



Pioneer Energy Services

Dual Induction Log

| | | |
|------------------------|----------------------|--|
| API No. | 15-109-21,376-00-00 | |
| Company | Black Tea Oil, LLC. | |
| Well | Krebs Z No. 1 | |
| Field | | |
| County | Logan | State |
| | | Kansas |
| Location | 1635' FNL & 340' FEL | |
| Sec: 3 | Twp: 15s | Rge: 32w |
| Permanent Datum | Ground Level | Elevation 2724 |
| Log Measured From | Kelly Bushing | 9 Ft. Above Perm. Datum |
| Drilling Measured From | Kelly Bushing | |
| | | Other Services CNL/CDL MEL/BHCS |
| | | Elevation K.B. 2733 D.F. 2724 G.L. 2724 |

| | |
|------------------------|-------------------|
| Date | 12/1/2014 |
| Run Number | One |
| Depth Driller | 4510 |
| Depth Logger | 4508 |
| Bottom Logged Interval | 4507 |
| Top Log Interval | 250 |
| Casing Driller | 8.625 @ 264 |
| Casing Logger | 259 |
| Bit Size | 7.875 |
| Type Fluid in Hole | Chemical |
| Salinity, ppm CL | 6000 |
| Density / Viscosity | 9.0 57 |
| pH / Fluid Loss | 10.0 7.2 |
| Source of Sample | Flowline |
| Rm @ Meas. Temp | .70 @ 52 |
| Rmf @ Meas. Temp | .53 @ 52 |
| Rmc @ Meas. Temp | .95 @ 52 |
| Source of Rmf / Rmc | Charts |
| Rm @ BHT | .30 @ 121 |
| Operating Rig Time | 5 Hours |
| Max Rec. Temp. F | 121 |
| Equipment Number | 108 |
| Location | Hays |
| Recorded By | D. Fischer |
| Witnessed By | Richard Thomasson |

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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

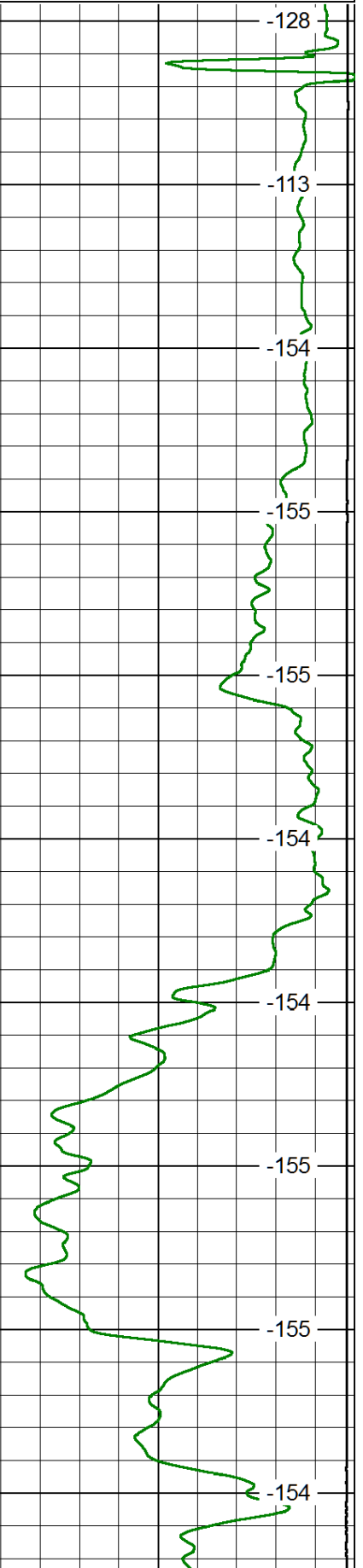
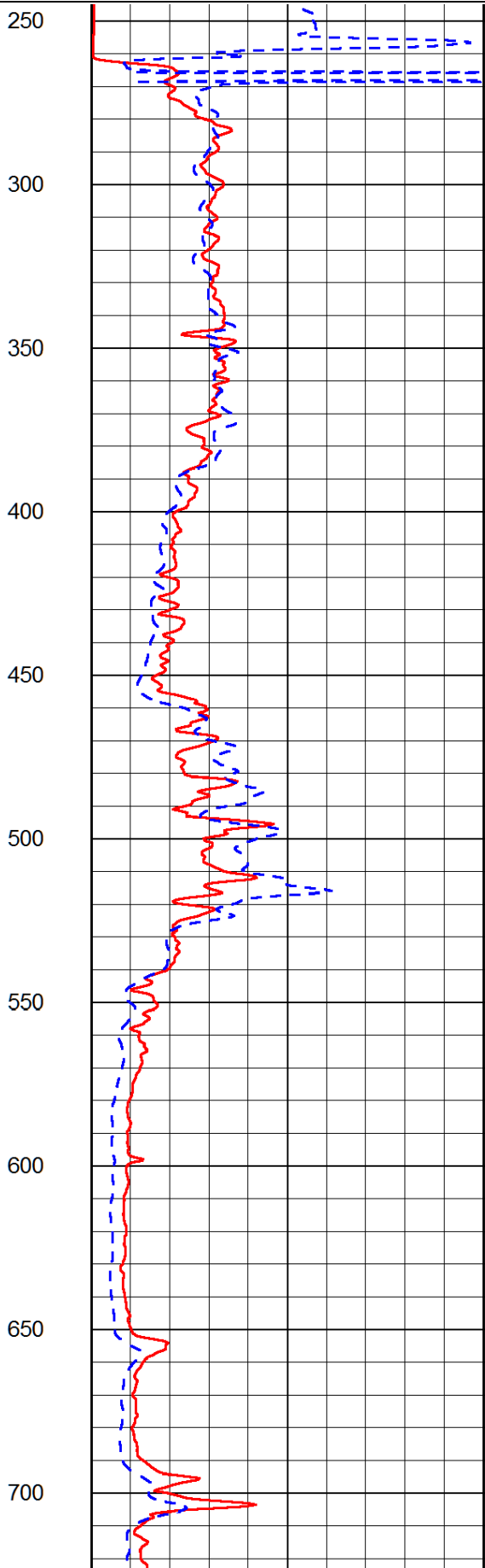
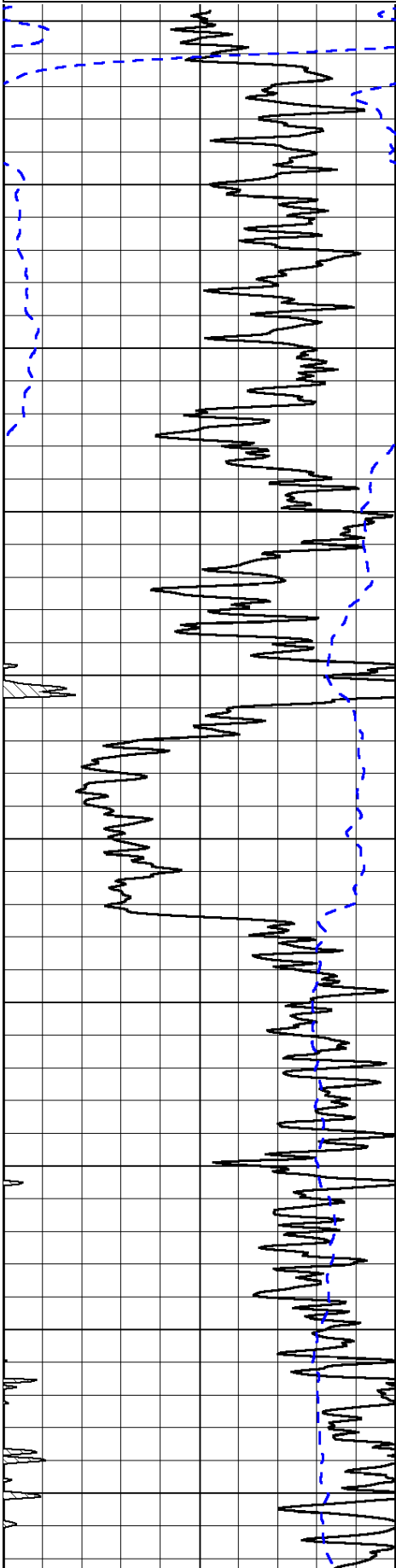
Oakley Ks., 23 South to Gold Rd., East Into.

