



Premier Directional Drilling

Powers 1N-27HZ
Scale 5":100' - MD
10/25/2015 10:09 AM

Oper. Company: Anadarko Petroleum

State: Colorado

Well: Powers 1N-27HZ

County: Weld

Field: Wattenberg

Country: USA

Rig: H & P 307

Location: NENE Sec 22-T2N-R65W

Well ID: 05123419510000

Start Date: 10/23/2015 00:15:00

Job Number: R15385

End Date: 10/25/2015 13:00:00

Notes: LWD Real Time Log
Gamma Correction Determined by Pipe ID & OD, Mud Weight, & Bit Size

Latitude: 40.130530

Elev KB: 4919'

Longitude: -104.644973

Elev DF: 4919'

Elev GL: 4894'

Notes: Datum: NAD 1983Map Zone:13N (108 W to 102 W)Total Correction: 8.22° (Mean MagVar)Grid Convergence: 0.23°

Operator 1: Robert Grossman

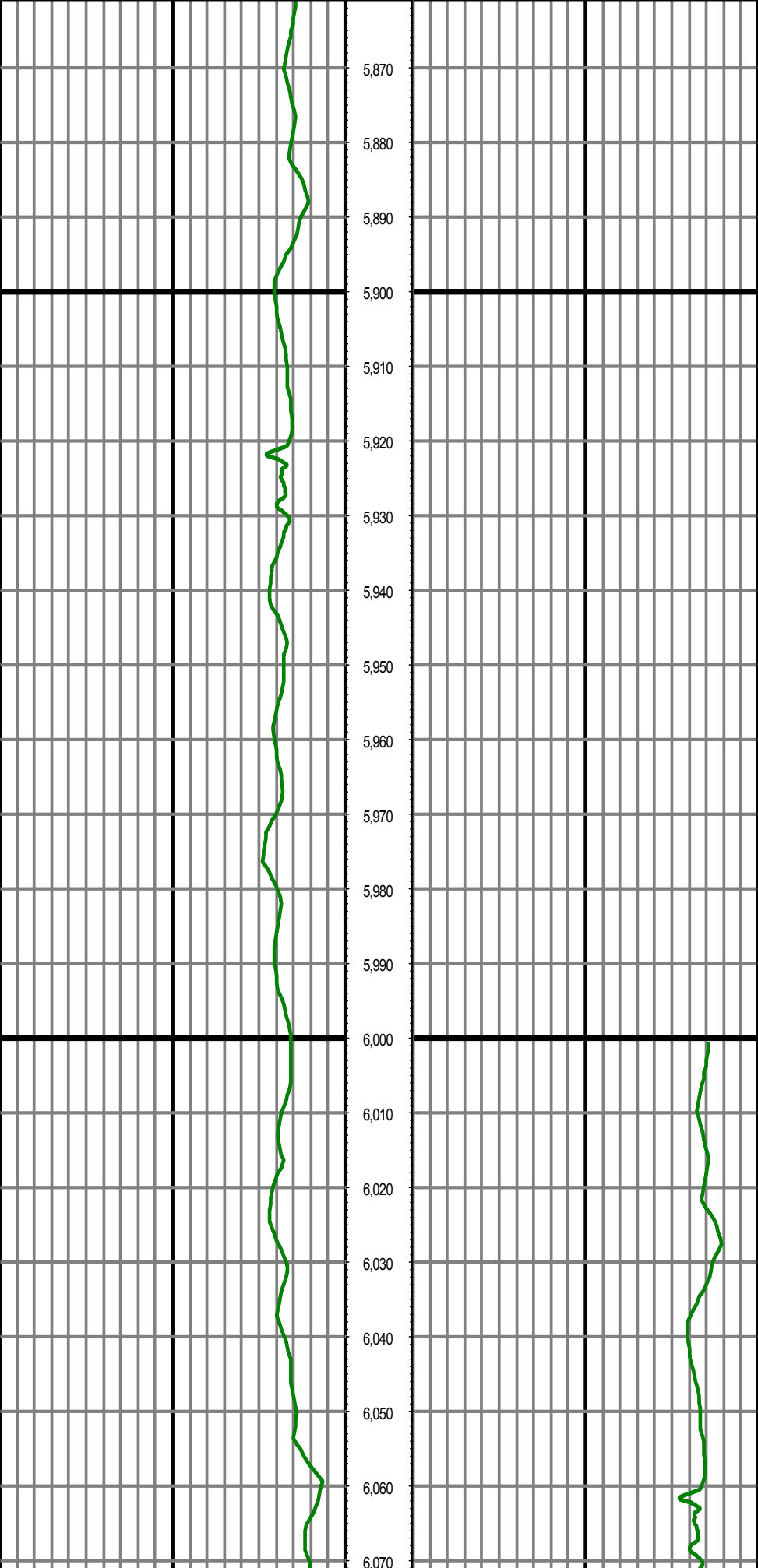
Operator 2: Jim Thammavong

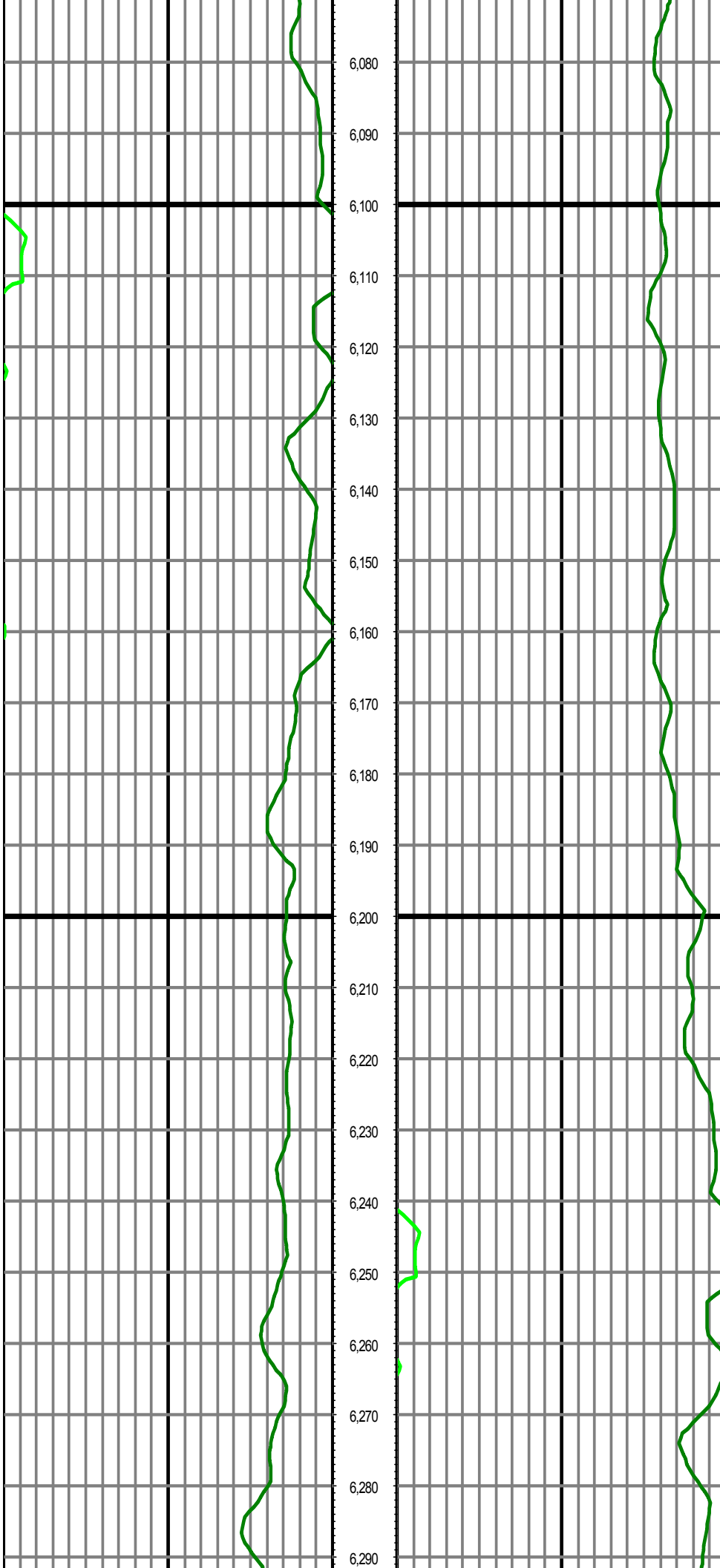
Notes: Smoothing: 7Gap Fill: 10Survey Tool Type: Dual TelemetryCalculation Method: Minimum Curvature

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	EGNF0064	EGNF0064			
Bit Size	8.5	8.5			
Cal Factor	4.282	4.282			
Survey Offset:	63.00	78.00			
Gamma Offset	58.00	74.00			
Resistivity Offset	0.00	0.00			
Start Depth	1871.00	2214.00			
StartDate	10/22/2015	10/23/2015			
StartTime	15:45	00:15			
EndDepth	2214.00	13142.00			
EndDate	10/22/2015	10/25/2015			
EndTime	23:00	13:00			
Mud Type	OBM	OBM			
Mud Weight	9.0	9.4			
Funnel Viscosity	66	52			
Plastic Viscosity	18	19			
Yield Point	9	12			
Gel Strength	NA	NA			
Solids Content	5.2	5.7			
Sand Content	NA	NA			
Mud Alkalinity	NA	NA			
Filtrate Alkalinity	NA	NA			
Chlorides	51500	54500			
Mud RM	NA	NA			
Mud RMF	NA	NA			
Mud RMC	NA	NA			
Mud RM at BHT	NA	NA			
Temperature	96	226			

Hole Data			Casing Data		
Size	From	To	Size	From	To
13.5	0.00	1861.00	9.625	0.00	1861.00
8.5	1861.00	13142.00	5.5	0.00	13142.00

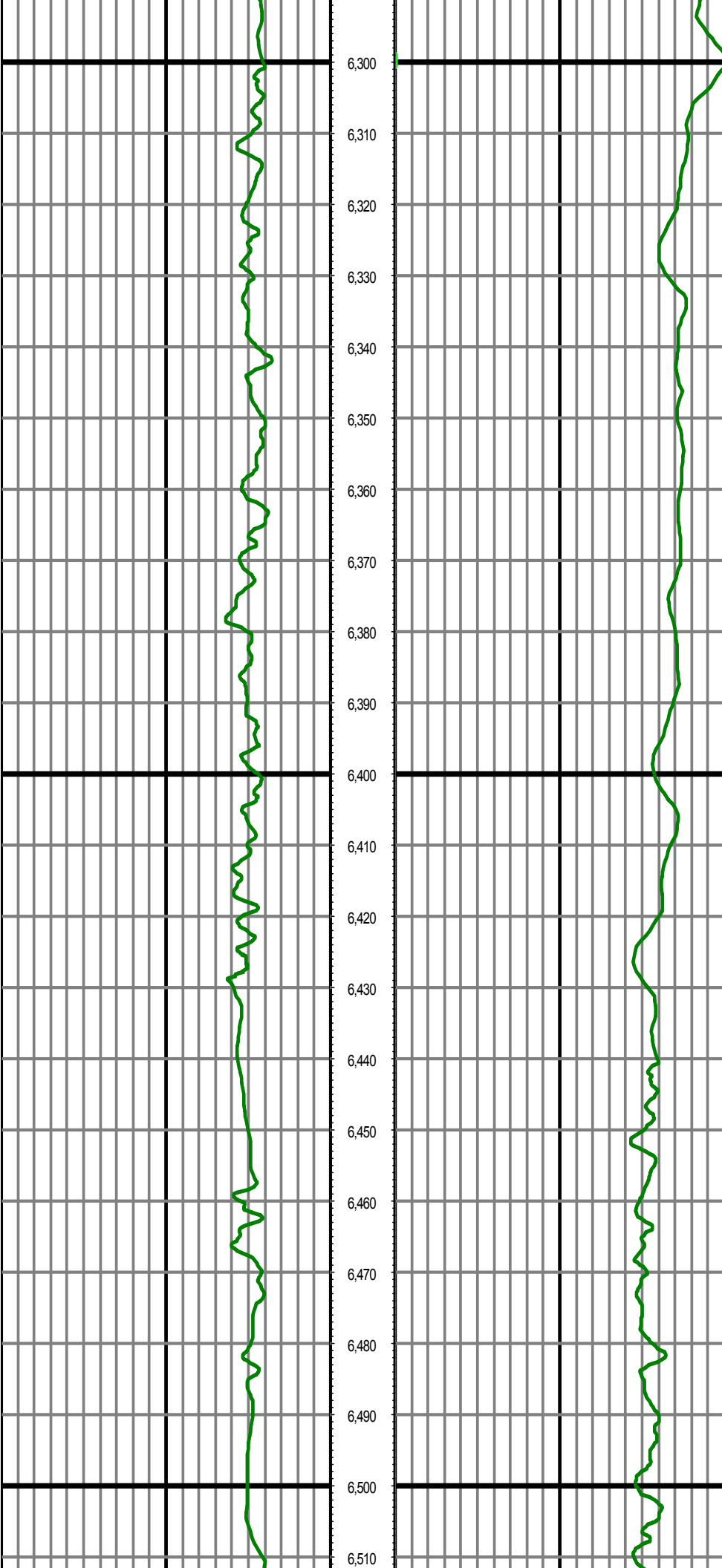
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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





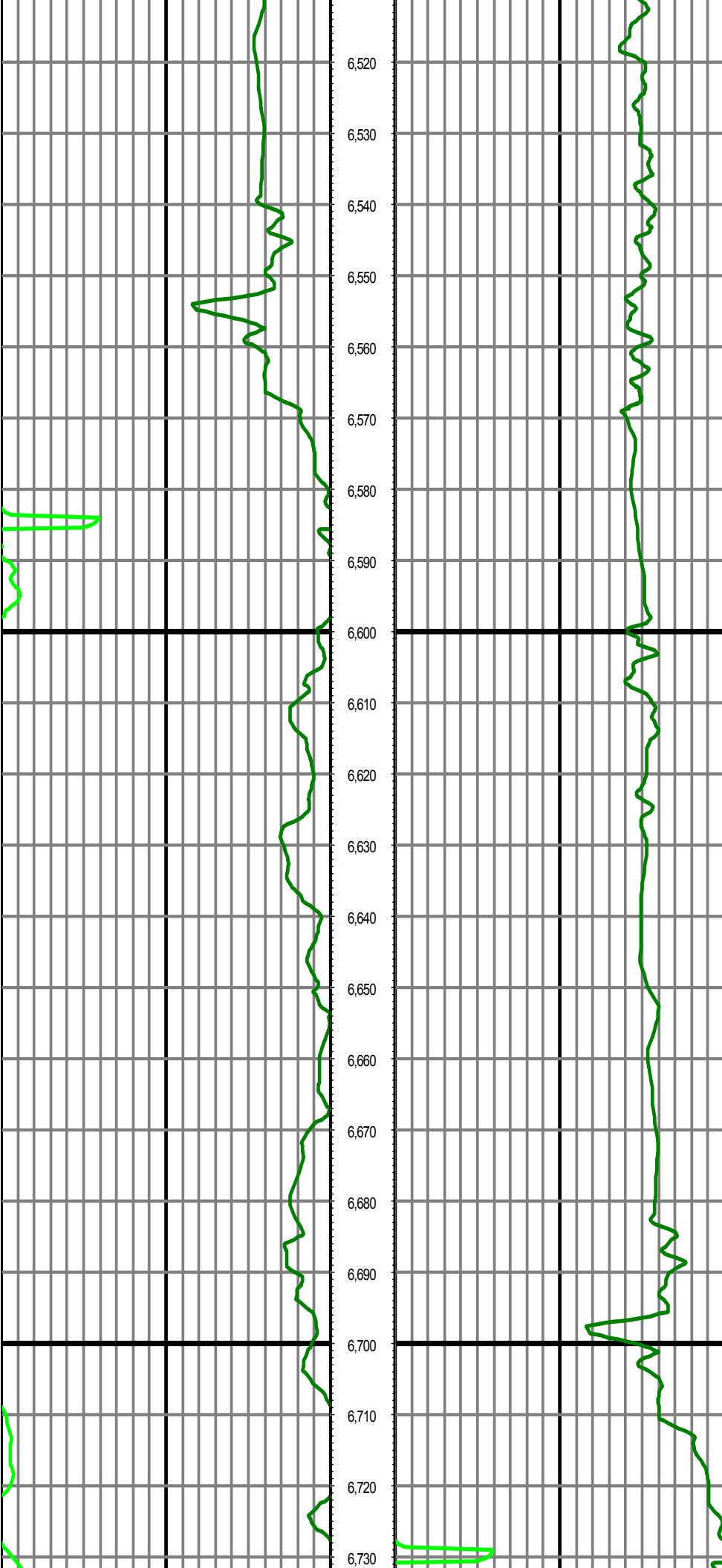
MD: 6152.00 INC: 0.59 AZ: 84.12 TVD: 6012.19 VS: -891.36

