



Natural Formation Evaluation
Gamma Ray

Realtime Log

Scale:	Company: Anadarko
1:240	Well: Goodin 36N-B6HZ
MEASURED DEPTH	Field: Weld County (Kerr McGee)
	Region: Continental US State: United States

Status:	Final Print	Surface Location:	Other Services:
API Number:	05123407490000	Latitude: 40° 3' 35.449" N Longitude: 104° 42' 9.637" W	Directional VSS
Permanent Datum (P.D.):	Ground Level	Elevation: 4979.00 ft.	Elevations: N/A
Log Measured From:	Rig Floor	5004.00 ft.	Above P.D. 5004.00 ft.
Depth Reference:	Driller's Depth	GL:	4979.00 ft.

Interval Logged	Dates	Magnetic Field Reference
Top: 7687 ft.	Date From: 08/Apr/2015	Dip Angle: 66.54° Azi Reference North: True
Bottom: 13329 ft.	Date To: 11/Apr/2015	Total Mag to Reference
	Spud Date: 08/Apr/2015	Field Strength: 52743.0 nT North Correction: 8.04°

Borehole Record				Casing Record			
Hole Size	From	To	Size	Weight	From	To	
6.125 in.	7687 ft.	13329 ft.	7.000 in.	26.00 lb/ft	Surface	7827 ft.	

Mud Record				Deviation Record			
Type	From	To	Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)	
Poly Plus	7687 ft.	13329 ft.	6.125 in.	7687 ft.	89.1° / 1.5°	91.6° / 358.7°	
					/	/	
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Acquisition System				Other			
Advantage	Software Version	2.20U4	Rig / Contractor:	H&P 307	/ Helmerich & Payne Drilling Co		
PATS	6.4.1.34		Job No:	7134801			
			District / Unit:	RMD	/ D & E		

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Log Run Summary

LWD Run No.	BHA Run No.	Bit Run No.	Bit Size (in.)	Bit Type	Bit Gauge Length (in.)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Time (hrs.)
							Top (ft.)	Bottom (ft.)	From (ft.)	To (ft.)	Start	End	
3	3	3	6.125	PDC	6.500	Mud Motor	7687	11590	7734	11637	08/Apr/2015 00:34	08/Apr/2015 00:34	25.7
4	4	4	6.125	PDC	6.500	Mud Motor	11590	13247	11637	13329	09/Apr/2015 16:53	11/Apr/2015 16:53	16.5

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart
	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Andy King	08/Apr/2015	11/Apr/2015	Jake Miller	08/Apr/2015	11/Apr/2015	Mike Gurnsey	04/Apr/2015	11/Apr/2015
Bill Herbers	04/Apr/2015	11/Apr/2015	Donald Delay	08/Apr/2015	09/Apr/2015			

Mud Properties Record

Date / Time		LWD Run No.	Measured Depth (ft.)	Mud Type	Density (lb/gal)	Viscosity (s/qt)	pH	Fluid Loss (cc)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
08/Apr/2015	19:00	3	11595	Poly-Plus	10.4	50	9.1	0.0	1/88	Active Pit	2800	0.0
10/Apr/2015	19:00	4	10298	Poly-Plus	9.6	47	9.8	0.0	2/91	Active Pit	2500	0.0

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
GRTX	Gamma Ray Time Since Drilled	Min.
GRIX	Gamma Ray Density, Points	unitless
GRSI	Gamma Ray Slide Indicator	unitless
ROPA	Rate of Penetration, 3.0 ft. Avg.	Ft./Hr.
TCDX	Downhole Temperature	Deg. F.
TVD	True Vertical Depth	Ft.
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	K. lbs.

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
3	DIR	12662919	Directional	51.30	4.750	2.750
3	SRIG	12131409	Gamma	47.88	4.750	2.750
4	DIR	11991886	Directional	52.45	4.750	2.750
4	SRIG	12600745	Gamma	49.03	4.750	2.750

Service and Tool Mnemonics

Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

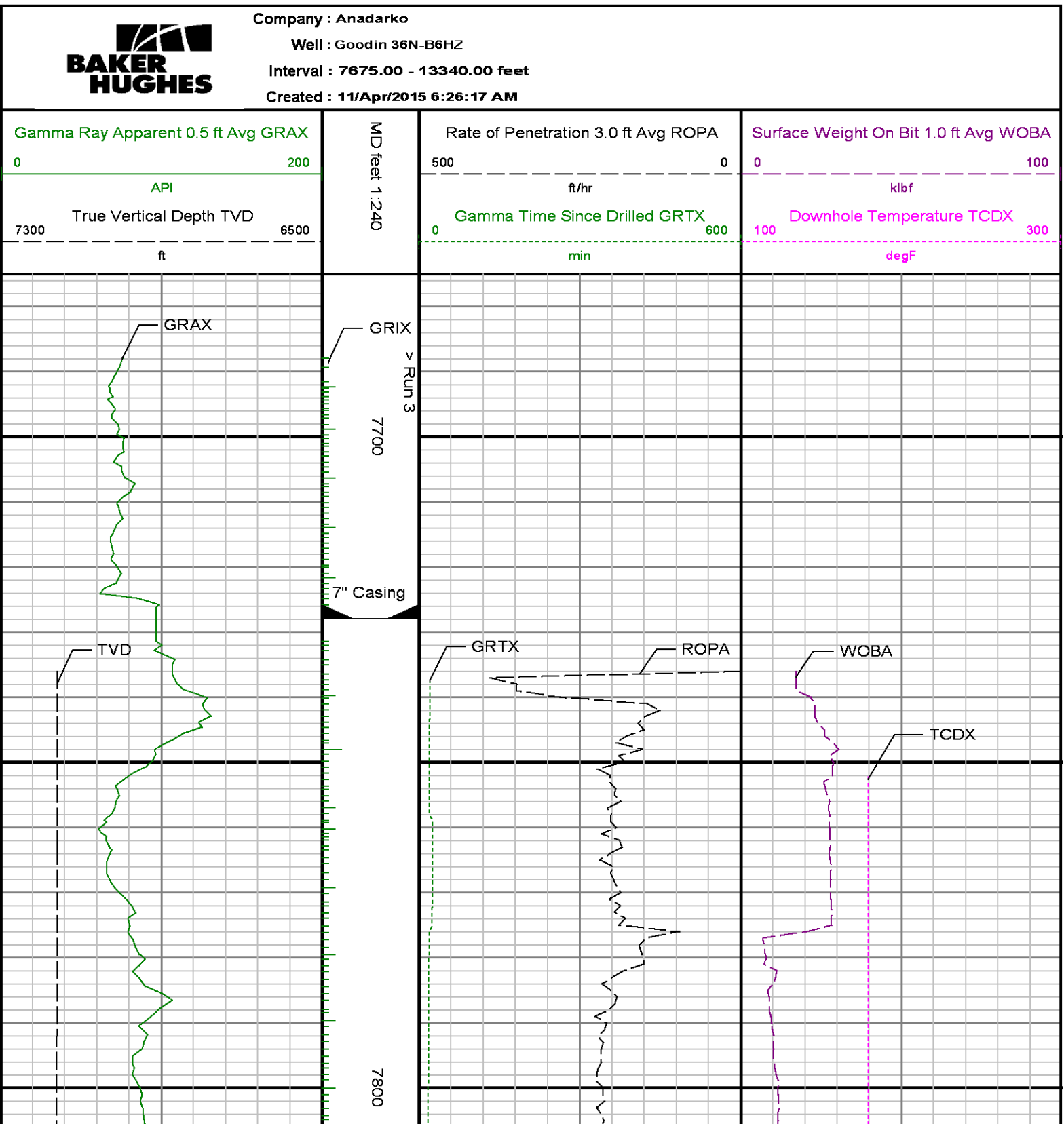
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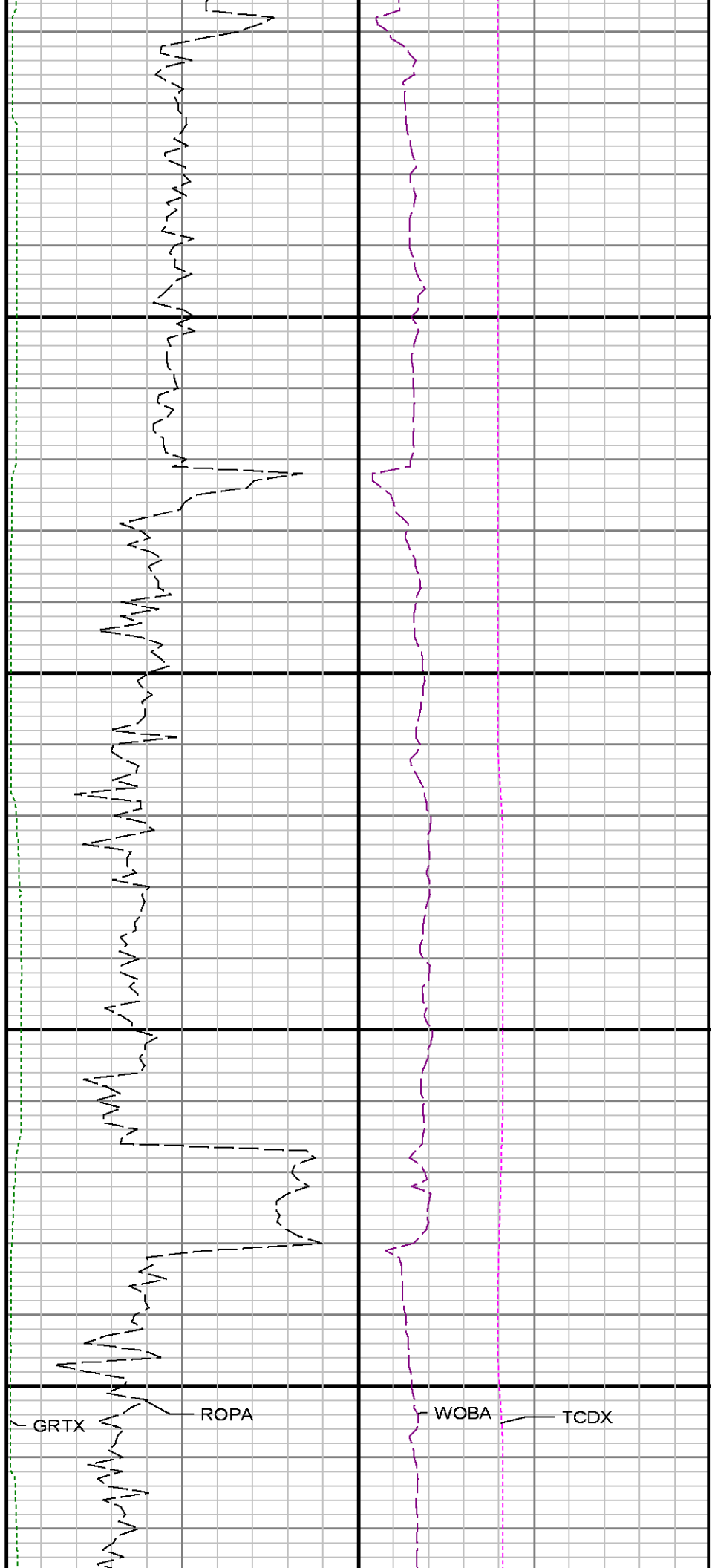
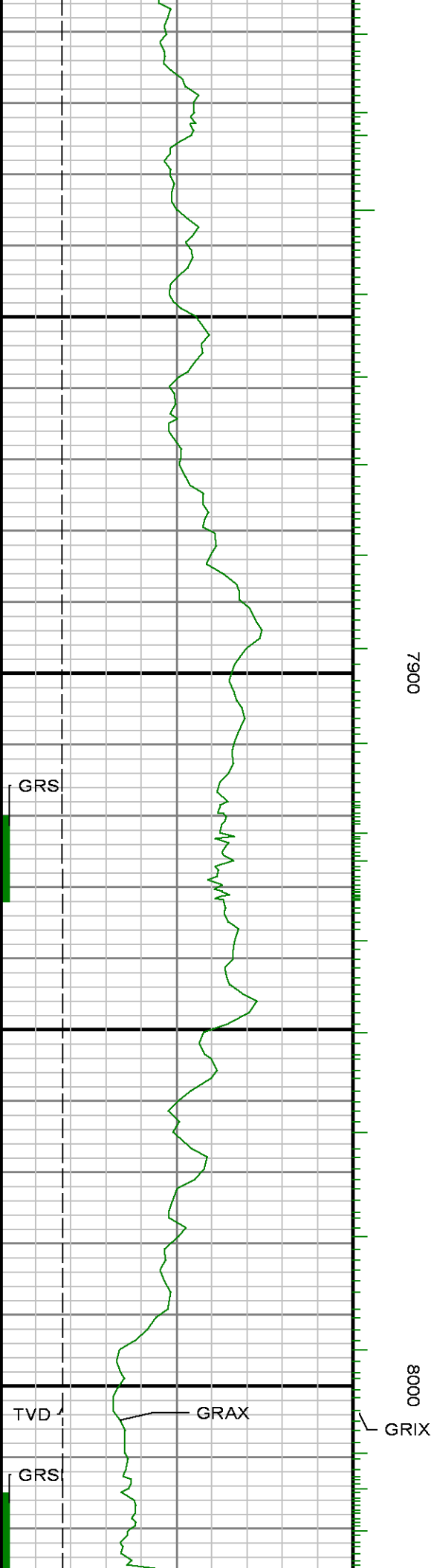
(1) Baker Hughes LWD Run 3 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind a 6 1/8 inch bit and steerable assembly from 7687 to 11646 ft MD (7156 to 7177 ft TVD).
(2) Baker Hughes LWD Run 4 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind a 6 1/8 inch bit and steerable assembly from 11646 to 13329 ft MD (7177 to 7162 ft TVD).
(3) Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
(4) A sliding indicator is shown on the left edge of track 1 as a heavy line. This indicator has been depth-shifted to the Gamma Ray sensor offset to correspond with Gamma Ray data acquired while sliding.

