

Gamma Ray Service
1:500 Measured Depth
Real Time Log

| | | | |
|----------------|-----------------------------------|------------------------------|----------------------------|
| API serial no. | Y = 5774411.33m X = 624343.51m | Longitude E148°25'10.192" | Latitude S38°10'10.687" |
|----------------|-----------------------------------|------------------------------|----------------------------|

Bore hole recordCasing record

113

+

[illegible][illegible]

| | |
|--|--|
| | |
|--|--|

| | |
|--|--|
| | |
|--|--|

| | |
|--|--|
| | |
|--|--|

Mud record

| | |
|--|--|
| | |
|--|--|

15 SEPTEMBER 2006

[illegible][illegible][illegible]Software record

1C_01

| | |
|------|--|
| 0000 | |
|------|--|

DISCLAIMER

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.

| | |
|--|--|
| Directional Drilling Directional Surveys | |
| REMARKS: RUN NUMBER 3 8-1/2 in. hole was drilled from 3101.0m to 3406.0m MD. Depth is referenced to Driller's Depth. Gamma ray corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCl/PHPA/Glycol. POOH due to reaching revised TD of TNA A31A. | |

Directional Drilling
Directional Surveys

REMARKS: RUN NUMBER 2

8-1/2 in. hole was drilled from 3048.0m to 3101.0m MD.

Depth is referenced to Driller's Depth.

Gamma ray corrected for Tool Size,
Bit Size and Mud Weight.

Mud type is KCl/PHPA/Glycol.

POOH to change BHA.

| Directional Drilling Directional Surveys |
|---|
| REMARKS: RUN NUMBER 1 8-1/2 in. hole was drilled from 829.0m to 3048.0m MD. Depth is referenced to Driller's Depth. Gamma ray corrected for Tool Size, Bit Size and Mud Weight. Mud type is KCl/PHPA/Glycol. POOH due to reaching programmed TD of TNA A31A. |

Thank You for Choosing Schlumberger

Thank You for Choosing Schlumberger

Thank You for Choosing Schlumberger

EQUIPMENT DESCRIPTION

RUN1

RUN2

RUN3

DOWNHOLE EQUIPMENT

DOWNHOLE EQUIPMENT

DOWNHOLE EQUIPMENT

6-3/4 in. PowerPulse* 23.72
MDC: Z408-AC
MEC: 1540-BB
MDI: 1556-CA
MGR: 146-AA
DHS: V7.0C00

D&I — 19.42
GR — 18.77

6-5/8 in. NM Pony 15.27
S/N: ASS15700

8-3/8 in. NM Roller Reamer 13.71
S/N: GU2317R

6-7/16 in. NM Pony 11.62
S/N: 9612058

7 in. PowerPak* Motor 9.16
A700GT 7:8
S/N: 07062
1.5 deg. Bent Housing
8-3/8 in. Motor Sleeve

6-3/4 in. PowerPulse* 21.91
MDC: Z408-AC
MEC: 1540-BB
MDI: 1556-CA
MGR: 146-AA
DHS: V7.0C00

D&I — 17.61
GR — 16.96

8-3/8 in. NM Roller Reamer 13.46
S/N: GU2317R

6-5/8 in. NM Drill Collar 11.37
S/N: M364

6-3/4 in. PowerPulse* 23.75
MDC: Z408-AC
MEC: 1540-BB
MDI: 1556-CA
MGR: 146-AA
DHS: V7.0C00


D&I — 19.45
GR — 18.80

6-5/8 in. NM Pony 15.30
S/N: ASS15700

6-7/16 in. NM Pony 13.74
S/N: 9612058

8-3/8 in. NM Roller Reamer 11.29
S/N: GU2317R


7in. PowerPak* Motor 9.20
A700GT 7:8
S/N N7268
1.15 deg. Bent Housing
8-3/8 in. Motor Sleeve



Smith PDC Bit
OD: 8–1/2 in.
S73PX S/N: JT0016

0.00 0.22

Maximum string diameter 8.50 in.
All lengths in Meters




8–1/4 in. NB Stabilizer
S/N: DOTS3231

2.10

Smith Insert Bit
OD: 8–1/2 in.
GUI11 YODVPD S/N: MR6363

0.00 0.25

Maximum string diameter 8.50 in.
All lengths in Meters



Reed-Hycalog PDC Bit
OD: 8–1/2 in.
RSX163 S/N: 207785

0.00 0.22

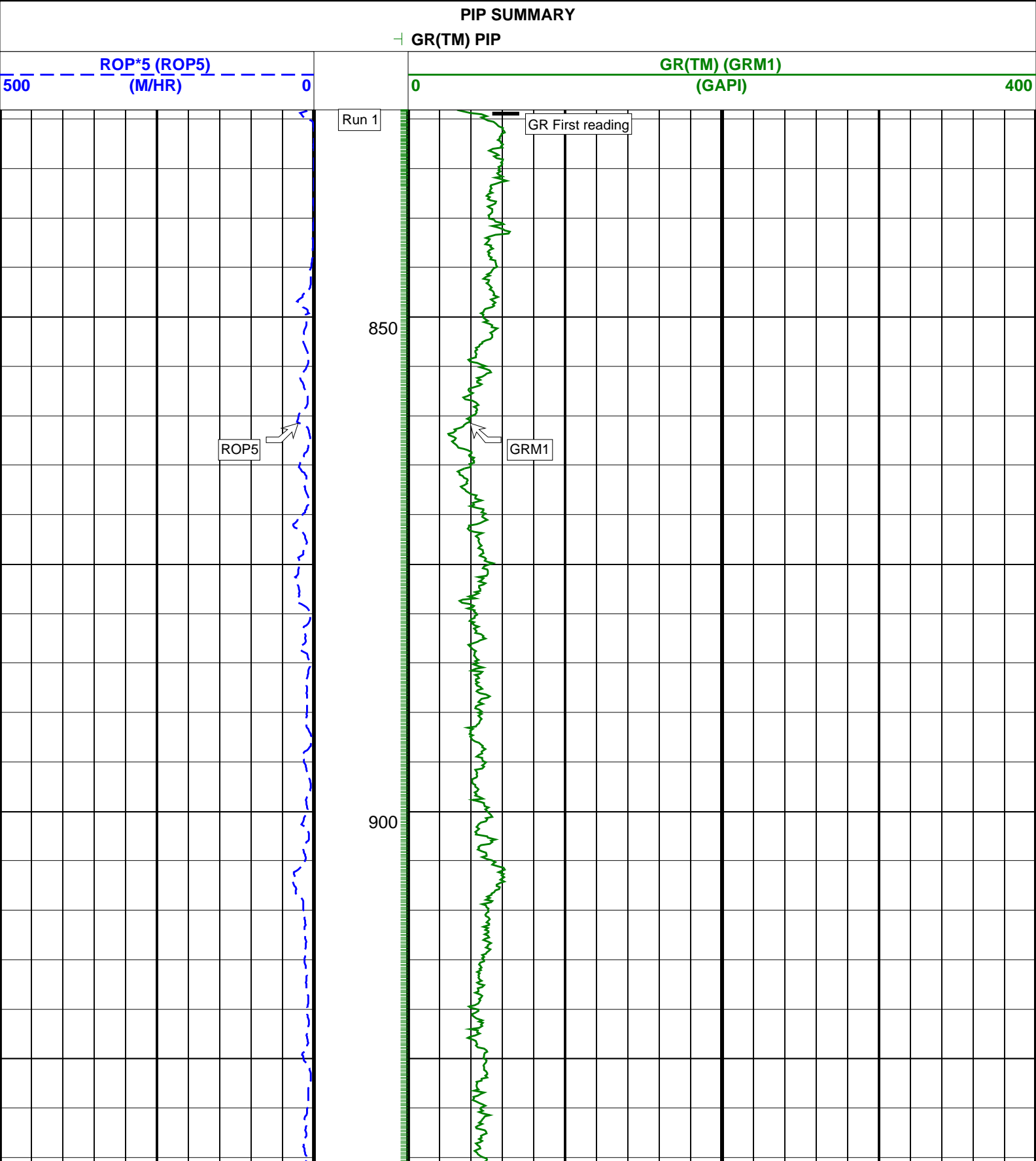
Maximum string diameter 8.50 in.
All lengths in Meters

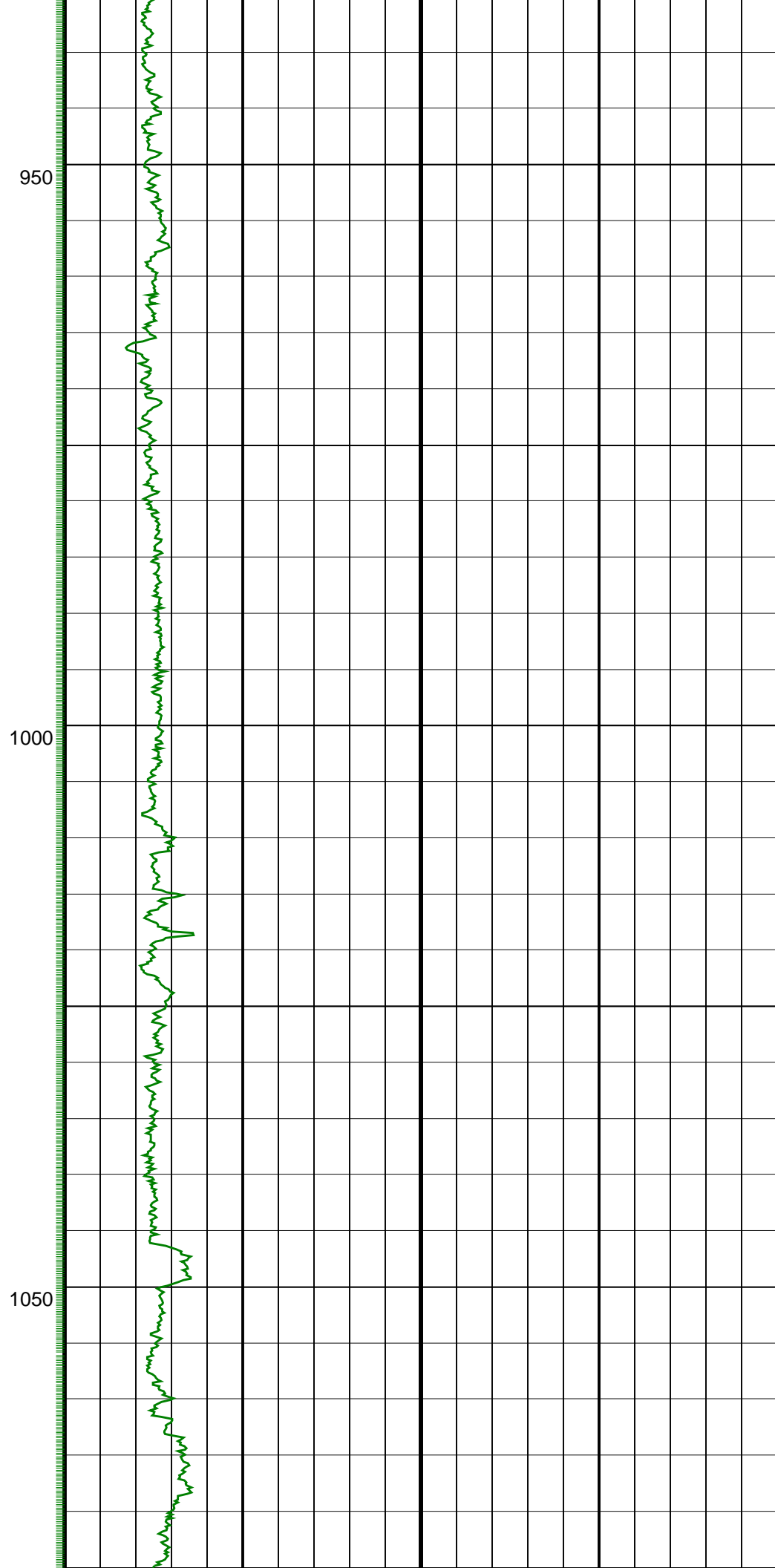
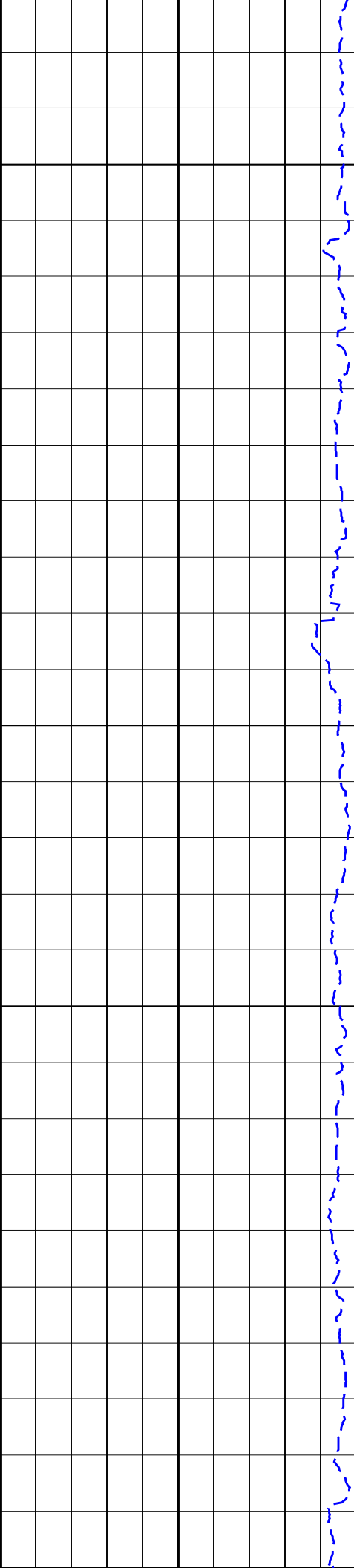
Bit Run Summary

