



Pioneer Energy Services

Dual Induction Log

| | | |
|------------------------|---------------------------|--|
| API No. | 15-159-22,815-00-00 | |
| Company | Bird Dog Oil, LLC | |
| Well | Pioneer-Schubert No. 4-23 | |
| Field | Chase-Silica | |
| County | Rice | State |
| | | Kansas |
| Location | 1005' FNL & 2130' FWL | |
| Sec: 23 | Twp: 19S | Rge: 10W |
| Permanent Datum | Ground Level | Elevation 1740 |
| Log Measured From | Kelly Bushing | 8 Ft. Above Perm. Datum |
| Drilling Measured From | Kelly Bushing | |
| | | Other Services CNL/CDL MEL/BHCS |
| | | Elevation K.B. 1748 D.F. 1740 G.L. 1740 |

| | |
|------------------------|------------------|
| Date | 12/19/14 |
| Run Number | One |
| Depth Driller | 3350 |
| Depth Logger | 3350 |
| Bottom Logged Interval | 3349 |
| Top Log Interval | 300 |
| Casing Driller | 8.625 @ 333 |
| Casing Logger | 330 |
| Bit Size | 7.875 |
| Type Fluid in Hole | Chemical |
| Salinity, ppm CL | 7.800 |
| Density / Viscosity | 9.2 48 |
| pH / Fluid Loss | 10.5 9.2 |
| Source of Sample | Flowline |
| Rm @ Meas. Temp | .57 @ 53 |
| Rmf @ Meas. Temp | .43 @ 53 |
| Rmc @ Meas. Temp | .77 @ 53 |
| Source of Rmf / Rmc | Charts |
| Rm @ BHT | .28 @ 110 |
| Operating Rig Time | 4 Hours |
| Max Rec. Temp. F | 110 |
| Equipment Number | 108 |
| Location | Hays |
| Recorded By | J. Henrickson |
| Witnessed By | Adam Nighswonger |

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

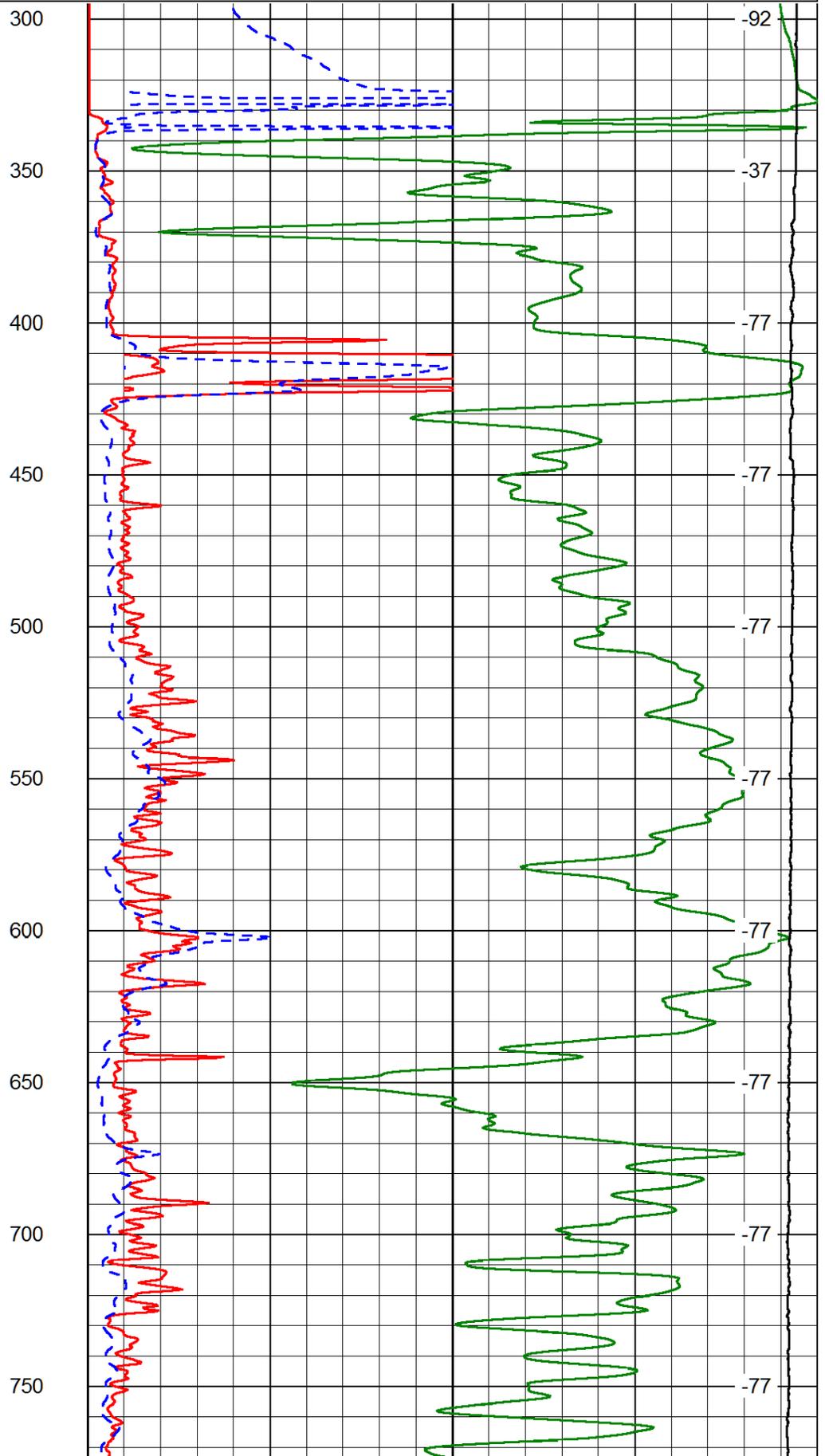
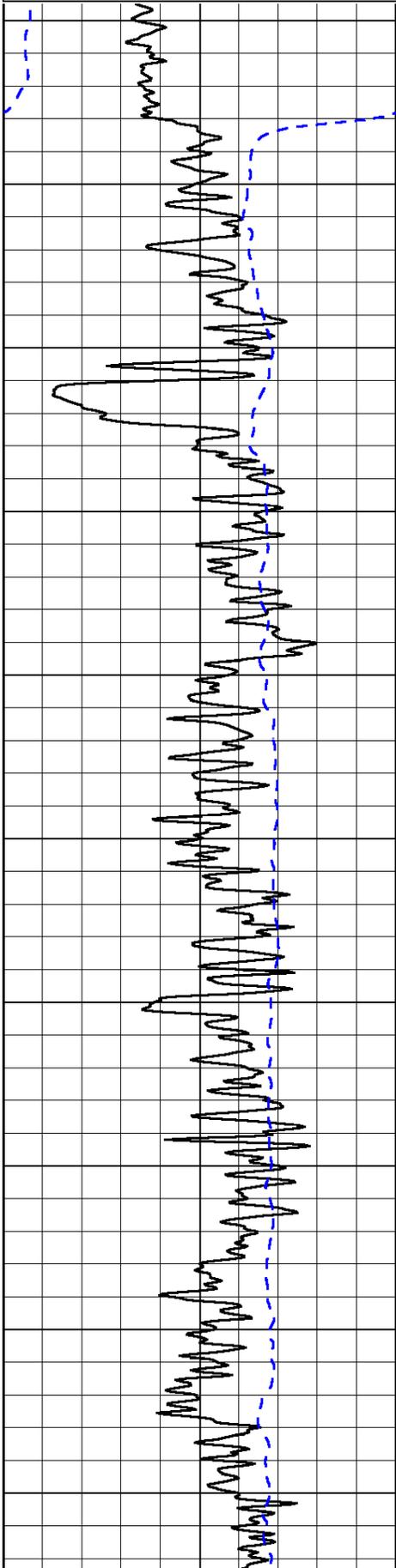
Ellinwood Kansas
9 East to 5 Rd, 3 North, 1/2 East, South Into

