



# PIONEER

Pioneer Energy Services

## Microresistivity Log

|                        |                    |                       |  |                                     |
|------------------------|--------------------|-----------------------|--|-------------------------------------|
| API No.                | 15-163-24057-00-00 |                       |  |                                     |
| Company                |                    | Vess Oil Corporation  |  |                                     |
| Well                   |                    | Trico West Unit #3-5  |  |                                     |
| Field                  |                    | Trico                 |  |                                     |
| County                 |                    | Rooks                 |  | State                               |
|                        |                    |                       |  | Kansas                              |
| Location               |                    | 1000' FNL & 2270' FWL |  |                                     |
| Sec: 31                |                    | Twp: 10S              |  | Rge: 20W                            |
| Permanent Datum        |                    | Ground Level          |  | Elevation 2109                      |
| Log Measured From      |                    | Kelly Bushing         |  | 5 Ft. Above Perm. Datum             |
| Drilling Measured From |                    | Kelly Bushing         |  | K.B. 2114<br>D.F. 2109<br>G.L. 2109 |
| Date                   | 8/21/2012          |                       |  |                                     |
| Run Number             | Two                |                       |  |                                     |
| Depth Driller          | 3766               |                       |  |                                     |
| Depth Logger           | 3765               |                       |  |                                     |
| Bottom Logged Interval | 3764               |                       |  |                                     |
| Top Log Interval       | 2250               |                       |  |                                     |
| Casing Driller         | 8.625 @ 220        |                       |  |                                     |
| Casing Logger          | 218                |                       |  |                                     |
| Bit Size               | 7.875              |                       |  |                                     |
| Type Fluid in Hole     | Chemical           |                       |  |                                     |
| Salinity, ppm CL       | 5400               |                       |  |                                     |
| Density / Viscosity    | 9.2 59             |                       |  |                                     |
| pH / Fluid Loss        | 10.5 7.8           |                       |  |                                     |
| Source of Sample       | Flowline           |                       |  |                                     |
| Rm @ Meas. Temp        | 0.80 @ 85          |                       |  |                                     |
| Rmf @ Meas. Temp       | 0.60 @ 85          |                       |  |                                     |
| Rmc @ Meas. Temp       | 1.08 @ 85          |                       |  |                                     |
| Source of Rmf / Rmc    | Charts             |                       |  |                                     |
| Rm @ BHT               | 0.59 @ 116         |                       |  |                                     |
| Operating Rig Time     | 5 Hours            |                       |  |                                     |
| Max Rec. Temp. F       | 116                |                       |  |                                     |
| Equipment Number       | 91                 |                       |  |                                     |
| Location               | Hays               |                       |  |                                     |
| Recorded By            | D. Schmidt         |                       |  |                                     |
| Witnessed By           | Roger Martin       |                       |  |                                     |

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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.

