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|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Crew

| Name | Arrive | Depart | Name | Arrive | Depart | Name | Arrive | Depart |
|--------------|-------------|-------------|-----------|-------------|-------------|----------------|-------------|-------------|
| | Wellsite | Wellsite | | Wellsite | Wellsite | | Wellsite | Wellsite |
| Adam Schlenz | 26/Aug/2013 | 04/Sep/2013 | Greg Dore | 26/Aug/2013 | 31/Aug/2013 | David Campbell | 01/Sep/2013 | 04/Sep/2013 |

Witness

| Name | LWD Run Number |
|----------------|----------------|
| Charlie Daigle | 2,3 |

Mud Properties Record

| Date / Time | LWD Run No. | Measured Depth (ft.) | Mud Type | Density (ppg) | Viscosity (sec/qt) | pH | Fluid Loss (cc) | Oil / Water | Source | Total Chlorides (mg/L) | K+ (%) |
|-------------------|-------------|----------------------|-------------|---------------|--------------------|-----|-----------------|-------------|----------------|------------------------|--------|
| 30/Aug/2013 19:00 | 2 | 6643.0 | Water Based | 9.9 | 45 | 8.8 | N/A | 2.5/90.0 | Active Mud Pit | 1300 | N/A |
| 31/Aug/2013 7:00 | 2 | 7400.0 | Water Based | 10.0 | 41 | 9.1 | N/A | 2.8/89.2 | Active Mud Pit | 1200 | N/A |
| 31/Aug/2013 19:00 | 2 | 7631.0 | Water Based | 10.0 | 44 | 9.0 | N/A | 3.0/89.0 | Active Mud Pit | 1200 | N/A |
| 01/Sep/2013 7:00 | 2 | 7631.0 | Water Based | 10.1 | 45 | 8.9 | N/A | 3.0/89.0 | Active Mud Pit | 1200 | N/A |
| 01/Sep/2013 19:00 | 2 | 7631.0 | Water Based | 10.1 | 44 | 8.8 | N/A | 3.0/89.0 | Active Mud Pit | 1200 | N/A |
| 02/Sep/2013 7:00 | 3 | 8281.0 | Water Based | 9.8 | 38 | 8.6 | N/A | 3.2/90.1 | Active Mud Pit | 1100 | N/A |
| 02/Sep/2013 19:00 | 3 | 9851.0 | Water Based | 9.8 | 40 | 8.0 | N/A | 3.5/89.6 | Active Mud Pit | 1000 | N/A |
| 03/Sep/2013 7:00 | 3 | 11400.0 | Water Based | 9.9 | 41 | 8.1 | N/A | 3.7/88.9 | Active Mud Pit | 1000 | N/A |
| 03/Sep/2013 19:00 | 3 | 12802.0 | Water Based | 9.6 | 38 | 7.9 | N/A | 4.0/89.6 | Active Mud Pit | 1000 | N/A |
| 04/Sep/2013 7:00 | 3 | 14024.0 | Water Based | 9.8 | 40 | 8.0 | N/A | 4.0/89.0 | Active Mud Pit | 1000 | N/A |

Mnemonics

| Curve | Description | Units |
|-------|-----------------------------------|----------|
| GRAX | Gamma Ray - Apparent, 0.5 ft. Avg | API |
| GRIX | Gamma Ray - Data Point Indicator | unitless |
| GRTX | Gamma Ray Time Since Drilled | min |
| GRSI | Gamma Ray Slide Indicator | unitless |
| ROPA | Rate of Penetration, 3.0 ft. Avg | ft/hr |
| TCDX | Downhole Temperature | degF |
| TVD | True Vertical Depth | ft |
| WOBA | 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.) |
|-------------|------|---------------|-------------|------------------|----------------|----------------|
| 2 | DIR | 10508935 | Directional | 53.53 | 6.750 | 3.250 |
| 2 | SRIG | 12131373 | Gamma | 50.15 | 6.750 | 3.250 |

[illegible]

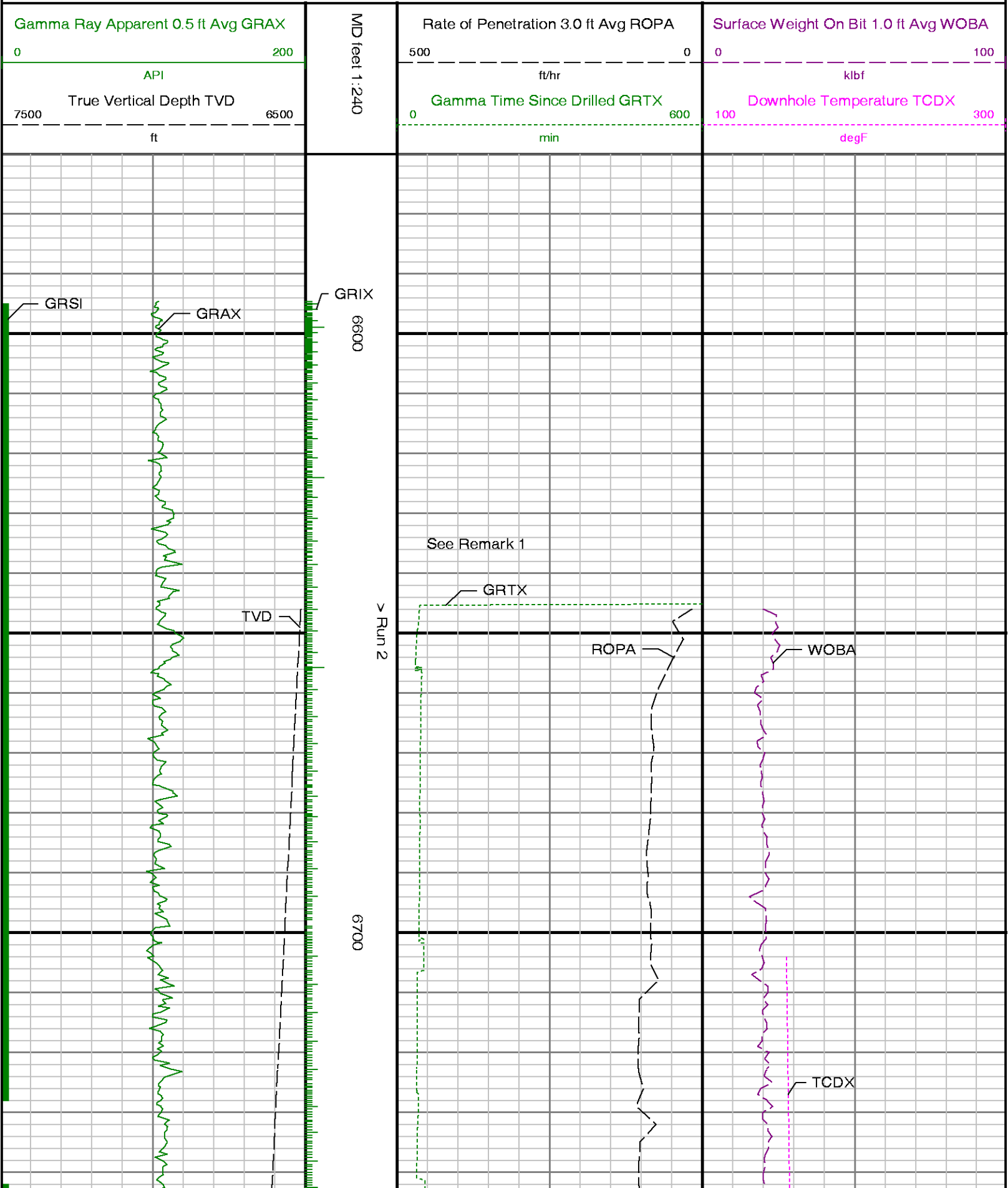


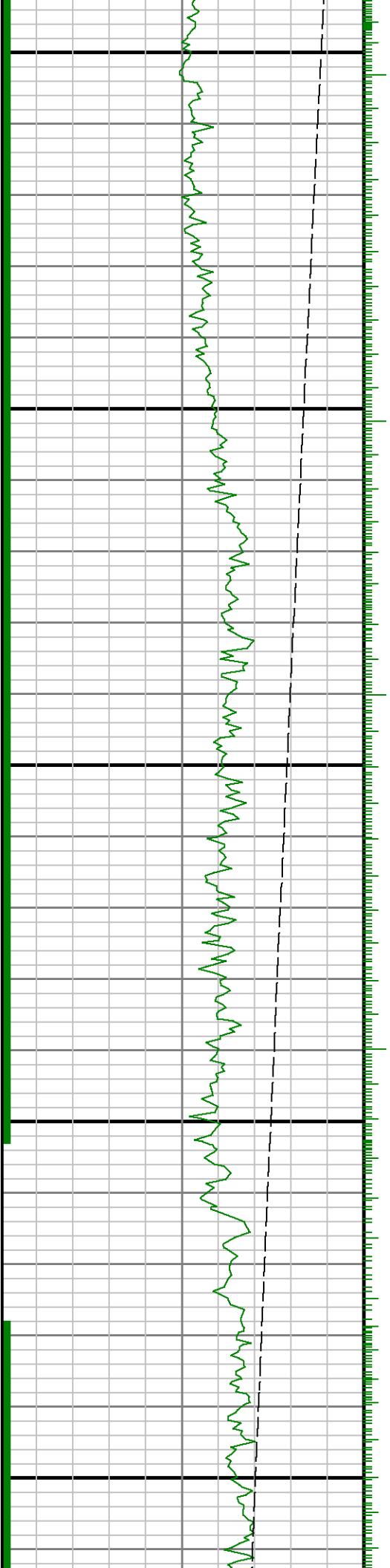
Company : KERR-MCGEE OIL & GAS ONSHORE LP

Well : HENRICKSON FEDERAL 35N-18HZ

Interval : 6570.00 - 14070.00 feet

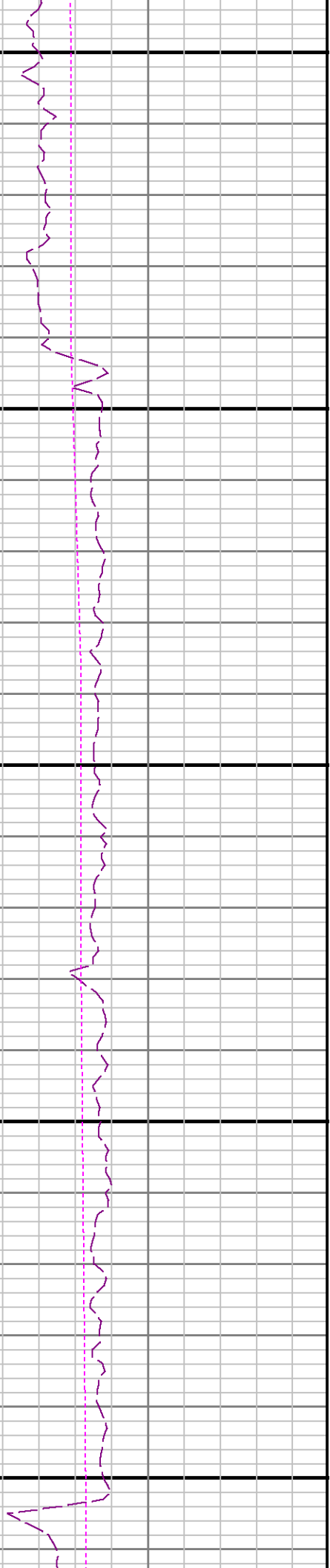
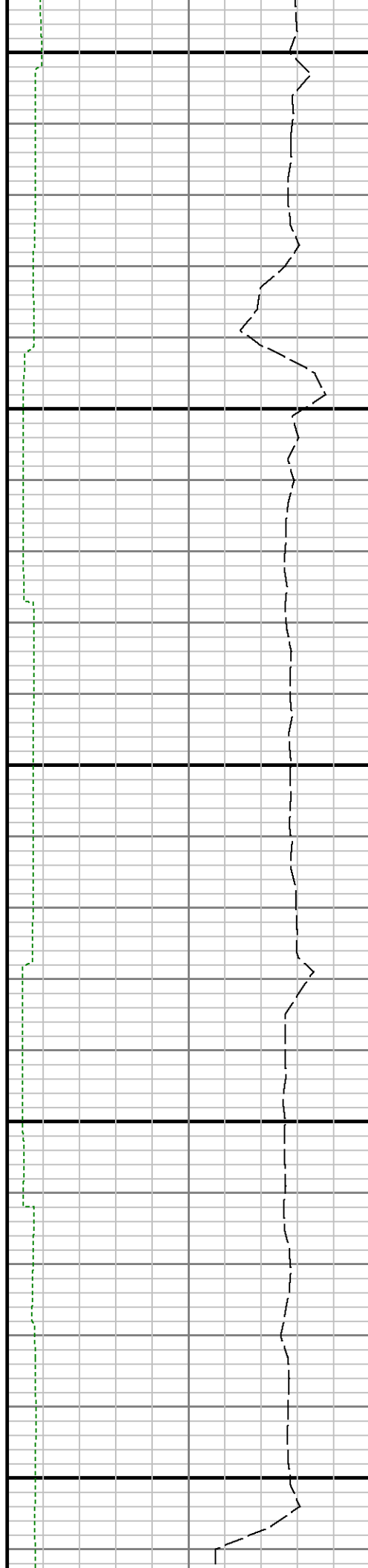
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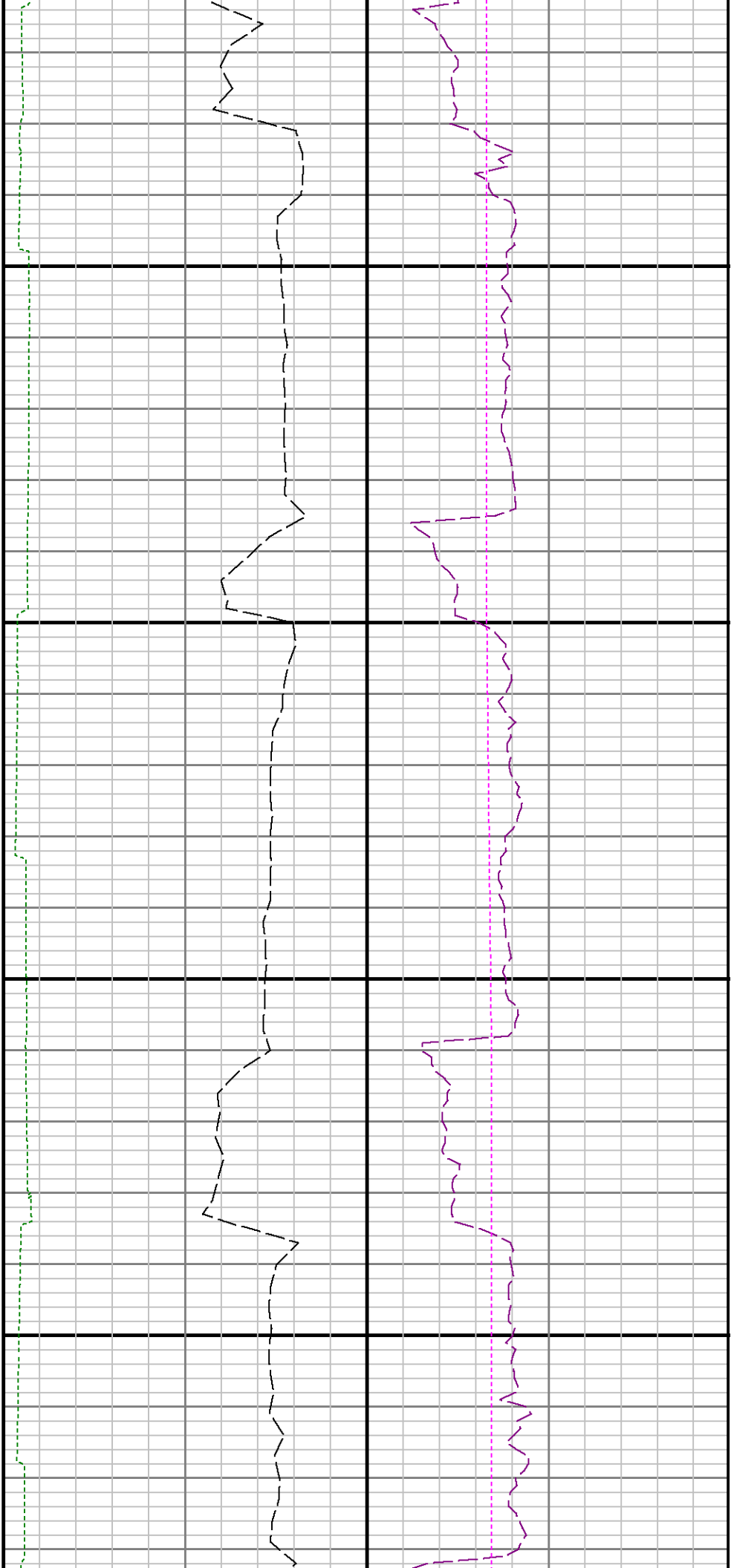




