

Rig:	ISDL 453
Field:	Turrum
Location:	Bass Strait
Well:	MLA A6A
Company:	ESSO Australia Pty. Ltd.

Gamma Ray Service			
1:200 True Vertical Depth			
Real Time Log			
Total depth:	3563.0 m	K.B.	Top Drive
Spud date:	18-Feb-2004	G.L.	-59.00 m
Runs:	1 to 6 and 8 to 9	D.F.	27.91 m
Permanent datum:		Elev.: 0 m	
Log measured from:	Drill Floor	27.91 m above Perm. datum	
Depth reference:	Driller's Depth		
API serial no.	Y = 5767920.46 m N X = 606866.83 m E	Longitude	Latitude
		E 148°13'15.62"	S38°13'49.31"

<p style="text-align: center;">DISCLAIMER</p> <p>THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.</p>		
<p>OTHER SERVICES FOR RUN1</p> <p>Directional Drilling Directional Surveys</p>	<p>OTHER SERVICES FOR RUN2</p> <p>Directional Drilling Directional Surveys</p>	<p>OTHER SERVICES FOR RUN3</p> <p>Directional Drilling Directional Surveys</p>
<p>REMARKS: RUN NUMBER 1</p> <p>8-1/2 in. hole was drilled from 1013.0 m to 1820.0 m MD.</p> <p>Depth is referenced to Driller's Depth.</p> <p>Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight.</p> <p>Due to Survey Tie In Point, Start of Logging Depth is 1015.0 m MD.</p> <p>Mud type is KCl/PHPA/Glycol.</p> <p>POOH for bit change.</p>	<p>REMARKS: RUN NUMBER 2</p> <p>8-1/2 in. hole was drilled from 1820.0 m to 2064.0 m MD.</p> <p>Depth is referenced to Driller's Depth.</p> <p>Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight.</p> <p>Mud type is KCl/PHPA/Glycol.</p> <p>POOH for bit change.</p>	<p>REMARKS: RUN NUMBER 3</p> <p>8-1/2 in. hole was drilled from 2064.0 m to 2299.0 m MD.</p> <p>Depth is referenced to Driller's Depth.</p> <p>Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight.</p> <p>Mud type is KCl/PHPA/Glycol.</p> <p>POOH due to PowerPak* Motor failure.</p>

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EQUIPMENT DESCRIPTION

RUN1

RUN2

RUN3

DOWNHOLE EQUIPMENT

DOWNHOLE EQUIPMENT

DOWNHOLE EQUIPMENT

6-3/4 in. PowerPulse* 22.55
MDC: 066-AB
MEC: 612-BB
MDI: 626-BC
MGR: 295-AA

DH Software: V6.1 C00

D&I ____ 18.26
GR ____ 17.61

6-1/2 in. PMDC 14.34
S/N: ASS15700

6-1/2 in. NM Roller Reamer 12.65
S/N: GU2298
Reamer OD: 8-3/8 in.

6-1/2 in. PMDC 10.57
S/N: 9612058

6-3/4 in. PowerPak* Motor 7.88
A675XP 7850
S/N: 3604
1.5 deg. Bent Housing
8-3/8 in. Motor Sleeve

6-3/4 in. PowerPulse* 22.59
MDC: 066-AB
MEC: 612-BB
MDI: 626-BC
MGR: 295-AA

DH Software: V6.1 C00

D&I ____ 18.30
GR ____ 17.65

6-1/2 in. PMDC 14.38
S/N: ASS15700

6-1/2 in. NM Roller Reamer 12.69
S/N: GU2298
Reamer OD: 8-3/8 in.

6-1/2 in. PMDC 10.61
S/N: 9612058

6-3/4 in. PowerPak* Motor 7.92
A675XP 7850
S/N: 3604
0.78 deg. Bent Housing
8-3/8 in. Motor Sleeve

6-3/4 in. PowerPulse* 22.65
MDC: 066-AB
MEC: 612-BB
MDI: 626-BC
MGR: 295-AA

DH Software: V6.1 C00

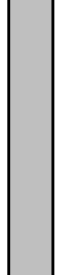


D&I ____ 18.36
GR ____ 17.71

6-1/2 in. PMDC 14.44
S/N: ASS15700

6-1/2 in. NM Roller Reamer 12.75
S/N: GU2299
Reamer OD: 8-3/8 in.

6-1/2 in. PMDC 10.64
S/N: 9612058

6-3/4 in. PowerPak* Motor 7.95
A675XP 7850
S/N: 2179
1.15 deg. Bent Housing
8-3/8 in. Motor Sleeve

 <p>REED-Hycalog PDC Bit OD: 8-1/2 in. RSX192 S/N: 205885</p> <p>Maximum string diameter 8.50 in. All lengths in Meters</p>	 <p>Security Insert Bit OD: 8-1/2 in. SEB485 S/N: 10581590</p> <p>Maximum string diameter 8.50 in. All lengths in Meters</p>	 <p>REED-Hycalog PDC Bit OD: 8-1/2 in. DSX173 S/N: 206260</p> <p>Maximum string diameter 8.50 in. All lengths in Meters</p>
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OTHER SERVICES FOR RUN4 Directional Drilling Directional Surveys	OTHER SERVICES FOR RUN5 Directional Drilling Directional Surveys	OTHER SERVICES FOR RUN6 Directional Drilling Directional Surveys
REMARKS: RUN NUMBER 4 8-1/2 in. hole was drilled from 2299.0 m to 2745.0 m MD. Missing GR Data from 2509.5 m to 2515.0 m MD (1961.0 m to 1964.8 m TVD) due to Emergency Power Shut Down (Fire Alarm) while Drilling. Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCI/PHPA/Glycol. POOH for bit change. Thank You for Choosing Schlumberger.	REMARKS: RUN NUMBER 5 8-1/2 in. hole was drilled from 2745.0 m to 3061.0 m MD. Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCI/PHPA/Glycol. POOH for bit change. Thank You for Choosing Schlumberger.	REMARKS: RUN NUMBER 6 8-1/2 in. hole was drilled from 3061.0 m to 3268.0 m MD. ROP Data Spliced with Run 8 at 3267.7 m MD (2487.9 m TVD). GR Data Spliced with Run 8 at 3250.0 m MD (2475.6 m TVD). Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCI/PHPA/Glycol. POOH for bit change. Thank You for Choosing Schlumberger.

EQUIPMENT DESCRIPTION		
RUN4	RUN5	RUN6
DOWNHOLE EQUIPMENT	DOWNHOLE EQUIPMENT	DOWNHOLE EQUIPMENT

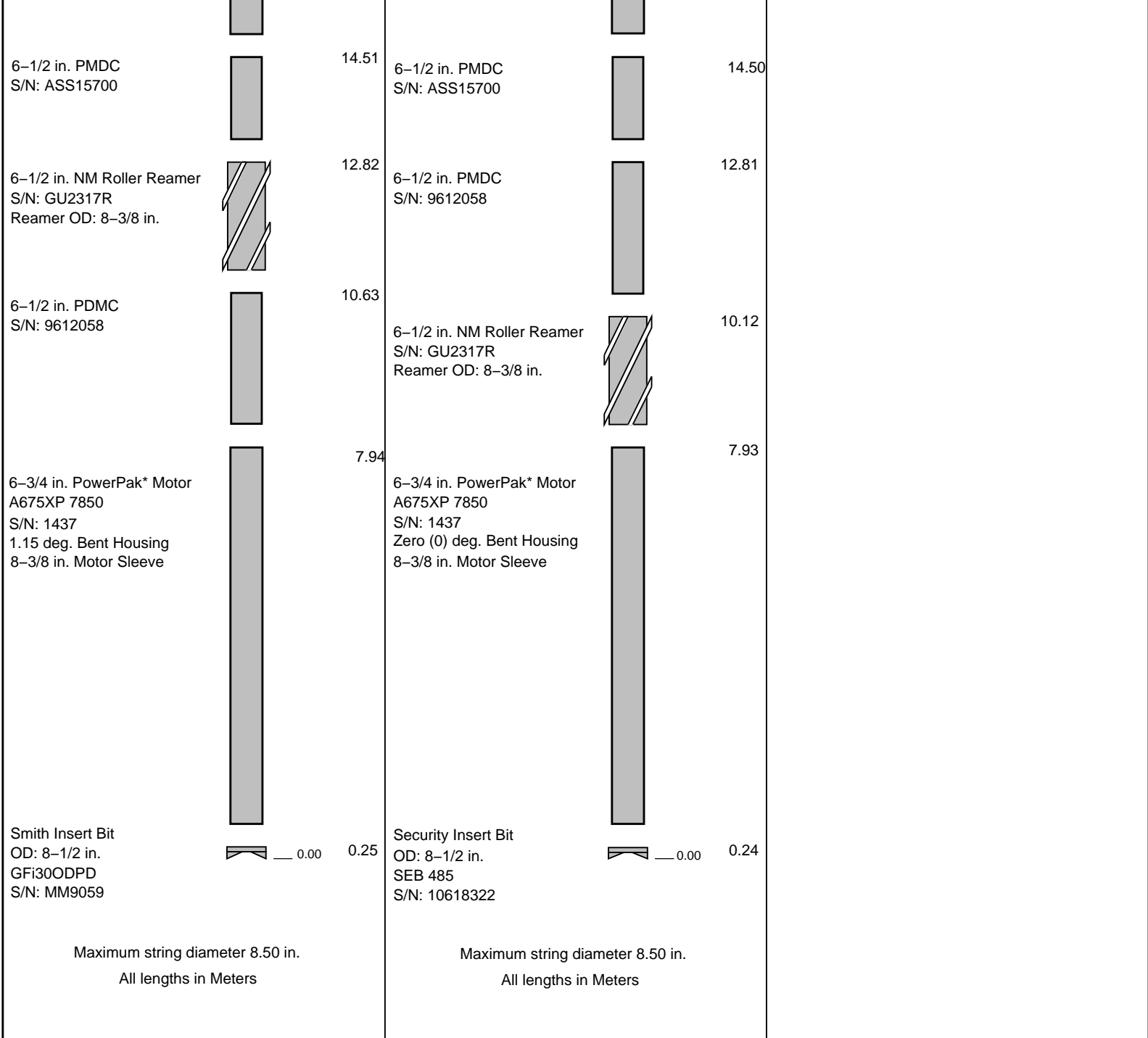
<div data-bbox="16 94 511 346"> <p>6-3/4 in. PowerPulse*</p> <p>MDC: 066-AB MEC: 612-BB MDI: 626-BC MGR: 295-AA</p> <p>DH Software: V6.1 C00</p> </div> <div data-bbox="235 367 454 451"> <p>D&I 18.33</p> <p>GR 17.68</p> </div> <div data-bbox="16 682 511 766"> <p>6-1/2 in. PMDC S/N: ASS15700</p> </div> <div data-bbox="16 829 511 913"> <p>6-1/2 in. PMDC S/N: 9612058</p> </div> <div data-bbox="16 1039 511 1144"> <p>6-1/2 in. NM Roller Reamer S/N: GU2299 Reamer OD: 8-3/8 in.</p> </div> <div data-bbox="16 1228 511 1438"> <p>6-3/4 in. PowerPak* Motor A675XP 7850 S/N: 3604 1.15 deg. Bent Housing 8-3/8 in. Motor Sleeve</p> </div> <div data-bbox="16 1753 511 1900"> <p>Security Insert Bit OD: 8-1/2 in. SEB485 S/N: 10425400</p> </div> <div data-bbox="105 1911 422 1984"> <p>Maximum string diameter 8.50 in. All lengths in Meters</p> </div>	<div data-bbox="544 94 1031 346"> <p>6-3/4 in. PowerPulse*</p> <p>MDC: Z408-AC MEC:108-BA MDI: 108-BC MGR: 146-AA</p> <p>DH Software: V7.0 C00</p> </div> <div data-bbox="755 367 974 451"> <p>D&I 18.59</p> <p>GR 17.94</p> </div> <div data-bbox="544 682 1031 766"> <p>6-1/2 in. PMDC S/N: 9612058</p> </div> <div data-bbox="544 892 1031 1018"> <p>6-1/2 in. NM Roller Reamer S/N: GU2299 Reamer OD: 8-3/8 in.</p> </div> <div data-bbox="544 1060 1031 1144"> <p>6-1/2 in. PMDC S/N: ASS15700</p> </div> <div data-bbox="544 1228 1031 1438"> <p>6-3/4 in. PowerPak* Motor A675XP 7850 S/N: 2307 1.15 deg. Bent Housing 8-3/8 in. Motor Sleeve</p> </div> <div data-bbox="544 1753 1031 1900"> <p>REED-Hycalog Insert Bit OD: 8-1/2 in. TD51AKPRDH S/N: D74923</p> </div> <div data-bbox="625 1911 941 1984"> <p>Maximum string diameter 8.50 in. All lengths in Meters</p> </div>	<div data-bbox="1063 94 1567 346"> <p>6-3/4 in. PowerPulse*</p> <p>MDC: Z408-AC MEC: 108-BA MDI: 108-BC MGR: 146-AA</p> <p>DH Software: V7.0 C00</p> </div> <div data-bbox="1274 367 1494 451"> <p>D&I 18.65</p> <p>GR 18.00</p> </div> <div data-bbox="1063 682 1567 766"> <p>6-1/2 in. PMDC S/N: ASS15700</p> </div> <div data-bbox="1063 829 1567 955"> <p>6-1/2 in. NM Roller Reamer S/N:GU2317R Reamer OD: 8-3/8 in.</p> </div> <div data-bbox="1063 1018 1567 1144"> <p>6-1/2 in. PMDC S/N: 9612058</p> </div> <div data-bbox="1063 1228 1567 1438"> <p>6-3/4 in. PowerPak* Motor A675XP 7850 S/N: 2307 1.15 deg Bent Housing 8-3/8 in. Motor Sleeve</p> </div> <div data-bbox="1063 1753 1567 1900"> <p>Security Insert Bit OD: 8-1/2 in. EBXS20DS S/N: 10614871</p> </div> <div data-bbox="1144 1911 1461 1984"> <p>Maximum string diameter 8.50 in. All lengths in Meters</p> </div>
DISCLAIMER		

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OTHER SERVICES FOR RUN8 Directional Drilling Directional Surveys	OTHER SERVICES FOR RUN9 Directional Drilling Directional Surveys	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 8 All 3 cones from the Run-6 TCI Bit were lost downhole. A junk basket was run, failling to recover the cones. Run-7 was attempted with a PDC Bit, but failed to make hole. A cement plug was set and a successful sidetrack carried out. 8-1/2 in. hole was drilled from 3210.0 m to 3432.0 m MD. ROP Data Spliced with Run 6 at 3267.7 m MD (2487.9 m TVD). GR Data Spliced with Run 6 at 3250.0 m MD (2475.6 m TVD). Missing GR Data from 3362.0 m to 3363.5 m MD (2554.5 m to 2555.6 m TVD) due to Signal Noise. Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCI/PHPA/Glycol. POOH for bit change. Thank You for Choosing Schlumberger	REMARKS: RUN NUMBER 9 8-1/2 in. hole was drilled from 3432.0 m to 3563.0 m MD. Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCI/PHPA/Glycol. POOH due to TD of MLA A6A. Thank You for Choosing Schlumberger	REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION

RUN8	RUN9	RUN
<div>DOWNHOLE EQUIPMENT</div> <div>6-3/4 in. PowerPulse*22.96</div> <div>MDC: Z408-AC MEC: 108-BA MDI: 108-BC MGR: 146-AA DH Software: V7.0 C00</div> <div>D&I18.67</div> <div>GR18.02</div>	<div>DOWNHOLE EQUIPMENT</div> <div>6-3/4 in. PowerPulse*22.95</div> <div>MDC: Z408-AC MEC: 108-BA MDI: 108-BC MGR: 146-AA DH Software: V7.0 C00</div> <div>D&I18.66</div> <div>GR18.01</div>	

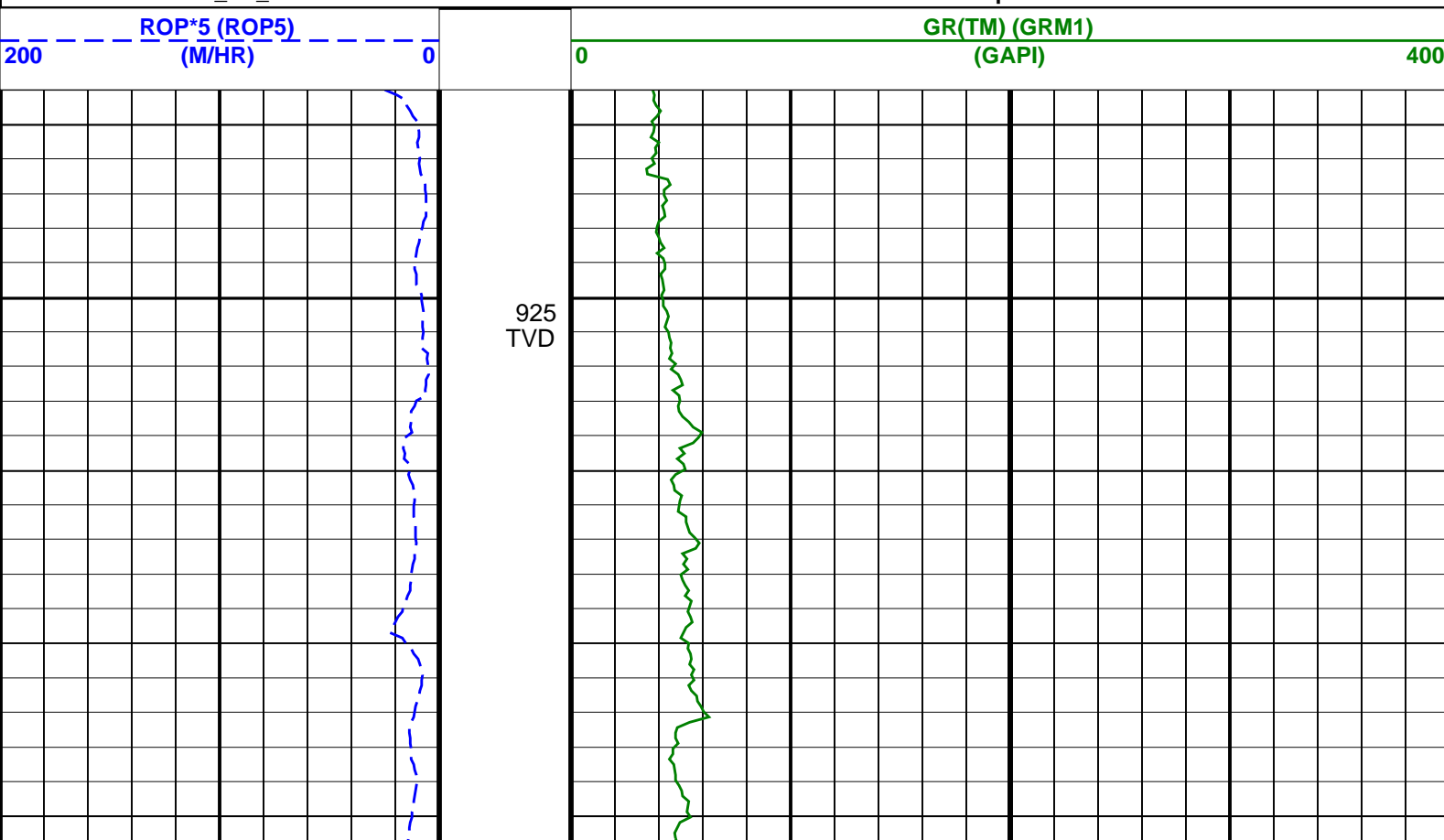


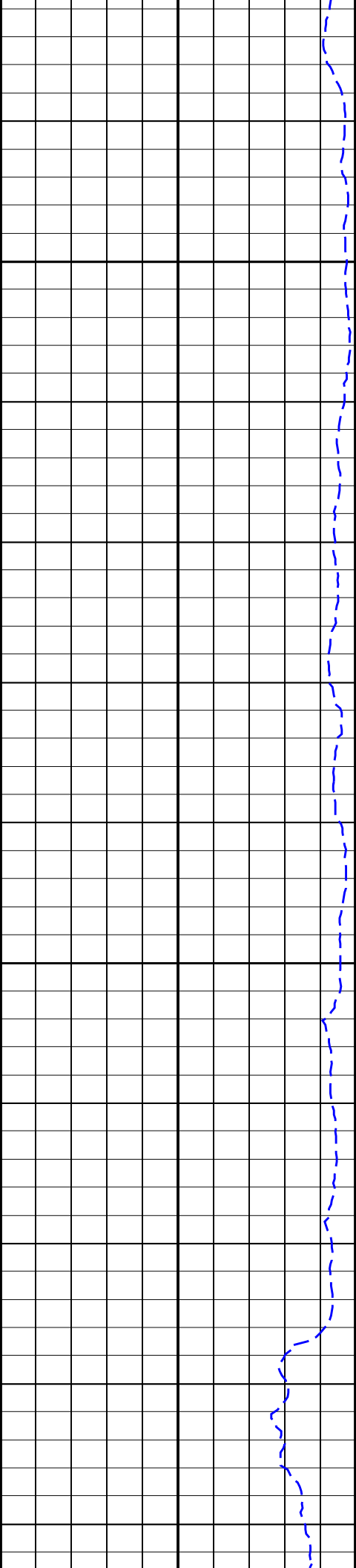
Bit Run Summary

Run number	1	2	3	4	5	6	8	9		
Bit size	in. 8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5		
Bit start depth	m 1013.0	1820.0	2064.0	2299.0	2745.0	3061.0	3210.0	3432.0		
Bit end depth	m 1820.0	2064.0	2299.0	2745.0	3061.0	3268.0	3432.0	3563.0		
Top interval logged	m 1015.0	1802.4	2046.4	2281.3	2727.3	3043.1	3250.0	3414.0		
Bottom interval logged	m 1802.4	2046.4	2281.3	2727.3	3043.1	3250.0	3414.0	3545.0		
Begin log: time	10:49	23:15	05:10	04:50	06:00	12:00	19:20	09:15		
Begin log: date	05-Mar-04	08-Mar-04	11-Mar-04	13-Mar-04	17-Mar-04	20-Mar-04	25-Mar-04	28-Mar-04		
End log: time	08:00	08:00	10:40	16:10	12:40	11:30	08:30	08:45		
End log: date	08-Mar-04	10-Mar-04	12-Mar-04	15-Mar-04	19-Mar-04	21-Mar-04	27-Mar-04	29-Mar-04		

Mud data											
Depth	m	1819.0	2604.0	2299.0	2745.0	3061.0	3268.0	3431.0	3563.0		
Type		KCL/PHPA/Gly.	KCL/PHPA/Gly.	KCL/PHPA/Gly.	KCL/PHPA/Gly.	KCL/PHPA/Gly.	KCL/PHPA/Gly.	KCL/PHPA/Gly.	KCL/PHPA/Gly.		
Mud weight	ppg	10.00	10.05	9.95	10.15	10.00	10.07	9.95	9.90		
Solids	%	8.0	7.6	7.0	9.1	8.1	8.3	8.1	7.4		
Chlorides	mg/L	38,000	44,000	44,000	37,500	41,000	41,000	39,500	42,500		
Rm		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Rmf		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Rmc		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Potassium	%	3.67	3.84	3.84	3.21	3.45	3.46	3.52	3.93		
Environmental data											
GR											
Mud weight	ppg	10.00	10.05	9.95	10.15	10.00	10.07	9.95	9.90		
Bit size	in.	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5		
Resistivity											
Neutron porosity											
Hole Size											
Mud weight											
Temperature											
Mud salinity											
Formation salinity											
Update rate 1	SEC	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Update rate 2	SEC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Filtering GR		3 pt.	3 pt.	3 pt.	3 pt.	3 pt.	3 pt.	3 pt.	3 pt.		
Filtering density		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Filtering Neutron		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Company representative		Barry Steel	B.Davis	R.Morris	G.Campbell	Bim Steel					
Anadrill personnel		K.Handley	D.Hastie	C.Soper	T.Auger	M.Saicic	R.Borjas				

