



QES Directional Drilling

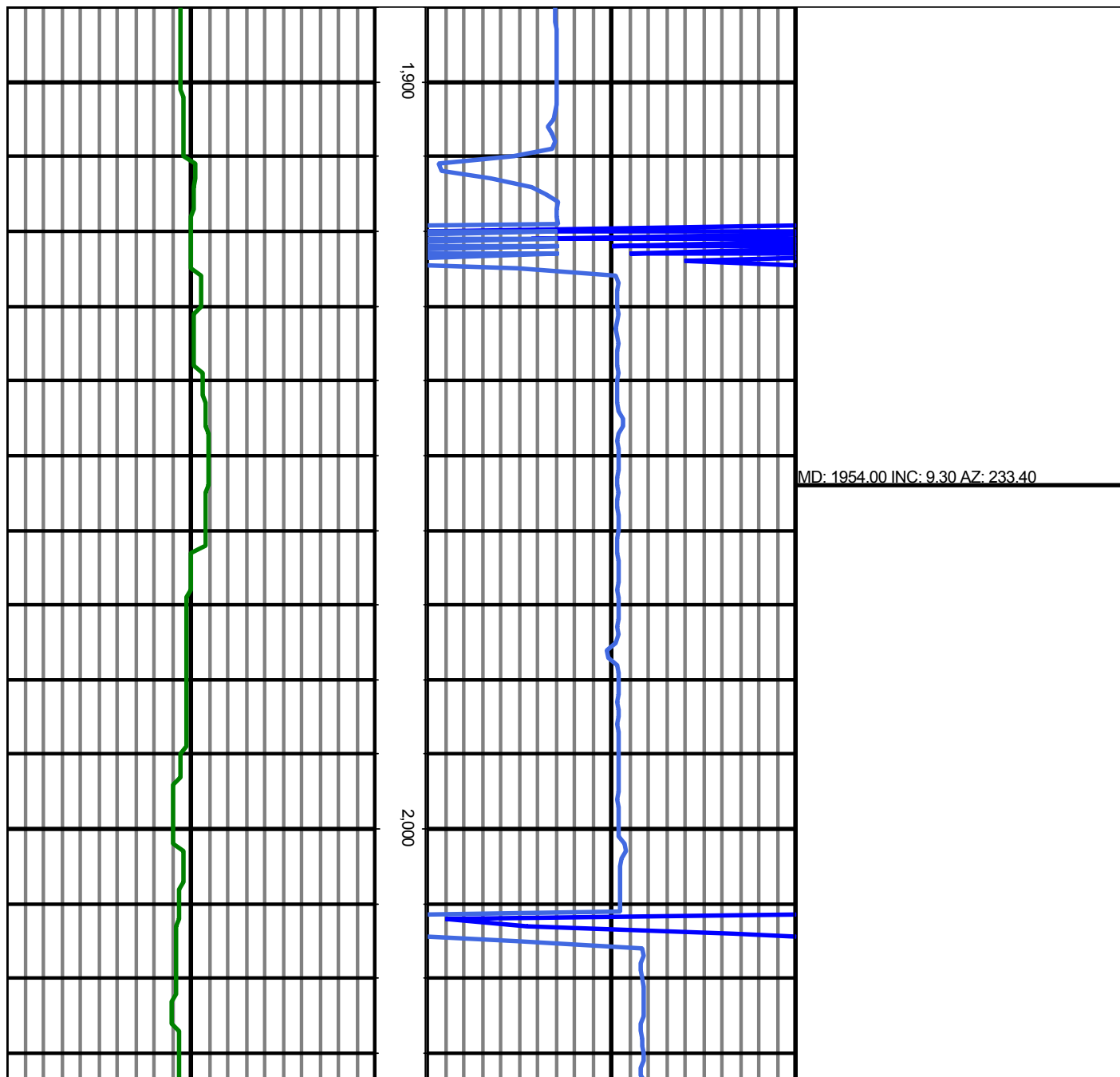
Ebert 11N
Scale 5":100' - MD
5/30/2017 11:46 AM

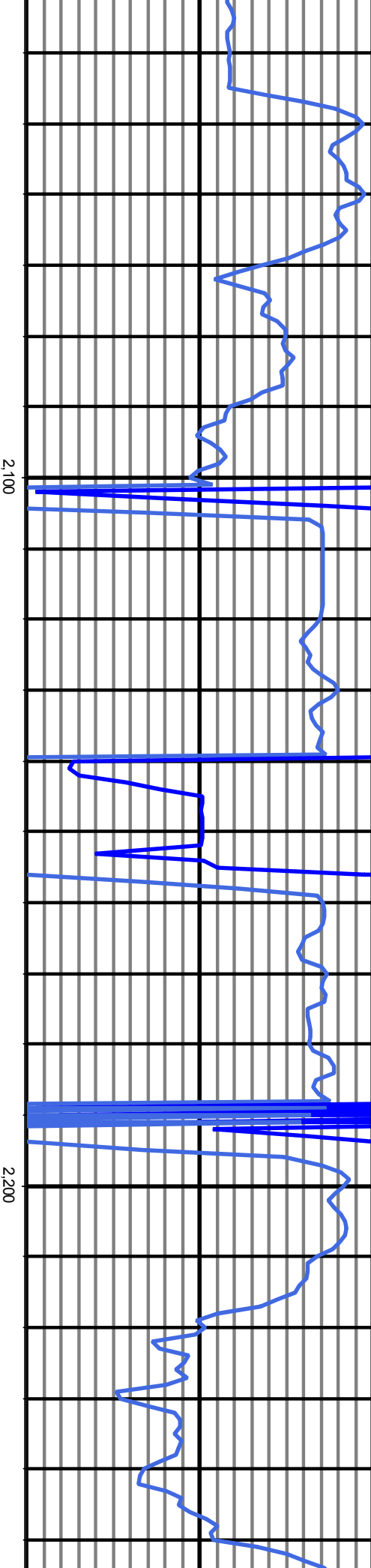
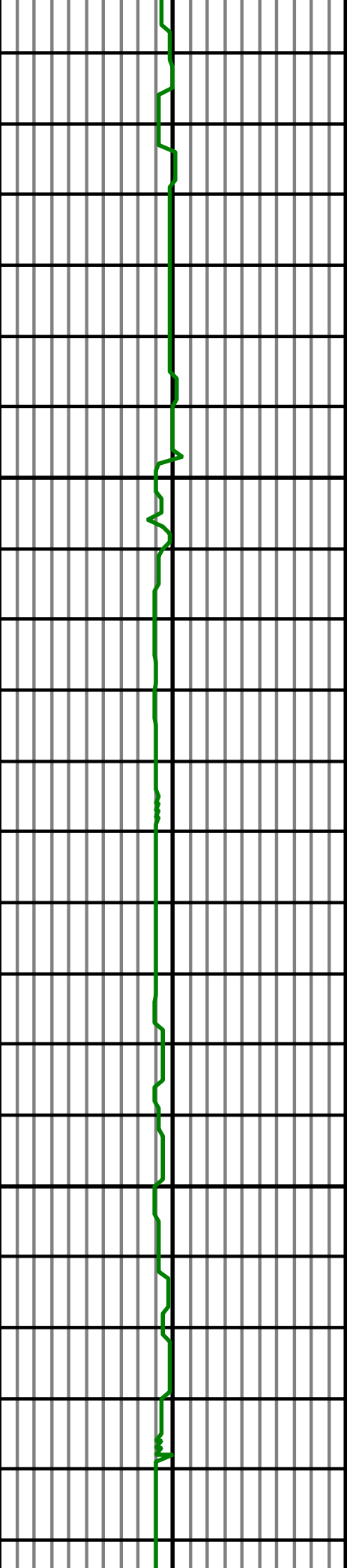
Oper. Company: PDC Energy
Well: Ebert 11N
Field: Wattenberg
Rig: Ensign 160
Well ID: 051234432600
Job Number: RM-170469

State: Colorado
County: Weld
Country: United States America
Location: Ebert
Start Date:
End Date:

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 GR(API) 150.00 MD 0.00 ROP(FT/HR) 300.00 Surveys (MD/INC/AZ)
150.00 300.00 FT 300.00 600.00

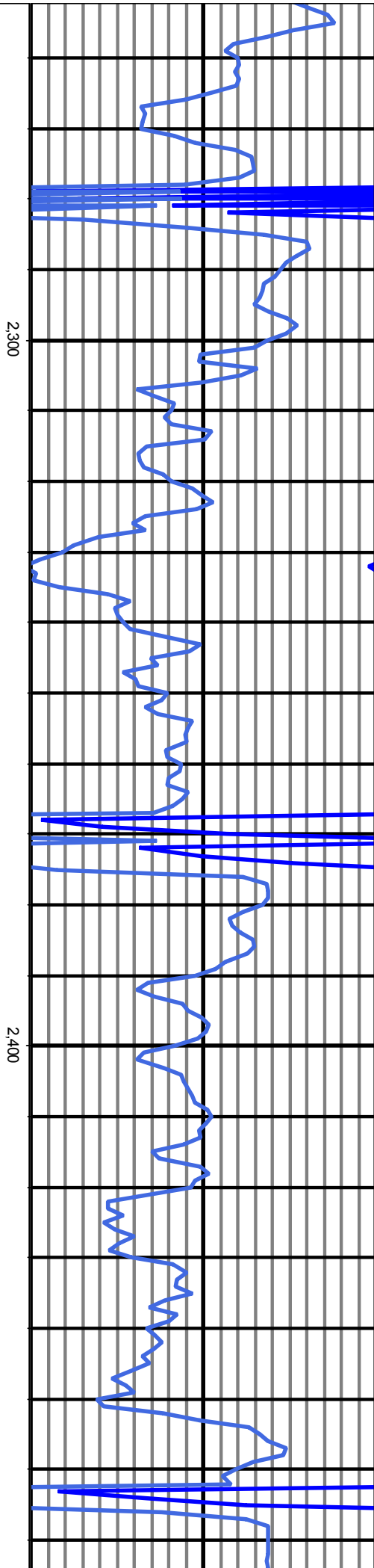
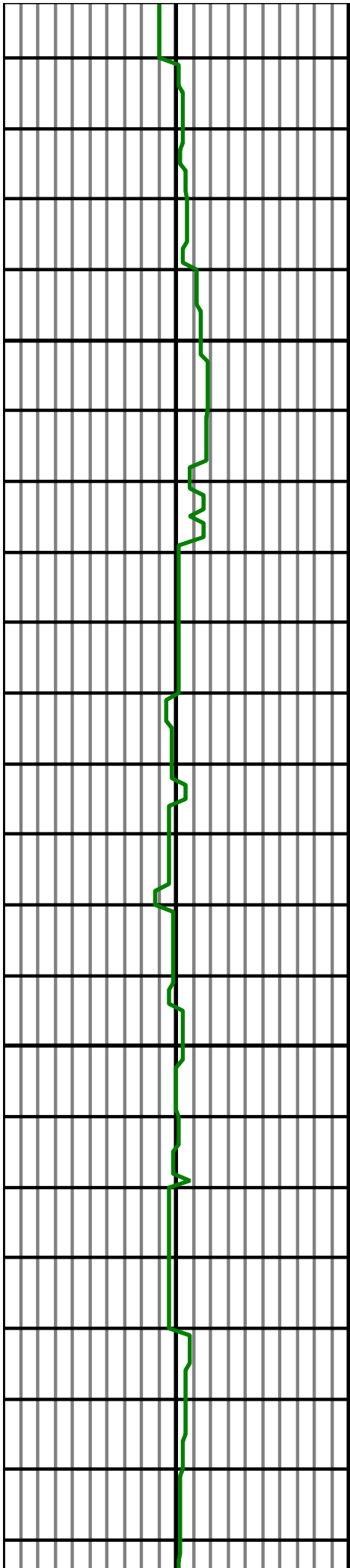




MD: 2044.00 INC: 8.80 AZ: 231.60

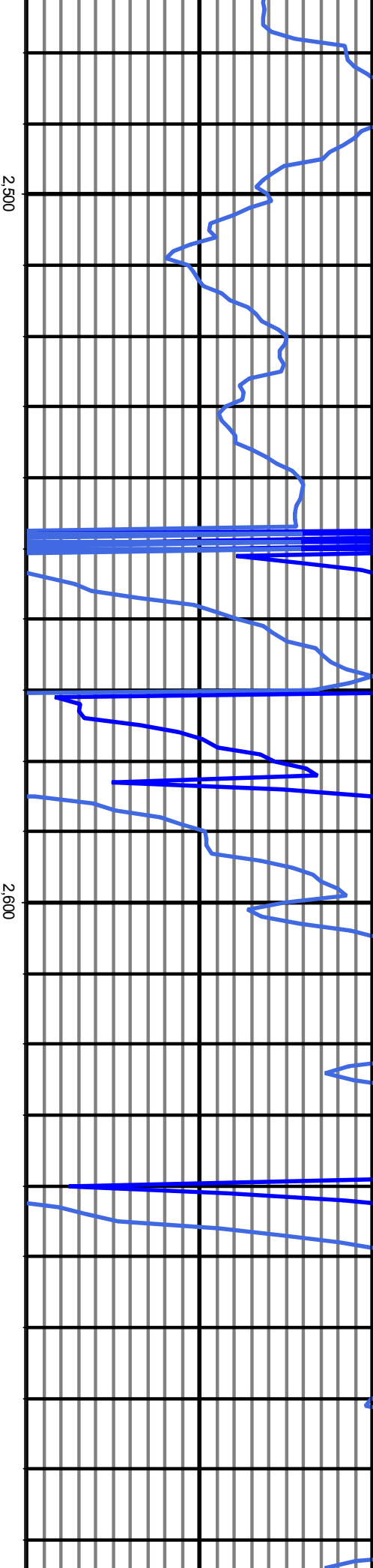
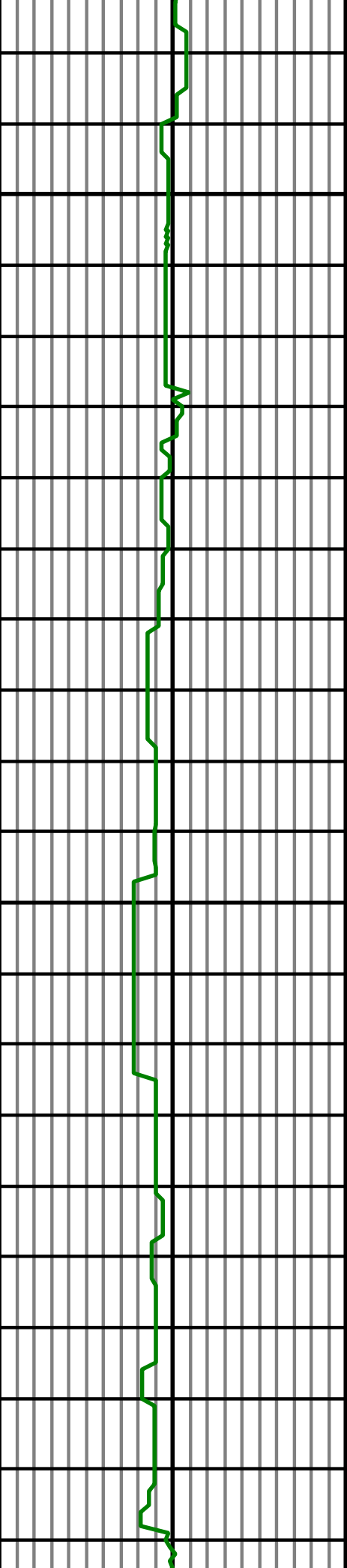
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MD: 2224.00 INC: 10.20 AZ: 227.40



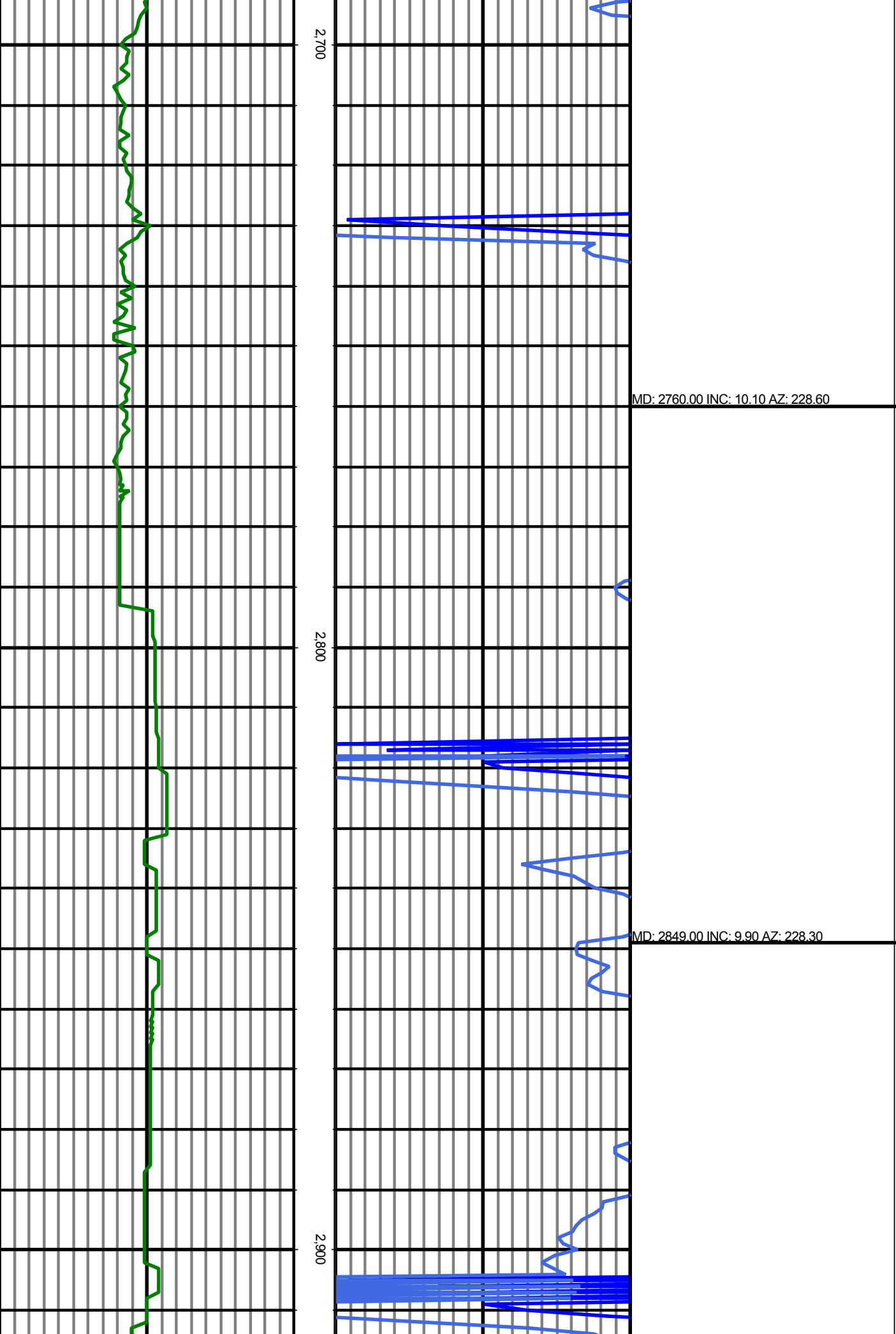
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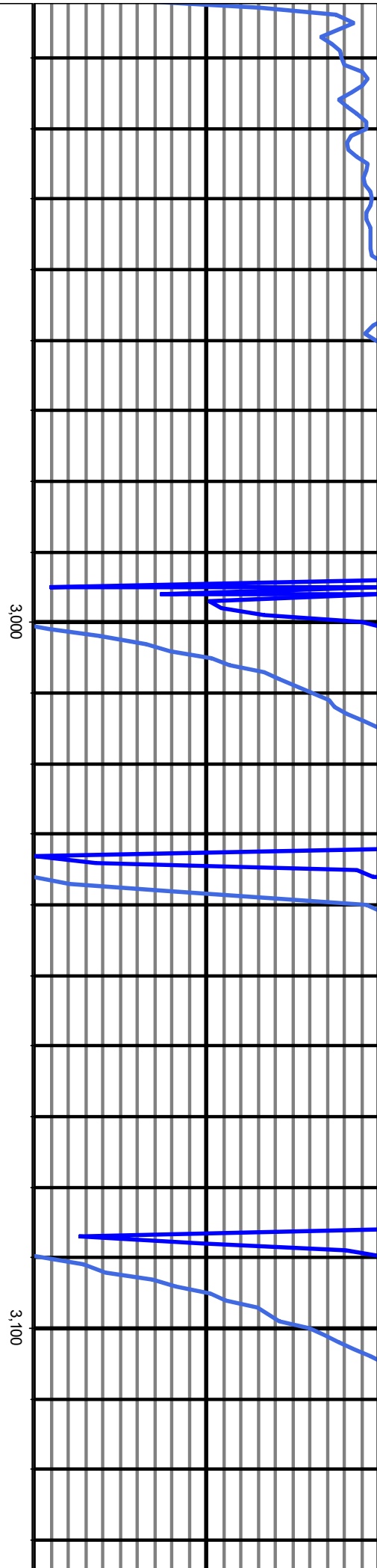
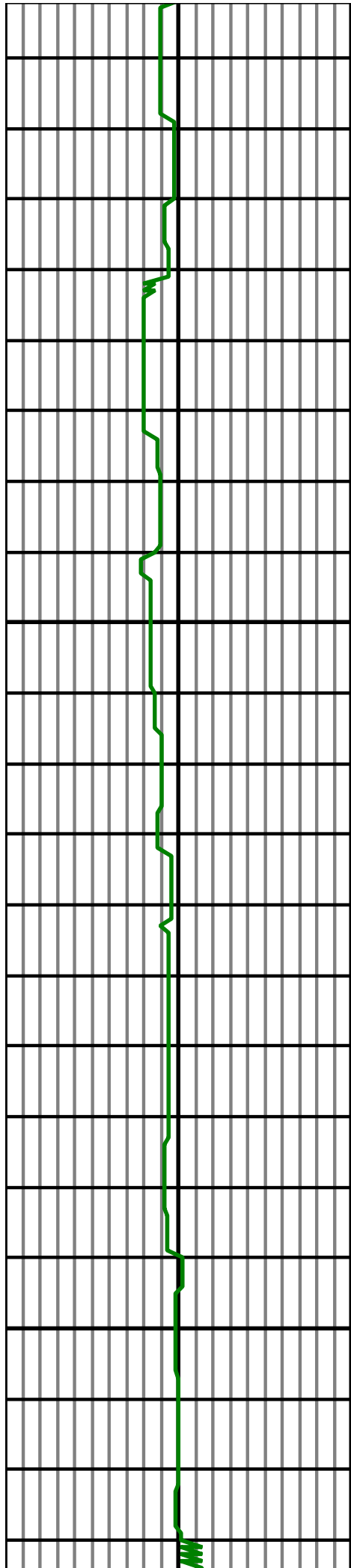
MD: 2404.00 INC: 9.10 AZ: 226.10



MD: 2492.00 INC: 9.10 AZ: 226.10

MD: 2581.00 INC: 9.90 AZ: 231.60

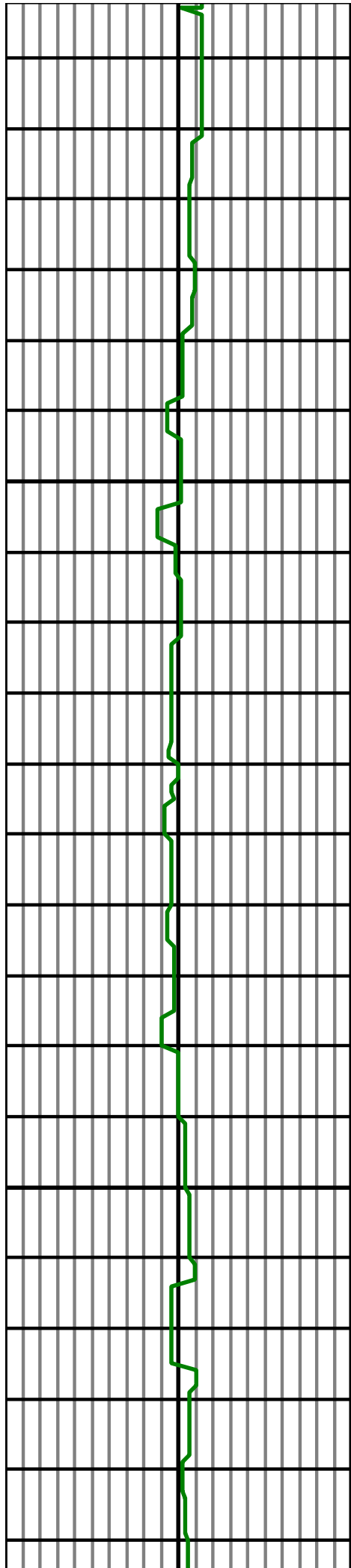




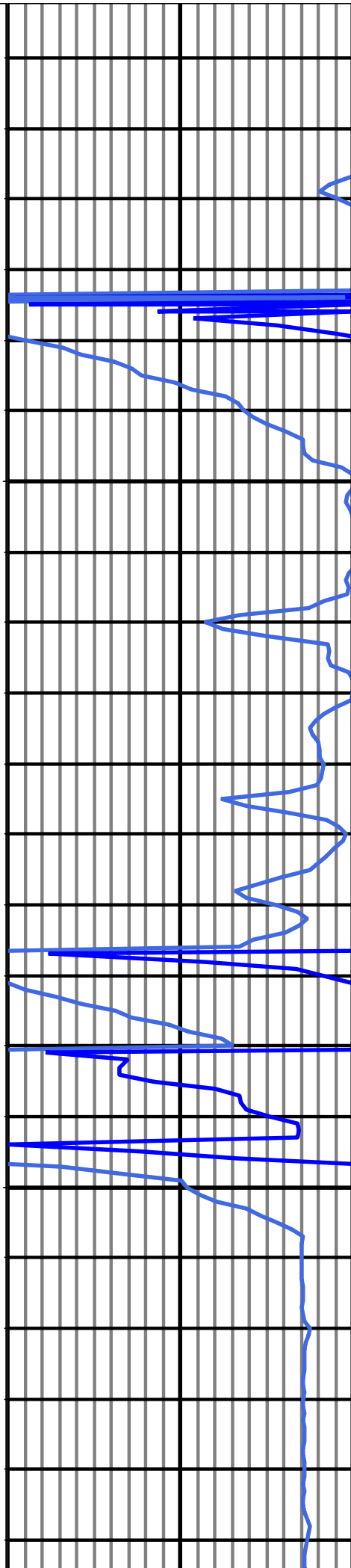
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MD: 3029.00 INC: 9.50 AZ: 227.70

