



Cathedral Energy Services  
1949 Pyrite Rd Casper Wy 82601

**135390**

5":100' - MD  
9/5/2013 10:08:34 PM

**Oper. Company:** Encana Oil & Gas  
**Country:** US  
**State / Province:** CO  
**County / Parish:** Weld  
**Started:** 08/27/2013 05:03 PM

**API/UWI:** 051233743500  
**Field:** DJ Basin  
**Well:** Marcus State 3C-36H  
**Rig:** Ensign 135  
**Ended:** 09/05/2013 11:00 AM

### Personnel

**Day Hand:** Ken Wagoner  
**Night Hand:** Corey Horkan  
**Comp. Emp:** Cathedral Energy Service

### Location

**Latitude:** 40.088280  
**Longitude:** -104.730070  
**Elev. GL:** 5039.0  
**Elev. DF:** 5052  
**Elev. KB:** 5052

### Hole Data

Size	From	To
8.75	1232	7707
6.13	7707	12060

### Casing Data

Size	From	To
9.58	0	1228
7.0	0	7691

### Bit Sizes

Size	From	To
8.75	1232	7707
6.13	7707	12060

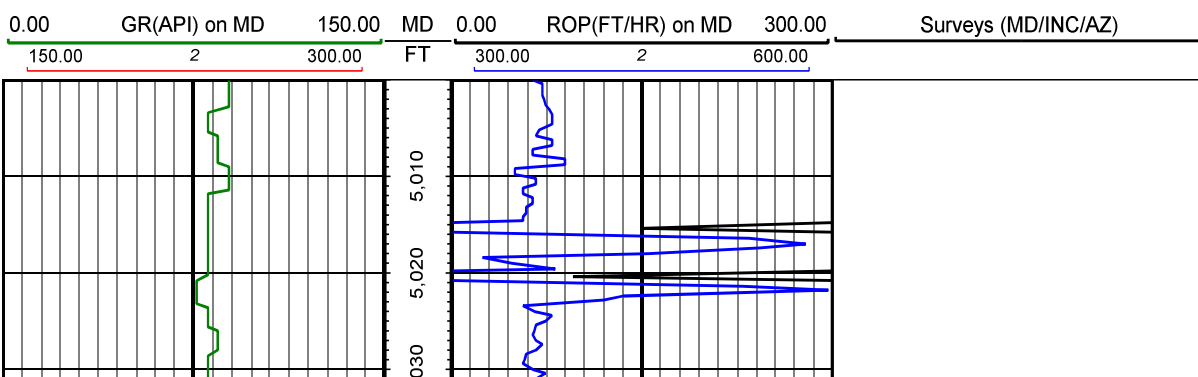
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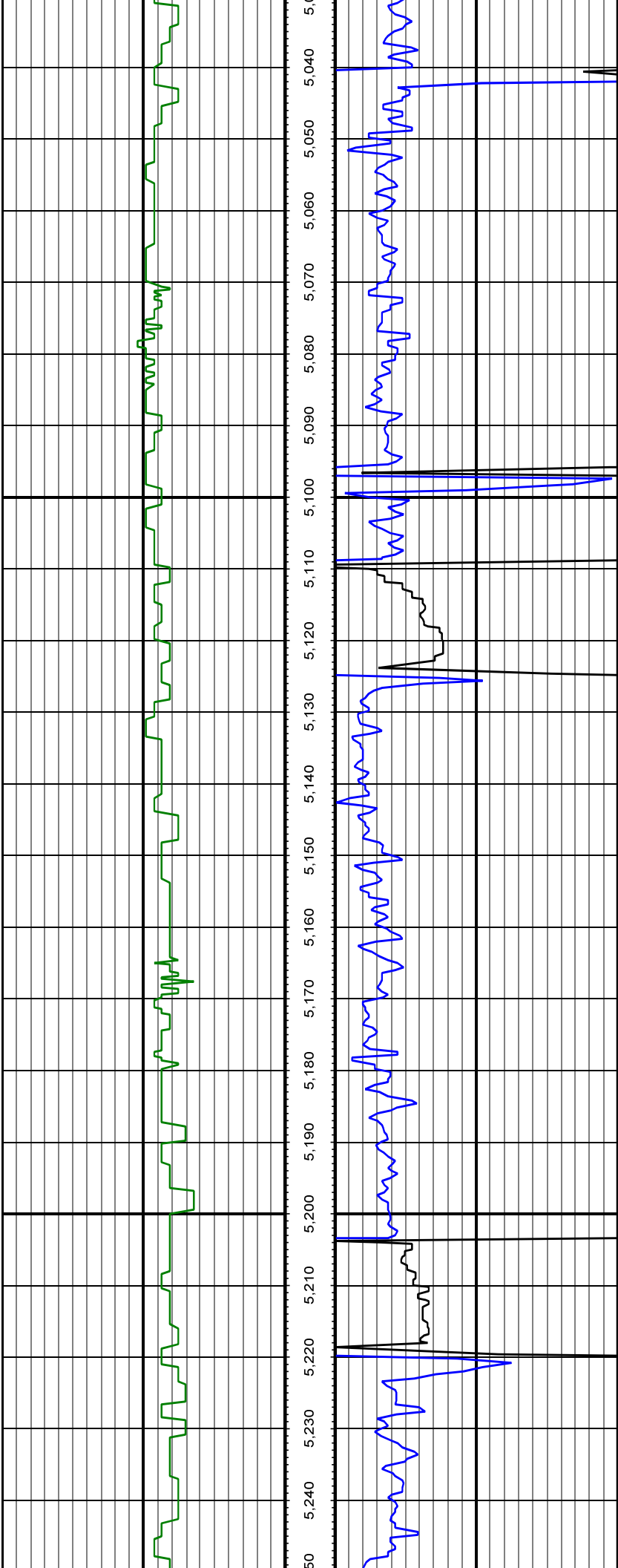
Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
LSND	9.70	9.70	36				1232	7707
LSND	10	10	36				7707	12060

### Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1125	38.79	0	8/26/2013 1:00:05 PM	1232	8/30/2013 2:30:05 PM	5867
1279	37.95	0	8/30/2013 4:30:33 PM	5867	9/1/2013 11:00:33 AM	7707