Remarks

Number	Measured Depth	Hole Section	LWD Run No.	Remark
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	(ft.)	(in.)		
1	7736	6.125	3	No drilling data is shown from 7687 to 7736 ft MD (7156 to 7160 ft TVD) due to sensor offset from bit at the start of run 3.
2	11646	6.125	4	The interval from 11646 to 11699 ft MD (7177 to 7178 ft TVD) was logged up to 24 hours after being drilled due to a trip out of hole for new motor and bit.
3	13329	6.125	4	No logging data is shown from 13274 to 13329 ft MD (7164 to 7162 ft TVD) due to sensor offset from bit at the end of run 4.

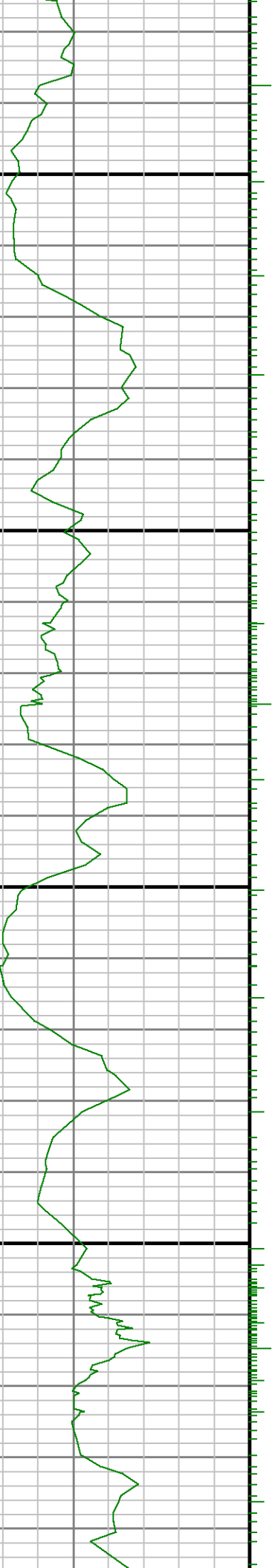


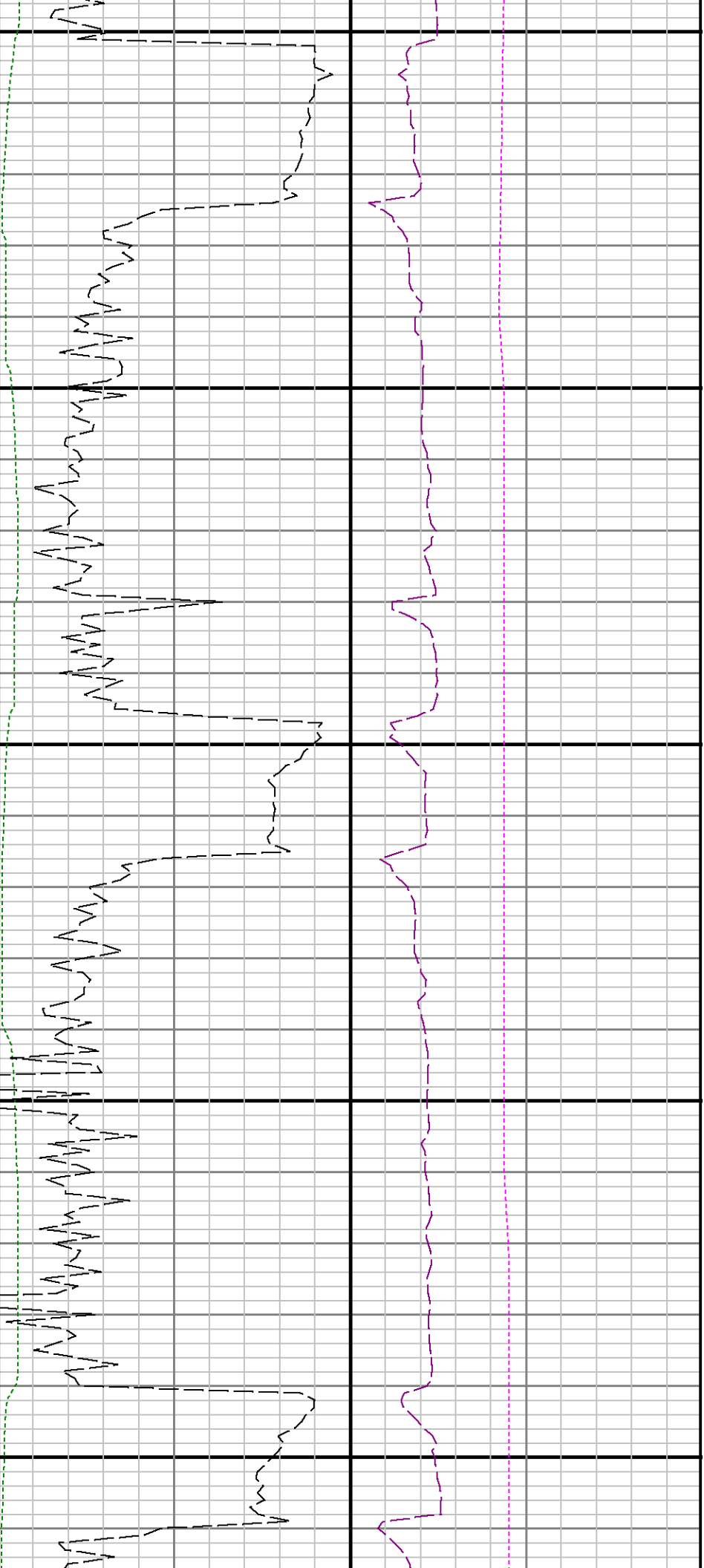




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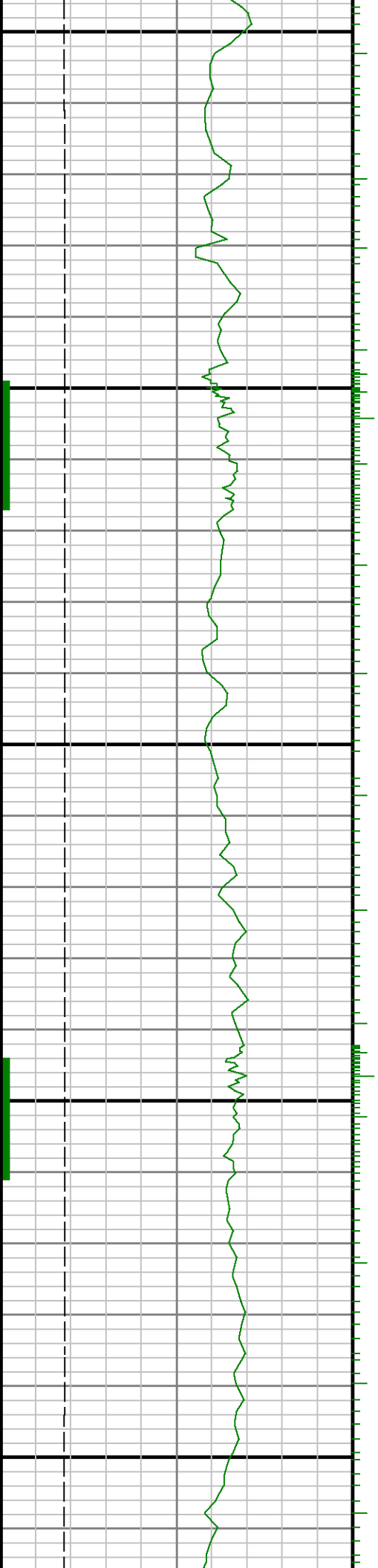
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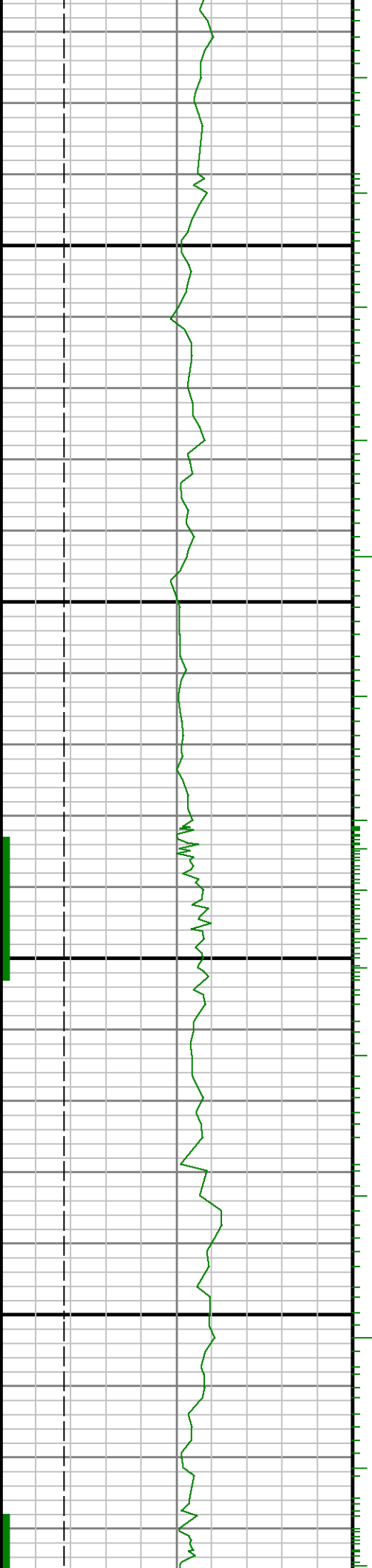




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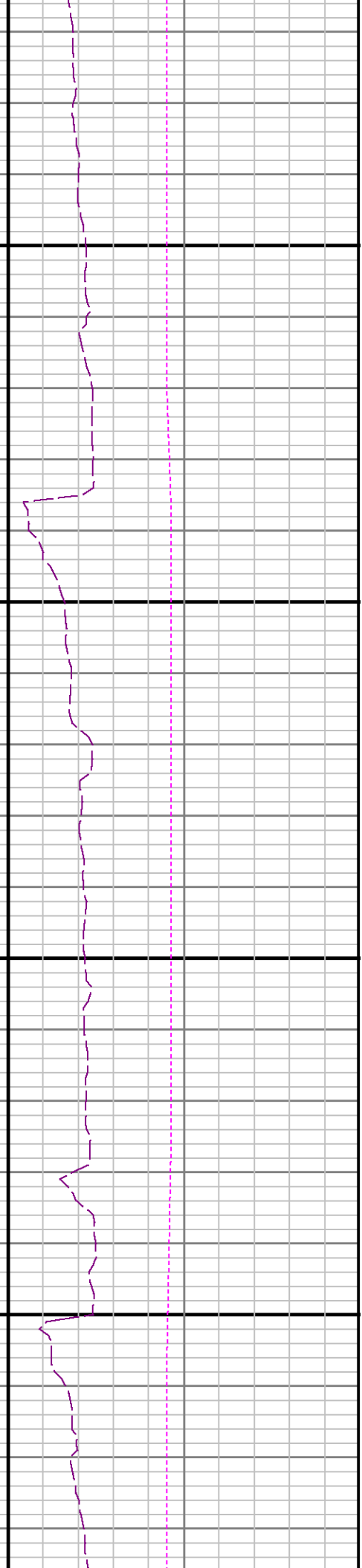
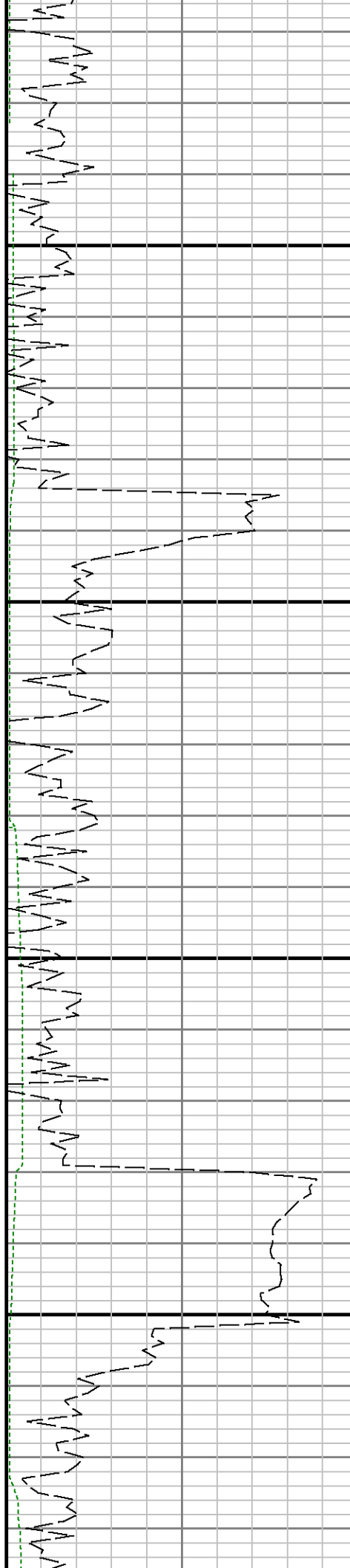
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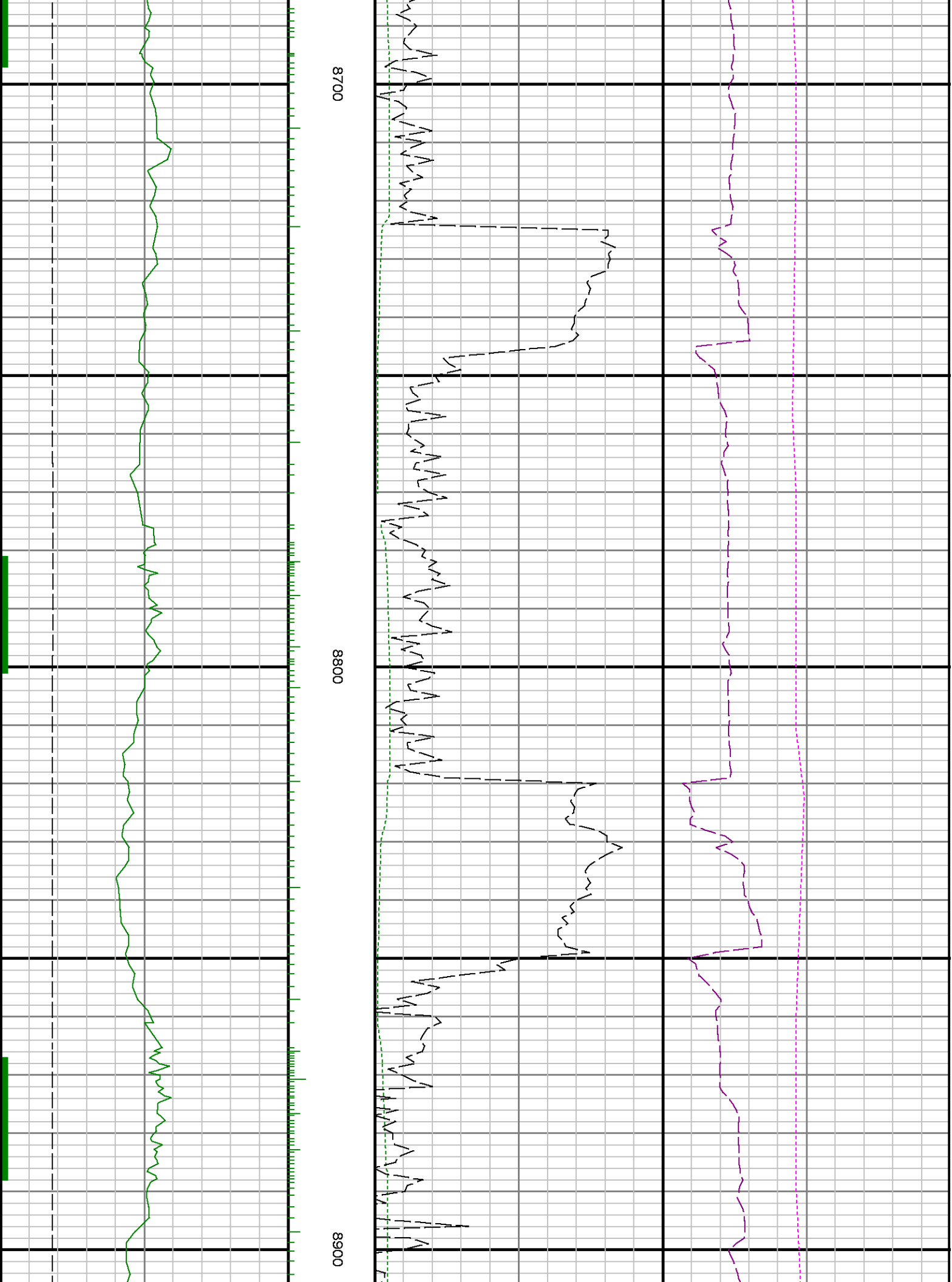


