

Depth logged:	1434.0 m	To 2785.3 m	
Date logged:	24-Nov-05	To 28-Nov-05	
		Mag decl:	13.10 deg.
		Mag dip:	-69.02 deg.
		Other services:	
		Directional Drilling, D&I	

Surface equipment	Software record
-------------------	-----------------

# Bit Run Summary

Run number		2	3							
Bit size	in.	8.5	8.5							
Bit start depth	m	1434.0	1475.0							
Bit end depth	m	1475.0	2804.0							
Top interval logged	m	1434.0	1456.3							
Bottom interval logged	m	1456.3	2785.3							
Begin log: time		08:45	22:50							
Begin log: date		24-Nov-05	24-Nov-05							
End log: time		11:05	14:40							
End log: date		24-Nov-05	28-Nov-05							
<b>Mud data</b>										
Depth	m	1475.0	2804.0							
Type		KCl/PHPA/Gly	KCl/PHPA/Gly							
Mud weight	ppg	9.8	10.10							
Solids	%	6.3	8.2							
Chlorides	mg/l	45,500	40,500							
Rm		N/A	N/A							
Rmf		N/A	N/A							
Rmc		N/A	N/A							

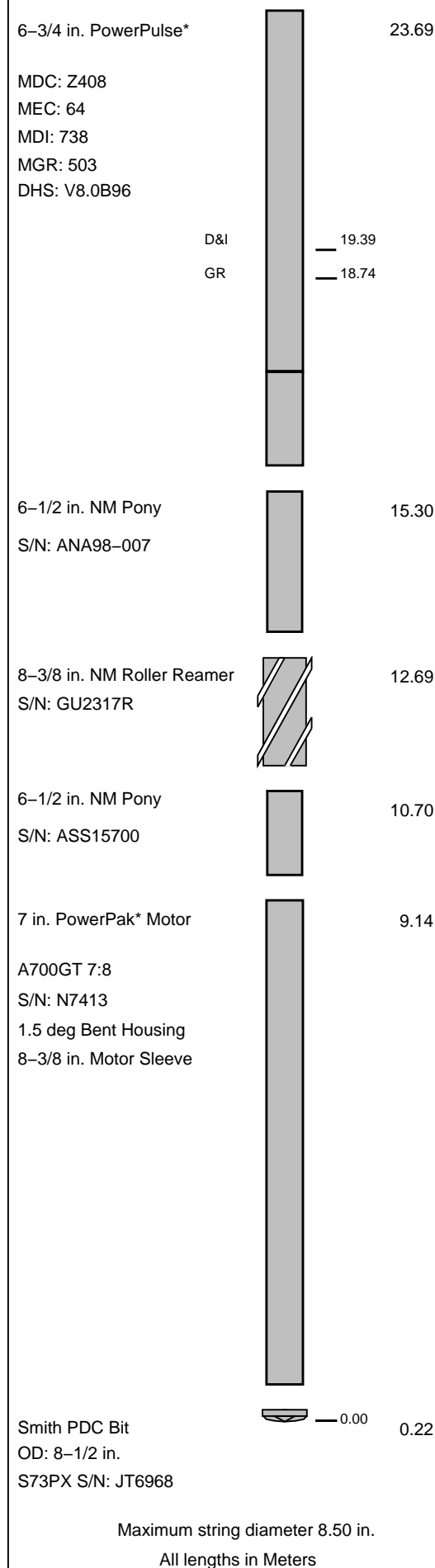
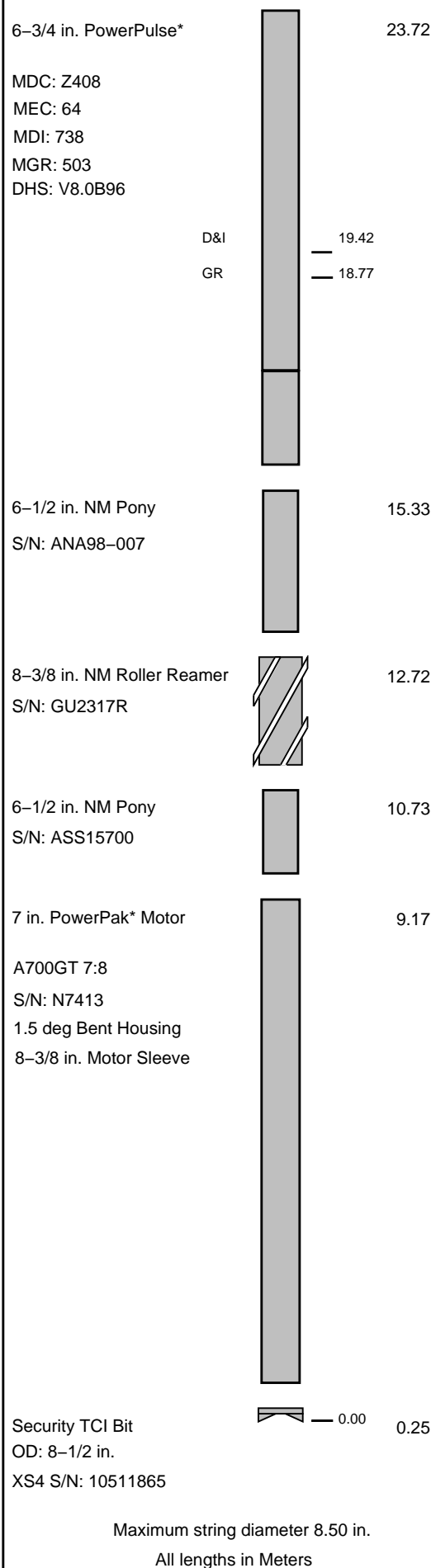
Potassium	%	4	4								
<b>Environmental data</b>											
<b>GR</b>											
Mud weight	ppg	9.8	10.10								
Bit size	in.	8.5	8.5								
<b>Resistivity</b>											
<b>Neutron porosity</b>											
Hole Size											
Mud weight											
Temperature											
Mud salinity											
Formation salinity											
Recording rate 1	SEC	2.97									
Recording rate 2	SEC	N/A									
Filtering GR		3 pt.									
Filtering density		N/A									
Filtering Neutron		N/A									
Company representative		G. Campbell	B. Steel	J. McKinnon							
Schlumberger D&M Personnel		L. Johnston	R. Burns	C. Soper	L. Muskett	A. Qadar					

<p style="text-align: center;"><b>DISCLAIMER</b></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>		
<b>OTHER SERVICES FOR RUN2</b> Directional Drilling Directional Surveys	<b>OTHER SERVICES FOR RUN3</b> Directional Drilling Directional Surveys	<b>OTHER SERVICES FOR RUN</b>
<b>REMARKS: RUN NUMBER 2</b> Depth is referenced to Driller's Depth  All data presented is from Real-time transmission.  Environmental Corrections: – Gamma Ray was corrected for mud weight, tool and bit size. Gamma Ray is not corrected for Potassium.  8–1/2 in. hole was drilled from 1434.0 m to 1475.0 m MD.  POOH to change bit.	<b>REMARKS: RUN NUMBER 3</b> Depth is referenced to Driller's Depth  All data presented is from Real-time transmission.  Environmental Corrections: – Gamma Ray was corrected for mud weight, tool and bit size. Gamma Ray is not corrected for Potassium.  8–1/2 in. hole was drilled from 1475.0 m to 2804.0 m MD.  Data loss between 2744m and 2749m due to downhole noise.	<b>REMARKS: RUN NUMBER</b>

