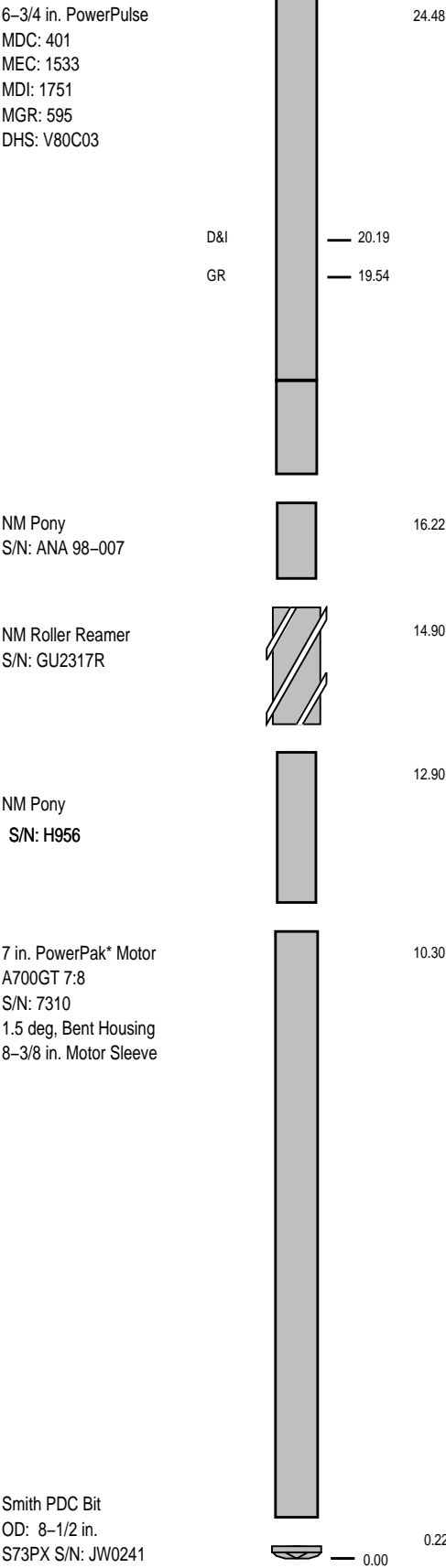


Potassium	%	4.19	4.19								
Environmental data											
GR											
Mud weight	ppg	9.8	9.8								
Bit size	in.	8.5	8.5								
Resistivity											
Neutron porosity											
Hole Size		N/A	N/A								
Mud weight		N/A	N/A								
Temperature		N/A	N/A								
Mud salinity		N/A	N/A								
Formation salinity		N/A	N/A								
Recording rate 1	SEC	3.83	3.83								
Recording rate 2	SEC	N/A	N/A								
Filtering GR		3 pt.	3 pt.								
Filtering density		N/A	N/A								
Filtering Neutron		N/A	N/A								
Company representative		G. Campbell	B. Davis	B. Steel	C. Stead						
Schlumberger D&M Personnel		C. Skiba	S. Xu	C. Soper	J. Rydell						

<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>		
OTHER SERVICES FOR RUN1 Directional Drilling Directional Surveys D&I	OTHER SERVICES FOR RUN2 Directional Drilling Directional Surveys D&I	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 1 Depth is referenced to Driller's Depth. Gamma Ray is not corrected for Potassium. Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCI/PHPA/Glycol. 8-1/2 in. hole was drilled from 651.0 m to 3257.0m MD. Survey's have been corrected for Drillstring interference using DMAG. POOH due to slow ROP and excessive shocks.	REMARKS: RUN NUMBER 2 Depth is referenced to Driller's Depth. Gamma Ray is not corrected for Potassium. Gamma Ray is corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCI/PHPA/Glycol. 8-1/2 in. hole was drilled from 3257.0 m to 3338m MD. POOH at TD of WKF W23A.	REMARKS: RUN NUMBER

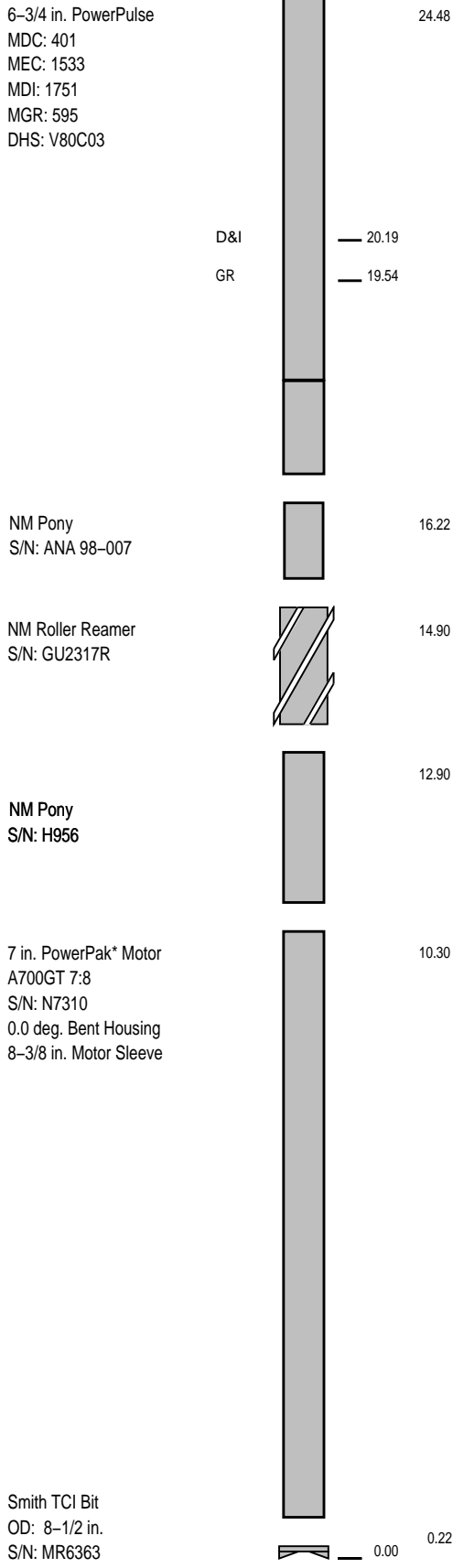
EQUIPMENT DESCRIPTION		
RUN1	RUN2	RUN
DOWNHOLE EQUIPMENT	DOWNHOLE EQUIPMENT	

DOWNHOLE EQUIPMENT



Maximum string diameter 8.50 in.
All lengths in Metres

DOWNHOLE EQUIPMENT



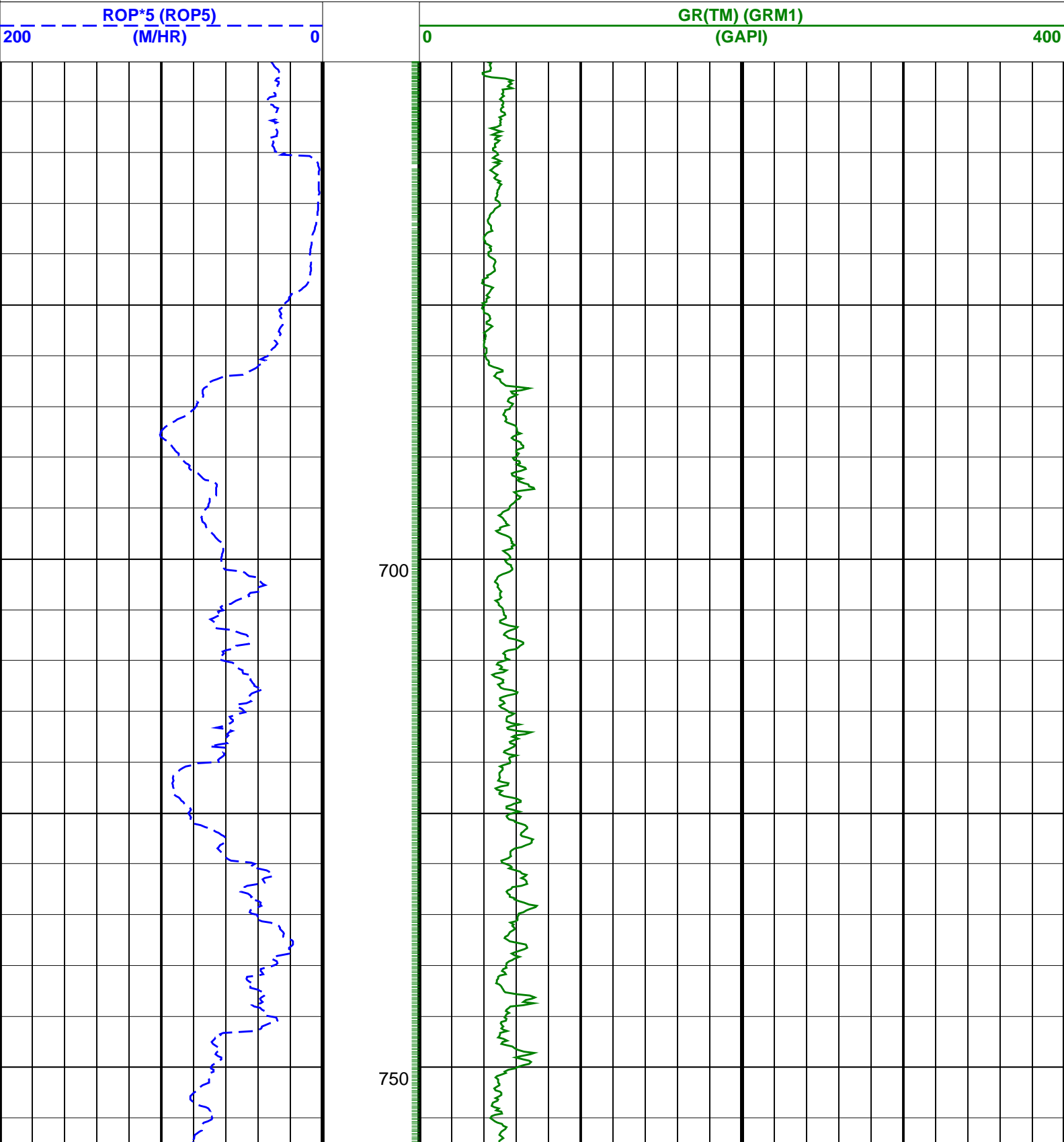
Maximum string diameter 8.50 in.
All lengths in Metres

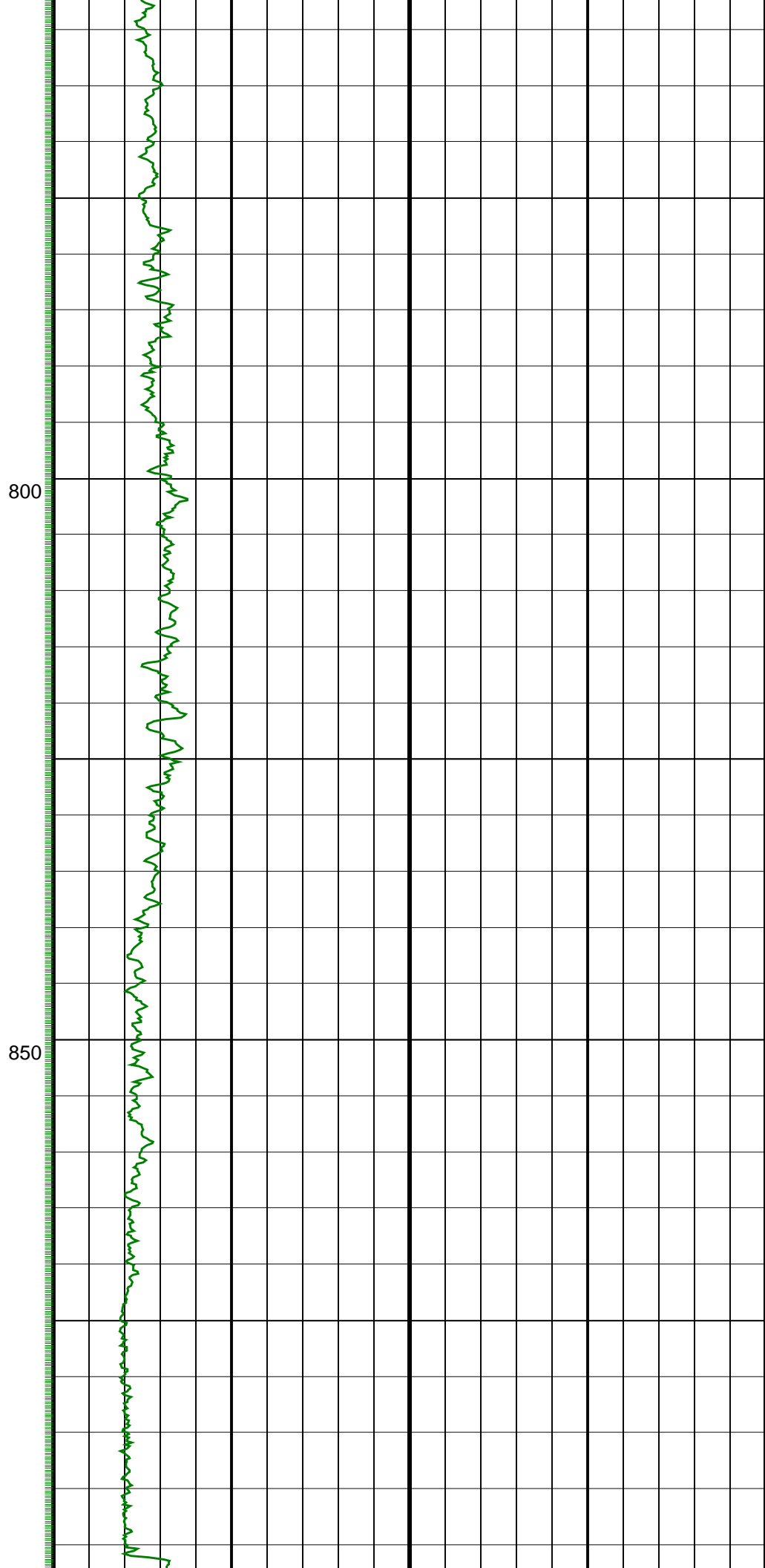
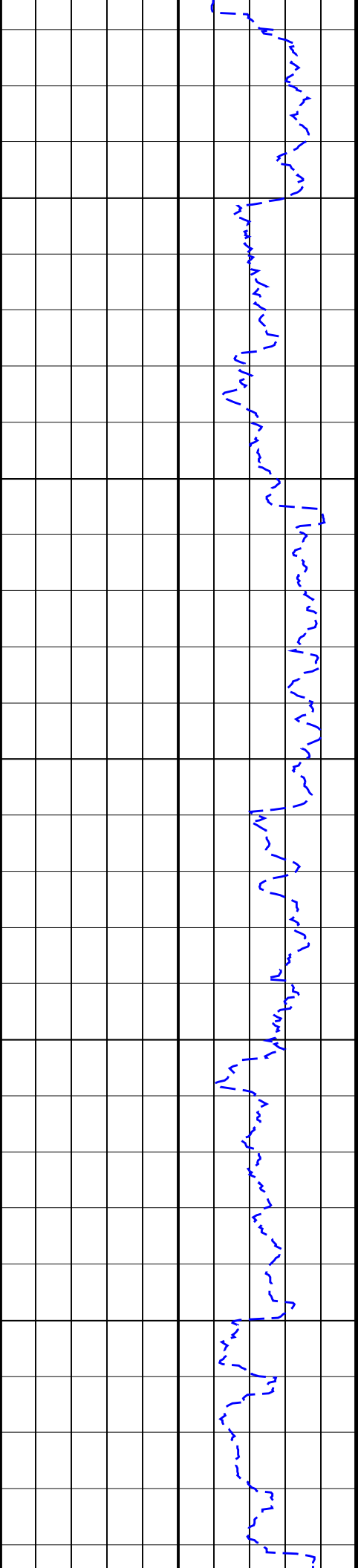
WKF W23A RT 1:500 MD