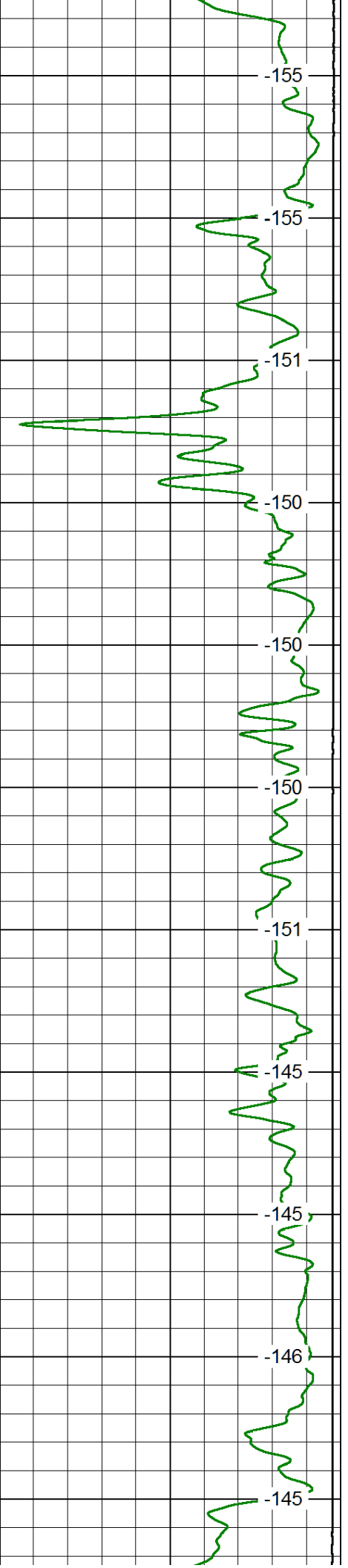
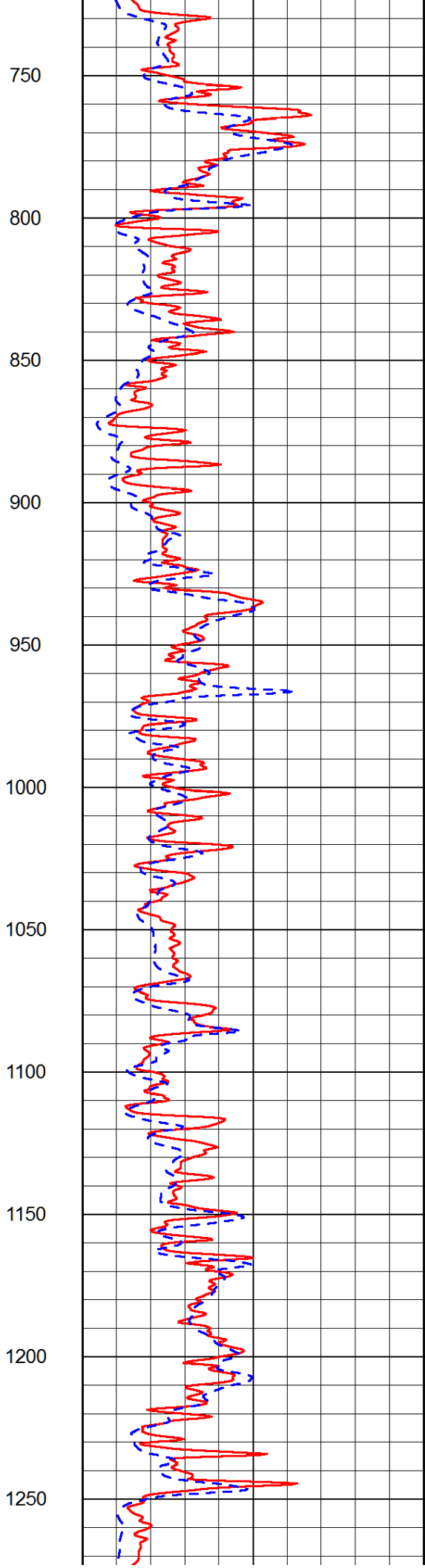
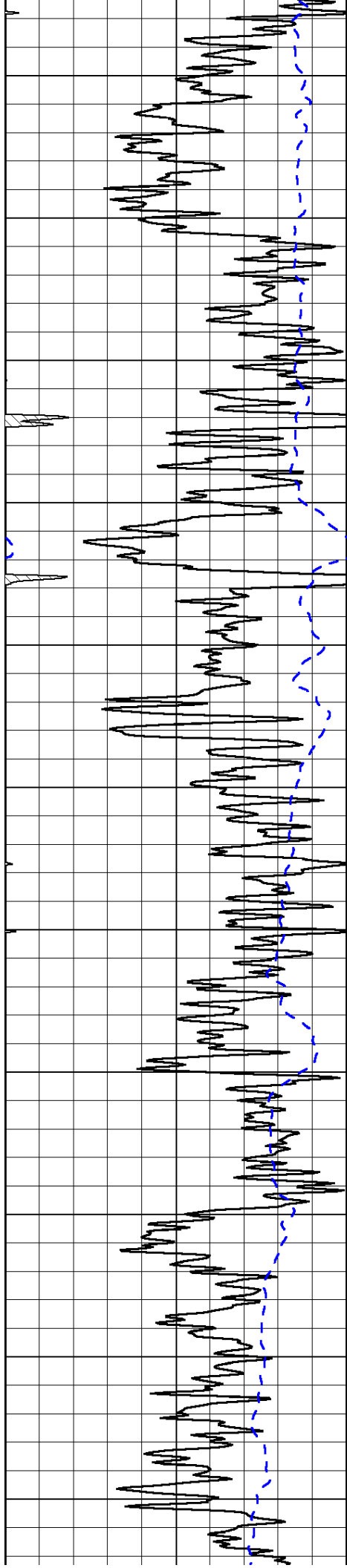
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 Presentation Format: dil2in
 Dataset Creation: Mon Dec 01 12:47:10 2014
 Charted by: Depth in Feet scaled 1:600

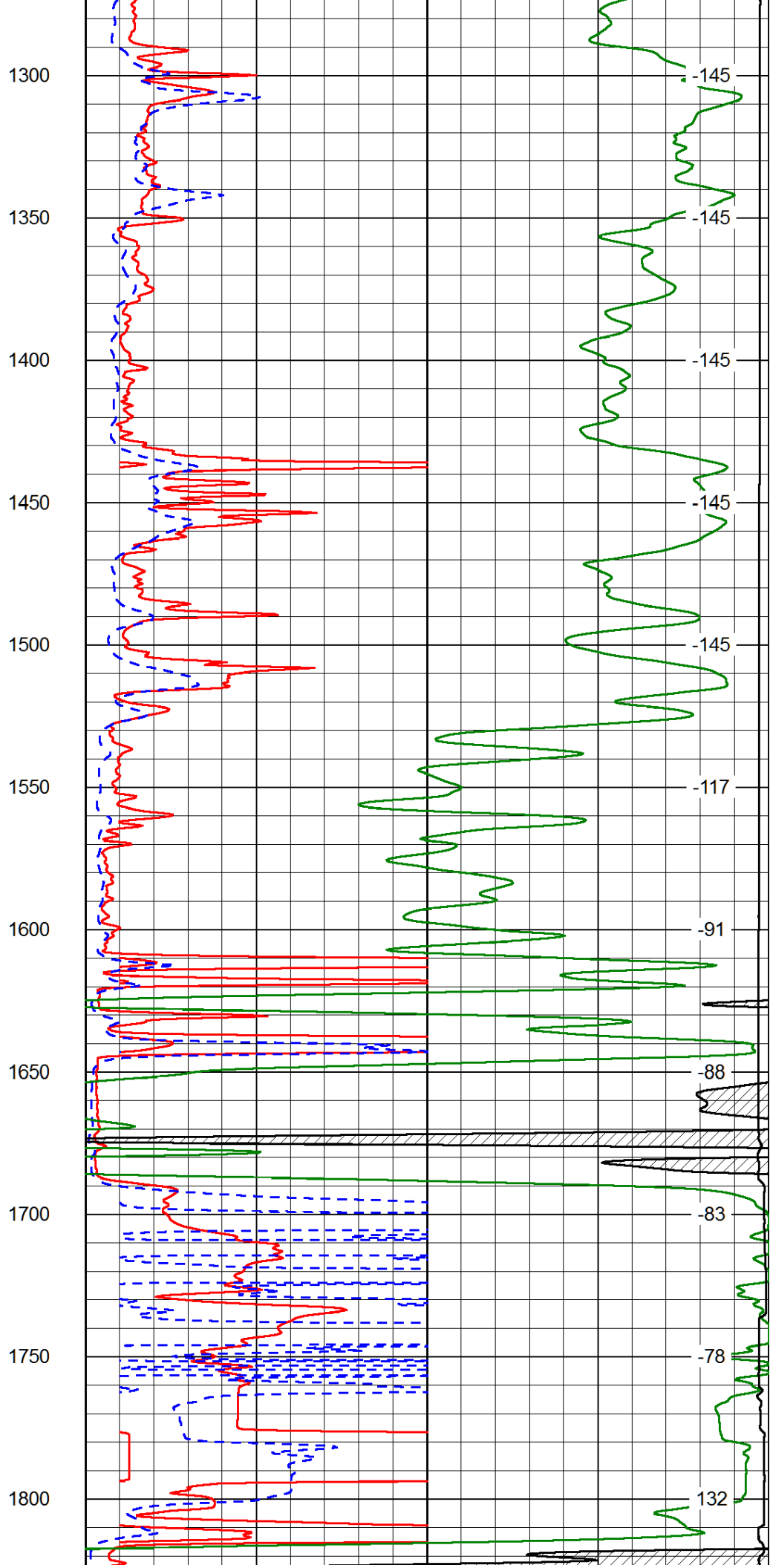
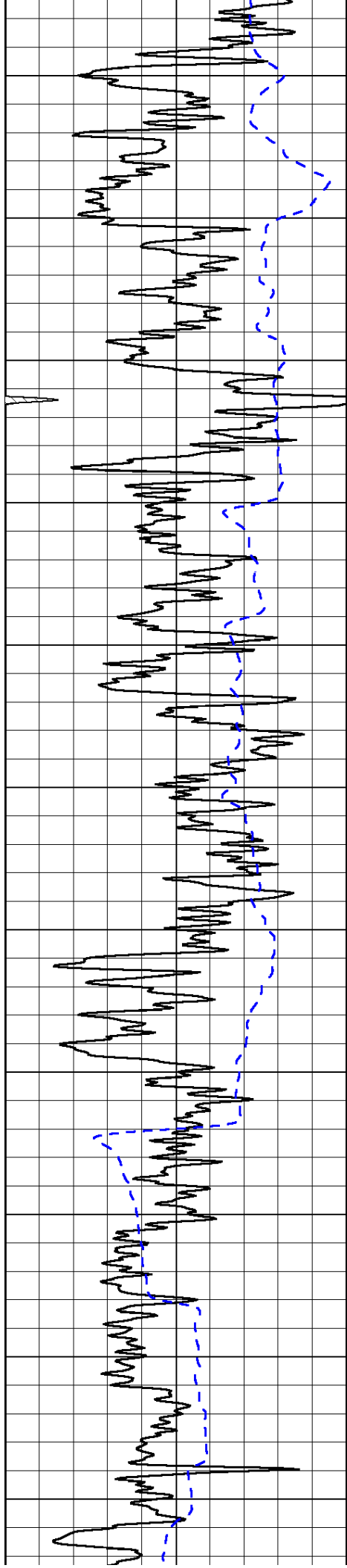
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-200 SP (mV) 0

