



Weatherford®

6 3/4 & 4 3/4 in. WeatherfordM/LWD™
Gamma Ray & Resistivity
1 in. & 5 in. MEASURED DEPTH
RECORDED DATA
FINAL PRINT

Company: Anadarko
Well: Farley 30N-23HZ
Field: Wattenberg
Rig: XTREME 23
County: Weld

| Location | | COMPANY | |
|----------|--|------------------------|--|
| | | Anadarko | |
| | | WELL | |
| | | Farley 30N-23HZ | |
| | | FIELD | |
| | | Wattenberg | |
| | | RIG | |
| | | XTREME 23 | |
| | | COUNTY | |
| | | Weld | |
| | | STATE | |
| | | Colorado | |
| | | API # | |
| | | 05-123-36396 | |

| | | |
|--|------------------|-----------------|
| Latitude: 40.20493° N | x = 3,208,978 ft | Mag Decl: 8.59° |
| Longitude: 104.75180° W | y = 1,318,380 ft | Mag Dip: 66.81° |
| Other Services: Spectral Azimuthal Gamma Ray, Directional, and Temperature | | |

| | | |
|--|------------------------------|----------------------|
| Permanent Datum: <u>Mean Sea Level</u> | | |
| Log Measured From: <u>Drill Floor</u> | Elev: <u>4955 ft</u> | above perm. datum |
| Depth Reference: <u>Drillers Tally</u> | Total Depth: <u>11722 ft</u> | |
| Depth Logged: 6689 ft | to 11722 ft | Runs: 4 |
| Date Logged: 14-Jul-13 | to 19-Jul-13 | Spud Date: 11-Jul-13 |
| | | Elevation |
| | | K.B. Top Drive |
| | | G.L. 4939.0 ft |
| | | D.F. 4955.0 ft |
| | | W.D. Land |

| Borehole Record | | | Casing Record | | | |
|-----------------|---------|----------|---------------|------------|---------|---------|
| Hole Size | From | To | Size | Weight | From | To |
| 8.750 in. | 909 ft | 7565 ft | 9.625 in. | 53.5 lb/ft | Surface | 967 ft |
| 6.125 in. | 7565 ft | 11722 ft | 7.000 in. | 26 lb/ft | Surface | 7565 ft |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Borehole Deviation Record | | | Mud Record | | | |
|---------------------------|-----------|-----------|------------|-------------------|---------|----------|
| Hole Size | Min. Inc. | Max. Inc. | Type | Weight | From | To |
| 8.750 in. | 0.14° | 85.18° | WBM | 8.50 ppq | 916 ft | 6734 ft |
| 6.125 in. | 86.91° | 91.94° | WBM | 8.50 - 10.20 ppq | 6734 ft | 7565 ft |
| | | | WBM | 10.00 - 10.30 ppq | 7565 ft | 11722 ft |
| | | | | | | |
| | | | | | | |
| | | | | | | |

All interpretations of log data are opinions based on inferences from electrical or other measurements. Weatherford International does not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

RUN SUMMARY

| M/LWD Run Number | | 1 | 2 | 3 | 4 | | | |
|---------------------|-----------|--------------|--------------|--------------|---------------|--|--|--|
| Bit Size | in. | 8.750 | 8.750 | 6.125 | 6.125 | | | |
| Bit Type | | PDC | PDC | PDC | PDC | | | |
| Bit TFA | sq.in. | 1.660 | 1.530 | 1.860 | 1.860 | | | |
| Bit Start Depth | ft | 916 | 6734 | 7565 | 7930 | | | |
| Bit End Depth | ft | 6734 | 7565 | 7930 | 11722 | | | |
| Top Log Interval | ft | na | 6689 | 7524 | 7887 | | | |
| Bottom Log Interval | ft | na | 7565 | 7930 | 11722 | | | |
| Begin Log Time | hrs | na | 0:50 | 13:46 | 12:14 | | | |
| Begin Log Date | DD-MMM-YY | na | 14-Jul-13 | 16-Jul-13 | 17-Jul-13 | | | |
| End Log Time | hrs | na | 21:46 | 20:14 | 1:50 | | | |
| End Log Date | DD-MMM-YY | na | 14-Jul-13 | 16-Jul-13 | 17-Jul-13 | | | |
| Drill or Wipe | | Drill | Drill | Drill | Drill | | | |
| Flow Rate | gal/min | 594 | 545 | 300 | 300 | | | |
| Max AV / CV @ MWD | ft/min | 492 / 319 | 492 / 319 | 492 / 373 | 492 / 373 | | | |
| Min Inc @ Depth | deg @ ft | 0.14 @ 5840 | 7.23 @ 6780 | 90.56 @ 5840 | 86.91 @ 11264 | | | |
| Max Inc @ Depth | deg @ ft | 18.83 @ 3187 | 85.18 @ 7505 | 18.83 @ 3187 | 91.32 @ 10325 | | | |

| MUD DATA | | | | | | | | |
|-------------------------|---------------|-------------|-------------|-------------|-------------|--|--|--|
| Depth | ft | 6734 | 7565 | 7930 | 11722 | | | |
| Fluid Type | | WBM | WBM | WBM | WBM | | | |
| Mud Weight | ppg | 8.50 | 10.20 | 10.20 | 10.30 | | | |
| Plastic Viscosity | cP | 1 | 13 | 6 | 12 | | | |
| Solids / Sand | % | 0.7 / 0.01 | 8.7 / 0.80 | 8.7 / 0.50 | 9.7 / 0.20 | | | |
| NaCl Equiv. Chlorides | ppm | 1100 | 1500 | 1600 | 1400 | | | |
| pH | | 8 | 8.7 | 8.1 | 8.1 | | | |
| Oil:Water Ratio | % Vol | 0.0 : 100.0 | 0.0 : 100.0 | 0.0 : 100.0 | 0.0 : 100.0 | | | |
| Rm @ Temperature | ohm-m @ deg F | na | na | 1.25 | 1.25 | | | |
| Rmc @ Temperature | ohm-m @ deg F | na | na | 2.25 | 2.25 | | | |
| Rmf @ Temperature | ohm-m @ deg F | na | na | 1.15 | 1.15 | | | |
| KCl | % Vol | 0 | 0 | 0 | 0 | | | |
| Client Representative | | R. McPeters | R. McPeters | R. McPeters | R. McPeters | | | |
| WeatherfordLWD Engineer | | D. Palmer | D. Palmer | C. Clay | C. Clay | | | |

EQUIPMENT SUMMARY

| M/LWD Run Number | 1 | 2 | 3 | 4 | |
|--|---------------|---------------|-------------------|-------------------|------------|
| BTR / CDS Serial Number | 44702 / 44736 | 44702 / 44736 | na | na | |
| Battery Serial Number | 403715873 | 403715873 | na | na | |
| Gamma Ray Serial Number | 51262 | 51262 | na | na | |
| CMS Serial Number | 1949 | 1949 | na | na | |
| Pulser Serial Number | 47668 | 47668 | na | na | |
| HEL Serial Number | na | na | NW131789PDS4.75 | NW131792PDB4.75 | |
| MFR Serial Number | na | na | NW131788RBBKV4.75 | NW131788RBBKV4.75 | |
| SAGR Serial Number | na | na | NW131790JB4.75 | NW131790JB4.75 | |
| IDS Serial Number | na | na | NW131806BI | NW131806BI | |
| Sensor to Bit Offsets / Acquisition Rates | | | | | |
| Directional | ft / sec | 37.00 / RT | 40.87 / RT | 56.51 / RT | 56.51 / RT |
| Gamma Ray | ft / sec | 40.65 / 16 | 44.52 / 16 | 41.99 / 5 | 41.99 / 5 |
| Resistivity | ft / sec | na | na | 77.70 / 5 | 77.70 / 5 |
| Other Information | | | | | |
| Total BHA Length | ft | 110.73 | 114.60 | 114.58 | 114.79 |
| BHA Assembly Type | | Steerable | Steerable | Steerable | Steerable |
| Stabilizer Location | ft | na | na | 30.60 | 30.60 |
| Stabilizer Location | ft | na | na | 106.81 | 107.02 |
| Run Circulating Time | hr | 29.93 | 19.52 | 8.61 | 37.95 |
| Run Drilling Time | hr | 22.77 | 8.15 | 2.13 | 18.79 |

MUD SUMMARY

| Date and Time | Run | Bit Depth | Mud Weight | % K | Rm @ Temp | Rmf @ Temp | Rmc @ Temp | BHCT |
|-------------------|-----|-----------|------------|-----|------------|------------|------------|-------|
| 13 Jul 13 @ 20:00 | 01 | 6734 ft | 8.20 ppg | 0 | na | na | na | 170 F |
| 14 Jul 13 @ 20:00 | 02 | 7565 ft | 10.20 ppg | 0 | na | na | na | 174 F |
| 16 Jul 13 @ 20:00 | 03 | 7930 ft | 10.20 ppg | 0 | 1.25 ohm-m | 1.15 ohm-m | 2.25 ohm-m | 202 F |
| 17 Jul 13 @ 20:00 | 04 | 11722 ft | 10.30 ppg | 0 | 1.25 ohm-m | 1.15 ohm-m | 2.25 ohm-m | 240 F |

M/LWD RUN REMARKS

Run Number: 2 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Gamma Ray and Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Hole Size: 8.750 in.

Gamma Ray: Hole size, Mud weight, Collar O.D., Collar I.D., and K1 factor.

Mud Weight: 8.50 ppg

Collar O.D.: 6.750 in.

Borehole Temperature: 180° F

Collar I.D.: 3.250 in.

K1 Factor: 3.180

Run Number: 3 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Spectral Gamma Ray, Resistivity, Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Hole Size: 6.125 in.

Gamma Ray: Corrected for mud weight, hole size and KCl concentration.

Mud Weight: 10.20 ppg

Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity and dielectric correction.

Borehole Temperature: 202° F

Drilling Fluid Resistivity: 0.495 ohm-m

KCl Concentration: 0%

Run Number: 4 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Spectral Gamma Ray, Resistivity, Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Hole Size: 6.125 in.

Gamma Ray: Corrected for mud weight, hole size and KCl concentration.

Mud Weight: 10.30 ppg

Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity and dielectric correction.

Borehole Temperature: 210° F

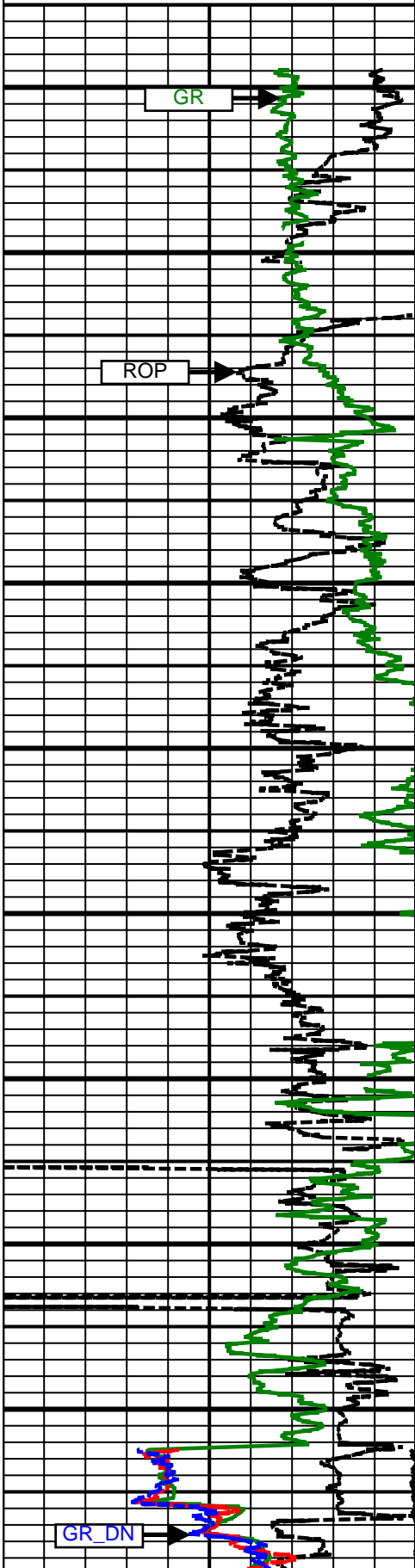
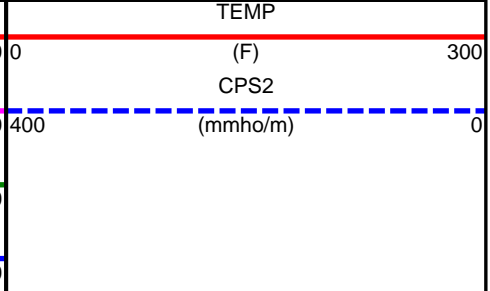
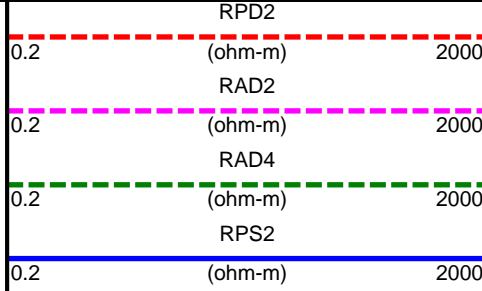
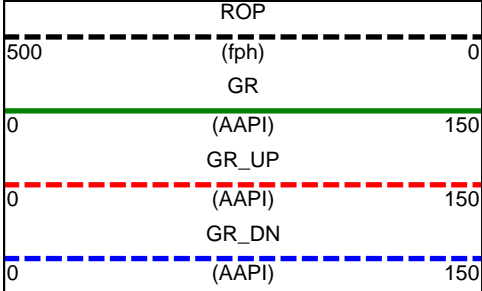
Drilling Fluid Resistivity: 0.495 ohm-m

KCl Concentration: 0%

| M/LWD LOG COMMENTS | |
|--------------------|---|
| Comment No. 1-1 | No logging occurred during this run. |
| Comment No. 2-1 | RECORDED DATA LOG Start of M/LWD Drilling Run 02 Weatherford International provided 6 3/4 in. Directional, Gamma Ray, and Temperature for Run 02. Run 02 started formation drilling July 14, 2013 at 00:50 at 6734 MD / 6650 TVD. Weatherford International logged the 8.750 in. borehole. The WBM at the start of drilling was 10.20 ppg. |
| Comment No. 2-2 | End of M/LWD Drilling Run 02 Run 02 ended drilling formation July14, 2013 at 21:46 at 7565 MD / 7165 TVD. The WBM at the end of drilling was 10.20 ppg. |
| Comment No. 3-1 | RECORDED DATA LOG Start of M/LWD Drilling Run 03 Weatherford International provided 4 3/4 in. Directional, Rotary Steerable, Resistivity, Gamma Ray, and Bore/Annulus Pressure for Run 03. Run 03 started formation drilling July 16, 2013 at 13:46 at 7565 MD / 7165 TVD. Weatherford International logged the 6.125 in. borehole. The WBM at the start of drilling was 10.20 ppg. |
| Comment No. 3-2 | End of M/LWD Drilling Run 03 Run 03 ended drilling formation July 16, 2013 at 20:14 at 7930 MD / 7158 TVD. The WBM at the end of drilling was 10.20 ppg. |
| Comment No. 4-1 | RECORDED DATA LOG Start of LWD Drilling Run 04 Weatherford International provided 4 3/4 in. Directional, Resistivity, Spectral Azimuthal Gamma Ray, and Temperature for Run 04. Run 04 started formation drilling July 17, 2013 at 12:14 at 7930 MD / 7158 TVD. Weatherford International logged the 6.125 in. borehole. The WBM at the start of drilling was 10.20 ppg. |
| Comment No. 4-2 | End of LWD Drilling Run 04 Run 04 ended drilling formation July 19, 2013 at 01:50 at 11722 MD / 7206 TVD. The WBM at the end of drilling was 10.30 ppg. |

| CURVE SPECIFICATIONS | | | | |
|------------------------------|----------|----------------|--|-----------------------|
| CURVE TYPE | MNEMONIC | UNITS | COMMENTS | CORRECTIONS |
| Rate of Penetration | ROP | fph | Rate of Penetration 3.0 ft window 0.5 ft Exponential Smoothing | None |
| Gamma Ray | GR | AAPI | Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing | See M/LWD Run Remarks |
| Gamma Ray | GR UP | AAPI | Azimuthal Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing | |
| Gamma Ray | GR DN | AAPI | Azimuthal Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Phase Resistivity | RPD2 | ohm-m | 2MHz Deep Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Attenuation Resistivity | RAD2 | ohm-m | 2MHz Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Attenuation Resistivity | RAD4 | ohm-m | 400 KhZ Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Shallow Phase Resistivity | RPS2 | ohm-m | 2MHz Shallow Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing | |
| Deep Phase Conductivity | CPD2 | mmho/m | 2MHz Deep Phase Conductivity 3.0 ft window 0.5 ft Exponential Smoothing | None |
| Temperature | TEMP | deg Fahrenheit | Borehole Temperature 3.0 ft window 0.5 ft Exponential Smoothing | |

1 Inch - Measured Depth



6700 MD

6800 MD

6900 MD

7000 MD

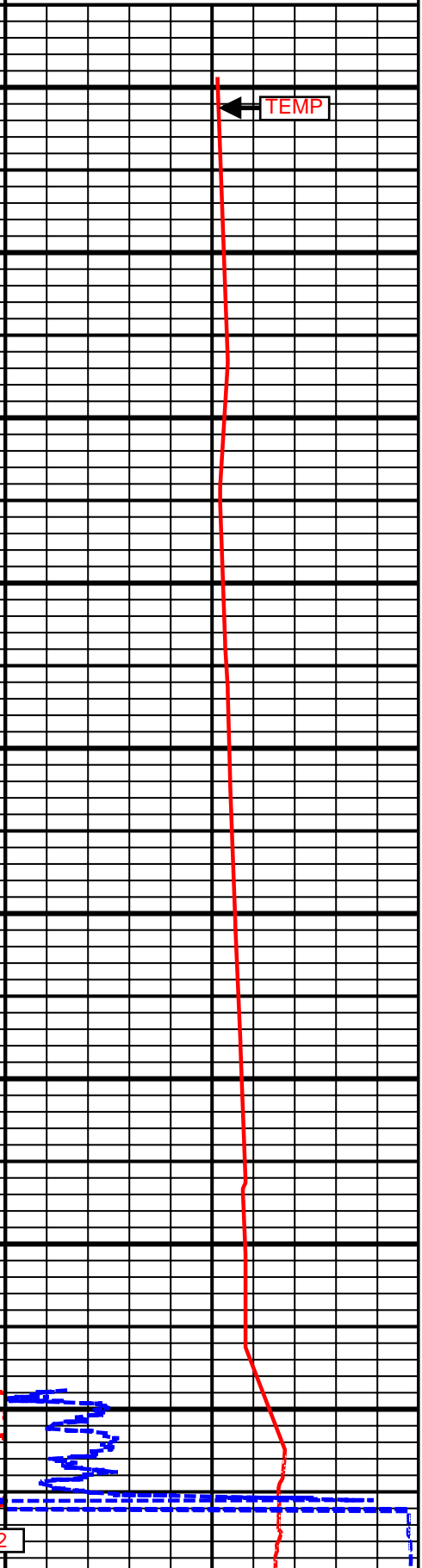
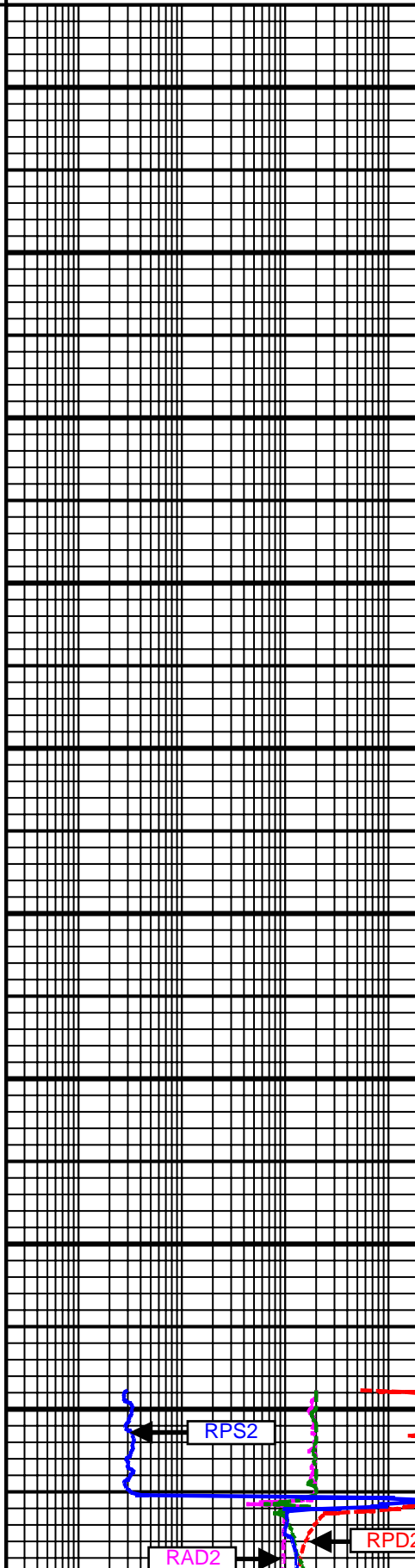
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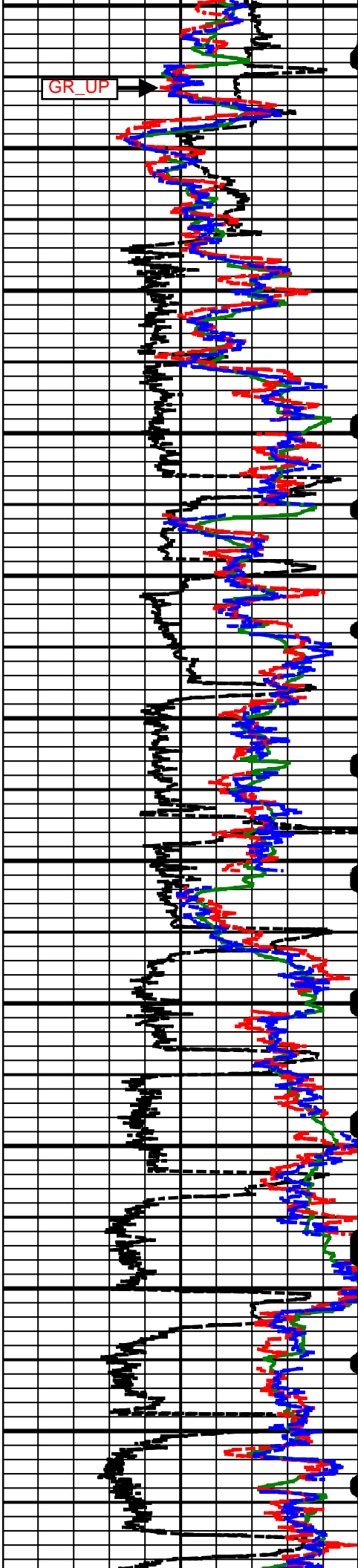
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7300 MD