MD: 6246.00 INC: 0.40 AZ: 47.60 TVD: 6106.19 VS: -891.63



MD: 6341.00 INC: 0.51 AZ: 29.32 TVD: 6201.19 VS: -892.22

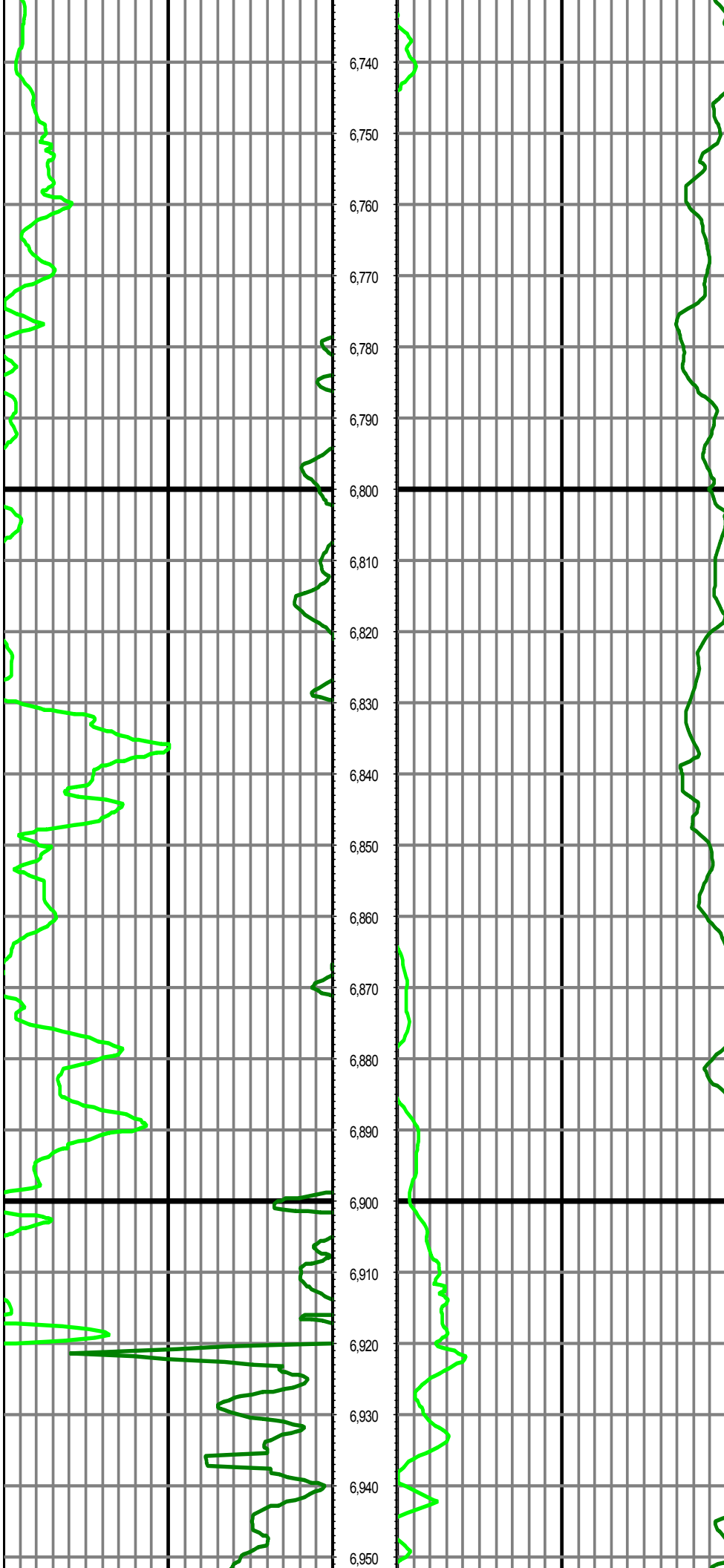
MD: 6435.00 INC: 0.59 AZ: 12.13 TVD: 6295.18 VS: -893.06



MD: 6530.00 INC: 3.01 AZ: 154.53 TVD: 6390.14 VS: -891.29

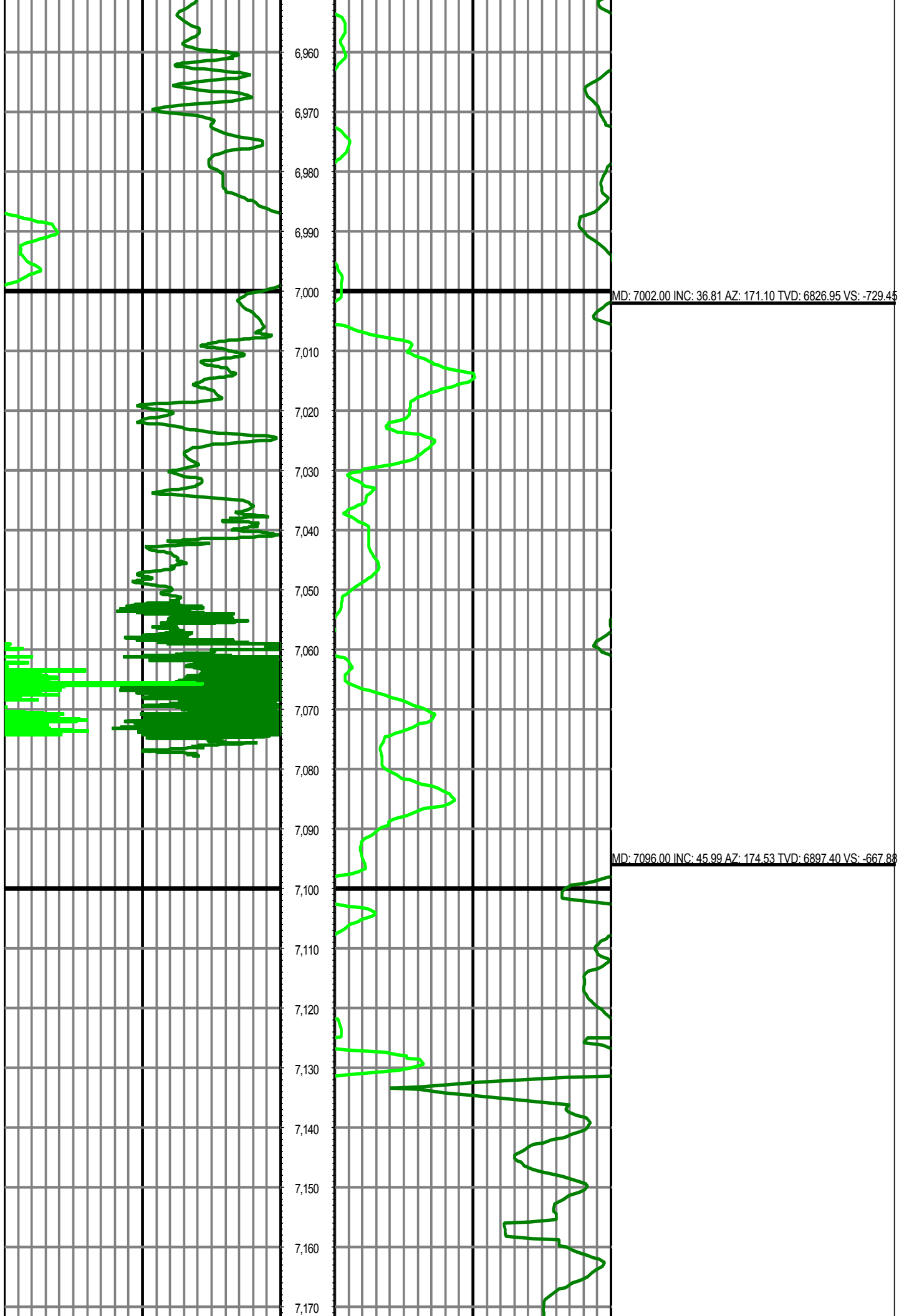
MD: 6624.00 INC: 13.91 AZ: 169.74 TVD: 6482.99 VS: -877.92

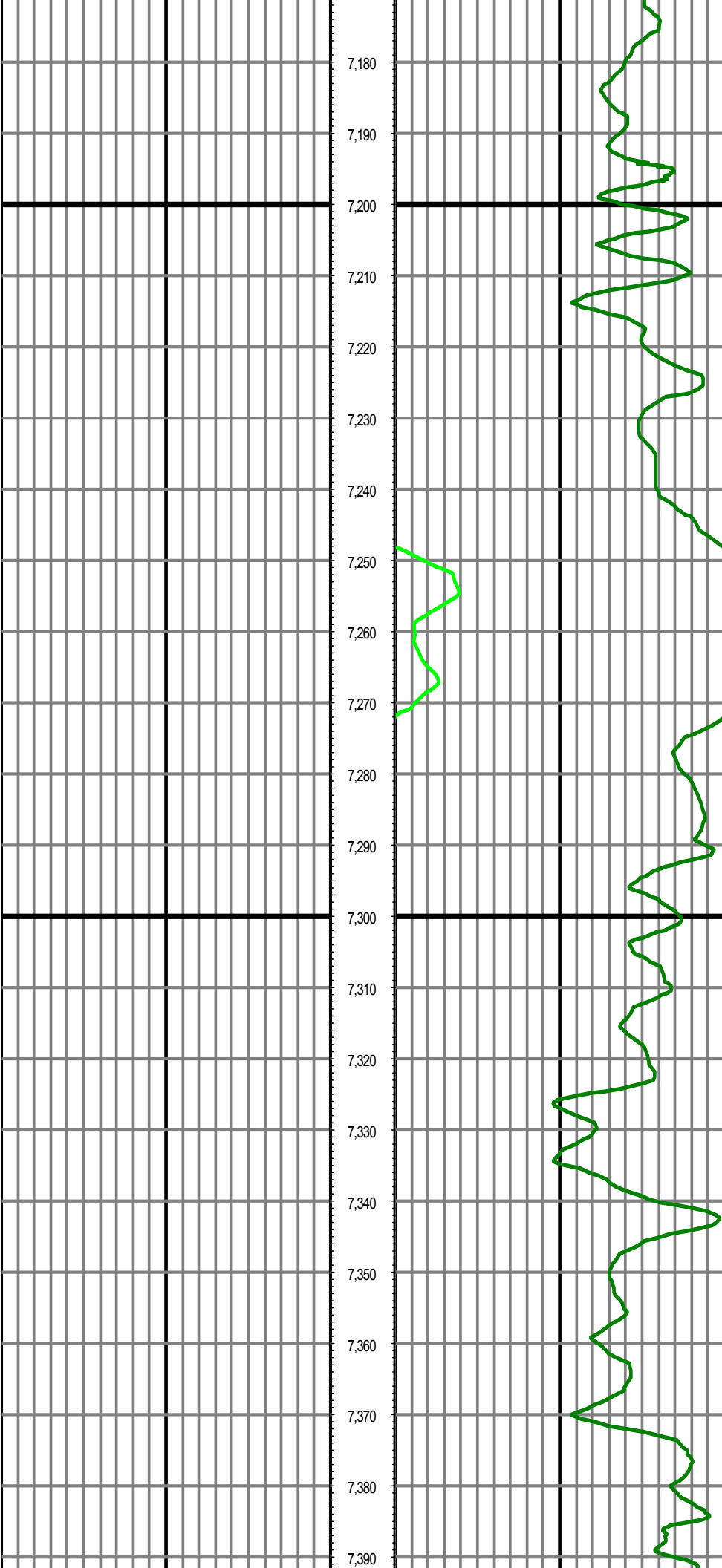
MD: 6719.00 INC: 17.40 AZ: 169.30 TVD: 6574.45 VS: -852.74



