



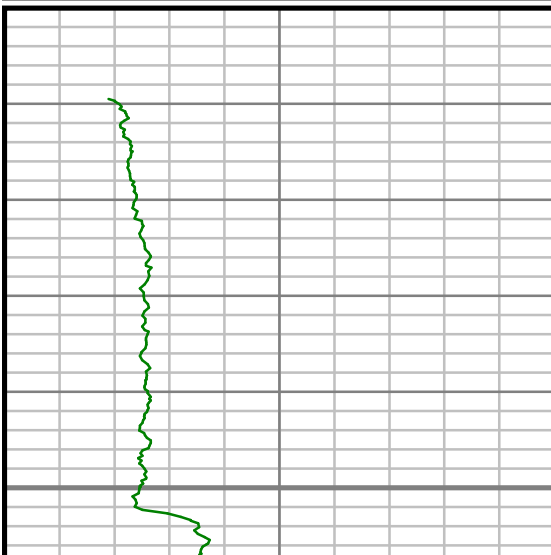
GAMMA RAY

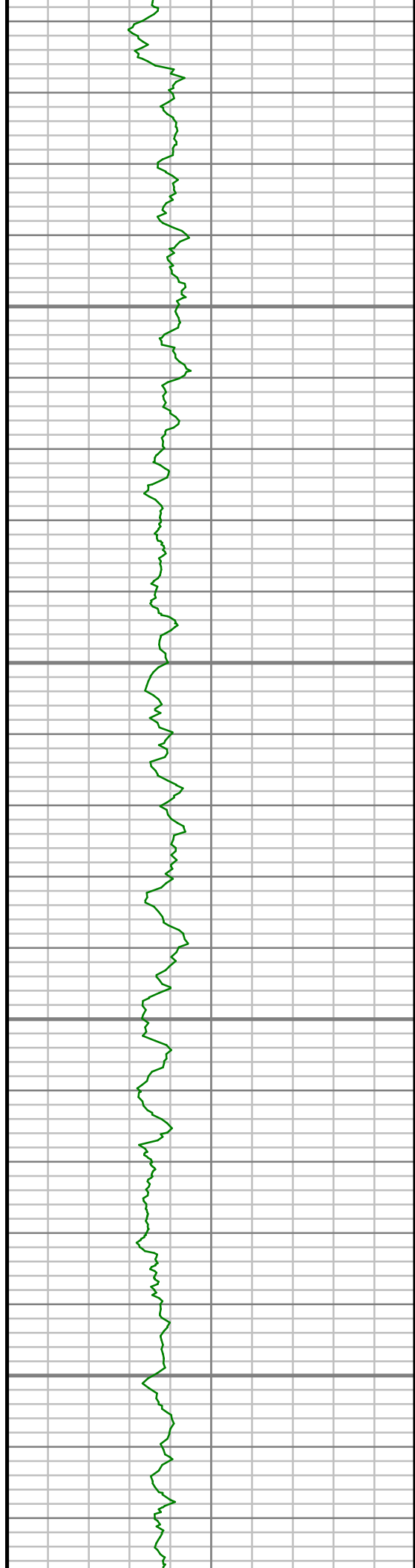
5" = 100' FEET TVD

COMPANY : ENCANA OIL AND GAS (USA) INC									
WELL : NEWNAM 2B-32H-C264									
FIELD : WATTENBERG									
COUNTY : WELD									
STATE : COLORADO									
COUNTRY : U.S.A.									
UWI : 05-123-39773									
OTHER SERVICES									
WELL LOCATION									
LAT:40°6'5.285"N LONG:104°34'43.223"W									
N:1281148.01 ft E:3257724.40 ft									
SEC:32 TWP:2N RANGE:64W									
DIRECTIONAL									
ROP									
DEPTH REF. : RKB									
REF. HEIGHT : 13.000 ft									
RKB to Ground Level									
GROUND LEVEL : 4953.000 ft									
G.L. to MEAN SEA LEVEL									
BOREHOLE RECORD					DEVIATION RECORD				
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft				
12.25	125	1025	0 - 15	125	1025				
8.75	1025	7582	15 - 88	1025	7582				
6.125	7582	11483	88 - 91	7582	11483				
CASING RECORD									
CASING SIZE in	FROM ft	TO ft							
9.625	0	1013							
7	0	7564							
DRILLING CO. : ENSIGN					LMD UNIT NO. : C70-EW4#8DISTRICT : CASPER				
RLG : 124					SPUD DATE : 10/27/2014				
					LMD START DATE : 10/30/2014				
					LMD END DATE : 11/04/2014				
					DEPTH : 5000 ft				
					DEPTH : 11483 ft				
					TOTAL DEPTH : 11483 ft				

Remarks
ENCANA OIL AND GAS (USA) INC PRODUCTION AFE# 13179010
SCIENTIFIC DRILLING INTERNATIONAL JOB# 214957
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN #1: MWD / DIRECTIONAL RUN
SENSORS S/N: PULSER = 128-210 / CONT = 865 / MWD EYE = 1012 / GMWD = 012
BIT TO SENSOR OFFSETS: SURVEY = 62.13 FT. / GYRO = 49.15 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-185 / CONT = 822 / MWD EYE = 0809 / GAMMA RAY = 1194
BIT TO SENSOR OFFSETS: SURVEY = 61.69 FT. / GAMMA RAY = 57.06 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-212 / CONT = 865 / MWD EYE = 1012 / GAMMA RAY = 1168
BIT TO SENSOR OFFSETS: SURVEY = 62.01 FT. / GAMMA RAY = 57.38 FT.
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION

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 interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions as set out in our current price schedule.

ENCANA OIL AND GAS (U.S.A.) INC NEWNAM 2B-32H-C264 WATTENBERG FIELD WELD COUNTY, COLORADO 05-123-39773			
<div>Gamma Ray (GR)</div> <div>0Unit = aapi150</div> 		TRUE VERTICAL DEPTH 1:240 (ft) <	

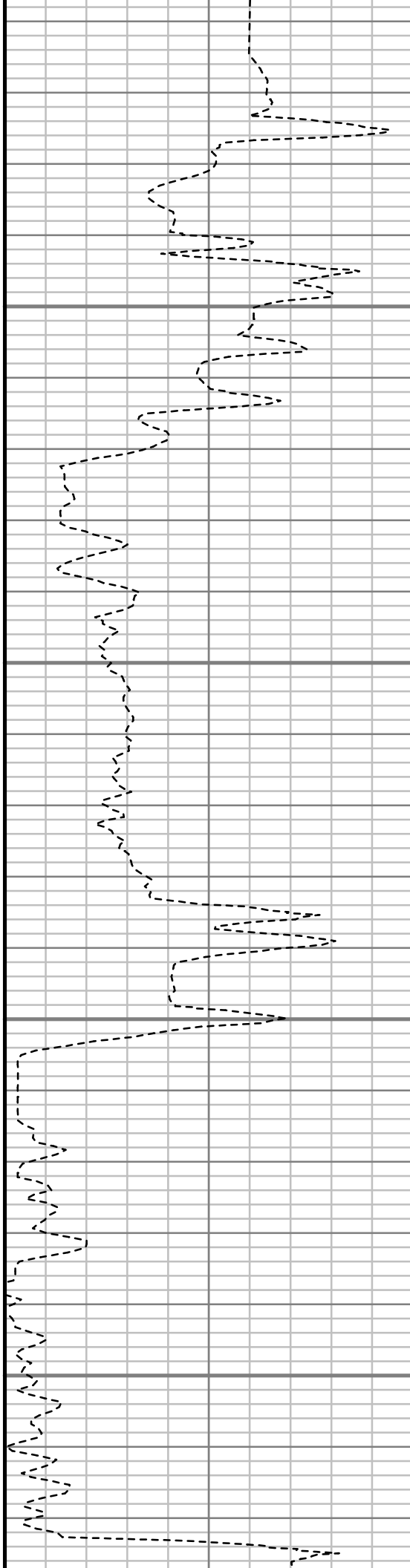


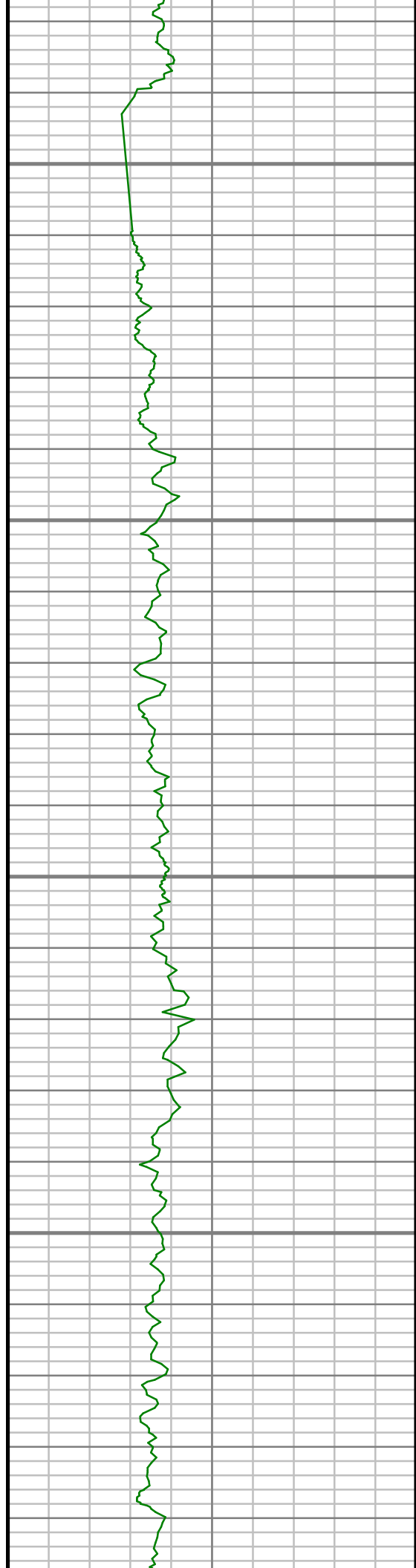
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1100

1150

1200



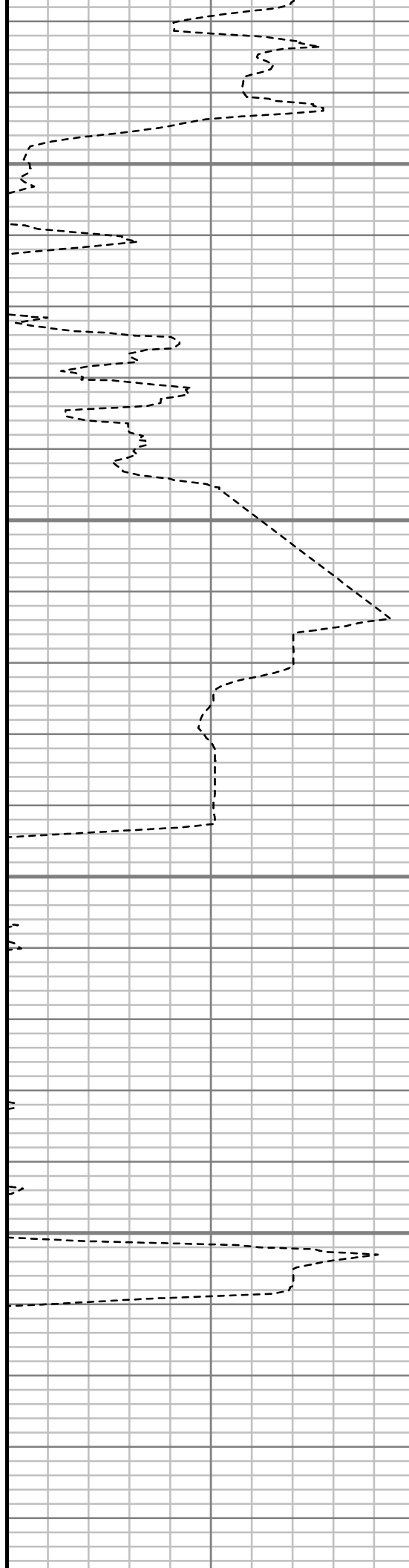


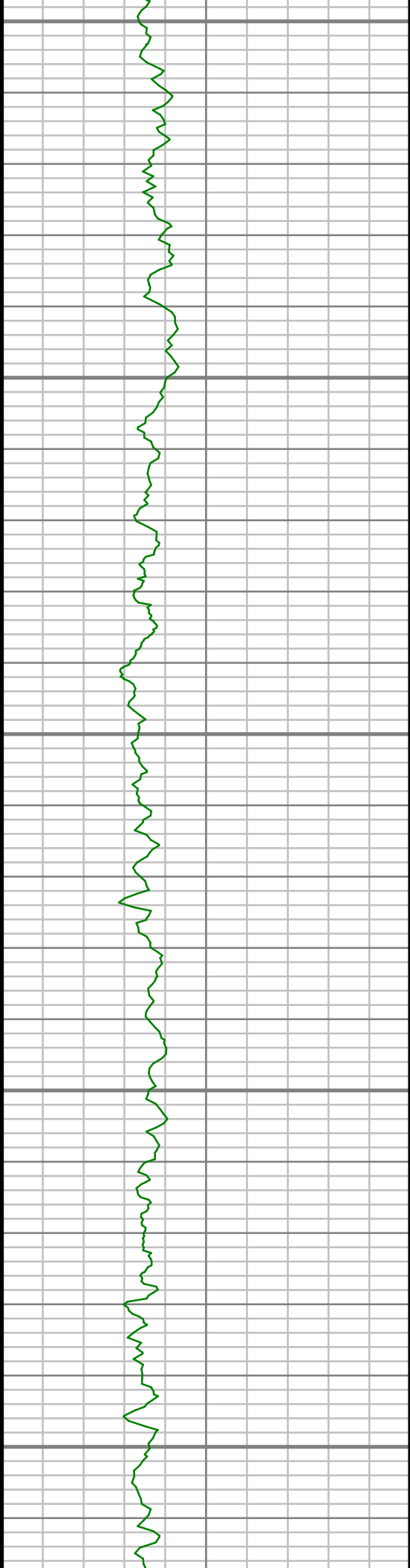
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1300

