



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

145271

5"-100' - MD

11/4/2014 1:50:16 PM

CATHEDRAL

Oper. Company: Encana Oil & Gas (U.S.A.) Inc.
Country: U.S.A.
State / Province: Colorado
County / Parish: Weld
Started: 08/31/2014 05:00 AM

API/UWI: 05-123-37654-00
Field: Wattenburg (Niobrara - C Chalk)
Well: Grant Salisbury 2F-14H C268
Rig: Patterson UTI Drilling 272
Ended: 09/12/2014 05:00 PM

Gamma Ray
Section Plane: 0.00
Magnetic North: 8.66
Gamma Attenuation Factor: 2.35
Gamma Averaging: 7%

Personnel

Day Hand: R. Moulton
Night Hand: A. Clark
Comp. Emp: Leonard Clark

Location

Latitude: 40.1423340
Longitude: -104.973690
Elev. GL: 4886
Elev. DF:
Elev. KB: 4914.5

Log and Survey Depths Relative to Kelly Bushing (KB) Depth

Hole Data

Size	From	To
12-1/4	0	920
8-3/4	920	7706
6-1/8	7706	13164

Casing Data

Size	From	To
9-5/8	0	899
7	0	7651
4-1/2	0	13145

Bit Sizes

Size	From	To
12-1/4	0	920
8-3/4	920	7706
6-1/8	7706	13164

Mud Data

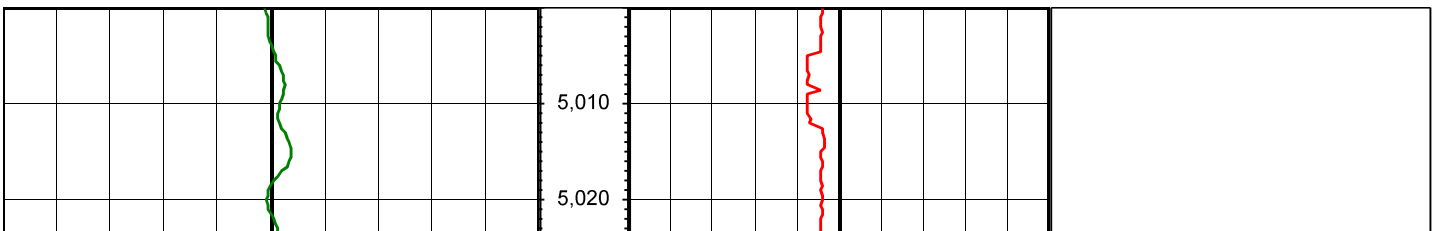
Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
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Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1095	38.29	0	9/2/2014 12:58:57 AM	5000	11/4/2014 1:30:57 PM	7706
1095	39.73	0	9/6/2014 11:12:09 PM	7706	9/12/2014 5:00:09 PM	13164

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

0.00 Gamma Ray (API) 150.00 MD 0.00 ROP (FT/HR) 600.00 Surveys (MD/INC/AZ)
150.00 2 300.00 FT

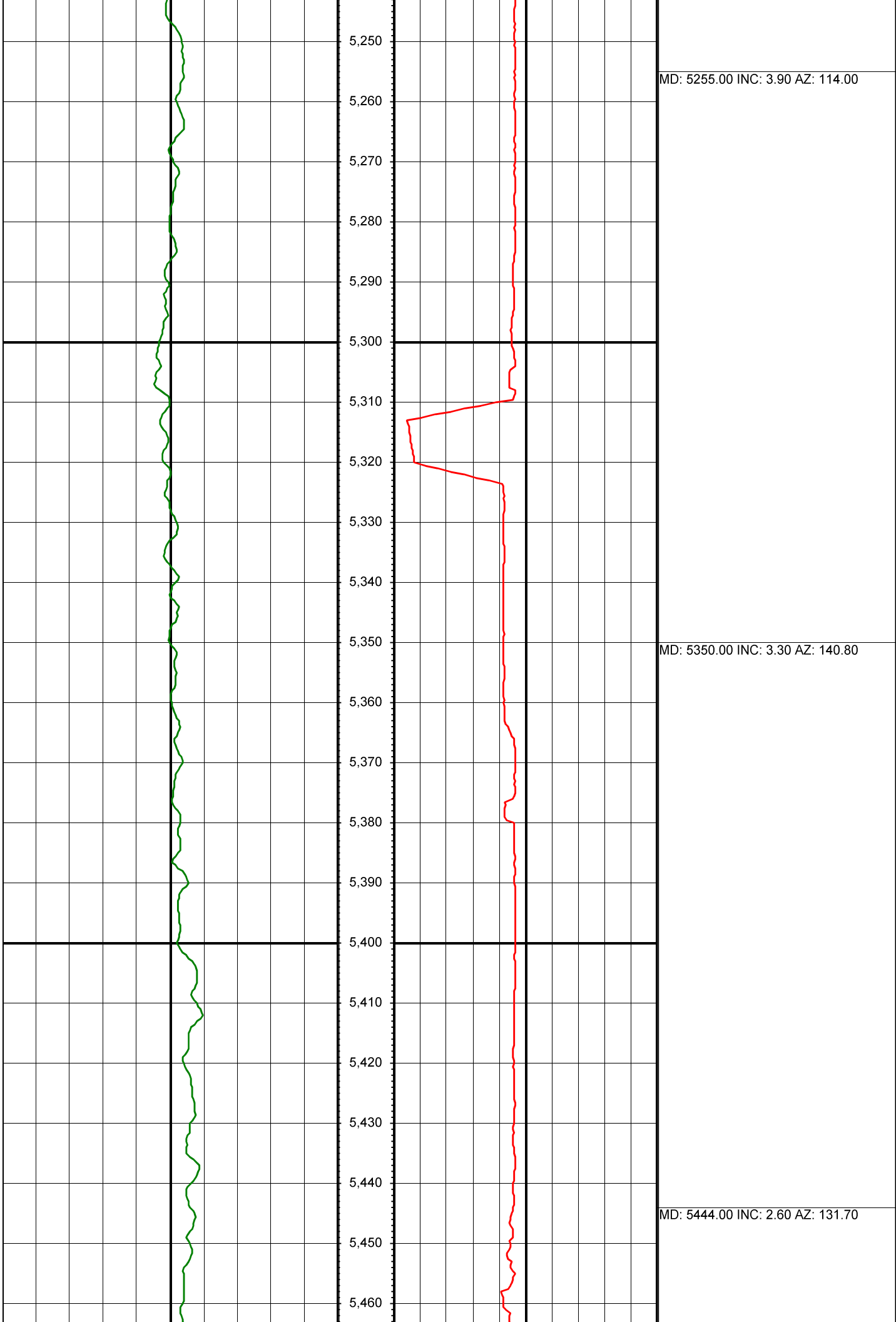


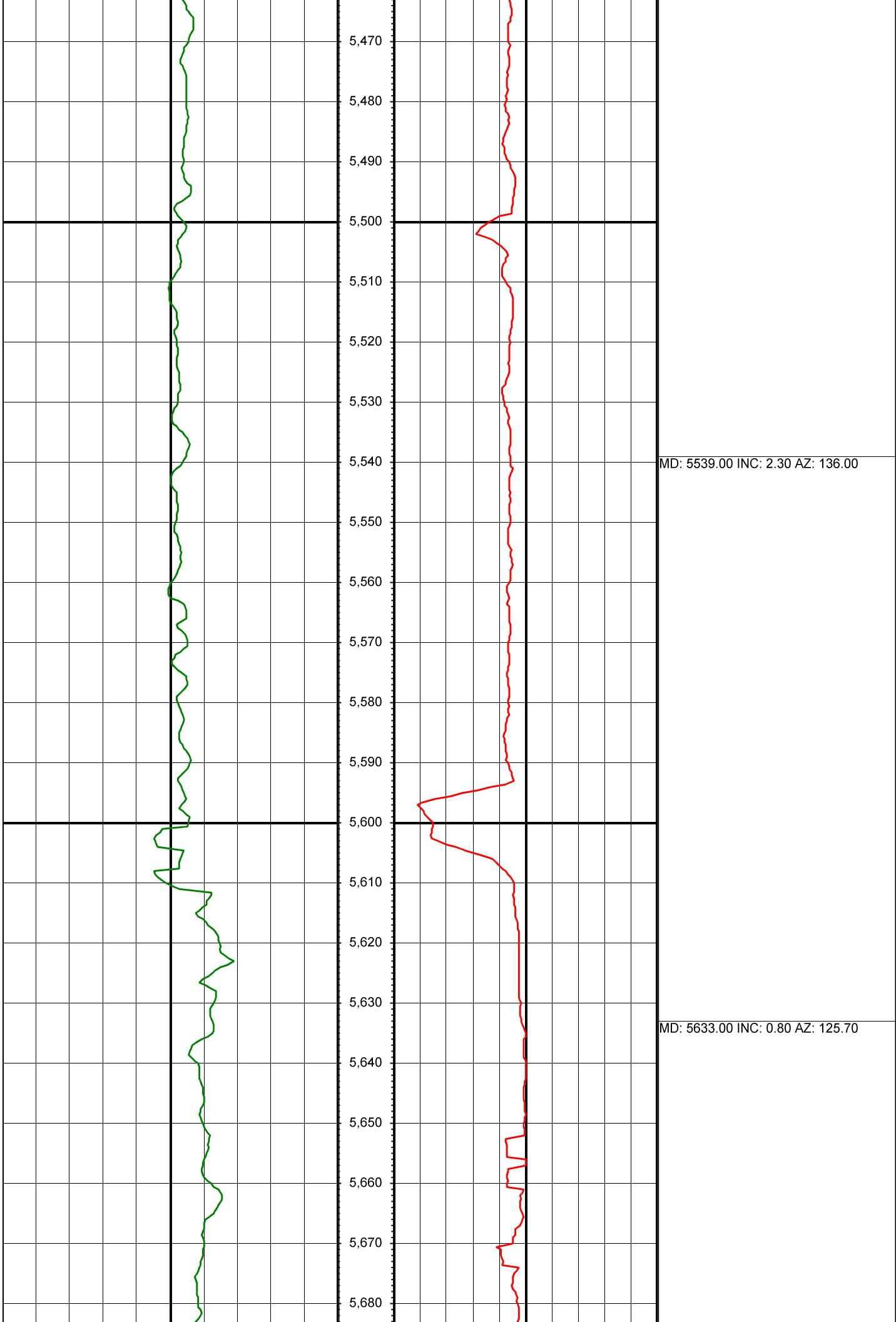


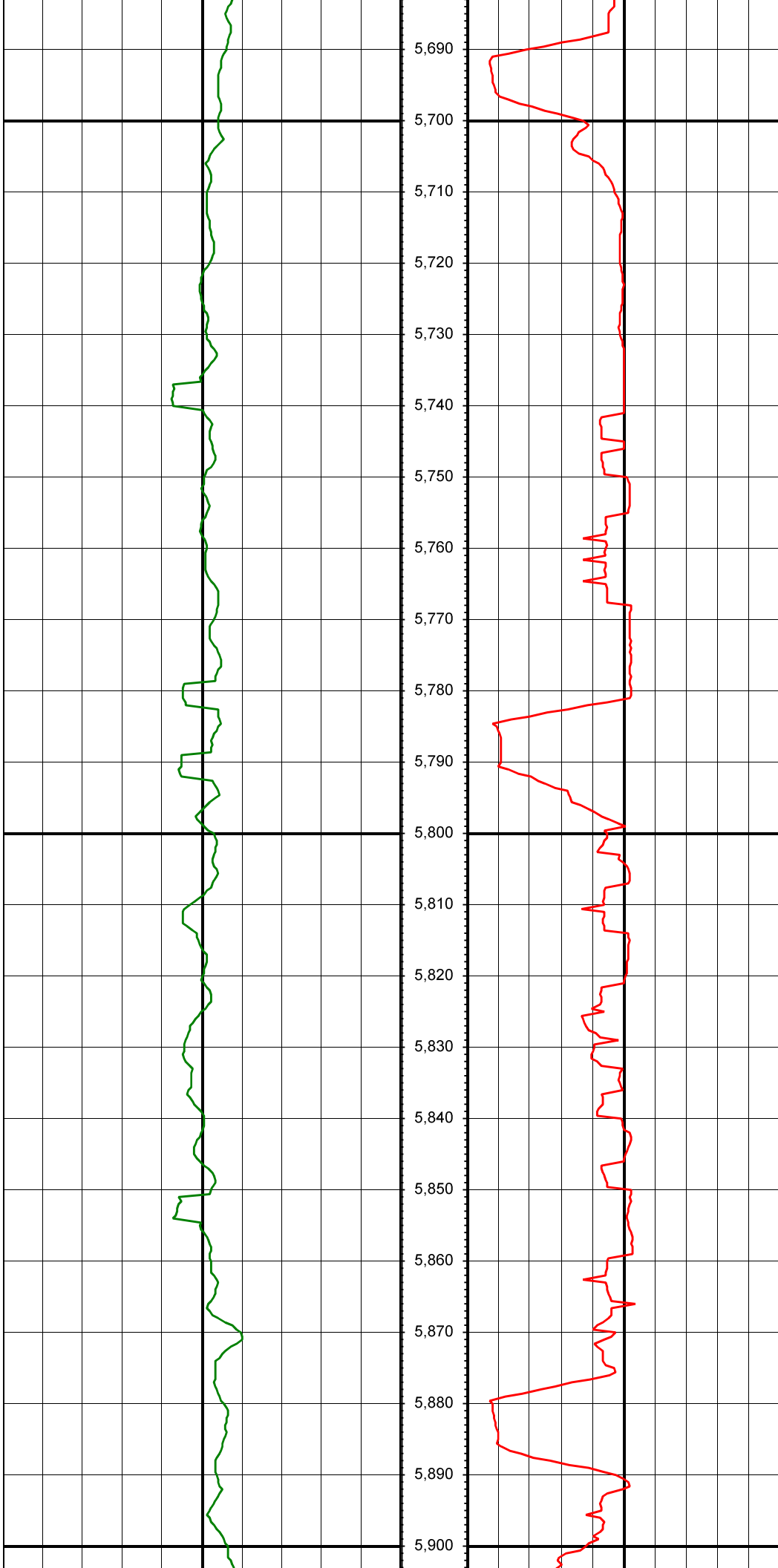
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MD: 5161.00 INC: 4.70 AZ: 101.90

