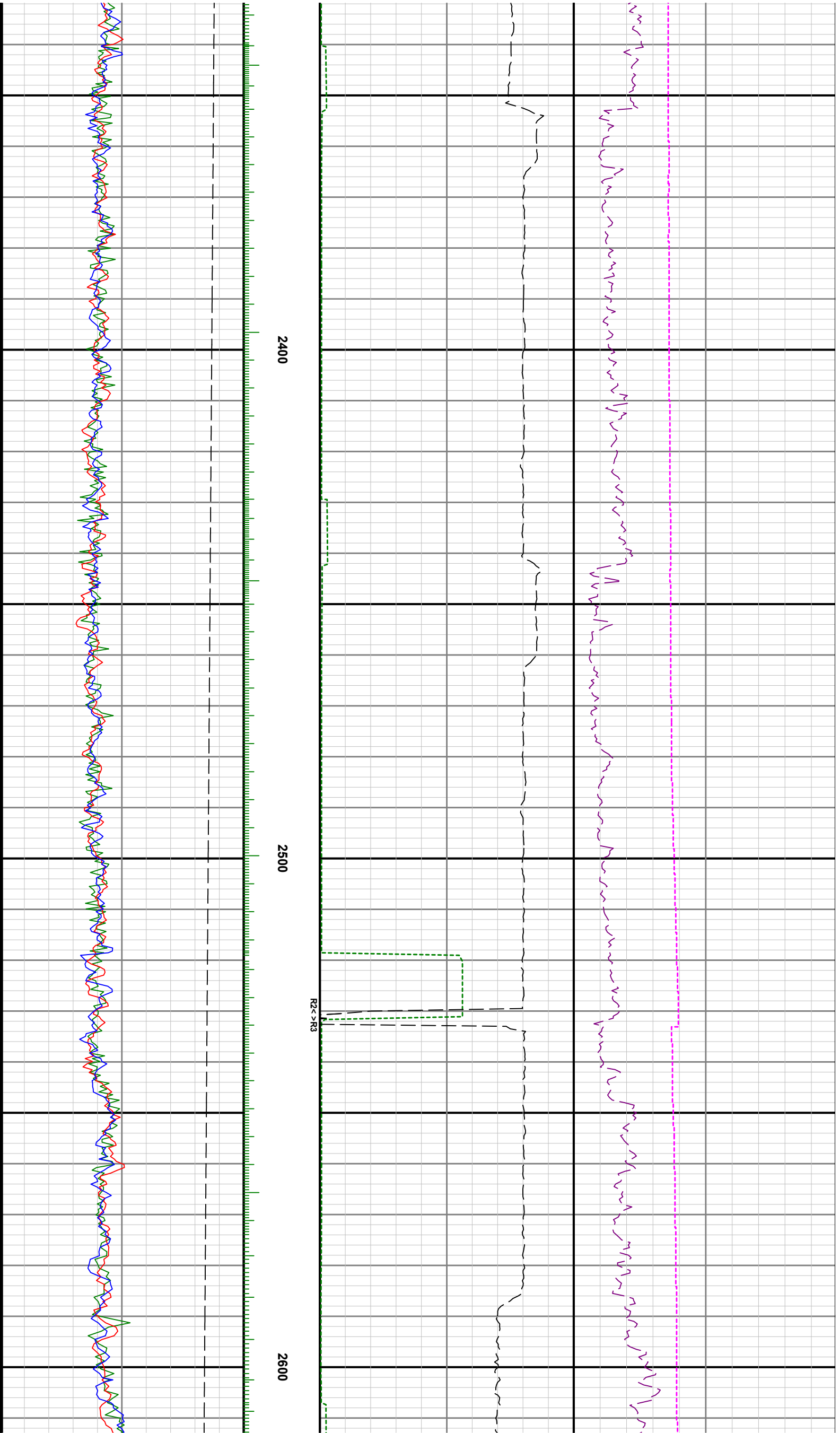


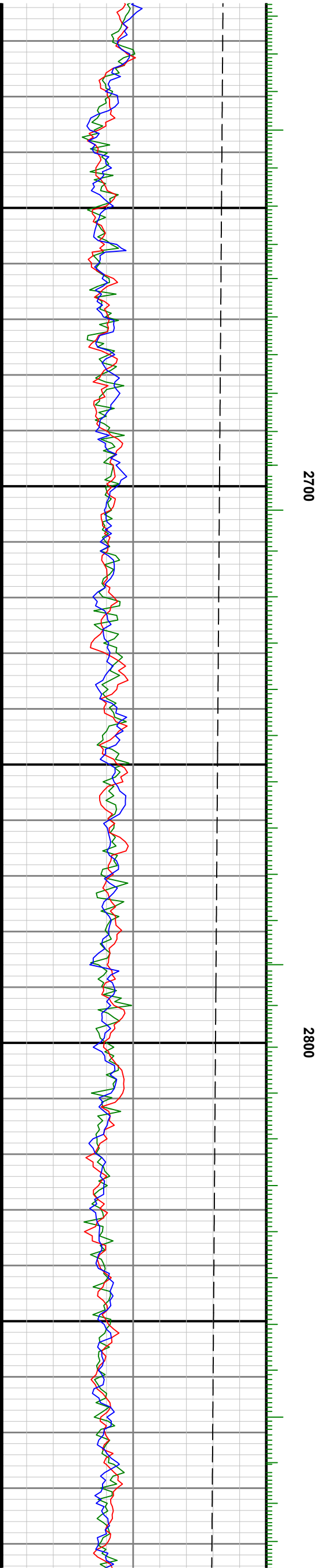
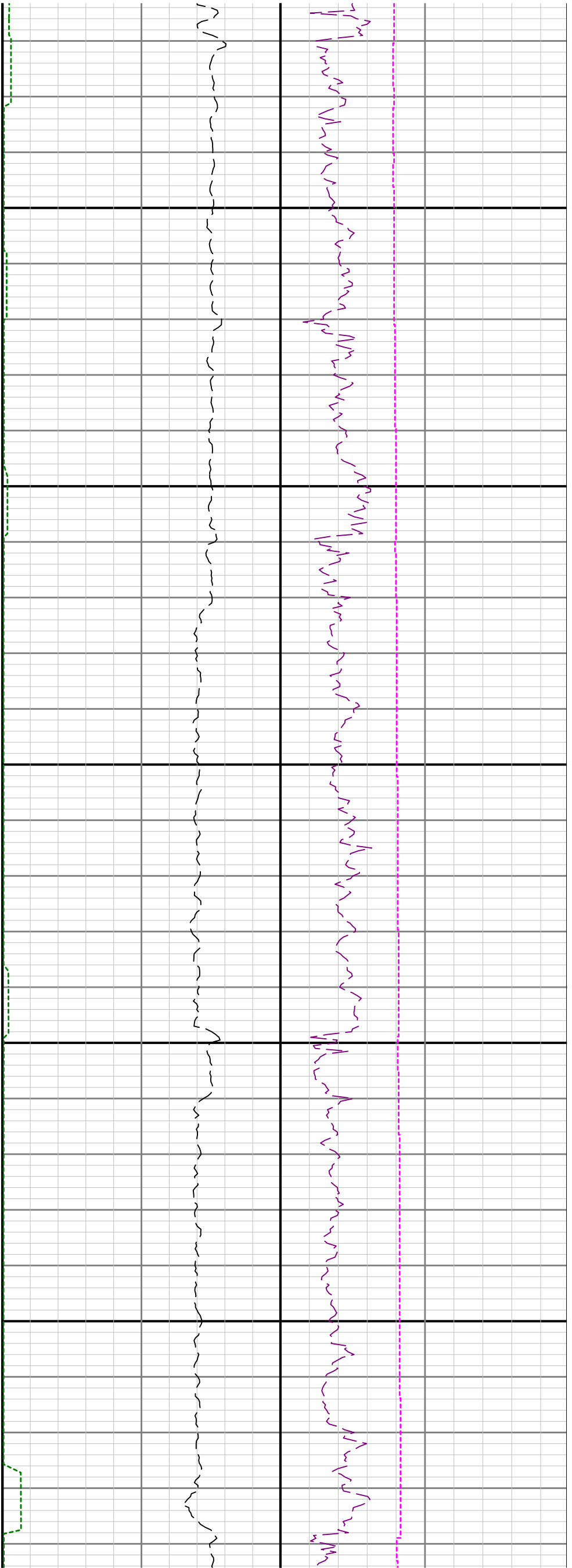
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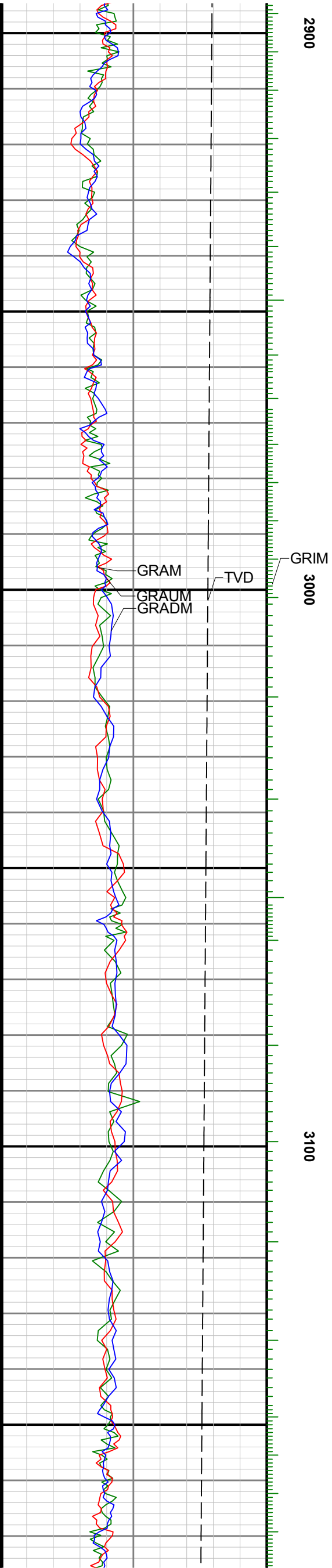
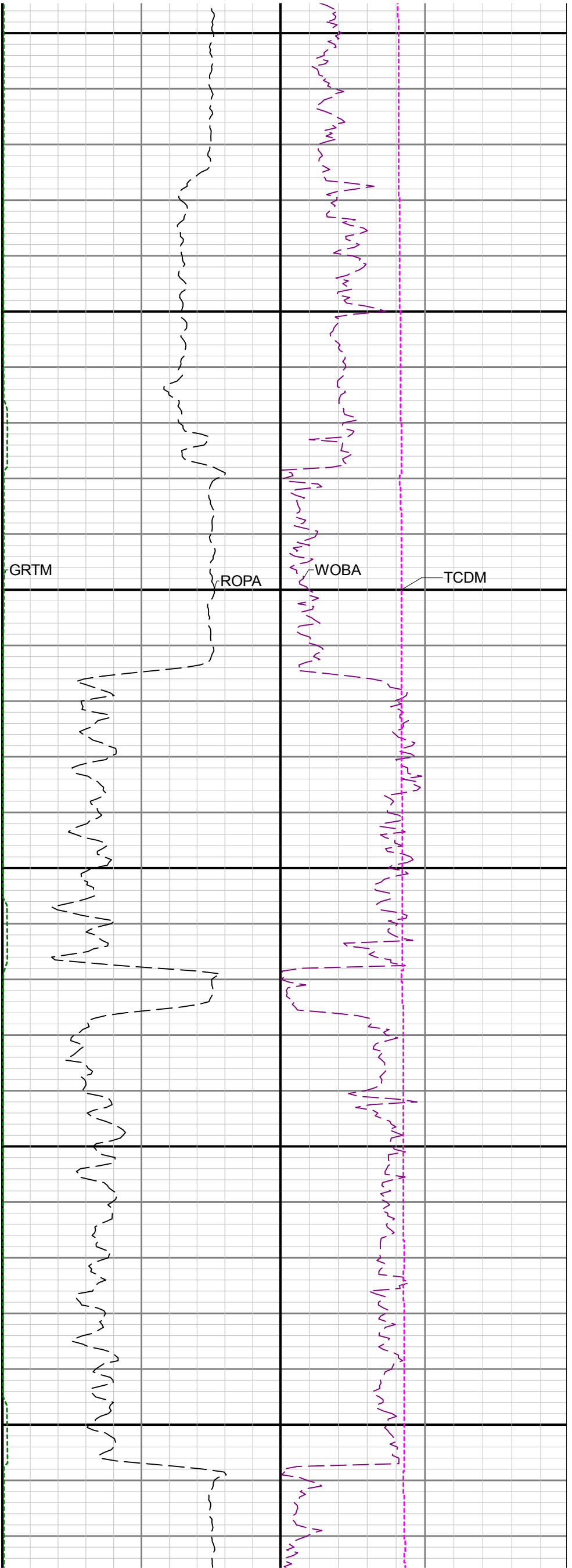
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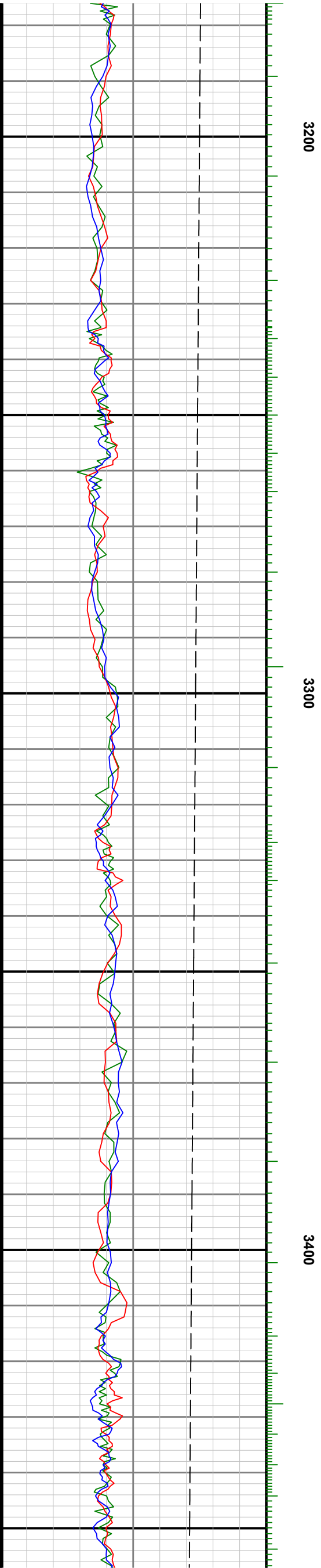
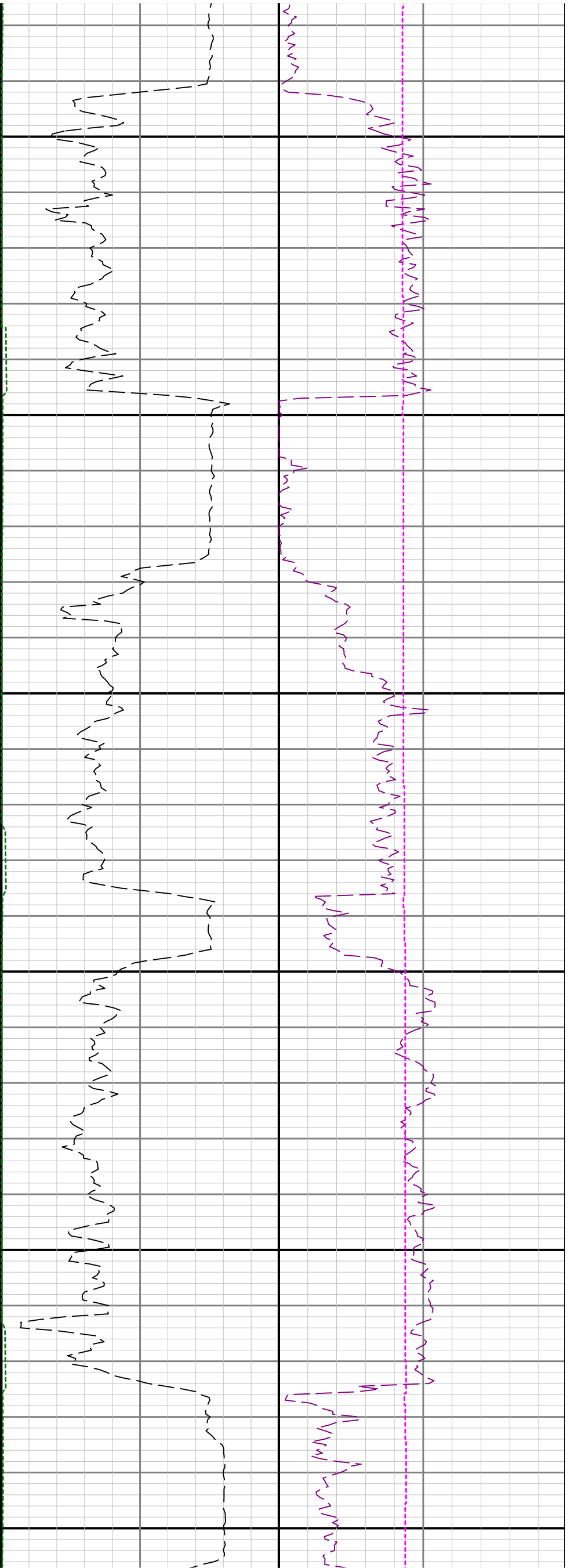
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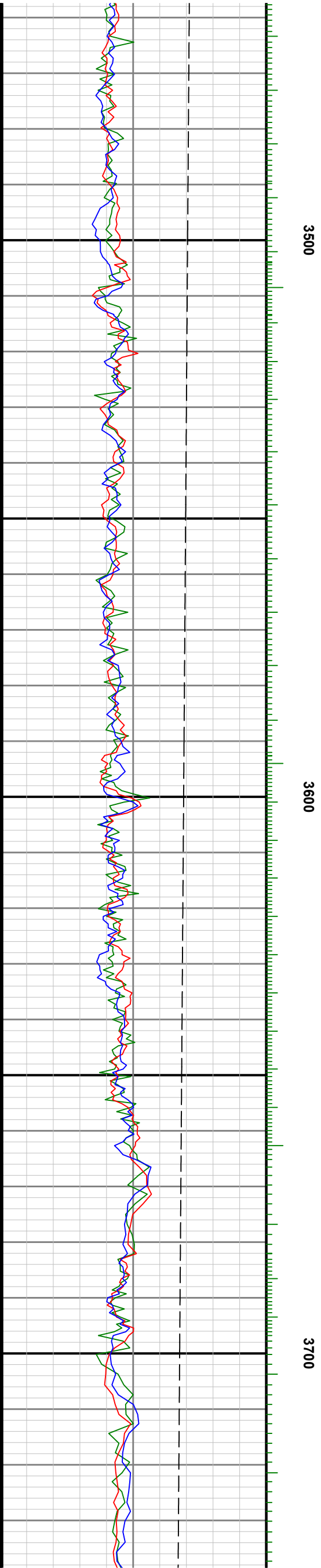
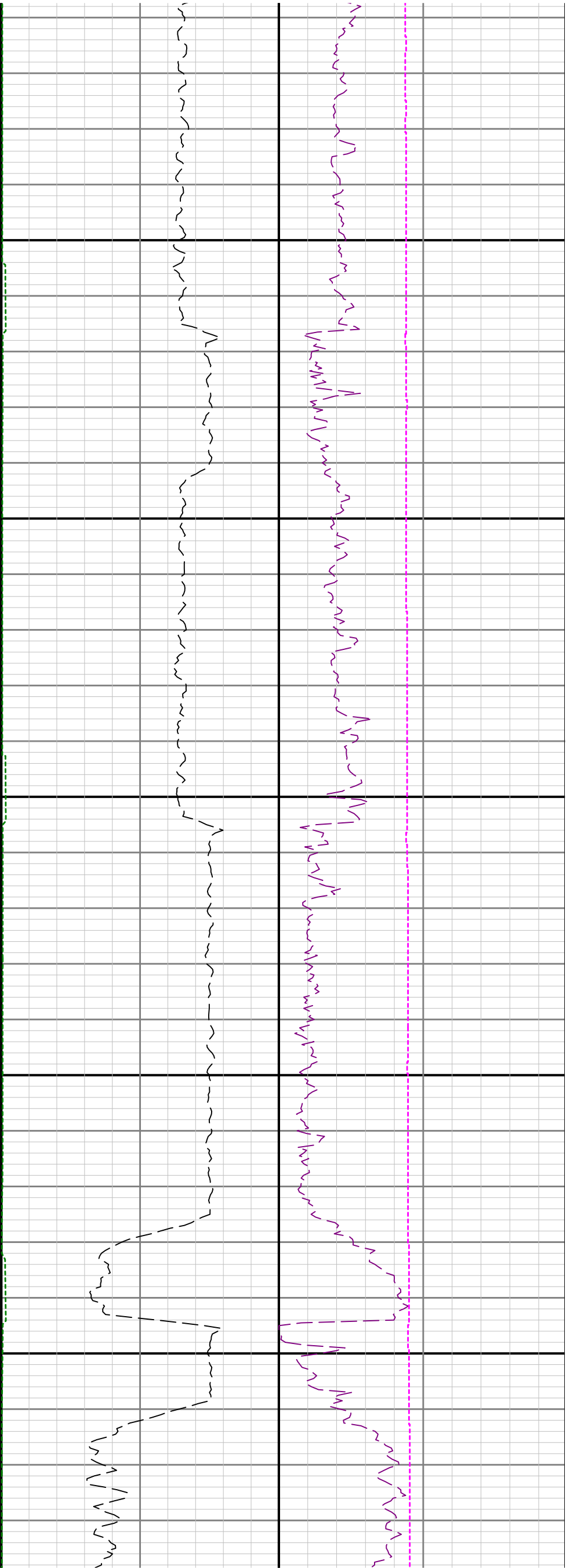


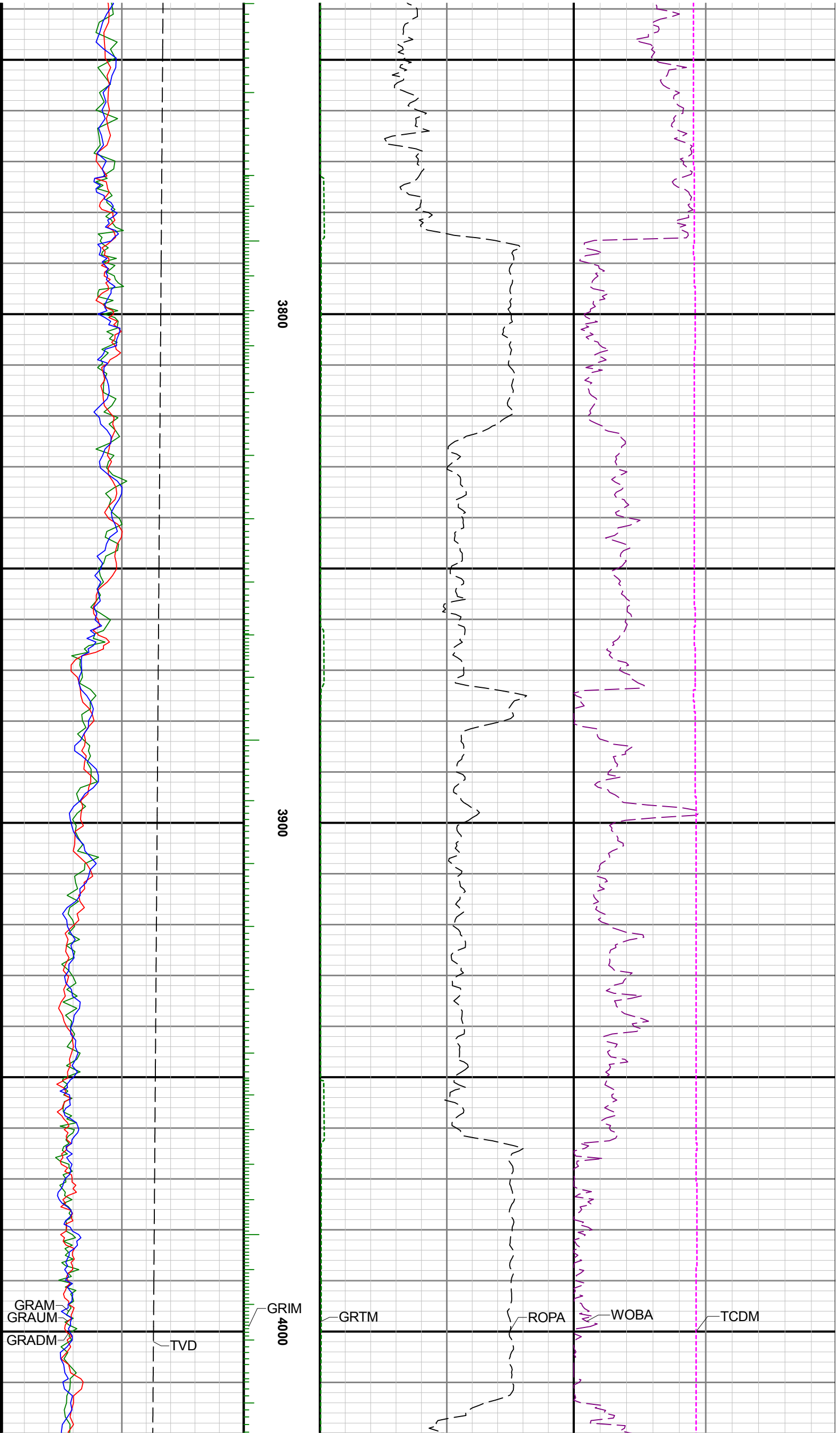


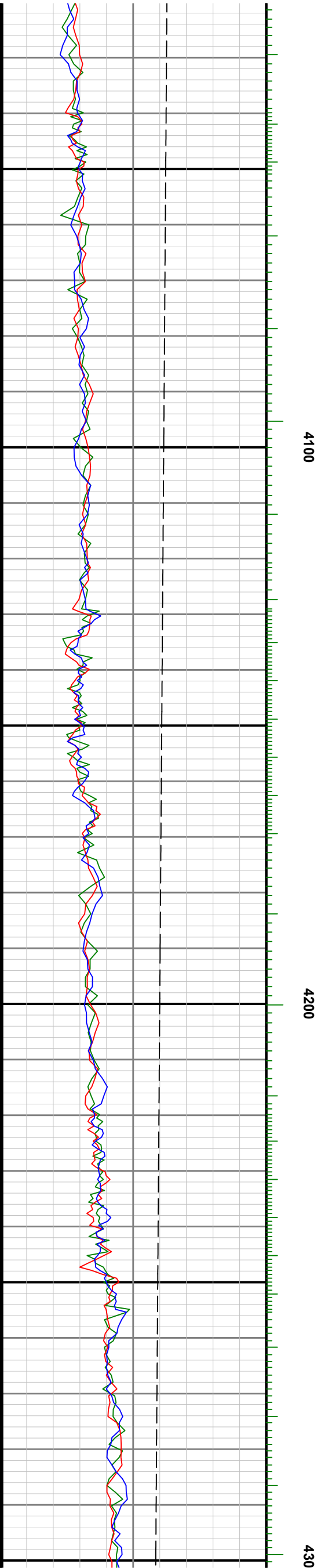
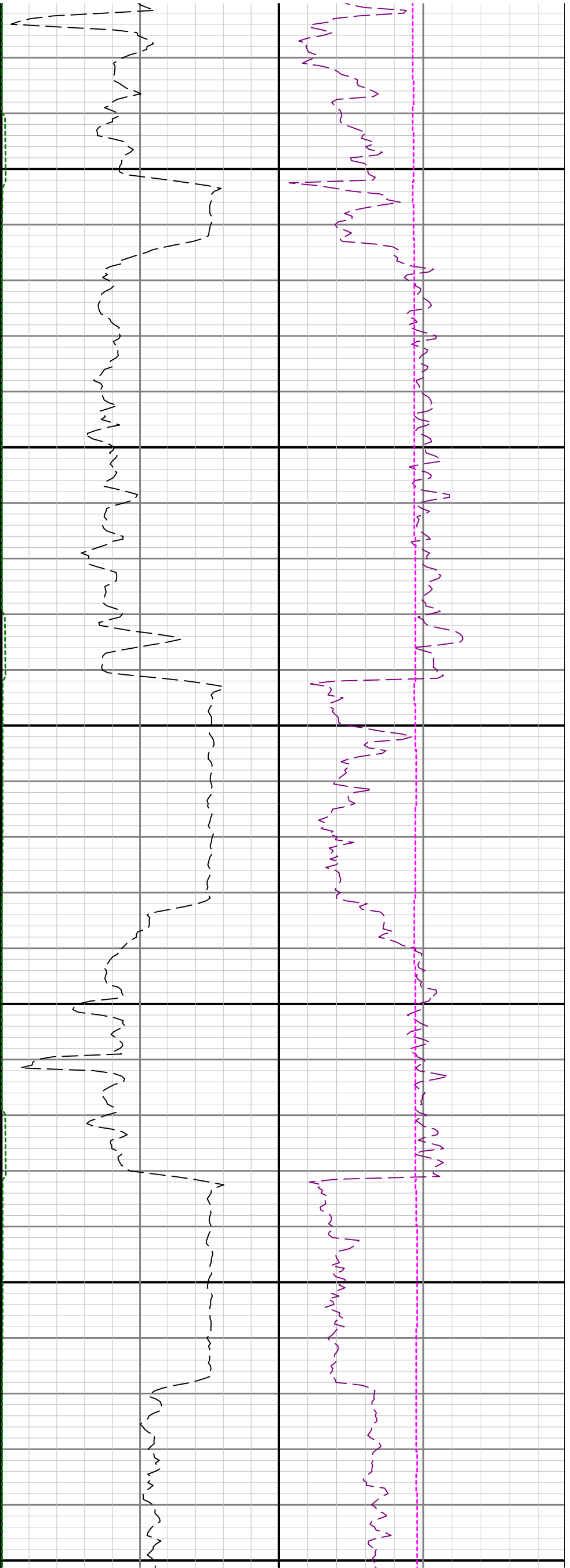


