

| | |
|----------------|----------------|
| Name | LWD Run Number |
| Chris Blodgett | 1,2 |
| Mark Hicks | 1,2 |

| Mud Properties Record | | | | | | | | | | | | |
|-----------------------|--|-------------|----------------------|-----------------|---------------|----------------|-----|-----------------|-------------|-----------|------------------------|--------|
| Date / Time | | LWD Run No. | Measured Depth (ft.) | Mud Type | Density (ppg) | Viscosity (cp) | pH | Fluid Loss (cc) | Oil / Water | Source | Total Chlorides (mg/L) | K+ (%) |
| 01/Sep/2016 08:40 | | 2 | 6113.0 | Water Based Mud | 10.4 | 13 | 9.1 | 8.0 | 1.5/87.0 | Flow Line | 1200 | 0.0 |
| 02/Sep/2016 06:45 | | 2 | 8943.0 | Water Based Mud | 10.6 | 16 | 9.3 | 7.0 | 2.0/85.0 | Flow Line | 1000 | 0.0 |
| 03/Sep/2016 08:15 | | 2 | 14133.0 | Water Based Mud | 10.6 | 15 | 9.0 | 6.2 | 3.0/84.0 | Flow Line | 1700 | 0.0 |

| Mnemonics | | |
|-----------|----------------------------------|----------|
| Curve | Description | Units |
| GRAX | Gamma Ray Apparent 0.5 ft Avg | API |
| GRIX | Gamma Ray Density | unitless |
| GRSI | Gamma Ray Sliding 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 | 12131653 | Directional | 50.37 | 8.250 | 3.250 |
| 1 | SRIG | 12600749 | Gamma | 46.95 | 8.250 | 3.250 |
| 2 | DIR | 12373453 | Directional | 44.86 | 6.750 | 3.250 |
| 2 | SRIG | 12041109 | Gamma | 41.45 | 6.750 | 3.250 |

| 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.) 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 LWD logging engineers, depth calibrations and measurements could not be independently verified and the unverified depths as supplied to Baker Hughes are being used to present logging data.</p> <p>2.) Baker Hughes LWD run 2 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 1/2 inch bit and steerable assembly from 2118 to 15771 ft MD (2110 to 5534 ft TVD).</p> <p>3.) Gamma Ray Apparent (GRAX) is presented 0 to 200 API</p> |

4.) All surveys were corrected by Surcon Survey Management Services.

5.) A sliding indicator shown on the left side of track 1 as a heavy line. This indicator has been shifted to the Gamma Ray sensor offset to correspond to Gamma Ray data acquired while sliding.

Remarks

| Number | Measured Depth (ft.) | Hole Section (in.) | LWD Run No. | Remark |
|--------|----------------------------|--------------------------|----------------|--|
| 1 | 4845 | 8.500 | 2 | Gamma ray logging operations began at 4845 ft MD (4826 ft TVD). |
| 2 | 15730 | 8.500 | 2 | There is no gamma ray data from 15730 to 15771 ft MD (5534 ft TVD) due to sensor to bit offset at well TD. |



Company : Whiting Oil & Gas Corporation

Well : Razor #250-2411

Interval : 4820.00 - 15790.00 feet

Created : 04/Sep/2016 3:34:57 AM

Gamma Ray Apparent 0.5 ft Avg GRAX

0 200

API

True Vertical Depth TVD

6000 5000

ft

MD feet 1:240

4900

Rate of Penetration 3.0 ft Avg ROPA

1000 0

ft/hr

Gamma Time Since Drilled GRTX

0 600

min

Surface Weight On Bit 1.0 ft Avg WOBA

0 100

klbf

Downhole Temperature TCDX

100 300

degF

GRSI

GRAX

GRIX

GRTX

ROPA

WOBA

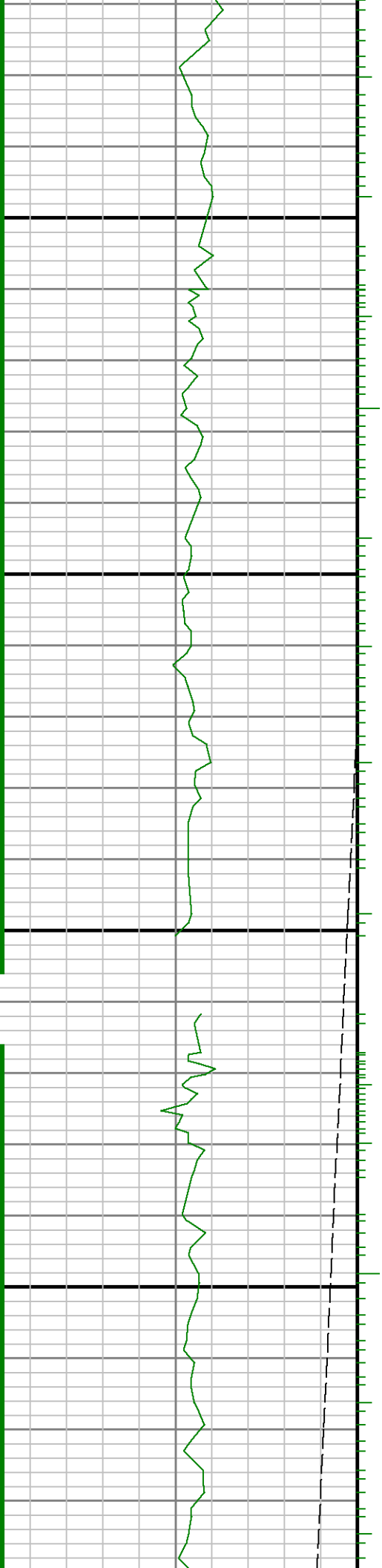
TCDX

See Remark 1



5000

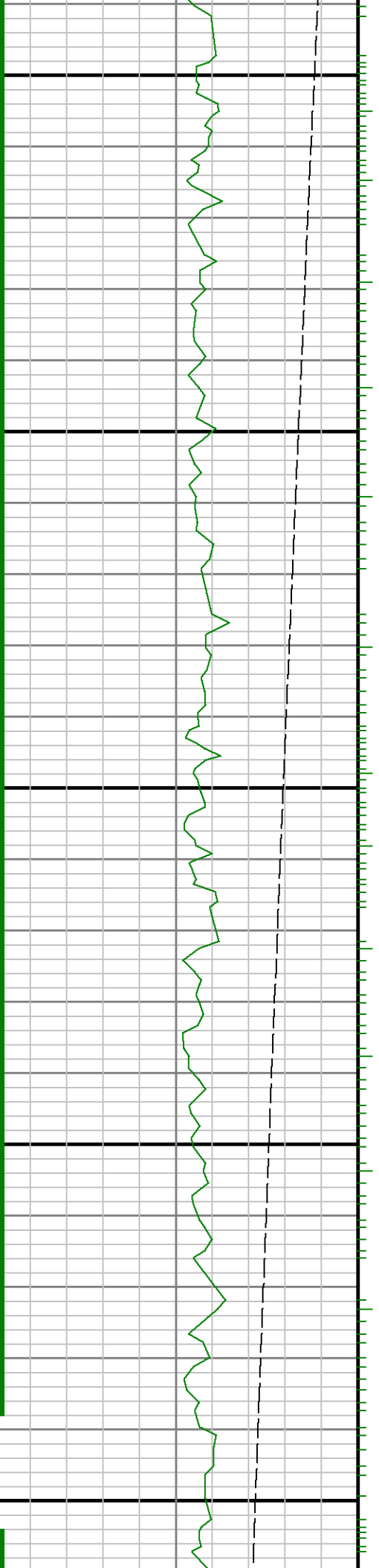
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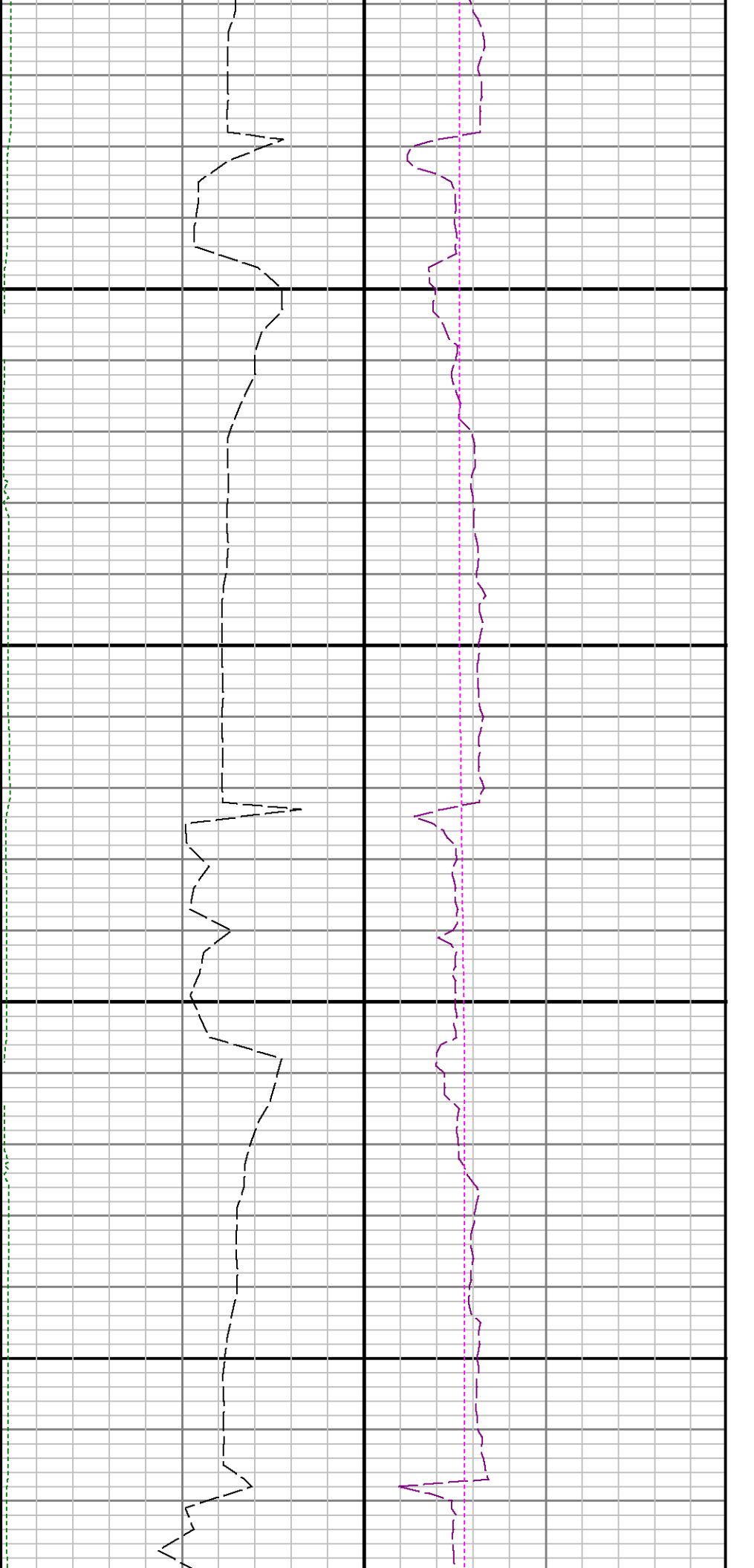




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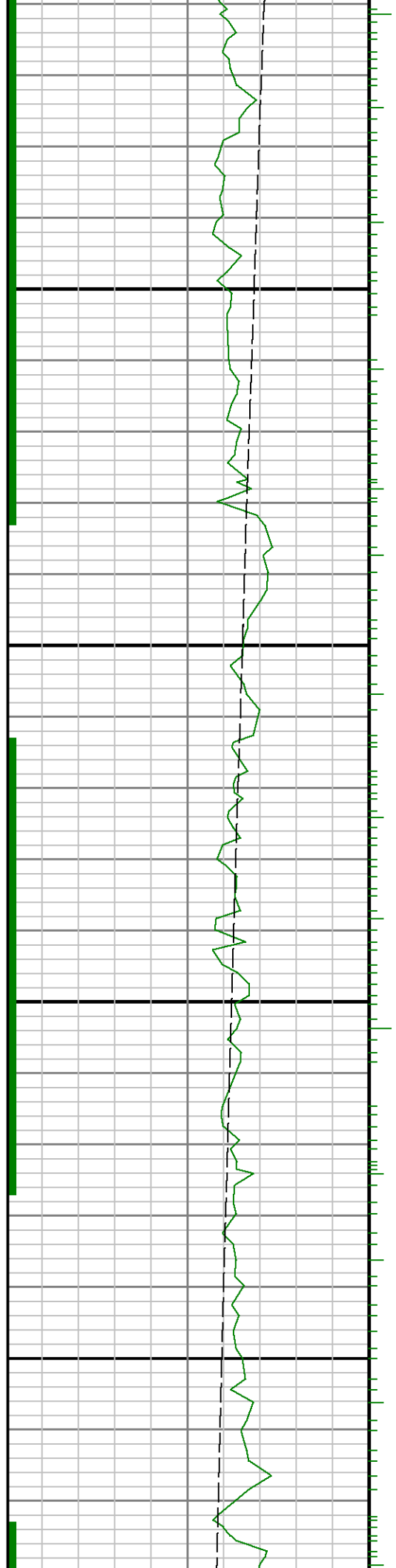
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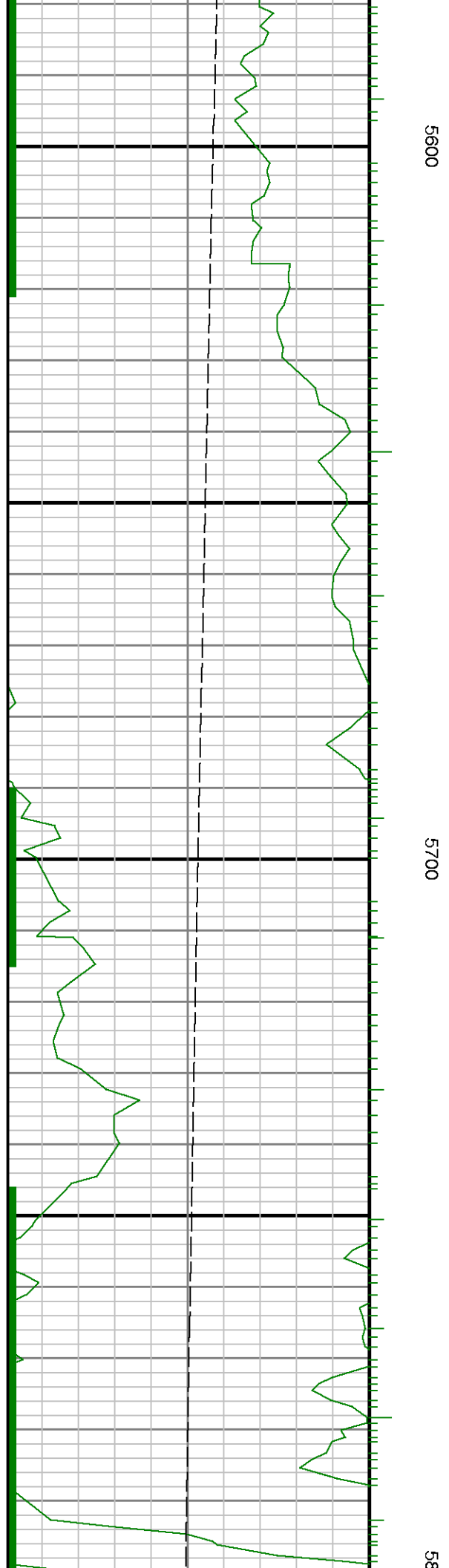


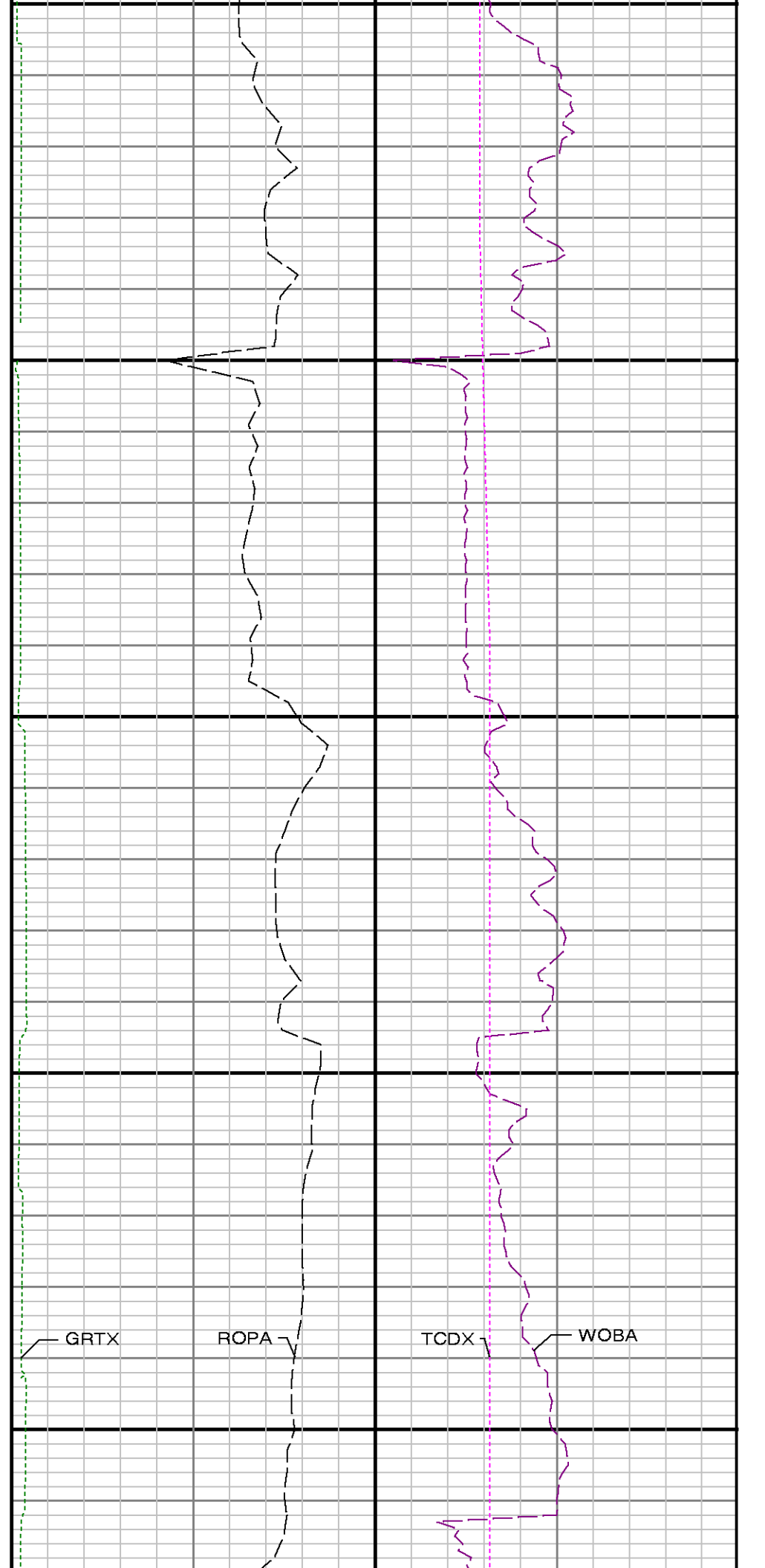
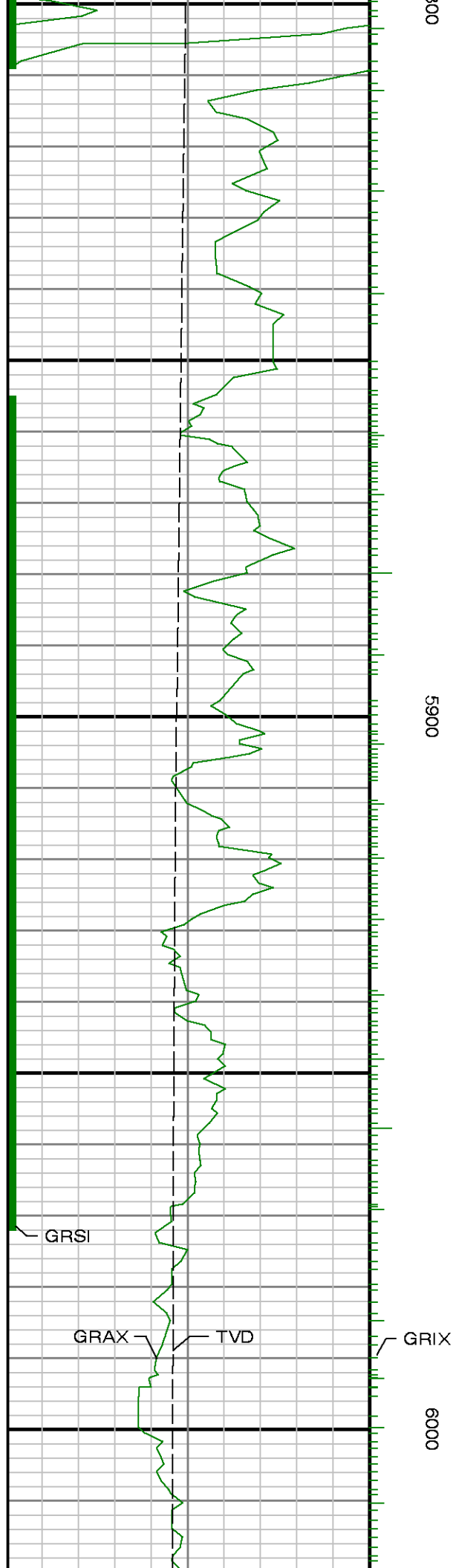