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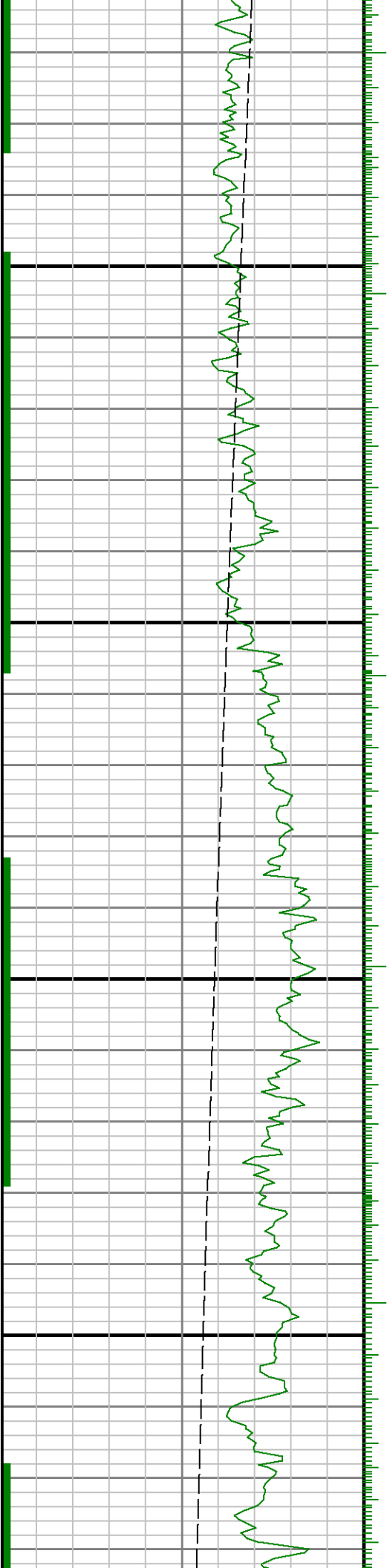
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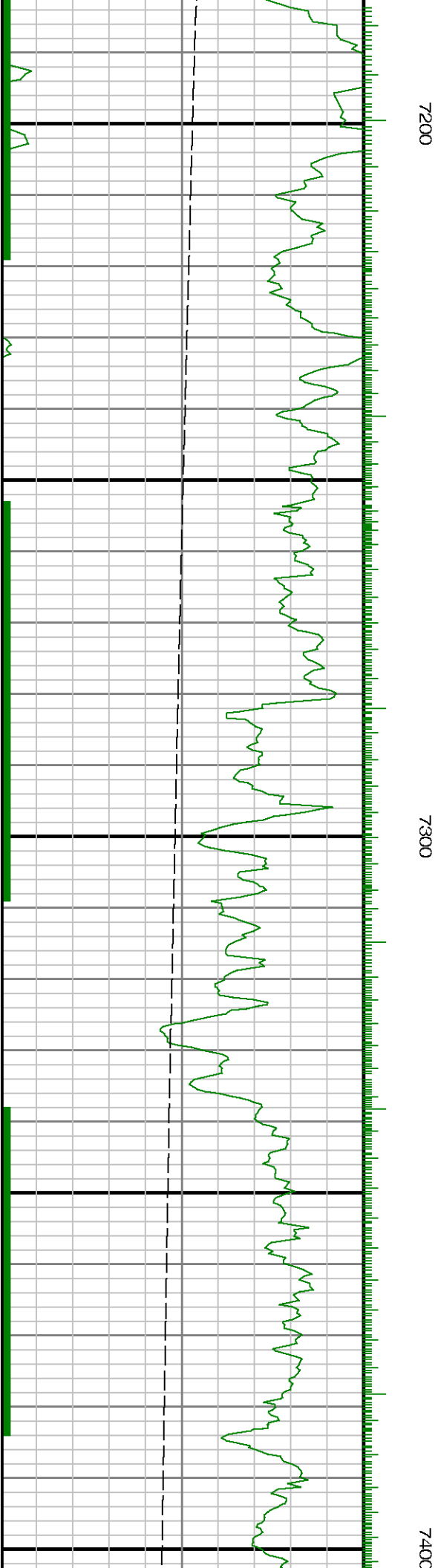
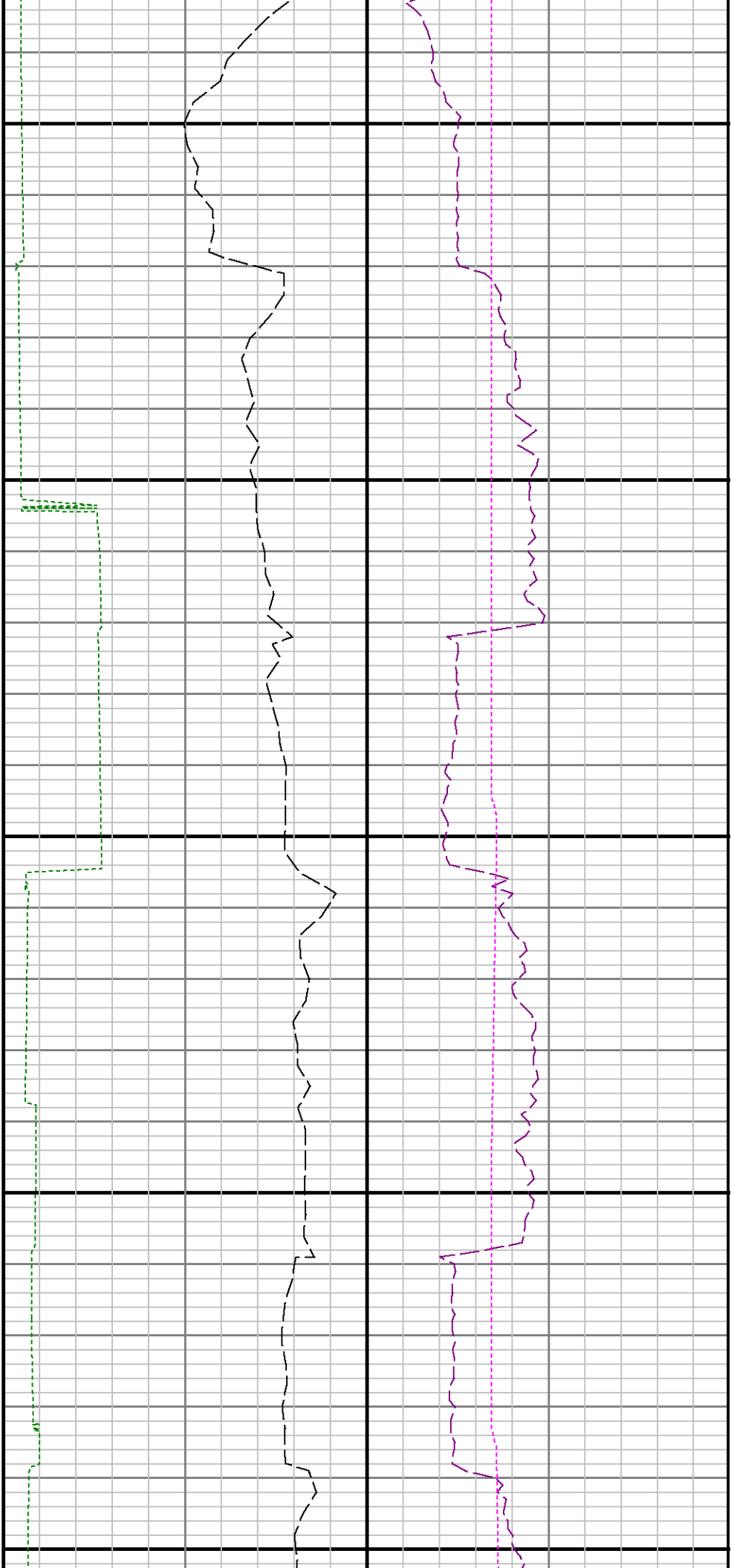


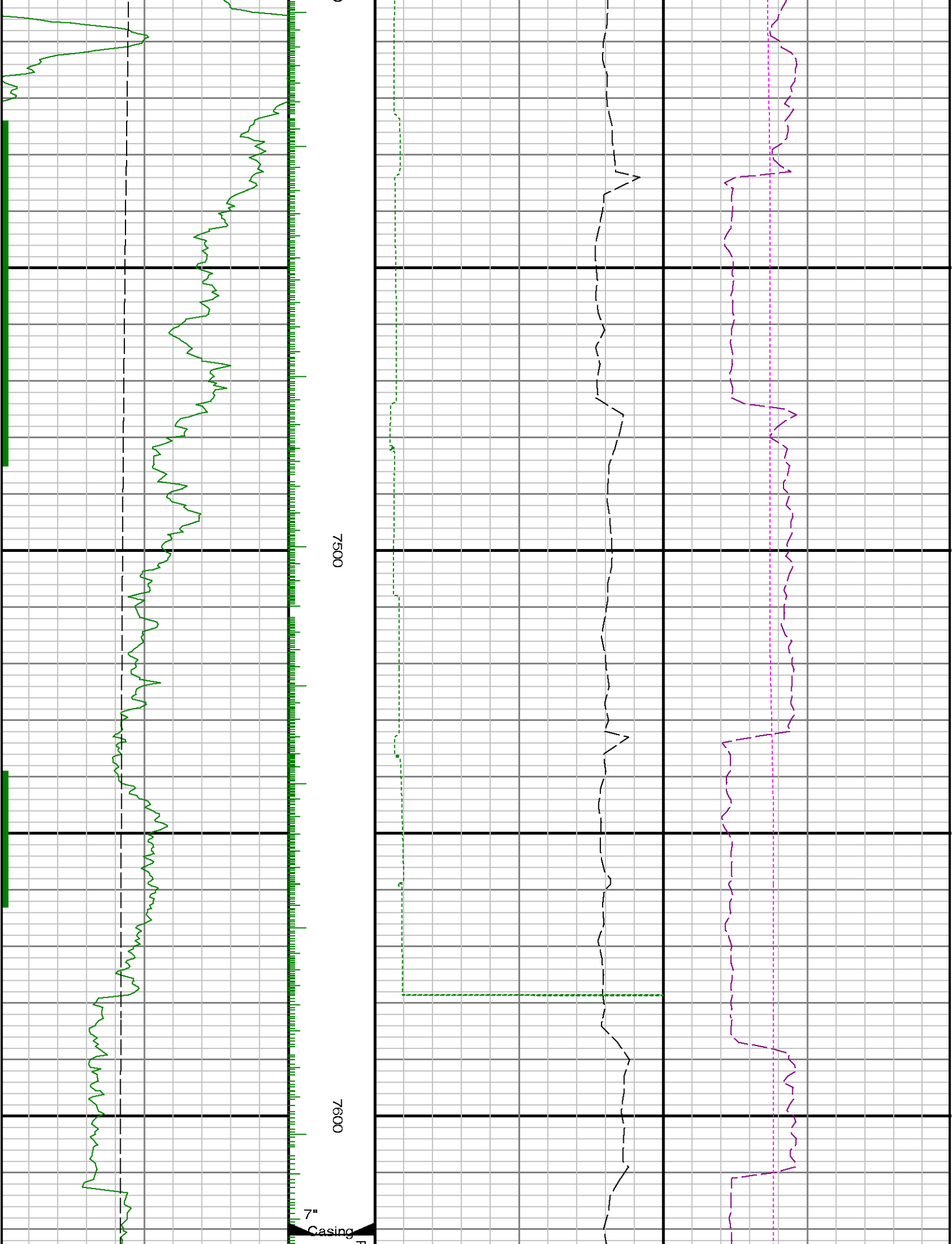


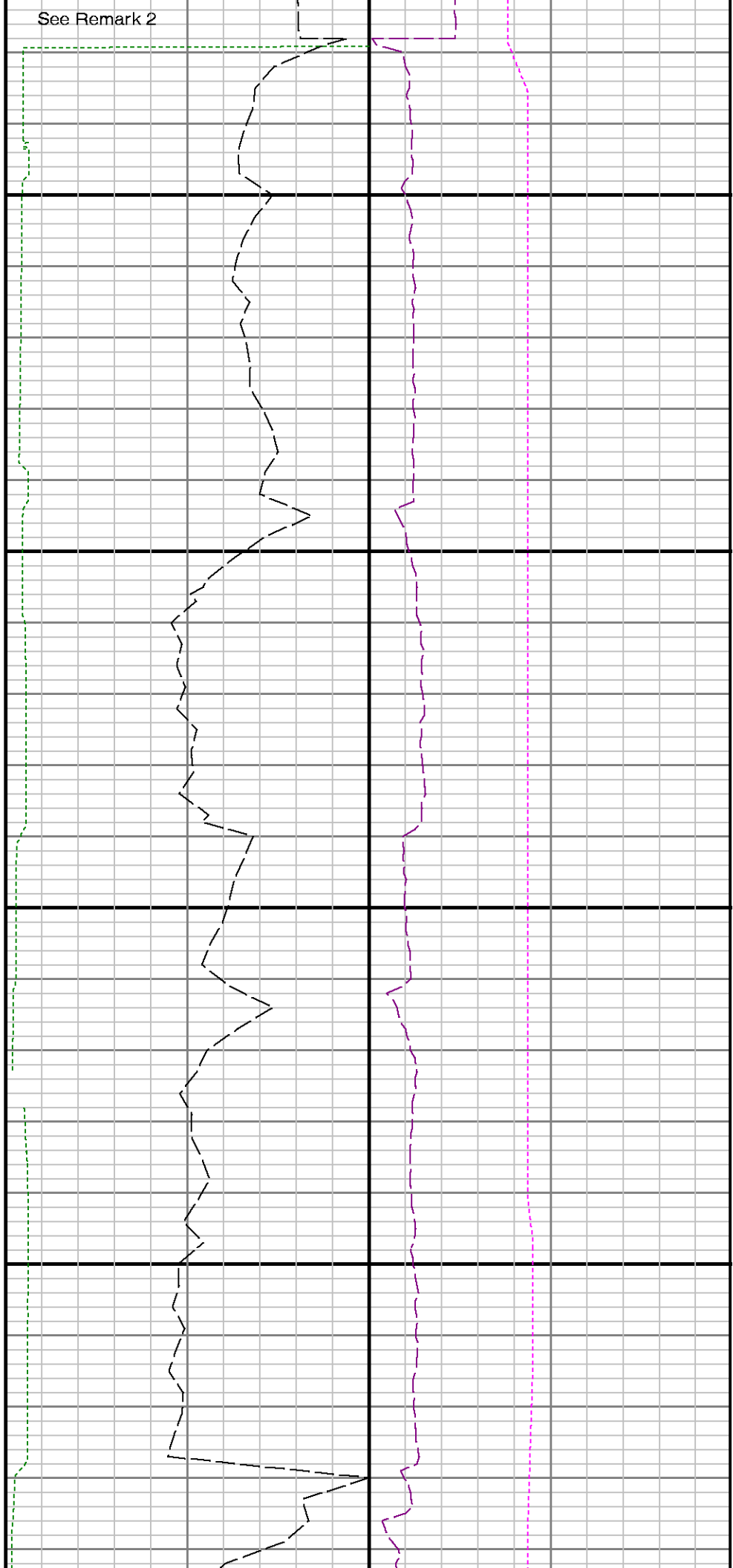
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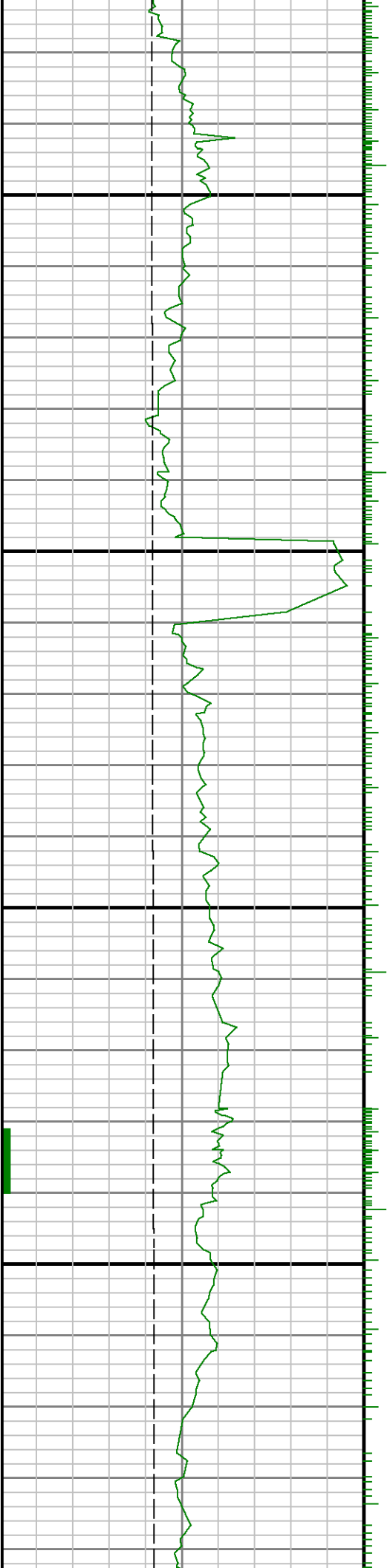


