



Company: Lamont Doherty Earth Observatory

Well: Expedition 340T, Site U1309D

Field: Atlantis Massif

Rig: JOIDES Resolution Country: USA

LDEO MTT

| | |
|-------------------------------------|---------------------------|
| Latitude: N 30° 10.1195' | Elev.: K.B. 11.00 m |
| Longitude: W 42° 7.1131' | G.L. -1656.00 m |
| | D.F. 11.00 m |
| Permanent Datum: Mean Sea Level | Elev.: 0.00 m |
| Log Measured From: Drill Floor | 11.00 m above Perm. Datum |
| Drilling Measured From: Drill Floor | |

| | | | |
|-----------------|------------------------------|-----------------------------|---------------------------|
| Ocean: Atlantic | Max. Well Deviation 0 deg | Longitude N 30° 10.1195' | Latitude W 42° 7.1131' |
|-----------------|------------------------------|-----------------------------|---------------------------|

JOIDES Resolution
 Atlantis Massif
 Location: N 30° 10.1195'
 Well: Expedition 340T, Site U1309D
 Company: Lamont Doherty Earth Observatory

| | |
|-------------------------------|---------------------------|
| Logging Date | 21-Feb-2012 |
| Run Number | 1 |
| Depth Driller | 3071.5 m |
| Schlumberger Depth | 3048 m |
| Bottom Log Interval | 3048 m |
| Top Log Interval | 1714 m |
| Casing Driller Size @ Depth | 13.375 in @ 1711 m |
| Casing Schlumberger | 1713 m |
| Bit Size | 9.875 in |
| Type Fluid In Hole | Seawater |
| MUD Density | 1.05 g/cm3 |
| MUD Viscosity | |
| MUD Fluid Loss | PH |
| MUD Source Of Sample | N/A |
| RM @ Measured Temperature | @ @ |
| RMF @ Measured Temperature | @ @ |
| RMC @ Measured Temperature | @ @ |
| Source RMF | RMC N/A N/A |
| RM @ MRT | RMF @ MRT @ 149 @ 149 @ @ |
| Maximum Recorded Temperatures | 149 degC |
| Circulation Stopped | Time 31-Jan-2005 12:00 |
| Logger On Bottom | Time 21-Feb-2012 21:05 |
| Unit Number | Location 625003 Houston |
| Recorded By | C. Furman |
| Witnessed By | A. Slagle, G. Guerrin |

| | Run 1 | Run 2 | R |
|-------------------------------|-------|-------|---|
| Logging Date | | | |
| Run Number | | | |
| Depth Driller | | | |
| Schlumberger Depth | | | |
| Bottom Log Interval | | | |
| Top Log Interval | | | |
| Casing Driller Size @ Depth | | @ | |
| Casing Schlumberger | | | |
| Bit Size | | | |
| Type Fluid In Hole | | | |
| MUD Density | | | |
| MUD Viscosity | | | |
| MUD Fluid Loss | | | |
| MUD Source Of Sample | | | |
| RM @ Measured Temperature | | @ | |
| RMF @ Measured Temperature | | @ | |
| RMC @ Measured Temperature | | @ | |
| Source RMF | | | |
| RMC | | | |
| RM @ MRT | | @ | @ |
| RMF @ MRT | | | |
| Maximum Recorded Temperatures | | | |
| Circulation Stopped | | | |
| Time | | | |
| Logger On Bottom | | | |
| Time | | | |
| Unit Number | | | |
| Location | | | |
| Recorded By | | | |
| Witnessed By | | | |

DISCLAIMER

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OTHER SERVICES1

- OS1: HRLA
- OS2: HLDS
- OS3: DSI
- OS4: MSS
- OS5: VSI




REMARKS: RUN NUMBER 1

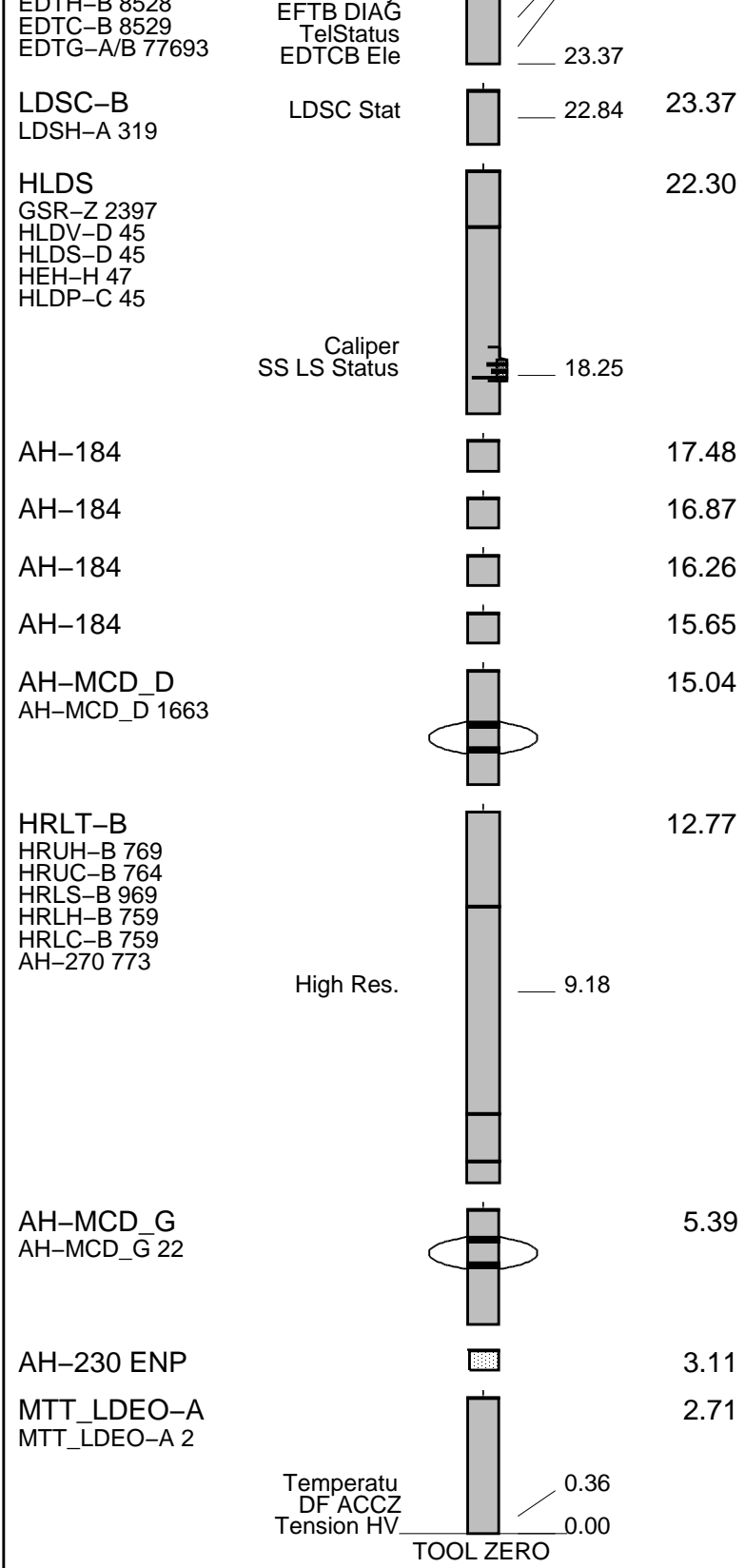
Hole U1309D was originally drilled during ODP Leg 304 in 2004 and deepened during Leg 305 in 2005.
 This is the first re-entry since deepening and the first descent is being made without a pipe trip in order to preserve temperature data. A shut-in temperature profile is one of the main objectives of this run.
 The purpose of this expedition is to acquire additional logging information that could not be acquired during Exp 304/305.
 Logs correlated to "Dual-Laterolog Tool" log recorded by Schlumberger on 31 JAN 05.
 Tools became stuck while re-entering drill pipe after completing the logging run and had to be fished by use of Kinley devices.
 All tools were recovered, and the cause of the sticking was found to be that the arms on the MCD centralizers had worn thin over the long open-hole section and then broken while entering pipe, making the tool OD too large for the bit.
 No after survey calibrations were possible due to fishing the string, so before-survey calibrations are presented instead.
 The MTT is a client-provided tool for accurately measuring mud temperature in real-time.
 Additional temperature data was provided by the LEH-MT mud temperature sensor, which generally reads ~3 degC above the MTT.

| RUN 1 | | | RUN 2 | | |
|---------------------------|-------|------|------------------|-------|------|
| SERVICE ORDER #: 19C0-187 | | | SERVICE ORDER #: | | |
| PROGRAM VERSION: | | | PROGRAM VERSION: | | |
| FLUID LEVEL: | | | FLUID LEVEL: | | |
| LOGGED INTERVAL | START | STOP | LOGGED INTERVAL | START | STOP |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

EQUIPMENT DESCRIPTION

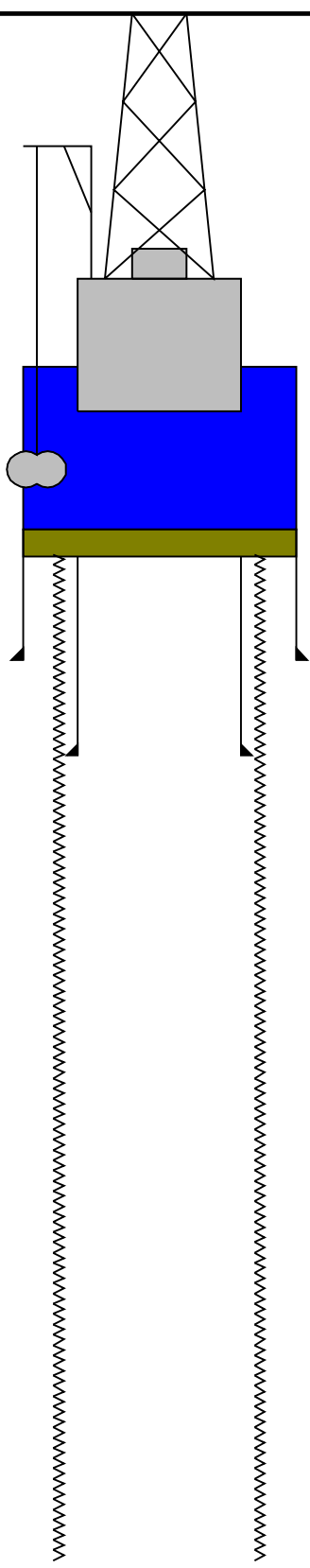
| RUN 1 | RUN 2 |
|--------------------------|-------|
| SURFACE EQUIPMENT | |
| WITM (EDTS)-A | |

| DOWNHOLE EQUIPMENT | | | |
|--------------------|---|-------|--|
| LEH-MT |  | 26.74 | |
| LEH-MT 101 | | | |
| AH-369 | MDSB_EDTC  | 25.78 | |
| | Mud Tempe | 25.35 | |
| | CTEM | 24.28 | |
| EDTC-B | Gamma Ray  | 25.35 | |
| EDTL 2-2500 | | 23.71 | |



MAXIMUM STRING DIAMETER 4.50 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN METERS

| Production String | (in) | (m) | Well Schematic | (m) | (in) | Casing String |
|-------------------|------|-----|----------------|-----|------|---------------|
| | OD | ID | | MD | OD | |



Kelly Bushing Elevation

0.0

Derrick Floor Elevation

0.0

Mean Sea Level

11.0

Seismic Gun depth below MSL

7.0

1650.0

1656.0

9.875

1676.0

13.375

1711.0

8.000

3071.5

9.875

Top of Re-entry Cone
Sea Bed

Casing Shoe

Drill Pipe (Driller's Depth)
1711mbrf for Triple-Combo
1759mbrf for VSI & MSS
2356mbrf for DSI

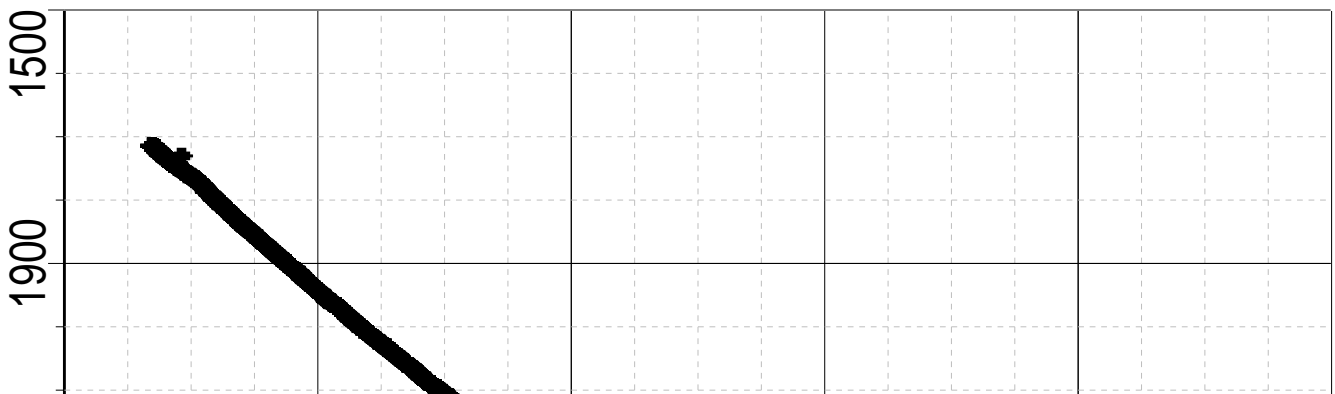
Driller's Total Depth

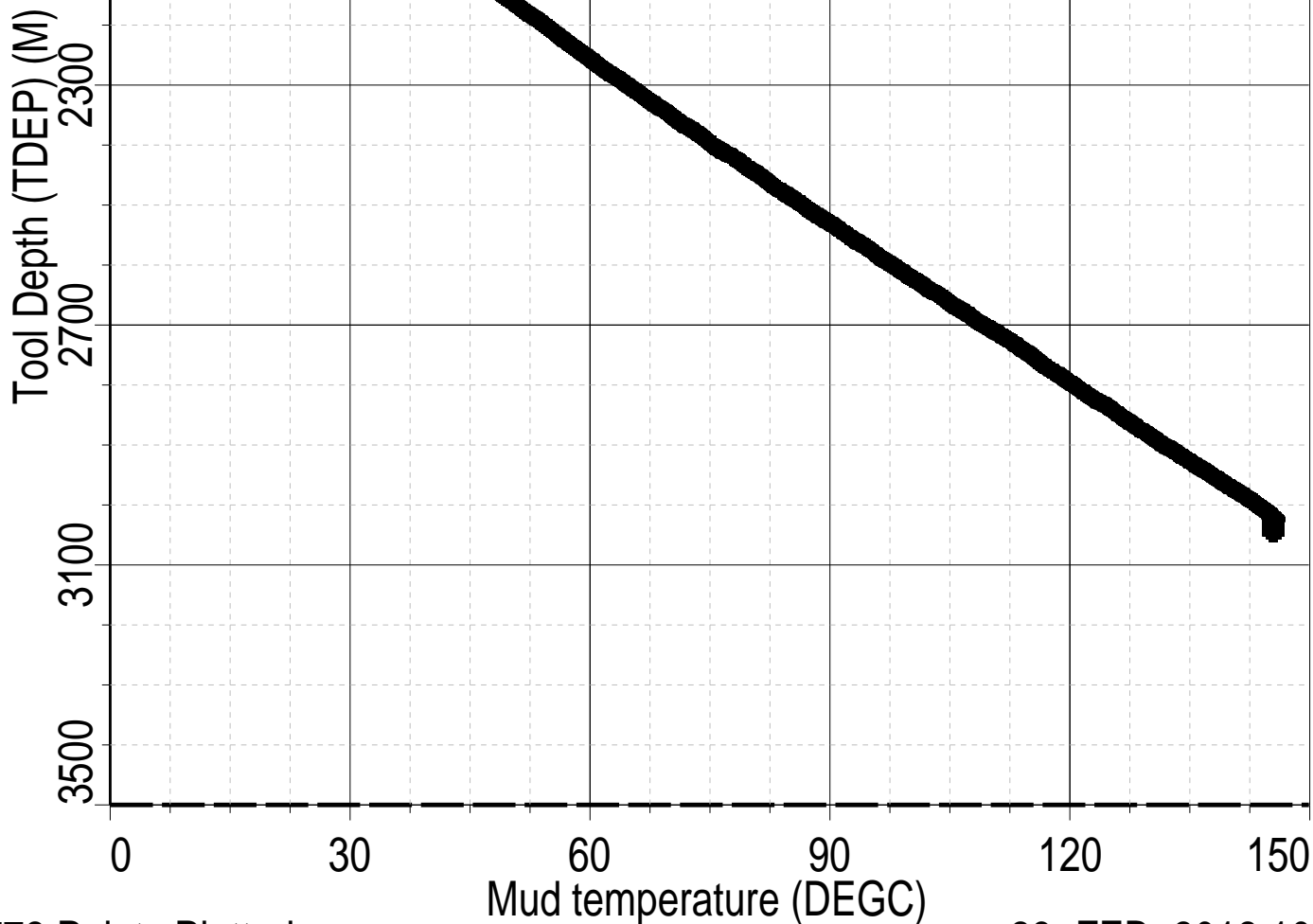
Schlumberger

LEH-MT Mud Temperature

MAXIS Field Log

Index: 3049.5 – 1712.8 M





Schlumberger

Down Log

MAXIS Field Log

Company: Lamont Doherty

Well: Expedition 340T, Site U1309D

Input DLIS Files

| | | | | | |
|---------|---------------------------|----------|-------------------|----------|----------|
| DEFAULT | Flip_MTT_LDEO_HRLA_024LUP | PRODUCER | 23-Feb-2012 10:31 | 3059.7 M | 1674.9 M |
|---------|---------------------------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | | | |
|---------|--------------------------|-------|----------|-------------------|----------|----------|
| DEFAULT | MTT_LDEO_HRLA_LDL_025PUP | FN:13 | PRODUCER | 23-Feb-2012 10:32 | 3063.7 M | 1678.8 M |
|---------|--------------------------|-------|----------|-------------------|----------|----------|

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MTT_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| EDTC-B | 19C0-187 | | |

PIP SUMMARY

Time Mark Every 60 S

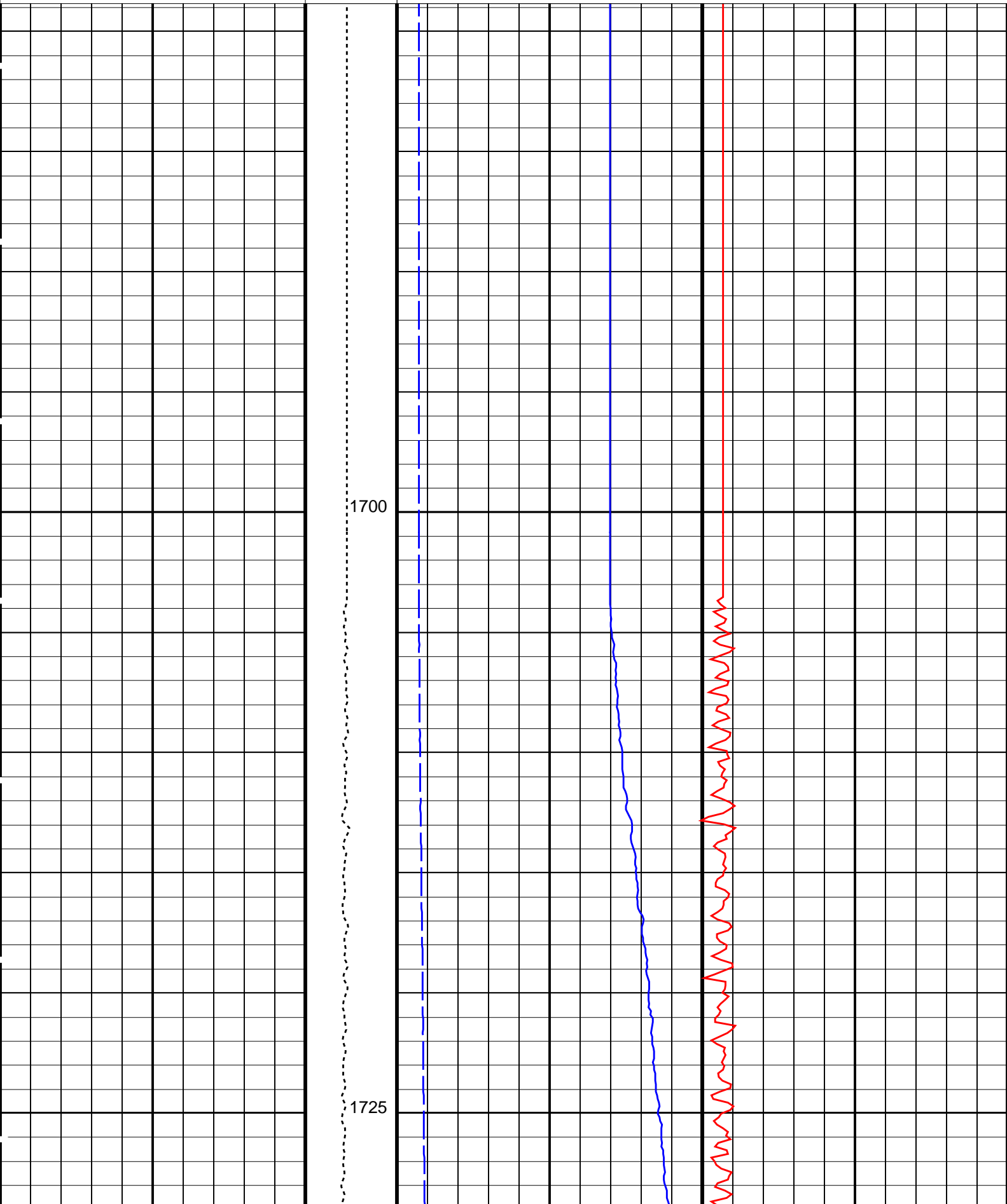
Well Temperature, Expanded (WTEP_LDEO)
(DEGC)

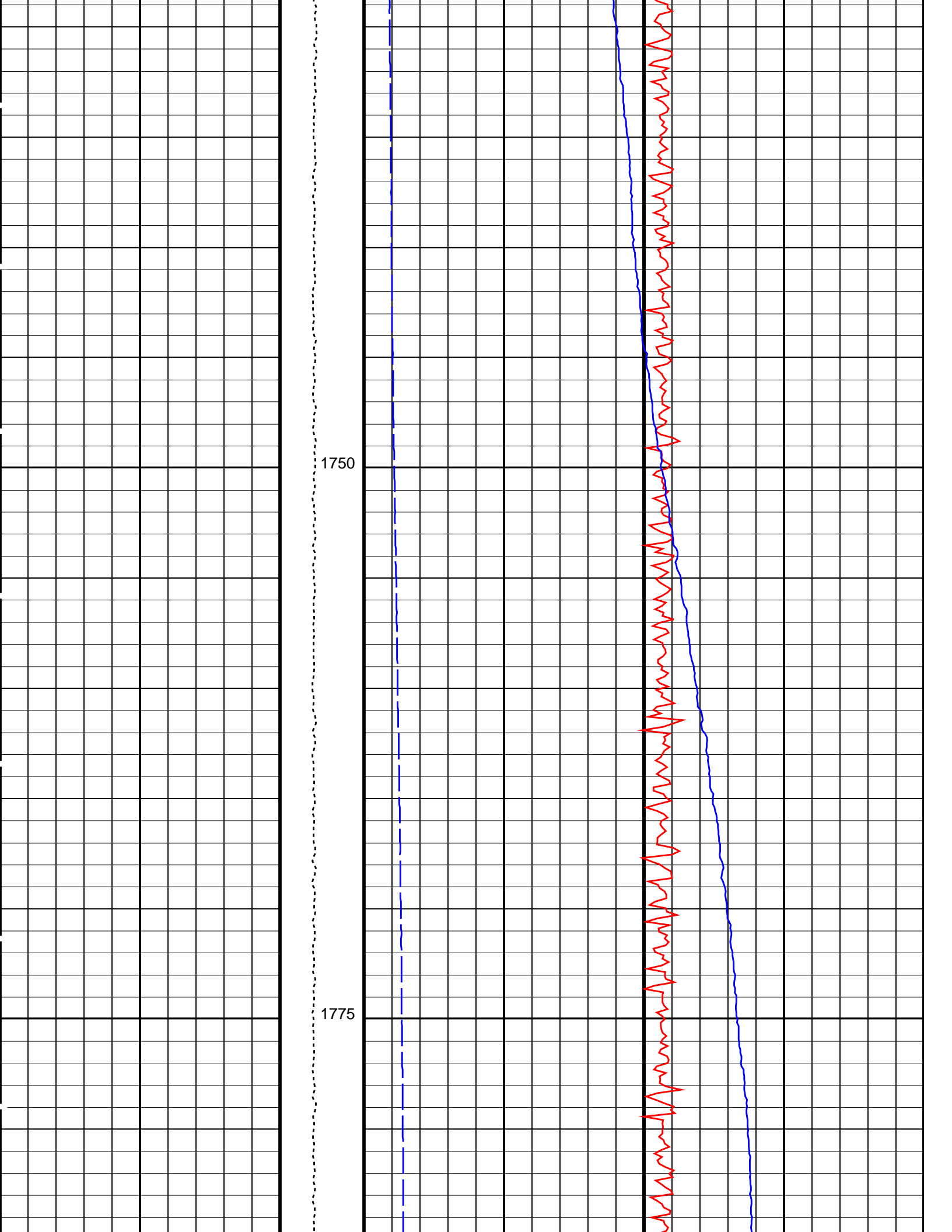
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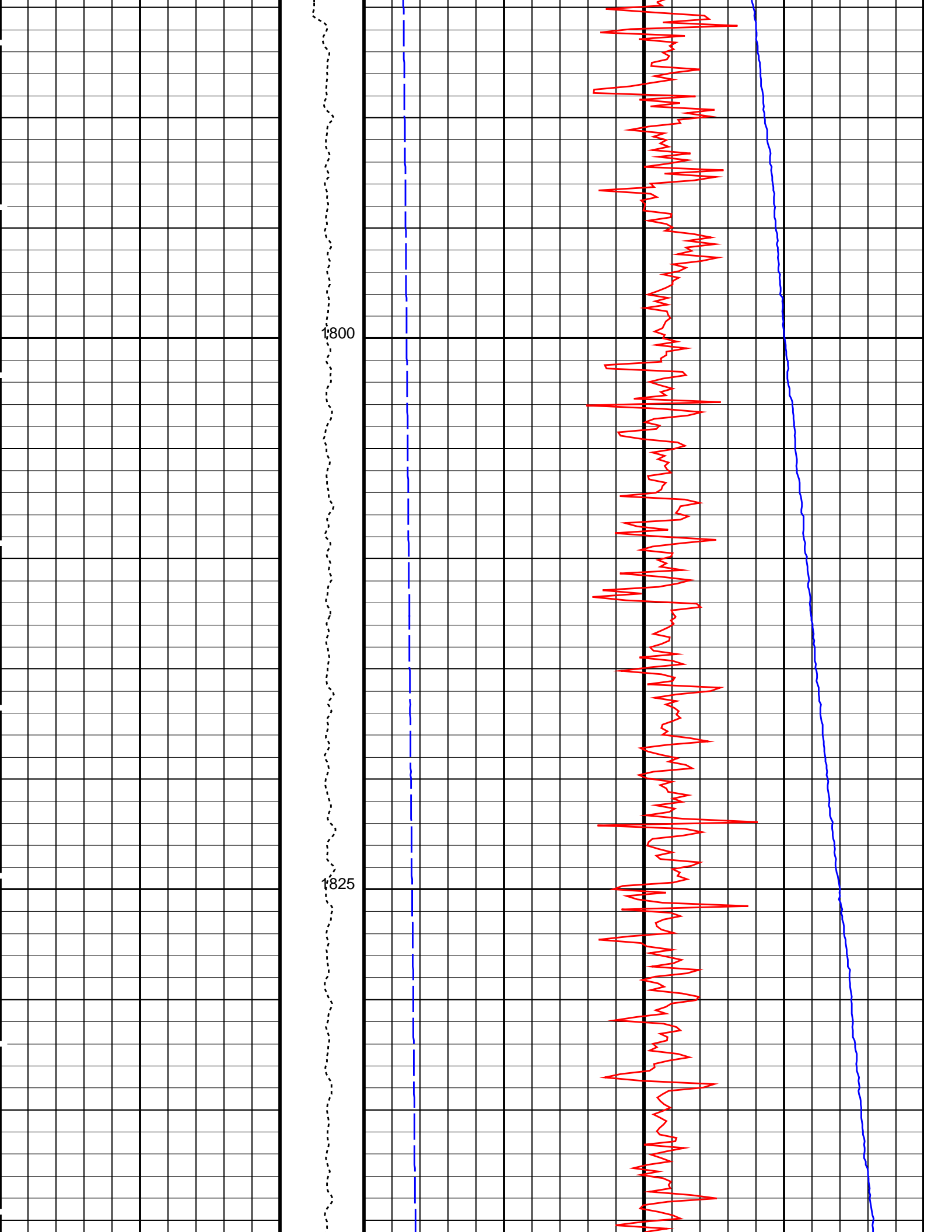
20