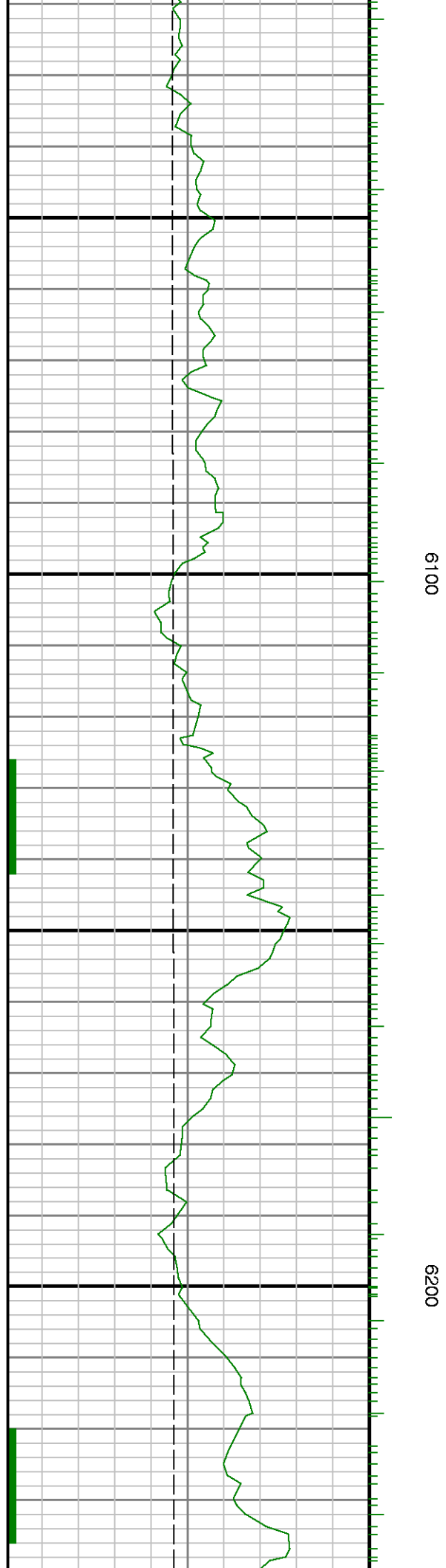
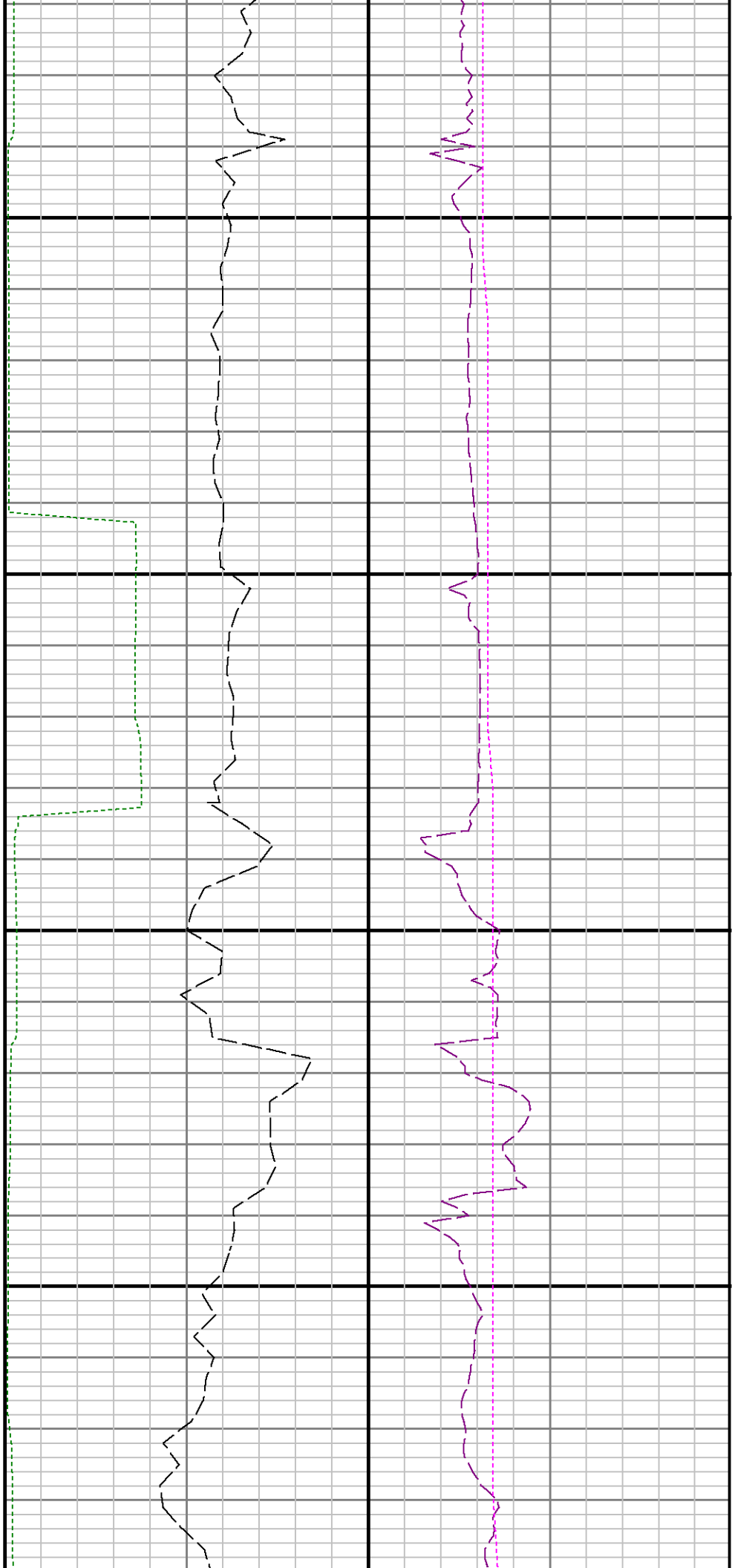
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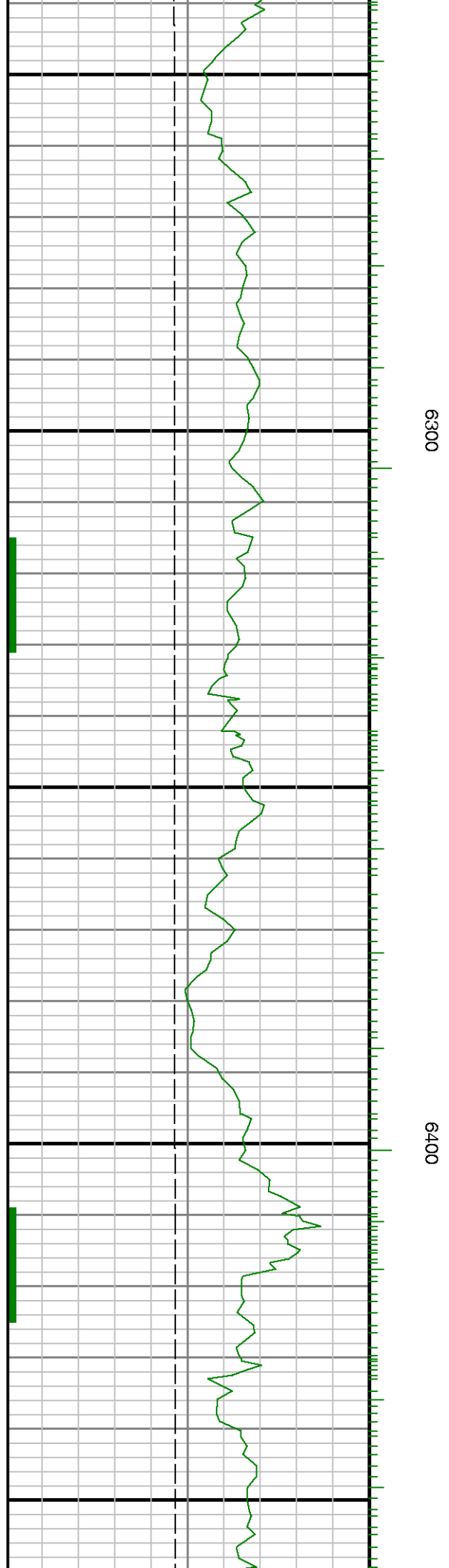
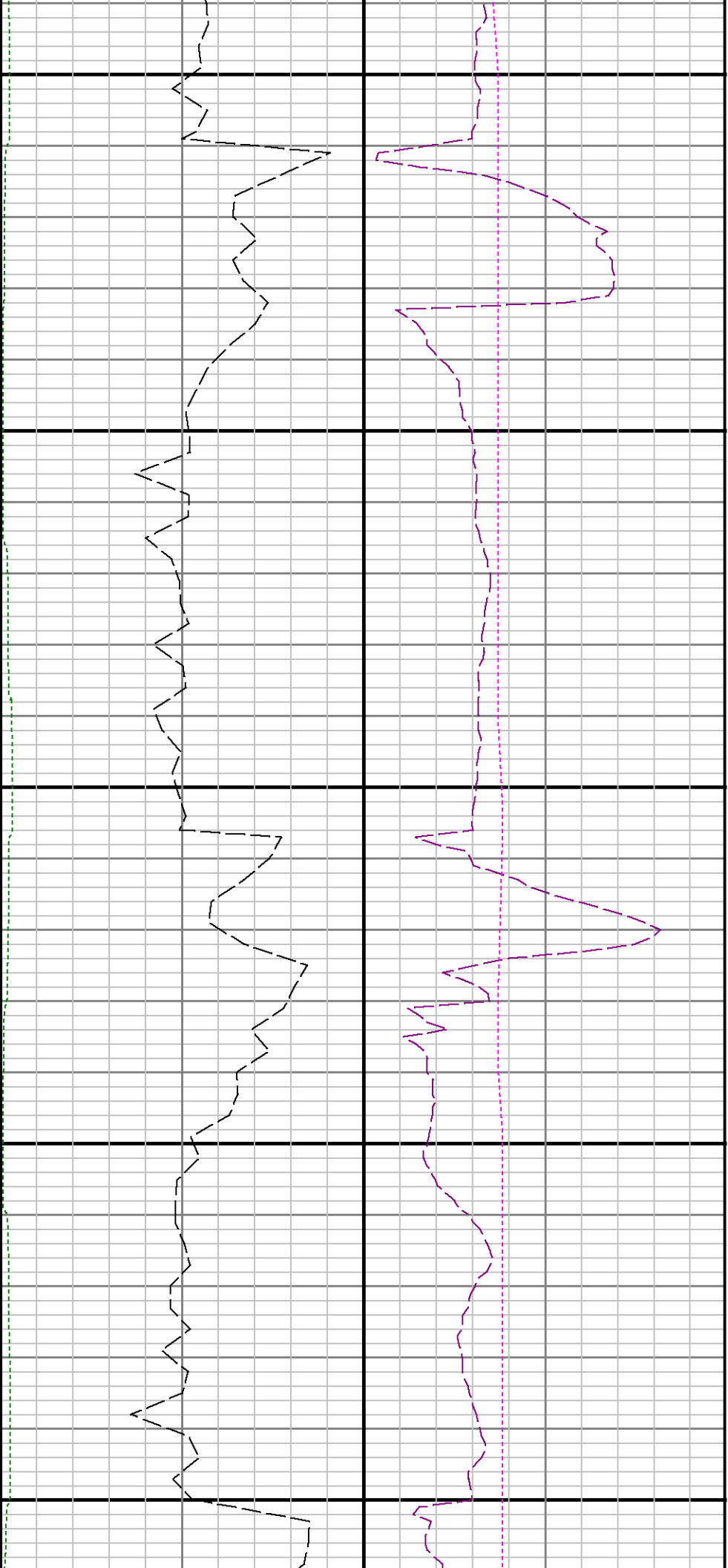
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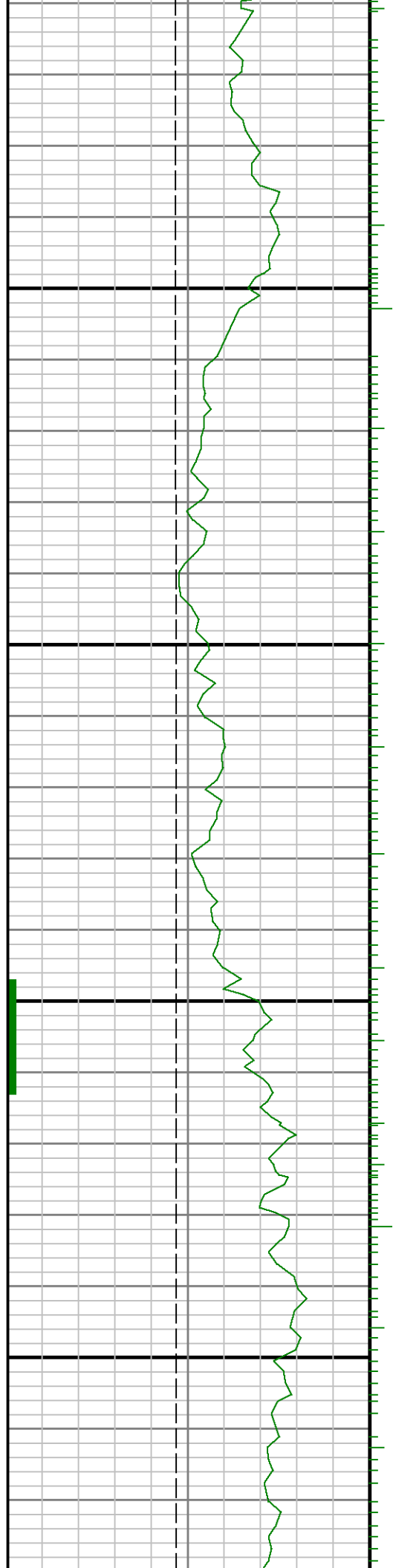






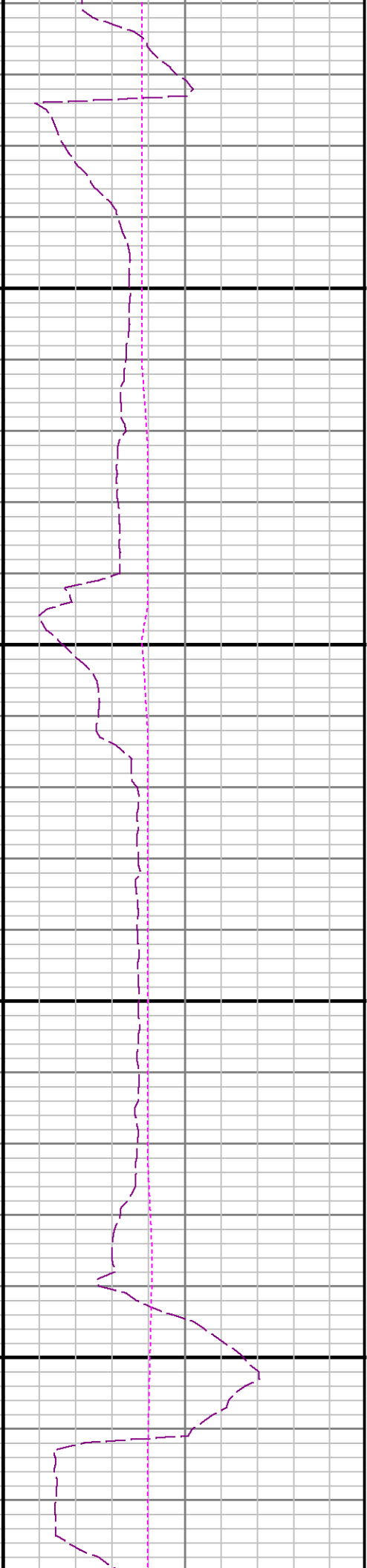
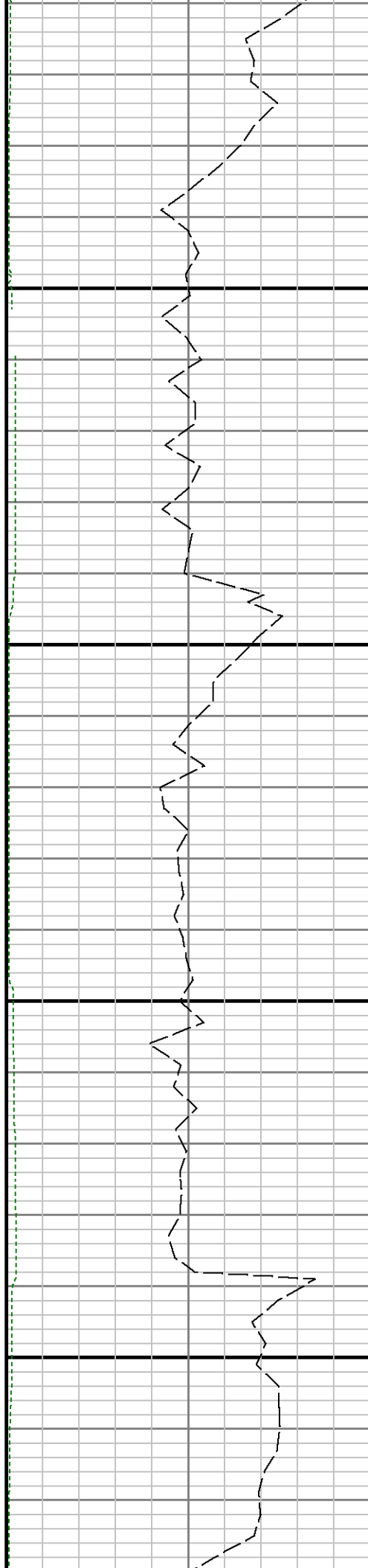


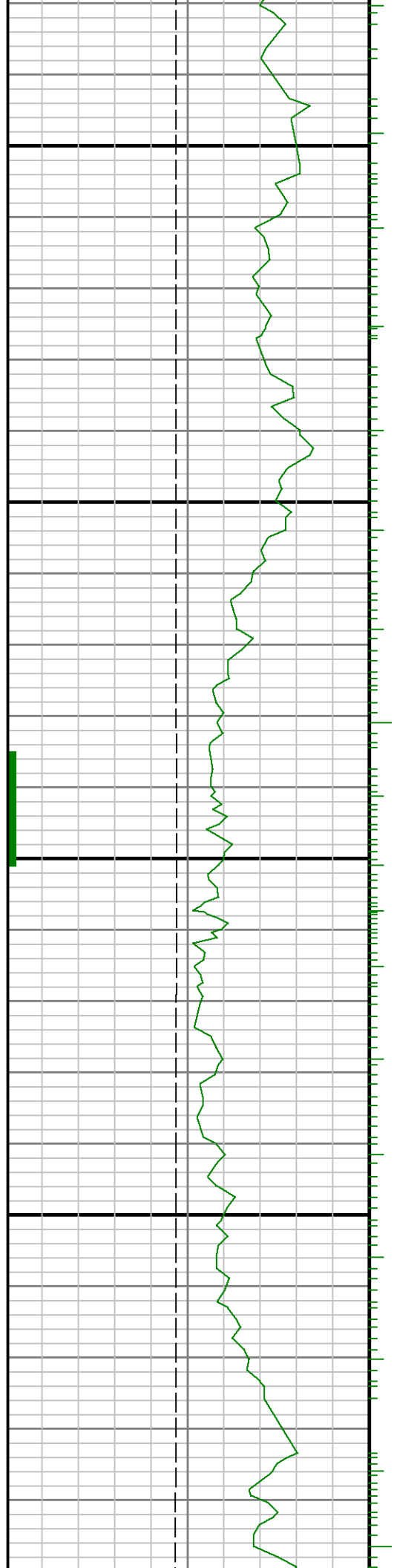




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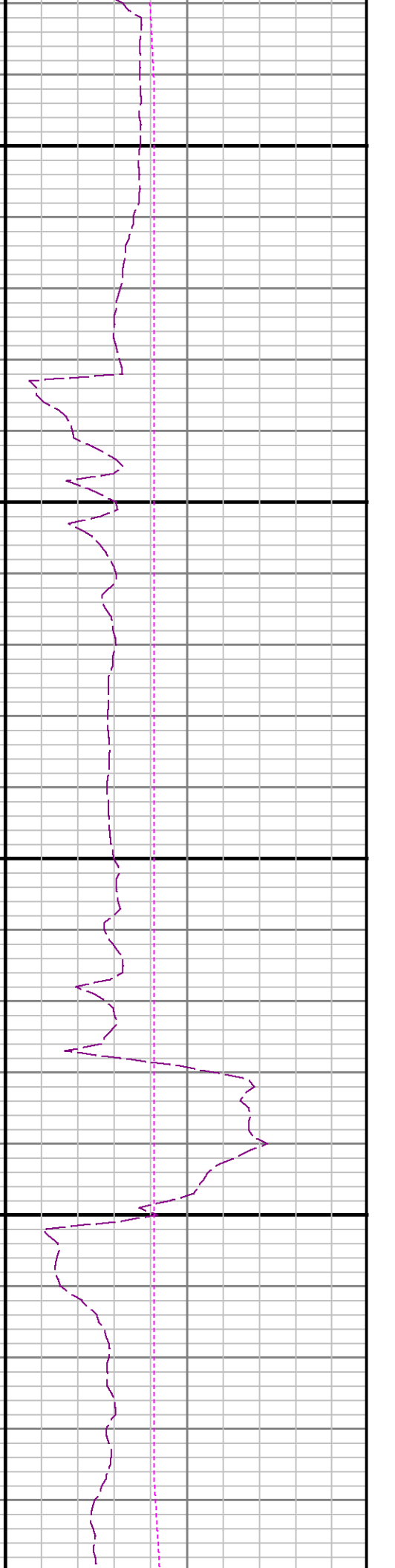


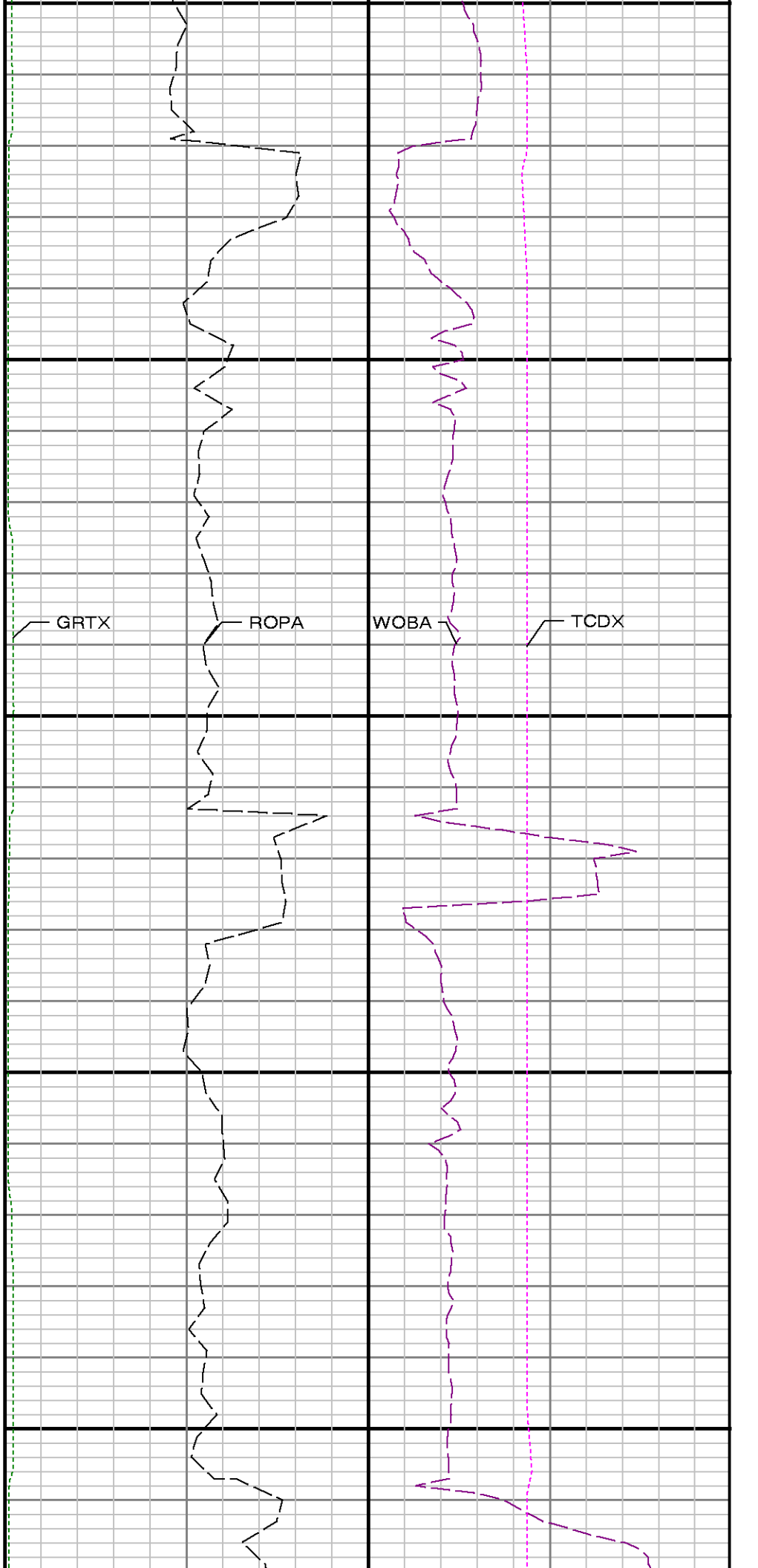
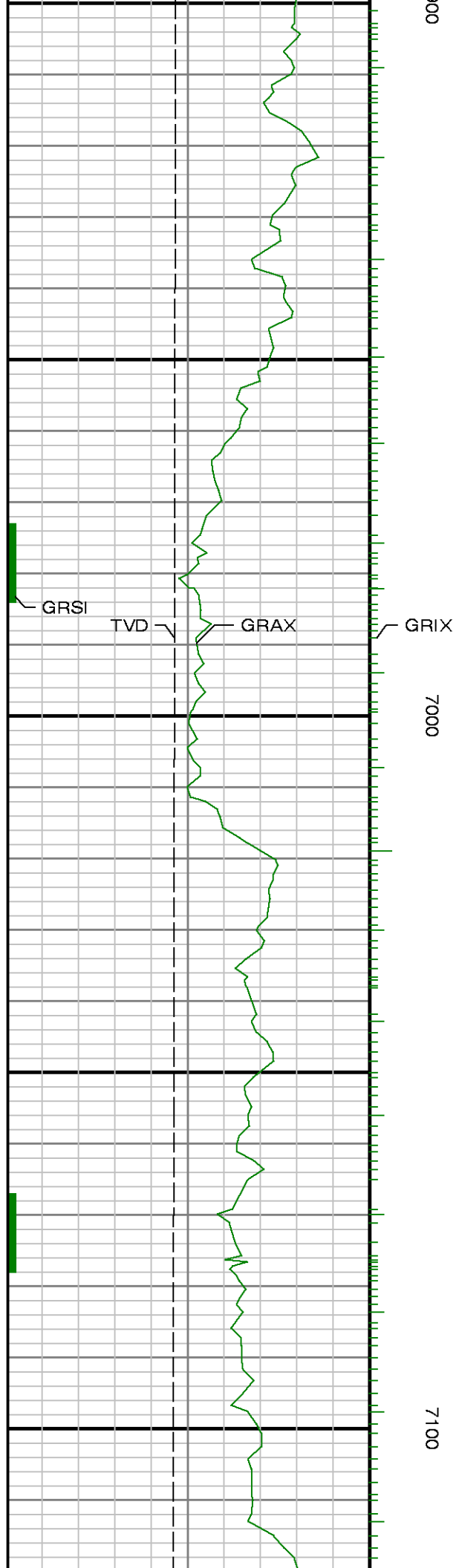


