			LWD REALTIME LOG		
<div> <div>Scale:</div> <div>1:240 MD</div> </div> <div> <div>Depth Reference:</div> <div>Driller's Depth</div> </div>			<div> <div>Company:</div> <div>Great Western Operating CO LLC</div> </div> <div> <div>Well:</div> <div>SCHNEIDER HD 11-382HNX</div> </div> <div> <div>Field:</div> <div>Weld County</div> </div> <div> <div>County:</div> <div>Weld</div> </div> <div> <div>State:</div> <div>Colorado</div> </div> <div> <div>Country:</div> <div>United States</div> </div> <div> <div>Block:</div> <div>1</div> </div>		
<div> <div>Status:</div> <div>Final Print</div> </div> <div> <div>API No:</div> <div>05-123-44685-00</div> </div> <div> <div>Job ID:</div> <div>8544856</div> </div> <div> <div>Permanent Datum (P.D.):</div> <div>Mean Sea Level</div> </div> <div> <div>Log Measured From:</div> <div>Rig Floor</div> </div>			<div> <div>Surface Location:</div> <div> <div>Latitude:</div> <div>Longitude:</div> </div> </div> <div> <div>SEC:</div> <div>7</div> </div> <div> <div>TWN:</div> <div>4N</div> </div> <div> <div>RGE:</div> <div>66W</div> </div> <div> <div>Elevation:</div> <div>0.00 ft</div> </div> <div> <div>Above P.D.</div> <div>4761.00 ft</div> </div> <div> <div>Elev. KB:</div> <div>4761.00 ft</div> </div> <div> <div>Elev. DF:</div> <div>4736.00 ft</div> </div> <div> <div>Elev. GL:</div> <div>4736.00 ft</div> </div> <div> <div>Directional</div> </div>		
<div> <div>Dates</div> <div> <div>Date From:</div> <div>2017-06-13</div> </div> <div> <div>Date To:</div> <div>2017-06-15</div> </div> <div> <div>Spud Date:</div> <div>2017-05-09</div> </div> </div>			<div> <div>Interval Logged</div> <div> <div>Top: (ft)</div> <div>1575.00</div> </div> <div> <div>Bottom: (ft)</div> <div>17145.00</div> </div> </div> <div> <div>Magnetic Field Reference</div> <div> <div>Azi Reference North:</div> <div>True</div> </div> <div> <div>Total Magnetic Field Strength: (nT)</div> <div>52362</div> </div> <div> <div>Mag to Reference North Correction: (deg)</div> <div>8.41 E</div> </div> </div>		
<div> <div>Borehole Record</div> <div> <div>Hole Size (in)</div> <div>8.500</div> </div> </div>			<div> <div>Casing Record</div> <div> <div>Size (in)</div> <div>9.625</div> </div> <div> <div>Weight (lb/ft)</div> <div>36.00</div> </div> <div> <div>From (ft)</div> <div>25.00</div> </div> <div> <div>To (ft)</div> <div>1575.00</div> </div> </div>		
<div> <div>Mud Record</div> <div> <div>Type</div> <div>Diesel-Oil Based Mud</div> </div> </div>			<div> <div>Deviation Record</div> <div> <div>Hole Size (in)</div> <div>8.500</div> </div> <div> <div>Interval (ft)</div> <div>17145.00</div> </div> <div> <div>Inc Az (Start)</div> <div>1.02 216.42</div> </div> <div> <div>Inc Az (End)</div> <div>90.03 271.67</div> </div> </div>		
<div> <div>Acquisition System</div> <div>Baker Hughes Cadence</div> </div>			<div> <div>Software Version</div> <div>RT4.1</div> </div>		
<div> <div>Rig:</div> <div>PD 560</div> </div>			<div> <div>Other</div> <div> <div>Contractor:</div> <div>Precision Drilling</div> </div> <div> <div>Unit:</div> <div>D&E</div> </div> </div>		

"These interpretations and analyses ("Interpretations") are opinions provided by Baker Hughes Oilfield Operations, Inc ("Baker Hughes"), based upon industry practice, empirical relationships, assumptions and measurements, (many of which may be provided by the customer). The Interpretations are not infallible and may be subject to different opinions. Vjwu."Dcmgt"Jwijgu"fqgu"pqv"ycttcpv"vjgkt"ceewtce{"."eqttgevpguu."qt"eqorngvgpguu."qt"vjcv"vjg"ewuvqogtøu"cpflqt"cp{"vjktf"rctv{øu"tgнкcepg"qp"uwej"Kpvgtrtgvcvkqpu"yknn"ceeqornkuj"cp{"rctvkewnct"tguwnvu0"Vjg"ewuvqogt"cuuwogu"hwnn"responsibility for the use of the Interpretations and for decisions based thereon and the customer agrees to release, defend and indemnify Baker Hughes, its parent, subsidiaries and affiliated or related entities, and subcontractors, together with its and their officers, directors, employees, agents and invitees against, any and all claims, losses, damages, or expenses sustained by the customer or any third party arising out of reliance upon or use of the Interpretations, without regard to the cause(s) thereof, including without limitation any form of negligence on the part of Baker Hughes. Unless other contract terms have been agreed to by the parties, each party's liabilities and qdnkicvkqpu"ujcnn"dg"iqxgtpgf"d{"Dcmgt"Jwijgu"Kpeqtrqtcvgføu"Yqtnfykfg"Vgtou"cpf"Eqpfkvkqpu0\$""

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	
1	1	8.500	PDC	3.00	AutoTrak Curve	1575.00	4925.00	1575.00	4937.00	2017-06-14 02:11	2017-06-14 13:28	9.64
2	2	8.500	PDC	3.00	AutoTrak Curve	4925.00	14222.00	4937.00	14234.00	2017-06-14 20:40	2017-06-16 19:40	39.16
3	3	8.500	PDC	3.00	AutoTrak Curve	14222.00	17132.00	14234.00	17145.00	2017-06-17 13:22	2017-06-18 02:58	12.40

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Bryan Severson	2017-06-13	2017-06-18	Emuobosan Onosu	2017-06-13	2017-06-18			

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+ (%)
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2017-06-13 11:28	1	1569.00	Diesel-Oil Based Mud	10.0	54	N/A	0.0	64/36	Active Pit	18000	0.00
2017-06-14 04:56	1	2563.00	Diesel-Oil Based Mud	10.0	62	N/A	0.0	66/34	Active Pit	19000	0.00
2017-06-14 17:43	2	4937.00	Diesel-Oil Based Mud	10.0	55	N/A	0.0	63/37	Active Pit	19000	0.00
2017-06-15 04:13	2	6434.00	Diesel-Oil Based Mud	10.0	56	N/A	0.0	65/35	Active Pit	20000	0.00
2017-06-16 03:07	2	11180.00	Diesel-Oil Based Mud	10.0	48	N/A	0.0	64/36	Active Pit	21000	0.00
2017-06-16 22:53	3	14234.00	Diesel-Oil Based Mud	10.0	52	N/A	0.0	65/35	Active Pit	20000	0.00
2017-06-18 03:18	3	17145.00	Diesel-Oil Based Mud	10.1	51	N/A	0.0	66/34	Active Pit	21000	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	ATC_SU	14127486	Near Bit VSS	5.93	6.89	7.000	4.330
1	ATC_SU	14127486	Near Bit Inclination	5.93	6.89	7.000	4.330
1	ATC_MWD	14131212	Gamma (single)	2.28	12.59	7.000	3.250
1	ATC_MWD	14131212	Directional (mag)	12.20	22.51	7.000	3.250
2	ATC_SU	14127486	Near Bit VSS	5.93	6.73	7.000	4.330
2	ATC_SU	14127486	Near Bit Inclination	5.93	6.73	7.000	4.330
2	ATC_MWD	14131212	Gamma (single)	2.28	12.43	7.000	3.250
2	ATC_MWD	14131212	Directional (mag)	12.20	22.35	7.000	3.250
3	ATC_SU	12088420	Near Bit VSS	5.93	6.73	7.000	4.330
3	ATC_SU	12088420	Near Bit Inclination	5.93	6.73	7.000	4.330
3	ATC_MWD	12914616	Gamma (single)	2.54	12.69	7.000	3.250
3	ATC_MWD	12914616	Directional (mag)	12.20	22.35	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

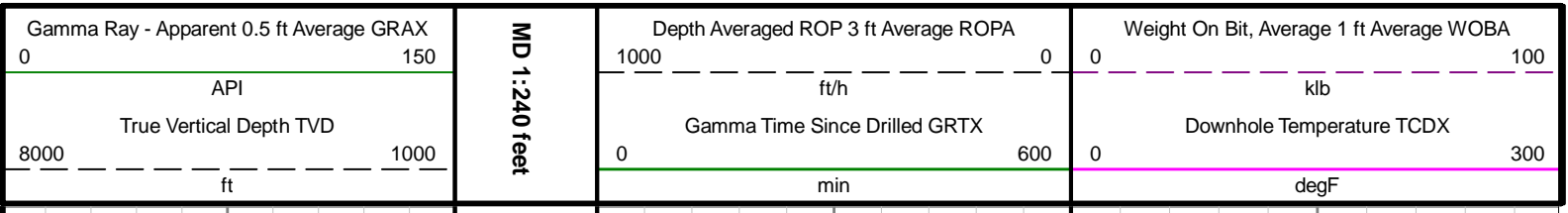
1	Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
2	On 6/17/17, the ATC_MWD tool was used to acquire MWD data from 1575 to 17145 feet MD (1575 to 6825 feet TVD).
3	Numerous gaps in Real Time Gamma Ray data are present throughout the log due to downlinking while drilling.

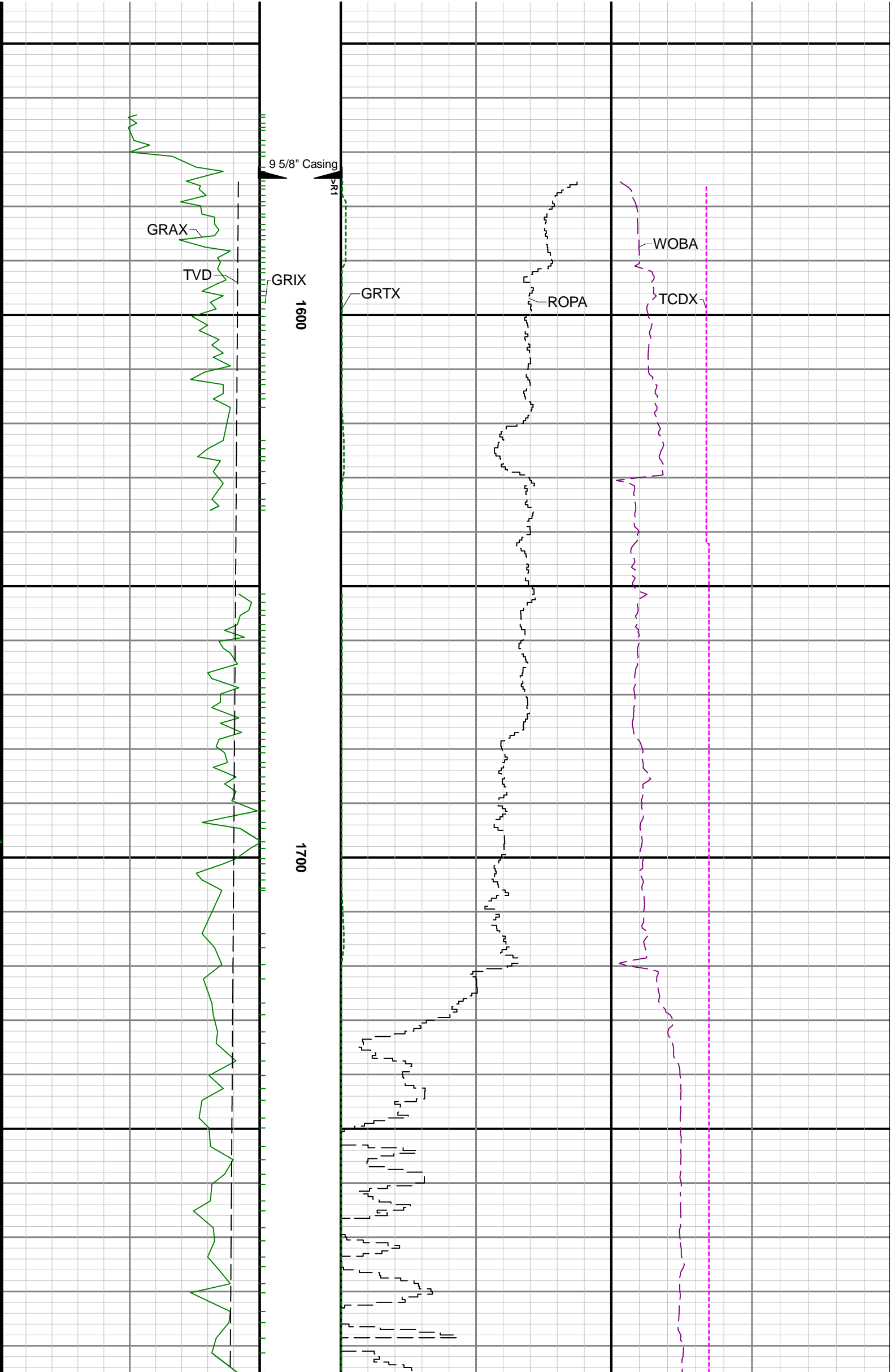
Remarks

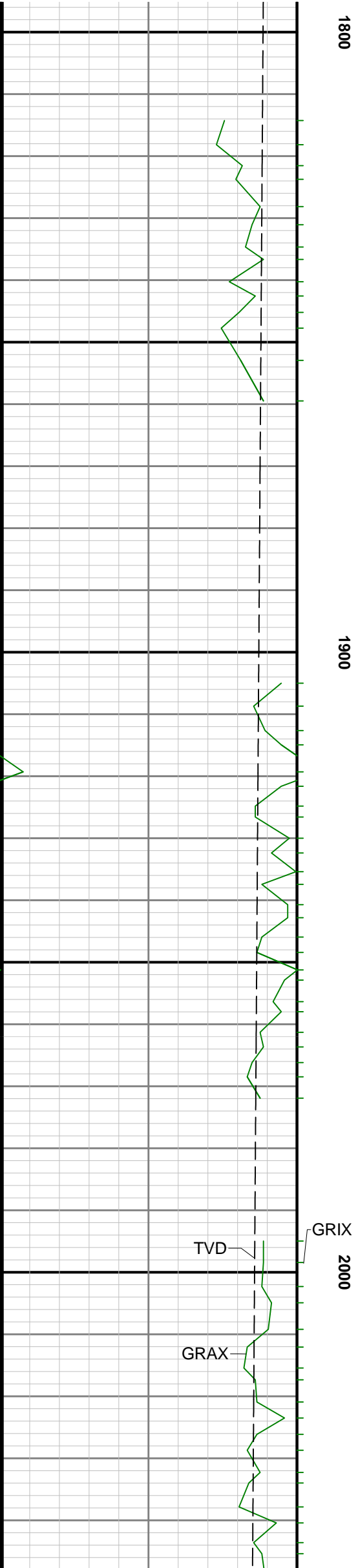
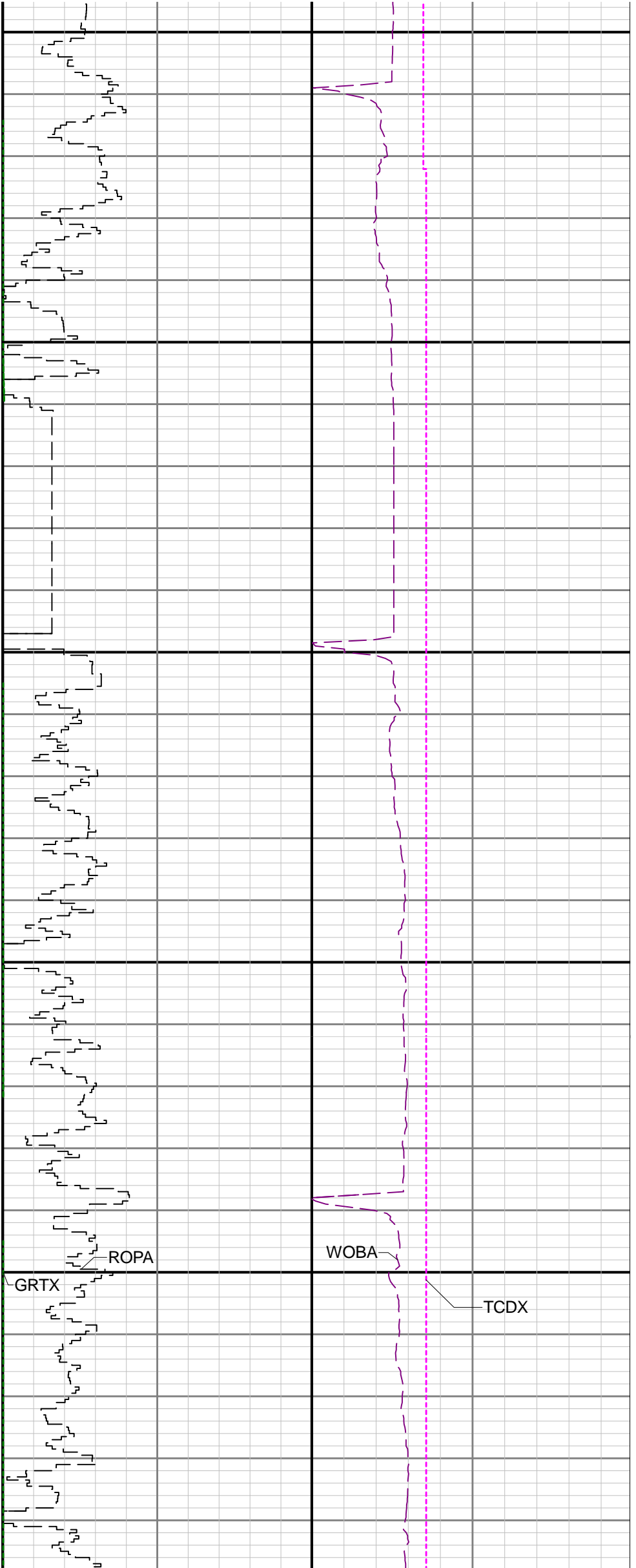
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	17123.00	8.500	3	The interval from 17123 to 17145 feet MD (6825 feet TVD) was not logged due to sensor to bit offset at well TD.

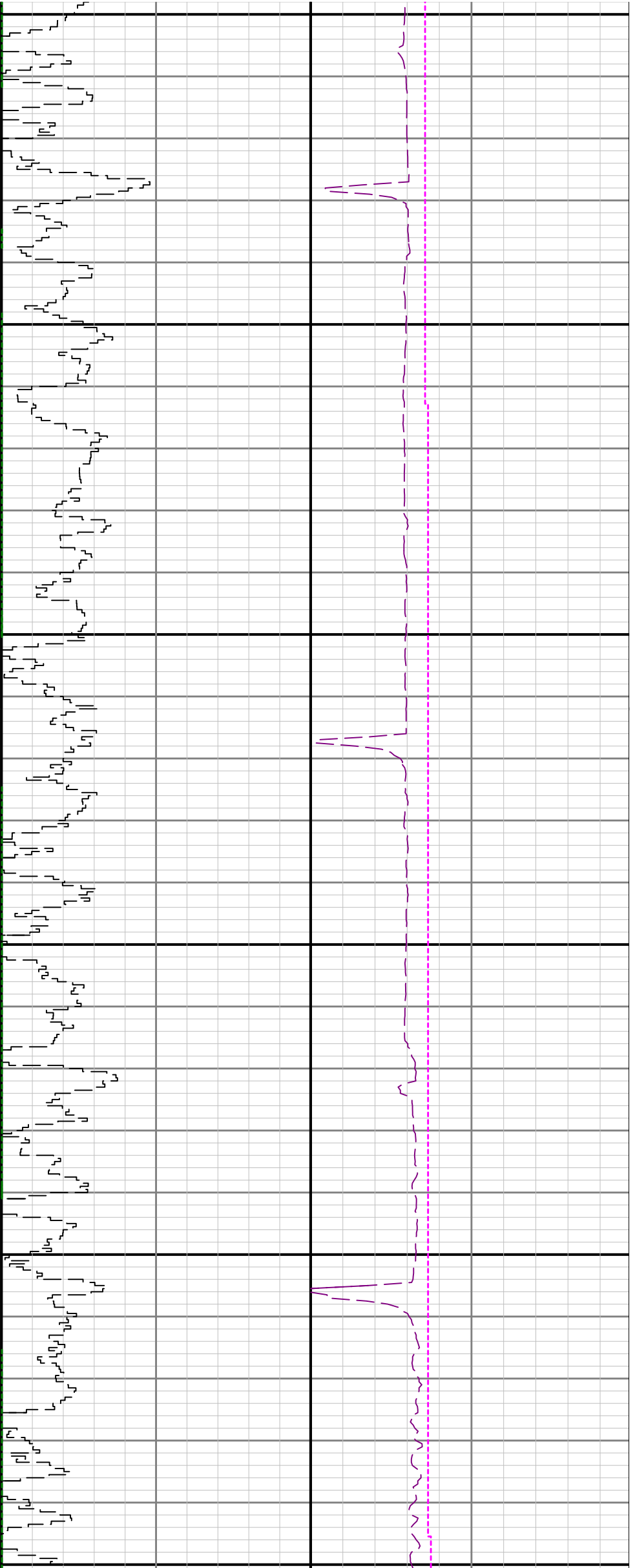
Curve Mnemonics

Presented Curves	Description	Units
TCDX	Downhole Temperature	degF
ROPA	Depth Averaged ROP 3 ft Average	ft/h
TVD	True Vertical Depth	ft
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAX	Gamma Ray - Apparent 0.5 ft Average	API
GRIX	Gamma Ray - Data Point Indicator	unitless
GRTX	Gamma Time Since Drilled	min





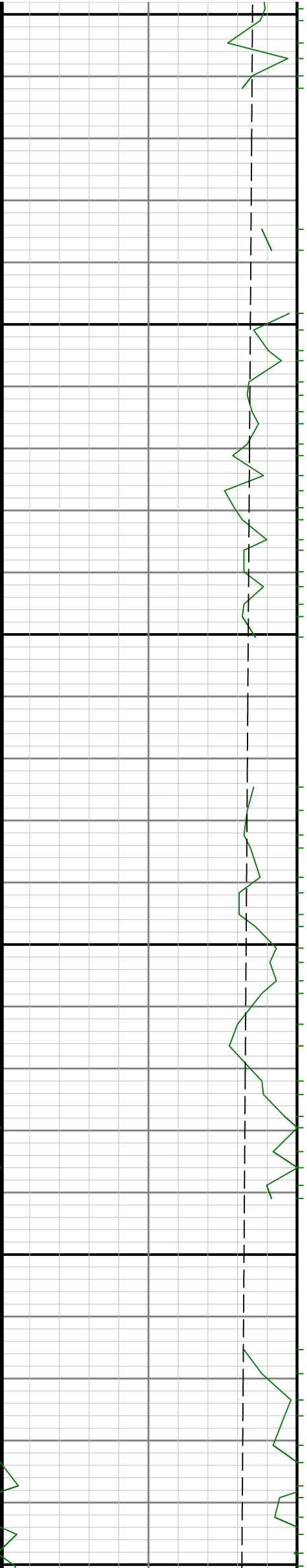


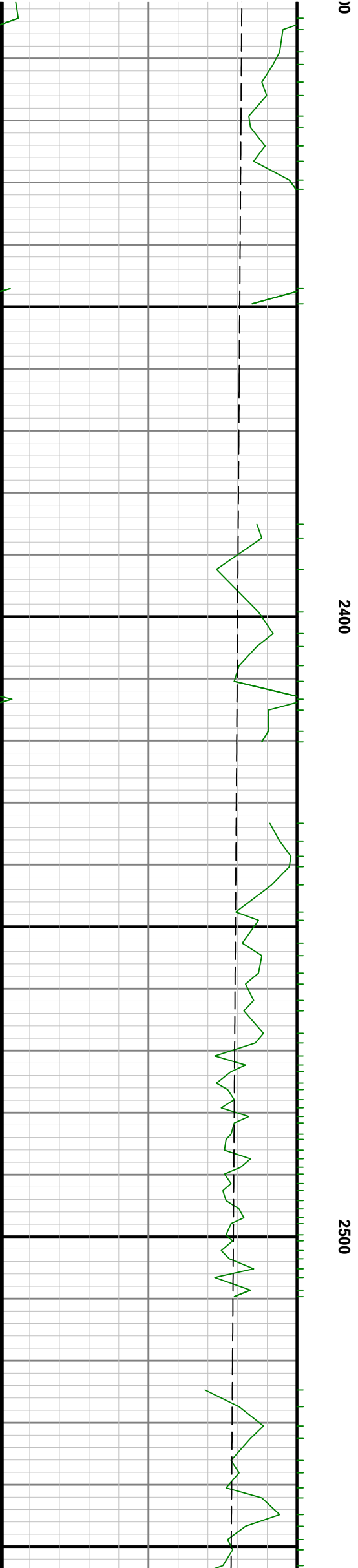
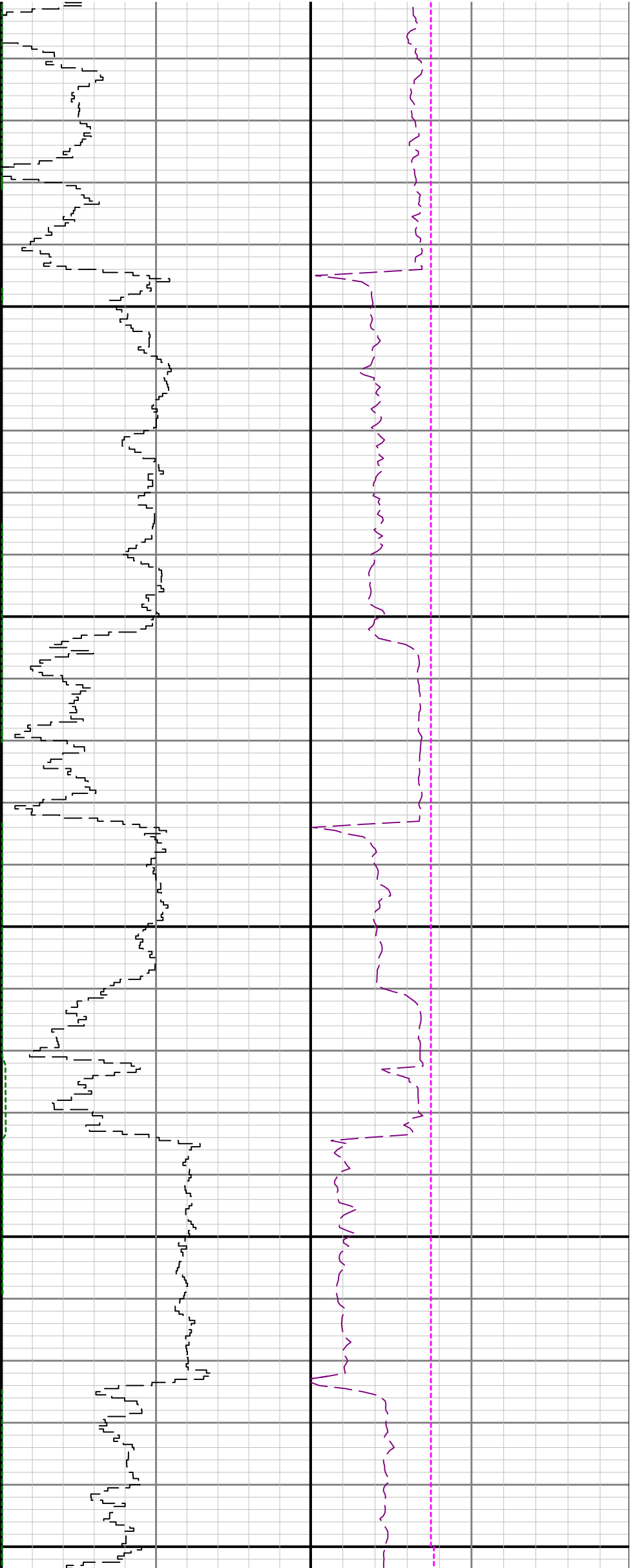