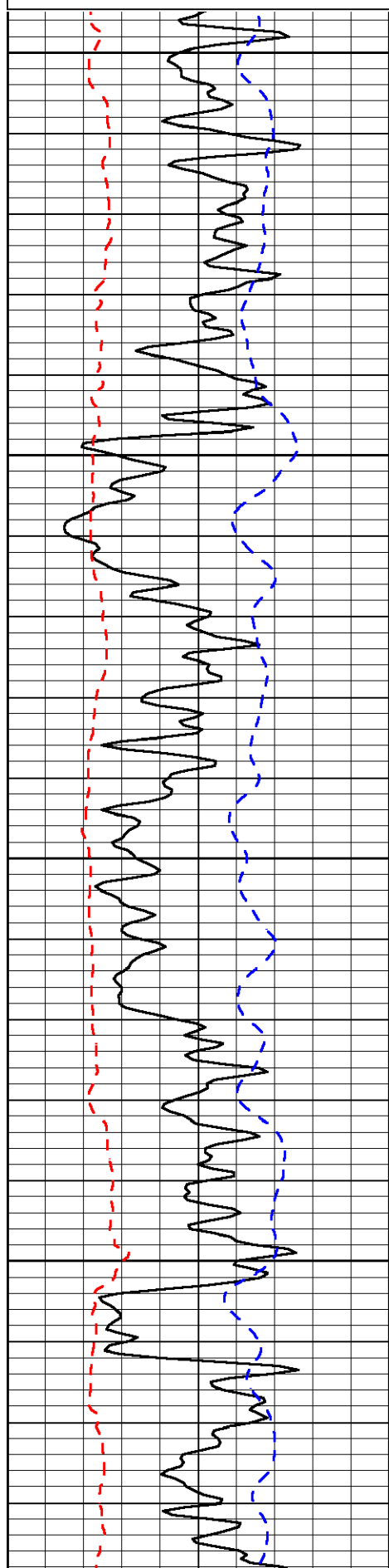
### Comments

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

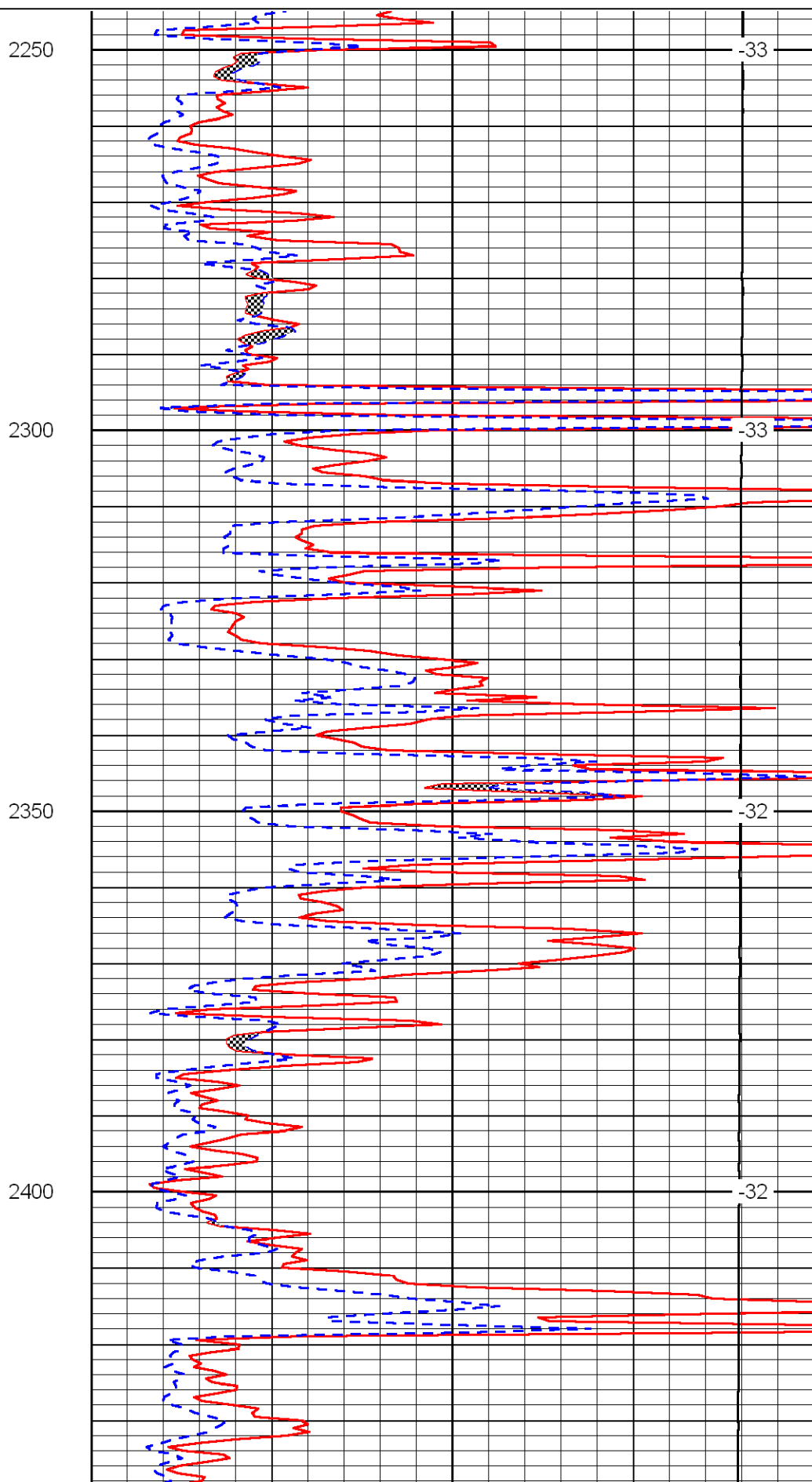
Ellis,  
North to county line (EE Rd), 2 West to Co. Rd 1, 1 1/4 North,  
East and South to location

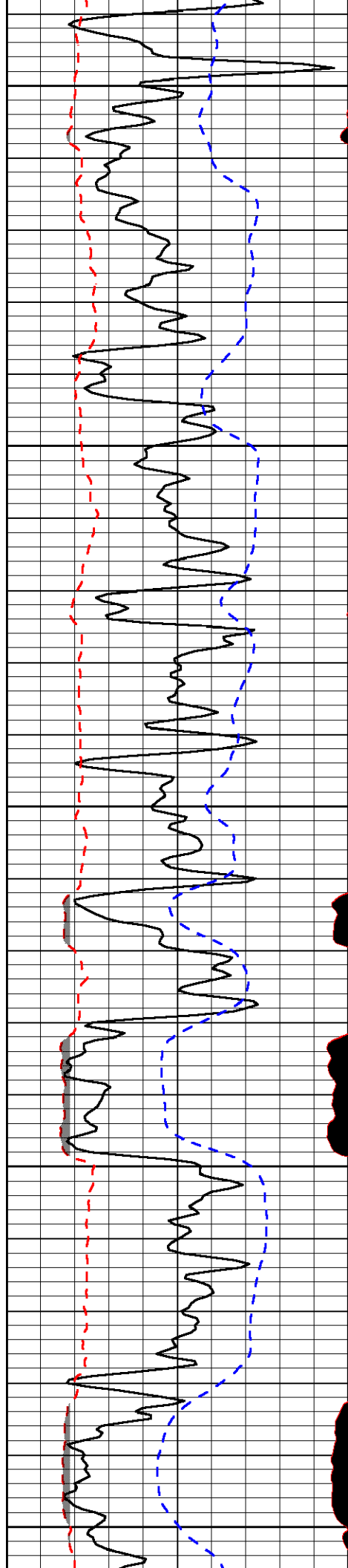
Database File: vess\_082112hd.db  
Dataset Pathname: dil/vstack  
Presentation Format: micro  
Dataset Creation: Tue Aug 21 20:54:43 2012  
Charted by: Depth in Feet scaled 1:240

|       |                 |       |
|-------|-----------------|-------|
| 0     | Gamma Ray       | 150   |
| 6     | MCAL (GAPI)     | 16    |
| 2.875 | Mud Cake (GAPI) | 7.875 |
| -200  | SP              | 0     |



|       |                     |      |
|-------|---------------------|------|
| 0     | Micro Inverse 1 X 1 | 40   |
| 0     | Micro Normal 2"     | 40   |
| 10000 | Line Weight         | 0    |
|       |                     | LSPD |





