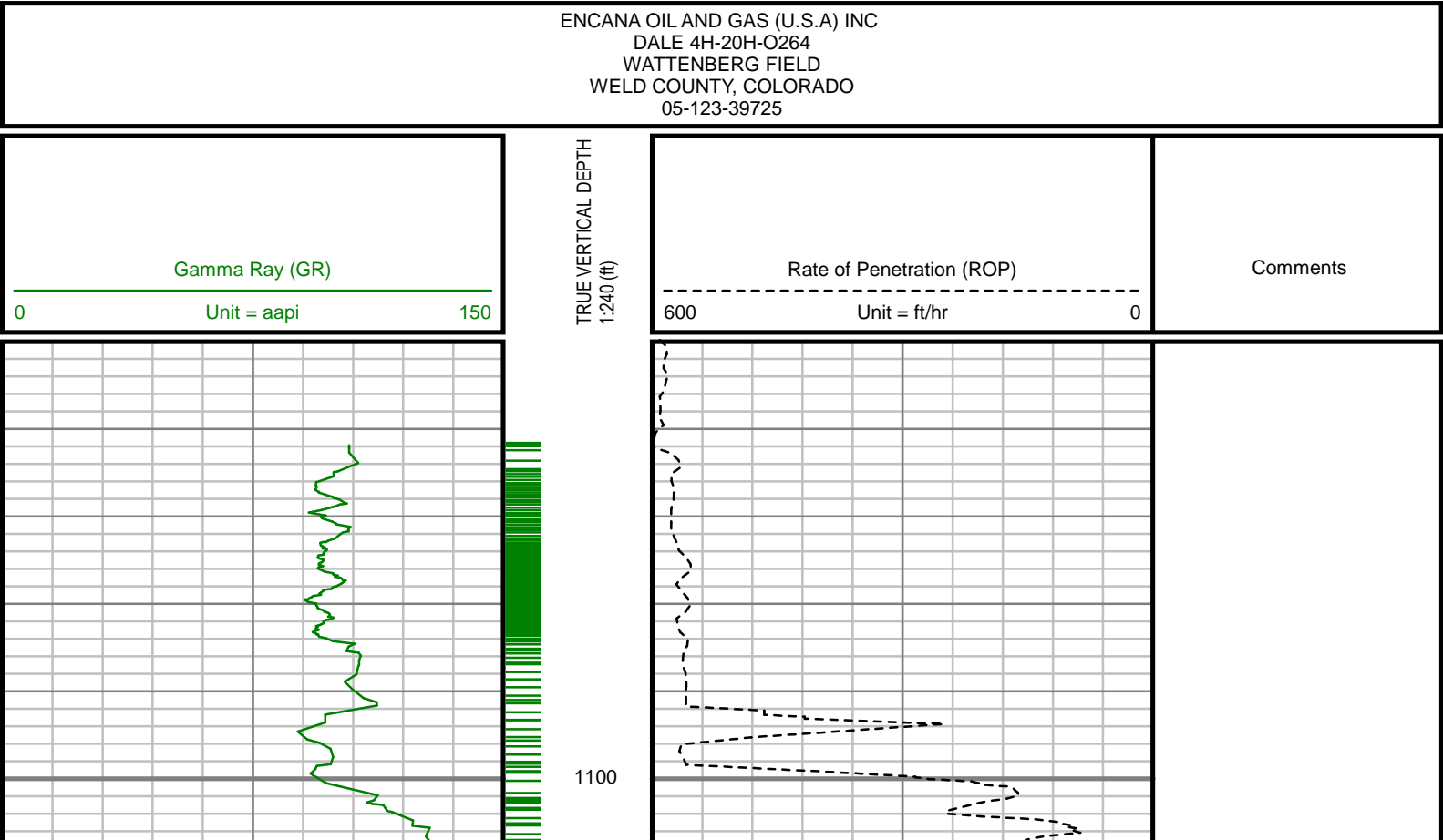


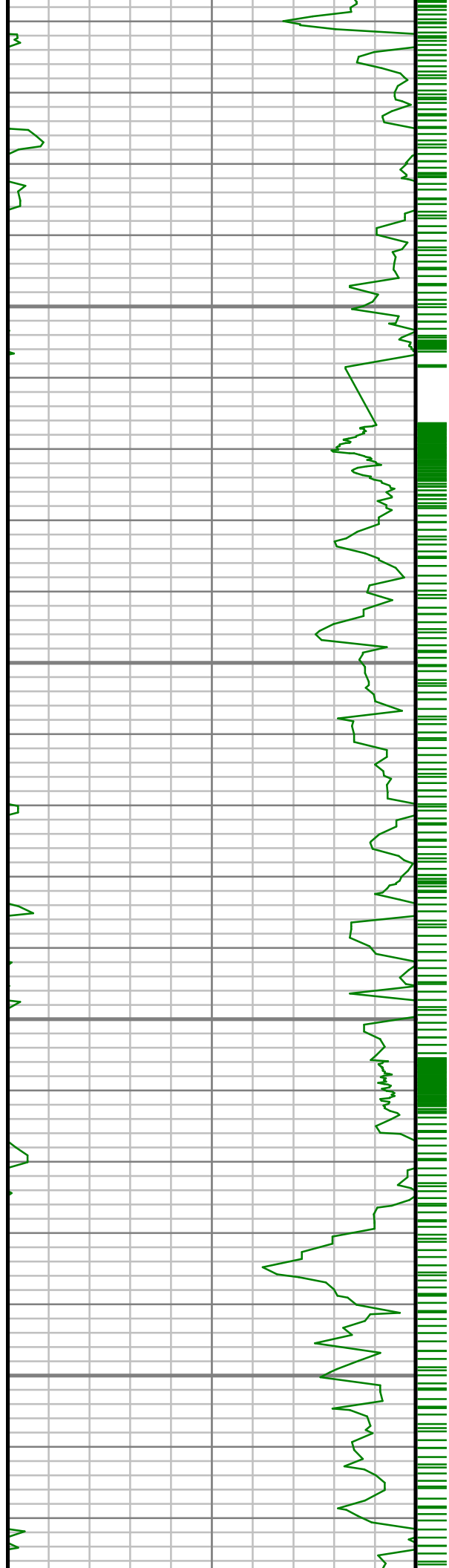
5" = 100' FEET TVD

COMPANY : ENCANA OIL AND GAS (U.S.A.) INC									
WELL : DALE 4H-20H-0264									
FIELD : WATTENBERG									
COUNTY : WELD									
STATE : COLORADO									
COUNTRY : U.S.A.									
UWI : 05-123-39725									
COMPANY : ENCANA OIL AND GAS (U.S.A.) INC									
WELL : DALE 4H-20H-0264									
FIELD : WATTENBERG									
COUNTY : WELD									
STATE : COLORADO									
COUNTRY : U.S.A.									
UWI : 05-123-39725									
WELL LOCATION					OTHER SERVICES				
LAT:40°7'3.508"N LONG:104°34'18.599"W									
N:1287061.73 ft E:3259582.54 ft									
SEC:20					TWP:2N				
					RANGE:64W				
DEPTH REF. : RKB					DIRECTIONAL				
					ROP				
REF. HEIGHT : 25.000 ft					RKB to Ground Level				
GROUND LEVEL : 4957.000 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	0	1119	0 - 12	0	5271				
6.125	1119	7653	12 - 0	5271	6415				
4.75	7653	11733	0 - 83	6415	7497				
			83 - 92	7497	11733				
CASING RECORD									
CASING SIZE in	FROM ft	TO ft							
9.625	0	1110							
7	0	7548							
DRILLING CO.: H&P									
RIG: 278									
LWD UNIT NO.: MWD-00046-DISTRICT: CASPER, CASPER									
SPUD DATE: 08/18/2014									
LWD START DATE: 09/22/2014						DEPTH: 1119 ft			
LWD END DATE: 09/28/2014						DEPTH: 1173 ft			
						TOTAL DEPTH: 1173 ft			

Remarks
ENCANA OIL AND GAS (U.S.A.) INC PRODUCTION AFE# 14182131
SCIENTIFIC DRILLING INTERNATIONAL JOB# 186346, 201483
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: GYRO DIRECTIONAL RUN
SENSORS S/N: EM5 PULSER = 890 / GYRO = 034
BIT TO SENSOR OFFSET: SURVEY = 44.64 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-028 / CONT = 858 / MWD EYE = 0738 / GAMMA RAY = 1076 / GYRO = 034
BIT TO SENSOR OFFSETS: SURVEY = 44.64 FT. / GAMMA RAY = 55.26 FT. / GYRO = 43.78 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-281 / CONT = 126 / MWD EYE = 0213 / GAMMA RAY = 1271
BIT TO SENSOR OFFSETS: SURVEY = 61.48 FT. / GAMMA RAY = 52.83 FT.
REMARK #1: GAMMA RAY FROM 7507 FT. - 7548 FT. WAS LOGGED BEHIND CASING.
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.