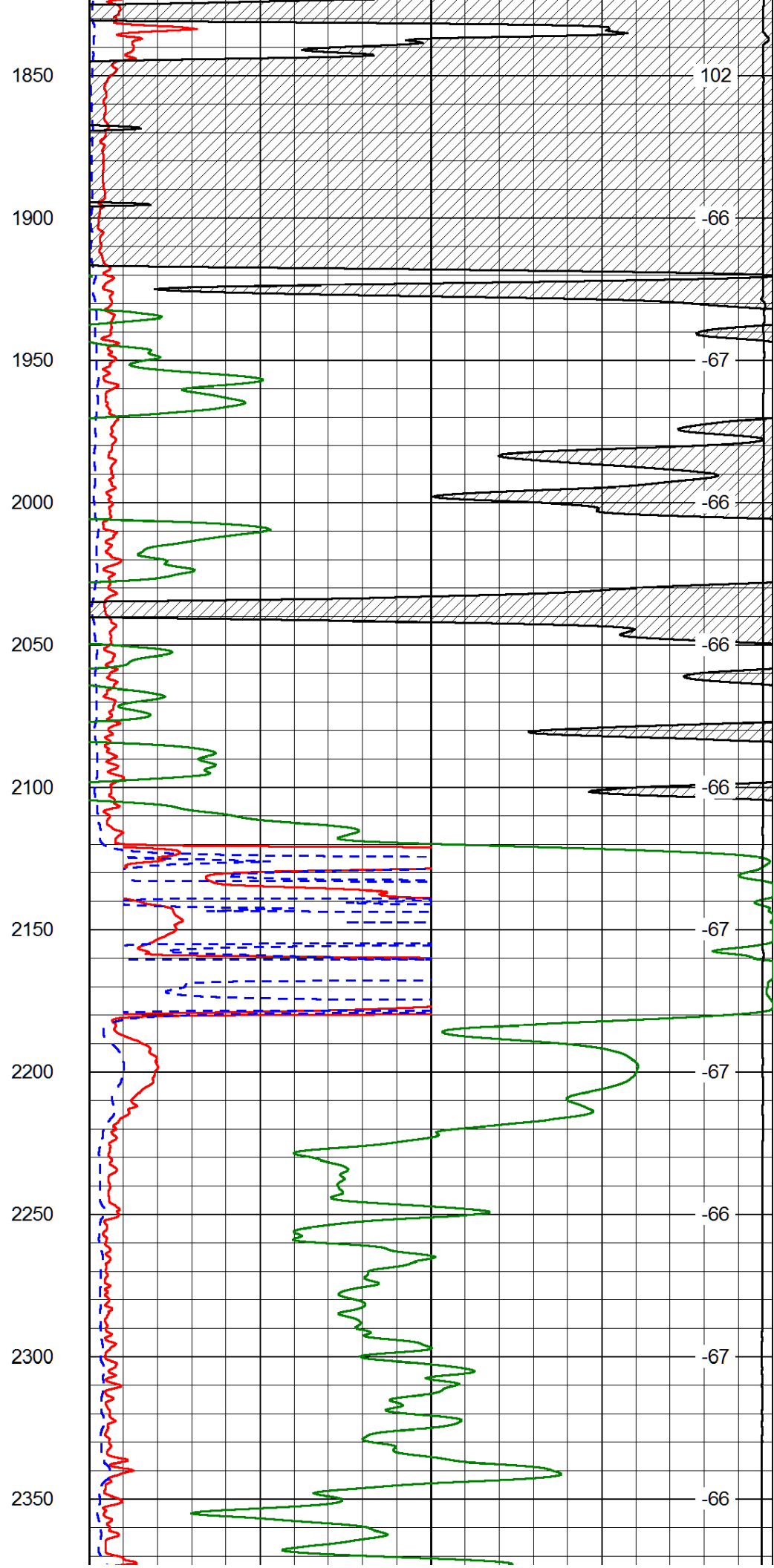
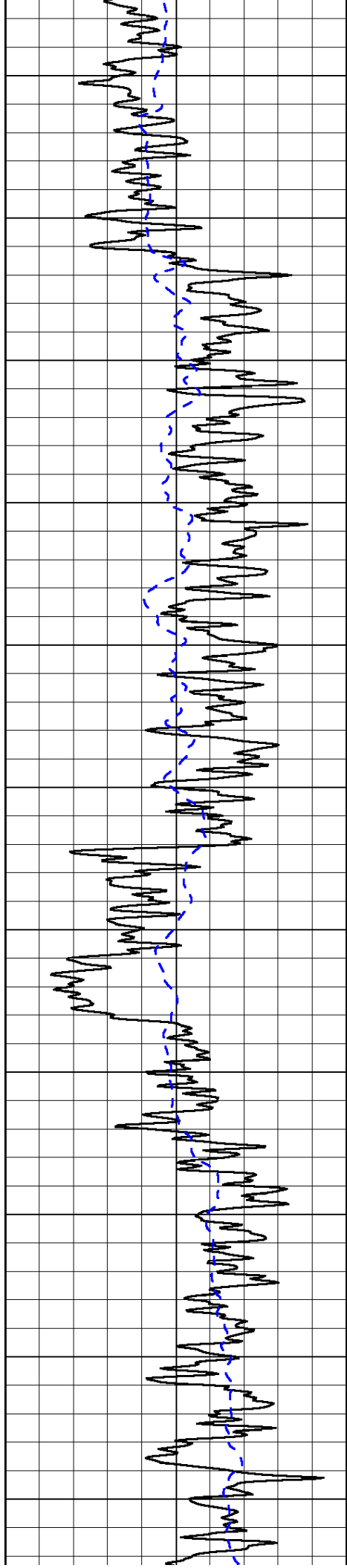
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0 Deep Resistivity 50
1000 Conductivity 0
15000 Line Tension 0
50 Shallow Resistivity 500
50 Deep Resistivity 500

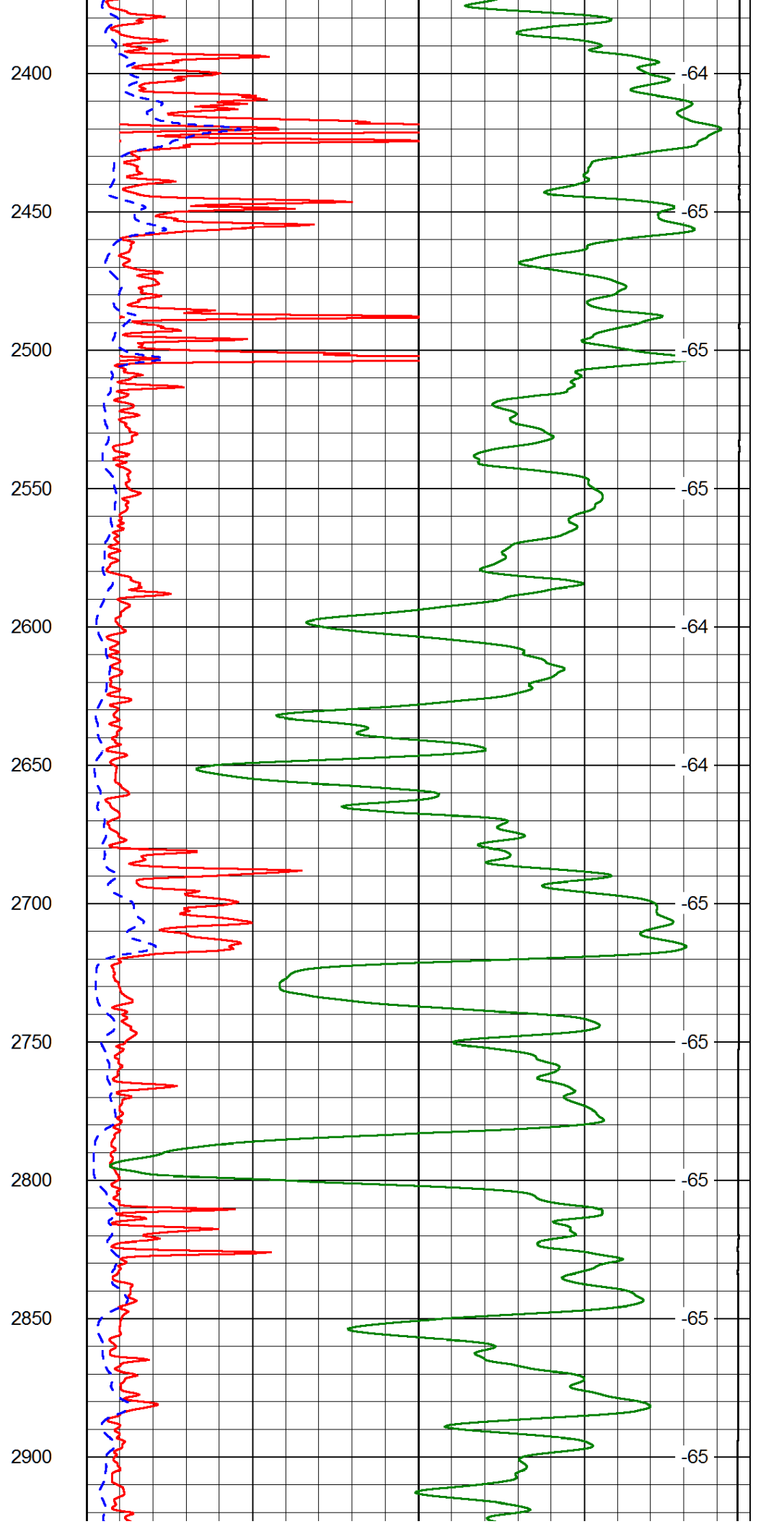
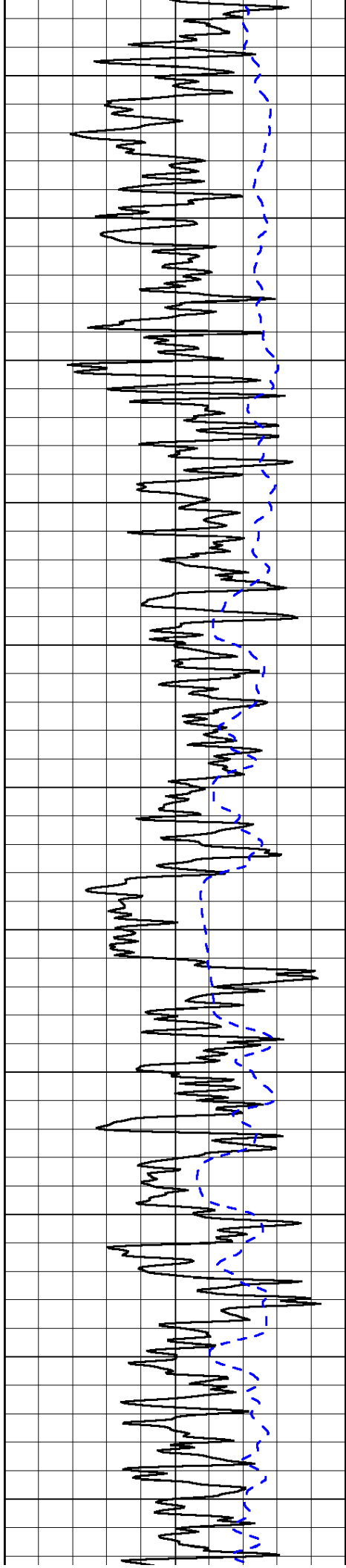
LSPD

