



Pioneer Energy Services

## Microresistivity Log

|                        |                                                                                                                                                  |                                                  |  |  |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--|--|
| API No.                | Company <b>Murfin Drilling Company, Inc.</b><br>Well <b>Burk Trust "C" #2-22</b><br>Field <b>NA</b><br>County <b>Rawlins</b> State <b>Kansas</b> |                                                  |  |  |
| 15-153-20952-00-00     | Location<br><b>2190' FSL &amp; 1750' FEL</b>                                                                                                     | Other Services<br>CNL/CDL<br>DIL/BHCS            |  |  |
|                        | Sec: <b>22</b> Twp: <b>1 S</b> Rge: <b>36 W</b>                                                                                                  | Elevation<br>K.B. 3213<br>D.F. 3208<br>G.L. 3208 |  |  |
| Permanent Datum        | Ground Level                                                                                                                                     | Elevation 3208                                   |  |  |
| Log Measured From      | Kelly Bushing                                                                                                                                    | 5 Ft. Above Perm. Datum                          |  |  |
| Drilling Measured From | From Kelly Bushing                                                                                                                               |                                                  |  |  |
| Date                   | 10/16/2013                                                                                                                                       |                                                  |  |  |
| Run Number             | Two                                                                                                                                              |                                                  |  |  |
| Depth Driller          | 4510                                                                                                                                             |                                                  |  |  |
| Depth Logger           | 4510                                                                                                                                             |                                                  |  |  |
| Bottom Logged Interval | 4509                                                                                                                                             |                                                  |  |  |
| Top Log Interval       | 3500                                                                                                                                             |                                                  |  |  |
| Casing Driller         | 8.625 @ 218                                                                                                                                      |                                                  |  |  |
| Casing Logger          | 216                                                                                                                                              |                                                  |  |  |
| Bit Size               | 7.875                                                                                                                                            |                                                  |  |  |
| Type Fluid in Hole     | Chemical                                                                                                                                         |                                                  |  |  |
| Salinity, ppm CL       | 800                                                                                                                                              |                                                  |  |  |
| Density / Viscosity    | 9.3 61                                                                                                                                           |                                                  |  |  |
| pH / Fluid Loss        | 10.0 8.0                                                                                                                                         |                                                  |  |  |
| Source of Sample       | Flowline                                                                                                                                         |                                                  |  |  |
| Rm @ Meas. Temp        | 0.70 @ 75                                                                                                                                        |                                                  |  |  |
| Rmf @ Meas. Temp       | 0.52 @ 75                                                                                                                                        |                                                  |  |  |
| Rmc @ Meas. Temp       | 0.94 @ 75                                                                                                                                        |                                                  |  |  |
| Source of Rmf / Rmc    | Charts                                                                                                                                           |                                                  |  |  |
| Rm @ BHT               | 0.43 @ 123                                                                                                                                       |                                                  |  |  |
| Operating Rig Time     | 5 Hours                                                                                                                                          |                                                  |  |  |
| Max Rec. Temp. F       | 123                                                                                                                                              |                                                  |  |  |
| Equipment Number       | 91                                                                                                                                               |                                                  |  |  |
| Location               | Hays                                                                                                                                             |                                                  |  |  |
| Recorded By            | Y. Ruiz                                                                                                                                          |                                                  |  |  |
| Witnessed By           | Robert Hendrix                                                                                                                                   |                                                  |  |  |

