



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 (mg/L)	K+ (%)
05/Jun/15	14:30	1	7480.0	POLY-PLUS	10.2	48	8.8	4.6	2/89	Suction	500	N/A
06/Jun/15	06:00	2	10751.0	POLY-PLUS	9.8	43	9.2	5.4	3/89	Suction	500	N/A
07/Jun/15	15:30	2	10990.0	POLY-PLUS	9.8	48	8.9	5.2	2/90	Suction	500	N/A

Mnemonics		
Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
GRIX	Gamma Ray Data Density	points
GRSI	Gamma Ray Slide Indicator	unitless
GRTX	Gamma Ray Time Since Drilled	min.
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.	Klbs.

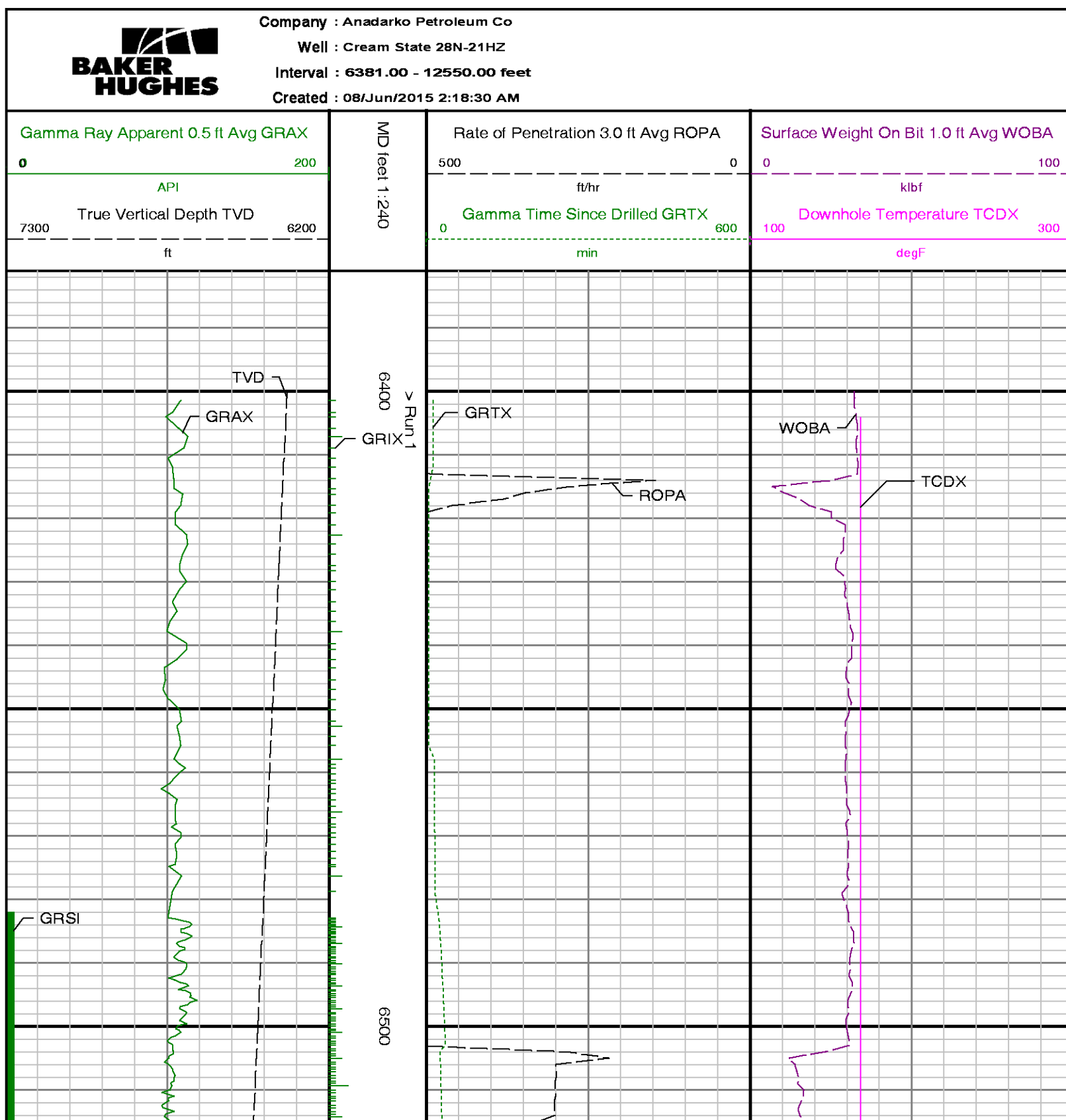
Equipment and Service Data						
LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft.)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	12373463	Directional	46.51	6.750	3.250
1	SRIG	10266573	Gamma	43.14	6.750	3.250
2	DIR	12592552	Directional	49.96	4.750	2.750
2	SRIG	12600745	Gamma	46.54	4.750	2.750

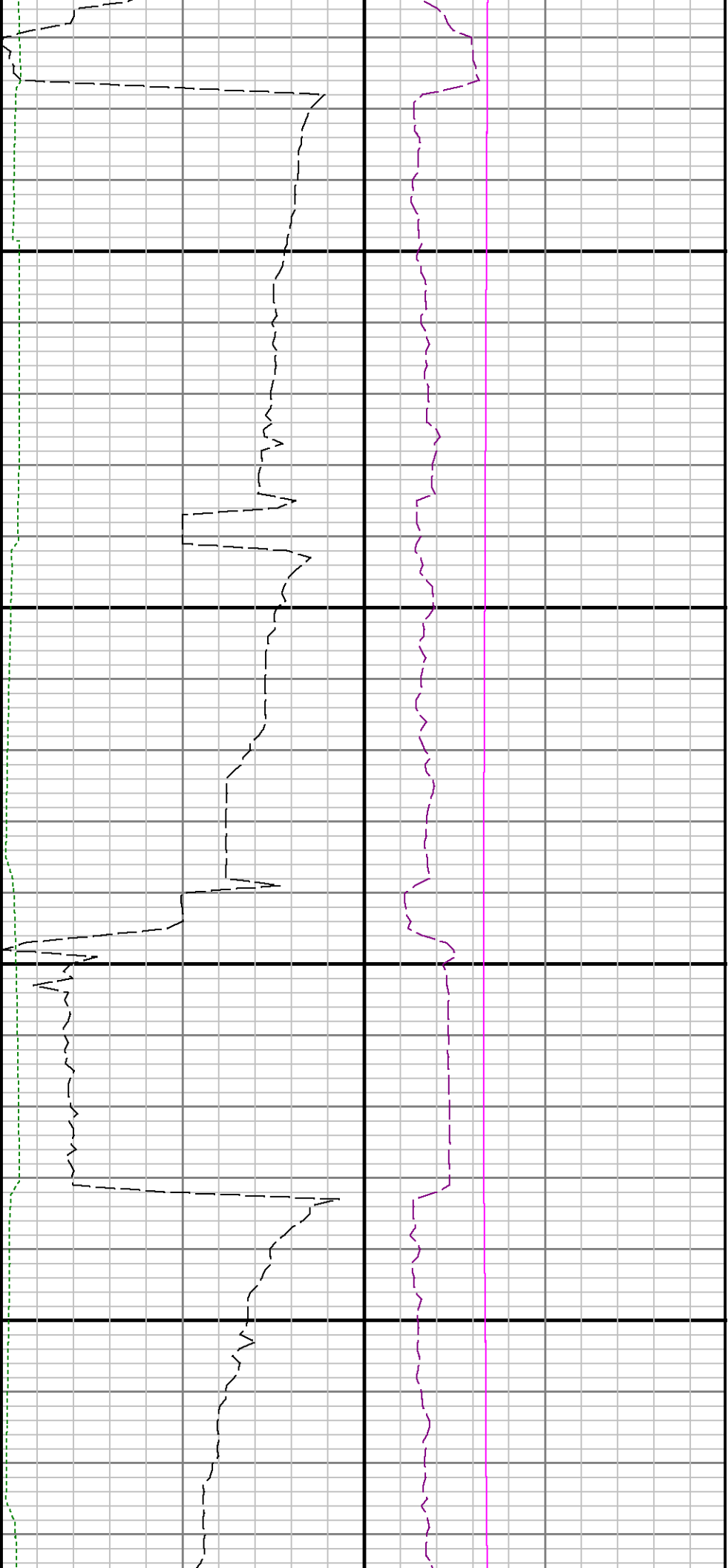
Service and Tool Mnemonics		
Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments	
<p>1.) Baker Hughes Run 1 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 1228 to 7480 feet MD (1221 to 7052 feet TVD).</p> <p>2.) Baker Hughes Run 2 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind a 6 1/8 inch bit and steerable assembly from 7480 to 12525 feet MD (7052 to 7045 feet TVD).</p> <p>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.</p> <p>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.</p>	

Remarks				
Number	Measured	Hole	LWD	Remark

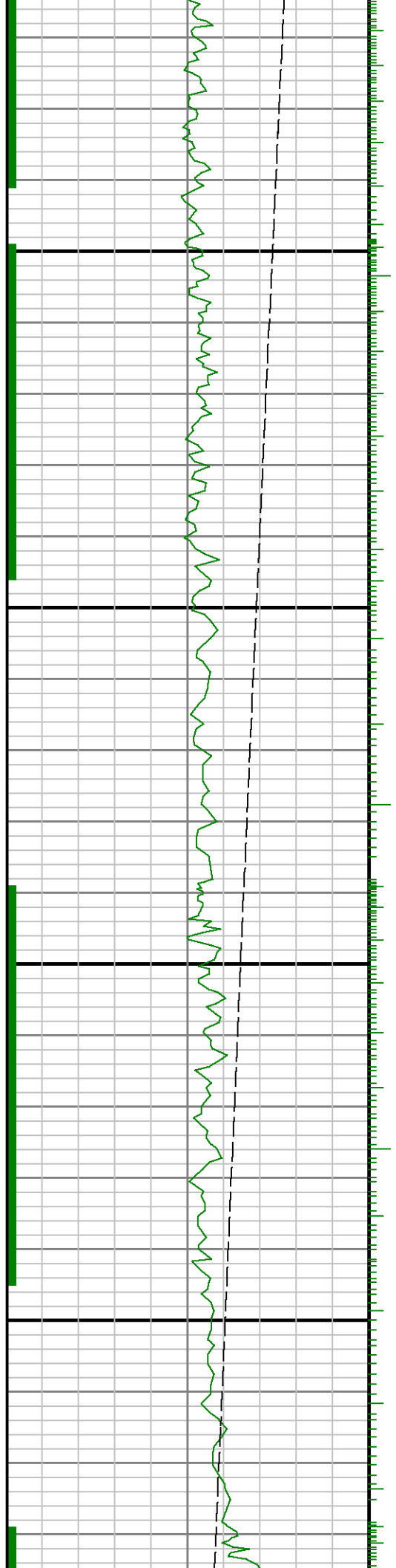
	Depth (ft.)	Section (in.)	Run No.	
1	7460	8.750	1	The interval from 7436 to 7480 feet MD (7049 to 7052 feet TVD) <b>was</b> logged up to 32 hours after being drilled due to casing operations.
2	12500	6.125	2	The interval from 12478 to 12525 feet MD (7045 feet TVD) <b>has</b> no logging data due to sensor to bit offset at well TD.