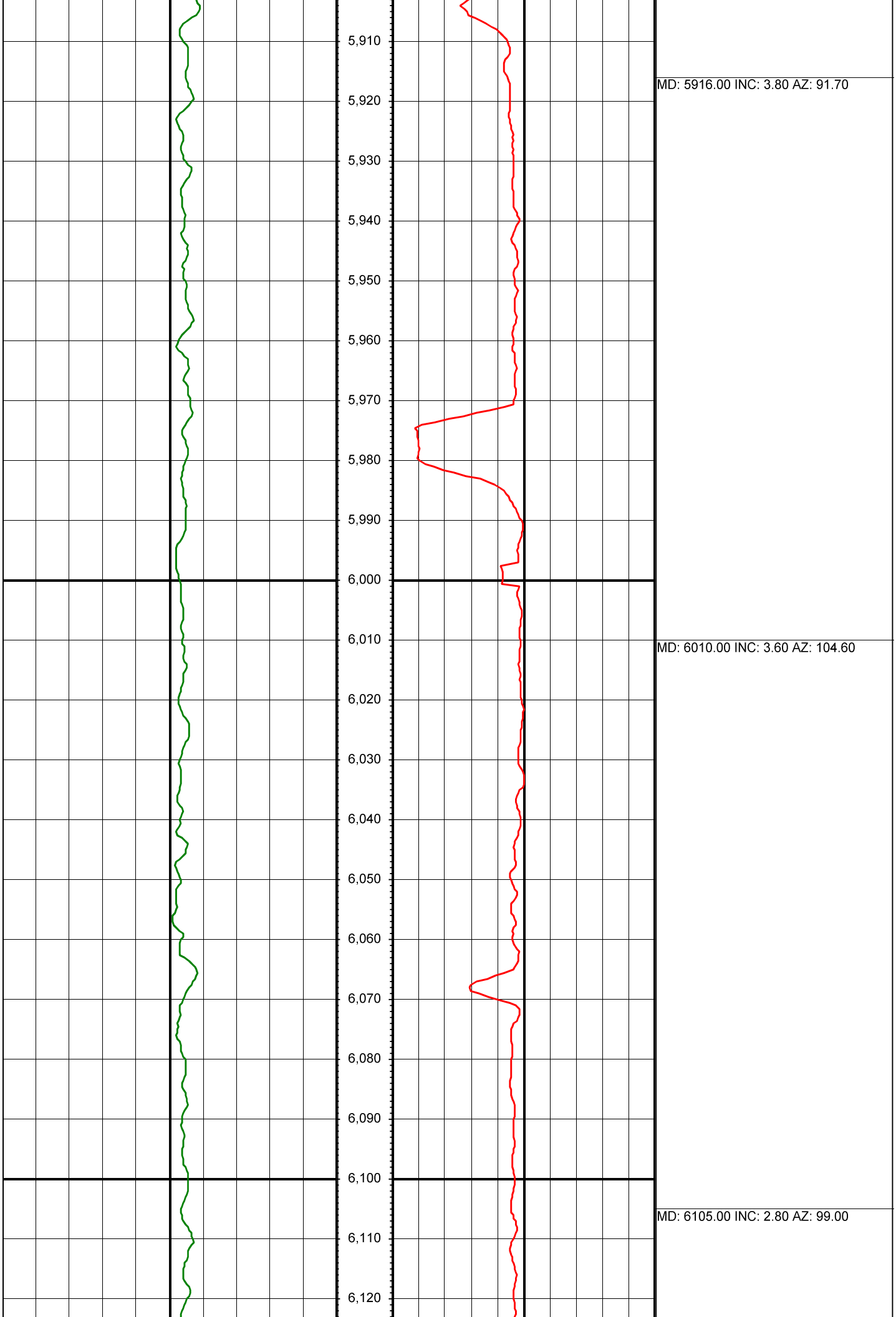






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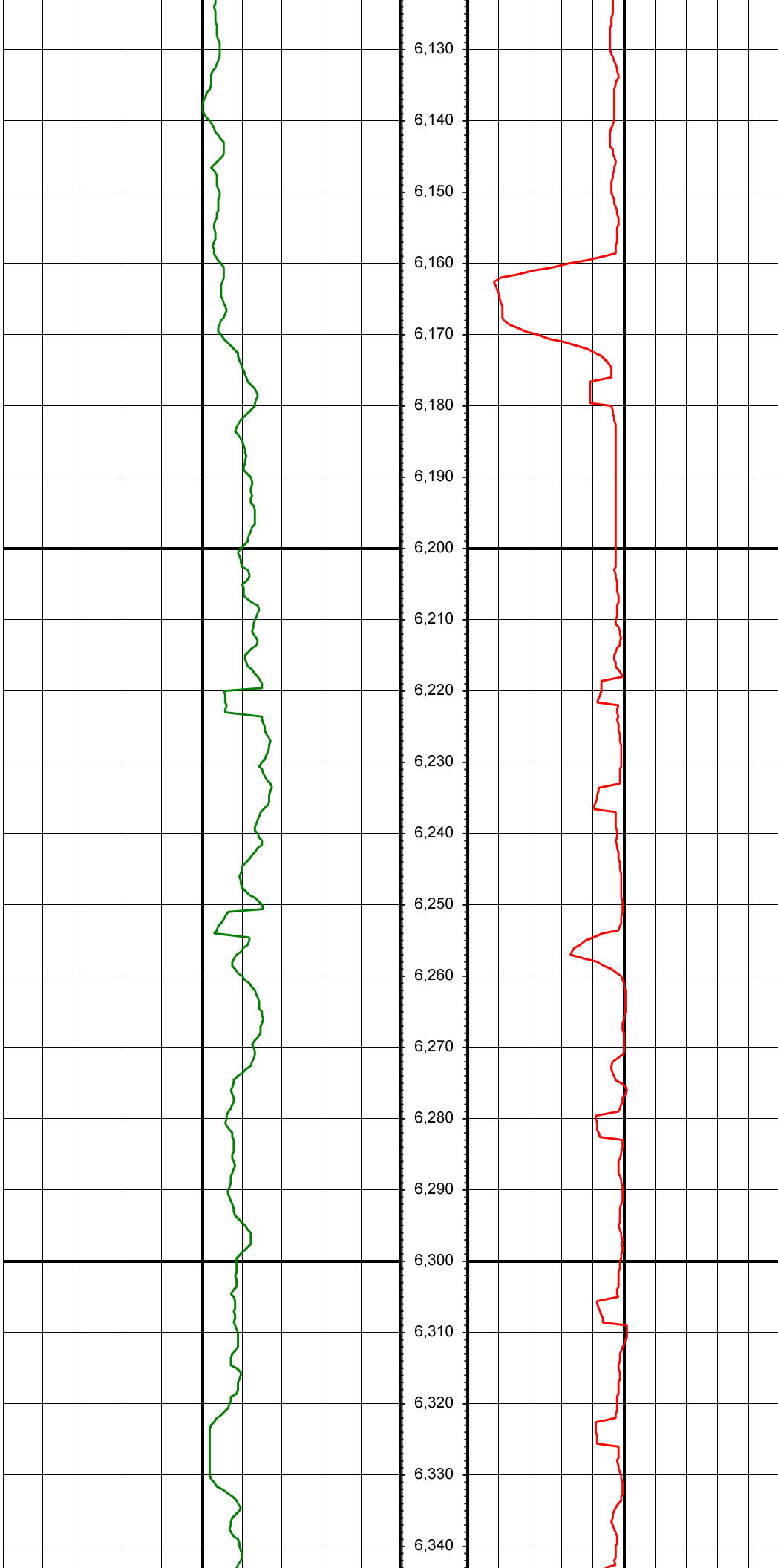
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MD: 5916.00 INC: 3.80 AZ: 91.70

MD: 6010.00 INC: 3.60 AZ: 104.60

MD: 6105.00 INC: 2.80 AZ: 99.00



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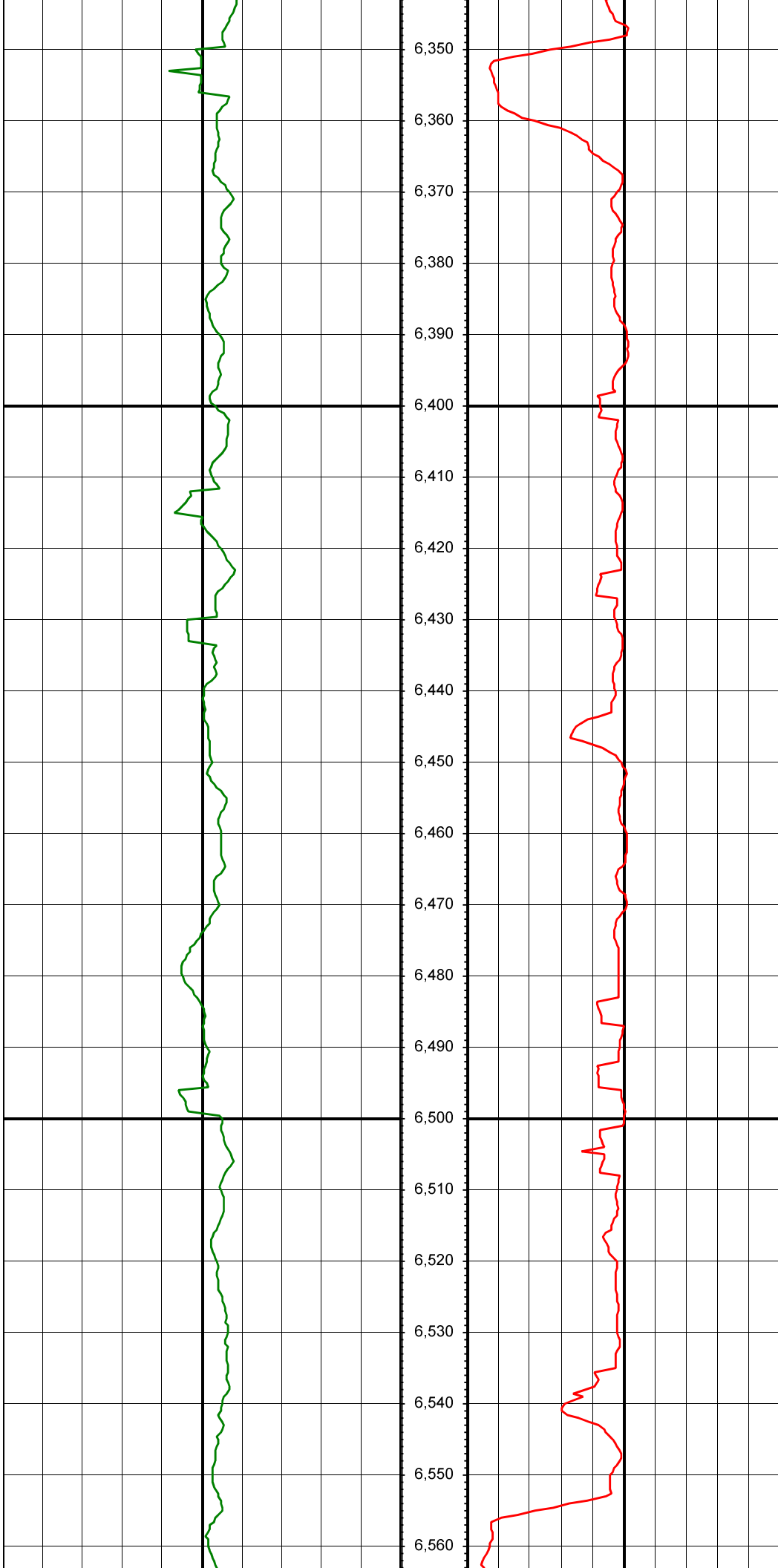
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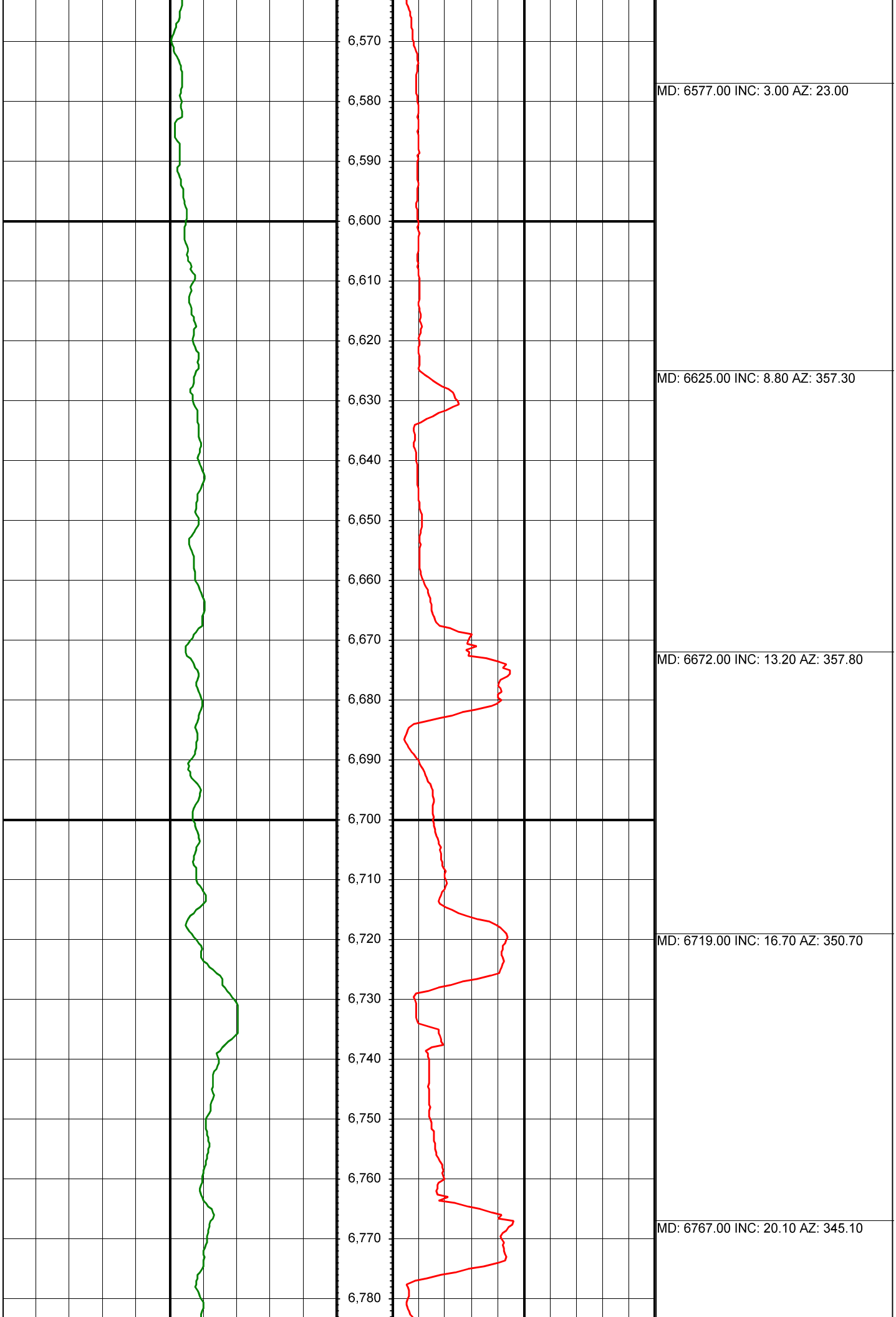
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MD: 6389.00 INC: 3.20 AZ: 104.00