<<< Fold Here >>>

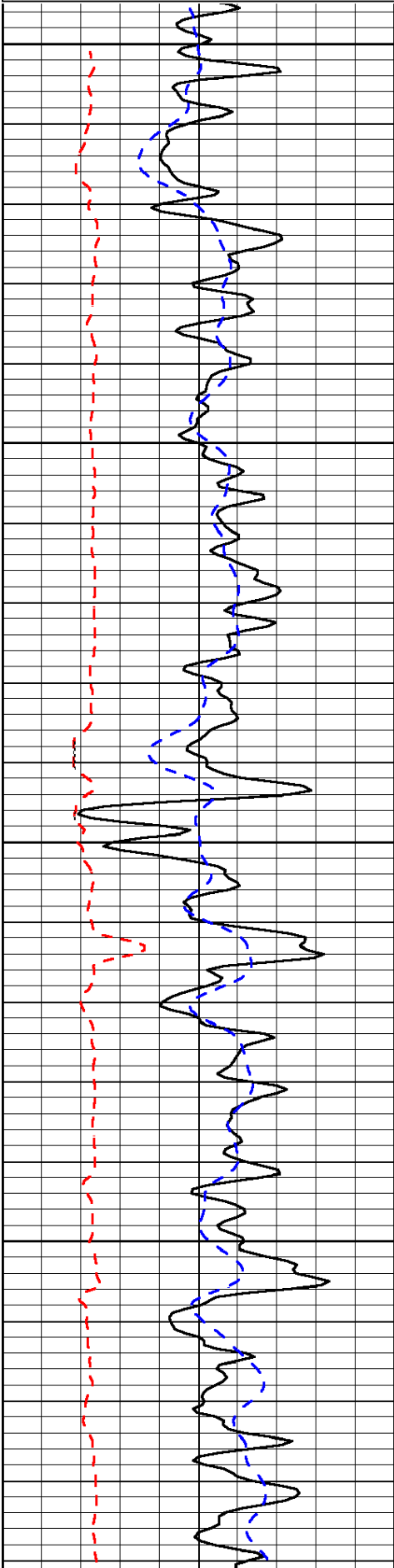
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

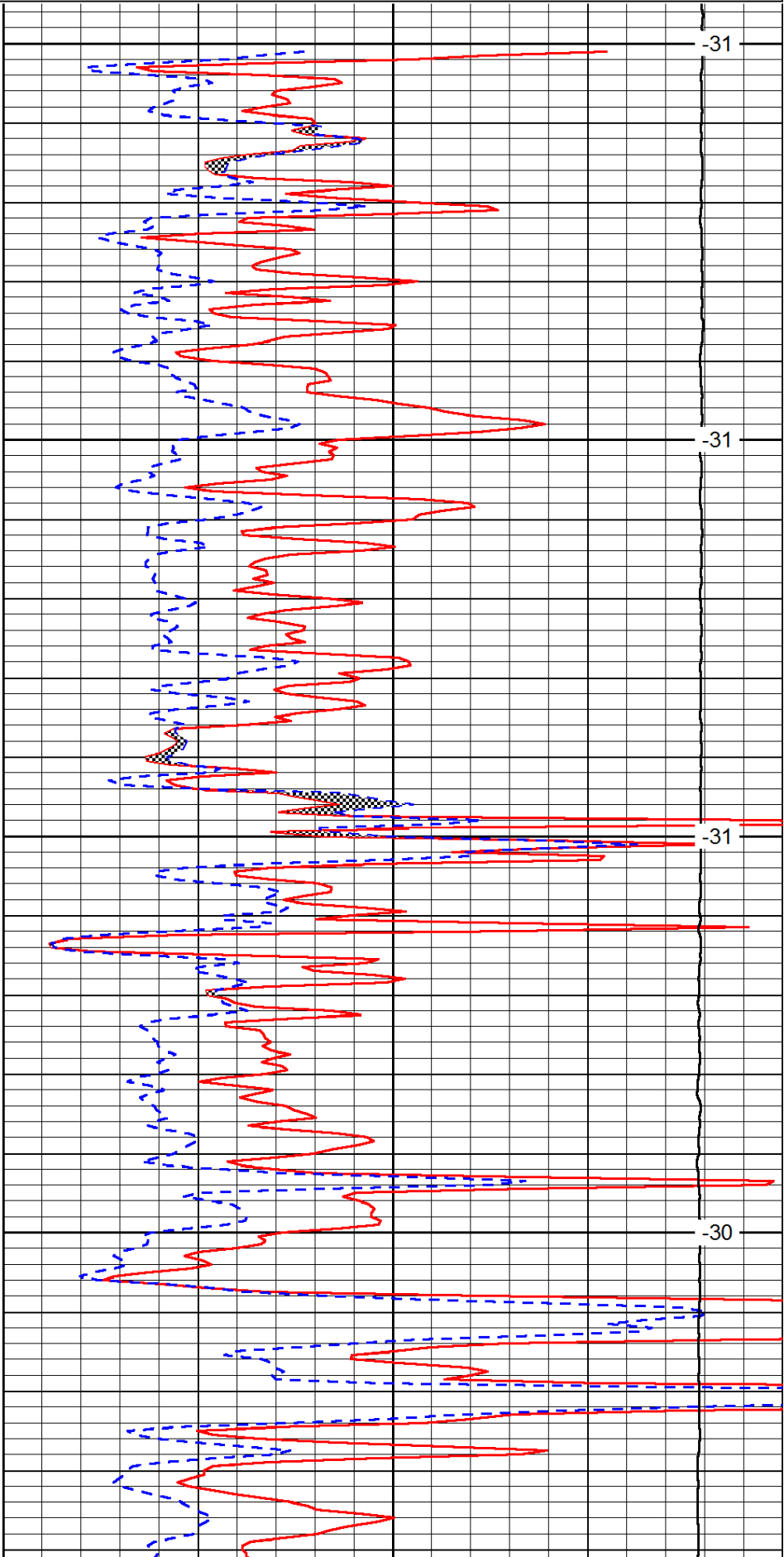
Thank you for using Pioneer Energy Services  
www.pioneerres.com  
785 625 3858  
Beardsley,  
North to AA Rd, 5 1/2 West,  
North into