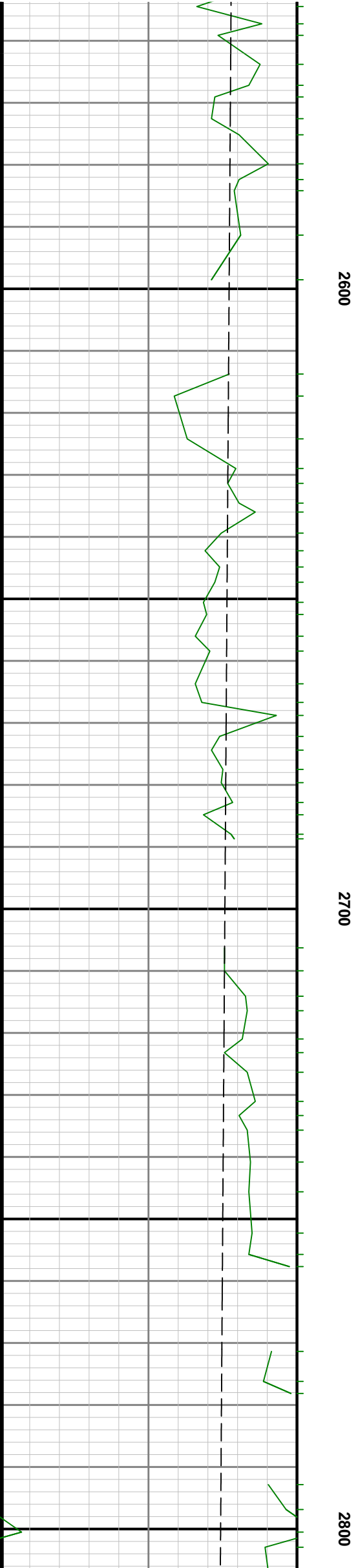
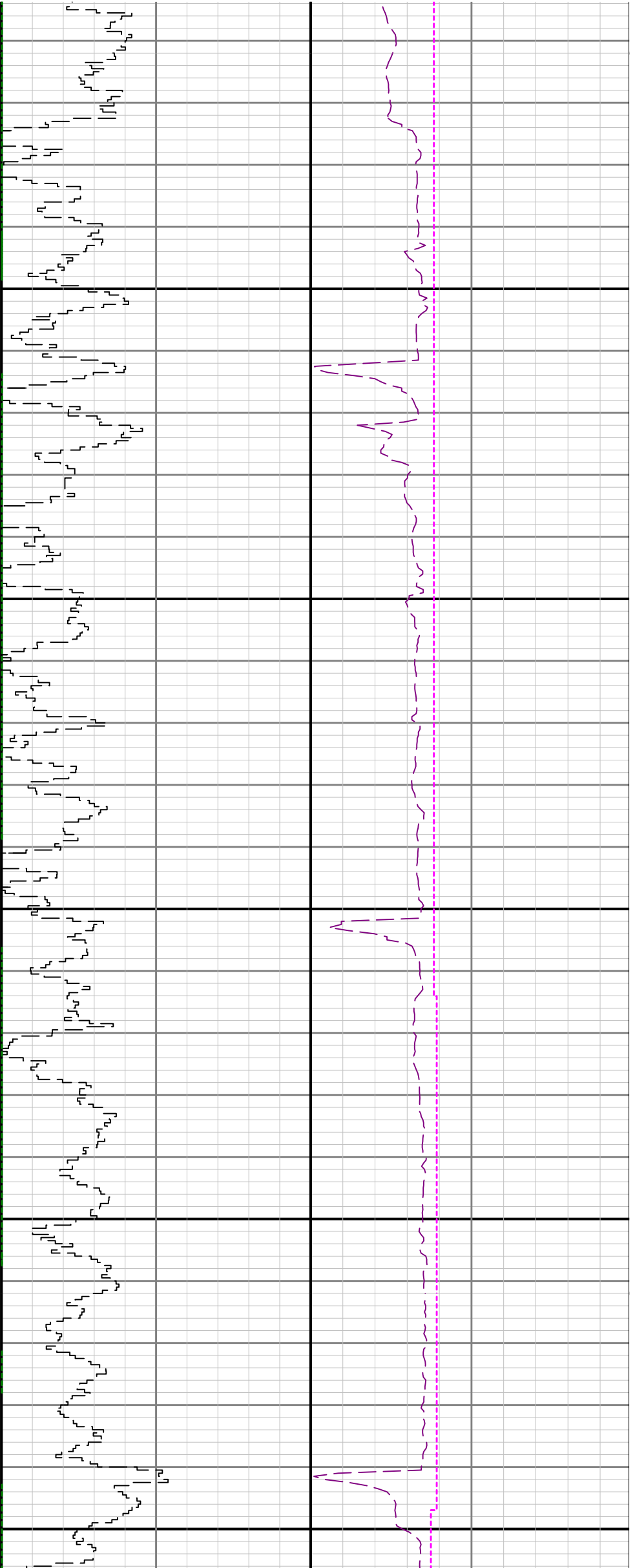
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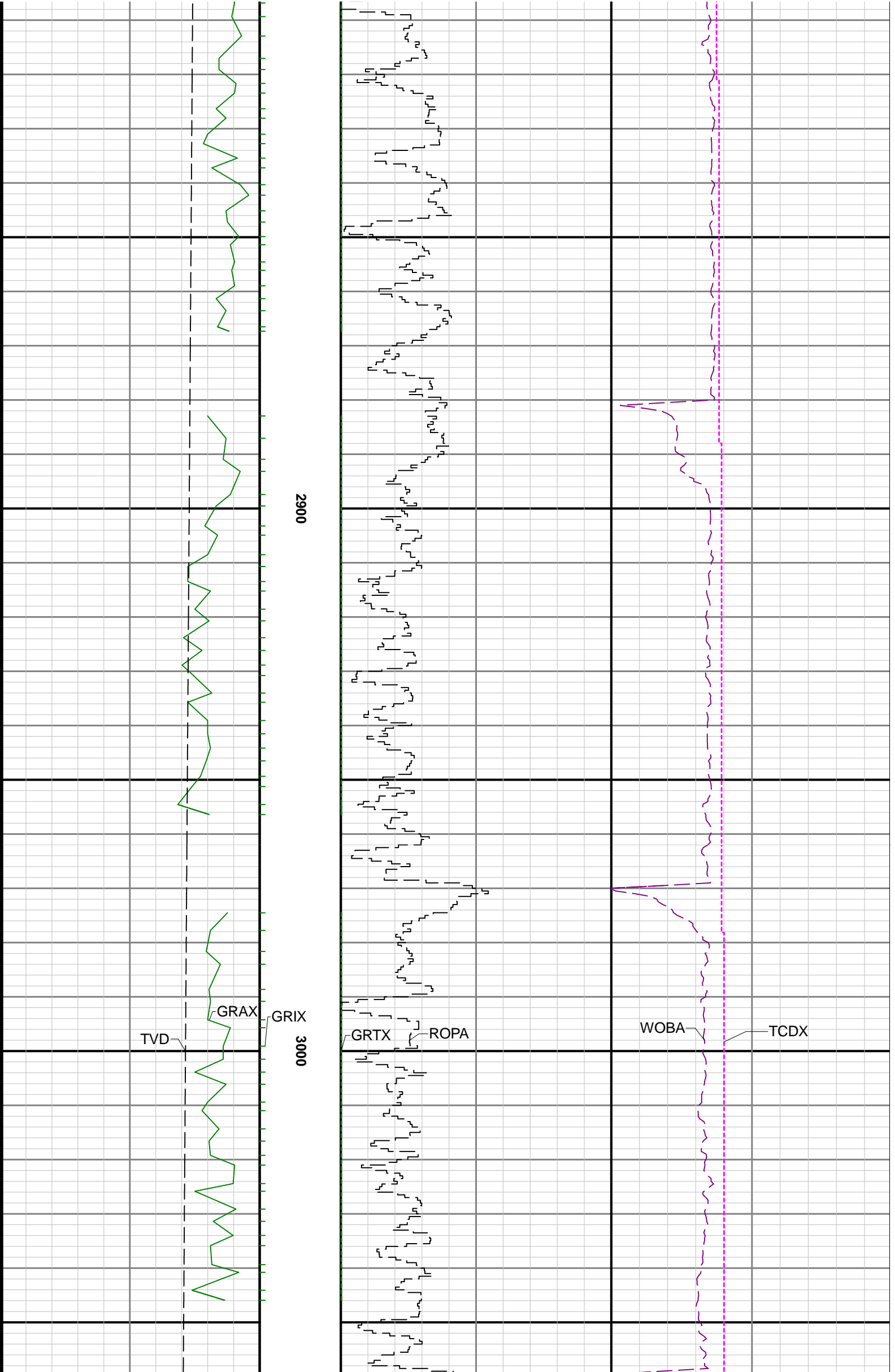
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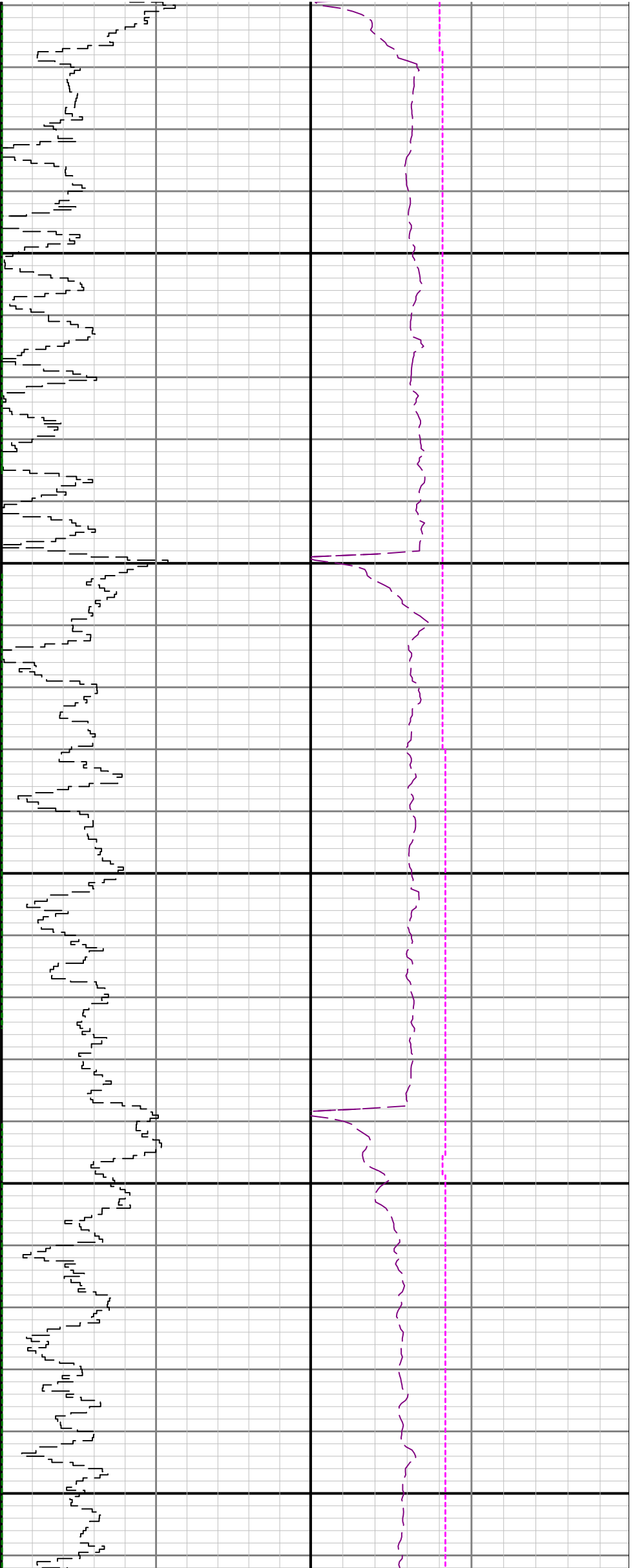
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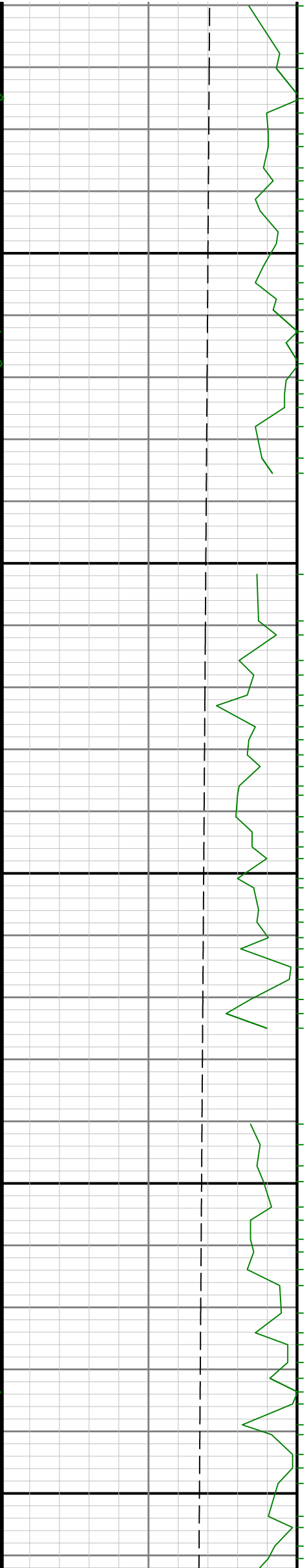


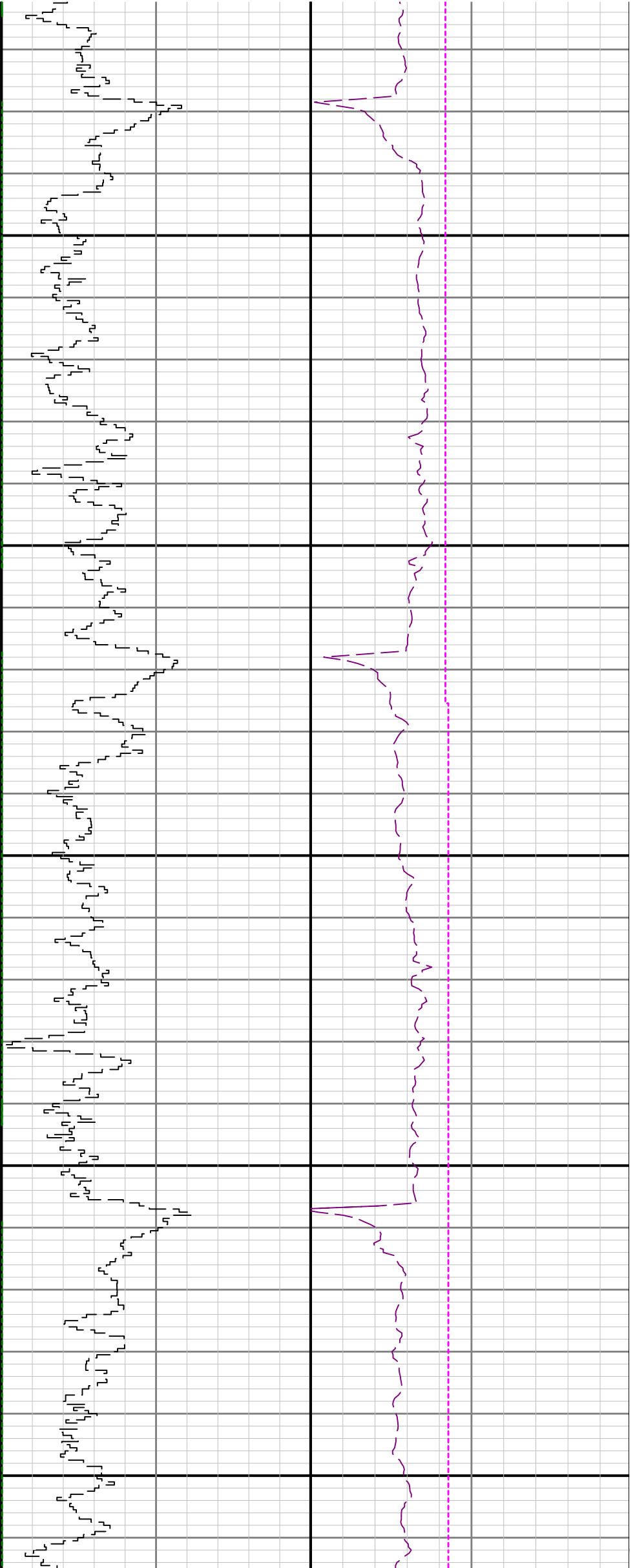


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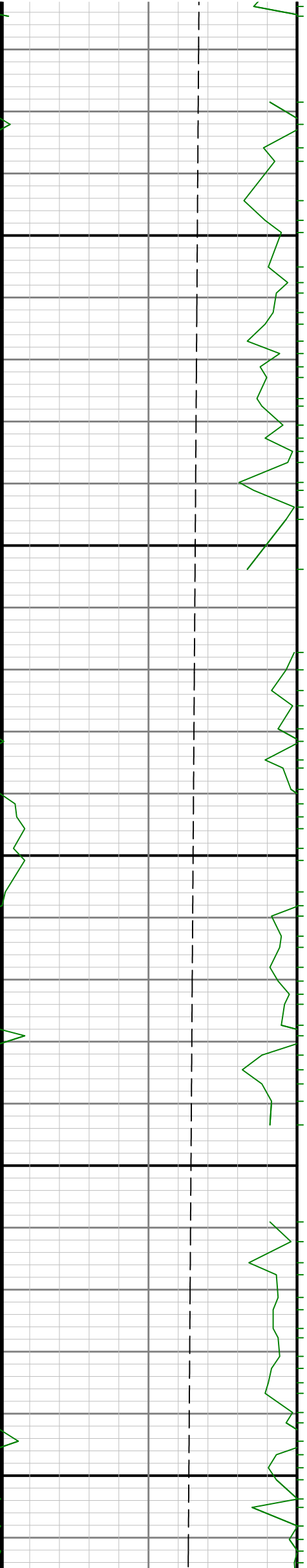
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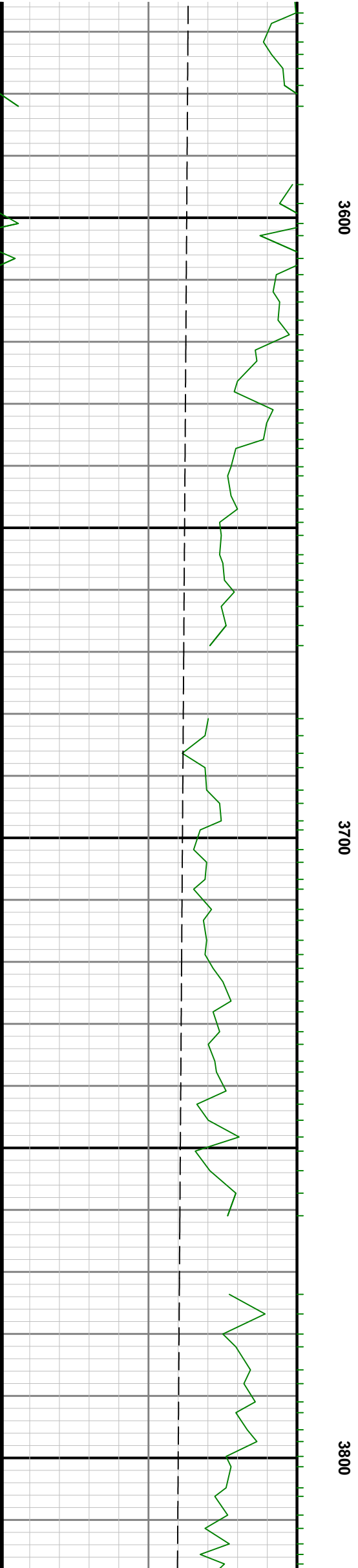
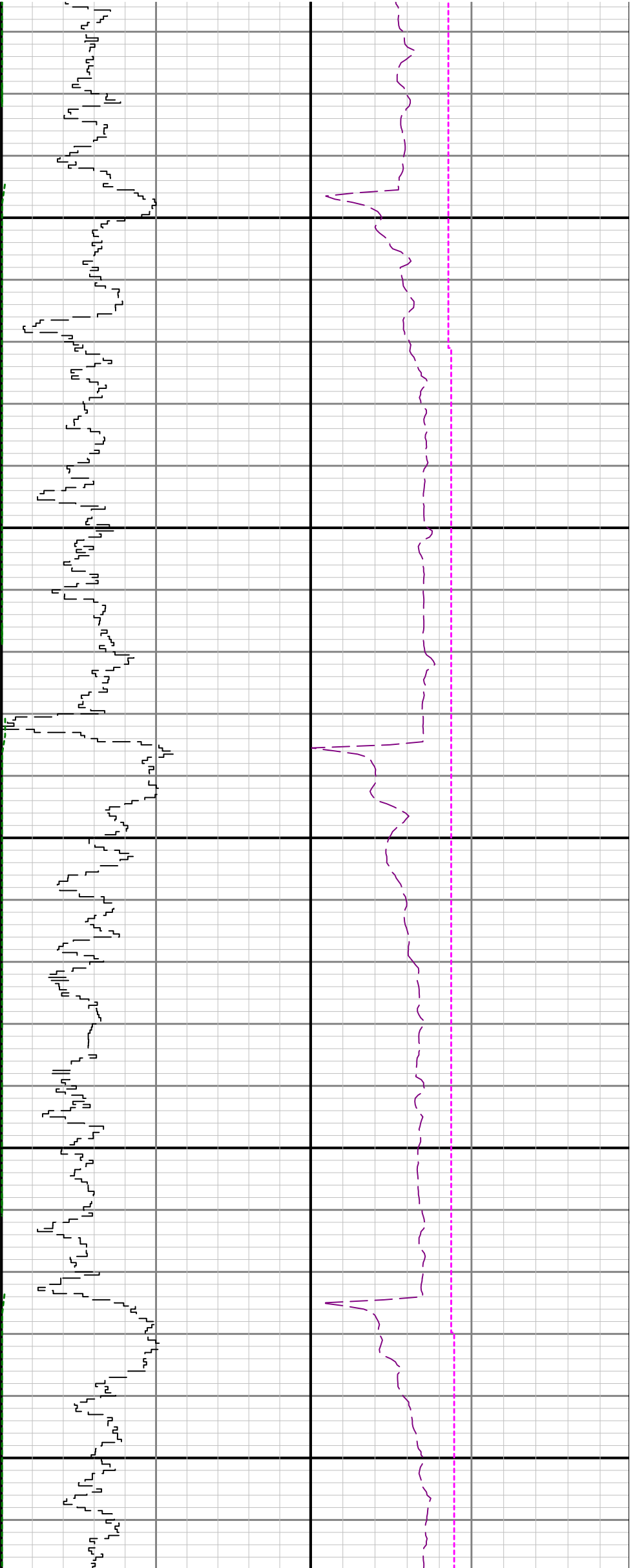


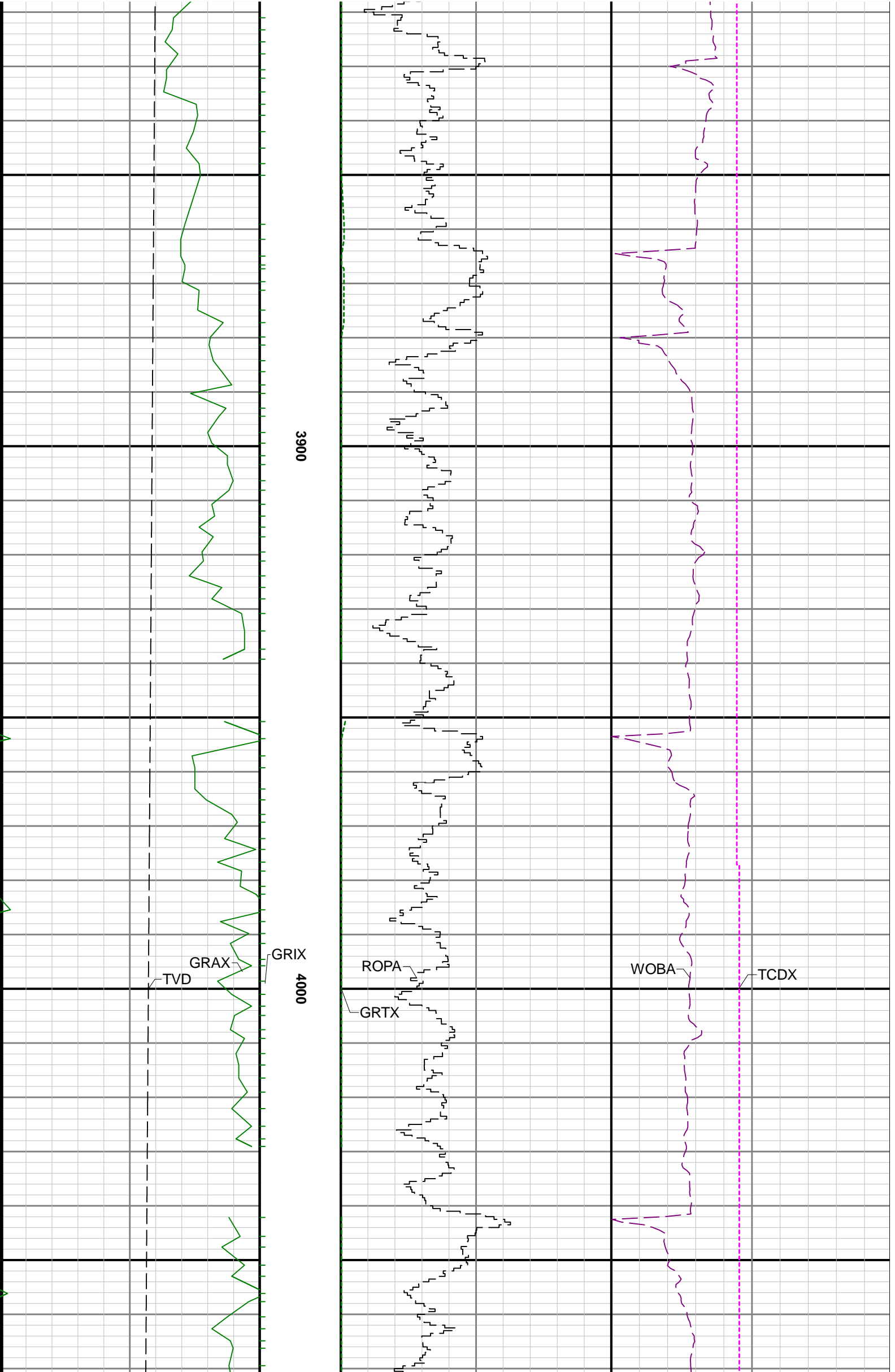


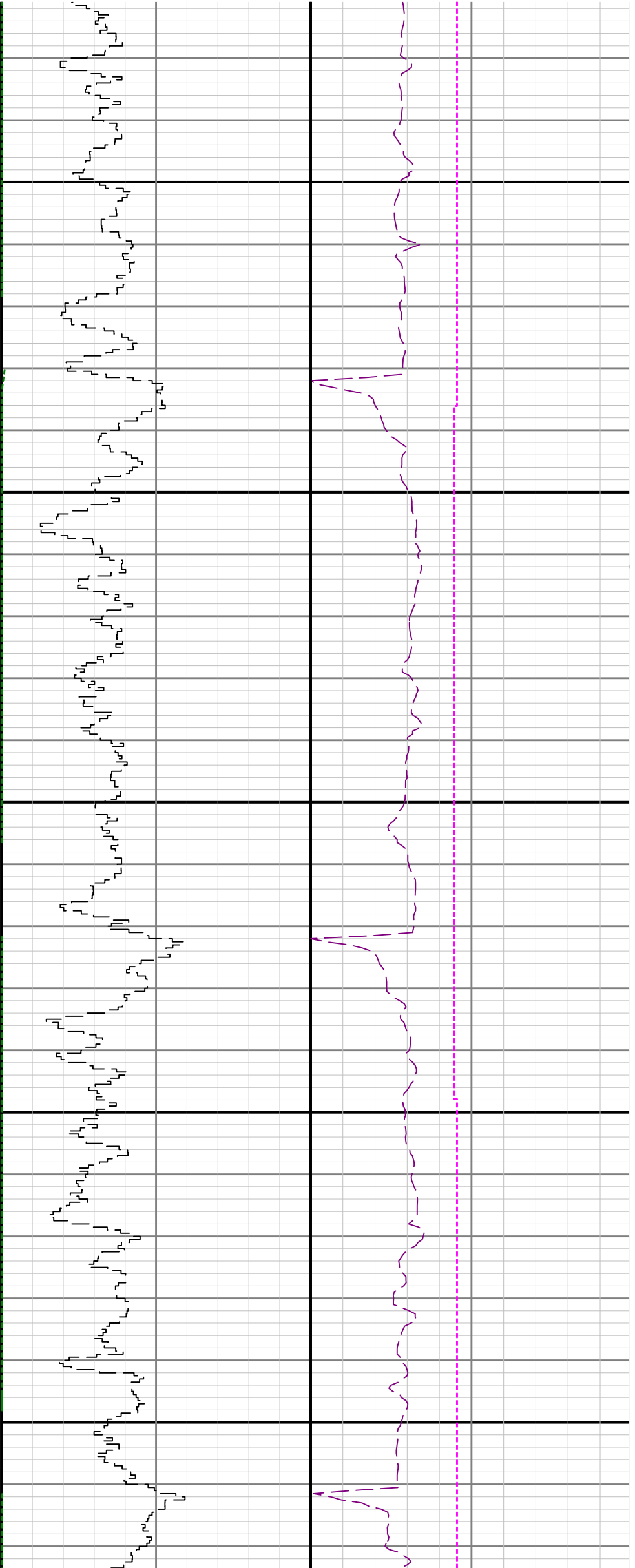
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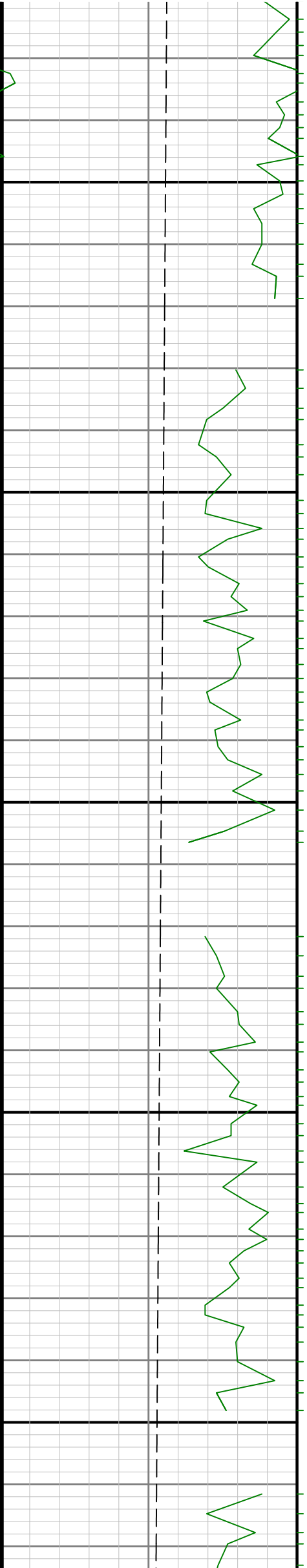


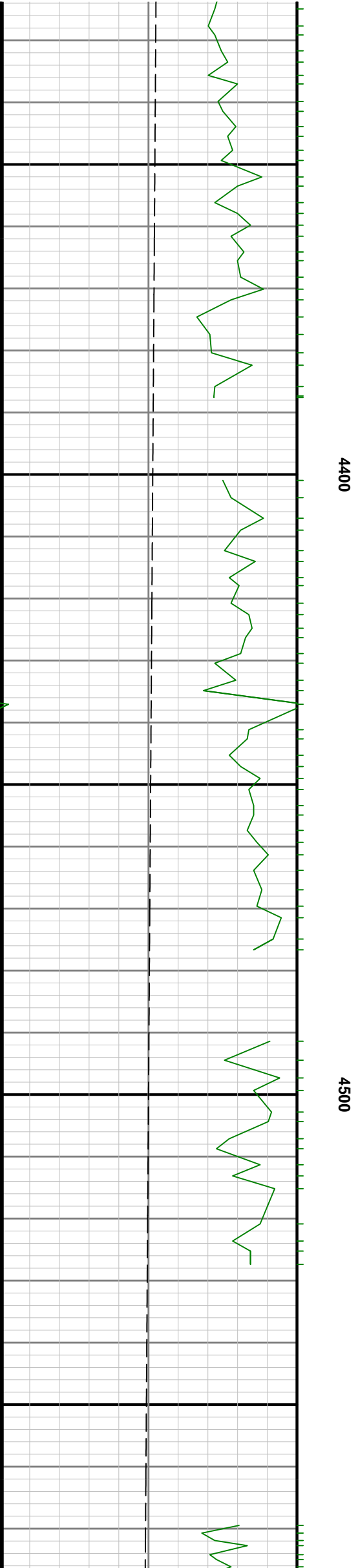
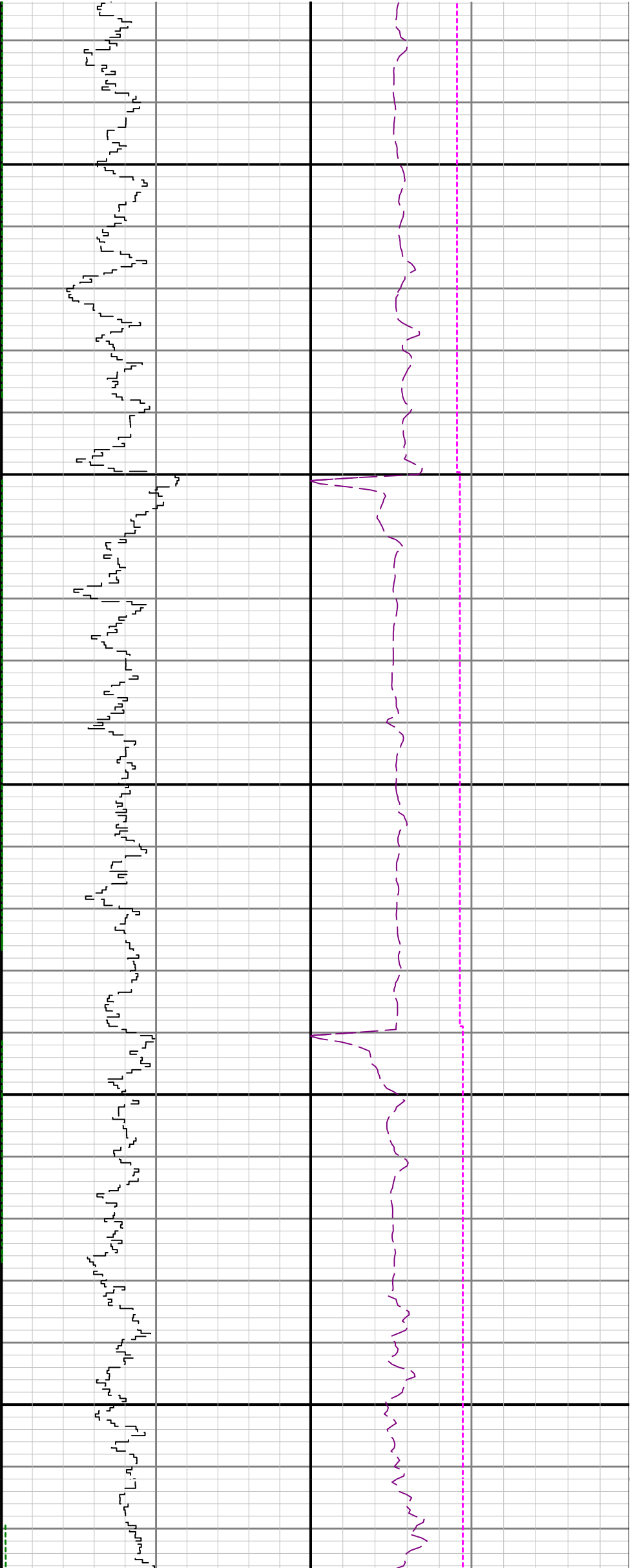