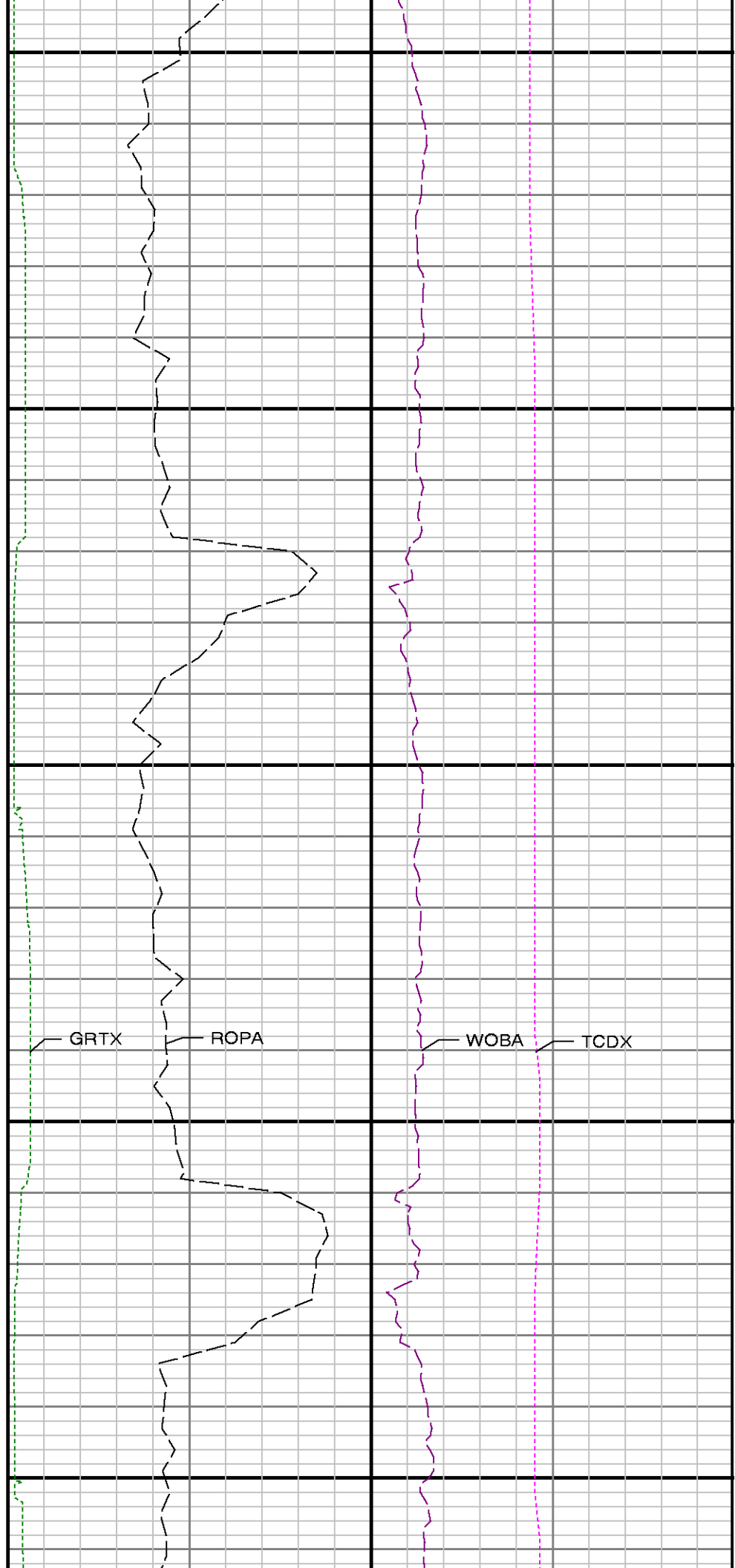
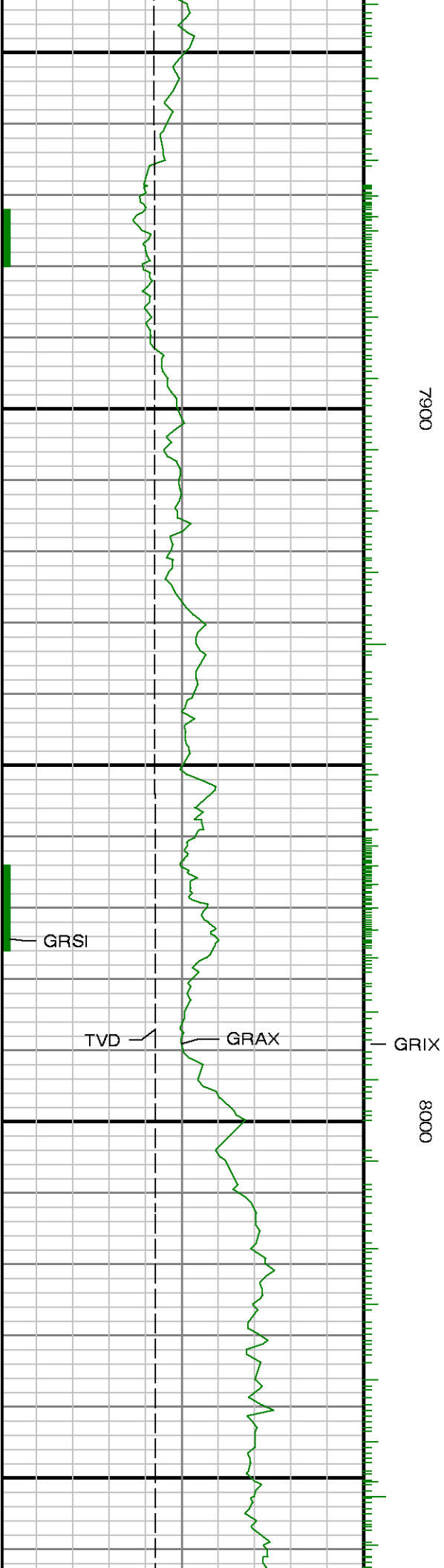


7700

7800

Run 2 \diamond Run 3

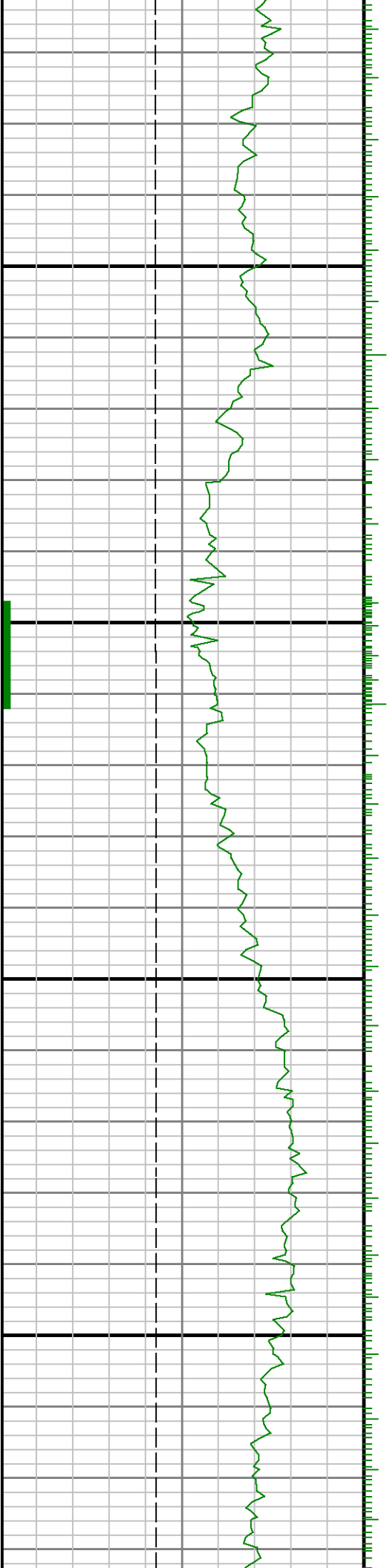


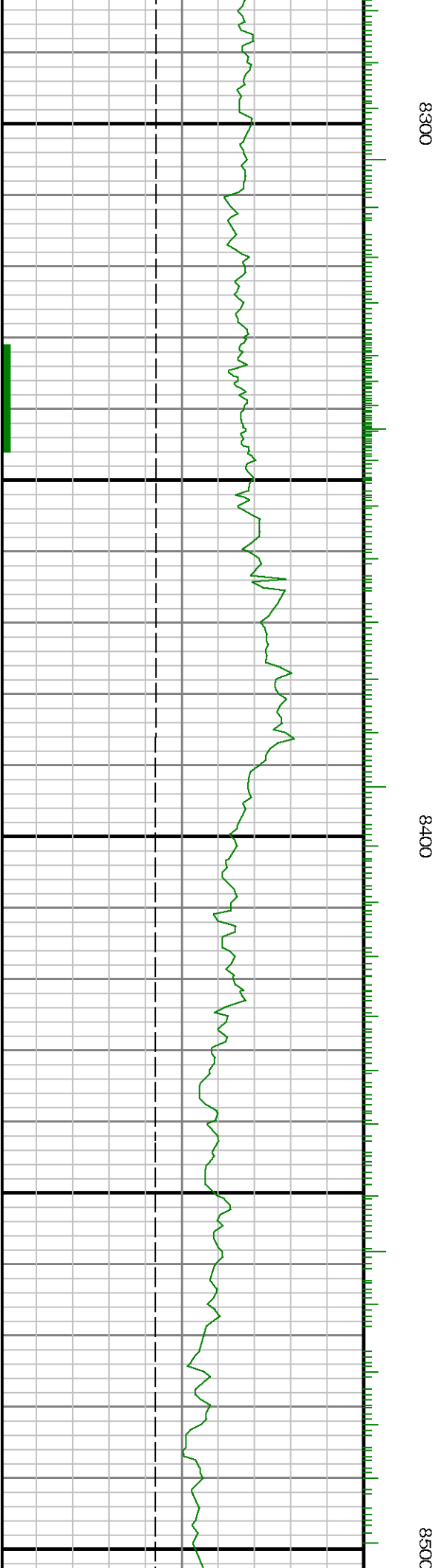


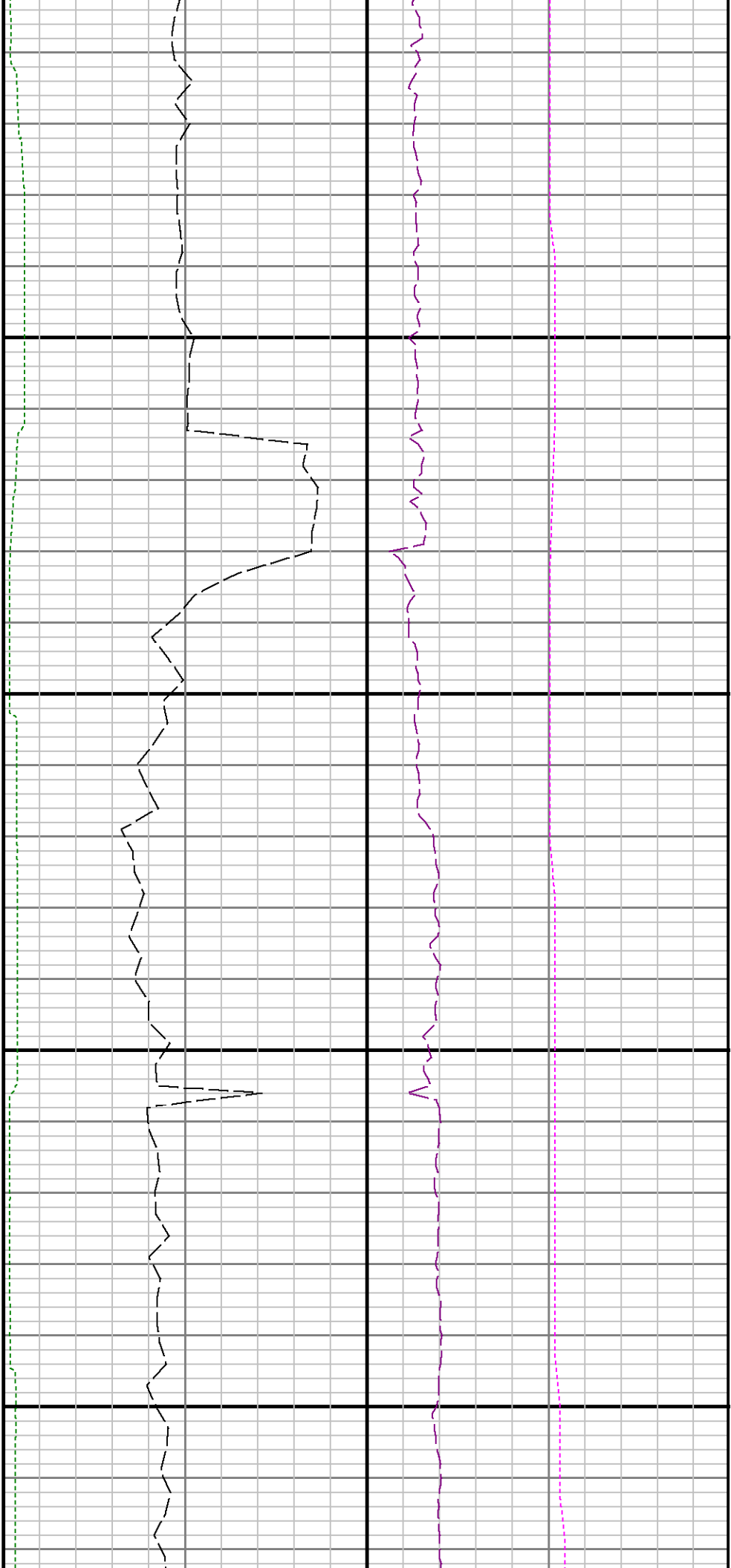


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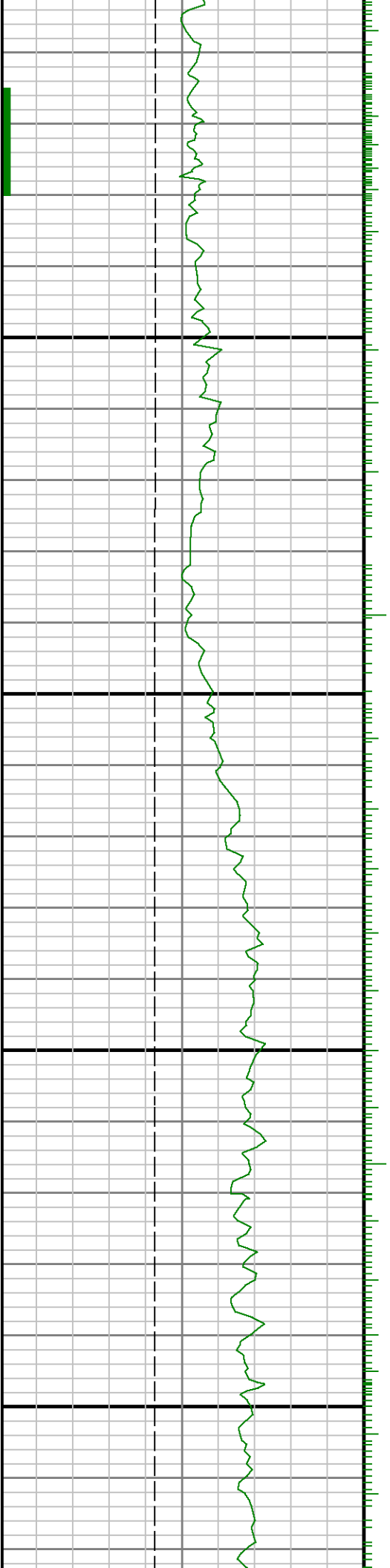