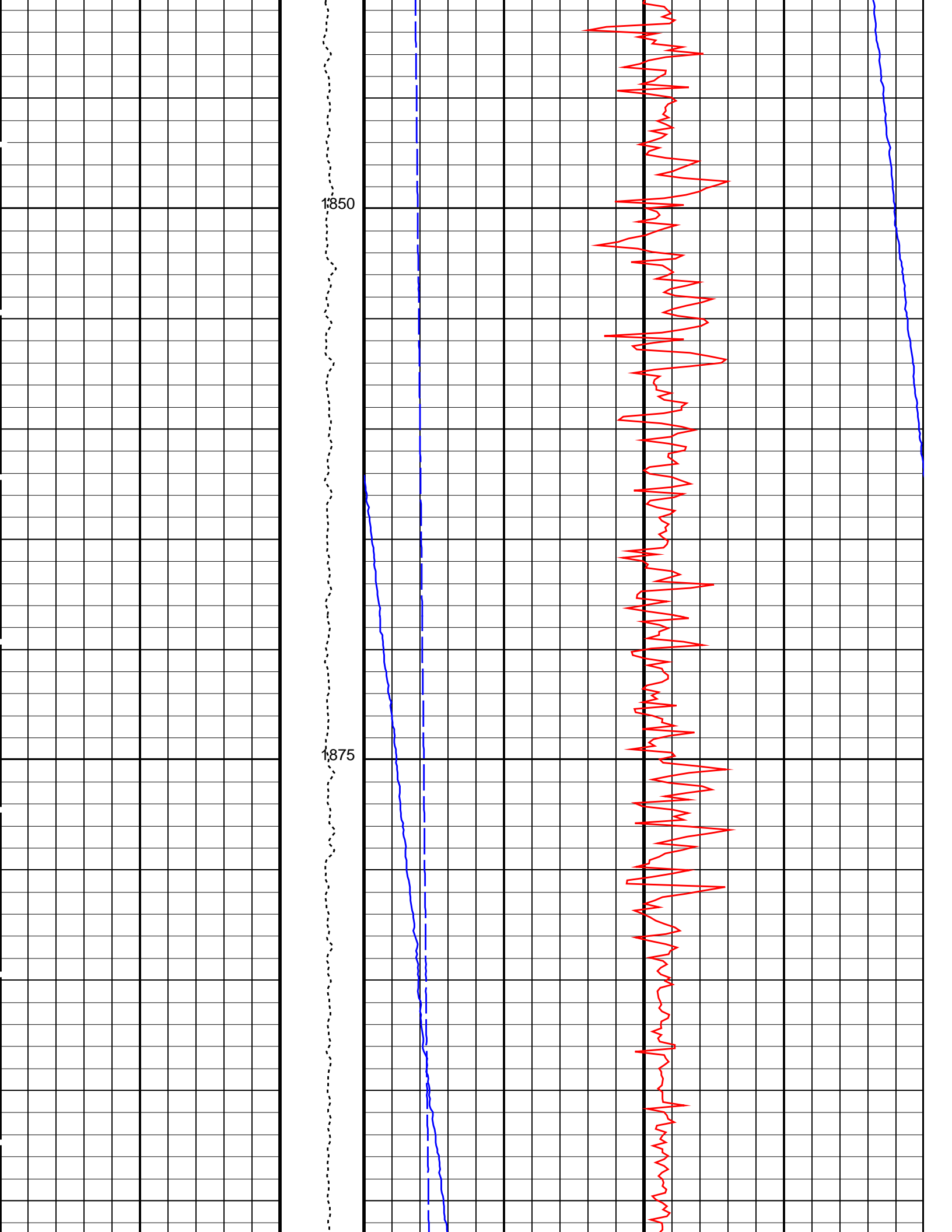
Well Temperature (WTEP_LDEO) (DEGC) 0 200

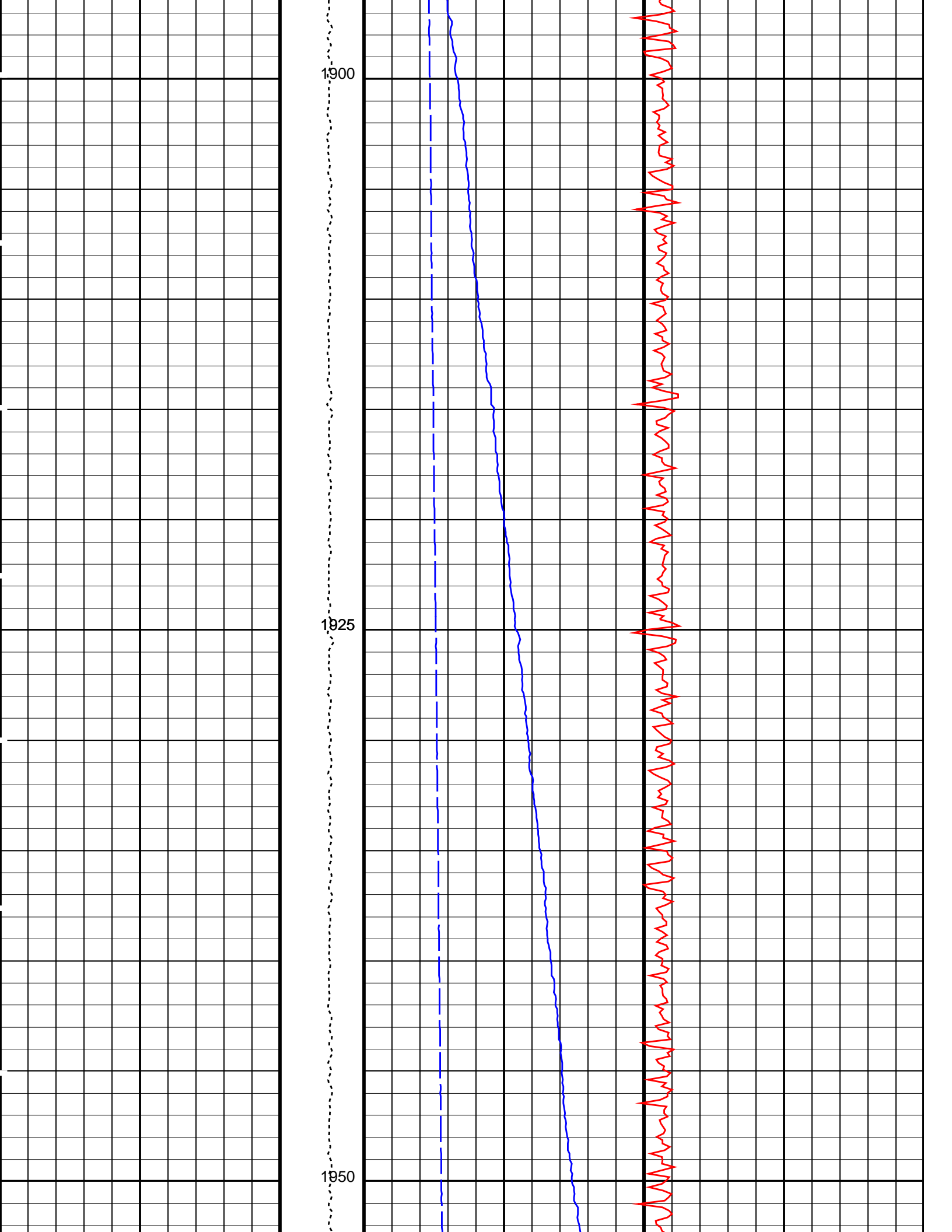
Tension (TENS) (LBF) 0 5000
Axial Acceleration (AZ_LDEO) (M/S²) 0 20