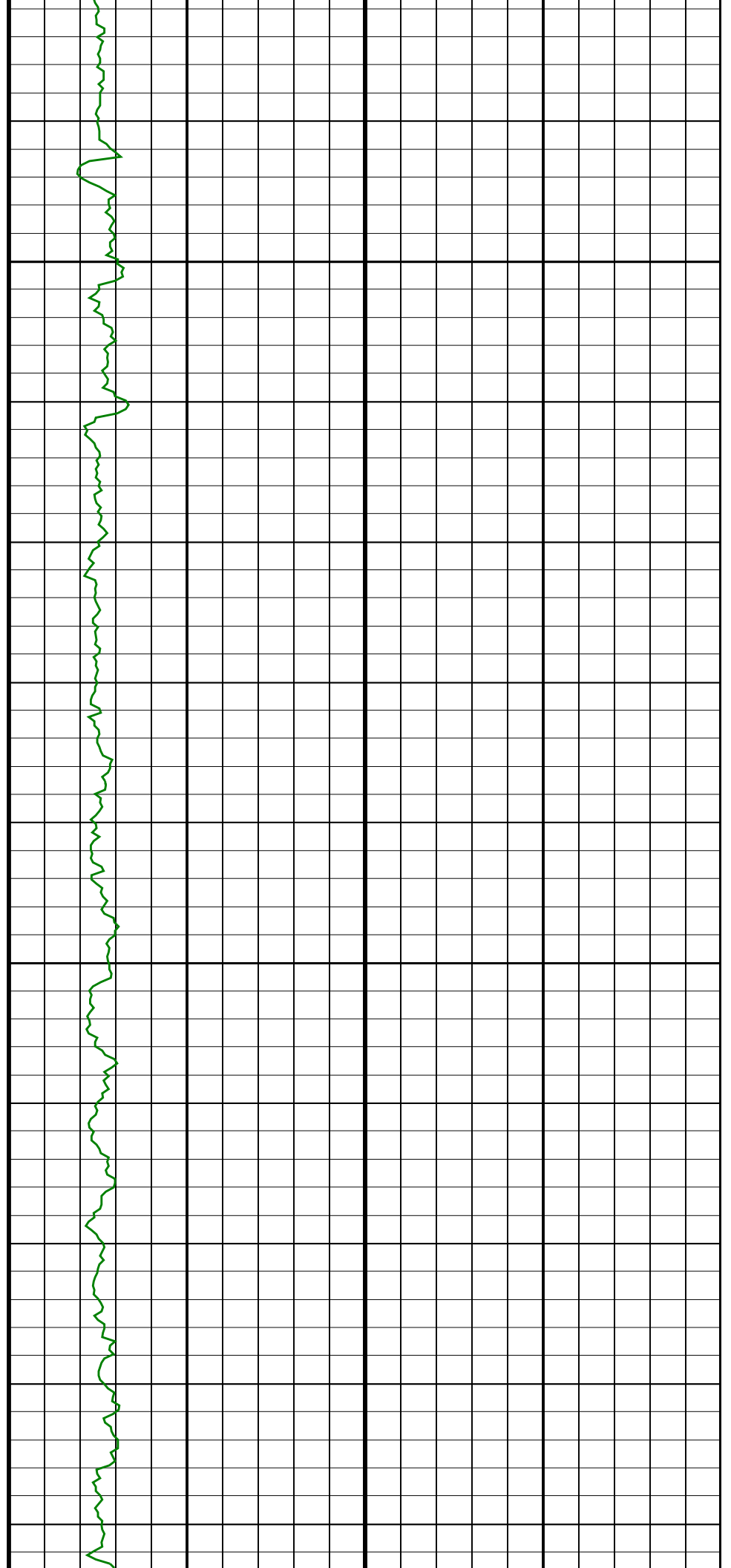
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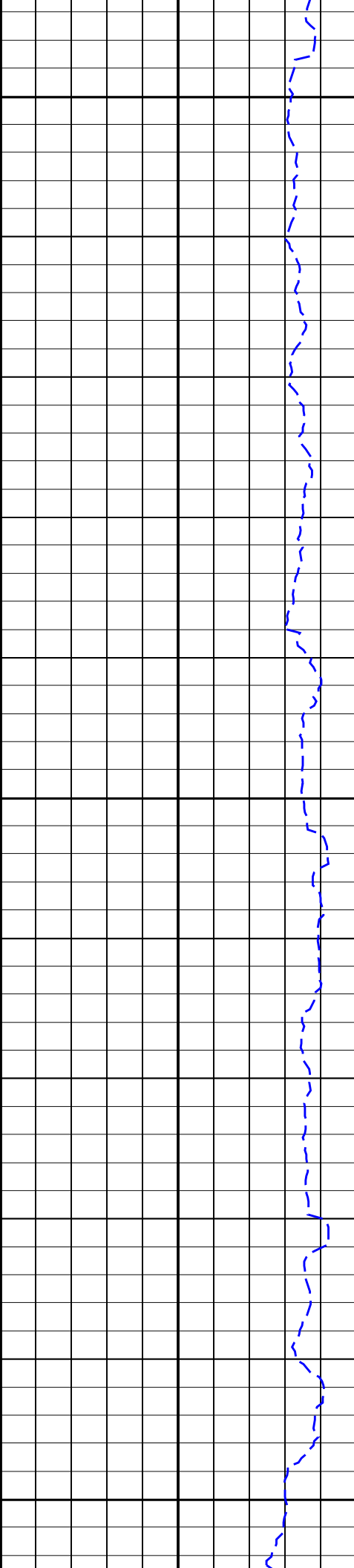




950
TVD

975
TVD

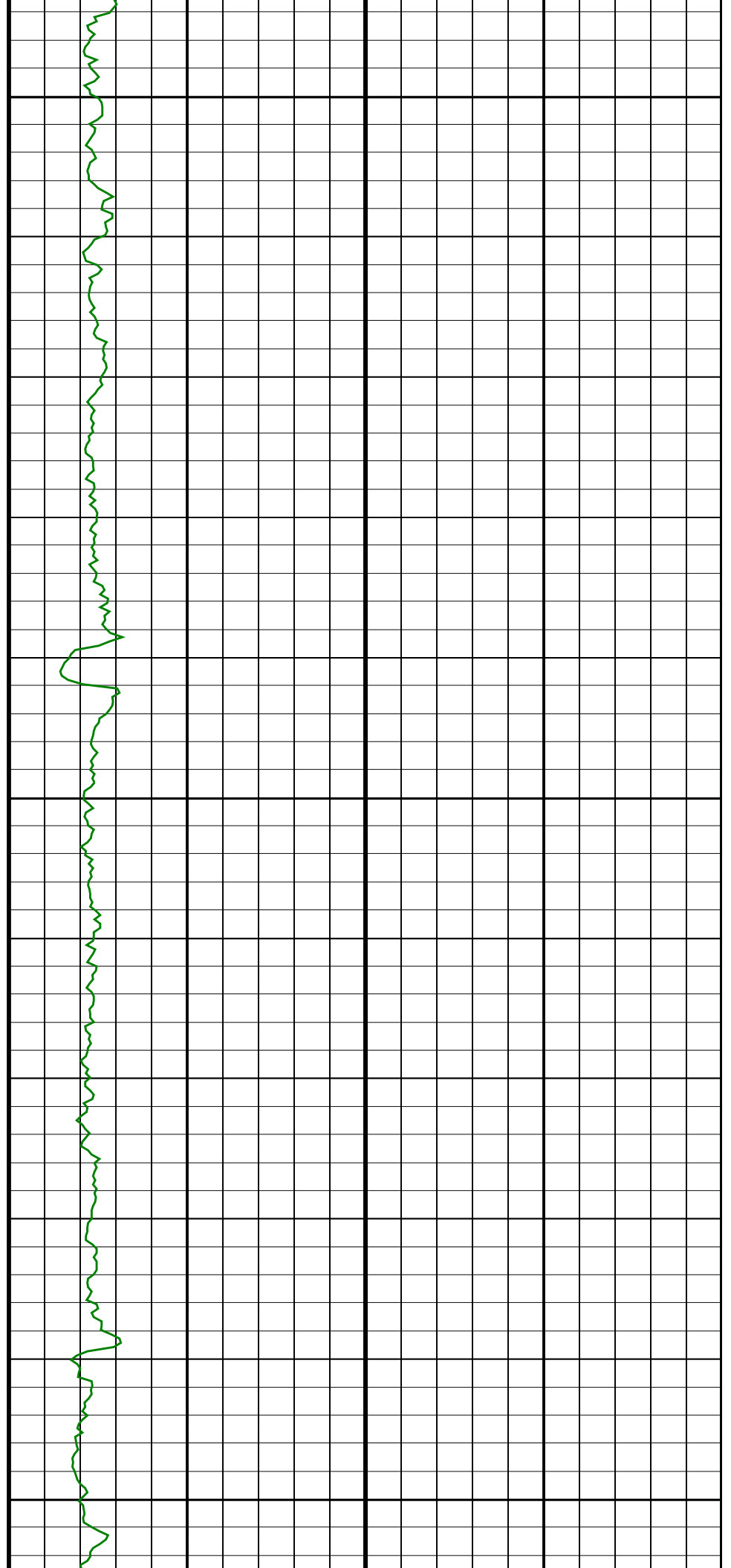


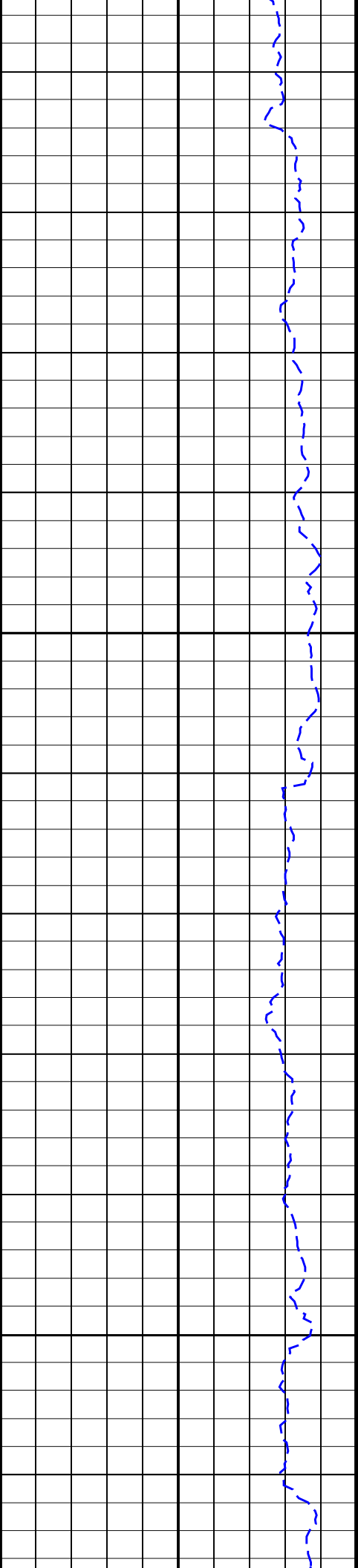


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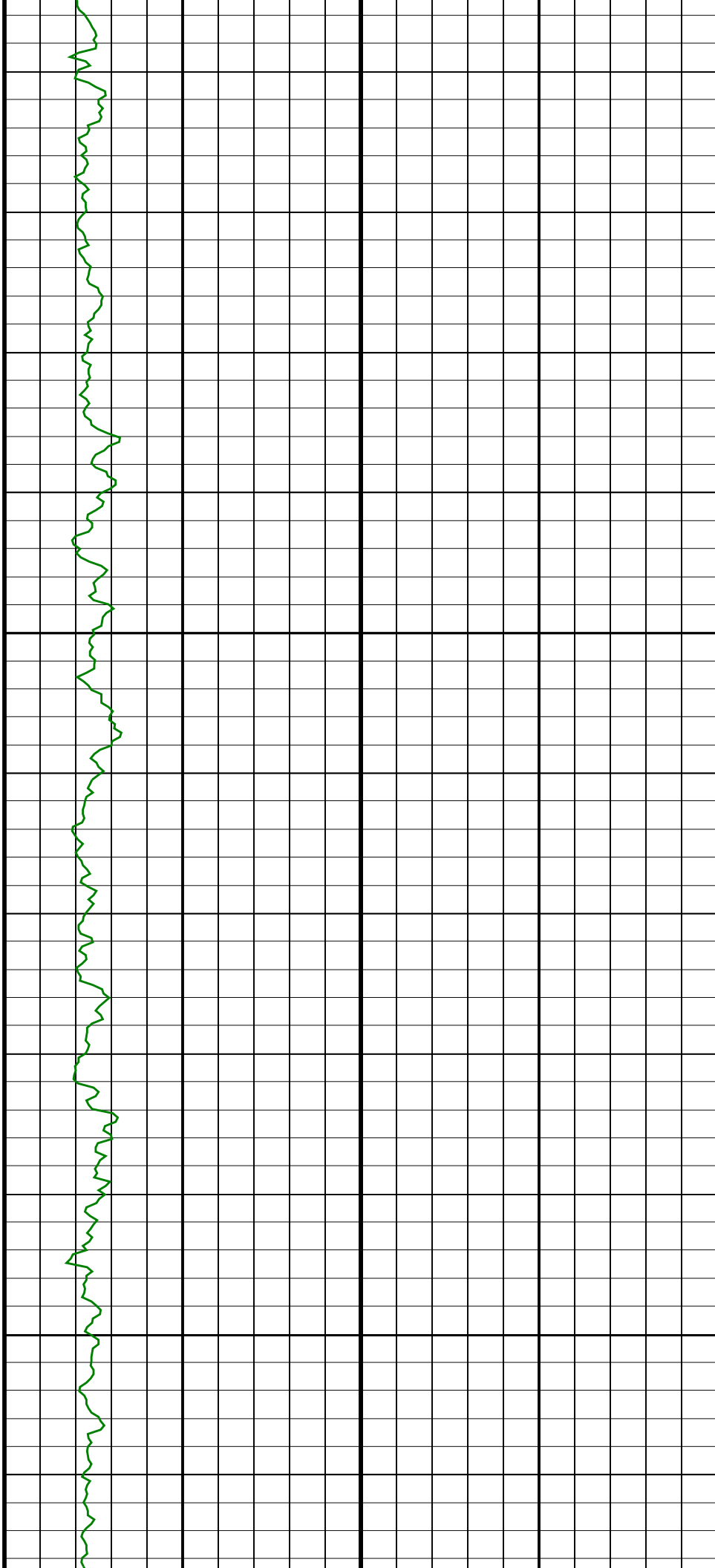
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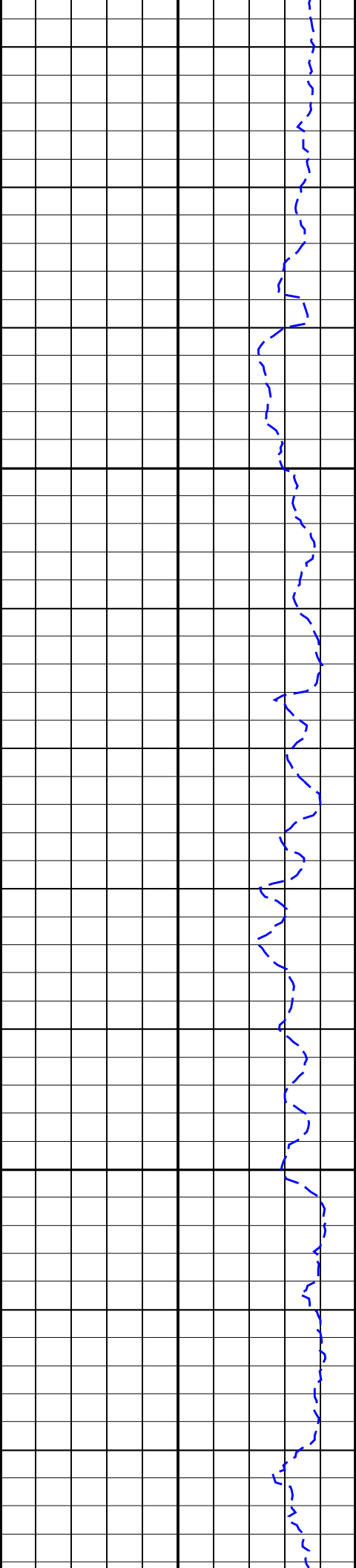




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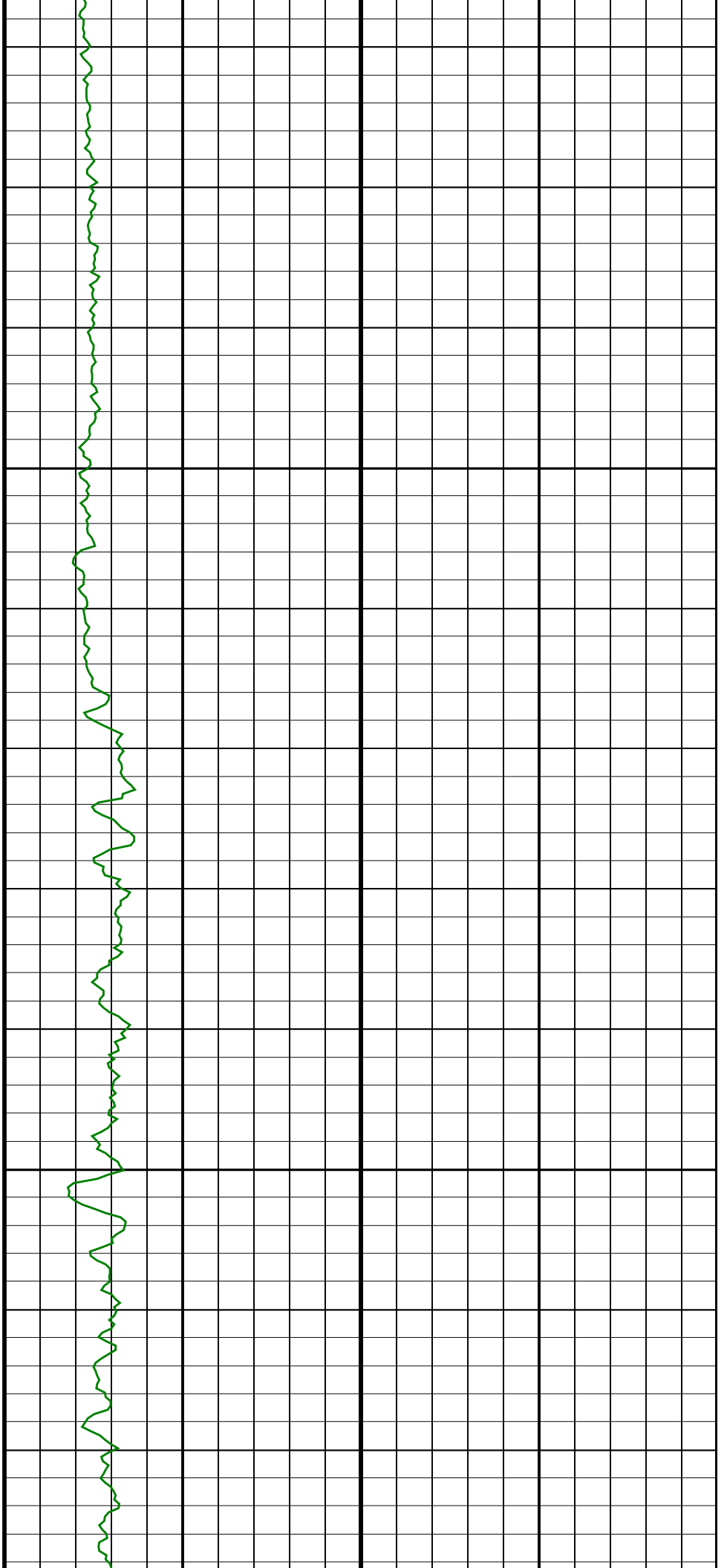
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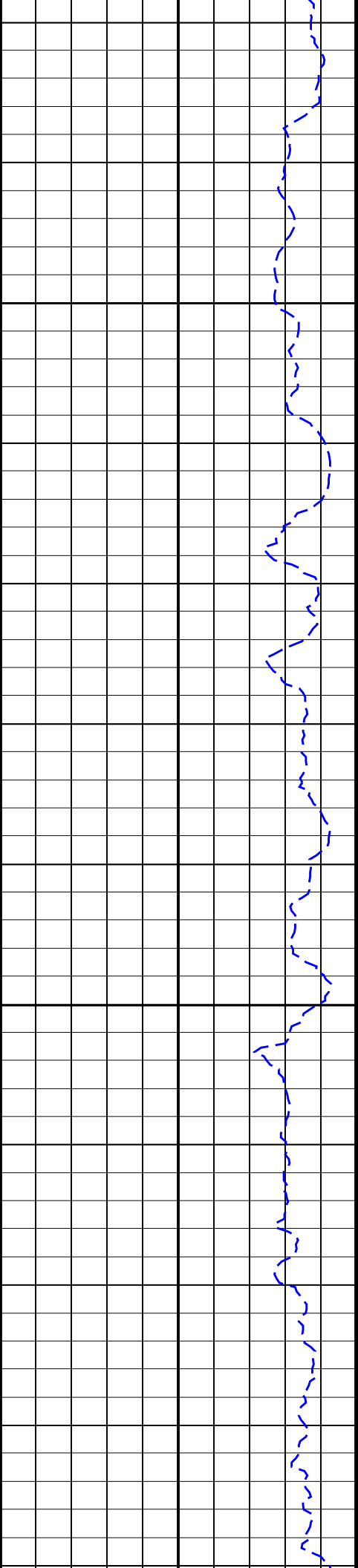