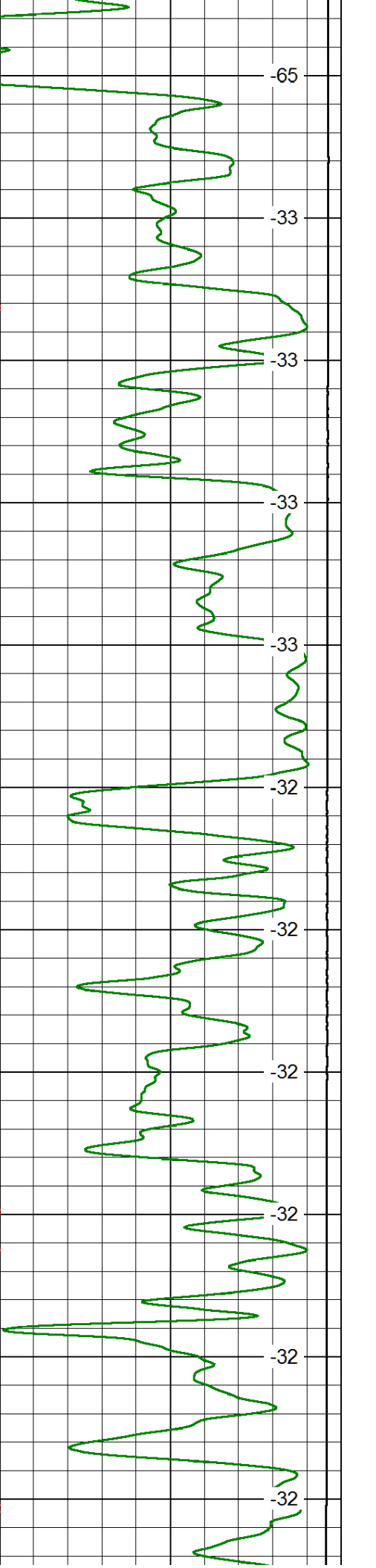
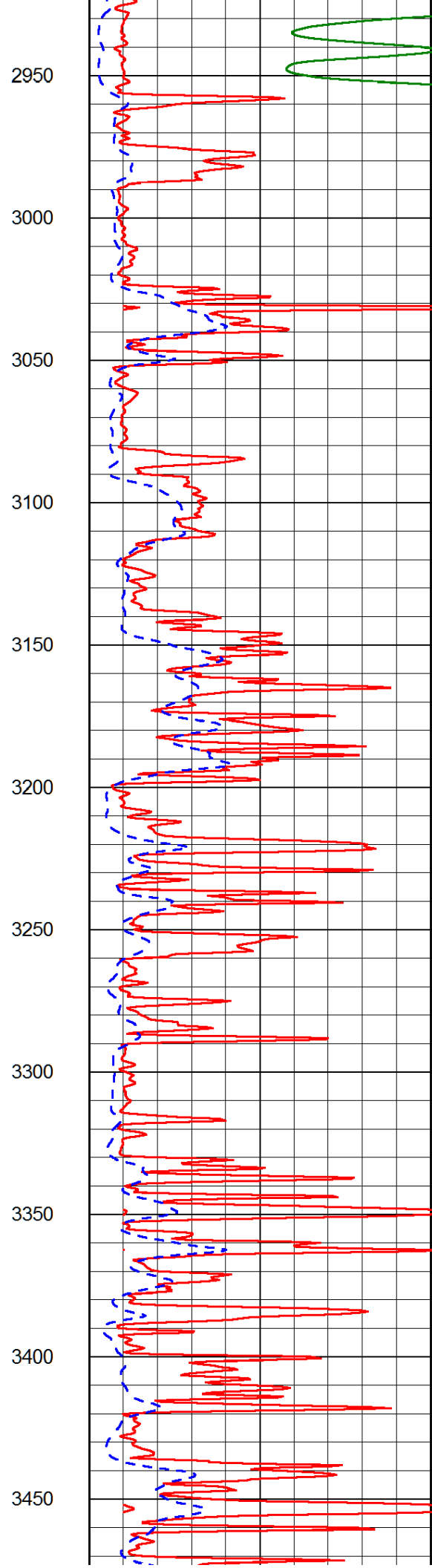
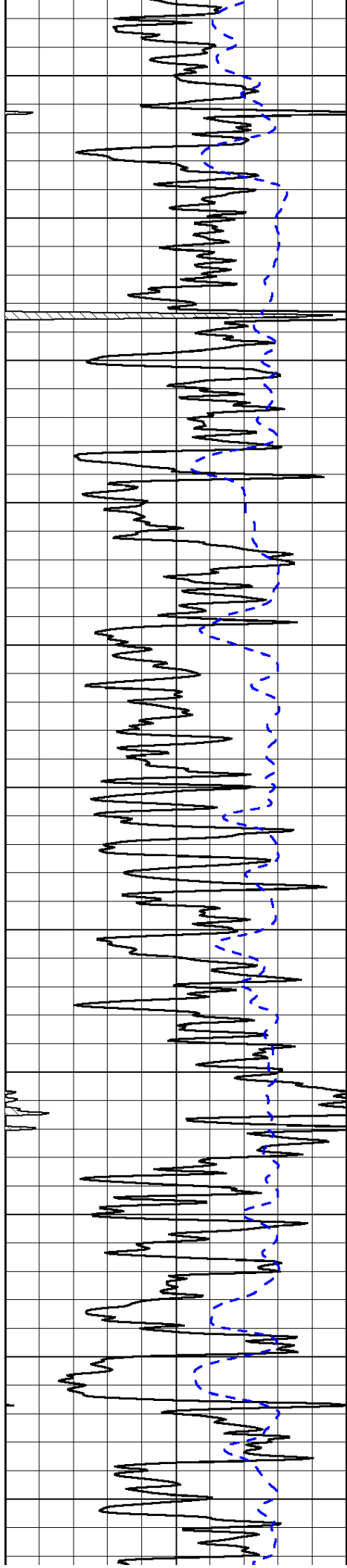


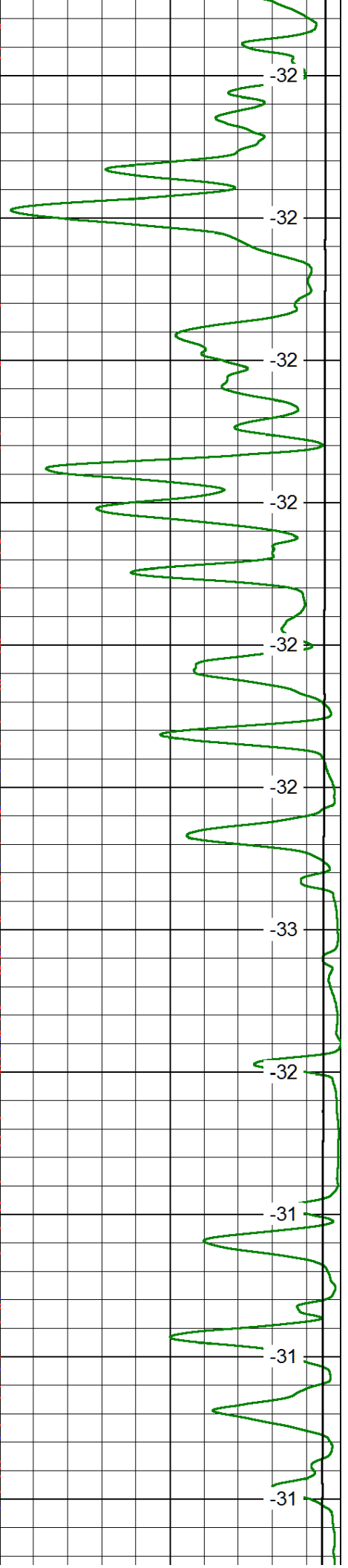
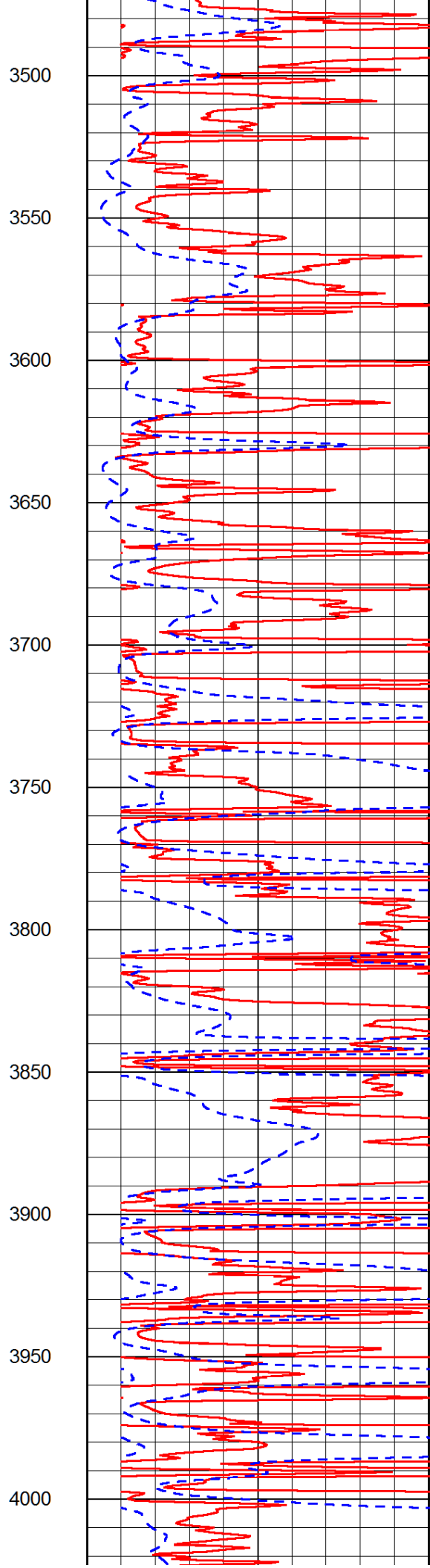
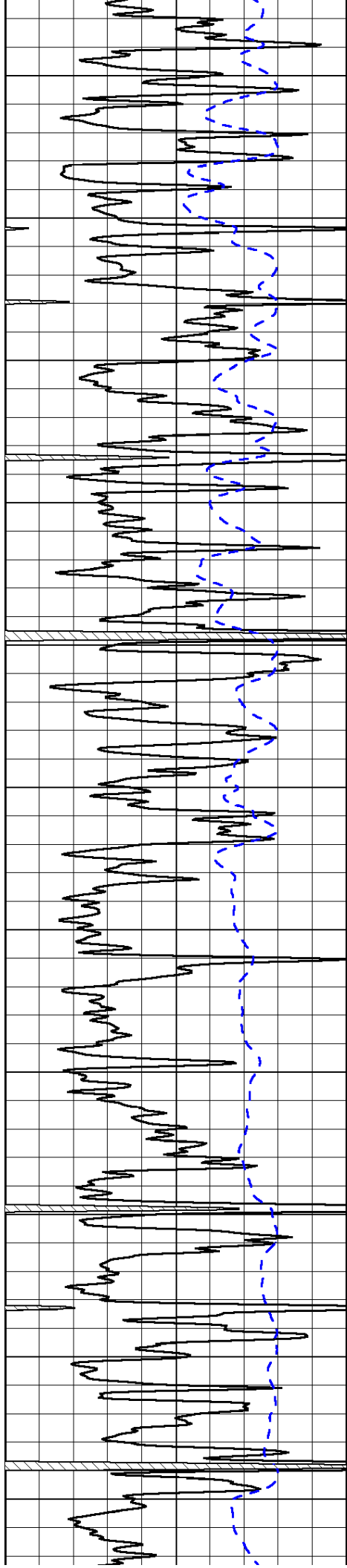