*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.*

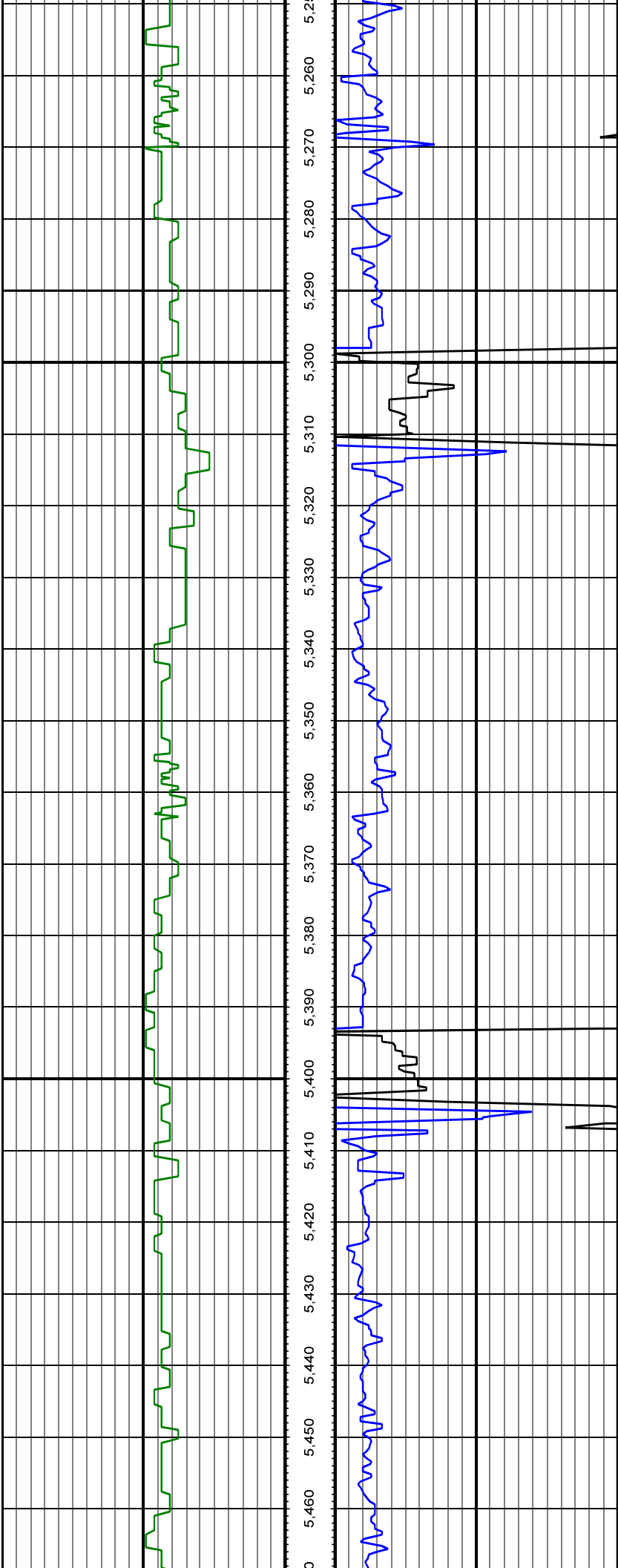




MD: 5057.00 INC: 2.70 AZ: 202.20

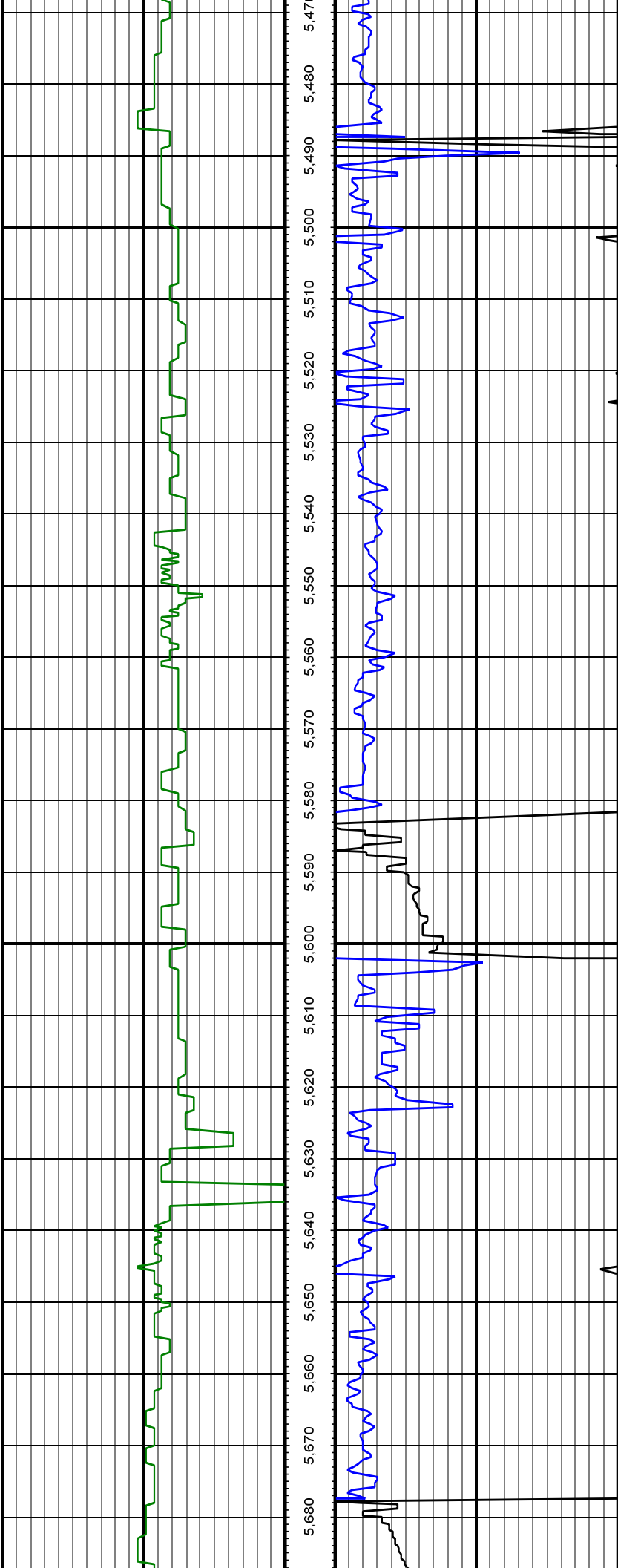
MD: 5152.00 INC: 0.80 AZ: 140.00

MD: 5246.00 INC: 1.60 AZ: 221.10



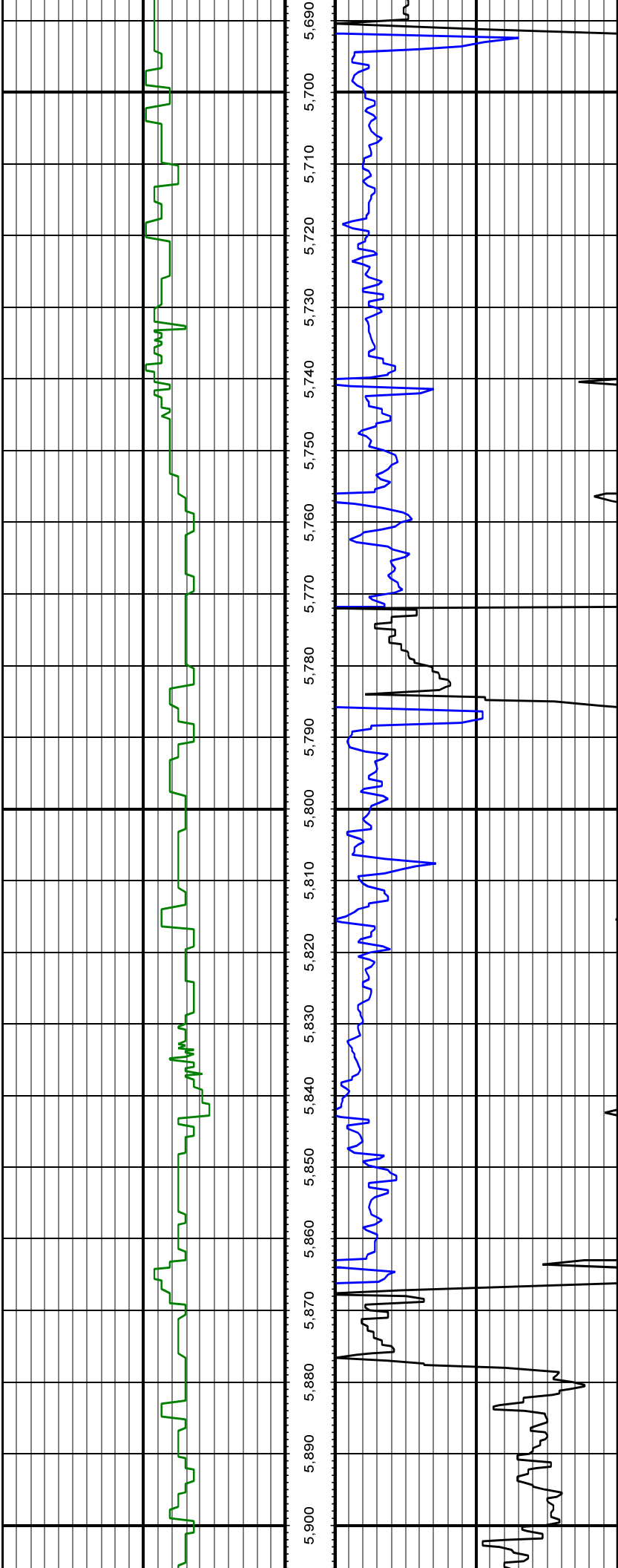
MD: 5341.00 INC: 3.20 AZ: 220.40

MD: 5436.00 INC: 4.30 AZ: 219.20



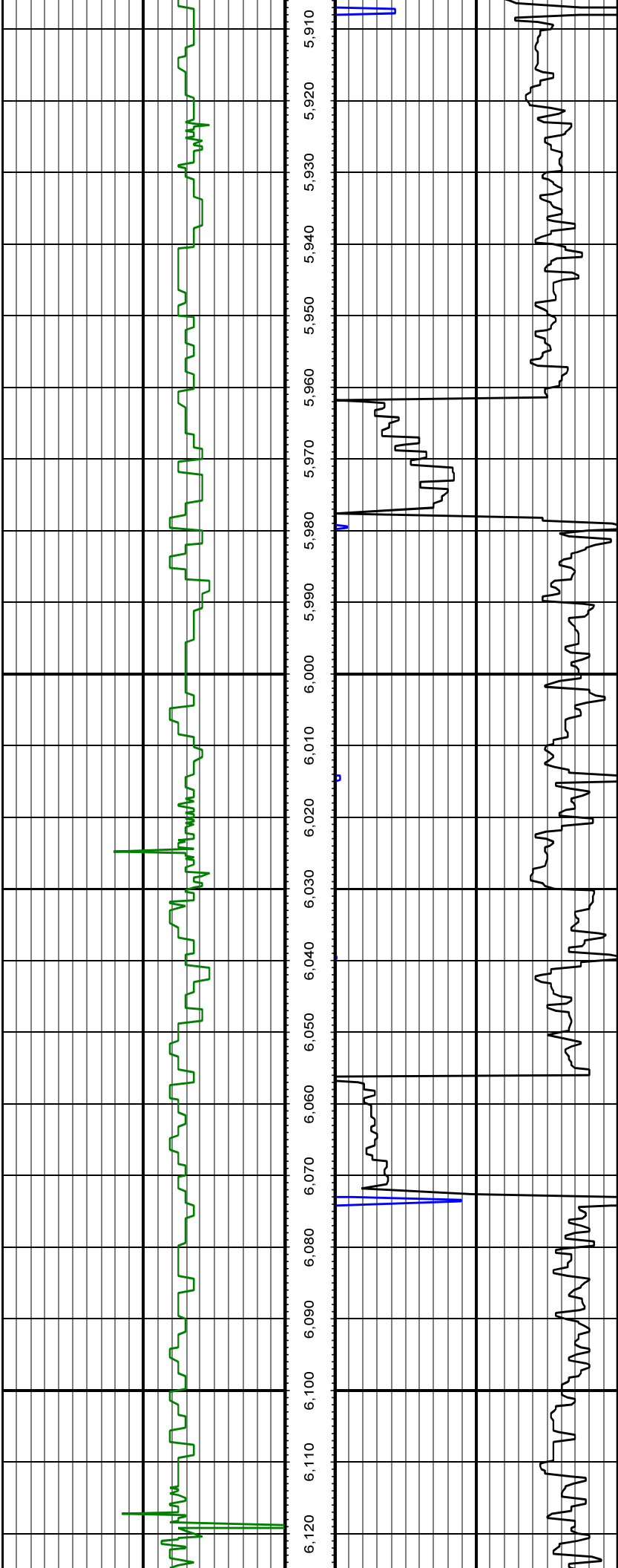
MD: 5531.00 INC: 2.90 AZ: 217.90

MD: 5625.00 INC: 3.10 AZ: 225.40



MD: 5720.00 INC: 3.90 AZ: 219.70

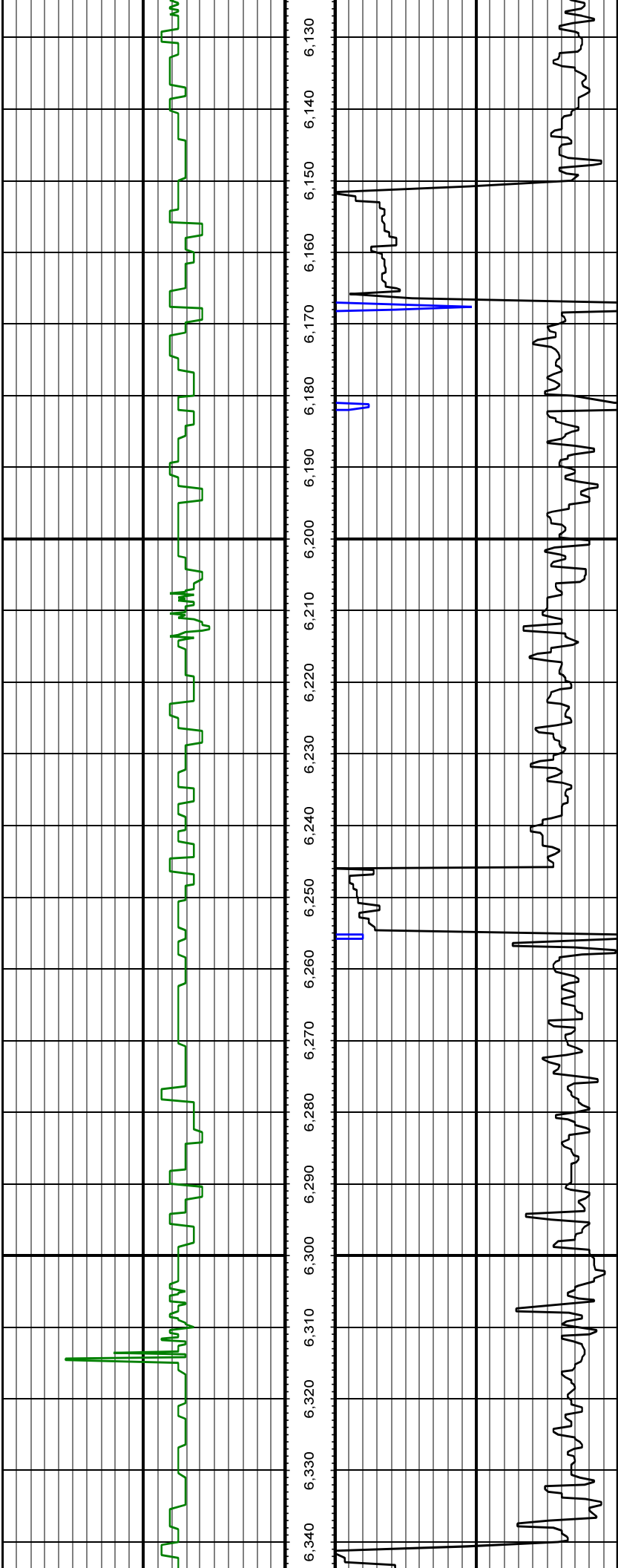
MD: 5815.00 INC: 3.70 AZ: 215.70



