

**CATHEDRAL**

Cathedral Energy Services
4949 Pyrite Road
Casper, Wyoming 82604

145066

5"-100' - MD

3/24/2014 2:24:45 PM

Oper. Company: Encana Oil & Gas (USA)**Country:** U.S.A.**State / Province:** Colorado**County / Parish:** Weld**Started:** 03/11/2014 12:30 PM**API/UWI:** 05-123-37820**Field:** DJ Basin**Well:** Vogl-McCoy 2D-5H-E267**Rig:** Helmerich & Payne 522**Ended:** 03/23/2014 12:30 PM

Gamma Ray
Section Plane: 180.00
Gamma Attenuation Factor:
Gamma Averaging: 3%

Personnel**Day Hand:** J. Nichols**Night Hand:** A. Stewart**Comp. Emp:** Sanford Pulley**Location****Latitude:** 40.168190**Longitude:** -104.922220**Elev. GL:** 4836**Elev. DF:****Elev. KB:** 4866

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

Hole Data

Size	From	To
12-1/4	0	868
8-7/5	868	7493
4-1/2	7493	11899

Casing Data

Size	From	To
9-5/8	0	861
7	0	7481
4-1/2	0	15046

Bit Sizes

Size	From	To
12-1/4	0	868
8-3/4	868	7493
6-1/8	7493	15056

Mud Data

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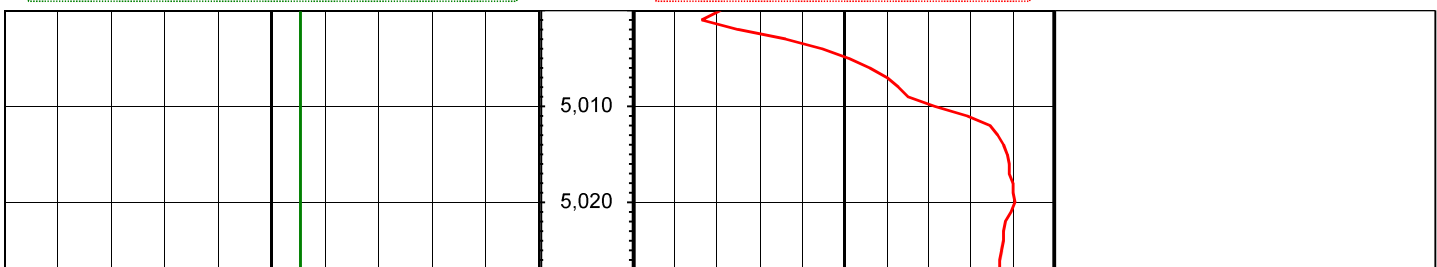
Tool Run Data

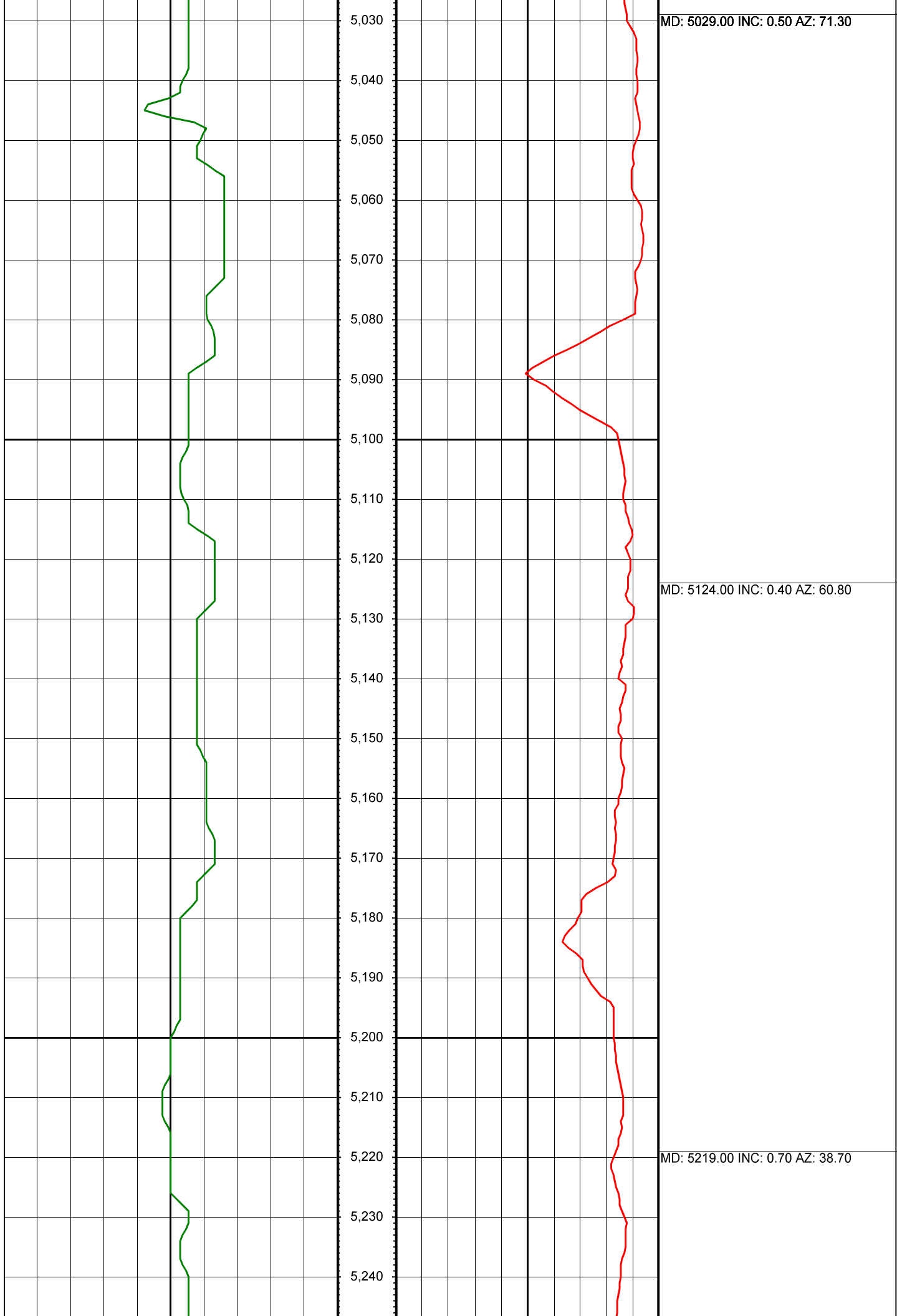
Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
283	40.15	0	3/13/2014 5:00:28 PM	868	3/13/2014 3:00:28 PM	7493
283	40.45	0	3/16/2014 6:00:36 PM	7493	11/19/2013 4:00:36 PM	15056

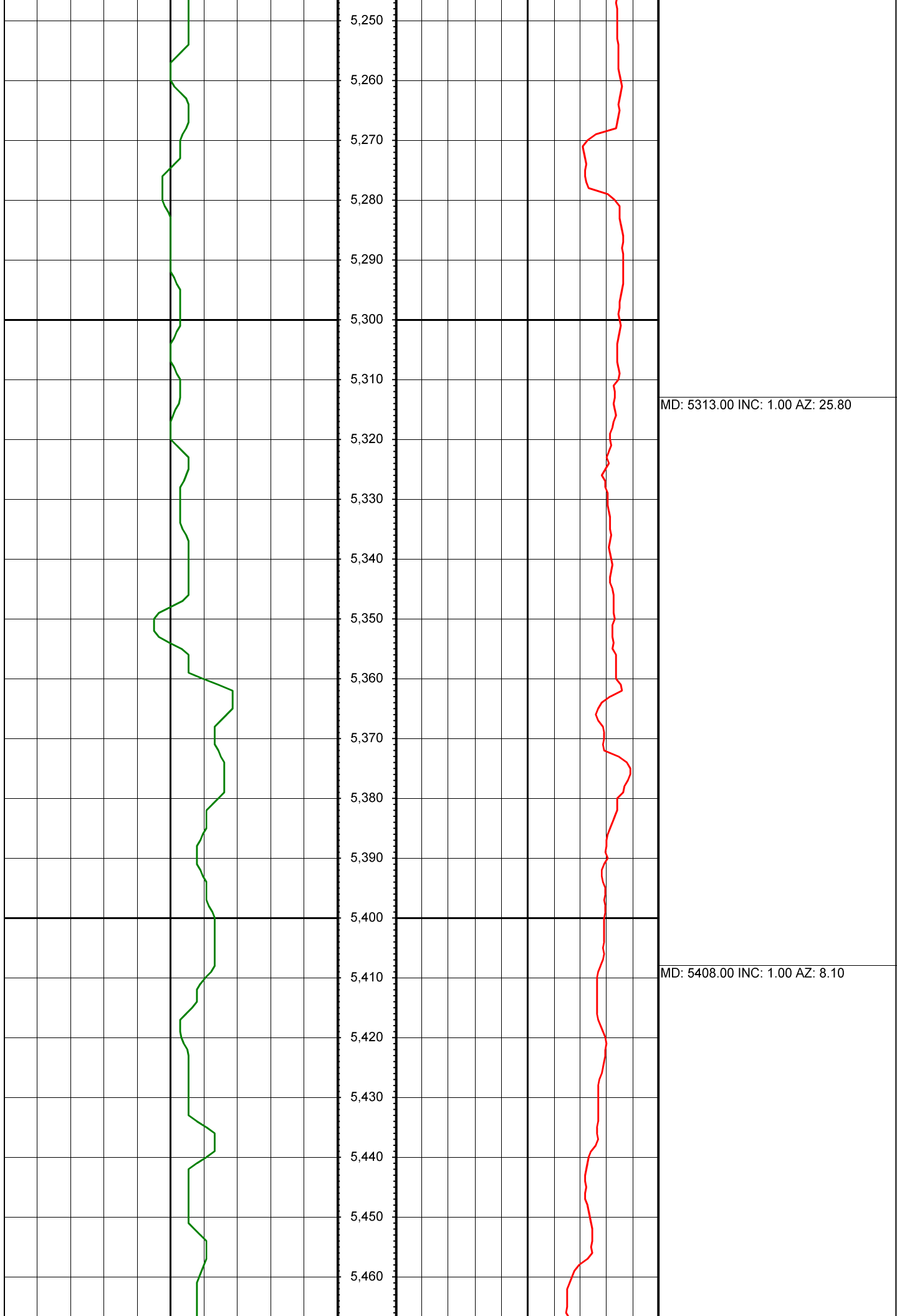
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

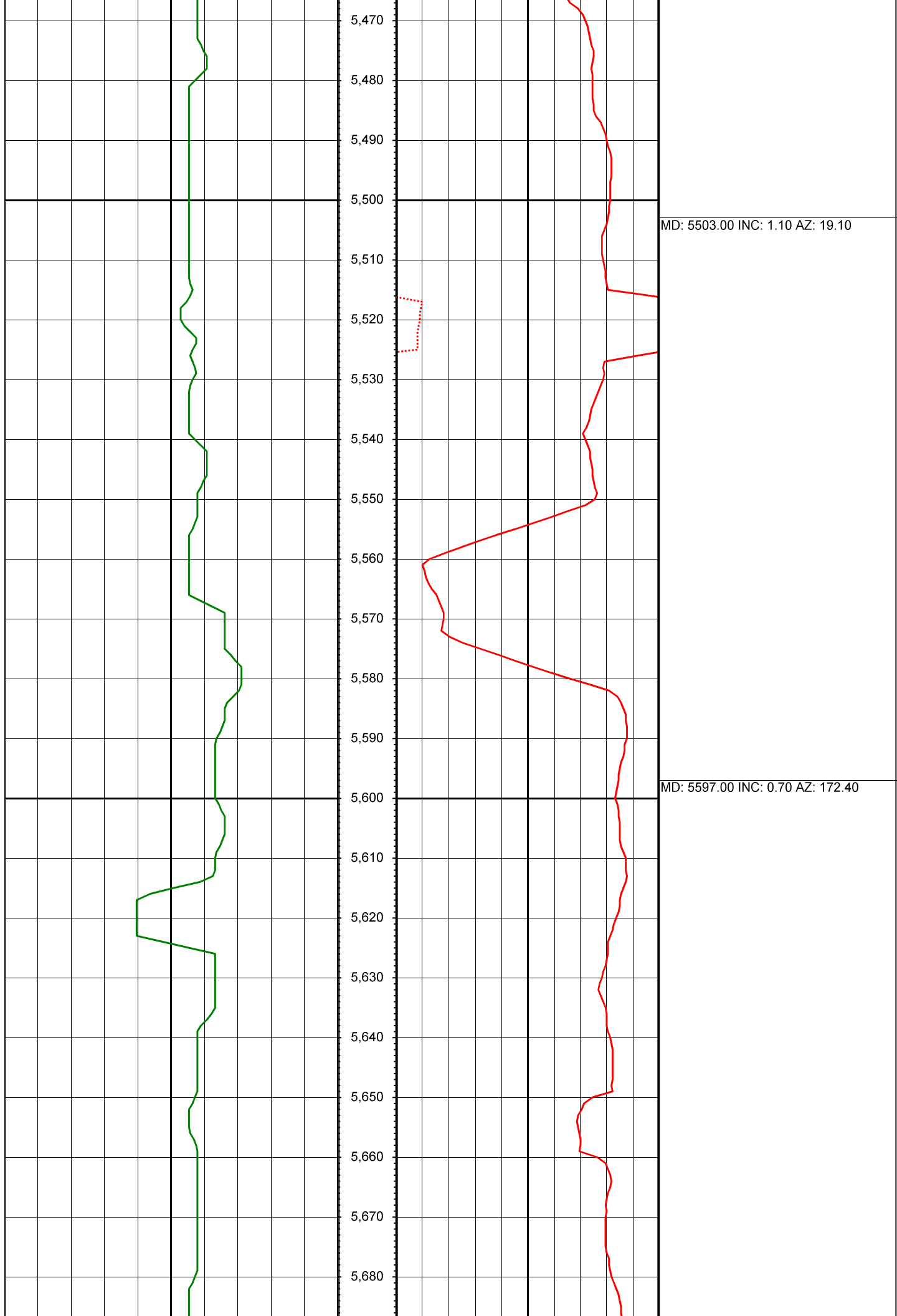
0.00 Gamma Ray(API) 150.00 MD 0.00 ROP (FT/HR) 700.00 Surveys (MD/INC/AZ)