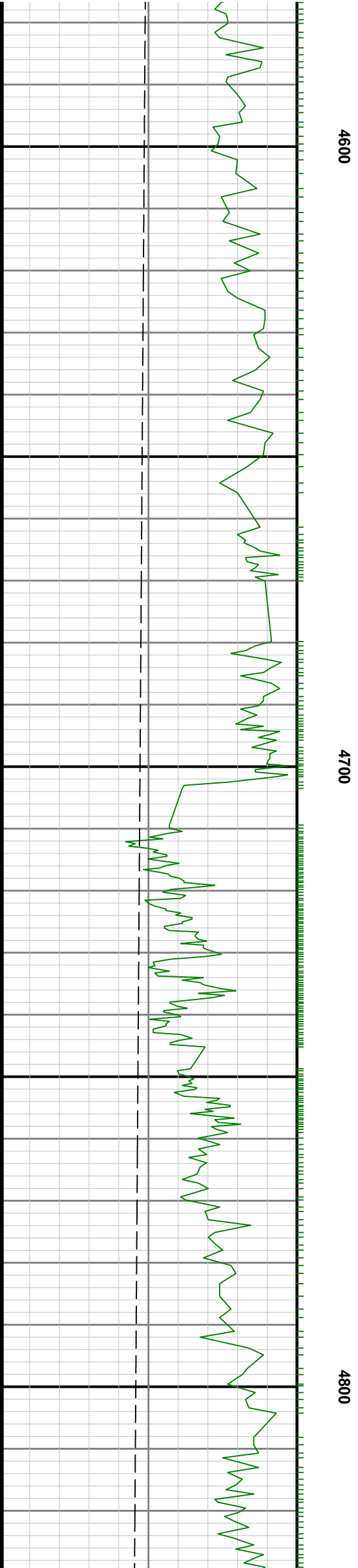
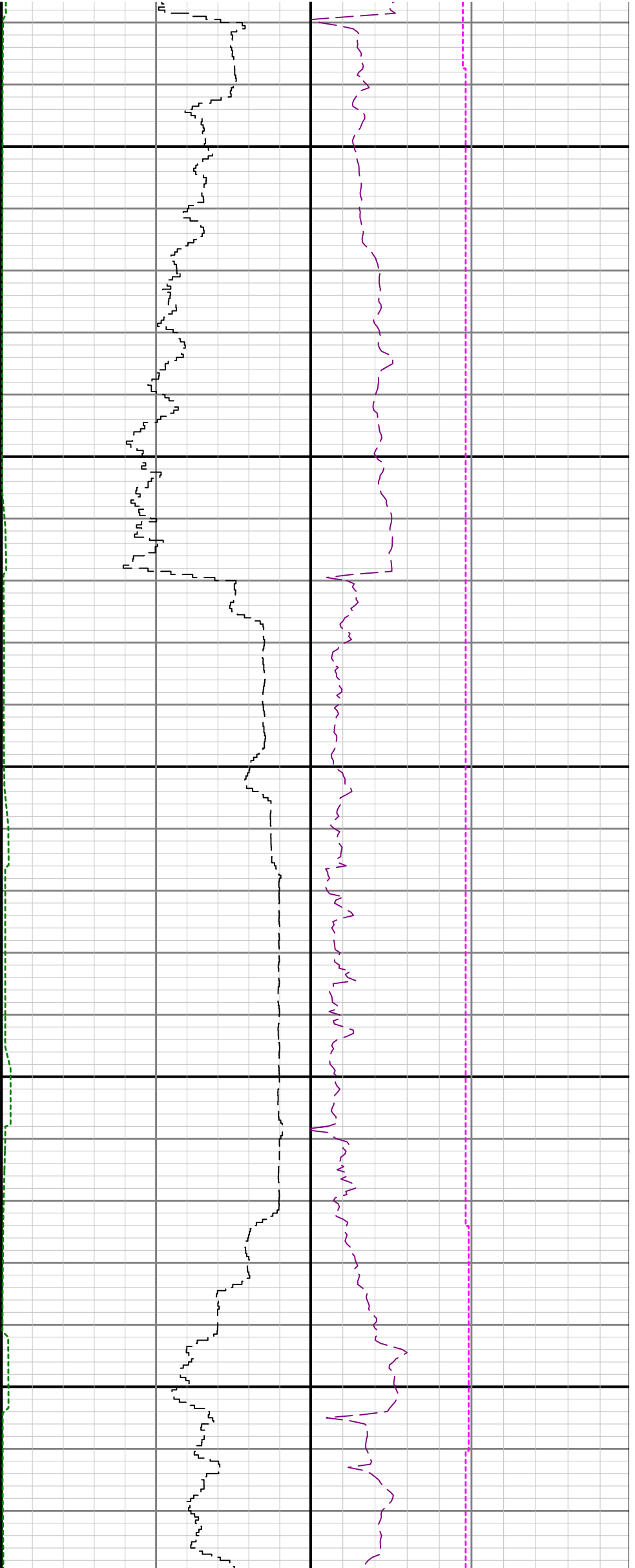
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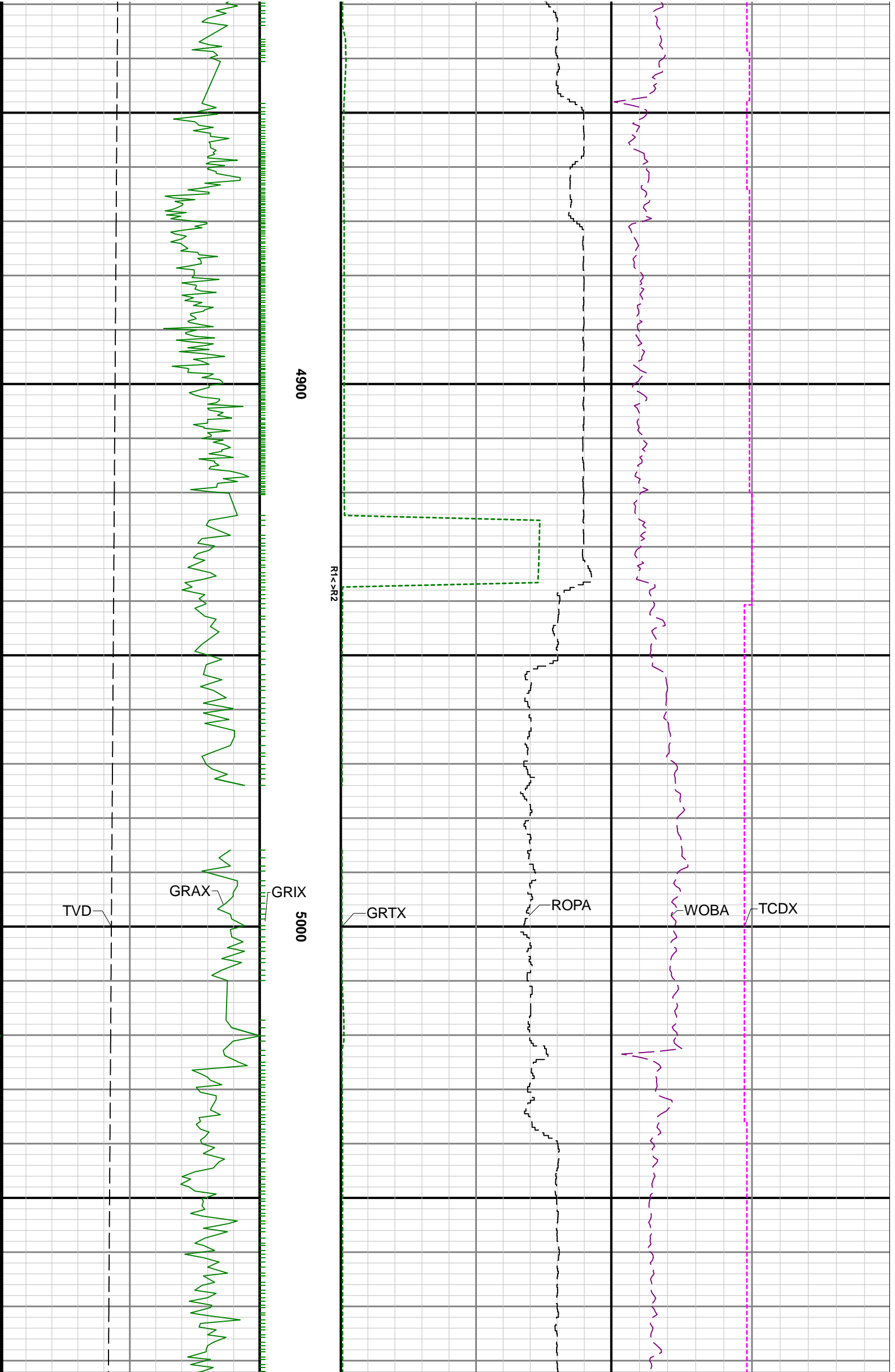
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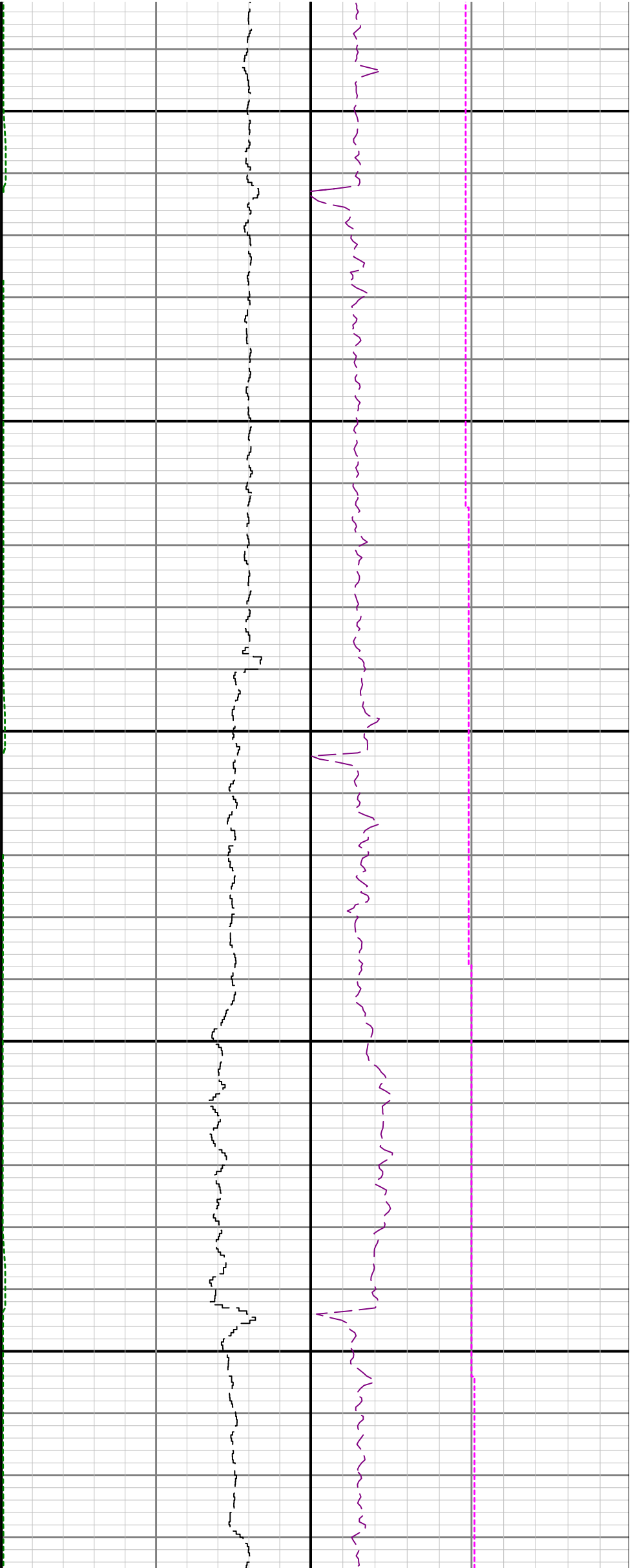
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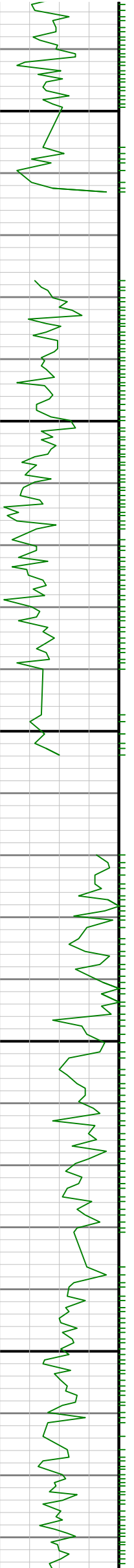


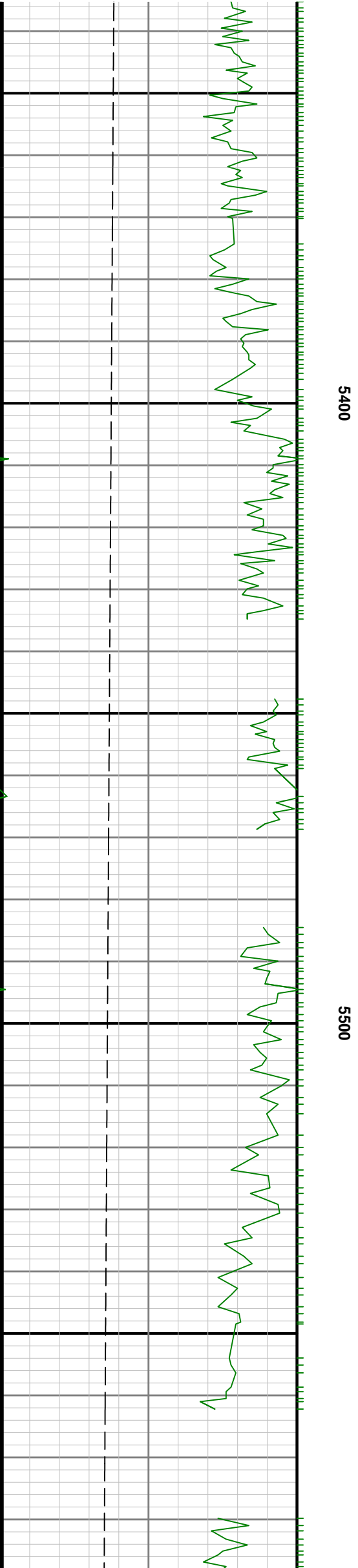


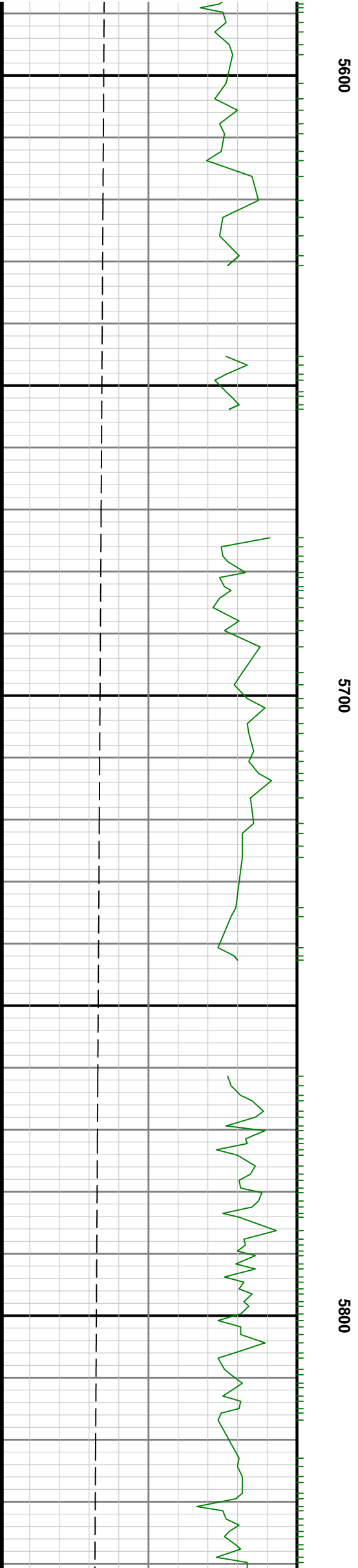
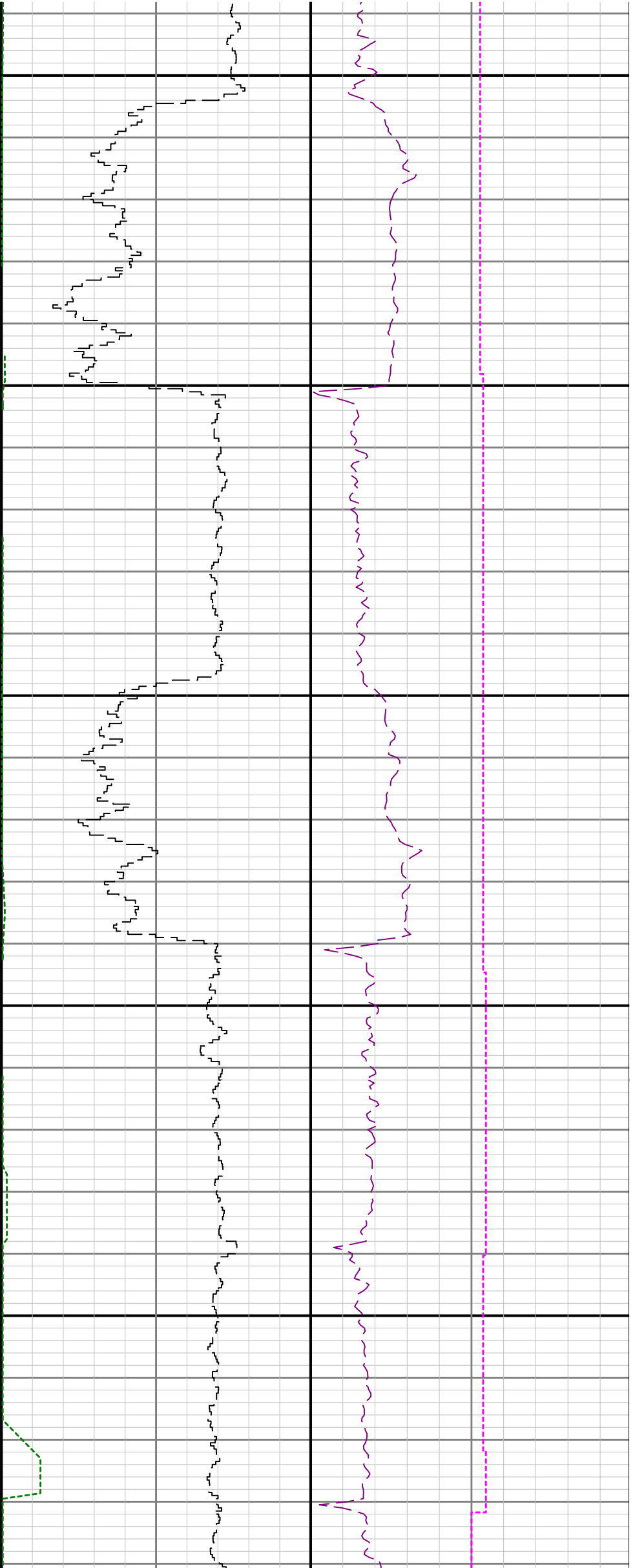
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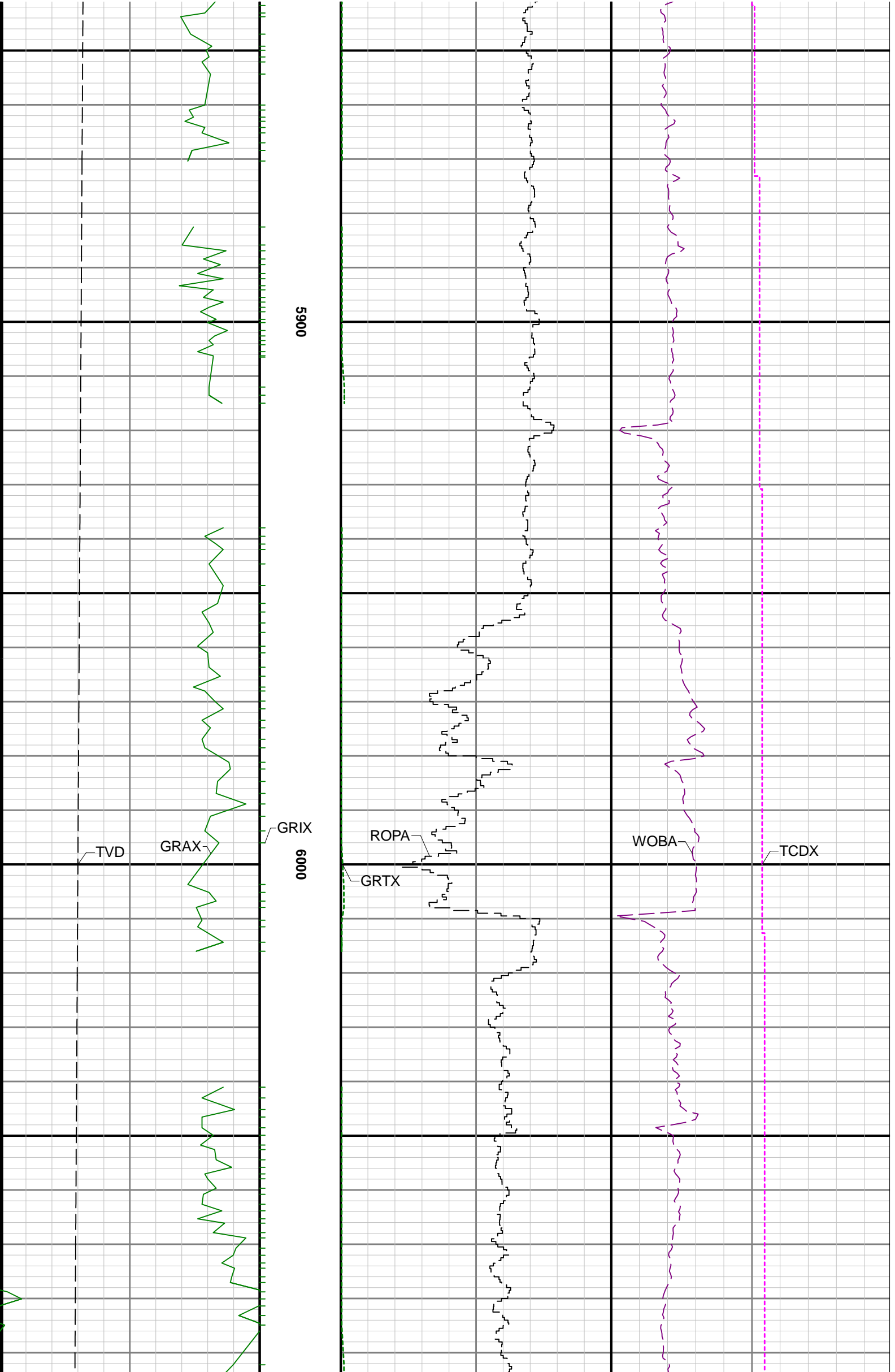
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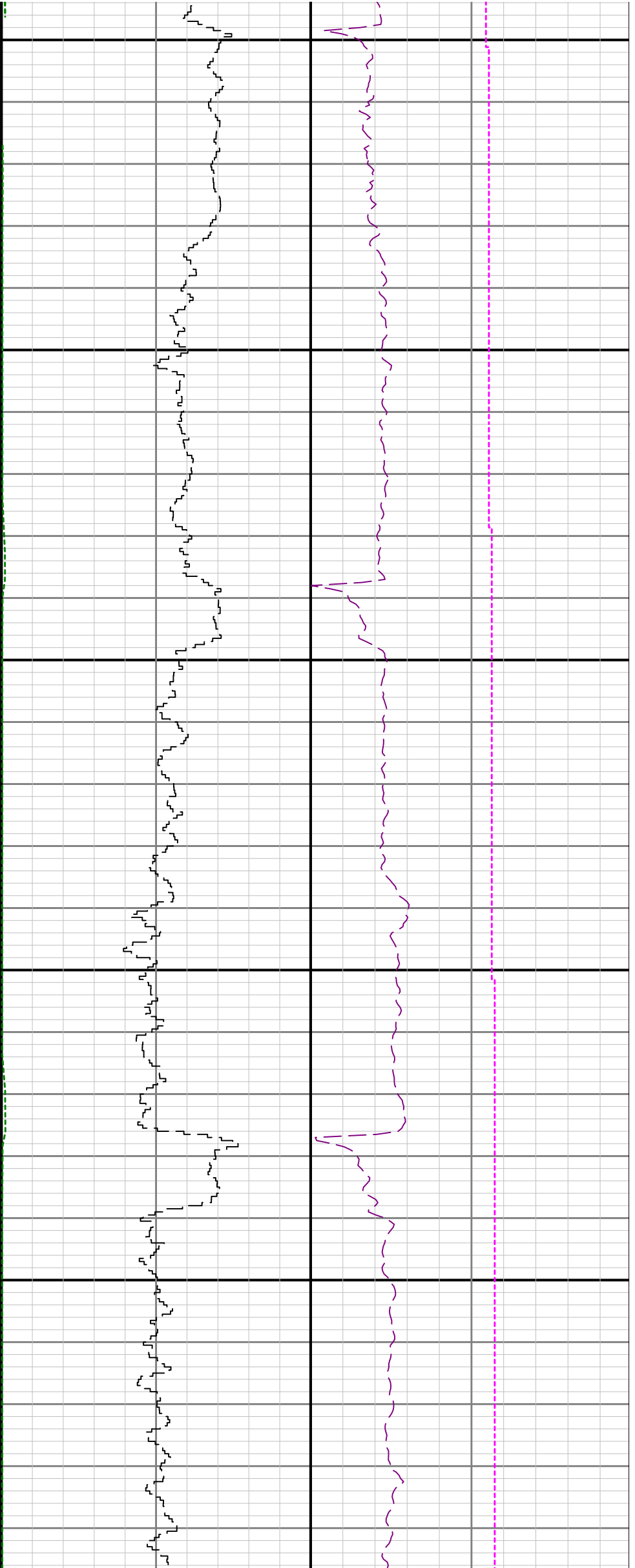
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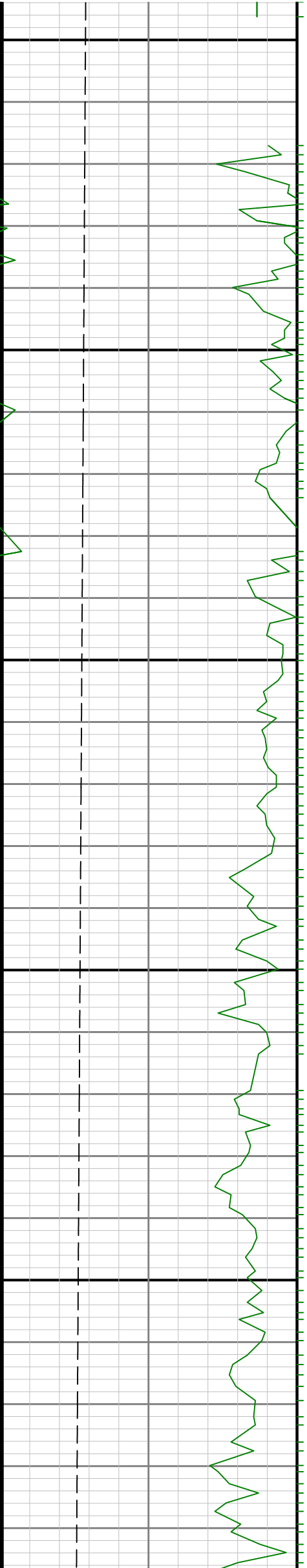


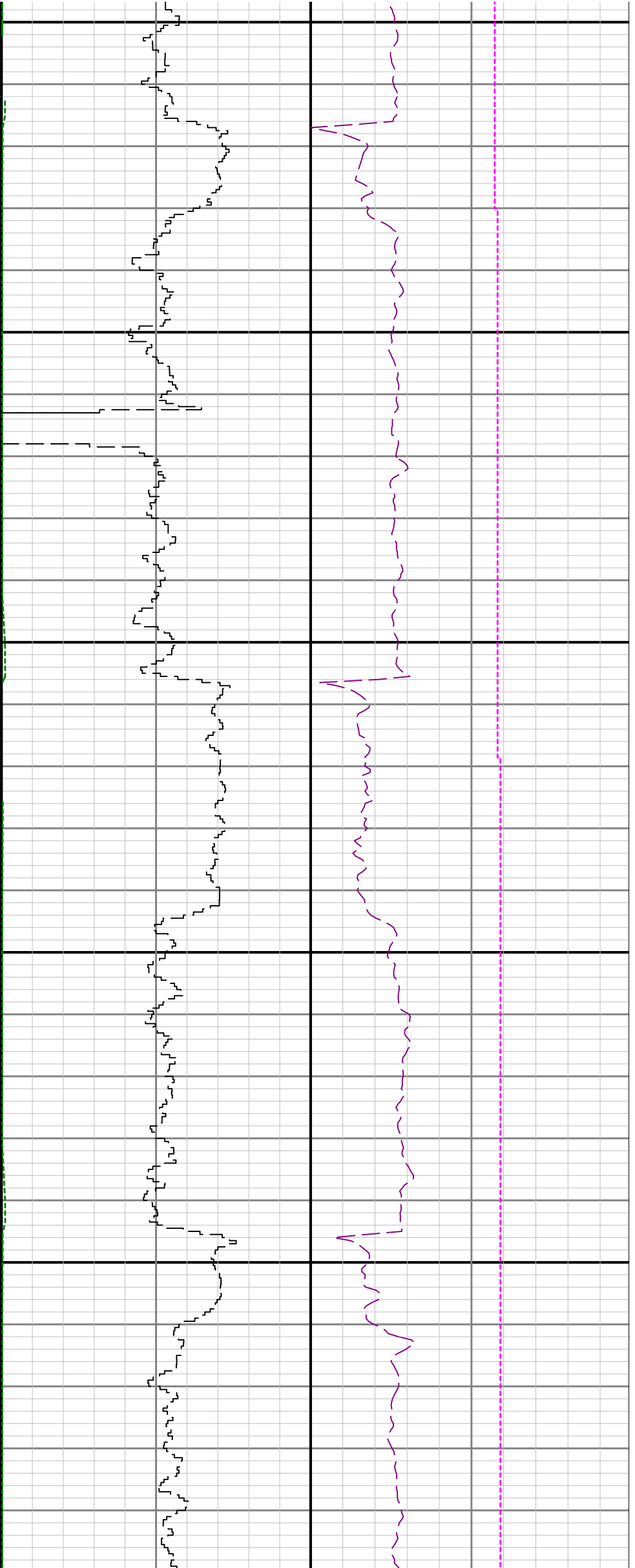


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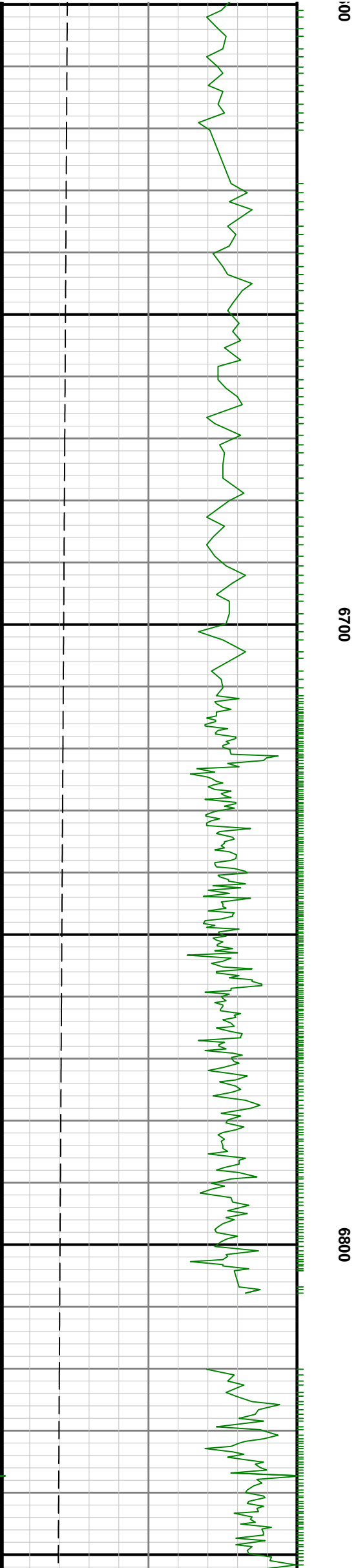
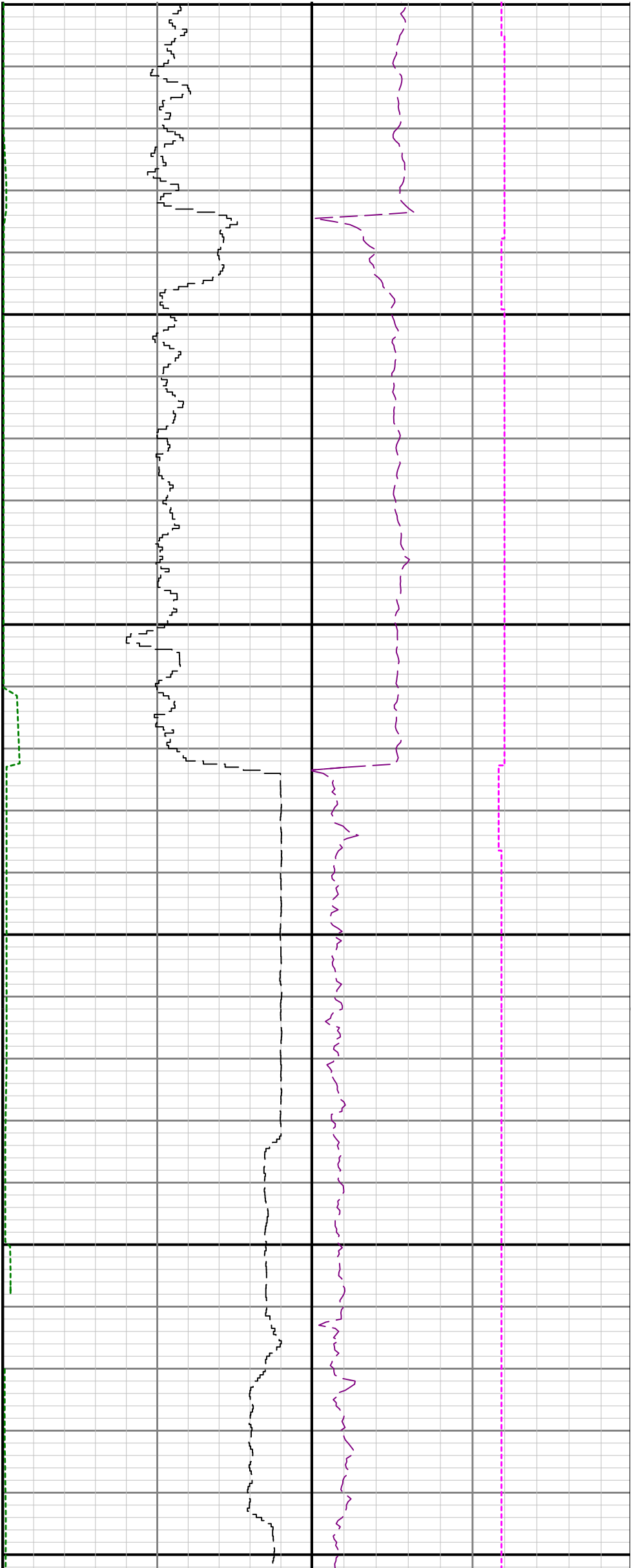