MD: 5910.00 INC: 2.70 AZ: 226.80

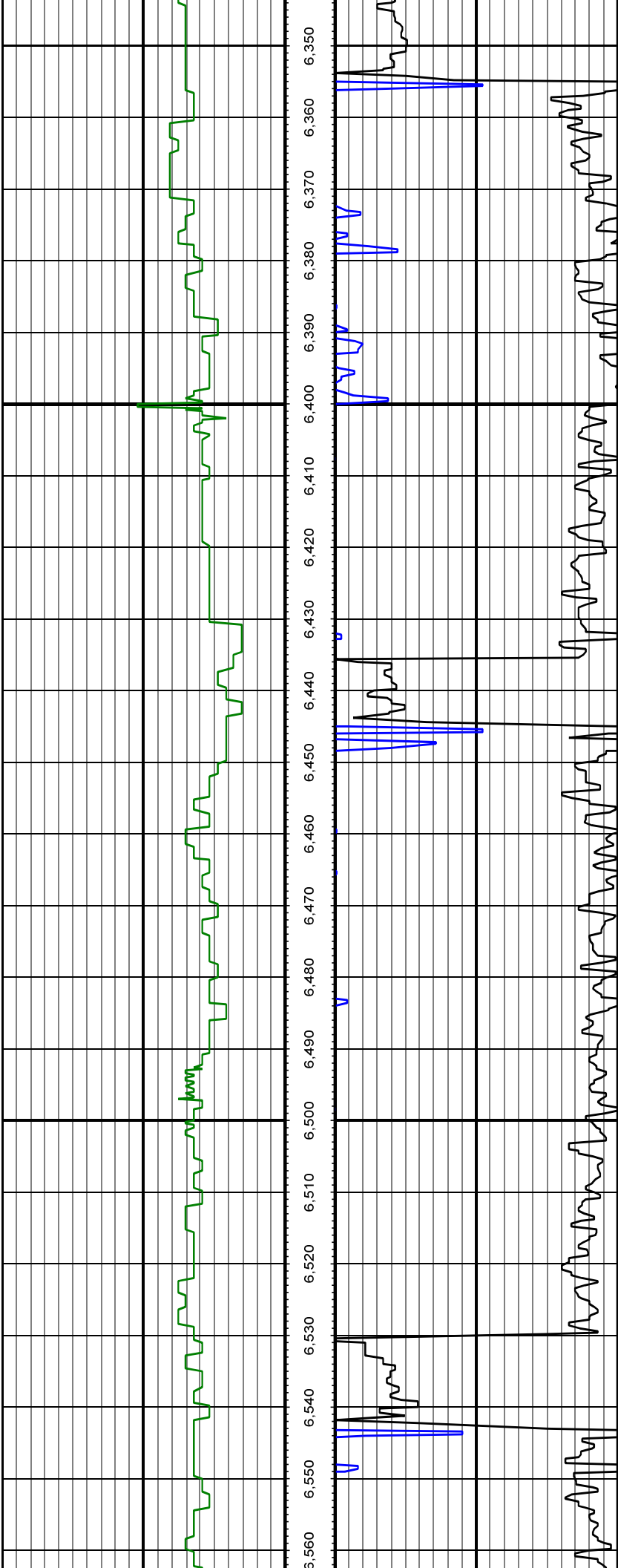
MD: 6004.00 INC: 3.10 AZ: 238.50

MD: 6099.00 INC: 3.30 AZ: 228.80



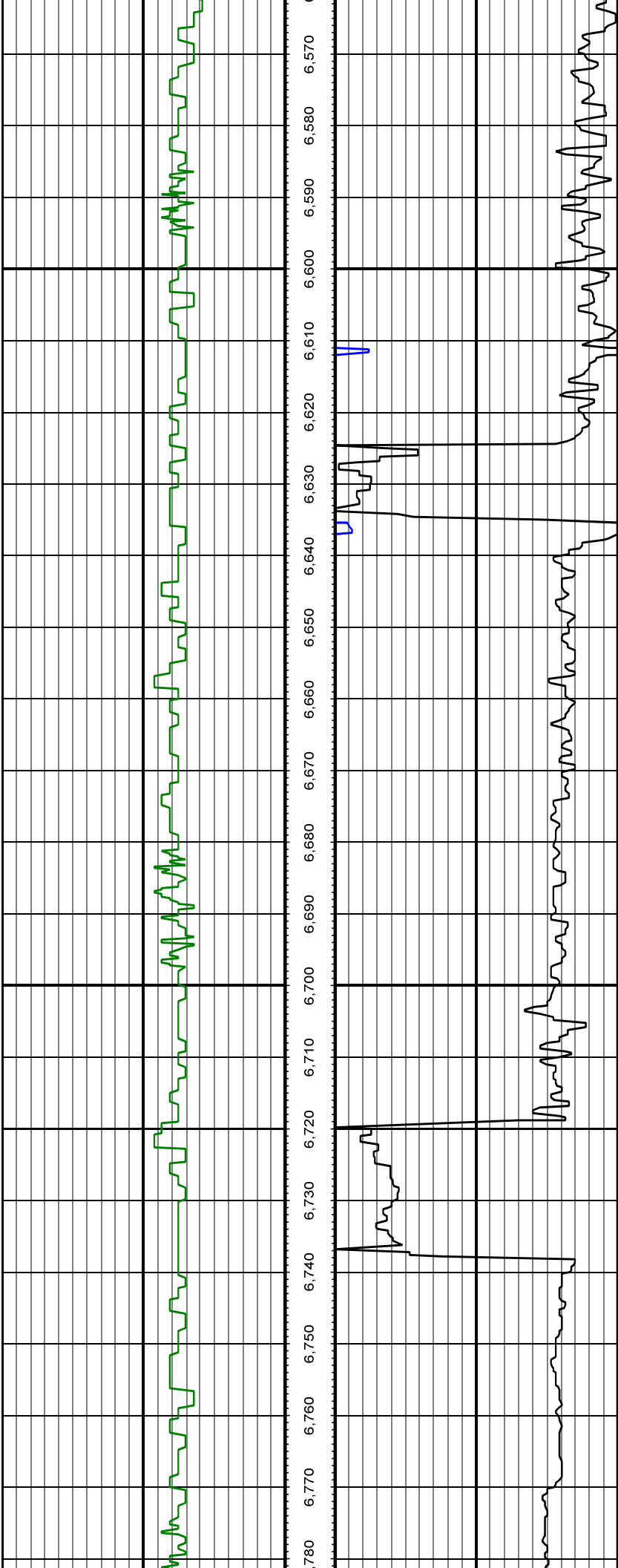
MD: 6194.00 INC: 3.60 AZ: 209.40

MD: 6289.00 INC: 3.40 AZ: 209.80



MD: 6383.00 INC: 3.60 AZ: 215.20

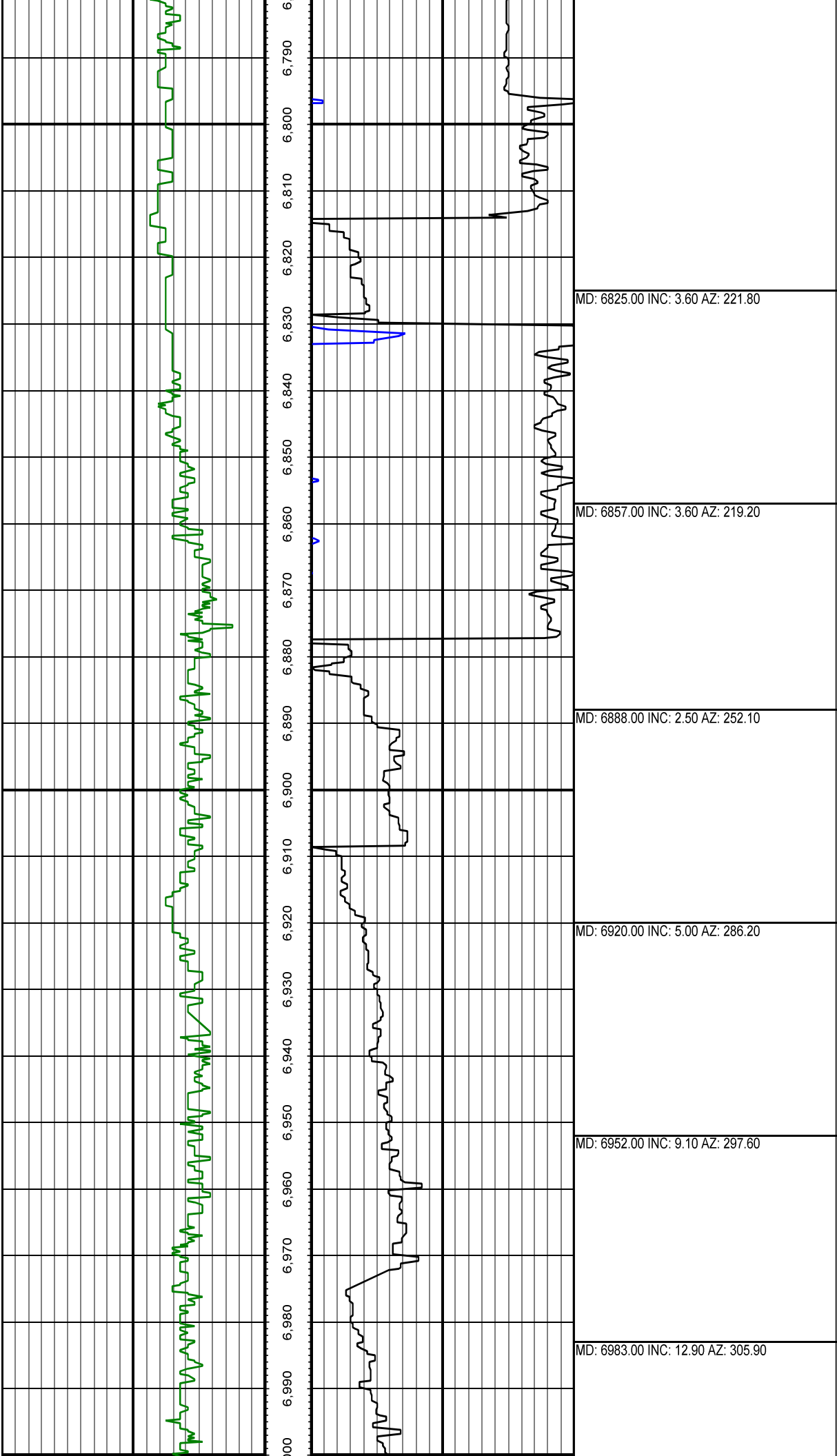
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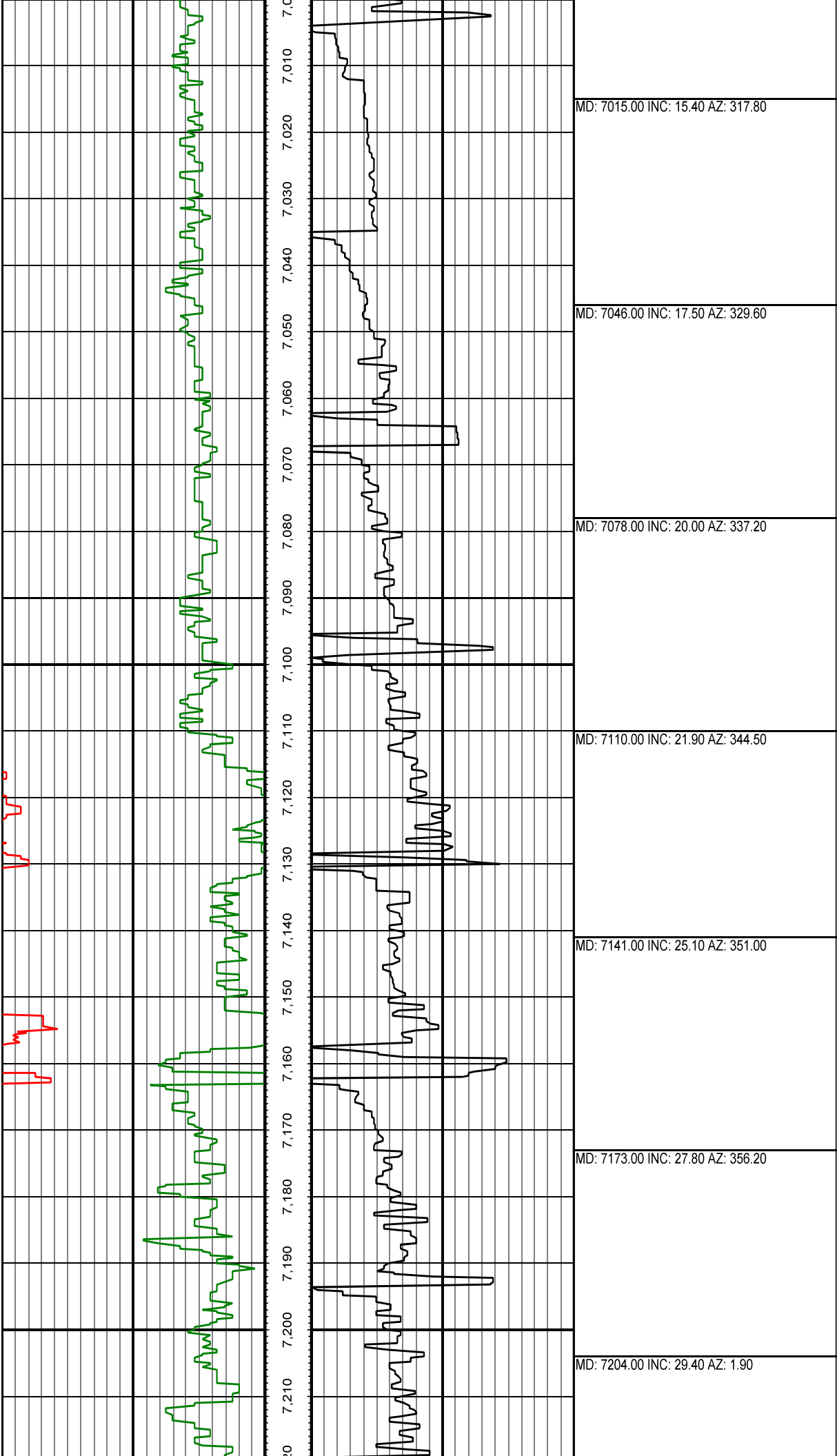


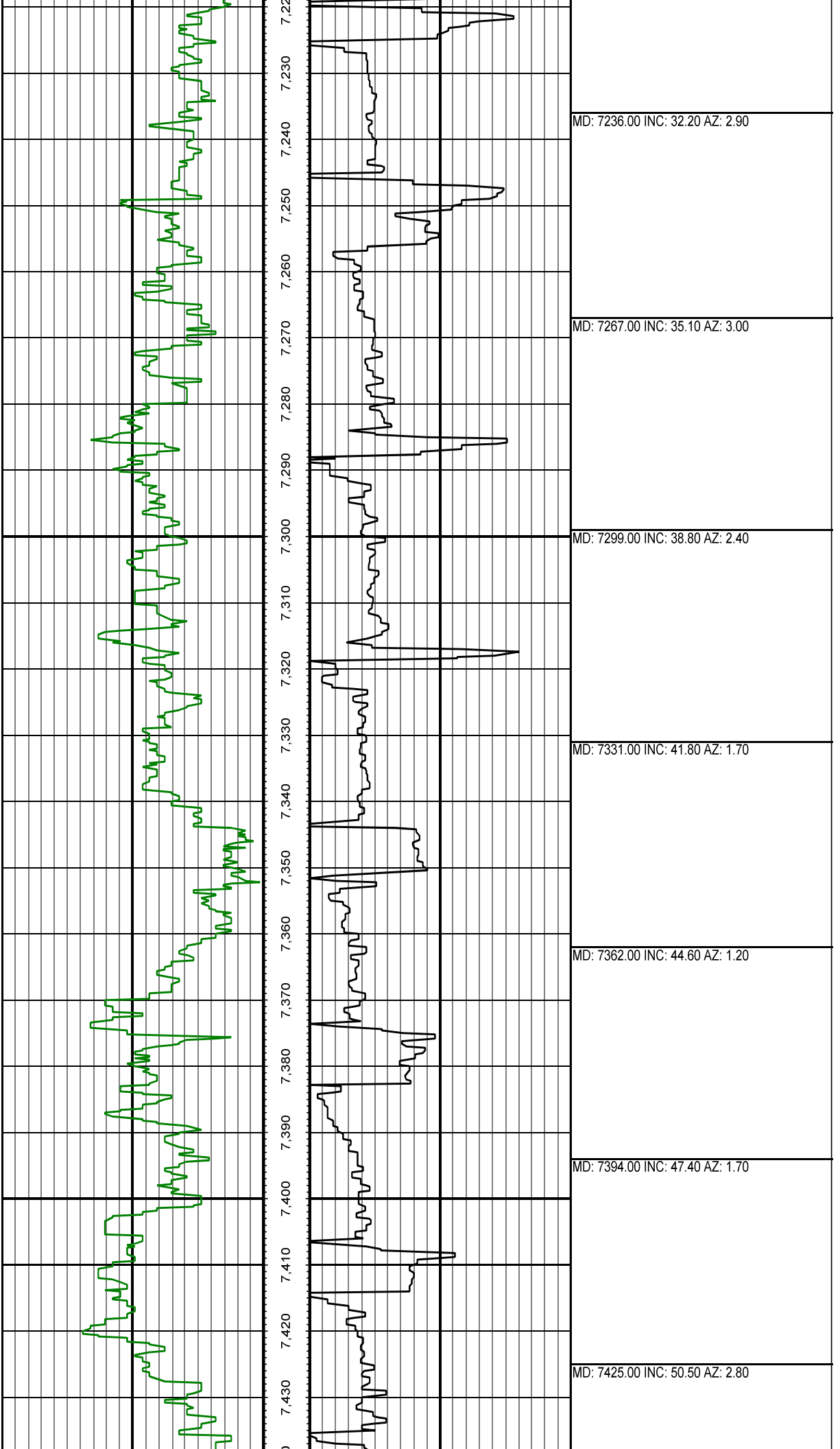
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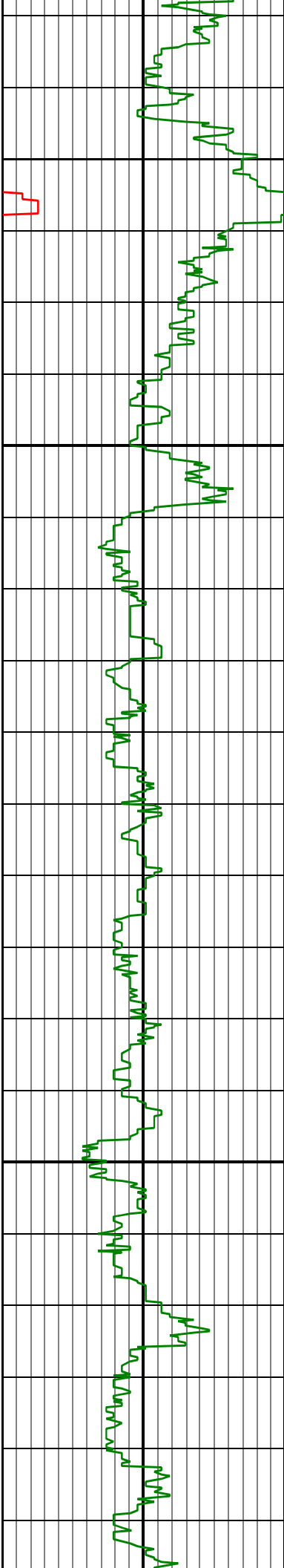
MD: 6667.00 INC: 2.90 AZ: 212.90