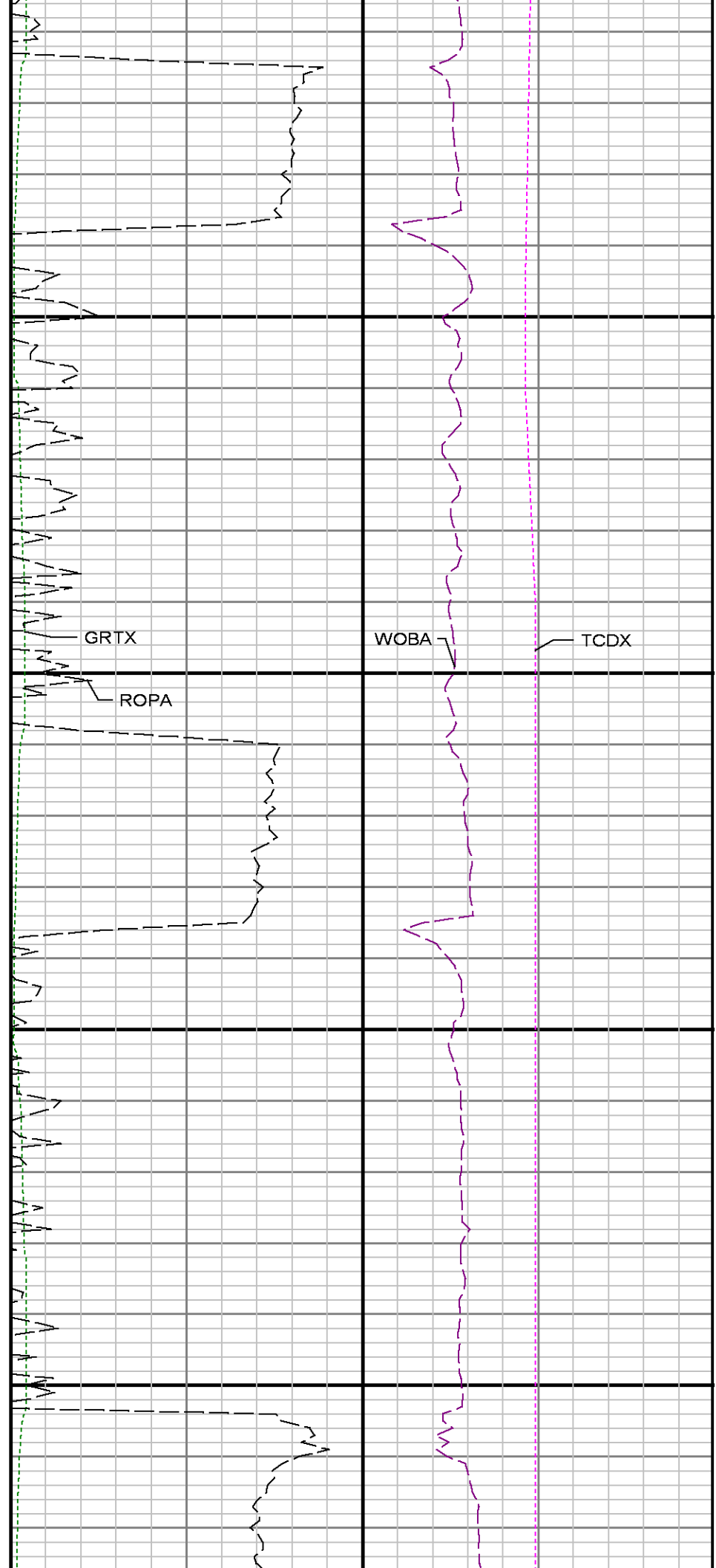
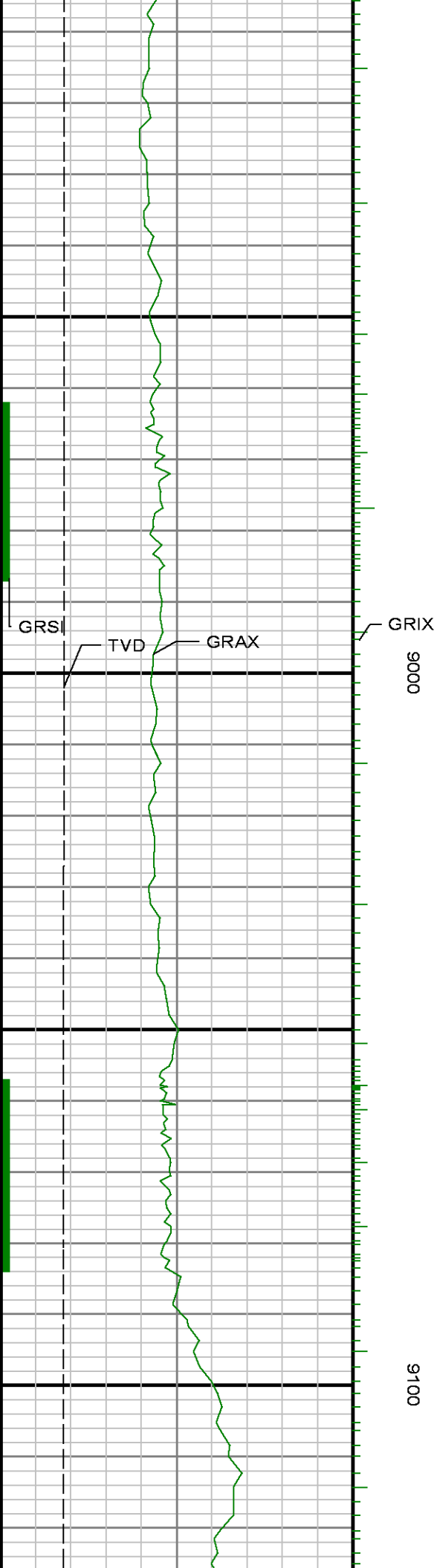


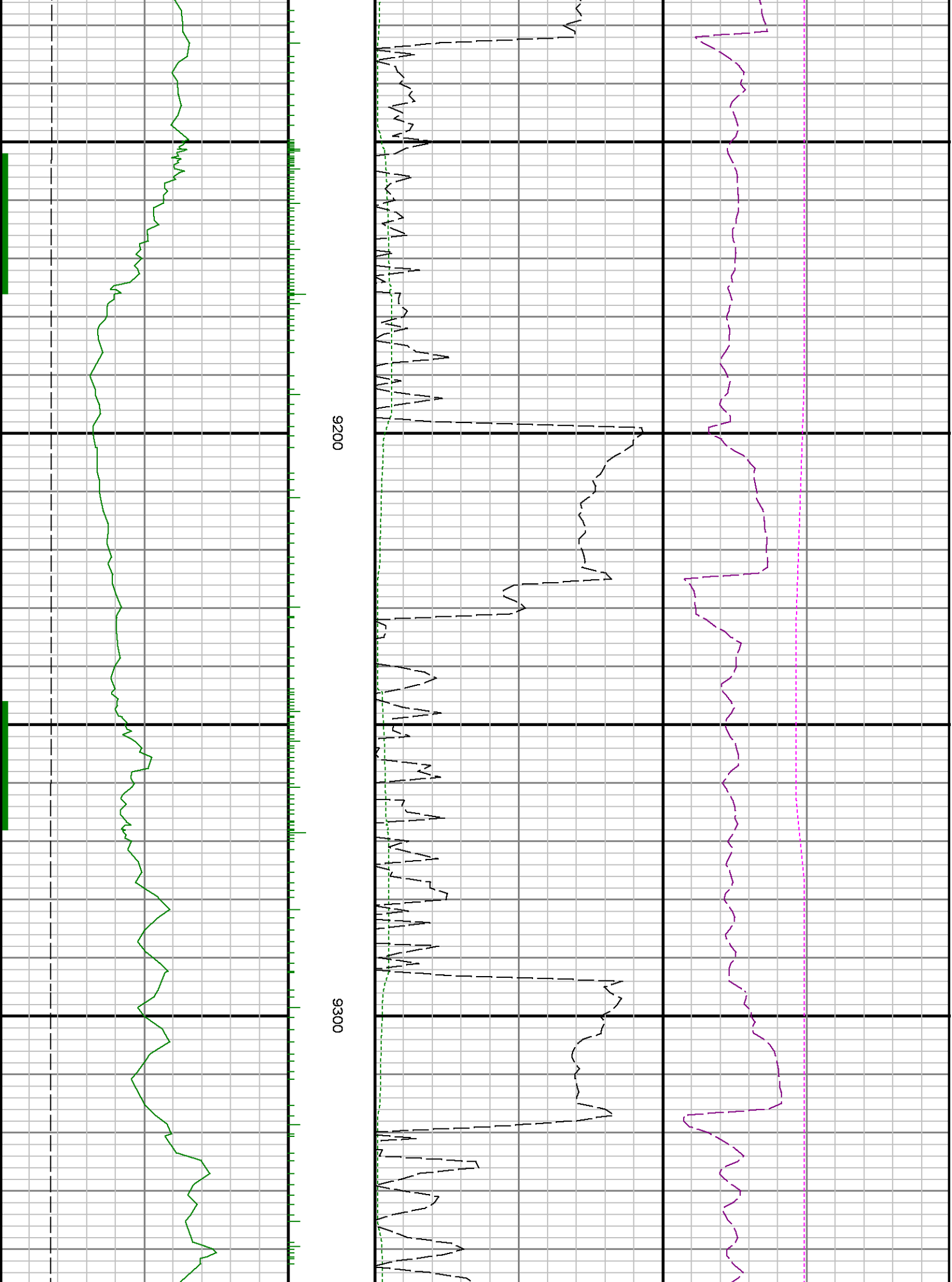
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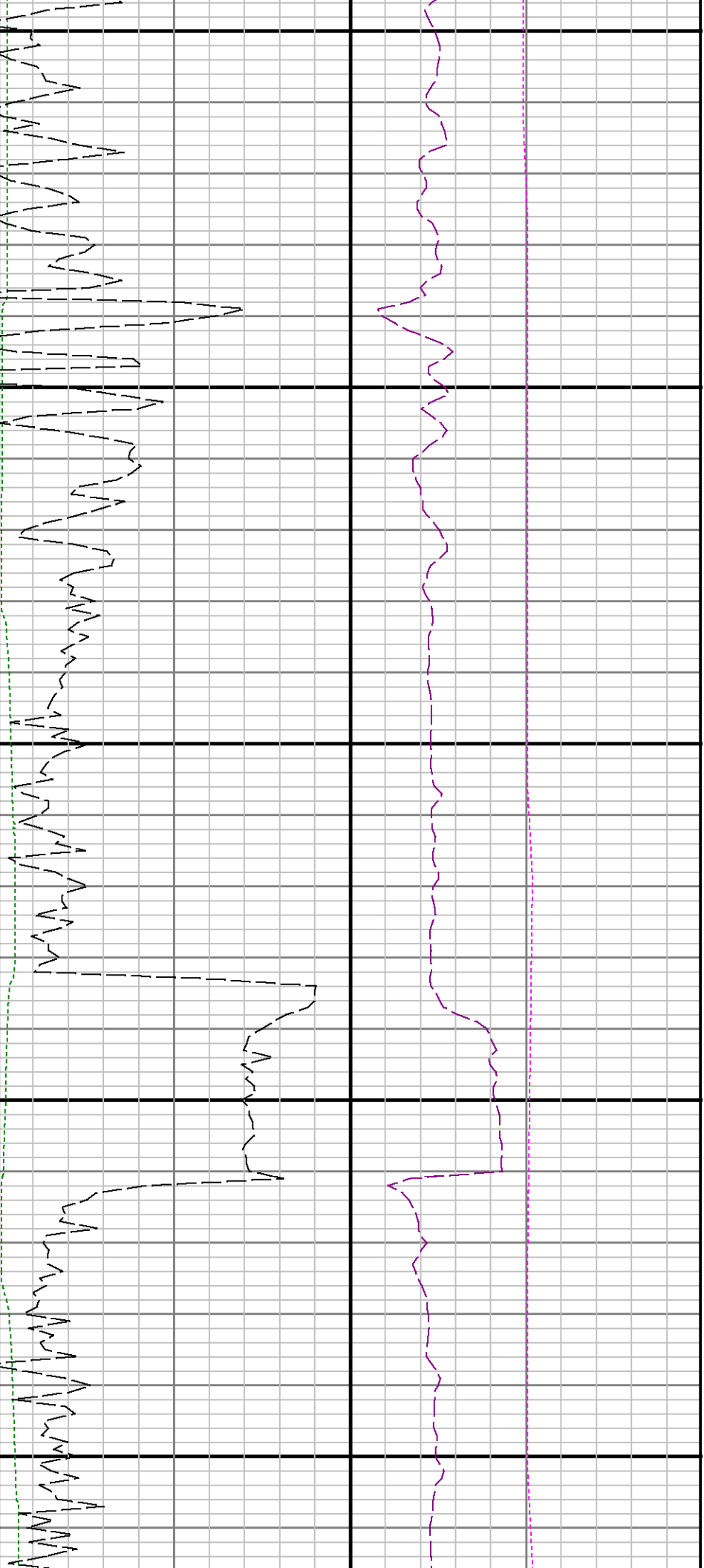
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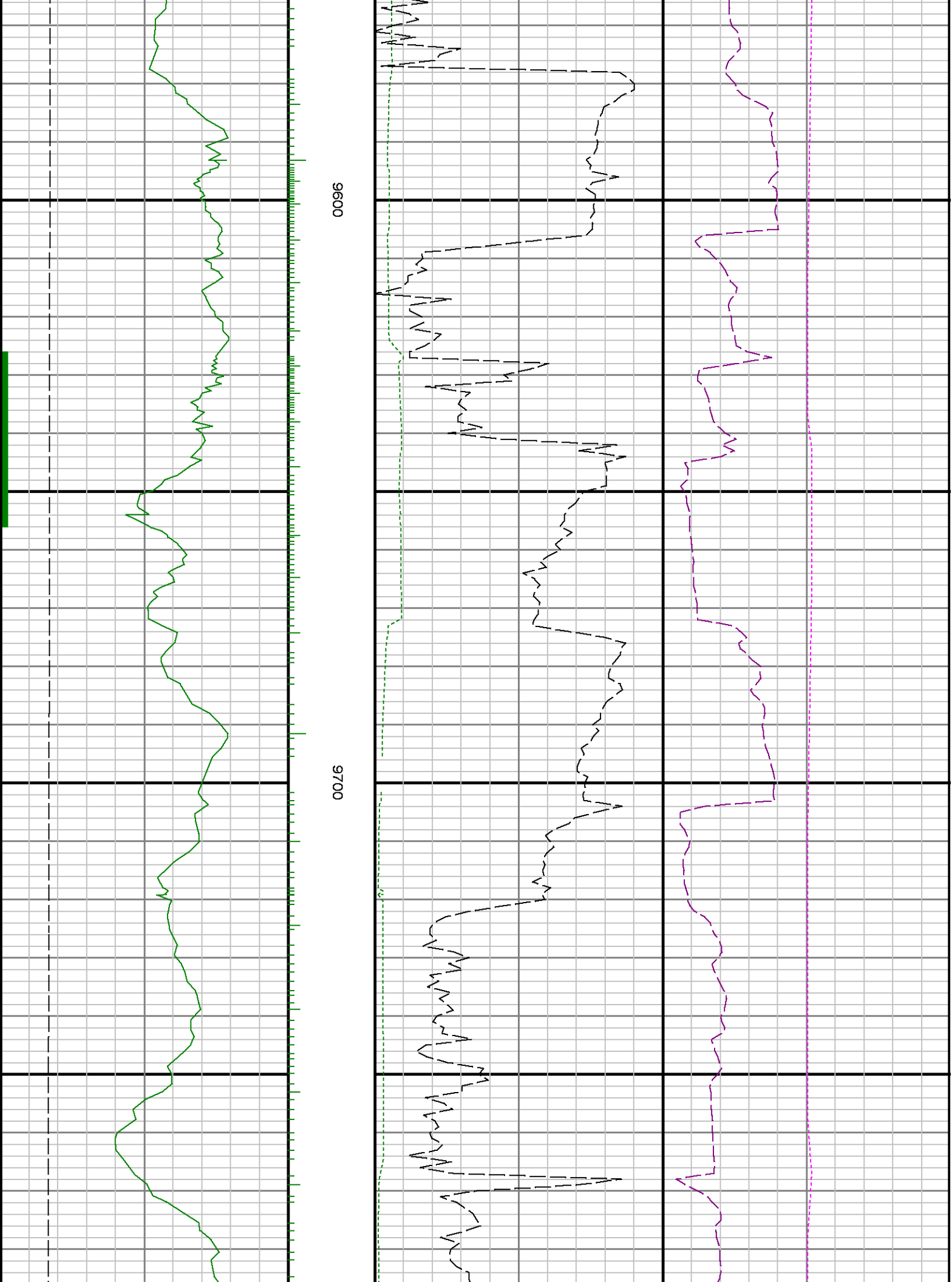