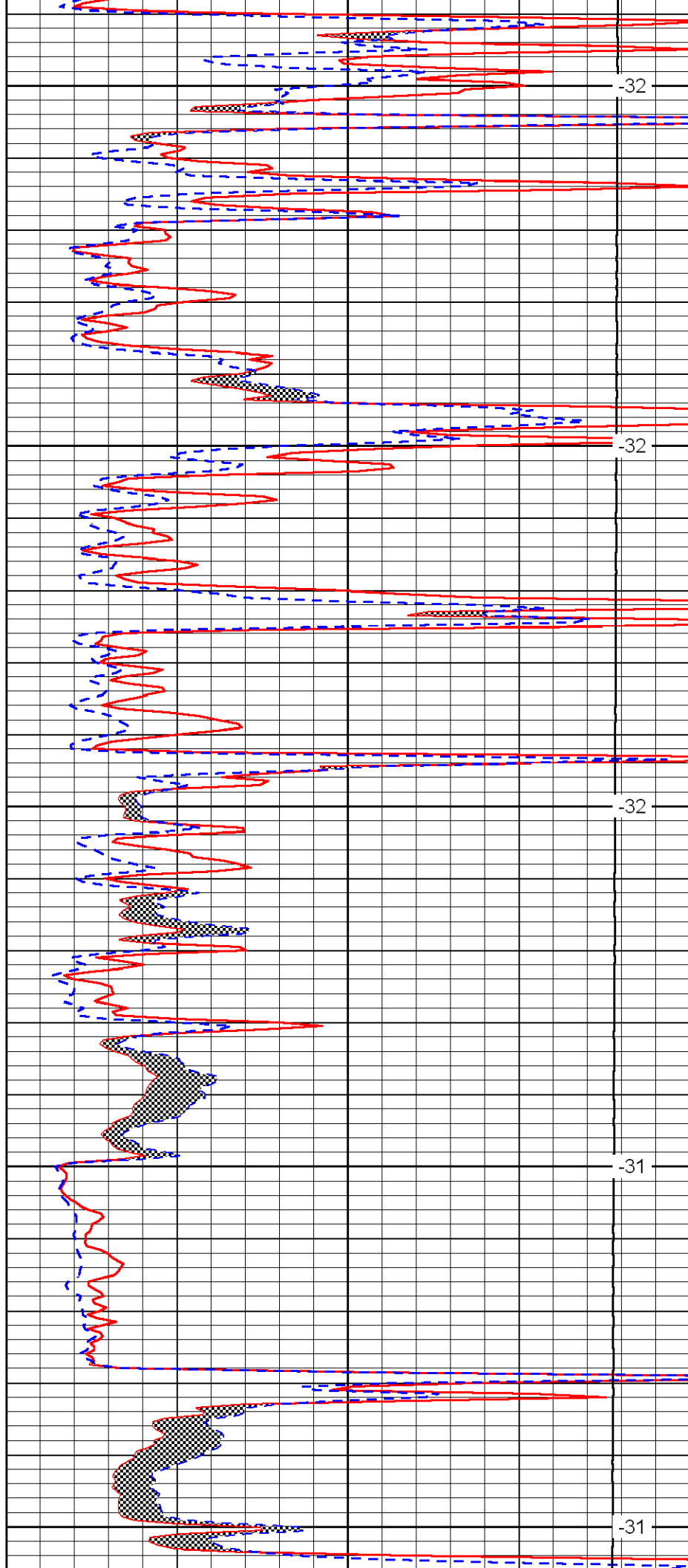
2450

2500

2550

2600

2650



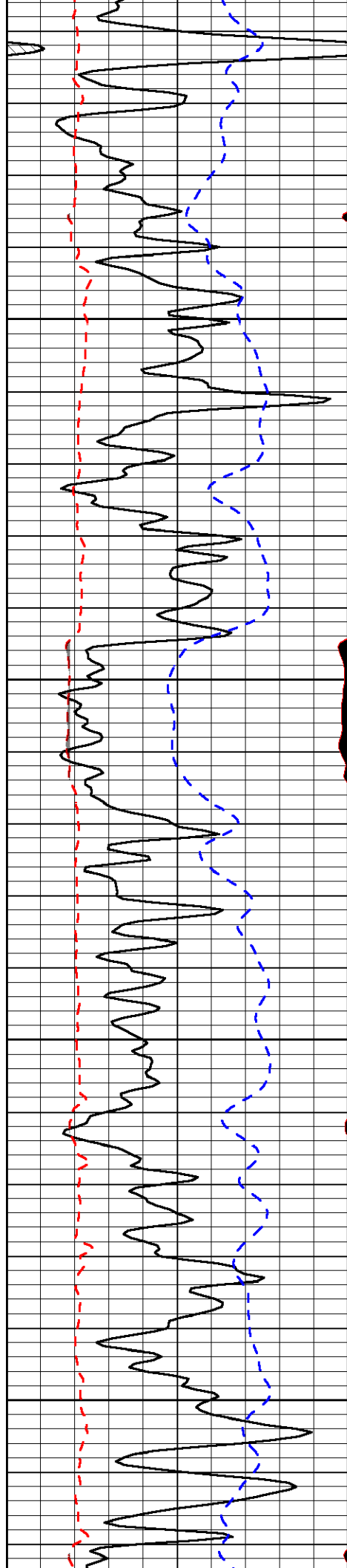