MD: 6762.00 INC: 2.90 AZ: 222.60









7,440 7,450 7,460 7,470 7,480 7,490 7,500 7,510 7,520 7,530 7,540 7,550 7,560 7,570 7,580 7,590 7,600 7,610 7,620 7,630 7,640 7,650

MD: 7457.00 INC: 53.90 AZ: 4.20

MD: 7489.00 INC: 57.70 AZ: 3.50

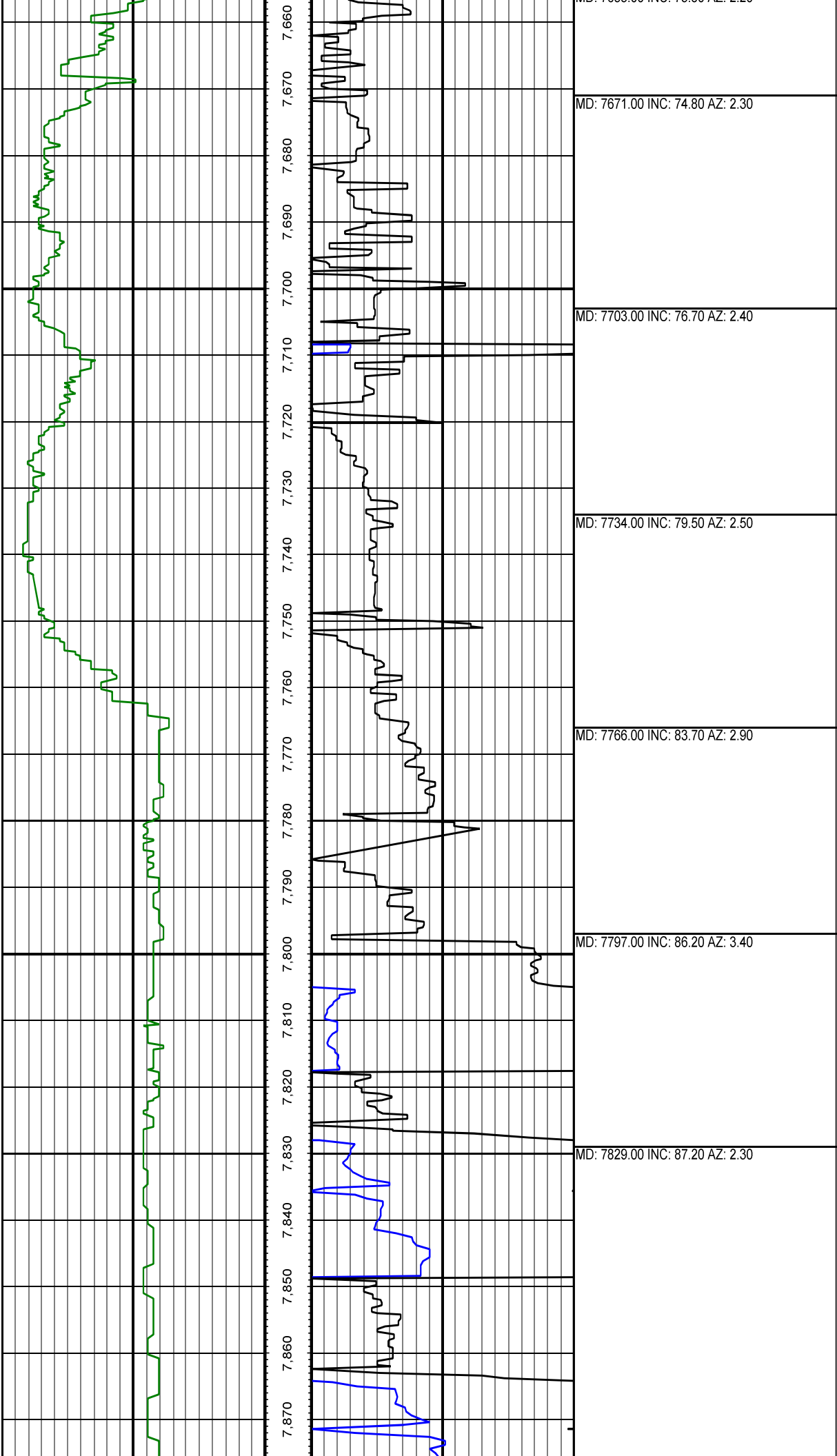
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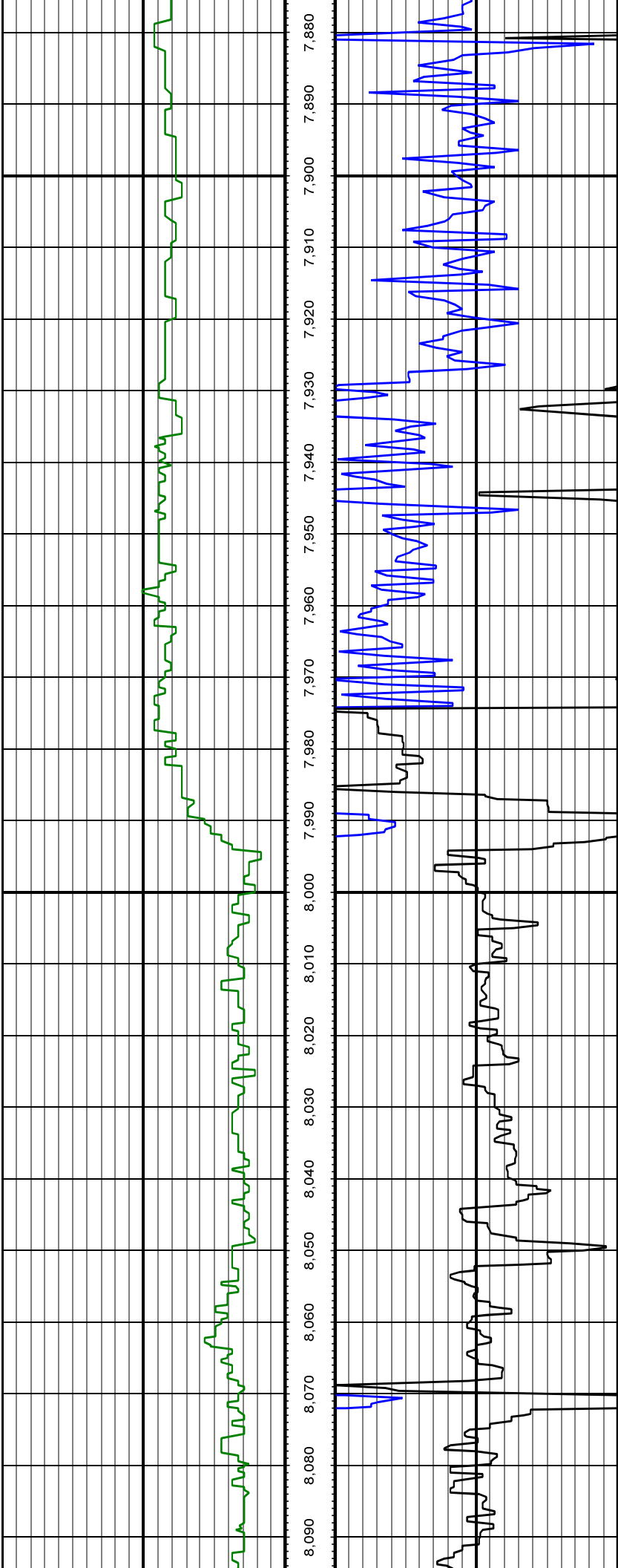
MD: 7552.00 INC: 65.10 AZ: 1.50