<b>EQUIPMENT DESCRIPTION</b>		
RUN2	RUN3	RUN
DOWNHOLE EQUIPMENT	DOWNHOLE EQUIPMENT	

## DOWNHOLE EQUIPMENT

## DOWNHOLE EQUIPMENT

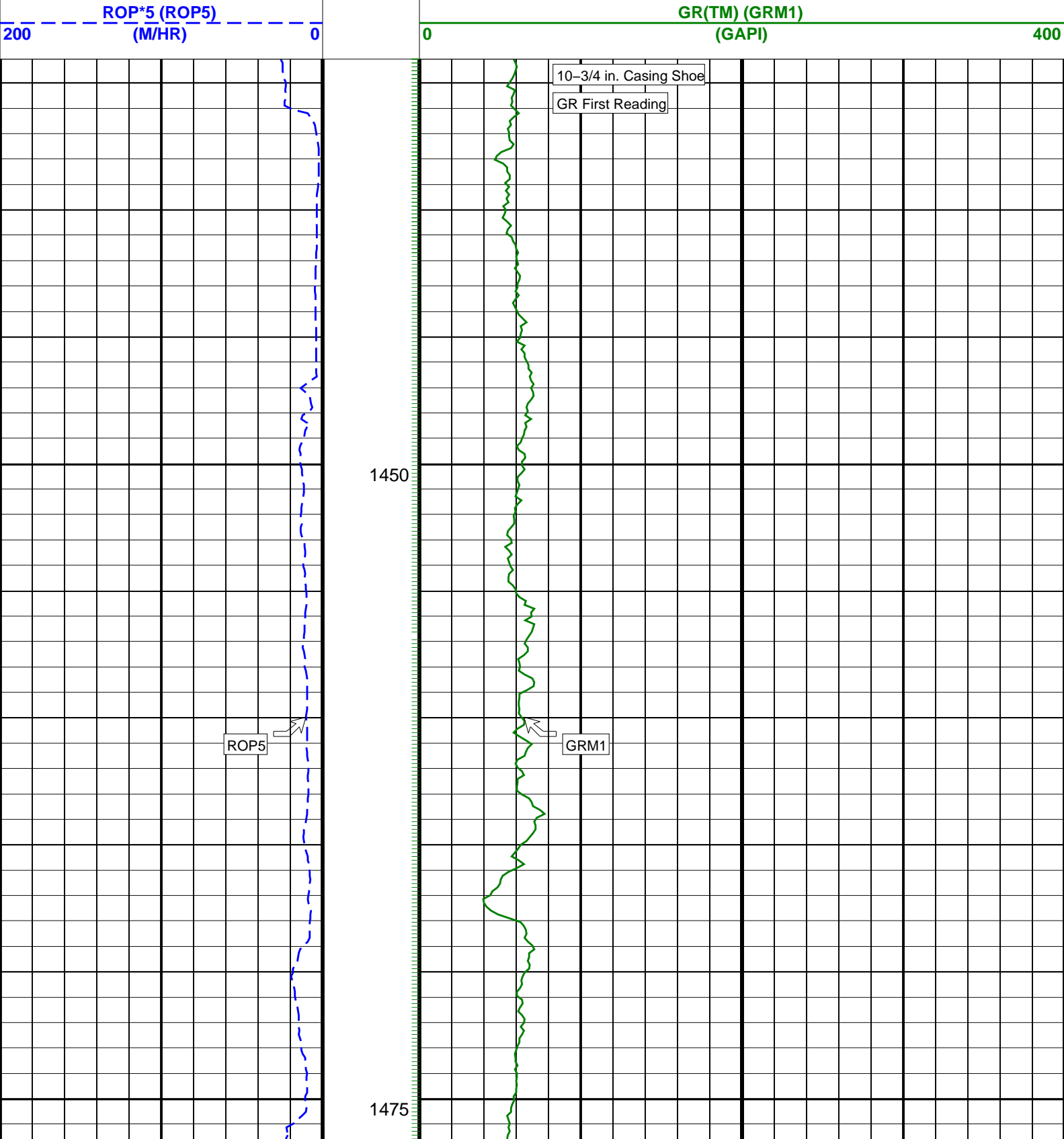


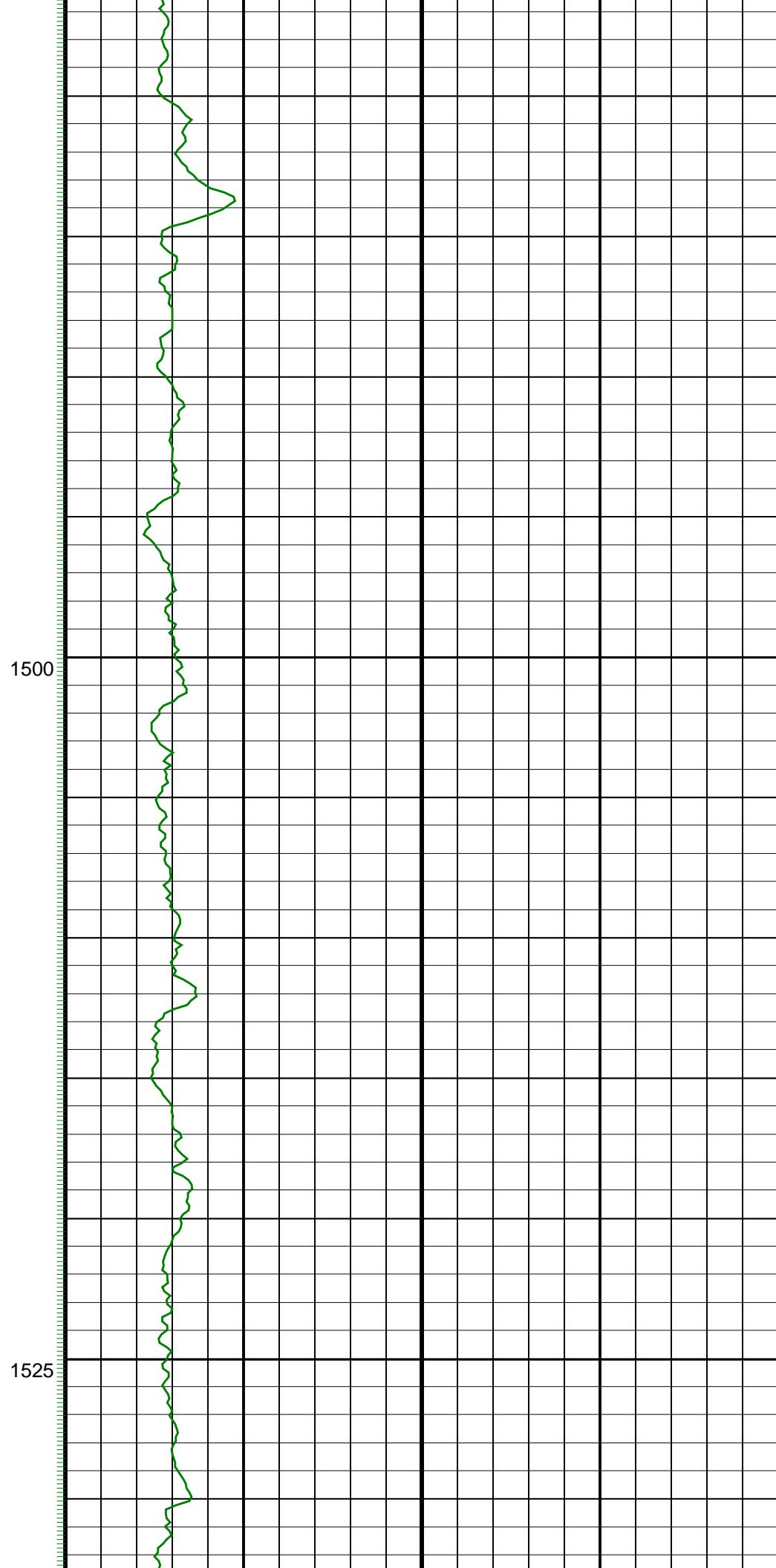
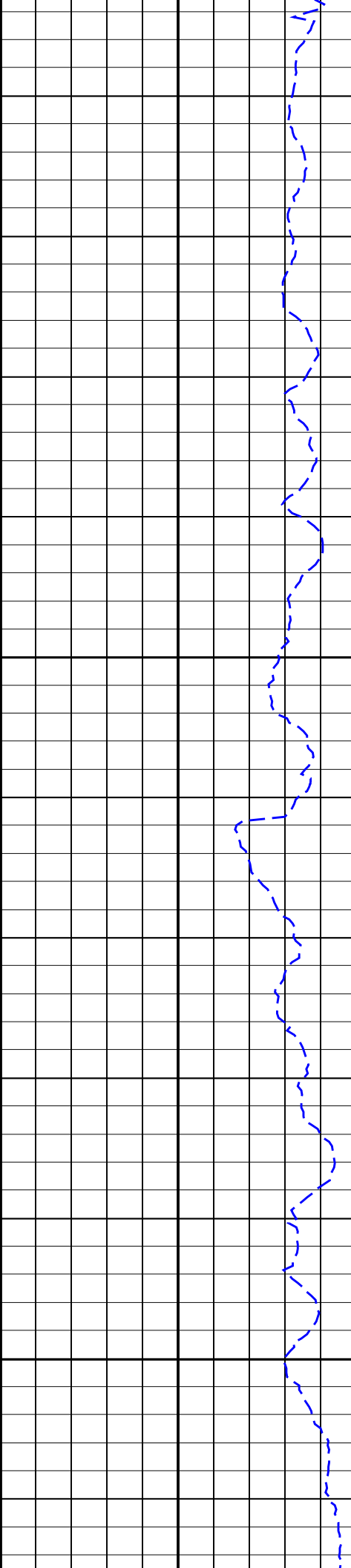
# BMA A19A RT 200MD

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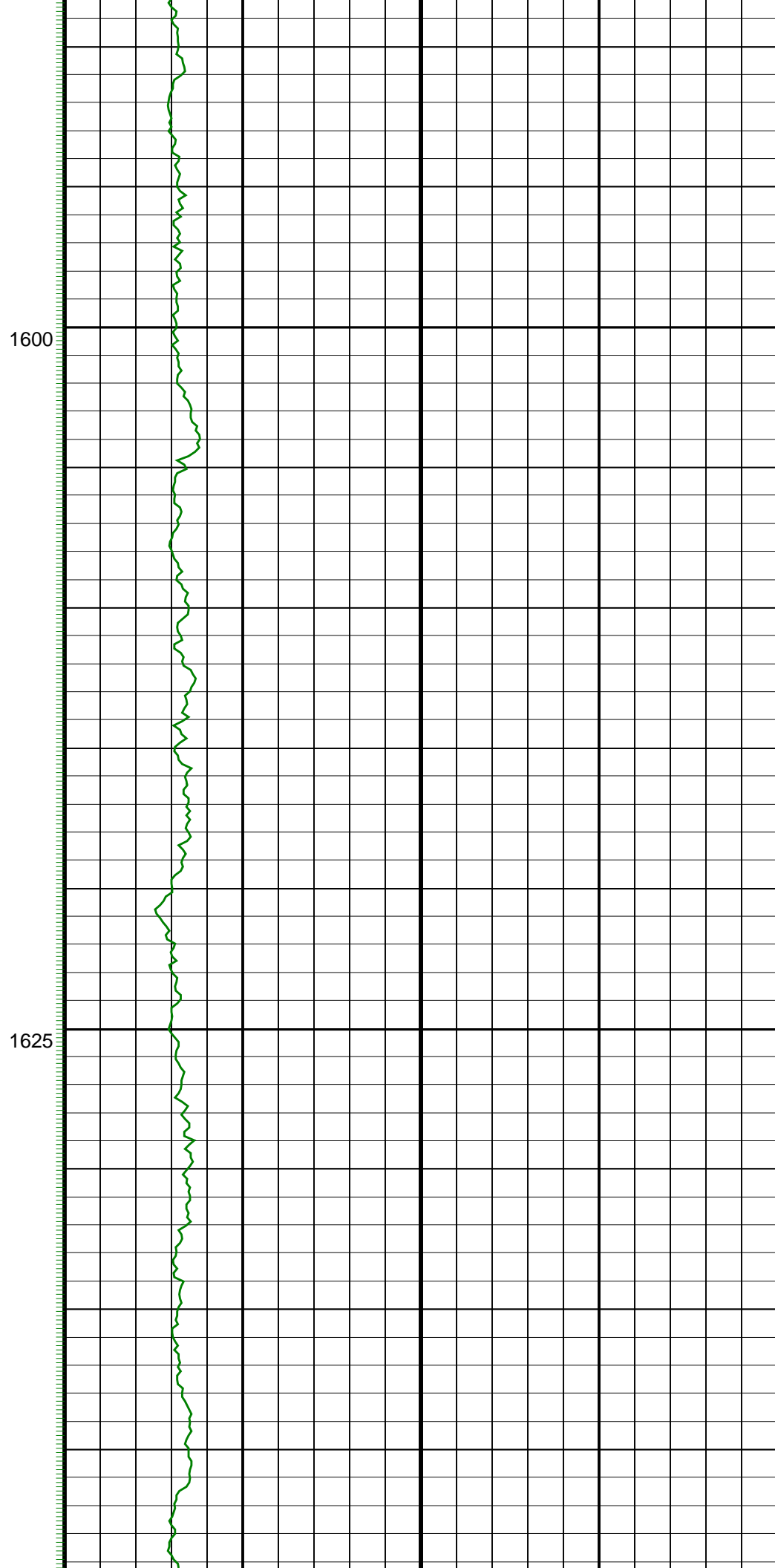
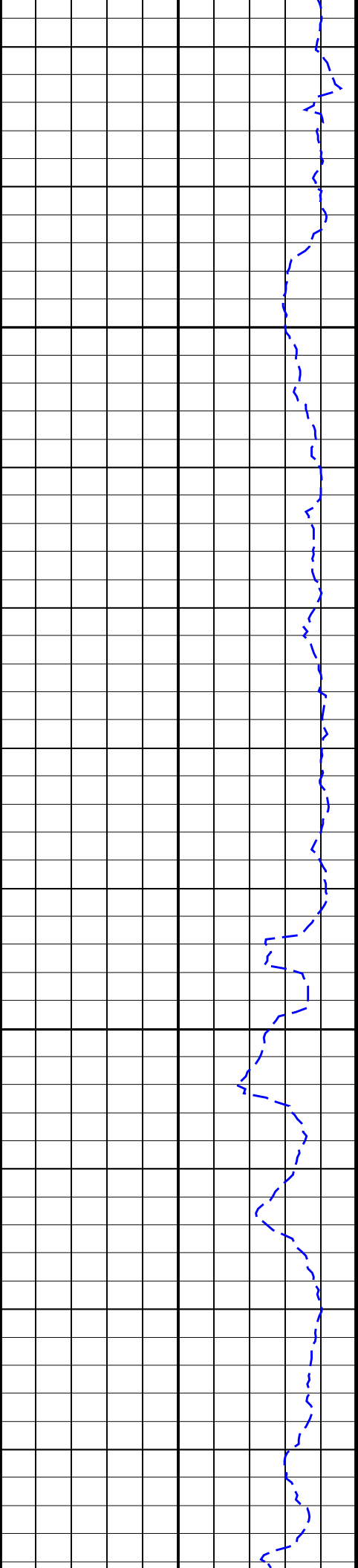
## PIP SUMMARY

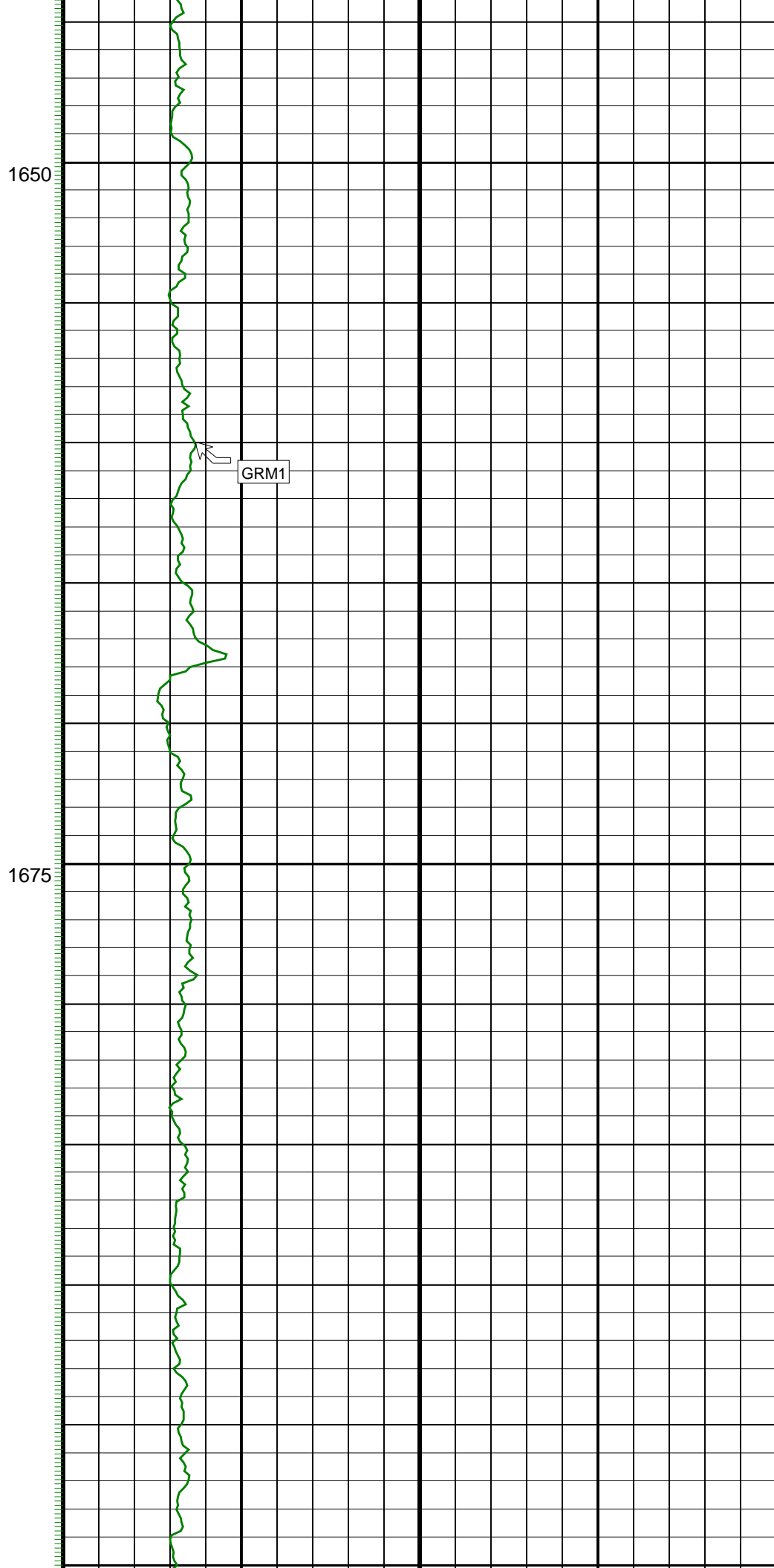
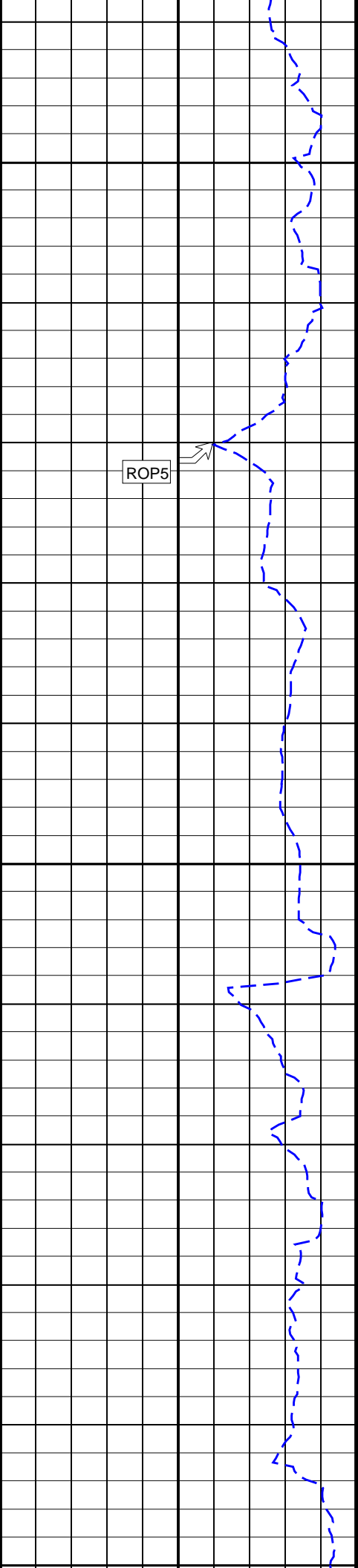
GR(TM) PIP