-32

-32

-32

-31

-31

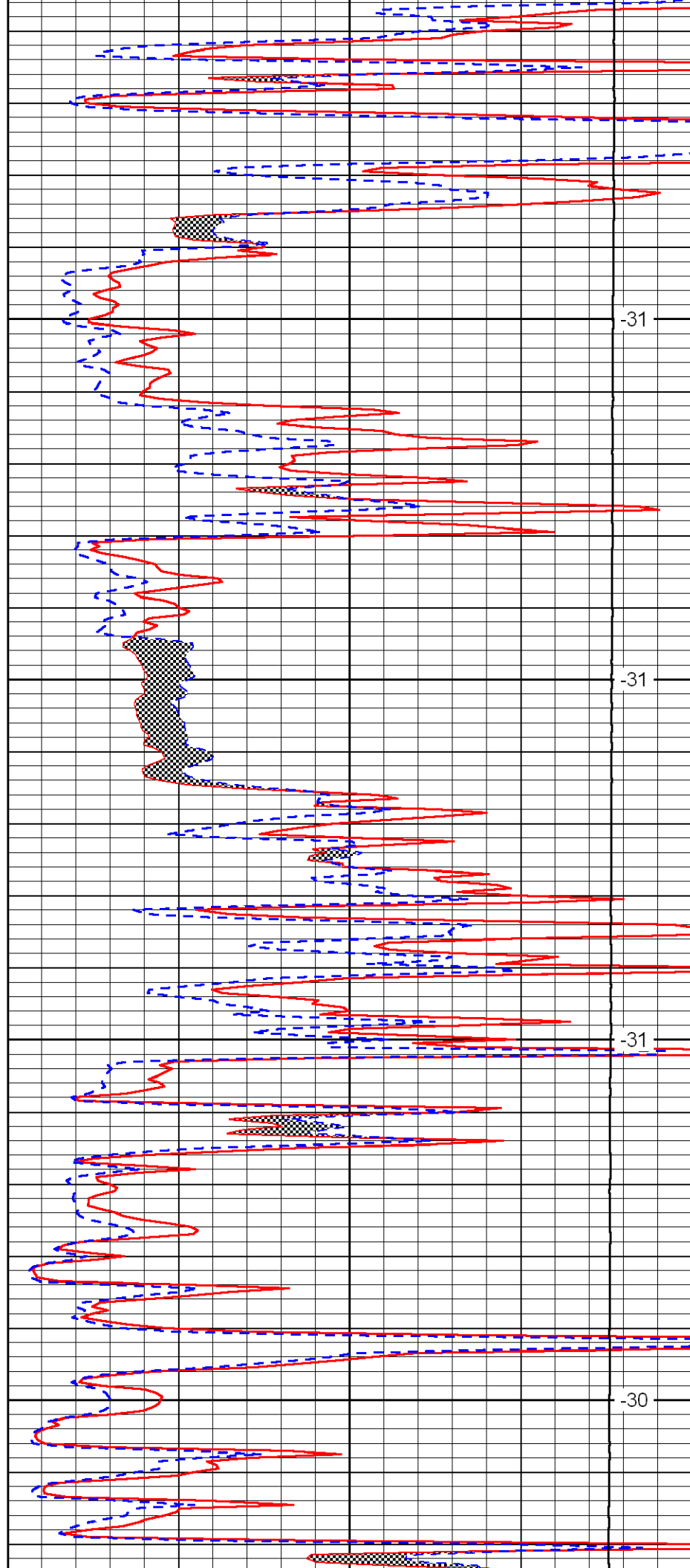


2700

2750

2800

2850

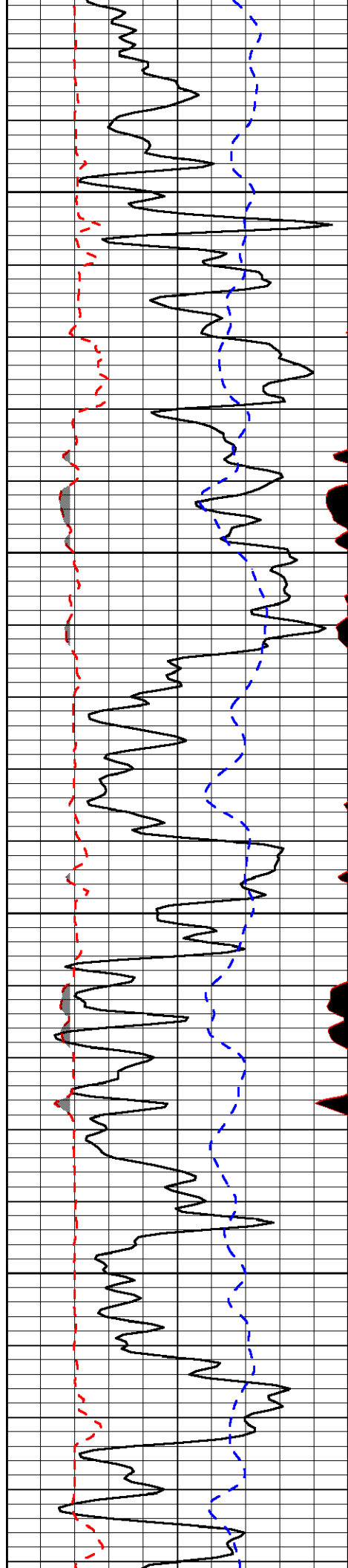