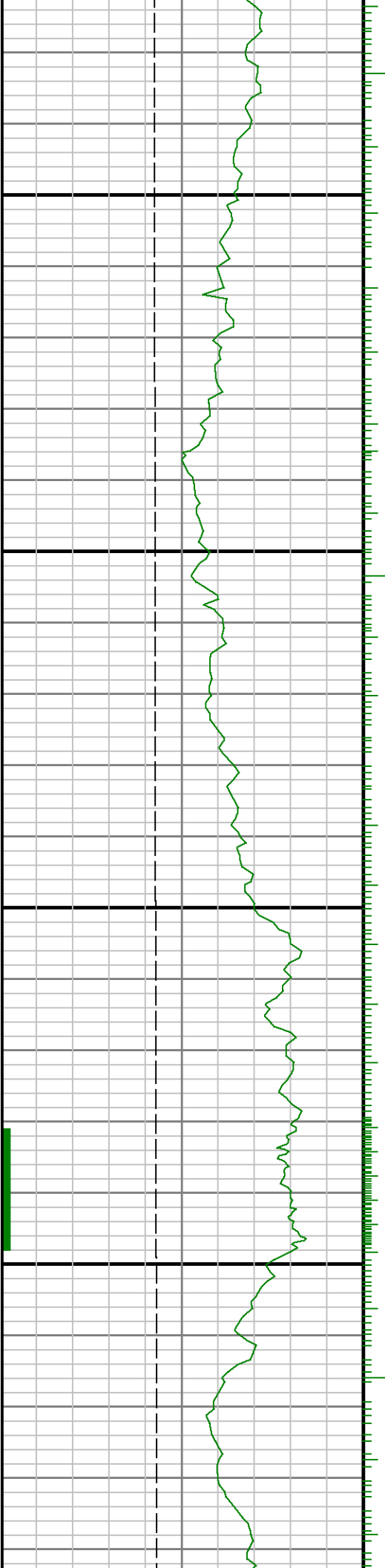




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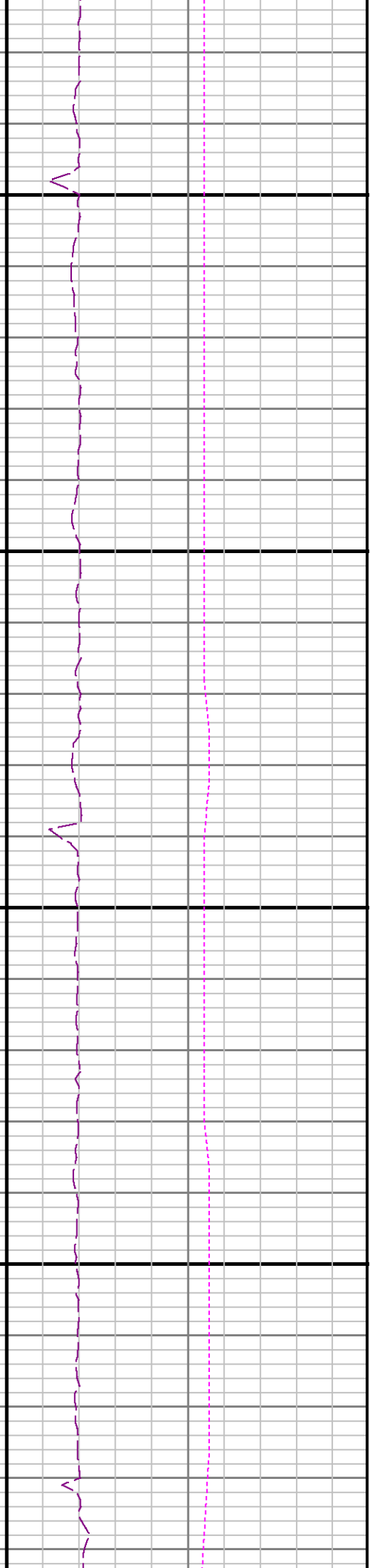
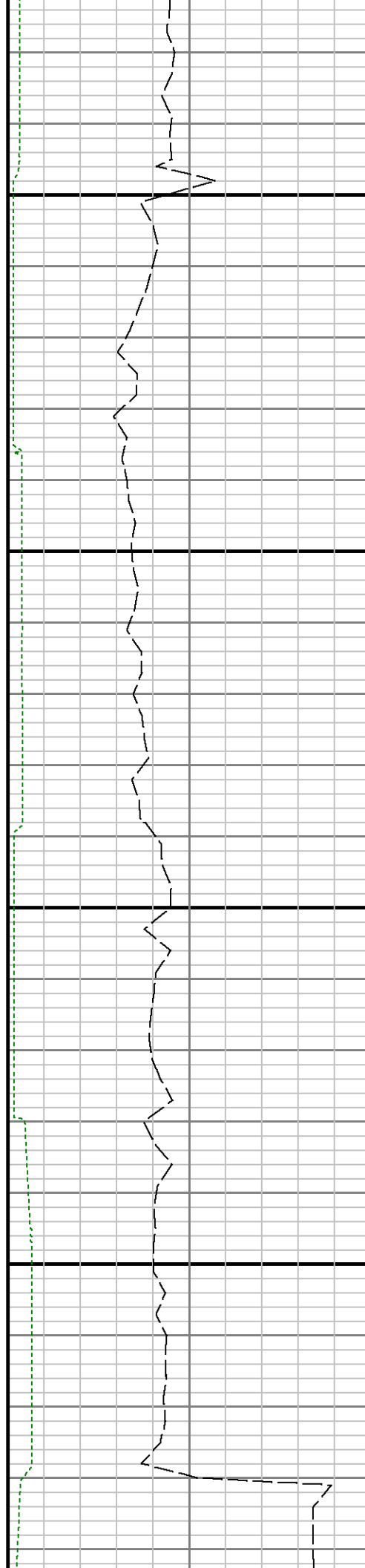
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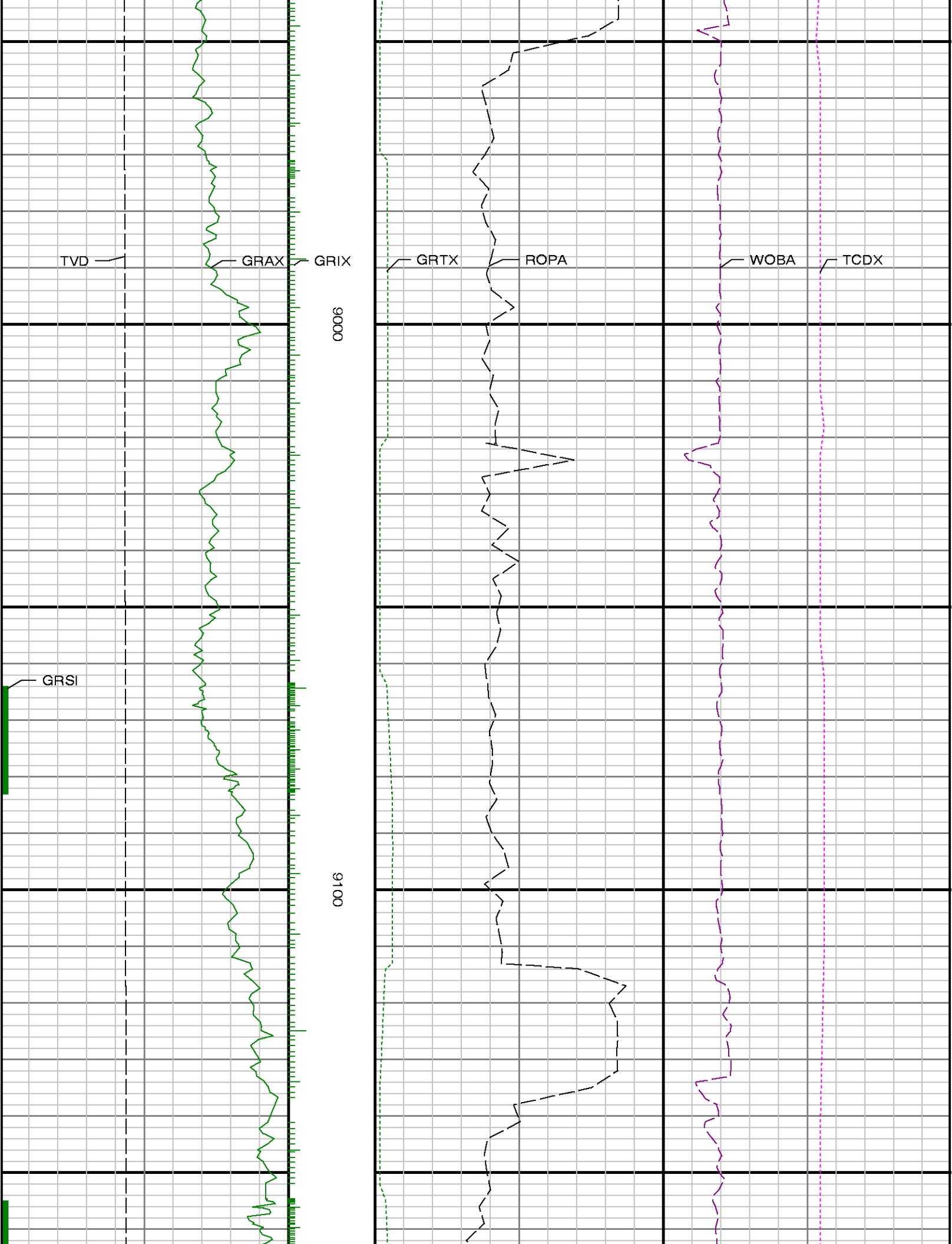


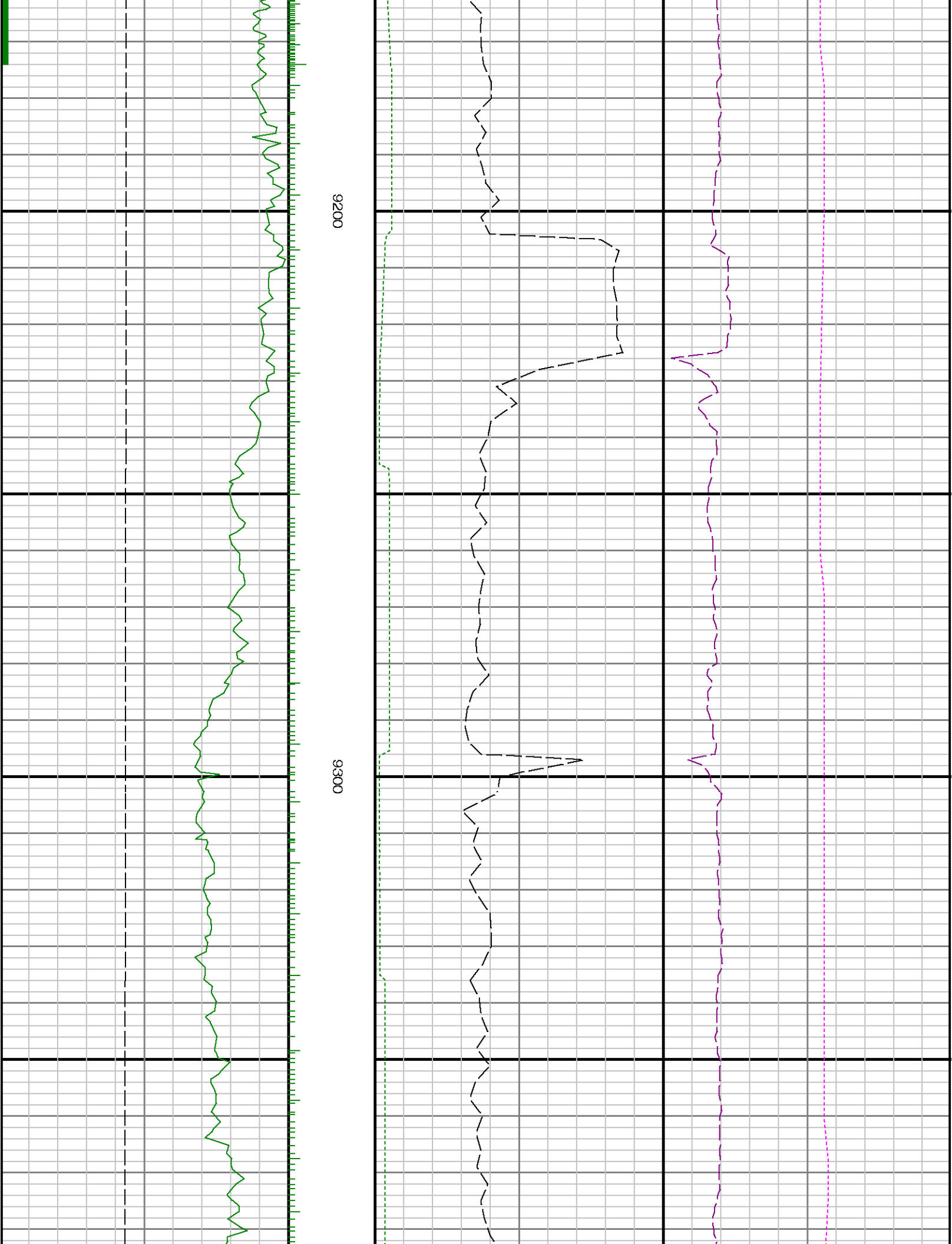


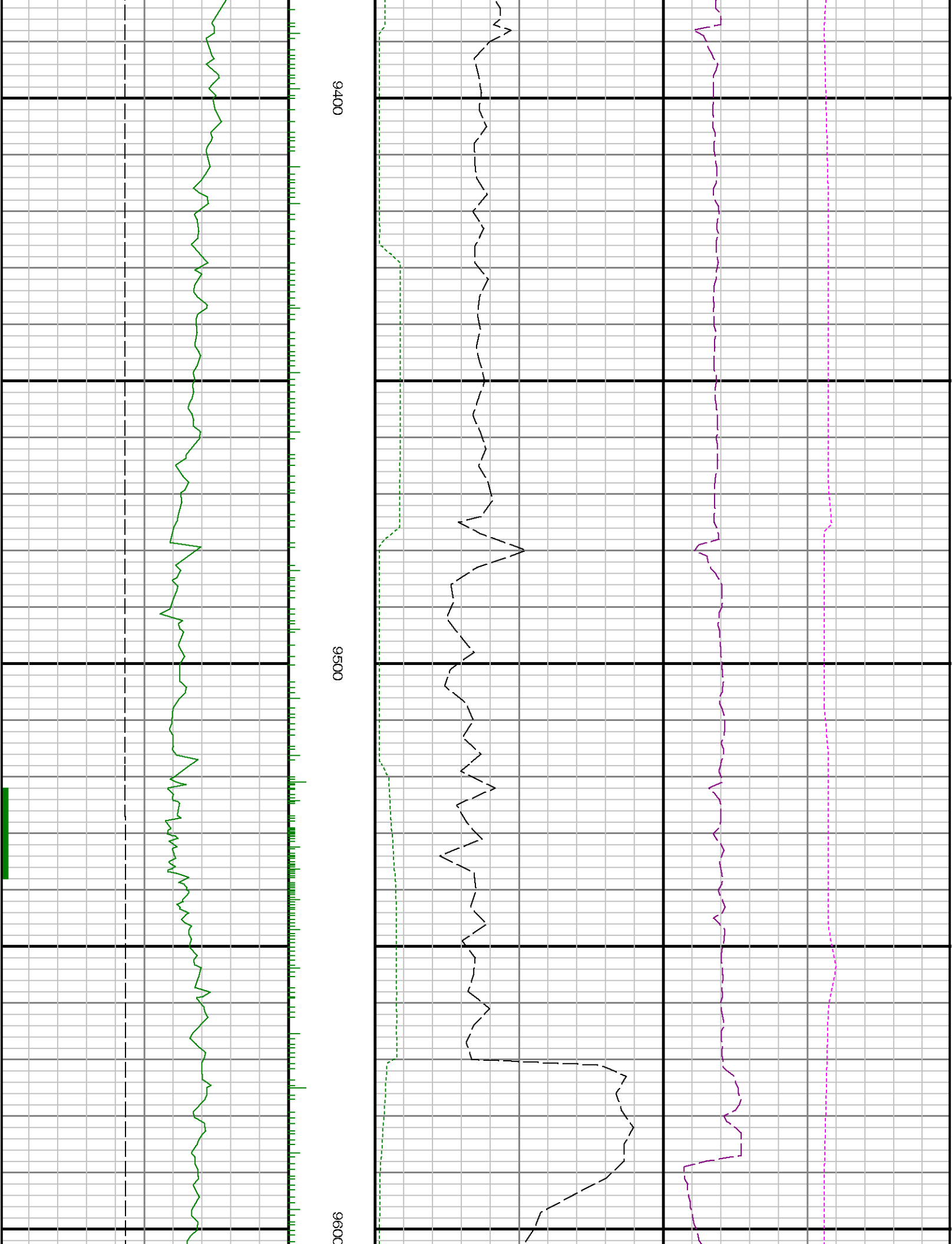
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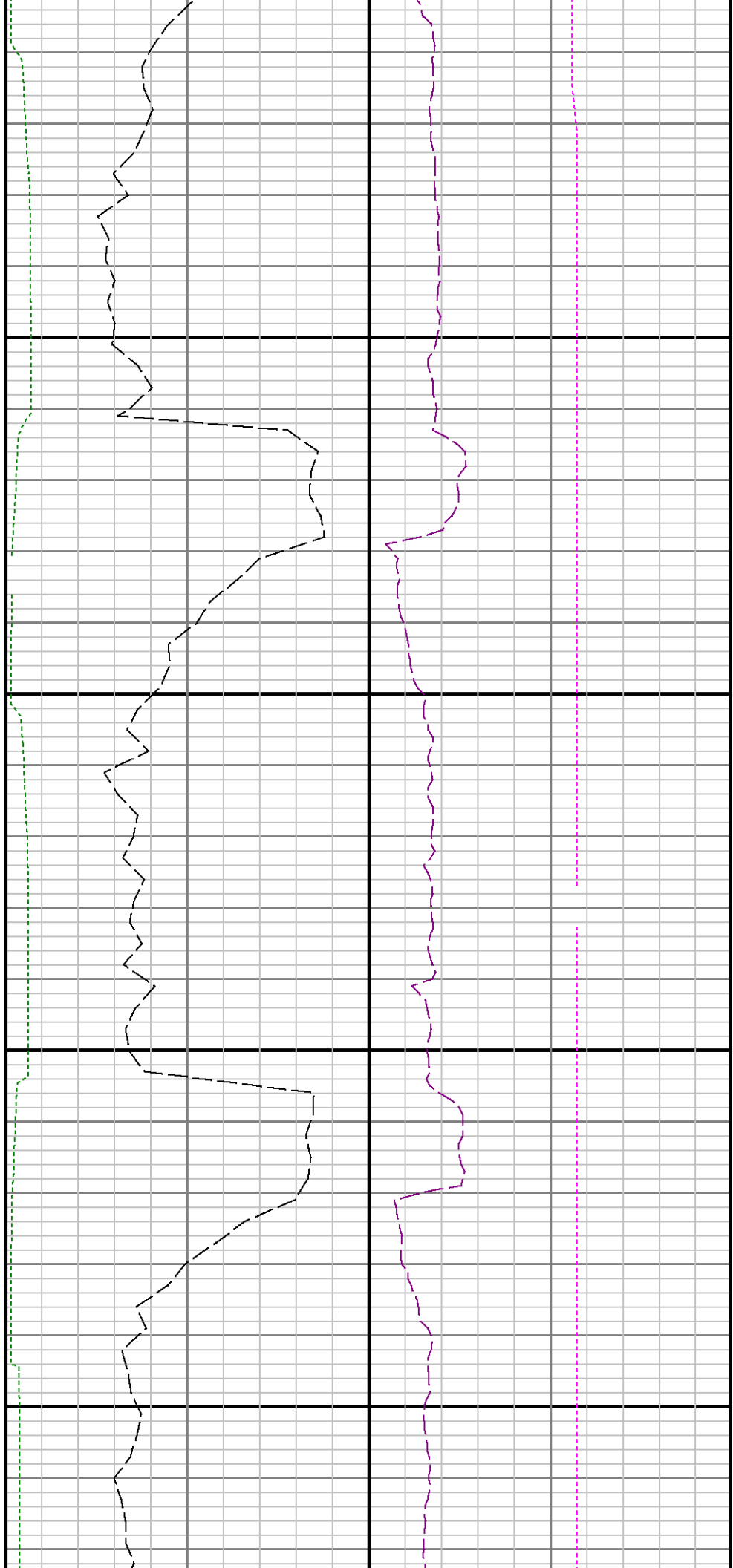
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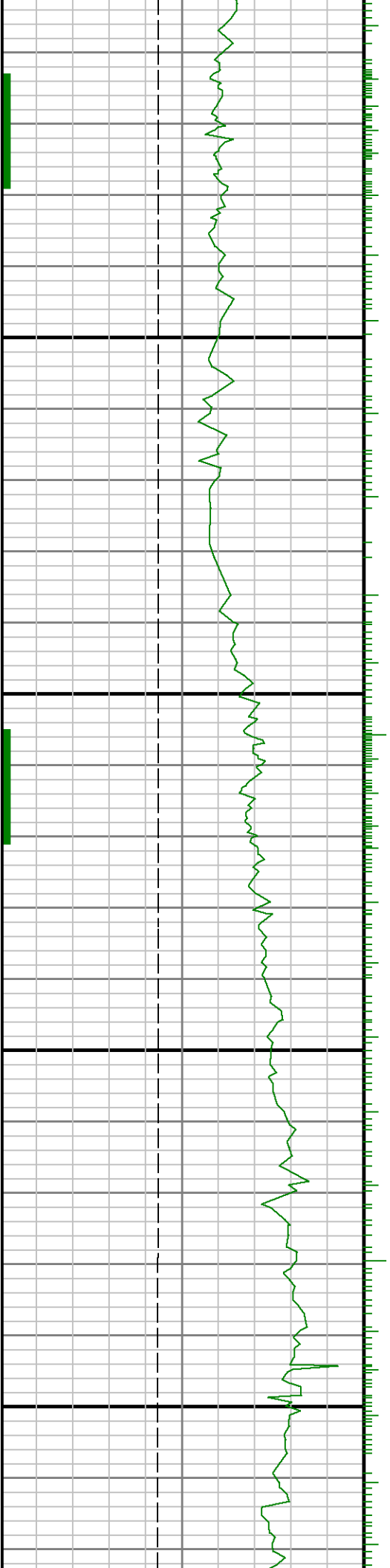