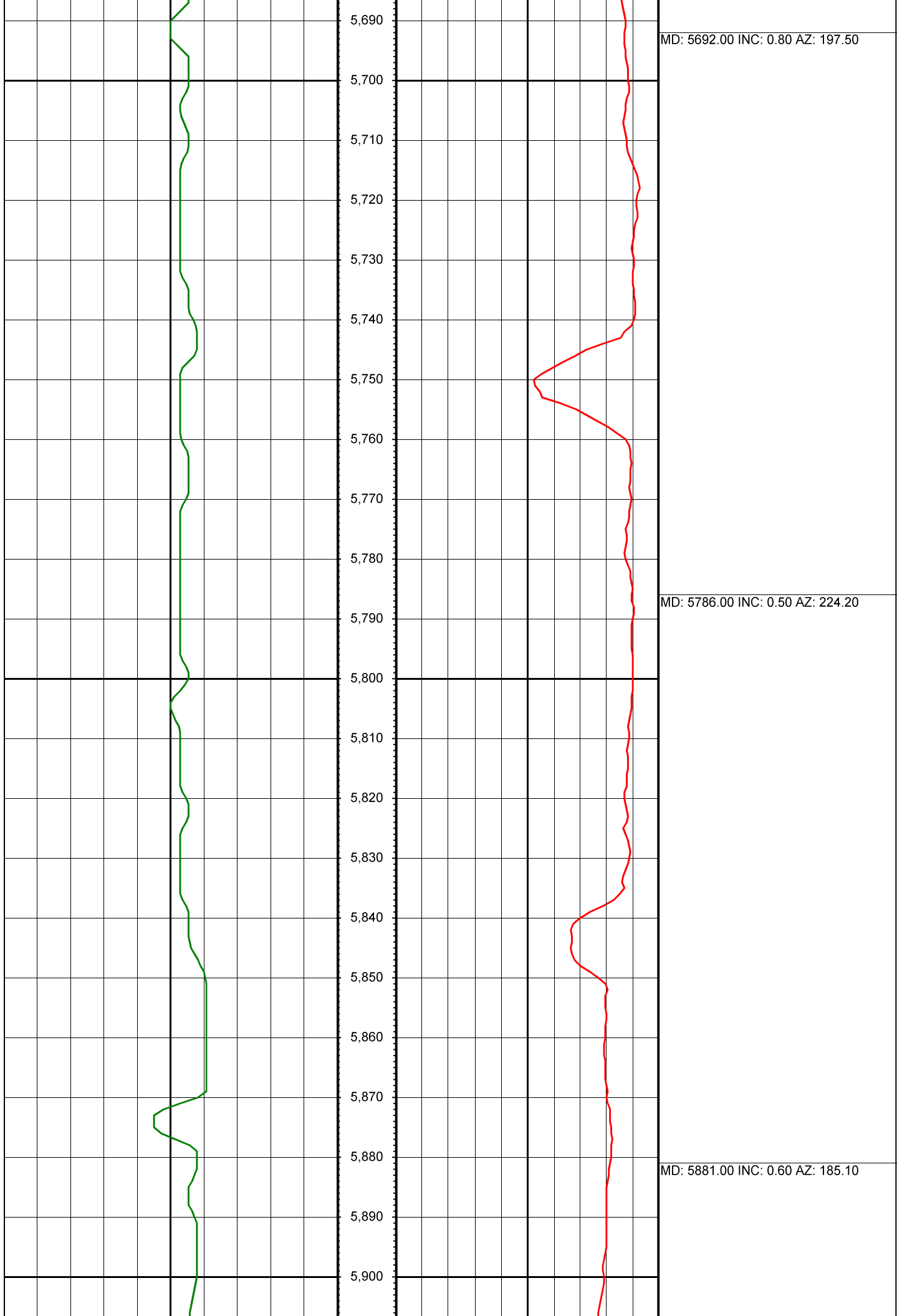
150.00 2 300.00 FT 700.00 2 1,400.00

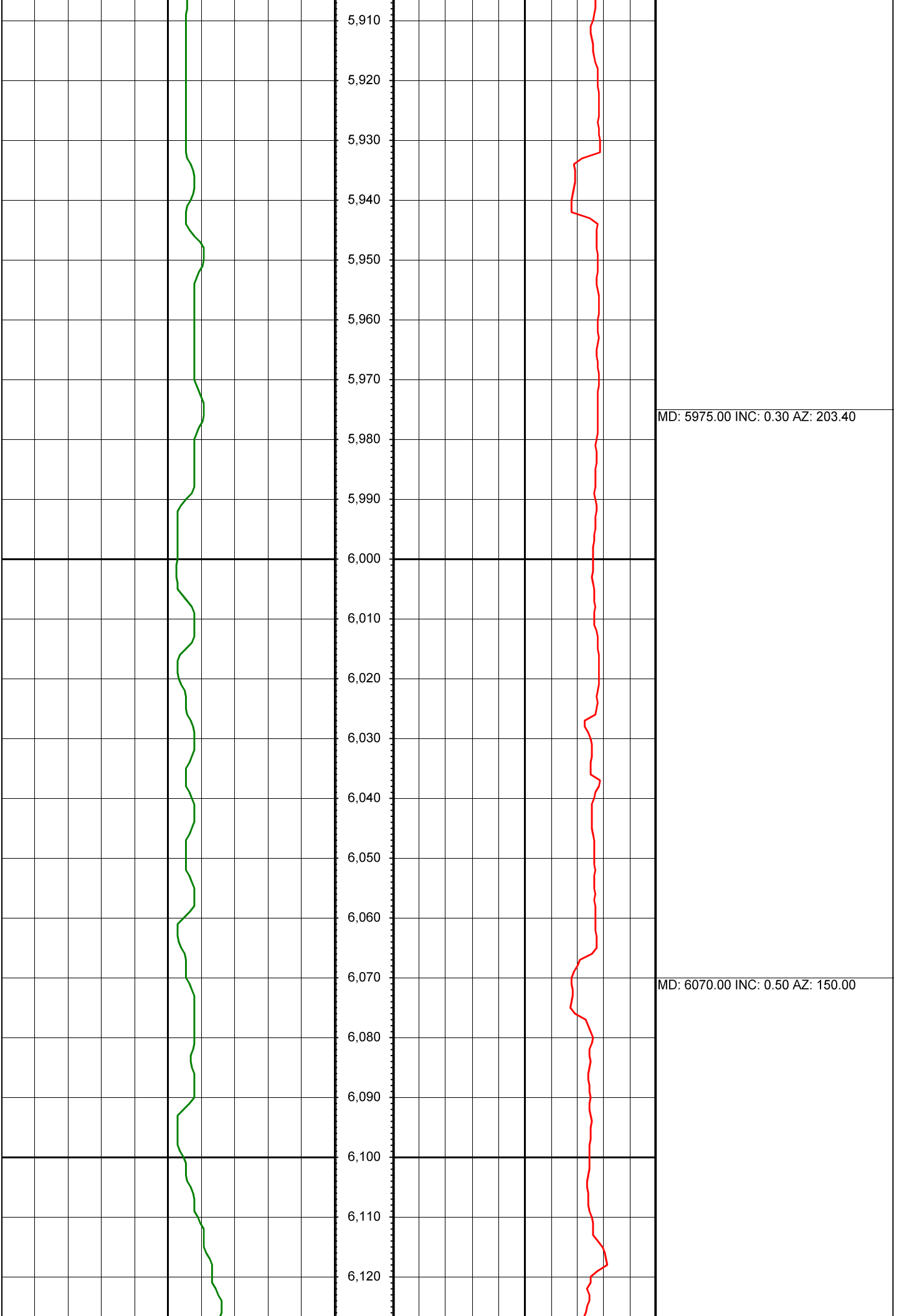


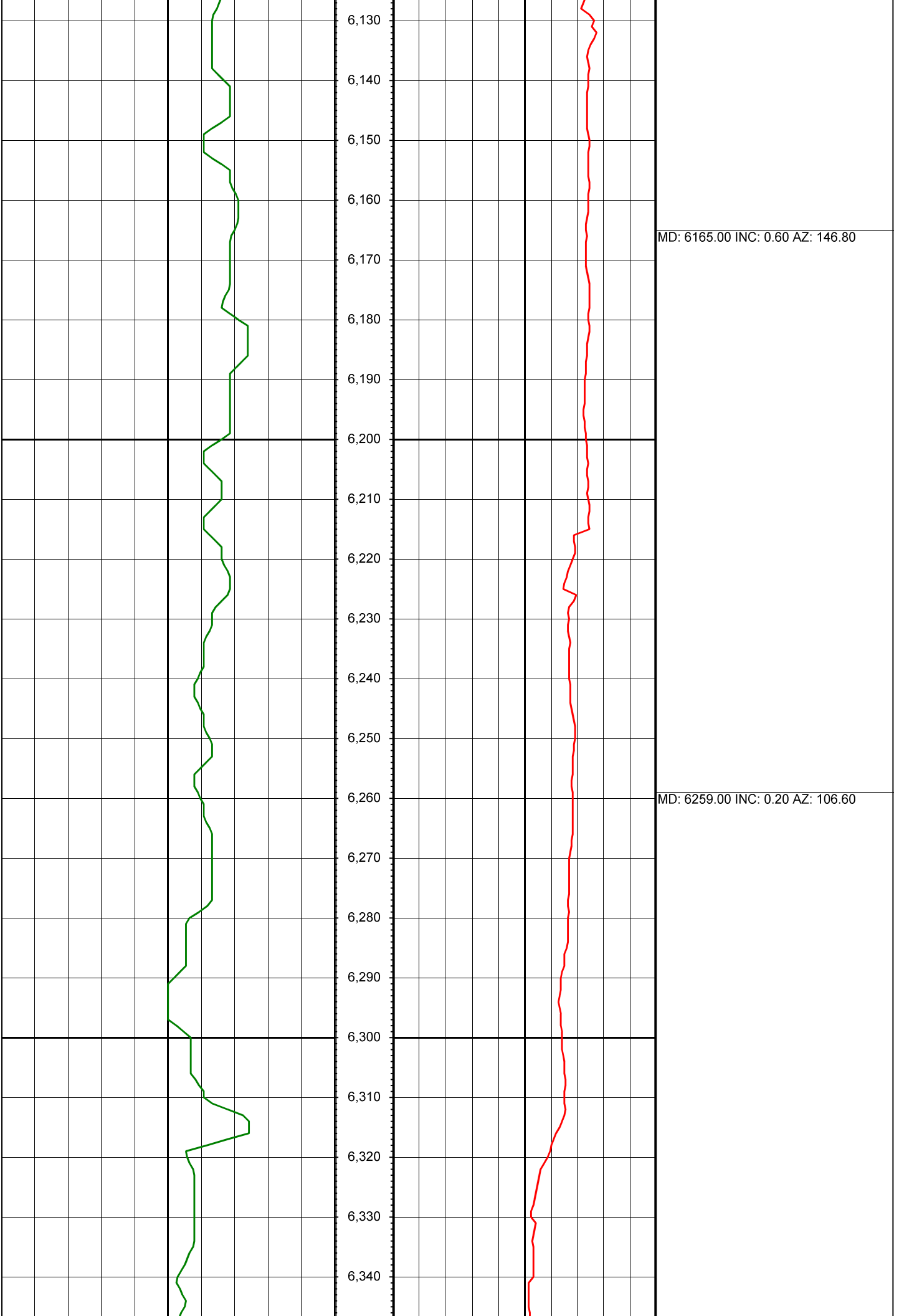


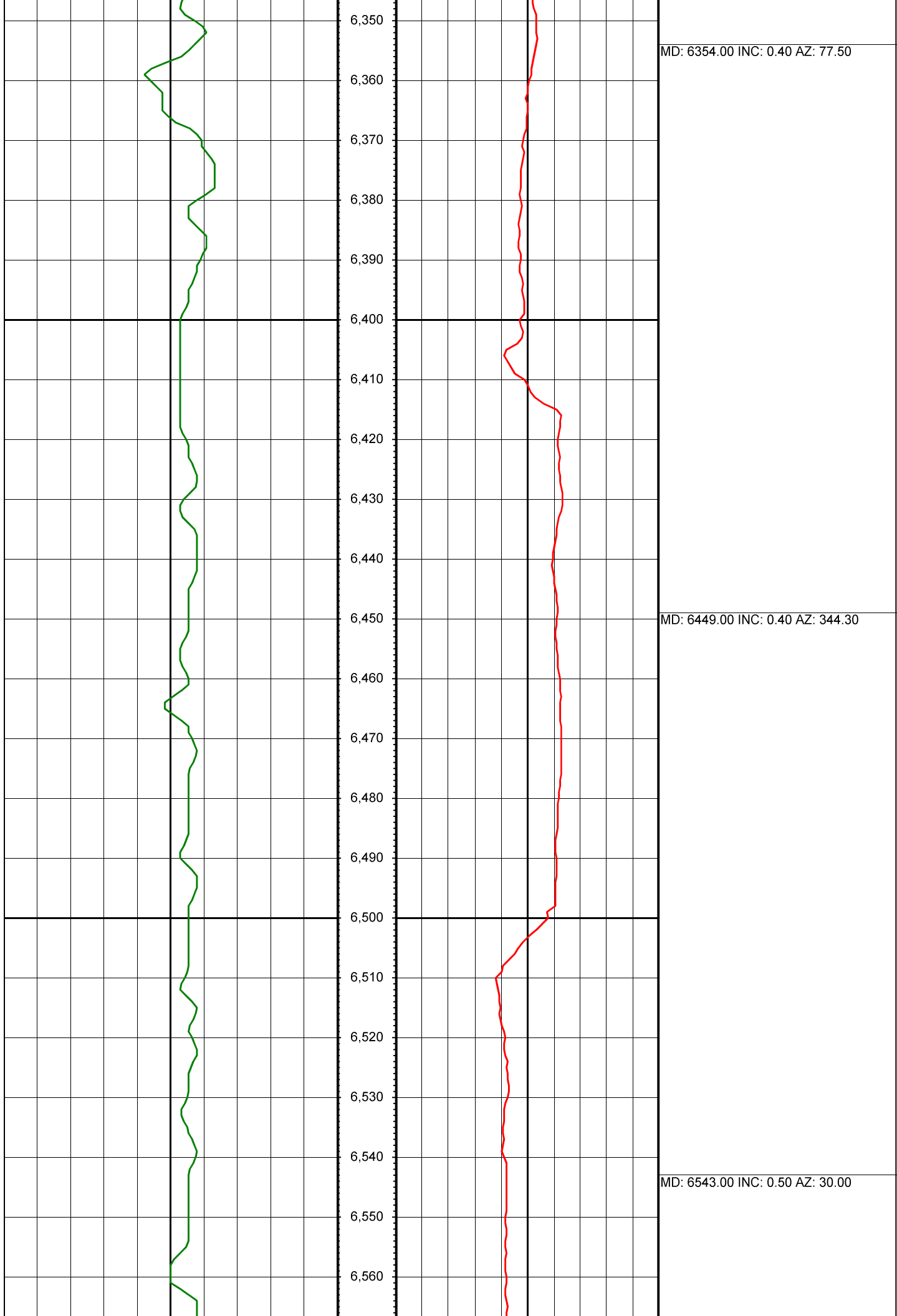


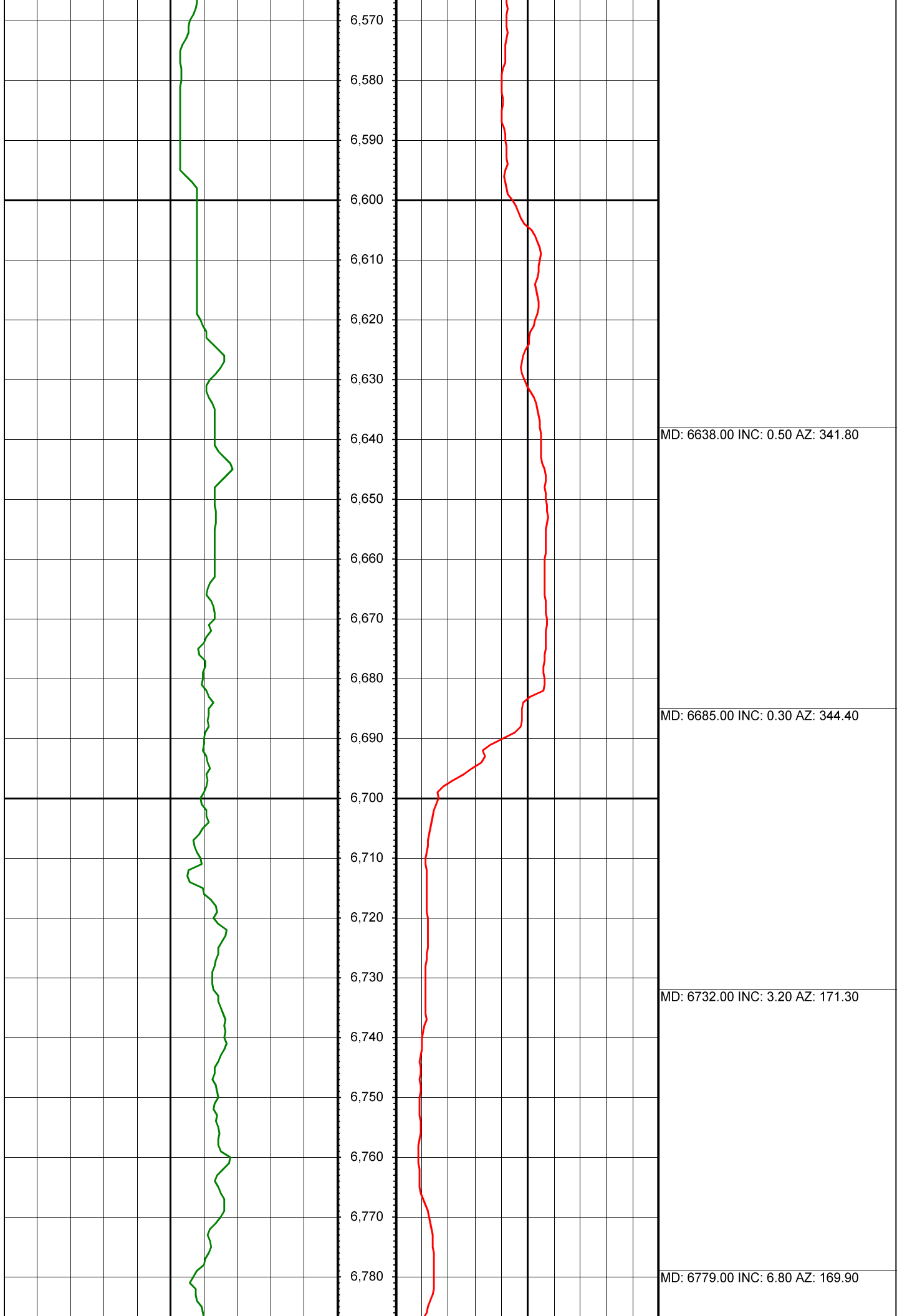