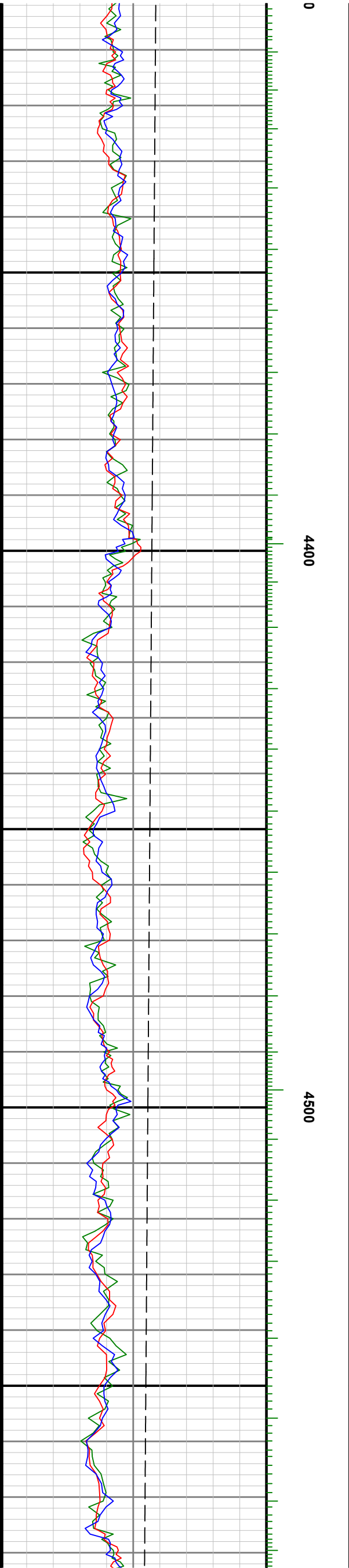
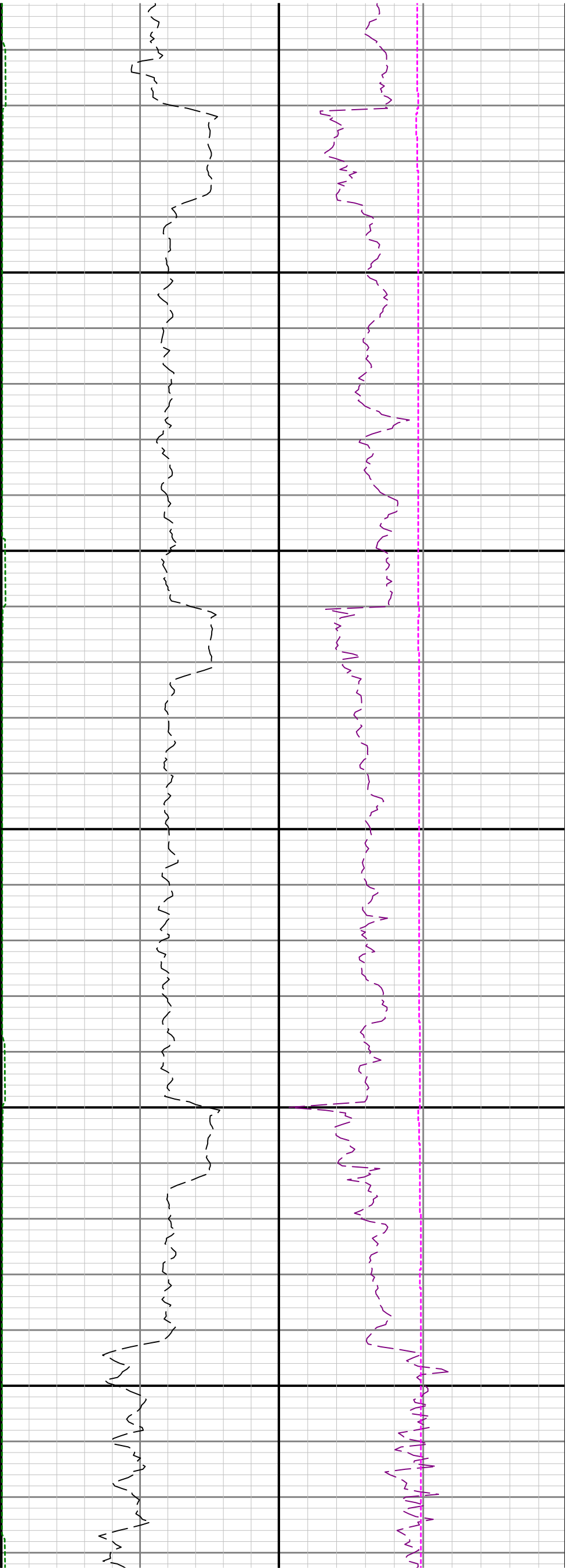


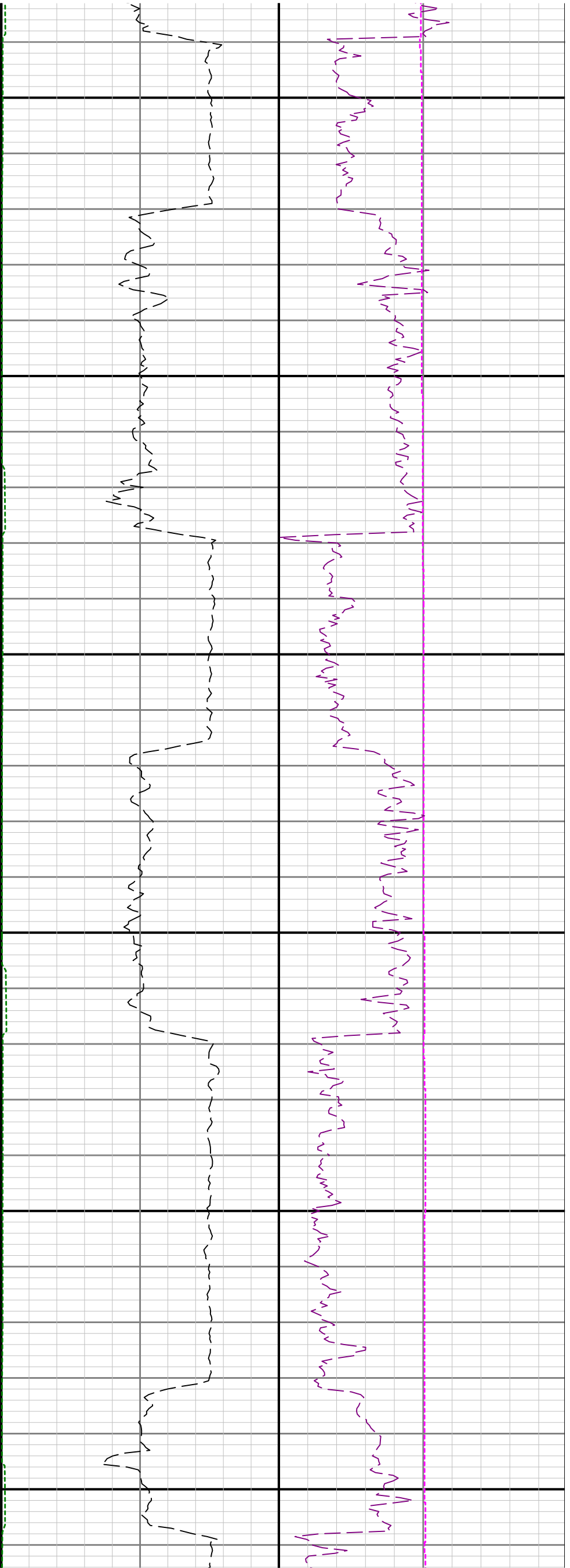








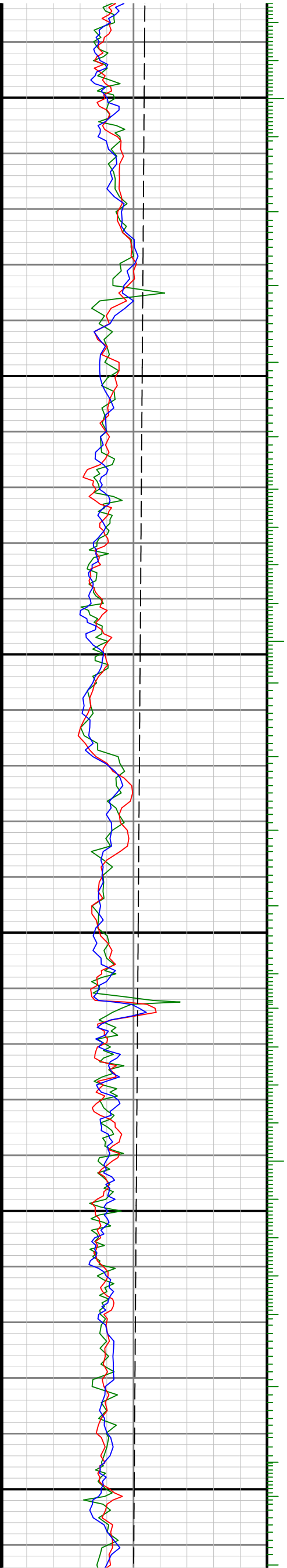


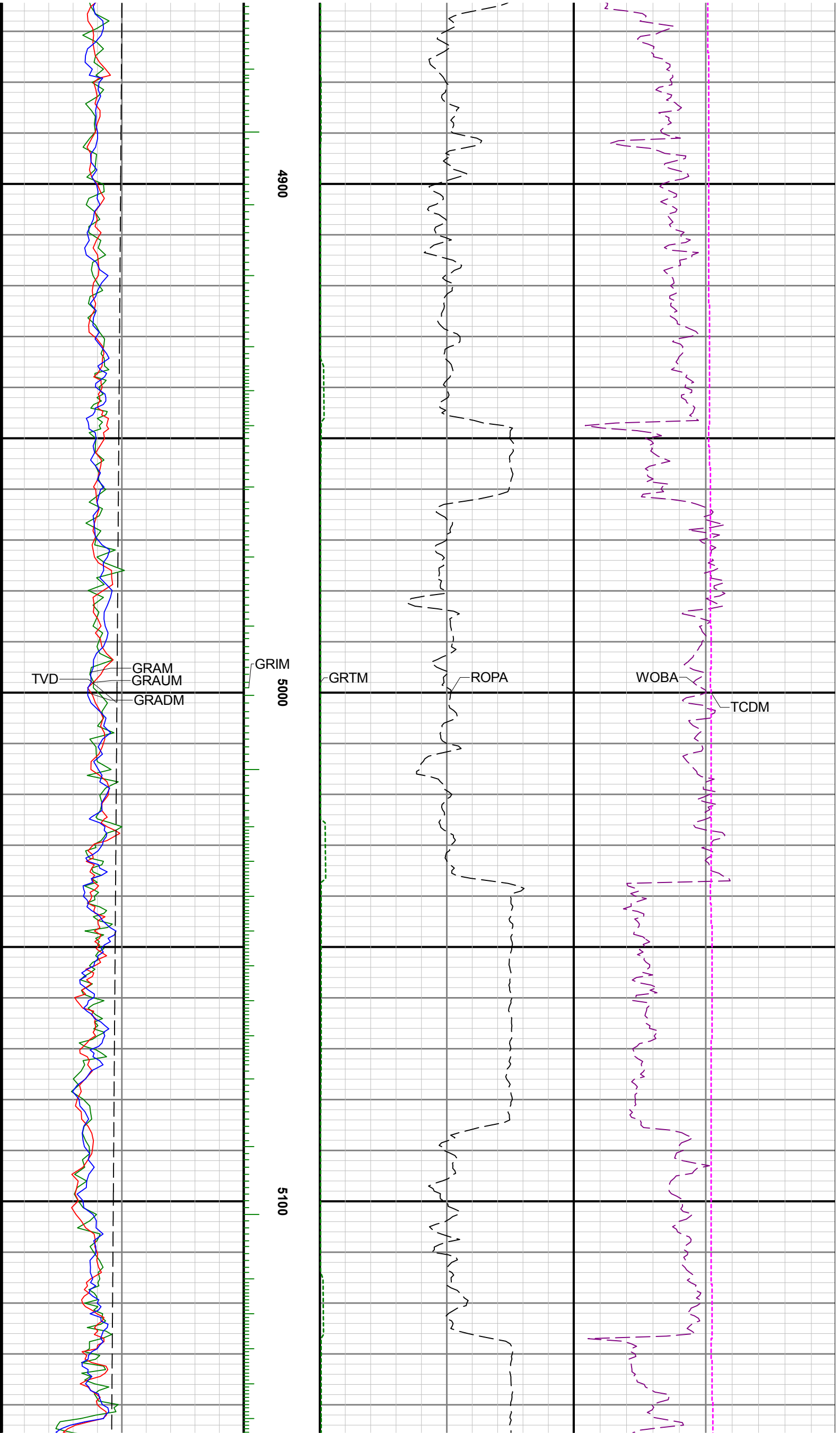


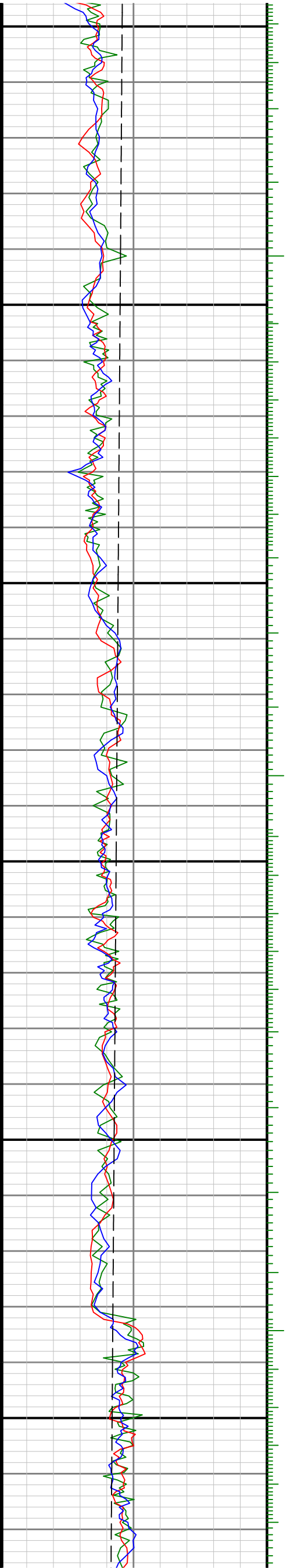
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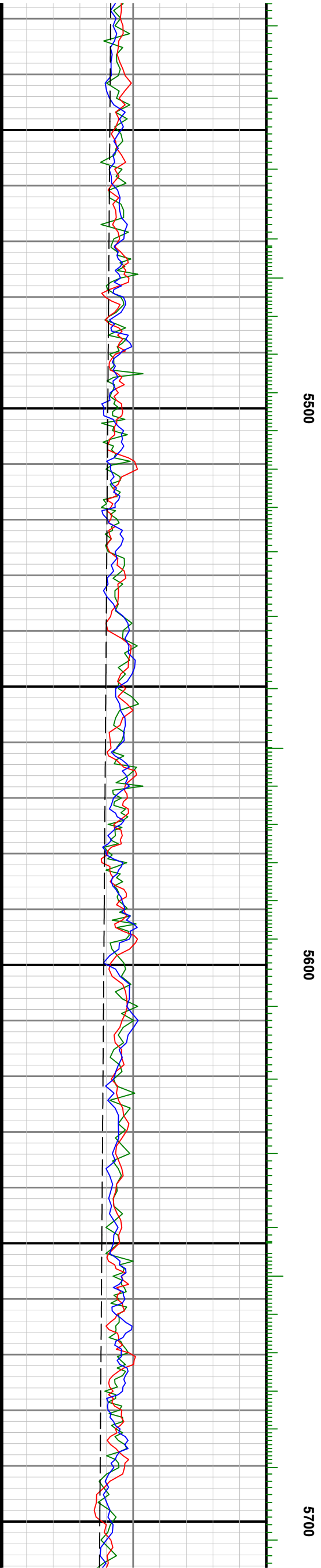
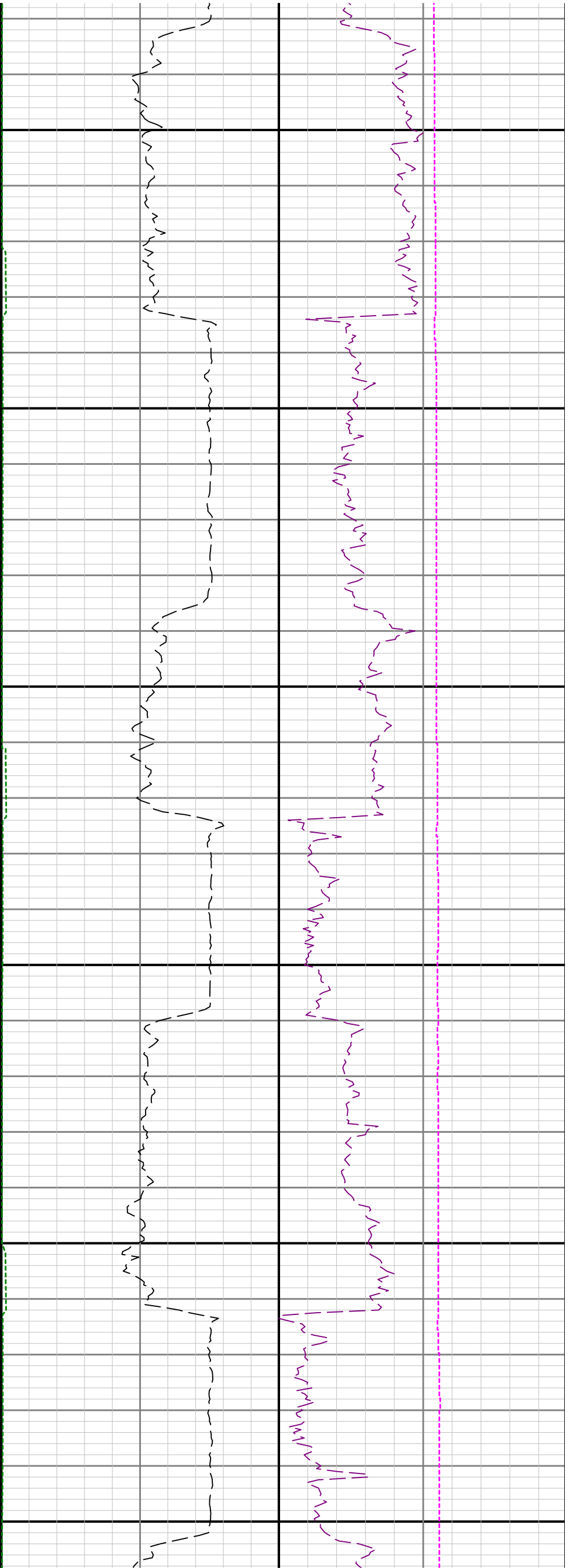
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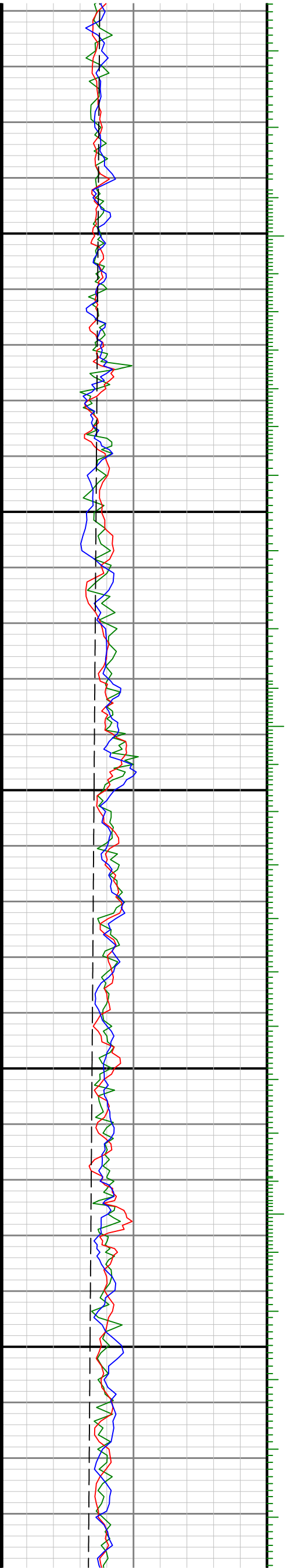
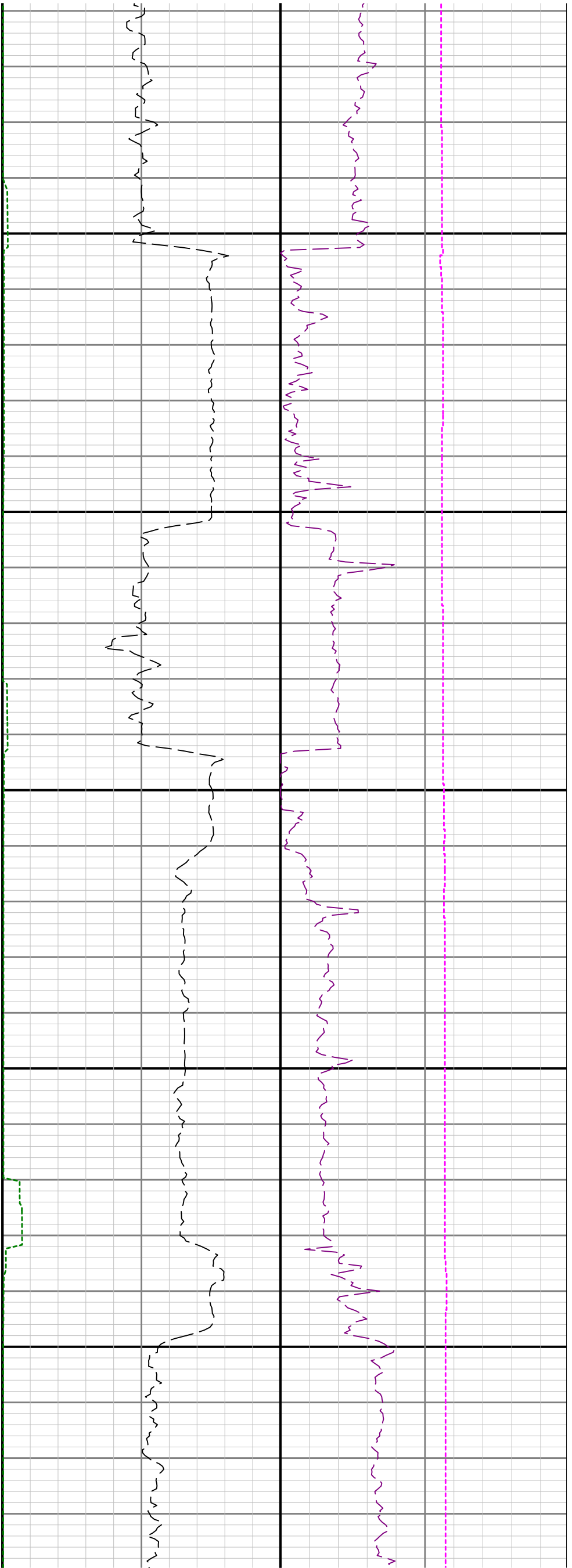
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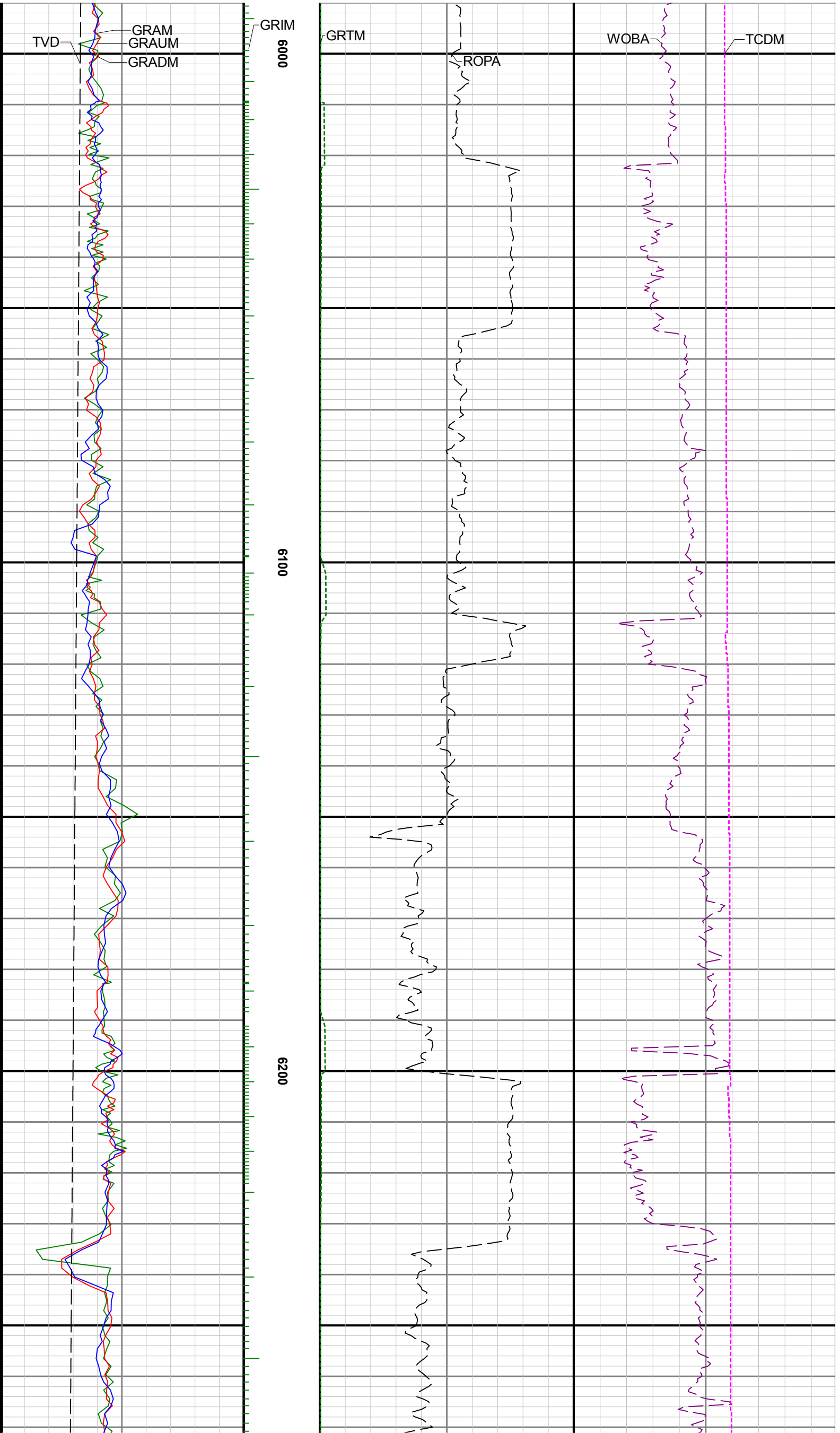


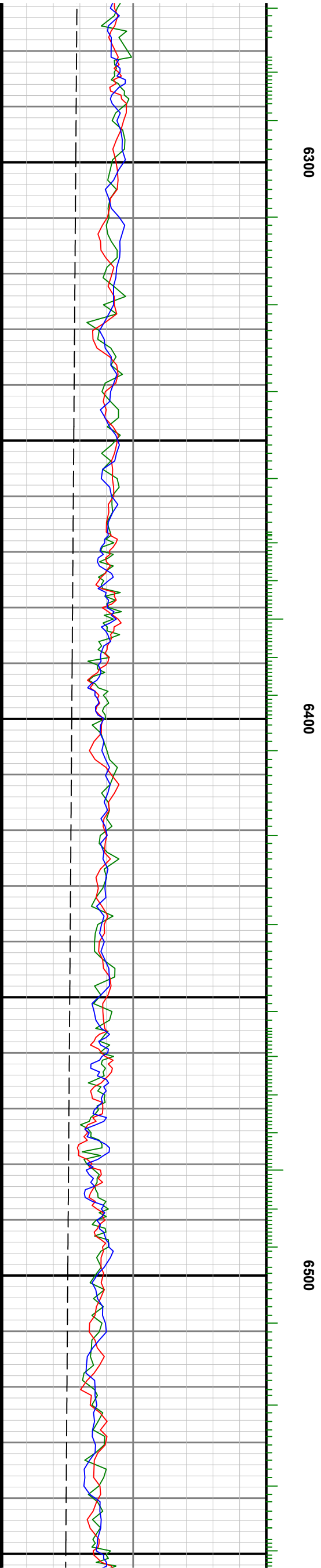
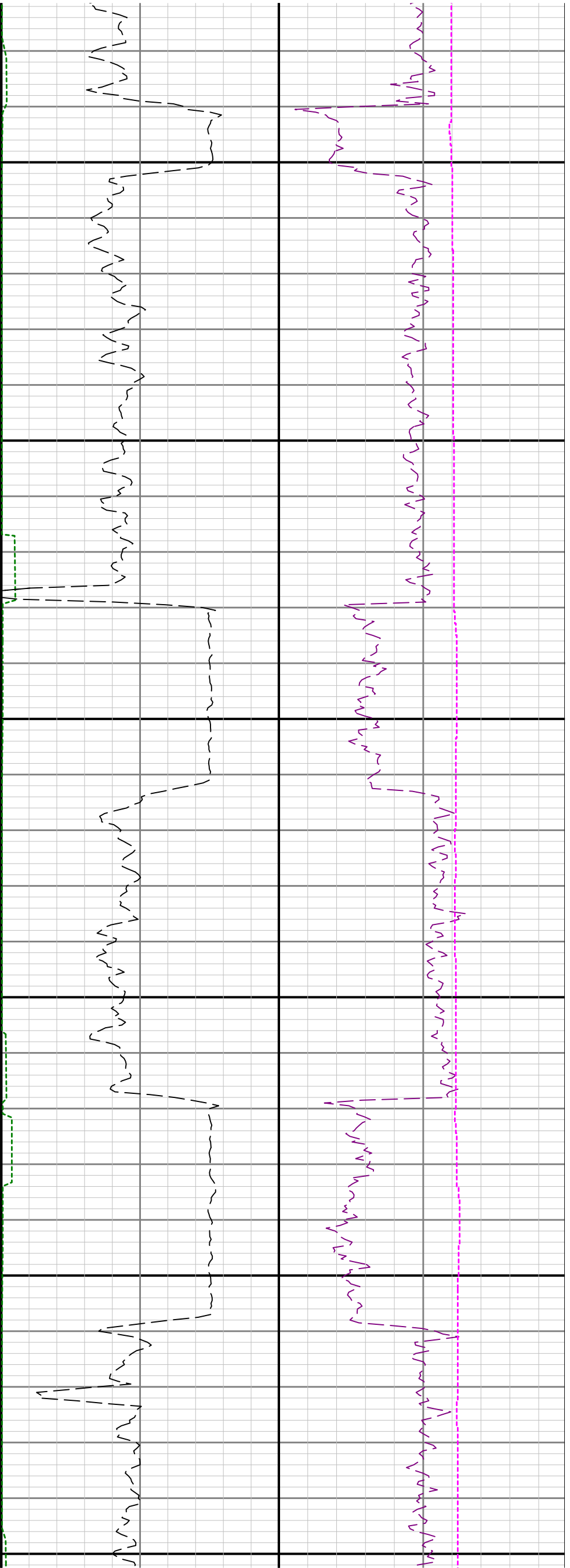