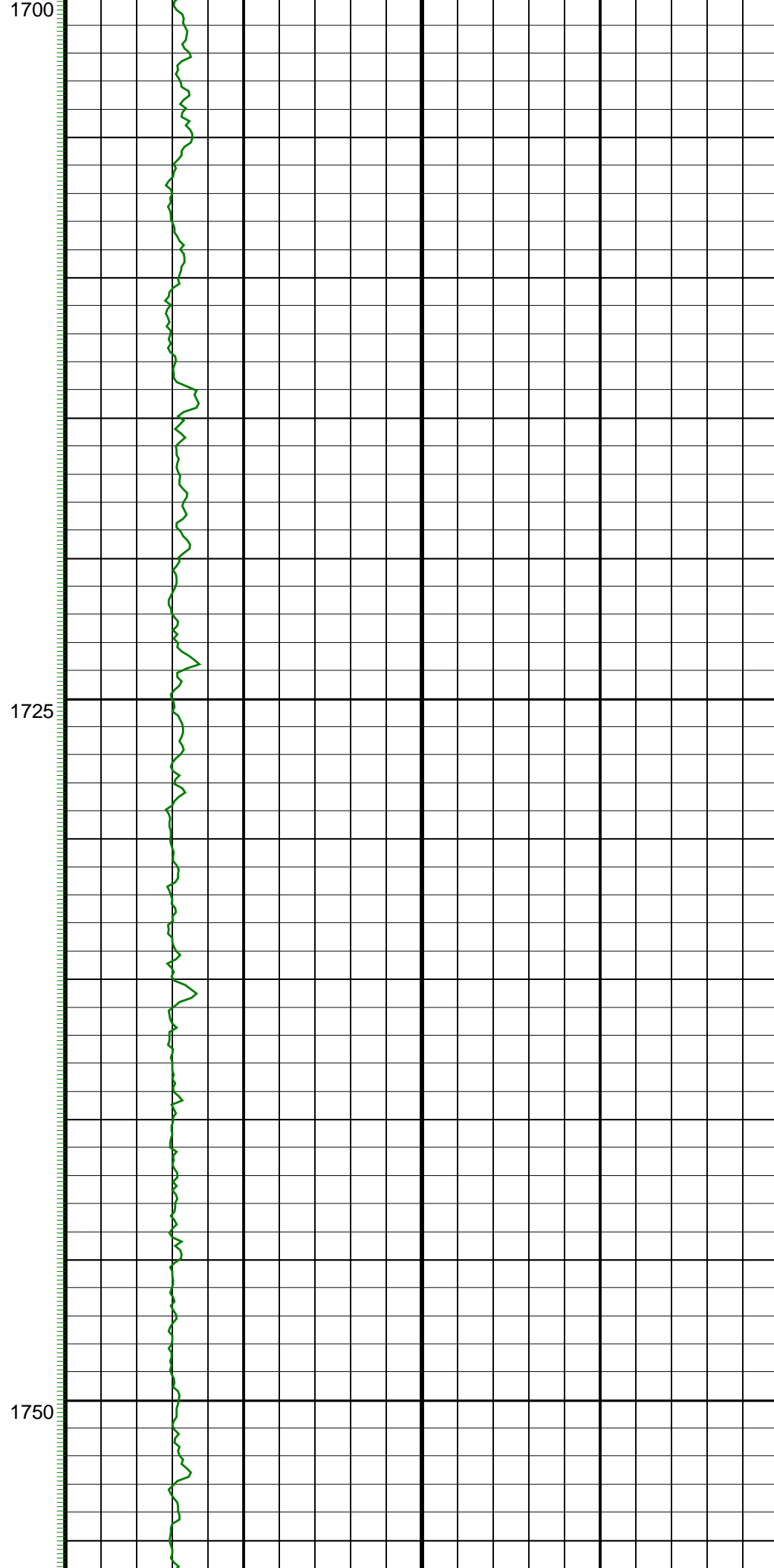
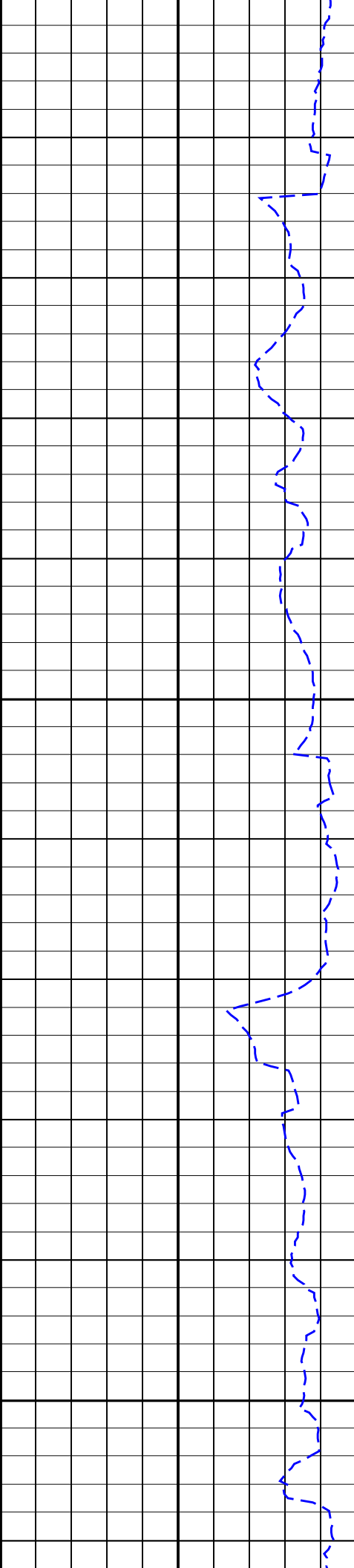








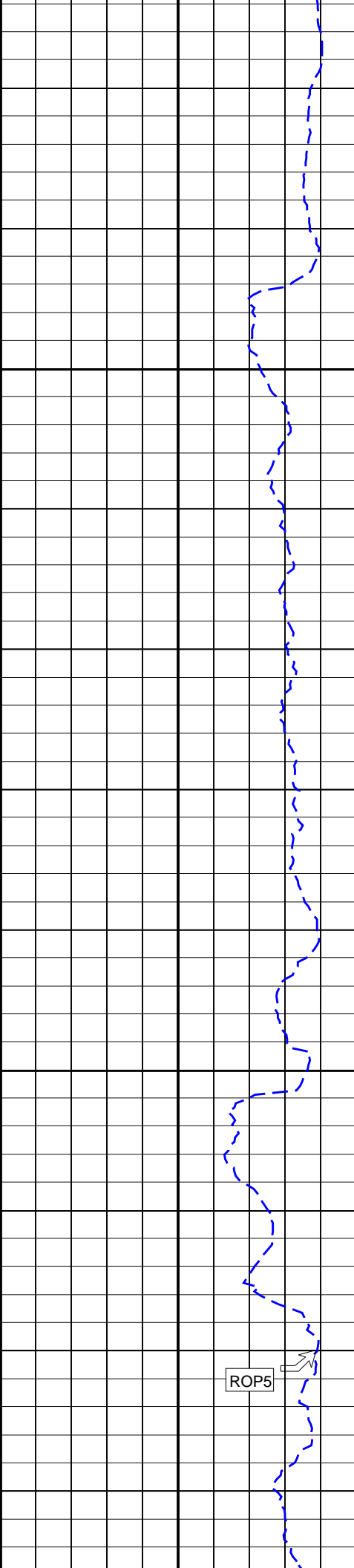






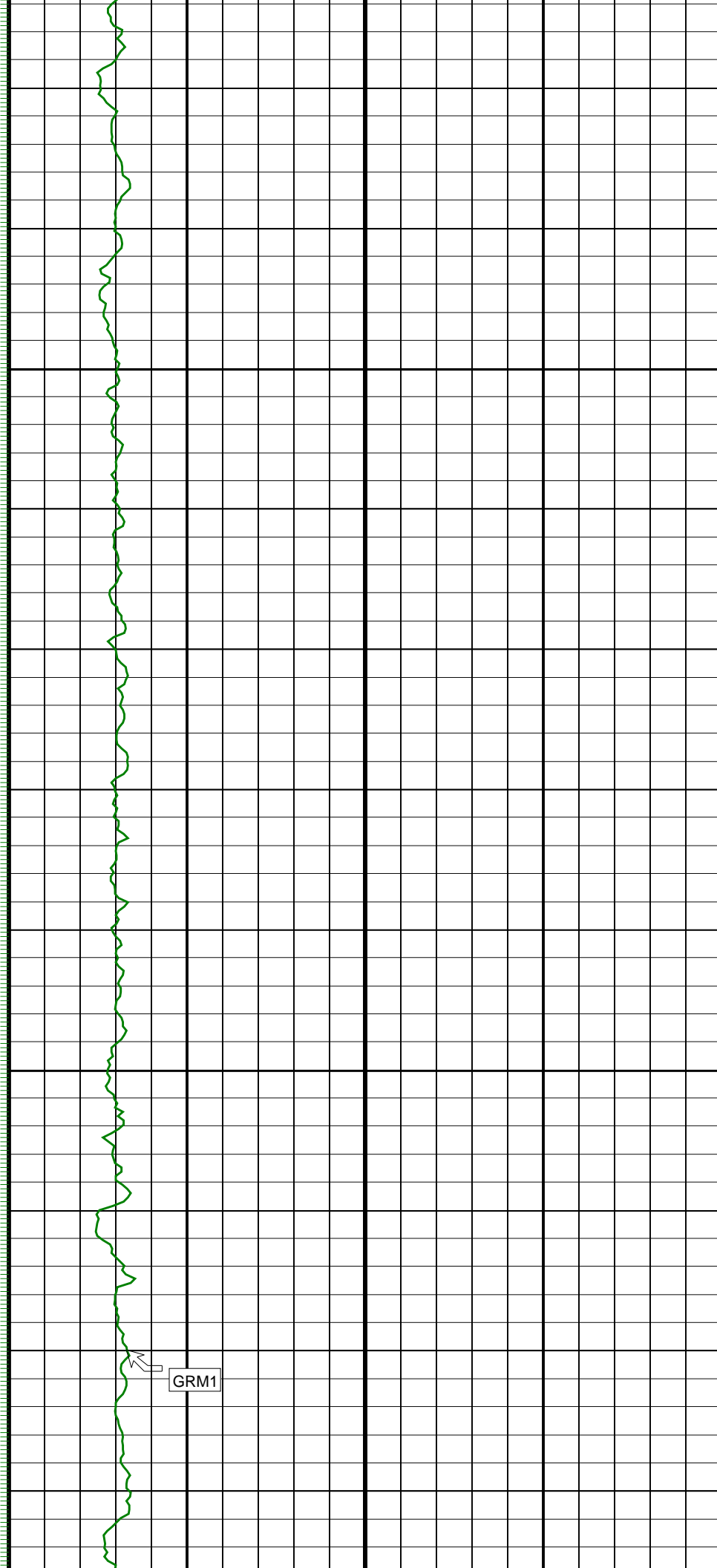
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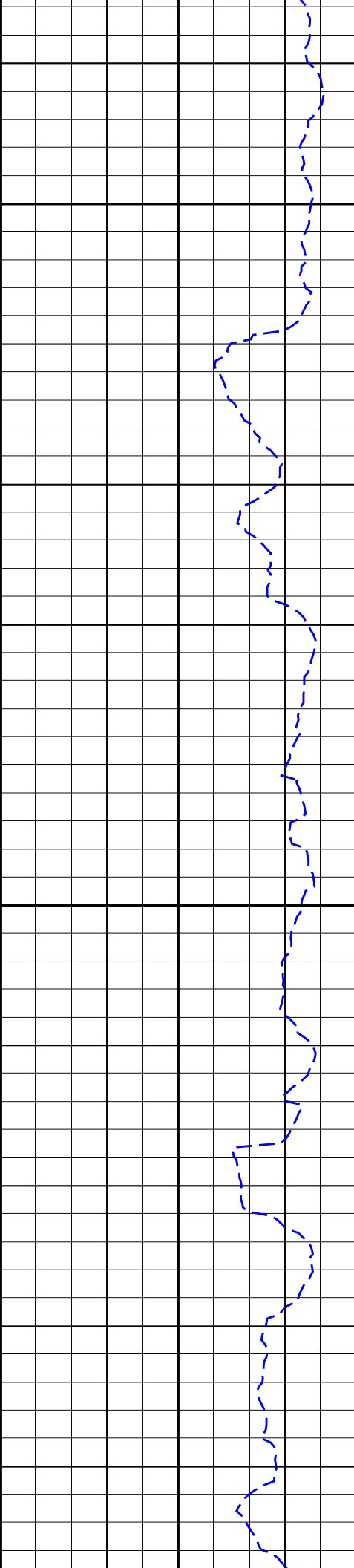
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1825