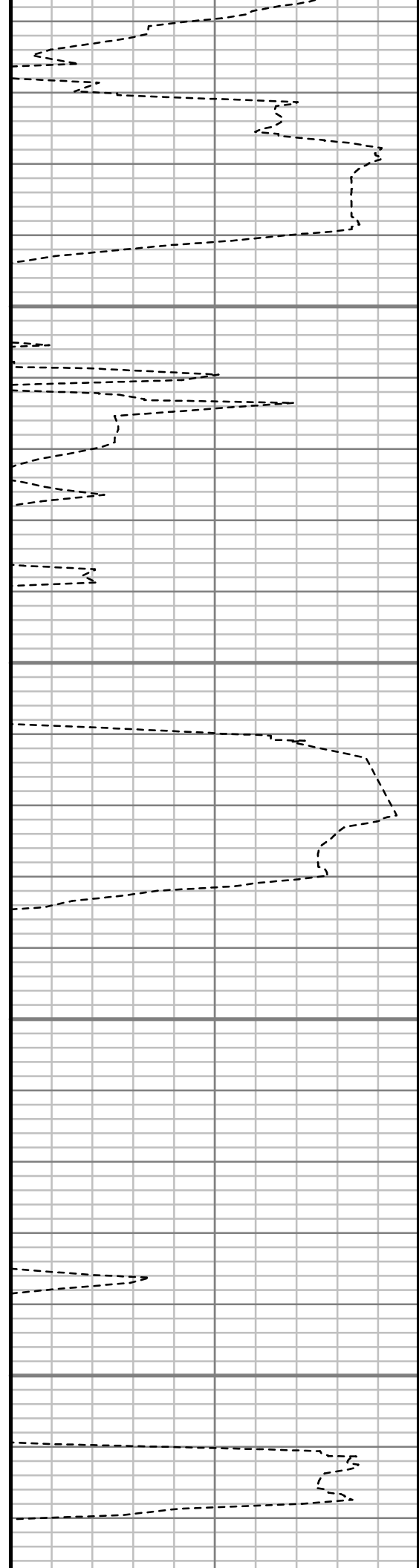


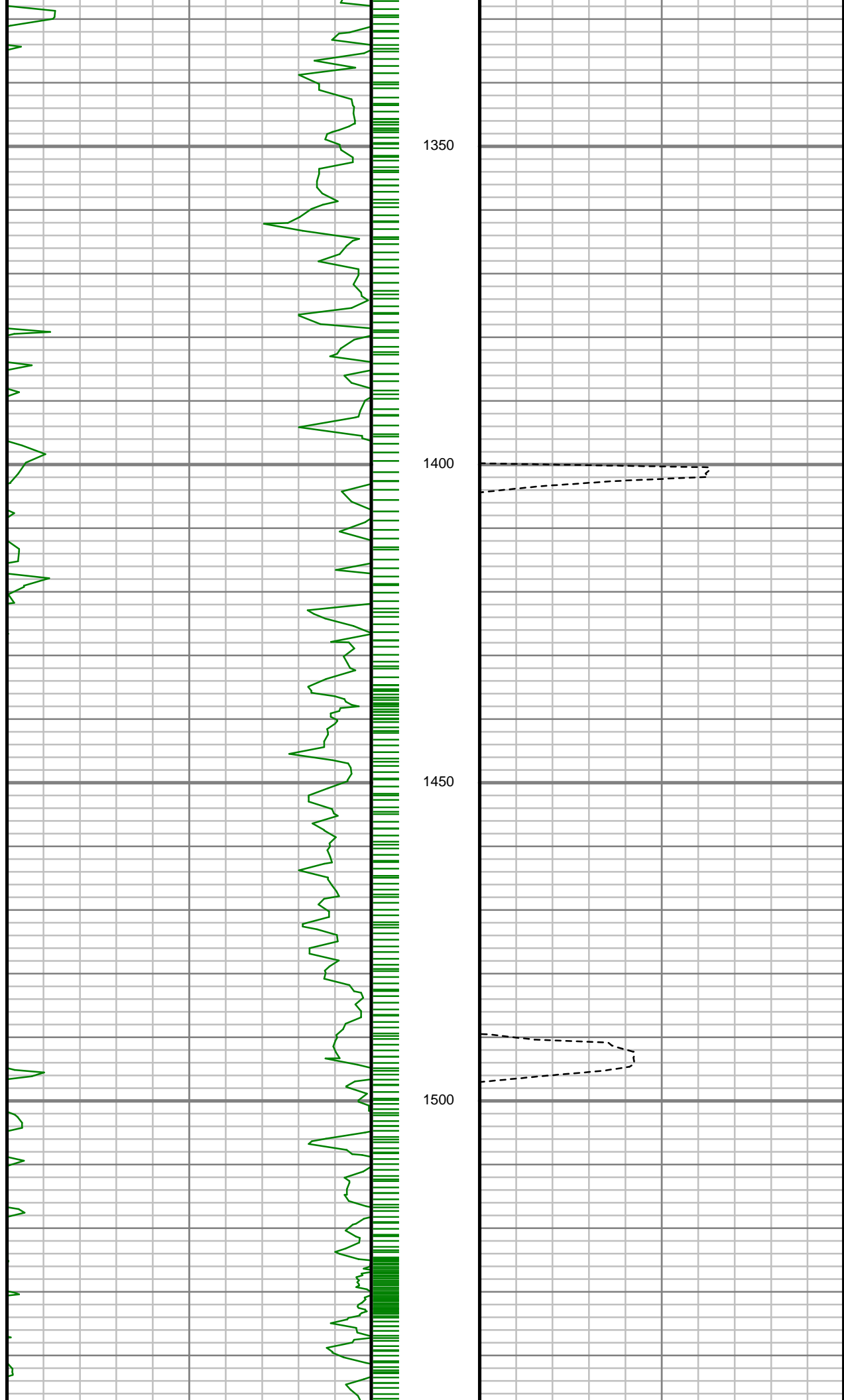
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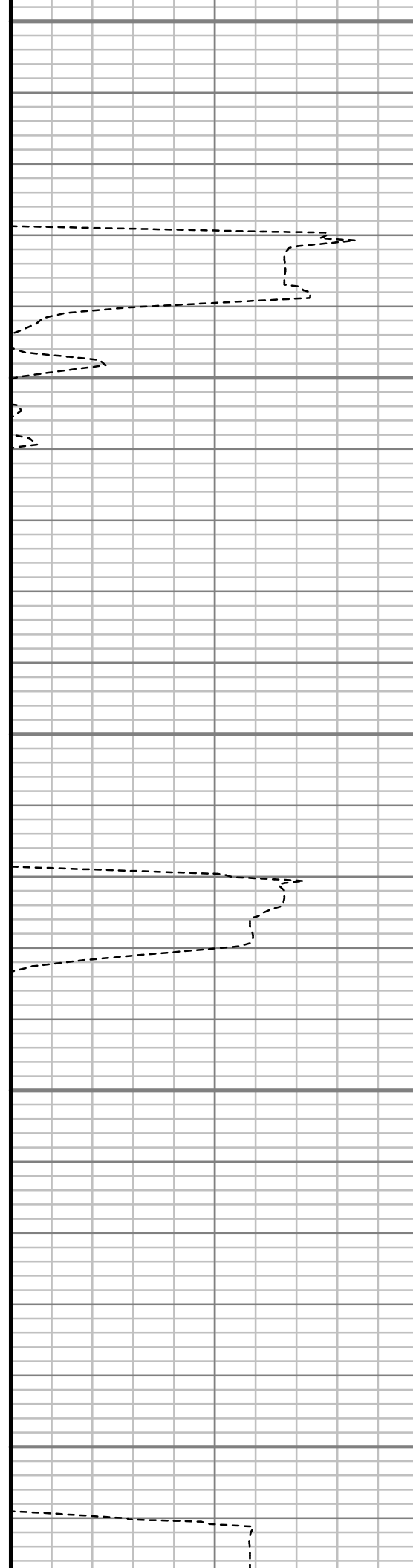
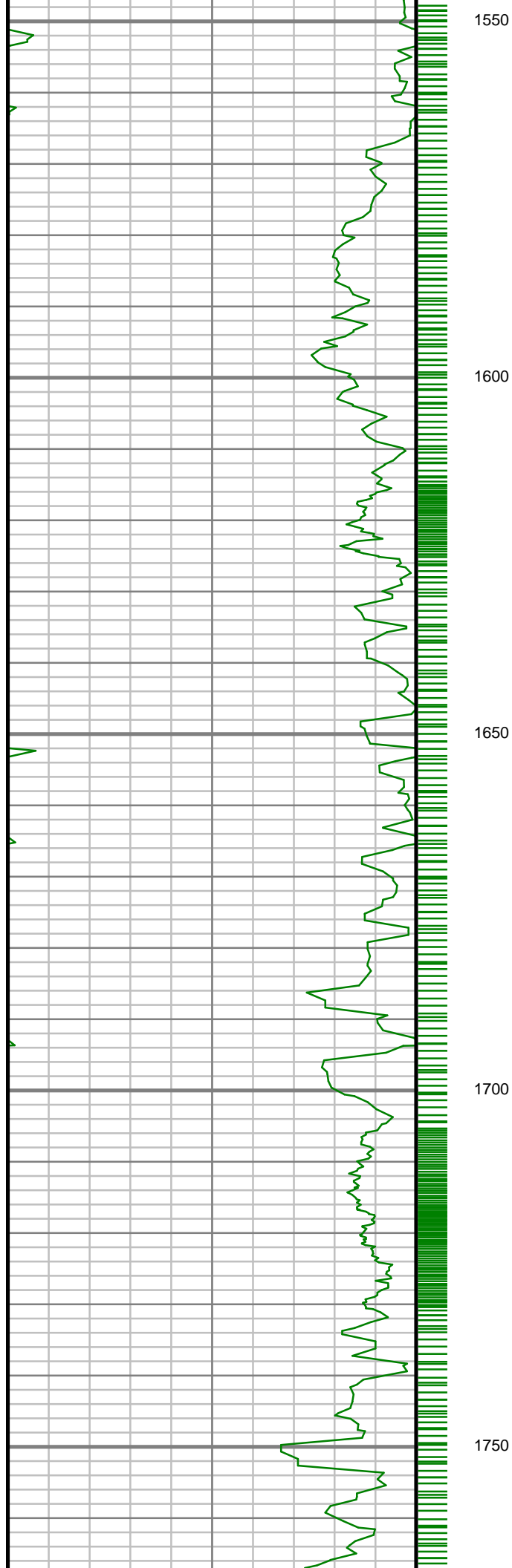
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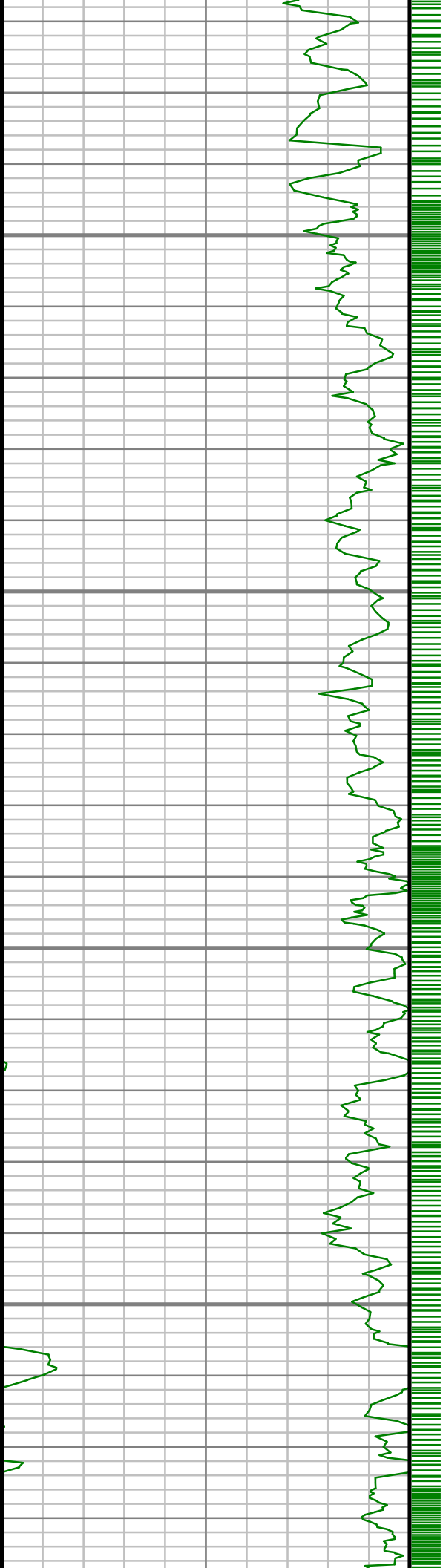
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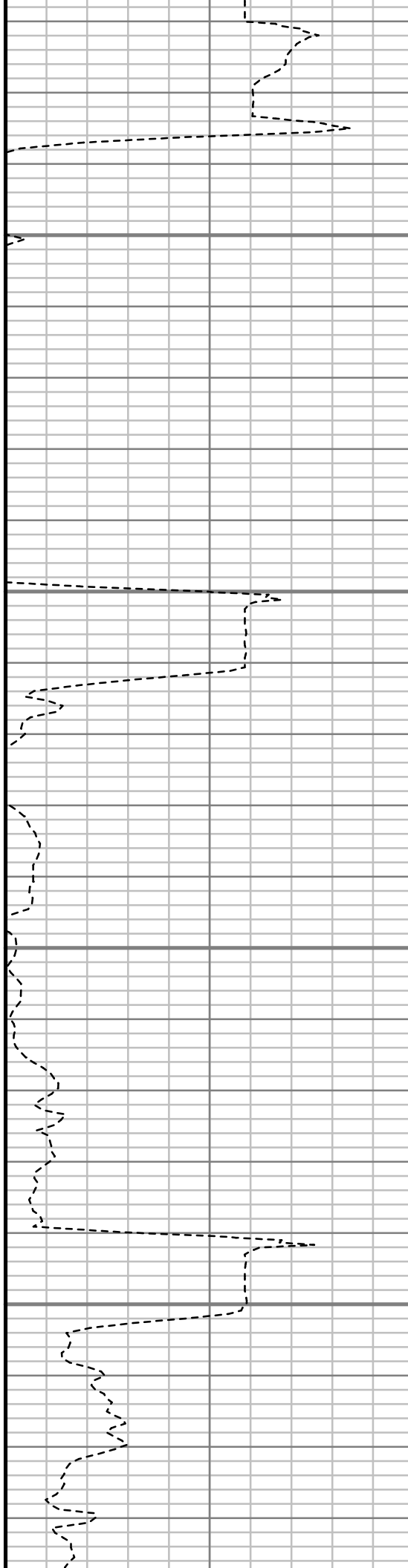


