

Bit Run Summary

Type		KCl/PHPA/Glycol	KCl/PHPA/Glycol	KCl/PHPA/Glycol	KCl/PHPA/Glycol						
Mud weight	ppg	9.50	9.75	9.95	9.95						
Solids	%wt	4.8	5.7	7.3	7.3						
Chlorides	mg/L	47,500	48,500	48,000	48,000						
Rm	ohm-m	N/A	N/A	N/A	N/A						
Rmf	ohm-m	N/A	N/A	N/A	N/A						
Rmc	ohm-m	N/A	N/A	N/A	N/A						
Potassium	%	4.0	4.0	4.0	4.0						
Environmental data											
GR											
Mud weight	ppg	9.50	9.75	9.95	9.95						
Bit size	in	8.5	8.5	8.5	8.5						
Resistivity											
Neutron porosity											
Hole Size		N/A	N/A	N/A	N/A						
Mud weight		N/A	N/A	N/A	N/A						
Temperature		N/A	N/A	N/A	N/A						
Mud salinity		N/A	N/A	N/A	N/A						
Formation salinity		N/A	N/A	N/A	N/A						
Recording rate 1	SEC	N/A	N/A	N/A	N/A						
Recording rate 2	SEC	N/A	N/A	N/A	N/A						
Filtering GR		N/A	N/A	N/A	N/A						
Filtering density		N/A	N/A	N/A	N/A						
Filtering Neutron		N/A	N/A	N/A	N/A						
Company representative		G.Campbell	B.Steel	R.Morris	B.Davis						
Anadrill personnel		J. Walta	D. Borges	K. Handley	J. Dolan						

DISCLAIMER

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OTHER SERVICES FOR RUN1 Gamma Ray Directional Surveys Directional Drilling	OTHER SERVICES FOR RUN2 Gamma Ray Directional Surveys Directional Drilling	OTHER SERVICES FOR RUN3 Gamma Ray Directional Surveys Directional Drilling
REMARKS: RUN NUMBER 1 8 1/2 in. hole was drilled from 871m to 2492m Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool size, Bit size, and Mud weight. Mud type is KCL/PHPA/Glycol. POOH at 2492m due to poor Penetration Rate	REMARKS: RUN NUMBER 2 8 1/2 in. hole was drilled from 2492m to 2672m Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool size, Bit size, and Mud weight. Mud type is KCL/PHPA/Glycol. POOH at 2672m due to poor Penetration Rate	REMARKS: RUN NUMBER 3 8 1/2 in. hole was drilled from 2672m to 2792m Depth is referenced to Driller's Depth. Gamma Ray is corrected for Tool size, Bit size, and Mud weight. Mud type is KCL/PHPA/Glycol. POOH at 2792m due to high KRev's on bit

Thank you for using Schlumberger.

Thank you for using Schlumberger.

Thank you for using Schlumberger.

EQUIPMENT DESCRIPTION

RUN1

RUN2

RUN3

DOWNHOLE EQ

DOWNHOLE E

DOWNHOLE EQ

6 3/4 in. Pow
MDC: Z40
MDI: 62
MEC: 61
MGR: 295-M
DH Software:

D&I 18.0
GR — 17.4



22.36 3/4 in. Pow
MDC: Z40
MDI: 62
MEC: 61
MGR: 295-M
DH Software:

D&I 18.0
GR — 17.4



22.36 3/4 in. Pow
MDC: Z40
MDI: 62
MEC: 61
MGR: 295-M
DH Software:

D&I 18.0
GR — 17.4



6 1/2 in. NM
SN: ASS1



13.86 1/2 in. NM
SN: ASS1



13.96 1/2 in. NM
SN: ASS1



6 1/8 in. NM
SN: DOTS
8 1/4 in. Stab



12.16 1/8 in. NM
SN: DOTS
8 1/4 in. Stab



12.26 1/8 in. NM
SN: DOTS
8 1/4 in. Stab



6 1/2 in. NM
SN: 9612



10.6 6 1/2 in. NM
SN: 9612



10.6 6 1/2 in. NM
SN: 9612



PowerPak* M
A675XP
SN: 020
1.15 deg.
8 3/8 in. Moto






7.9 PowerPak* M
A675XP
SN: 021
1.15 deg.
8 3/8 in. Moto



7.92 PowerPak* M
A675XP
SN: 021
0.0 deg. b
8 3/8 in. Moto



 <p>GeoDiamond 8 1/2 in. S73HP SN: JS86</p> <p>Maximum string diam All lengths in</p>	 <p>SMITH T 8 1/2 in. FG20OD SN: MM5</p> <p>Maximum string diam All lengths in</p>	 <p>SMITH T 8 1/2 in. FG20OD SN: MM5</p> <p>Maximum string diam All lengths in</p>
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<p>OTHER SERVICES FOR RUN4</p> <p>Gamma Ray Directional Surveys Directional Drilling</p>	<p>OTHER SERVICES FOR RUN</p>	<p>OTHER SERVICES FOR RUN</p>
<p>REMARKS: RUN NUMBER 4</p> <p>8 1/2 in. hole was drilled from 2793m to 2920m</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 at 2920m due to TD of FLA-A12a</p> <p>Thank you for using Schlumberger.</p>	<p>REMARKS: RUN NUMBER</p>	<p>REMARKS: RUN NUMBER</p>

EQUIPMENT DESCRIPTION		
RUN4	RUN	RUN

DOWNHOLE EQ

6 3/4 in. Pow
MDC: Z40
MDI: 62
MEC: 61
MGR: 295-M
DH Software:

D&I
GR



22.3

18.0

17.4

6 1/2 in. NM
SN: ASS1

13.9

6 1/8 in. NM
SN: DOTS
8 1/4 in. Stab

12.2

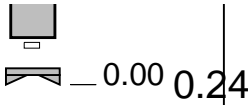
6 1/2 in. NM
SN: 9612

10.6

PowerPak* M
A675XP
SN: 021
0.0 deg. b
8 3/8 in. Moto

7.92

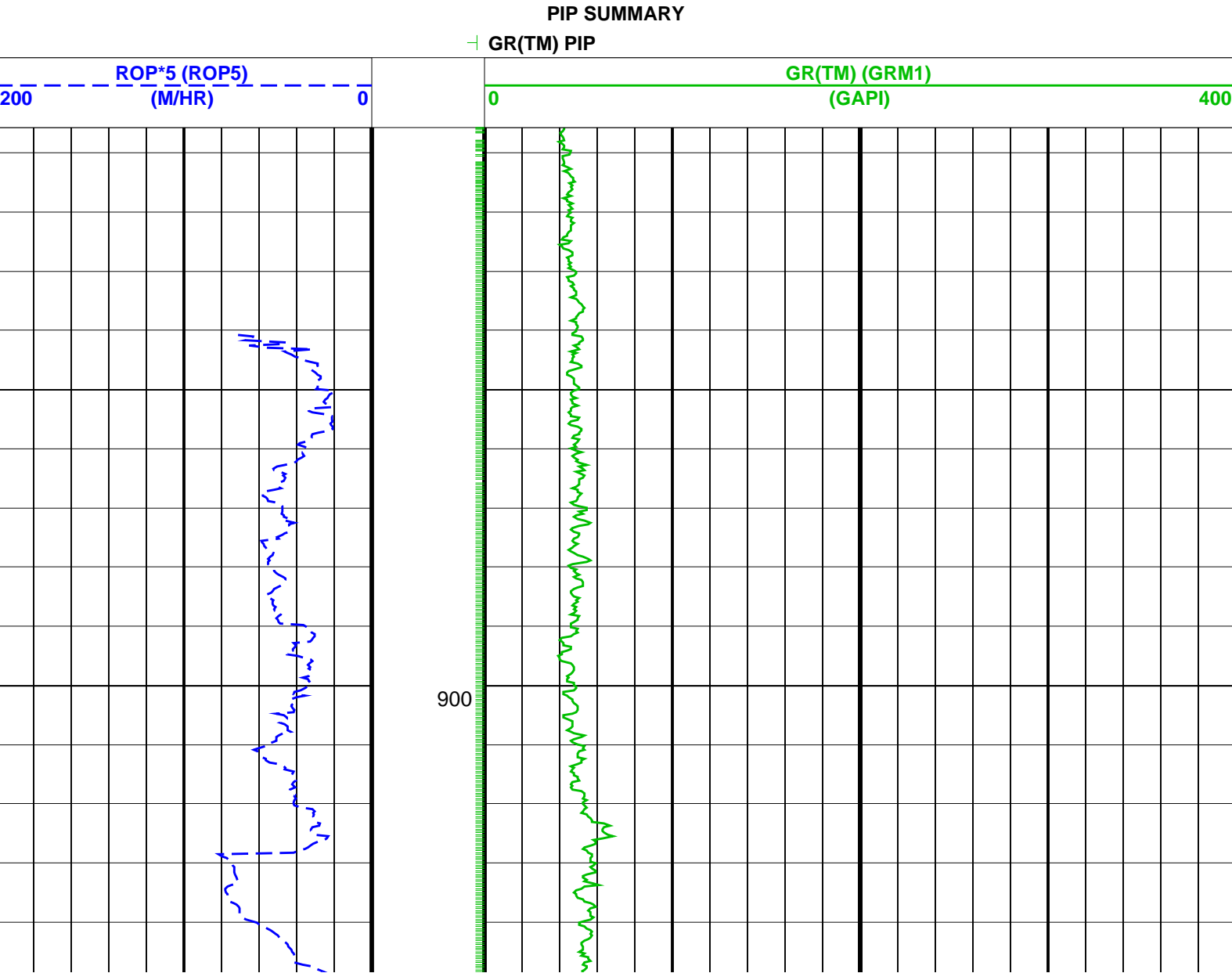
SMITH T
8 1/2 in.
FG200D
SN: MM4

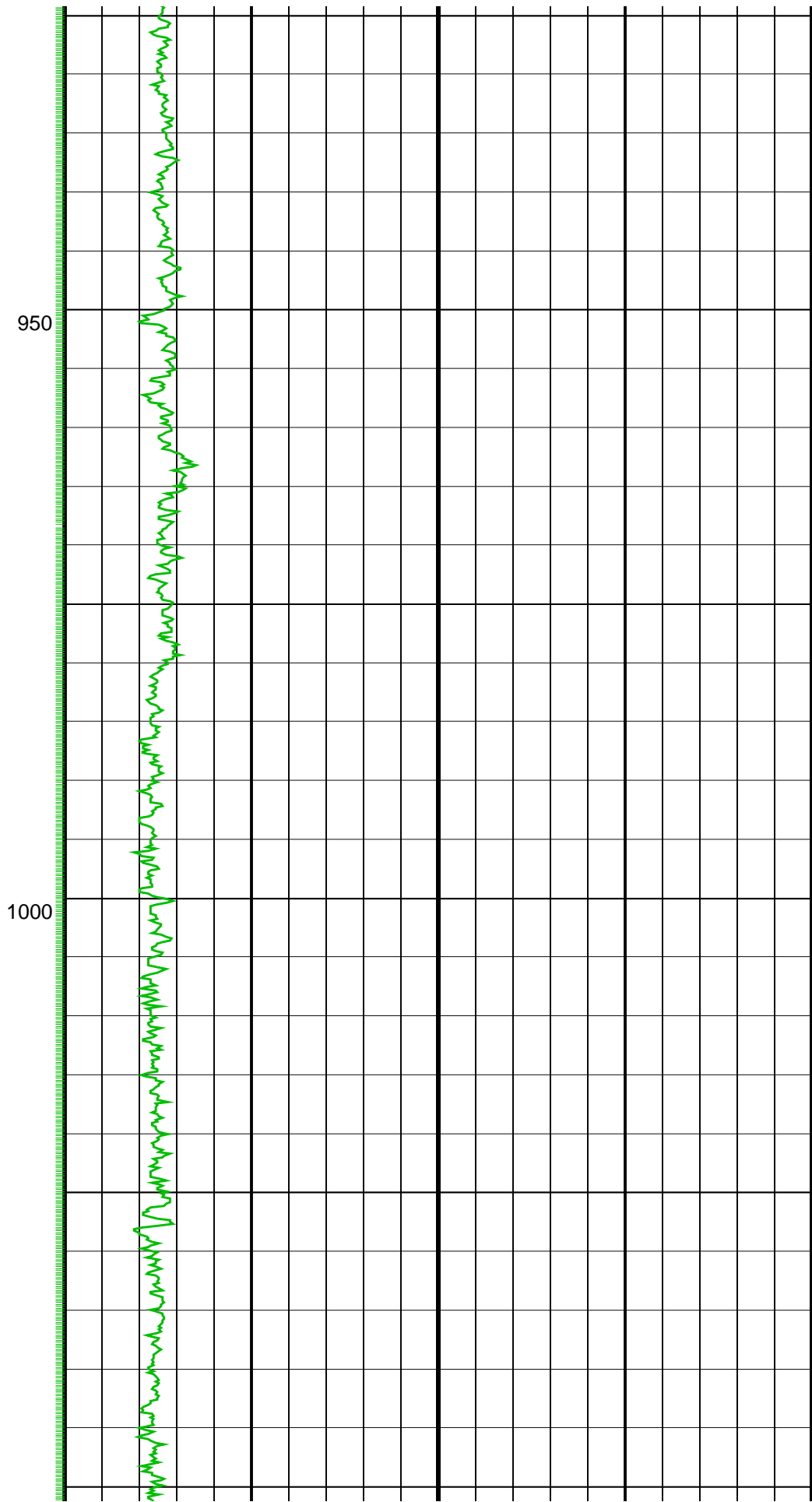
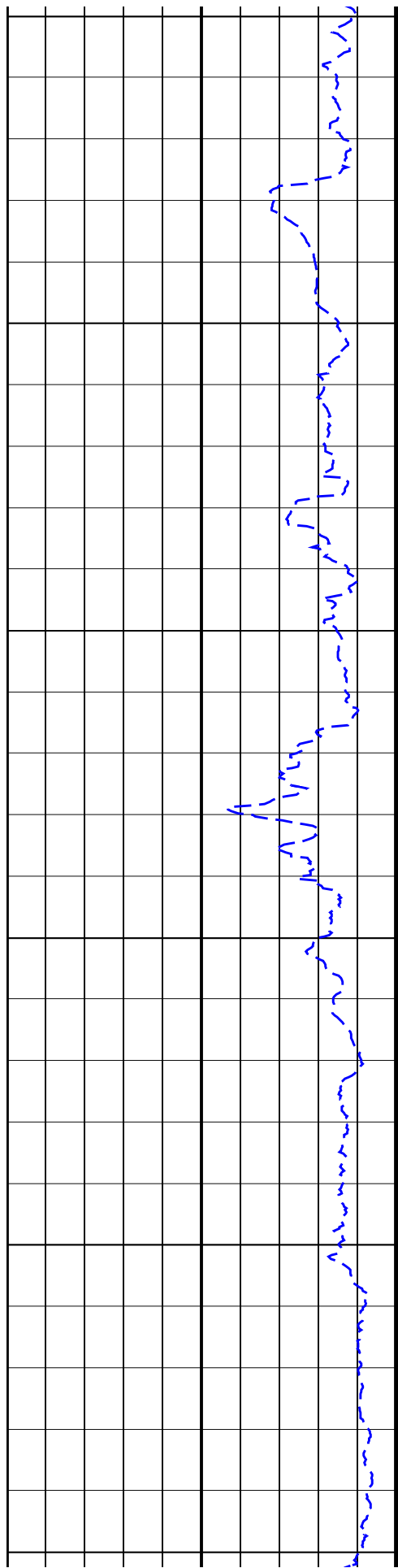