MD: 3119.00 INC: 8.70 AZ: 226.10



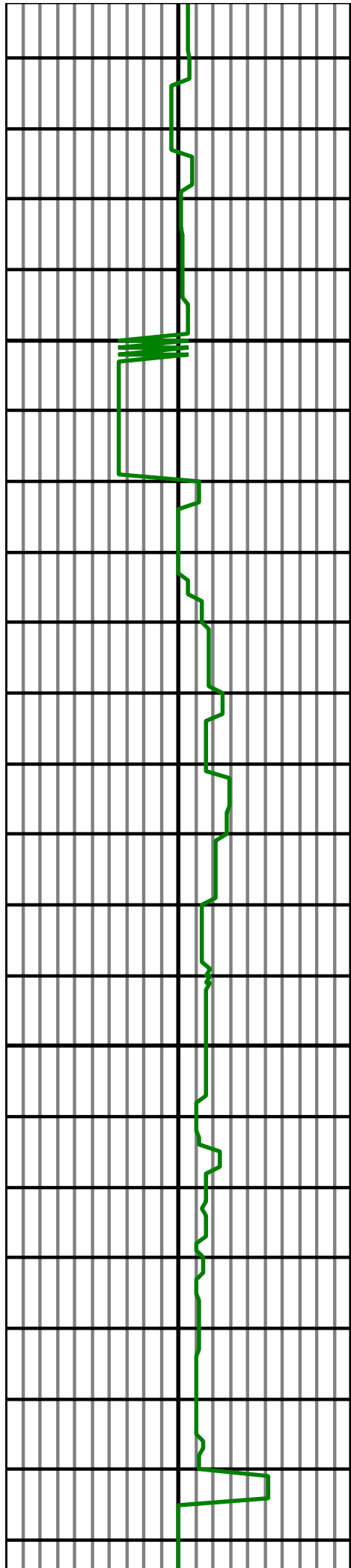
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3.300

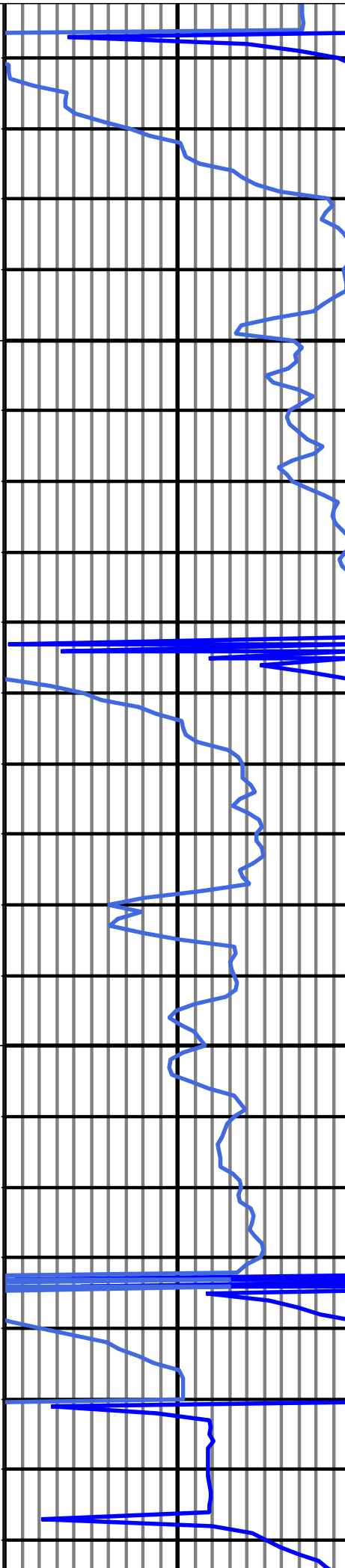
MD: 3209.00 INC: 7.80 AZ: 222.50

MD: 3298.00 INC: 9.60 AZ: 229.30



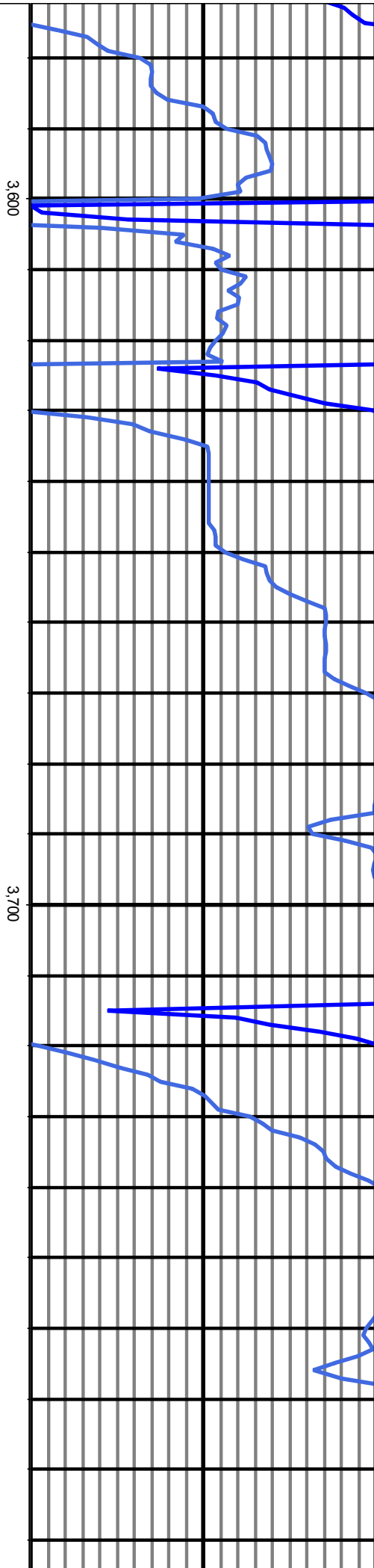
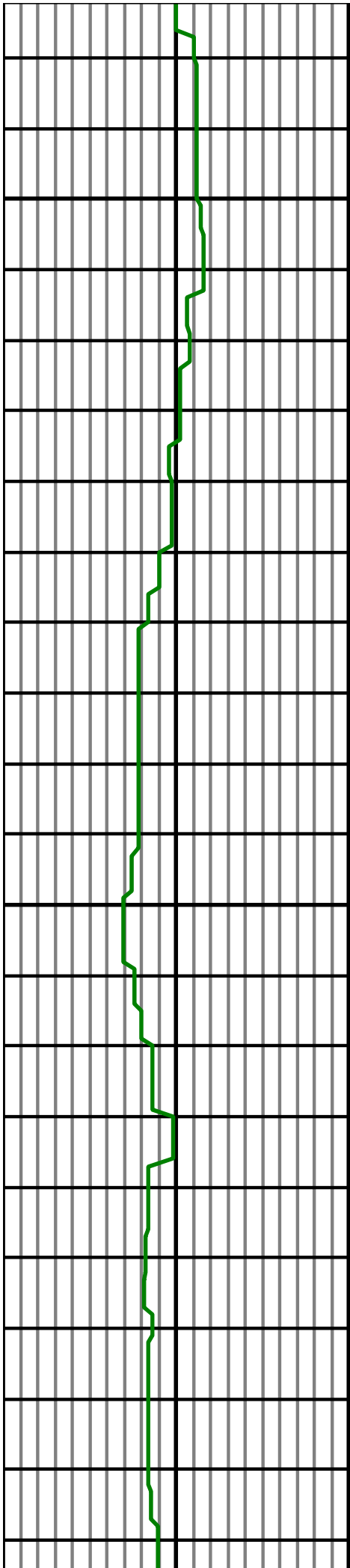
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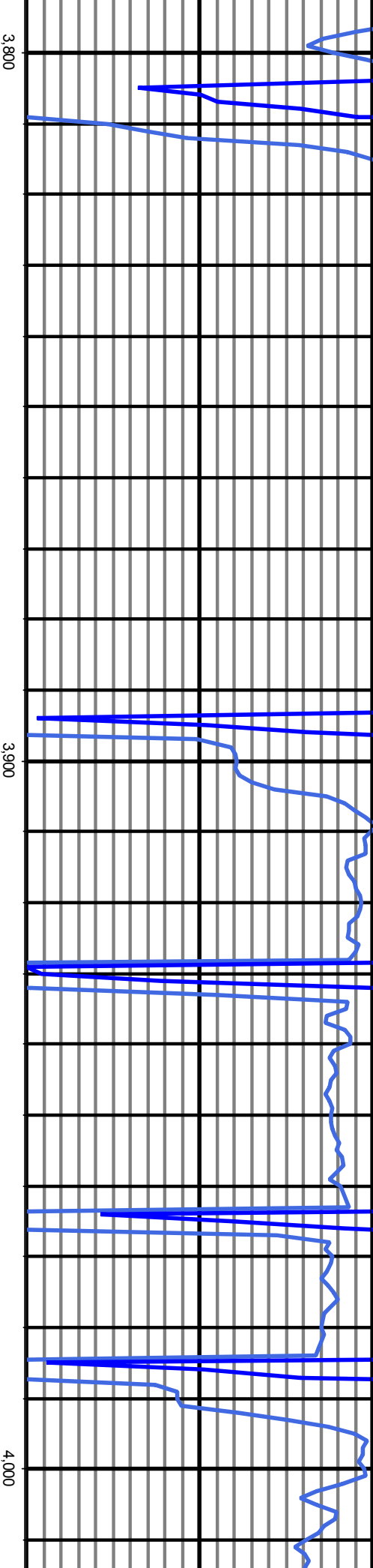
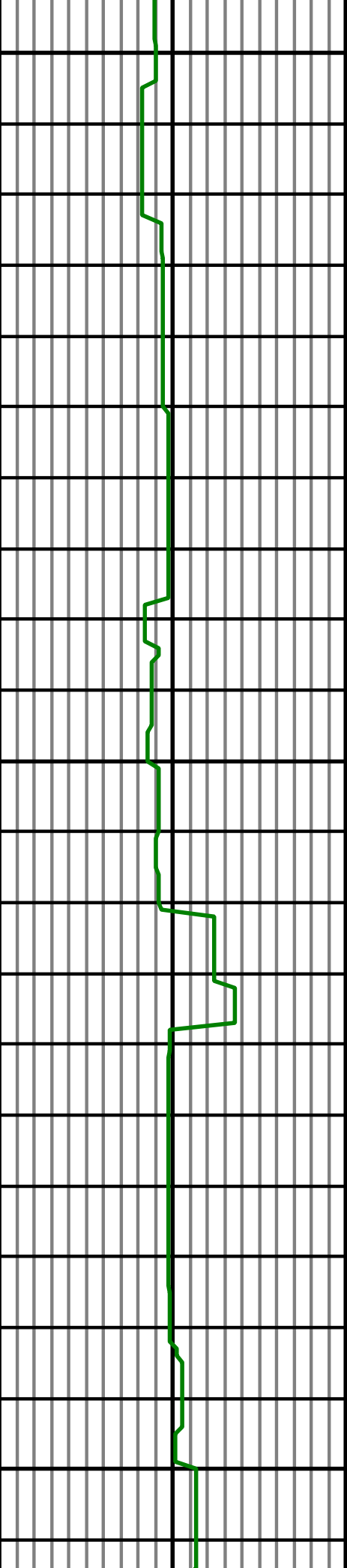
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MD: 3567.00 INC: 10.40 AZ: 227.70



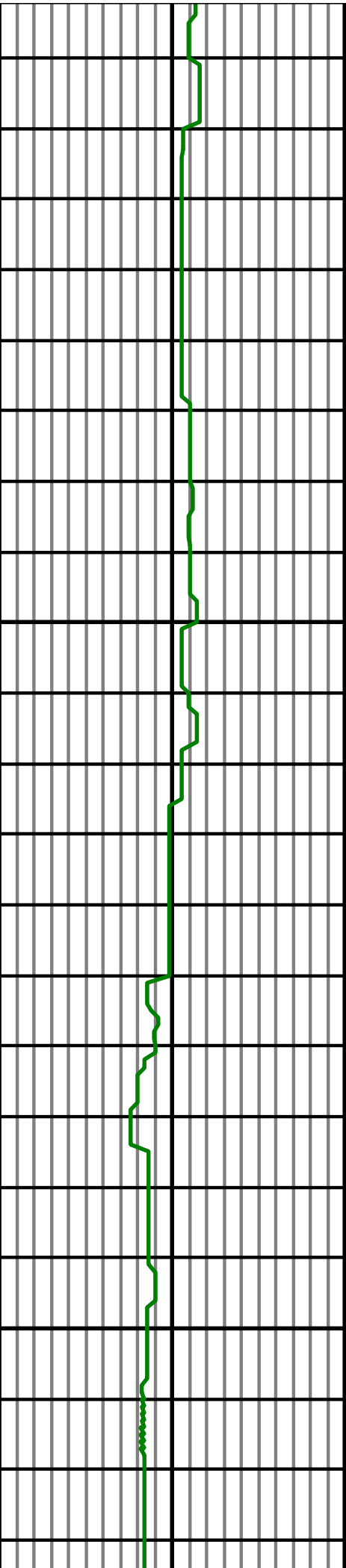
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MD: 3746.00 INC: 10.60 AZ: 225.40



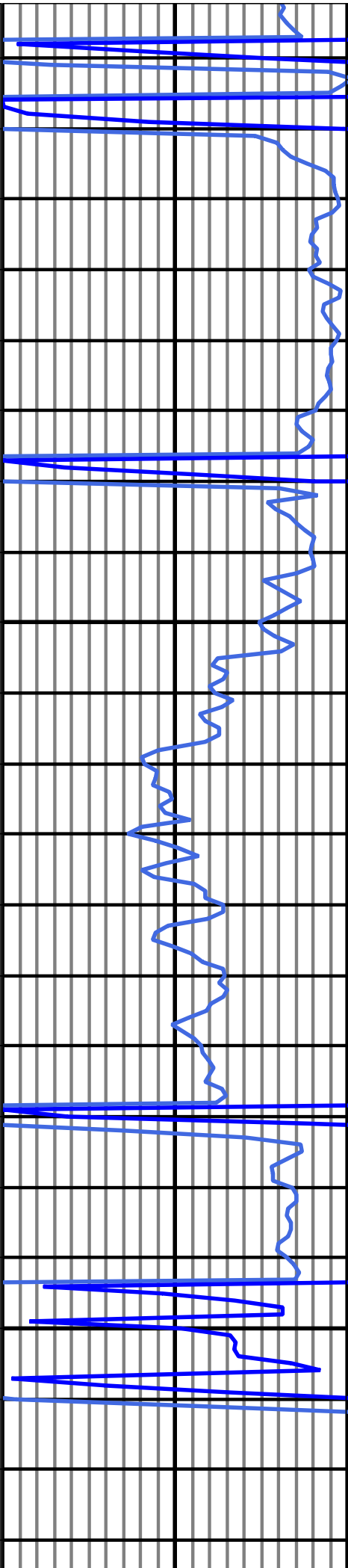
MD: 3836.00 INC: 10.80 AZ: 224.20

MD: 3926.00 INC: 10.60 AZ: 223.20



4,100

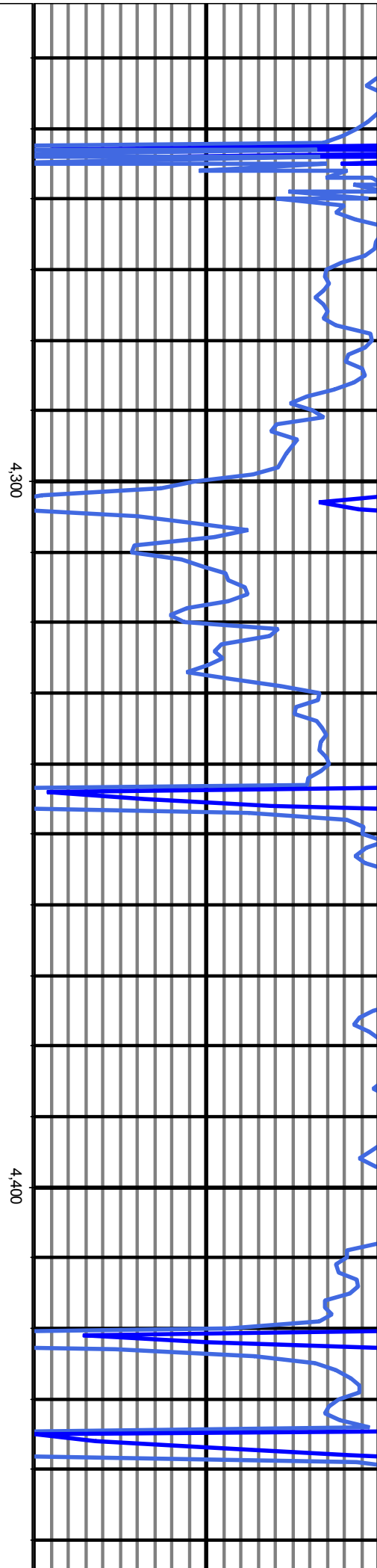
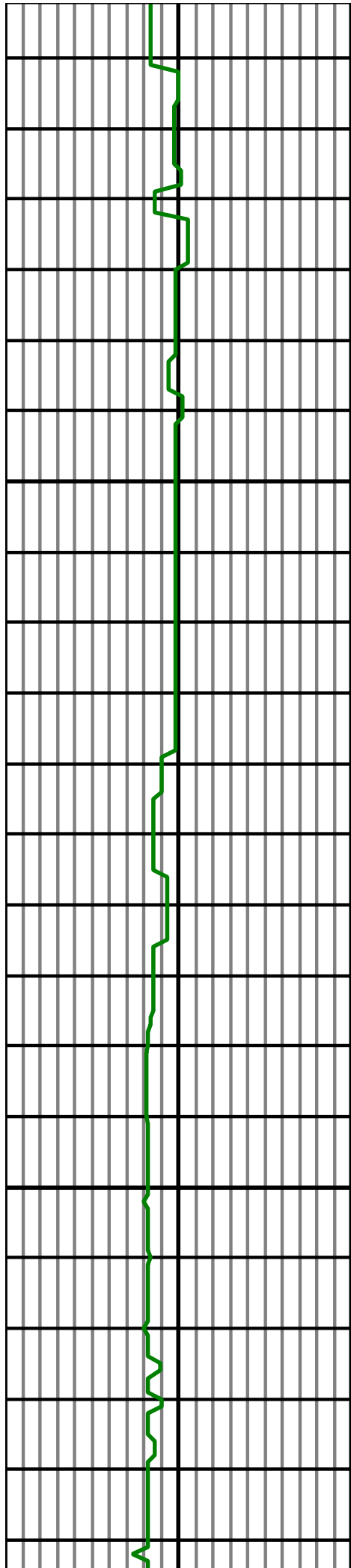
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MD: 4016.00 INC: 10.00 AZ: 224.70

MD: 4106.00 INC: 9.20 AZ: 225.80

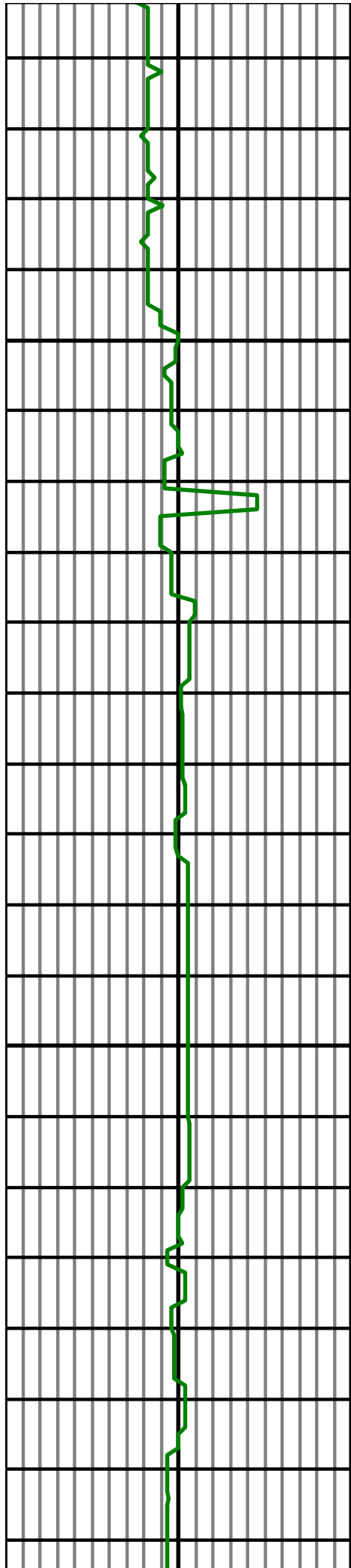
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MD: 4286.00 INC: 9.60 AZ: 223.30

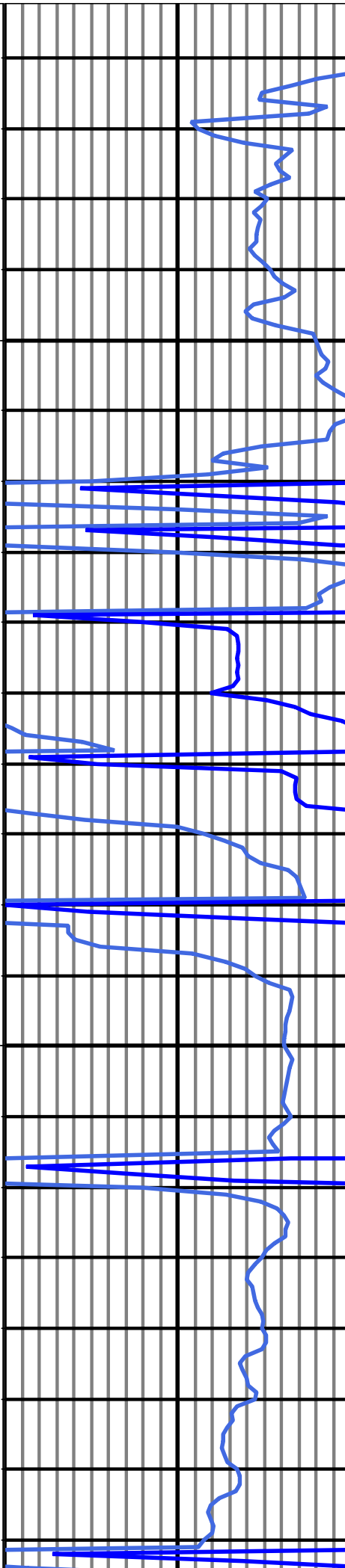
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4,400



4,500

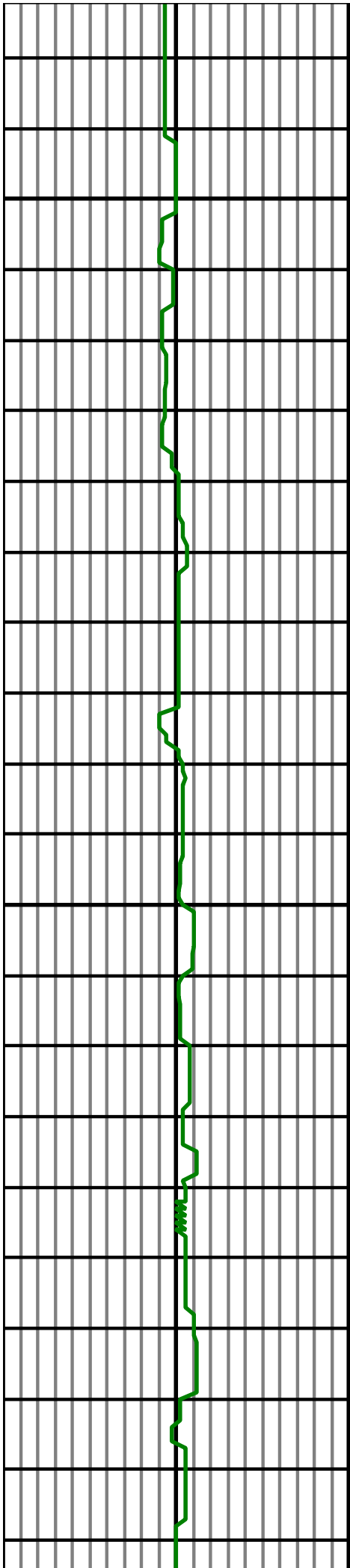
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MD: 4466.00 INC: 9.10 AZ: 221.80