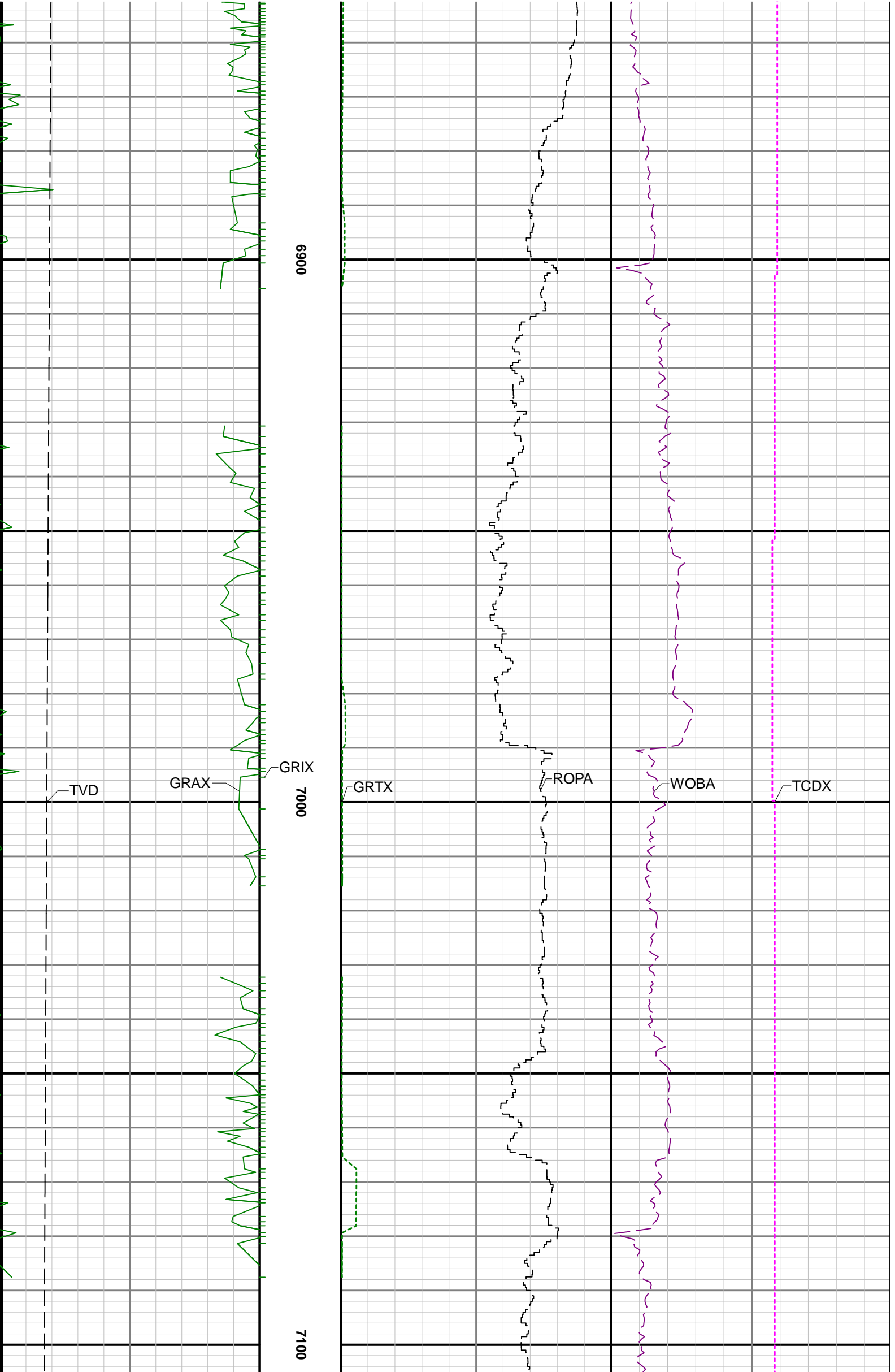


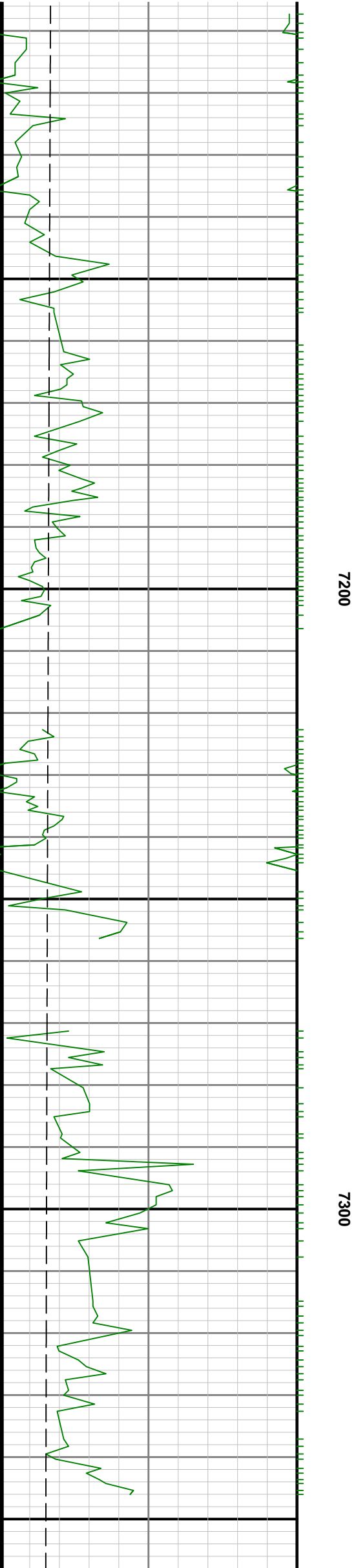
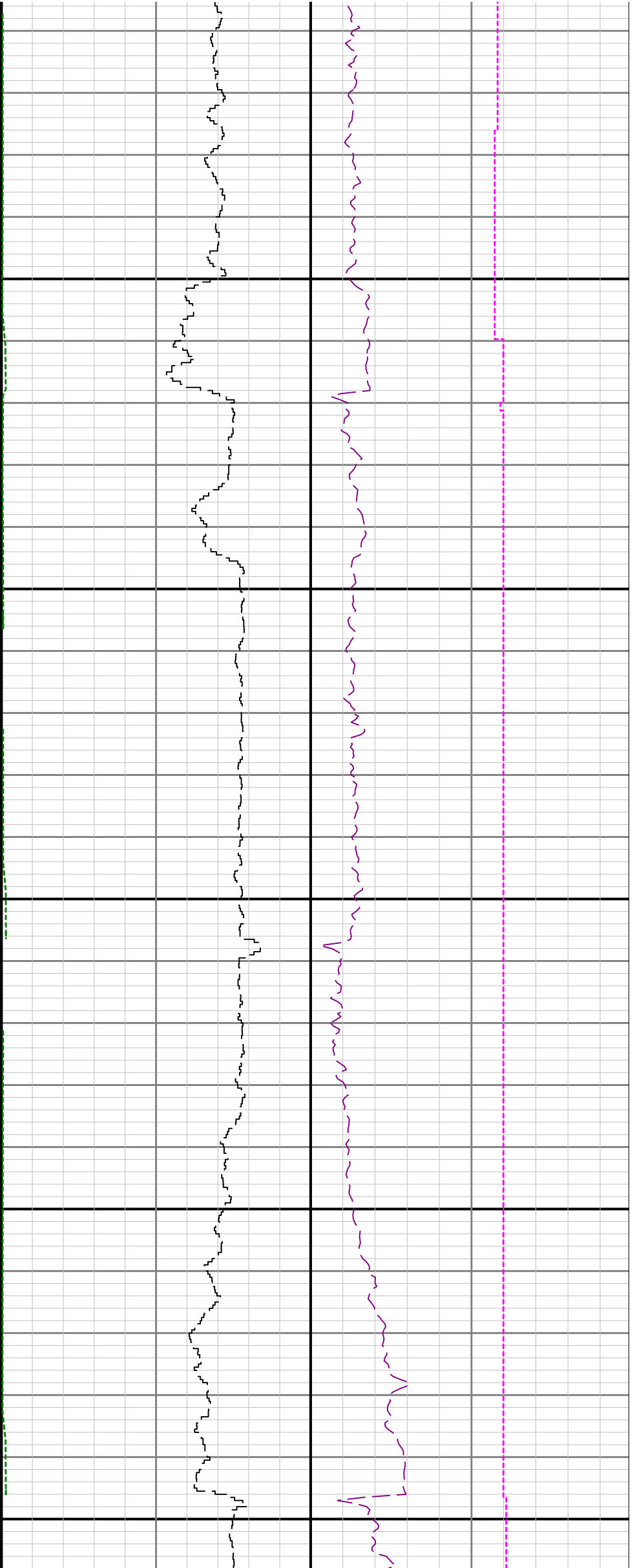
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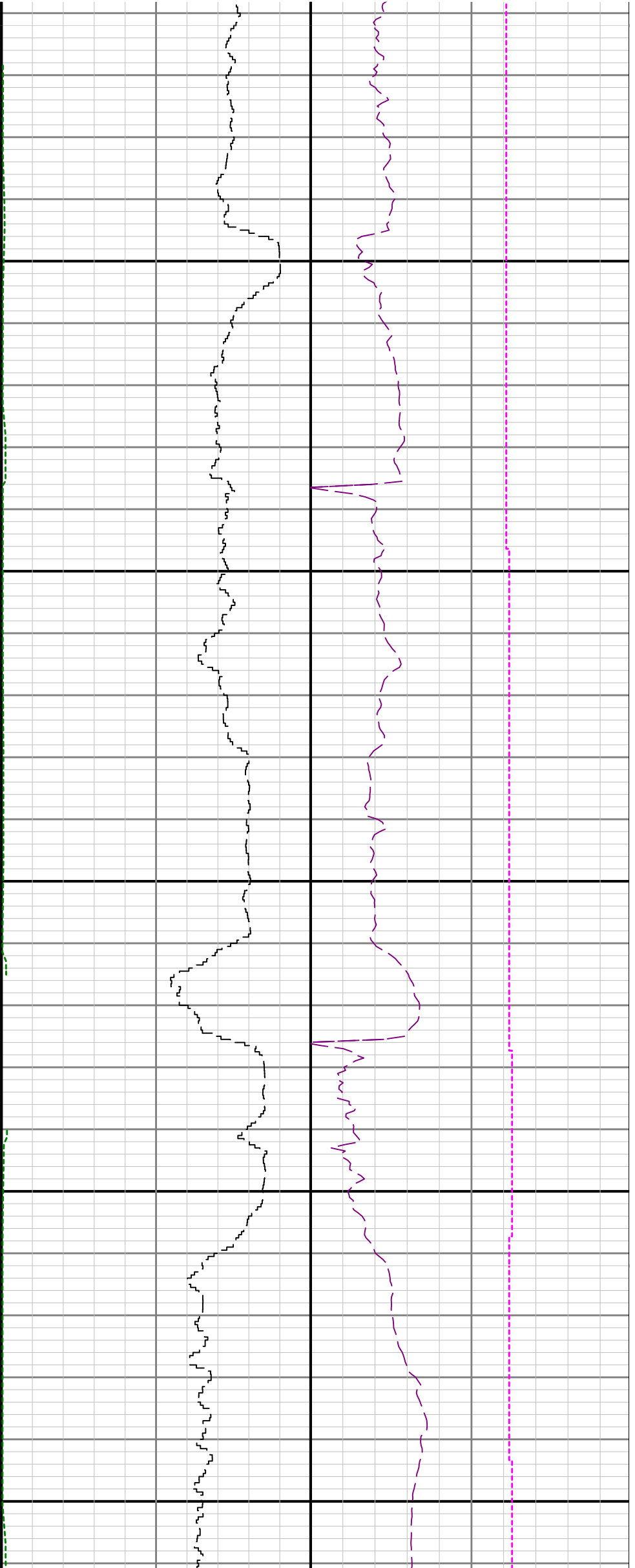
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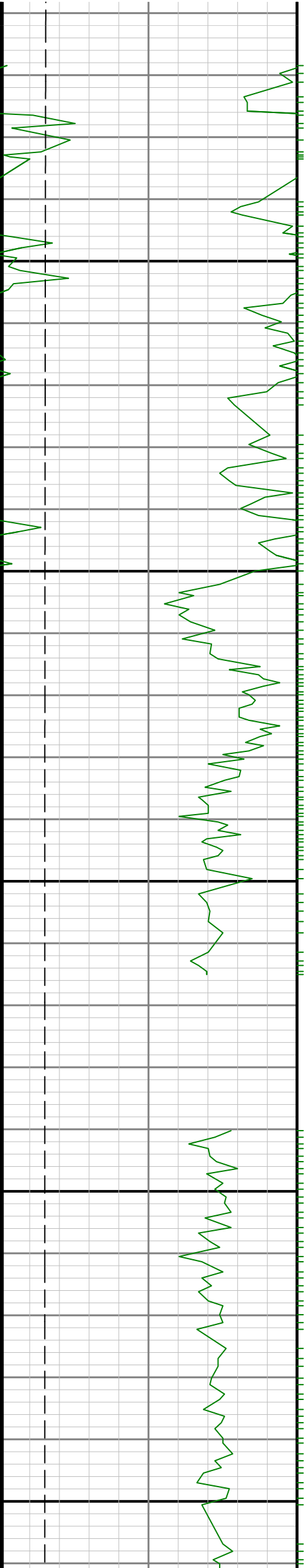


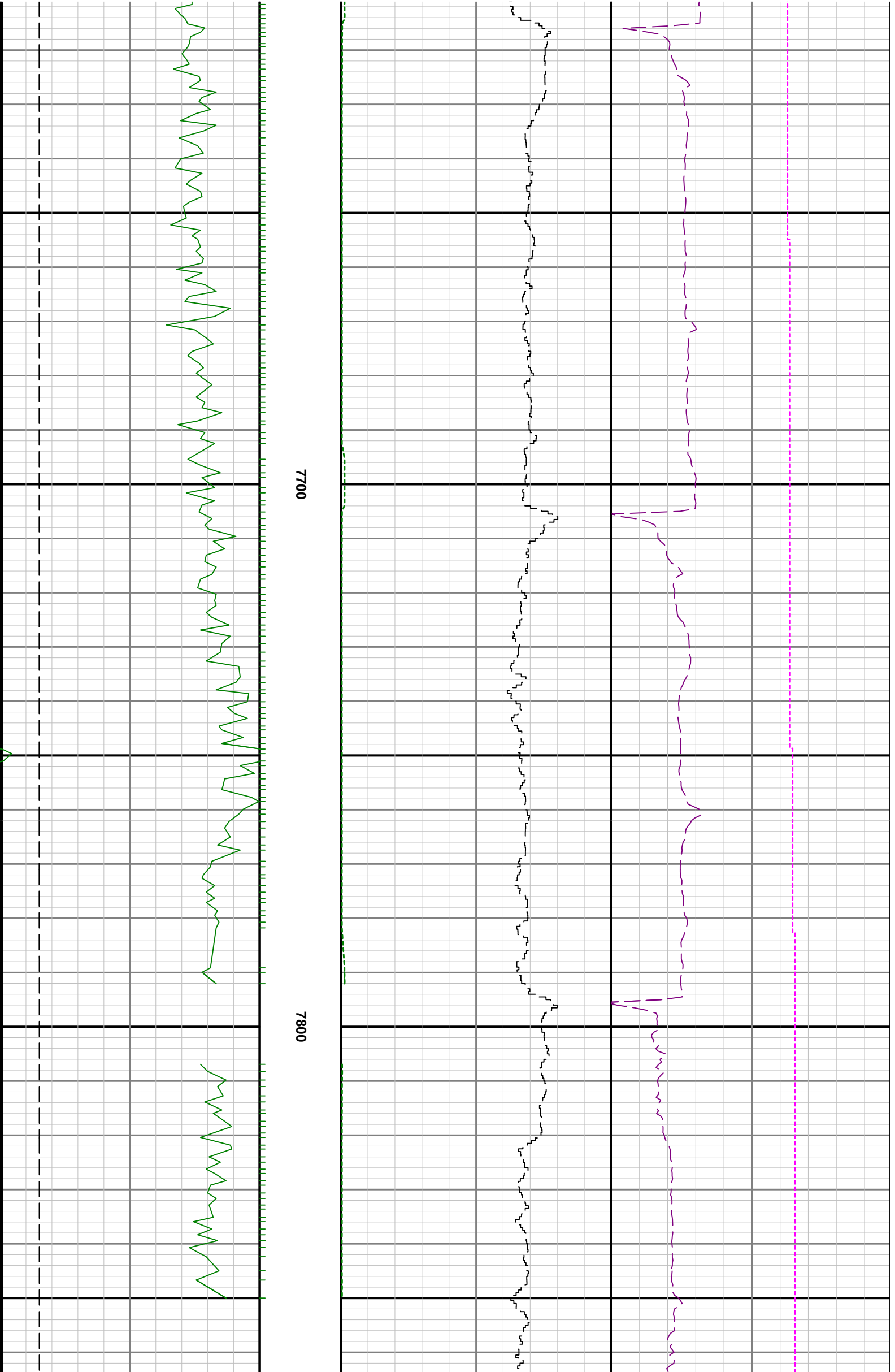


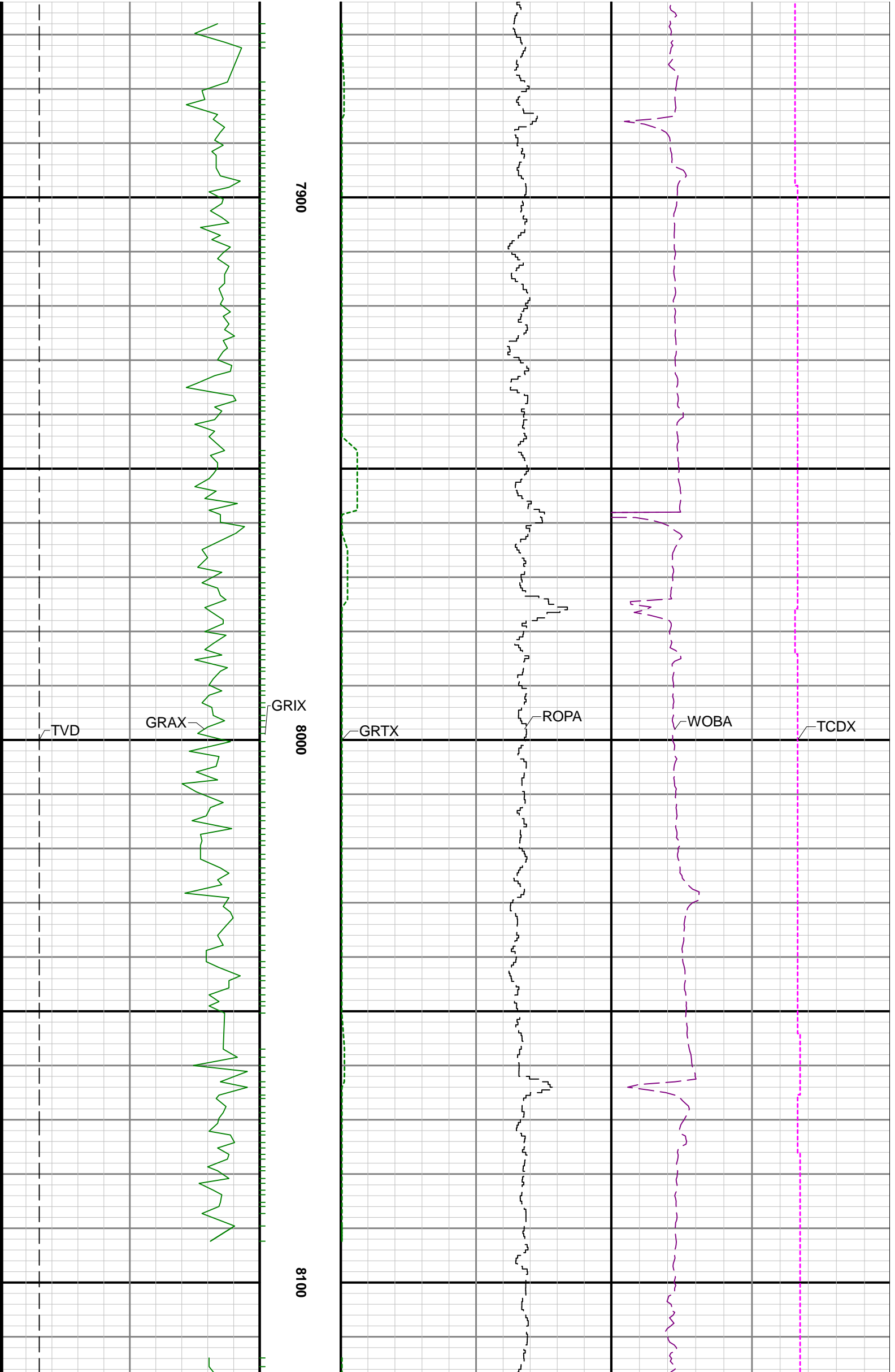
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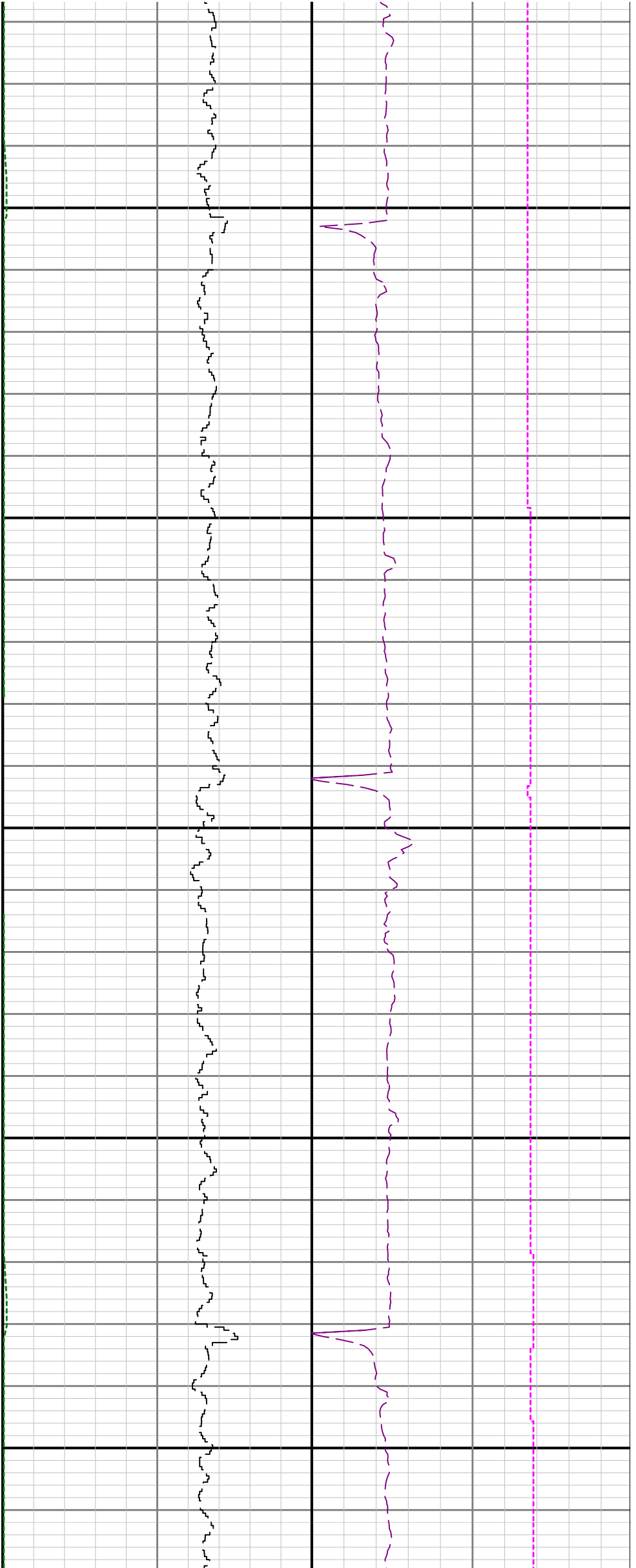
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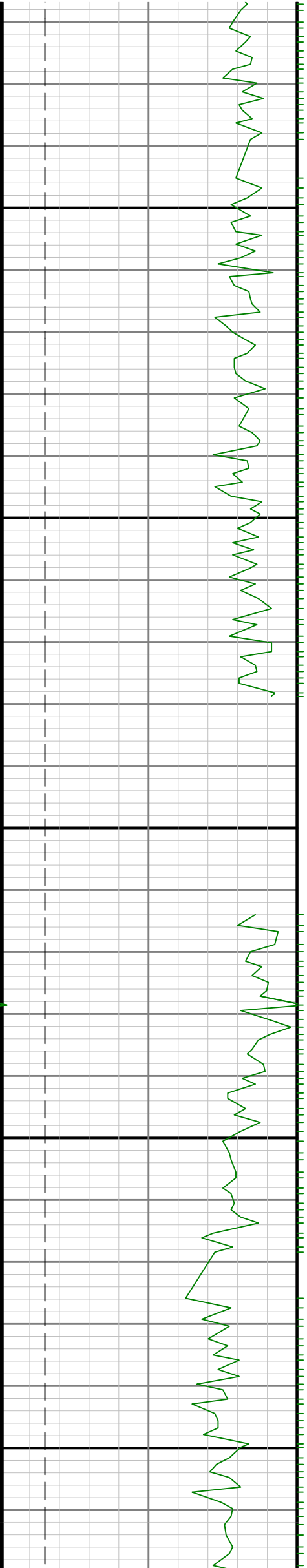


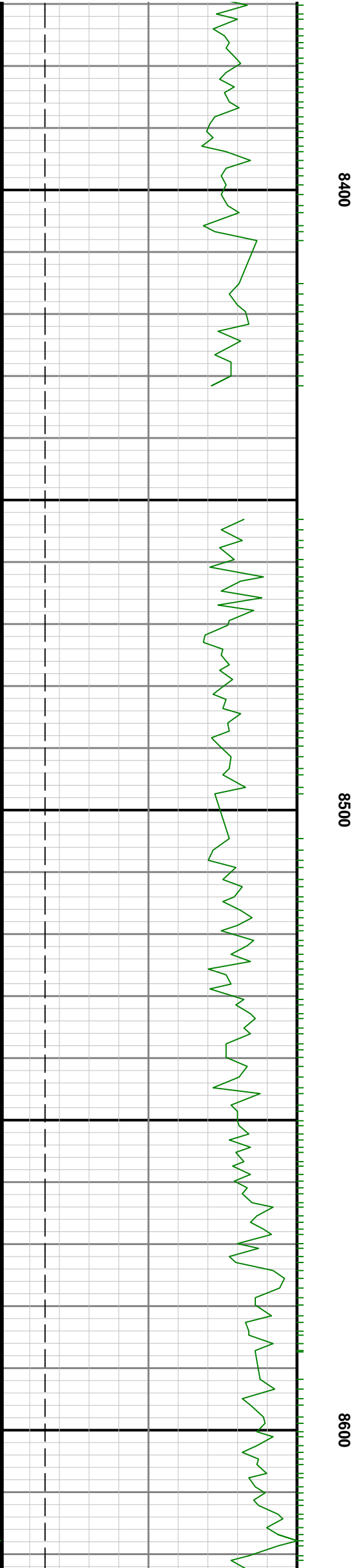
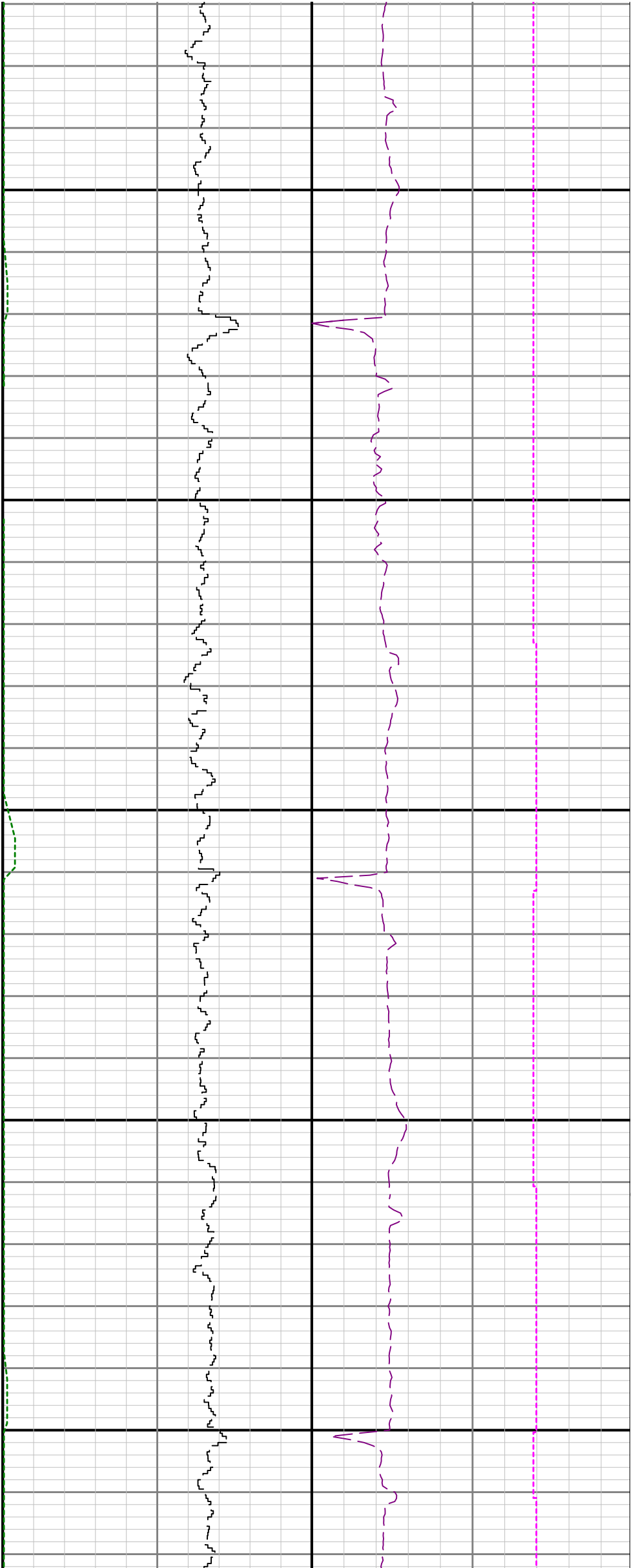




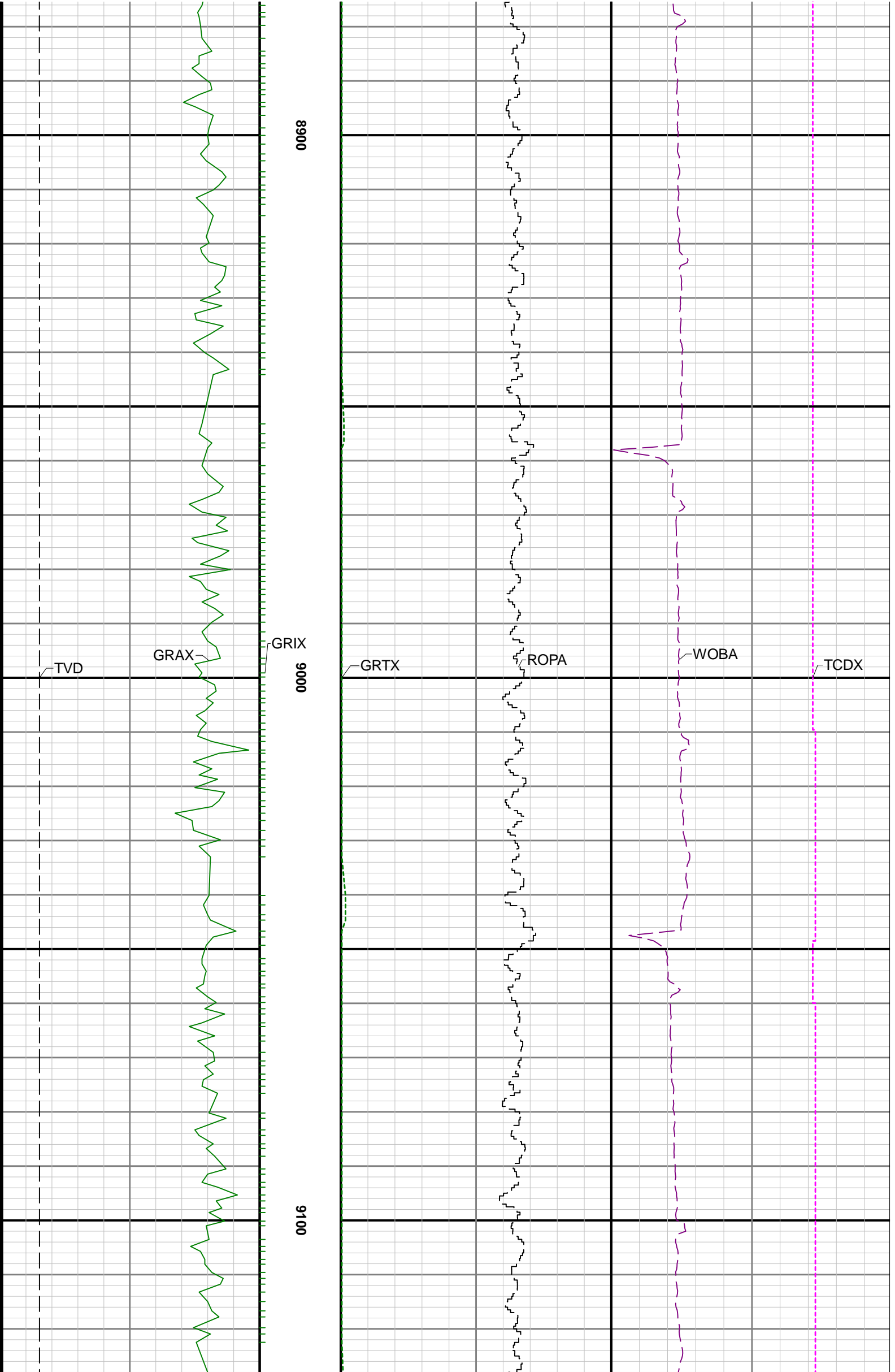
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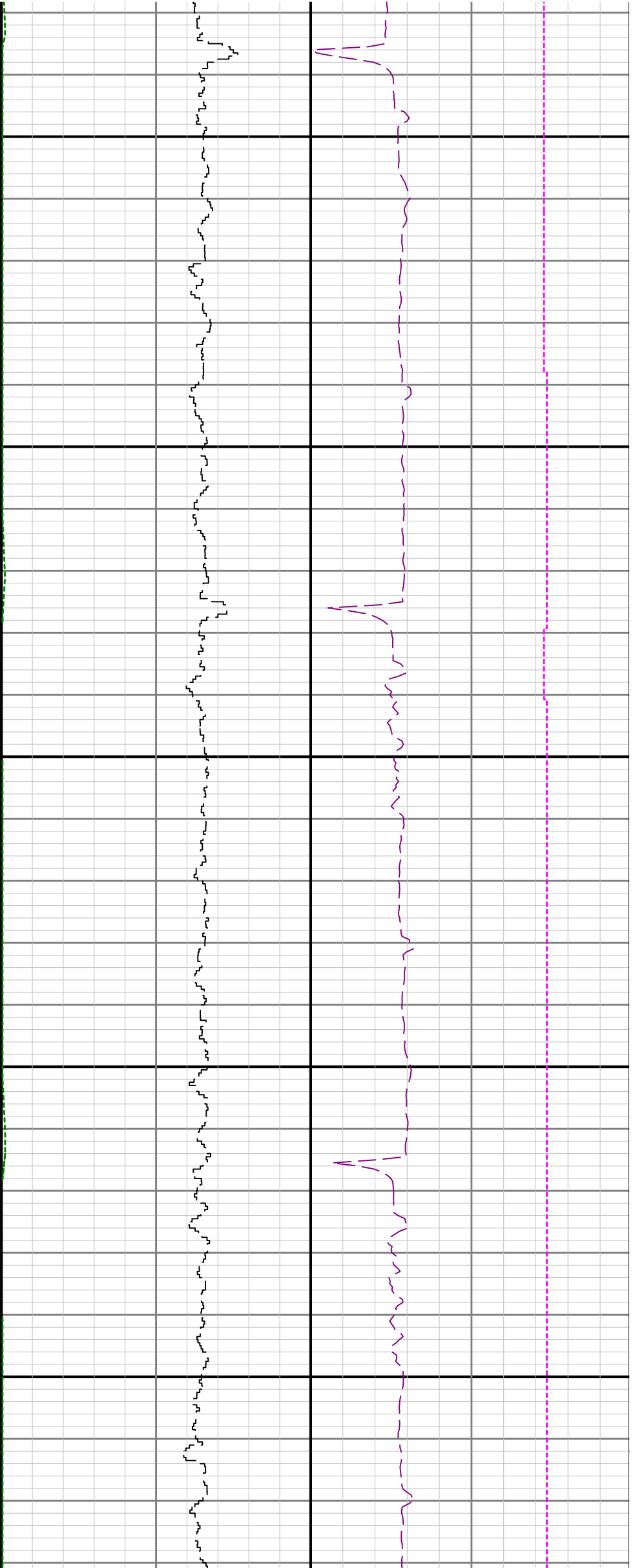
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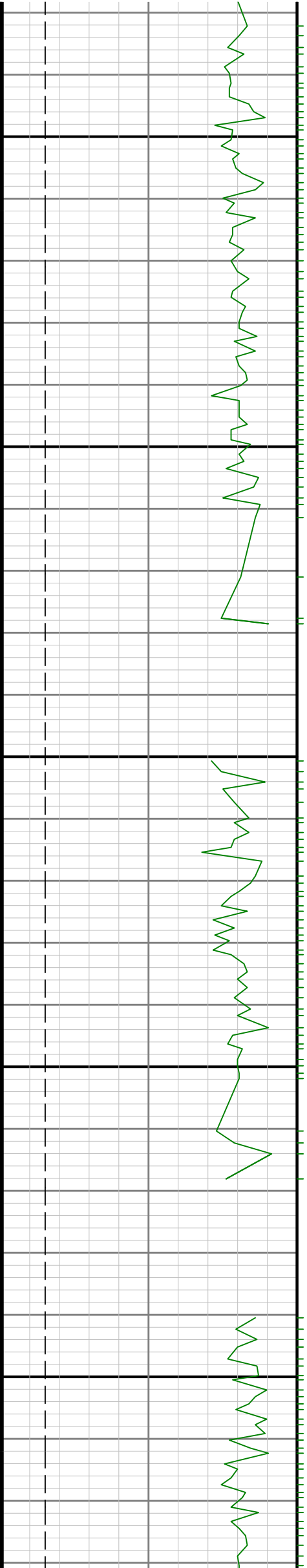