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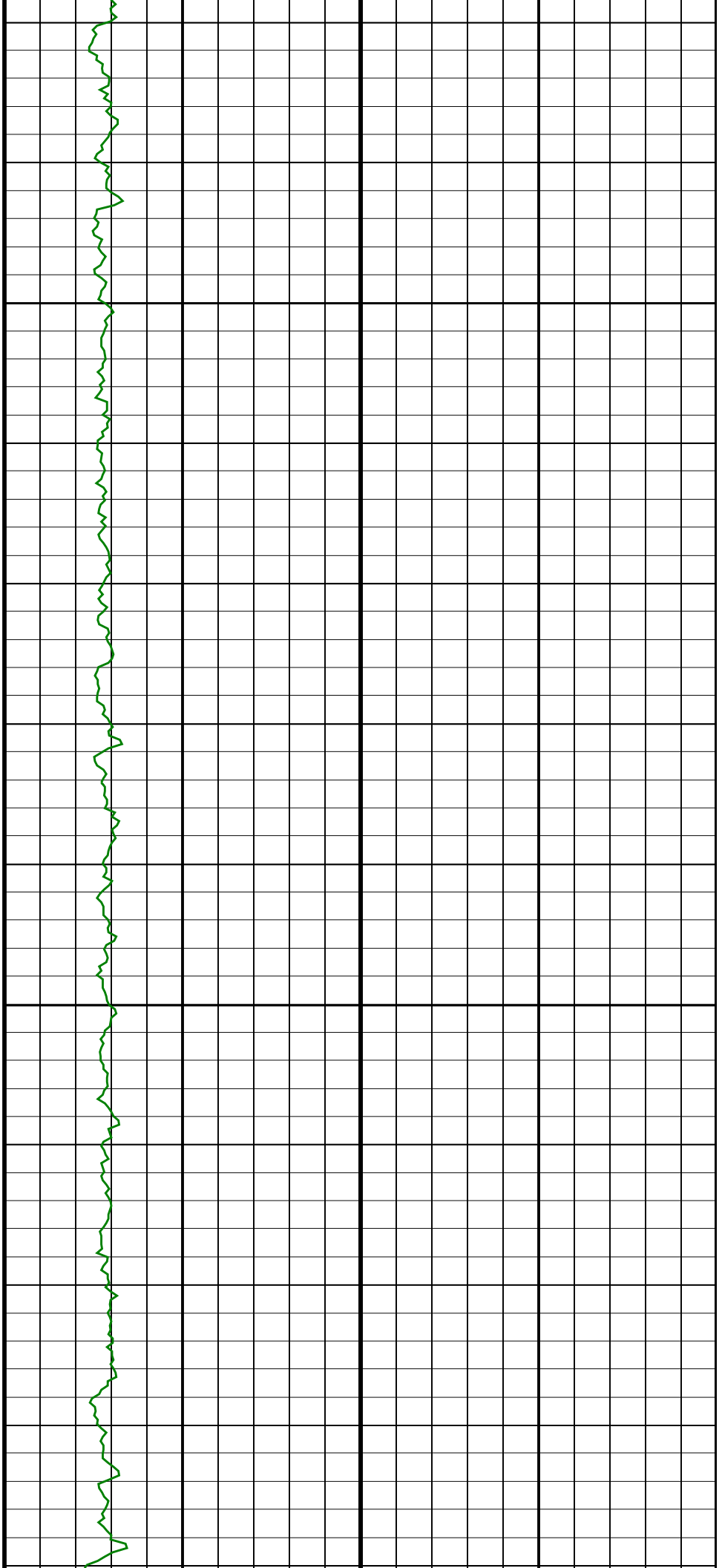
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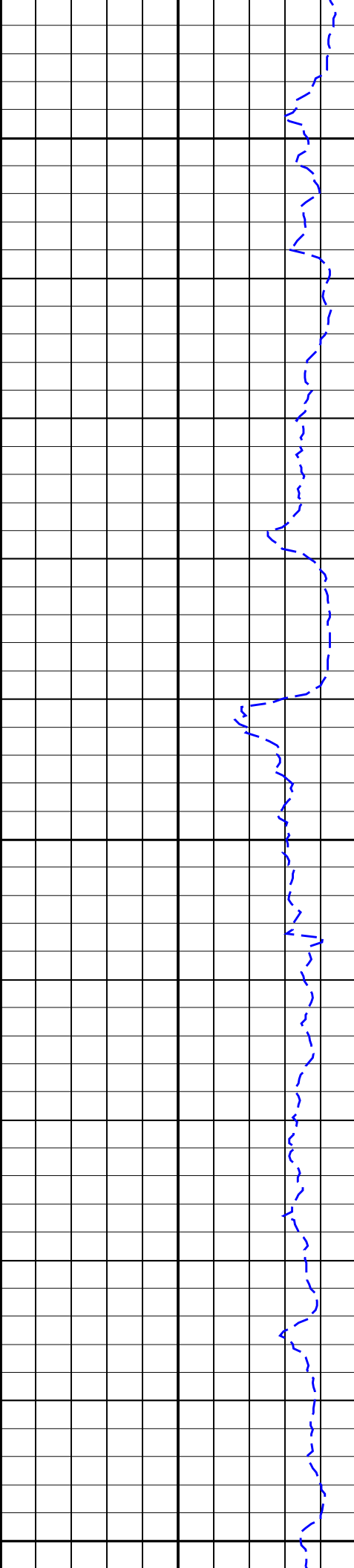




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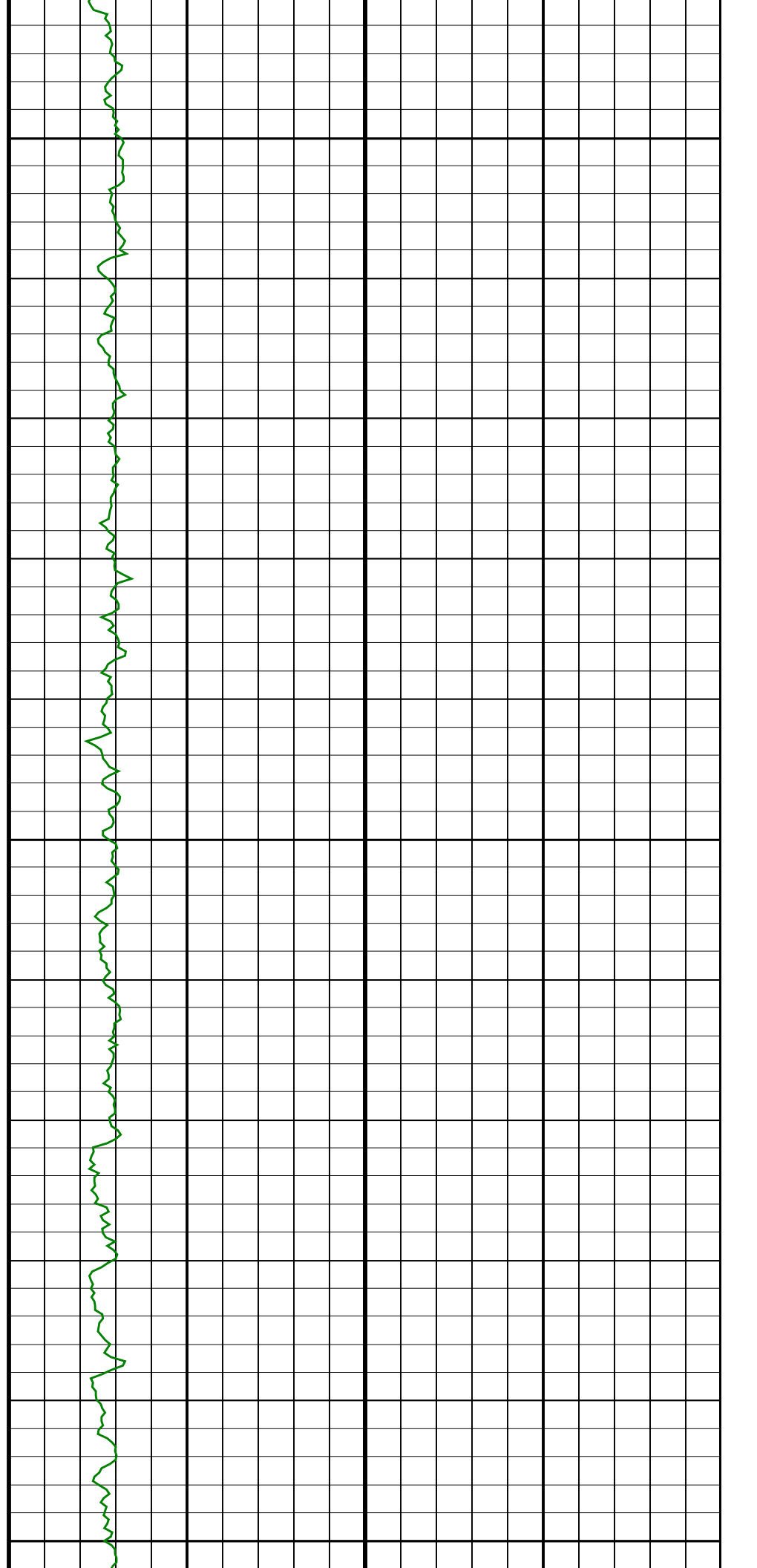


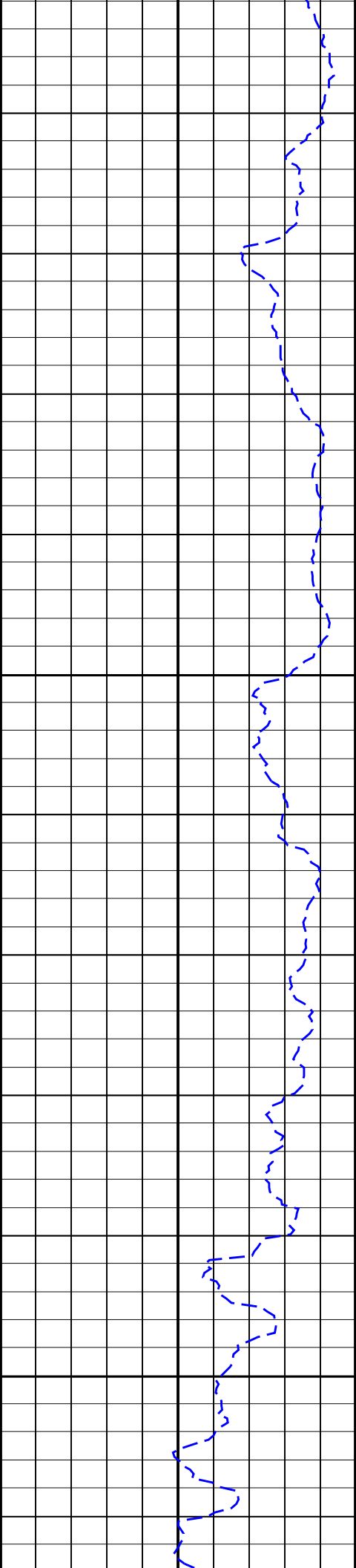


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1250
TVD

1275

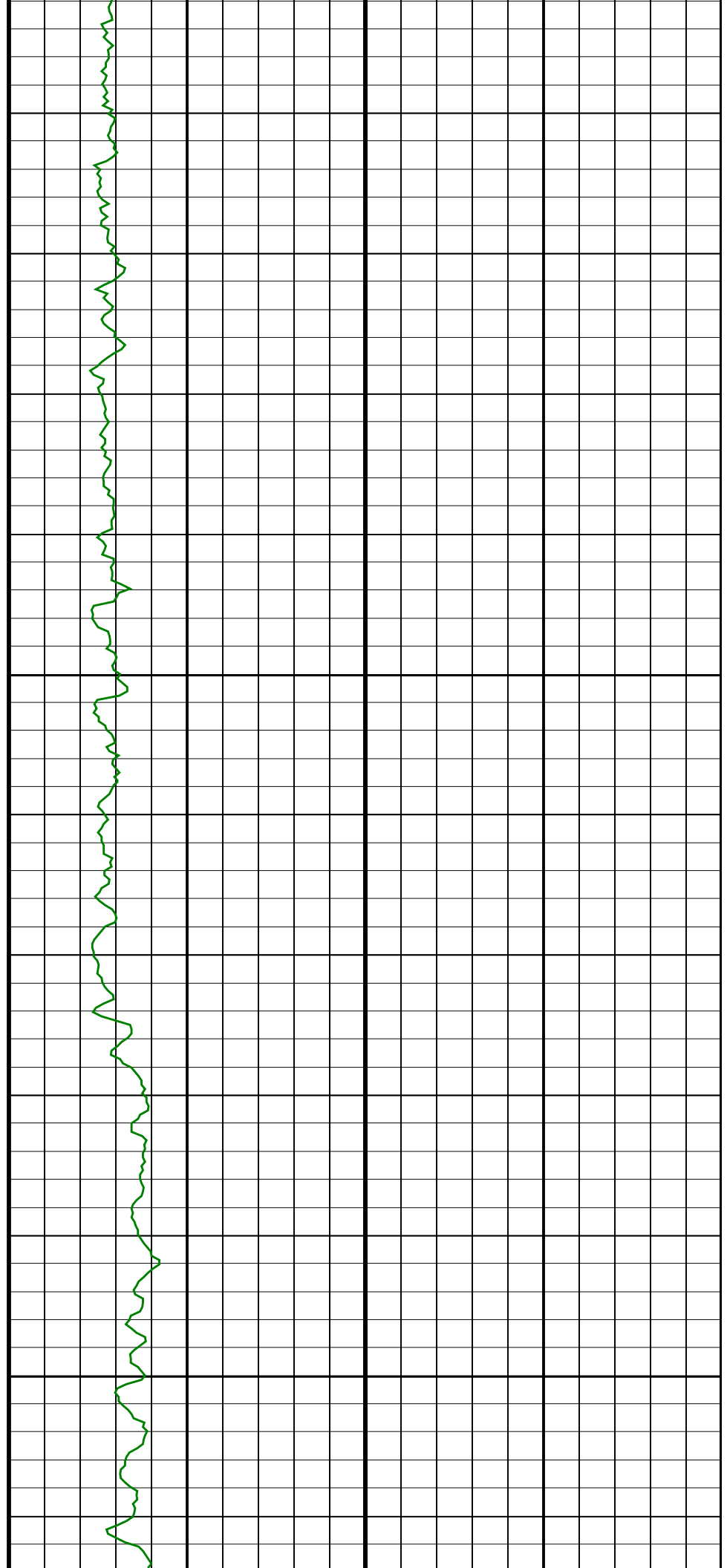


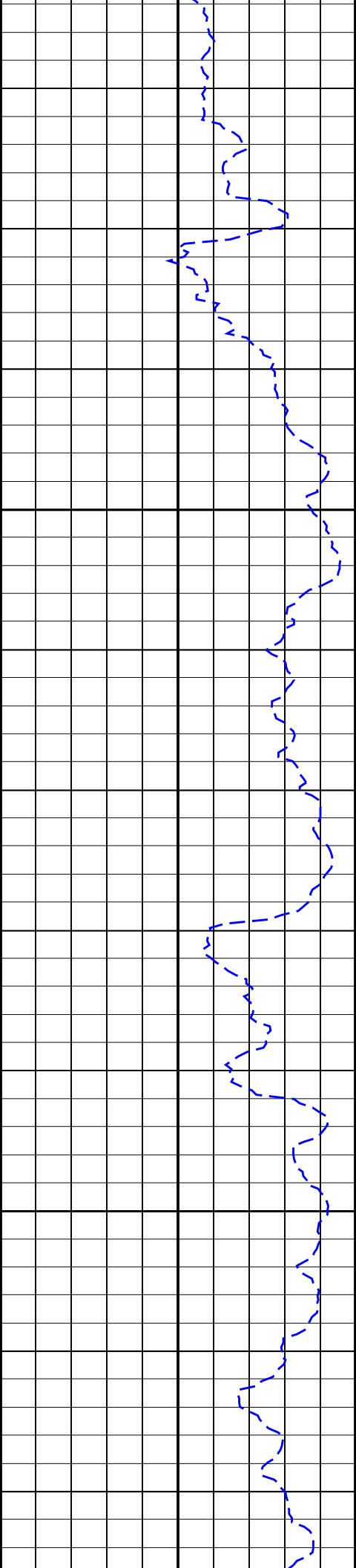


TVD

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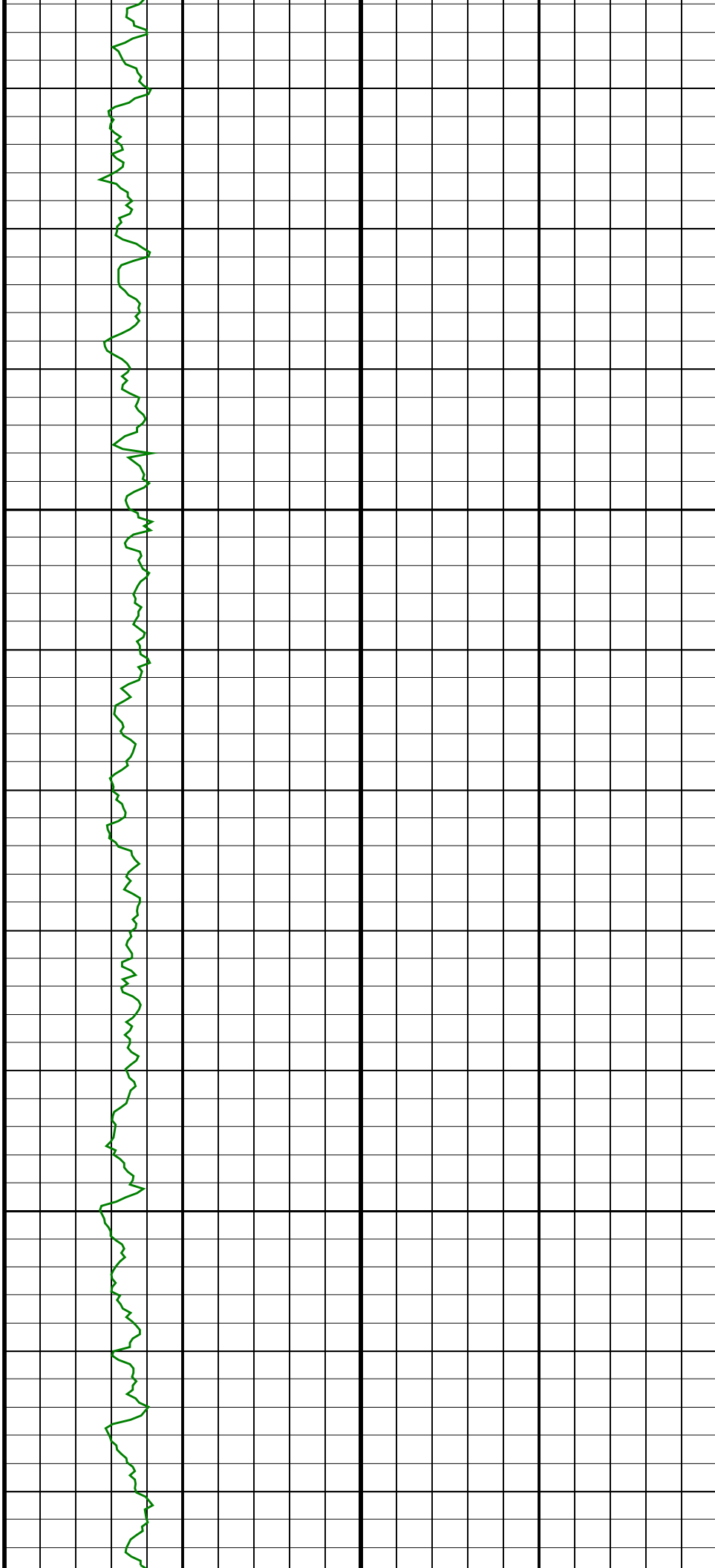
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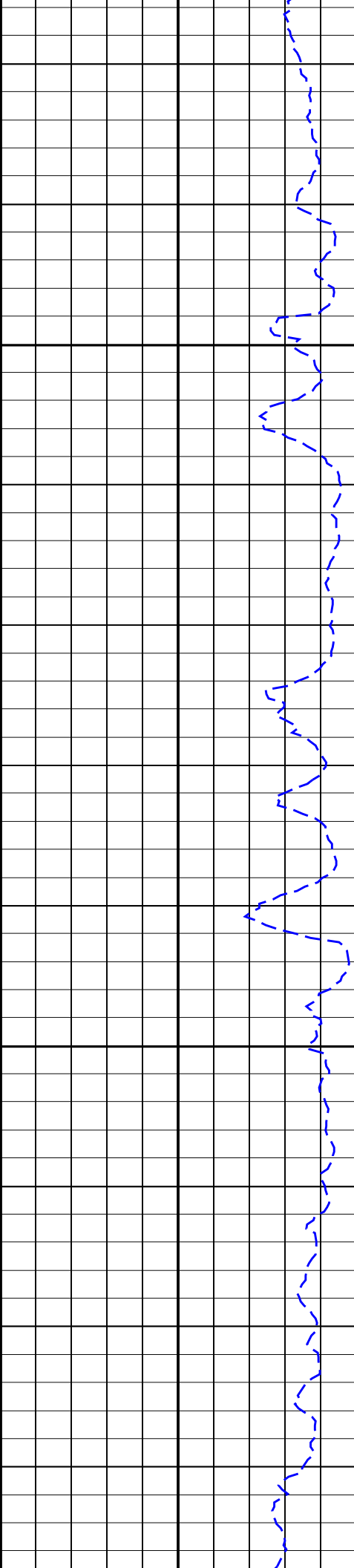




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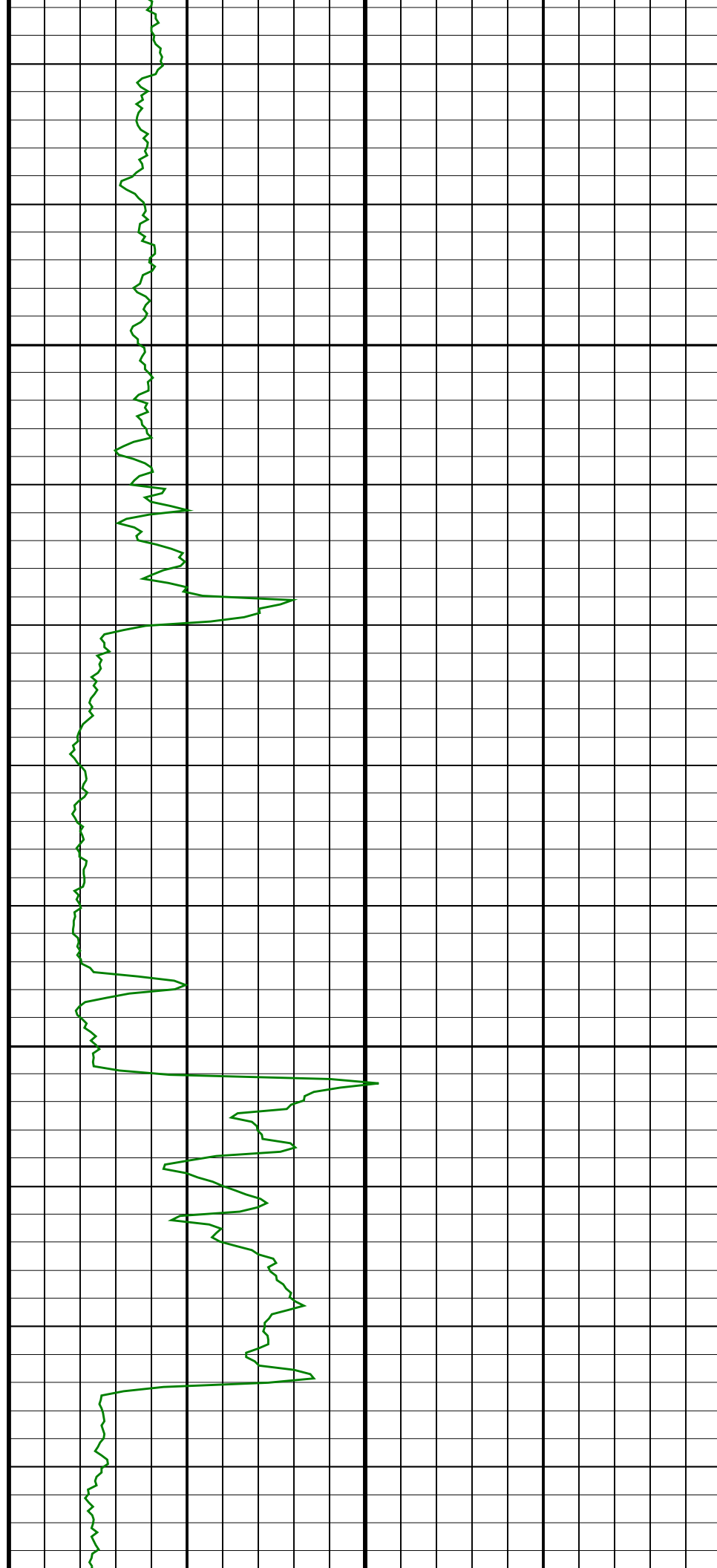
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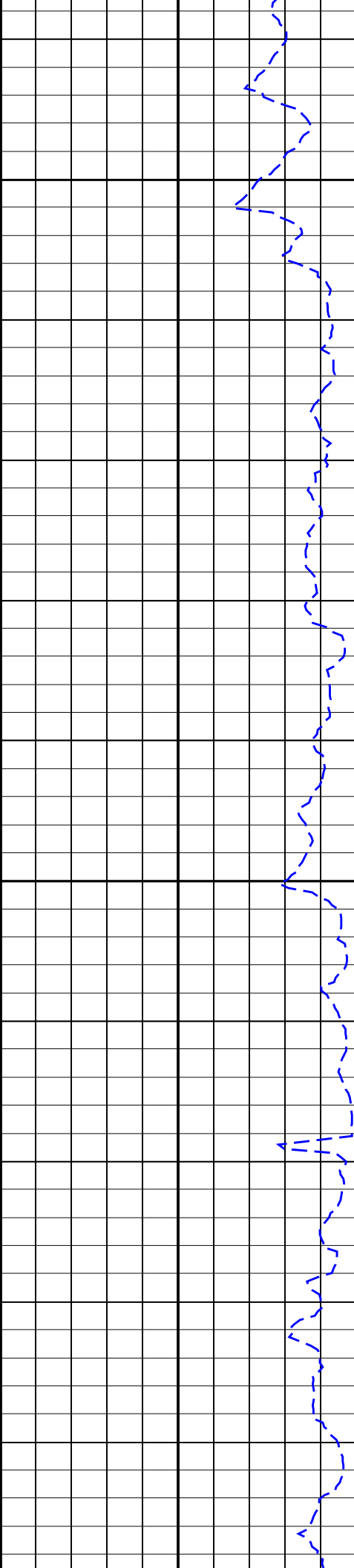