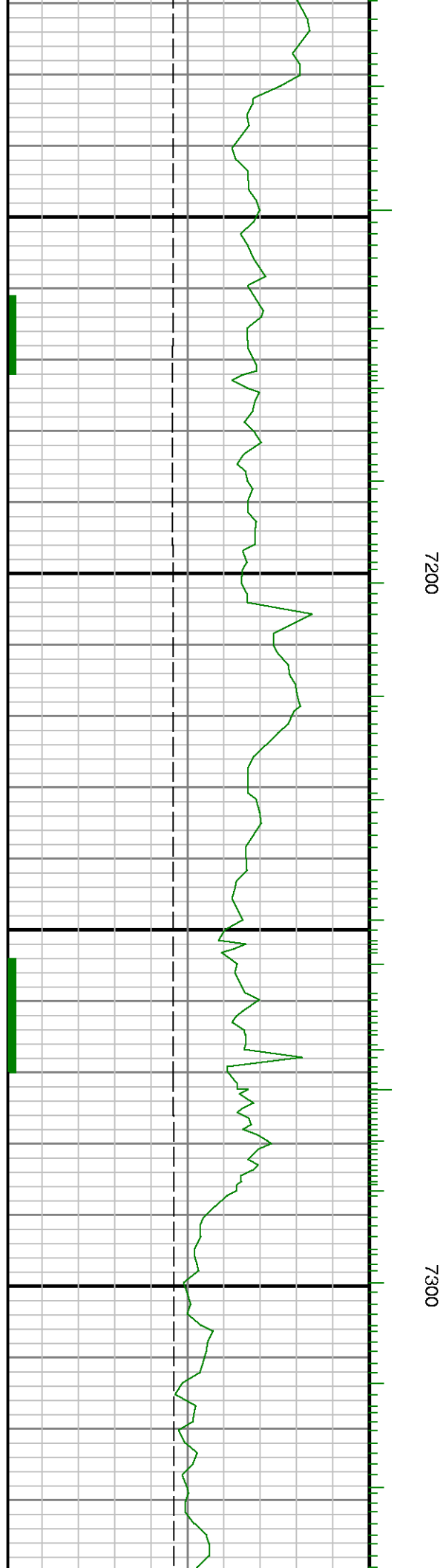
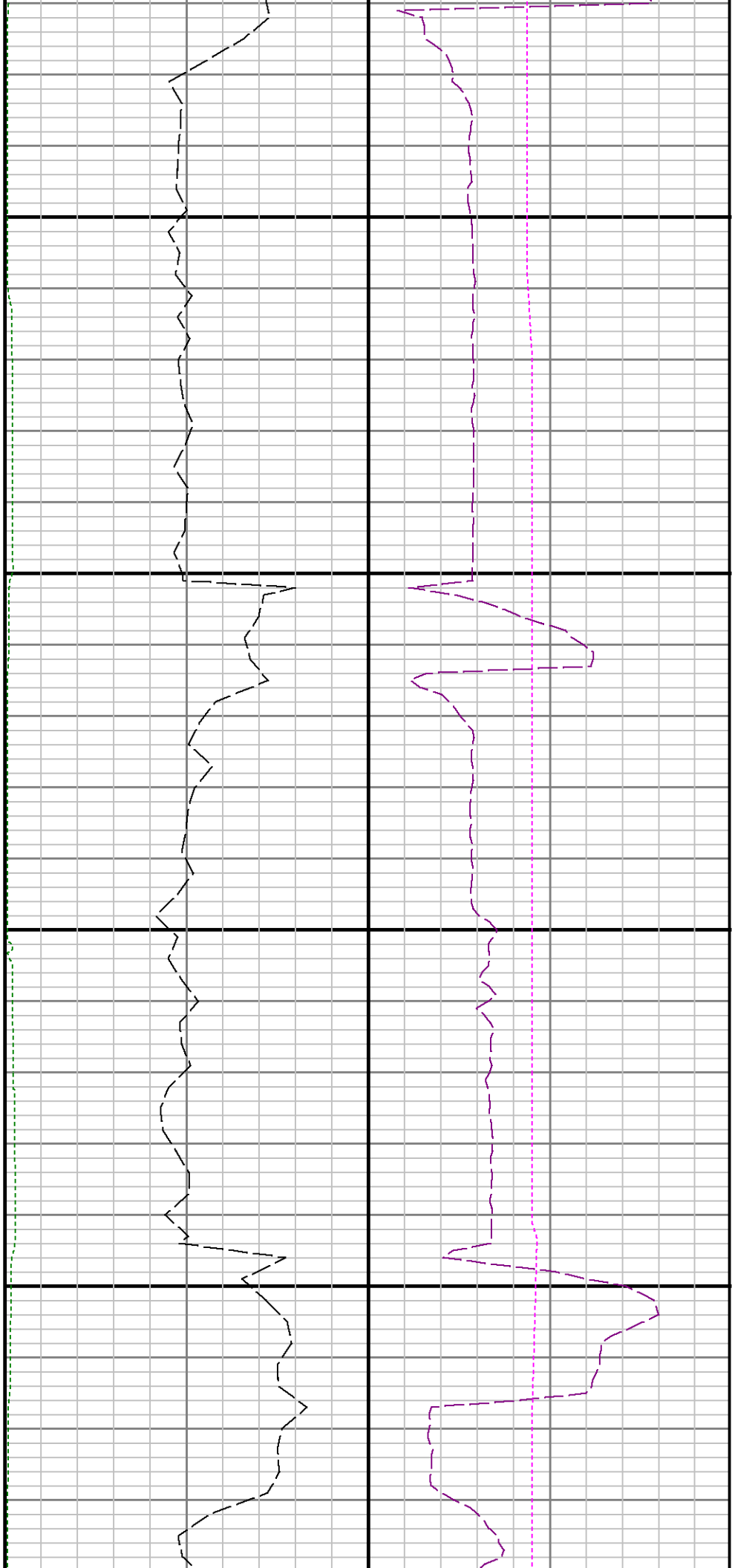
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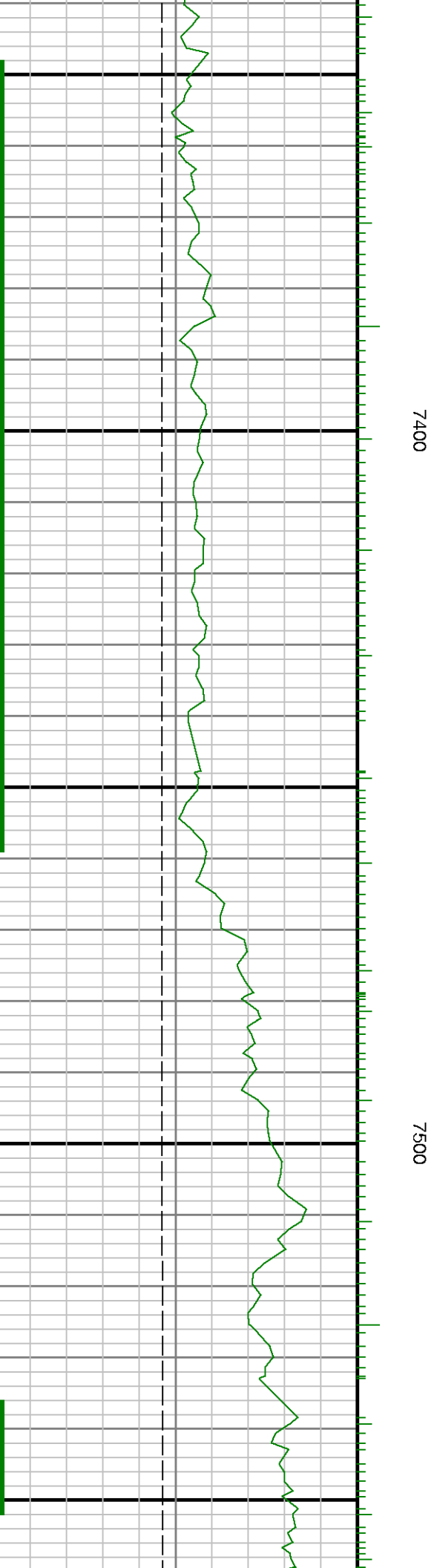
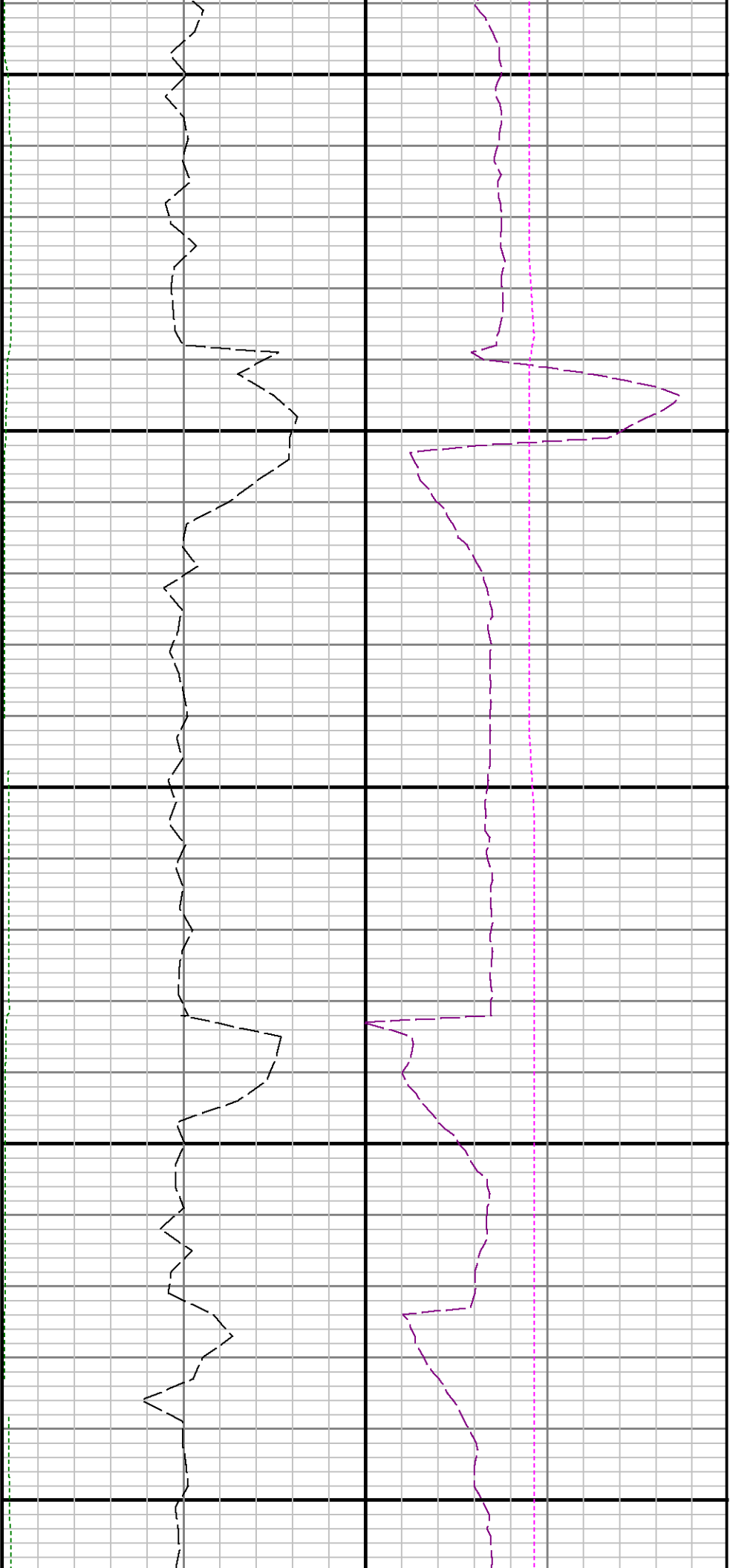
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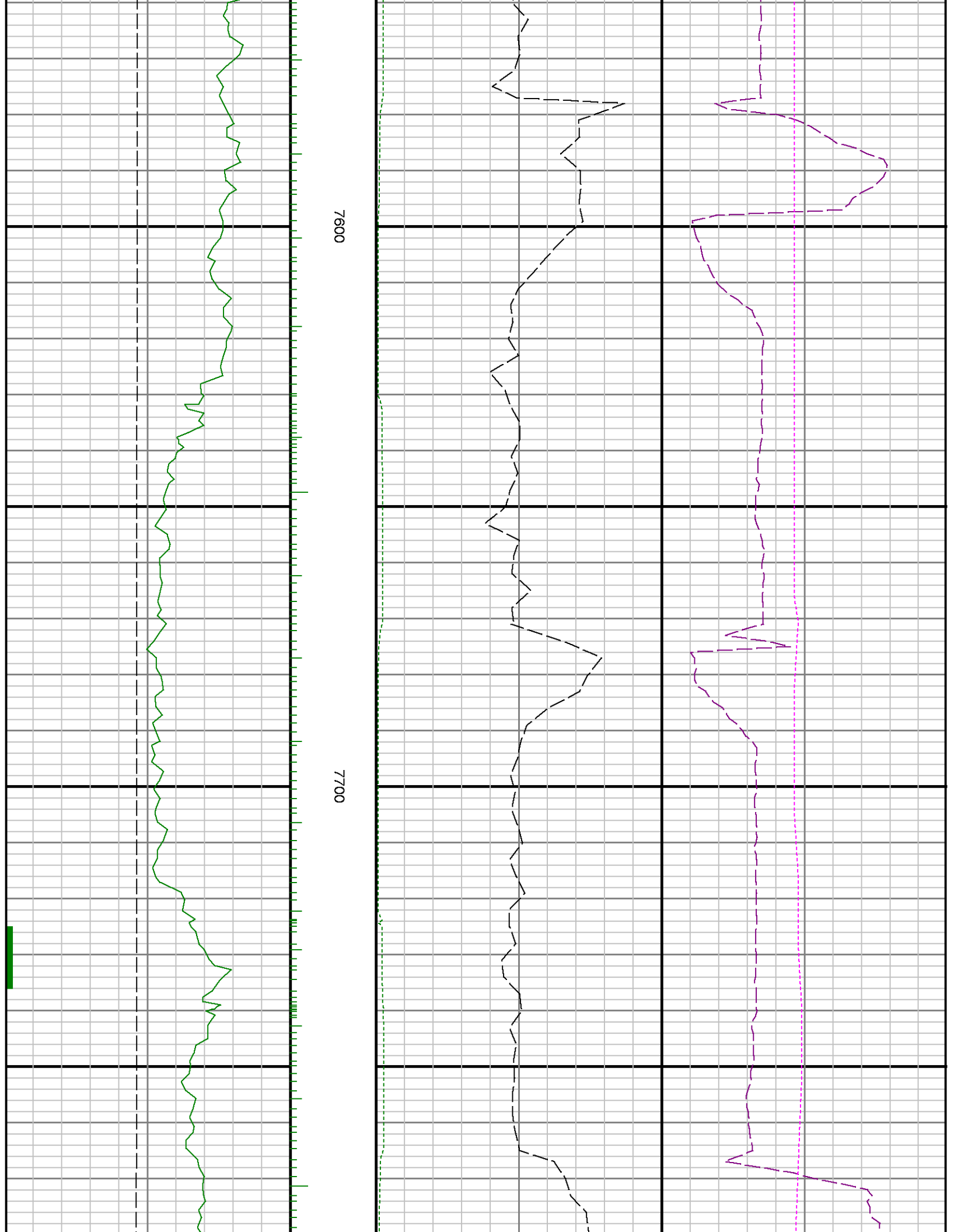
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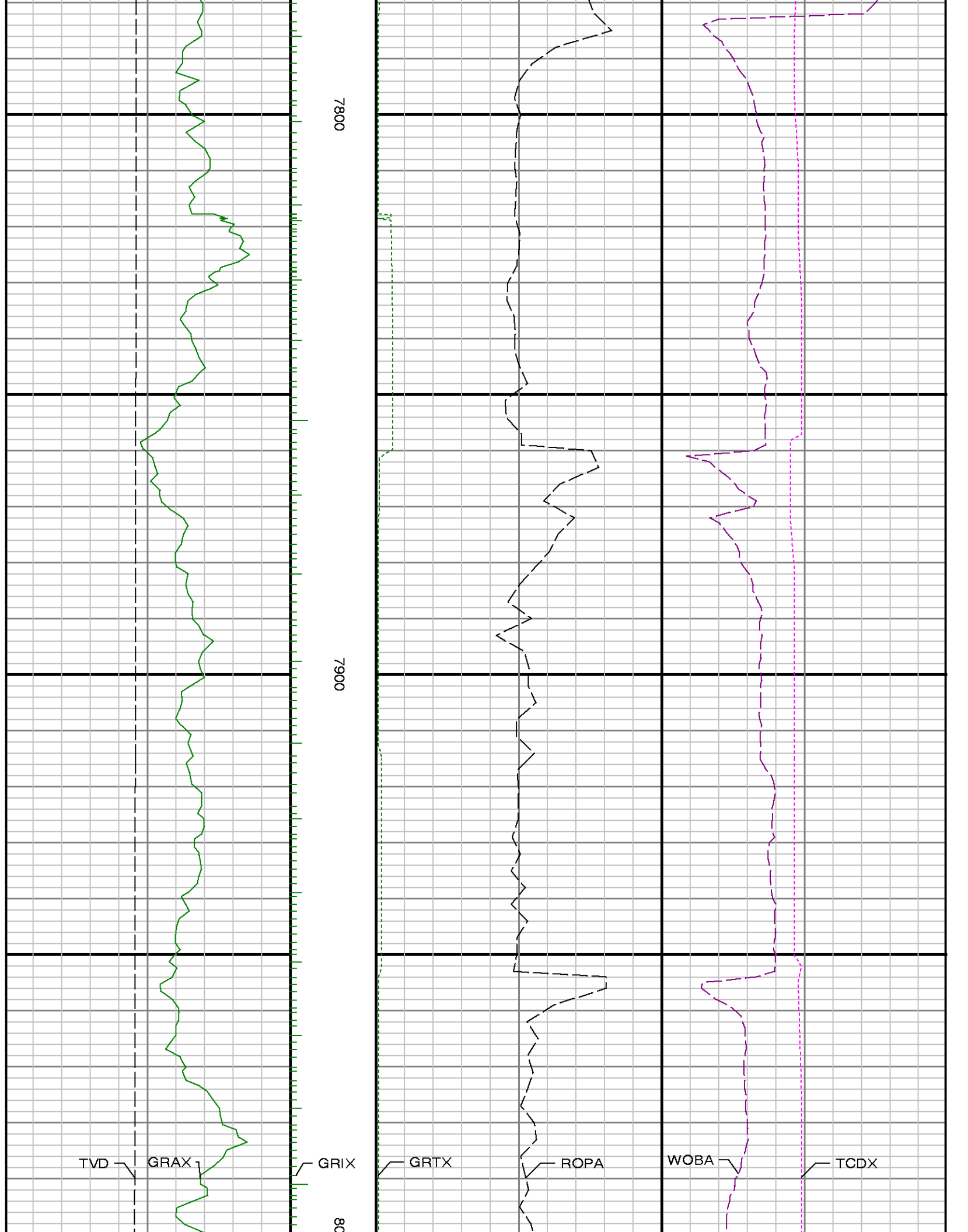


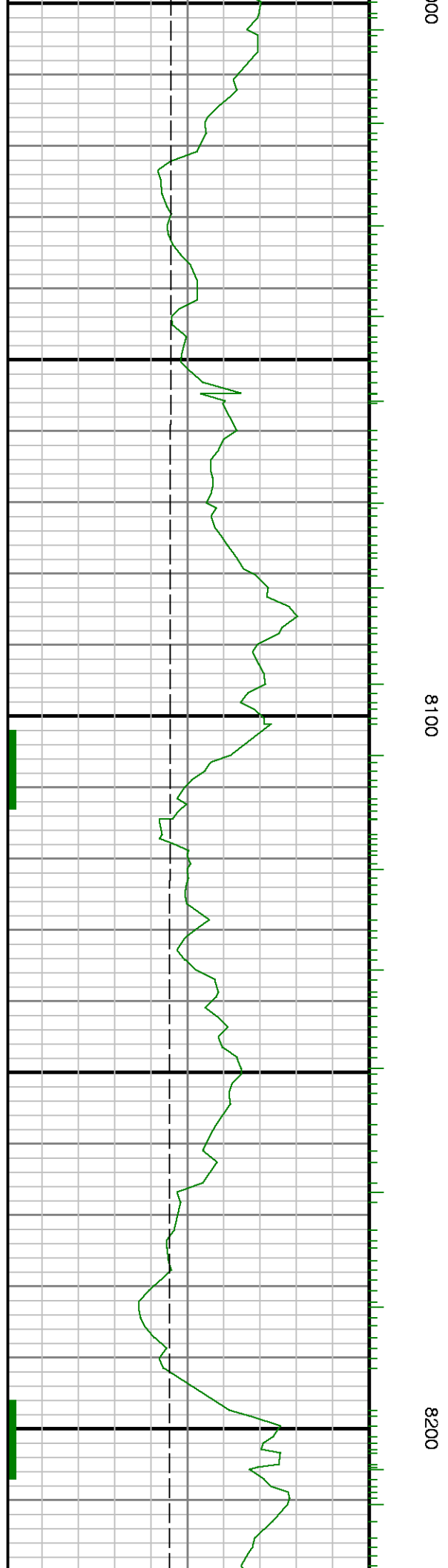
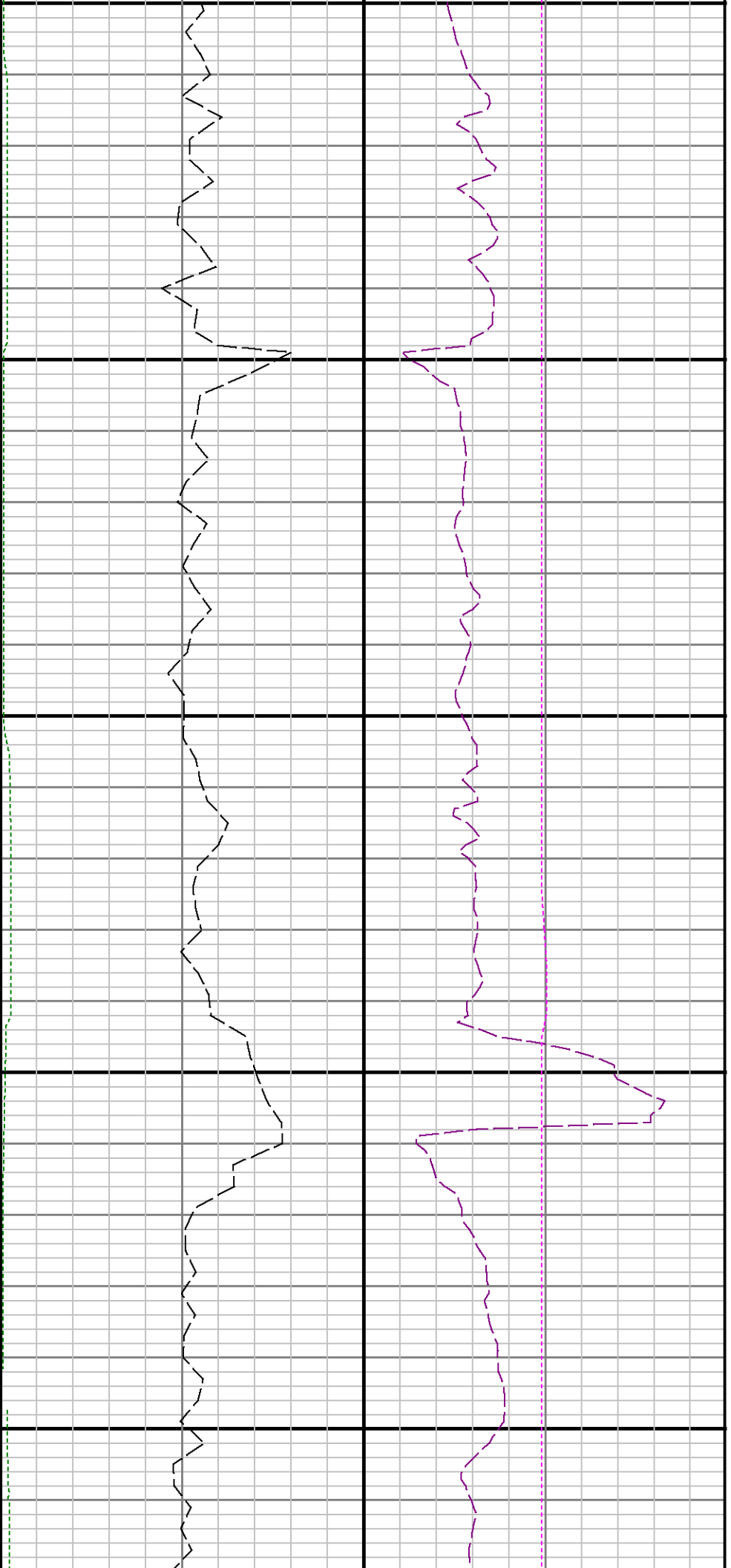


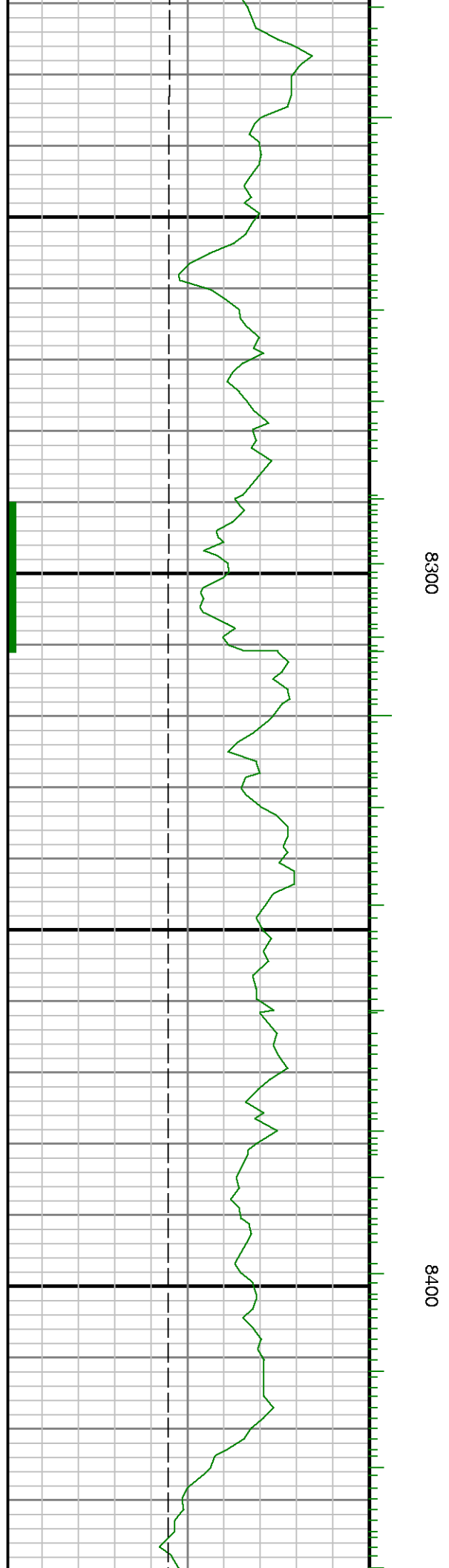
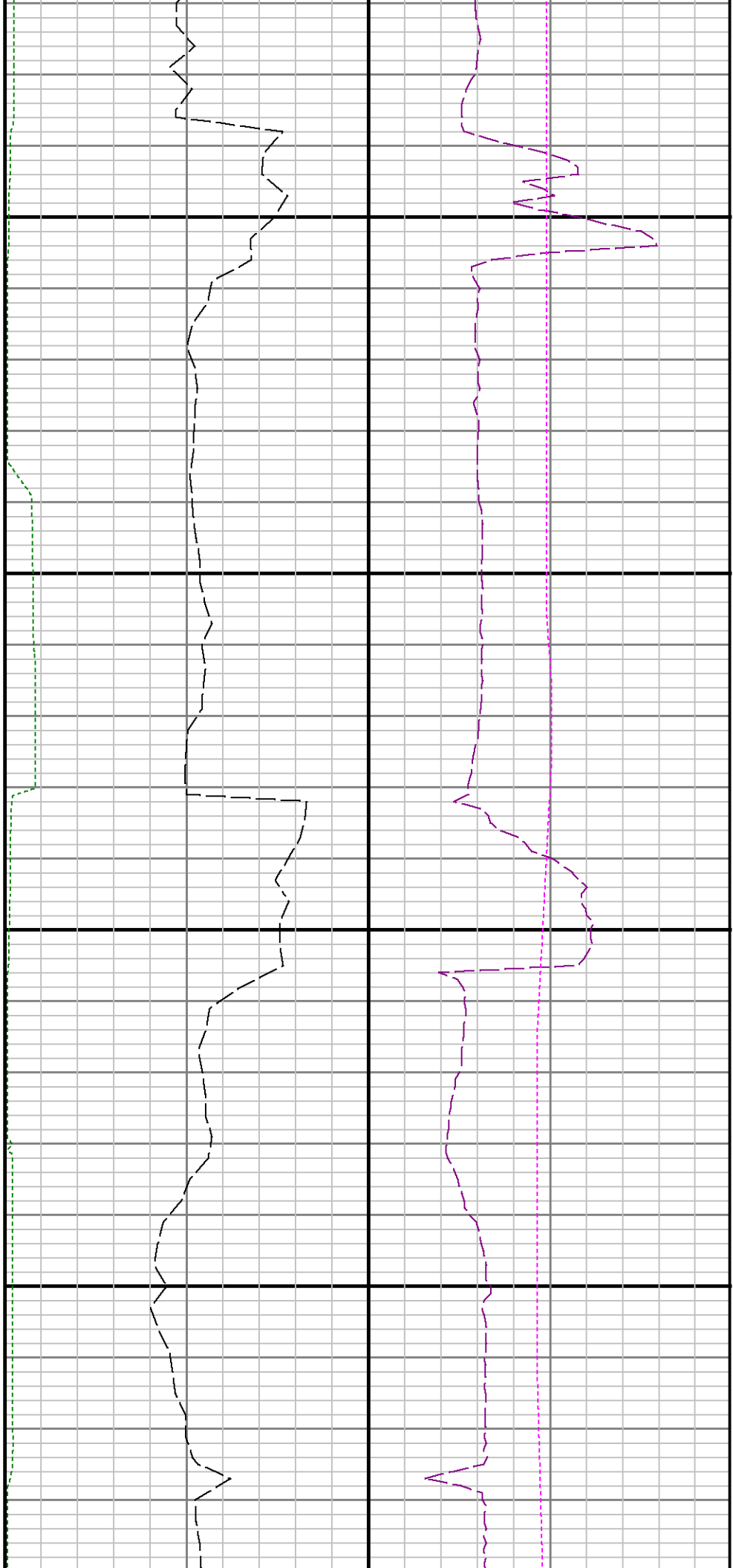