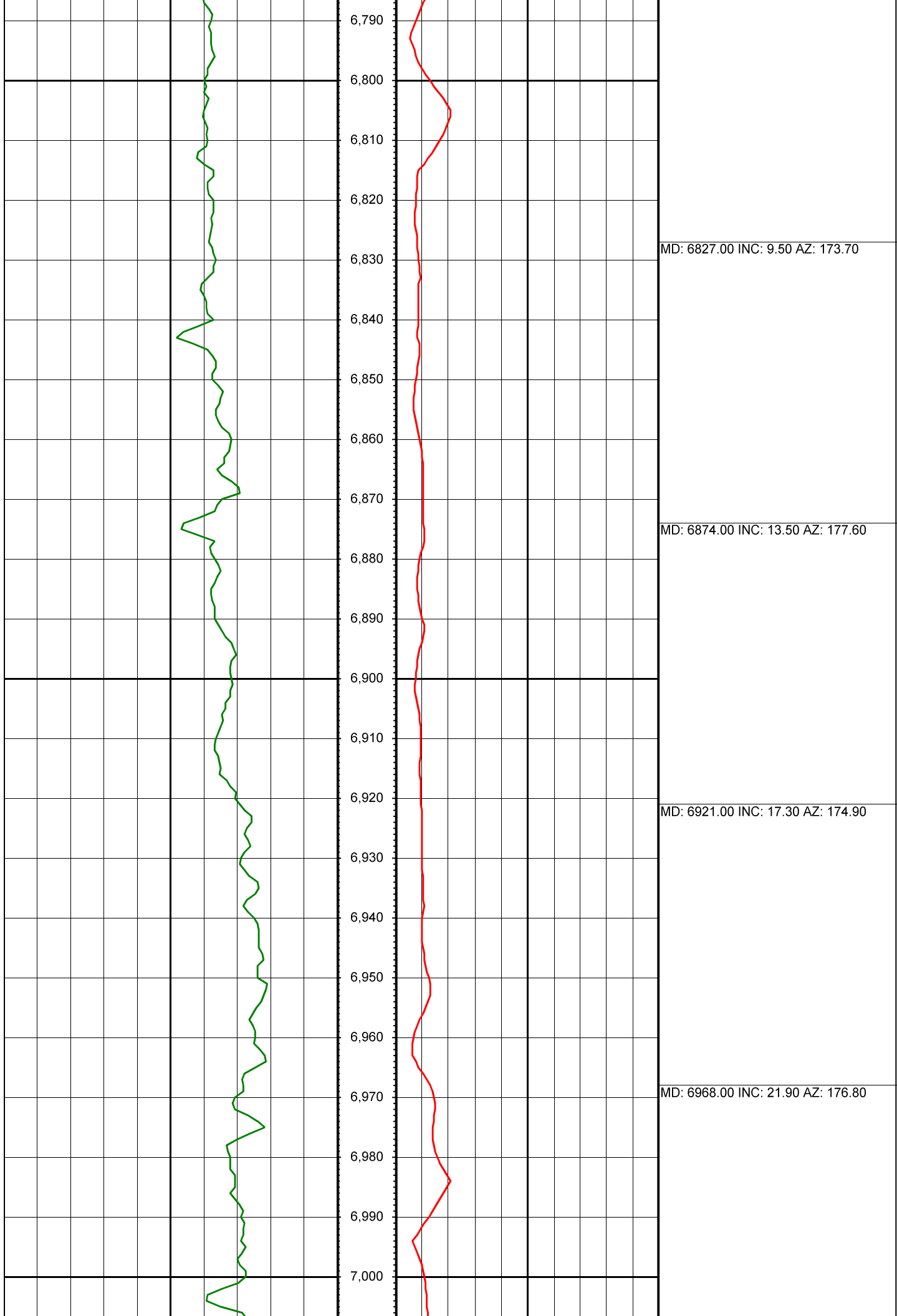


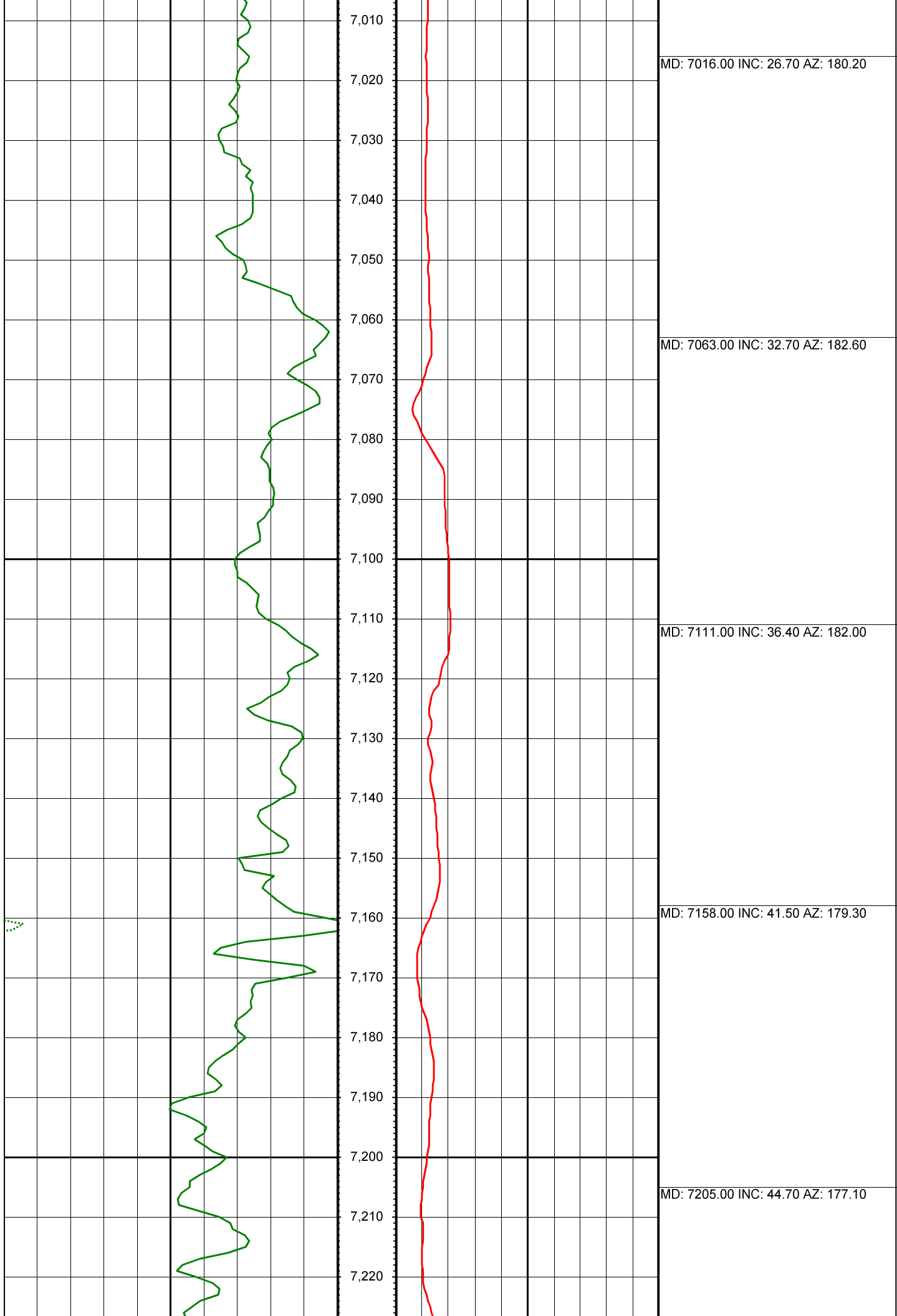


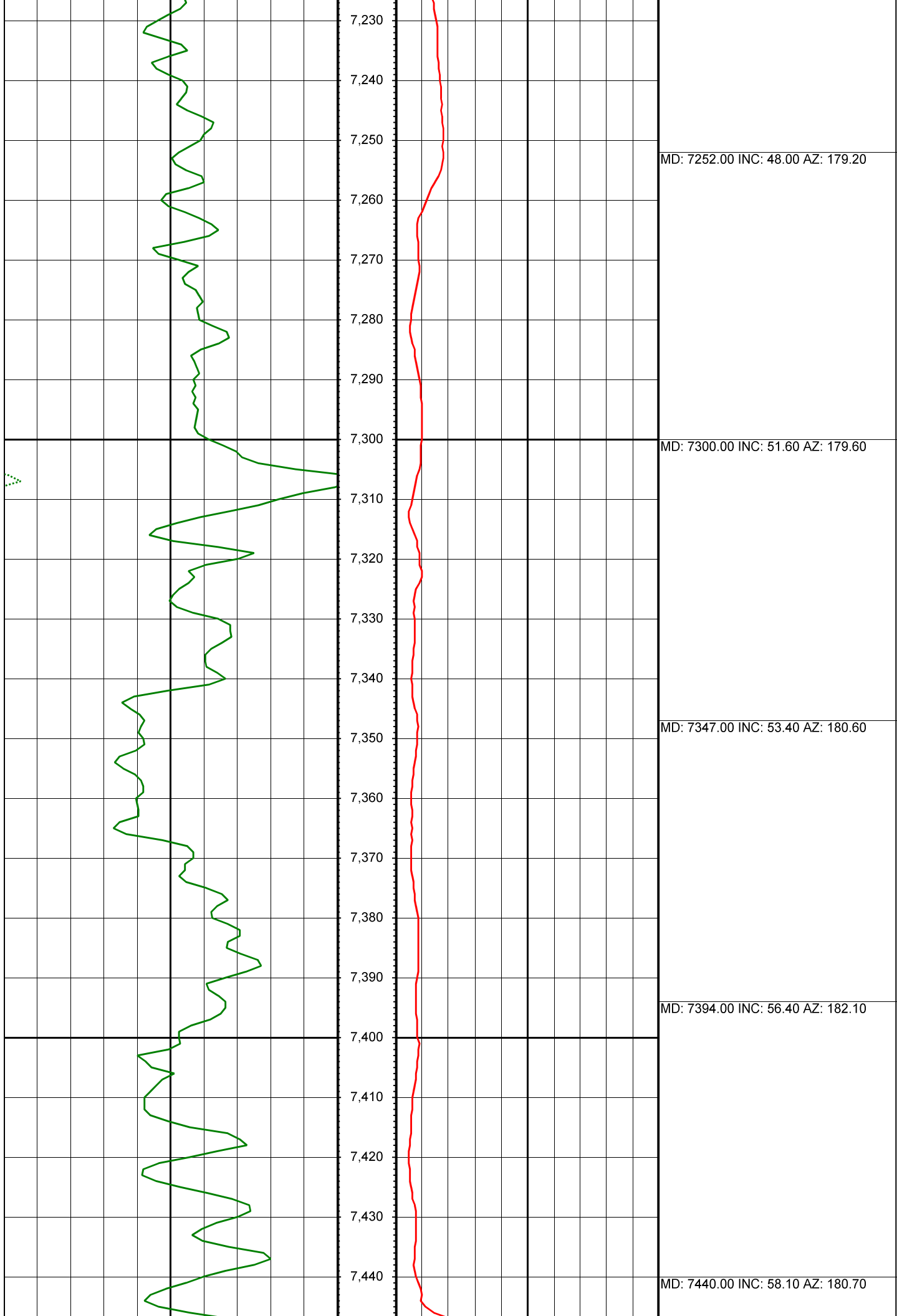


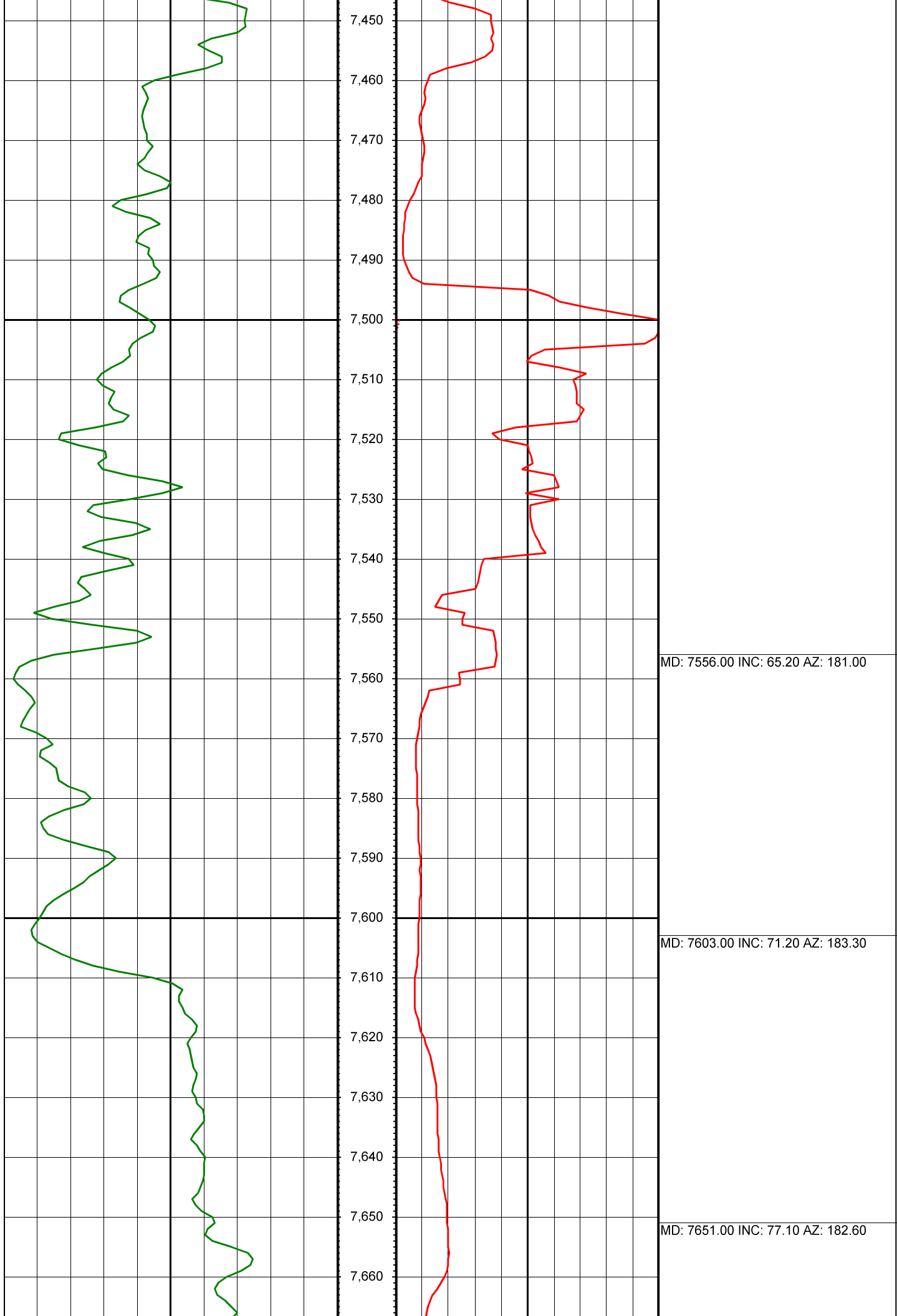


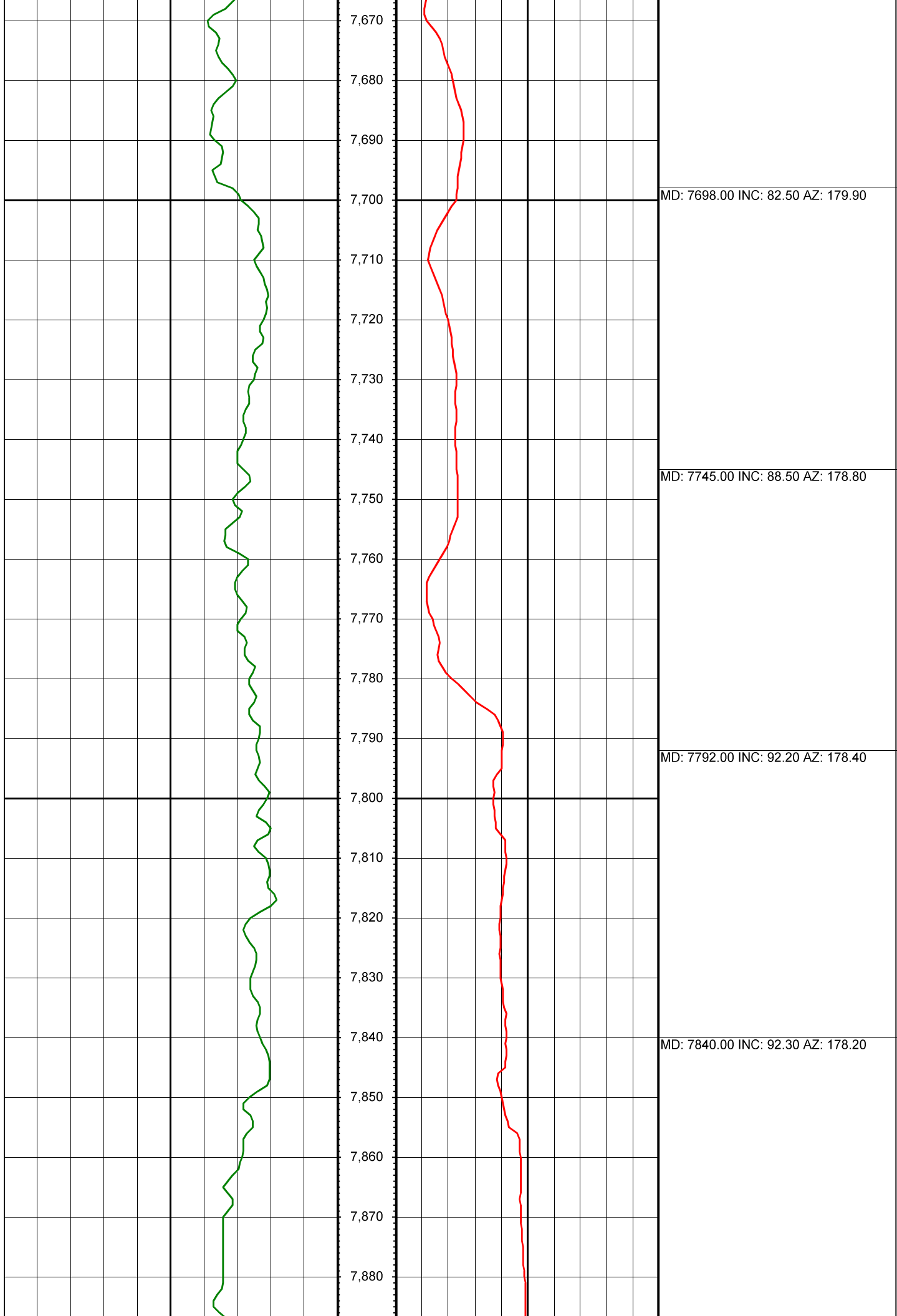


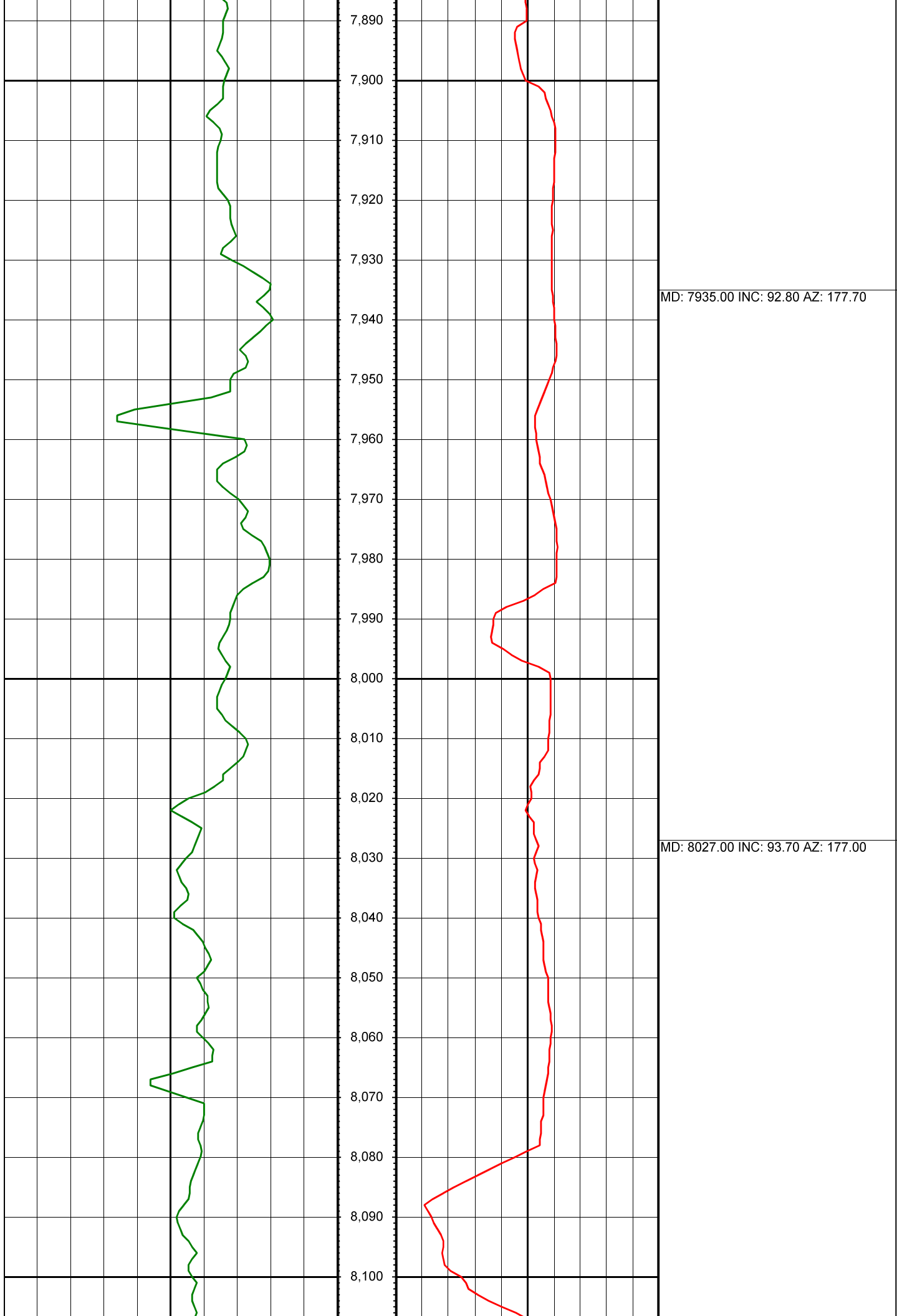