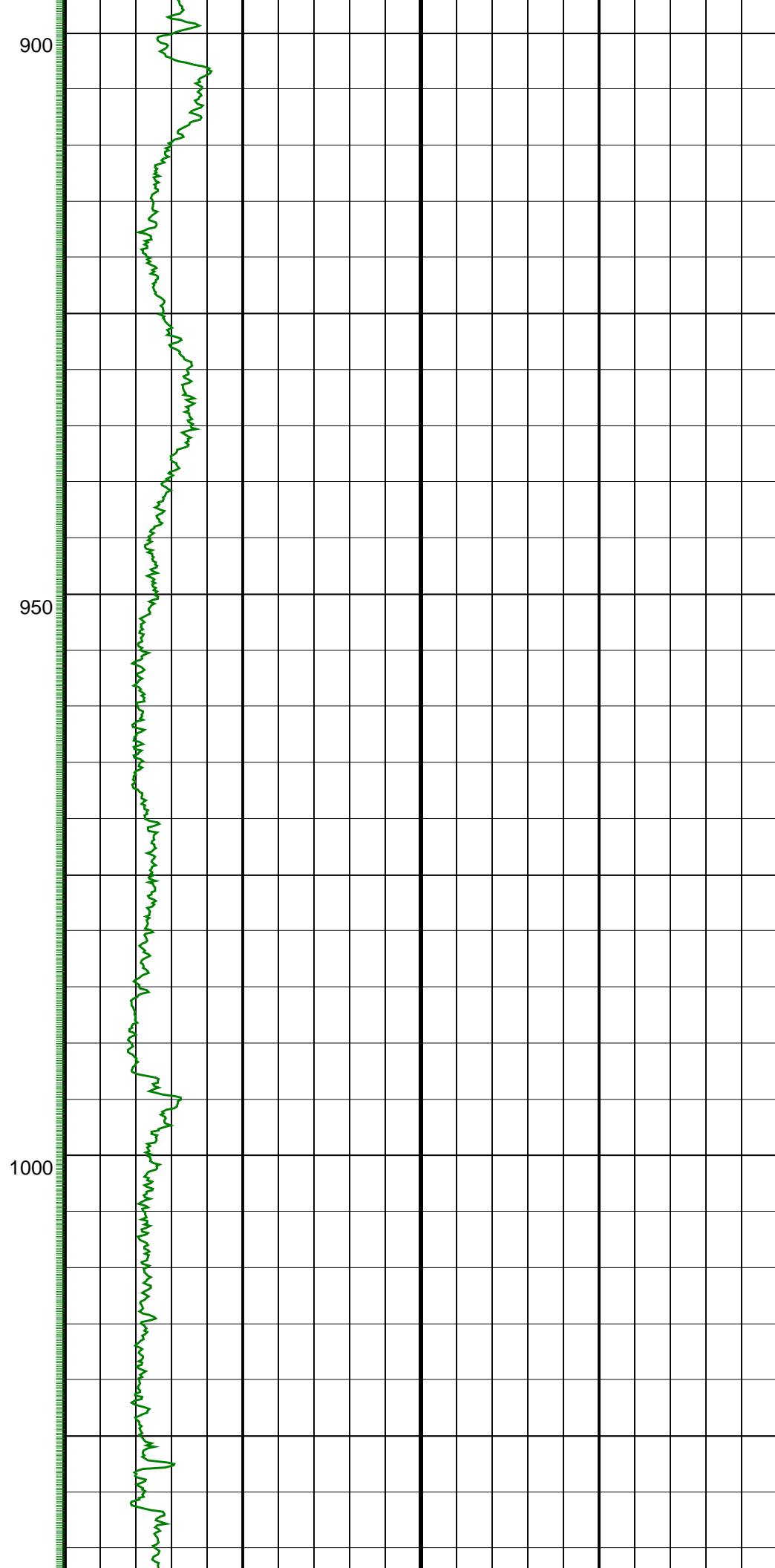
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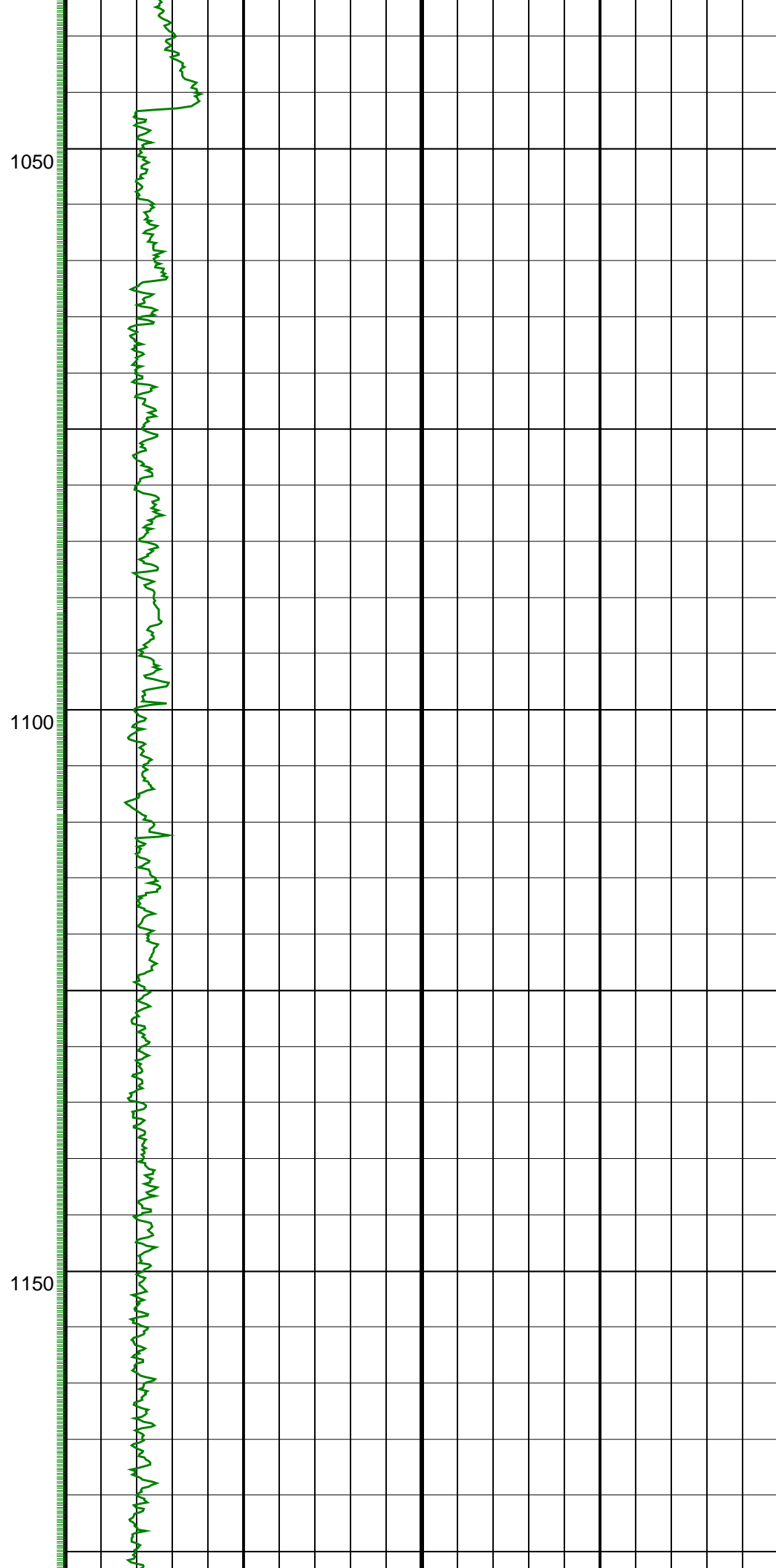
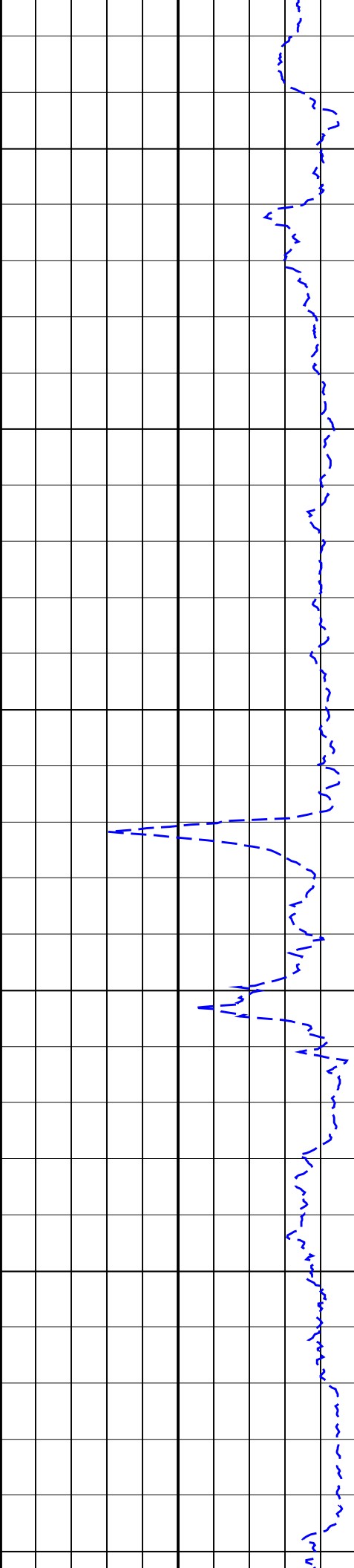
PIP SUMMARY