MD: 6813.00 INC: 22.81 AZ: 172.02 TVD: 6662.69 VS: -820.89

MD: 6908.00 INC: 29.01 AZ: 171.63 TVD: 6748.10 VS: -779.85

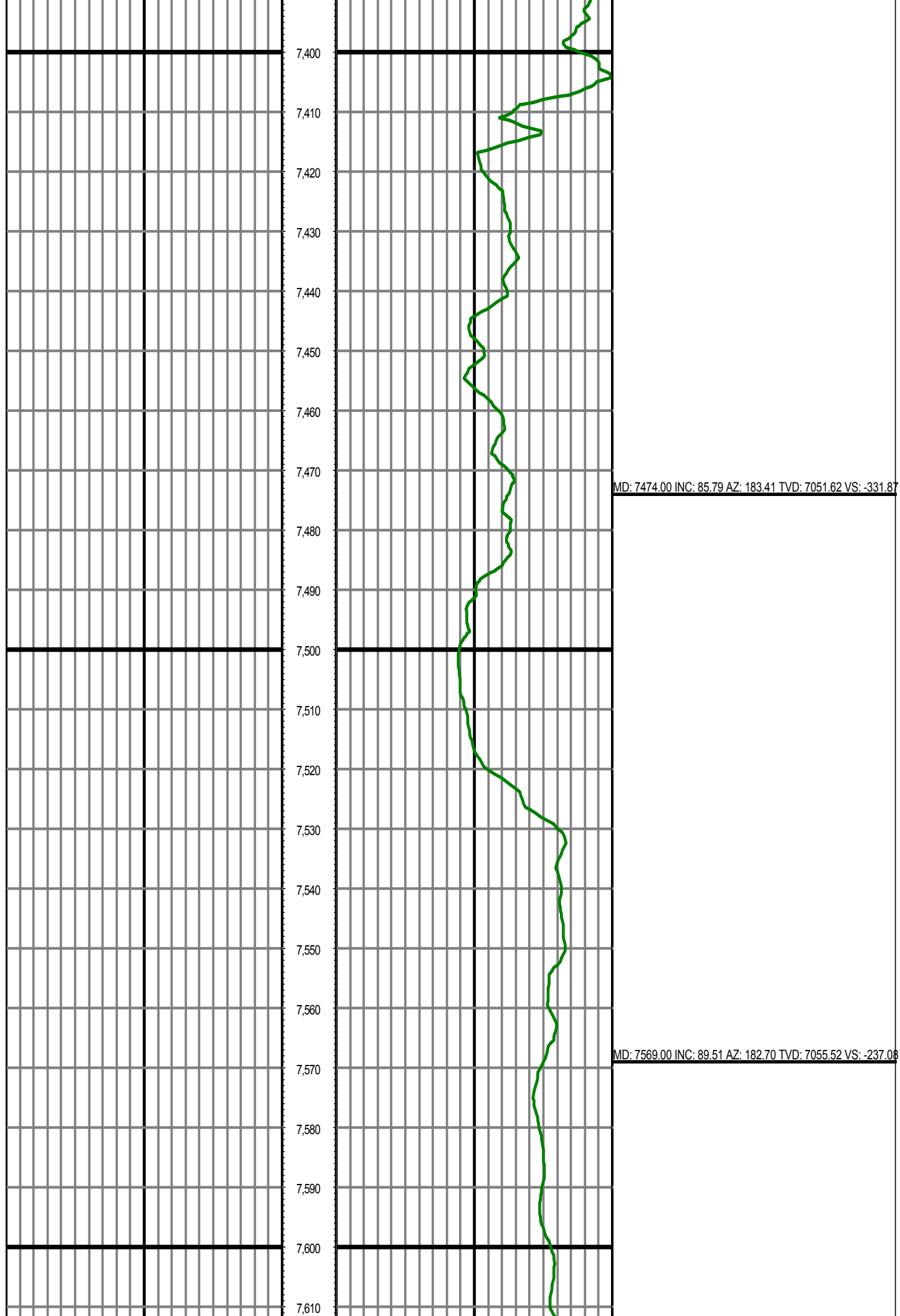


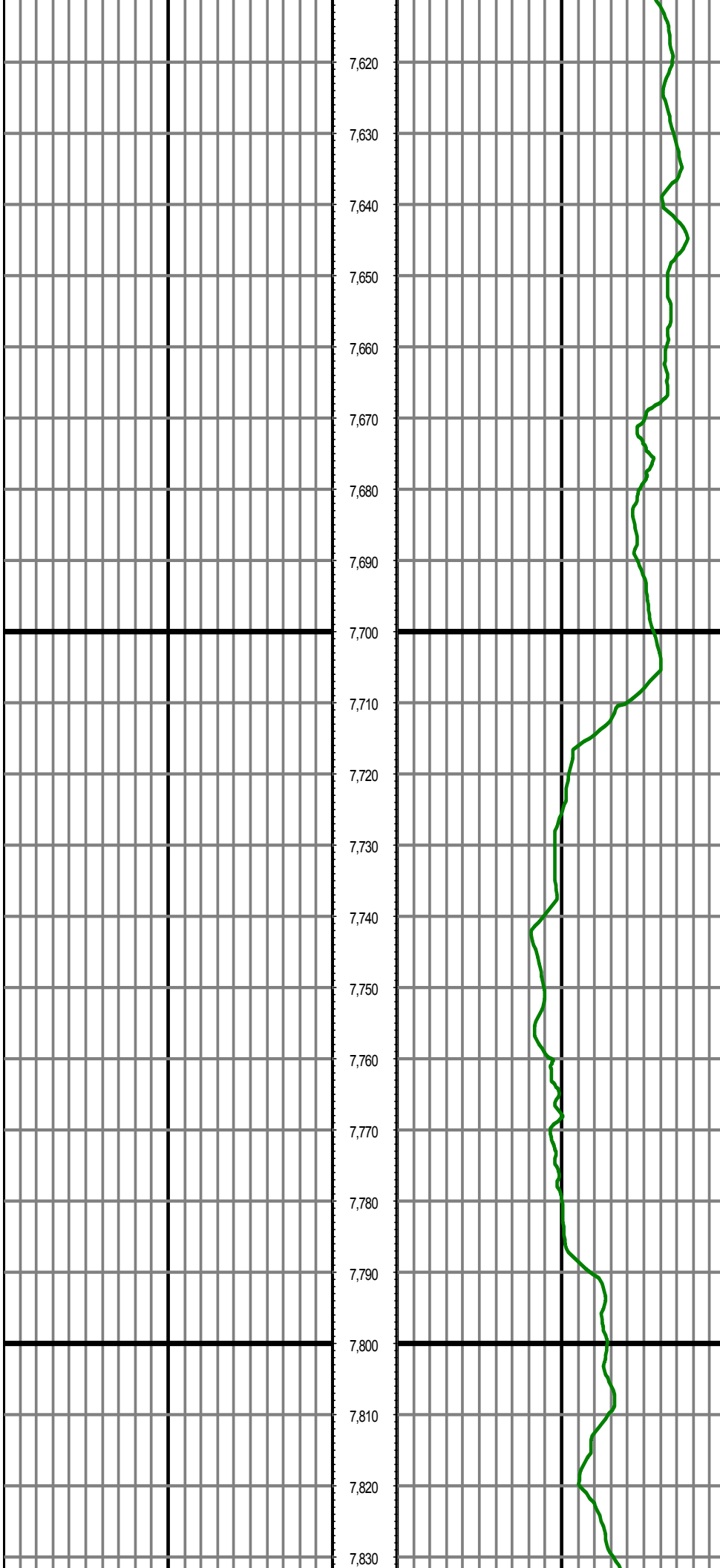


MD: 7191.00 INC: 54.50 AZ: 180.11 TVD: 6958.12 VS: -595.05

MD: 7285.00 INC: 64.89 AZ: 179.63 TVD: 7005.49 VS: -514.01

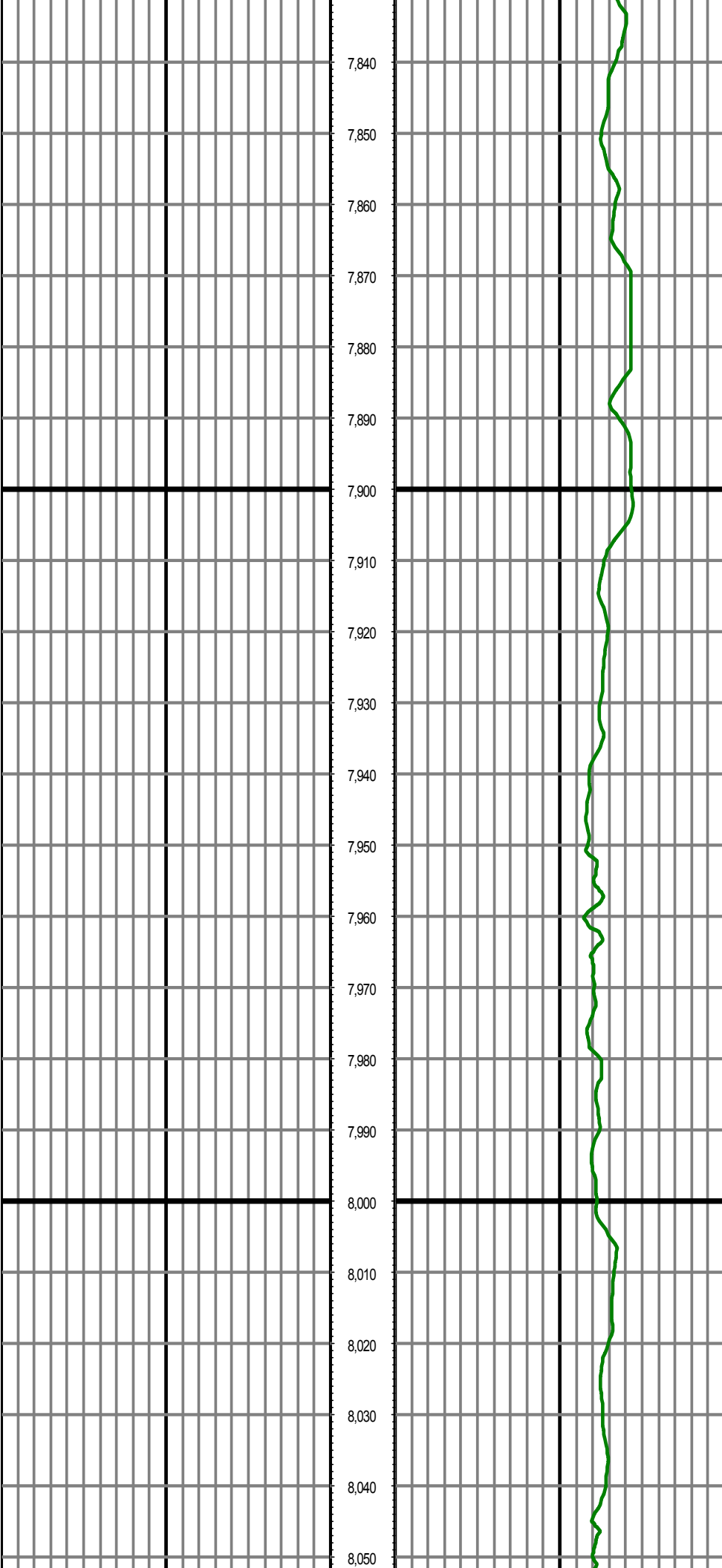
MD: 7380.00 INC: 76.30 AZ: 178.13 TVD: 7037.00 VS: -424.58





MD: 7663.00 INC: 91.11 AZ: 180.51 TVD: 7055.02 VS: -143.11

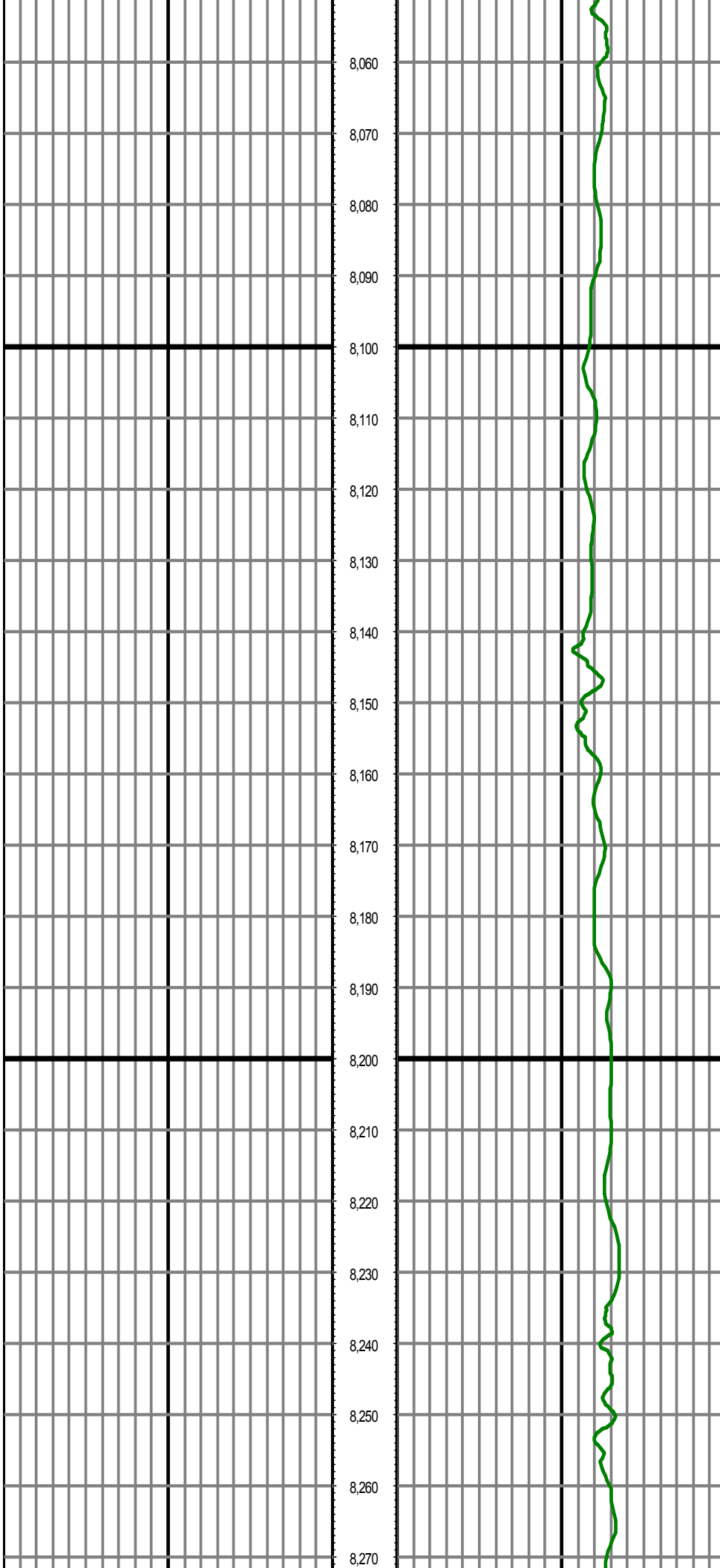
MD: 7758.00 INC: 91.11 AZ: 181.43 TVD: 7053.18 VS: -48.14



MD: 7852.00 INC: 89.59 AZ: 181.91 TVD: 7052.60 VS: 45.83

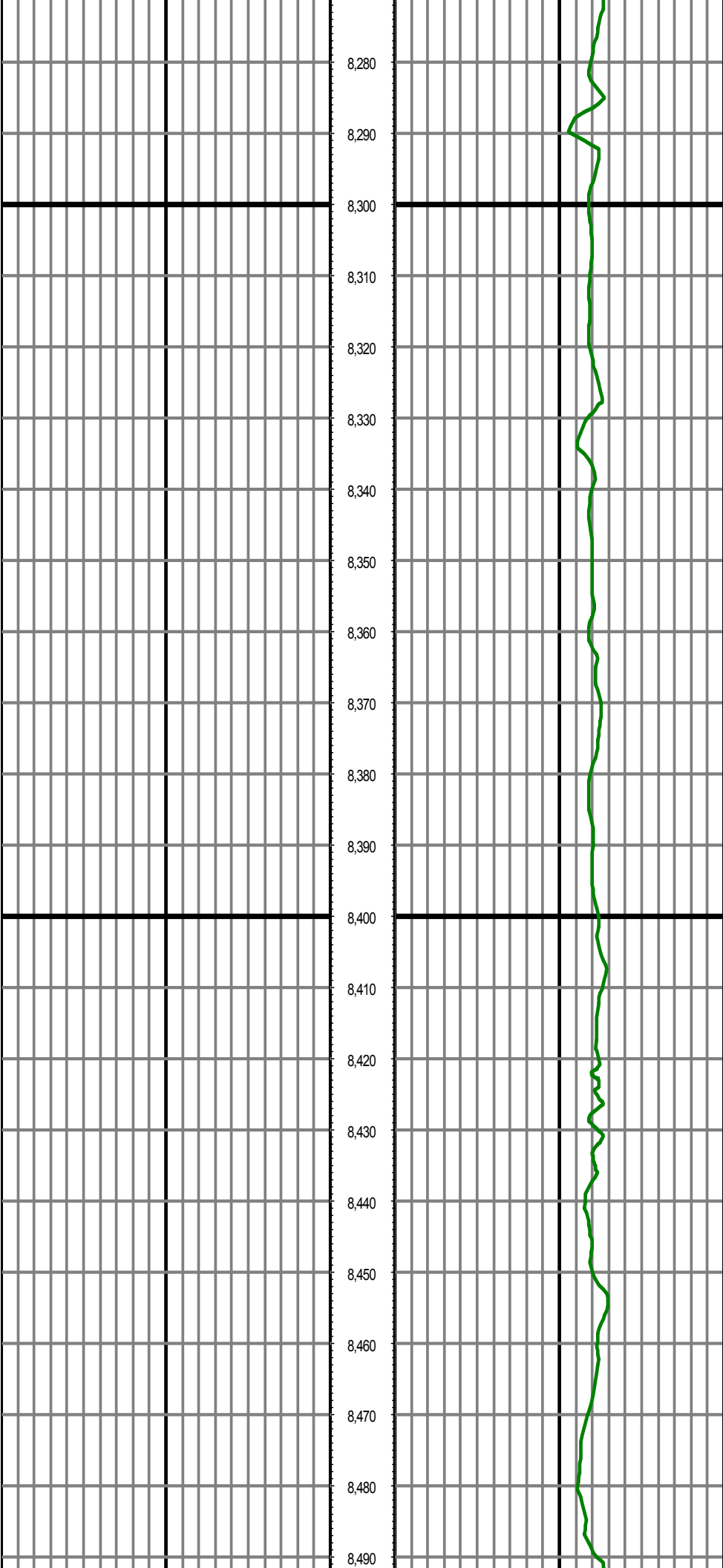
MD: 7947.00 INC: 89.51 AZ: 180.42 TVD: 7053.35 VS: 140.81