3500

3550

3600

3650

3700

3750

3800

3850

3900

3950

4000

-32

-32

-32

-32

-32

-32

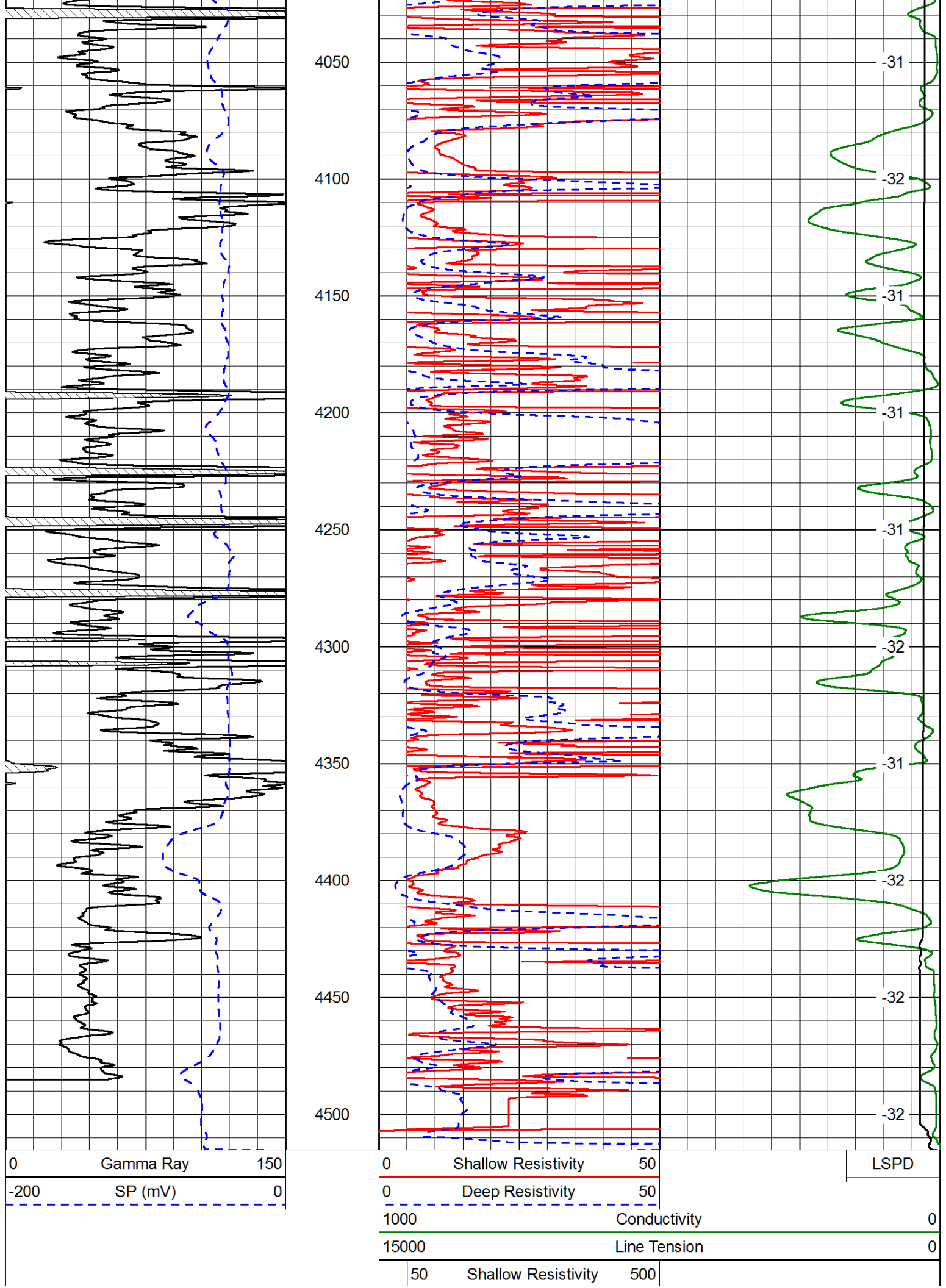
-33

-32

-31

-31

-31

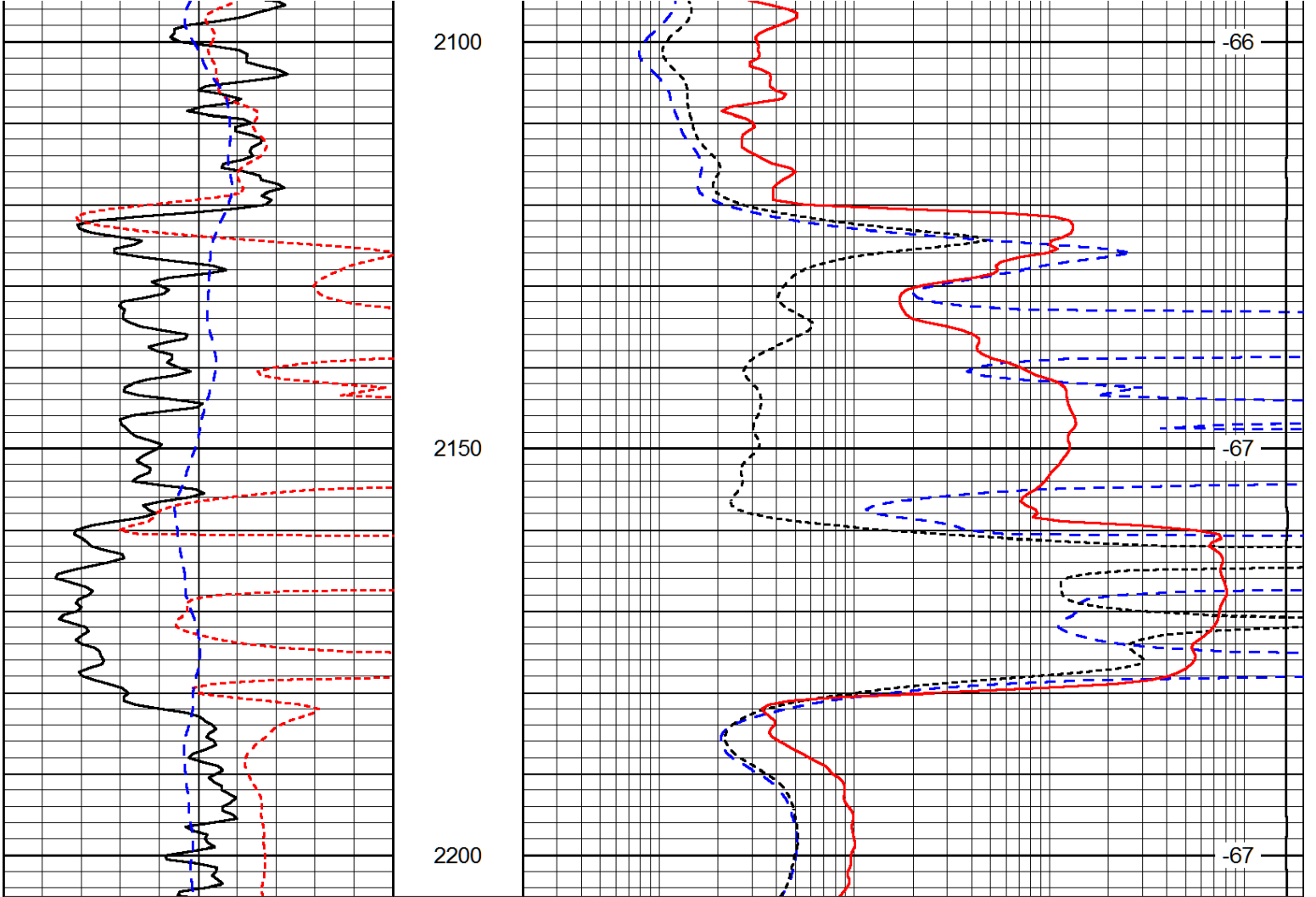


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 Dataset Pathname: DIL/btstck
 Presentation Format: dil
 Dataset Creation: Mon Dec 01 12:47:10 2014
 Charted by: Depth in Feet scaled 1:240

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



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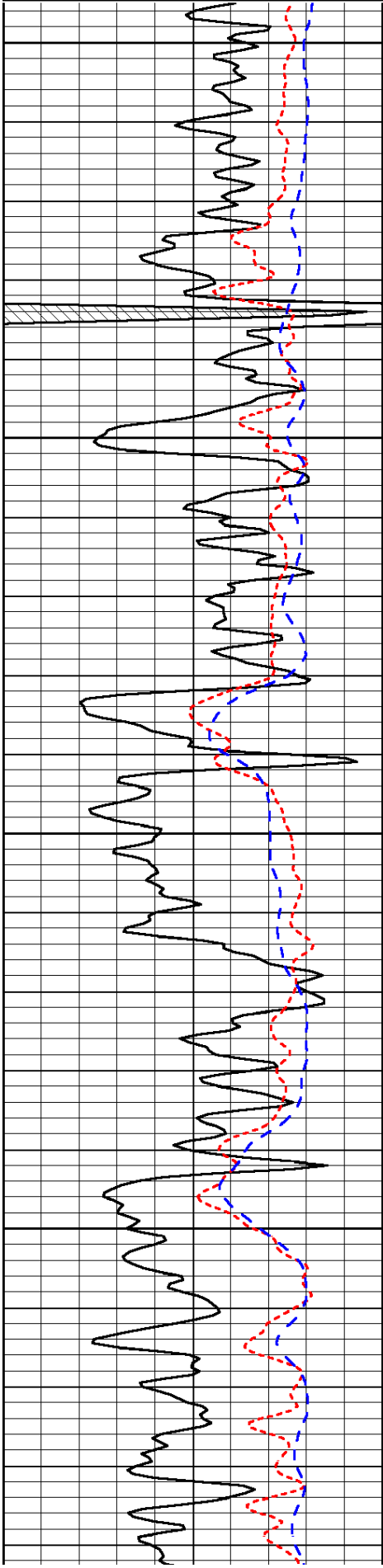
LSPD

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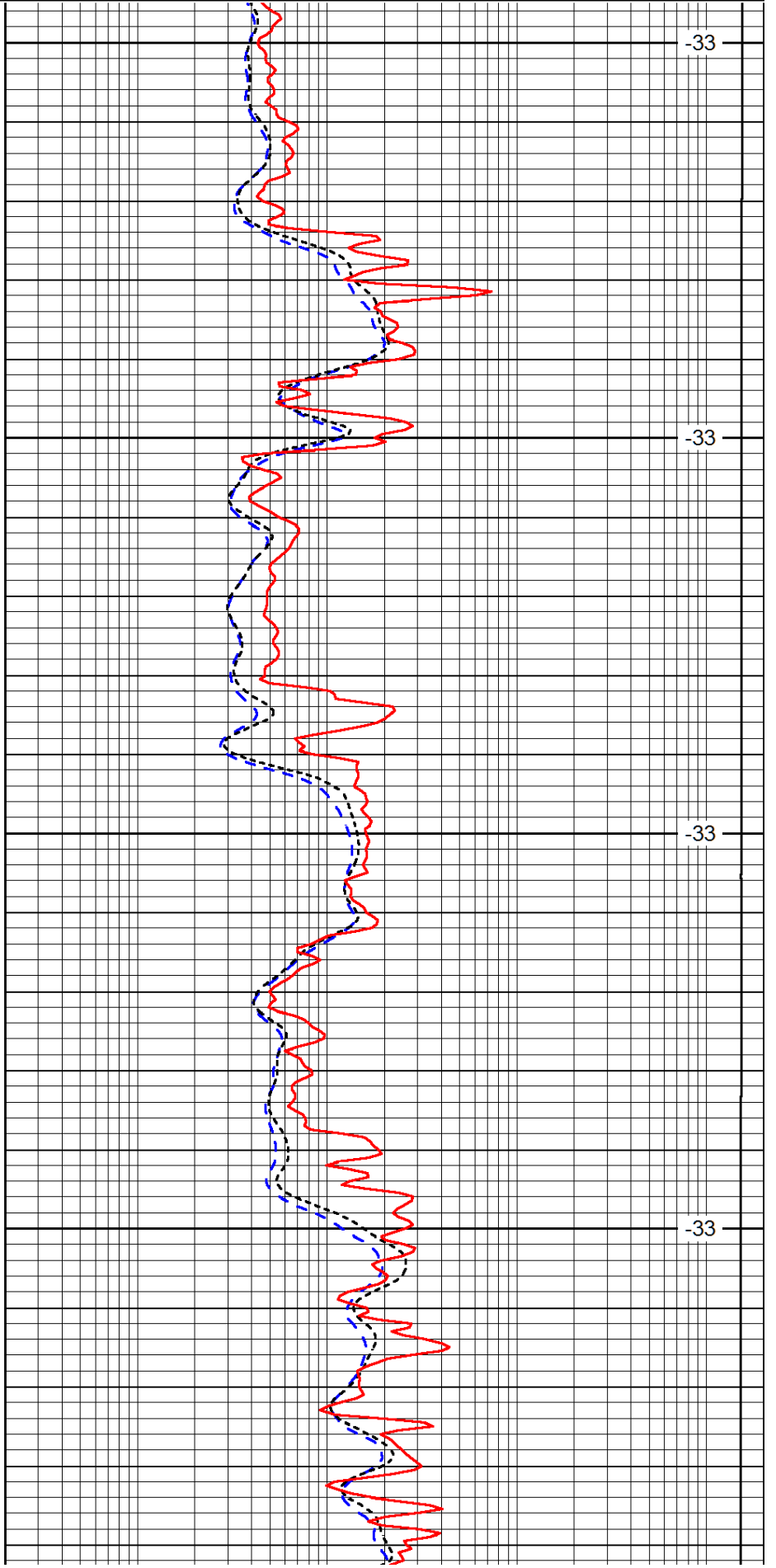
| | | |
|------|---------|----|
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| -200 | SP (mV) | 0 |