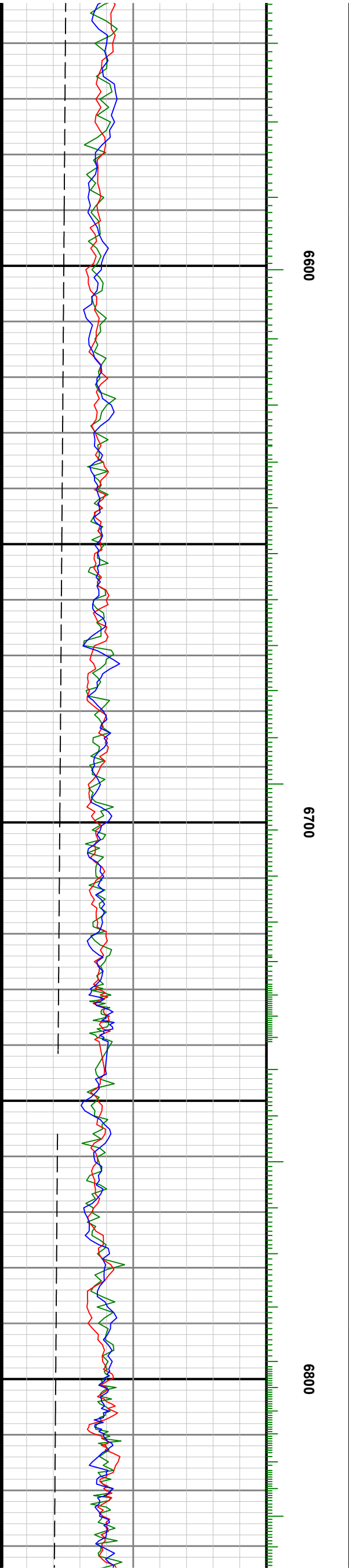
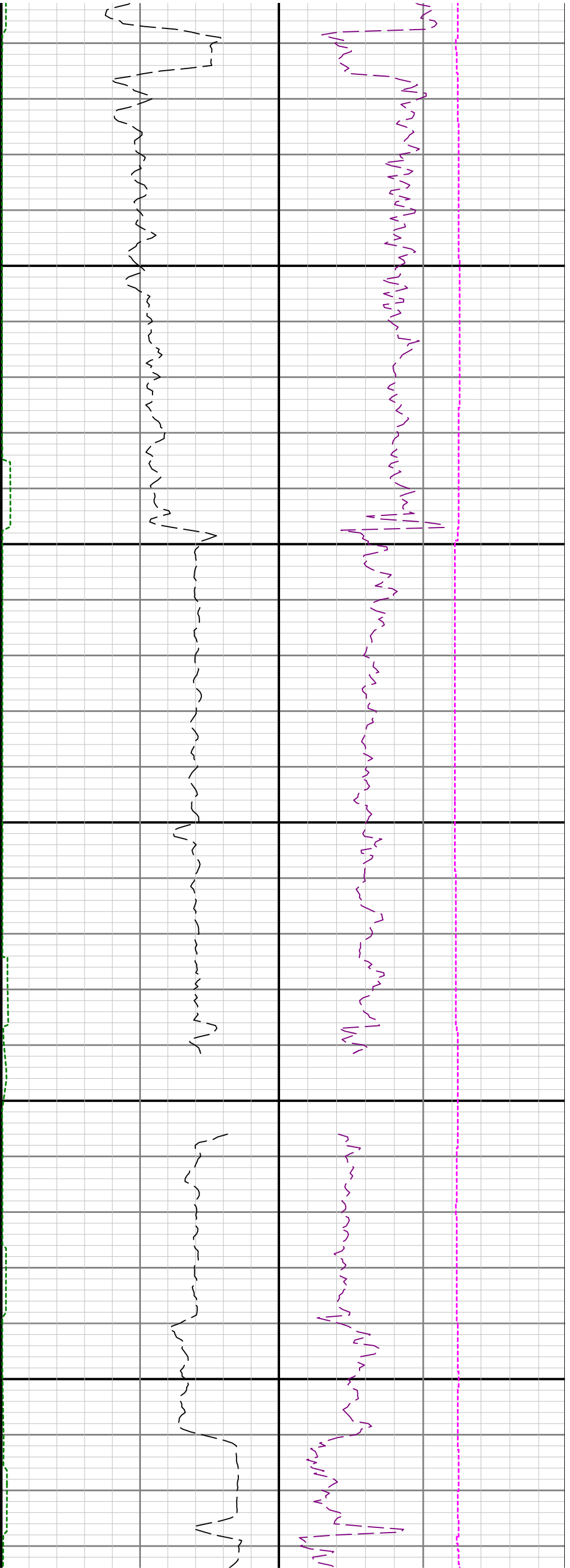


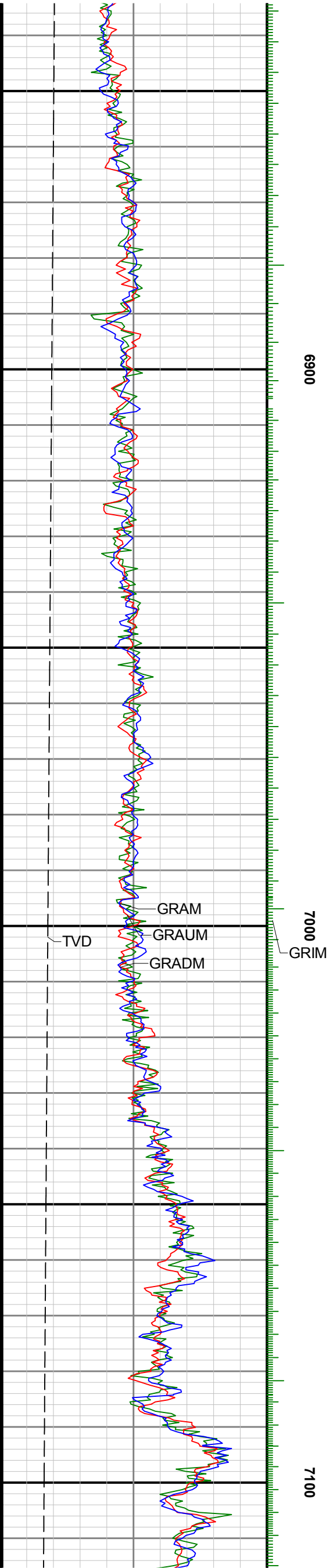
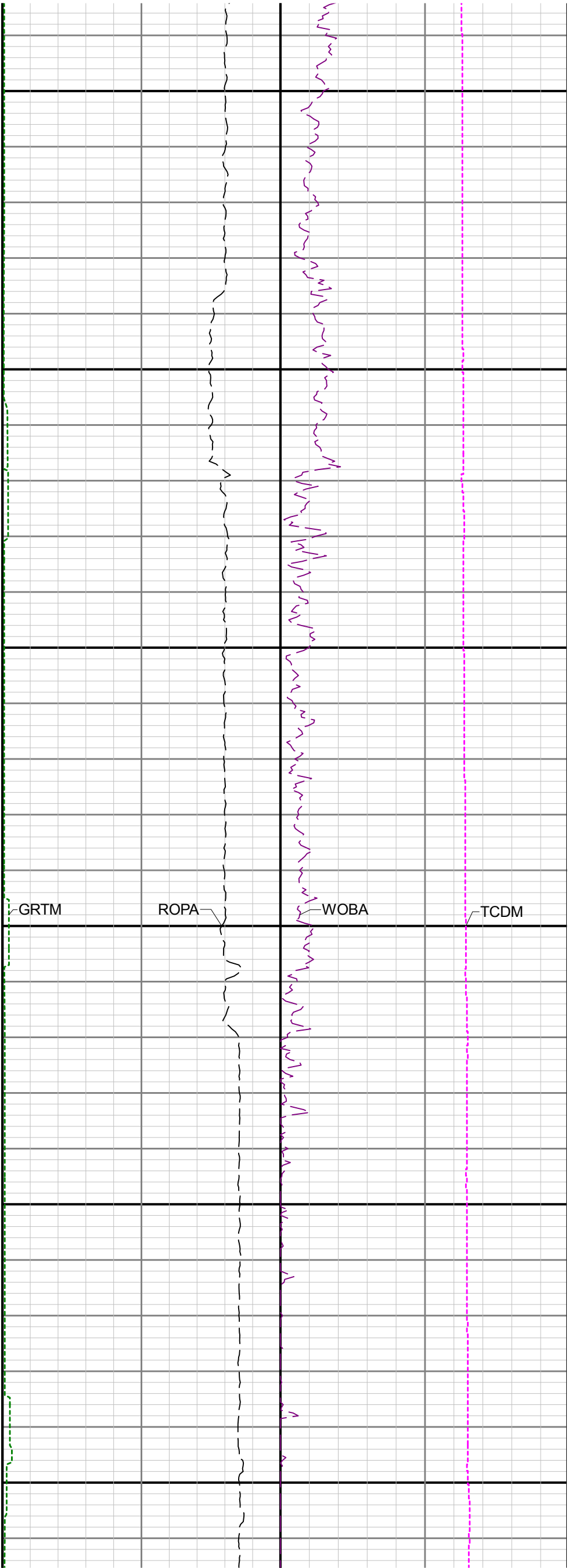


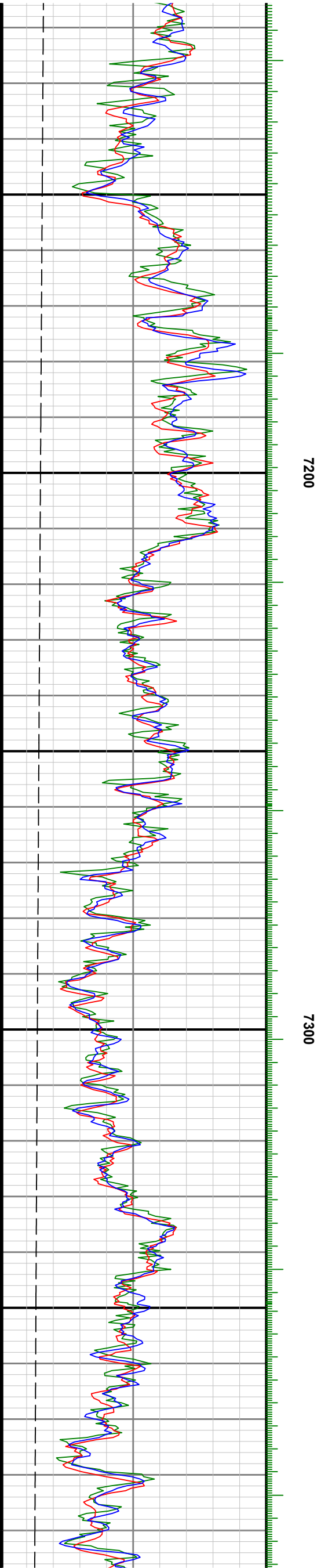
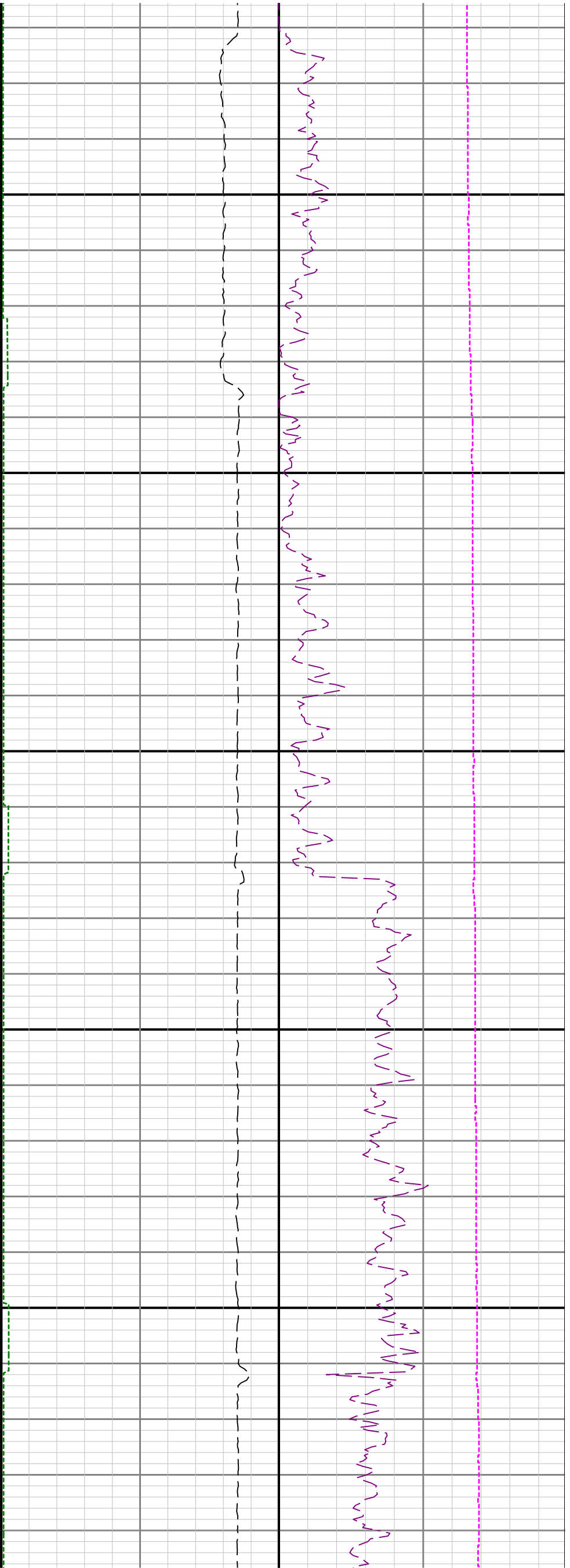


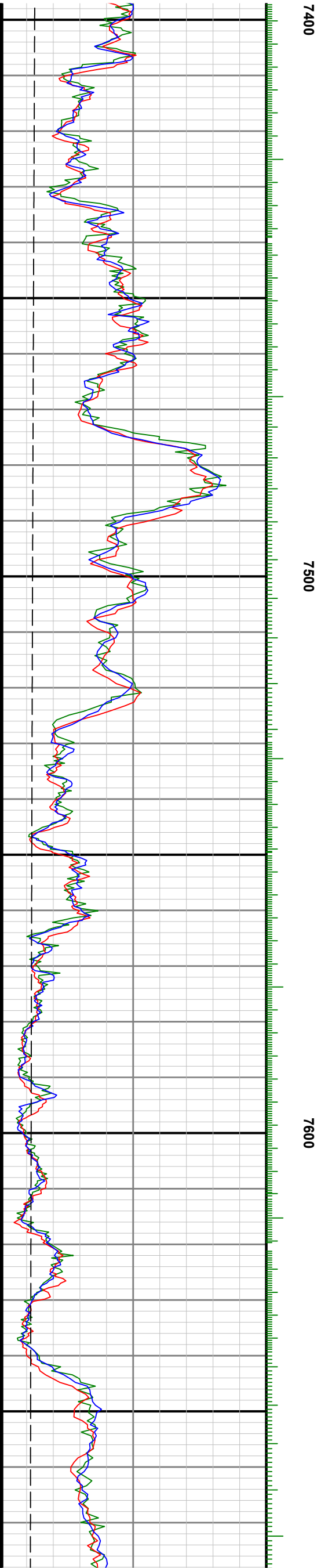
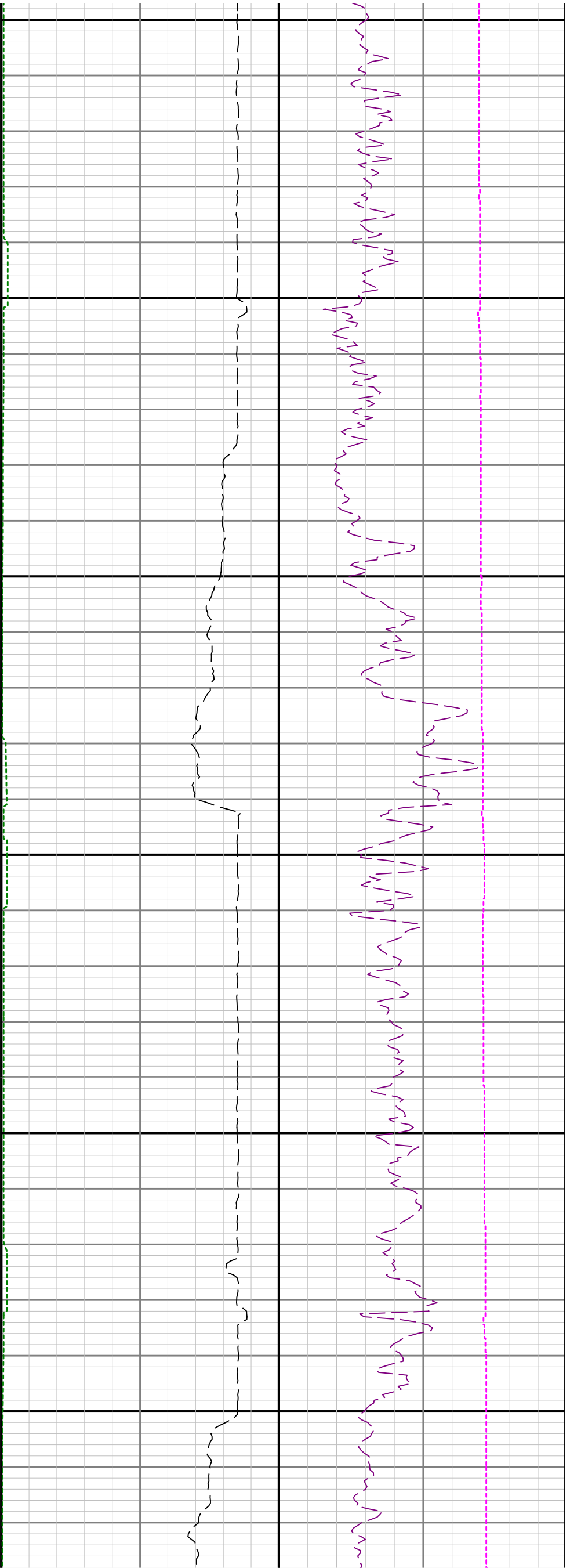


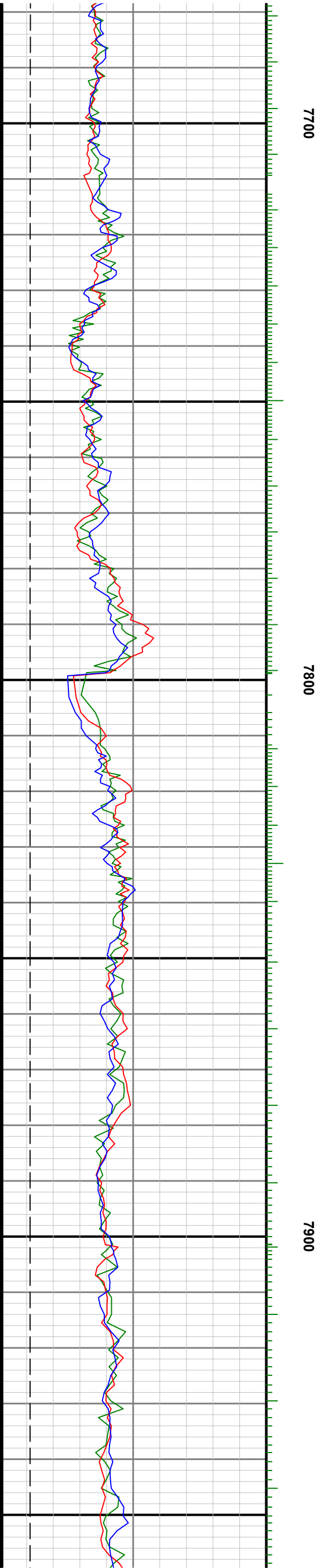
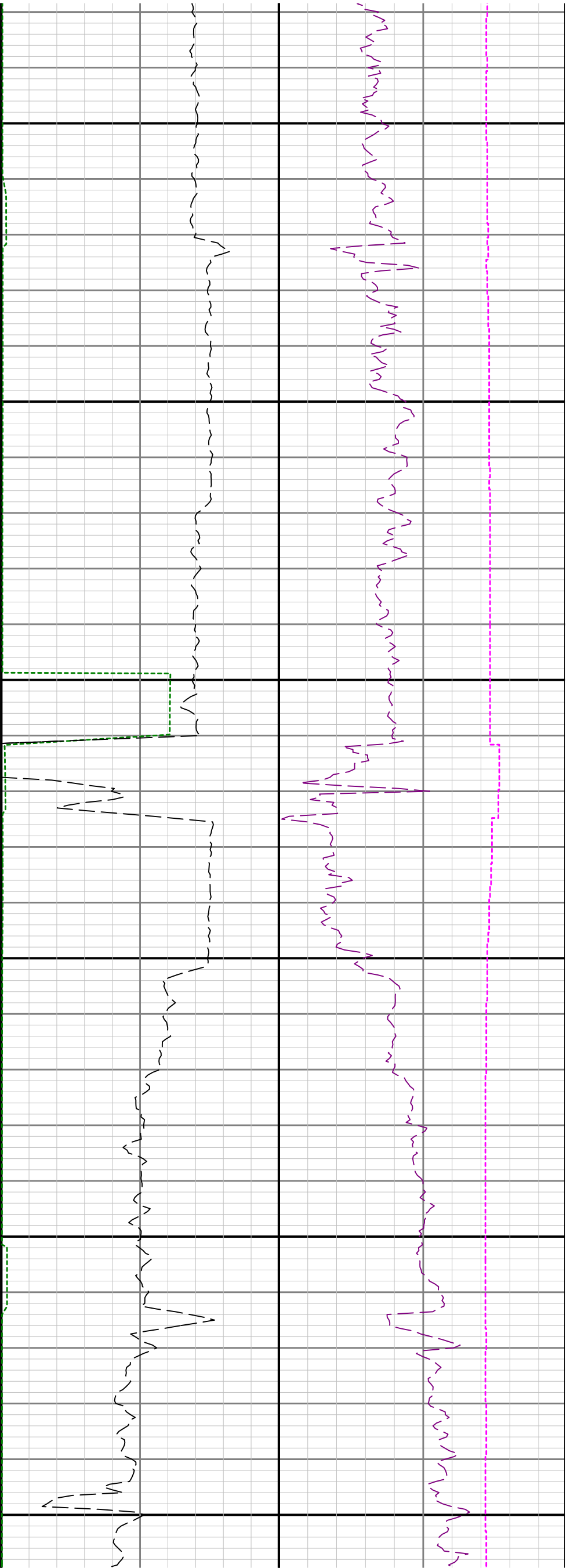


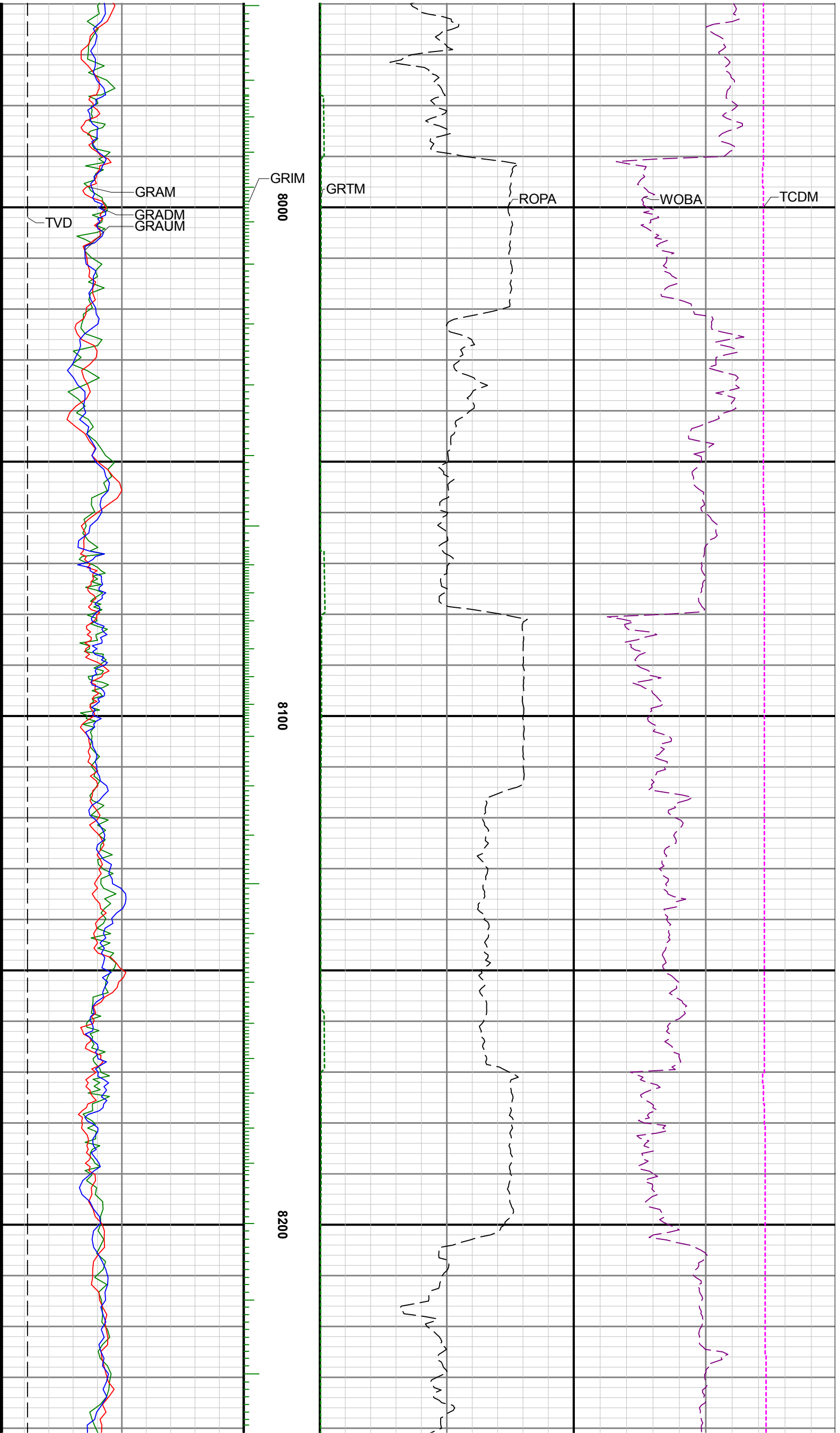


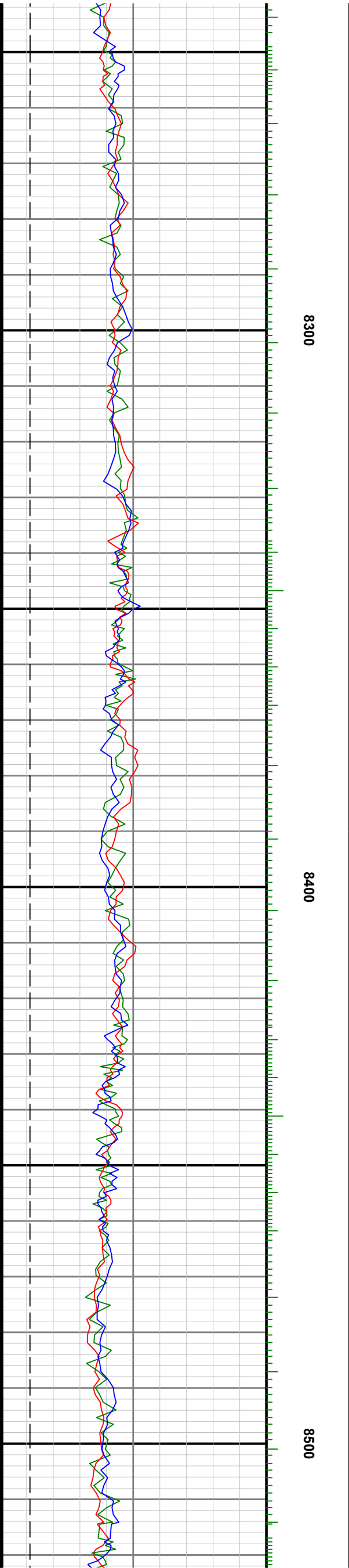
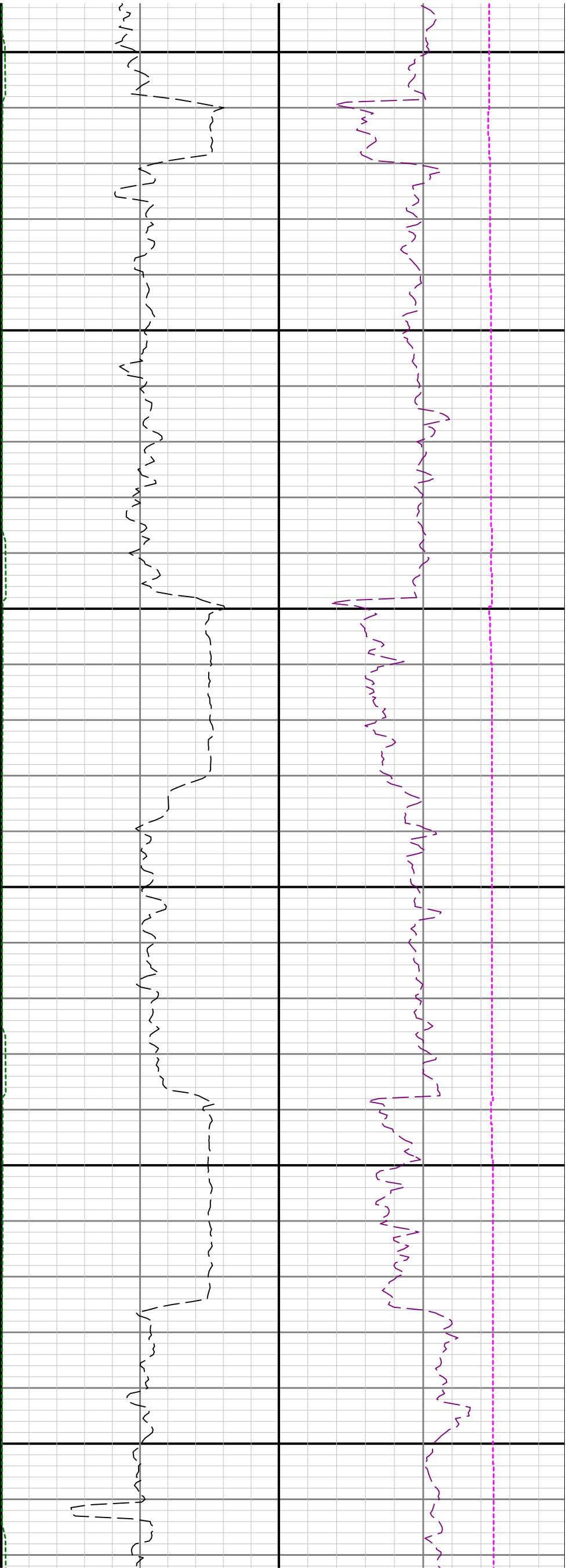