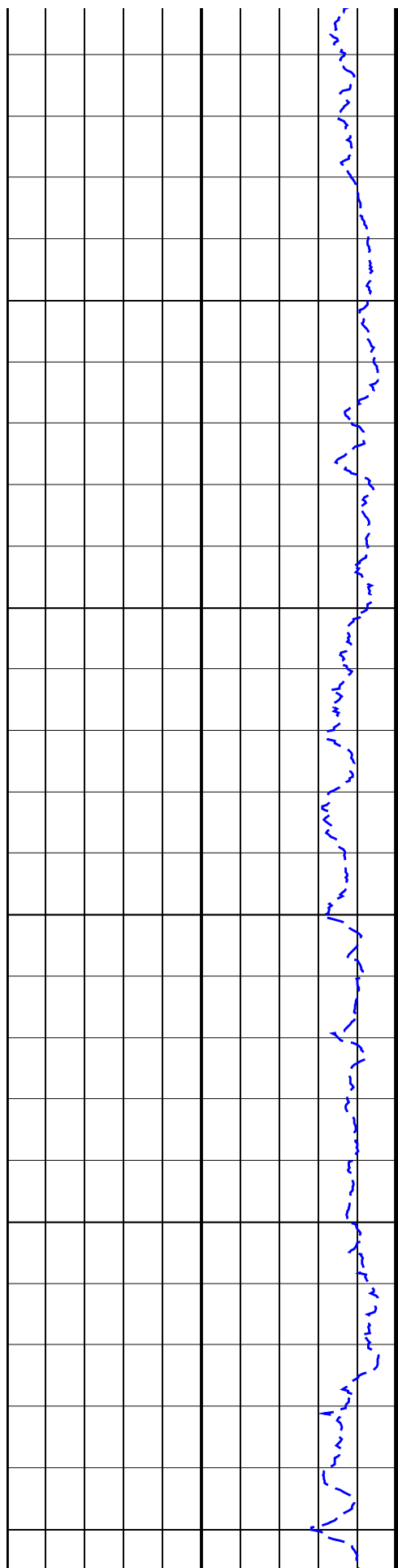
Maximum string diam
All lengths in

FLA A-12a RT 1:500MD

IDEAL Version: ID8_OC_07 <MD> Vertical Scale: 1:500 Graphics File Created: 15-Apr-2003 12:30



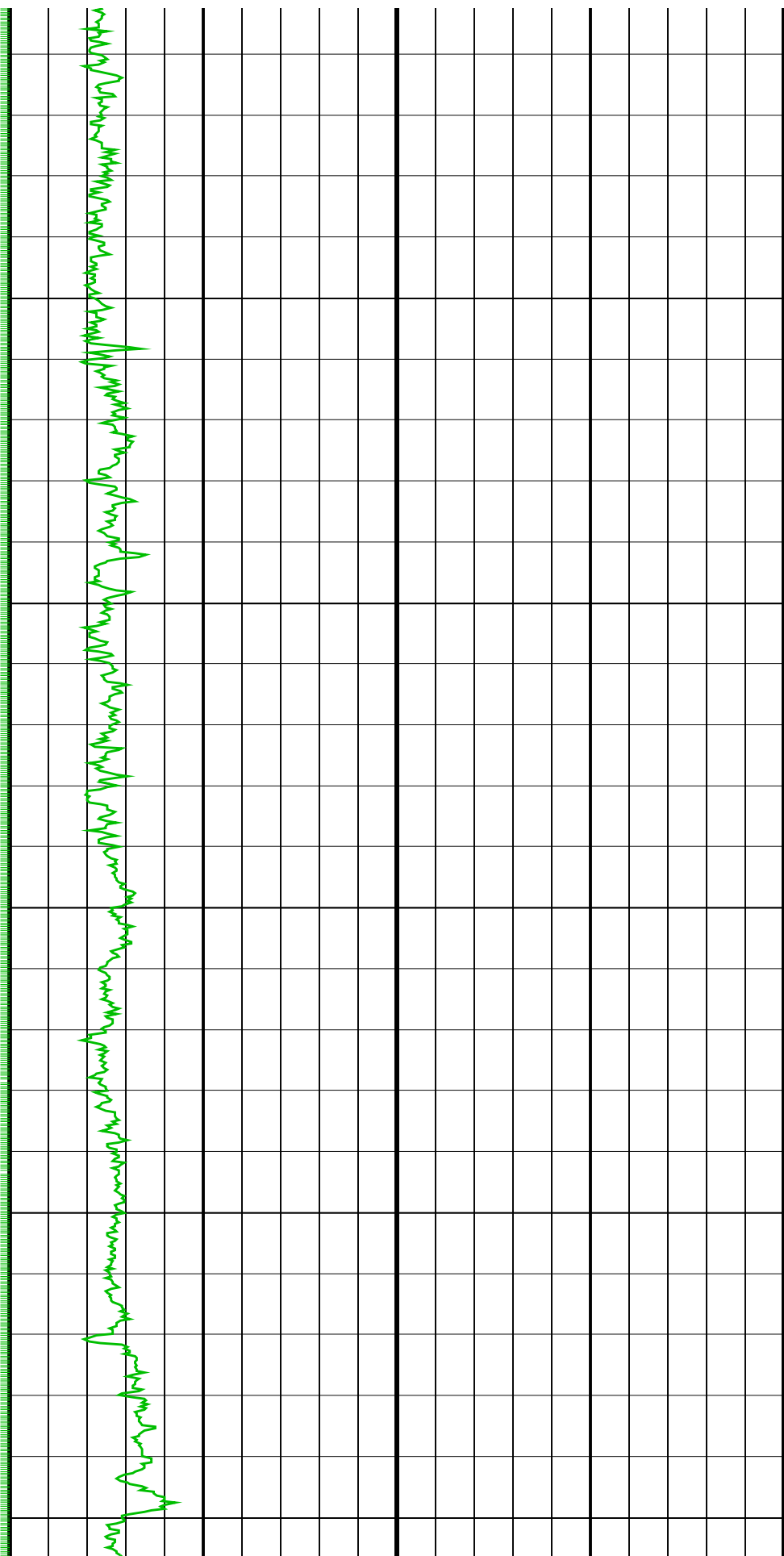


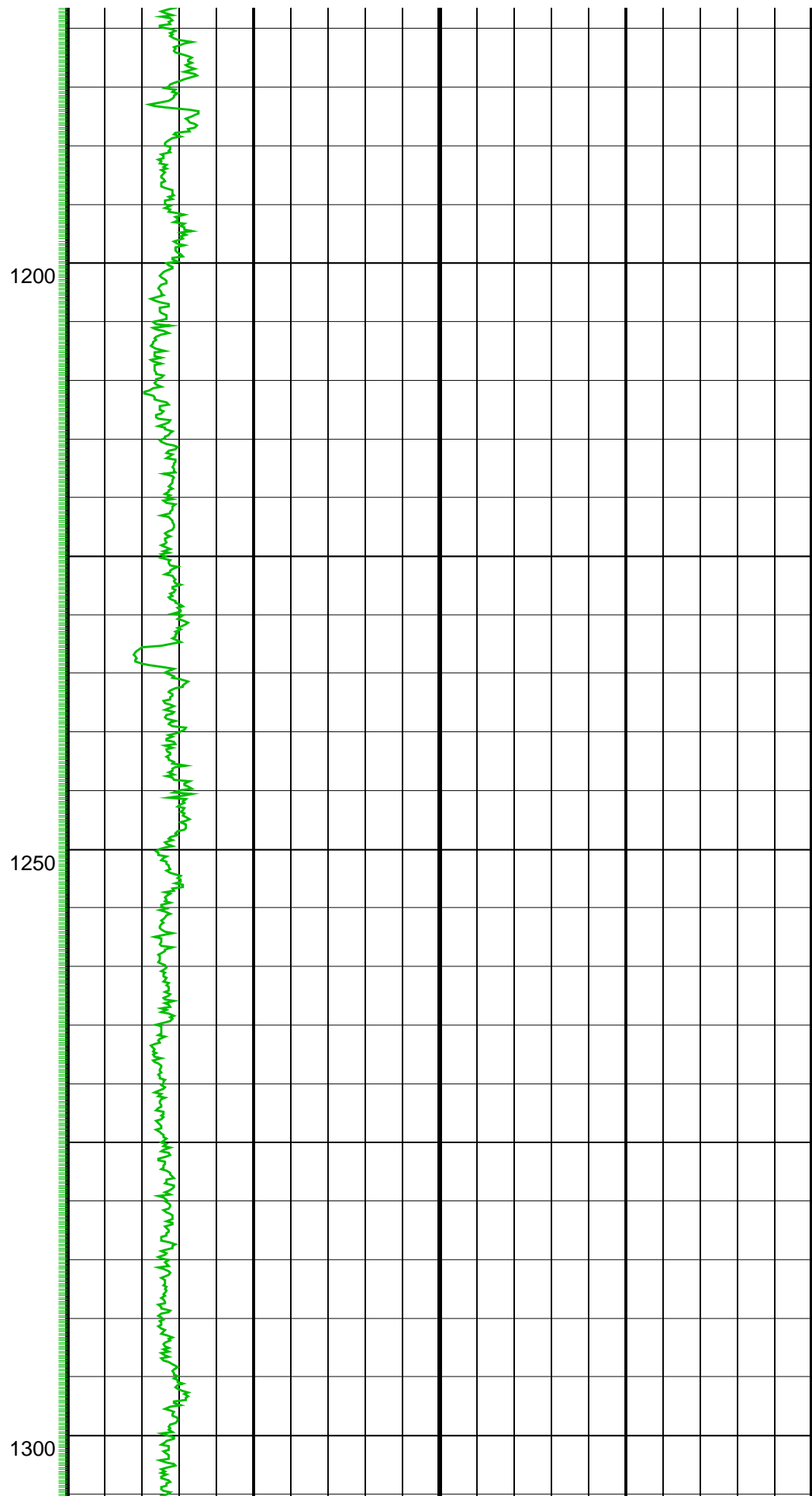
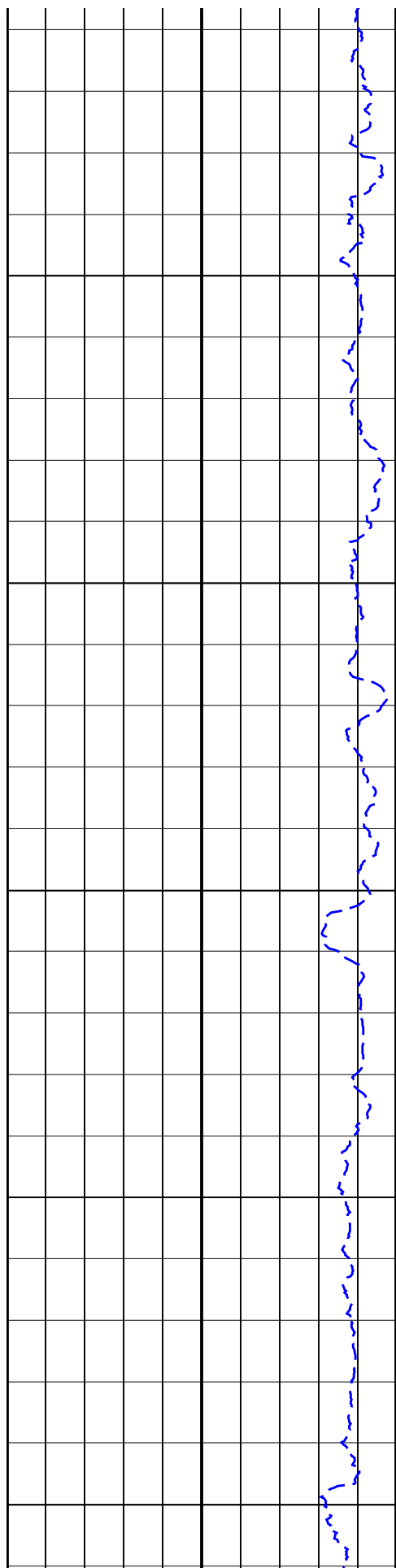


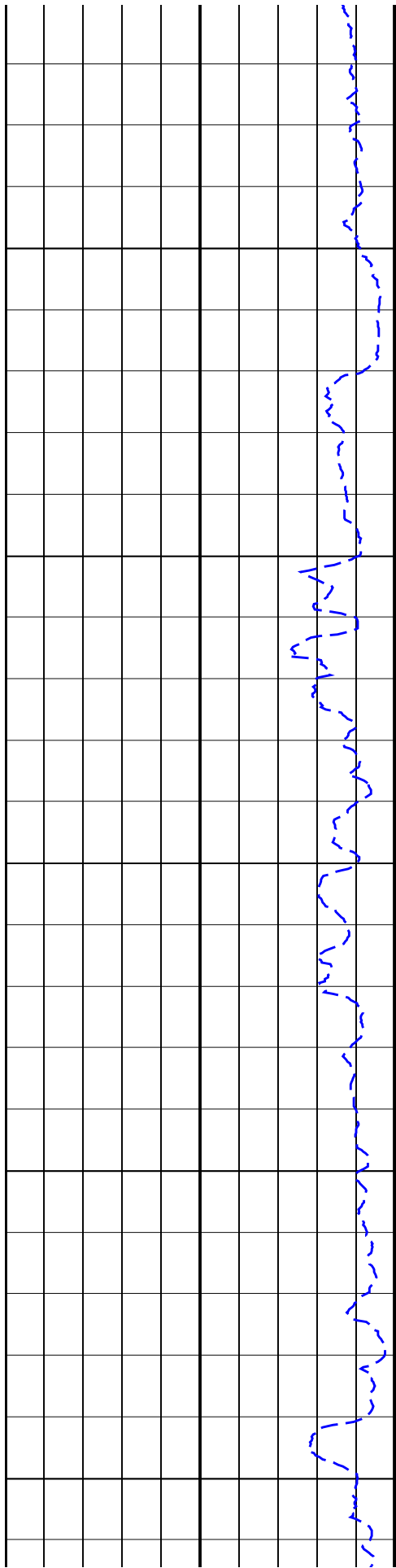
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1100