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MD: 6577.00 INC: 3.00 AZ: 23.00

MD: 6625.00 INC: 8.80 AZ: 357.30

MD: 6672.00 INC: 13.20 AZ: 357.80

MD: 6719.00 INC: 16.70 AZ: 350.70

MD: 6767.00 INC: 20.10 AZ: 345.10



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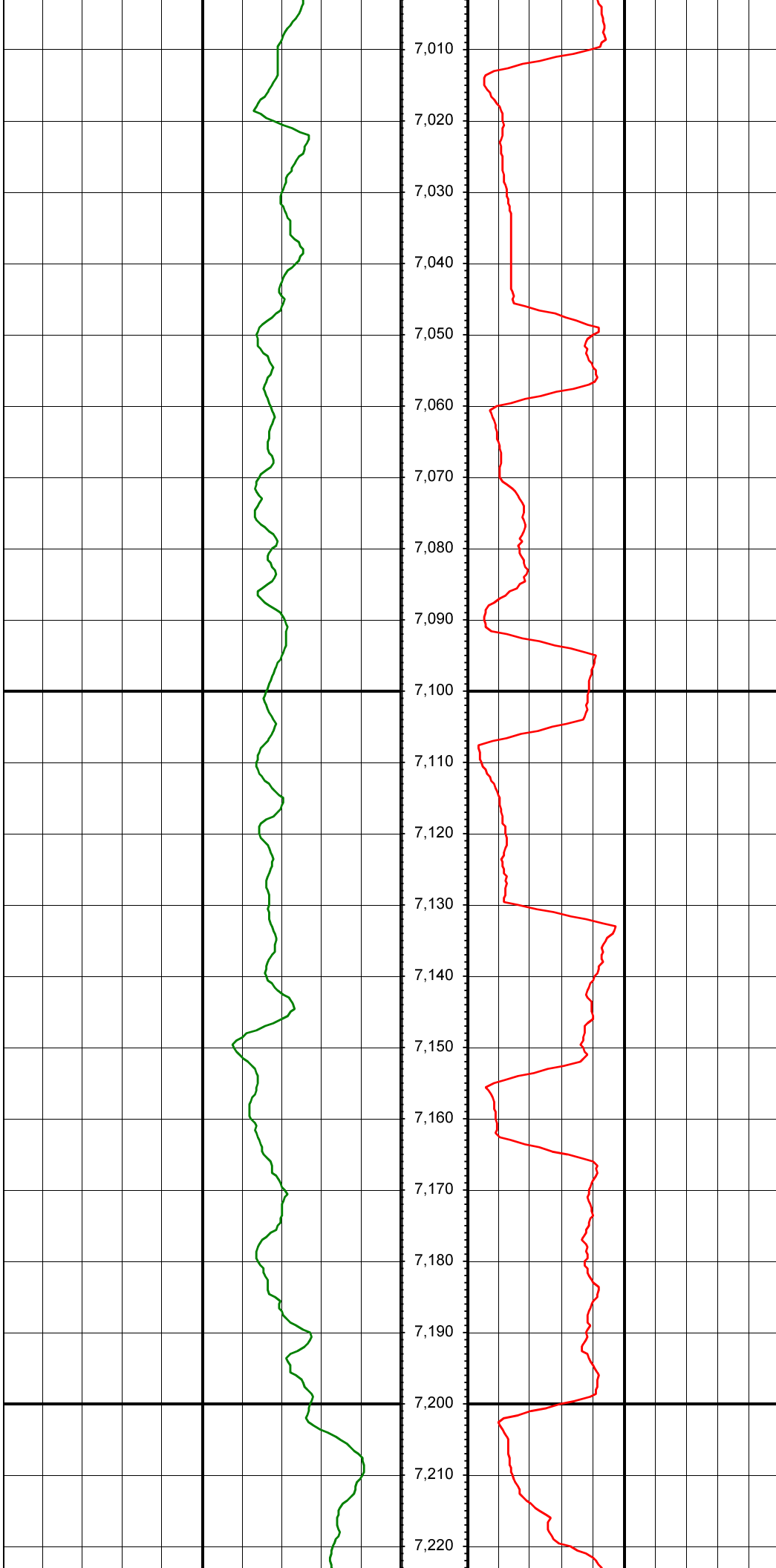
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MD: 6861.00 INC: 28.40 AZ: 343.30

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MD: 6955.00 INC: 36.60 AZ: 353.20

MD: 7002.00 INC: 40.20 AZ: 354.70



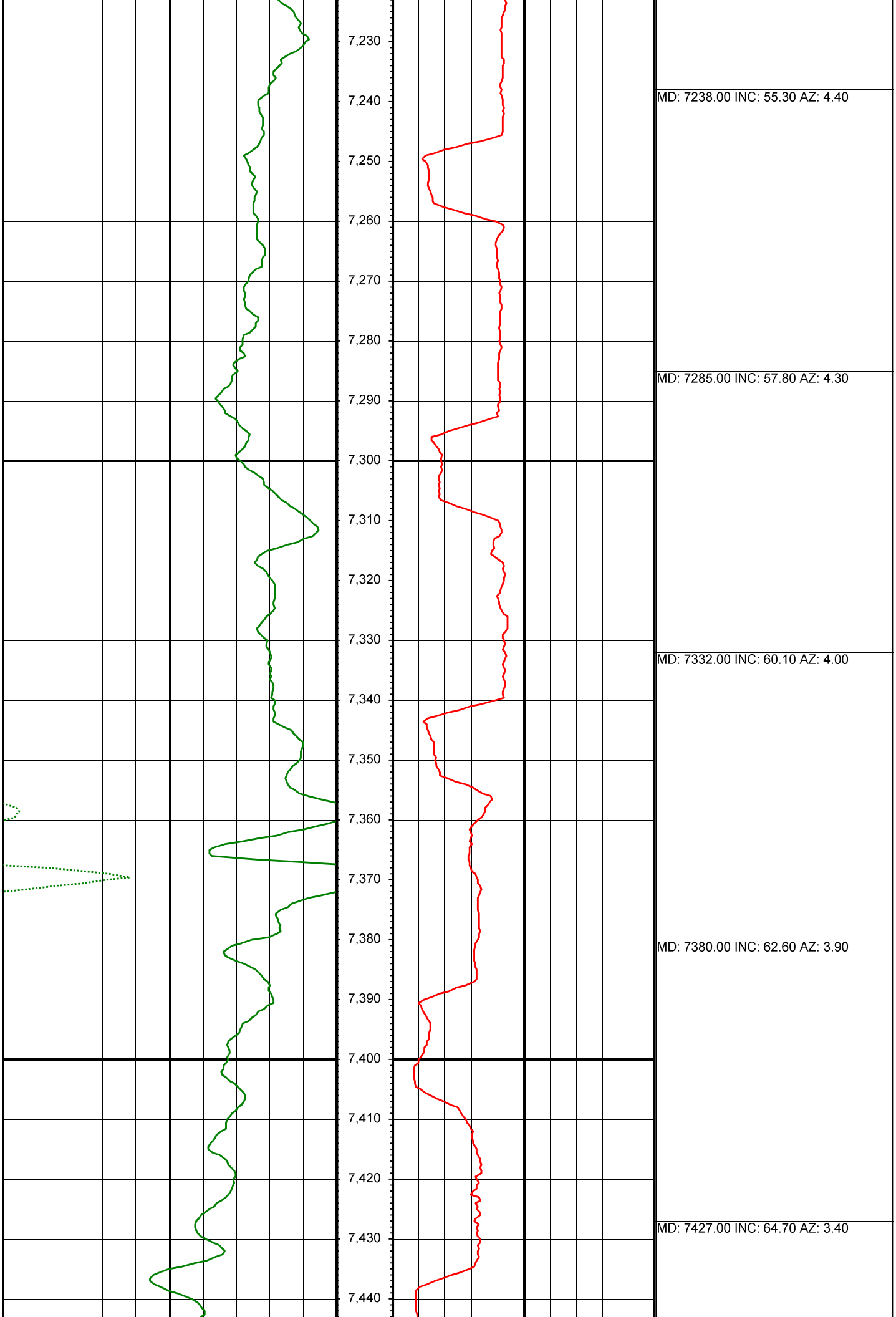
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MD: 7097.00 INC: 47.60 AZ: 4.40