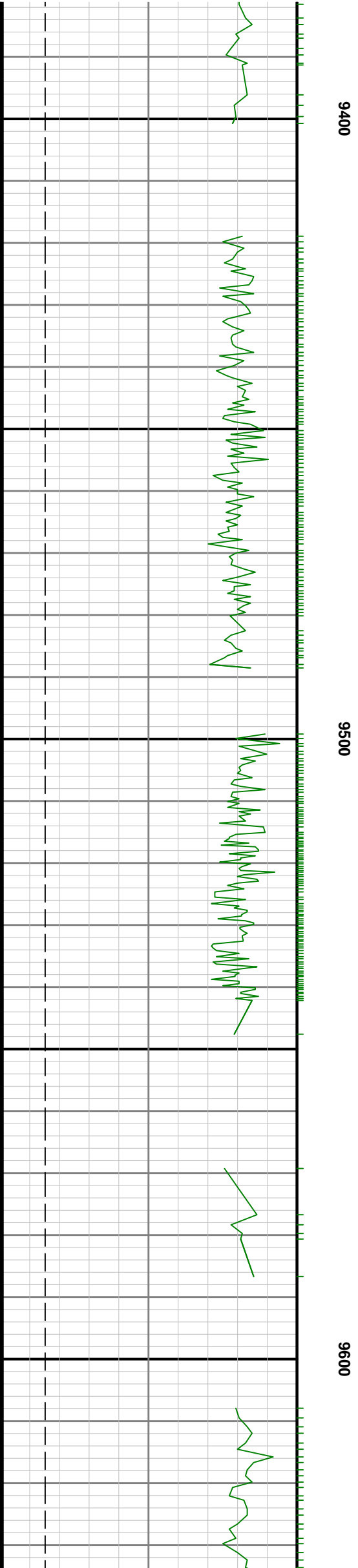
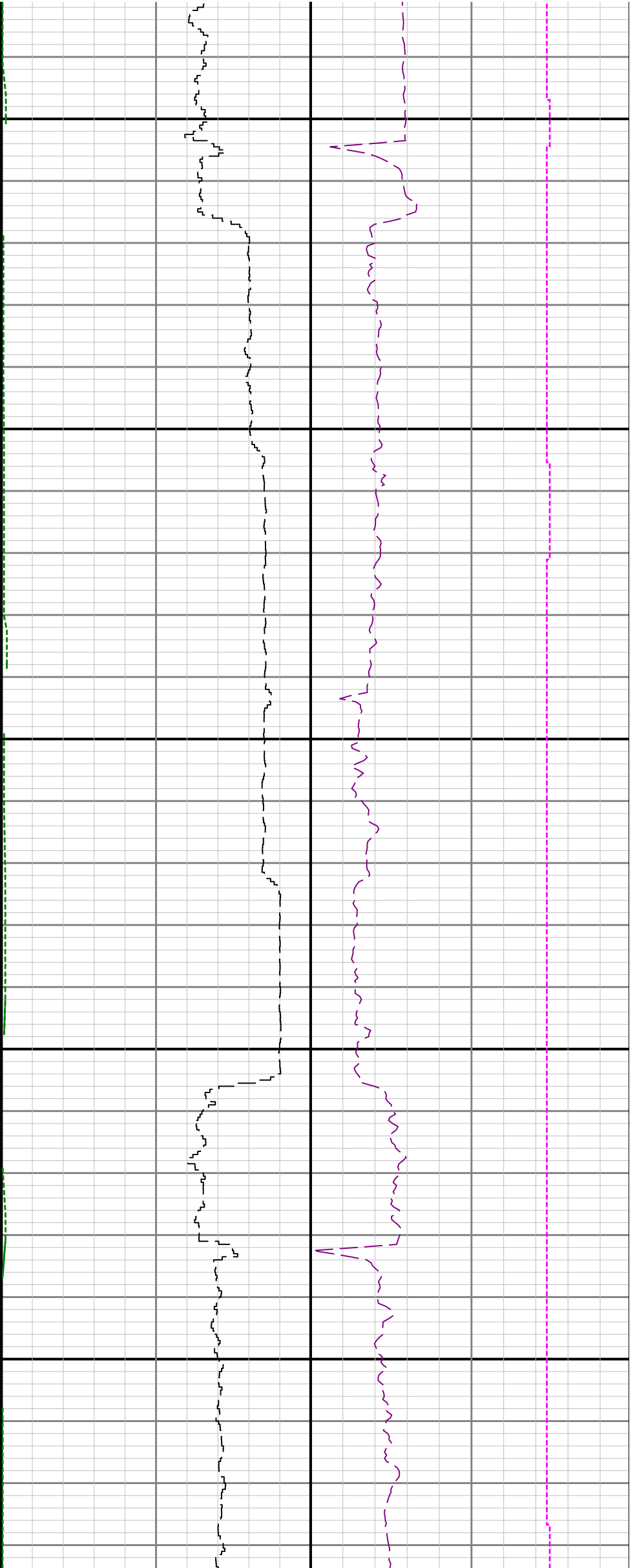


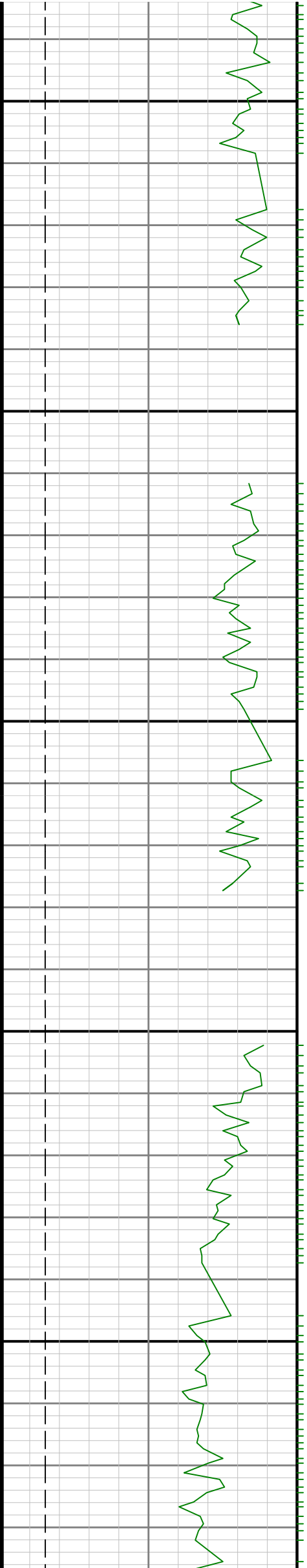


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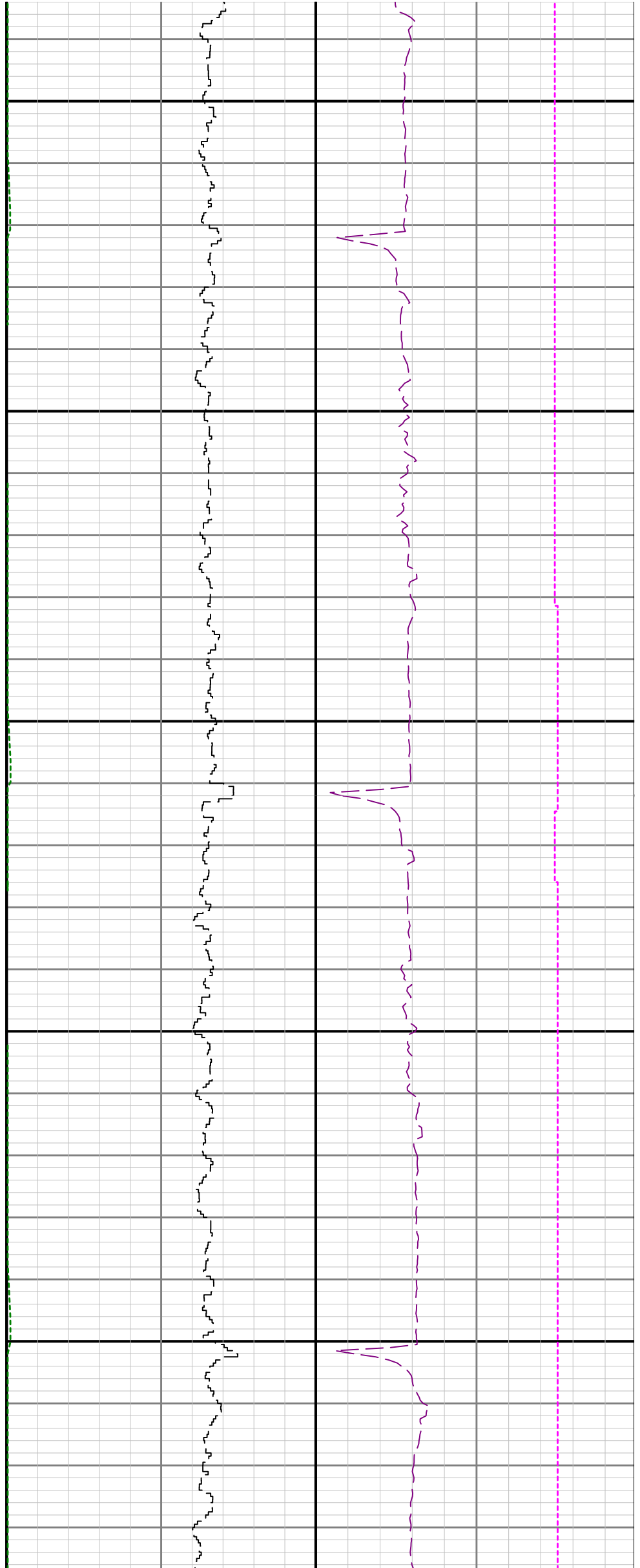


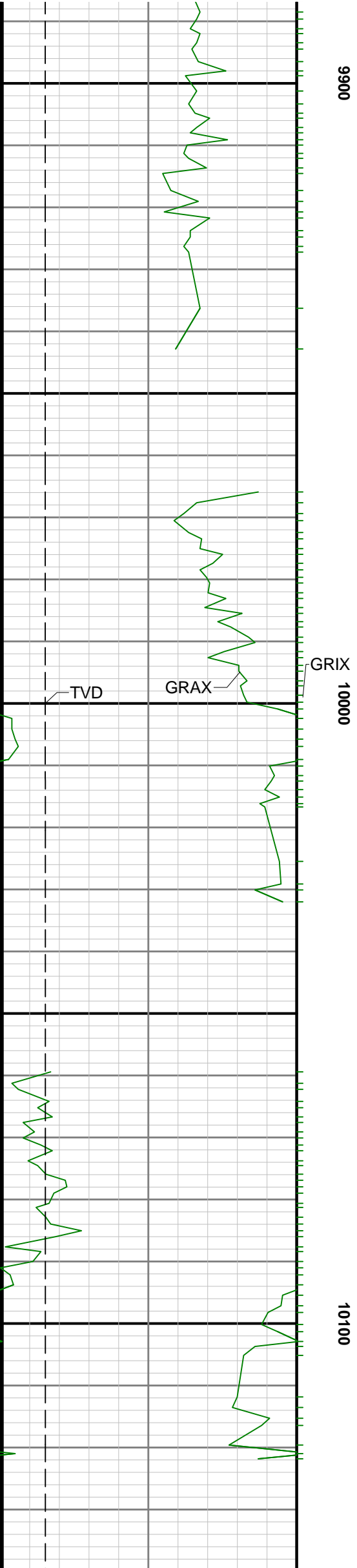
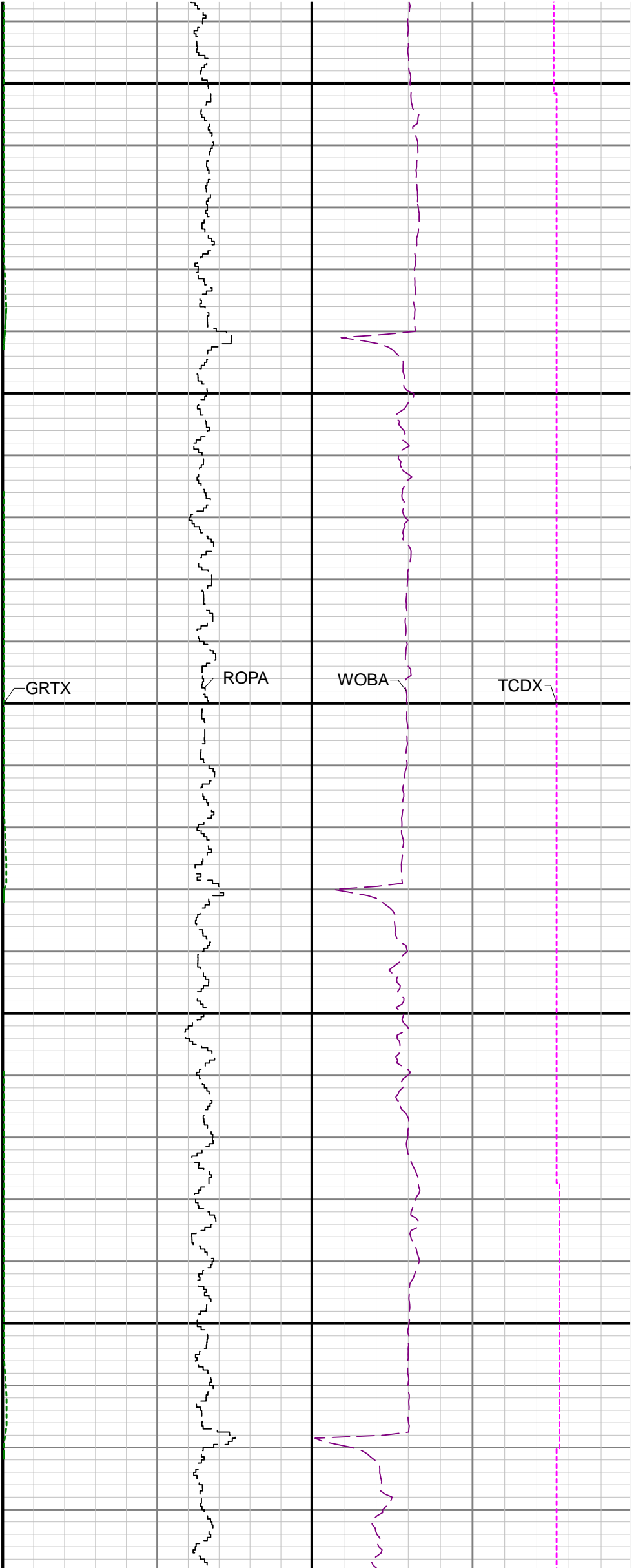


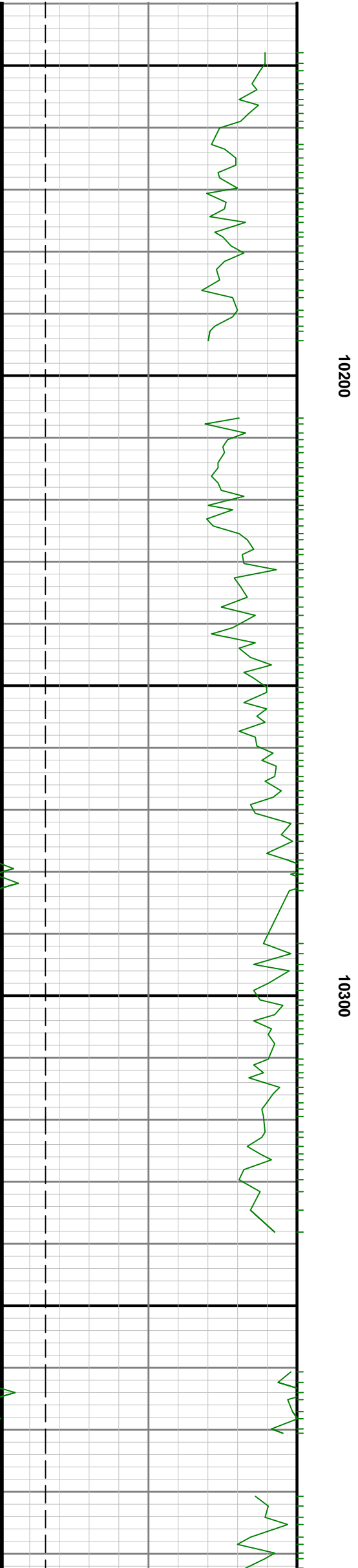
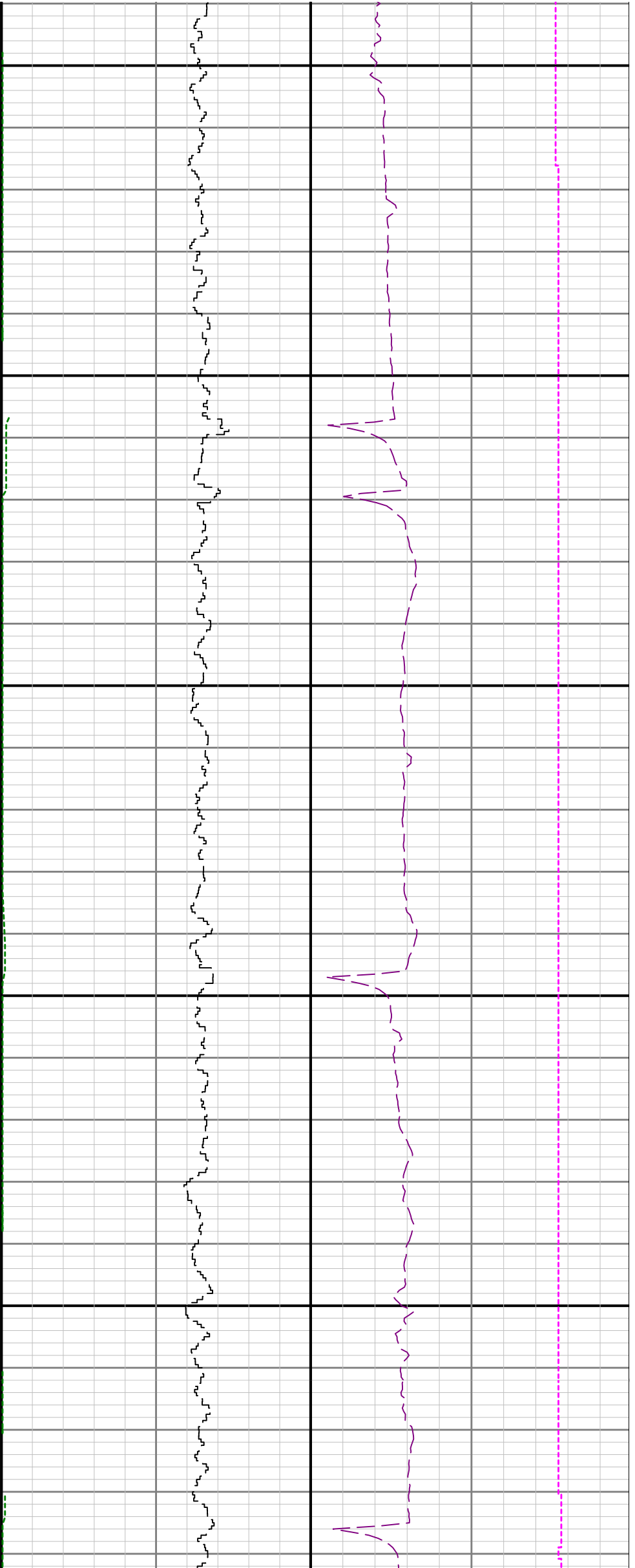


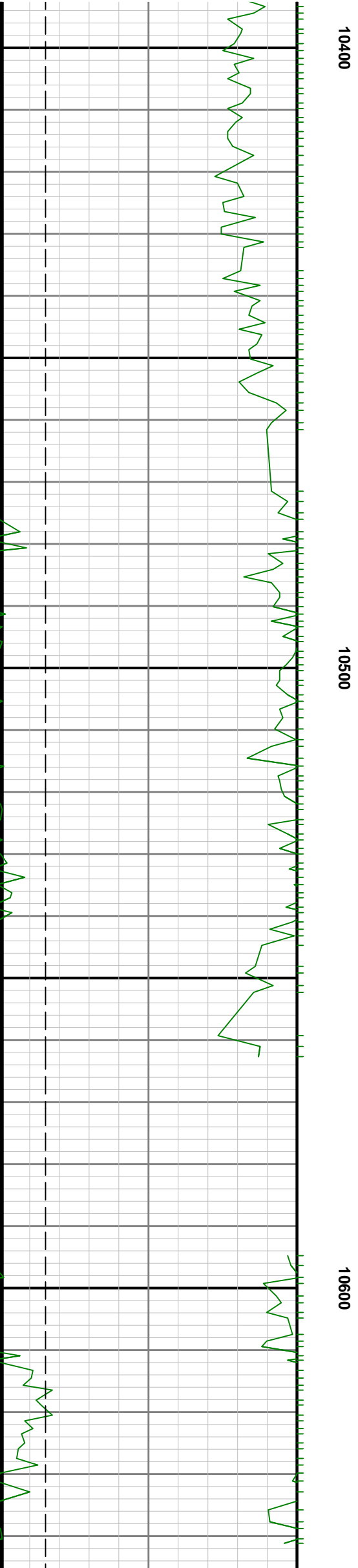
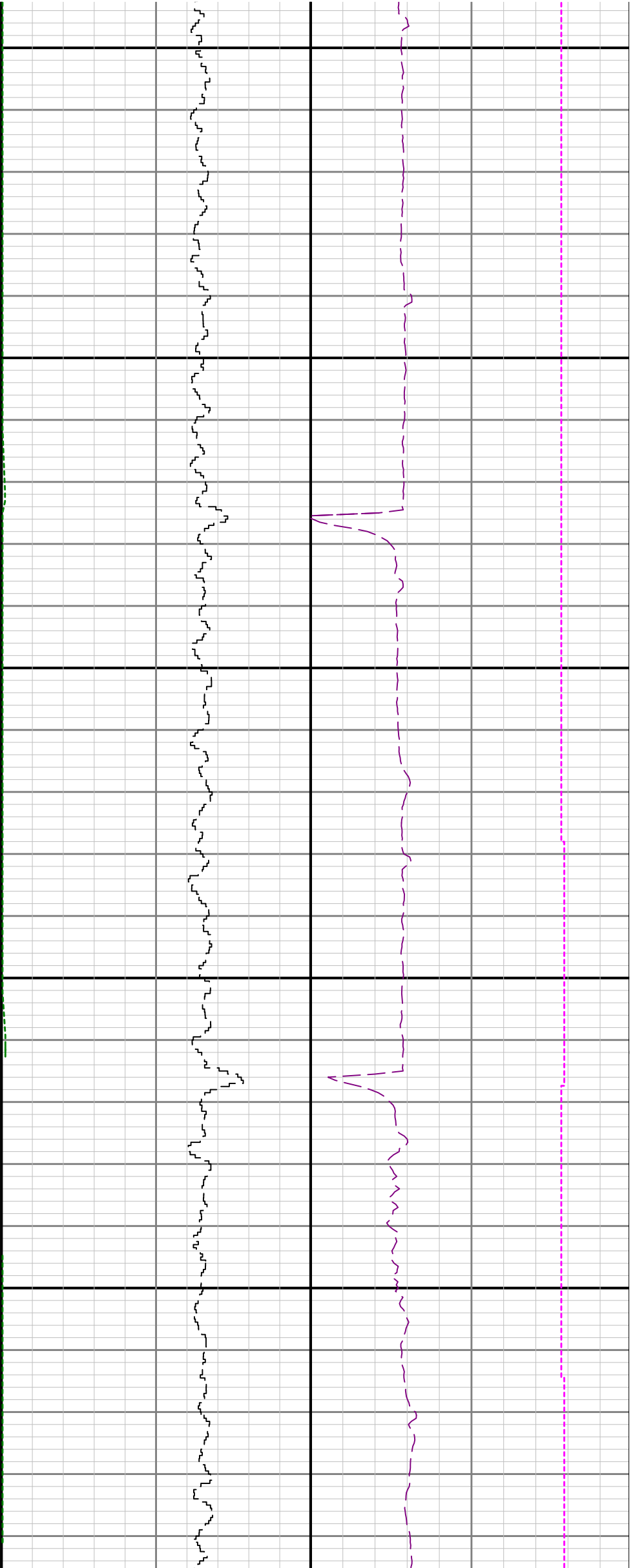
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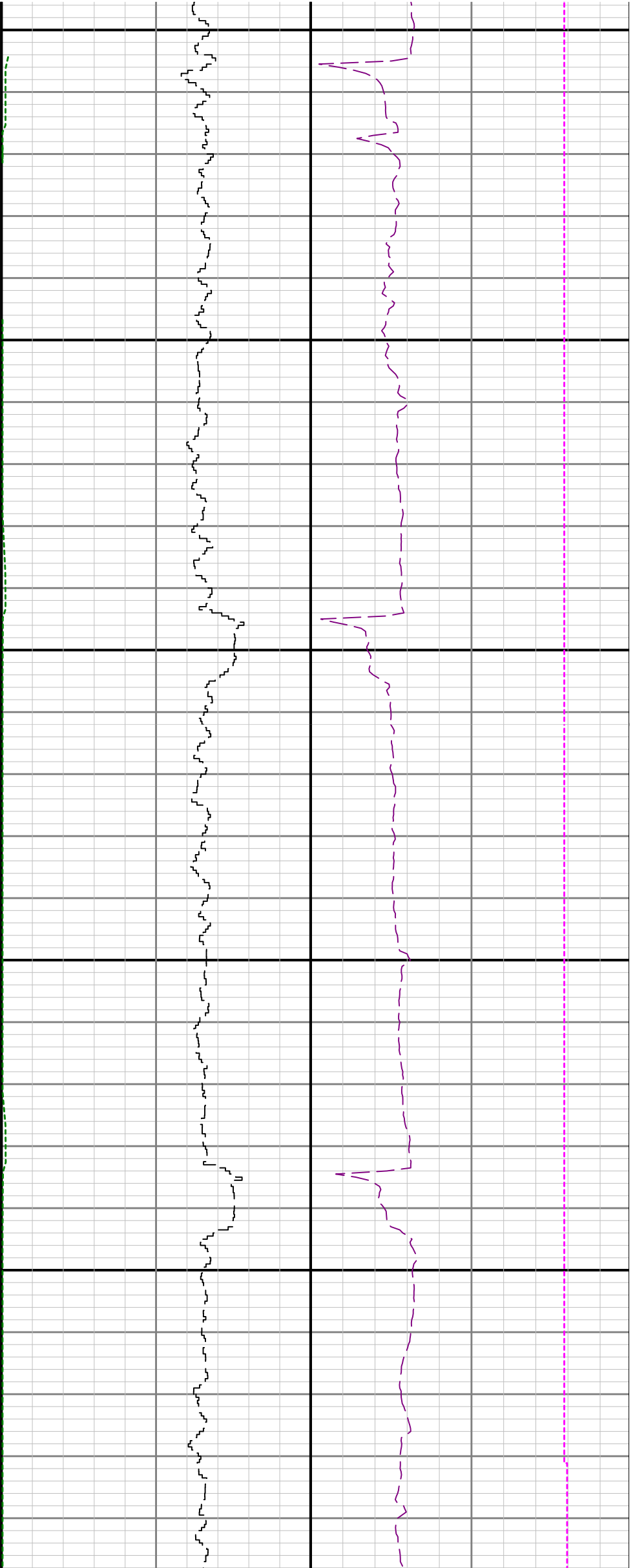
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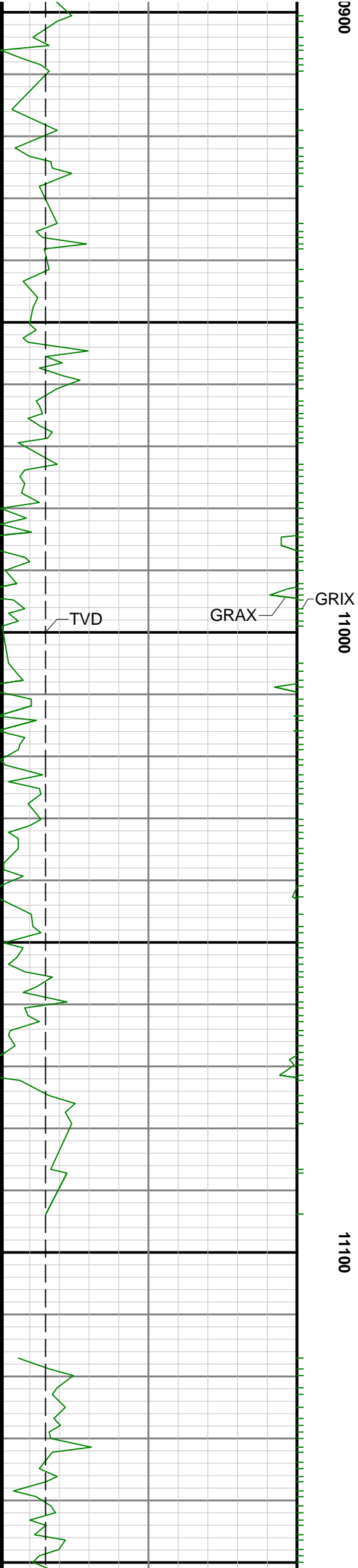
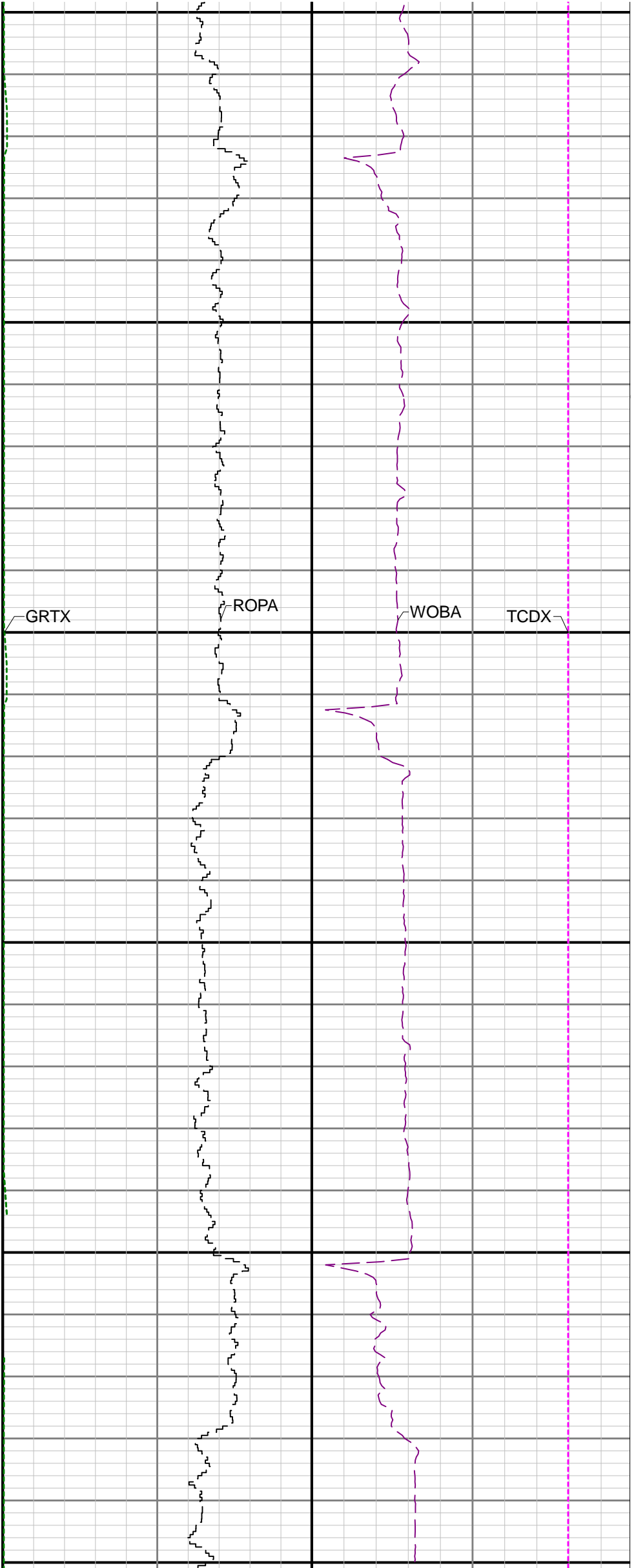