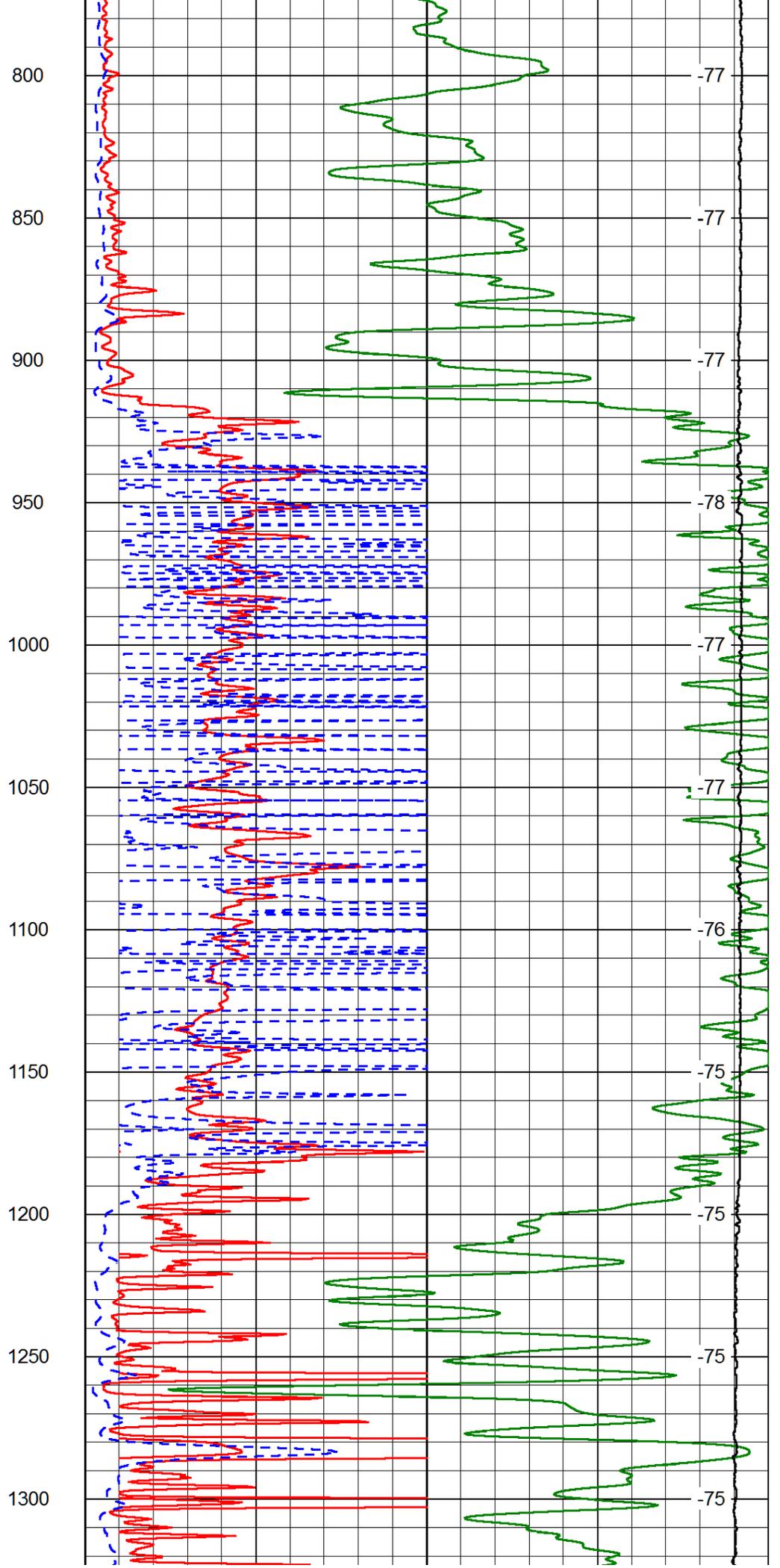
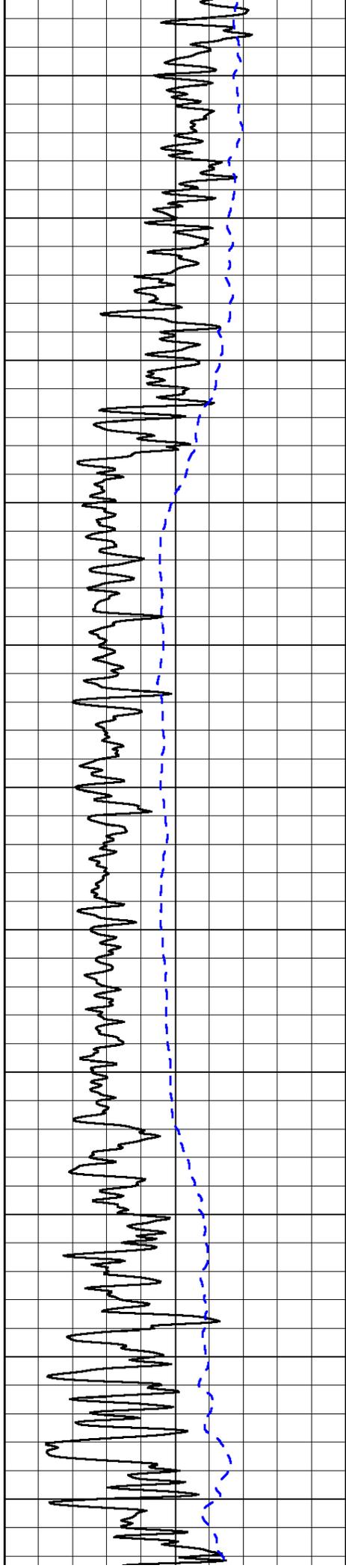
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 Presentation Format: dil2in
 Dataset Creation: Fri Dec 19 06:49:49 2014
 Charted by: Depth in Feet scaled 1:600