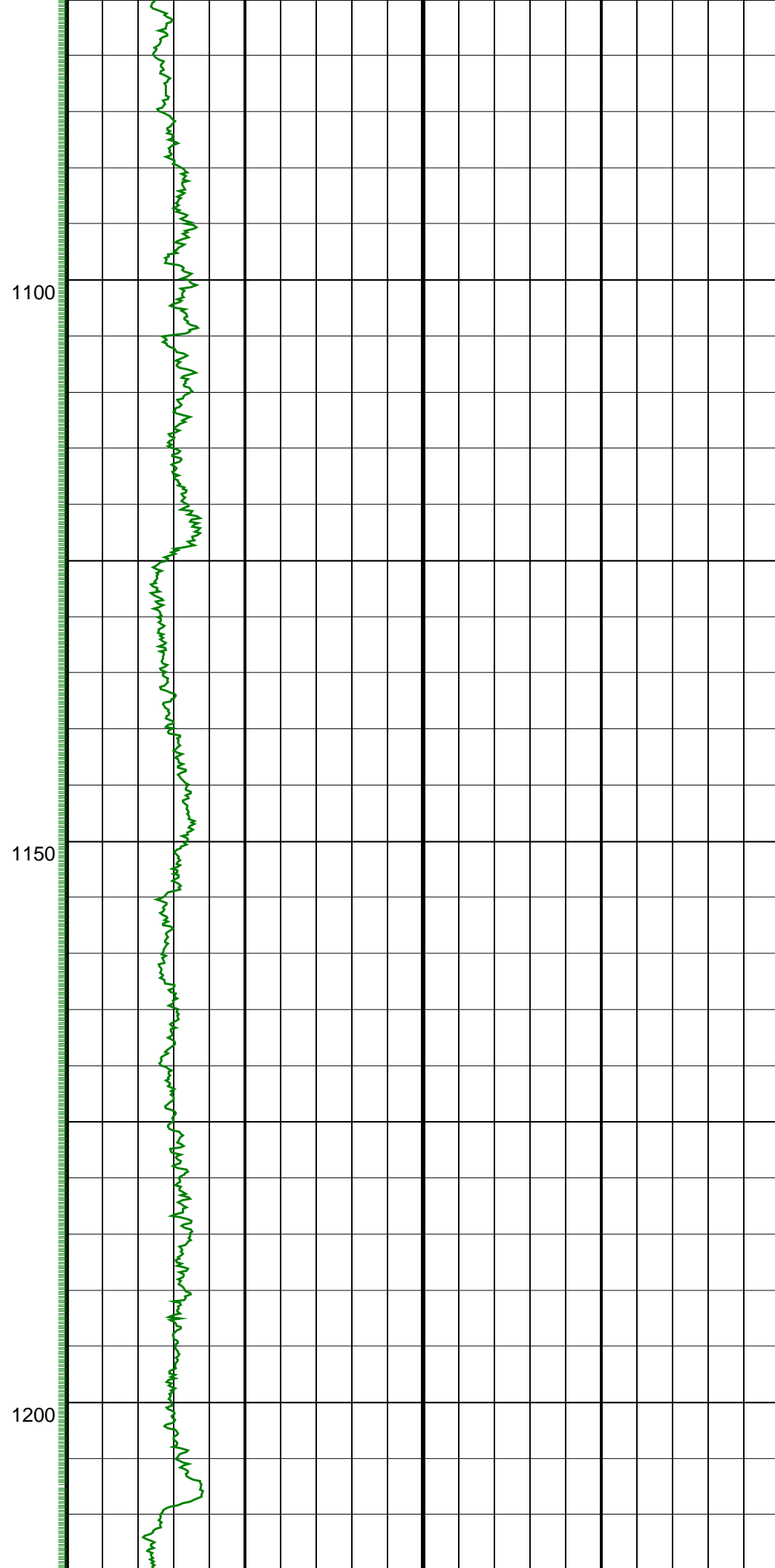
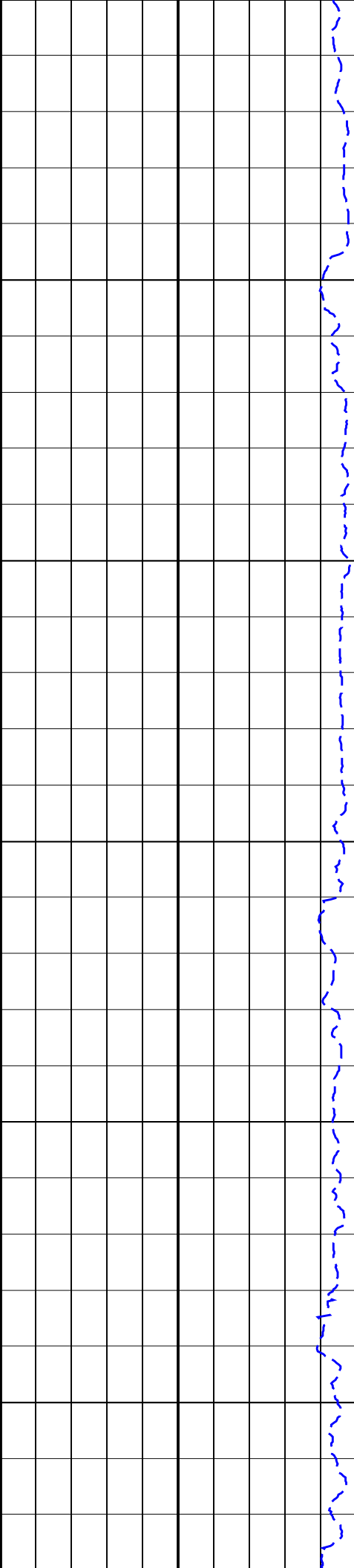
| Run number | | 1 | 2 | 3 | | | | | | |
|------------------------|---------|---------------|---------------|---------------|----------|--|--|--|--|--|
| Bit size | in | 8.5 | 8.5 | 8.5 | | | | | | |
| Bit start depth | m | 829.0 | 3048.0 | 3101.0 | | | | | | |
| Bit end depth | m | 3048.0 | 3101.0 | 3406.0 | | | | | | |
| Top interval logged | m | 829.0 | 3029.2 | 3084.0 | | | | | | |
| Bottom interval logged | m | 3029.2 | 3084.0 | 3387.2 | | | | | | |
| Begin log: time | | 22:42 | 10:30 | 20:08 | | | | | | |
| Begin log: date | | 31-Dec-04 | 11-Jan-05 | 13-Jan-05 | | | | | | |
| End log: time | | 09:38 | 17:45 | 20:08 | | | | | | |
| End log: date | | 08-Jan-05 | 12-Jan-05 | 14-Jan-05 | | | | | | |
| Mud data | | | | | | | | | | |
| Depth | m | 3048.0 | 3101.0 | 3397.0 | | | | | | |
| Type | | KCI/PHPA/Gly. | KCI/PHPA/Gly. | KCI/PHPA/Gly. | | | | | | |
| Mud weight | ppg | 10.05 | 10.25 | 10.15 | | | | | | |
| Solids | % | 8.1 | 9.2 | 9.6 | | | | | | |
| Chlorides | mg/L | 40,400 | 39,000 | 32,000 | | | | | | |
| Rm | OHHM@°C | N/A | N/A | N/A | | | | | | |
| Rmf | OHHM@°C | N/A | N/A | N/A | | | | | | |
| Rmc | OHHM@°C | N/A | N/A | N/A | | | | | | |
| Potassium | % | 3.877 | 3.896 | 3.522 | | | | | | |
| Environmental data | | | | | | | | | | |
| GR | | | | | | | | | | |
| Mud weight | ppg | 10.05 | 10.25 | 10.15 | | | | | | |
| Bit size | in | 8.5 | 8.5 | 8.5 | | | | | | |
| Resistivity | | | | | | | | | | |
| Neutron porosity | | | | | | | | | | |
| Hole Size | | | | | | | | | | |
| Mud weight | | | | | | | | | | |
| Temperature | | | | | | | | | | |
| Mud salinity | | | | | | | | | | |
| Formation salinity | | | | | | | | | | |
| Recording rate 1 | SEC | 4.36 | 4.36 | 4.36 | | | | | | |
| Recording rate 2 | SEC | N/A | N/A | N/A | | | | | | |
| Filtering GR | | 3 pt | 3 pt | 3 pt | | | | | | |
| Filtering density | | | | | | | | | | |
| Filtering Neutron | | | | | | | | | | |
| Company representative | | T. Bassett | B. Davis | B. Steel | | | | | | |
| Anadrill personnel | | A. De Castro | D. Hastie | C. Cocks | T. Auger | | | | | |