MD: 7583.00 INC: 67.80 AZ: 1.30

MD: 7615.00 INC: 69.90 AZ: 1.10

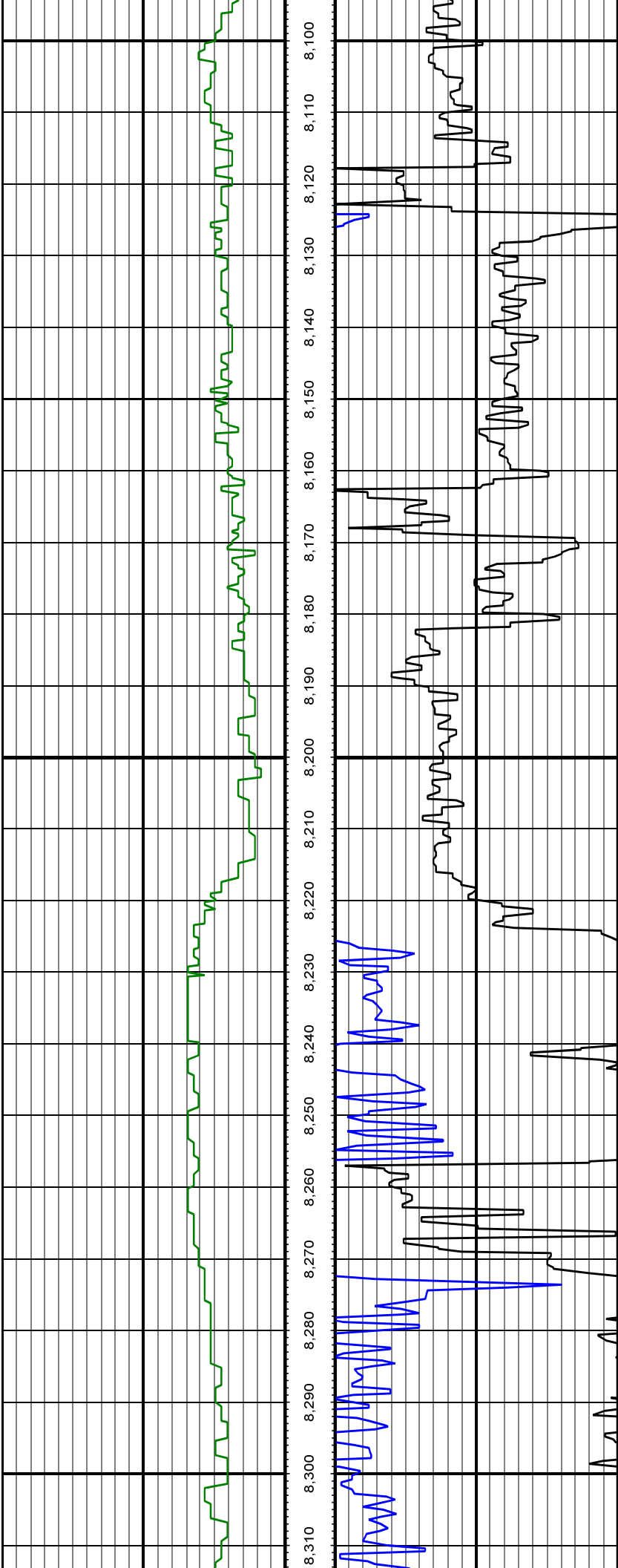
MD: 7655.00 INC: 73.80 AZ: 2.20





MD: 7923.00 INC: 88.50 AZ: 0.20

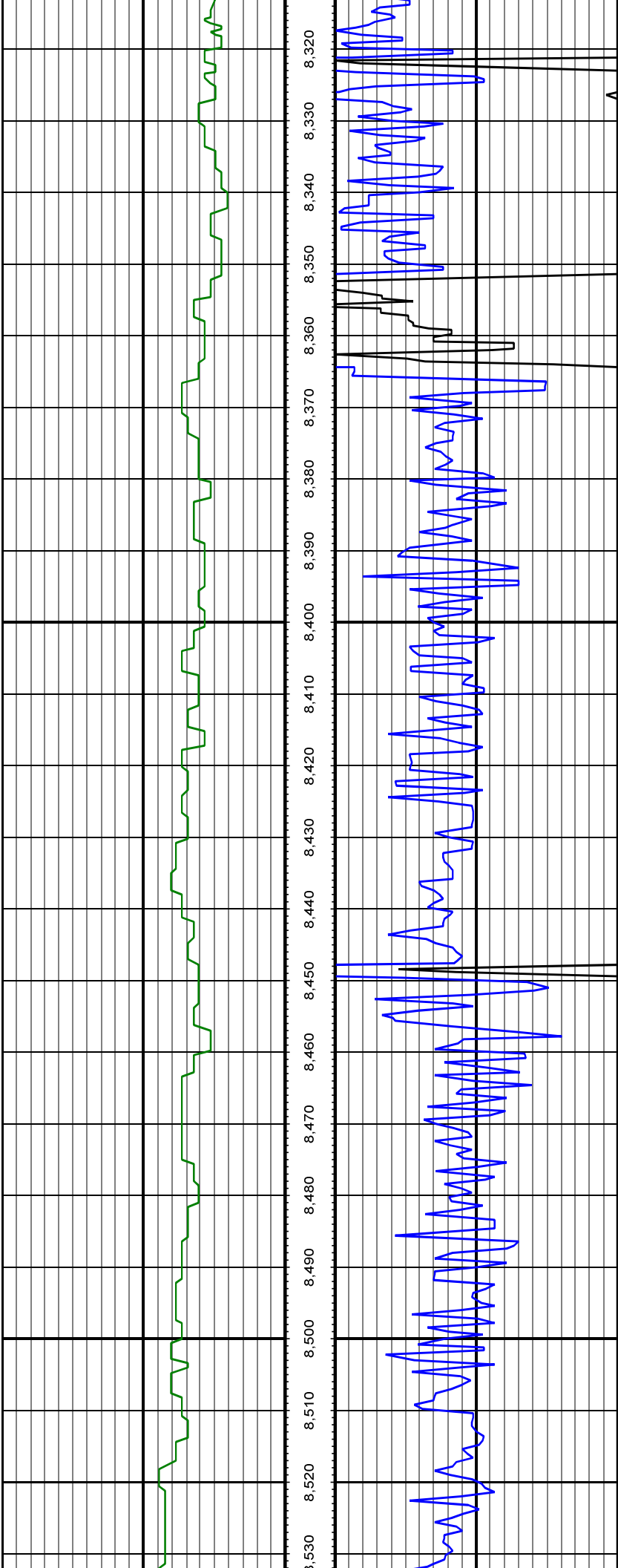
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MD: 8113.00 INC: 90.60 AZ: 0.30