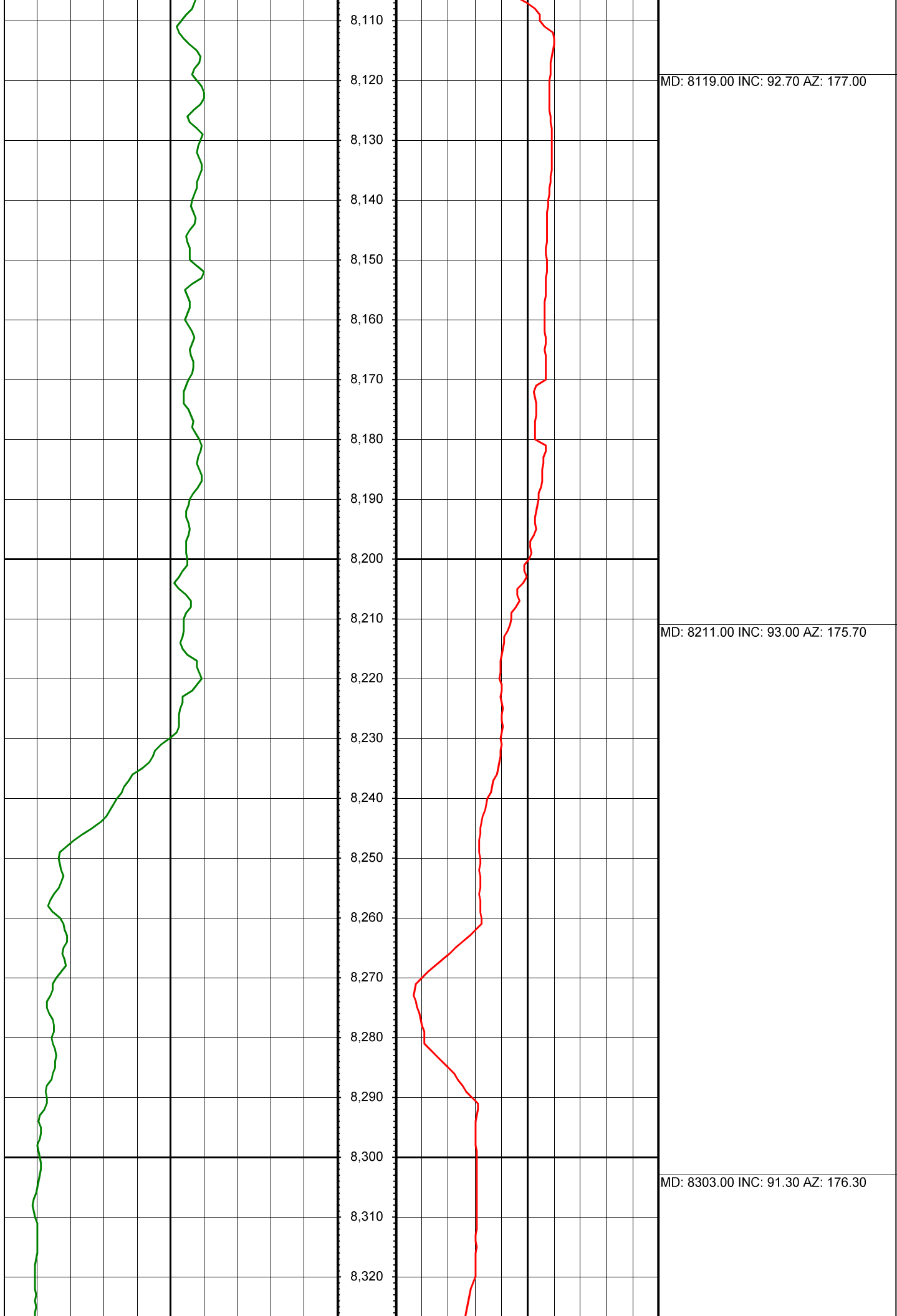


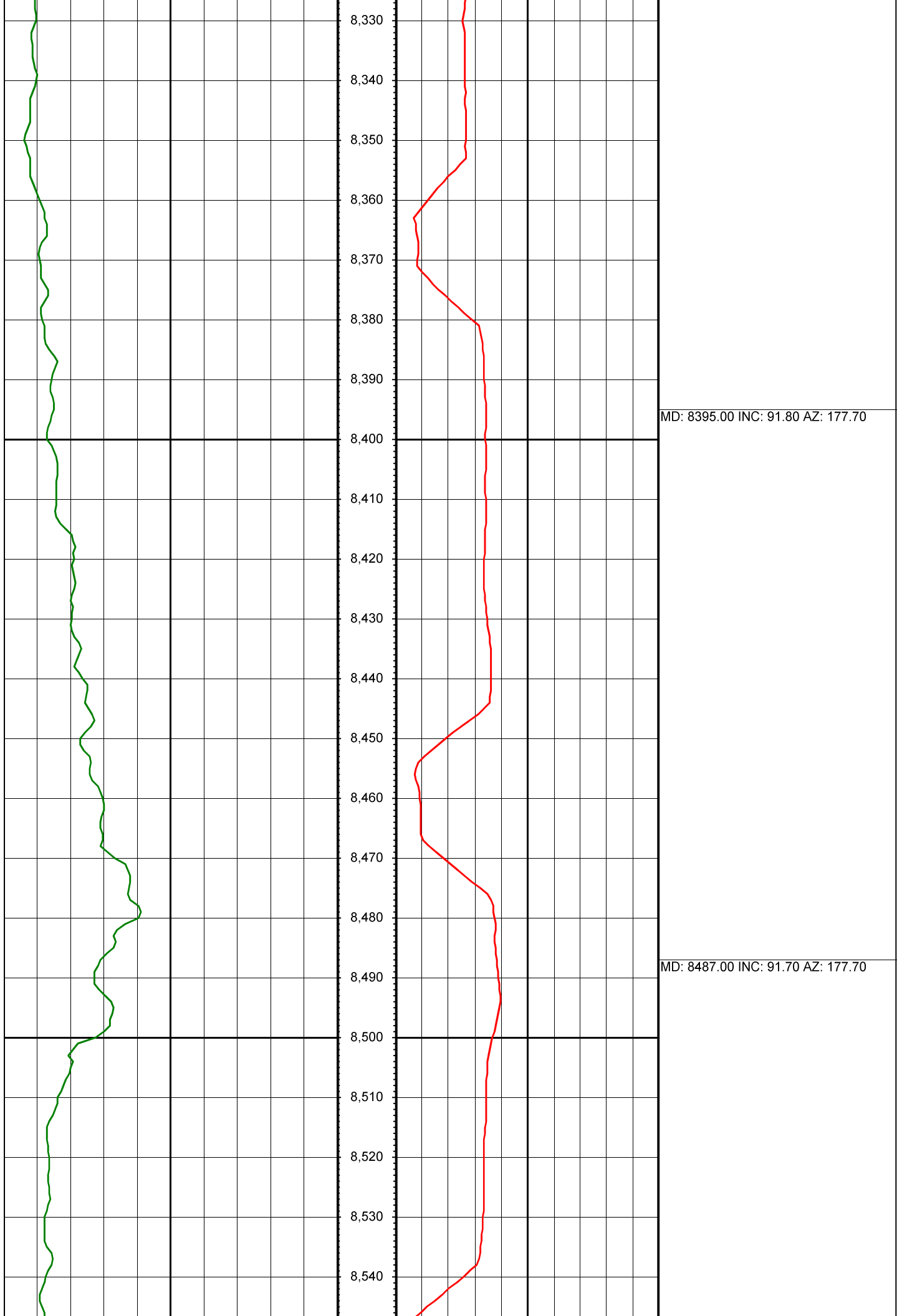


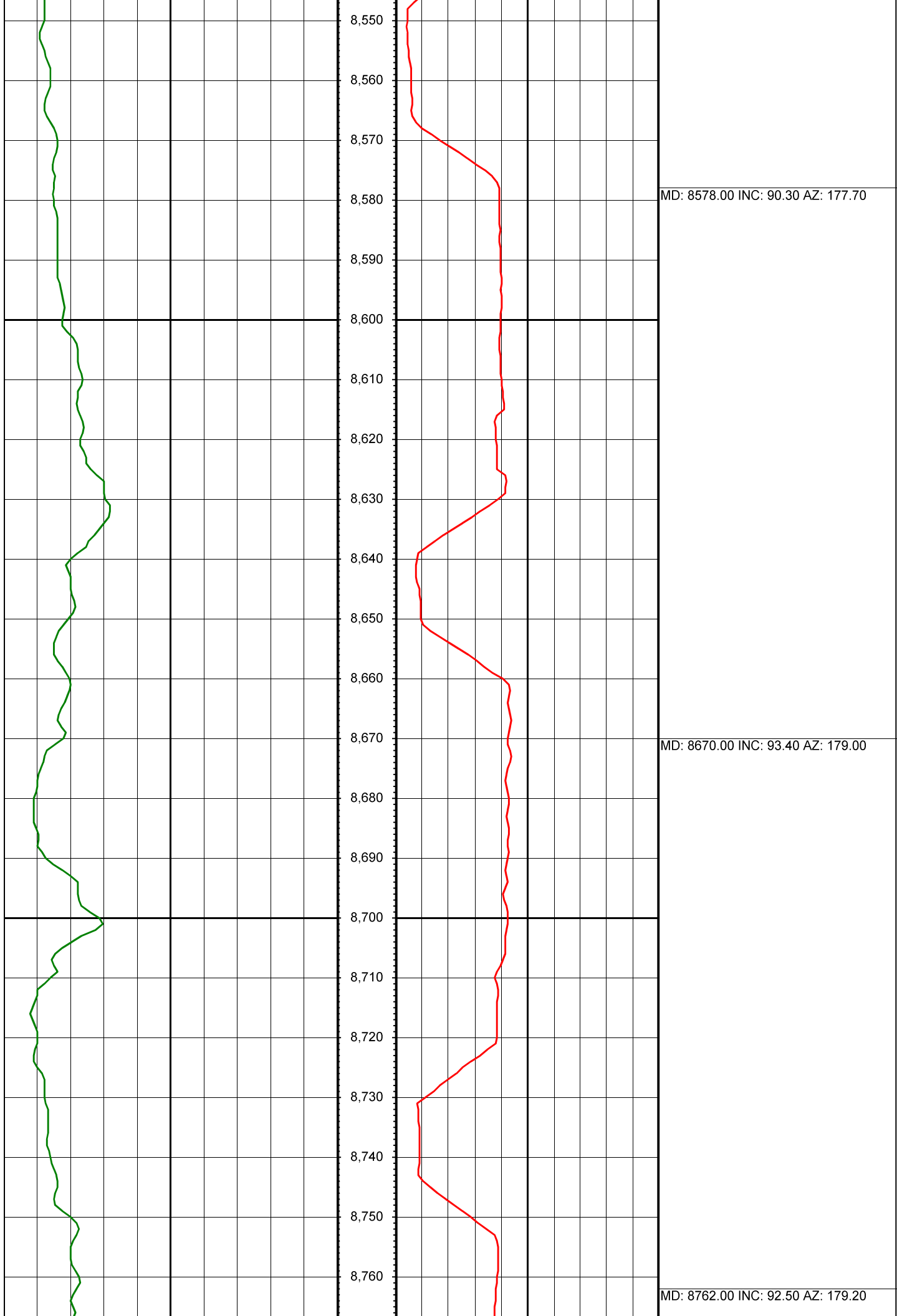








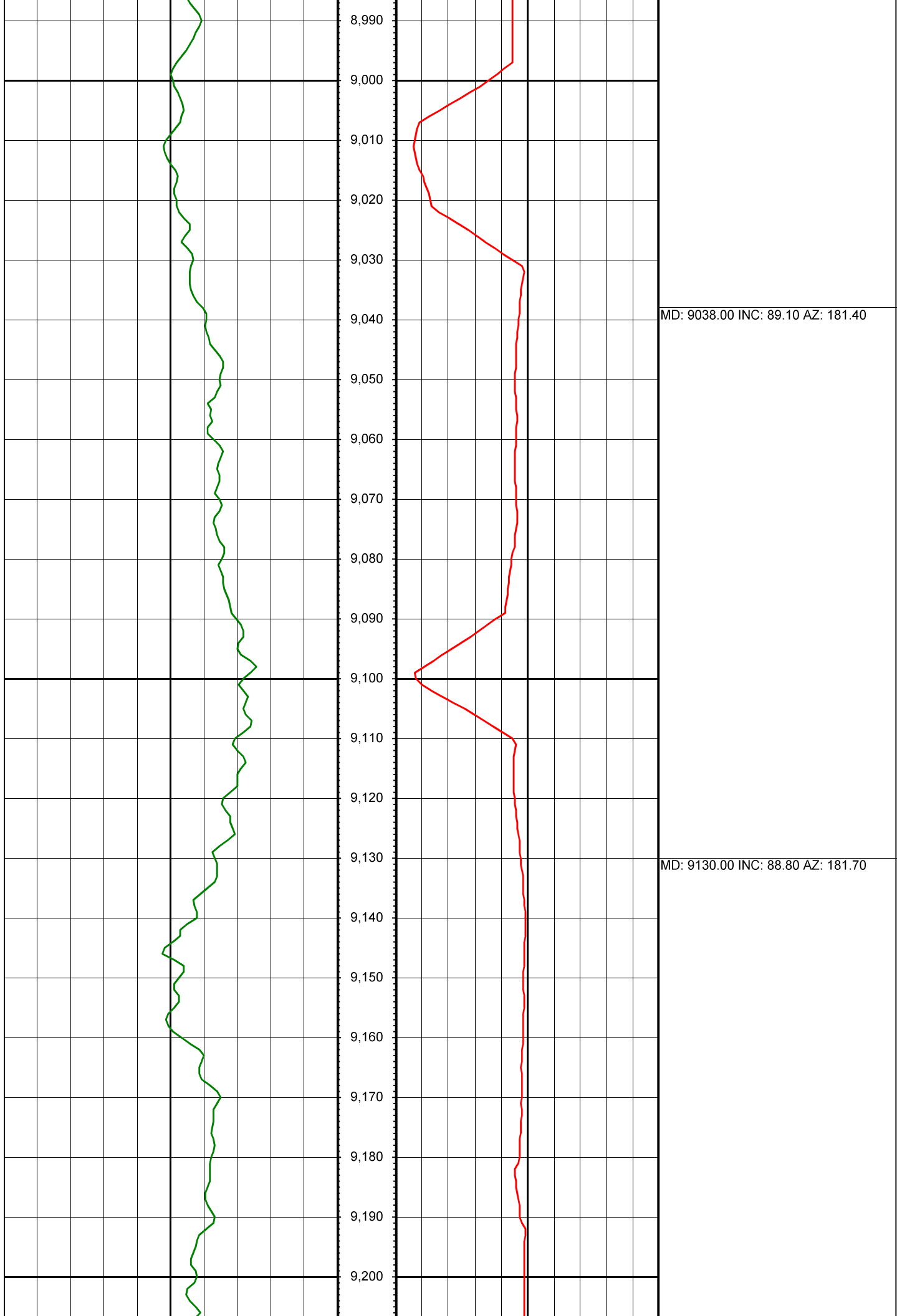


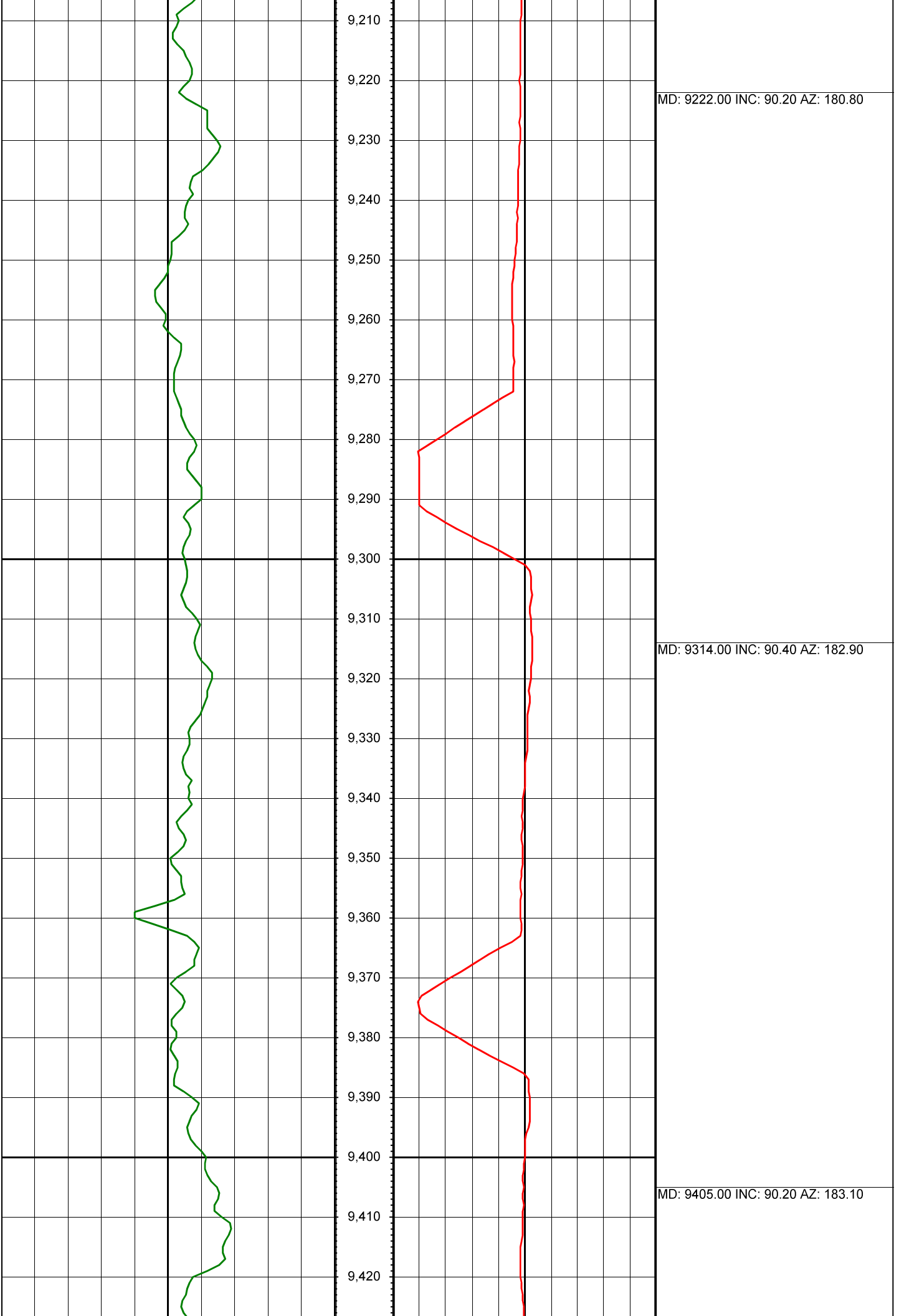


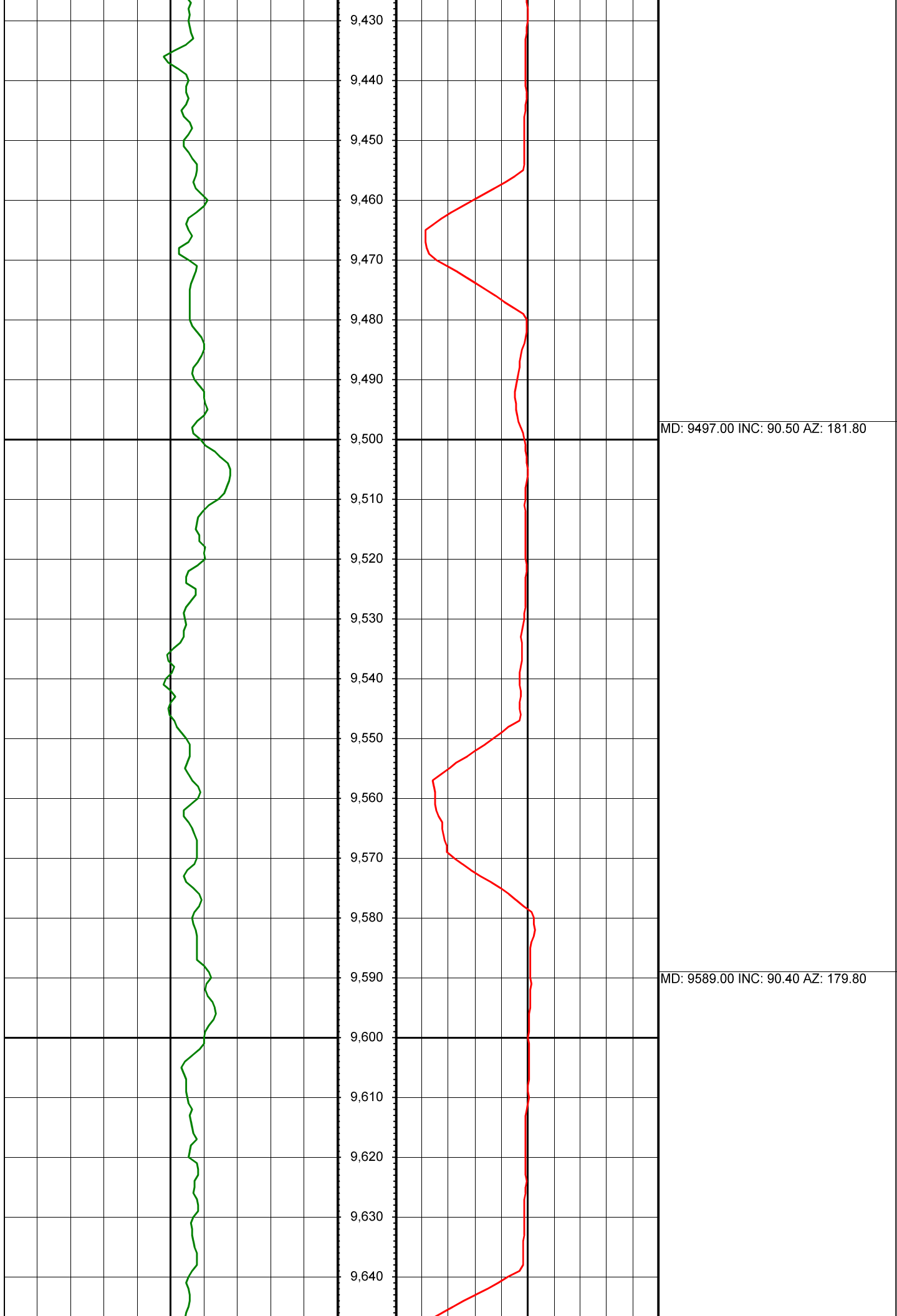