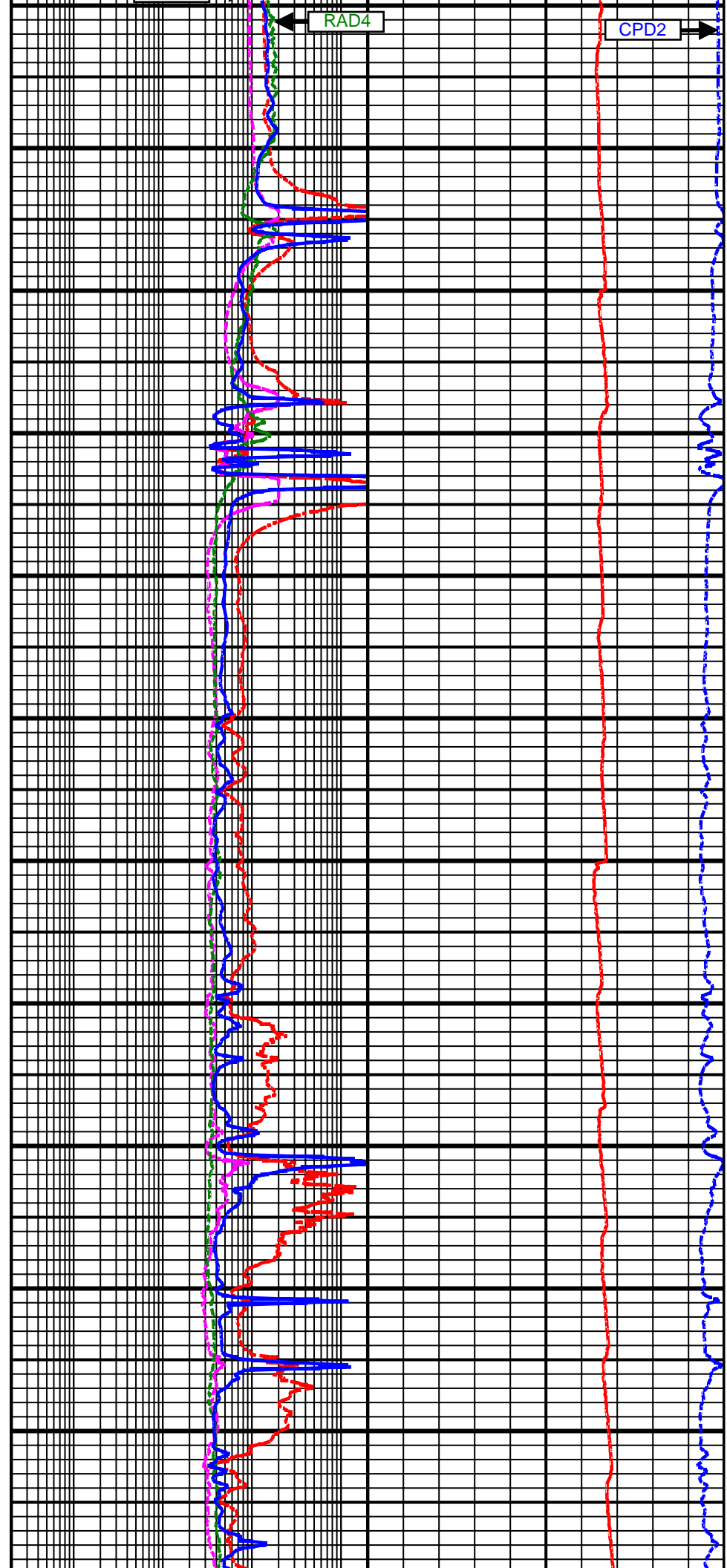
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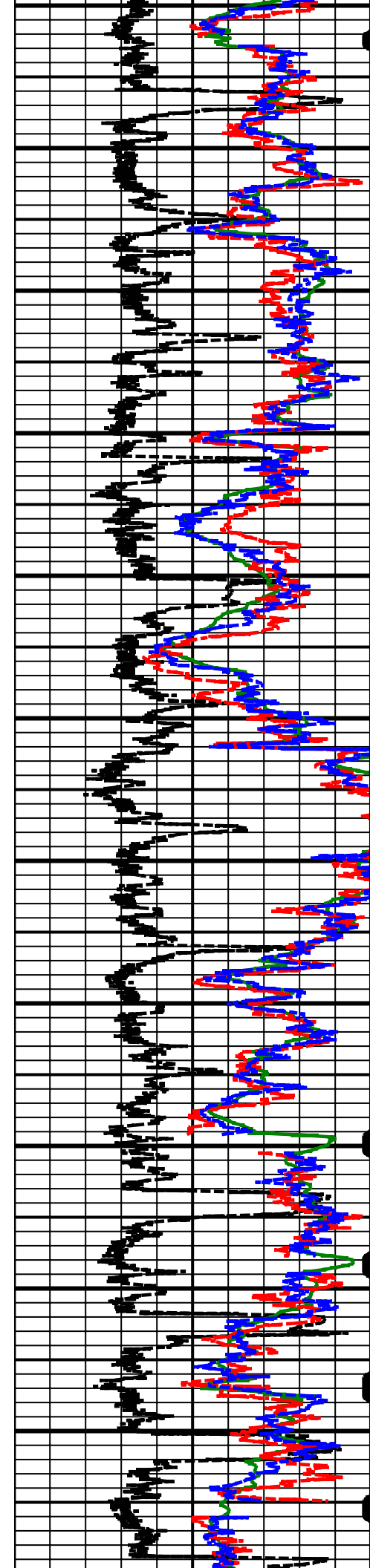
7500 MD





7600 MD
7700 MD
7800 MD
7900 MD
8000 MD
8100 MD
8200 MD
8300 MD
8400 MD
8500 MD
8600 MD
8700 MD





8700
MD

8800
MD

8900
MD

9000
MD

9100
MD

9200
MD

9300
MD

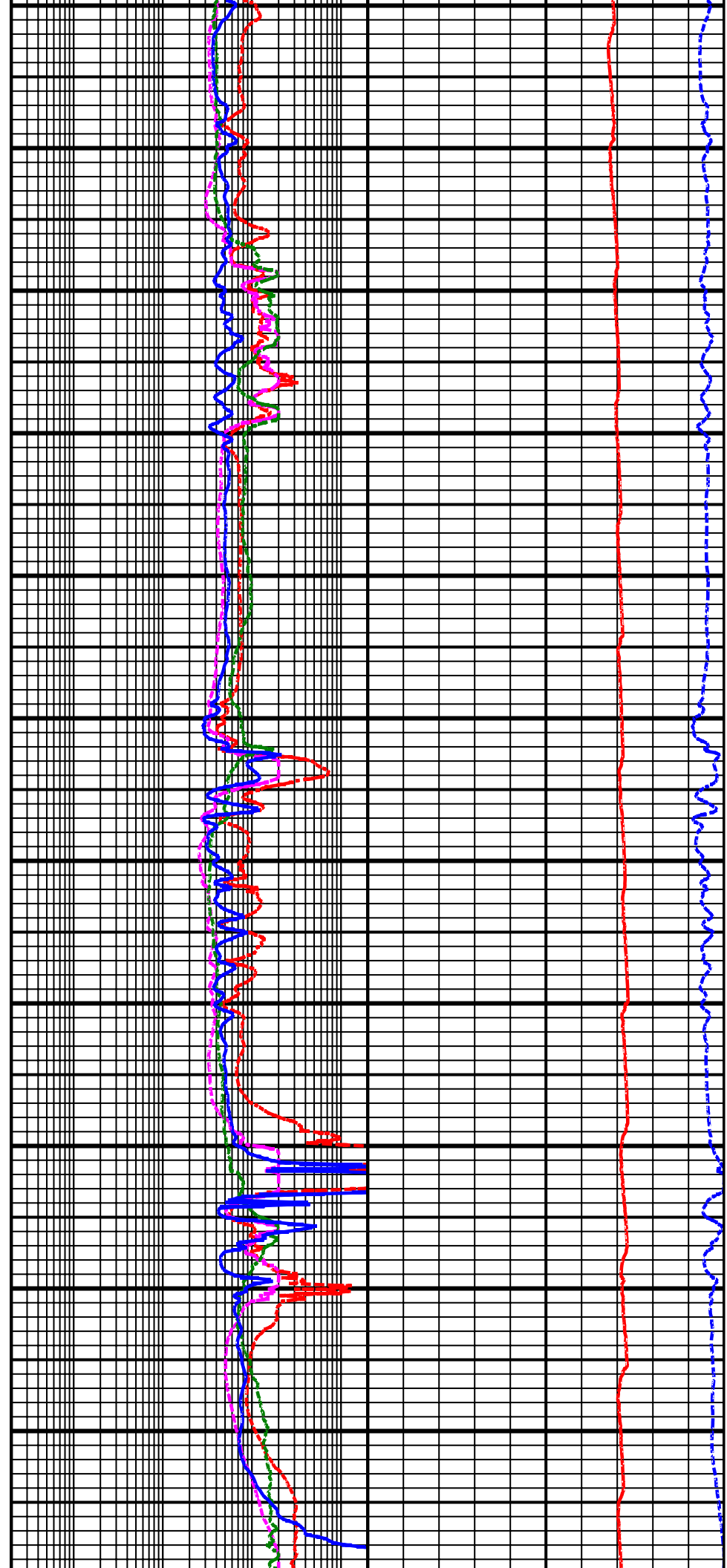
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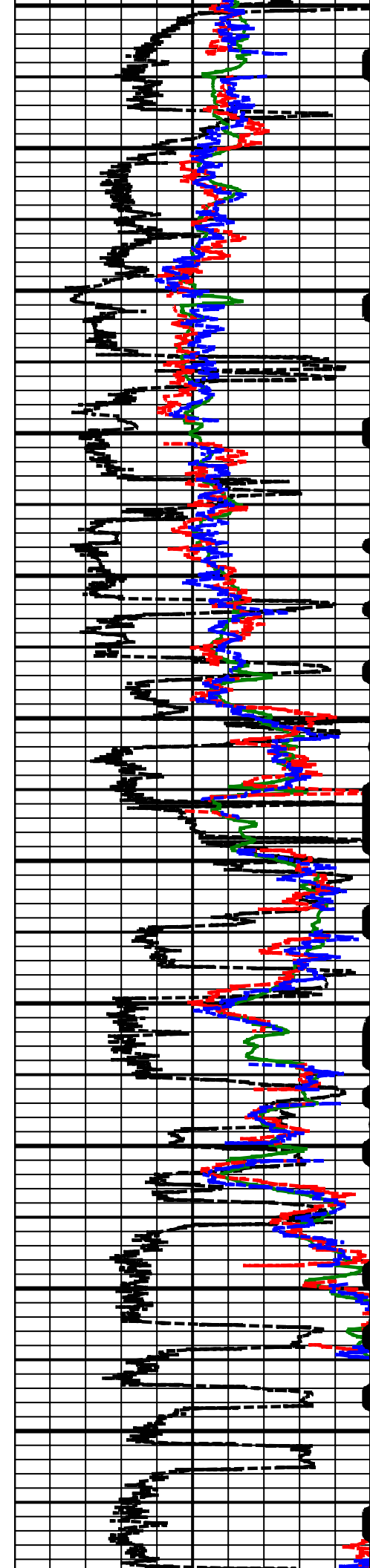
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9700
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9800
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9800
MD

9900
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10000
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10100
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10400
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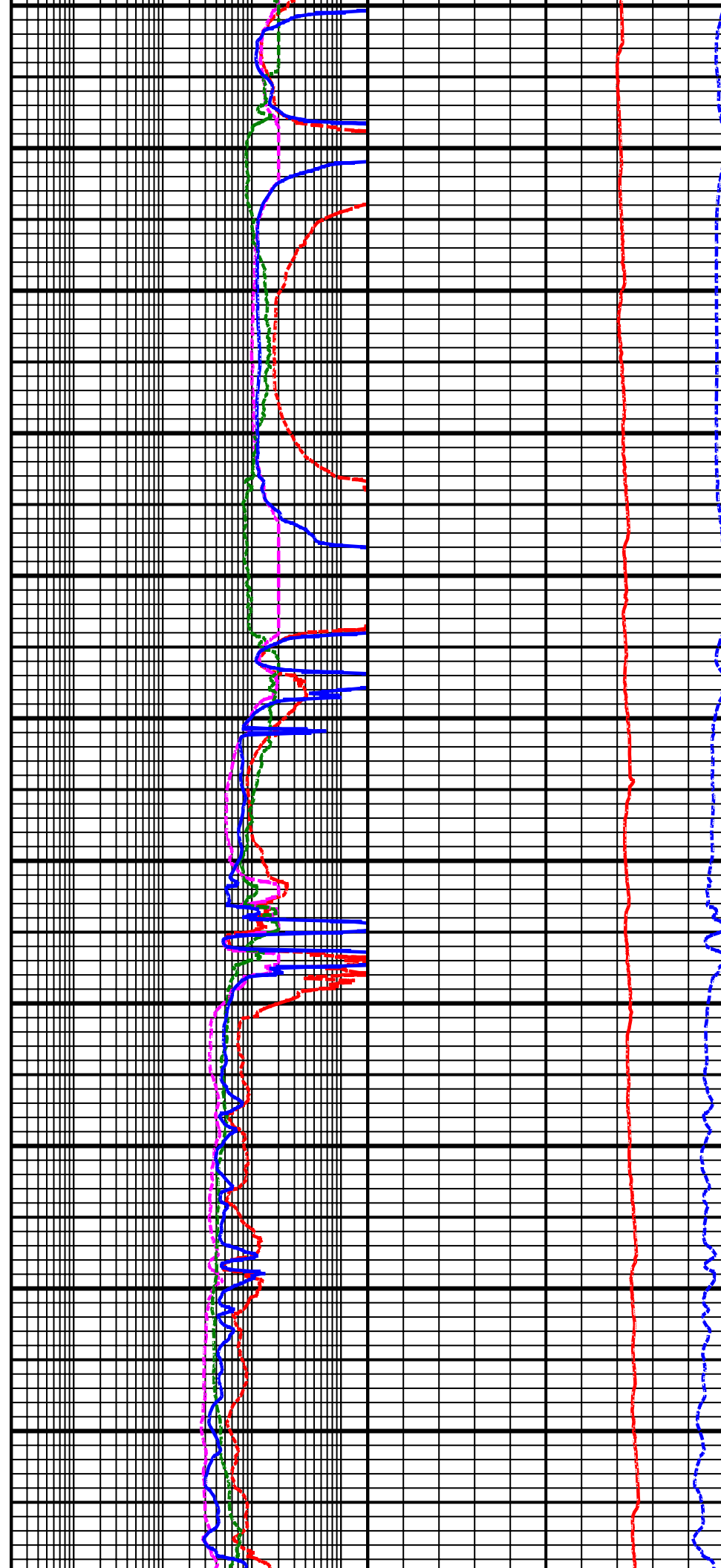
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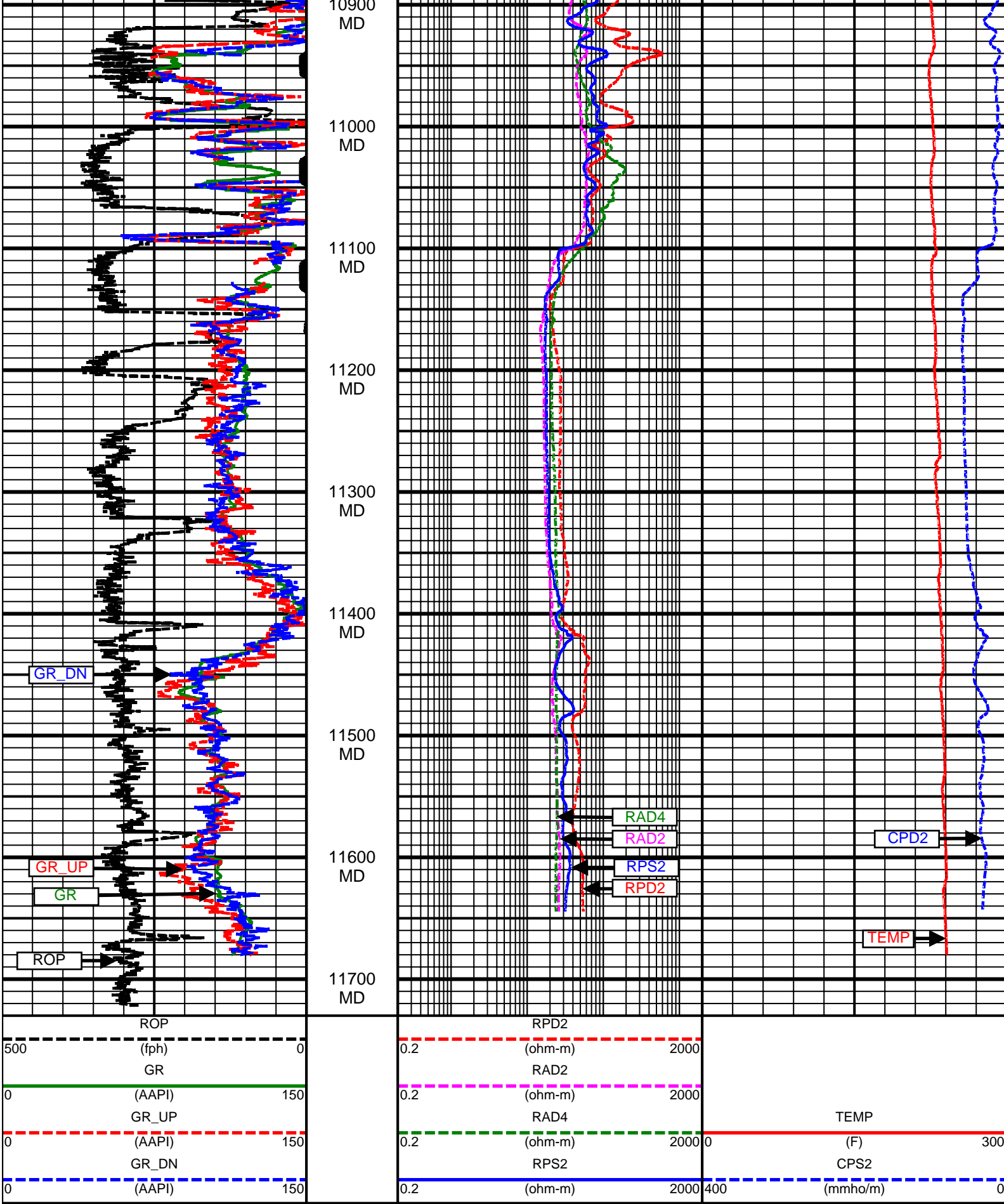
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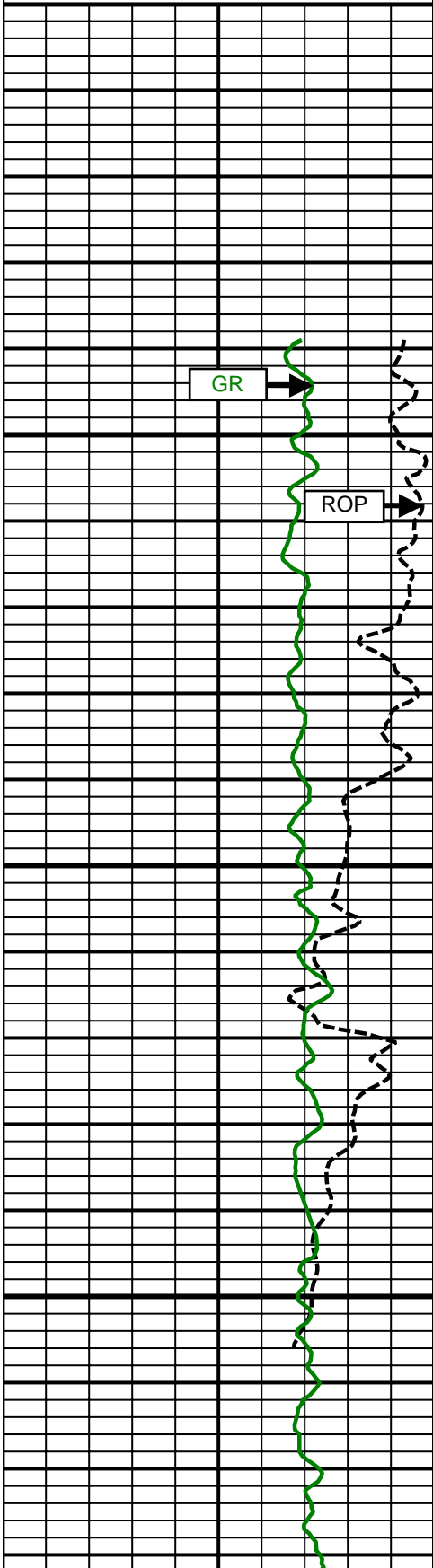
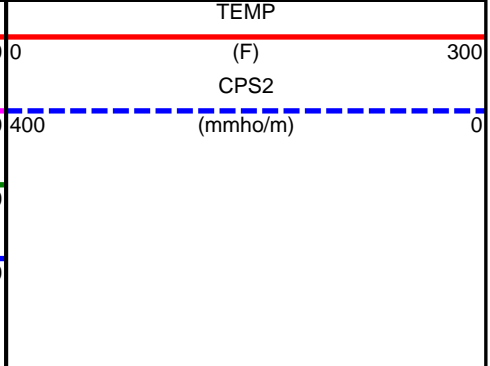
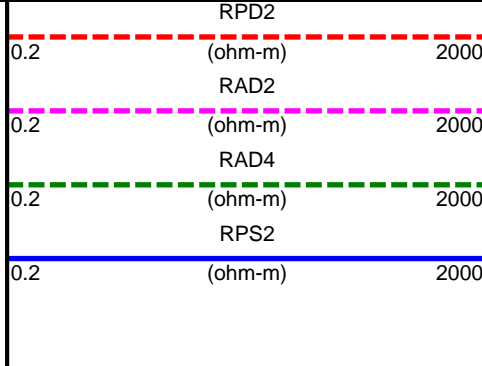
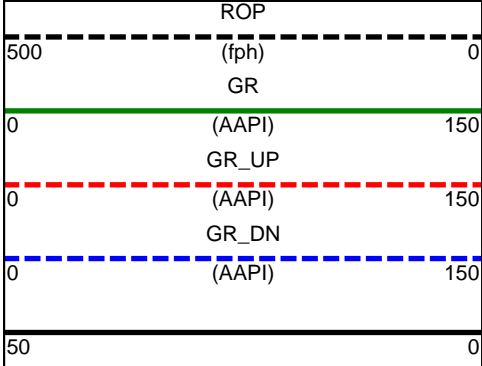
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5 Inch - Measured Depth