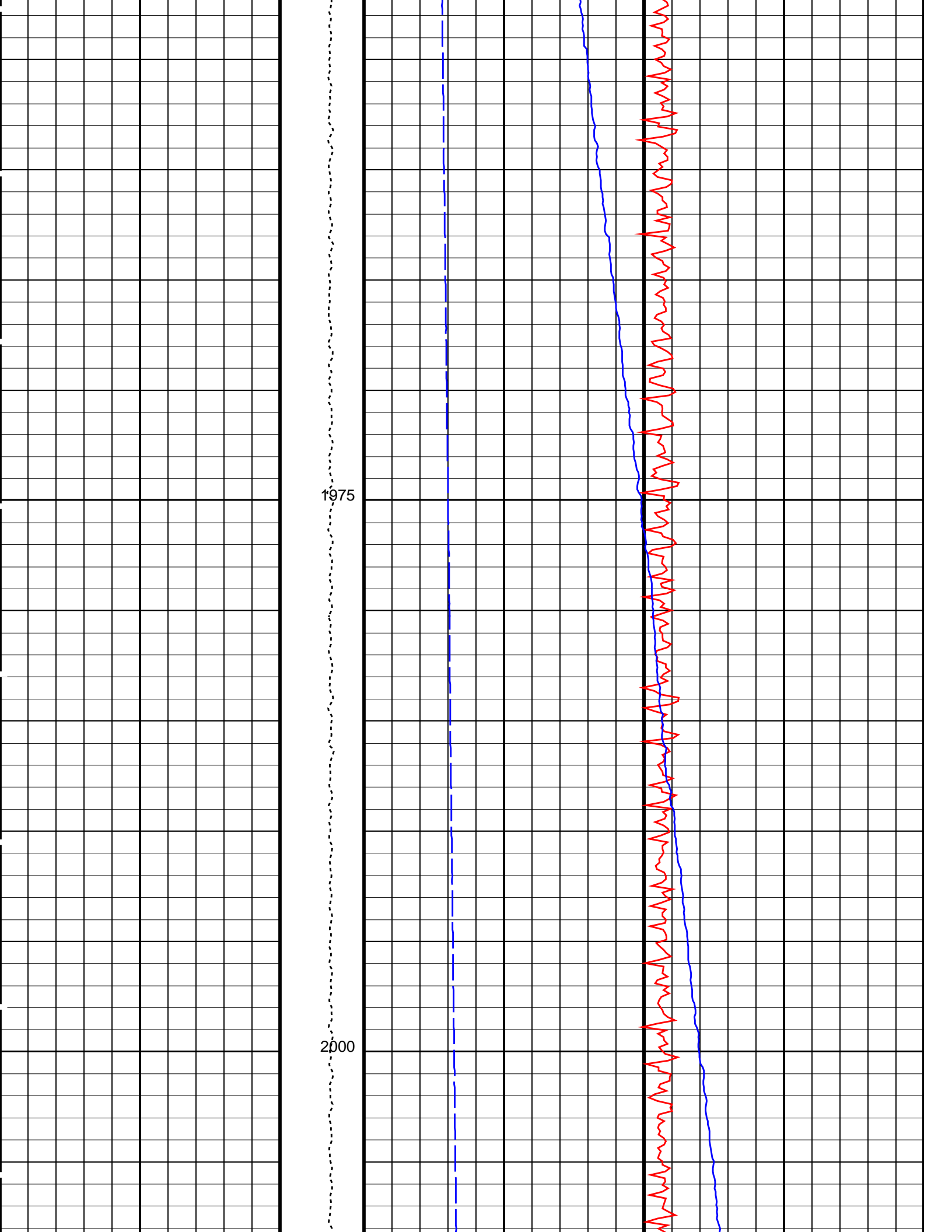


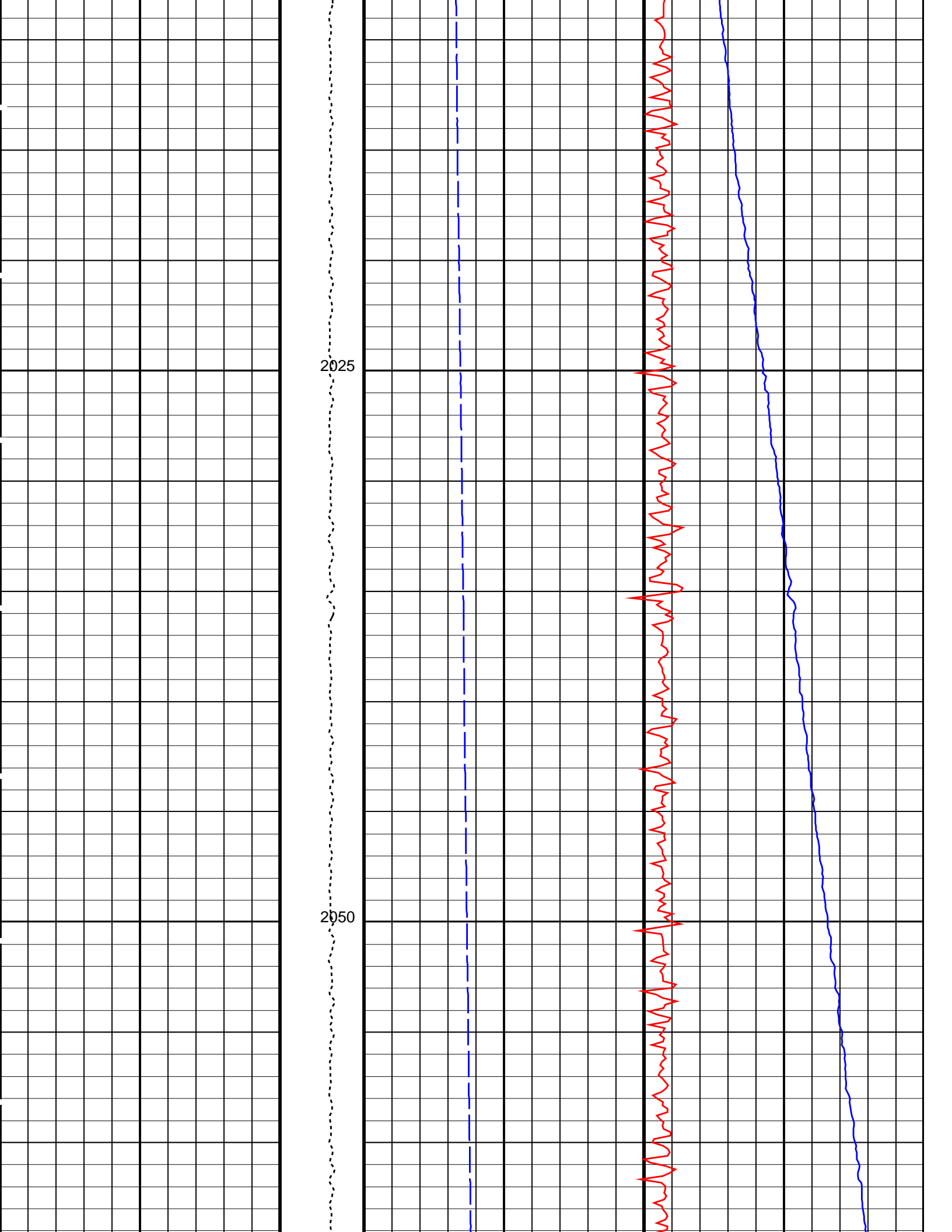


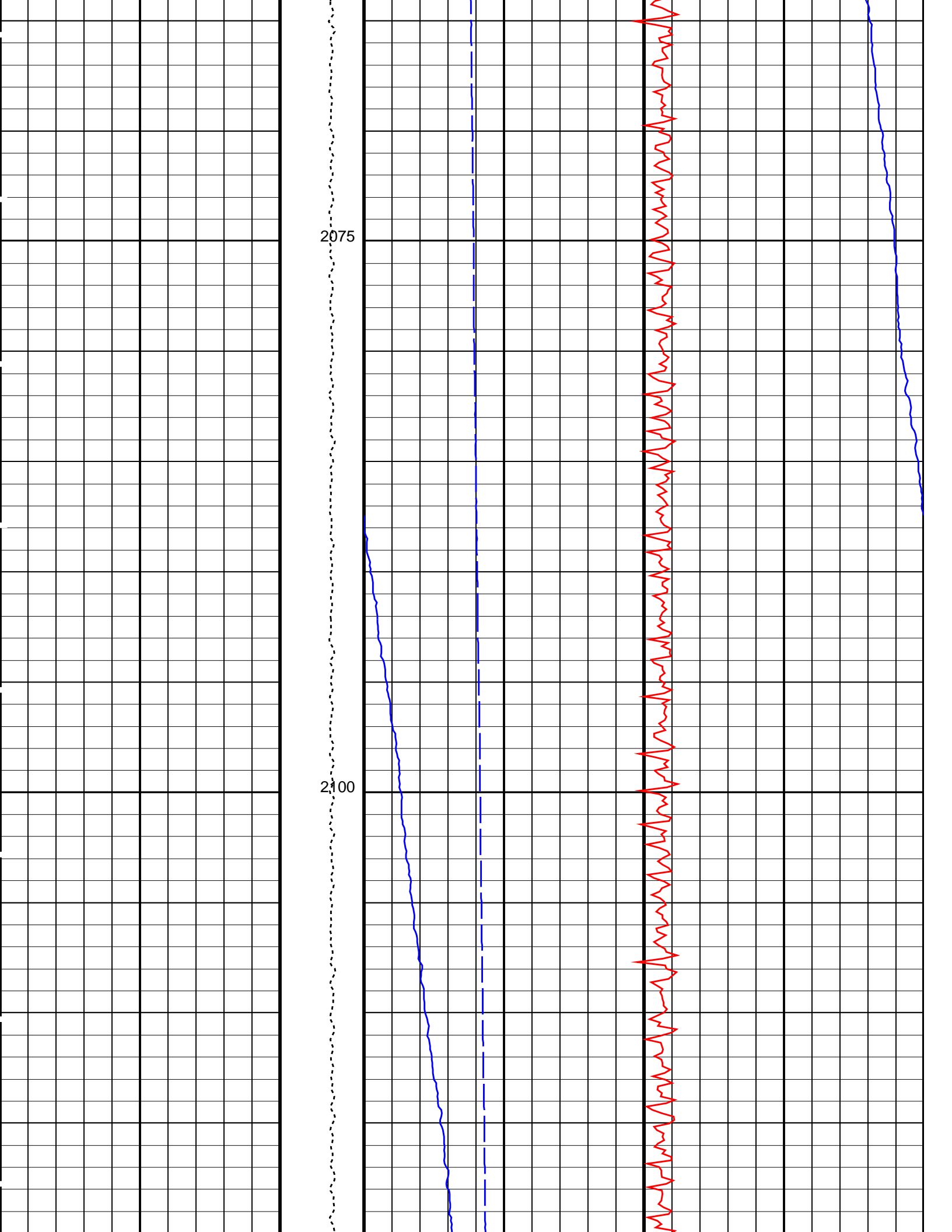
1950

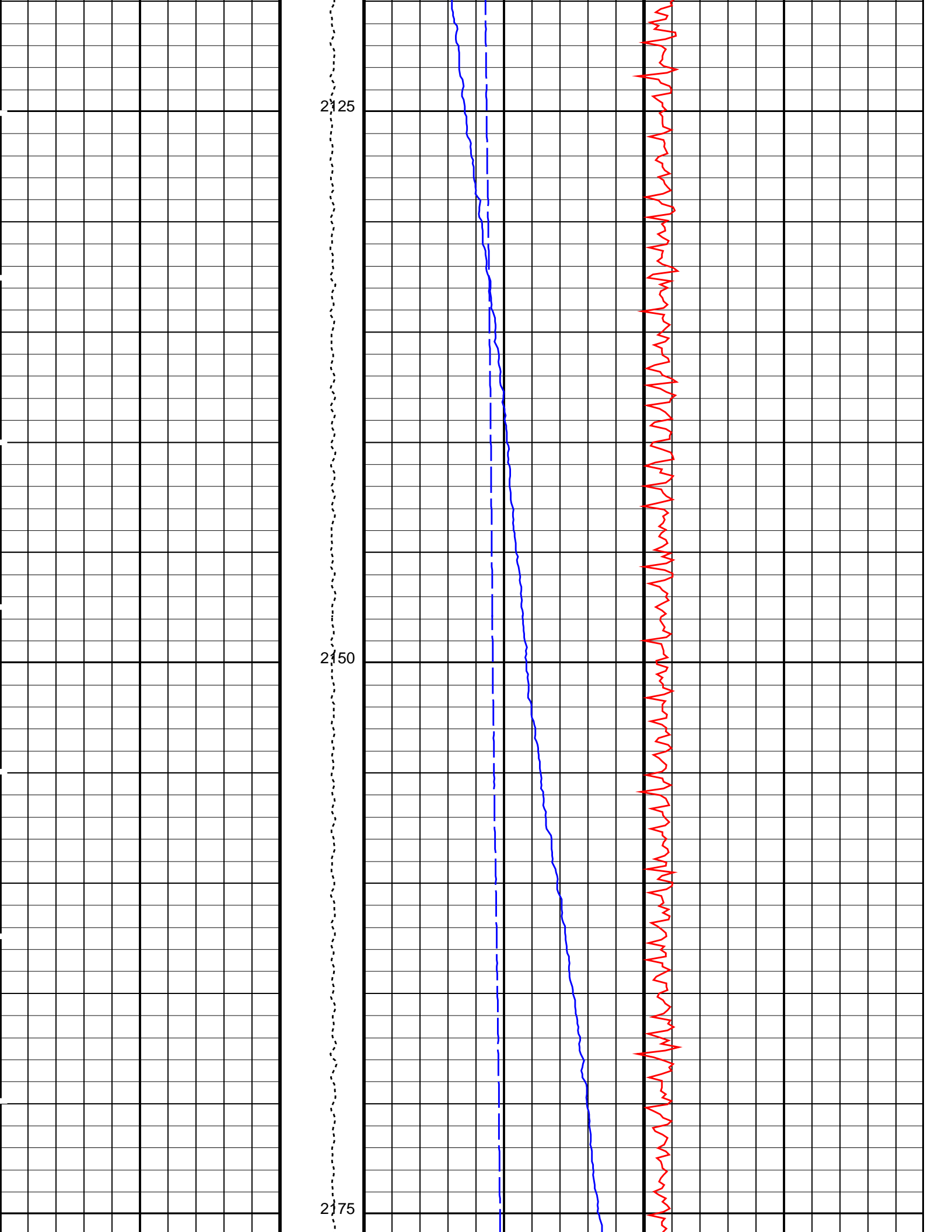
1925

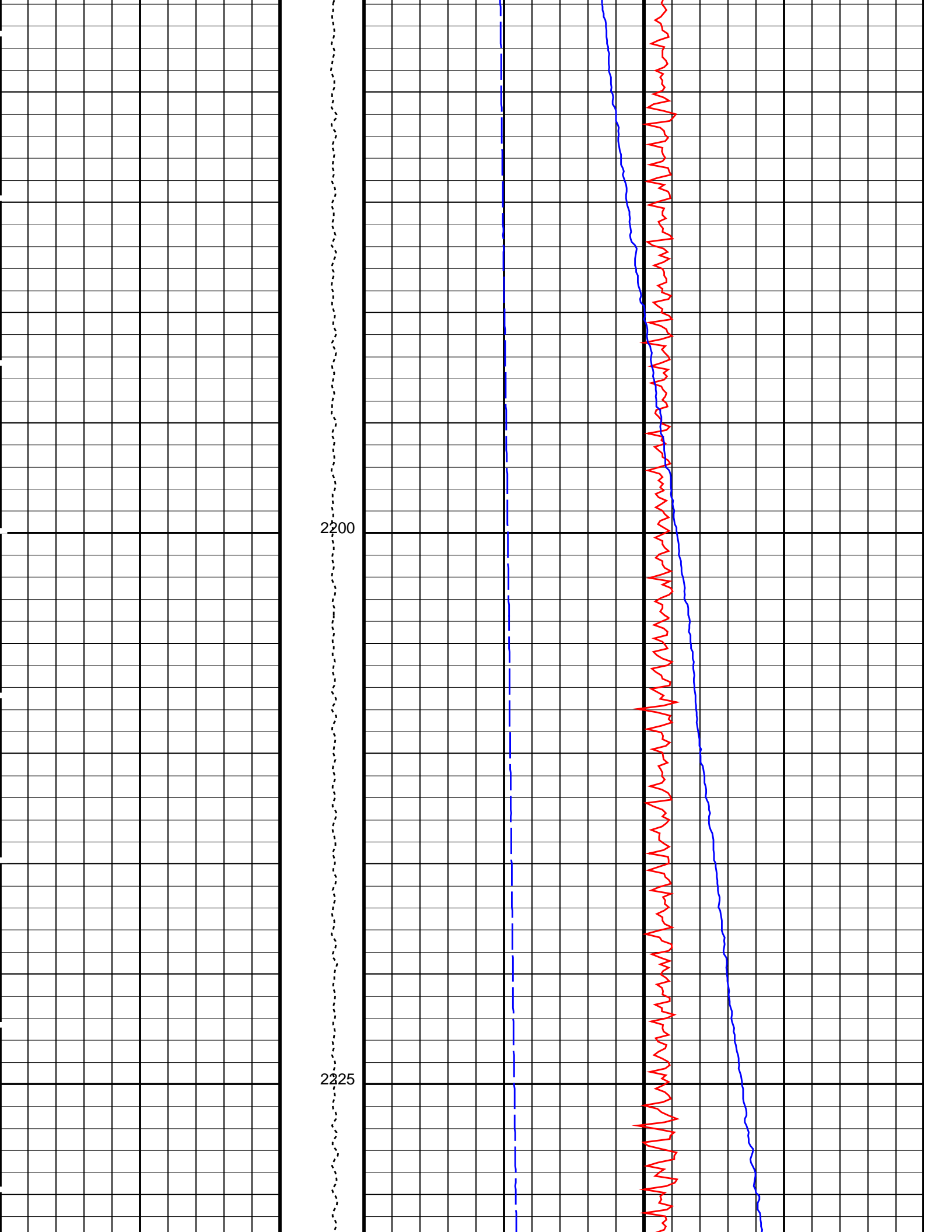
1900

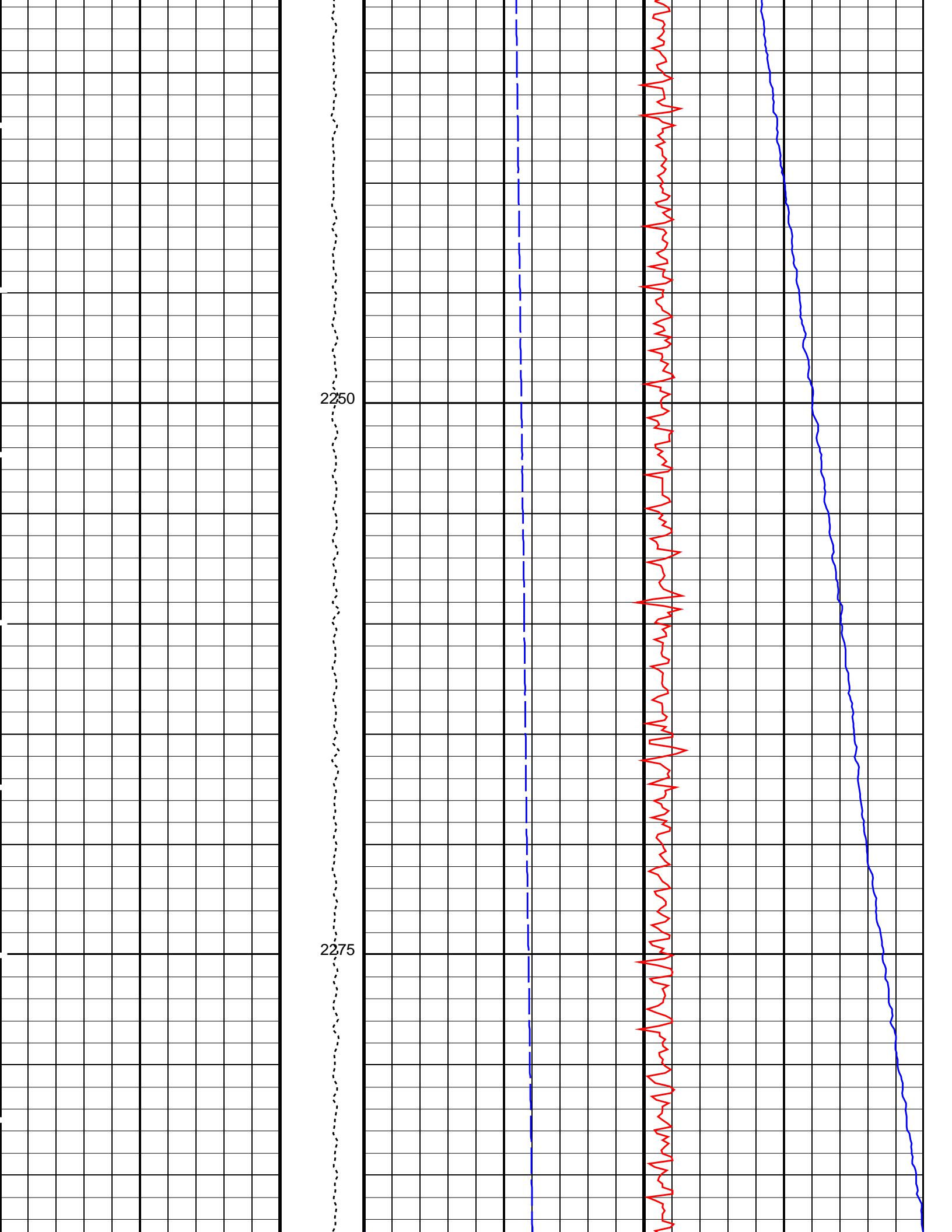


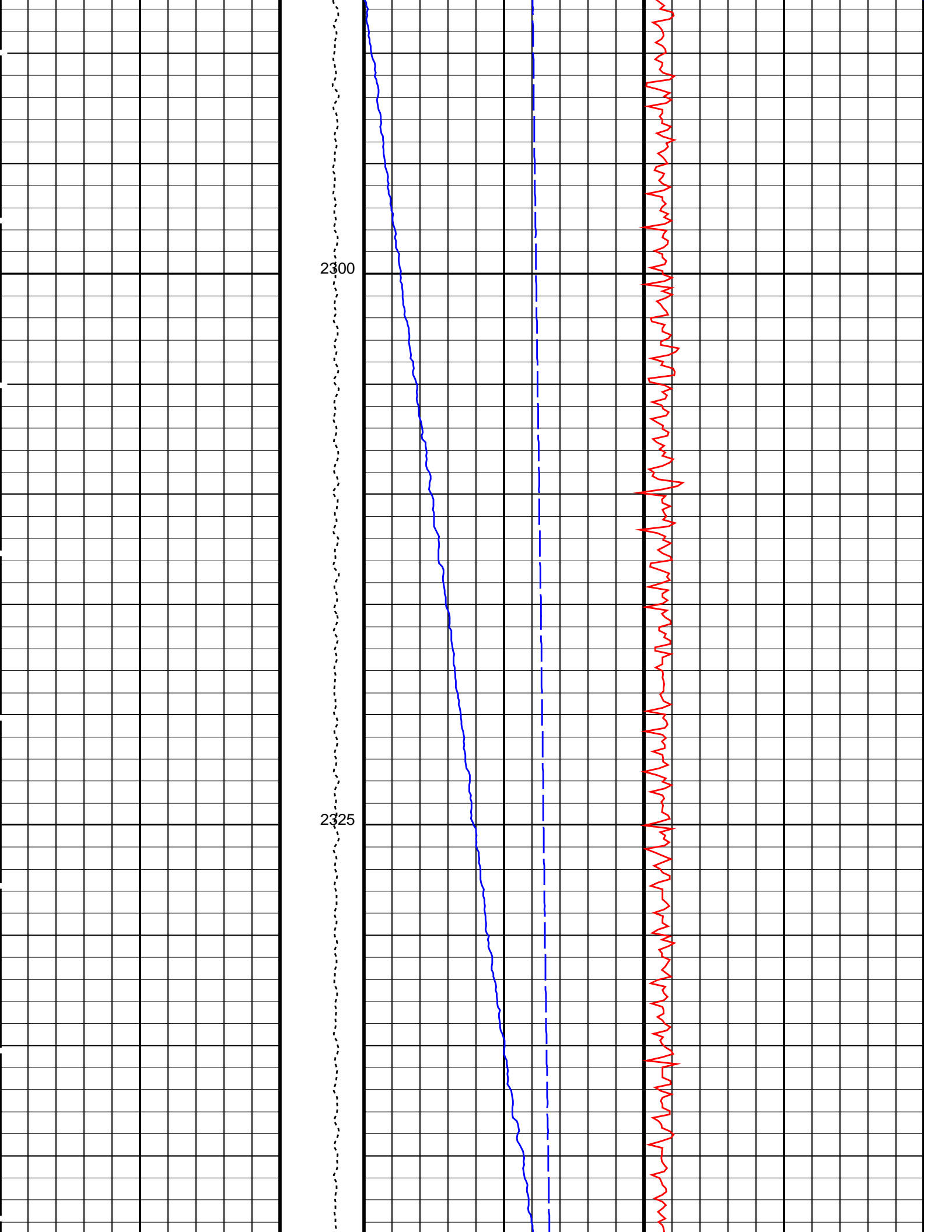


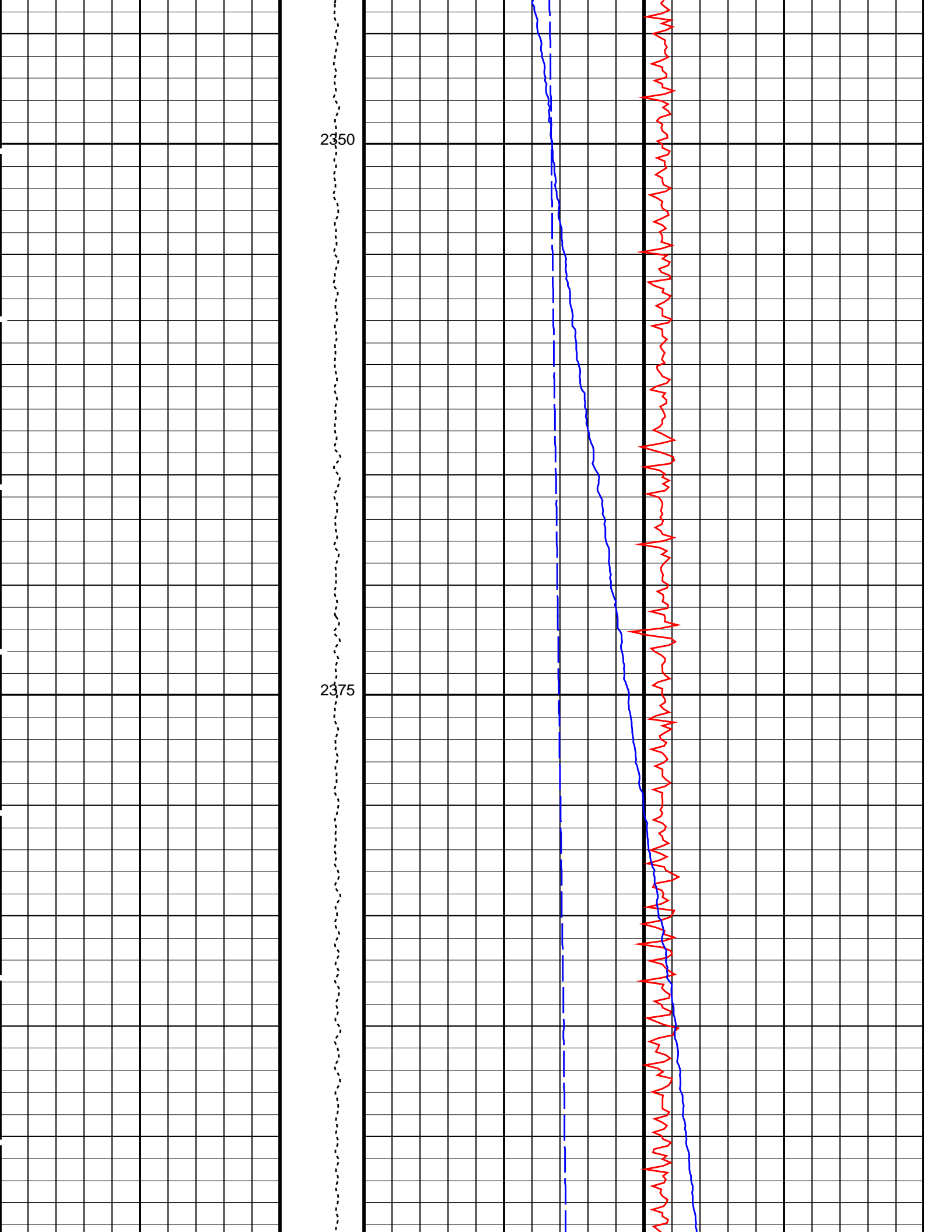






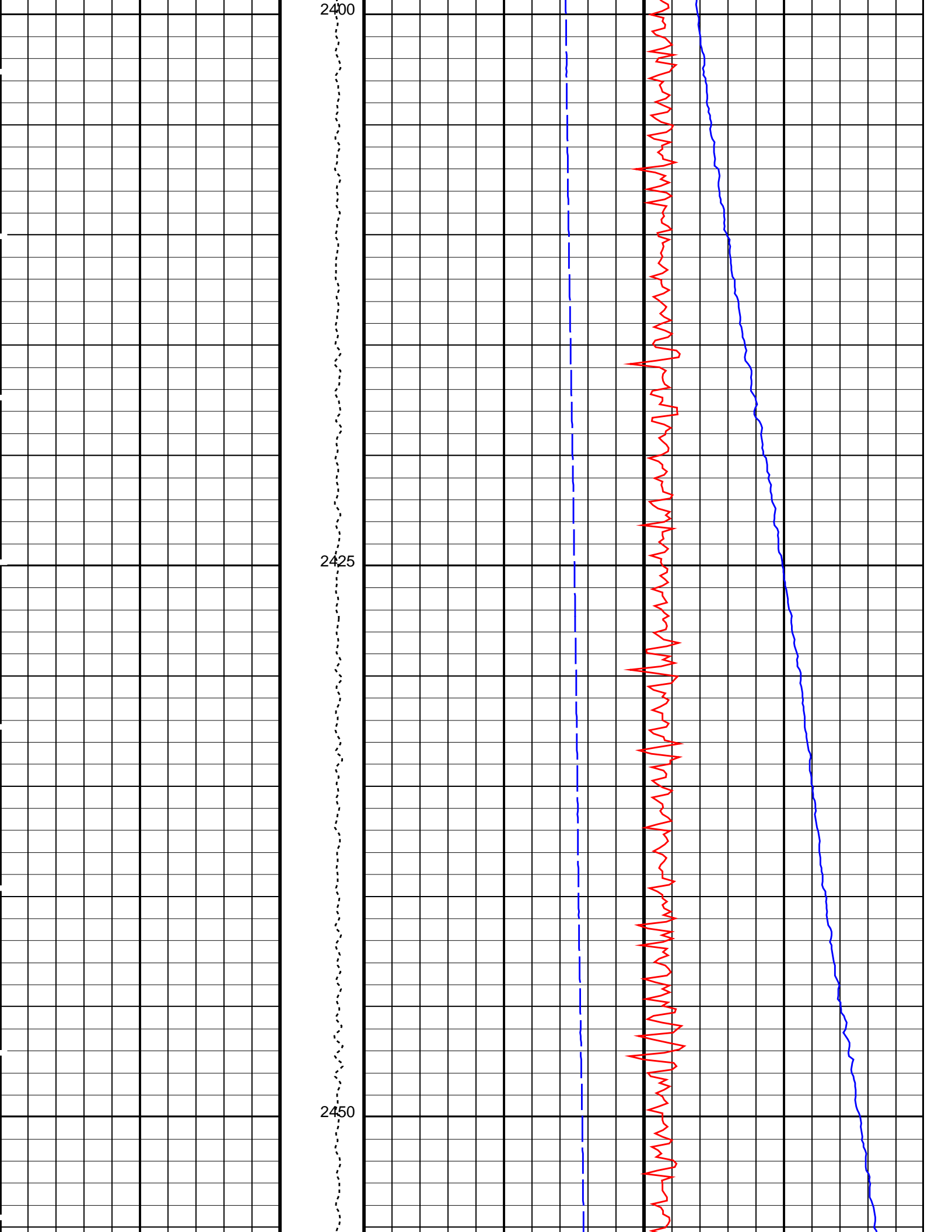


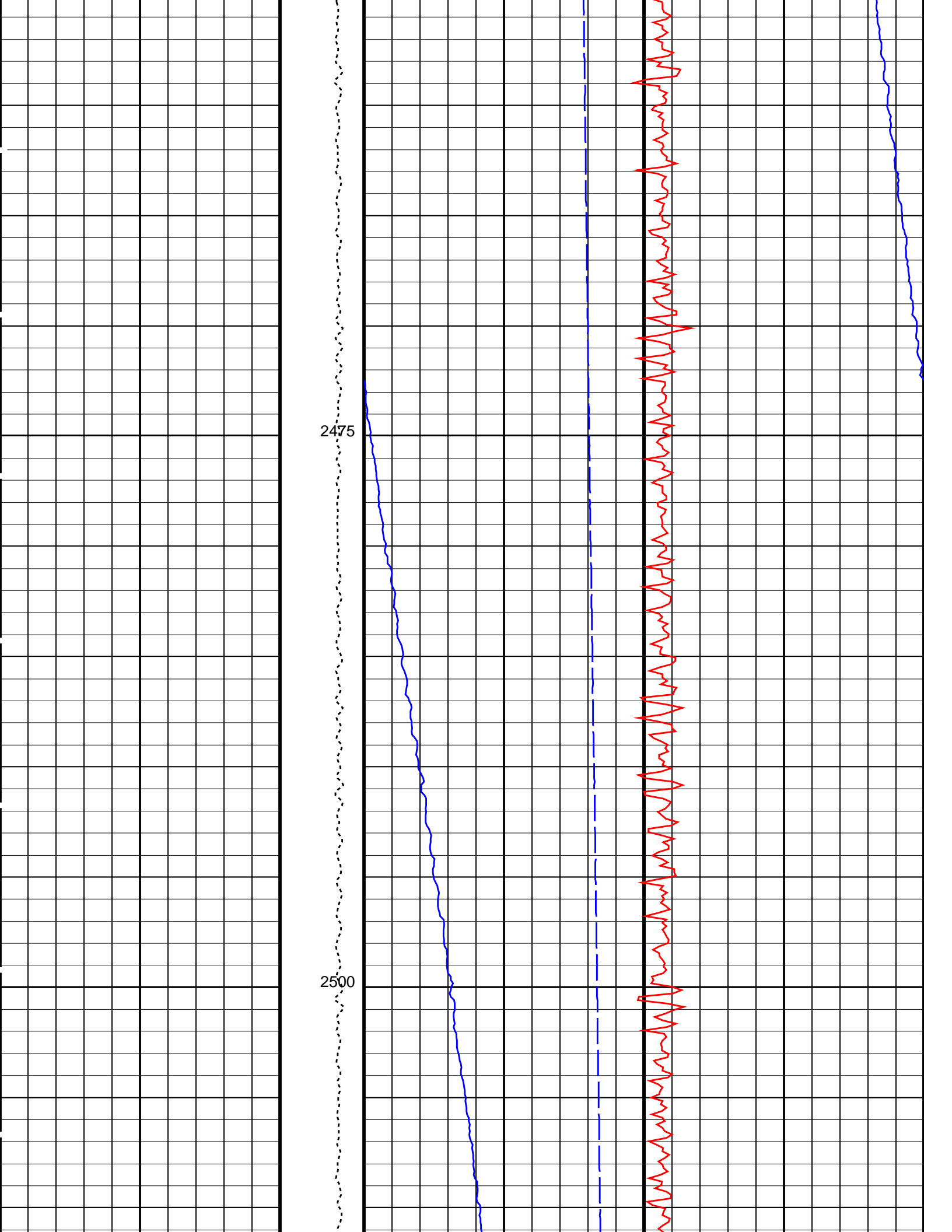


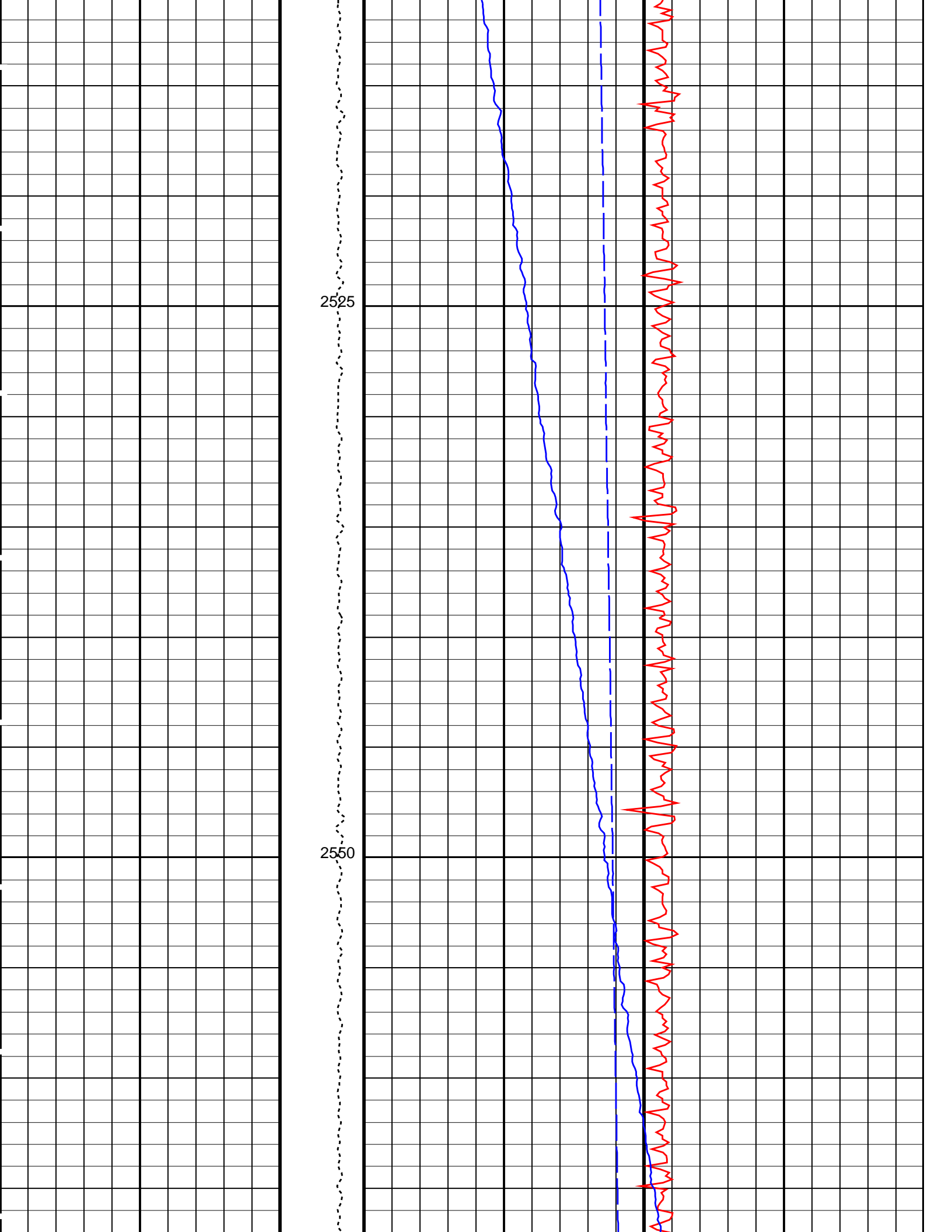


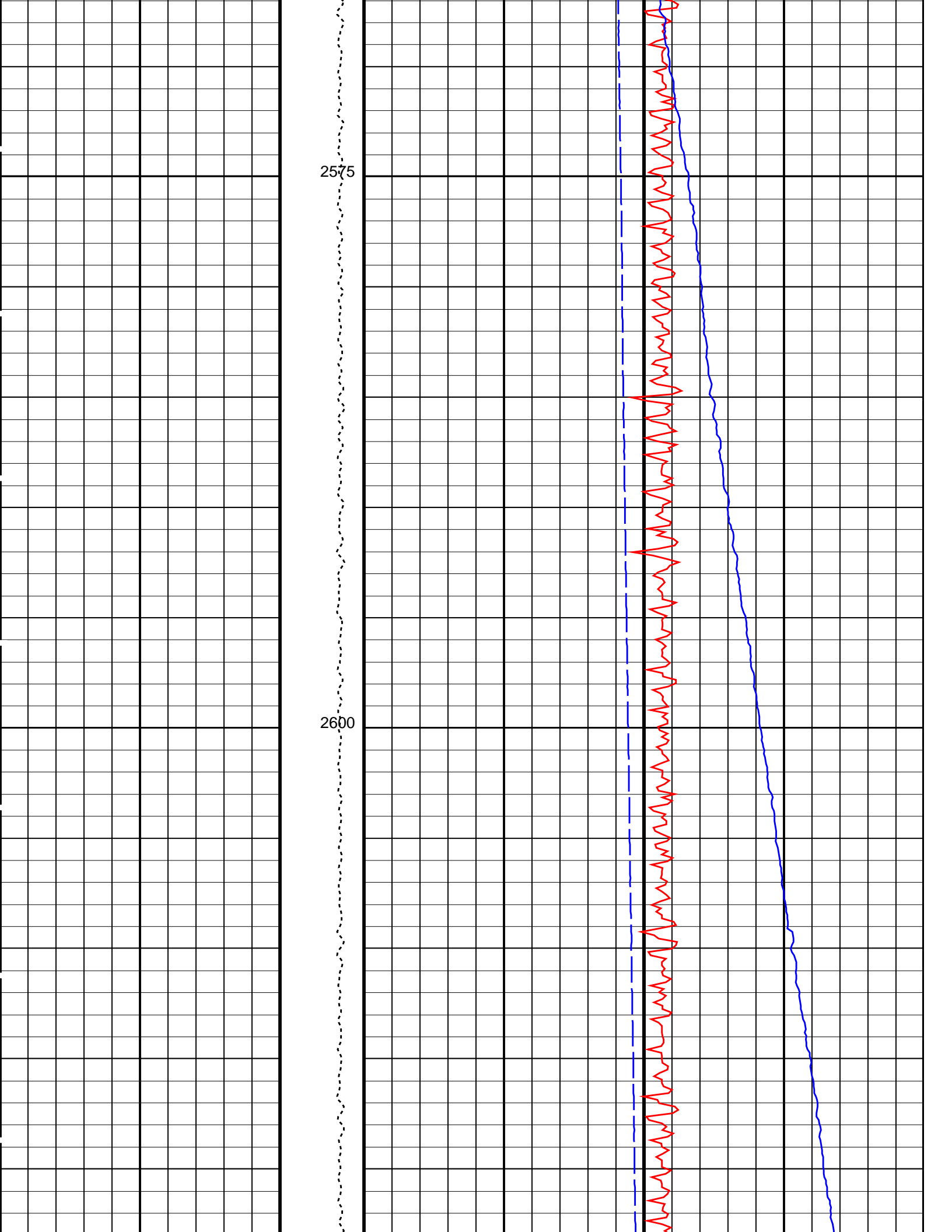
2350

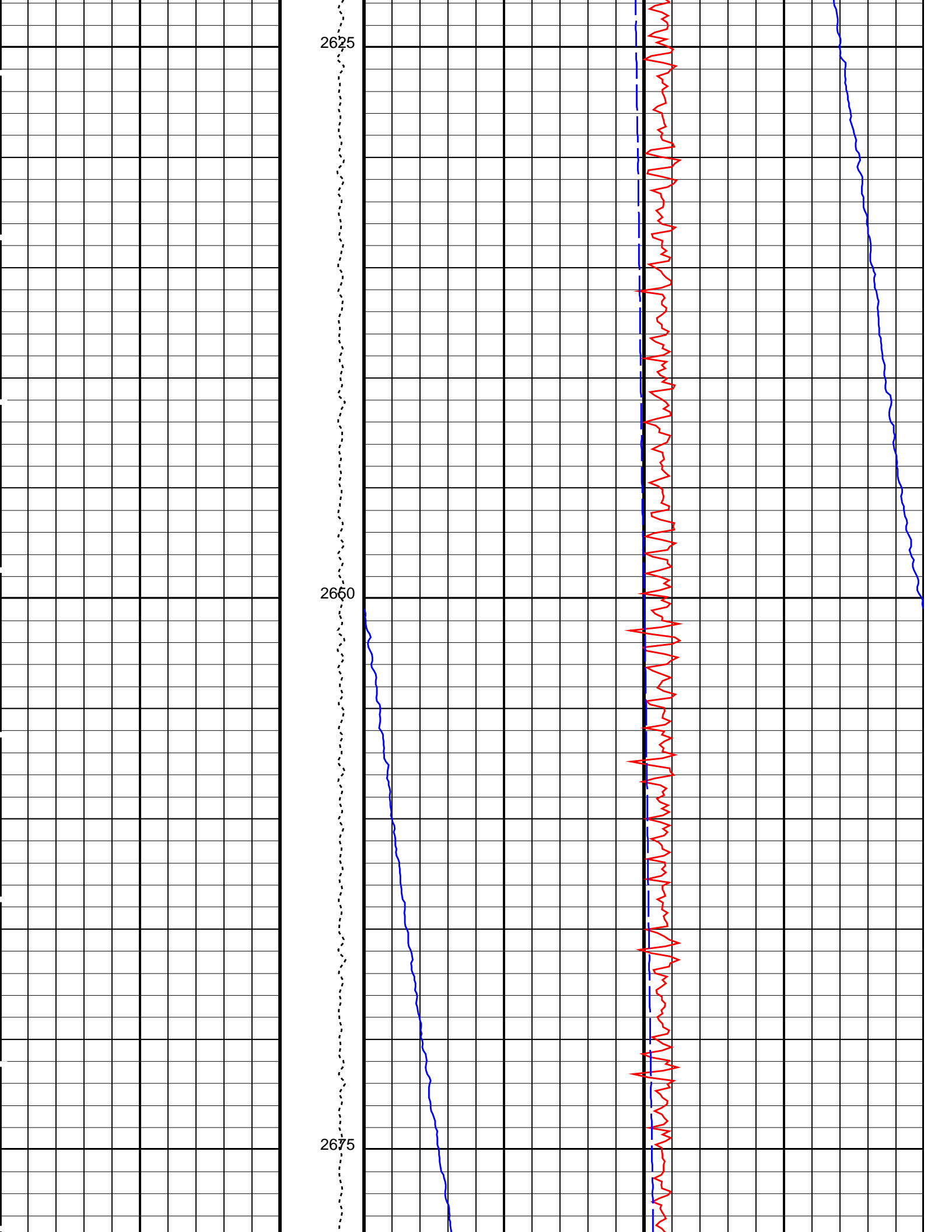
2375

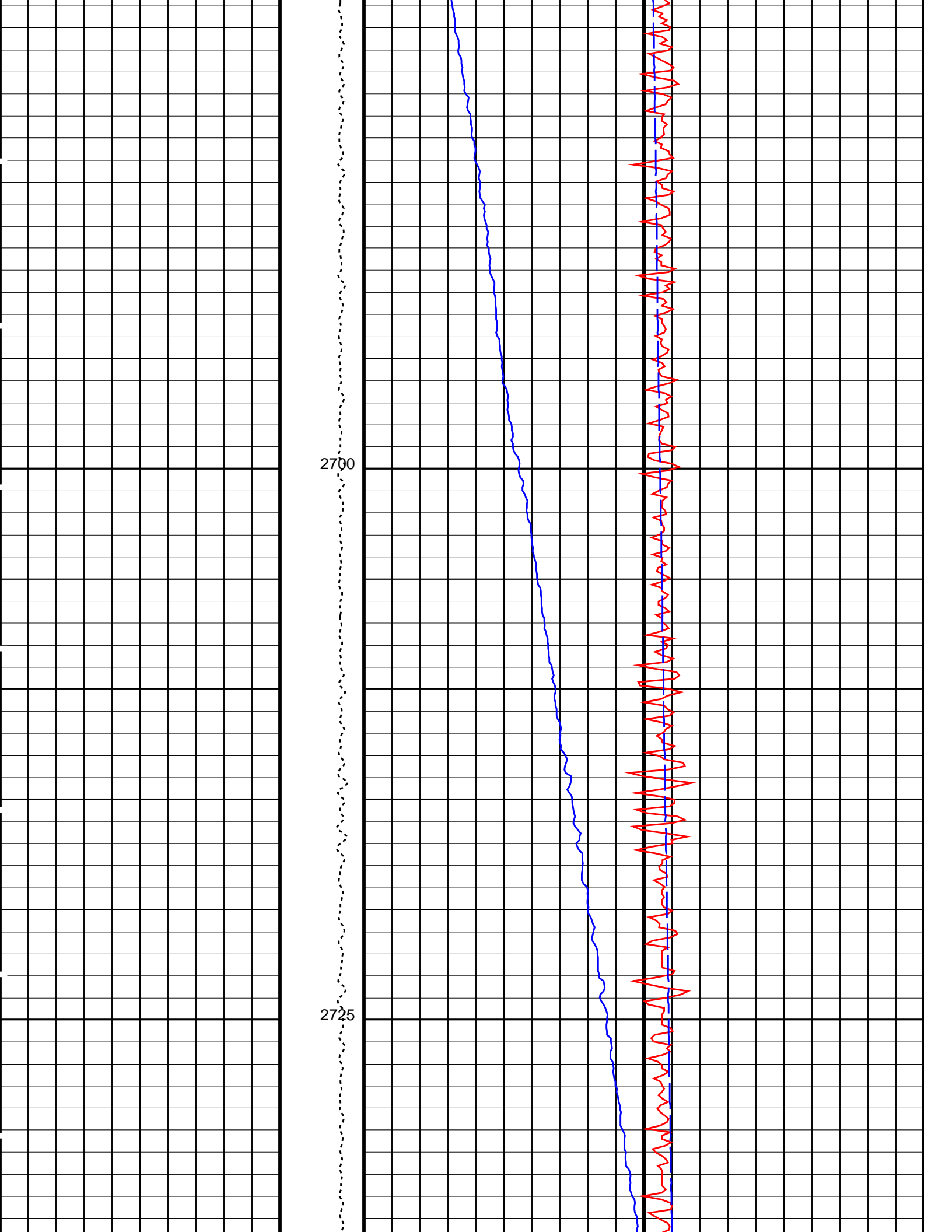


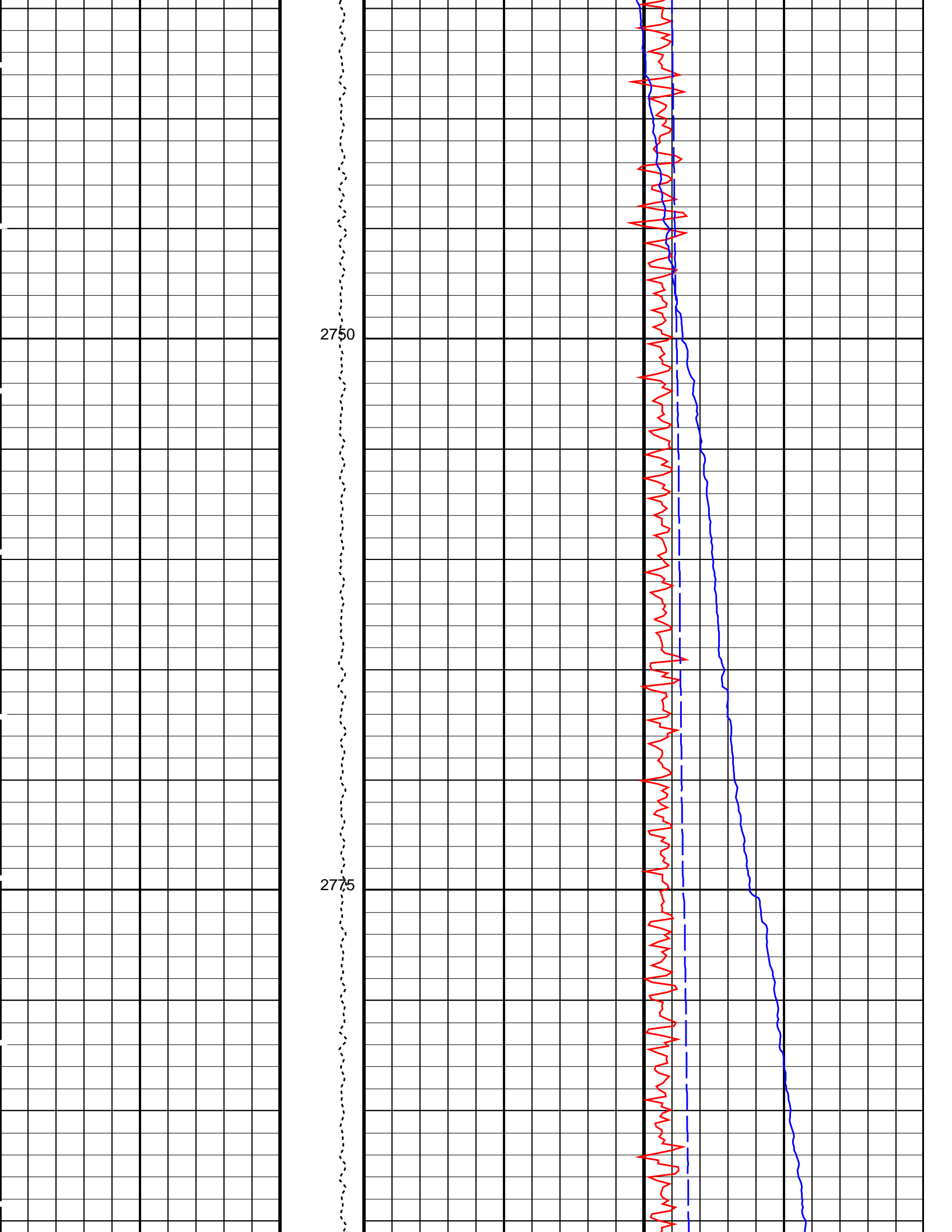


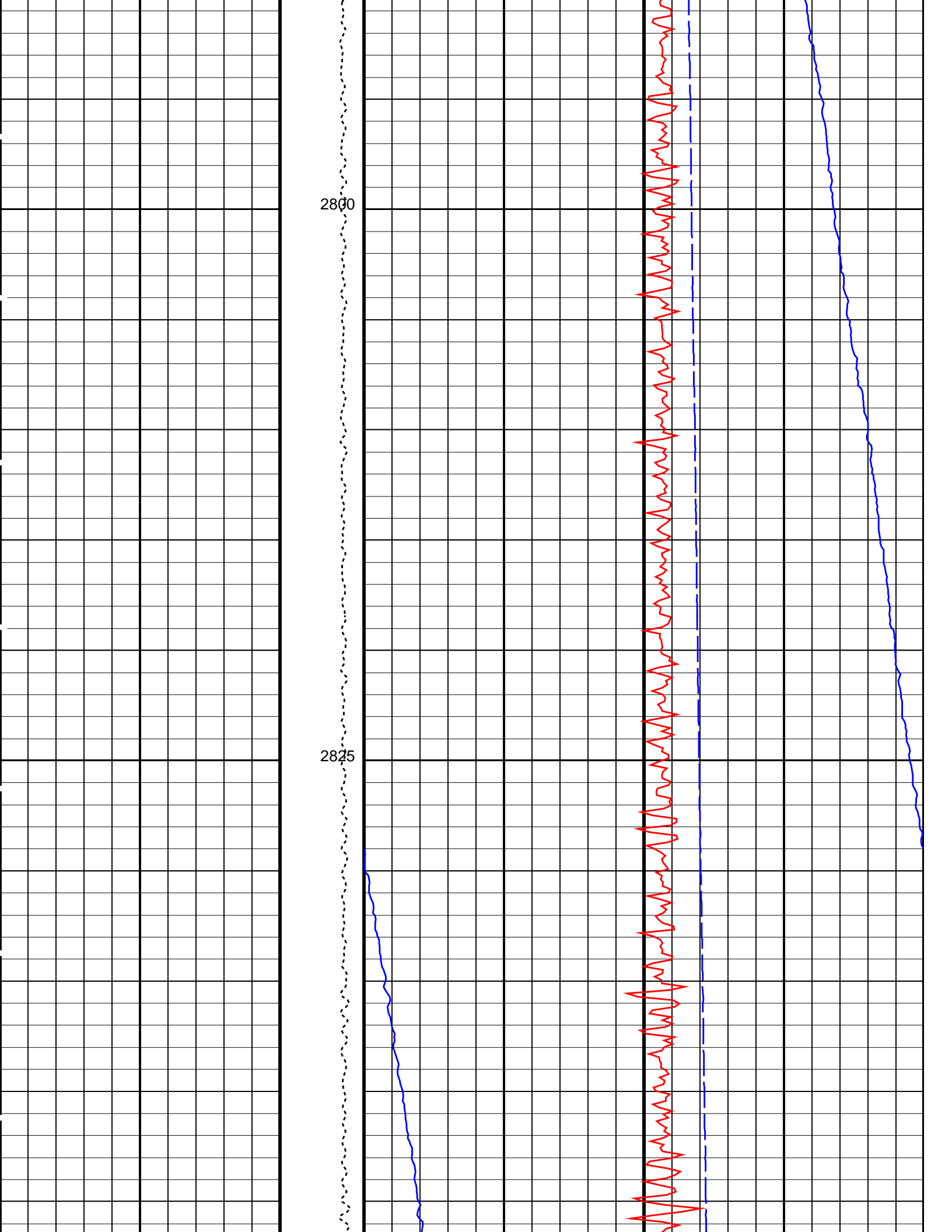


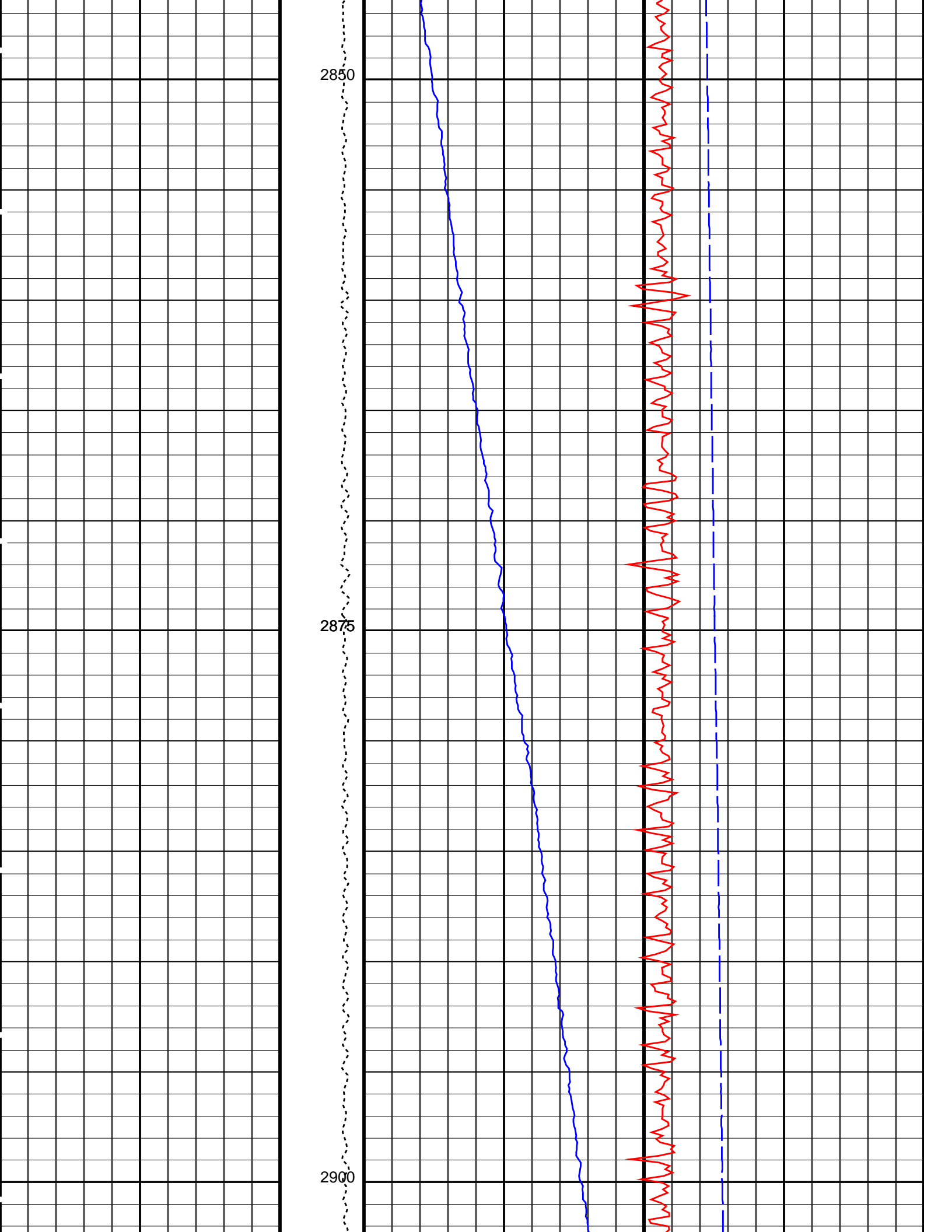


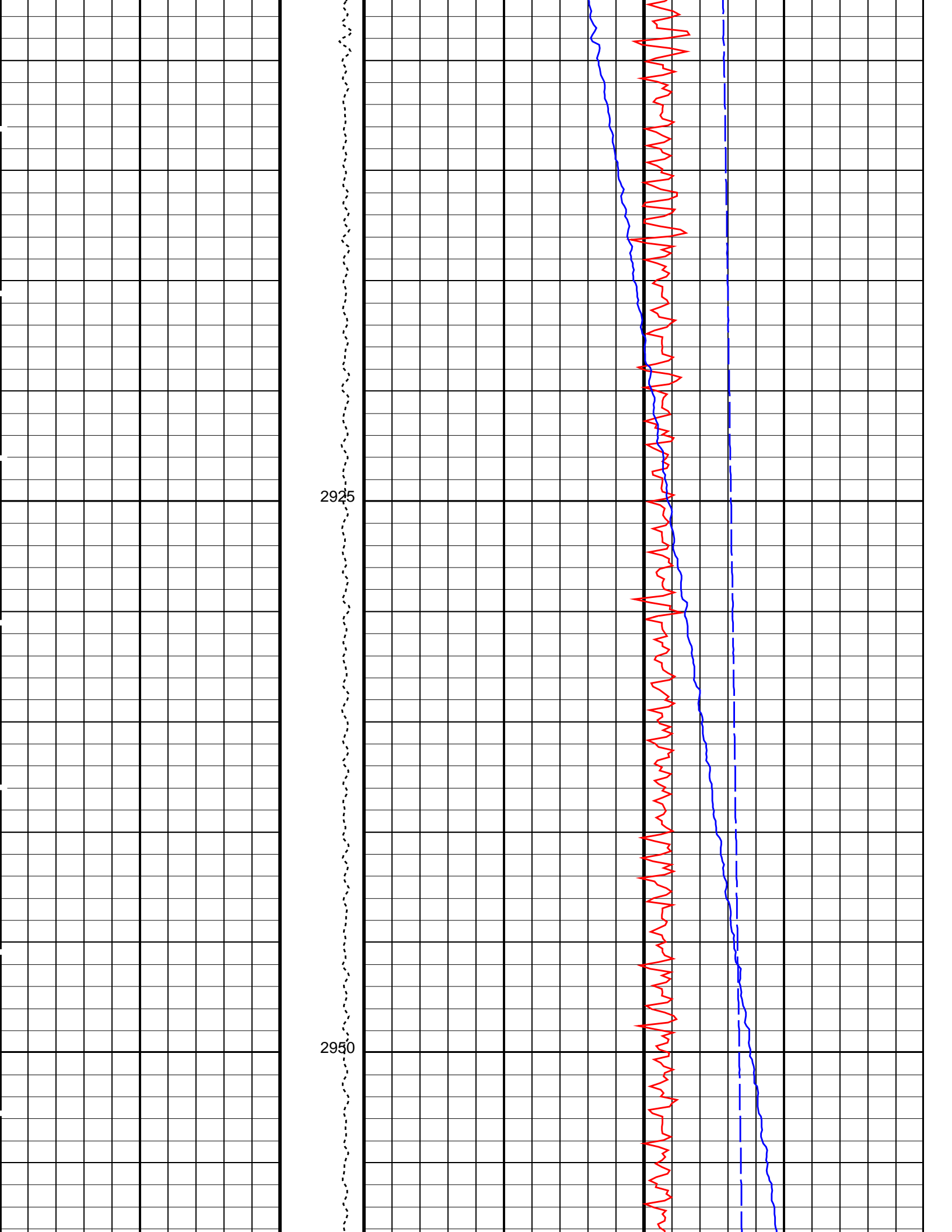


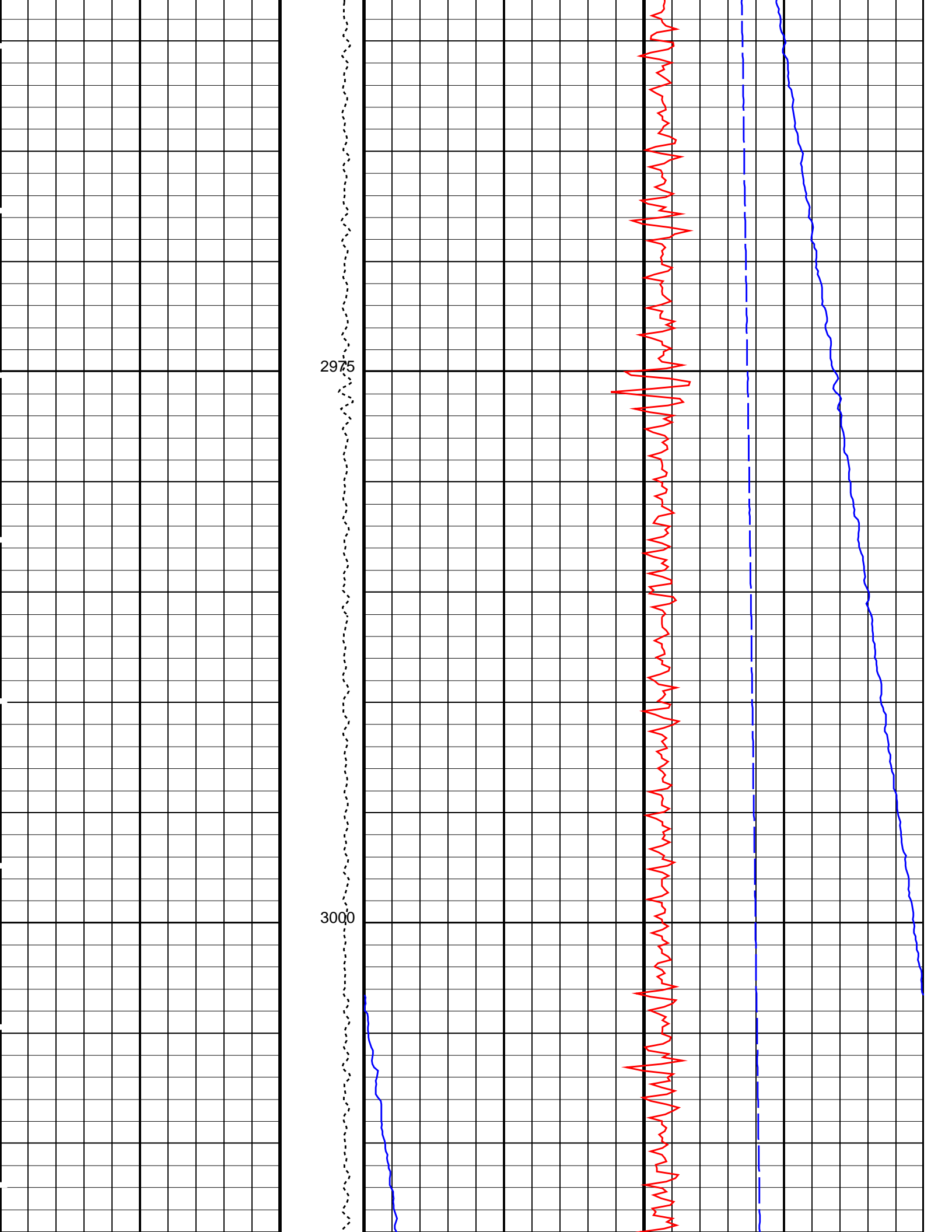


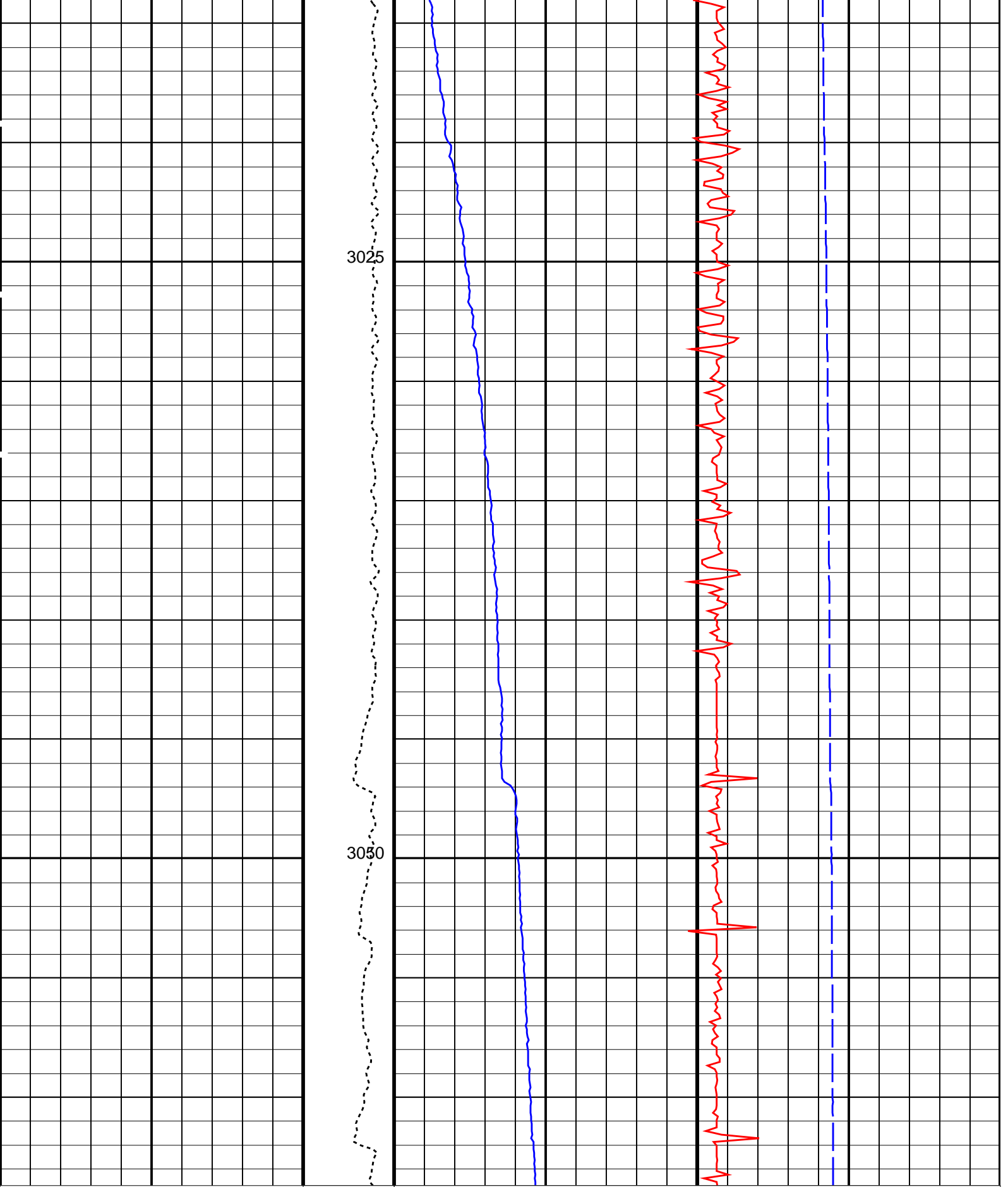












Tension
(TENS)
(LBF)
0 5000

Axial Acceleration (AZ_LDEO)
(M/S²)

20

Well Temperature (WTEP_LDEO)
(DEGC)

0

200

PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value |
|-----------|--|--------|
| DO | System and Miscellaneous | 4.0 M |
| PP | Depth Offset for Playback Playback Processing | NORMAL |

Format: MTT_Logging

Vertical Scale: 1:200

Graphics File Created: 23-Feb-2012 10:32

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MTT_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| EDTC-B | 19C0-187 | | |

Input DLIS Files

| | | | | | |
|---------|---------------------------|----------|-------------------|----------|----------|