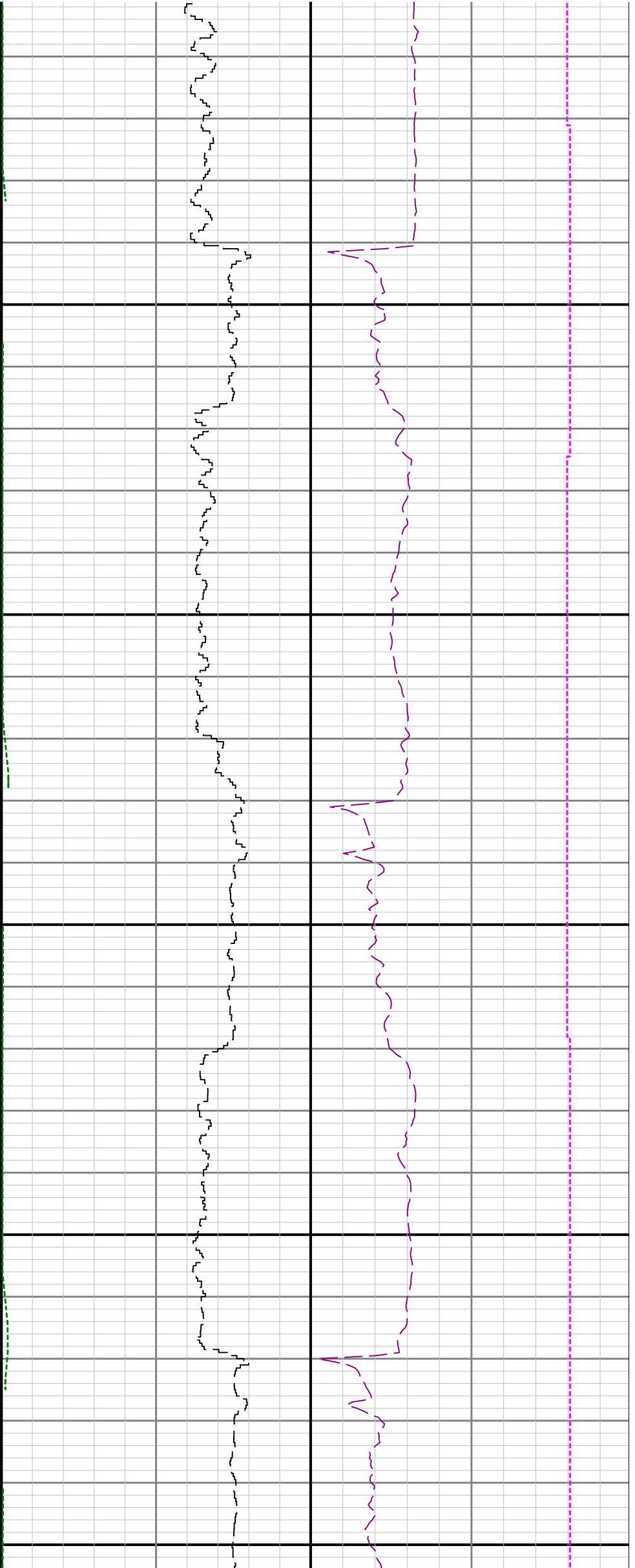


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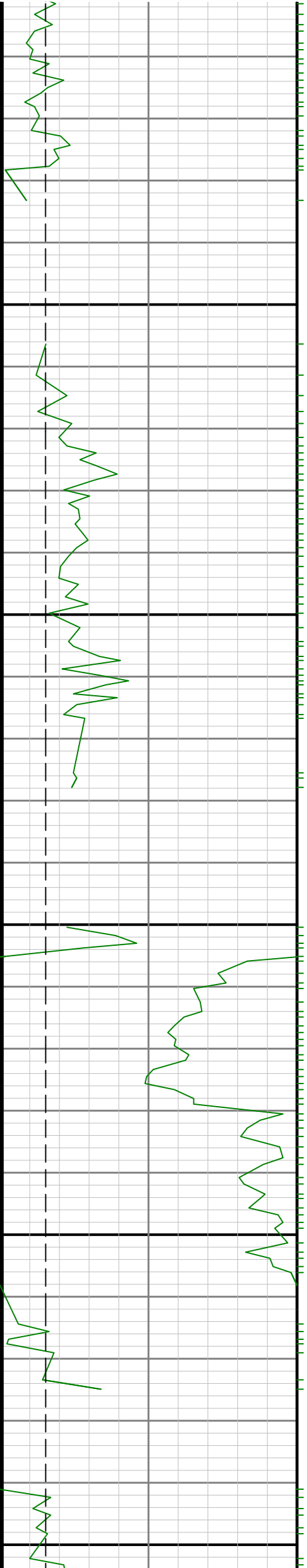


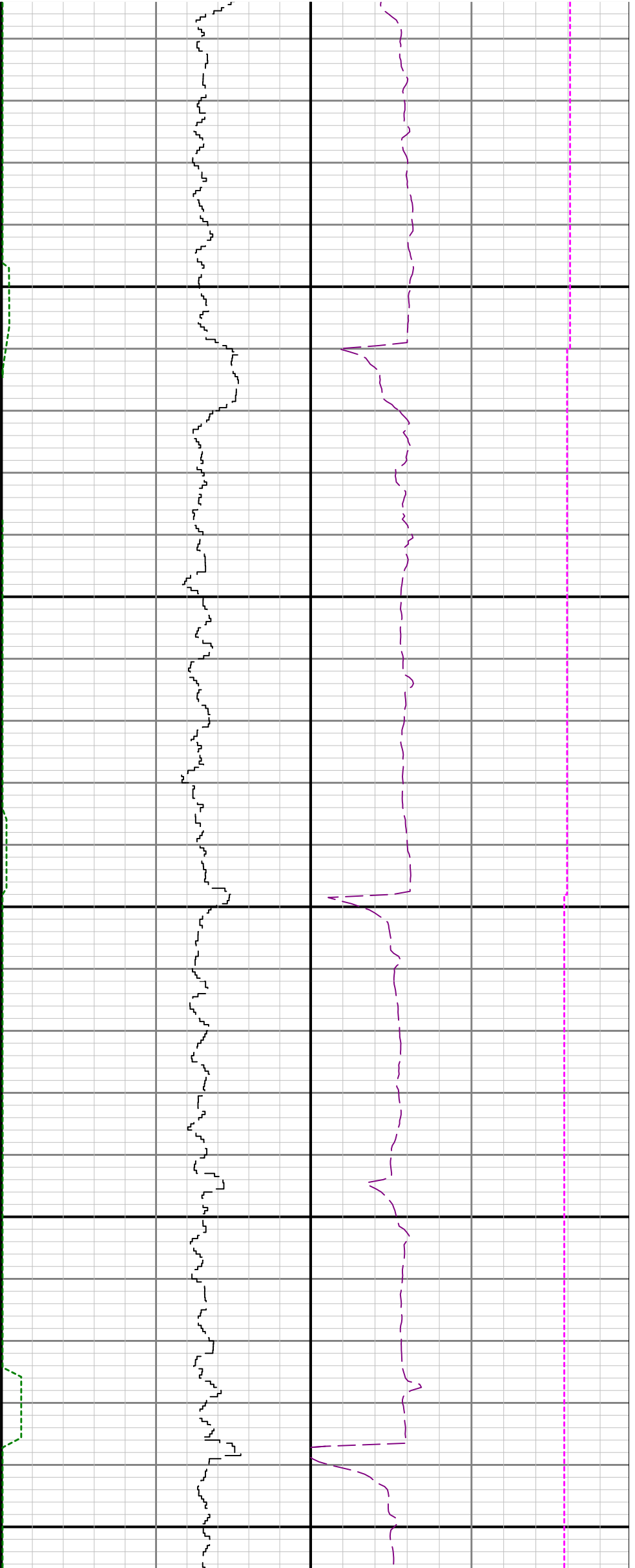


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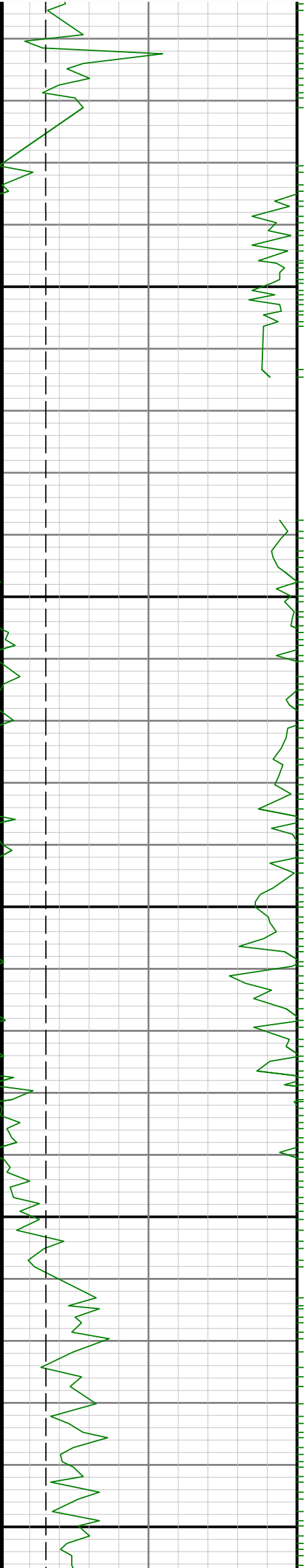
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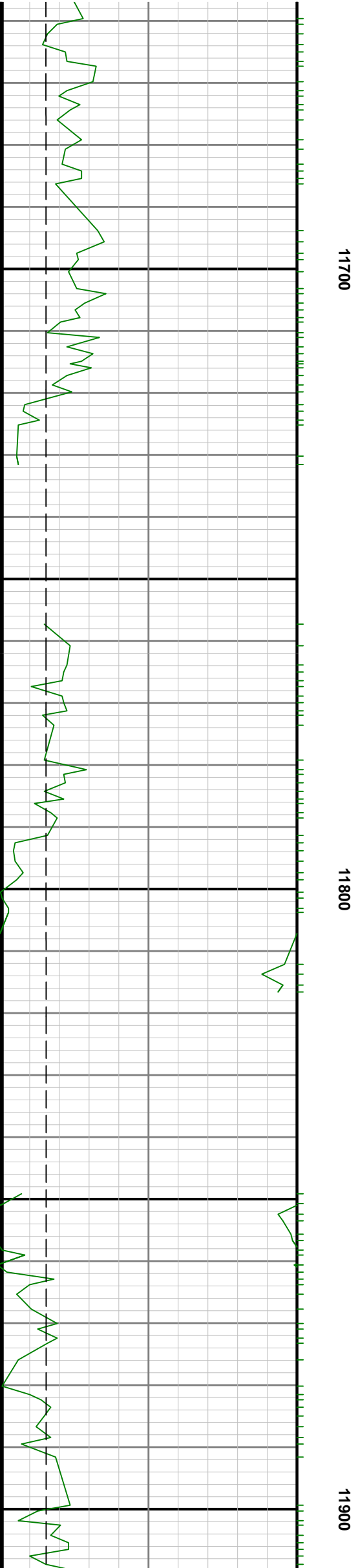
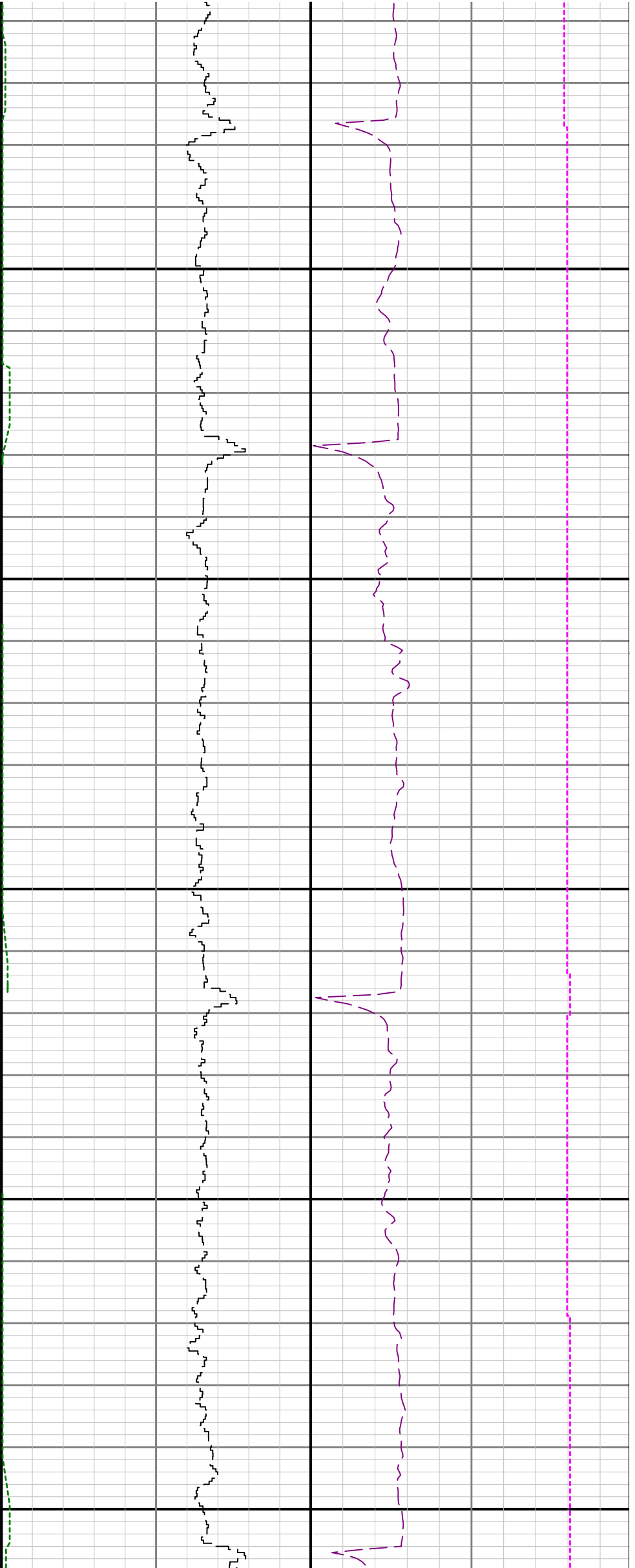


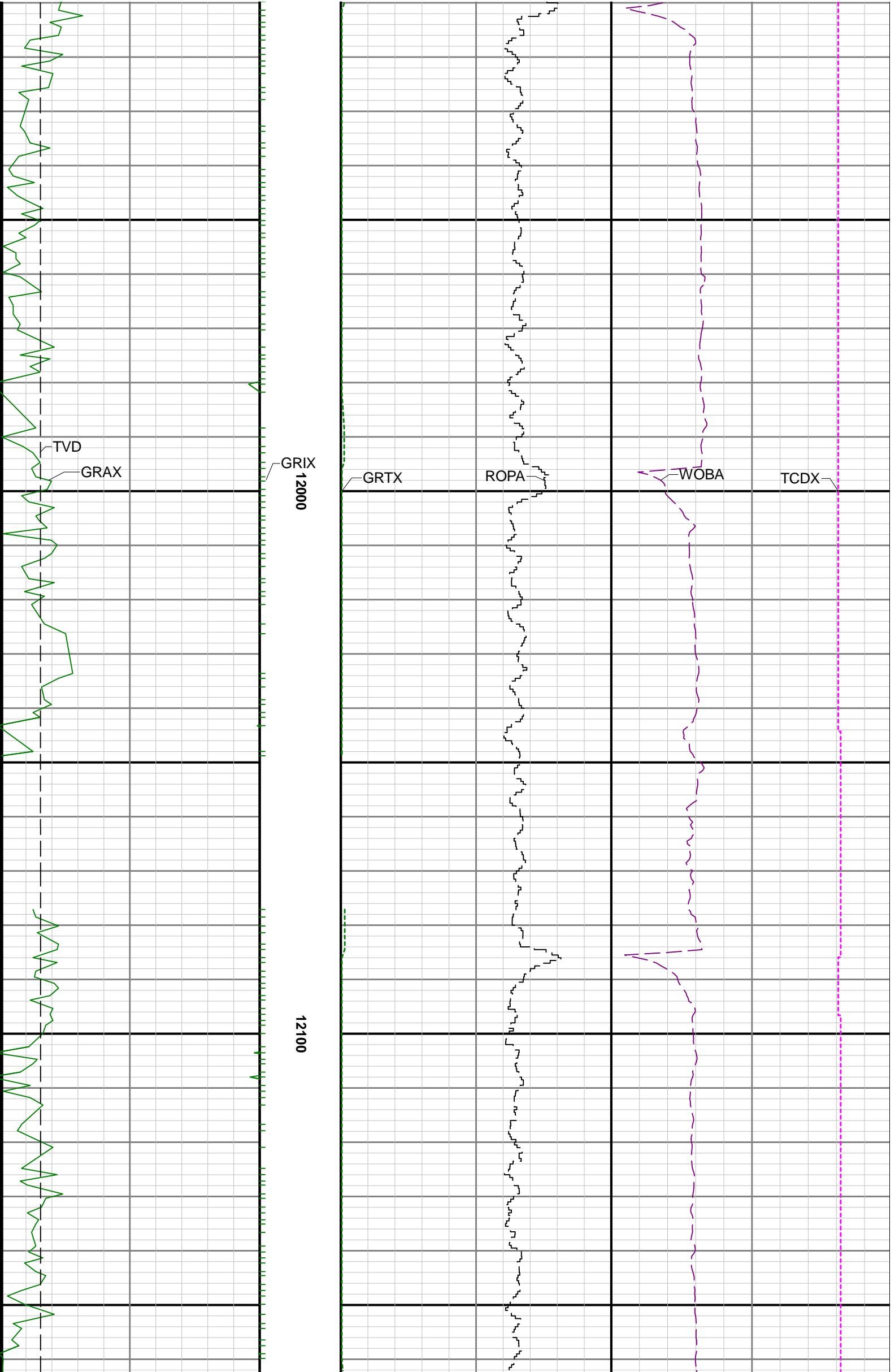


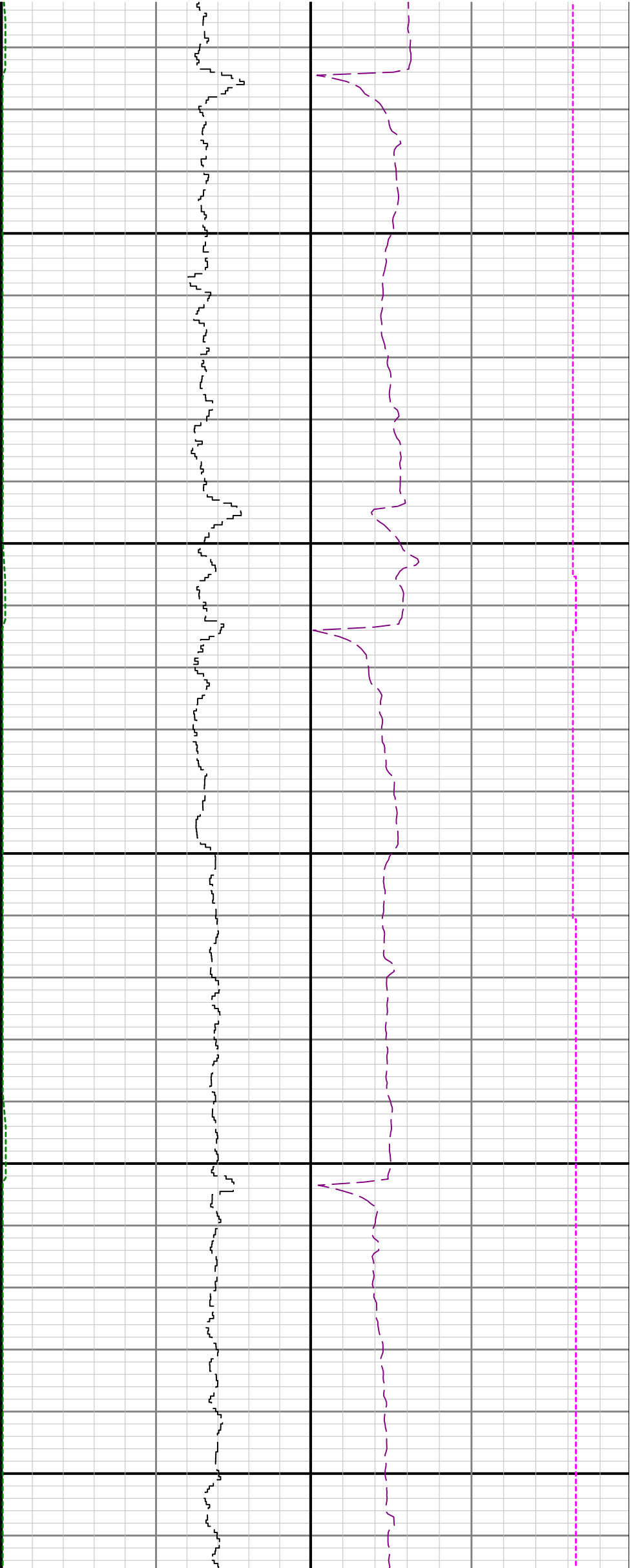
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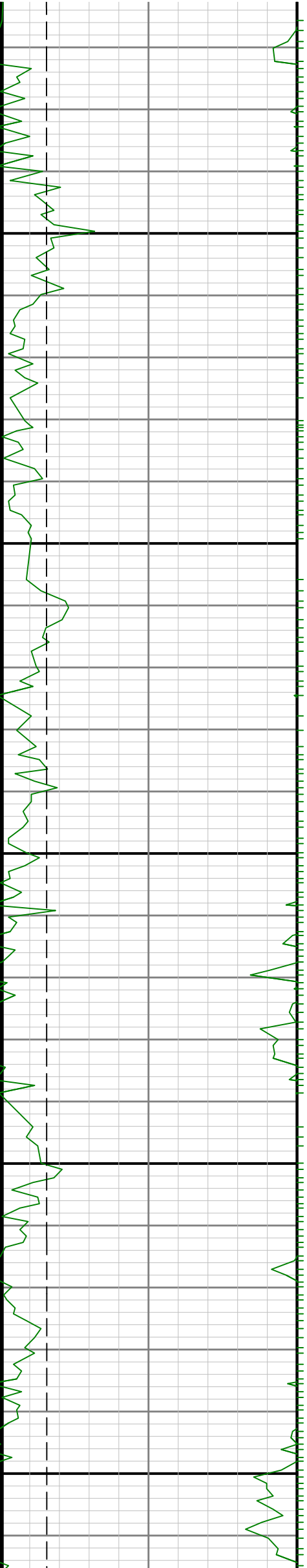


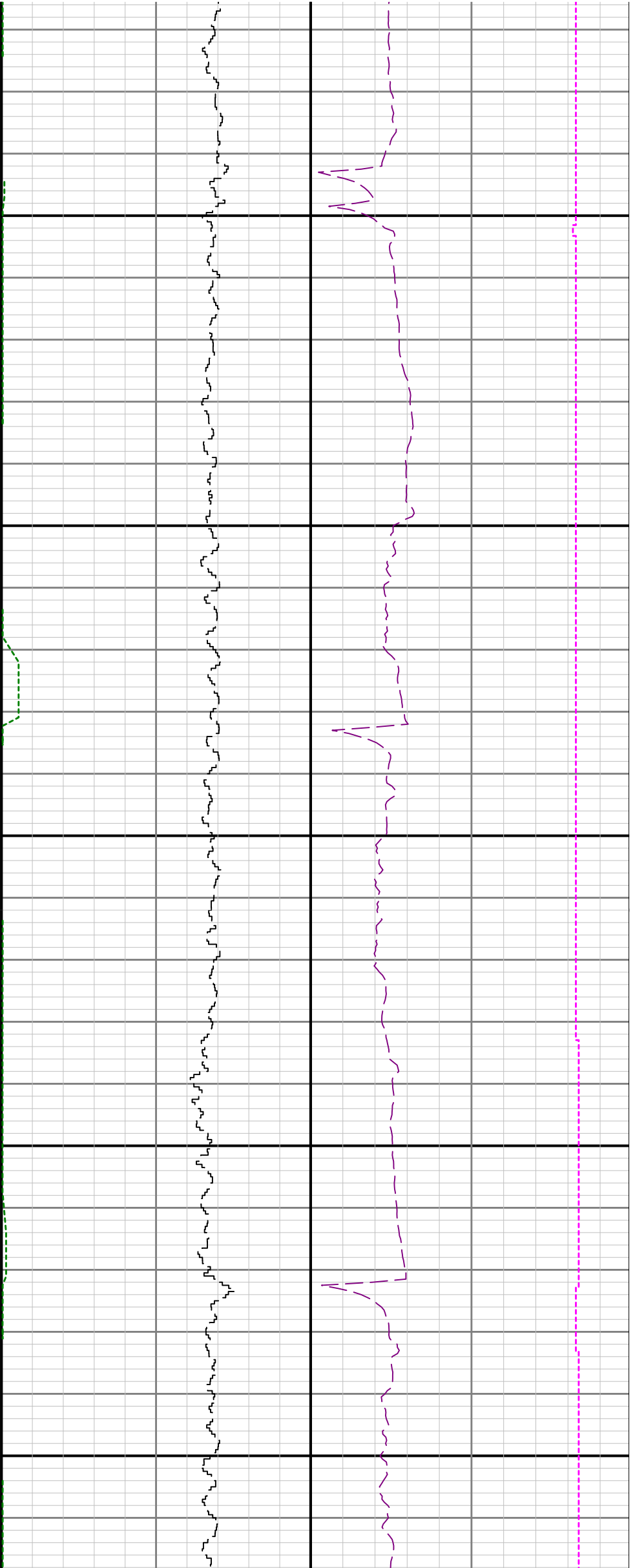


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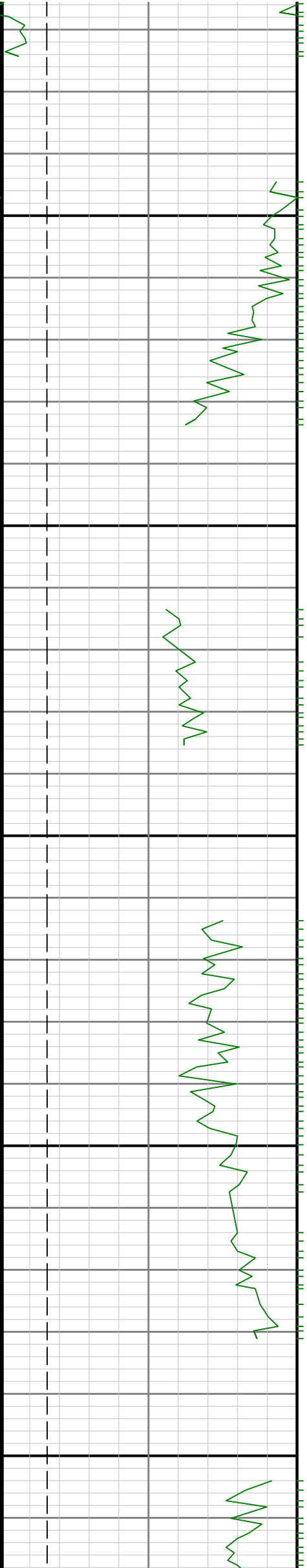
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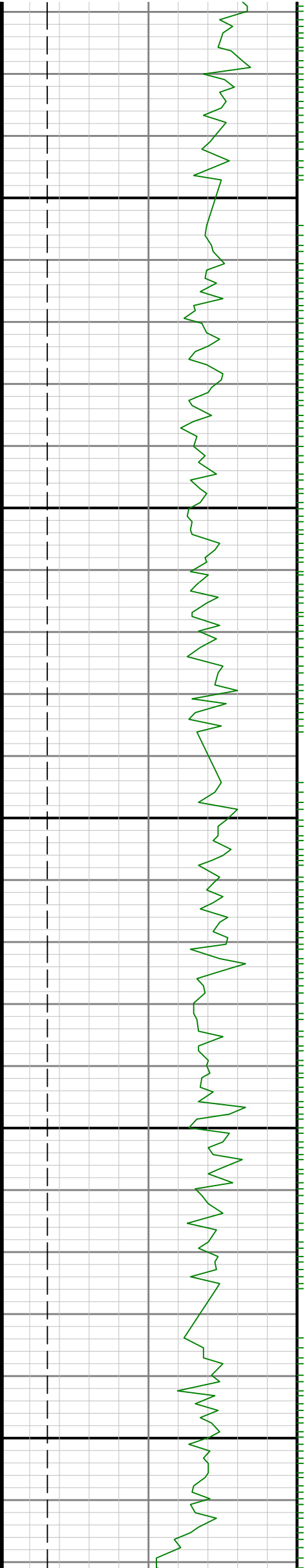
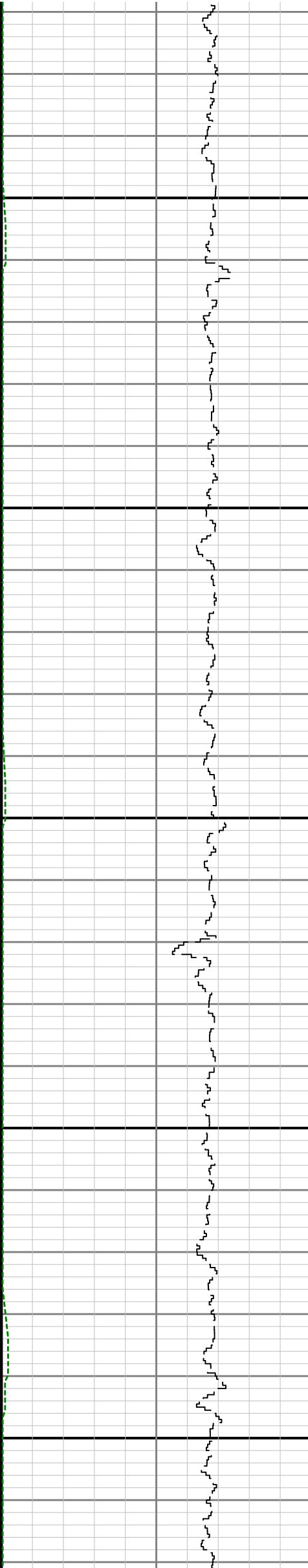
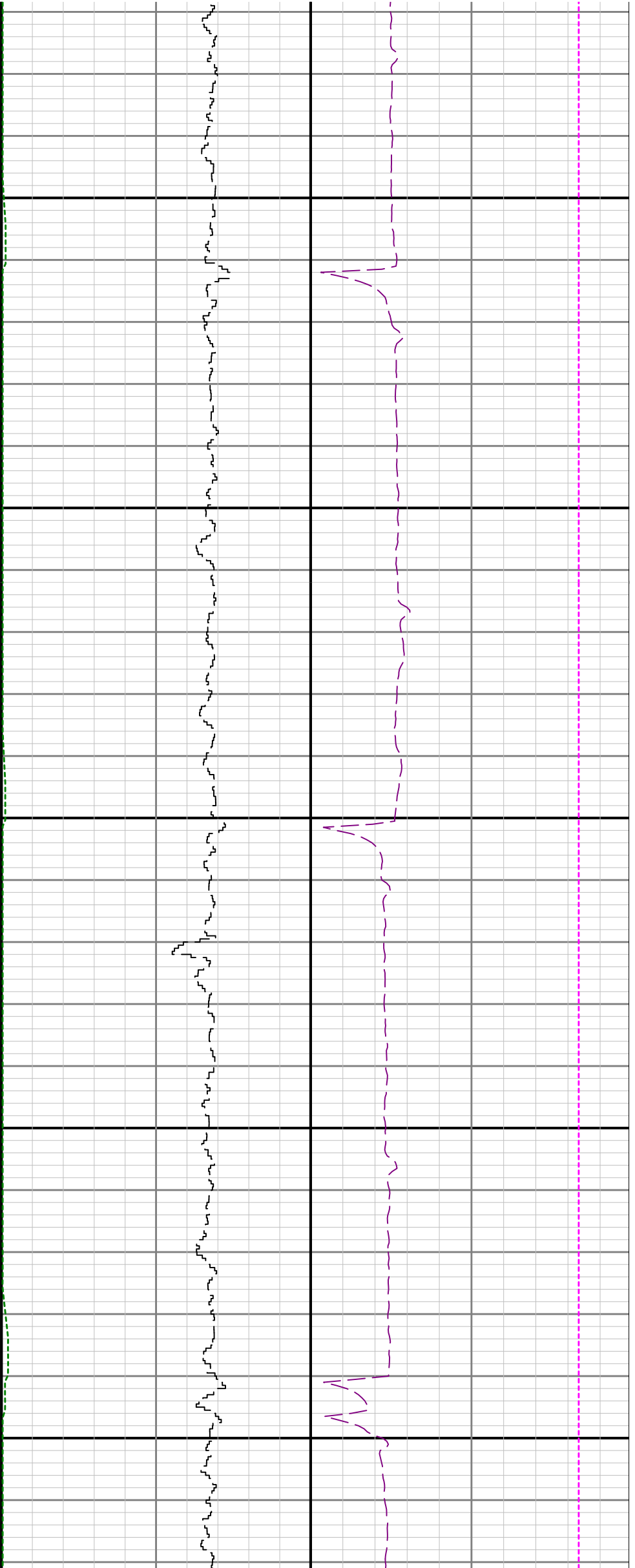