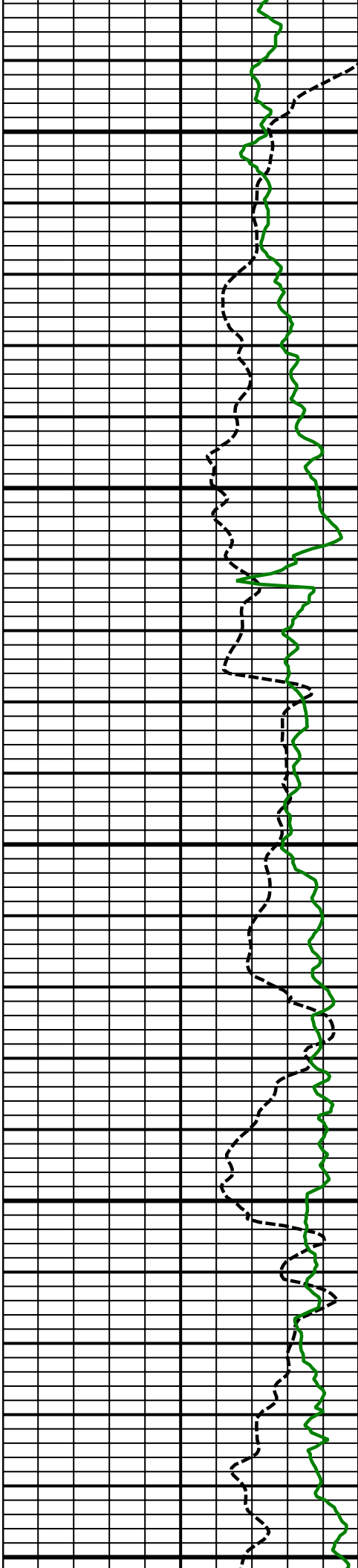
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Comment 2-1

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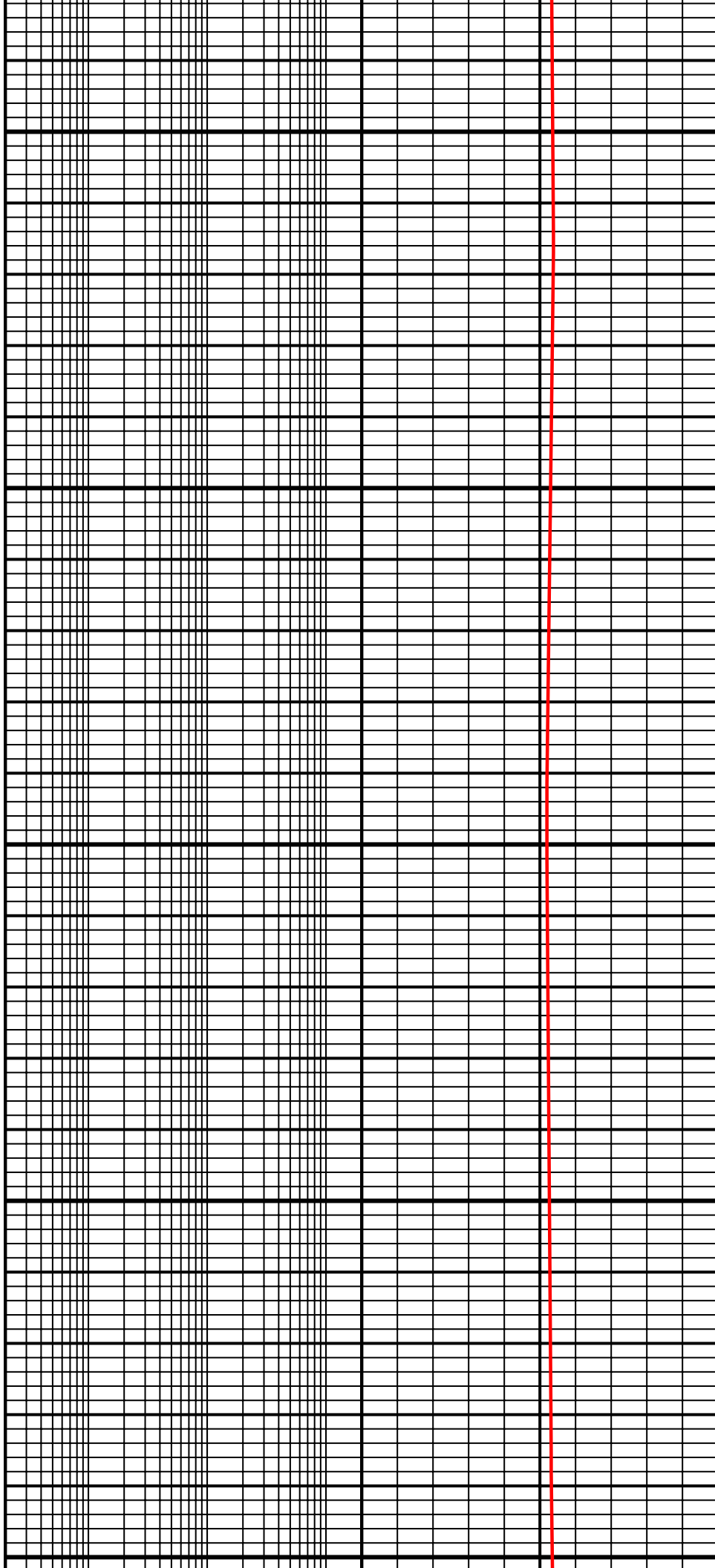
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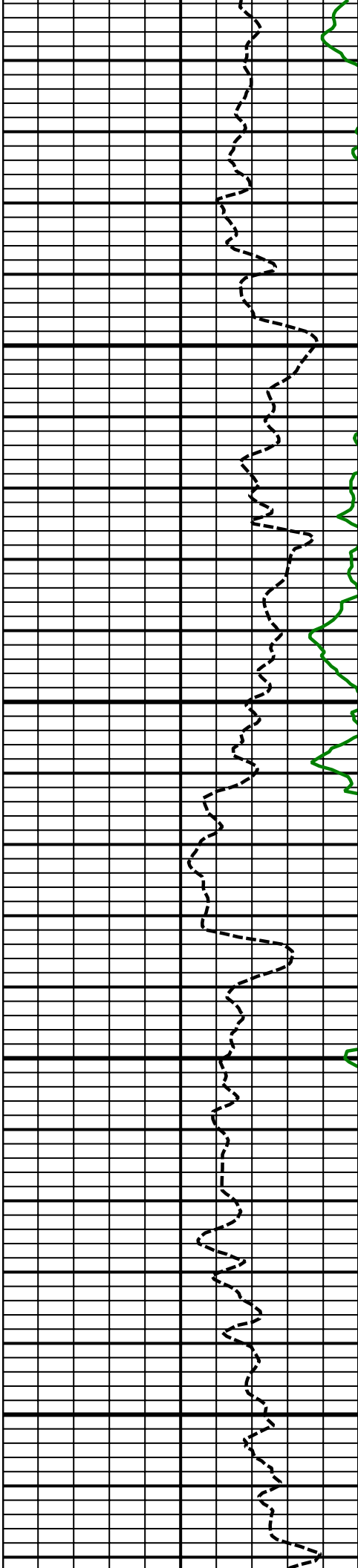
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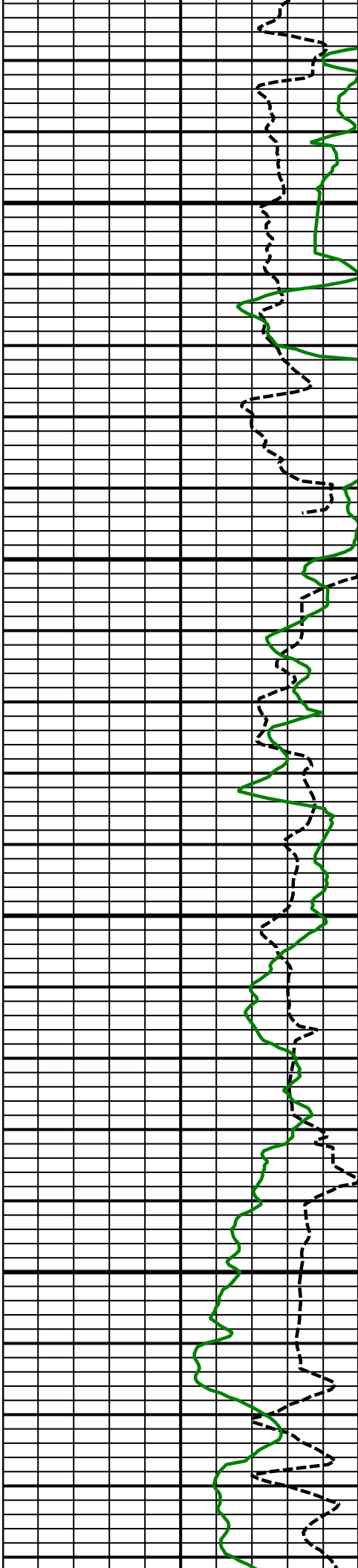
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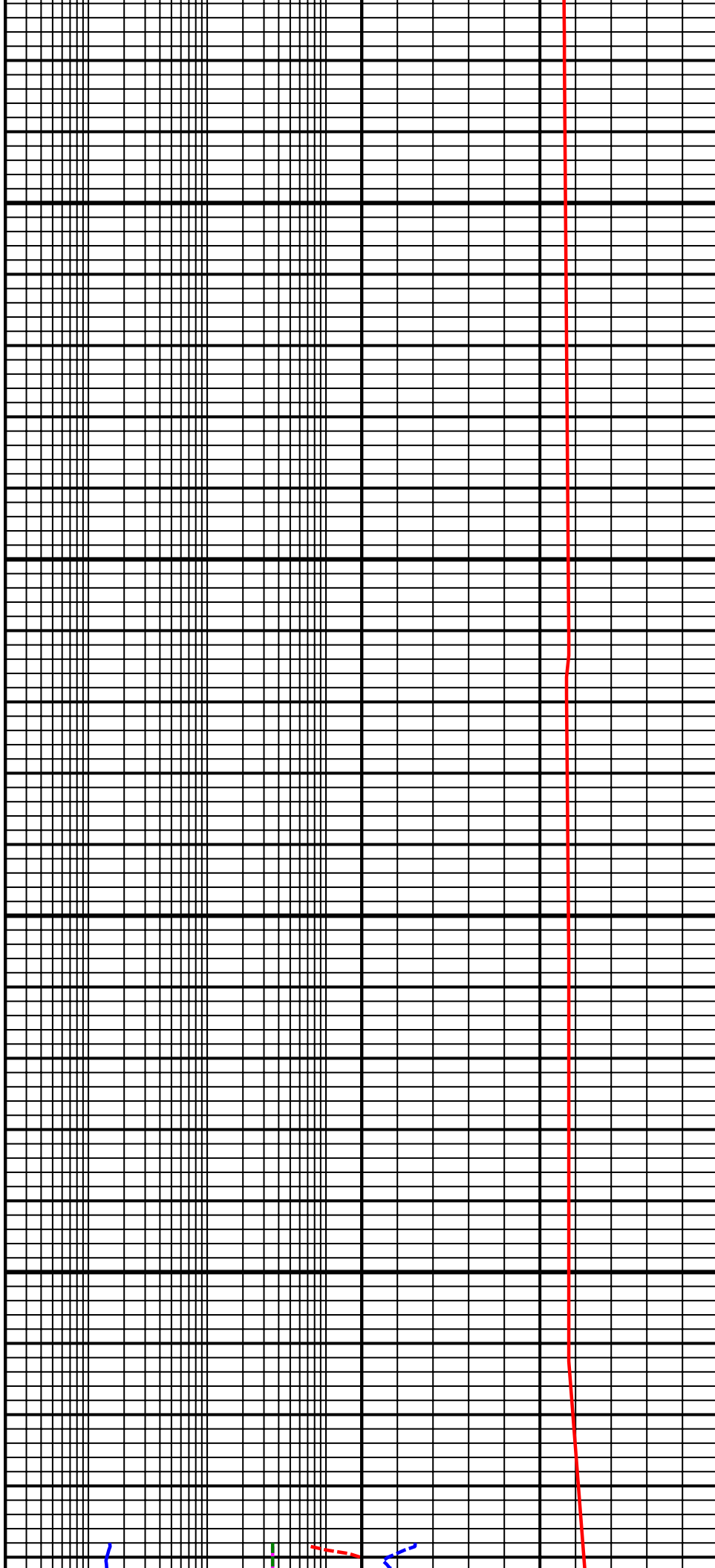
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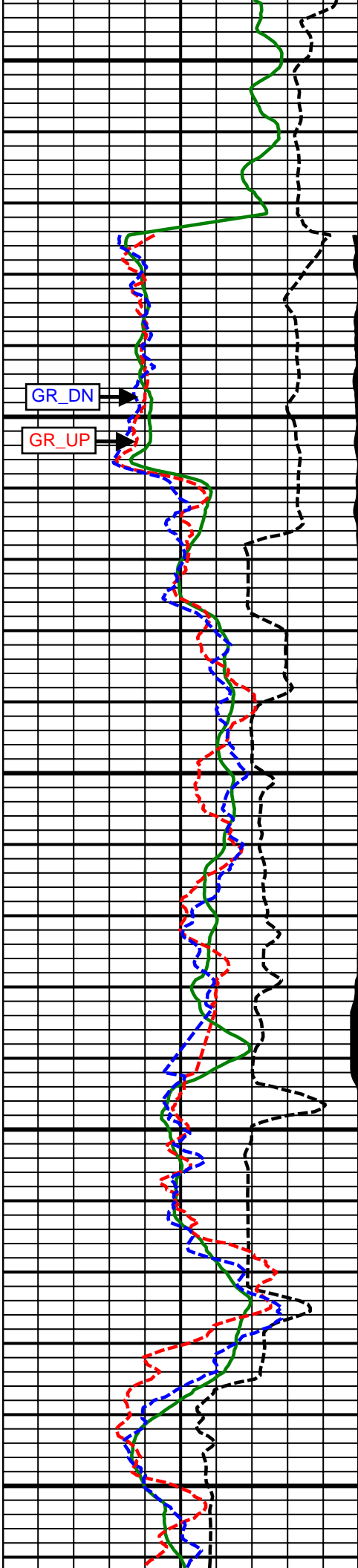
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MD

7400
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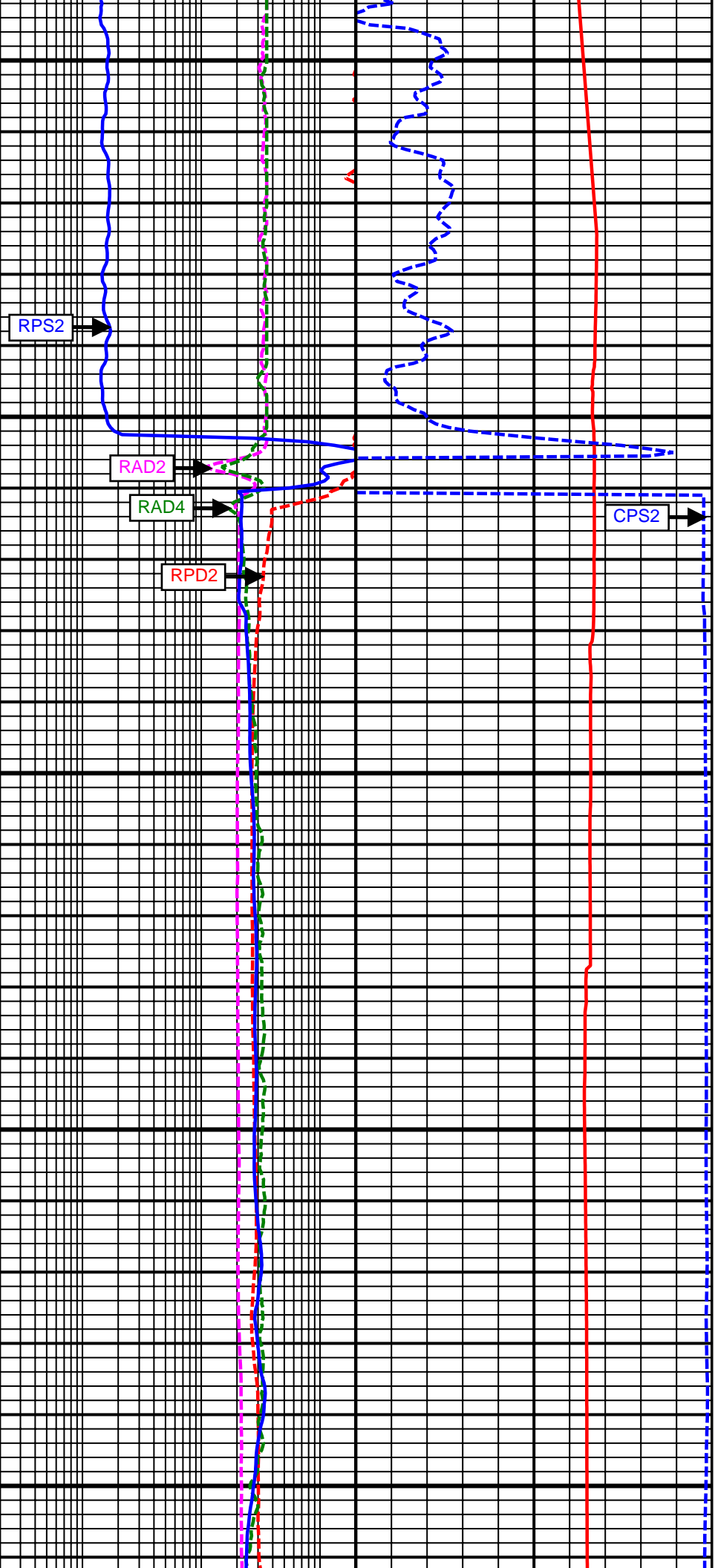
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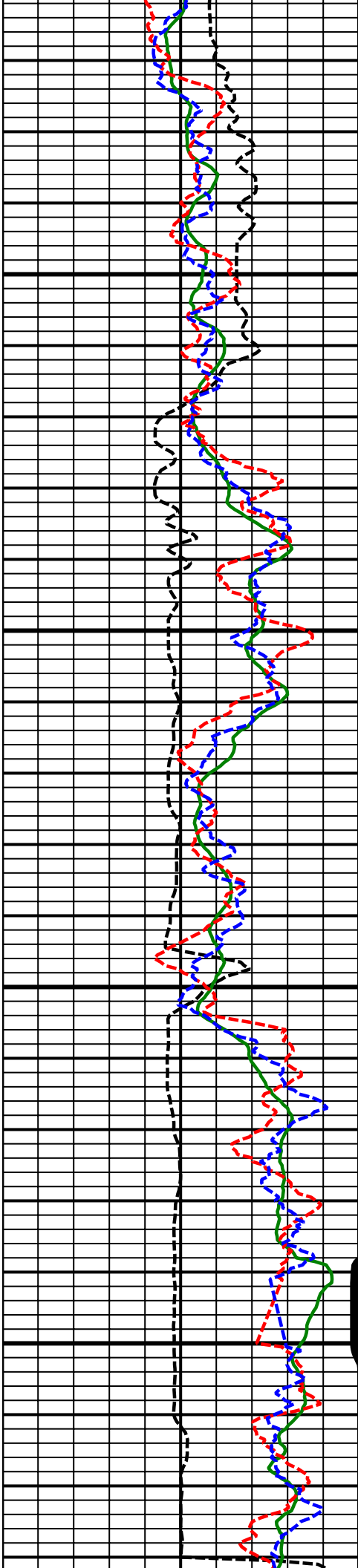
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Comment 3-1