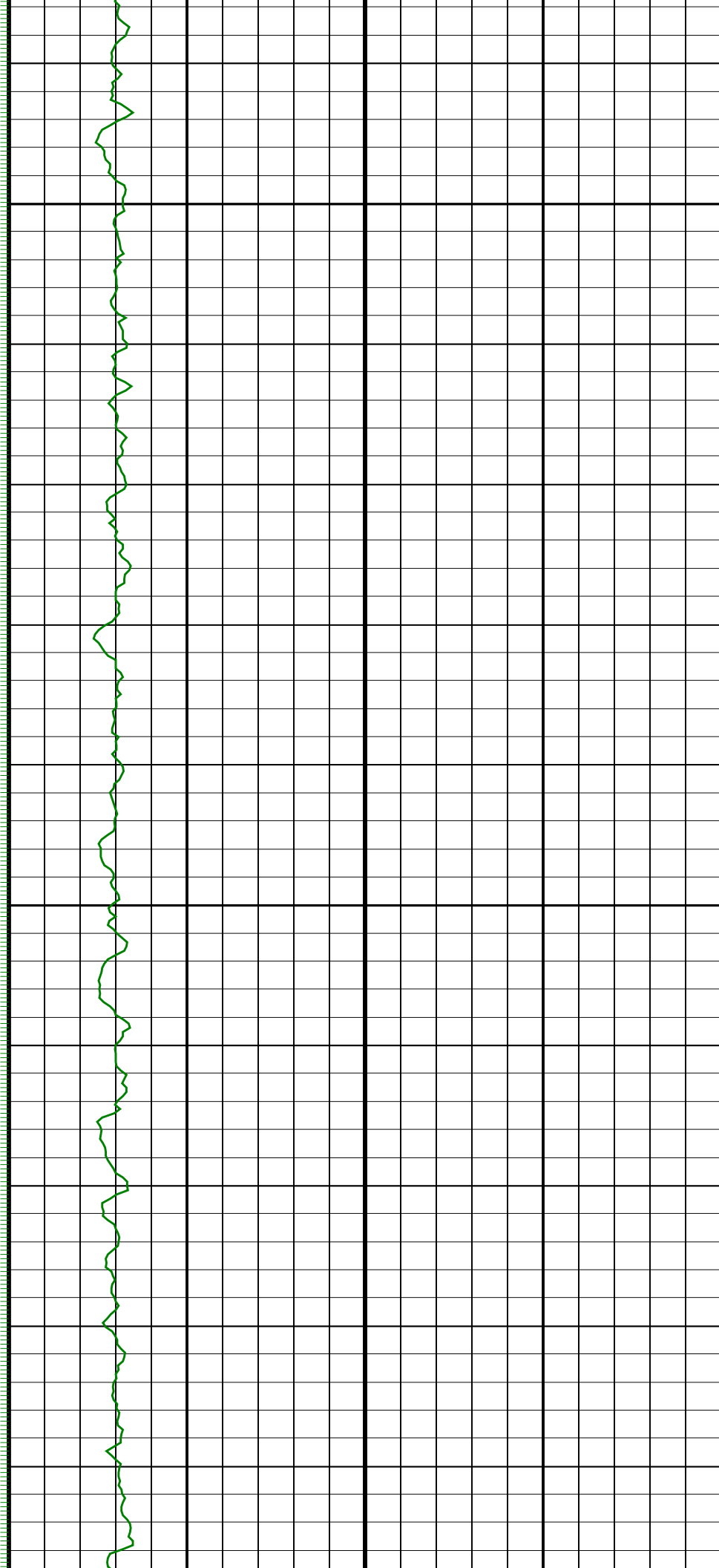
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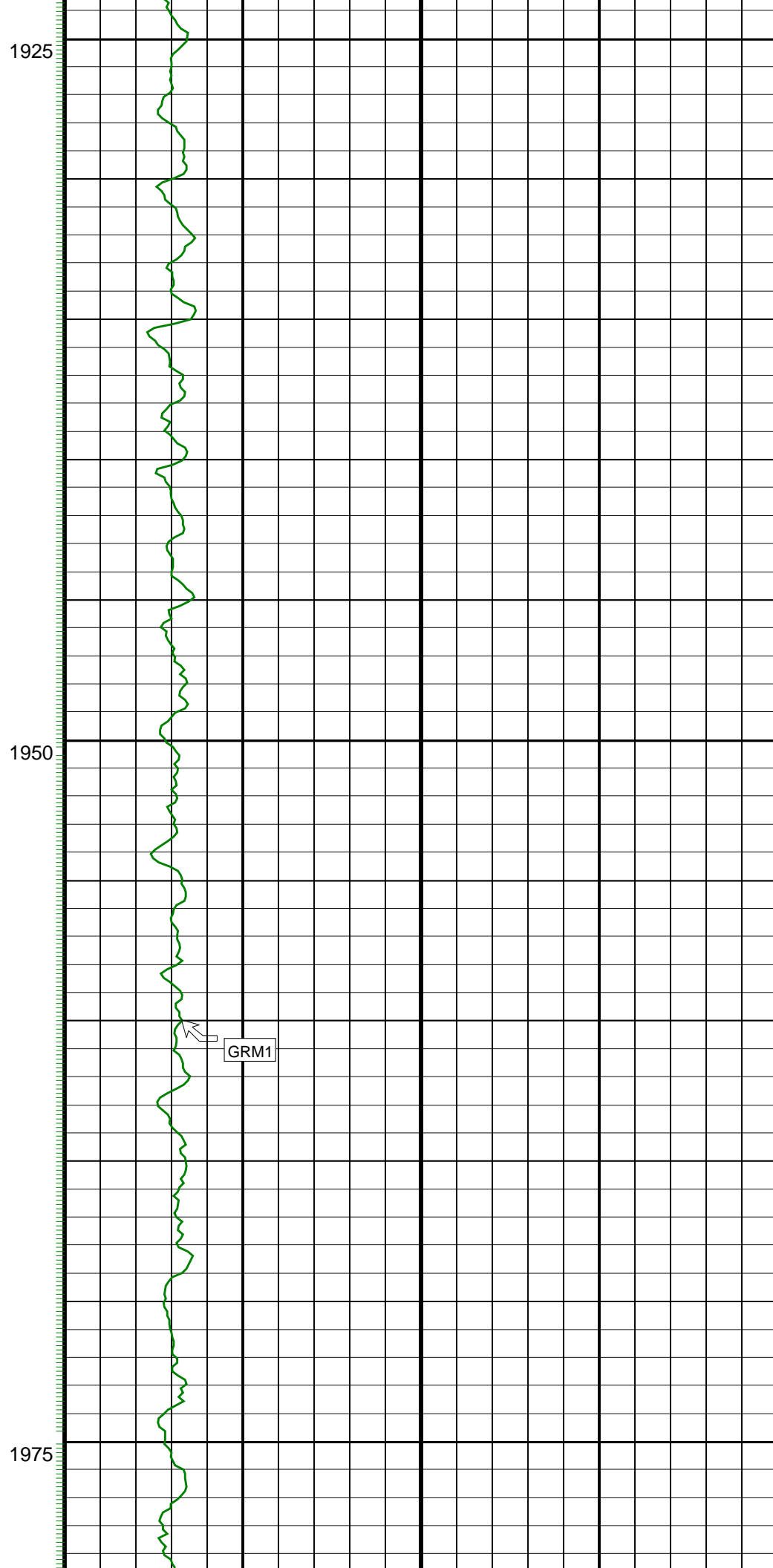
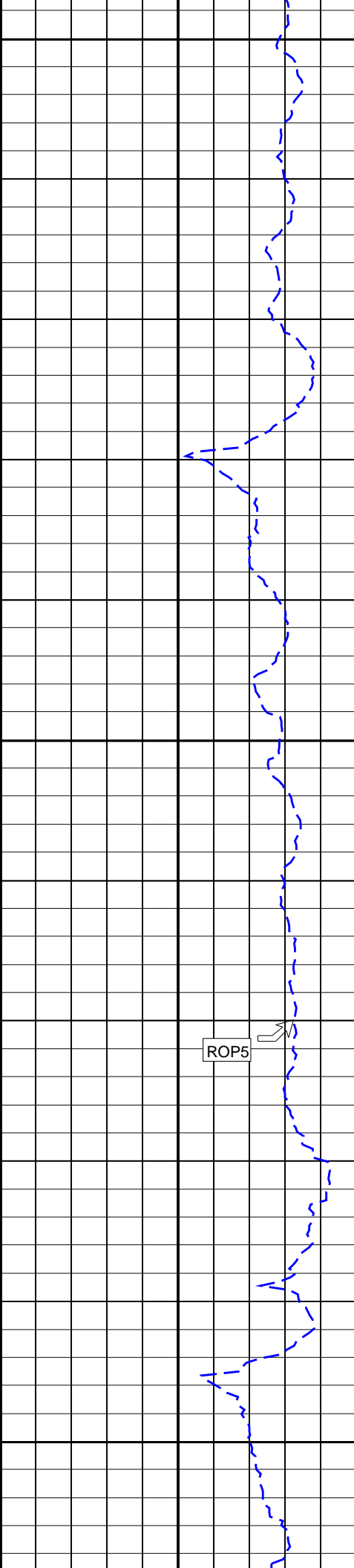


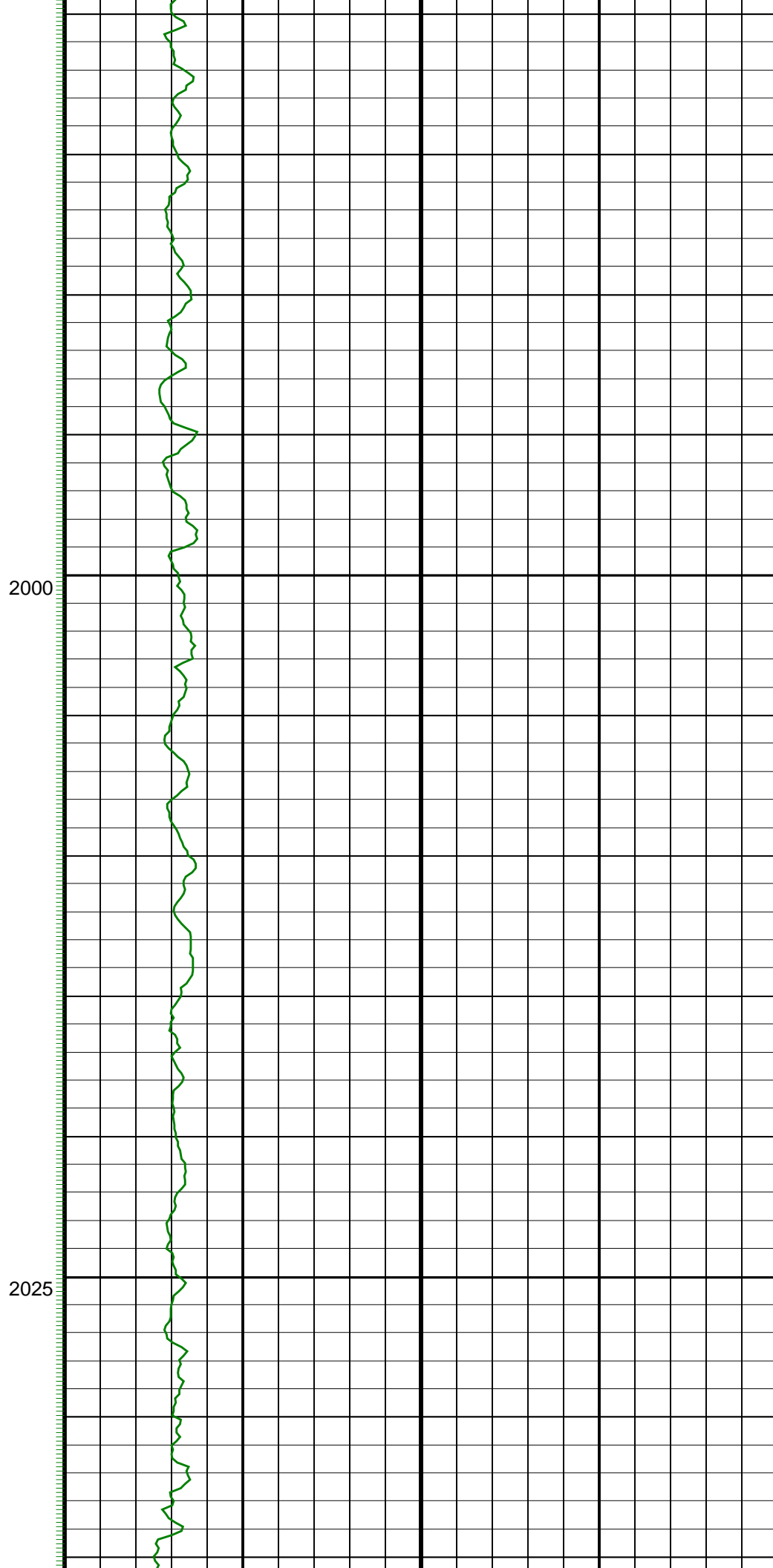
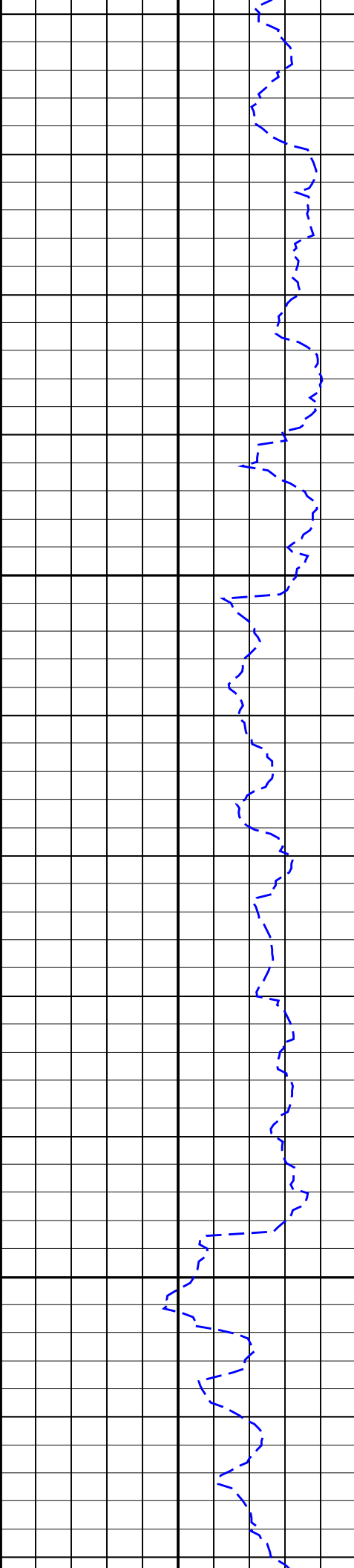