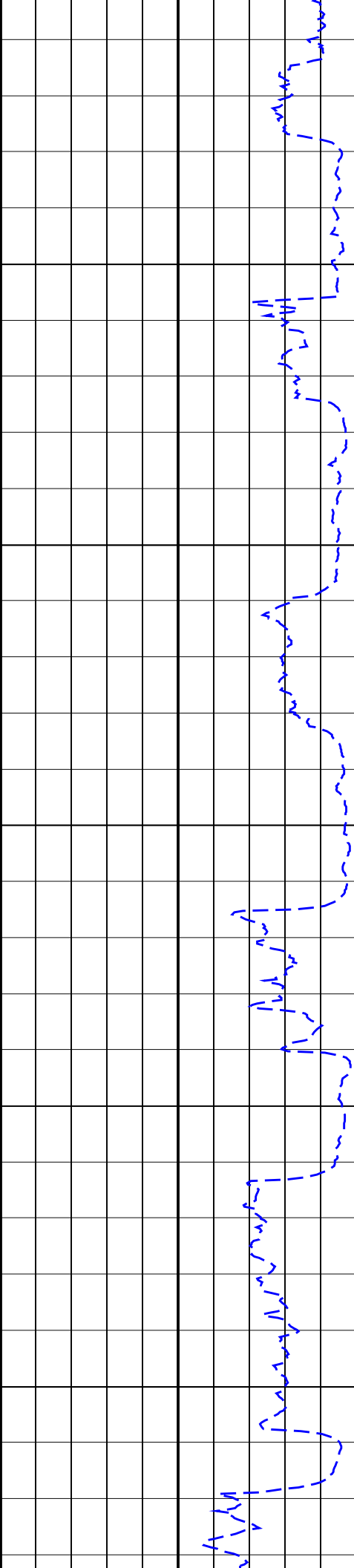
GR(TM) PIP







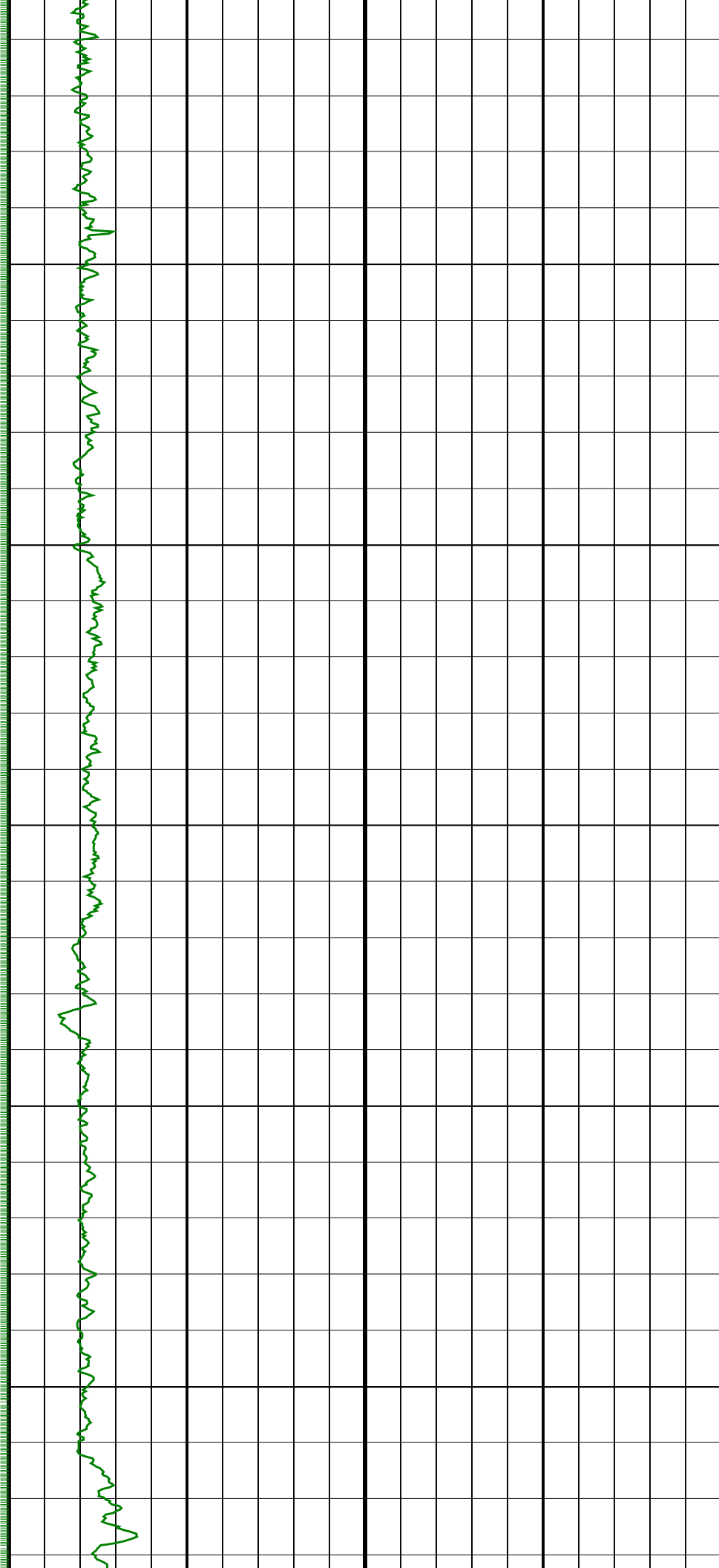


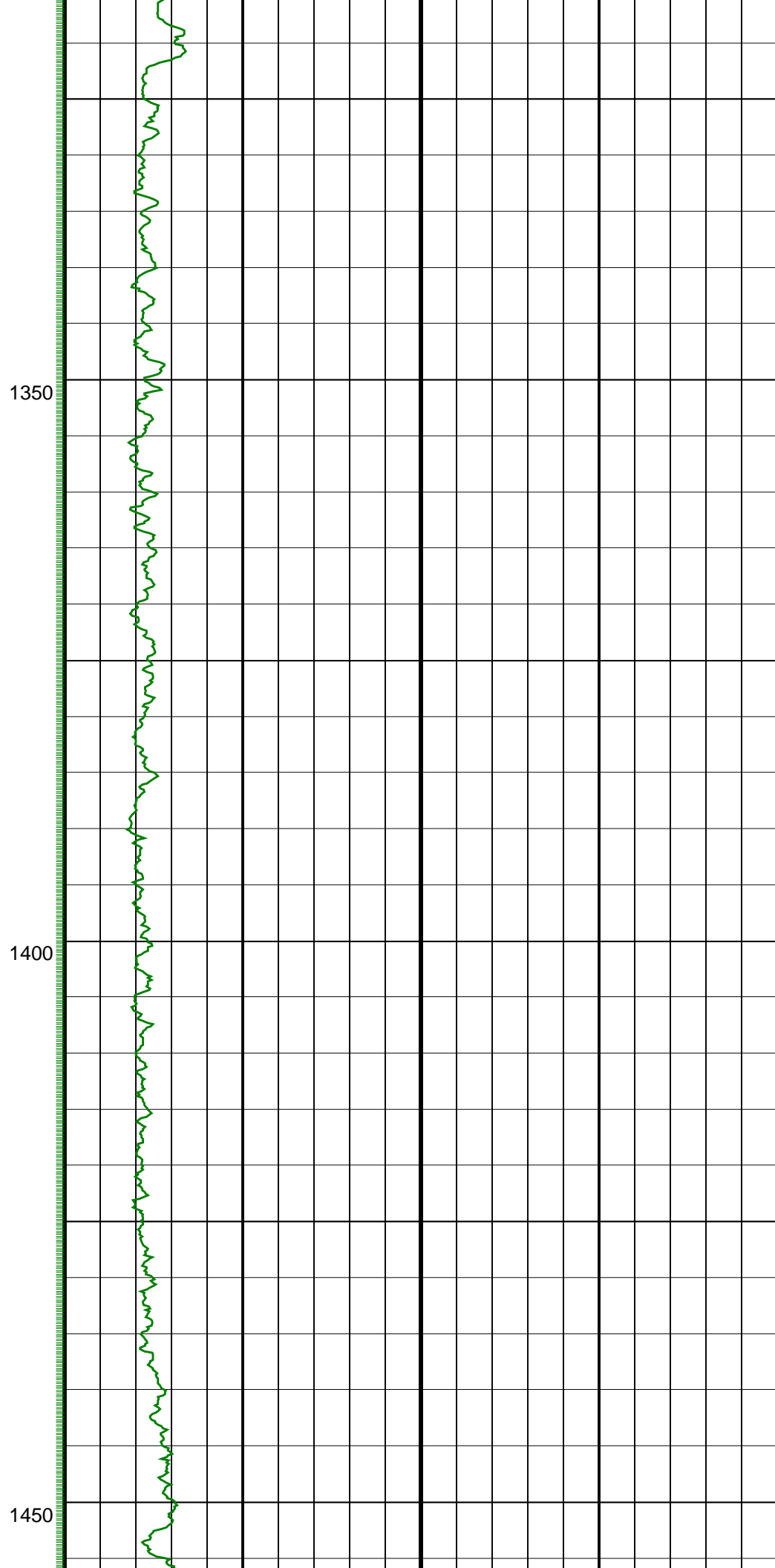
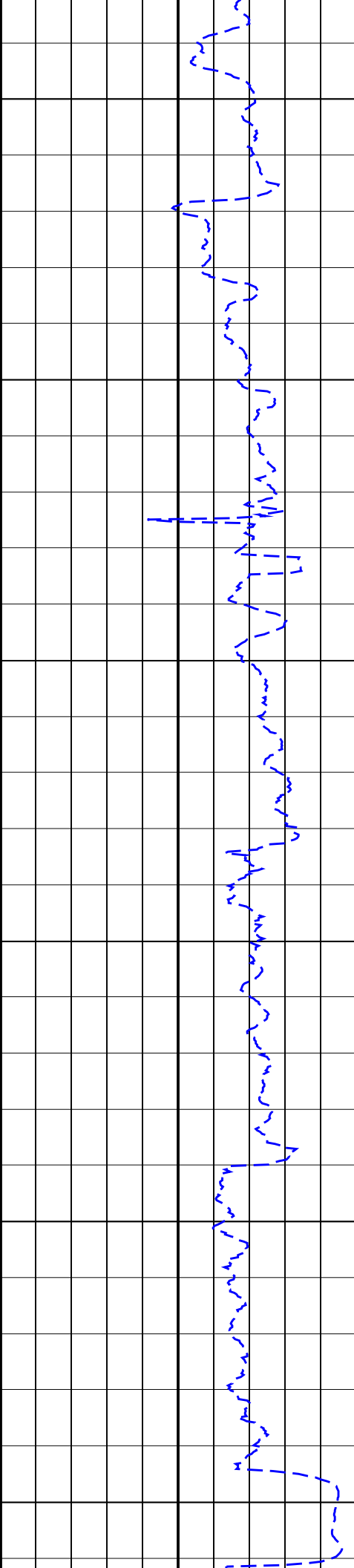