| DEFAULT | Flip_MTT_LDEO_HRLA_024LUP | PRODUCER | 23-Feb-2012 10:31 | 3059.7 M | 1674.9 M |
|---------|---------------------------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | |
|---------|--------------------------|-------|----------|-------------------|
| DEFAULT | MTT_LDEO_HRLA_LDL_025PUP | FN:13 | PRODUCER | 23-Feb-2012 10:32 |
|---------|--------------------------|-------|----------|-------------------|



Repeat Pass

MAXIS Field Log

Company: Lamont Doherty

Well: Expedition 340T, Site U1309D

Input DLIS Files

| | | | | | | |
|---------|--------------------------|------|----------|-------------------|----------|----------|
| DEFAULT | MTT_LDEO_HRLA_LDL_018LUP | FN:7 | PRODUCER | 22-Feb-2012 00:04 | 3059.4 M | 2900.9 M |
|---------|--------------------------|------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | | | |
|---------|--------------------------|-------|----------|-------------------|----------|----------|
| DEFAULT | MTT_LDEO_HRLA_LDL_023PUP | FN:12 | PRODUCER | 23-Feb-2012 10:25 | 3064.8 M | 2906.0 M |
|---------|--------------------------|-------|----------|-------------------|----------|----------|

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MTT_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| EDTC-B | 19C0-187 | | |

PIP SUMMARY

Time Mark Every 60 S

Well Temperature, Expanded (WTEP_LDEO)

0 (DEGC)

20

Well Temperature (WTEP_LDEO)

0 (DEGC)

200

Tension
(TENS)

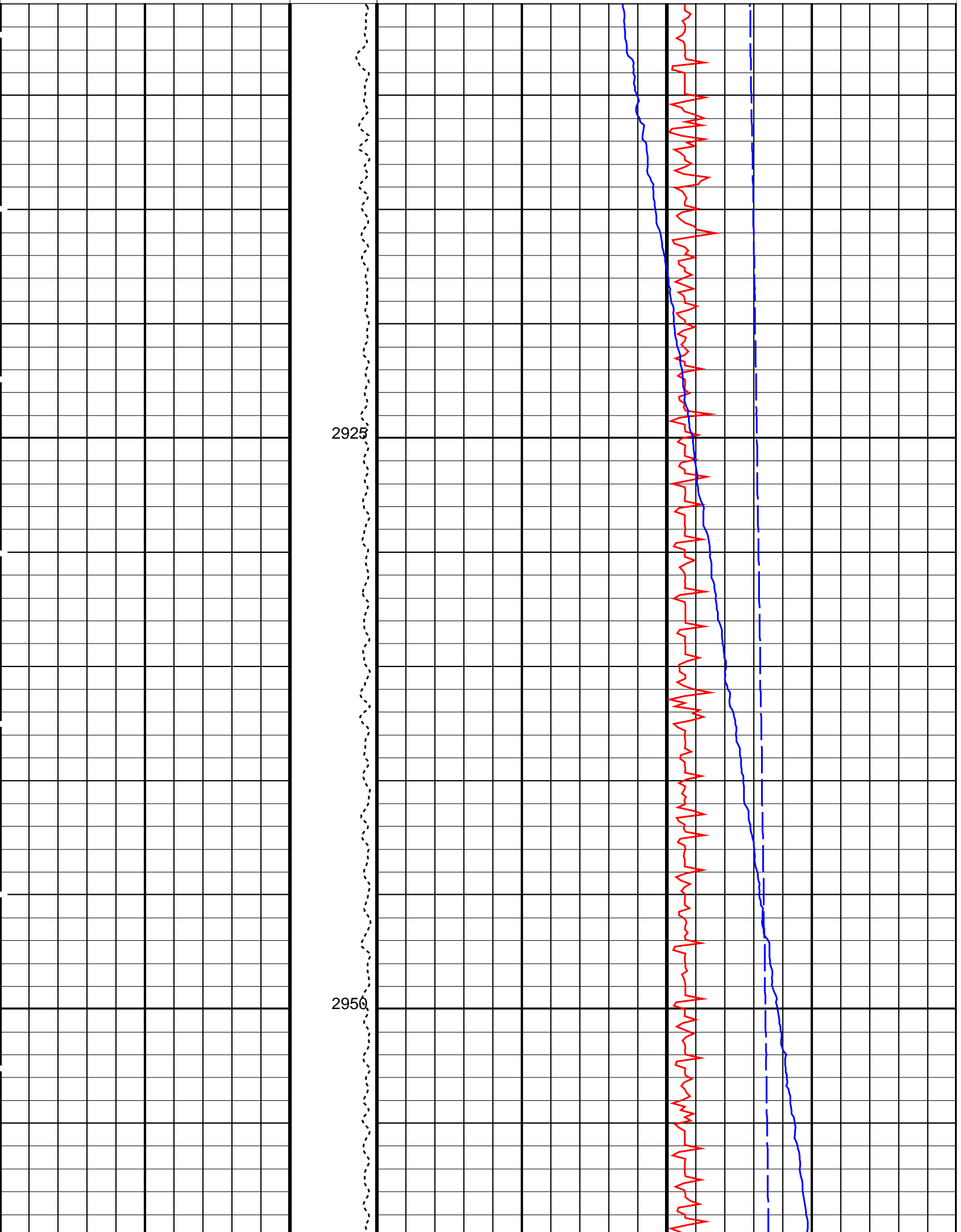
Axial Acceleration (AZ_LDEO)

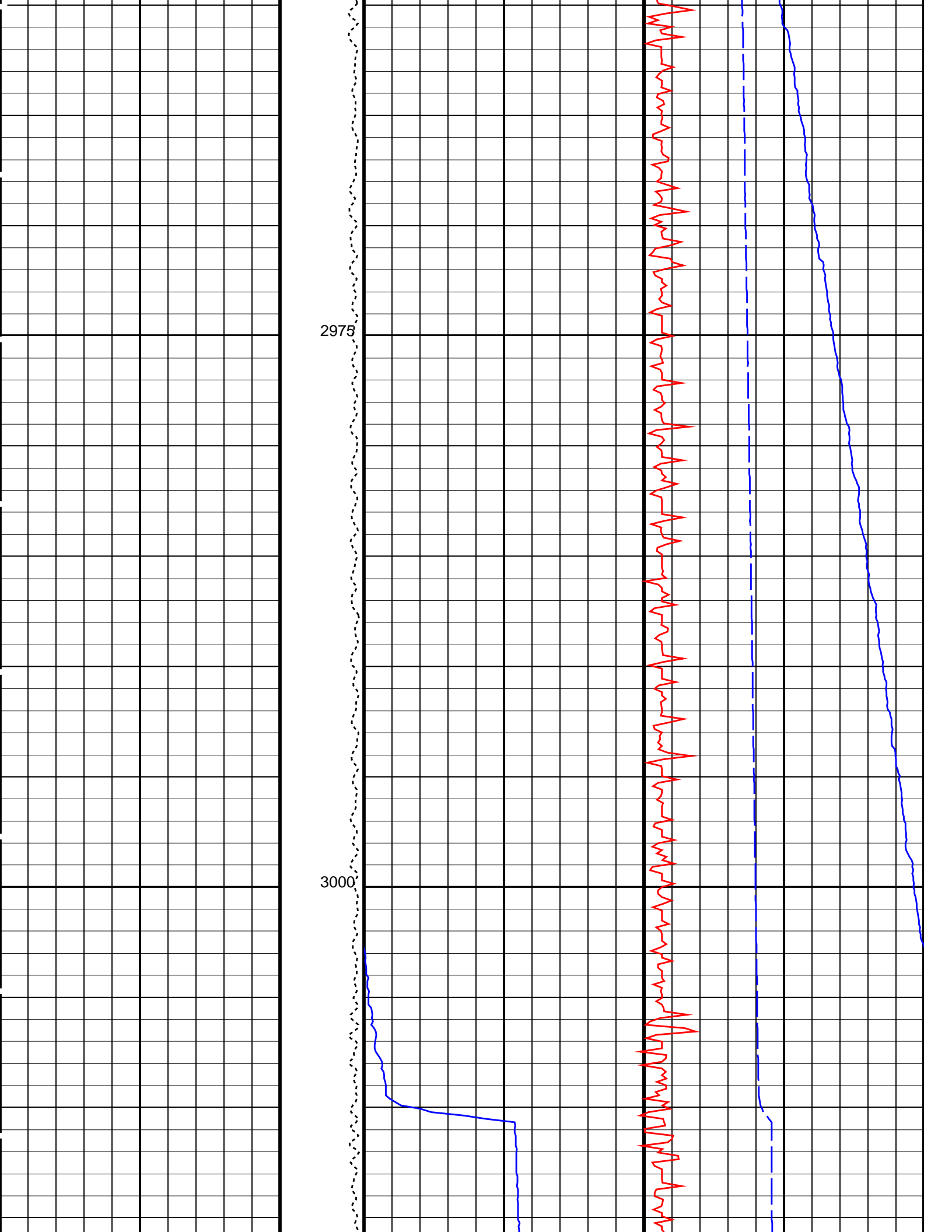
(LBF)
0 5000

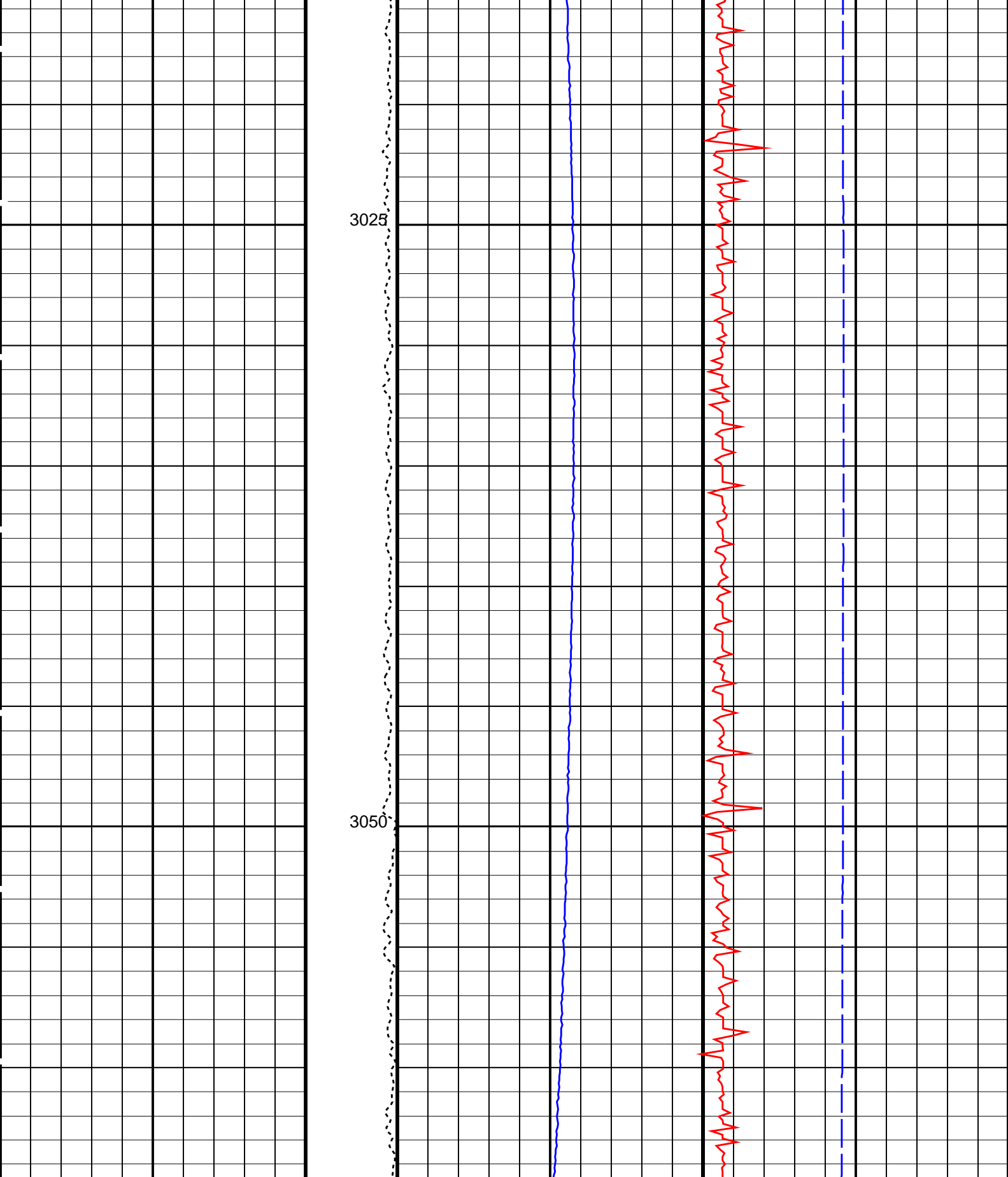
0

(M/S²)