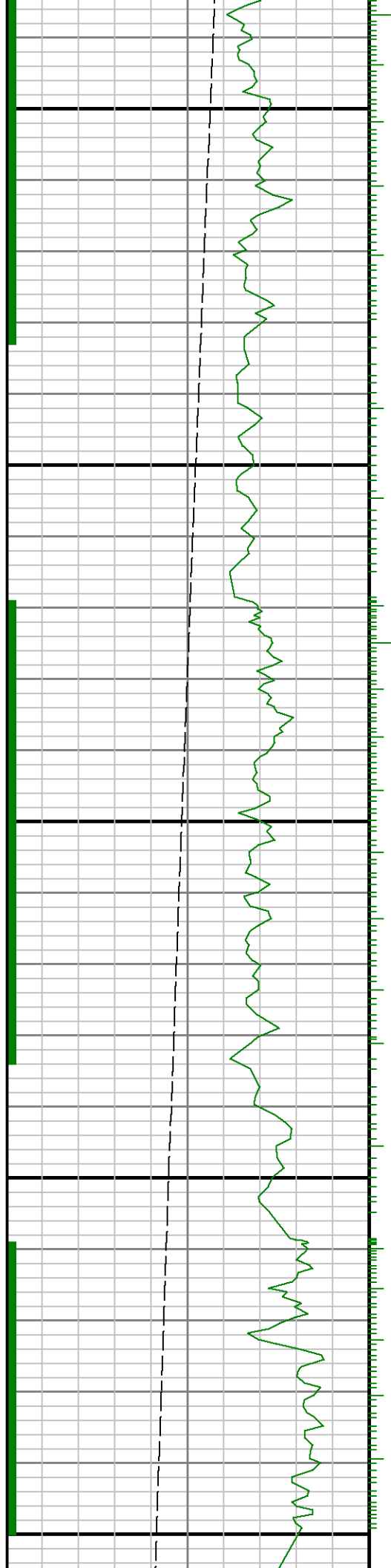




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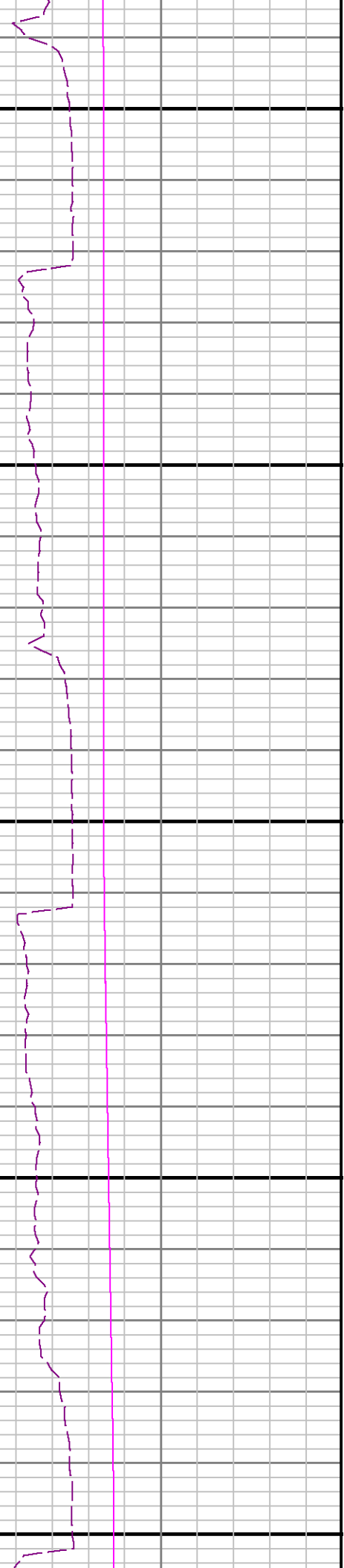
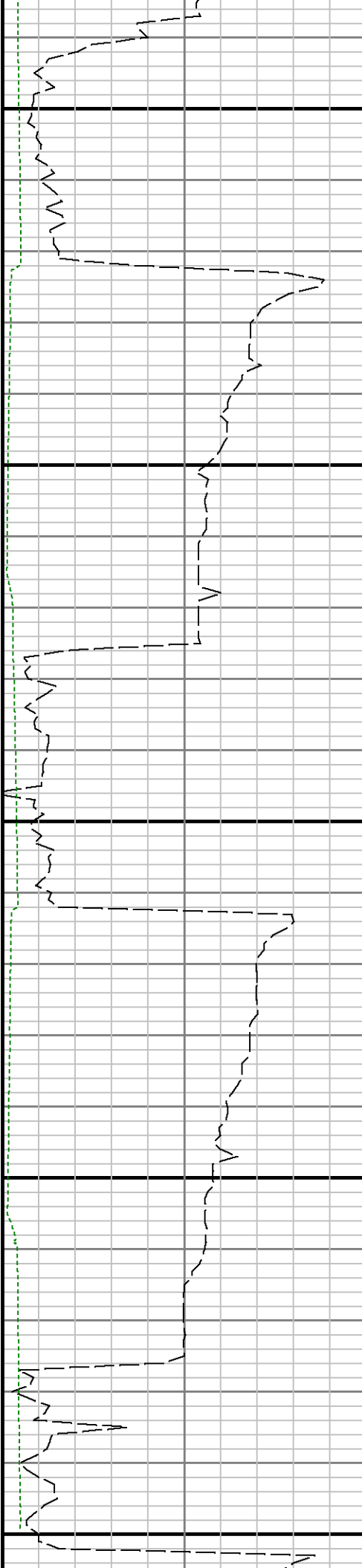
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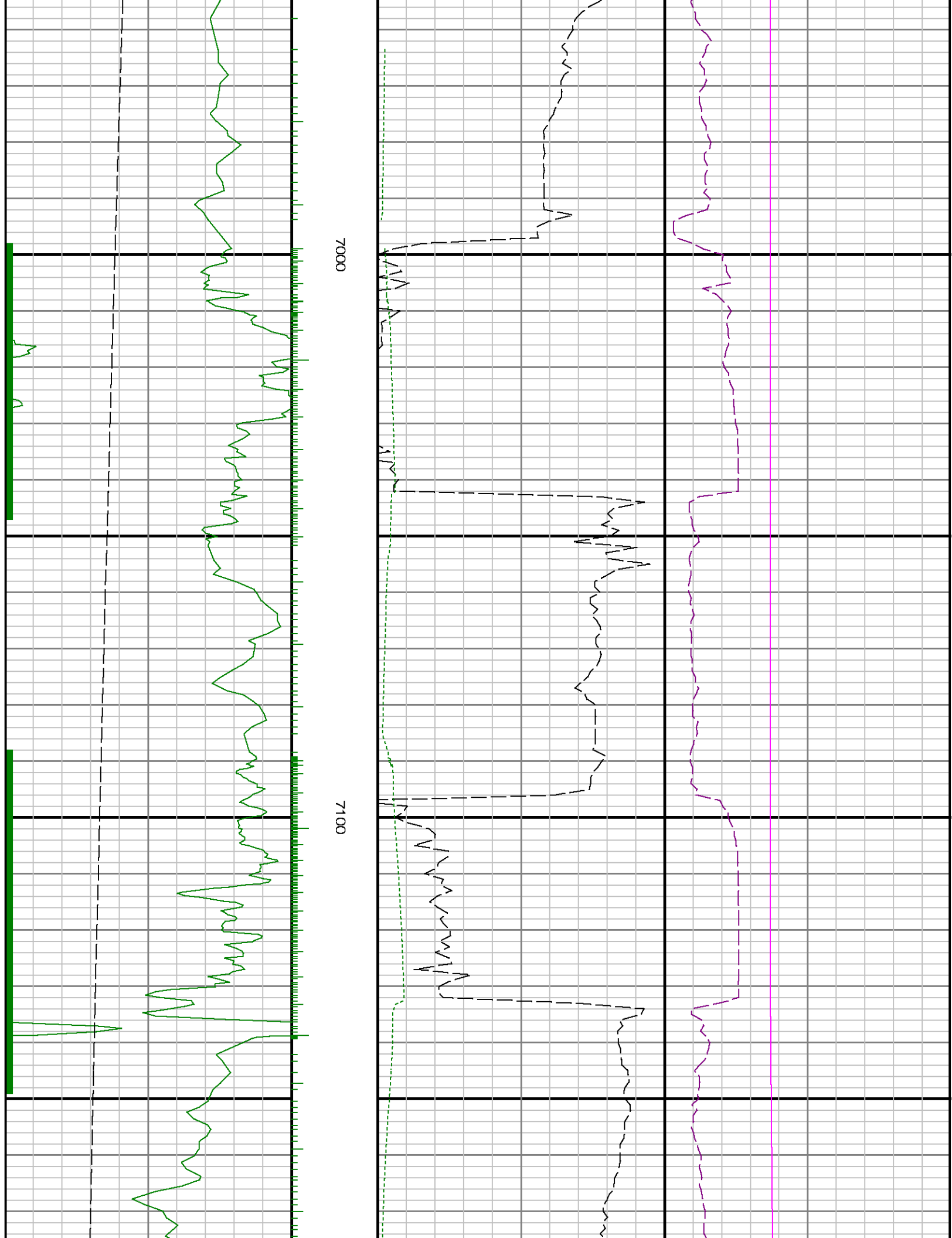