| | | |
|-------|---------------------|------|
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| 0.2 | Shallow Resistivity | 2000 |
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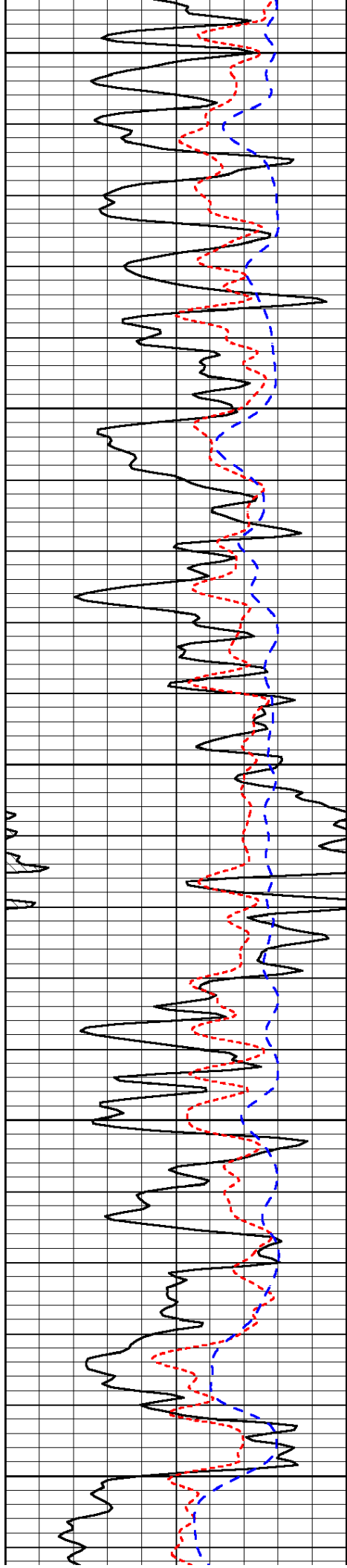
LSPD



3000
3050
3100
3150



-33
-33
-33
-33



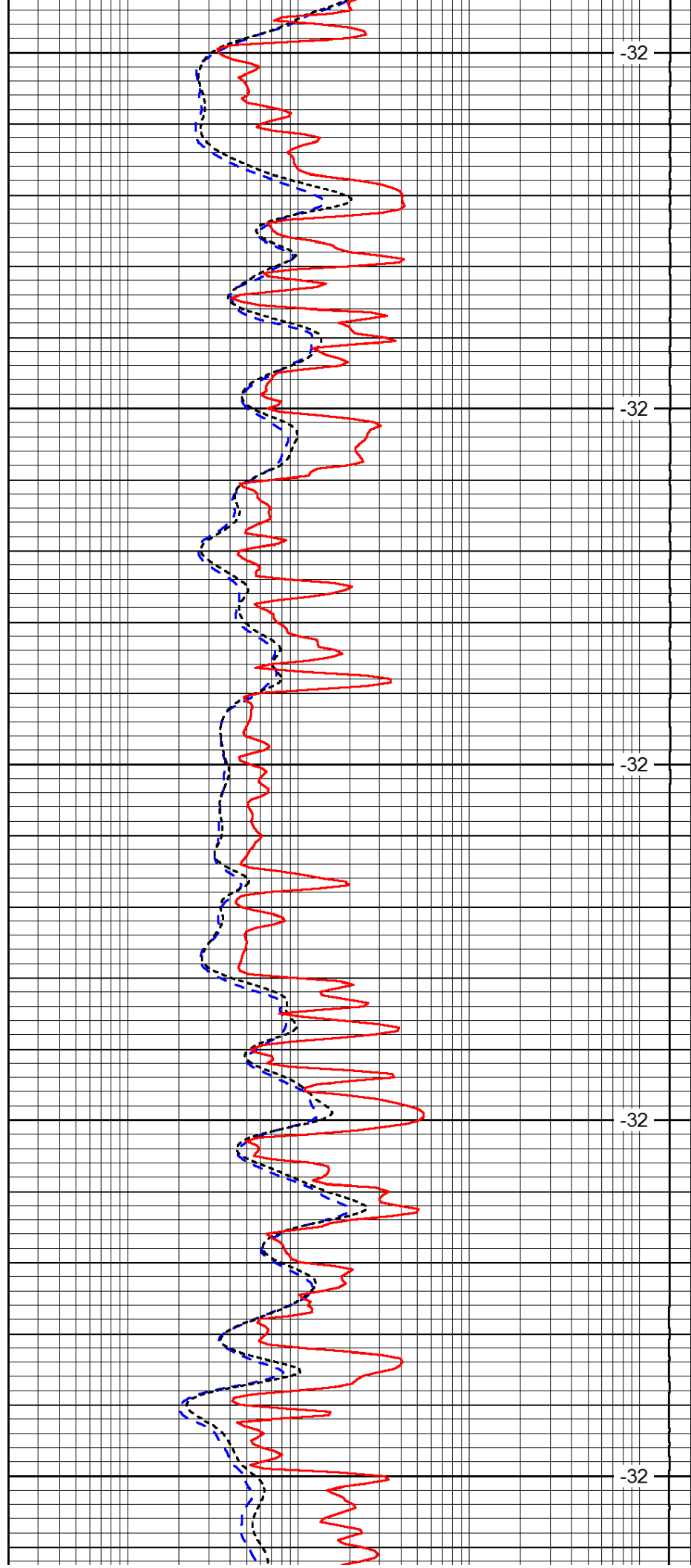
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3250