1350

1400





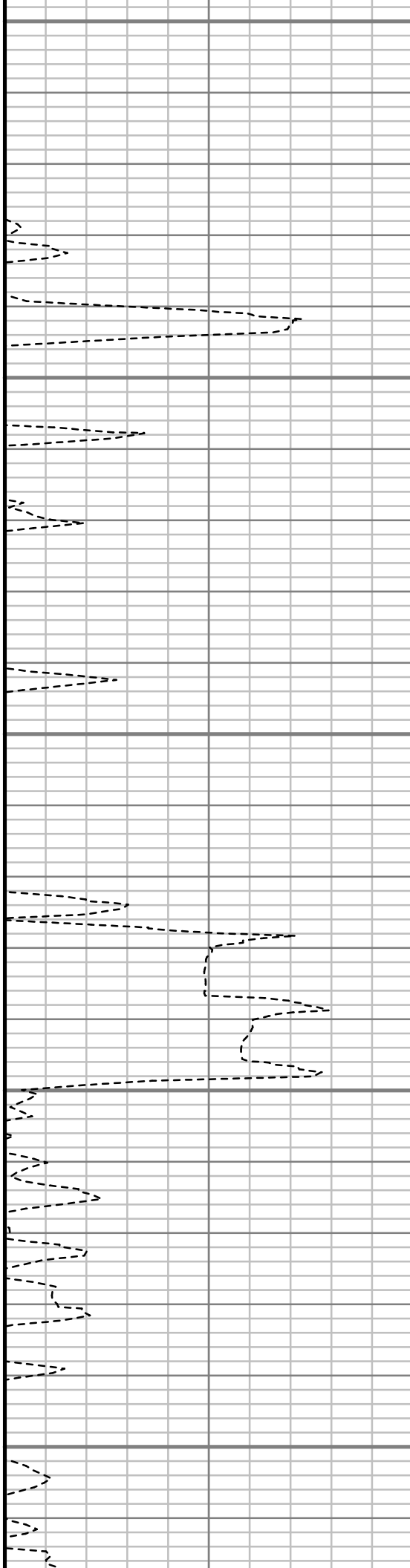
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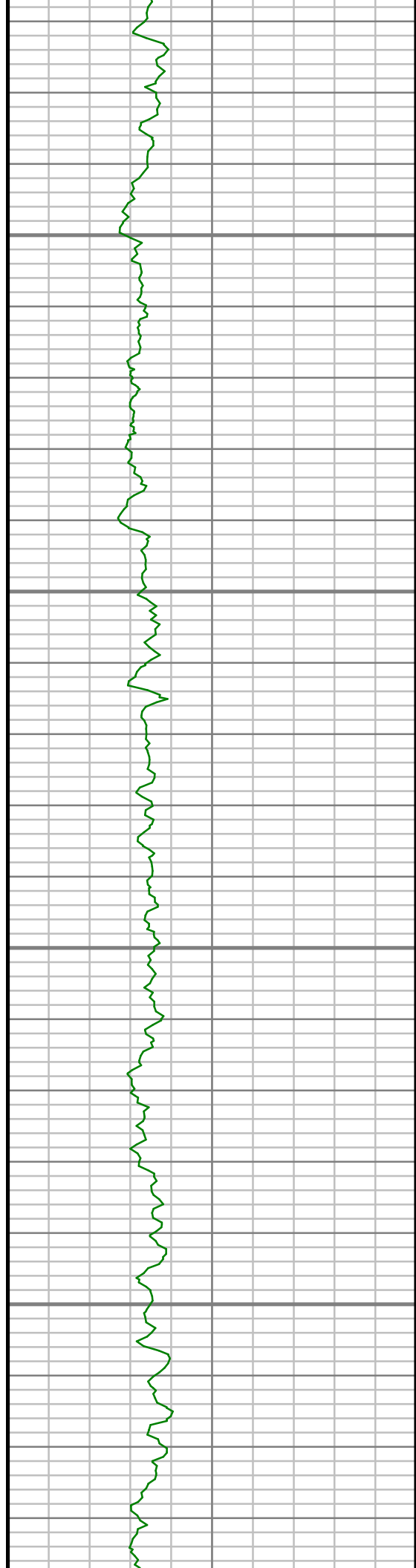
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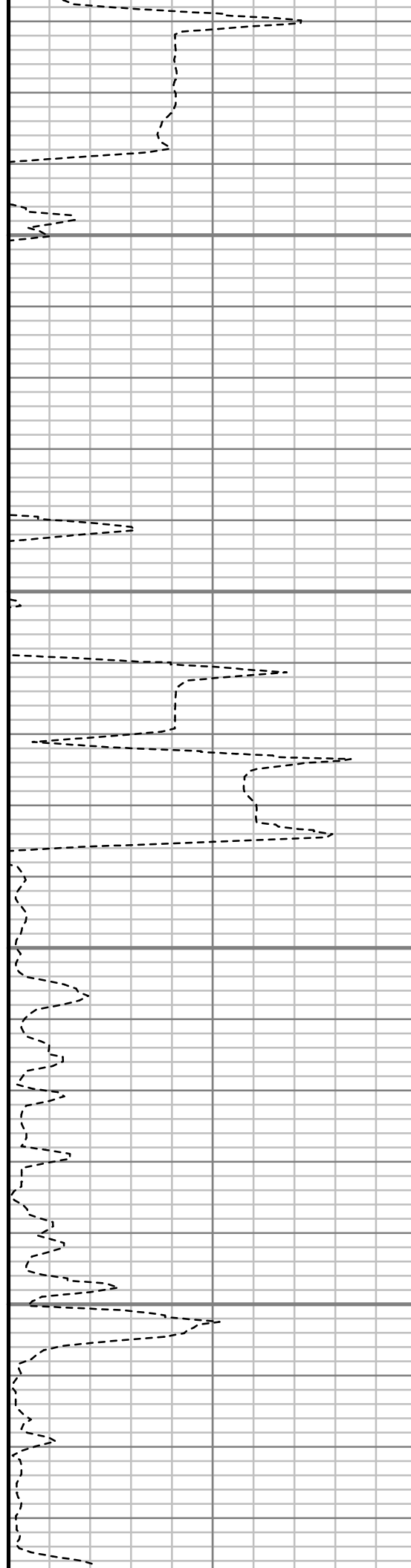


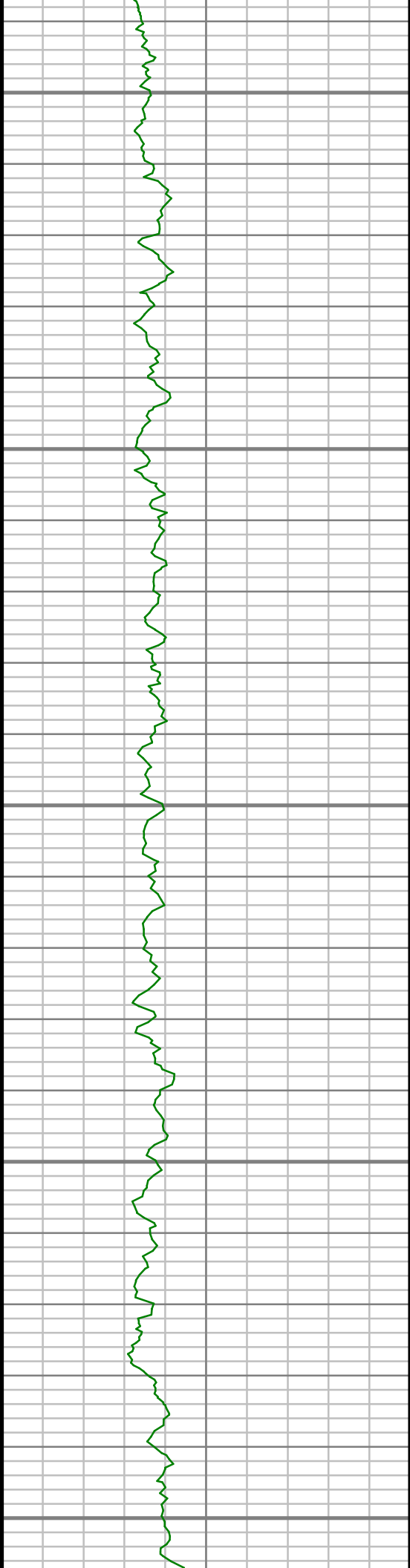
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1850





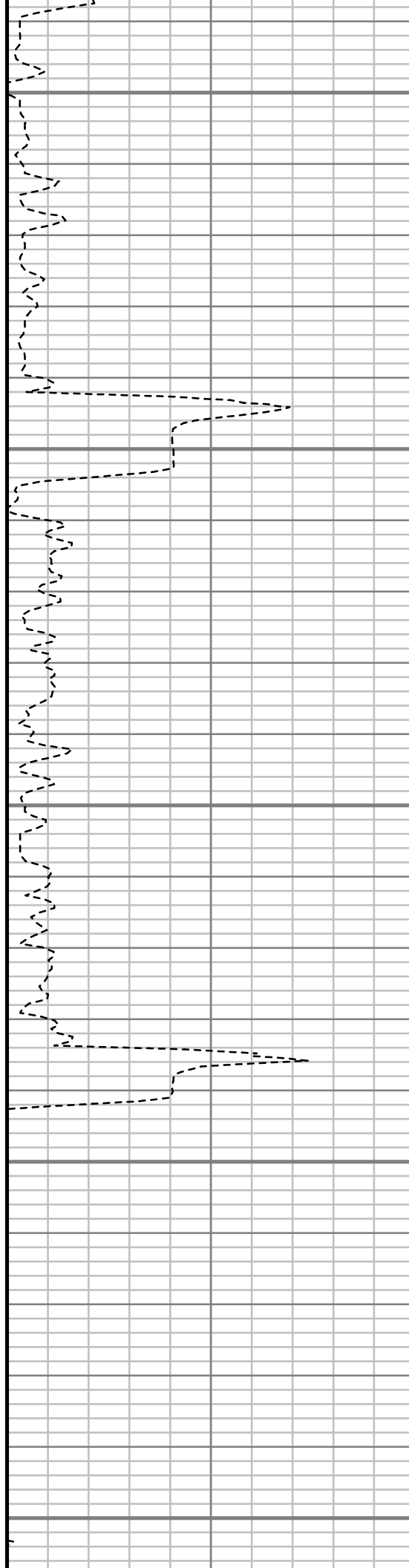
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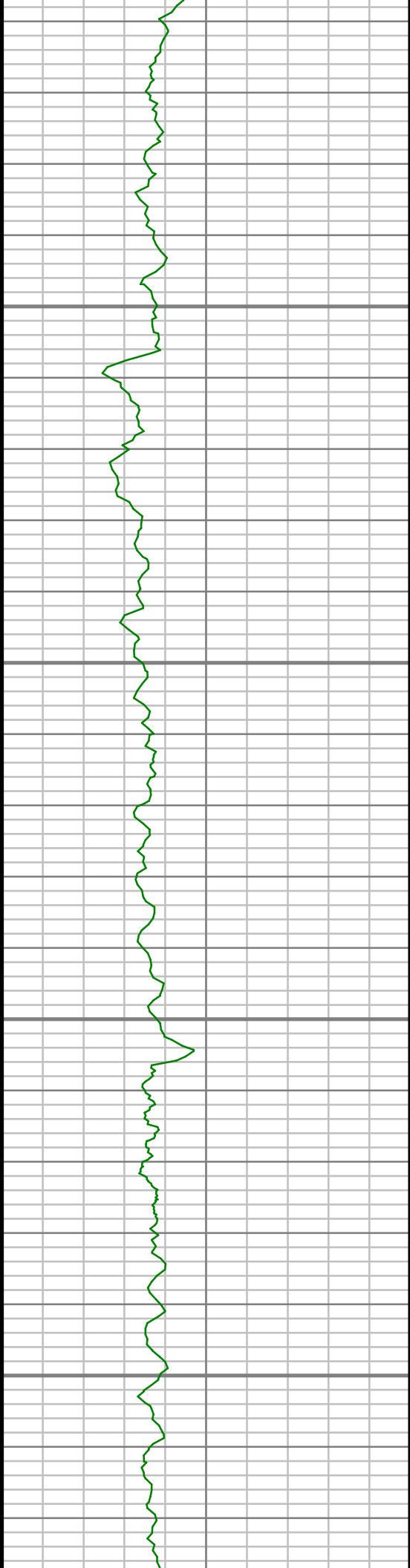
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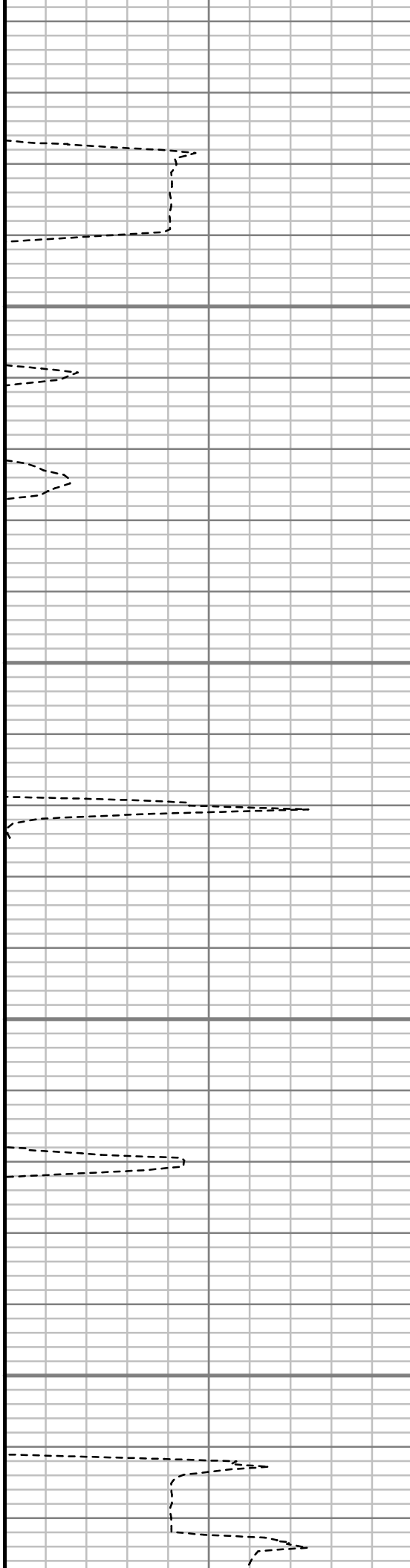