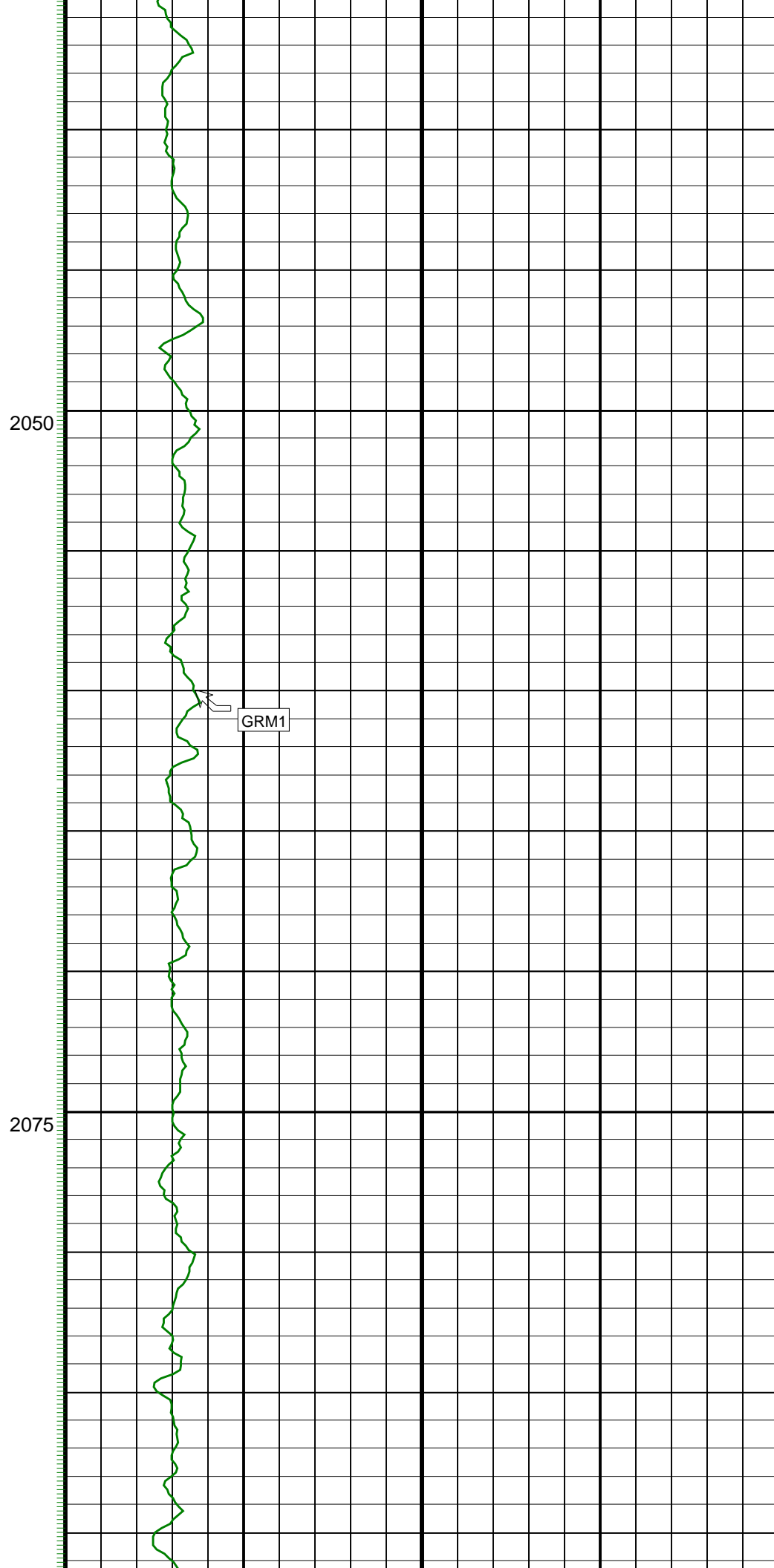
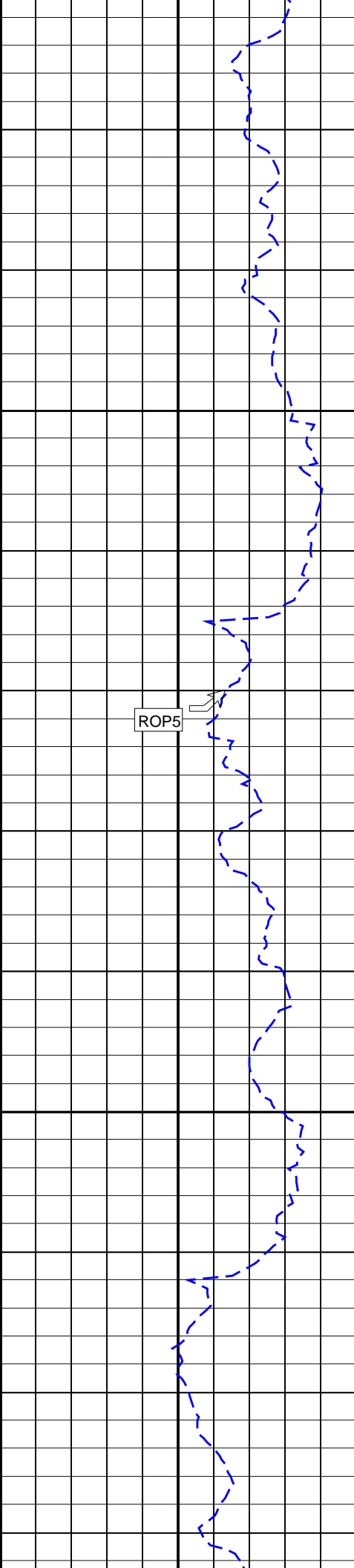
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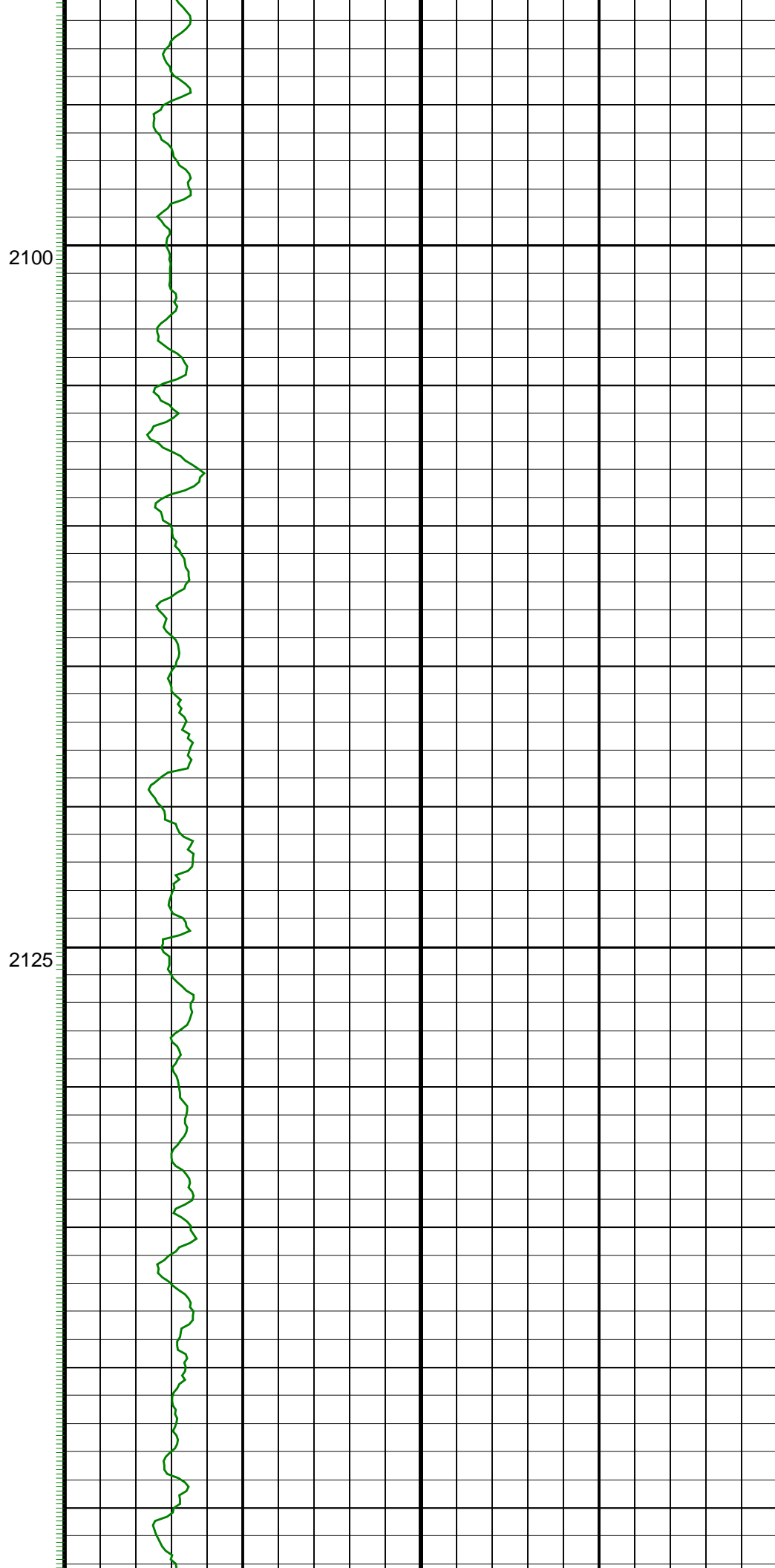
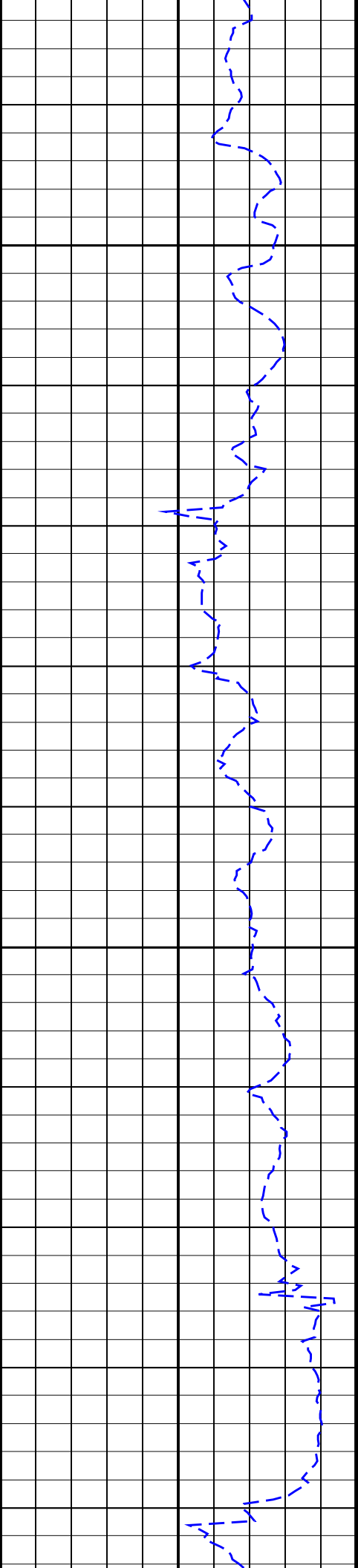
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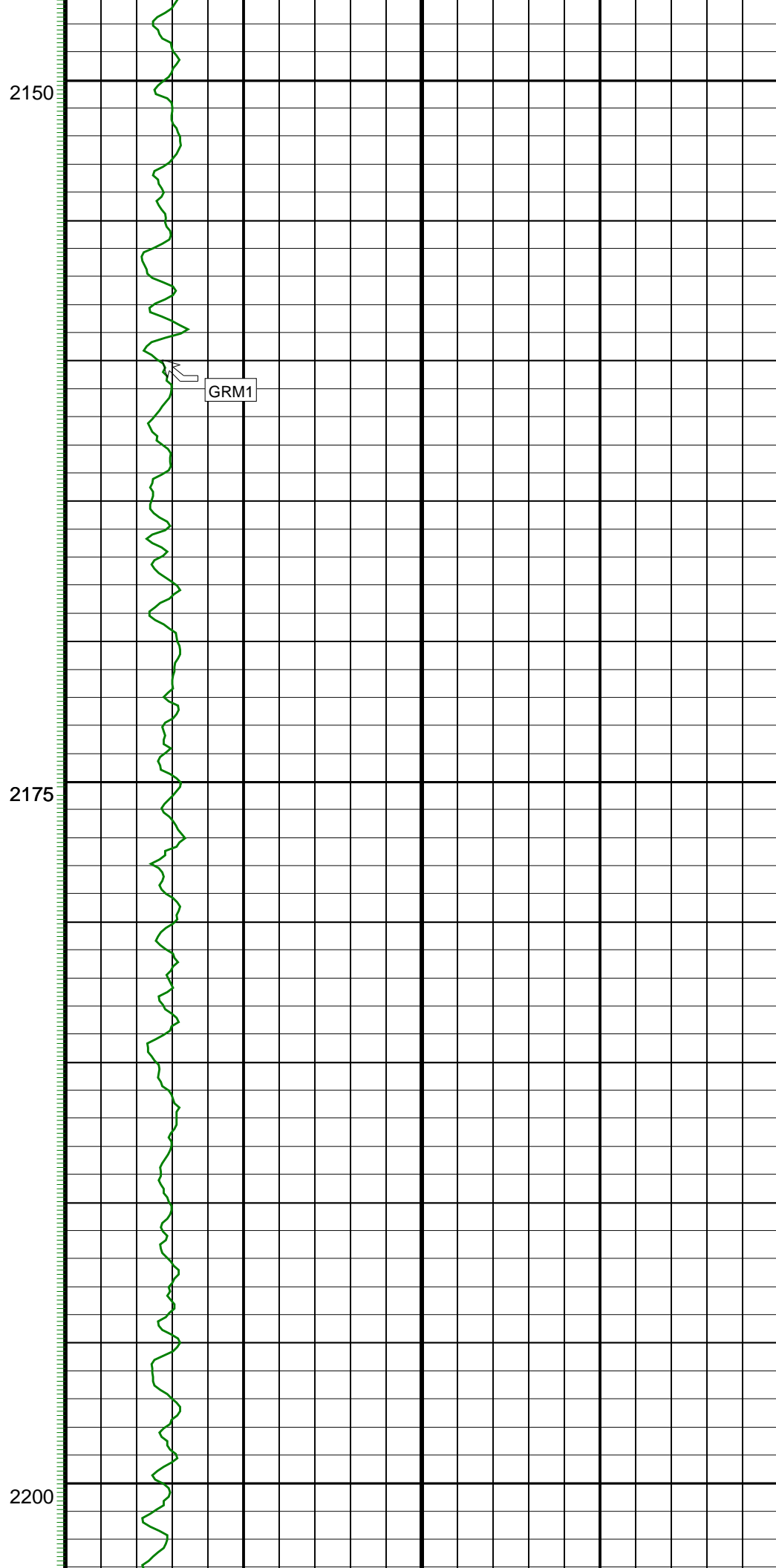
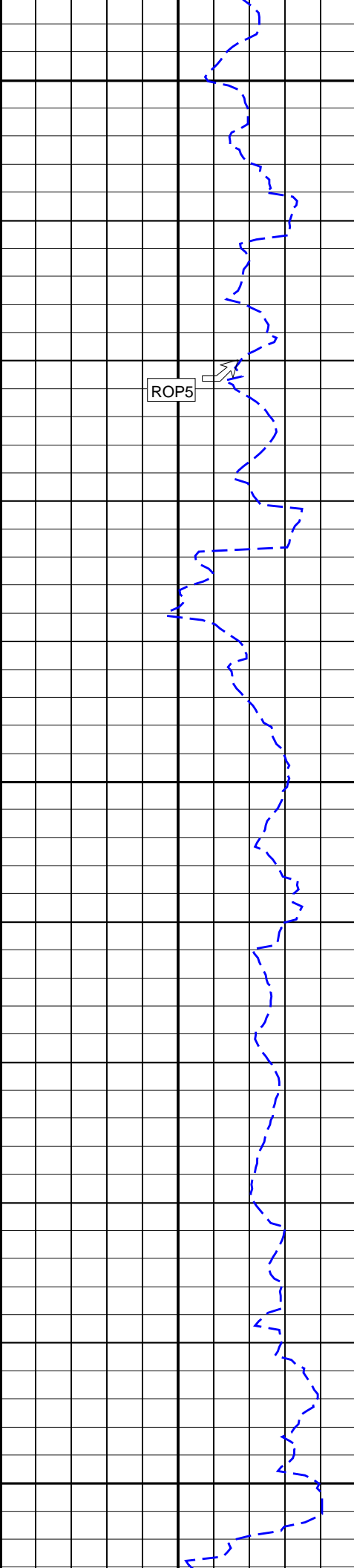