20







Tension (TENS) (LBF)
 0 5000

Axial Acceleration (AZ_LDEO) (M/S²)
 0 20

Well Temperature (WTEP_LDEO) (DEGC)
 0 200

Well Temperature, Expanded (WTEP_LDEO)

PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value |
|-----------|--|-----------------|
| DO | System and Miscellaneous | |
| PP | Depth Offset for Playback Playback Processing | 5.4 M NORMAL |

Format: MTT_Logging Vertical Scale: 1:200 Graphics File Created: 23-Feb-2012 10:25

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MTT_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| EDTC-B | 19C0-187 | | |

Input DLIS Files

| | | | | | | |
|---------|--------------------------|------|----------|-------------------|----------|----------|
| DEFAULT | MTT_LDEO_HRLA_LDL_018LUP | FN:7 | PRODUCER | 22-Feb-2012 00:04 | 3059.4 M | 2900.9 M |
|---------|--------------------------|------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | |
|---------|--------------------------|-------|----------|-------------------|
| DEFAULT | MTT_LDEO_HRLA_LDL_023PUP | FN:12 | PRODUCER | 23-Feb-2012 10:25 |
|---------|--------------------------|-------|----------|-------------------|



Main Pass

MAXIS Field Log

Company: Lamont Doherty

Well: Expedition 340T, Site U1309D

Input DLIS Files

| | | | | | | |
|---------|--------------------------|------|----------|-------------------|----------|----------|
| DEFAULT | MTT_LDEO_HRLA_LDL_019LUP | FN:8 | PRODUCER | 22-Feb-2012 00:42 | 3044.2 M | 1707.2 M |
|---------|--------------------------|------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | | | |
|---------|--------------------------|-------|----------|-------------------|----------|----------|
| DEFAULT | MTT_LDEO_HRLA_LDL_022PUP | FN:11 | PRODUCER | 23-Feb-2012 10:18 | 3049.5 M | 1712.8 M |
|---------|--------------------------|-------|----------|-------------------|----------|----------|

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MTT_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| EDTC-B | 19C0-187 | | |

PIP SUMMARY

Time Mark Every 60 S

Well Temperature, Expanded (WTEP_LDEO)
0 (DEGC) 20

Well Temperature (WTEP_LDEO)
0 (DEGC) 200

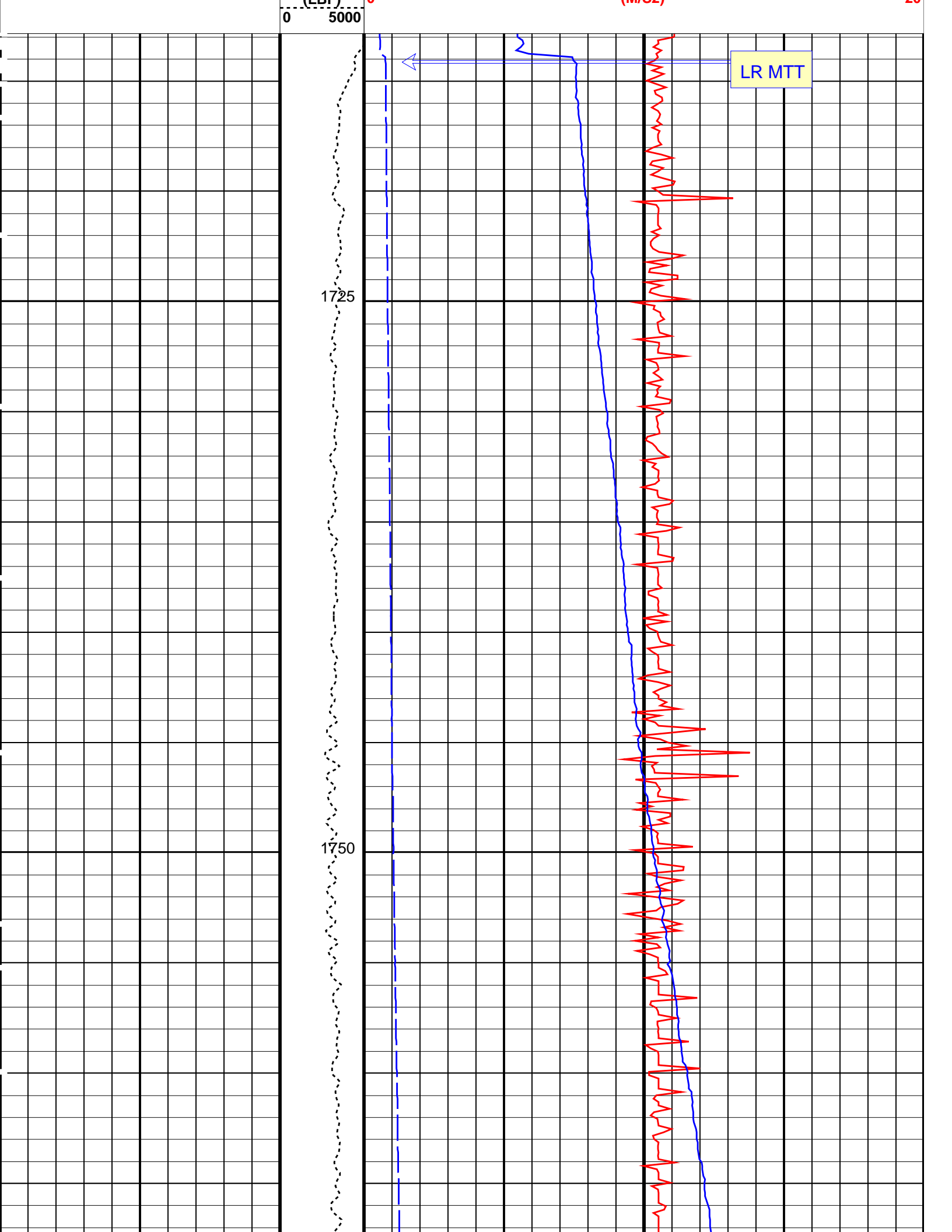
Tension (TENS) (LBF)
Axial Acceleration (AZ_LDEO) (M/S2)
0 20

