



LWD MEMORY LOG

Azimuthal Gamma Ray

Scale: Company: SRC Energy

1-240 MD

Well: Trout 26C-23-M

Depth Reference: Field: DJ Basin

Driller's Depth

County: Weld County Country: United States

State: Colorado

Status: Surface Location: Other Services:

Final Print

Latitude: 040° 27' 52.531" N  
Longitude: 104° 46' 03.302" W

API No: 05-123-46238

SEC: 27 TWN: 6N RGE: 66W

Permanent Datum (P.D.): Ground Level Elevation: 4719.00 ft

Log Measured From: Rig Floor Above P.D. 25.00 ft

Dates Interval Drilled Magnetic Field Reference

Date From: 2018-07-27 Top: (ft) 1836.00

Date To: 2018-07-31 Bottom: (ft) 15806.00

Spud Date: 2018-05-26

Borehole Record Casing Record

Hole Size (in) From (ft) To (ft) Size (in) Weight (lb/ft) From (ft) To (ft)

13.500 25.00 1846.00 9.625 36.00 25.00 1836.00

8.500 1846.00 15806.00

Mud Record Deviation Record

Type From (ft) To (ft) Hole Size (in) Interval (ft) Inc | Az (Start) Inc | Az (End)

Diesel-Oil Based Mud 1846.00 15806.00 13.500 1846.00 0.001 71.21 7.85 | 293.02

8.500 13960.00 7.85 | 293.02 90.00 | 94.88

Acquisition System Software Version Other

Baker Hughes Cadence RT 4.2 PD 562

Pilot Studio 4.2.8155.1 Contractor: Precision Drilling Unit: D&E

© 2018 Baker Hughes, a GE company, LLC – All rights reserved. Baker Hughes, a GE company, LLC and its affiliates ("BHGE") provides this information on an "as is" basis for general information purposes and believes it to be accurate as of the date of publication. BHGE does not make any representation as to the accuracy or completeness of the information and makes no warranties of any kind, specific, implied or oral, to the fullest extent permissible by law, including those of merchantability and fitness for a particular purpose or use. BHGE hereby disclaims any and all liability for any direct, indirect, consequential or special damages, claims for lost profits, or third party claims arising from the use of the information, whether a claim is asserted in contract, tort, or otherwise. The BHGE logo is a trademark of Baker Hughes, a GE company, LLC. GE and the GE monogram are trademarks of General Electric Company used under trademark license.

Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
2	2	8.500	PDC	3.00	AutoTrak Curve	1836.00	15793.00	1846.00	15806.00	2018-07-27 17:20	2018-07-30 15:43	61.89

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Garrett Gerdson	2018-07-27	2018-07-31						

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+ (%)
2018-07-27 00:00	2	1836.00	Diesel-Oil Based Mud	9.6	32	N/A	11.0	76/24	Active Pit	49000	0.00
2018-07-28 03:30	2	4360.00	Diesel-Oil Based Mud	9.7	27	N/A	11.0	75/25	Active Pit	49000	0.00
2018-07-28 15:00	2	7442.00	Diesel-Oil Based Mud	9.6	25	N/A	14.0	75/25	Active Pit	50000	0.00
2018-07-29 03:30	2	9485.00	Diesel-Oil Based Mud	9.9	26	N/A	14.0	75/25	Active Pit	50000	0.00
2018-07-29 15:00	2	11644.00	Diesel-Oil Based Mud	10.0	25	N/A	12.0	73/27	Active Pit	50000	0.00
2018-07-30 03:30	2	14203.00	Diesel-Oil Based Mud	10.0	27	N/A	12.0	73/27	Active Pit	48000	0.00
2018-07-30 15:00	2	15444.00	Diesel-Oil Based Mud	10.1	29	N/A	14.0	71/29	Active Pit	46000	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	12046180	Near Bit Inclination	5.93	6.73	7.000	4.330
2	ATC_SU	12046180	Near Bit VSS	5.93	6.73	7.000	4.330
2	ATC_MWD	12271999	Gamma (single)	2.75	12.90	7.000	3.250
2	ATC_MWD	12271999	Directional (mag)	12.27	22.42	7.000	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 1 utilized 8 inch NaviTrak service (Directional only) behind a 13 1/2 inch bit and steerable assembly from surface to 1846 feet MD (surface to 1836 feet TVD). No logging data was acquired during this run.
- 3
- Baker Hughes LWD Run 2 utilized 6 ¾ inch NaviGamma services (Gamma Ray and Directional) behind an 8 ½ inch bit and rotary steerable assembly from 1846 to 15806 feet MD (1836 to 7137 feet TVD).
- 4
- Gamma Ray Apparent (GRAM) is presented 0 to 300 API per customer request.

Remarks

Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	1843.00	8.500	2	Gamma Ray logging operations began at 1836 feet (1826 feet TVD).
2	15802.00	8.500	2	The interval from 15793 to 15806 feet MD (7137 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



Company

Well

Interval

Created

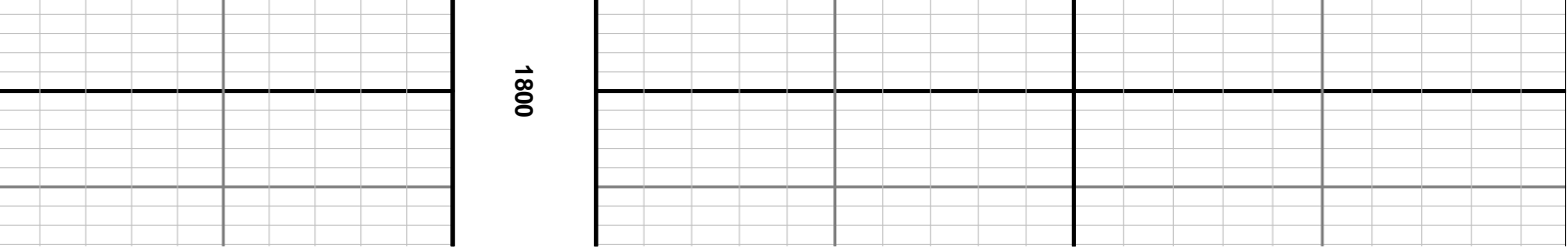
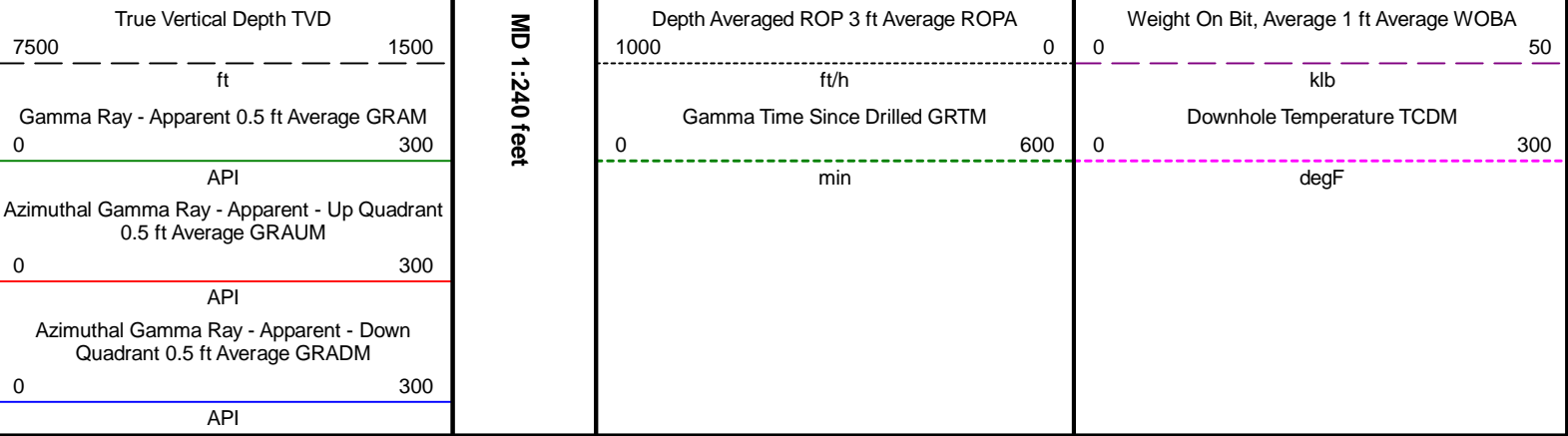
SRC Energy

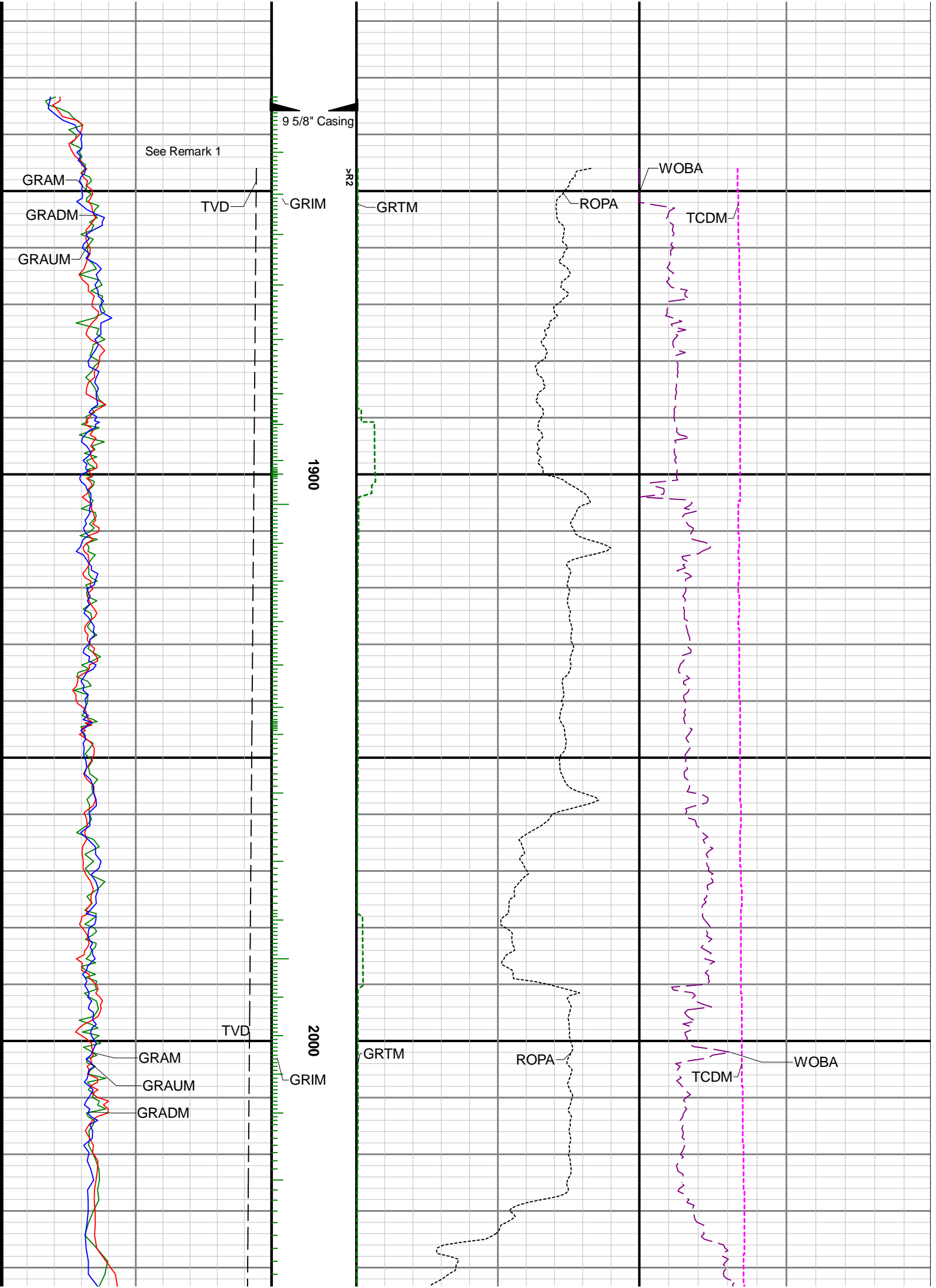
Troudt 26C-23-M

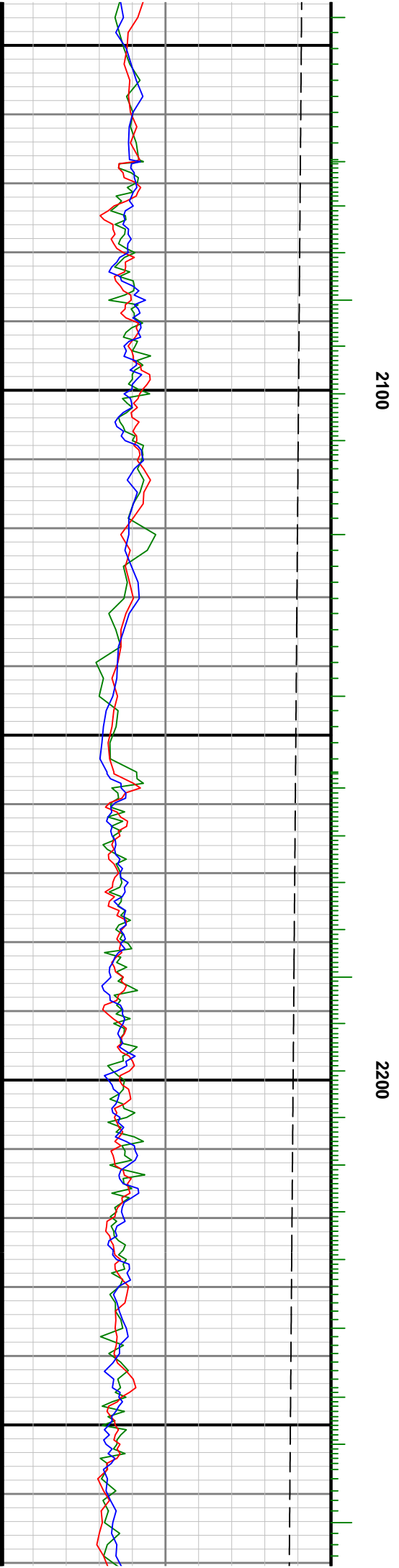
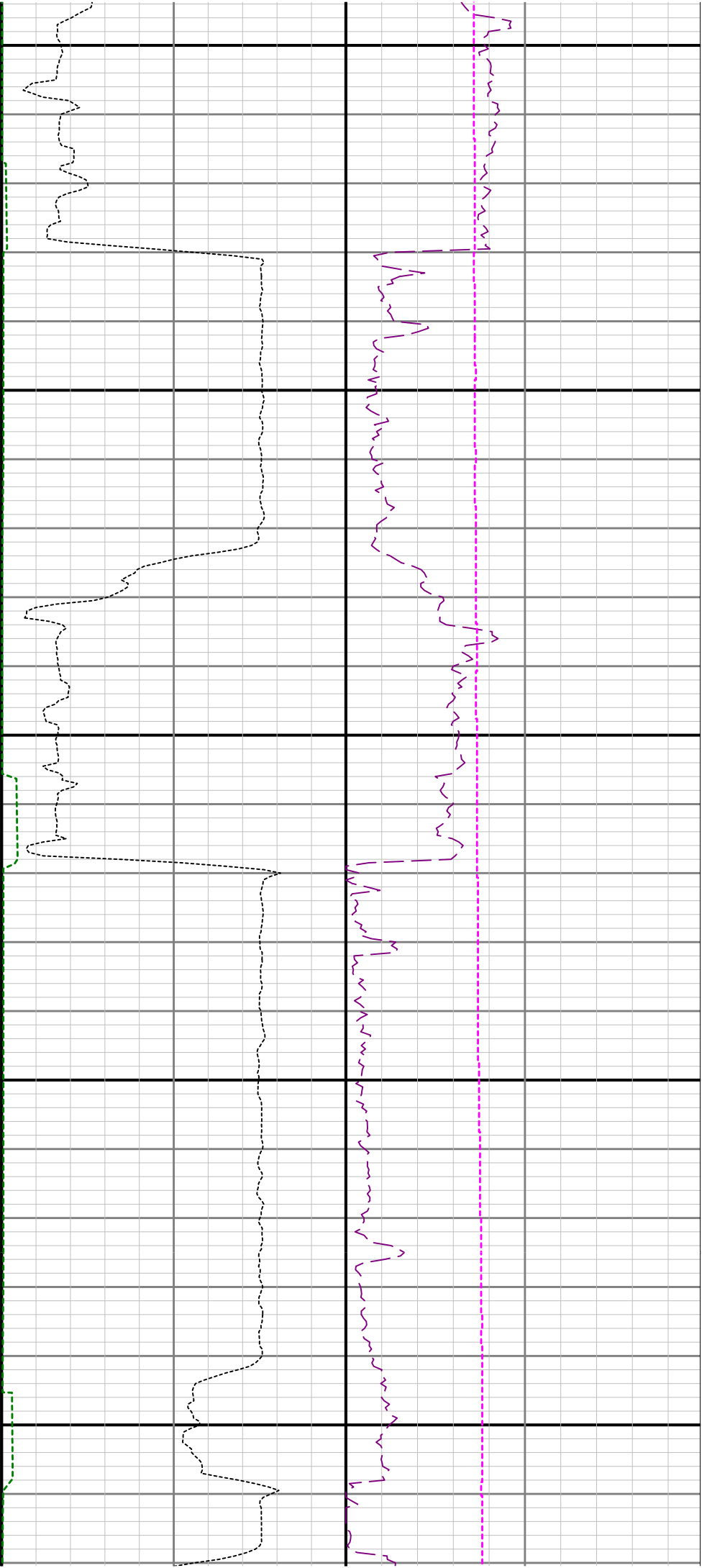
Date From: 2018-07-27 11:19  
Date To: 2018-07-31 17:53

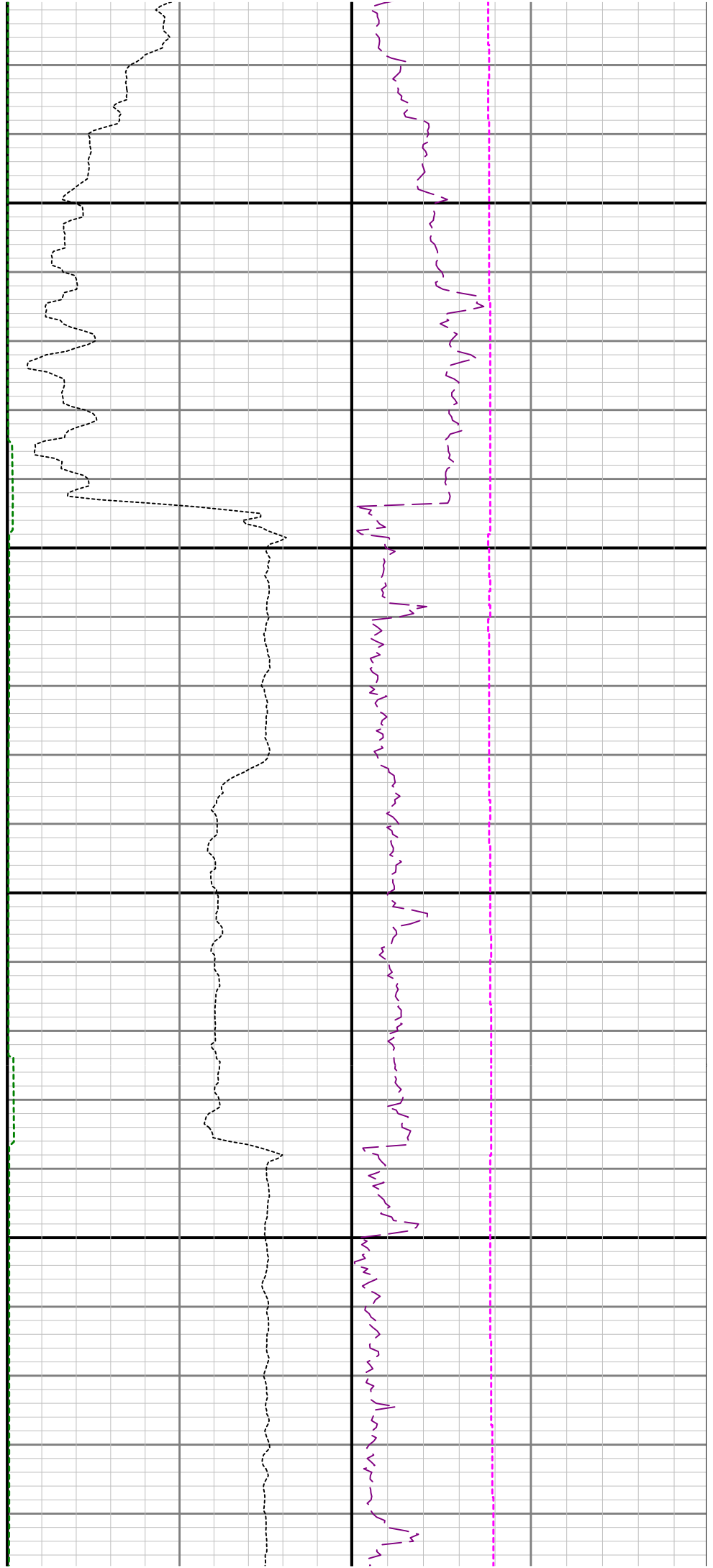
Top: 1836.00 ft  
Bottom: 15806.00 ft

2018-07-31 19:53:22



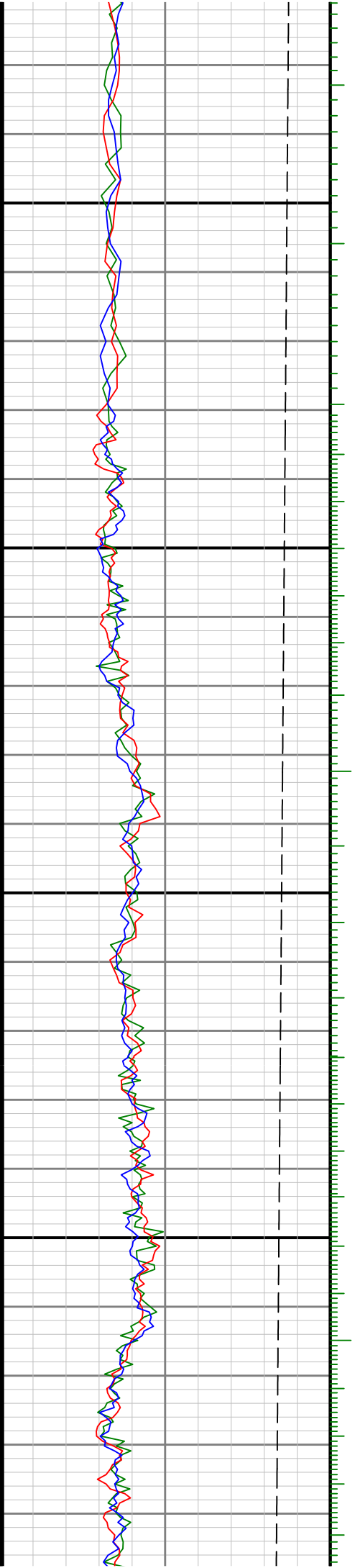


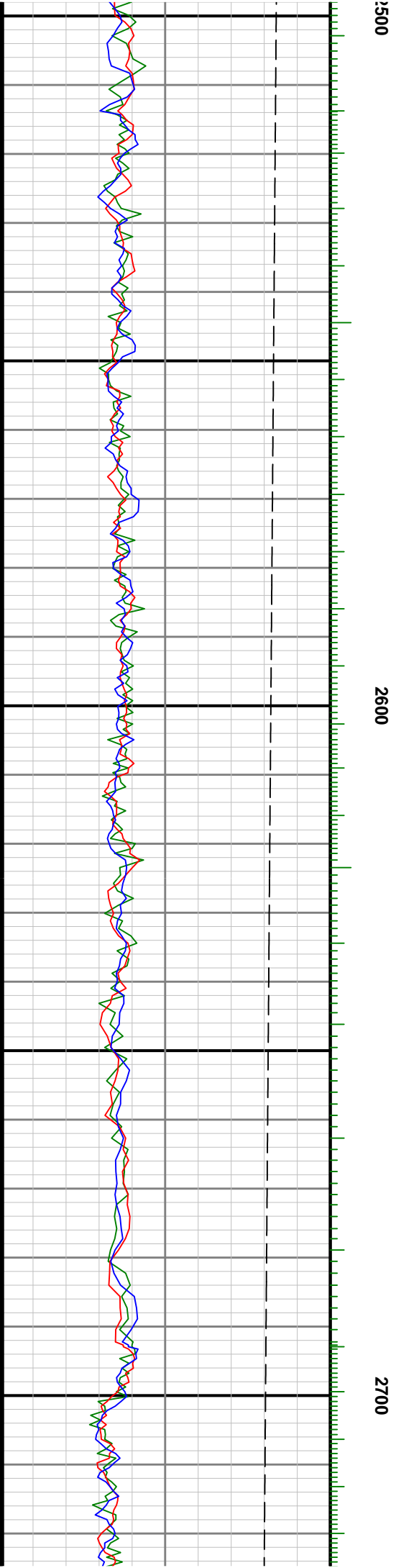
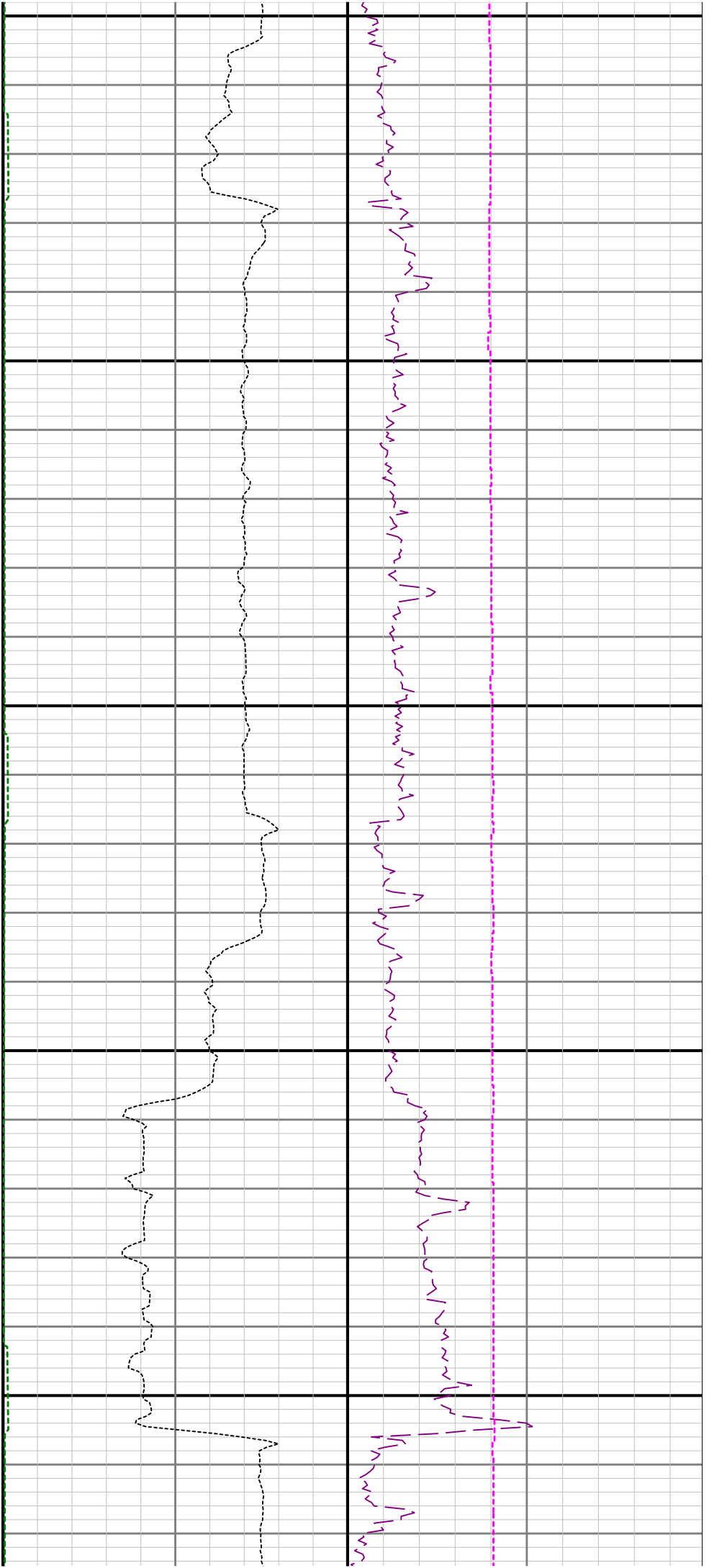


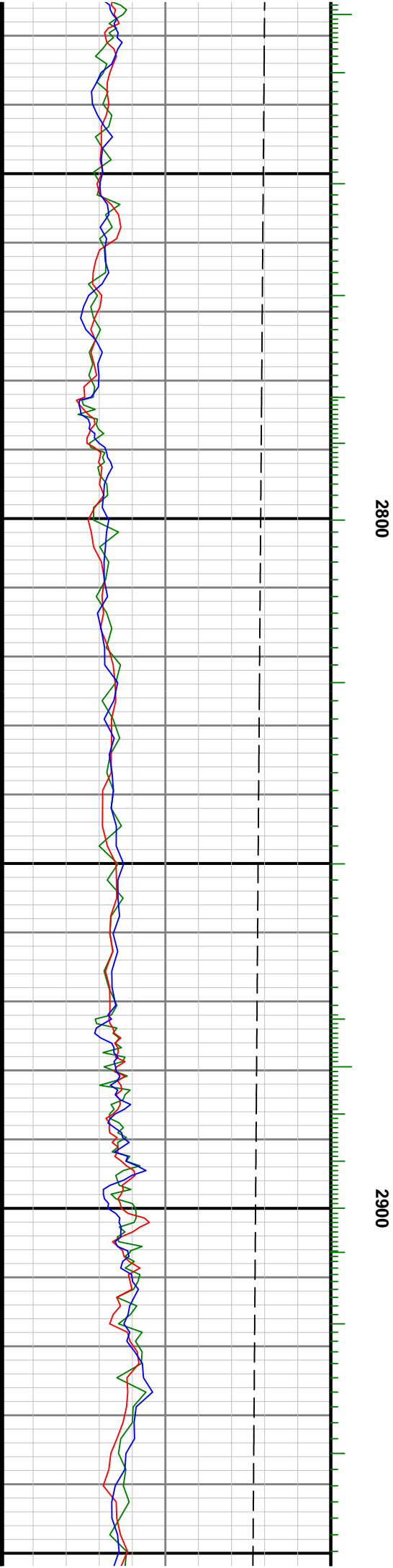


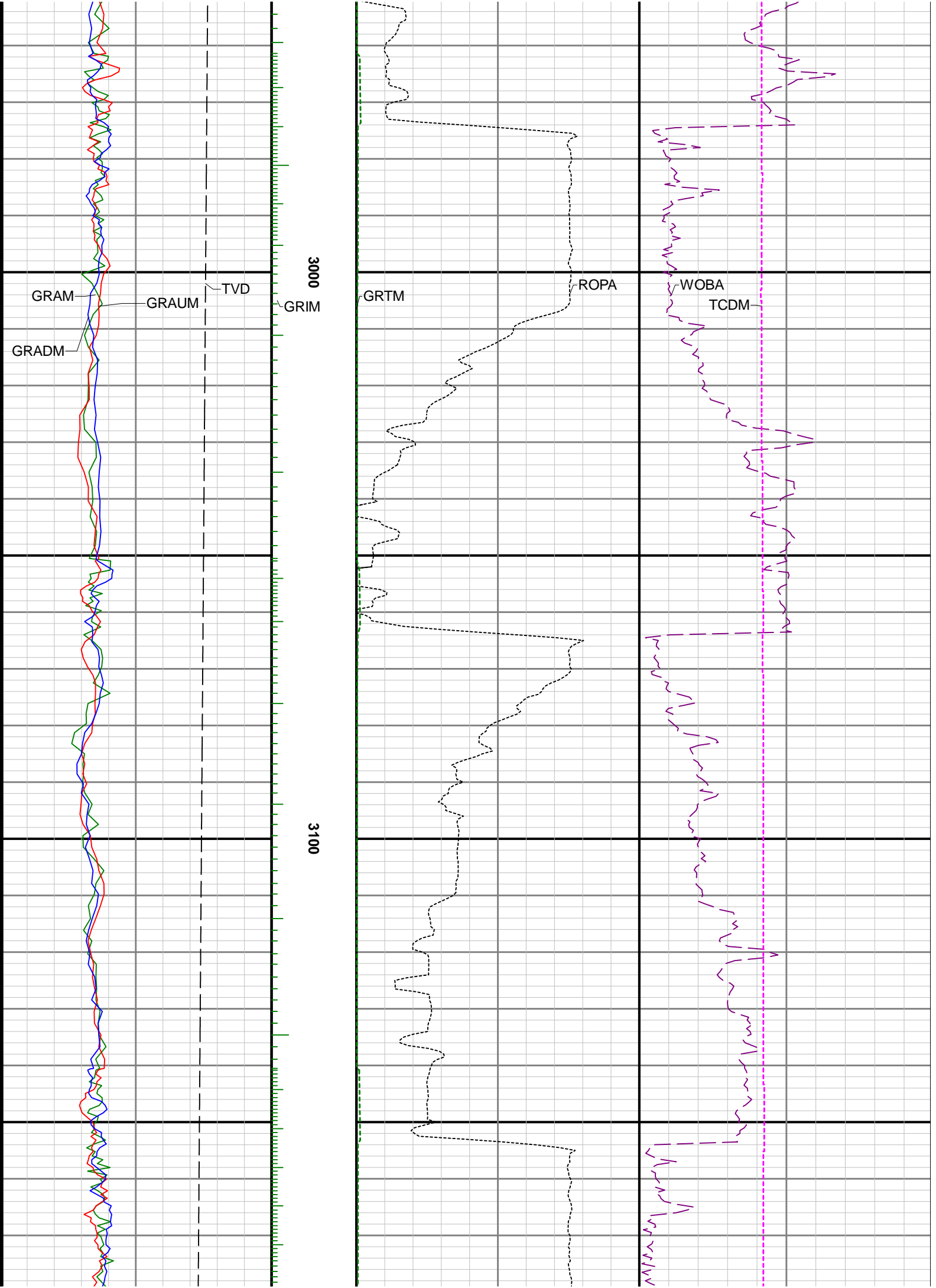
2300

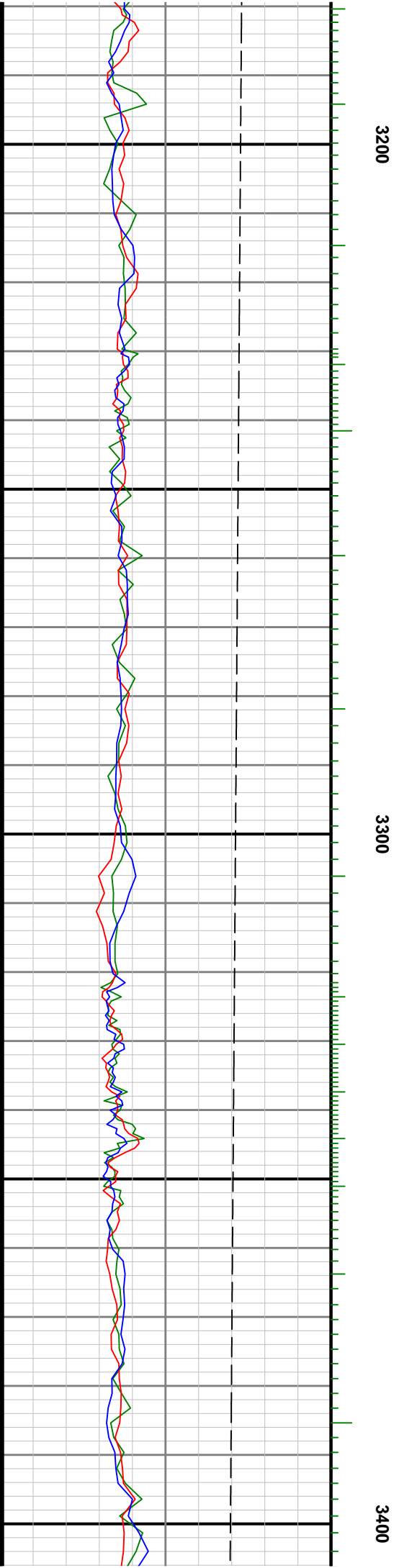
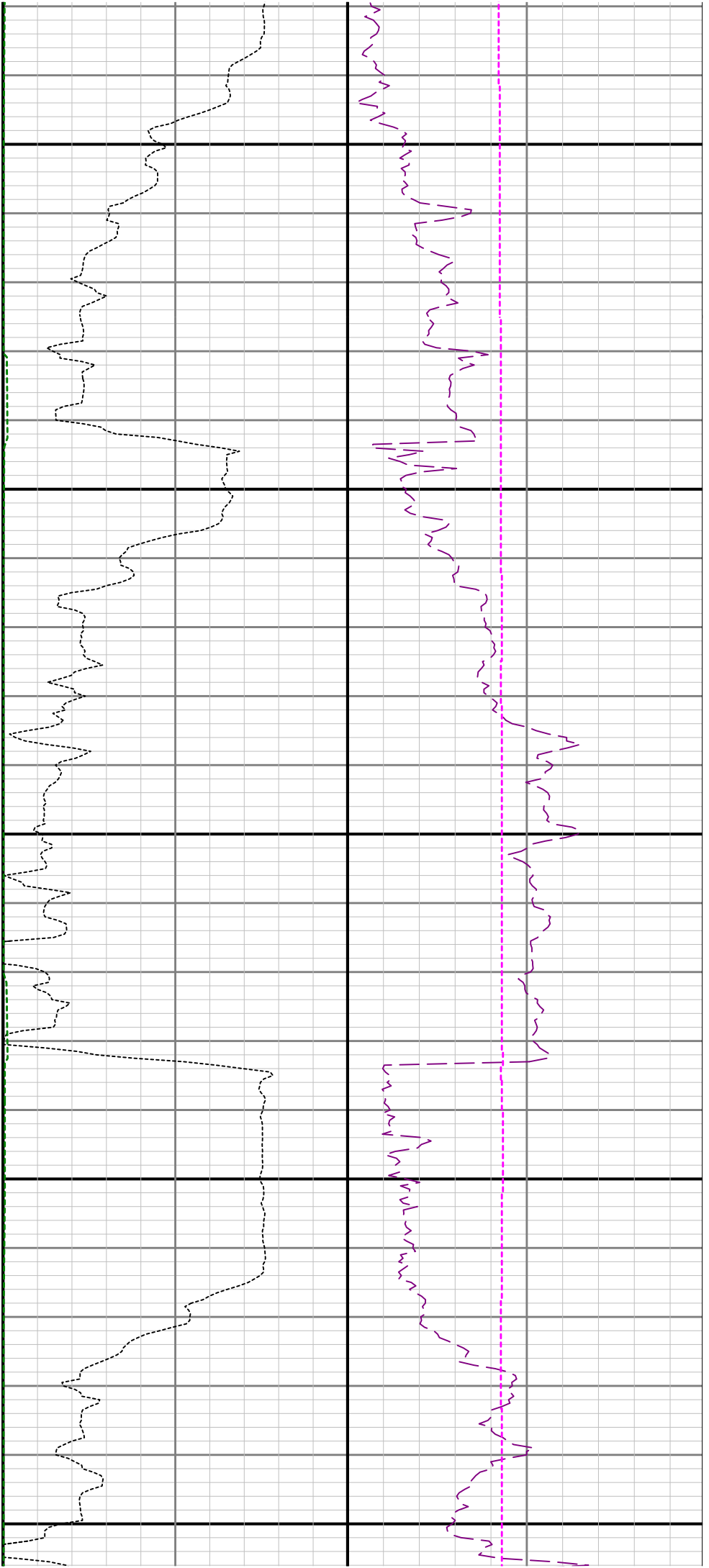
2400