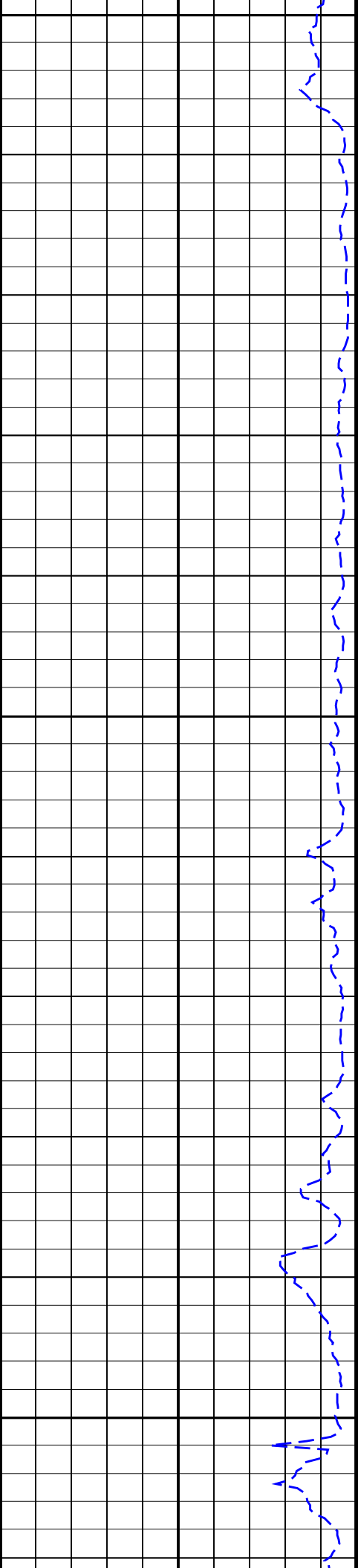


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1425
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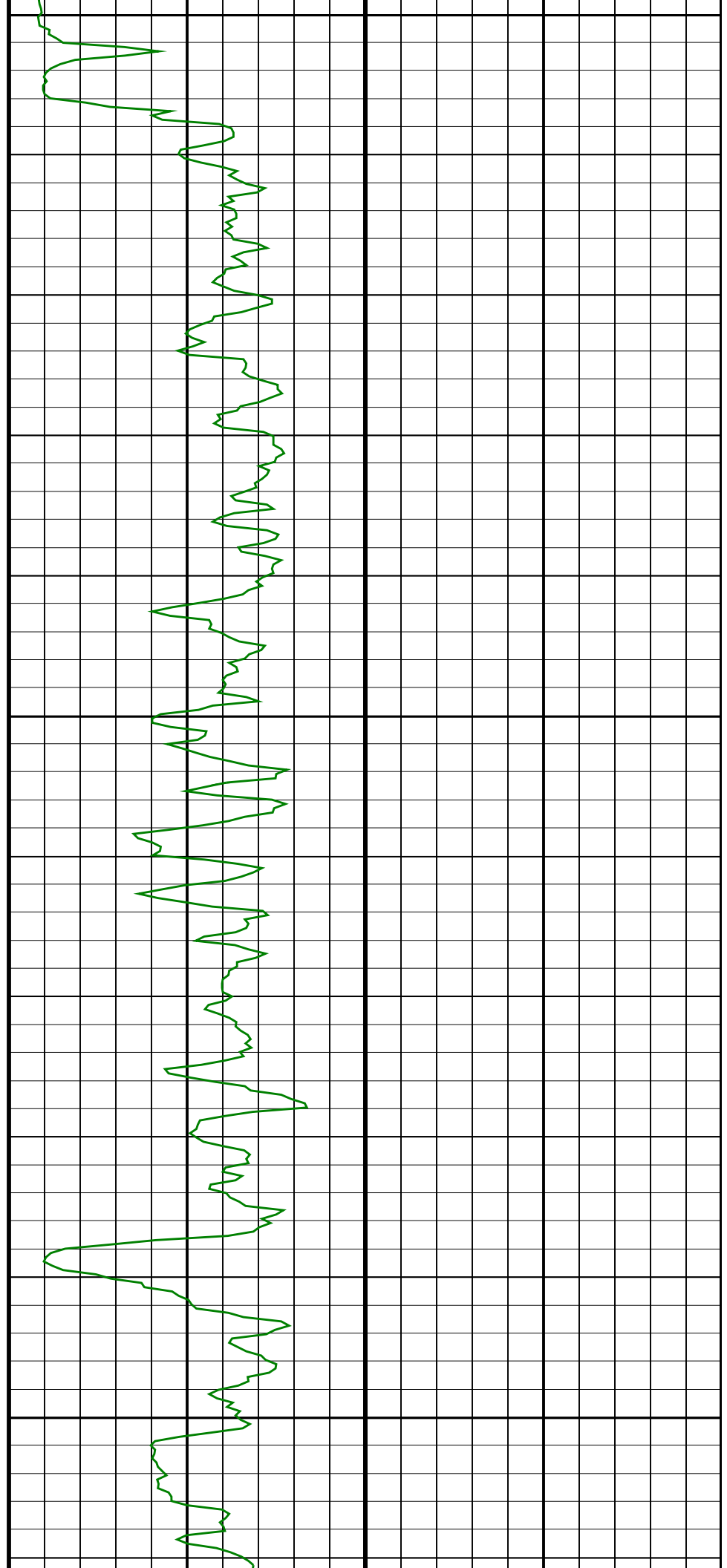


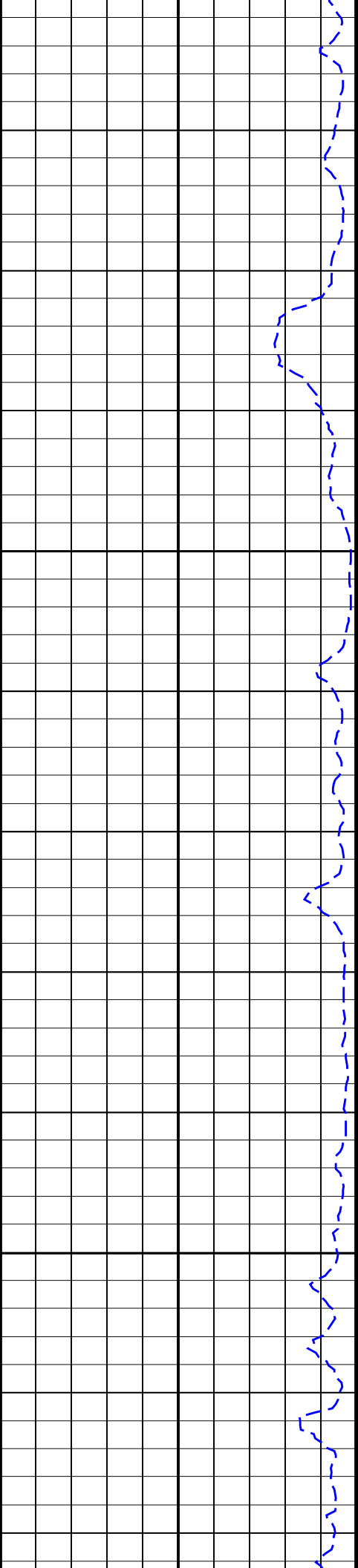


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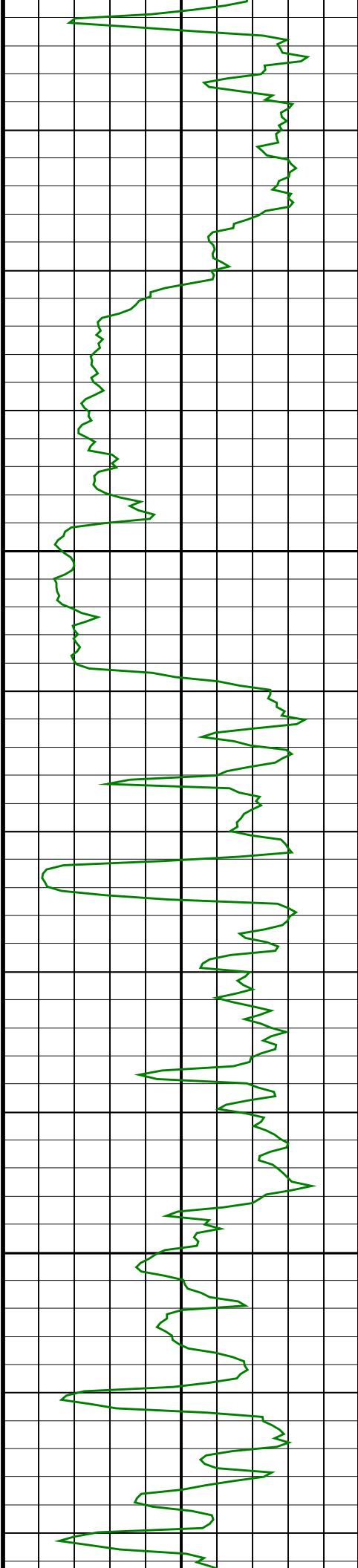
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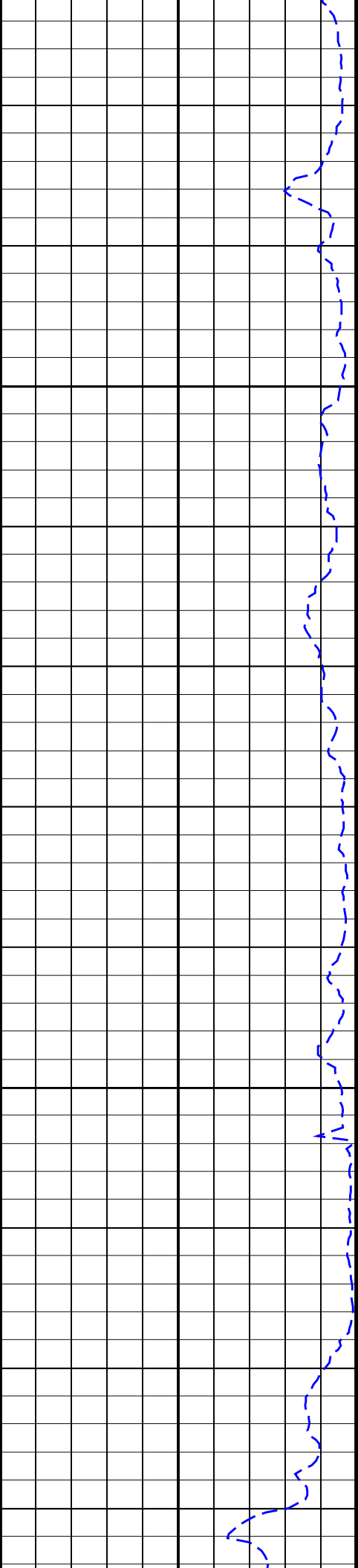




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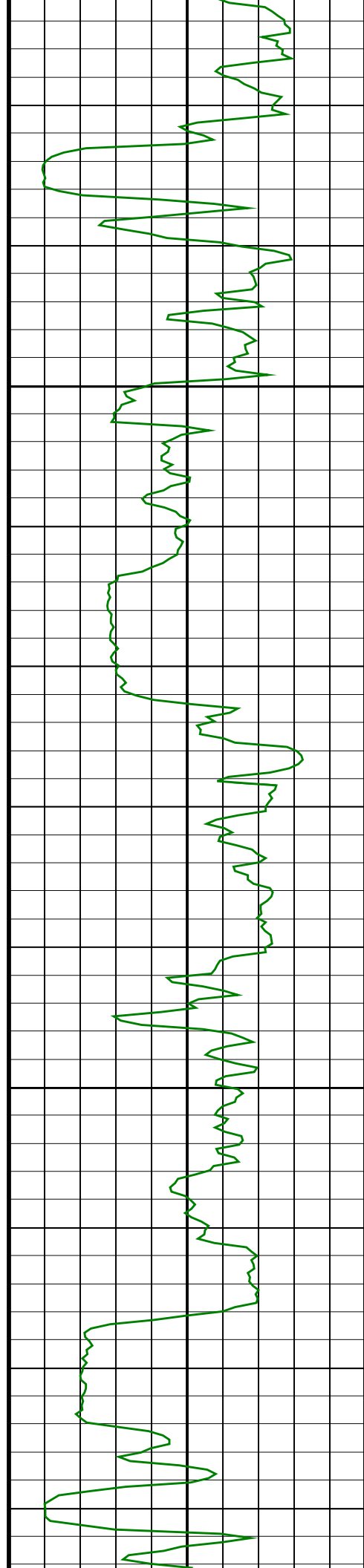
1600
TVD