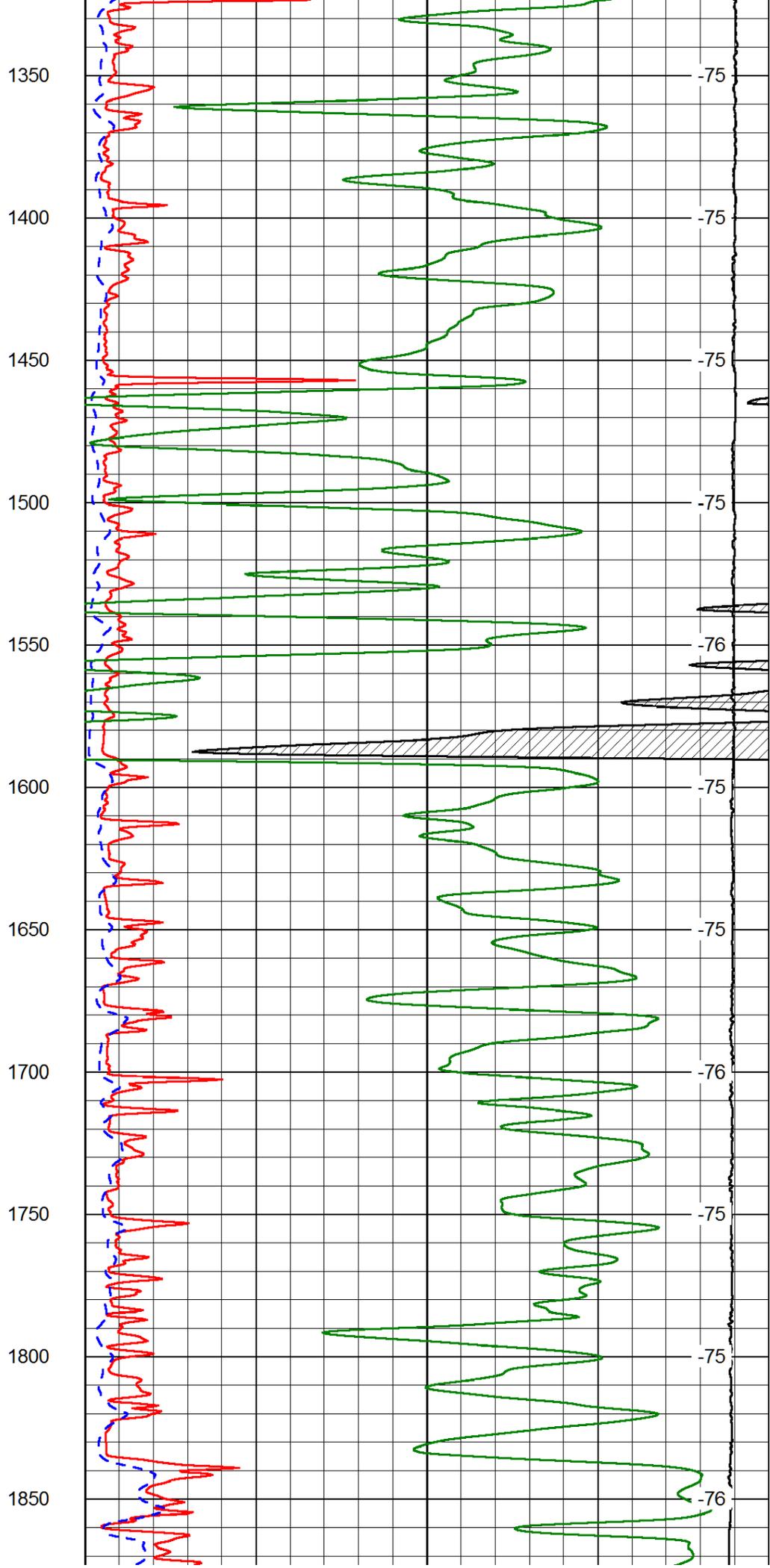
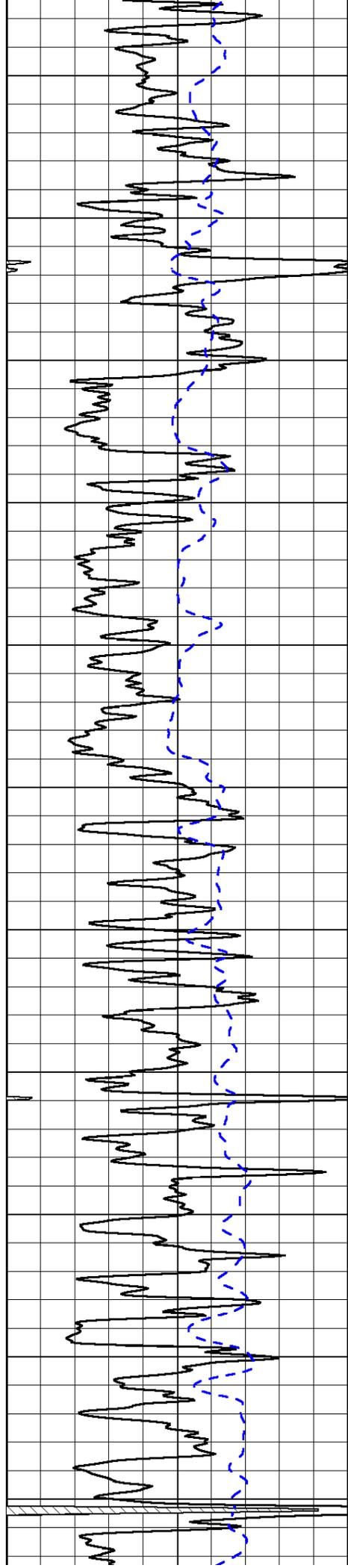
| | | |
|------|-----------|-----|
| 0 | Gamma Ray | 150 |
| -200 | SP (mV) | 0 |

| | | |
|-------|---------------------|-----|
| 0 | Shallow Resistivity | 50 |
| 0 | Deep Resistivity | 50 |
| 1000 | Conductivity | 0 |
| 15000 | Line Tension | 0 |
| 50 | Shallow Resistivity | 500 |
| 50 | Deep Resistivity | 500 |