MD: 8041.00 INC: 88.89 AZ: 179.80 TVD: 7054.66 VS: 234.80



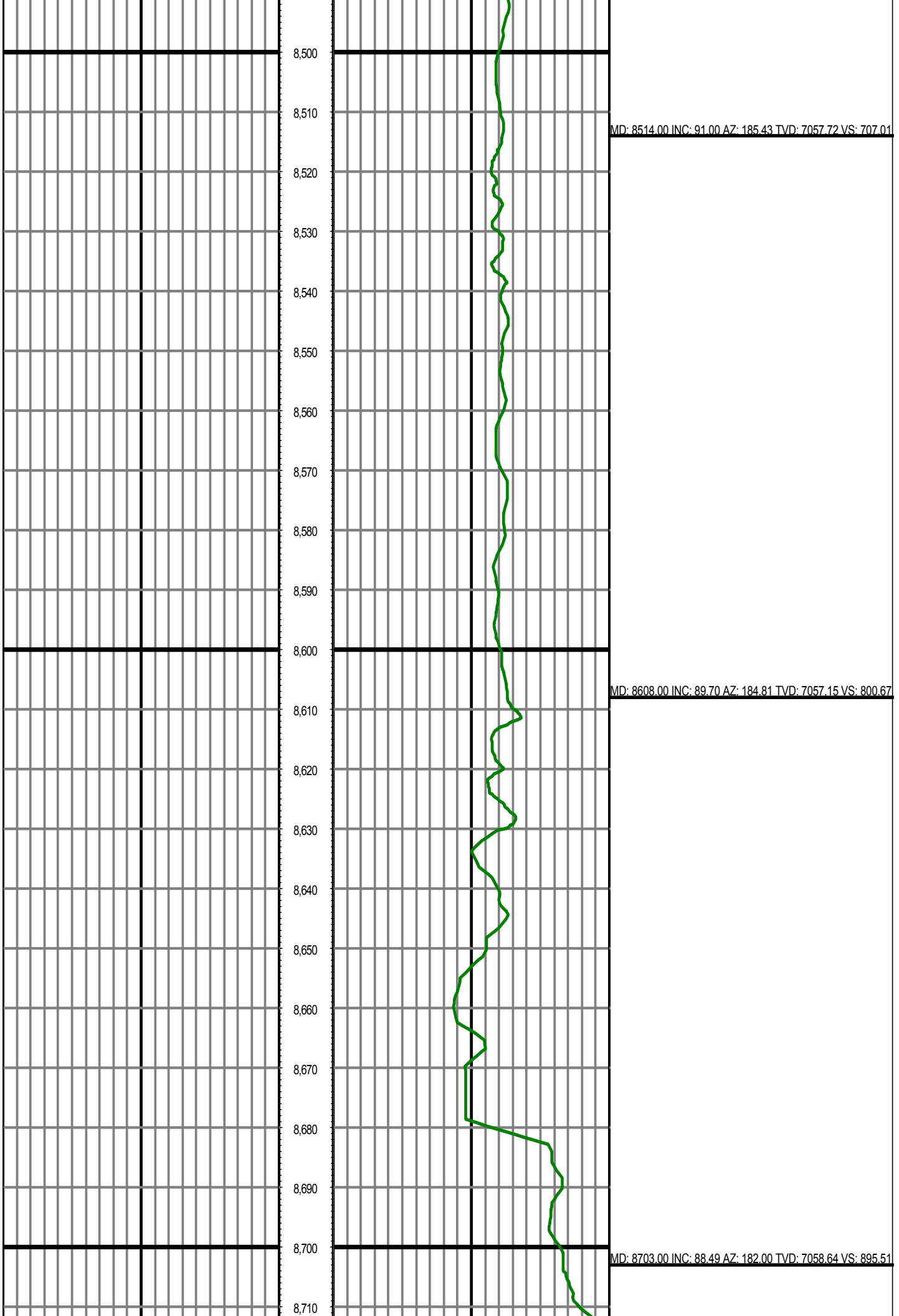
MD: 8136.00 INC: 89.51 AZ: 181.21 TVD: 7055.99 VS: 329.79

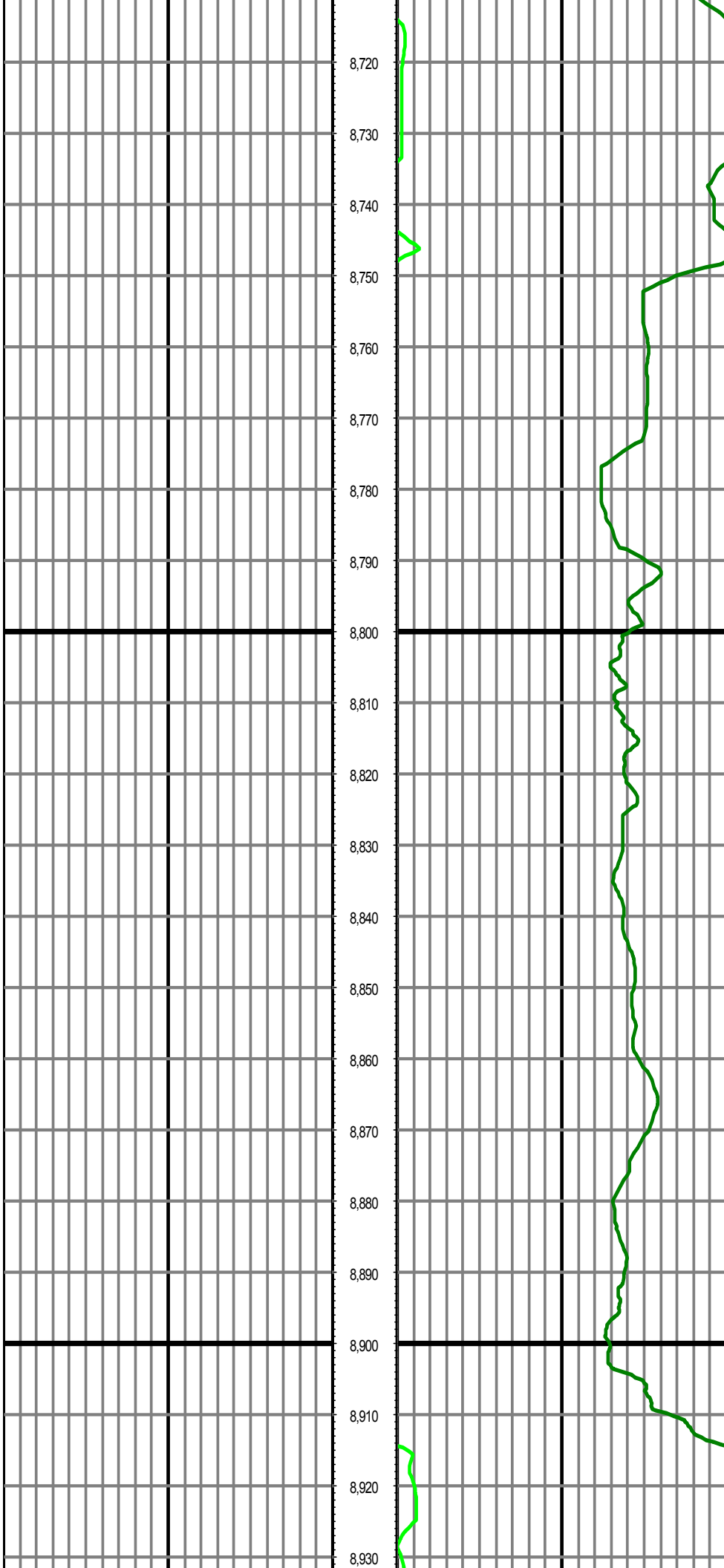
MD: 8230.00 INC: 89.00 AZ: 181.74 TVD: 7057.22 VS: 423.76



MD: 8325.00 INC: 89.20 AZ: 183.10 TVD: 7058.71 VS: 518.68

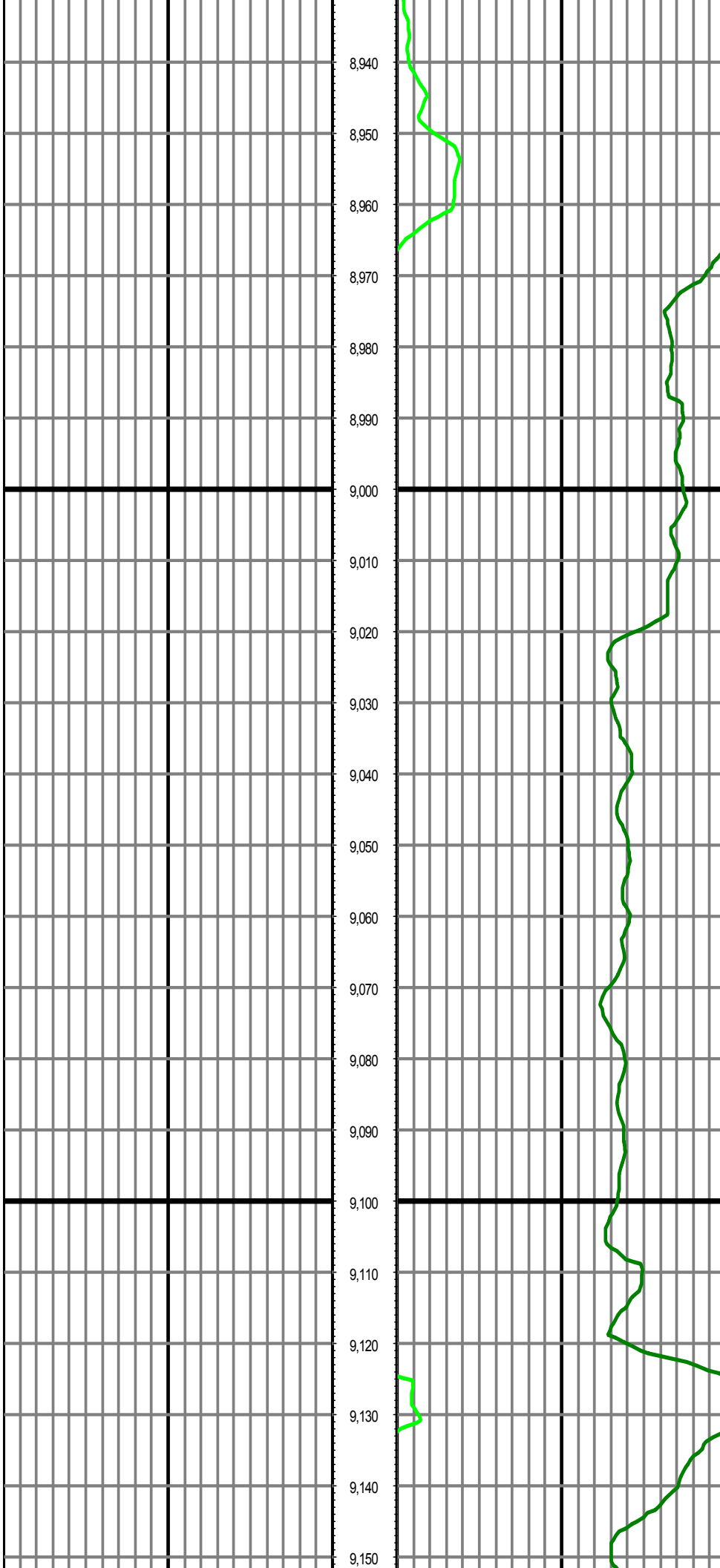
MD: 8419.00 INC: 90.49 AZ: 185.82 TVD: 7058.96 VS: 612.43





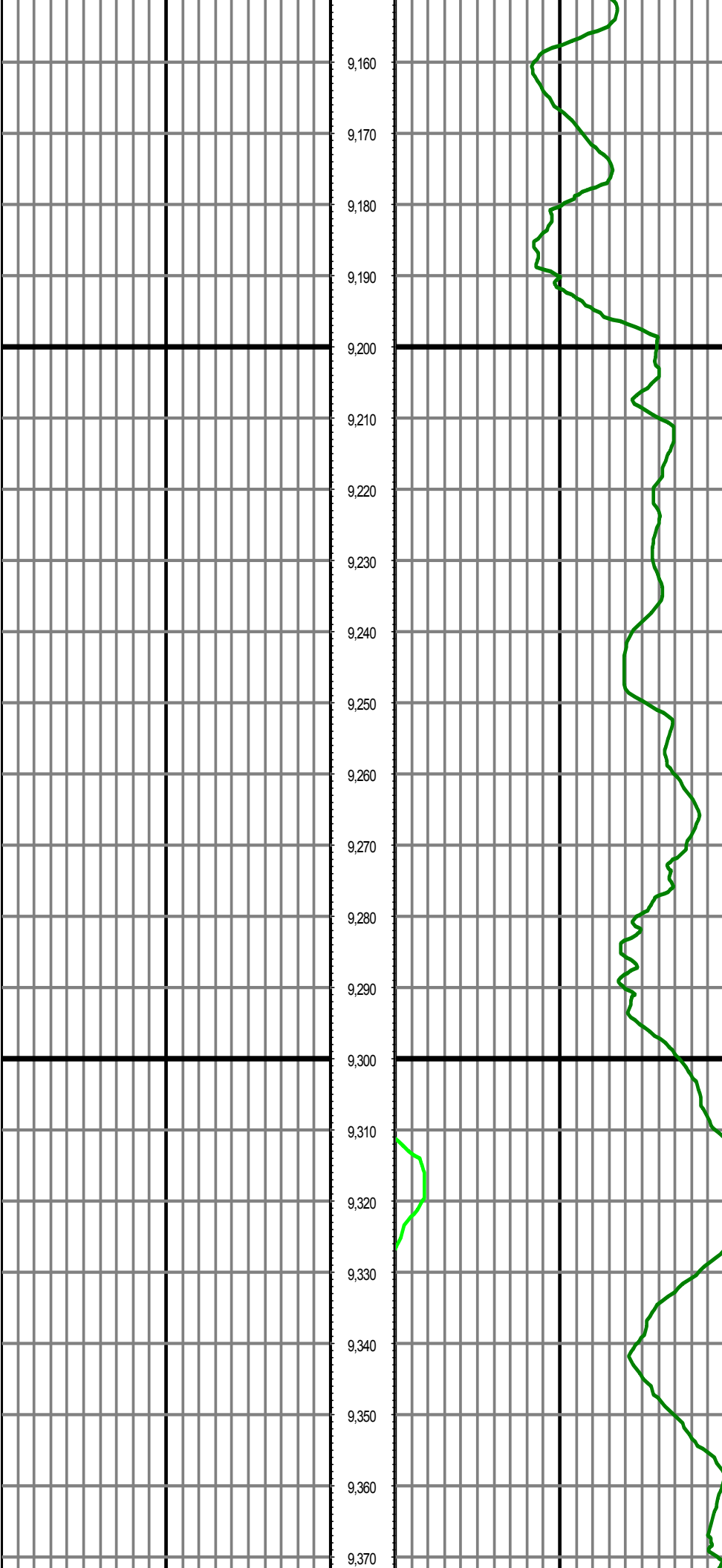
MD: 8797.00 INC: 88.41 AZ: 182.31 TVD: 7061.18 VS: 989.43