MD: 7144.00 INC: 51.10 AZ: 5.00

MD: 7191.00 INC: 53.30 AZ: 4.70



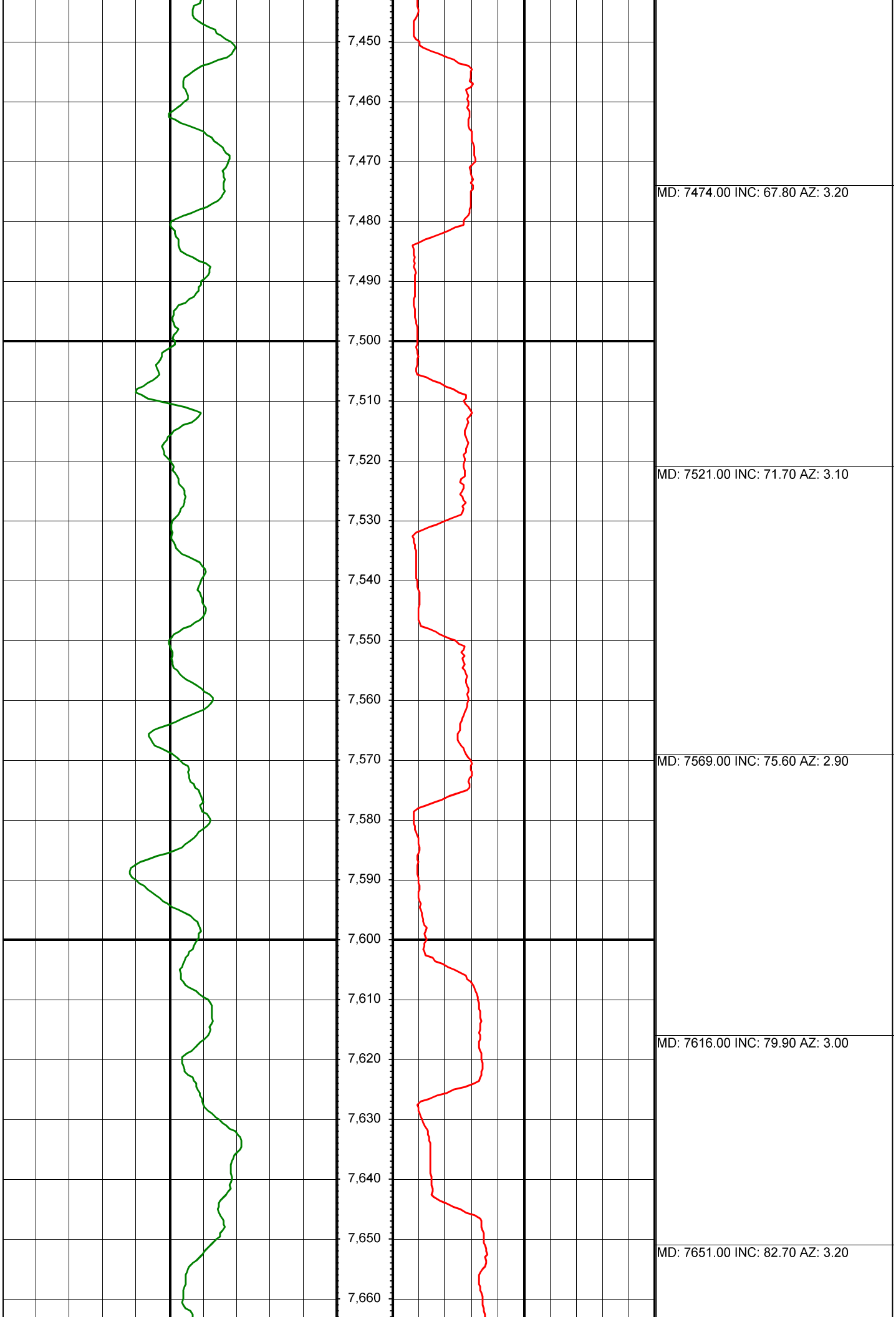
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MD: 7332.00 INC: 60.10 AZ: 4.00

MD: 7380.00 INC: 62.60 AZ: 3.90

MD: 7427.00 INC: 64.70 AZ: 3.40





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MD: 7793.00 INC: 88.90 AZ: 2.40

MD: 7887.00 INC: 88.60 AZ: 1.80

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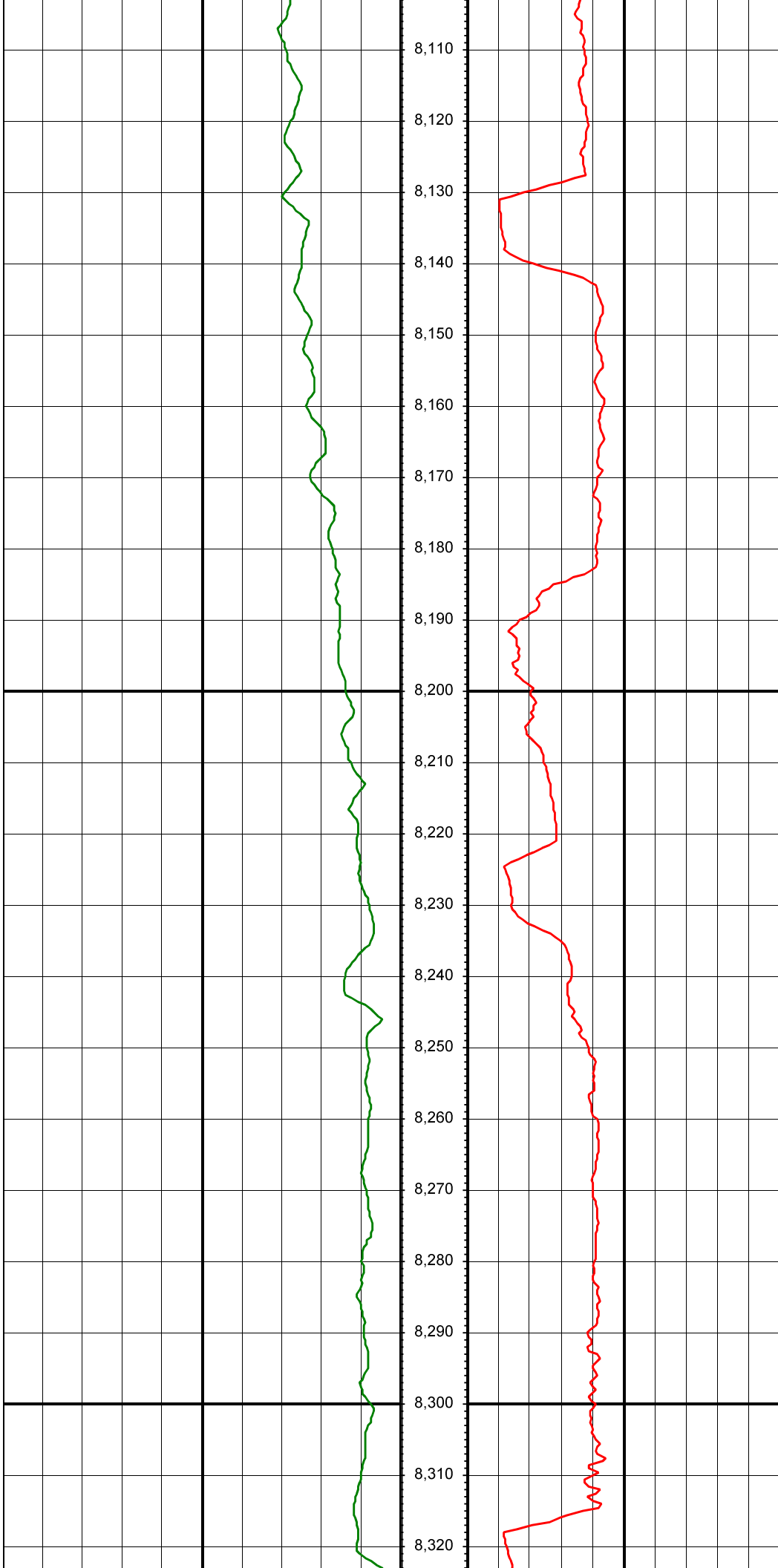
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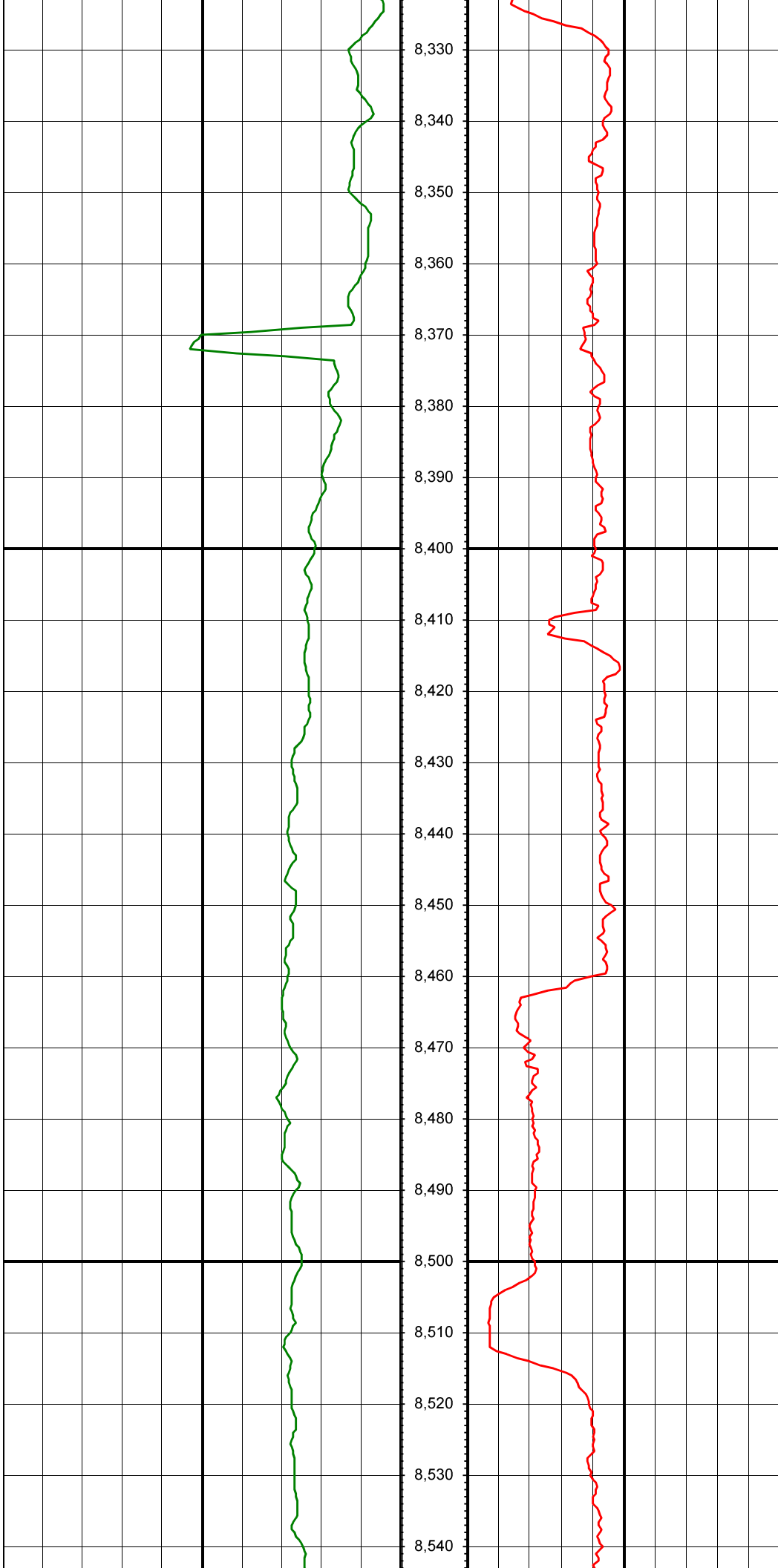
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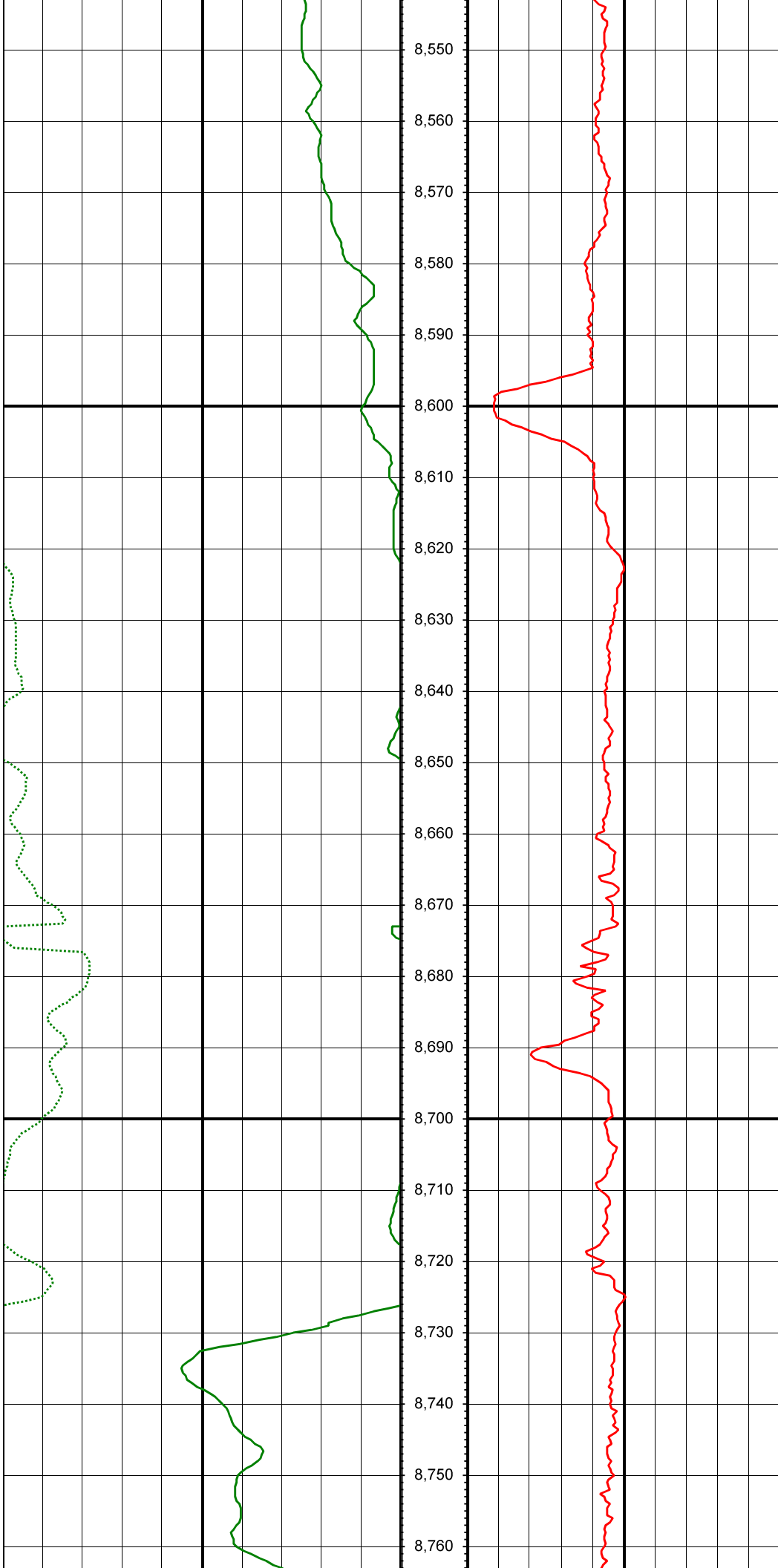
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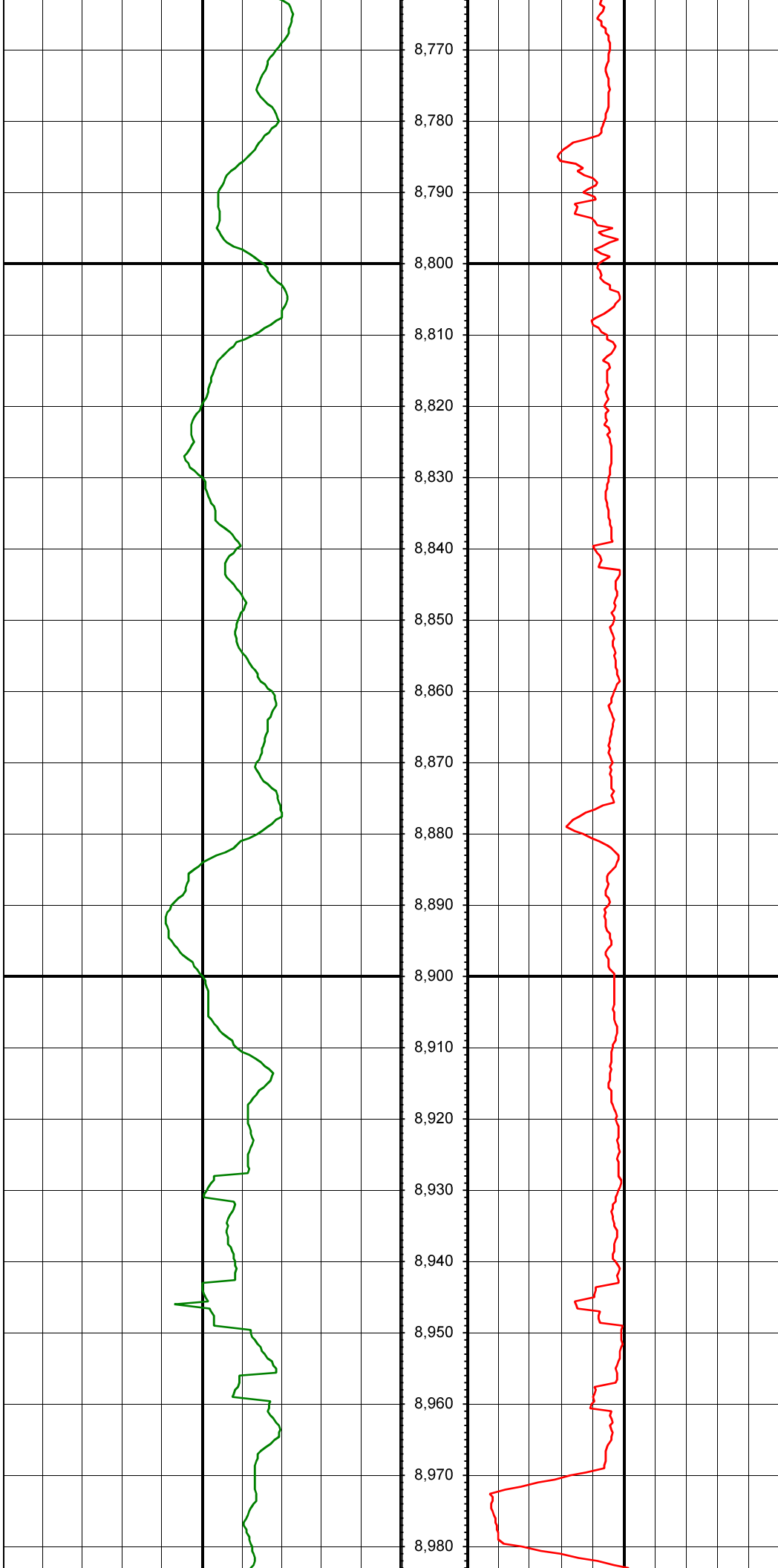
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MD: 8541.00 INC: 90.10 AZ: 1.50