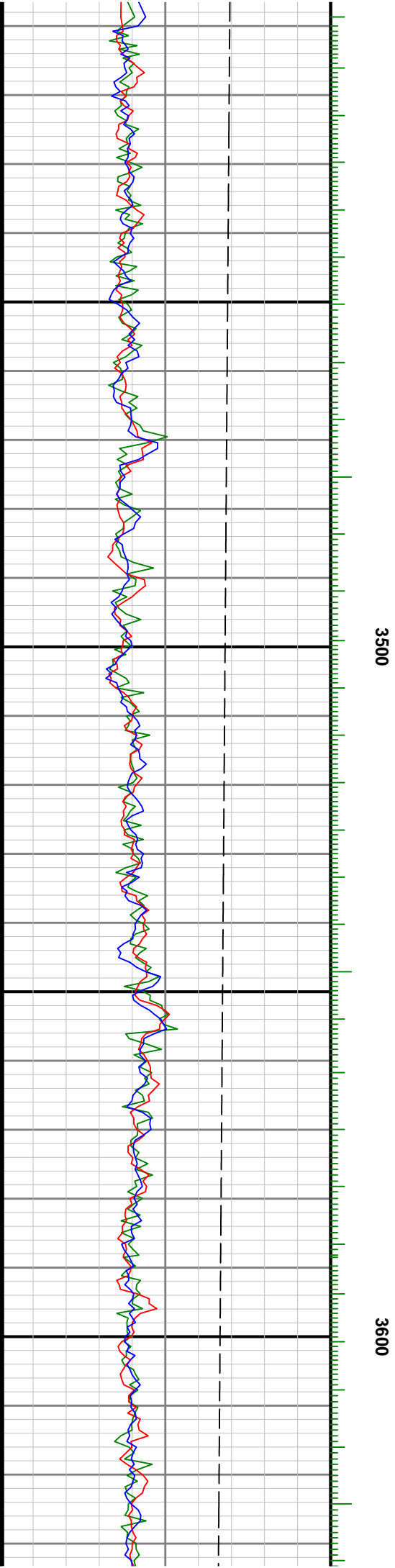
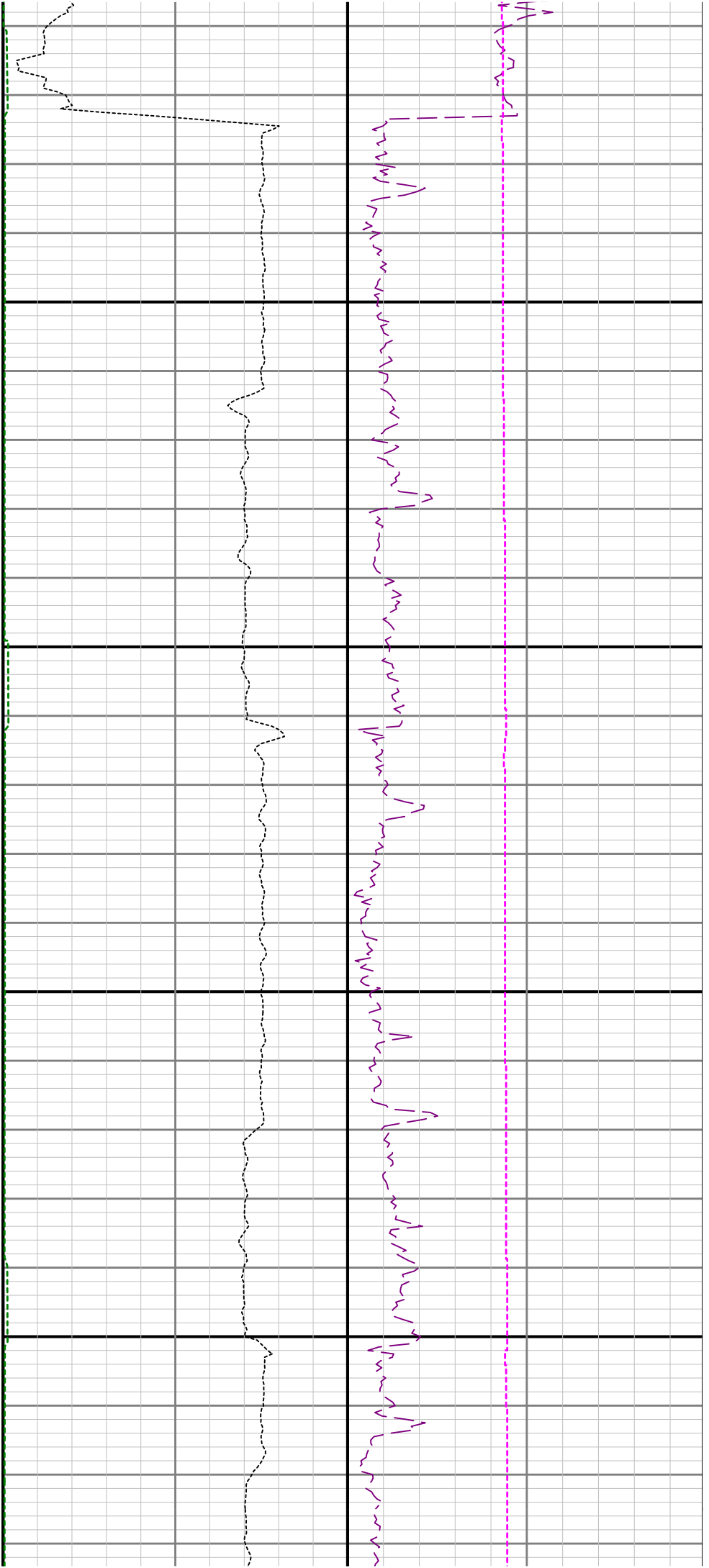


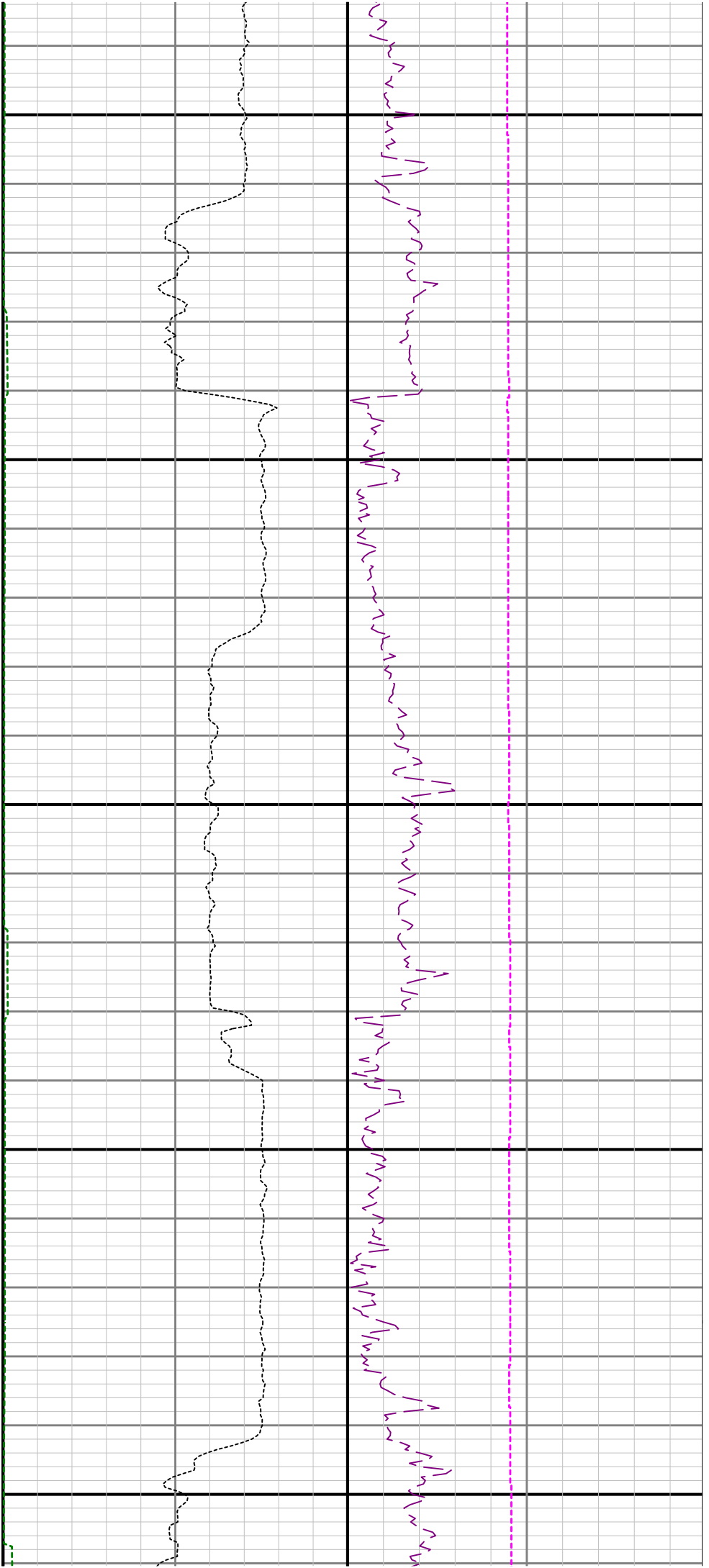






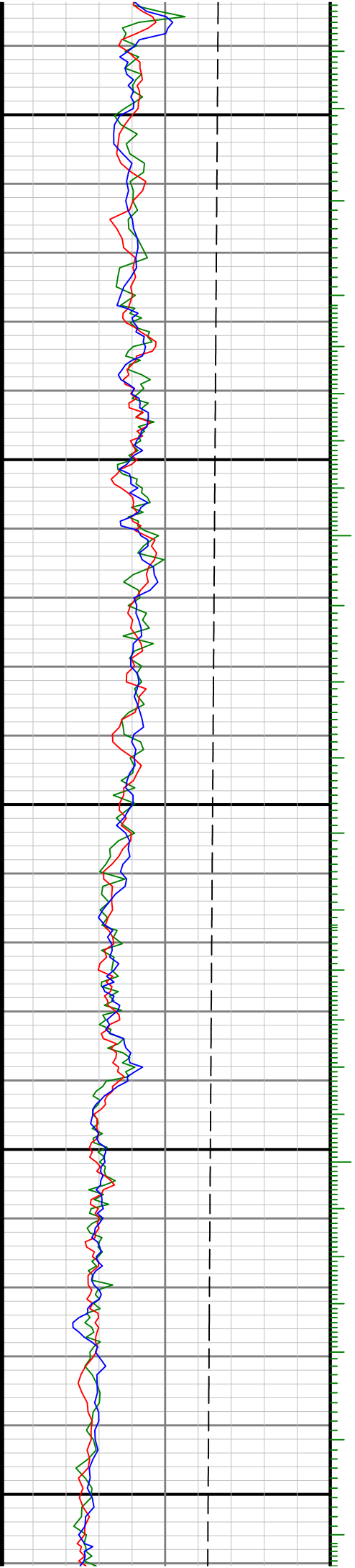


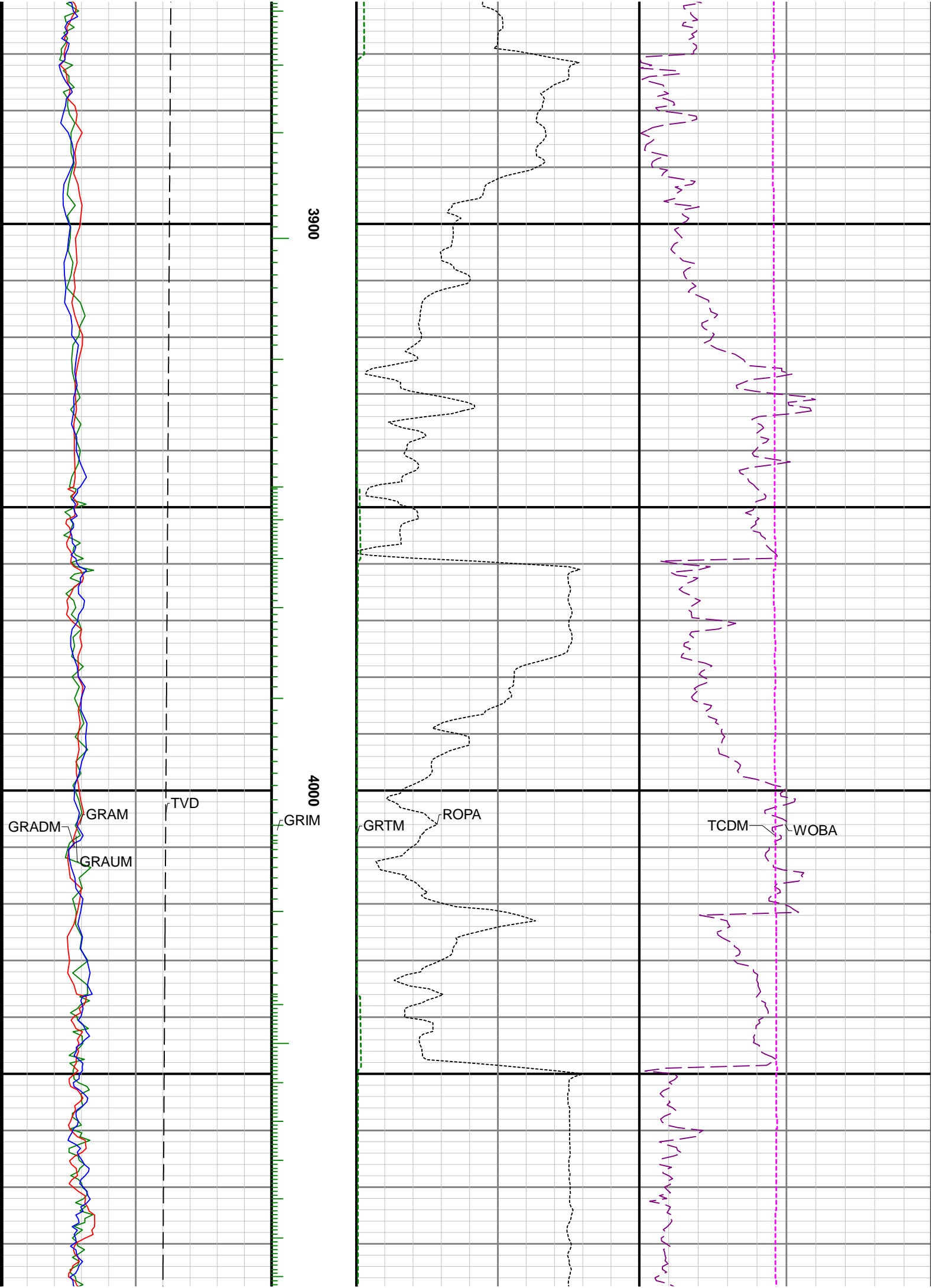


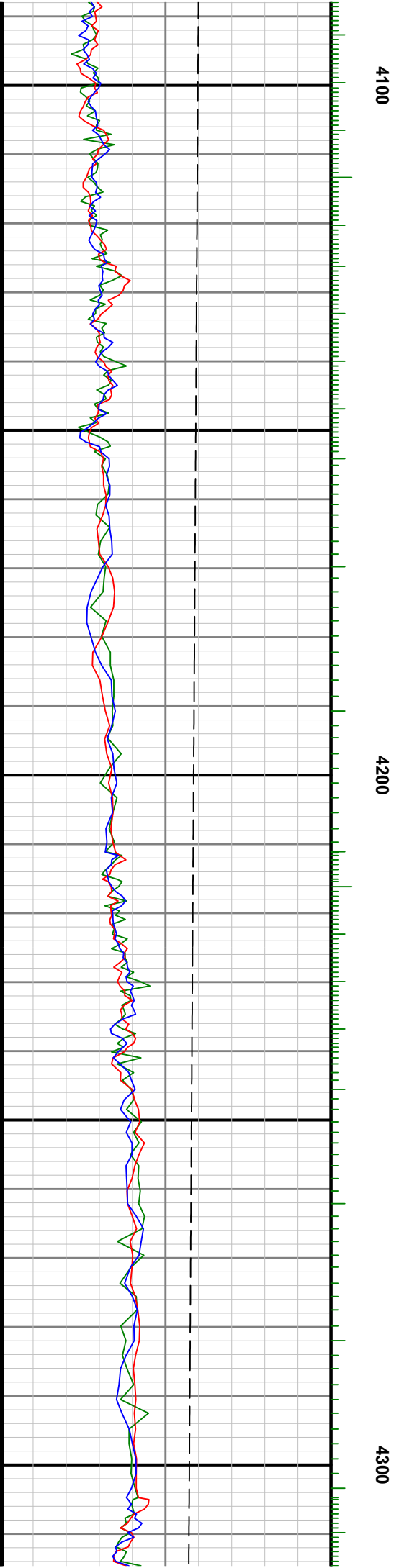
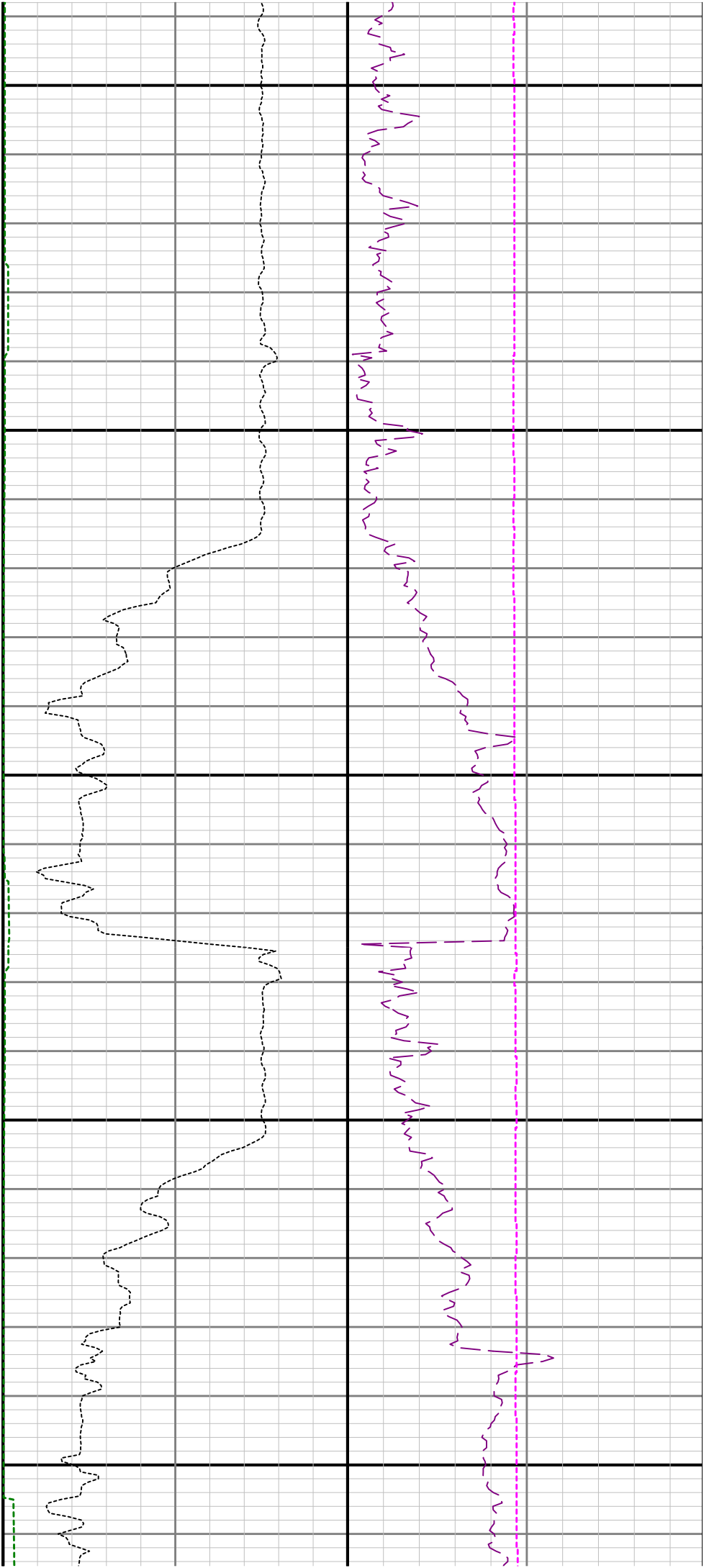


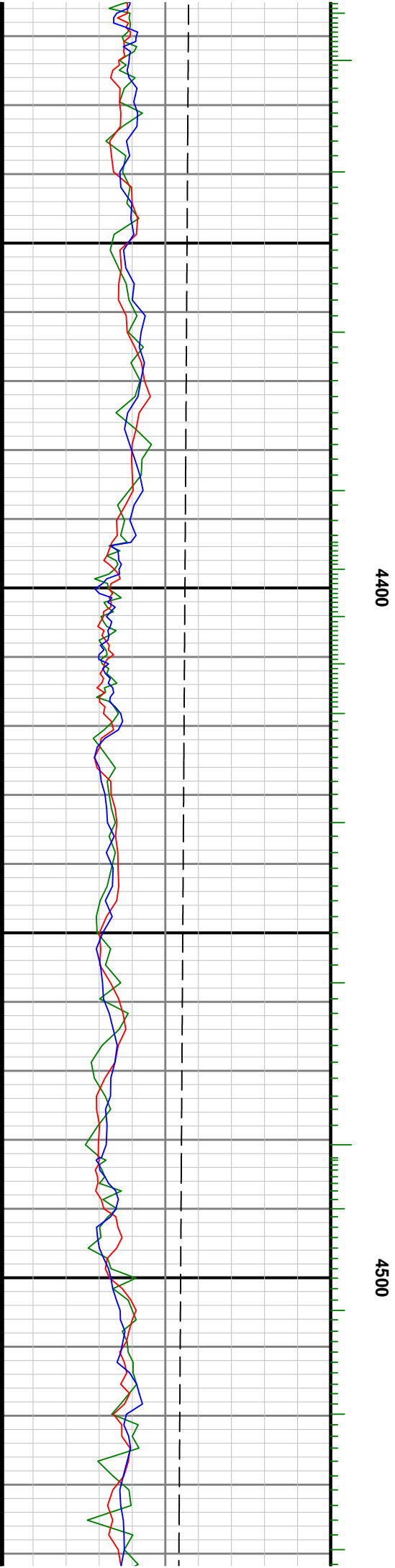
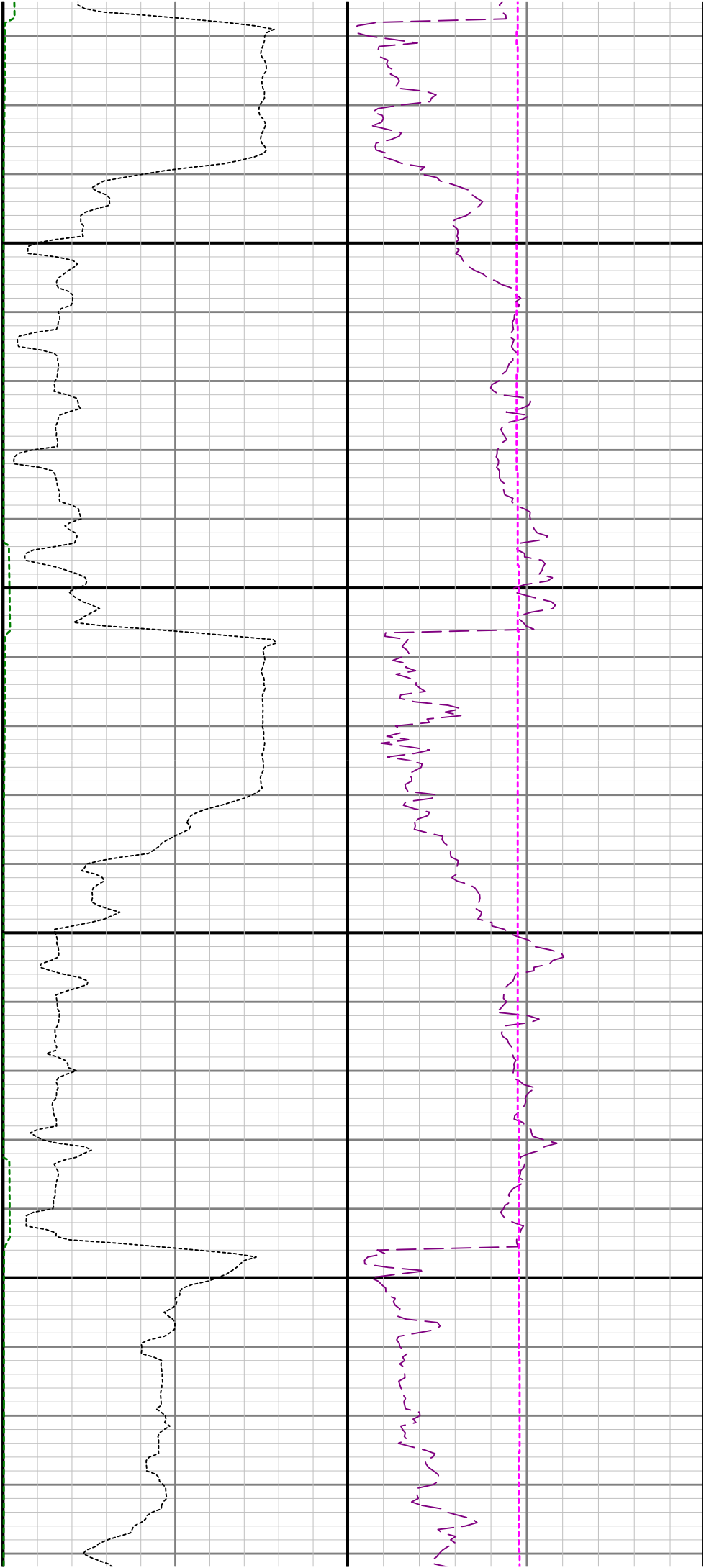
3700

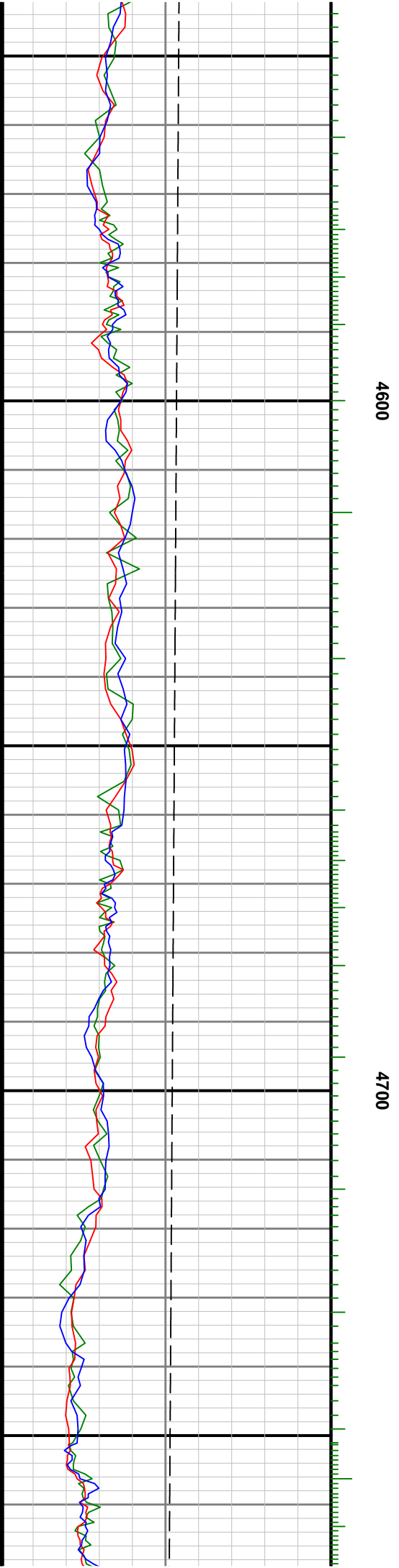
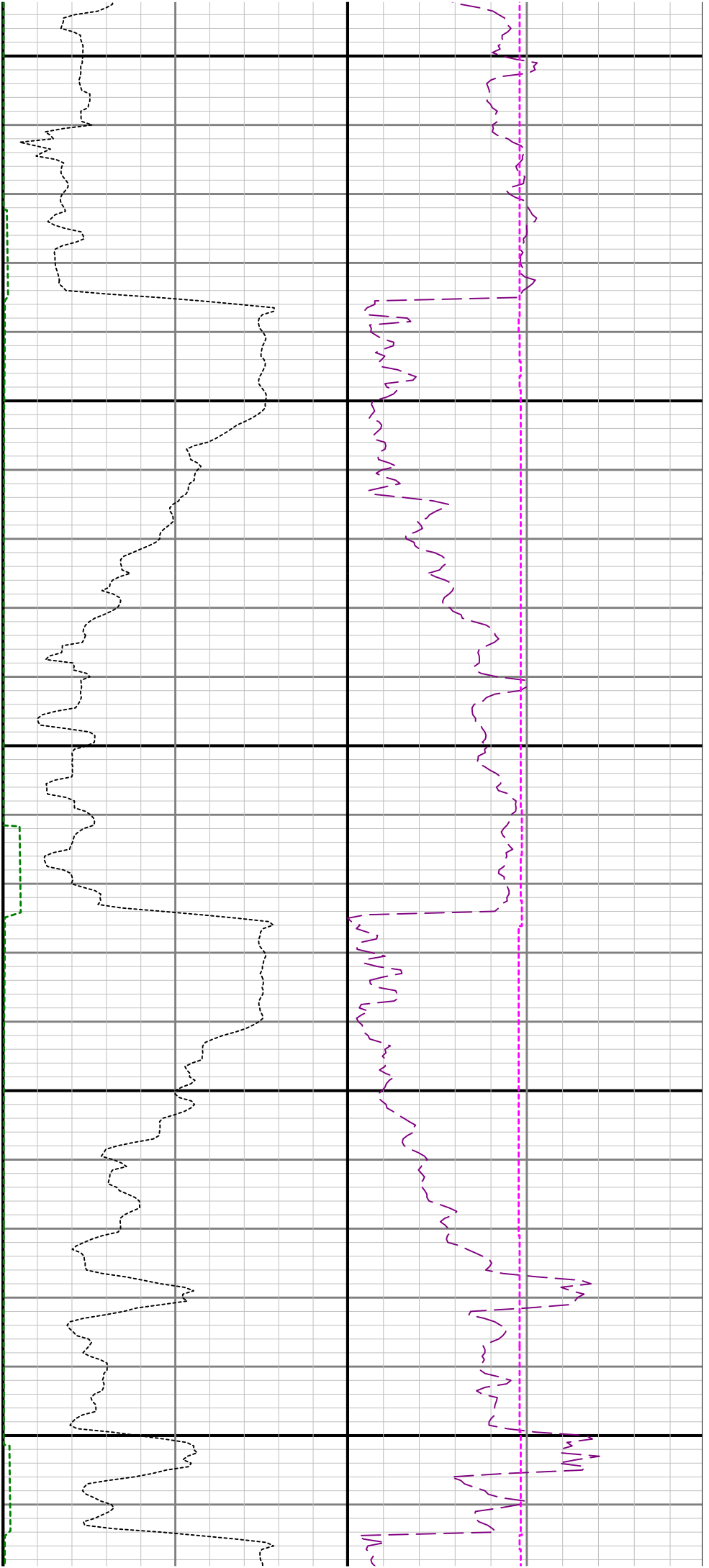
3800