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2200

2250

2300



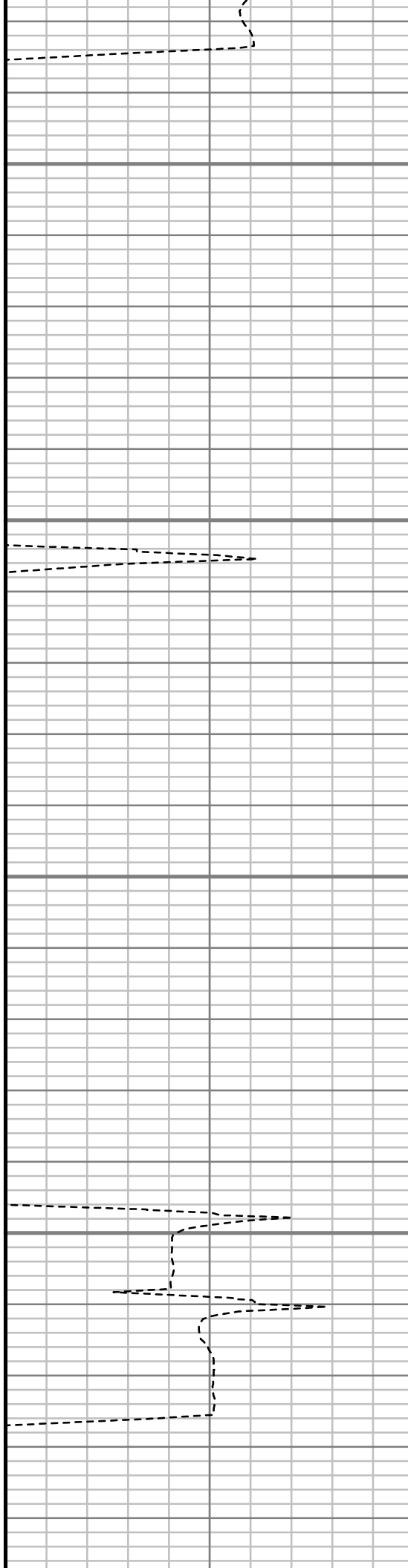


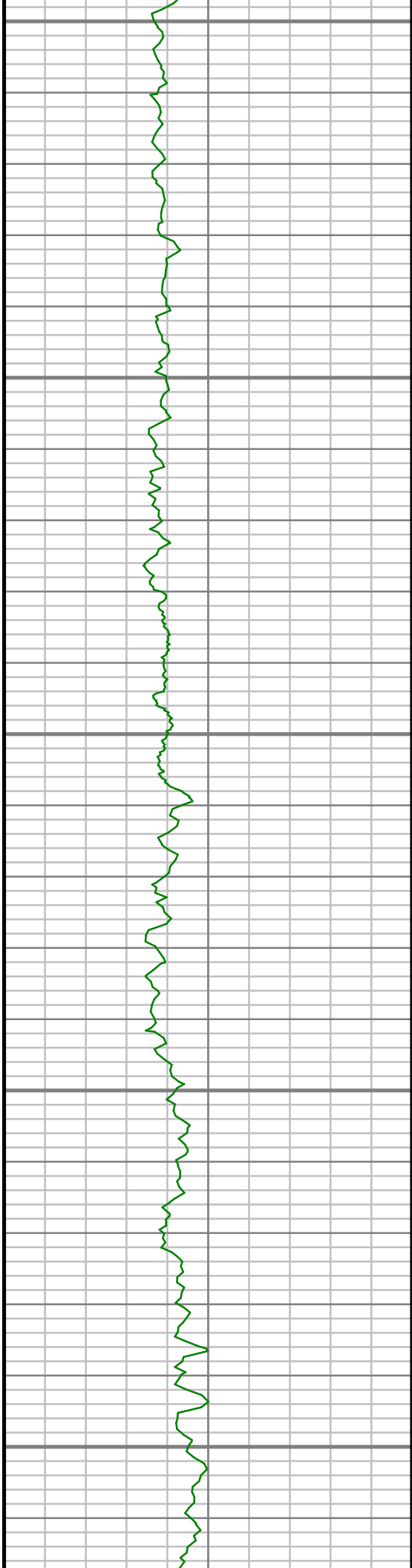
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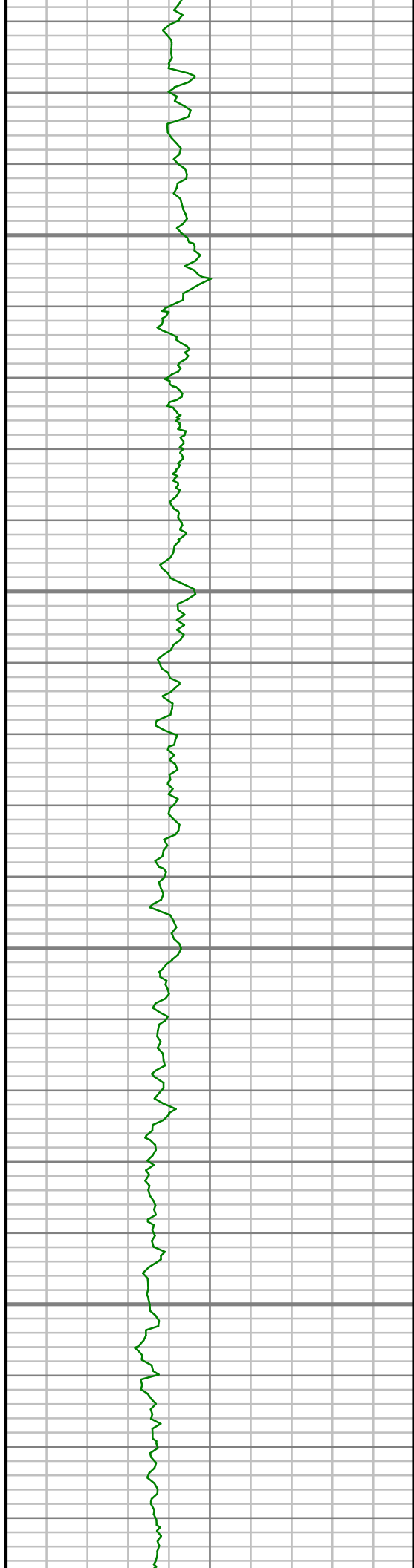
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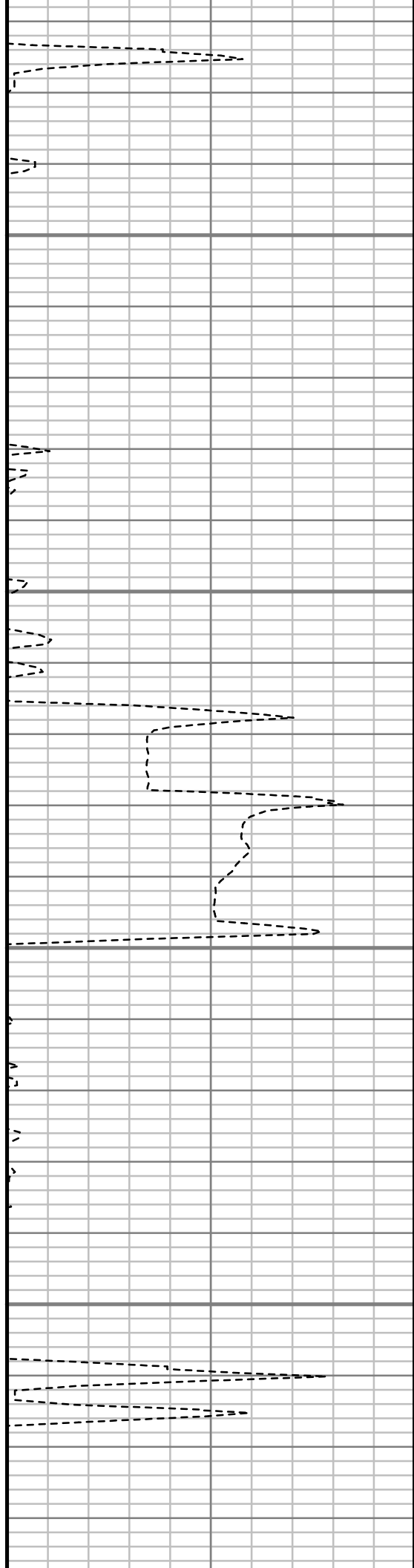


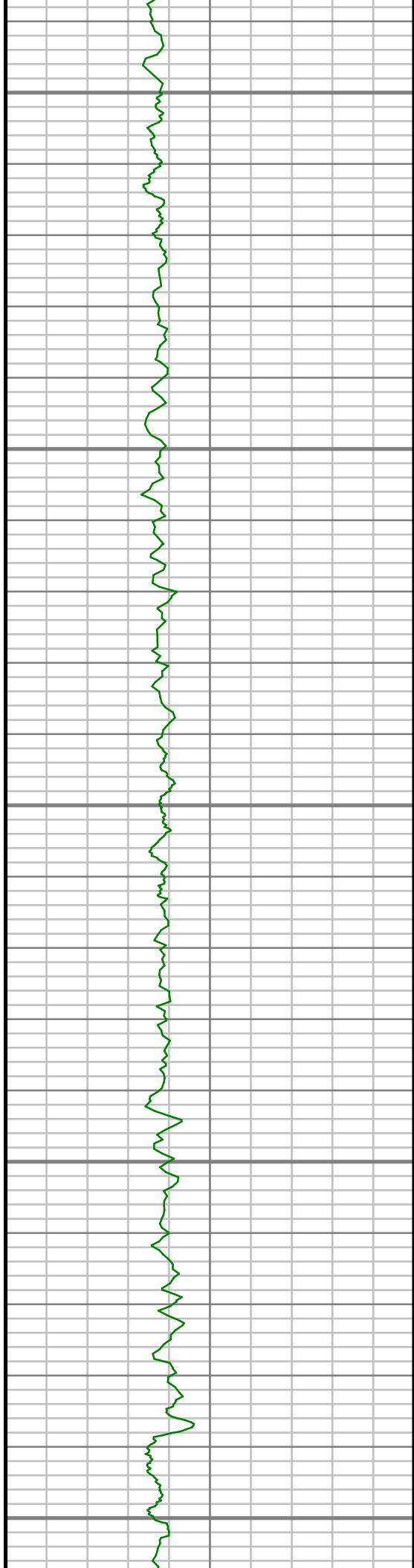
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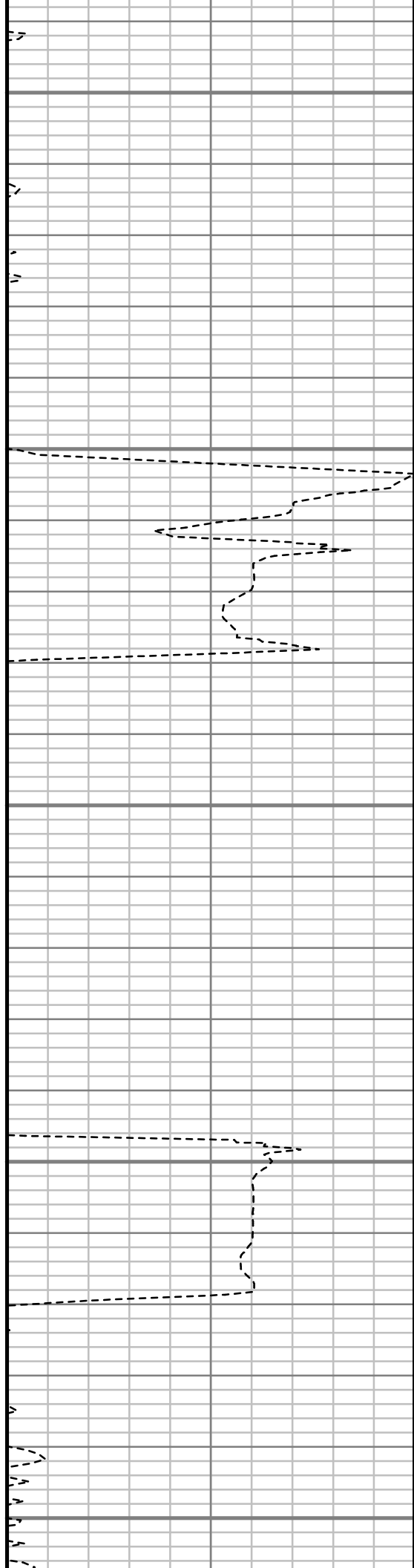
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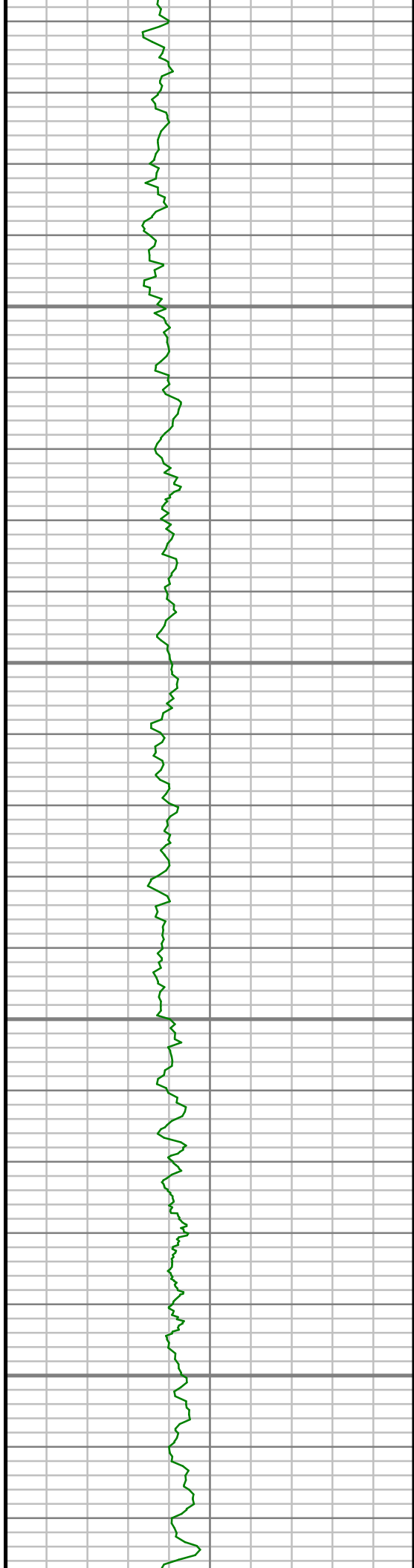
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3200