| |
|------|
| LSPD |
|------|







1350

-75

1400

-75

1450

-75

1500

-75

1550

-76

1600

-75

1650

-75

1700

-76

1750

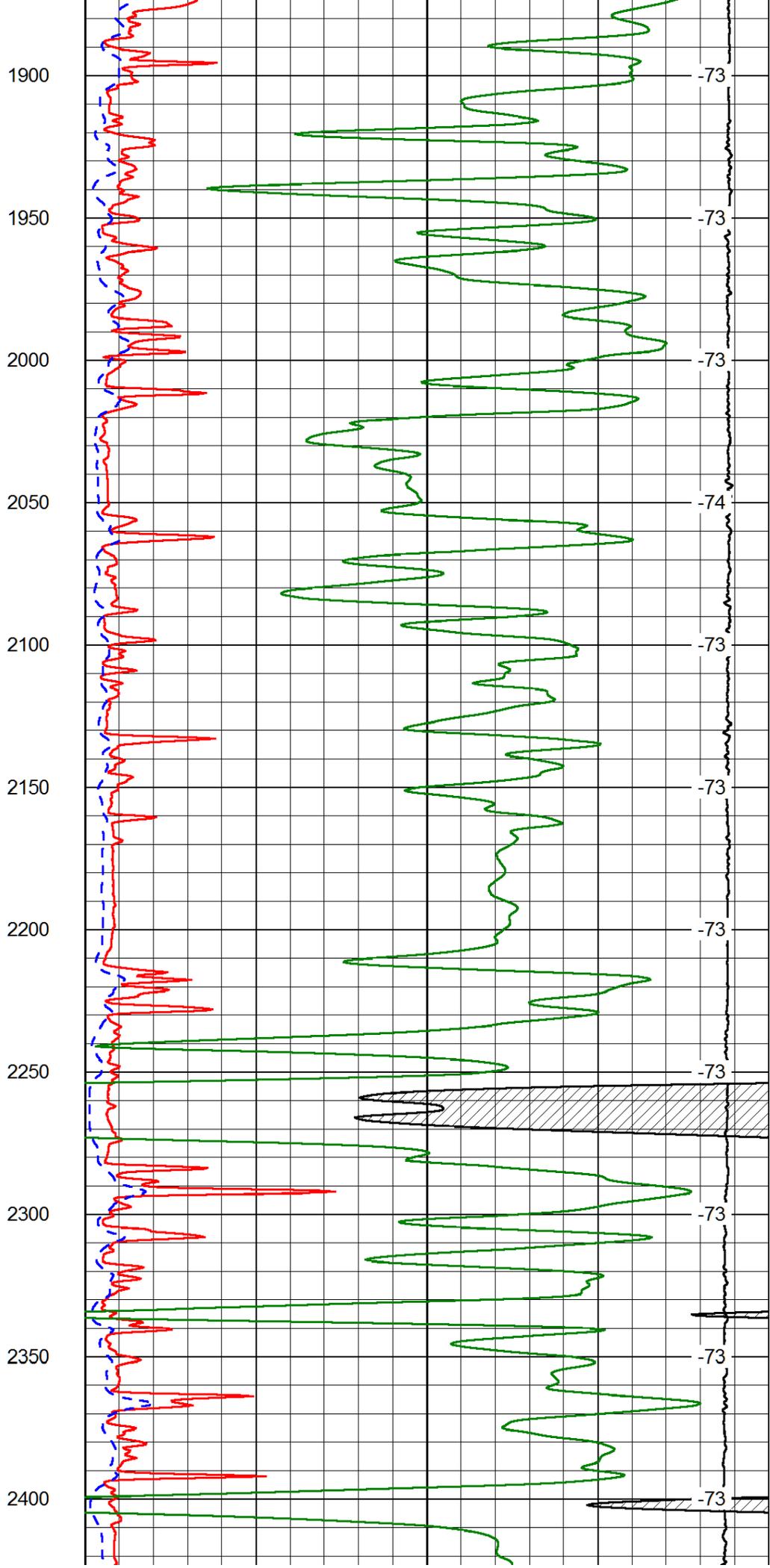