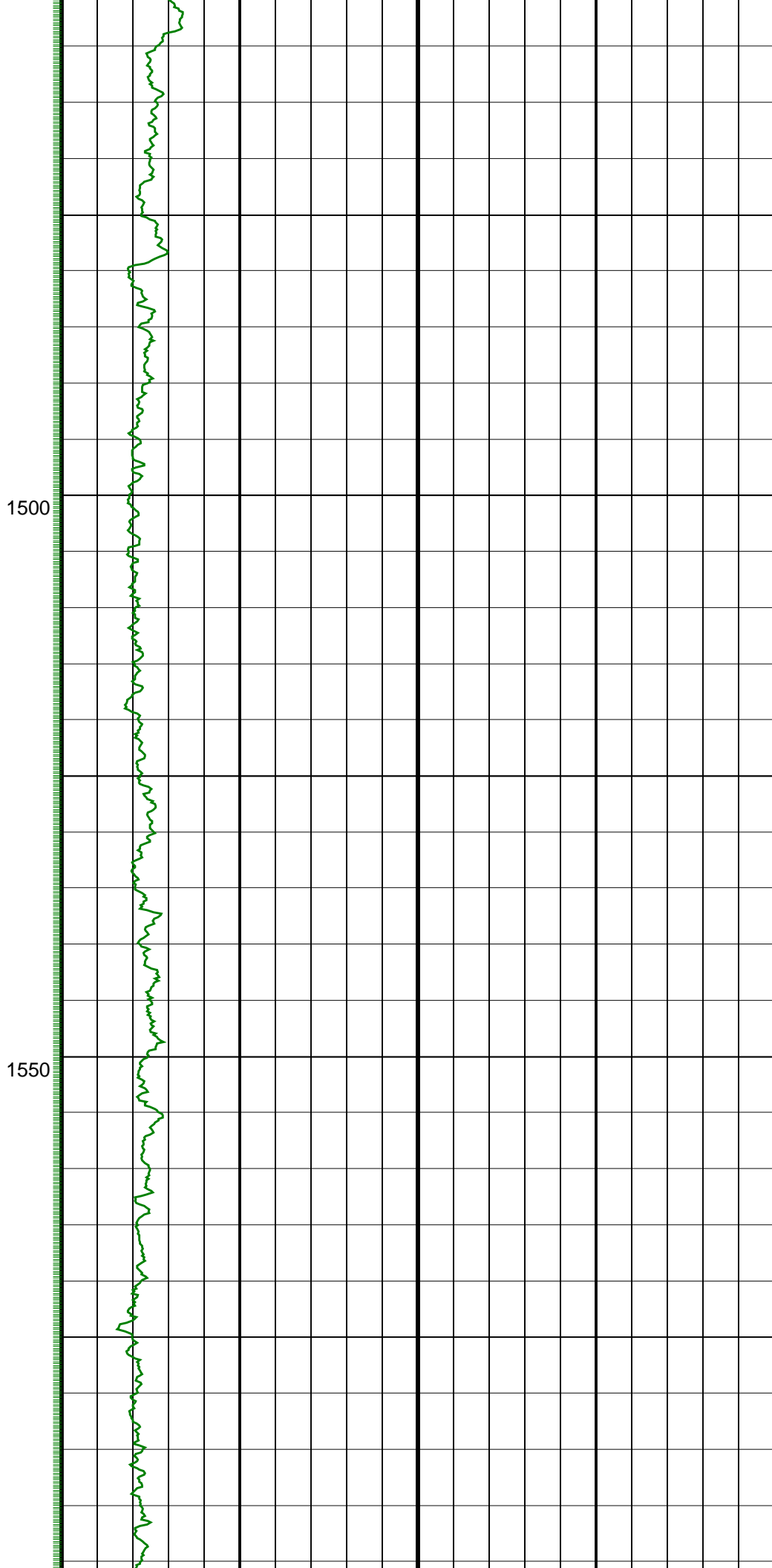
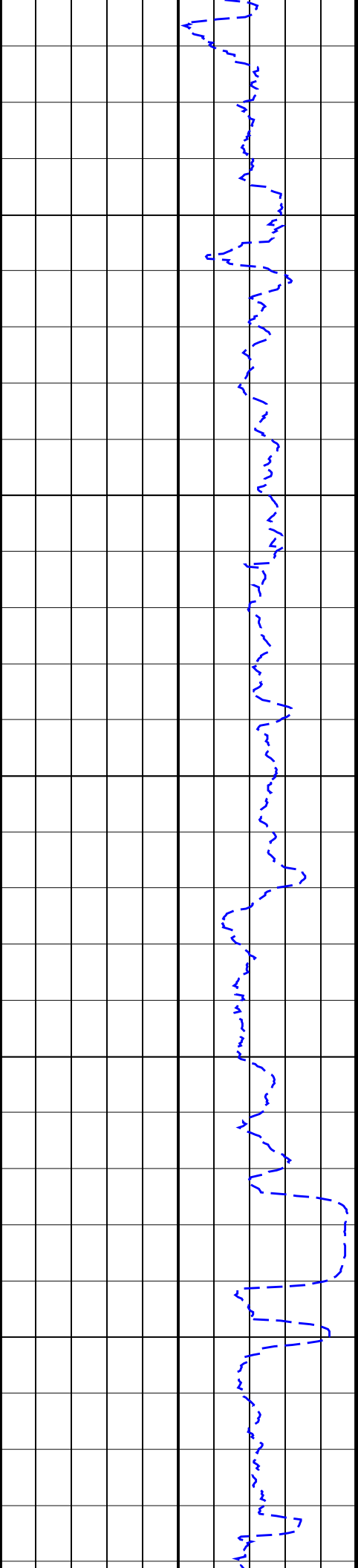
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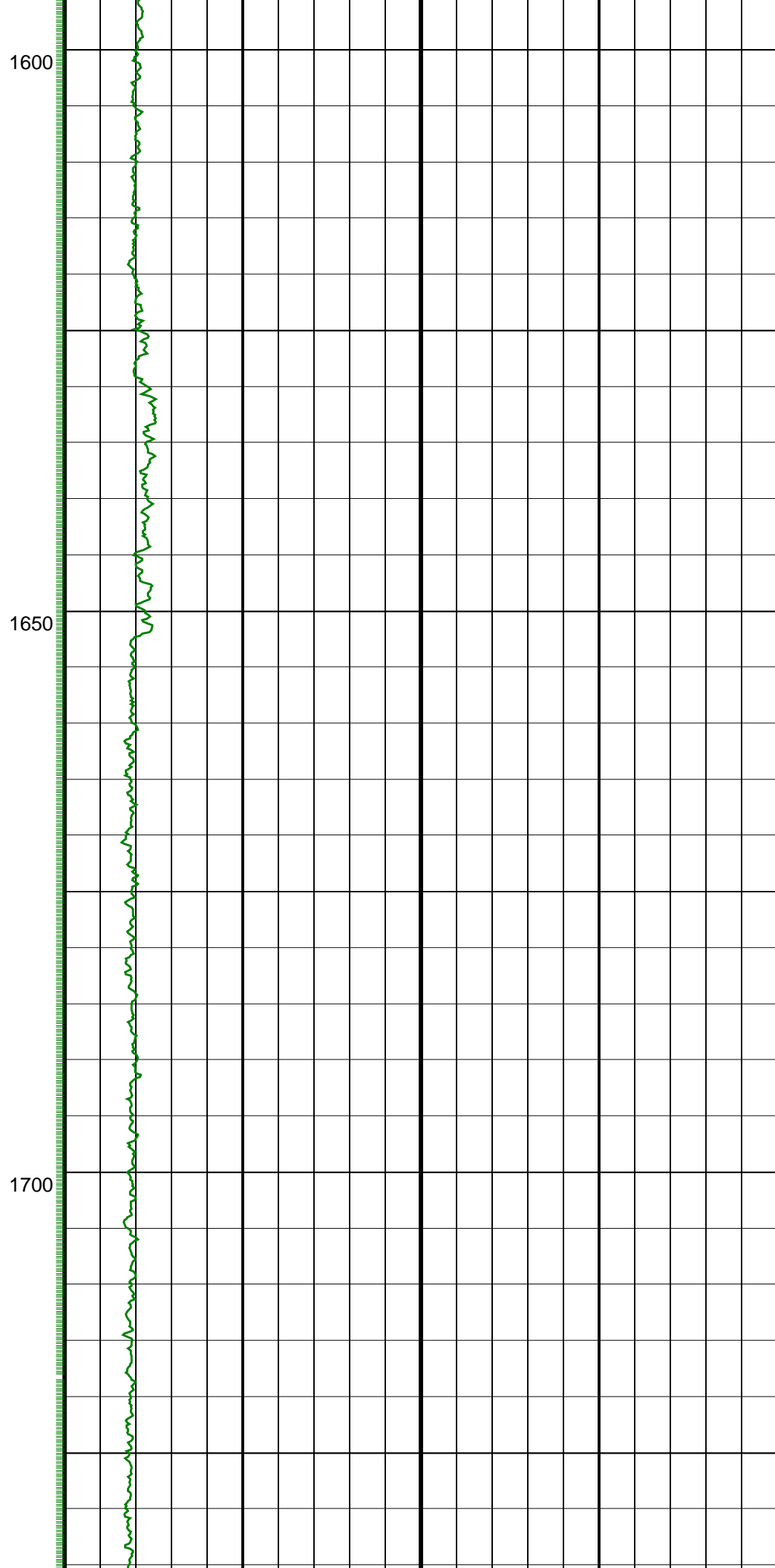
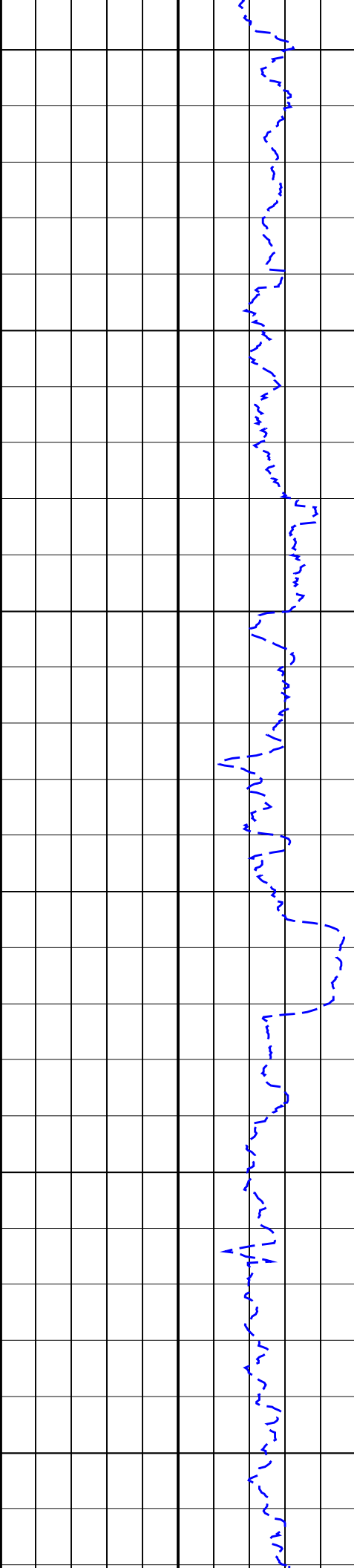
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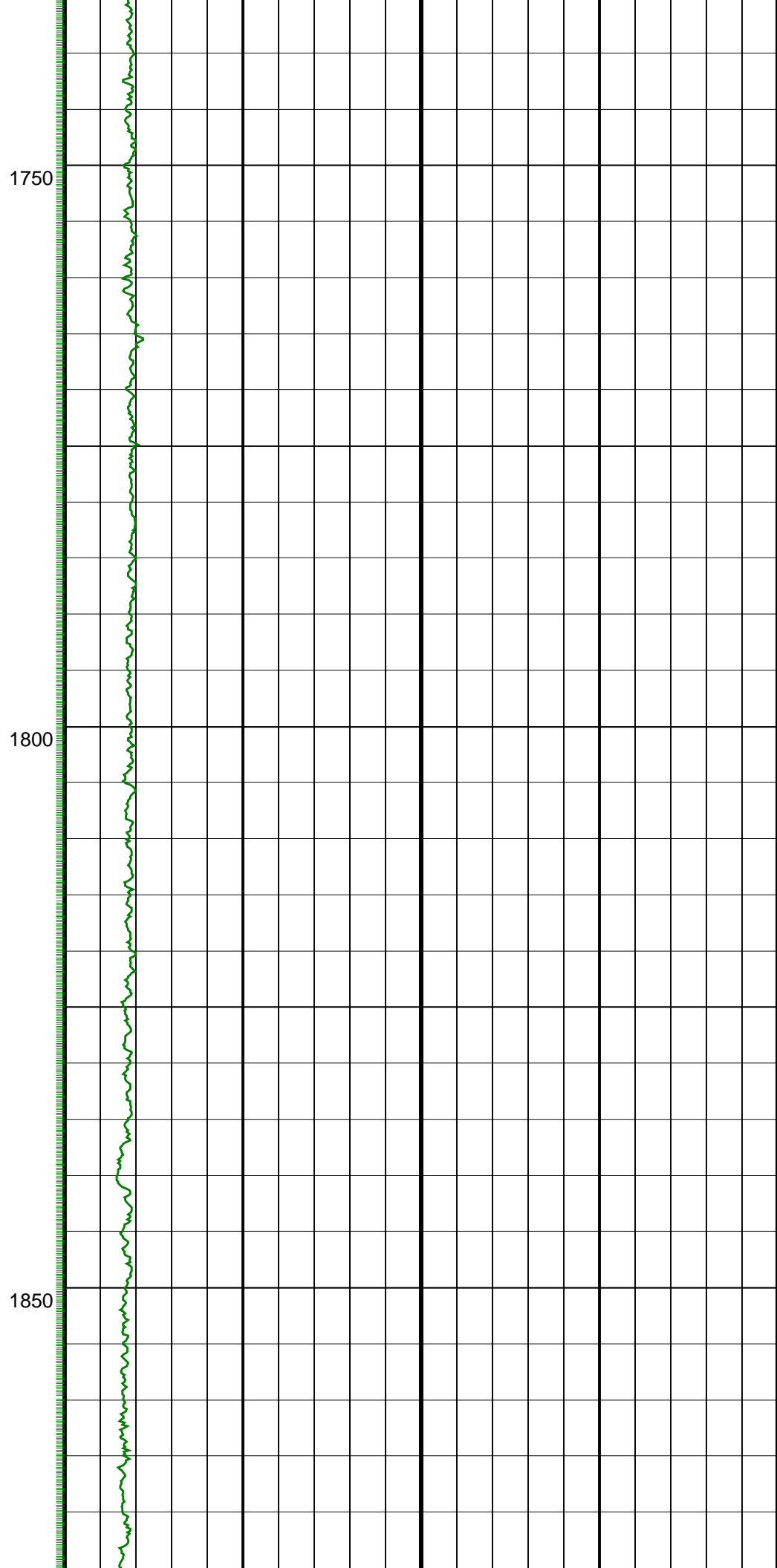
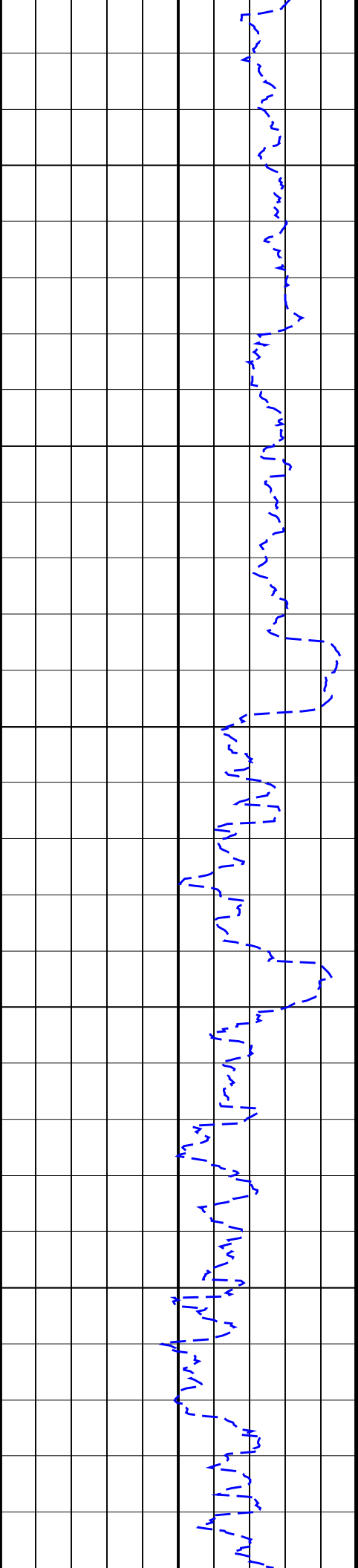
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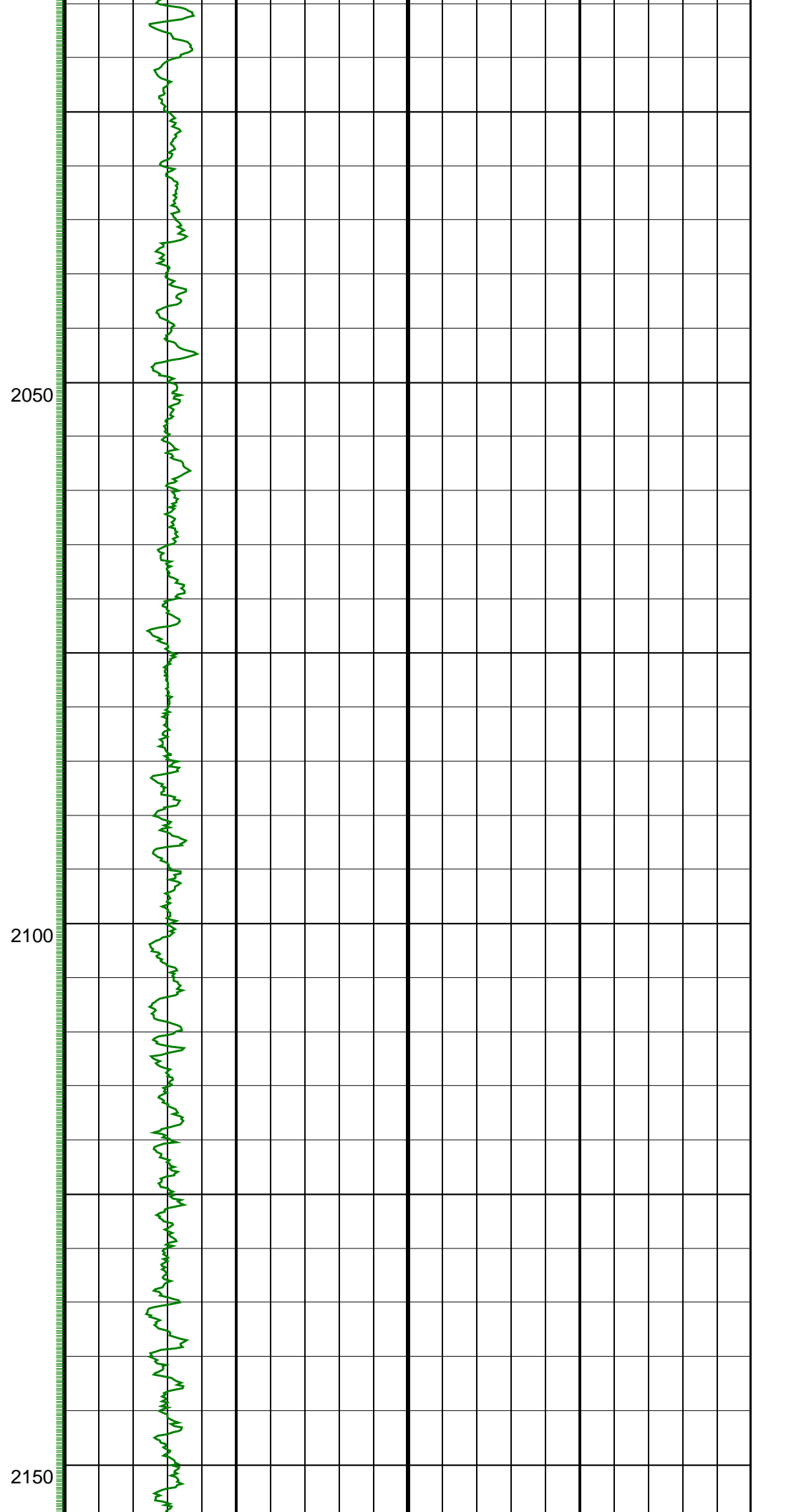
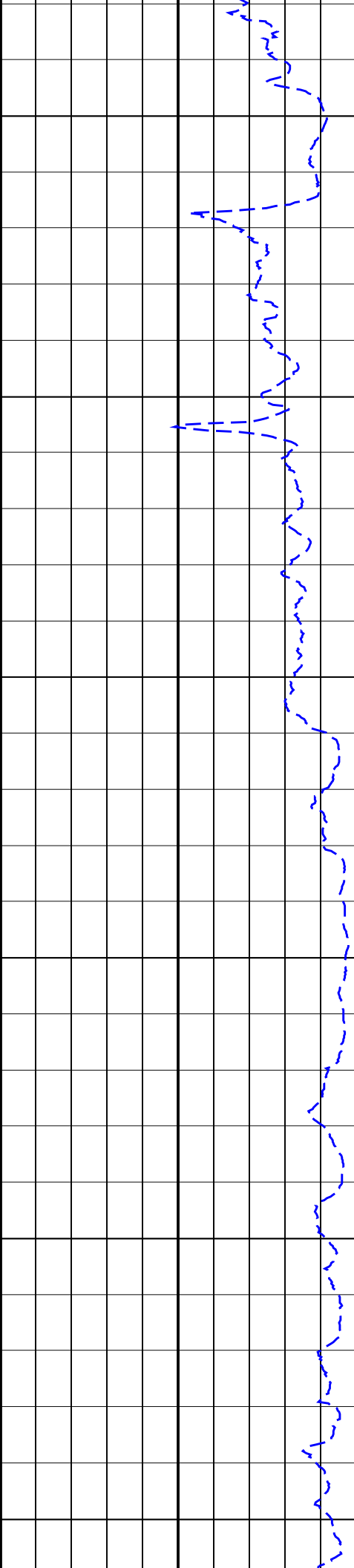