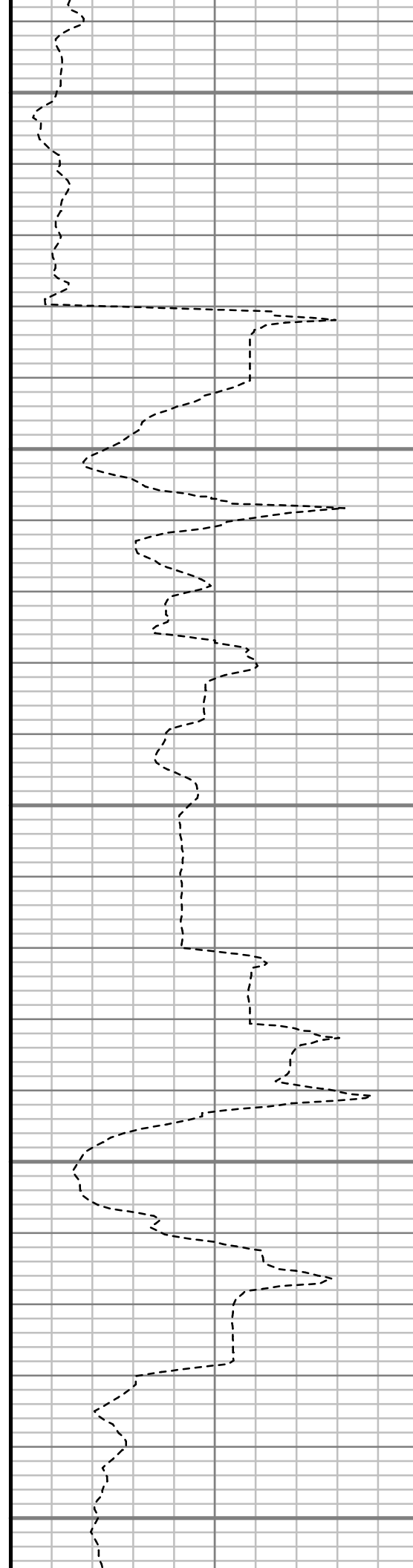
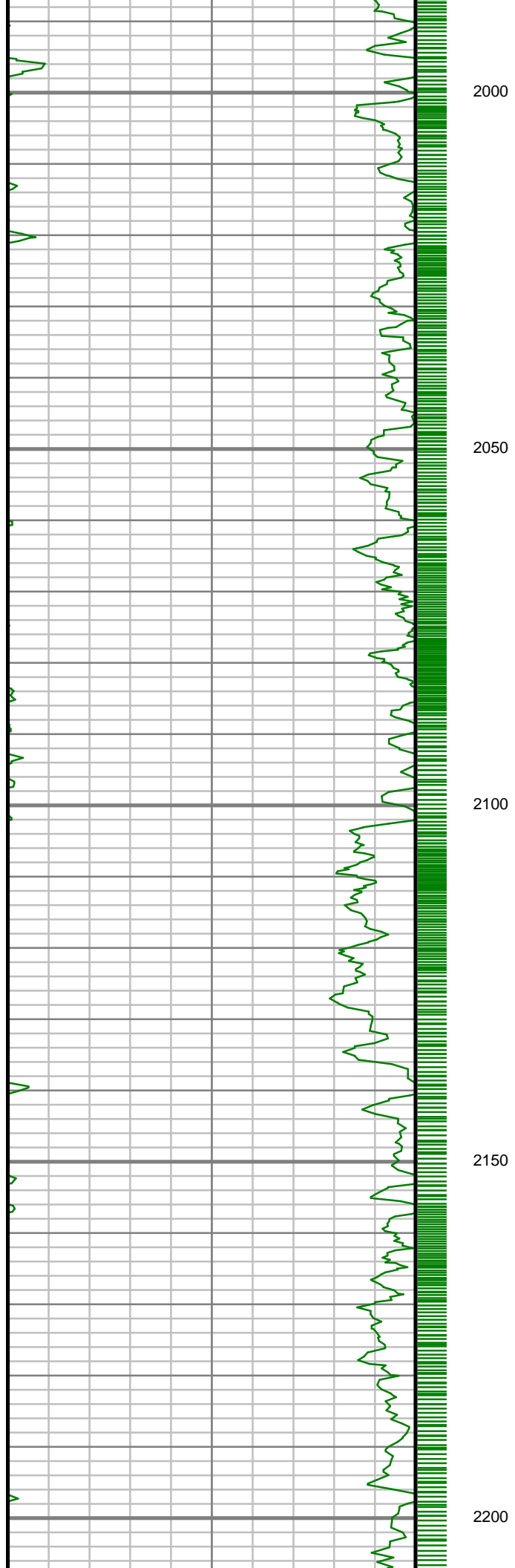
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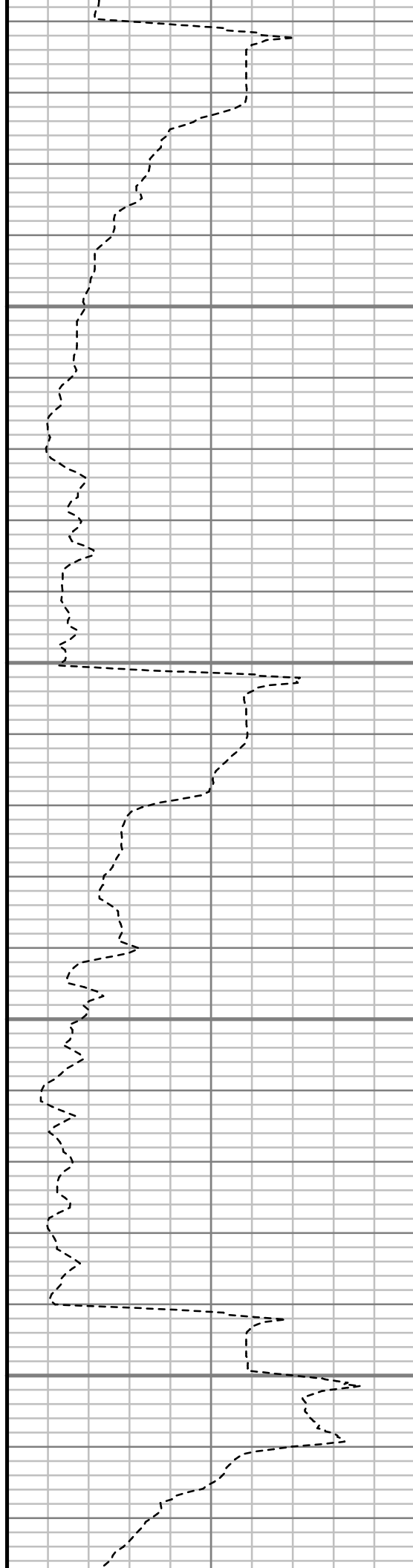
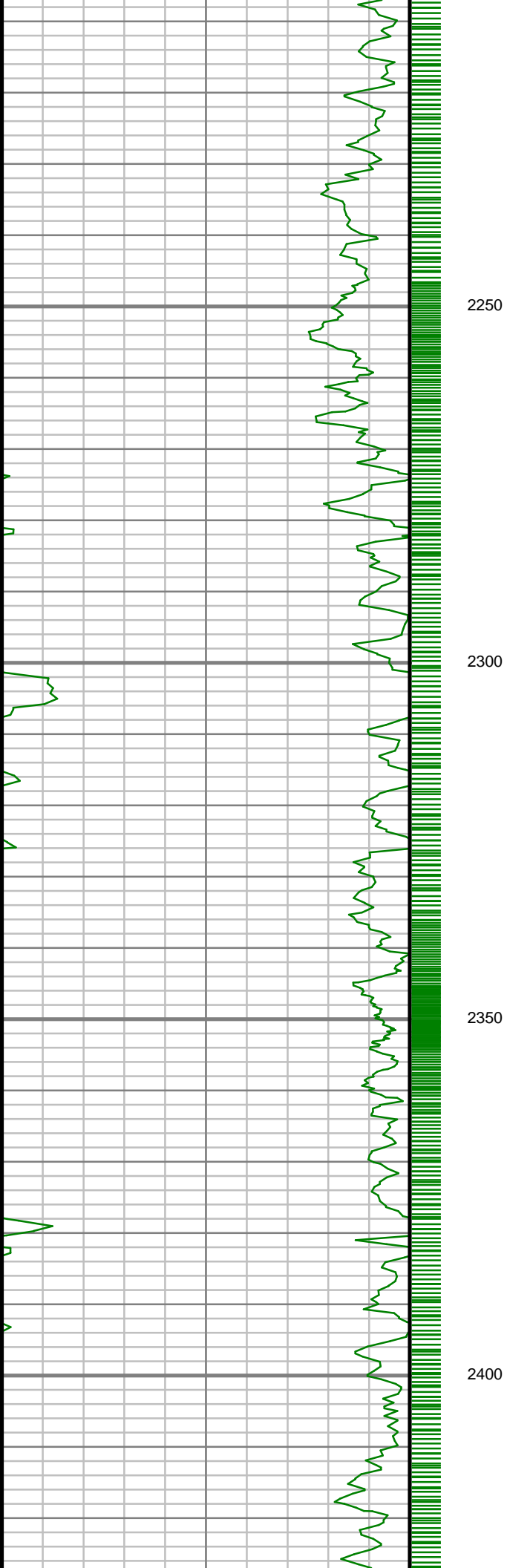
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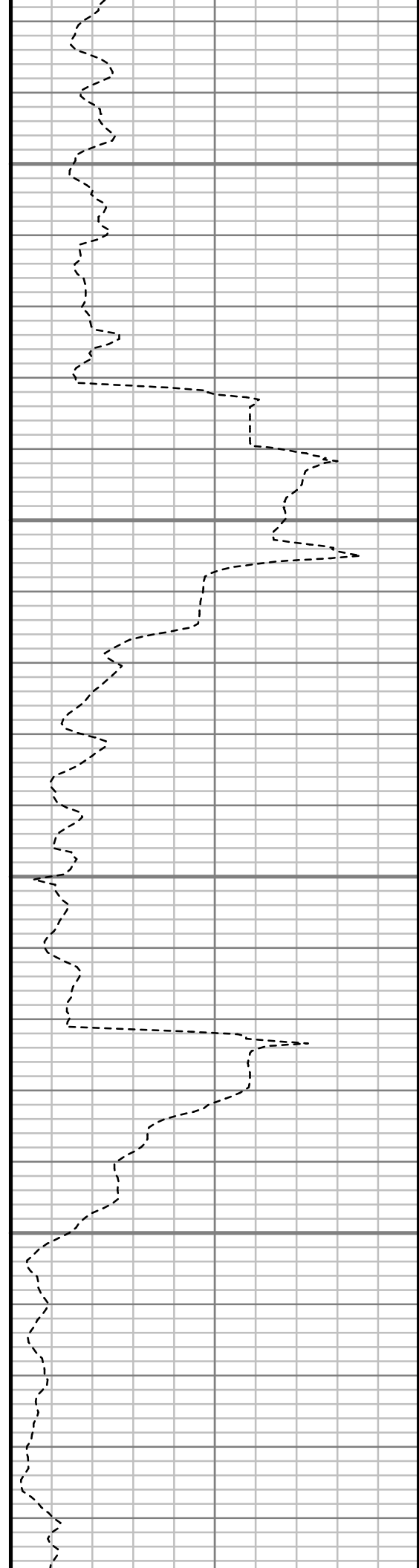
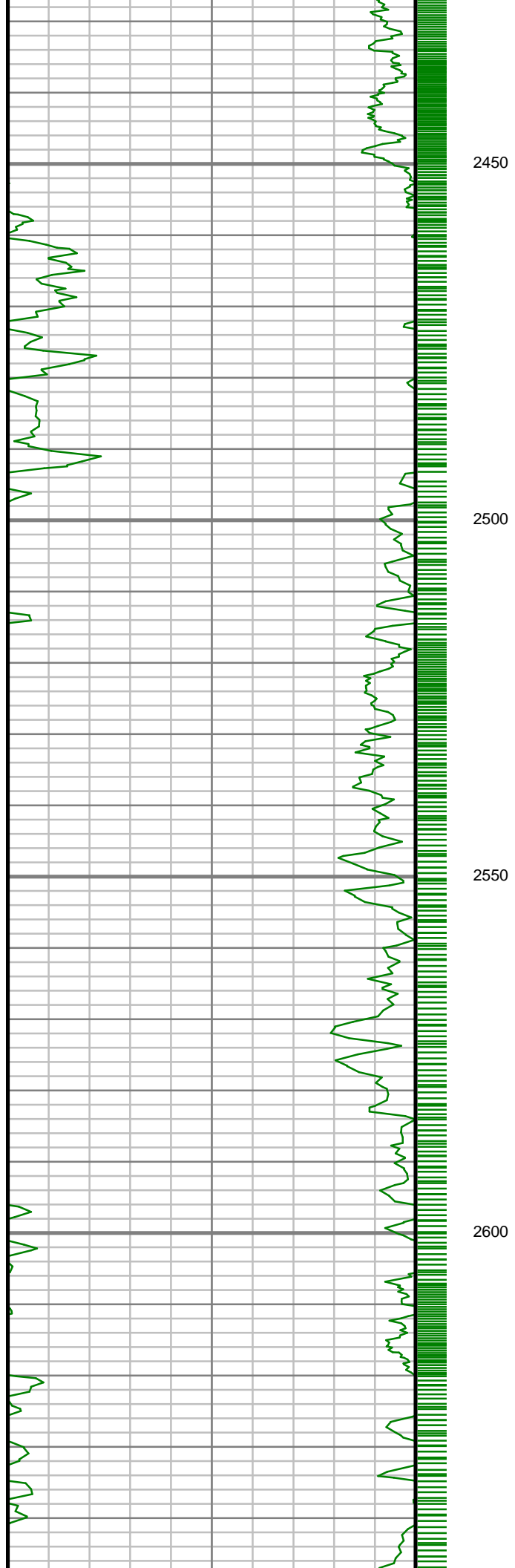
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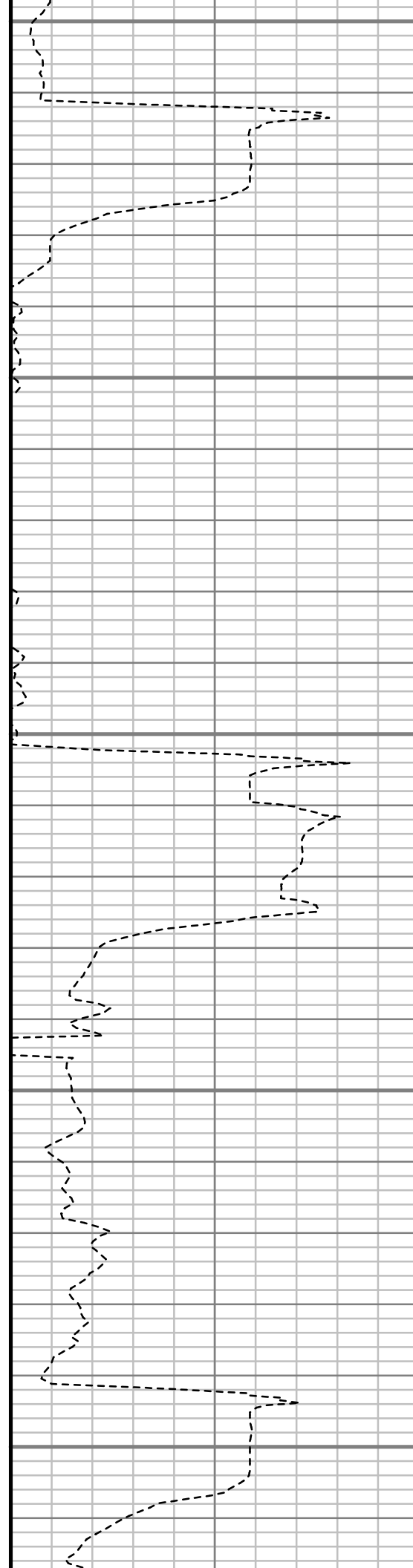
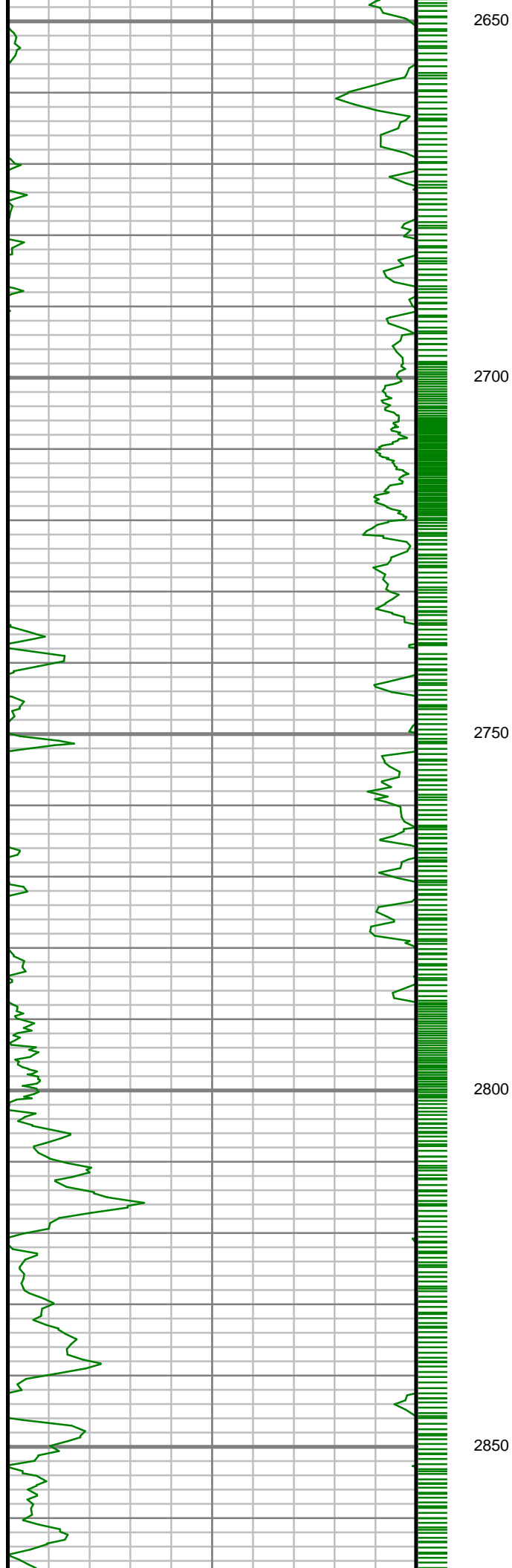
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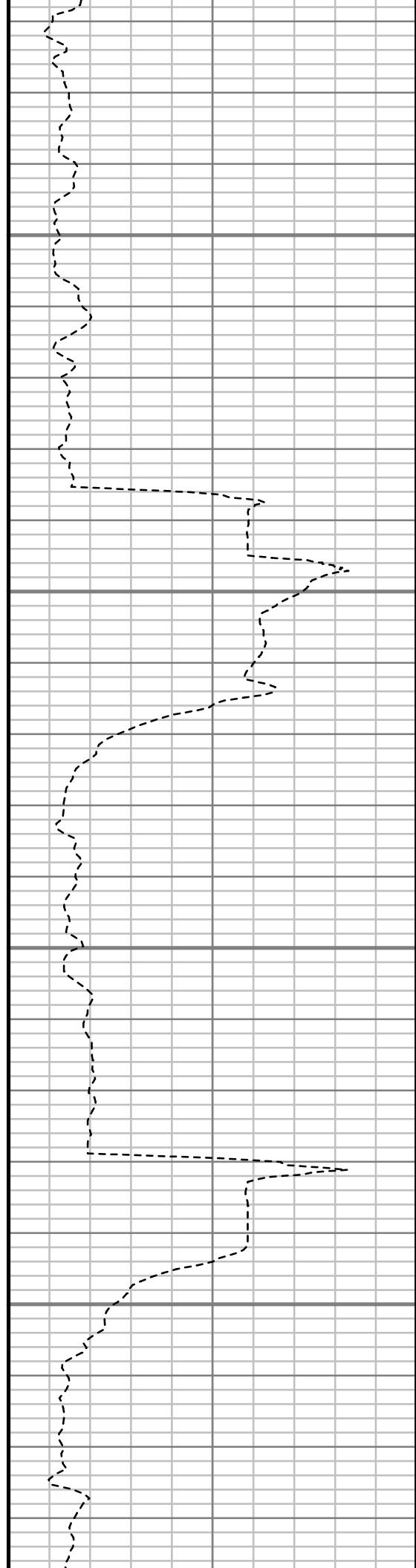
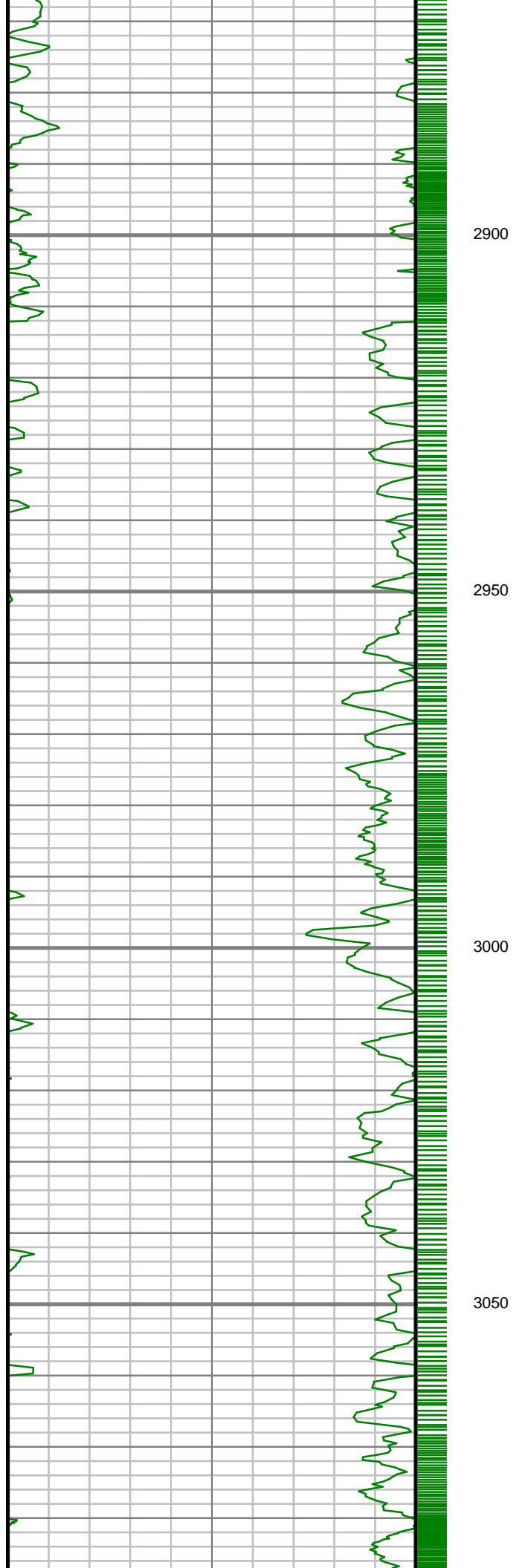


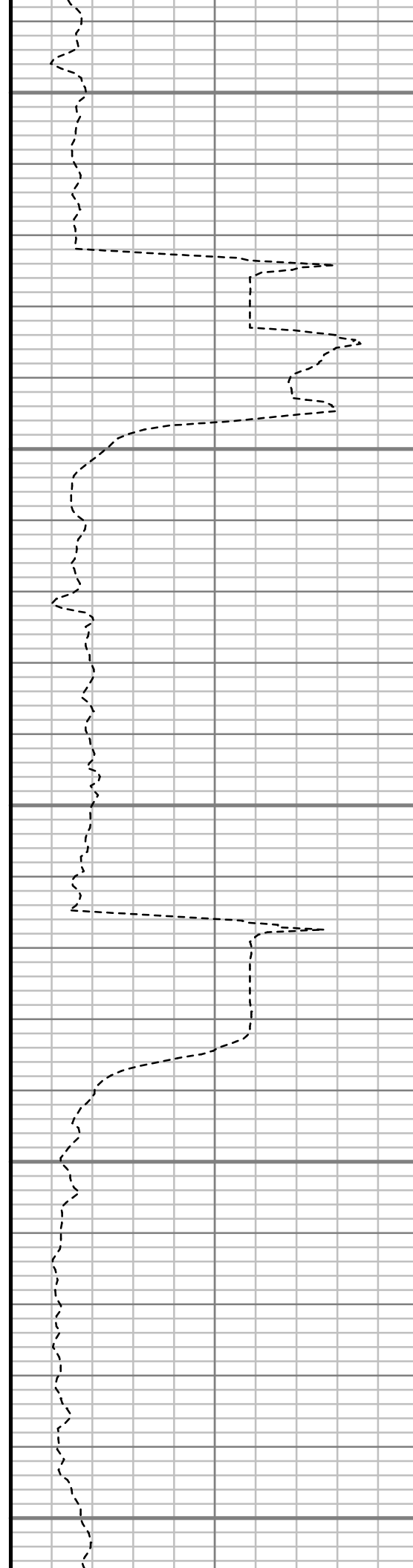
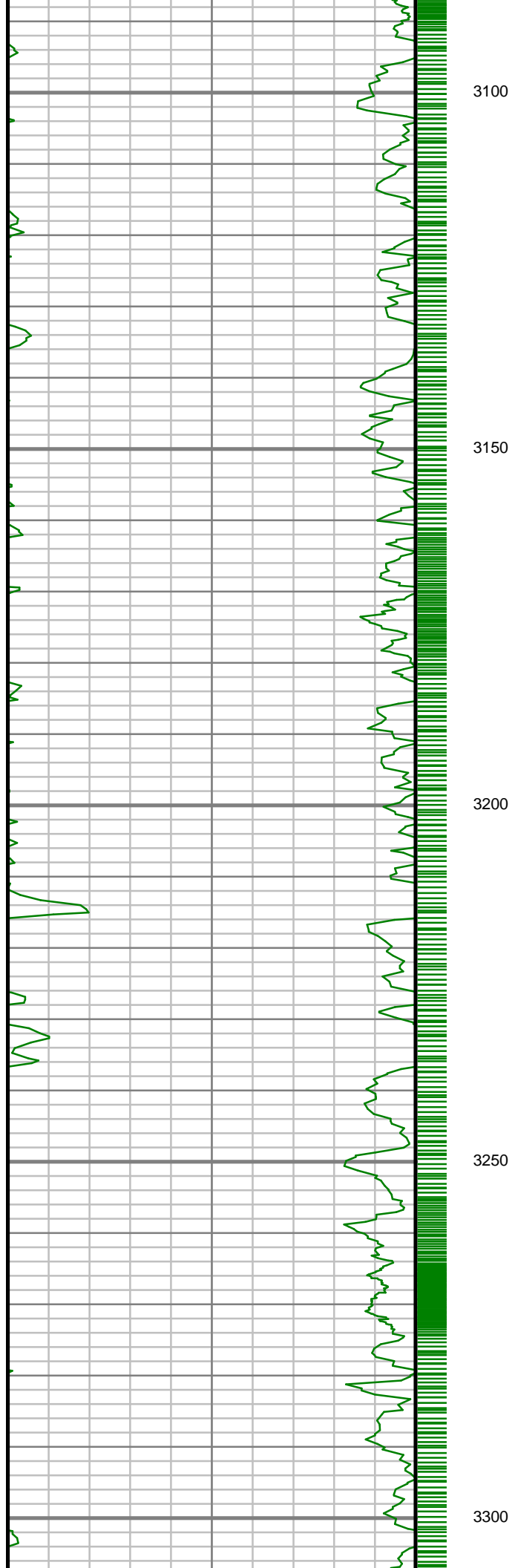