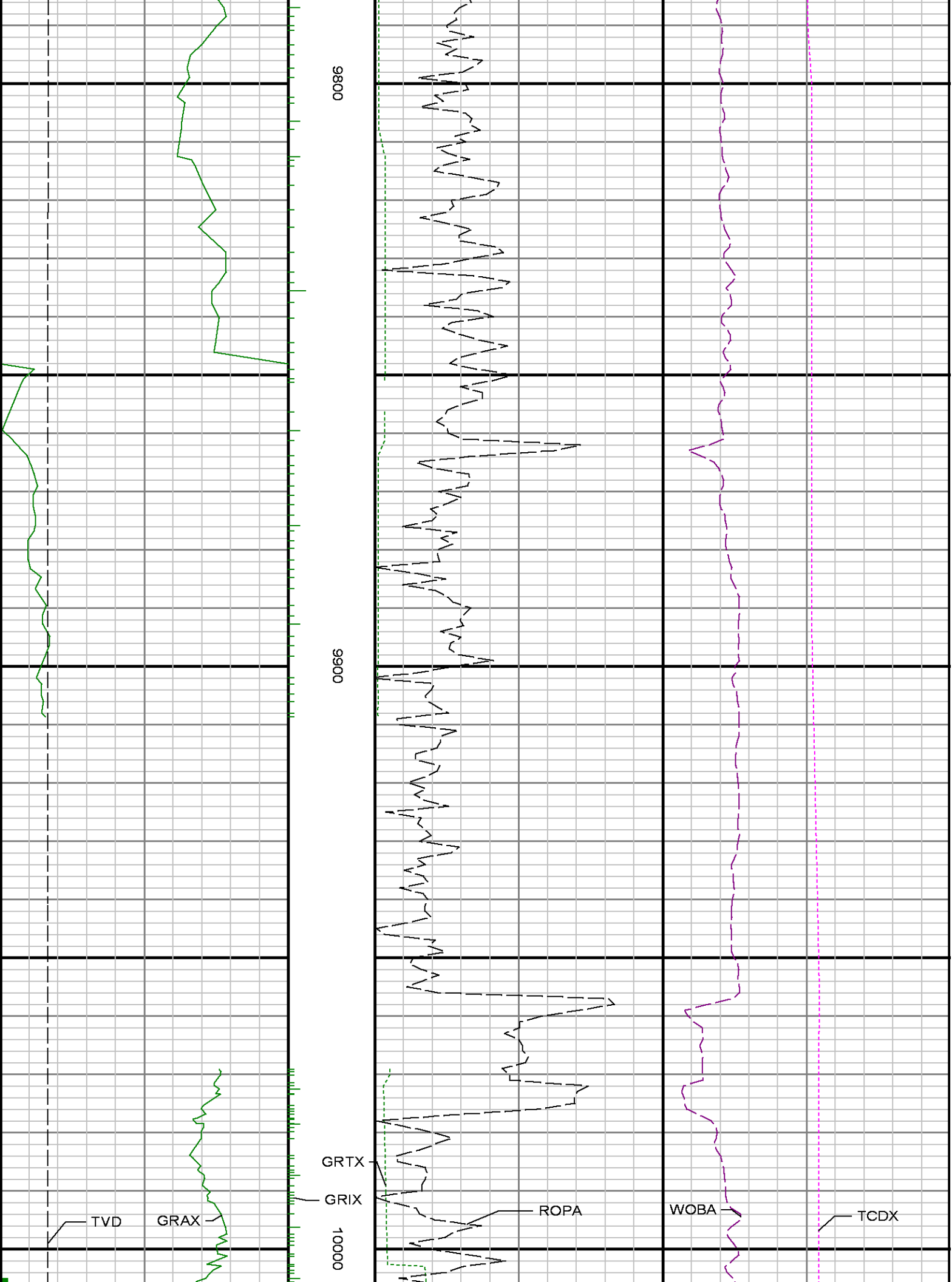


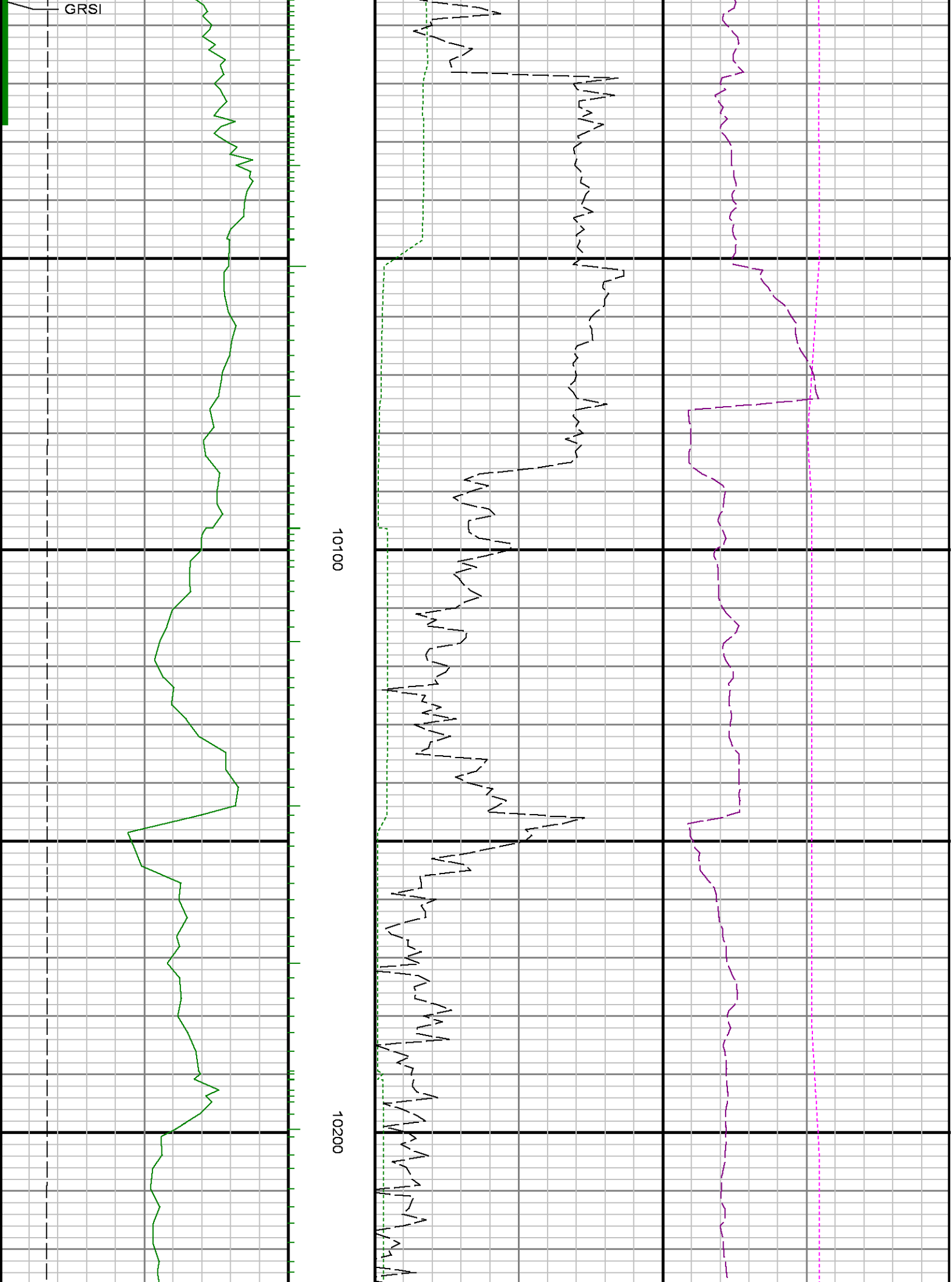
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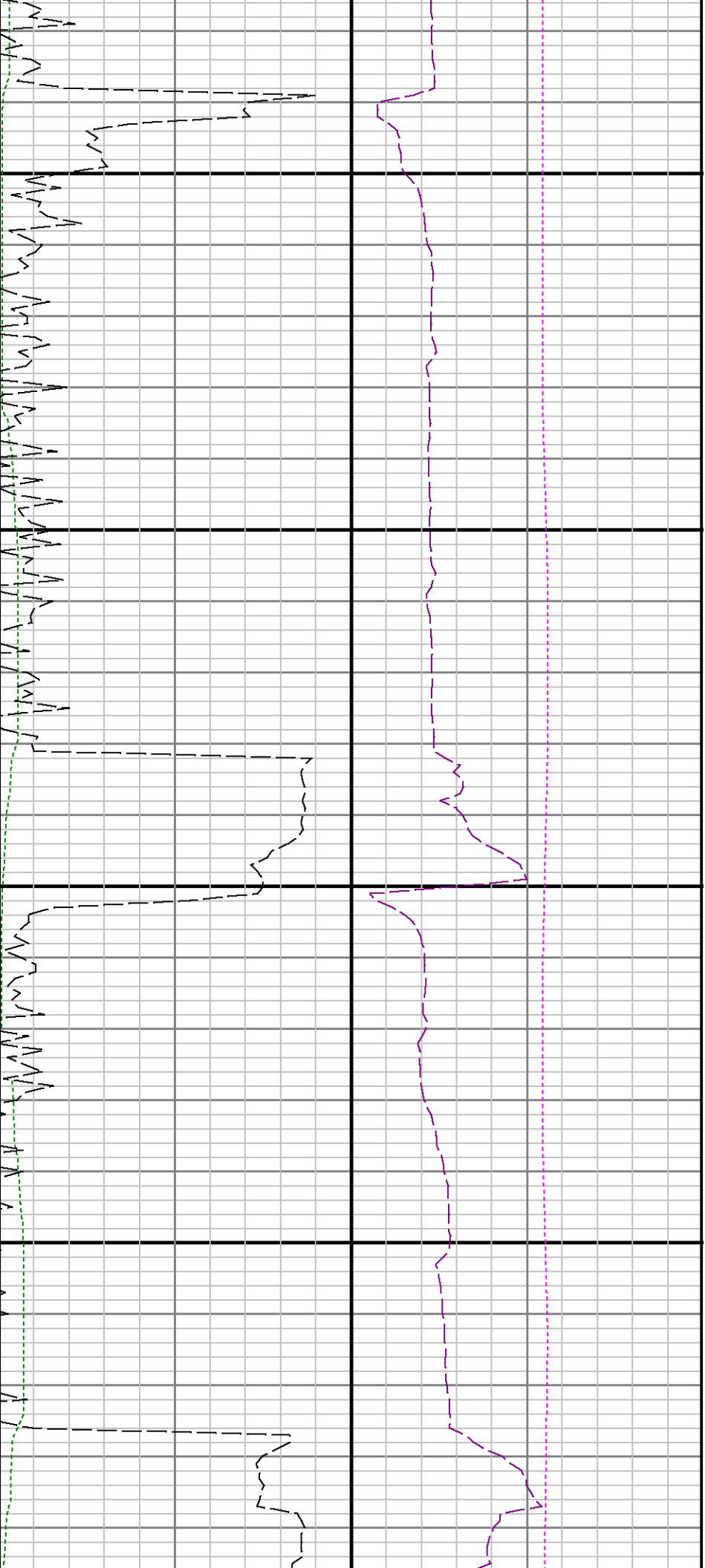
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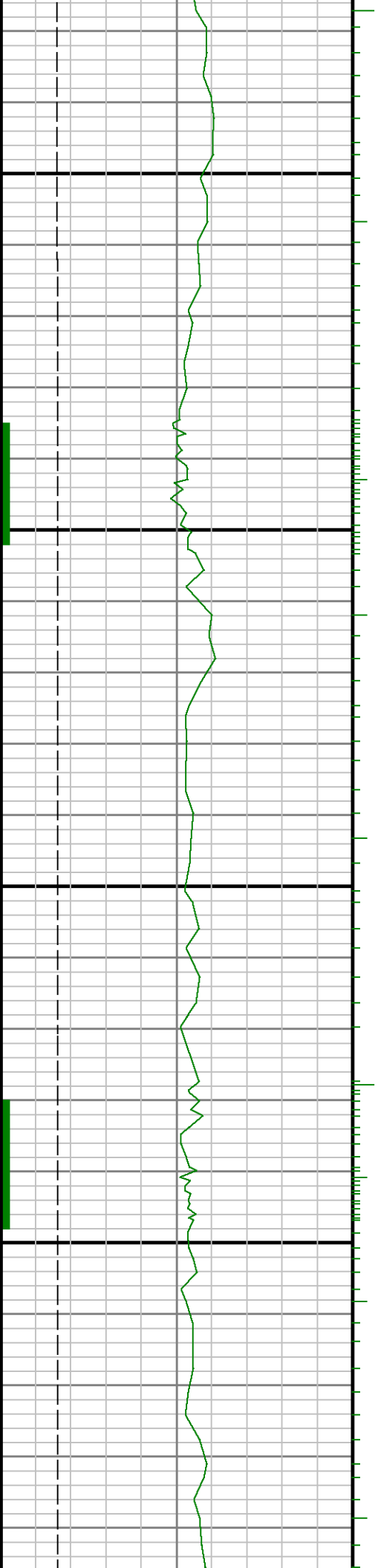