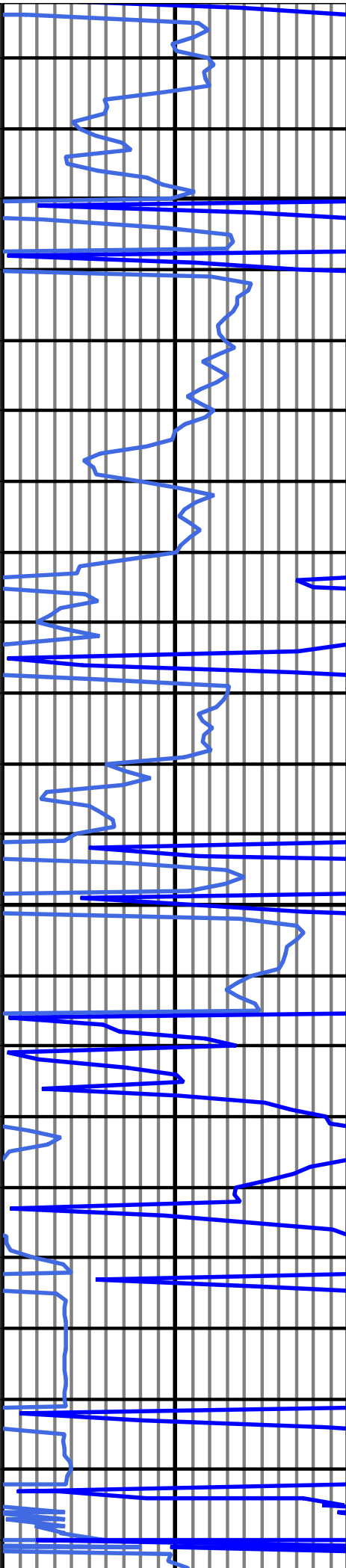
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MD: 4647.00 INC: 9.90 AZ: 228.40



4,700

4,800



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MD: 4827.00 INC: 10.50 AZ: 224.90

MD: 4917.00 INC: 11.20 AZ: 227.90

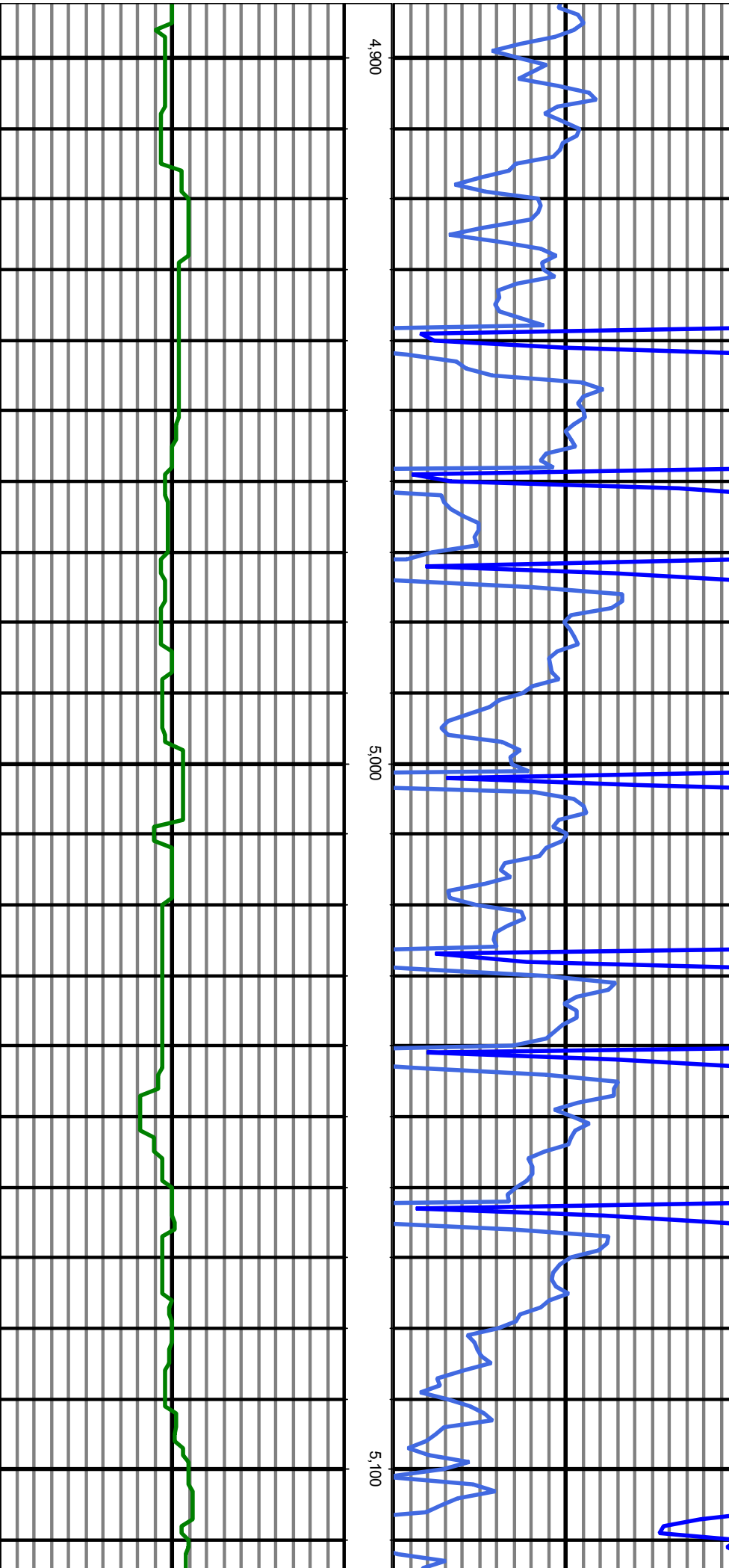
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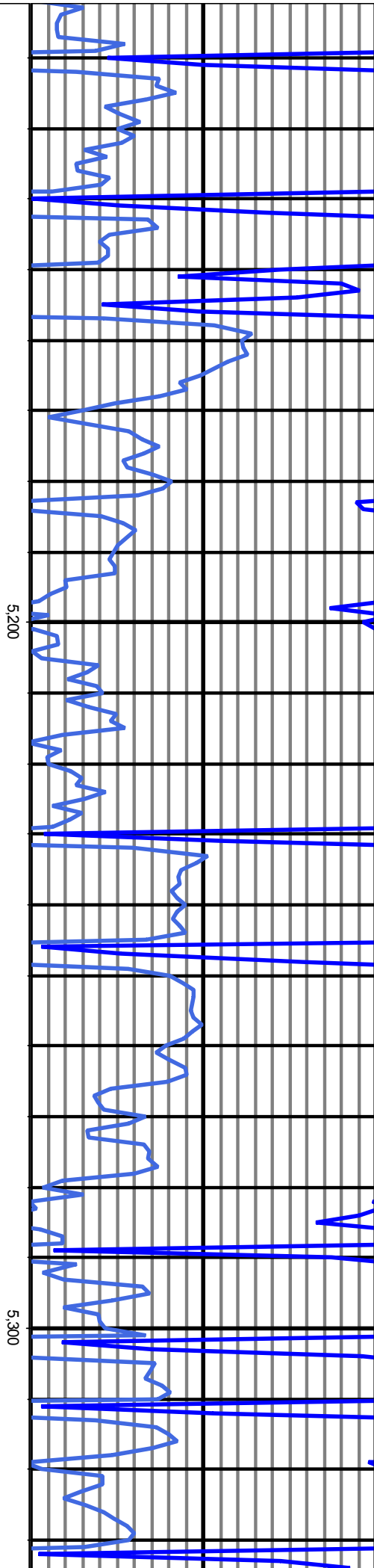
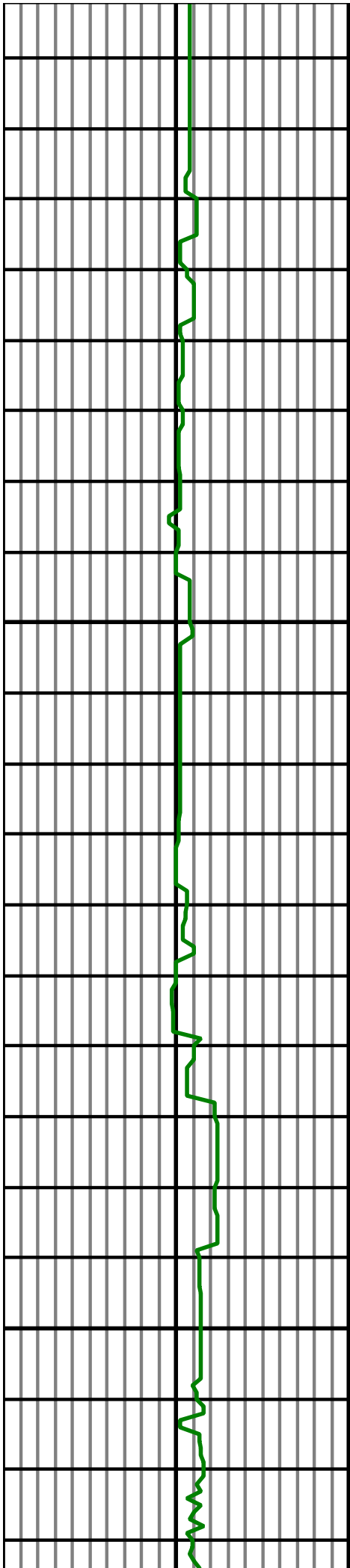
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4,900

5,000

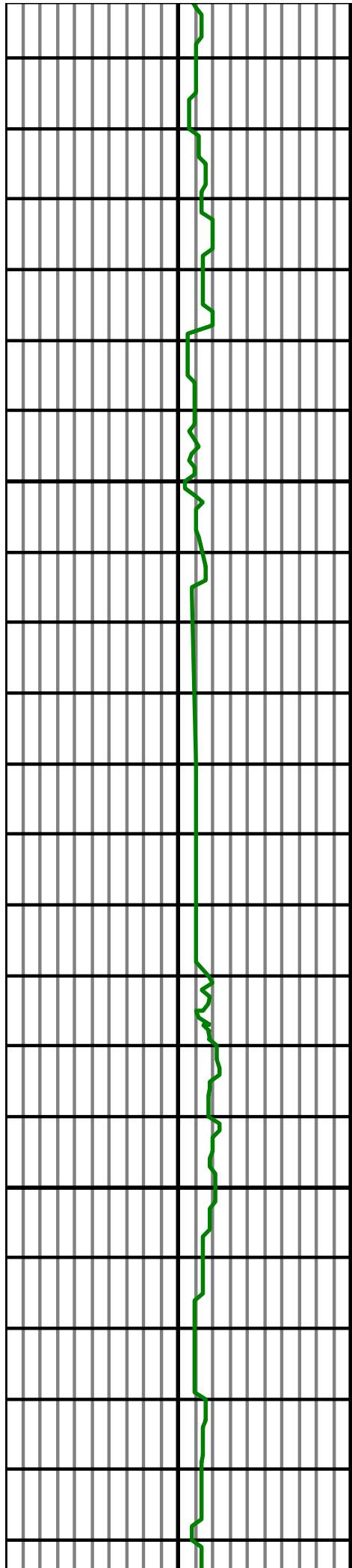
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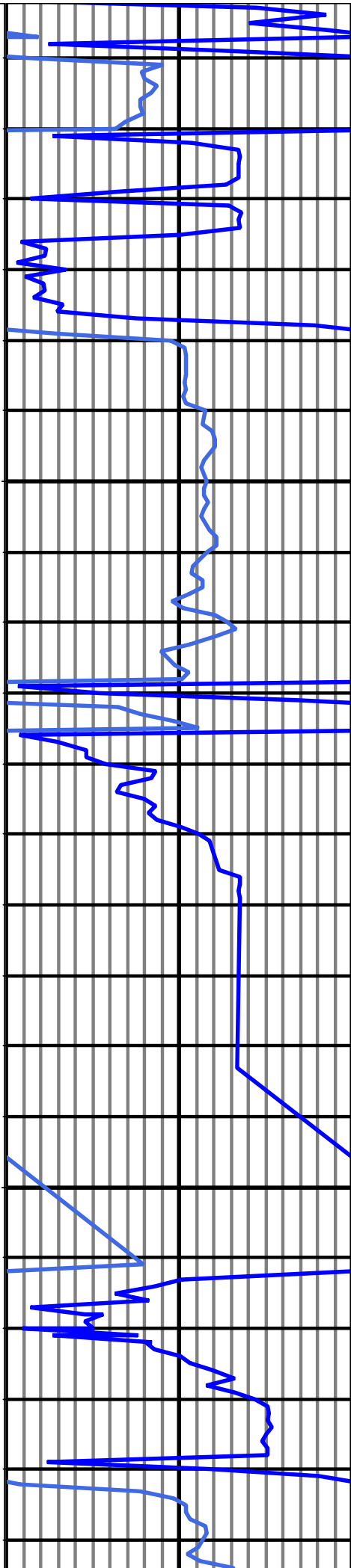


MD: 5187.00 INC: 9.70 AZ: 226.00

MD: 5278.00 INC: 8.90 AZ: 223.70



5.400

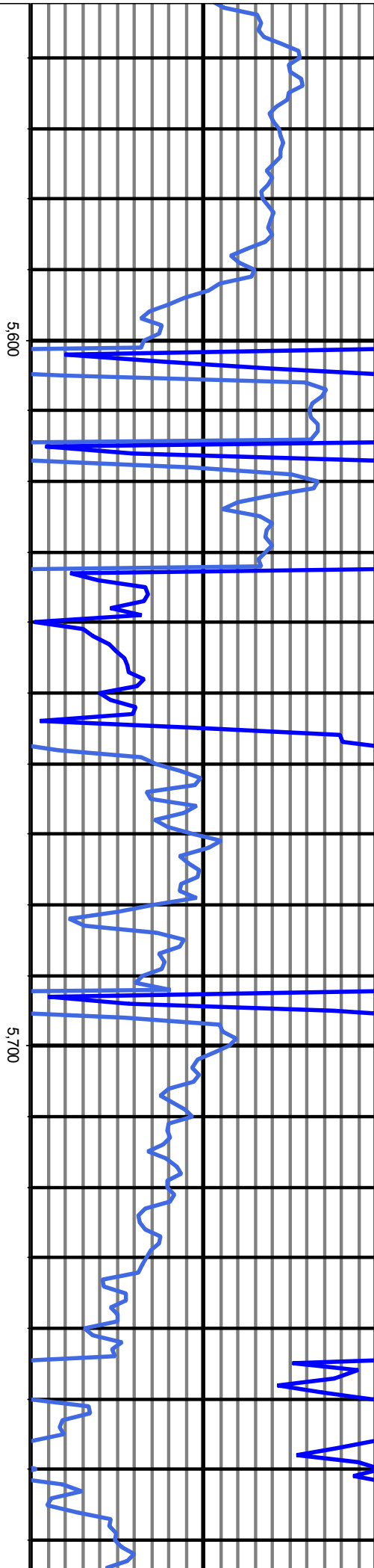
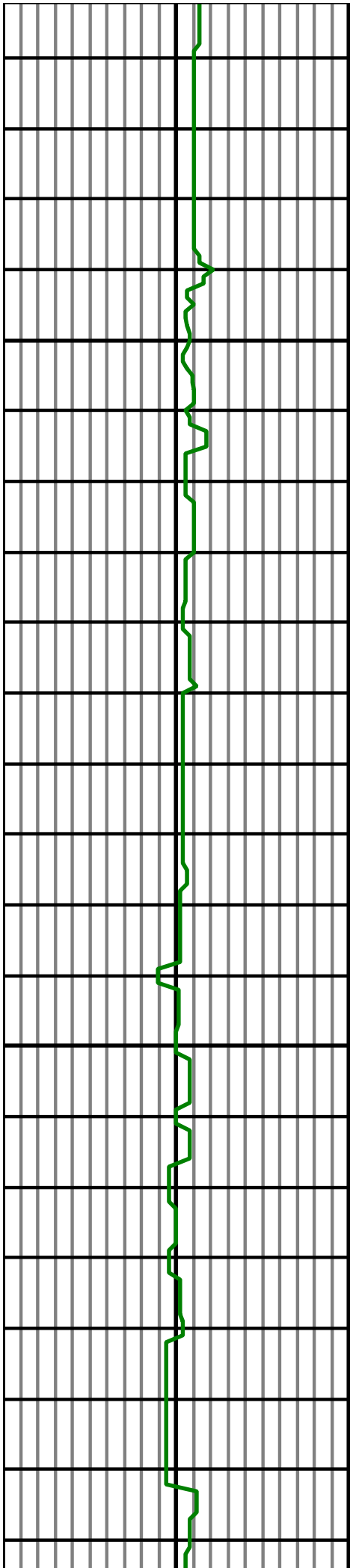


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MD: 5368.00 INC: 8.50 AZ: 221.10

MD: 5457.00 INC: 9.80 AZ: 222.30

MD: 5546.00 INC: 11.50 AZ: 219.60



5,600

5,700

MD: 5636.00 INC: 11.10 AZ: 221.20

MD: 5725.00 INC: 10.70 AZ: 222.50

MD: 5995.00 INC: 9.80 AZ: 221.60

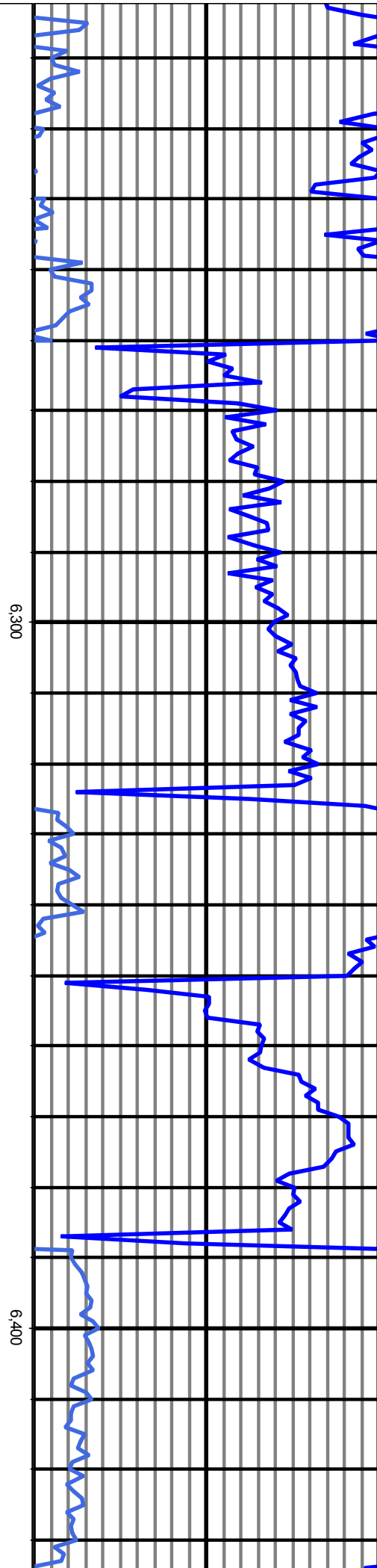
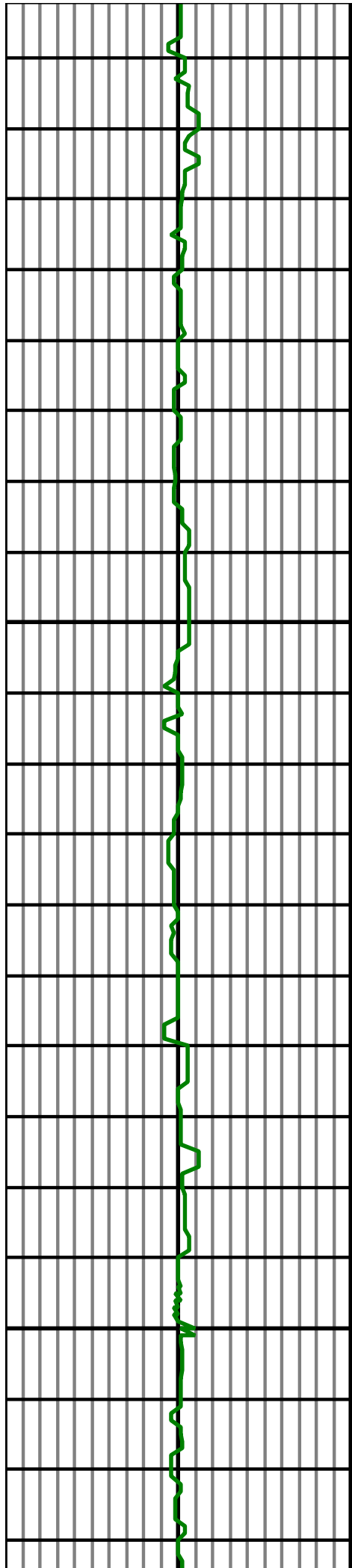
6,000

6,100

6,200

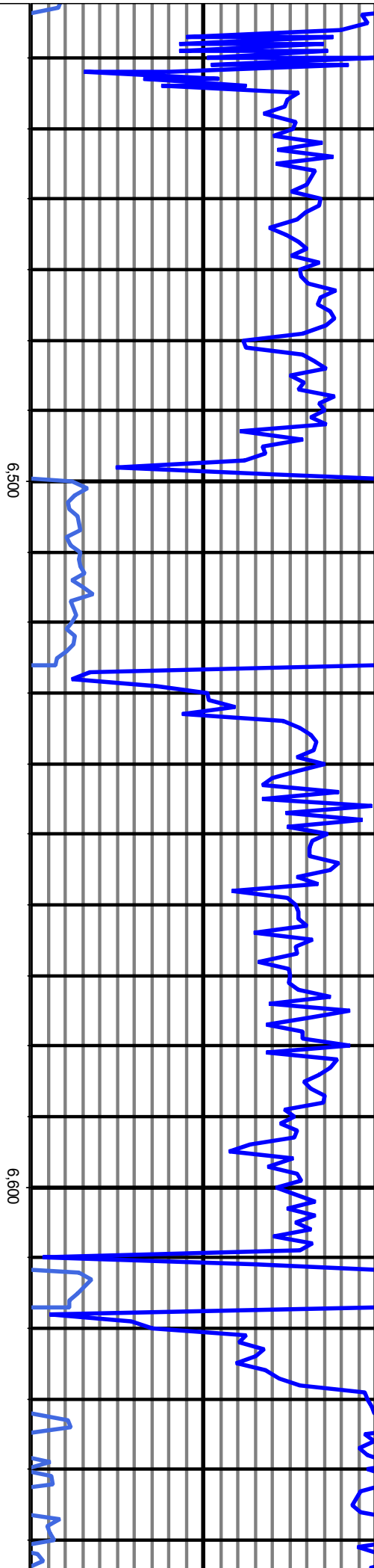
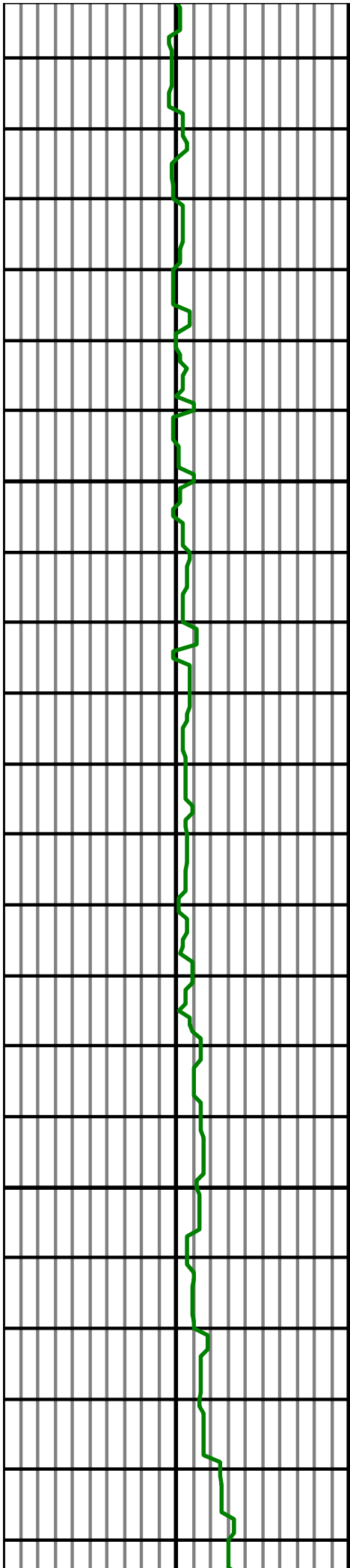
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MD: 6293.00 INC: 13.40 AZ: 149.70