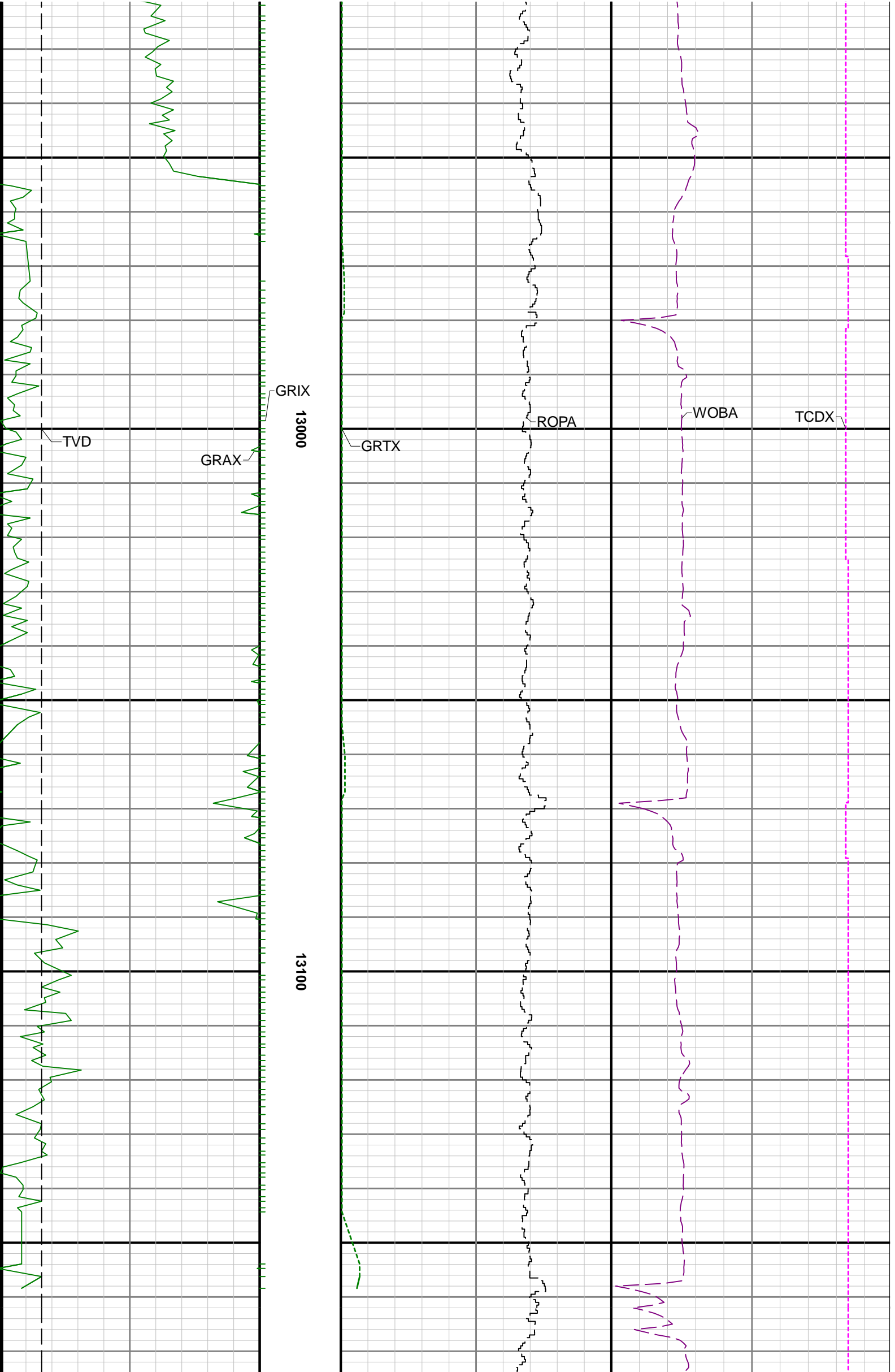


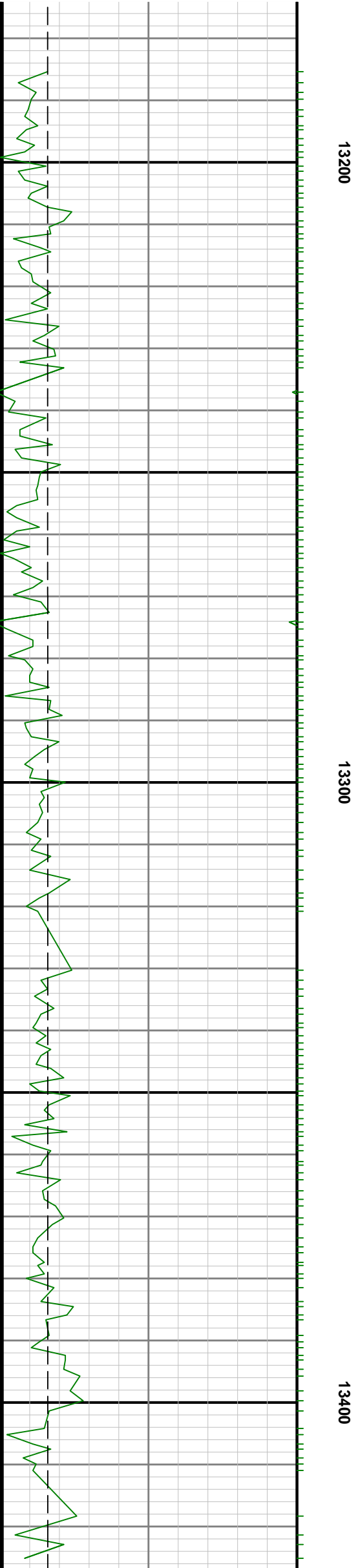
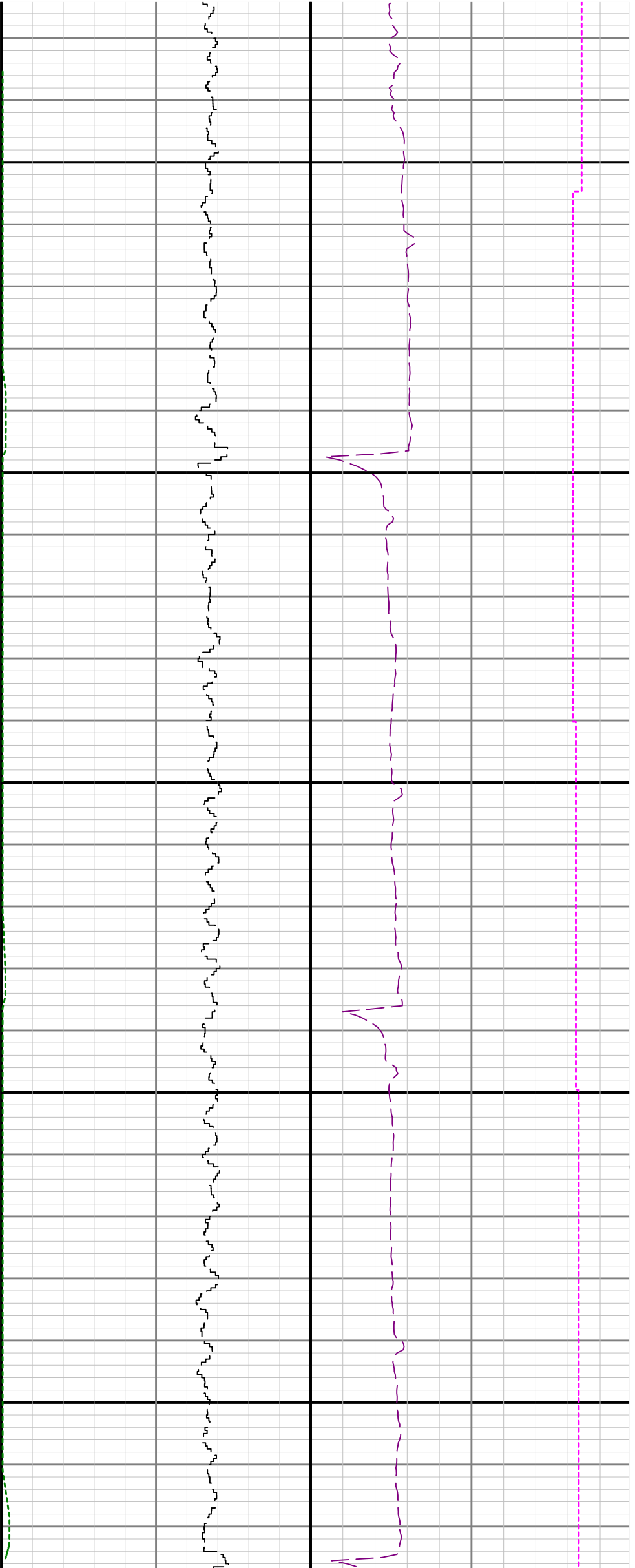
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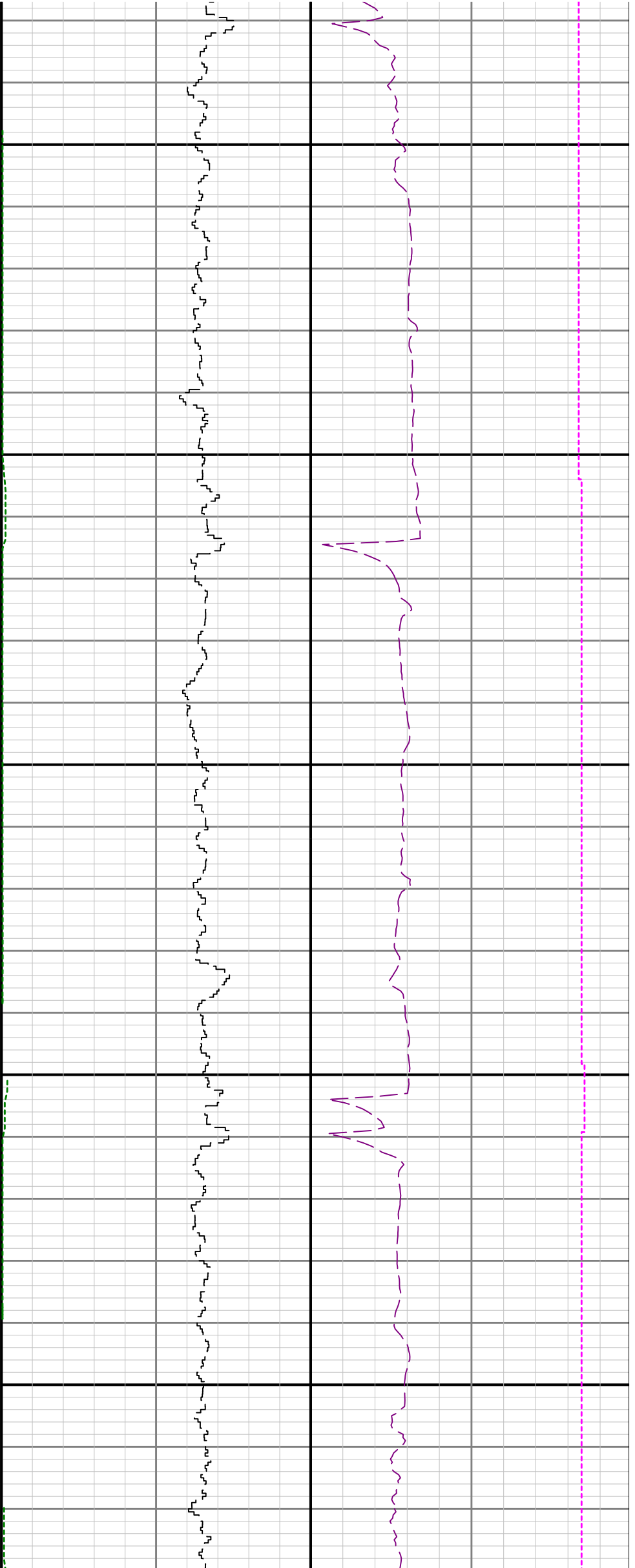
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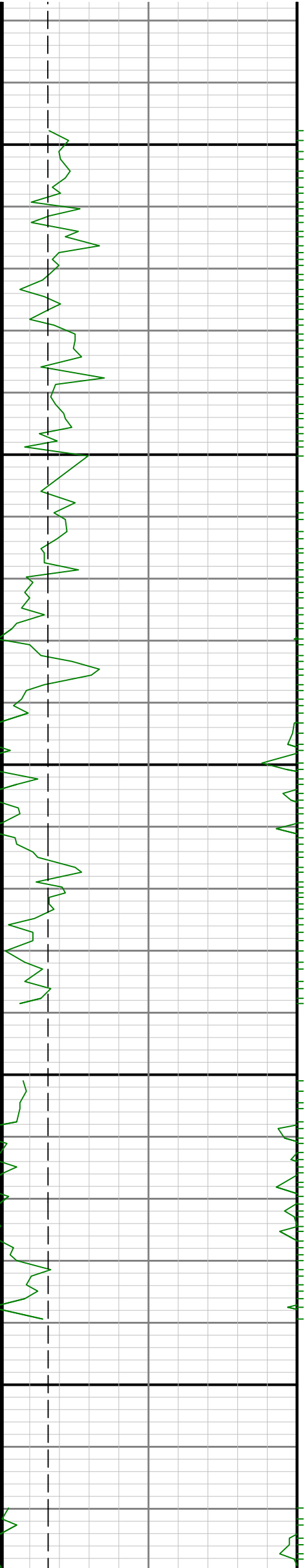


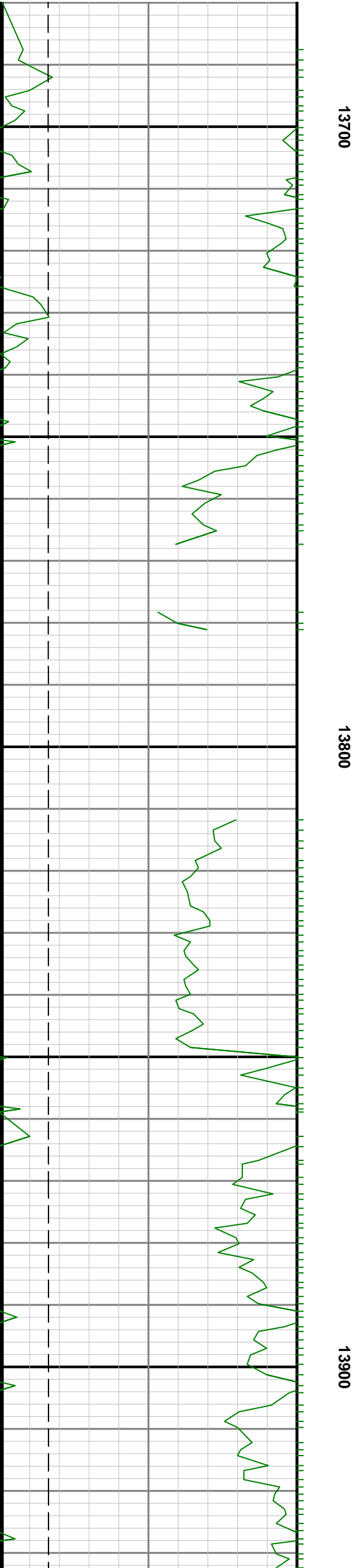
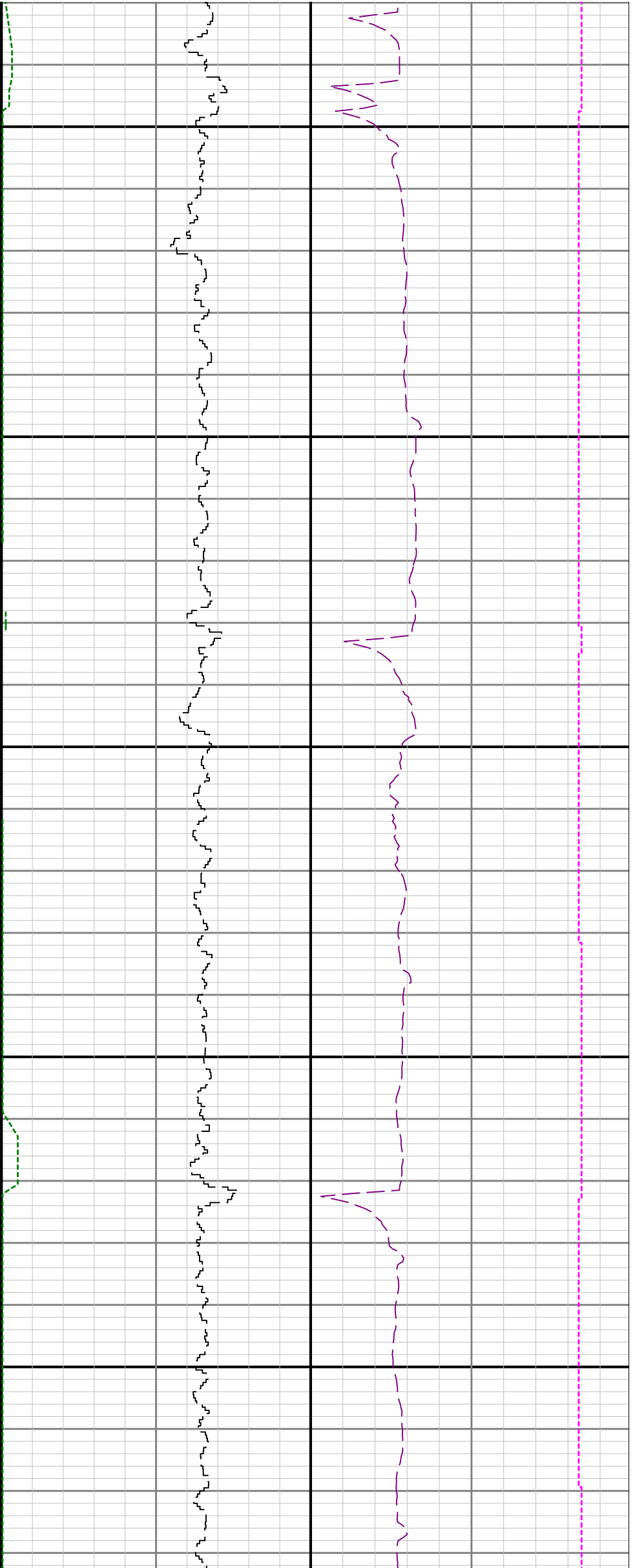


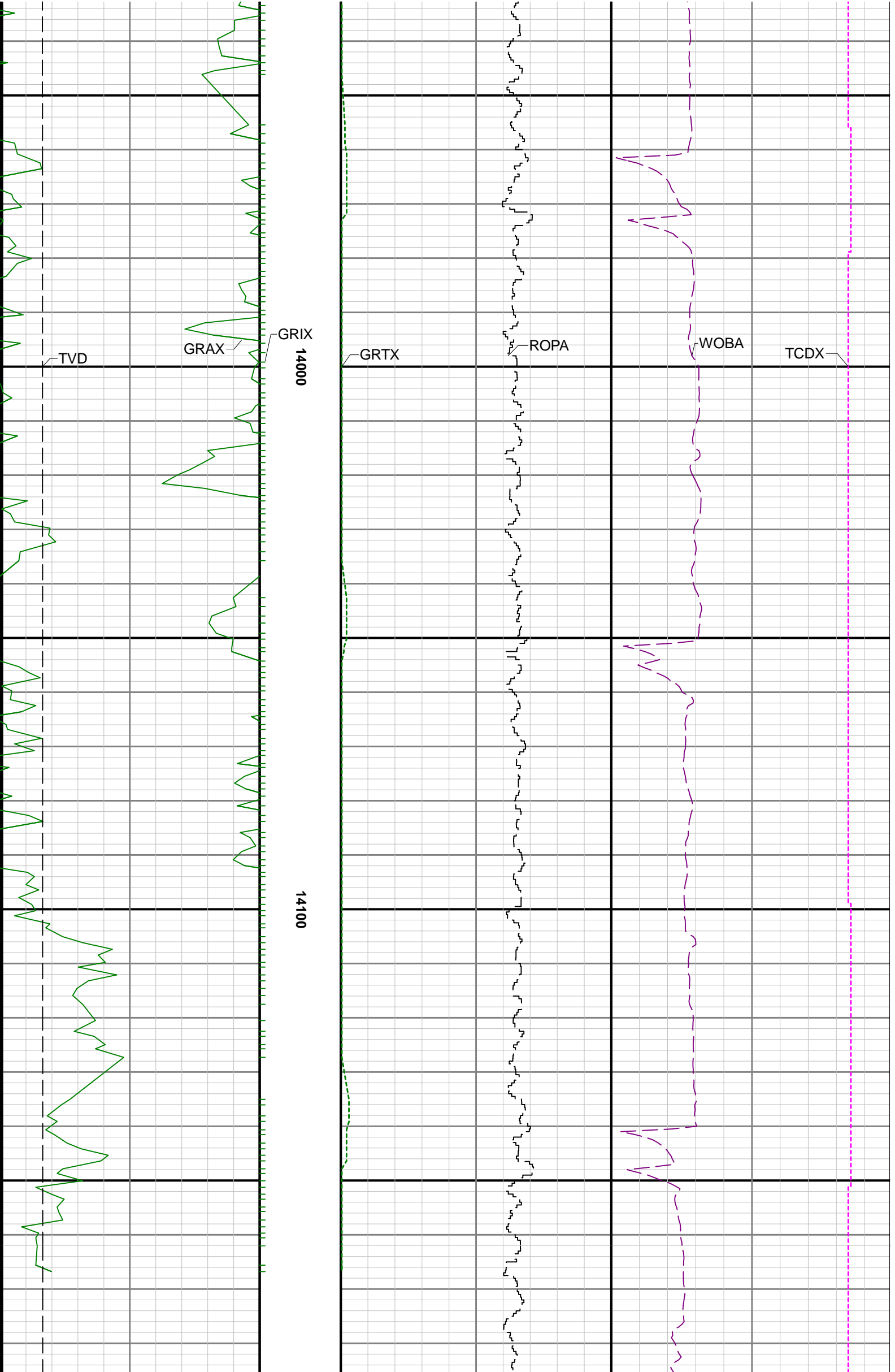


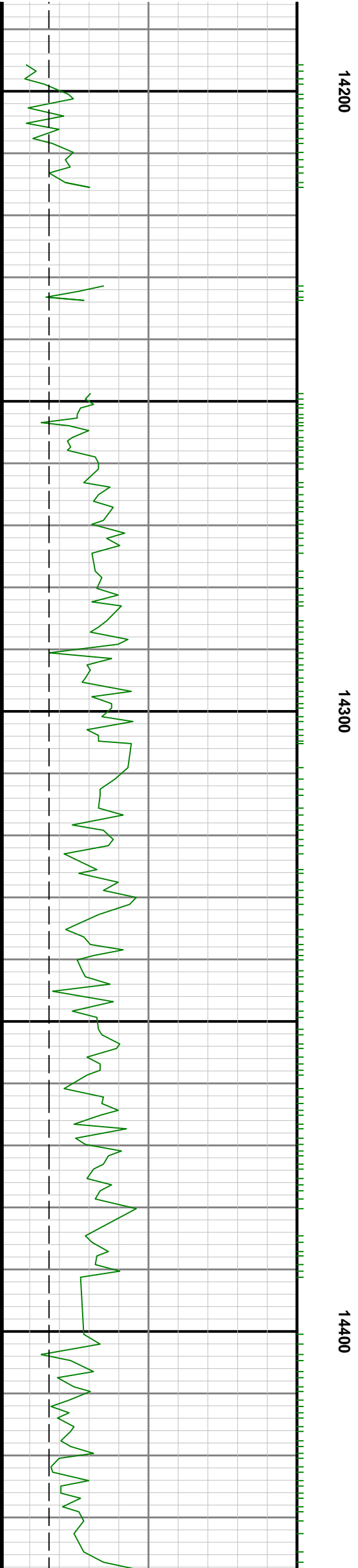
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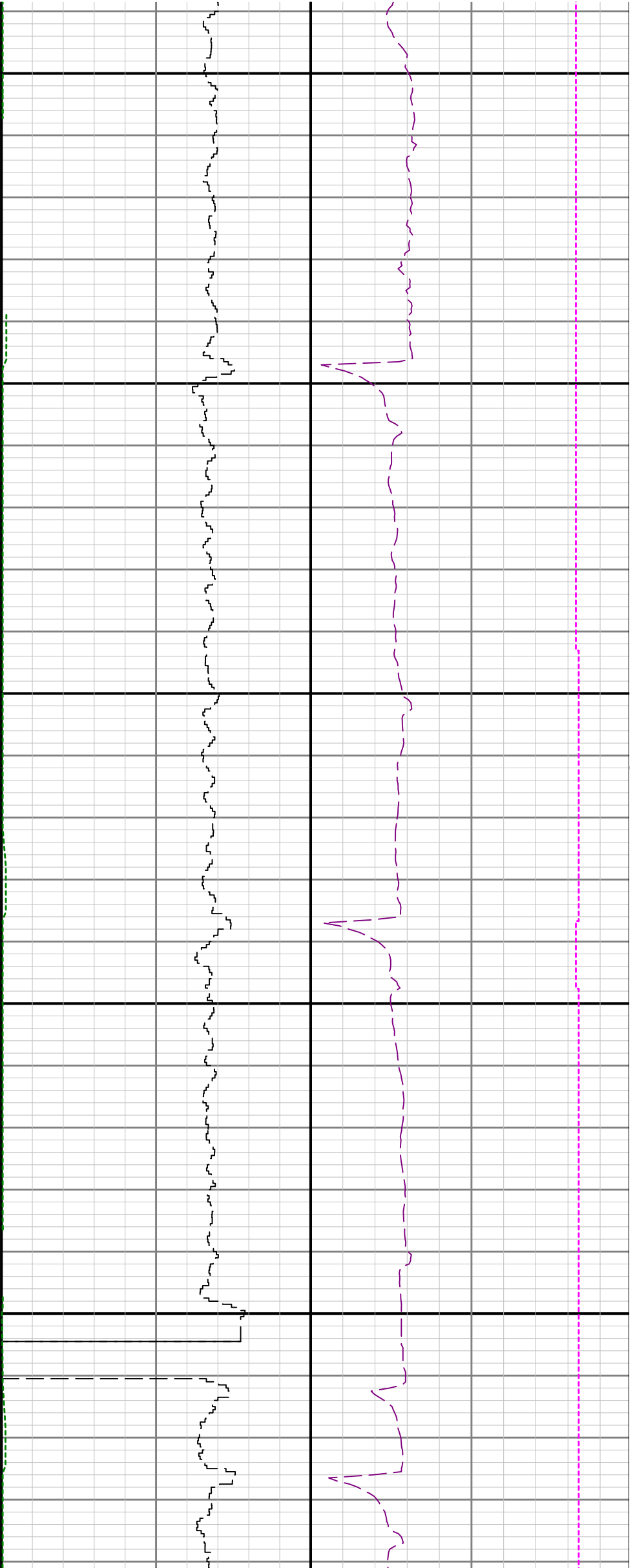
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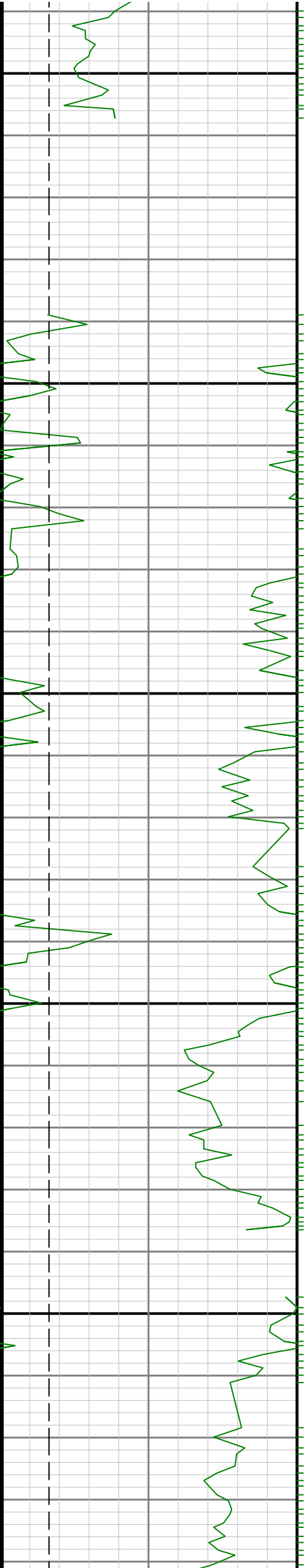


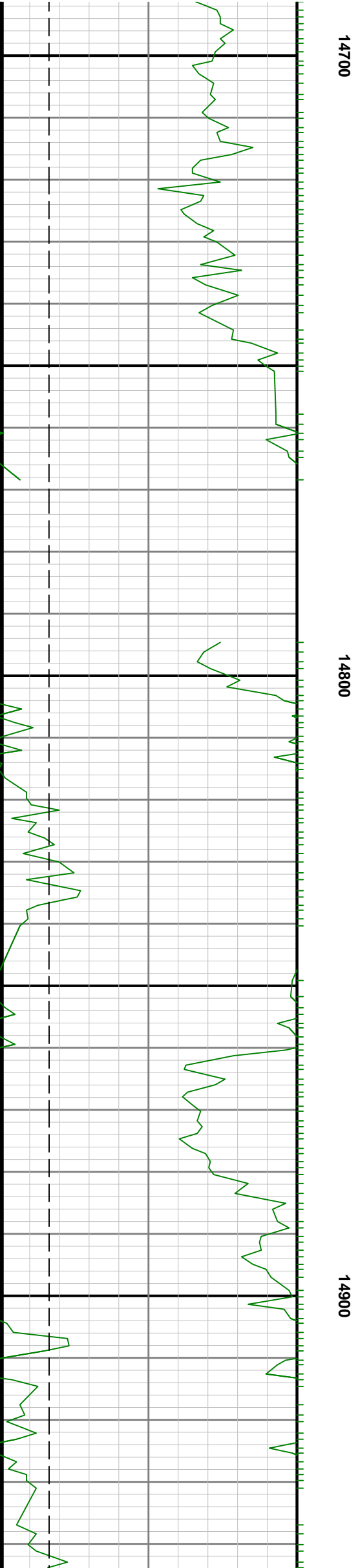
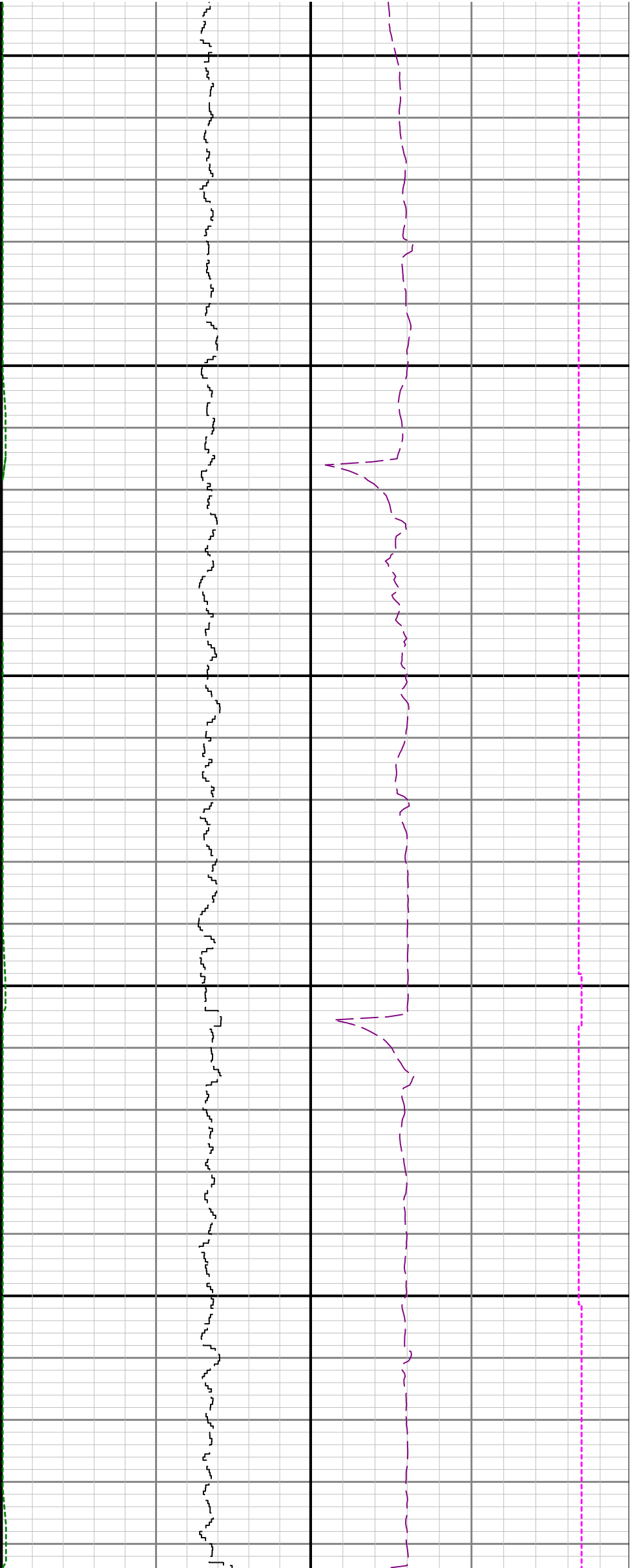