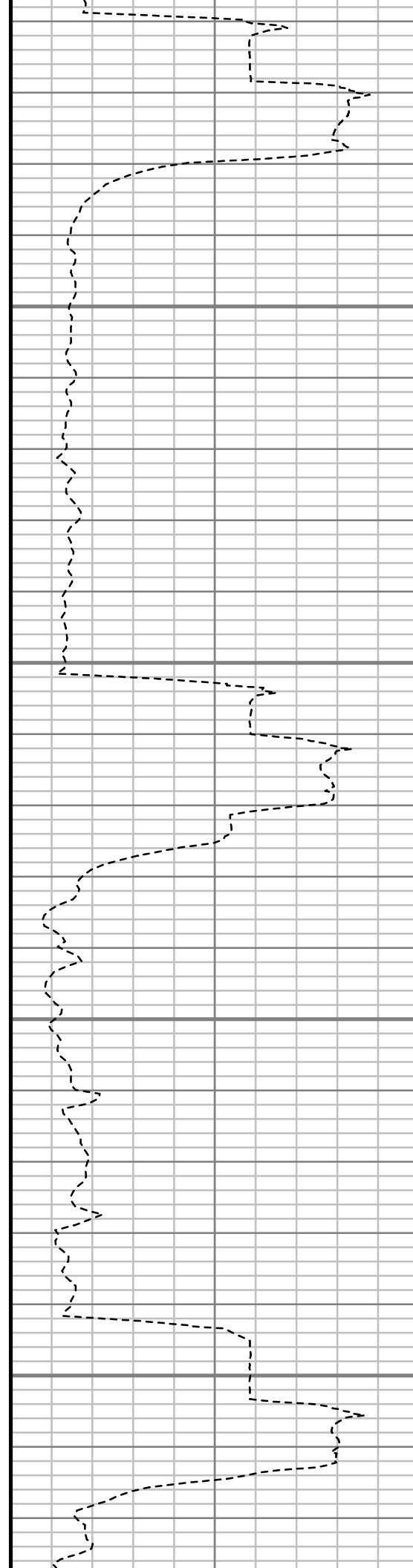
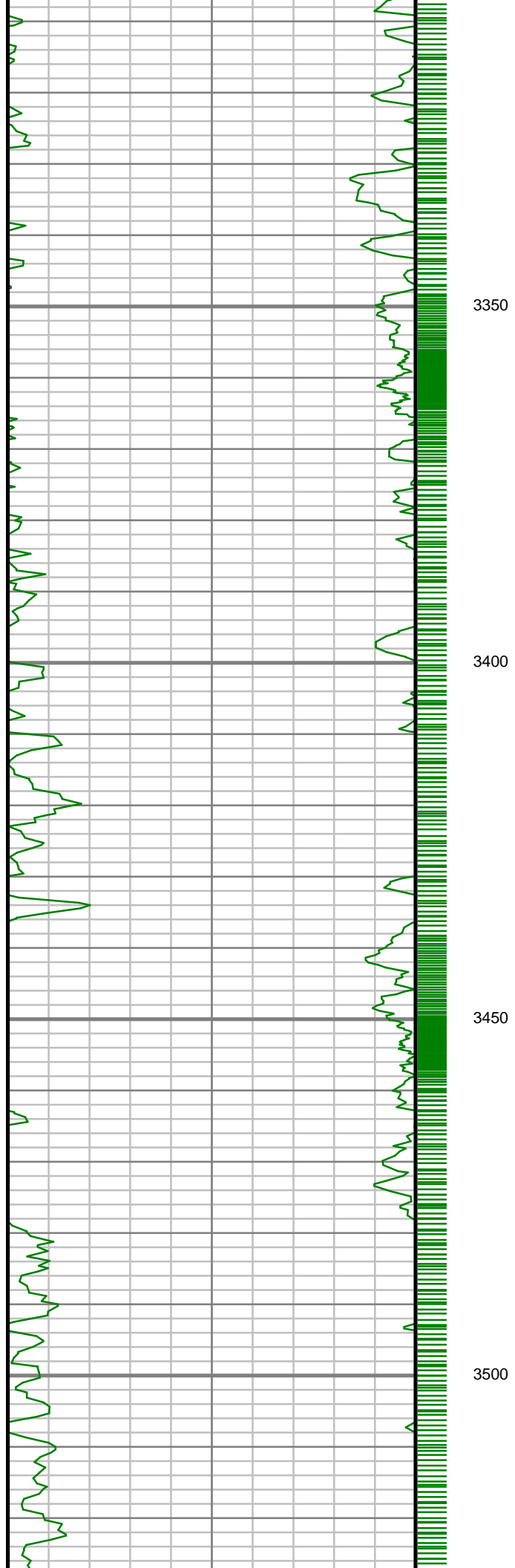


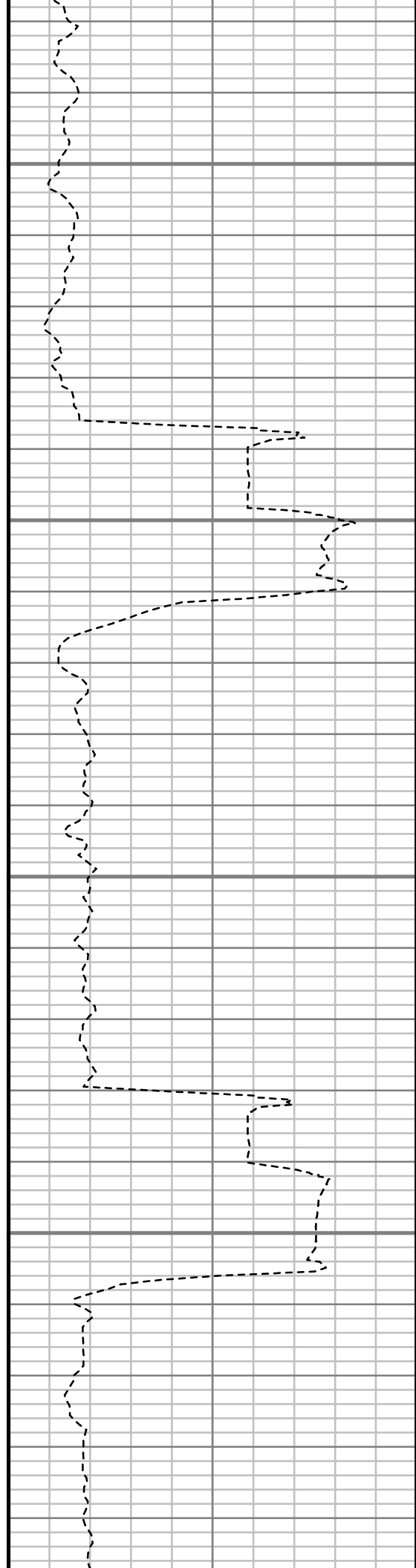
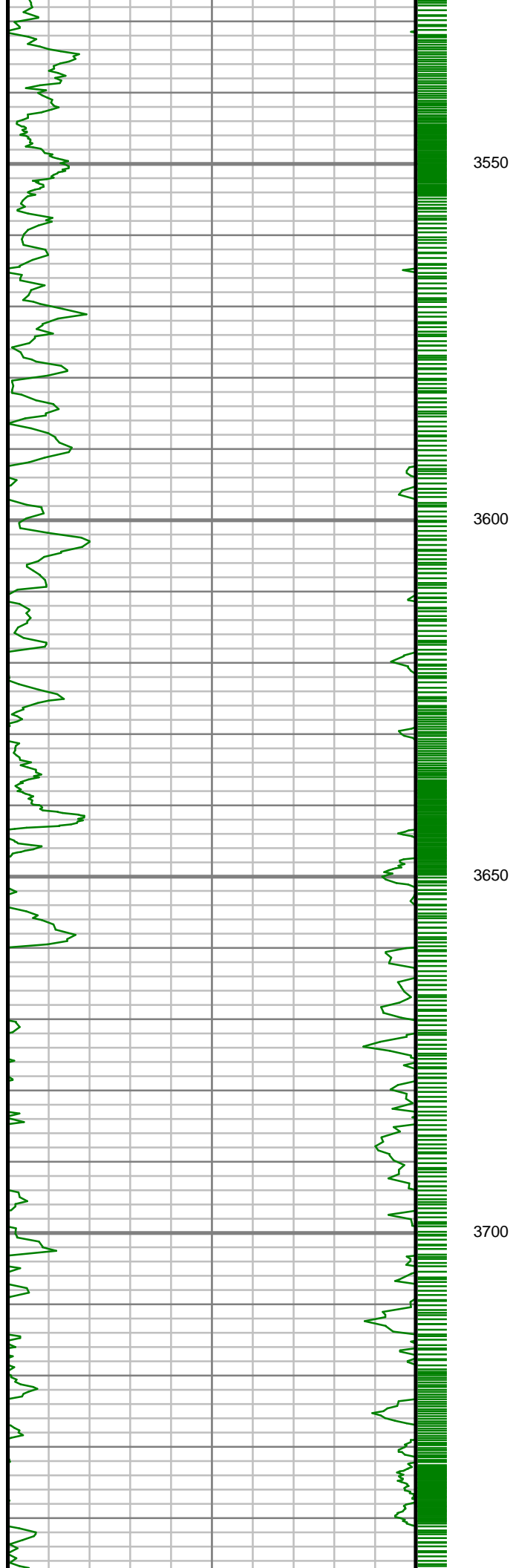


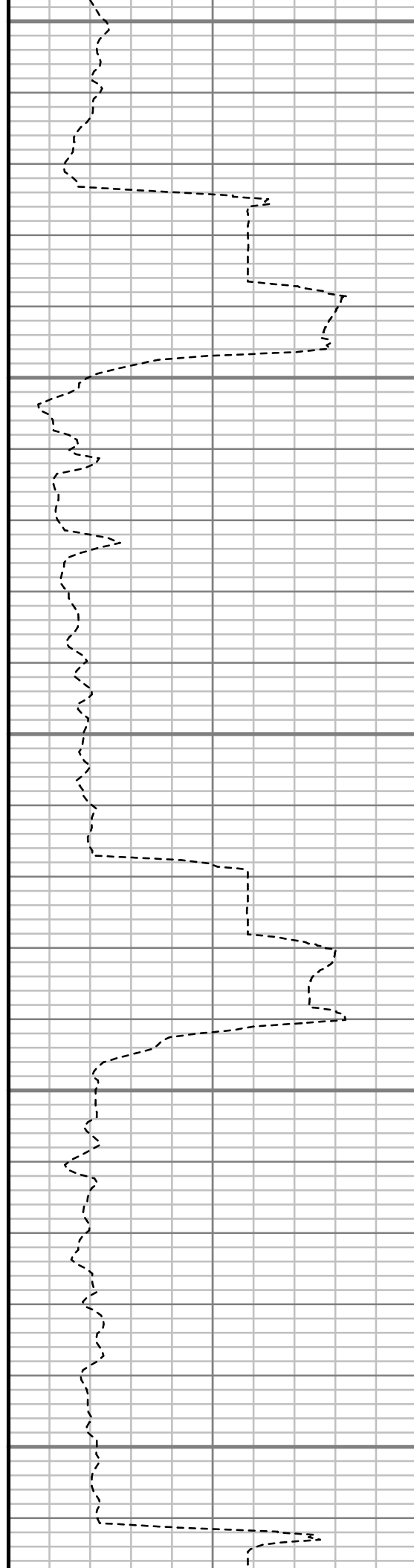
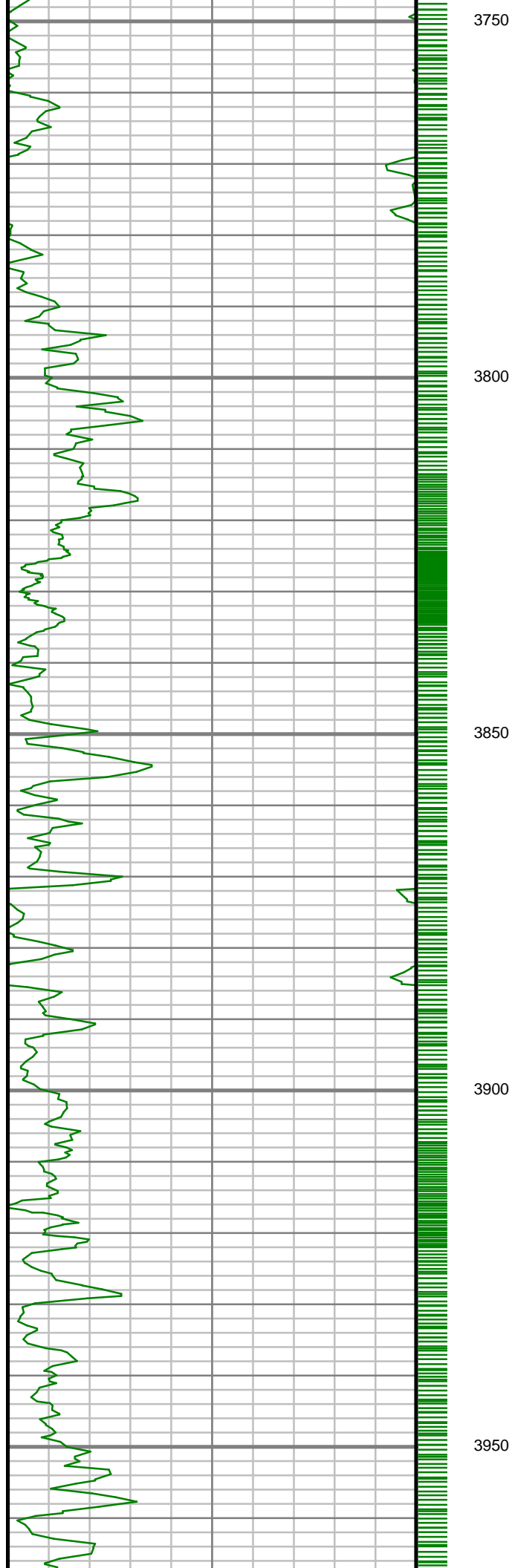


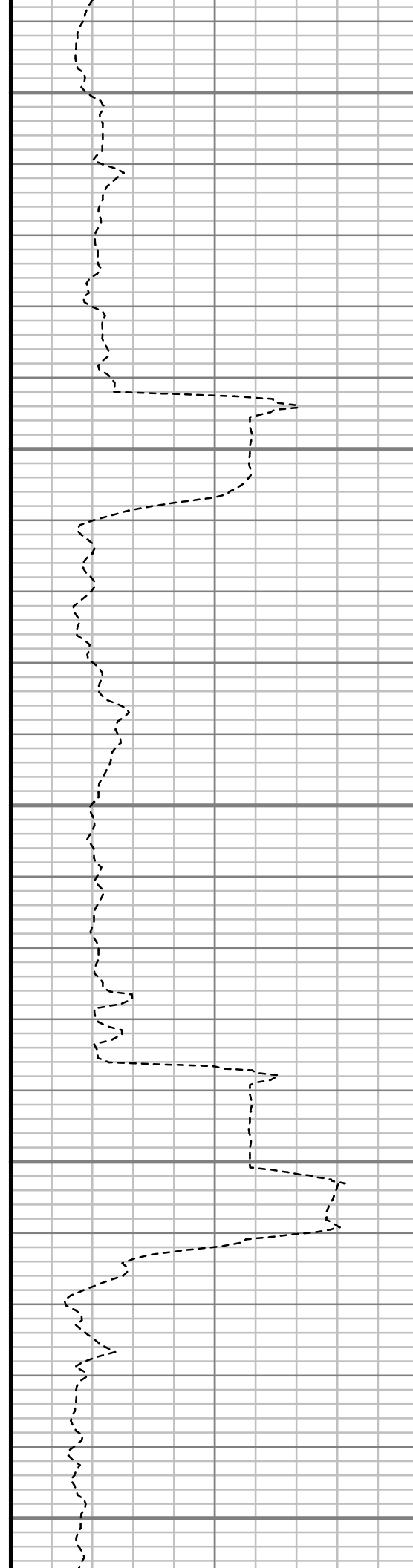
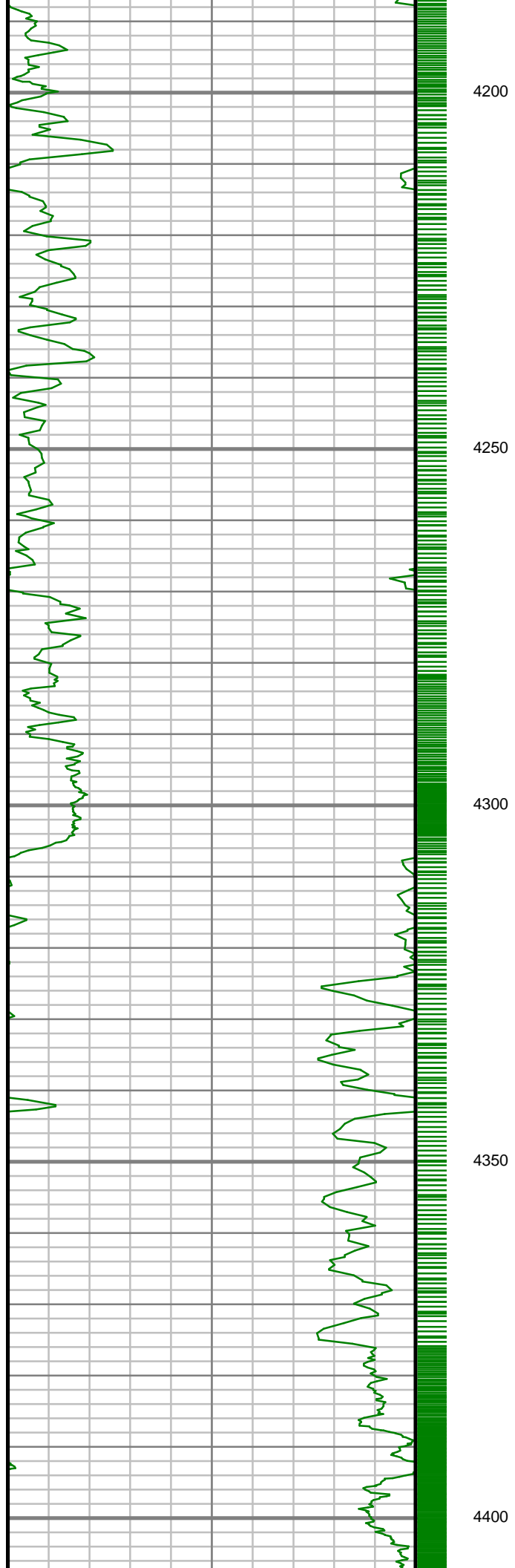