MD: 8892.00 INC: 87.11 AZ: 179.80 TVD: 7064.90 VS: 1084.34



MD: 8986.00 INC: 89.90 AZ: 179.32 TVD: 7067.35 VS: 1178.25

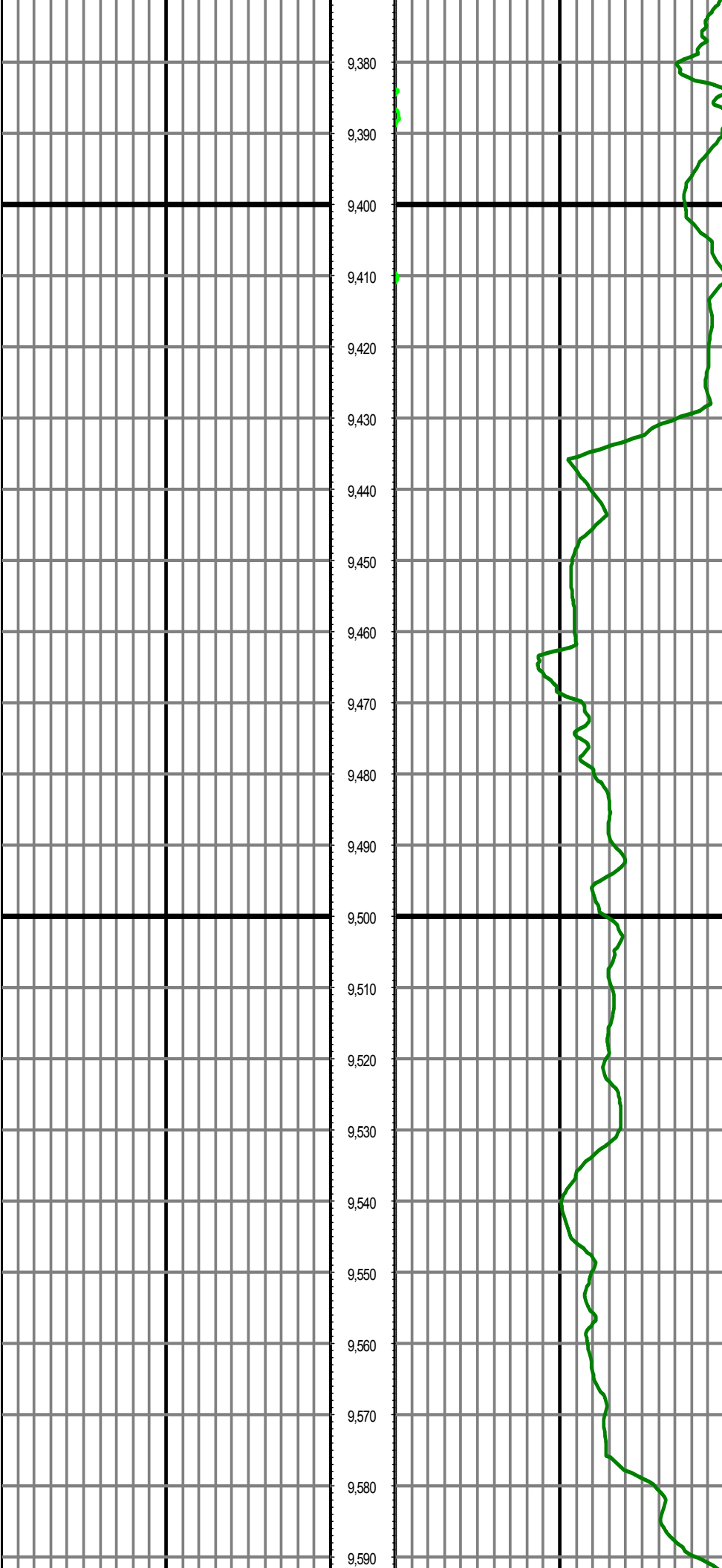
MD: 9081.00 INC: 90.21 AZ: 178.13 TVD: 7067.26 VS: 1273.25



MD: 9175.00 INC: 90.69 AZ: 177.30 TVD: 7066.52 VS: 1367.15

MD: 9269.00 INC: 90.80 AZ: 178.44 TVD: 7065.29 VS: 1461.06

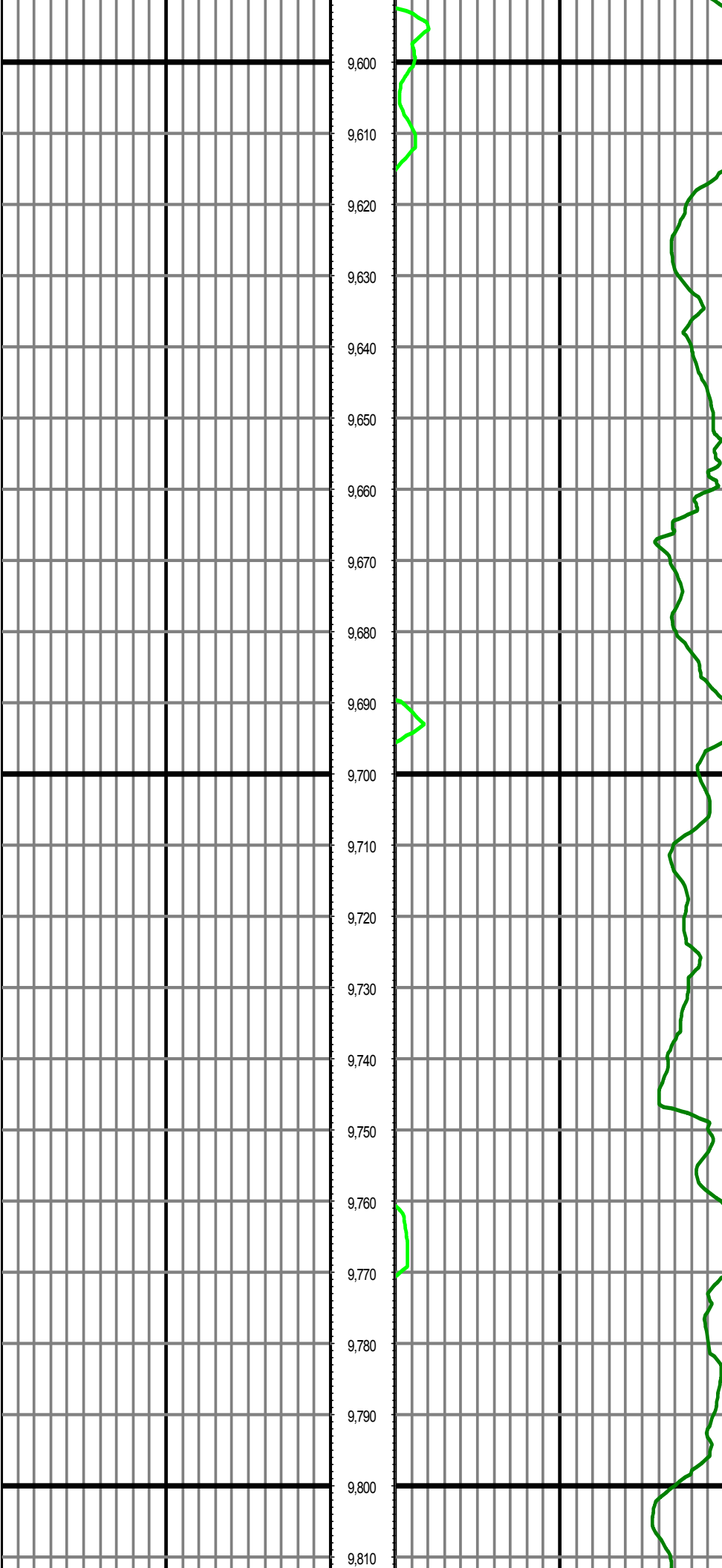
MD: 9364.00 INC: 91.51 AZ: 180.81 TVD: 7063.38 VS: 1556.02



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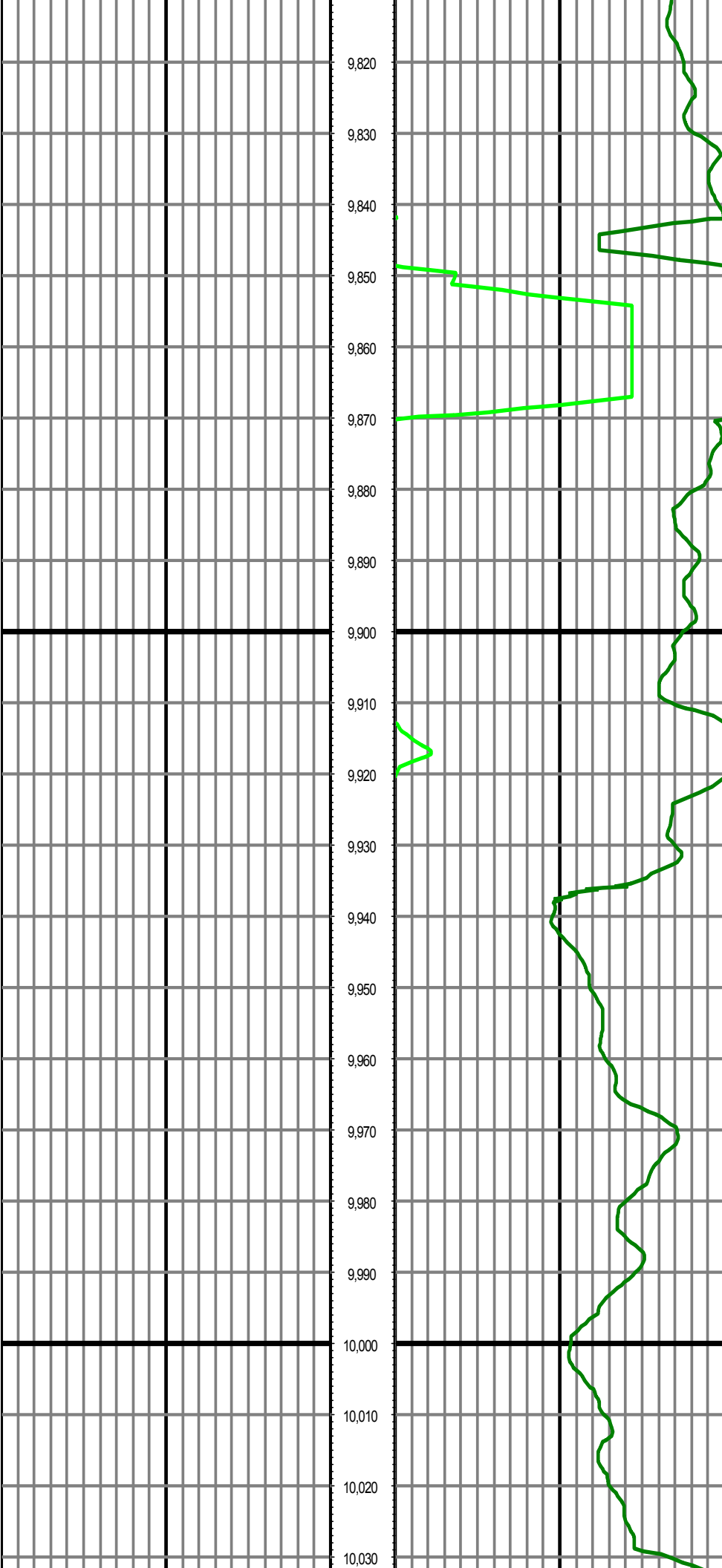
MD: 9458.00 INC: 91.20 AZ: 181.61 TVD: 7061.16 VS: 1649.98

MD: 9553.00 INC: 89.20 AZ: 180.81 TVD: 7060.84 VS: 1744.97



MD: 9647.00 INC: 90.10 AZ: 180.90 TVD: 7061.41 VS: 1838.96

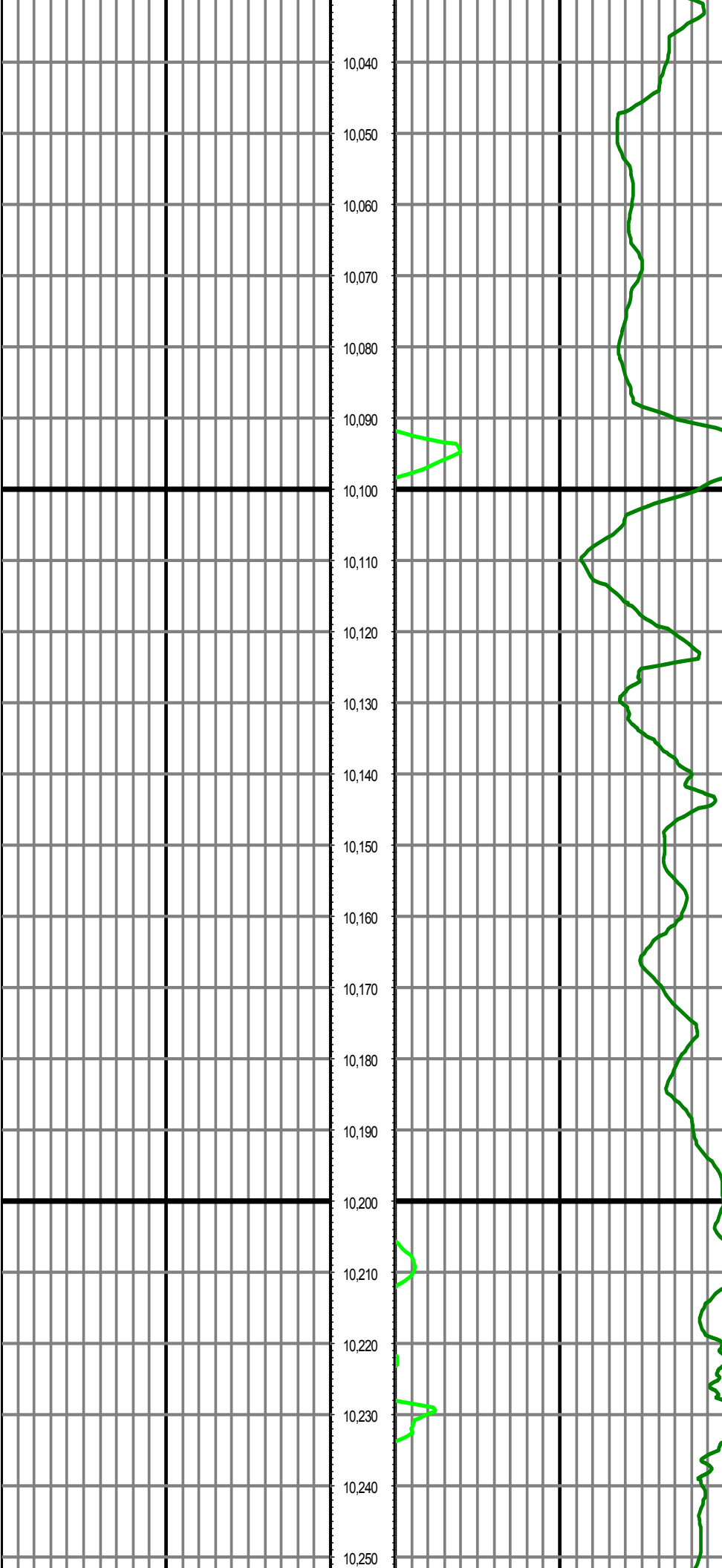
MD: 9742.00 INC: 88.21 AZ: 181.43 TVD: 7062.82 VS: 1933.93