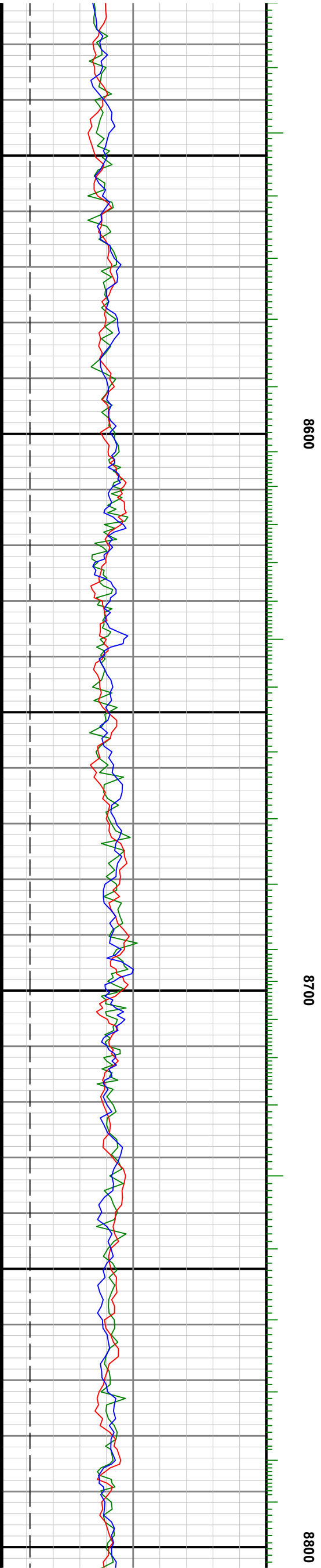
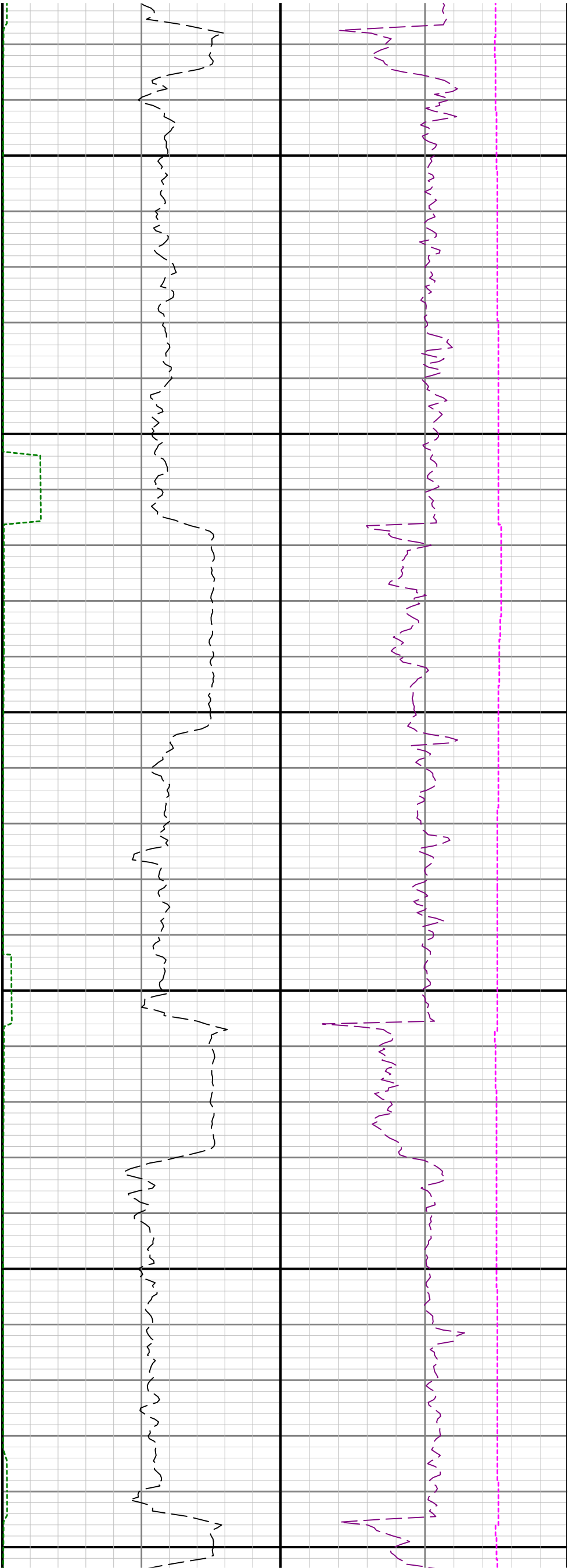


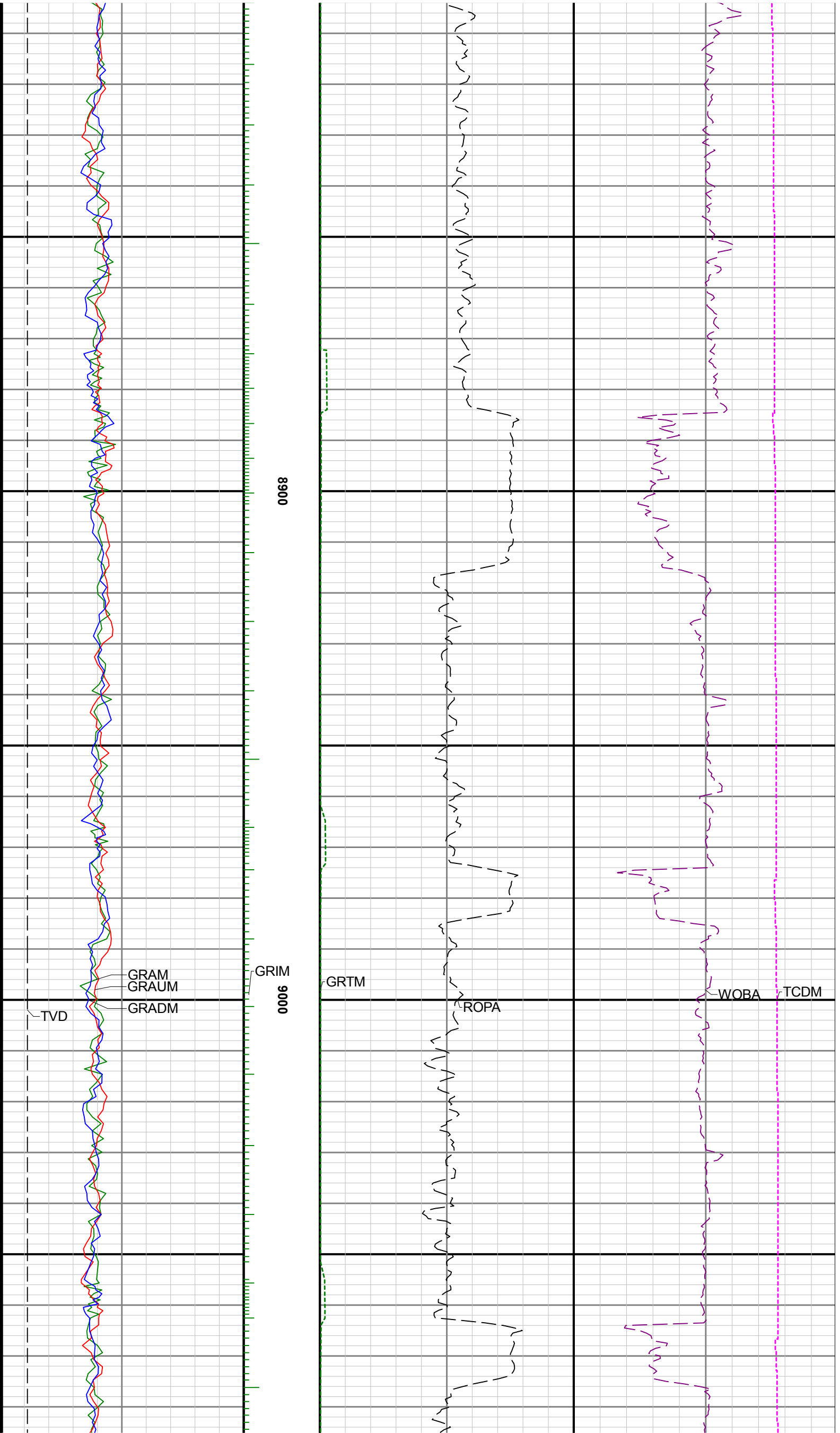


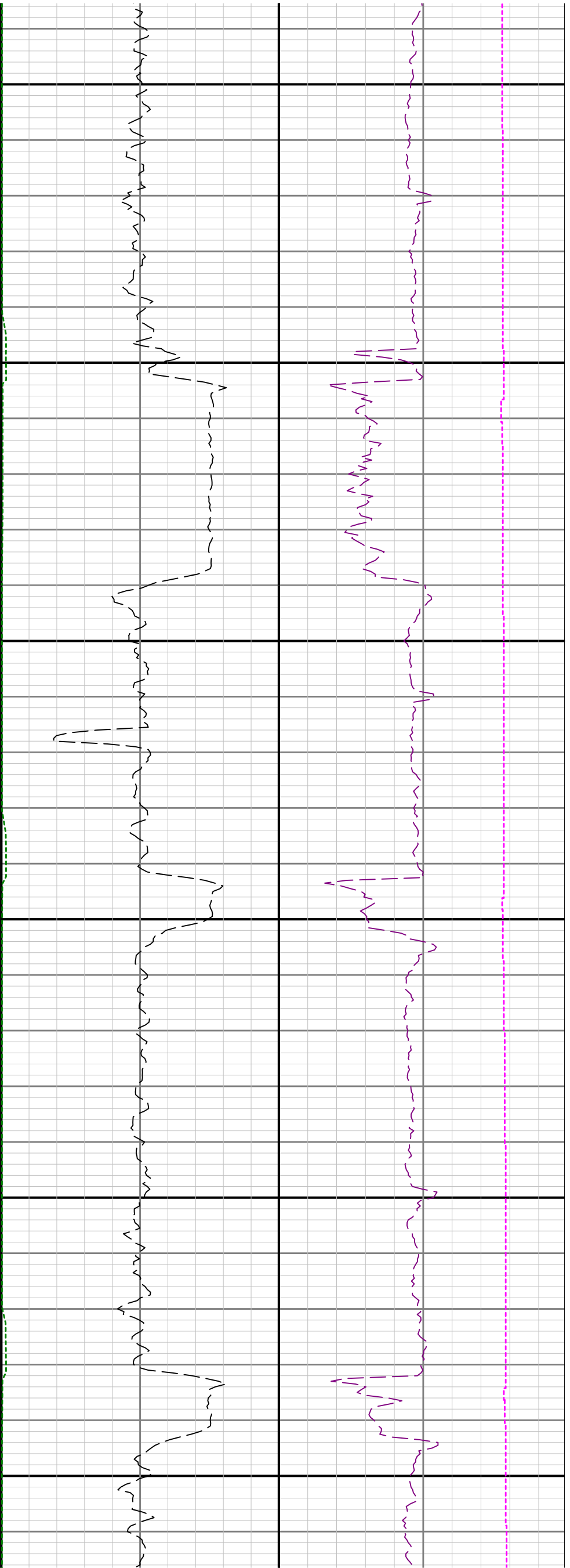








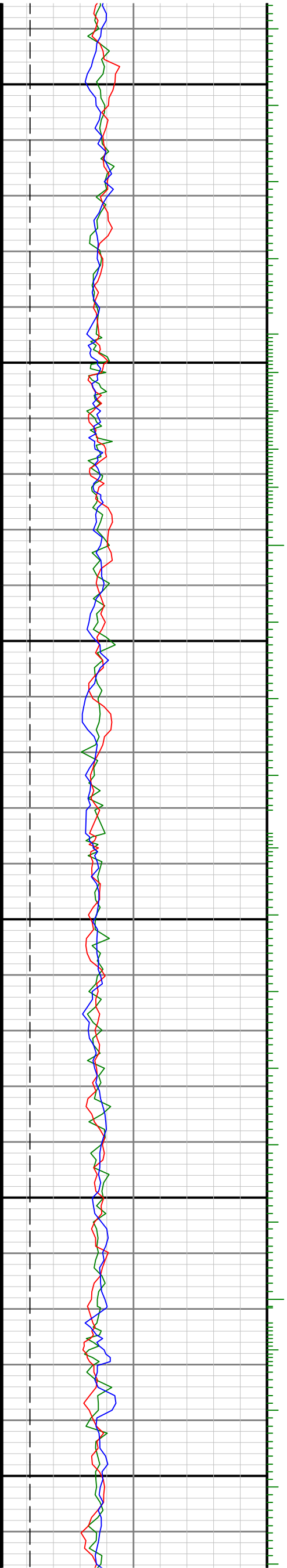


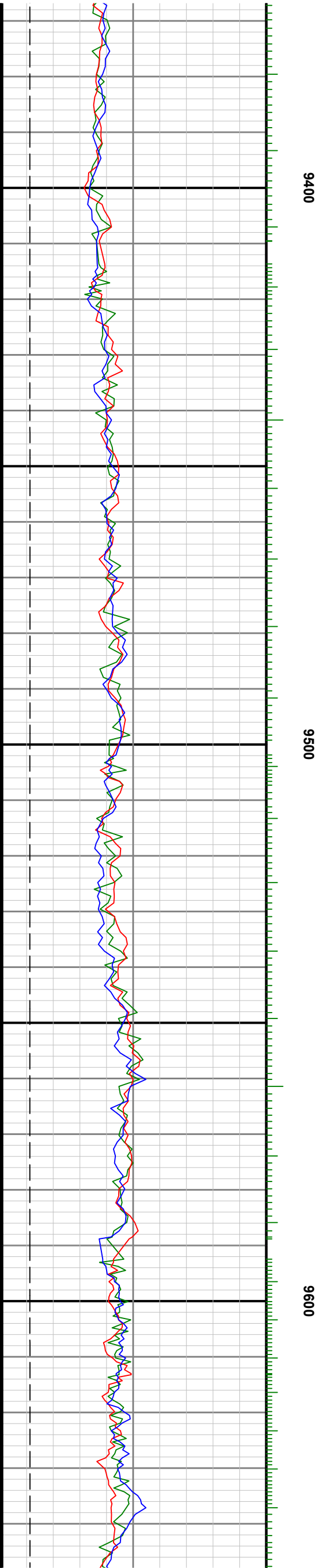
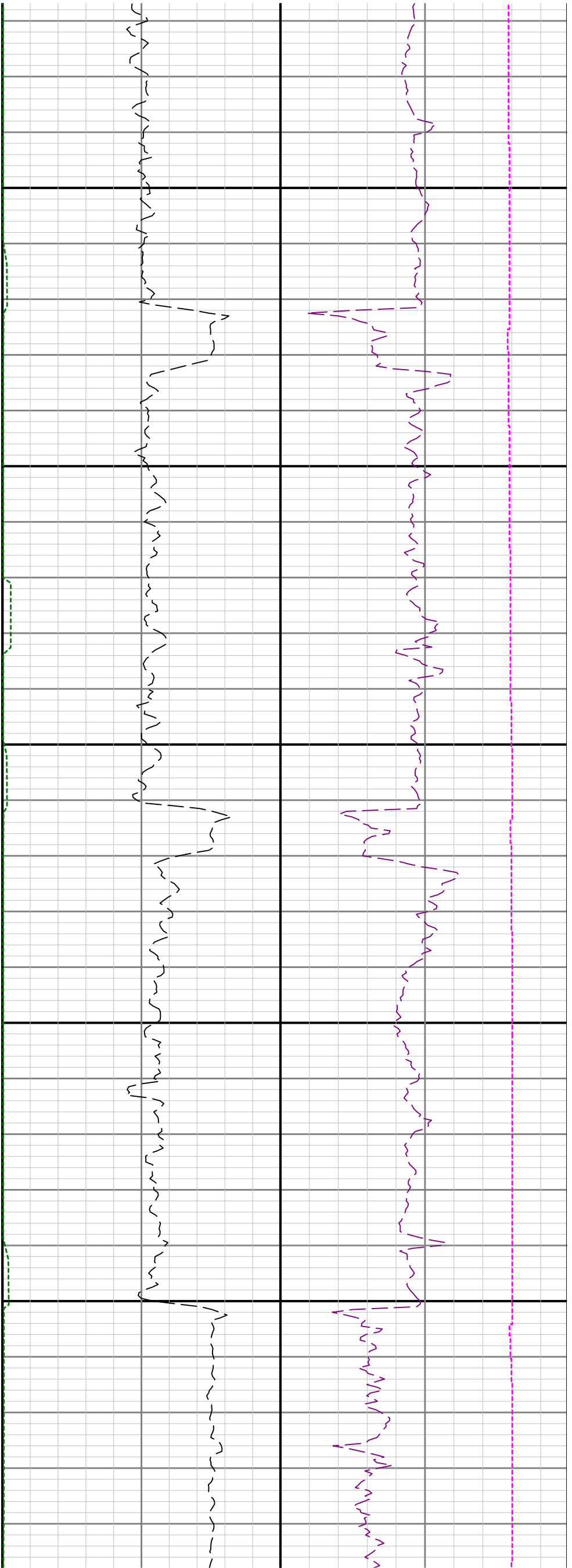


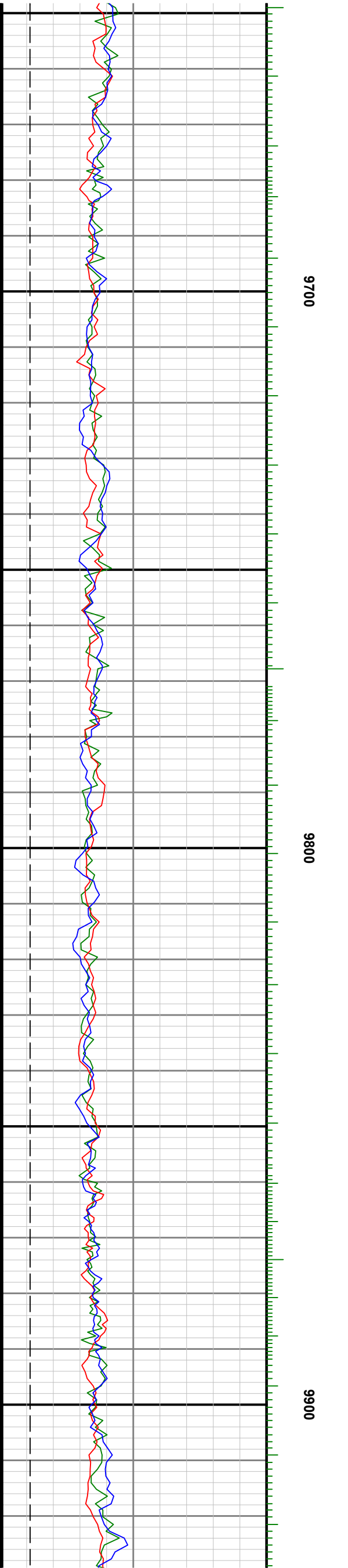
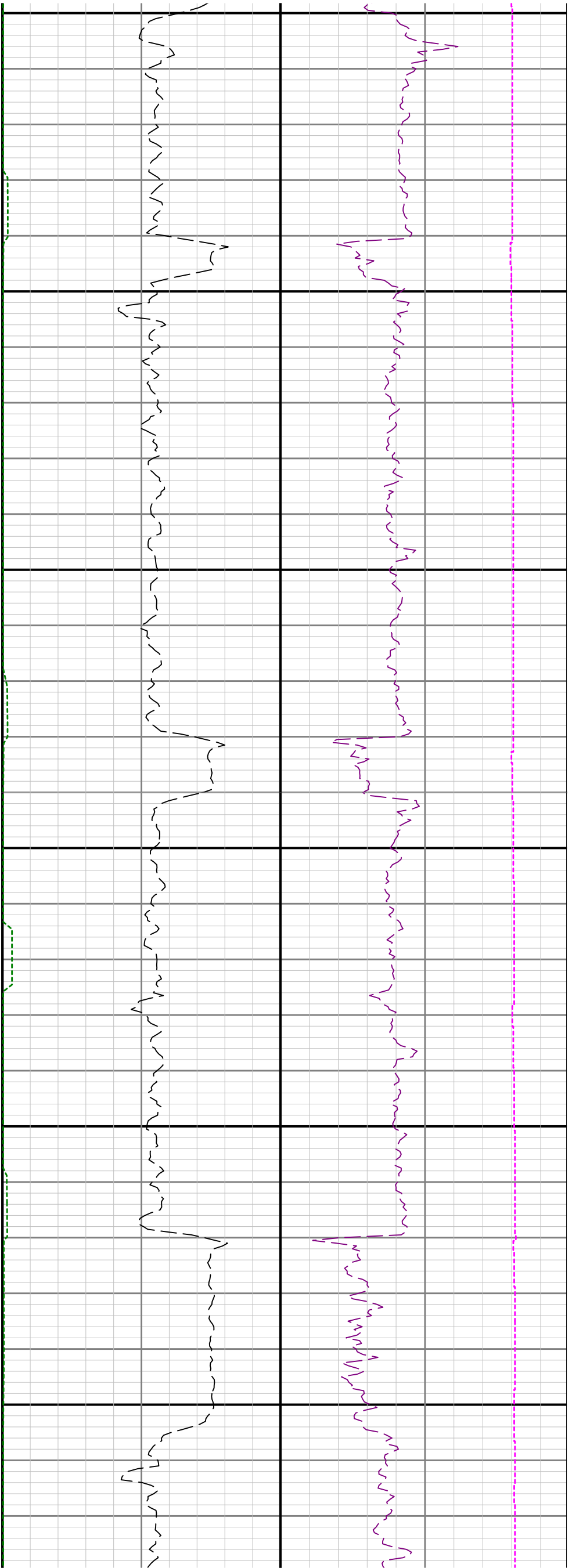
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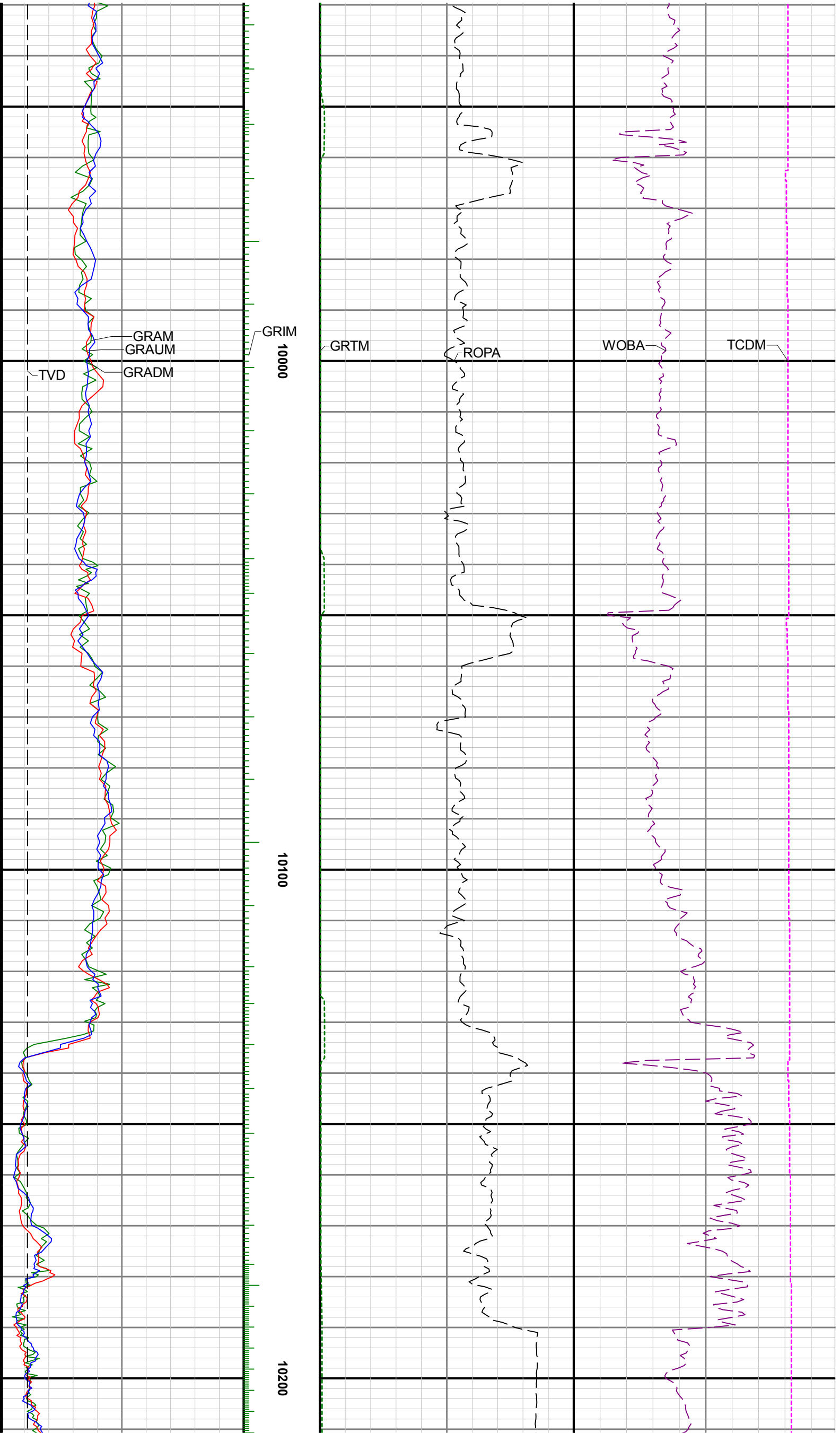
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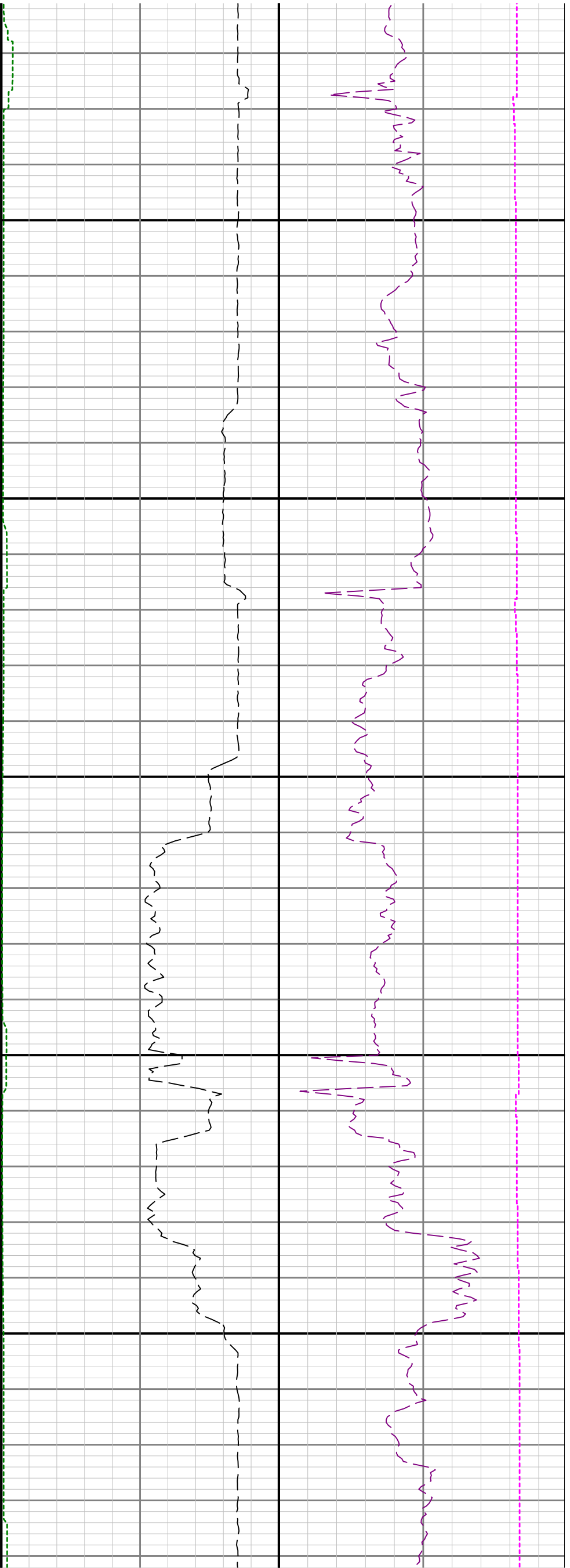
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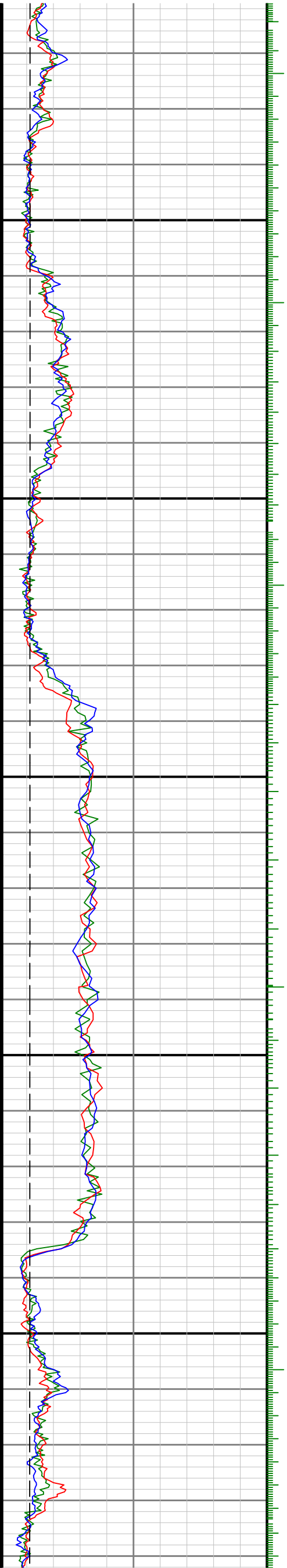