3300

3350

3400



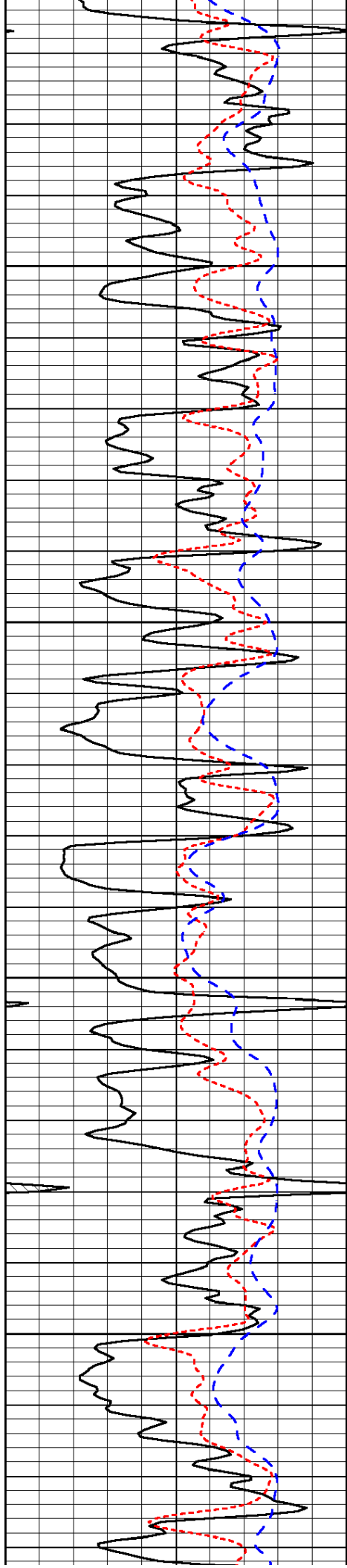
-32

-32

-32

-32

-32

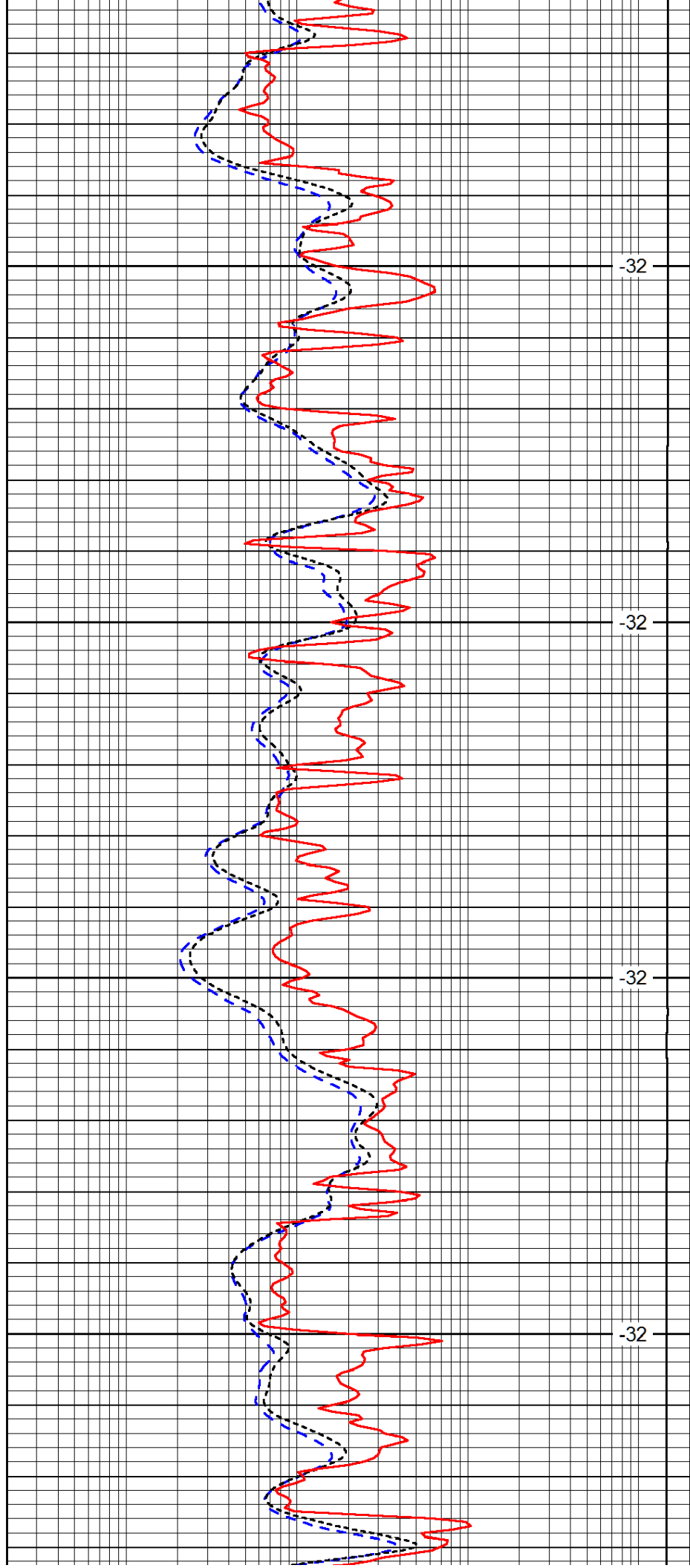


3450

3500

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3600

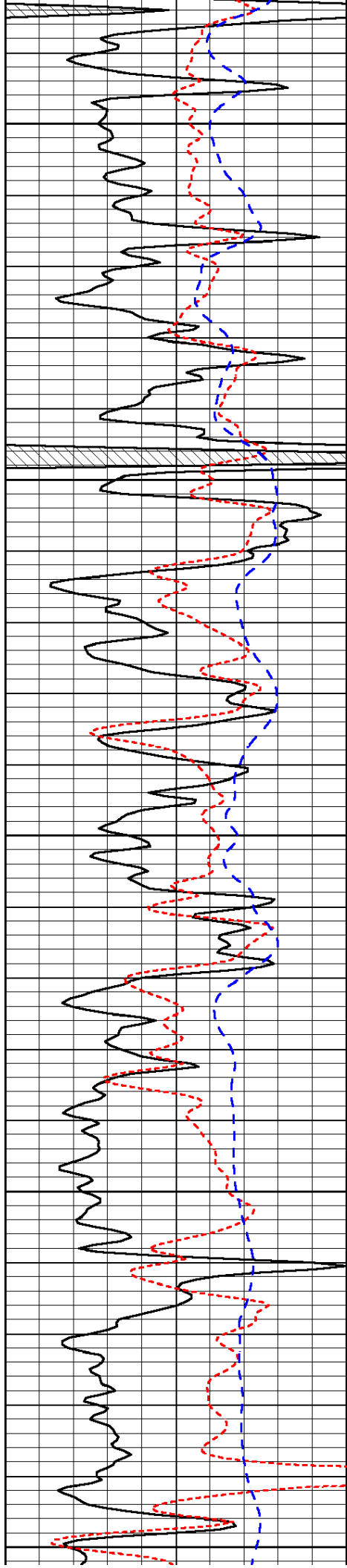


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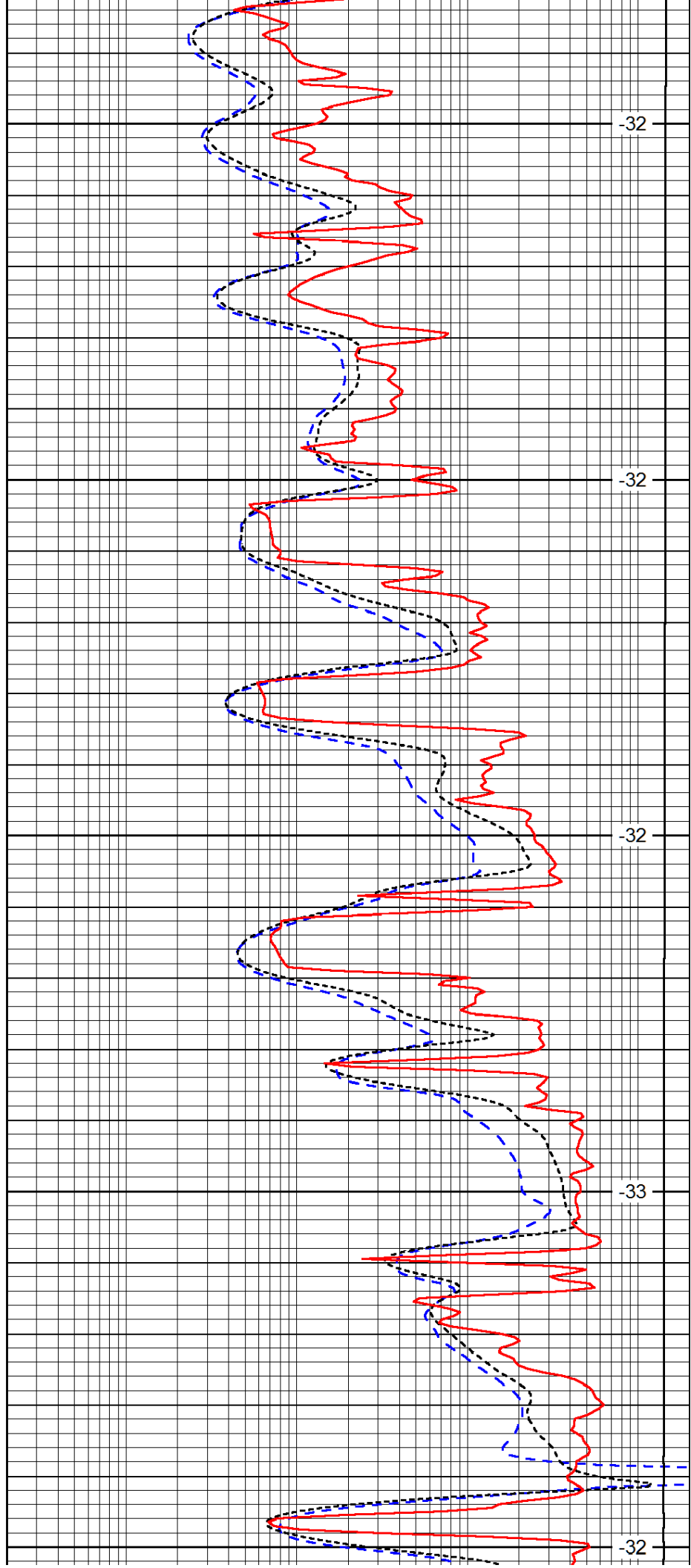
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3700

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3800

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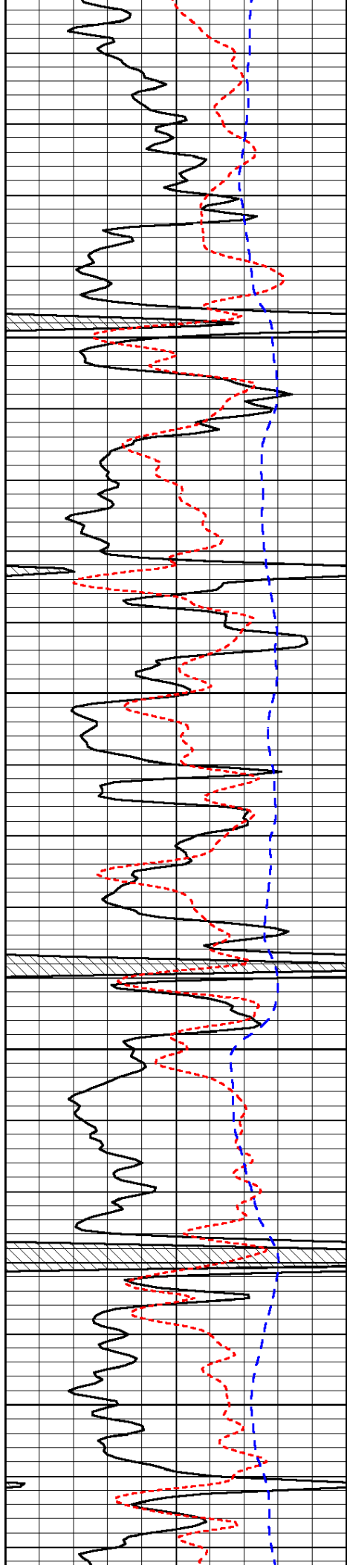
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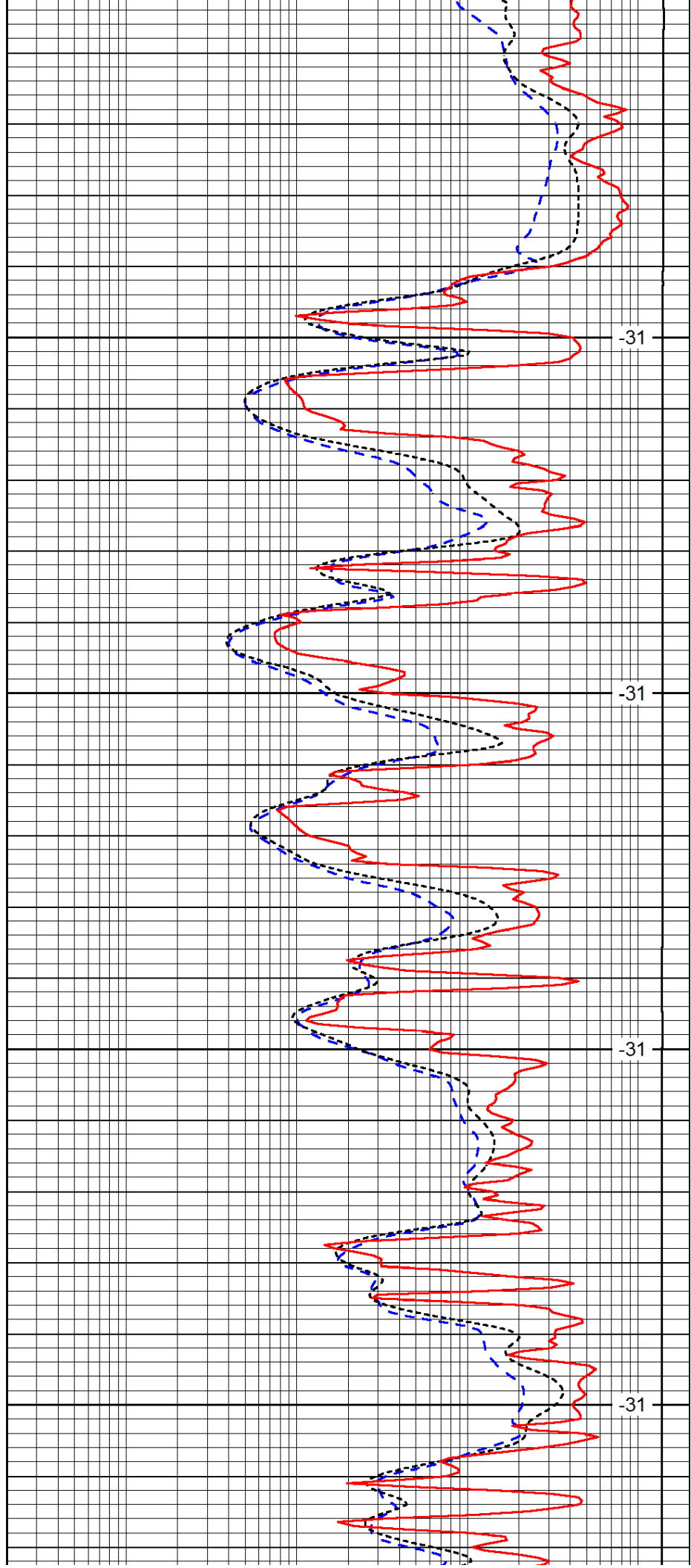