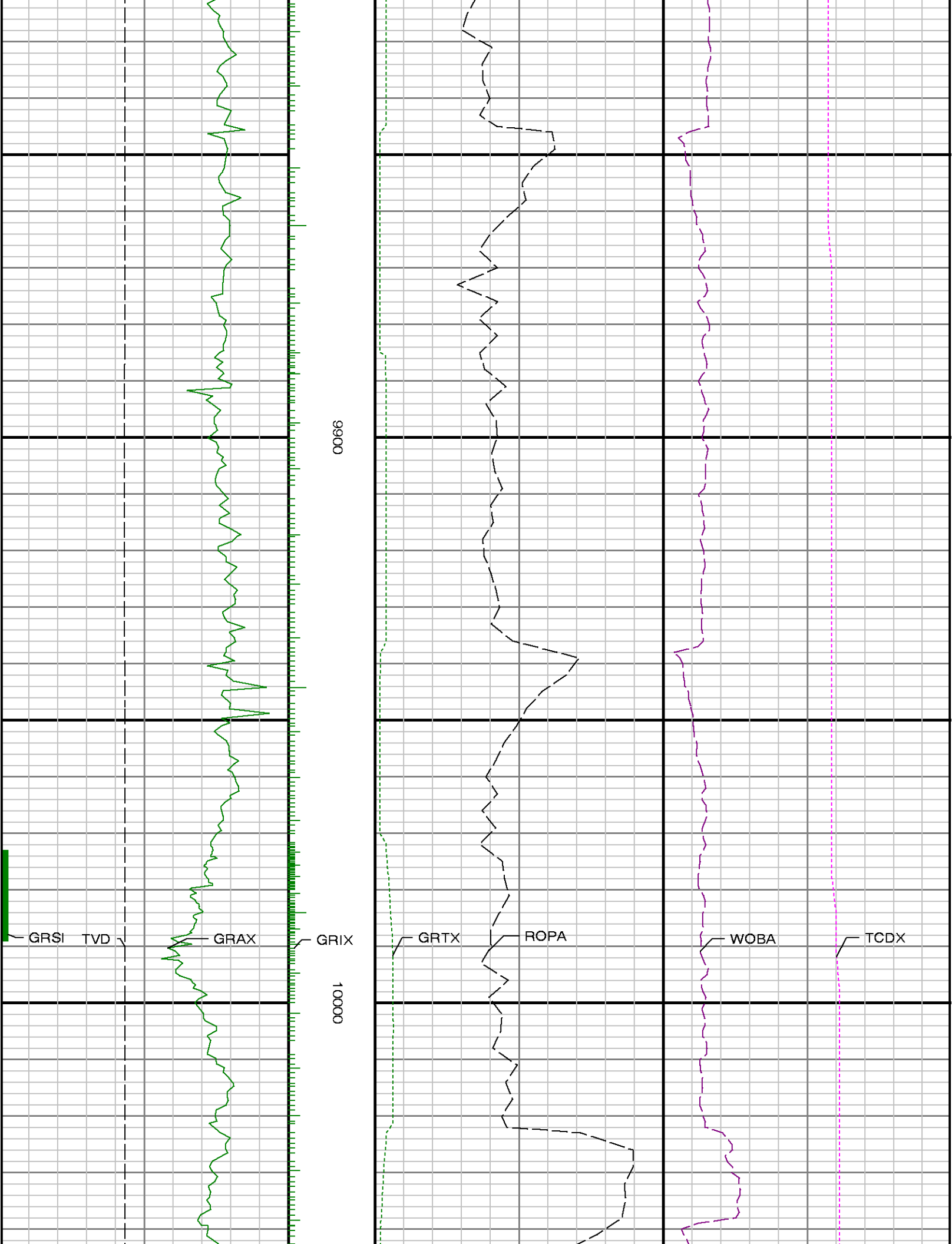


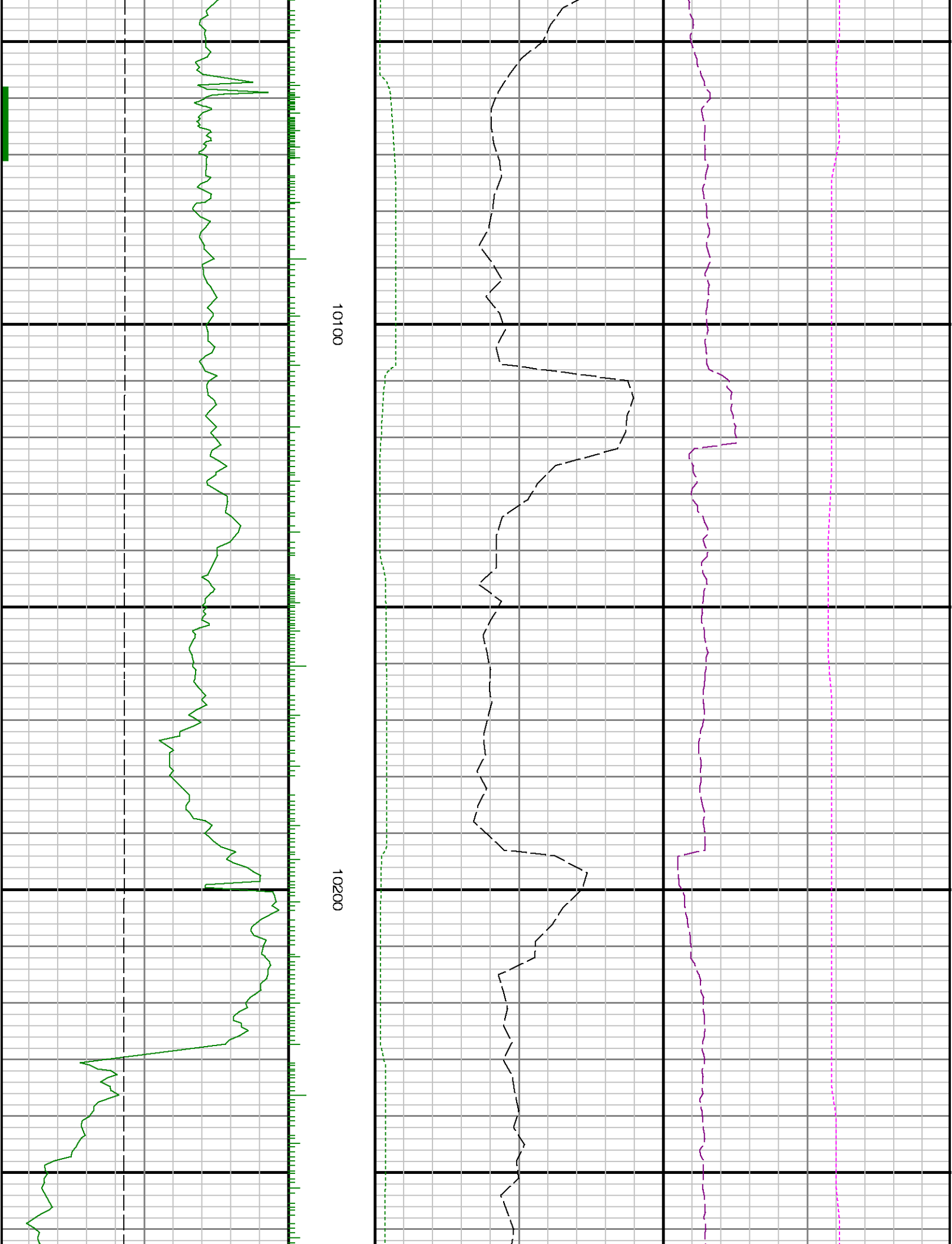


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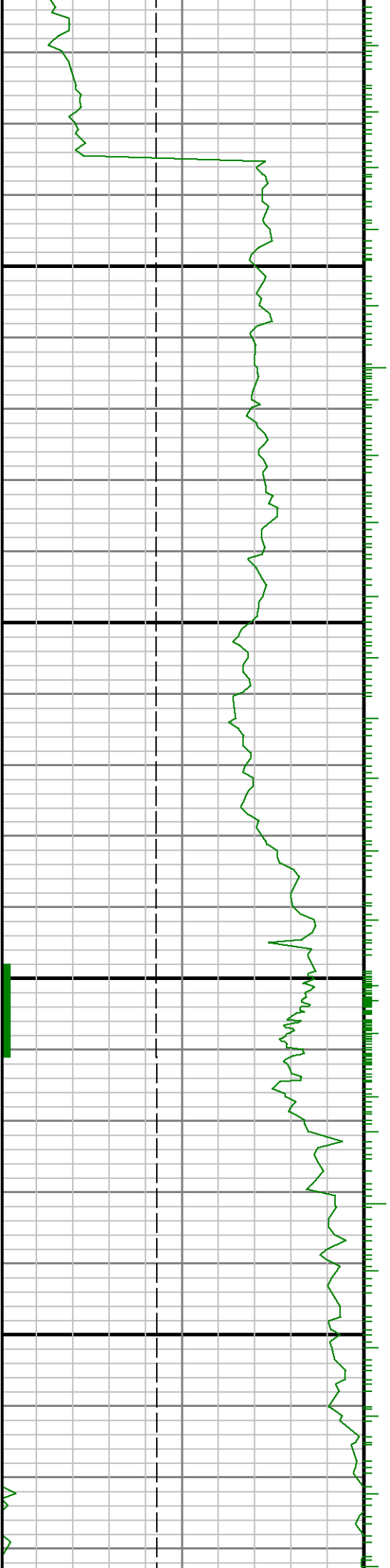


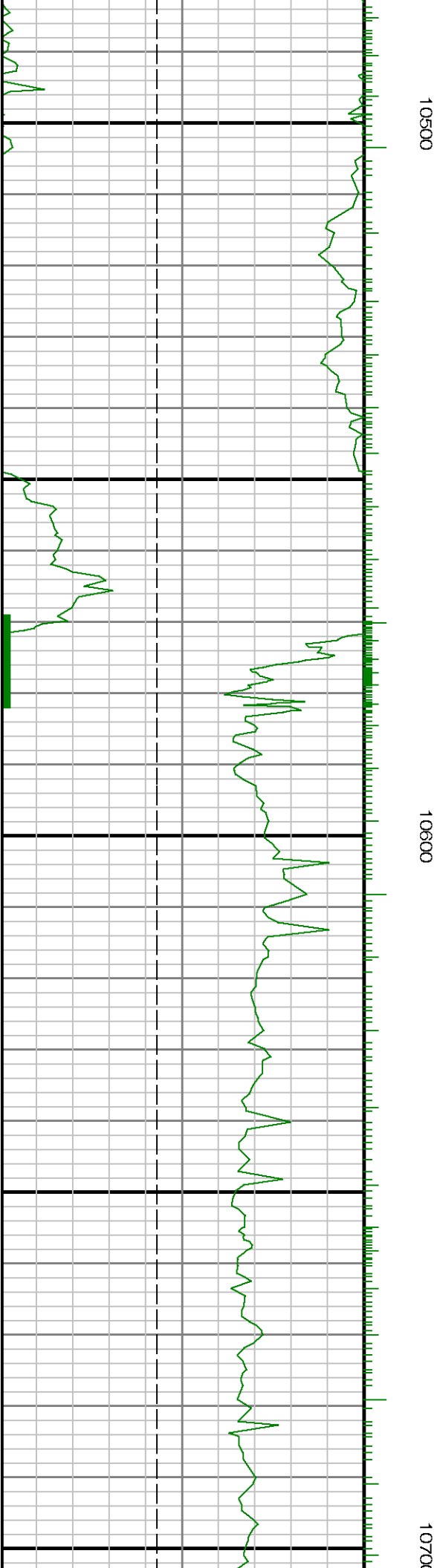
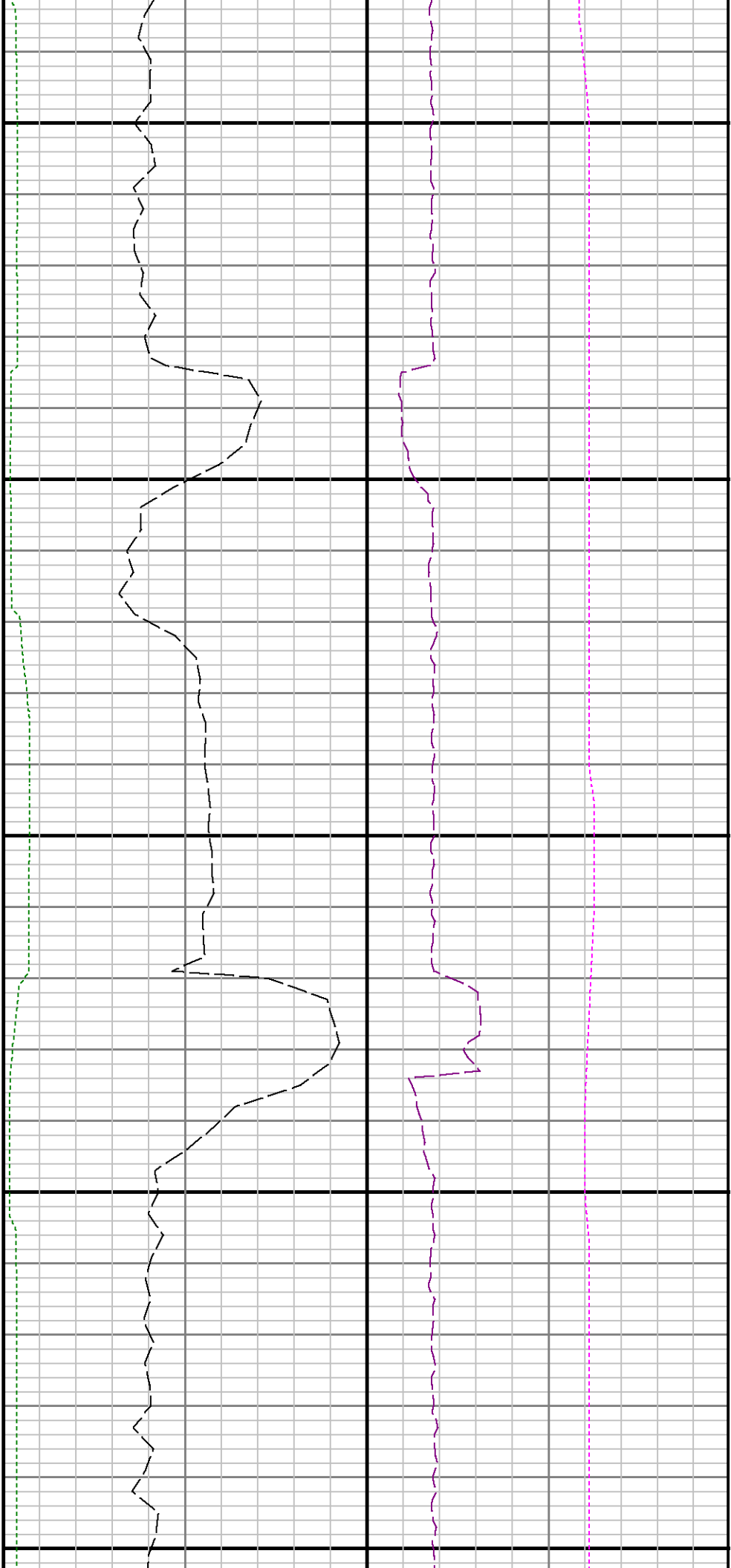