1150

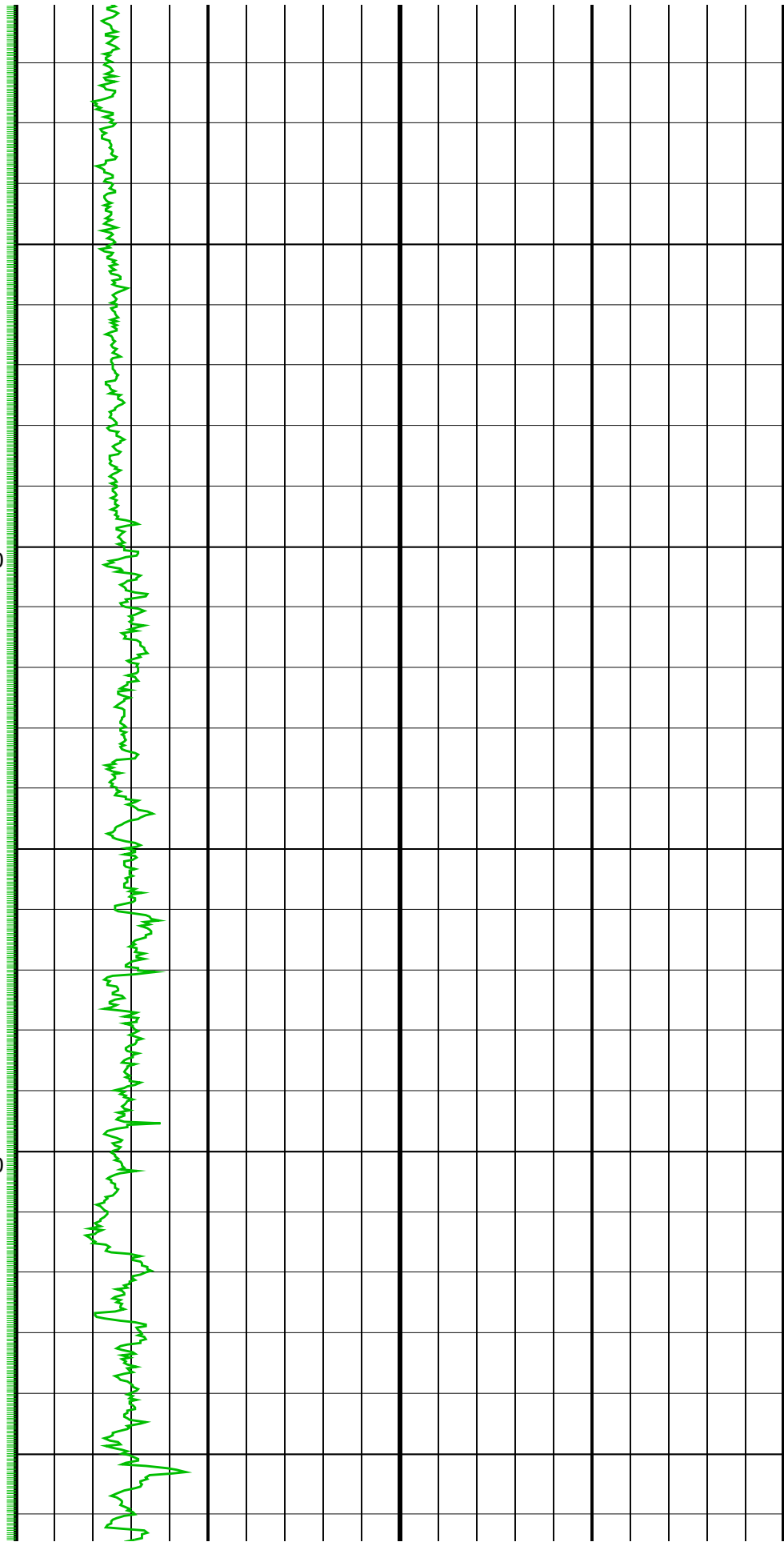


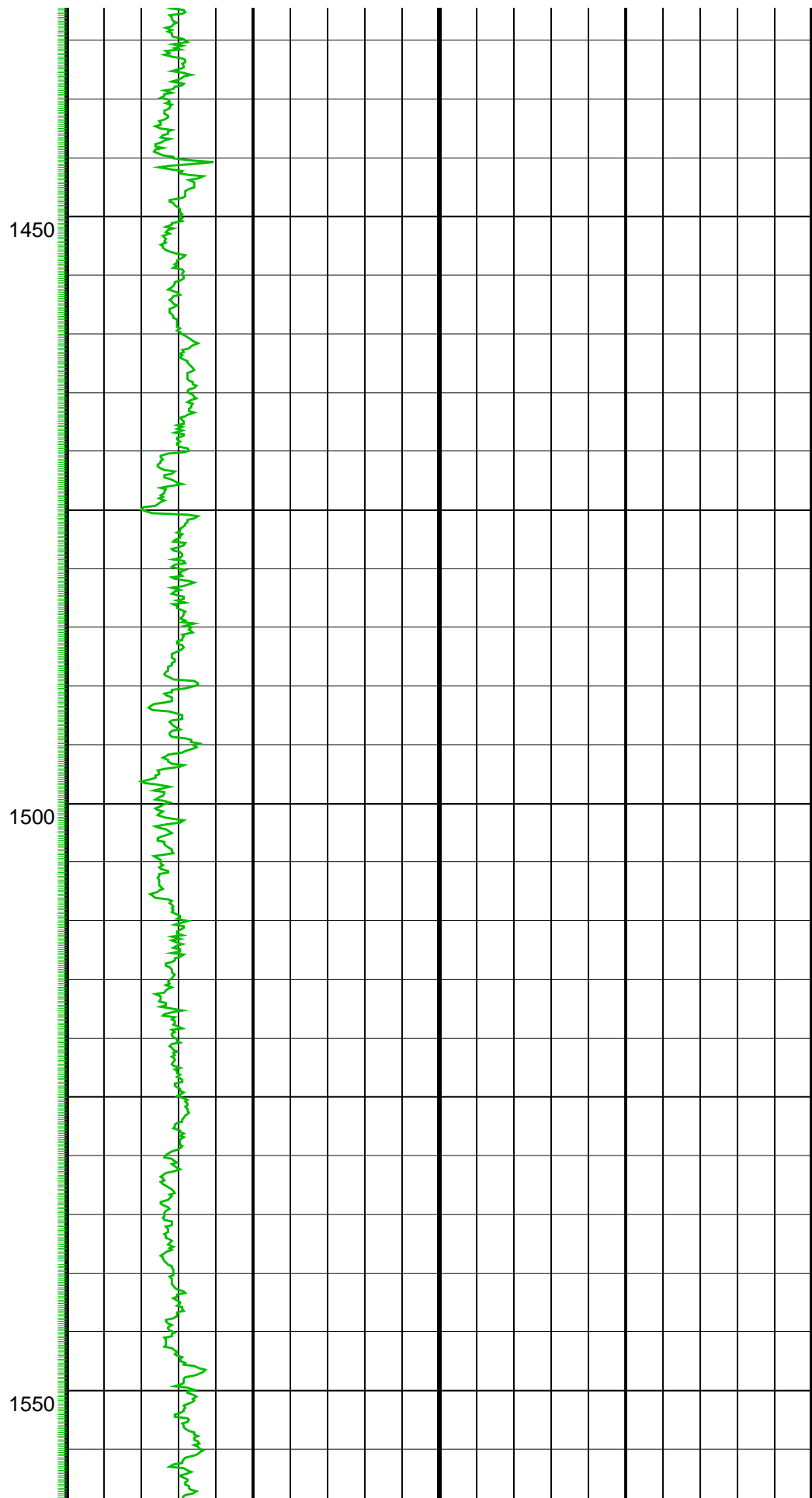
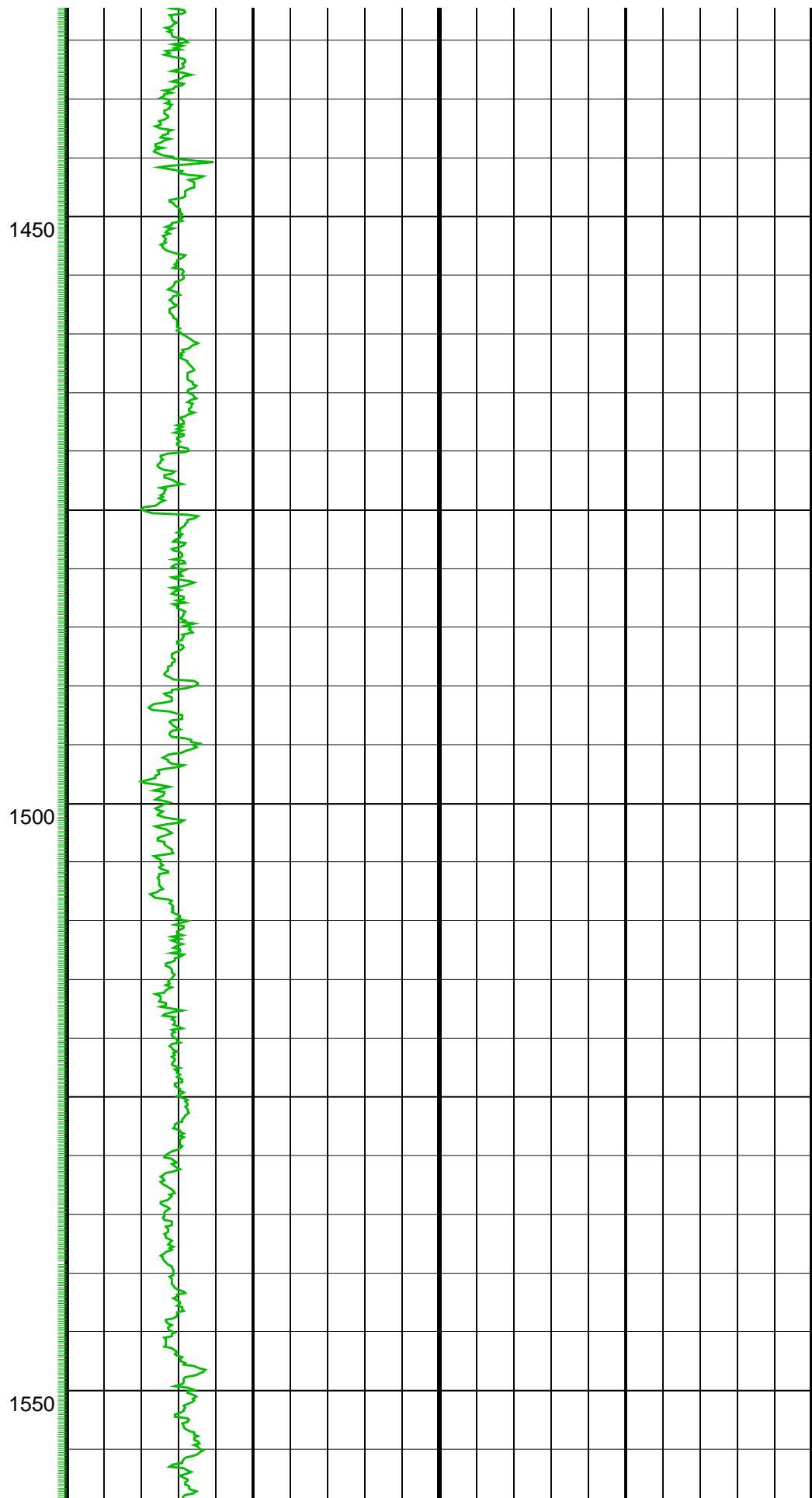
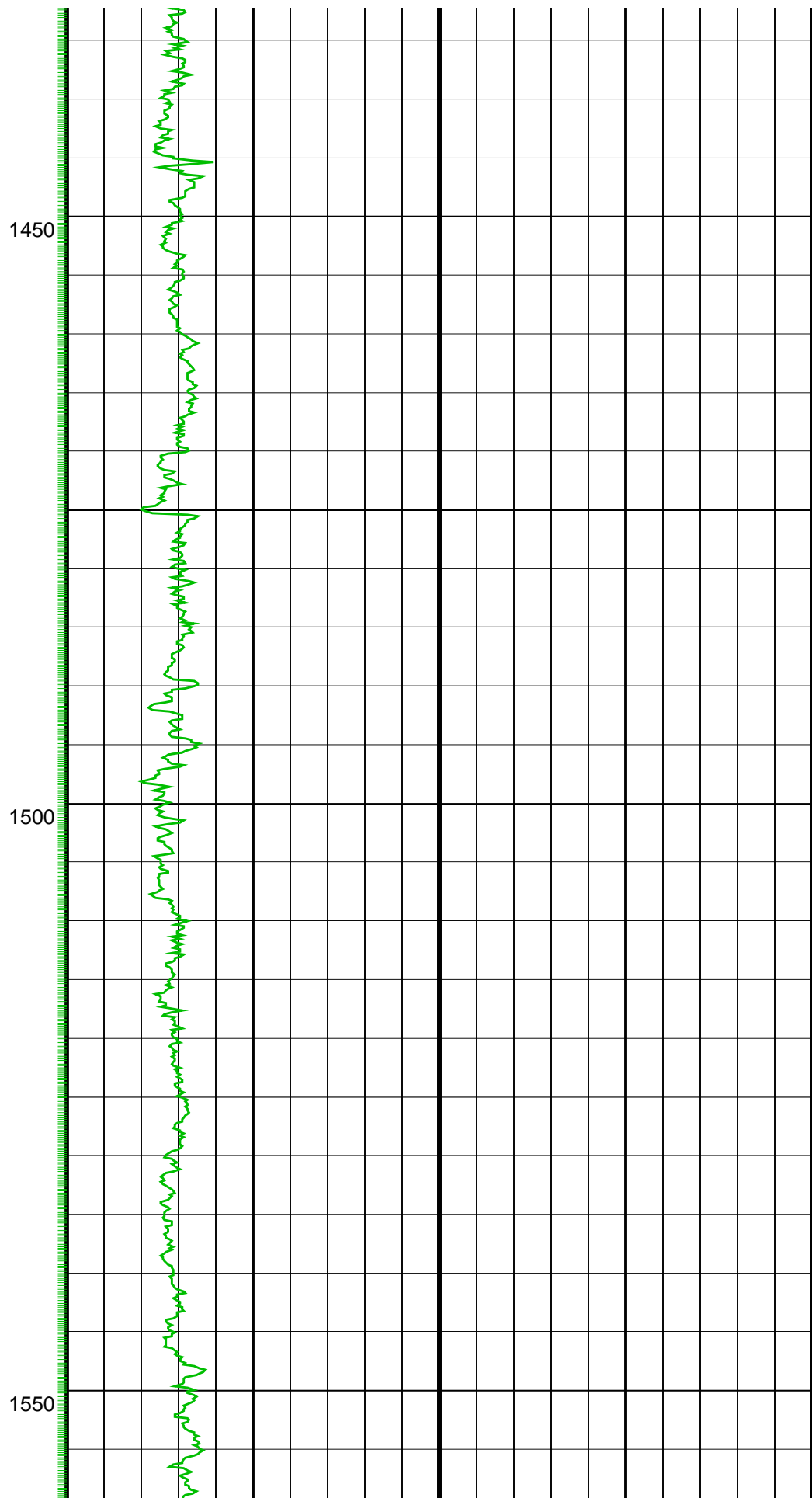
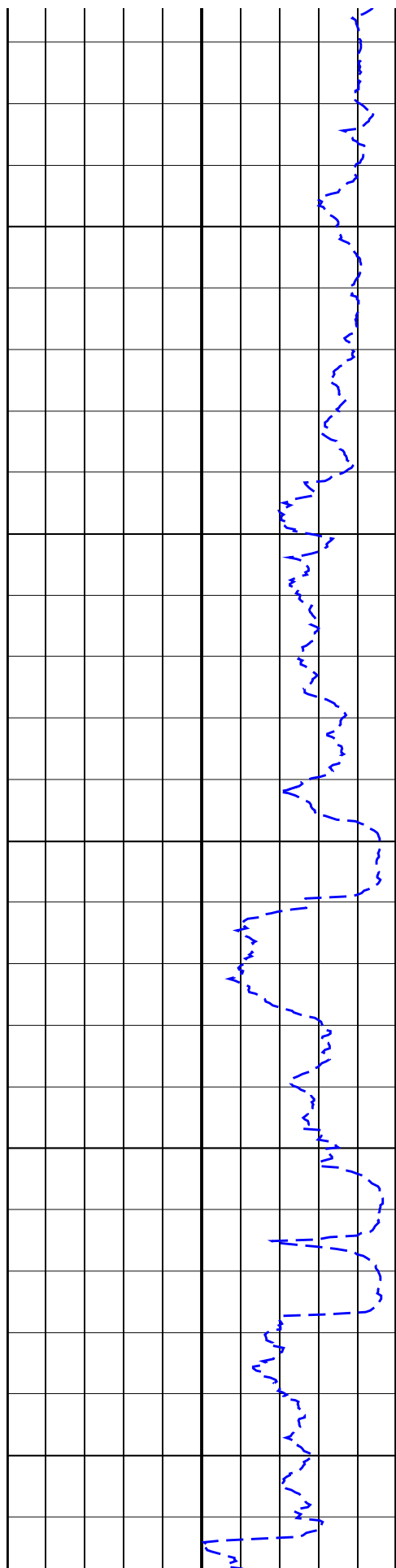