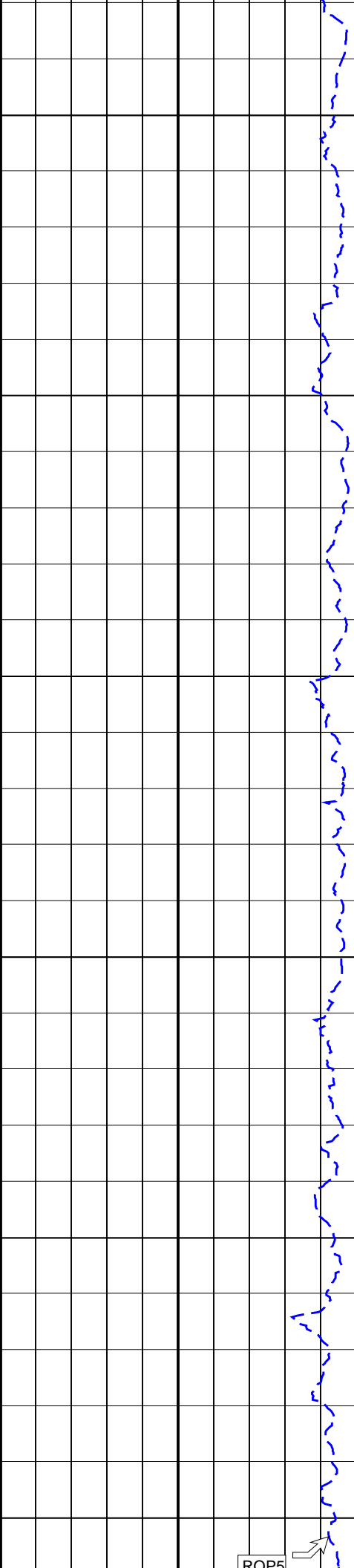
TNA A31A RT 1:500MD

IDEAL Version: ID9_1C_01 <MD > Vertical Scale: 1:500 Graphics File Created: 15-Jan-2005 03:38

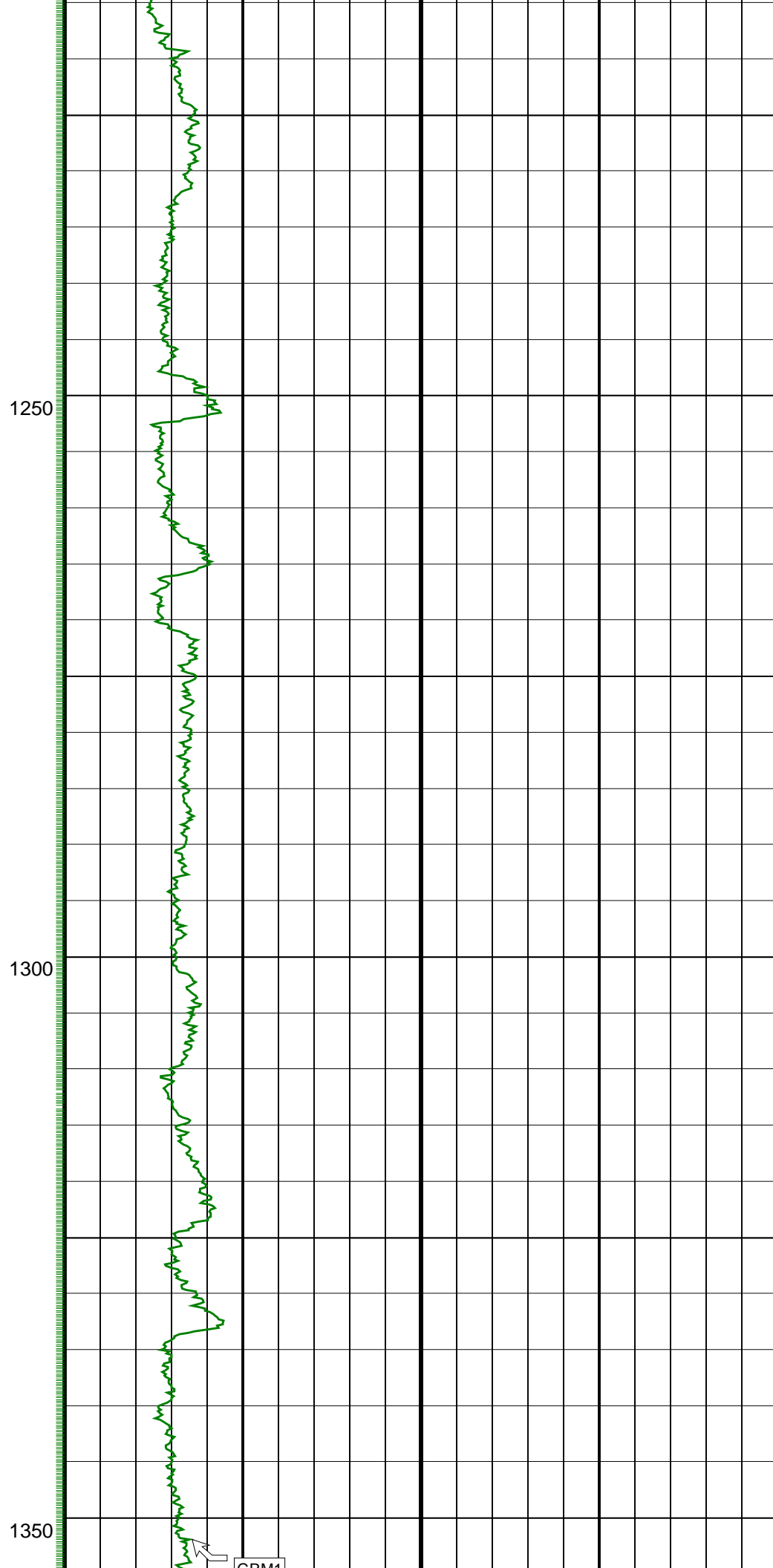




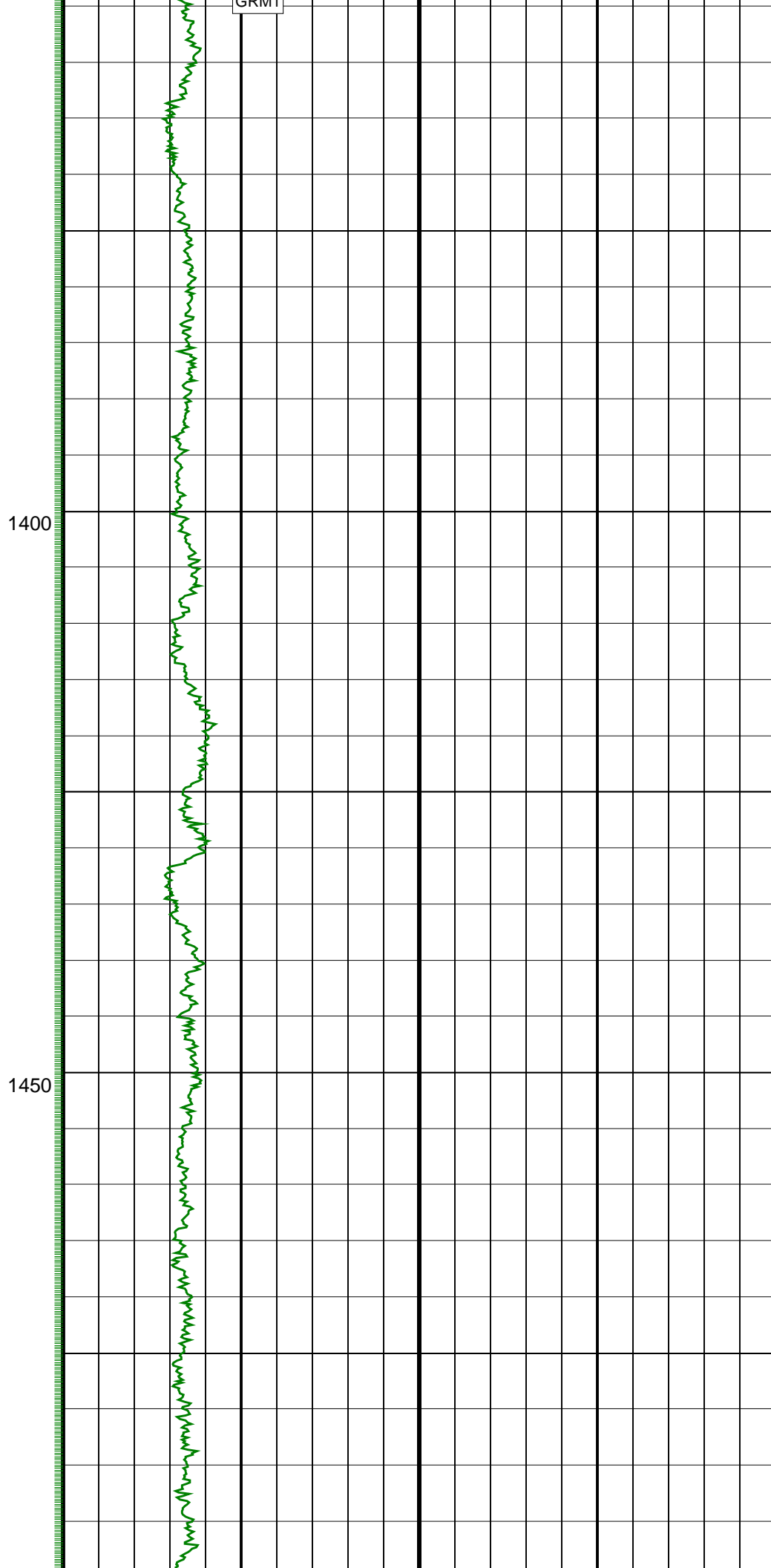
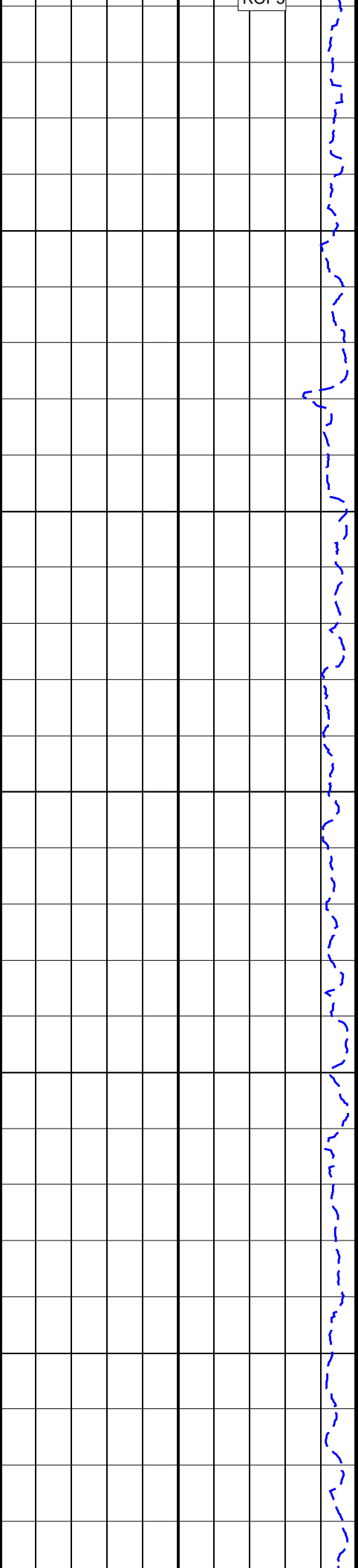