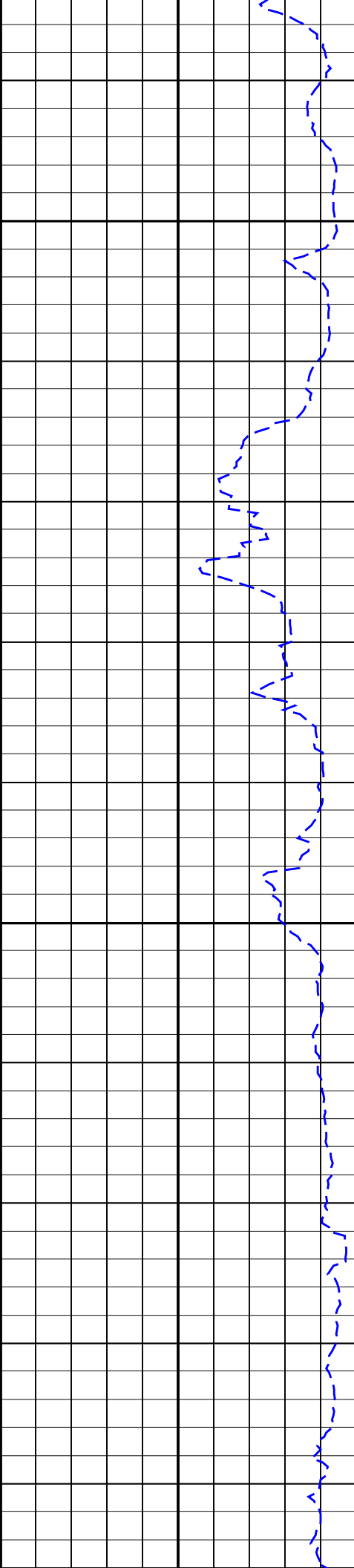




1625
TVD

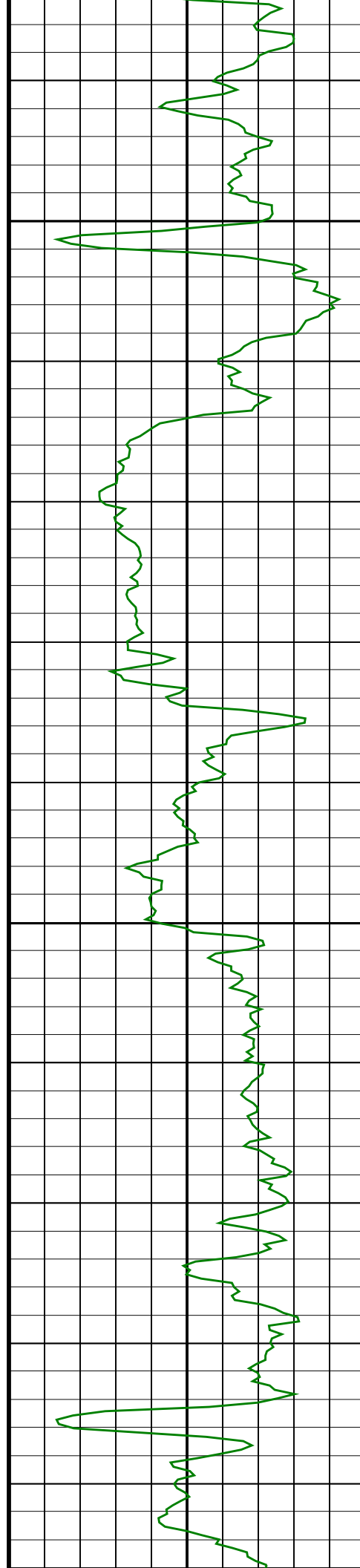
1650
TVD

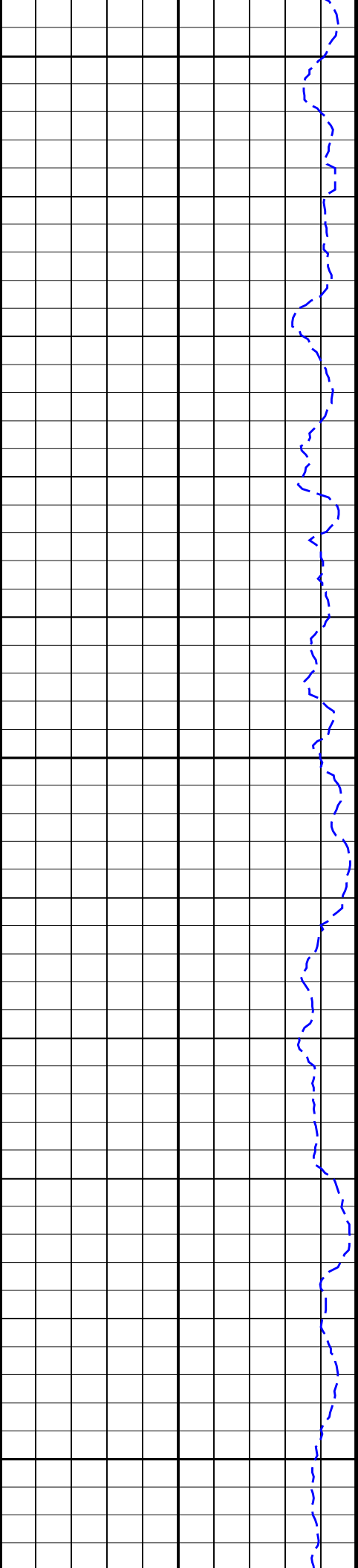




1675
TVD

1700
TVD

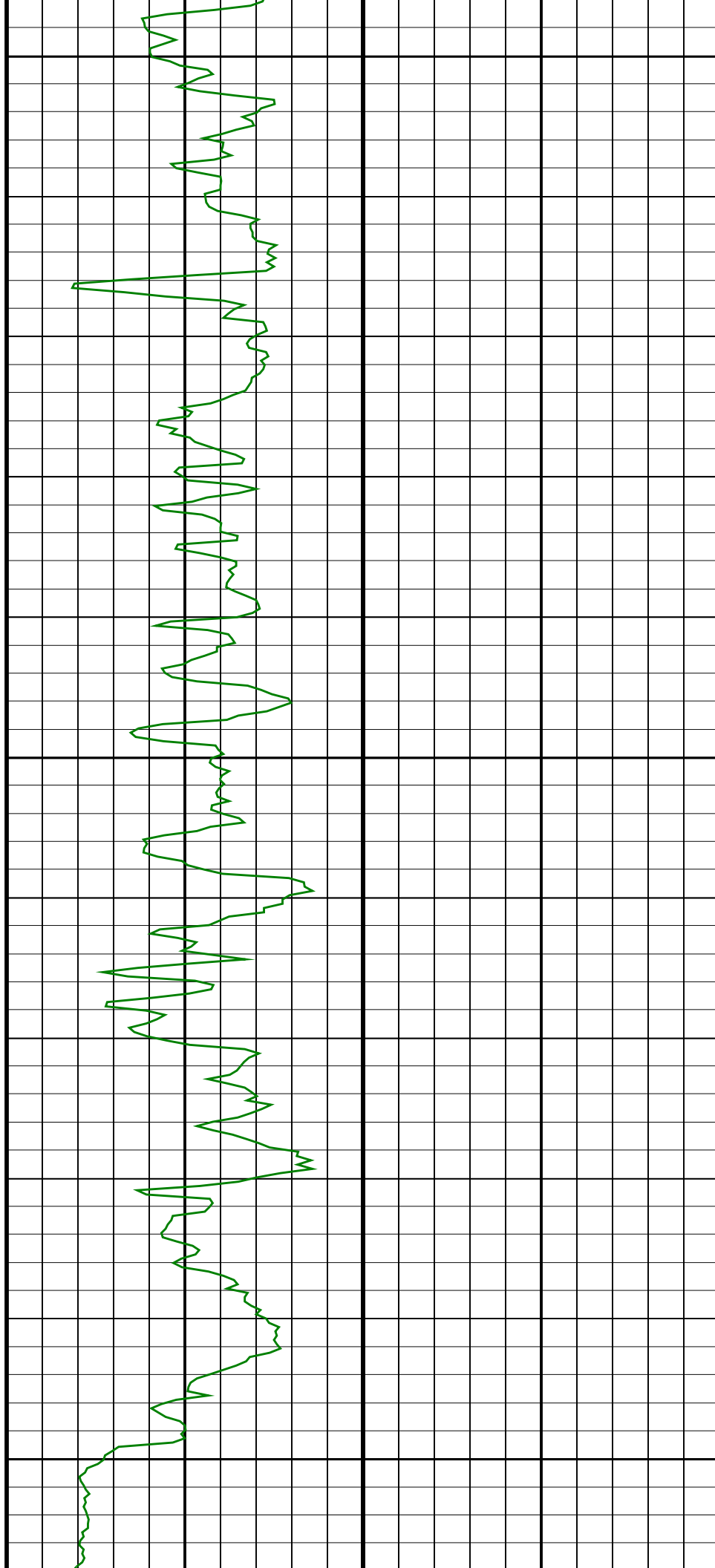


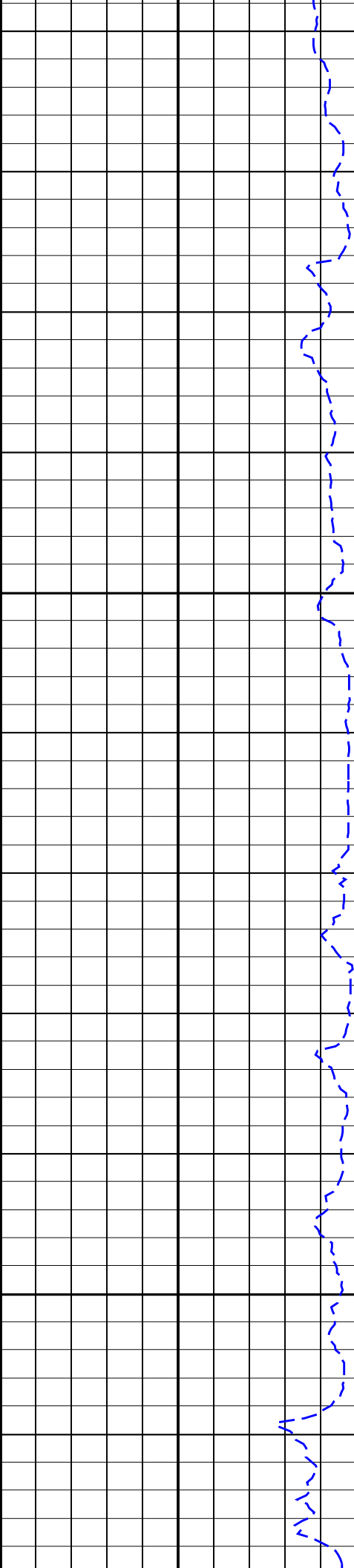


1725
TVD

1750
TVD

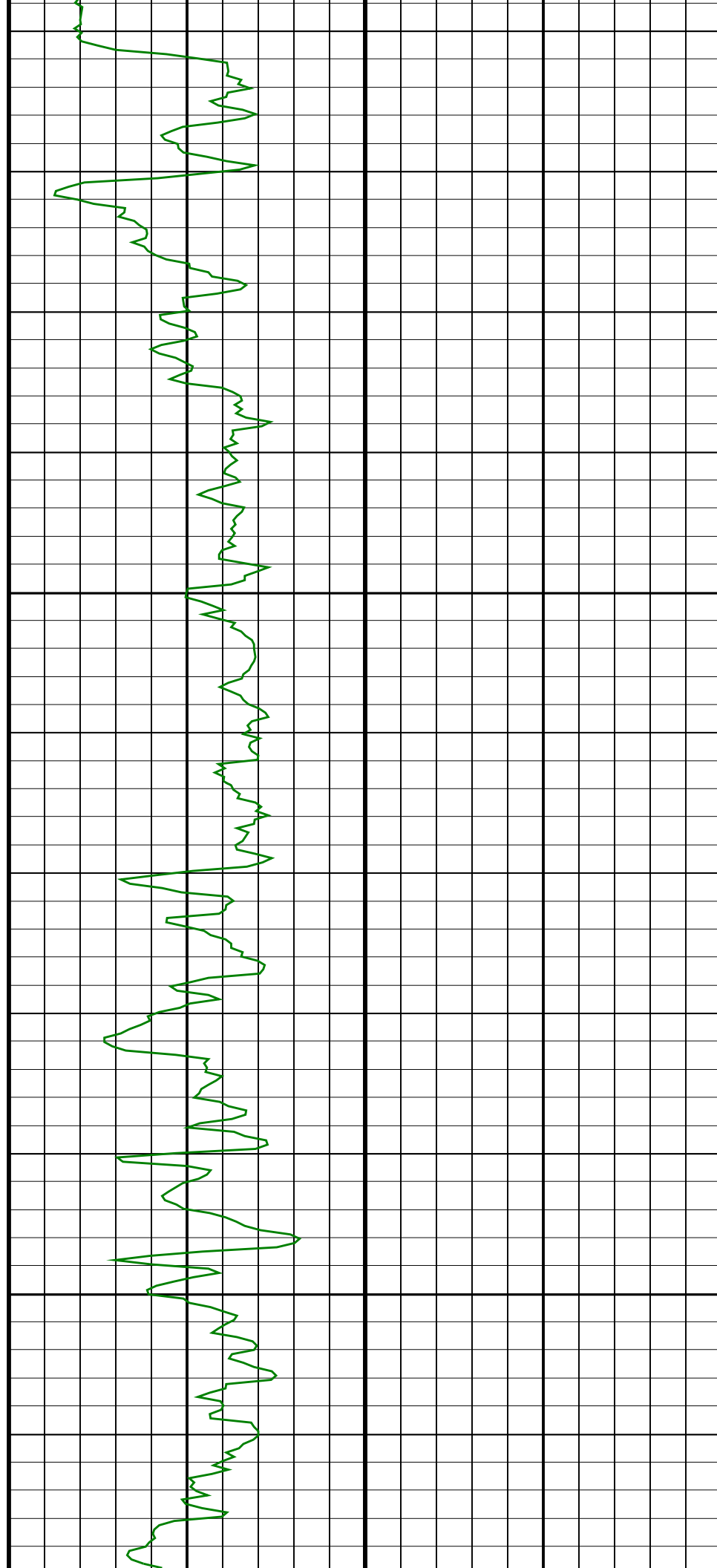
1775
TVD

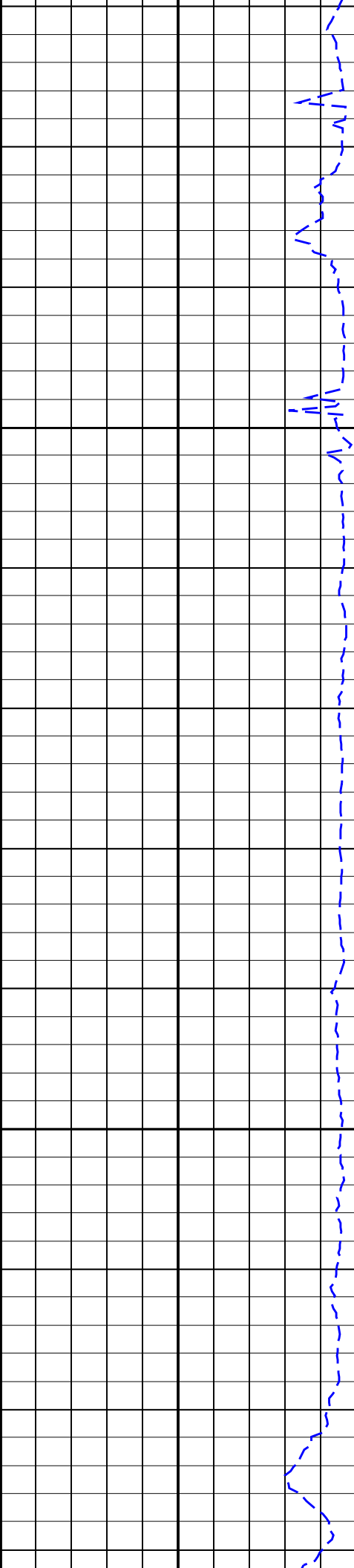




1800
TVD

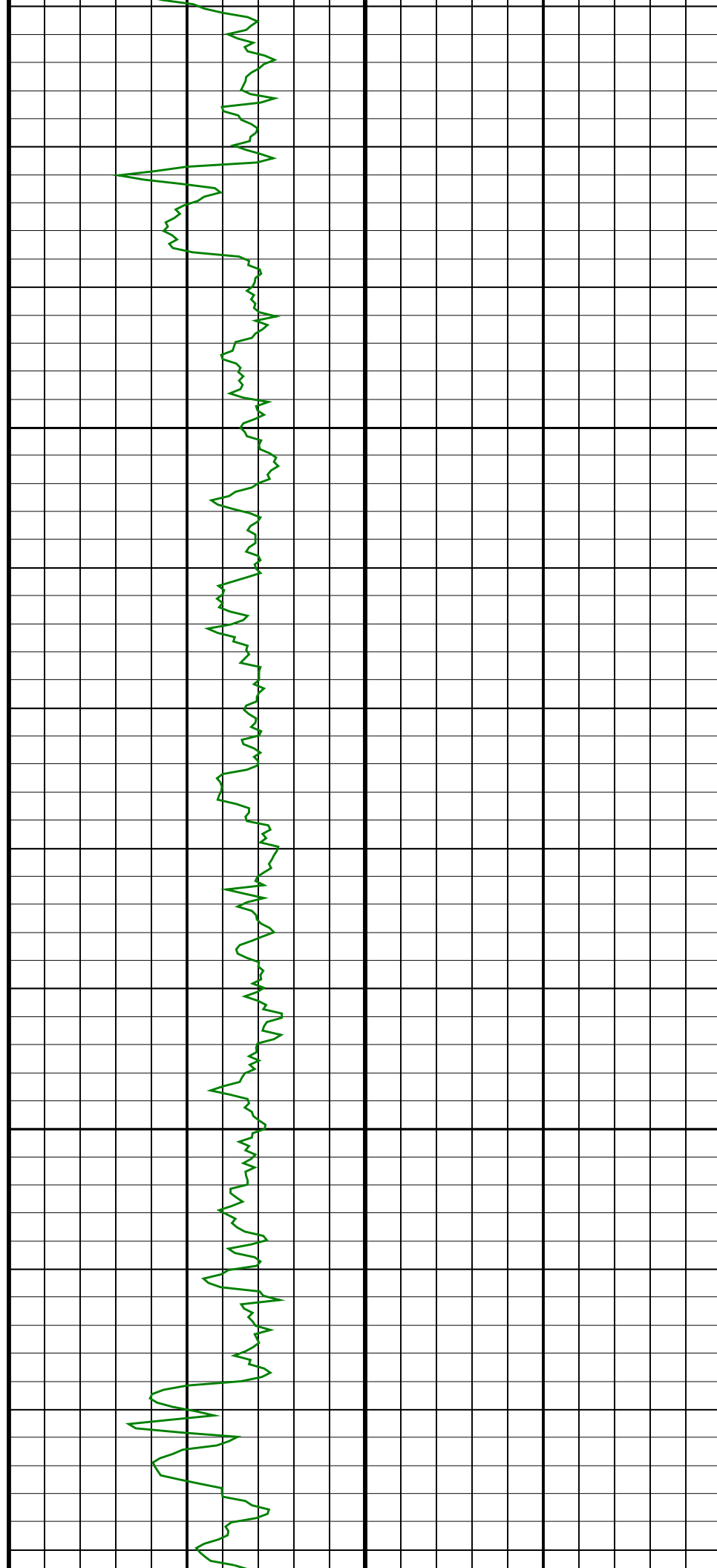
1825
TVD

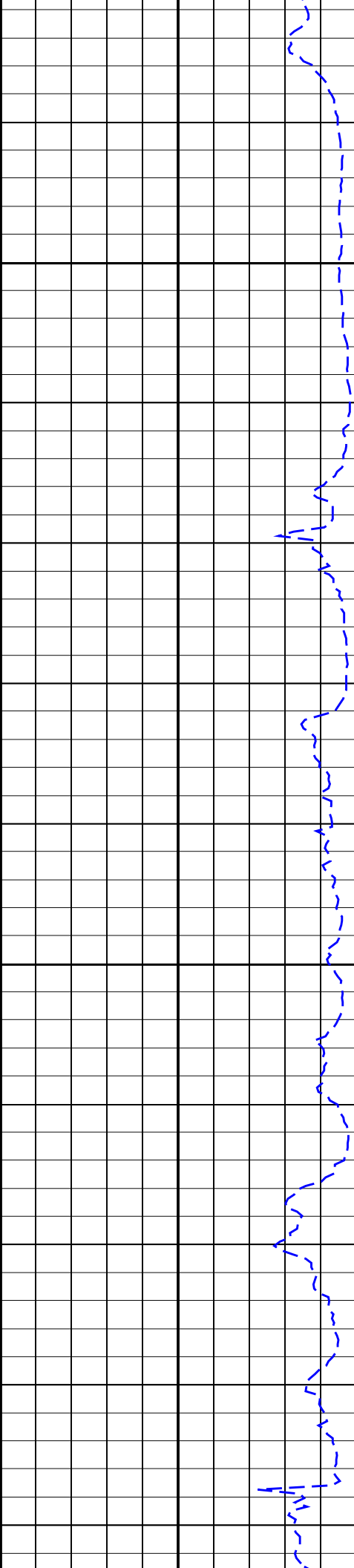




1850
TVD

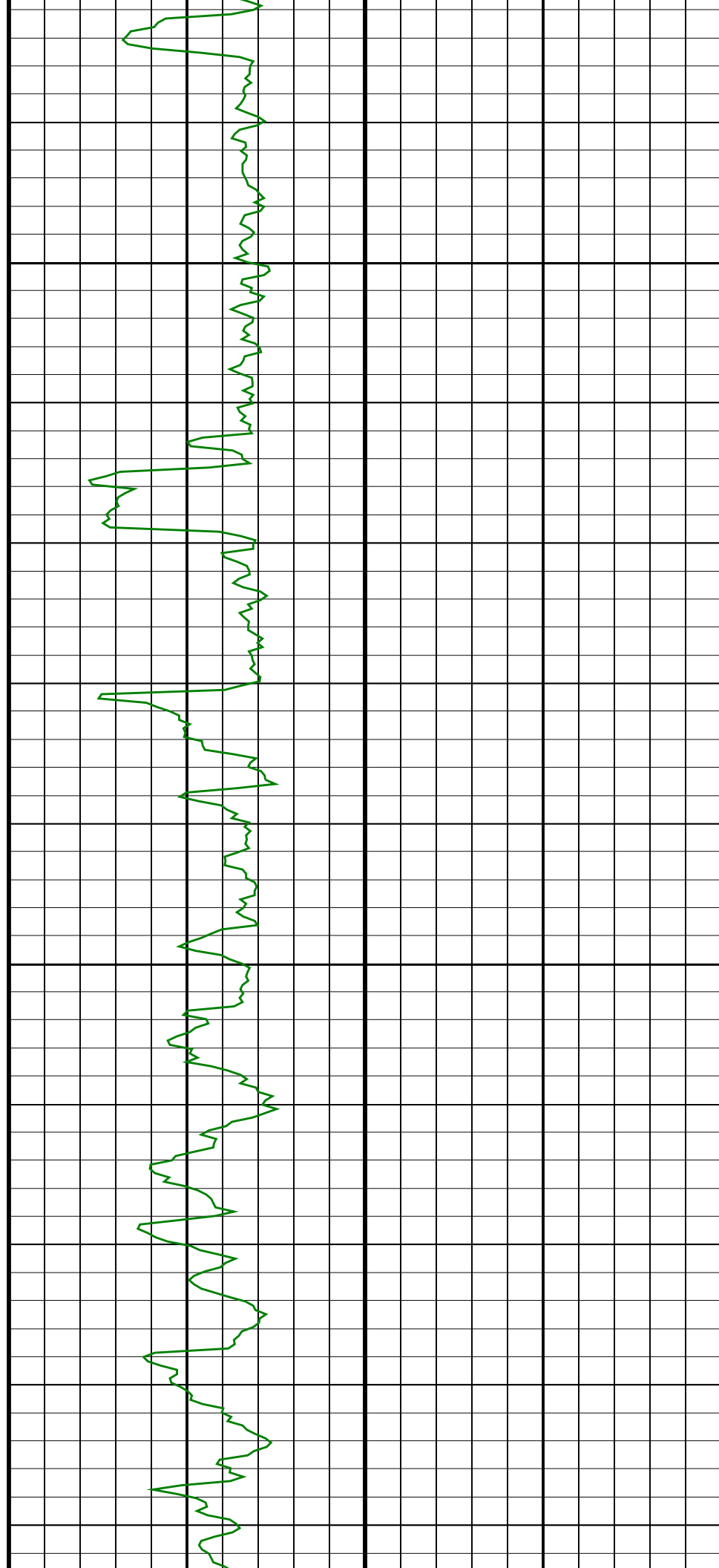
1875
TVD

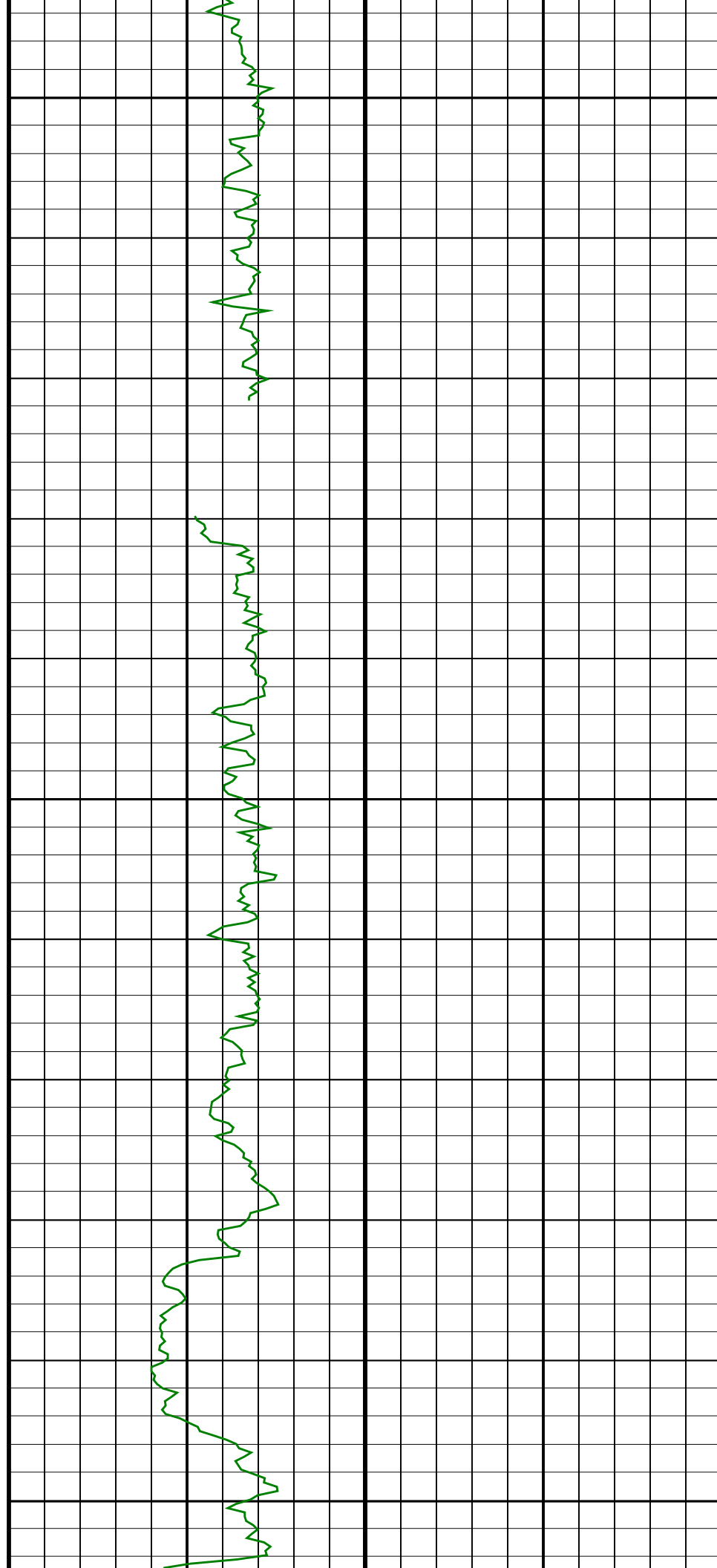
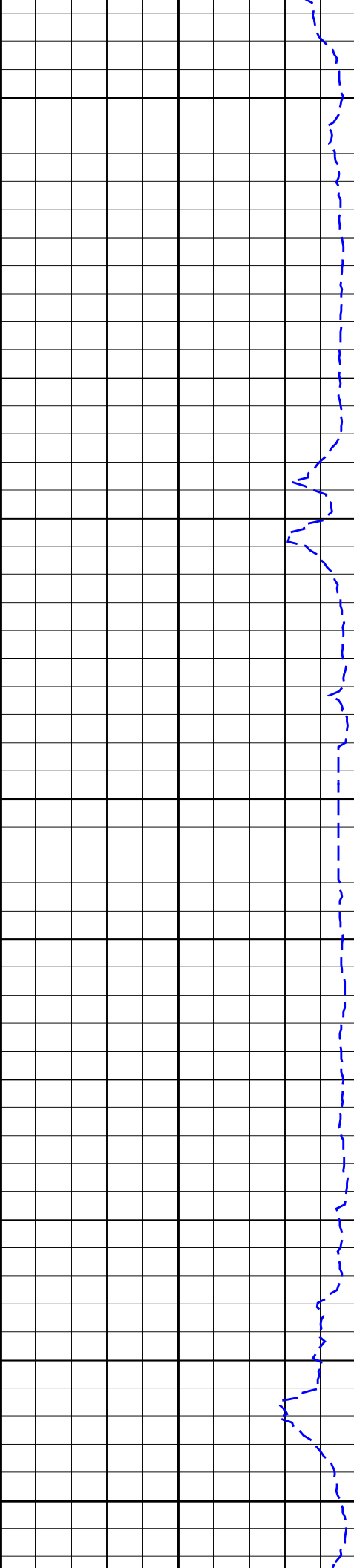