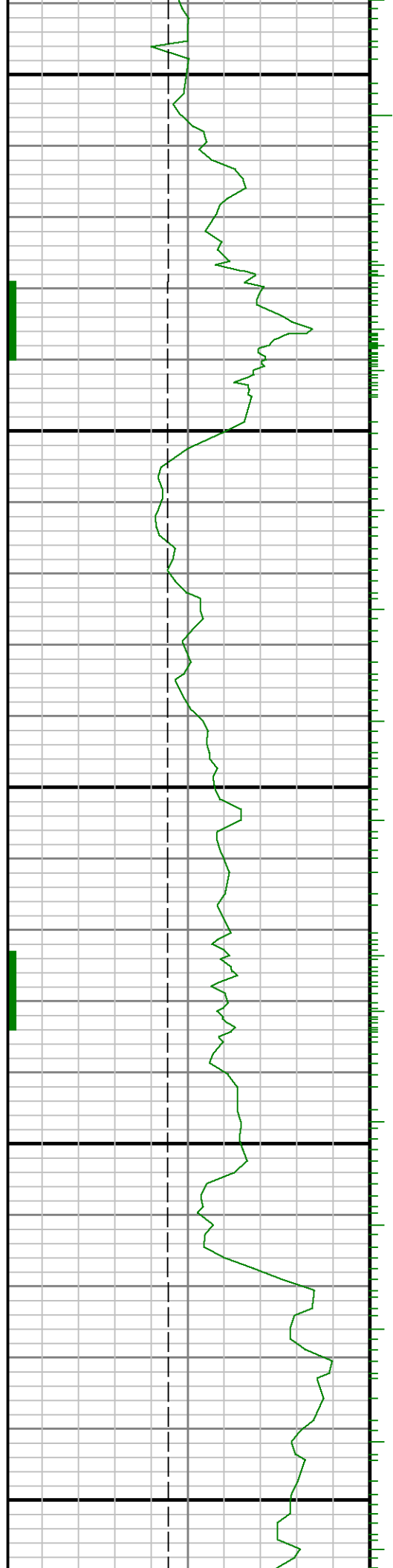






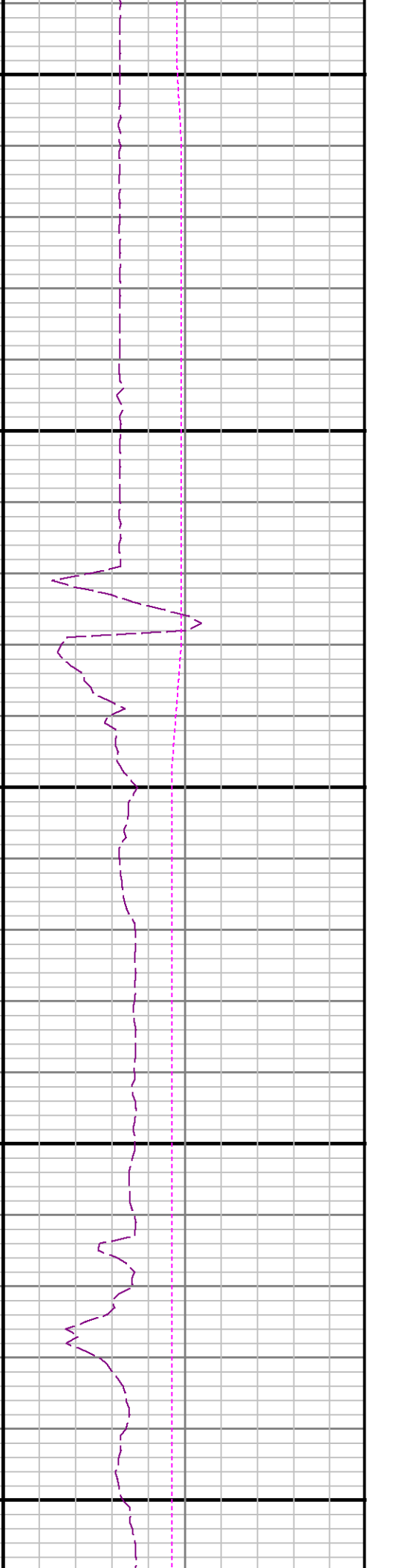






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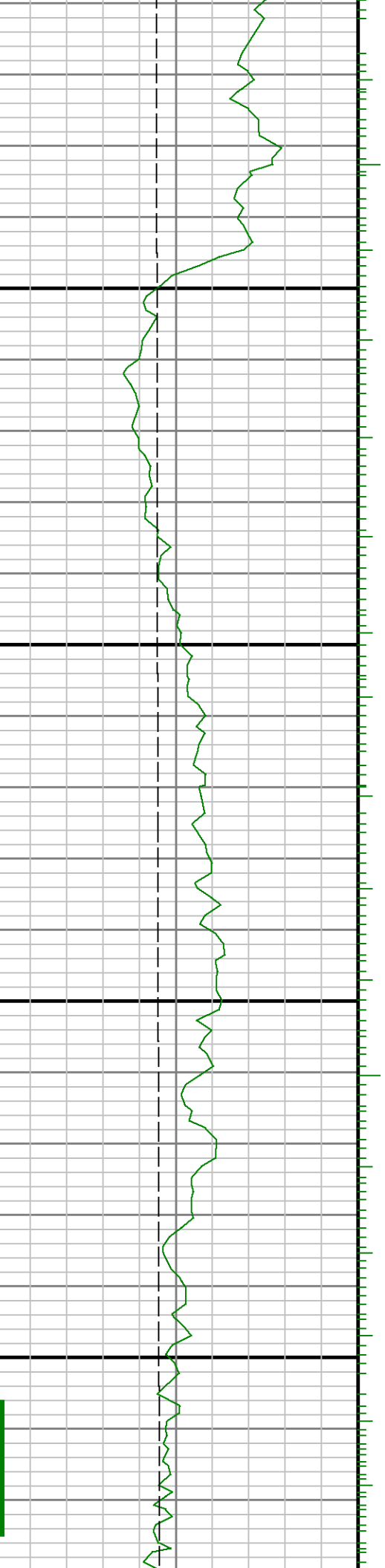
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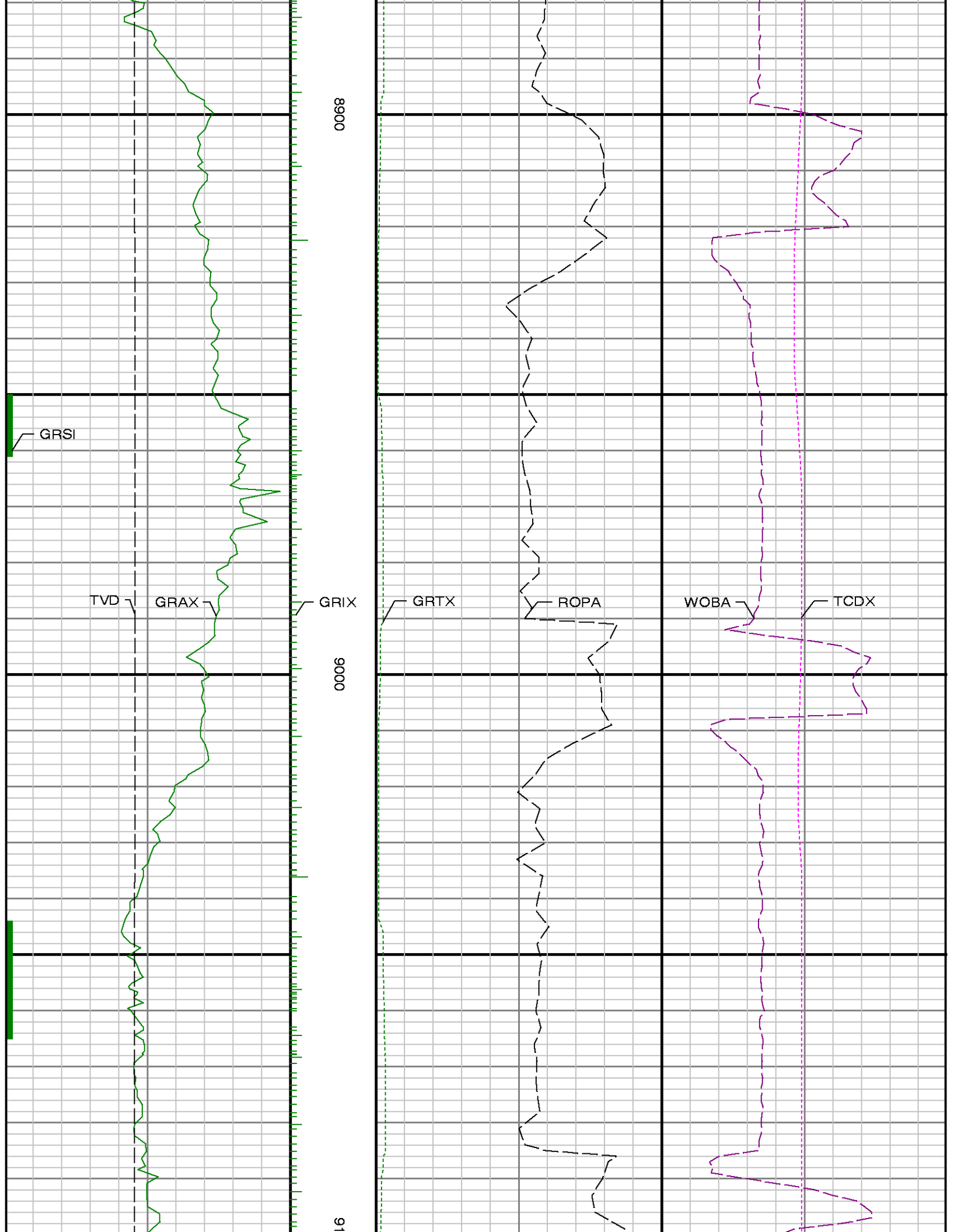


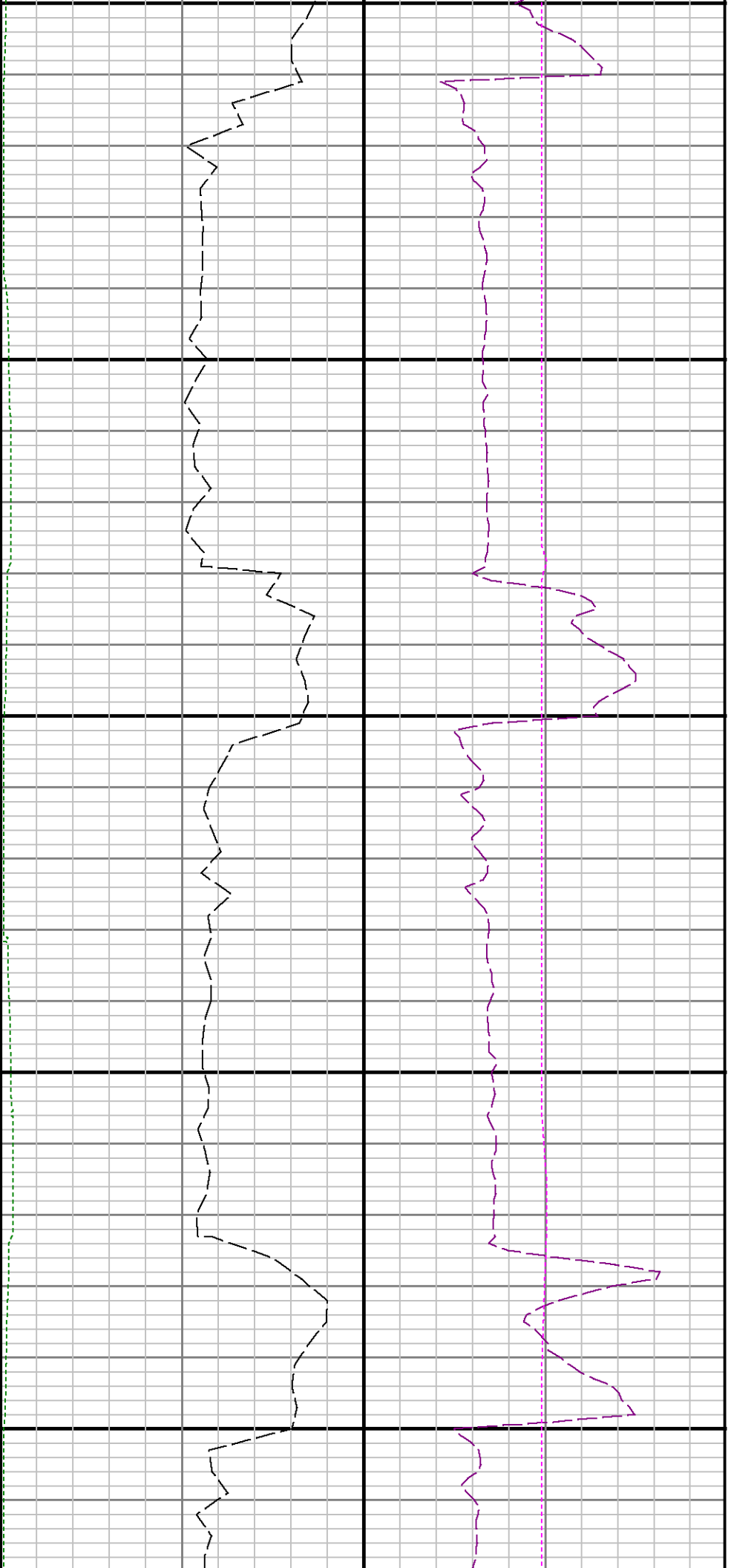


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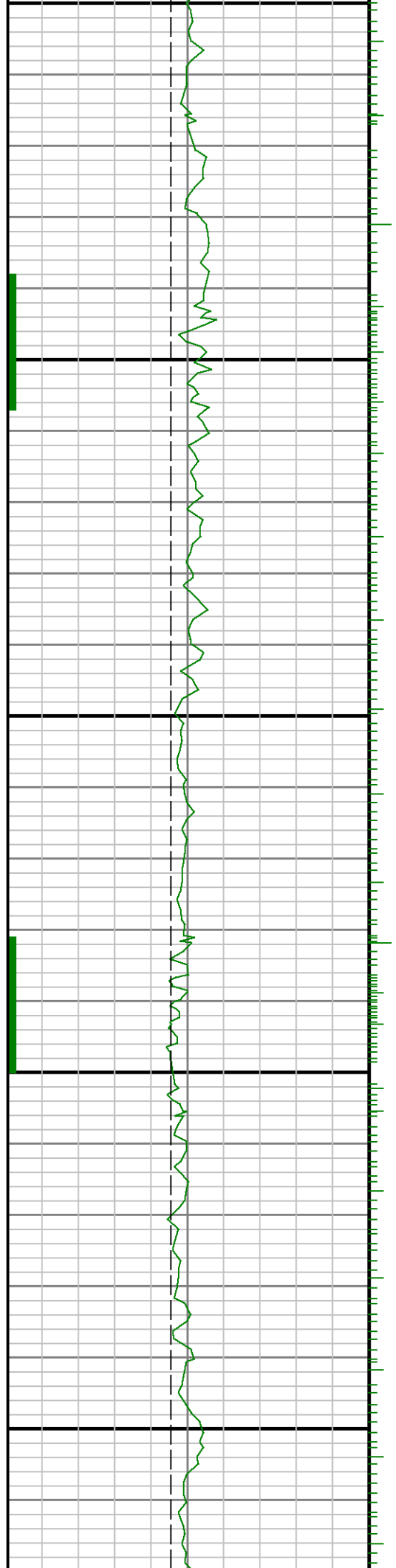


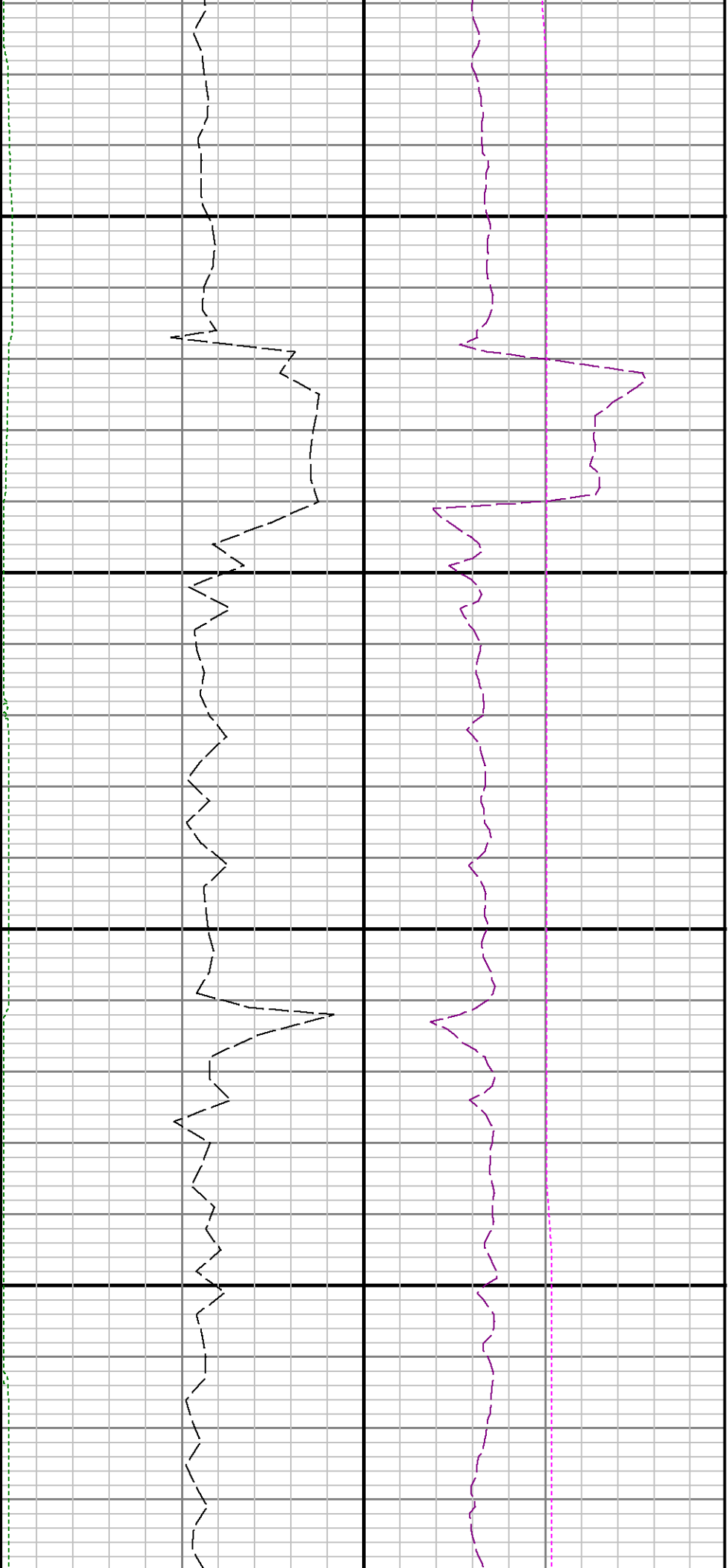




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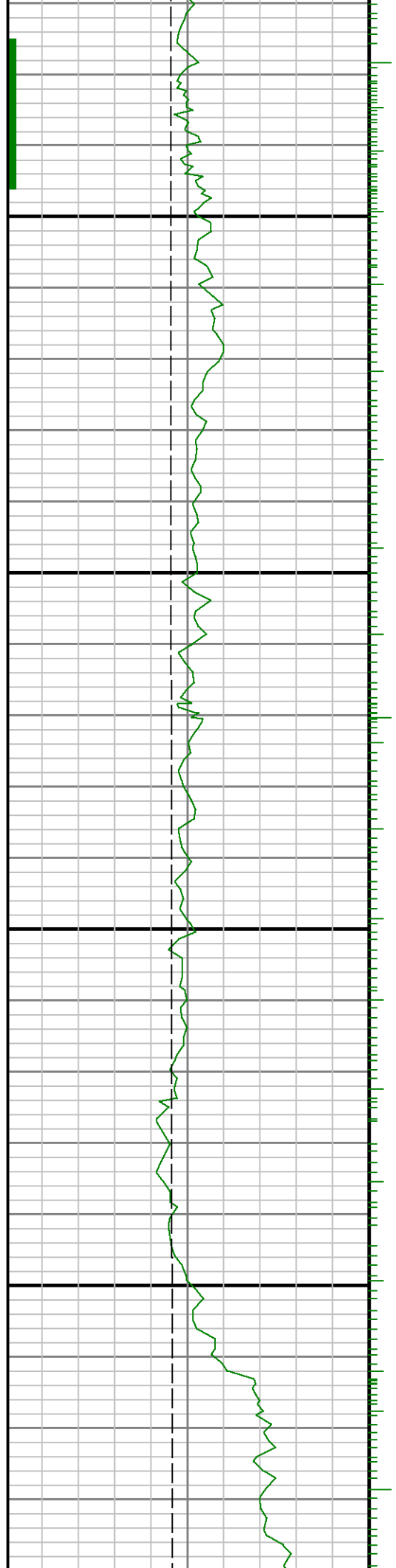
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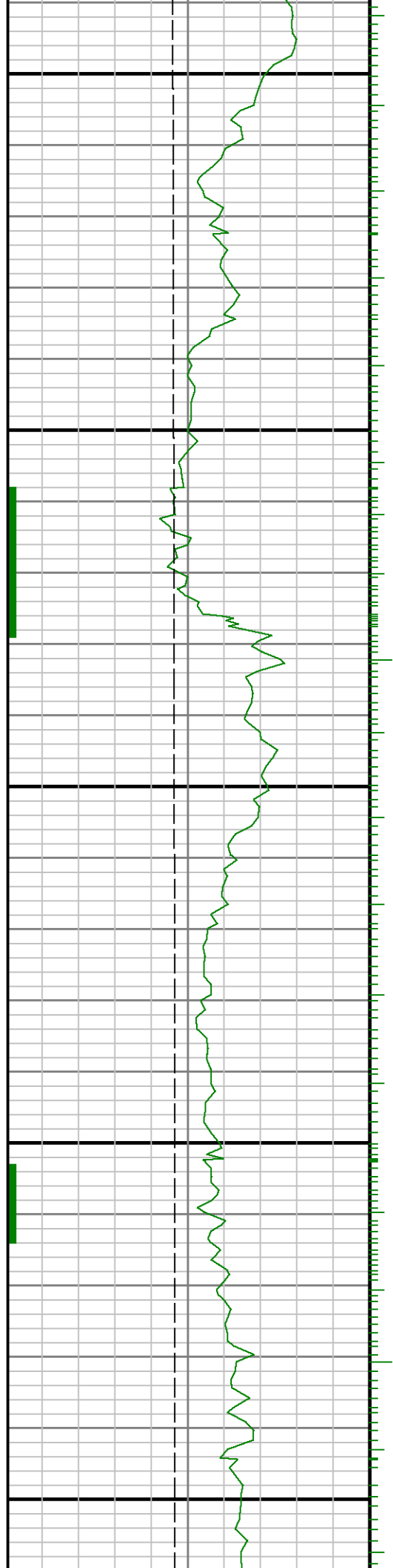




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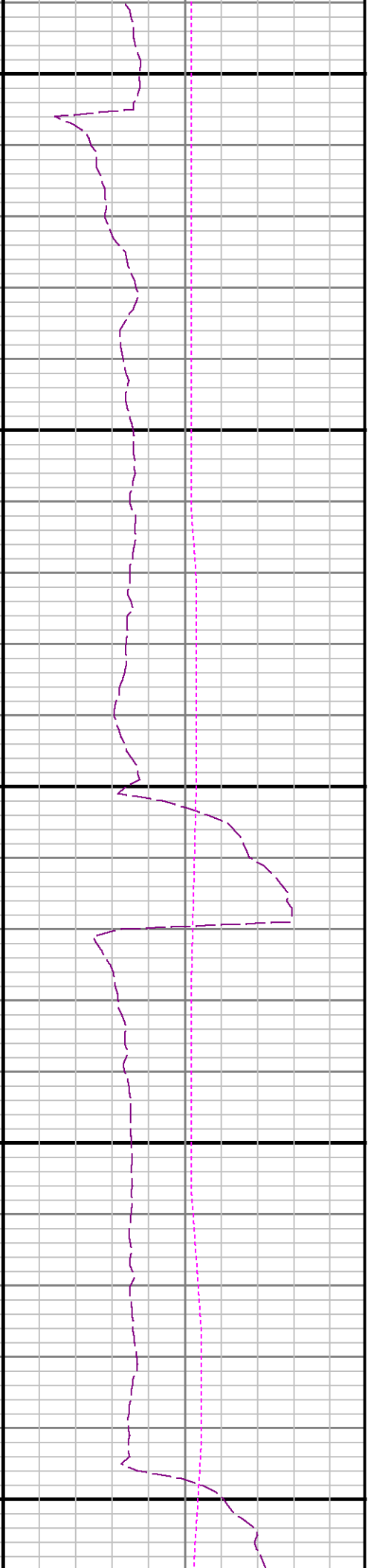
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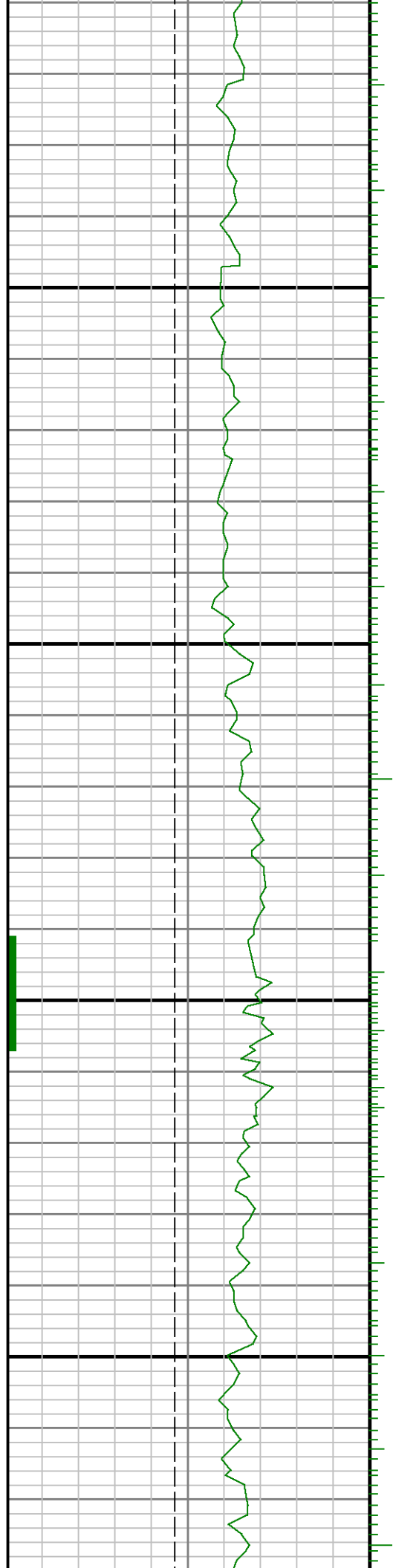




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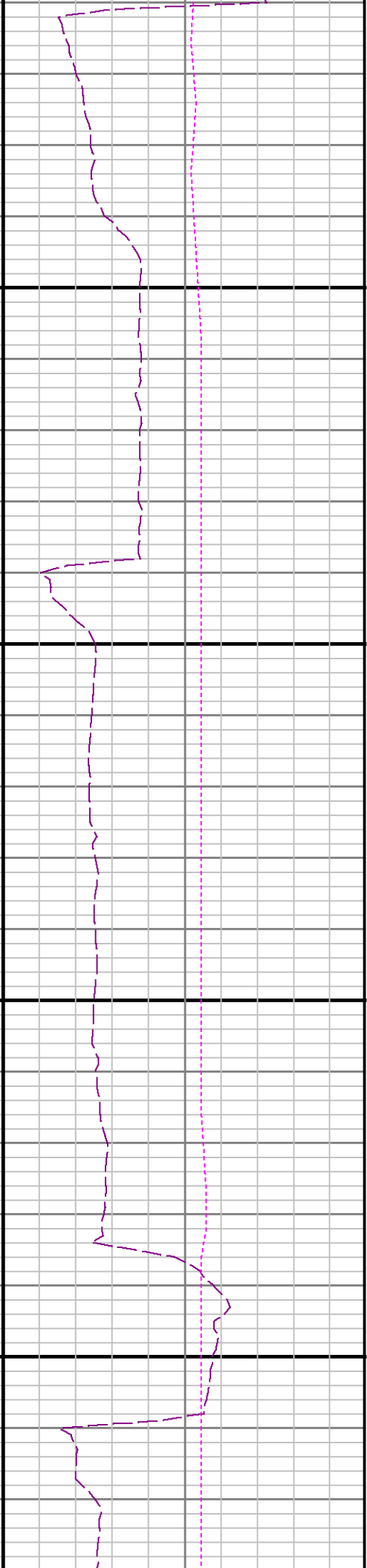
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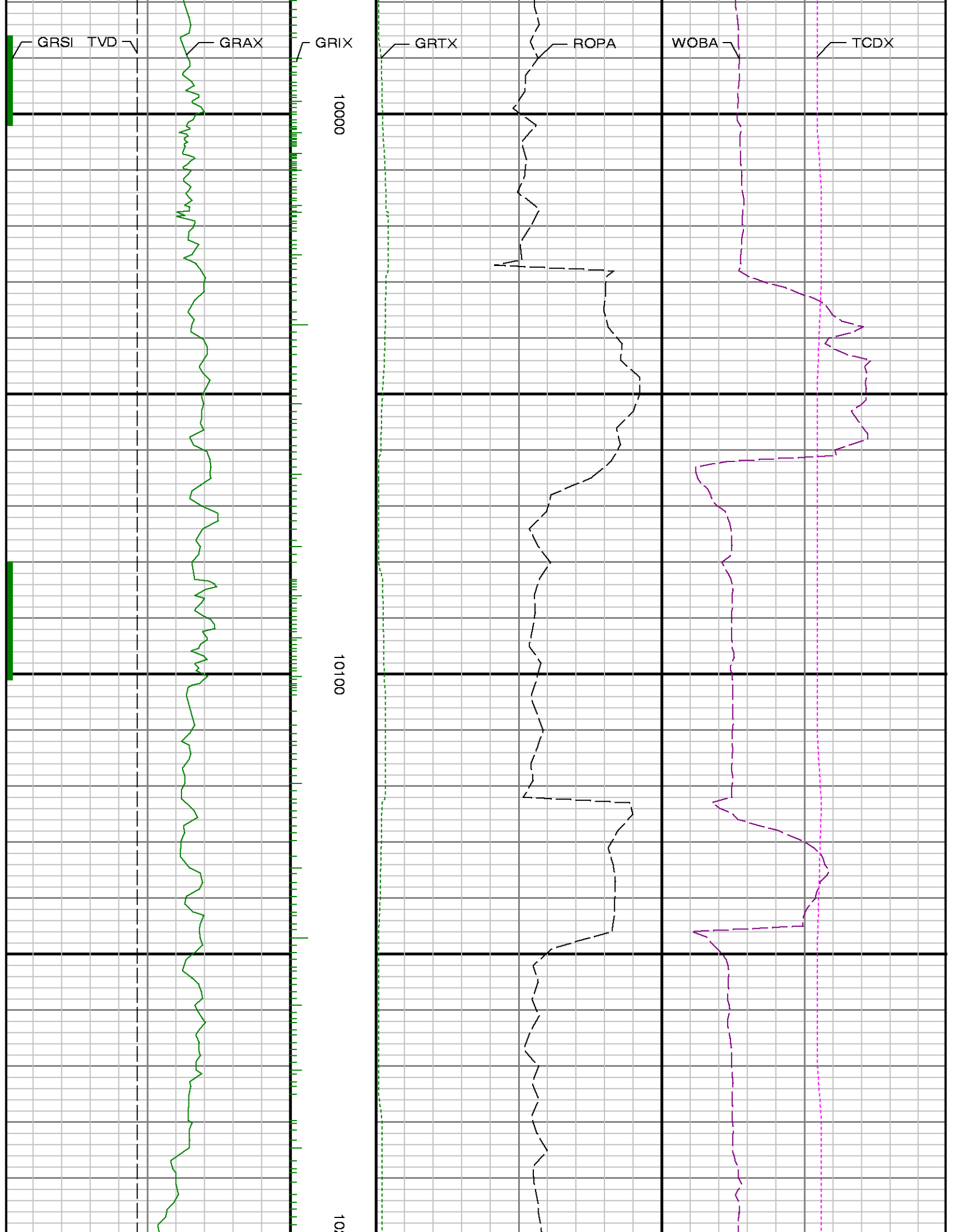