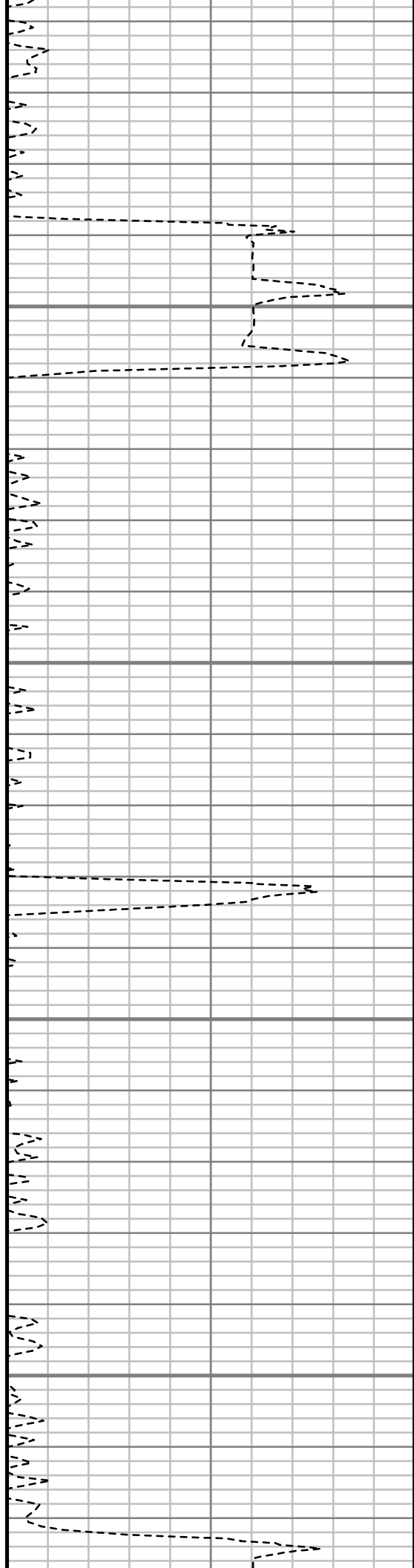


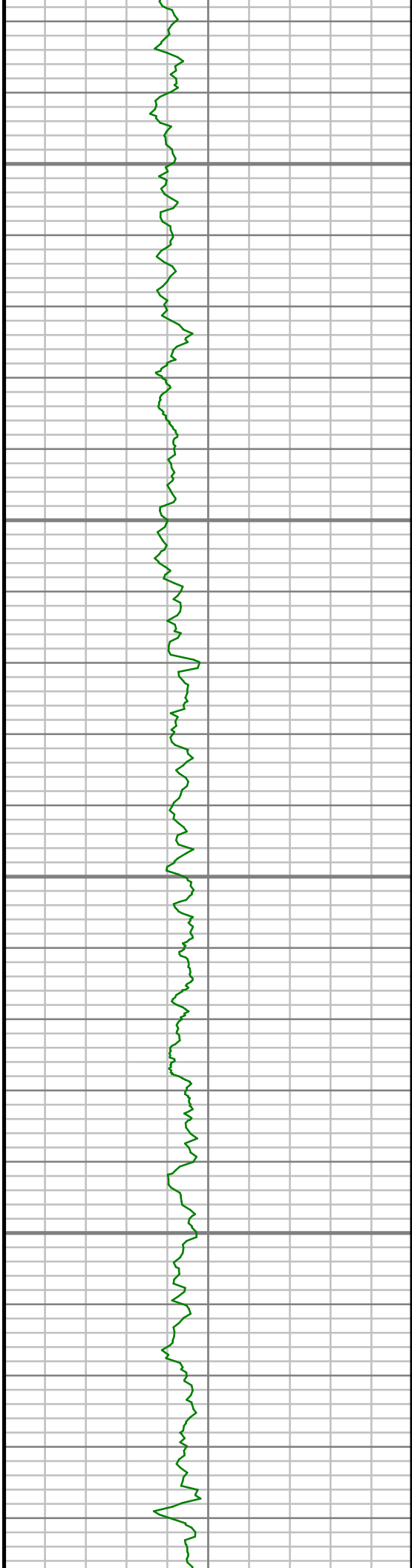
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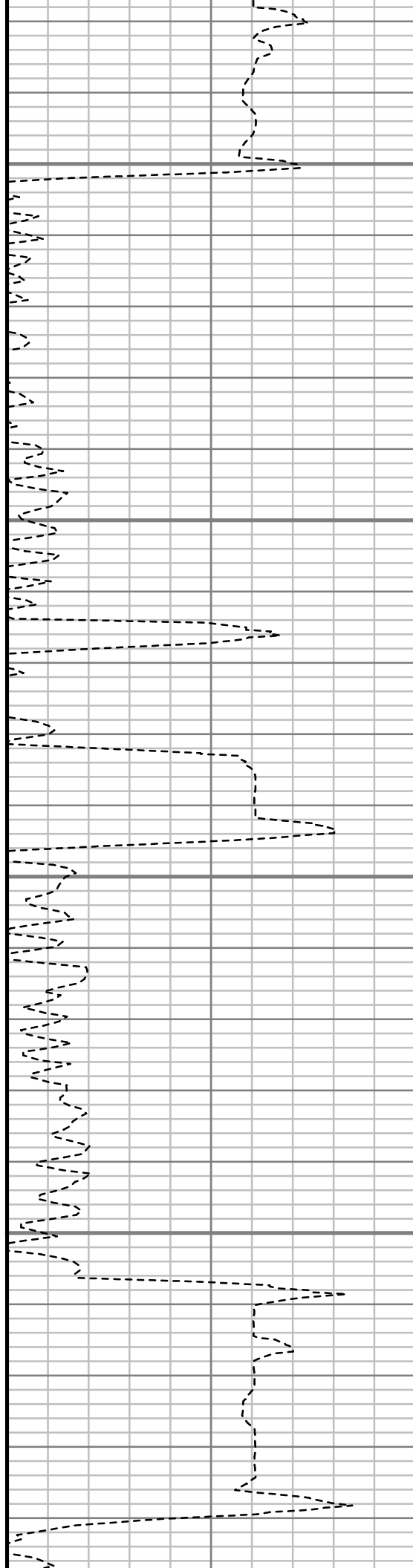


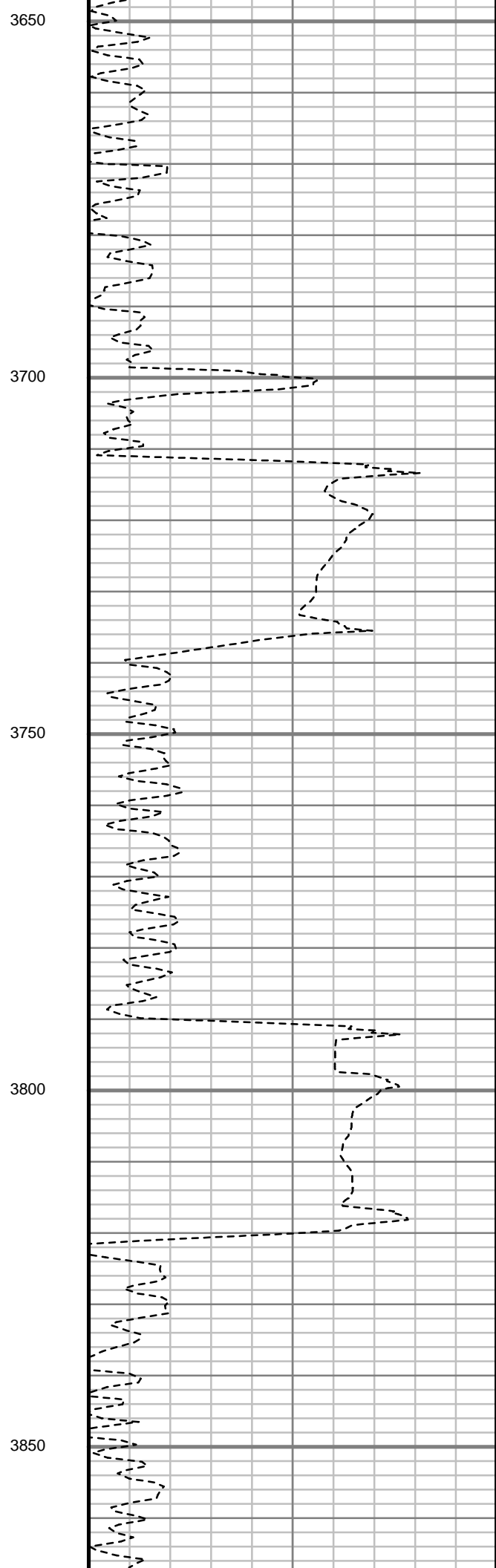
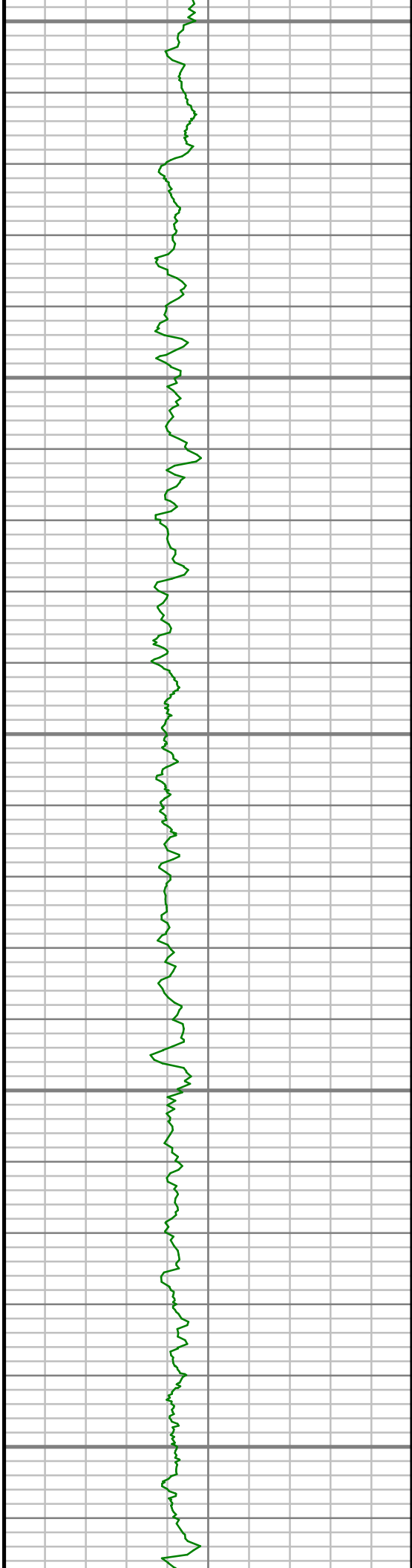
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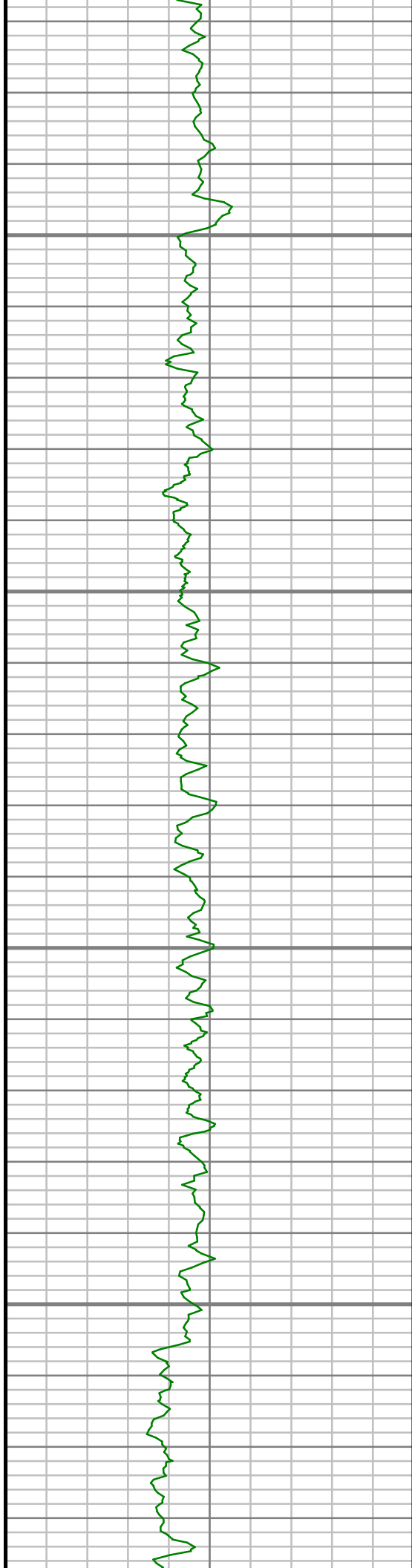
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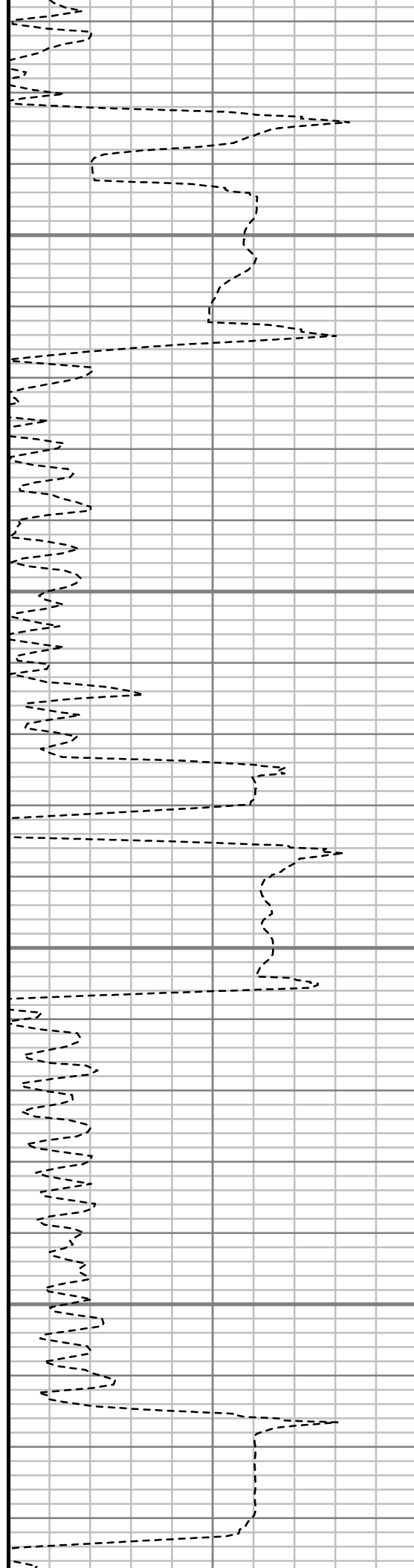