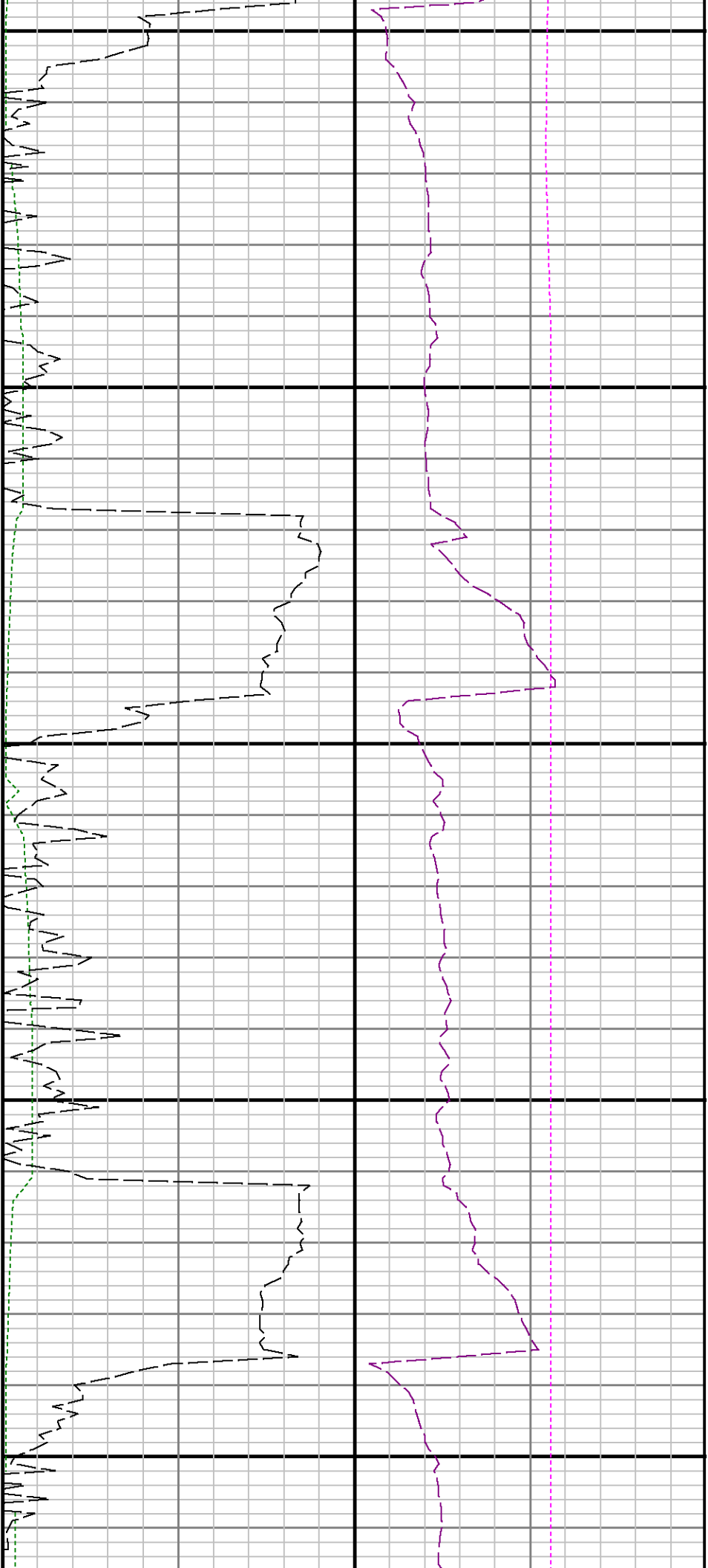




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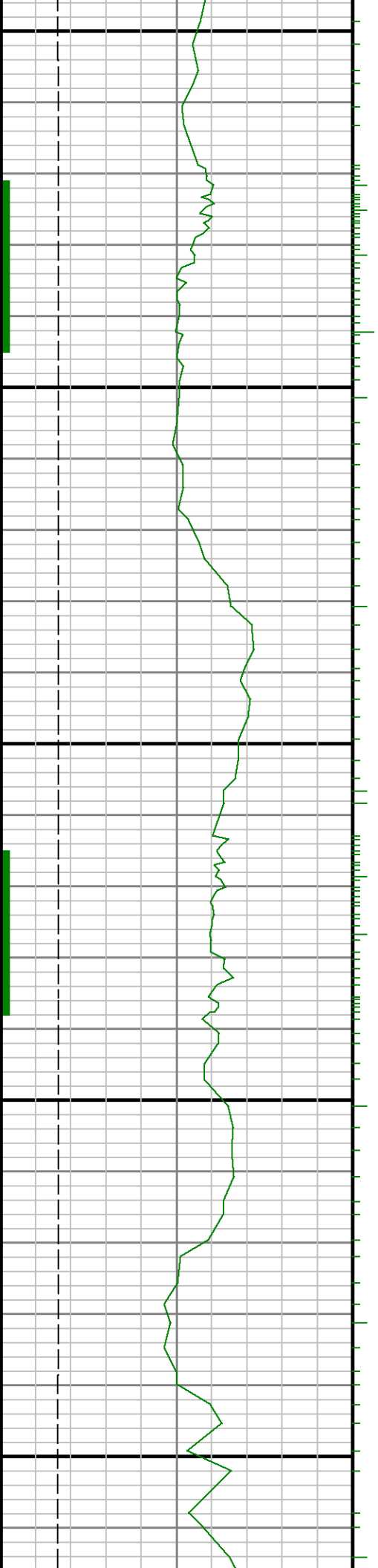
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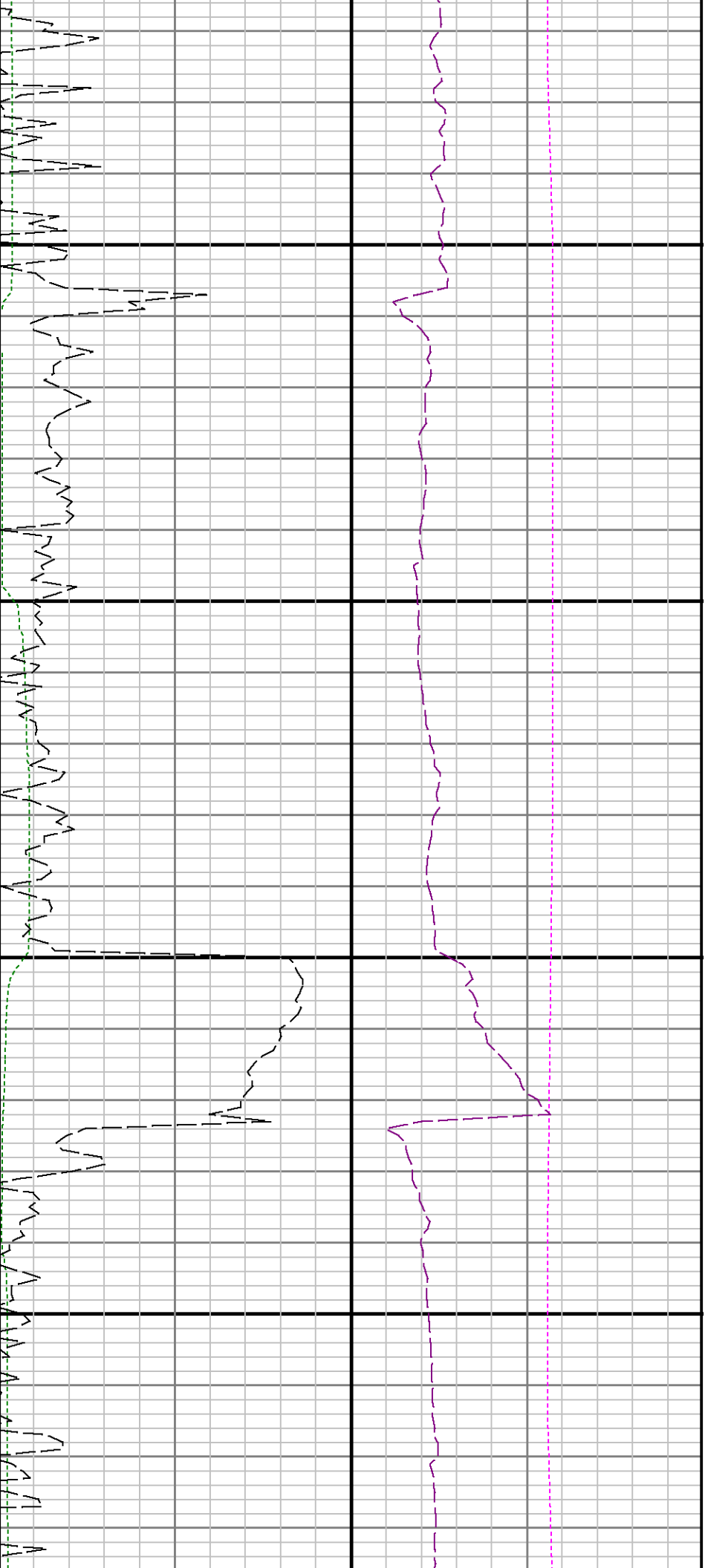