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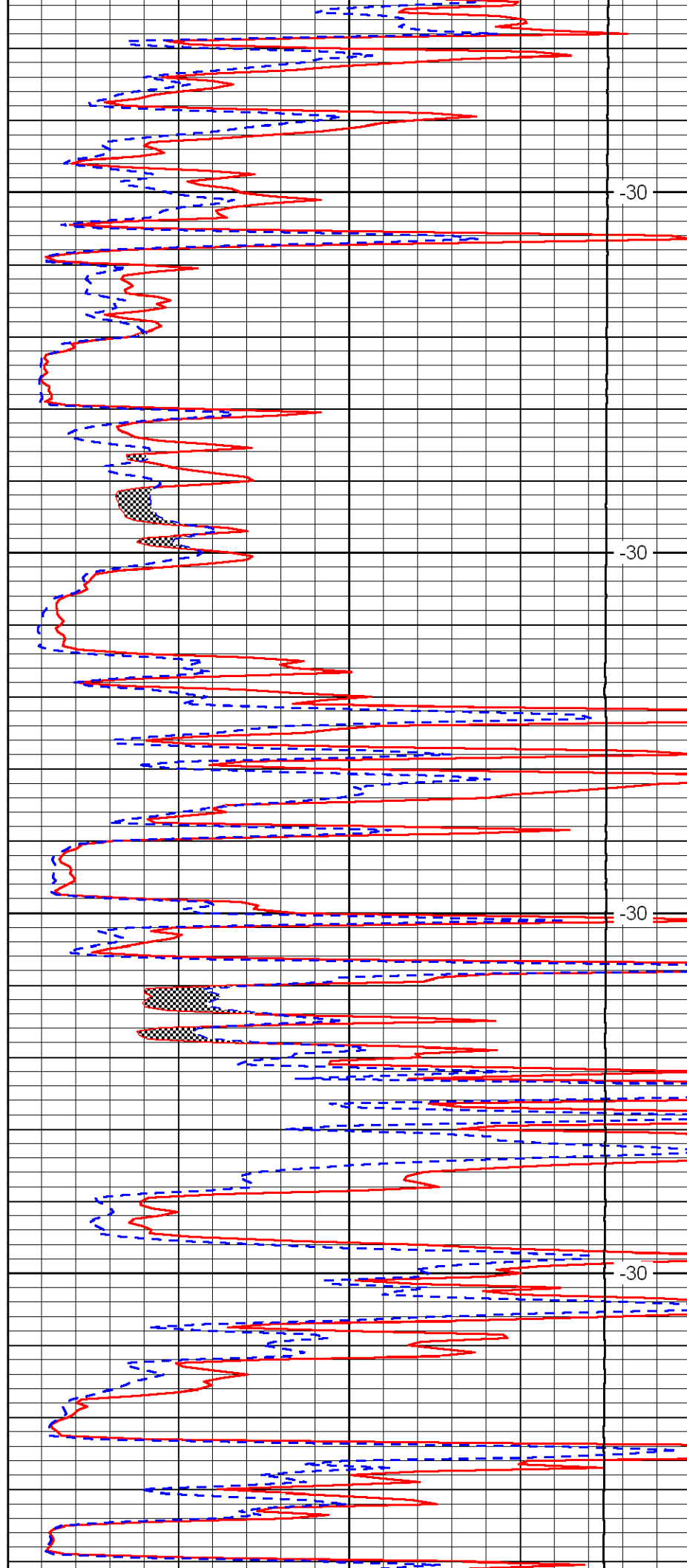