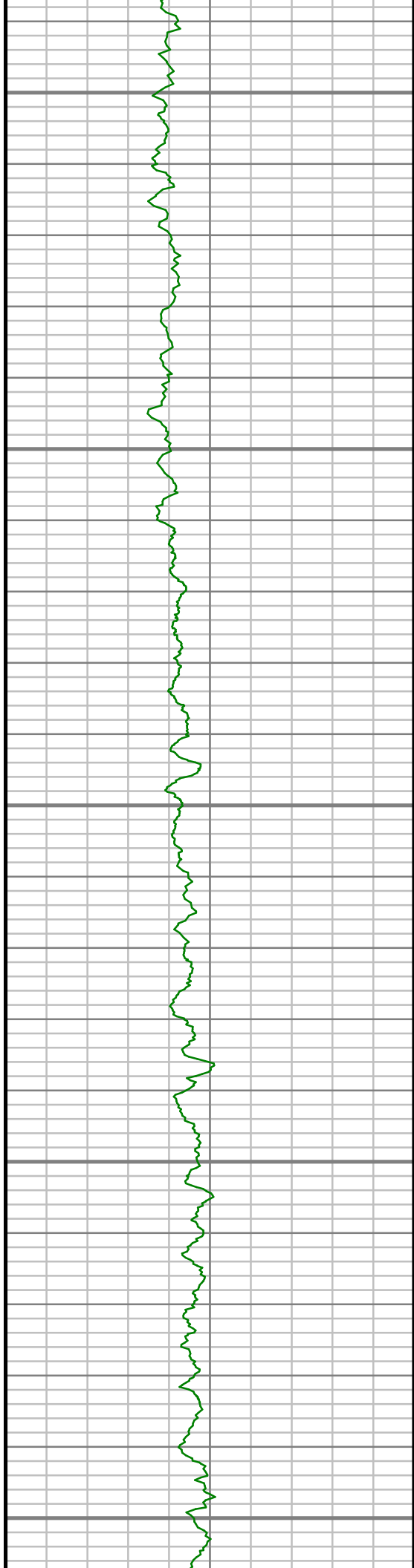
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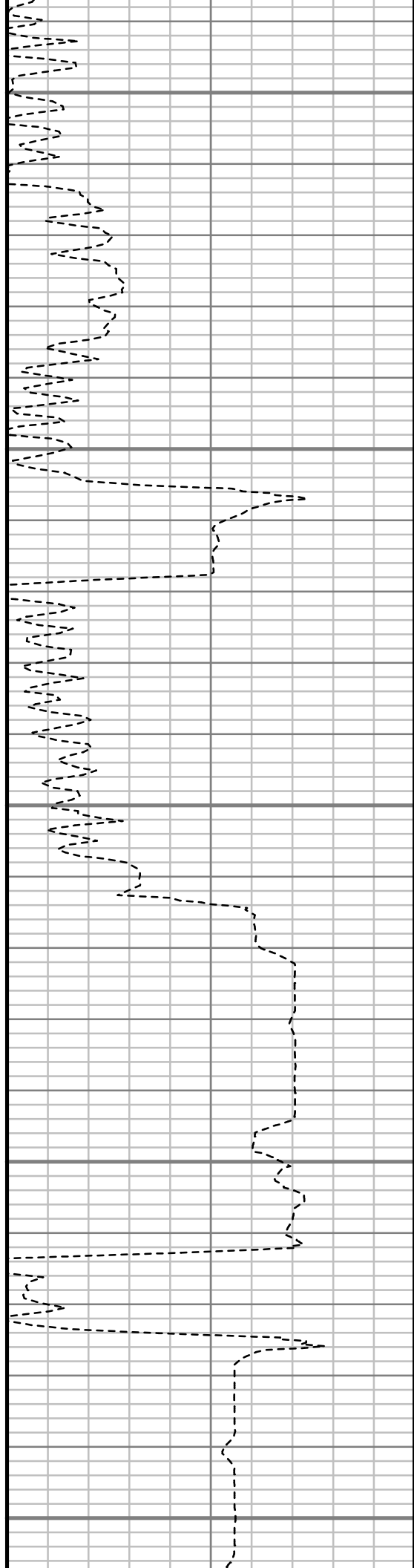
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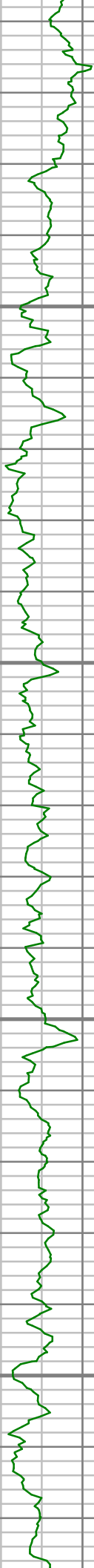
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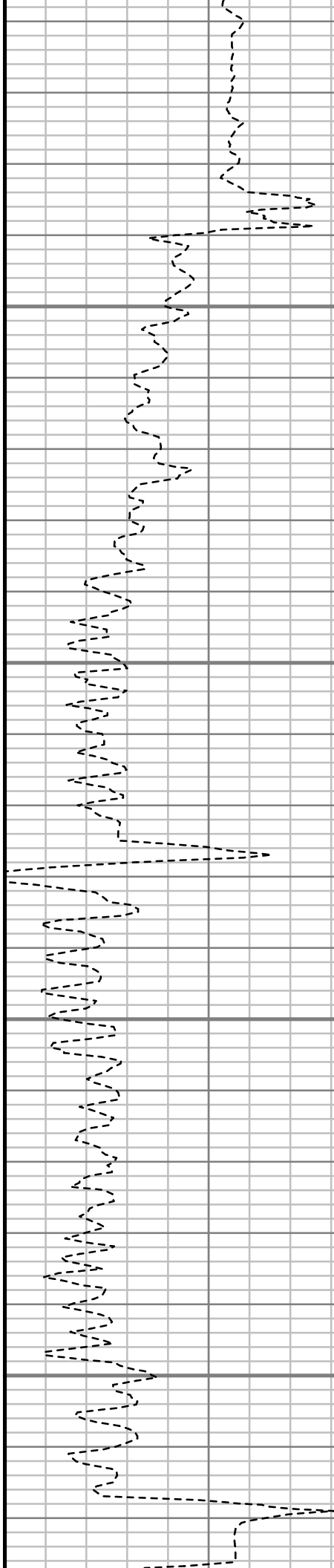


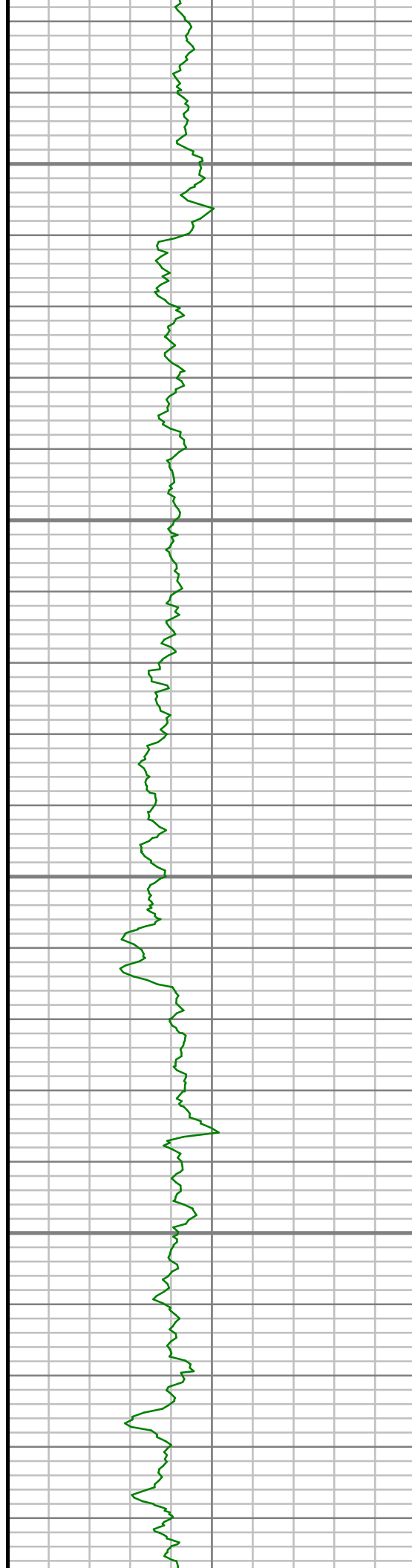
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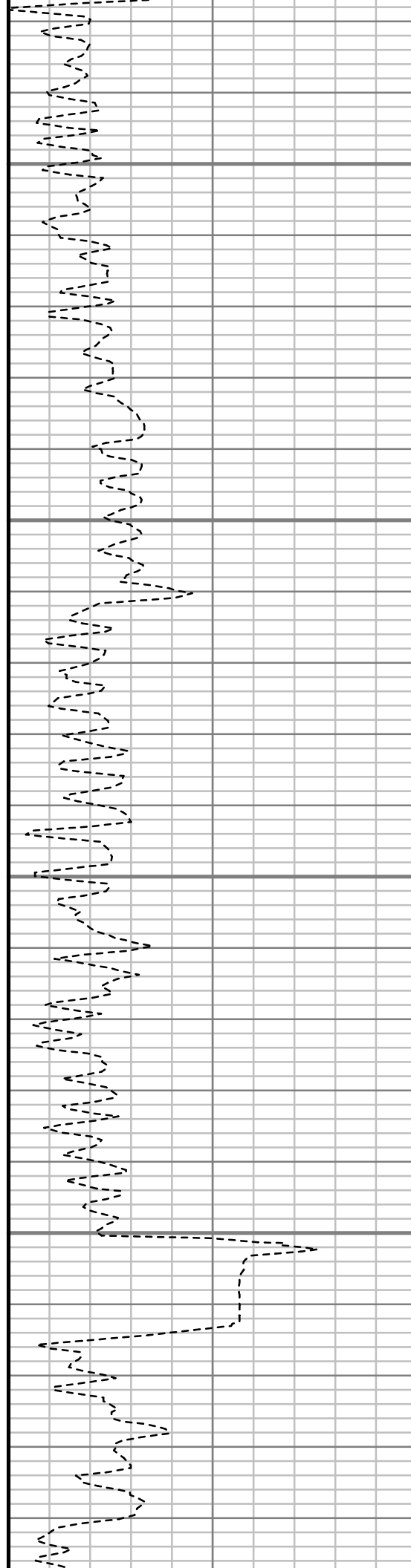


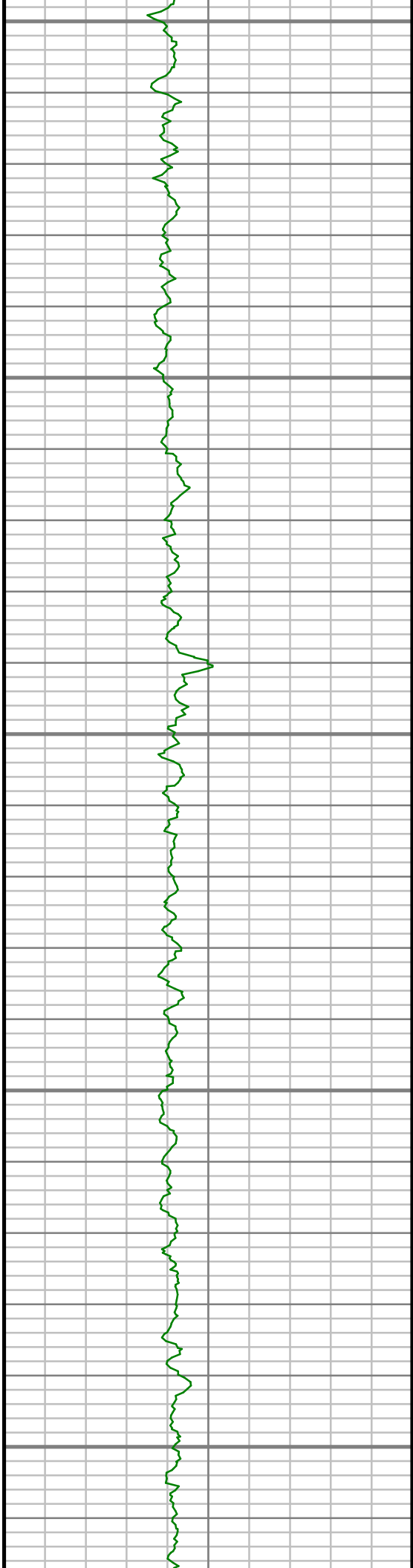
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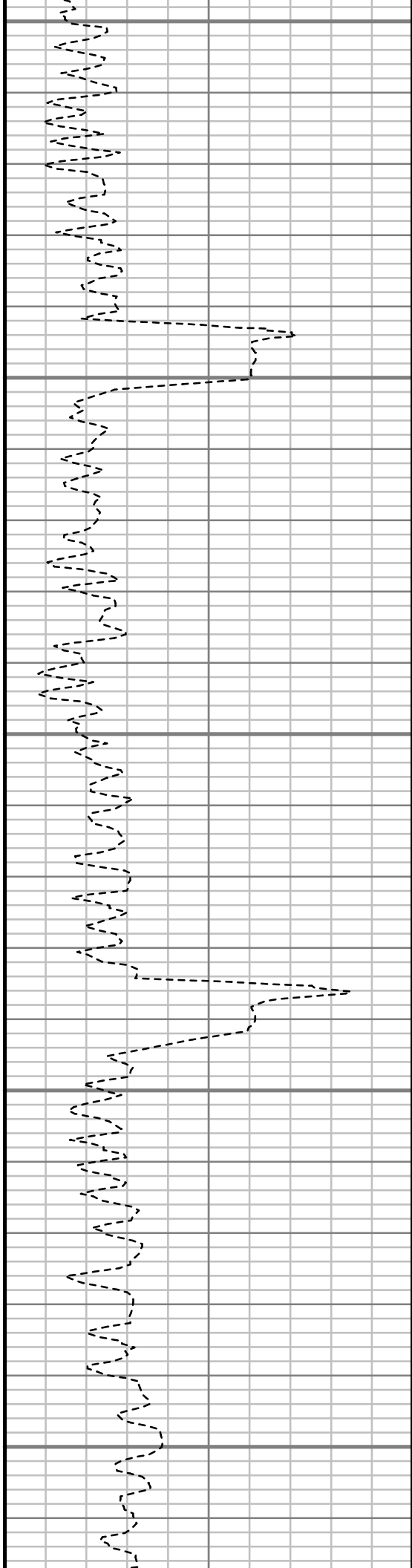
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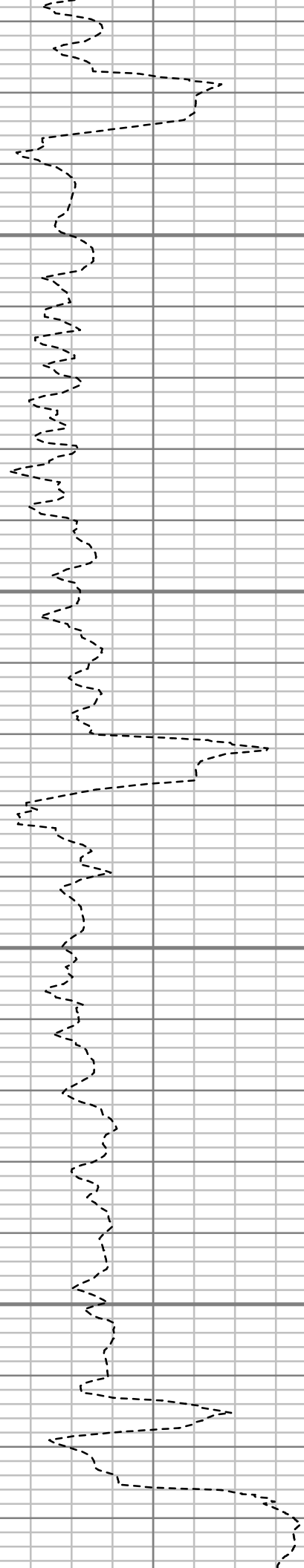