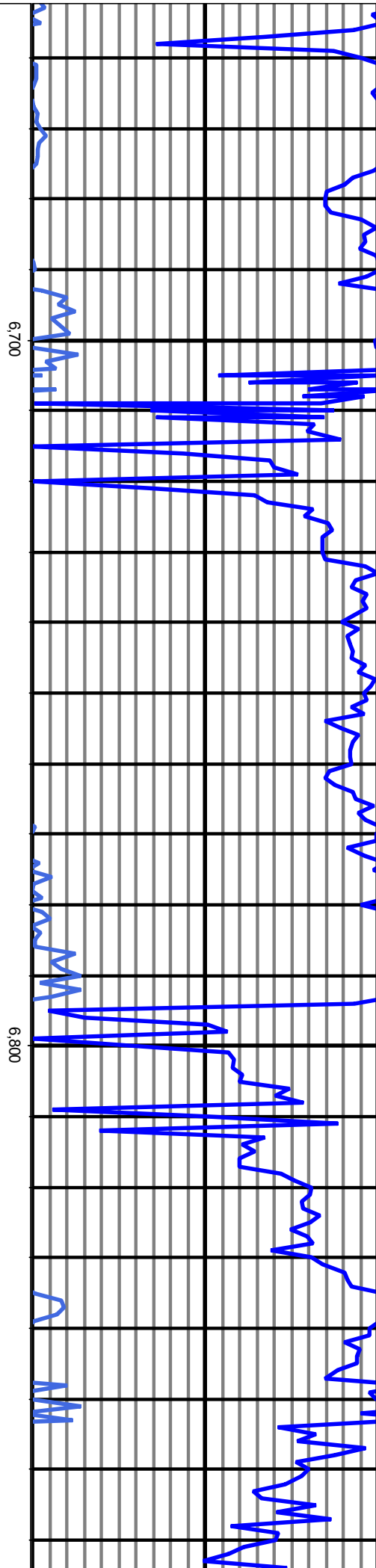
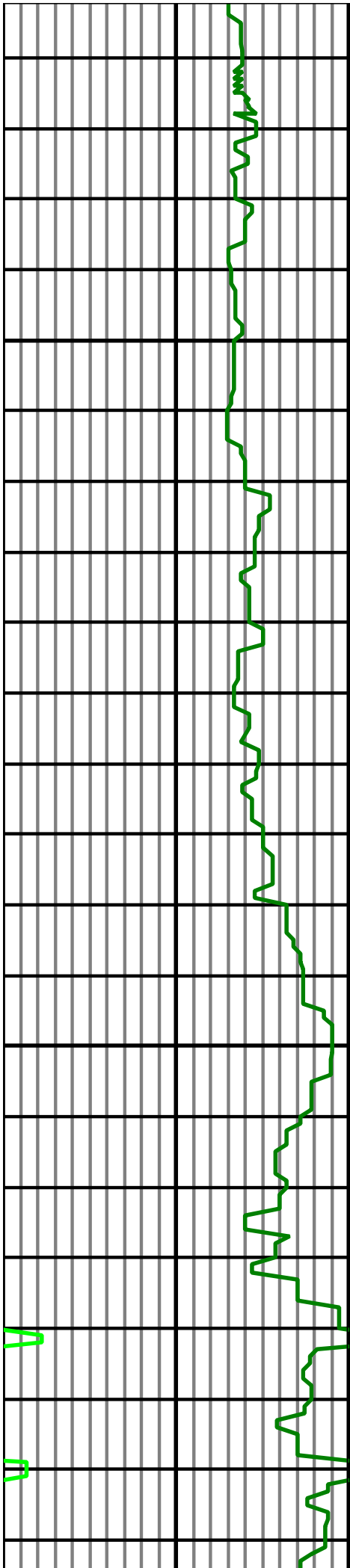
MD: 6382.00 INC: 14.30 AZ: 121.40



MD: 6472.00 INC: 15.30 AZ: 111.40

MD: 6561.00 INC: 18.50 AZ: 95.50

MD: 6650.00 INC: 24.20 AZ: 87.30



6,700

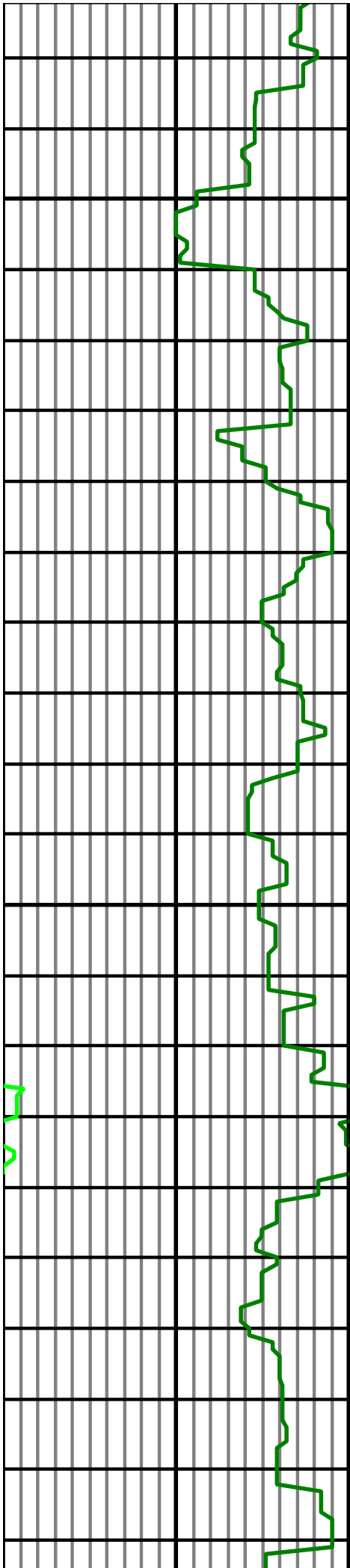
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MD: 6830.00 INC: 40.60 AZ: 95.90

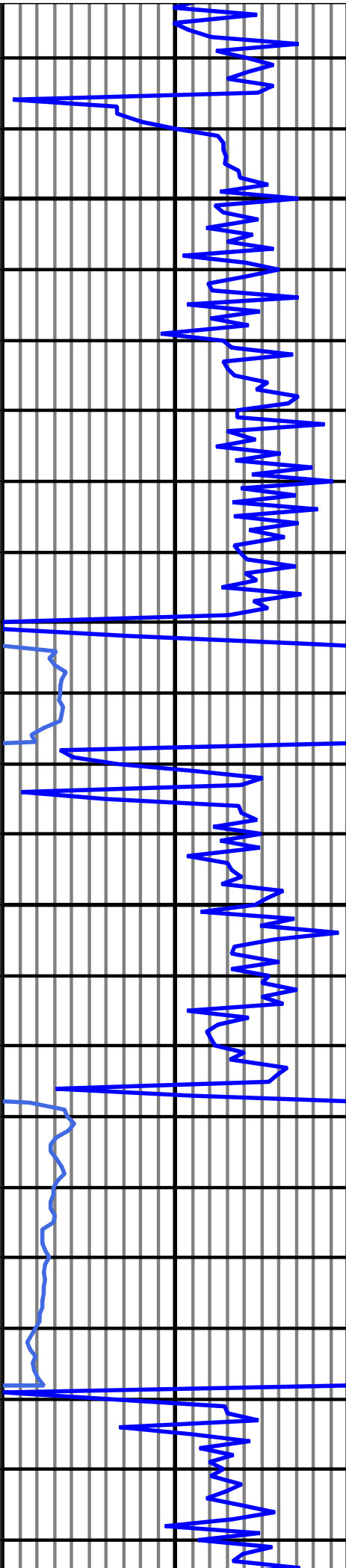
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A



6,900

7,000

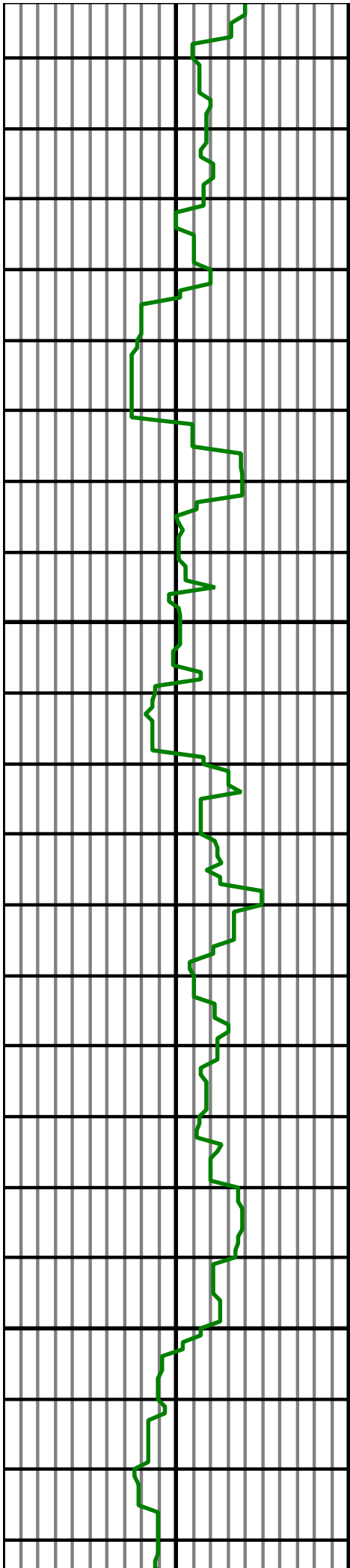


MD: 6920.00 INC: 51.40 AZ: 92.00

MD: 7010.00 INC: 60.80 AZ: 89.60

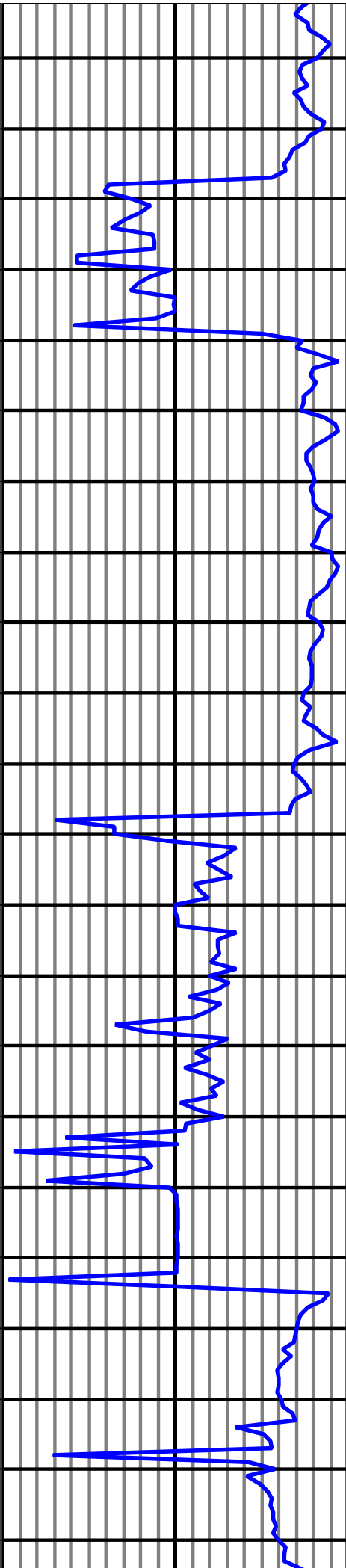
MD: 7280.00 INC: 78.40 AZ: 92.40





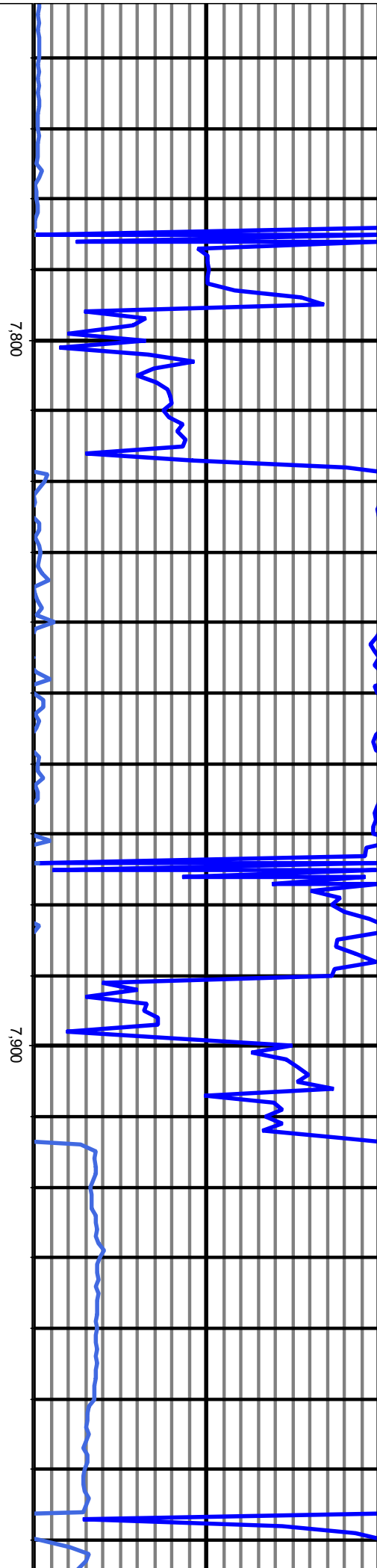
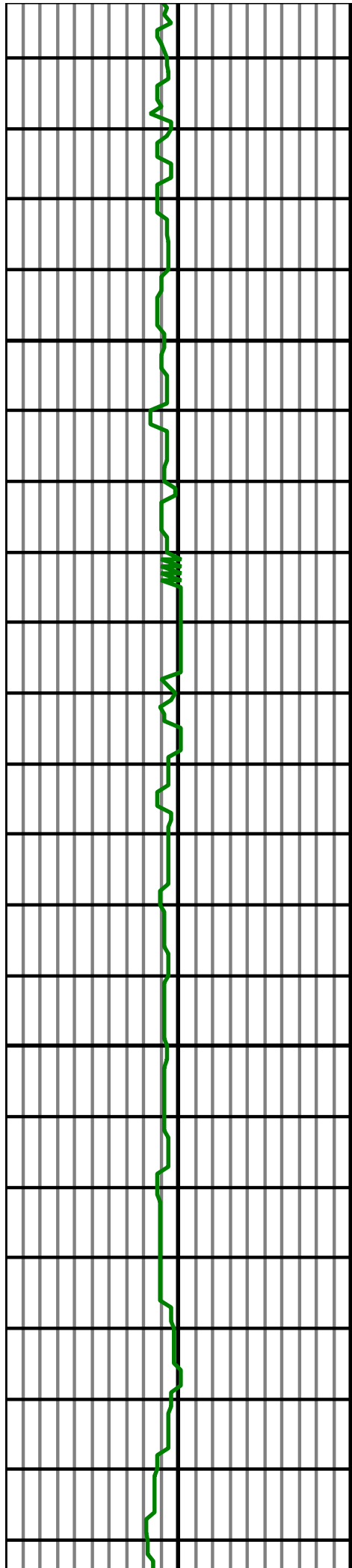
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7,500



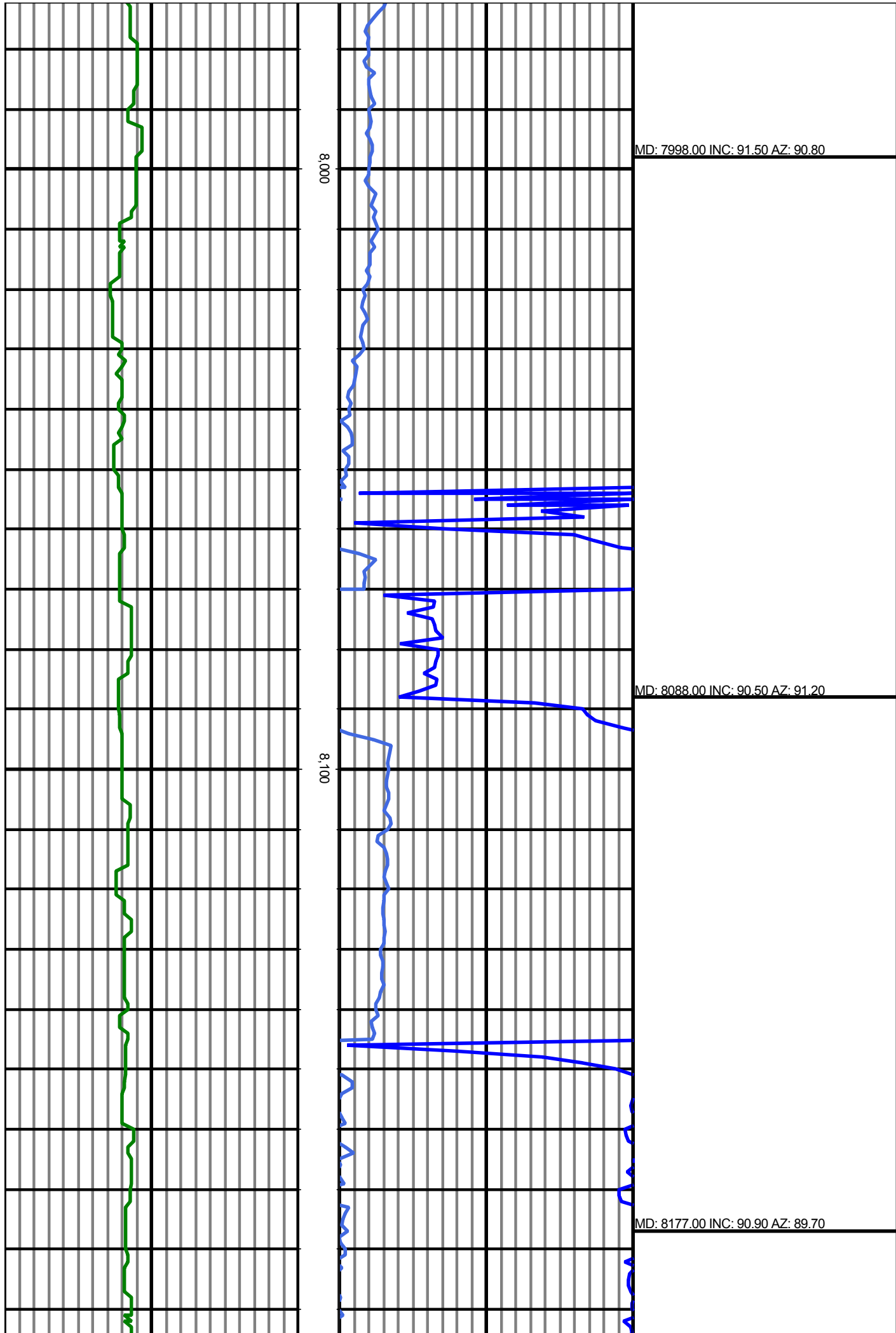
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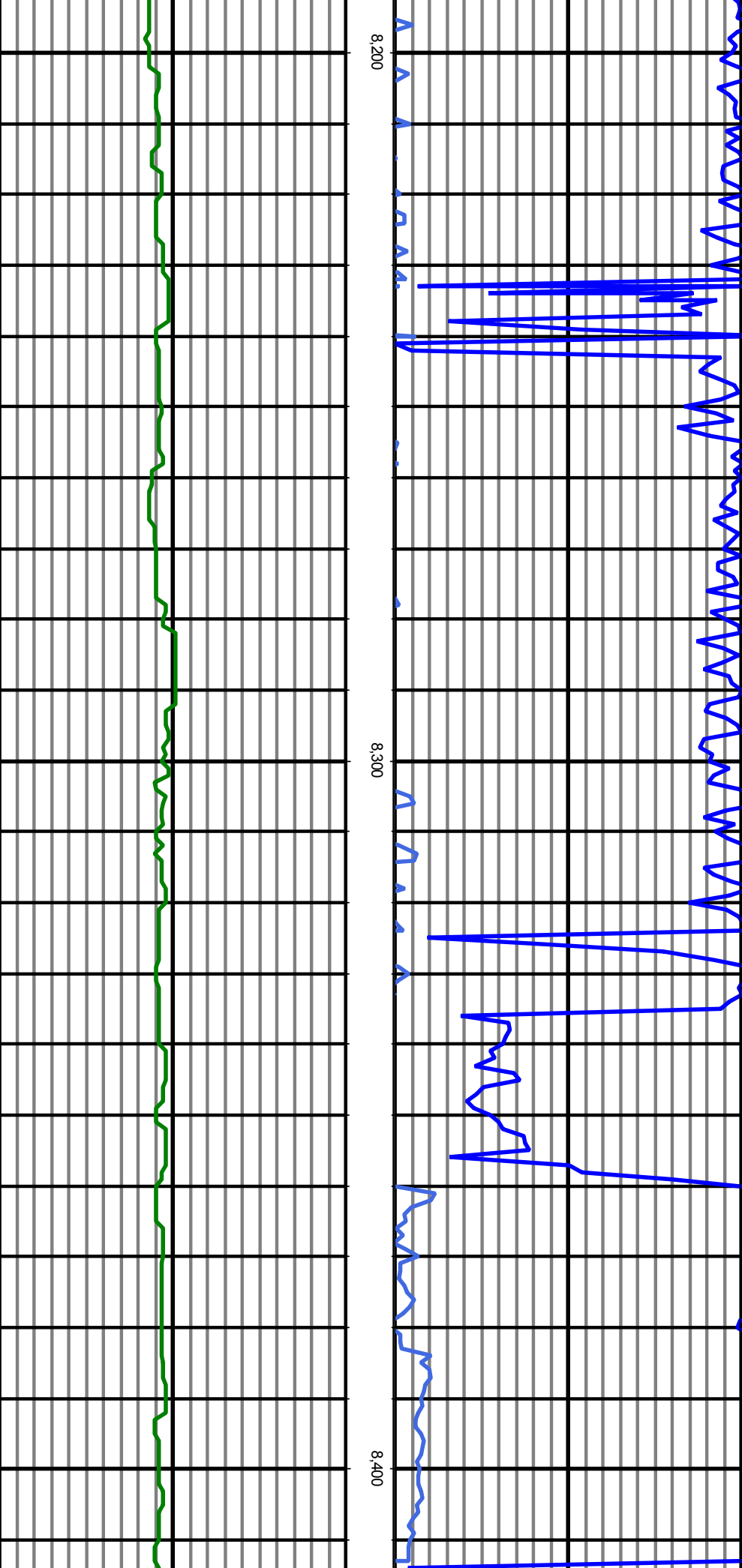
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MD: 7819.00 INC: 90.10 AZ: 92.40

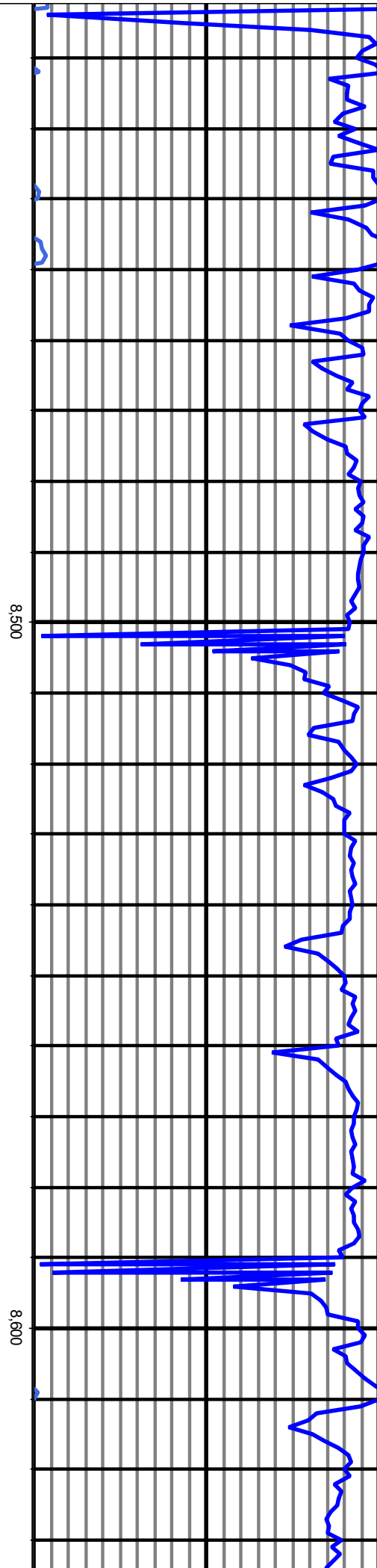
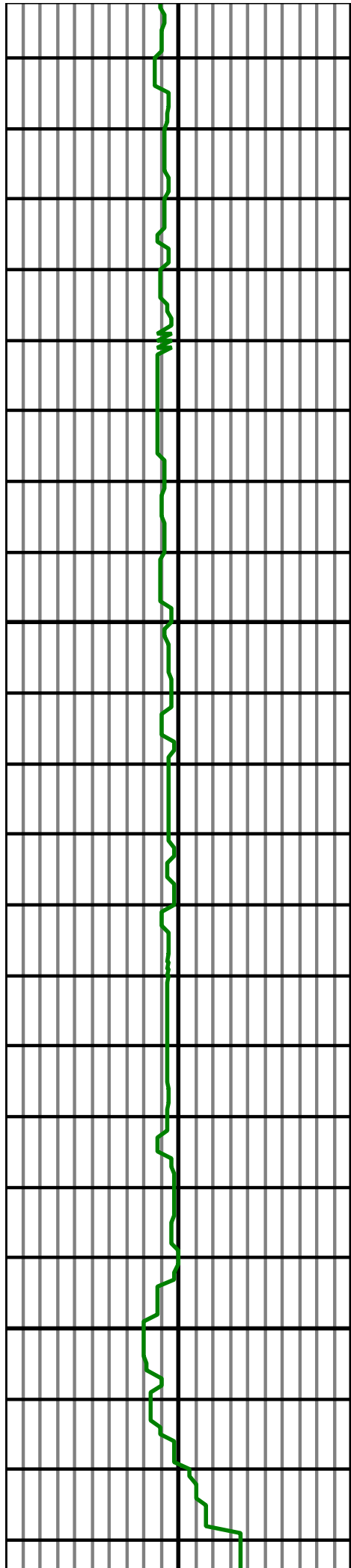
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MD: 8266.00 INC: 91.20 AZ: 89.40