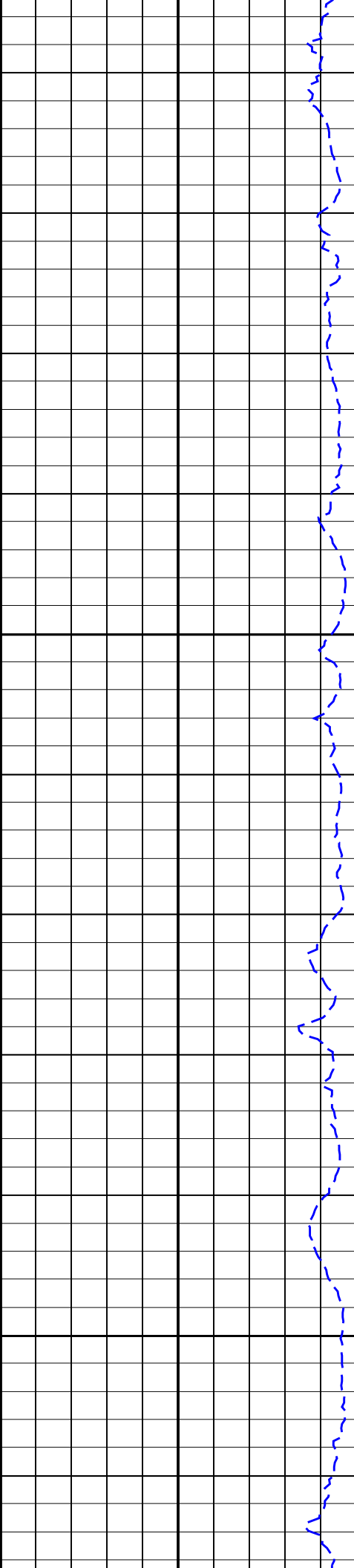


1900
TVD

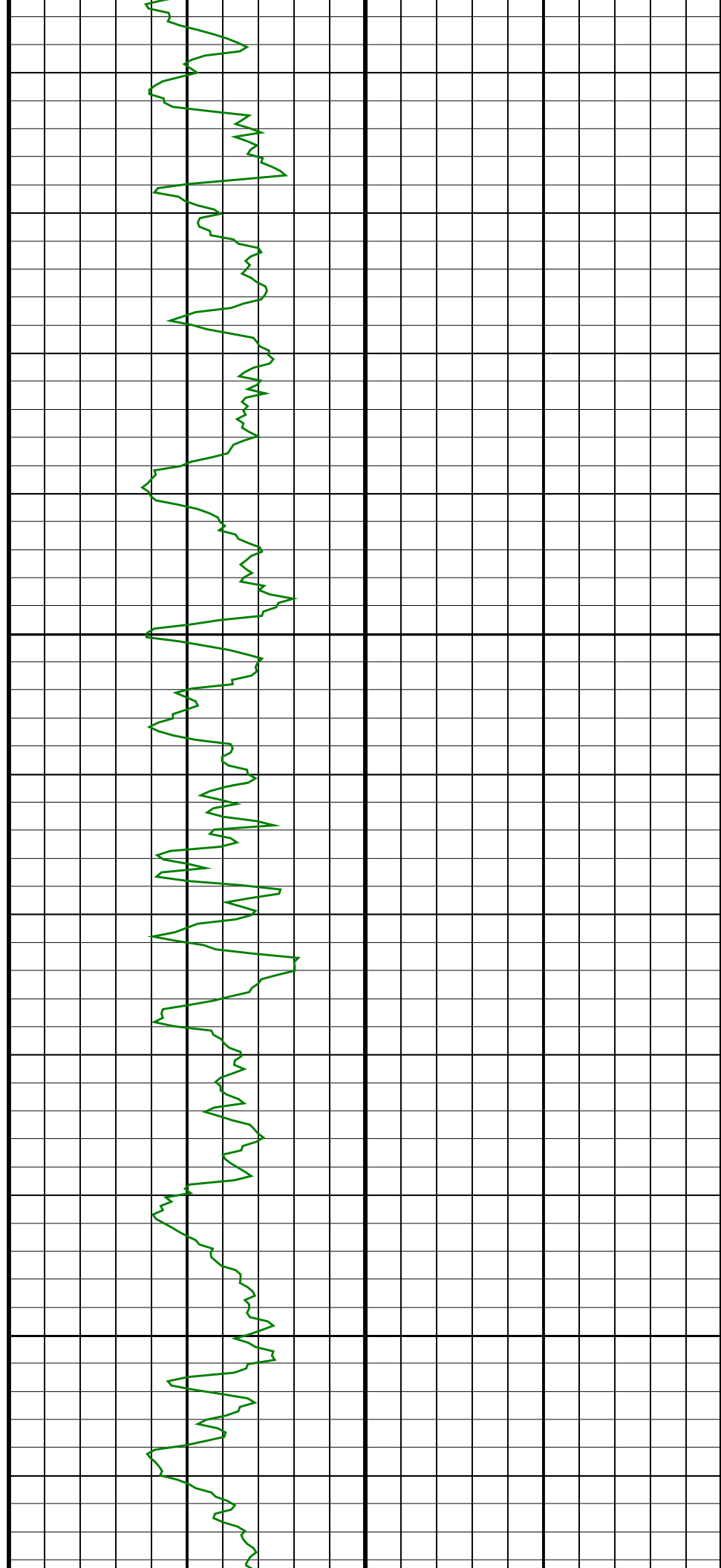
1925
TVD



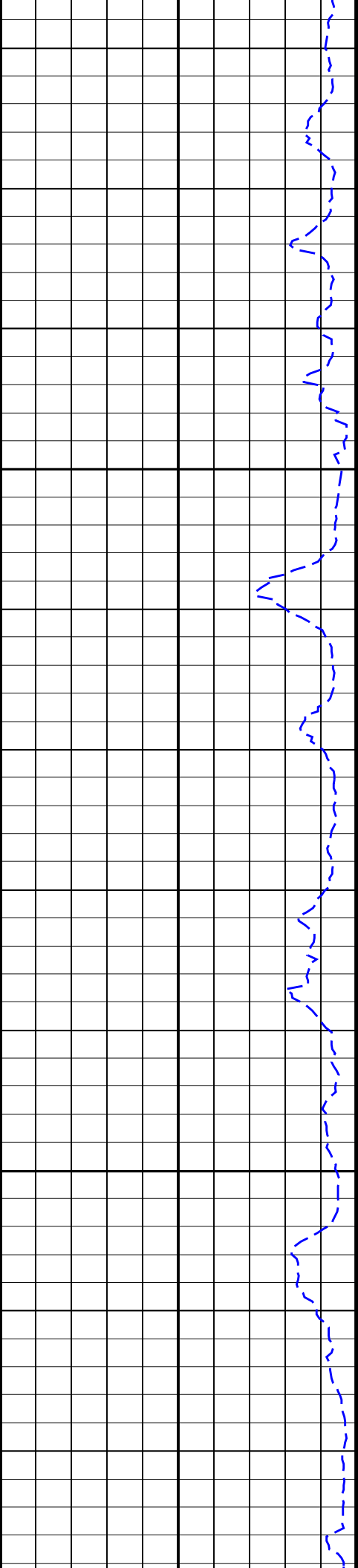




2025
TVD

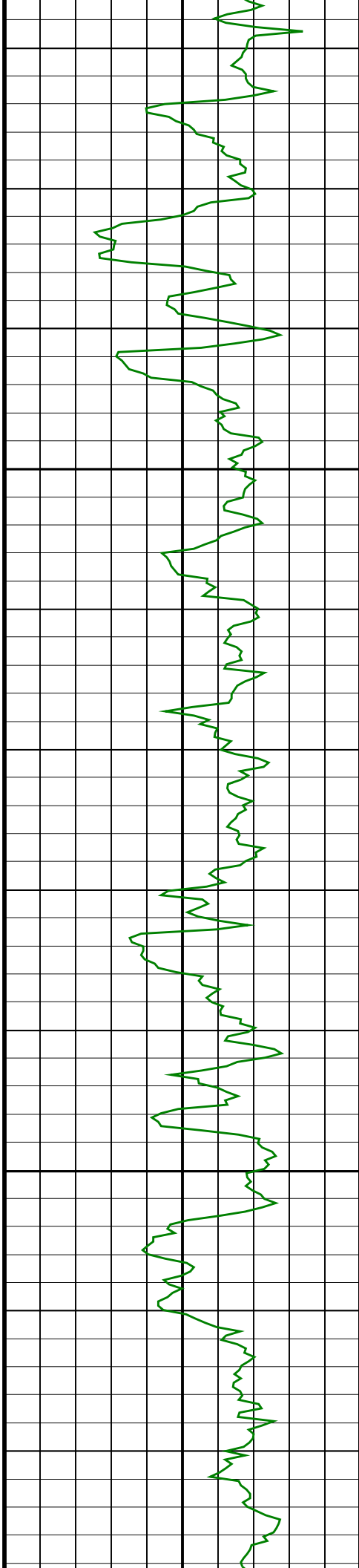


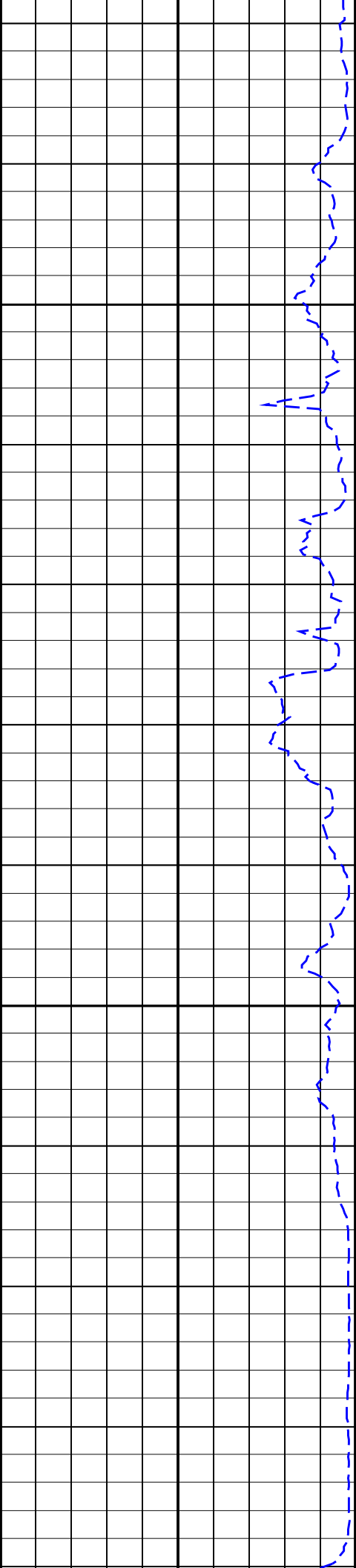
2050
TVD



2075
TVD

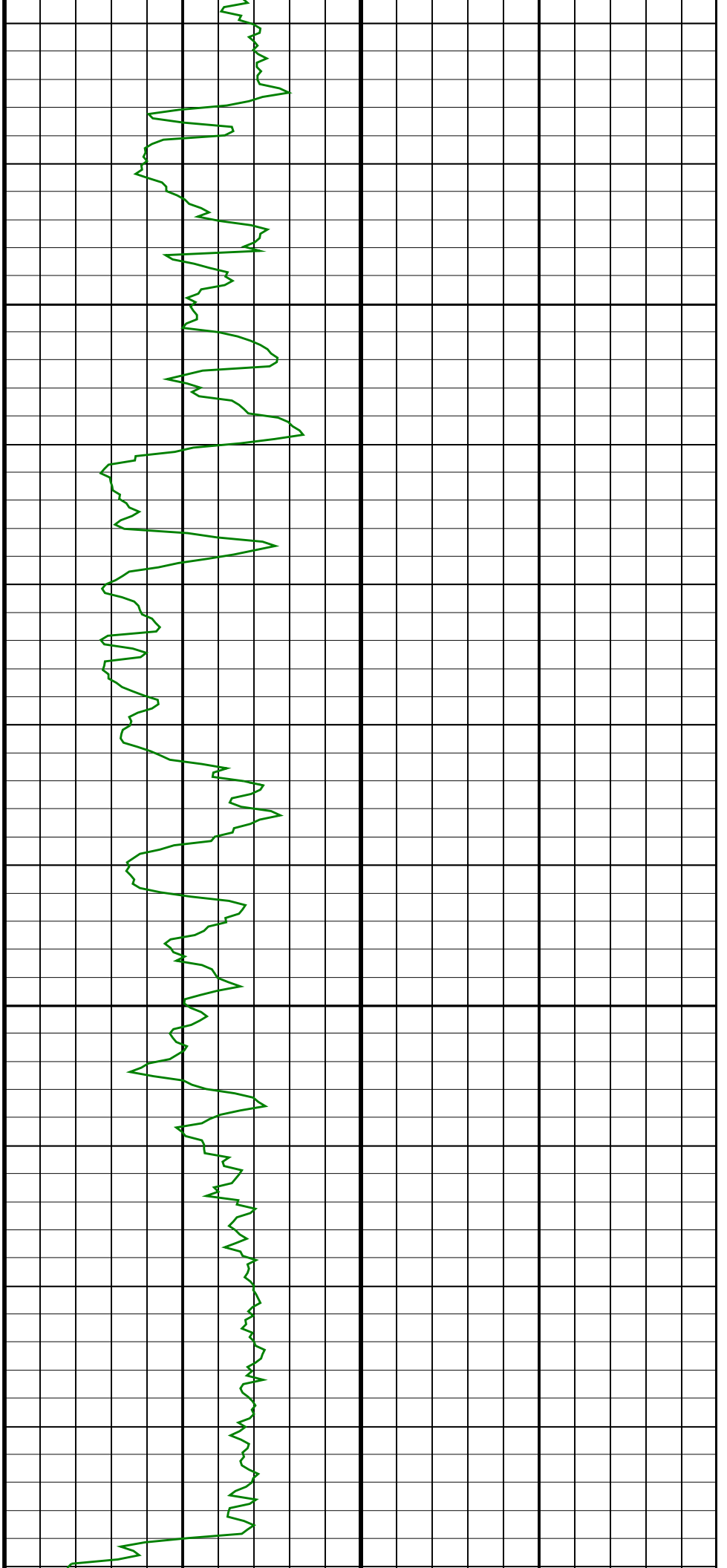
2100
TVD

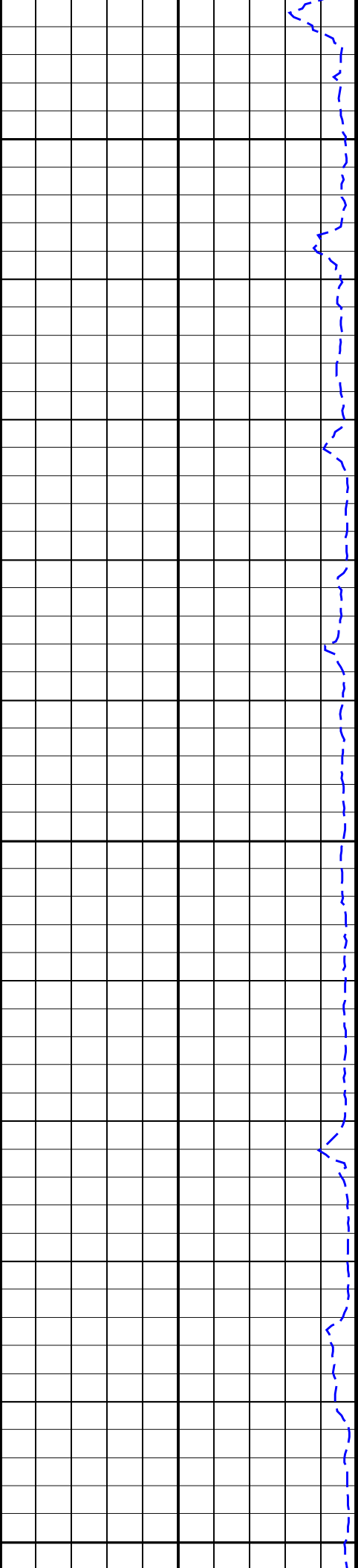




2125
TVD

2150
TVD

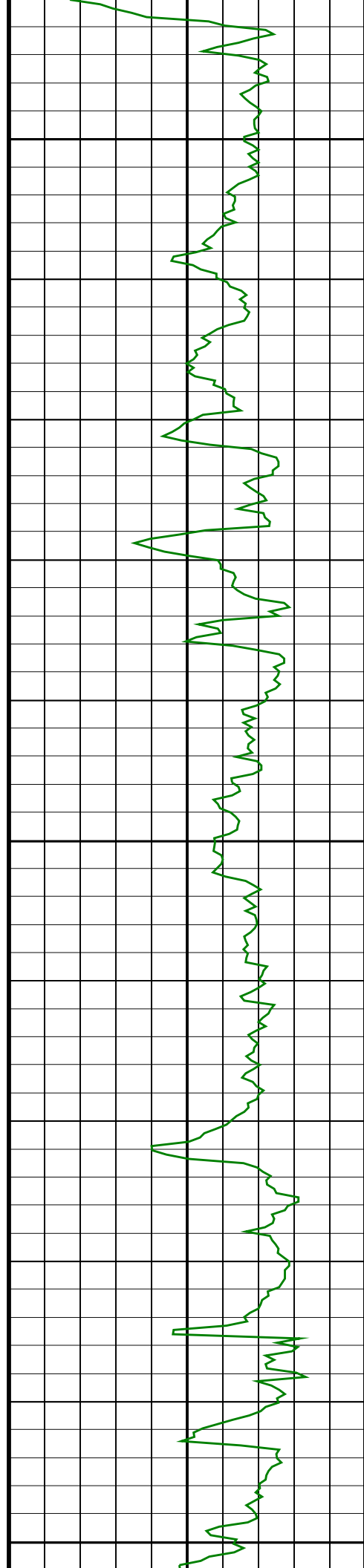


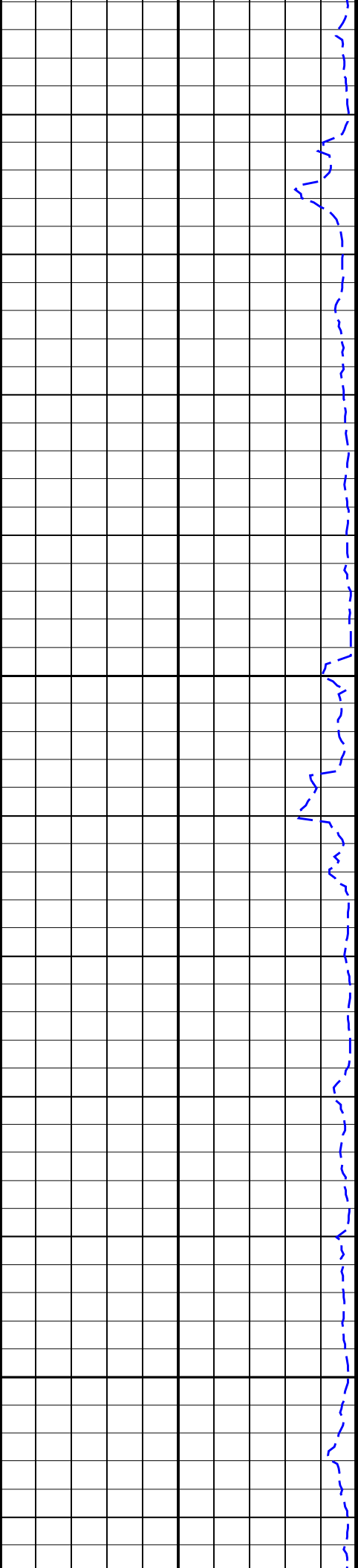


2175
TVD

2200
TVD

2225

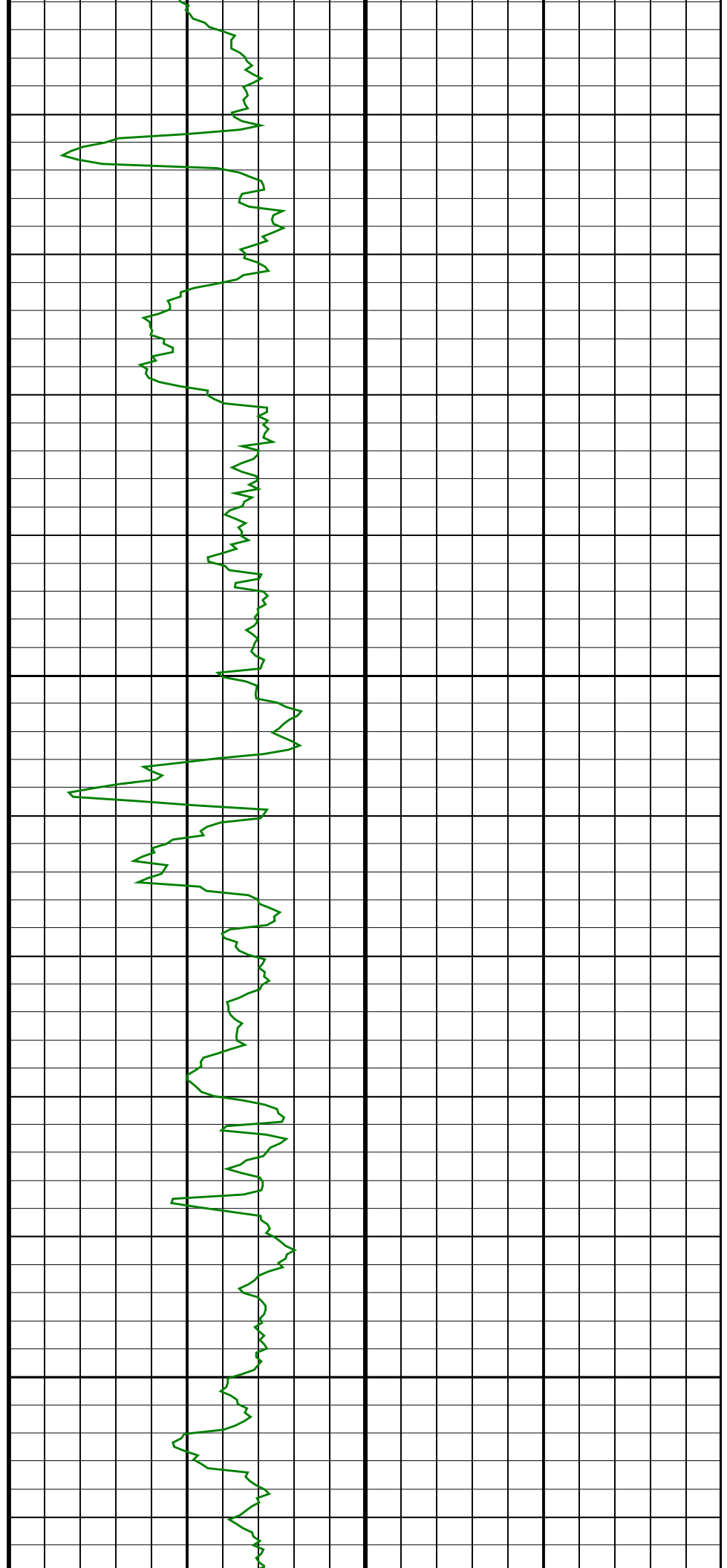


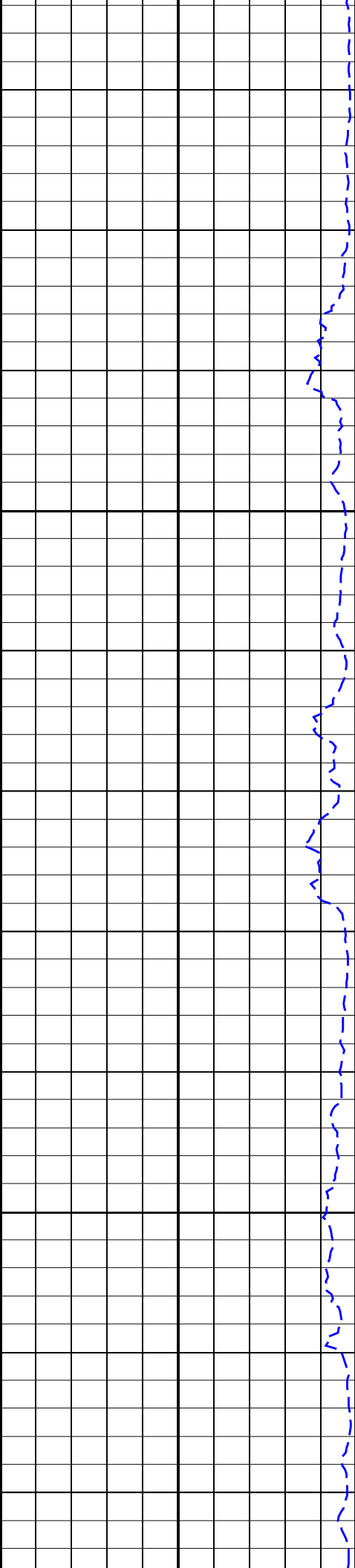


TVD

2250
TVD

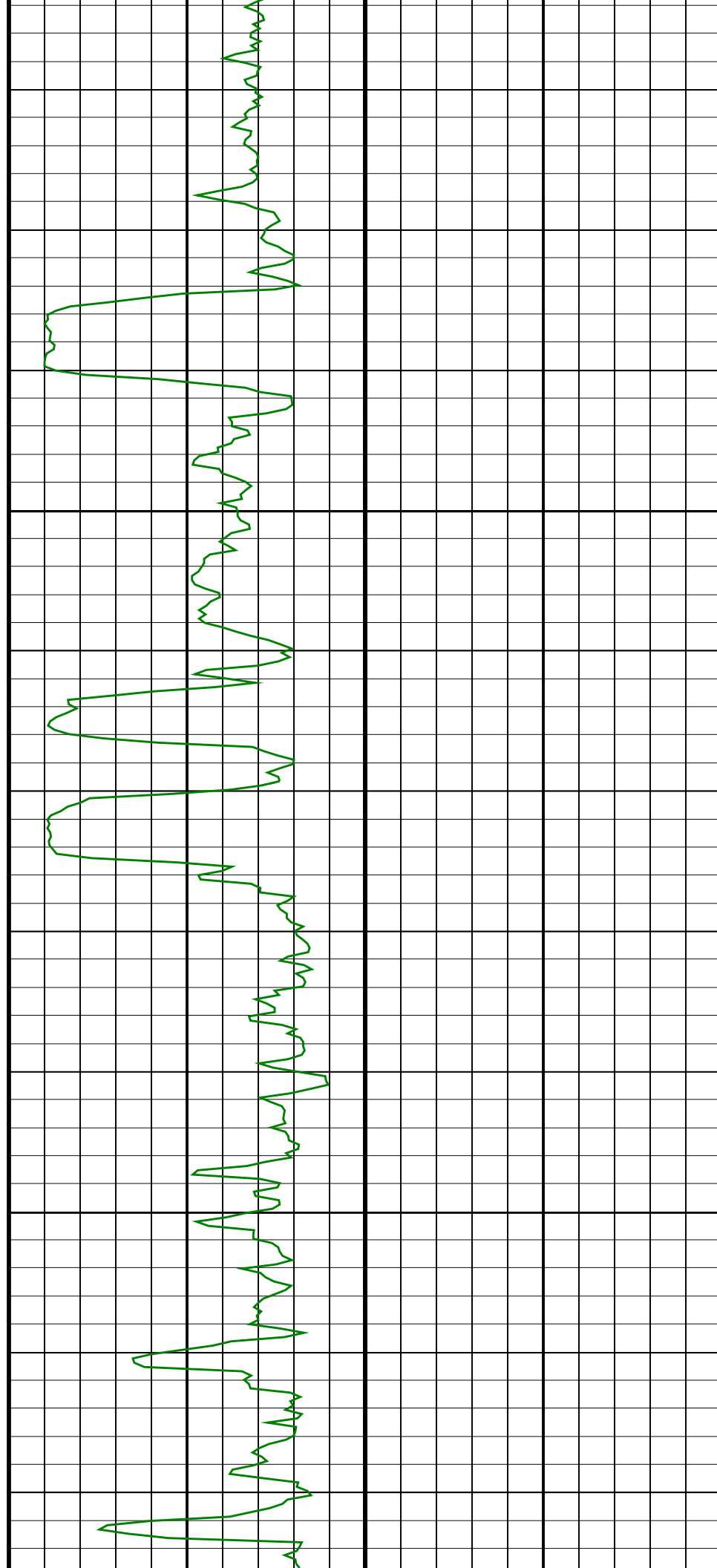
2275
TVD

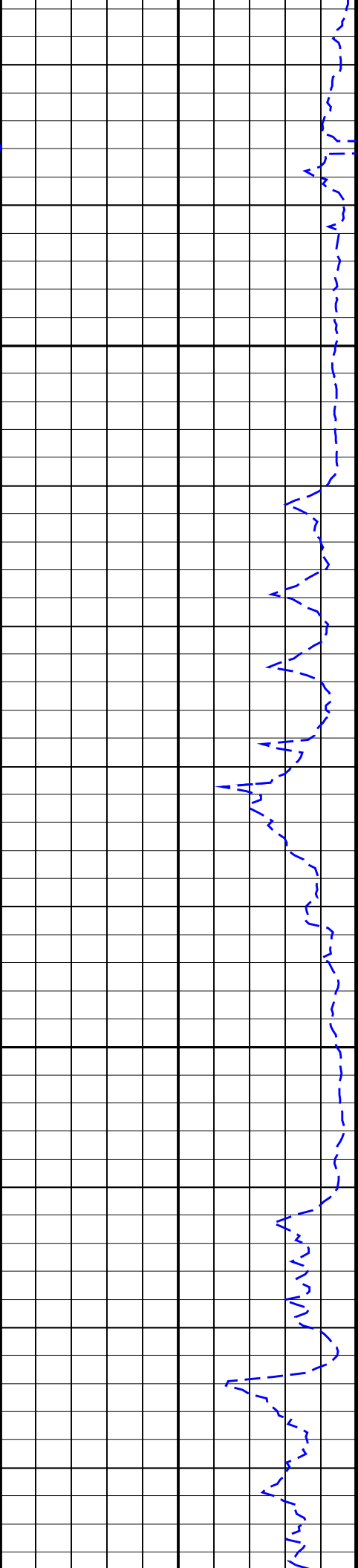




2300
TVD

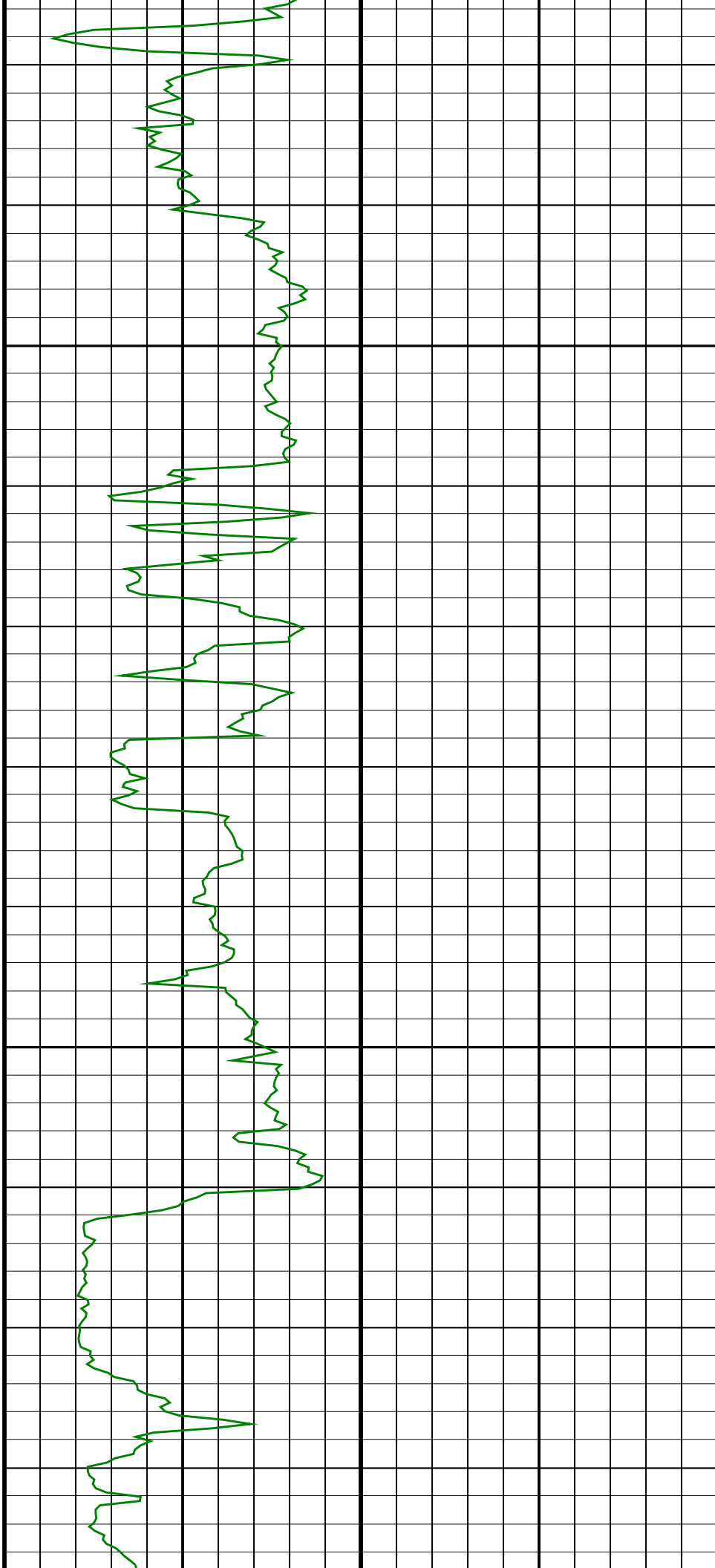
2325
TVD

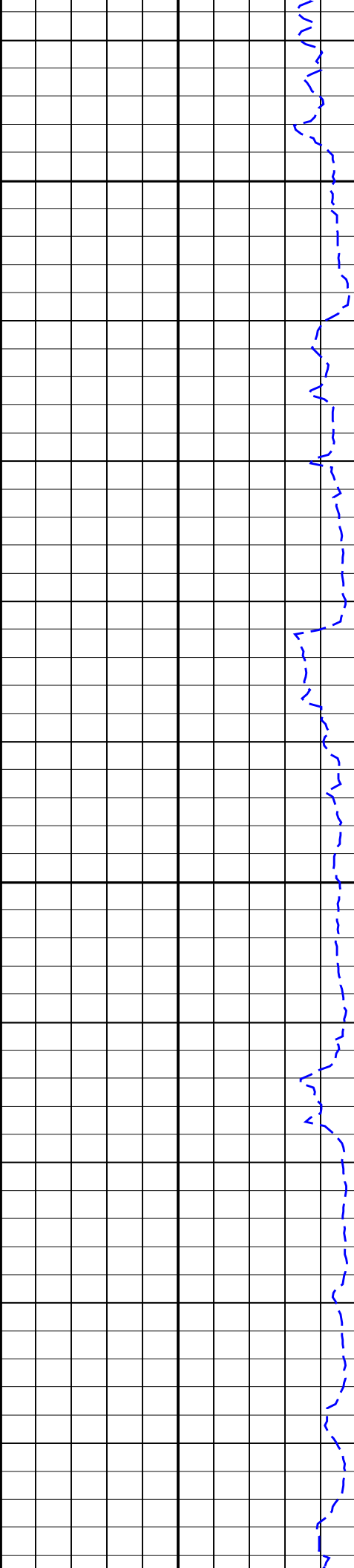




2350
TVD

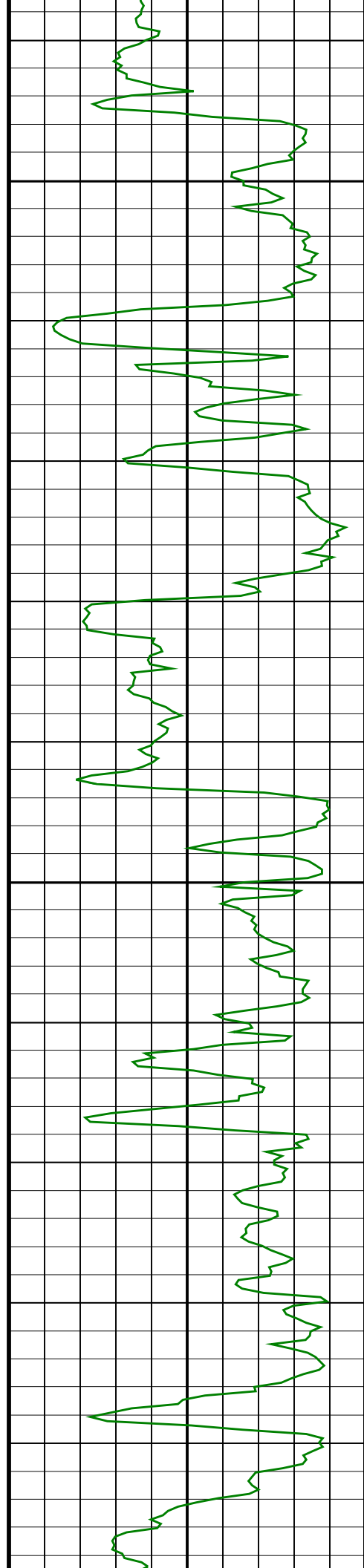
2375
TVD

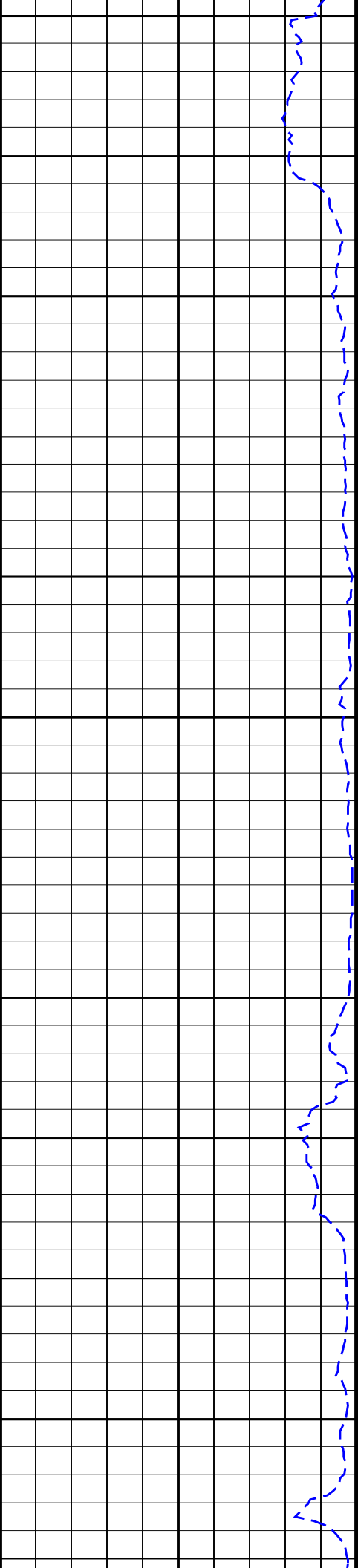




2400
TVD

2425
TVD

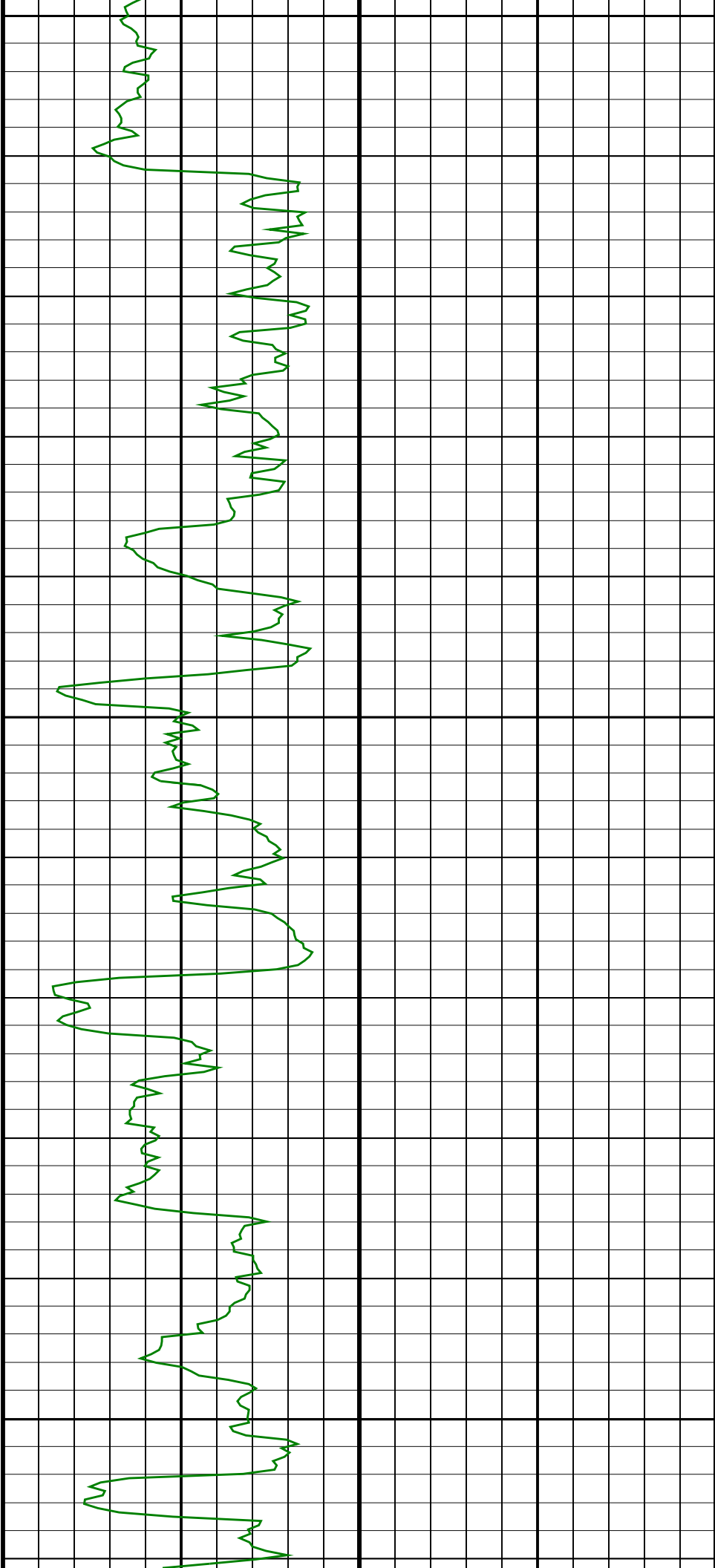


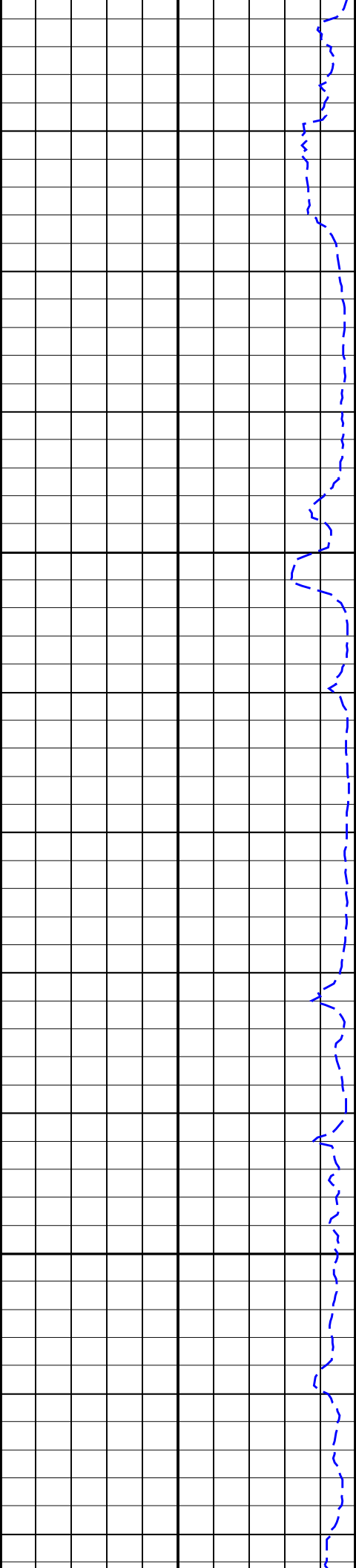


2450
TVD

2475
TVD

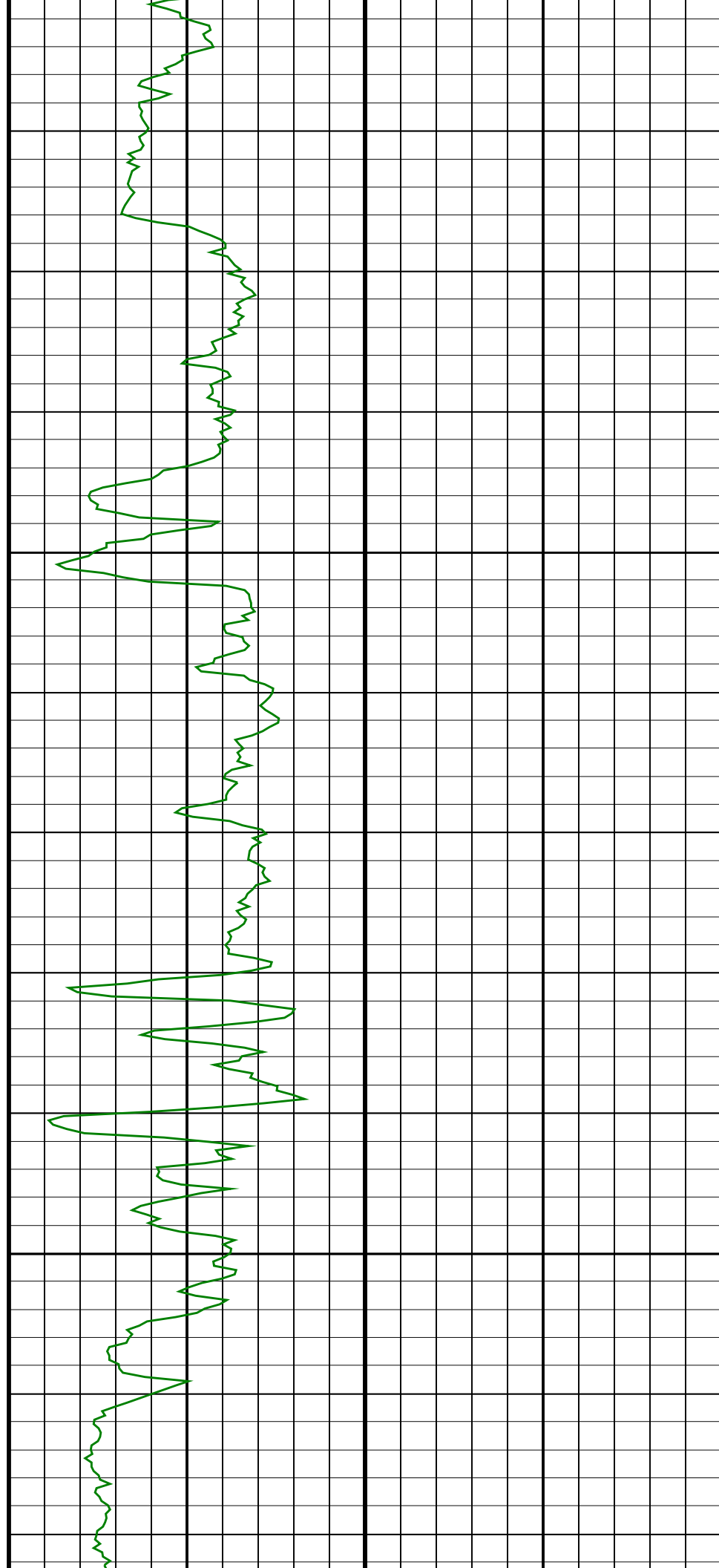
2500
TVD

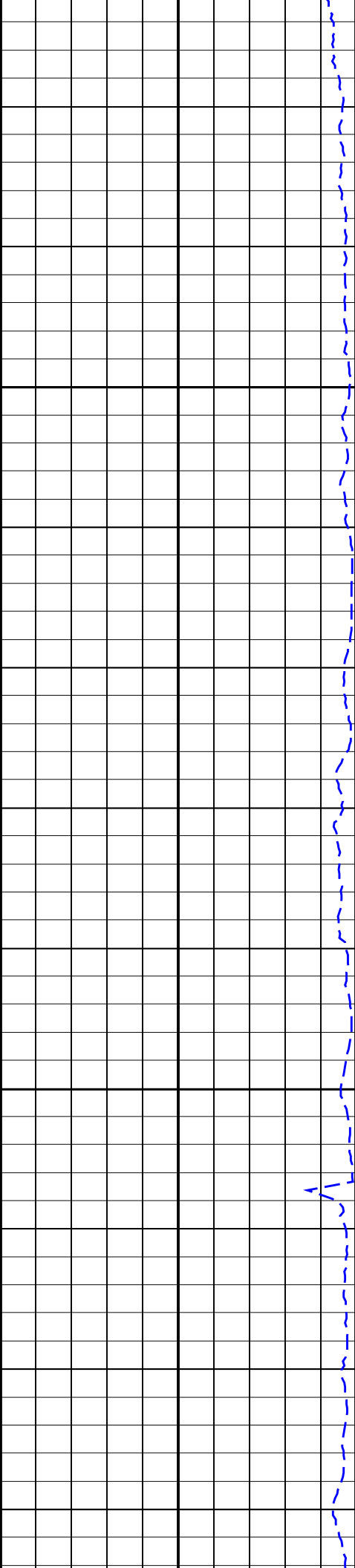




2525
TVD

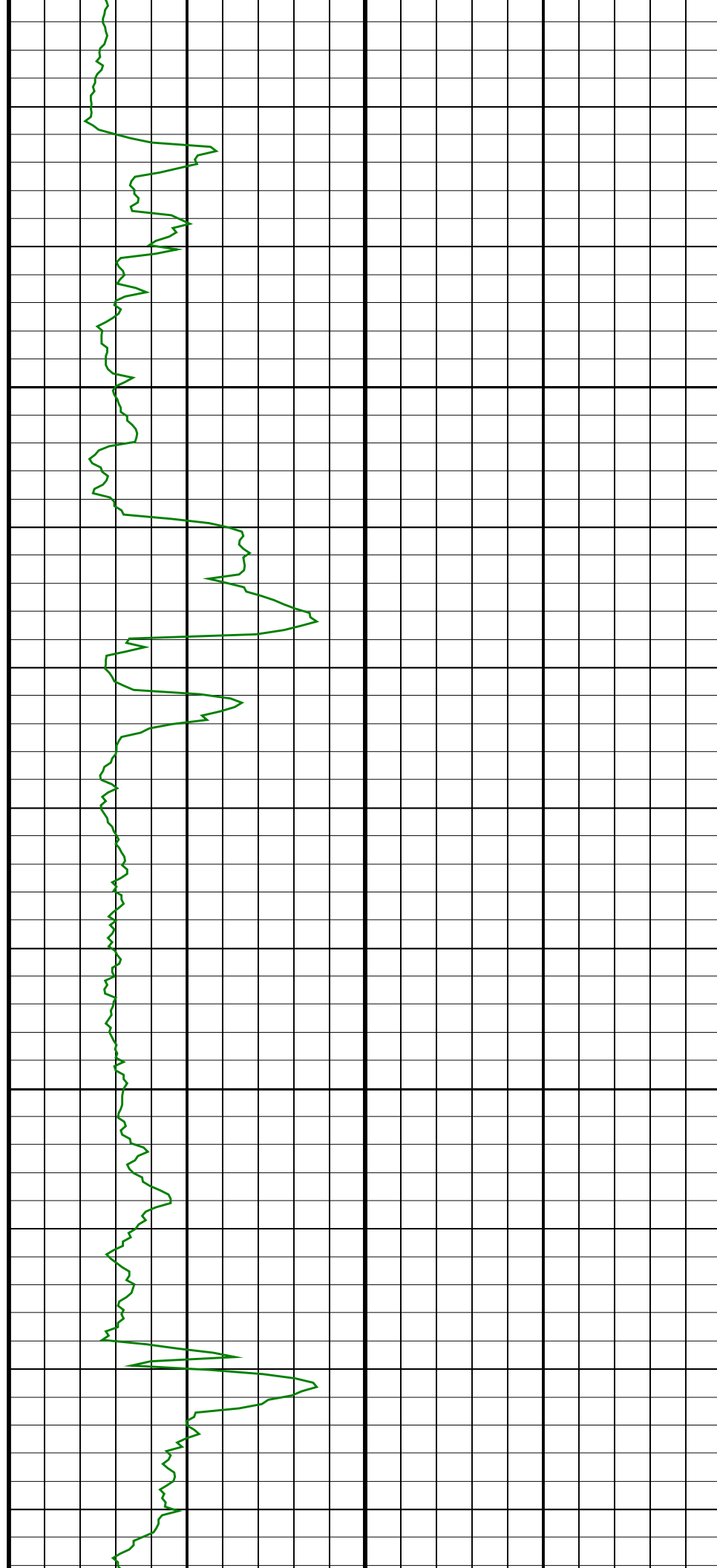
2550
TVD

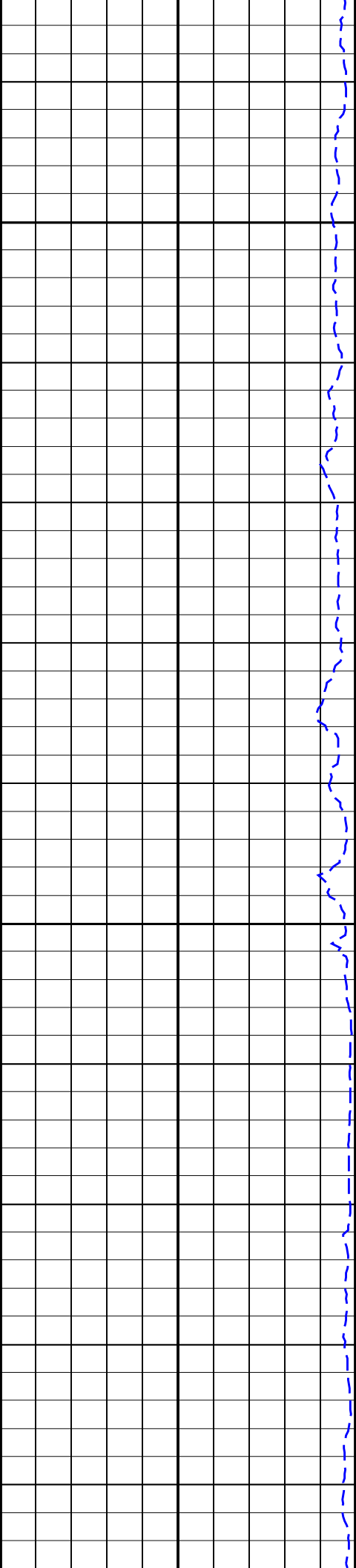


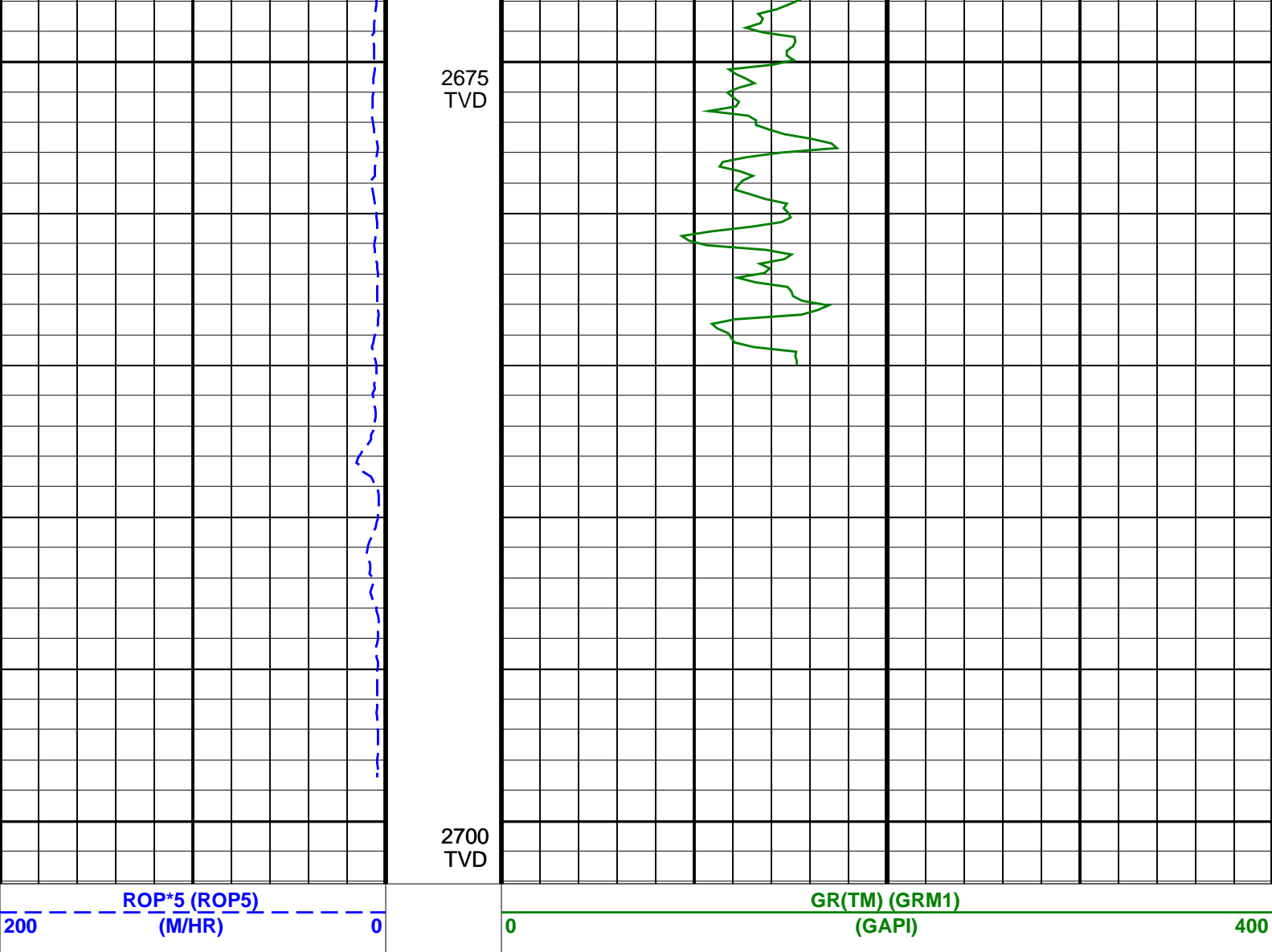


2575
TVD

2600
TVD







Input DLIS Files

CDF-03/29/2004,13:59:35

File ID:CDF_MLA_A6A

FN:52 29-Mar-2004 21:38

3015.1 FT

8853.1 FT

SCHLUMBERGER

Survey report 29-Mar-2004 17:56:44 Page 1 of 5

Client.....: ESSO Australia Pty. Ltd.
Field.....: Turrum

Well.....: MLA A6A Spud date.....: 18-Feb-2004
API number.....: Last survey date.....: 29-Mar-04
Engineer.....: K.Handley/D.Hastie Total accepted surveys...: 94
MD of first survey.....: 1015.00 m
RIG.....: ISDL 453 MD of last survey.....: 3563.00 m
STATE.....: Victoria

----- Survey calculation methods-----
Method for positions.....: Minimum curvature
Method for DLS.....: Mason & Taylor
----- Depth reference -----
Permanent datum.....: MEAN SEA LEVEL
Depth reference.....: Driller's Depth
GL above permanent.....: -59.00 m
KB above permanent.....: 27.91 m
DF above permanent.....: 27.91 m
Reference Dip.....: -68.74 degrees
----- Vertical section origin-----
Latitude (+N/S-).....: 0.00 m
Departure (+E/W-).....: 0.00 m
----- Geomagnetic data -----
Magnetic model.....: BGGM version 2003
Magnetic date.....: 20-Mar-2004
Magnetic field strength...: 1199.85 HCNT
Magnetic dec (+E/W-).....: -68.74 degrees
Magnetic dip.....: -68.74 degrees
----- MWD survey Reference Criteria -----
Reference G.....: 1000.03 mGal
Reference H.....: 1199.85 HCNT
Tolerance of G.....: (+/-)
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Platform reference point-----
Latitude (+N/S-).....: 5767927.00 m
Magnetic dec (+E/W-).....: 13.13 degrees

Departure (+E/W-):.....: 606840.63 m Grid convergence (+E/W-):. -0.76 degrees
 Total az corr (+E/W-):.....: 13.89 degrees
 Azimuth from rotary table to target: 144.61 degrees (Total az corr = magnetic dec - grid conv)
 Survey Correction Type :...:
 I=Sag Corrected Inclination
 M=Schlumberger Magnetic Correction
 S=Shell Magnetic Correction
 F=Failed Axis Correction
 R=Magnetic Resonance Tool Correction
 D=Dmag Magnetic Correction

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 SCHLUMBERGER Survey Report

29-Mar-2004 17:56:44

Page 2 of 5

Seq	Measured # depth - (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (deg)	At Azim 10m)	DLS (deg/	Srvy tool	Tool Corr
1	1015.00	35.97	121.64	0.00	918.99	326.42	-151.45	350.44	381.77	113.37	0.00	TIP	None
2	1035.00	36.76	128.86	20.00	935.10	337.59	-158.29	360.11	393.36	113.73	2.18	GYR	None
3	1060.00	39.65	135.92	25.00	954.75	352.69	-168.72	371.49	408.01	114.43	2.09	GYR	None
4	1097.16	41.05	142.81	37.16	983.09	376.62	-186.97	387.12	429.90	115.78	1.26	MWD	None
5	1125.83	41.31	143.61	28.67	1004.67	395.49	-202.08	398.42	446.74	116.89	0.20	MWD	None
6	1154.39	41.92	144.19	28.56	1026.02	414.45	-217.41	409.60	463.72	117.96	0.25	MWD	None
7	1183.17	46.31	148.43	28.78	1046.68	434.46	-234.08	420.68	481.42	119.09	1.84	MWD	None
8	1211.90	46.82	148.84	28.73	1066.43	455.27	-251.90	431.54	499.68	120.27	0.21	MWD	None
9	1240.44	46.72	149.00	28.54	1085.98	476.01	-269.71	442.27	518.02	121.38	0.05	MWD	None
10	1269.13	46.51	149.16	28.69	1105.69	496.80	-287.59	452.99	536.57	122.41	0.08	MWD	None