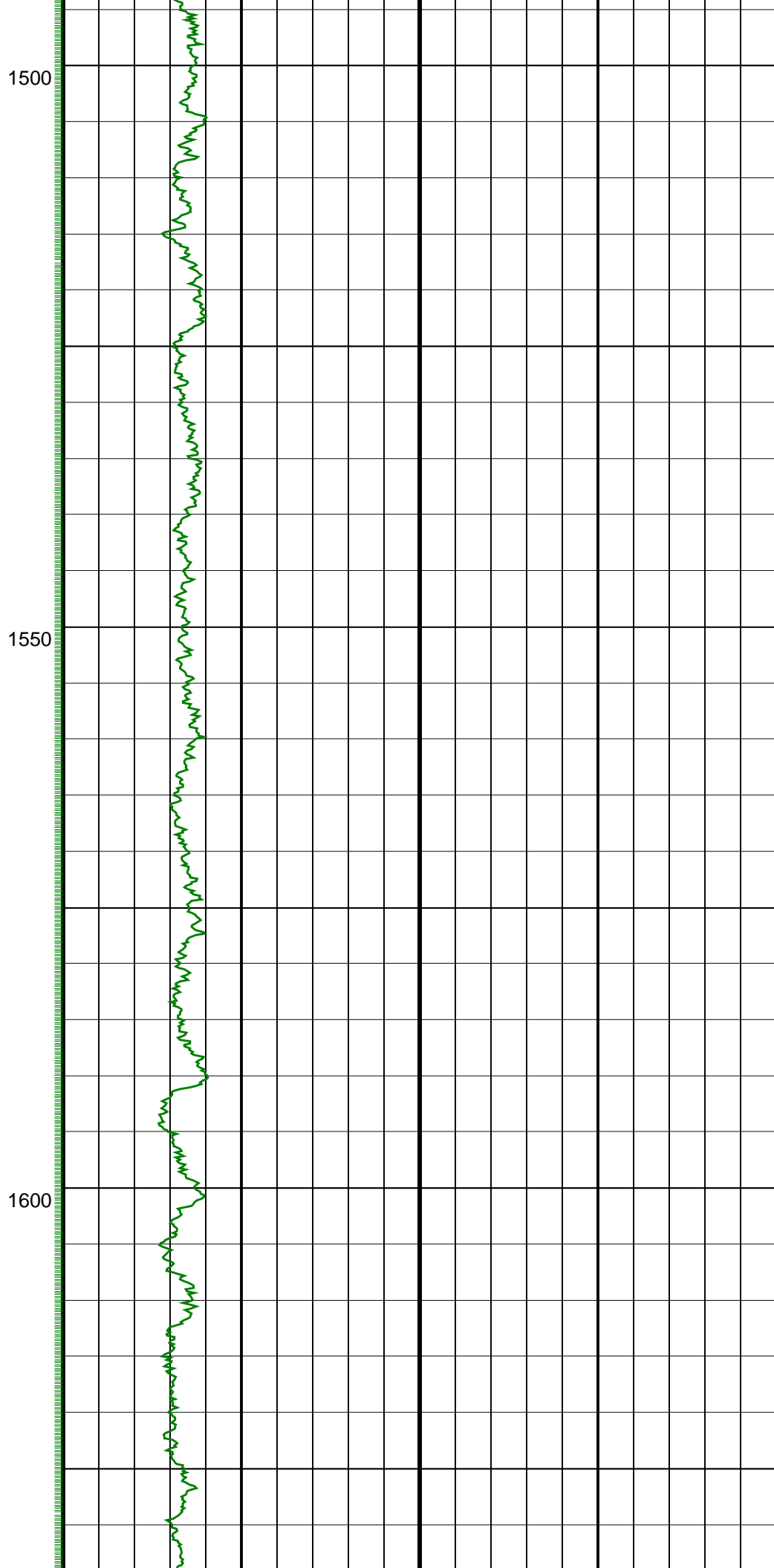
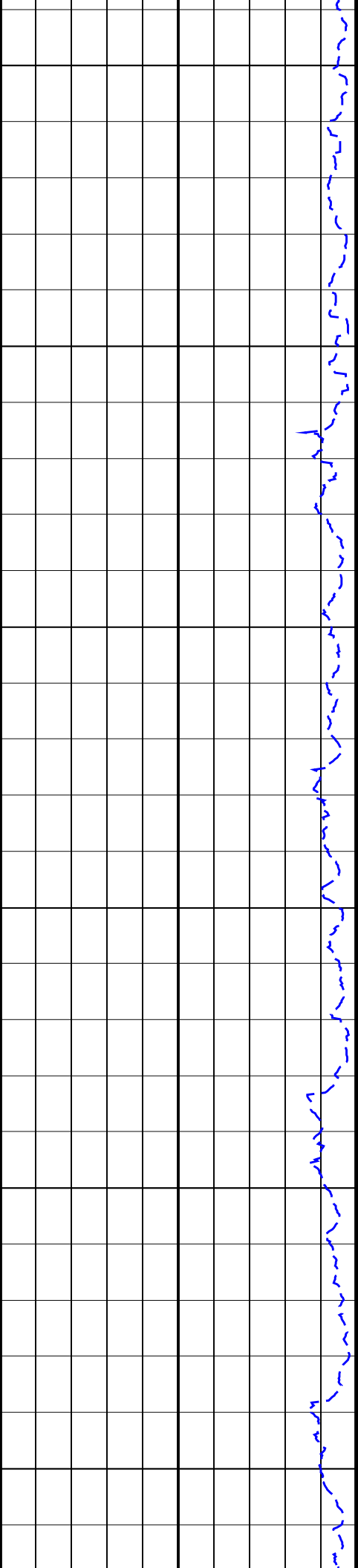


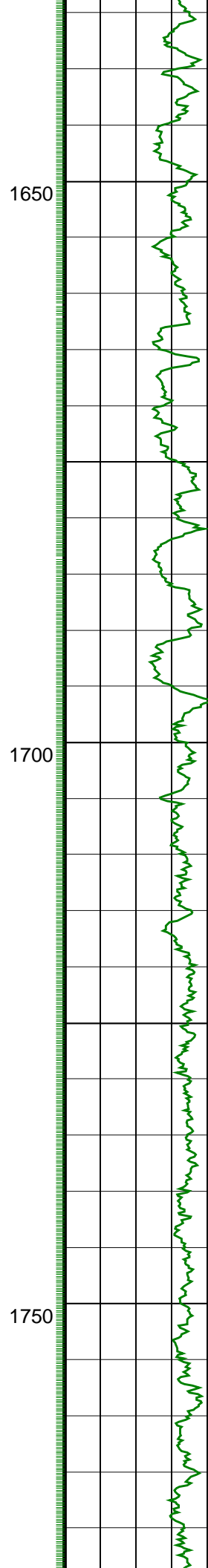
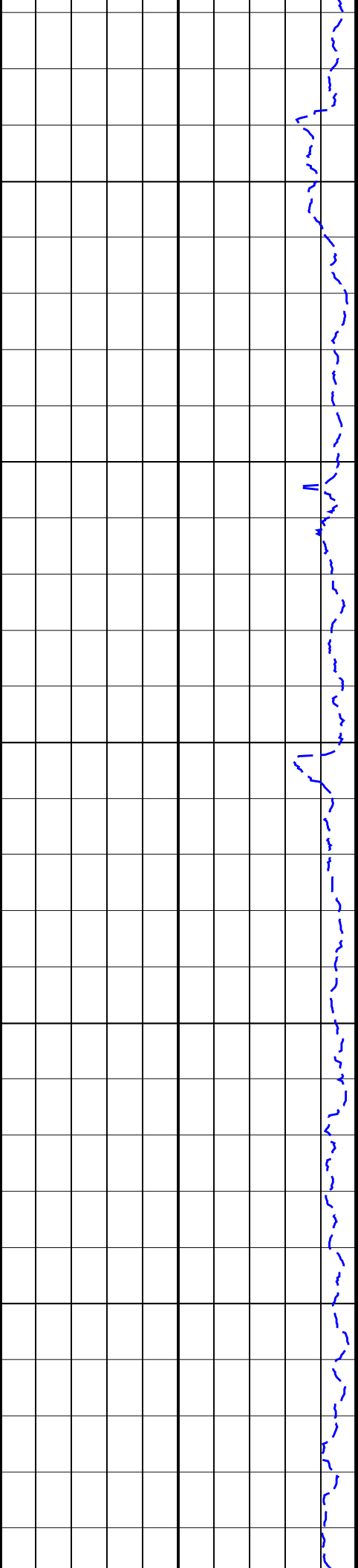
ROP5

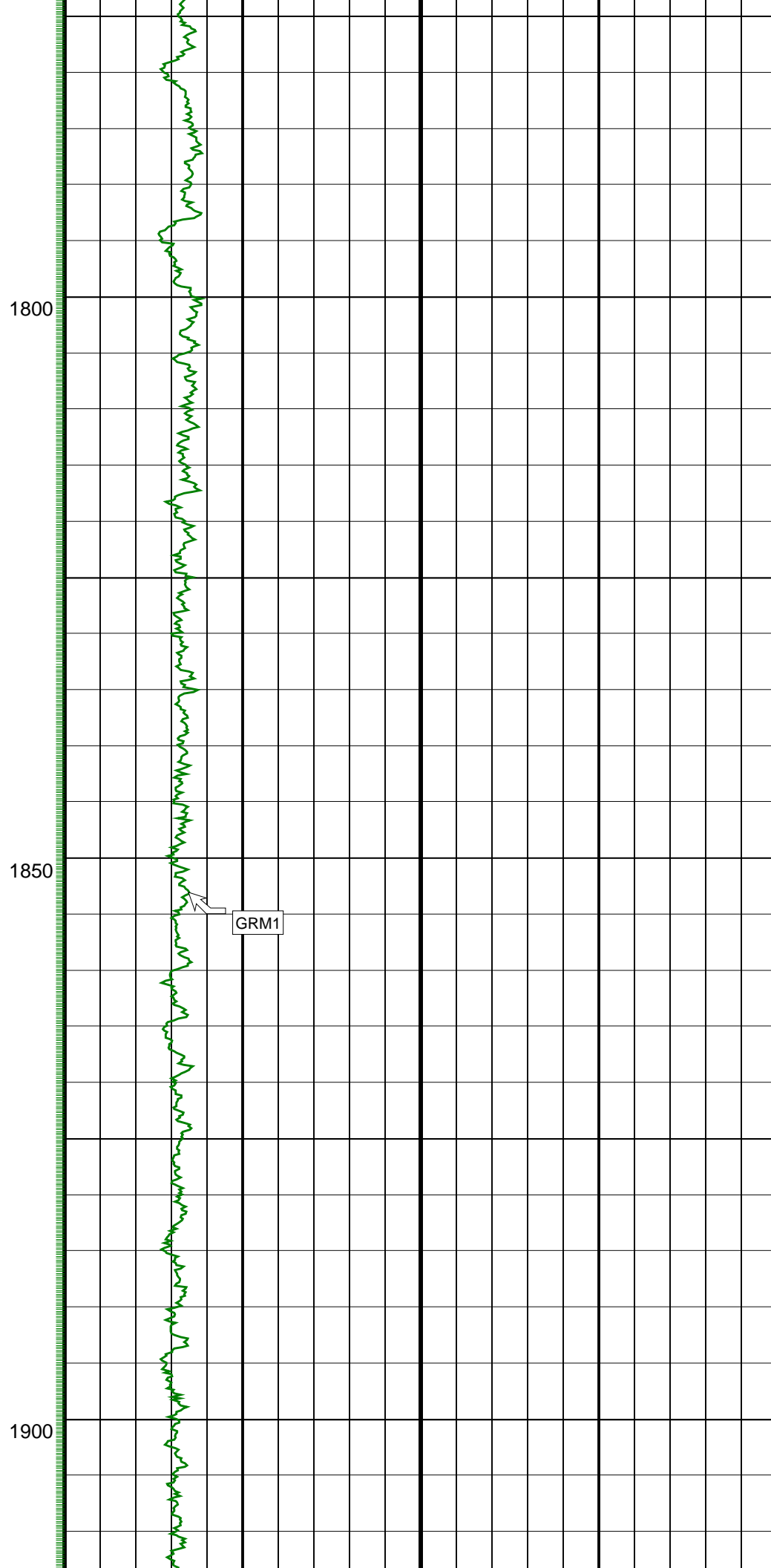
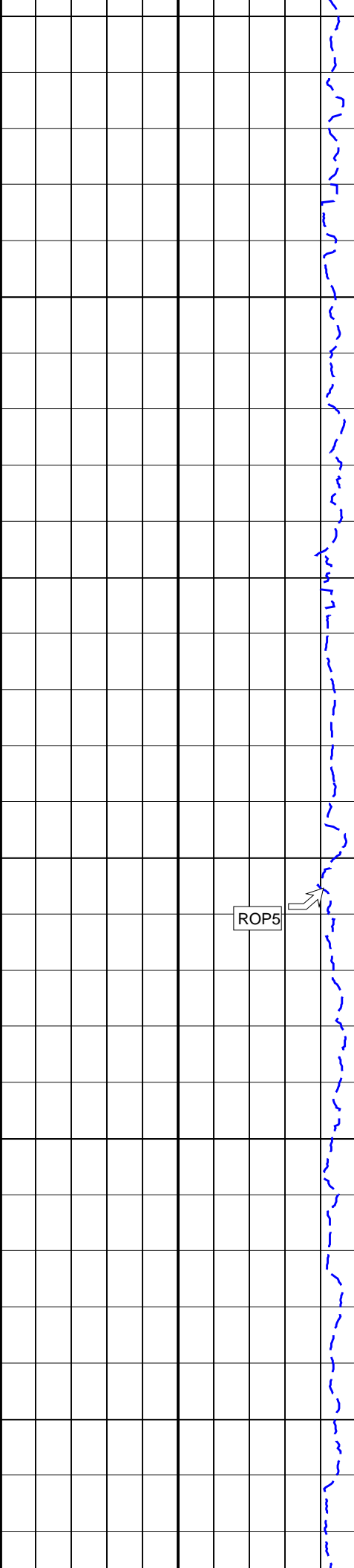