MD: 8635.00 INC: 90.60 AZ: 0.50

MD: 8728.00 INC: 90.20 AZ: 0.30



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MD: 8915.00 INC: 88.80 AZ: 360.00



MD: 9009.00 INC: 90.10 AZ: 359.90

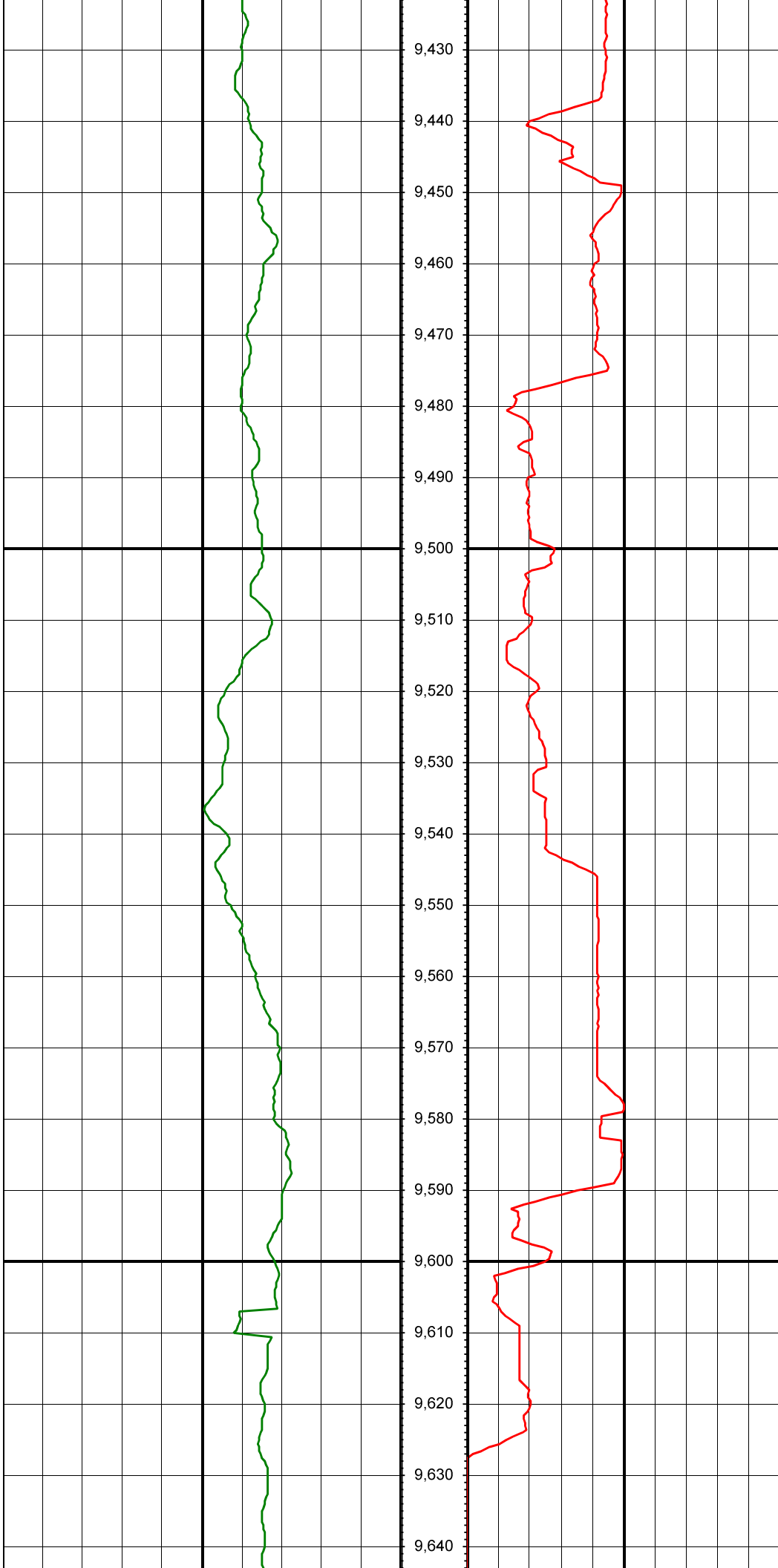
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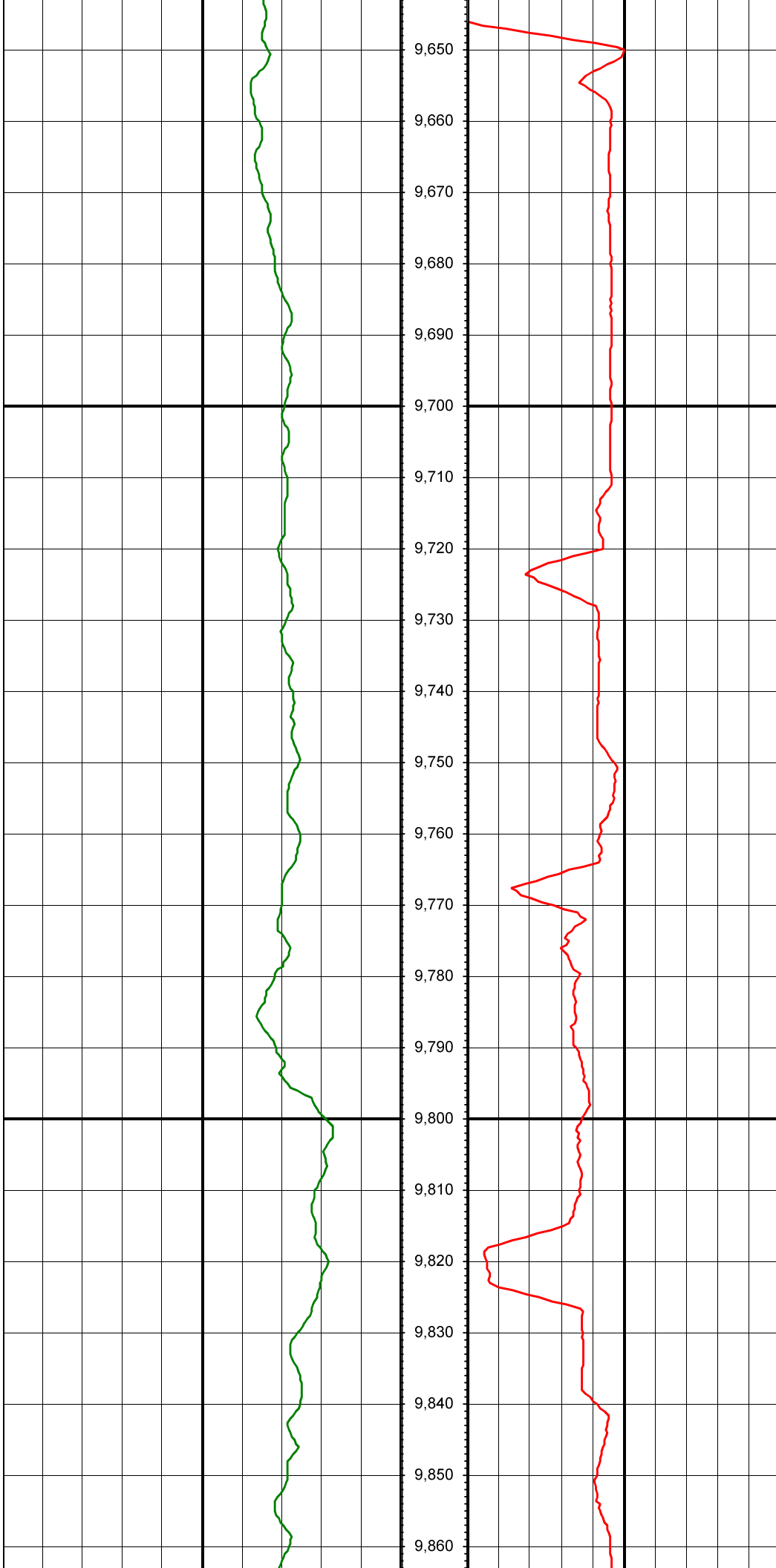