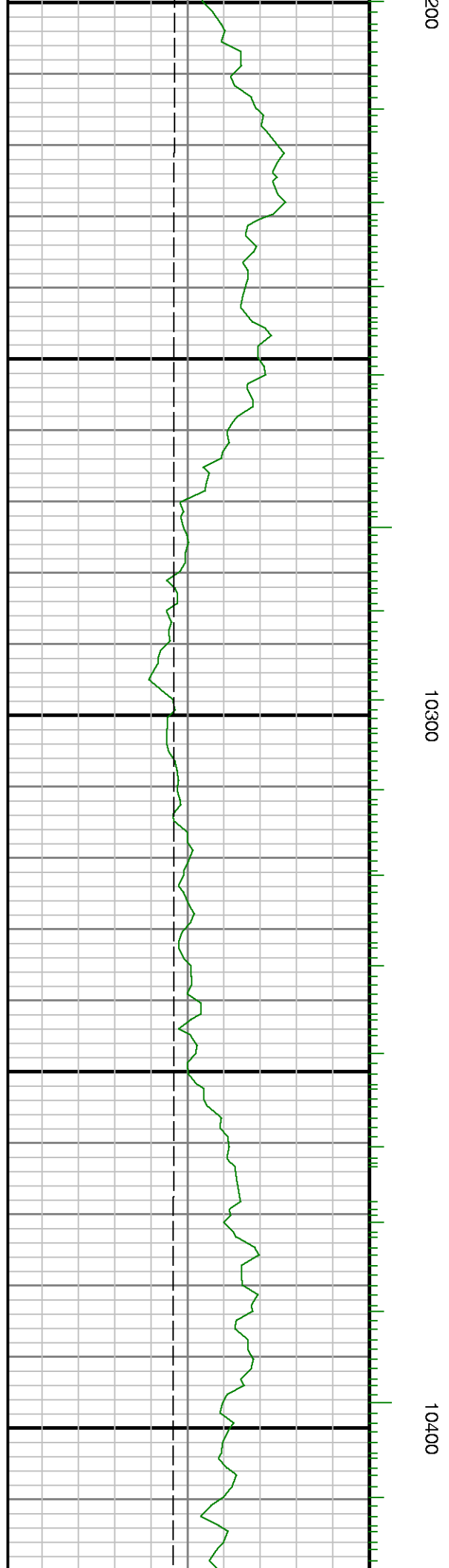
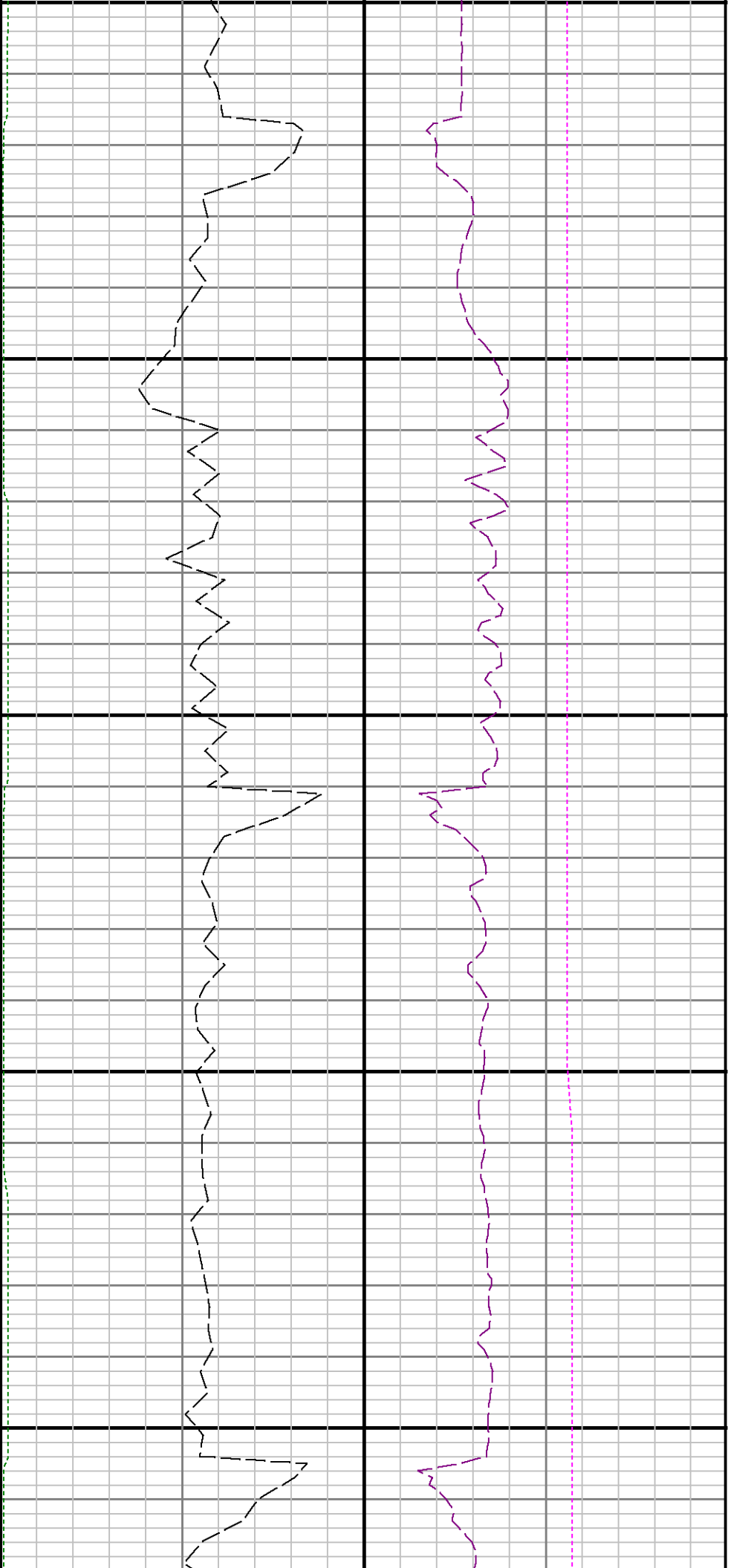


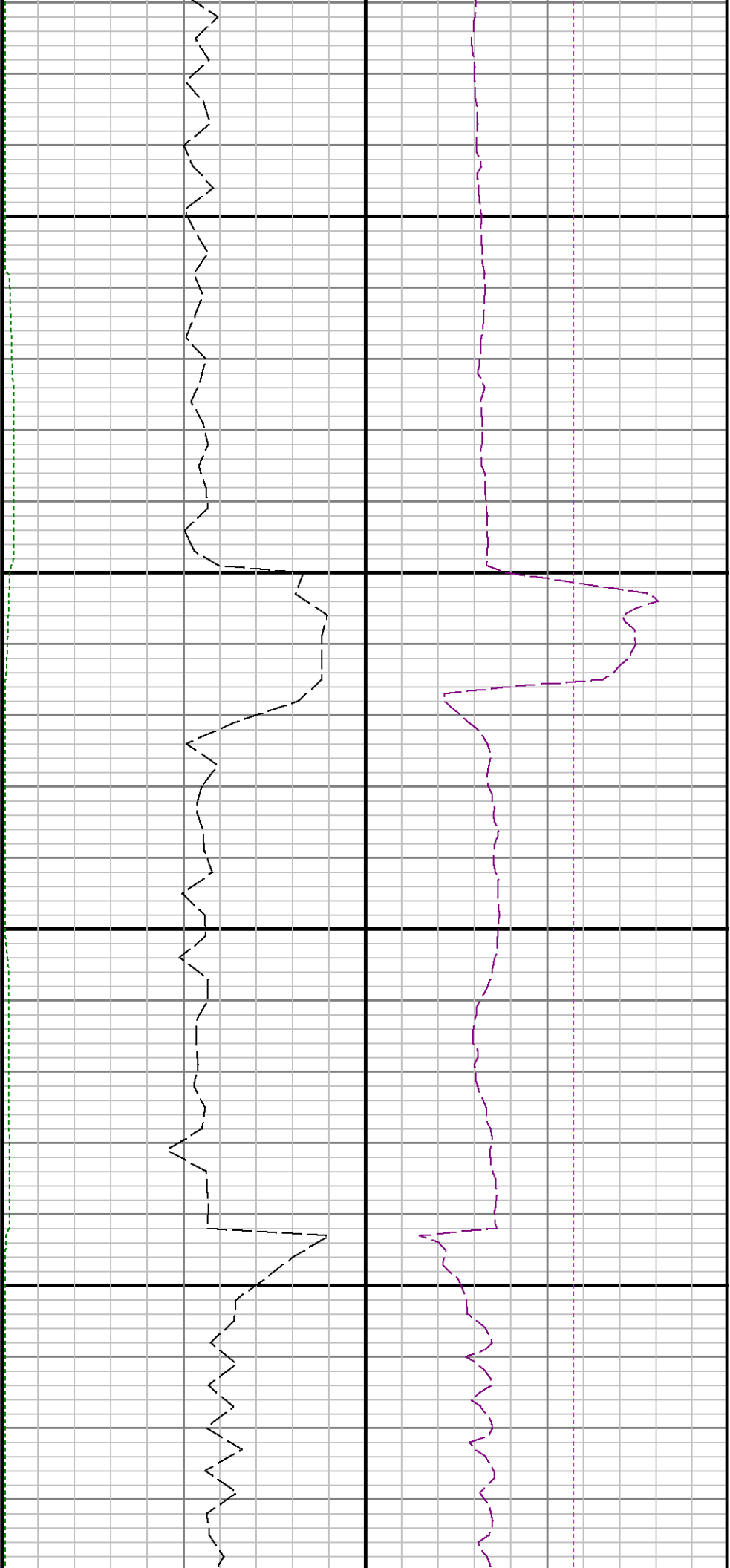
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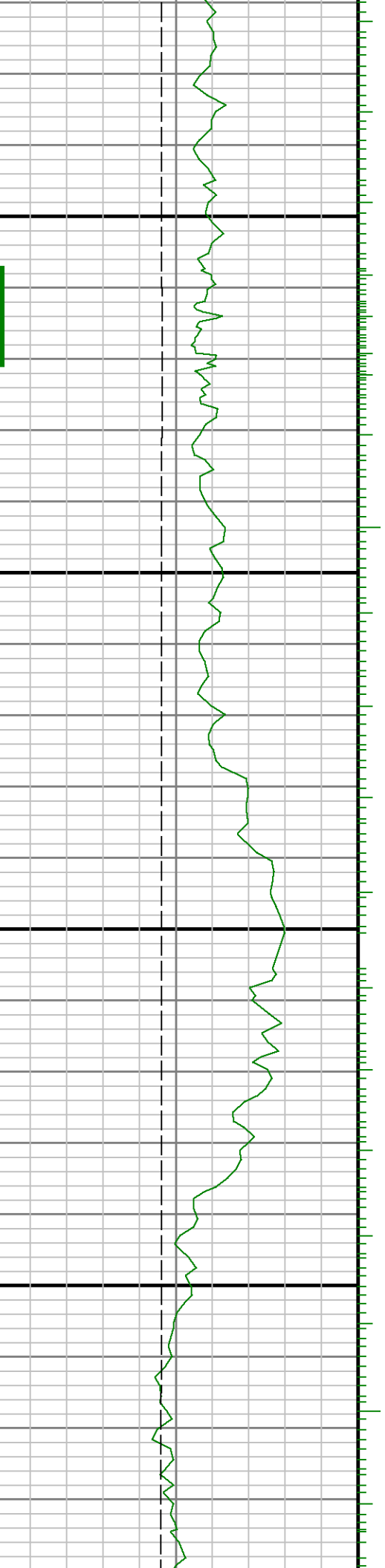


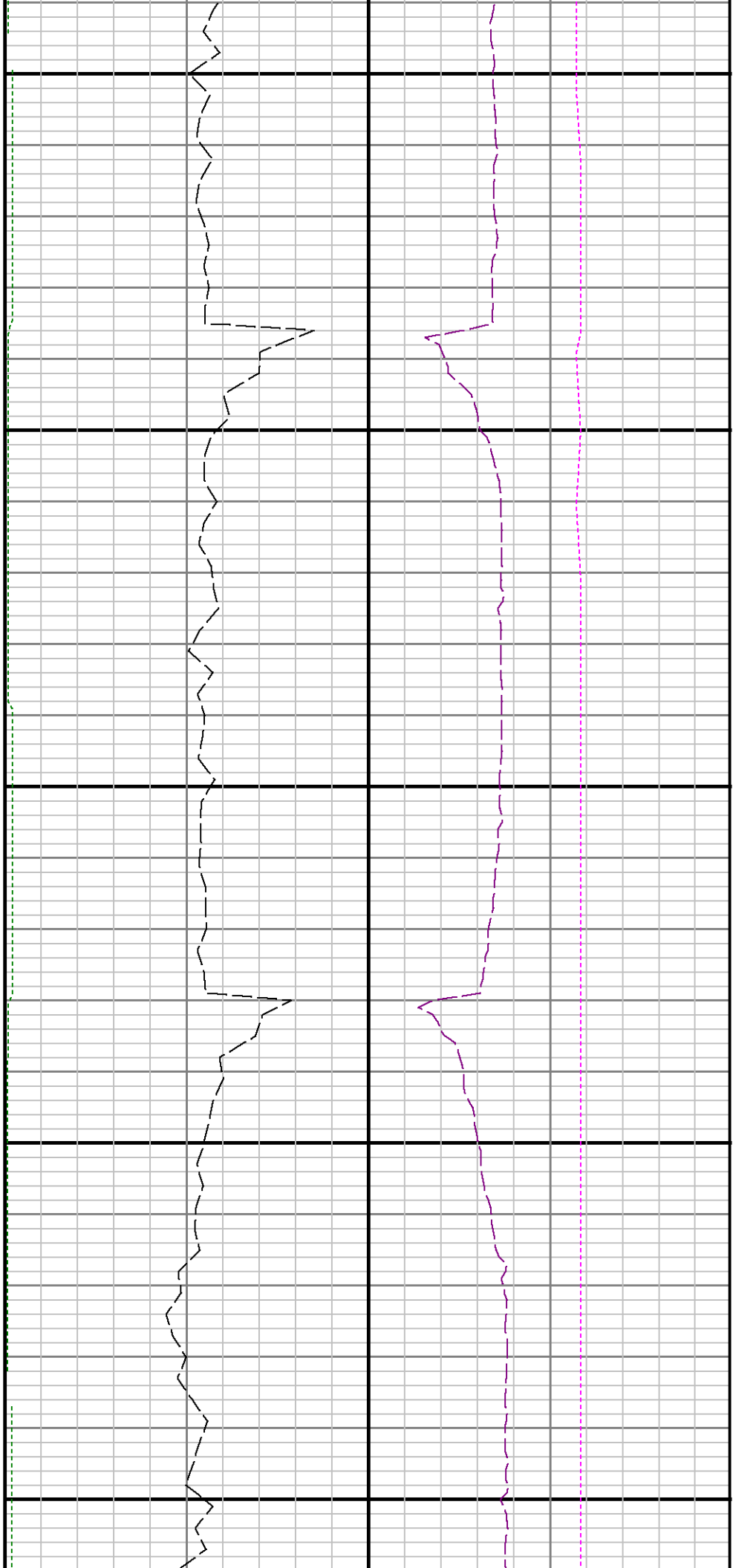




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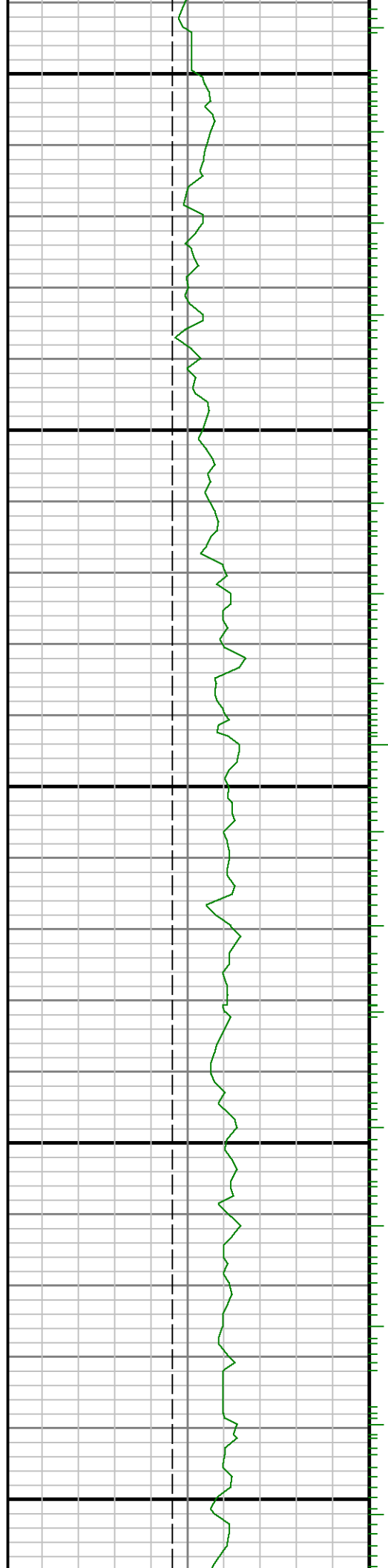
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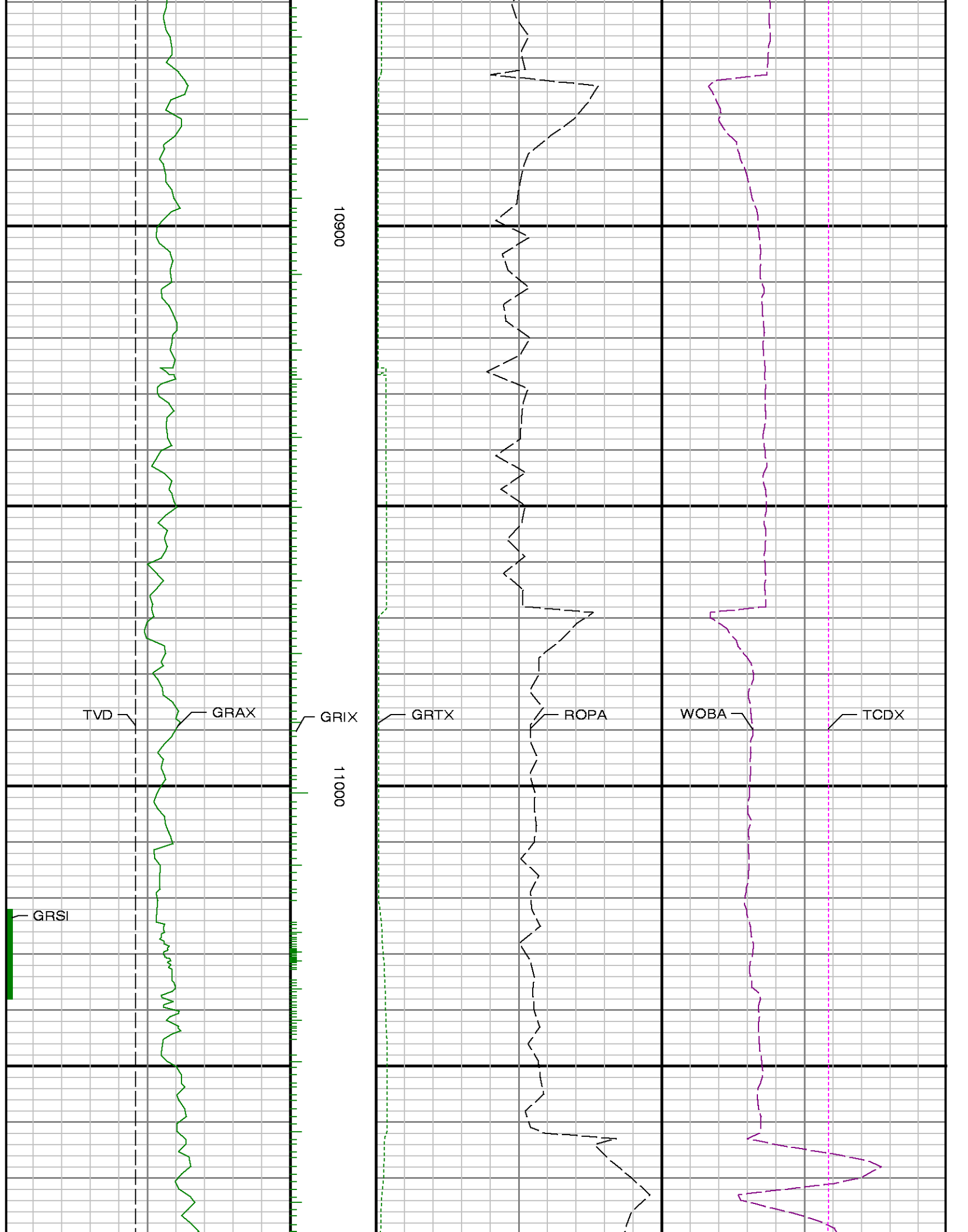




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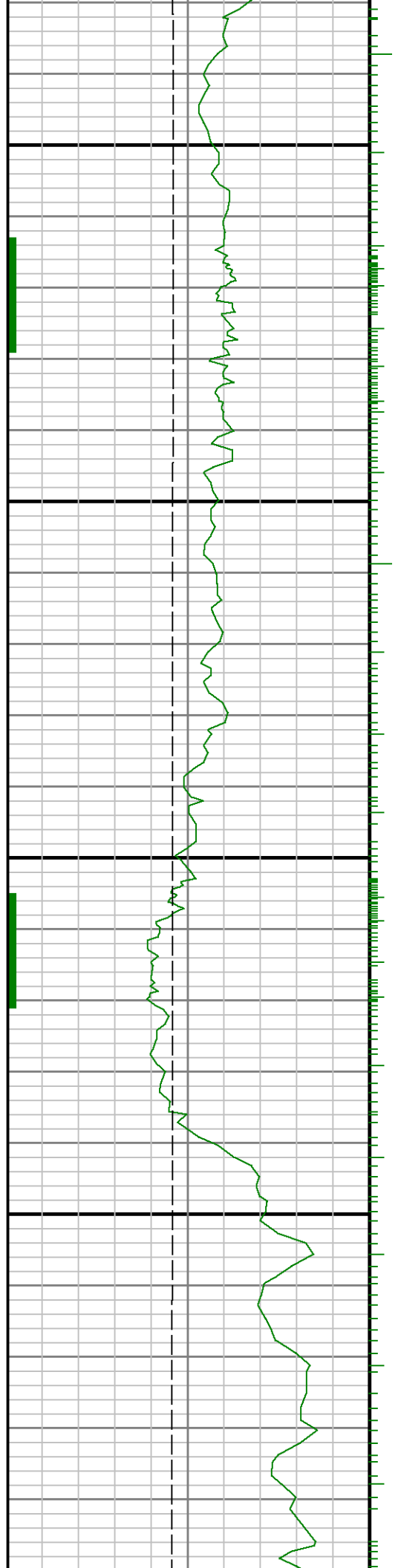


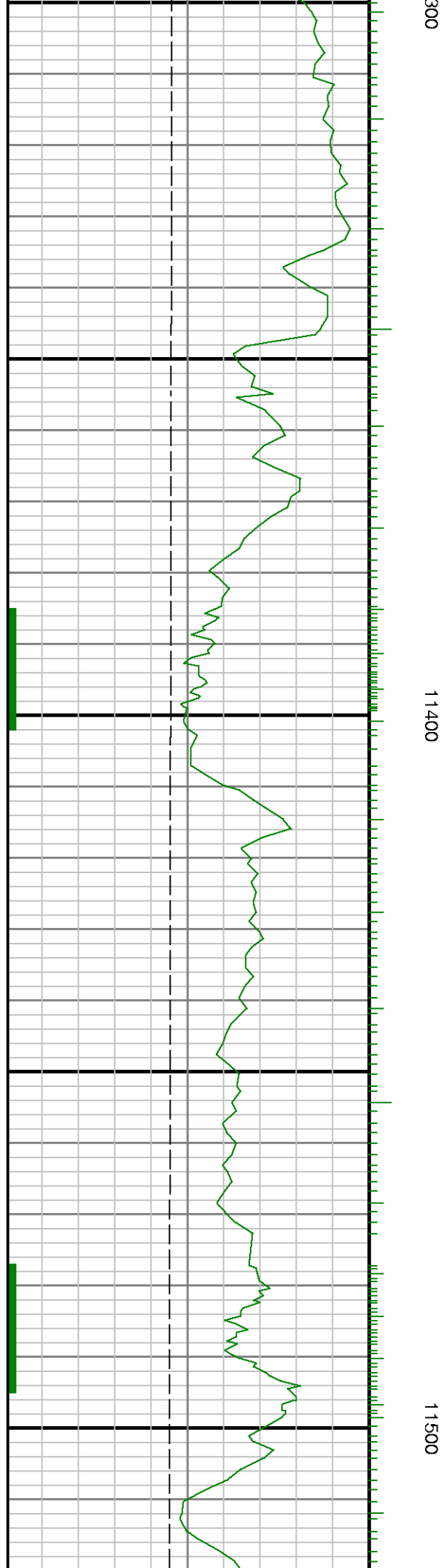
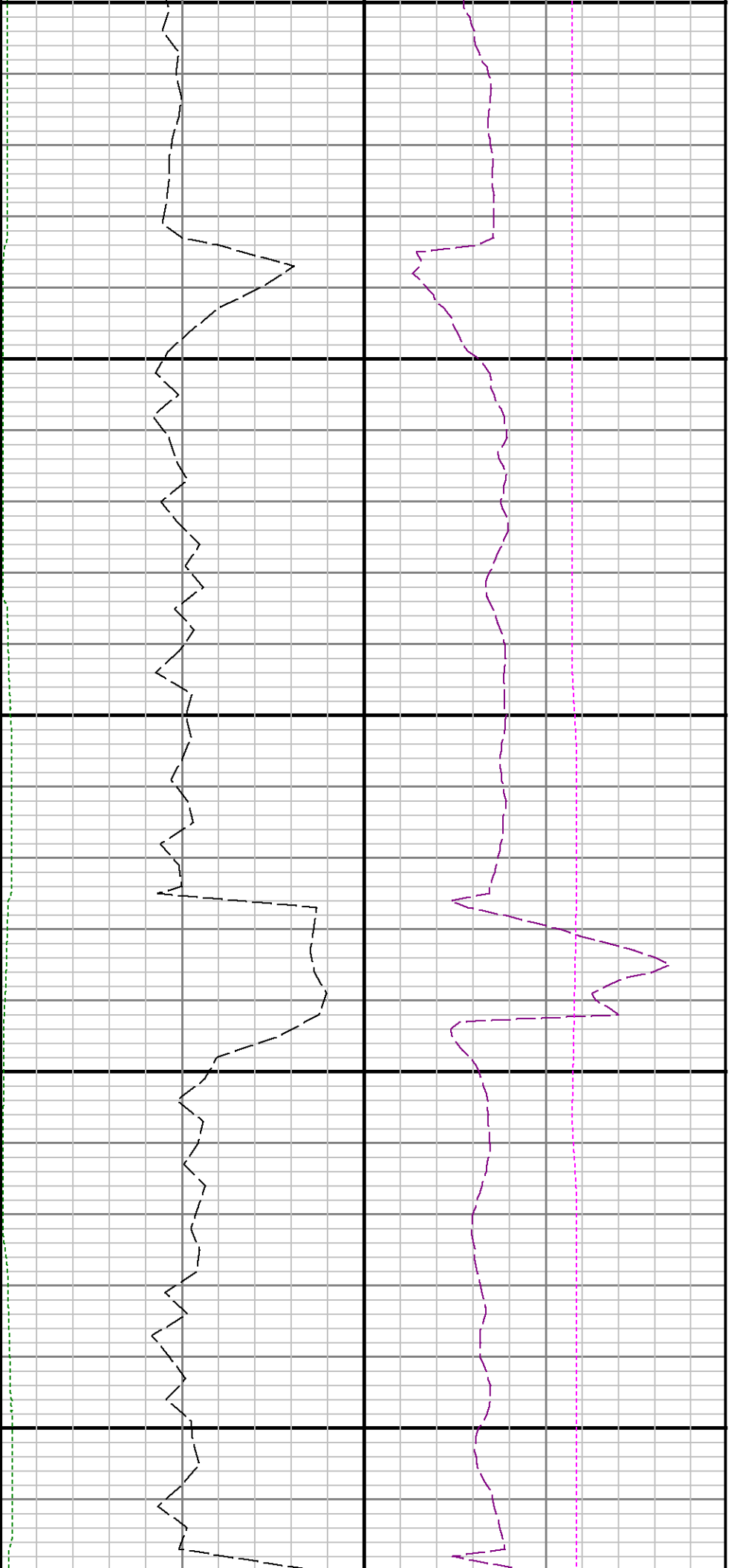