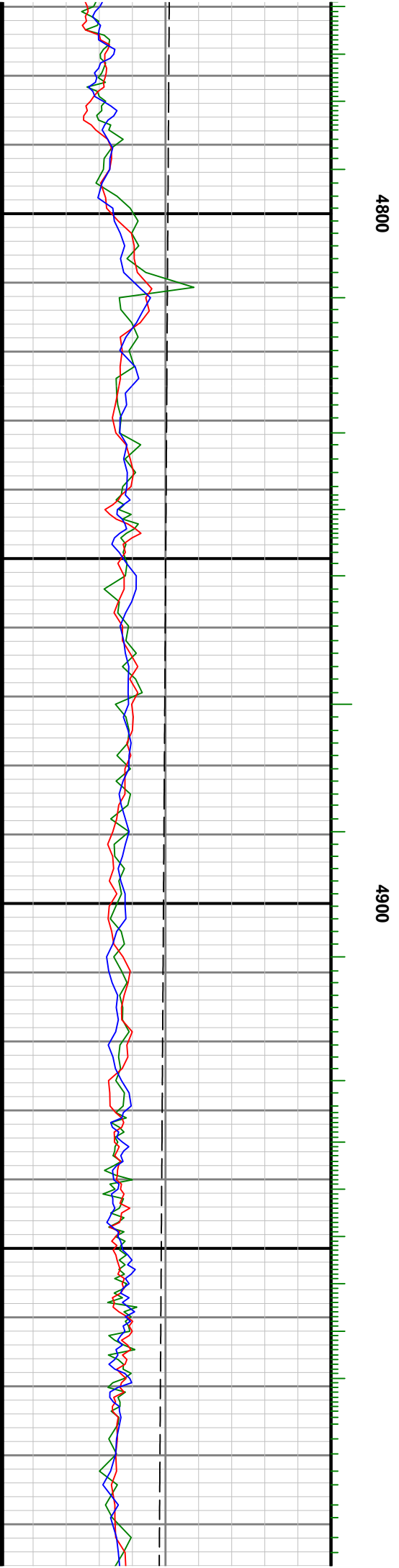
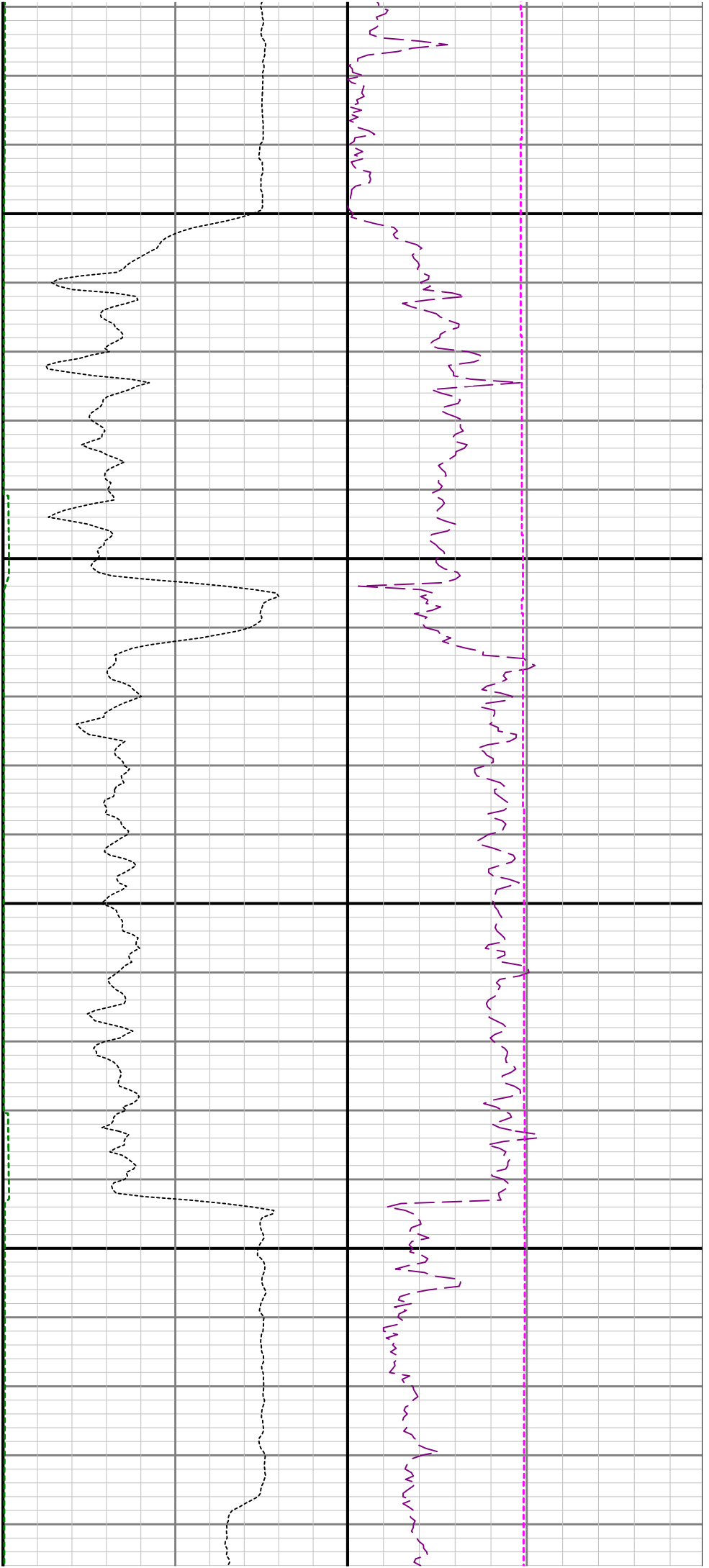


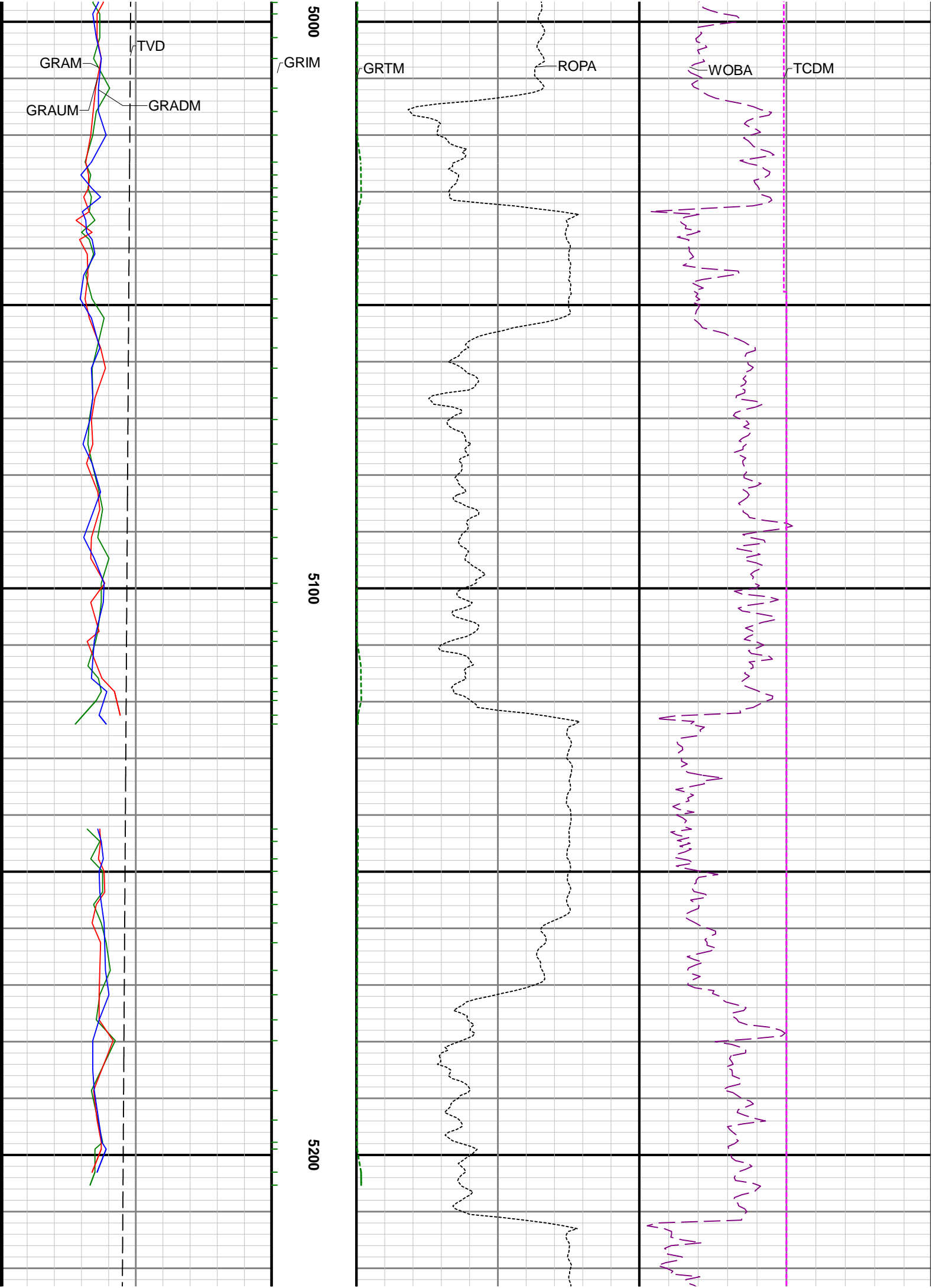


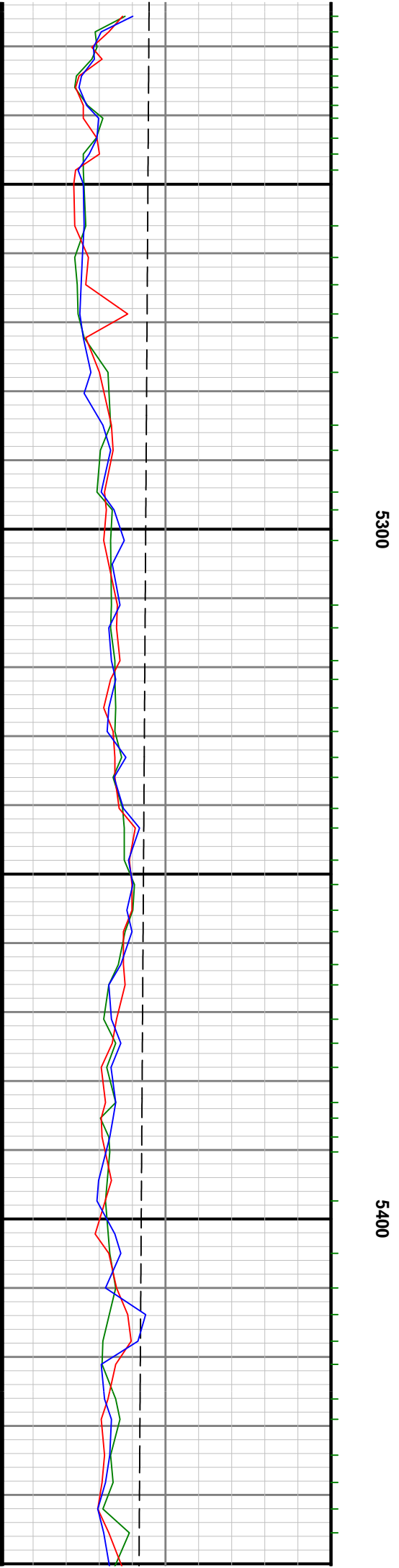
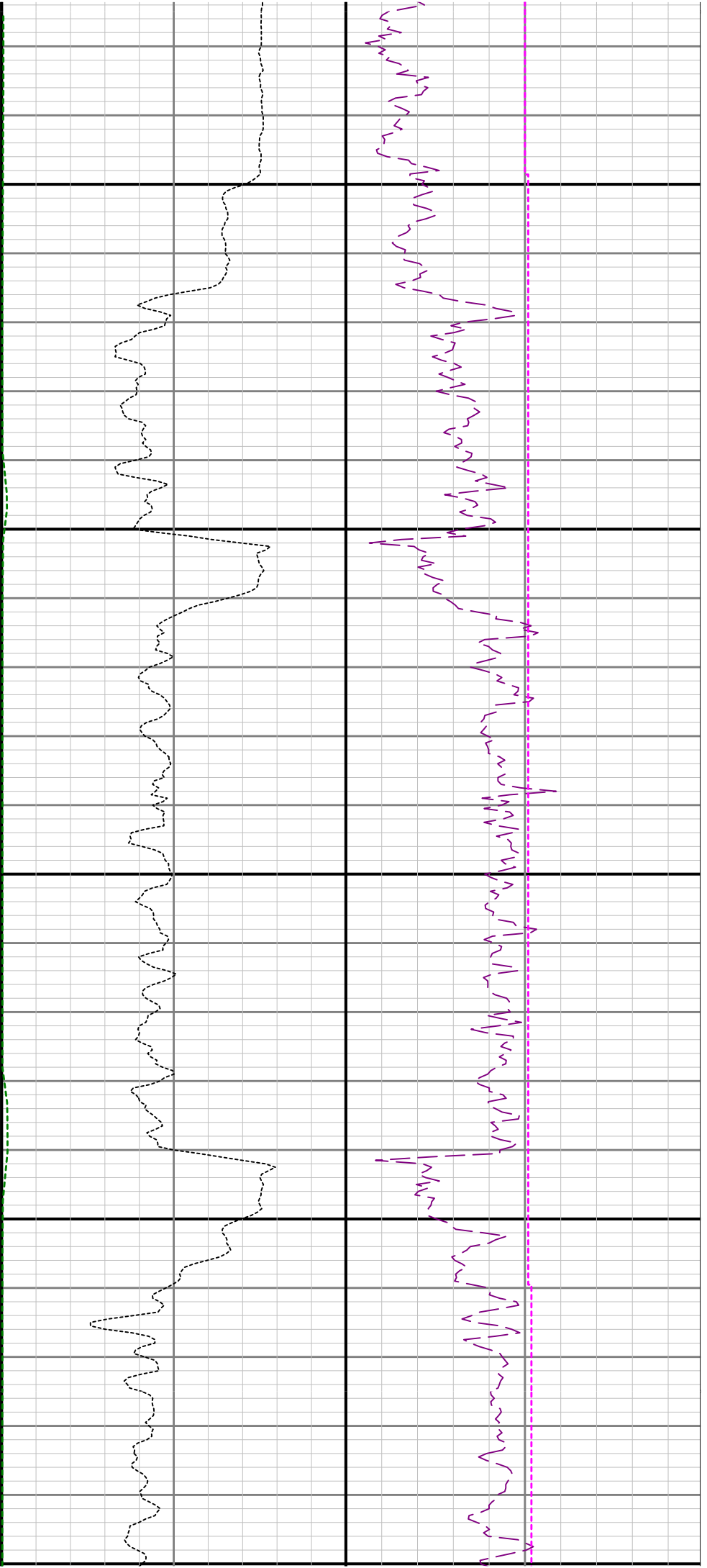


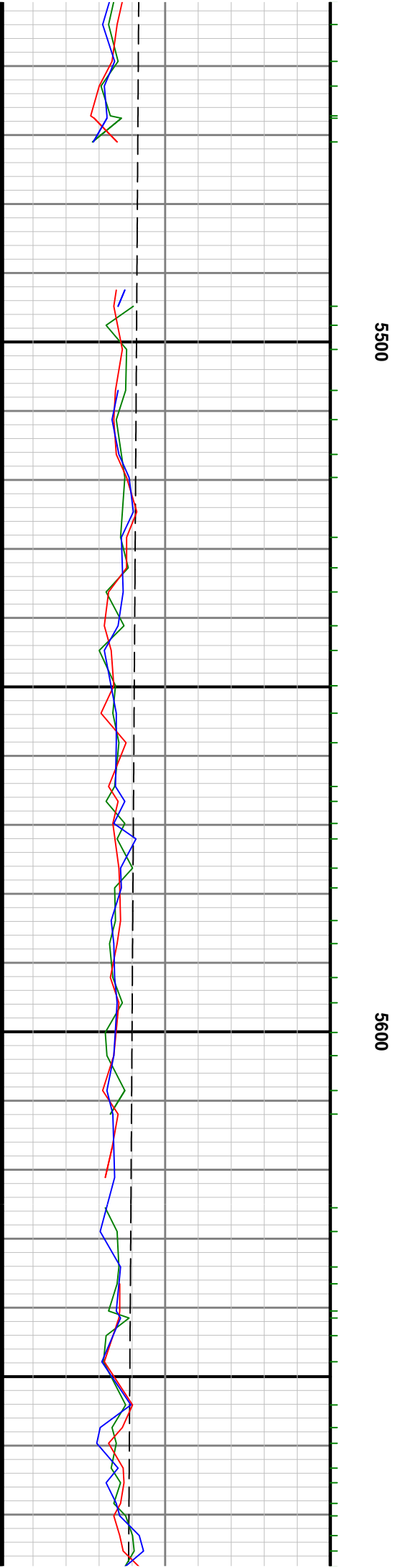
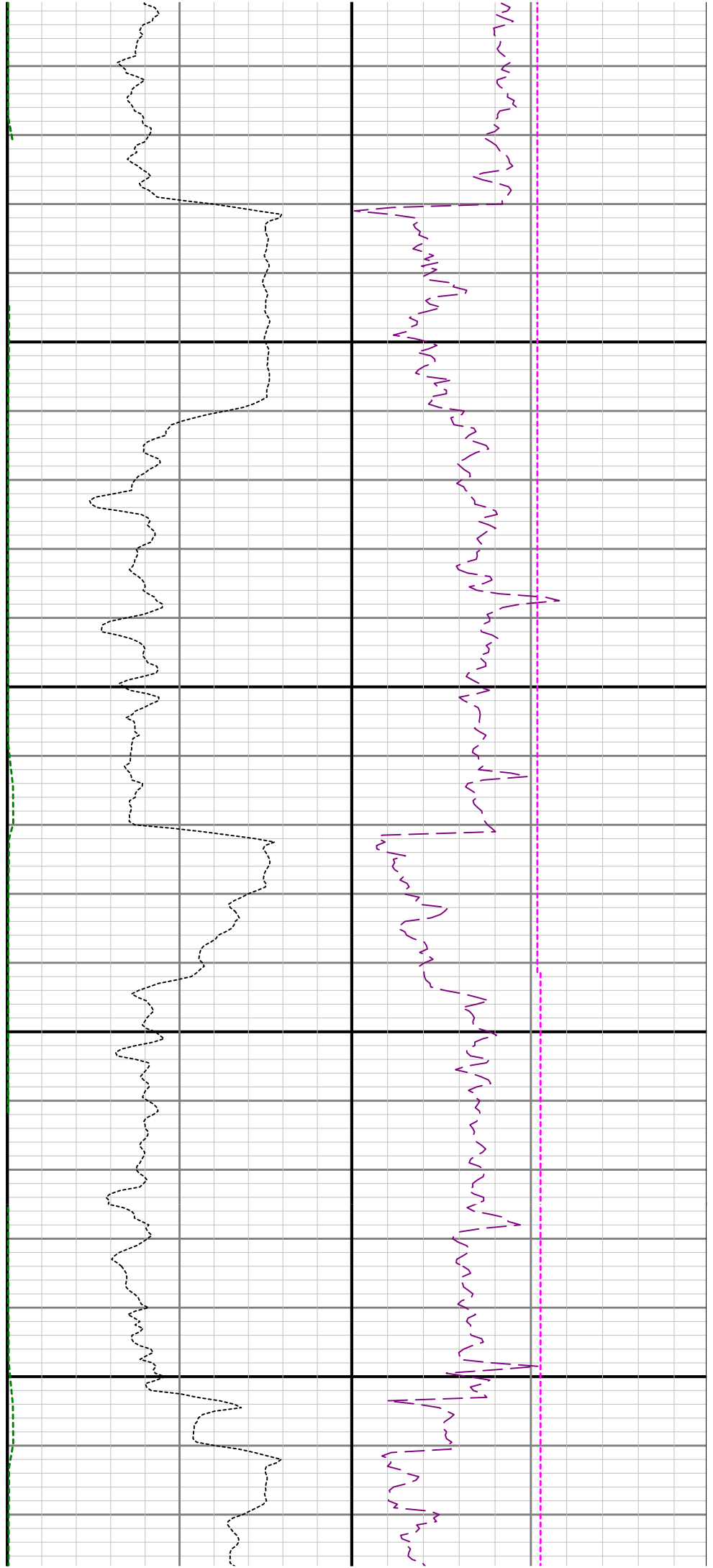


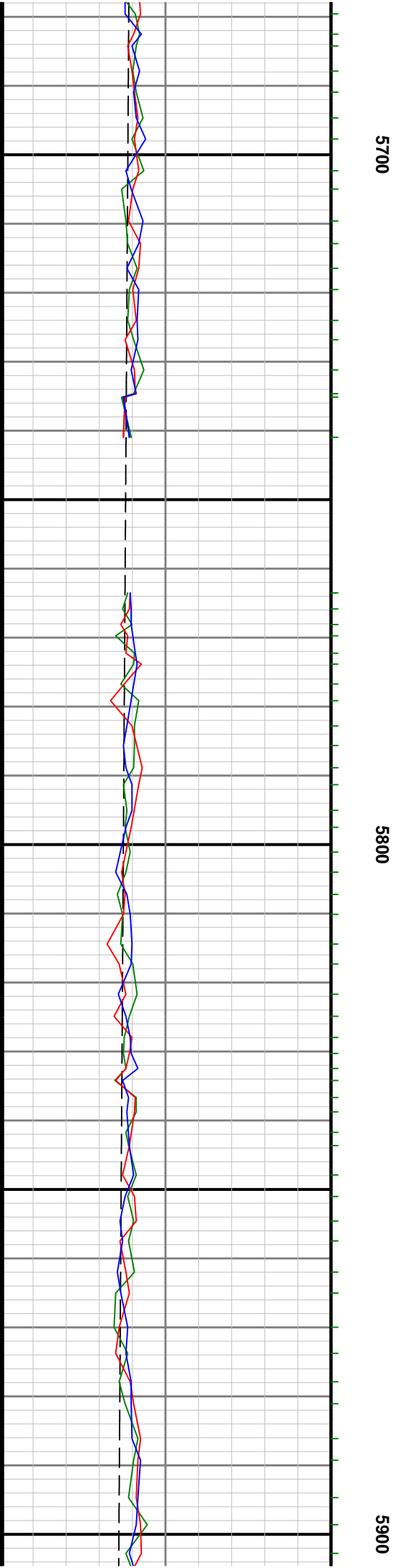
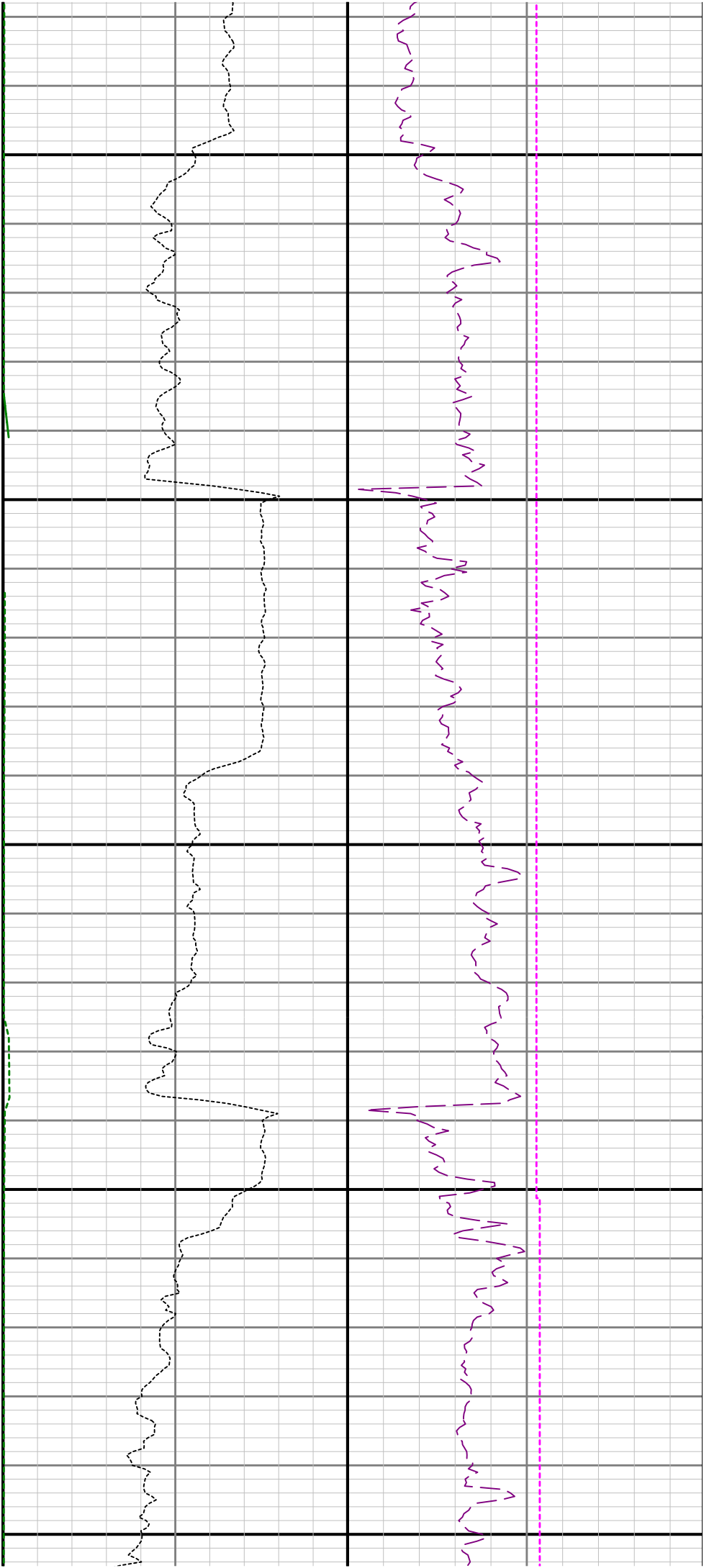


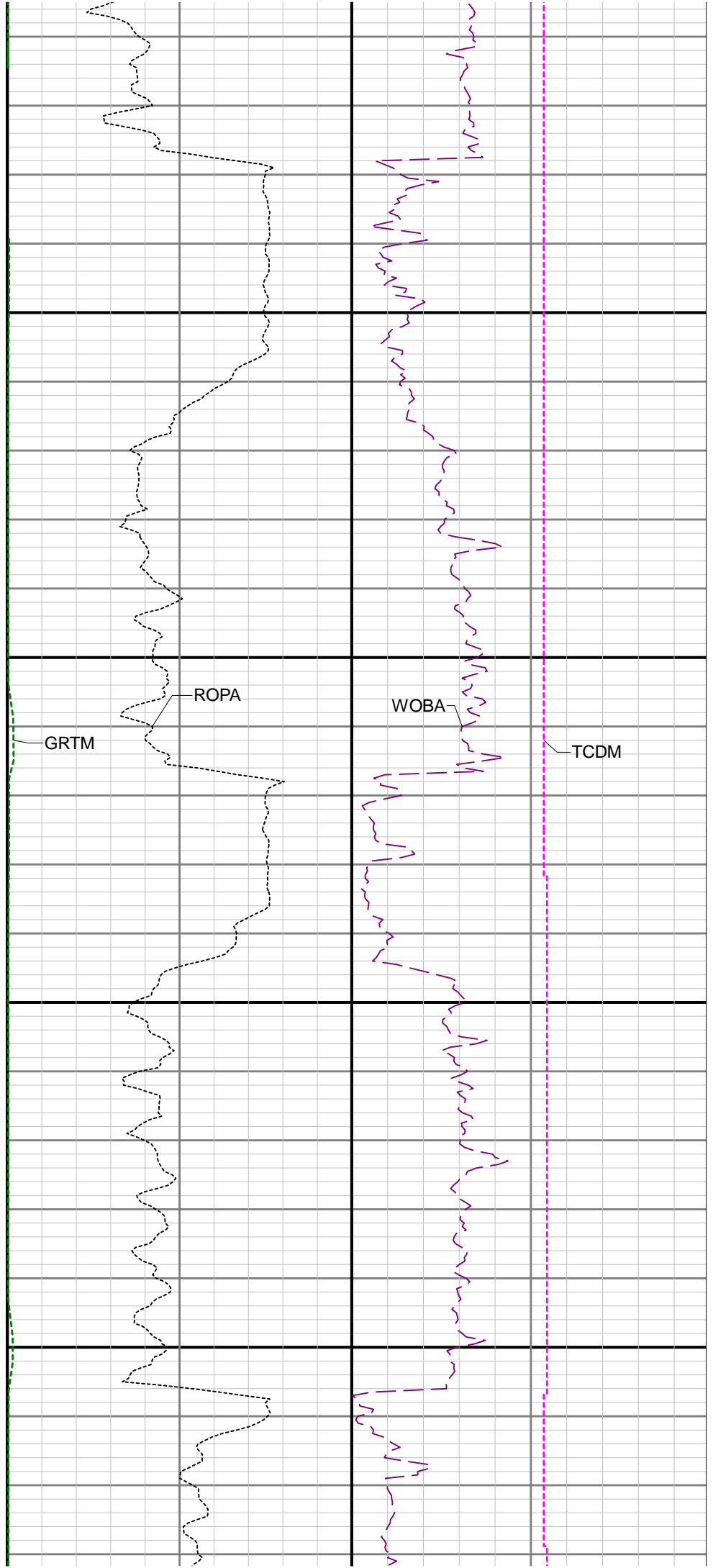
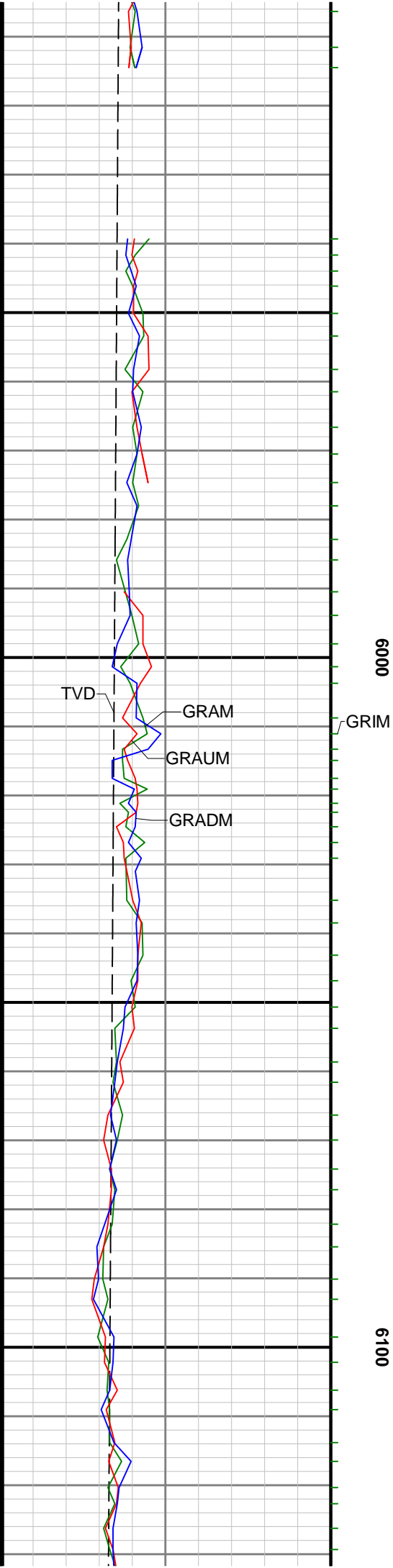