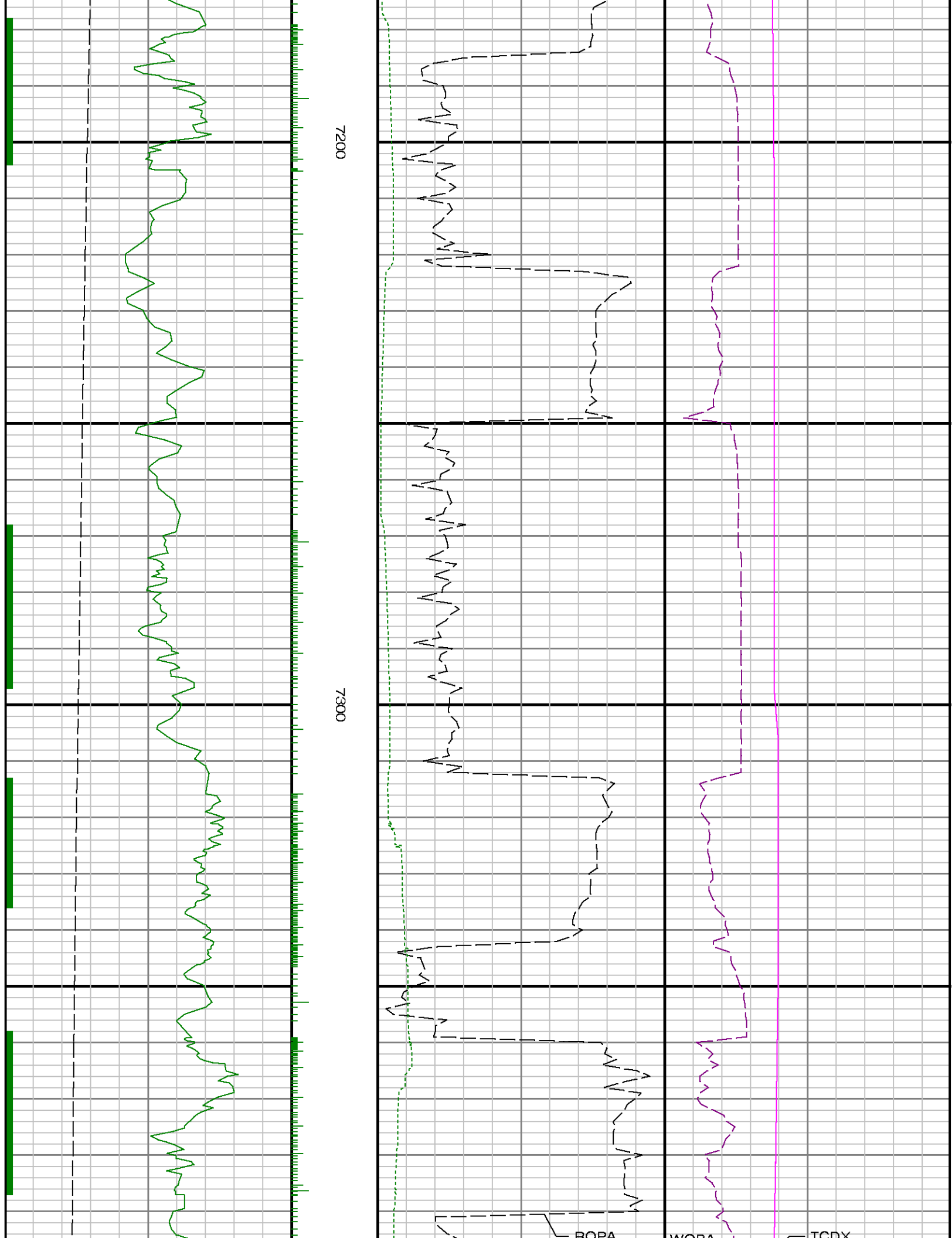


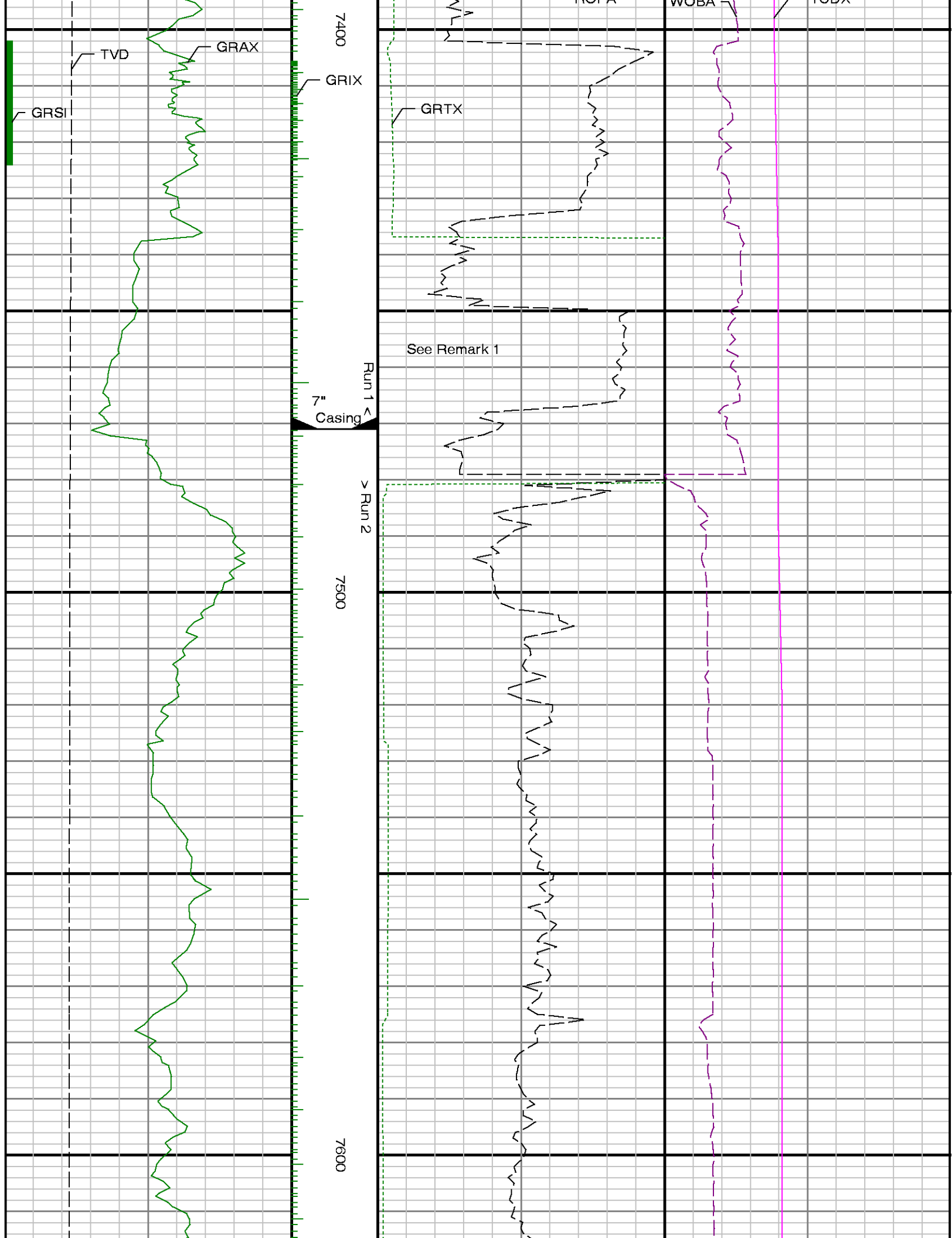
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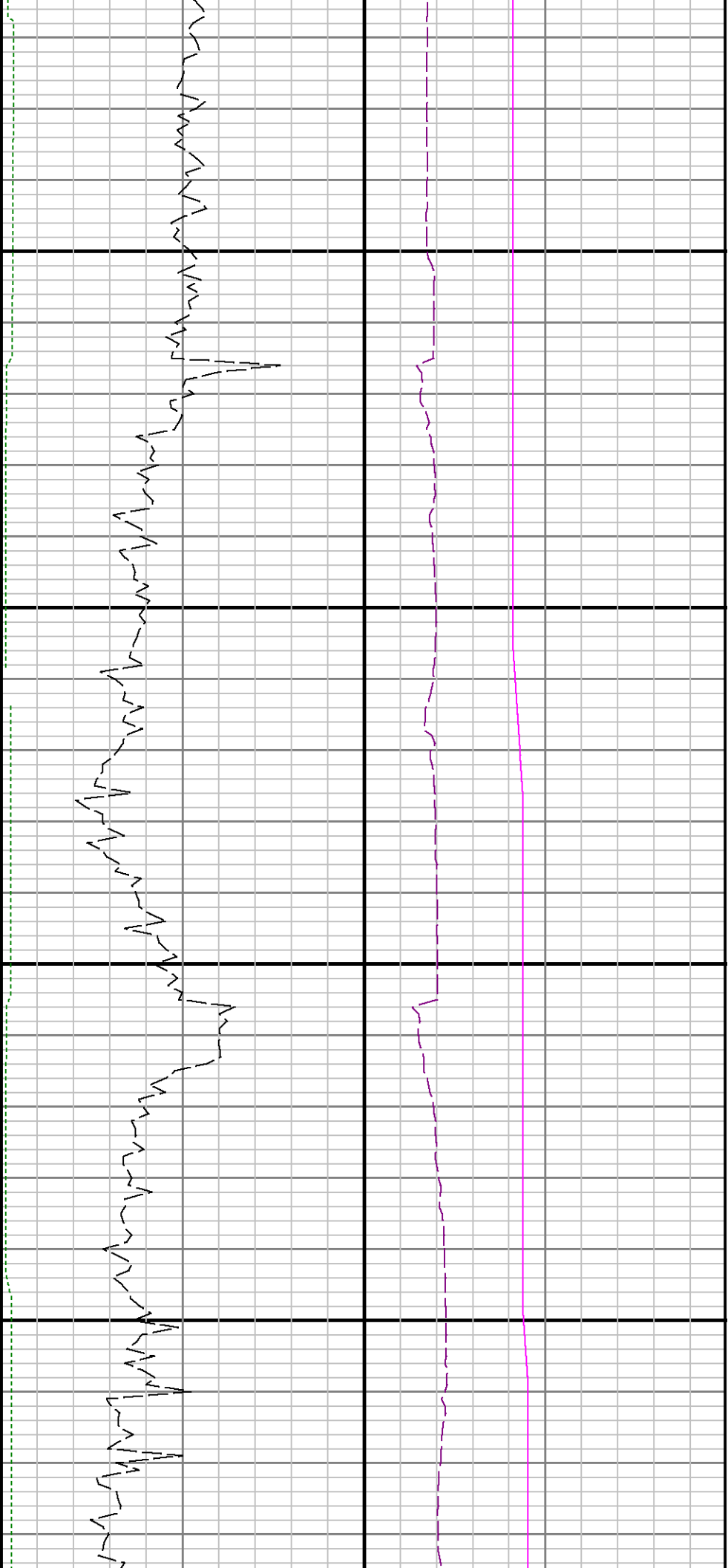
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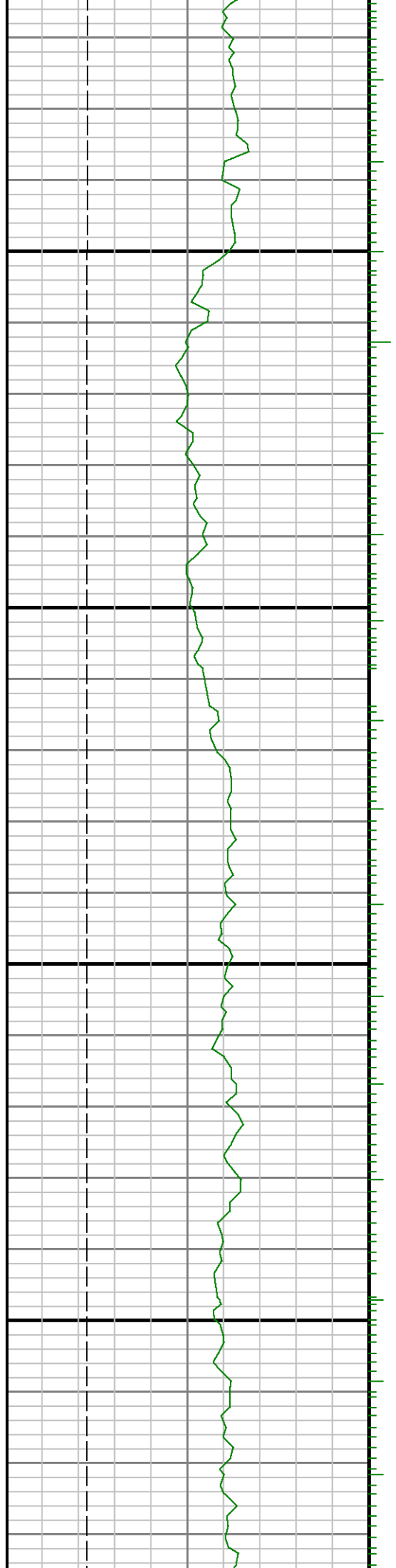