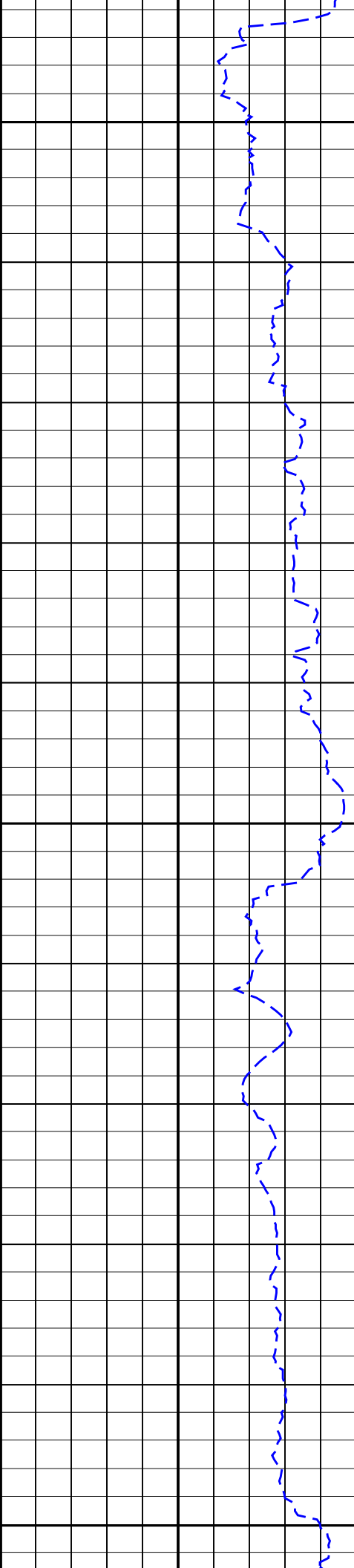








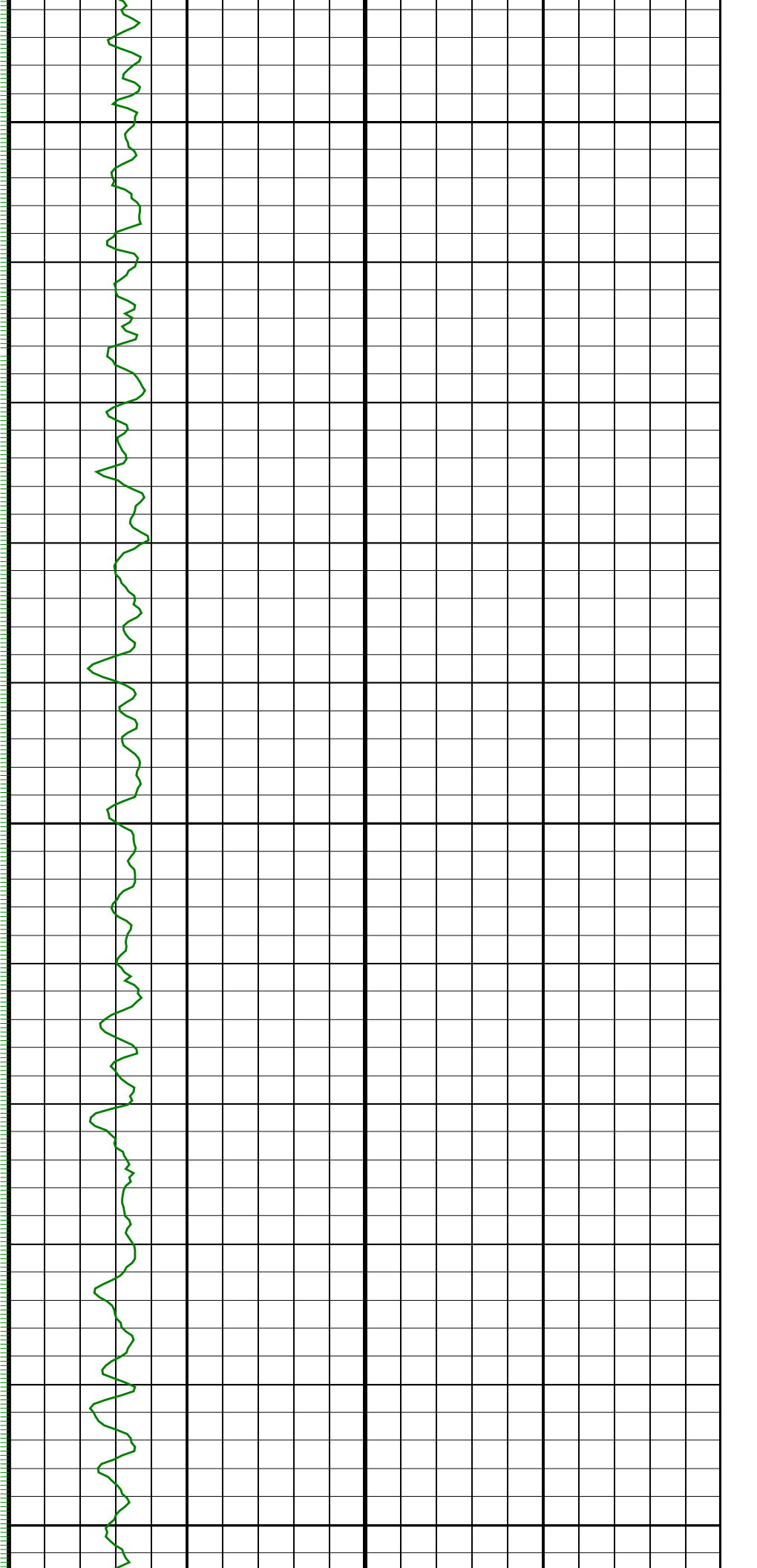


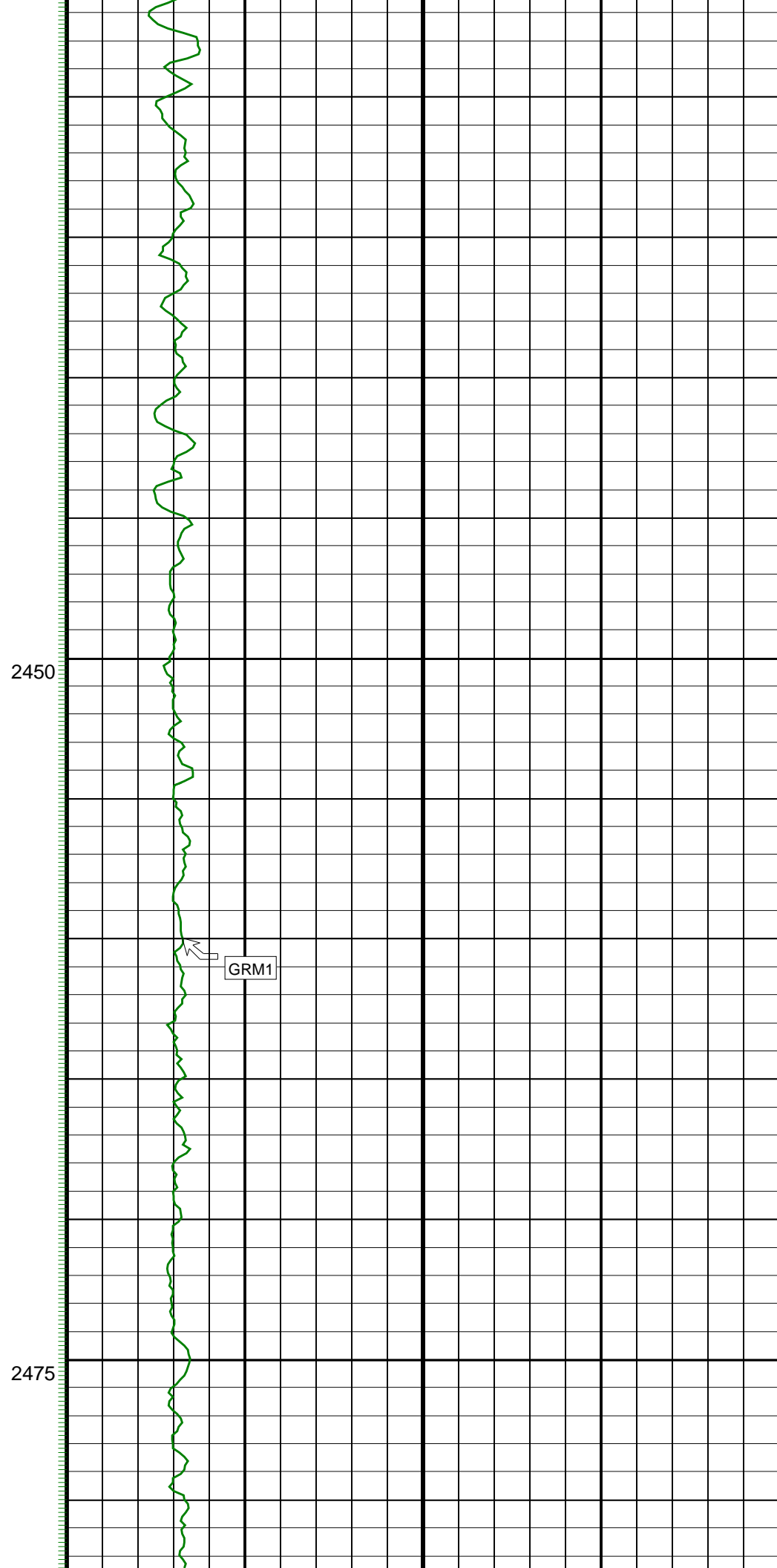
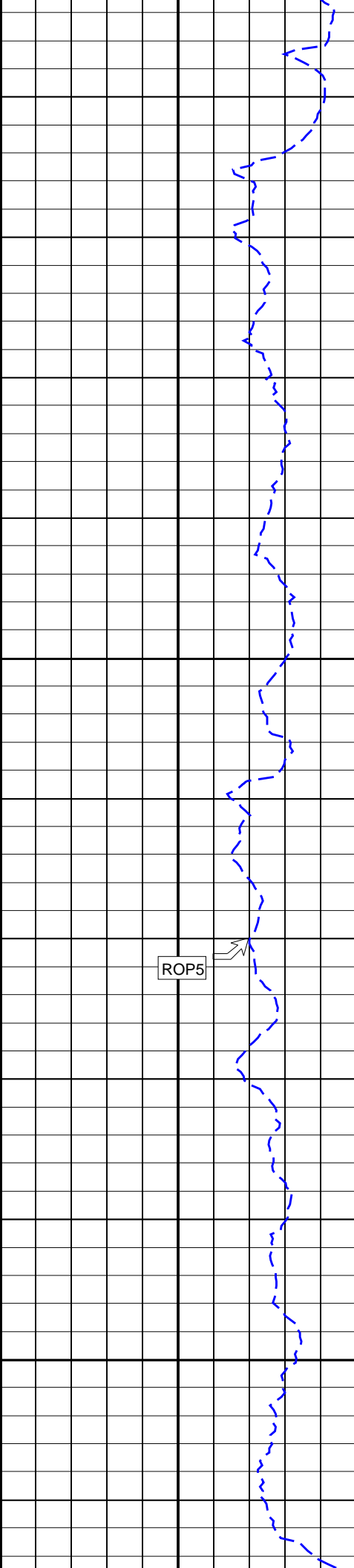