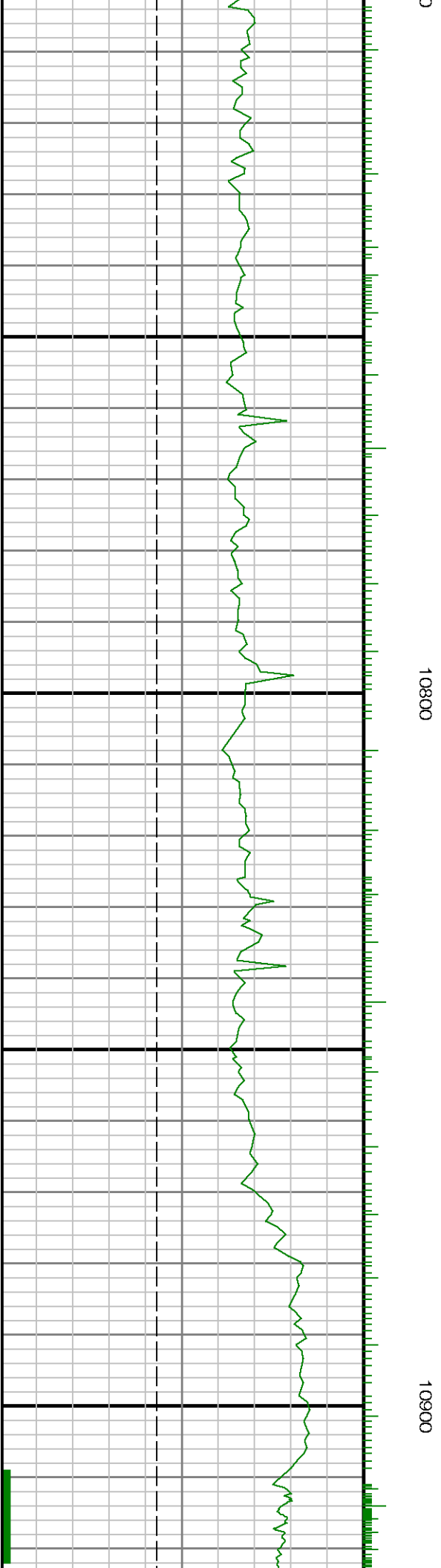
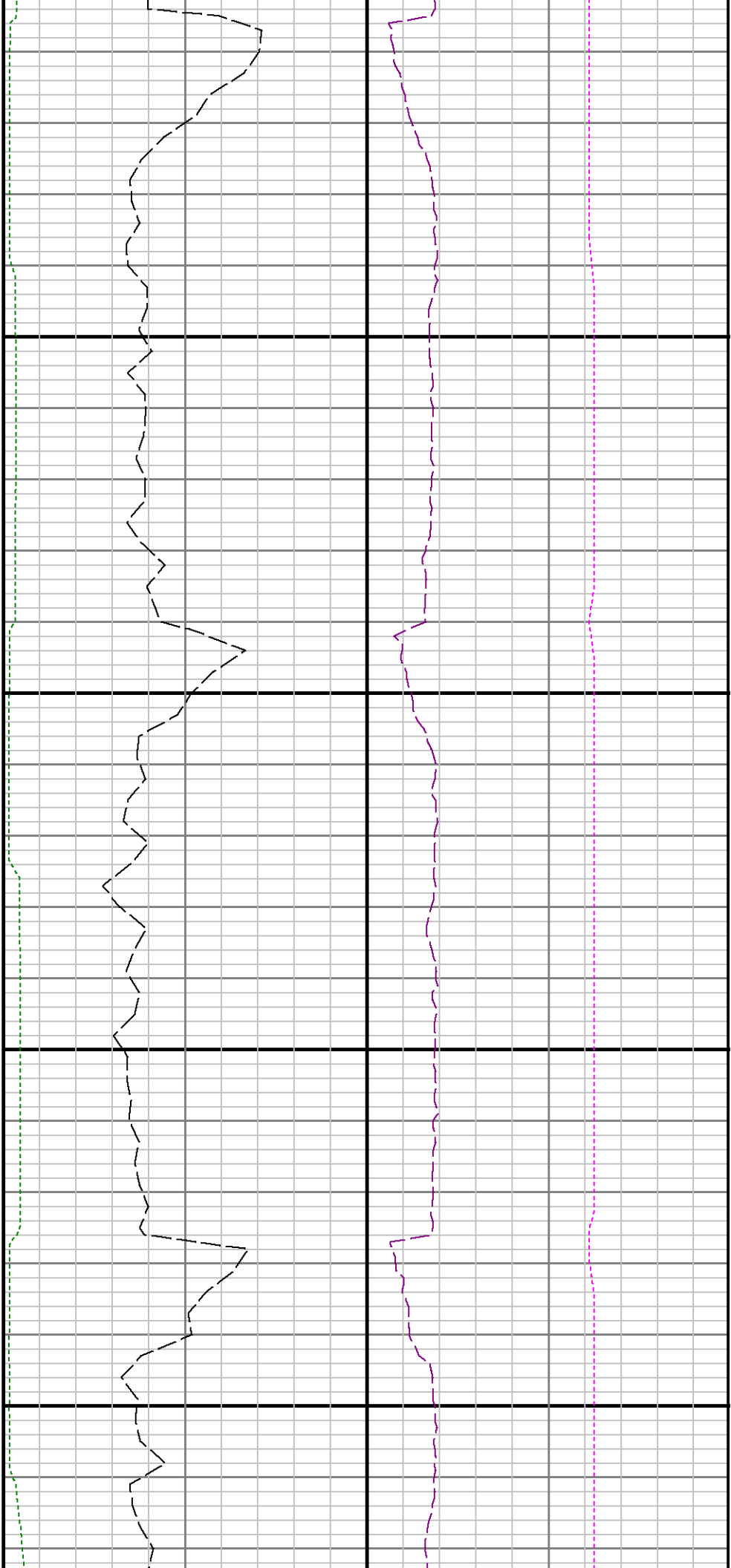


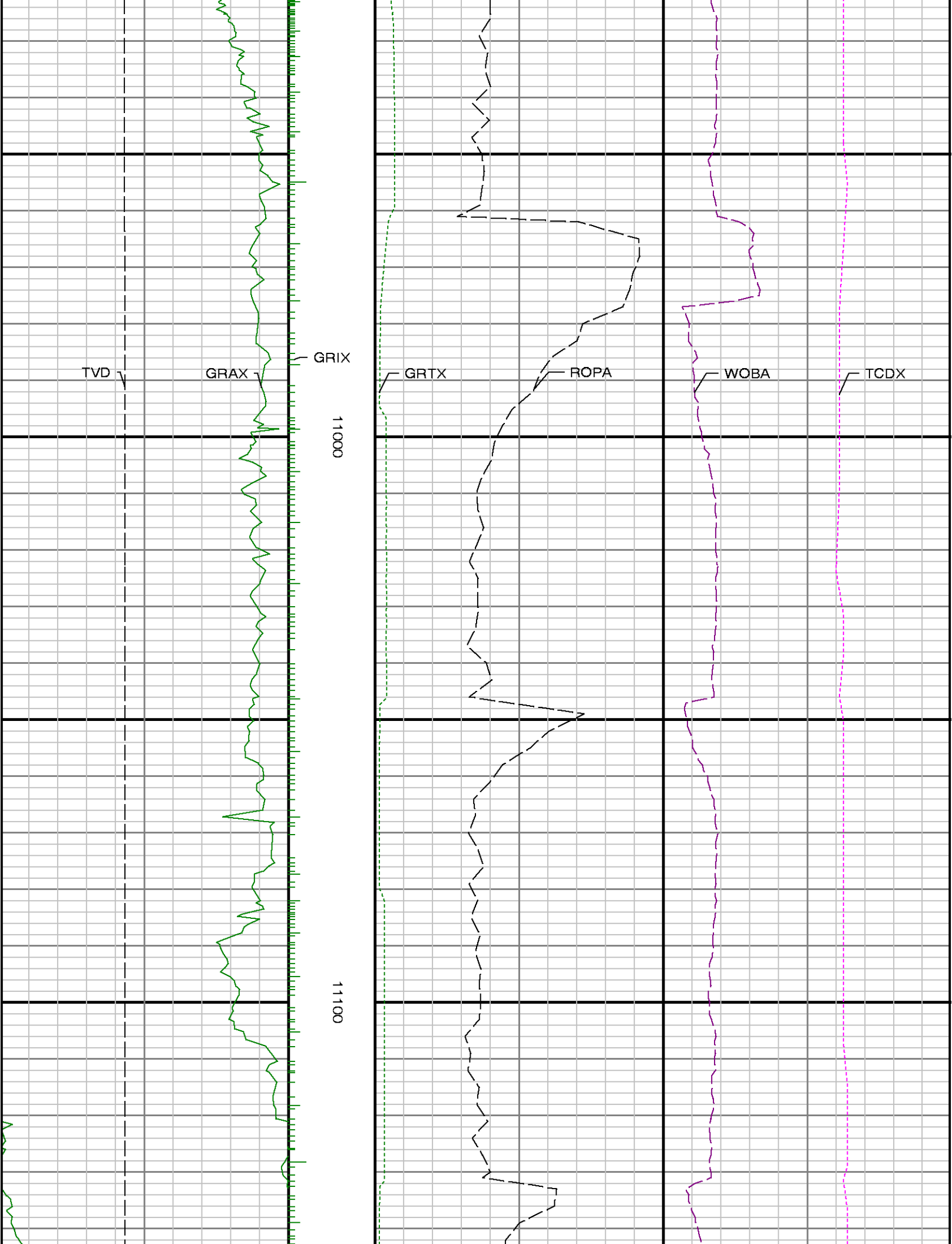
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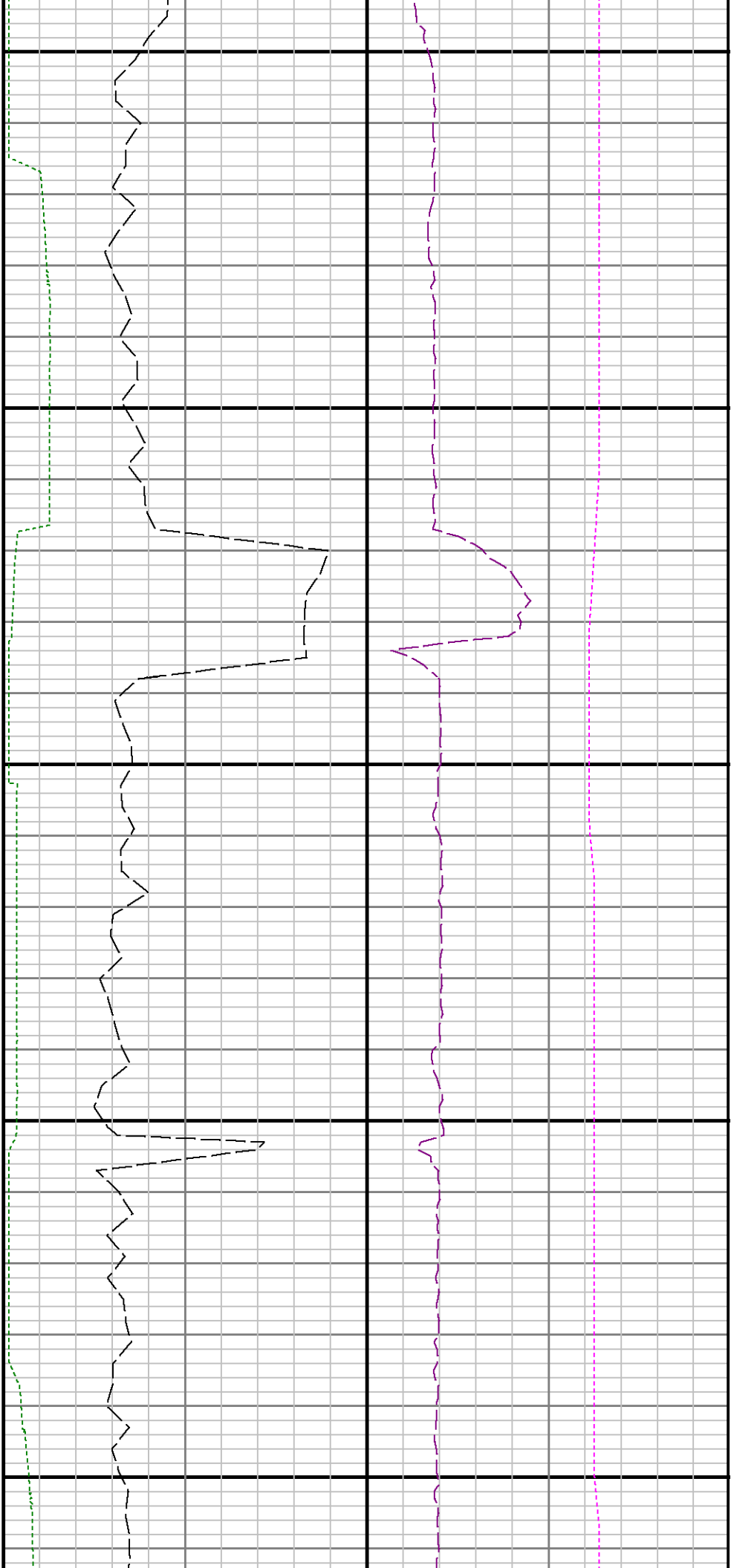
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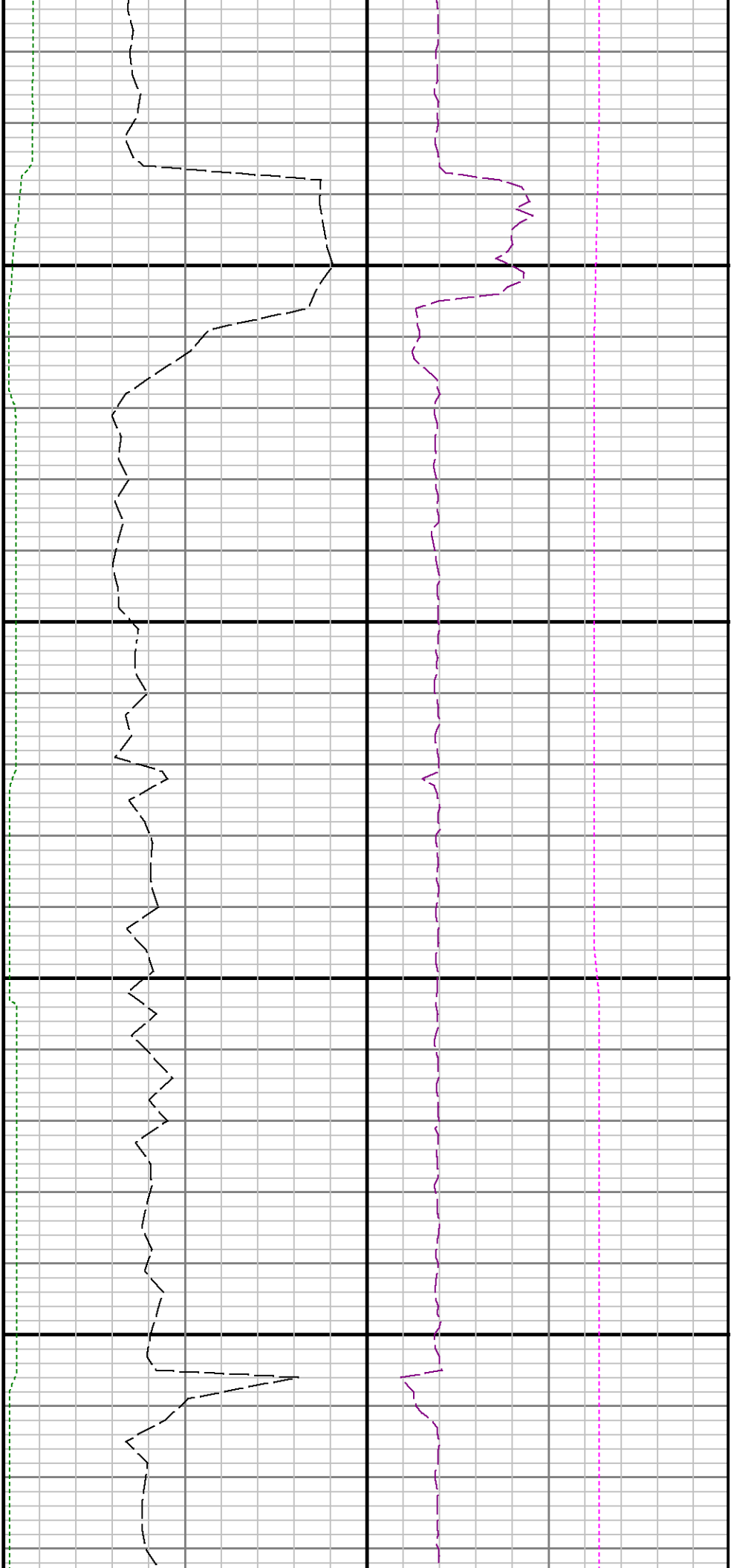