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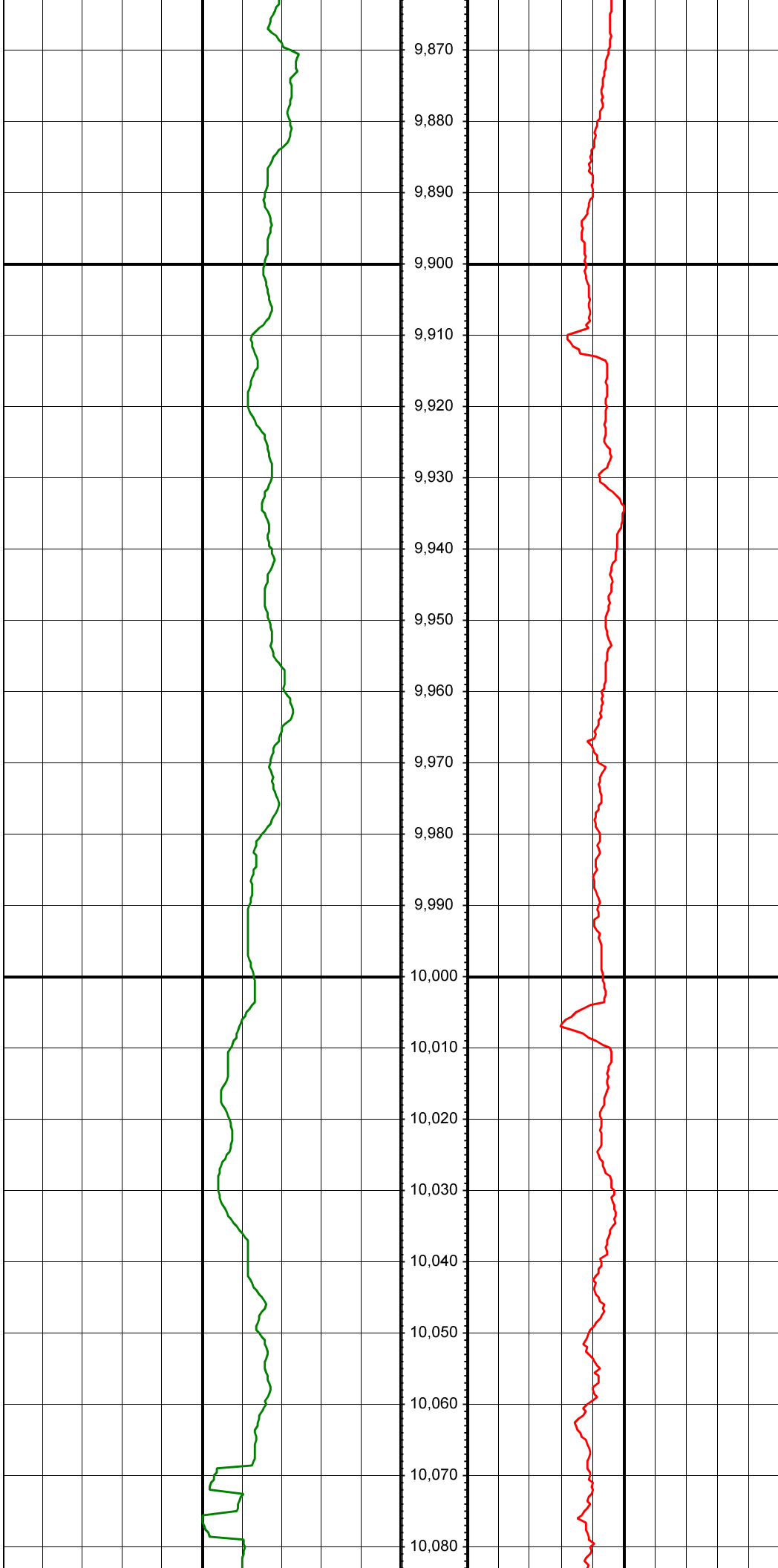
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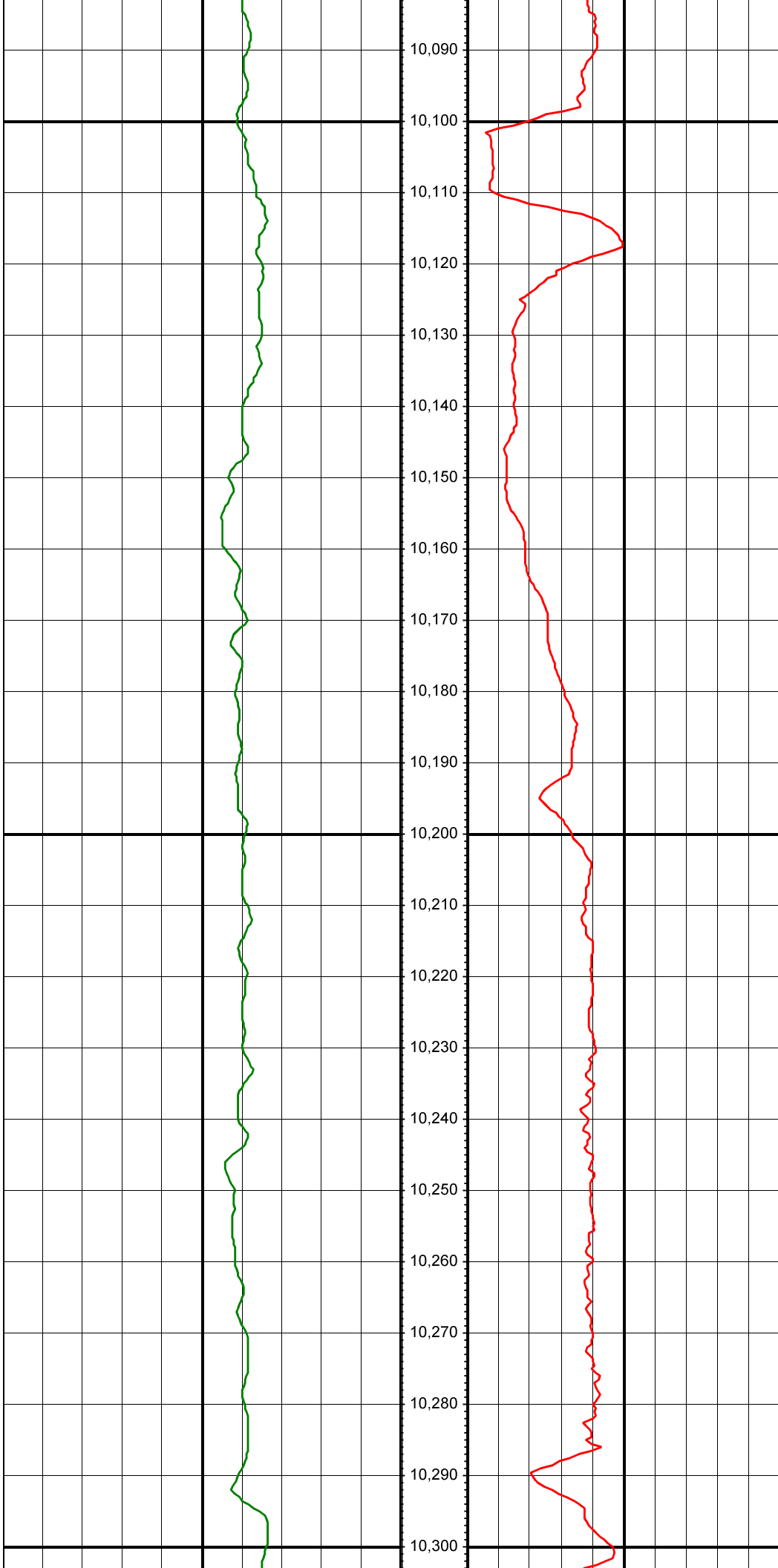
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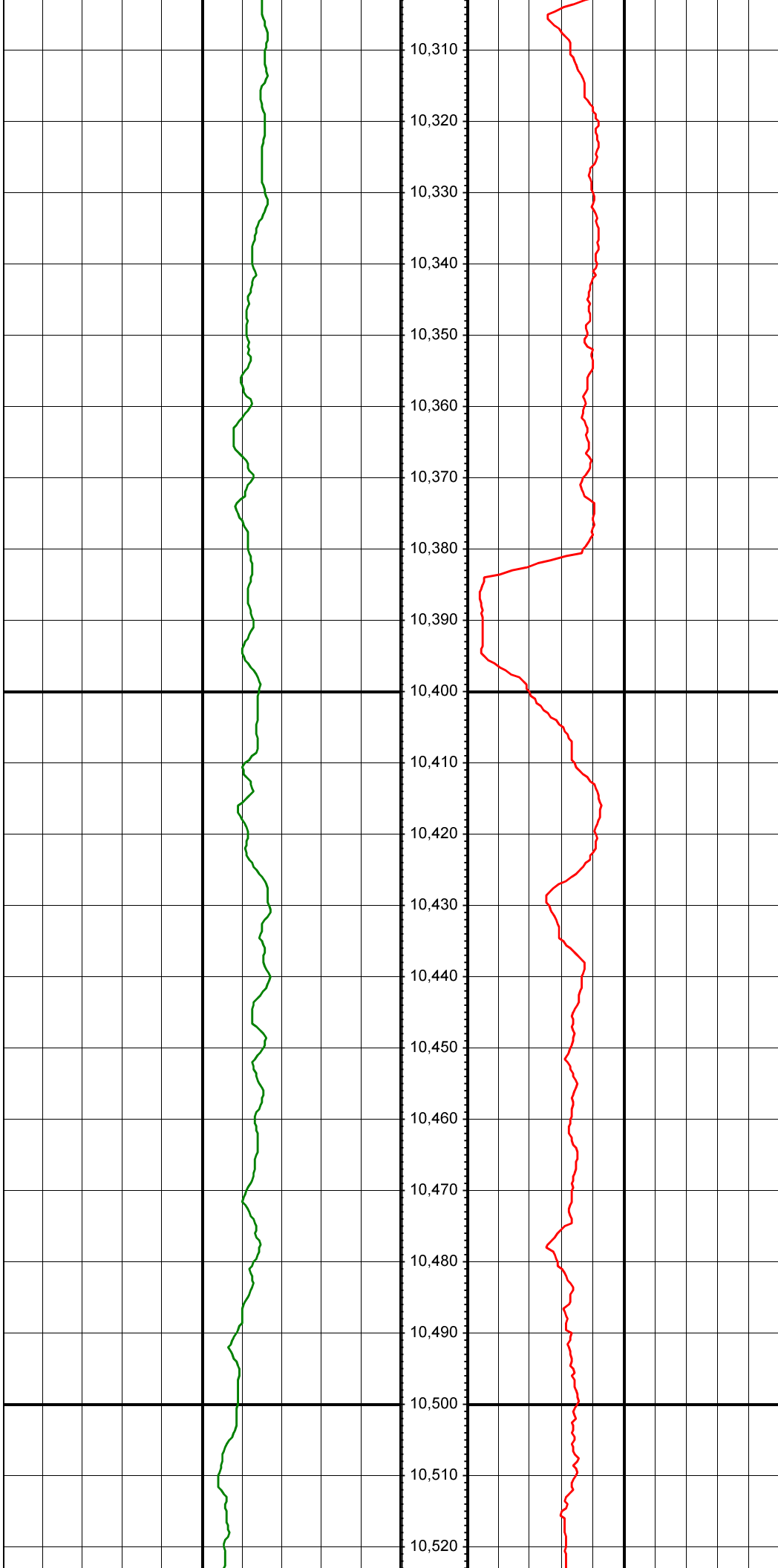
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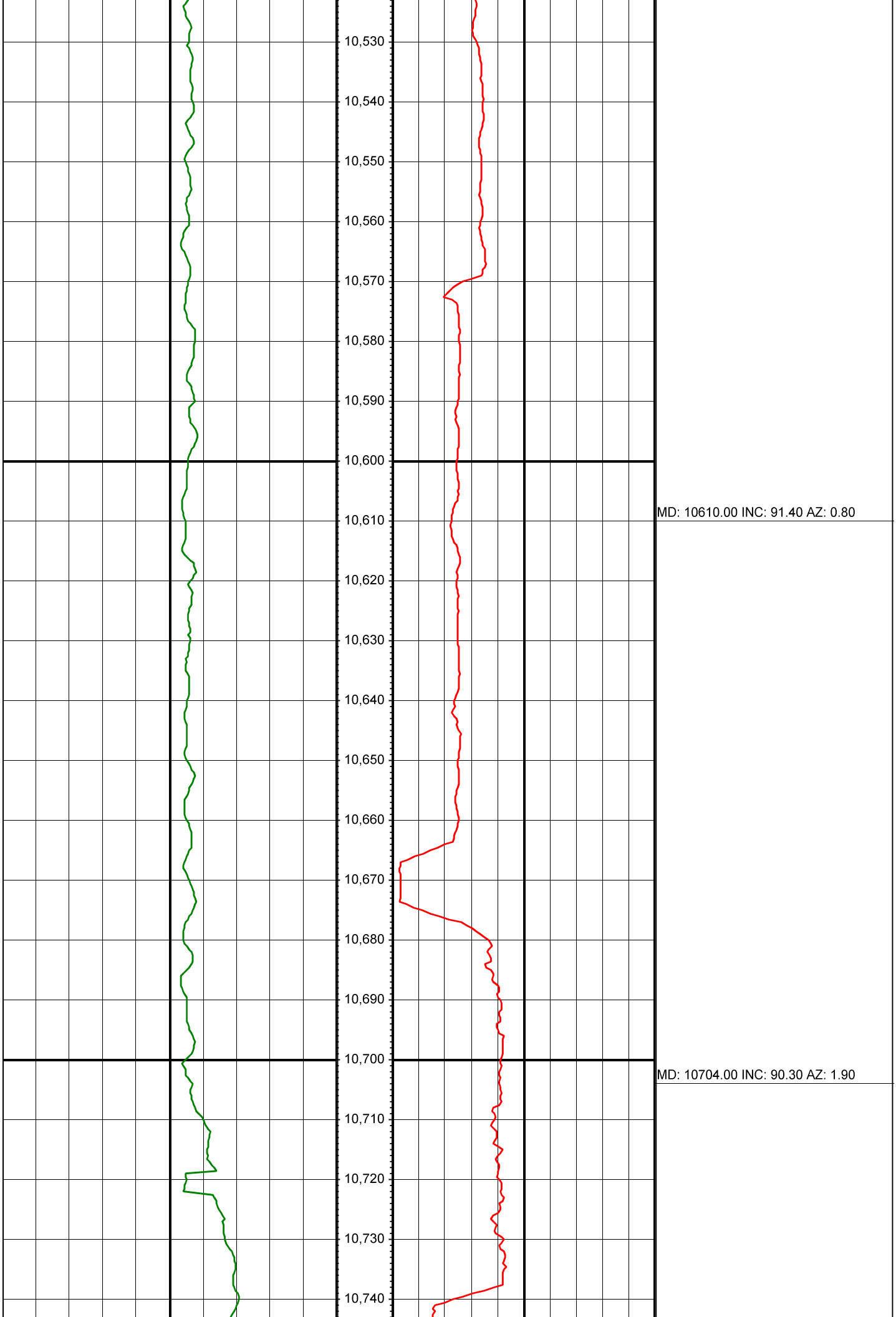