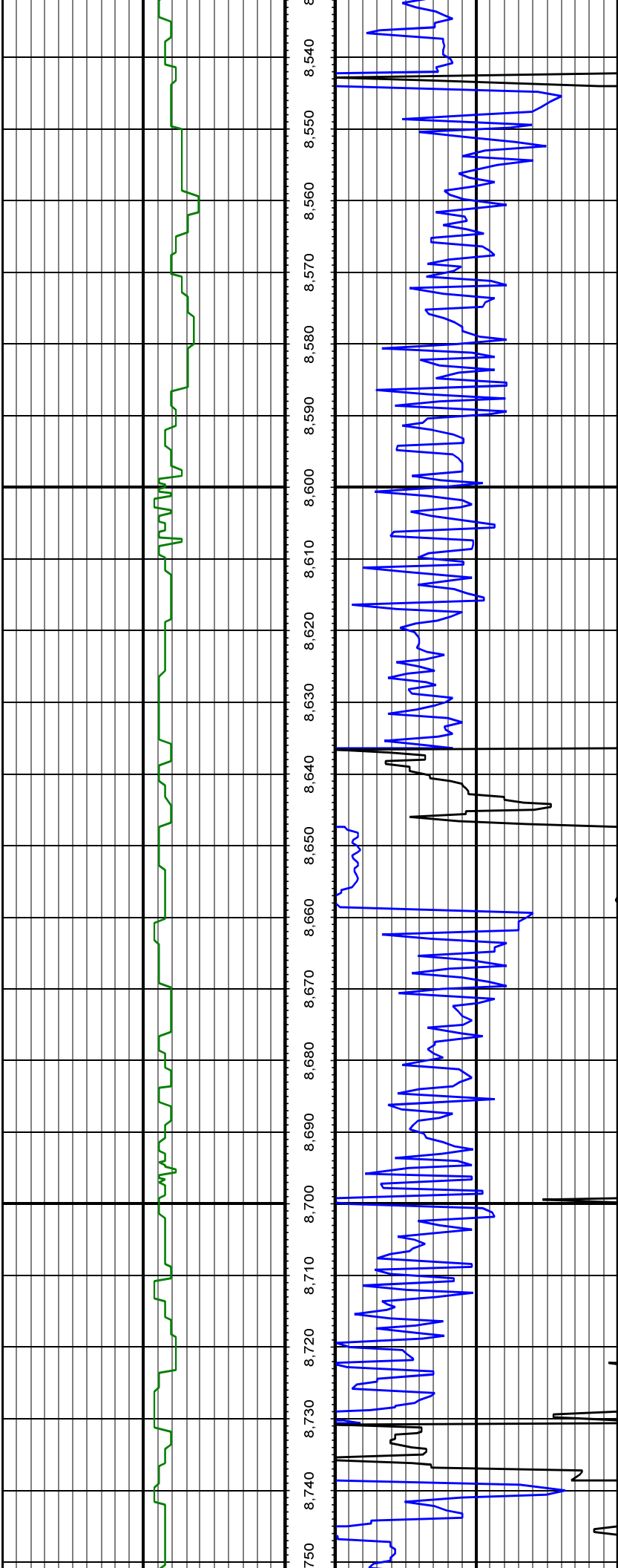
MD: 8207.00 INC: 92.40 AZ: 0.80

MD: 8302.00 INC: 91.30 AZ: 359.60



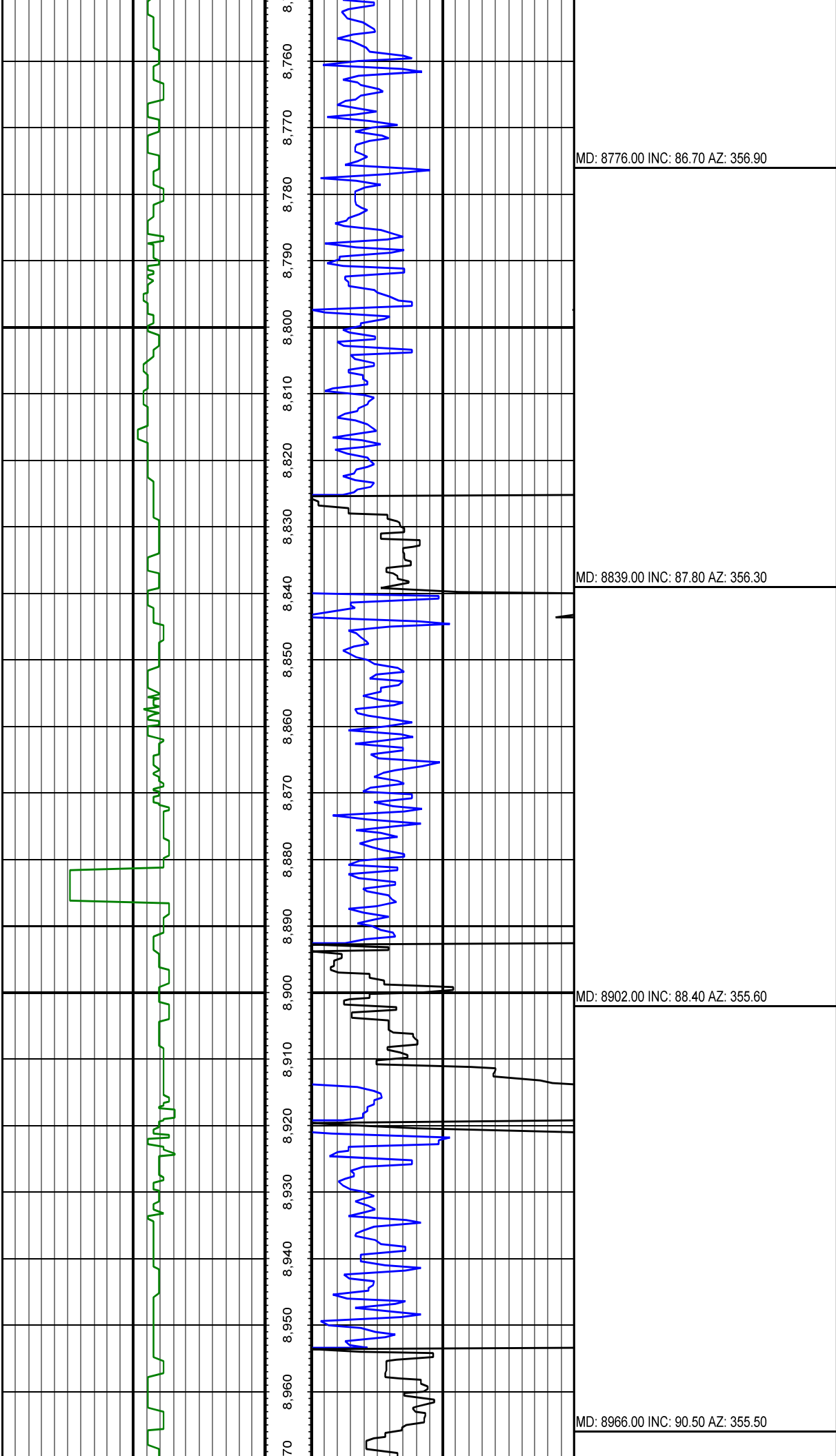
MD: 8397.00 INC: 90.10 AZ: 359.40

MD: 8492.00 INC: 89.80 AZ: 359.70



MD: 8587.00 INC: 89.20 AZ: 359.50

MD: 8681.00 INC: 89.40 AZ: 0.10

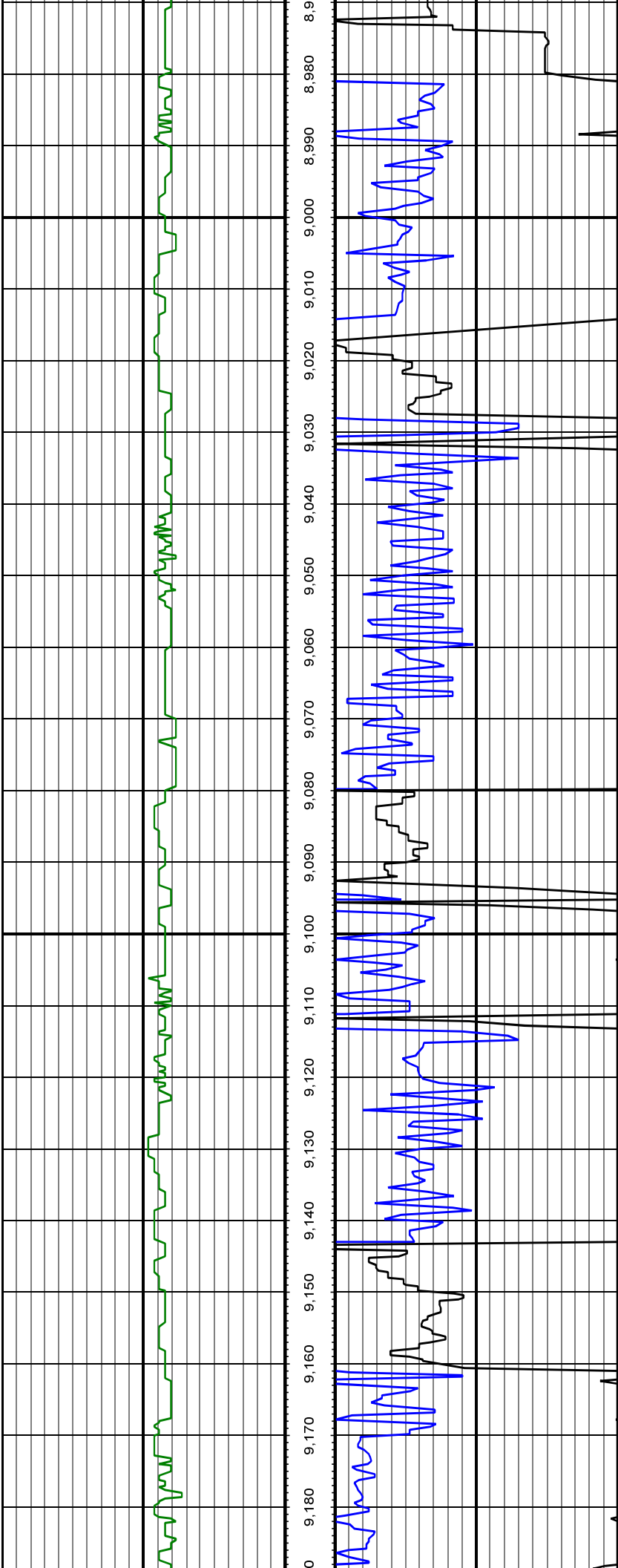


MD: 8776.00 INC: 86.70 AZ: 356.90

MD: 8839.00 INC: 87.80 AZ: 356.30

MD: 8902.00 INC: 88.40 AZ: 355.60

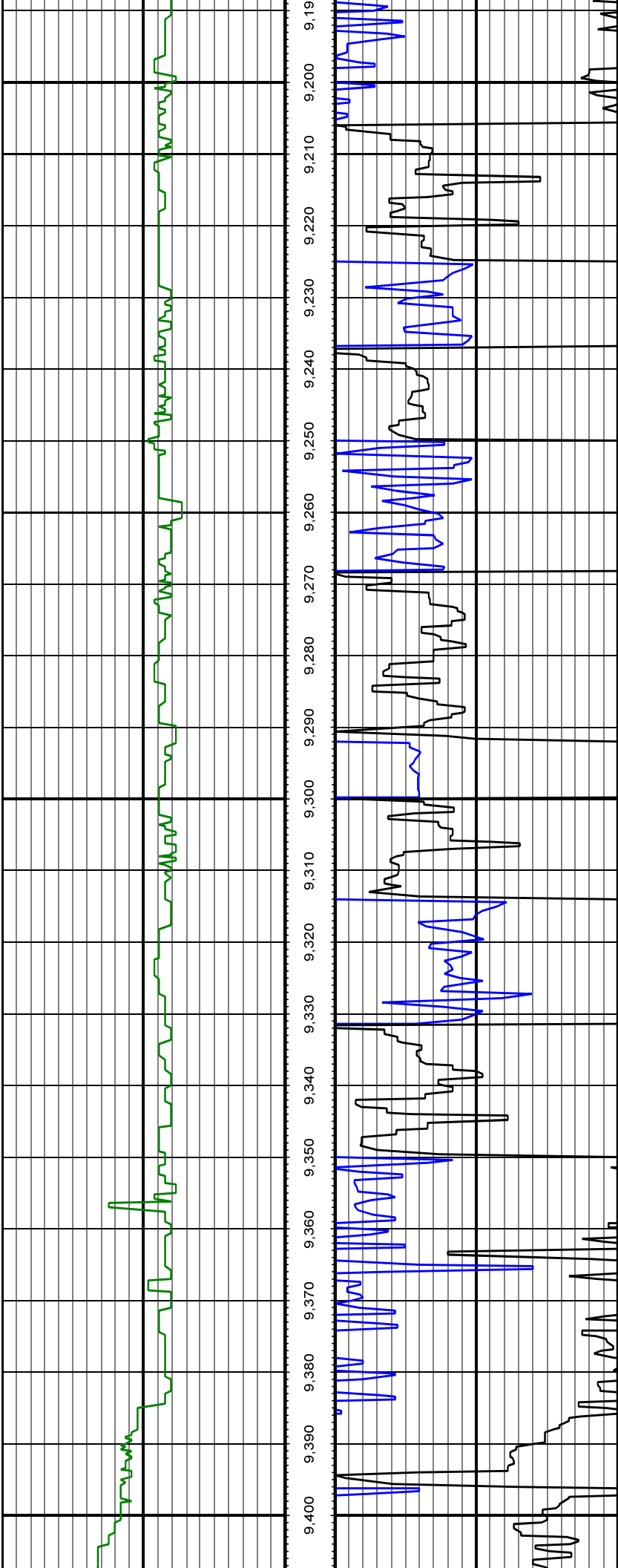
MD: 8966.00 INC: 90.50 AZ: 355.50



MD: 9029.00 INC: 90.20 AZ: 356.70

MD: 9092.00 INC: 90.20 AZ: 356.60

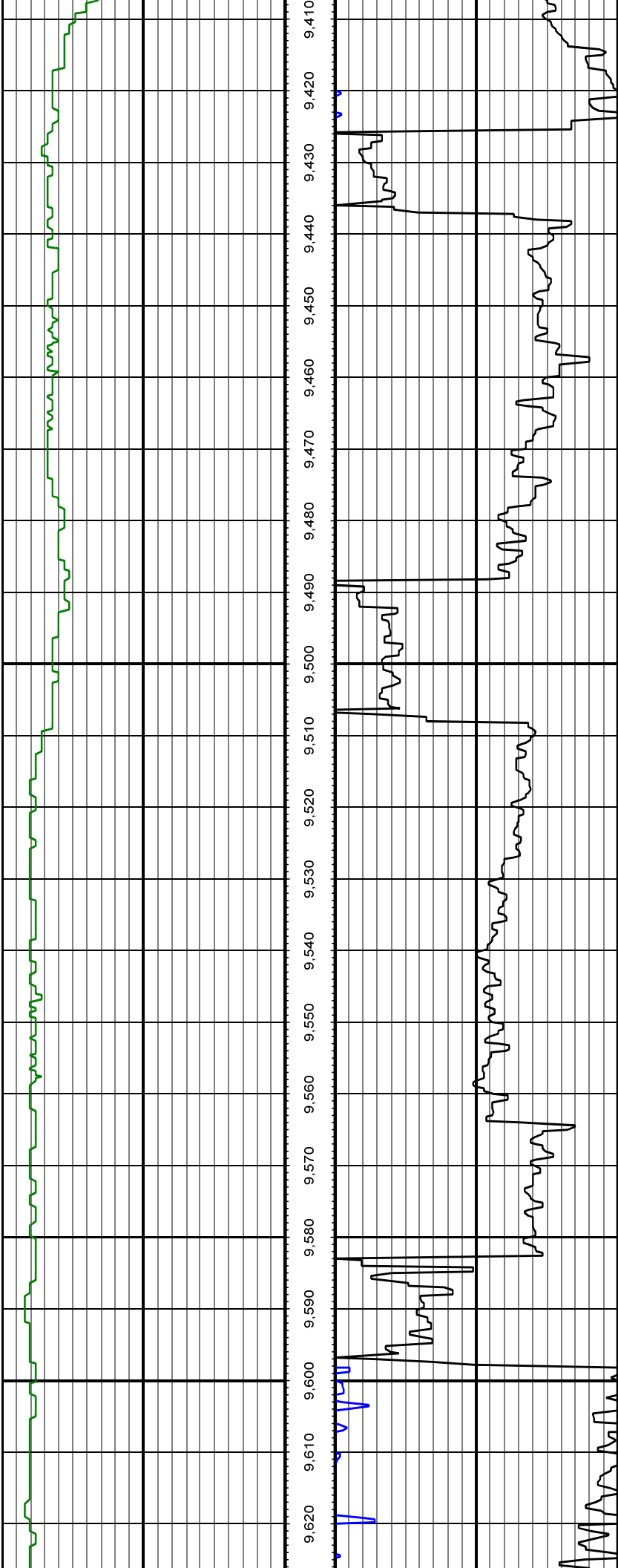
MD: 9155.00 INC: 89.90 AZ: 356.00



MD: 9218.00 INC: 88.50 AZ: 355.70

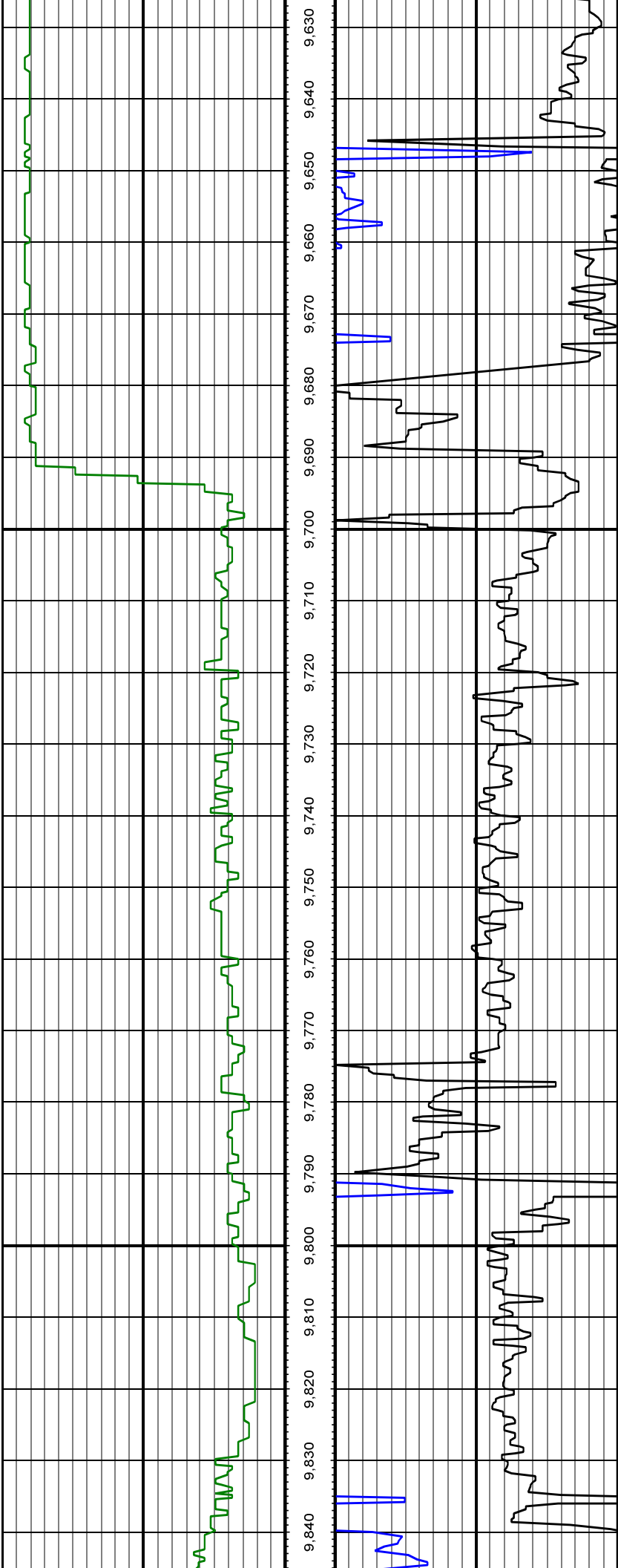
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MD: 9344.00 INC: 91.90 AZ: 0.90