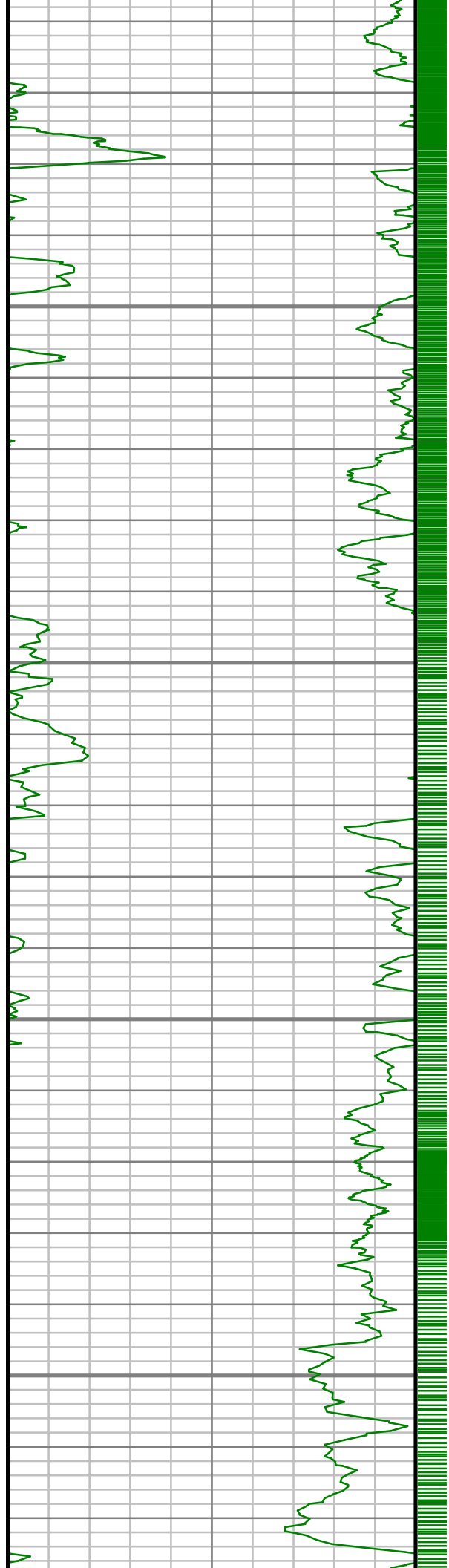










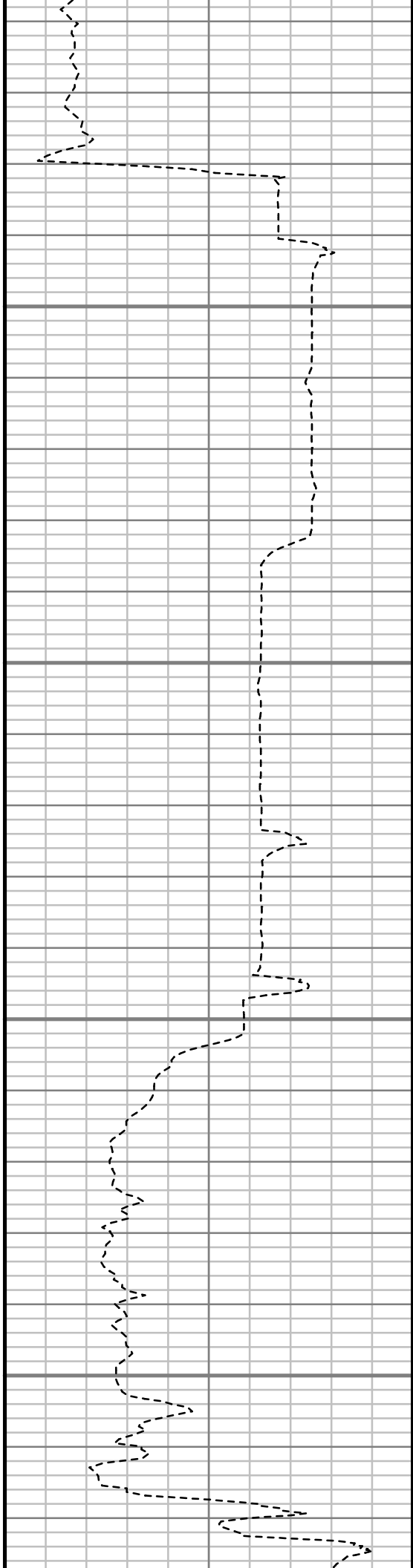


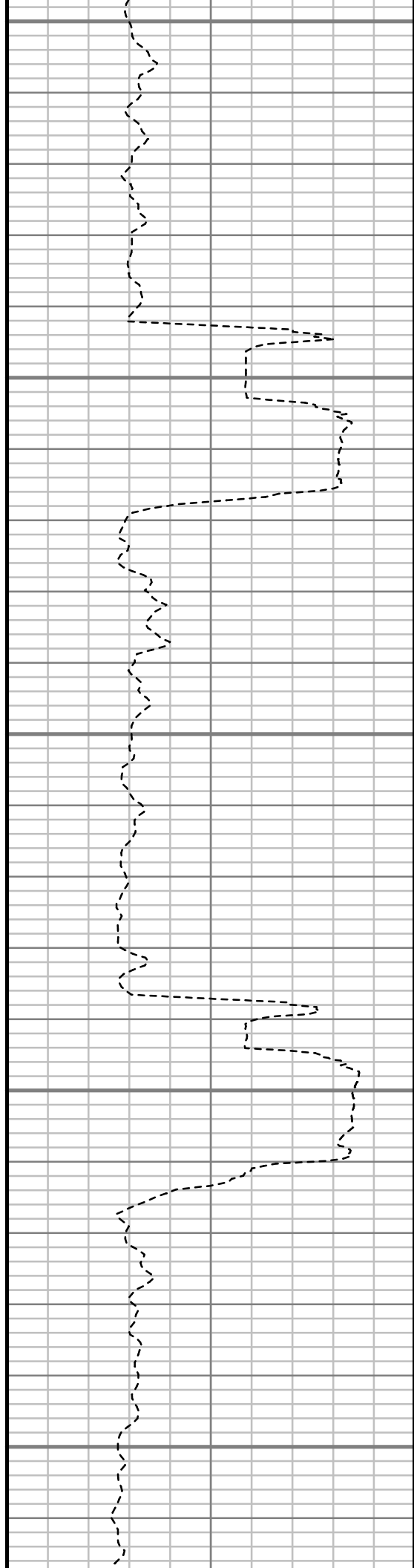
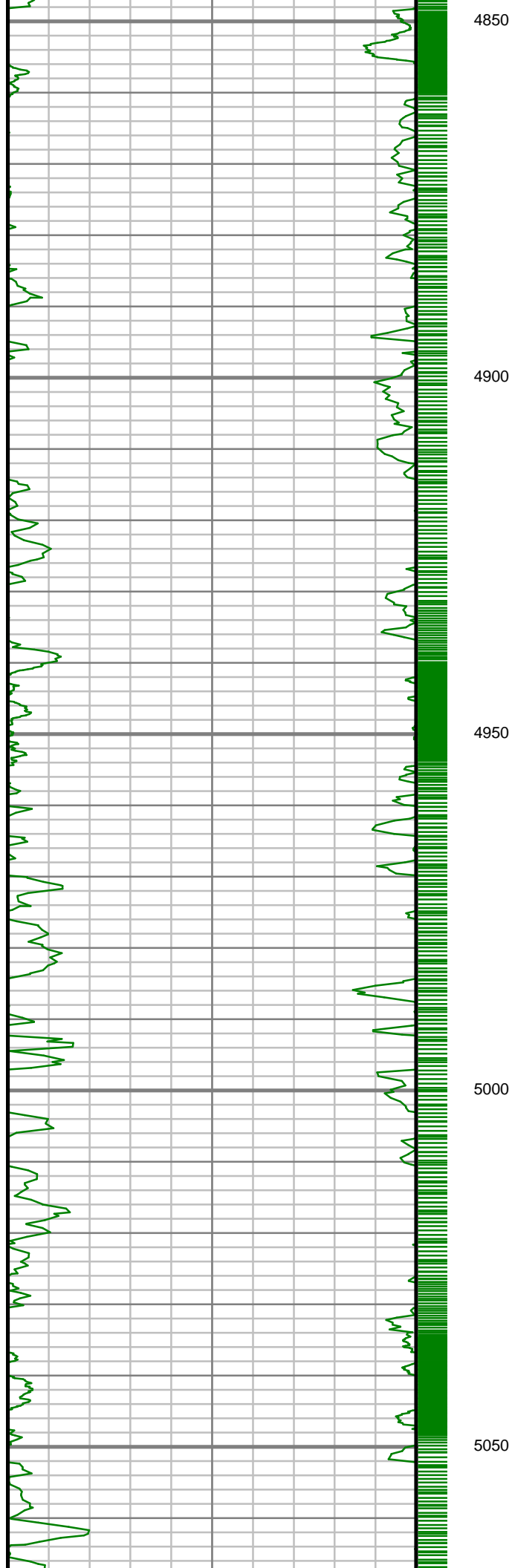
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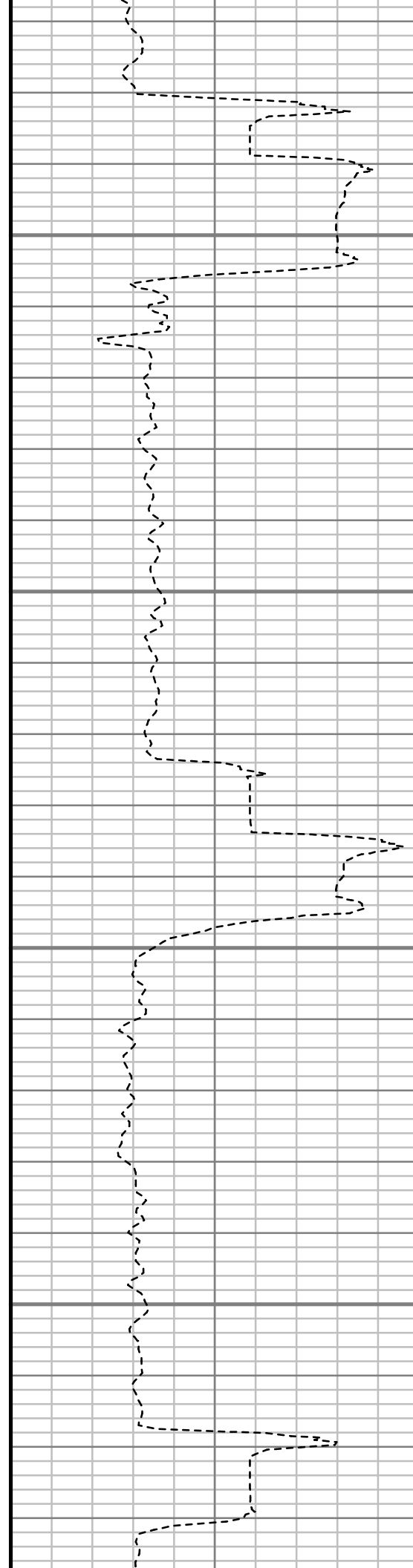
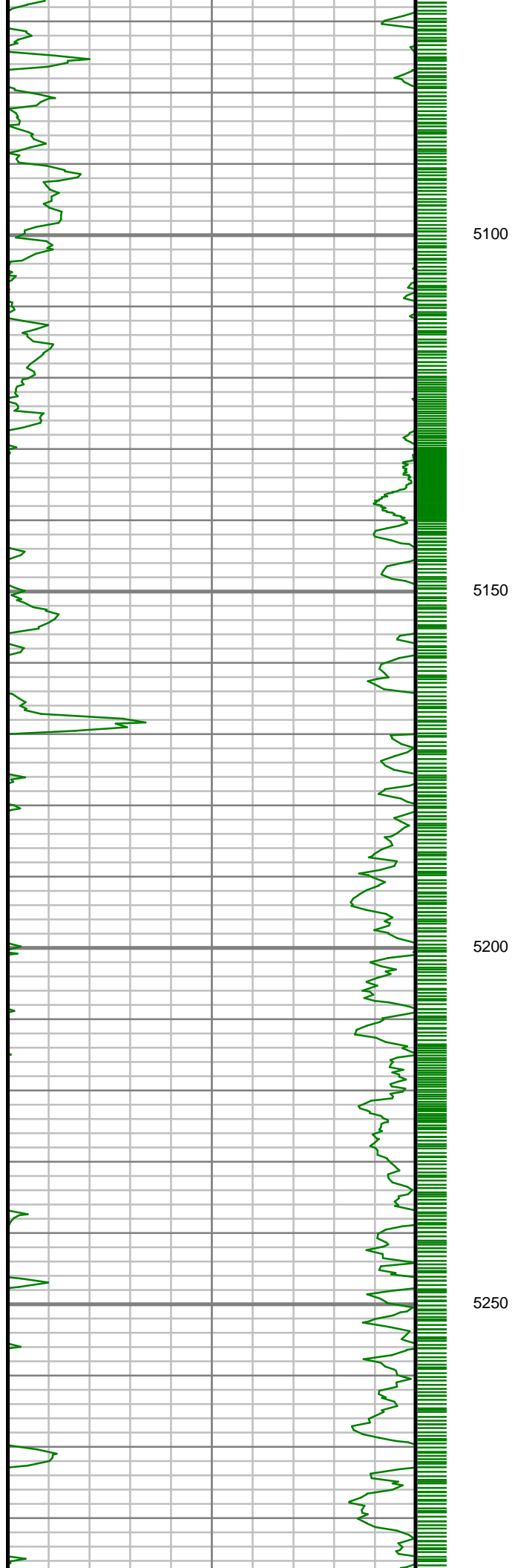
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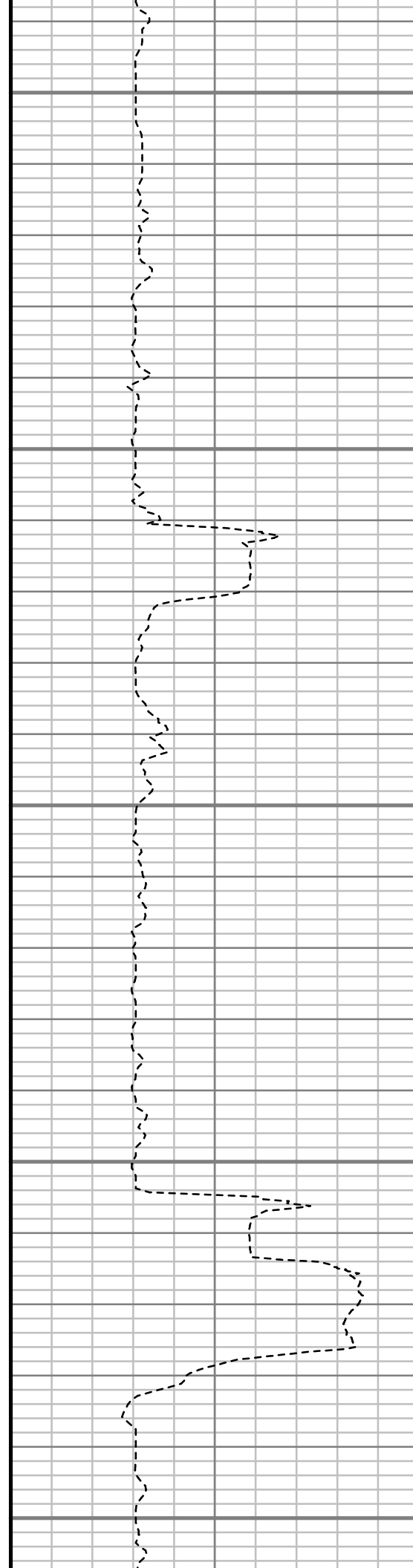