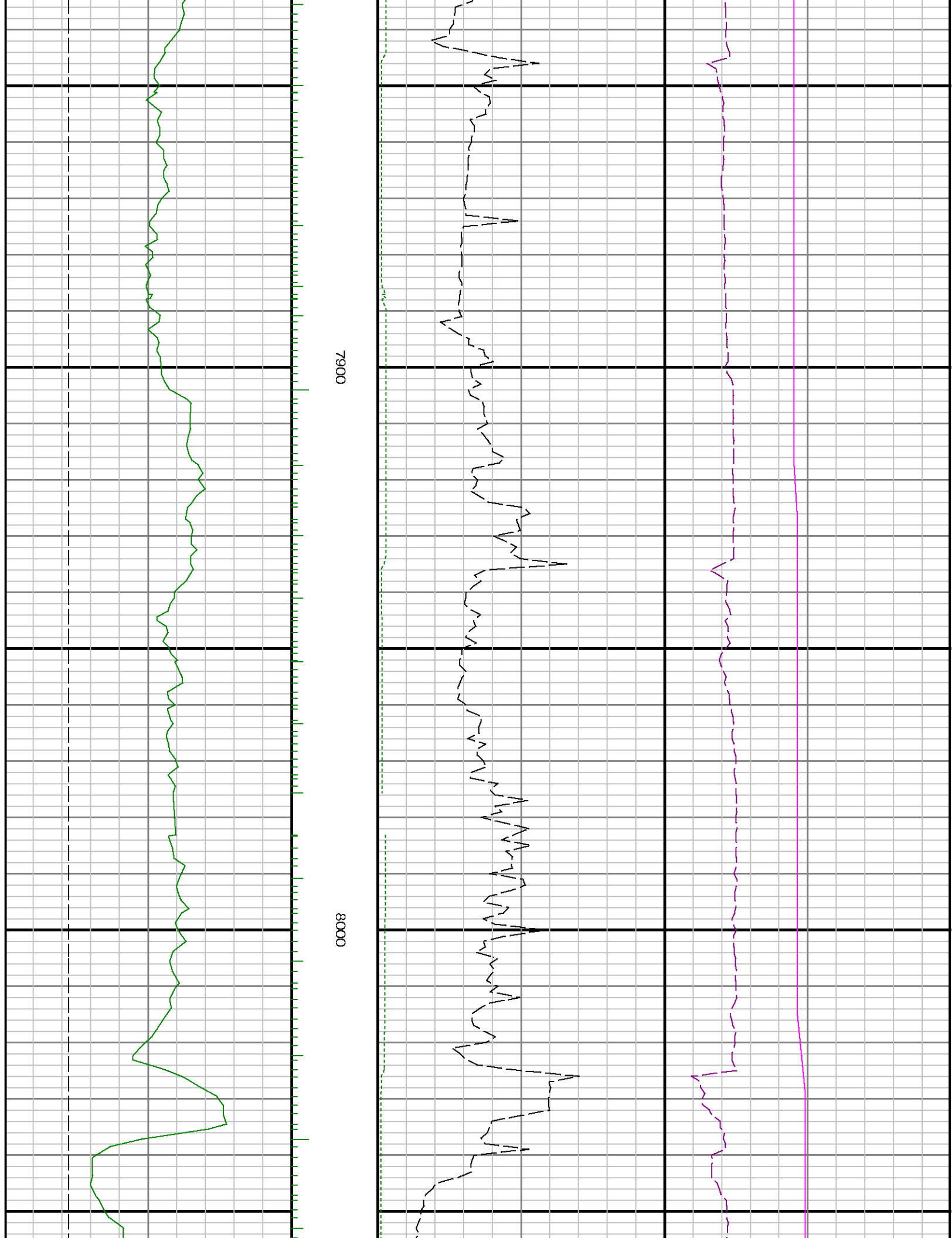


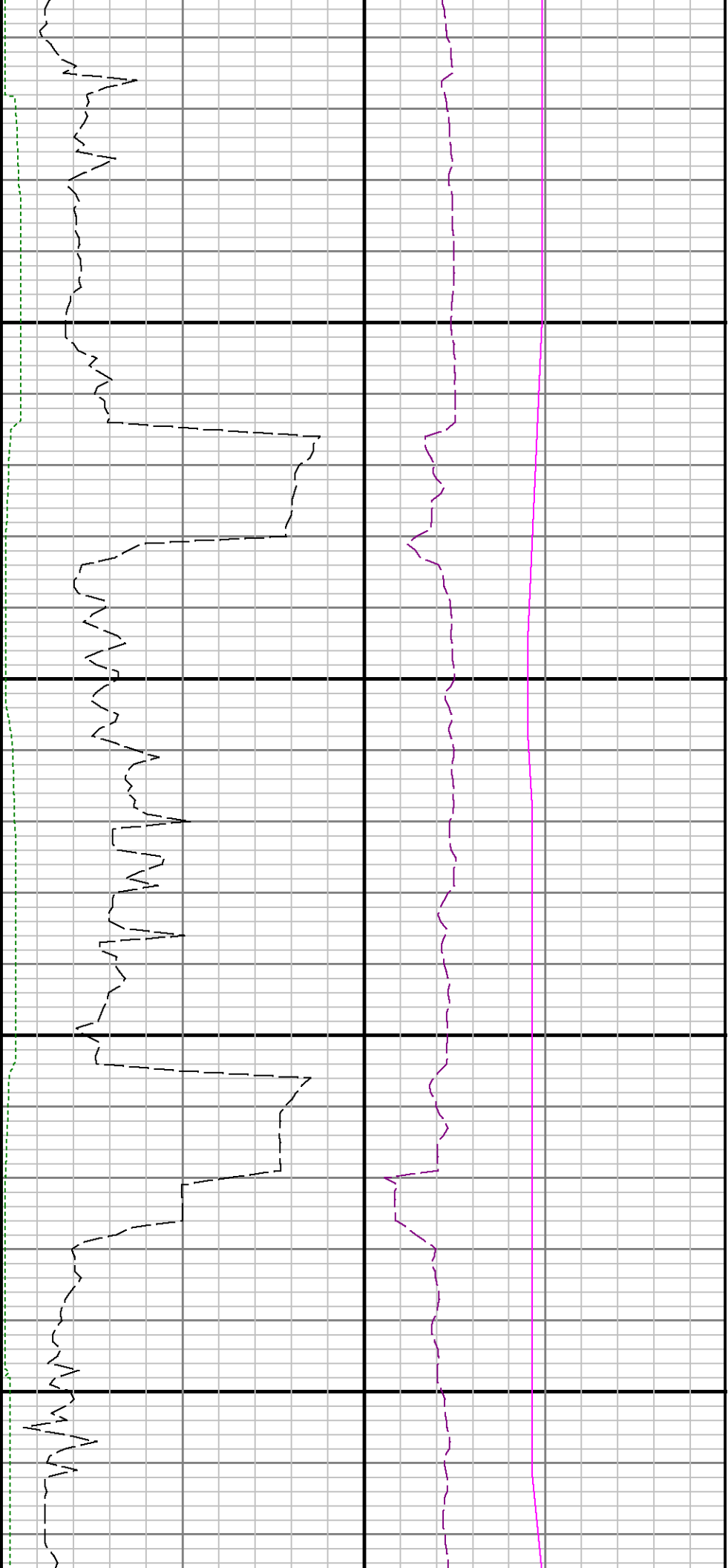


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7800

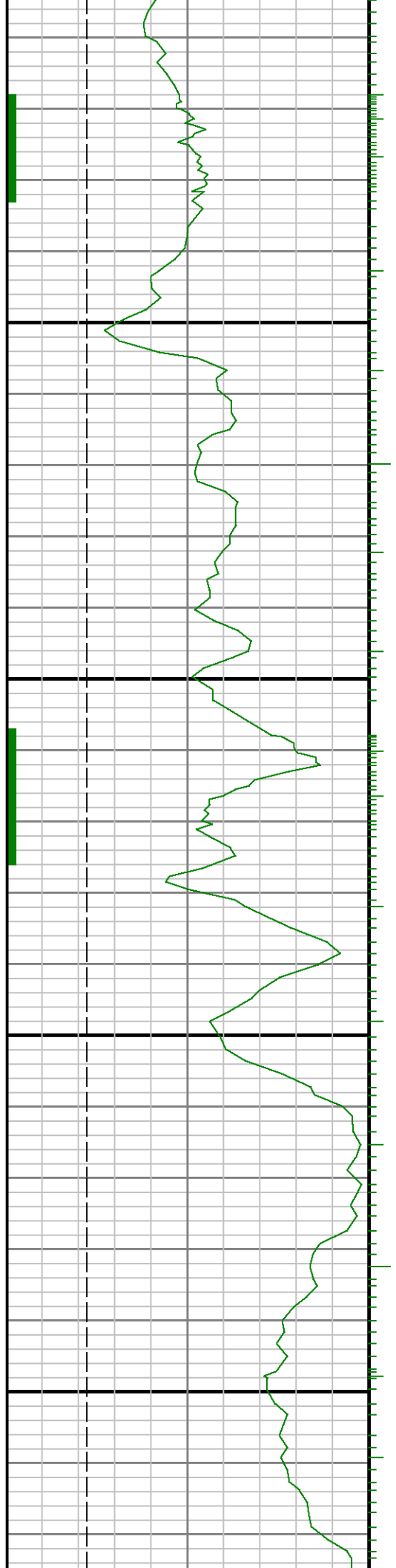


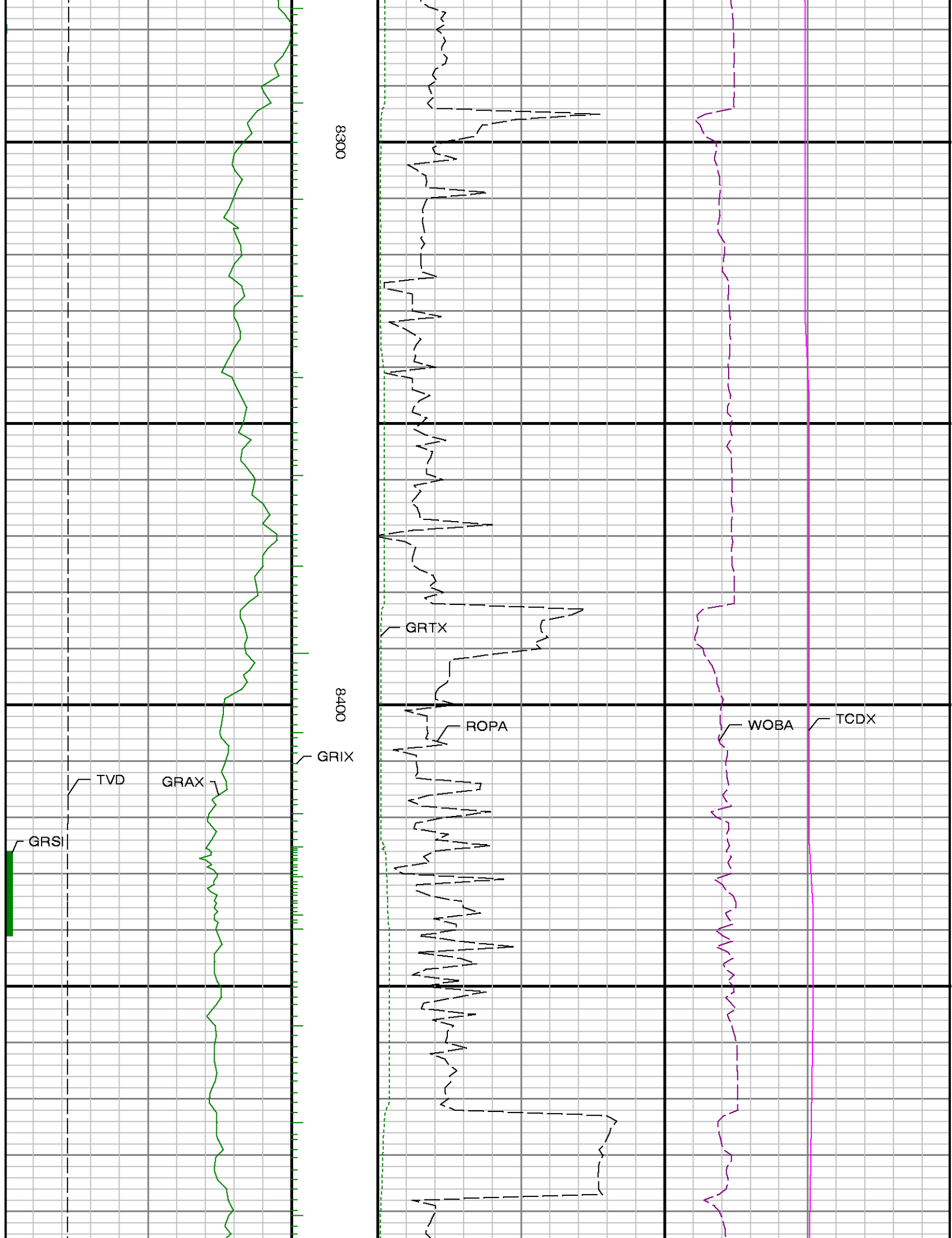


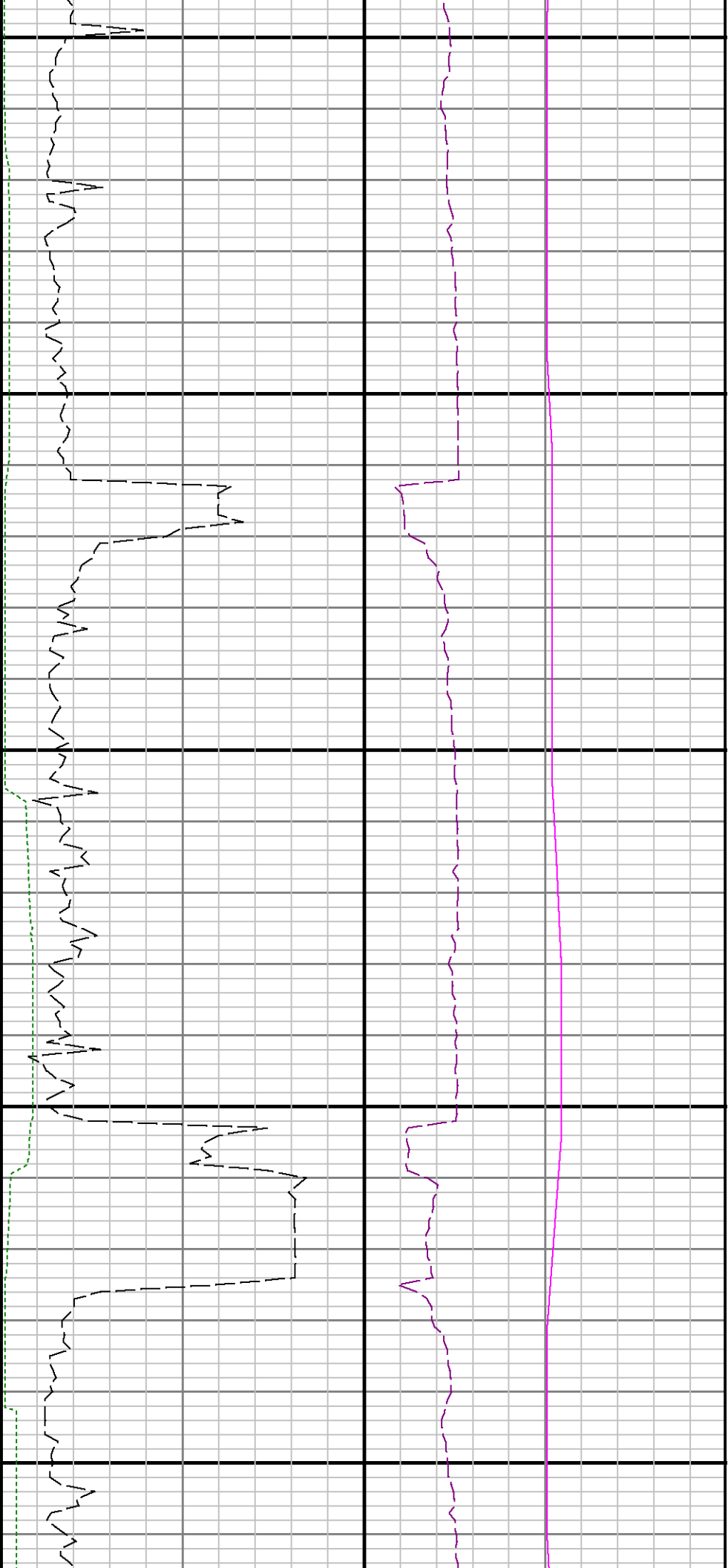


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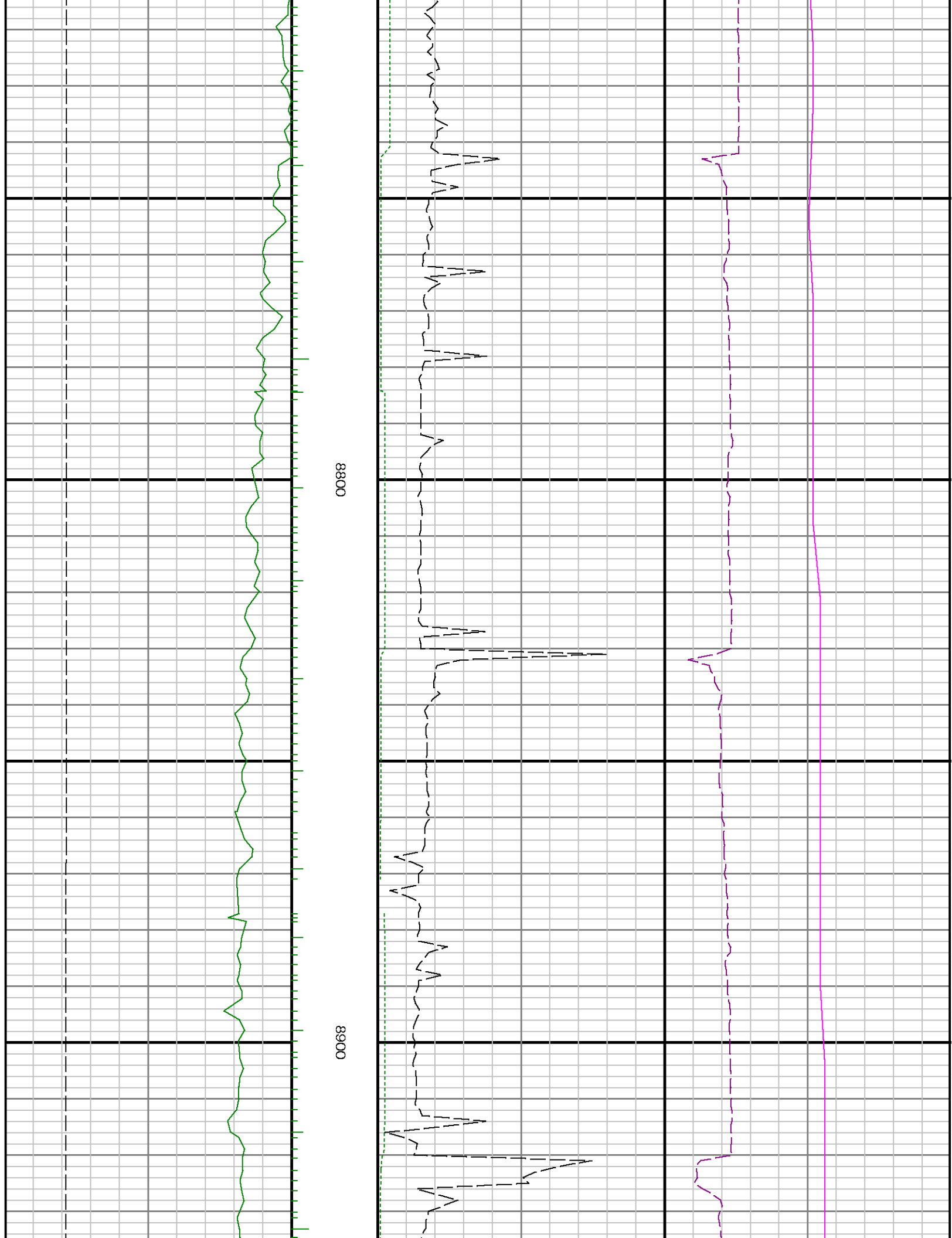