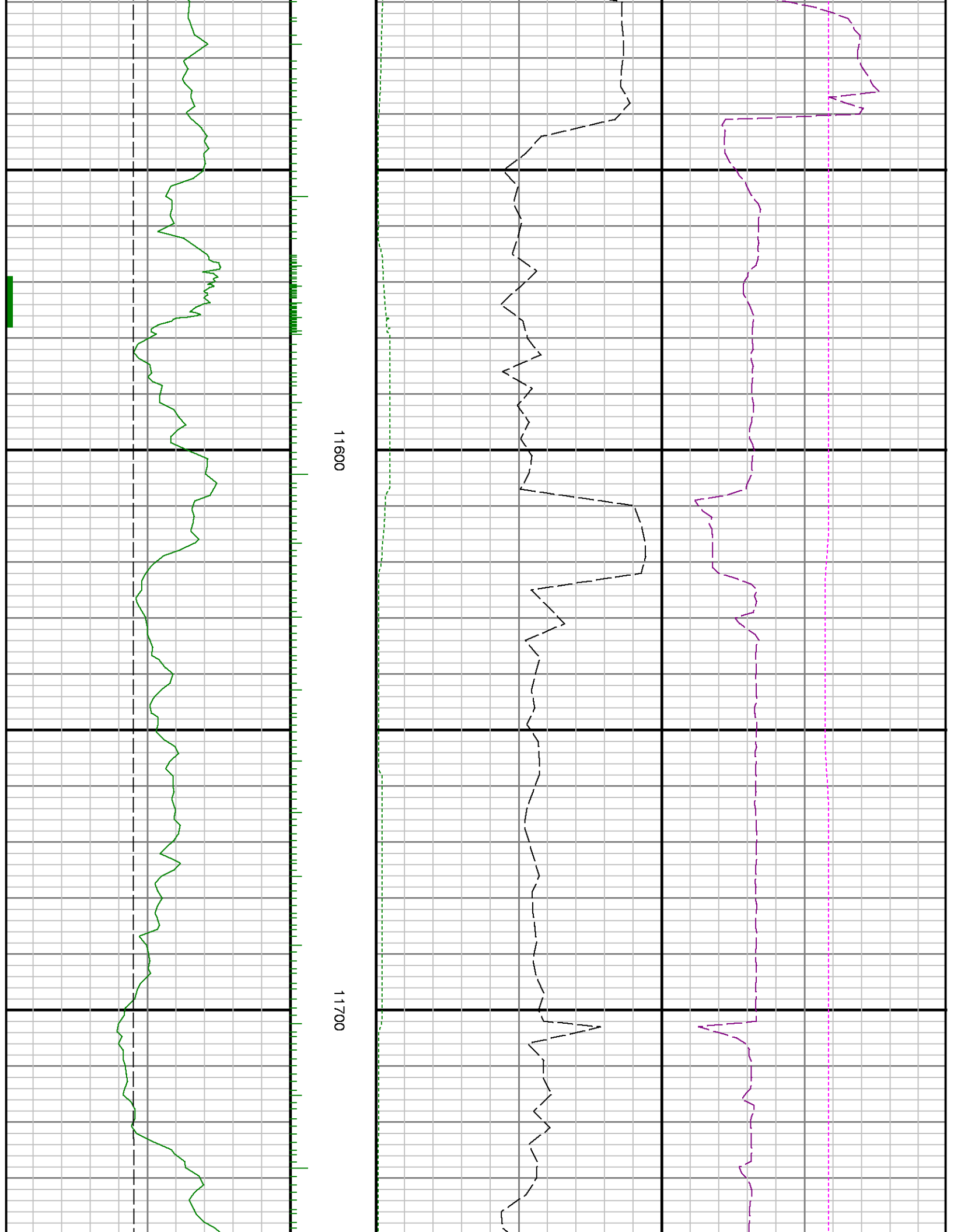
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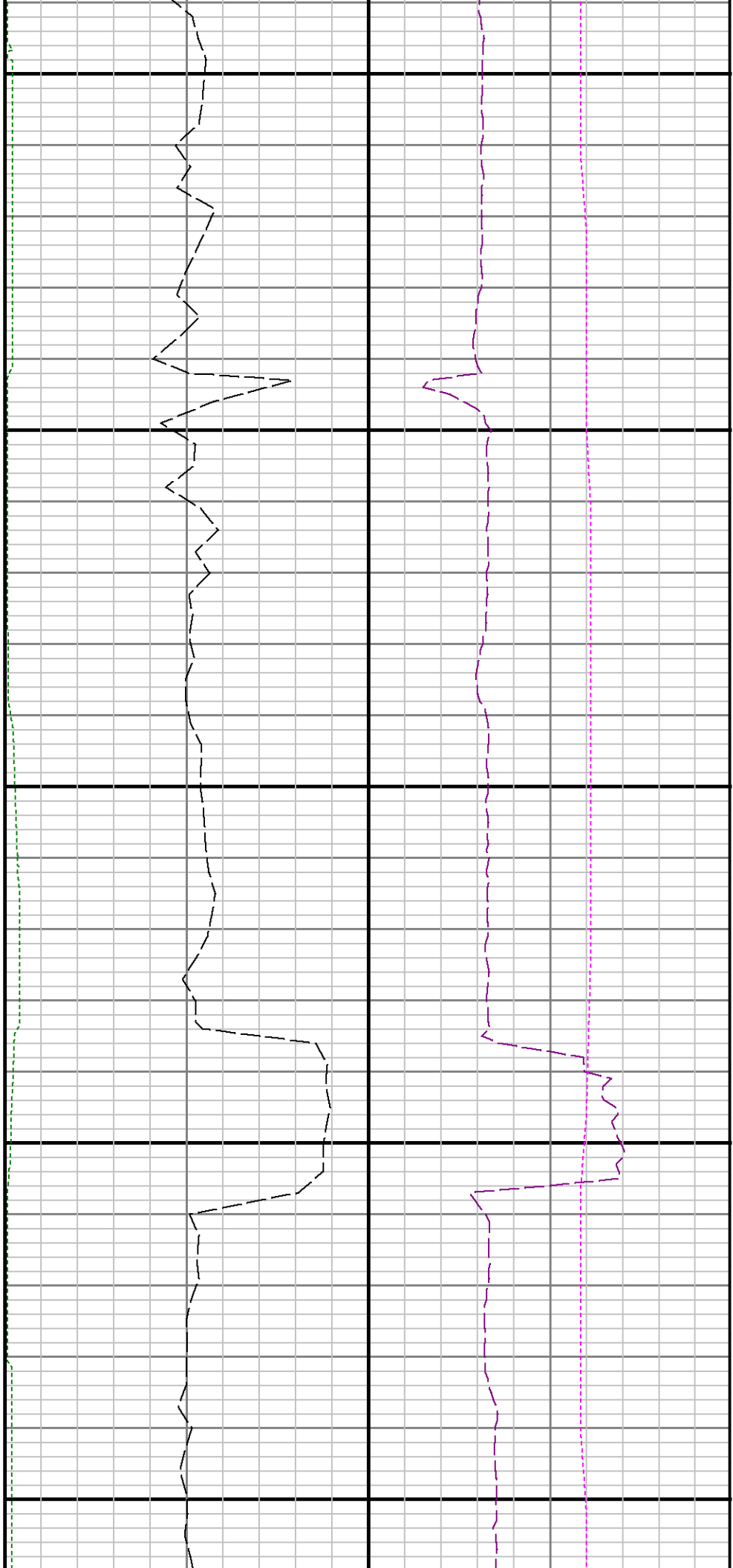
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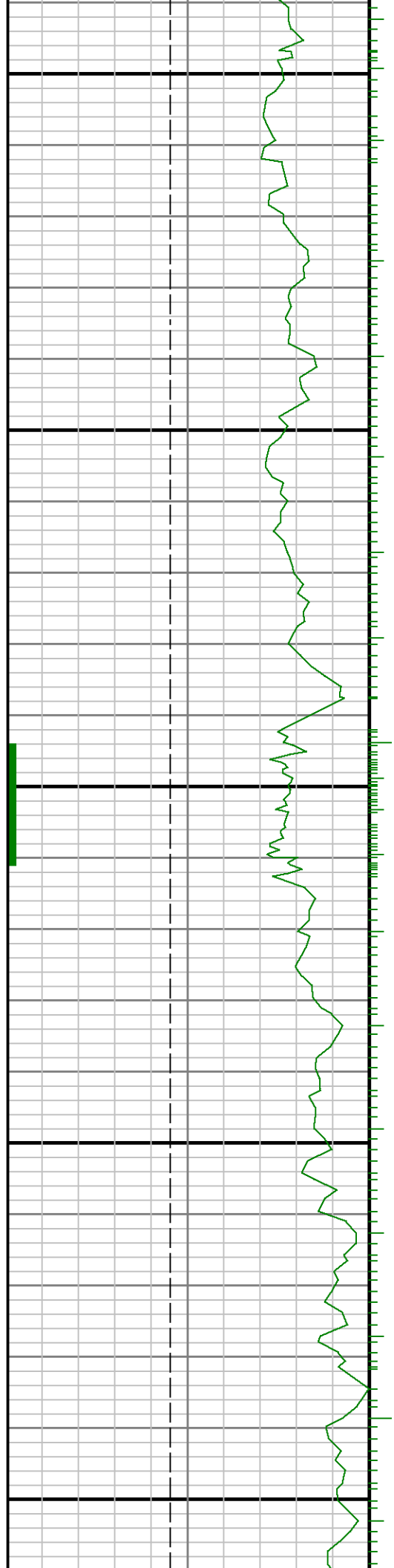


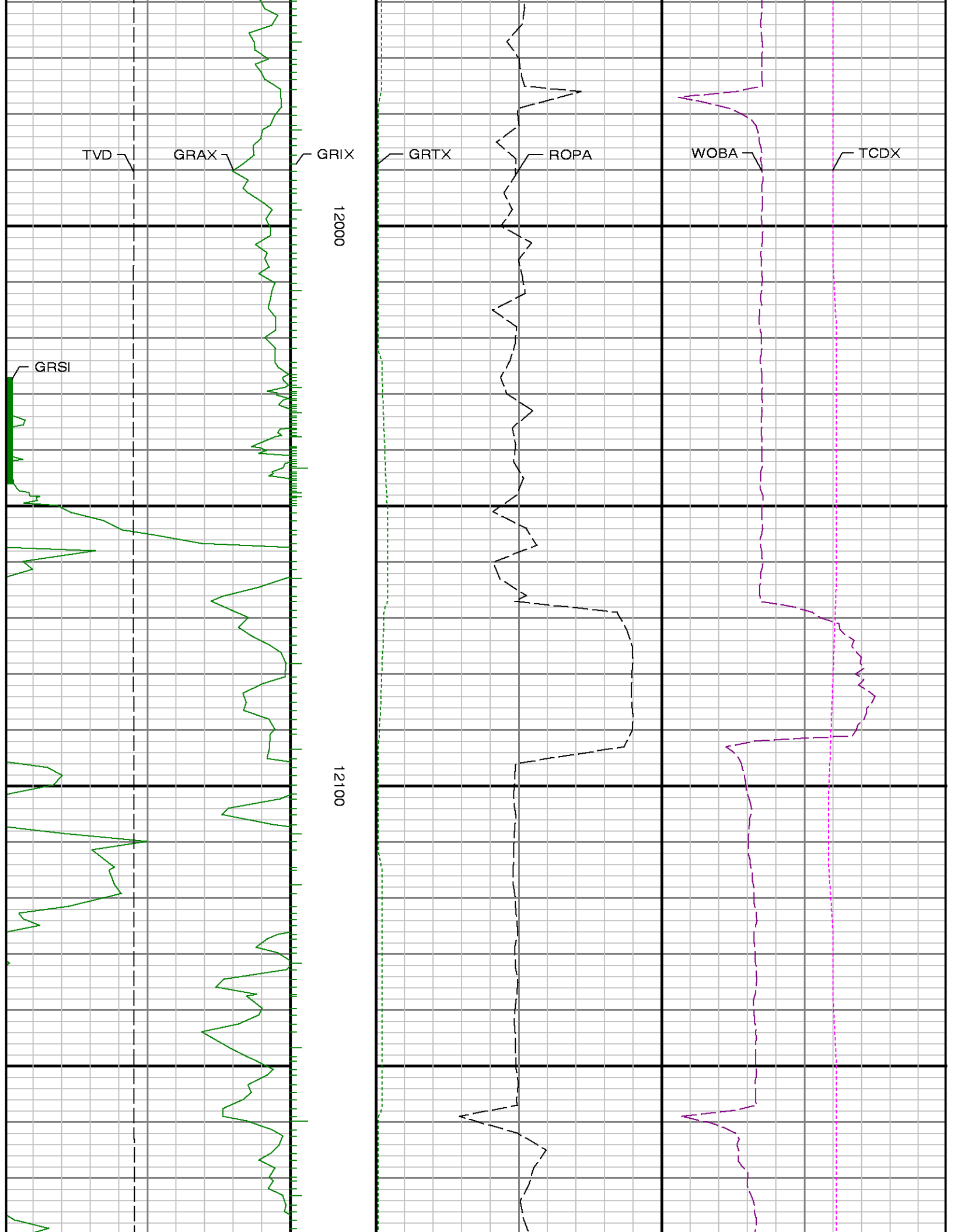


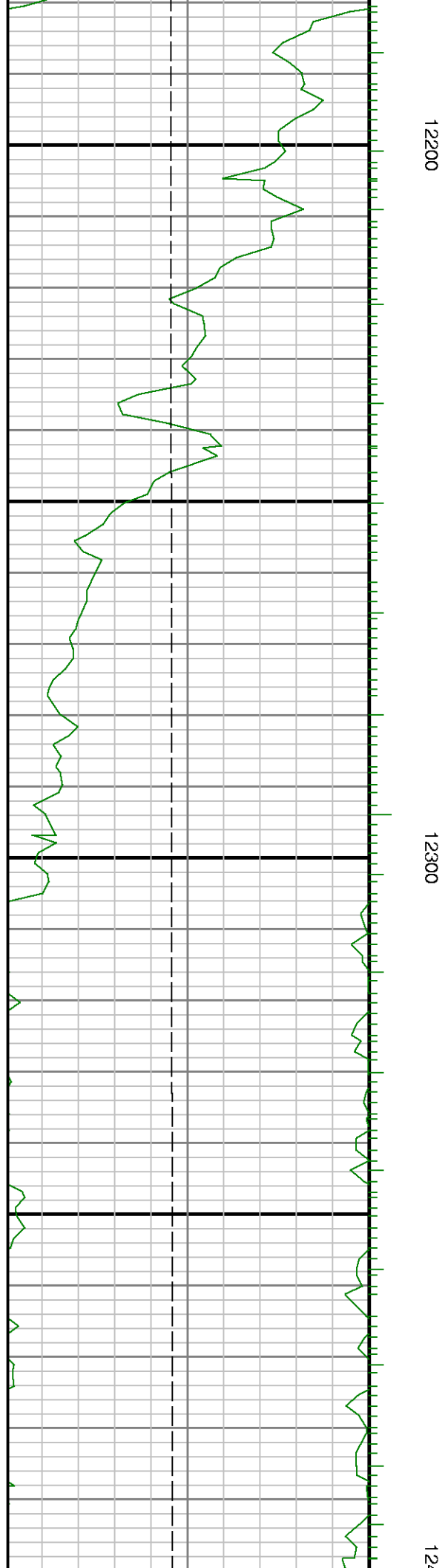
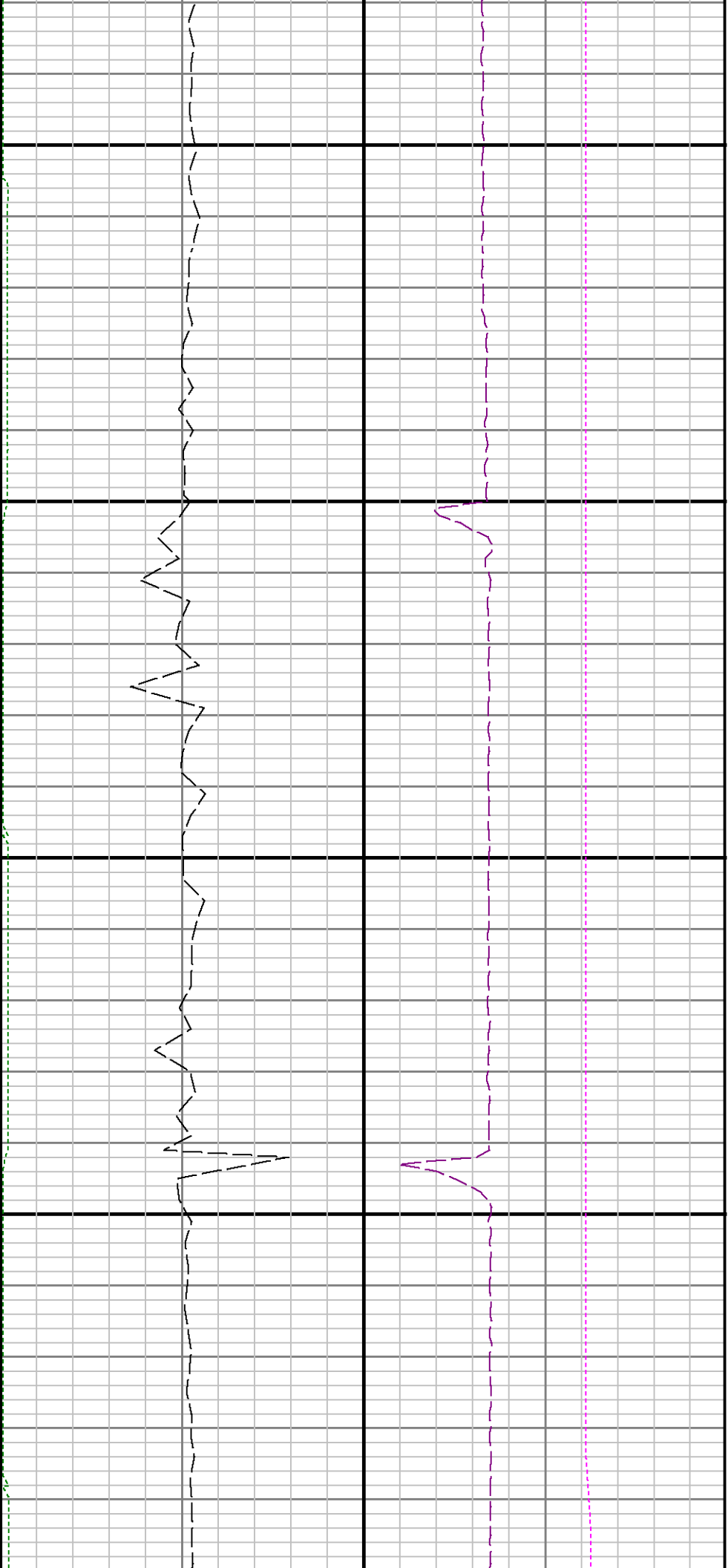


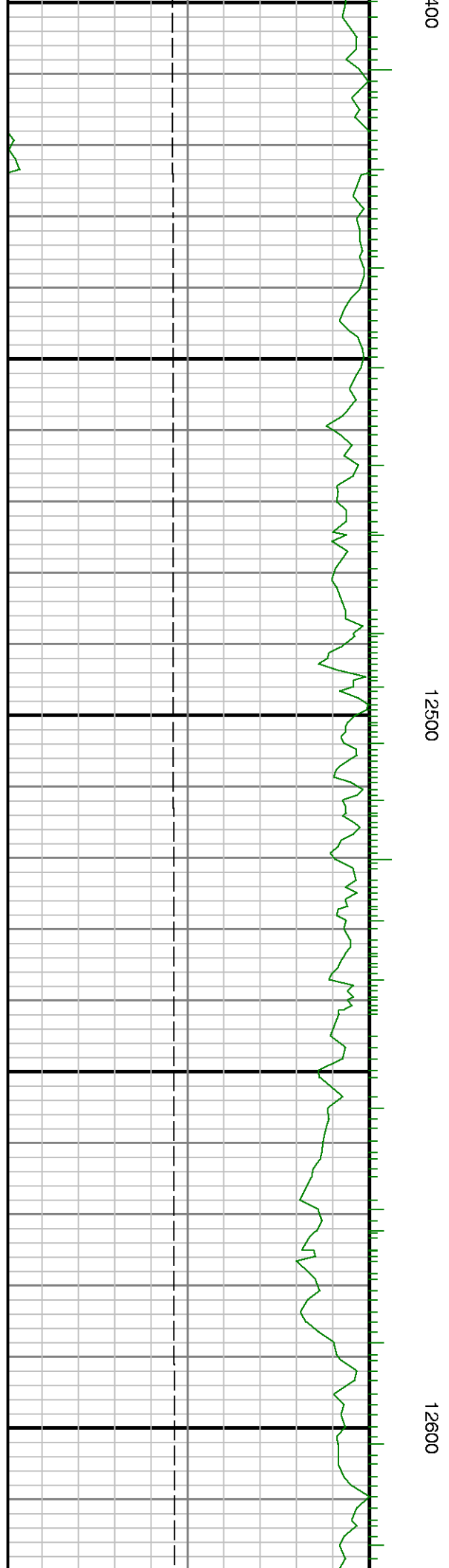
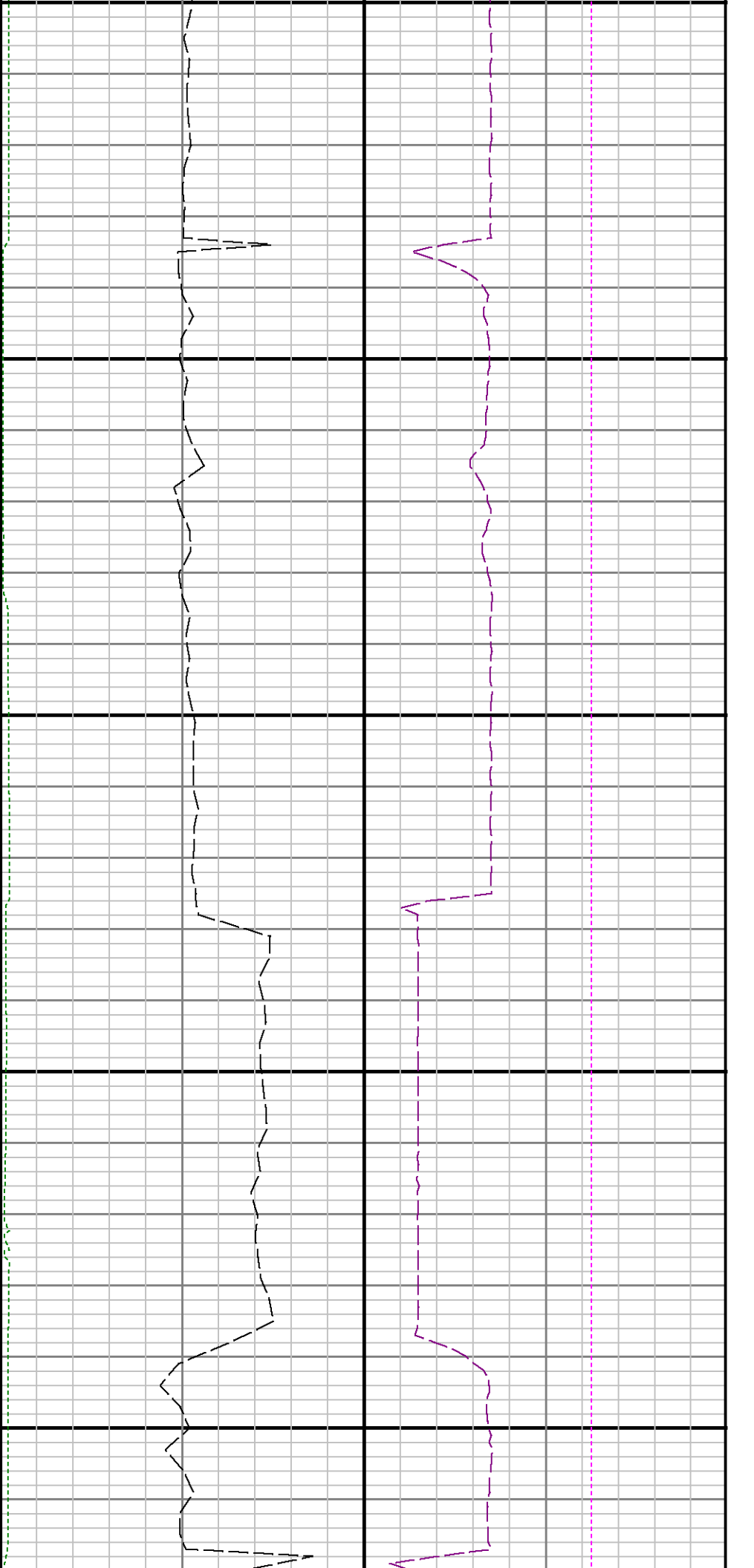
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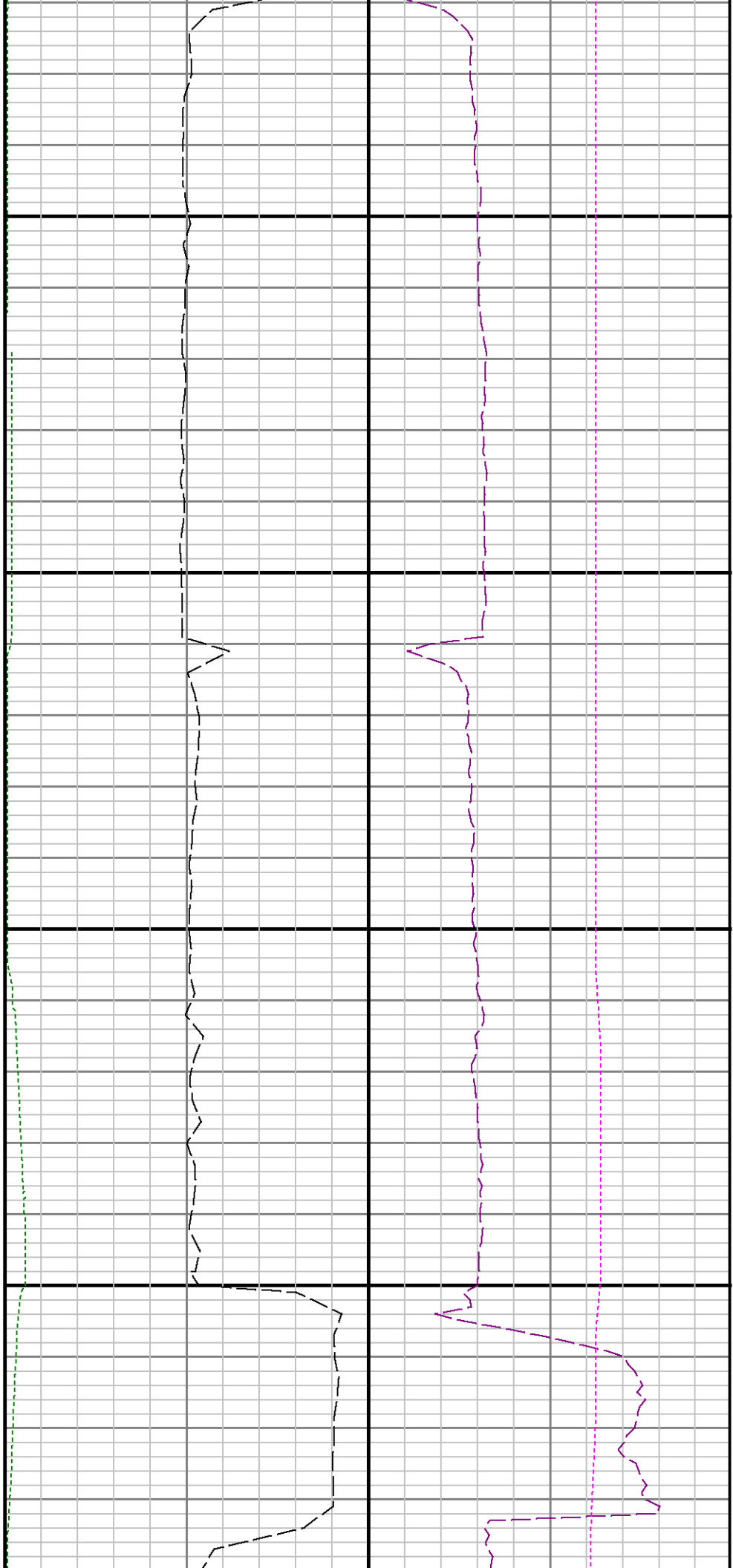
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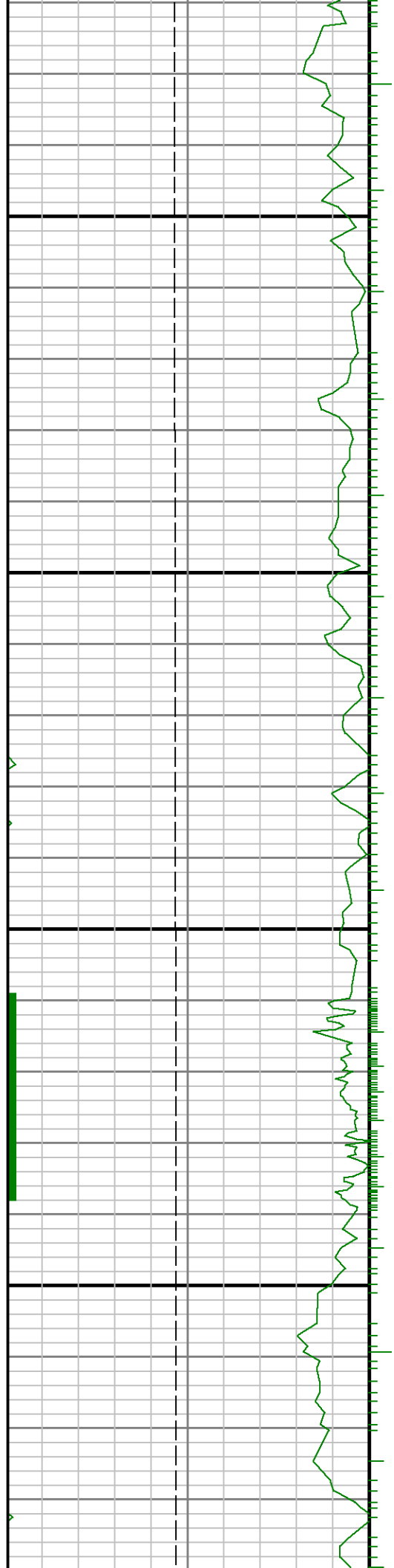