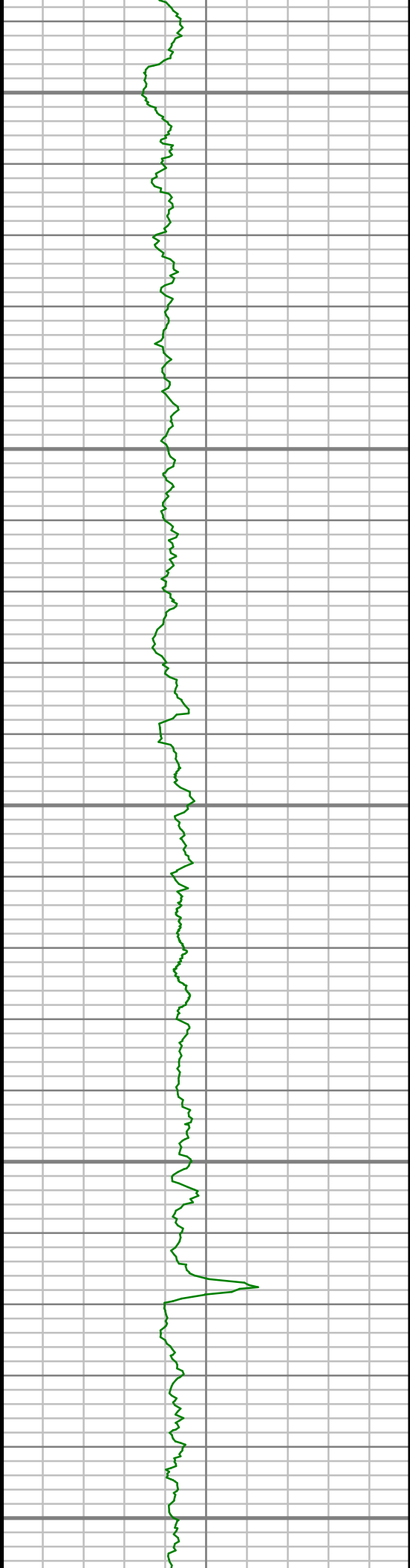
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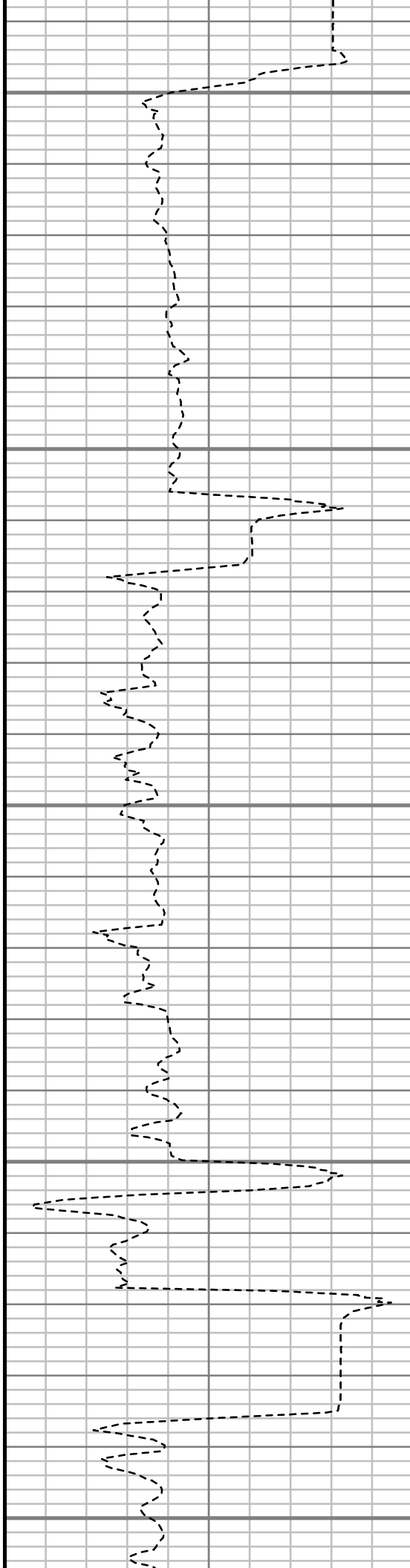
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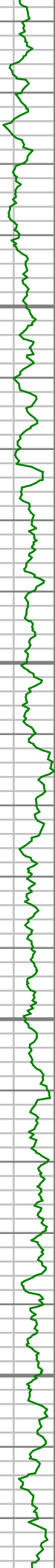
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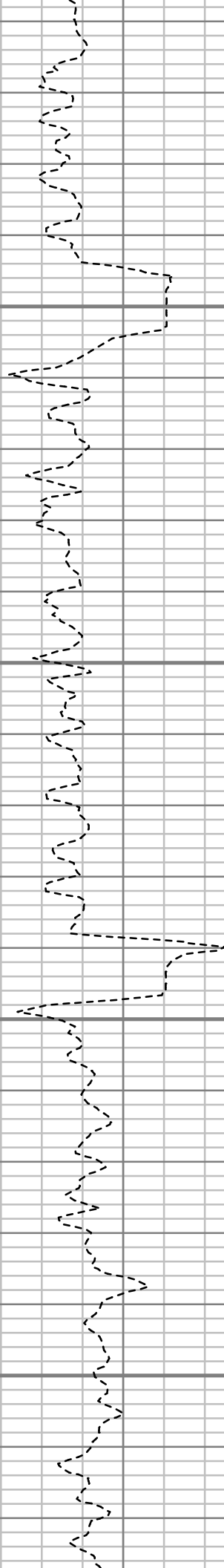


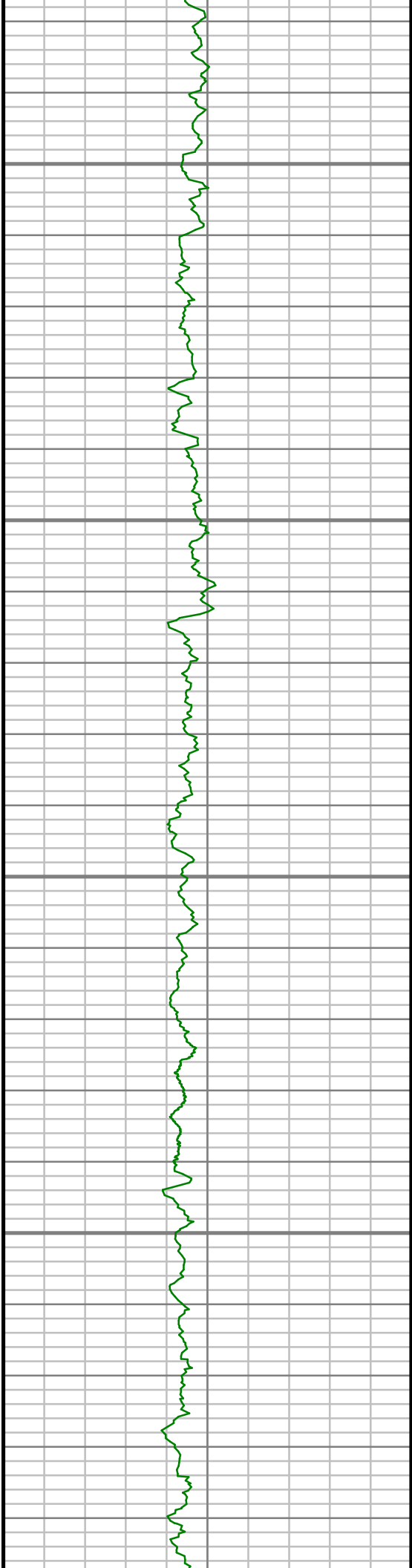
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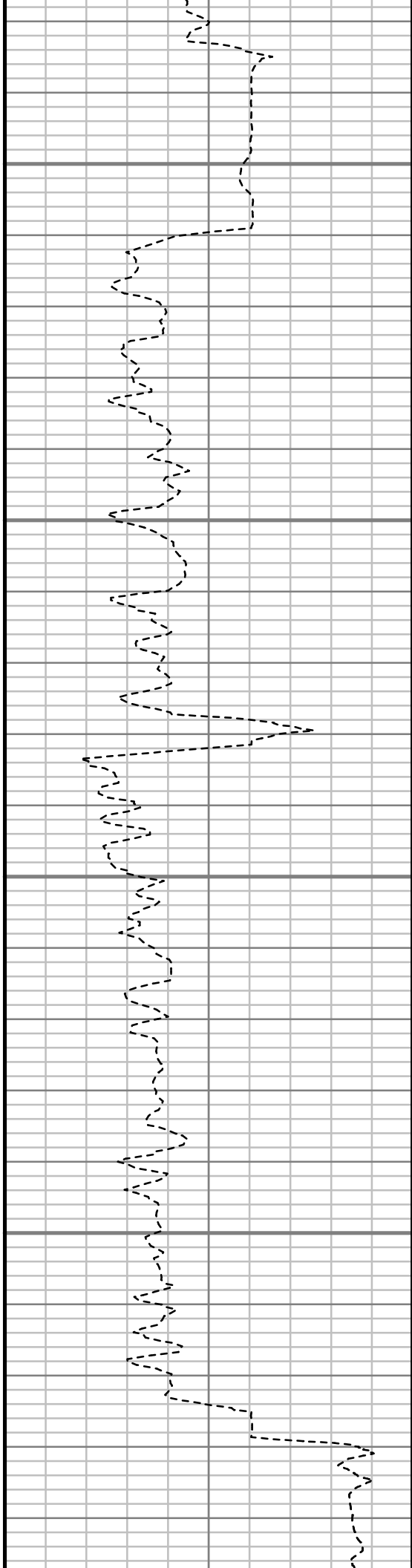