2900

2950

3000

3050

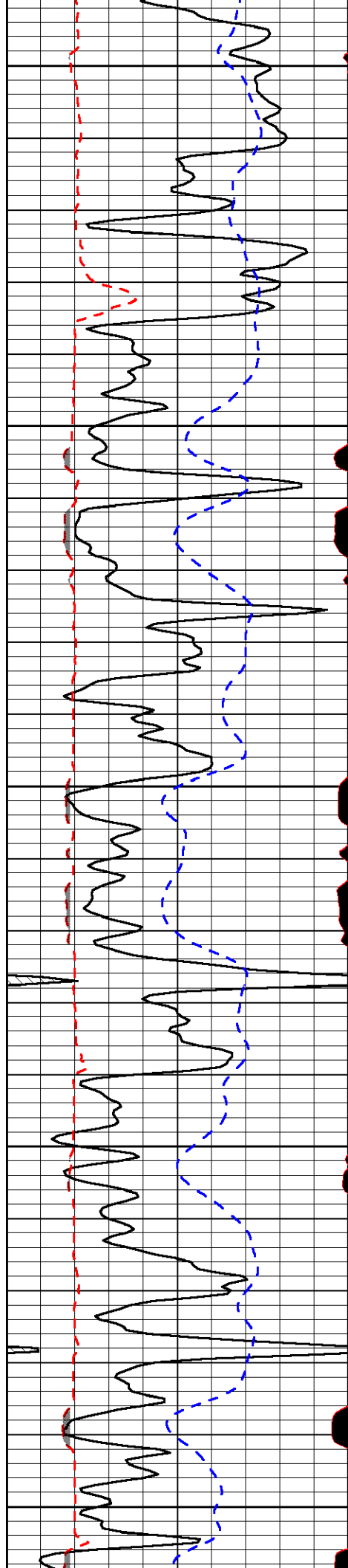


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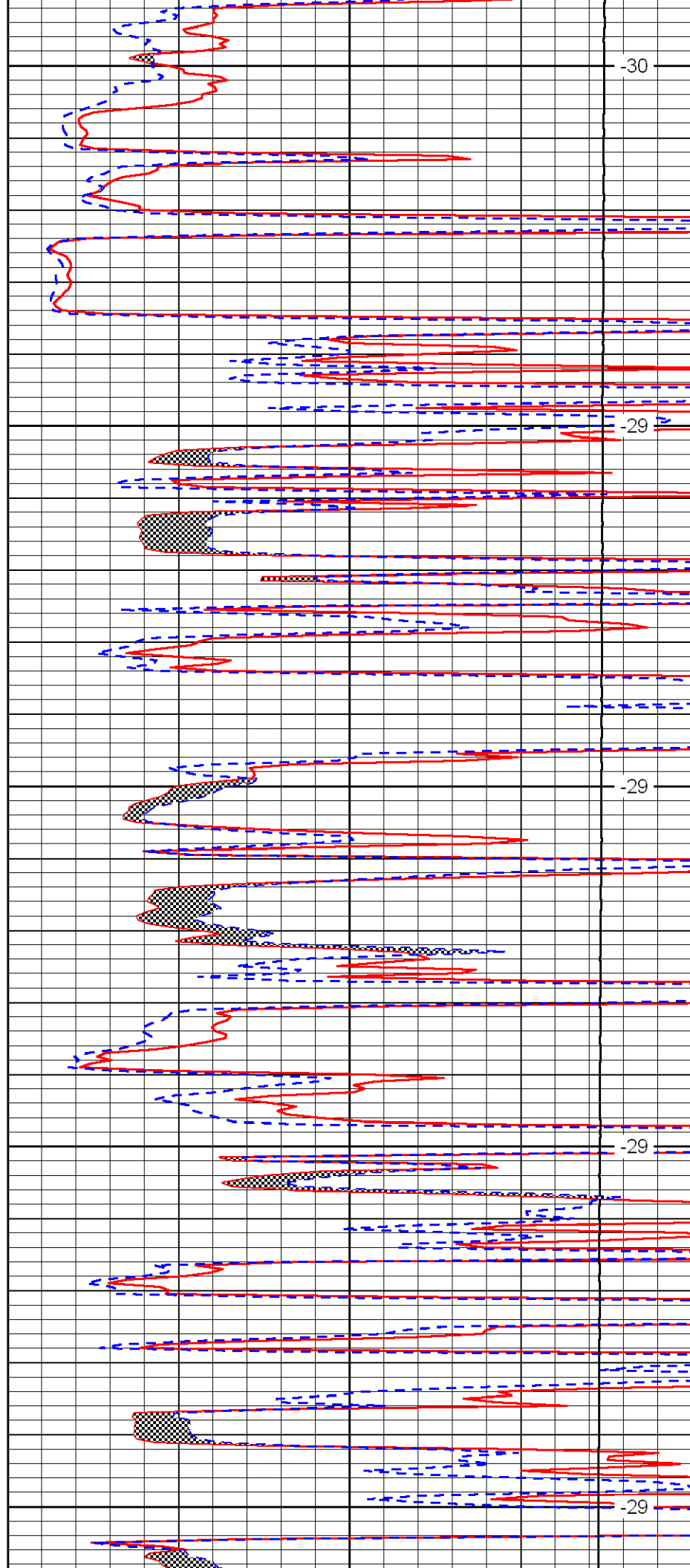
3100