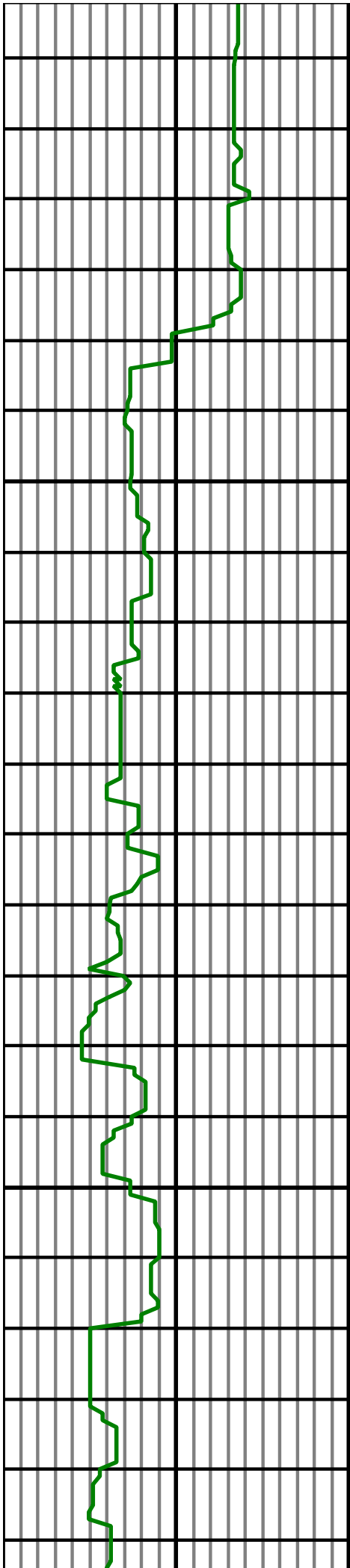
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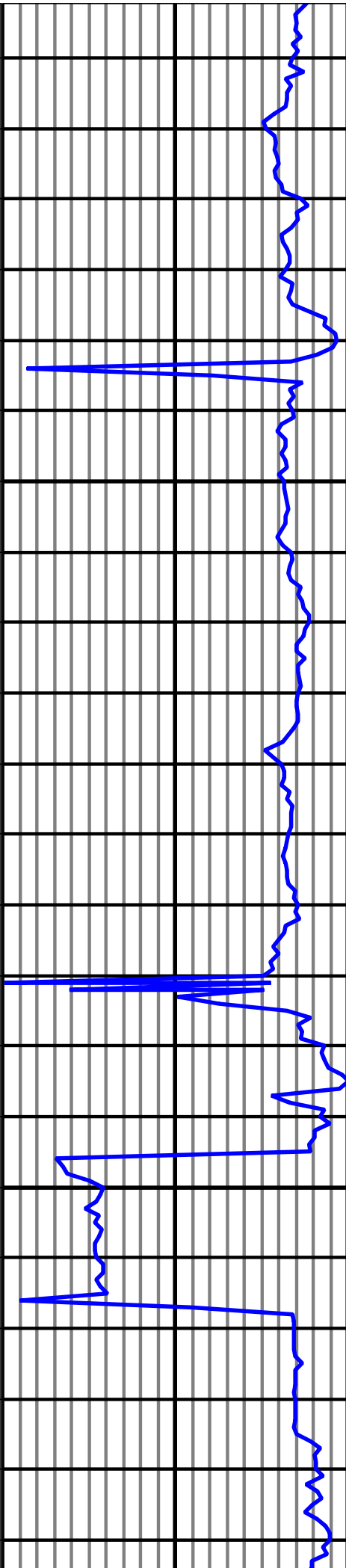
MD: 8536.00 INC: 90.00 AZ: 89.70

MD: 8625.00 INC: 90.10 AZ: 89.00



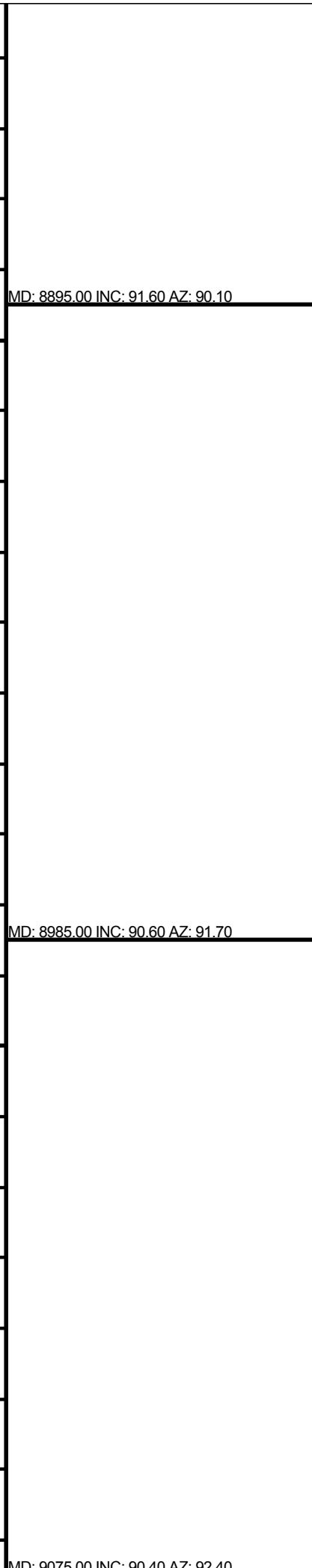
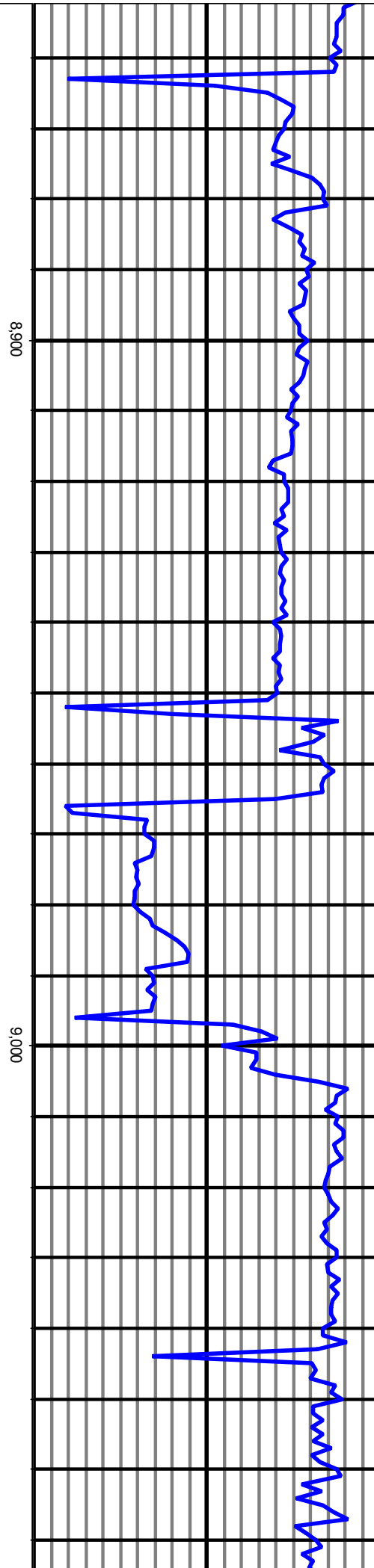
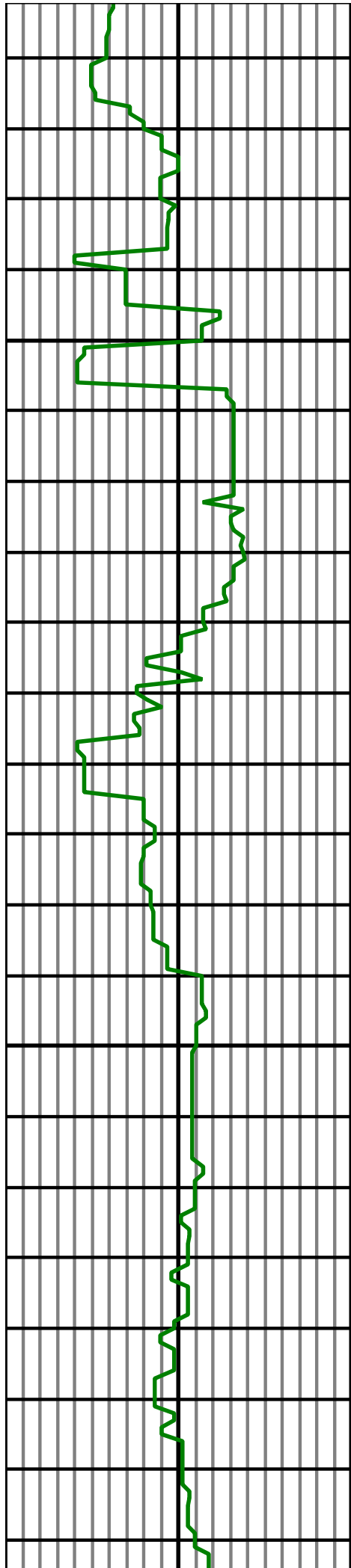
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8,800



MD: 8715.00 INC: 90.70 AZ: 88.50

MD: 8805.00 INC: 91.10 AZ: 89.20



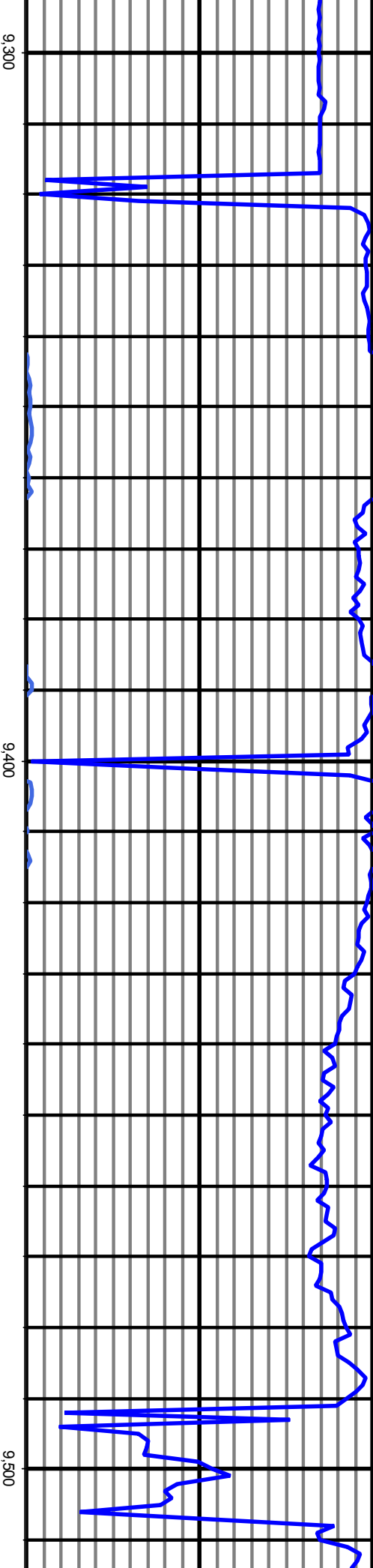
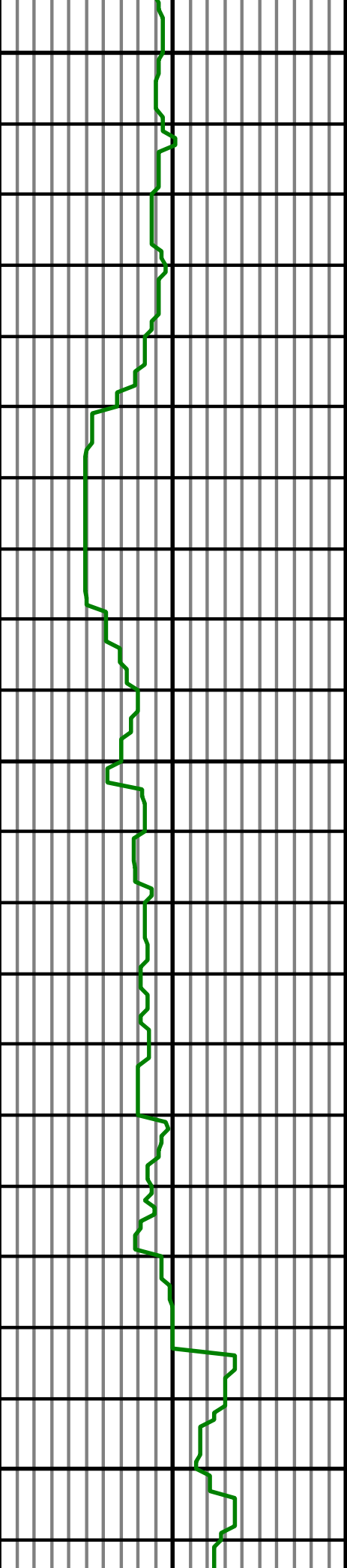
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MD: 9165.00 INC: 91.00 AZ: 91.00

MD: 9254.00 INC: 89.20 AZ: 90.60

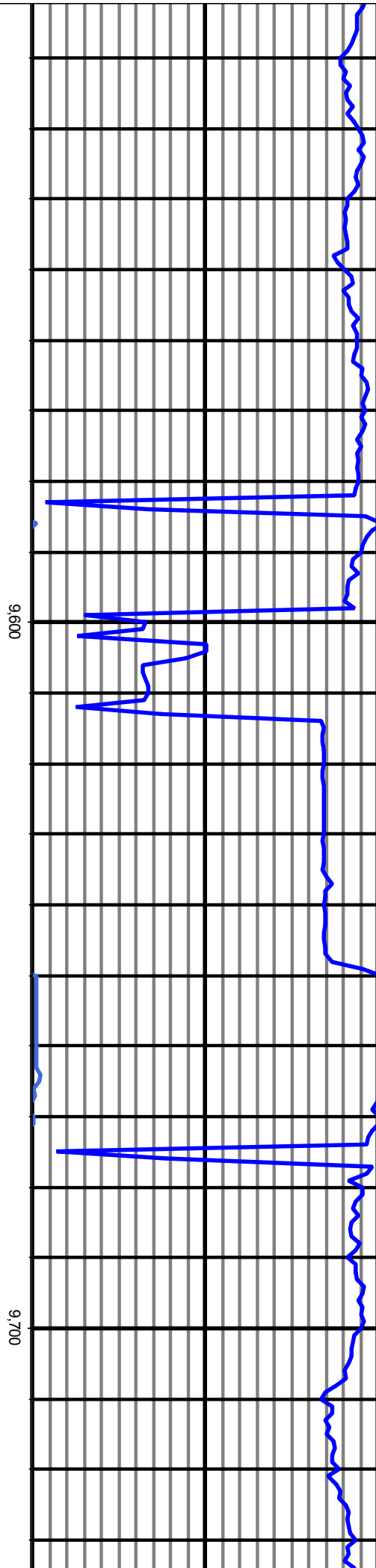
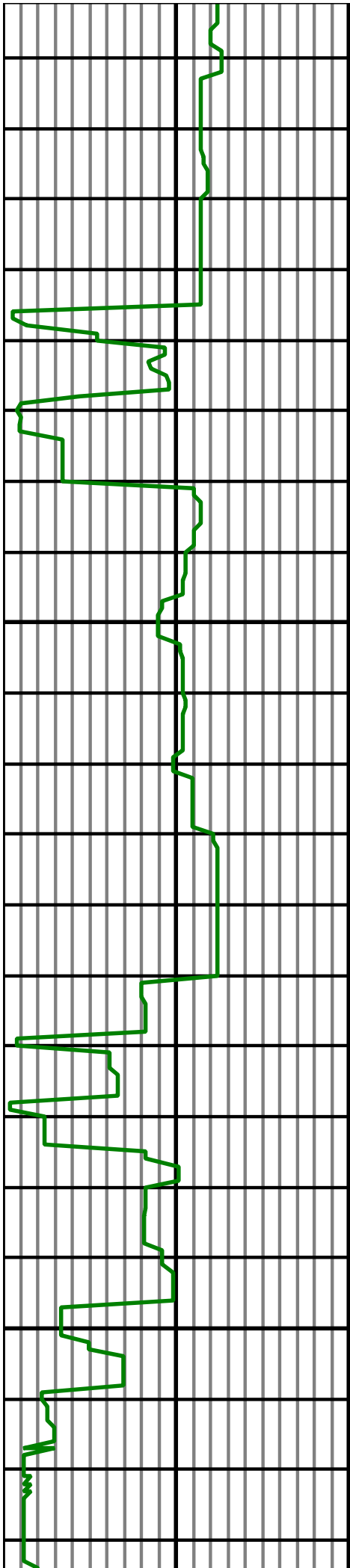
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9,200



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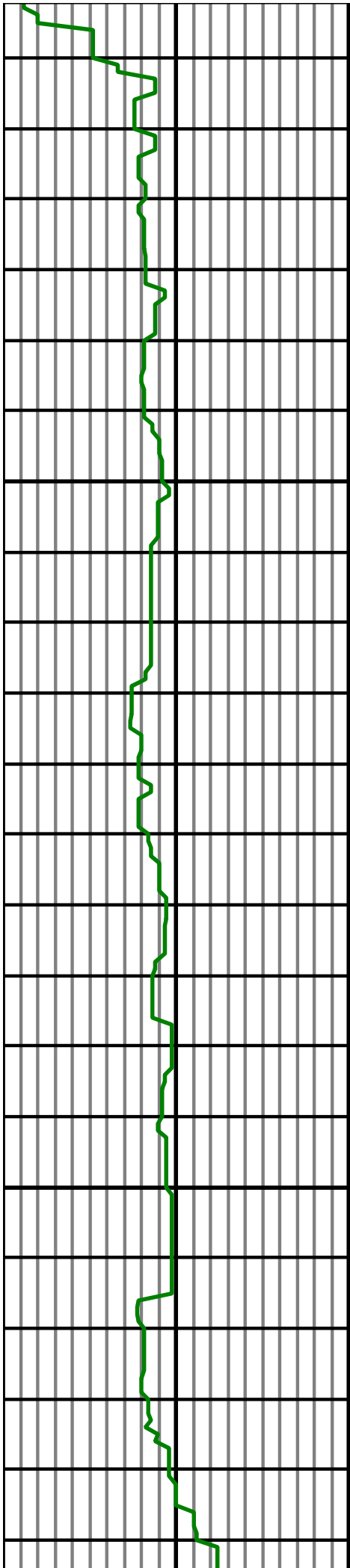
MD: 9434.00 INC: 87.80 AZ: 90.30



MD: 9524.00 INC: 89.00 AZ: 90.40

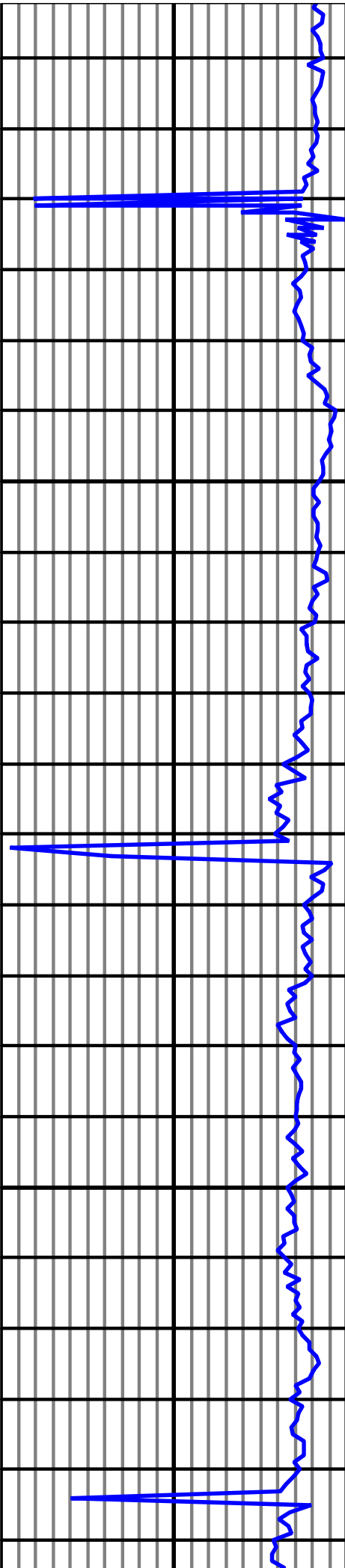
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MD: 9704.00 INC: 90.60 AZ: 91.70



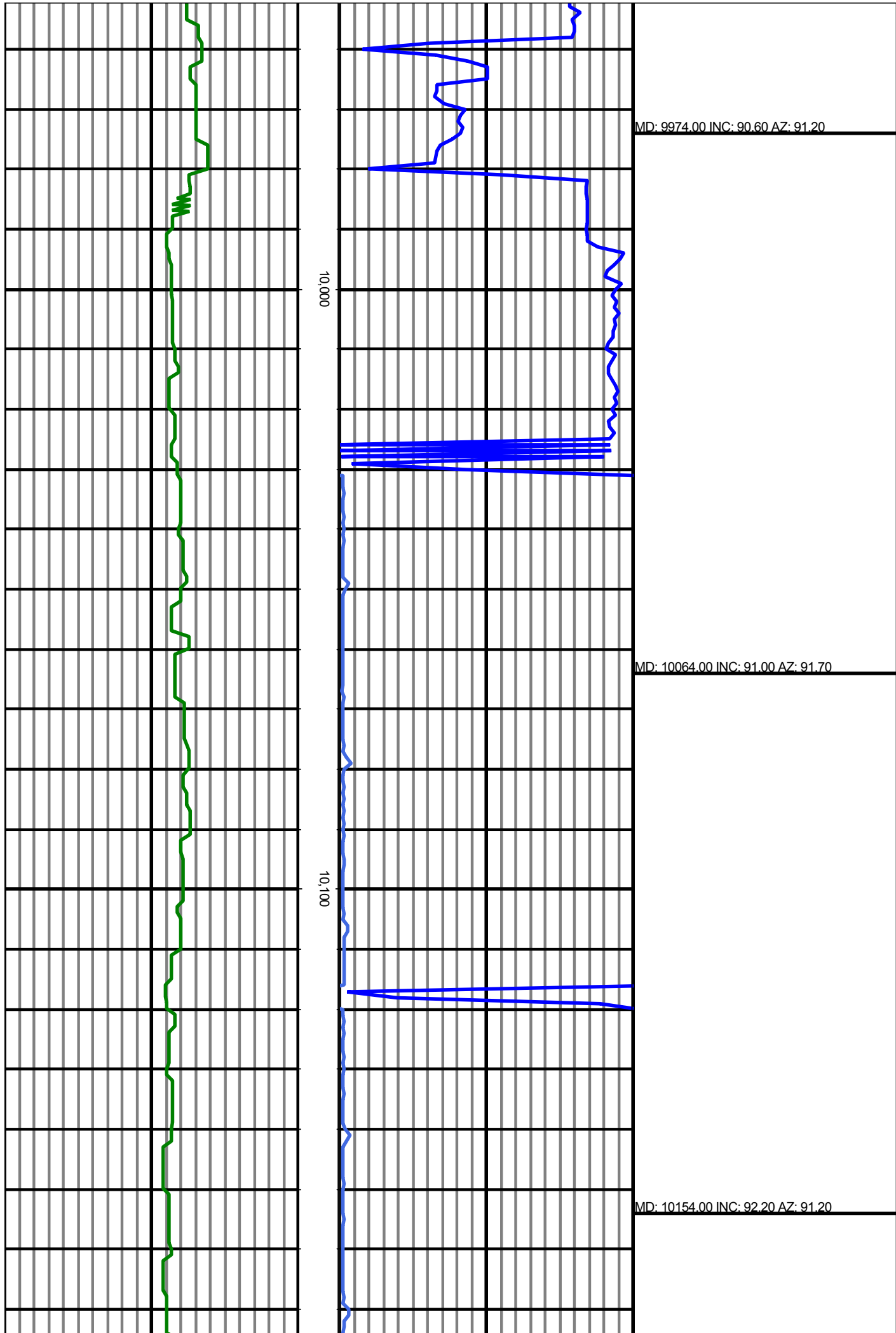
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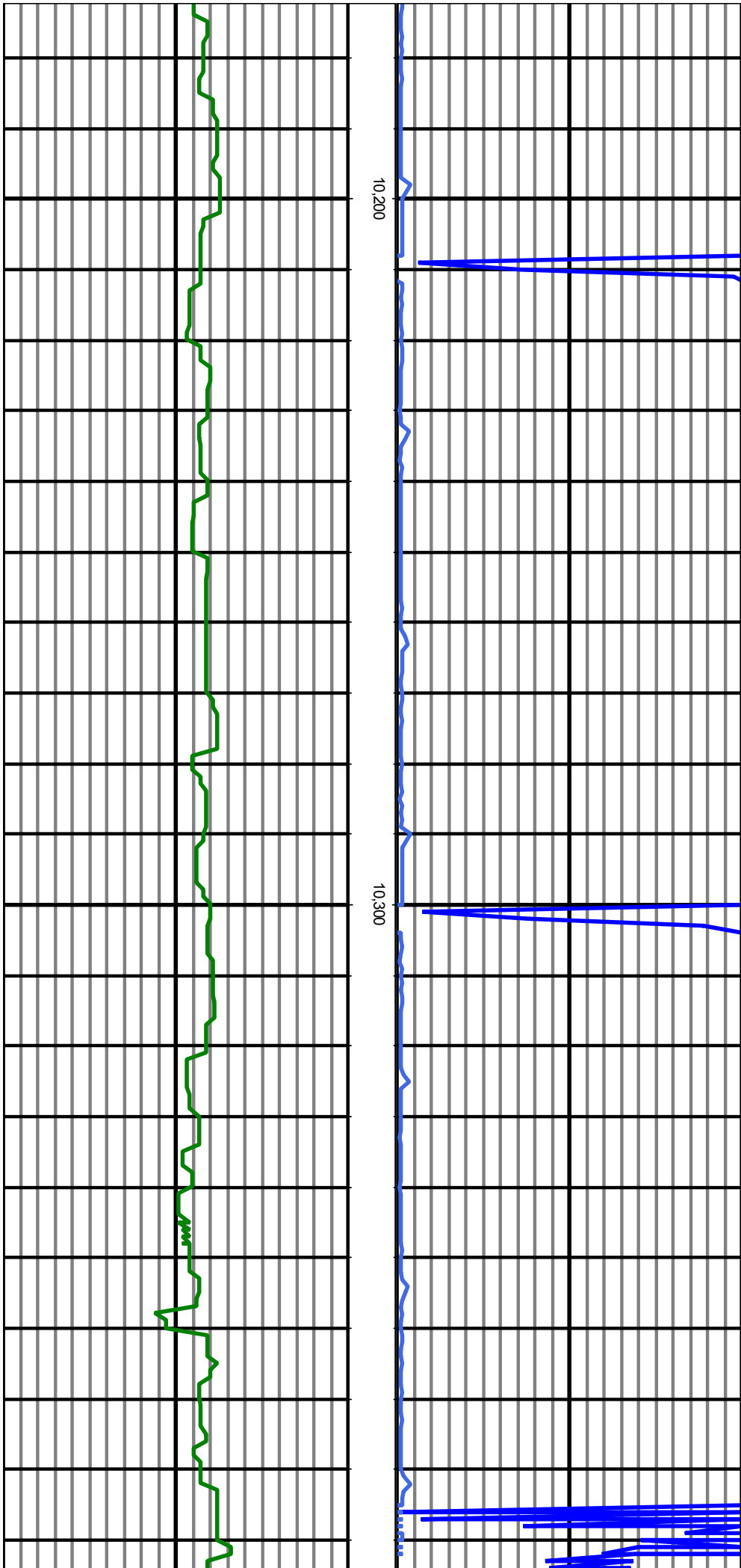
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MD: 9794.00 INC: 91.00 AZ: 90.80