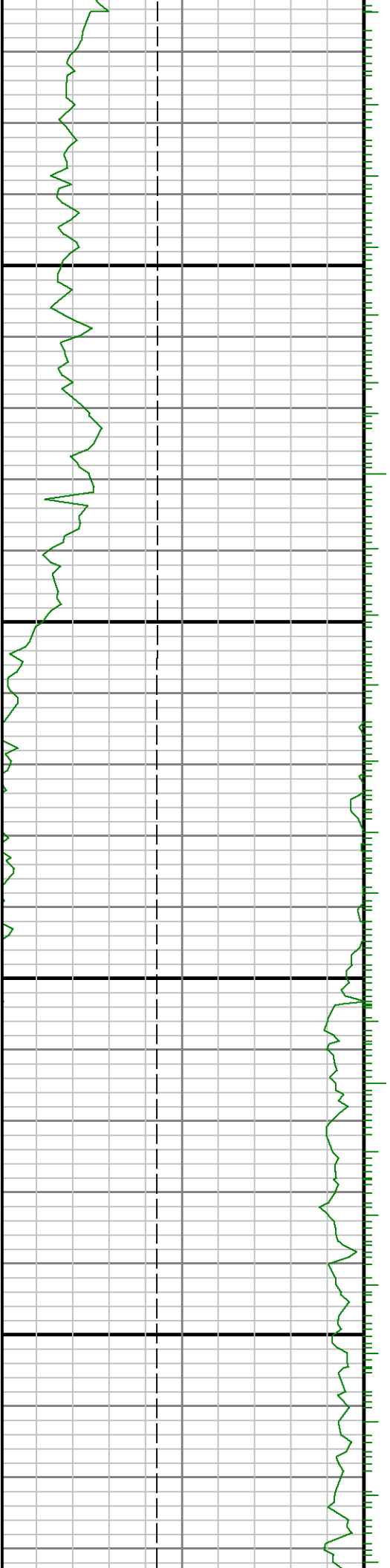
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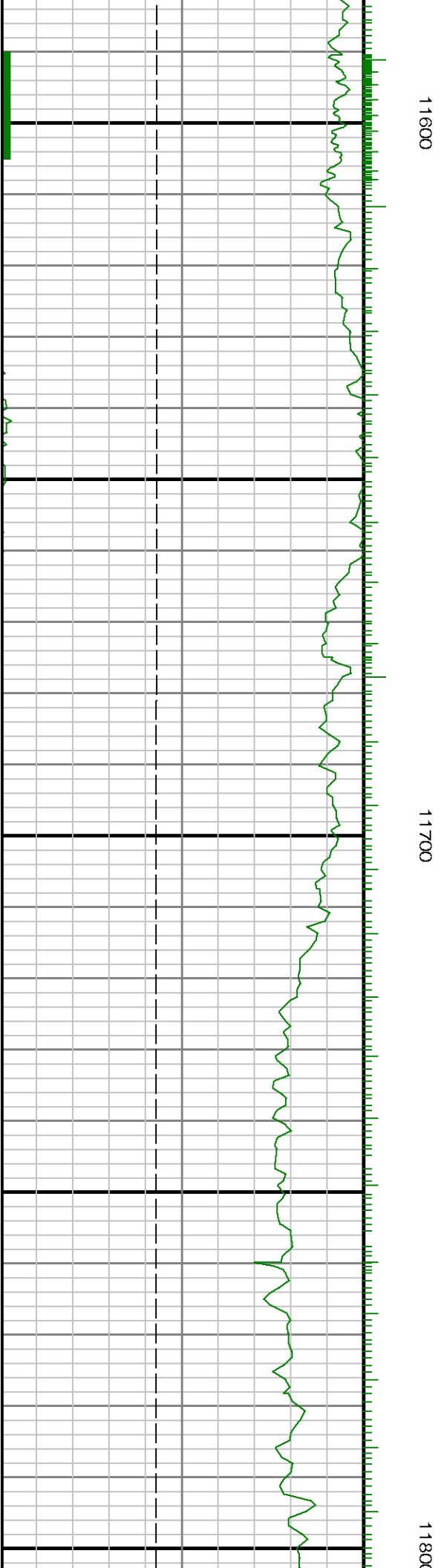
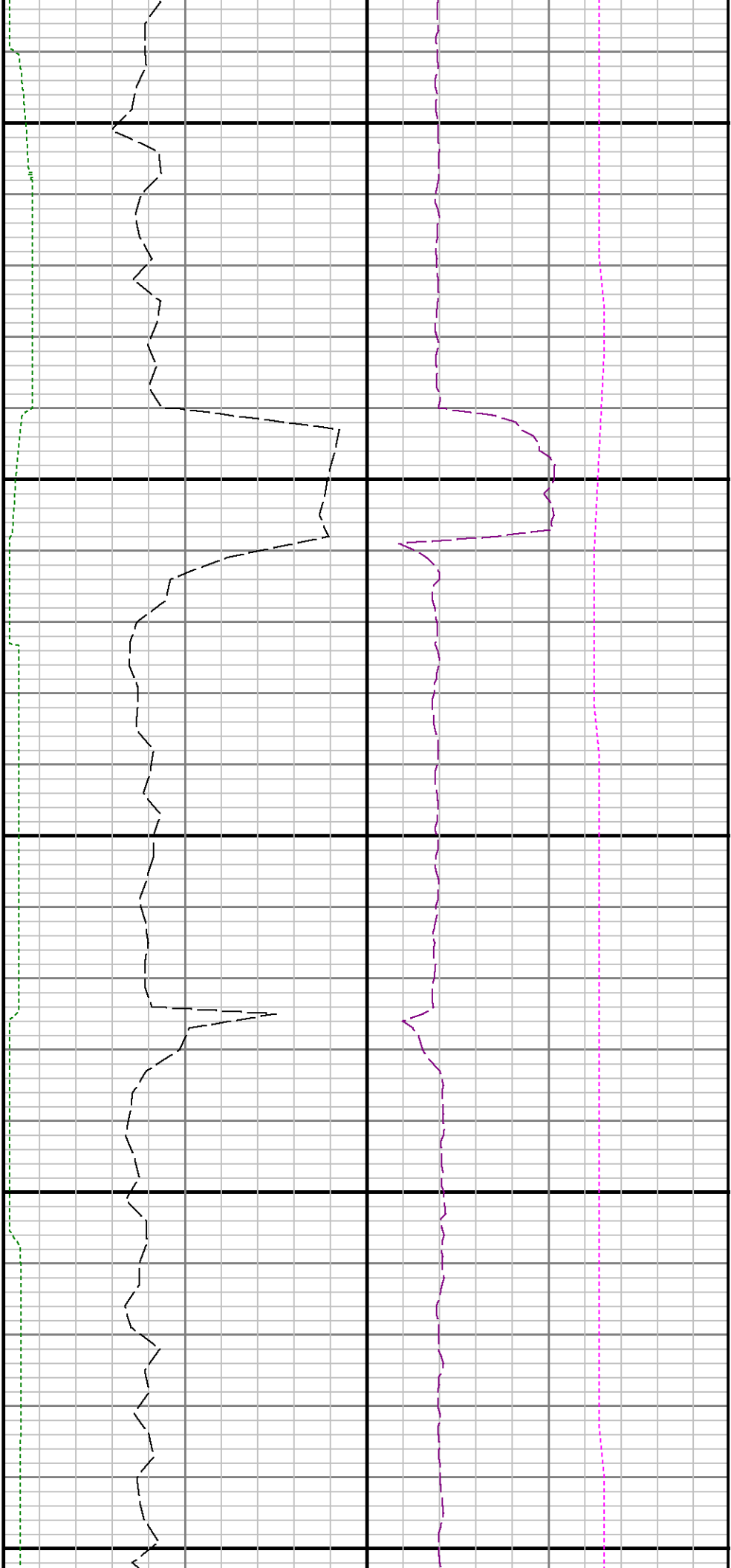
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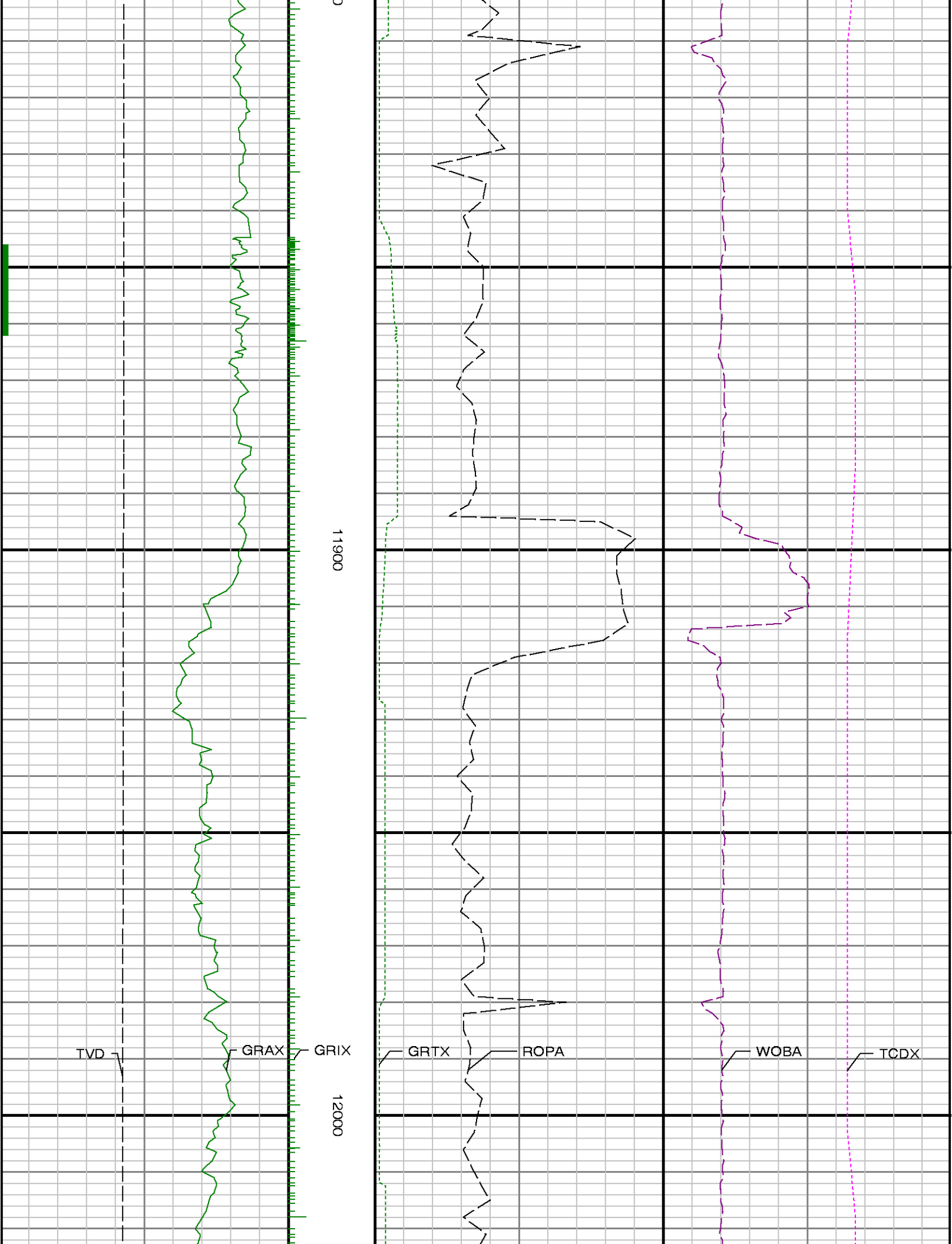


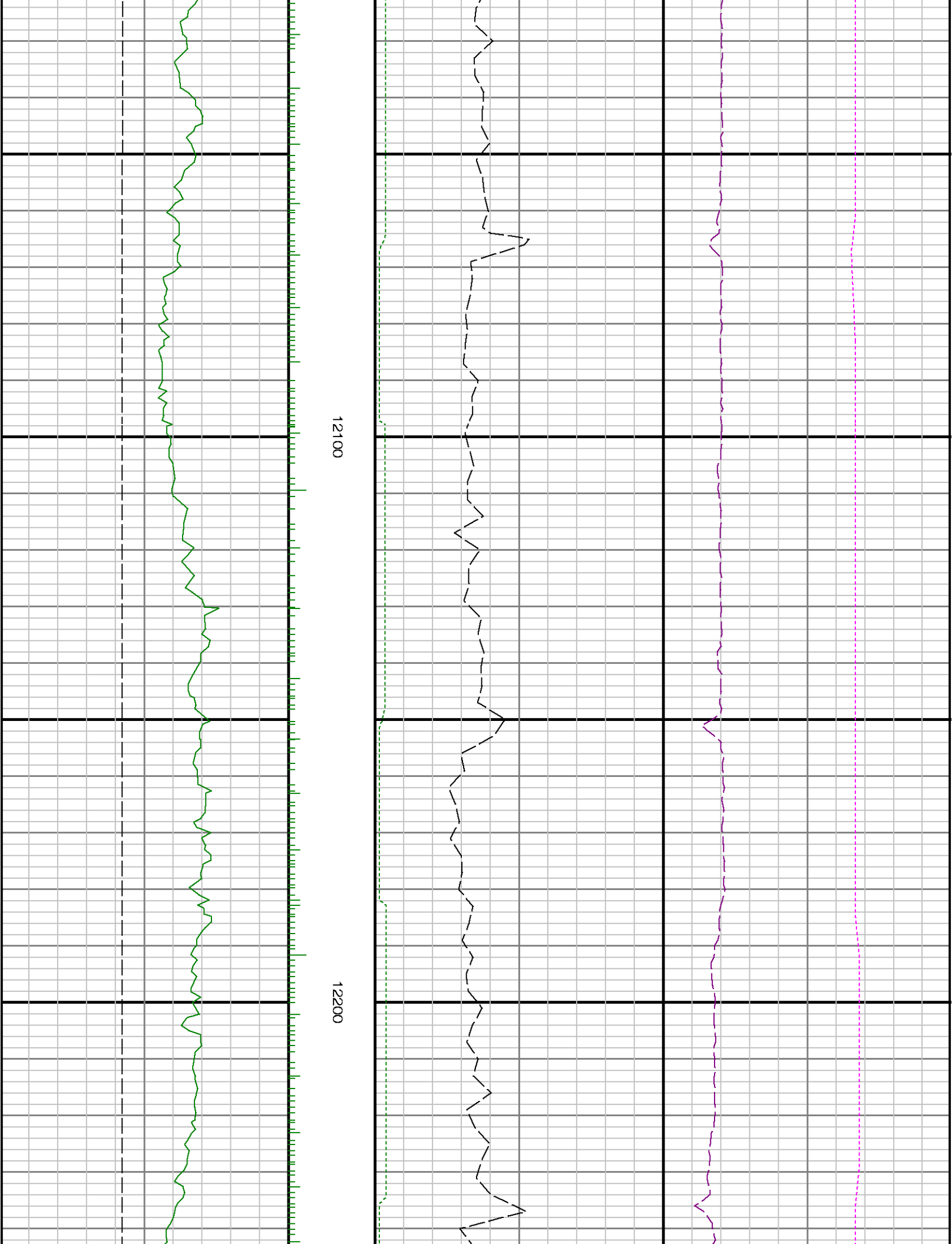
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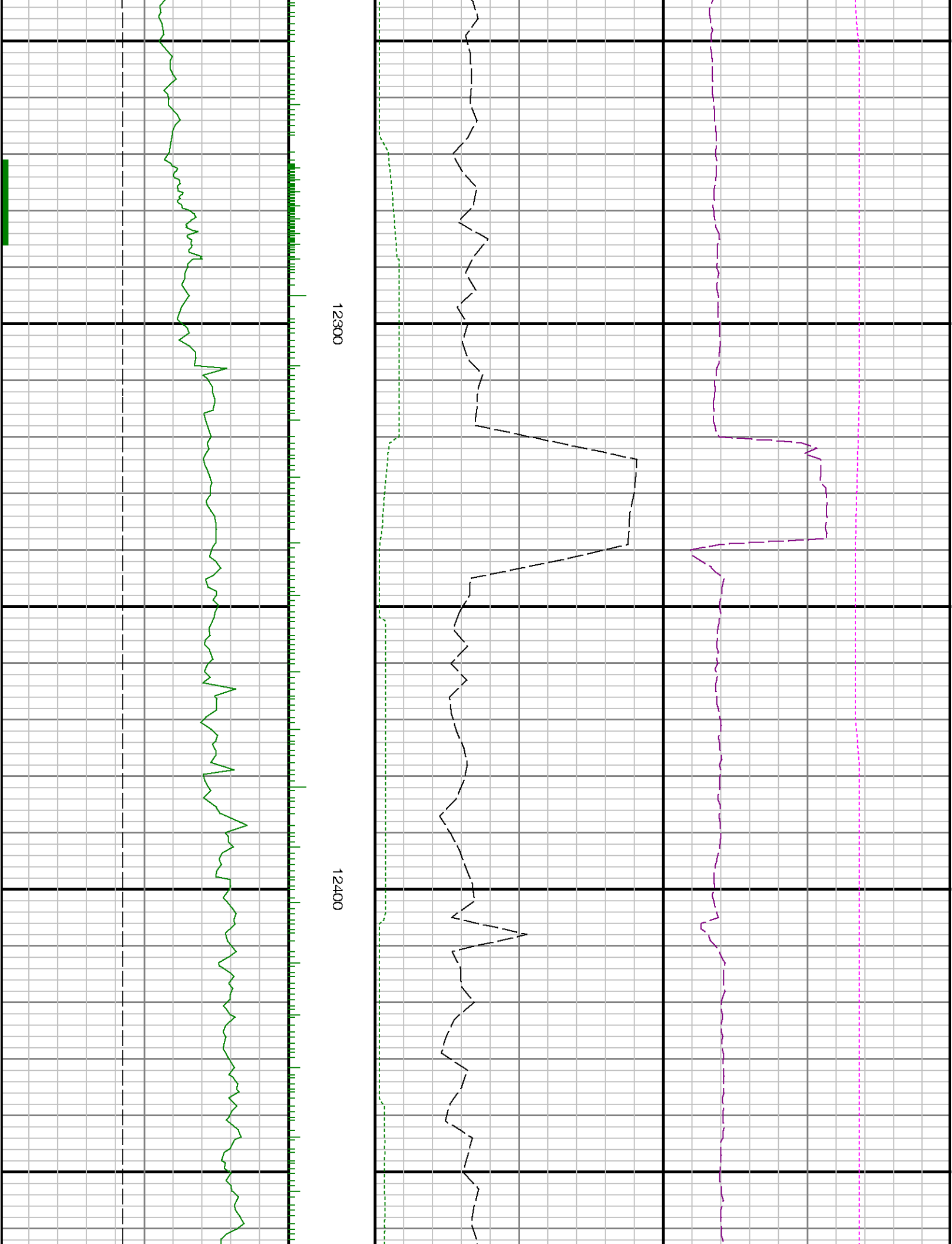
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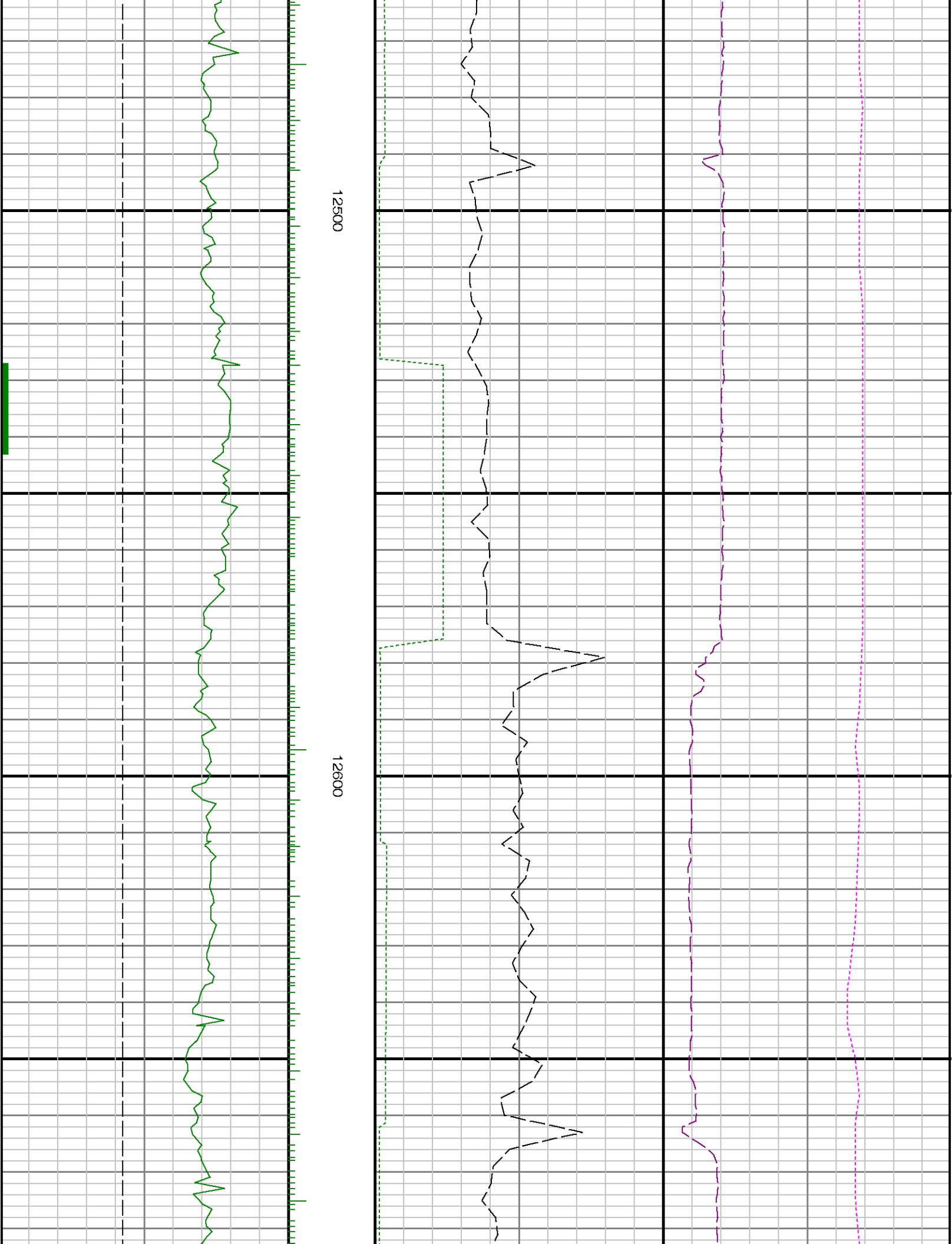