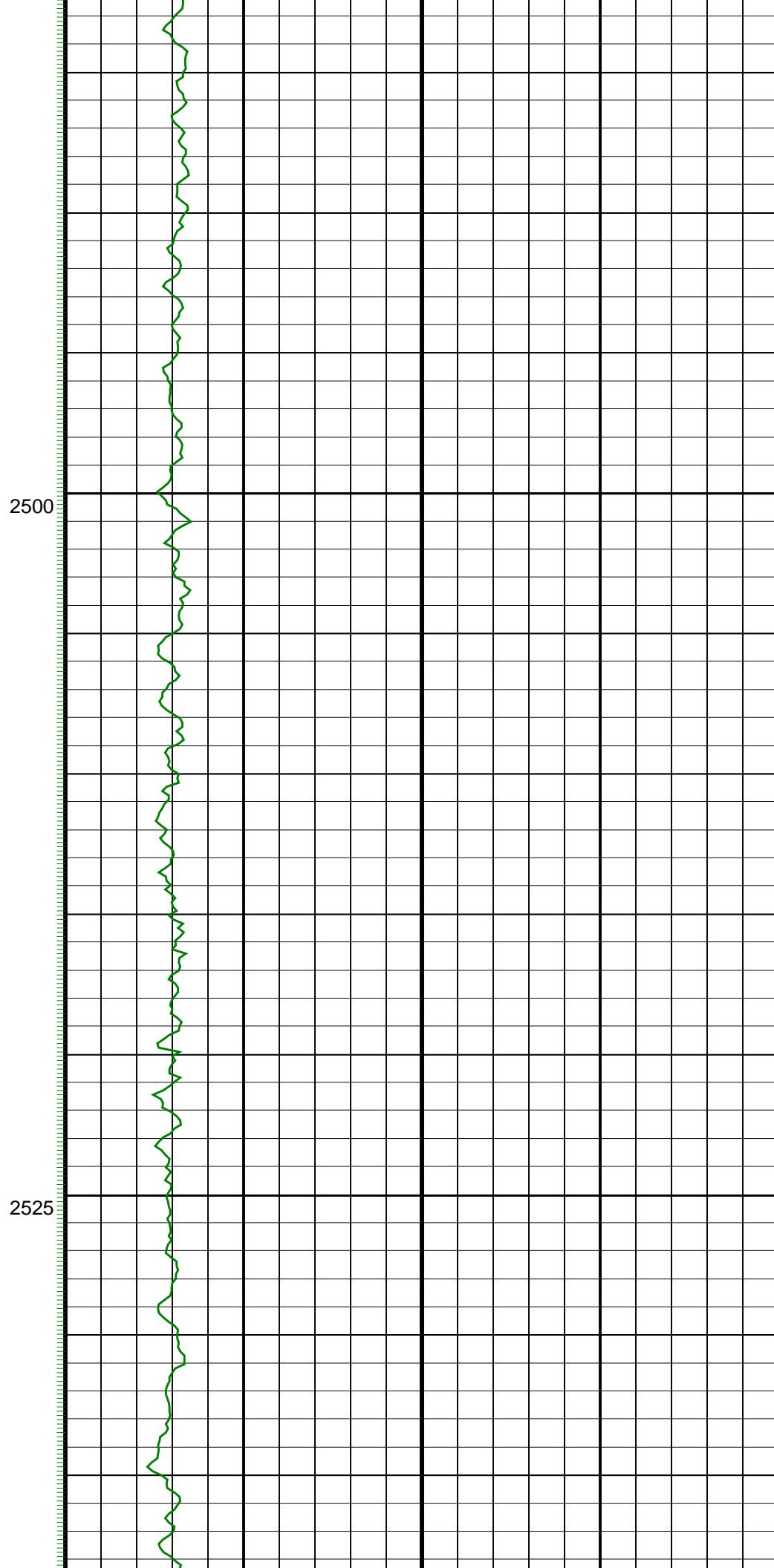
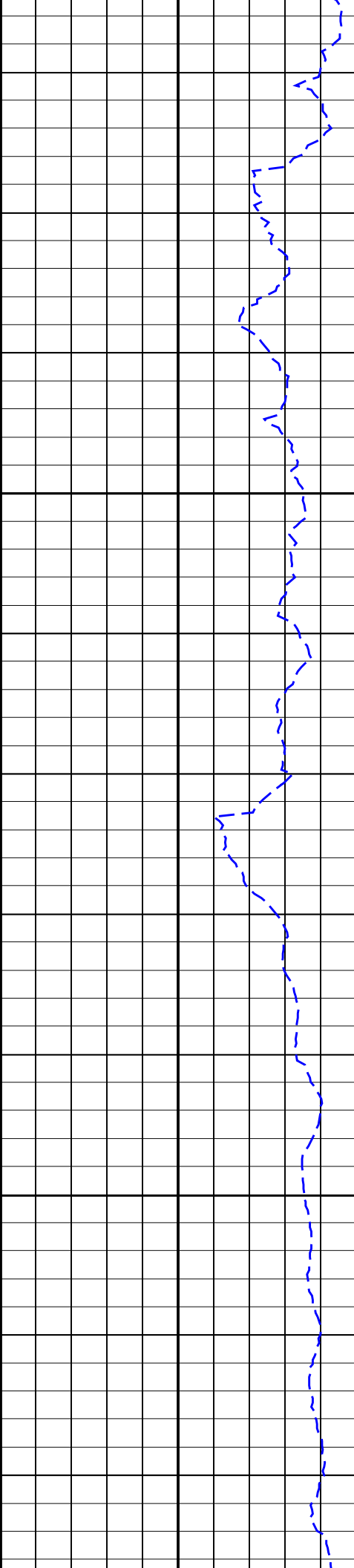
2375

2400

2425

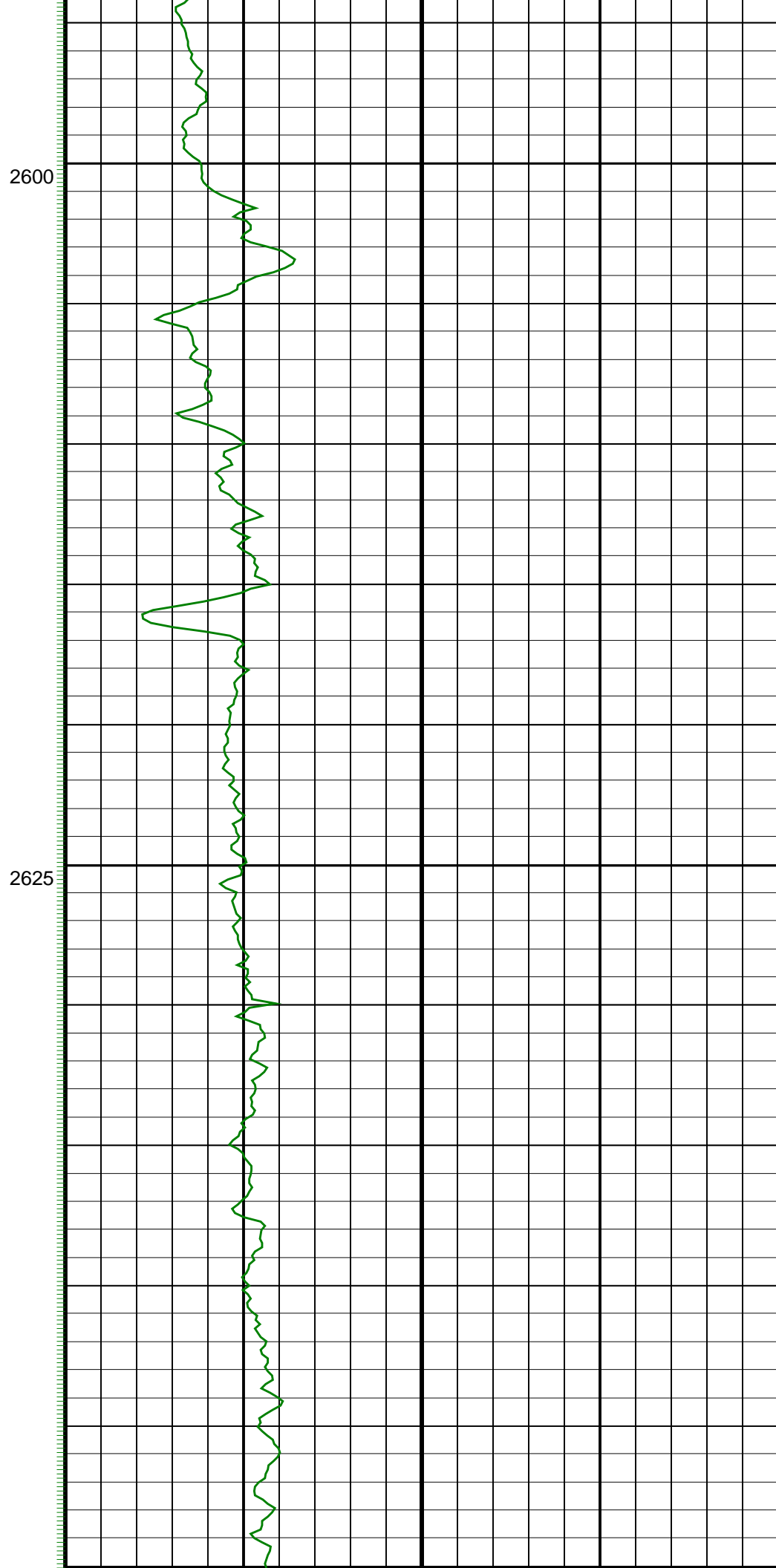
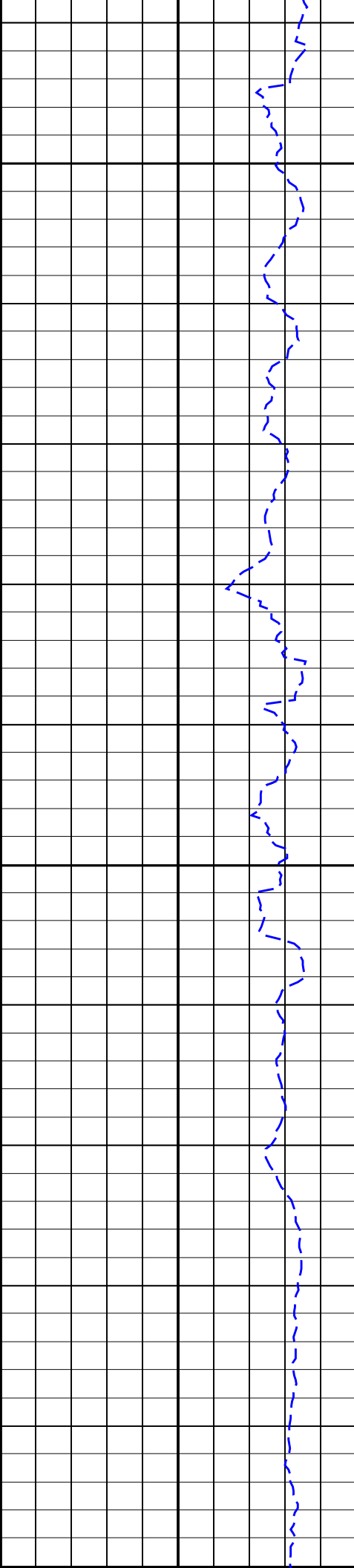


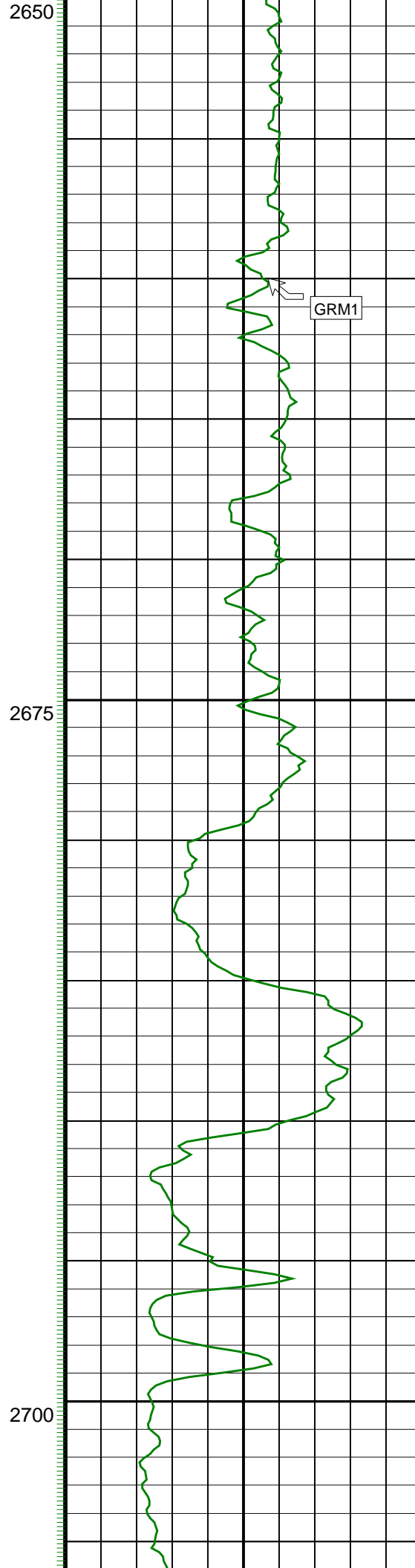
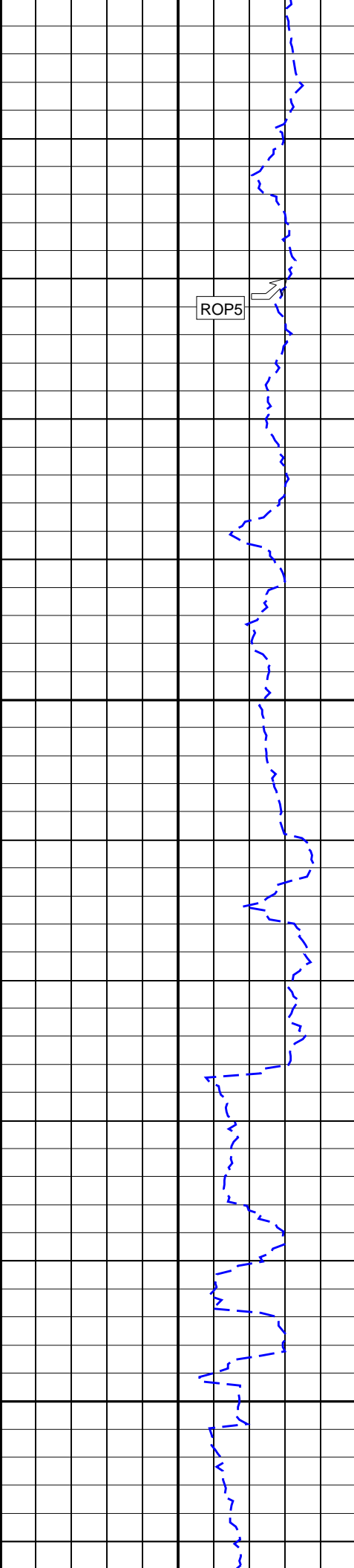