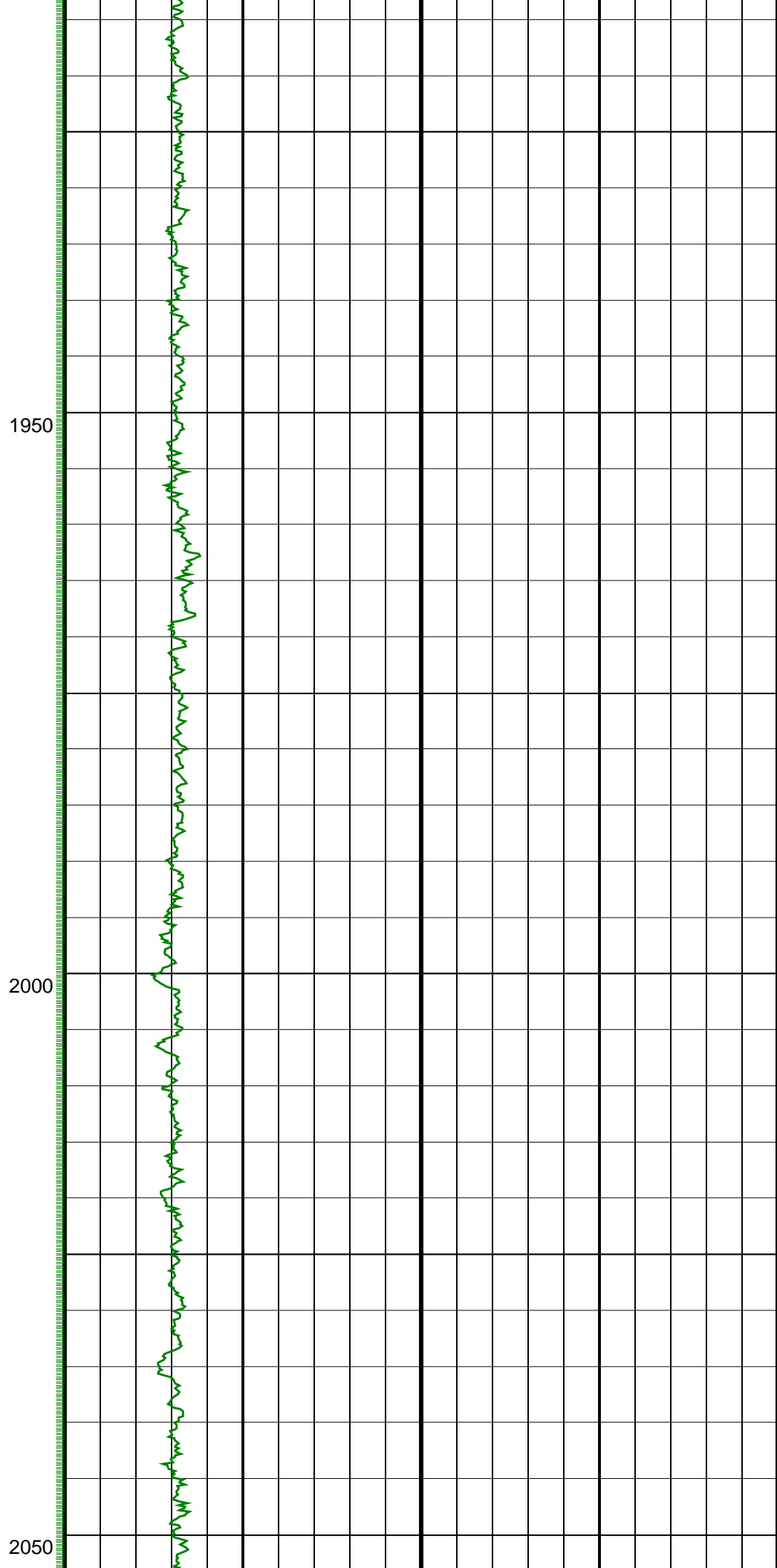
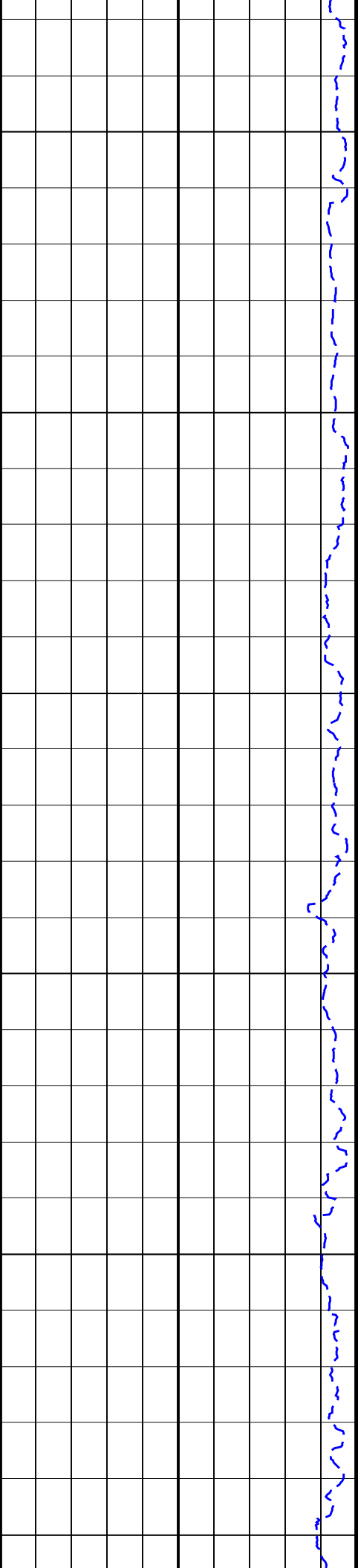
CRM4

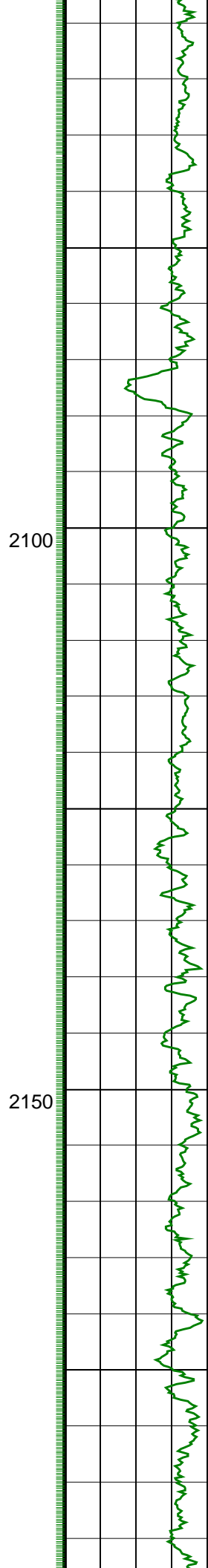
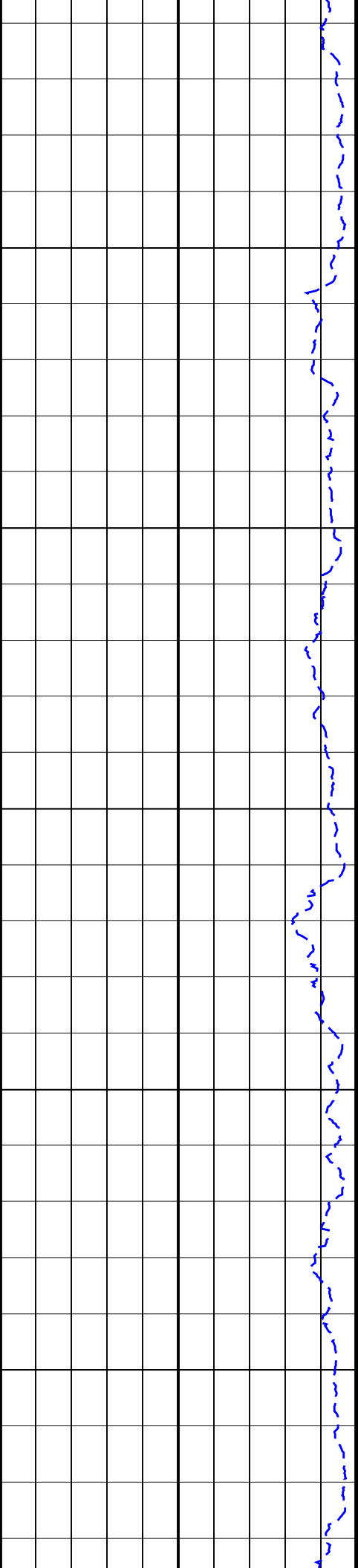