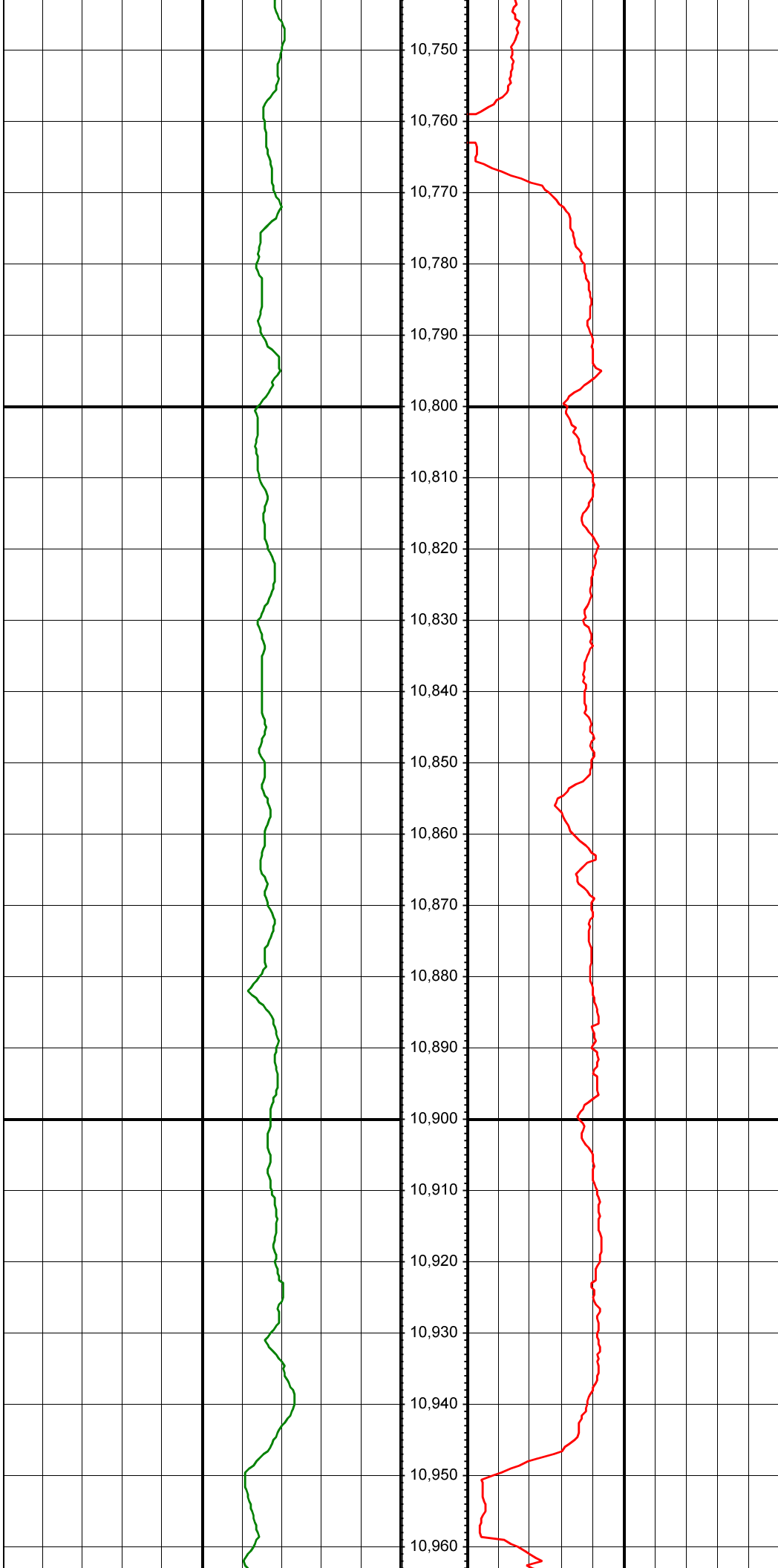
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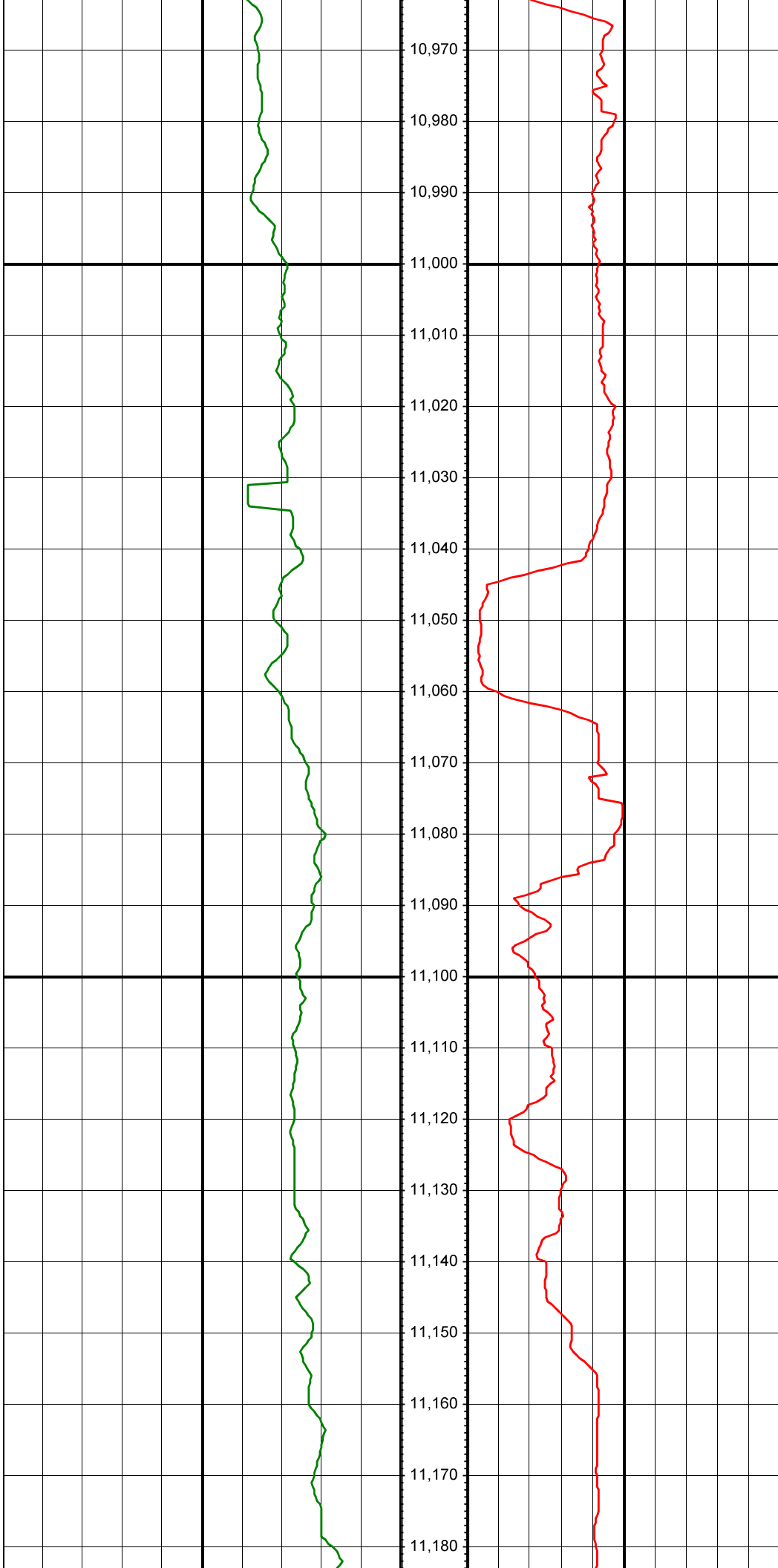
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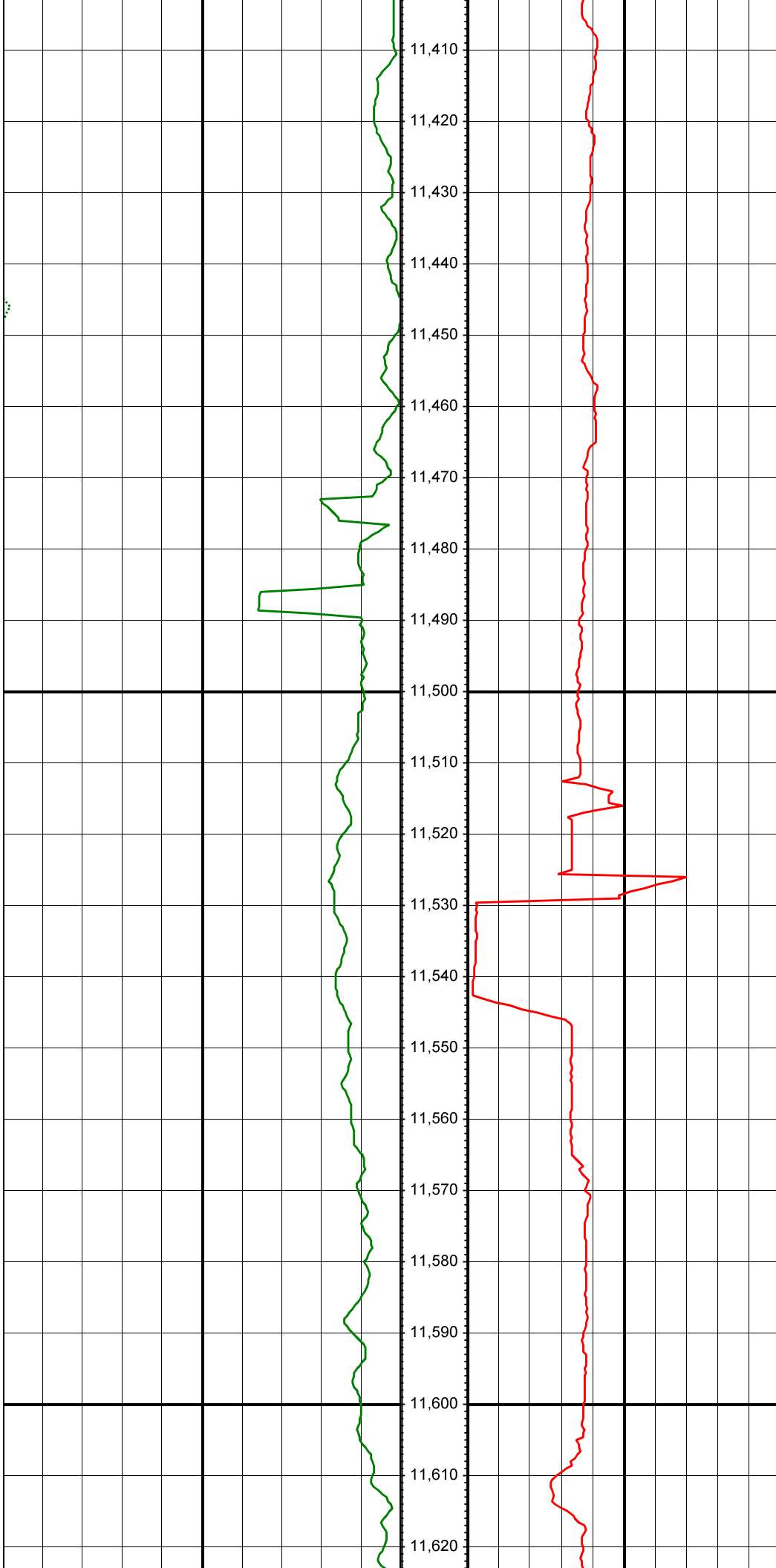
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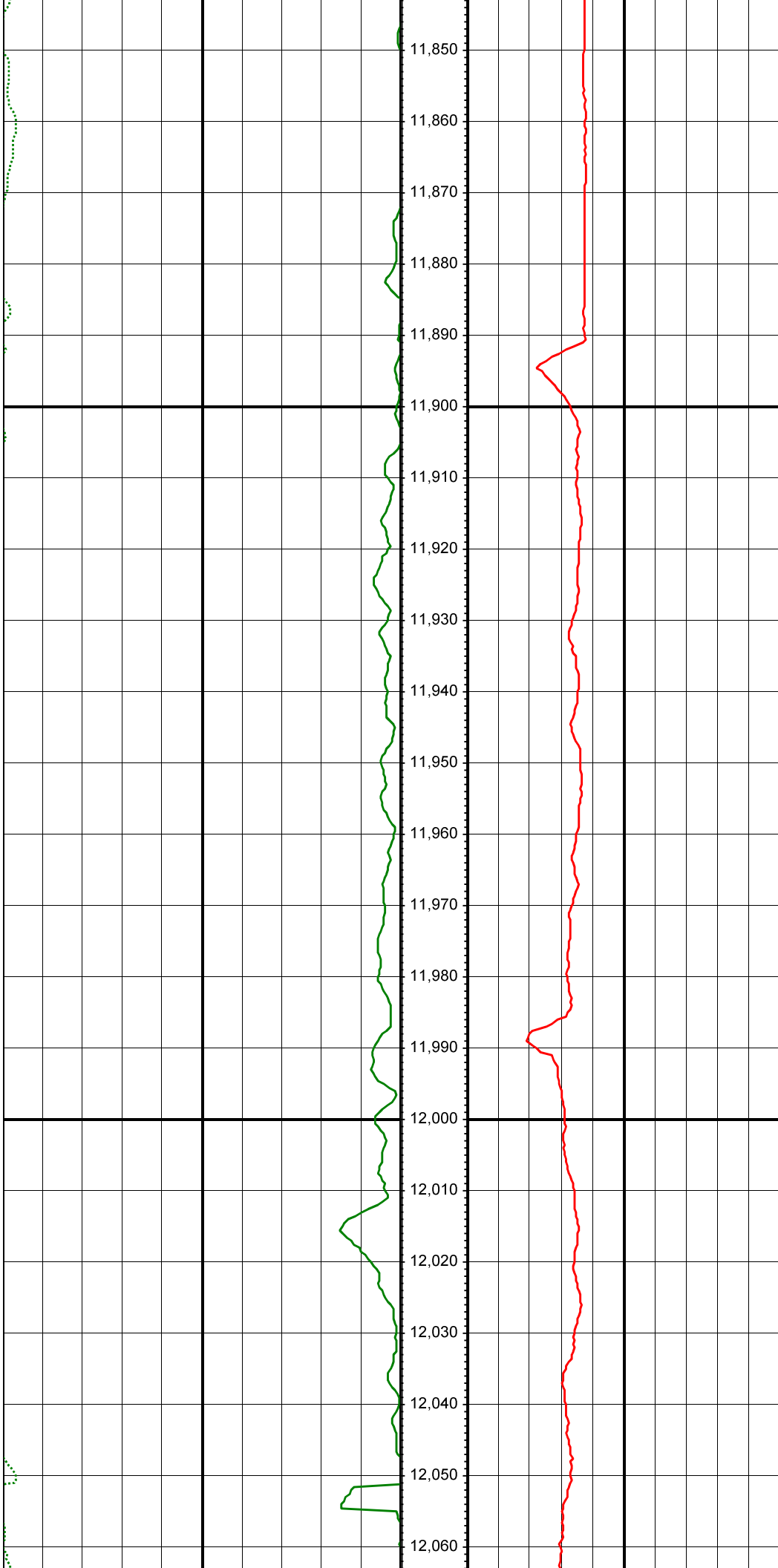