3150

3200

3250

3300



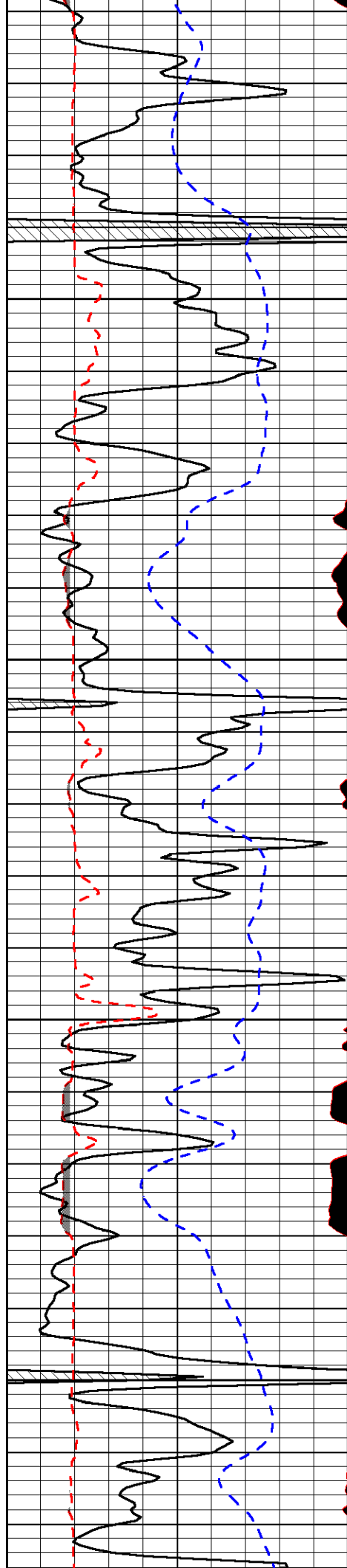
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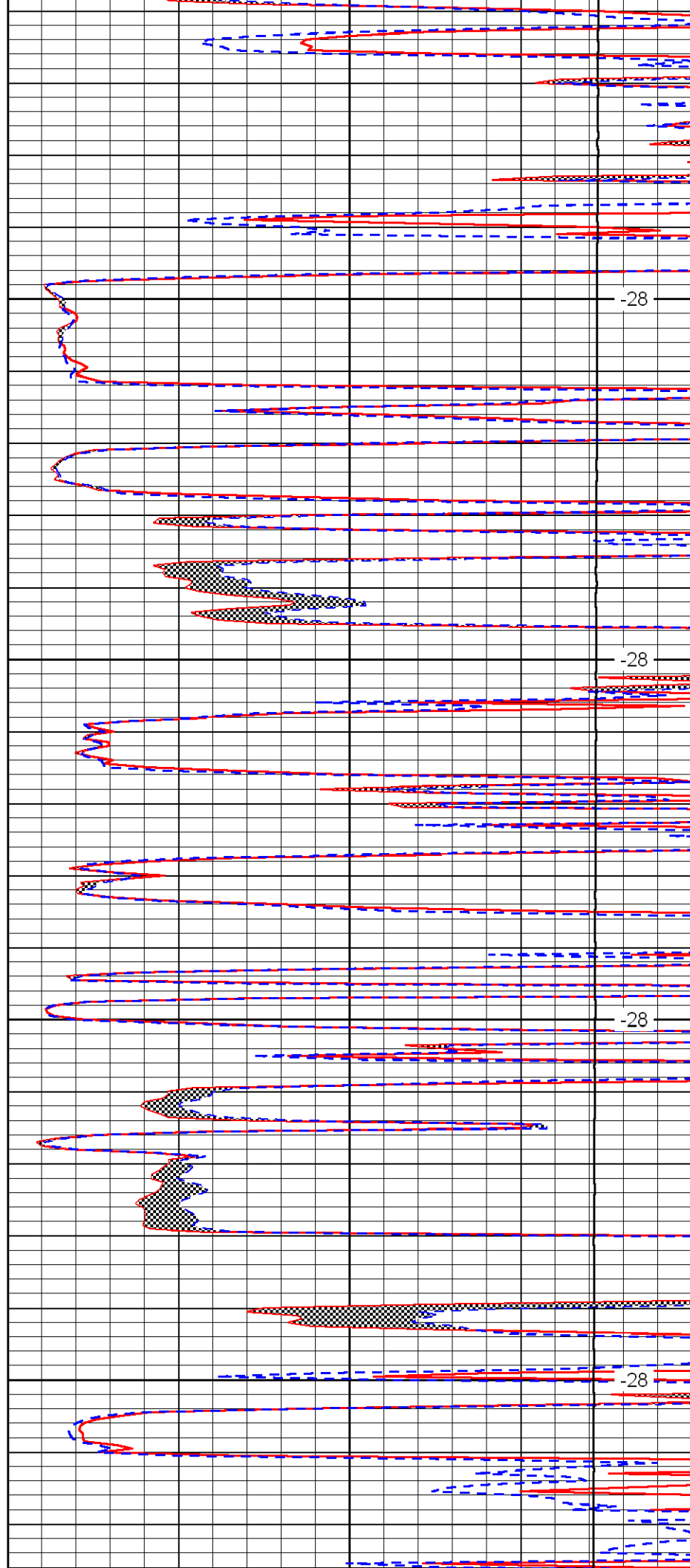