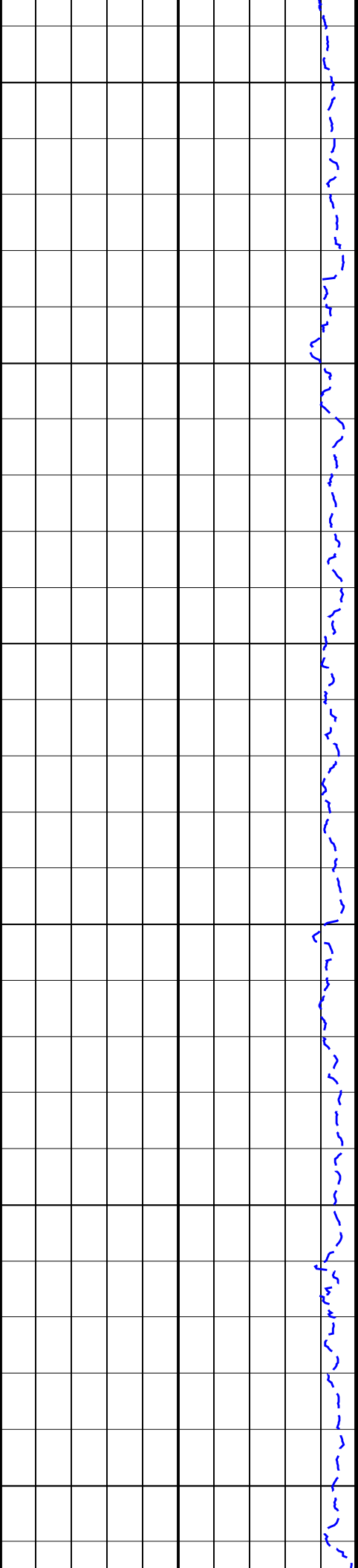








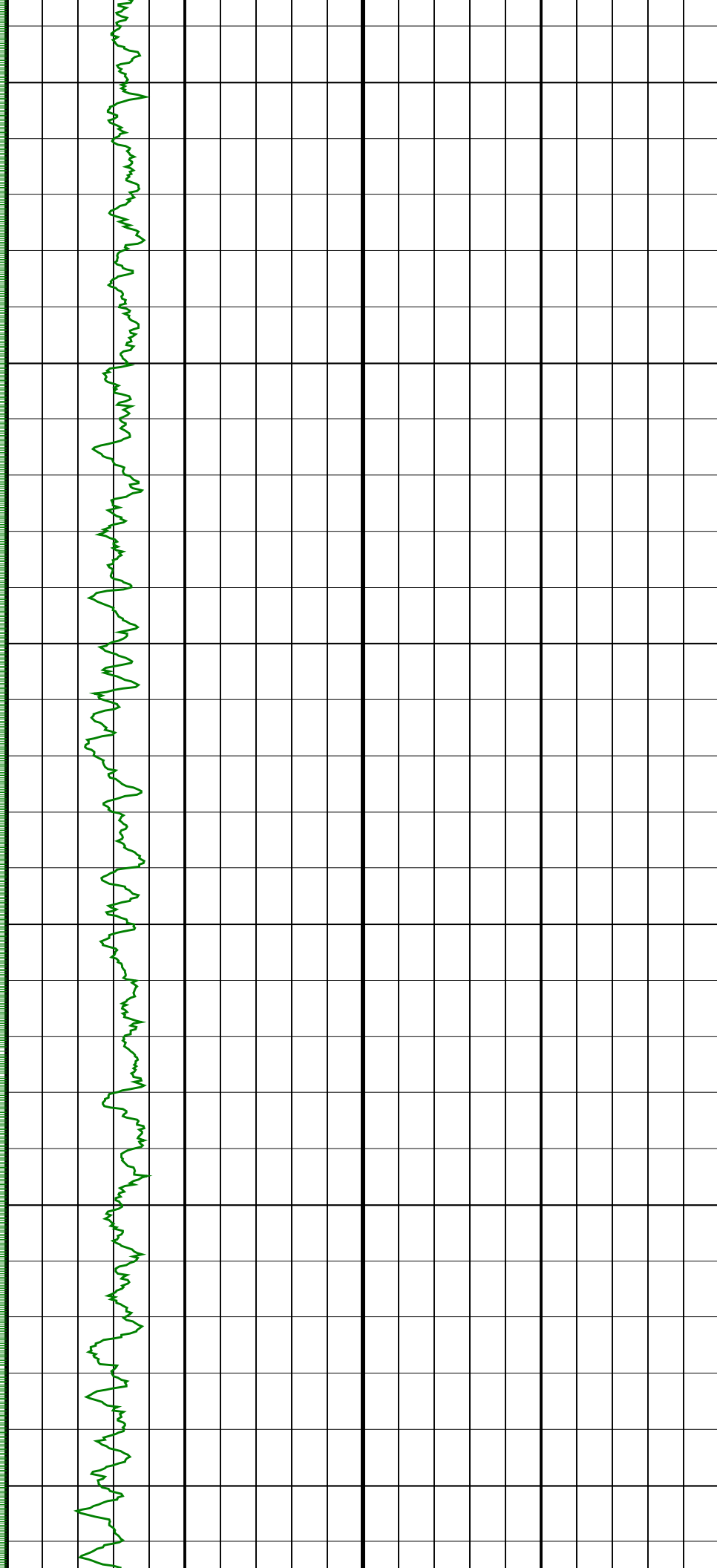


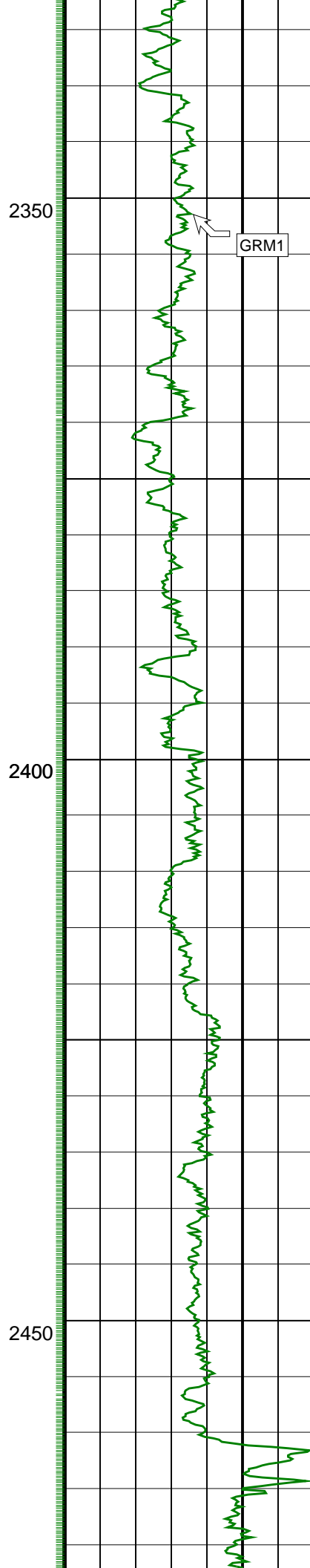
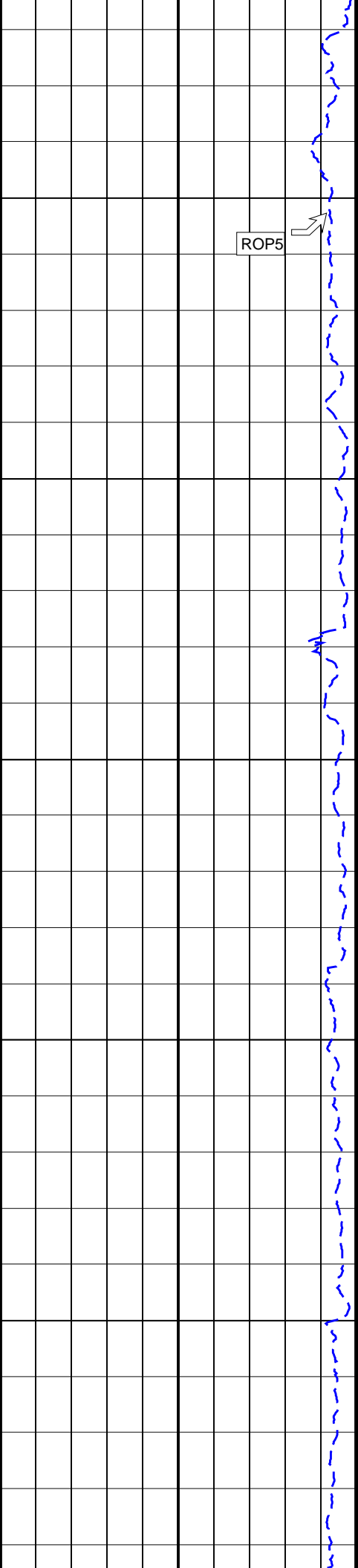