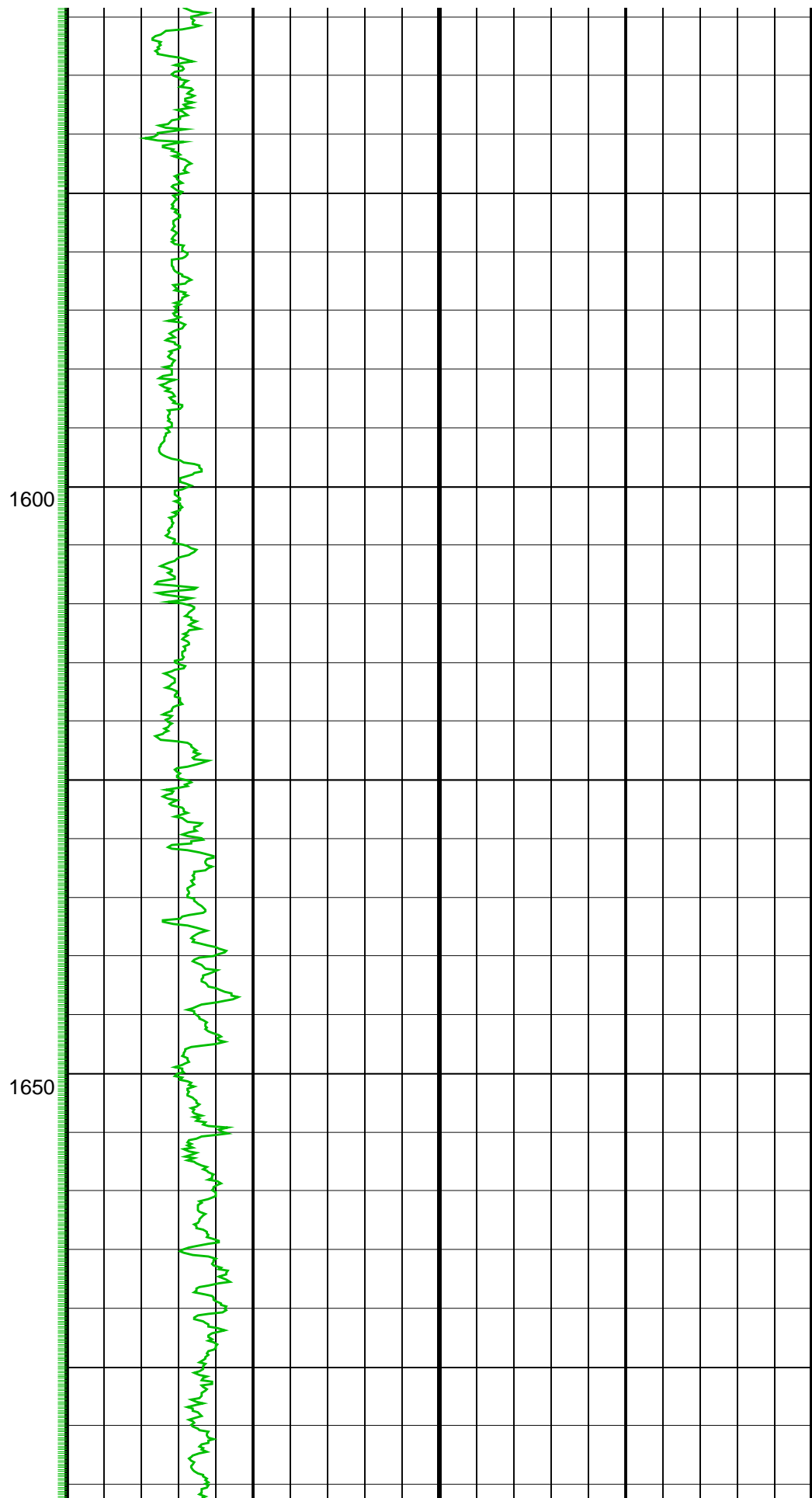
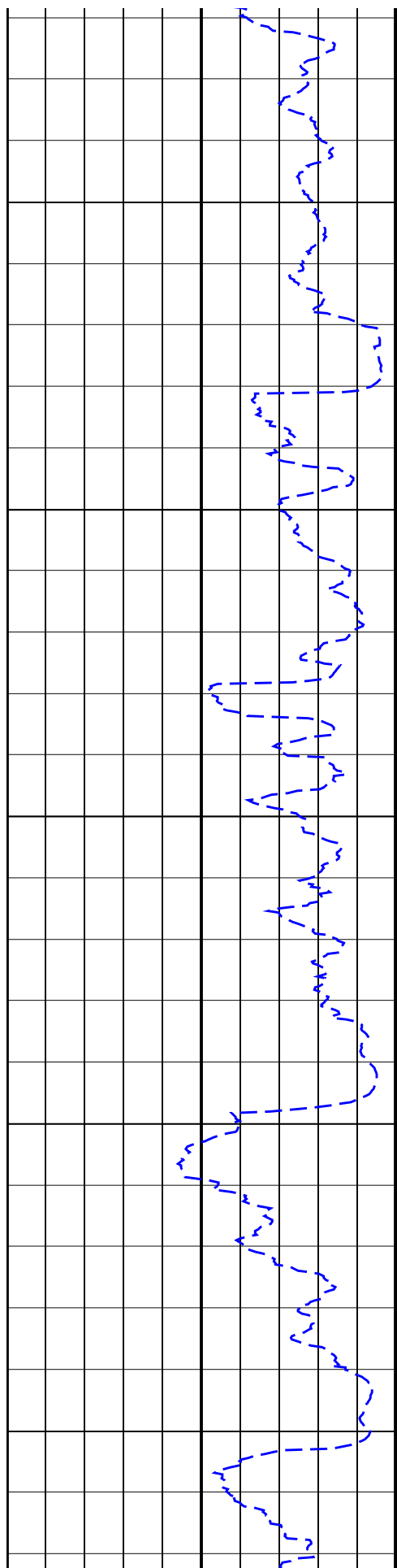