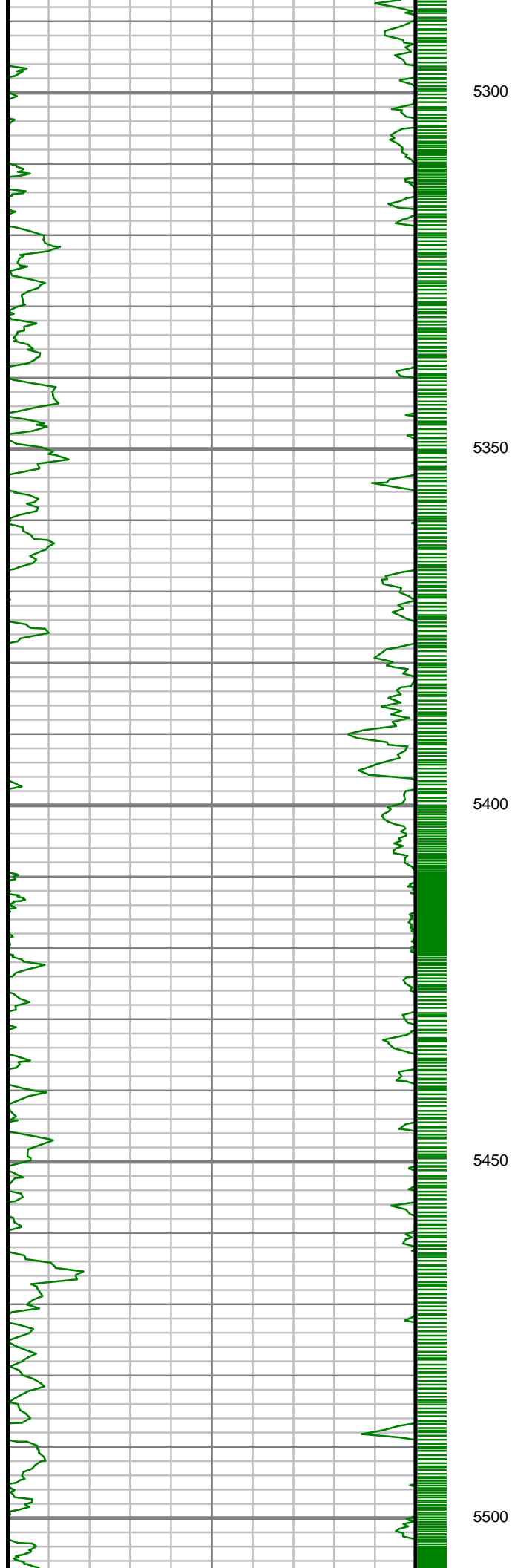
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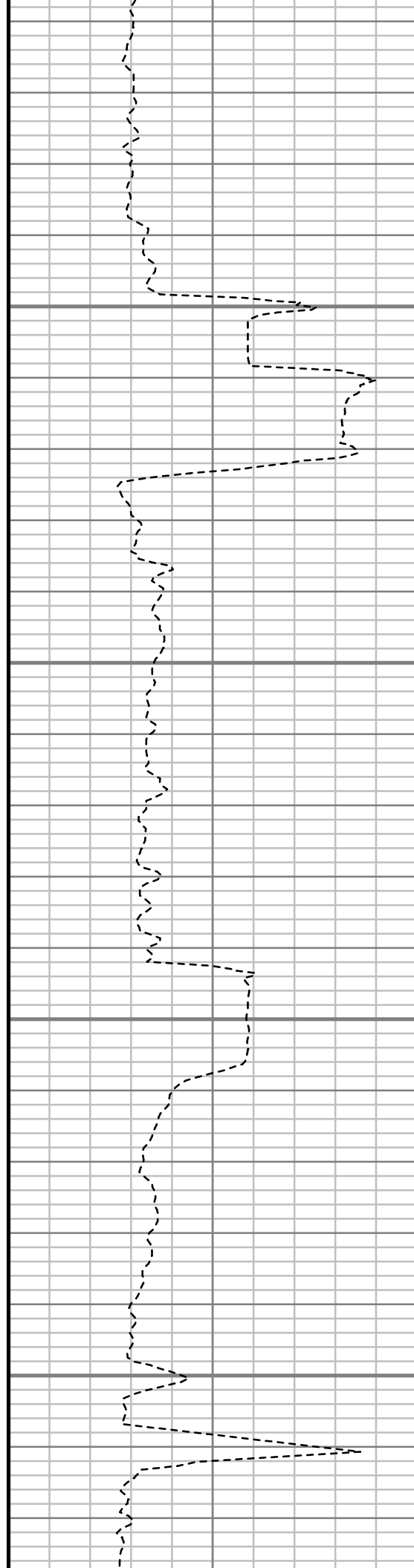
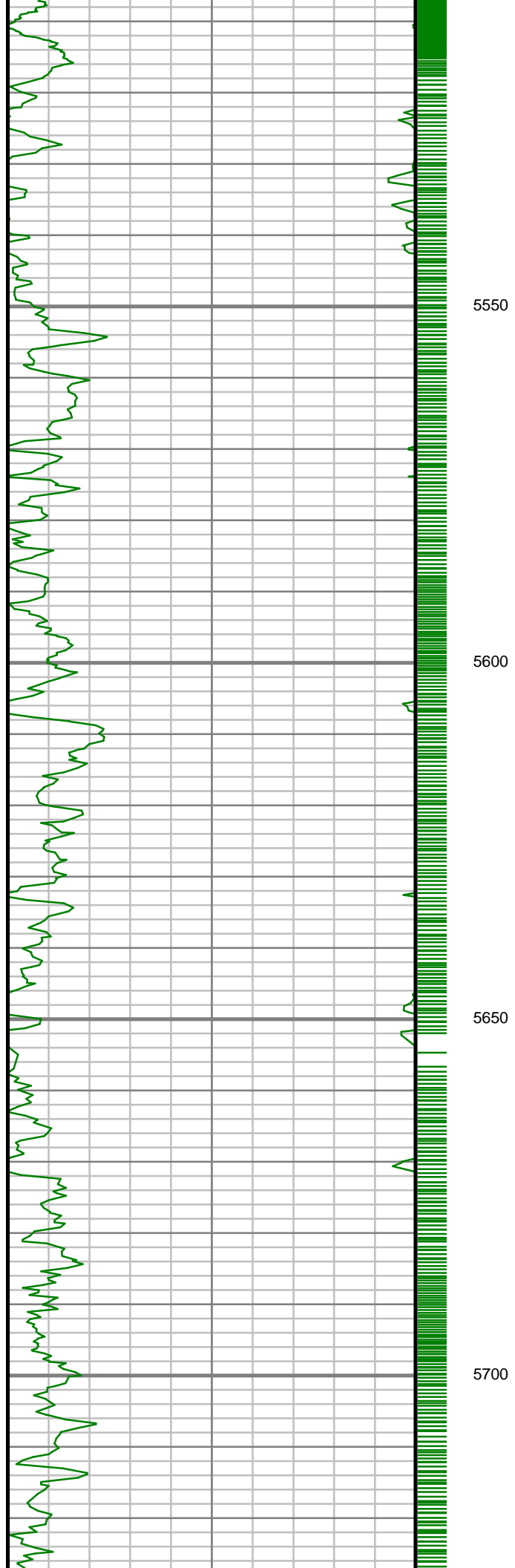
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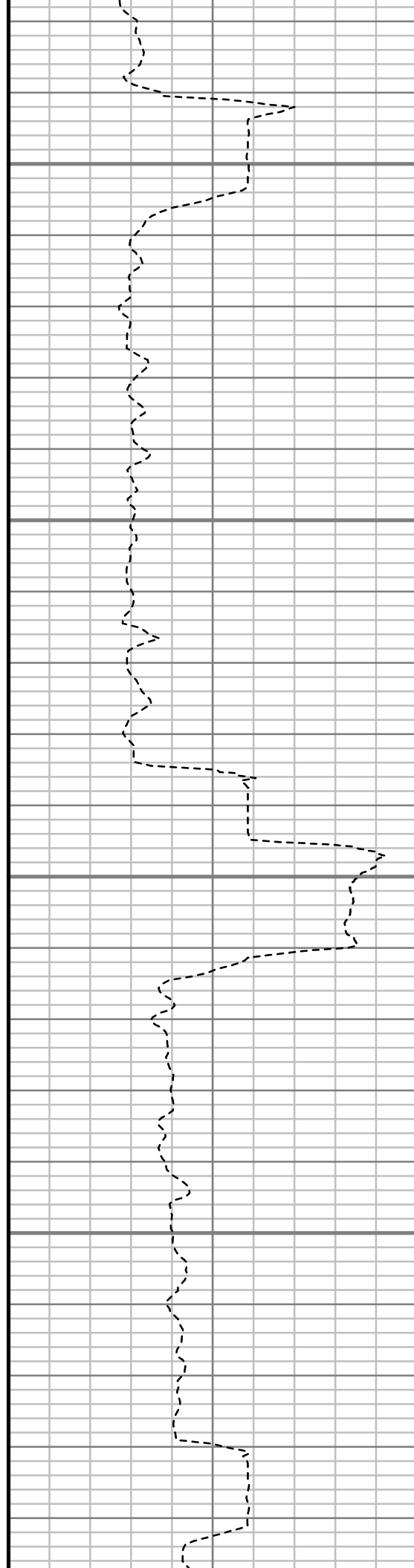
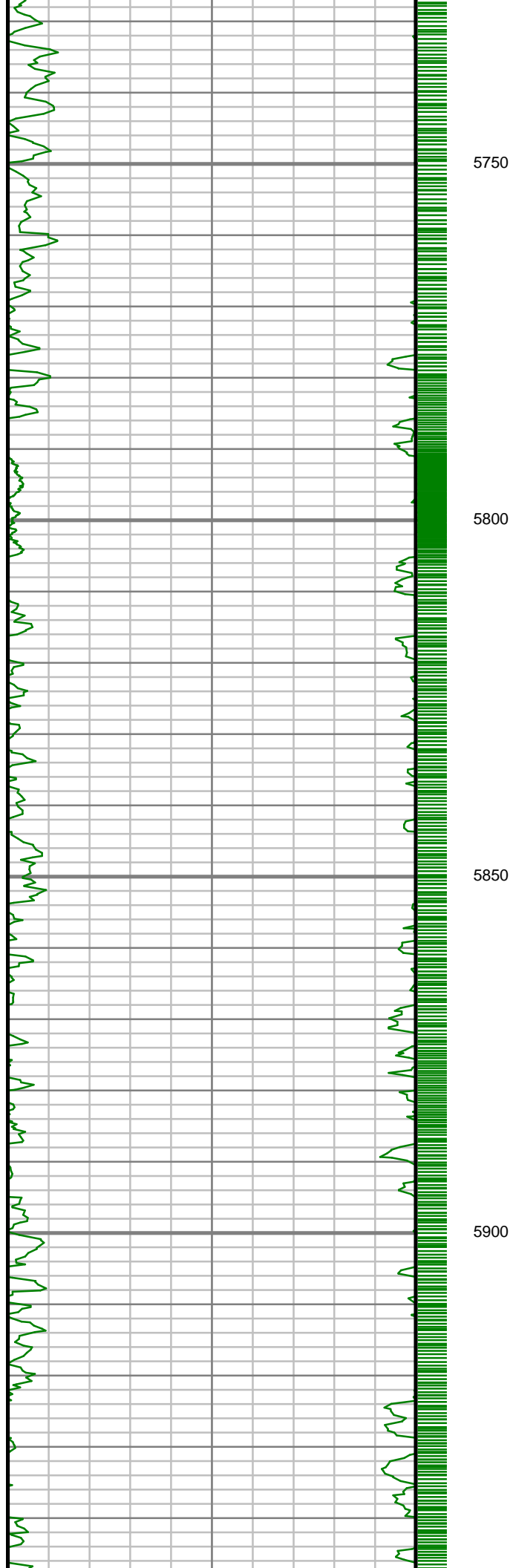


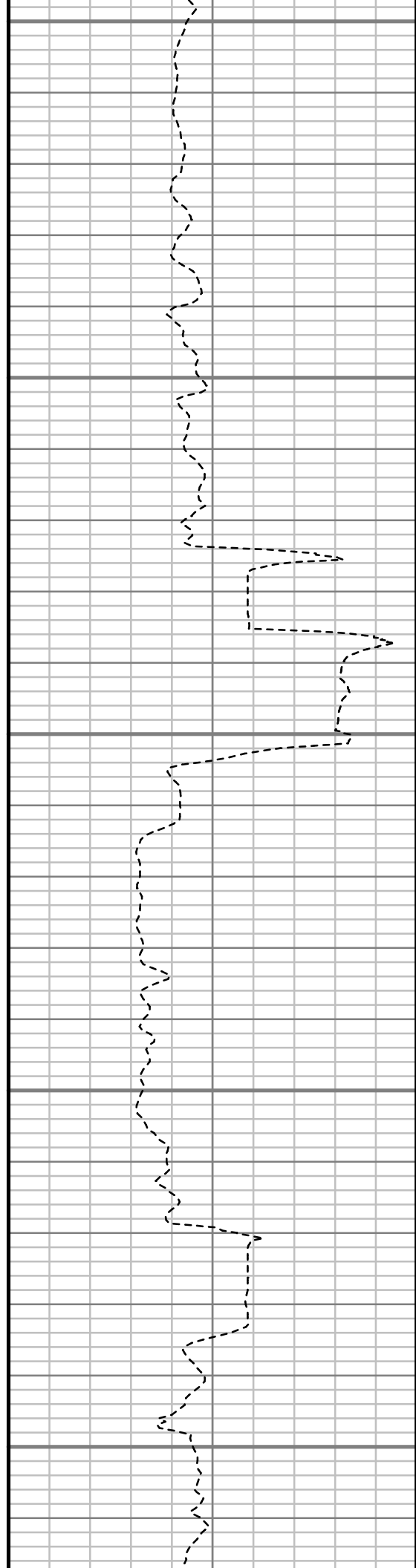
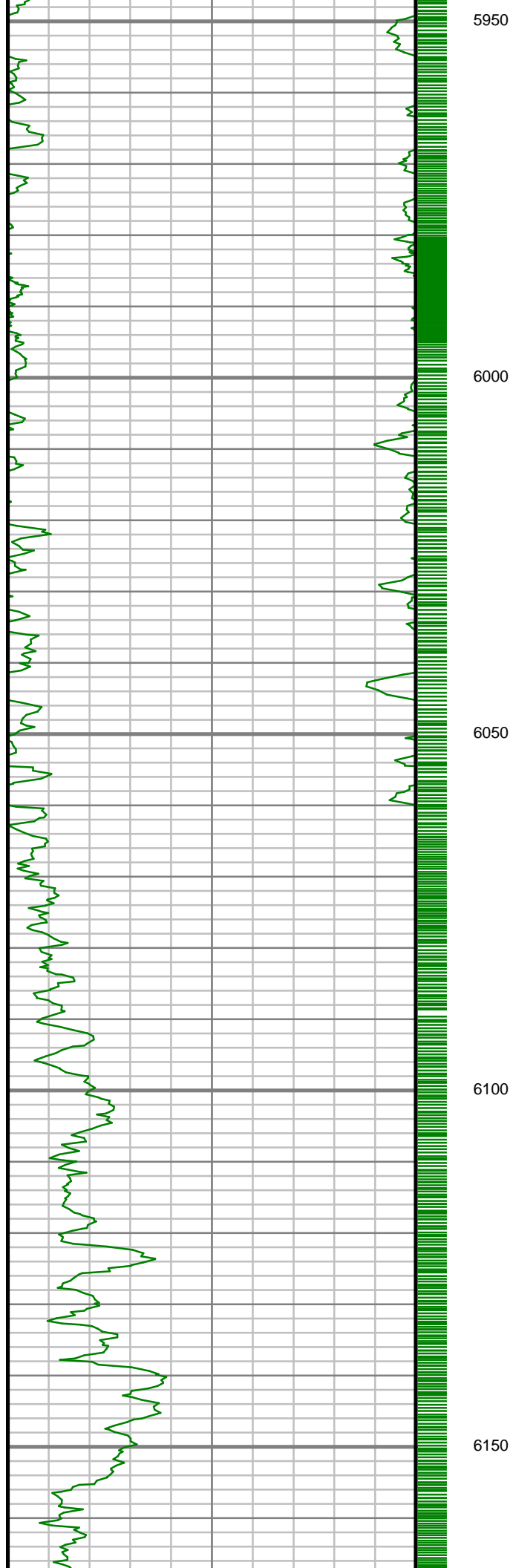