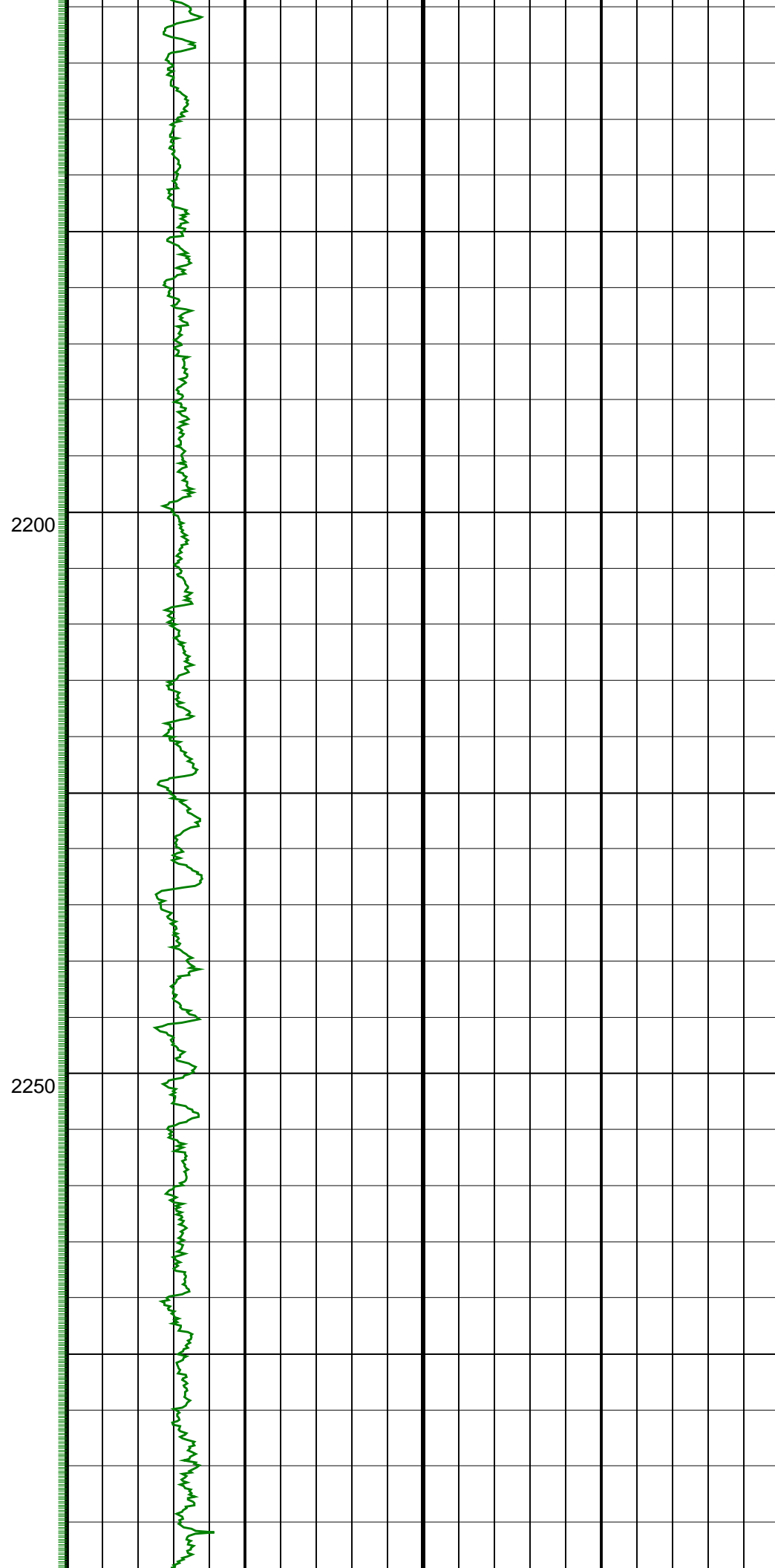
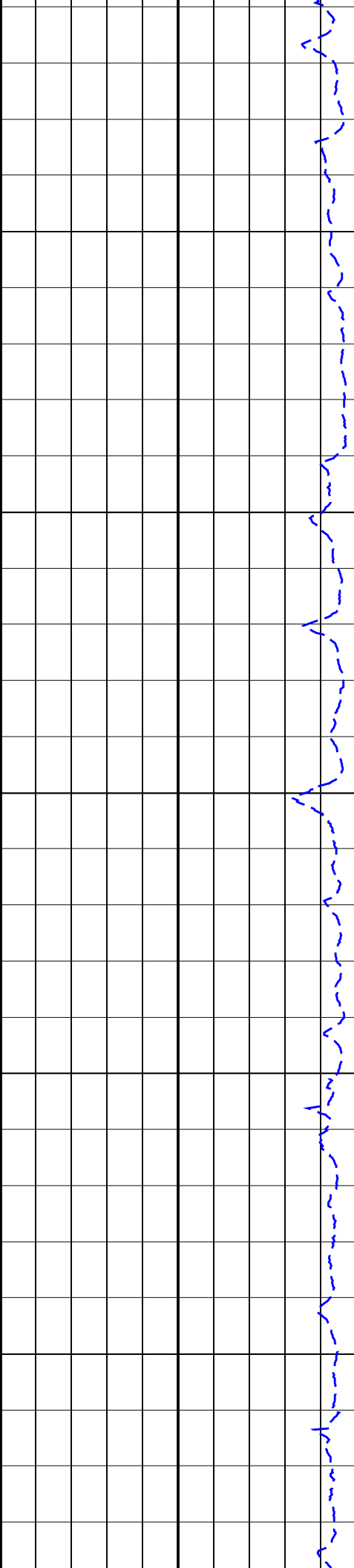


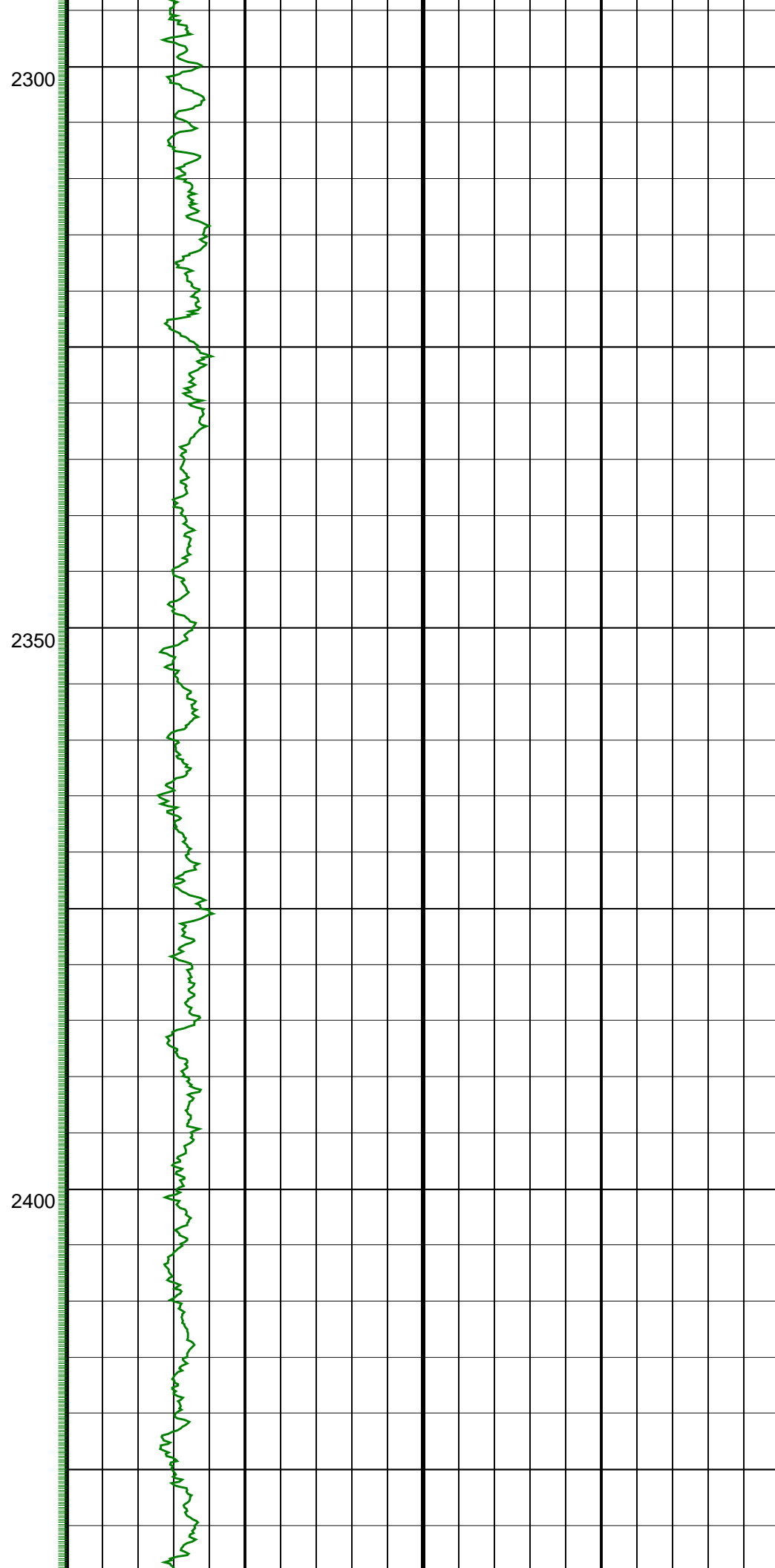
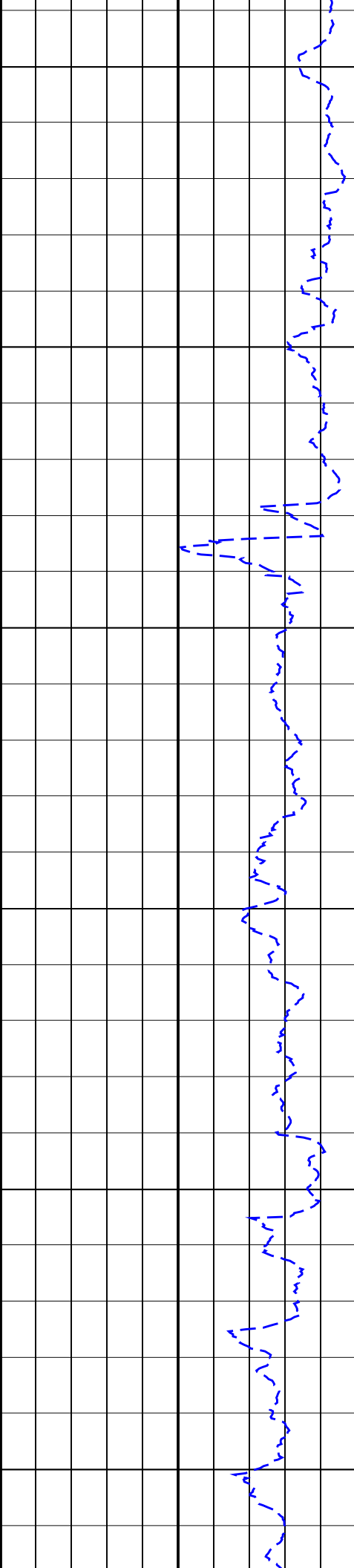


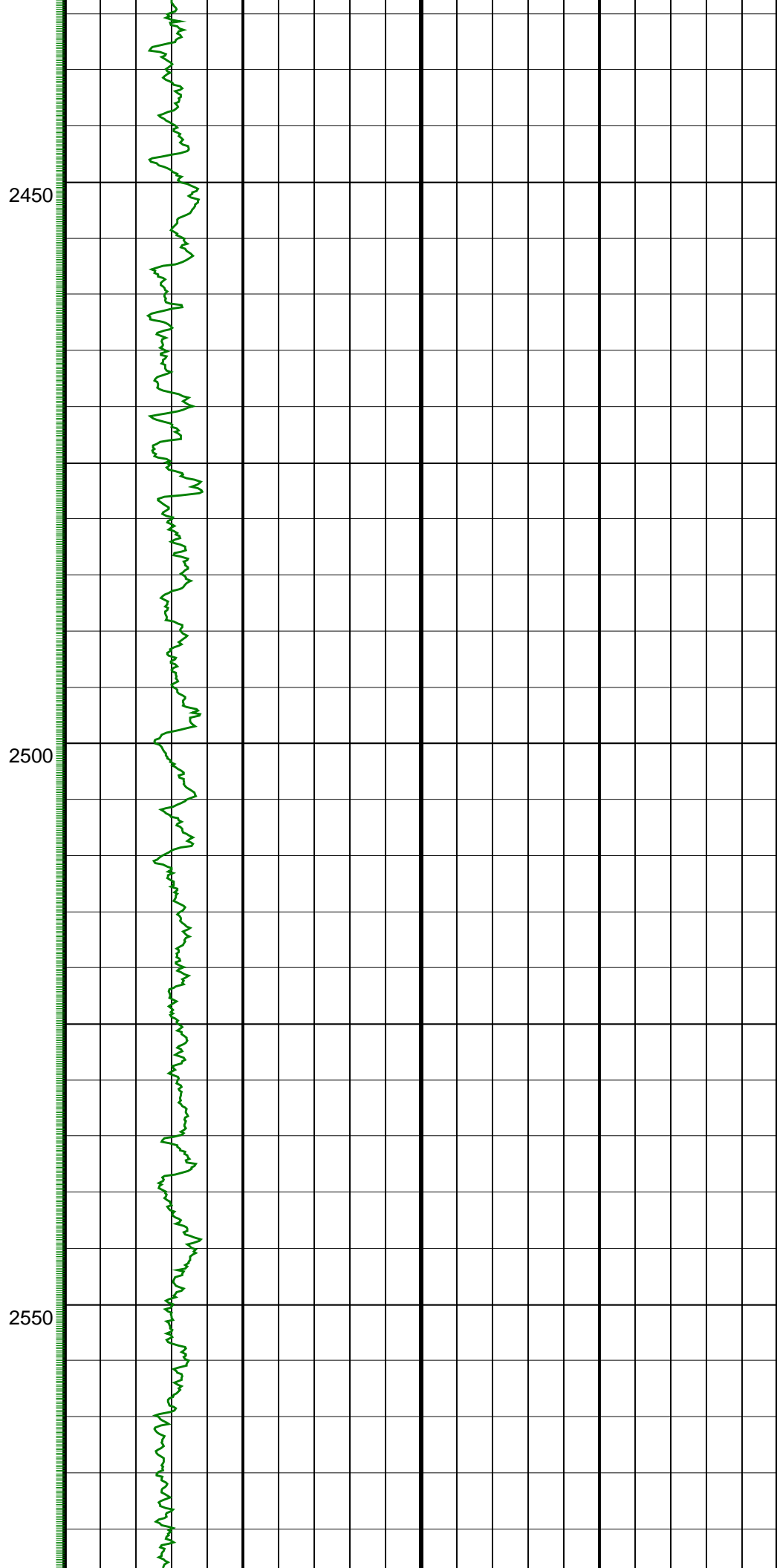
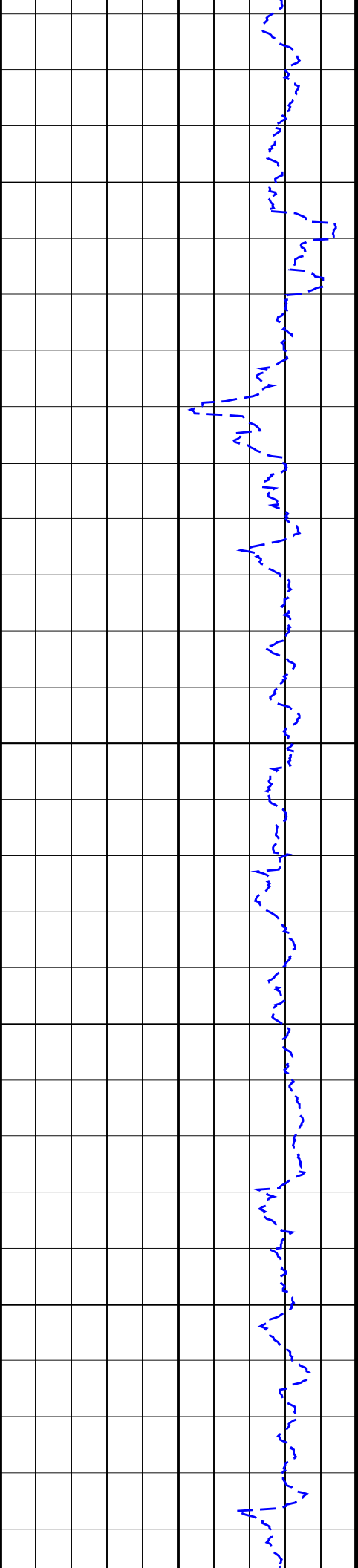