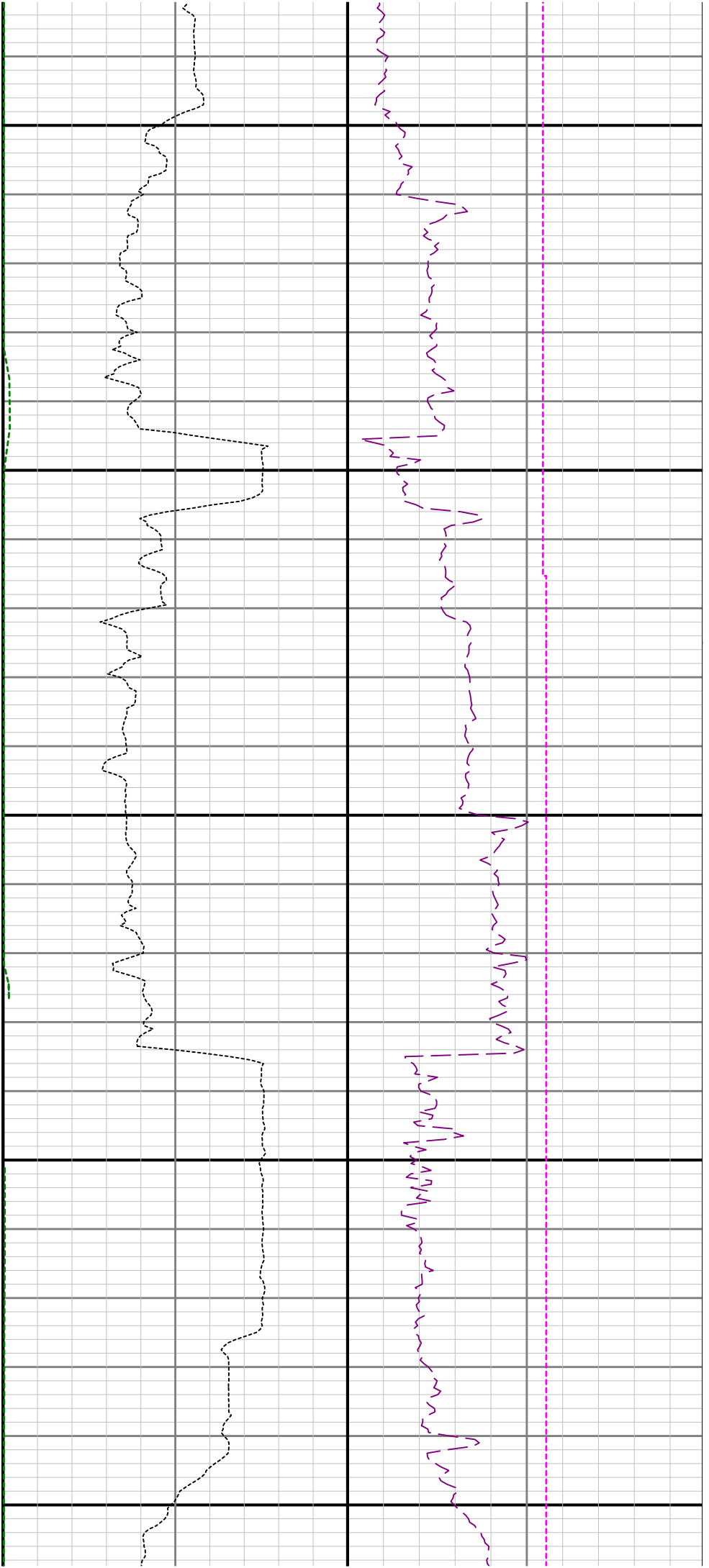






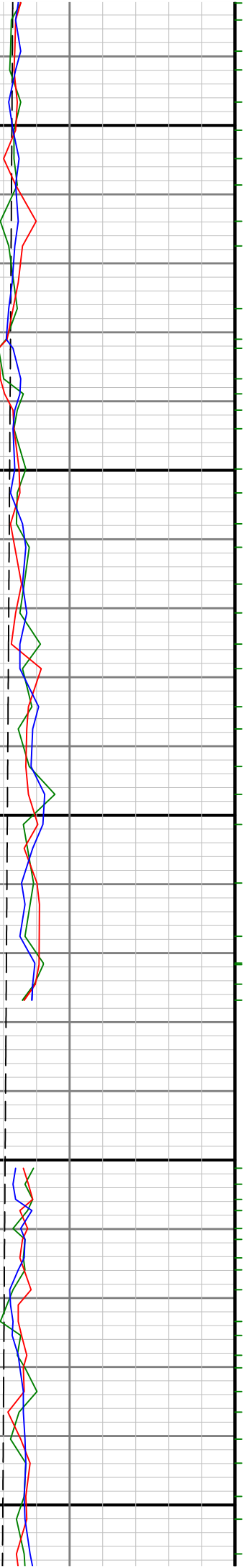


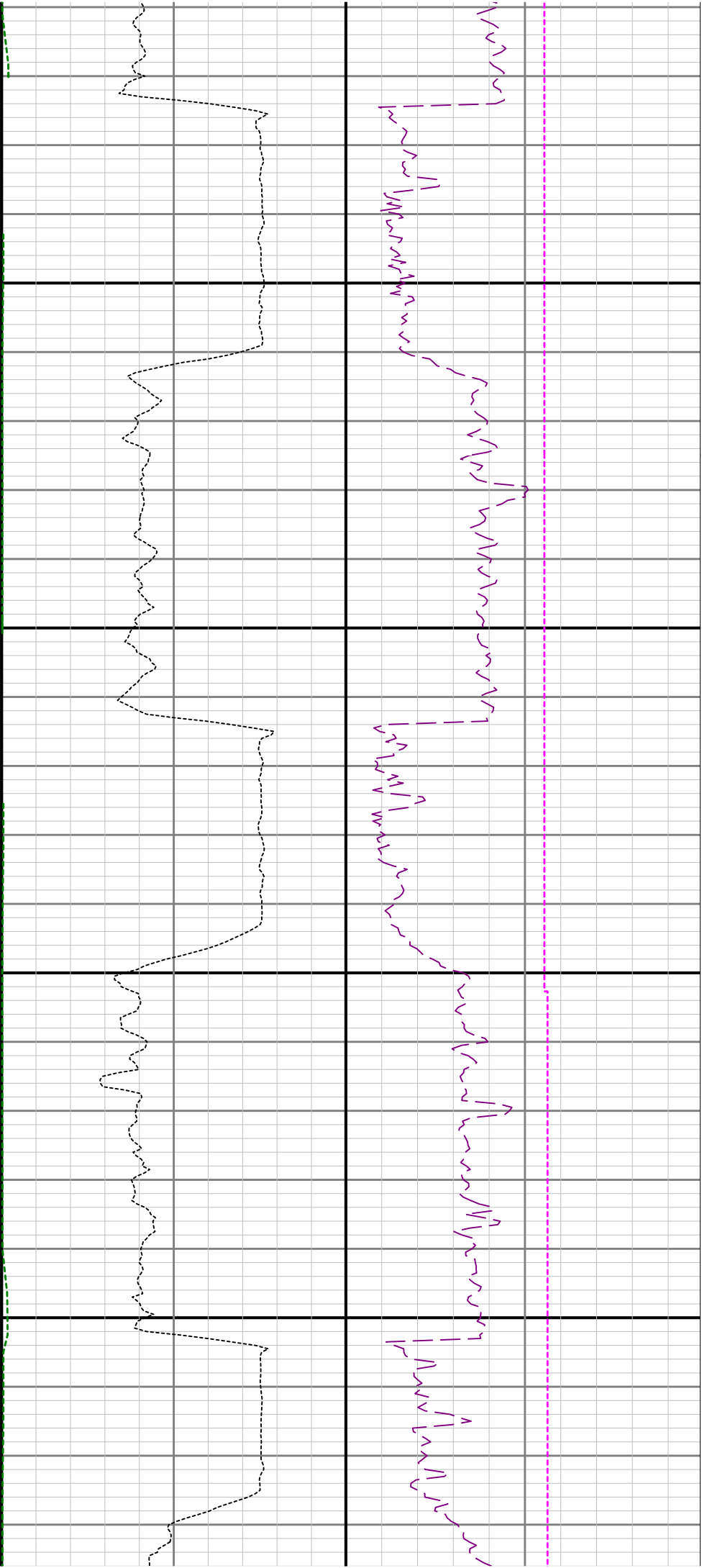




6200

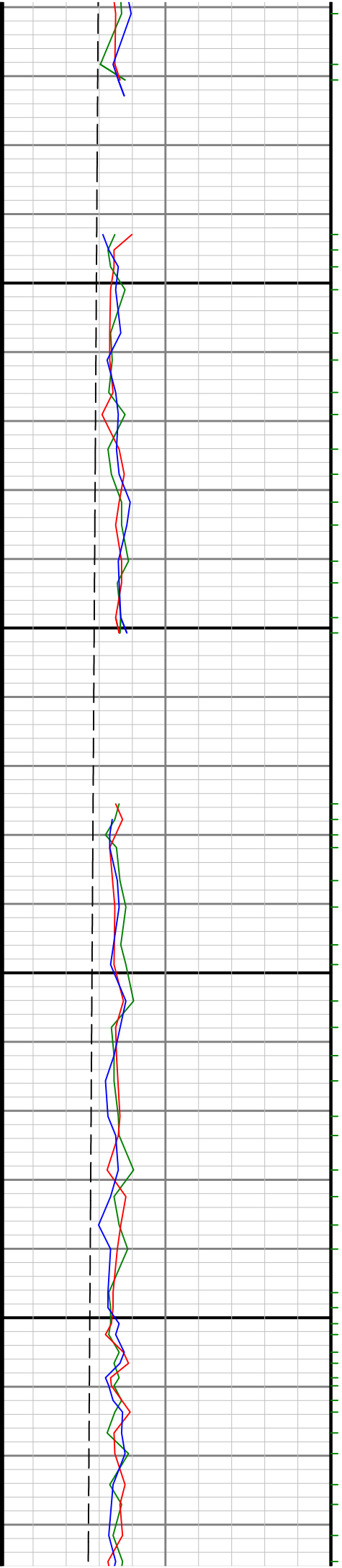
6300

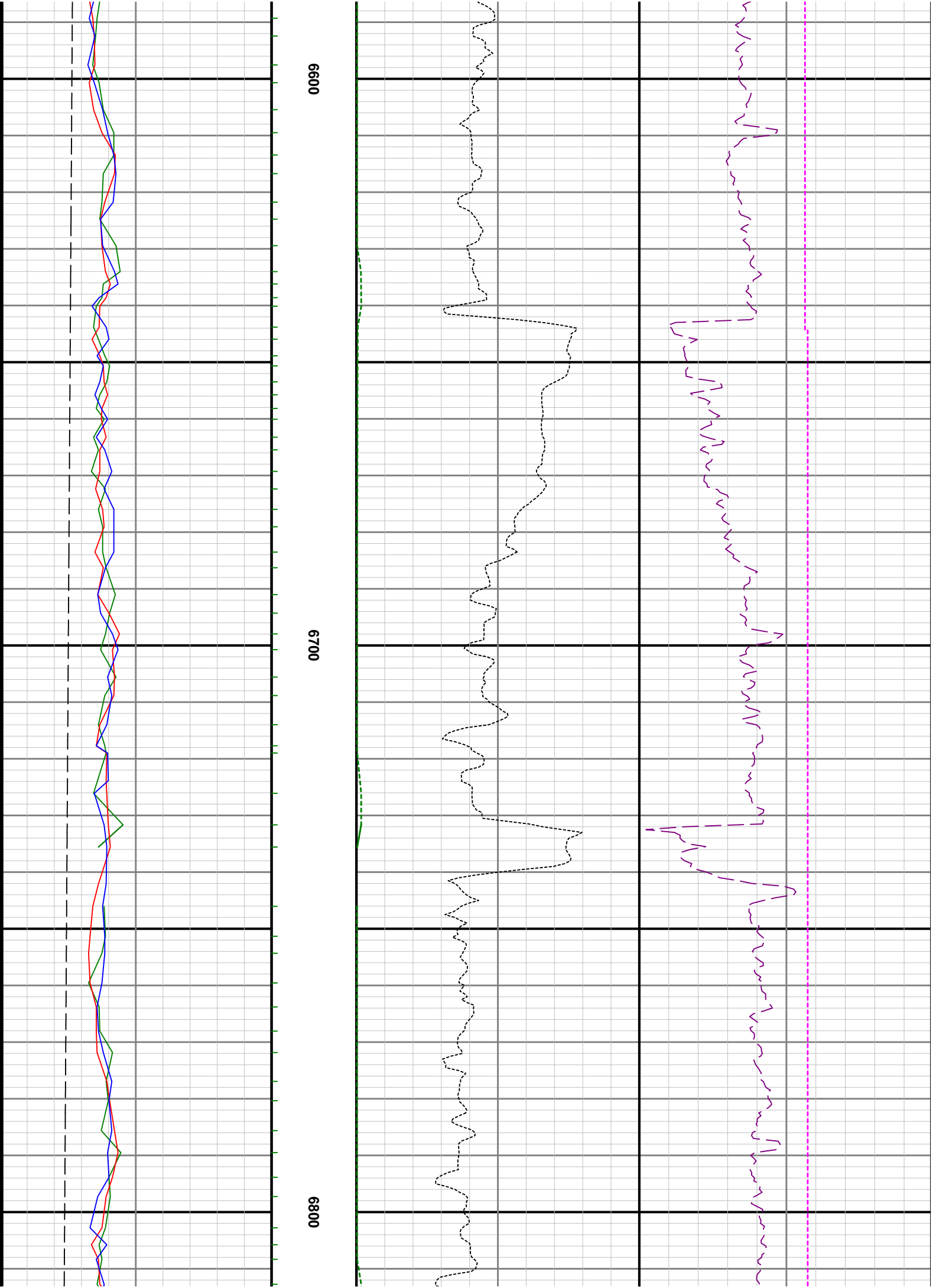


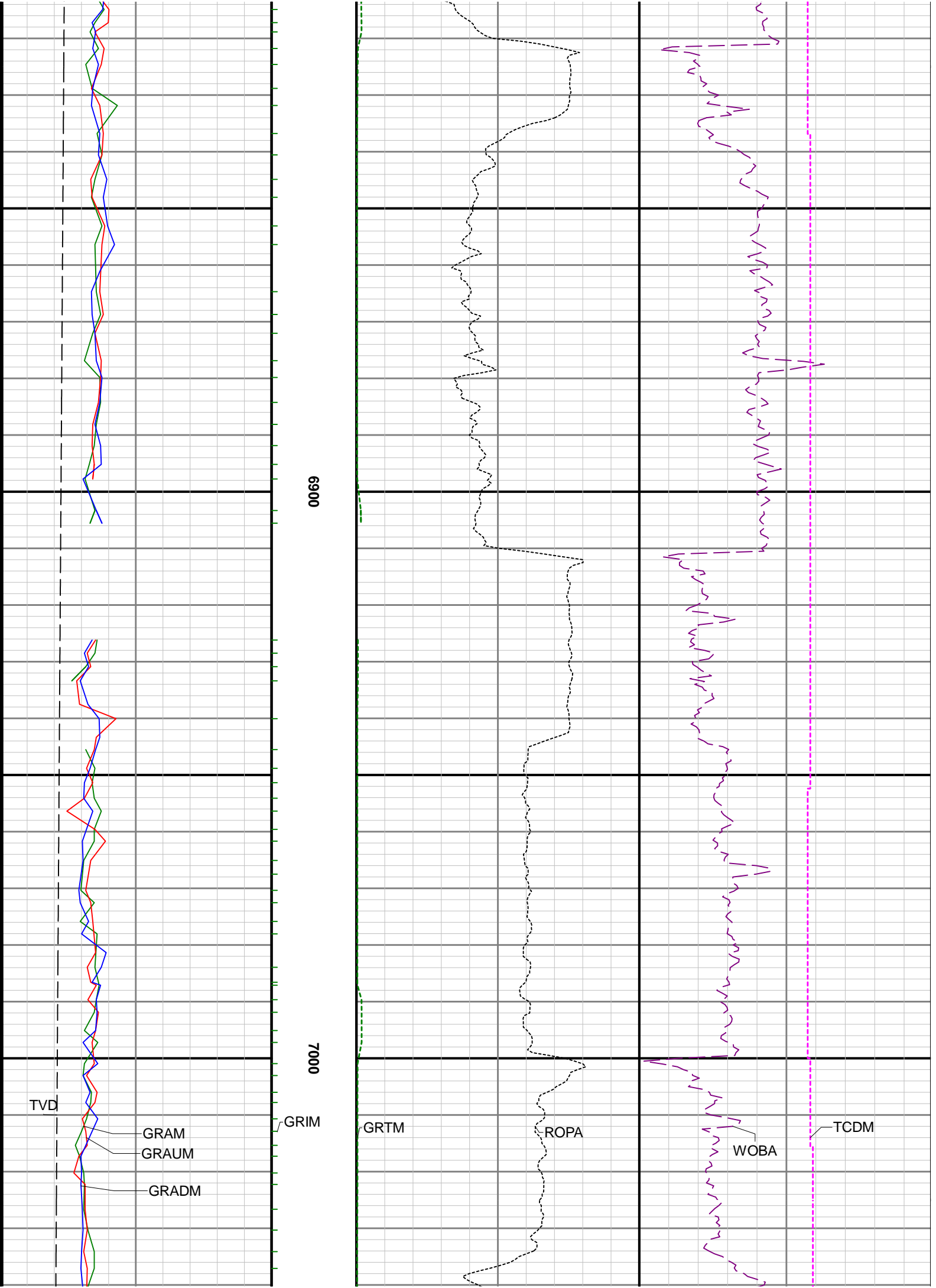


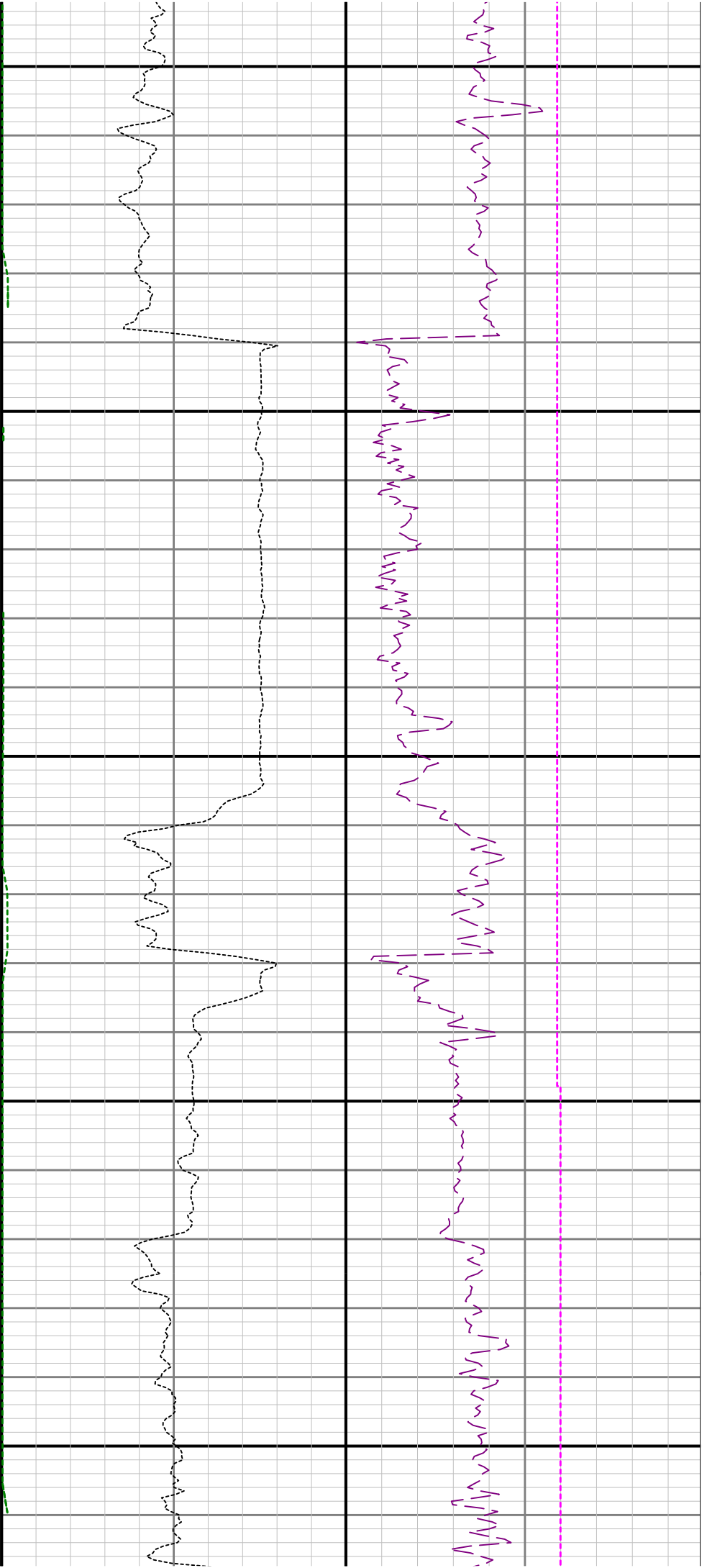
6400

6500



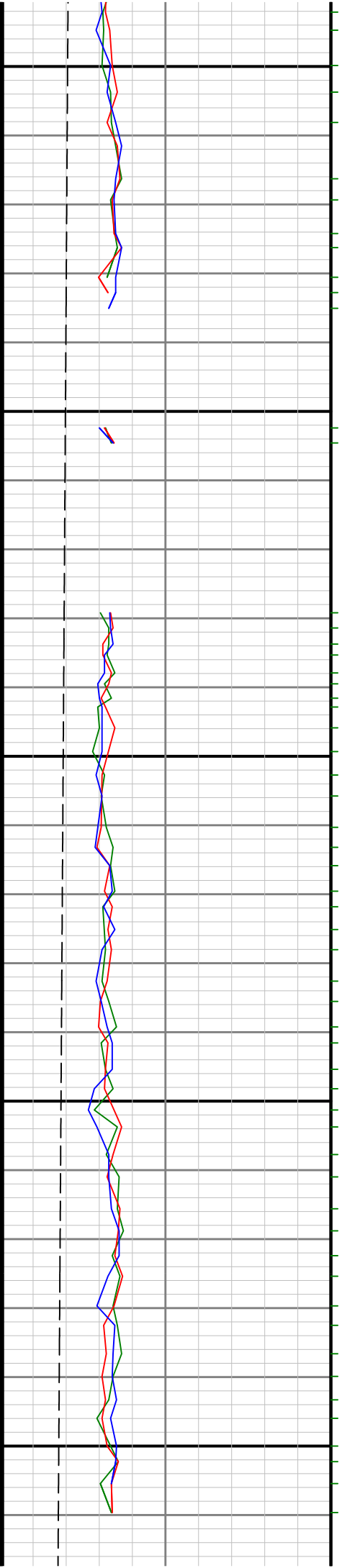


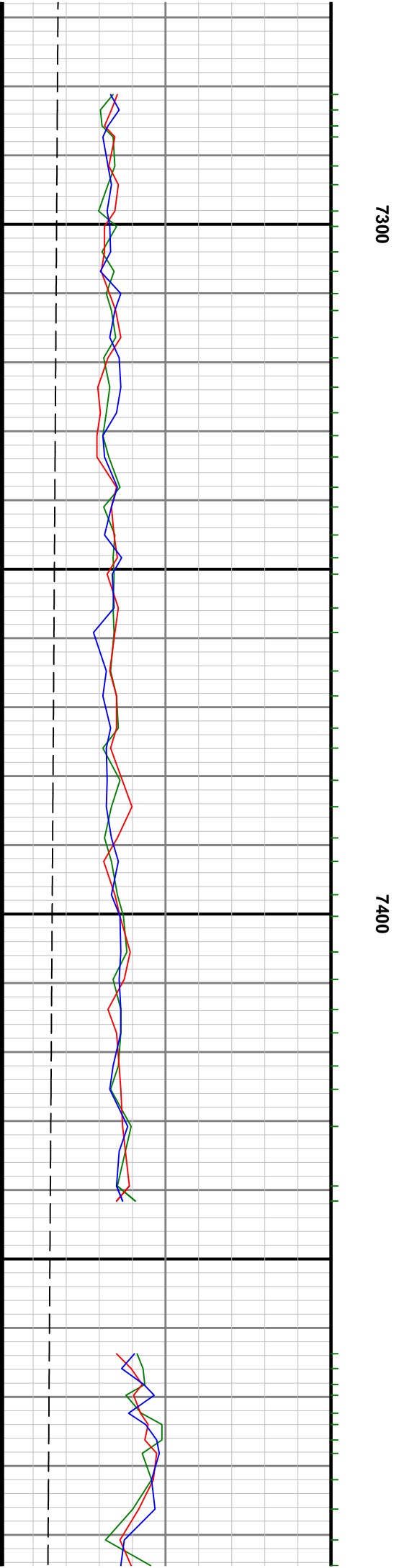
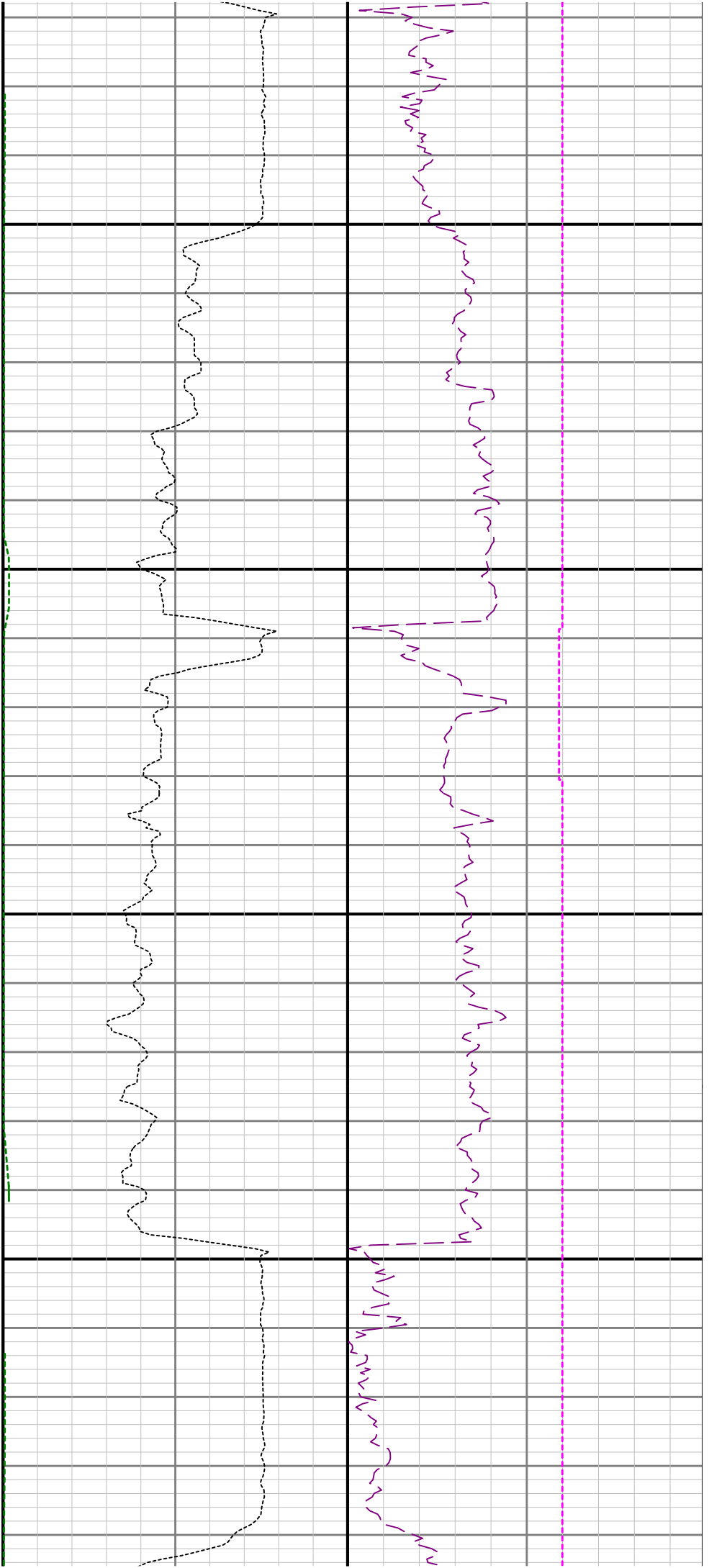


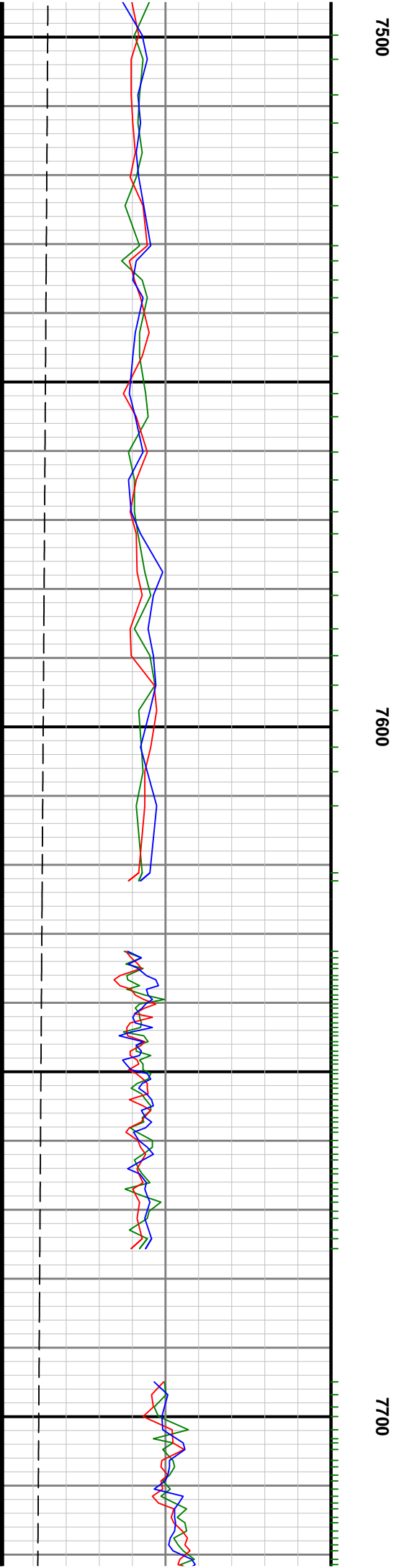
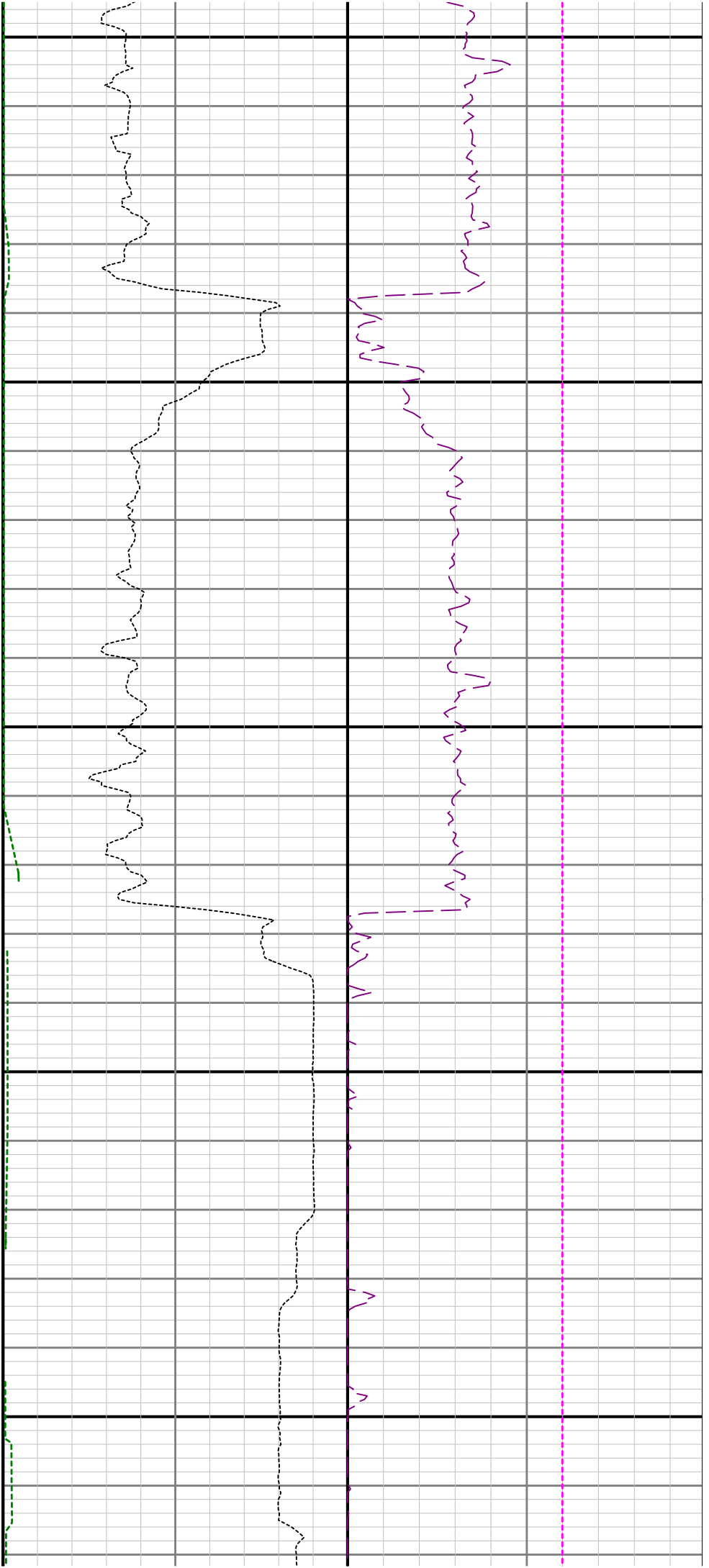