MD: 9439.00 INC: 88.90 AZ: 0.80

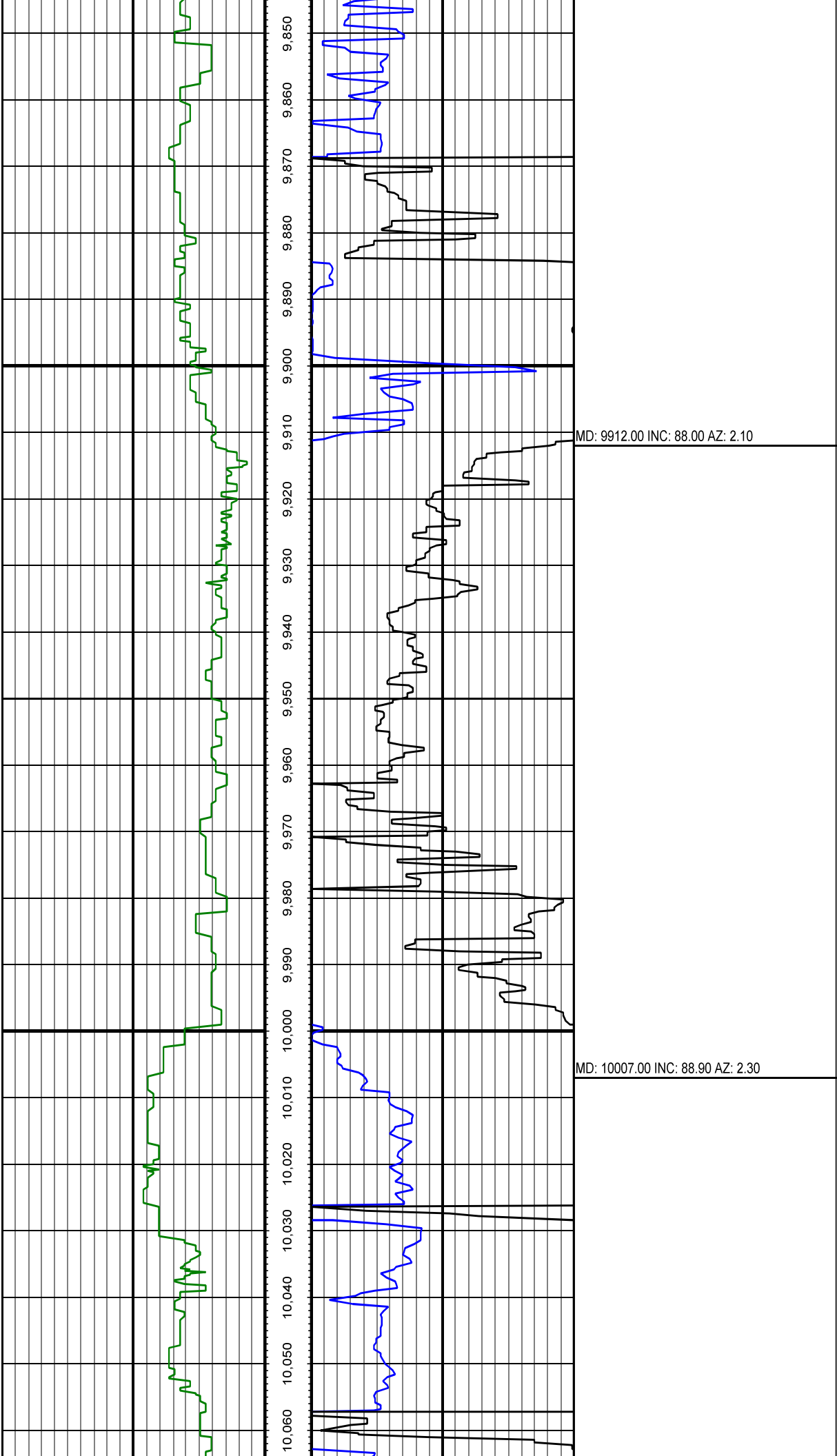
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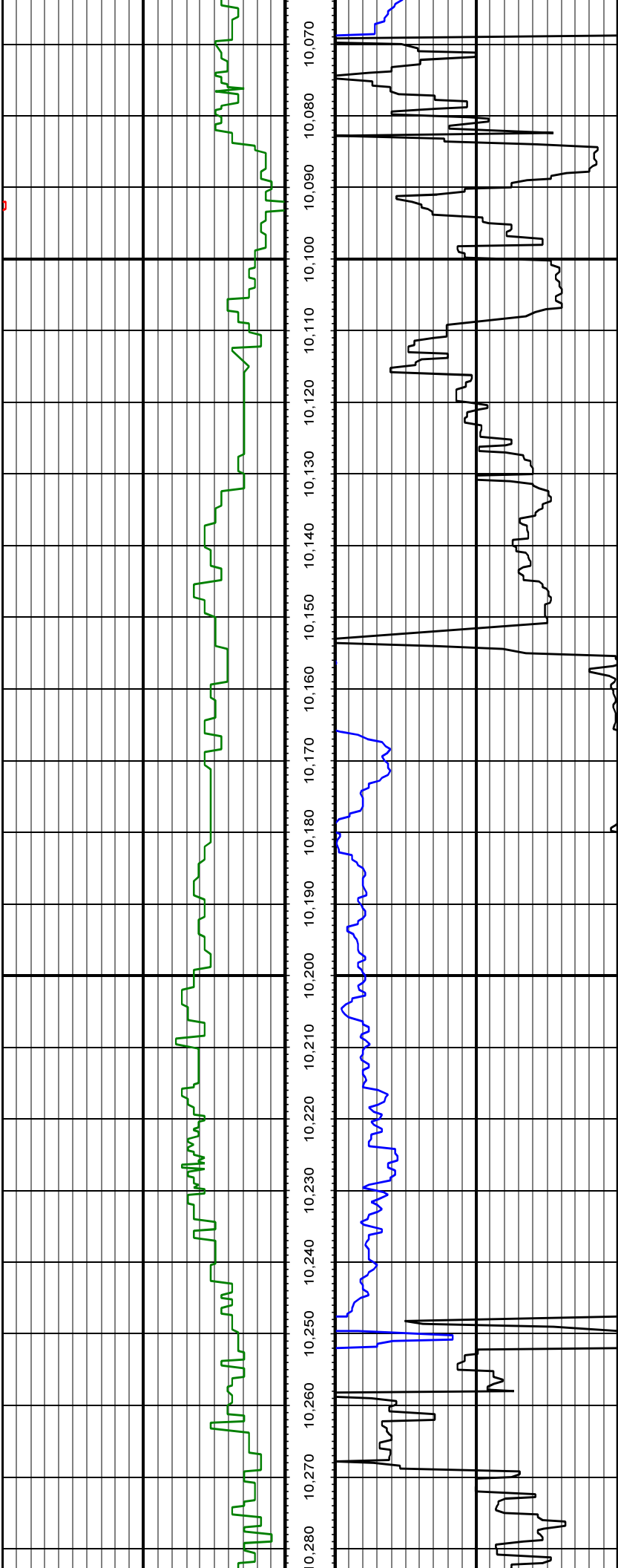


MD: 9629.00 INC: 88.40 AZ: 2.80

MD: 9723.00 INC: 88.10 AZ: 3.10

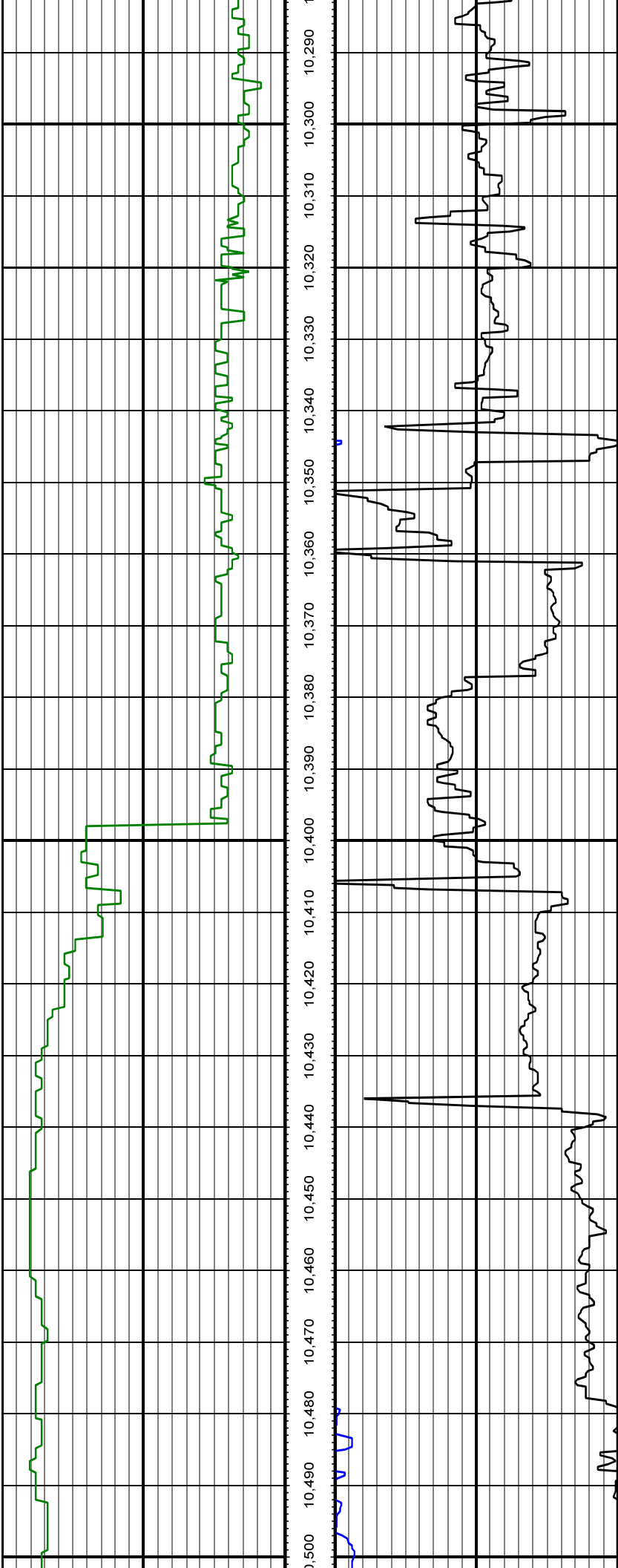
MD: 9818.00 INC: 90.10 AZ: 2.50





MD: 10102.00 INC: 89.90 AZ: 2.00

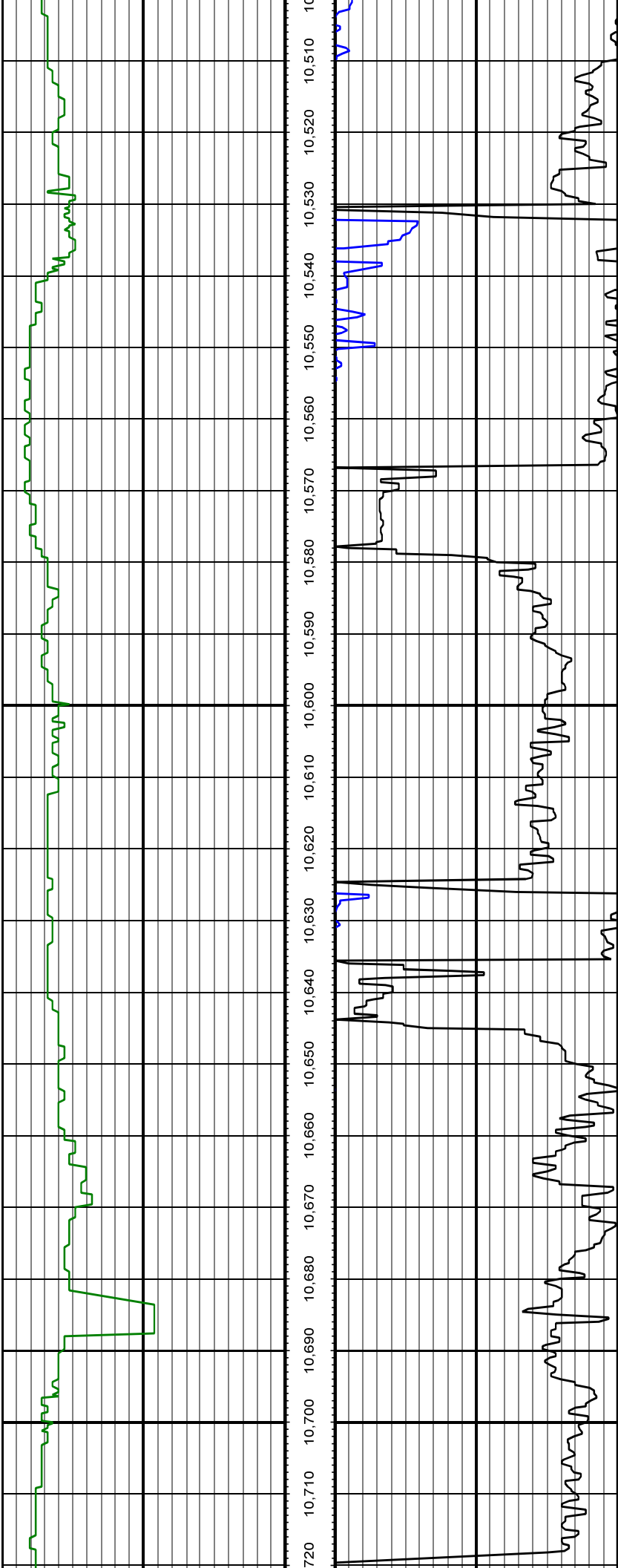
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MD: 10291.00 INC: 90.20 AZ: 1.30