MD: 9836.00 INC: 88.80 AZ: 180.64 TVD: 7065.27 VS: 2027.85

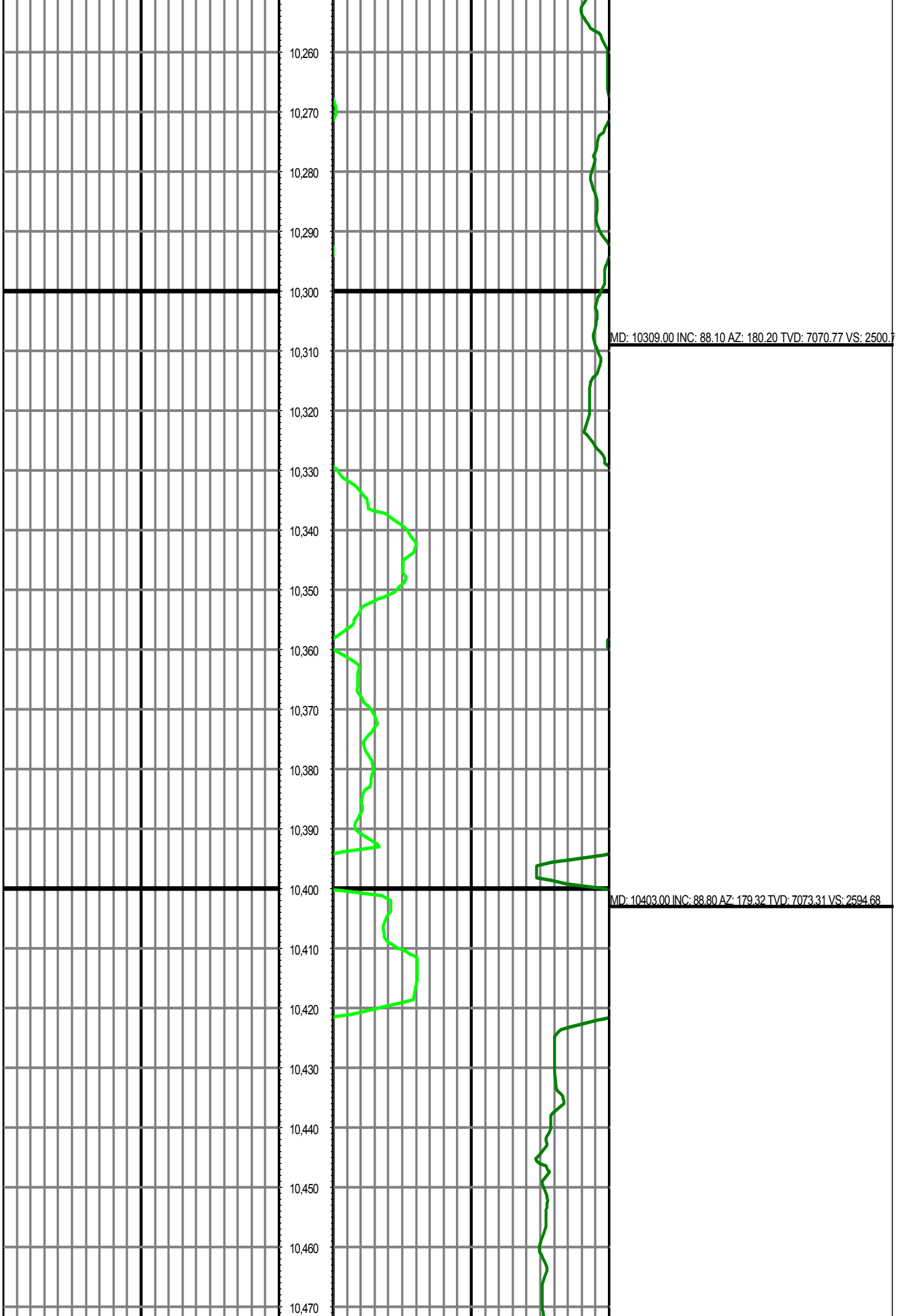
MD: 9931.00 INC: 89.11 AZ: 180.20 TVD: 7067.00 VS: 2122.88

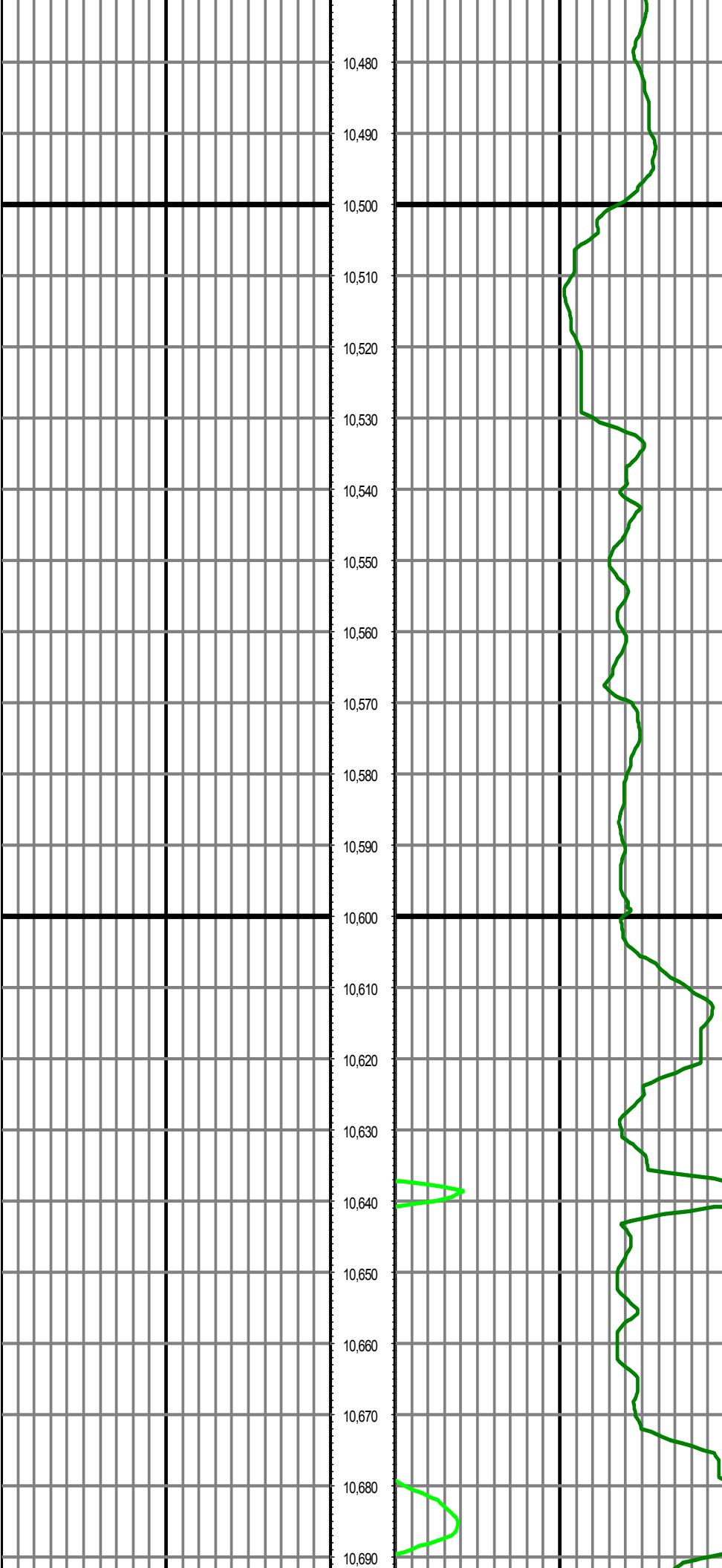
MD: 10025.00 INC: 89.70 AZ: 179.94 TVD: 7067.97 VS: 2216.8



MD: 10120.00 INC: 91.11 AZ: 179.32 TVD: 7067.30 VS: 2311.8

MD: 10214.00 INC: 88.30 AZ: 177.83 TVD: 7067.78 VS: 2405.80

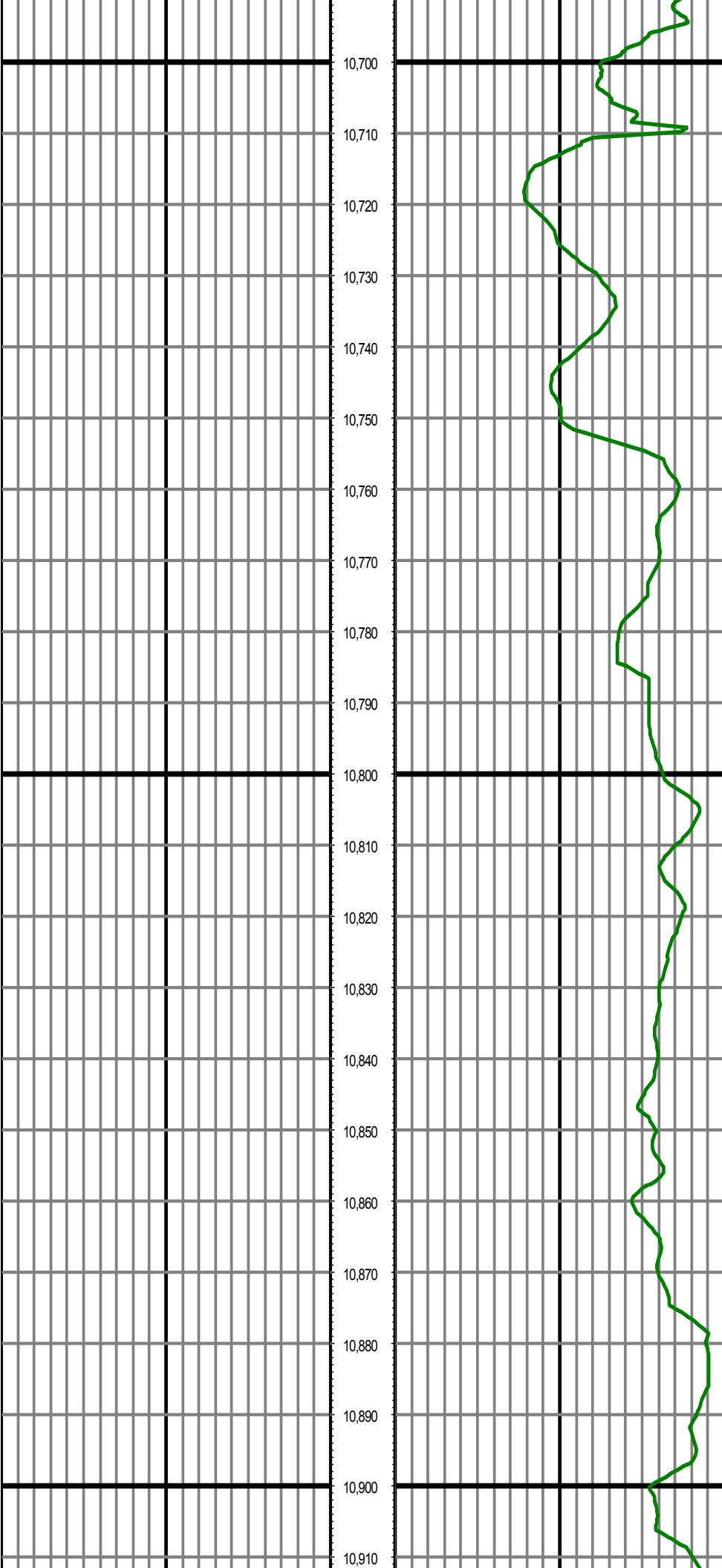




MD: 10498.00 INC: 89.51 AZ: 179.63 TVD: 7074.72 VS: 2689.6

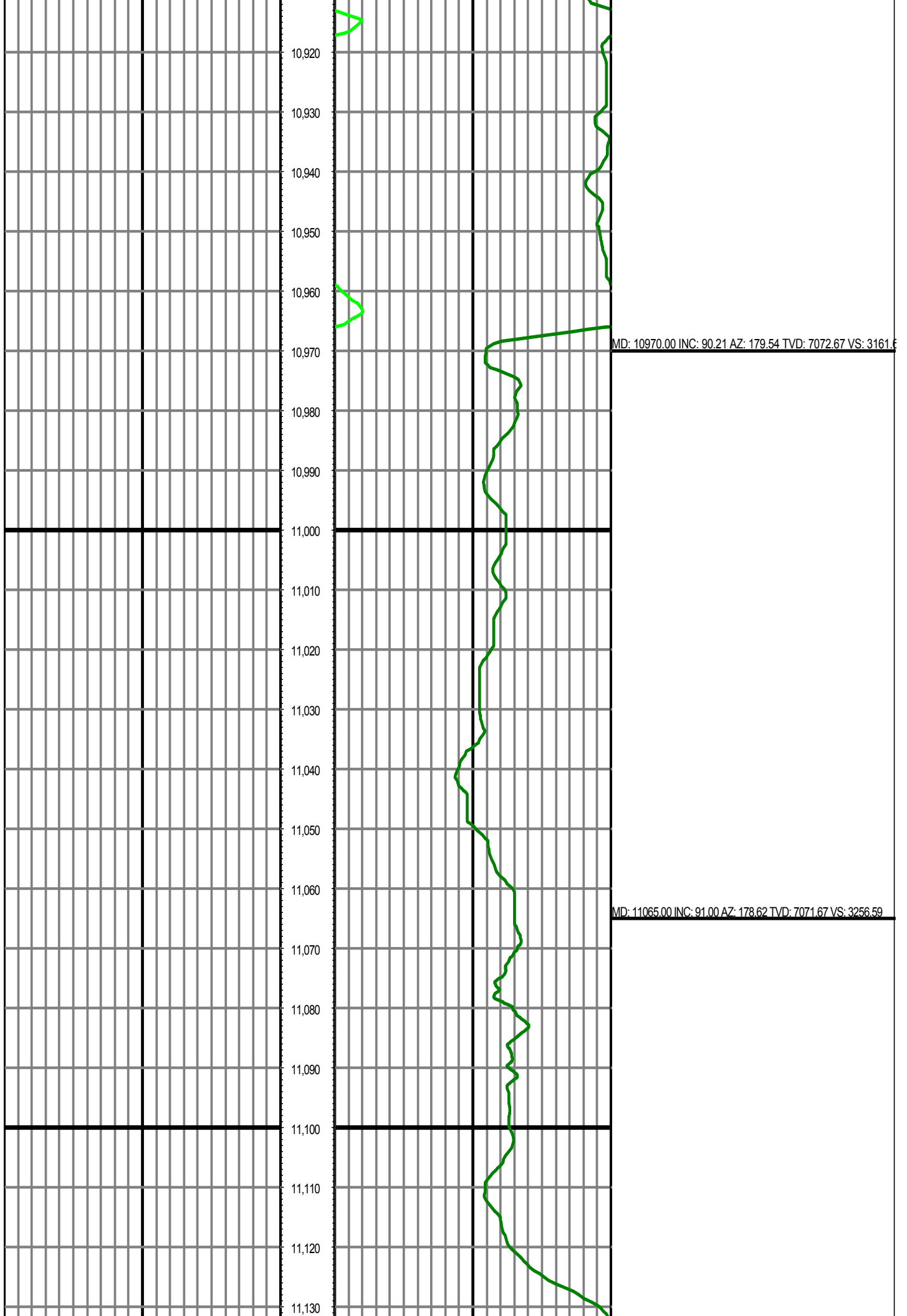
MD: 10592.00 INC: 90.49 AZ: 181.21 TVD: 7074.72 VS: 2783.66

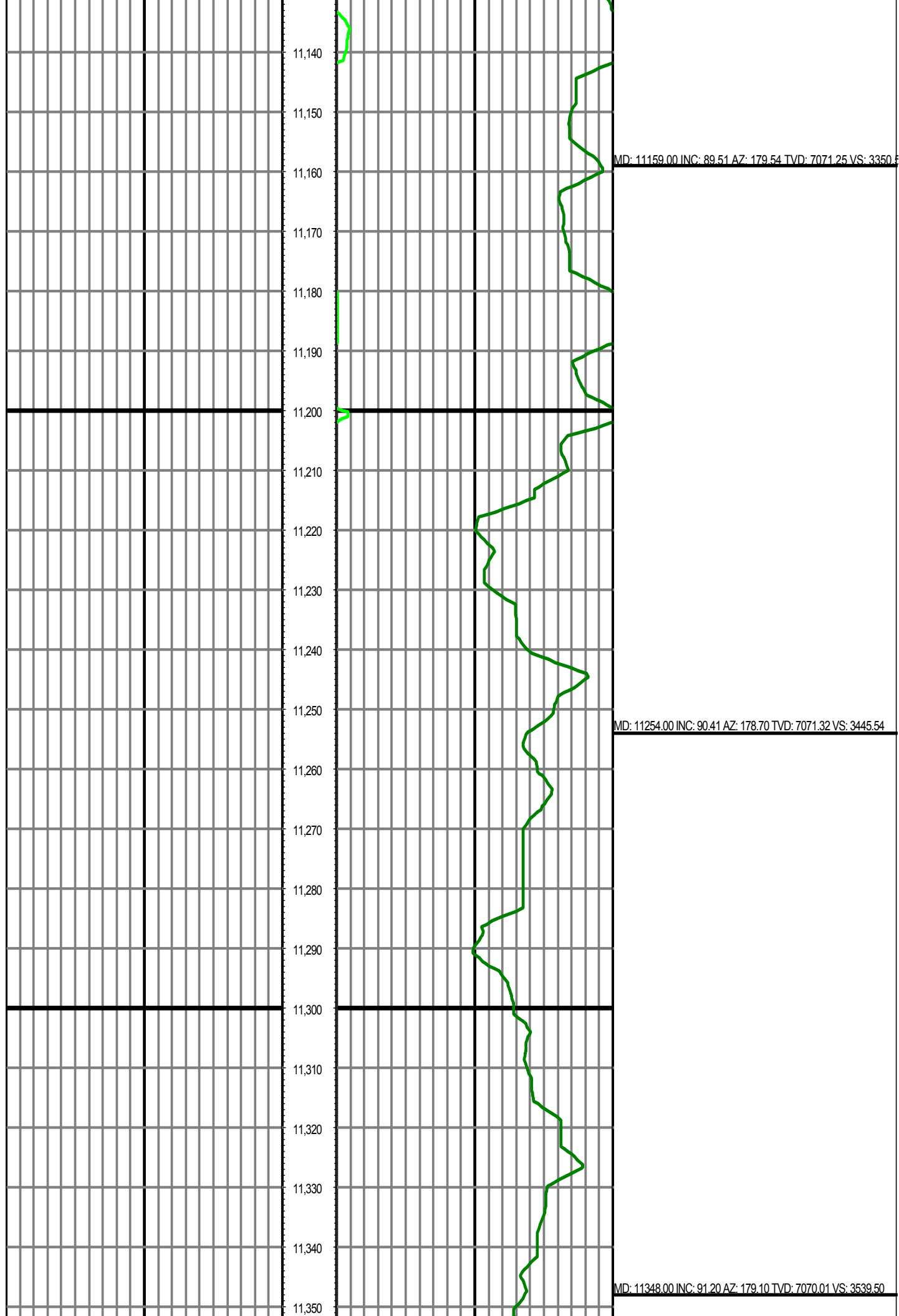
MD: 10687.00 INC: 91.20 AZ: 180.81 TVD: 7073.31 VS: 2878.64