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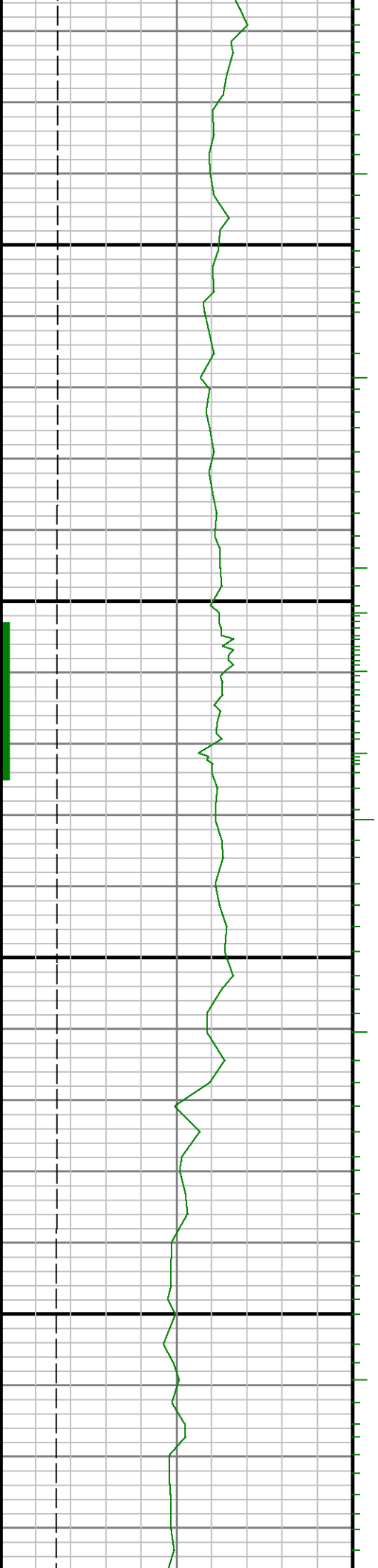
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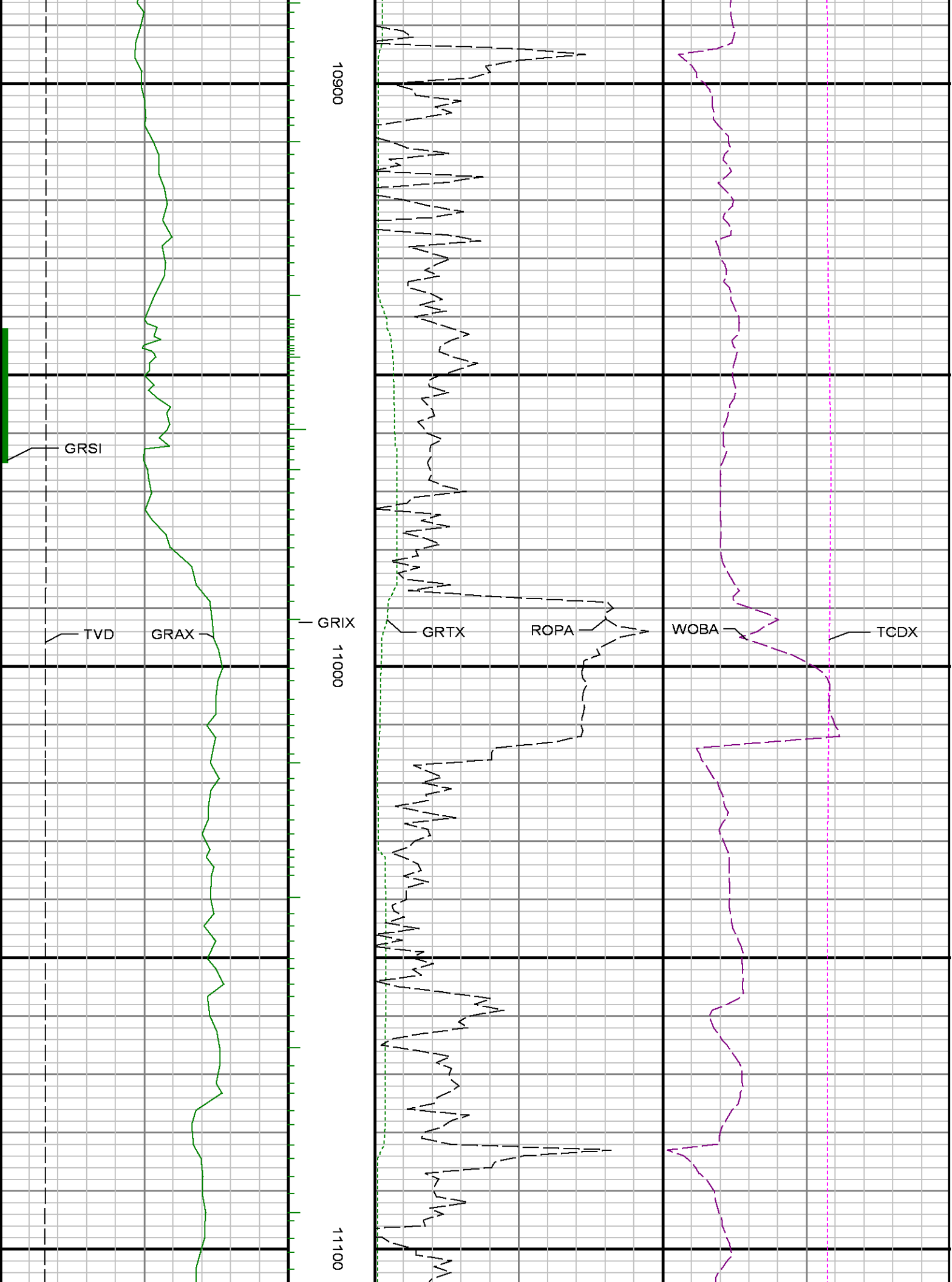


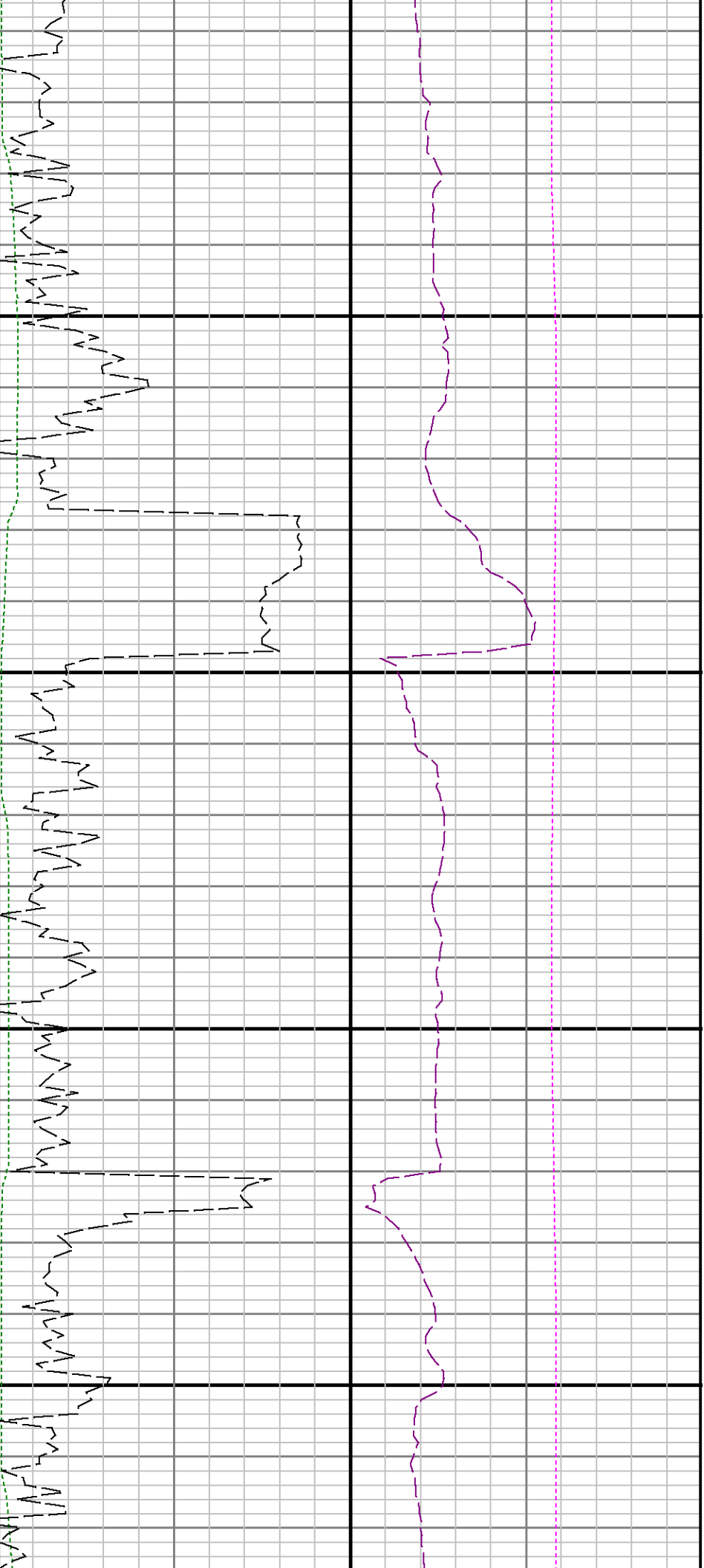


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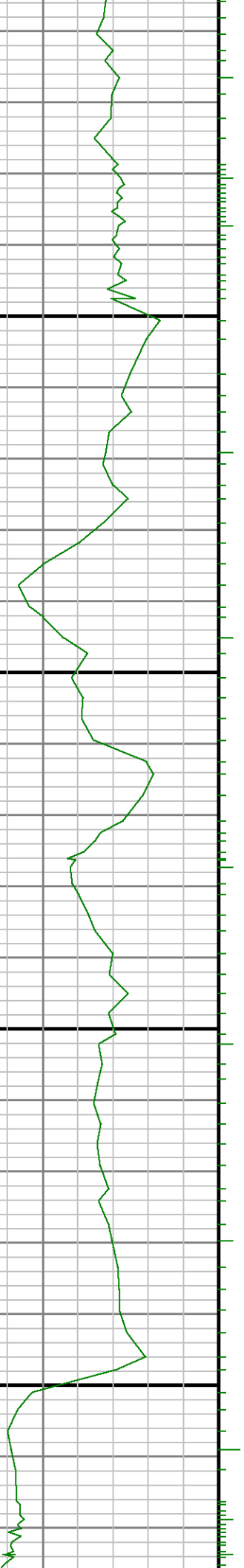