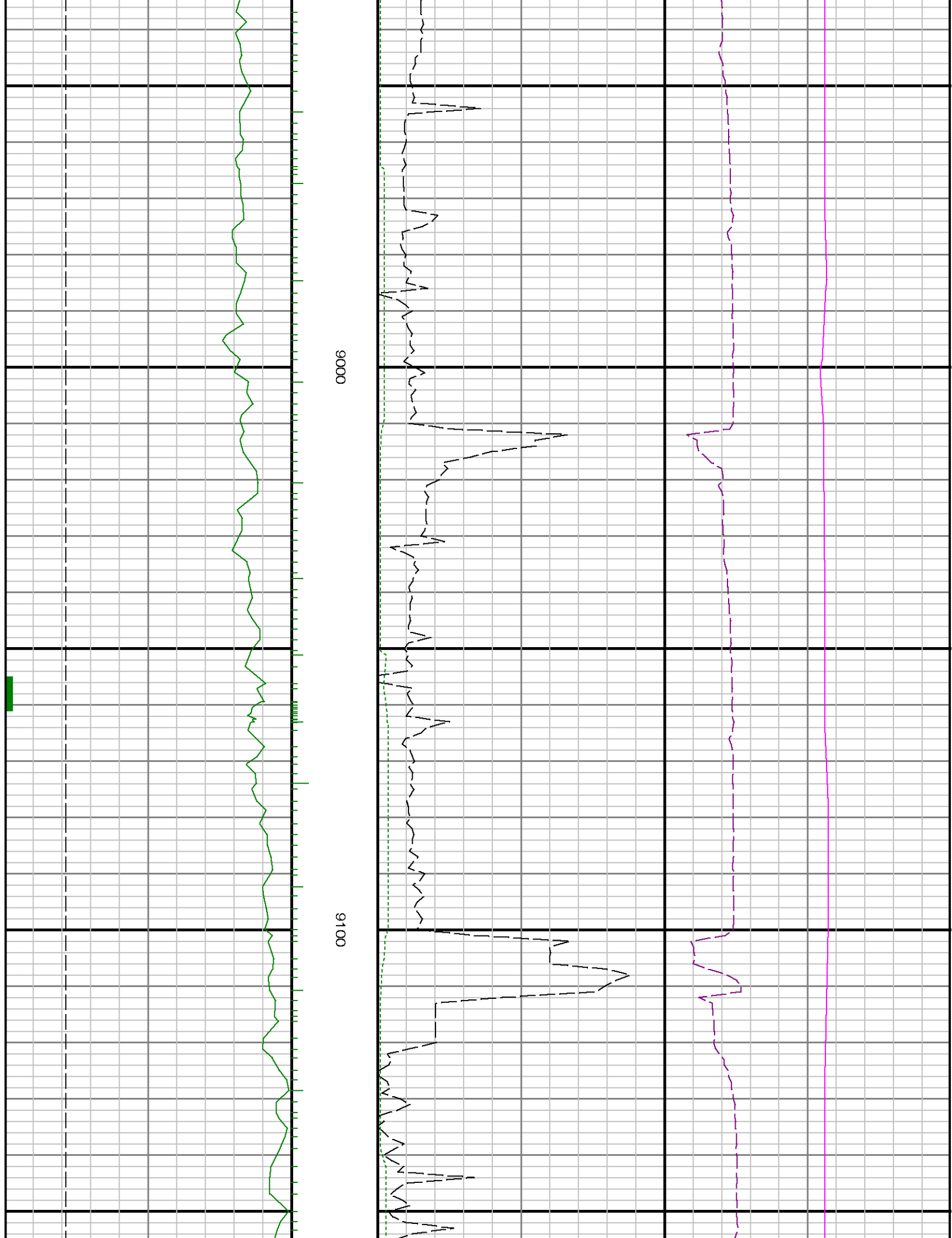
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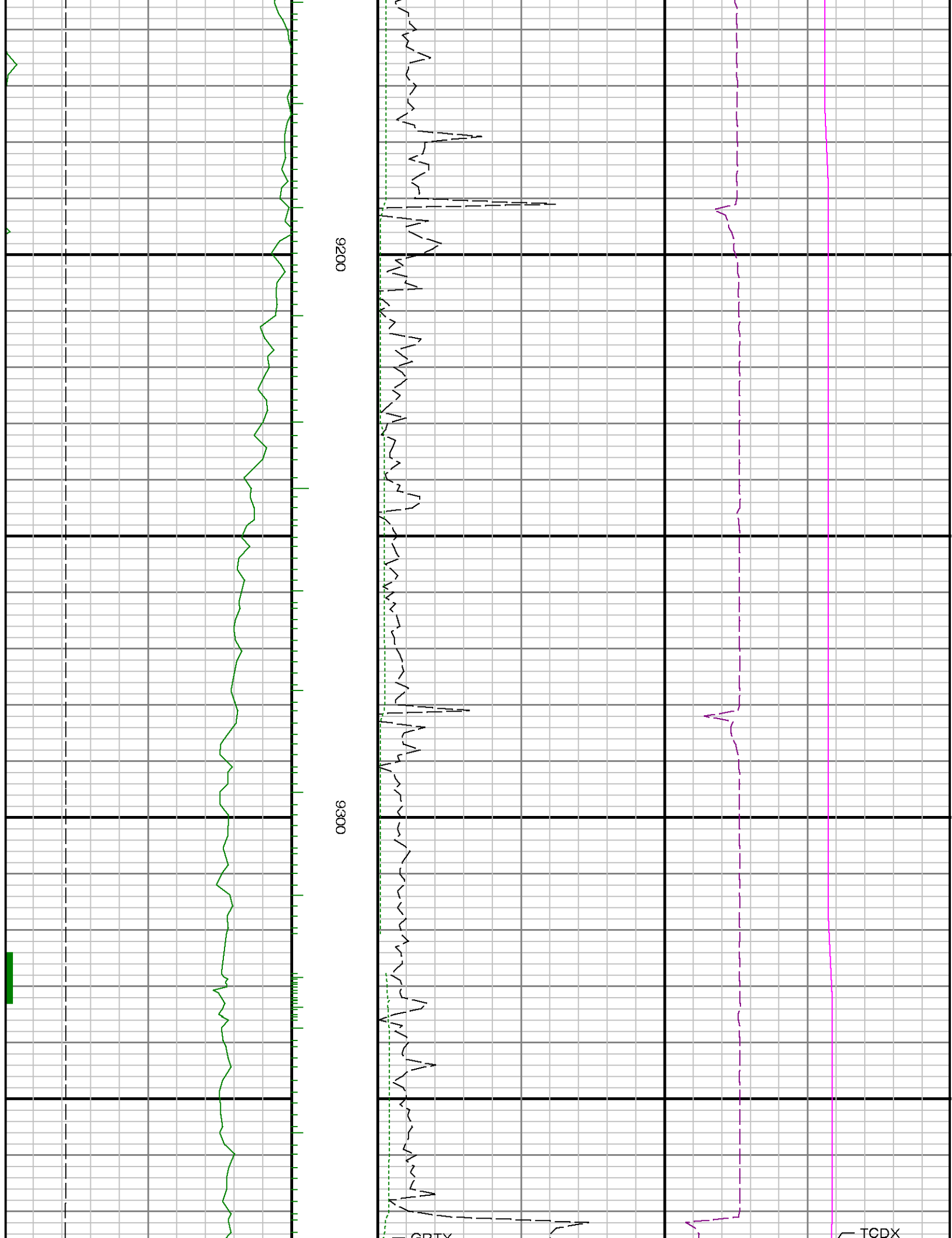
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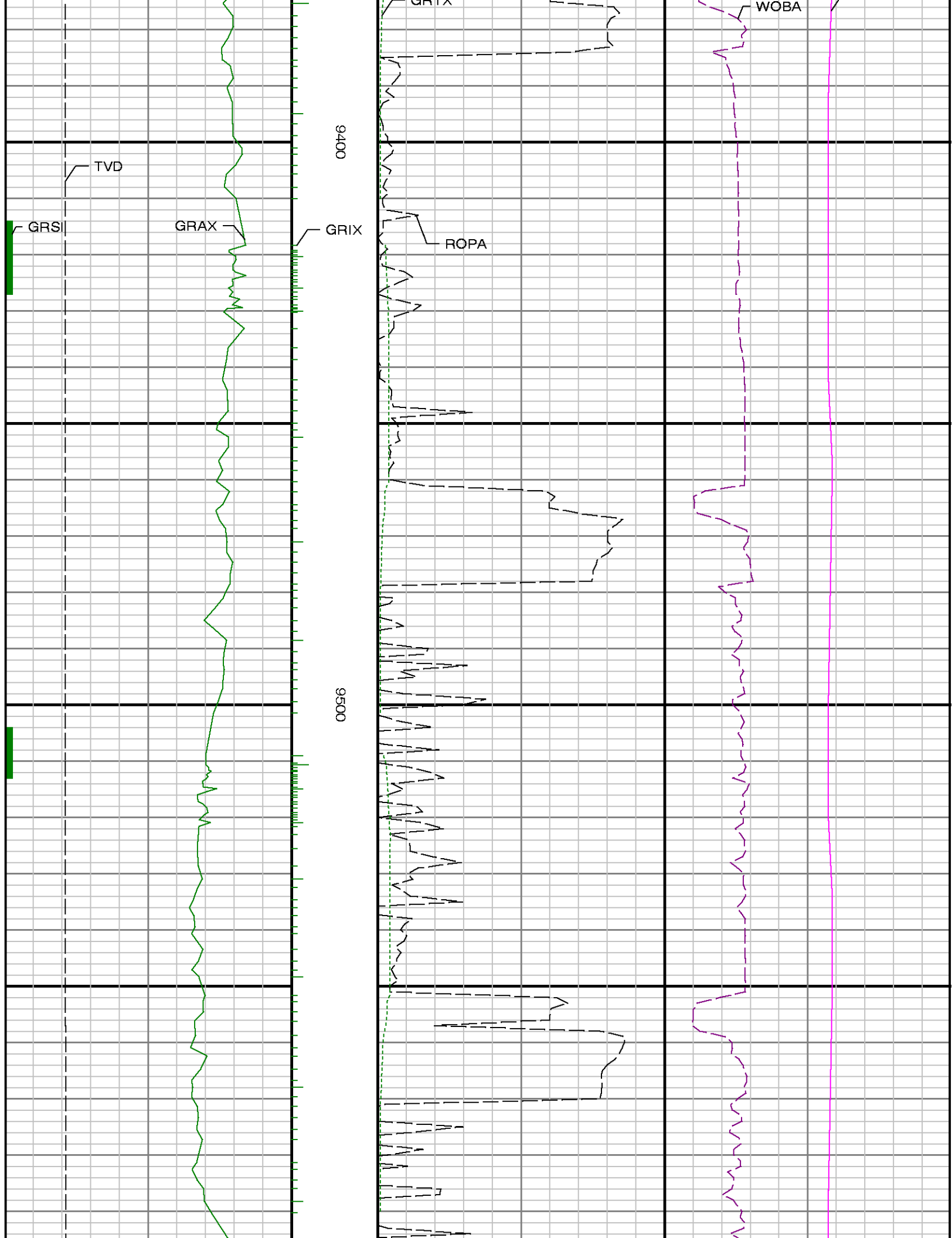
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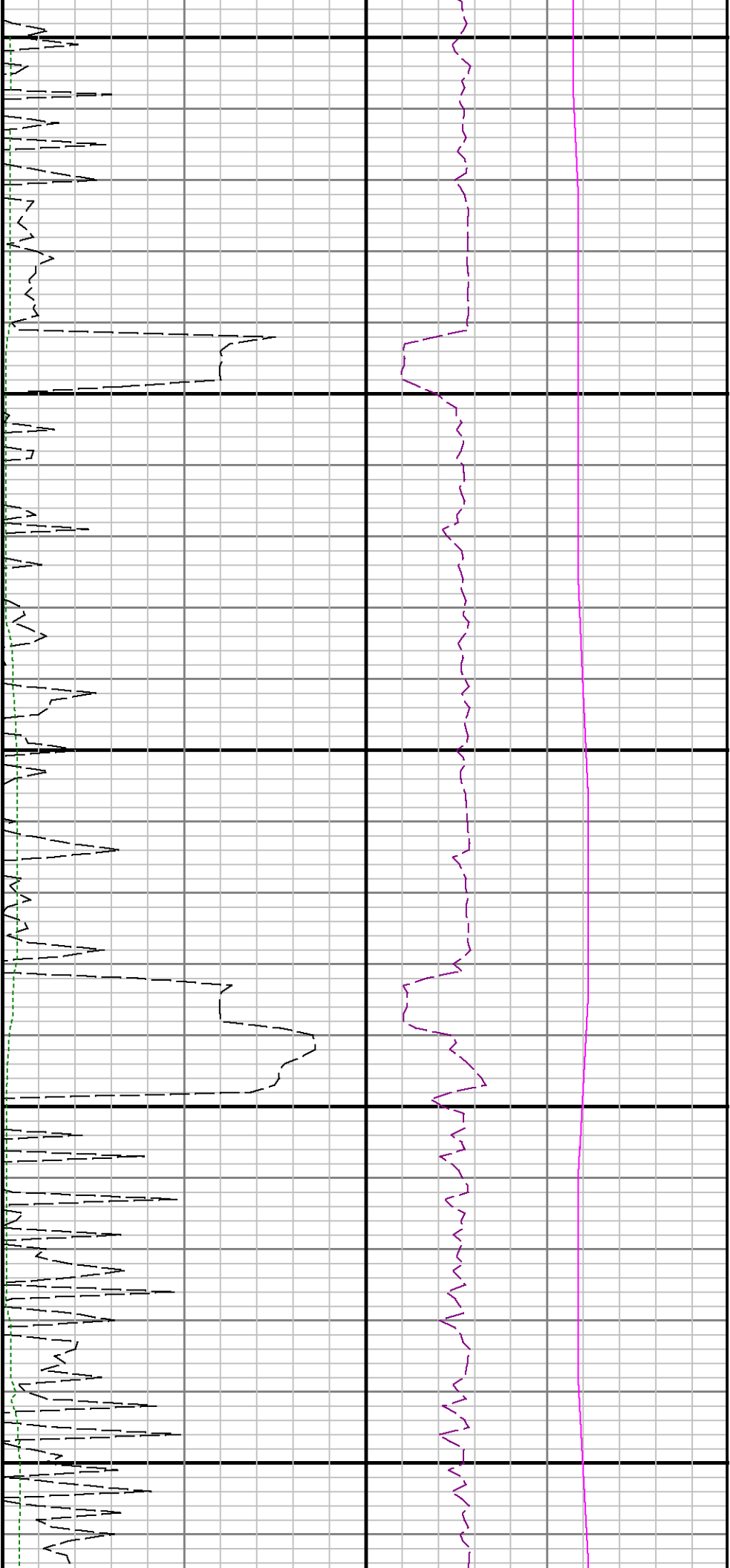