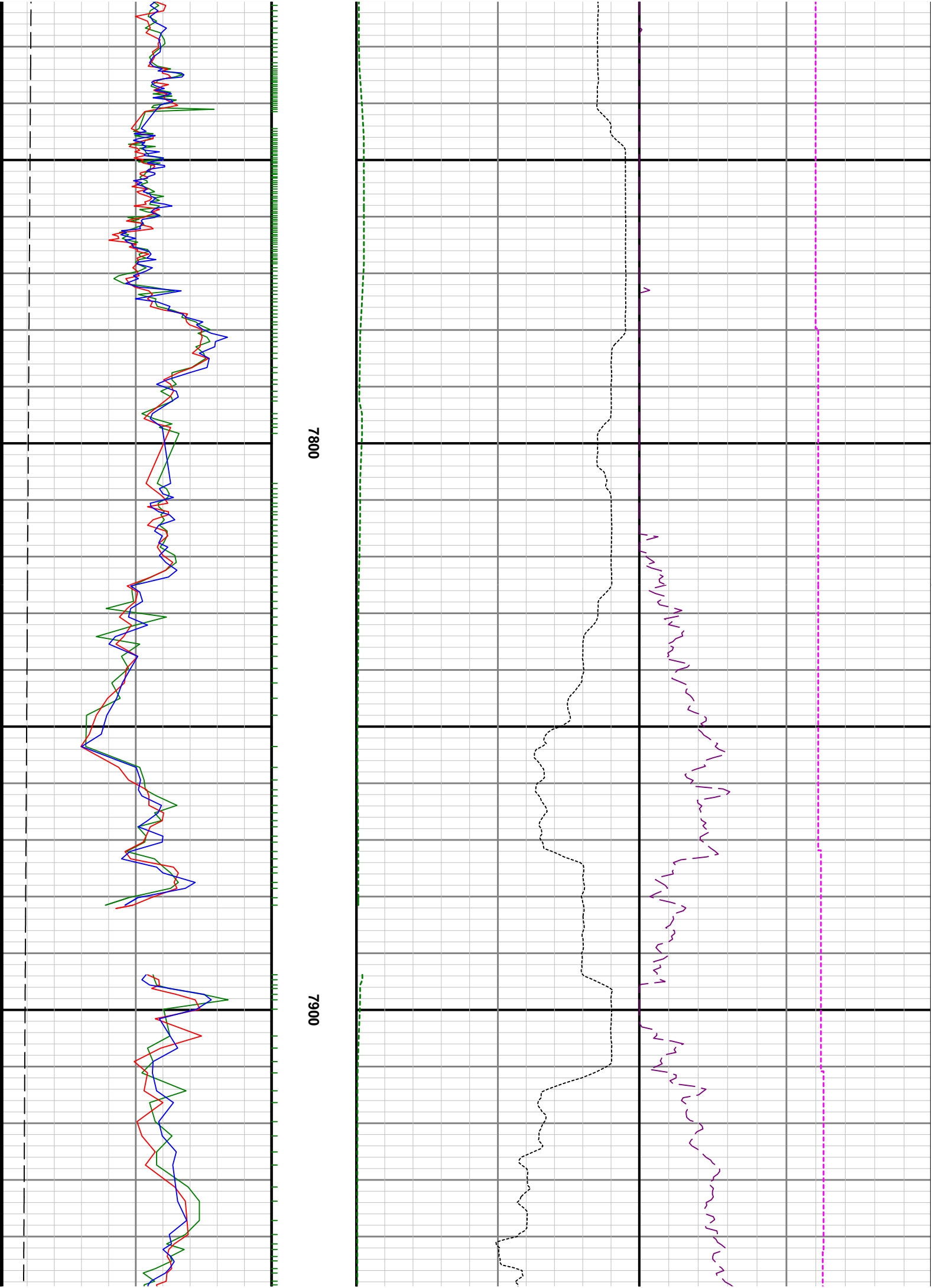
7100

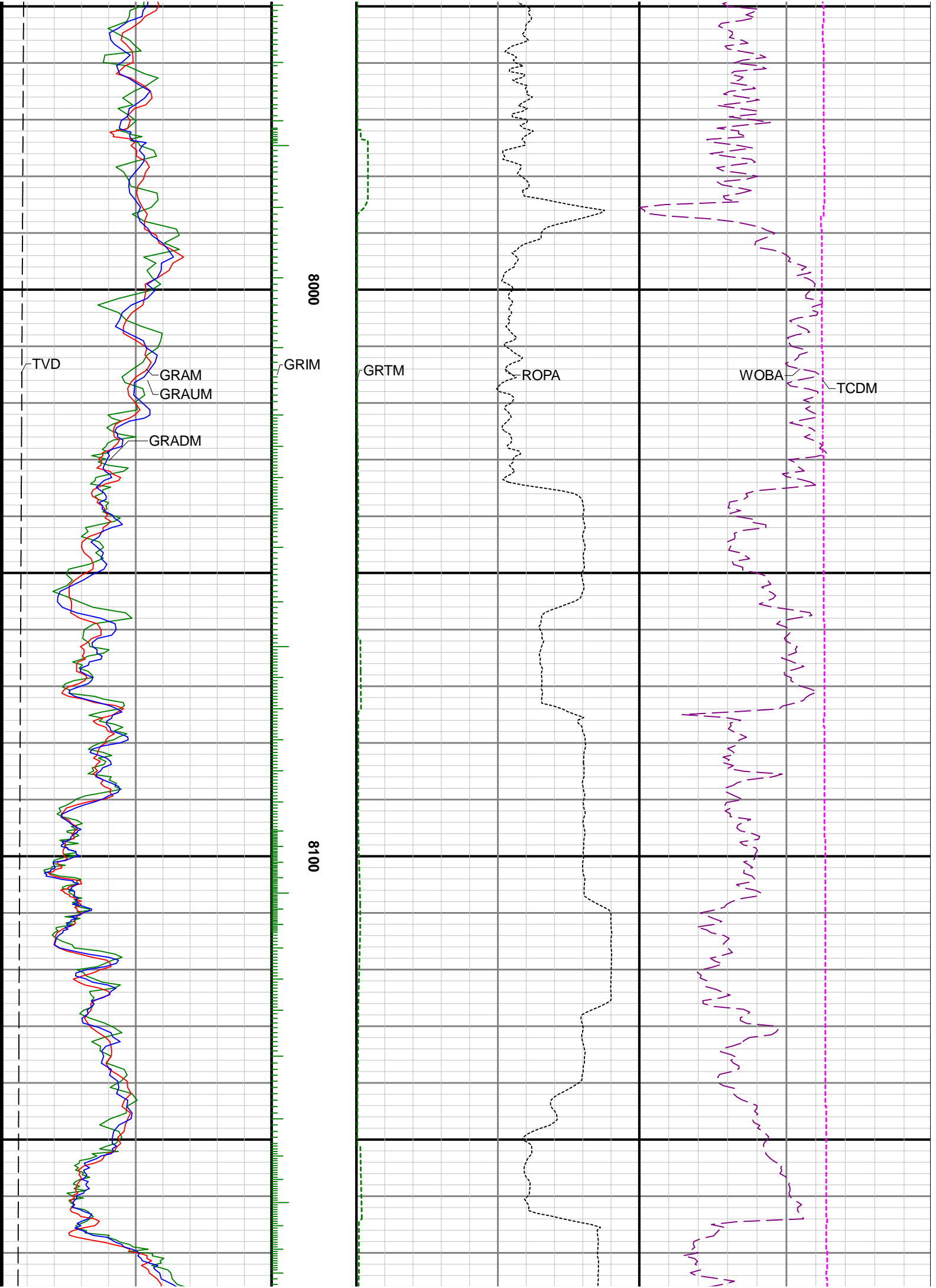
7200

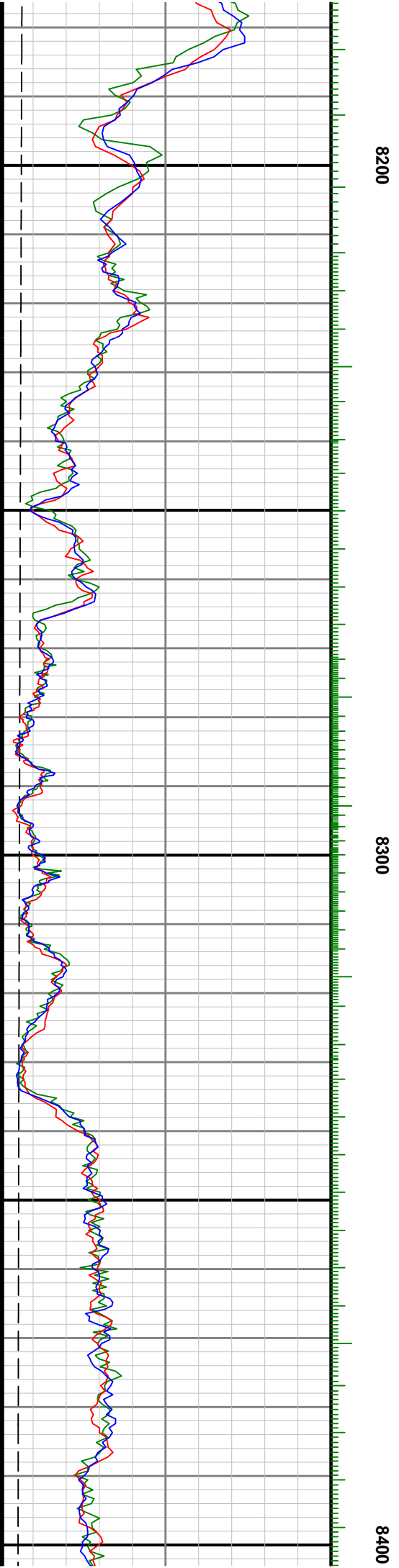
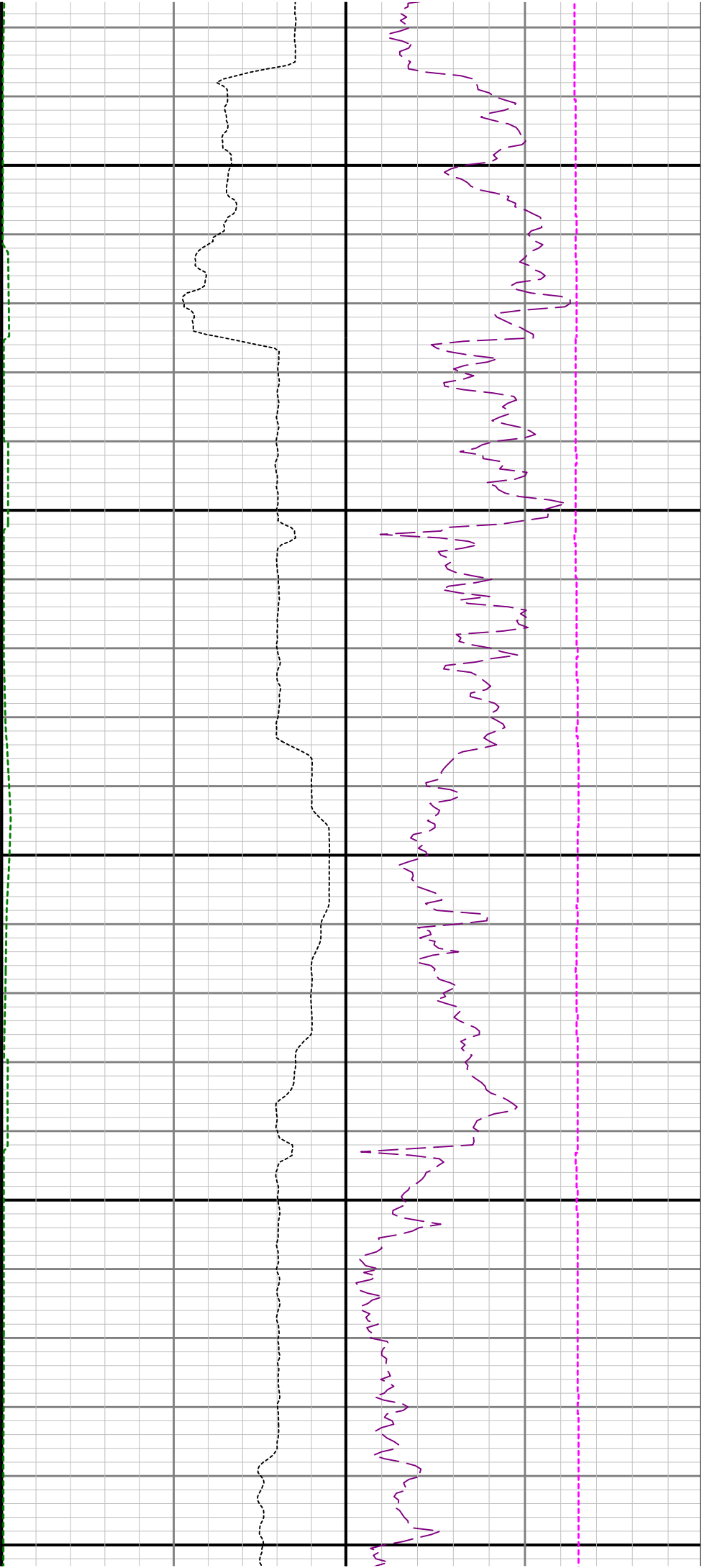


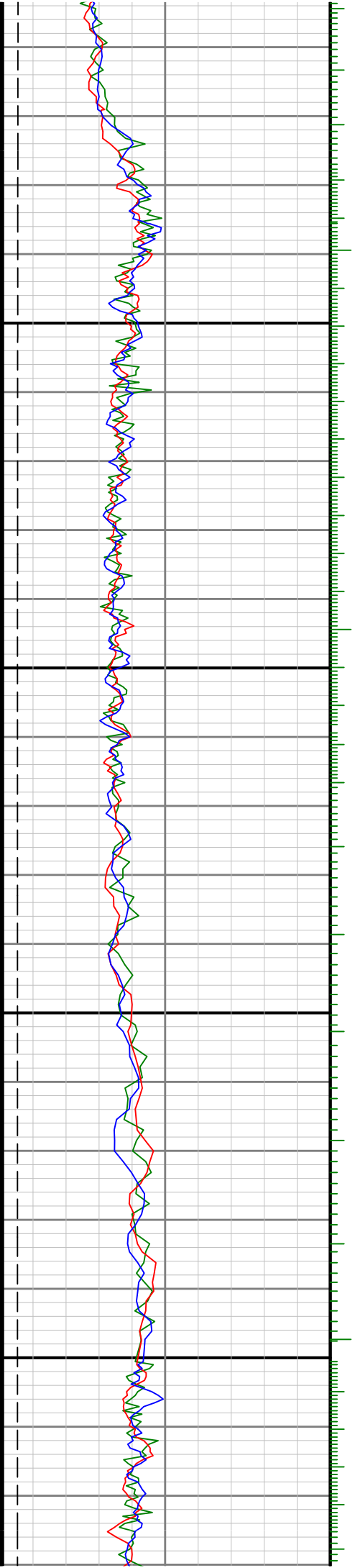






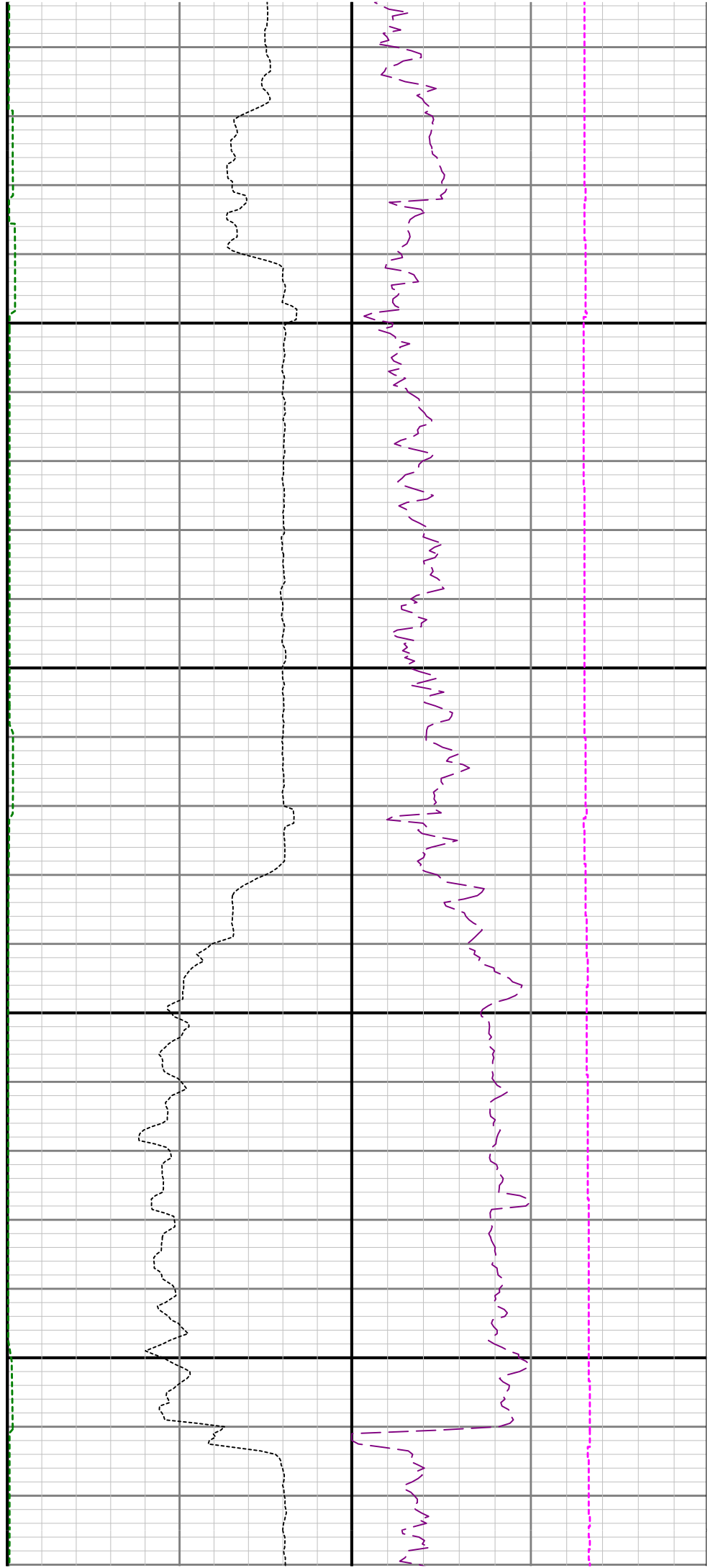


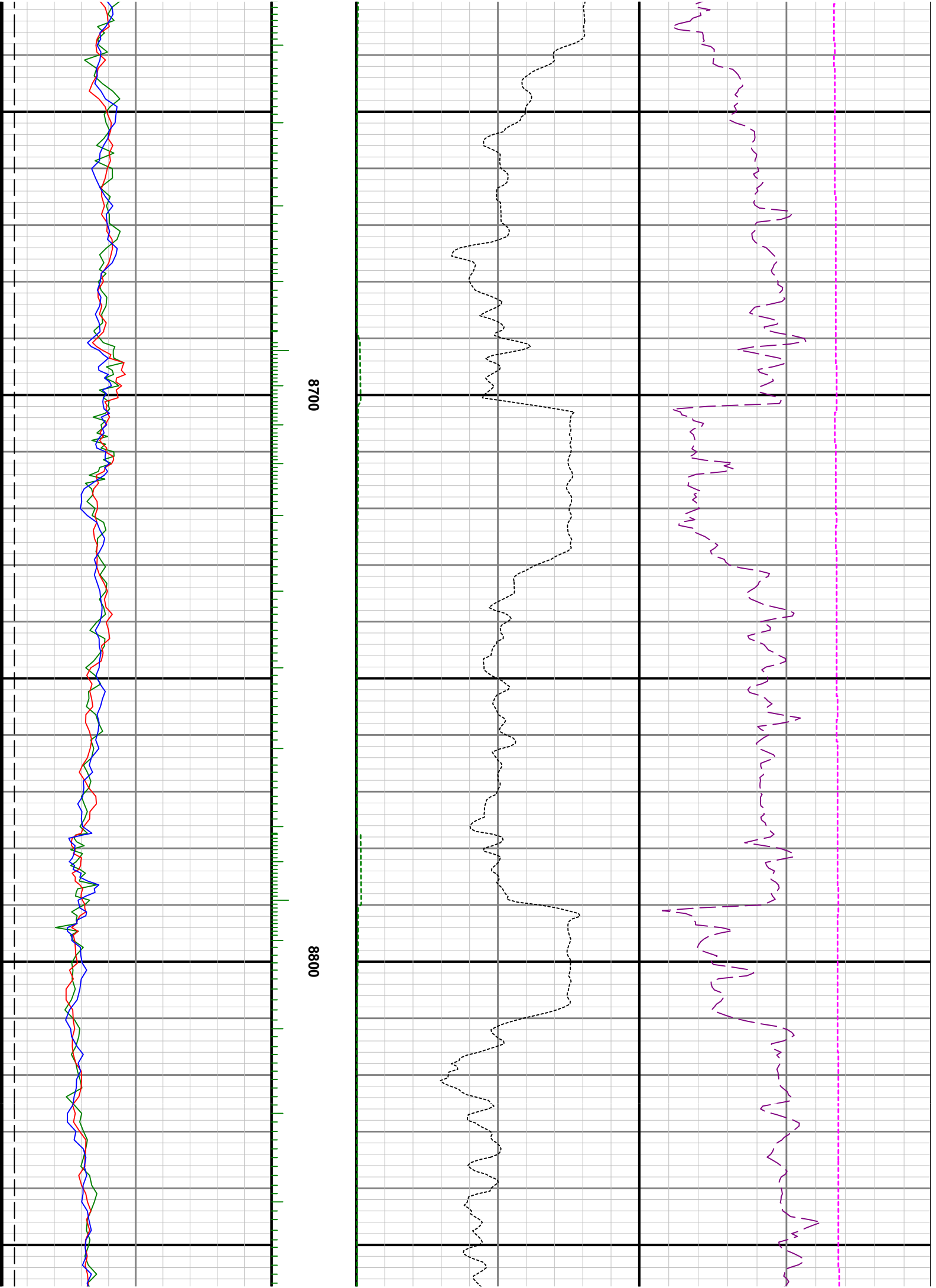


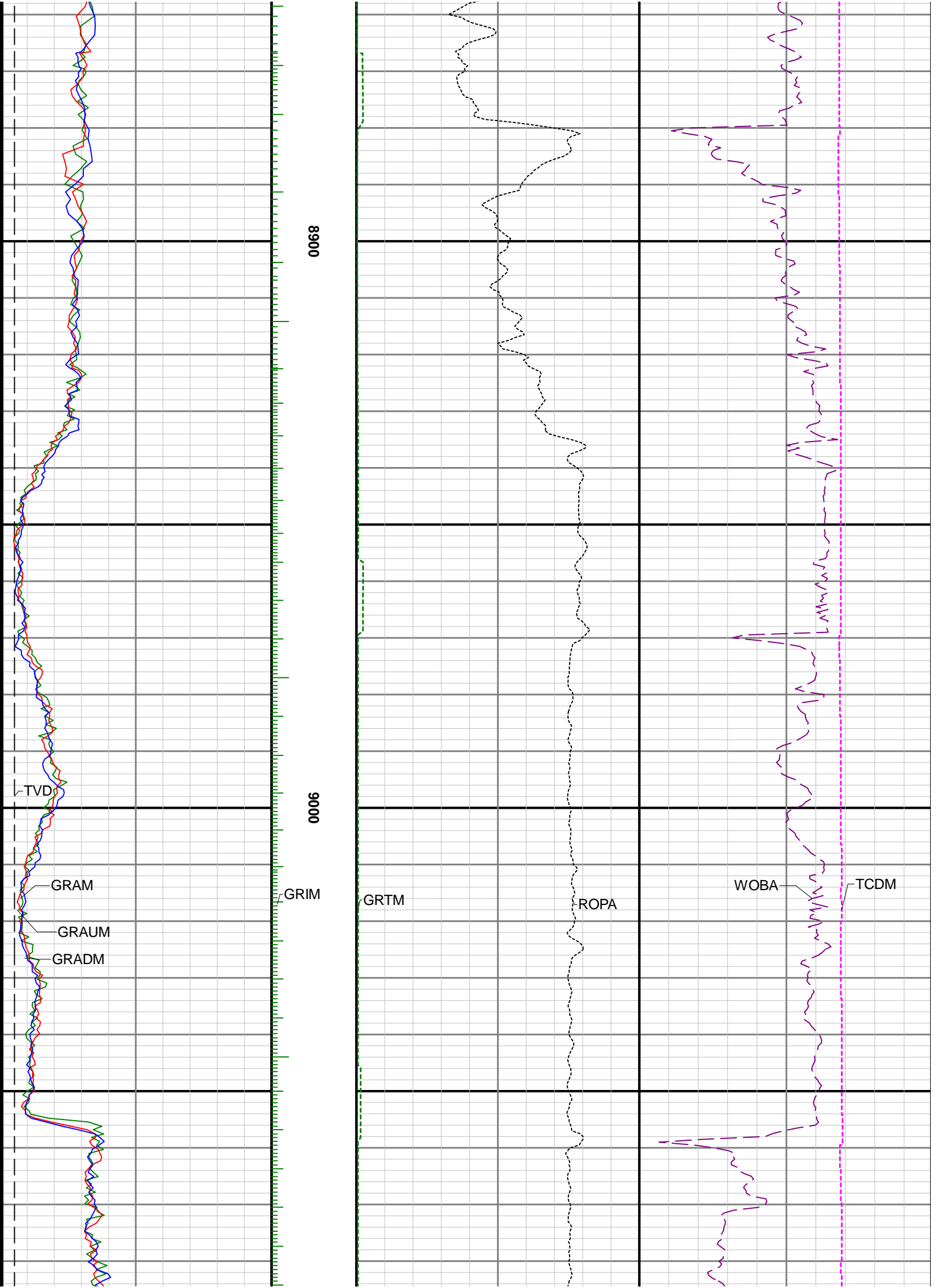


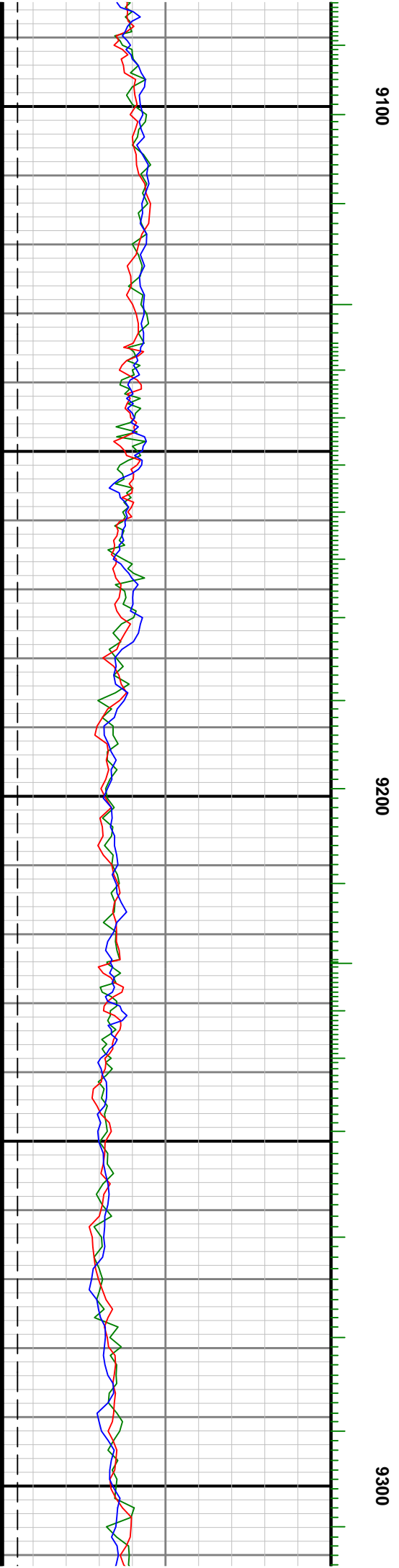
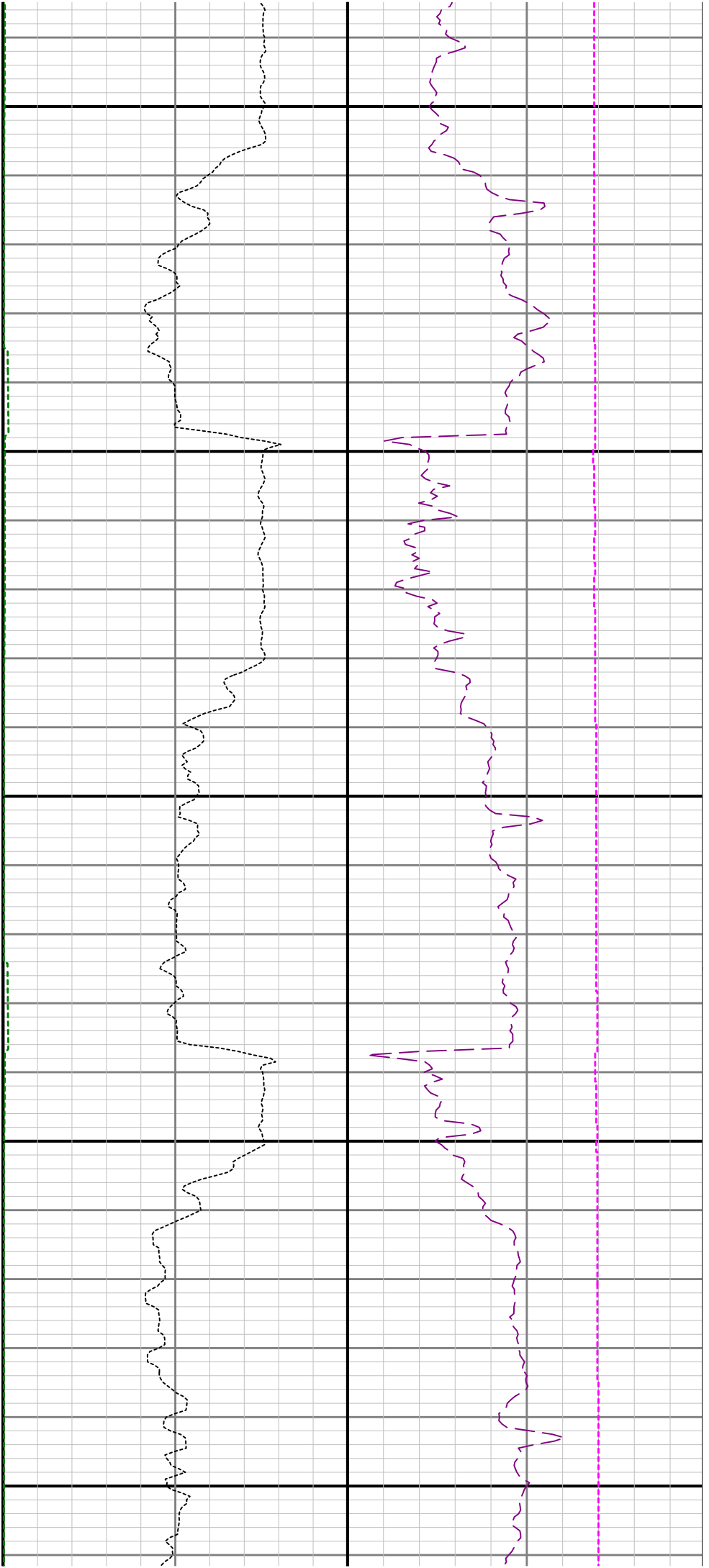
8500

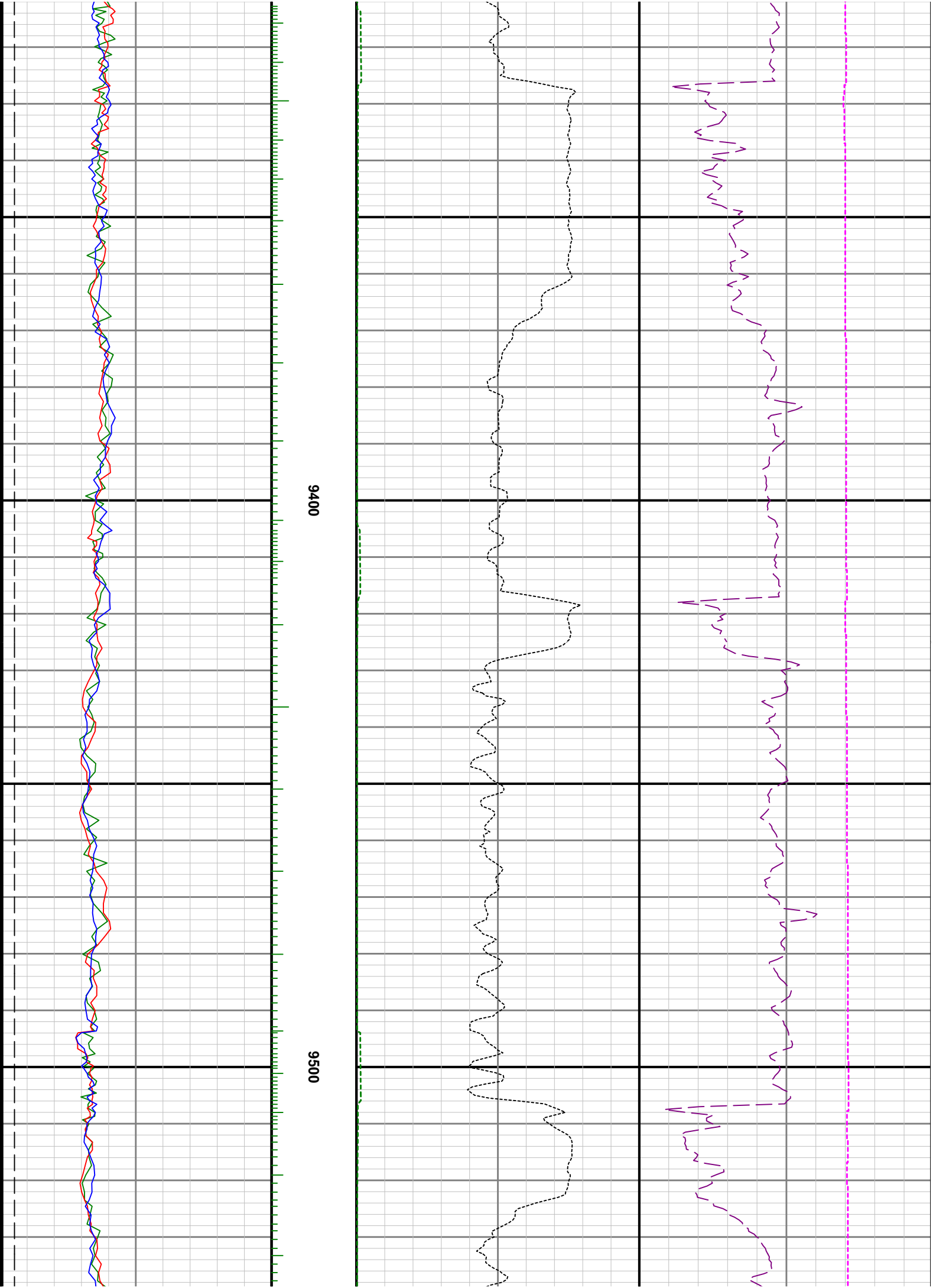
8600

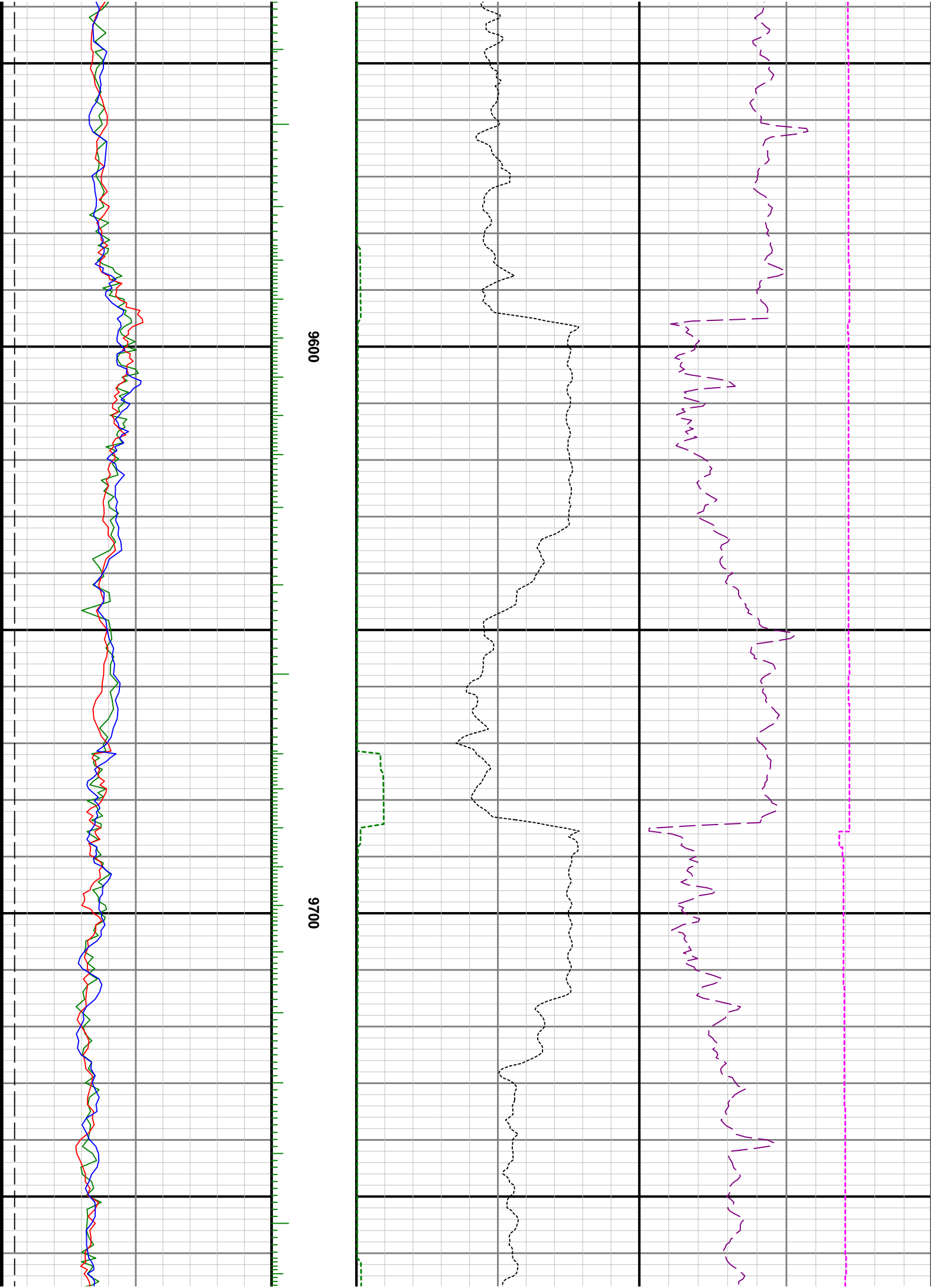


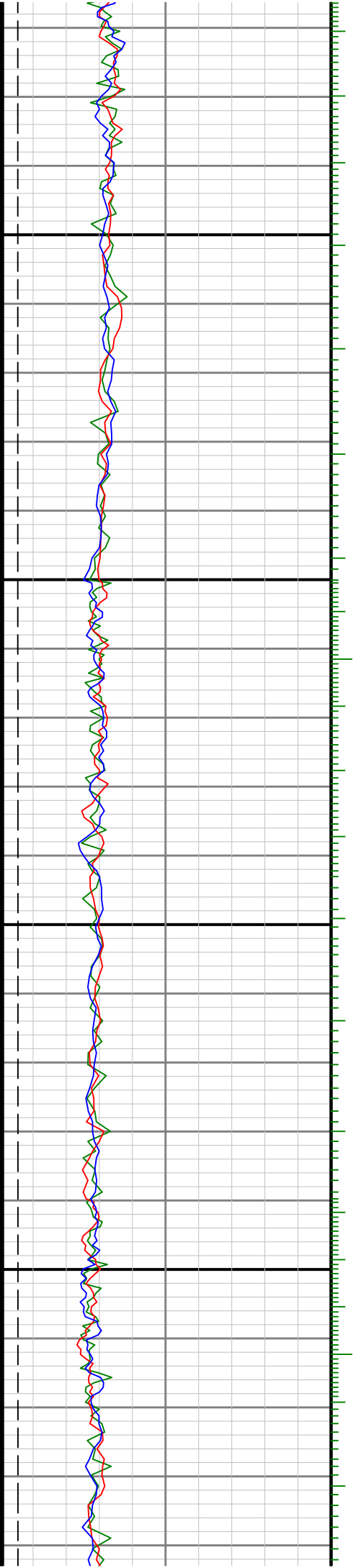






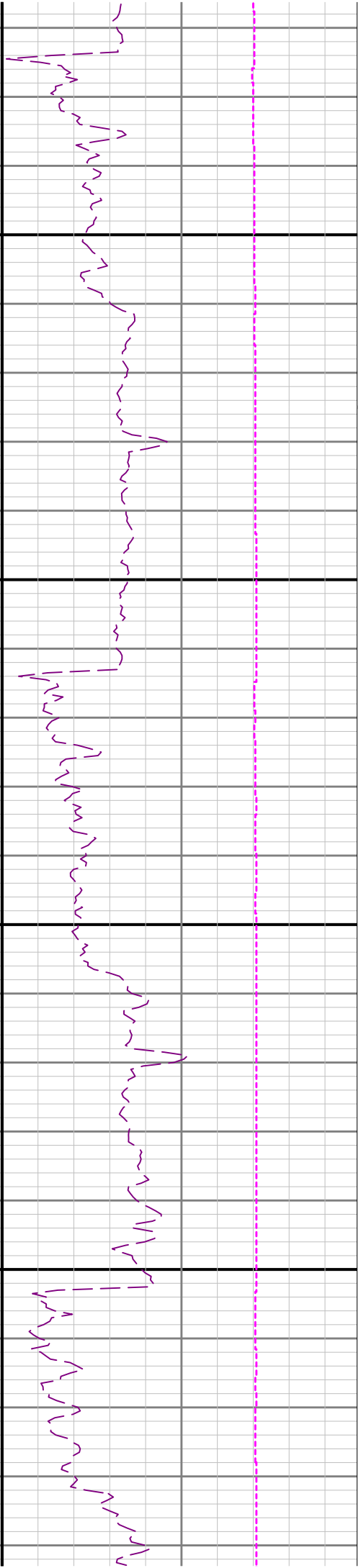
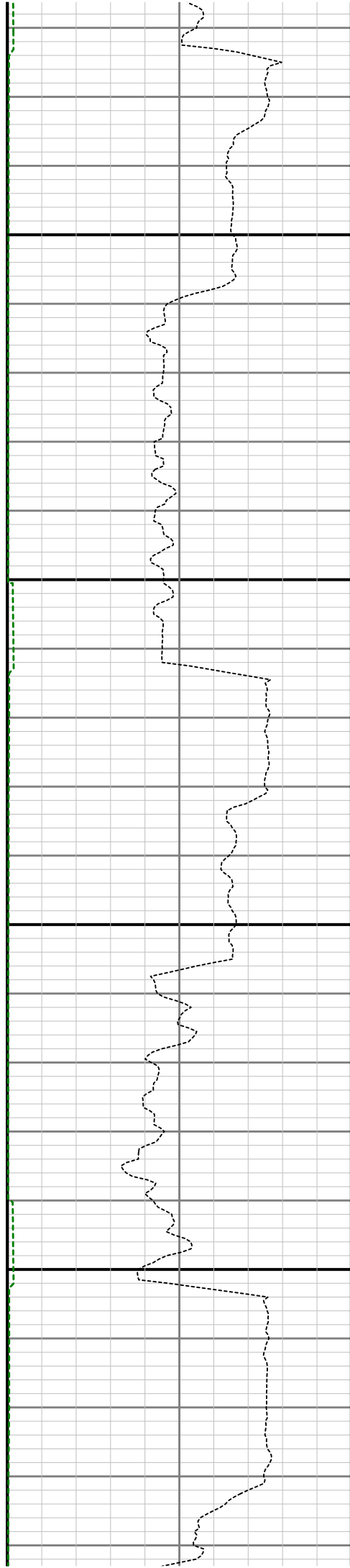