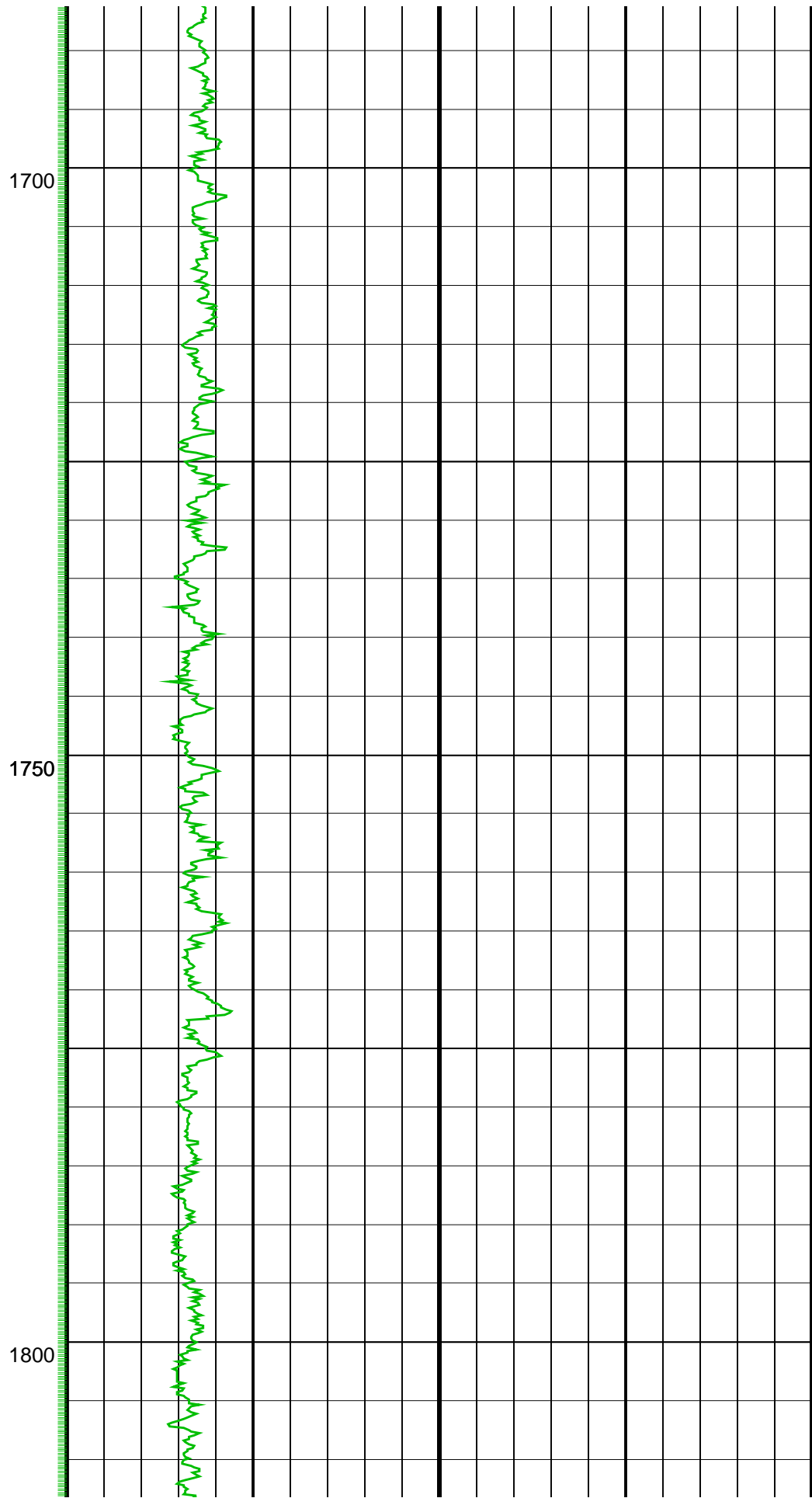
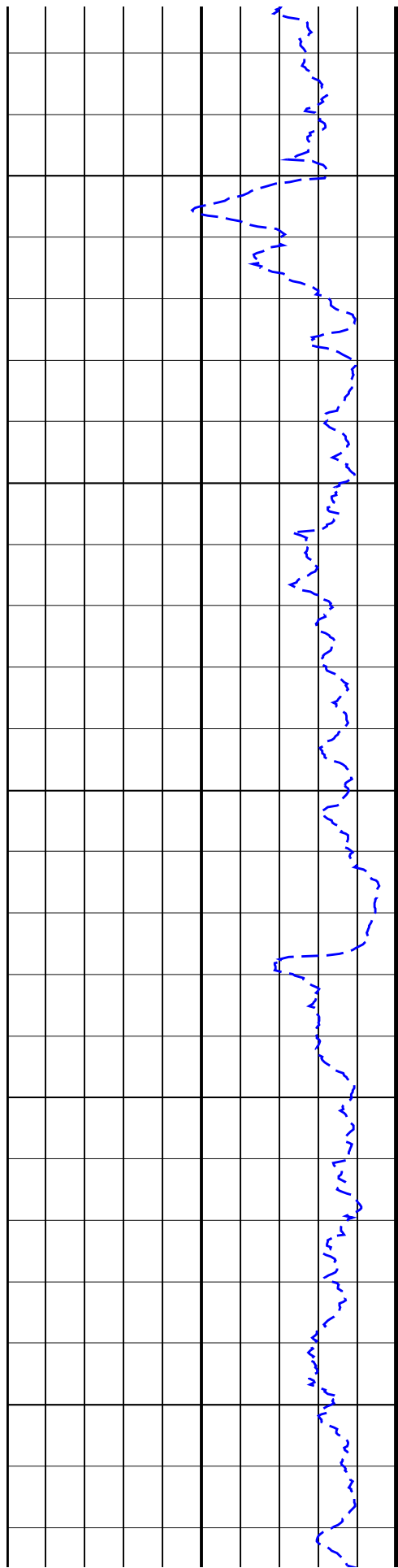
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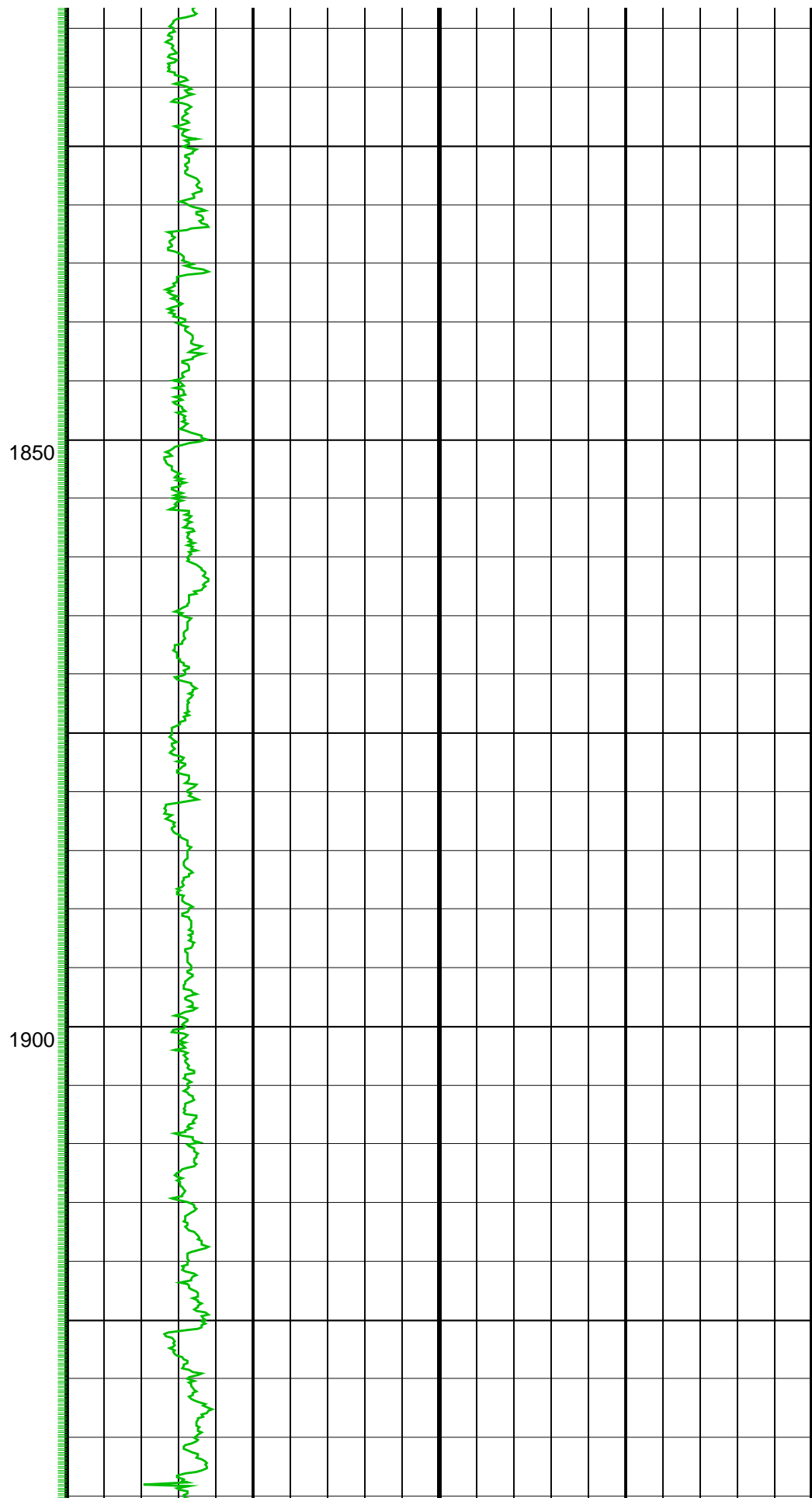
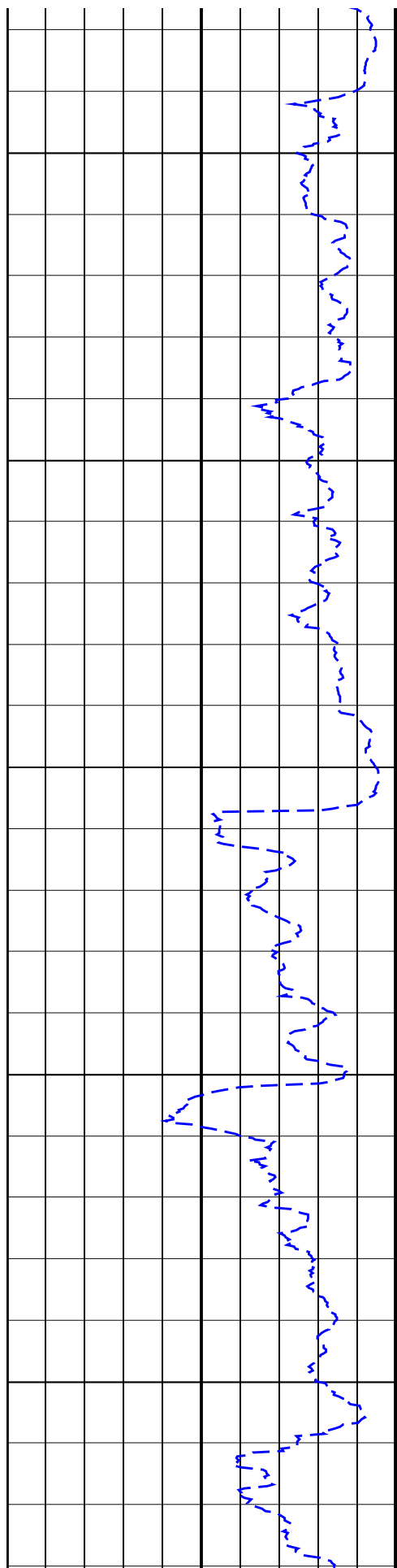
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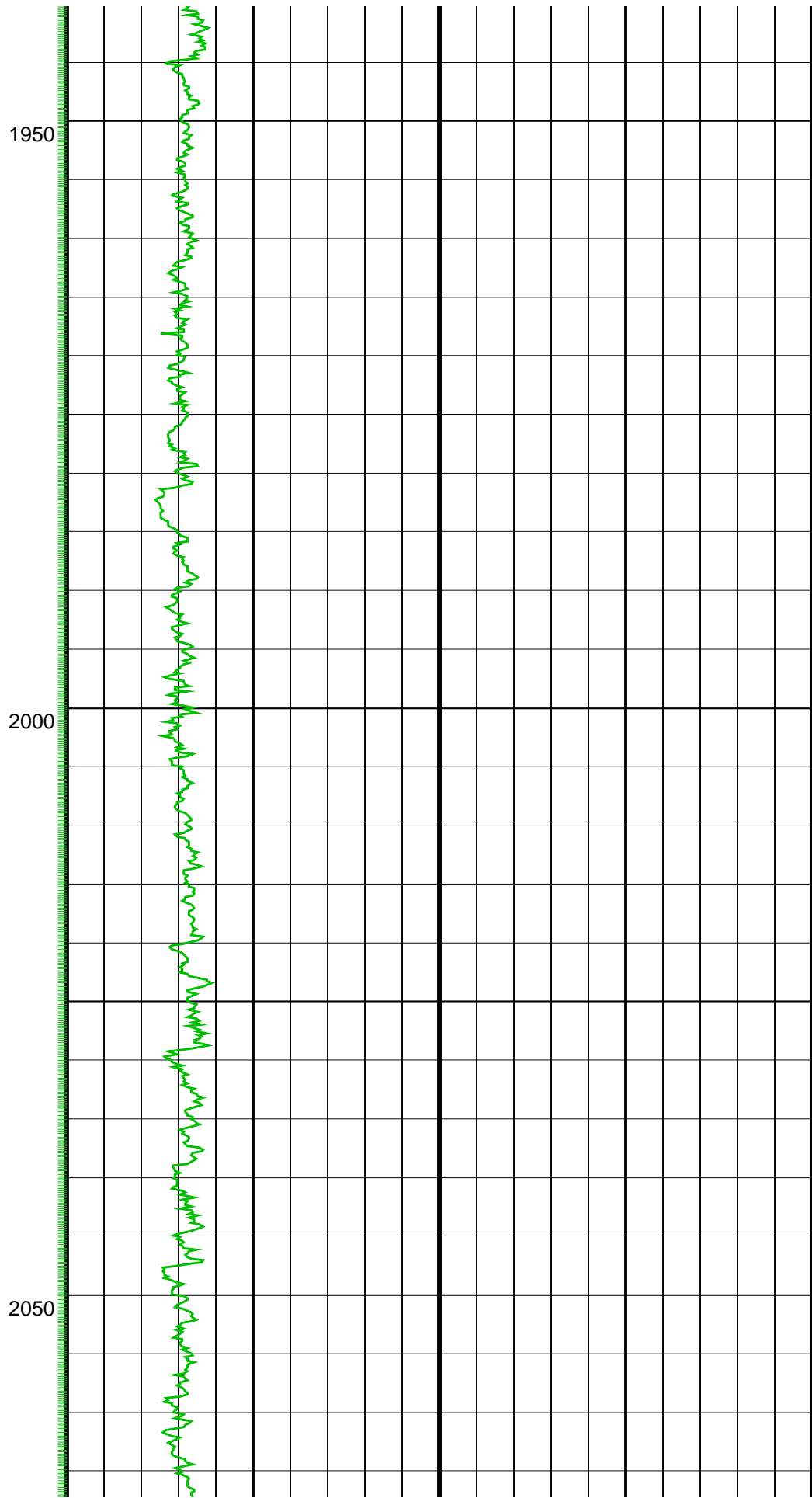
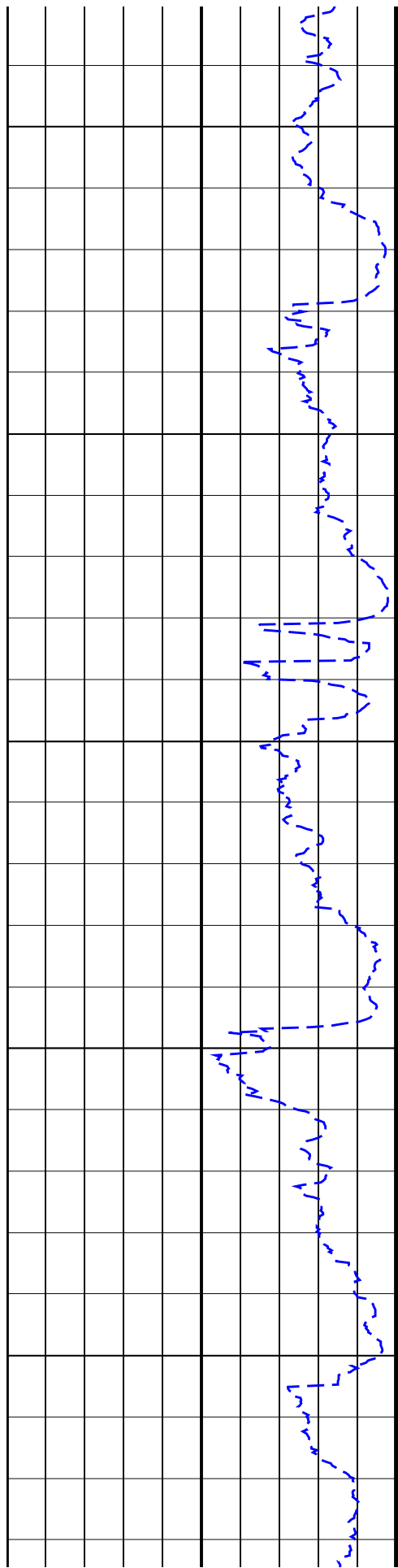