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7700 MD



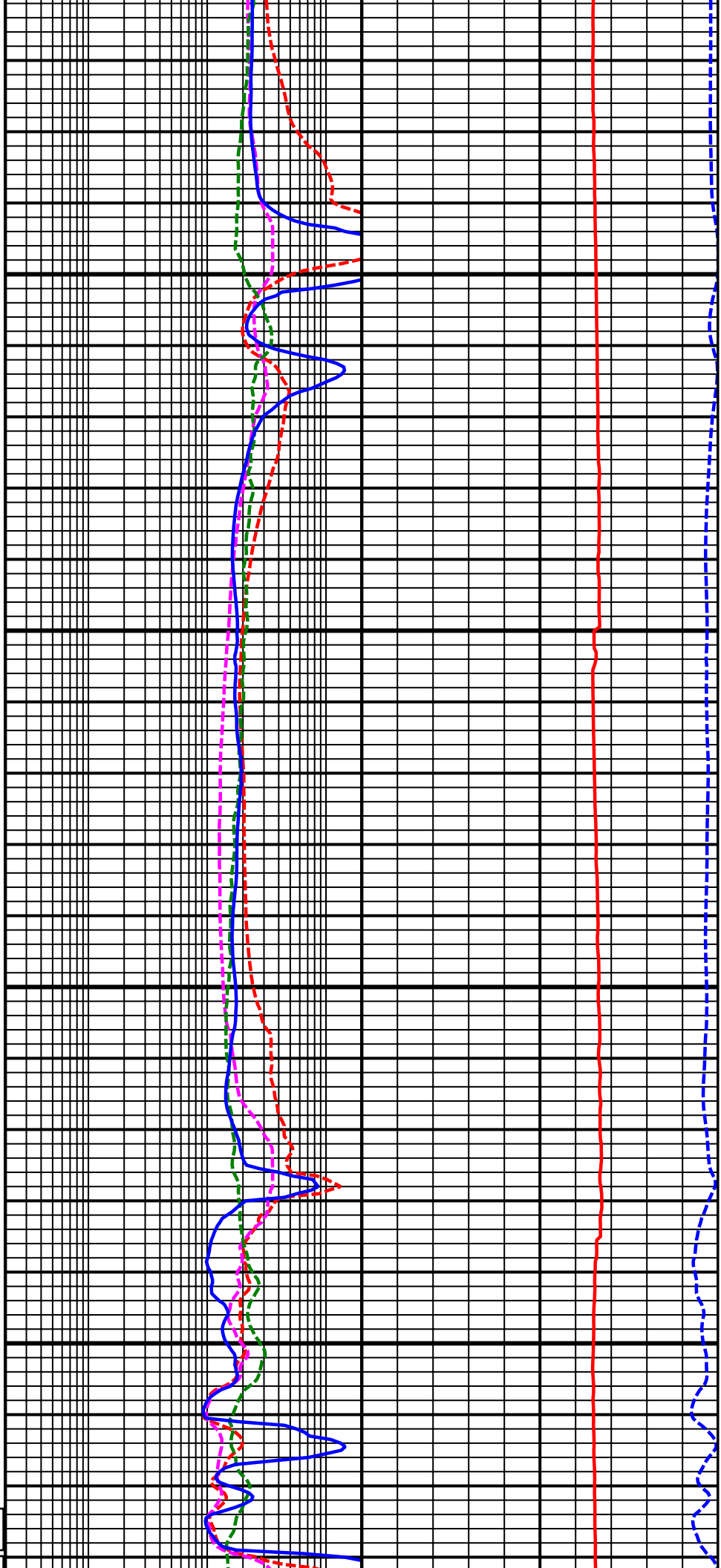


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7900
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Comment
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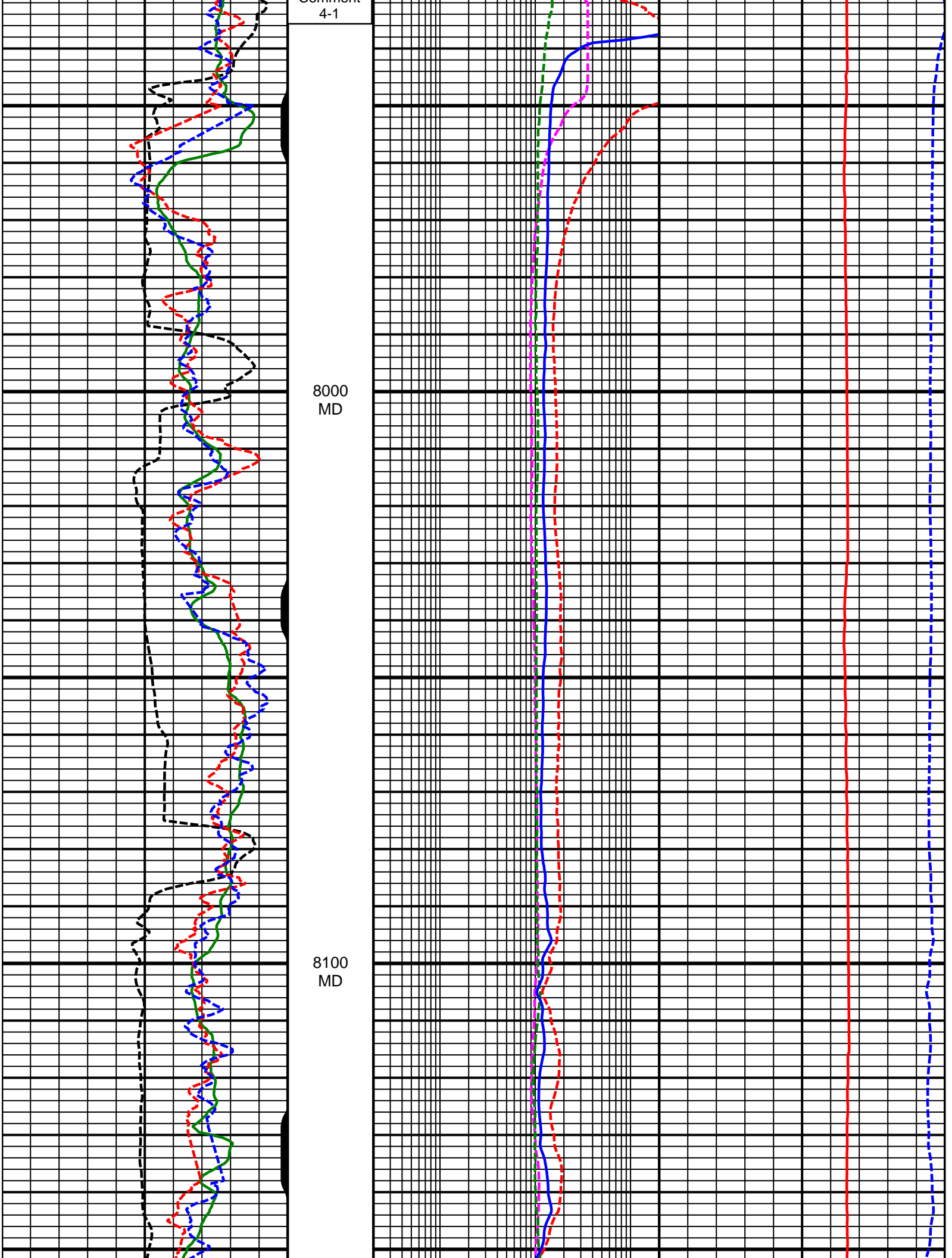
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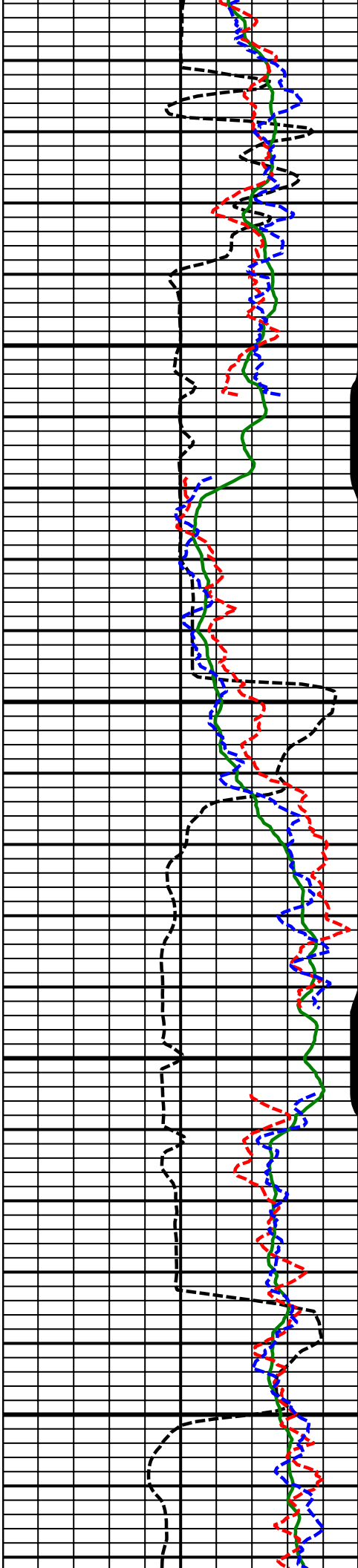


Comment
4-1

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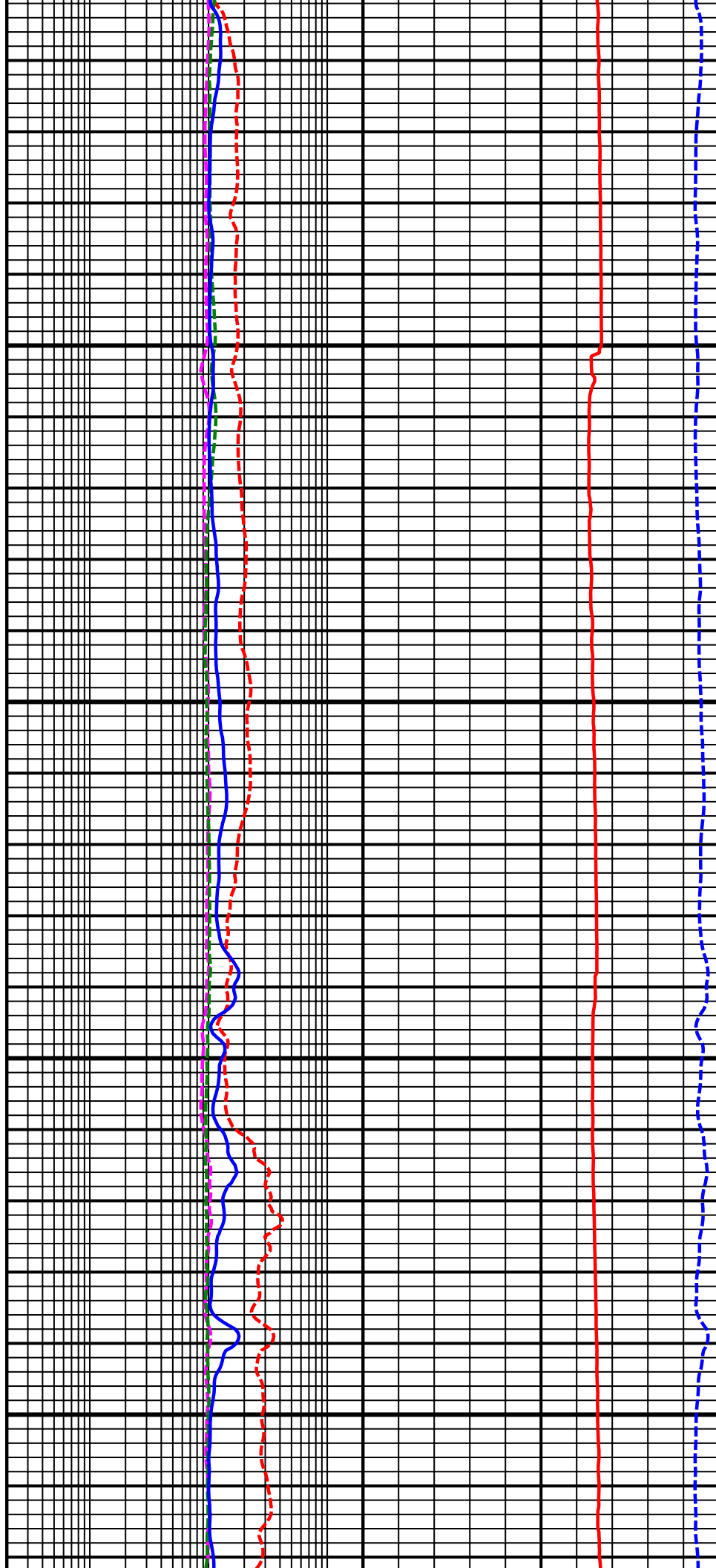
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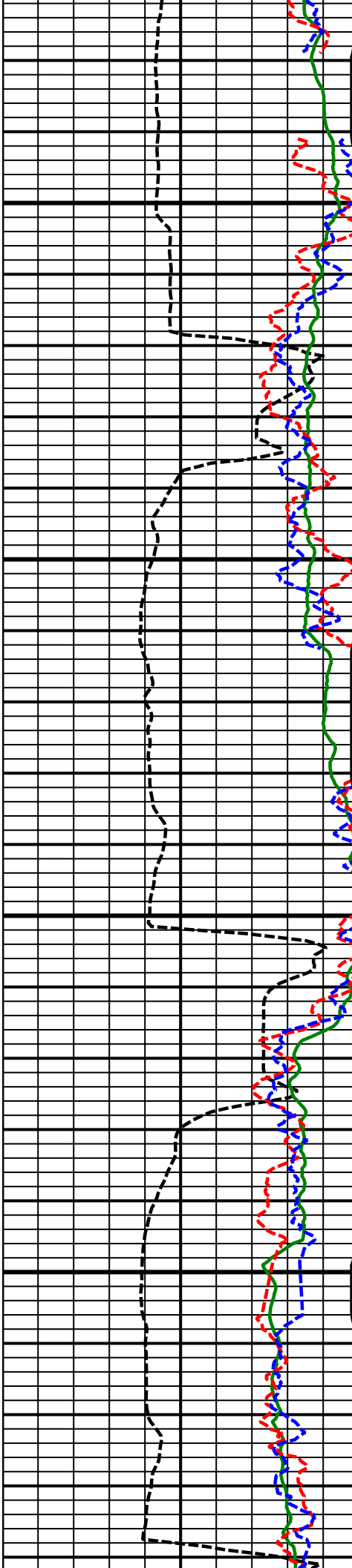




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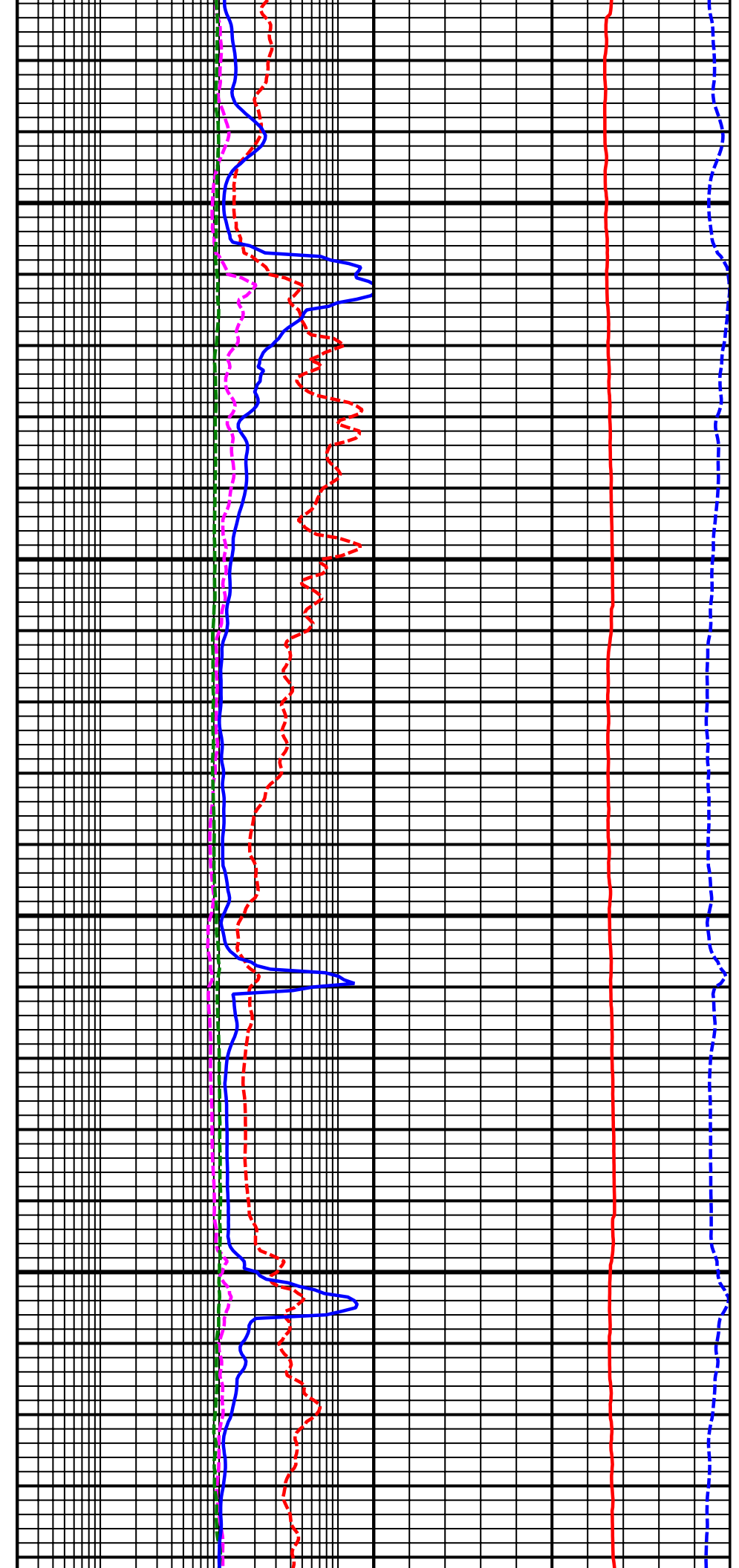
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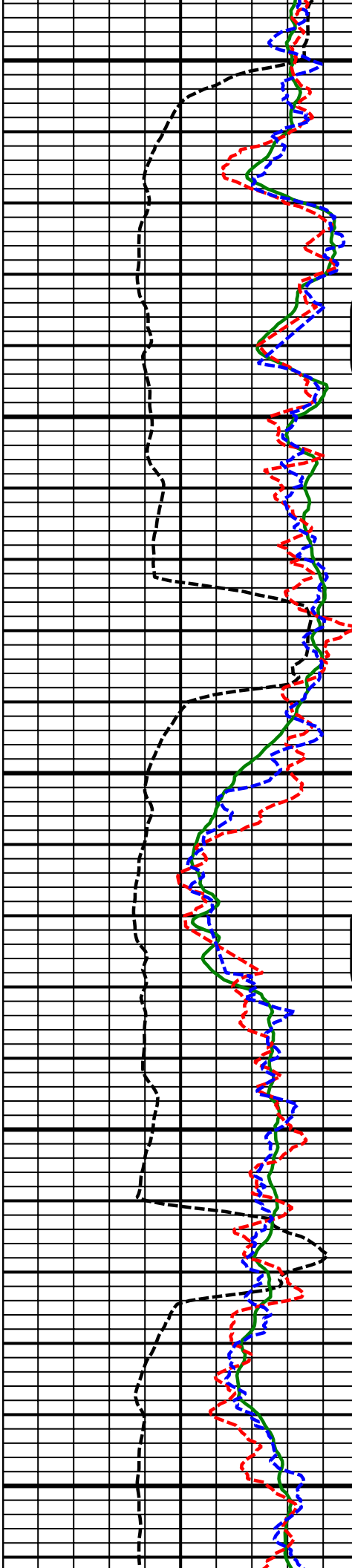




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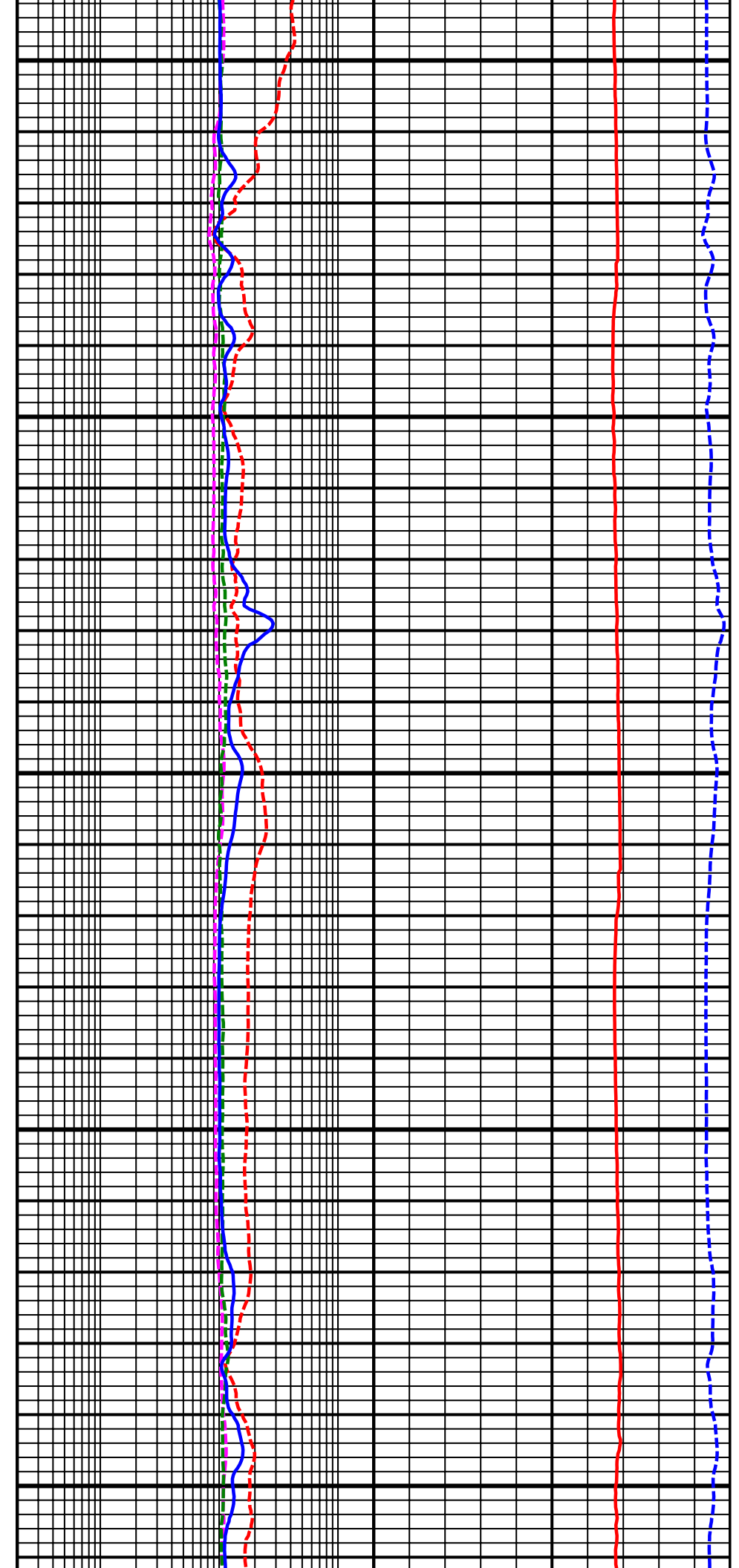