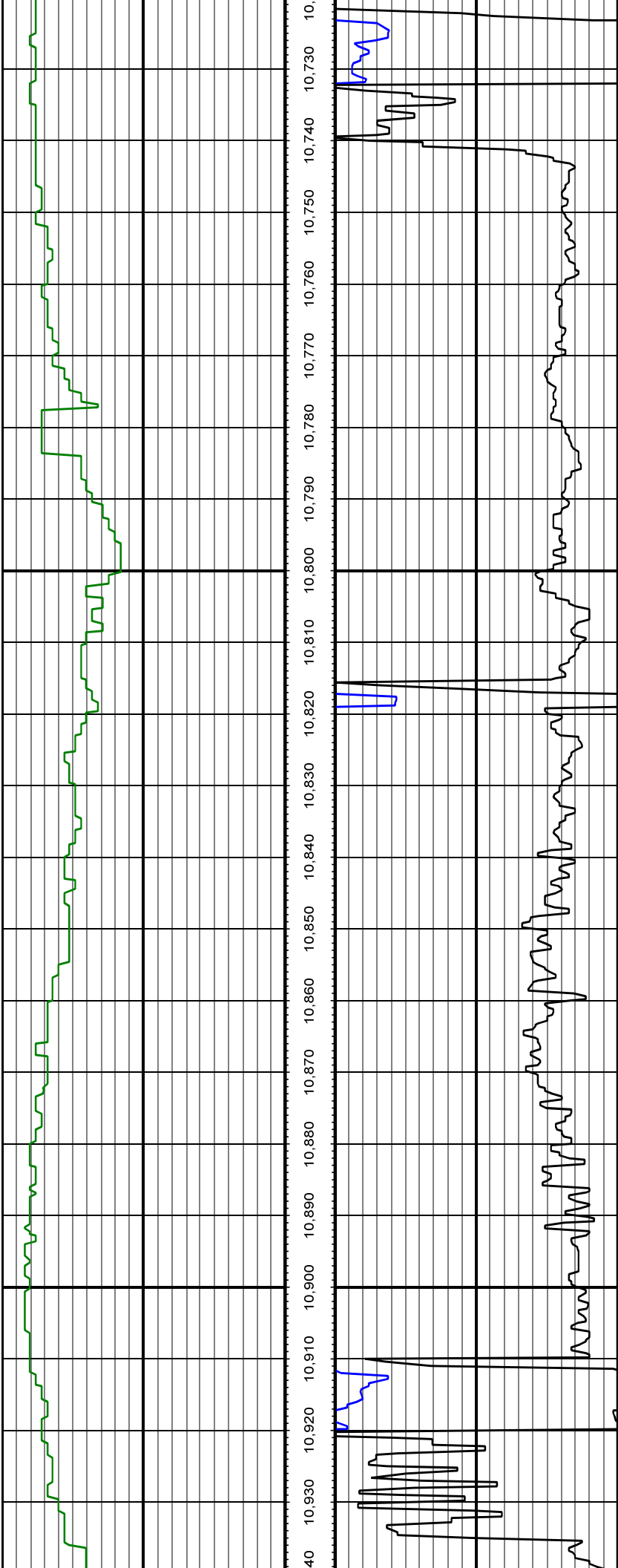
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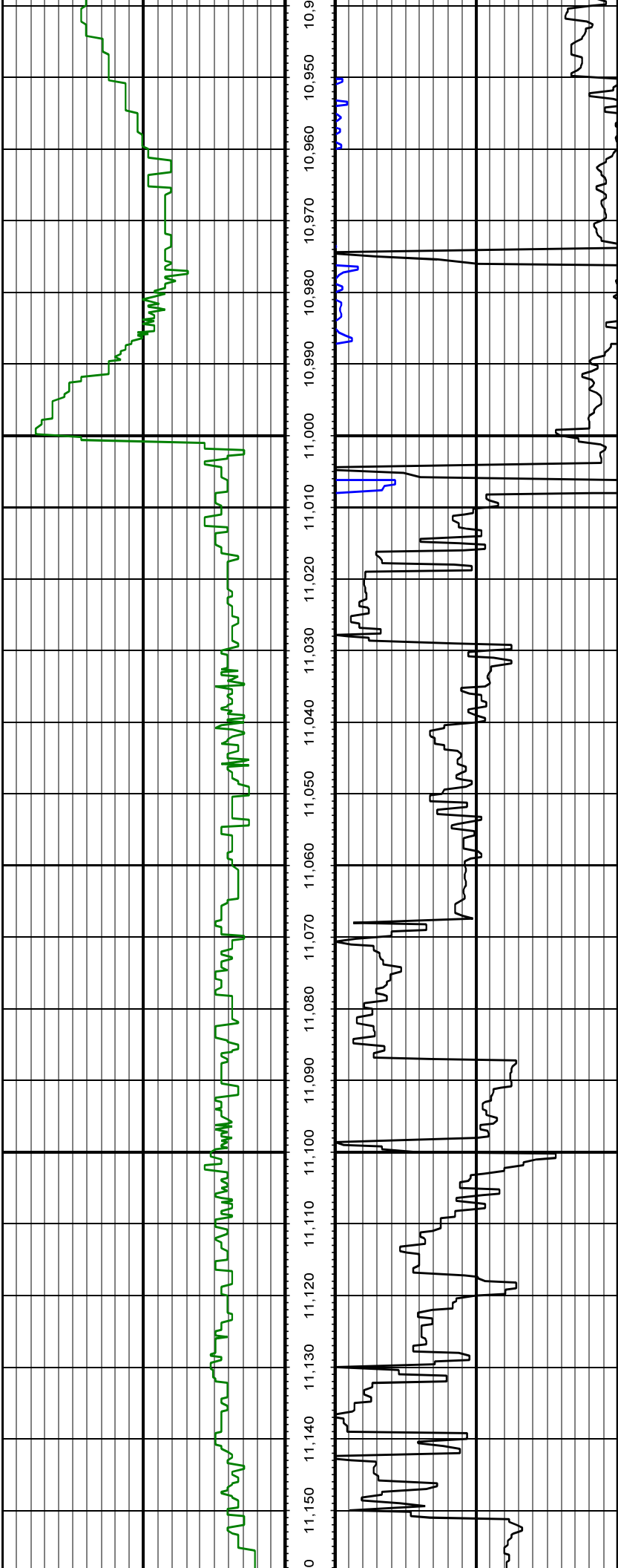
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MD: 10670.00 INC: 89.00 AZ: 0.60



MD: 10764.00 INC: 88.50 AZ: 0.10

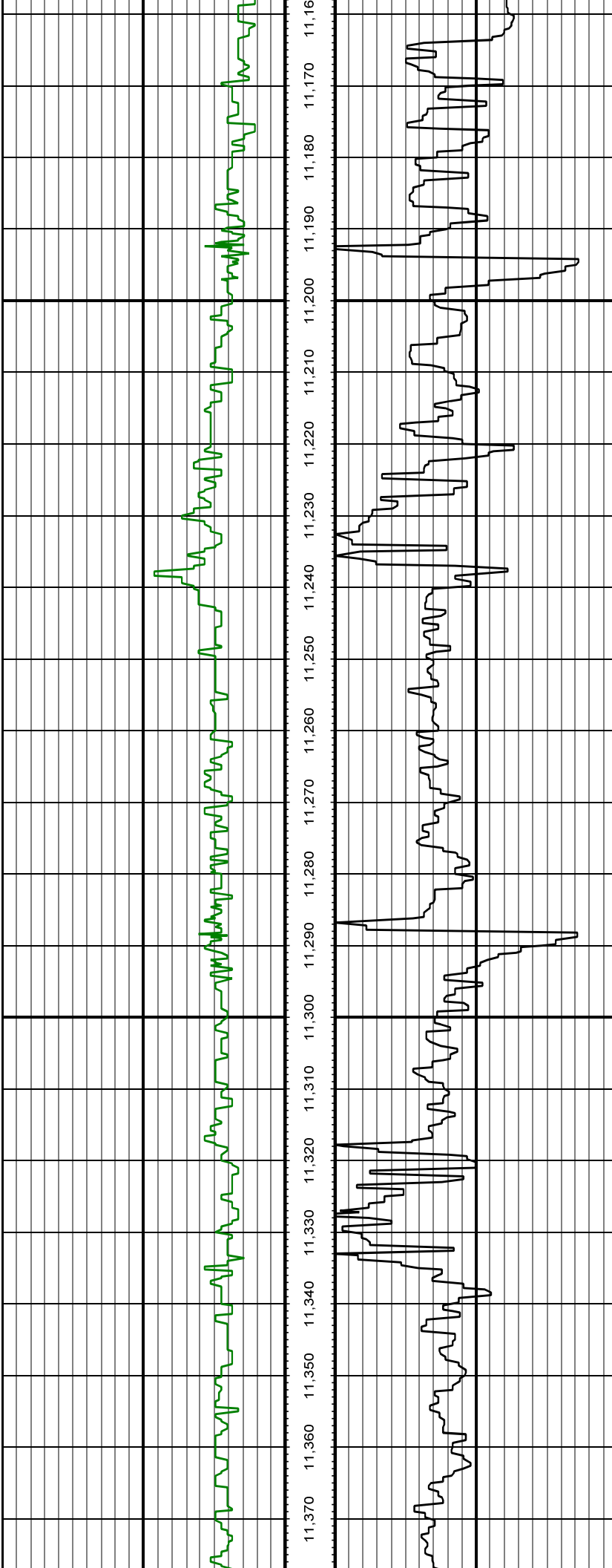
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MD: 10954.00 INC: 87.40 AZ: 359.50

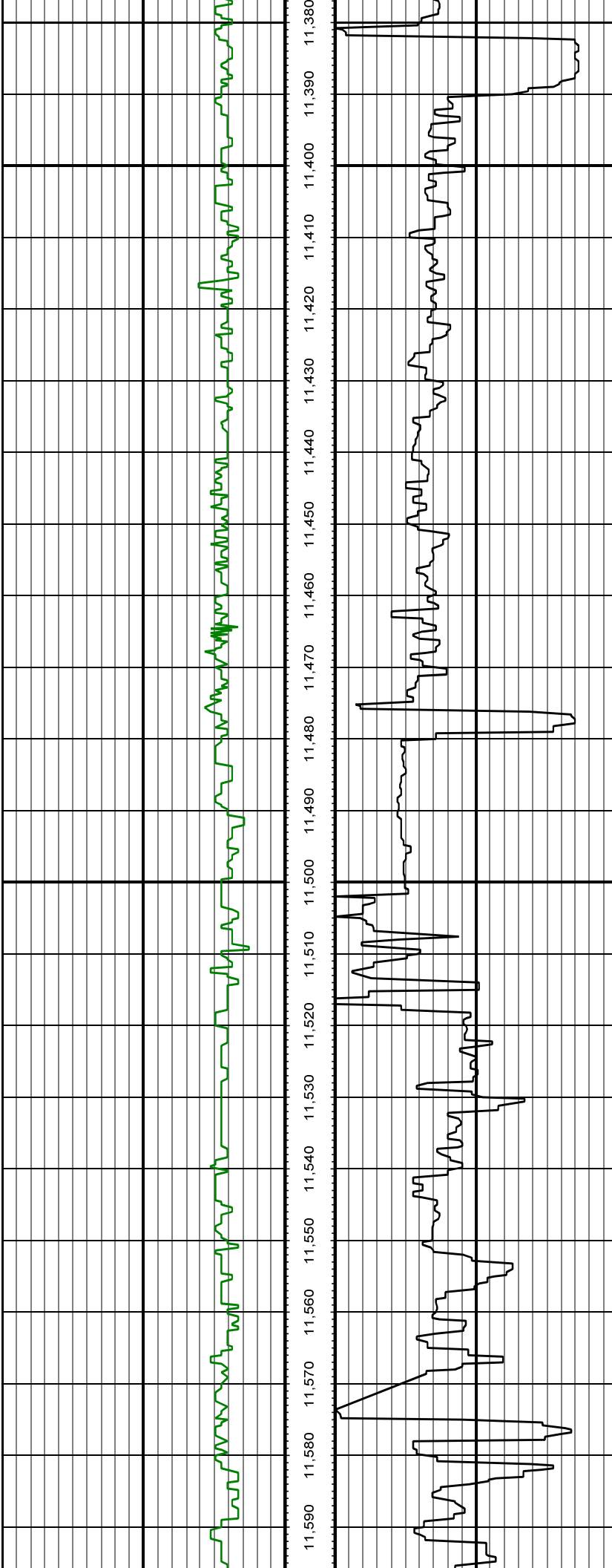
MD: 11049.00 INC: 87.80 AZ: 359.50

MD: 11143.00 INC: 90.70 AZ: 358.30



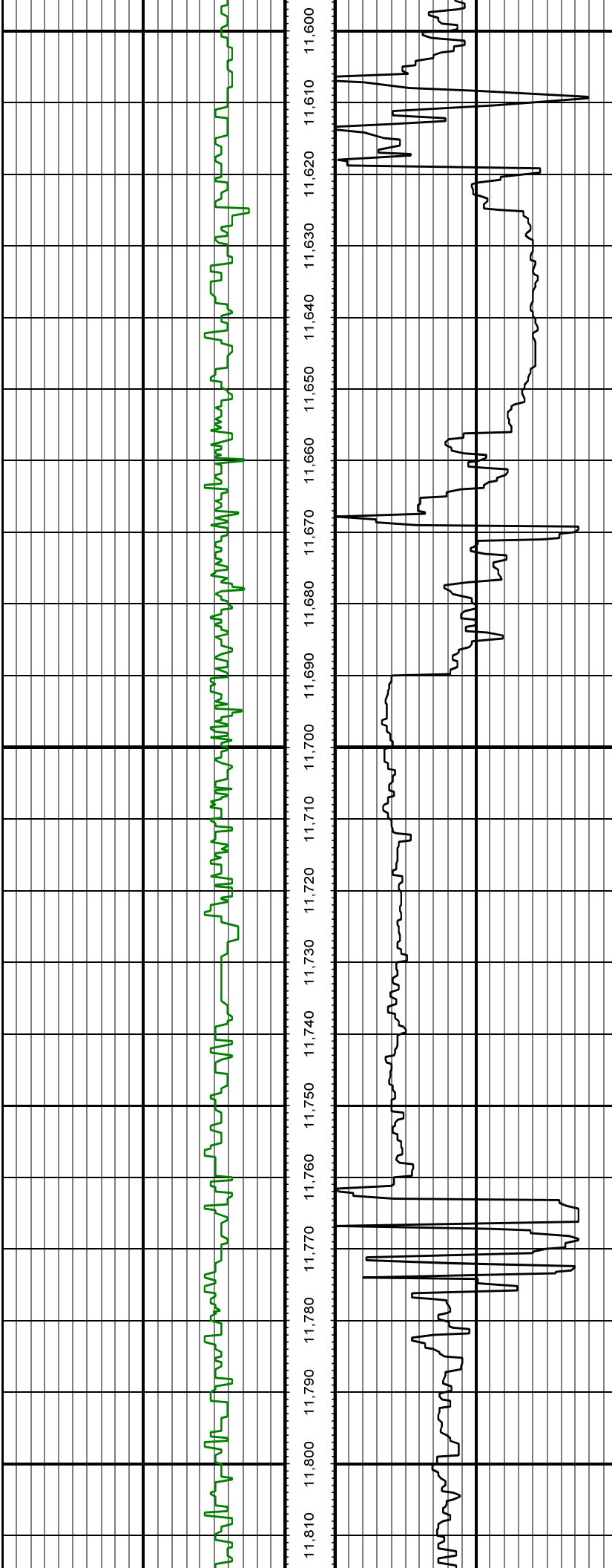
MD: 11238.00 INC: 91.20 AZ: 359.80

MD: 11333.00 INC: 90.60 AZ: 0.30



MD: 11427.00 INC: 91.00 AZ: 0.10

MD: 11522.00 INC: 89.30 AZ: 0.40



MD: 11617.00 INC: 89.60 AZ: 0.40

MD: 11711.00 INC: 90.10 AZ: 359.70

MD: 11806.00 INC: 90.50 AZ: 359.00