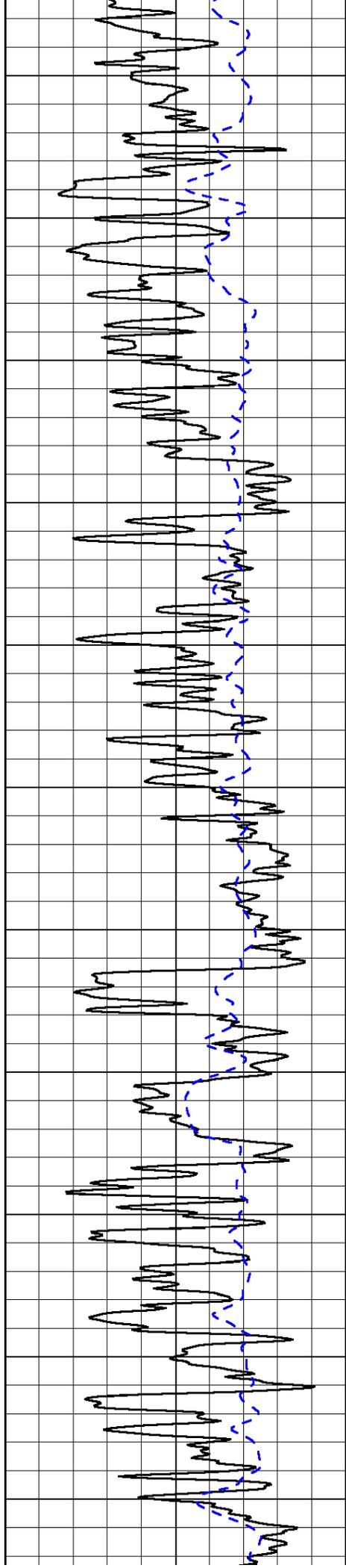
-75

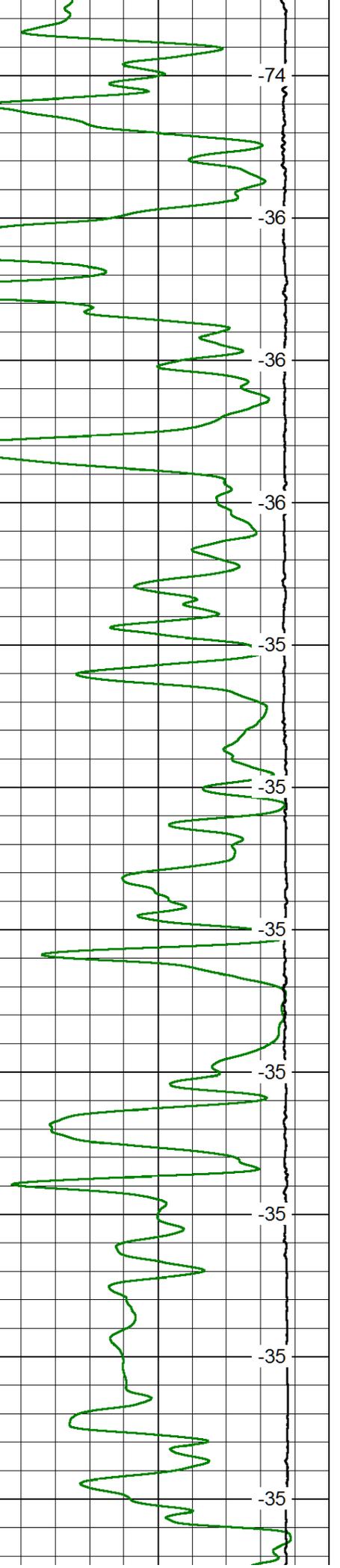
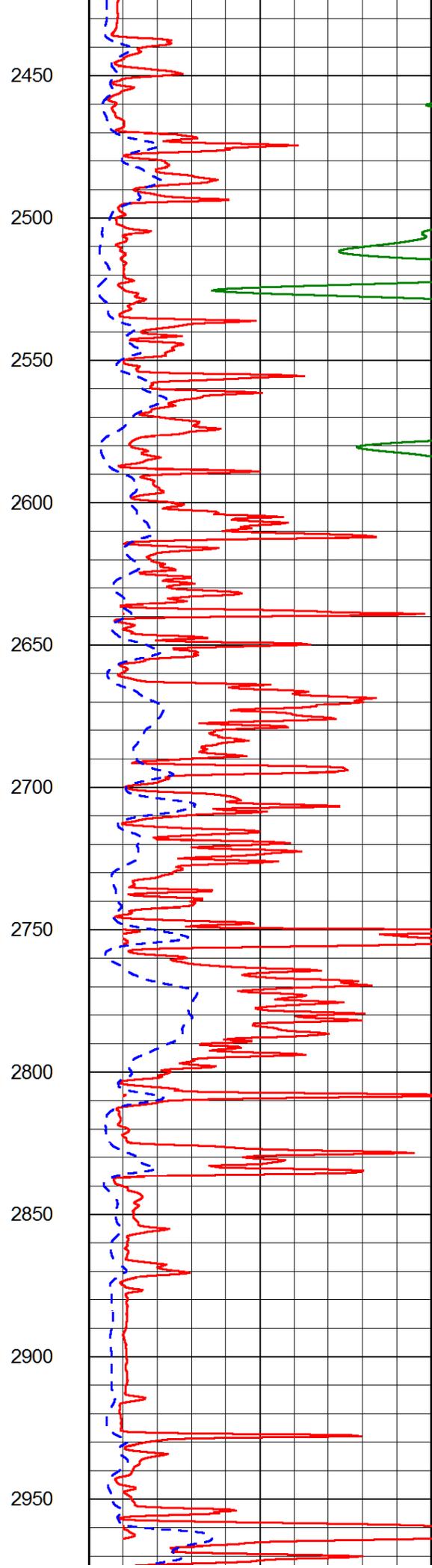
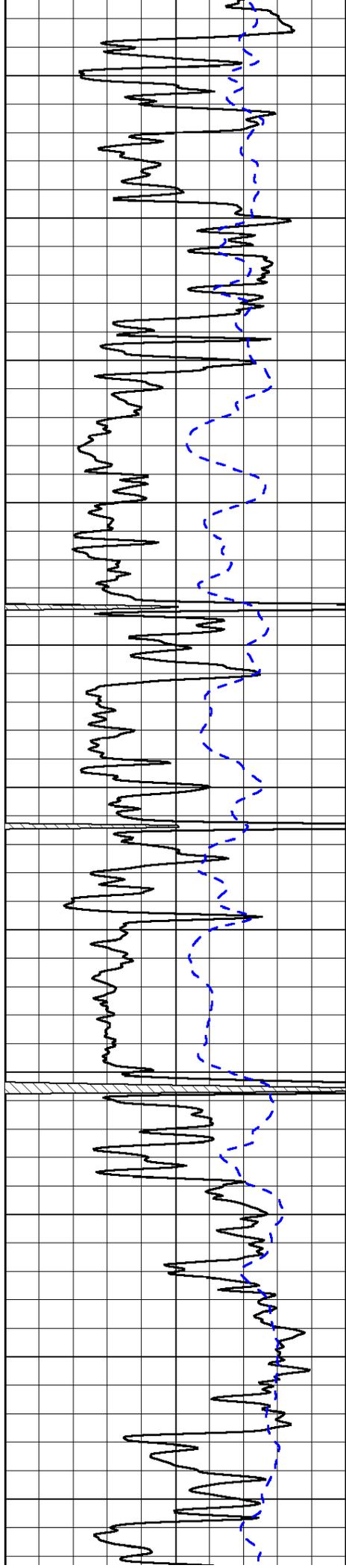
1800