MD: 9885.00 INC: 91.80 AZ: 89.70





MD: 10244.00 INC: 89.90 AZ: 89.00

MD: 10334.00 INC: 89.30 AZ: 89.00

MD: 10422.00 INC: 90.00 AZ: 88.70

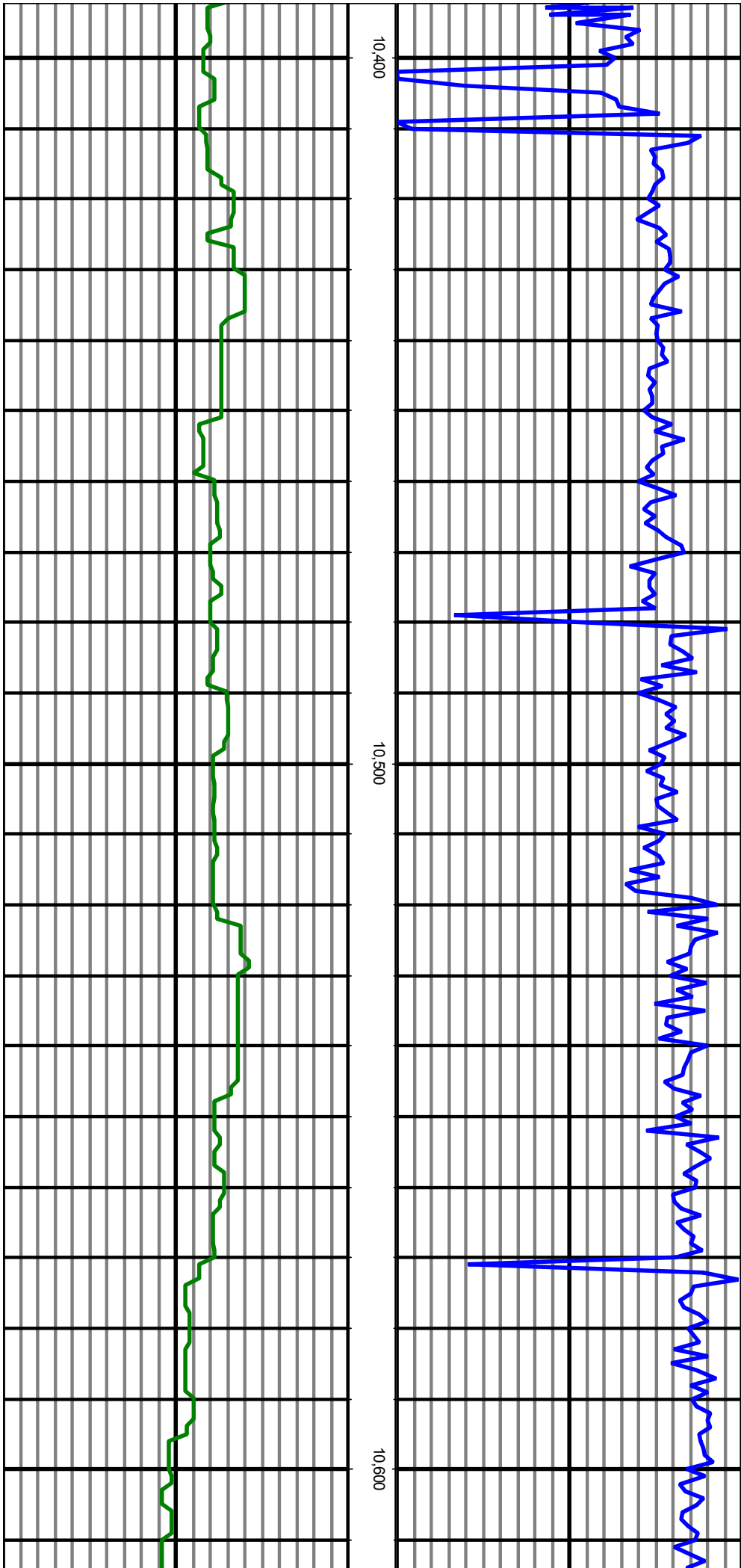
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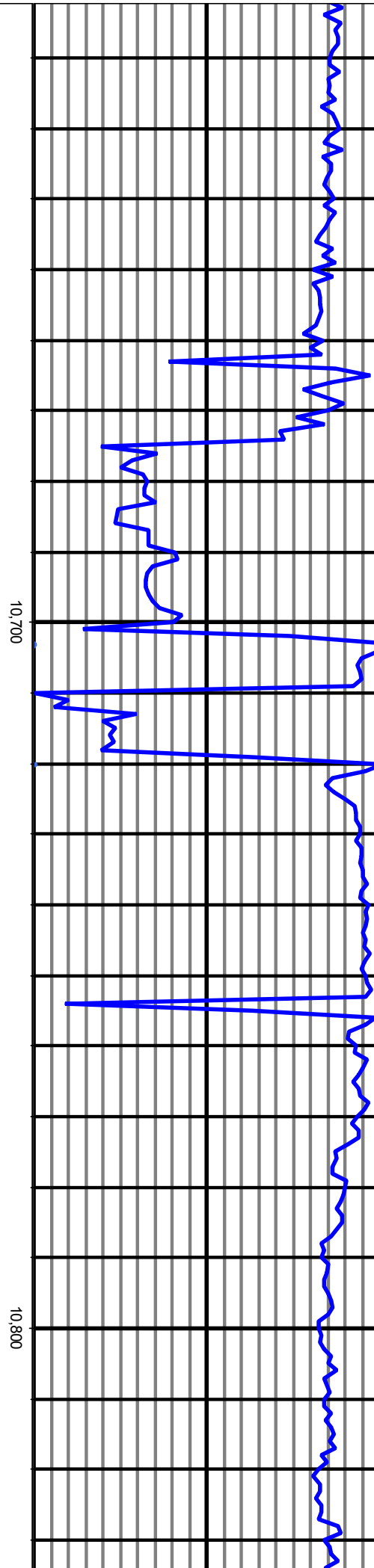
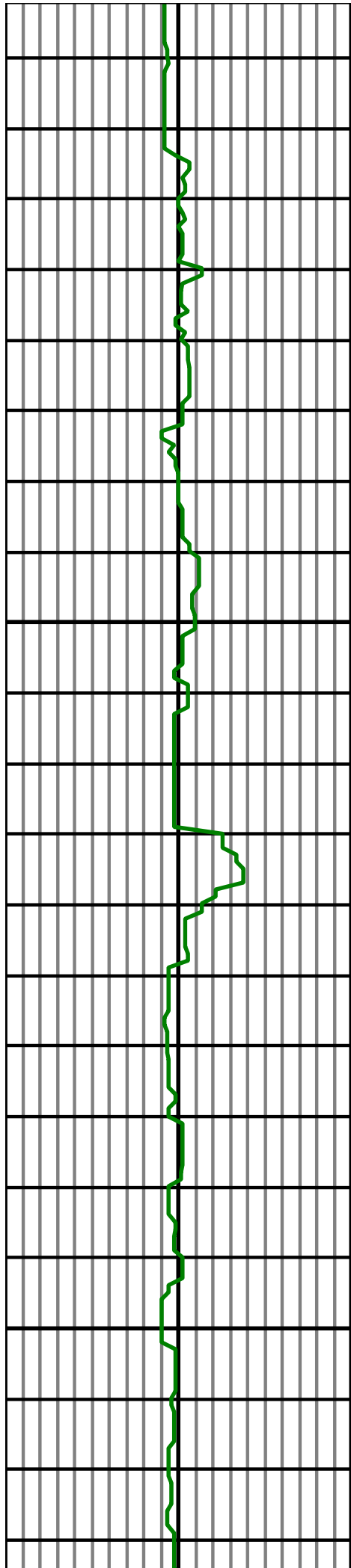
MD: 10602.00 INC: 91.80 AZ: 88.30

10,400

10,500

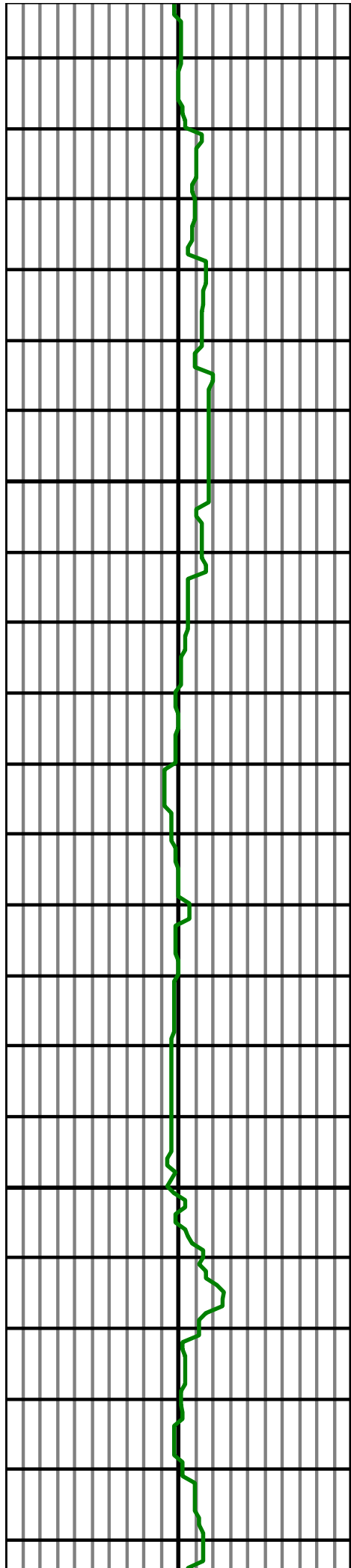
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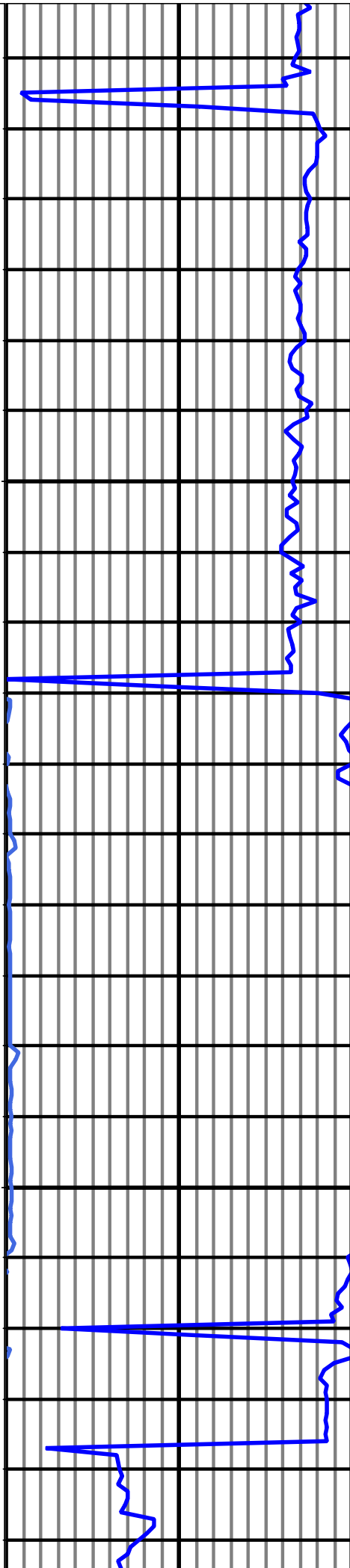
MD: 10692.00 INC: 89.70 AZ: 89.60

MD: 10782.00 INC: 89.50 AZ: 89.90



10,900

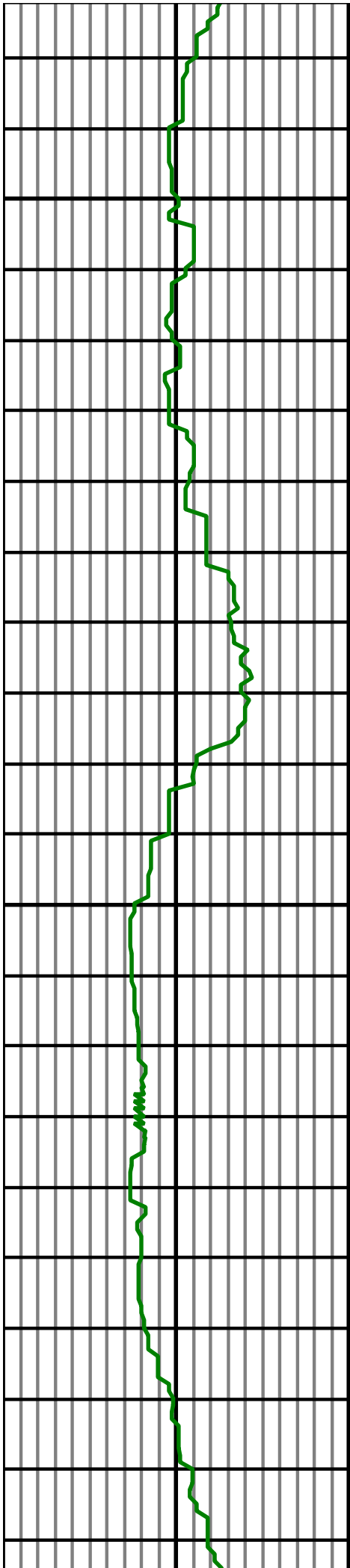
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MD: 10872.00 INC: 90.30 AZ: 89.90

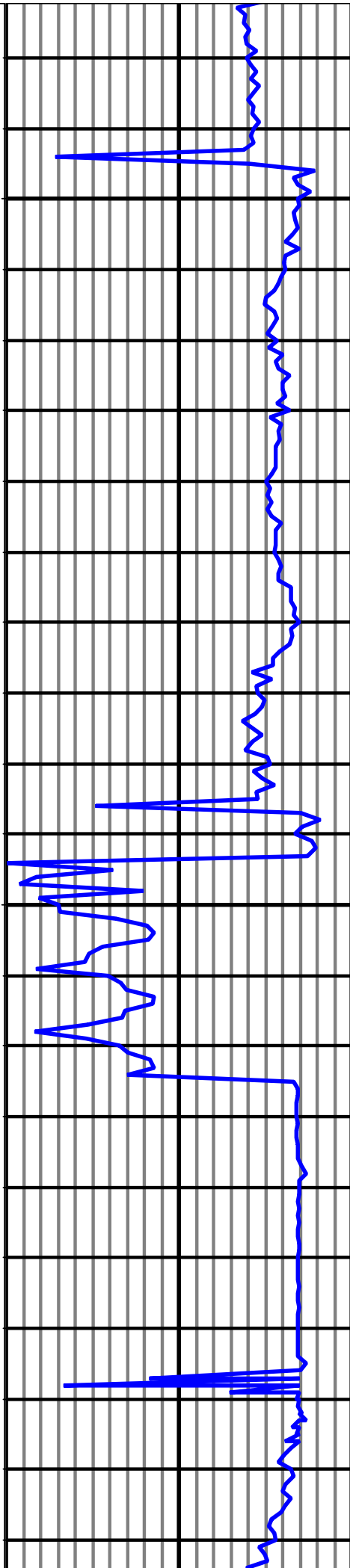
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MD: 11052.00 INC: 89.70 AZ: 90.40