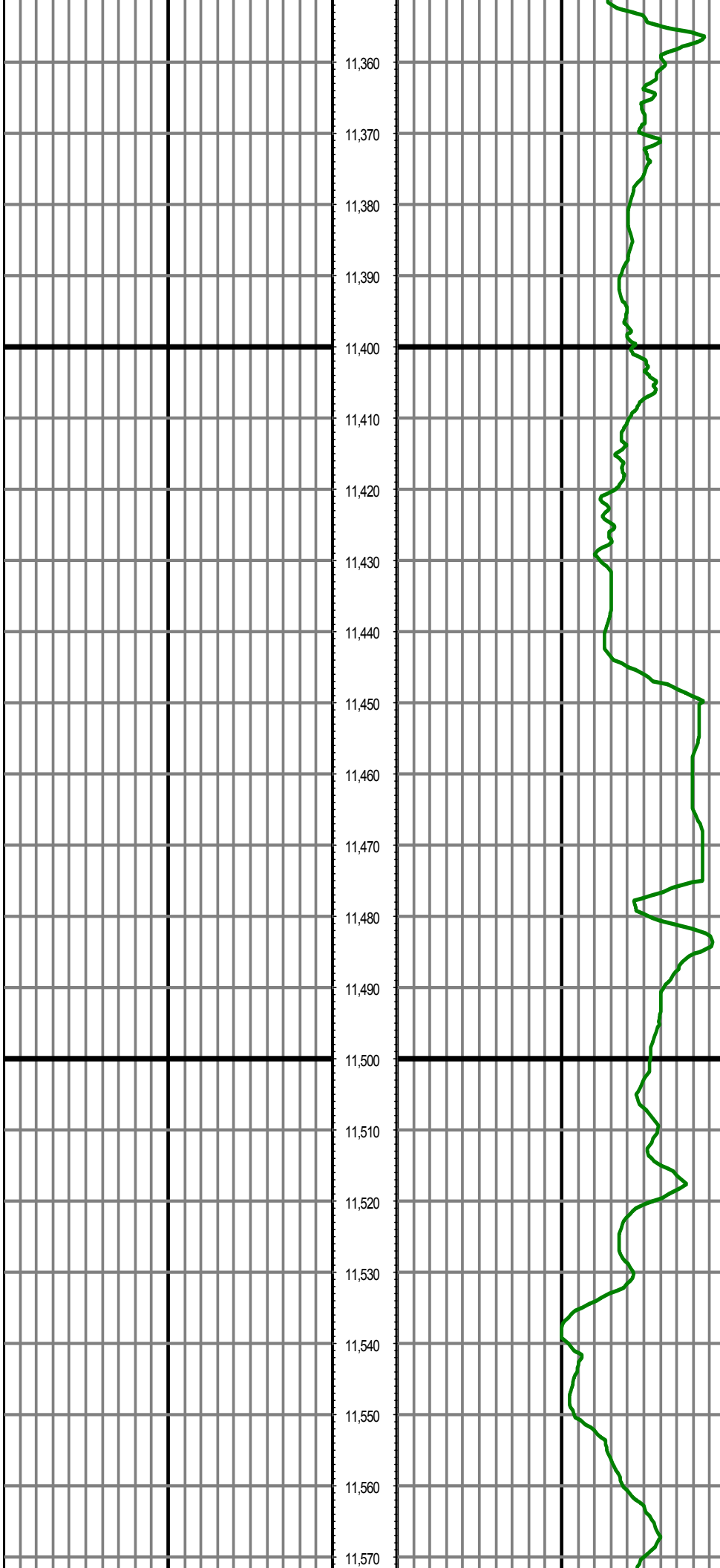


MD: 10781.00 INC: 89.79 AZ: 181.12 TVD: 7072.50 VS: 2972.6

MD: 10876.00 INC: 89.90 AZ: 180.33 TVD: 7072.76 VS: 3067.62

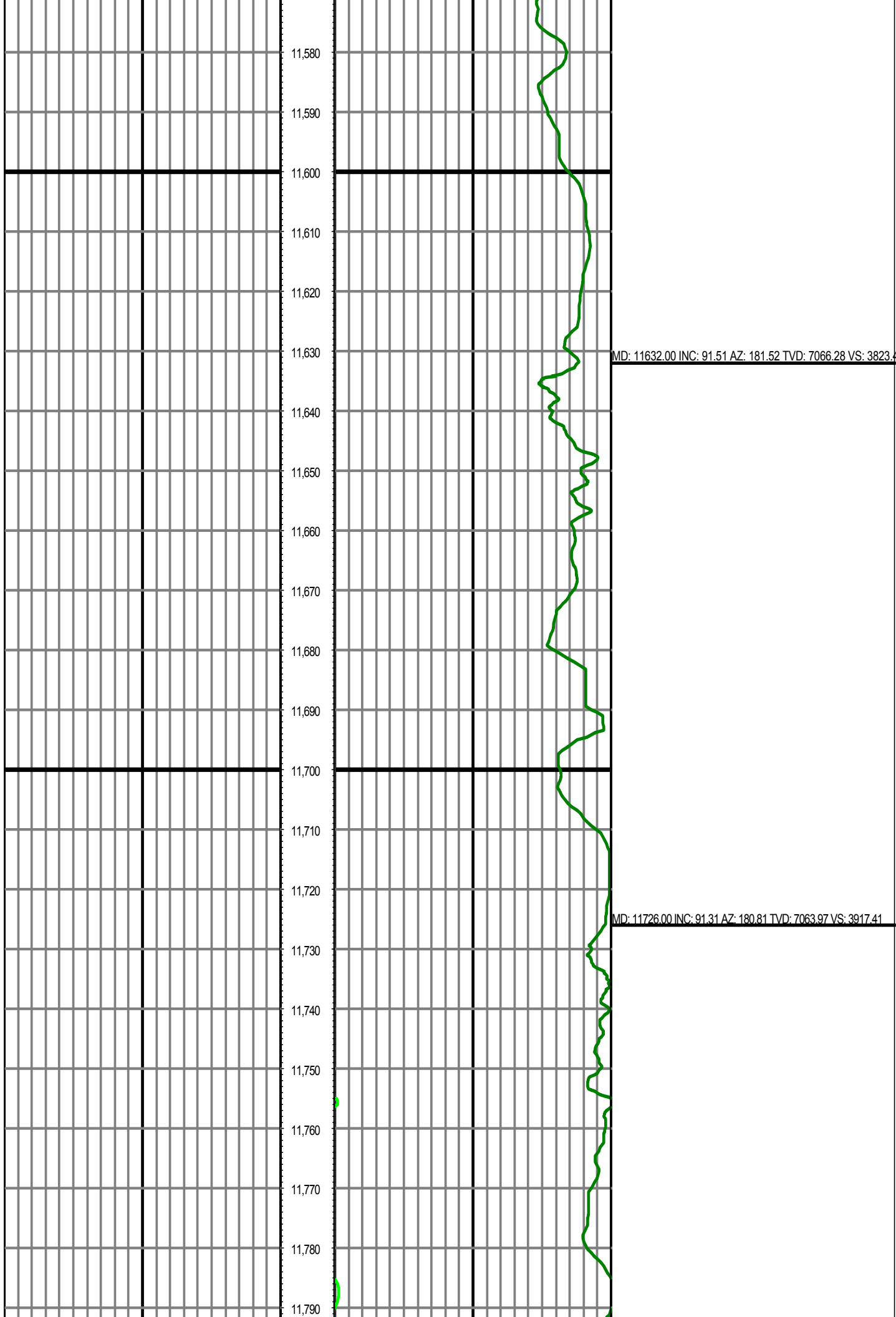


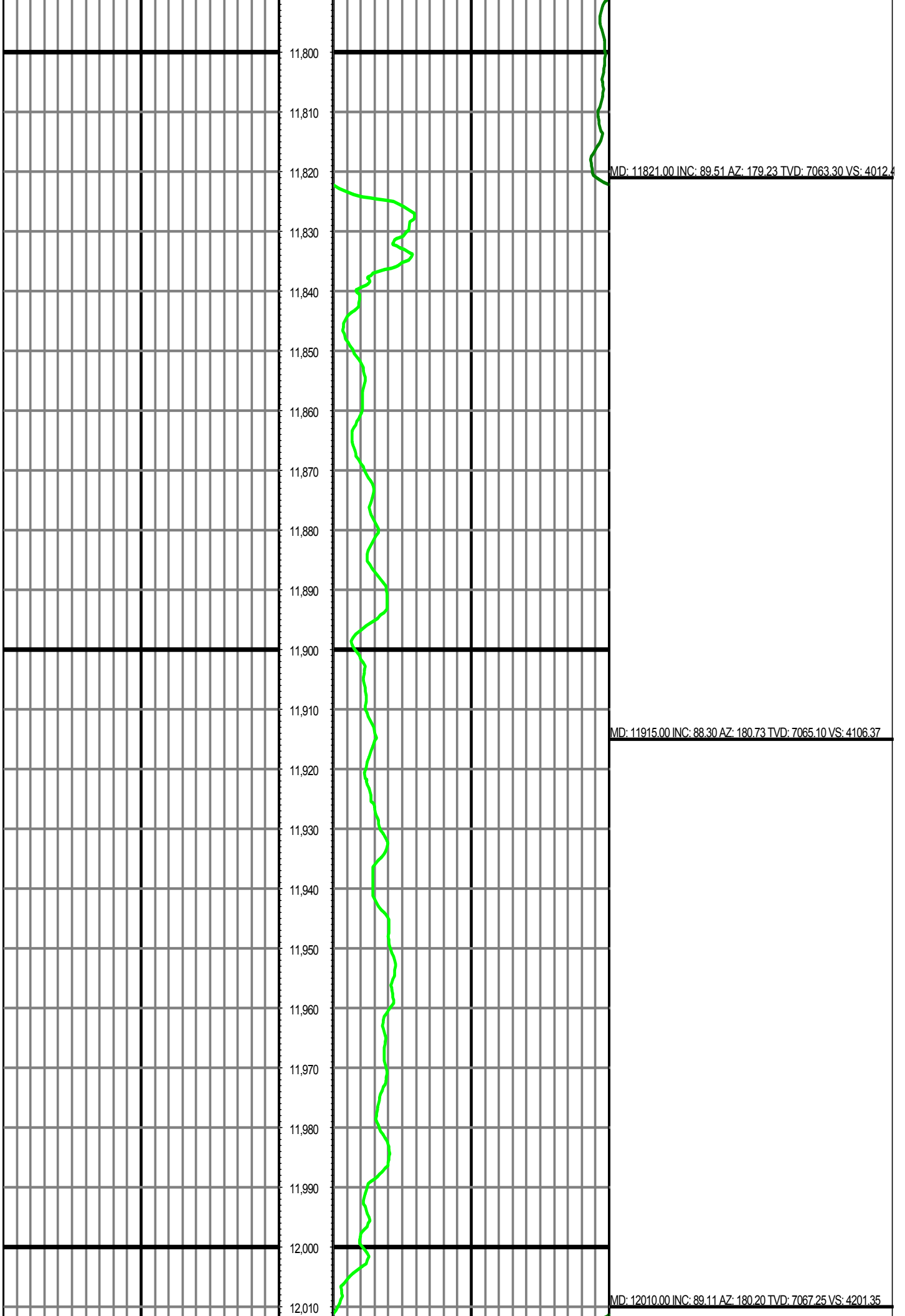


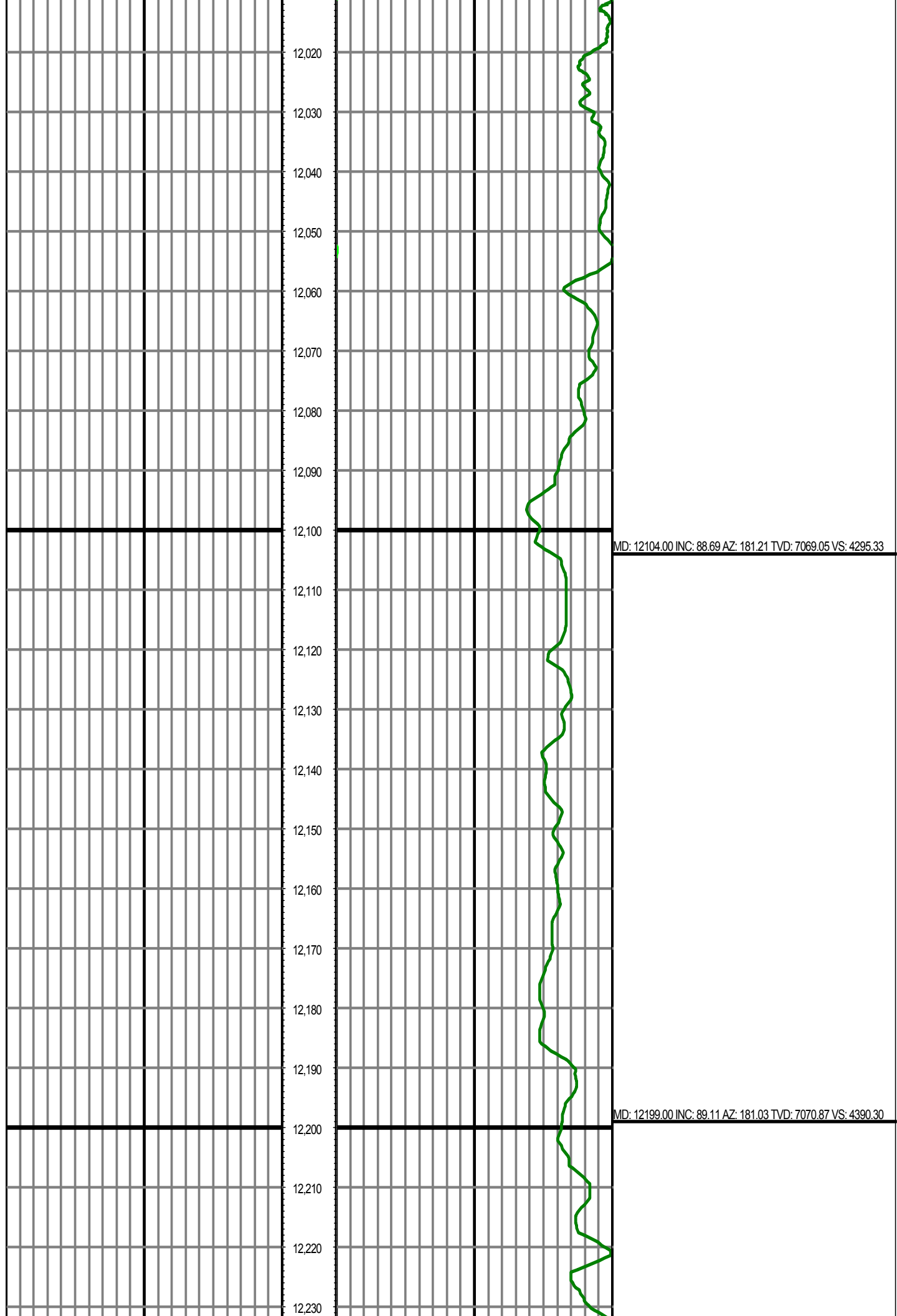


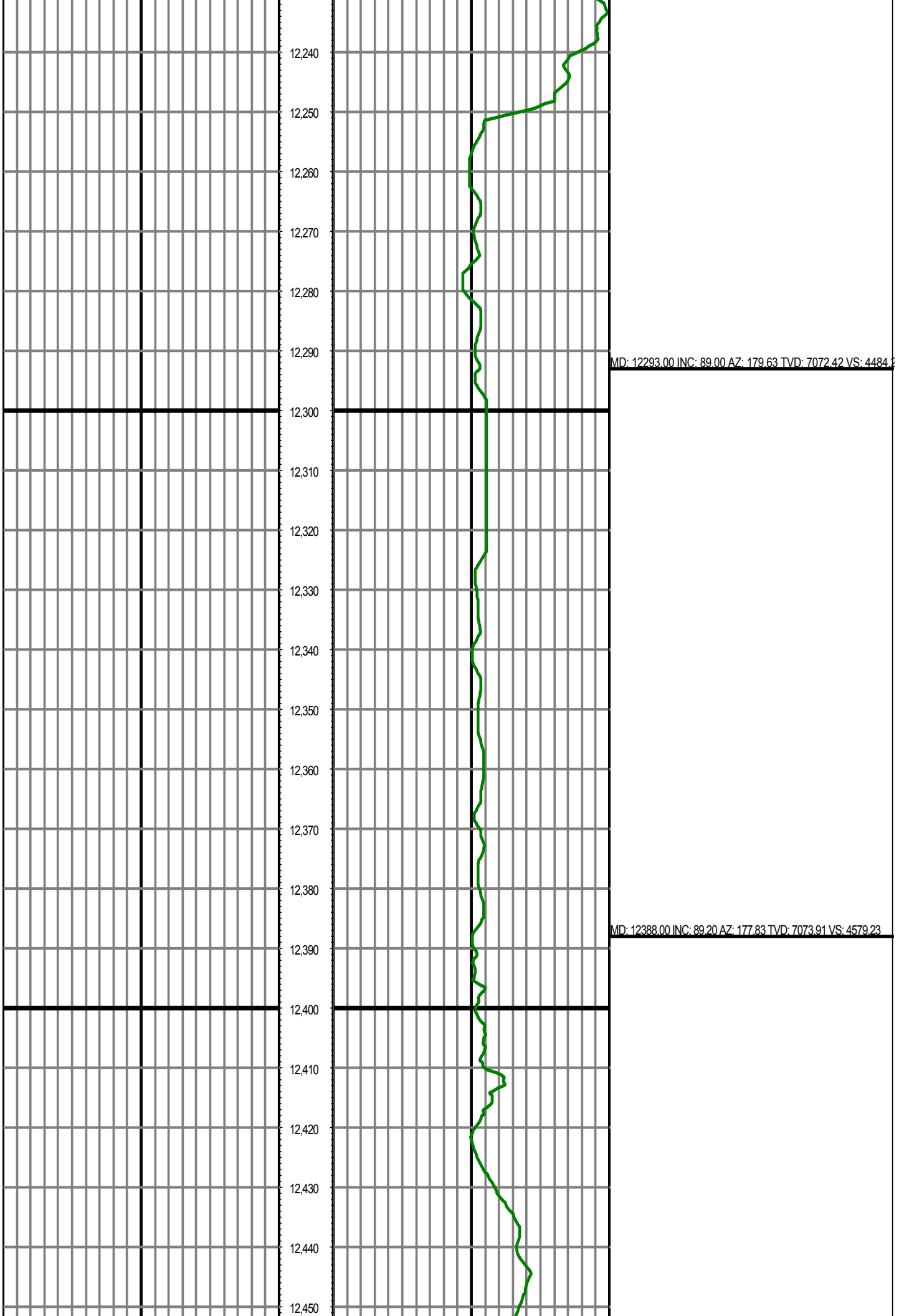
MD: 11443.00 INC: 90.30 AZ: 180.64 TVD: 7068.77 VS: 3634.4

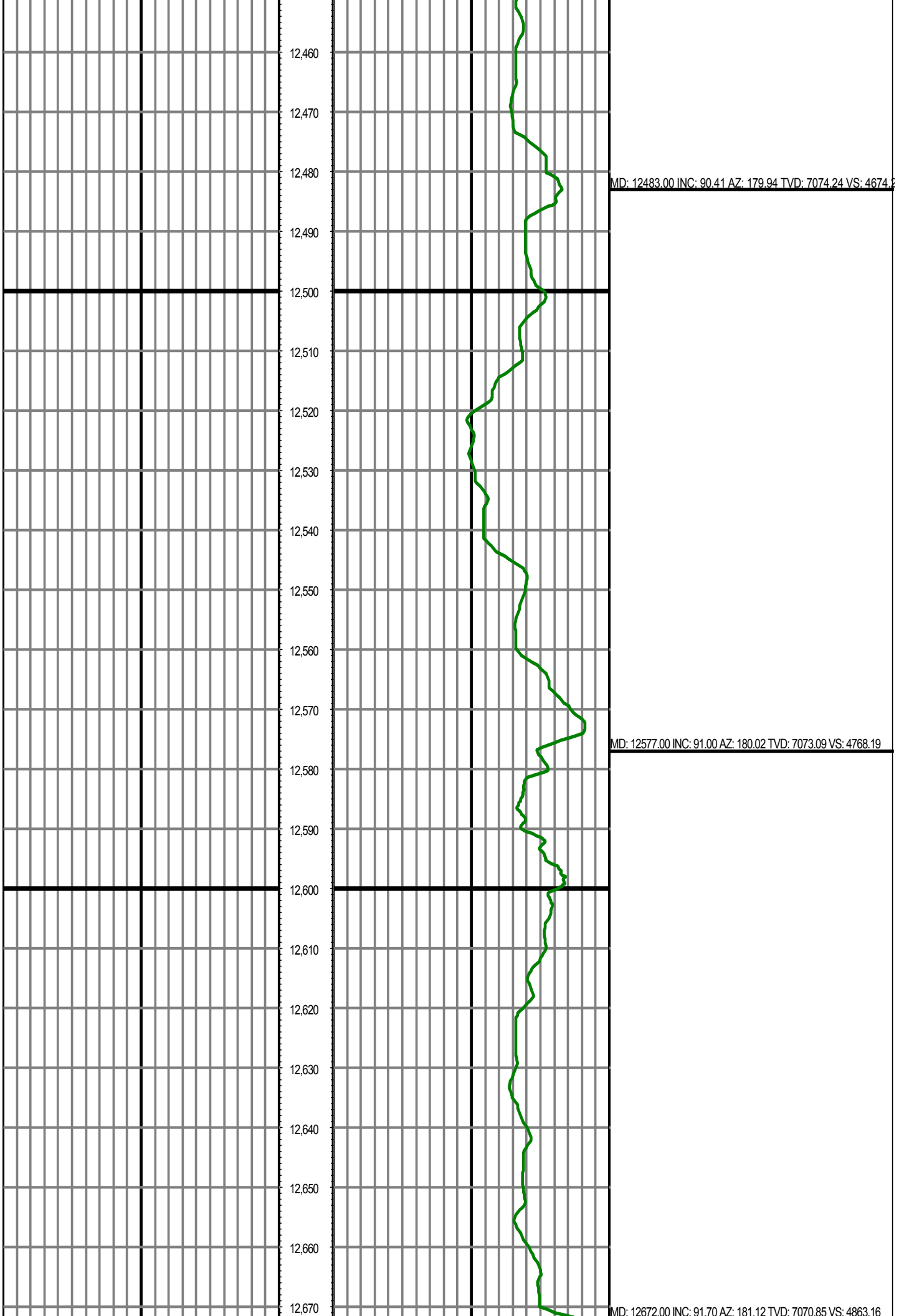