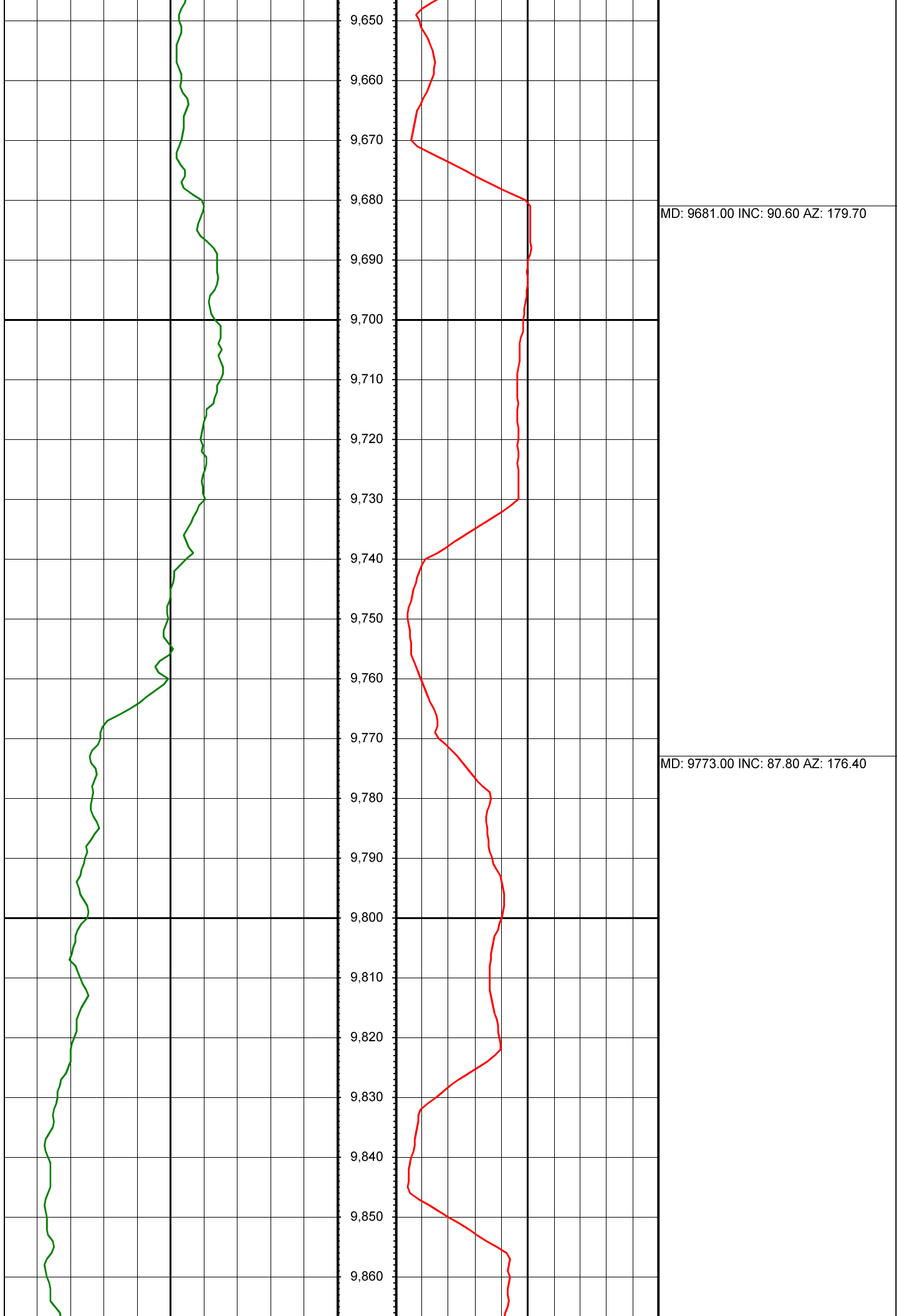
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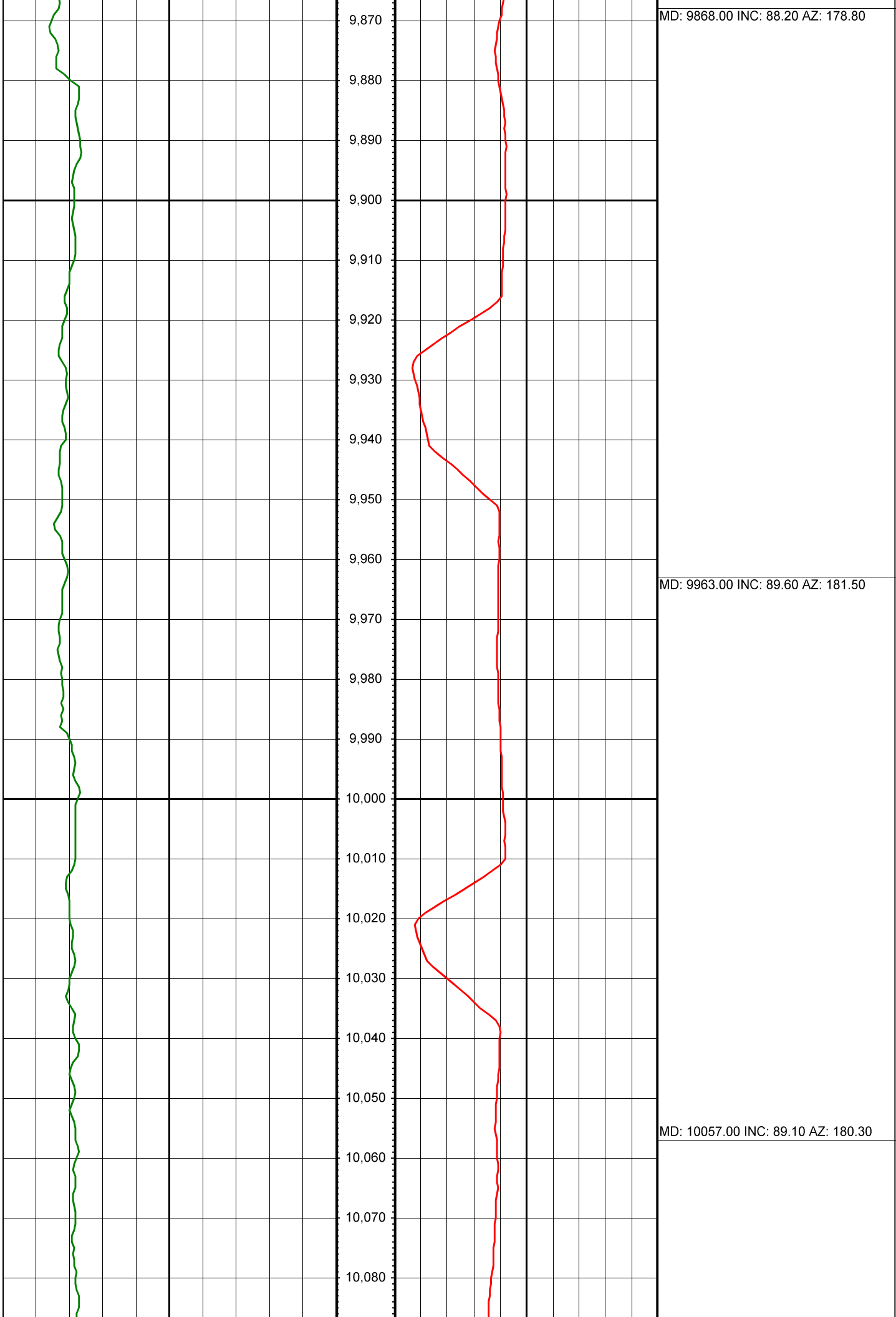
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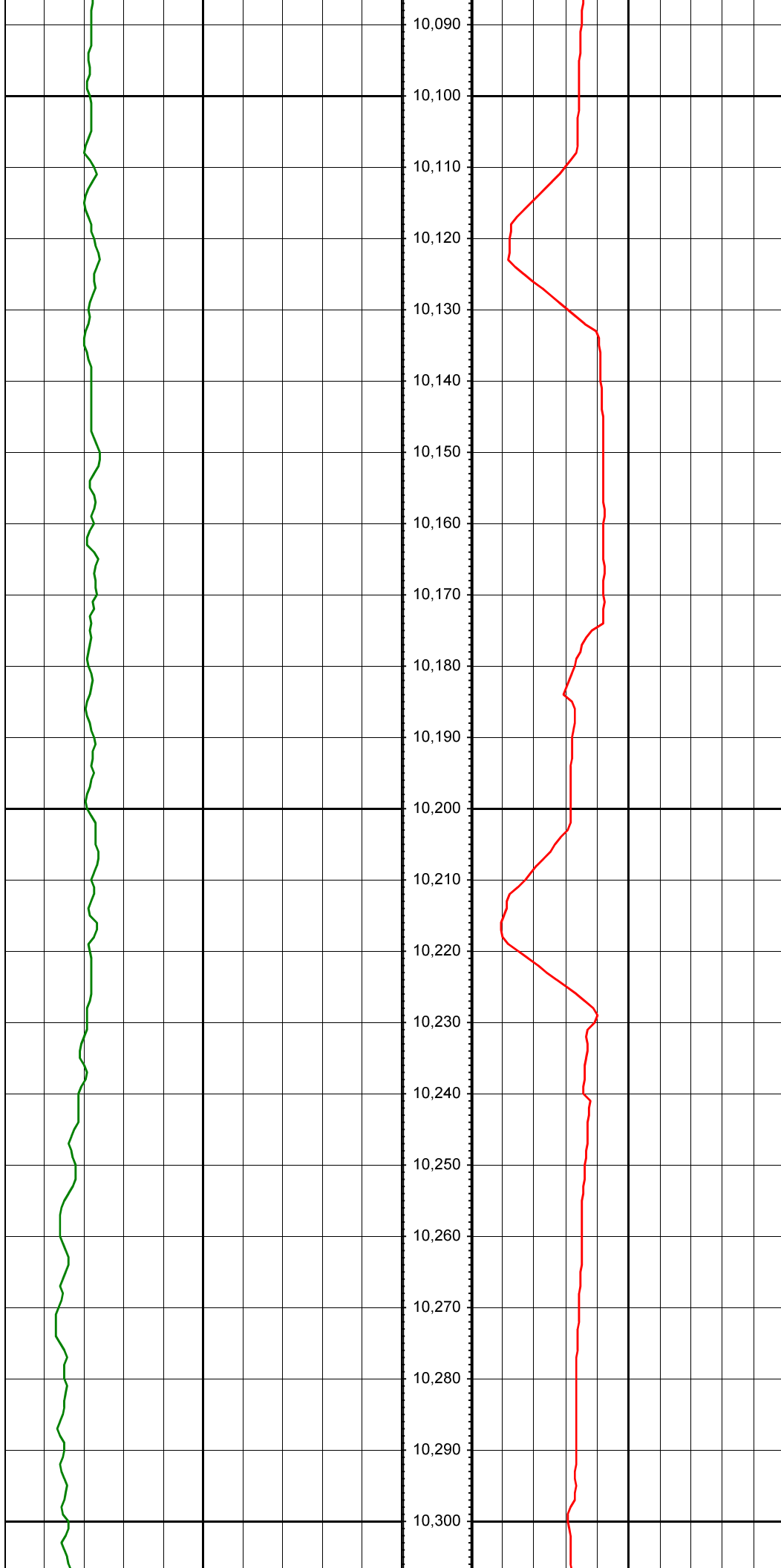