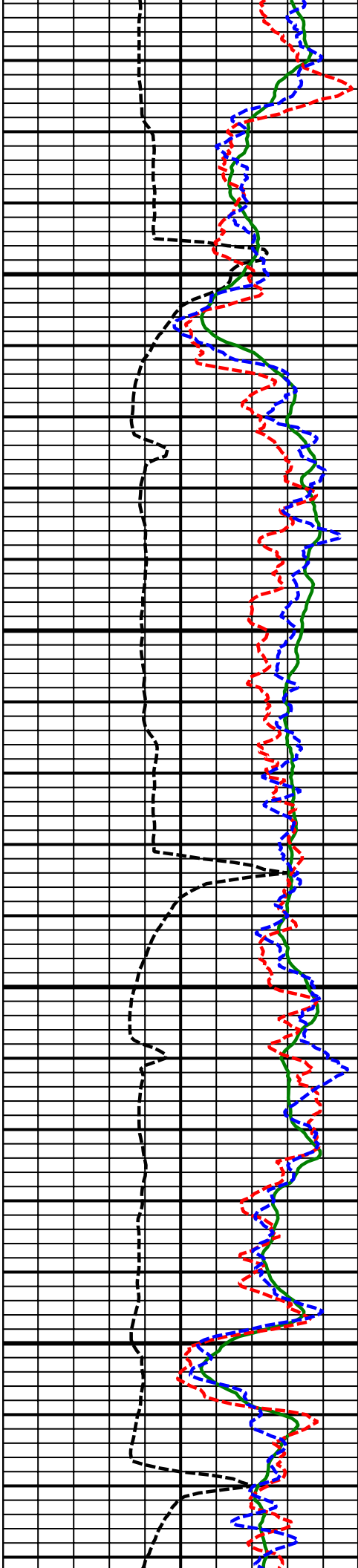


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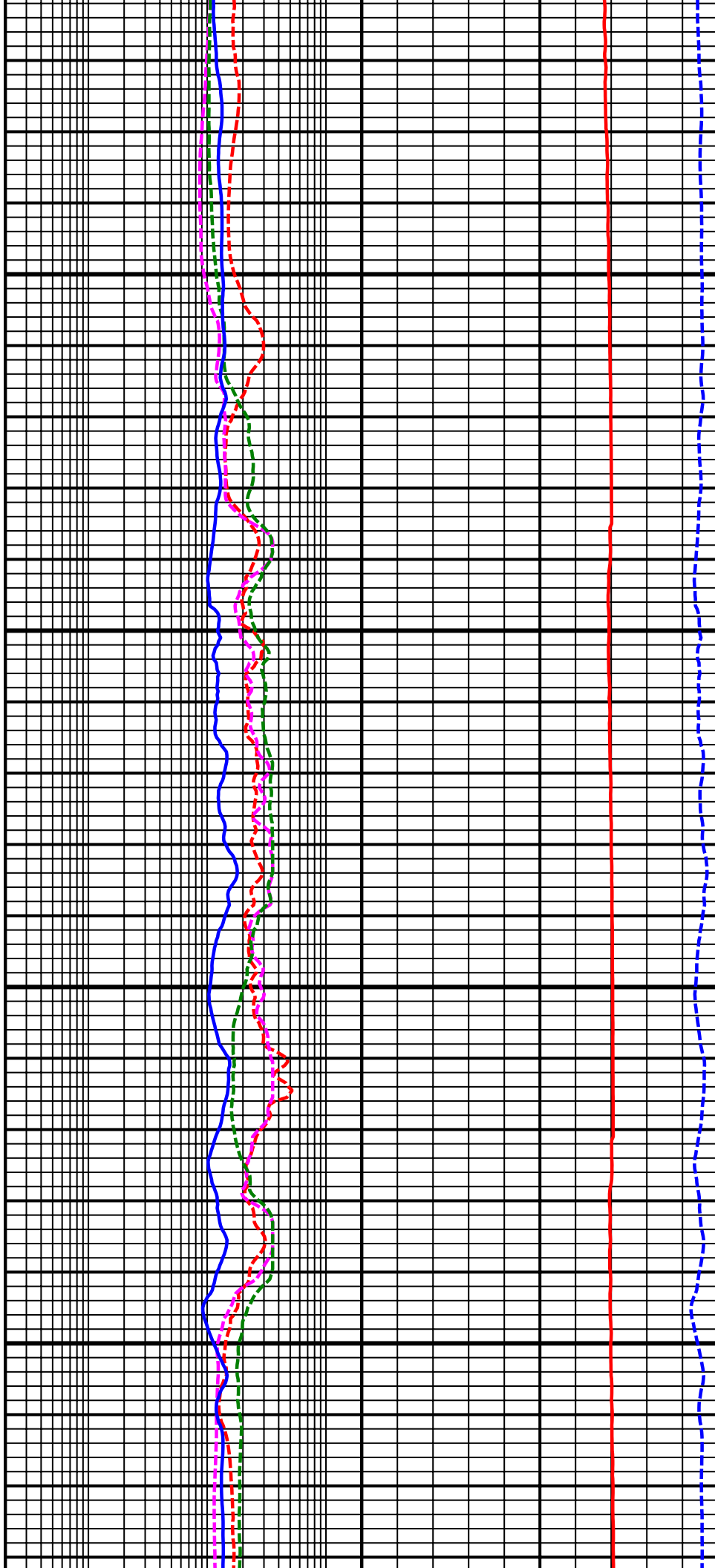
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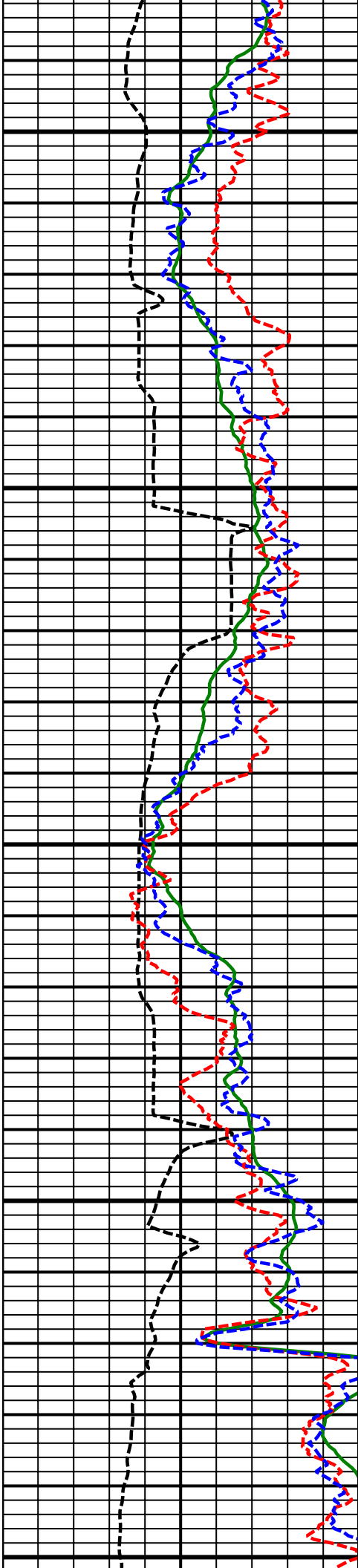




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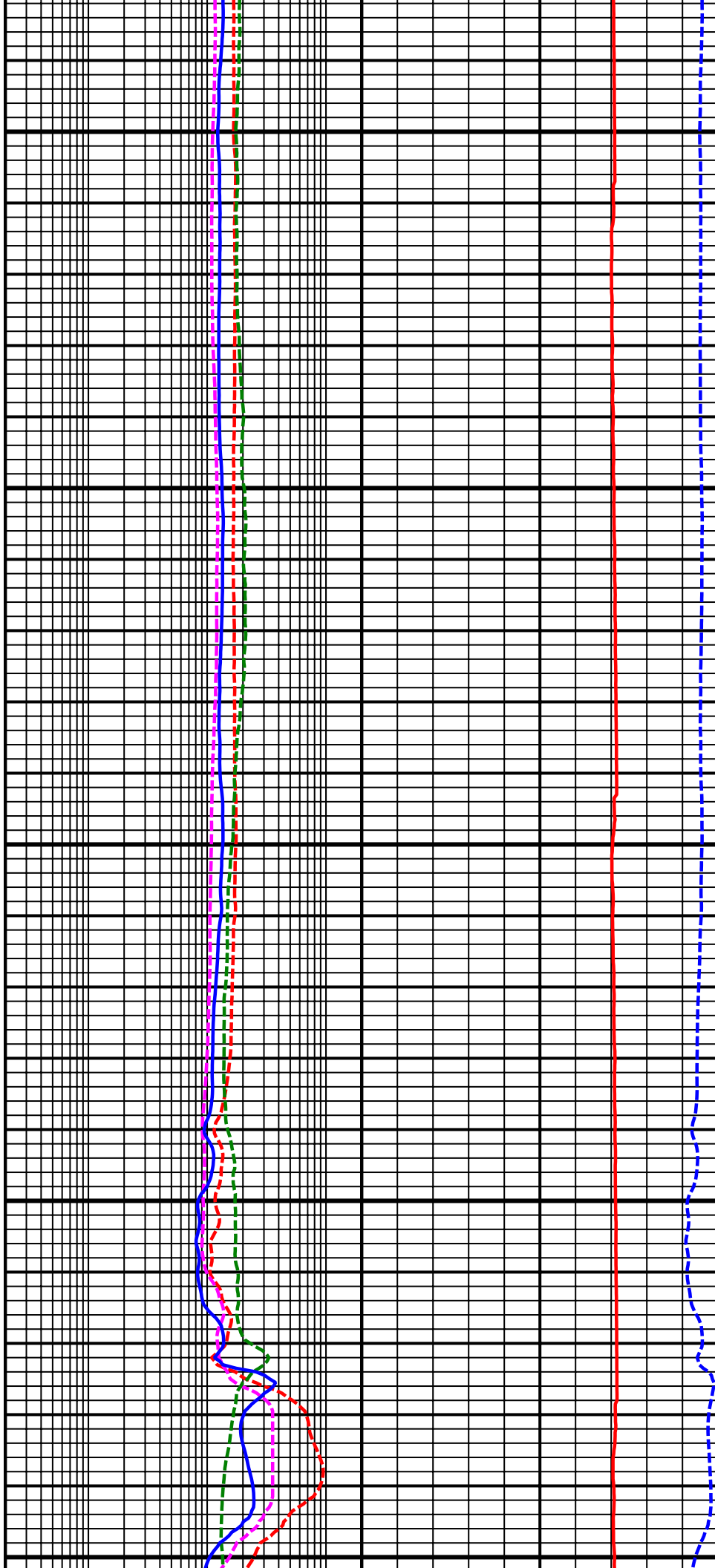
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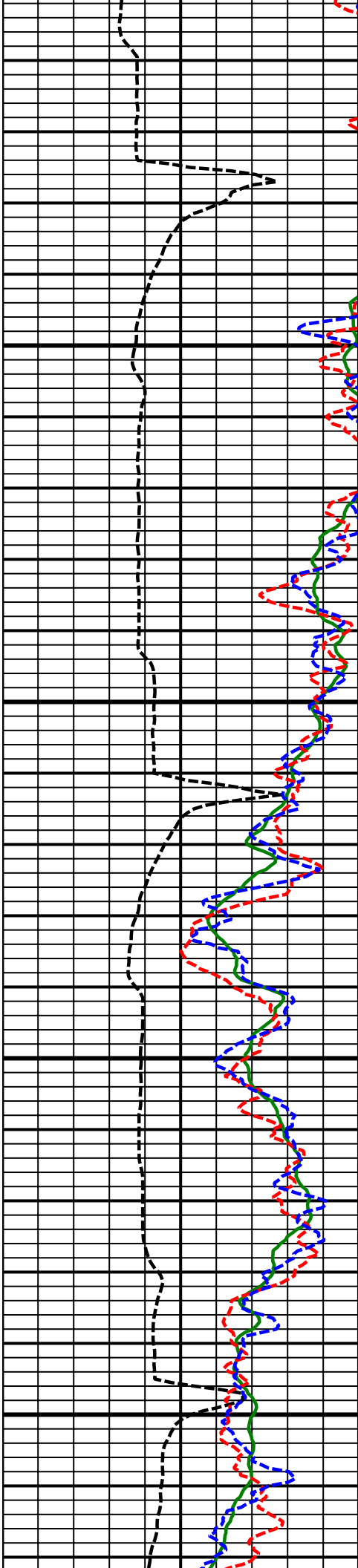




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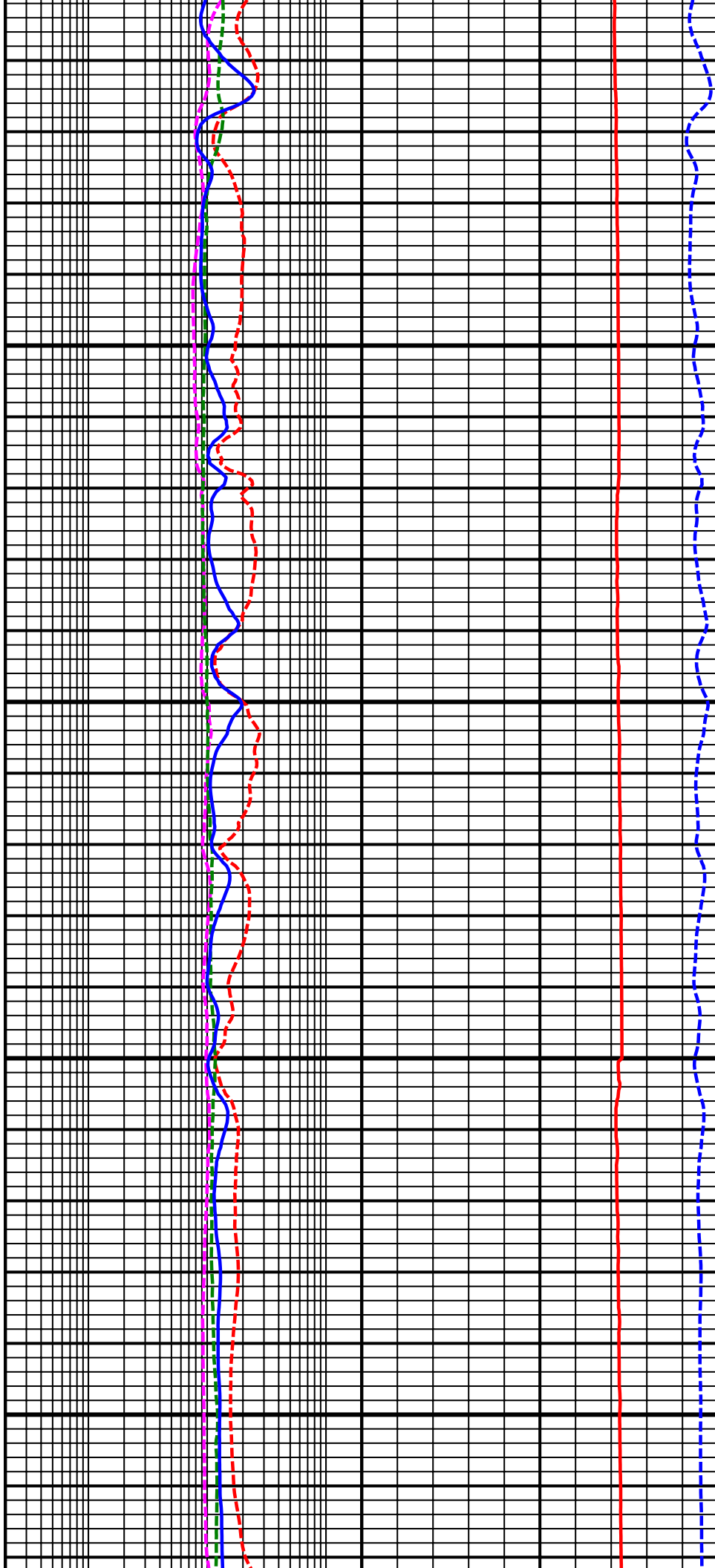
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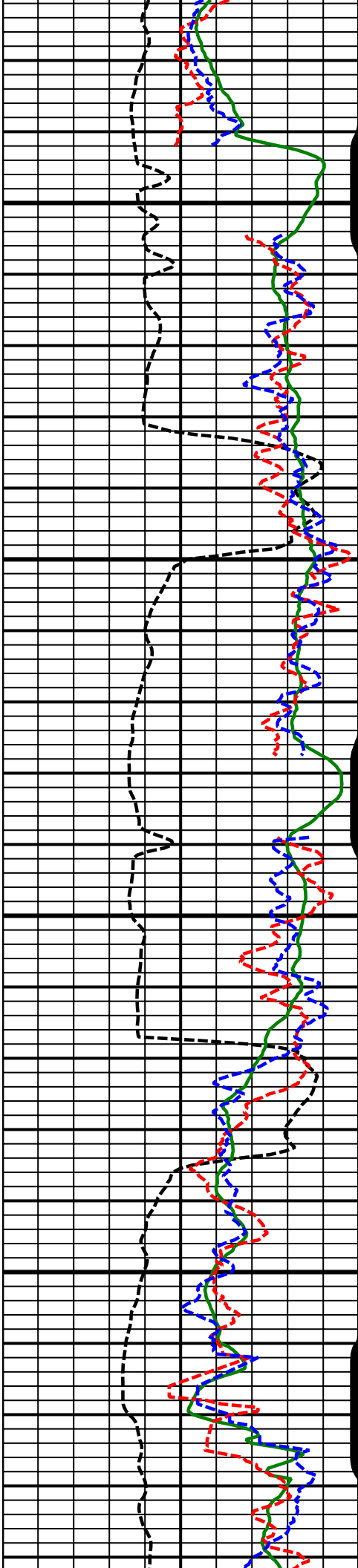




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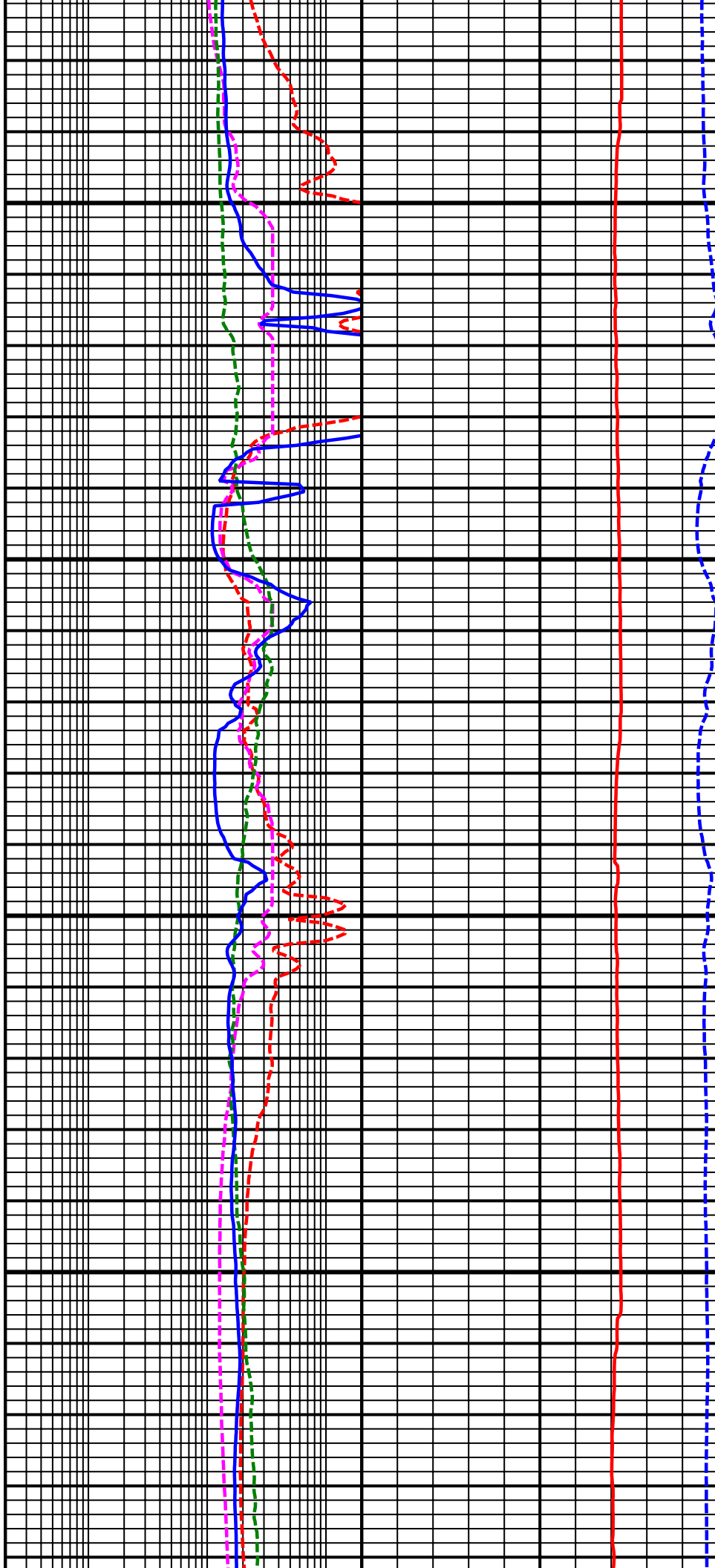
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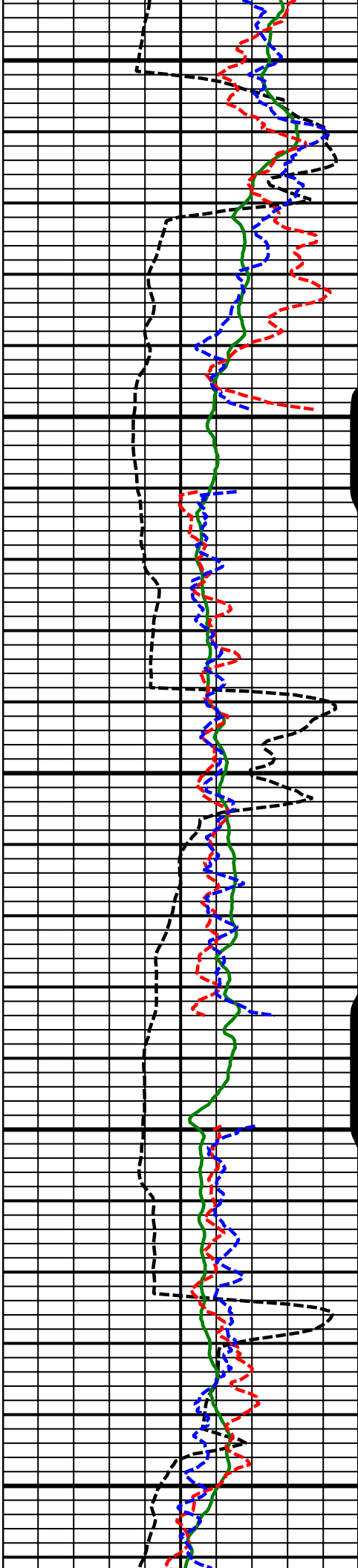