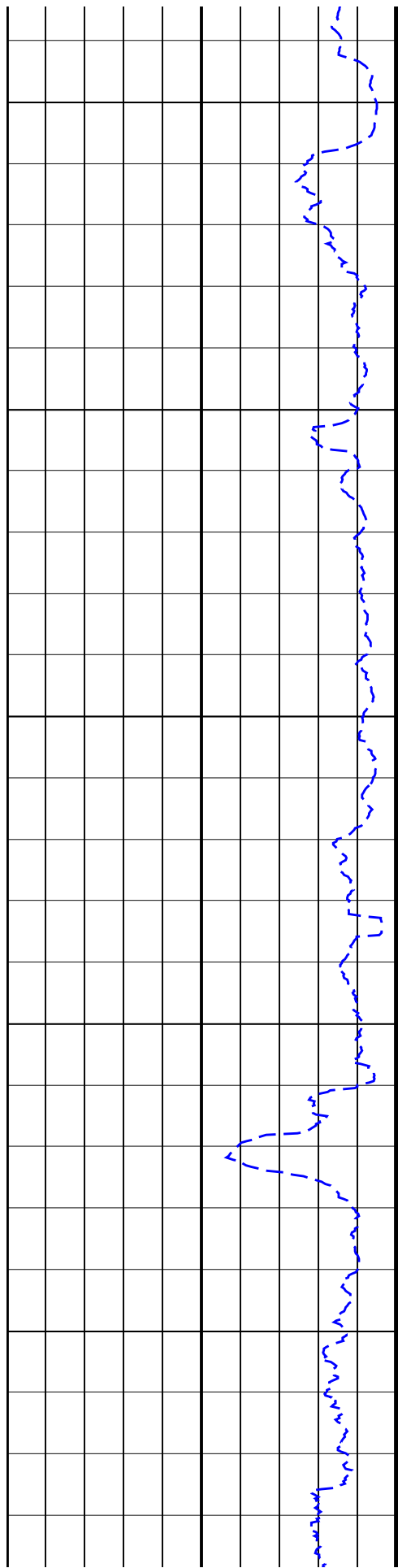






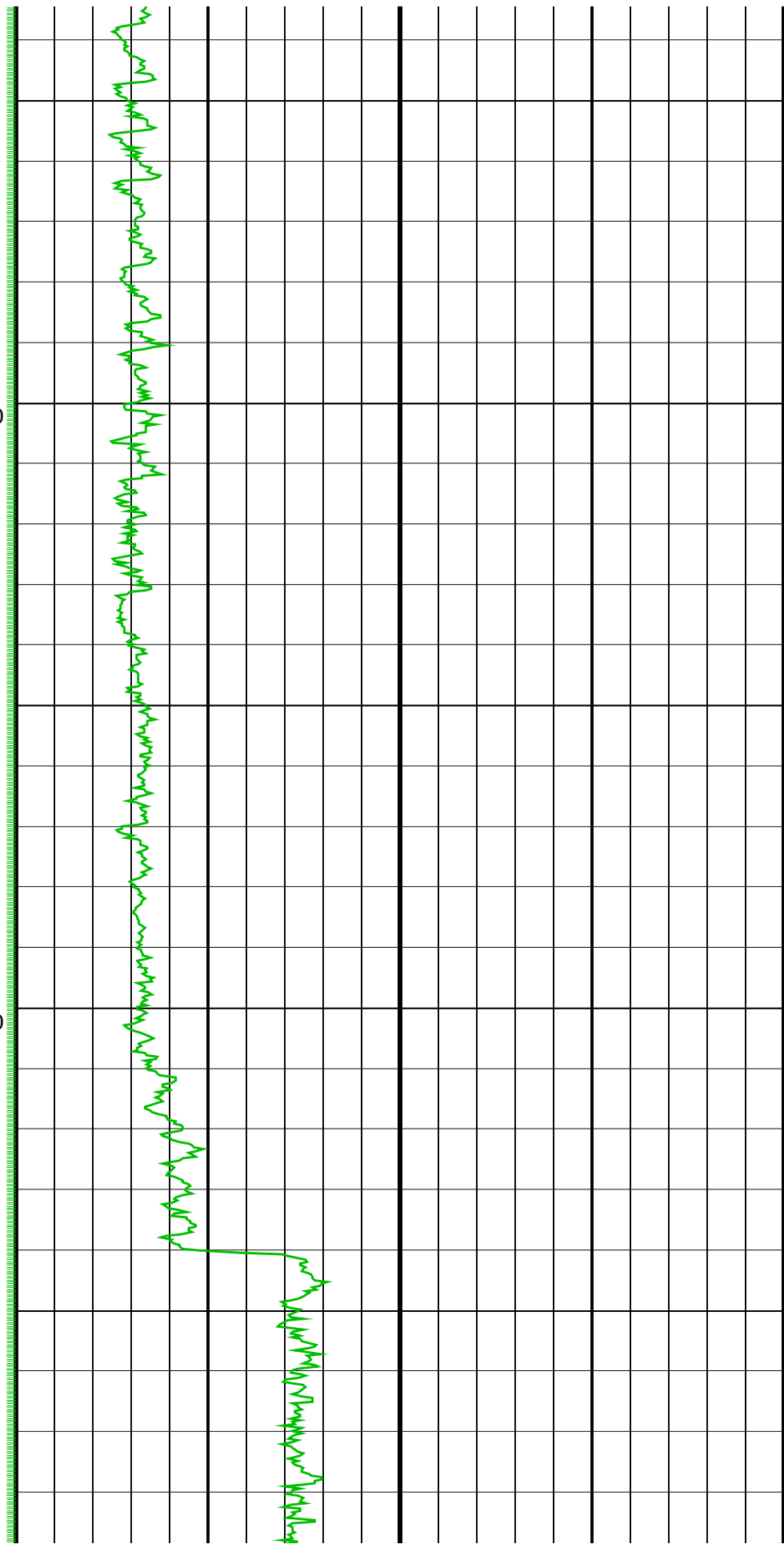


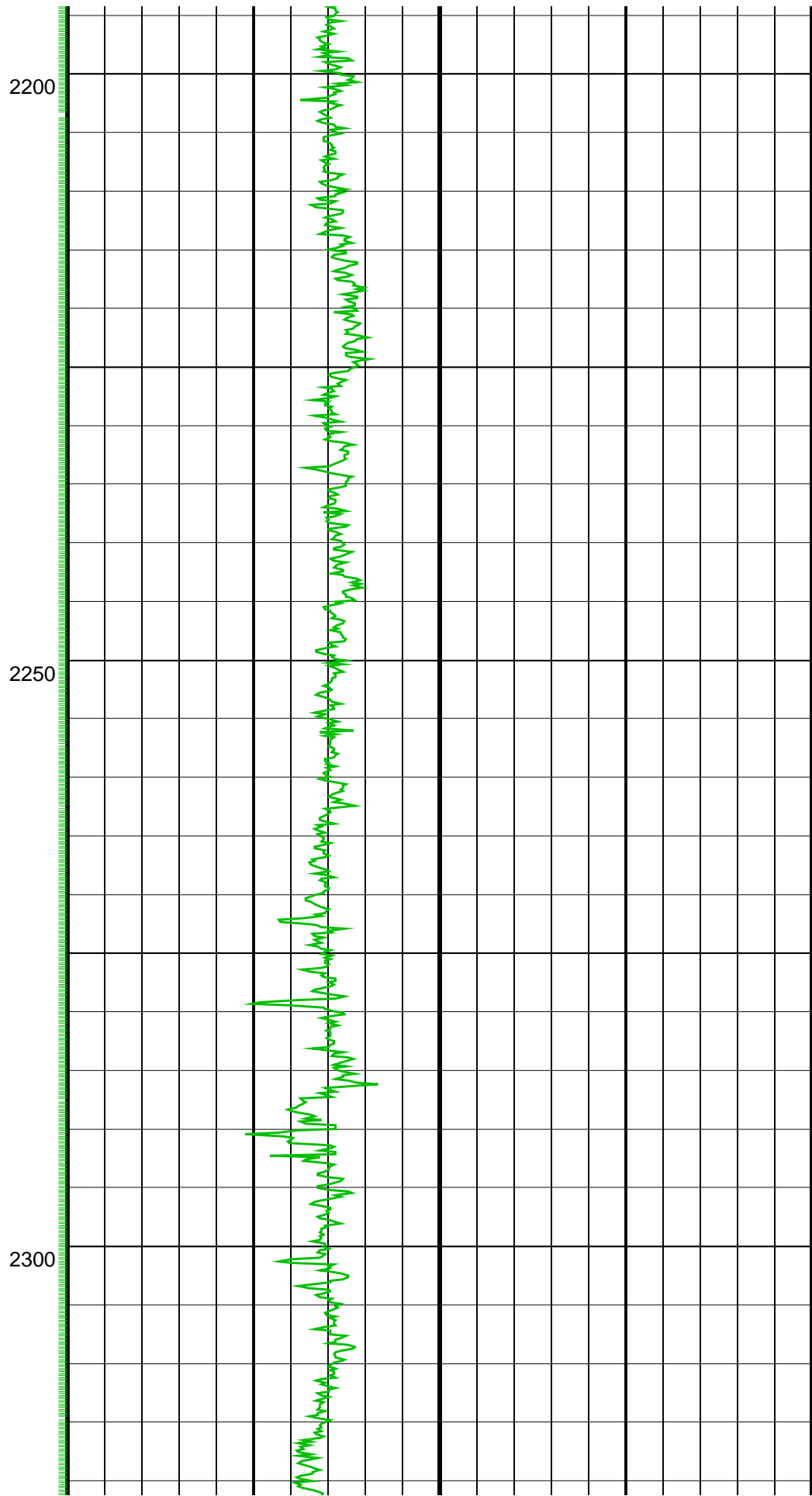
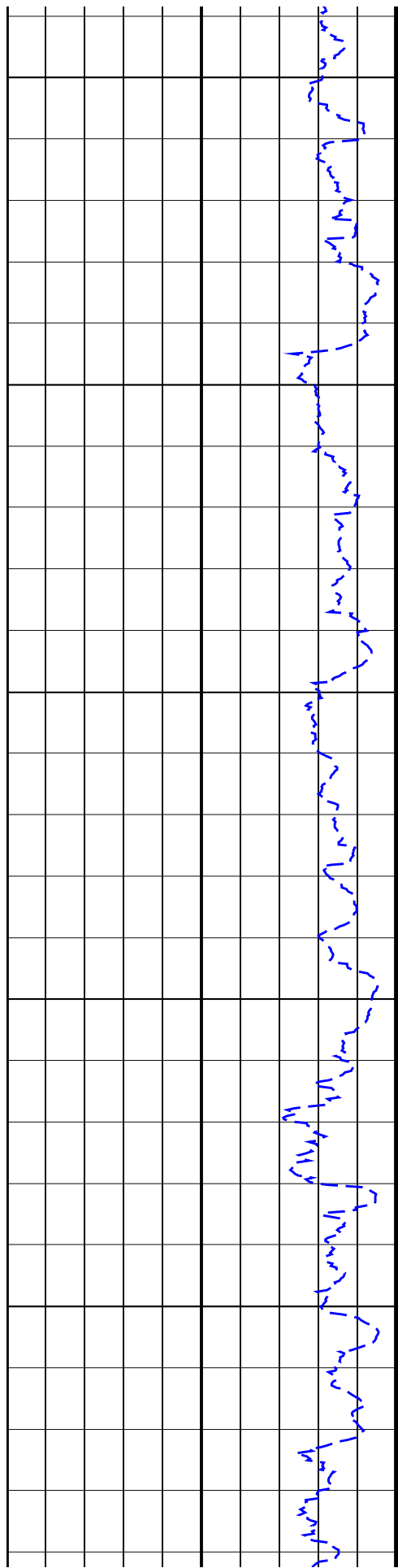


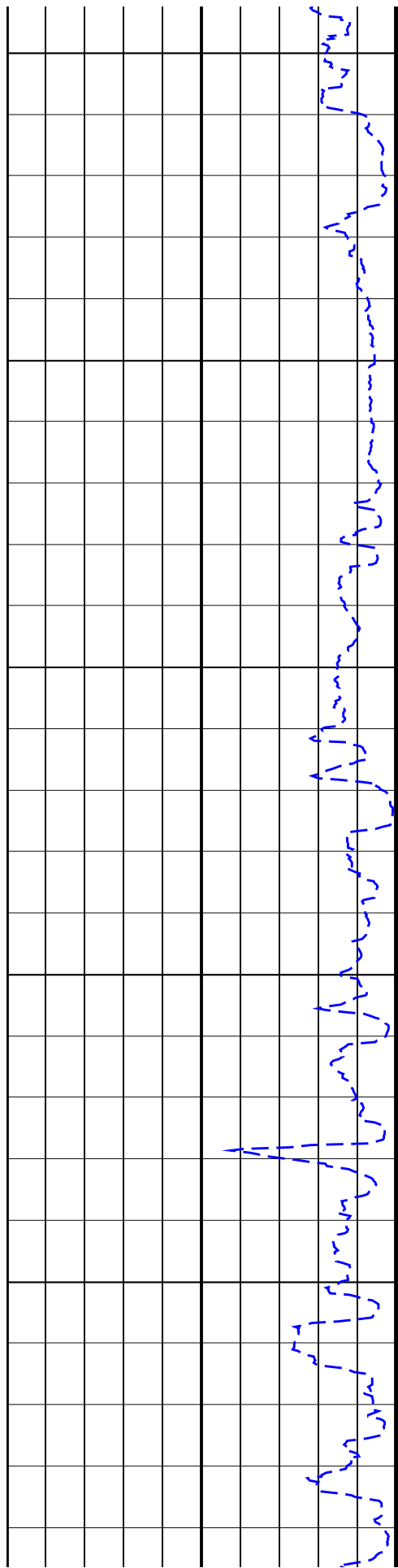


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2150

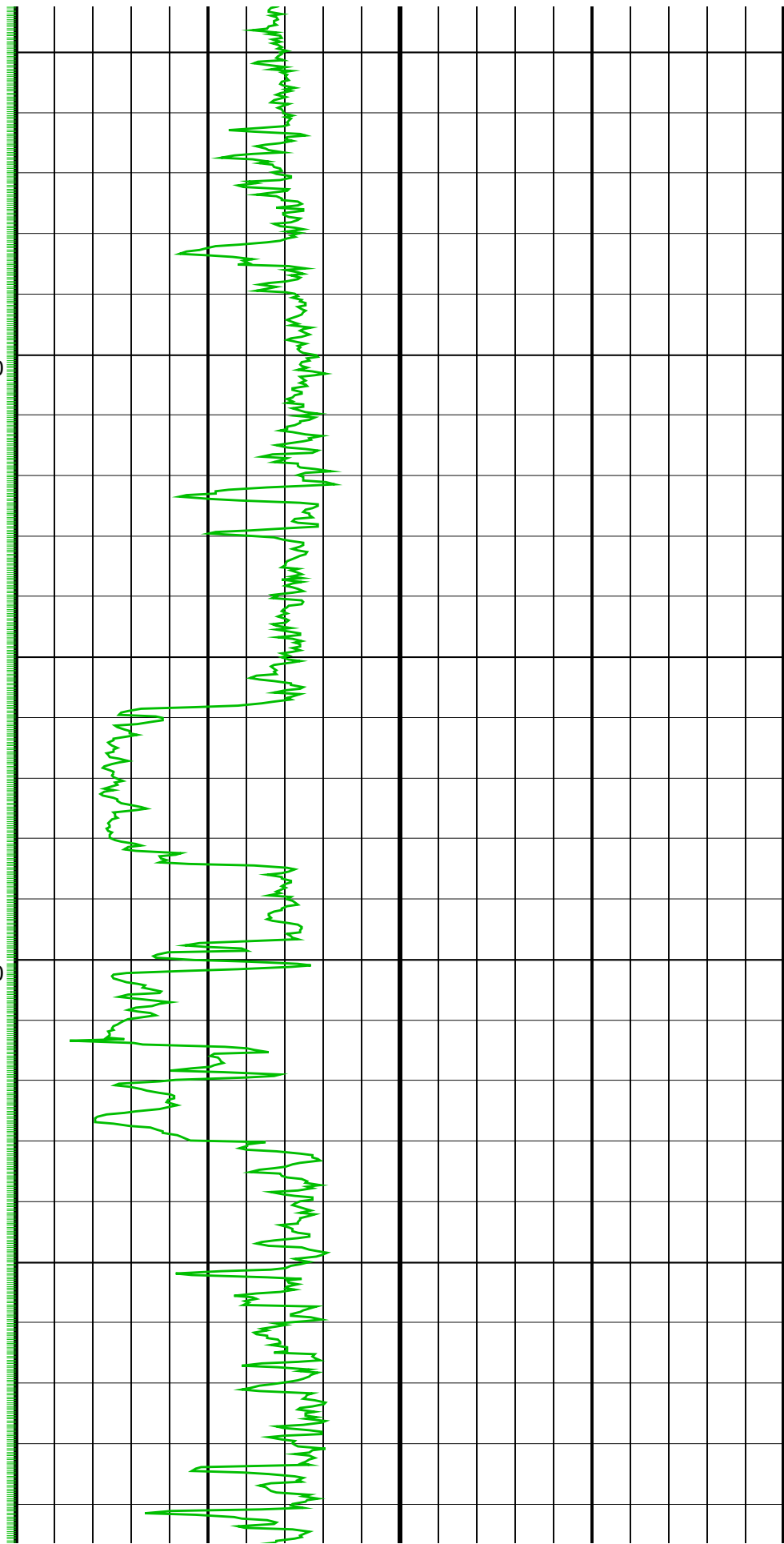


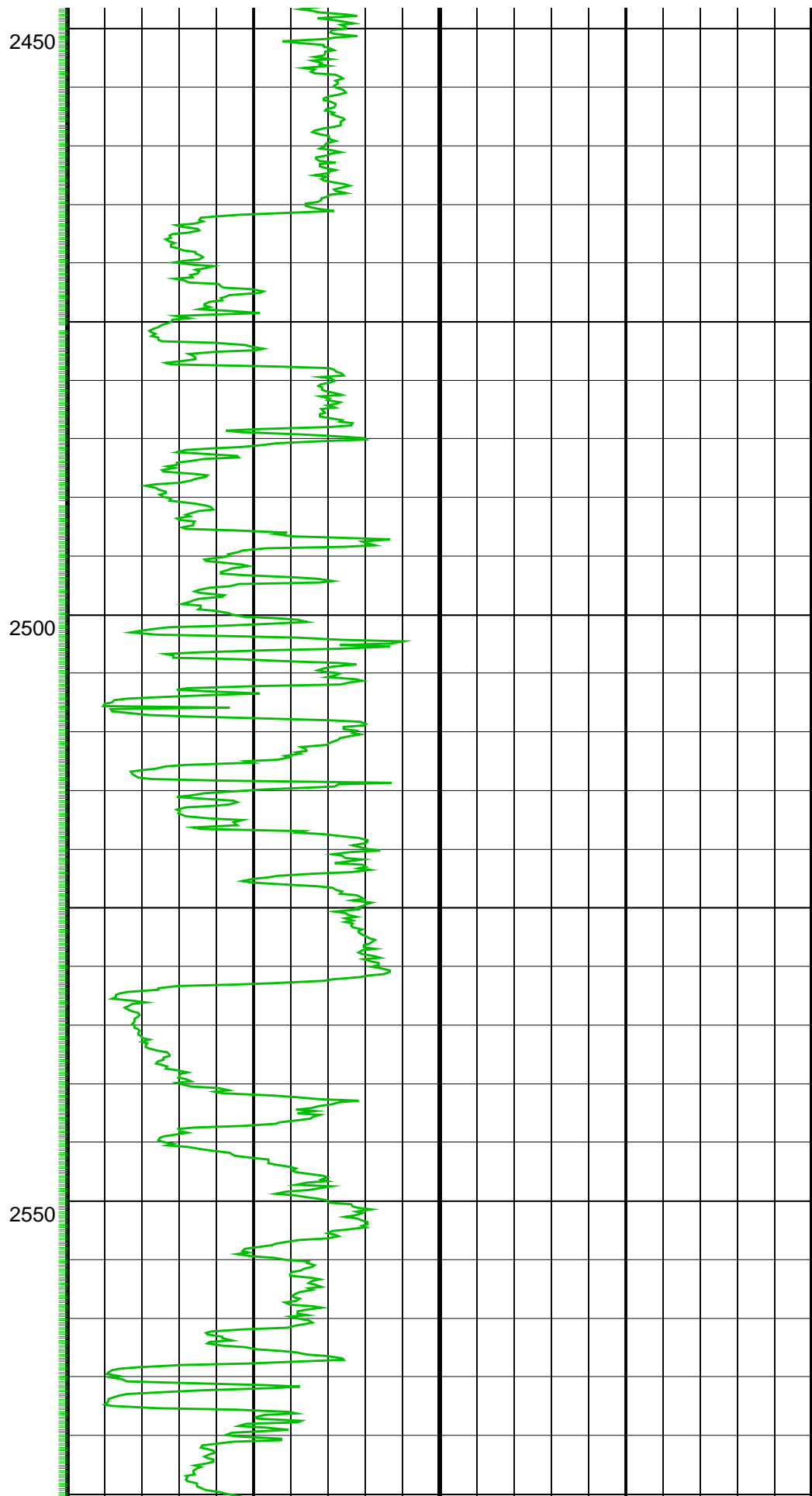
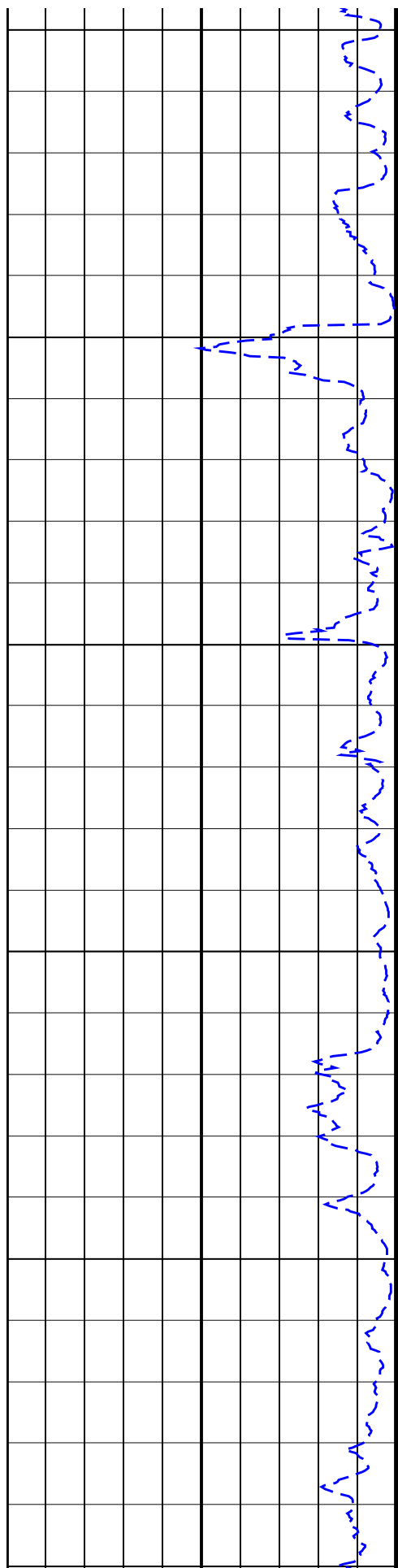