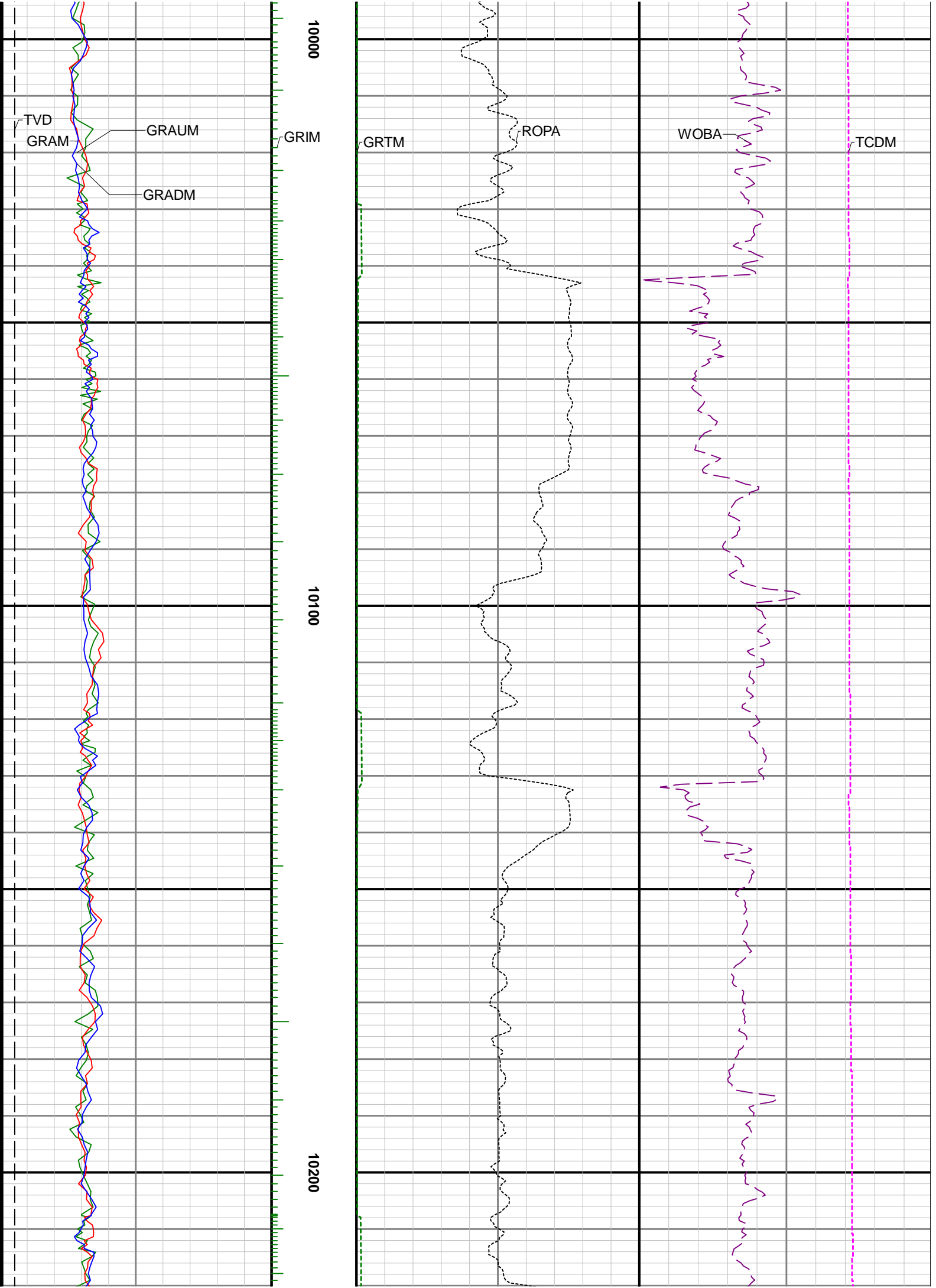


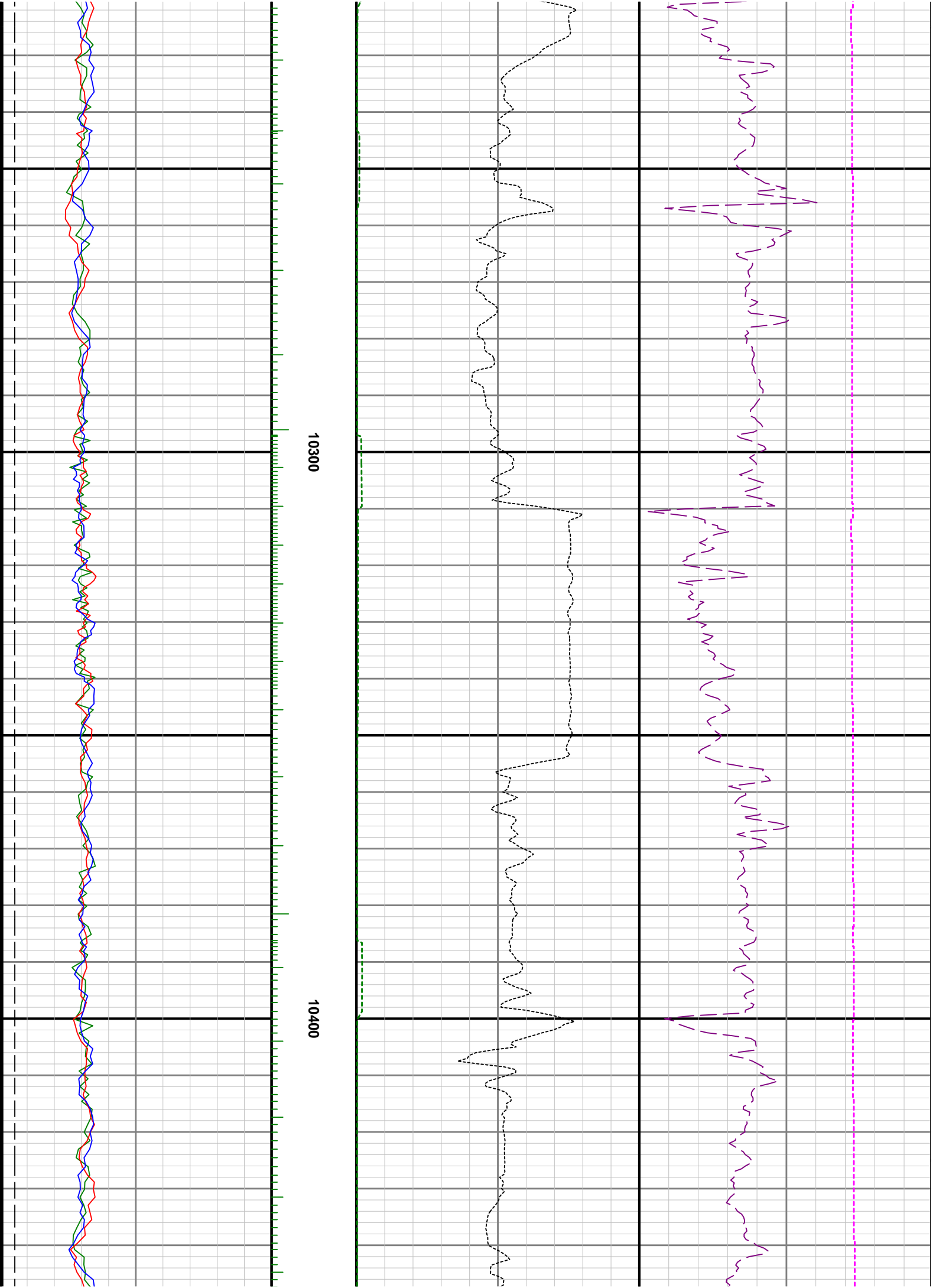


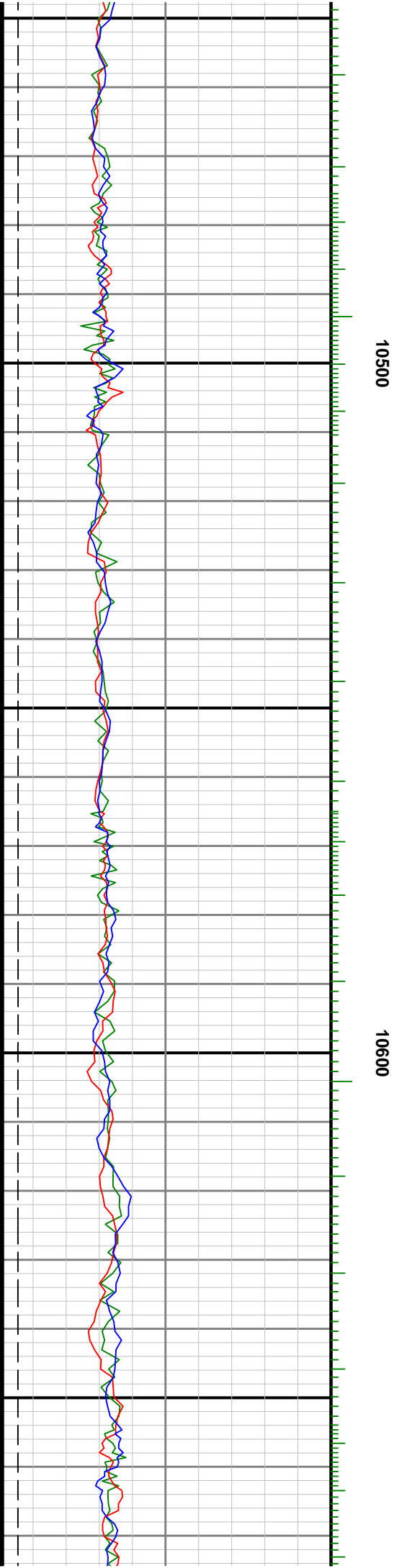
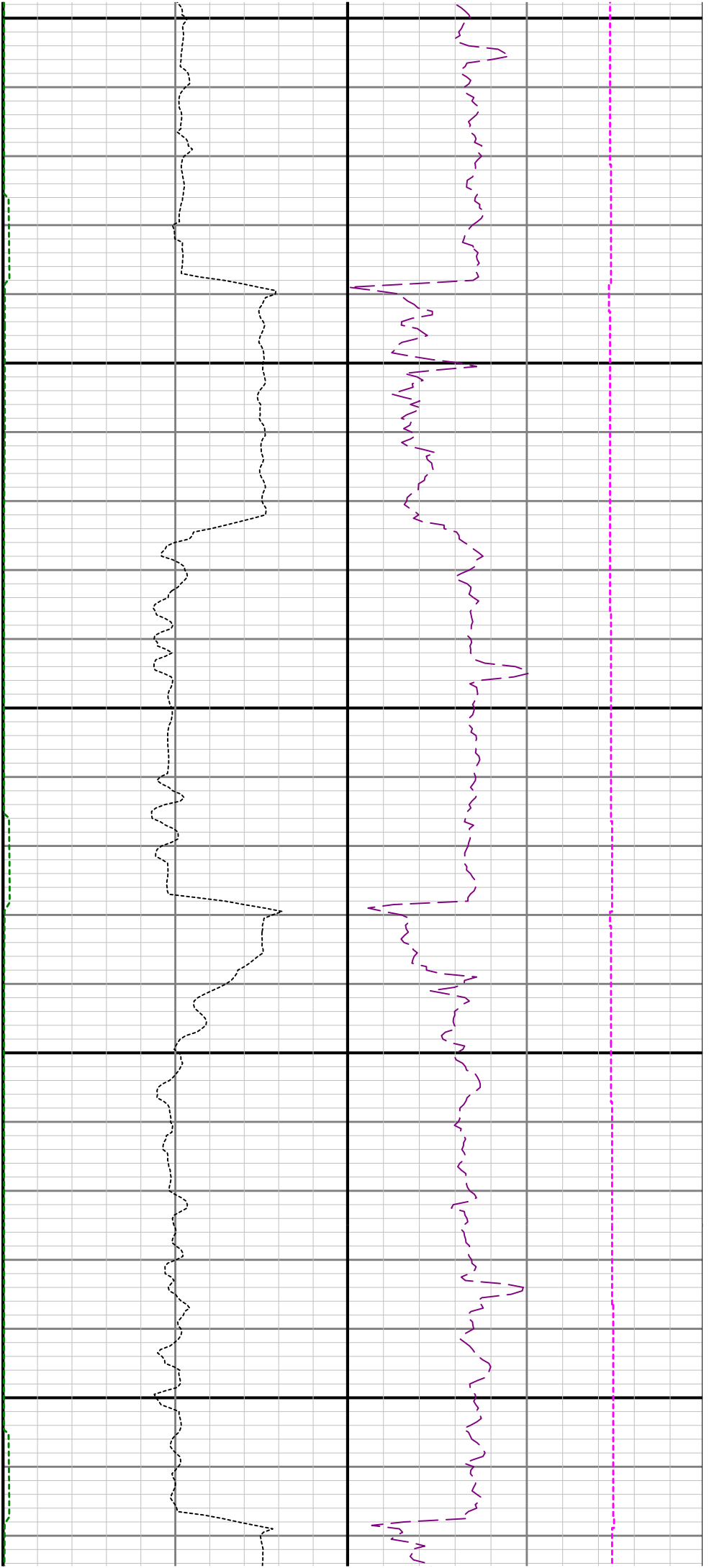
0086

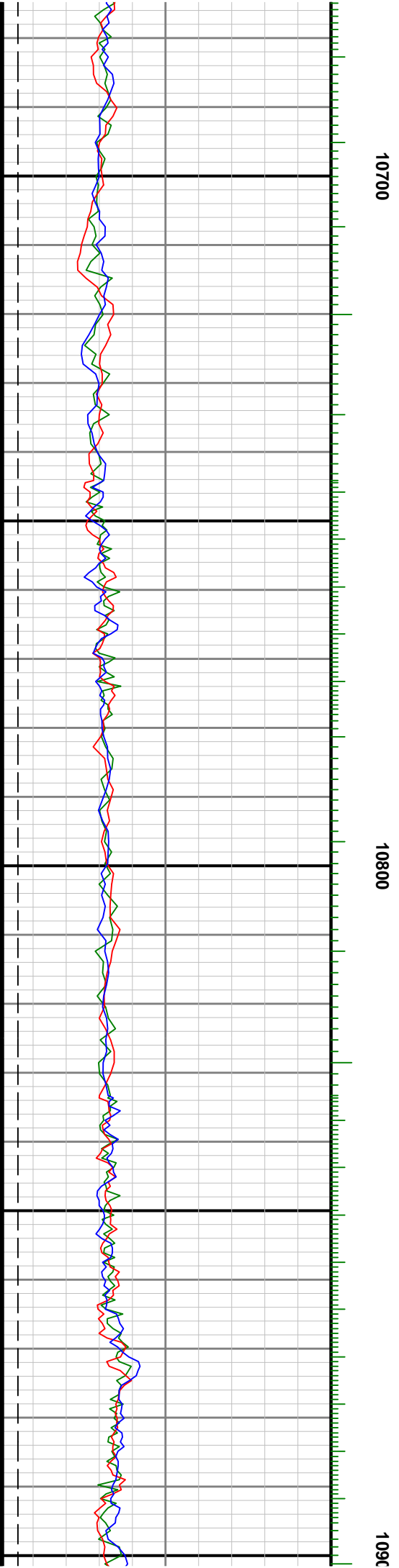
0066

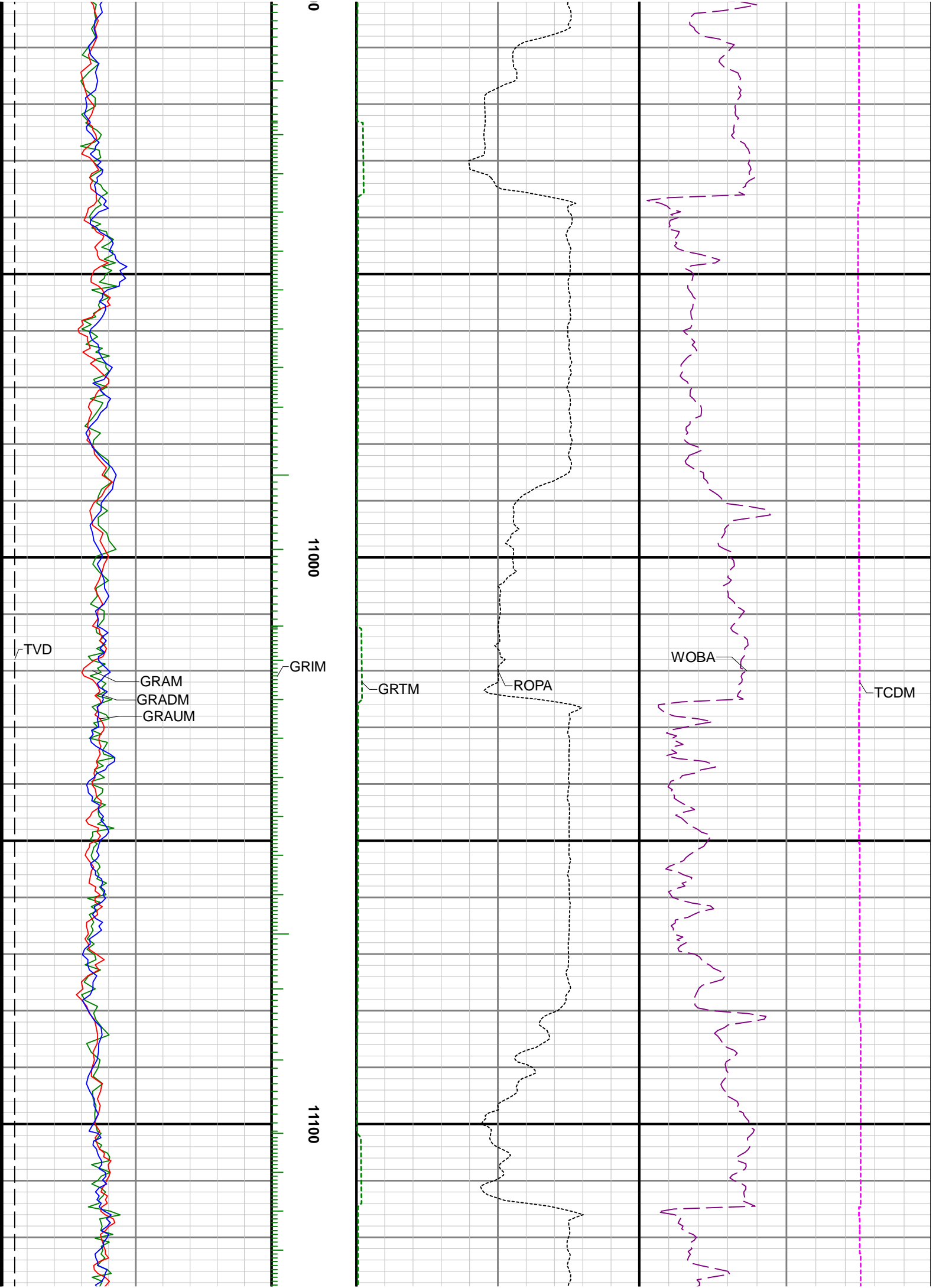


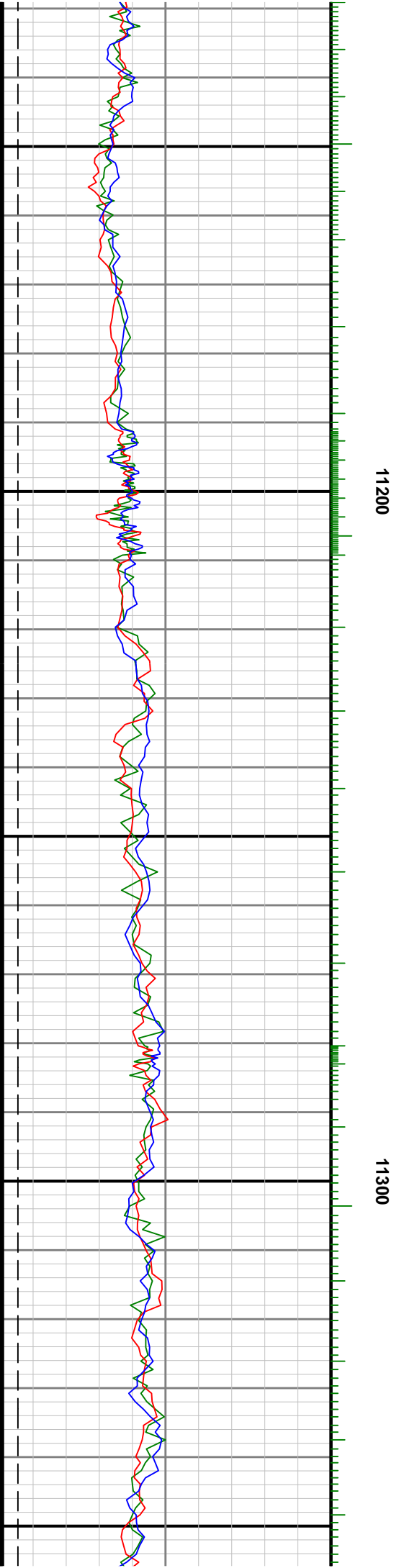
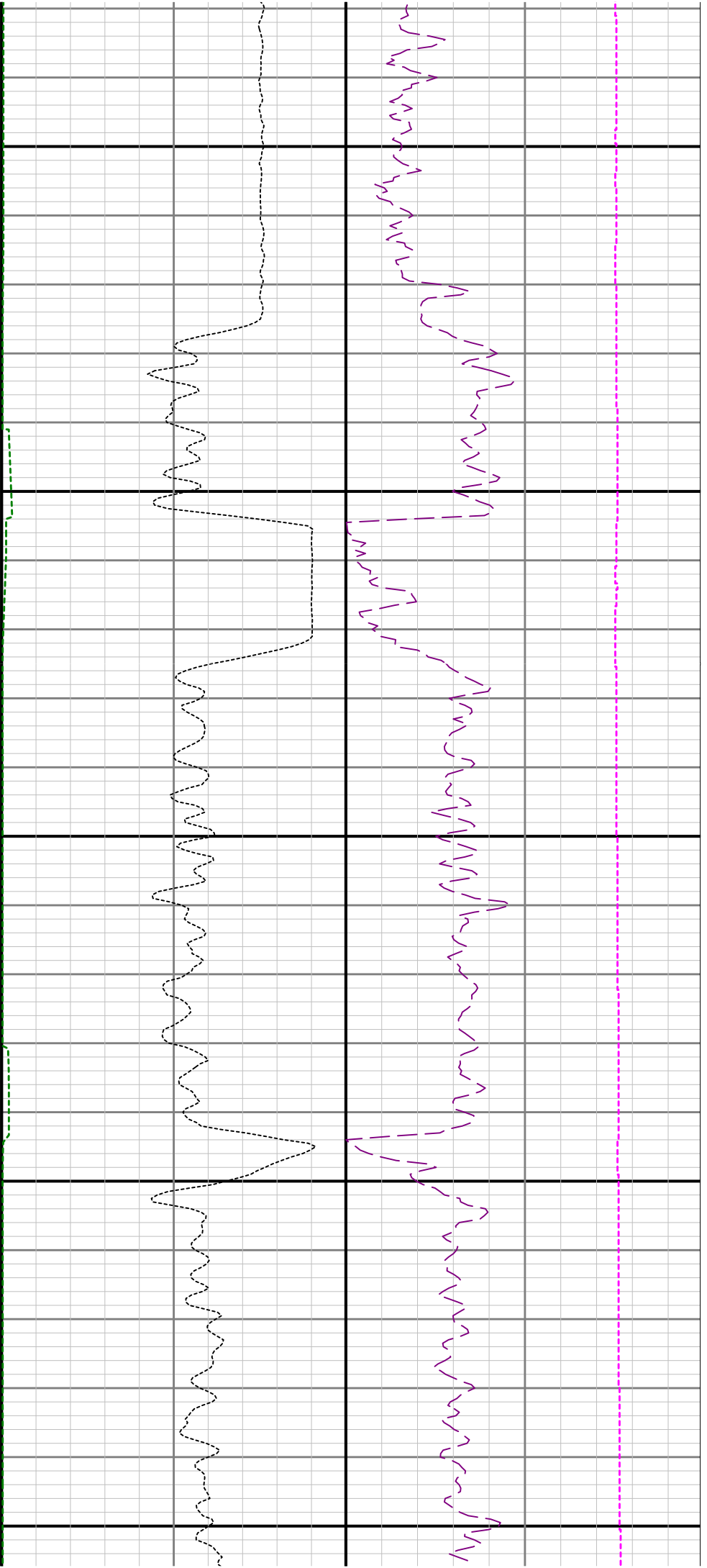


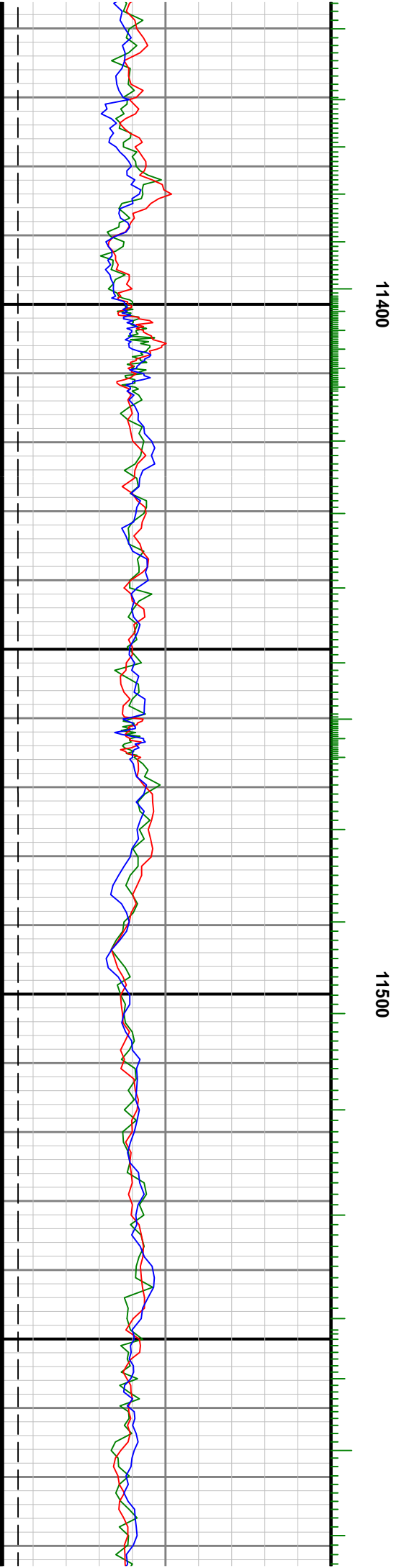


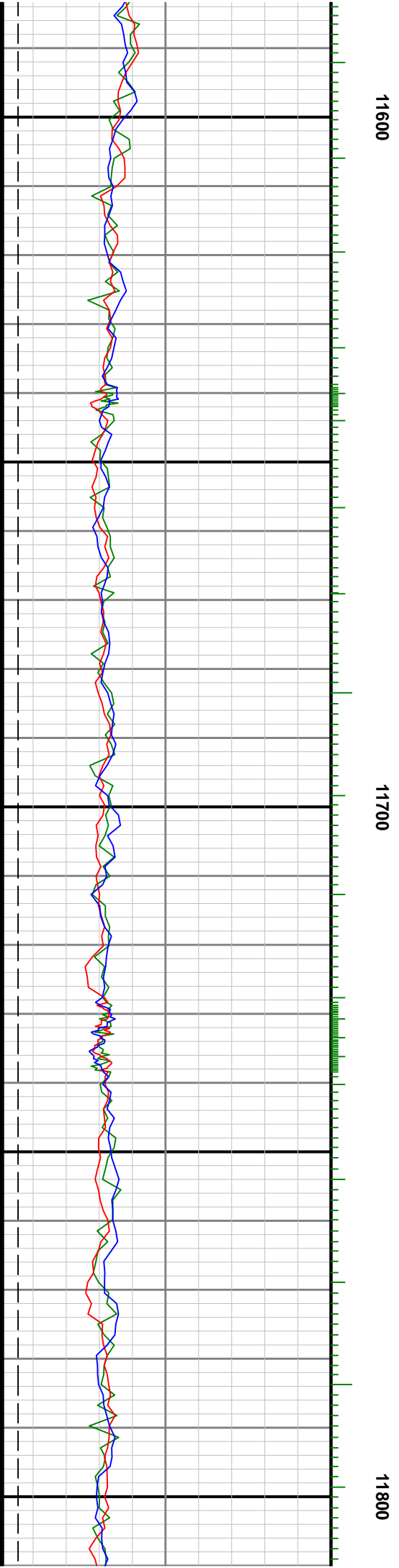


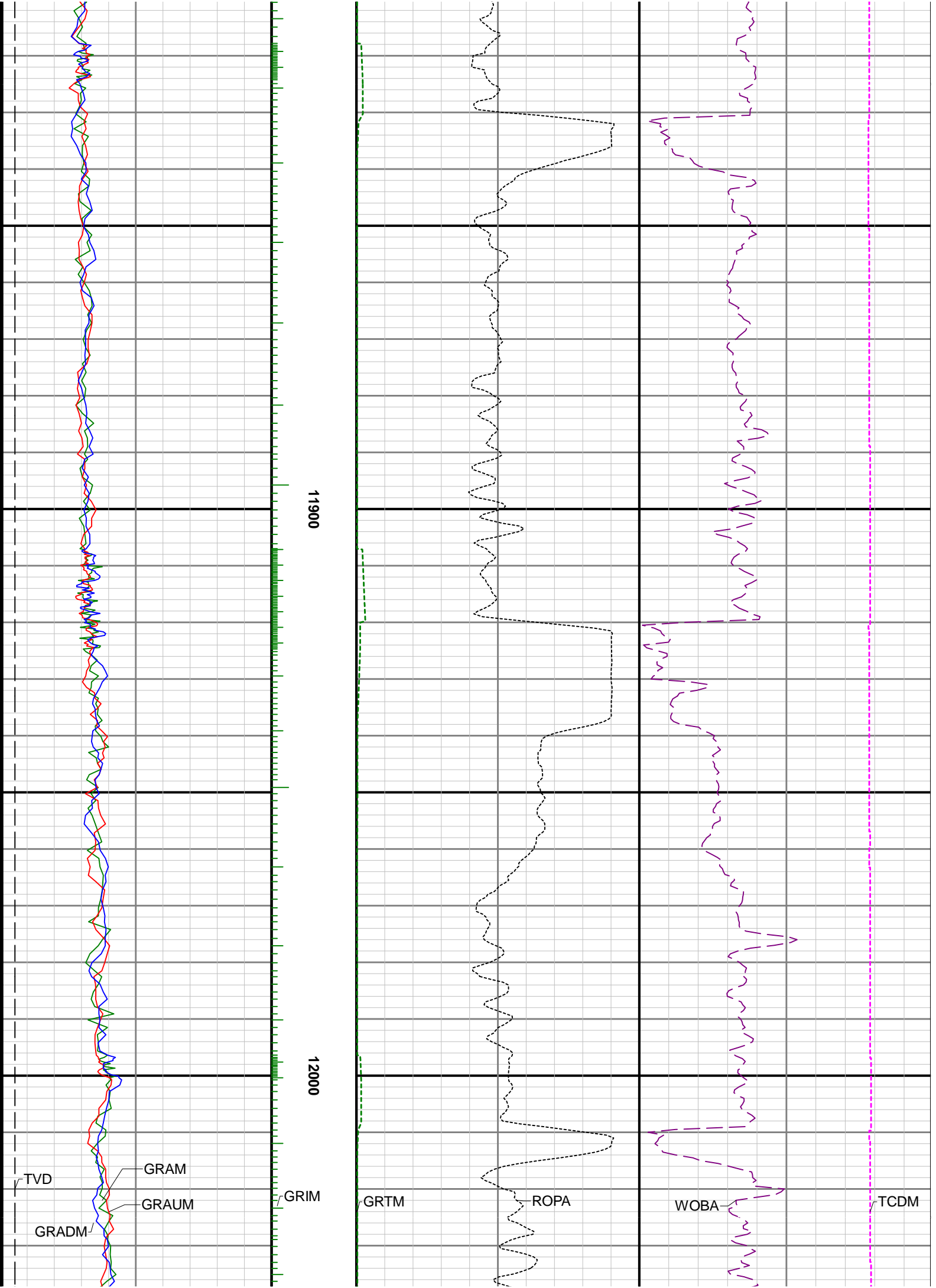


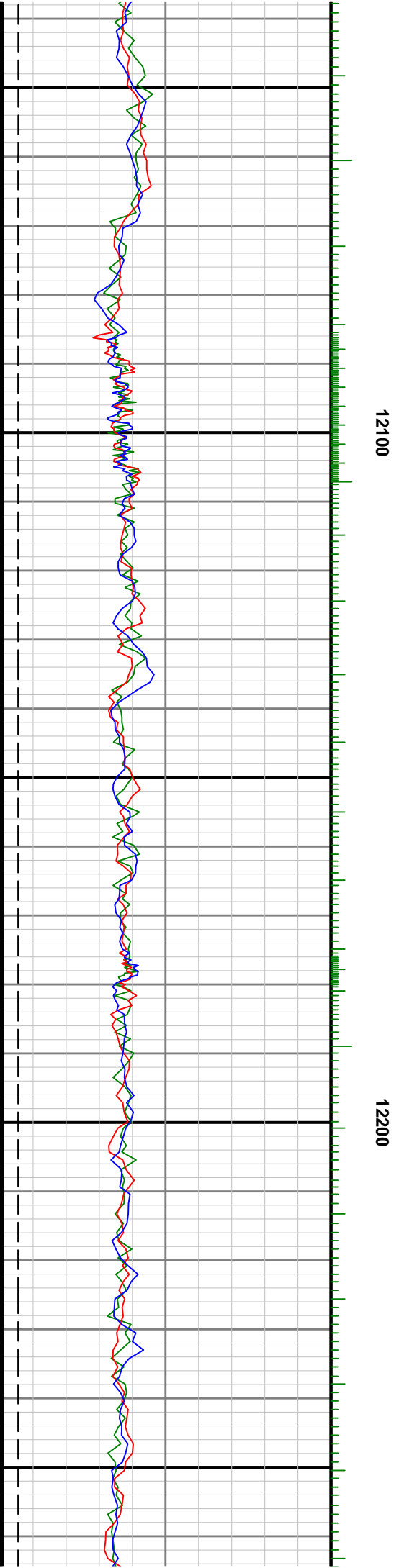
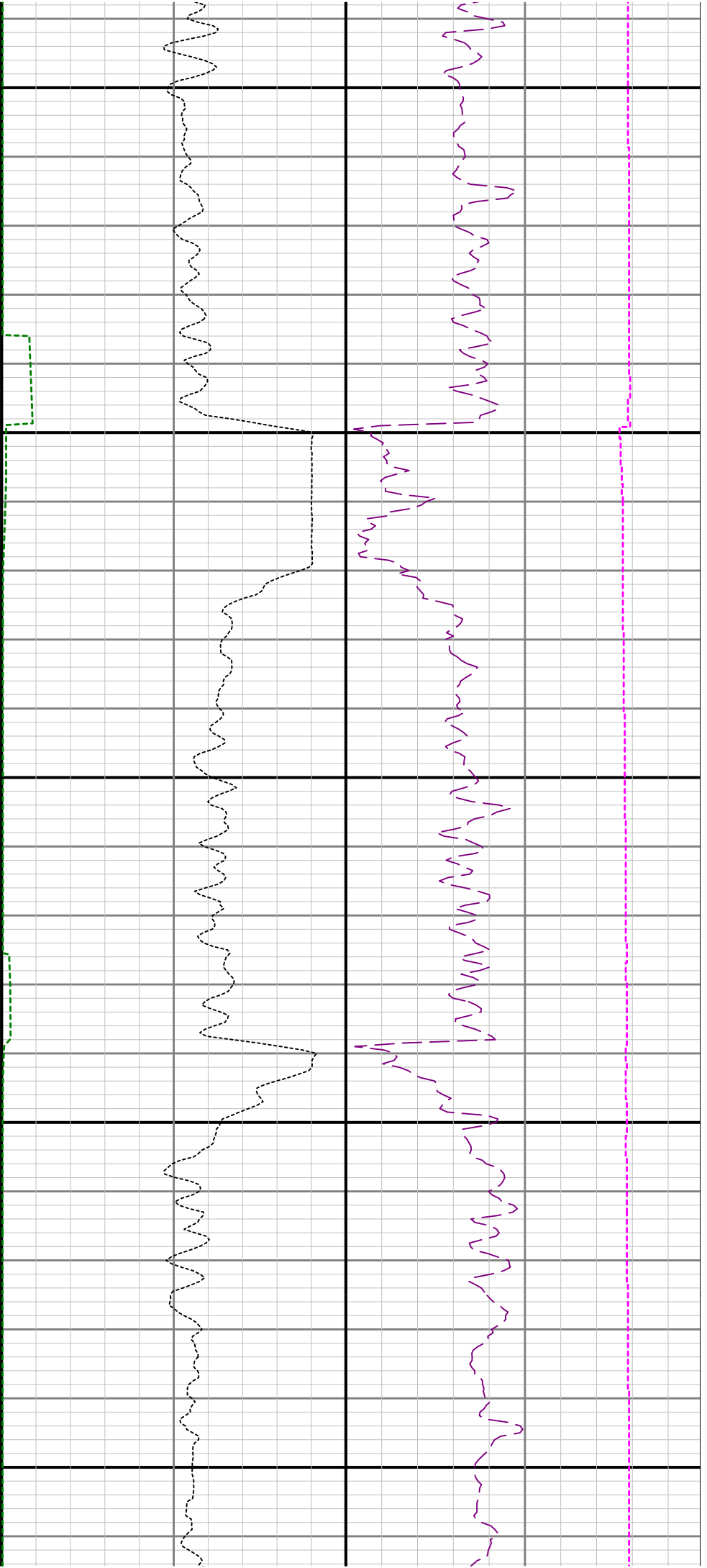