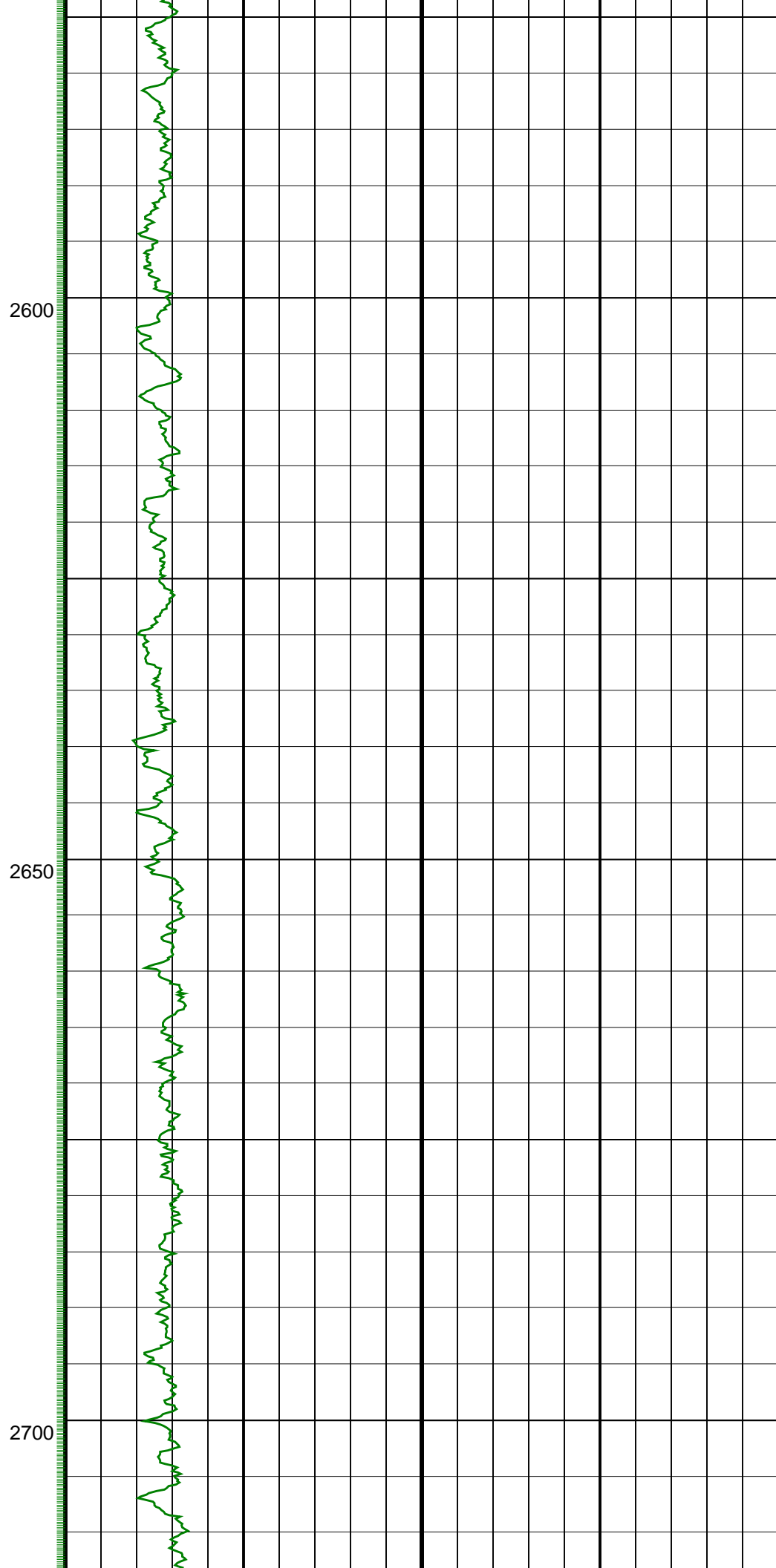
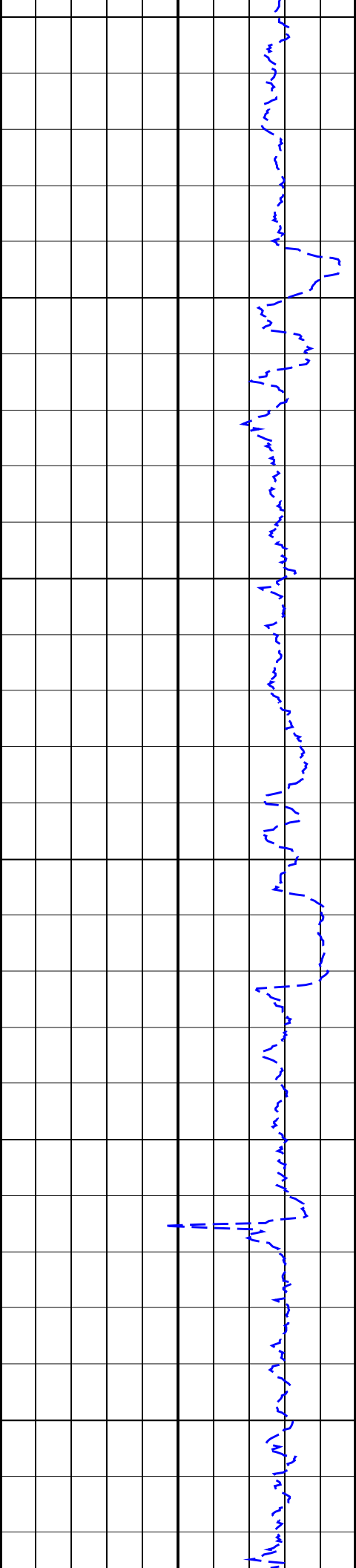


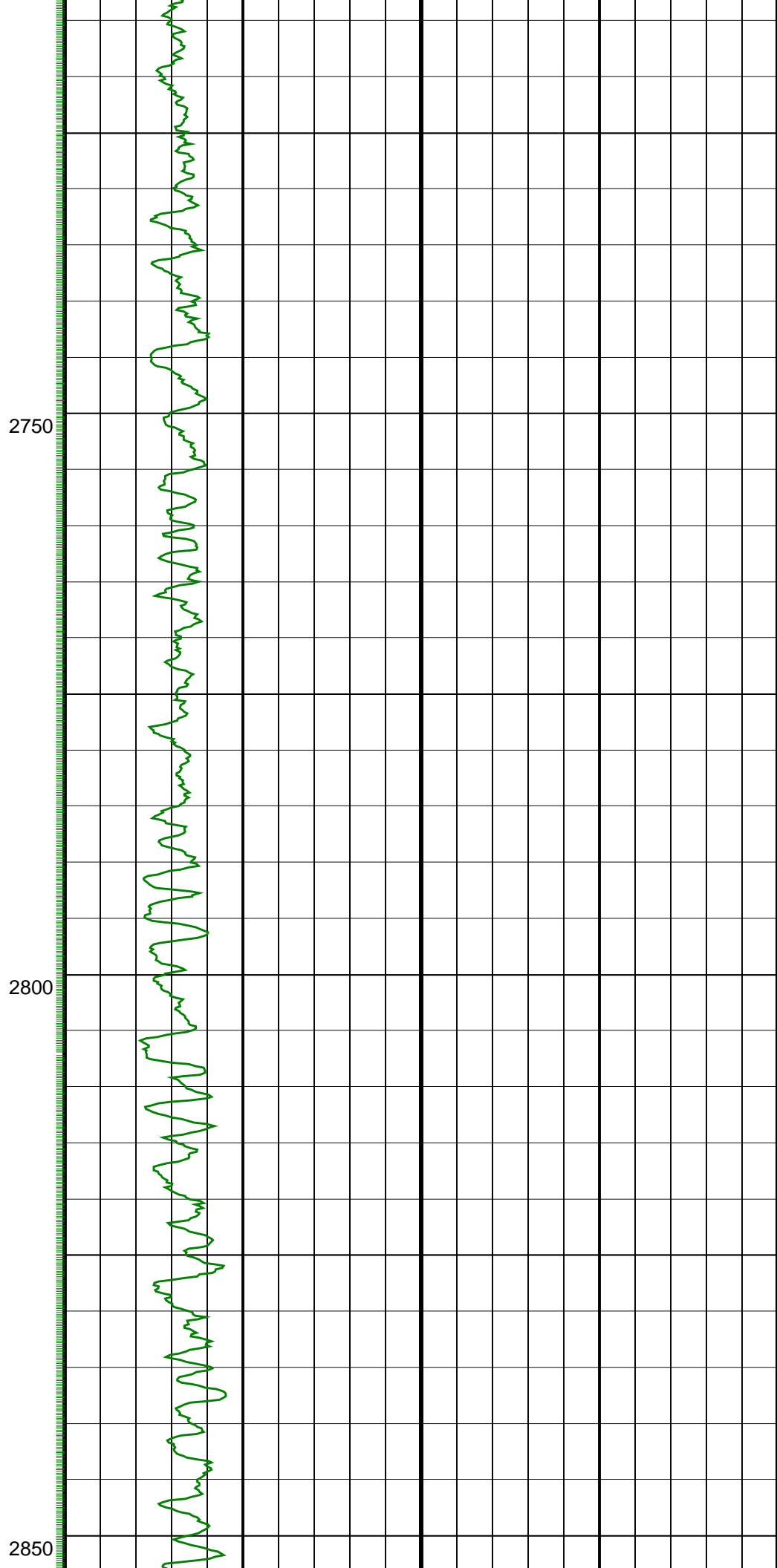
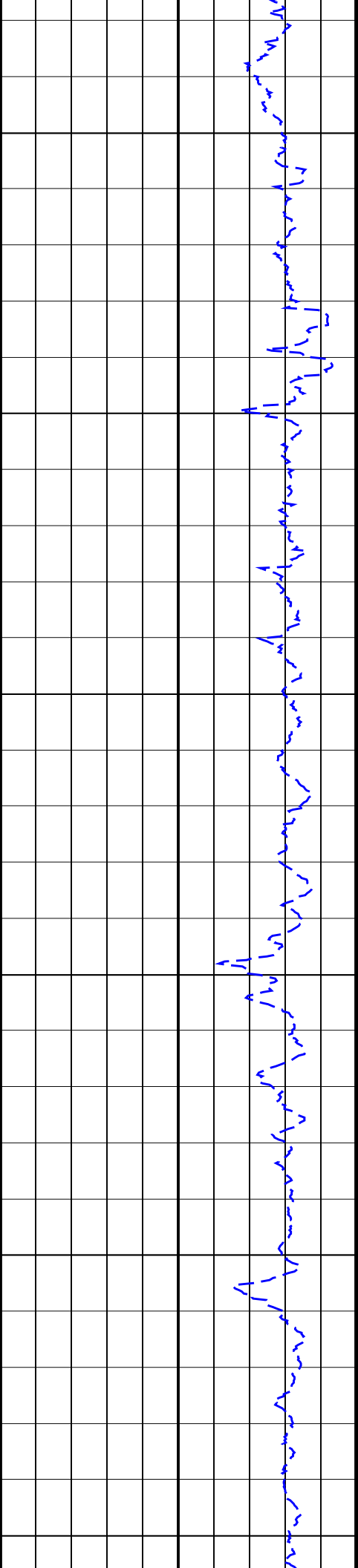


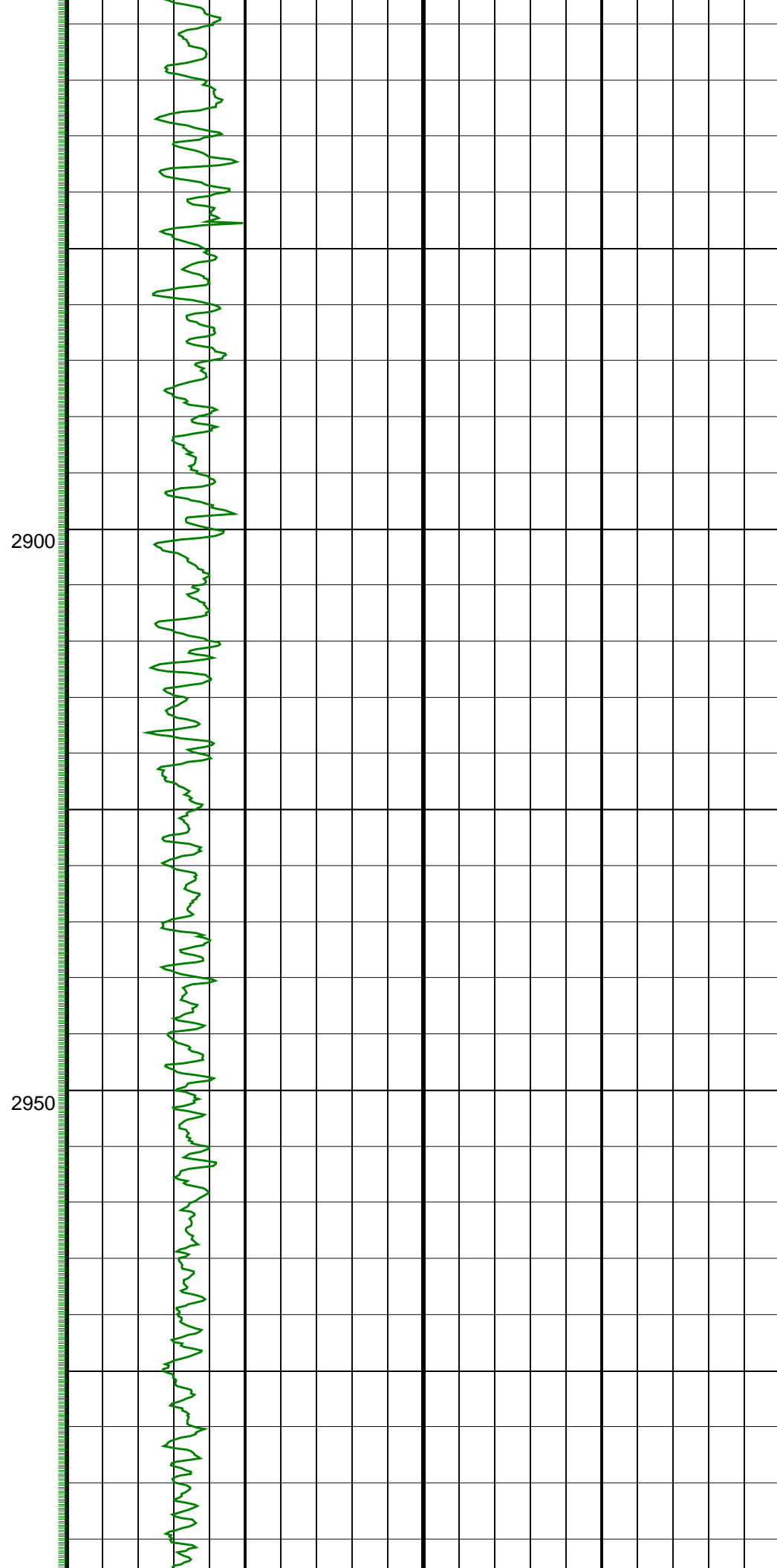
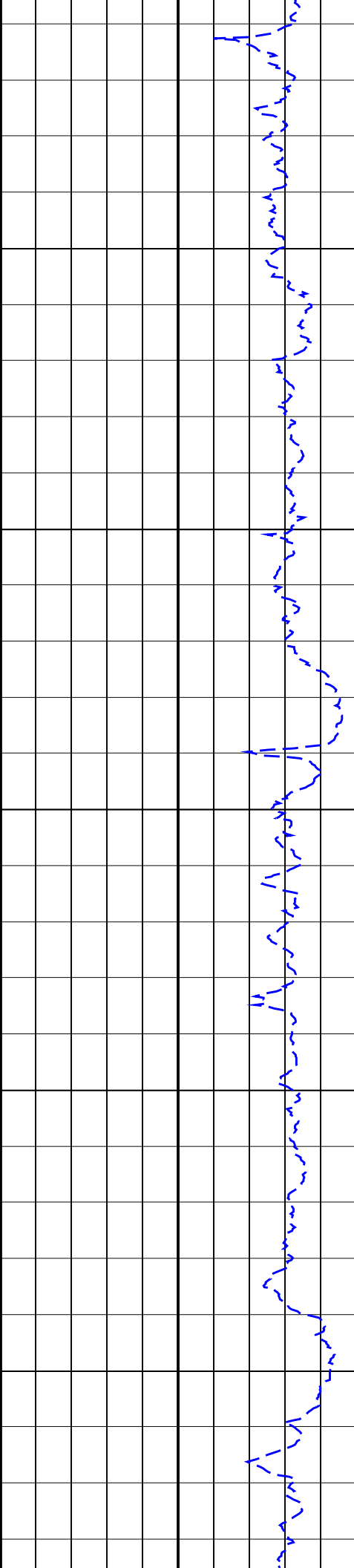