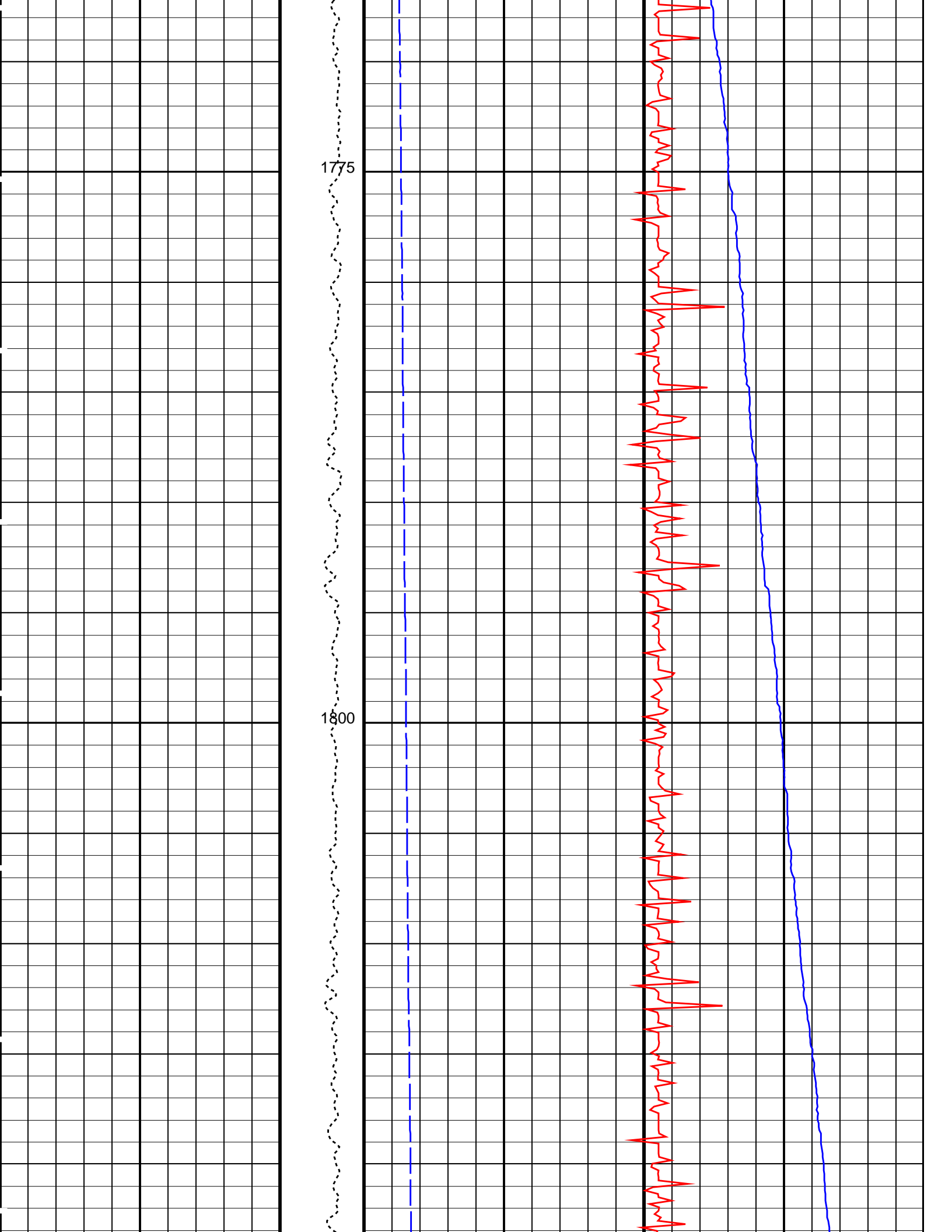
0 5000

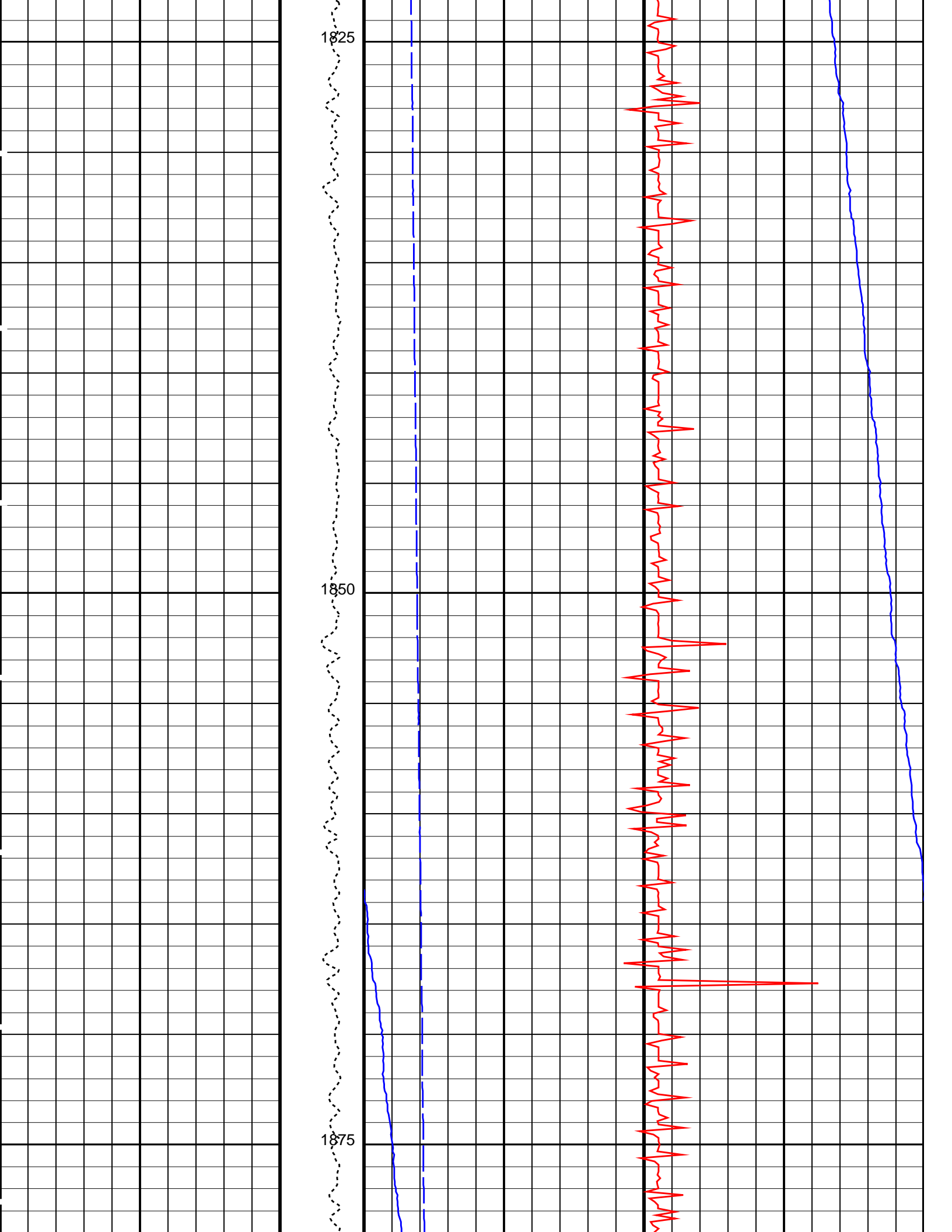
1725

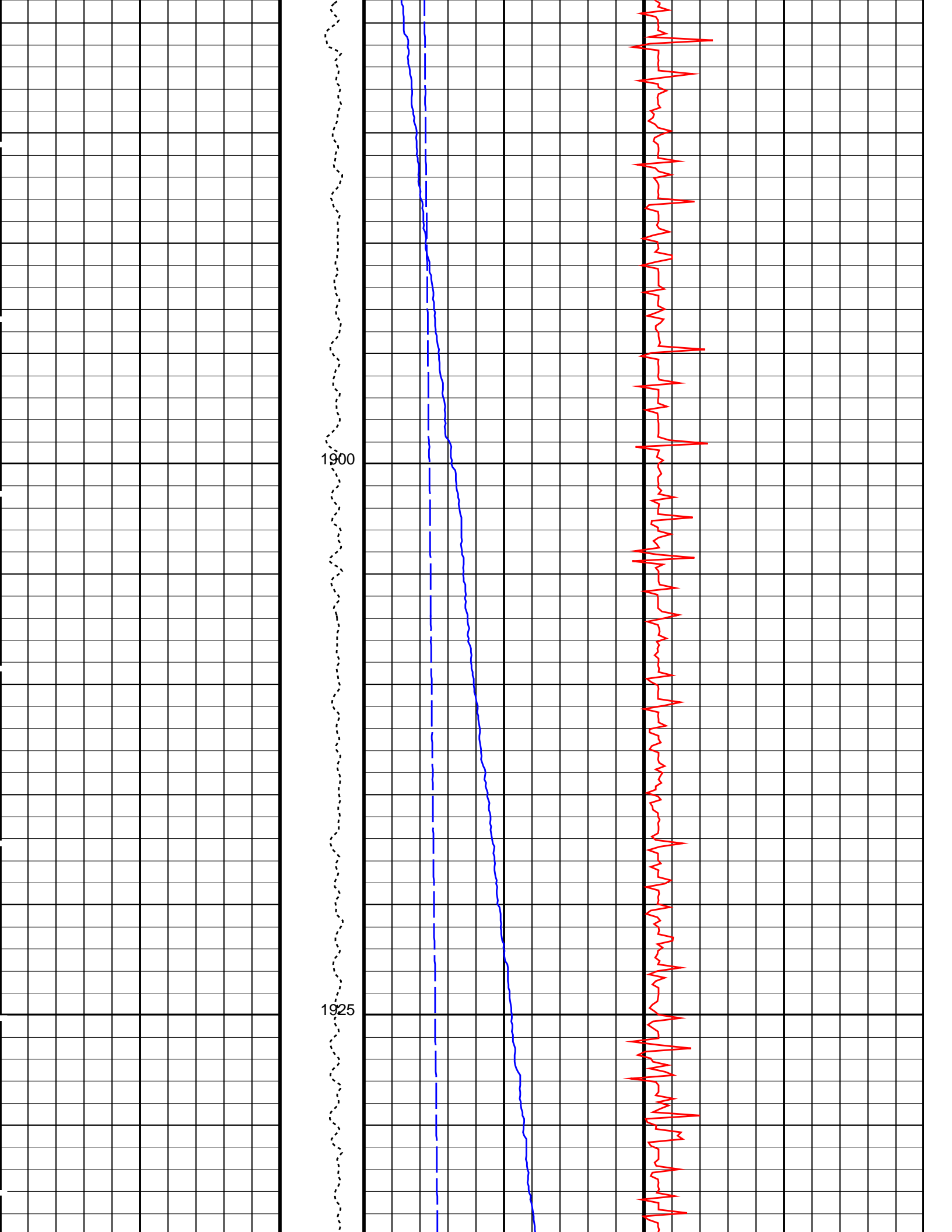
1750

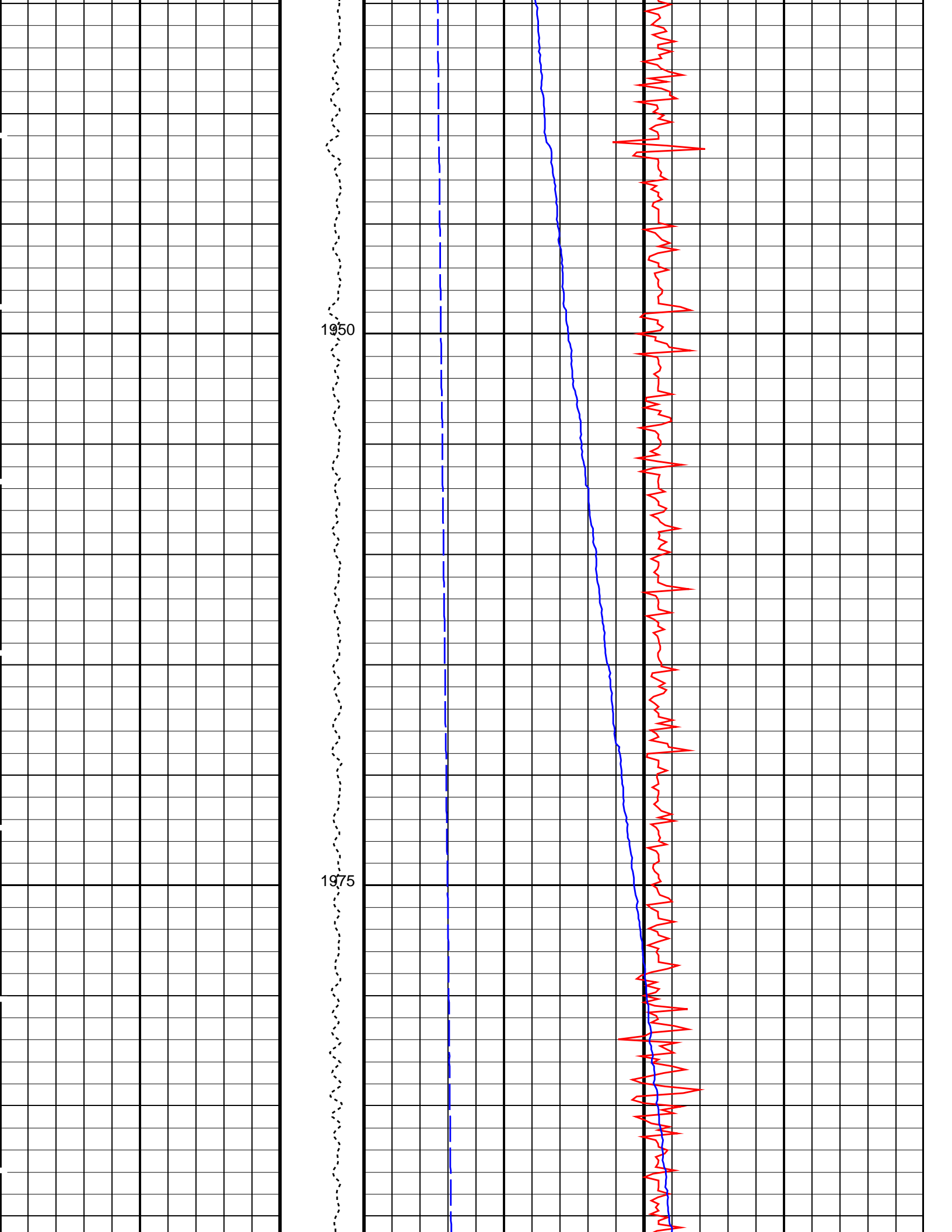
LR MTT

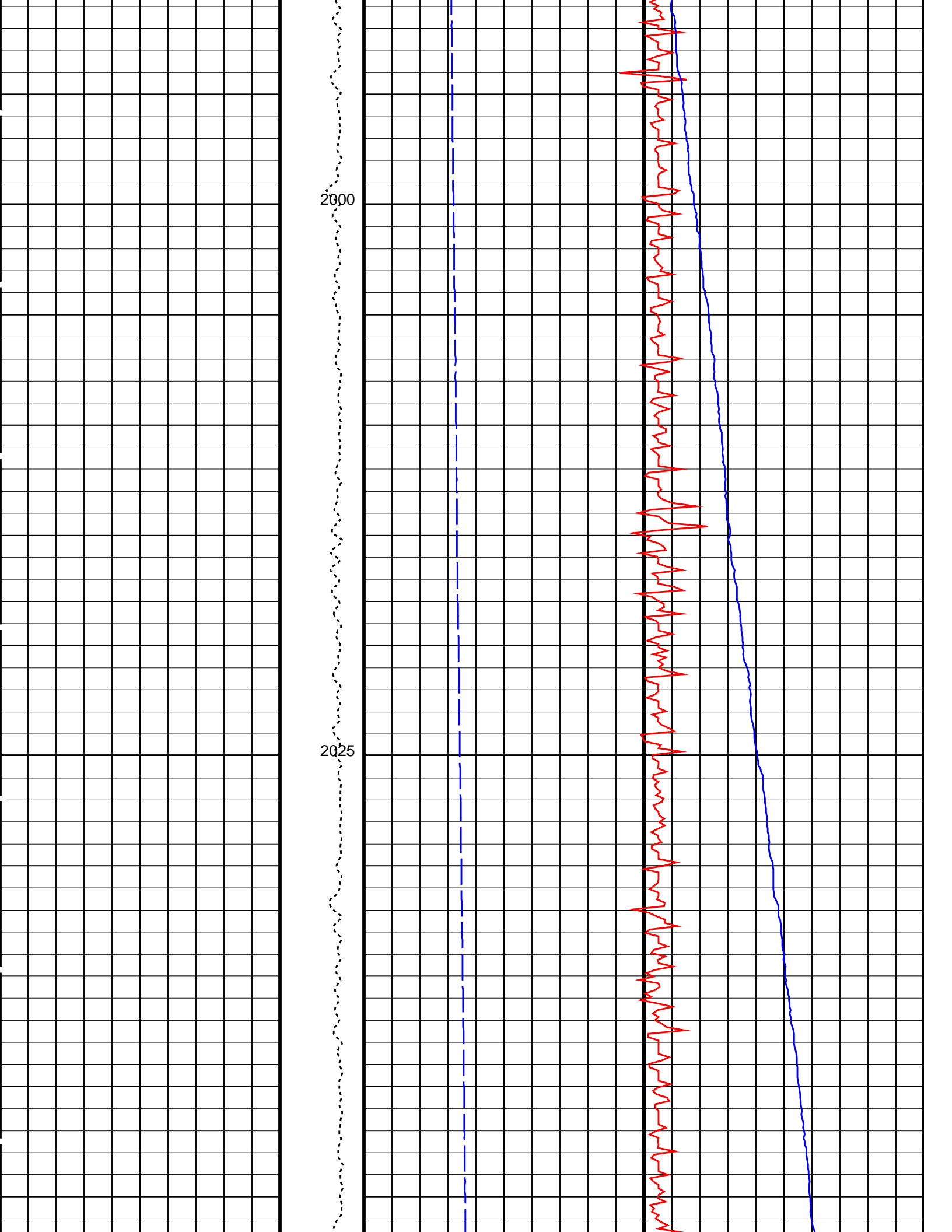


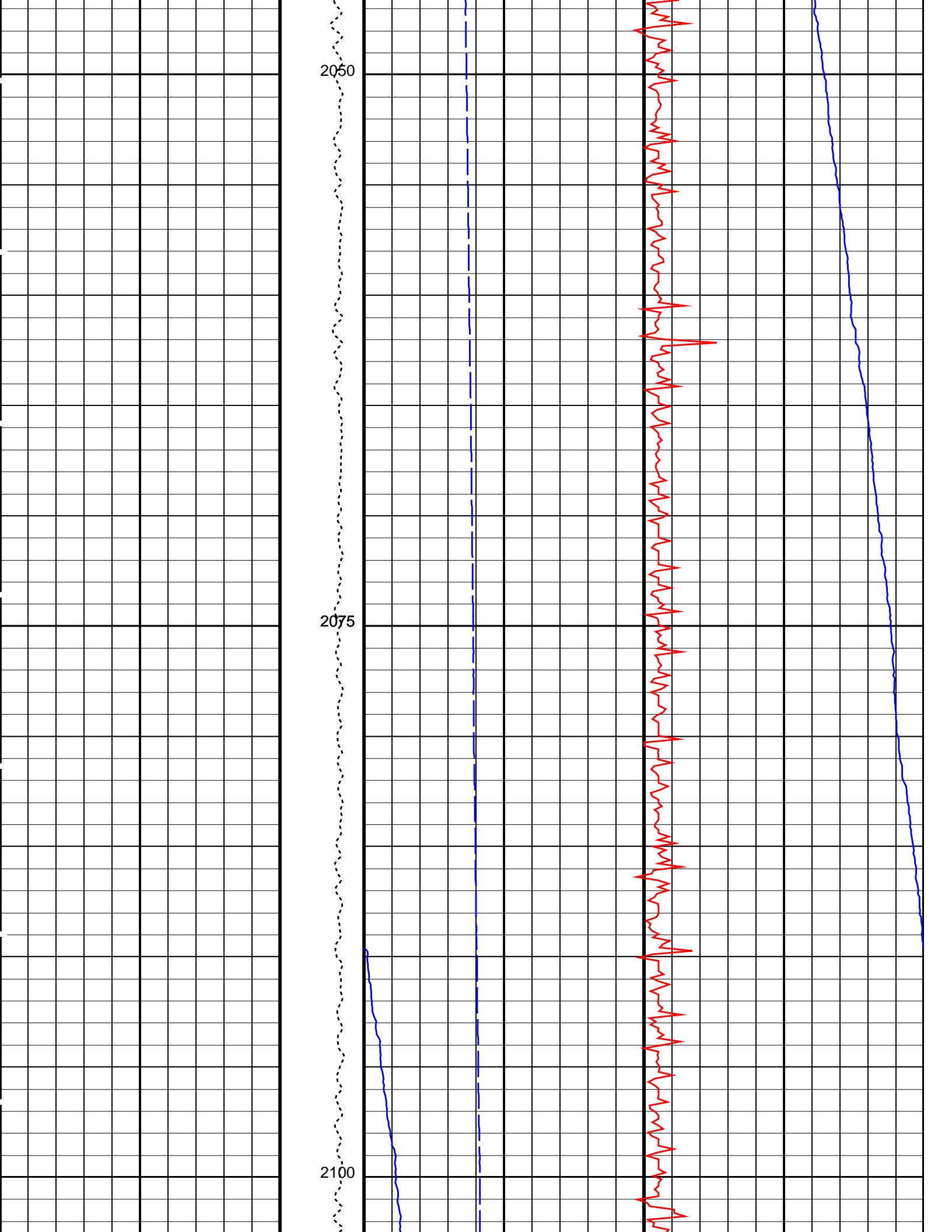


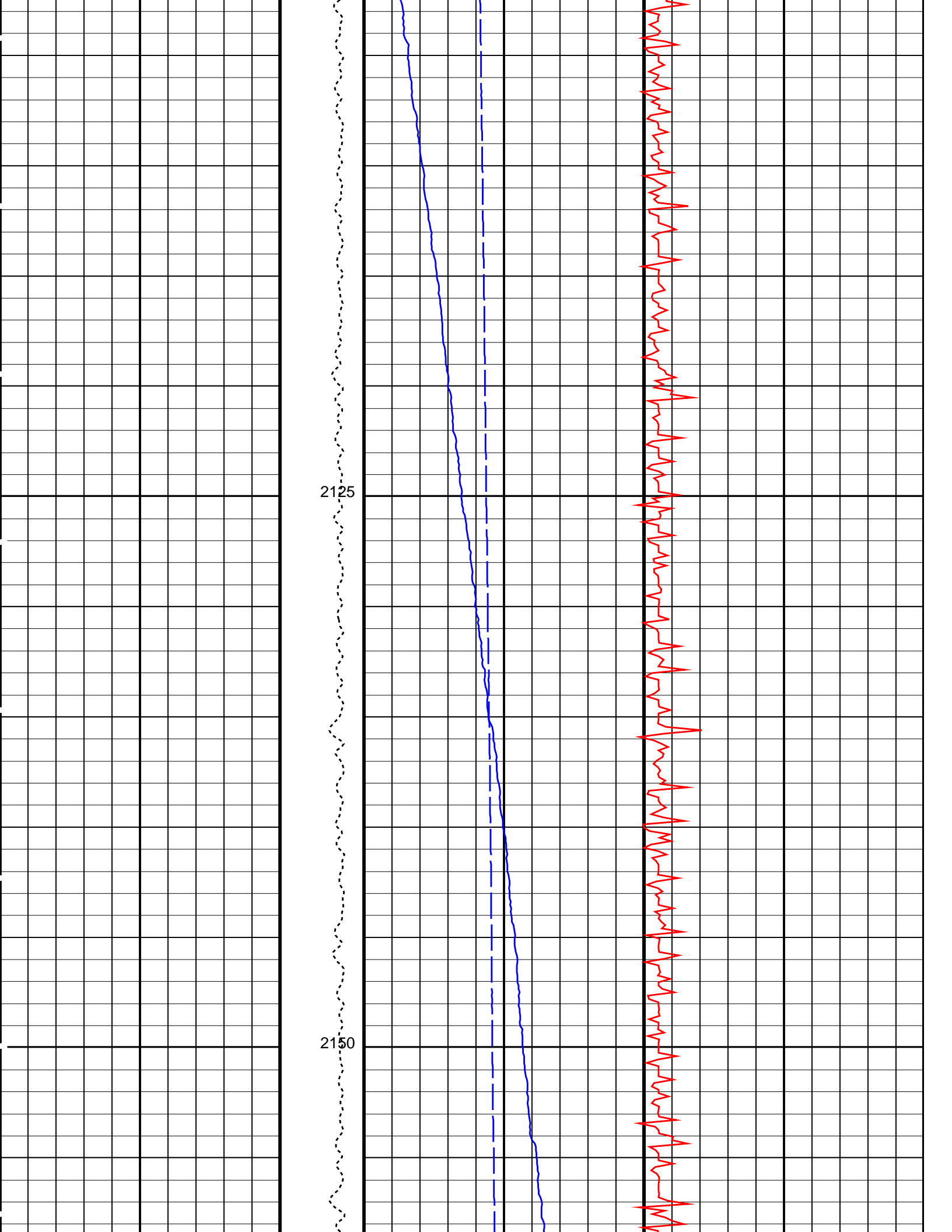


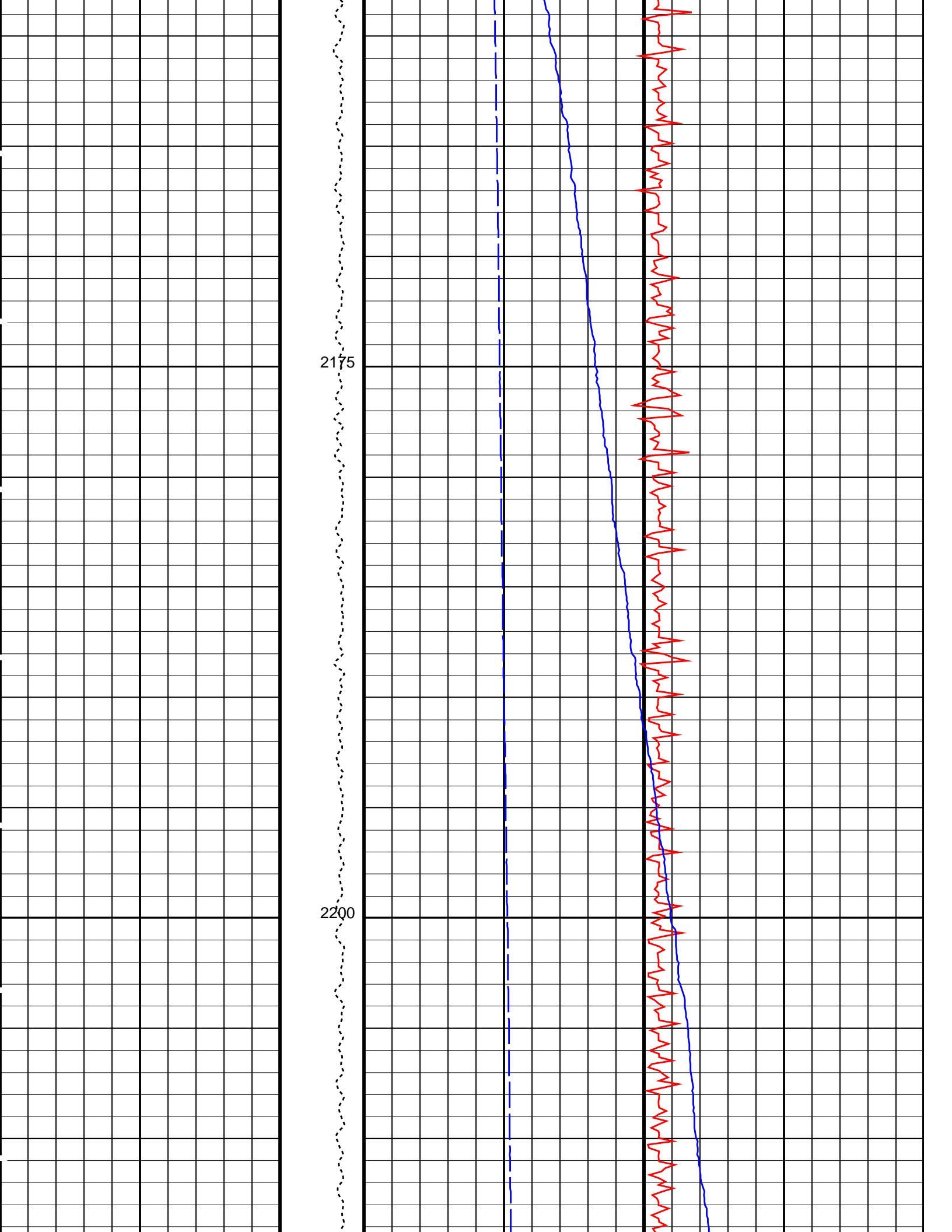


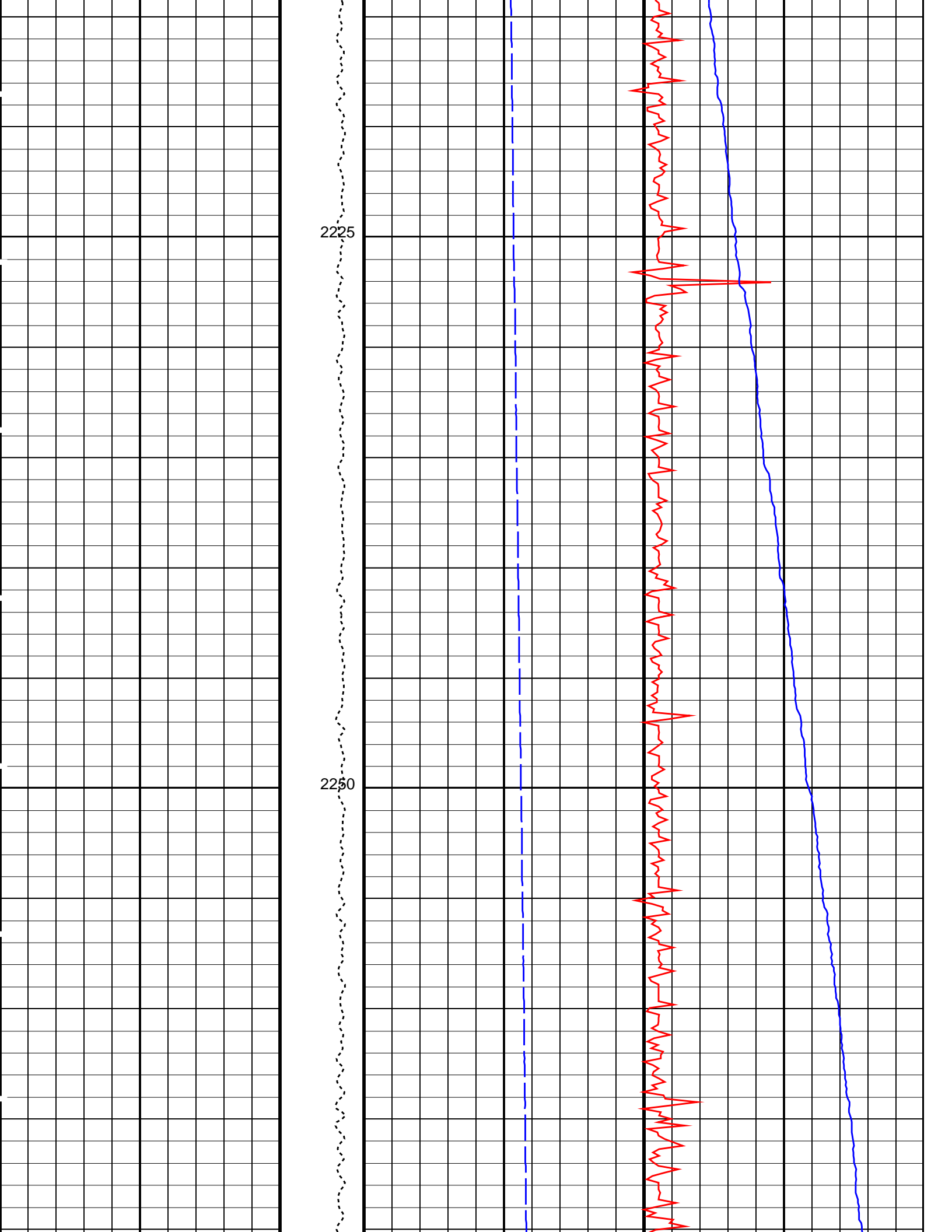


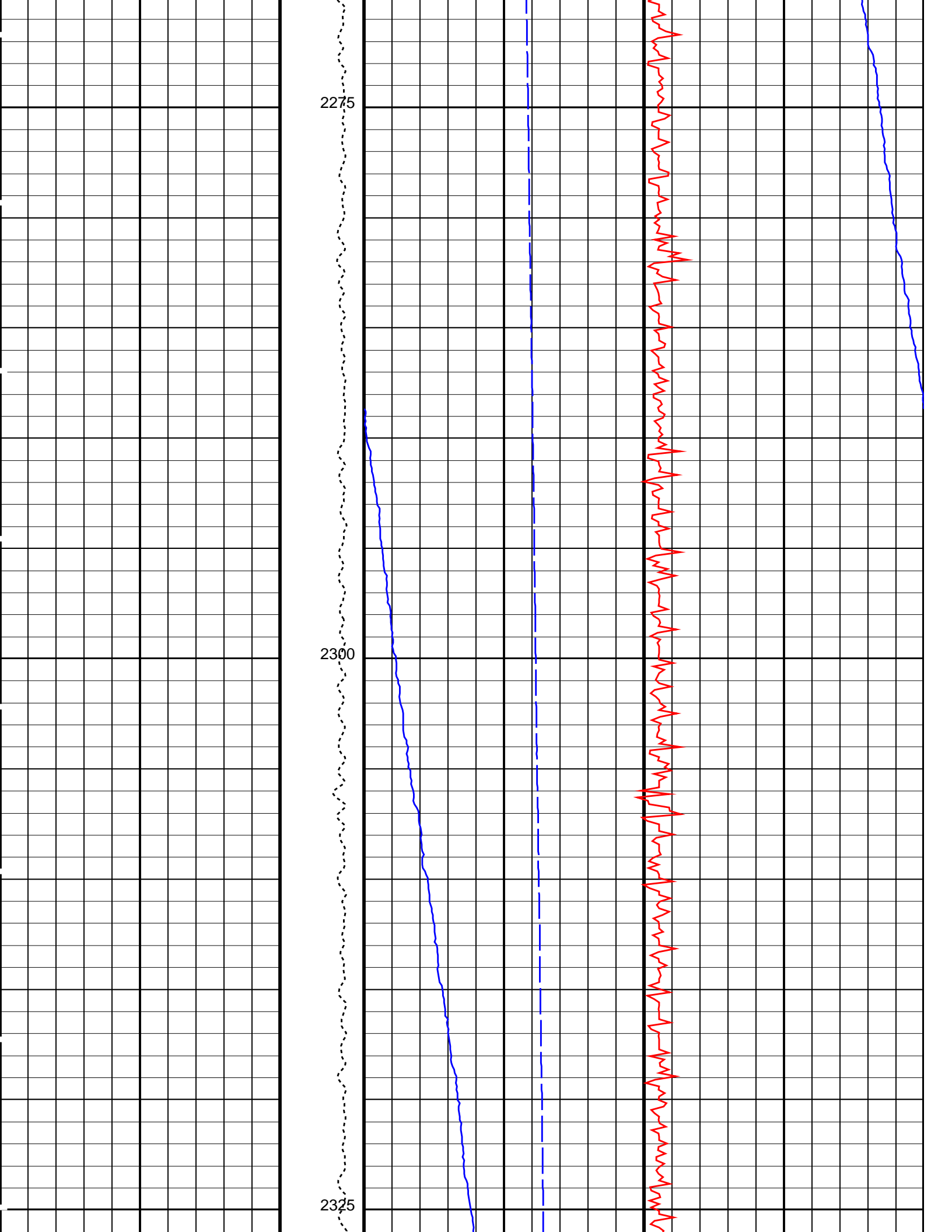


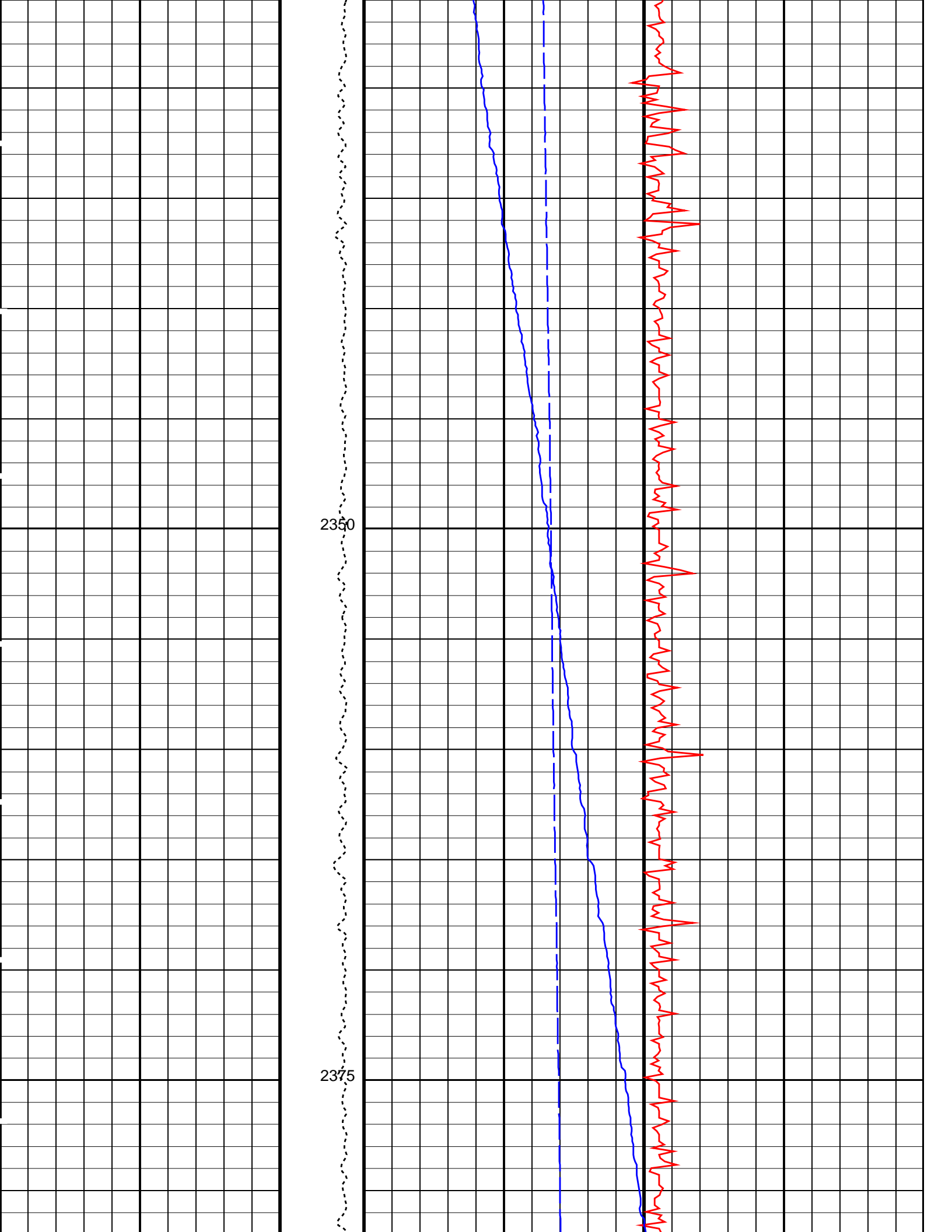


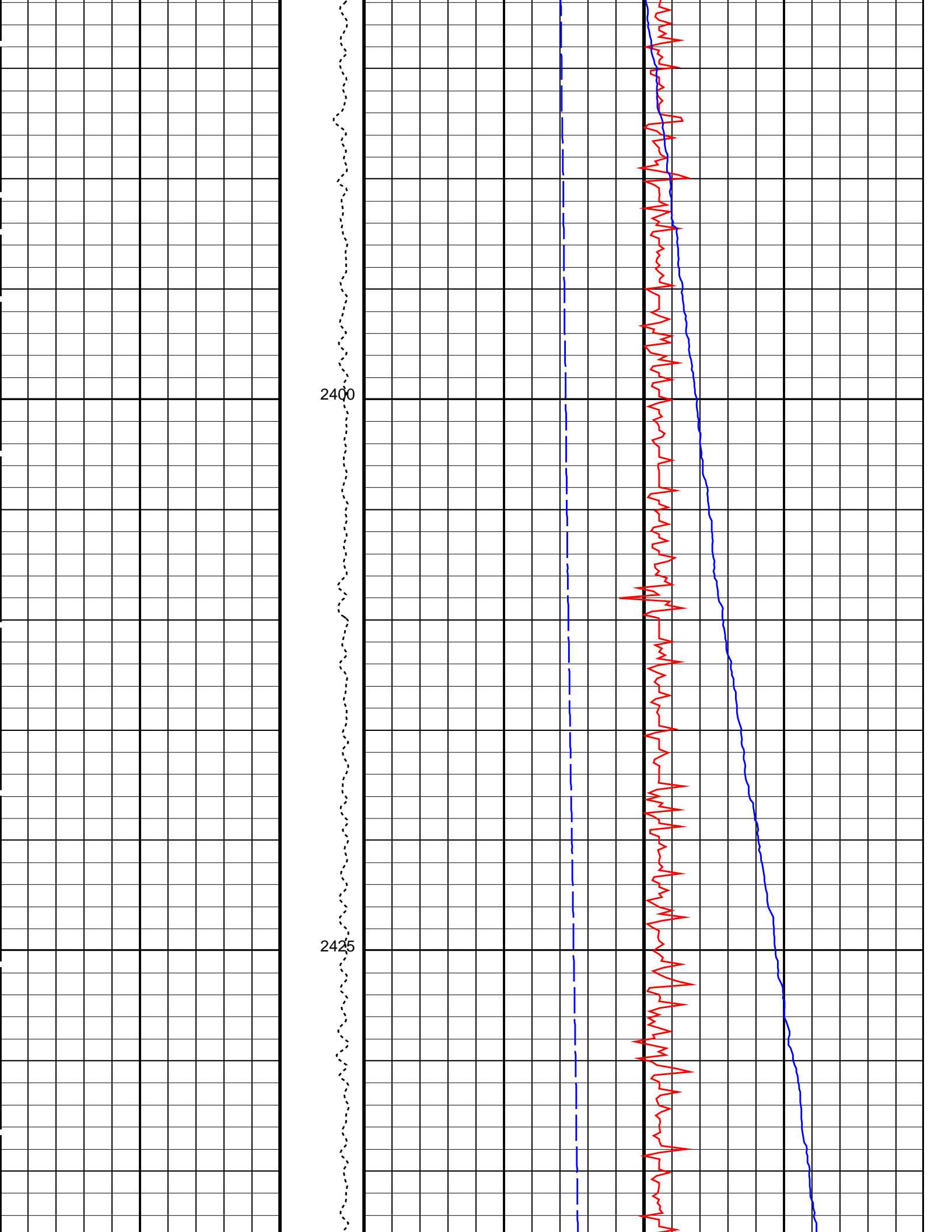