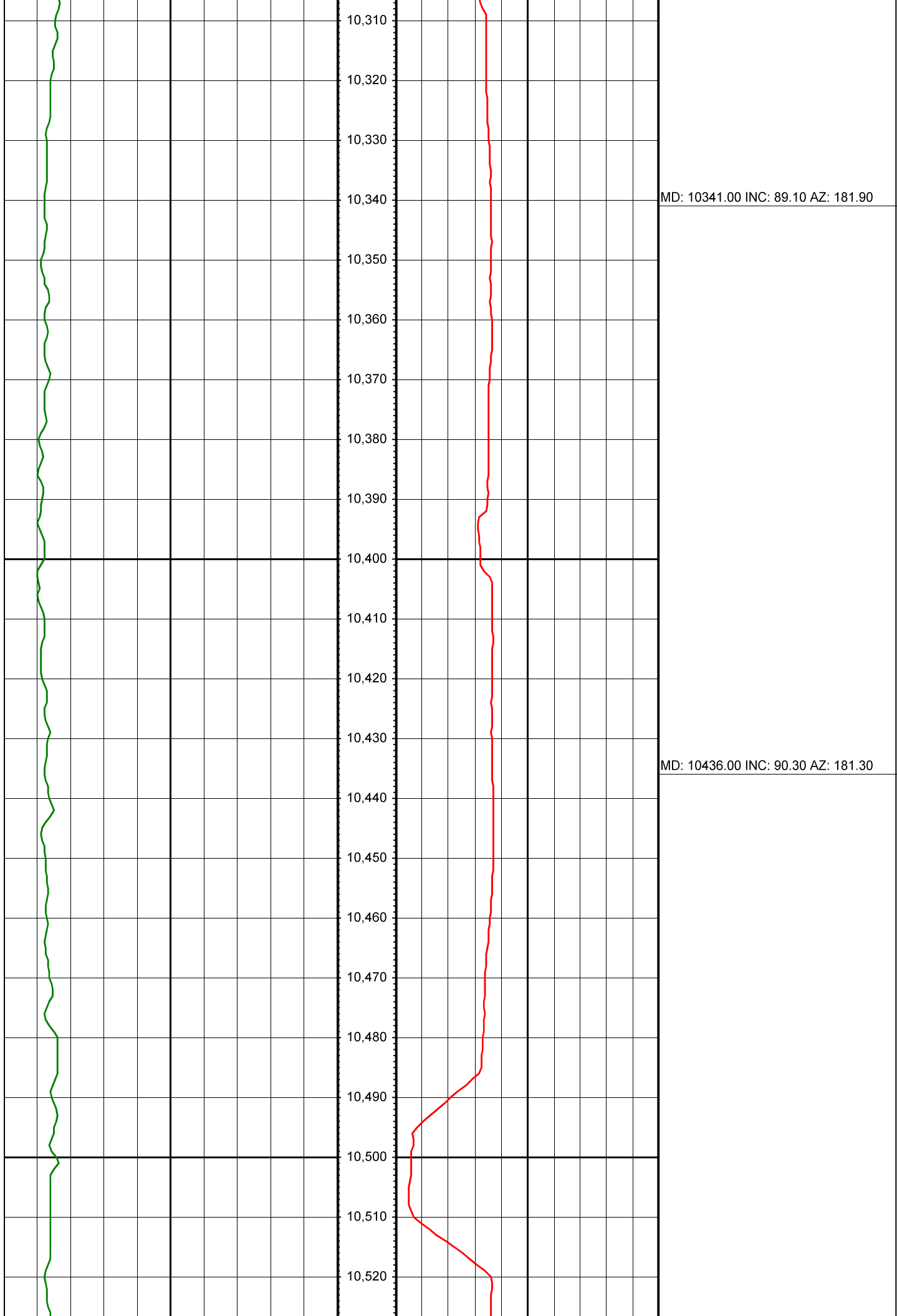


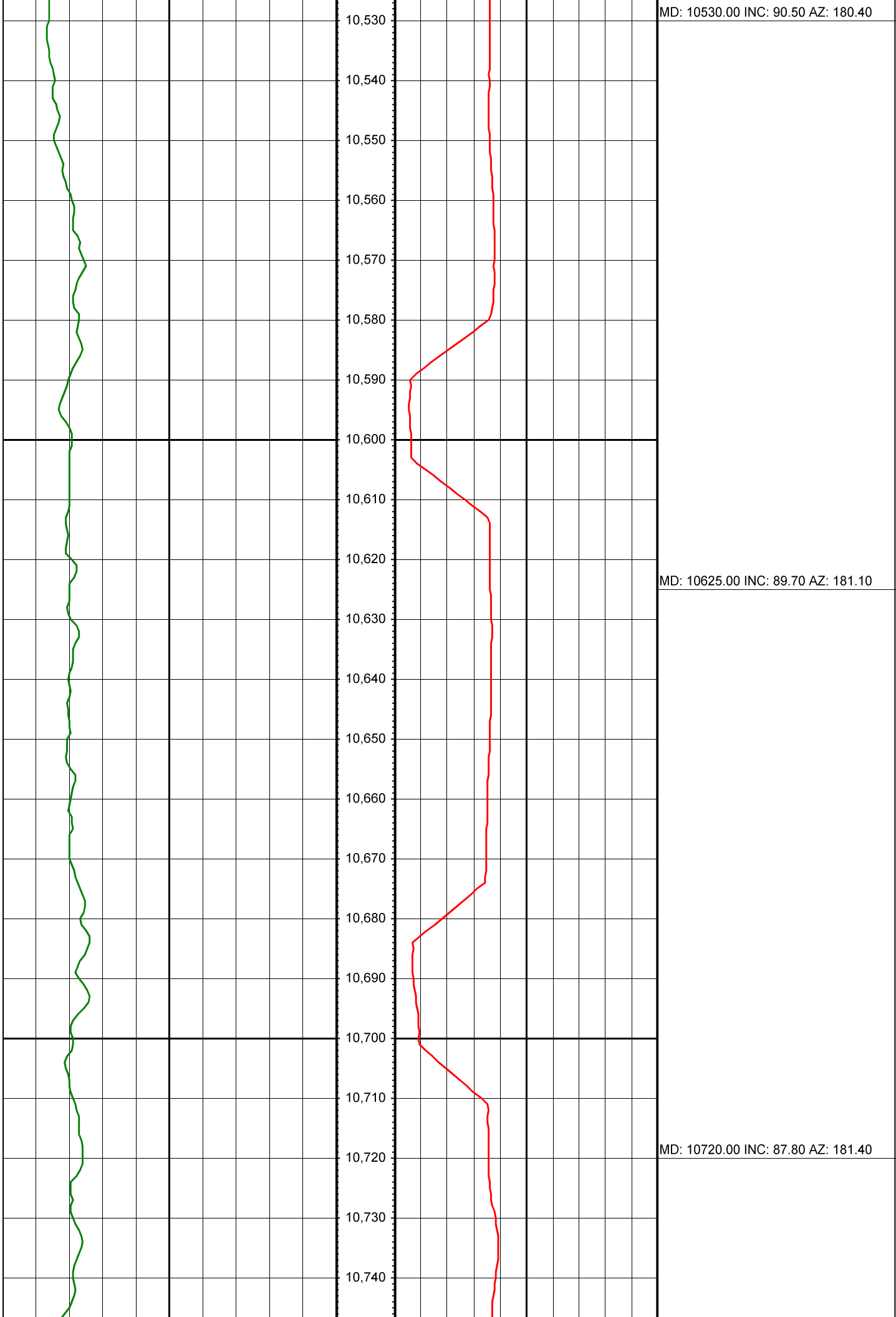


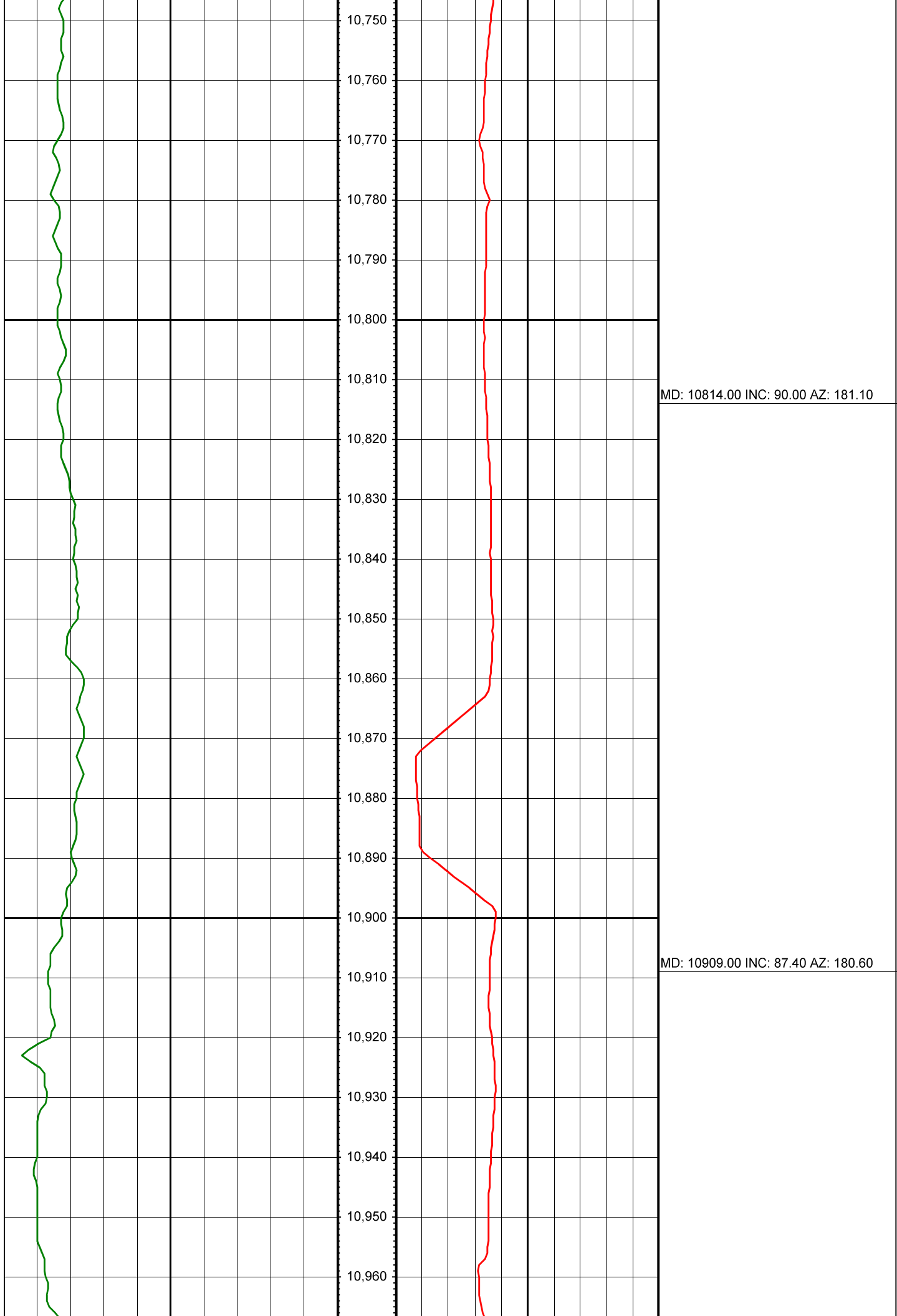


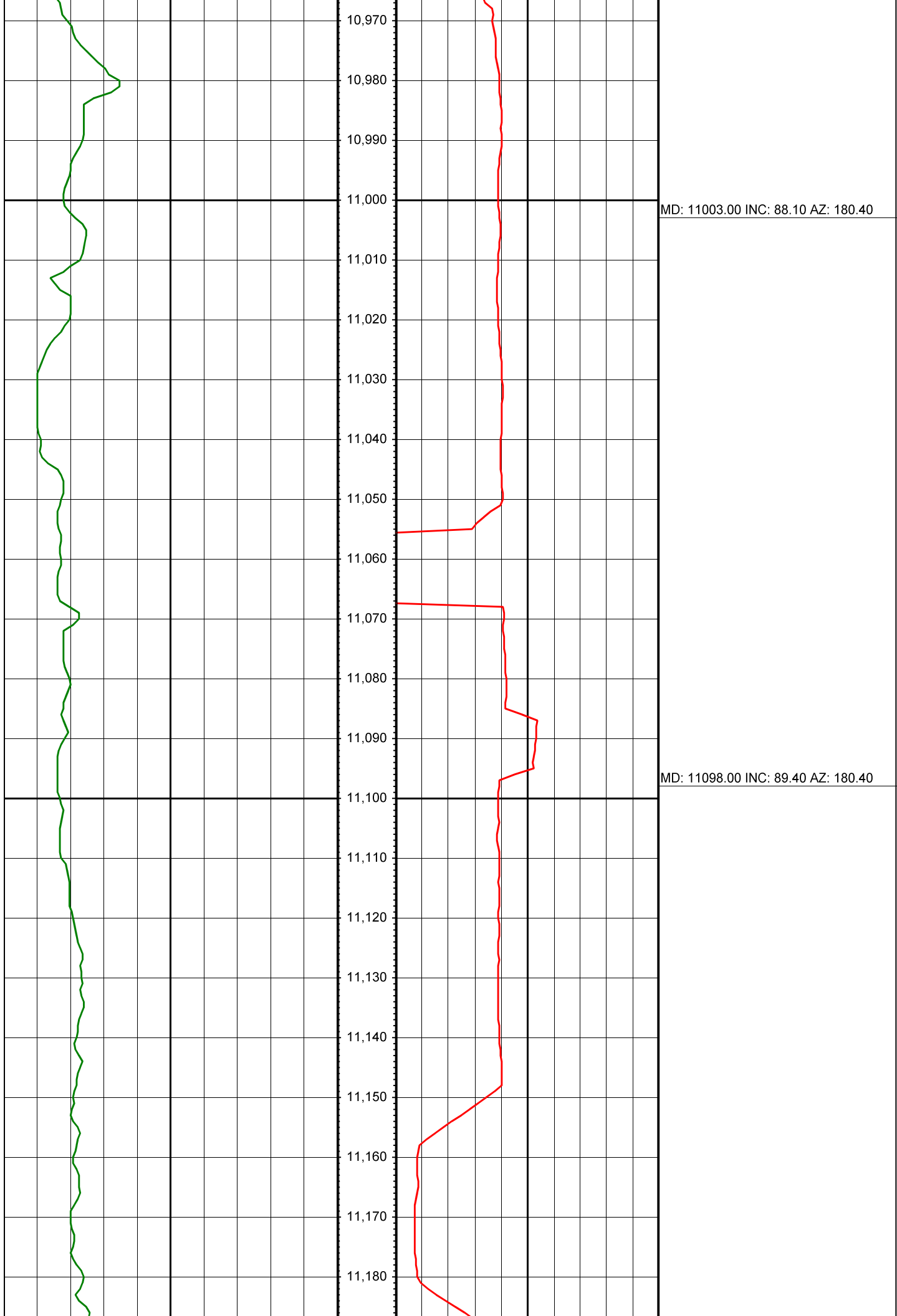
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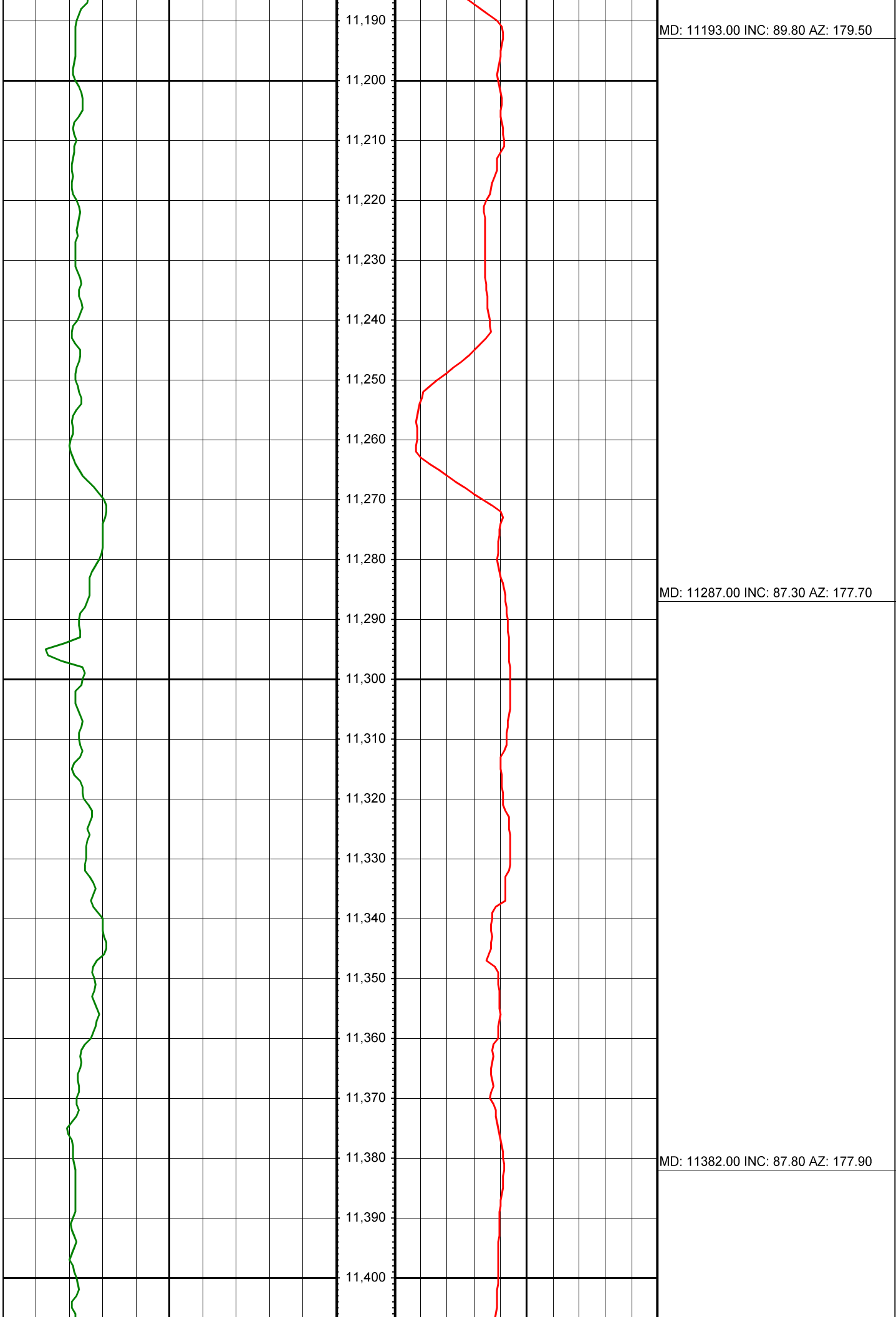
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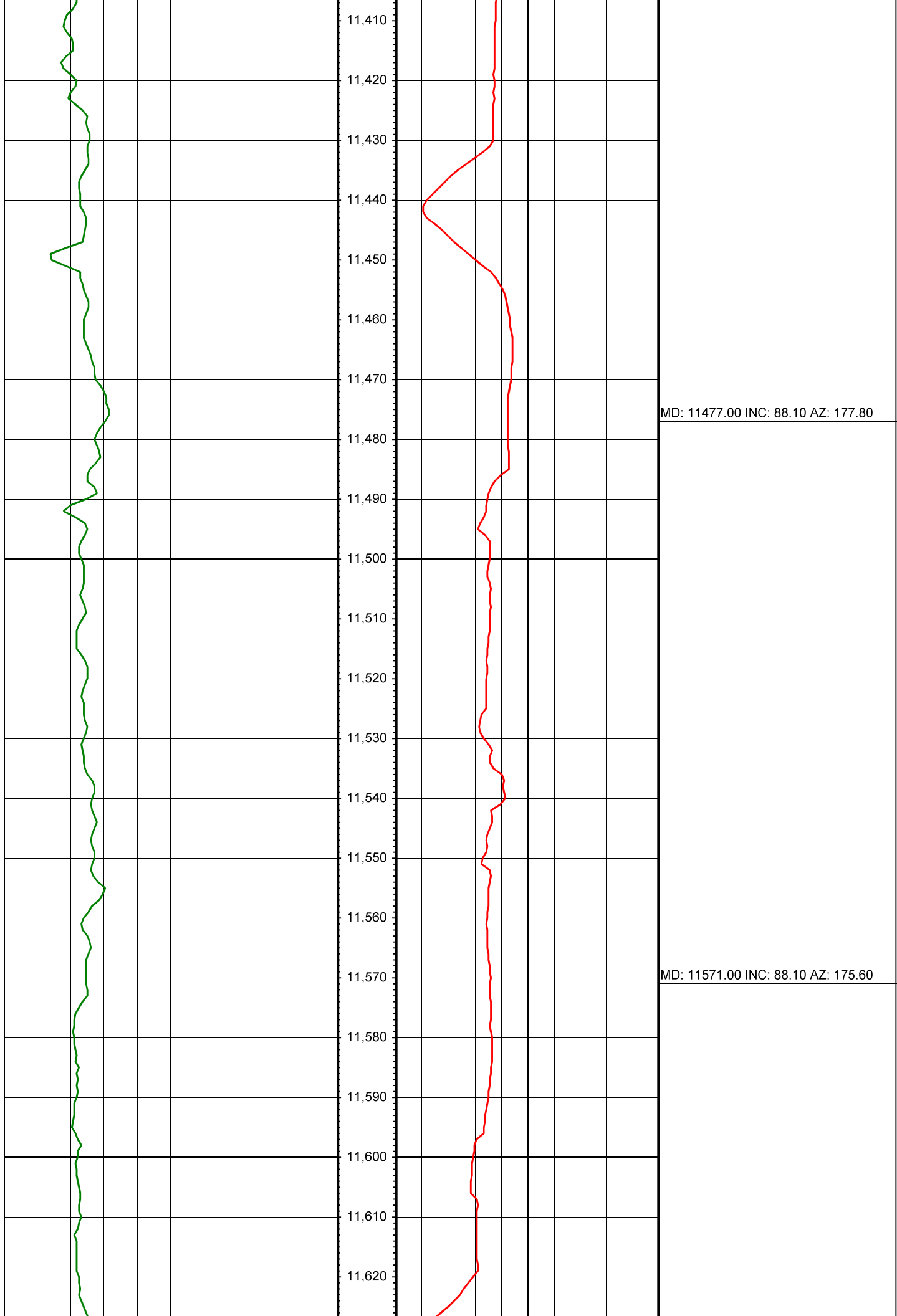