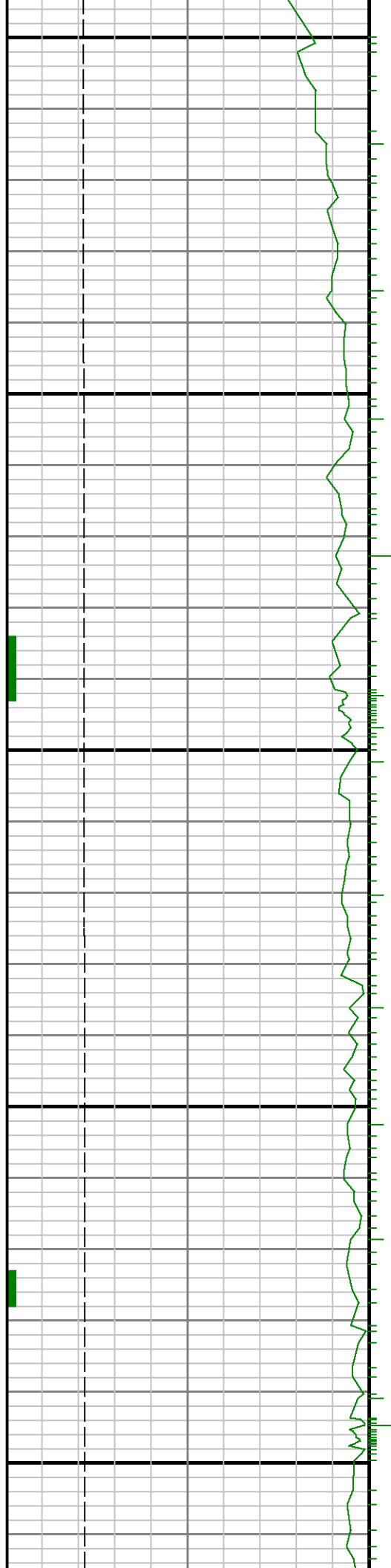


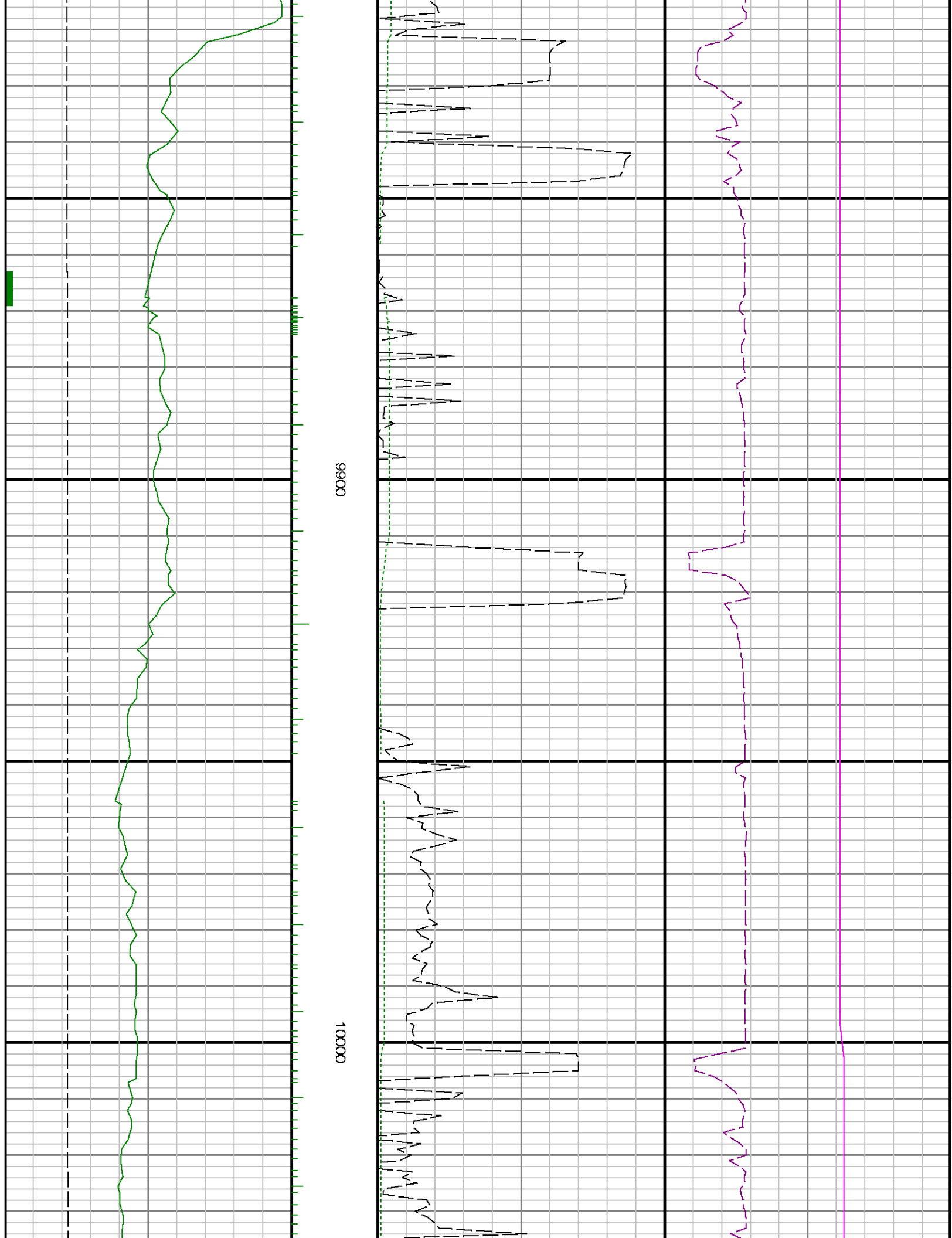


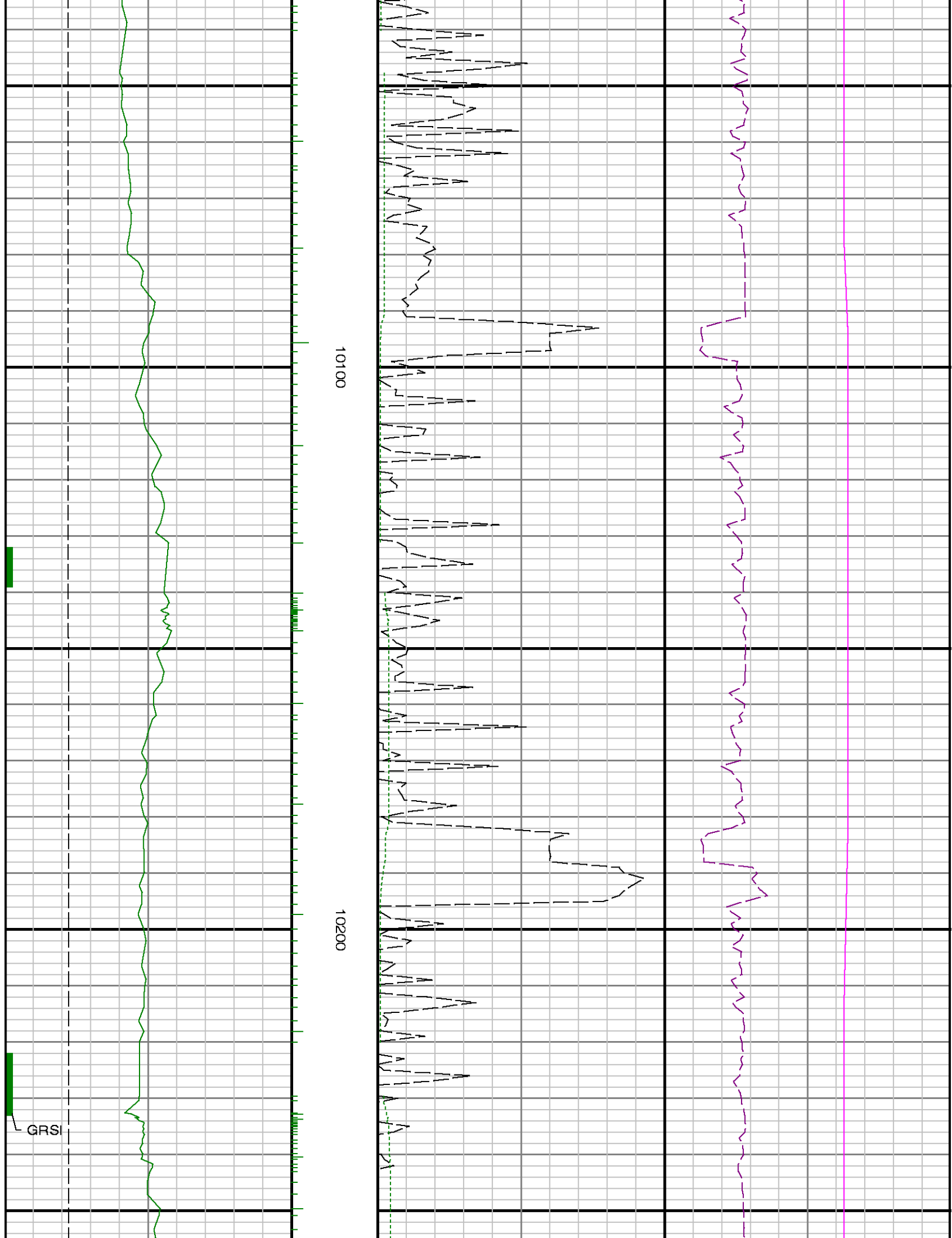
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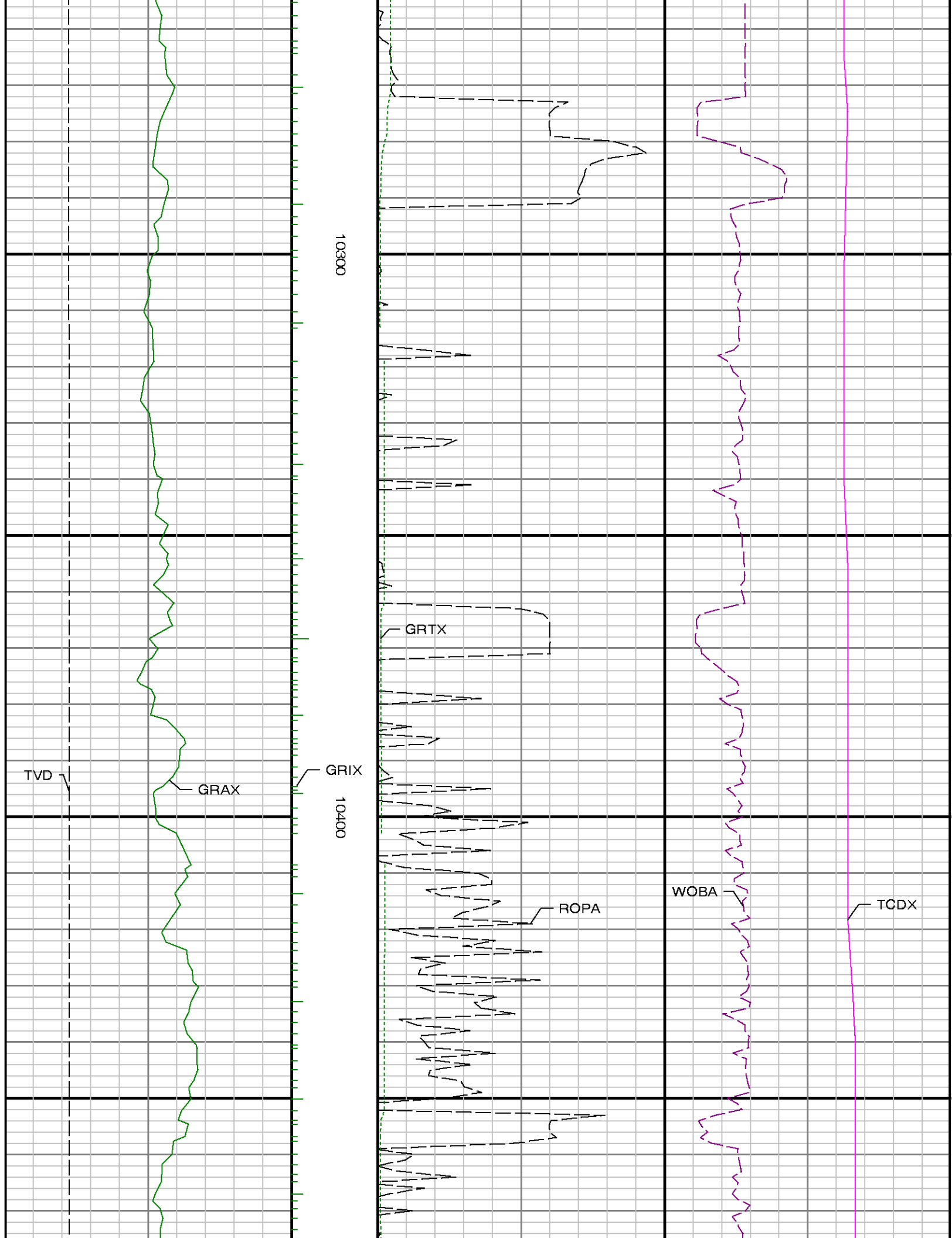
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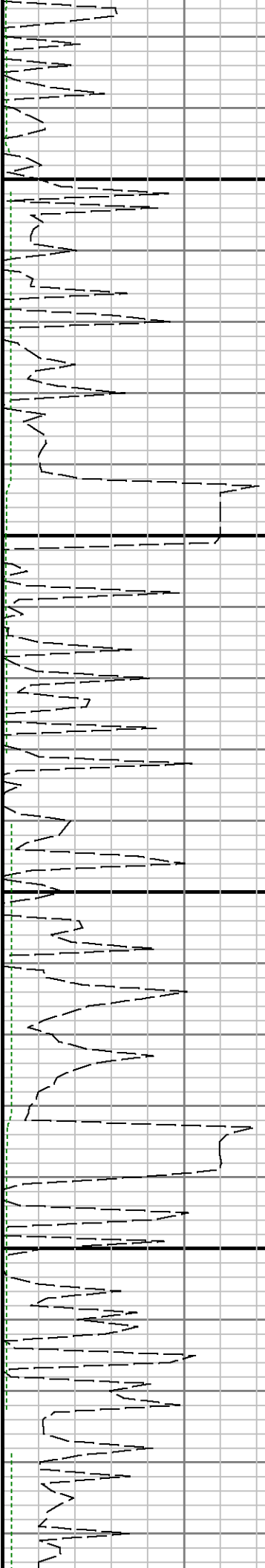
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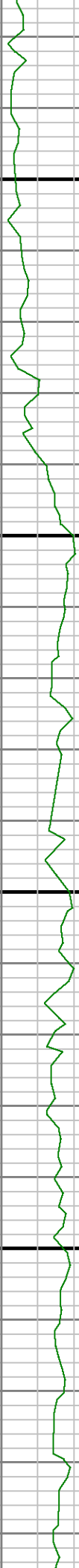


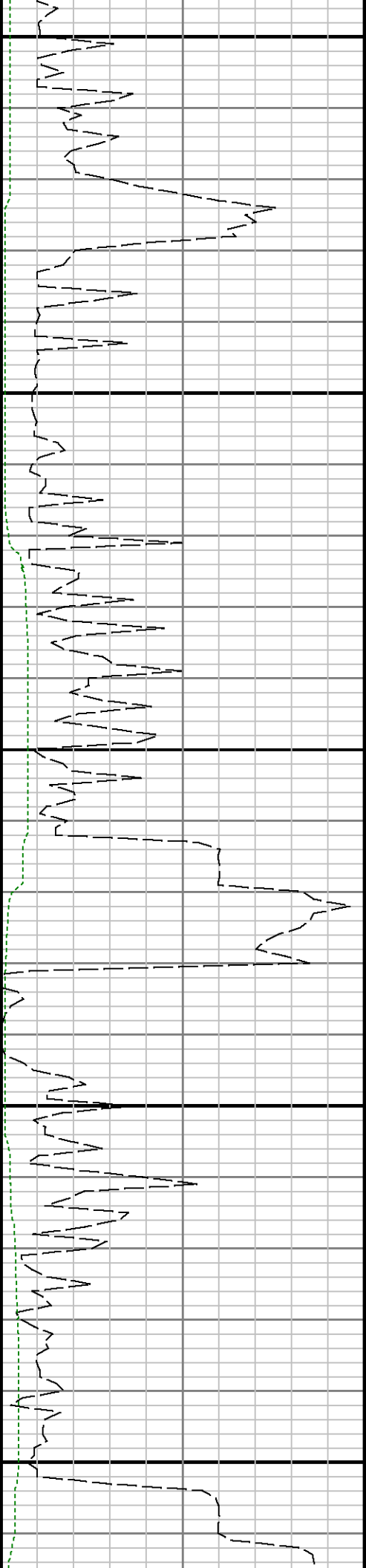
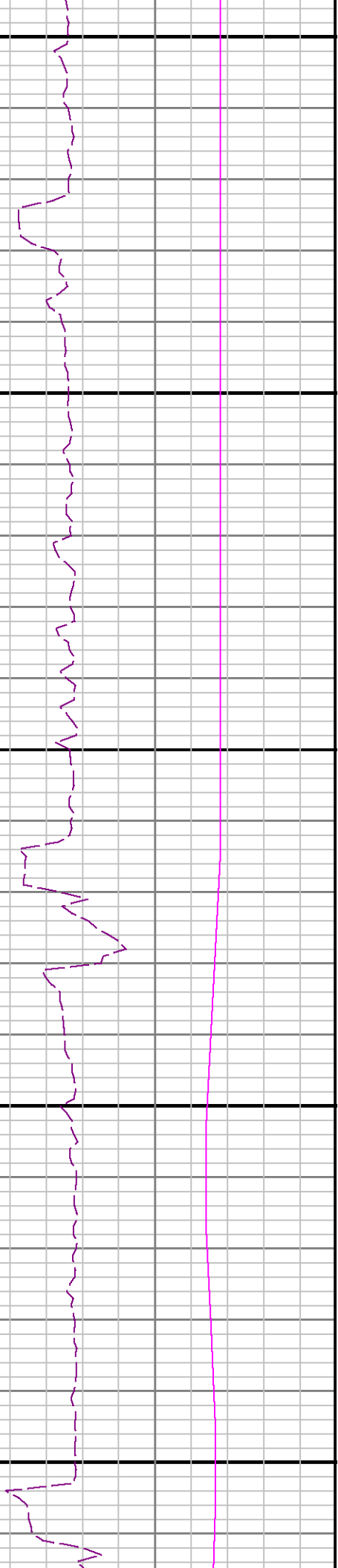