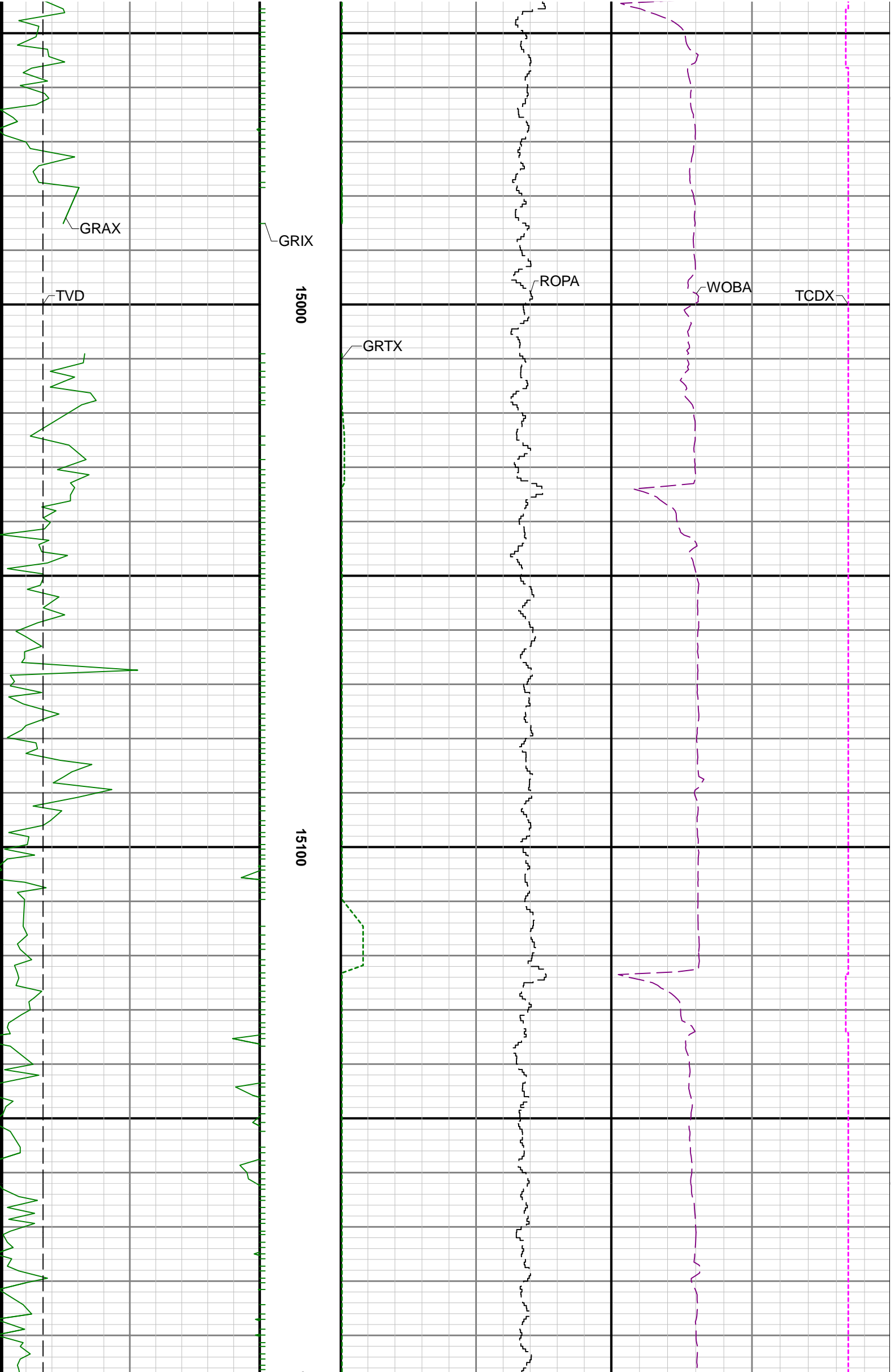


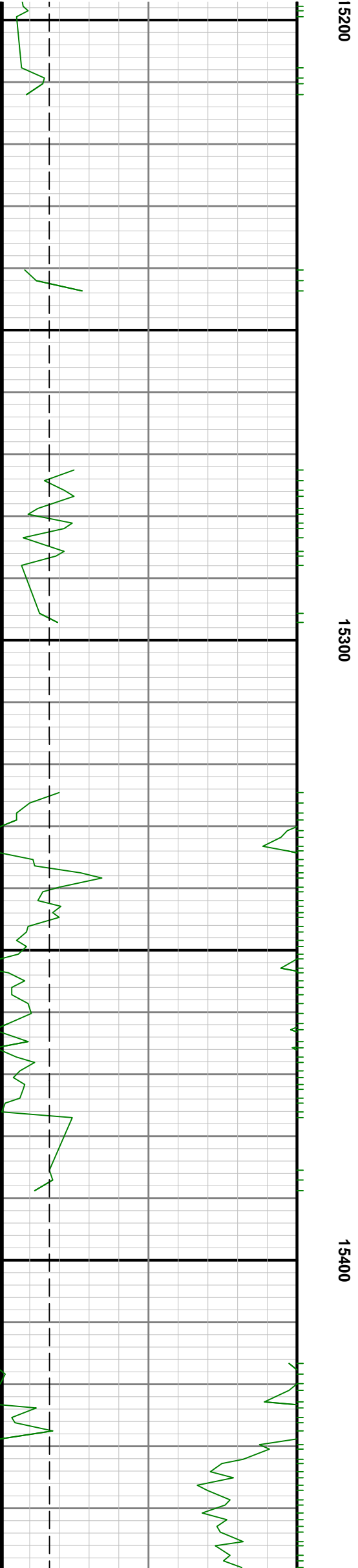
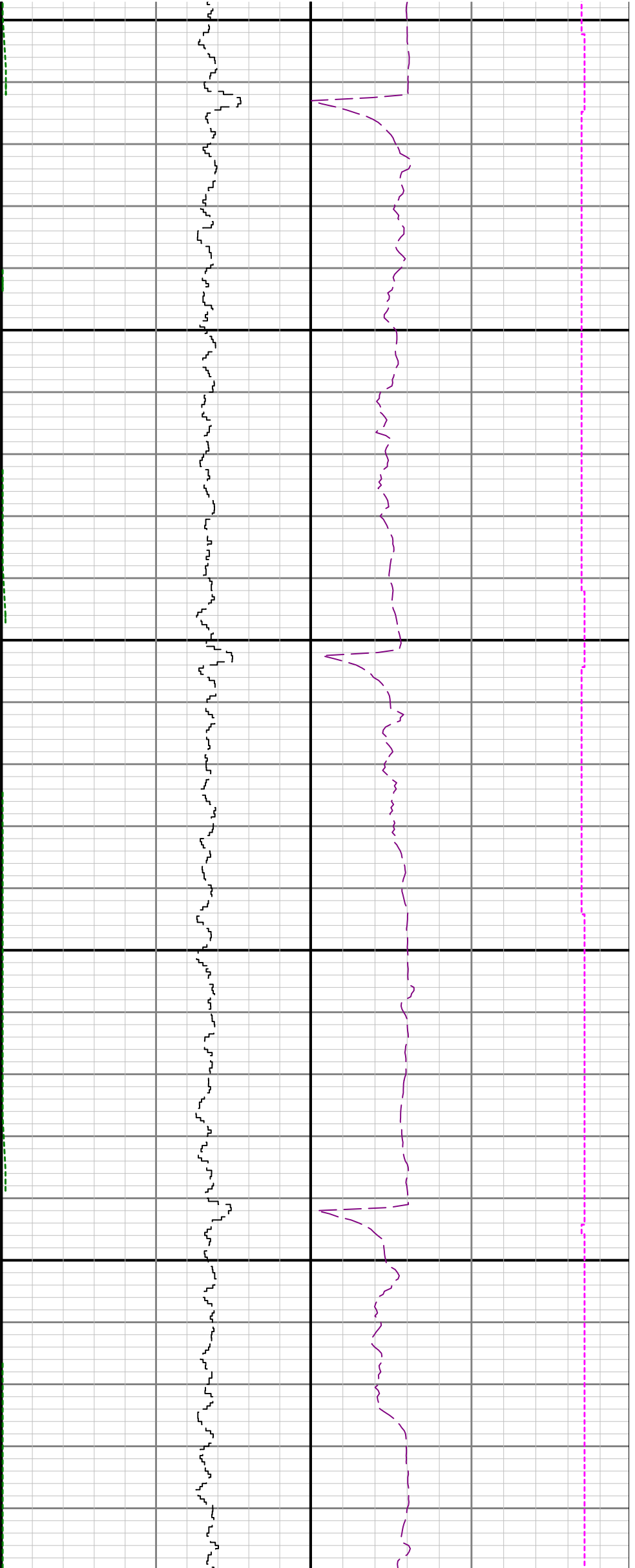
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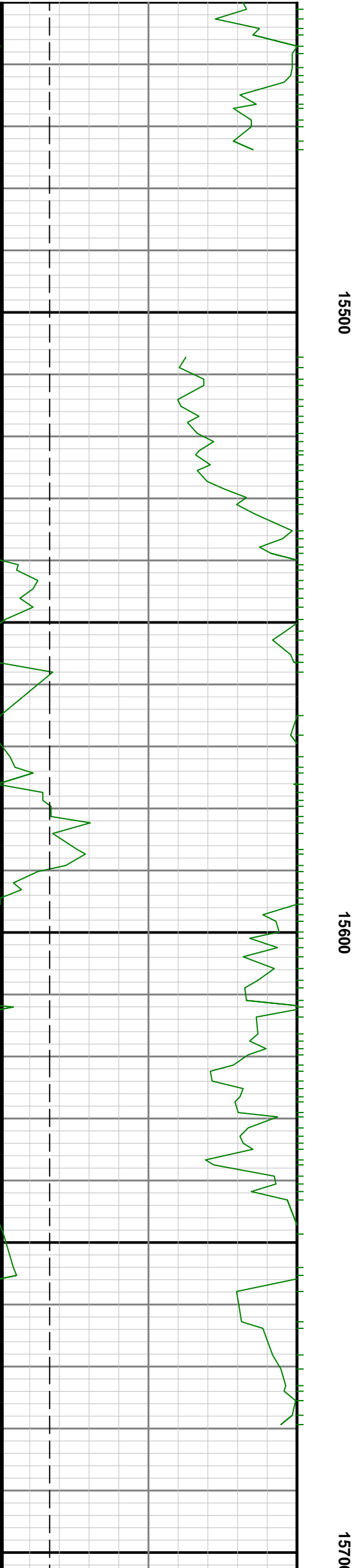
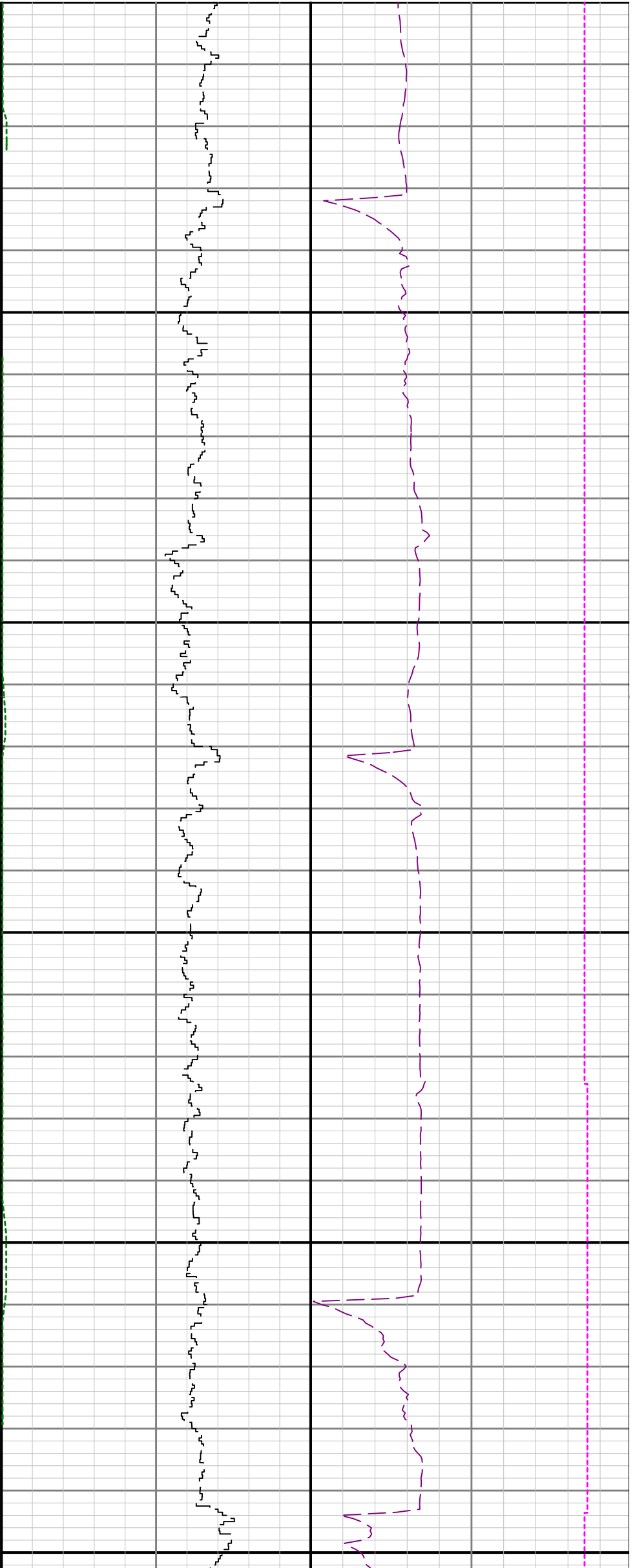
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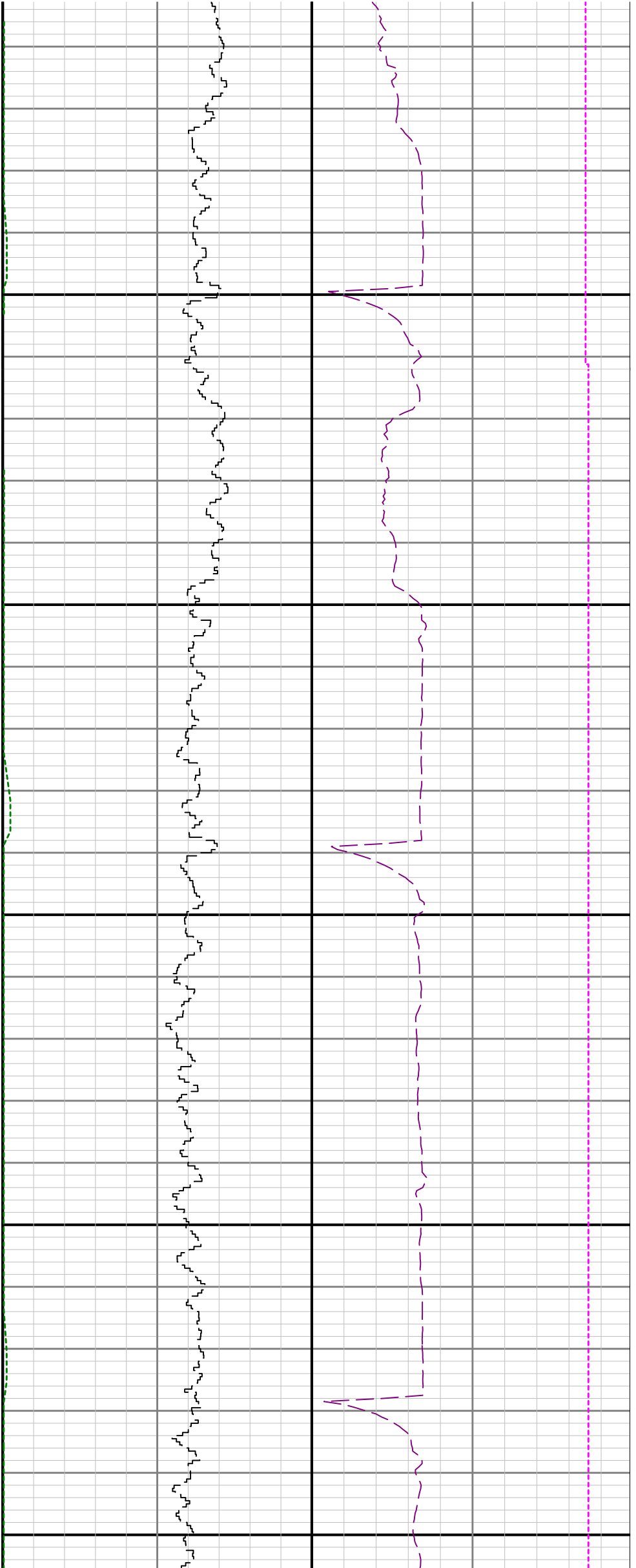






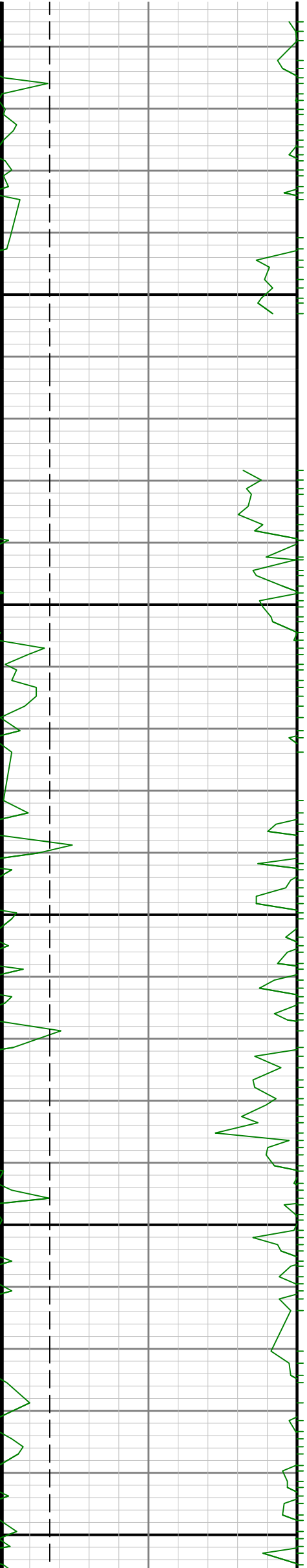


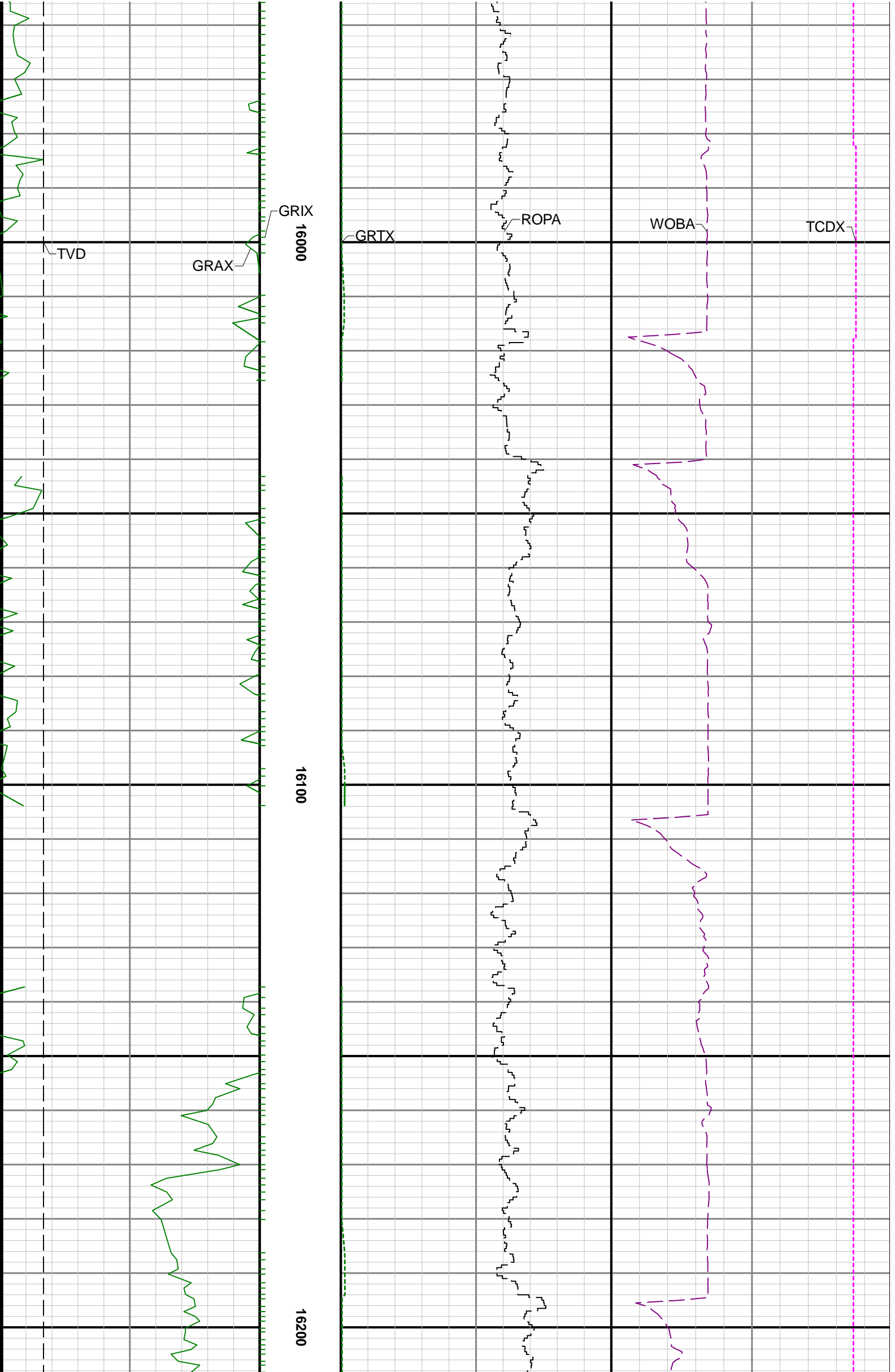


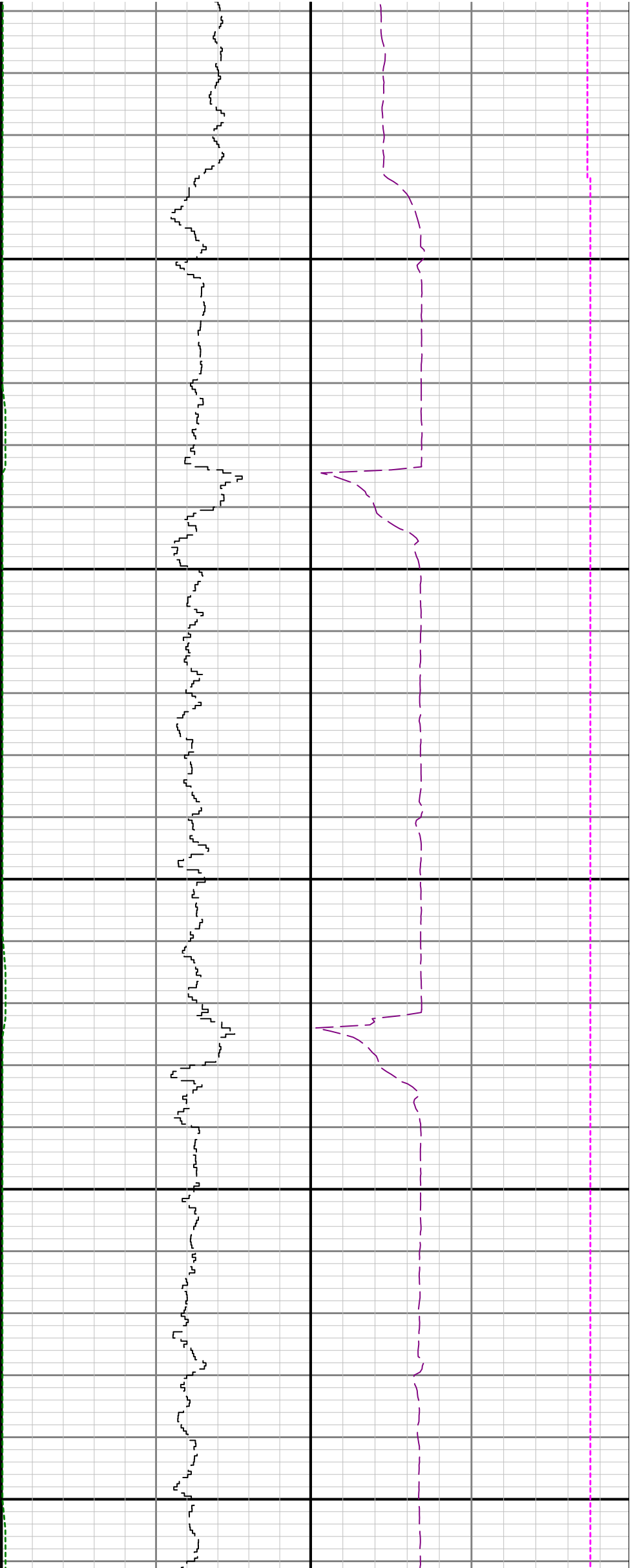


15800

15900

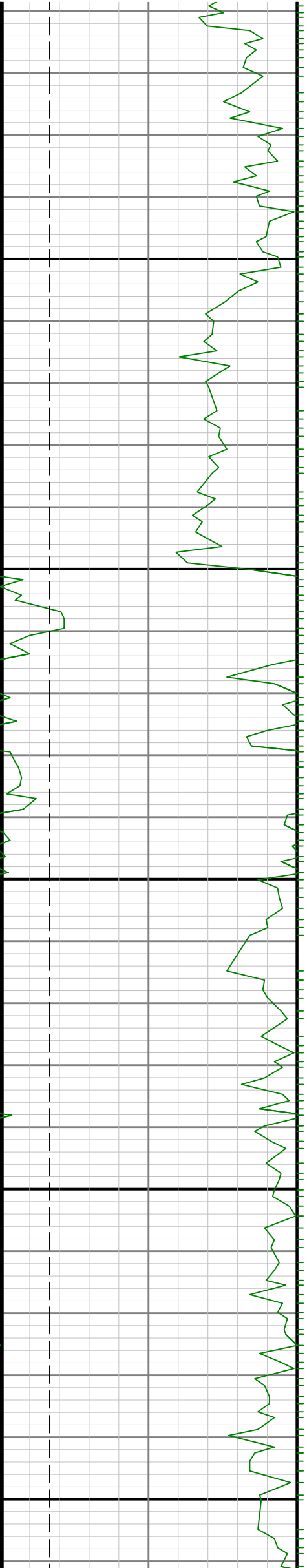


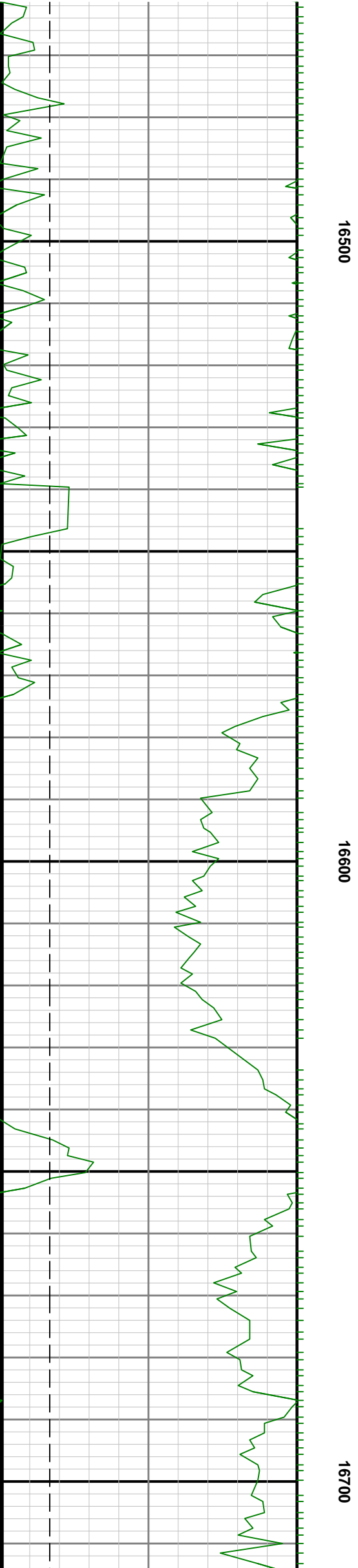


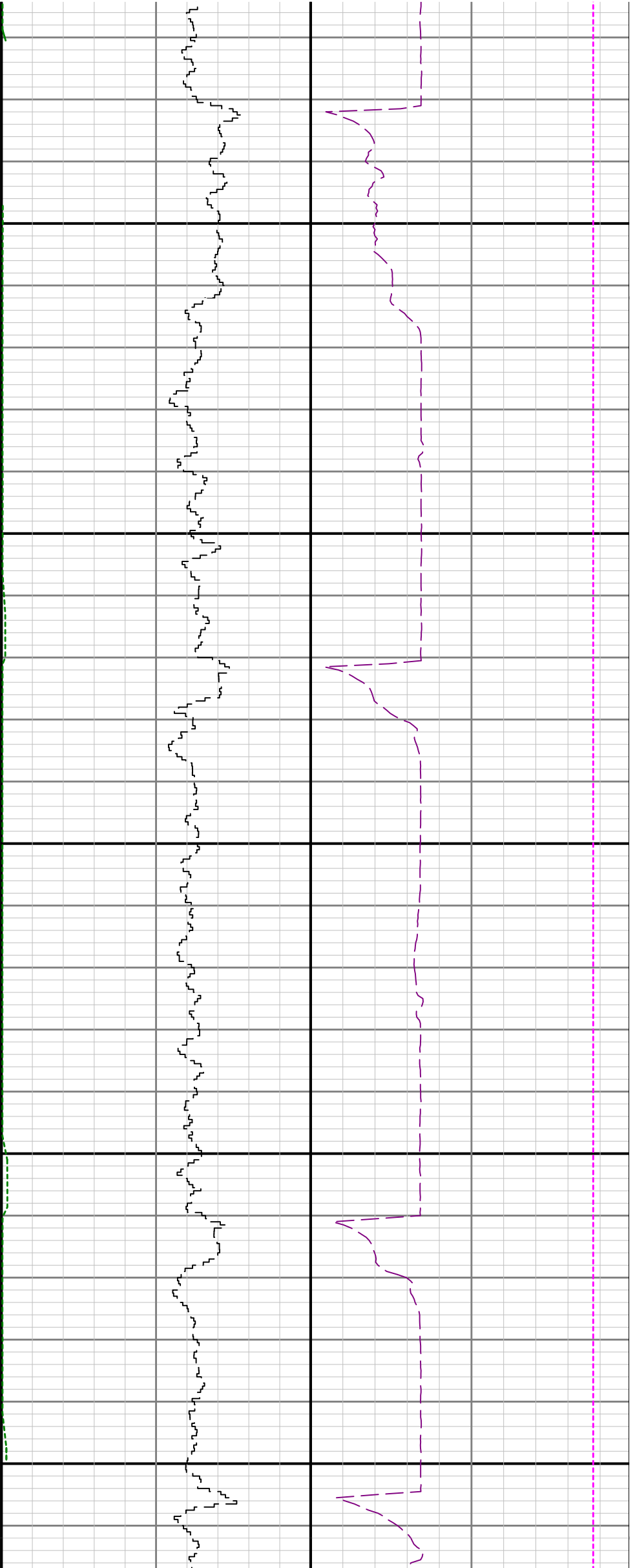


16300

16400







16800

16900