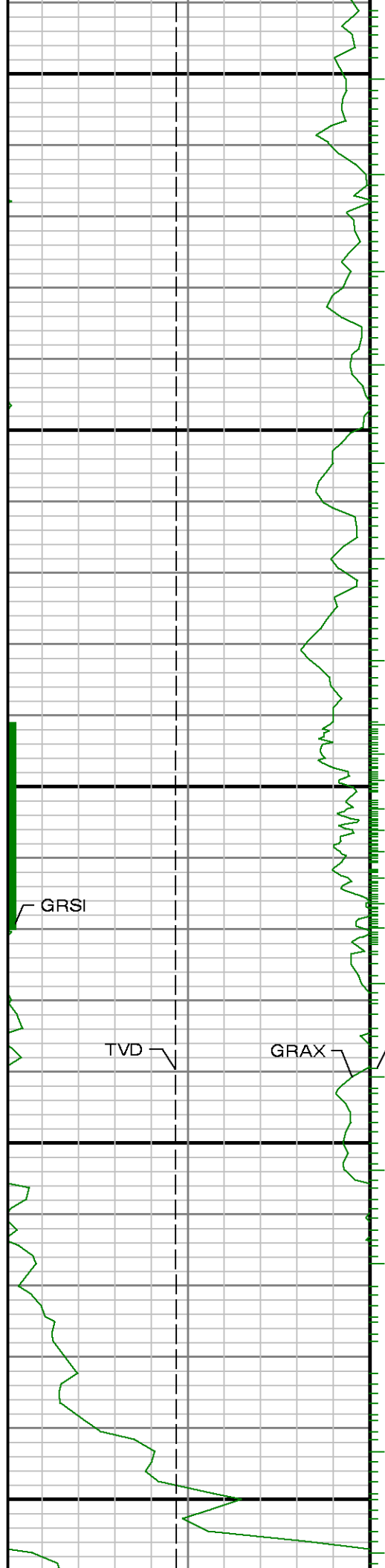




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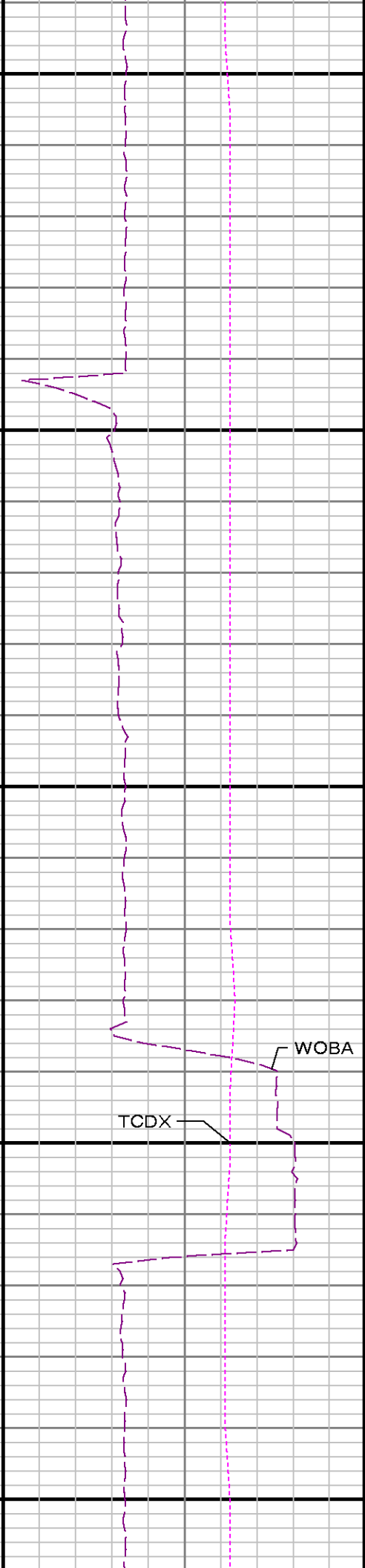
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GRSI

TVD

GRAX

GRIX

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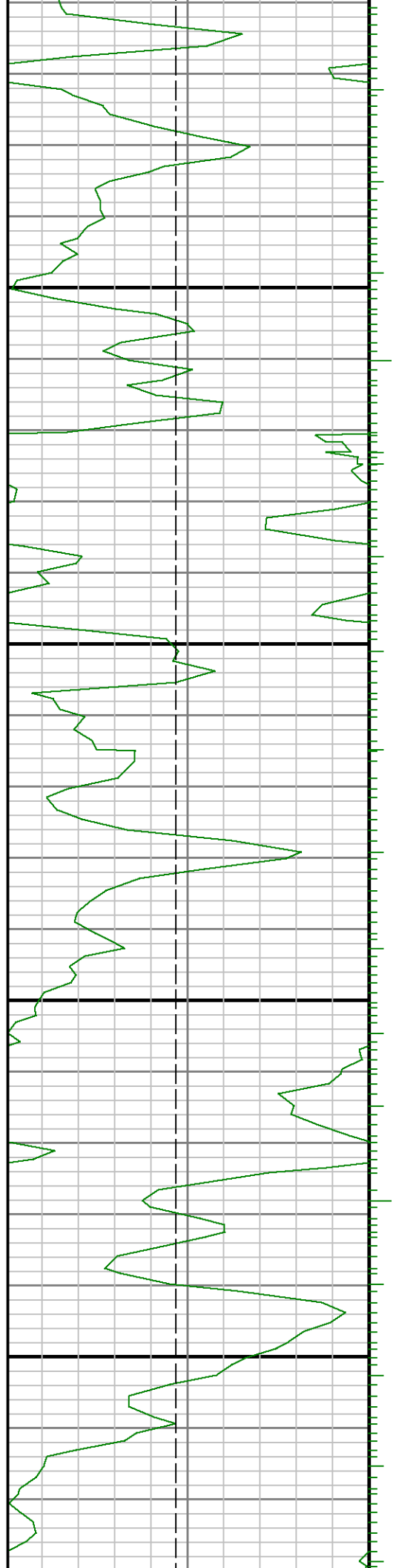
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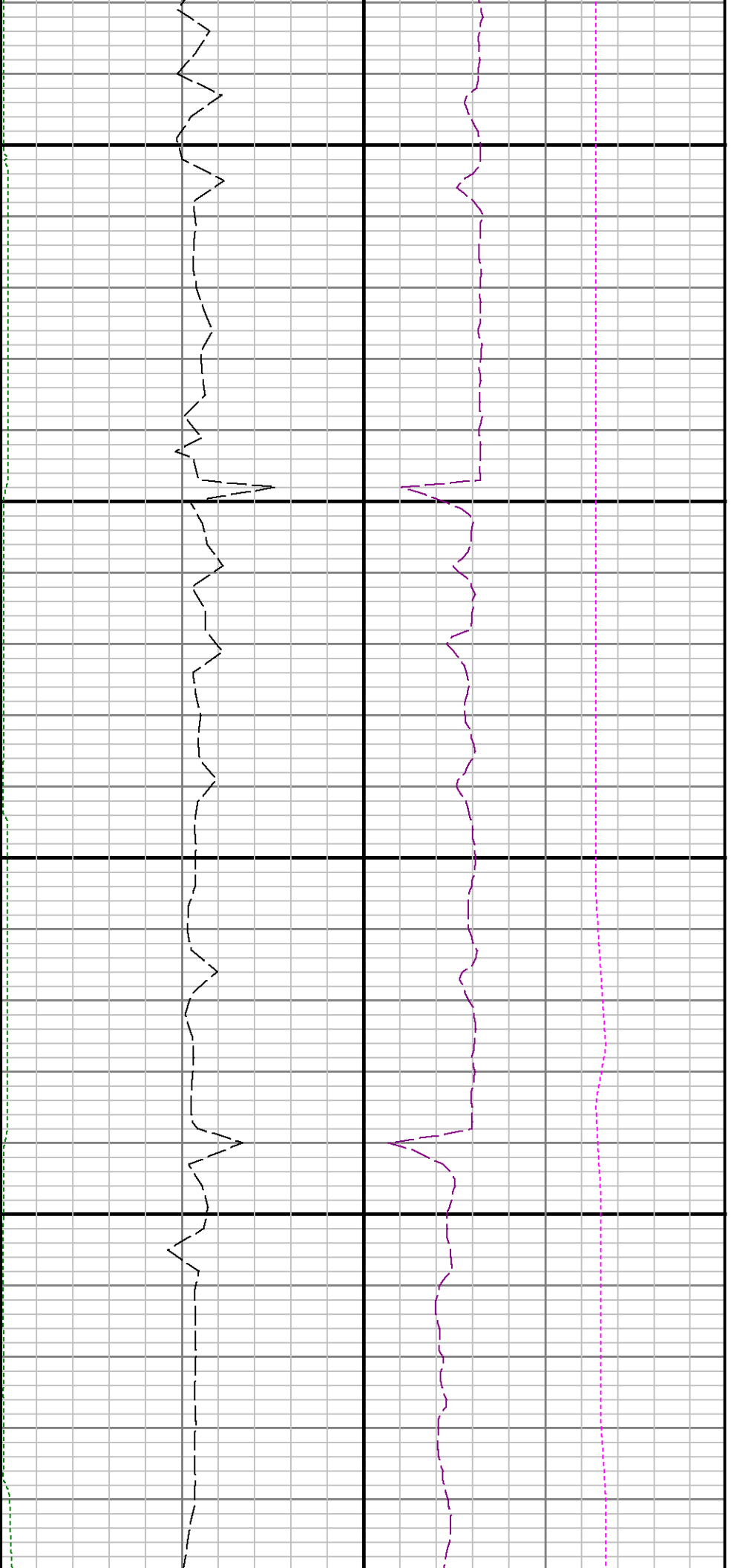
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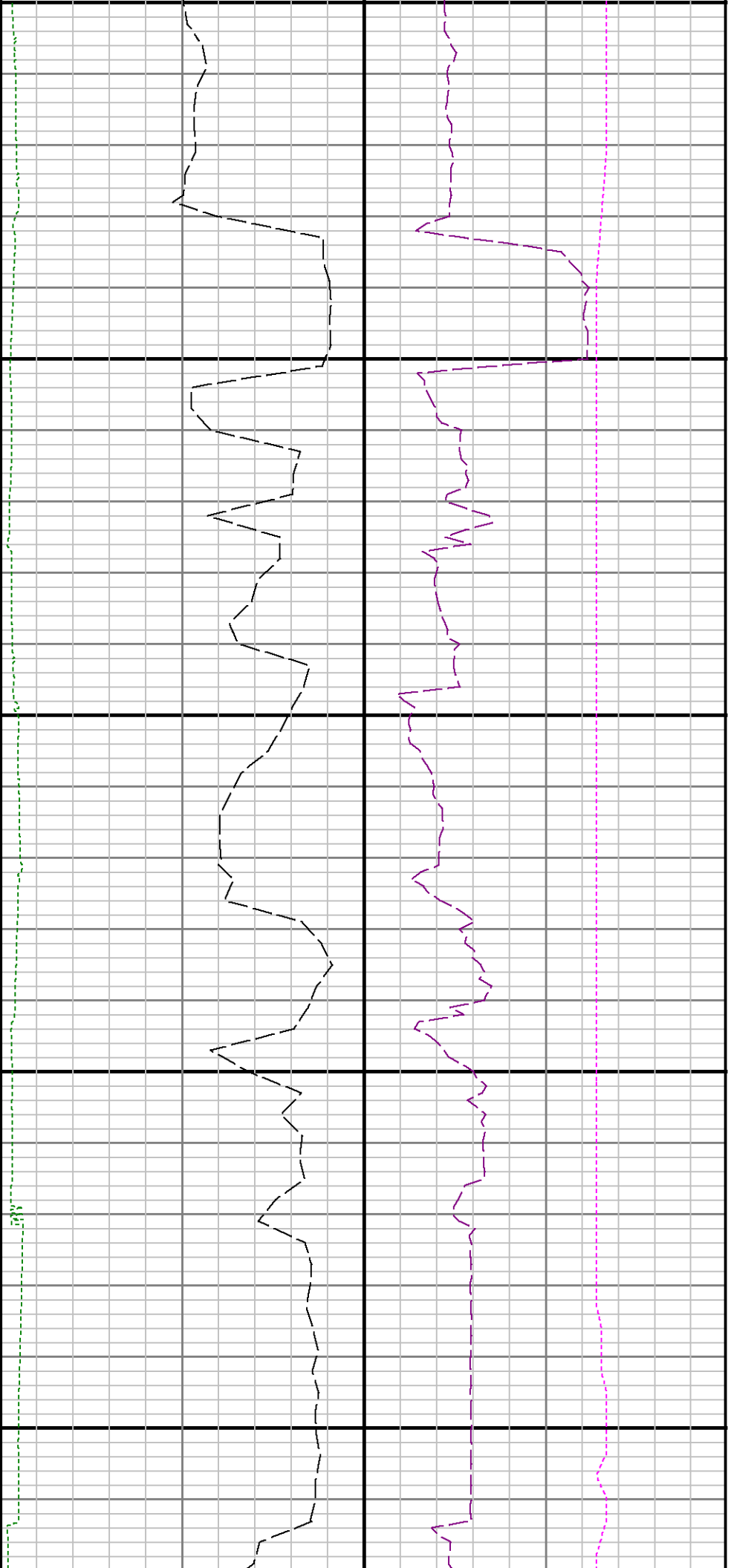




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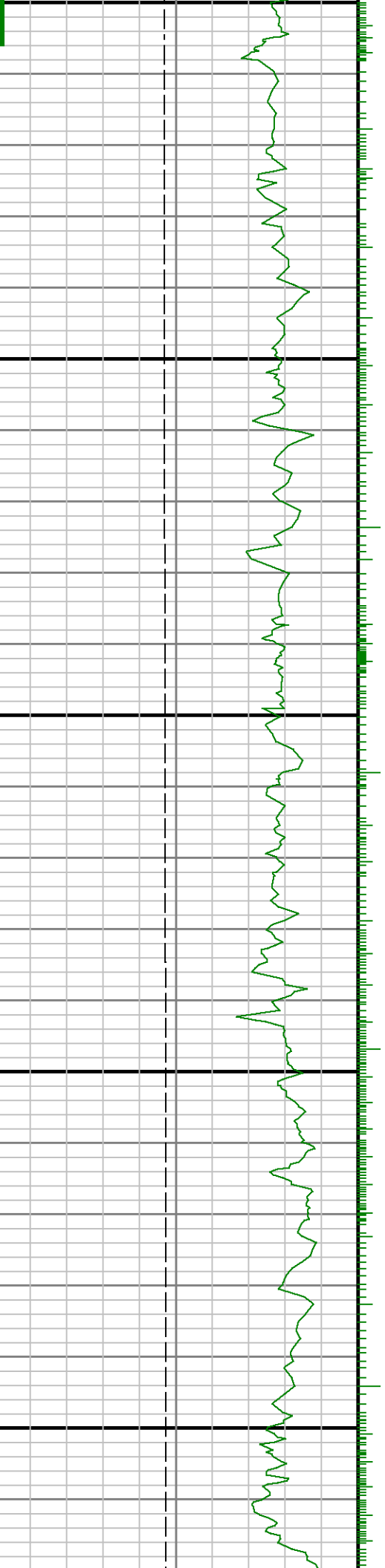
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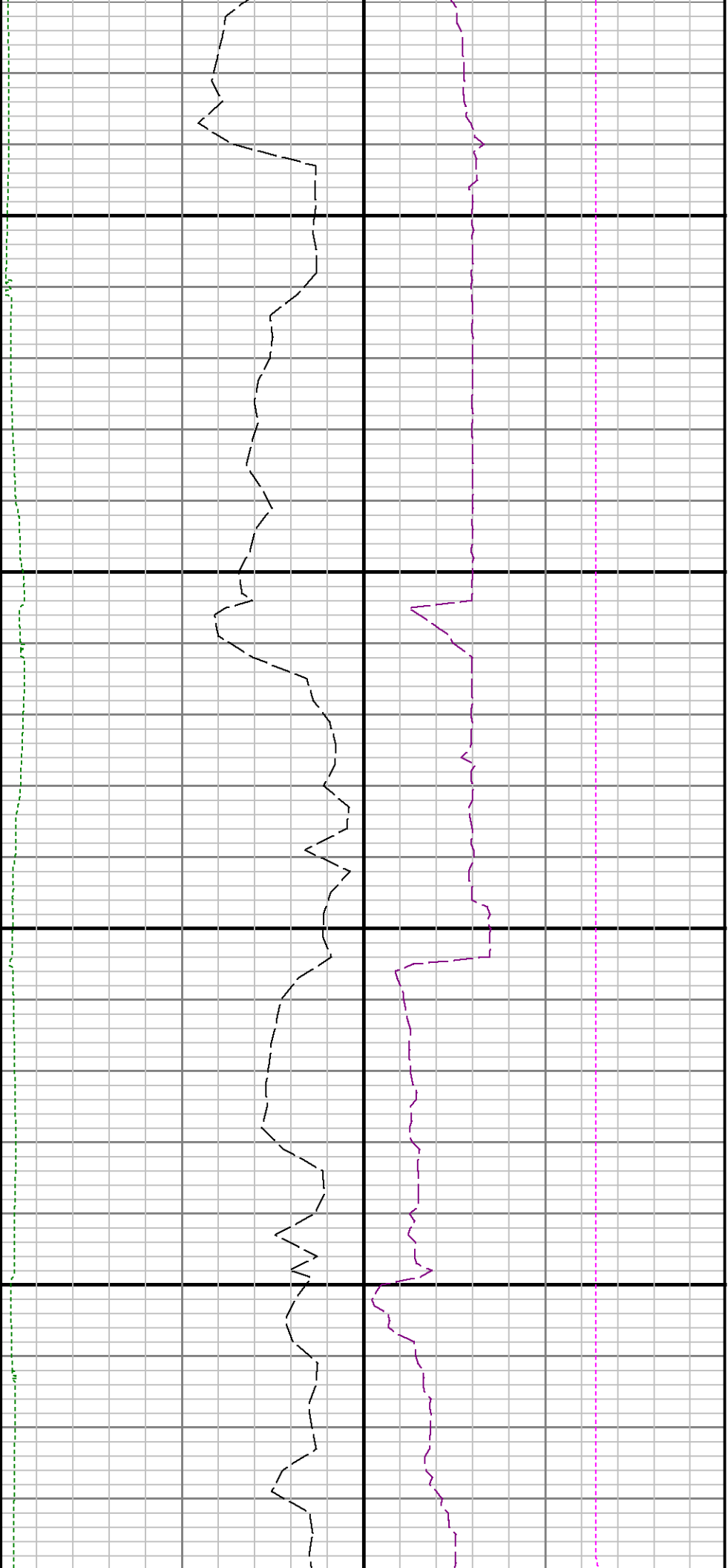


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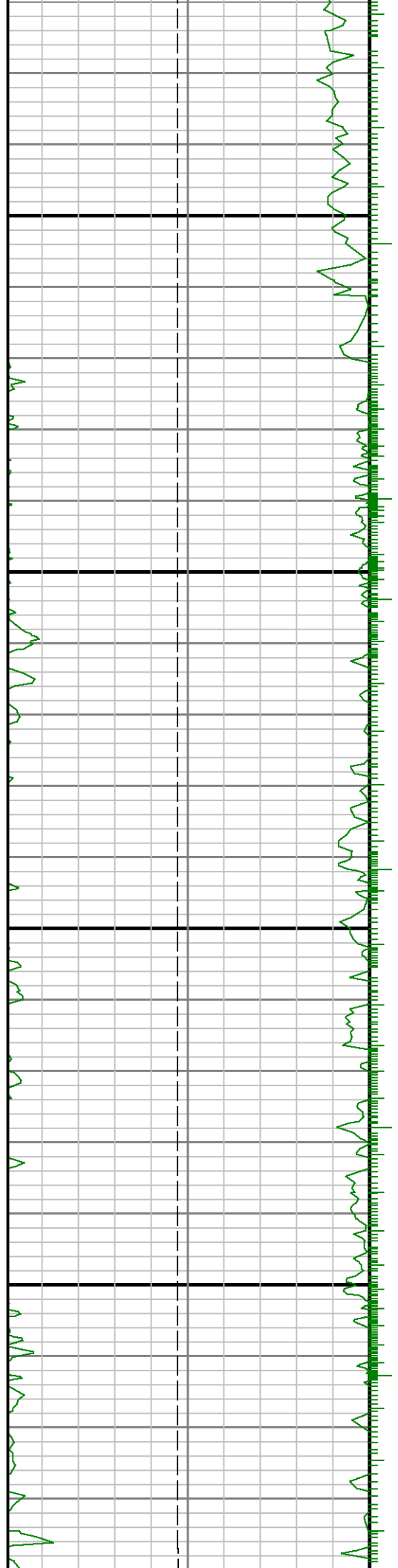
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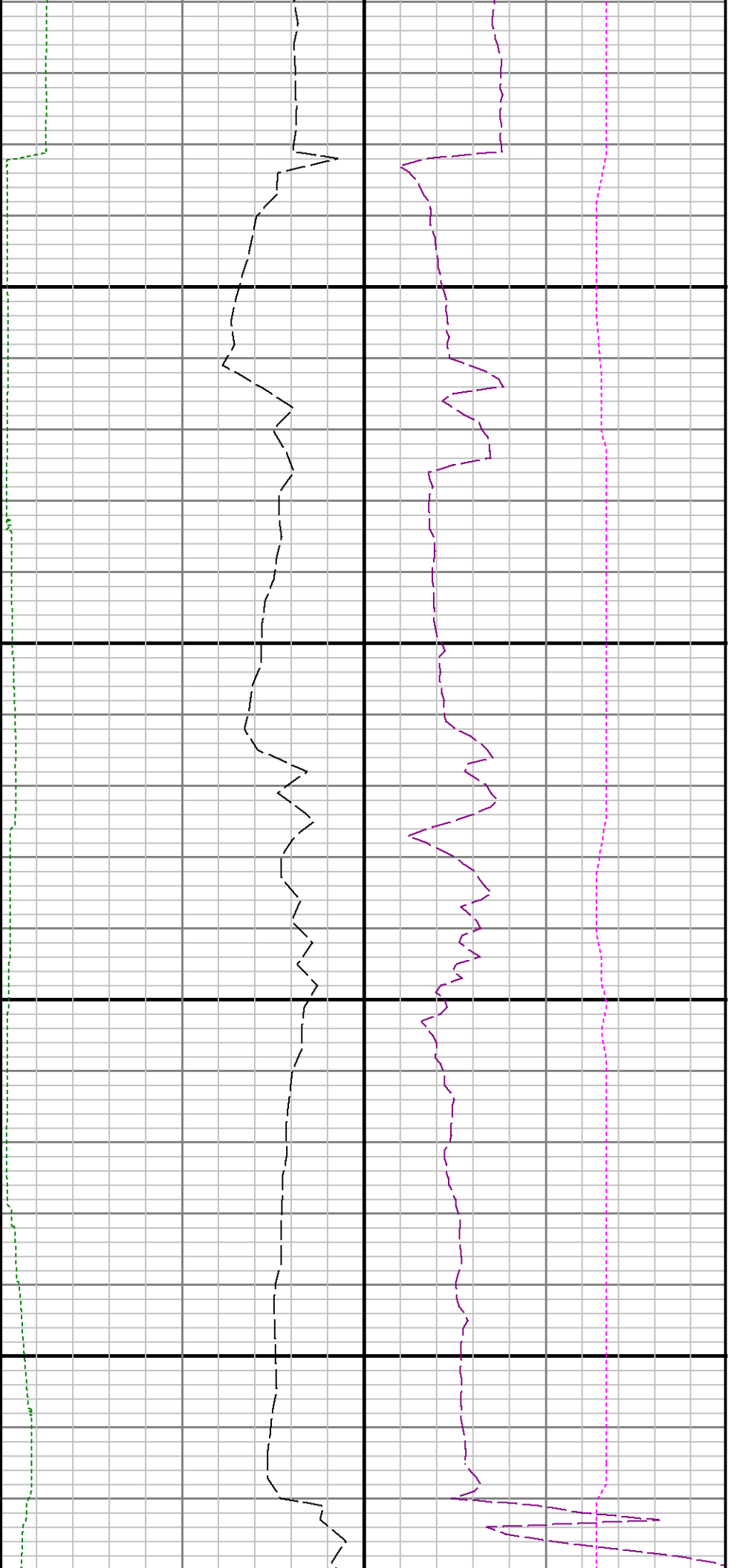