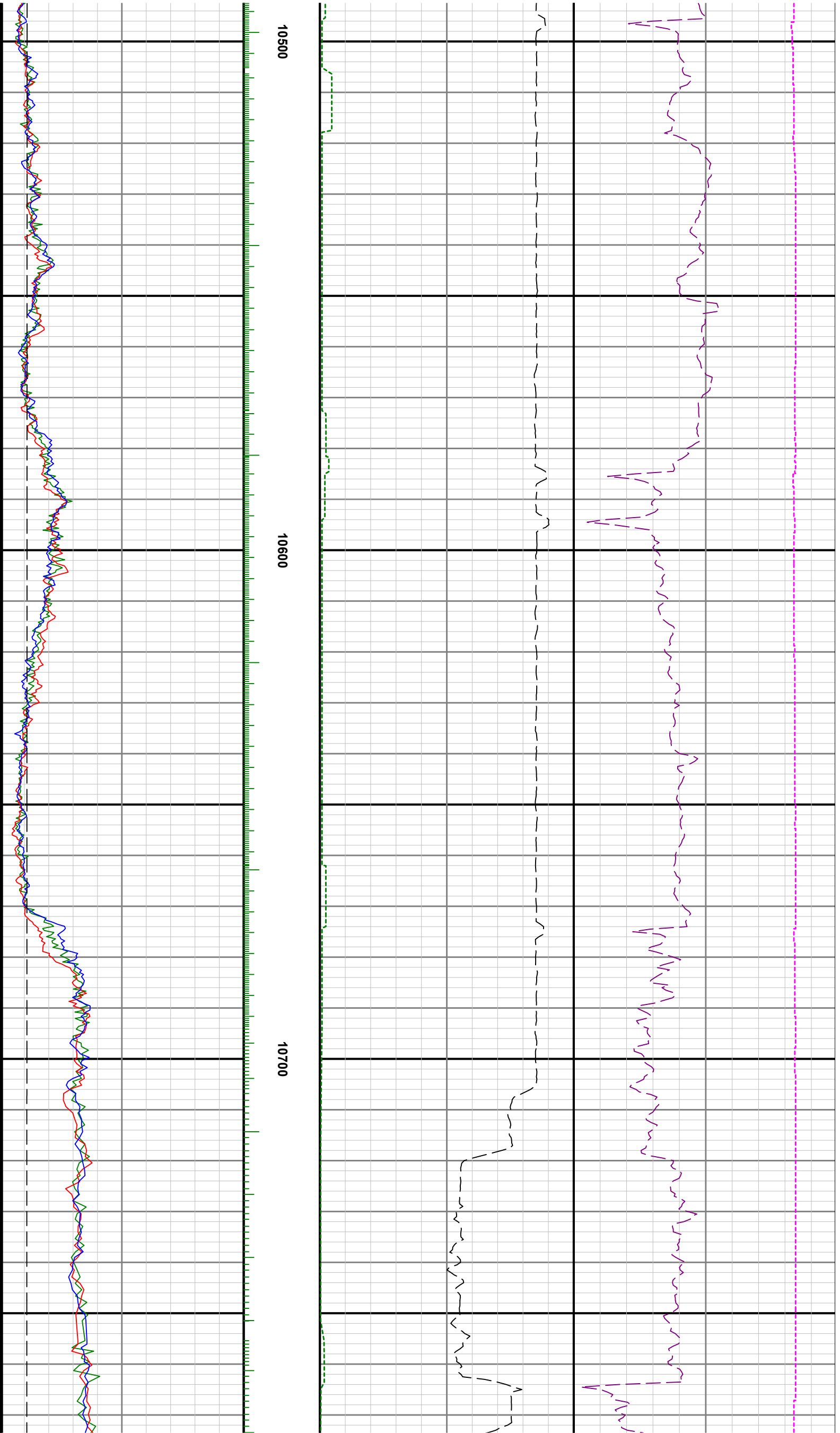


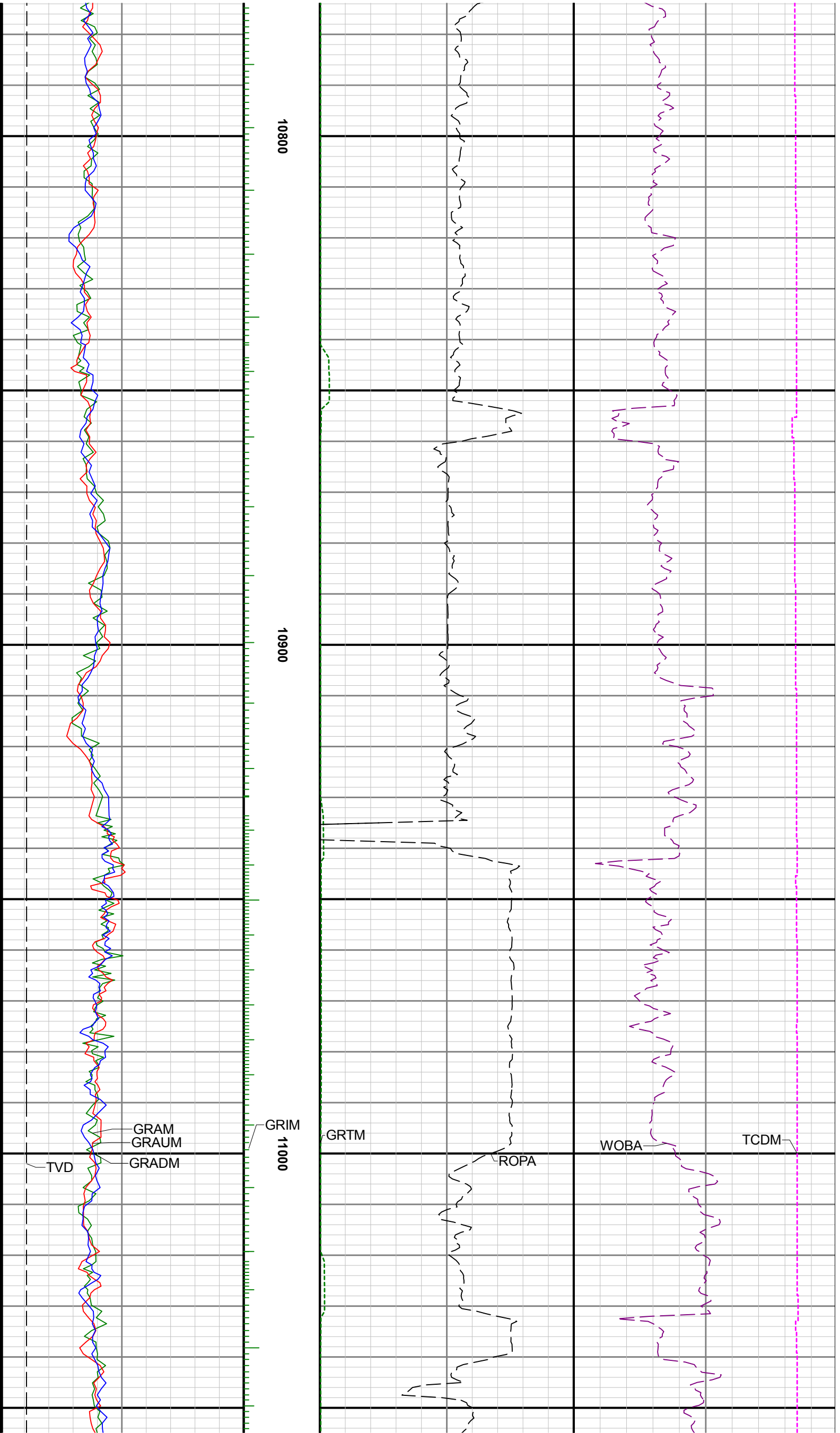


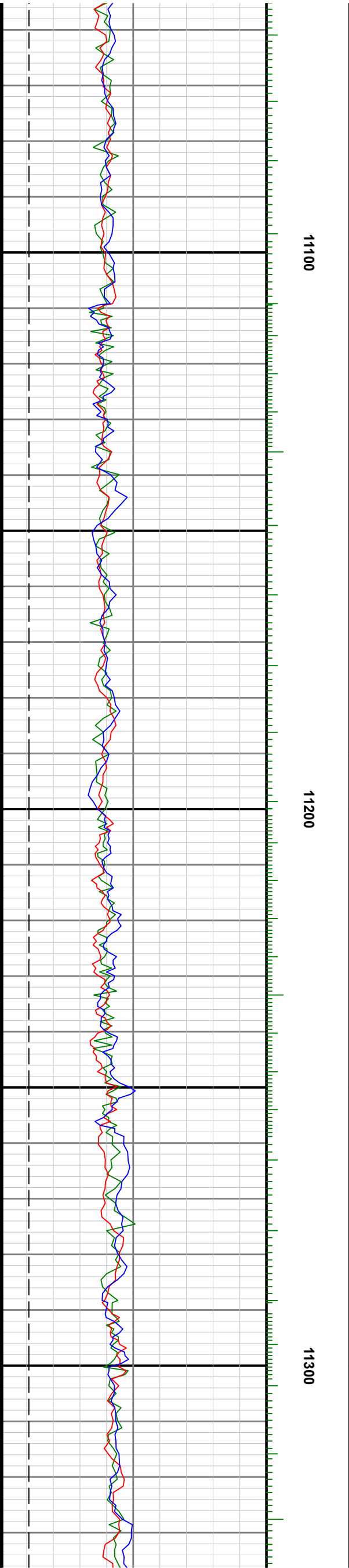
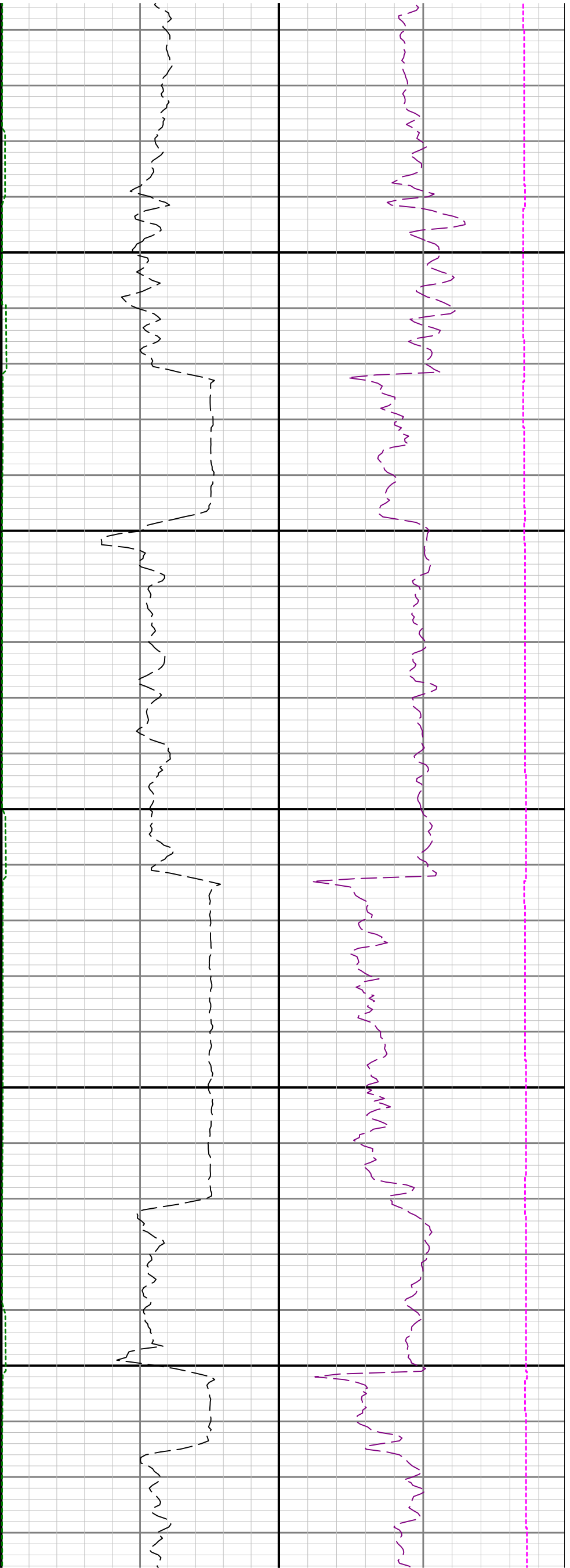
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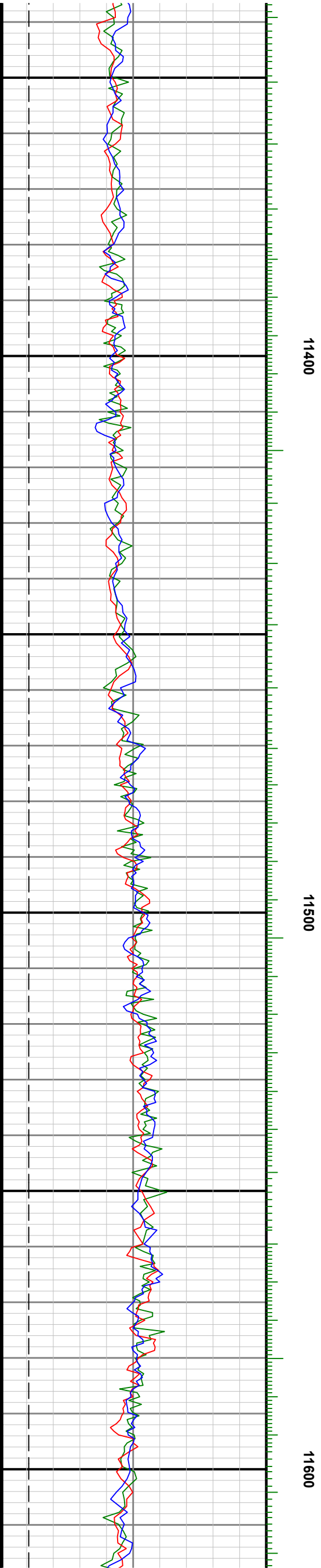
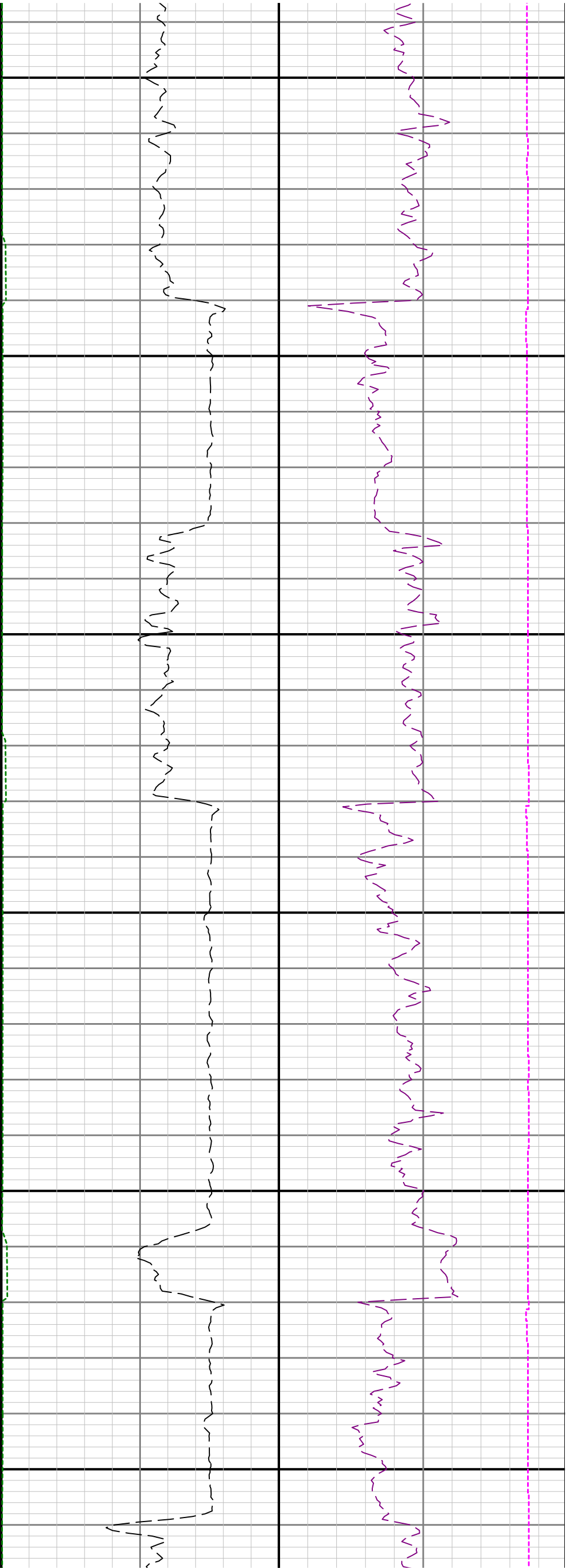
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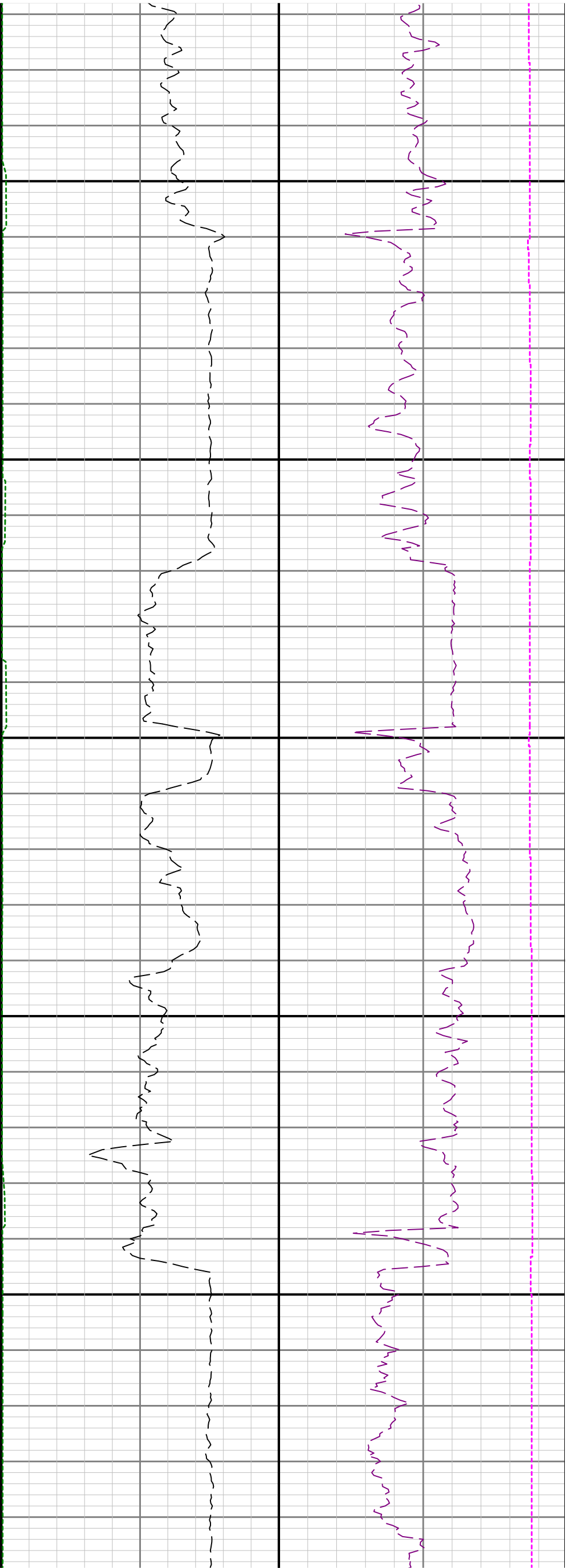








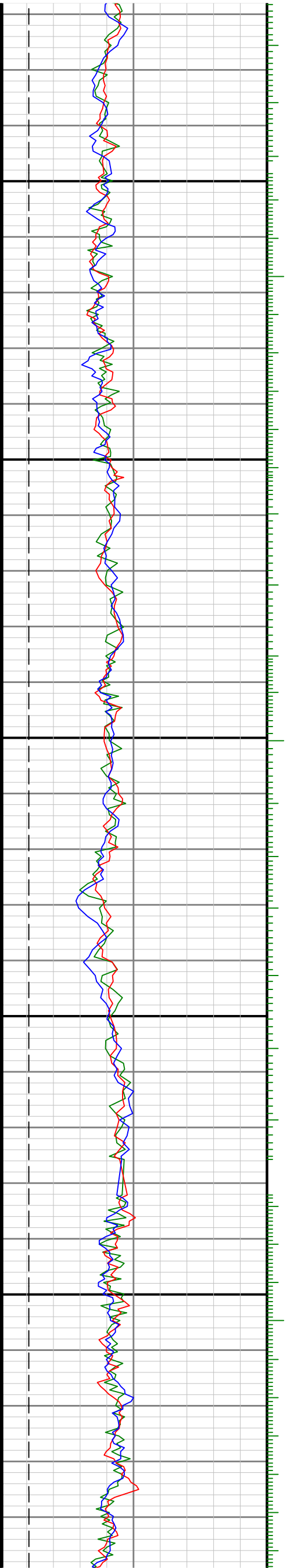


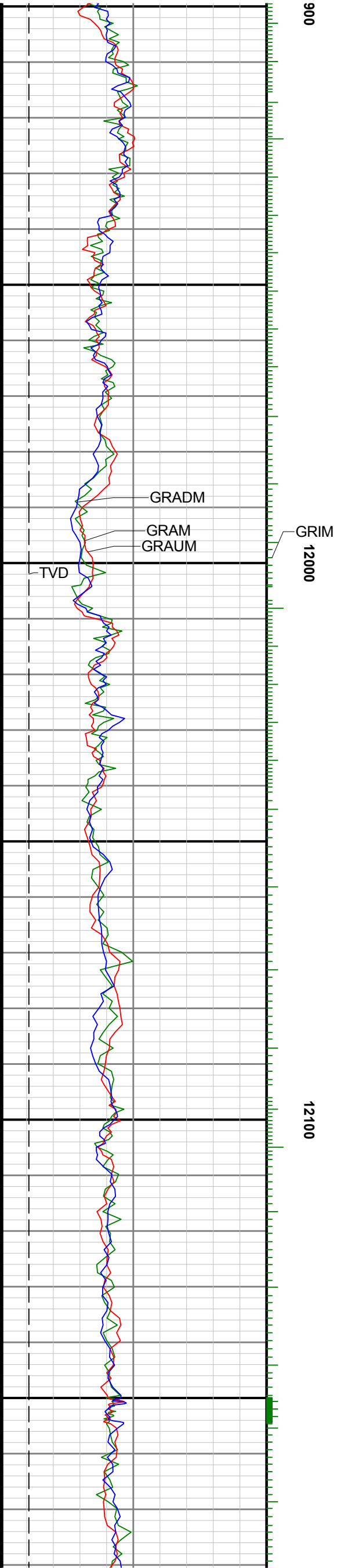
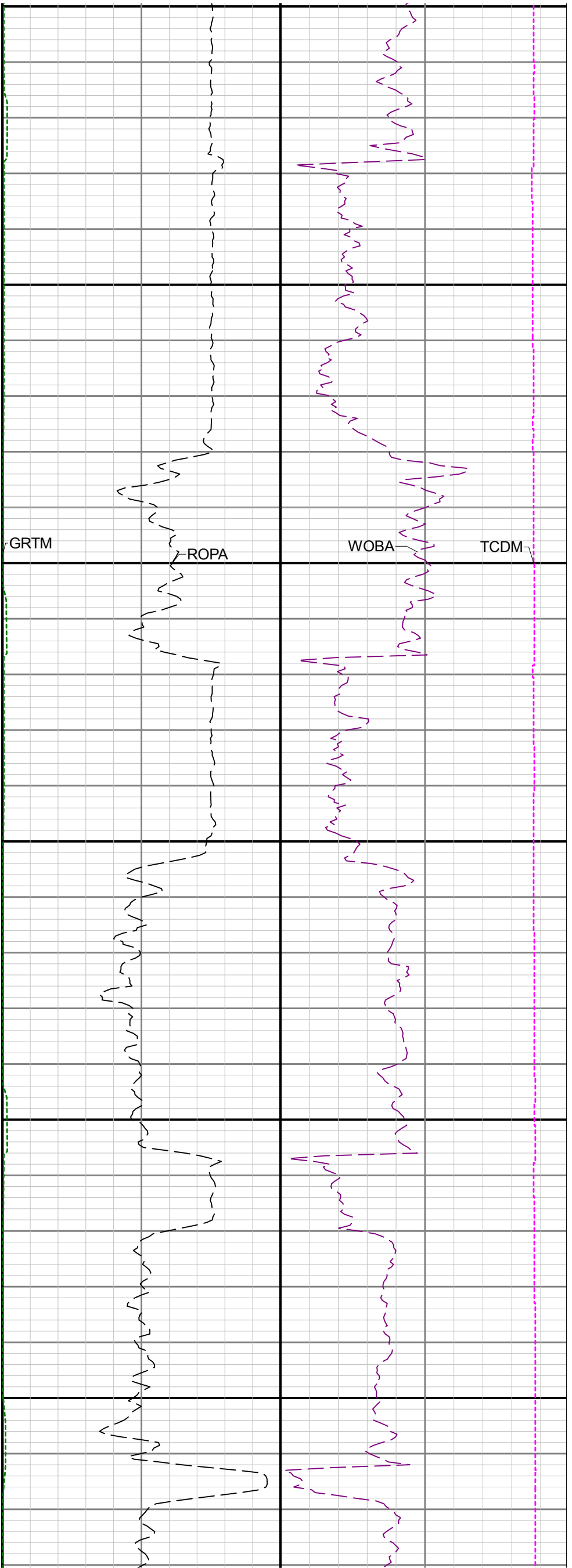