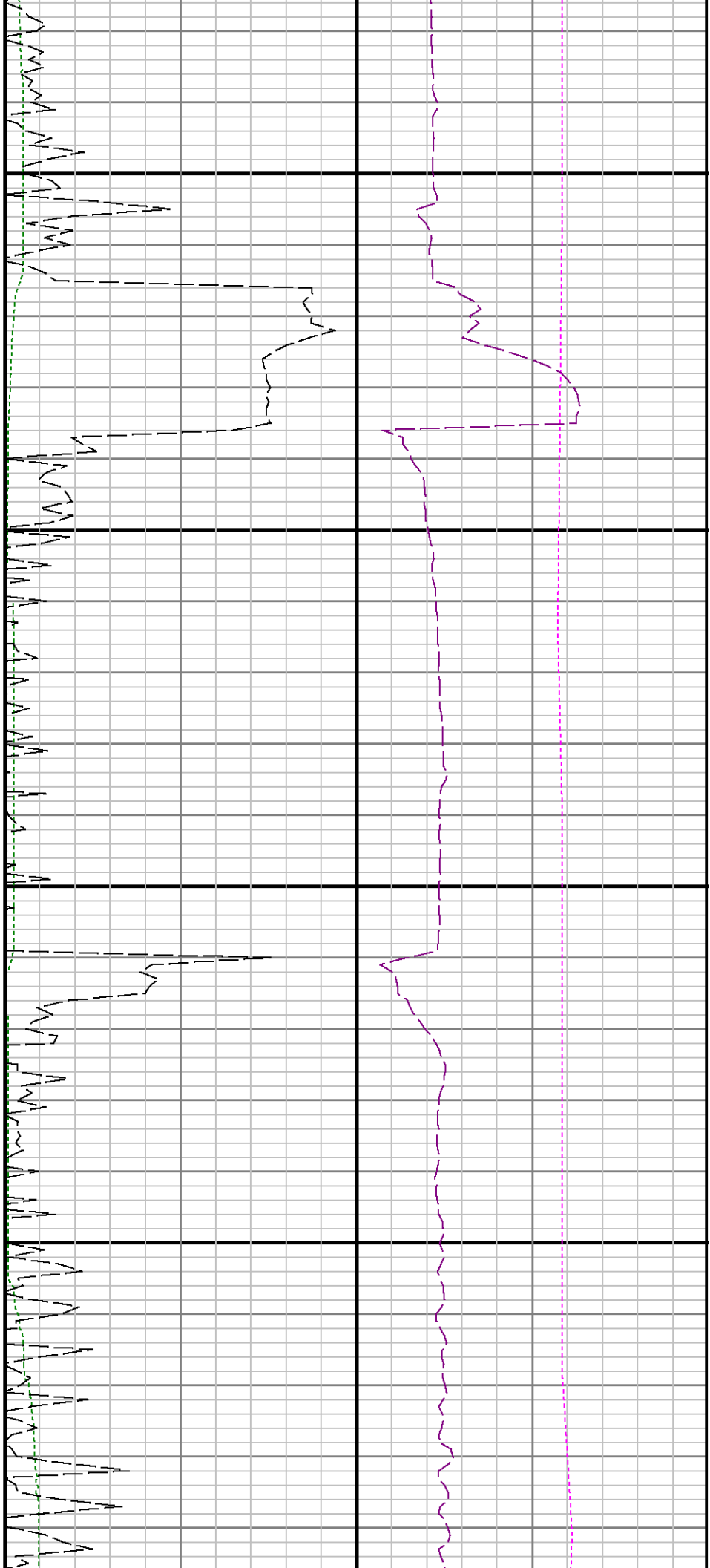




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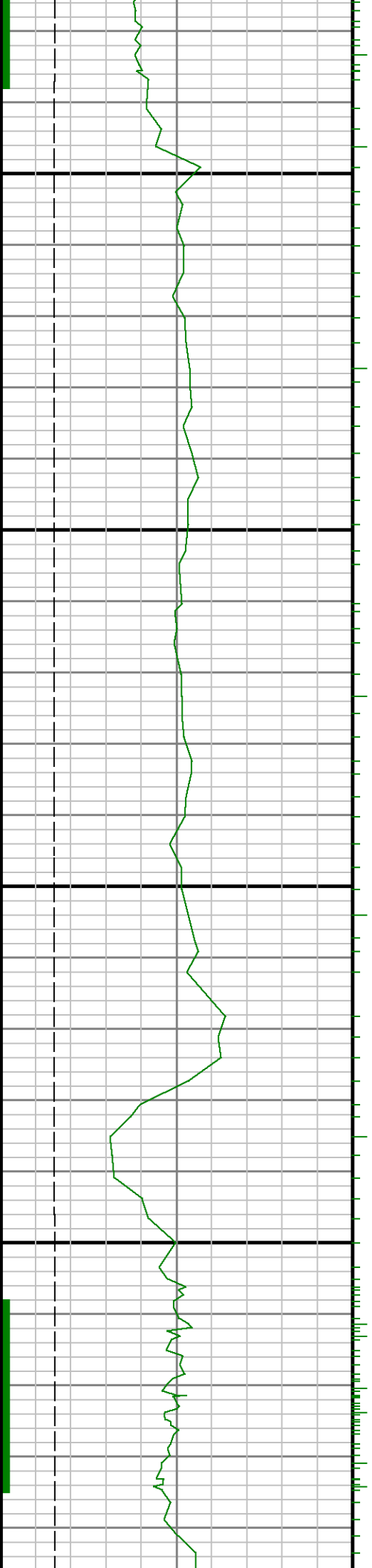
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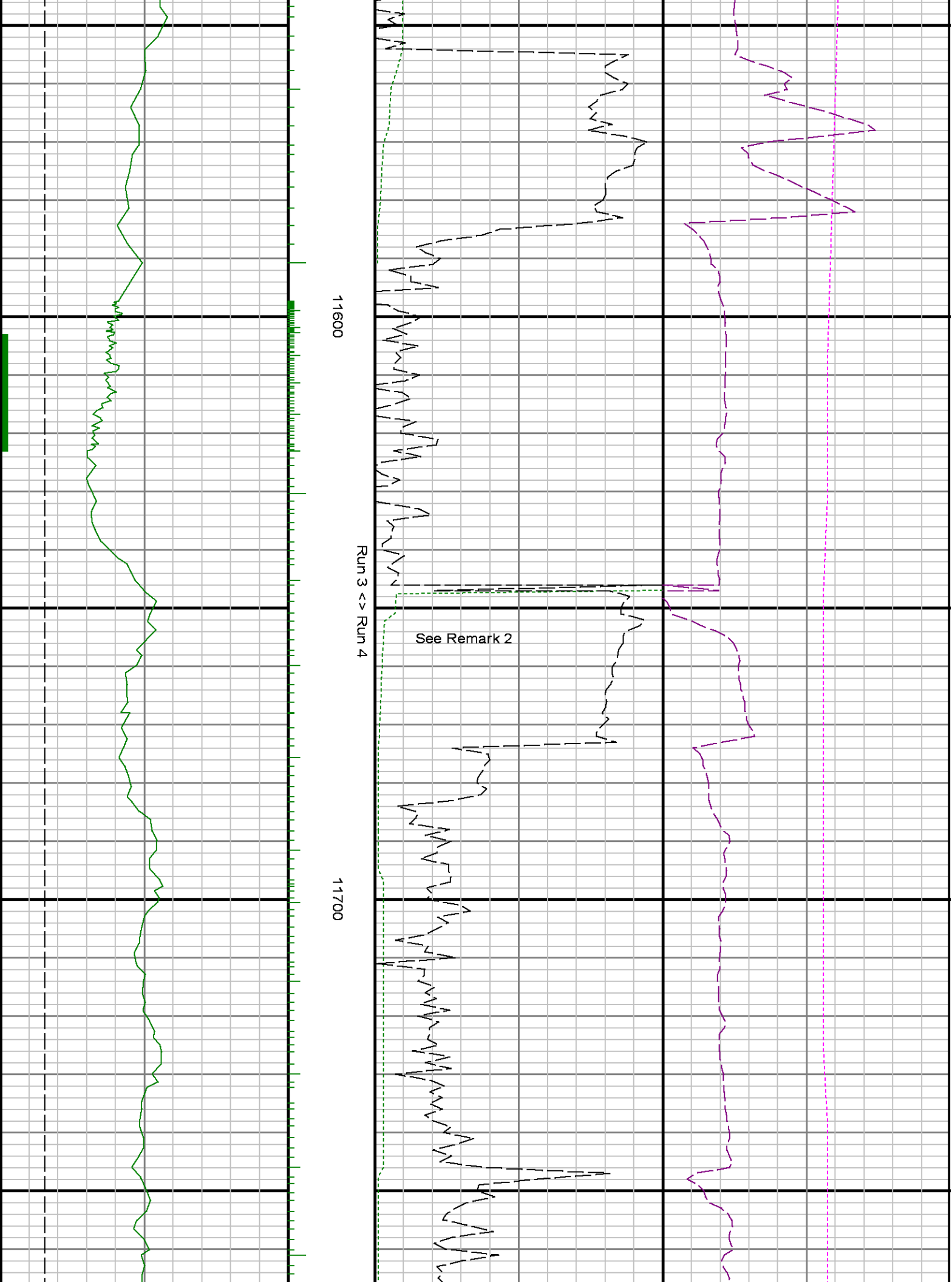


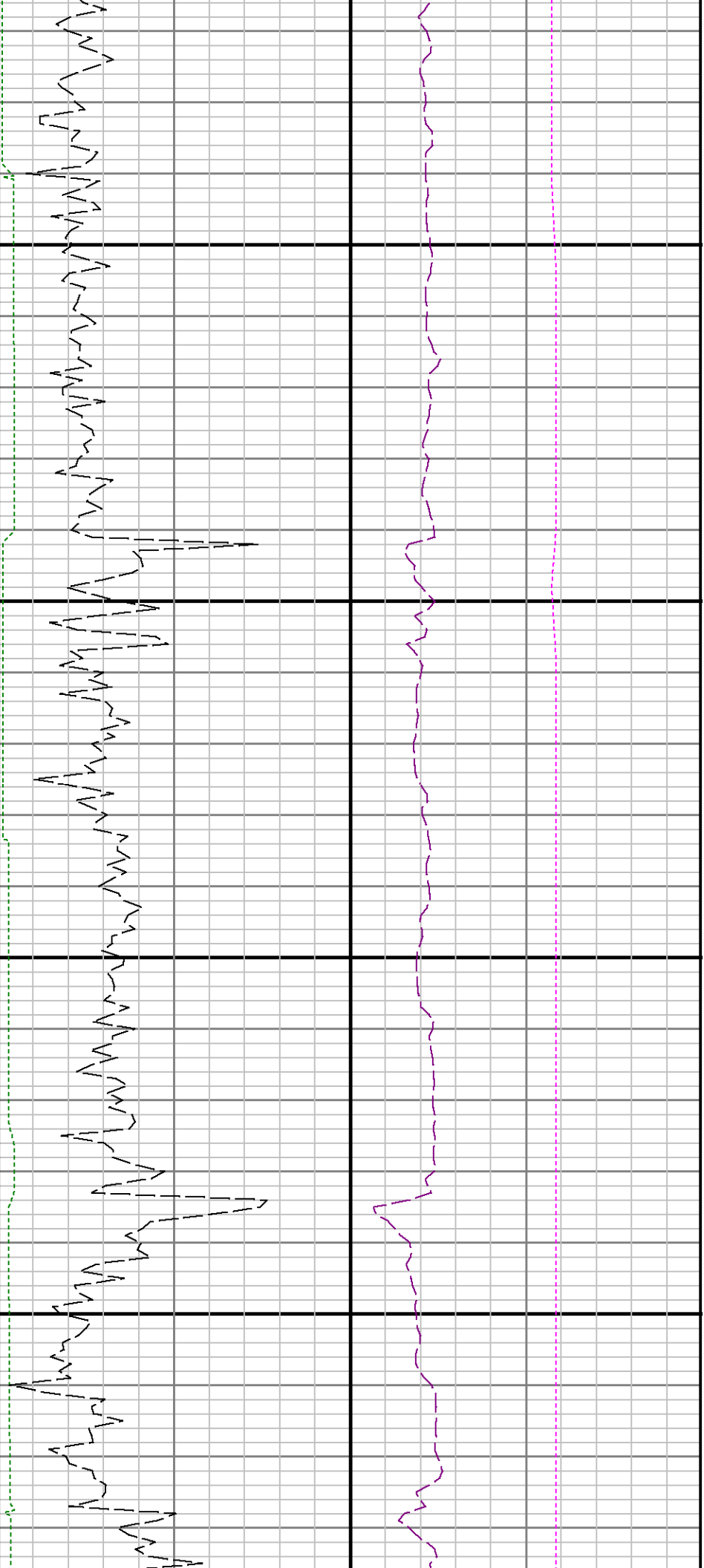


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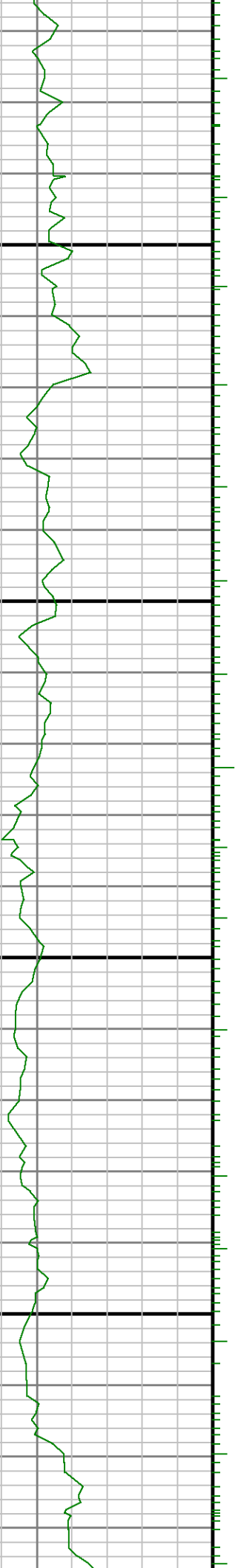