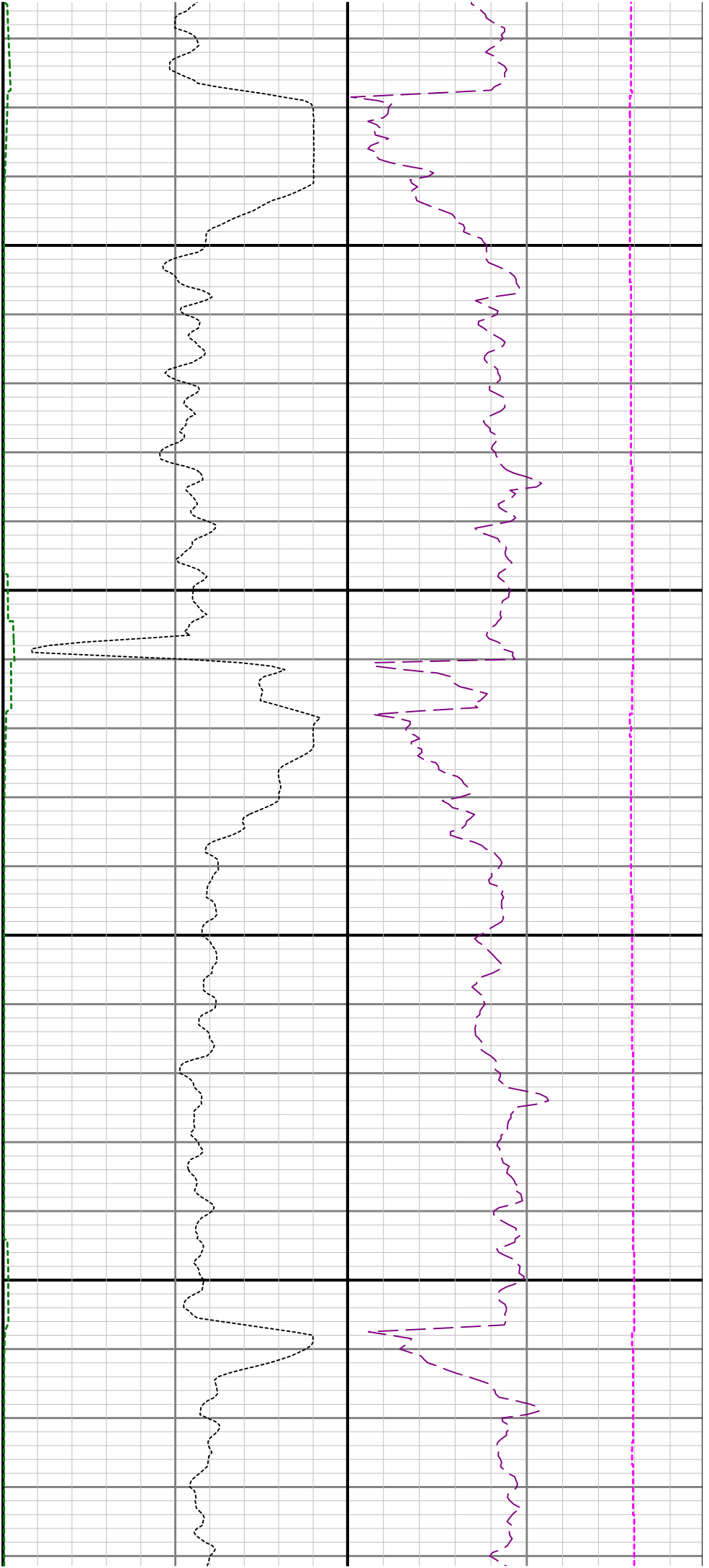






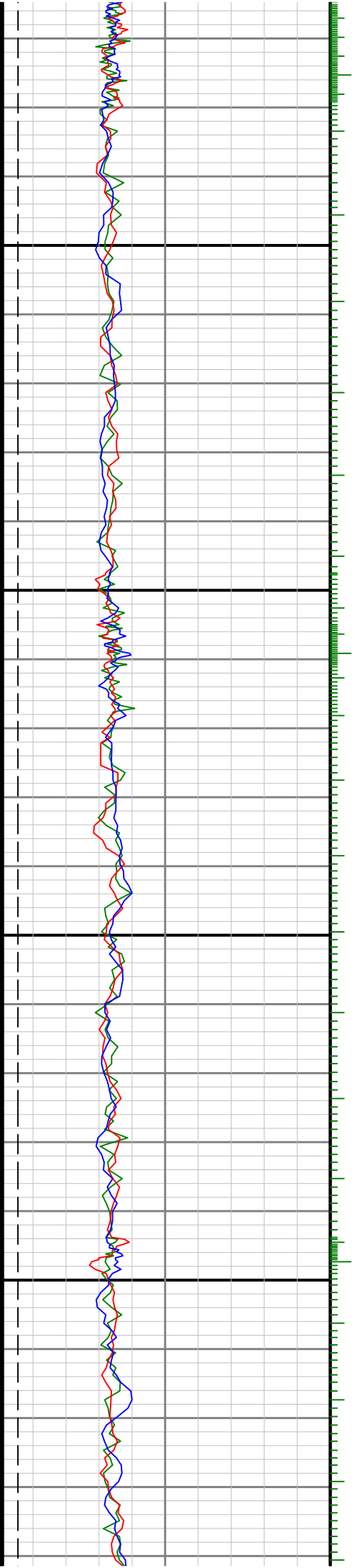






12300

12400

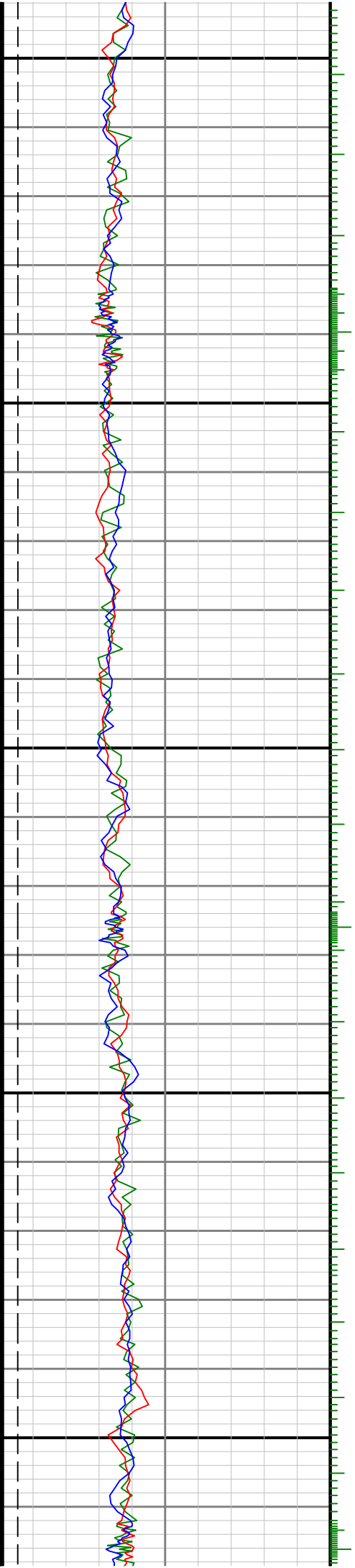


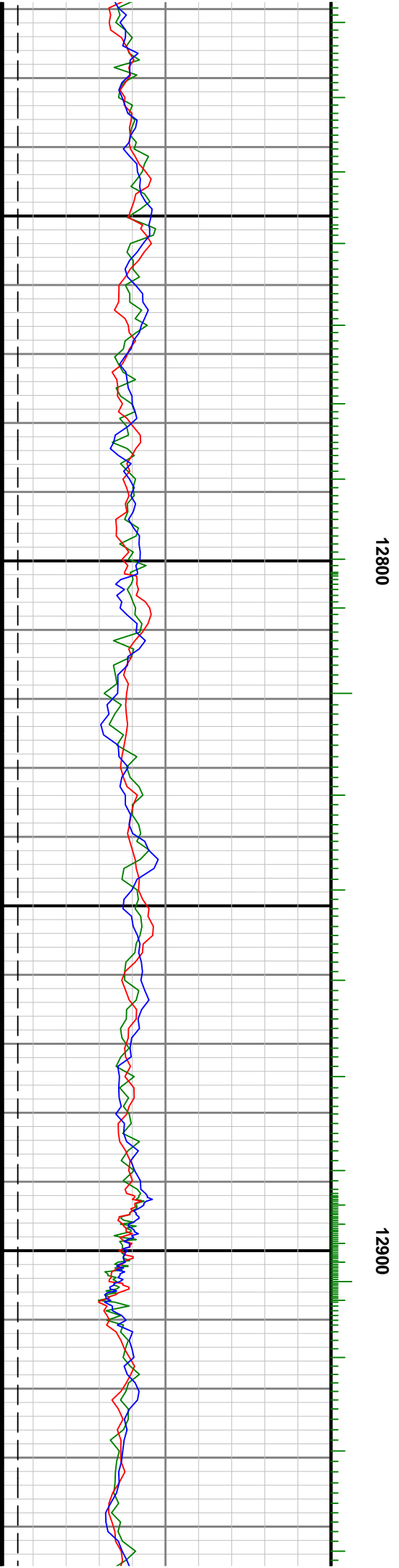
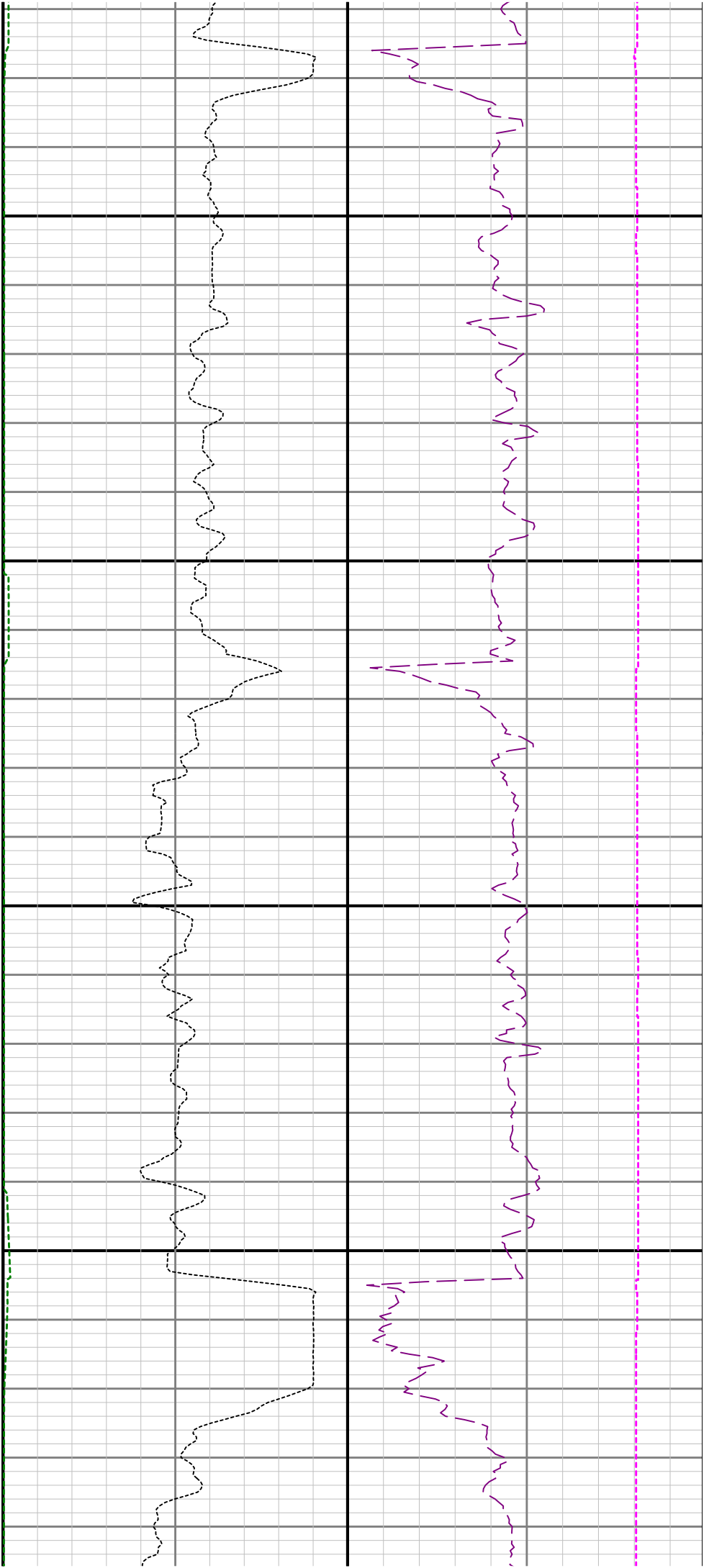


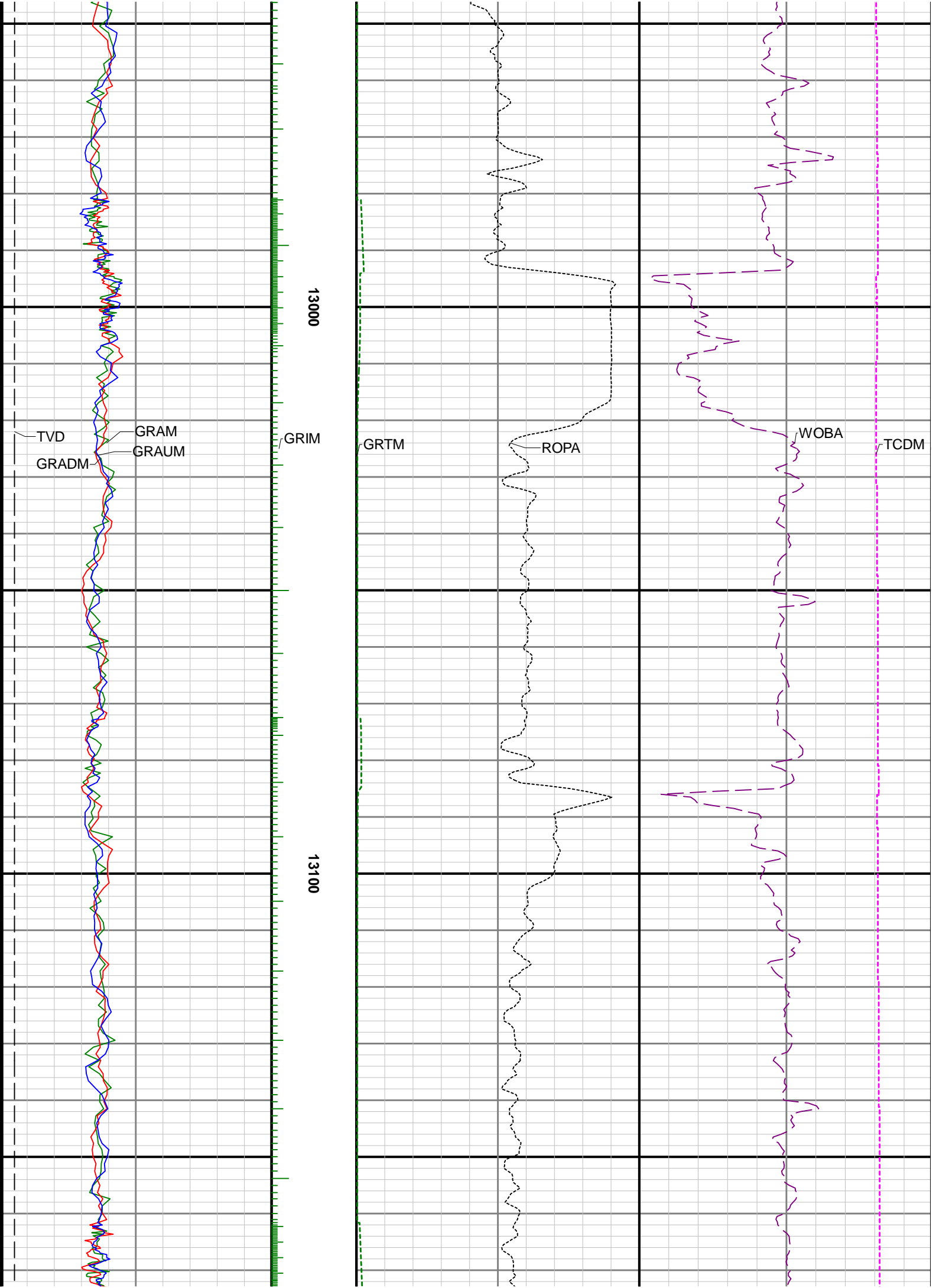
12500

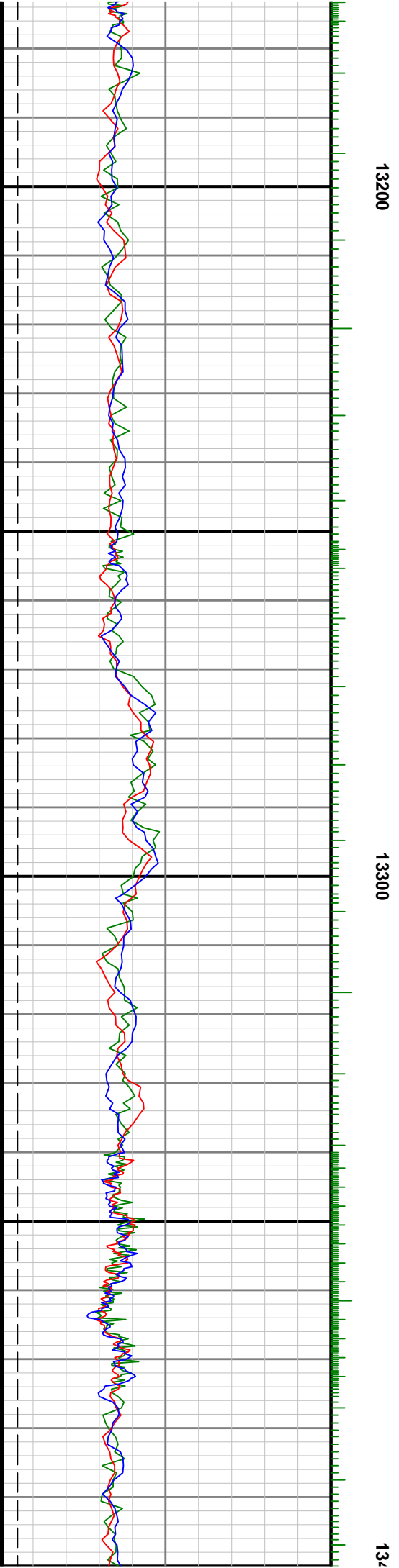
12600

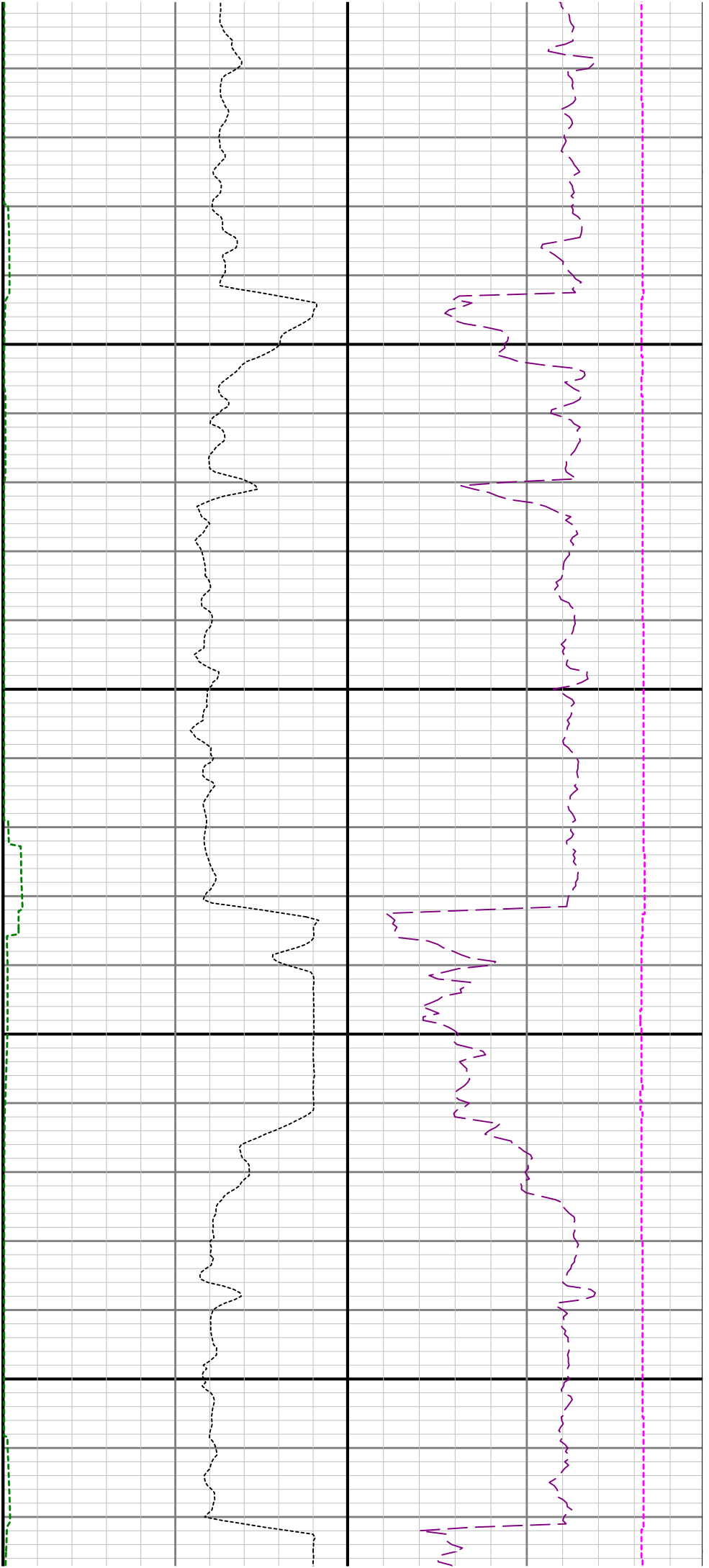
12700







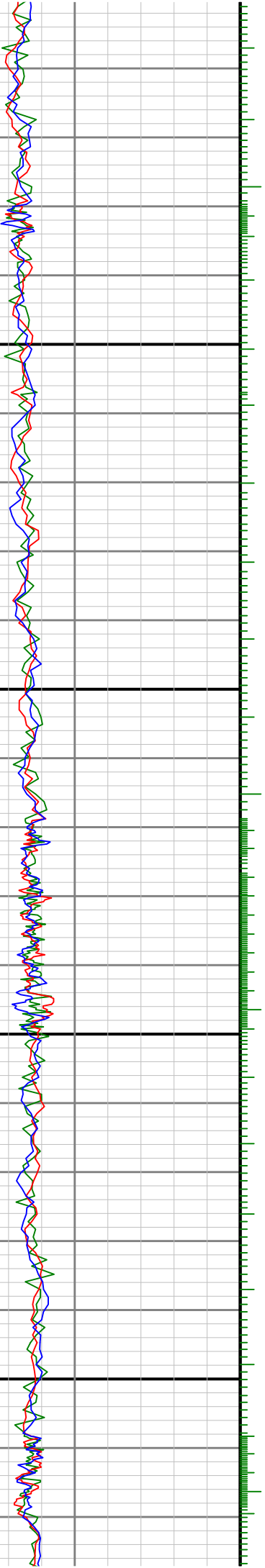


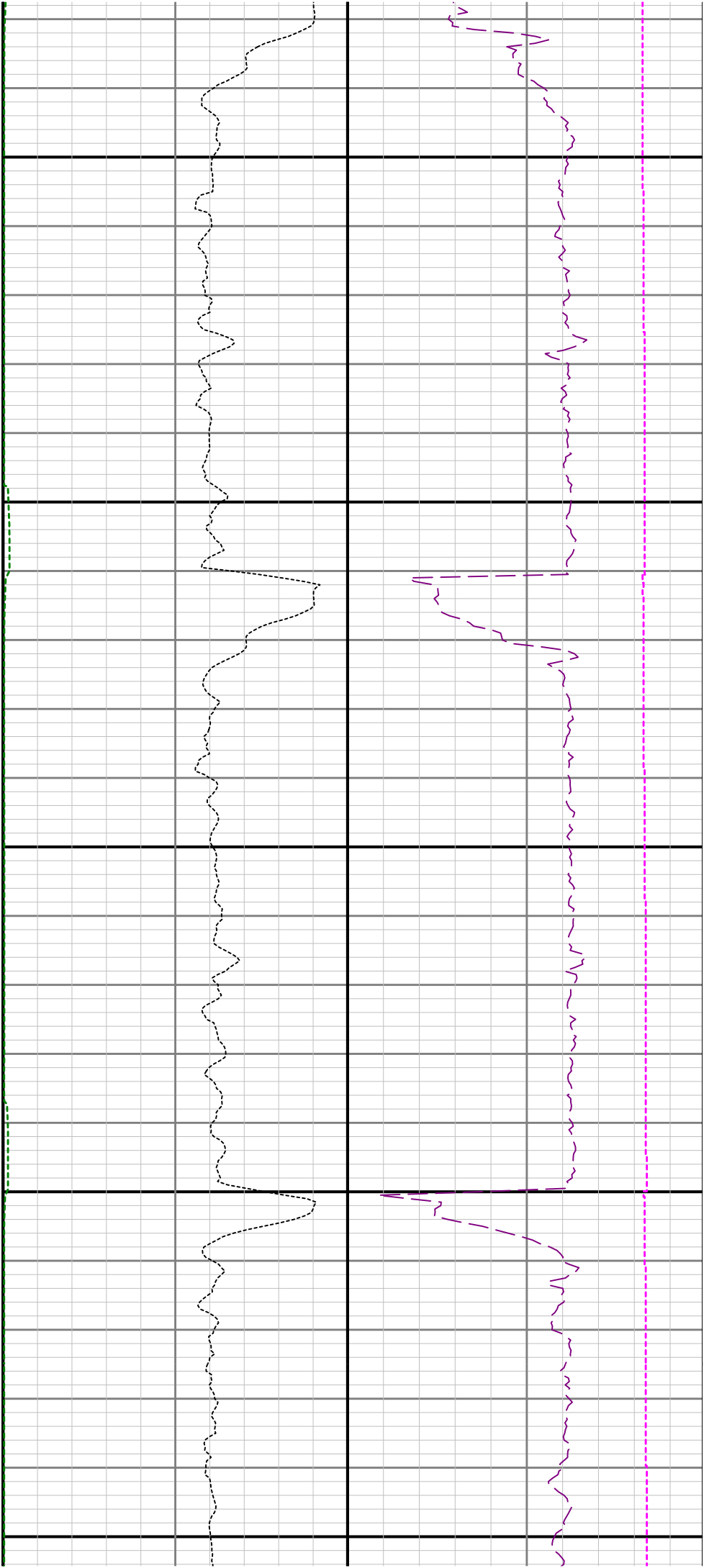


00

13500

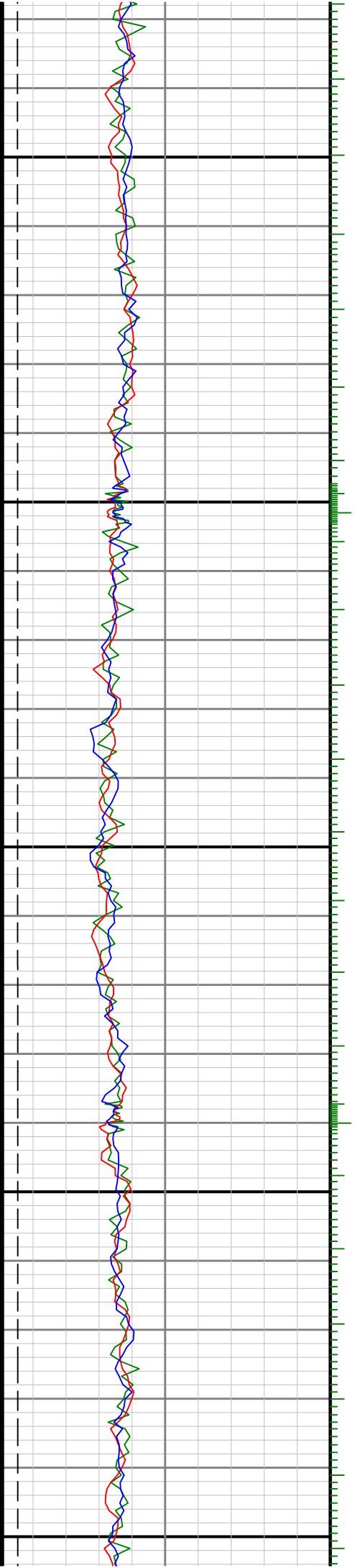
13600

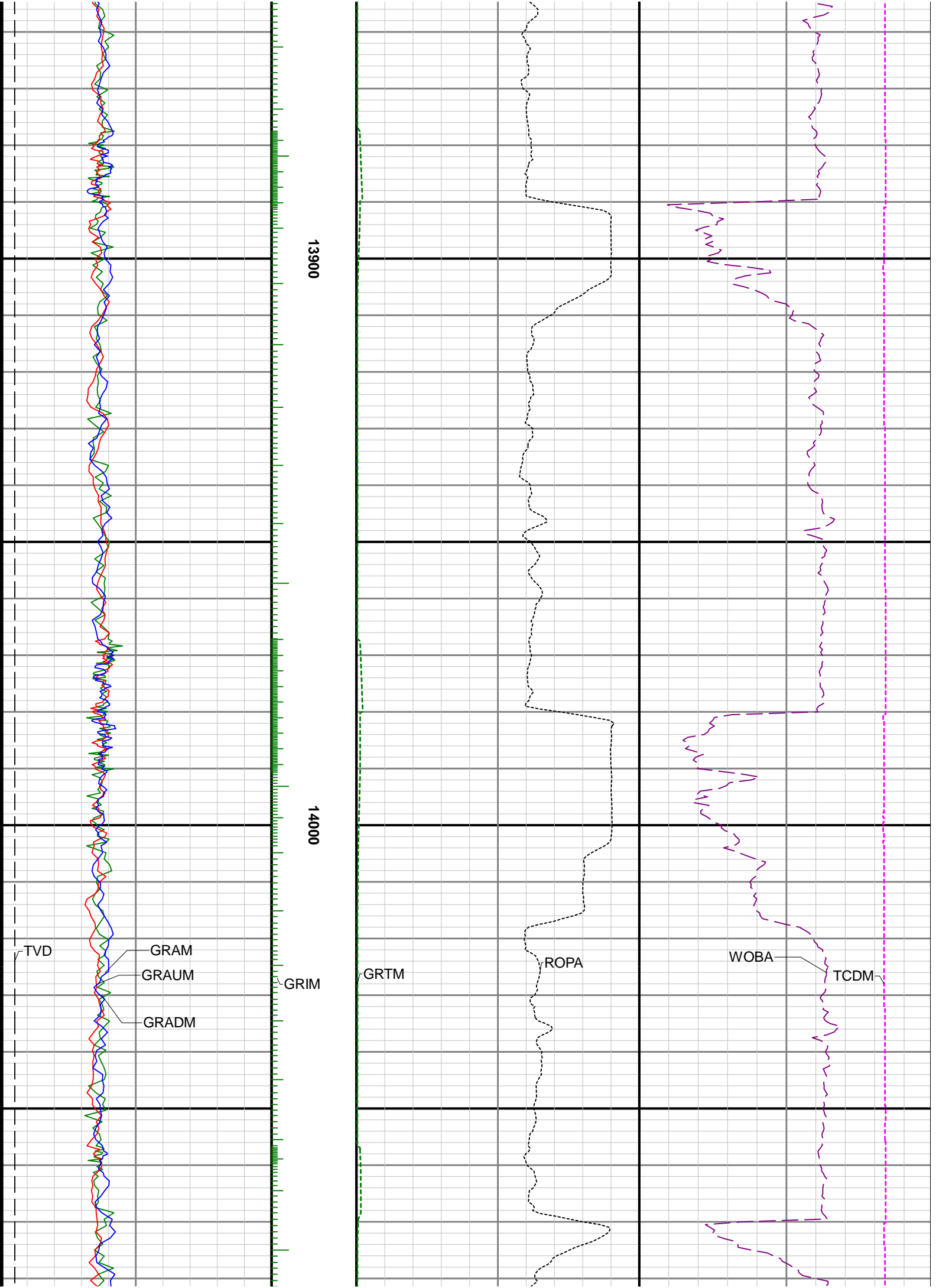


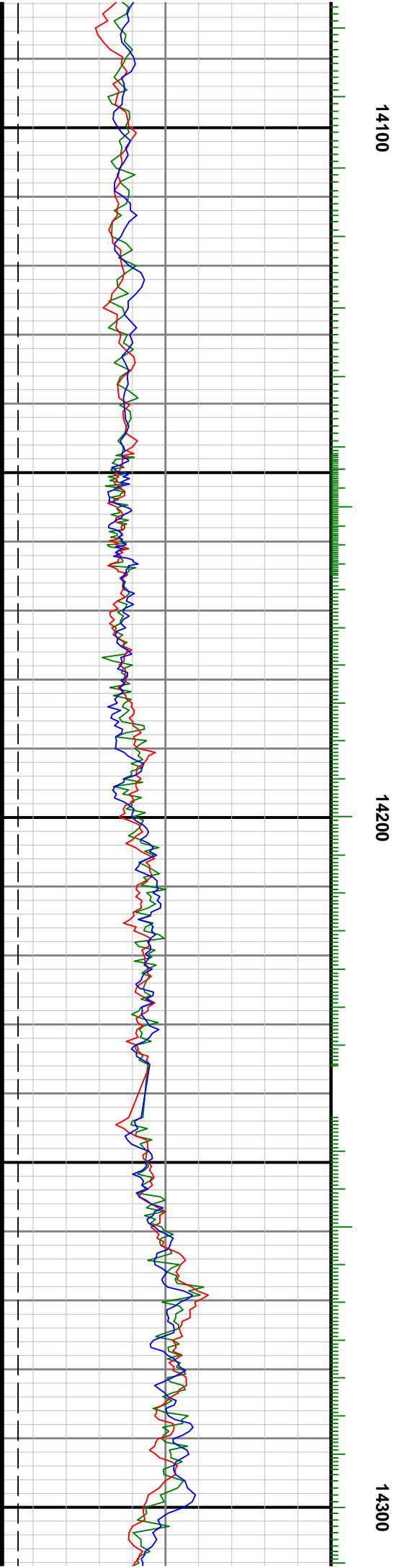
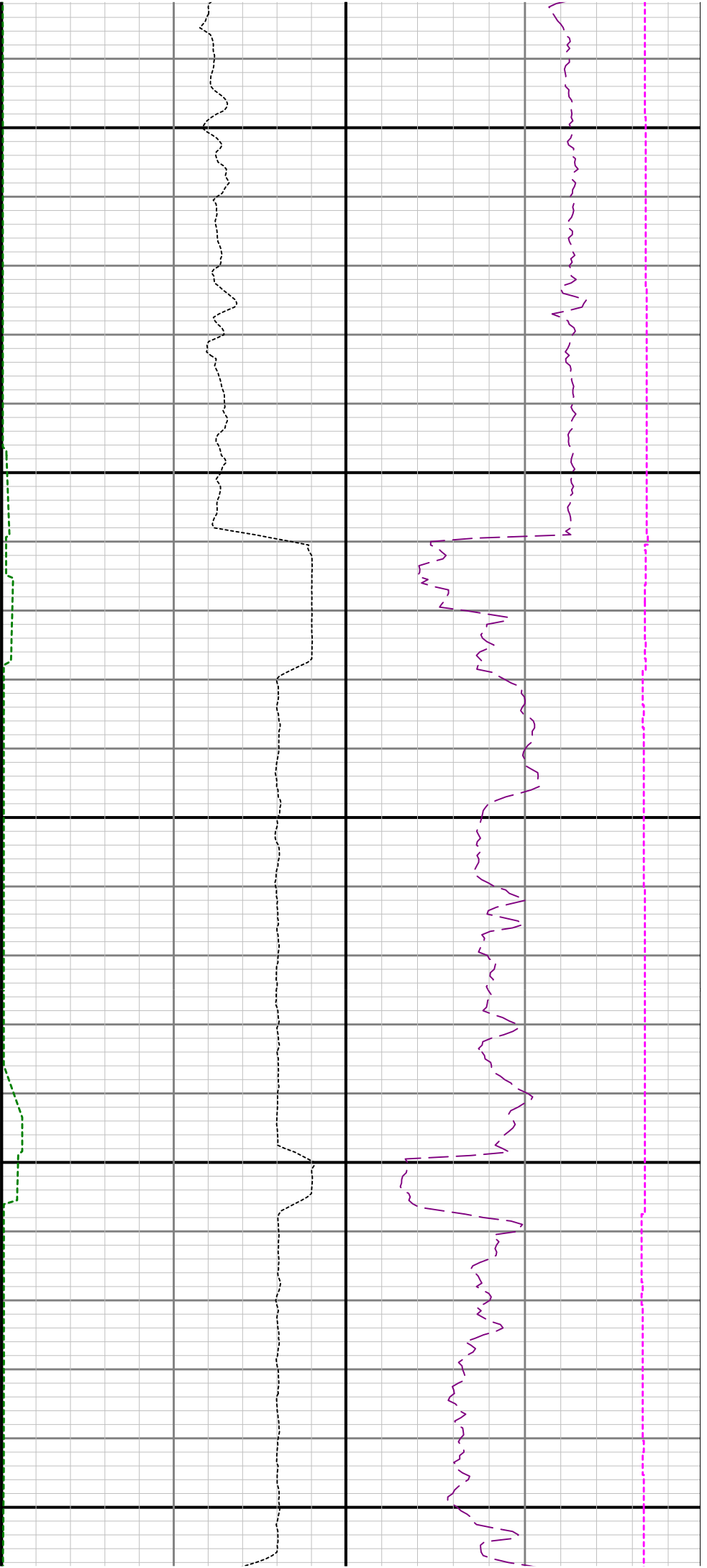