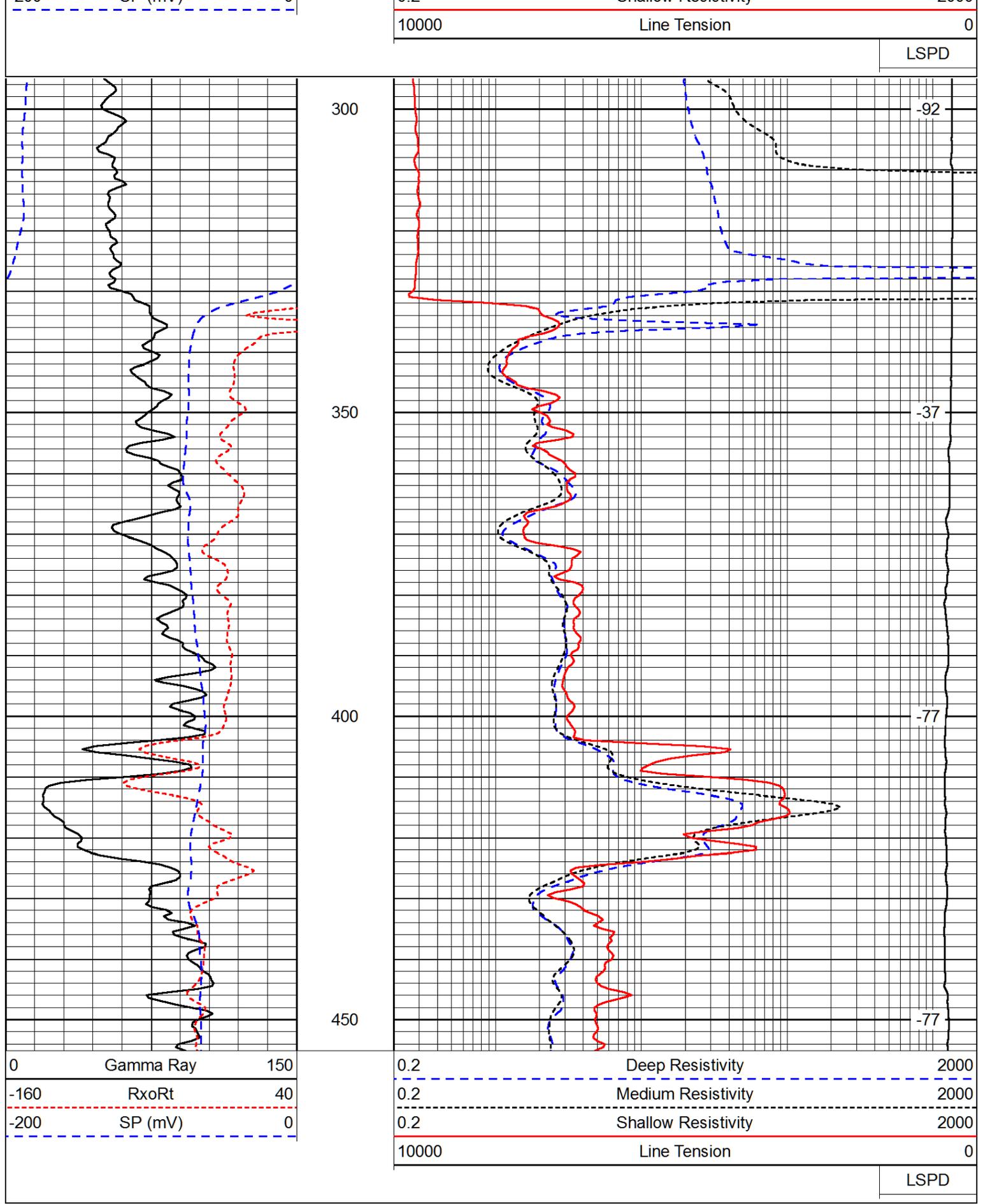
-75

1850

-76





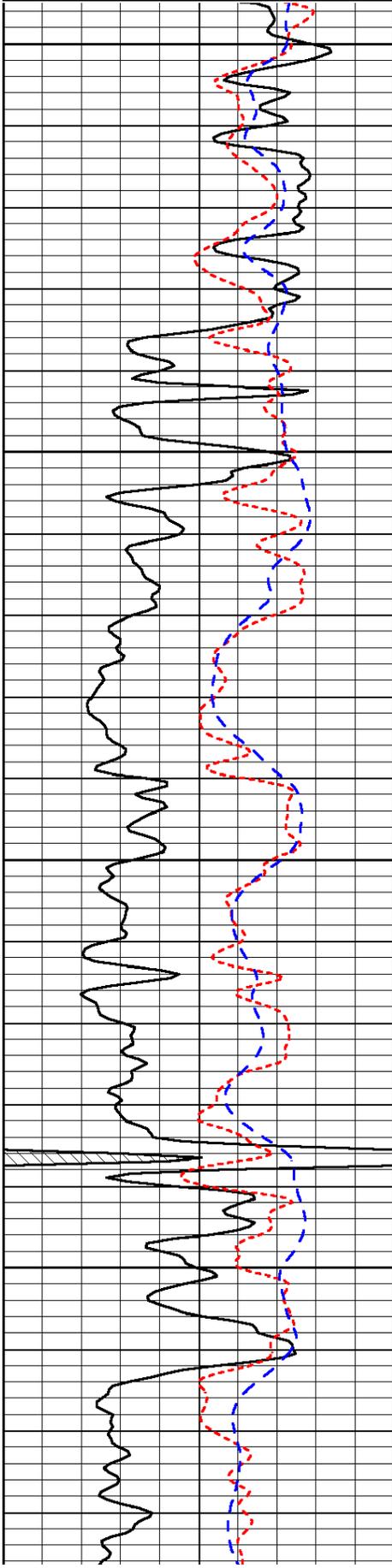


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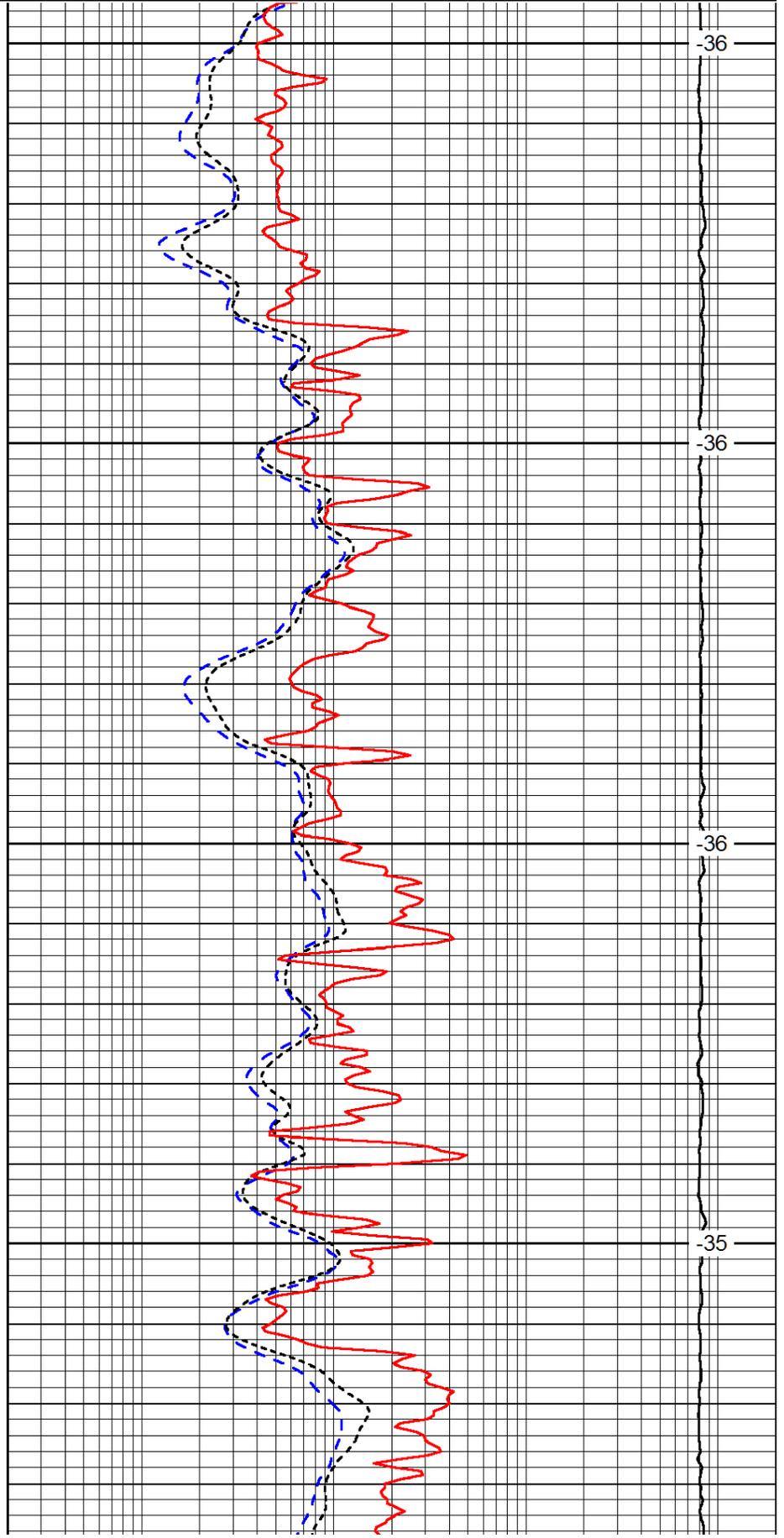
| | | |
|------|-----------|-----|
| 0 | Gamma Ray | 150 |
| -160 | RxoRt | 40 |
| -200 | SP (mV) | 0 |

| | | |
|-------|---------------------|------|
| 0.2 | Deep Resistivity | 2000 |
| 0.2 | Medium Resistivity | 2000 |
| 0.2 | Shallow Resistivity | 2000 |
| 10000 | Line Tension | 0 |