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MD

9600
MD

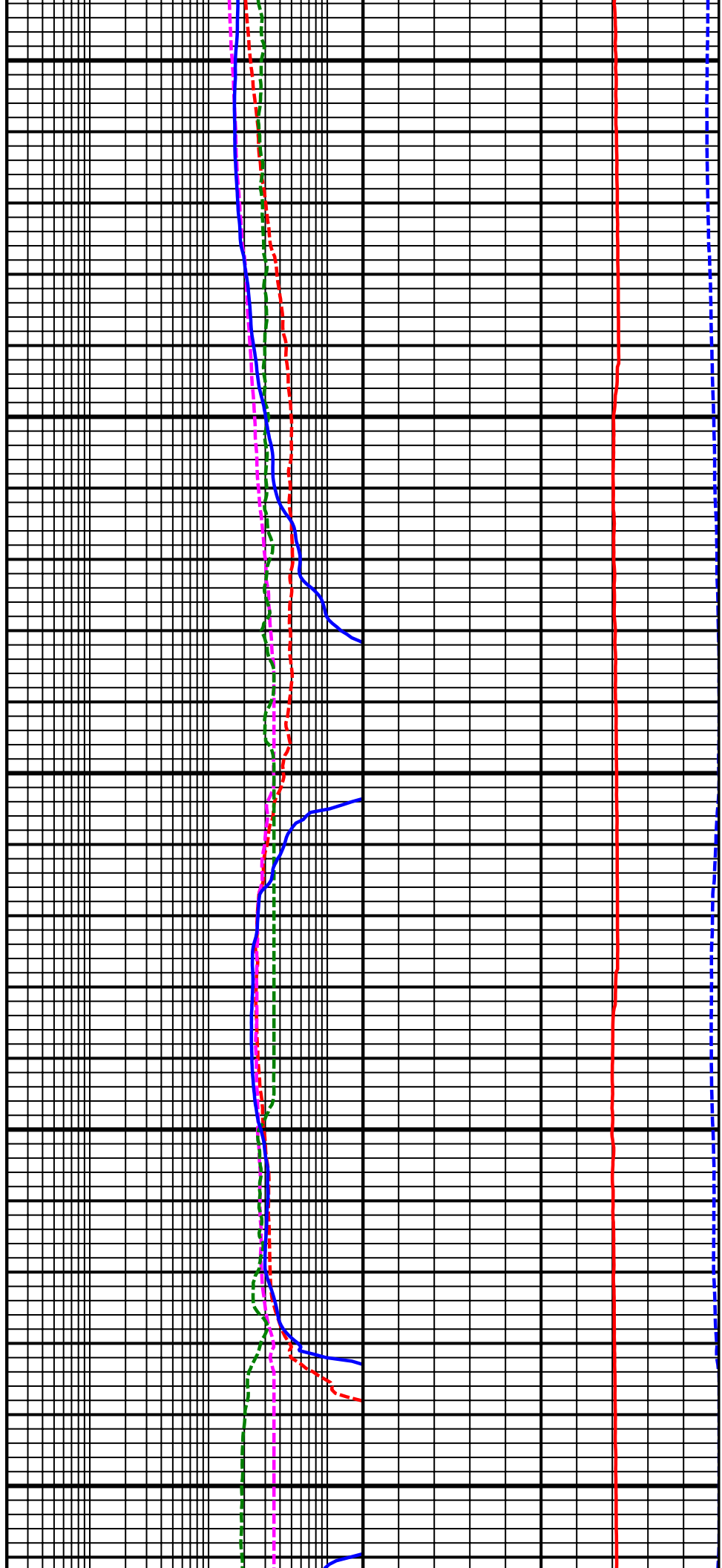


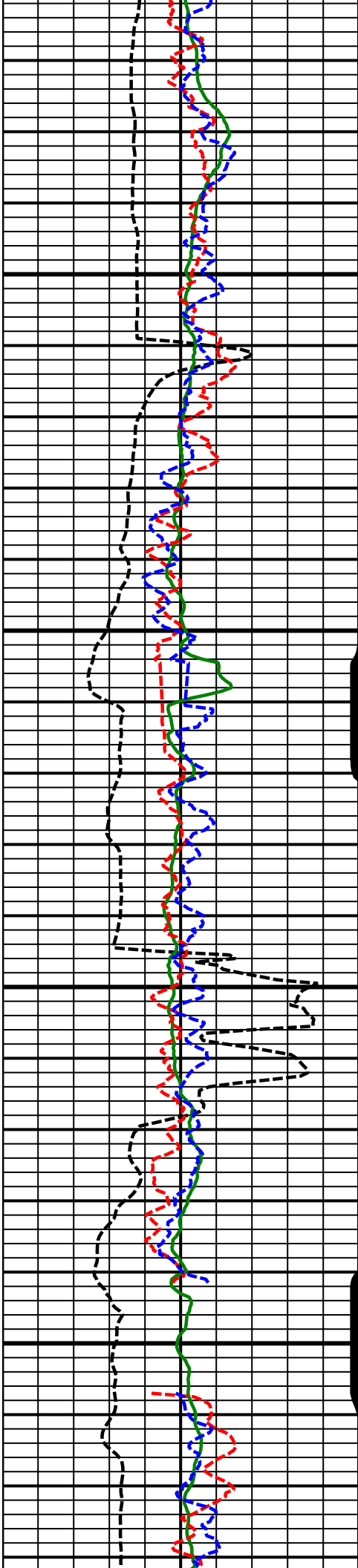


9700
MD

9800
MD

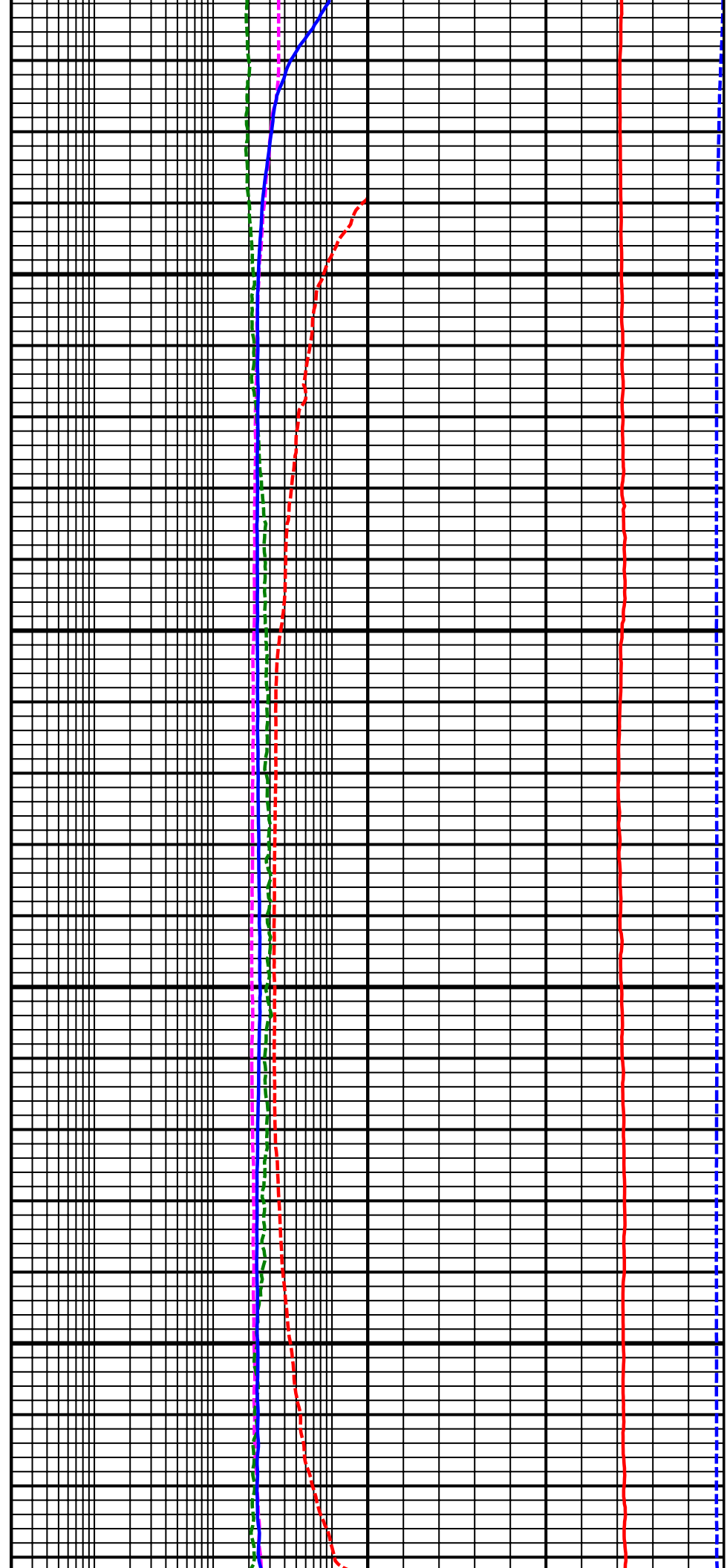
9900
MD

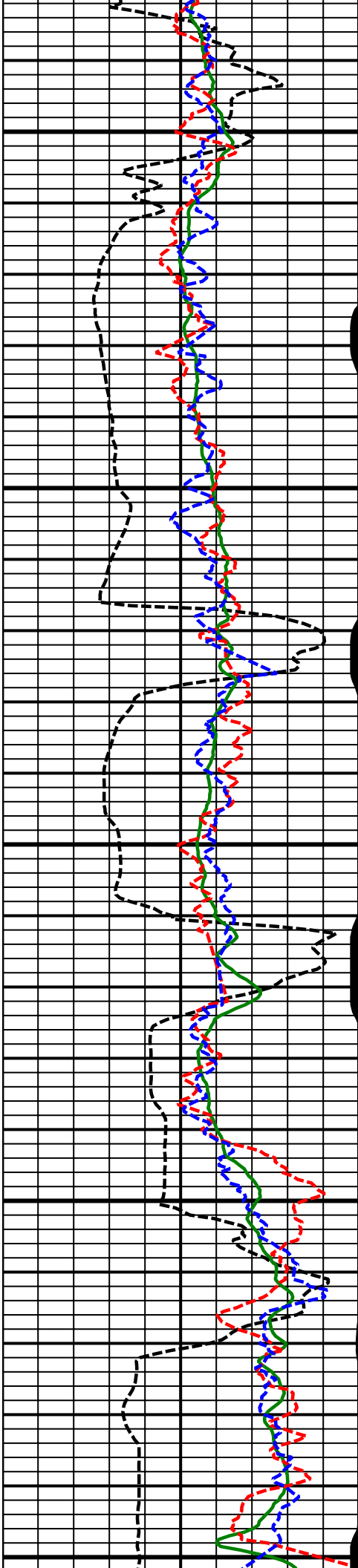




10000
MD

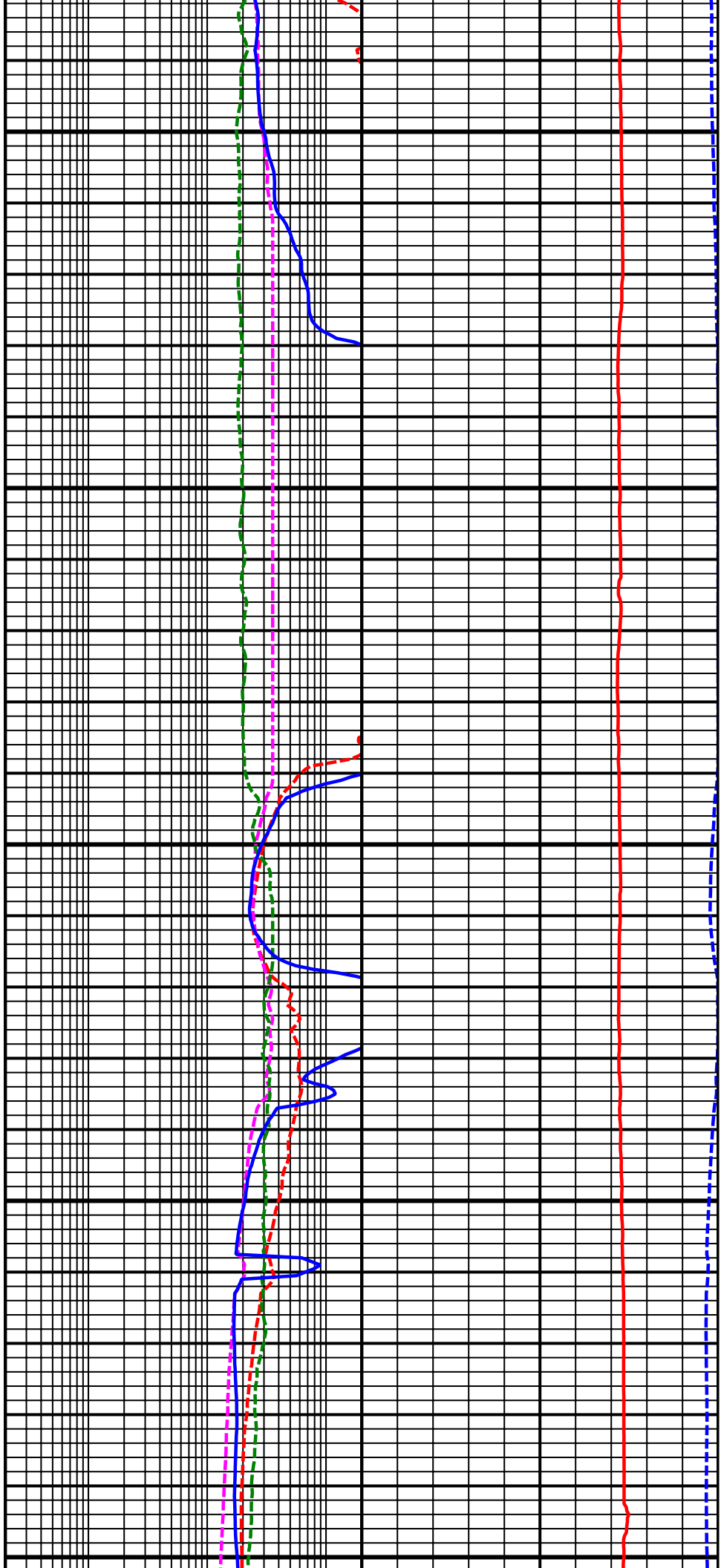
10100
MD

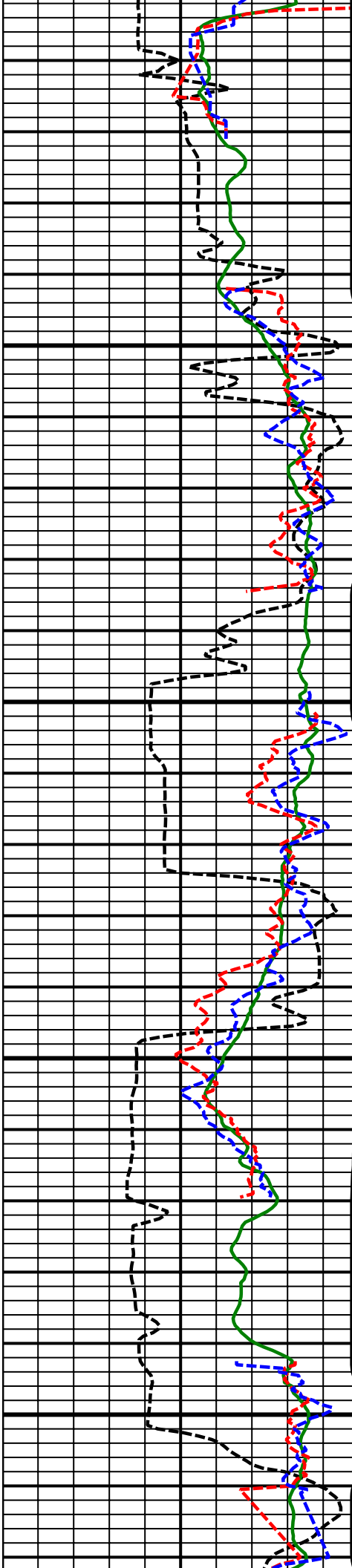




10200
MD

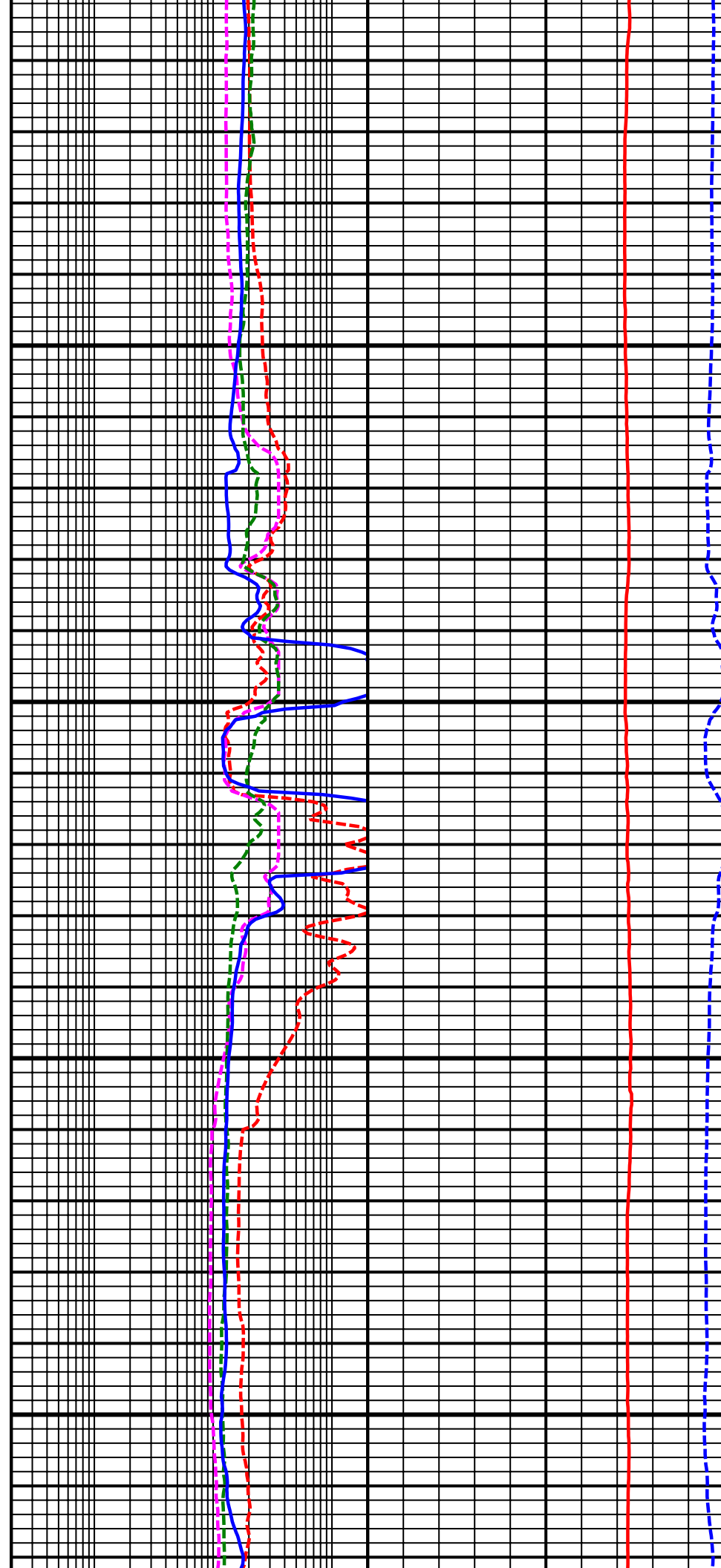
10300
MD

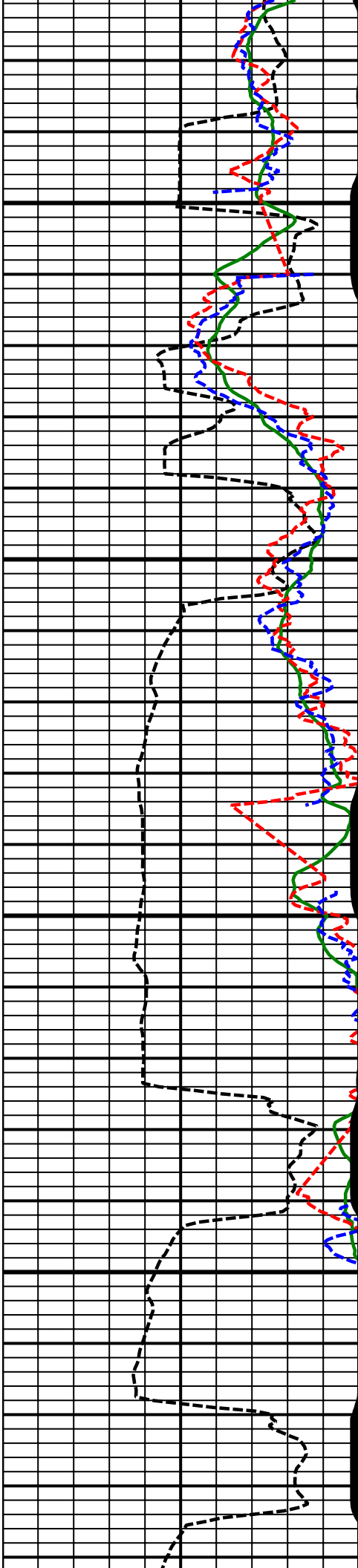