11	1297.89	46.28	148.89	28.76	1125.52	517.56	-305.45	463.70	555.27	123.37	0.10	MWD	None
12	1326.60	45.86	148.93	28.71	1145.44	538.18	-323.16	474.38	573.99	124.26	0.15	MWD	None
13	1355.31	45.23	148.96	28.71	1165.55	558.61	-340.71	484.95	592.68	125.09	0.22	MWD	None
14	1384.17	45.31	149.96	28.86	1185.86	579.04	-358.37	495.37	611.41	125.88	0.25	MWD	None
15	1412.62	44.82	149.92	28.45	1205.95	599.10	-375.80	505.46	629.85	126.63	0.17	MWD	None
16	1441.39	45.44	150.67	28.77	1226.25	619.38	-393.51	515.56	648.58	127.35	0.28	MWD	None
17	1470.37	46.35	151.96	28.98	1246.42	640.05	-411.77	525.55	667.65	128.08	0.45	MWD	None
18	1499.06	46.05	152.28	28.69	1266.28	660.58	-430.07	535.23	686.61	128.78	0.13	MWD	None
19	1527.87	46.75	149.86	28.81	1286.15	681.31	-448.33	545.32	705.96	129.42	0.65	MWD	None
20	1556.46	46.43	149.81	28.59	1305.80	701.99	-466.28	555.76	725.46	130.00	0.11	MWD	None
21	1585.47	46.22	149.26	29.01	1325.83	722.90	-484.37	566.40	745.27	130.54	0.16	MWD	None
22	1614.16	45.93	149.53	28.69	1345.73	743.49	-502.15	576.92	764.85	131.04	0.12	MWD	None
23	1642.77	47.20	151.01	28.61	1365.40	764.16	-520.20	587.22	784.49	131.54	0.58	MWD	None
24	1671.61	47.06	150.75	28.84	1385.02	785.17	-538.66	597.50	804.47	132.04	0.08	MWD	None
25	1700.18	46.51	151.54	28.57	1404.59	805.86	-556.90	607.55	824.17	132.51	0.28	MWD	None
26	1728.98	48.15	153.49	28.80	1424.11	826.83	-575.68	617.32	844.09	133.00	0.76	MWD	None
27	1757.92	47.83	153.18	28.94	1443.47	848.08	-594.90	626.97	864.29	133.50	0.14	MWD	None
28	1786.51	48.09	153.13	28.59	1462.62	869.08	-613.84	636.56	884.31	133.96	0.09	MWD	None
29	1815.14	48.42	151.64	28.63	1481.68	890.24	-632.77	646.46	904.60	134.39	0.41	MWD	None
30	1843.80	49.66	151.50	28.66	1500.47	911.73	-651.80	656.77	925.30	134.78	0.43	MWD	None

[(c)2004 IDEAL ID8_1C_01]
 SCHLUMBERGER Survey Report

29-Mar-2004 17:56:44

Page 3 of 5

Seq	Measured # depth - (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (deg)	At Azim 10m)	DLS (deg/	Srvy tool	Tool Corr
31	1872.49	48.73	151.75	28.69	1519.22	933.28	-670.91	667.09	946.11	135.16	0.33	MWD	None
32	1901.22	47.59	151.14	28.73	1538.38	954.53	-689.71	677.32	966.67	135.52	0.43	MWD	None
33	1930.00	45.89	149.58	28.78	1558.11	975.38	-707.93	687.68	986.94	135.83	0.71	MWD	None
34	1958.45	46.38	150.56	28.45	1577.82	995.80	-725.70	697.91	1006.84	136.12	0.30	MWD	None
35	1987.31	45.55	150.46	28.86	1597.88	1016.44	-743.76	708.12	1026.95	136.41	0.29	MWD	None
36	2015.69	45.11	151.18	28.38	1617.83	1036.50	-761.38	717.96	1046.51	136.68	0.24	MWD	None
37	2044.10	45.53	151.38	28.41	1637.81	1056.57	-779.10	727.67	1066.07	136.95	0.16	MWD	None
38	2073.47	45.58	150.65	29.37	1658.38	1077.40	-797.44	737.83	1086.42	137.22	0.18	MWD	None
39	2102.08	46.55	150.80	28.61	1678.23	1097.89	-815.41	747.91	1106.46	137.47	0.34	MWD	None
40	2130.84	47.26	150.57	28.76	1697.87	1118.77	-833.72	758.19	1126.92	137.72	0.25	MWD	None
41	2158.78	45.79	149.21	27.94	1717.10	1138.96	-851.26	768.36	1146.74	137.93	0.63	MWD	None
42	2187.90	46.15	148.71	29.12	1737.34	1159.84	-869.20	779.15	1167.30	138.13	0.17	MWD	None
43	2216.50	46.49	148.99	28.60	1757.09	1180.46	-886.90	789.85	1187.63	138.31	0.14	MWD	None
44	2245.20	46.95	149.73	28.70	1776.77	1201.28	-904.88	800.50	1208.14	138.50	0.25	MWD	None
45	2274.09	47.79	150.03	28.89	1796.33	1222.45	-923.26	811.17	1228.99	138.70	0.30	MWD	None
46	2302.55	47.50	150.56	28.46	1815.51	1243.38	-941.53	821.59	1249.60	138.89	0.17	MWD	None
47	2331.04	45.27	150.70	28.49	1835.16	1263.89	-959.51	831.70	1269.80	139.08	0.78	MWD	None
48	2359.77	44.92	151.71	28.73	1855.44	1284.10	-977.34	841.50	1289.70	139.27	0.28	MWD	None
49	2388.58	45.06	153.26	28.81	1875.81	1304.28	-995.40	850.91	1309.53	139.47	0.38	MWD	None
50	2417.12	44.08	153.13	28.54	1896.15	1324.08	-1013.28	859.95	1329.00	139.68	0.34	MWD	None
51	2445.87	45.67	152.42	28.75	1916.52	1344.16	-1031.31	869.23	1348.76	139.87	0.58	MWD	None
52	2474.69	45.99	151.70	28.82	1936.60	1364.66	-1049.58	878.91	1368.98	140.06	0.21	MWD	None
53	2503.39	45.36	151.83	28.70	1956.65	1385.03	-1067.66	888.63	1389.09	140.23	0.22	MWD	None

54	2532.22	44.97	152.00	28.83	1978.98	1403.31	-1083.70	898.23	1409.11	140.40	0.14	MWD	None
55	2560.92	45.60	151.95	28.70	1997.17	1425.53	-1103.70	907.83	1429.10	140.56	0.22	MWD	None