MD: 11537.00 INC: 90.60 AZ: 181.21 TVD: 7068.03 VS: 3728.48



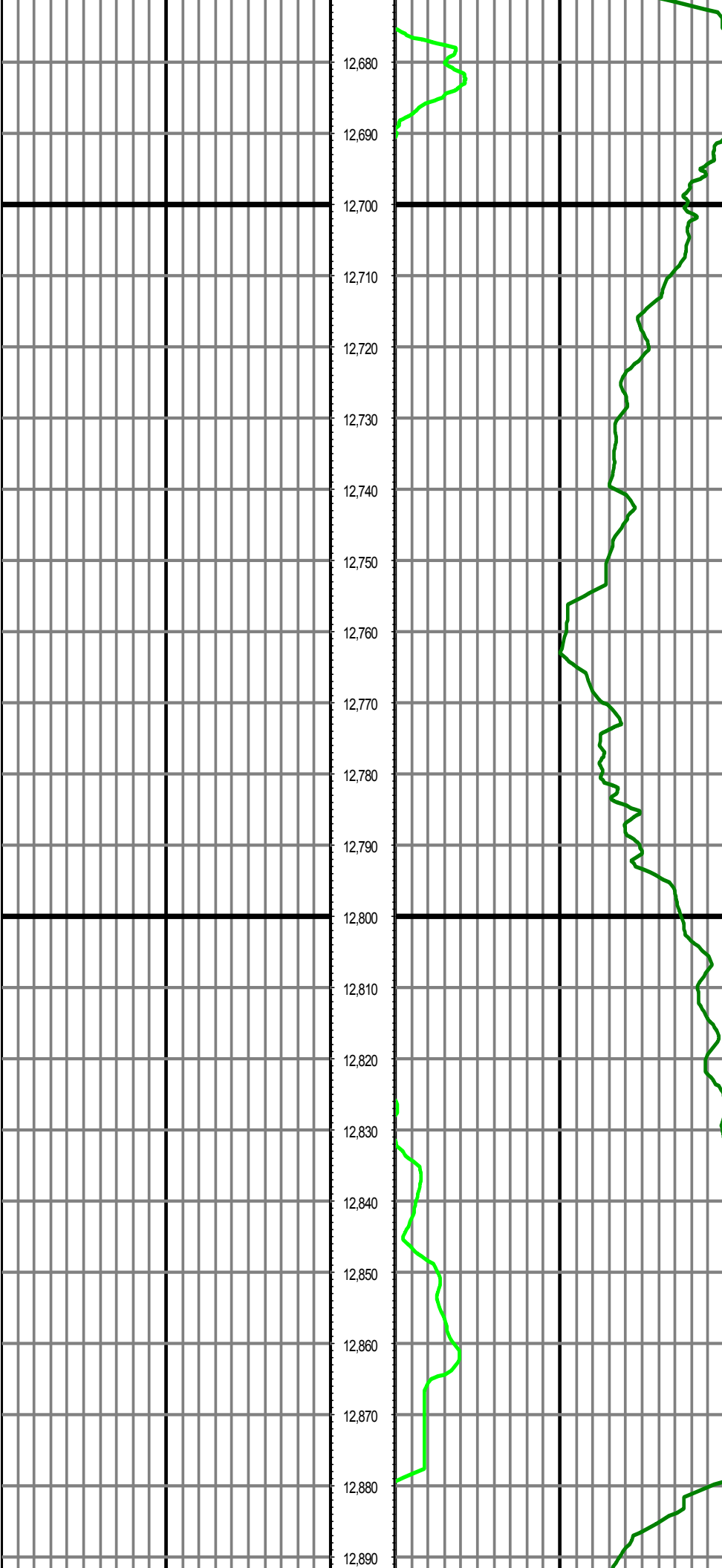






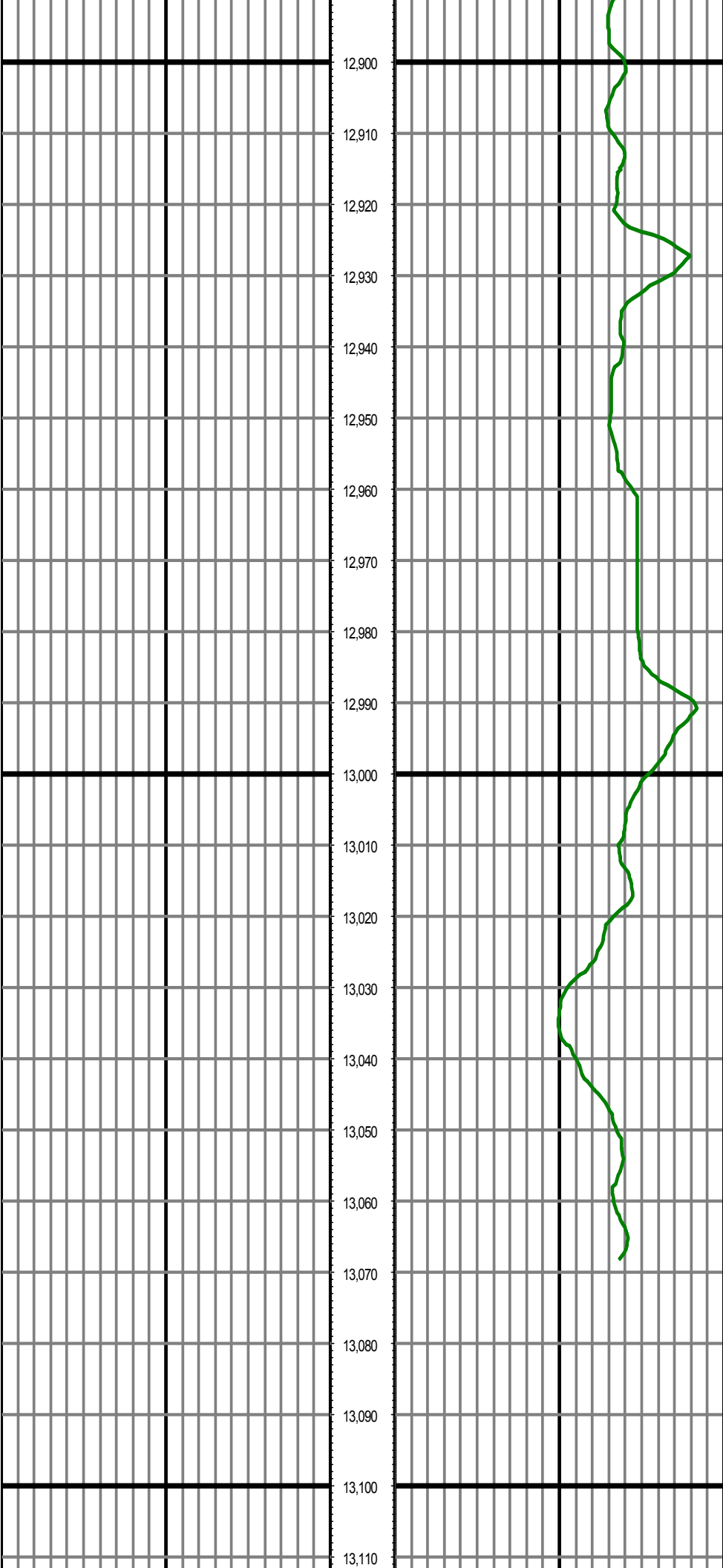


MD: 126726.00 INC: 90.30 AZ: 181.12 TVD: 7069.21 VS: 4957.13



MD: 12766.00 INC: 90.30 AZ: 181.12 TVD: 7069.21 VS: 4957.13

MD: 12860.00 INC: 87.70 AZ: 182.53 TVD: 7070.85 VS: 5051.07



MD: 12955.00 INC: 87.90 AZ: 182.92 TVD: 7074.49 VS: 5145.9

MD: 13049.00 INC: 88.69 AZ: 182.00 TVD: 7077.29 VS: 5239.81