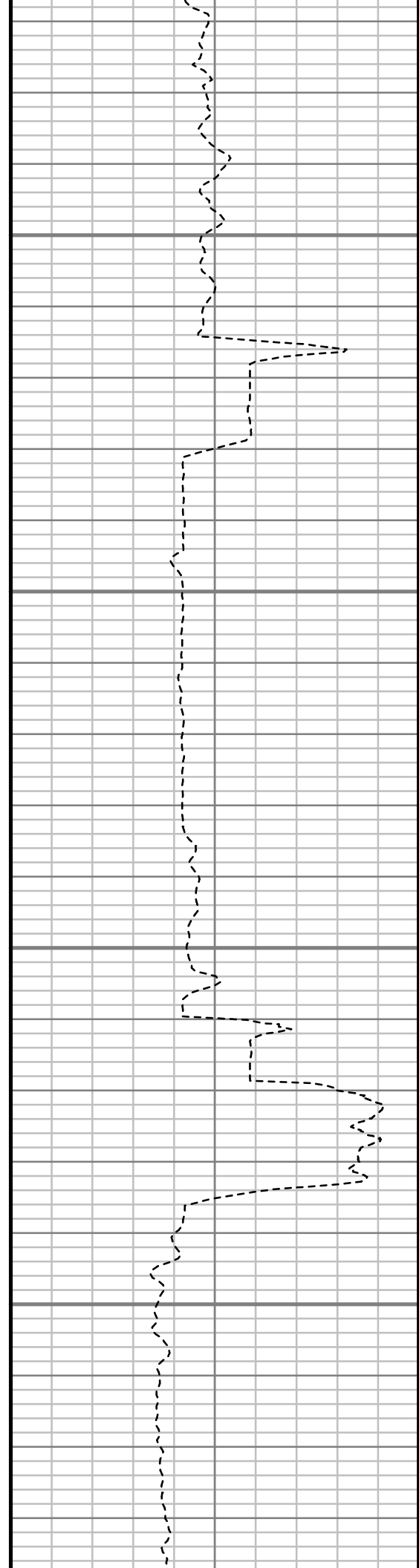
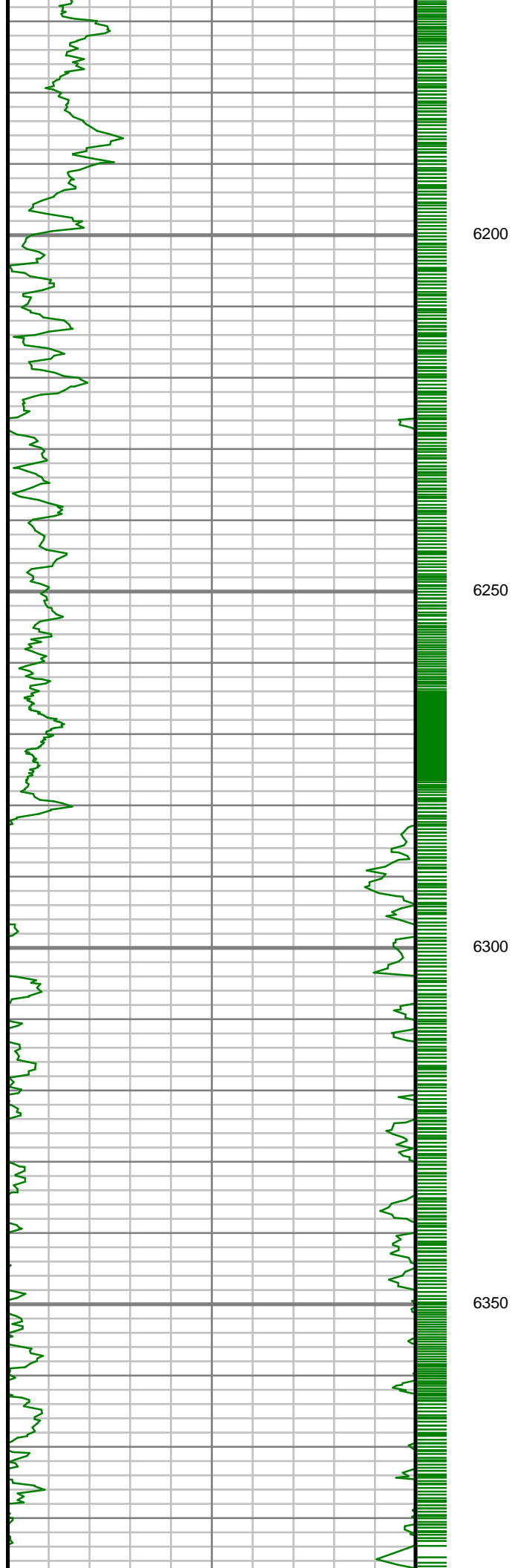


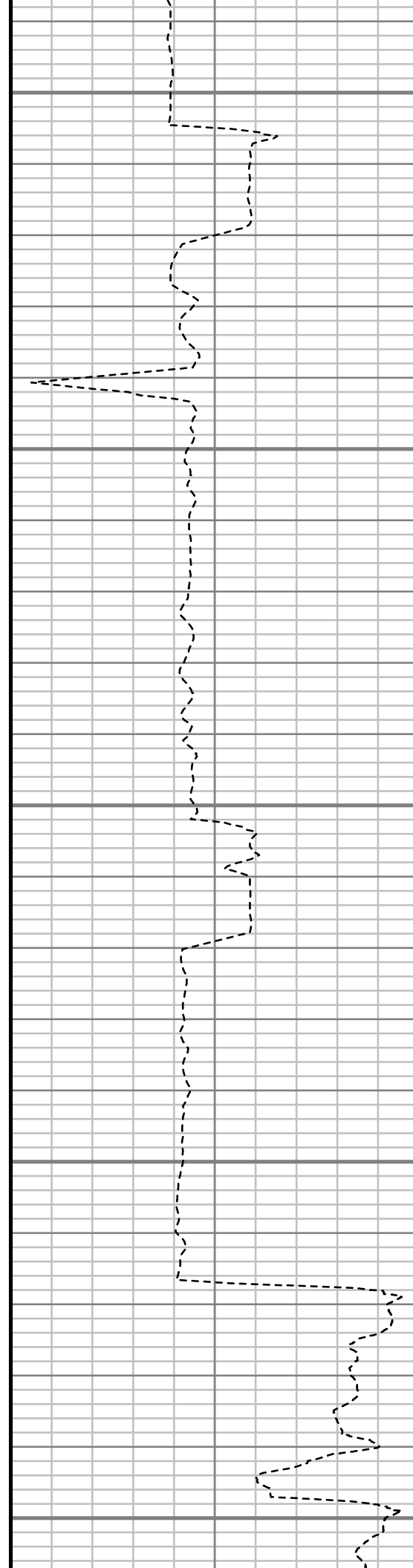
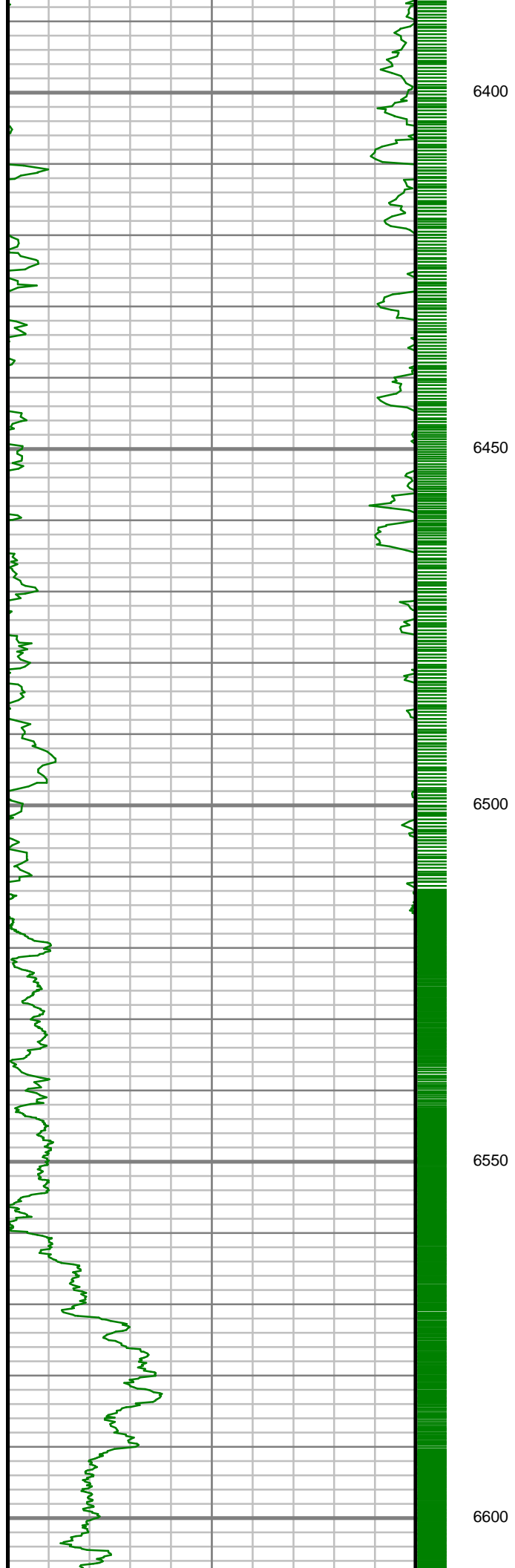


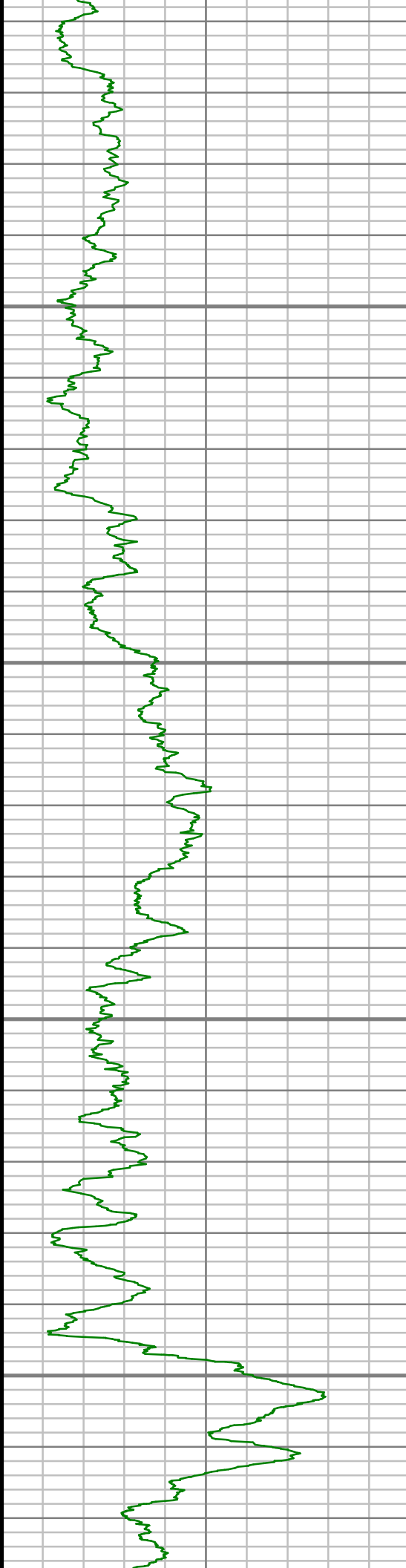










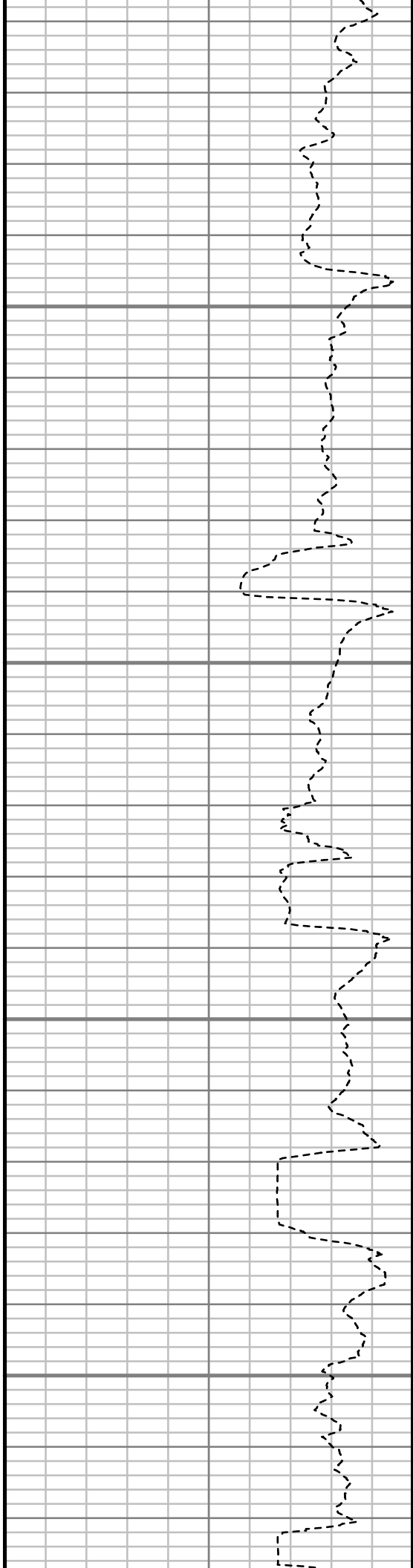


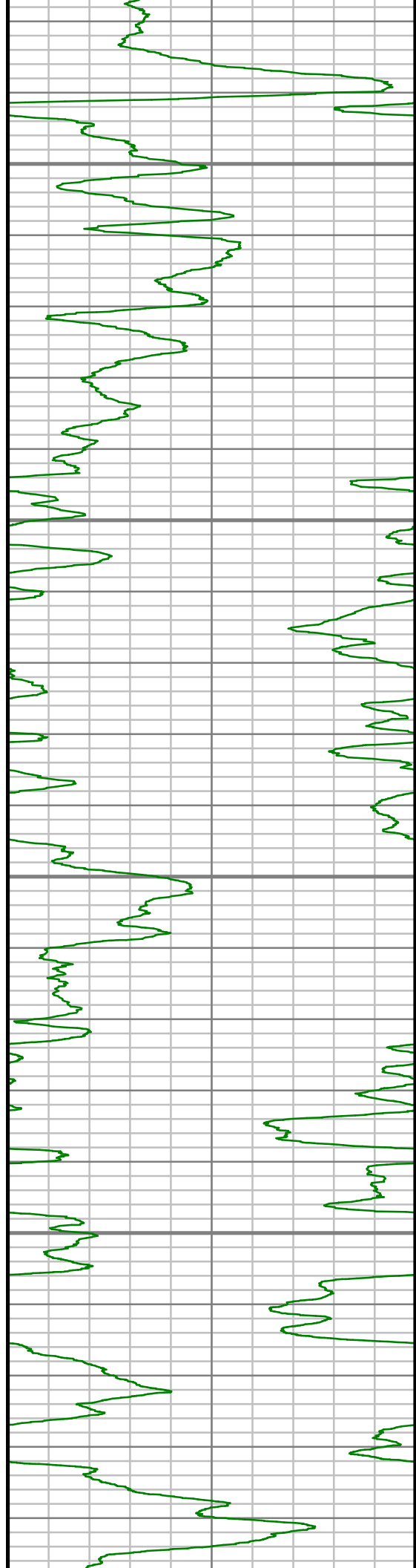
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6700