56	2589.63	44.54	151.28	28.71	2017.45	1445.71	-1121.59	917.50	1449.05	140.72	0.40	MWD	None
57	2618.30	44.80	151.49	28.67	2037.84	1465.72	-1139.28	927.15	1468.87	140.86	0.10	MWD	None
58	2647.05	44.50	150.60	28.75	2058.29	1485.80	-1156.96	936.93	1488.76	141.00	0.24	MWD	None
59	2675.57	44.30	150.20	28.52	2078.67	1505.65	-1174.31	946.79	1508.45	141.12	0.12	MWD	None
60	2703.91	44.03	150.52	28.34	2099.00	1525.30	-1191.47	956.55	1527.94	141.24	0.12	MWD	None

[[c)2004 IDEAL ID8_1C_01]

SCHLUMBERGER Survey Report

29-Mar-2004 17:56:44

Page 4 of 5

Seq	Measured # depth - (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (deg)	At Azim 10m)	DLS (deg/	Srvy tool	Tool Corr
61	2732.51	45.66	151.86	28.60	2119.28	1545.33	-1209.14	966.27	1547.80	141.37	0.66	MWD	None
62	2761.25	46.98	152.34	28.74	2139.12	1565.94	-1227.51	975.99	1568.23	141.51	0.47	MWD	None
63	2789.98	47.51	151.94	28.73	2158.63	1586.85	-1246.16	985.85	1588.97	141.65	0.21	MWD	None
64	2818.66	47.44	152.51	28.68	2178.01	1607.80	-1264.86	995.70	1609.75	141.79	0.15	MWD	None
65	2847.37	47.48	152.50	28.71	2197.42	1628.75	-1283.63	1005.46	1630.54	141.93	0.01	MWD	None
66	2876.48	47.83	153.07	29.11	2217.03	1650.05	-1302.76	1015.30	1651.68	142.07	0.19	MWD	None
67	2904.97	47.30	151.95	28.49	2236.26	1670.88	-1321.41	1025.01	1672.36	142.20	0.34	MWD	None
68	2933.62	46.92	150.96	28.65	2255.76	1691.72	-1339.85	1035.04	1693.08	142.31	0.29	MWD	None
69	2962.10	47.07	151.04	28.48	2275.18	1712.42	-1358.07	1045.14	1713.67	142.42	0.06	MWD	None
70	2990.63	46.41	151.14	28.53	2294.73	1733.06	-1376.26	1055.18	1734.21	142.52	0.23	MWD	None
71	3019.47	45.63	151.49	28.84	2314.76	1753.67	-1394.46	1065.14	1754.72	142.63	0.28	MWD	None
72	3041.63	44.29	151.16	22.16	2330.44	1769.22	-1408.20	1072.65	1770.20	142.70	0.61	MWD	None
73	3048.80	44.02	151.44	7.17	2335.58	1774.18	-1412.58	1075.05	1775.14	142.73	0.46	MWD	None
74	3077.28	42.55	151.58	28.48	2356.32	1793.57	-1429.74	1084.37	1794.44	142.82	0.52	MWD	None
75	3105.69	43.26	150.32	28.41	2377.13	1812.79	-1446.65	1093.76	1813.59	142.91	0.39	MWD	None
76	3134.38	47.94	146.91	28.69	2397.20	1833.23	-1464.13	1104.45	1833.98	142.97	1.84	MWD	None
77	3163.14	47.69	147.47	28.76	2416.51	1854.52	-1482.04	1116.00	1855.23	143.02	0.17	MWD	None
78	3191.68	47.26	148.04	28.54	2435.80	1875.52	-1499.83	1127.22	1876.19	143.07	0.21	MWD	None
79	3201.31	47.00	147.69	9.63	2442.35	1882.56	-1505.80	1130.97	1883.23	143.09	0.38	MWD	None
80	3208.89	47.17	147.56	7.58	2447.51	1888.11	-1510.49	1133.95	1888.76	143.10	0.26	MWD	None
81	3220.16	47.10	148.09	11.27	2455.18	1896.36	-1517.48	1138.34	1896.99	143.12	0.35	MWD	None
82	3248.92	46.34	146.99	28.76	2474.90	1917.26	-1535.15	1149.58	1917.87	143.17	0.38	MWD	None
83	3277.75	45.32	146.79	28.83	2494.98	1937.93	-1552.47	1160.88	1938.50	143.21	0.36	MWD	None
84	3306.30	45.24	147.23	28.55	2515.07	1958.20	-1569.49	1171.92	1958.75	143.25	0.11	MWD	None
85	3335.29	44.84	147.64	28.99	2535.56	1978.68	-1586.77	1182.96	1979.20	143.29	0.17	MWD	None
86	3363.62	44.90	148.18	28.33	2555.64	1998.64	-1603.71	1193.58	1999.13	143.34	0.14	MWD	None
87	3392.77	45.56	147.96	29.15	2576.17	2019.29	-1621.27	1204.53	2019.75	143.39	0.23	MWD	None
88	3421.59	45.99	148.99	28.82	2596.27	2039.90	-1638.87	1215.32	2040.32	143.44	0.30	MWD	None
89	3450.32	45.73	149.23	28.73	2616.28	2060.45	-1656.57	1225.91	2060.84	143.50	0.11	MWD	None
90	3479.21	45.03	149.55	28.89	2636.57	2080.94	-1674.26	1236.38	2081.30	143.56	0.25	MWD	None

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SCHLUMBERGER Survey Report

29-Mar-2004 17:56:44

Page 5 of 5

Seq	Measured # depth - (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (deg)	At Azim 10m)	DLS (deg/	Srvy tool	Tool Corr
91	3507.81	42.85	150.25	28.60	2657.16	2100.71	-1691.43	1246.33	2101.02	143.62	0.78	MWD	None
92	3536.62	41.25	150.39	28.81	2678.55	2119.91	-1708.20	1255.89	2120.19	143.68	0.56	MWD	None
93	3543.78	41.00	150.20	7.16	2683.95	2124.59	-1712.29	1258.22	2124.86	143.69	0.39	MWD	None
94	3563.00	41.00	150.20	19.22	2698.45	2137.14	-1723.23	1264.49	2137.39	143.73	0.00	Projection to TD	

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Company: **ESSO Australia Pty. Ltd.**

Schlumberger

Well: **MLA A6A**

Field: **Turrum**

Rig: **ISDL 453**

State: **Victoria**

Gamma Ray Service

**1:200 True Vertical Depth
Real Time Log**