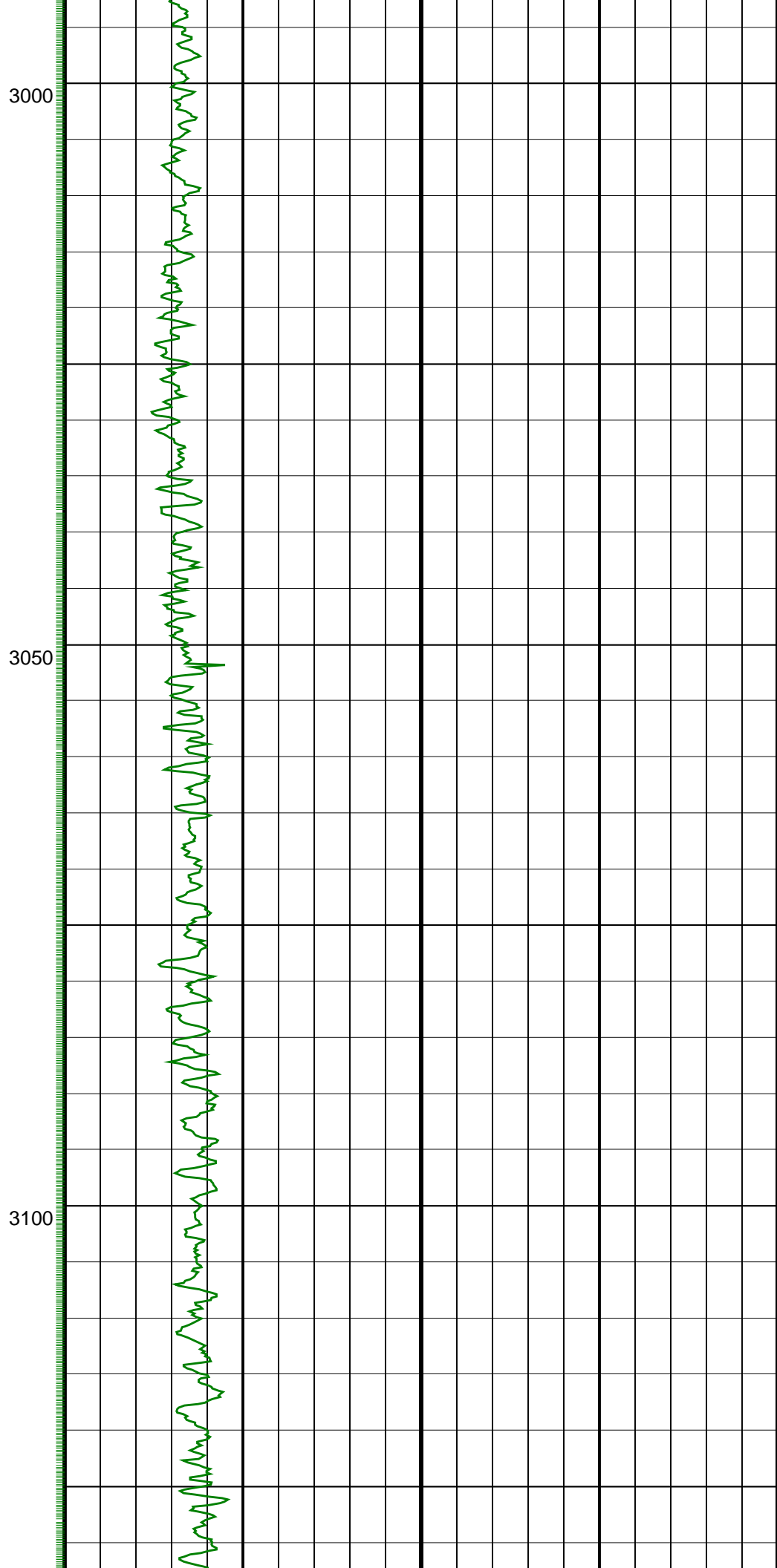
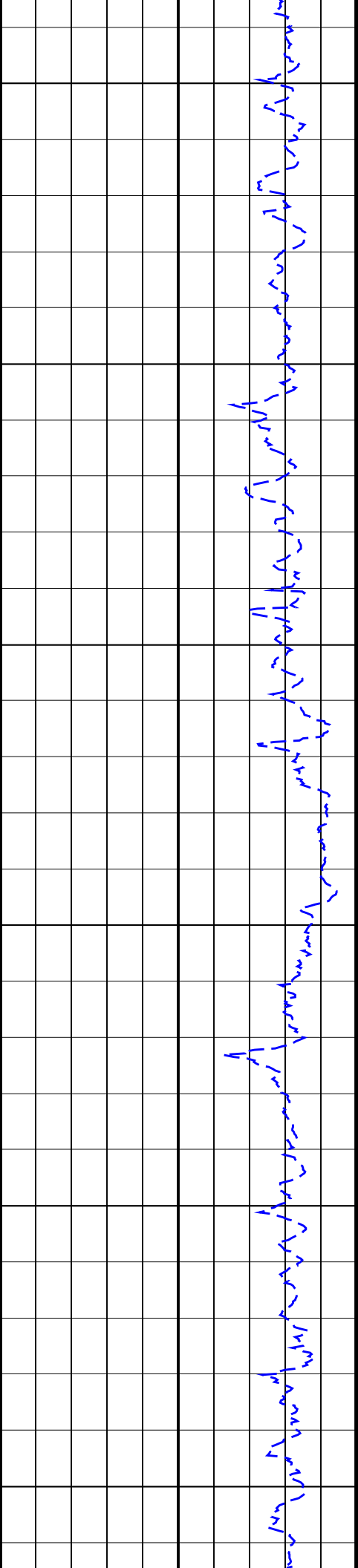


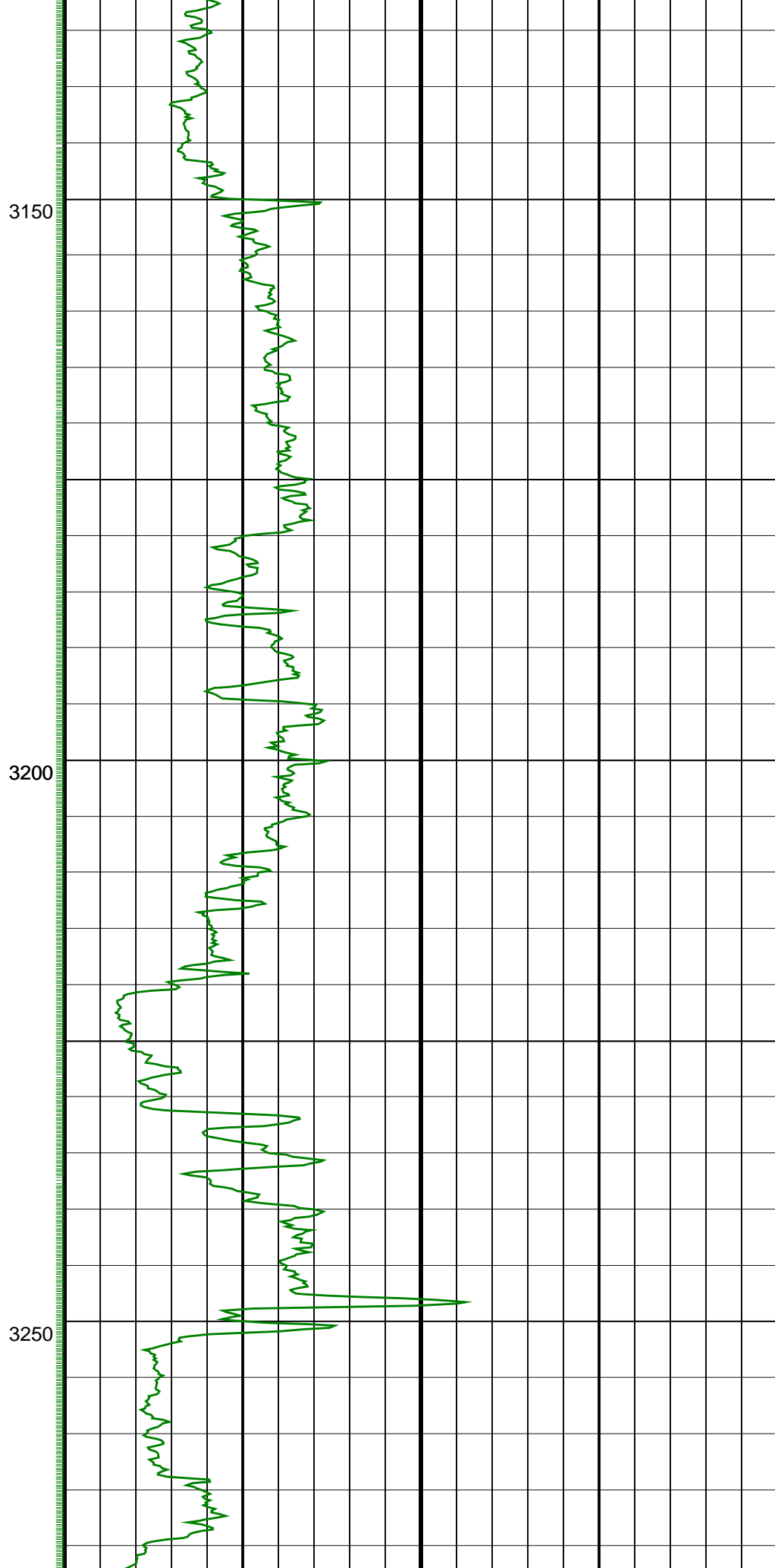
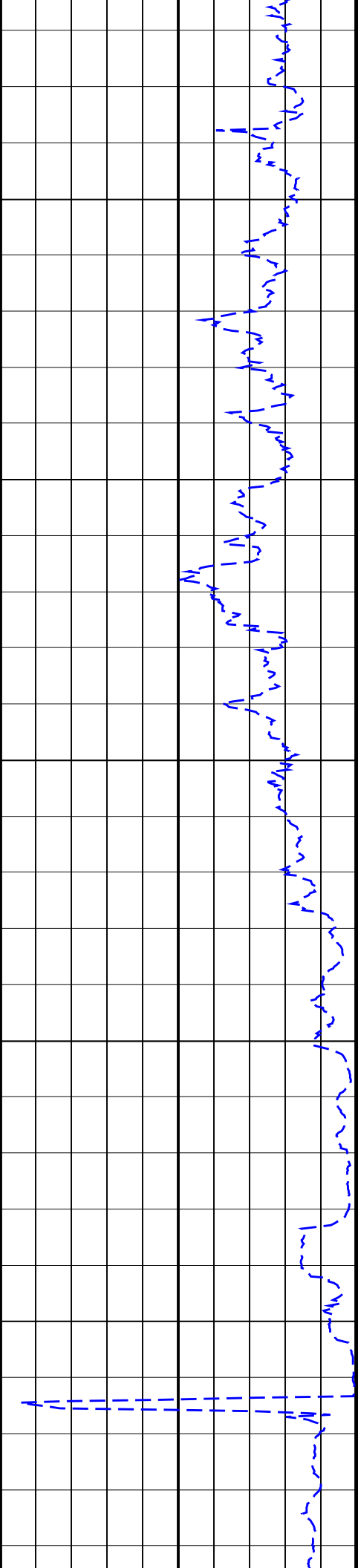


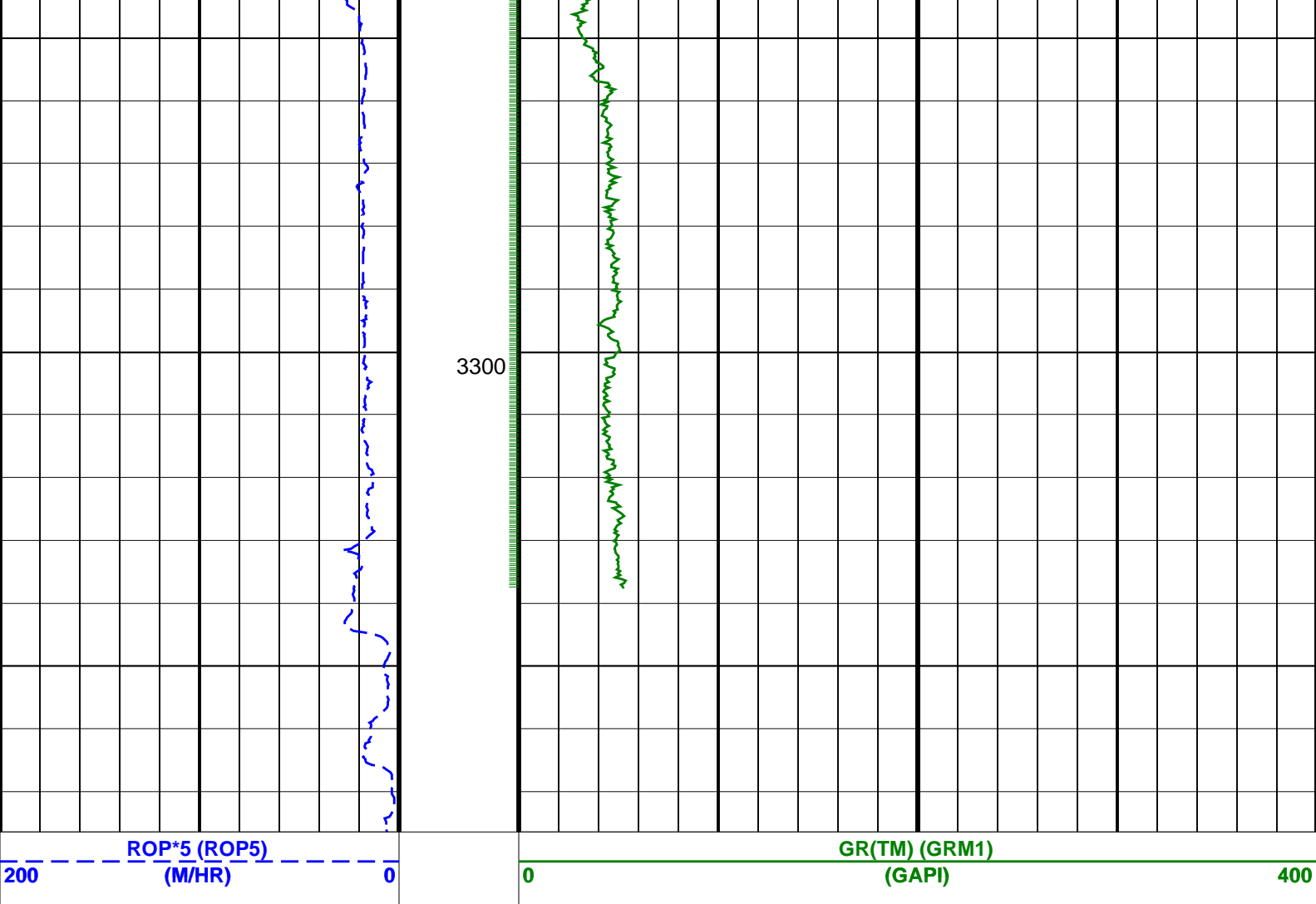












PIP SUMMARY

GR(TM) PIP

SCHLUMBERGER

Survey report

22-Oct-2006 17:57:28

Page 1 of 5

Client..... ESSO Australia Pty. Ltd.
Field..... West Kingfish

Well..... WKF W23A
Service number..... 06ASQ0020
Engineer..... C. Skiba/S. Xu

Rig..... ISDL 453
STATE..... VIC

----- 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..... -76.13 m
KB above permanent..... Top Drive
DF above permanent..... 33.43 m