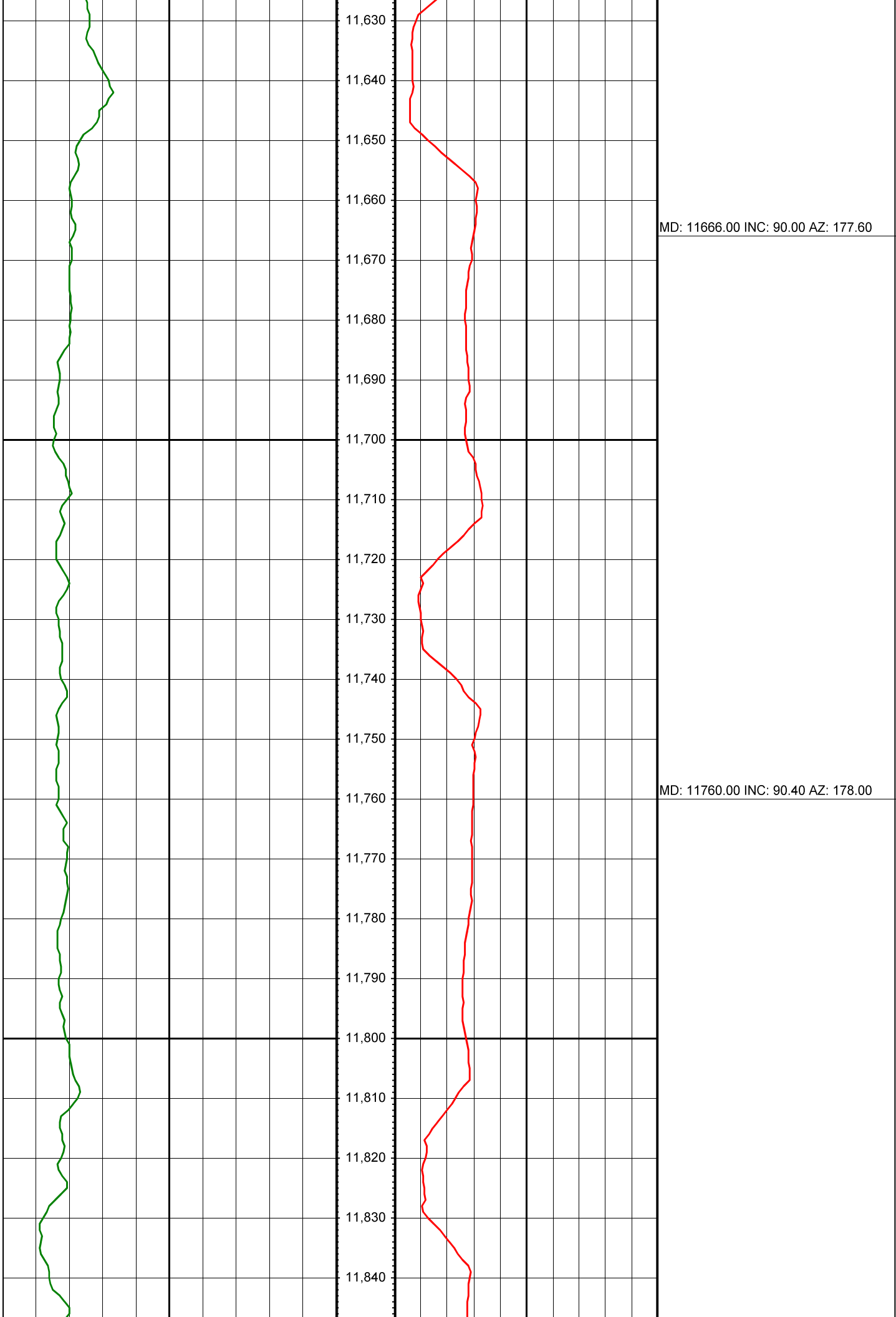


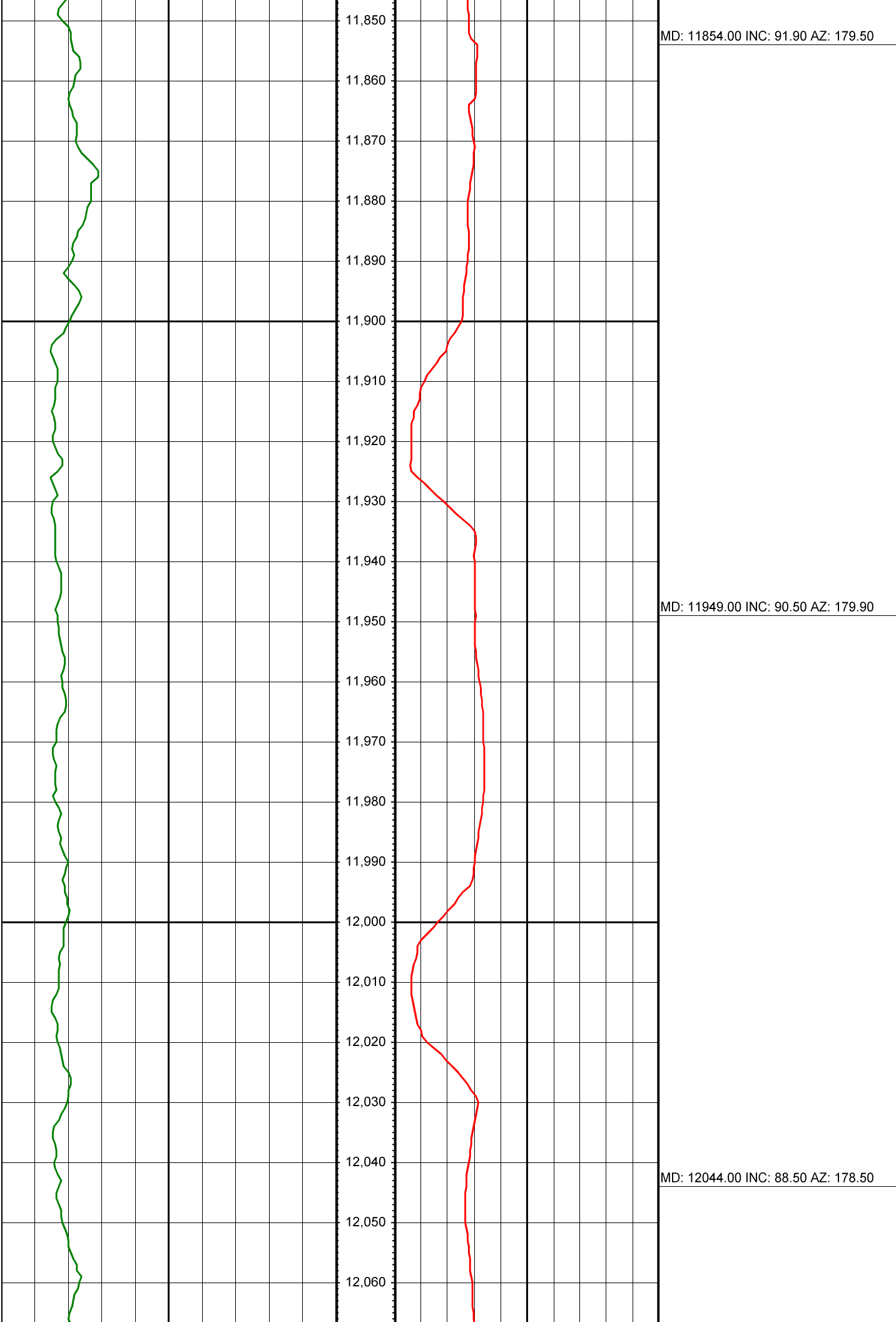








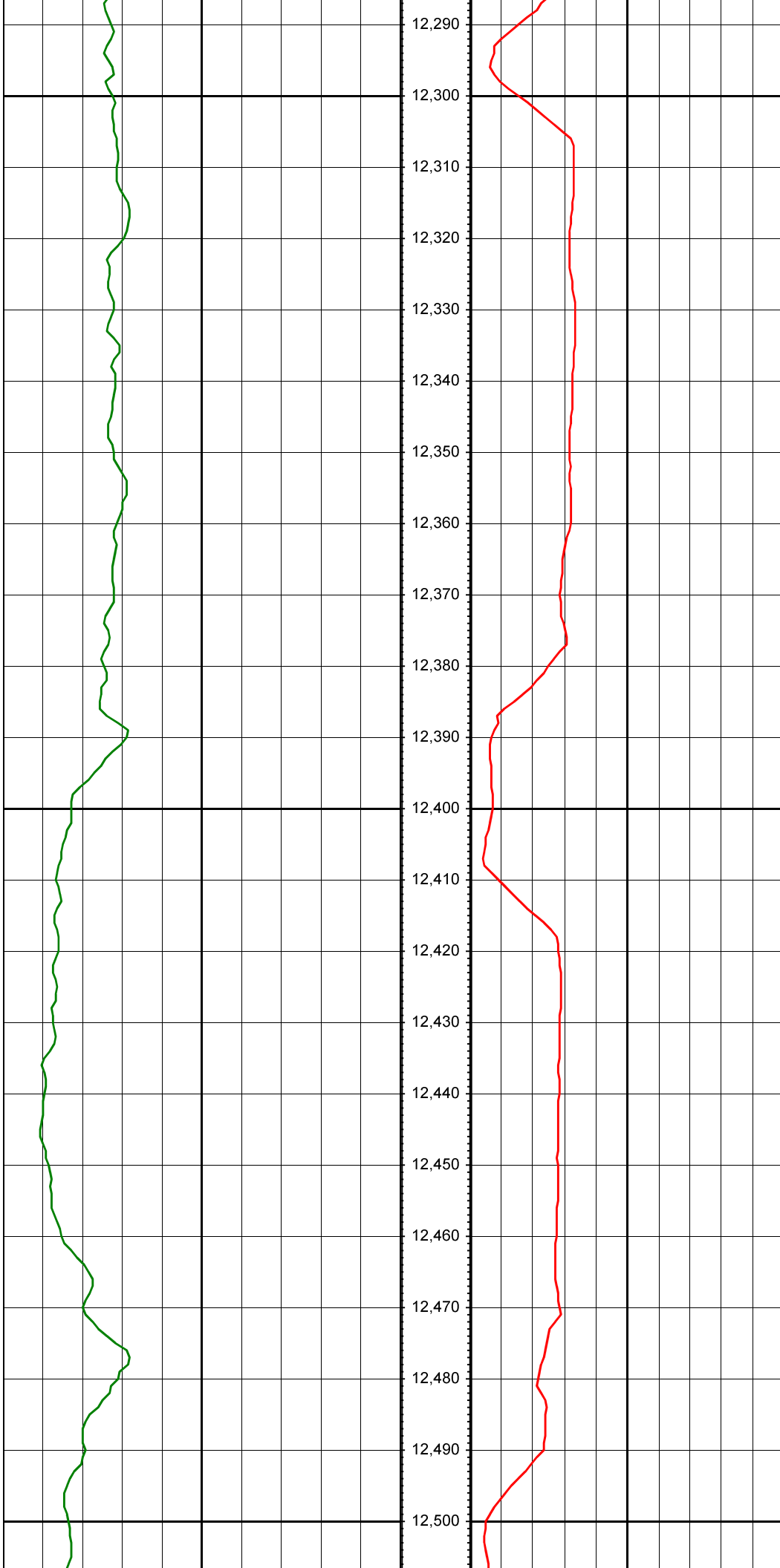






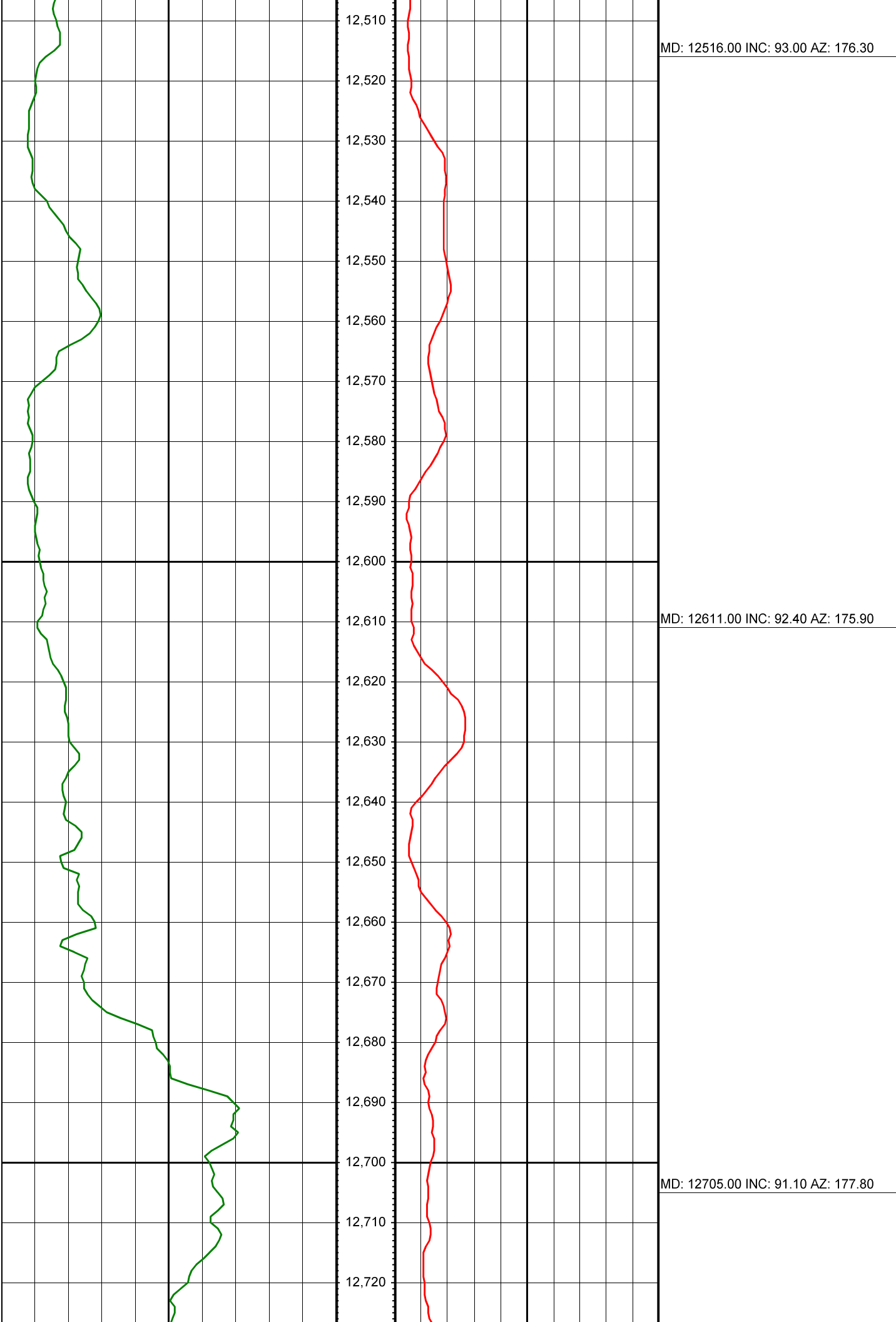
MD: 12138.00 INC: 89.30 AZ: 178.00

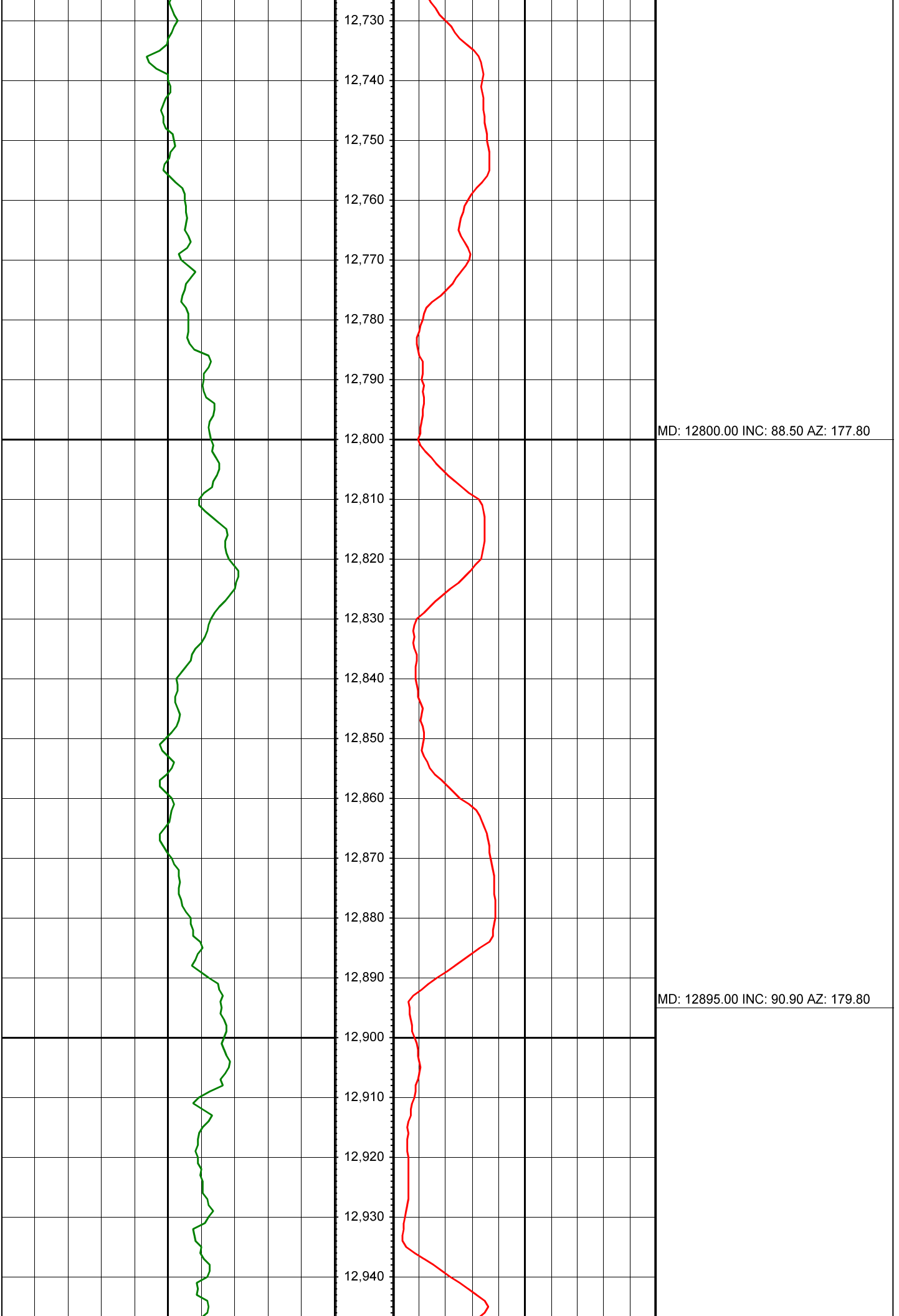
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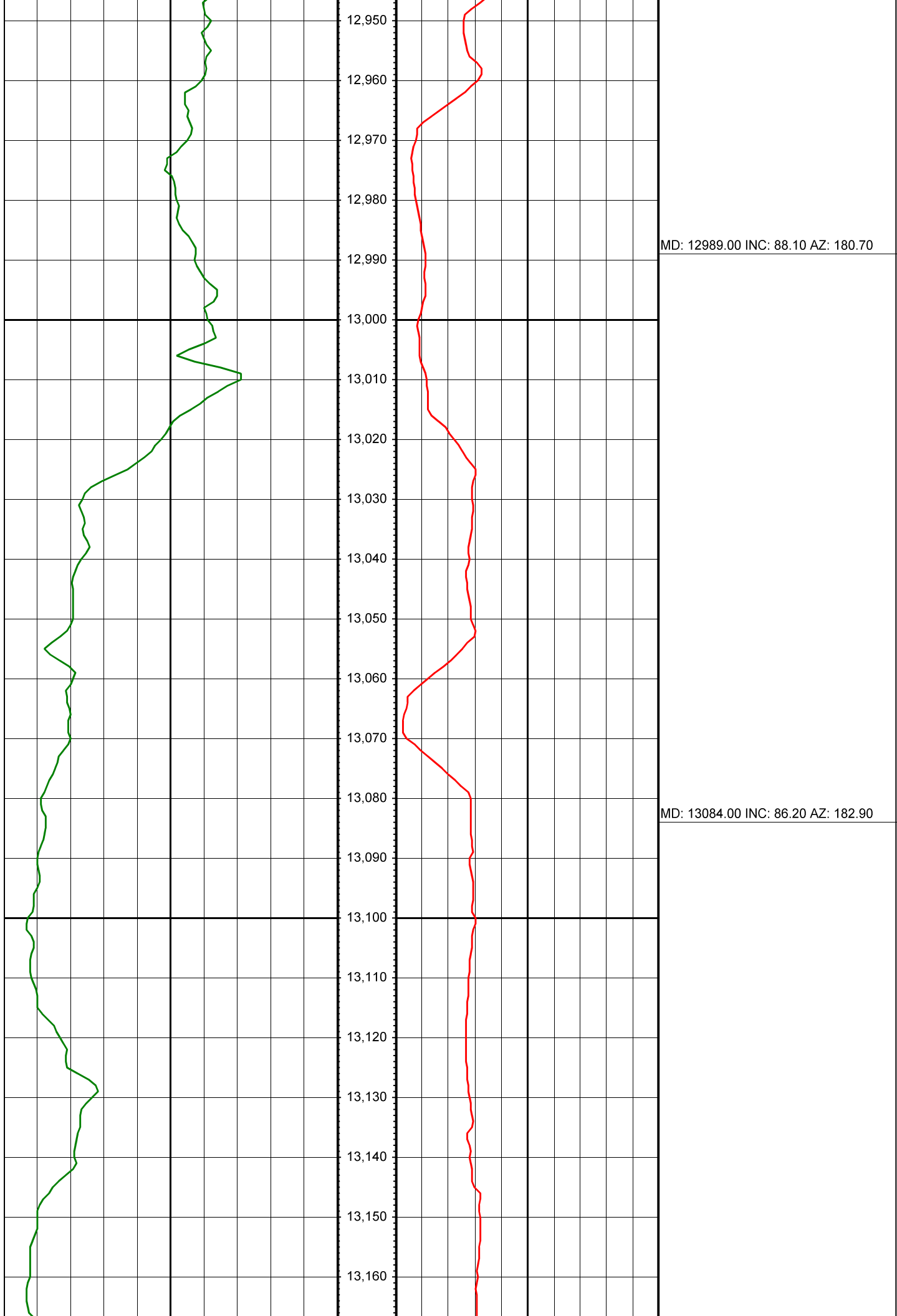