11,300

11,400



MD: 11322.00 INC: 92.20 AZ: 89.70

MD: 11413.00 INC: 91.90 AZ: 92.20

MD: 11502.00 INC: 92.40 AZ: 92.60

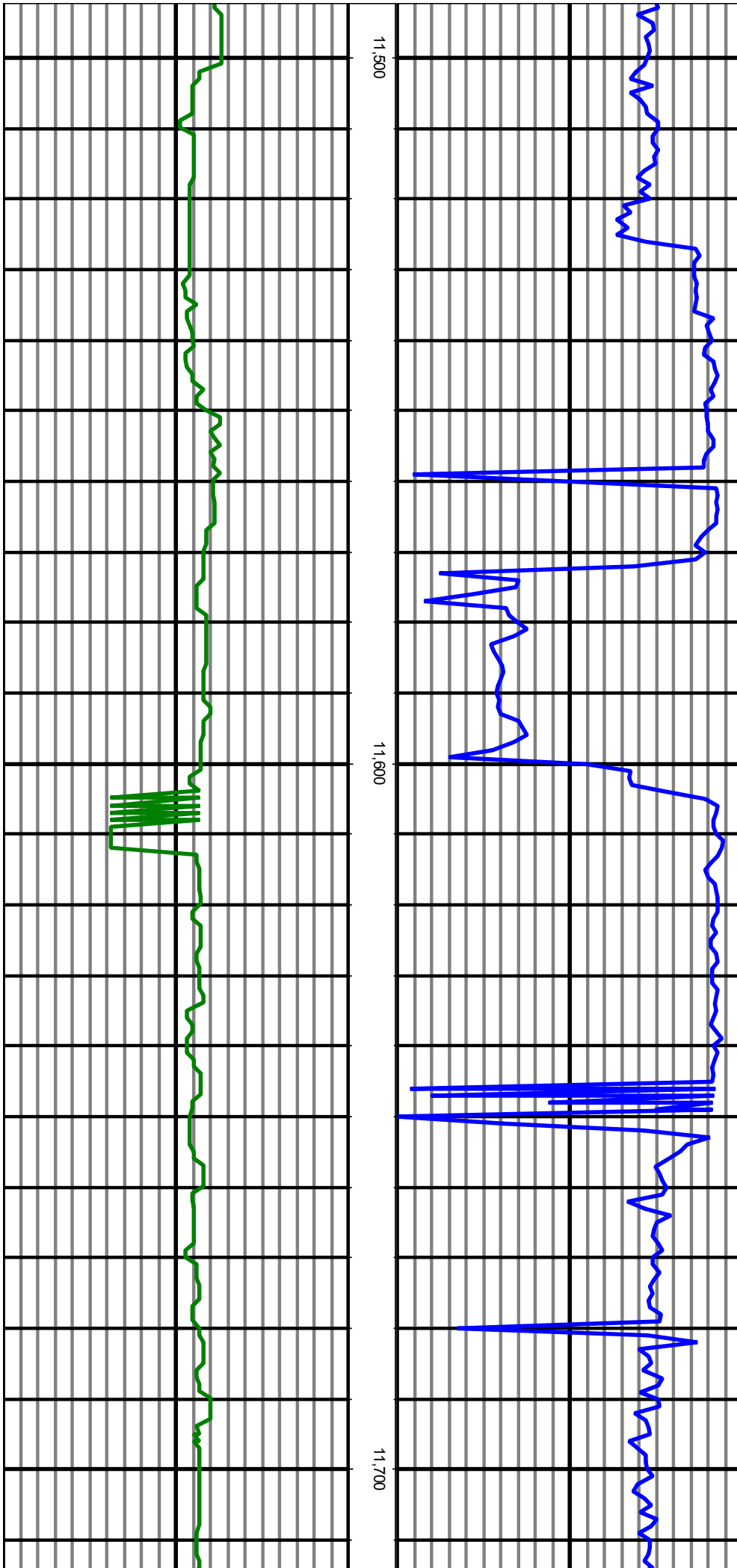
MD: 11592.00 INC: 90.00 AZ: 92.70

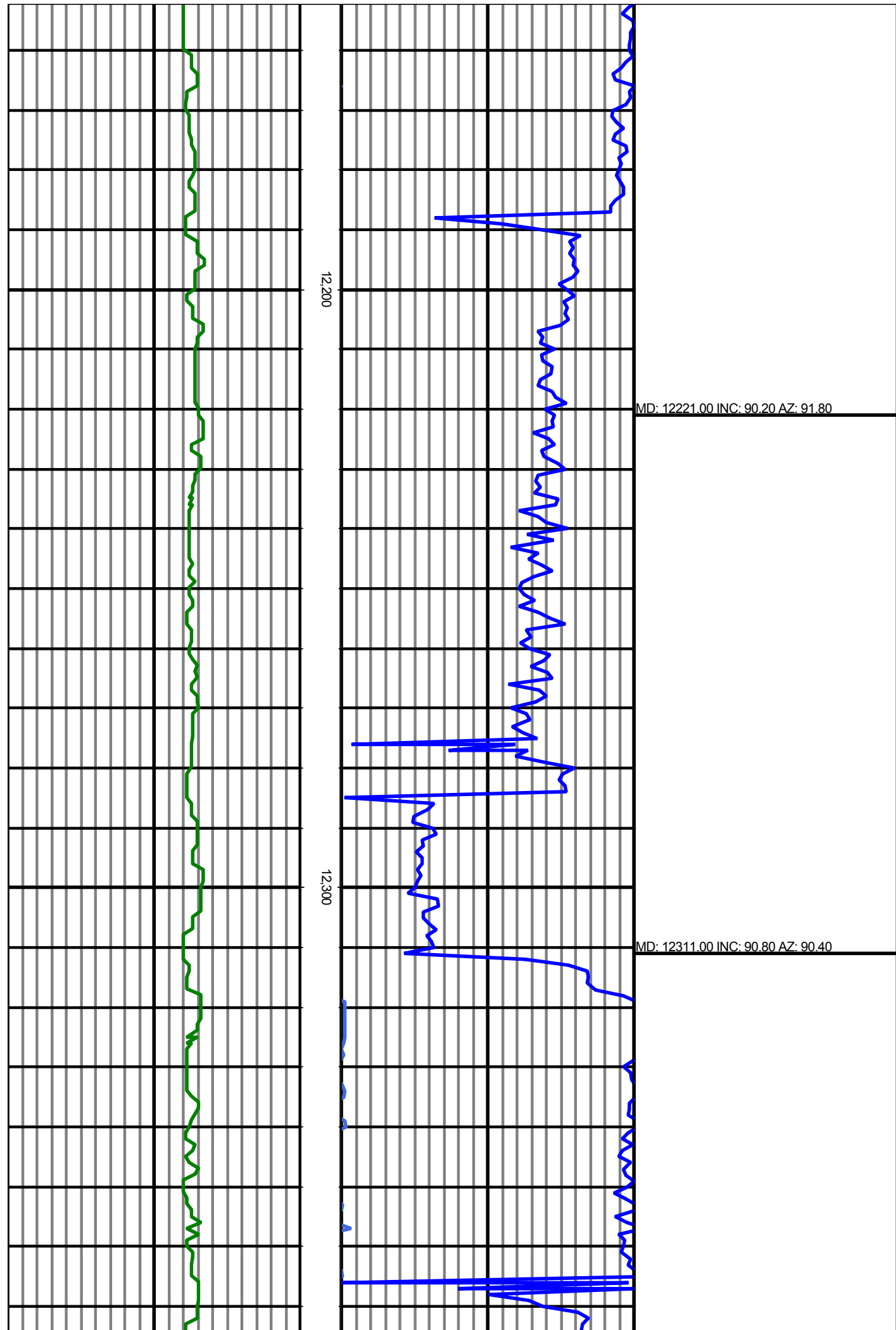
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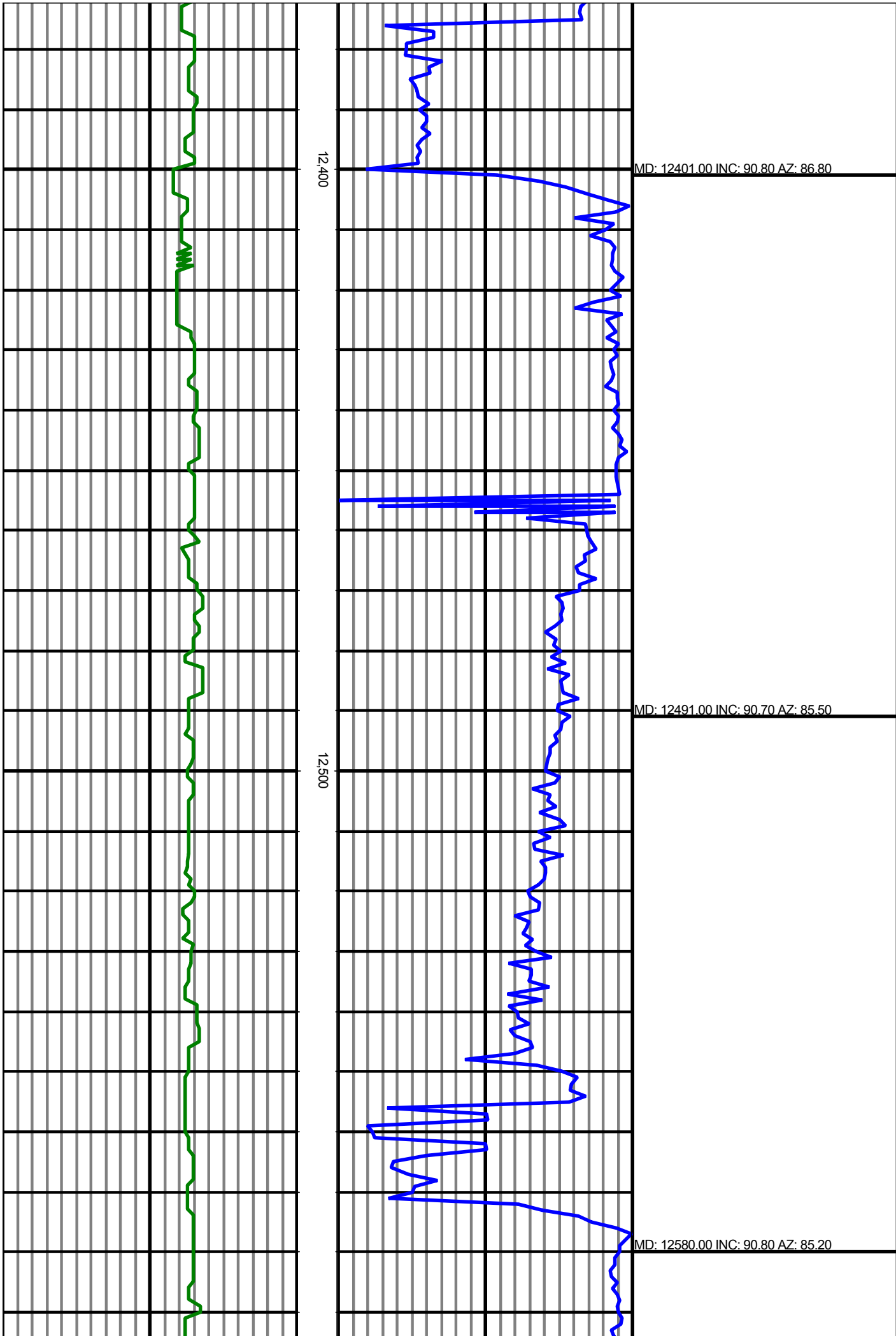
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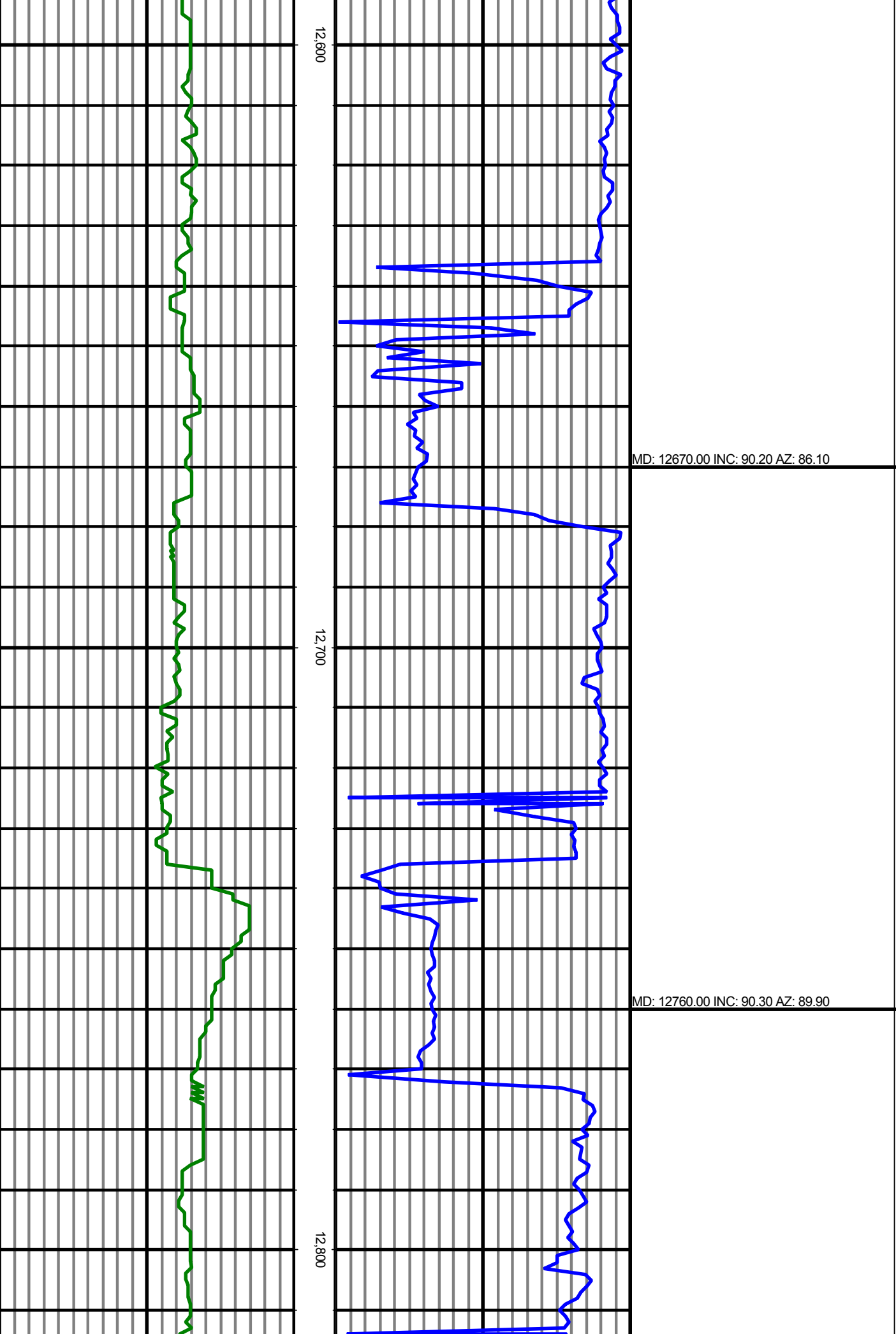
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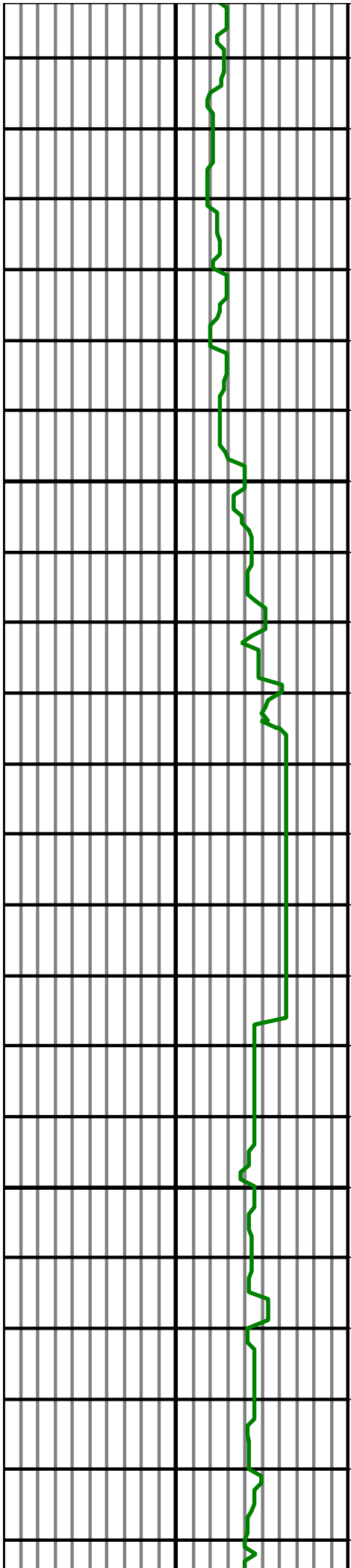
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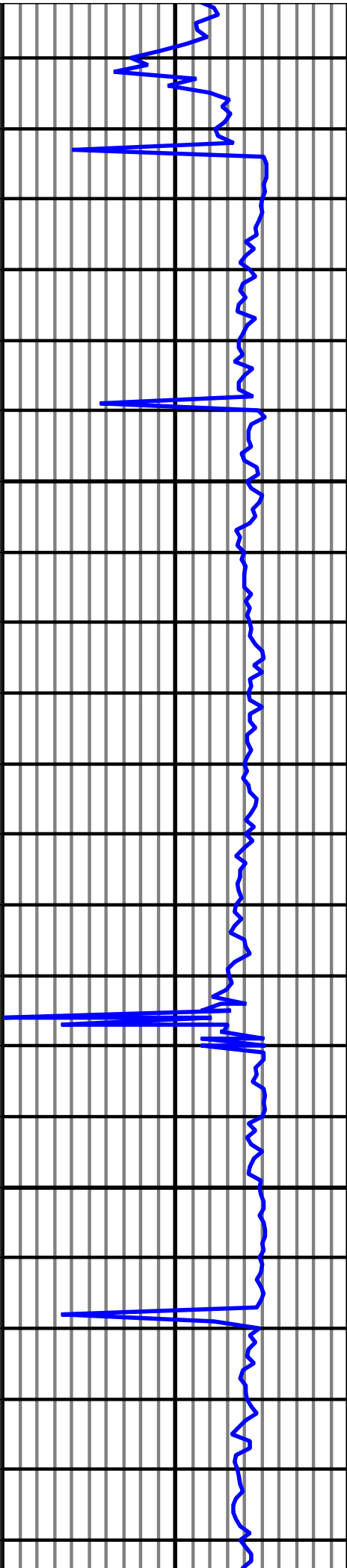