10400
MD

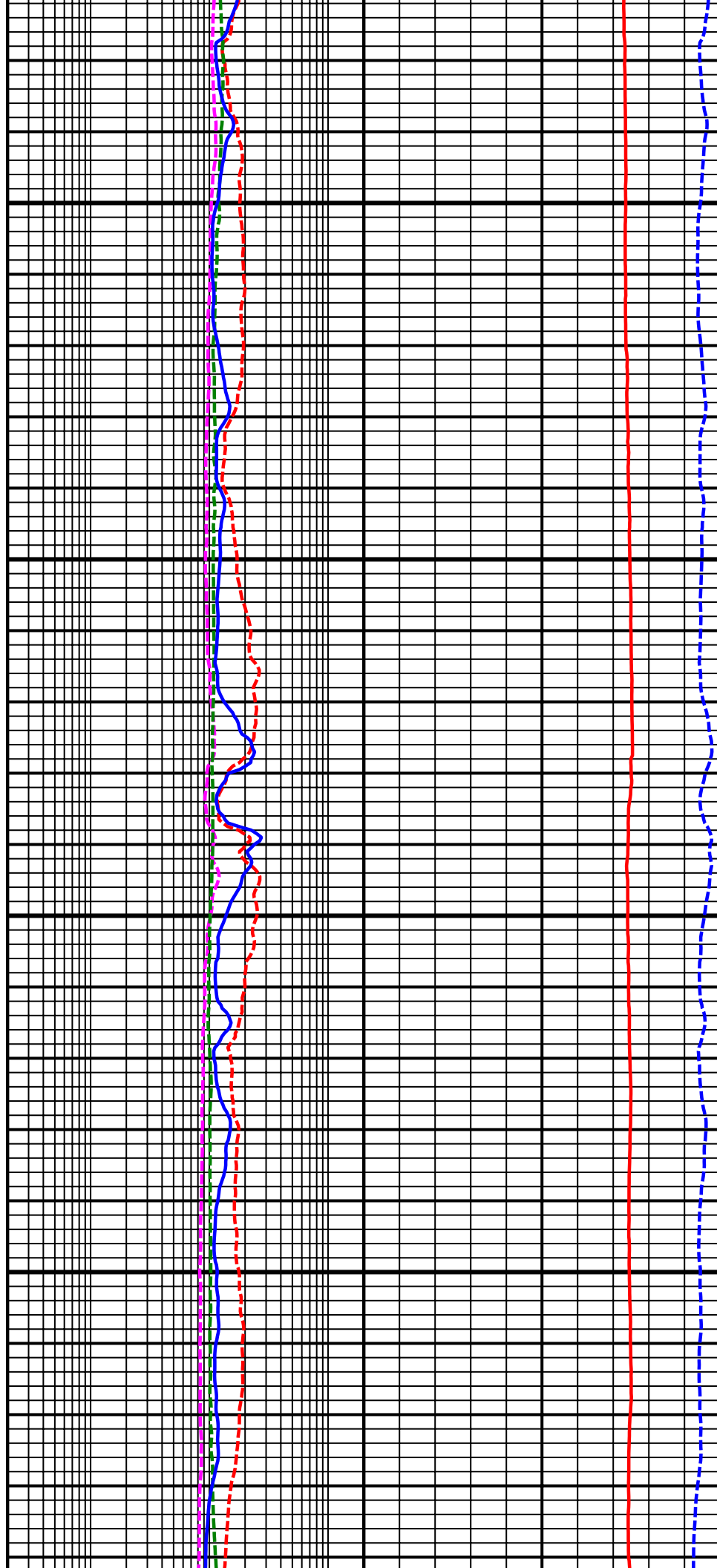
10500
MD

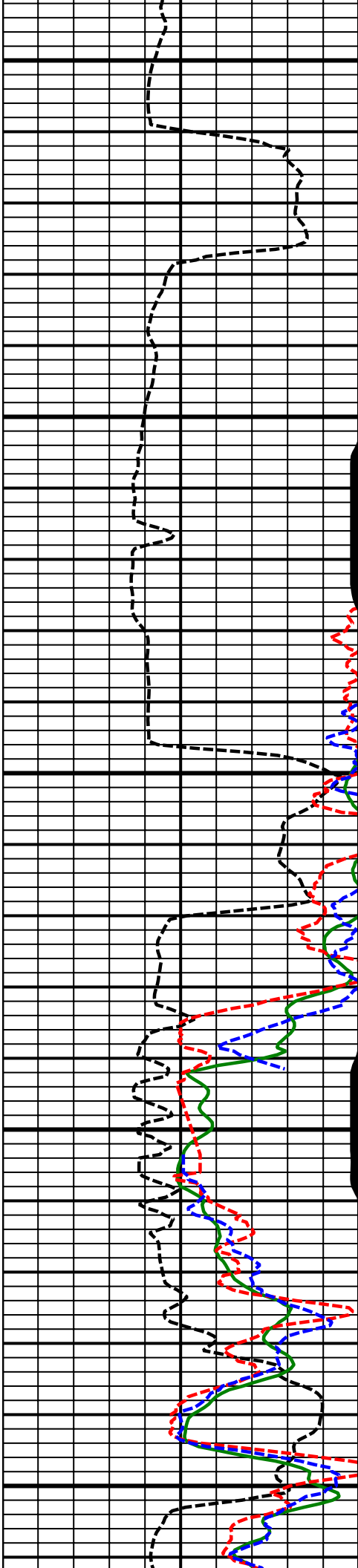




10600
MD

10700
MD

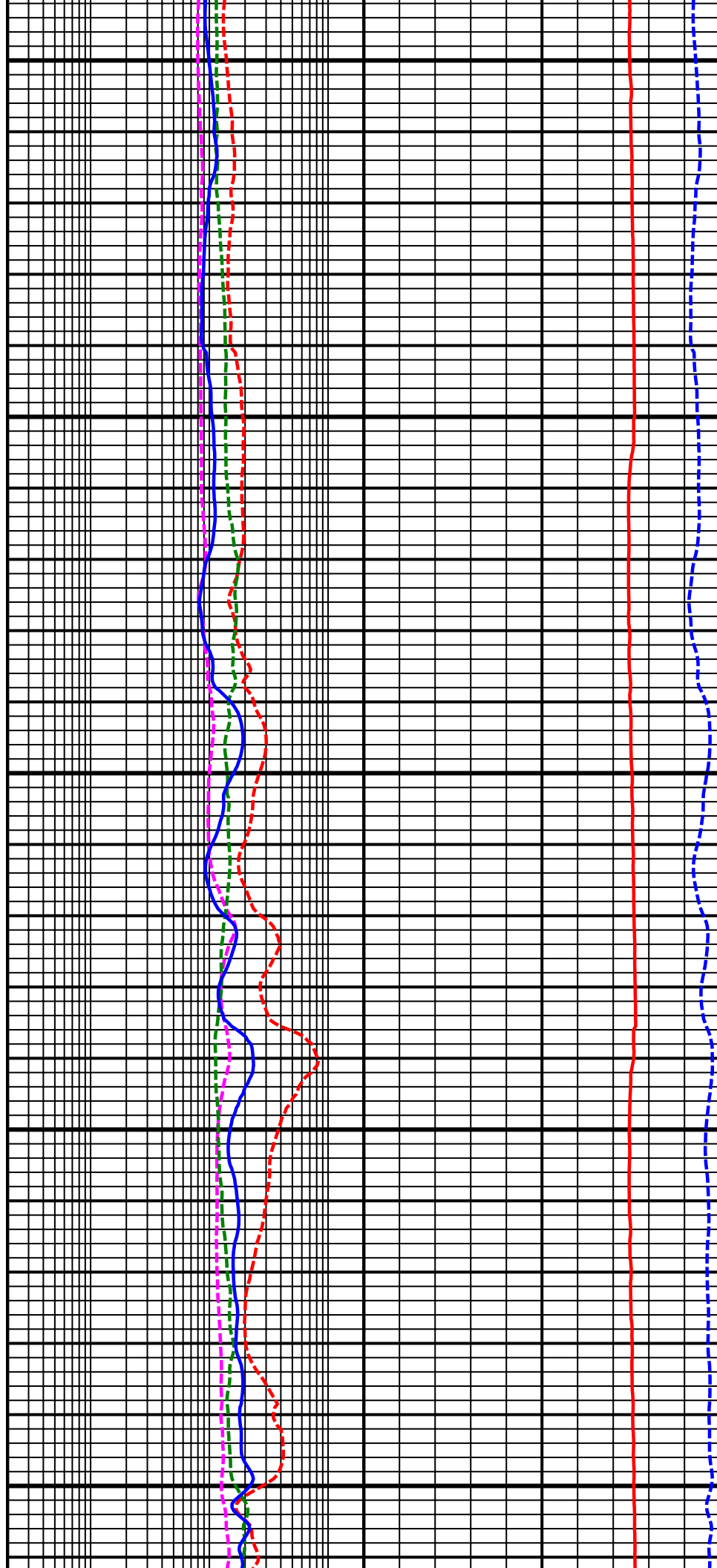


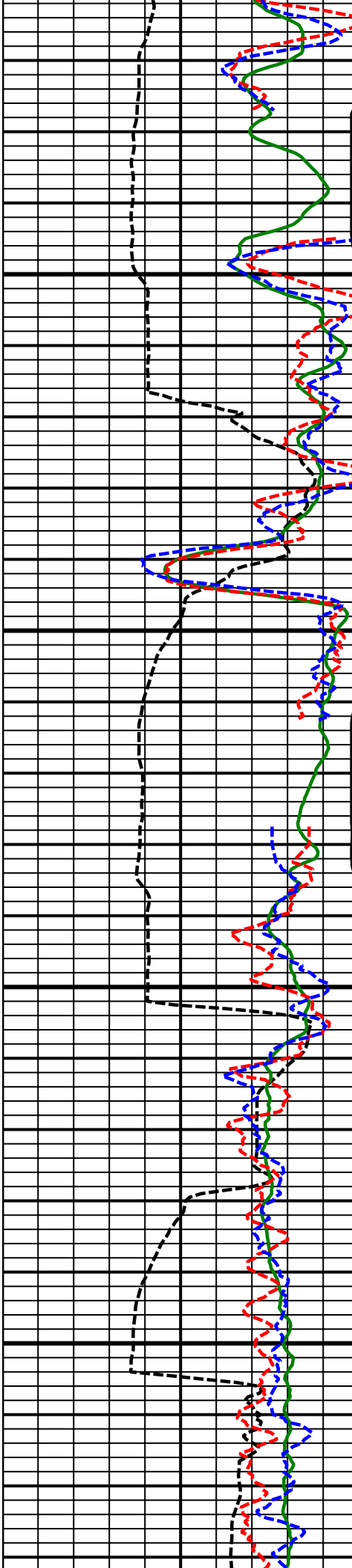


10800
MD

10900
MD

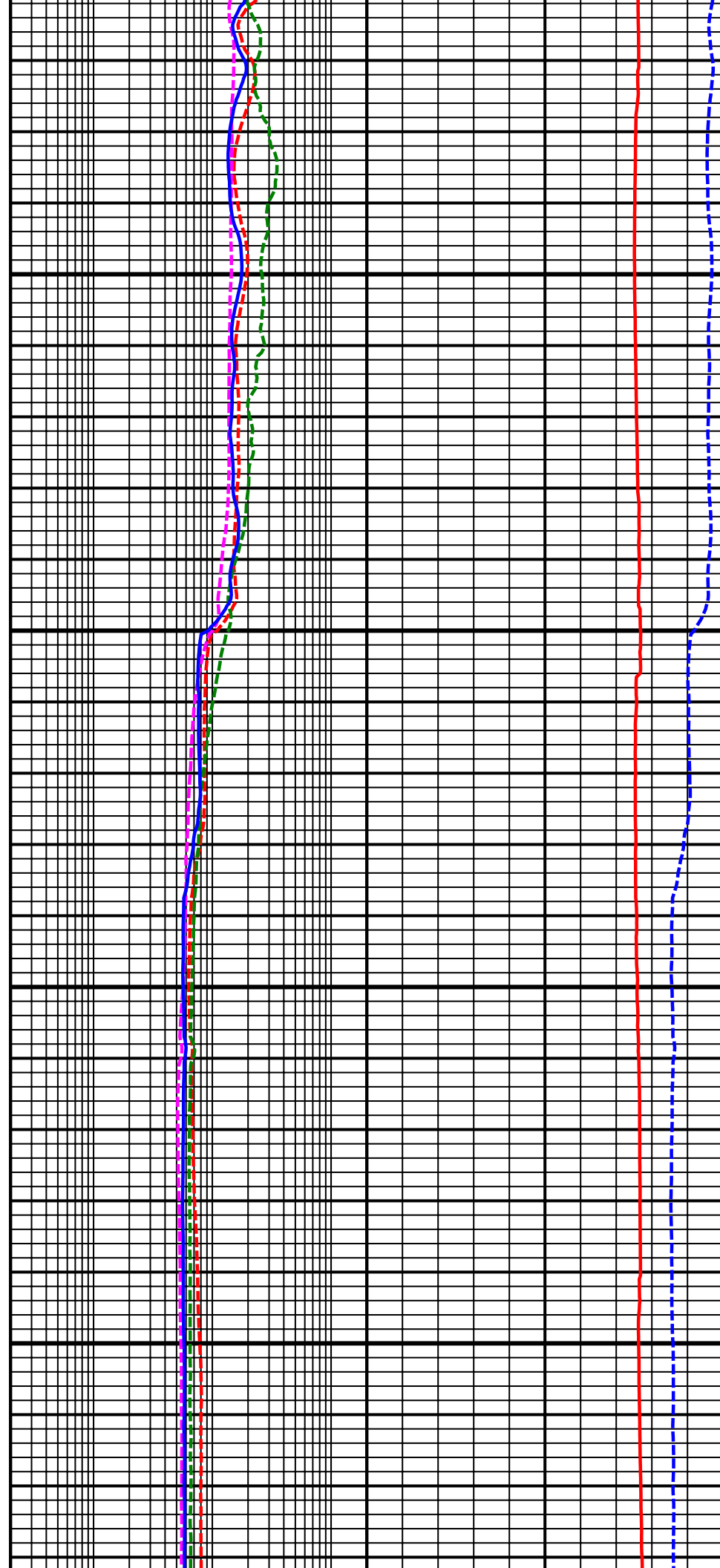
11000
MD

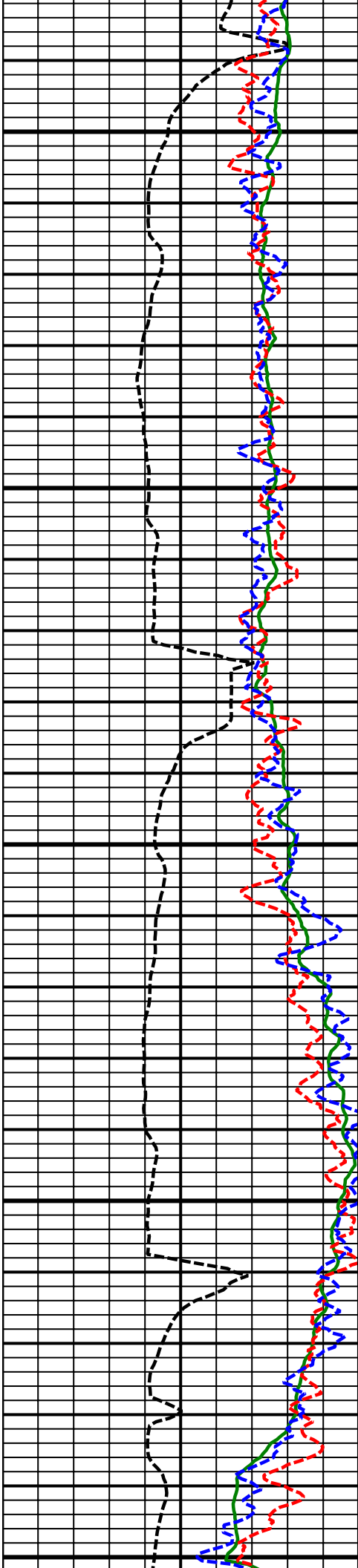




11100
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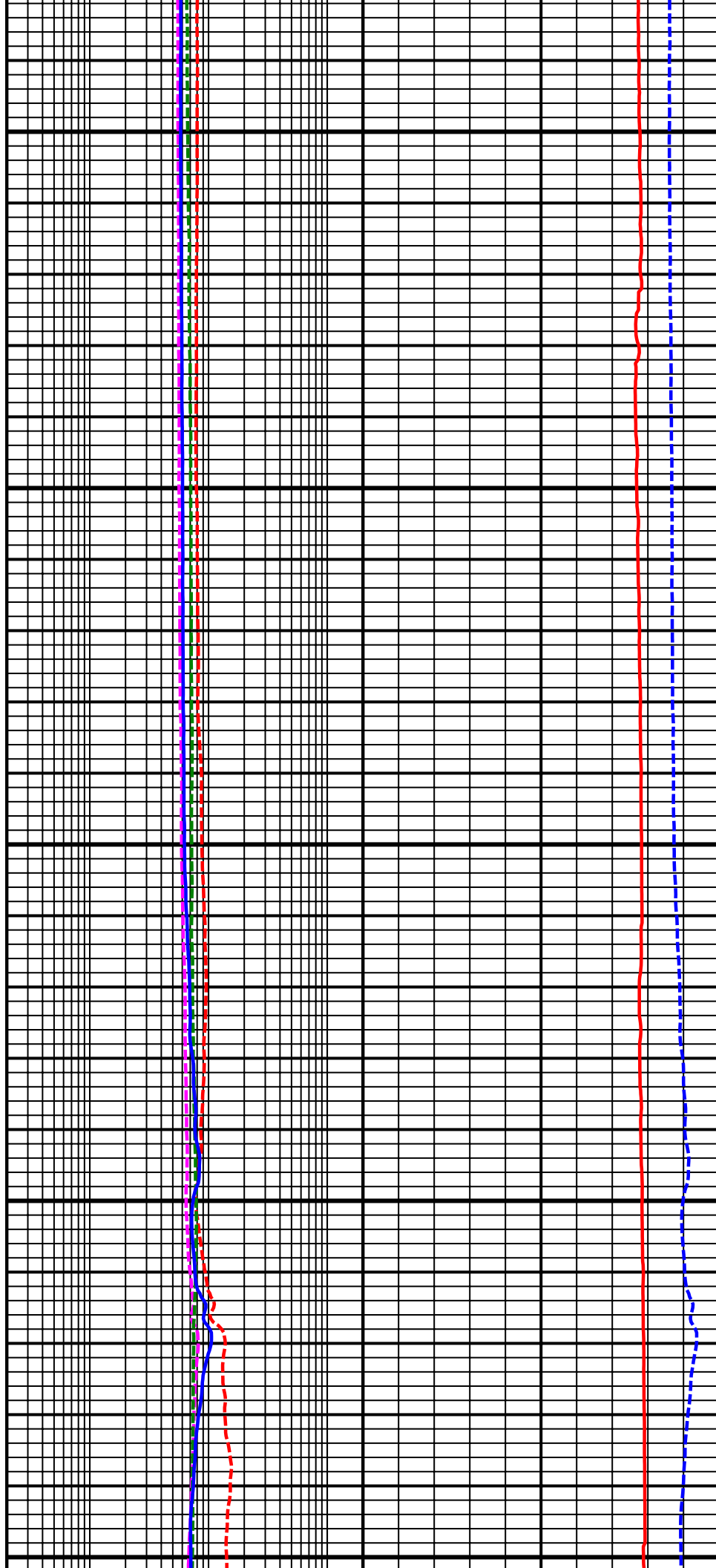
11200
MD