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10600

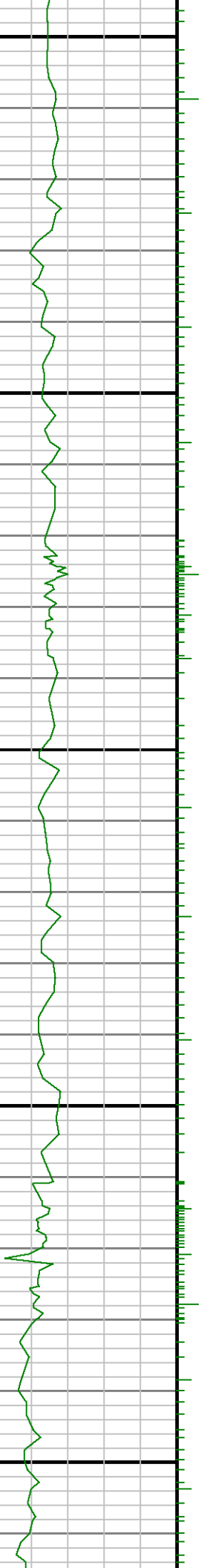


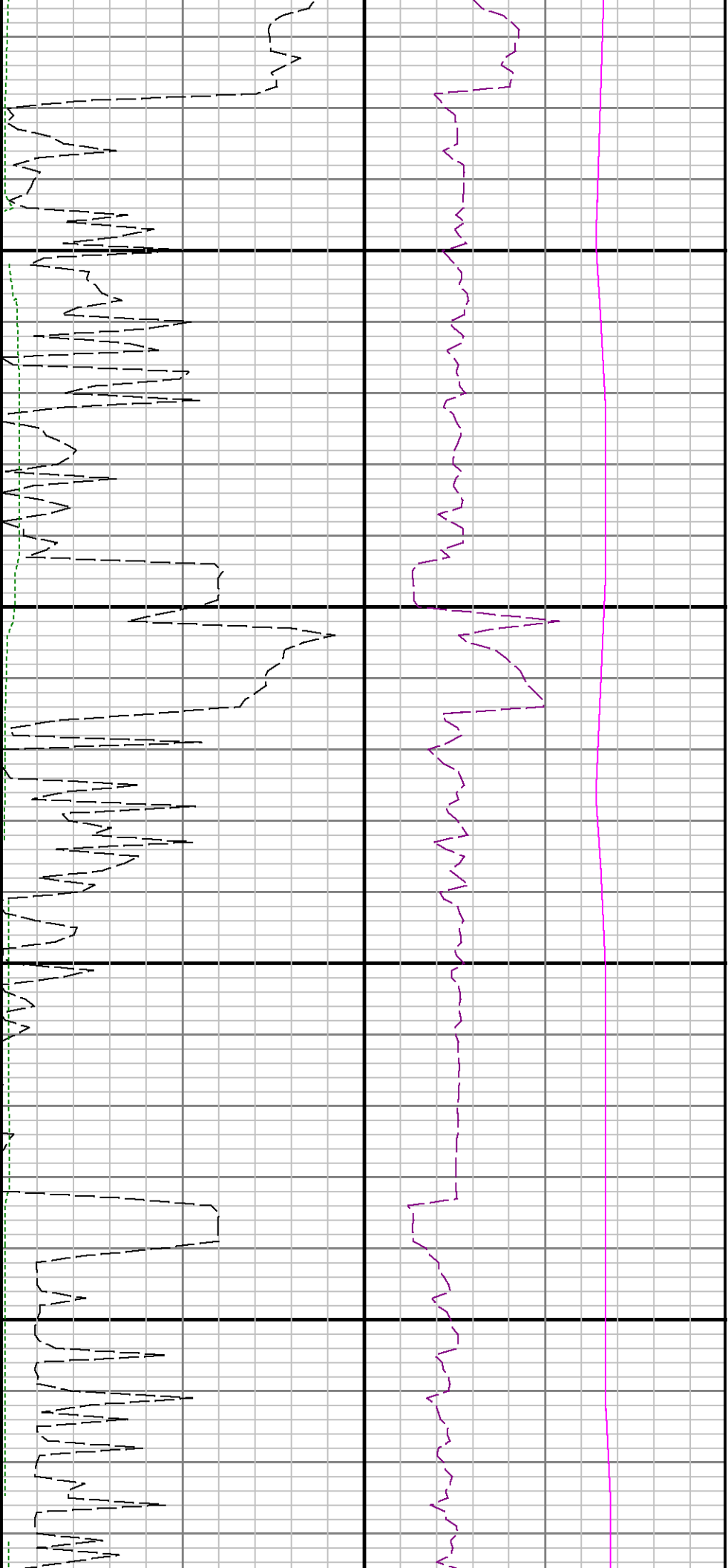


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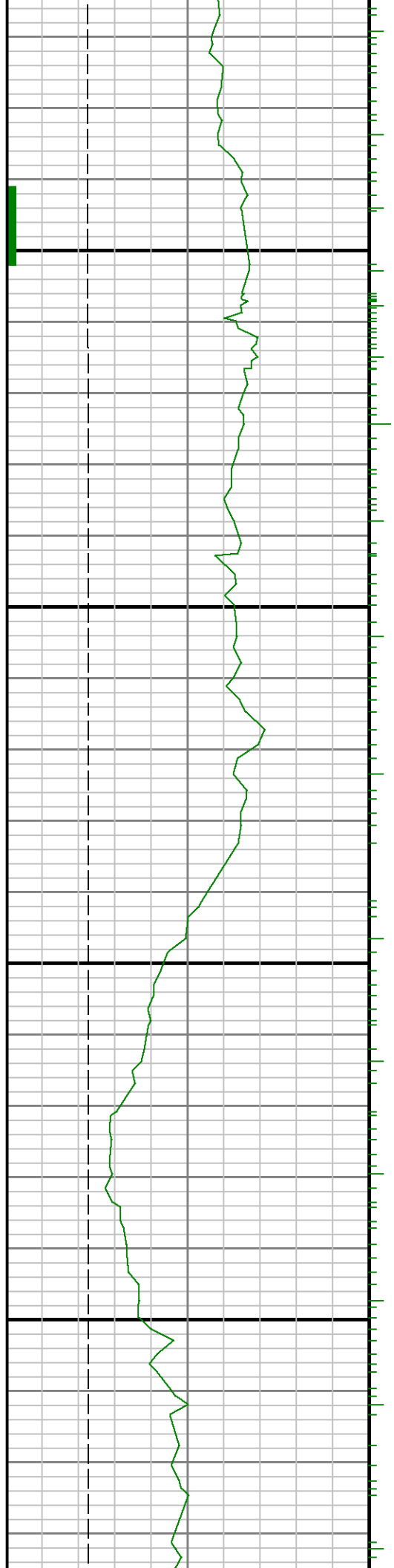
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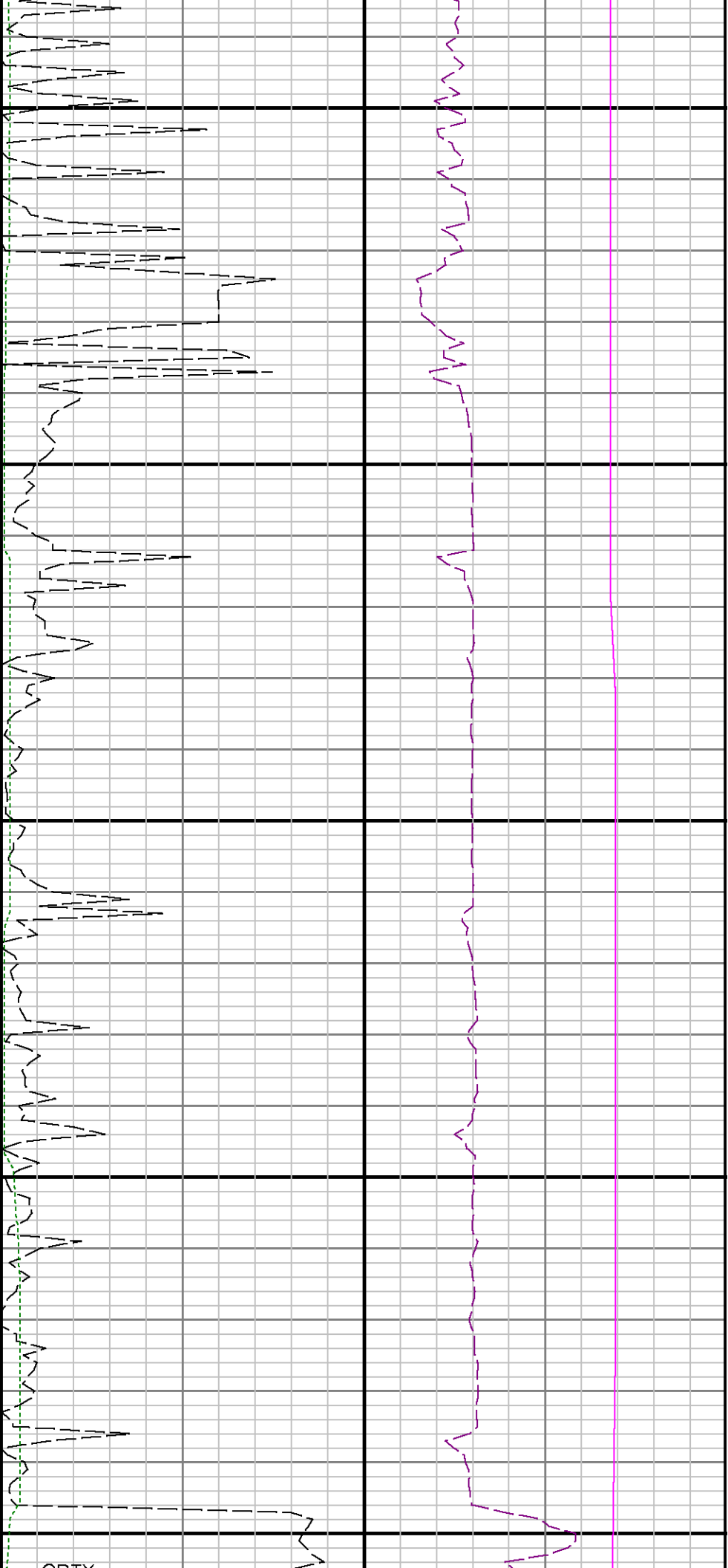




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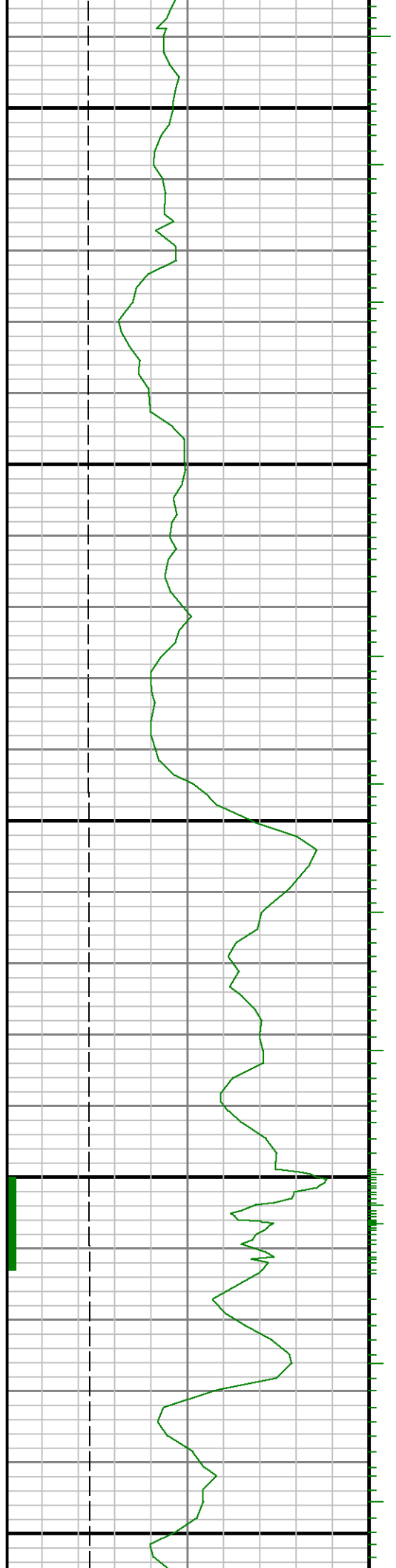
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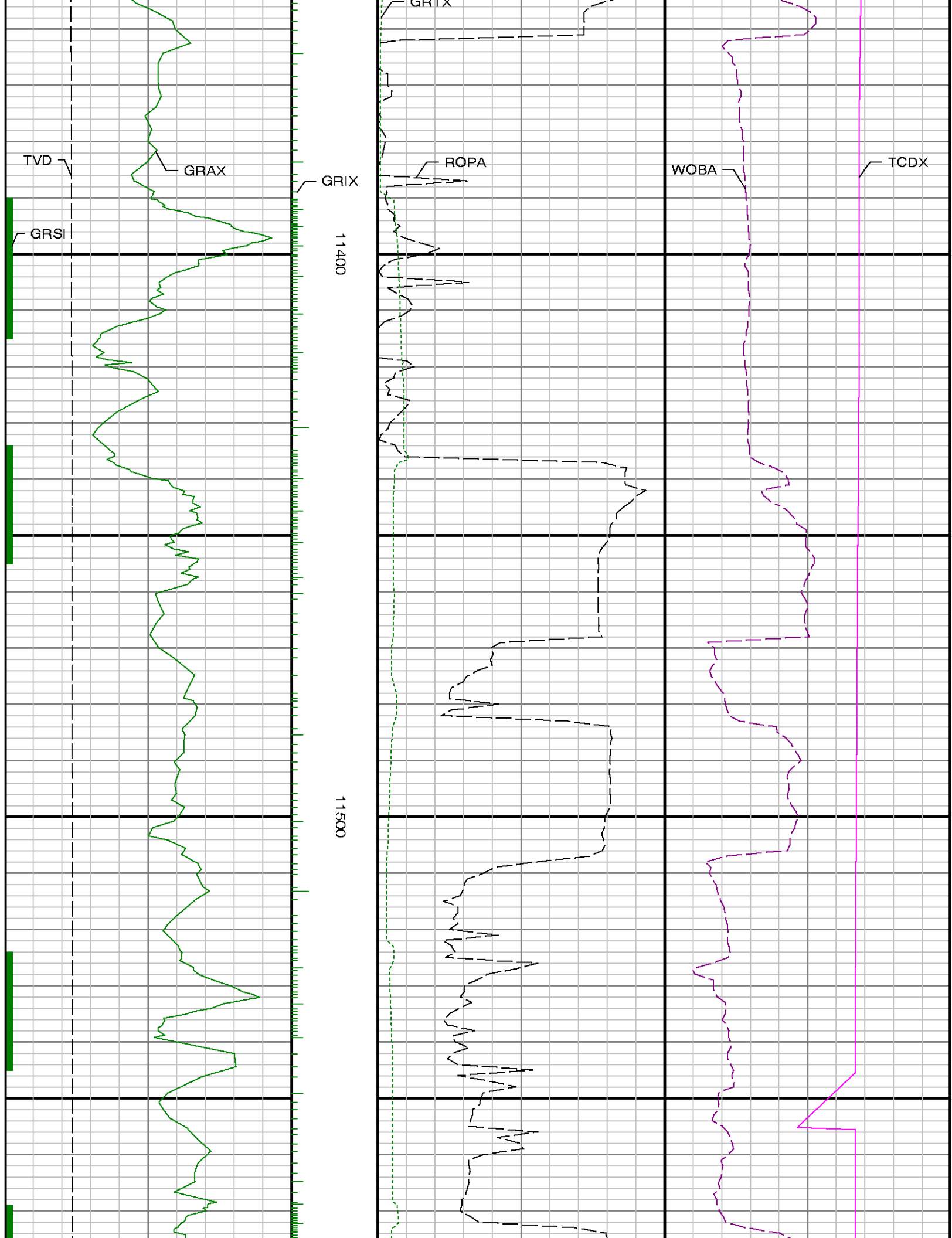