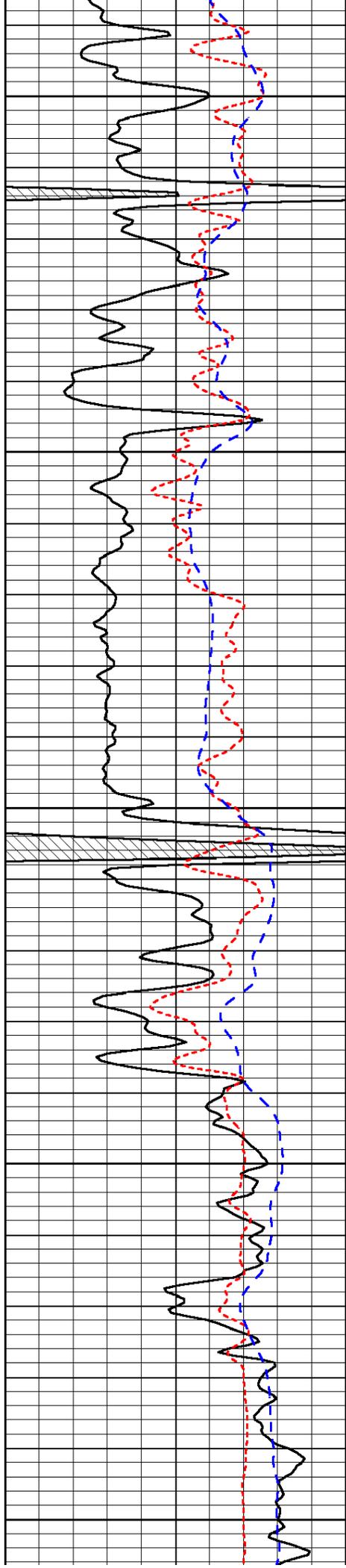
LSPD



2500
2550
2600
2650



-36
-36
-36
-35



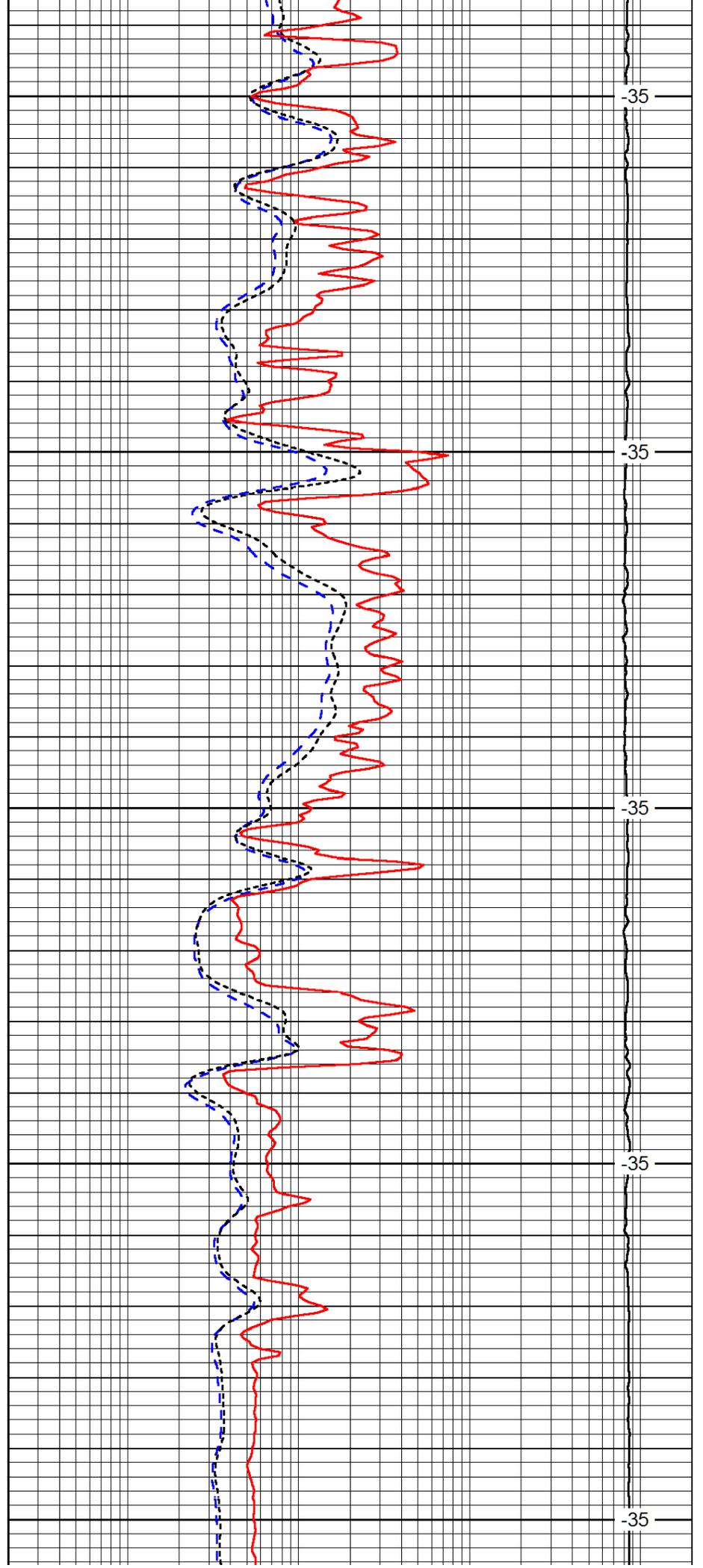
2700

2750

2800

2850

2900



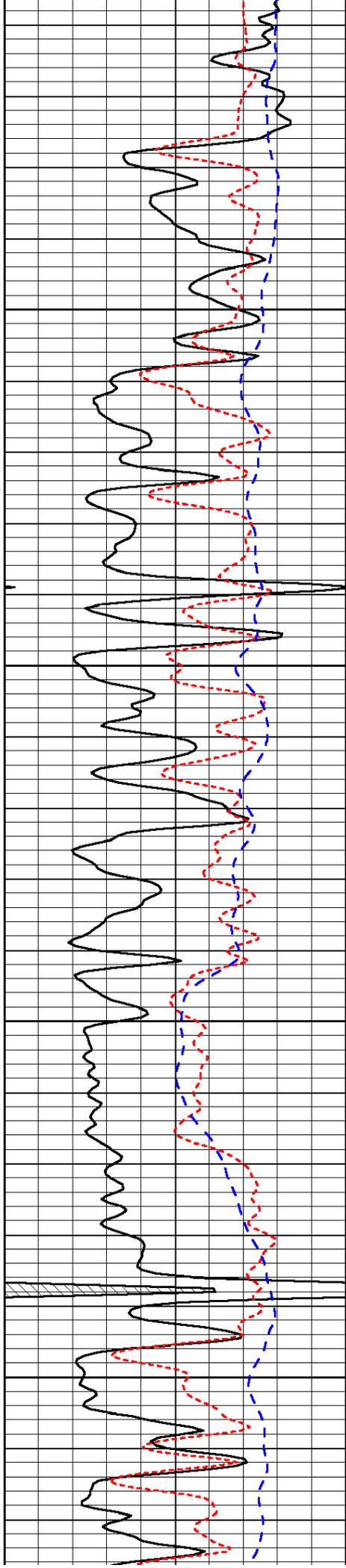
-35

-35

-35

-35