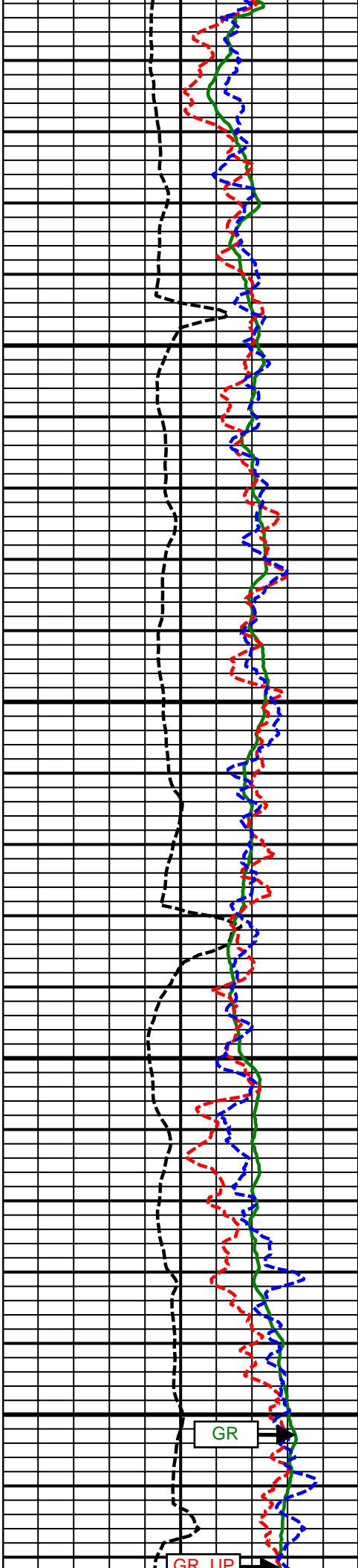




11300
MD

11400
MD



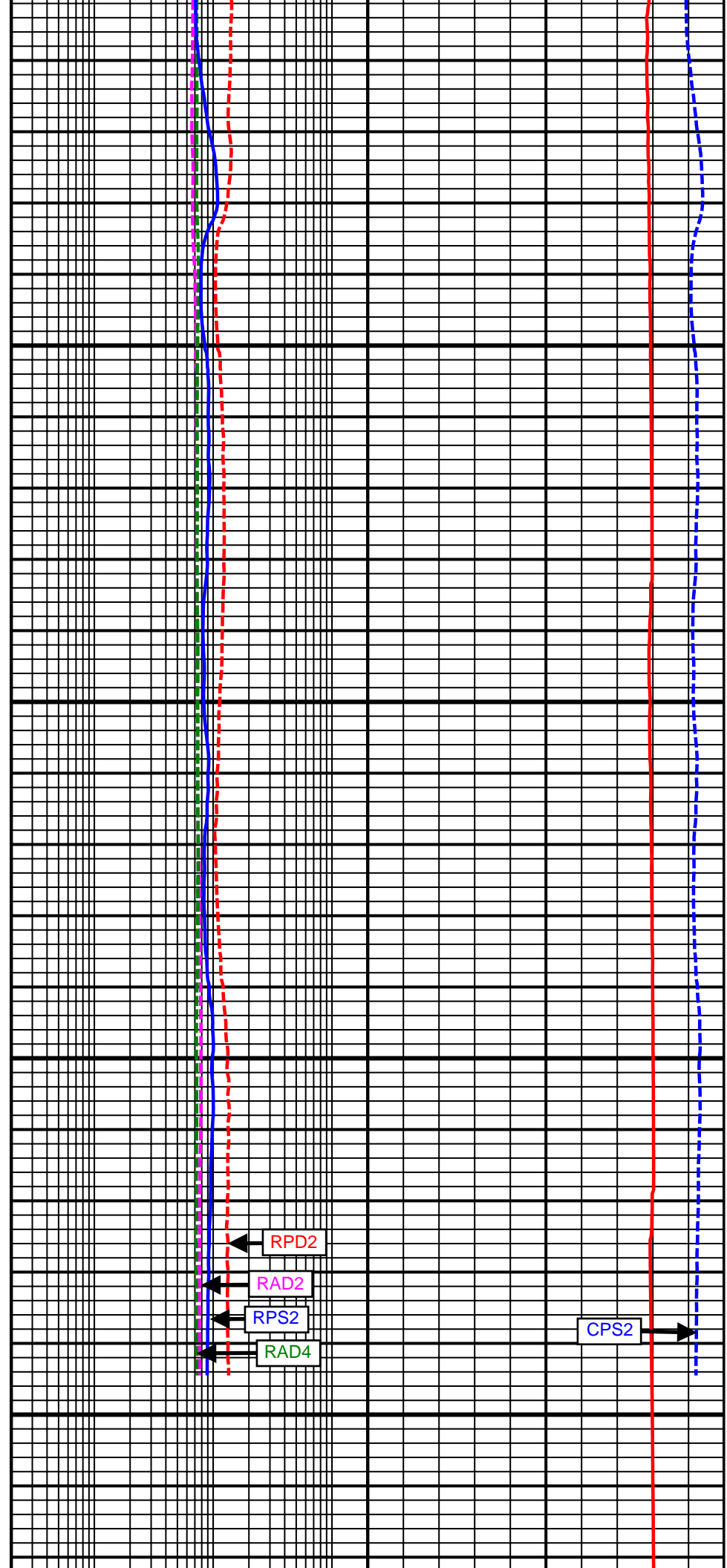


11500
MD

11600
MD

GR

GR IP



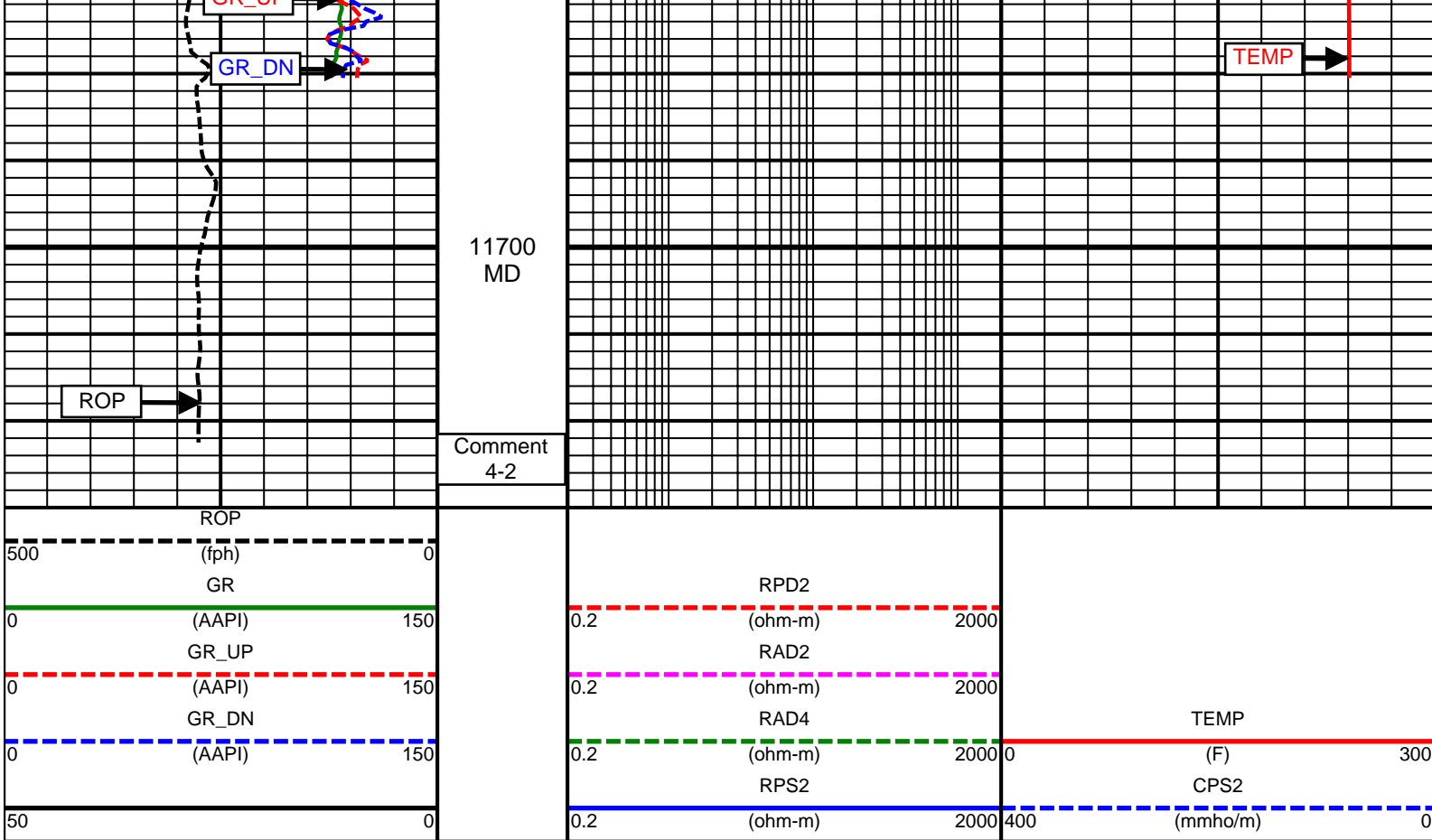
RPD2

RAD2

RPS2

RAD4

CPS2



| SURVEY | | | | | | |
|---|-------------------|----------------------|--------------------|----------------------|------------------|------------------|
| Survey Calculation Method: Minimum Curvature | | | | | | |
| Magnetic Reference | Target Direction | Total Magnetic Field | Magnetic Dip Angle | Magnetic Declination | Grid Convergence | Total Correction |
| True North | 359.93 deg | 52744 nT | 66.81 deg | 8.59 deg | 0.00 deg | 8.59 deg |
| Survey Tie-On | Depth | INC | AZ | TVD | NS | EW |
| | 909.00 ft | 0.18 deg | 348.08 deg | 909.00 ft | 0.75 ft | -1.26 ft |

| | | | | Well Head | | | |
|------------|-----------|-----------|----------|-----------|---------|------------|--------------------|
| Depth (ft) | Inc (deg) | Azm (deg) | TVD (ft) | NS (ft) | EW (ft) | VSect (ft) | Dogleg (deg/100ft) |
| 1014.00 | 0.41 | 240.46 | 1014.00 | 0.73 | -1.62 | 0.73 | 0.47 |
| 1075.00 | 0.53 | 226.00 | 1075.00 | 0.42 | -2.01 | 0.43 | 0.28 |
| 1165.00 | 2.18 | 230.21 | 1164.97 | -0.96 | -3.63 | -0.96 | 1.84 |
| 1256.00 | 3.56 | 220.11 | 1255.85 | -4.23 | -6.78 | -4.22 | 1.61 |
| 1347.00 | 5.32 | 225.34 | 1346.58 | -9.36 | -11.60 | -9.34 | 1.98 |
| 1439.00 | 6.33 | 223.29 | 1438.10 | -16.05 | -18.11 | -16.02 | 1.12 |
| 1530.00 | 7.80 | 228.31 | 1528.41 | -23.81 | -26.16 | -23.77 | 1.75 |
| 1620.00 | 9.66 | 229.16 | 1617.36 | -32.81 | -36.44 | -32.76 | 2.07 |
| 1711.00 | 9.50 | 229.54 | 1707.09 | -42.67 | -47.93 | -42.61 | 0.19 |
| 1801.00 | 10.09 | 218.96 | 1795.79 | -53.62 | -58.54 | -53.55 | 2.10 |
| 1891.00 | 11.60 | 216.18 | 1884.18 | -67.06 | -68.84 | -66.97 | 1.78 |
| 1981.00 | 12.16 | 214.44 | 1972.25 | -82.18 | -79.54 | -82.08 | 0.74 |
| 2072.00 | 14.29 | 215.11 | 2060.83 | -99.27 | -91.42 | -99.16 | 2.35 |
| 2164.00 | 15.22 | 217.57 | 2149.80 | -118.13 | -105.31 | -118.01 | 1.22 |
| 2256.00 | 15.85 | 221.38 | 2238.44 | -137.13 | -120.98 | -136.99 | 1.30 |
| 2347.00 | 17.60 | 224.26 | 2325.59 | -156.31 | -138.80 | -156.14 | 2.13 |
| 2443.00 | 16.26 | 219.32 | 2417.43 | -177.11 | -157.45 | -176.91 | 2.05 |
| 2536.00 | 16.96 | 225.60 | 2506.56 | -196.67 | -175.39 | -196.46 | 2.07 |
| 2628.00 | 16.64 | 222.09 | 2594.63 | -215.84 | -193.81 | -215.60 | 1.16 |
| 2721.00 | 16.33 | 222.11 | 2683.81 | -235.42 | -211.50 | -235.16 | 0.33 |
| 2814.00 | 15.50 | 220.47 | 2773.24 | -254.57 | -228.33 | -254.29 | 1.01 |
| 2907.00 | 16.95 | 227.17 | 2862.54 | -273.24 | -246.34 | -272.94 | 2.54 |
| 3000.00 | 18.06 | 224.84 | 2951.24 | -292.68 | -266.45 | -292.35 | 1.41 |
| 3092.00 | 18.41 | 228.19 | 3038.62 | -312.48 | -287.34 | -312.13 | 1.20 |
| 3187.00 | 18.83 | 226.27 | 3128.65 | -333.08 | -309.60 | -332.70 | 0.78 |
| 3279.00 | 16.51 | 219.52 | 3216.31 | -353.43 | -328.65 | -353.03 | 3.36 |
| 3364.00 | 16.49 | 224.26 | 3297.81 | -371.39 | -344.75 | -370.96 | 1.58 |
| 3449.00 | 14.85 | 227.98 | 3379.65 | -387.32 | -361.27 | -386.88 | 2.26 |
| 3535.00 | 13.25 | 229.04 | 3463.08 | -401.16 | -376.90 | -400.70 | 1.88 |
| 3620.00 | 11.64 | 230.23 | 3546.08 | -413.03 | -390.84 | -412.55 | 1.92 |
| 3706.00 | 11.85 | 229.57 | 3630.28 | -424.30 | -404.23 | -423.81 | 0.29 |
| 3791.00 | 10.09 | 231.63 | 3713.72 | -434.59 | -416.72 | -434.08 | 2.12 |
| 3877.00 | 9.85 | 229.98 | 3798.42 | -443.99 | -428.26 | -443.47 | 0.43 |
| 3962.00 | 8.57 | 221.87 | 3882.33 | -453.39 | -438.05 | -452.85 | 2.14 |
| 4047.00 | 8.74 | 227.75 | 3966.36 | -462.44 | -447.06 | -461.90 | 1.06 |
| 4133.00 | 8.40 | 226.06 | 4051.40 | -471.20 | -456.42 | -470.64 | 0.49 |
| 4218.00 | 7.69 | 235.93 | 4135.57 | -478.69 | -465.60 | -478.12 | 1.82 |
| 4304.00 | 4.63 | 247.65 | 4221.07 | -483.24 | -473.58 | -482.66 | 3.83 |
| 4389.00 | 3.21 | 252.22 | 4305.87 | -485.27 | -479.02 | -484.68 | 1.71 |
| 4474.00 | 2.25 | 257.71 | 4390.77 | -486.35 | -482.92 | -485.76 | 1.17 |
| 4560.00 | 1.79 | 268.25 | 4476.71 | -486.75 | -485.91 | -486.16 | 0.69 |
| 4645.00 | 1.61 | 273.31 | 4561.68 | -486.72 | -488.43 | -486.12 | 0.28 |

| | | | | | | | |
|----------|-------|--------|---------|---------|---------|---------|-------|
| 4730.00 | 1.81 | 274.05 | 4646.64 | -486.56 | -490.96 | -485.96 | 0.24 |
| 4816.00 | 0.38 | 186.15 | 4732.62 | -486.74 | -492.34 | -486.14 | 2.13 |
| 4901.00 | 1.75 | 130.55 | 4817.61 | -487.87 | -491.39 | -487.27 | 1.84 |
| 4987.00 | 1.75 | 121.39 | 4903.57 | -489.41 | -489.27 | -488.81 | 0.32 |
| 5072.00 | 1.44 | 115.63 | 4988.54 | -490.54 | -487.20 | -489.95 | 0.41 |
| 5157.00 | 1.02 | 110.56 | 5073.52 | -491.27 | -485.53 | -490.68 | 0.51 |
| 5243.00 | 0.88 | 97.04 | 5159.50 | -491.62 | -484.15 | -491.03 | 0.31 |
| 5328.00 | 0.93 | 109.33 | 5244.49 | -491.93 | -482.86 | -491.34 | 0.24 |
| 5413.00 | 1.20 | 101.27 | 5329.48 | -492.33 | -481.33 | -491.74 | 0.36 |
| 5498.00 | 1.20 | 99.22 | 5414.46 | -492.65 | -479.58 | -492.06 | 0.05 |
| 5584.00 | 1.00 | 96.55 | 5500.44 | -492.88 | -477.95 | -492.29 | 0.24 |
| 5669.00 | 0.76 | 63.89 | 5585.43 | -492.72 | -476.70 | -492.13 | 0.64 |
| 5755.00 | 0.90 | 67.49 | 5671.43 | -492.21 | -475.57 | -491.62 | 0.17 |
| 5840.00 | 0.14 | 156.69 | 5756.42 | -492.05 | -474.91 | -491.47 | 1.07 |
| 6011.00 | 0.36 | 63.23 | 5927.42 | -492.00 | -474.35 | -491.42 | 0.23 |
| 6096.00 | 0.53 | 42.54 | 6012.42 | -491.59 | -473.84 | -491.01 | 0.27 |
| 6182.00 | 0.89 | 45.75 | 6098.41 | -490.83 | -473.09 | -490.25 | 0.42 |
| 6267.00 | 0.31 | 272.42 | 6183.41 | -490.36 | -472.85 | -489.78 | 1.32 |
| 6352.00 | 0.43 | 230.75 | 6268.41 | -490.55 | -473.33 | -489.97 | 0.34 |
| 6438.00 | 0.28 | 217.76 | 6354.41 | -490.92 | -473.71 | -490.34 | 0.20 |
| 6607.00 | 0.40 | 173.77 | 6523.40 | -491.83 | -473.90 | -491.25 | 0.16 |
| 6695.00 | 1.19 | 2.95 | 6611.40 | -491.22 | -473.82 | -490.65 | 1.80 |
| 6780.00 | 7.23 | 352.95 | 6696.13 | -485.03 | -474.43 | -484.45 | 7.13 |
| 6866.00 | 15.87 | 1.67 | 6780.31 | -467.87 | -474.75 | -467.29 | 10.22 |
| 6951.00 | 23.62 | 4.21 | 6860.26 | -439.23 | -473.16 | -438.65 | 9.17 |
| 7037.00 | 32.30 | 359.56 | 6936.15 | -398.99 | -472.07 | -398.41 | 10.40 |
| 7122.00 | 42.34 | 1.88 | 7003.67 | -347.53 | -471.30 | -346.96 | 11.93 |
| 7207.00 | 53.27 | 1.40 | 7060.67 | -284.68 | -469.52 | -284.11 | 12.87 |
| 7293.00 | 63.94 | 357.77 | 7105.42 | -211.40 | -470.19 | -210.83 | 12.92 |
| 7378.00 | 73.05 | 354.30 | 7136.55 | -132.61 | -475.72 | -132.03 | 11.37 |
| 7463.00 | 79.74 | 354.40 | 7156.54 | -50.44 | -483.85 | -49.85 | 7.87 |
| 7505.00 | 85.18 | 357.20 | 7162.05 | -8.94 | -486.89 | -8.34 | 14.54 |
| 7615.00 | 91.23 | 1.89 | 7165.49 | 100.92 | -487.76 | 101.52 | 6.96 |
| 7700.00 | 90.56 | 1.80 | 7164.17 | 185.87 | -485.02 | 186.46 | 0.80 |
| 7871.00 | 91.94 | 359.95 | 7160.44 | 356.80 | -482.41 | 357.39 | 1.35 |
| 8020.00 | 90.56 | 3.45 | 7157.18 | 505.67 | -477.99 | 506.25 | 2.52 |
| 8105.00 | 90.31 | 3.58 | 7156.54 | 590.51 | -472.78 | 591.08 | 0.33 |
| 8190.00 | 90.88 | 3.48 | 7155.66 | 675.34 | -467.55 | 675.91 | 0.68 |
| 8276.00 | 90.06 | 3.56 | 7154.95 | 761.17 | -462.27 | 761.74 | 0.96 |
| 8361.00 | 89.63 | 3.03 | 7155.18 | 846.03 | -457.38 | 846.59 | 0.80 |
| 8447.00 | 89.07 | 2.48 | 7156.16 | 931.93 | -453.25 | 932.48 | 0.91 |
| 8532.00 | 88.95 | 0.55 | 7157.63 | 1016.88 | -451.00 | 1017.43 | 2.27 |
| 8618.00 | 88.89 | 359.93 | 7159.25 | 1102.86 | -450.64 | 1103.41 | 0.72 |
| 8703.00 | 89.21 | 359.07 | 7160.66 | 1187.85 | -451.38 | 1188.40 | 1.08 |
| 8789.00 | 89.63 | 358.64 | 7161.53 | 1273.83 | -453.10 | 1274.38 | 0.70 |
| 8874.00 | 89.69 | 358.57 | 7162.03 | 1358.80 | -455.17 | 1359.35 | 0.11 |
| 8959.00 | 89.88 | 358.80 | 7162.35 | 1443.78 | -457.12 | 1444.33 | 0.35 |
| 9045.00 | 89.82 | 359.17 | 7162.57 | 1529.76 | -458.64 | 1530.32 | 0.44 |
| 9130.00 | 89.94 | 358.98 | 7162.75 | 1614.75 | -460.02 | 1615.31 | 0.26 |
| 9216.00 | 90.09 | 358.54 | 7162.73 | 1700.73 | -461.88 | 1701.29 | 0.54 |
| 9301.00 | 90.26 | 358.54 | 7162.47 | 1785.70 | -464.04 | 1786.27 | 0.20 |
| 9386.00 | 90.18 | 358.14 | 7162.14 | 1870.67 | -466.51 | 1871.24 | 0.48 |
| 9472.00 | 90.49 | 357.98 | 7161.64 | 1956.62 | -469.42 | 1957.19 | 0.41 |
| 9557.00 | 90.31 | 358.72 | 7161.05 | 2041.58 | -471.86 | 2042.15 | 0.90 |
| 9642.00 | 89.56 | 359.25 | 7161.14 | 2126.56 | -473.37 | 2127.14 | 1.08 |
| 9728.00 | 89.75 | 358.86 | 7161.66 | 2212.55 | -474.79 | 2213.13 | 0.50 |
| 9813.00 | 89.51 | 359.39 | 7162.21 | 2297.54 | -476.09 | 2298.12 | 0.68 |
| 9898.00 | 88.77 | 359.64 | 7163.49 | 2382.52 | -476.81 | 2383.11 | 0.92 |
| 9984.00 | 89.26 | 359.41 | 7164.97 | 2468.51 | -477.52 | 2469.09 | 0.63 |
| 10069.00 | 90.18 | 359.60 | 7165.38 | 2553.50 | -478.25 | 2554.09 | 1.11 |
| 10155.00 | 89.74 | 0.13 | 7165.44 | 2639.50 | -478.46 | 2640.09 | 0.80 |

| | | | | | | | |
|---------------------------|-------|--------|---------|---------|---------|---------|------|
| 10240.00 | 90.25 | 0.80 | 7165.45 | 2724.50 | -477.77 | 2725.08 | 0.99 |
| 10325.00 | 91.32 | 1.36 | 7164.28 | 2809.47 | -476.16 | 2810.05 | 1.42 |
| 10410.00 | 91.23 | 1.58 | 7162.39 | 2894.43 | -473.98 | 2895.00 | 0.28 |
| 10496.00 | 89.69 | 2.51 | 7161.70 | 2980.36 | -470.92 | 2980.94 | 2.09 |
| 10581.00 | 88.71 | 1.80 | 7162.89 | 3065.29 | -467.72 | 3065.86 | 1.42 |
| 10667.00 | 87.96 | 1.50 | 7165.39 | 3151.22 | -465.24 | 3151.79 | 0.94 |
| 10752.00 | 87.97 | 0.99 | 7168.41 | 3236.15 | -463.40 | 3236.71 | 0.60 |
| 10838.00 | 87.04 | 0.28 | 7172.15 | 3322.06 | -462.45 | 3322.62 | 1.36 |
| 10923.00 | 87.53 | 359.35 | 7176.18 | 3406.96 | -462.72 | 3407.53 | 1.24 |
| 11009.00 | 88.34 | 358.14 | 7179.27 | 3492.88 | -464.60 | 3493.45 | 1.69 |
| 11094.00 | 88.40 | 358.80 | 7181.69 | 3577.82 | -466.87 | 3578.39 | 0.78 |
| 11179.00 | 87.10 | 358.21 | 7185.03 | 3662.72 | -469.09 | 3663.29 | 1.68 |
| 11264.00 | 86.91 | 357.55 | 7189.47 | 3747.55 | -472.23 | 3748.12 | 0.81 |
| 11350.00 | 87.41 | 358.05 | 7193.73 | 3833.38 | -475.52 | 3833.96 | 0.82 |
| 11435.00 | 87.66 | 358.01 | 7197.39 | 3918.25 | -478.44 | 3918.83 | 0.30 |
| 11519.00 | 87.97 | 357.82 | 7200.59 | 4002.13 | -481.50 | 4002.72 | 0.43 |
| 11605.00 | 88.27 | 357.91 | 7203.41 | 4088.03 | -484.70 | 4088.61 | 0.36 |
| 11664.00 | 88.46 | 357.93 | 7205.09 | 4146.96 | -486.84 | 4147.55 | 0.32 |
| Projected to Total Depth: | | | | | | | |
| 11722.00 | 88.46 | 357.93 | 7206.65 | 4204.90 | -488.93 | 4205.50 | 0.00 |

Weatherford Surveys from 1014 ft MD to 11664 ft MD.

TD at 11722 ft MD.

The total correction is 8.59 deg relative to True North.



Weatherford®

Final Print

| | | | |
|---------|------------------------|--------|-------------|
| COMPANY | <u>Anadarko</u> | | |
| WELL | <u>Farley 30N-23HZ</u> | | |
| FIELD | <u>Wattenberg</u> | | |
| RIG | <u>XTREME 23</u> | | |
| LOC. | <u>Colorado</u> | COUNTY | <u>Weld</u> |