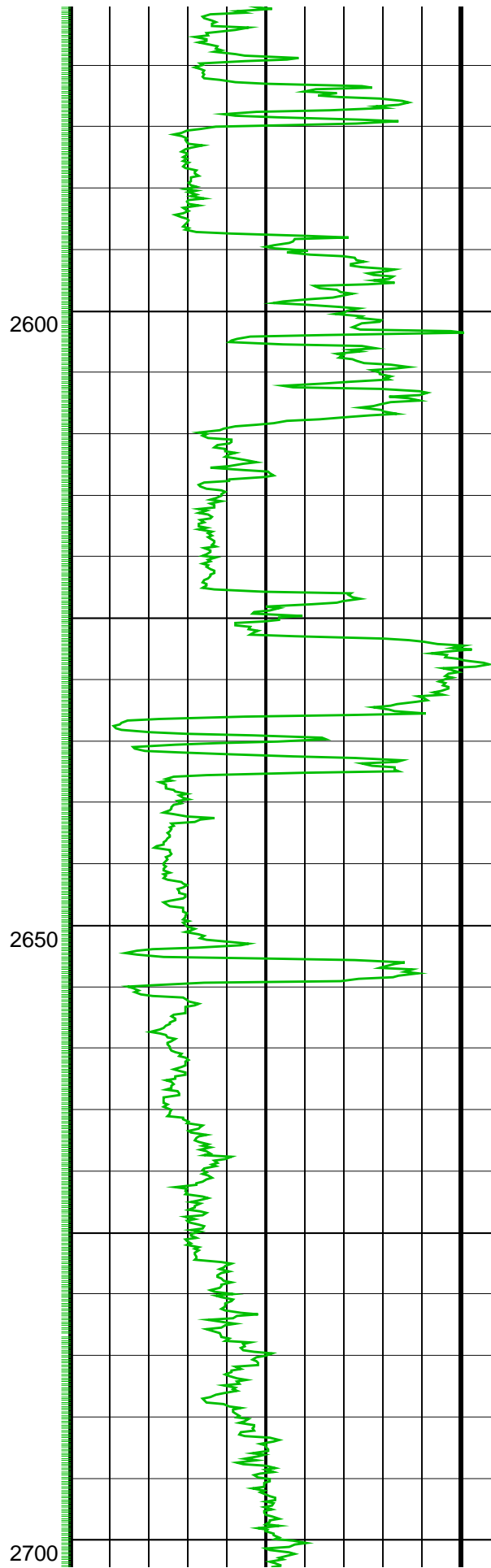
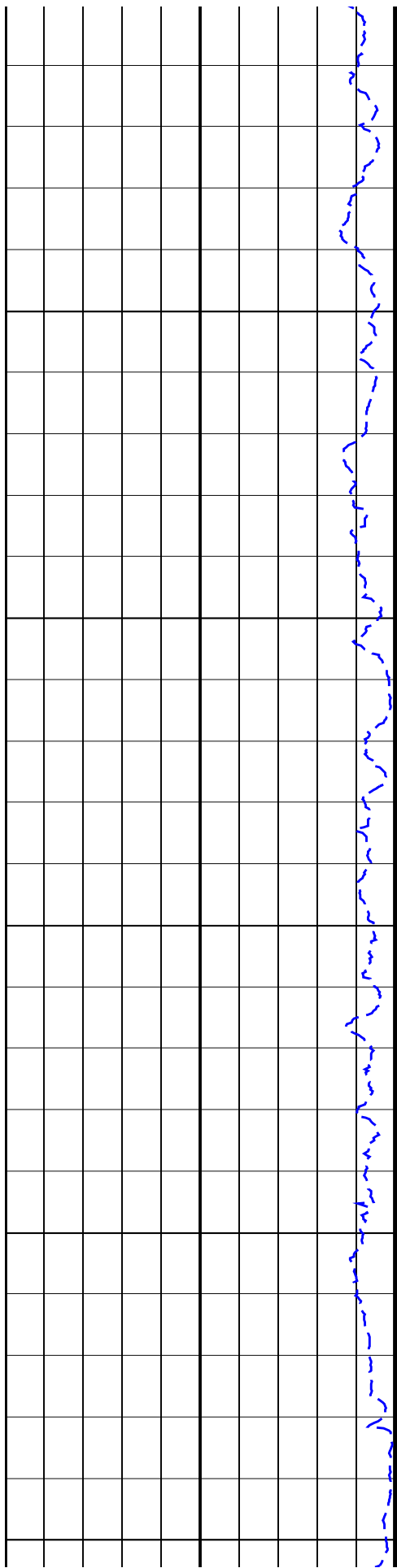


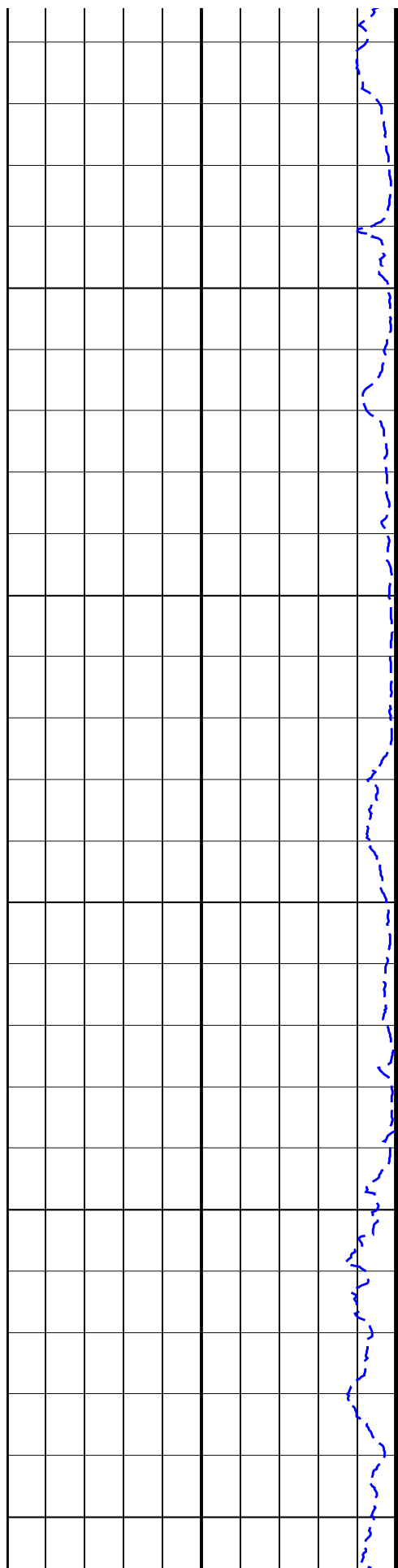
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2400



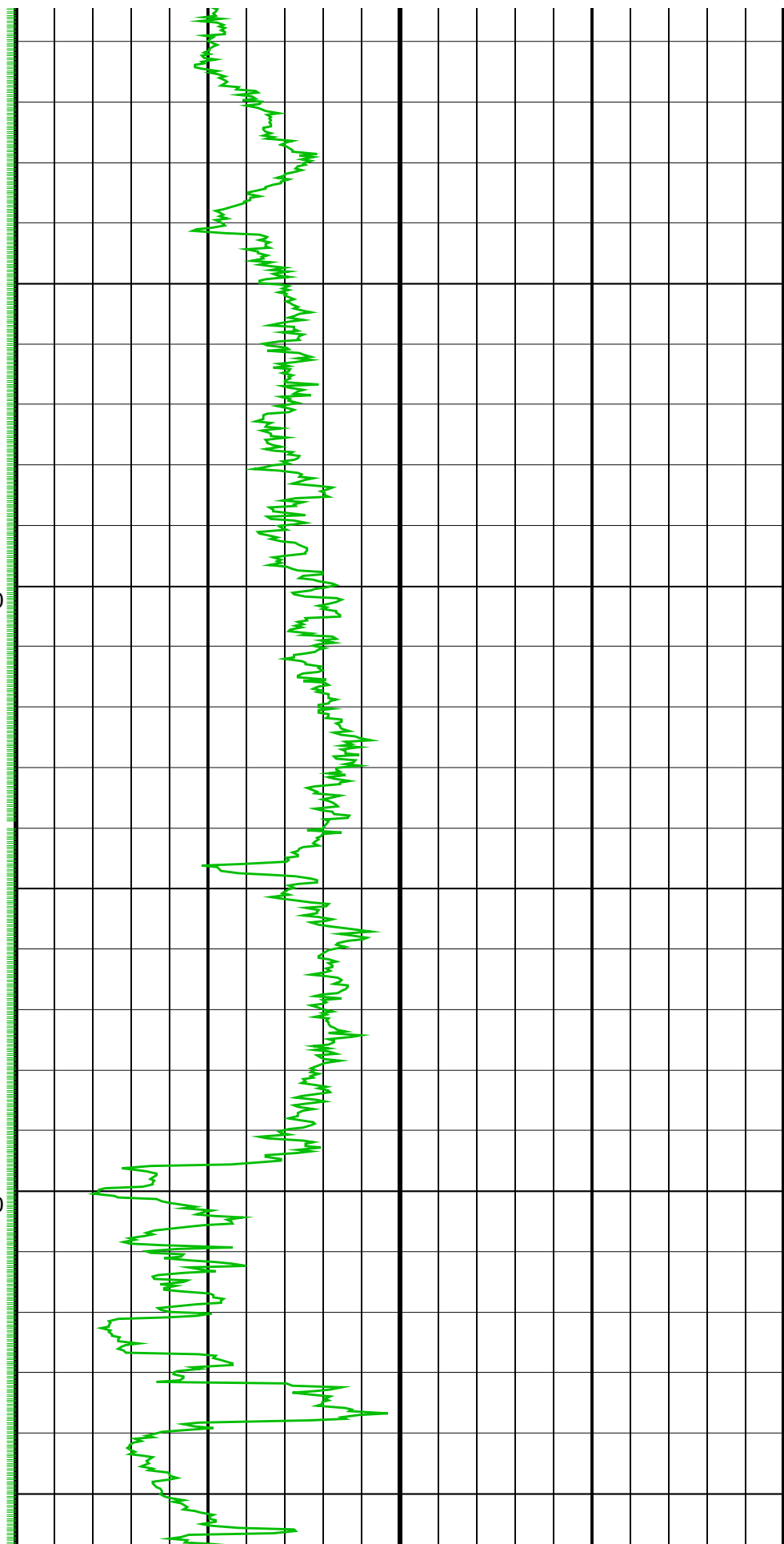


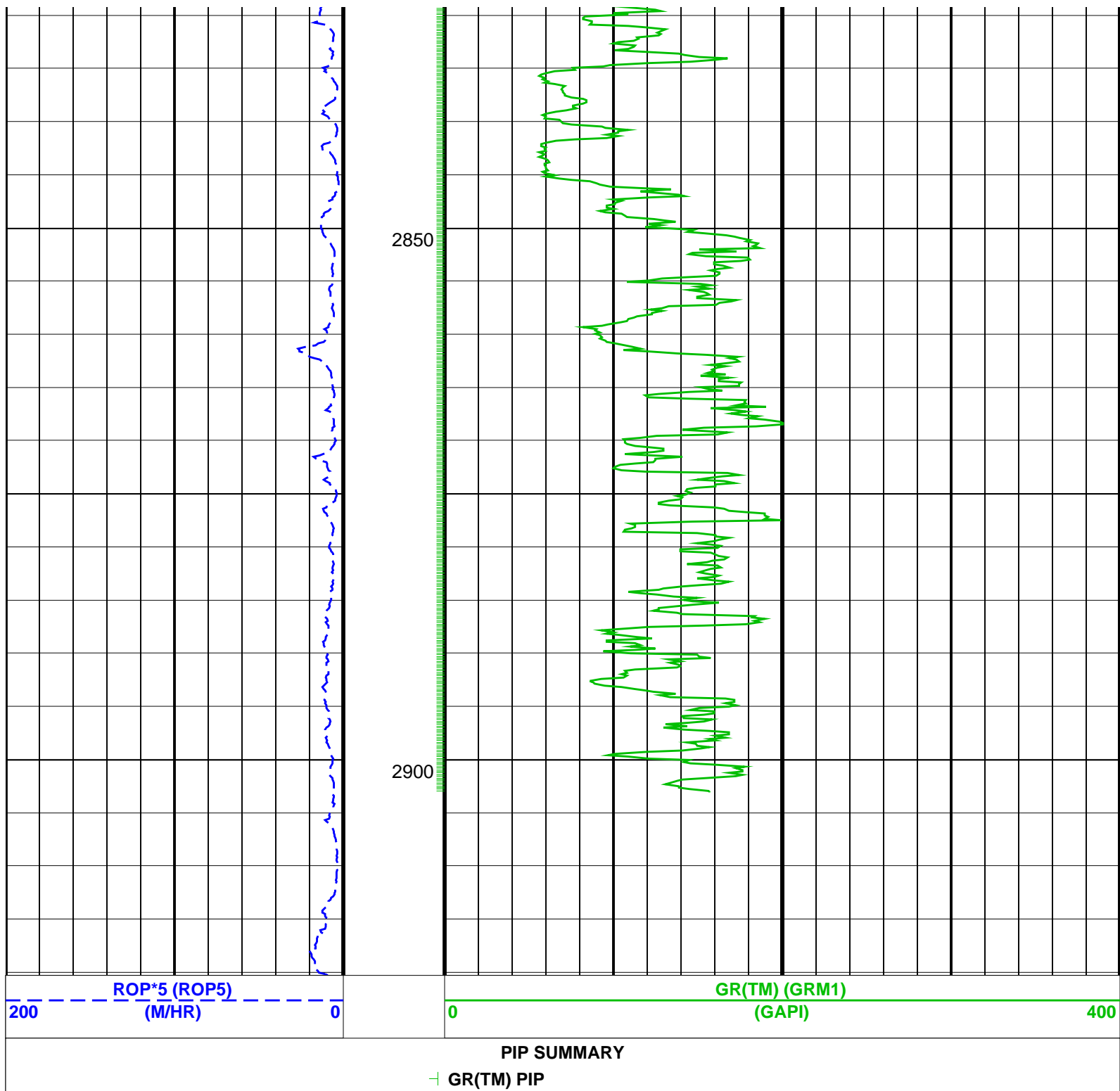




2750

2800





SCHLUMBERGER

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Client.....: ESSO Australia Pty. Ltd.
Field.....: Flounder GDA 94