6750

6800



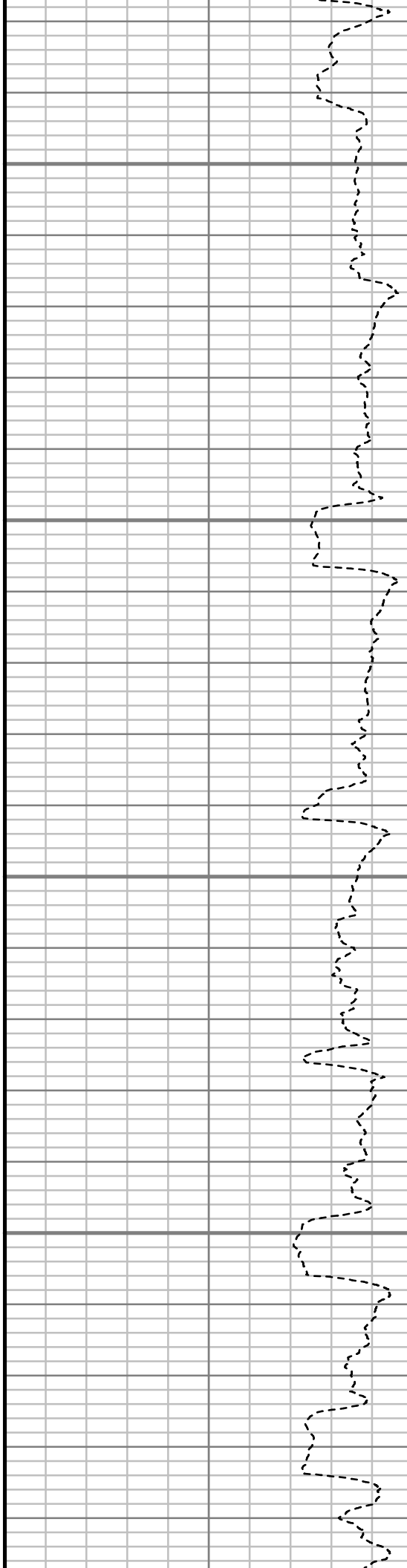


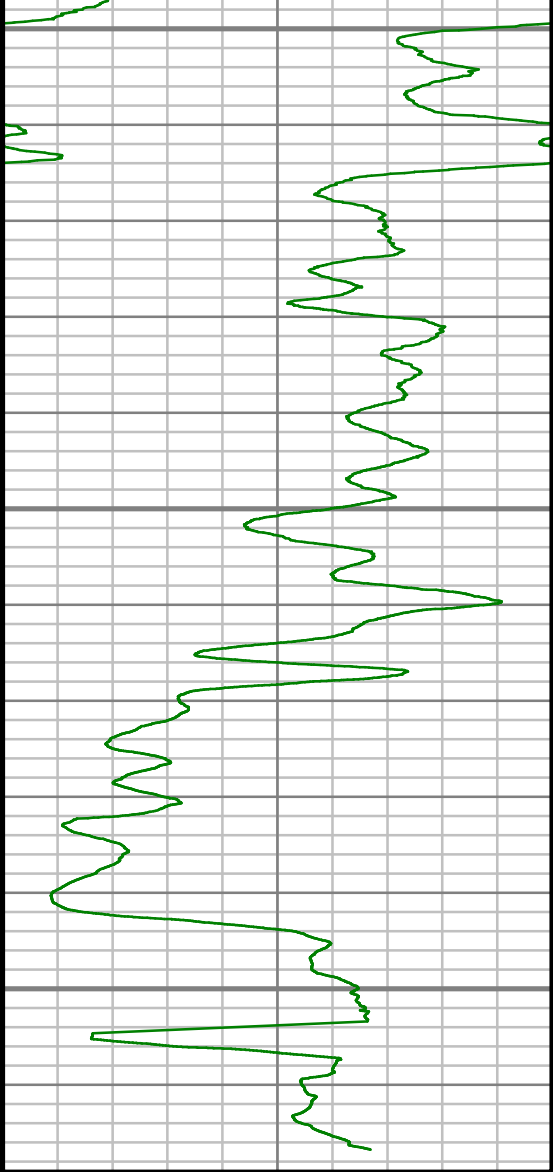
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6900

6950

7000





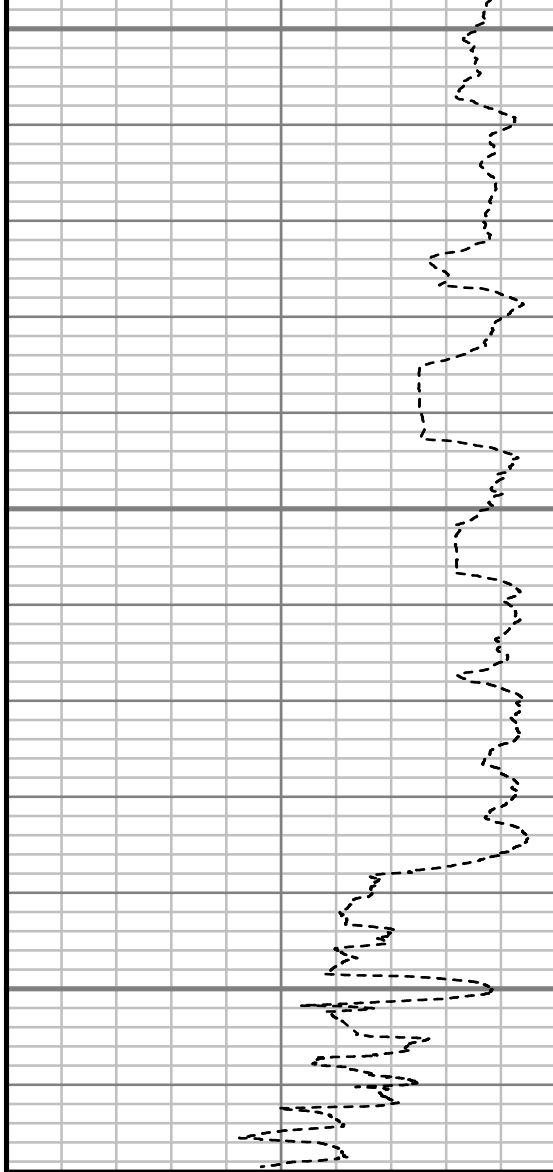
Gamma Ray (GR)		
0	Unit = aapi	150

7050

7100

7150

TRUE VERTICAL DEPTH
1:240 (ft)



Rate of Penetration (ROP)		
600	Unit = ft/hr	0

Comments

MWD Survey Report

Well Location	DALE PAD
Well Name	DALE 4H-20H-O264
Survey Date	8/18/2014
Latitude	40°7'3.508"N
Longitude	104°34'18.599"W
Btotal	52550 nT
Dip	66.73, 66.74 deg
Magnetic Declination	8.39 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (25.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 10.31Azim (deg)
Operator(s)	C. WILSON, S. WAXLER, T. LE

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
140.00	1.41	4.39	139.99	1.71	1.71	0.13	1.72	4.39	1.01
201.00	0.35	146.87	200.98	2.32	2.30	0.29	2.32	7.21	2.79
263.00	0.26	196.00	262.98	2.04	2.01	0.36	2.04	10.06	0.43
323.00	0.88	141.06	322.98	1.60	1.52	0.61	1.63	21.83	1.27
384.00	1.14	106.17	383.97	1.23	0.98	1.49	1.78	56.52	1.08
445.00	2.38	121.46	444.94	0.71	0.15	3.15	3.15	87.21	2.14
506.00	2.29	107.93	505.89	0.10	-0.88	5.39	5.46	99.29	0.91
598.00	3.52	115.14	597.77	-0.87	-2.65	9.69	10.04	105.27	1.39
689.00	3.17	114.08	688.61	-2.18	-4.86	14.51	15.30	108.51	0.39
781.00	4.84	120.85	780.39	-4.15	-7.88	20.16	21.65	111.36	1.88
873.00	5.45	116.28	872.02	-6.71	-11.81	27.42	29.85	113.31	0.80
964.00	6.25	111.53	962.54	-8.87	-15.54	35.90	39.12	113.41	1.02
1056.00	5.72	107.31	1054.04	-10.40	-18.74	44.93	48.68	112.64	0.75
1086.00	5.63	109.69	1083.89	-10.82	-19.68	47.74	51.64	112.41	0.84
1178.00	7.13	108.72	1175.32	-12.39	-23.04	57.40	61.85	111.87	1.63
1269.00	8.71	110.57	1265.45	-14.44	-27.27	69.20	74.37	111.51	1.76
1341.00	9.91	109.47	1336.50	-16.40	-31.25	80.14	86.02	111.30	1.68
1525.00	10.16	108.78	1517.69	-21.31	-41.75	110.42	118.05	110.71	0.15

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
1707.00	11.43	108.26	1696.47	-26.16	-52.56	142.73	152.10	110.22	0.70
1890.00	10.27	112.71	1876.20	-32.17	-64.54	175.00	186.52	110.24	0.78
2073.00	10.78	112.18	2056.12	-39.20	-77.29	205.89	219.92	110.58	0.28
2255.00	9.48	113.02	2235.28	-46.00	-89.58	235.45	251.92	110.83	0.72
2439.00	9.03	109.70	2416.88	-51.69	-100.38	262.99	281.50	110.89	0.38
2622.00	10.30	110.85	2597.28	-57.02	-111.04	291.80	312.22	110.83	0.71
2805.00	10.02	114.10	2777.41	-63.81	-123.37	321.64	344.48	110.98	0.35
2995.00	11.13	109.86	2964.18	-70.79	-136.35	353.97	379.33	111.07	0.71
3184.00	11.80	109.64	3149.41	-76.95	-149.04	389.32	416.88	110.95	0.36
3374.00	10.86	108.43	3335.71	-82.63	-161.22	424.61	454.18	110.79	0.51
3563.00	9.39	118.59	3521.77	-89.98	-174.23	455.04	487.25	110.95	1.22
3753.00	10.21	112.92	3709.01	-98.52	-188.21	484.16	519.45	111.24	0.67
3943.00	10.60	110.68	3895.88	-105.34	-200.94	516.02	553.76	111.28	0.29
4131.00	11.34	109.64	4080.44	-111.45	-213.26	549.60	589.53	111.21	0.41
4320.00	9.39	109.99	4266.35	-117.05	-224.77	581.59	623.51	111.13	1.03
4510.00	9.84	106.96	4453.68	-121.54	-234.81	611.68	655.20	111.00	0.36
4701.00	8.89	111.47	4642.14	-126.29	-244.97	641.04	686.25	110.91	0.63
4891.00	8.00	111.15	4830.07	-131.62	-255.12	667.04	714.16	110.93	0.47

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
5081.00	8.36	110.15	5018.14	-136.46	-264.65	692.33	741.19	110.92	0.21
5271.00	10.65	110.53	5205.52	-141.94	-275.56	721.75	772.56	110.90	1.21
5462.00	9.05	107.48	5393.70	-146.94	-286.26	752.60	805.21	110.82	0.88
5652.00	7.22	114.08	5581.79	-151.65	-295.62	777.76	832.05	110.81	1.08
5843.00	4.82	98.96	5771.73	-154.32	-301.77	796.64	851.88	110.75	1.50
6033.00	3.52	119.82	5961.23	-156.08	-305.91	809.58	865.45	110.70	1.04
6224.00	1.87	134.09	6152.02	-159.77	-311.00	816.91	874.11	110.84	0.92
6415.00	0.74	96.44	6342.97	-161.43	-313.31	820.38	878.17	110.90	0.71
6605.00	1.21	39.59	6532.94	-159.60	-311.91	822.88	880.01	110.76	0.53
6652.00	2.25	2.48	6579.92	-158.25	-310.60	823.23	879.88	110.67	3.14
6700.00	6.23	358.40	6627.78	-154.77	-307.06	823.20	878.60	110.46	8.32
6747.00	13.15	359.64	6674.08	-147.01	-299.15	823.09	875.77	109.97	14.72
6796.00	17.21	3.94	6721.37	-134.33	-286.35	823.56	871.92	109.17	8.59
6843.00	20.34	2.94	6765.86	-119.31	-271.25	824.46	867.93	108.21	6.70
6891.00	23.88	359.33	6810.33	-101.50	-253.20	824.77	862.76	107.07	7.90
6938.00	29.53	356.38	6852.30	-80.90	-232.11	823.93	856.00	105.73	12.34
6986.00	35.39	354.57	6892.78	-56.02	-206.45	821.86	847.40	104.10	12.38
7033.00	40.44	355.74	6929.85	-28.15	-177.68	819.44	838.48	102.23	10.85

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
7081.00	46.15	356.92	6964.77	3.78	-144.84	817.35	830.09	100.05	12.01
7128.00	50.87	357.39	6995.90	38.06	-109.69	815.61	822.95	97.66	10.08
7176.00	55.37	357.03	7024.70	75.44	-71.35	813.74	816.86	95.01	9.38
7223.00	60.30	357.27	7049.72	114.17	-31.62	811.76	812.38	92.23	10.51
7271.00	67.32	358.60	7070.89	156.22	11.39	810.23	810.31	89.19	14.83
7318.00	70.53	359.61	7087.79	199.23	55.24	809.54	811.43	86.10	7.13
7366.00	73.30	359.54	7102.69	244.06	100.86	809.20	815.47	82.90	5.76
7413.00	76.52	358.50	7114.93	288.55	146.22	808.43	821.54	79.75	7.18
7462.00	80.06	358.67	7124.87	335.52	194.18	807.24	830.27	76.47	7.24
7497.00	83.15	359.26	7129.98	369.47	228.80	806.62	838.44	74.16	8.97
7624.00	87.08	359.30	7140.80	493.64	355.30	805.03	879.95	66.19	3.10
7719.00	86.61	358.47	7146.03	586.62	450.14	803.19	920.72	60.73	1.00
7814.00	87.62	0.52	7150.82	679.81	545.01	802.35	969.95	55.81	2.40
7909.00	89.63	0.90	7153.10	773.44	639.97	803.53	1027.24	51.46	2.16
8003.00	90.07	0.68	7153.35	866.15	733.96	804.83	1089.24	47.64	0.52
8098.00	90.03	0.84	7153.27	959.83	828.95	806.09	1156.26	44.20	0.17
8193.00	90.97	0.88	7152.43	1053.54	923.93	807.51	1227.08	41.15	0.99
8288.00	91.04	1.19	7150.76	1147.28	1018.90	809.22	1301.16	38.46	0.34

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
8383.00	91.11	0.38	7148.98	1240.95	1113.88	810.52	1377.56	36.04	0.86
8477.00	91.11	359.51	7147.16	1333.40	1207.86	810.43	1454.55	33.86	0.93
8573.00	90.67	358.47	7145.68	1427.52	1303.83	808.73	1534.28	31.81	1.17
8667.00	90.60	359.12	7144.63	1519.62	1397.80	806.76	1613.91	29.99	0.69
8762.00	91.21	358.72	7143.13	1612.74	1492.77	804.97	1695.98	28.34	0.76
8857.00	90.30	359.61	7141.88	1705.94	1587.75	803.59	1779.53	26.84	1.34
8951.00	90.20	359.83	7141.47	1798.34	1681.75	803.13	1863.68	25.53	0.25
9045.00	89.80	1.28	7141.47	1890.97	1775.74	804.04	1949.29	24.36	1.60
9140.00	90.50	0.32	7141.22	1984.67	1870.73	805.36	2036.72	23.29	1.25
9234.00	90.77	0.05	7140.17	2077.20	1964.73	805.66	2123.50	22.30	0.41
9330.00	91.65	0.17	7138.14	2171.66	2060.70	805.84	2212.66	21.36	0.92
9425.00	90.40	0.58	7136.44	2265.21	2155.68	806.47	2301.60	20.51	1.38
9520.00	89.90	1.92	7136.19	2359.03	2250.66	808.54	2391.48	19.76	1.50
9615.00	89.33	1.50	7136.83	2452.95	2345.61	811.37	2481.98	19.08	0.74
9710.00	88.32	0.88	7138.78	2546.73	2440.57	813.34	2572.53	18.43	1.24
9805.00	88.96	0.89	7141.03	2640.42	2535.53	814.81	2663.24	17.82	0.67
9901.00	89.93	0.47	7141.96	2735.06	2631.52	815.95	2755.12	17.23	1.10
9996.00	89.66	0.93	7142.30	2828.73	2726.51	817.11	2846.32	16.68	0.56

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	%/100ft
10091.00	89.16	1.12	7143.27	2922.48	2821.49	818.81	2937.90	16.18	0.57
10186.00	90.71	0.78	7143.38	3016.21	2916.48	820.38	3029.66	15.71	1.67
10281.00	89.97	0.91	7142.83	3109.92	3011.46	821.77	3121.57	15.26	0.79
10376.00	89.06	0.64	7143.63	3203.60	3106.45	823.05	3213.64	14.84	1.00
10472.00	89.60	0.66	7144.76	3298.23	3202.44	824.15	3306.78	14.43	0.56
10567.00	88.39	359.06	7146.43	3391.64	3297.42	823.92	3398.79	14.03	2.12
10662.00	89.26	358.87	7148.38	3484.76	3392.38	822.20	3490.60	13.62	0.94
10757.00	89.09	358.89	7149.74	3577.86	3487.35	820.33	3582.54	13.24	0.18
10853.00	88.08	359.75	7152.11	3672.07	3583.31	819.19	3675.76	12.88	1.39
10948.00	88.89	359.43	7154.61	3765.38	3678.28	818.51	3768.25	12.55	0.92
11043.00	89.09	359.56	7156.29	3858.68	3773.26	817.67	3860.84	12.23	0.25
11139.00	89.53	358.98	7157.44	3952.89	3869.24	816.44	3954.44	11.92	0.75
11234.00	89.83	358.25	7157.97	4045.92	3964.21	814.15	4046.95	11.61	0.83
11329.00	89.87	358.22	7158.22	4138.82	4059.17	811.22	4139.44	11.30	0.04
11425.00	88.69	359.47	7159.43	4232.89	4155.14	809.29	4233.22	11.02	1.79
11520.00	88.72	0.09	7161.57	4326.27	4250.11	808.93	4326.41	10.78	0.65
11615.00	87.81	358.35	7164.44	4419.45	4345.06	807.63	4419.48	10.53	2.06
11669.00	88.08	358.36	7166.38	4472.24	4399.00	806.09	4472.24	10.38	0.50

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