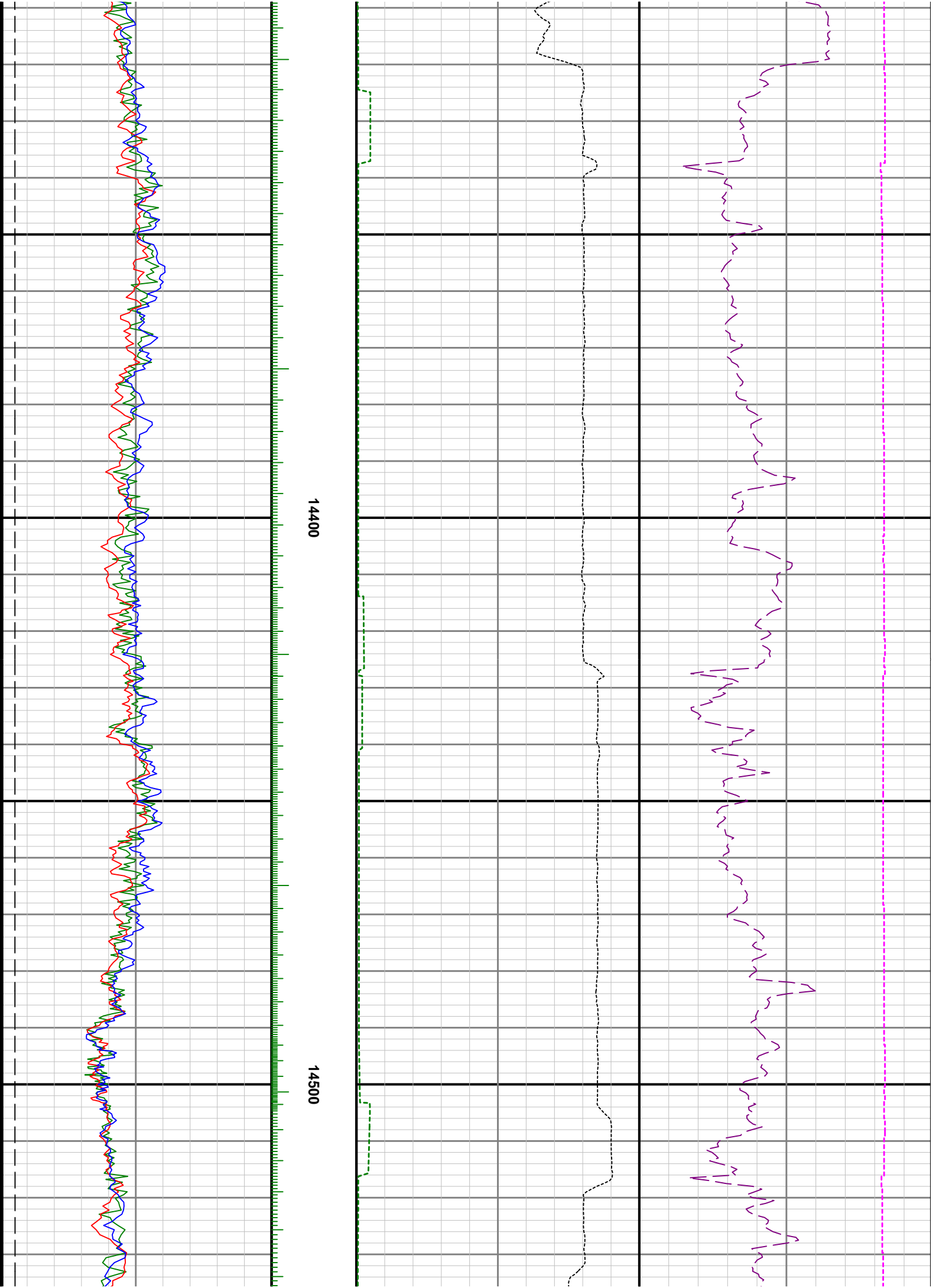
13700

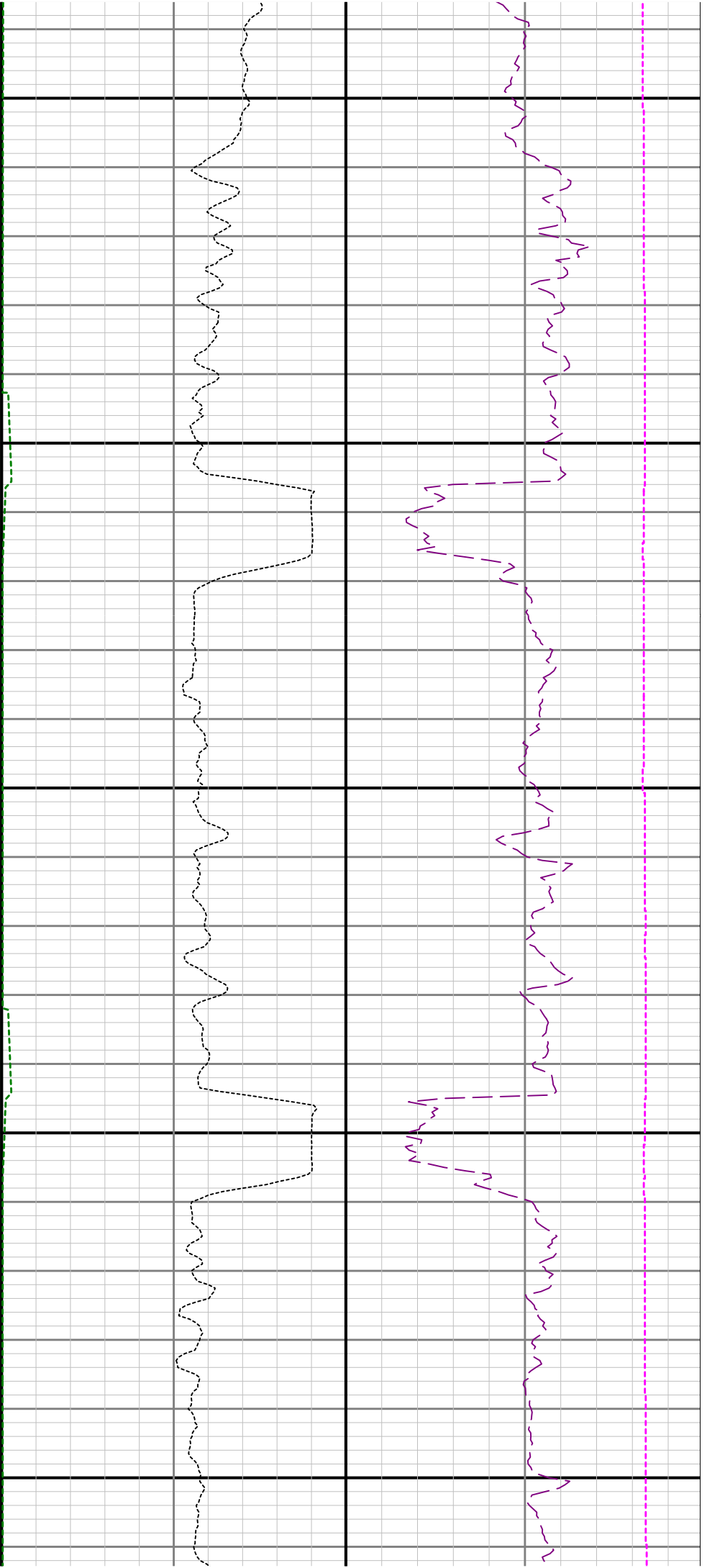
13800





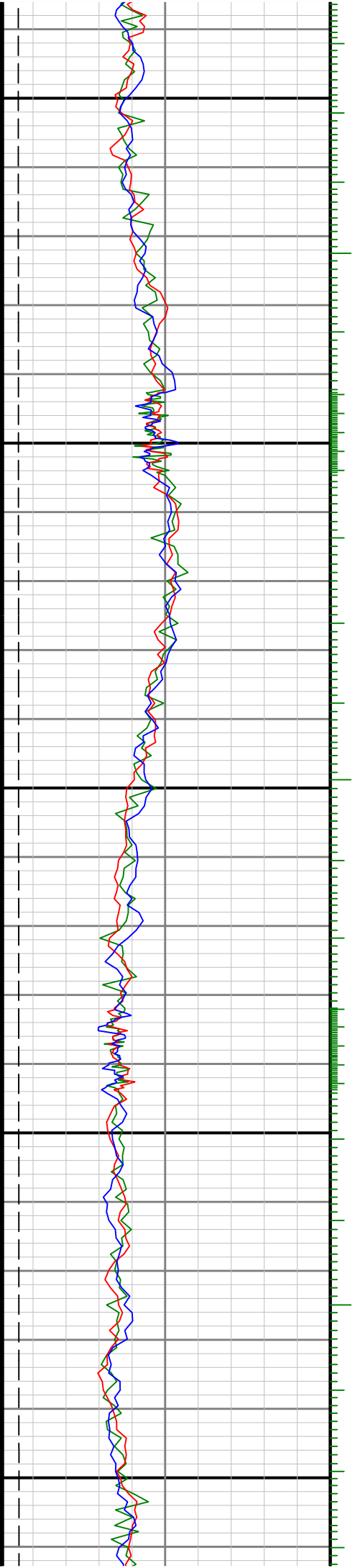


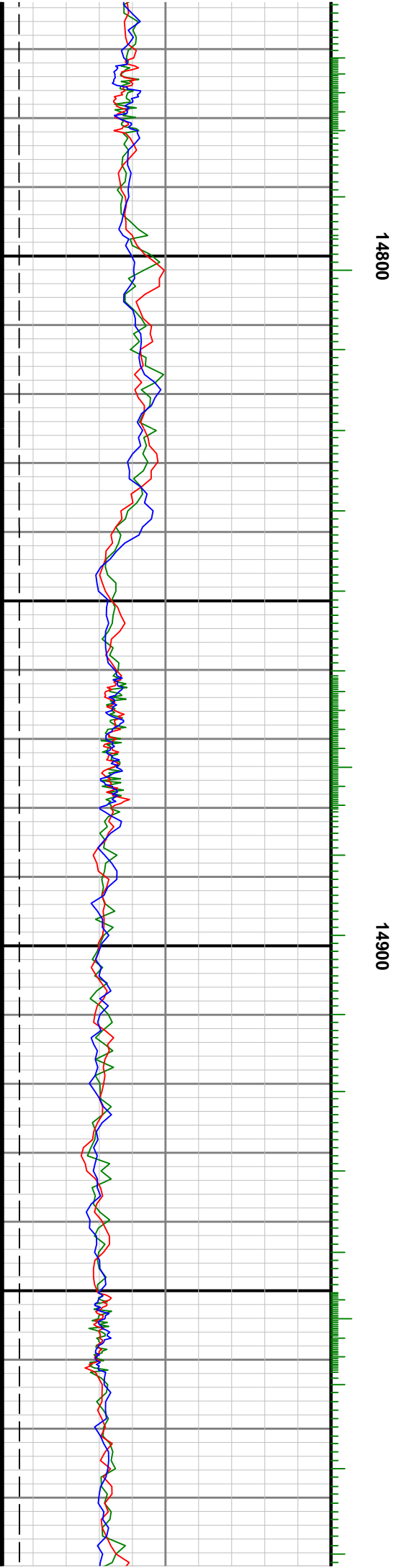
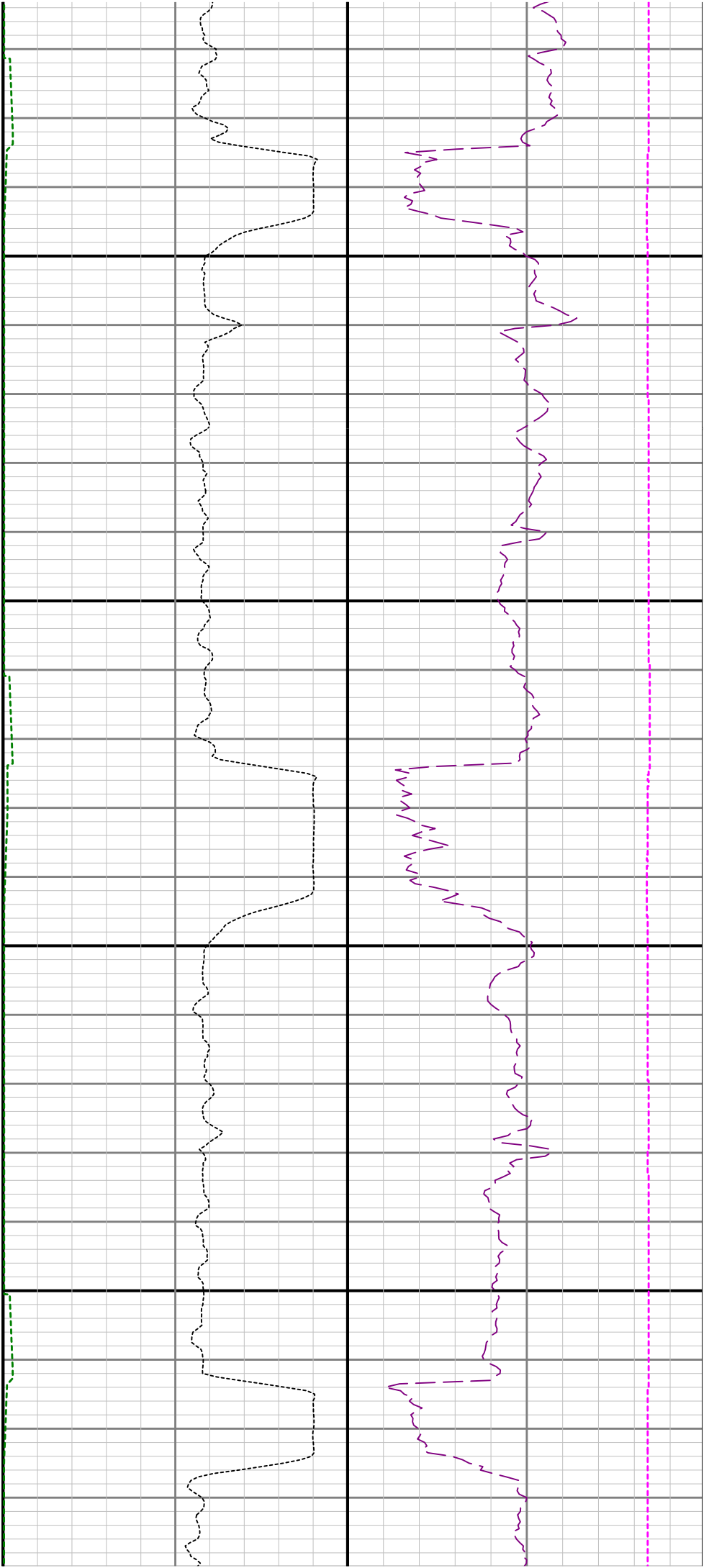


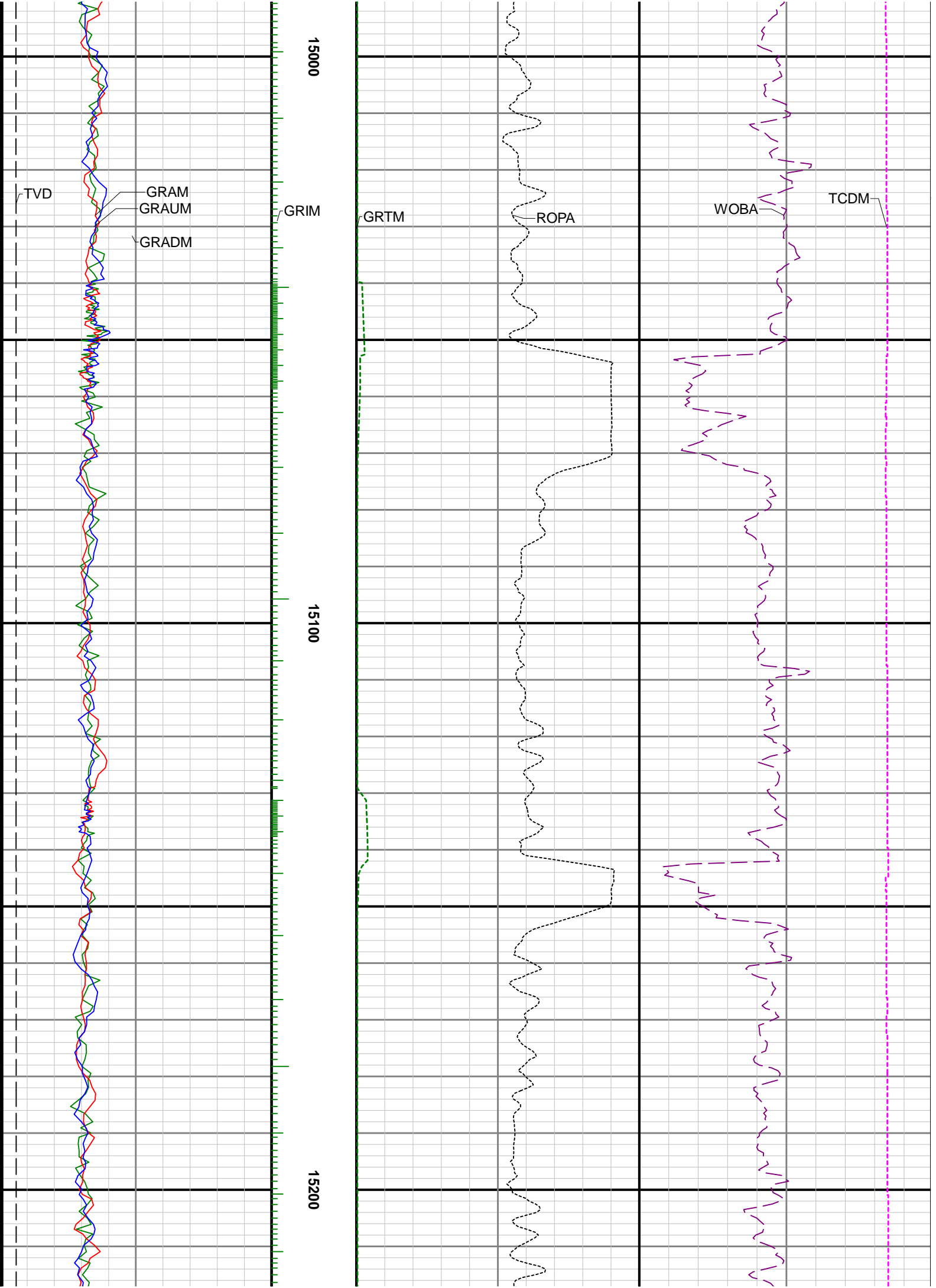


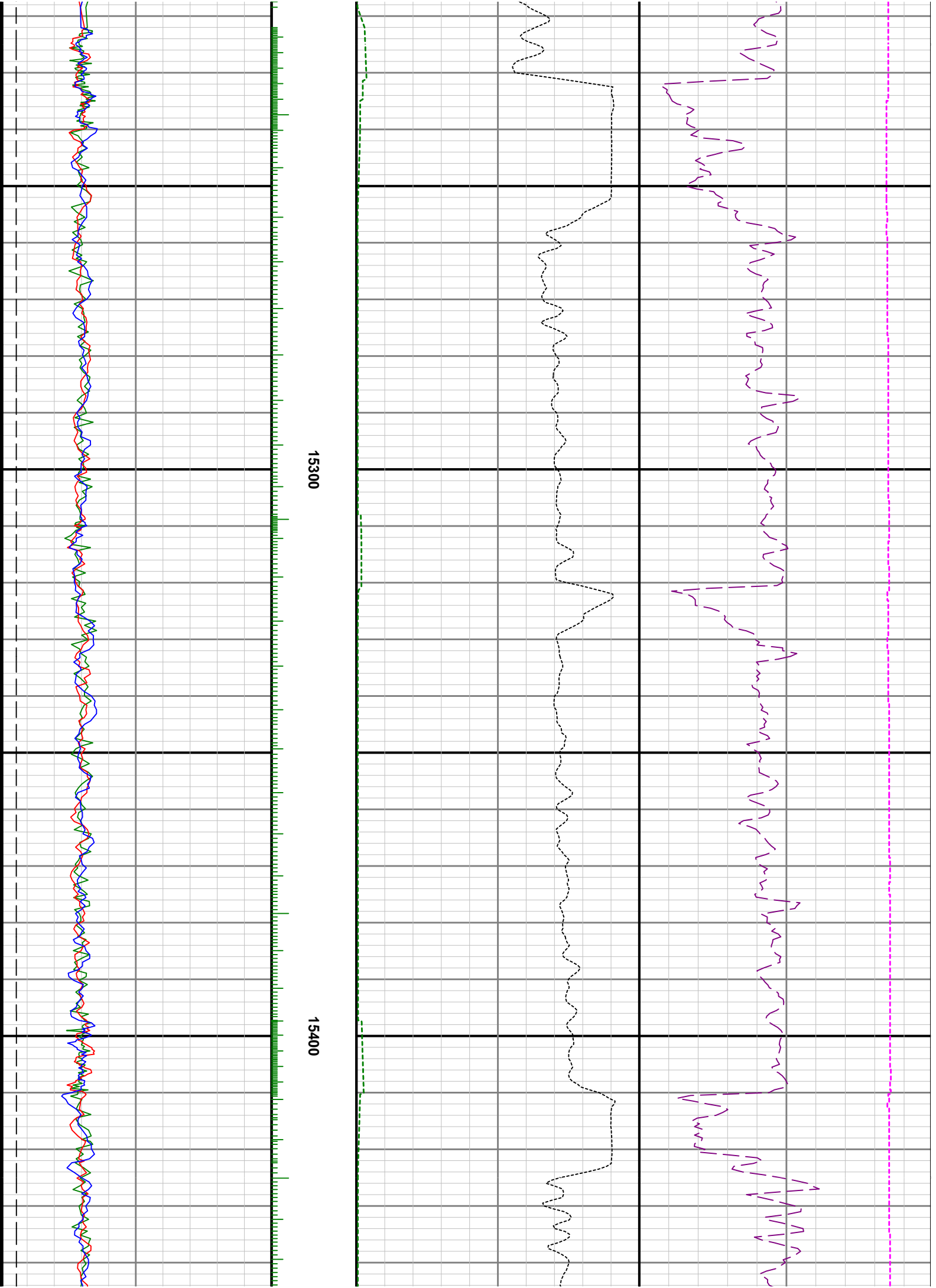
14600

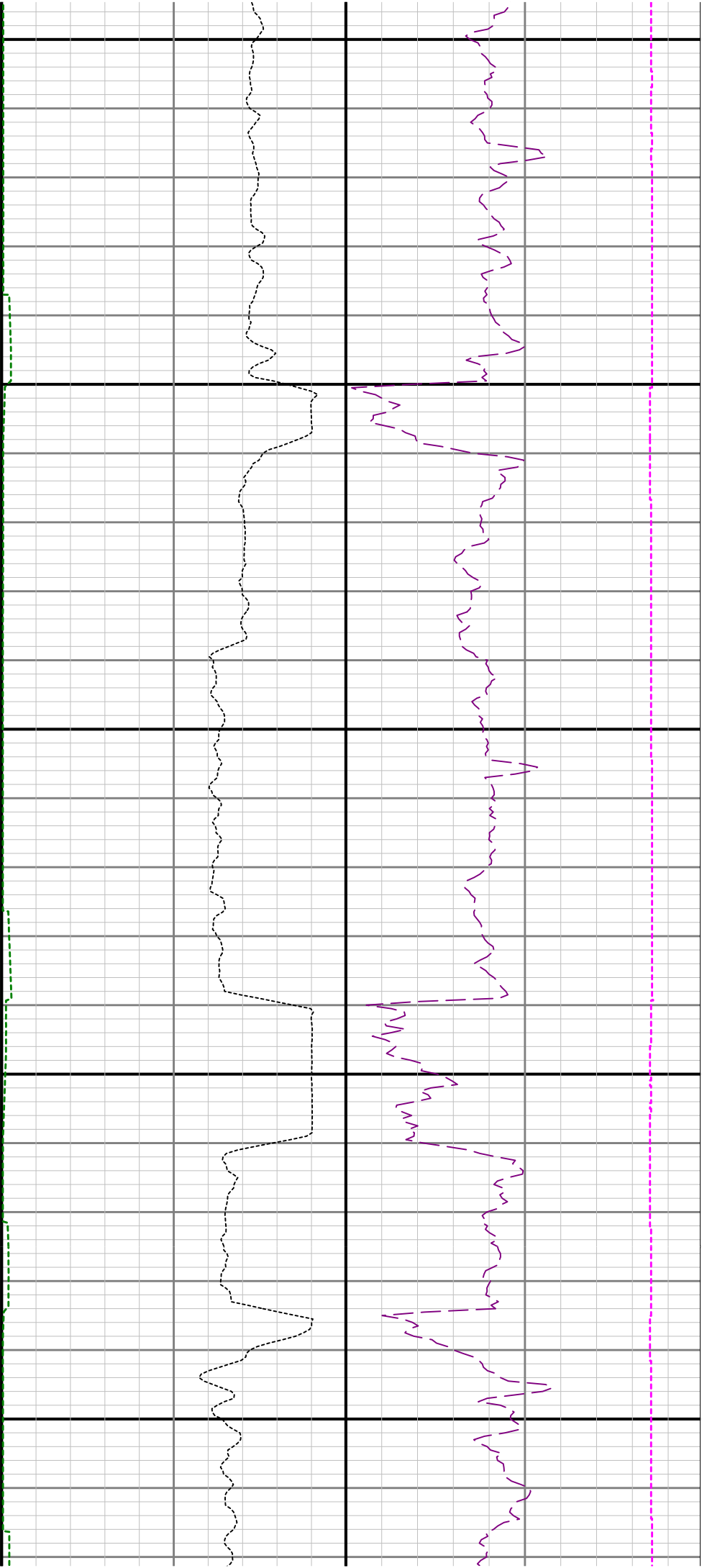
14700





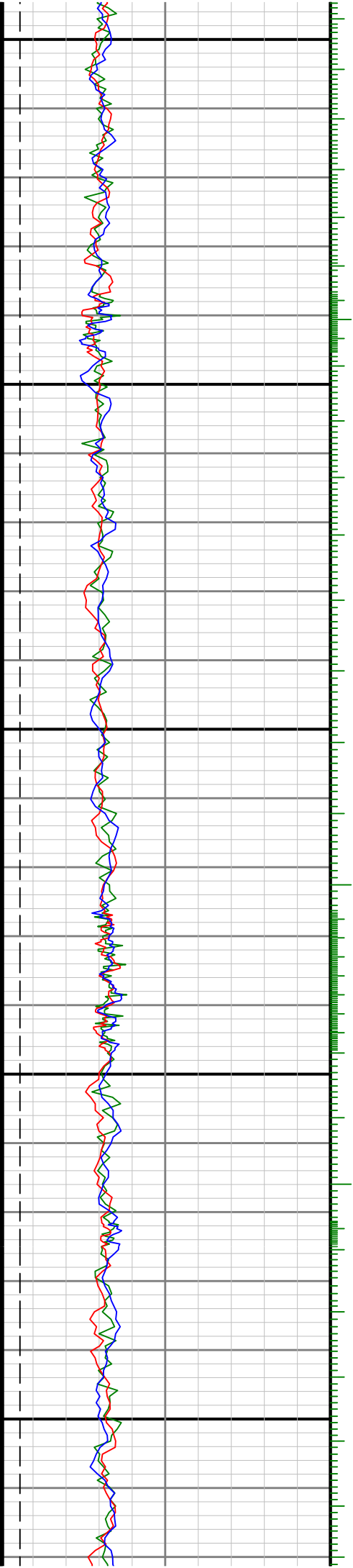


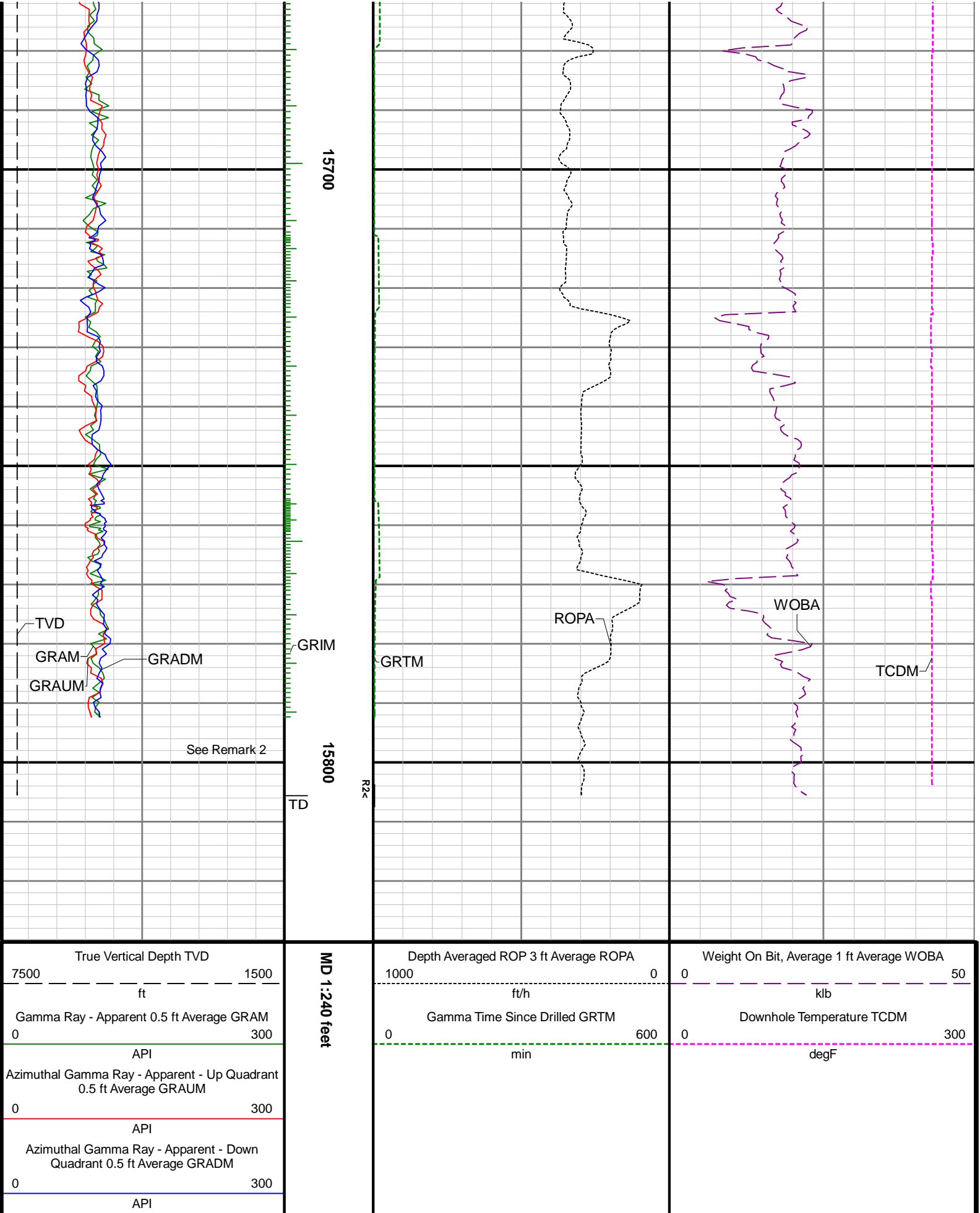




15500

15600





15700

15800

MD 1:240 feet

TVD

GRAM

GRAUM

GRADM

GRIM

See Remark 2

TD

GRTM

ROPA

R2<

WOBA

TCDM

True Vertical Depth TVD

7500 1500

ft

Gamma Ray - Apparent 0.5 ft Average GRAM

0 300

API

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

0 300

API

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

0 300

API

Depth Averaged ROP 3 ft Average ROPA

1000 0

ft/h

Gamma Time Since Drilled GRTM

0 600

min

Weight On Bit, Average 1 ft Average WOBA

0 50

klb

Downhole Temperature TCDM

0 300

degF