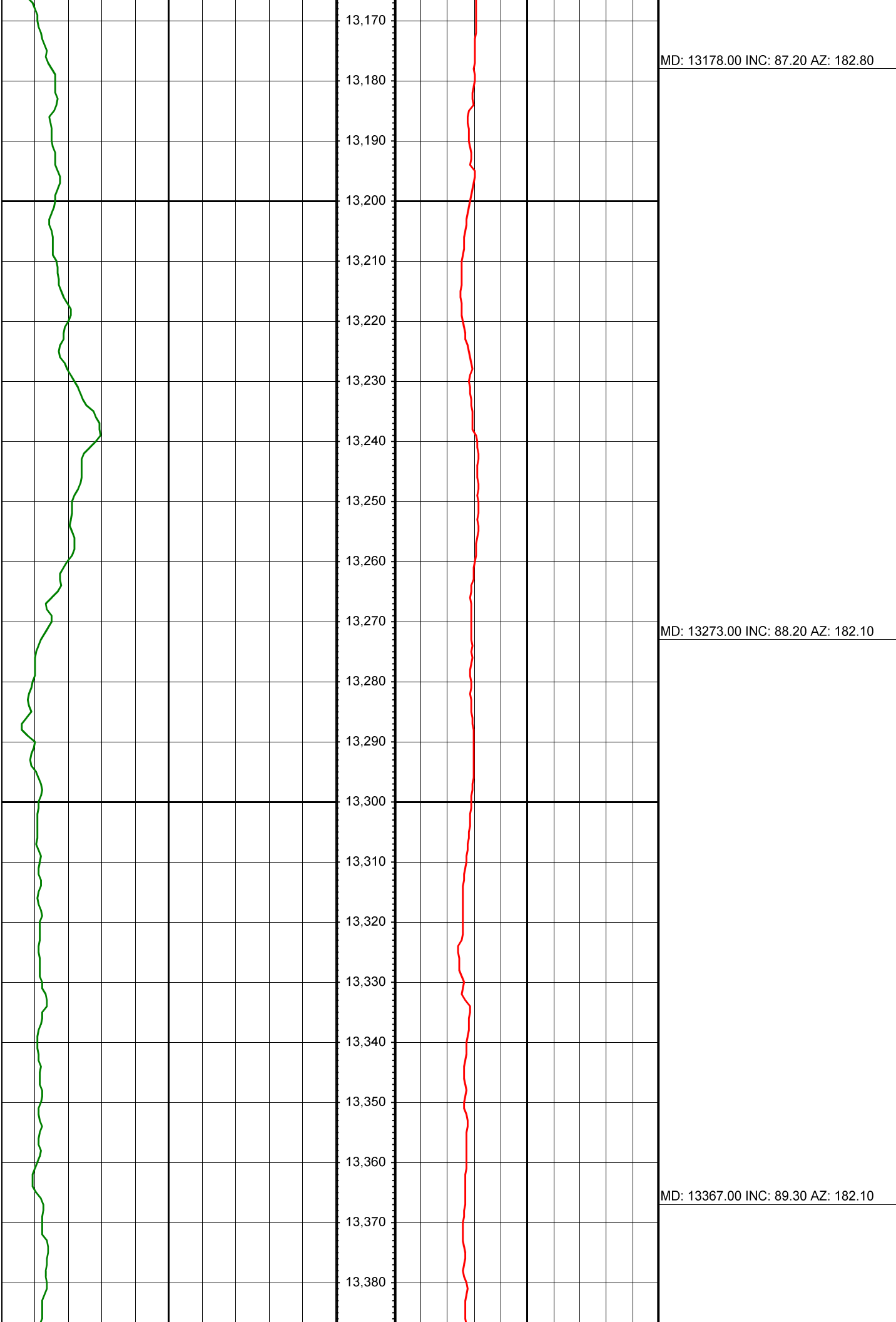
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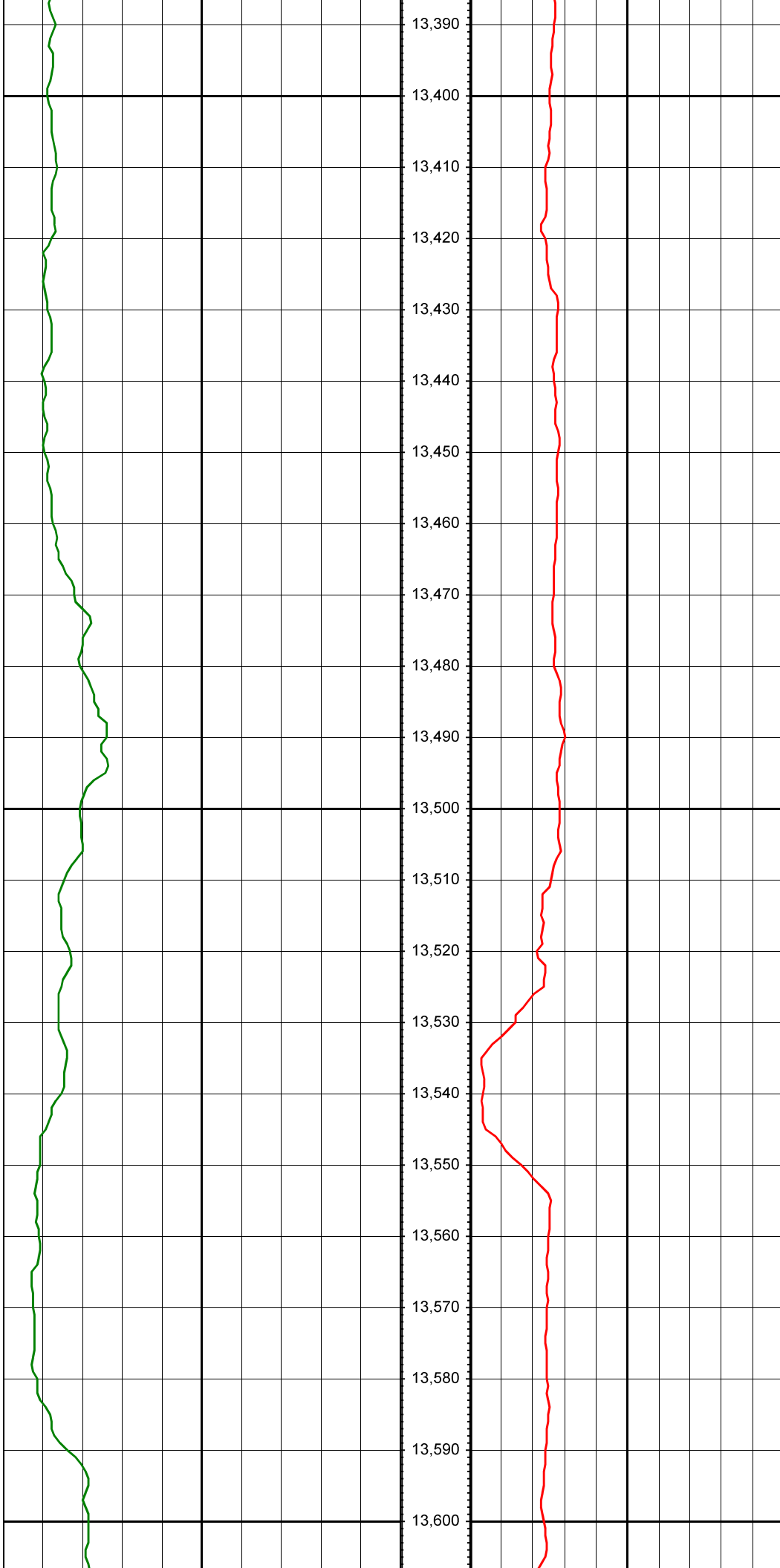
MD: 12422.00 INC: 91.80 AZ: 175.20





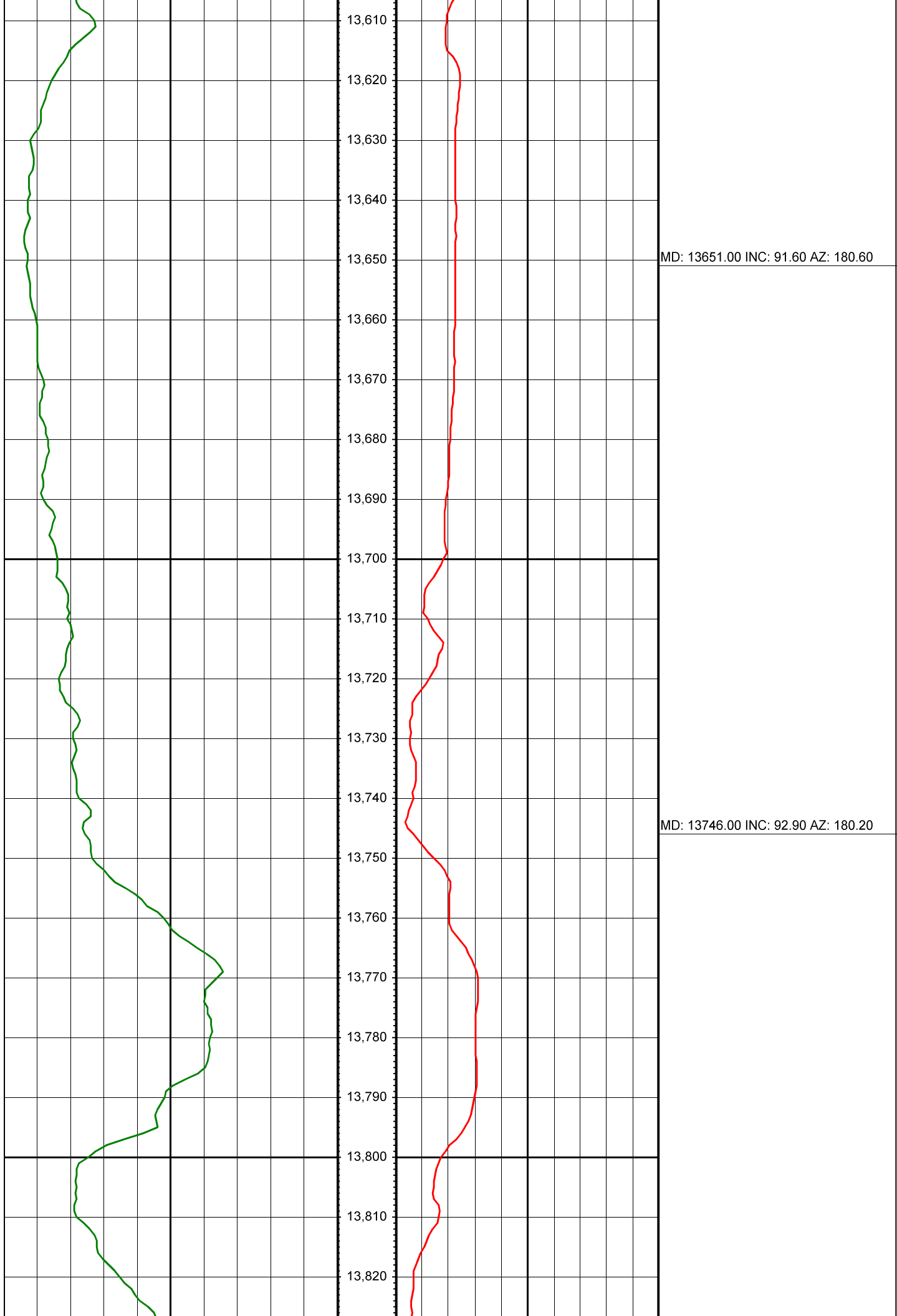


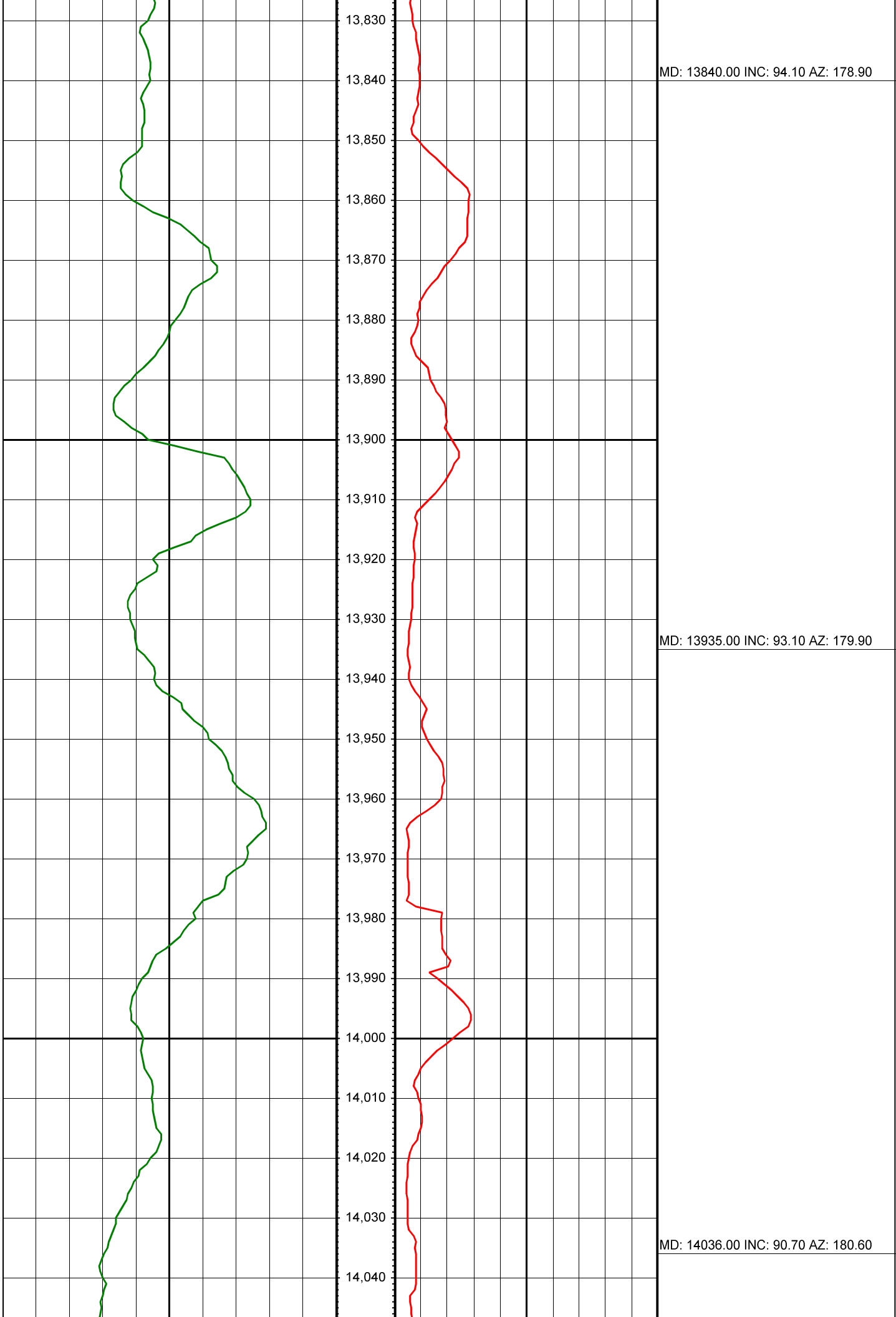




MD: 13462.00 INC: 90.90 AZ: 181.70

MD: 13556.00 INC: 90.20 AZ: 181.20







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MD: 14131.00 INC: 86.20 AZ: 180.80

MD: 14225.00 INC: 86.10 AZ: 180.60