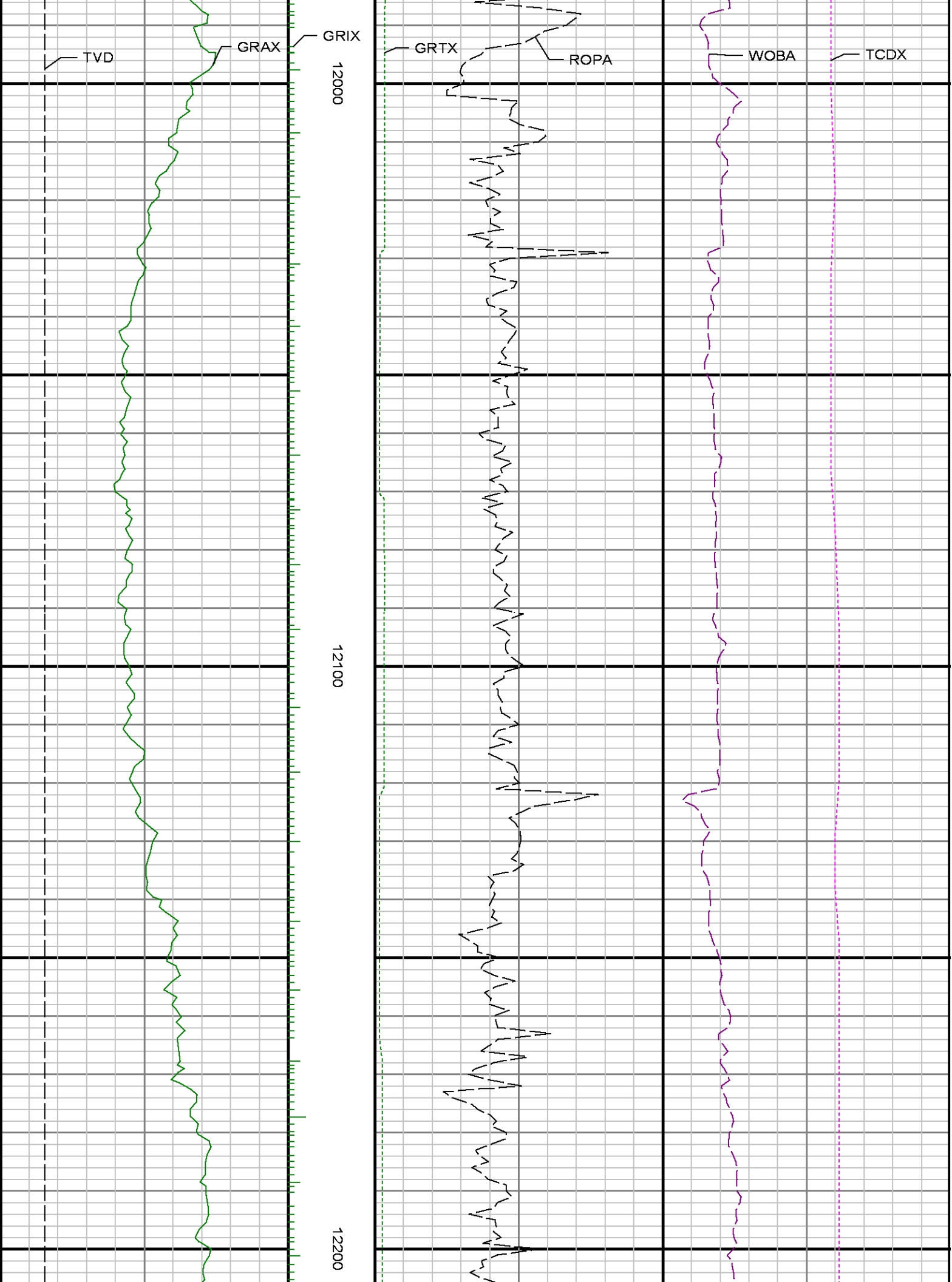


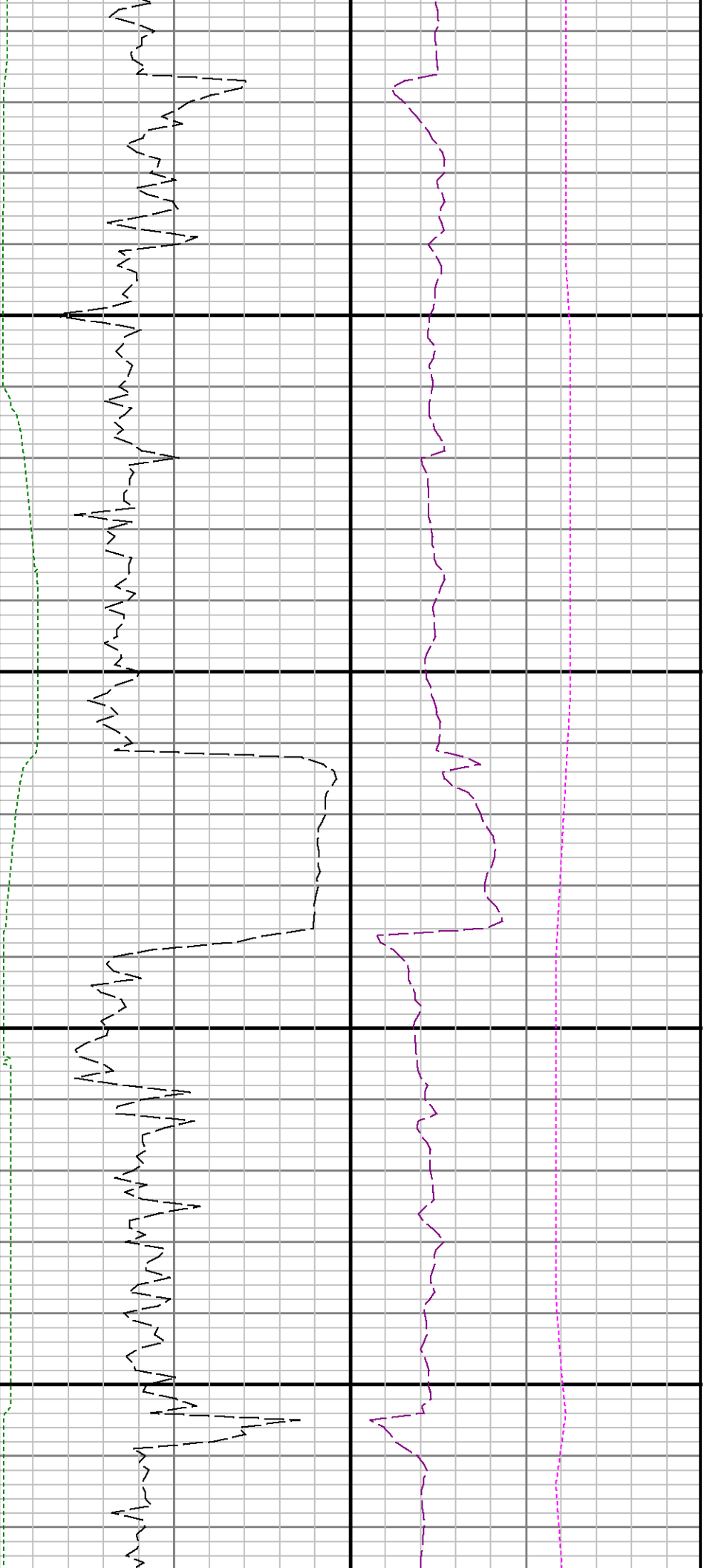


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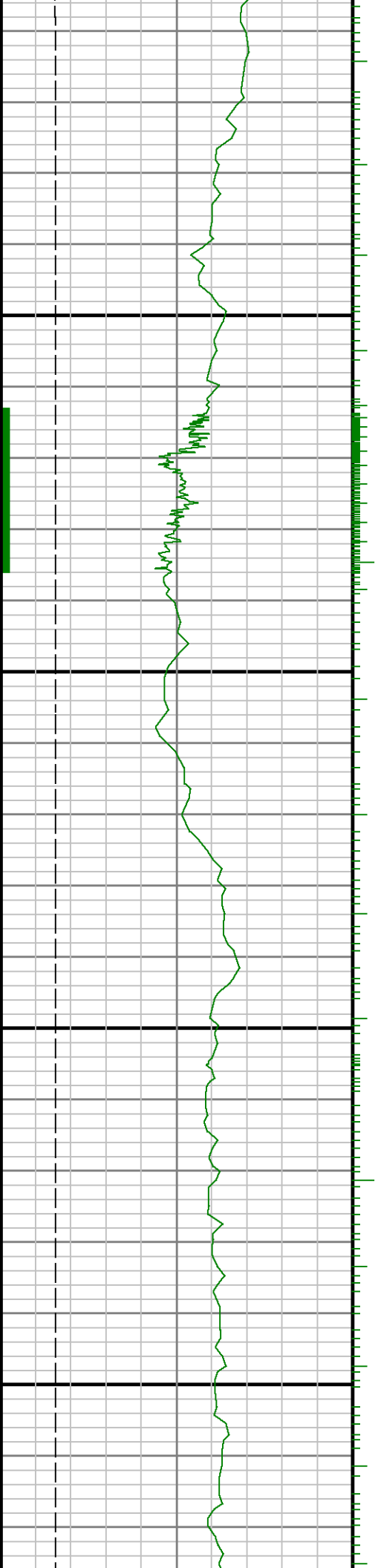


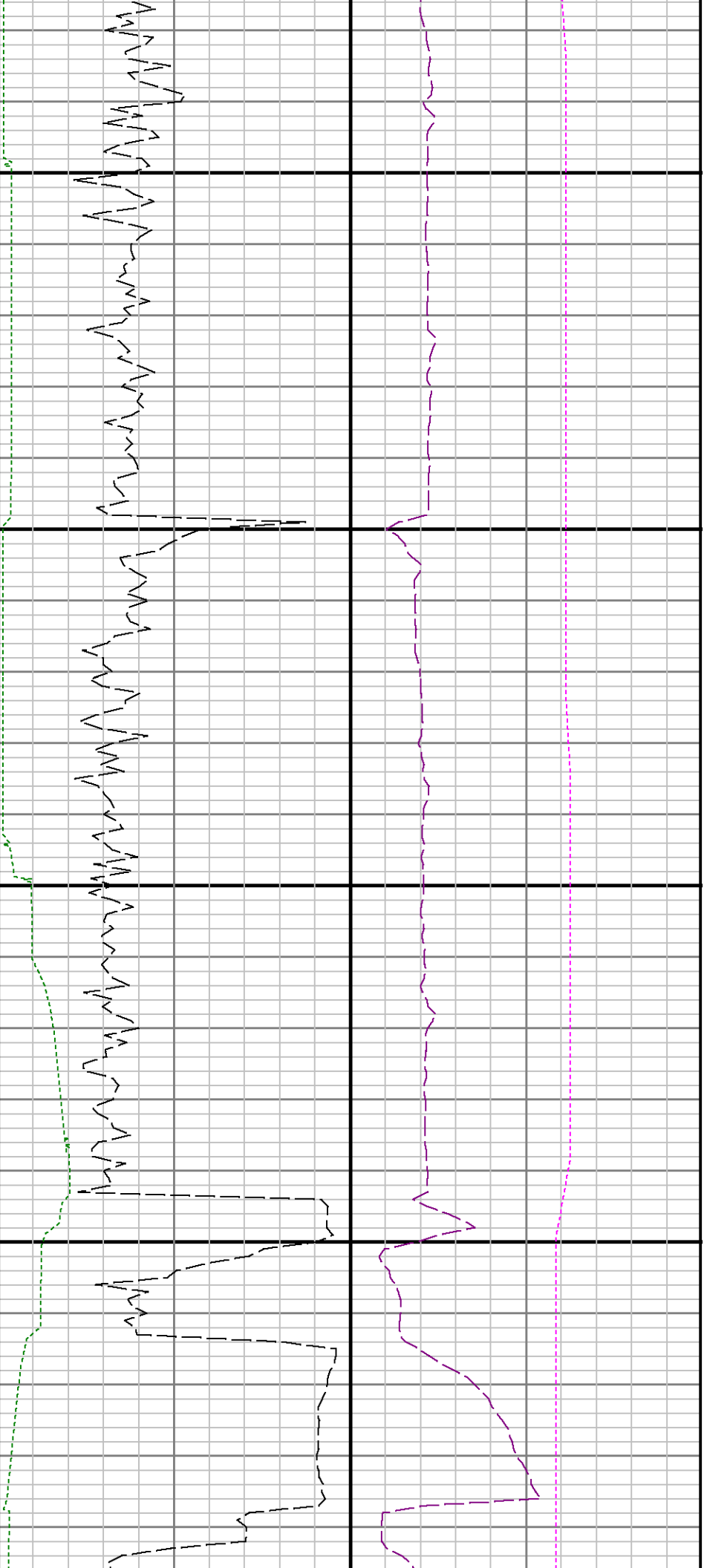




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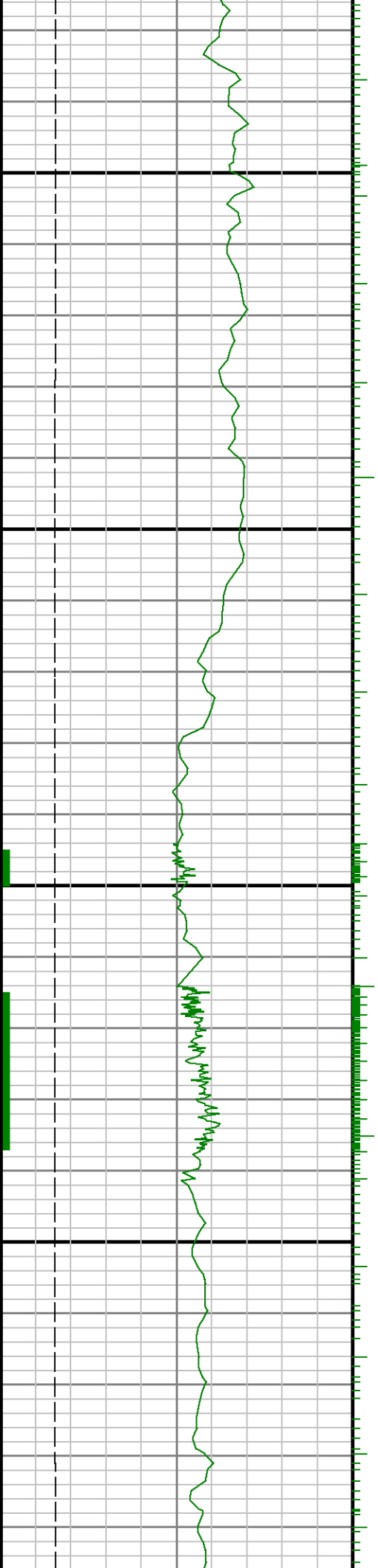
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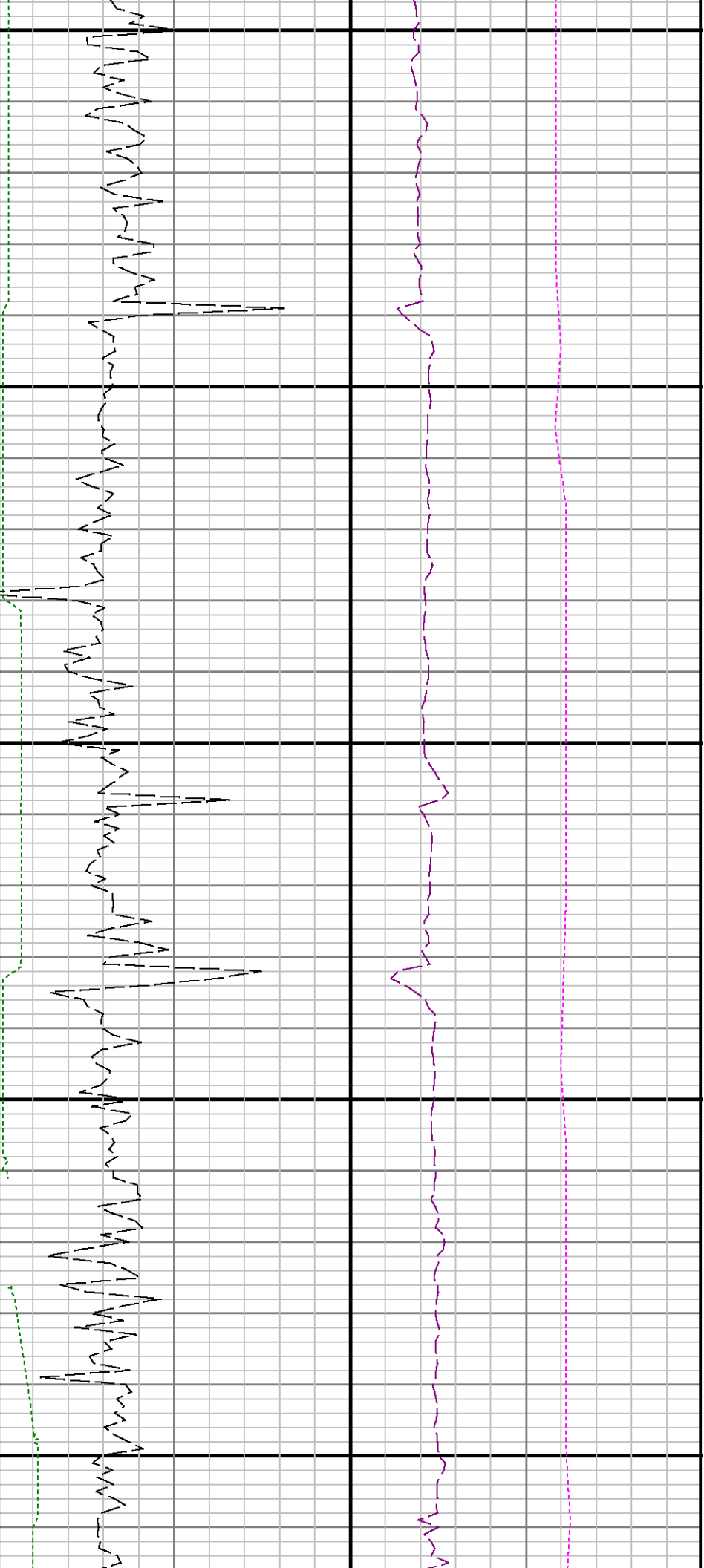




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