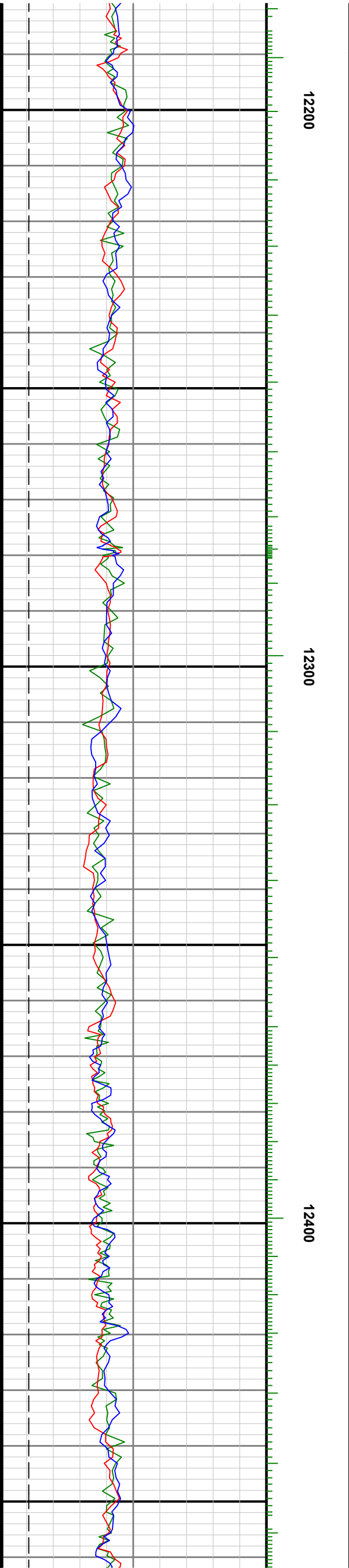
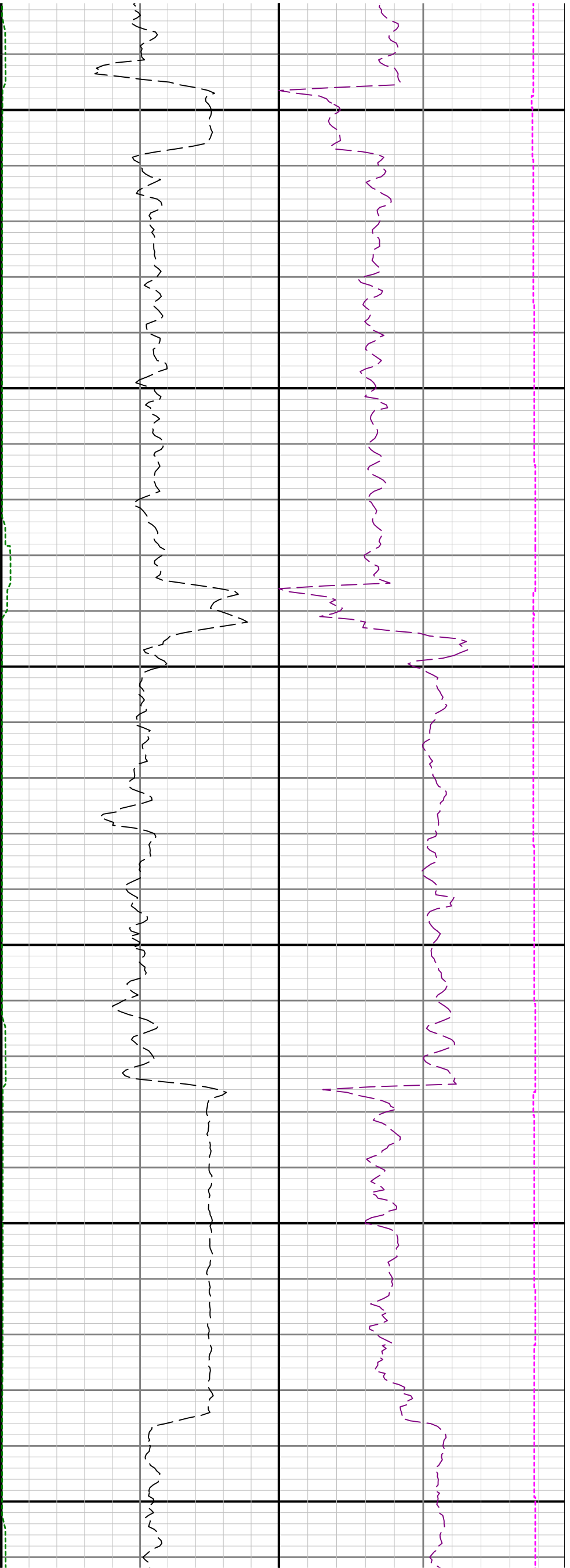
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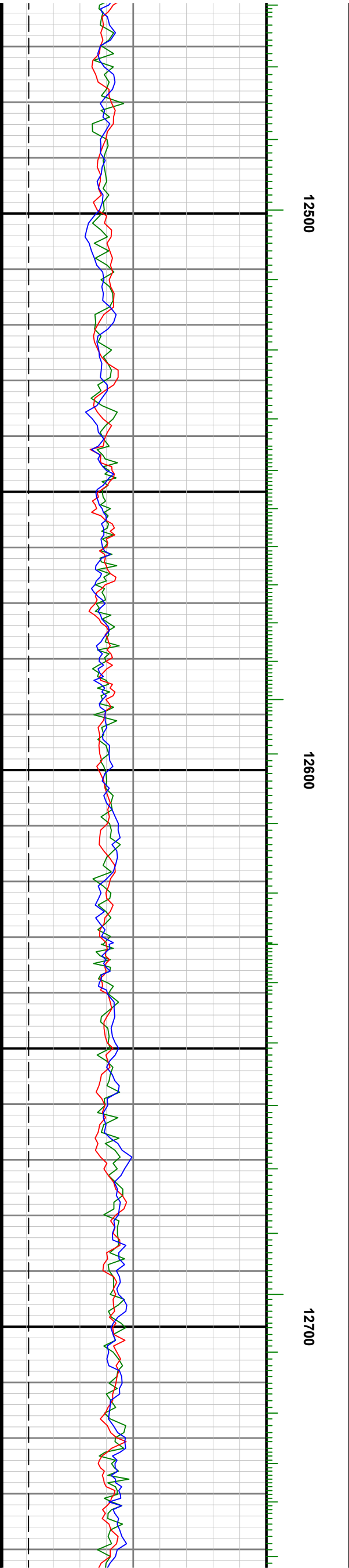
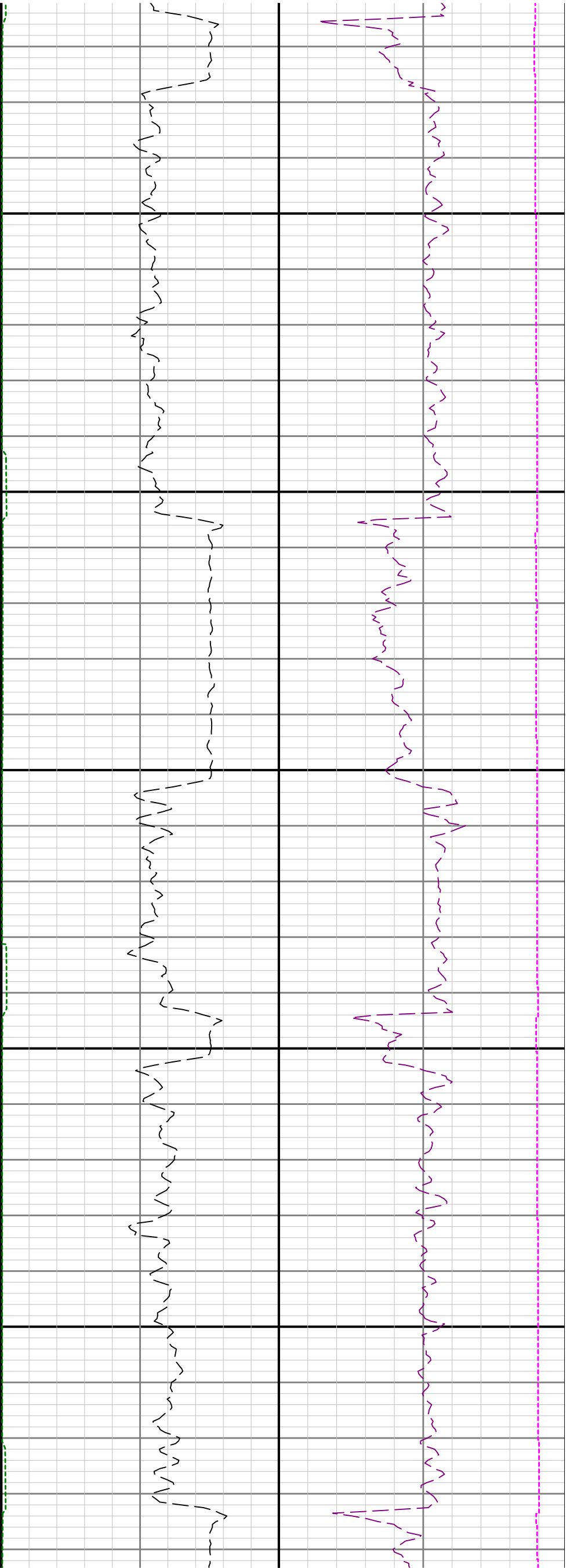
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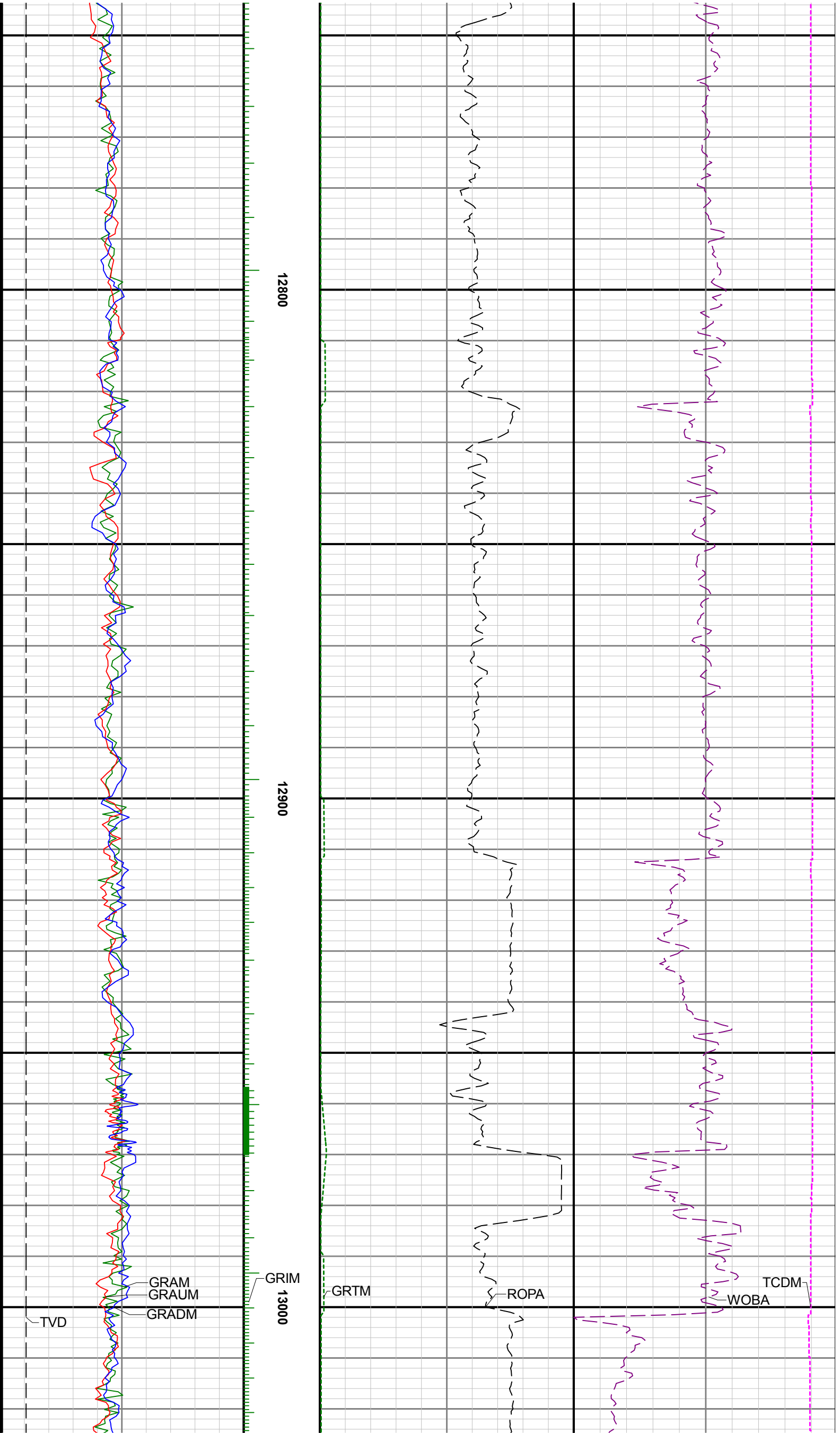
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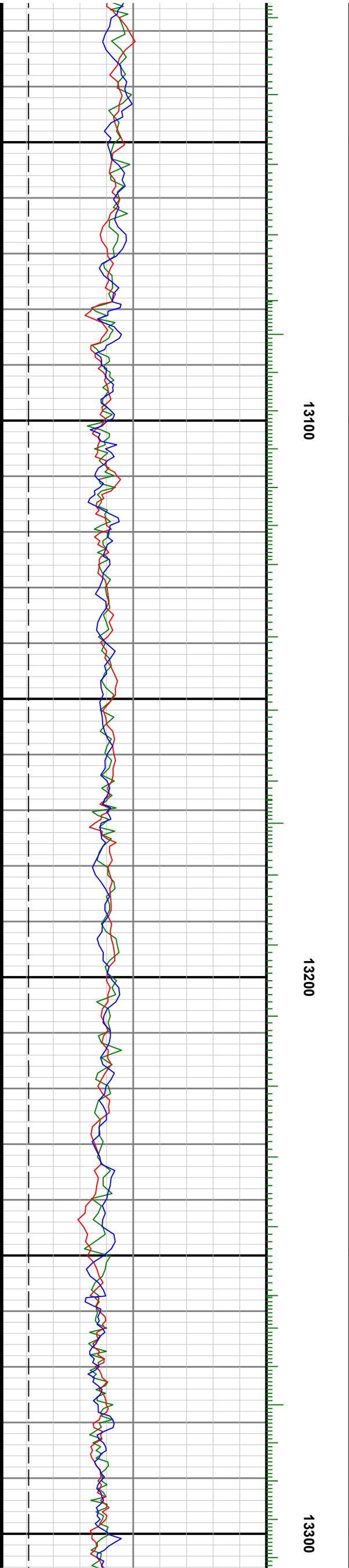
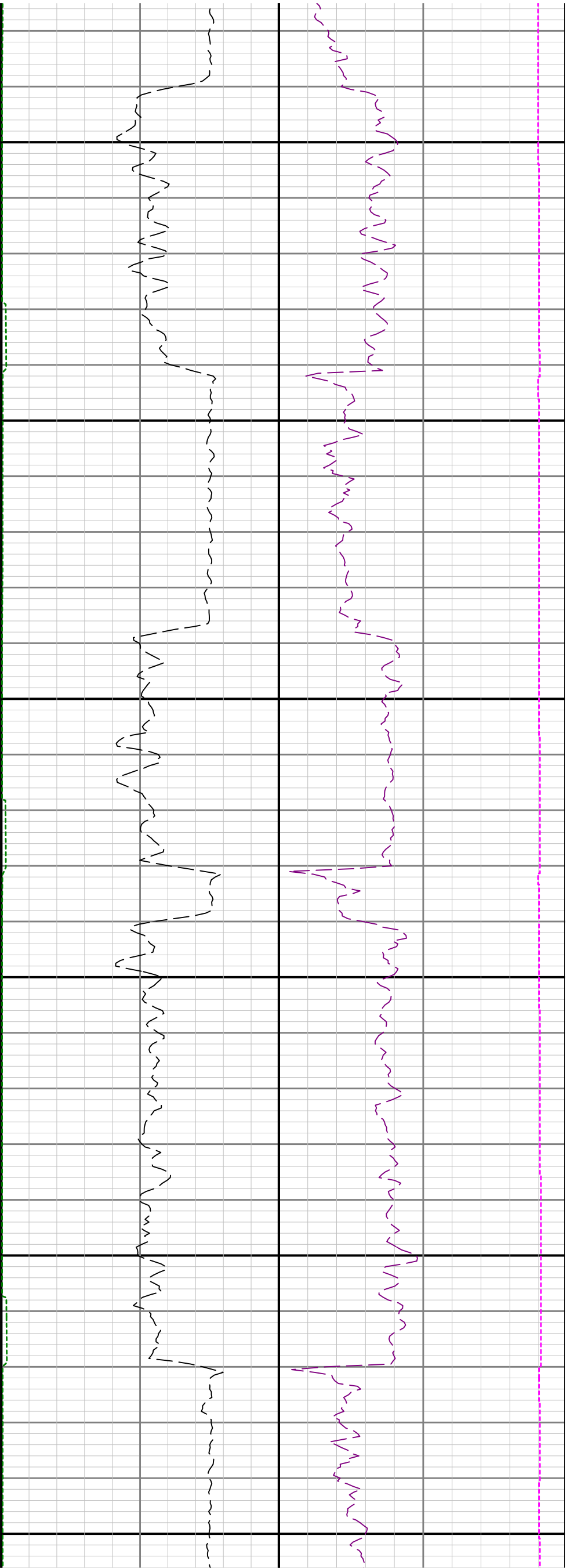


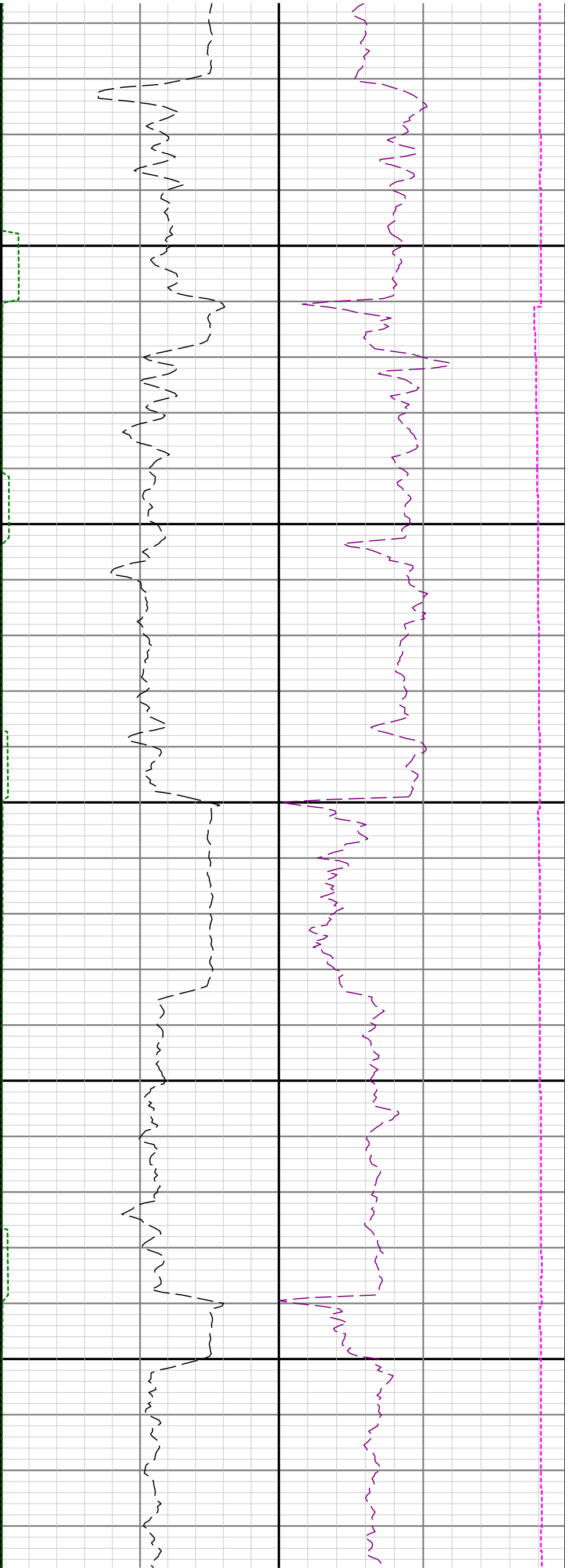






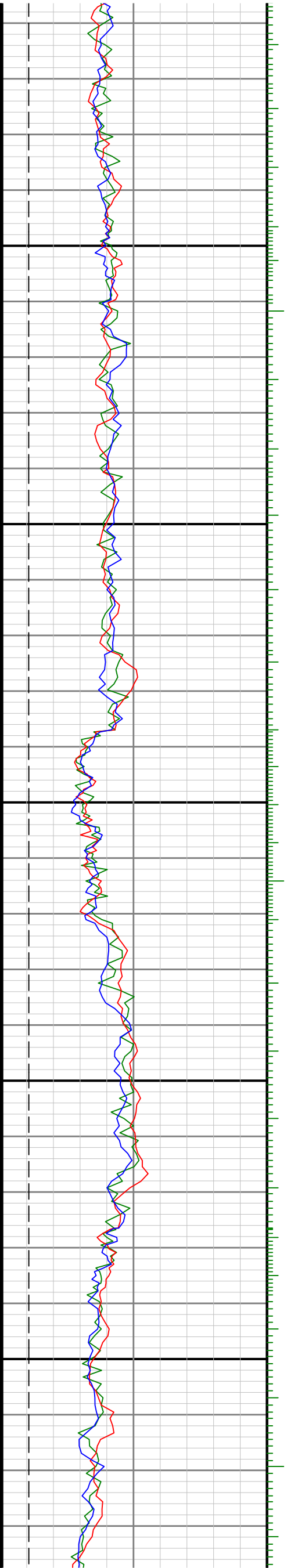


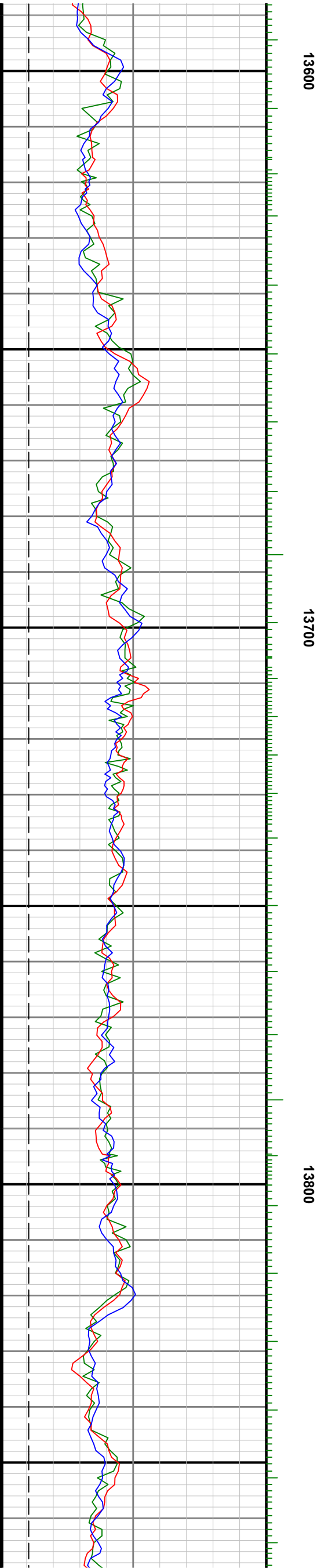
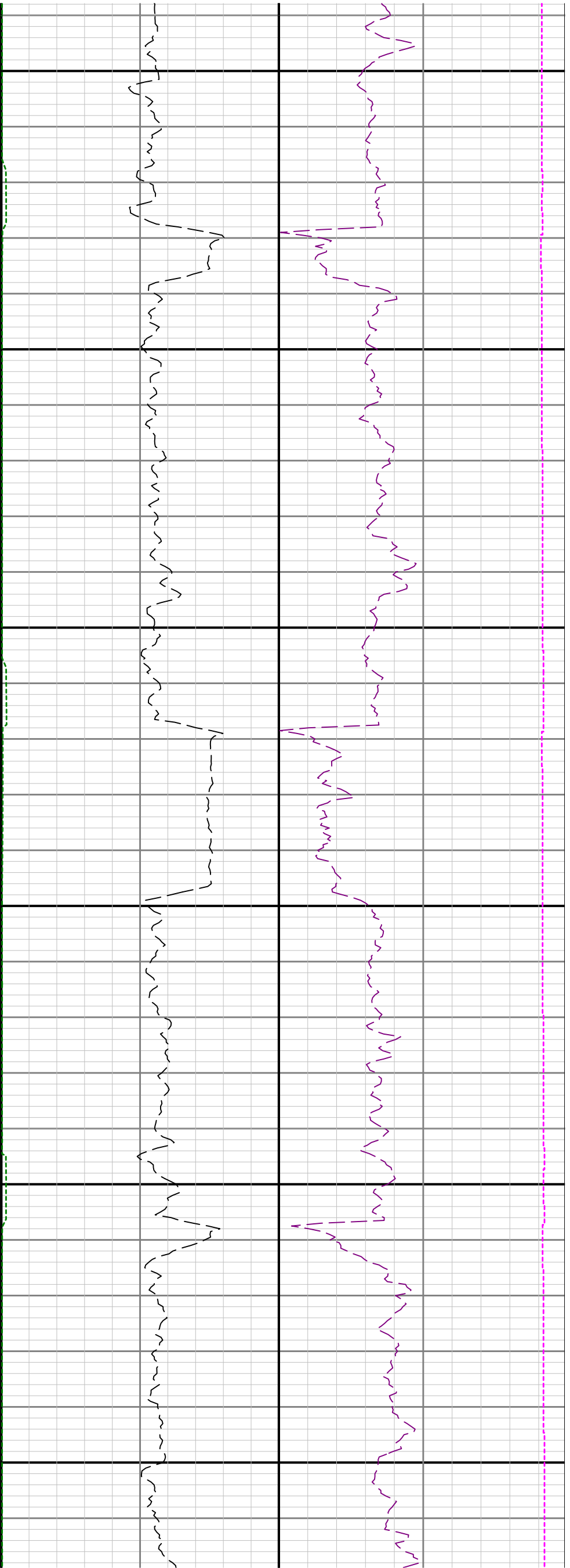


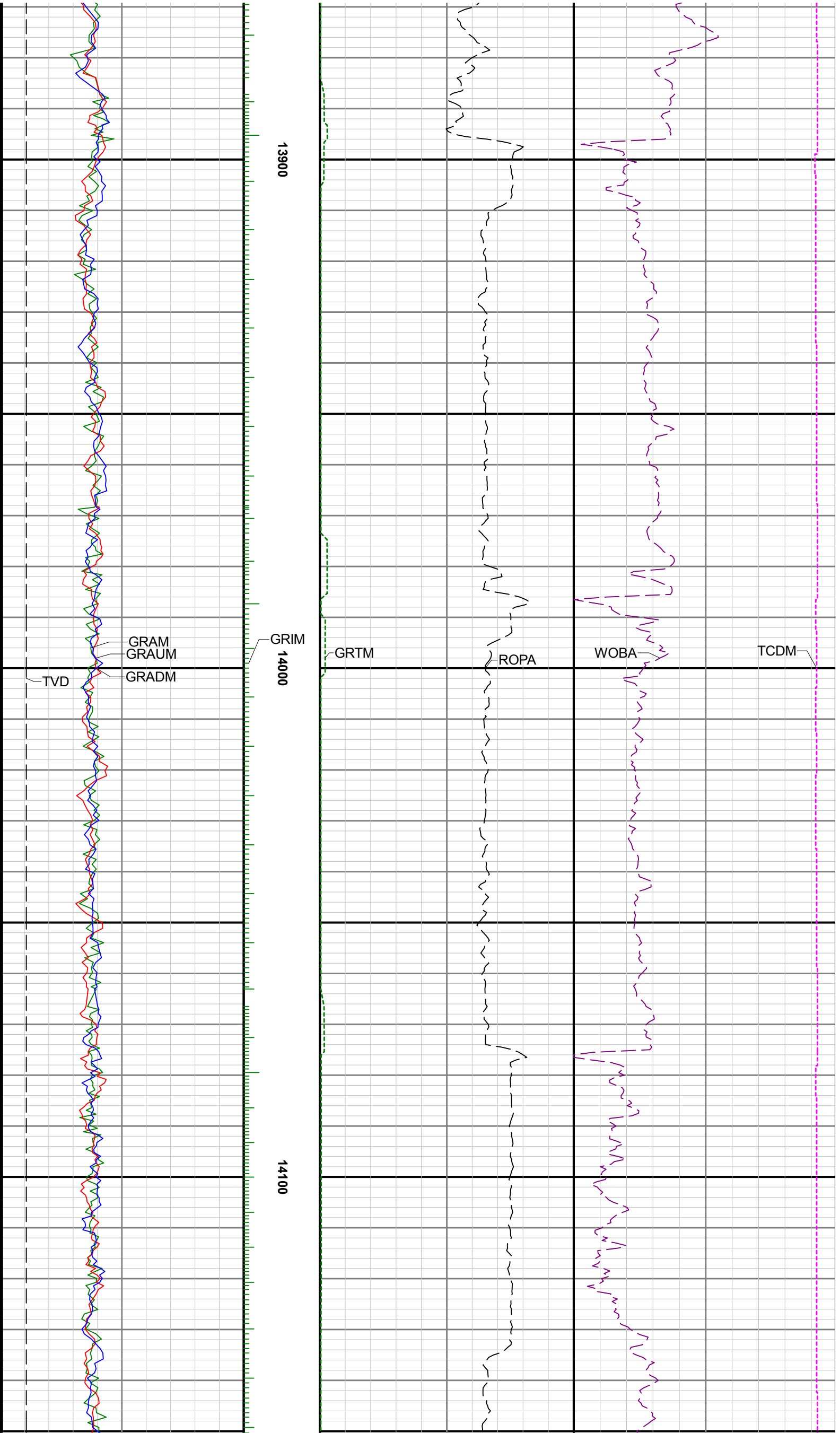


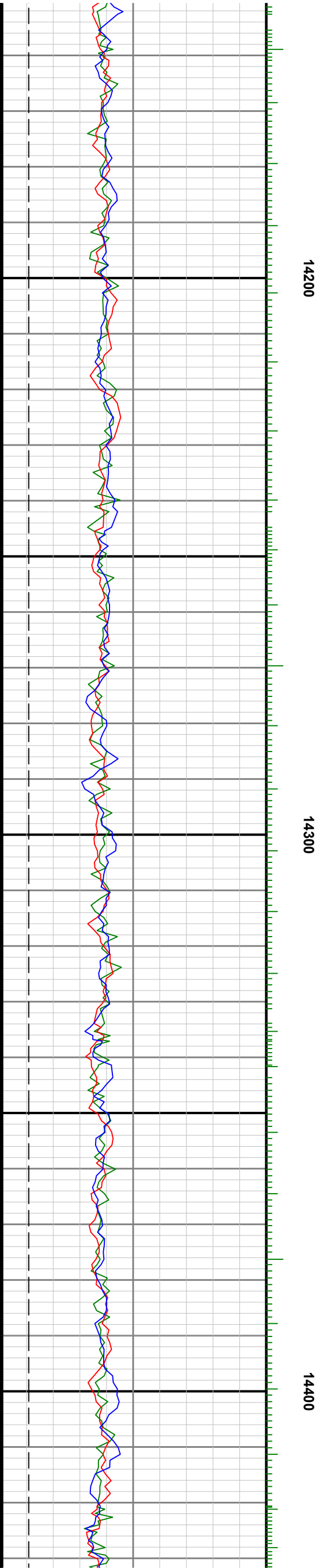
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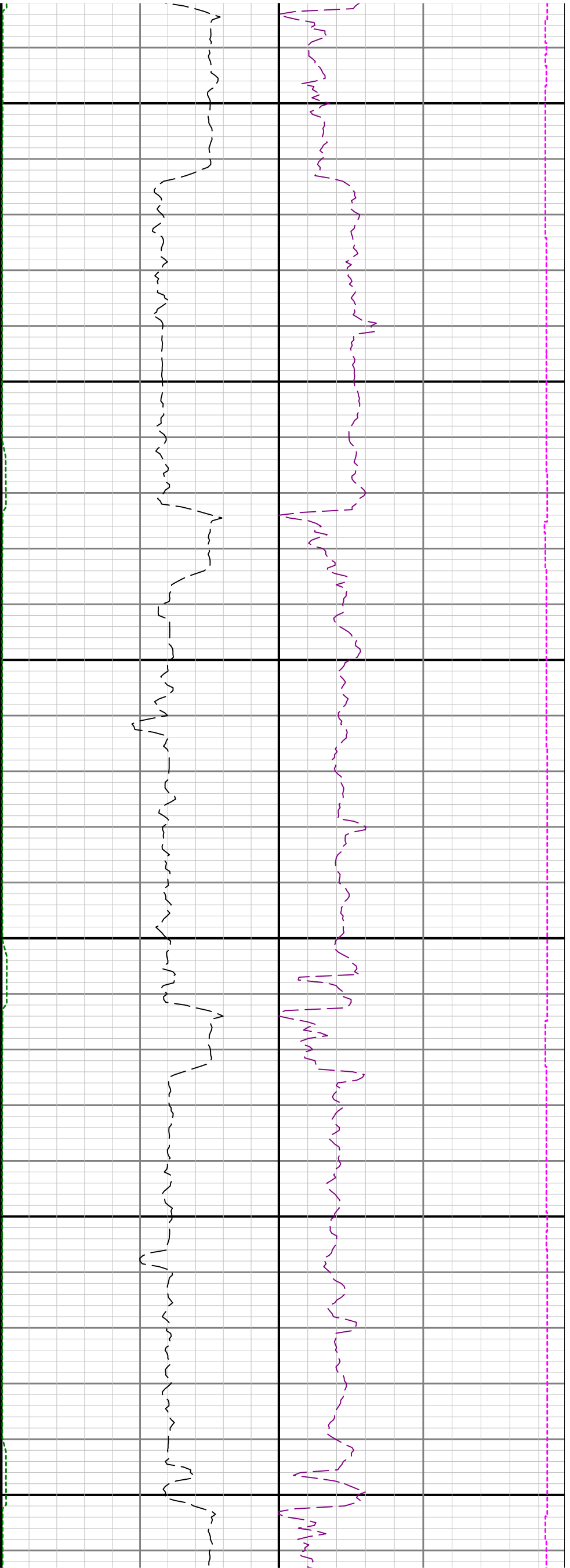
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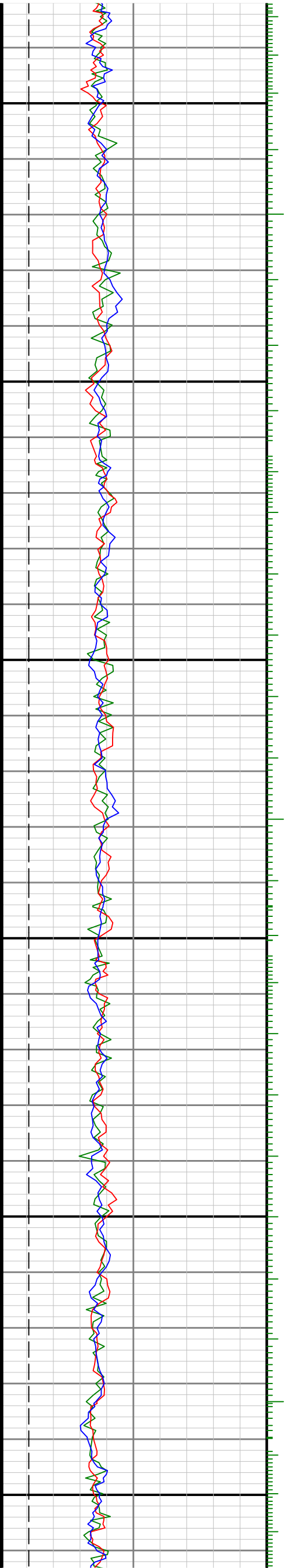