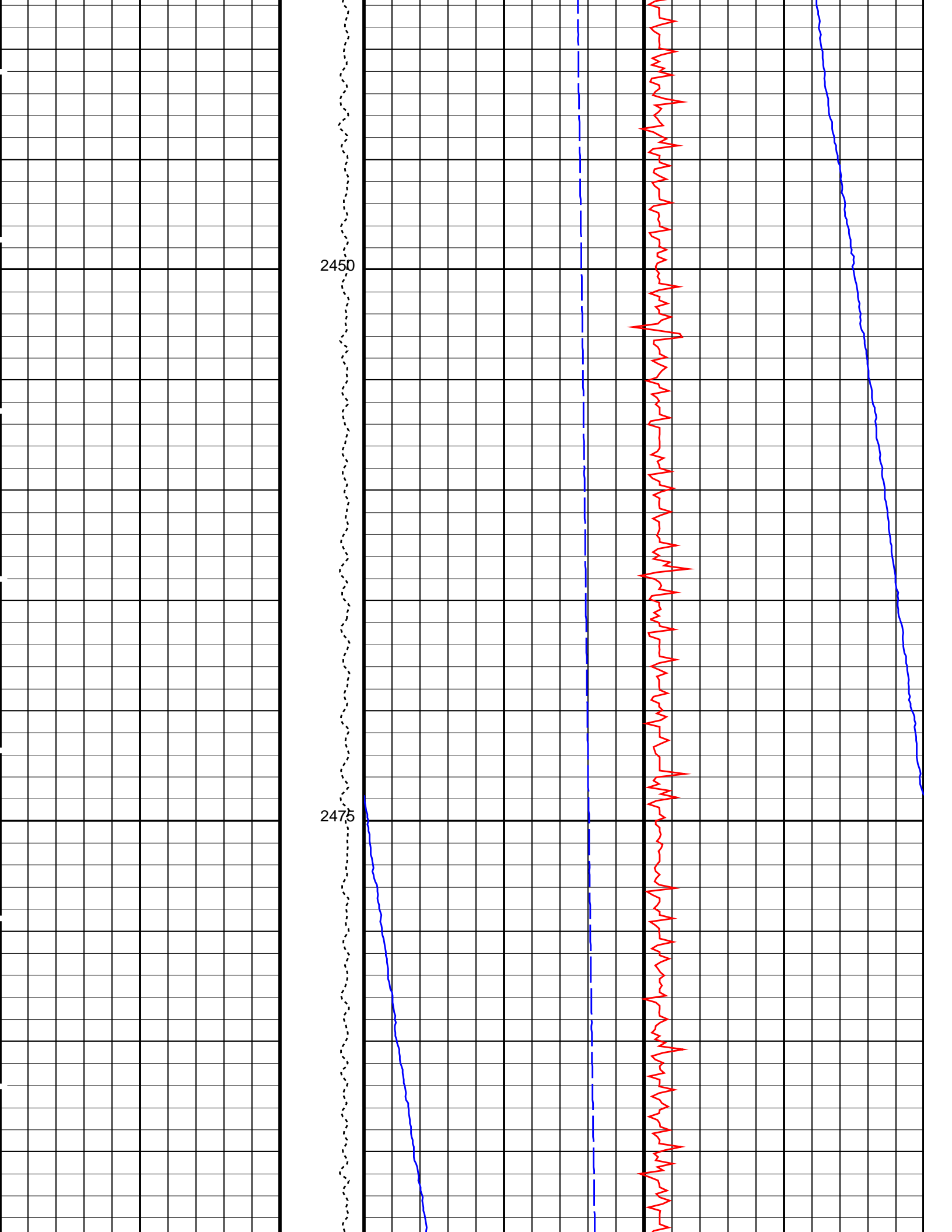


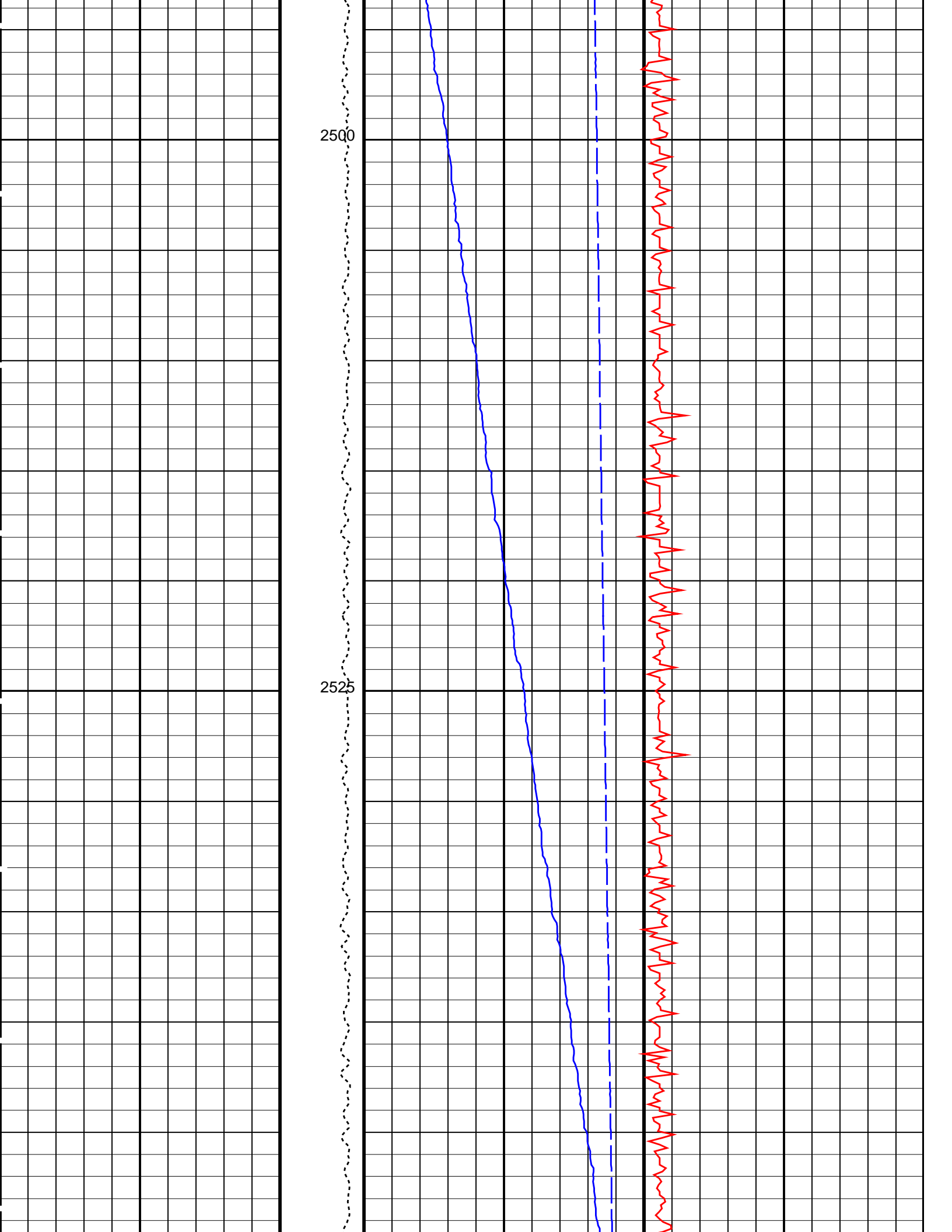


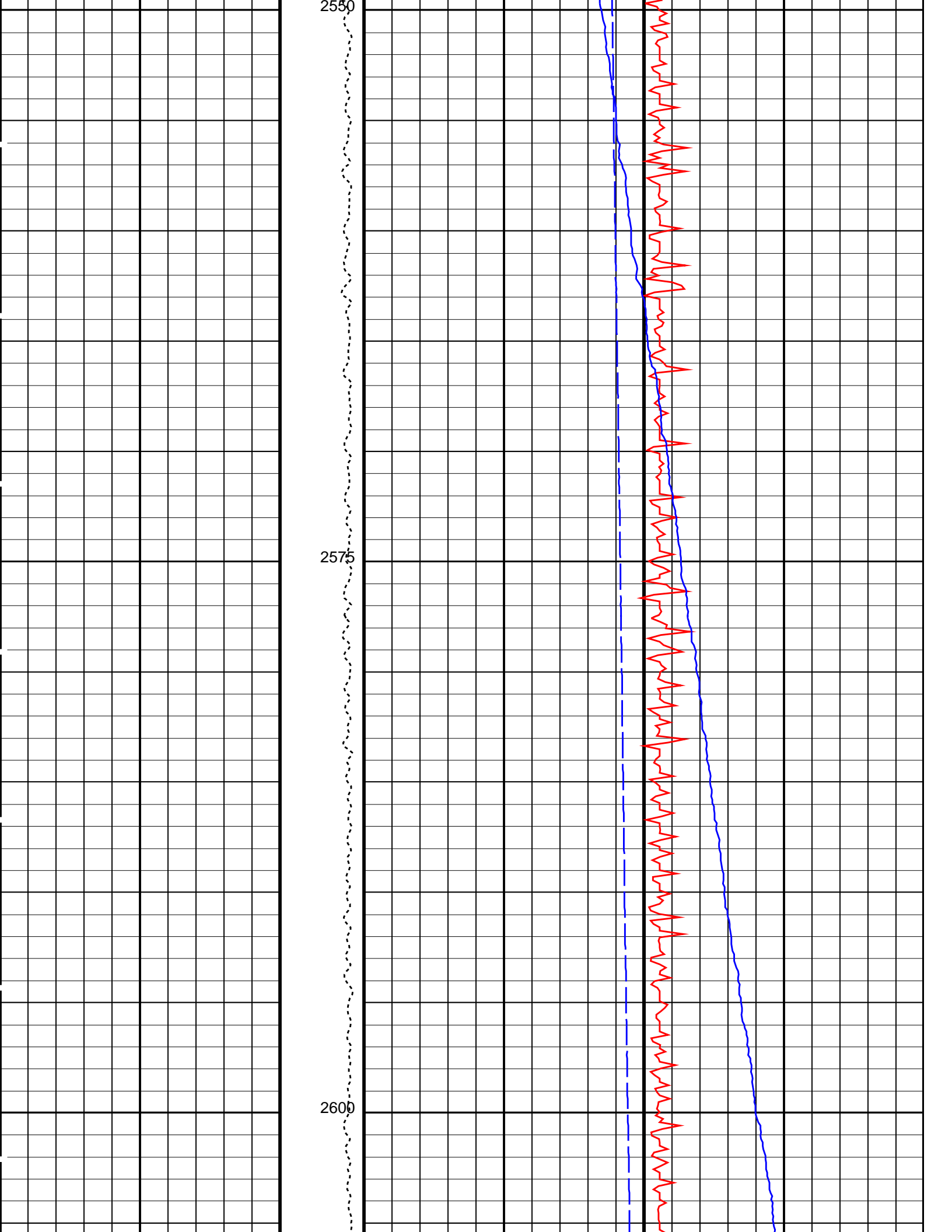


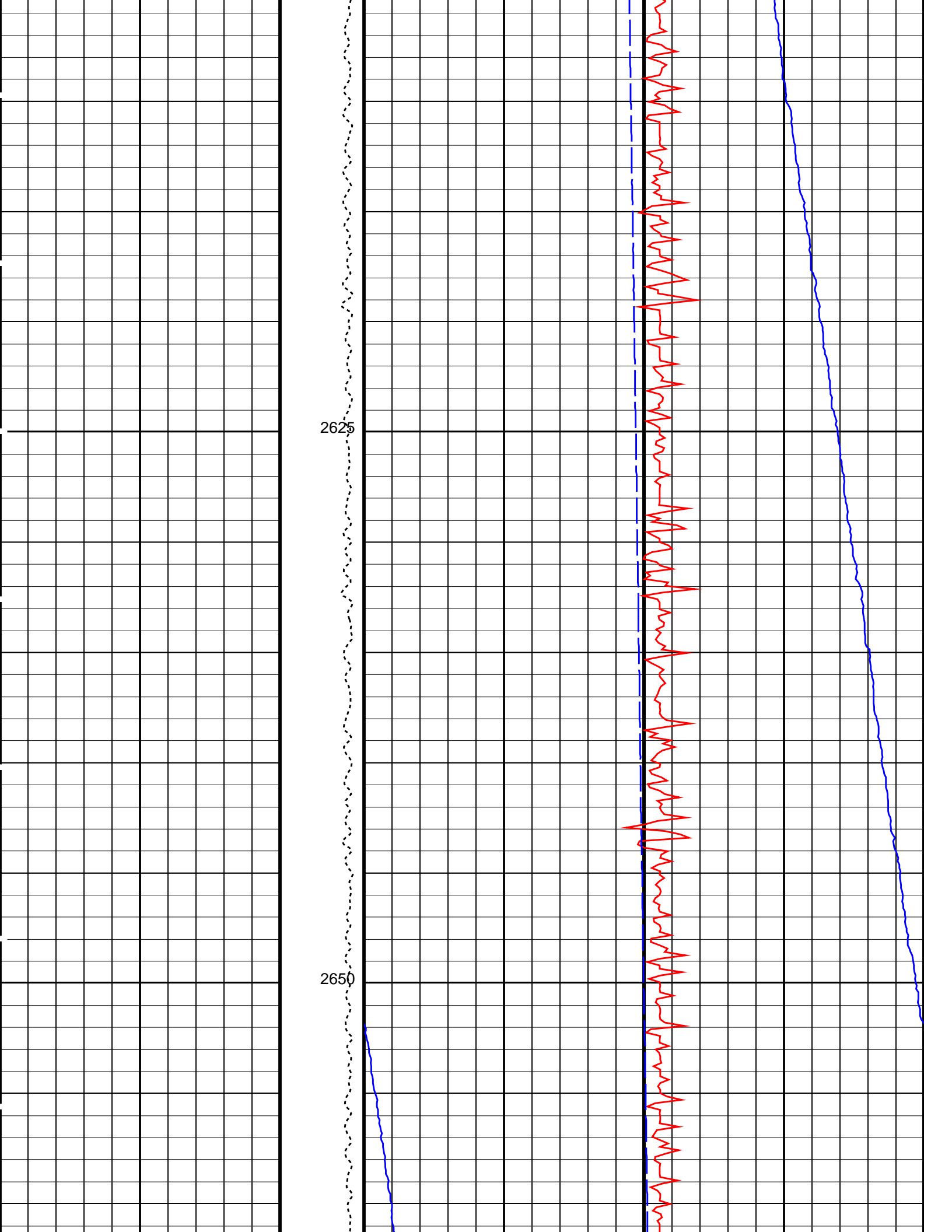


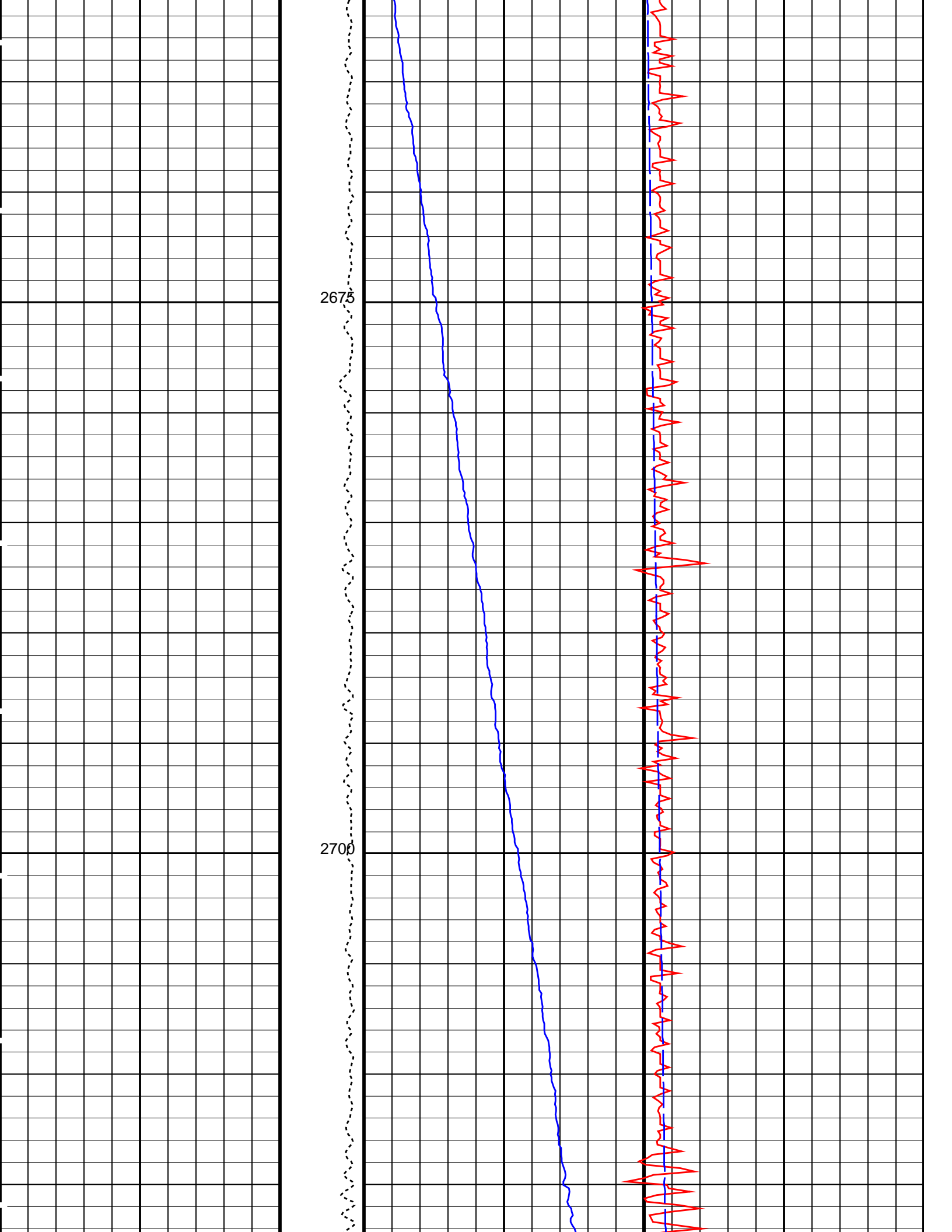


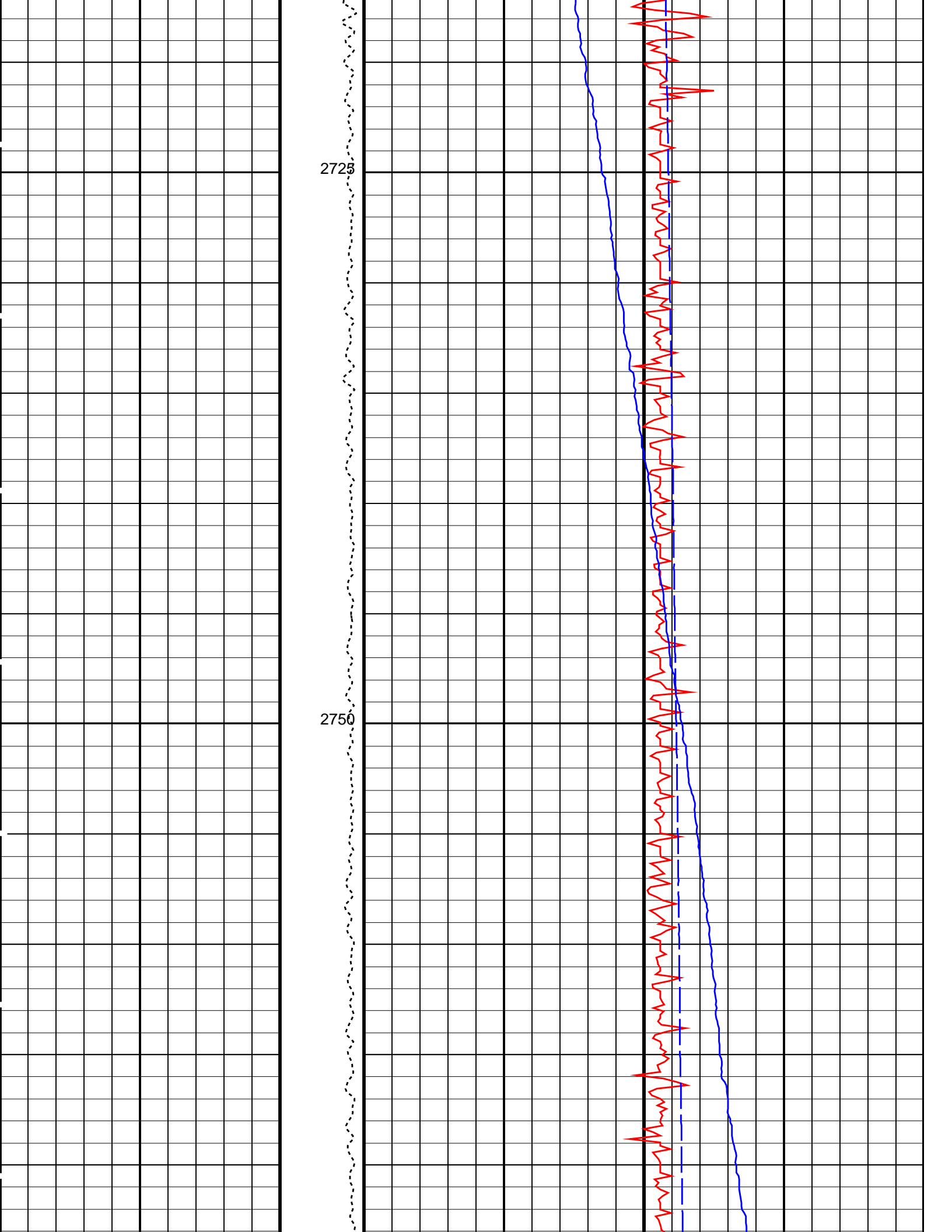


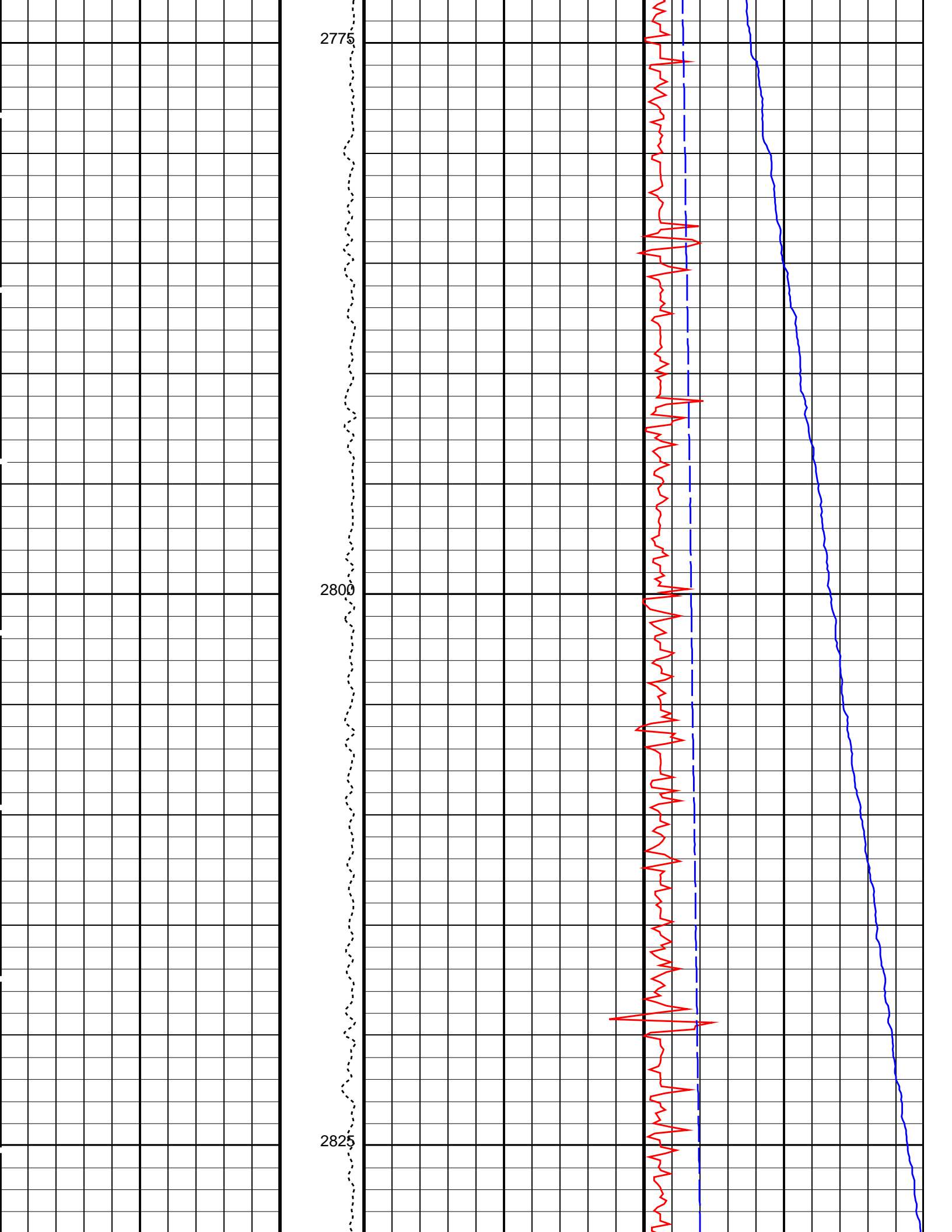


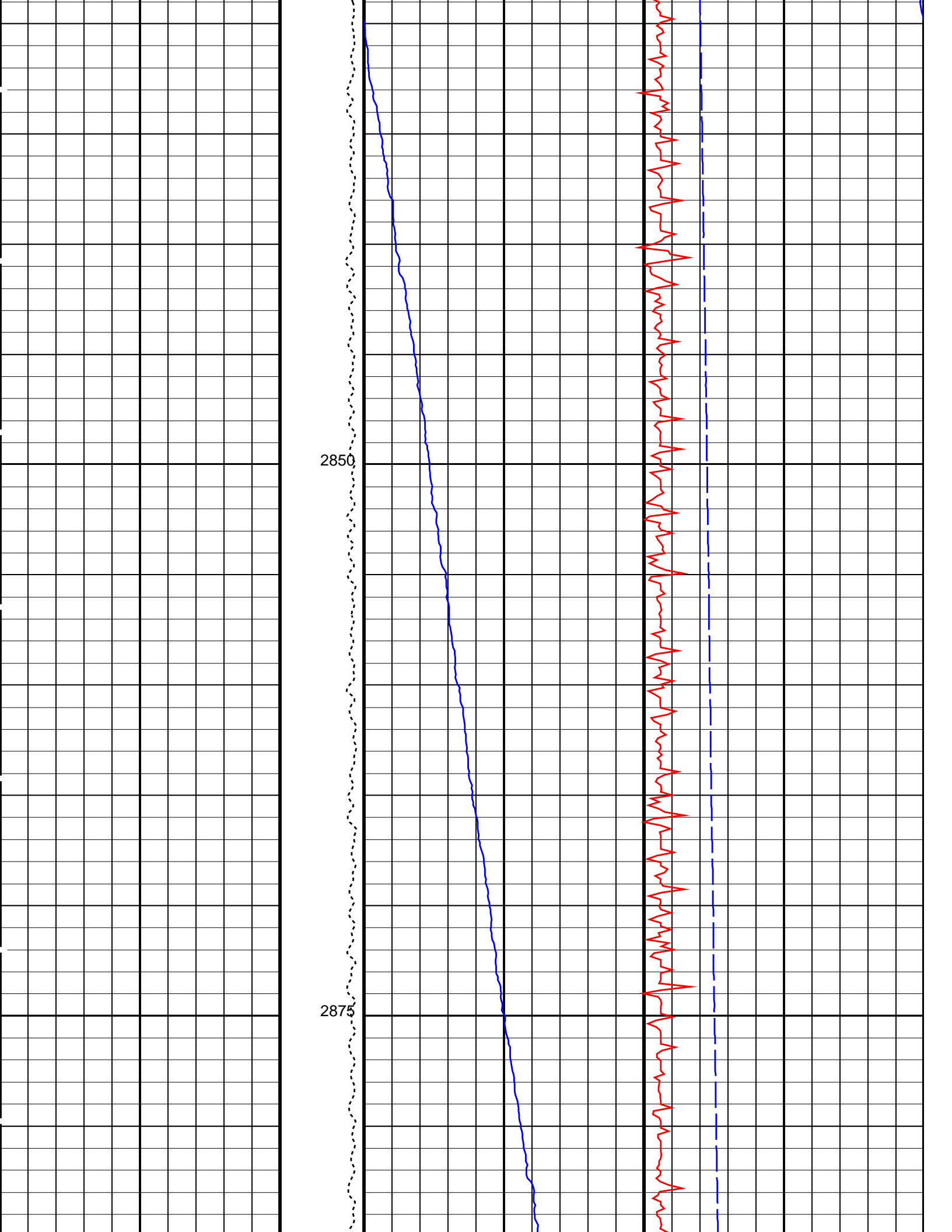


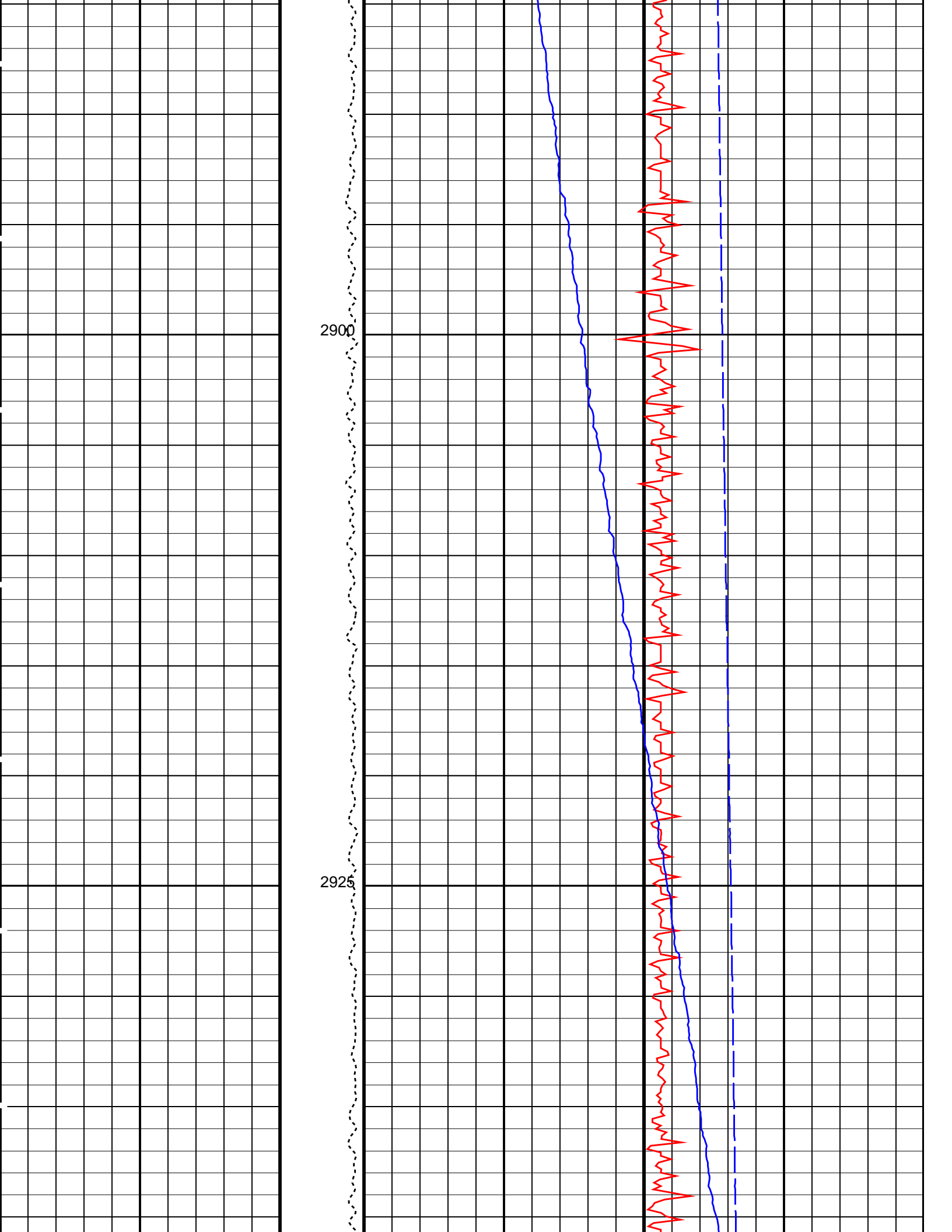


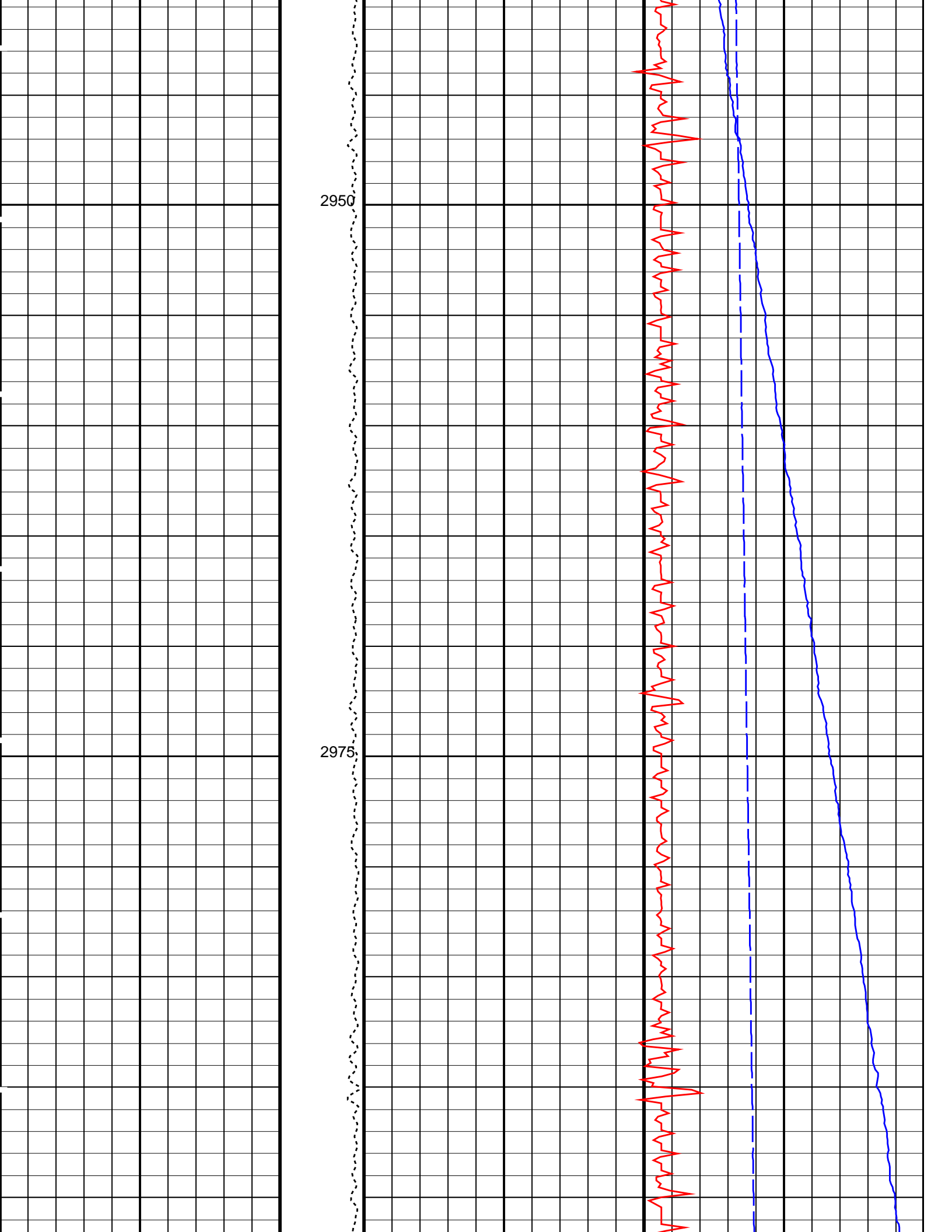


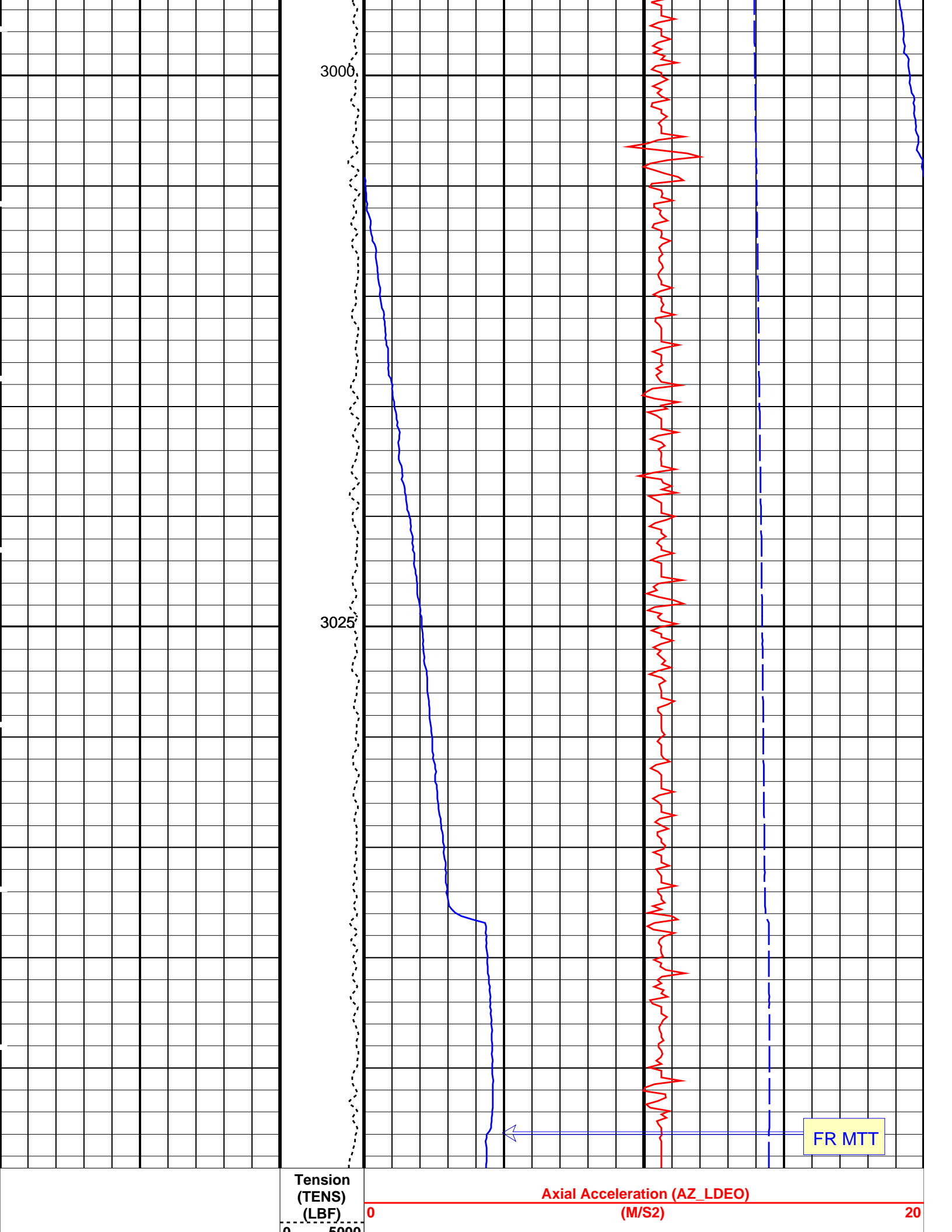












Tension
(TENS)
(LBF)