-35

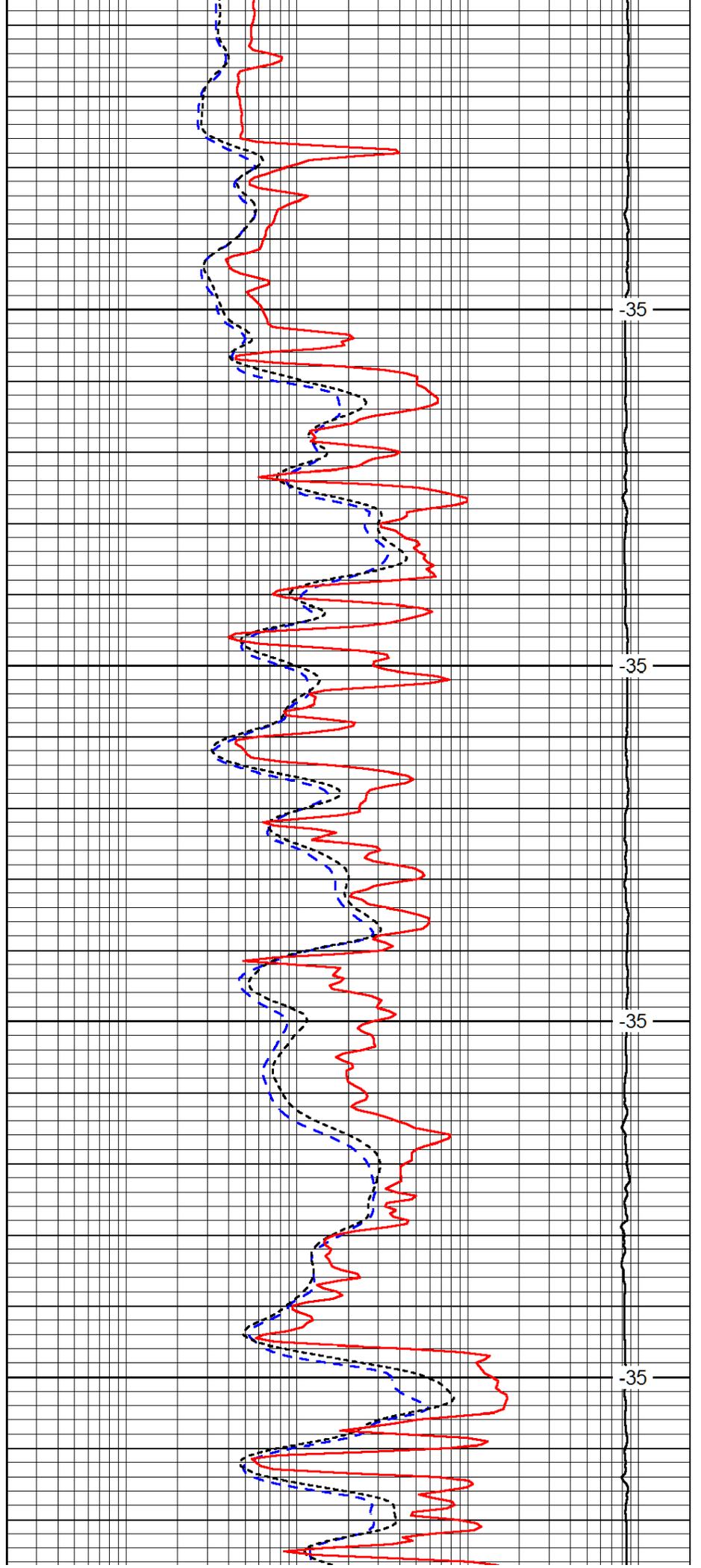


2950

3000

3050

3100

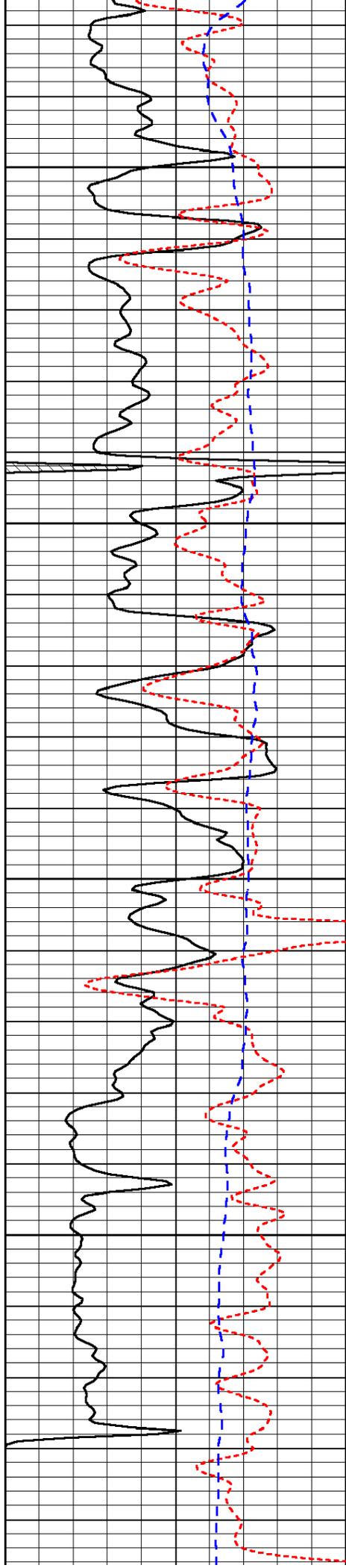


-35

-35

-35

-35

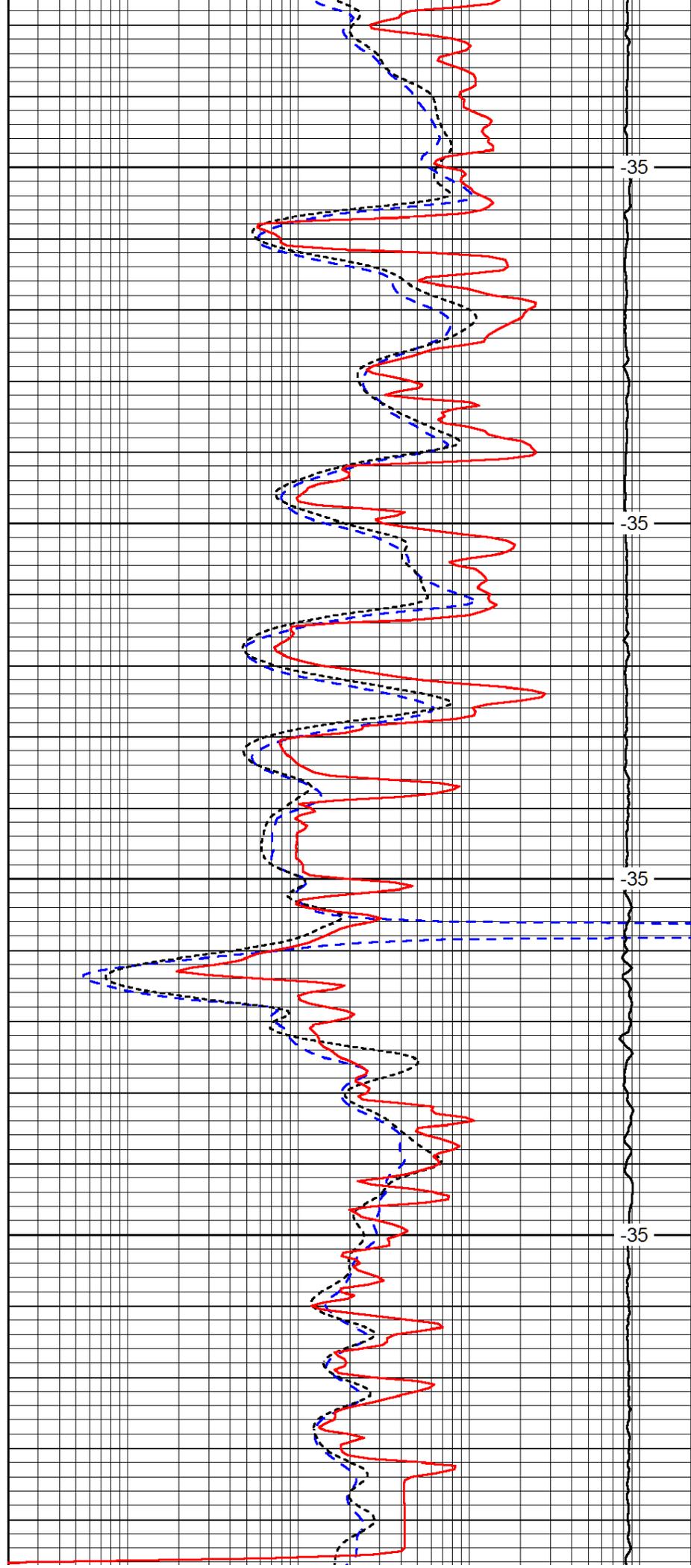


3150

3200

3250

3300



-35

-35

-35

-35