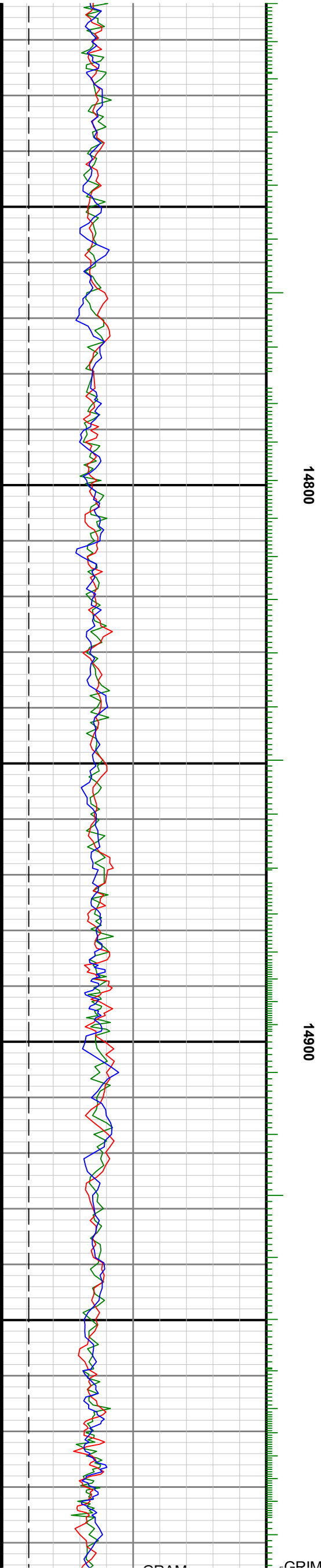
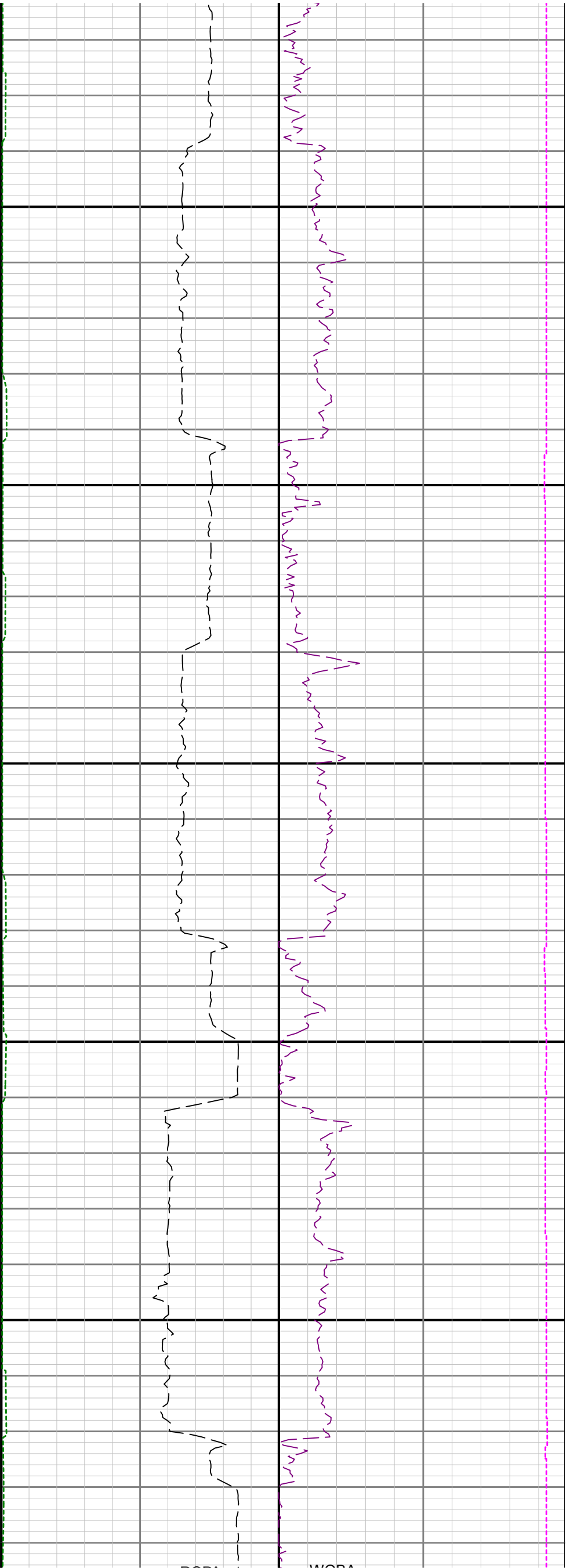


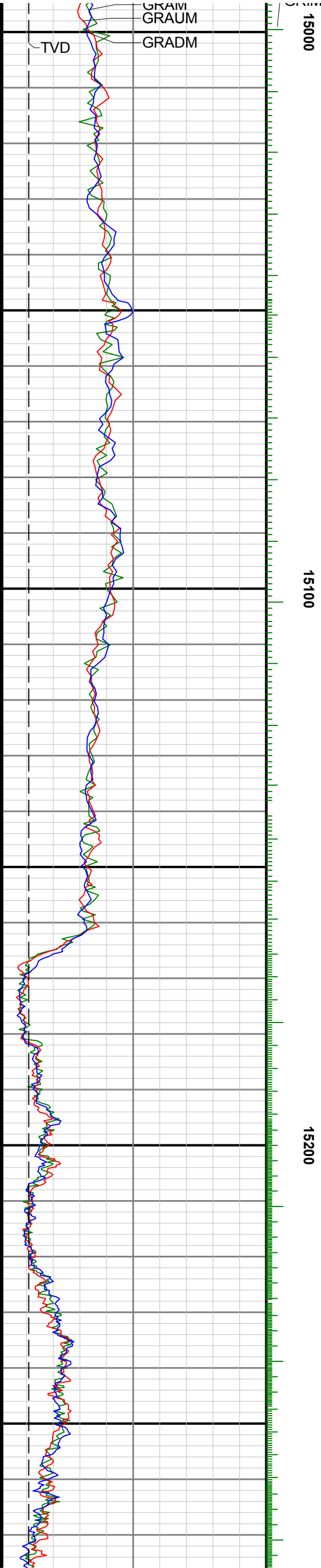
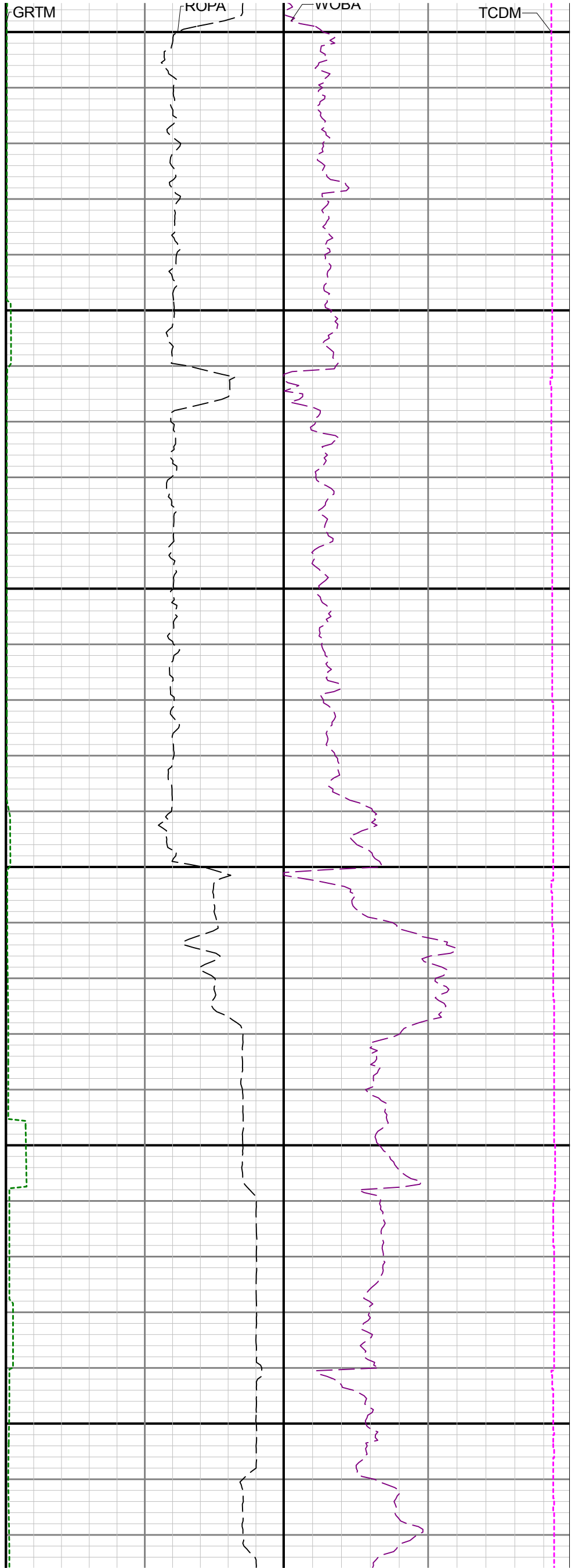
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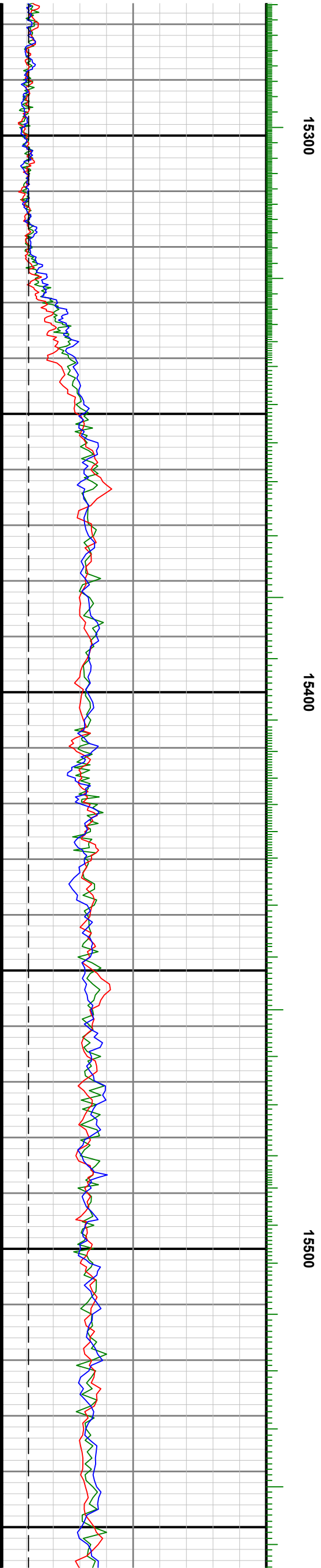
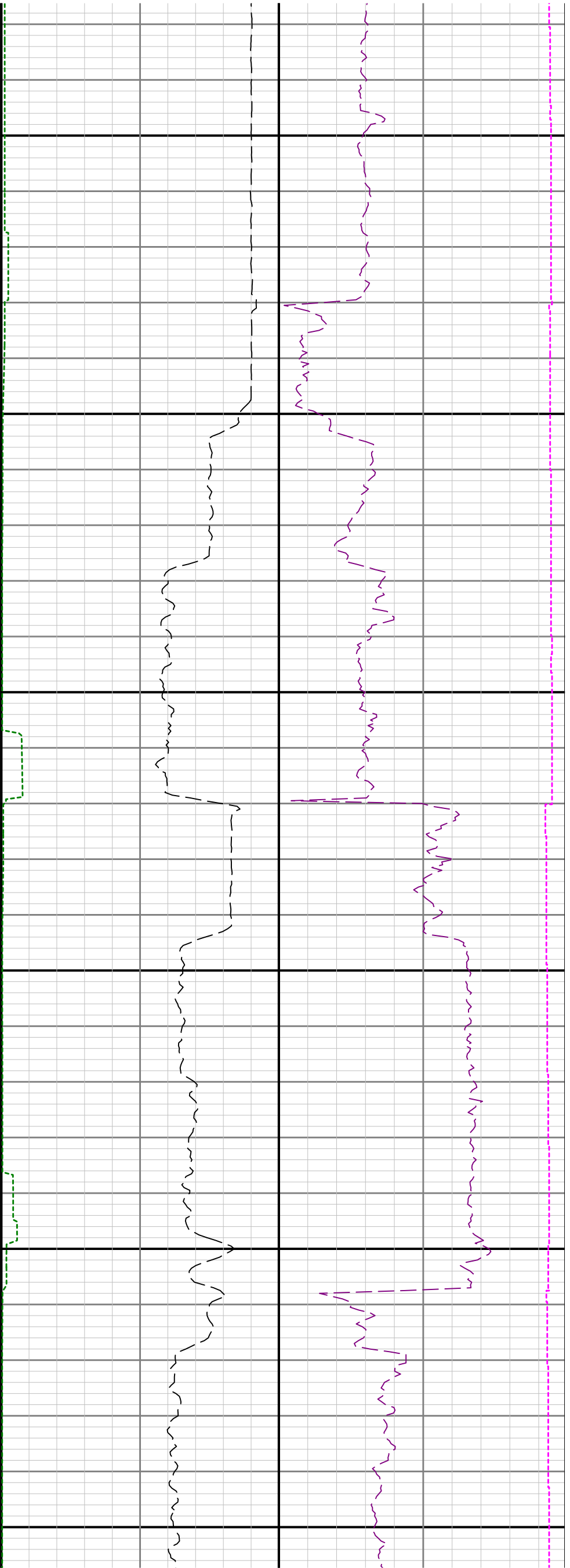
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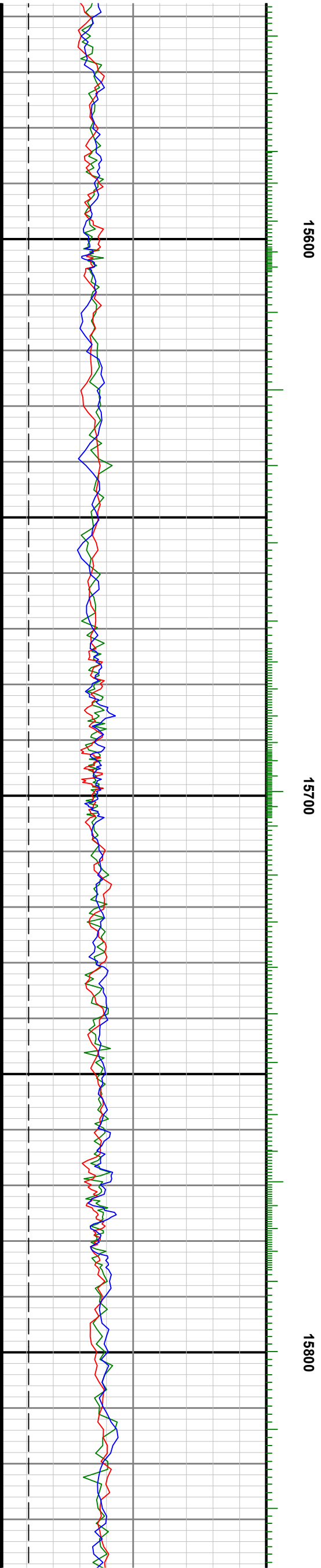
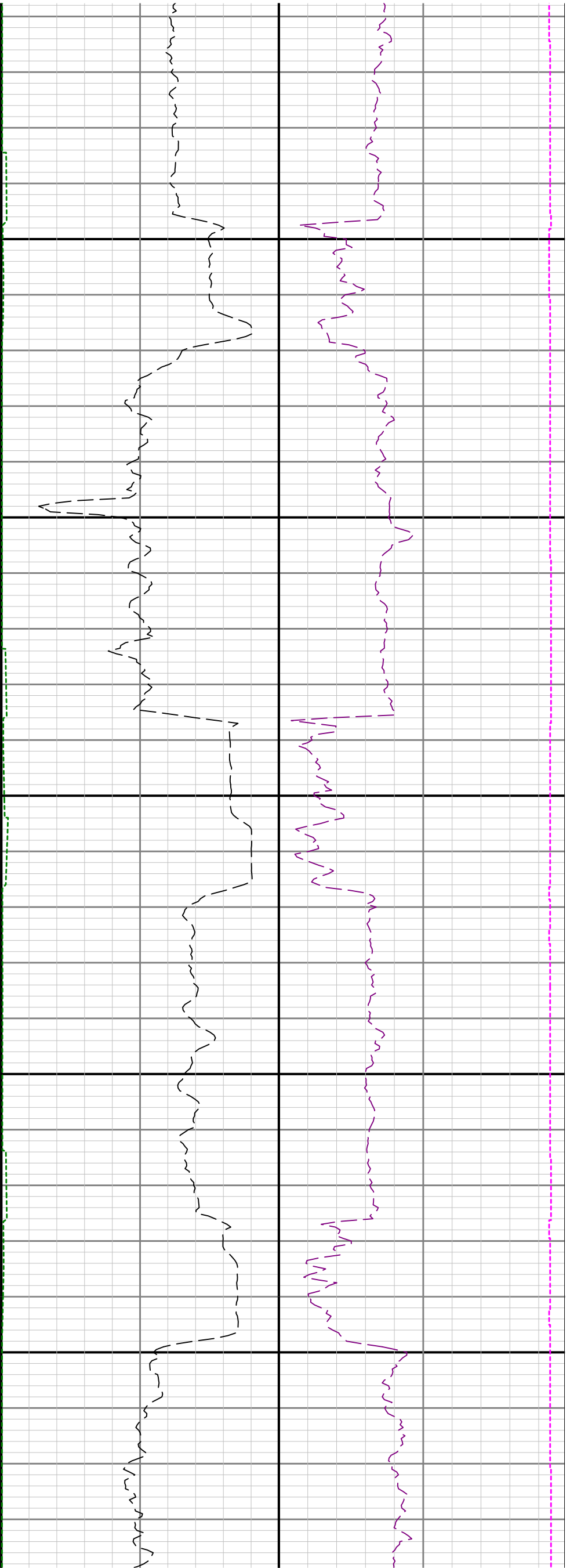
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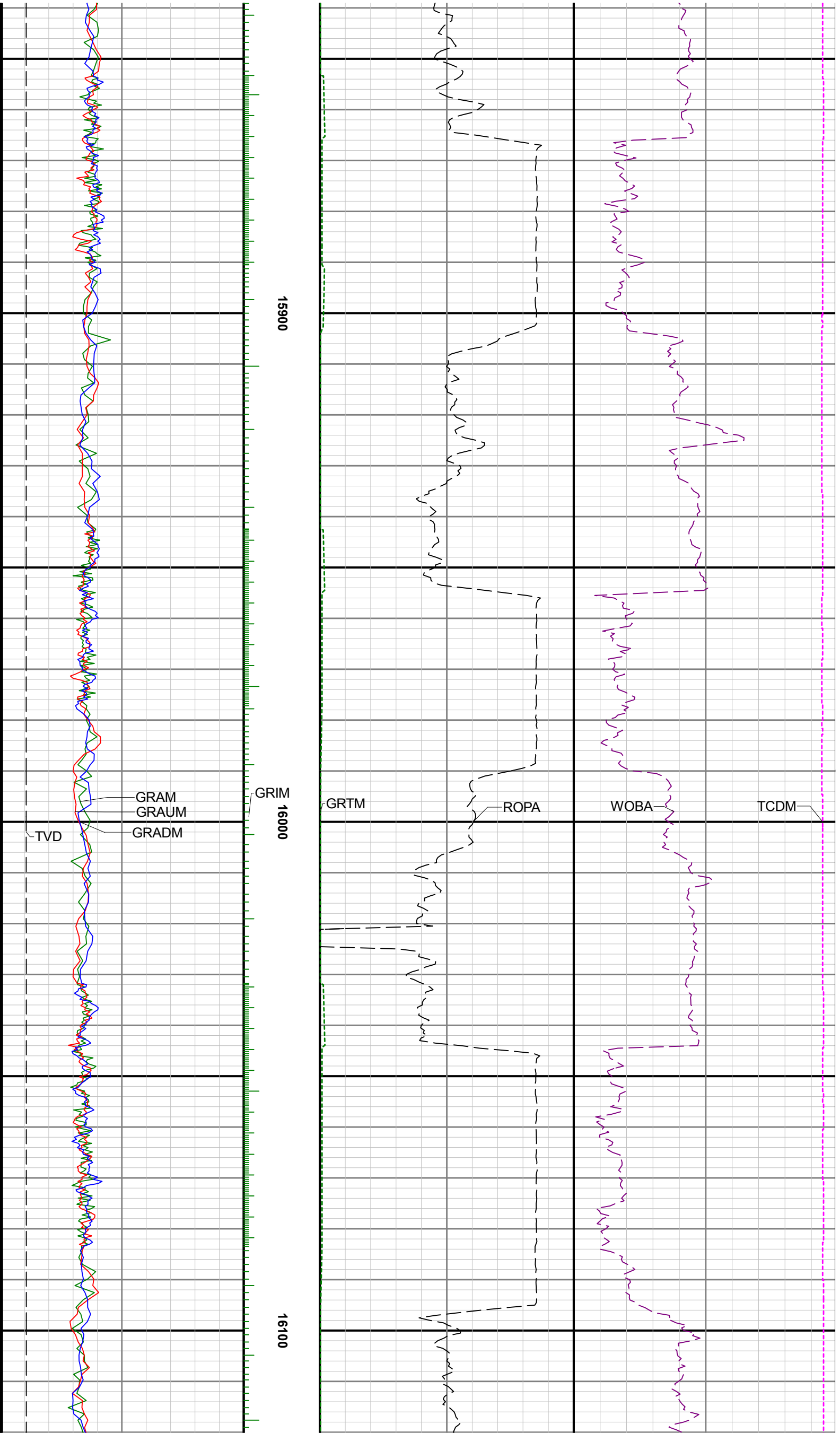


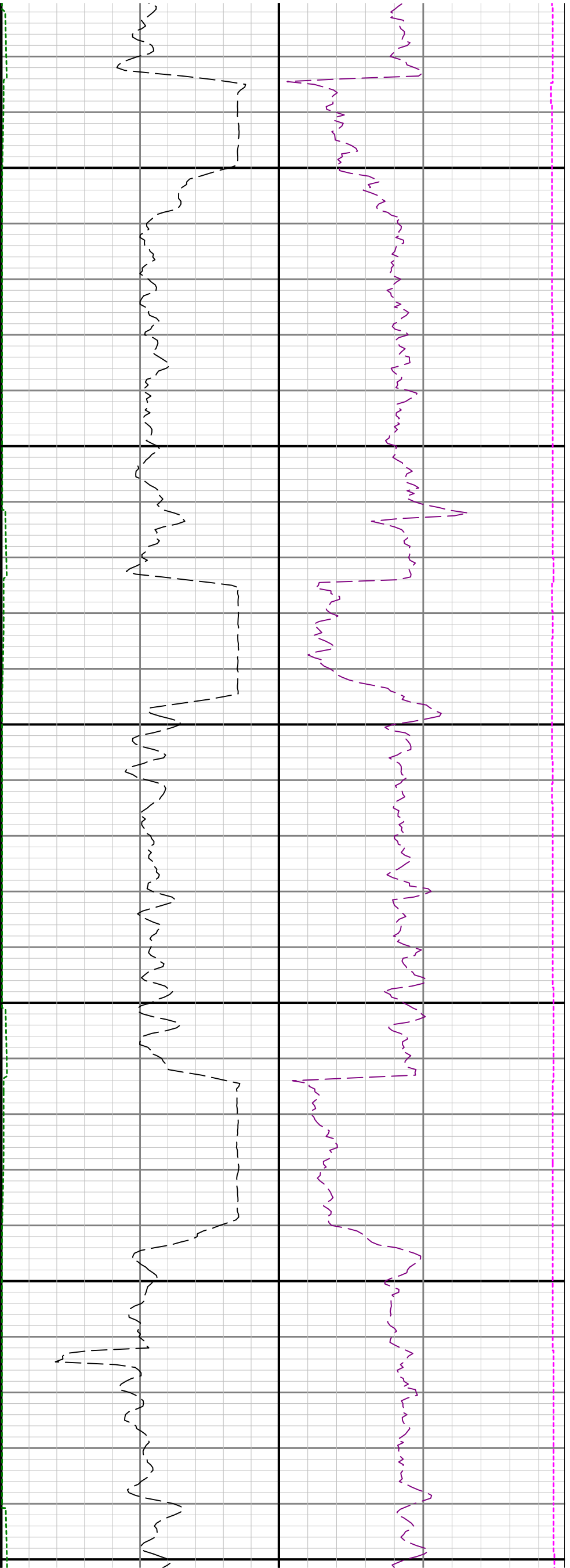








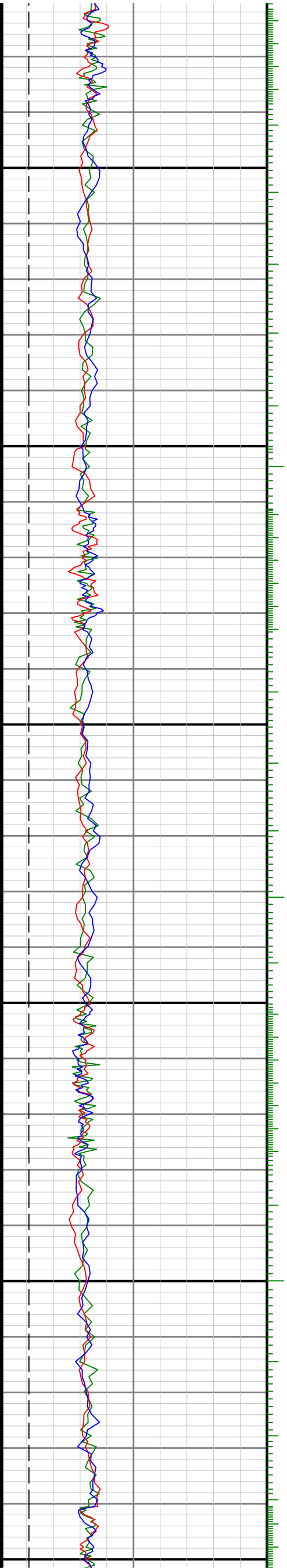


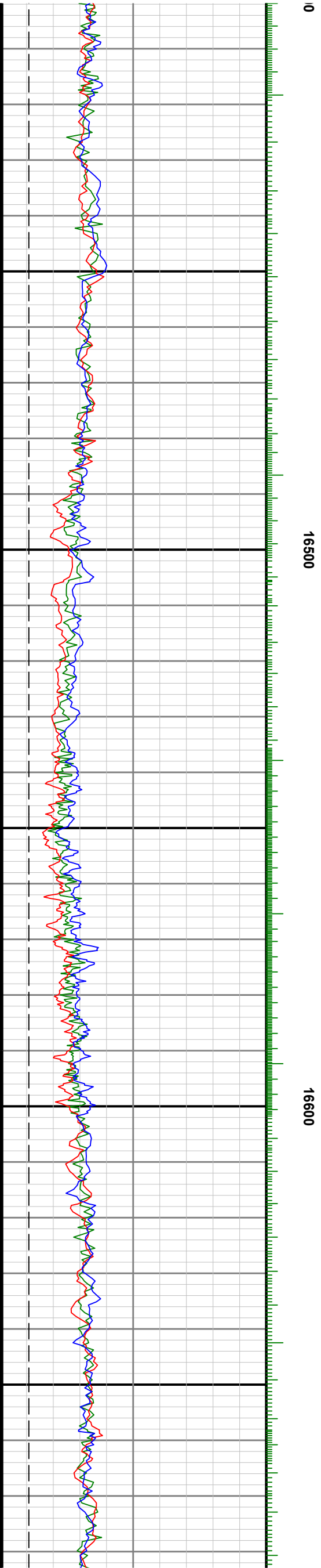
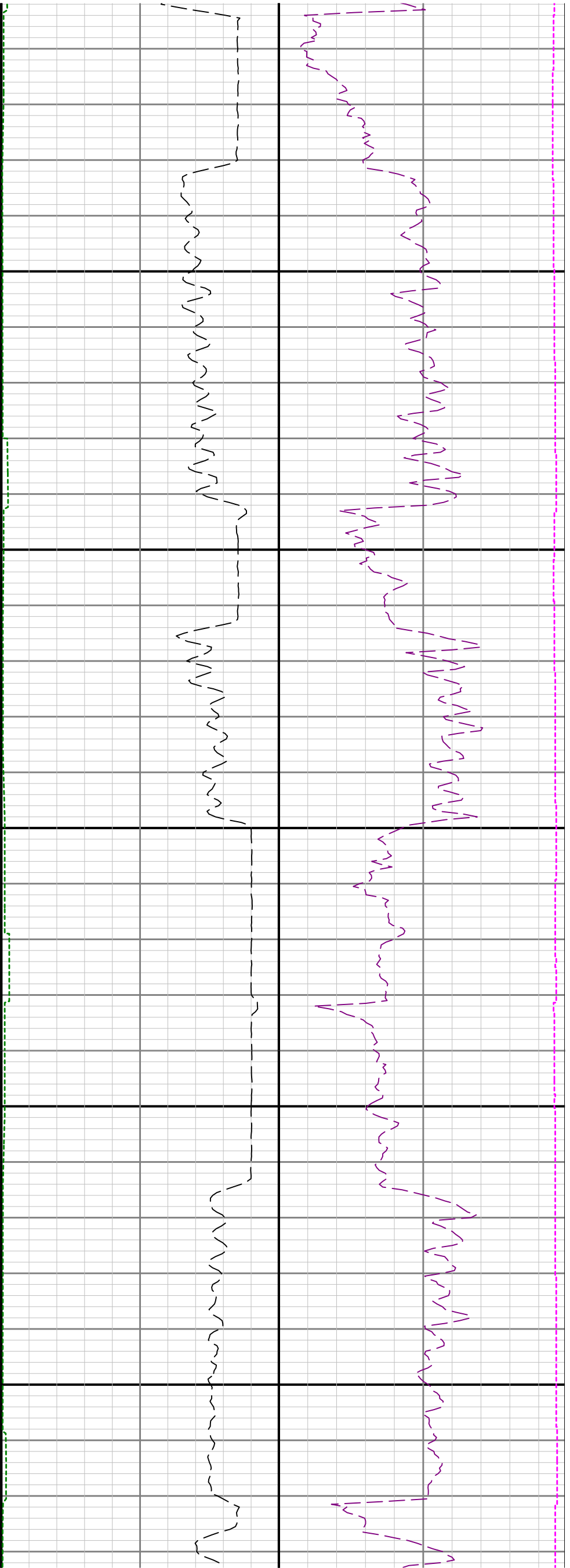