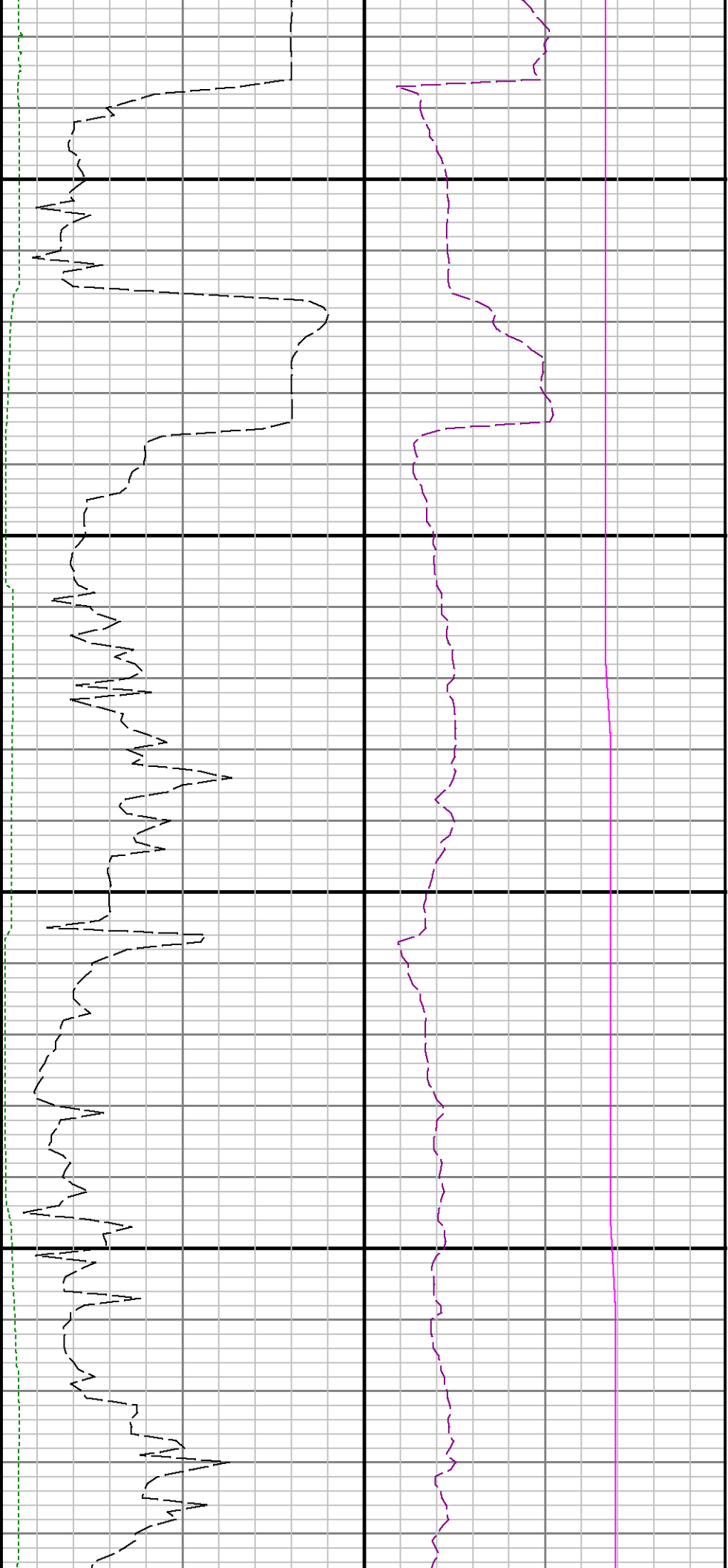


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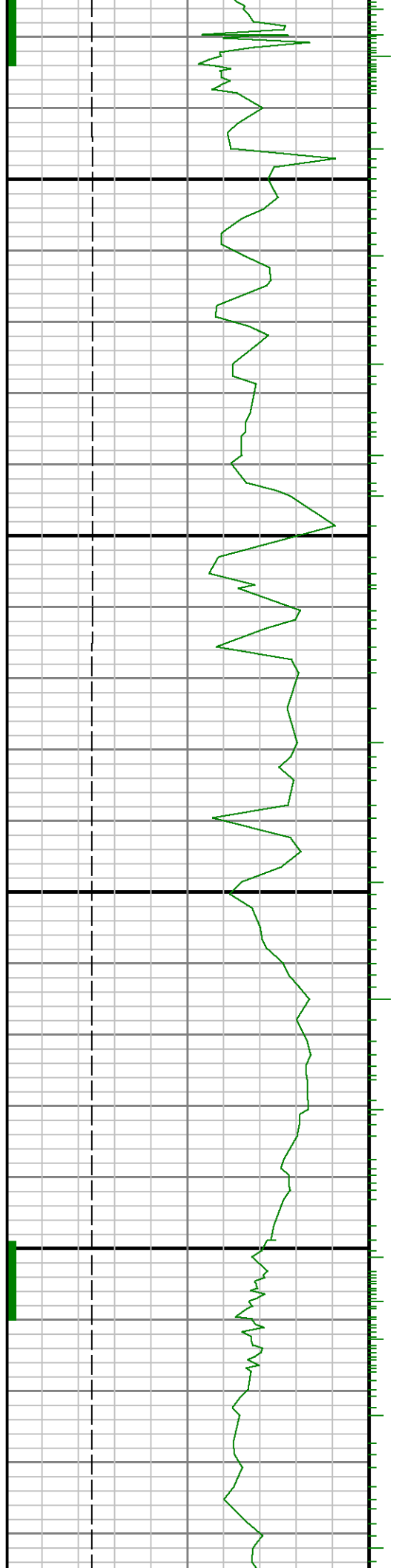


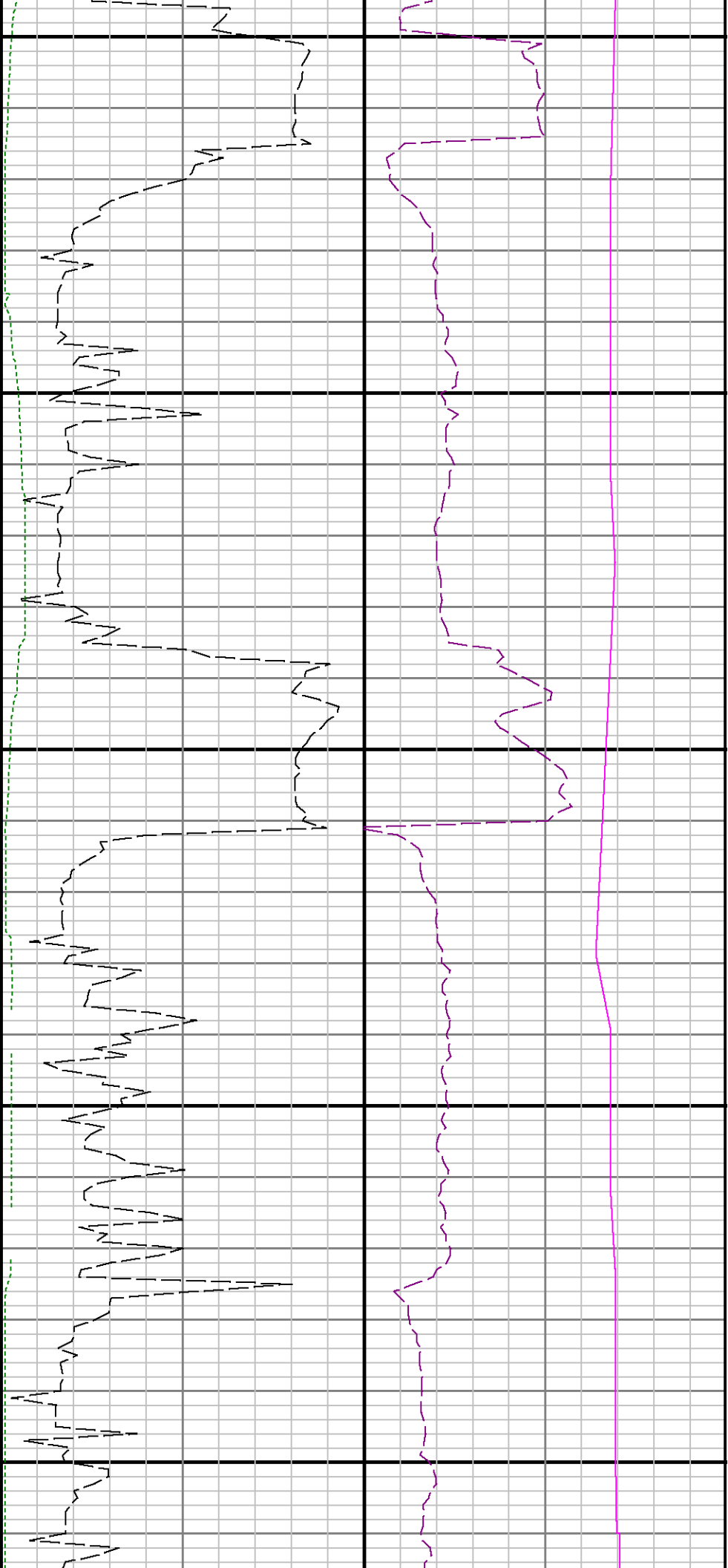




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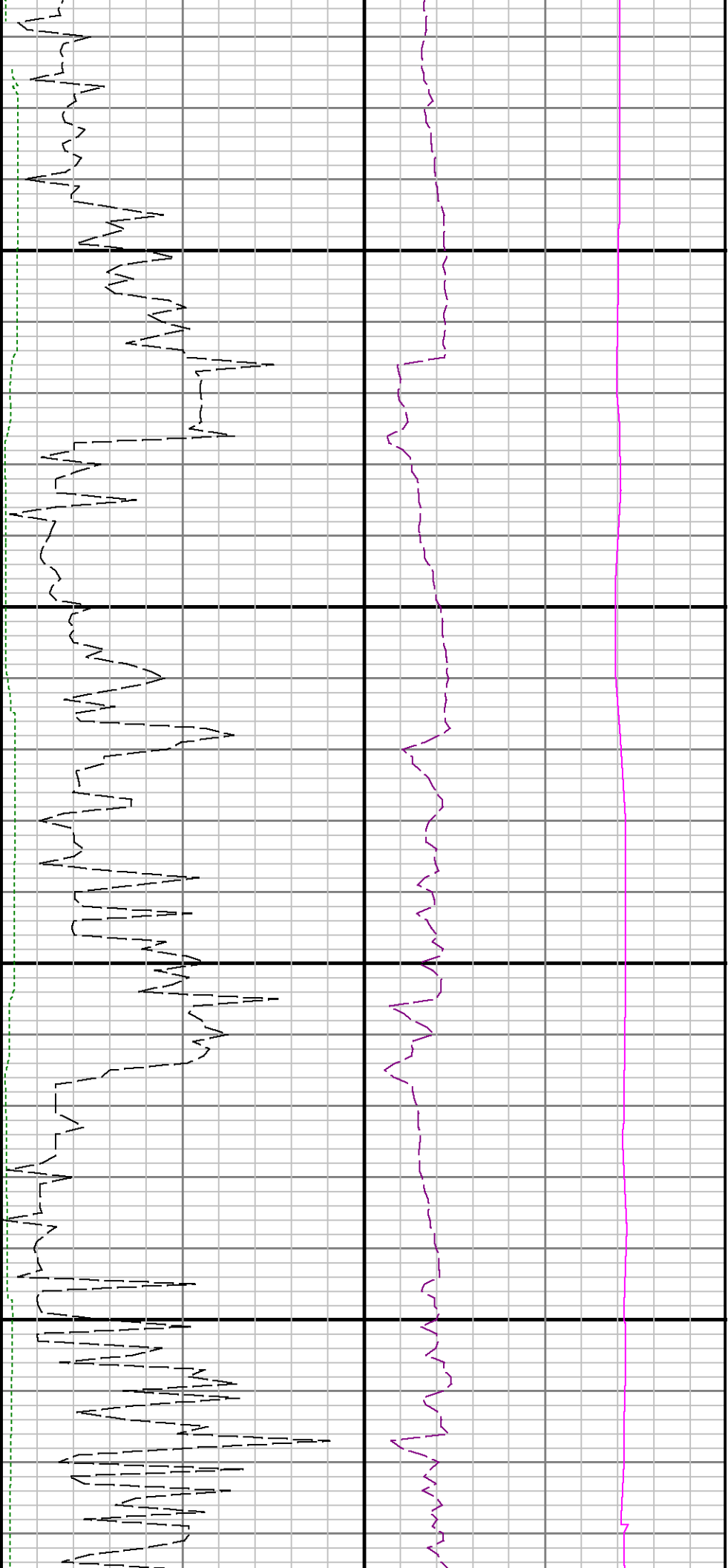


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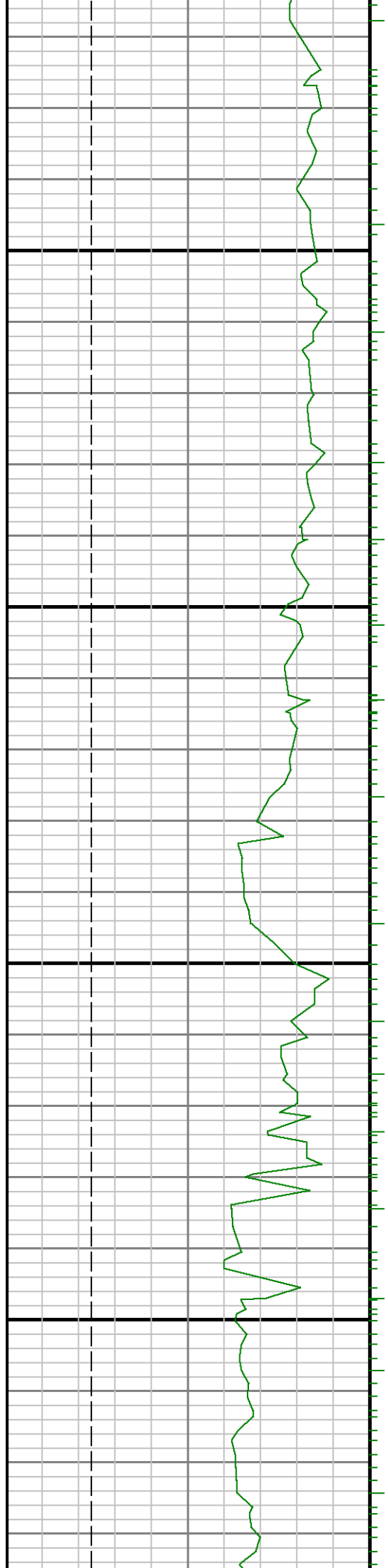
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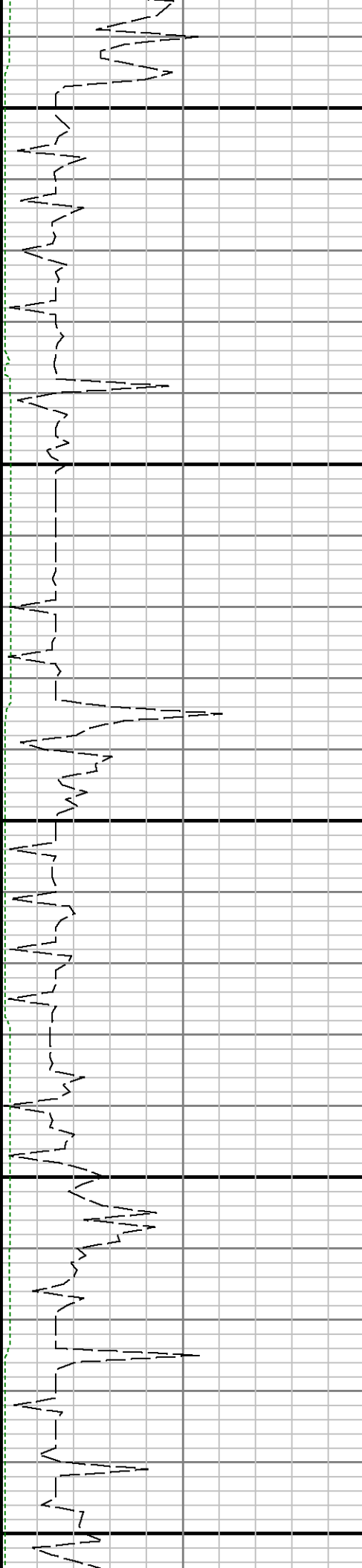
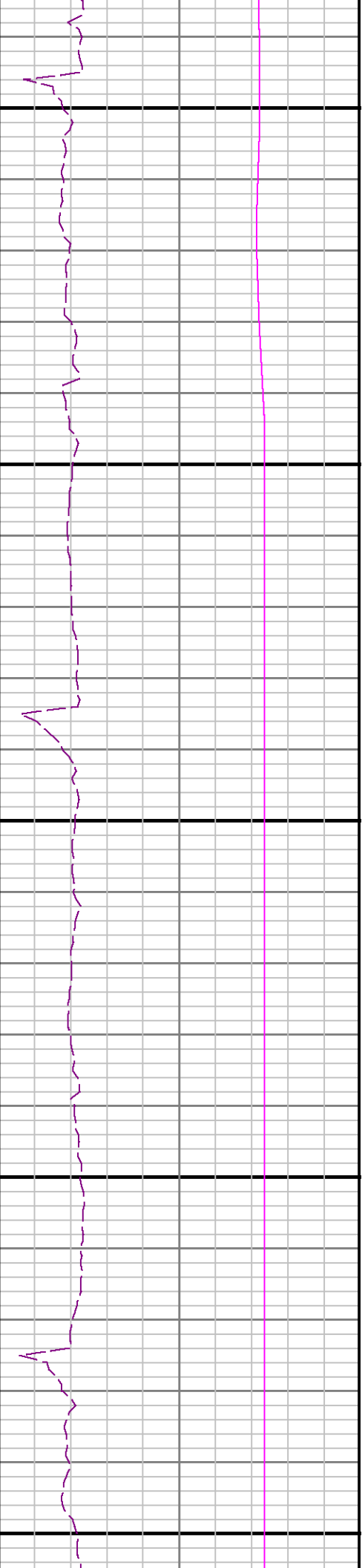
GRSI



121.00

122.00





12300

12400