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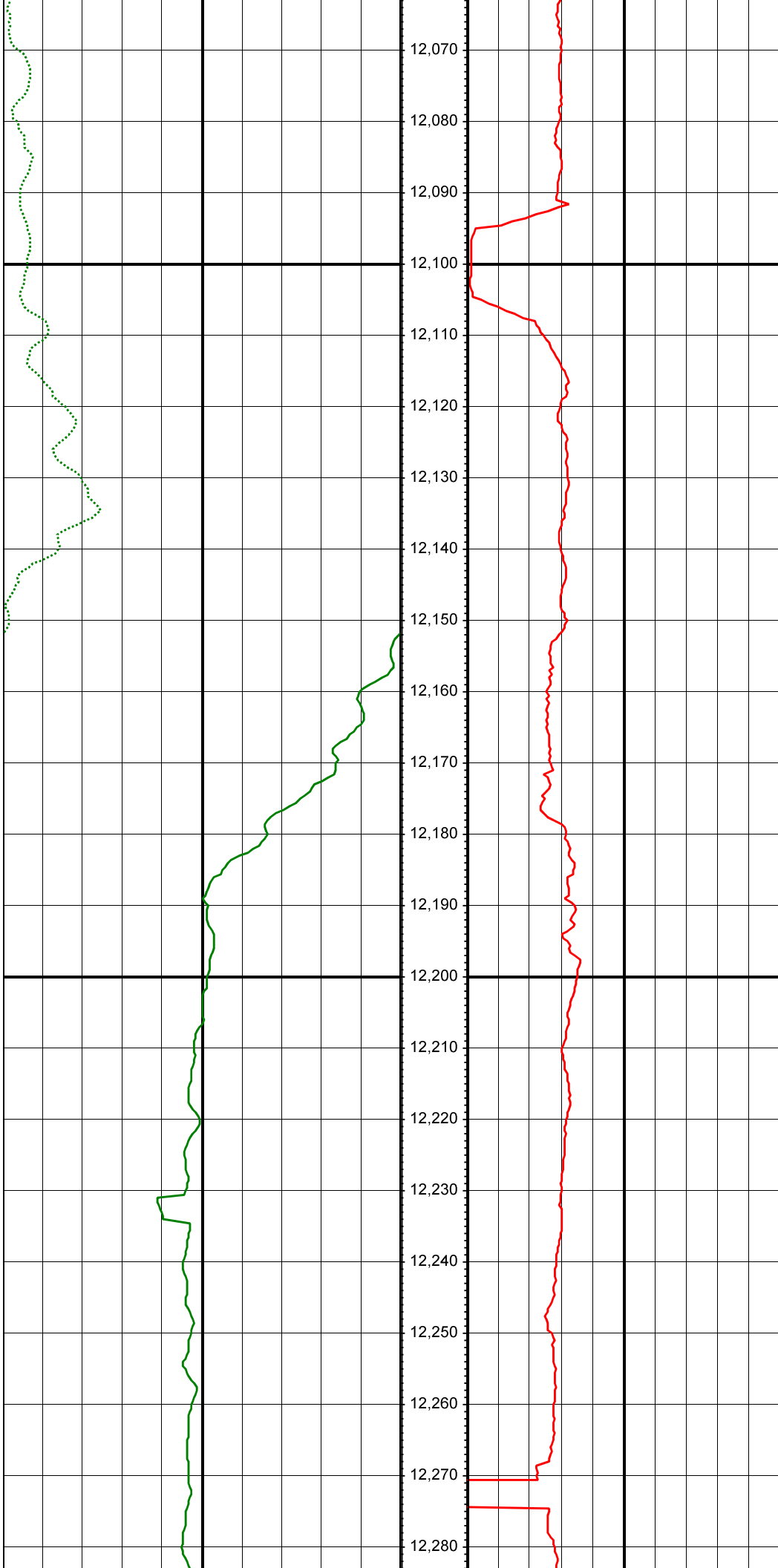
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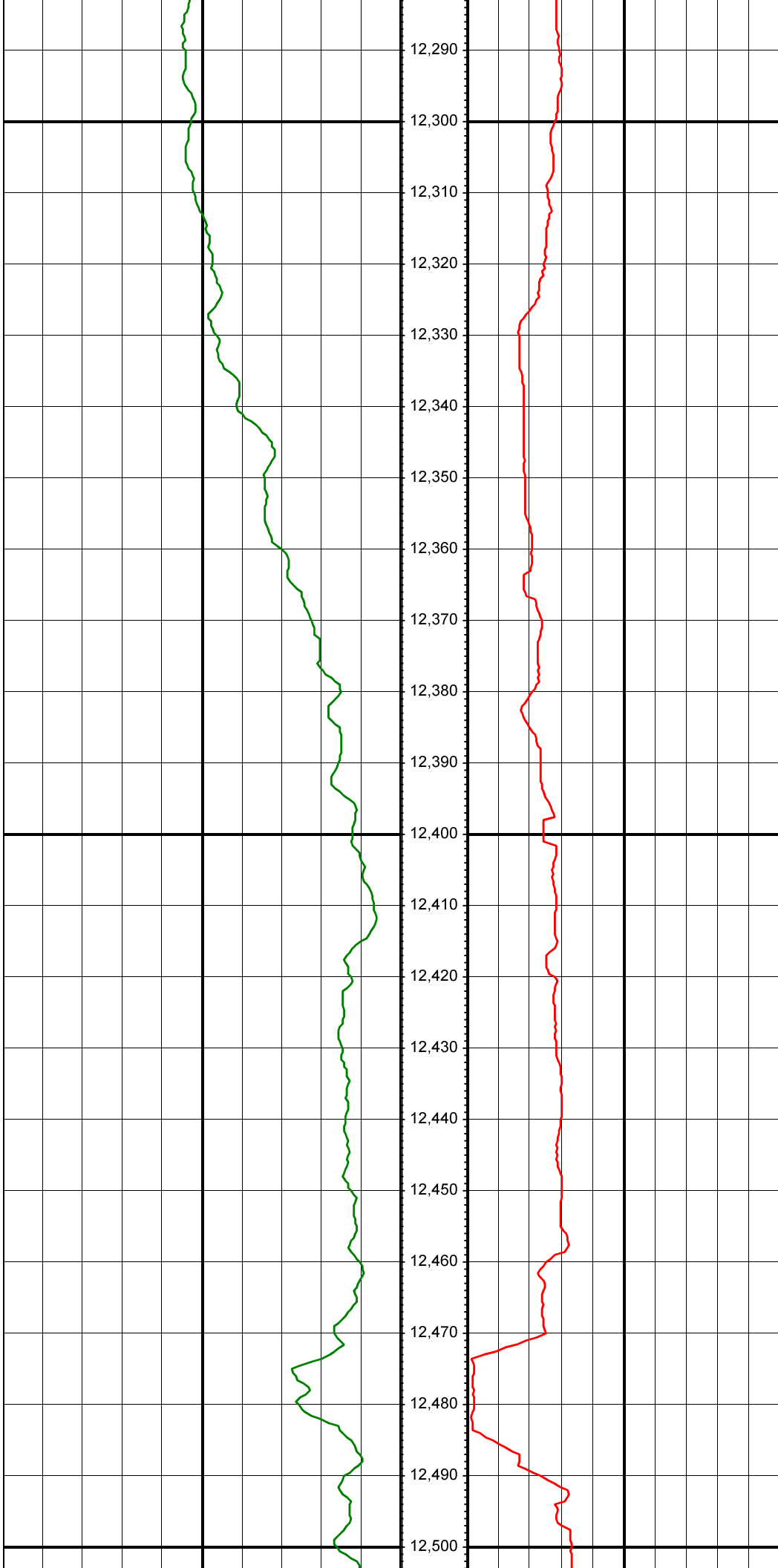
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