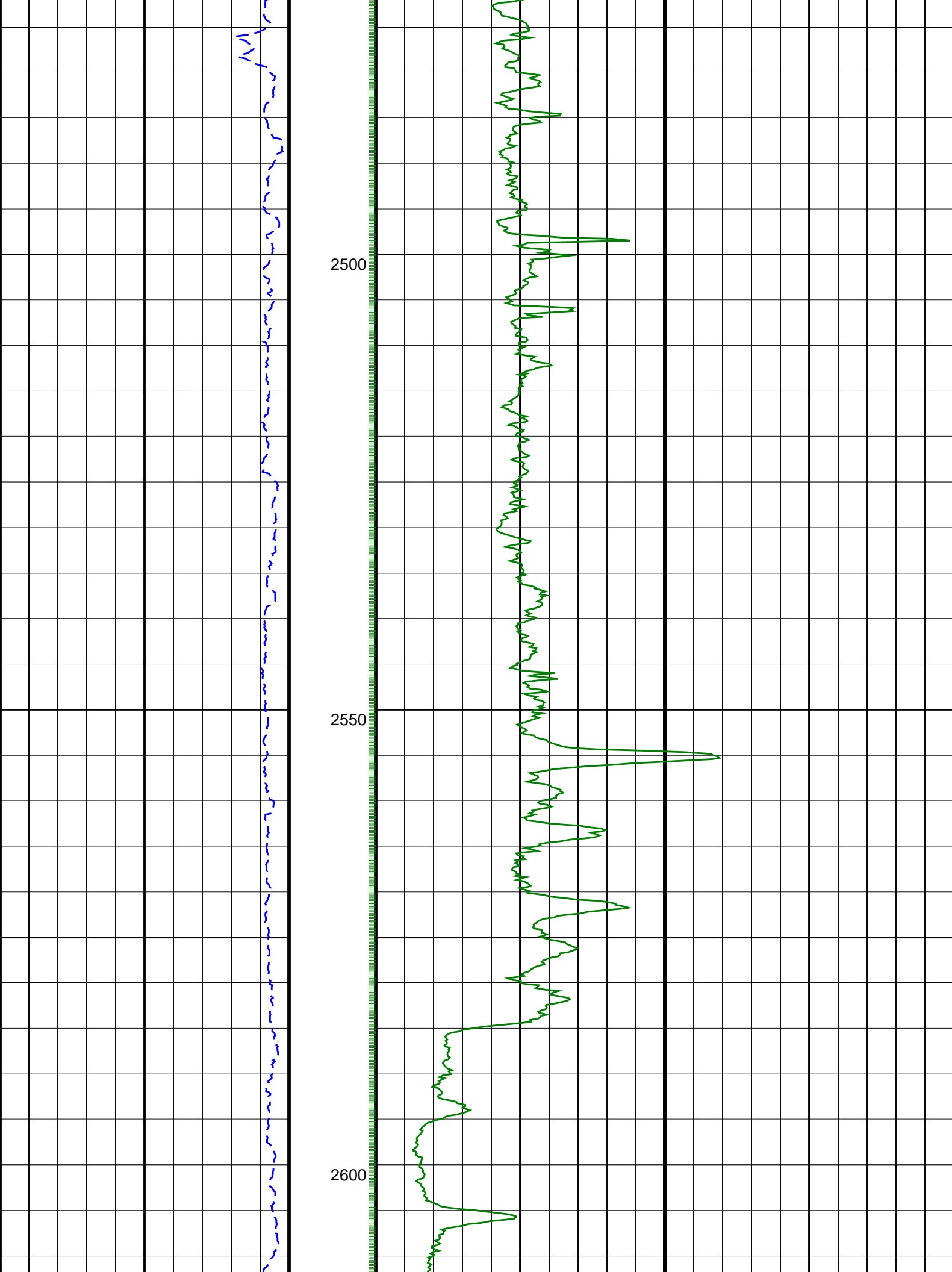
2200

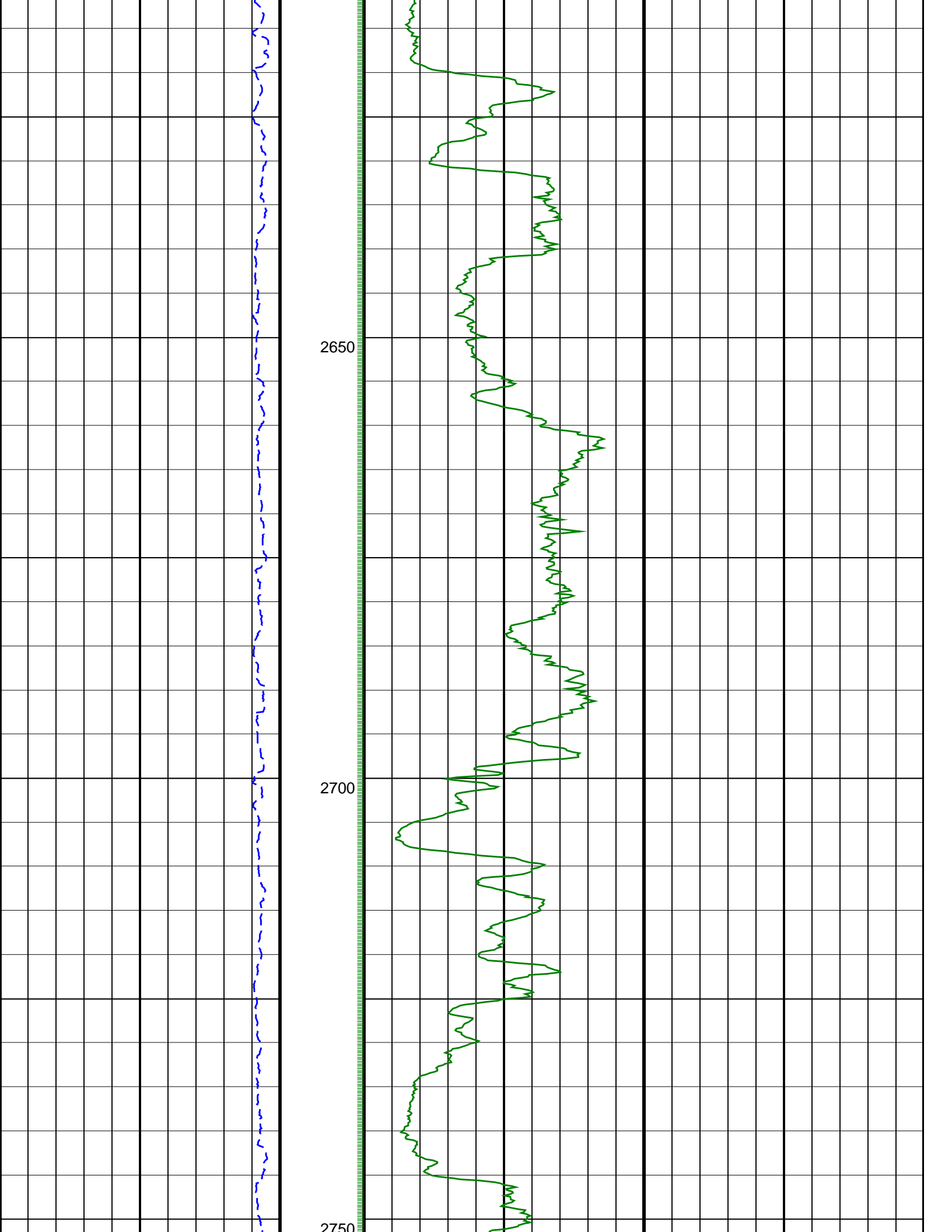
2250

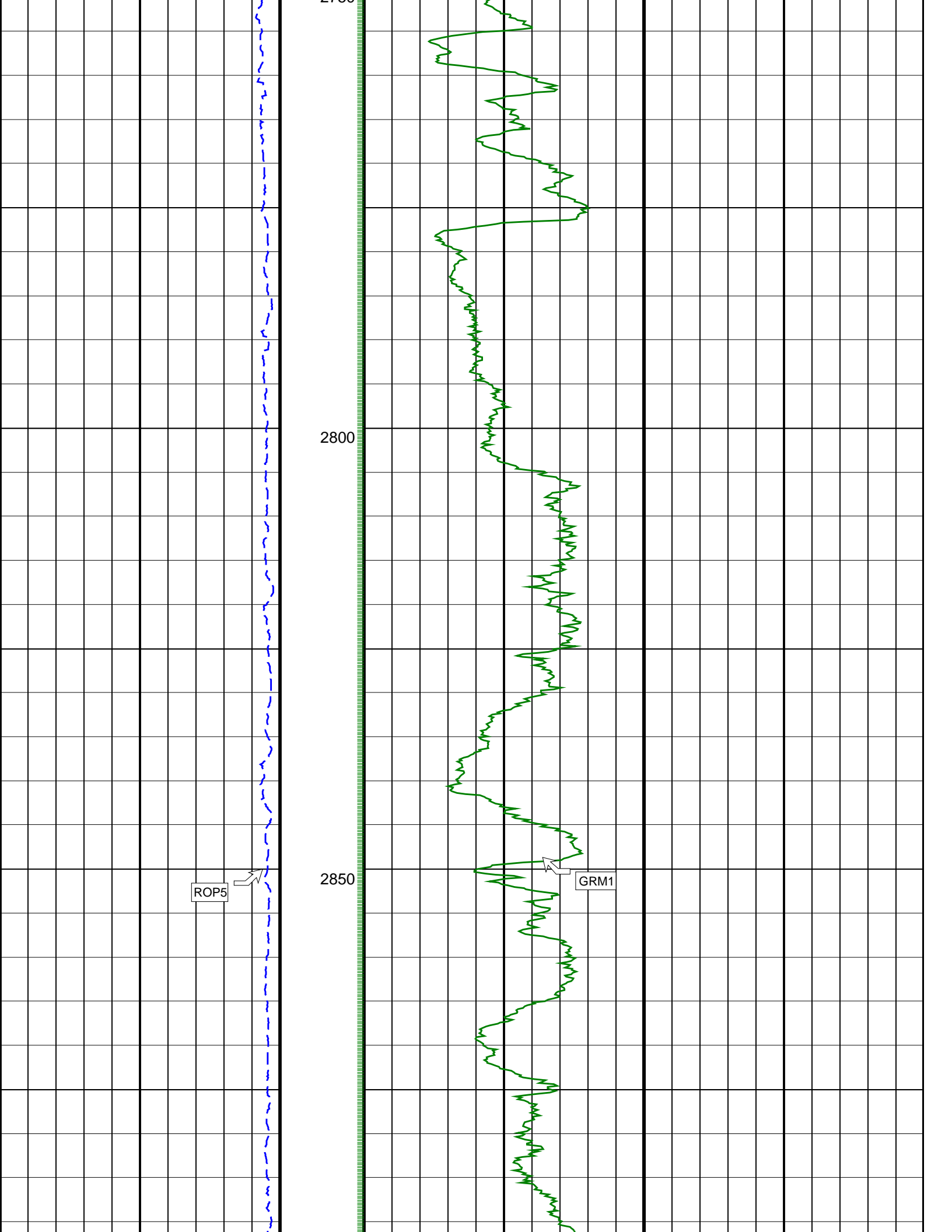
2300

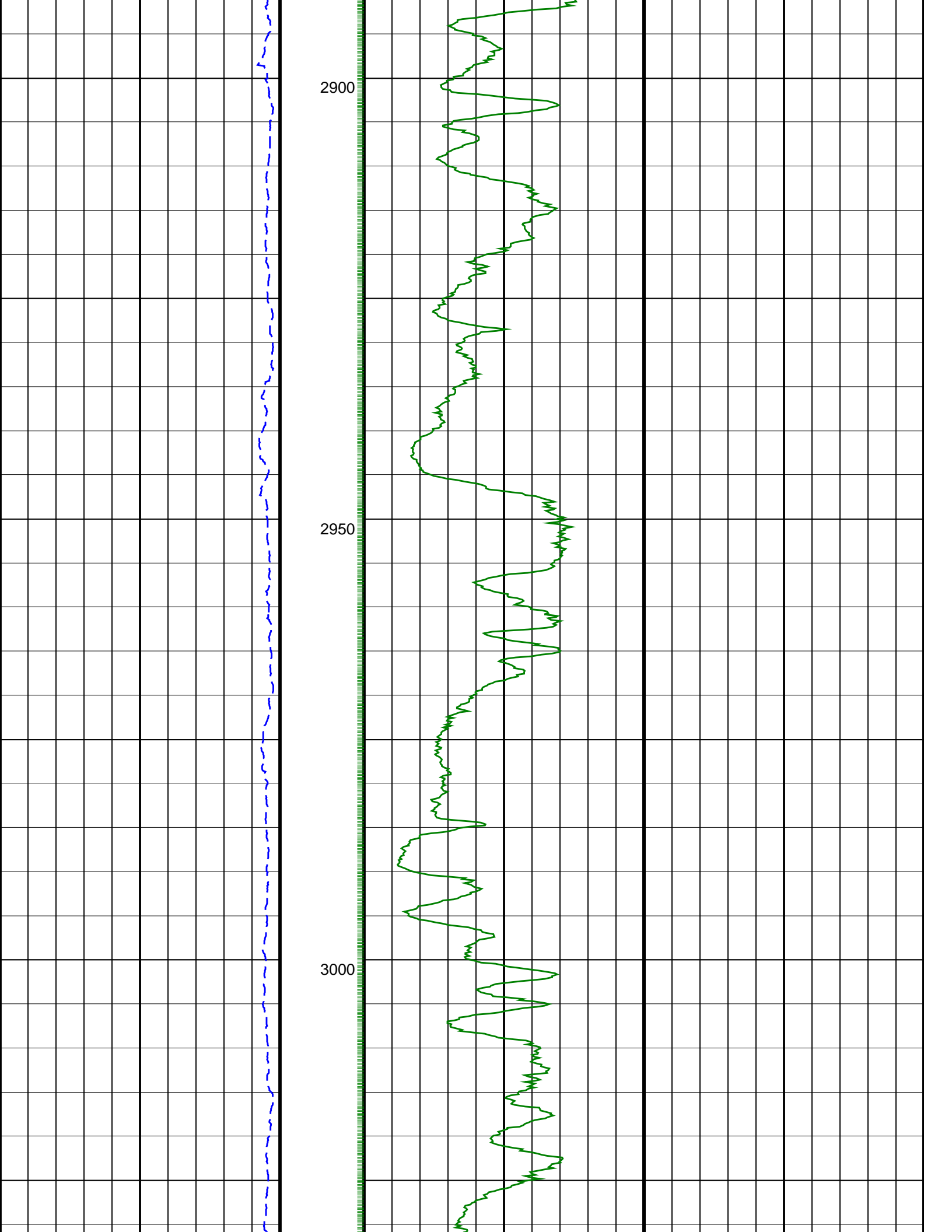


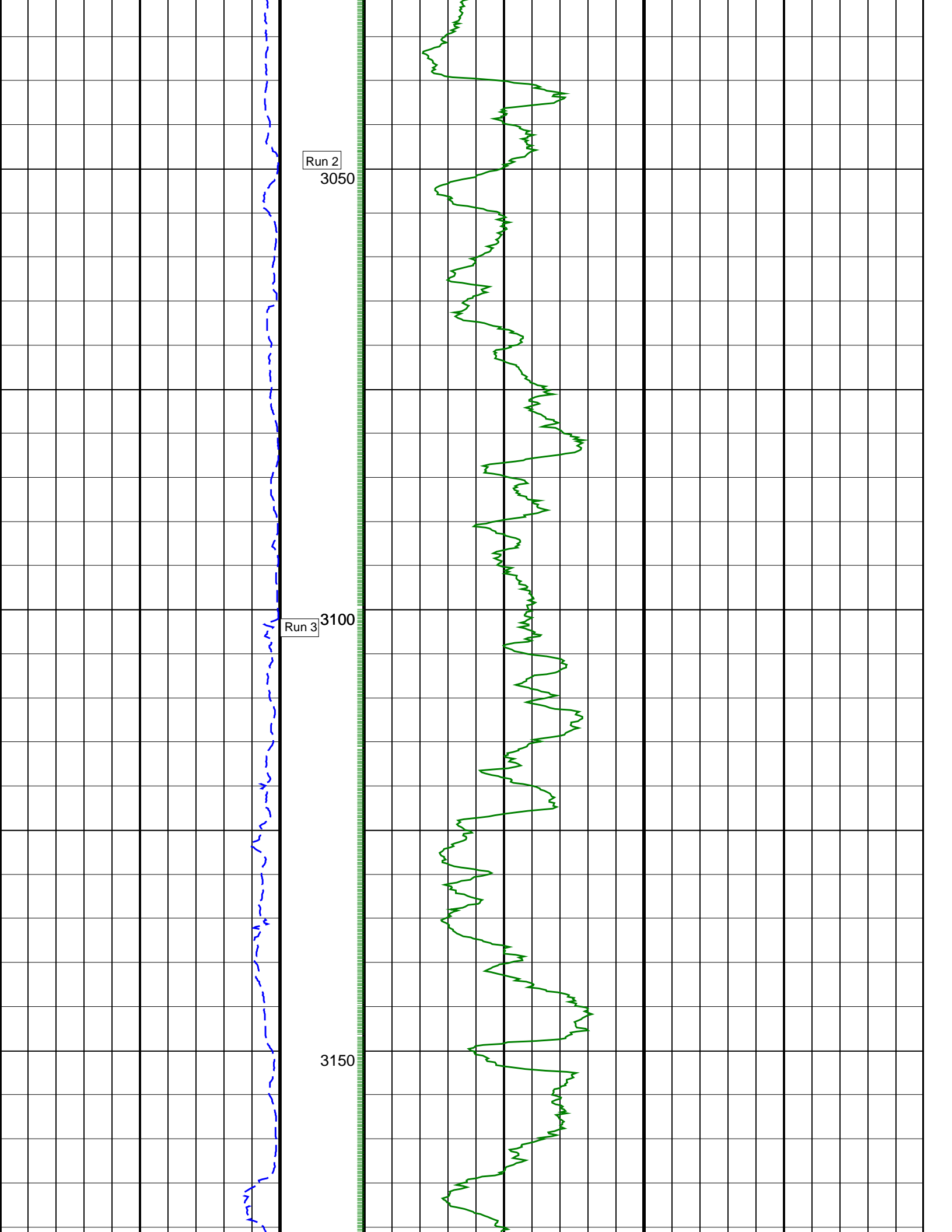


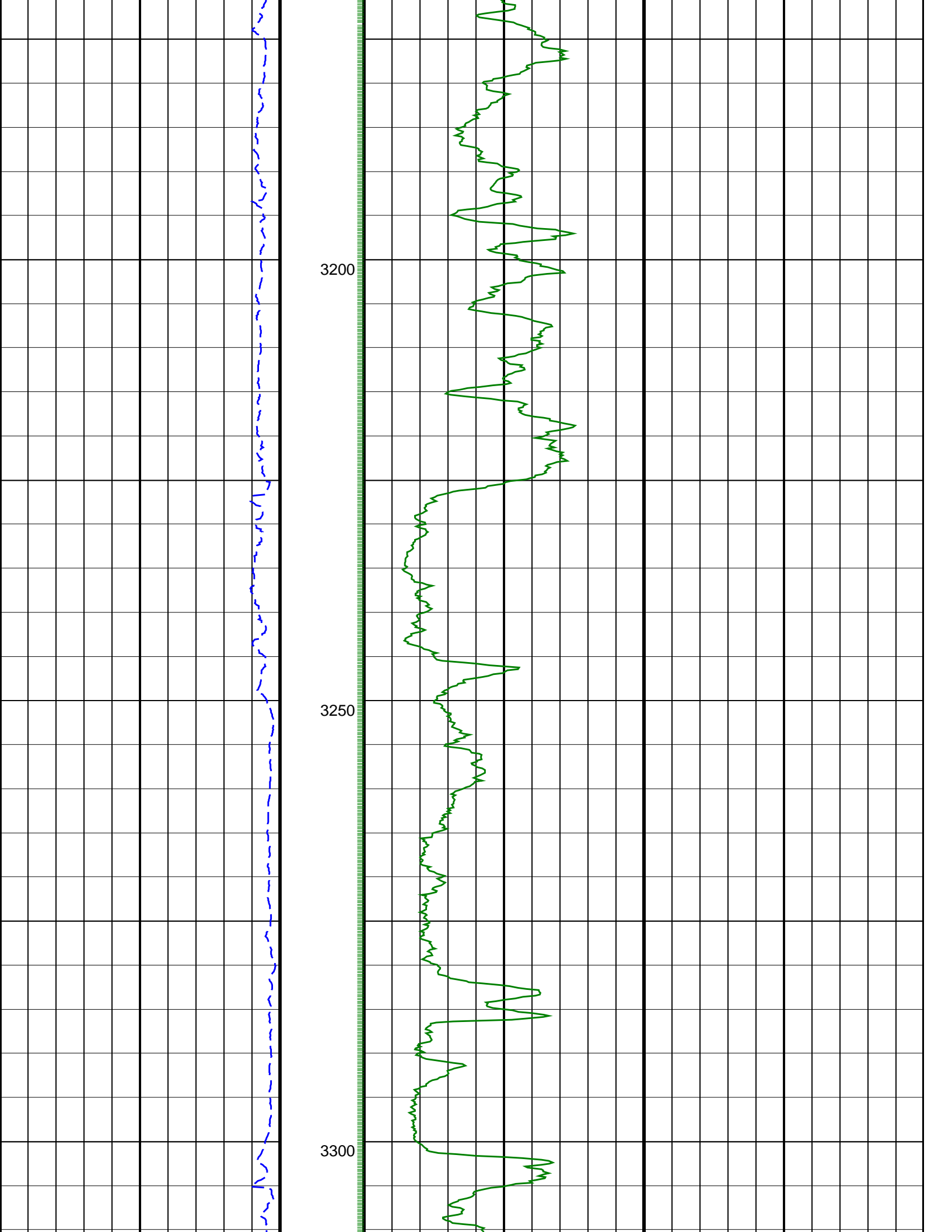