13,100

13,200



MD: 13119.00 INC: 90.80 AZ: 88.90

MD: 13209.00 INC: 90.40 AZ: 88.50

MD: 13478.00 INC: 90.20 AZ: 89.40

13.500

MD: 13568.00 INC: 91.20 AZ: 89.20

13.600

MD: 13658.00 INC: 89.30 AZ: 90.30

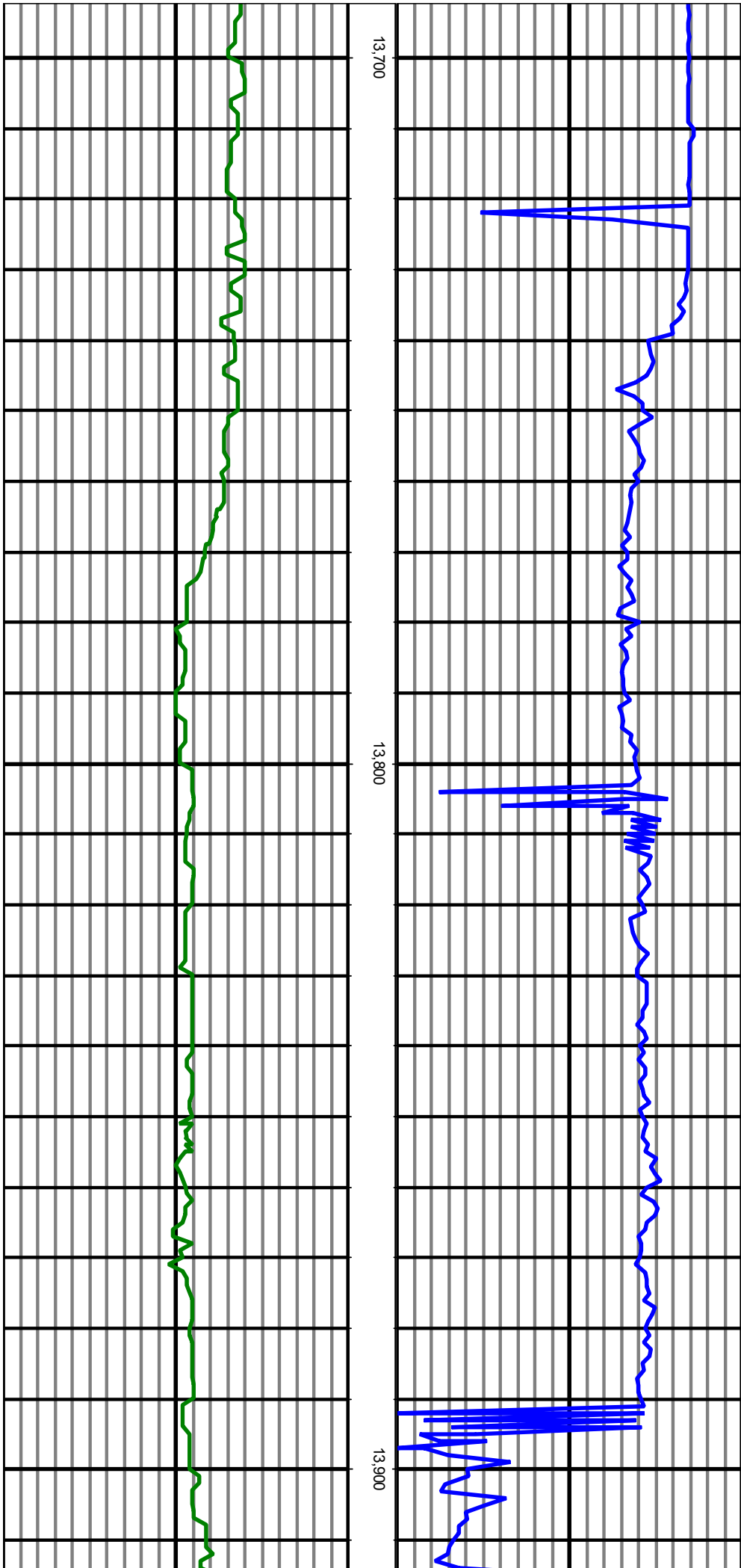
MD: 13748.00 INC: 89.30 AZ: 89.20

MD: 13838.00 INC: 89.30 AZ: 88.90

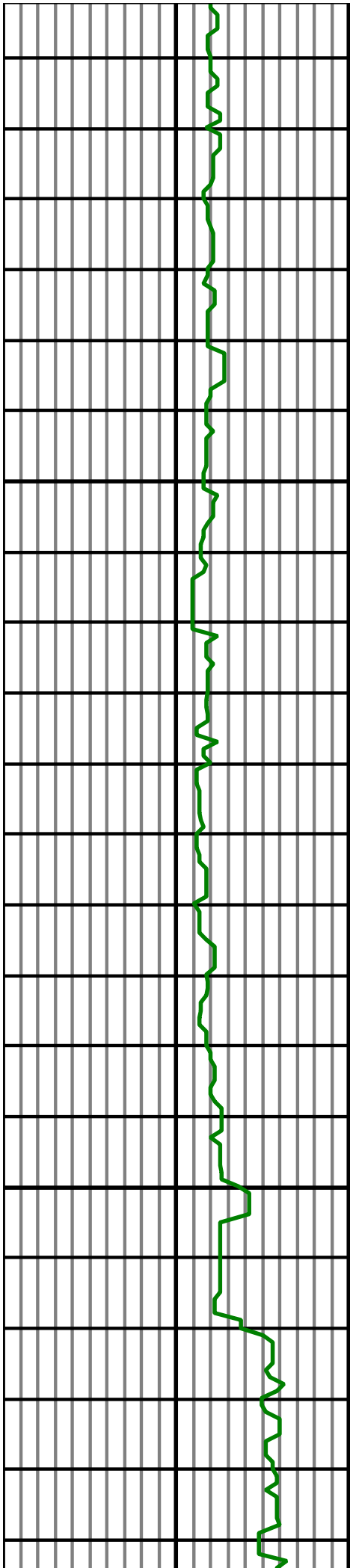
13,700

13,800

13,900

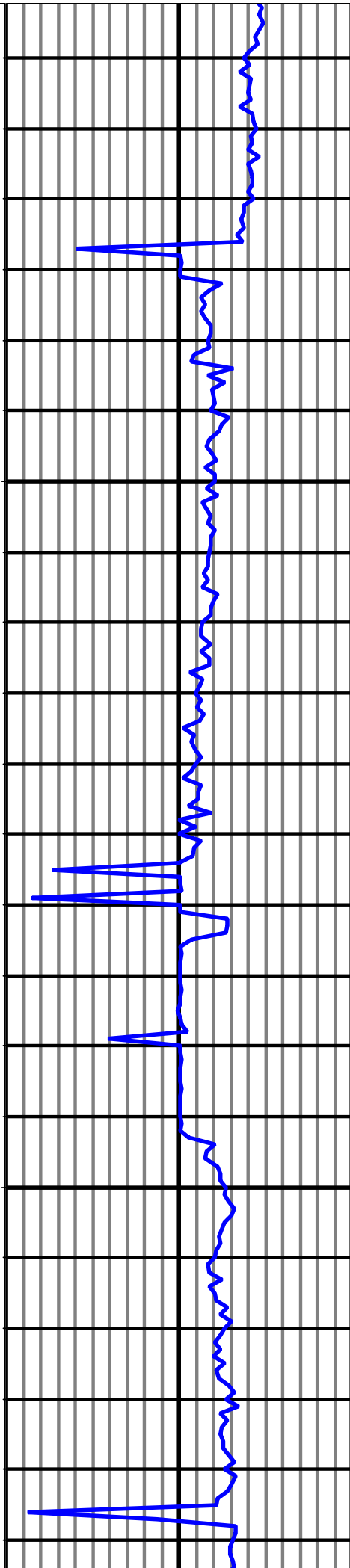






14,200

14,300



MD: 14199.00 INC: 91.10 AZ: 92.40

MD: 14289.00 INC: 91.40 AZ: 91.30

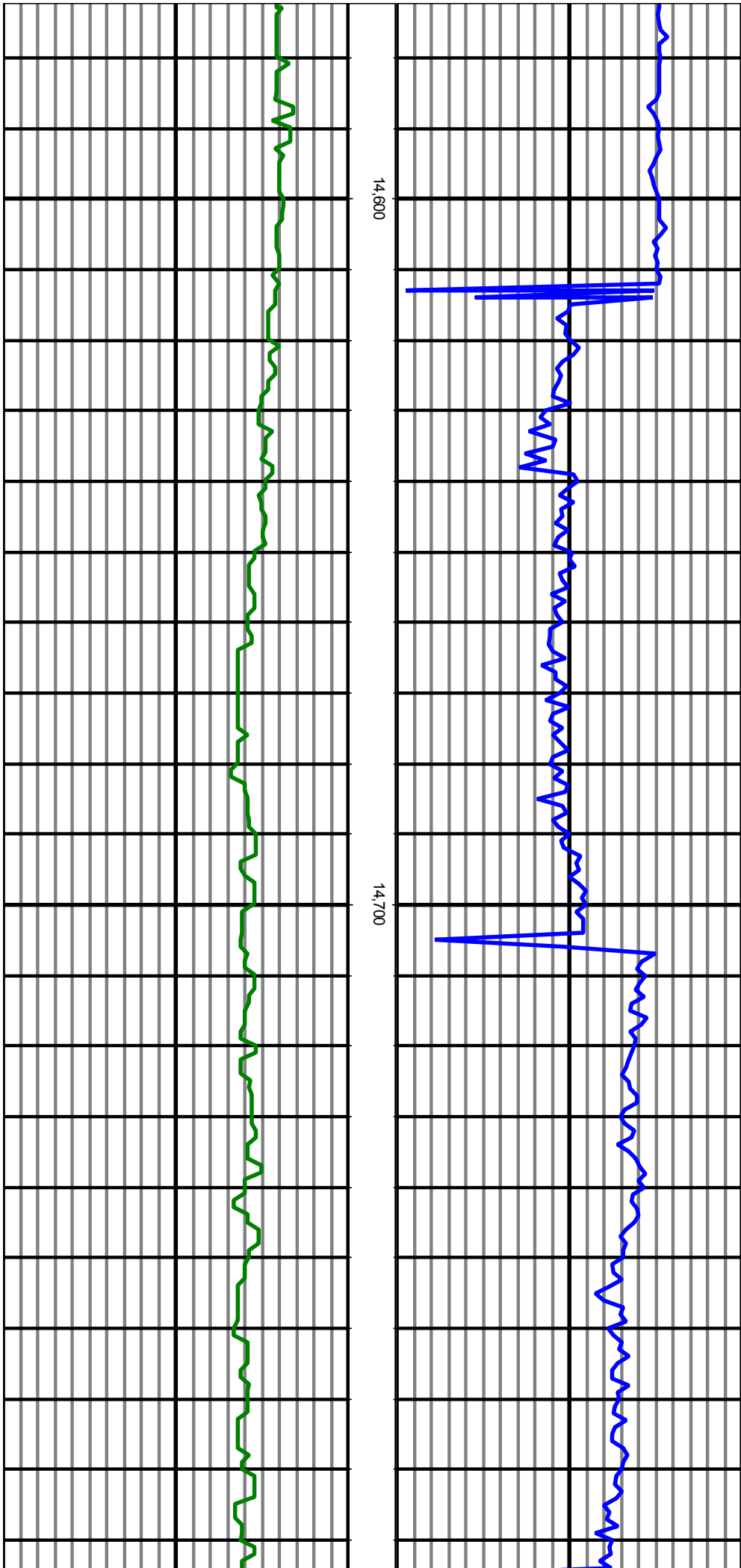
MD: 14378.00 INC: 91.60 AZ: 90.10

MD: 14469.00 INC: 91.80 AZ: 89.70

MD: 14558.00 INC: 90.20 AZ: 90.10

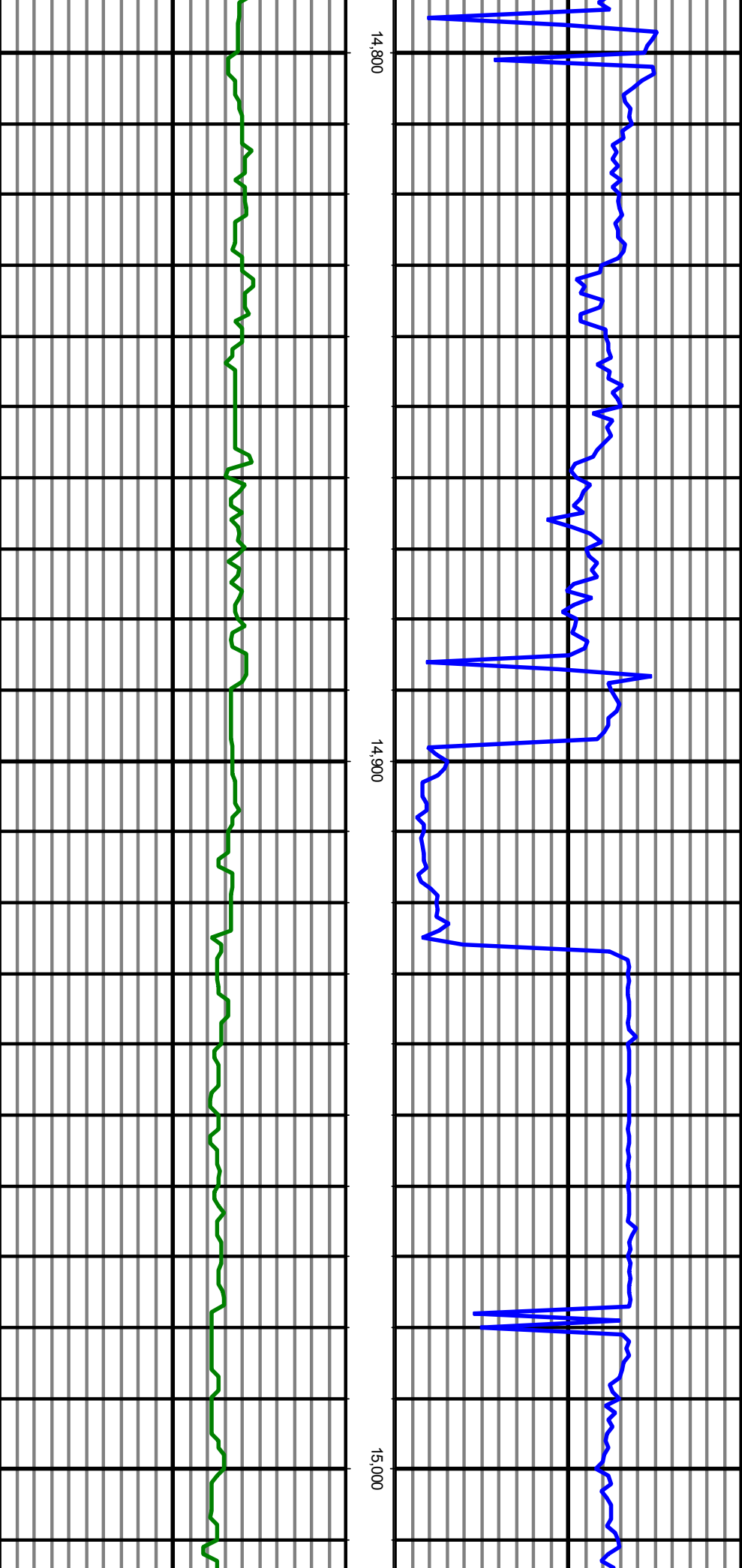
14,400

14,500



MD: 14648.00 INC: 90.30 AZ: 90.60

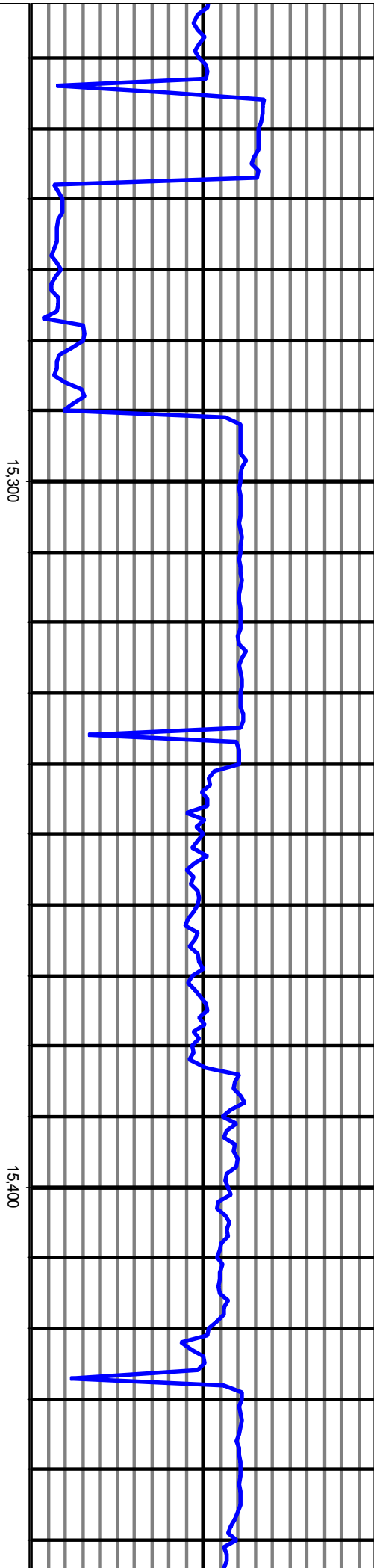
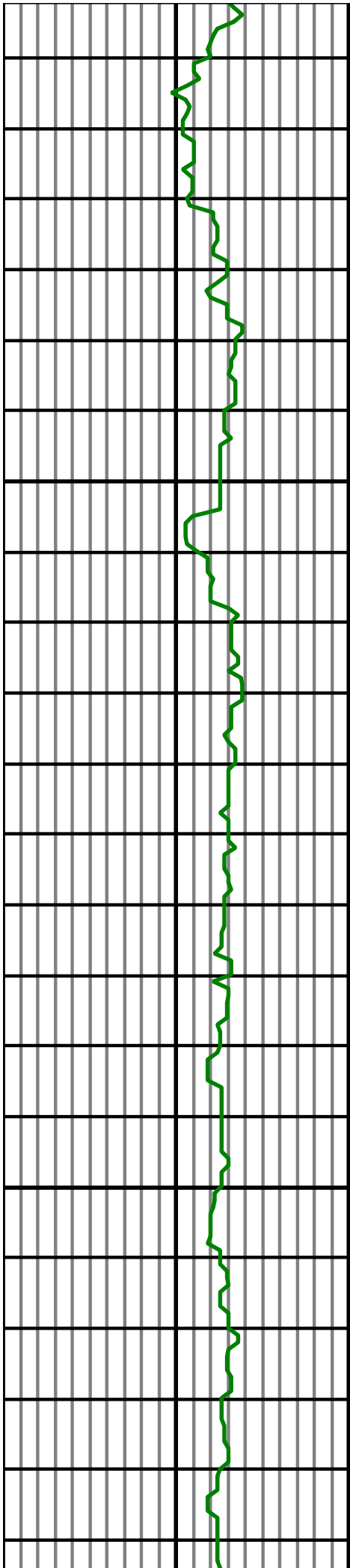
MD: 14738.00 INC: 90.80 AZ: 89.60



MD: 14828.00 INC: 90.80 AZ: 88.50

MD: 14917.00 INC: 89.30 AZ: 89.60

MD: 15007.00 INC: 89.20 AZ: 89.40



MD: 15276.00 INC: 90.20 AZ: 90.60

MD: 15366.00 INC: 90.80 AZ: 90.80

MD: 15455.00 INC: 91.40 AZ: 90.30

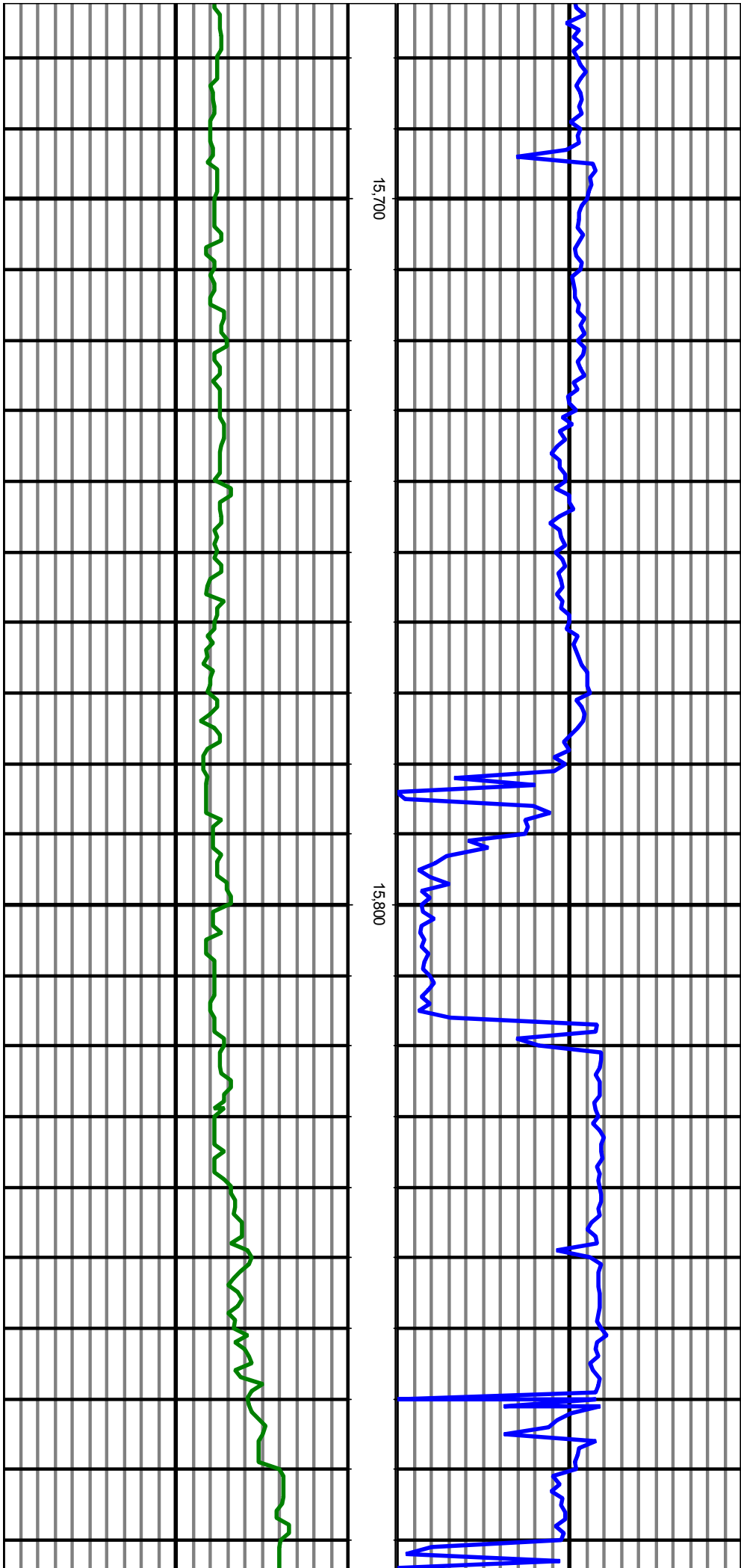
MD: 15455.00 INC: 91.40 AZ: 90.30

MD: 15545.00 INC: 90.40 AZ: 91.30

MD: 15635.00 INC: 91.20 AZ: 91.30

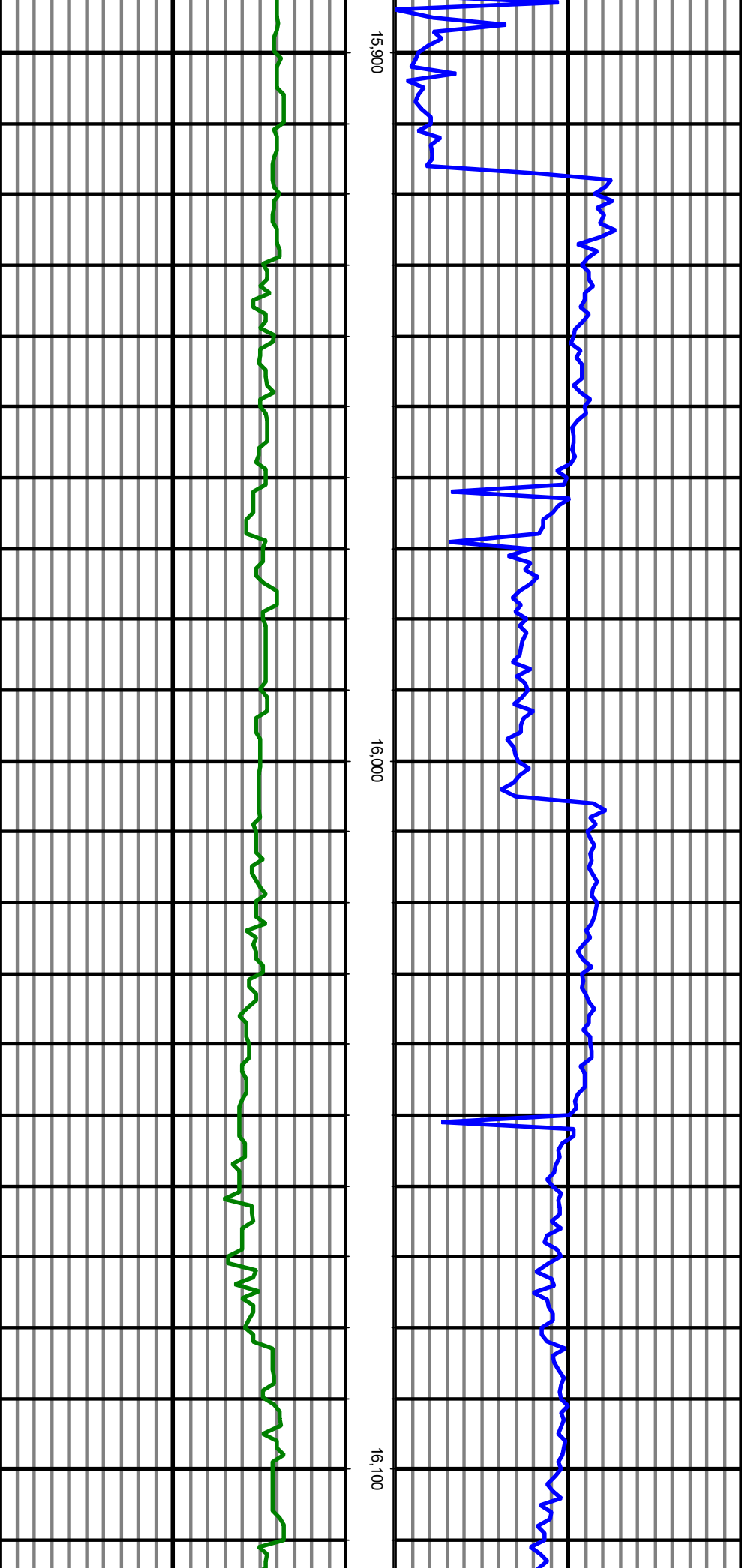
15,500

15,600



MD: 15725.00 INC: 91.90 AZ: 90.60

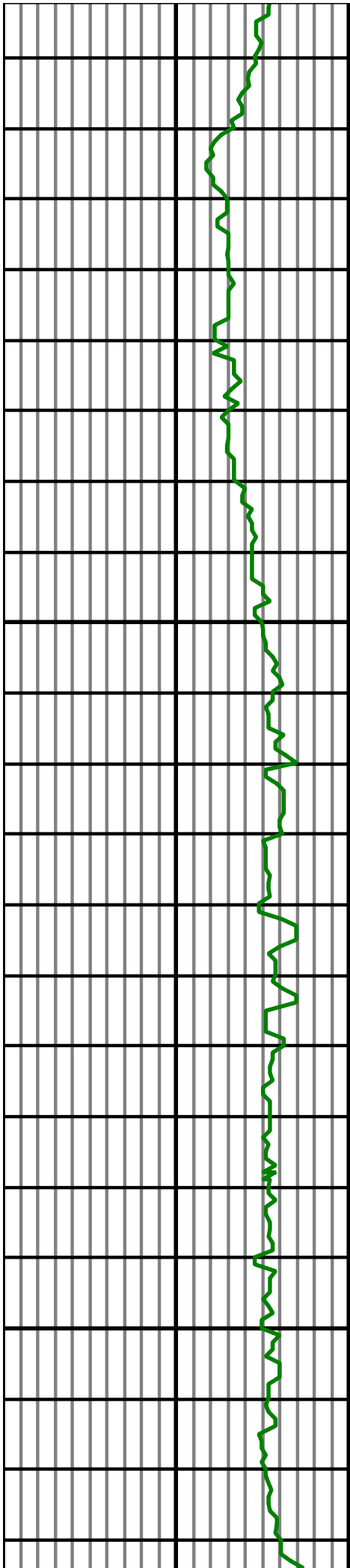
MD: 15815.00 INC: 91.40 AZ: 91.30



MD: 15904.00 INC: 90.40 AZ: 91.30

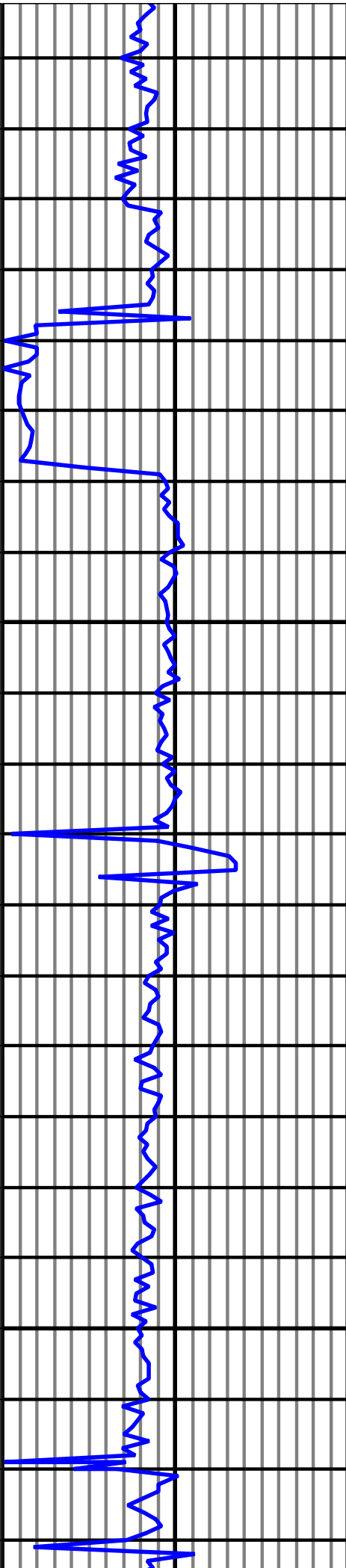
MD: 15994.00 INC: 90.60 AZ: 90.40

MD: 16084.00 INC: 91.00 AZ: 89.70



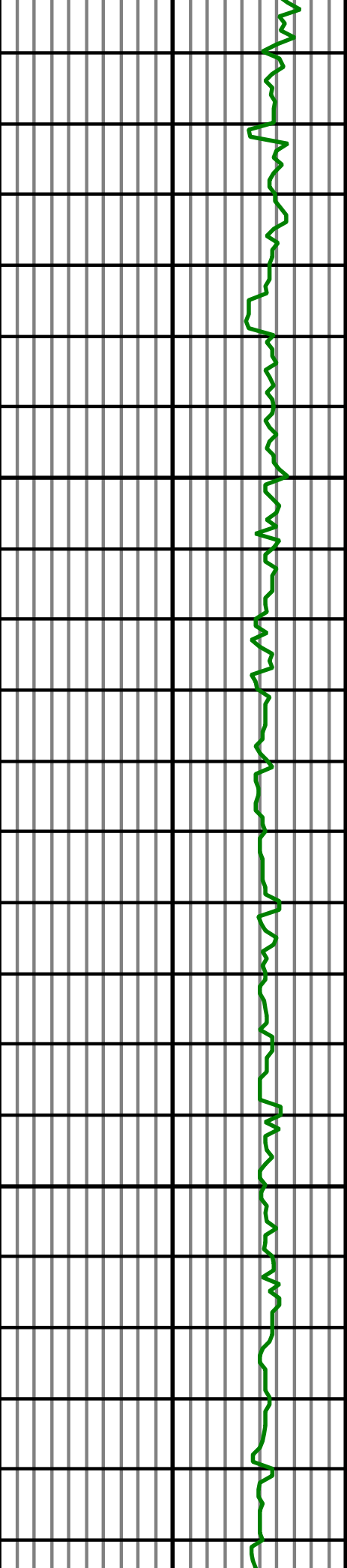
16,200

16,300



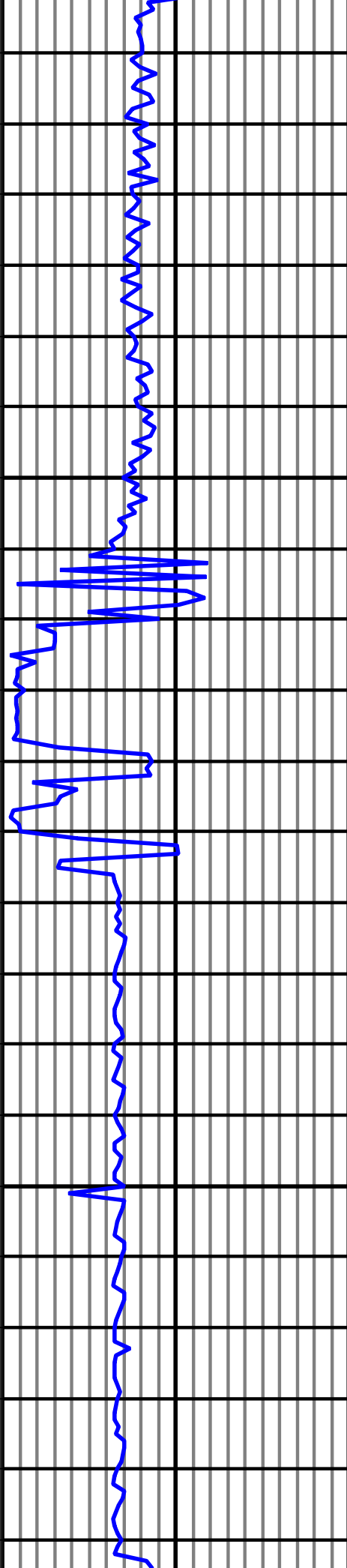
MD: 16174.00 INC: 90.20 AZ: 90.40

MD: 16264.00 INC: 90.80 AZ: 89.90



16,400

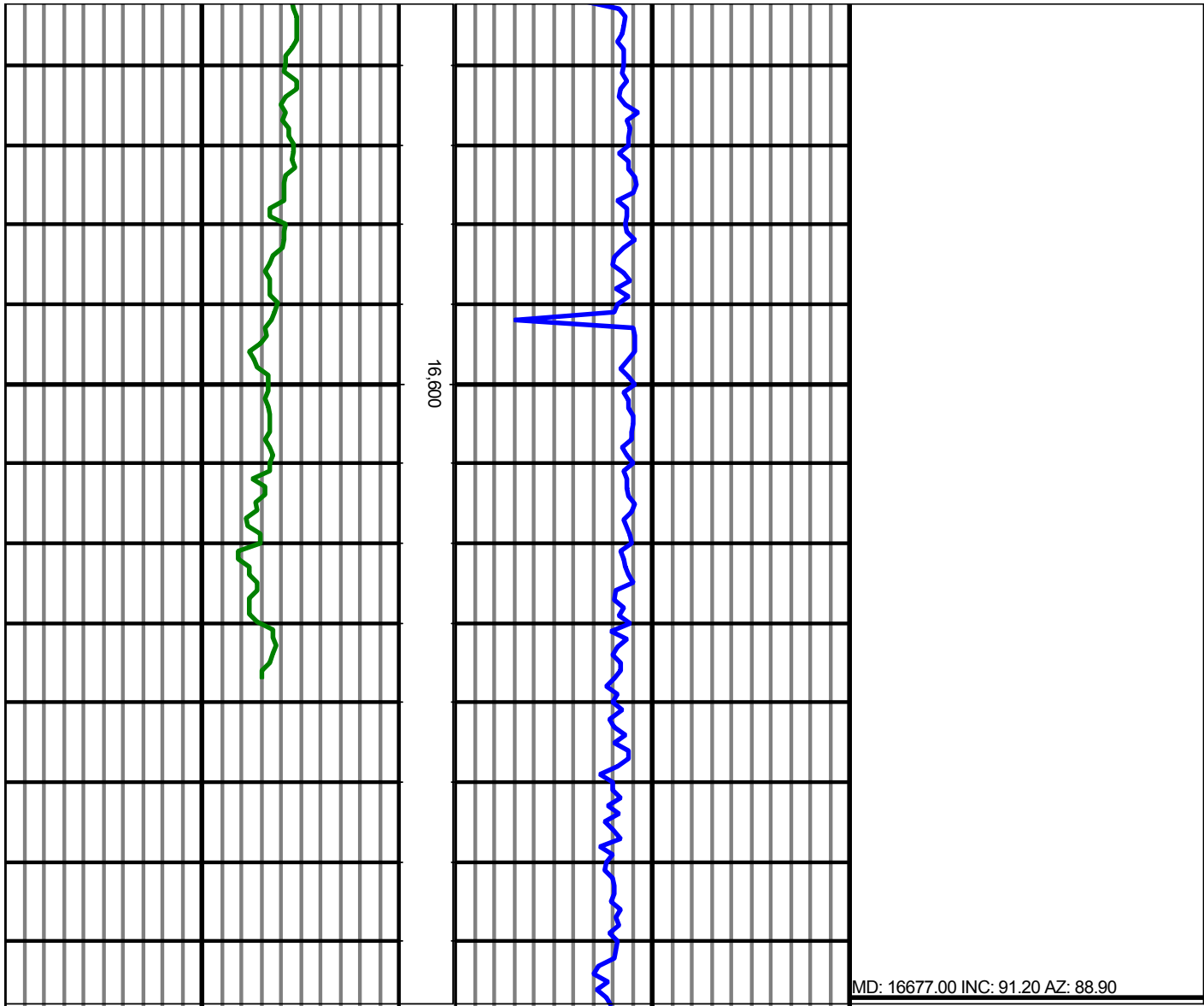
16,500



MD: 16354.00 INC: 91.50 AZ: 89.20

MD: 16443.00 INC: 90.10 AZ: 88.70

MD: 16534.00 INC: 91.20 AZ: 88.90



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