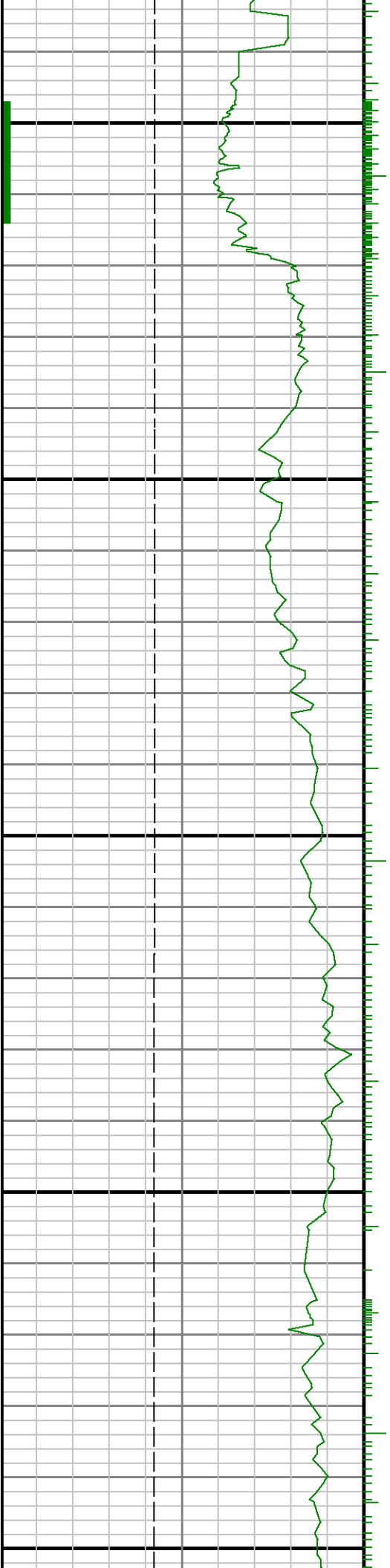


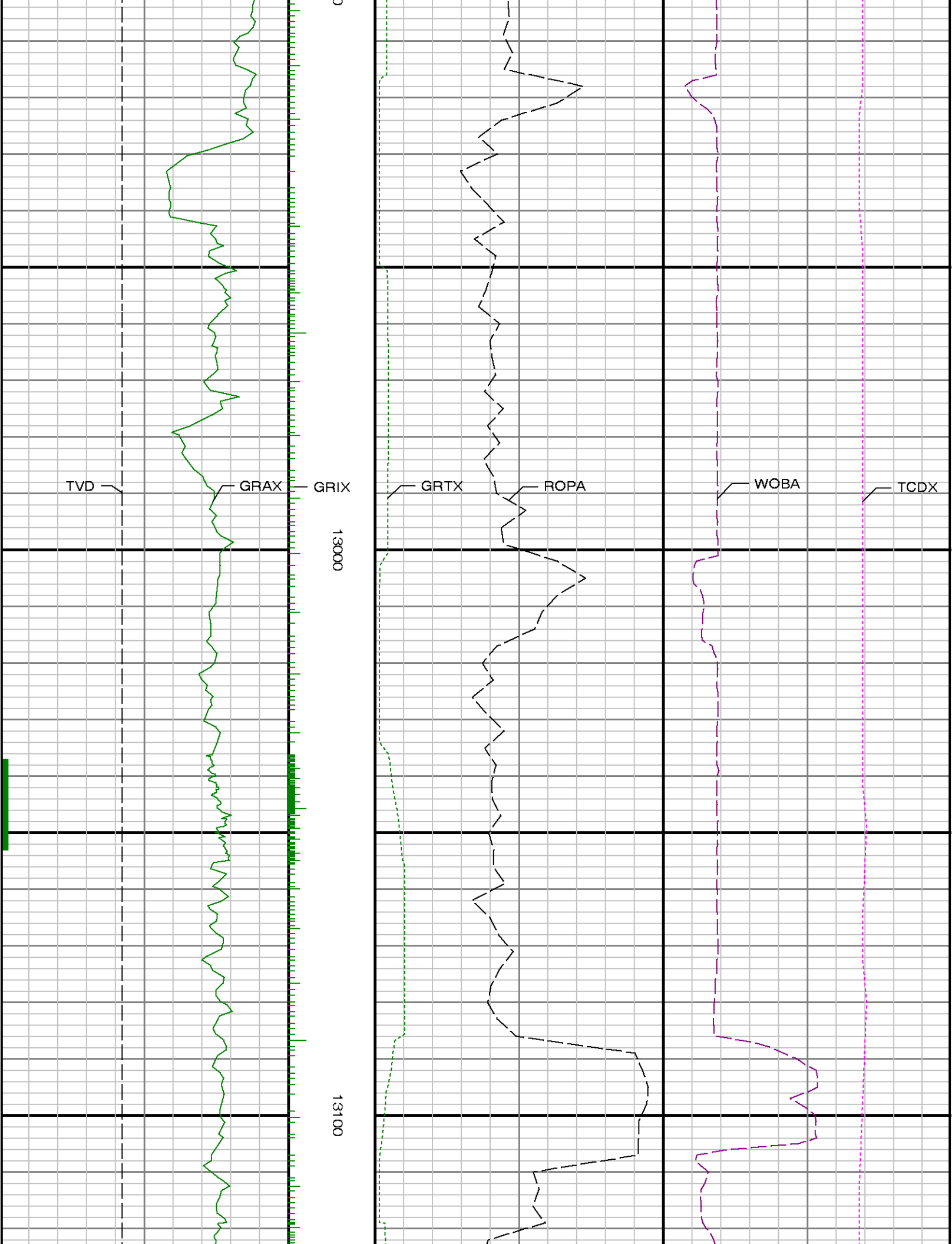


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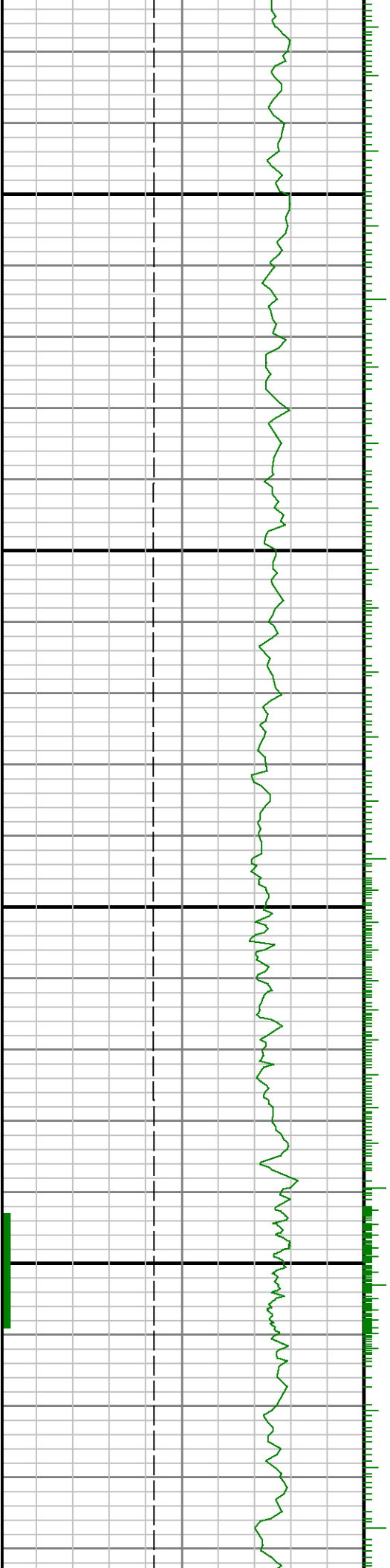


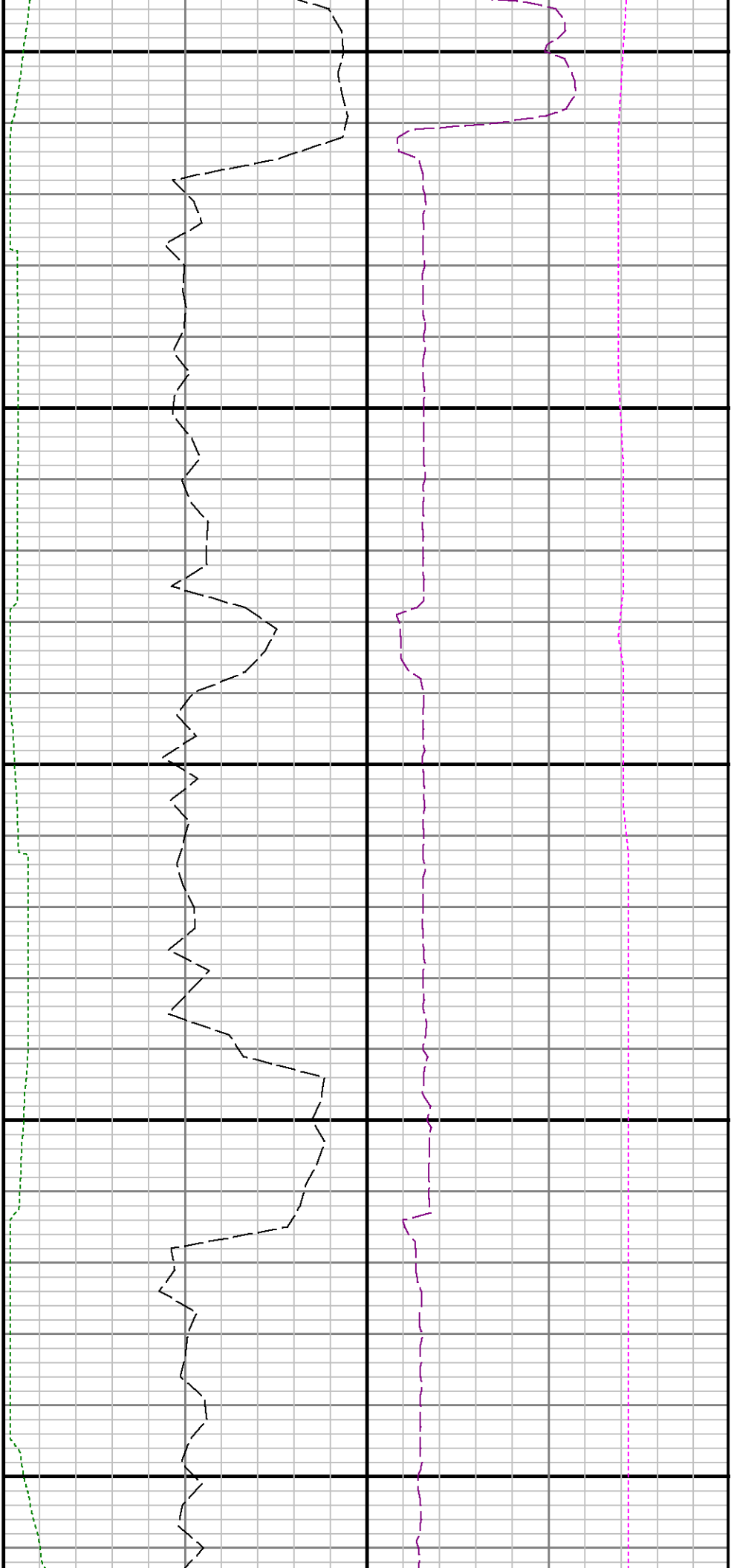




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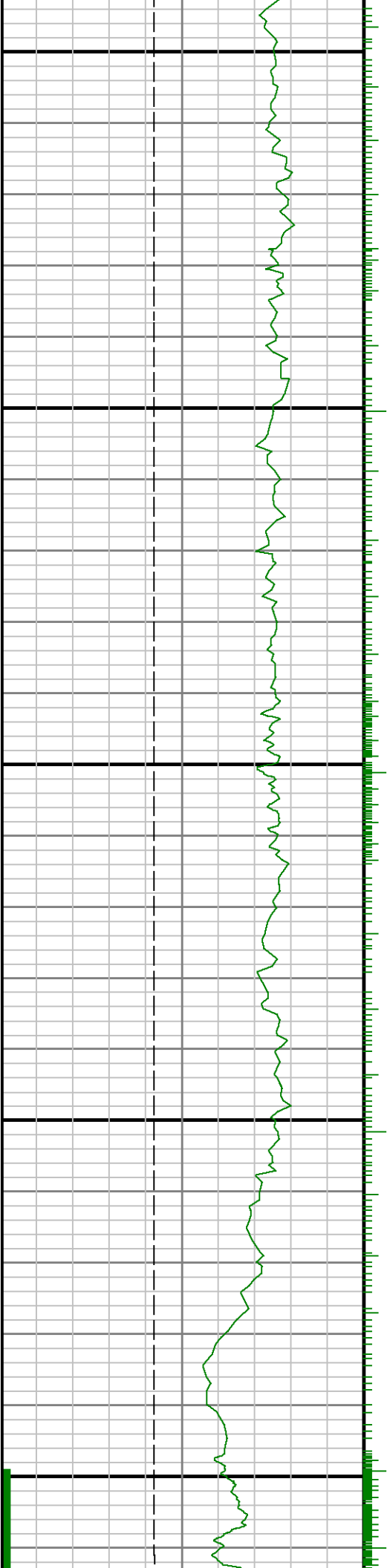
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