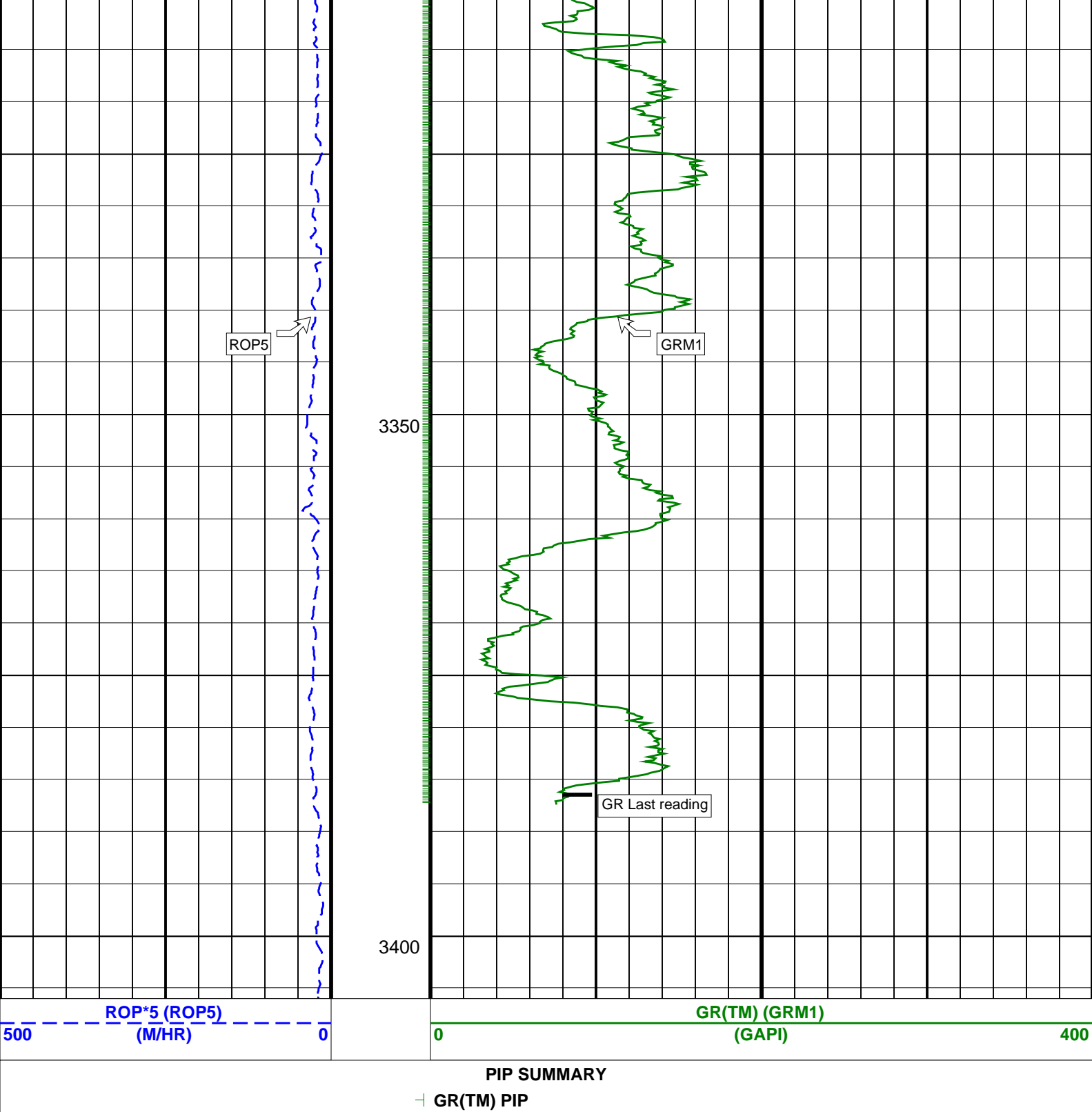












| | | |
|--|--------------------------|---------------------|
| Company: | ESSO Australia Pty. Ltd. | Schlumberger |
| Well: | TNA A31A | |
| Field: | Tuna | |
| Rig: | ISDL 453 | |
| State: | Victoria | |
| Gamma Ray Service 1:500 Measured Depth Real Time Log | | |