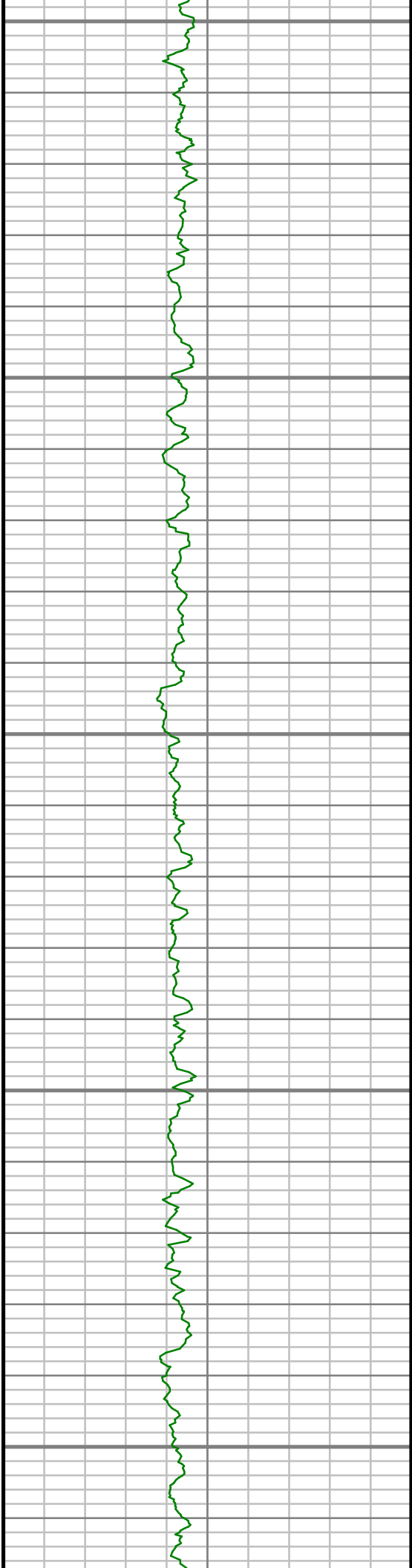
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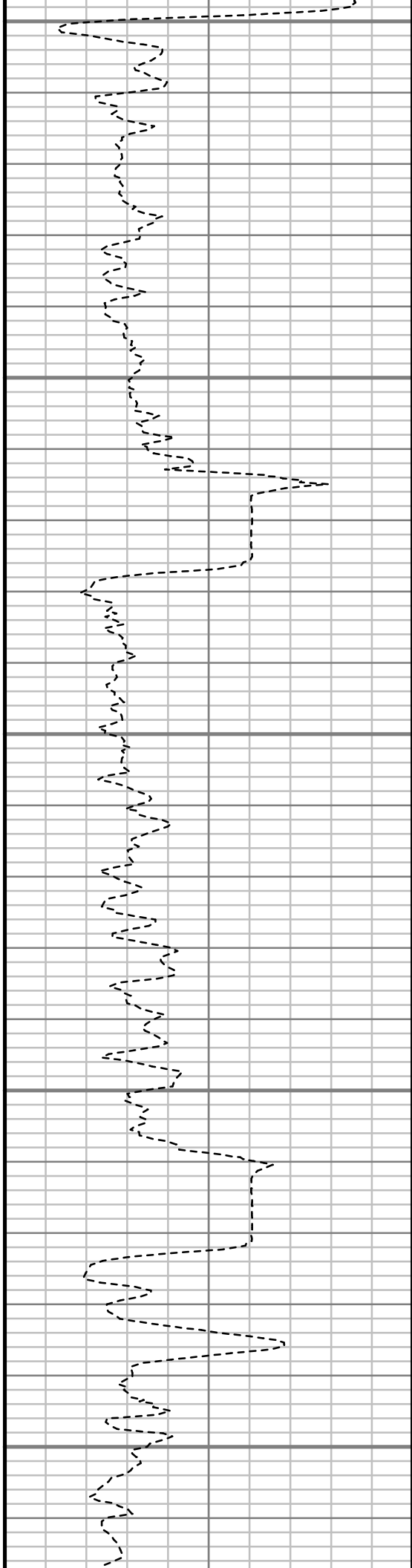
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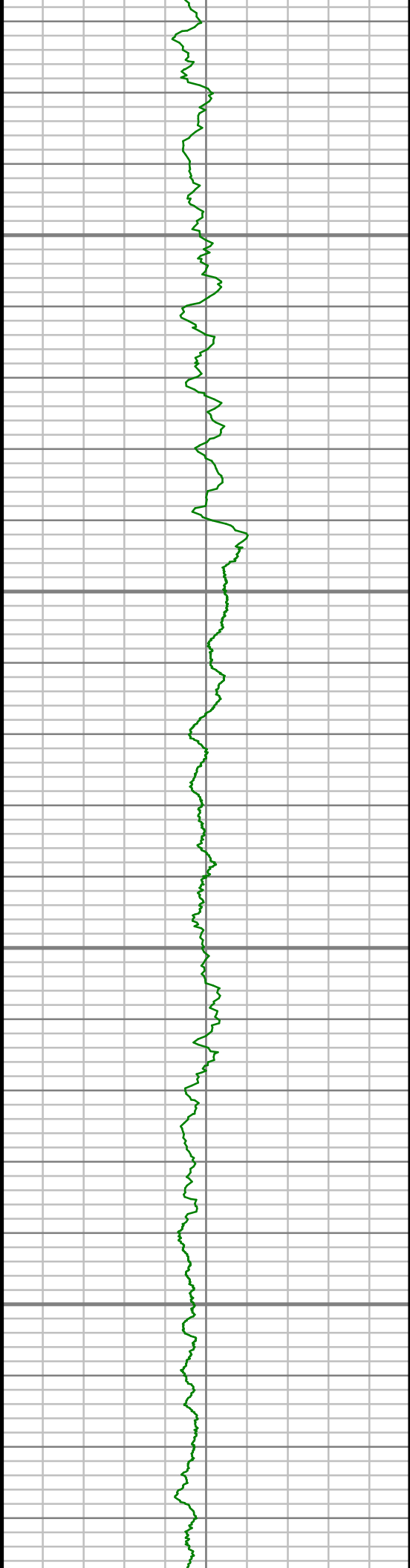
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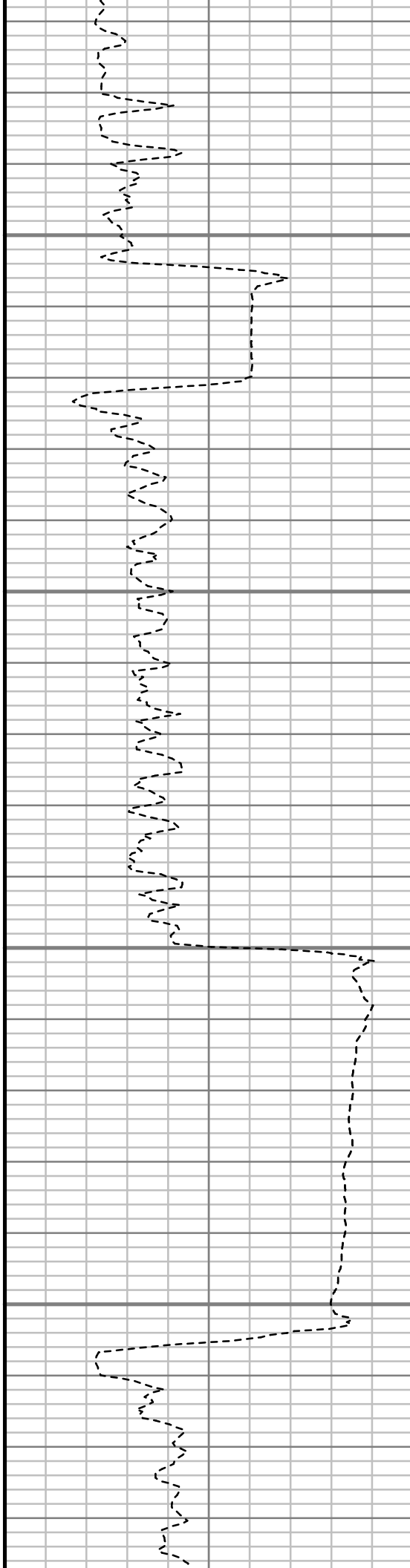


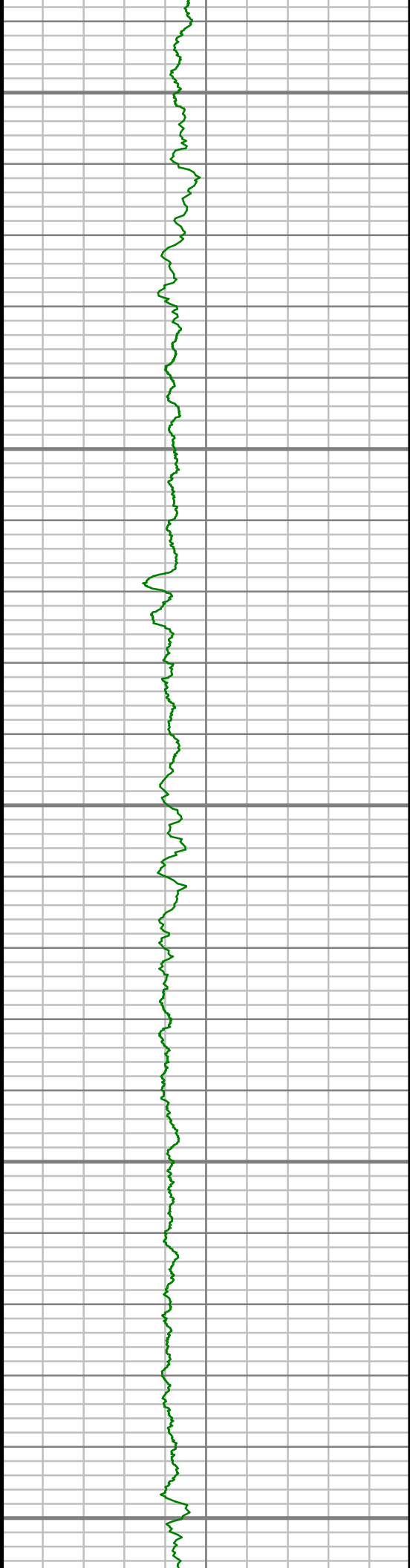
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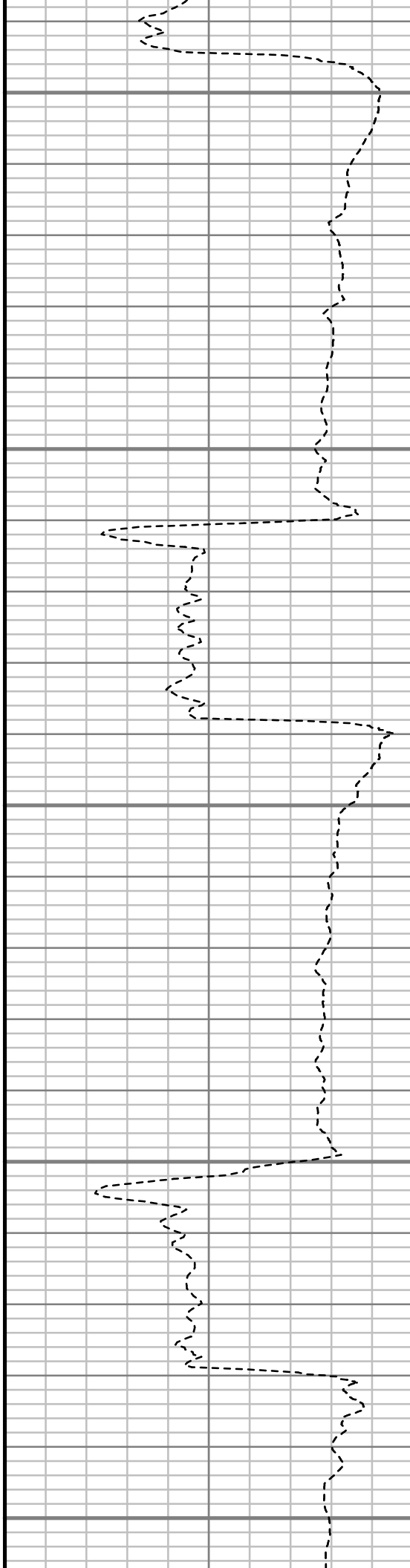
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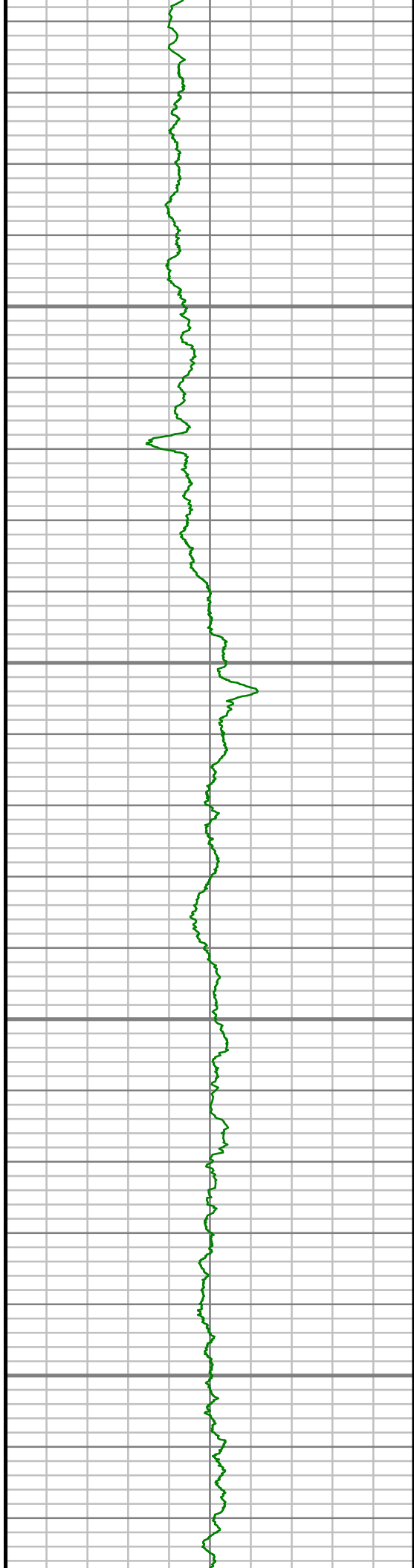
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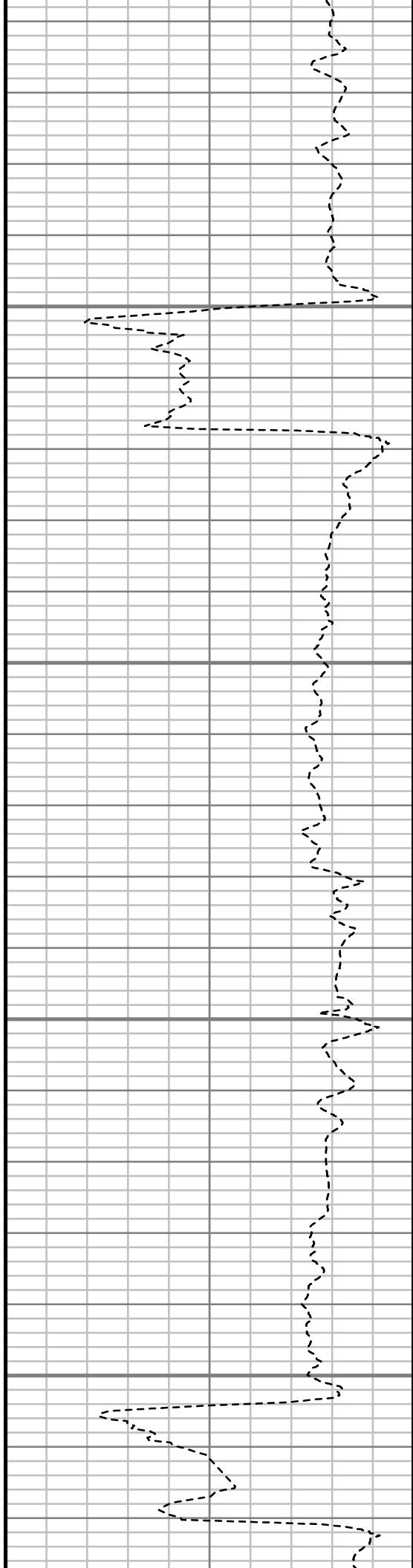