3350

3400

3450

3500

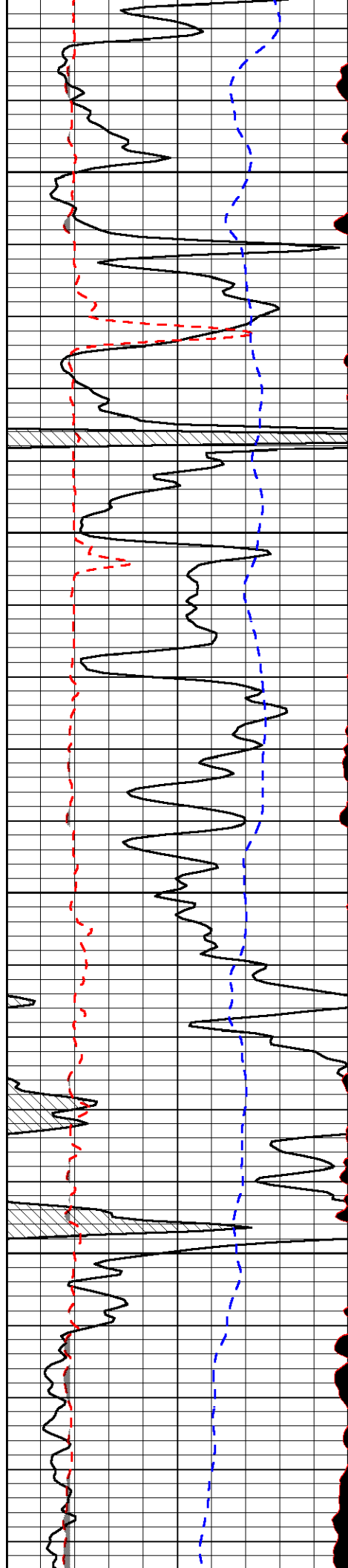


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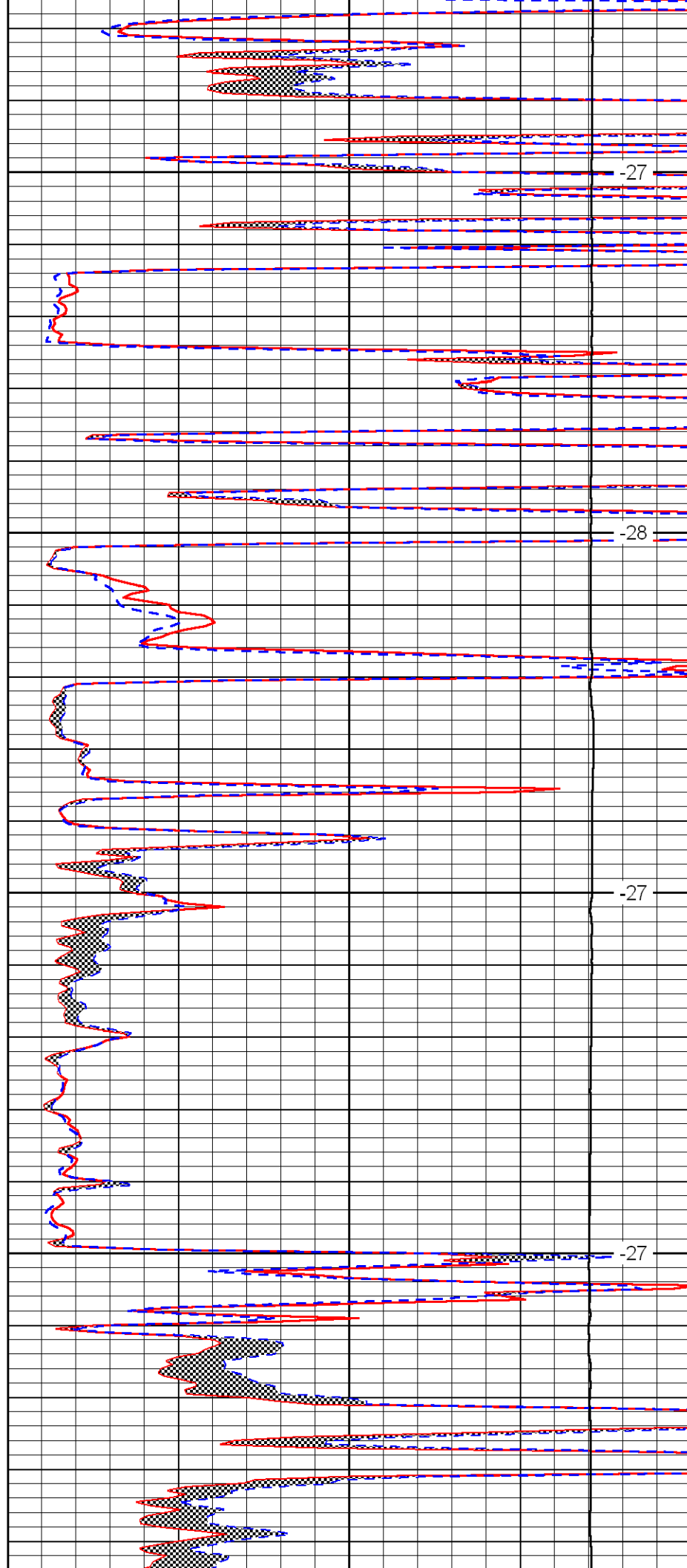


3550

3600

3650

3700

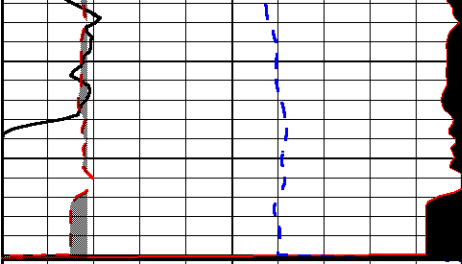


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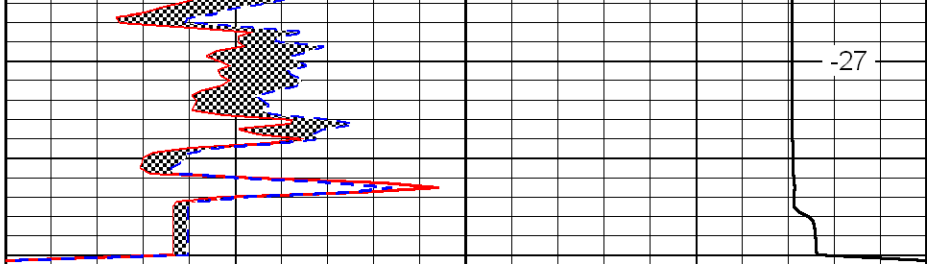
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-27



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