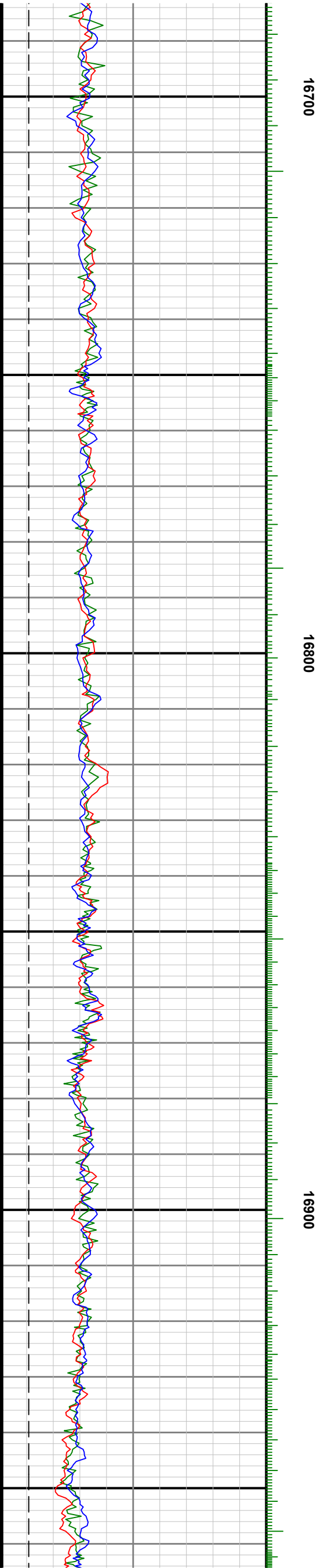
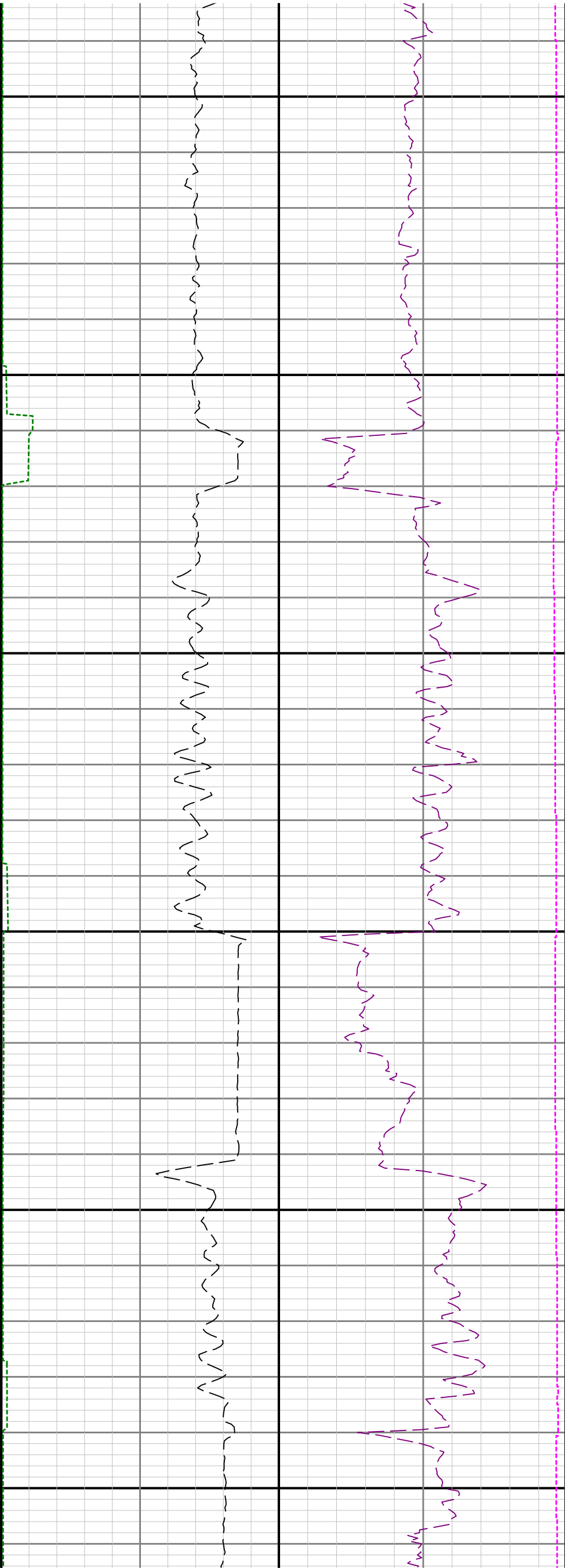
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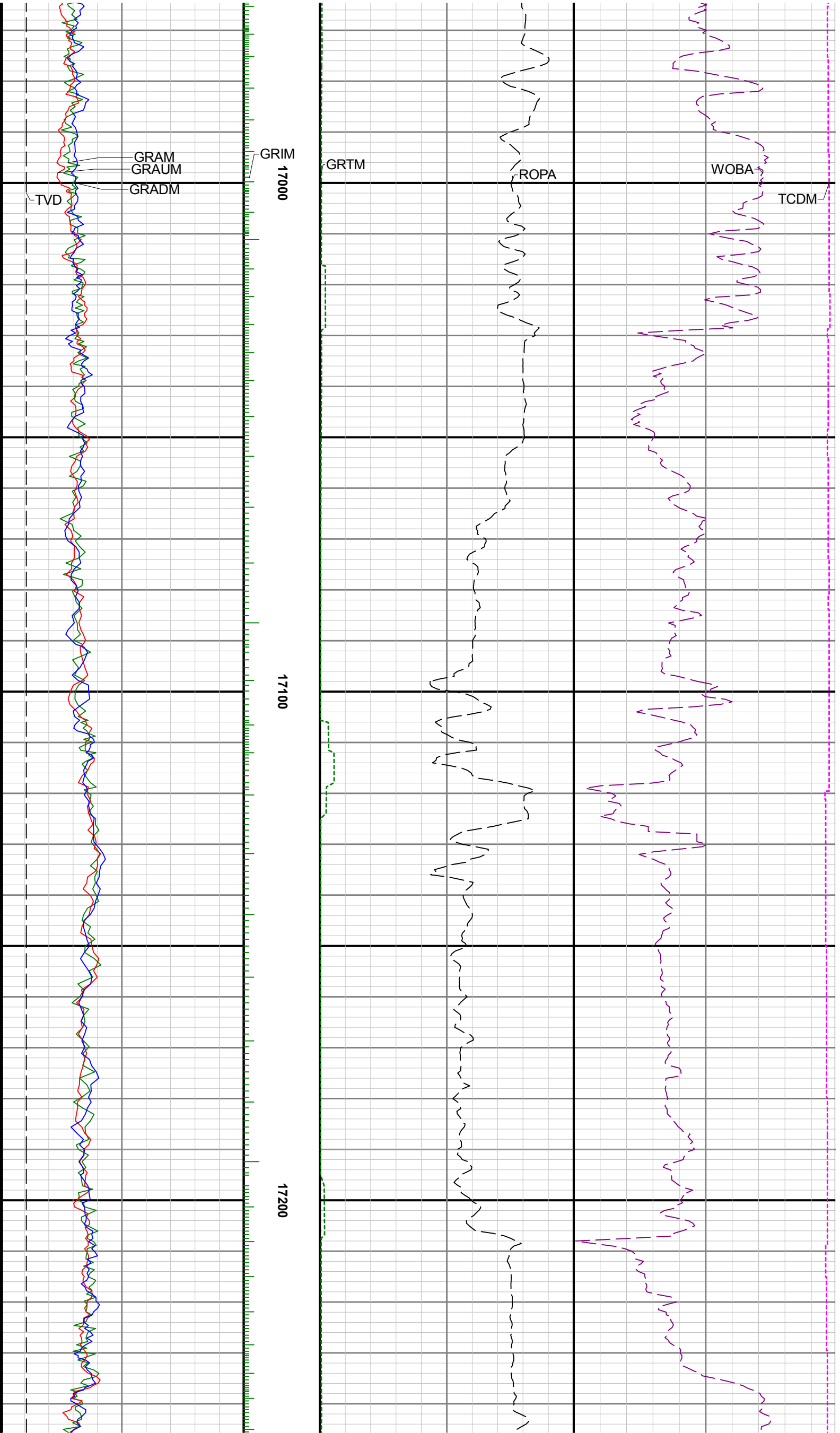
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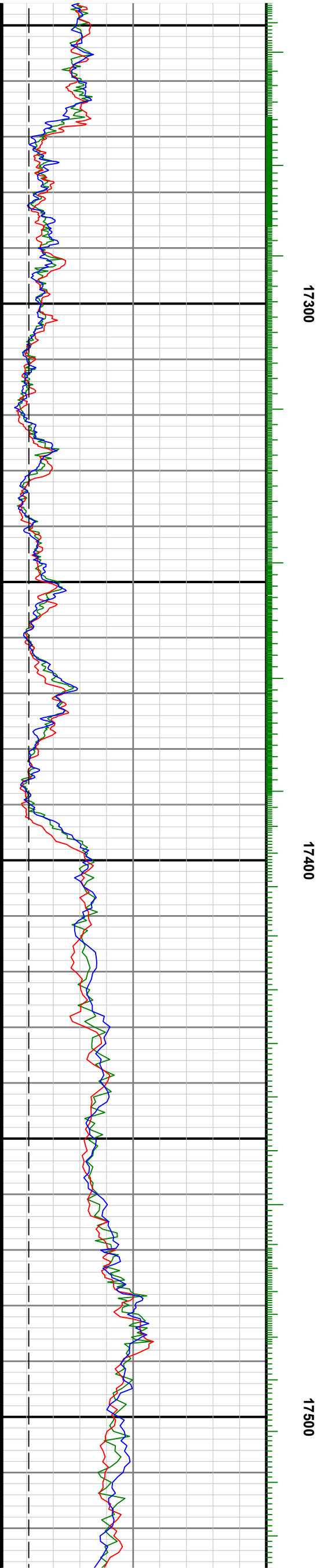
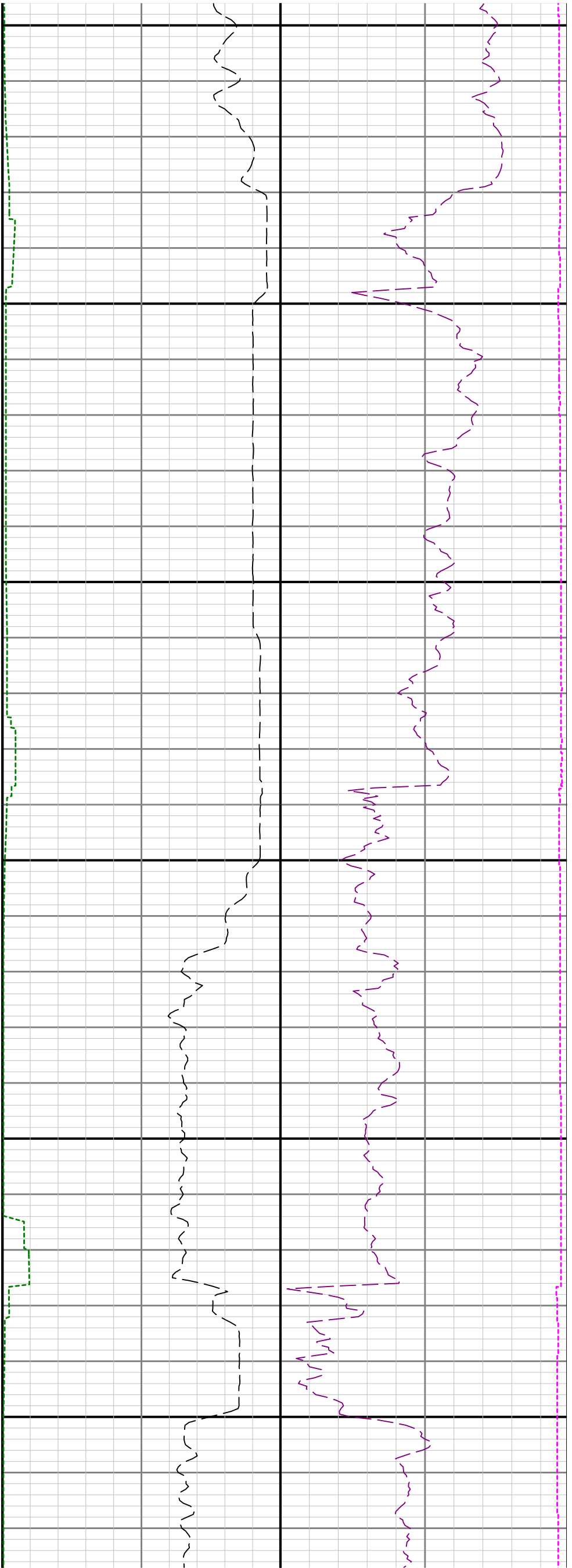
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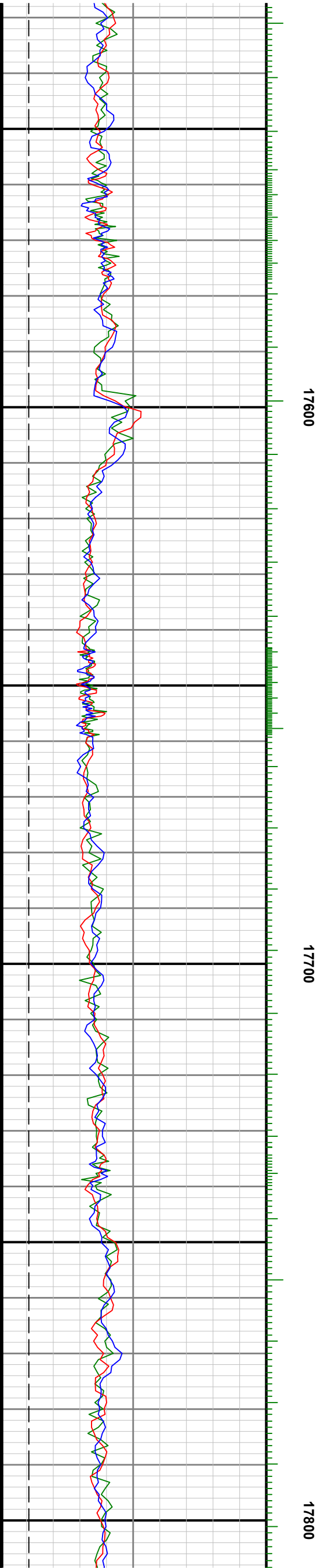
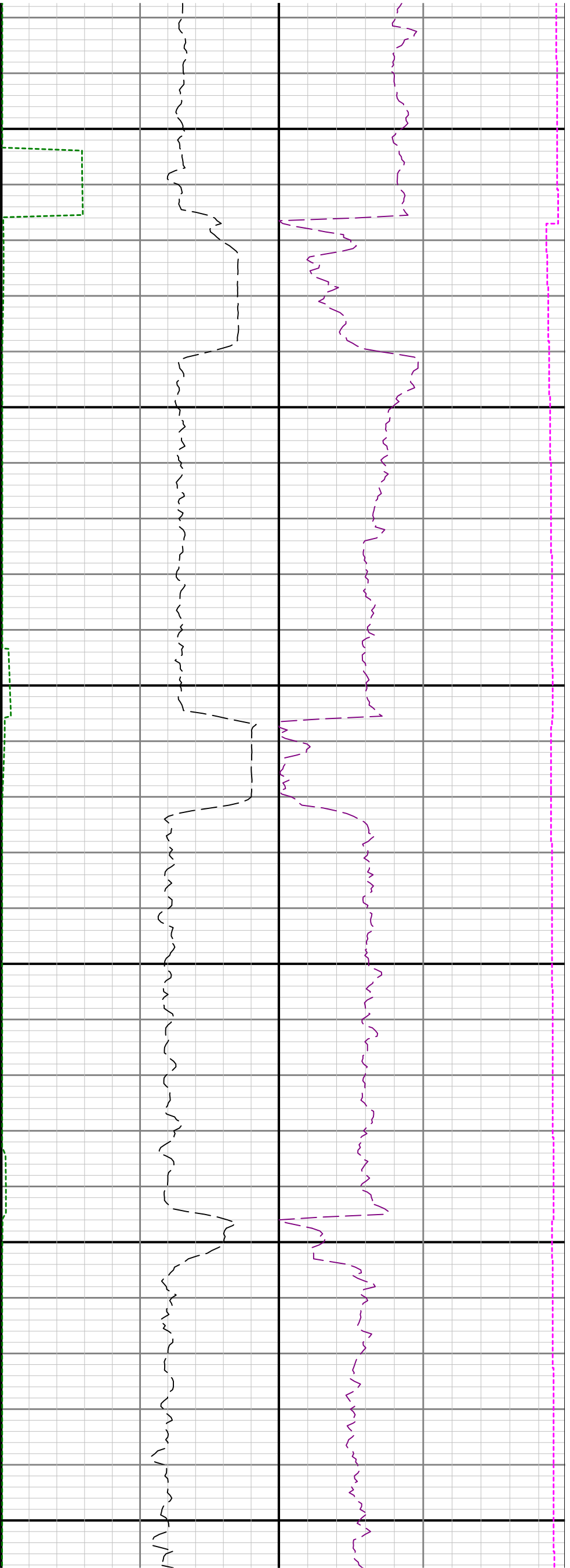


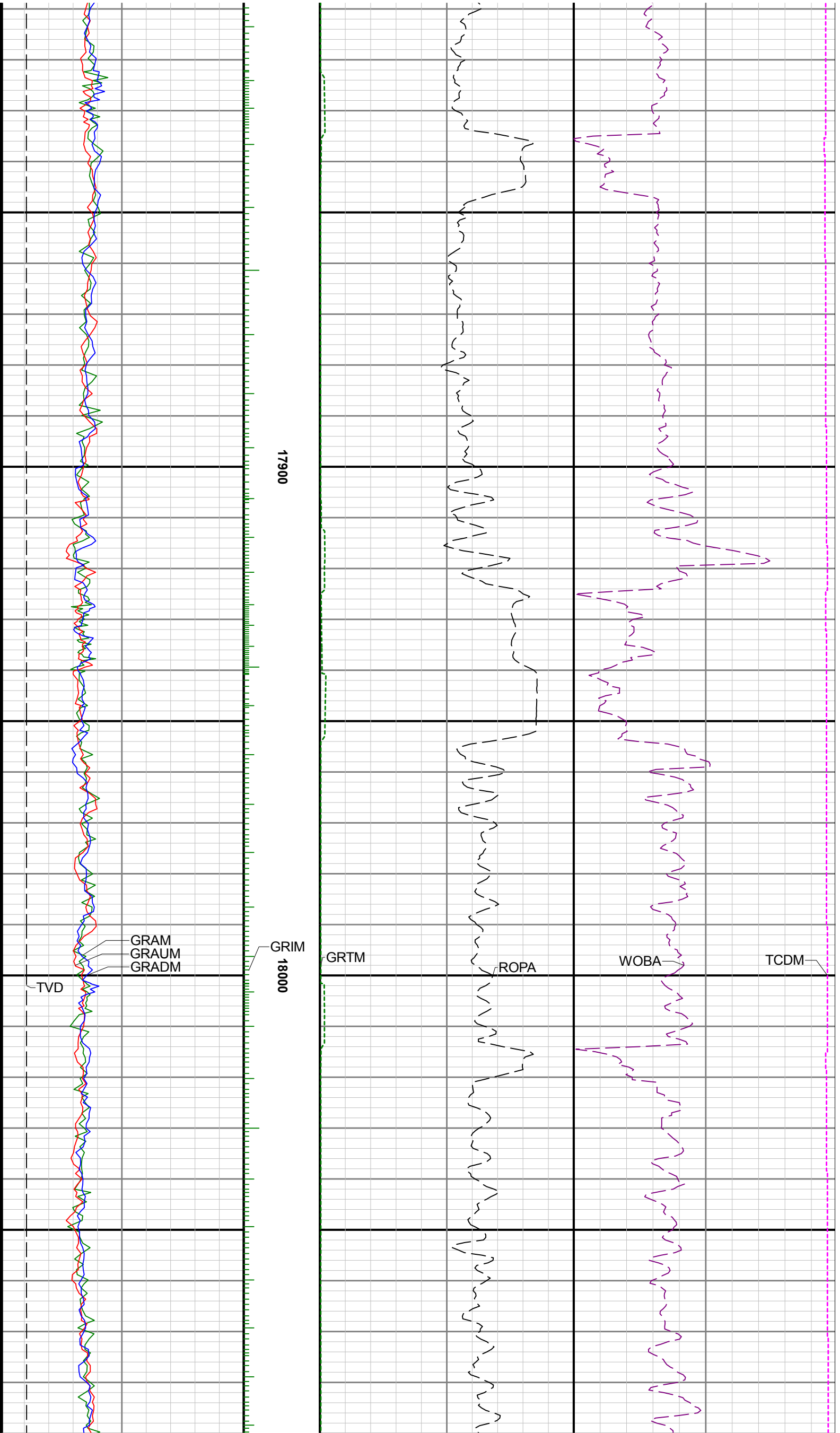


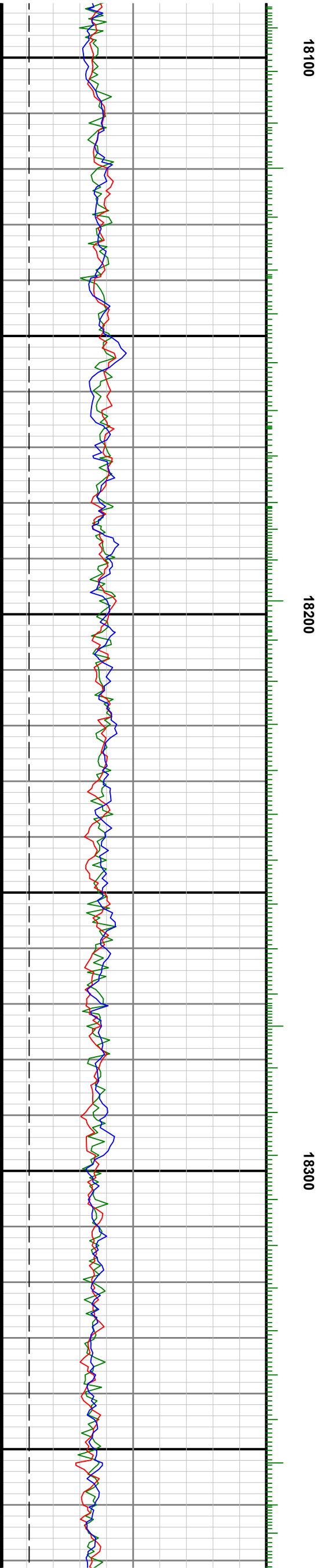
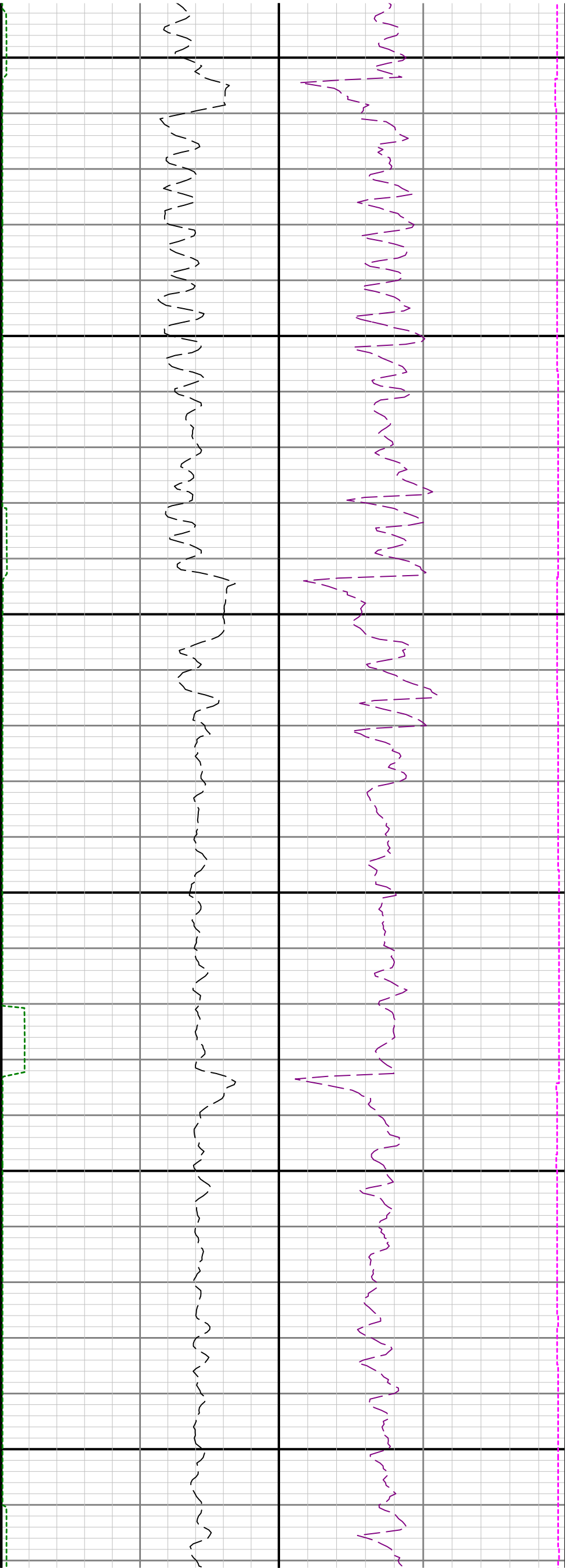


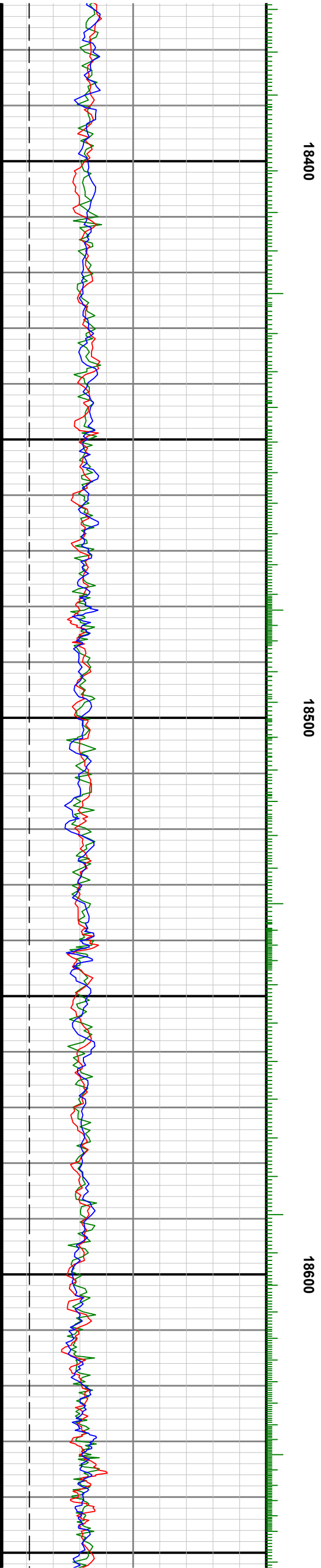
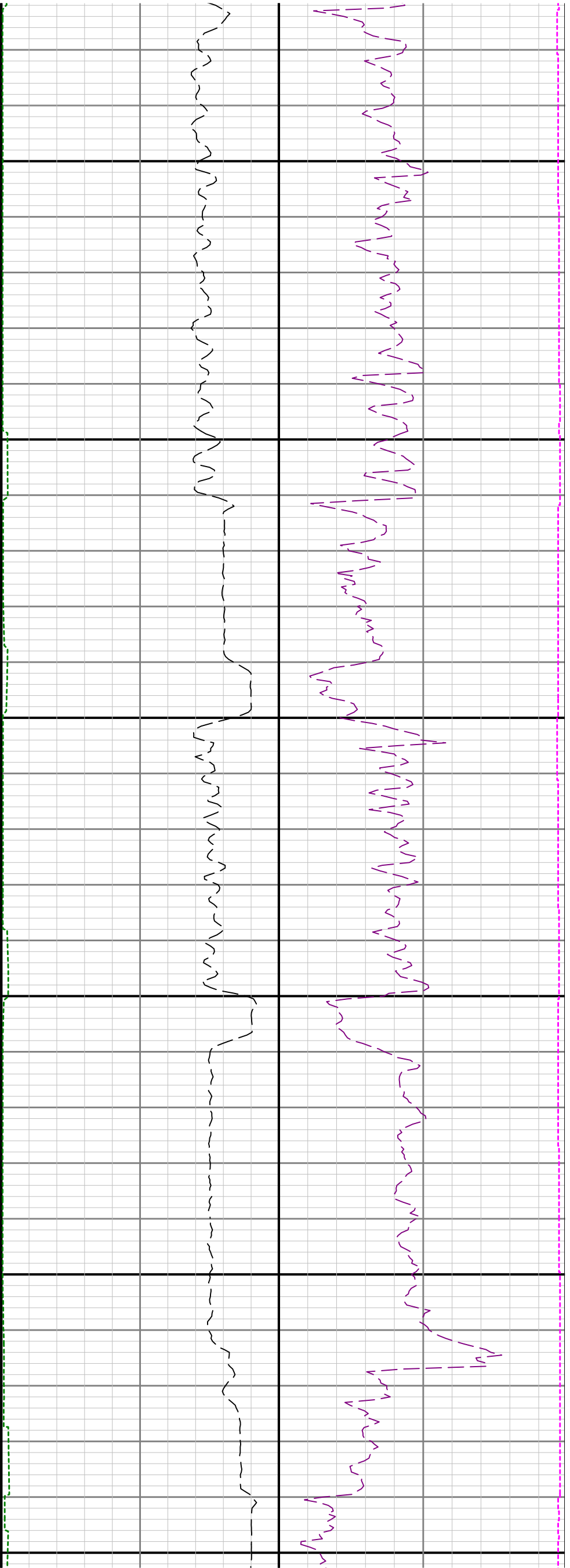


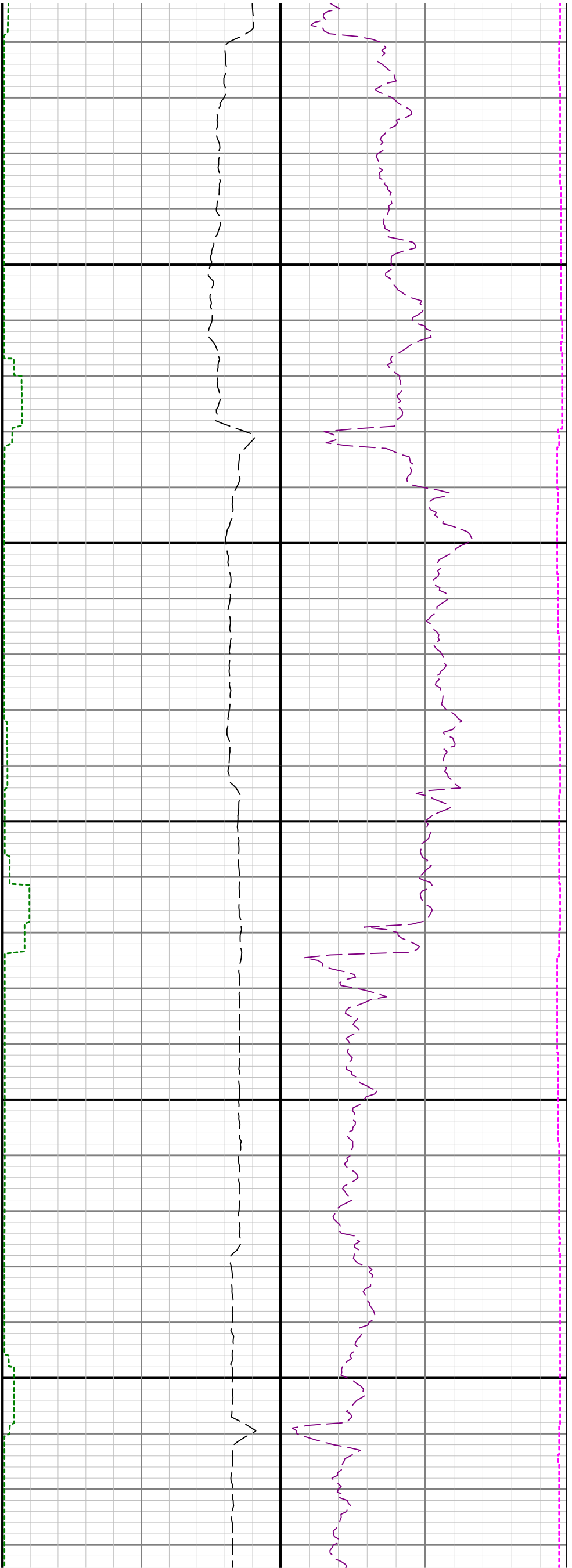












18700

18800

18900