Well.....: FLA-A12a Spud date.....: 27-Mar-03
API number.....: Last survey date.....: 10-Apr-03
Engineer.....: K.Handley / J.Dolan Total accepted surveys...: 82
MD of first survey.....: 838.00 m
COUNTY.....: ISDL 453 MD of last surv...: 2920.00 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 Tally
GL above permanent.....: -93.00 m
KB above permanent.....: 33.85 m
DF above permanent.....: 33.85 m
----- Vertical section origin-----
Latitude (+N/S-).....: 0.00 m
Departure (+E/W-).....: 0.00 m
----- Platform reference point-----
Latitude (+N/S-).....: -304.57 m
Departure (+E/W-).....: -304.57 m
----- Geomagnetic data -----
Magnetic model.....: BGGM version 2002
Magnetic date.....: 28-Mar-2003
Magnetic field strength...: 1201.06 HCNT
Magnetic dec (+E/W-).....: 13.22 degrees
Magnetic dip.....: -68.77 degrees
----- MWD survey Reference Criteria -----
Reference G.....: 1000.03 mGal
Reference H.....: 1201.06 HCNT
Reference Dip.....: -68.77 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees
----- Corrections -----
Magnetic dec (+E/W-).....: 13.22 degrees
Grid convergence (+E/W-).....: -0.89 degrees
Total az corr (+E/W-).....: 14.11 degrees
Azimuth from rotary table to target: 280.33 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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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)	Displ Total (deg)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool Corr
1	838.00	53.01	218.47	0.00	743.60	208.75	-216.55	-159.83	269.15	216.43	0.00	TIP	None
2	840.00	52.96	218.20	2.00	744.80	210.00	-217.80	-160.82	270.74	216.44	1.11	GYR	None
3	845.00	52.92	217.83	5.00	747.82	213.11	-220.94	-163.28	274.73	216.46	0.60	GYR	None
4	850.00	52.76	218.17	5.00	750.84	216.22	-224.08	-165.73	278.71	216.49	0.63	GYR	None
5	855.00	52.82	219.08	5.00	753.86	219.35	-227.19	-168.22	282.69	216.52	1.45	GYR	None
6	860.00	52.59	219.98	5.00	756.89	222.51	-230.26	-170.75	286.67	216.56	1.50	GYR	None
7	865.00	52.34	220.66	5.00	759.94	225.70	-233.29	-173.32	290.62	216.61	1.19	GYR	None
8	867.70	52.55	220.81	2.70	761.58	227.43	-234.91	-174.71	292.76	216.64	0.89	GYR	None
9	892.93	48.16	224.54	25.23	777.68	243.49	-249.20	-187.86	312.07	217.01	2.08	GYR	None
10	922.36	43.35	228.56	29.43	798.21	261.67	-263.71	-203.13	332.87	217.61	1.90	GYR	None
11	962.05	38.20	230.91	39.69	828.26	284.72	-280.47	-222.88	358.25	218.47	1.35	MWD	None
12	991.22	34.82	232.67	29.17	851.70	300.44	-291.21	-236.51	375.16	219.08	1.21	MWD	None
13	1019.82	31.90	237.07	28.60	875.59	315.01	-300.28	-249.35	390.31	219.71	1.33	MWD	None
14	1048.85	29.75	241.48	29.03	900.52	329.17	-307.89	-262.12	404.35	220.41	1.07	MWD	None
15	1078.09	27.78	247.56	29.24	926.16	342.90	-313.95	-274.80	417.23	221.19	1.21	MWD	None
16	1106.68	25.96	250.67	28.59	951.66	355.70	-318.57	-286.86	428.69	222.00	0.80	MWD	None
17	1135.28	24.97	254.47	28.60	977.48	367.96	-322.26	-298.59	439.32	222.82	0.67	MWD	None
18	1163.82	23.01	257.90	28.54	1003.56	379.55	-325.04	-309.84	449.06	223.63	0.84	MWD	None
19	1192.34	22.28	261.90	28.52	1029.88	390.51	-326.97	-320.65	457.96	224.44	0.60	MWD	None
20	1221.06	21.46	265.94	28.72	1056.54	401.12	-328.11	-331.28	466.27	225.28	0.60	MWD	None
21	1249.22	22.07	271.76	28.16	1082.69	411.32	-328.31	-341.71	473.87	226.15	0.80	MWD	None
22	1278.19	21.99	272.75	28.97	1109.55	421.80	-327.88	-352.57	481.47	227.08	0.13	MWD	None
23	1306.57	21.30	272.68	28.38	1135.93	431.86	-327.39	-363.02	488.84	227.95	0.24	MWD	None
24	1335.11	22.11	275.97	28.54	1162.44	441.92	-326.59	-373.54	496.18	228.84	0.51	MWD	None
25	1363.89	21.83	276.16	28.78	1189.13	452.09	-325.45	-384.25	503.55	229.74	0.10	MWD	None
26	1392.84	21.39	275.71	28.95	1216.05	462.16	-324.35	-394.85	510.99	230.60	0.16	MWD	None
27	1421.81	22.30	278.91	28.97	1242.94	472.26	-322.97	-405.54	518.43	231.47	0.52	MWD	None
28	1450.52	21.94	278.91	28.71	1269.54	482.27	-321.30	-416.22	525.81	232.33	0.13	MWD	None
29	1479.35	21.35	278.90	28.83	1296.33	492.13	-319.65	-426.73	533.17	233.16	0.20	MWD	None
30	1507.78	21.74	279.75	28.43	1322.78	501.77	-317.96	-437.03	540.46	233.96	0.18	MWD	None

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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)	Displ Total (deg)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool Corr
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31	1536.87	22.42	280.05	29.09	1349.73	511.83	-316.08	-447.80	548.12	234.78	0.24	MWD	None
32	1565.51	21.92	279.88	28.64	1376.25	521.77	-314.21	-458.45	555.79	235.57	0.18	MWD	None
33	1594.16	22.23	279.05	28.65	1402.80	531.71	-312.44	-469.07	563.60	236.33	0.15	MWD	None
34	1622.19	21.18	278.66	28.03	1428.85	541.31	-310.84	-479.31	571.28	237.04	0.38	MWD	None
35	1651.14	21.95	277.16	28.95	1455.77	551.24	-309.38	-489.85	579.37	237.72	0.33	MWD	None
36	1679.62	22.81	277.20	28.48	1482.11	561.41	-308.02	-500.61	587.78	238.40	0.30	MWD	None
37	1708.36	22.11	277.43	28.74	1508.66	571.69	-306.63	-511.50	596.36	239.06	0.25	MWD	None
38	1737.10	21.65	278.00	28.74	1535.33	581.70	-305.19	-522.11	604.76	239.69	0.18	MWD	None
39	1765.50	22.46	276.86	28.40	1561.66	591.68	-303.81	-532.68	613.23	240.30	0.32	MWD	None
40	1794.17	21.78	276.75	28.67	1588.22	601.83	-302.55	-543.41	621.94	240.89	0.24	MWD	None
41	1822.78	22.63	276.94	28.61	1614.70	612.00	-301.28	-554.14	630.73	241.47	0.30	MWD	None
42	1852.13	22.09	276.64	29.35	1641.85	622.49	-299.96	-565.23	639.87	242.05	0.19	MWD	None
43	1880.84	23.22	278.11	28.71	1668.34	632.84	-298.53	-576.20	648.92	242.61	0.44	MWD	None
44	1909.38	22.43	278.70	28.54	1694.65	643.14	-296.92	-587.15	657.93	243.18	0.29	MWD	None
45	1937.97	21.85	278.86	28.59	1721.13	653.13	-295.27	-597.80	666.72	243.72	0.20	MWD	None
46	1966.18	21.94	279.11	28.21	1747.30	662.87	-293.63	-608.19	675.34	244.23	0.05	MWD	None
47	1995.09	21.28	280.71	28.91	1774.18	672.67	-291.80	-618.67	684.02	244.75	0.31	MWD	None
48	2023.86	21.45	279.93	28.77	1800.97	682.28	-289.92	-628.99	692.57	245.26	0.12	MWD	None
49	2052.17	22.06	279.49	28.31	1827.27	691.94	-288.15	-639.33	701.25	245.74	0.22	MWD	None
50	2080.83	23.15	280.25	28.66	1853.73	702.08	-286.26	-650.18	710.39	246.24	0.39	MWD	None
51	2109.60	22.91	280.16	28.77	1880.20	712.41	-284.27	-661.26	719.75	246.74	0.08	MWD	None
52	2138.49	22.90	282.00	28.89	1906.82	722.66	-282.11	-672.29	729.06	247.24	0.25	MWD	None
53	2167.55	22.52	281.67	29.06	1933.62	732.83	-279.81	-683.27	738.33	247.73	0.14	MWD	None
54	2196.07	22.04	281.77	28.52	1960.01	742.64	-277.61	-693.86	747.32	248.20	0.17	MWD	None
55	2224.83	22.32	282.10	28.76	1986.65	752.47	-275.36	-704.48	756.37	248.65	0.11	MWD	None
56	2253.39	21.84	280.78	28.56	2013.11	762.22	-273.23	-715.00	765.42	249.09	0.24	MWD	None
57	2282.14	21.68	281.09	28.75	2039.81	771.95	-271.21	-725.47	774.49	249.50	0.07	MWD	None
58	2310.31	21.27	281.08	28.17	2066.03	781.35	-269.23	-735.59	783.29	249.90	0.15	MWD	None
59	2339.06	21.57	280.51	28.75	2092.79	790.95	-267.26	-745.90	792.32	250.29	0.13	MWD	None
60	2367.67	21.89	280.84	28.61	2119.37	800.64	-265.30	-756.31	801.48	250.67	0.12	MWD	None

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Seq	Measured	Incl	Azimuth	Course	TVD	Vertical	Displ	Displ	Total	At	DLS	Srvy	Tool
#	depth	angle	length	depth	section	+N/S-	+E/W-	displ	Azim	(deg/	tool	Corr	
-	(m)	(deg)	(deg)	(m)	(m)	(m)	(m)	(deg)	10m)	type	(deg)		
61	2396.50	21.98	279.90	28.83	2146.11	810.51	-263.36	-766.90	810.85	251.05	0.13	MWD	None
62	2425.26	21.82	279.81	28.76	2172.79	820.38	-261.53	-777.47	820.27	251.41	0.06	MWD	None
63	2453.68	22.26	279.46	28.42	2199.14	830.21	-259.74	-787.99	829.68	251.76	0.16	MWD	None
64	2472.77	22.77	279.01	19.09	2216.77	836.97	-258.57	-795.20	836.17	251.99	0.28	MWD	None
65	2482.05	22.86	278.82	9.28	2225.33	840.30	-258.01	-798.76	839.38	252.10	0.13	MWD	None
66	2511.41	22.85	278.28	29.36	2252.38	850.90	-256.32	-810.03	849.61	252.44	0.07	MWD	None
67	2540.11	22.55	281.96	28.70	2278.86	861.06	-254.37	-820.93	859.43	252.79	0.51	MWD	None
68	2568.92	22.81	282.55	28.81	2305.44	871.10	-252.01	-831.79	869.11	253.15	0.12	MWD	None
69	2596.90	22.44	282.33	27.98	2331.27	880.80	-249.70	-842.30	878.52	253.49	0.14	MWD	None
70	2625.97	22.12	282.68	29.07	2358.17	890.73	-247.31	-853.06	888.17	253.83	0.12	MWD	None
71	2653.05	22.00	282.21	27.08	2383.27	899.90	-245.12	-862.99	897.11	254.15	0.08	MWD	None
72	2682.01	22.22	282.29	28.96	2410.10	909.75	-242.80	-873.64	906.74	254.47	0.08	MWD	None
73	2710.66	21.60	281.74	28.65	2436.68	919.42	-240.58	-884.10	916.23	254.78	0.23	MWD	None
74	2738.80	20.43	281.03	28.14	2462.94	928.60	-238.58	-893.99	925.27	255.06	0.43	MWD	None
75	2769.13	18.83	279.48	30.33	2491.51	937.94	-236.77	-904.02	934.49	255.33	0.55	MWD	None
76	2773.36	18.78	278.97	4.23	2495.52	939.20	-236.55	-905.36	935.74	255.36	0.41	MWD	None
77	2800.05	17.57	278.87	26.69	2520.87	946.92	-235.26	-913.59	943.38	255.56	0.45	MWD	None
78	2828.37	16.97	278.11	28.32	2547.92	954.73	-234.01	-921.90	951.12	255.76	0.23	MWD	None
79	2857.04	16.34	277.81	28.67	2575.38	962.39	-232.88	-930.04	958.74	255.94	0.22	MWD	None
80	2884.75	14.53	279.47	27.71	2602.09	969.24	-231.77	-937.33	965.55	256.11	0.67	MWD	None
81	2901.43	13.21	279.39	16.68	2618.29	972.93	-231.12	-941.27	969.22	256.21	0.79	MWD	None
82	2920.00	11.80	279.30	18.57	2636.42	976.65	-230.47	-945.24	972.92	256.30	0.76	Projection to TD	

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Well: FLA-A12a
Field: Flounder GDA 94
Rig: ISDL 453
State: VICTORIA

Gamma Ray Service
1:500 Measured Depth
Real Time Log