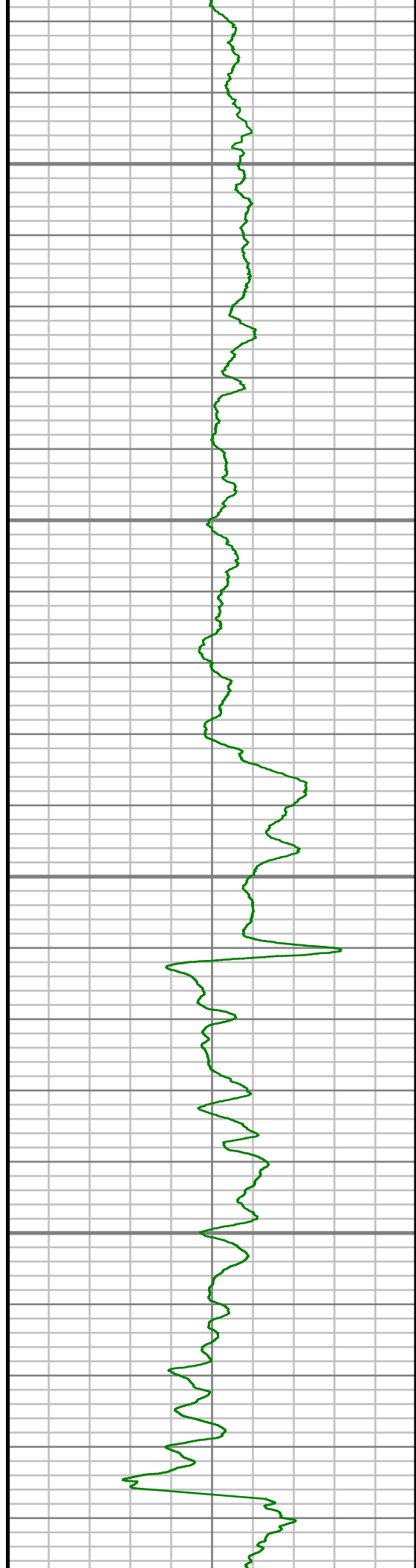
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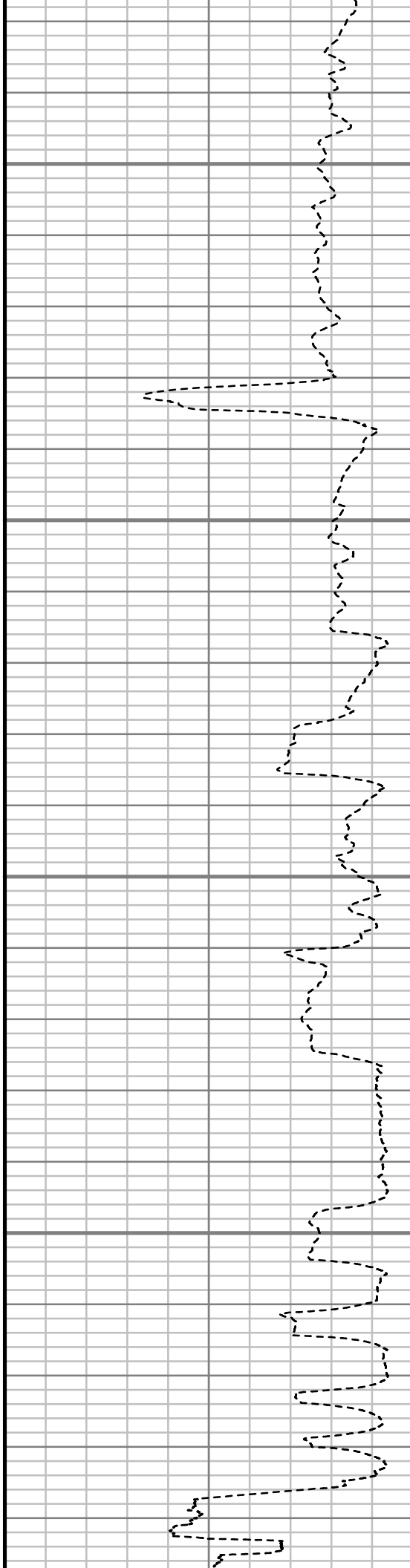


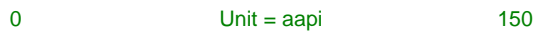
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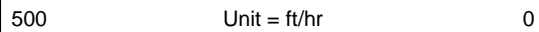
6850

6900





TRUE VERTICAL DEPTH
1:240 (ft)



Comments

MWD Survey Report

Well Location	NEWNAM
Well Name	NEWNAM 2B-32H-C264
Survey Date	10/28/2014
Latitude	40°6'5.285"N
Longitude	104°34'43.223"W
Btotal	52528 nT
Dip	66.72 deg
Magnetic Declination	8.38 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (13.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 180.00Azim (deg)
Operator(s)	M. SMITH, T. WHEELER

Well Notes

MD	Inc	Azim	TVD	VS	+N-S	+E-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	"/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
158.00	0.35	302.96	158.00	-0.26	0.26	-0.41	0.49	302.96	0.22
251.00	1.50	279.40	250.99	-0.62	0.62	-1.84	1.94	288.52	1.27
344.00	3.17	268.77	343.91	-0.76	0.76	-5.61	5.66	277.72	1.85
437.00	5.10	275.01	436.66	-1.07	1.07	-12.30	12.35	274.96	2.13
530.00	6.60	275.01	529.17	-1.89	1.89	-21.74	21.82	274.98	1.61
622.00	7.83	284.33	620.45	-3.91	3.91	-33.08	33.31	276.74	1.84
715.00	10.38	281.60	712.27	-7.16	7.16	-47.43	47.97	278.58	2.78
808.00	11.61	281.25	803.56	-10.67	10.67	-64.82	65.69	279.35	1.33
901.00	13.37	276.33	894.35	-13.68	13.68	-84.69	85.79	279.18	2.21
974.00	14.87	277.21	965.15	-15.79	15.79	-102.37	103.58	278.77	2.07
1178.00	14.69	281.00	1162.40	-24.01	24.01	-153.74	155.60	278.88	0.48
1364.00	16.59	285.48	1341.51	-35.60	35.60	-202.48	205.59	279.97	1.21
1551.00	17.30	282.50	1520.40	-48.74	48.74	-255.35	259.96	280.81	0.60
1742.00	16.69	284.63	1703.06	-61.81	61.81	-309.60	315.71	281.29	0.46
1933.00	15.87	282.60	1886.41	-74.44	74.44	-361.62	369.20	281.63	0.52
2124.00	15.34	280.76	2070.37	-84.85	84.85	-411.93	420.57	281.64	0.38
2314.00	14.57	279.12	2253.93	-93.33	93.33	-460.21	469.58	281.46	0.46
2505.00	13.82	278.19	2439.10	-100.39	100.39	-506.50	516.36	281.21	0.41

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
2695.00	13.72	280.90	2623.64	-107.89	107.89	-551.09	561.55	281.08	0.34
2886.00	14.25	281.77	2808.98	-116.96	116.96	-596.34	607.70	281.10	0.30
3076.00	15.25	284.79	2992.72	-128.11	128.11	-643.40	656.03	281.26	0.67
3267.00	16.12	284.67	3176.60	-141.24	141.24	-693.34	707.58	281.51	0.45
3457.00	14.62	281.95	3359.80	-152.89	152.89	-742.32	757.90	281.64	0.88
3647.00	14.95	287.99	3543.52	-165.42	165.42	-789.10	806.25	281.84	0.83
3837.00	16.05	281.16	3726.63	-178.07	178.07	-838.18	856.89	281.99	1.12
4028.00	16.60	278.91	3909.92	-187.41	187.41	-891.05	910.54	281.88	0.44
4219.00	18.73	282.44	4091.91	-198.24	198.24	-947.96	968.47	281.81	1.25
4409.00	17.22	280.34	4272.64	-209.86	209.86	-1005.42	1027.09	281.79	0.87
4600.00	16.77	279.33	4455.30	-219.41	219.41	-1060.41	1082.87	281.69	0.28
4790.00	15.88	279.82	4637.64	-228.28	228.28	-1113.07	1136.24	281.59	0.48
4981.00	15.29	281.90	4821.61	-237.93	237.93	-1163.47	1187.55	281.56	0.42
5171.00	13.53	282.56	5005.63	-247.93	247.93	-1209.68	1234.83	281.58	0.93
5361.00	13.01	280.24	5190.56	-256.57	256.57	-1252.42	1278.43	281.58	0.39
5551.00	9.92	274.29	5376.75	-261.59	261.59	-1289.81	1316.07	281.47	1.74
5741.00	6.87	267.10	5564.69	-262.24	262.24	-1317.49	1343.34	281.26	1.70
5932.00	4.21	246.71	5754.80	-258.89	258.89	-1335.34	1360.21	280.97	1.71

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
6122.00	3.48	262.95	5944.38	-255.43	255.43	-1347.47	1371.47	280.73	0.69
6312.00	2.18	253.45	6134.14	-253.69	253.69	-1356.67	1380.18	280.59	0.73
6407.00	5.16	198.43	6228.96	-249.12	249.12	-1359.75	1382.38	280.38	4.53
6502.00	10.06	194.67	6323.09	-237.03	237.03	-1363.21	1383.66	279.86	5.18
6597.00	16.56	187.28	6415.50	-215.55	215.55	-1367.03	1383.92	278.96	7.05
6692.00	21.09	185.98	6505.40	-185.11	185.11	-1370.52	1382.97	277.69	4.79
6787.00	28.26	184.28	6591.67	-145.63	145.63	-1373.99	1381.68	276.05	7.59
6882.00	37.36	181.58	6671.43	-94.28	94.28	-1376.47	1379.69	273.92	9.69
6977.00	45.56	180.00	6742.57	-31.45	31.45	-1377.26	1377.62	271.31	8.70
7073.00	56.25	181.49	6803.03	42.94	-42.94	-1378.30	1378.97	268.22	11.21
7168.00	64.76	181.47	6849.76	125.52	-125.52	-1380.43	1386.12	264.80	8.96
7263.00	71.27	180.48	6885.30	213.55	-213.55	-1381.91	1398.31	261.22	6.92
7310.00	73.61	180.48	6899.48	258.36	-258.36	-1382.29	1406.22	259.41	4.97
7359.00	76.73	180.05	6912.02	305.72	-305.72	-1382.50	1415.90	257.53	6.43
7406.00	79.68	180.52	6921.63	351.72	-351.72	-1382.73	1426.76	255.73	6.36
7454.00	82.50	180.48	6929.06	399.14	-399.14	-1383.14	1439.58	253.90	5.87
7518.00	88.09	180.18	6934.31	462.90	-462.90	-1383.51	1458.89	251.50	8.74
7630.00	90.47	179.52	6935.72	574.88	-574.88	-1383.22	1497.93	247.43	2.21

MD	Inc	Azim	TVD	VS	+N-S	+E-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
7723.00	91.48	177.63	6934.14	667.83	-667.83	-1380.91	1533.92	244.19	2.31
7816.00	90.07	177.85	6932.89	760.75	-760.75	-1377.24	1573.38	241.09	1.54
7911.00	90.54	177.00	6932.39	855.65	-855.65	-1372.97	1617.77	238.07	1.02
8006.00	90.30	178.23	6931.69	950.56	-950.56	-1369.02	1666.66	235.23	1.32
8101.00	89.90	179.21	6931.53	1045.54	-1045.54	-1366.89	1720.91	232.59	1.11
8197.00	90.00	179.46	6931.61	1141.53	-1141.53	-1365.77	1780.01	230.11	0.28
8292.00	89.76	179.62	6931.81	1236.53	-1236.53	-1365.01	1841.81	227.83	0.30
8387.00	90.30	180.50	6931.75	1331.52	-1331.52	-1365.11	1906.95	225.71	1.08
8483.00	90.81	180.45	6930.82	1427.52	-1427.52	-1365.90	1975.72	223.74	0.53
8578.00	89.80	181.08	6930.32	1522.50	-1522.50	-1367.16	2046.26	221.92	1.25
8673.00	90.40	180.34	6930.15	1617.50	-1617.50	-1368.34	2118.64	220.23	1.00
8768.00	89.97	178.68	6929.85	1712.49	-1712.49	-1367.54	2191.52	218.61	1.81
8864.00	89.30	178.47	6930.46	1808.46	-1808.46	-1365.15	2265.87	217.05	0.73
8959.00	89.97	177.69	6931.08	1903.40	-1903.40	-1361.97	2340.49	215.59	1.08
9054.00	90.34	177.56	6930.83	1998.32	-1998.32	-1358.03	2416.10	214.20	0.41
9150.00	89.73	177.86	6930.77	2094.24	-2094.24	-1354.20	2493.93	212.89	0.70
9245.00	89.53	178.96	6931.38	2189.20	-2189.20	-1351.56	2572.80	211.69	1.17
9340.00	90.07	180.88	6931.71	2284.20	-2284.20	-1351.42	2654.03	210.61	2.10

MD	Inc	Azim	TVD	VS	+N-S	+E-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
9436.00	89.97	180.85	6931.69	2380.18	-2380.18	-1352.87	2737.80	209.61	0.11
9531.00	87.79	181.47	6933.55	2475.14	-2475.14	-1354.80	2821.67	208.69	2.38
9626.00	87.75	180.93	6937.24	2570.05	-2570.05	-1356.79	2906.21	207.83	0.57
9721.00	87.62	180.86	6941.08	2664.96	-2664.96	-1358.28	2991.14	207.01	0.16
9816.00	88.46	181.14	6944.33	2759.89	-2759.89	-1359.93	3076.75	206.23	0.93
9911.00	88.49	179.95	6946.87	2854.85	-2854.85	-1360.83	3162.60	205.49	1.25
10006.00	89.13	180.03	6948.84	2949.83	-2949.83	-1360.81	3248.58	204.76	0.68
10101.00	89.53	179.02	6949.96	3044.81	-3044.81	-1360.03	3334.75	204.07	1.15
10197.00	89.80	178.09	6950.52	3140.78	-3140.78	-1357.60	3421.63	203.38	1.01
10292.00	89.87	178.91	6950.80	3235.75	-3235.75	-1355.11	3508.05	202.72	0.87
10387.00	90.20	178.99	6950.74	3330.73	-3330.73	-1353.36	3595.19	202.11	0.36
10483.00	89.73	179.35	6950.80	3426.72	-3426.72	-1351.97	3683.78	201.53	0.62
10578.00	89.80	180.33	6951.19	3521.72	-3521.72	-1351.70	3772.21	201.00	1.03
10673.00	89.97	180.89	6951.38	3616.71	-3616.71	-1352.71	3861.40	200.51	0.62
10768.00	89.77	181.32	6951.60	3711.69	-3711.69	-1354.55	3951.14	200.05	0.51
10864.00	90.17	182.11	6951.66	3807.65	-3807.65	-1357.42	4042.38	199.62	0.92
10959.00	89.03	181.42	6952.32	3902.60	-3902.60	-1360.35	4132.90	199.22	1.40
11054.00	88.05	181.37	6954.74	3997.54	-3997.54	-1362.66	4223.41	198.82	1.03

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
11150.00	88.53	180.43	6957.61	4093.48	-4093.48	-1364.17	4314.81	198.43	1.09
11245.00	89.06	179.53	6959.61	4188.46	-4188.46	-1364.14	4405.01	198.04	1.11
11340.00	89.26	178.94	6961.00	4283.44	-4283.44	-1362.87	4495.03	197.65	0.65

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft

5" = 100' FEET TVD