----- Vertical section origin-----
Latitude (+N/S-)..... -4.64 m
Departure (+E/W-)..... 8.32 m

----- Platform reference point-----
Latitude (+N/S-)..... 5727806.411 m
Departure (+E/W-)..... 596271.358 m

Azimuth from Vsect Origin to target: 74.63 degrees

Spud date..... 11-Oct-2006
Last survey date..... 22-Oct-06
Total accepted surveys... 95
MD of first survey..... 660.00 m
MD of last survey..... 3338.00 m

----- Geomagnetic data -----
Magnetic model..... BGGM version 2005
Magnetic date..... 11-Oct-2006
Magnetic field strength... 1202.26 HCNT
Magnetic dec (+E/W-)..... 13.25 degrees
Magnetic dip..... -69.06 degrees

----- MWD survey Reference Criteria -----
Reference G..... 1000.06 mGal
Reference H..... 1202.26 HCNT
Reference Dip..... -69.06 degrees
Tolerance of G..... (+/-) 2.50 mGal
Tolerance of H..... (+/-) 6.00 HCNT
Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-)..... 13.25 degrees
Grid convergence (+E/W-).. -0.69 degrees
Total az corr (+E/W-)..... 13.94 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

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 (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
1	660.00	31.96	185.83	0.00	626.71	-57.29	-151.27	-10.79	151.65	184.08	0.00	TIP	None
2	679.90	29.81	177.86	19.90	643.79	-60.33	-161.46	-11.14	161.84	183.95	7.07	MWD_M	None
3	708.35	29.69	170.01	28.45	668.50	-62.61	-175.47	-9.65	175.73	183.15	4.17	MWD_M	None
4	737.28	28.08	158.70	28.93	693.85	-62.58	-188.88	-5.93	188.97	181.80	5.99	MWD_M	None
5	765.80	25.13	150.97	28.52	719.36	-60.45	-200.43	-0.55	200.44	180.16	4.86	MWD_M	None
6	794.69	24.20	147.62	28.89	745.61	-57.27	-210.80	5.59	210.87	178.48	1.77	MWD_M	None
7	823.23	24.77	139.64	28.54	771.59	-53.03	-220.30	12.60	220.66	176.73	3.58	MWD_M	None
8	851.78	25.93	133.85	28.55	797.40	-47.31	-229.18	20.98	230.14	174.77	2.92	MWD_M	None
9	880.66	26.43	128.75	28.88	823.32	-40.31	-237.58	30.54	239.54	172.67	2.43	MWD_M	None
10	909.36	27.11	120.78	28.70	848.95	-32.04	-244.93	41.15	248.36	170.46	3.88	MWD_M	None
11	937.91	28.16	111.63	28.55	874.26	-22.14	-250.74	53.00	256.28	168.06	4.66	MWD_M	None
12	966.41	29.24	104.27	28.50	899.26	-10.72	-254.94	66.01	263.34	165.48	3.95	MWD_M	None
13	995.23	30.66	94.95	28.82	924.25	2.30	-257.31	80.16	269.50	162.70	5.14	MWD_M	None
14	1023.76	32.75	87.34	28.53	948.53	16.65	-257.58	95.12	274.58	159.73	4.82	MWD_M	None
15	1052.58	35.29	81.62	28.82	972.42	32.53	-256.00	111.15	279.09	156.53	4.32	MWD_M	None
16	1081.24	37.68	77.58	28.66	995.46	49.50	-252.91	127.90	283.41	153.17	3.60	MWD_M	None
17	1109.34	39.84	75.02	28.10	1017.38	67.08	-248.74	144.99	287.91	149.76	2.92	MWD_M	None
18	1138.46	41.78	74.55	29.12	1039.41	86.11	-243.74	163.35	293.41	146.17	2.06	MWD_M	None
19	1167.83	44.24	72.35	29.37	1060.89	106.13	-238.03	182.55	299.97	142.51	2.99	MWD_M	None
20	1196.40	47.70	70.47	28.57	1080.75	126.64	-231.47	202.01	307.22	138.89	3.96	MWD_M	None
21	1225.34	53.16	70.09	28.94	1099.17	148.87	-223.94	223.00	316.04	135.12	5.76	MWD_M	None
22	1253.69	57.54	69.00	28.35	1115.29	172.10	-215.79	244.84	326.36	131.39	4.81	MWD_M	None
23	1282.77	60.23	66.28	29.08	1130.32	196.80	-206.31	267.86	338.10	127.60	3.73	MWD_M	None
24	1311.50	60.76	65.10	28.73	1144.47	221.50	-196.02	290.64	350.57	124.00	1.23	MWD_M	None
25	1340.34	60.63	64.85	28.84	1158.58	246.29	-185.38	313.43	364.15	120.60	0.27	MWD_M	None
26	1368.96	60.09	65.12	28.62	1172.74	270.82	-174.86	335.97	378.75	117.50	0.63	MWD_M	None
27	1397.70	59.52	64.47	28.74	1187.19	295.29	-164.28	358.45	394.30	114.62	0.85	MWD_M	None
28	1426.34	58.55	64.49	28.64	1201.93	319.47	-153.70	380.61	410.47	111.99	1.03	MWD_M	None
29	1455.20	60.07	64.68	28.86	1216.66	343.90	-143.05	403.03	427.66	109.54	1.61	MWD_M	None
30	1483.55	59.43	64.20	28.35	1230.94	368.01	-132.49	425.12	445.29	107.31	0.82	MWD_M	None

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 (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
31	1512.77	58.76	64.38	29.22	1245.95	392.67	-121.61	447.71	463.93	105.20	0.72	MWD_M	None
32	1541.42	58.16	64.44	28.65	1260.93	416.70	-111.06	469.73	482.68	103.30	0.64	MWD_M	None
33	1570.15	59.56	65.25	28.73	1275.79	440.93	-100.61	491.99	502.17	101.56	1.66	MWD_M	None
34	1599.34	58.92	65.47	29.19	1290.72	465.69	-90.16	514.79	522.62	99.93	0.70	MWD_M	None
35	1627.43	58.47	65.54	28.09	1305.31	489.38	-80.20	536.63	542.59	98.50	0.49	MWD_M	None
36	1656.41	57.78	65.23	28.98	1320.62	513.67	-69.95	559.00	563.36	97.13	0.78	MWD_M	None
37	1684.98	60.11	66.13	28.57	1335.35	537.85	-59.88	581.30	584.38	95.88	2.62	MWD_M	None
38	1713.77	60.35	66.65	28.79	1349.65	562.58	-49.87	604.20	606.26	94.72	0.54	MWD_M	None
39	1742.29	60.38	67.16	28.52	1363.75	587.15	-40.15	627.00	628.29	93.66	0.47	MWD_M	None
40	1770.98	60.52	67.58	28.69	1377.90	611.90	-30.54	650.04	650.76	92.69	0.42	MWD_M	None
41	1799.28	60.10	66.37	28.30	1391.92	636.27	-20.93	672.67	672.99	91.78	1.22	MWD_M	None
42	1828.41	59.54	66.28	29.13	1406.56	661.19	-10.82	695.73	695.81	90.89	0.59	MWD_M	None
43	1857.33	59.89	66.49	28.92	1421.15	685.90	-0.81	718.61	718.61	90.06	0.42	MWD_M	None
44	1886.05	59.19	65.41	28.72	1435.71	710.37	9.28	741.22	741.28	89.28	1.24	MWD_M	None
45	1914.57	58.08	63.98	28.52	1450.55	734.36	19.68	763.23	763.49	88.52	1.76	MWD_M	None
46	1942.79	56.99	63.41	28.22	1465.70	757.74	30.23	784.58	785.16	87.79	1.29	MWD_M	None
47	1972.36	57.18	64.01	29.57	1481.77	782.11	41.23	806.83	807.89	87.07	0.55	MWD_M	None
48	2001.37	55.99	63.22	29.01	1497.74	805.88	51.99	828.52	830.15	86.41	1.43	MWD_M	None
49	2029.77	51.71	62.69	28.40	1514.49	828.33	62.41	848.95	851.24	85.80	4.62	MWD_M	None
50	2058.74	50.93	62.28	28.97	1532.60	850.44	72.86	869.00	872.05	85.21	0.89	MWD_M	None
51	2086.72	48.80	65.03	27.98	1550.63	871.43	82.35	888.16	891.97	84.70	3.26	MWD_M	None
52	2115.75	48.15	65.08	29.03	1569.88	892.87	91.52	907.87	912.47	84.24	0.68	MWD_M	None
53	2144.40	49.73	64.84	28.65	1588.70	914.16	100.66	927.44	932.89	83.81	1.69	MWD_M	None
54	2173.43	49.76	65.17	29.03	1607.46	936.00	110.03	947.52	953.89	83.38	0.27	MWD_M	None
55	2201.57	49.37	64.61	28.14	1625.71	957.11	119.11	966.92	974.23	82.98	0.63	MWD_M	None
56	2230.27	49.06	64.74	28.70	1644.46	978.52	128.41	986.56	994.88	82.58	0.35	MWD_M	None
57	2259.39	48.64	64.07	29.12	1663.62	1000.10	137.88	1006.33	1015.74	82.20	0.69	MWD_M	None
58	2288.01	48.25	64.15	28.62	1682.60	1021.15	147.23	1025.60	1036.12	81.83	0.42	MWD_M	None
59	2316.76	49.07	66.21	28.75	1701.59	1042.44	156.29	1045.19	1056.81	81.50	1.86	MWD_M	None
60	2344.65	48.89	66.52	27.89	1719.90	1063.27	164.73	1064.47	1077.14	81.20	0.32	MWD_M	None

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 (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
61	2373.58	48.25	66.28	28.93	1739.04	1084.73	173.41	1084.35	1098.12	80.91	0.70	MWD_M	None
62	2402.92	49.20	66.13	29.34	1758.40	1106.55	182.31	1104.52	1119.47	80.63	0.99	MWD_M	None
63	2431.08	48.62	66.30	28.16	1776.90	1127.54	190.87	1123.94	1140.03	80.36	0.64	MWD_M	None
64	2460.13	49.95	65.85	29.05	1795.85	1149.31	199.80	1144.07	1161.38	80.09	1.44	MWD_M	None
65	2488.84	49.35	65.62	28.71	1814.44	1170.93	208.79	1164.02	1182.59	79.83	0.66	MWD_M	None
66	2517.23	48.63	65.62	28.39	1833.07	1192.09	217.63	1183.53	1203.37	79.58	0.77	MWD_M	None
67	2546.07	47.83	65.31	28.84	1852.28	1213.32	226.56	1203.10	1224.24	79.34	0.88	MWD_M	None

68	2574.83	47.11	65.06	28.76	1871.72	1234.23	235.46	1222.33	1244.80	79.10	0.79	MWD_M	None
69	2603.43	48.24	65.36	28.60	1890.98	1255.09	244.32	1241.53	1265.34	78.87	1.23	MWD_M	None
70	2632.59	48.17	65.27	29.16	1910.41	1276.54	253.40	1261.28	1286.49	78.64	0.10	MWD_M	None
71	2661.39	49.16	65.60	28.80	1929.43	1297.89	262.39	1280.95	1307.55	78.42	1.08	MWD_M	None
72	2690.29	48.68	65.74	28.90	1948.43	1319.41	271.37	1300.80	1328.80	78.22	0.52	MWD_M	None
73	2718.76	48.01	65.80	28.47	1967.35	1340.43	280.10	1320.20	1349.58	78.02	0.72	MWD_M	None
74	2747.67	49.43	64.78	28.91	1986.42	1361.86	289.18	1339.93	1370.78	77.82	1.70	MWD_M	None
75	2776.45	49.38	65.05	28.78	2005.15	1383.40	298.45	1359.72	1392.09	77.62	0.22	MWD_M	None
76	2805.33	48.72	64.80	28.88	2024.08	1404.90	307.69	1379.48	1413.38	77.43	0.72	MWD_M	None
77	2833.87	48.21	64.83	28.54	2043.00	1425.95	316.78	1398.81	1434.23	77.24	0.55	MWD_M	None
78	2862.63	47.55	64.64	28.76	2062.29	1446.97	325.89	1418.10	1455.07	77.06	0.72	MWD_M	None
79	2891.32	47.05	64.46	28.69	2081.75	1467.73	334.95	1437.14	1475.66	76.88	0.55	MWD_M	None
80	2919.83	47.96	64.99	28.51	2101.00	1488.44	343.92	1456.15	1496.22	76.71	1.06	MWD_M	None
81	2948.29	47.96	65.05	28.46	2120.06	1509.28	352.85	1475.31	1516.92	76.55	0.05	MWD_M	None
82	2976.25	49.01	65.54	27.96	2138.59	1529.93	361.60	1494.33	1537.46	76.40	1.21	MWD_M	None
83	3005.57	48.62	65.49	29.32	2157.90	1551.72	370.74	1514.41	1559.13	76.24	0.41	MWD_M	None
84	3034.29	47.73	65.38	28.72	2177.05	1572.85	379.64	1533.88	1580.16	76.10	0.95	MWD_M	None
85	3063.17	48.05	65.15	28.88	2196.42	1593.99	388.60	1553.34	1601.21	75.95	0.38	MWD_M	None
86	3092.20	48.72	65.42	29.03	2215.70	1615.40	397.68	1573.05	1622.54	75.81	0.73	MWD_M	None
87	3120.37	47.95	65.58	28.17	2234.43	1636.18	406.40	1592.20	1643.25	75.68	0.84	MWD_M	None
88	3149.13	47.29	65.77	28.76	2253.81	1657.17	415.15	1611.56	1664.17	75.55	0.72	MWD_M	None
89	3178.32	46.95	65.57	29.19	2273.67	1678.29	423.97	1631.05	1685.25	75.43	0.39	MWD_M	None
90	3207.32	47.18	65.18	29.00	2293.43	1699.25	432.81	1650.35	1706.16	75.30	0.39	MWD_M	None
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Seq	Measured	Incl	Azimuth	Course	TVD	Vertical	Displ	Displ	Total	At	DLS	Srvy	Tool
#	depth	angle	angle	length	depth	section	+N/S-	+E/W-	displ	Azim	(deg/	tool	Corr
-	(m)	(deg)	(deg)	(m)	(m)	(m)	(m)	(m)	(m)	(deg)	100f)	type	(deg)
===	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
91	3236.01	47.26	64.96	28.69	2312.91	1720.01	441.69	1669.45	1726.89	75.18	0.19	MWD_M	None
92	3264.43	47.39	64.83	28.42	2332.18	1740.61	450.56	1688.37	1747.45	75.06	0.17	MWD	None
93	3293.06	47.29	64.14	28.63	2351.58	1761.33	459.62	1707.37	1768.15	74.93	0.55	MWD	None
94	3316.55	47.33	63.97	23.49	2367.51	1778.31	467.18	1722.89	1785.11	74.83	0.17	MWD	None
95	3338.00	47.36	63.82	21.45	2382.04	1793.81	474.12	1737.06	1800.60	74.73	0.16	Proj.	to TD
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Company:

ESSO Australia Pty. Ltd.

Well:

WKF W23A

Field:

West Kingfish

Rig:

ISDL 453

State:

VIC

Gamma Ray Service

1:500 Measured Depth

Real Time Log

Schlumberger