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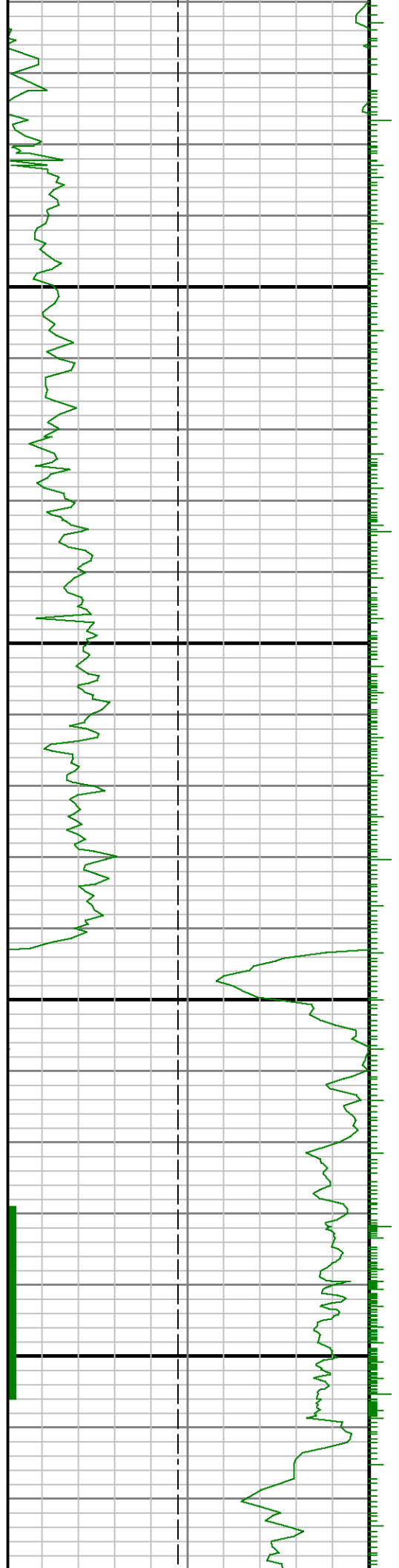


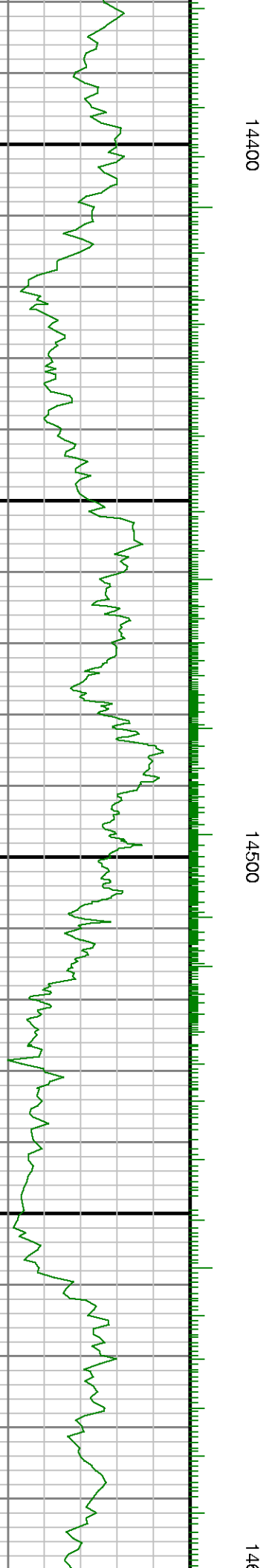
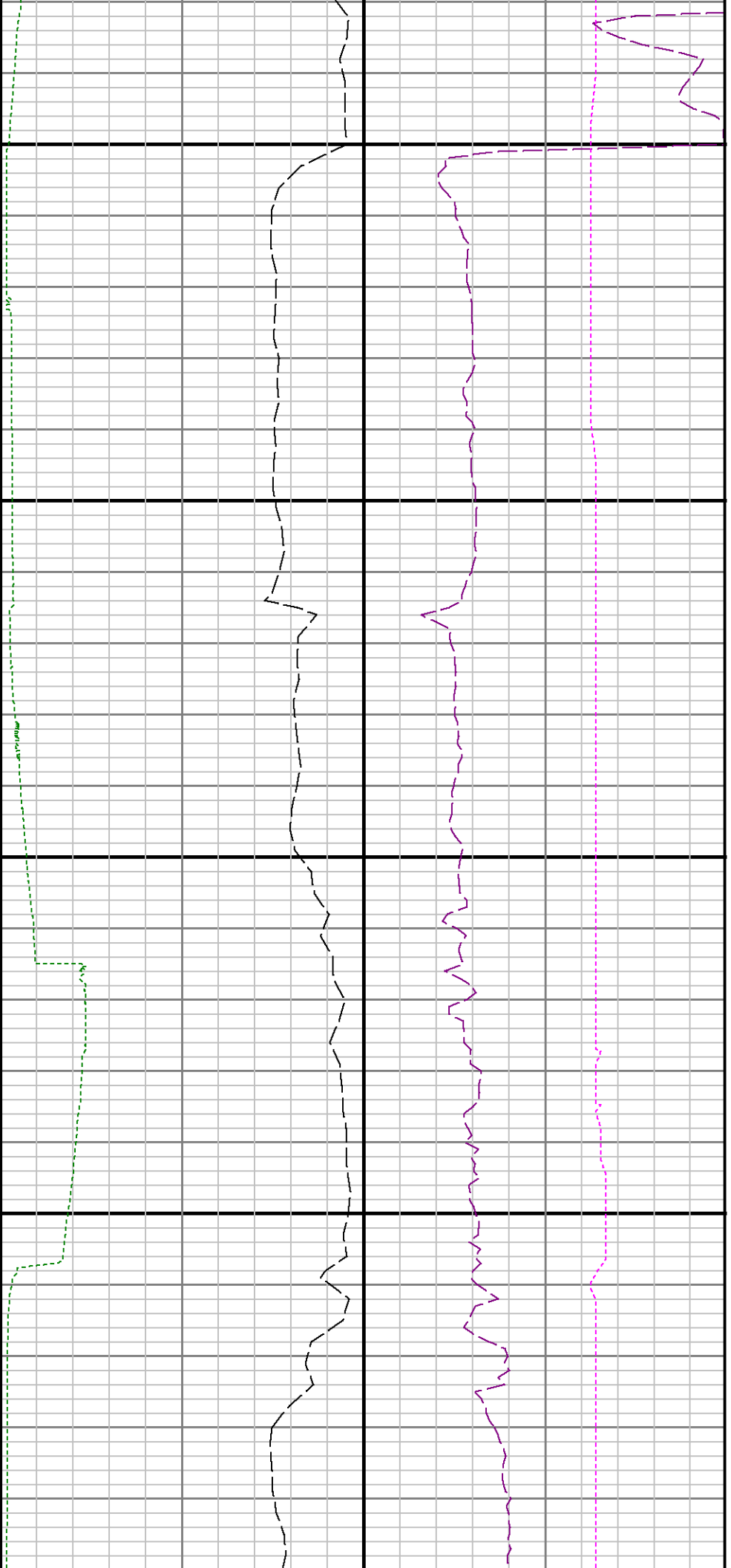


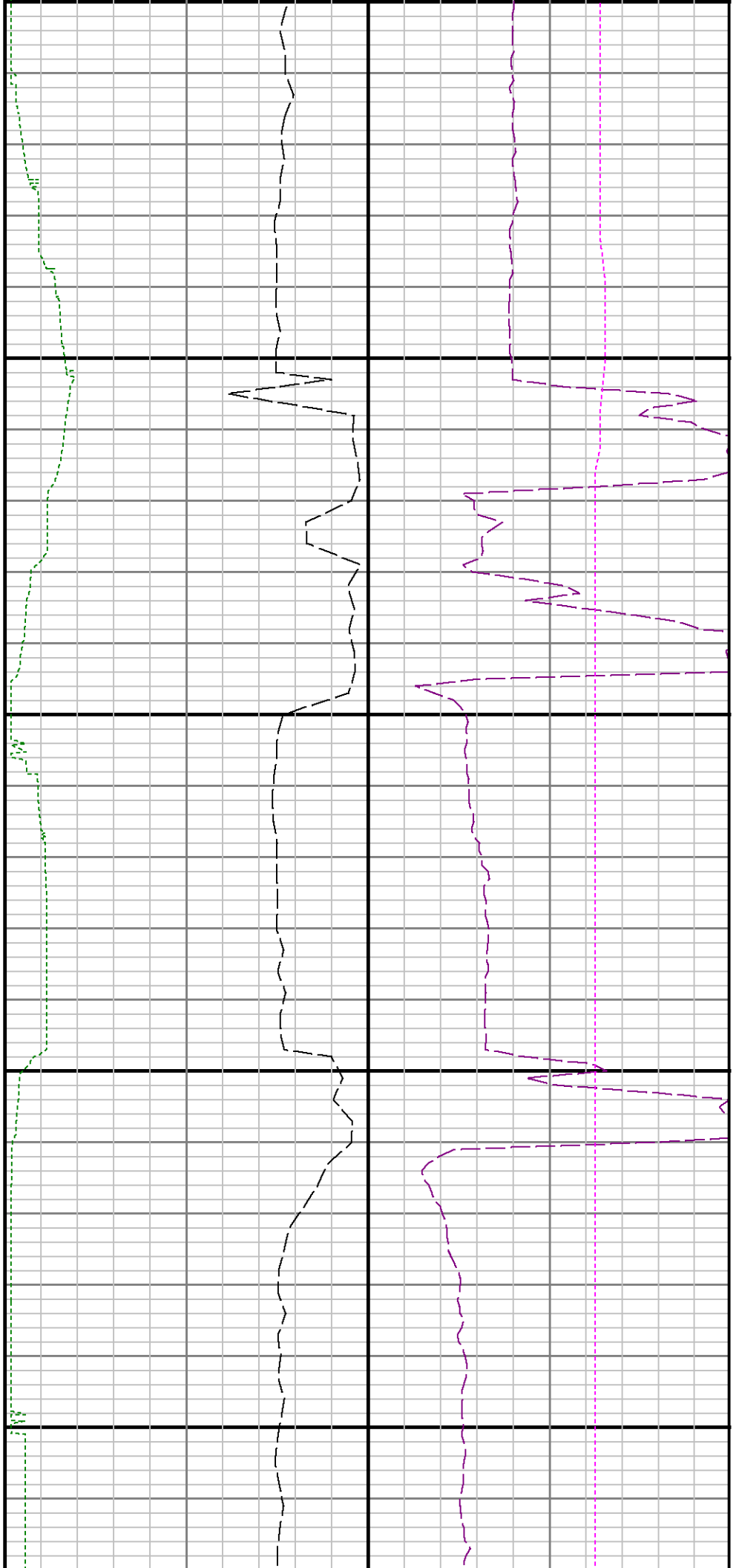


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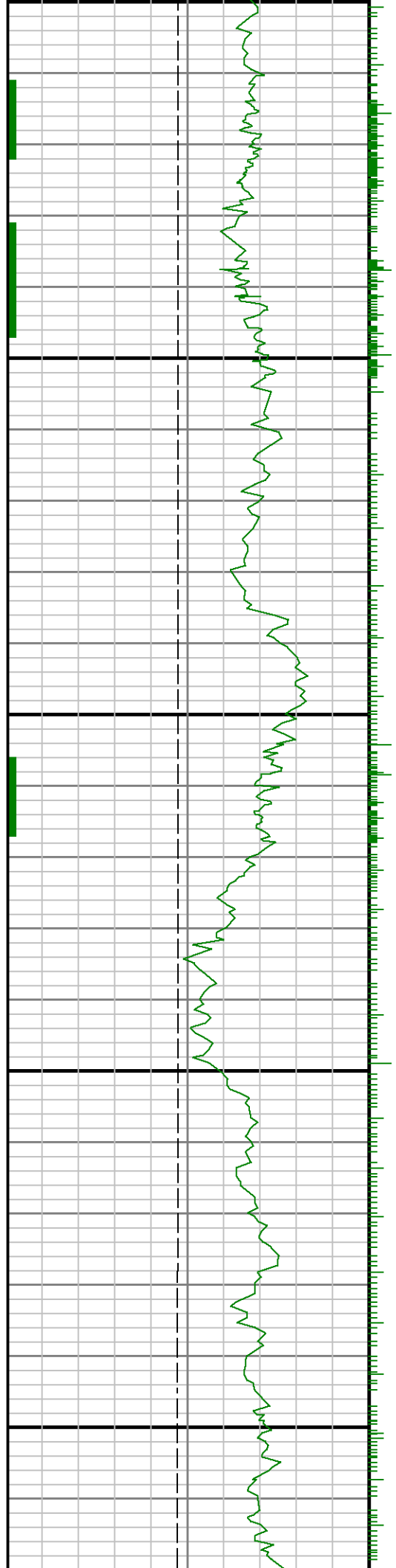


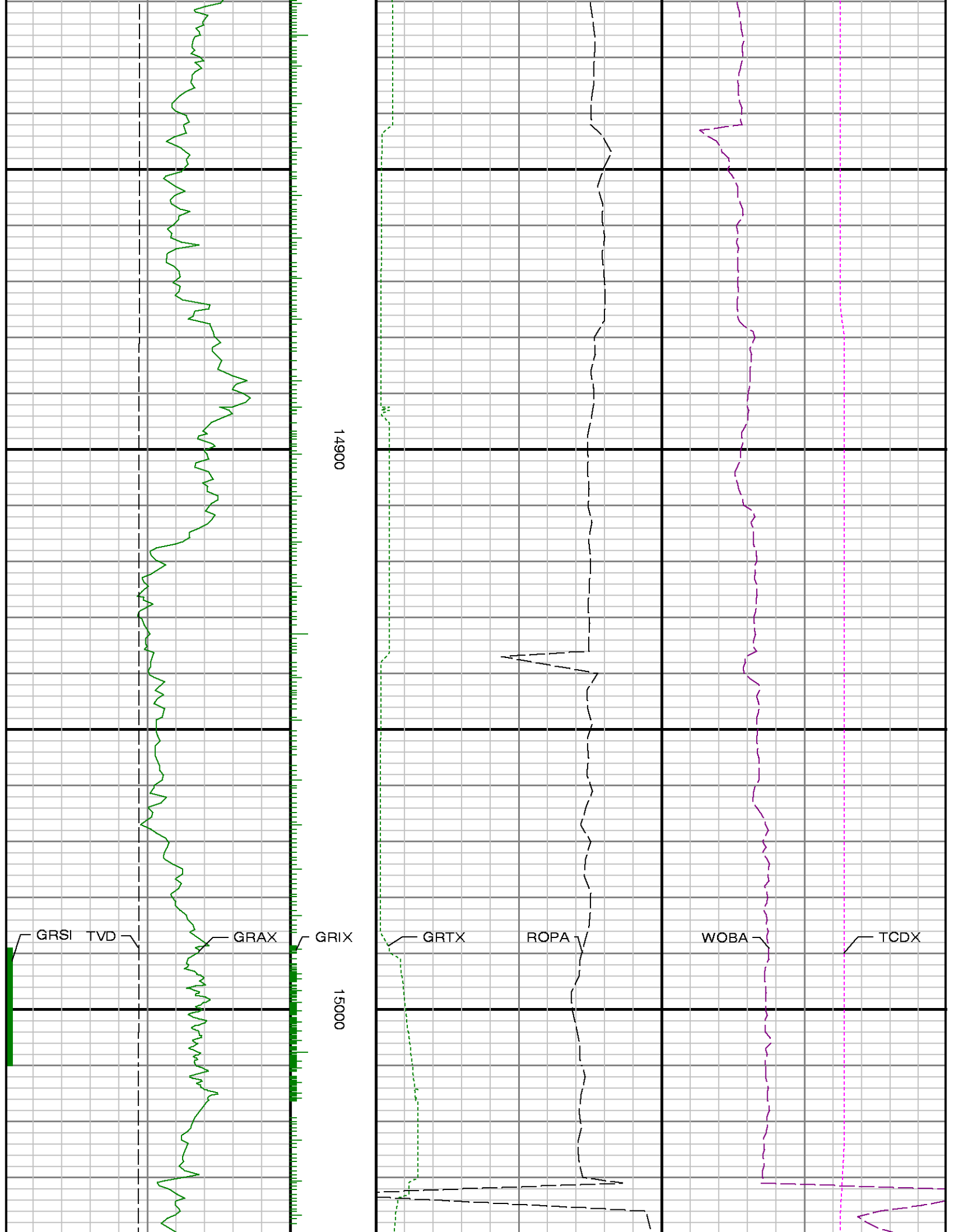


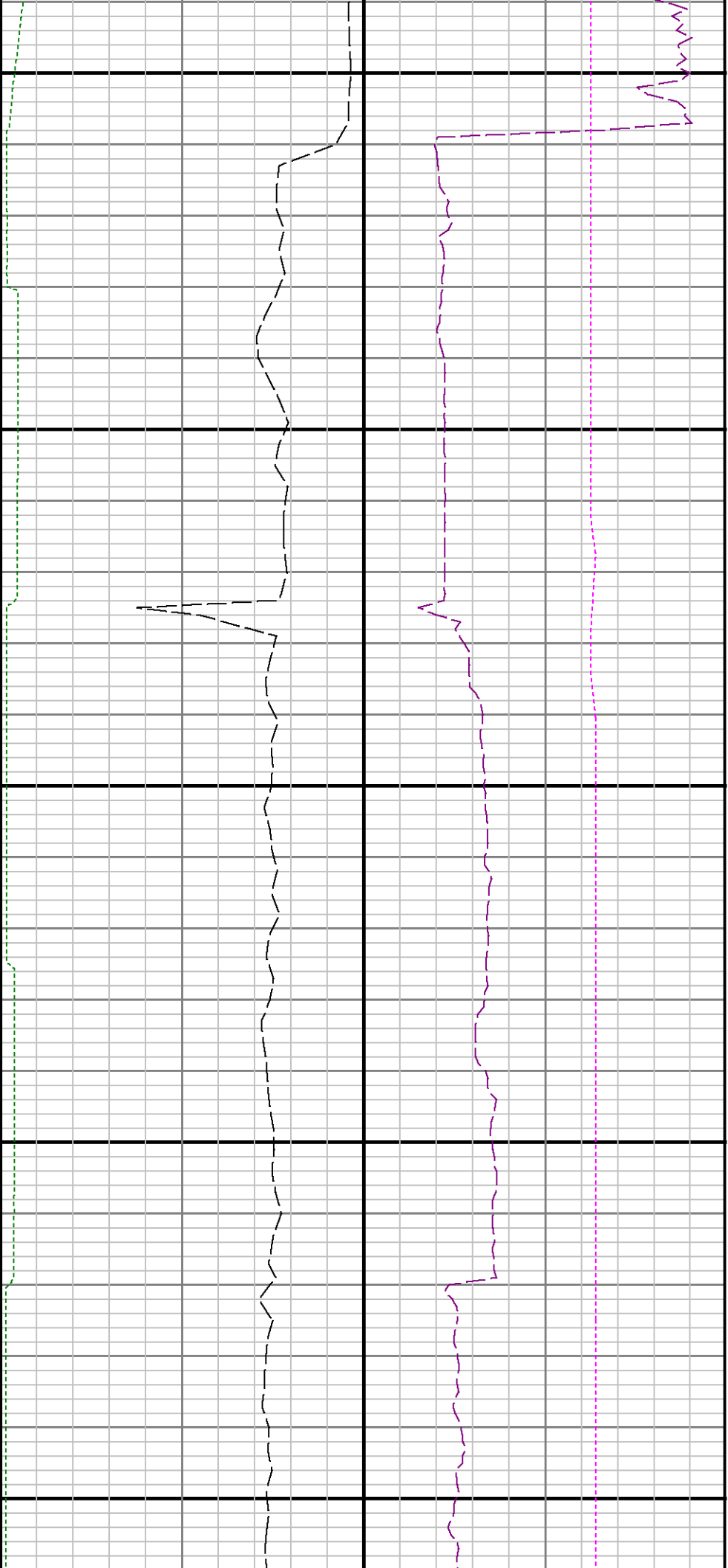
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14800

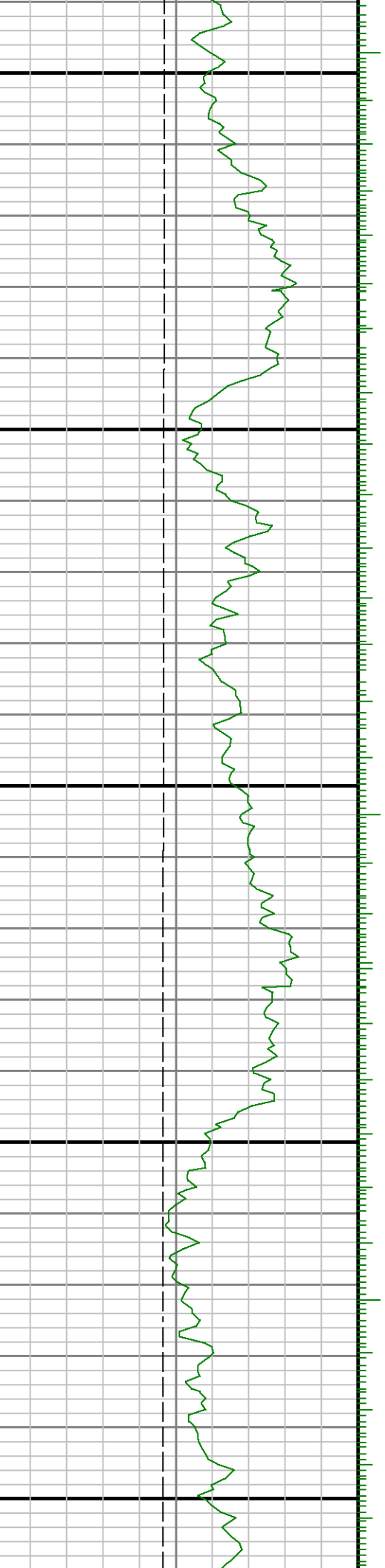


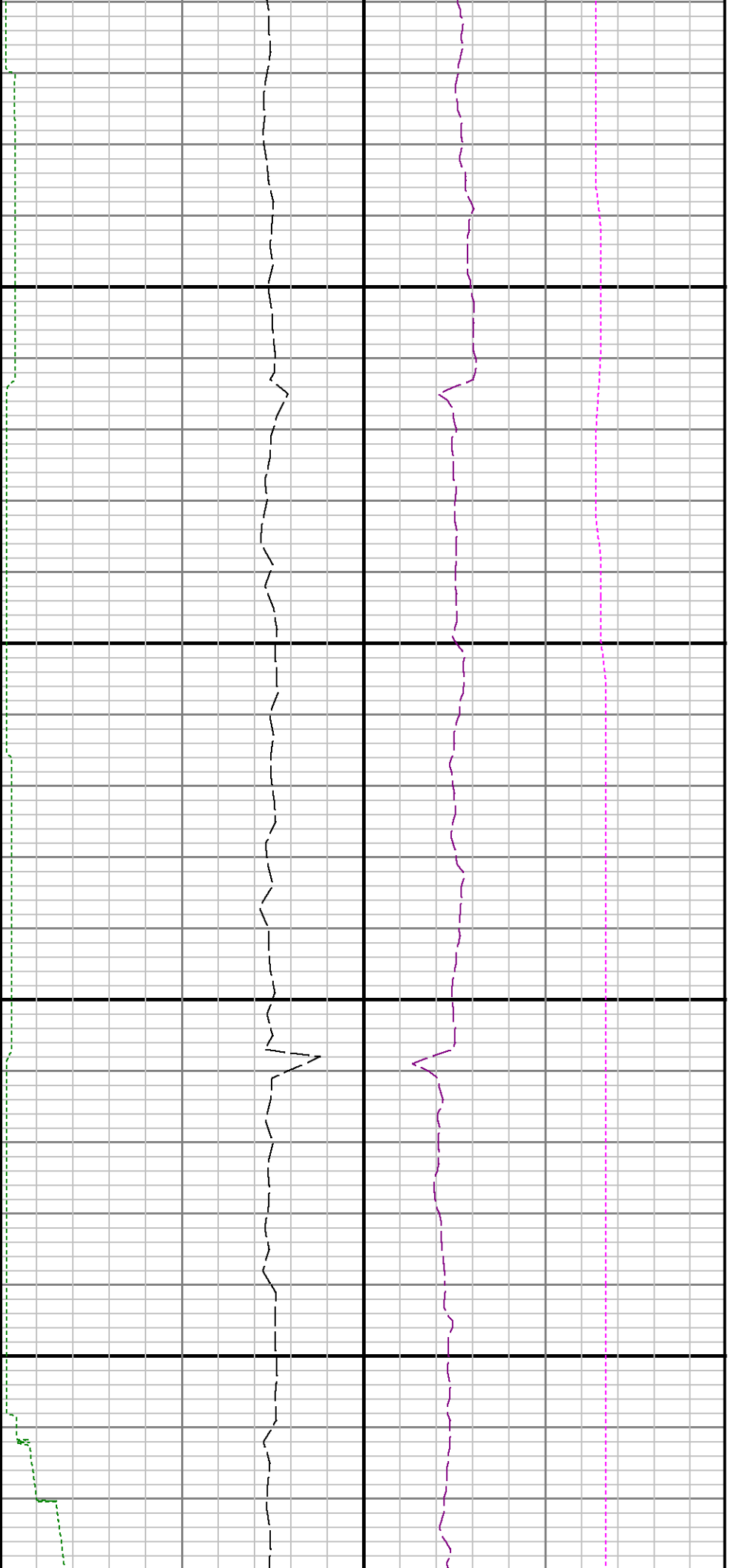




15100

15200





15300

15400