3900

3950

4000

4050

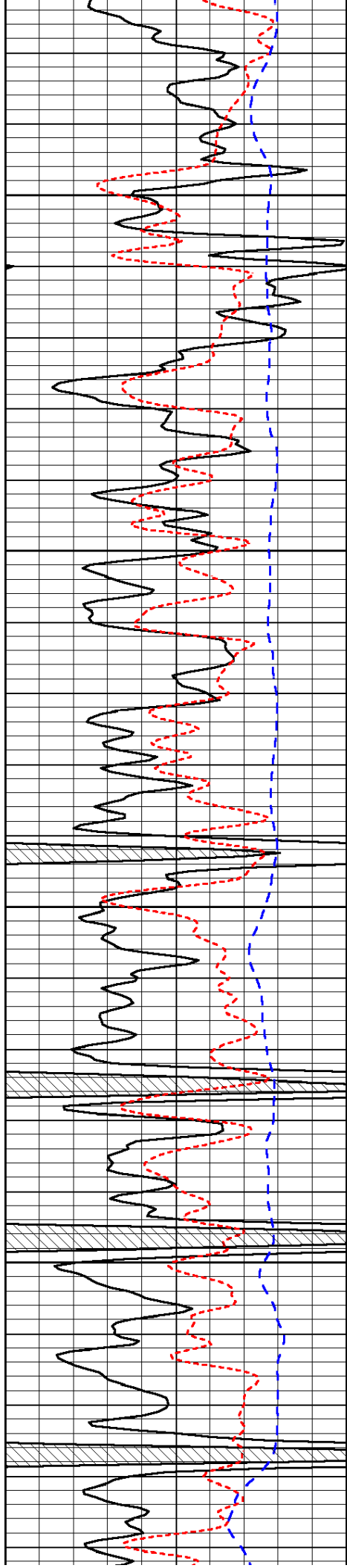


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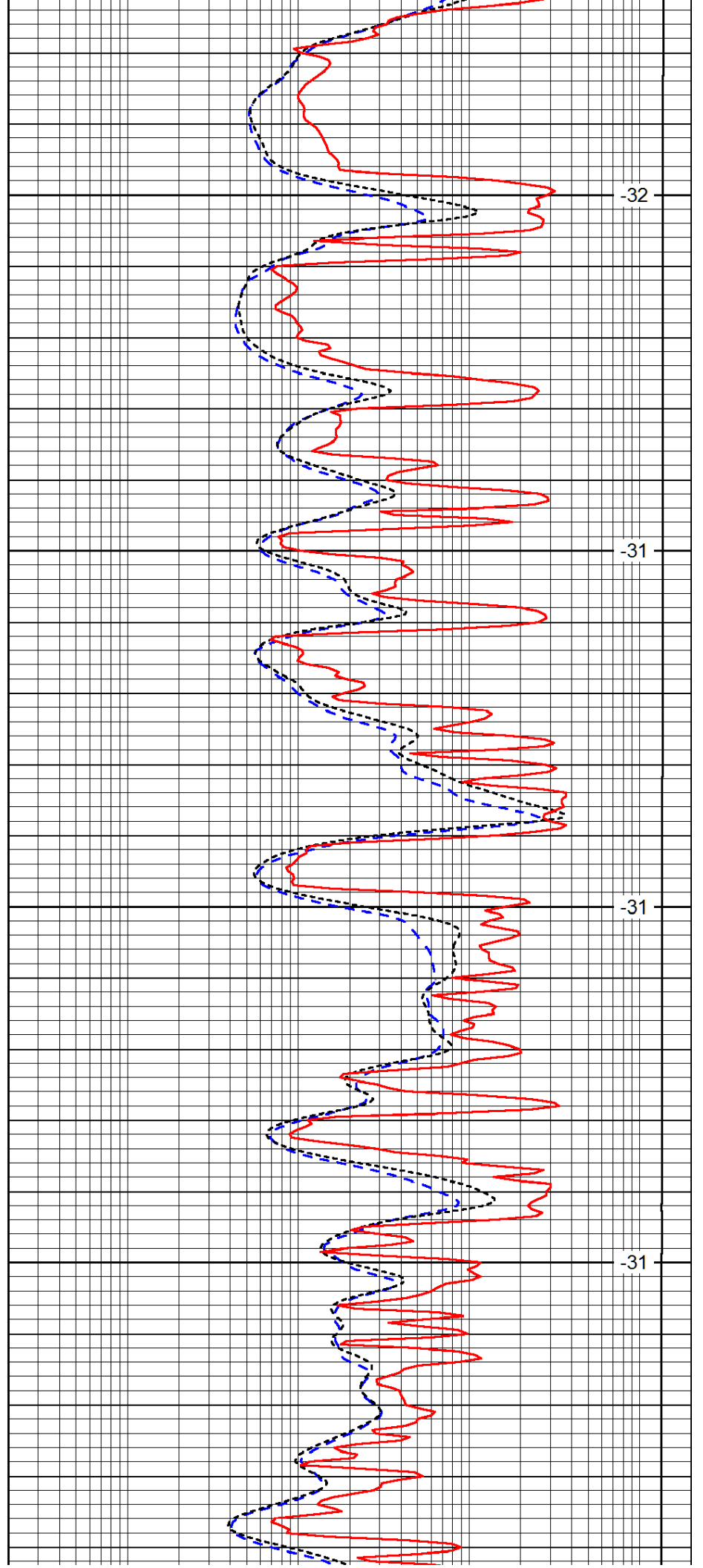


4100

4150

4200

4250

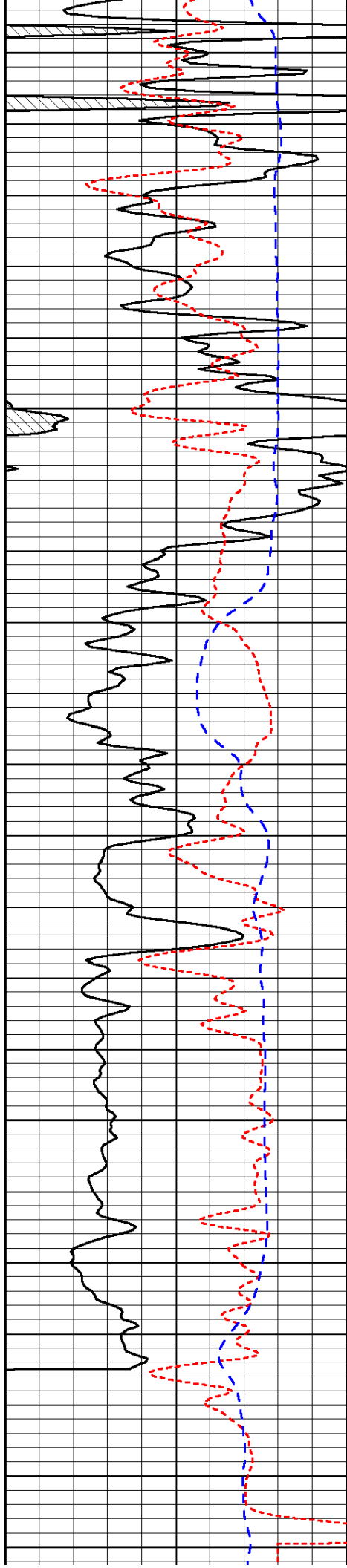


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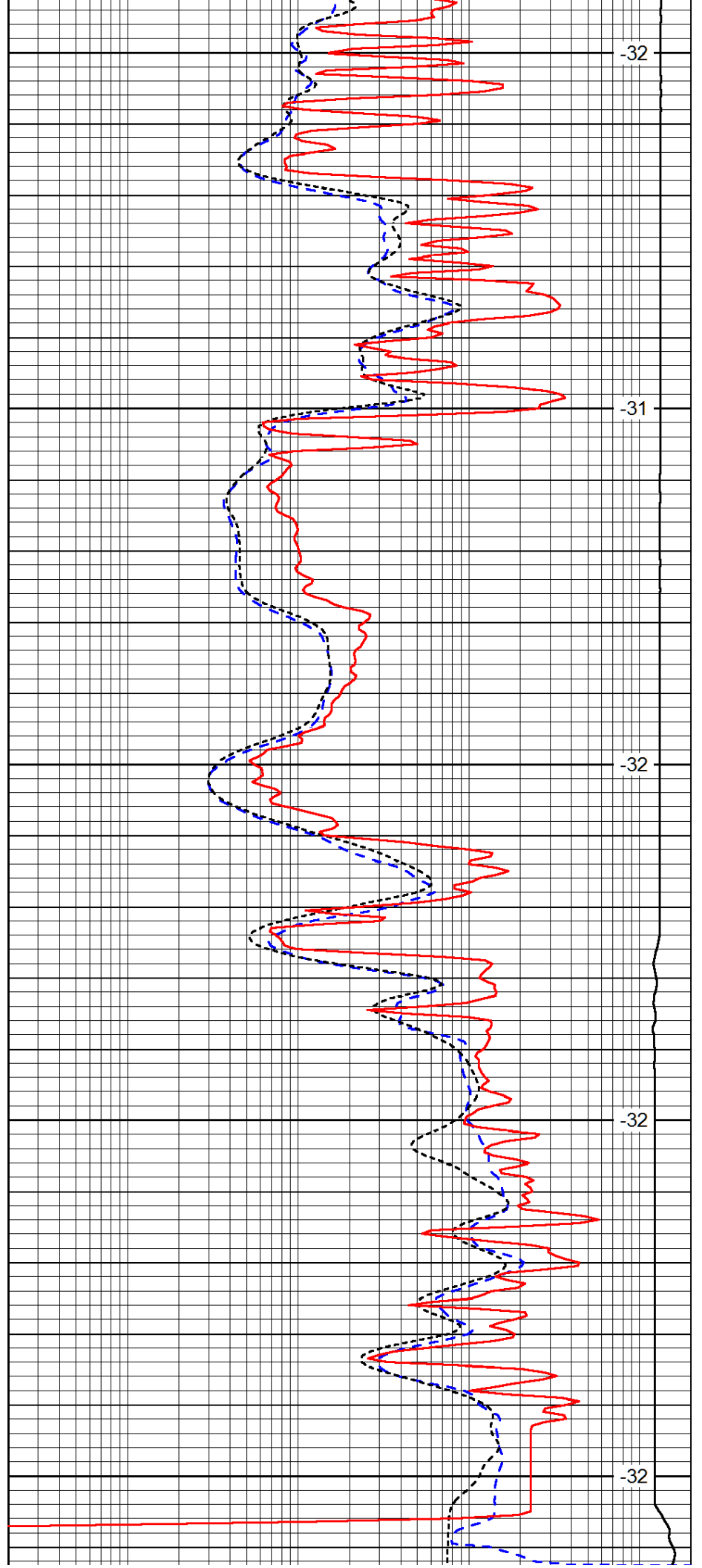
4300

4350

4400

4450

4500



-32

-31

-32

-32

-32

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| | | LSPD |