Axial Acceleration (AZ_LDEO)
(M/S2)

FR MTT

0

20

0 3000

Well Temperature (WTEP_LDEO)
0 (DEGC) 200

Well Temperature, Expanded (WTEP_LDEO)
0 (DEGC) 20

PIP SUMMARY

Time Mark Every 60 S

Parameters

| DLIS Name | Description | Value |
|-----------|--|--------|
| DO | System and Miscellaneous | 5.5 M |
| PP | Depth Offset for Playback Playback Processing | NORMAL |

Format: MTT_Logging Vertical Scale: 1:200 Graphics File Created: 23-Feb-2012 10:18

OP System Version: 19C0-187

| | | | |
|------------|----------|--------|----------|
| MTT_LDEO-A | 19C0-187 | HRLT-B | 19C0-187 |
| HLDS | 19C0-187 | LDSC-B | 19C0-187 |
| EDTC-B | 19C0-187 | | |

Input DLIS Files

| | | | | | | |
|---------|--------------------------|------|----------|-------------------|----------|----------|
| DEFAULT | MTT_LDEO_HRLA_LDL_019LUP | FN:8 | PRODUCER | 22-Feb-2012 00:42 | 3044.2 M | 1707.2 M |
|---------|--------------------------|------|----------|-------------------|----------|----------|

Output DLIS Files

| | | | | |
|---------|--------------------------|-------|----------|-------------------|
| DEFAULT | MTT_LDEO_HRLA_LDL_022PUP | FN:11 | PRODUCER | 23-Feb-2012 10:18 |
|---------|--------------------------|-------|----------|-------------------|



Calibrations

MAXIS Field Log

Calibration and Check Summary

| Measurement | Nominal | Master | Before | After | Change | Limit | Units |
|---|---------|--------|--------|-------|--------|-------|-------|
| High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01 | | | | | | | |
| Before: 21-Feb-2012 19:04 | | | | | | | |
| HRLT M0-M1 Voltage Plus – 0 | 0 | N/A | -319.0 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus – 1 | 0 | N/A | -332.5 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus – 2 | 0 | N/A | -333.6 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus – 3 | 0 | N/A | -337.5 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus – 4 | 0 | N/A | -325.9 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus – 5 | 0 | N/A | -321.9 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus – 6 | 0 | N/A | 324.0 | N/A | N/A | 9.681 | UV |
| HRLT M0-M1 Voltage Plus – 7 | 0 | N/A | -322.7 | N/A | N/A | 9.681 | UV |

| | | | | | | | |
|---|---|-----|------|-----|-----|-------|----|
| High Resolution Laterolog Array – B Wellsite Calibration – HRLT M12 | | | | | | | |
| Before: 21-Feb-2012 19:04 | | | | | | | |
| HRLT M1-M2 Voltage Plus – 0 | 0 | N/A | 1755 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus – 1 | 0 | N/A | 1827 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus – 2 | 0 | N/A | 1829 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus – 3 | 0 | N/A | 1851 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus – 4 | 0 | N/A | 1789 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus – 5 | 0 | N/A | 1768 | N/A | N/A | 53.42 | UV |

| | | | | | | | |
|-----------------------------|---|-----|-------|-----|-----|-------|----|
| HRLT M1-M2 Voltage Plus - 5 | 0 | N/A | 1788 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 6 | 0 | N/A | -1788 | N/A | N/A | 53.42 | UV |
| HRLT M1-M2 Voltage Plus - 7 | 0 | N/A | 1781 | N/A | N/A | 53.42 | UV |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT M23

Before: 21-Feb-2012 19:04

| | | | | | | | |
|-----------------------------|---|-----|-------|-----|-----|-------|----|
| HRLT M2-M3 Voltage Plus - 0 | 0 | N/A | 1741 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 1 | 0 | N/A | 1826 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 2 | 0 | N/A | 1829 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 3 | 0 | N/A | 1854 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 4 | 0 | N/A | 1786 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 5 | 0 | N/A | 1766 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 6 | 0 | N/A | -1776 | N/A | N/A | 53.42 | UV |
| HRLT M2-M3 Voltage Plus - 7 | 0 | N/A | 1781 | N/A | N/A | 53.42 | UV |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V34

Before: 21-Feb-2012 19:04

| | | | | | | | |
|-----------------------------|---|-----|--------|-----|-----|------|----|
| HRLT A3-A4 Voltage Plus - 0 | 0 | N/A | 68410 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 1 | 0 | N/A | 71530 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 2 | 0 | N/A | 71940 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 3 | 0 | N/A | 73210 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 4 | 0 | N/A | 70460 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 5 | 0 | N/A | 69710 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 6 | 0 | N/A | -68580 | N/A | N/A | 2100 | UV |
| HRLT A3-A4 Voltage Plus - 7 | 0 | N/A | 70000 | N/A | N/A | 2100 | UV |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V45

Before: 21-Feb-2012 19:04

| | | | | | | | |
|-----------------------------|---|-----|--------|-----|-----|------|----|
| HRLT A4-A5 Voltage Plus - 0 | 0 | N/A | 68690 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 1 | 0 | N/A | 71930 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 2 | 0 | N/A | 72300 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 3 | 0 | N/A | 73550 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 4 | 0 | N/A | 70750 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 5 | 0 | N/A | 69990 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 6 | 0 | N/A | -68950 | N/A | N/A | 2100 | UV |
| HRLT A4-A5 Voltage Plus - 7 | 0 | N/A | 70000 | N/A | N/A | 2100 | UV |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V56

Before: 21-Feb-2012 19:04

| | | | | | | | |
|-----------------------------|---|-----|--------|-----|-----|------|----|
| HRLT A5-A6 Voltage Plus - 0 | 0 | N/A | 68590 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 1 | 0 | N/A | 71660 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 2 | 0 | N/A | 72060 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 3 | 0 | N/A | 73340 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 4 | 0 | N/A | 70610 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 5 | 0 | N/A | 69880 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 6 | 0 | N/A | -68690 | N/A | N/A | 2100 | UV |
| HRLT A5-A6 Voltage Plus - 7 | 0 | N/A | 70000 | N/A | N/A | 2100 | UV |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP

Before: 21-Feb-2012 19:04

| | | | | | | | |
|-----------------------------|---|-----|--------|-----|-----|------|----|
| HRLT Torpedo-M0 Voltage - 0 | 0 | N/A | -68260 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 1 | 0 | N/A | -71980 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 2 | 0 | N/A | -72350 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 3 | 0 | N/A | -73630 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 4 | 0 | N/A | -70820 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 5 | 0 | N/A | -70040 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 6 | 0 | N/A | 68950 | N/A | N/A | 2100 | UV |
| HRLT Torpedo-M0 Voltage - 7 | 0 | N/A | -70000 | N/A | N/A | 2100 | UV |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD

Before: 21-Feb-2012 19:04

| | | | | | | | |
|------------------------------|---|-----|--------|-----|-----|------|----|
| HRLT Bridle#9-M0 Voltage - 0 | 0 | N/A | -68260 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 1 | 0 | N/A | -71950 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 2 | 0 | N/A | -72320 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 3 | 0 | N/A | -73610 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 4 | 0 | N/A | -70800 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 5 | 0 | N/A | -70020 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 6 | 0 | N/A | 68920 | N/A | N/A | 2100 | UV |
| HRLT Bridle#9-M0 Voltage - 7 | 0 | N/A | -70000 | N/A | N/A | 2100 | UV |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

Before: 21-Feb-2012 19:04

| | | | | | | | |
|------------------------------|---|-----|-------|-----|-----|-------|----|
| HRLT Source Current Plus - 0 | 0 | N/A | 284.6 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 1 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 2 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 3 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 4 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 5 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 6 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |
| HRLT Source Current Plus - 7 | 0 | N/A | 281.1 | N/A | N/A | 8.520 | UA |

High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV

Before: 21-Feb-2012 19:04

| | | | | | | | |
|------------------------------|---|-----|--------|-----|-----|-------|----|
| HRLT Vertical Voltage PI - 0 | 0 | N/A | -321.6 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 1 | 0 | N/A | -326.8 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 2 | 0 | N/A | -327.1 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 3 | 0 | N/A | -329.4 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 4 | 0 | N/A | -315.4 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 5 | 0 | N/A | -326.8 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 6 | 0 | N/A | 331.3 | N/A | N/A | 9.681 | UV |
| HRLT Vertical Voltage PI - 7 | 0 | N/A | -322.7 | N/A | N/A | 9.681 | UV |

Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement

Master: 9-Jan-2012 3:31 Before: 21-Feb-2012 19:07

| | | | | | | | |
|----------------------|-------|-------|-------|-----|-----|-------|-----|
| SS Cs Resolution Bkg | 9.000 | 7.671 | 7.676 | N/A | N/A | 1.800 | % |
| LS Cs Resolution Bkg | 9.000 | 7.932 | 8.092 | N/A | N/A | 1.800 | % |
| LSW1 Background | 100.0 | 86.47 | 85.93 | N/A | N/A | 3.000 | CPS |
| LSW2 Background | 100.0 | 79.53 | 78.97 | N/A | N/A | 3.000 | CPS |
| LSW3 Background | 200.0 | 181.2 | 181.6 | N/A | N/A | 6.000 | CPS |
| LSW4 Background | 250.0 | 222.9 | 222.8 | N/A | N/A | 7.500 | CPS |
| LSW5 Background | 600.0 | 520.3 | 519.9 | N/A | N/A | 18.00 | CPS |
| SSW1 Background | 100.0 | 84.85 | 84.50 | N/A | N/A | 3.000 | CPS |
| SSW2 Background | 200.0 | 146.1 | 146.3 | N/A | N/A | 6.000 | CPS |
| SSW3 Background | 500.0 | 411.2 | 408.7 | N/A | N/A | 15.00 | CPS |
| SSW4 Background | 270.0 | 221.2 | 218.7 | N/A | N/A | 8.100 | CPS |
| SSW5 Background | 200.0 | 157.4 | 157.9 | N/A | N/A | 6.000 | CPS |

Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement

Master: 9-Jan-2012 3:31

| | | | | | | | |
|---------------|-------|-------|-----|-----|-----|-----|-----|
| LSW1 Aluminum | 600.0 | 529.4 | N/A | N/A | N/A | N/A | CPS |
| LSW2 Aluminum | 900.0 | 768.5 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Aluminum | 1100 | 932.7 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Aluminum | 580.0 | 473.3 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Aluminum | 570.0 | 425.6 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Aluminum | 2800 | 2541 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Aluminum | 8000 | 6940 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Aluminum | 11600 | 9683 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Aluminum | 5000 | 3909 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Aluminum | 660.0 | 464.7 | N/A | N/A | N/A | N/A | CPS |

Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement

Master: 9-Jan-2012 3:31

| | | | | | | | |
|-----------|-------|-------|-----|-----|-----|-----|-----|
| LSW1 Iron | 400.0 | 371.1 | N/A | N/A | N/A | N/A | CPS |
| LSW2 Iron | 730.0 | 638.6 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Iron | 1000 | 849.1 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Iron | 520.0 | 442.4 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Iron | 470.0 | 405.0 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Iron | 2100 | 1889 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Iron | 6800 | 5949 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Iron | 10800 | 9074 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Iron | 4600 | 3693 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Iron | 580.0 | 431.1 | N/A | N/A | N/A | N/A | CPS |

Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration

Before: 9-Jan-2012 5:30

| | | | | | | | |
|-------------------------|-------|-----|-------|-----|-----|-----|----|
| HLDS Caliper Small Ring | 12.00 | N/A | 14.30 | N/A | N/A | N/A | IN |
| HLDS Caliper Large Ring | 15.19 | N/A | 18.07 | N/A | N/A | N/A | IN |

Enhanced DTS Cartridge Wellsite Calibration - EDTC Accelerometer Calibration

Before: 21-Feb-2012 19:04

| | | | | | | | |
|--------------------------|-------|-----|-------|-----|-----|-----|------|
| EDTC Z-Axis Acceleration | 9.810 | N/A | 9.740 | N/A | N/A | N/A | M/S2 |
|--------------------------|-------|-----|-------|-----|-----|-----|------|

Enhanced DTS Cartridge Wellsite Calibration - Detector Calibration

Before: 21-Feb-2012 19:03

| | | | | | | | |
|------------------------|-------|-----|-------|-----|-----|-------|------|
| Gamma Ray (Jig - Bkg) | 163.3 | N/A | 163.3 | N/A | N/A | 14.85 | GAPI |
| Gamma Ray (Calibrated) | 165.0 | N/A | 165.0 | N/A | N/A | 15.00 | GAPI |

High Resolution Laterolog Array - B / Equipment Identification

| | | | | | | | |
|----------------------|--|--|----------|--|-----|--|--|
| Primary Equipment: | | | | | | | |
| HRLT Sonde | | | HRLS - B | | 969 | | |
| Auxiliary Equipment: | | | | | | | |
| HRLT lower Housing | | | HRLH - B | | 759 | | |
| HRLT Lower Cartridge | | | HRLC - B | | 759 | | |
| HRLT upper Housing | | | HRUH - B | | 769 | | |
| HRLT Upper Cartridge | | | HRUC - B | | 764 | | |

High Resolution Laterolog Array – B Wellsite Calibration

HRLT M01

| Idx | Phase | HRLT M0–M1 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
|-----|--------|-------------------------------|--------|---------|---------|---------|
| 0 | Before | | -319.0 | -322.7 | -280.7 | -379.7 |
| 1 | Before | | -332.5 | -322.7 | -280.7 | -379.7 |
| 2 | Before | | -333.6 | -322.7 | -280.7 | -379.7 |
| 3 | Before | | -337.5 | -322.7 | -280.7 | -379.7 |
| 4 | Before | | -325.9 | -322.7 | -280.7 | -379.7 |
| 5 | Before | | -321.9 | -322.7 | -280.7 | -379.7 |
| 6 | Before | | 324.0 | 322.7 | 379.7 | 280.7 |
| 7 | Before | | -322.7 | -322.7 | -280.7 | -379.7 |
| | | (Minimum) (Nominal) (Maximum) | | | | |

Before: 21-Feb-2012 19:04

High Resolution Laterolog Array – B Wellsite Calibration

HRLT M12

| Idx | Phase | HRLT M1–M2 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
|-----|--------|-------------------------------|-------|---------|---------|---------|
| 0 | Before | | 1755 | 1781 | 2095 | 1549 |
| 1 | Before | | 1827 | 1781 | 2095 | 1549 |
| 2 | Before | | 1829 | 1781 | 2095 | 1549 |
| 3 | Before | | 1851 | 1781 | 2095 | 1549 |
| 4 | Before | | 1789 | 1781 | 2095 | 1549 |
| 5 | Before | | 1768 | 1781 | 2095 | 1549 |
| 6 | Before | | -1788 | -1781 | -1549 | -2095 |
| 7 | Before | | 1781 | 1781 | 2095 | 1549 |
| | | (Minimum) (Nominal) (Maximum) | | | | |

Before: 21-Feb-2012 19:04

High Resolution Laterolog Array – B Wellsite Calibration

HRLT M23

| Idx | Phase | HRLT M2–M3 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
|-----|--------|-------------------------------|-------|---------|---------|---------|
| 0 | Before | | 1741 | 1781 | 2095 | 1549 |
| 1 | Before | | 1826 | 1781 | 2095 | 1549 |
| 2 | Before | | 1829 | 1781 | 2095 | 1549 |
| 3 | Before | | 1854 | 1781 | 2095 | 1549 |
| 4 | Before | | 1786 | 1781 | 2095 | 1549 |
| 5 | Before | | 1766 | 1781 | 2095 | 1549 |
| 6 | Before | | -1776 | -1781 | -1549 | -2095 |
| 7 | Before | | 1781 | 1781 | 2095 | 1549 |
| | | (Minimum) (Nominal) (Maximum) | | | | |

Before: 21-Feb-2012 19:04

High Resolution Laterolog Array – B Wellsite Calibration

HRLT V34

| Idx | Phase | HRLT A3–A4 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
|-----|--------|----------------------------|-------|---------|---------|---------|
| 0 | Before | | 68410 | 70000 | 82360 | 60900 |
| 1 | Before | | 71530 | 70000 | 82360 | 60900 |
| 2 | Before | | 71940 | 70000 | 82360 | 60900 |
| 3 | Before | | 73210 | 70000 | 82360 | 60900 |
| 4 | Before | | 70460 | 70000 | 82360 | 60900 |

| | | | | | | |
|-------------------------------|--------|--|--------|--------|--------|--------|
| 5 | Before | | 69710 | 70000 | 82360 | 60900 |
| 6 | Before | | -68580 | -70000 | -60900 | -82360 |
| 7 | Before | | 70000 | 70000 | 82360 | 60900 |
| (Minimum) (Nominal) (Maximum) | | | | | | |
| Before: 21-Feb-2012 19:04 | | | | | | |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|----------------------------|--------|---------|---------|---------|
| HRLT V45 | | | | | | |
| Idx | Phase | HRLT A4–A5 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before | | 68690 | 70000 | 82360 | 60900 |
| 1 | Before | | 71930 | 70000 | 82360 | 60900 |
| 2 | Before | | 72300 | 70000 | 82360 | 60900 |
| 3 | Before | | 73550 | 70000 | 82360 | 60900 |
| 4 | Before | | 70750 | 70000 | 82360 | 60900 |
| 5 | Before | | 69990 | 70000 | 82360 | 60900 |
| 6 | Before | | -68950 | -70000 | -60900 | -82360 |
| 7 | Before | | 70000 | 70000 | 82360 | 60900 |
| (Minimum) (Nominal) (Maximum) | | | | | | |
| Before: 21-Feb-2012 19:04 | | | | | | |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|----------------------------|--------|---------|---------|---------|
| HRLT V56 | | | | | | |
| Idx | Phase | HRLT A5–A6 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before | | 68590 | 70000 | 82360 | 60900 |
| 1 | Before | | 71660 | 70000 | 82360 | 60900 |
| 2 | Before | | 72060 | 70000 | 82360 | 60900 |
| 3 | Before | | 73340 | 70000 | 82360 | 60900 |
| 4 | Before | | 70610 | 70000 | 82360 | 60900 |
| 5 | Before | | 69880 | 70000 | 82360 | 60900 |
| 6 | Before | | -68690 | -70000 | -60900 | -82360 |
| 7 | Before | | 70000 | 70000 | 82360 | 60900 |
| (Minimum) (Nominal) (Maximum) | | | | | | |
| Before: 21-Feb-2012 19:04 | | | | | | |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|---------------------------------|--------|---------|---------|---------|
| HRLT VTP | | | | | | |
| Idx | Phase | HRLT Torpedo–M0 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before | | -68260 | -70000 | -60900 | -82360 |
| 1 | Before | | -71980 | -70000 | -60900 | -82360 |
| 2 | Before | | -72350 | -70000 | -60900 | -82360 |
| 3 | Before | | -73630 | -70000 | -60900 | -82360 |
| 4 | Before | | -70820 | -70000 | -60900 | -82360 |
| 5 | Before | | -70040 | -70000 | -60900 | -82360 |
| 6 | Before | | 68950 | 70000 | 82360 | 60900 |
| 7 | Before | | -70000 | -70000 | -60900 | -82360 |
| (Minimum) (Nominal) (Maximum) | | | | | | |
| Before: 21-Feb-2012 19:04 | | | | | | |

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|-------|---------------------------------|-------|---------|---------|---------|
| HRLT VBD | | | | | | |
| Idx | Phase | HRLT Torpedo–M0 Voltage Plus UV | Value | Nominal | Maximum | Minimum |

| Idx | Phase | HRLT Bride#9-M0 Voltage Plus UV | Value | Nominal | Maximum | Minimum |
|-----|--------|---------------------------------|-----------|-----------|-----------|---------|
| 0 | Before | | -68260 | -70000 | -60900 | -82360 |
| 1 | Before | | -71950 | -70000 | -60900 | -82360 |
| 2 | Before | | -72320 | -70000 | -60900 | -82360 |
| 3 | Before | | -73610 | -70000 | -60900 | -82360 |
| 4 | Before | | -70800 | -70000 | -60900 | -82360 |
| 5 | Before | | -70020 | -70000 | -60900 | -82360 |
| 6 | Before | | 68920 | 70000 | 82360 | 60900 |
| 7 | Before | | -70000 | -70000 | -60900 | -82360 |
| | | | (Minimum) | (Nominal) | (Maximum) | |

Before: 21-Feb-2012 19:04

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|-----------------------------|-----------|-----------|-----------|---------|
| HRLT ISO | | | | | | |
| Idx | Phase | HRLT Source Current Plus UA | Value | Nominal | Maximum | Minimum |
| 0 | Before | | 284.6 | 284.0 | 334.1 | 247.0 |
| 1 | Before | | 281.1 | 281.1 | 330.7 | 244.4 |
| 2 | Before | | 281.1 | 281.1 | 330.7 | 244.4 |
| 3 | Before | | 281.1 | 281.1 | 330.7 | 244.4 |
| 4 | Before | | 281.1 | 281.1 | 330.7 | 244.4 |
| 5 | Before | | 281.1 | 281.1 | 330.7 | 244.4 |
| 6 | Before | | 281.1 | 281.1 | 330.7 | 244.4 |
| 7 | Before | | 281.1 | 281.1 | 330.7 | 244.4 |
| | | | (Minimum) | (Nominal) | (Maximum) | |

Before: 21-Feb-2012 19:04

| High Resolution Laterolog Array – B Wellsite Calibration | | | | | | |
|--|--------|-------------------------------|-----------|-----------|-----------|---------|
| HRLT MV | | | | | | |
| Idx | Phase | HRLT Vertical Voltage Plus UV | Value | Nominal | Maximum | Minimum |
| 0 | Before | | -321.6 | -322.7 | -280.7 | -379.7 |
| 1 | Before | | -326.8 | -322.7 | -280.7 | -379.7 |
| 2 | Before | | -327.1 | -322.7 | -280.7 | -379.7 |
| 3 | Before | | -329.4 | -322.7 | -280.7 | -379.7 |
| 4 | Before | | -315.4 | -322.7 | -280.7 | -379.7 |
| 5 | Before | | -326.8 | -322.7 | -280.7 | -379.7 |
| 6 | Before | | 331.3 | 322.7 | 379.7 | 280.7 |
| 7 | Before | | -322.7 | -322.7 | -280.7 | -379.7 |
| | | | (Minimum) | (Nominal) | (Maximum) | |

Before: 21-Feb-2012 19:04

| Hostile Litho-Density Sonde / Equipment Identification | | |
|--|----------|------|
| Primary Equipment: | | |
| Hostile Litho Density Sonde | HLDS – D | 45 |
| Hostile Litho Density High Voltage | HLDV – D | 45 |
| Gamma Source Radioactive | GSR – Z | 2397 |
| Auxiliary Equipment: | | |
| Hostile Litho Density Pad | HLDP – C | 45 |
| Hostile Litho Density High Voltage Housi | HEH – H | 47 |

Background Measurement

| Phase | SS Cs Resolution Bkg % | Value | Phase | LS Cs Resolution Bkg % | Value | Phase | LSW1 Background CPS | Value |
|-------------------------|---|-------|---------------------------|---|-------|--------|---|-------|
| Master | | 7.671 | Master | | 7.932 | Master | | 86.47 |
| Before | | 7.676 | Before | | 8.092 | Before | | 85.93 |
| | 7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum) | | | 7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum) | | | 55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum) | |
| Phase | LSW2 Background CPS | Value | Phase | LSW3 Background CPS | Value | Phase | LSW4 Background CPS | Value |
| Master | | 79.53 | Master | | 181.2 | Master | | 222.9 |
| Before | | 78.97 | Before | | 181.6 | Before | | 222.8 |
| | 50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum) | | | 110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum) | | | 140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum) | |
| Phase | LSW5 Background CPS | Value | Phase | SSW1 Background CPS | Value | Phase | SSW2 Background CPS | Value |
| Master | | 520.3 | Master | | 84.85 | Master | | 146.1 |
| Before | | 519.9 | Before | | 84.50 | Before | | 146.3 |
| | 330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum) | | | 55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum) | | | 100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum) | |
| Phase | SSW3 Background CPS | Value | Phase | SSW4 Background CPS | Value | Phase | SSW5 Background CPS | Value |
| Master | | 411.2 | Master | | 221.2 | Master | | 157.4 |
| Before | | 408.7 | Before | | 218.7 | Before | | 157.9 |
| | 280.0 (Minimum) 500.0 (Nominal) 700.0 (Maximum) | | | 150.0 (Minimum) 270.0 (Nominal) 380.0 (Maximum) | | | 110.0 (Minimum) 200.0 (Nominal) 270.0 (Maximum) | |
| Master: 9-Jan-2012 3:31 | | | Before: 21-Feb-2012 19:07 | | | | | |

Litho-Density Spectroscopy Cartridge - B / Equipment Identification

| | | |
|----------------------|----------|-----|
| Primary Equipment: | | |
| LDSC Cartridge | LDSC - B | 521 |
| Auxiliary Equipment: | | |
| LDSC Housing | LDSH - A | 319 |

Enhanced DTS Cartridge / Equipment Identification

| | | |
|-------------------------|------------|-------|
| Primary Equipment: | | |
| EDTC Gamma Ray Detector | EDTG - A/B | 77693 |
| Enhanced DTS Cartridge | EDTC - B | 8529 |
| Auxiliary Equipment: | | |
| EDTC Housing | EDTH - B | 8528 |

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

| Phase | EDTC Z-Axis Acceleration M/S2 | Value |
|--------|---|-------|
| Before | | 9.740 |
| | 9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum) | |

Before: 21-Feb-2012 19:04

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

| Phase | Gamma Ray Background GAPI | Value | Phase | Gamma Ray (Jig - Bkg) GAPI | Value | Phase | Gamma Ray (Calibrated) GAPI | Value |
|--------|---|-------|--------|---|-------|--------|---|-------|
| Before | | 1.492 | Before | | 163.3 | Before | | 165.0 |
| | 0 (Minimum) 30.00 (Nominal) 120.0 (Maximum) | | | 148.5 (Minimum) 163.3 (Nominal) 178.2 (Maximum) | | | 150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum) | |

Before: 21-Feb-2012 19:03

Company: **Lamont Doherty Earth Observatory**

Schlumberger

Well: **Expedition 340T, Site U1309D**

Field: **Atlantis Massif**

Rig: **JOIDES Resolution**

Country: **USA**

LDEO MTT