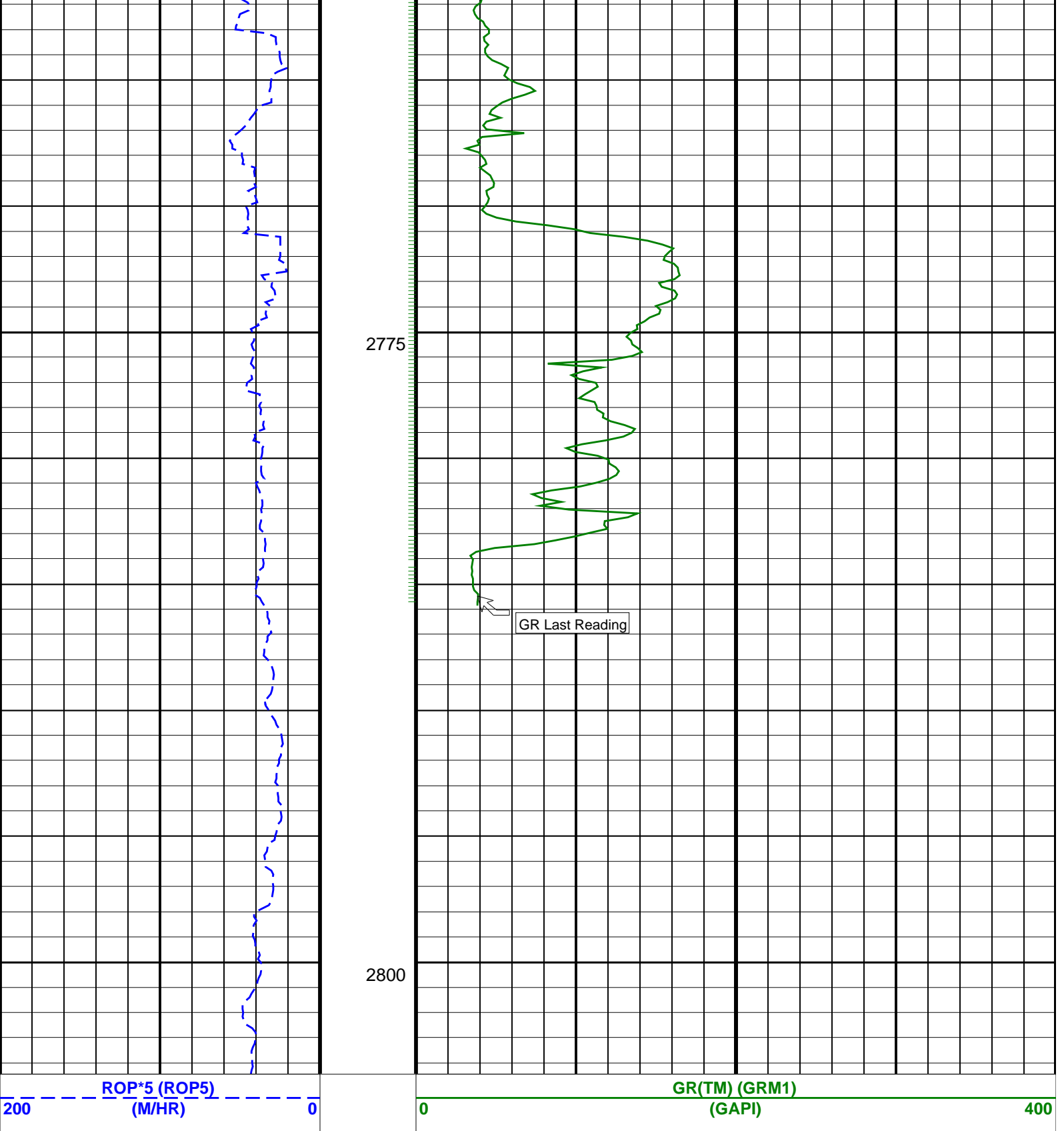












### PIP SUMMARY

GR(TM) PIP

SCHLUMBERGER

Survey report

29-Nov-2005 00:50:21

Page 1 of 3

Client..... ESSO Australia  
Field..... Bream

Well..... BMA A19A  
API number.....  
Engineer..... L. Johnston, R. Burns

RIG..... ISDL 453

Spud date..... 24-Nov-05  
Last survey date..... 28-Nov-05  
Total accepted surveys... 48  
MD of first survey..... 1436.00 m  
MD of last survey..... 2804.00 m

## ----- Survey calculation methods-----

Method for positions.....: Minimum curvature  
 Method for DLS.....: Mason & Taylor

## ----- Depth reference -----

Permanent datum.....: Mean Sea Level  
 Depth reference.....: Drill Floor  
 GL above permanent.....: -59.40 m  
 KB above permanent.....: Top Drive  
 DF above permanent.....: 32.82 m

## ----- Vertical section origin-----

Latitude (+N/S-).....: 0.00 m  
 Departure (+E/W-).....: 0.00 m

## ----- Platform reference point-----

Latitude (+N/S-).....: 0.00 m  
 Departure (+E/W-).....: 0.00 m

Azimuth from Vsect Origin to target: 283.75 degrees

## ----- Geomagnetic data -----

Magnetic model.....: BGGM version 2005  
 Magnetic date.....: 19-Nov-2005  
 Magnetic field strength...: 1202.83 HCNT  
 Magnetic dec (+E/W-).....: 13.07 degrees  
 Magnetic dip.....: -69.04 degrees

## ----- MWD survey Reference Criteria -----

Reference G.....: 1000.05 mGal  
 Reference H.....: 1202.83 HCNT  
 Reference Dip.....: -69.04 degrees  
 Tolerance of G.....: (+/-) 2.50 mGal  
 Tolerance of H.....: (+/-) 6.00 HCNT  
 Tolerance of Dip.....: (+/-) 0.45 degrees

## ----- Corrections -----

Magnetic dec (+E/W-).....: 13.07 degrees  
 Grid convergence (+E/W-)..: -0.48 degrees  
 Total az corr (+E/W-).....: 13.55 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

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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)	Total displ (m)	At Azim (deg)	DLS (deg/D/M)	Srvy tool type	Tool Corr (deg)
1	1436.00	60.30	253.28	0.00	974.07	728.63	-359.90	-838.19	912.19	246.76	0.00	TIP	None
2	1478.37	60.56	264.30	42.37	995.03	761.96	-367.04	-874.26	948.18	247.23	0.23	MWD	None
3	1512.44	57.35	266.35	34.07	1012.60	789.65	-369.43	-903.34	975.96	247.76	0.11	MWD	None
4	1541.14	55.51	267.56	28.70	1028.47	812.54	-370.70	-927.22	998.58	248.21	0.07	MWD	None
5	1570.44	53.70	273.57	29.30	1045.45	835.77	-370.48	-951.08	1020.69	248.72	0.18	MWD	None
6	1599.11	52.97	278.07	28.67	1062.57	858.54	-368.16	-973.95	1041.21	249.29	0.13	MWD	None
7	1628.05	52.08	282.48	28.94	1080.19	881.45	-364.07	-996.54	1060.96	249.93	0.12	MWD	None
8	1656.34	48.28	281.71	28.29	1098.30	903.17	-359.51	-1017.78	1079.41	250.55	0.14	MWD	None
9	1685.20	48.06	281.14	28.86	1117.55	924.65	-355.25	-1038.86	1097.92	251.12	0.02	MWD	None
10	1713.81	44.58	282.85	28.61	1137.30	945.33	-350.96	-1059.10	1115.73	251.67	0.13	MWD	None
11	1742.37	42.09	285.32	28.56	1158.08	964.92	-346.20	-1078.11	1132.33	252.20	0.11	MWD	None
12	1771.22	38.18	285.68	28.85	1180.13	983.51	-341.23	-1096.02	1147.92	252.71	0.14	MWD	None
13	1800.06	37.61	285.36	28.84	1202.89	1001.21	-336.49	-1113.09	1162.84	253.18	0.02	MWD	None
14	1828.75	36.76	285.25	28.69	1225.74	1018.55	-331.92	-1129.82	1177.56	253.63	0.03	MWD	None
15	1857.65	35.84	284.67	28.90	1249.03	1035.65	-327.50	-1146.35	1192.21	254.06	0.03	MWD	None
16	1886.53	35.35	284.85	28.88	1272.52	1052.46	-323.22	-1162.60	1206.69	254.46	0.02	MWD	None
17	1914.92	34.36	283.85	28.39	1295.82	1068.68	-319.19	-1178.32	1220.79	254.84	0.04	MWD	None
18	1943.71	34.09	283.70	28.79	1319.62	1084.87	-315.34	-1194.04	1234.98	255.21	0.01	MWD	None
19	1972.67	35.57	283.88	28.96	1343.39	1101.41	-311.40	-1210.11	1249.53	255.57	0.05	MWD	None
20	2001.00	36.77	284.06	28.33	1366.26	1118.13	-307.36	-1226.33	1264.26	255.93	0.04	MWD	None
21	2030.15	35.97	284.06	29.15	1389.73	1135.42	-303.16	-1243.10	1279.53	256.29	0.03	MWD	None
22	2058.86	37.03	282.95	28.71	1412.81	1152.50	-299.17	-1259.71	1294.74	256.64	0.04	MWD	None
23	2087.65	36.42	282.11	28.79	1435.89	1169.71	-295.44	-1276.51	1310.25	256.97	0.03	MWD	None
24	2116.29	35.54	282.13	28.64	1459.06	1186.53	-291.90	-1292.96	1325.50	257.28	0.03	MWD	None
25	2144.67	37.23	281.79	28.38	1481.91	1203.35	-288.42	-1309.43	1340.82	257.58	0.06	MWD	None
26	2173.44	36.14	281.59	28.77	1504.98	1220.53	-284.93	-1326.26	1356.52	257.87	0.04	MWD	None
27	2202.11	37.77	280.77	28.67	1527.89	1237.75	-281.60	-1343.17	1372.37	258.16	0.06	MWD	None
28	2231.11	37.02	281.20	29.00	1550.93	1255.34	-278.24	-1360.46	1388.62	258.44	0.03	MWD	None
29	2259.75	36.36	281.38	28.64	1573.90	1272.43	-274.89	-1377.24	1404.41	258.71	0.02	MWD	None
30	2288.58	36.30	281.60	28.83	1597.12	1289.50	-271.49	-1393.98	1420.17	258.98	0.00	MWD	None

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 SCHLUMBERGER Survey Report

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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)	Total displ (m)	At Azim (deg)	DLS (deg/D/M)	Srvy tool type	Tool Corr (deg)
31	2317.40	35.51	281.06	28.82	1620.47	1306.39	-268.17	-1410.55	1435.81	259.24	0.03	MWD	None
32	2346.23	34.94	282.32	28.83	1644.02	1323.00	-264.80	-1426.83	1451.20	259.49	0.03	MWD	None
33	2374.98	34.42	282.31	28.75	1667.66	1339.36	-261.31	-1442.81	1466.29	259.73	0.02	MWD	None
34	2403.55	35.11	282.88	28.57	1691.13	1355.64	-257.76	-1458.71	1481.31	259.98	0.03	MWD	None
35	2432.17	36.05	282.98	28.62	1714.41	1372.29	-254.03	-1474.94	1496.66	260.23	0.03	MWD	None
36	2460.56	35.22	283.04	28.39	1737.48	1388.83	-250.31	-1491.06	1511.92	260.47	0.03	MWD	None
37	2489.45	36.11	283.93	28.89	1760.95	1405.68	-246.38	-1507.44	1527.44	260.72	0.04	MWD	None
38	2518.32	35.25	284.65	28.87	1784.40	1422.51	-242.22	-1523.75	1542.89	260.97	0.03	MWD	None
39	2546.76	36.00	283.55	28.44	1807.52	1439.08	-238.19	-1539.82	1558.13	261.21	0.03	MWD	None
40	2575.01	35.10	283.73	28.25	1830.50	1455.50	-234.32	-1555.78	1573.33	261.44	0.03	MWD	None
41	2603.28	34.42	283.46	28.27	1853.73	1471.62	-230.53	-1571.45	1588.27	261.65	0.02	MWD	None
42	2632.06	33.78	283.24	28.78	1877.56	1487.76	-226.80	-1587.15	1603.27	261.87	0.02	MWD	None
43	2661.17	33.44	283.32	29.11	1901.80	1503.87	-223.10	-1602.83	1618.28	262.08	0.01	MWD	None
44	2690.17	33.53	282.75	29.00	1925.99	1519.87	-219.49	-1618.42	1633.23	262.28	0.01	MWD	None
45	2718.85	33.87	282.07	28.68	1949.85	1535.78	-216.07	-1633.96	1648.18	262.47	0.02	MWD	None
46	2747.40	33.61	281.49	28.55	1973.59	1551.62	-212.83	-1649.48	1663.16	262.65	0.01	MWD	None
47	2775.84	33.17	280.75	28.44	1997.34	1567.26	-209.81	-1664.84	1678.01	262.82	0.02	MWD	None
48	2804.00	32.90	280.50	28.16	2020.94	1582.59	-206.98	-1679.93	1692.63	262.98	0.01	Projection to TD	

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

**Schlumberger**

Well: **BMA A19A**

Field: **Bream**

Rig: **ISDL 453**

State: **Victoria**

**Gamma Ray Service**

**1:200 Measured Depth**

**Real Time Log**