Database File: c:\warrior\data\murfin\_burk trust 'c' #2-22\murfin\_101613hd.db  
Dataset Pathname: dil\murfinstk  
Presentation Format: micro  
Dataset Creation: Wed Oct 16 13:05:11 2013  
Charted by: Depth in Feet scaled 1:240

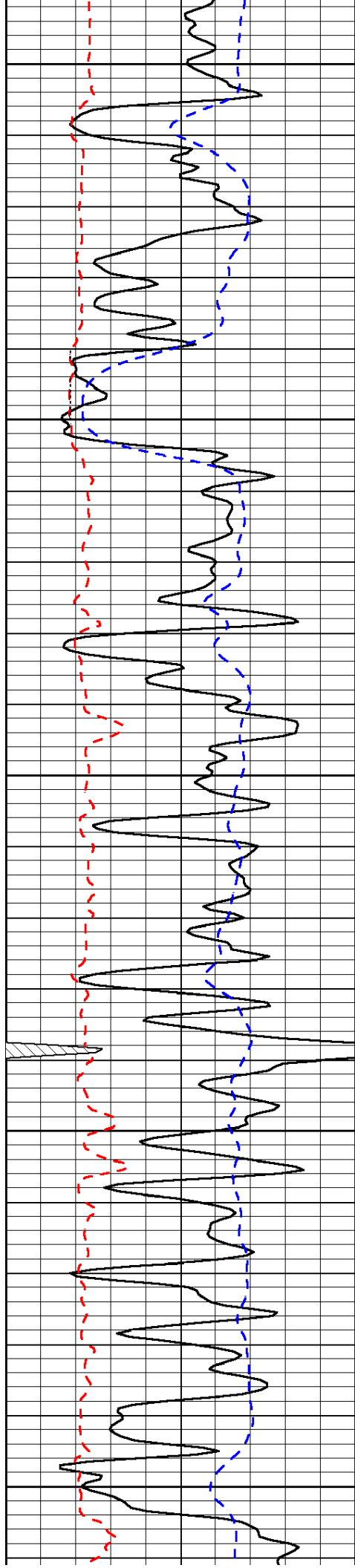
|      |                          |     |
|------|--------------------------|-----|
| 0    | Gamma Ray                | 150 |
| 6    | Micro Log Caliper (GAPI) | 16  |
| -200 | SP (mV)                  | 0   |



|       |                     |    |
|-------|---------------------|----|
| 0     | Micro Inverse 1 X 1 | 40 |
| 0     | Micro Normal 2"     | 40 |
| 15000 | Line Weight         | 0  |



LSPD



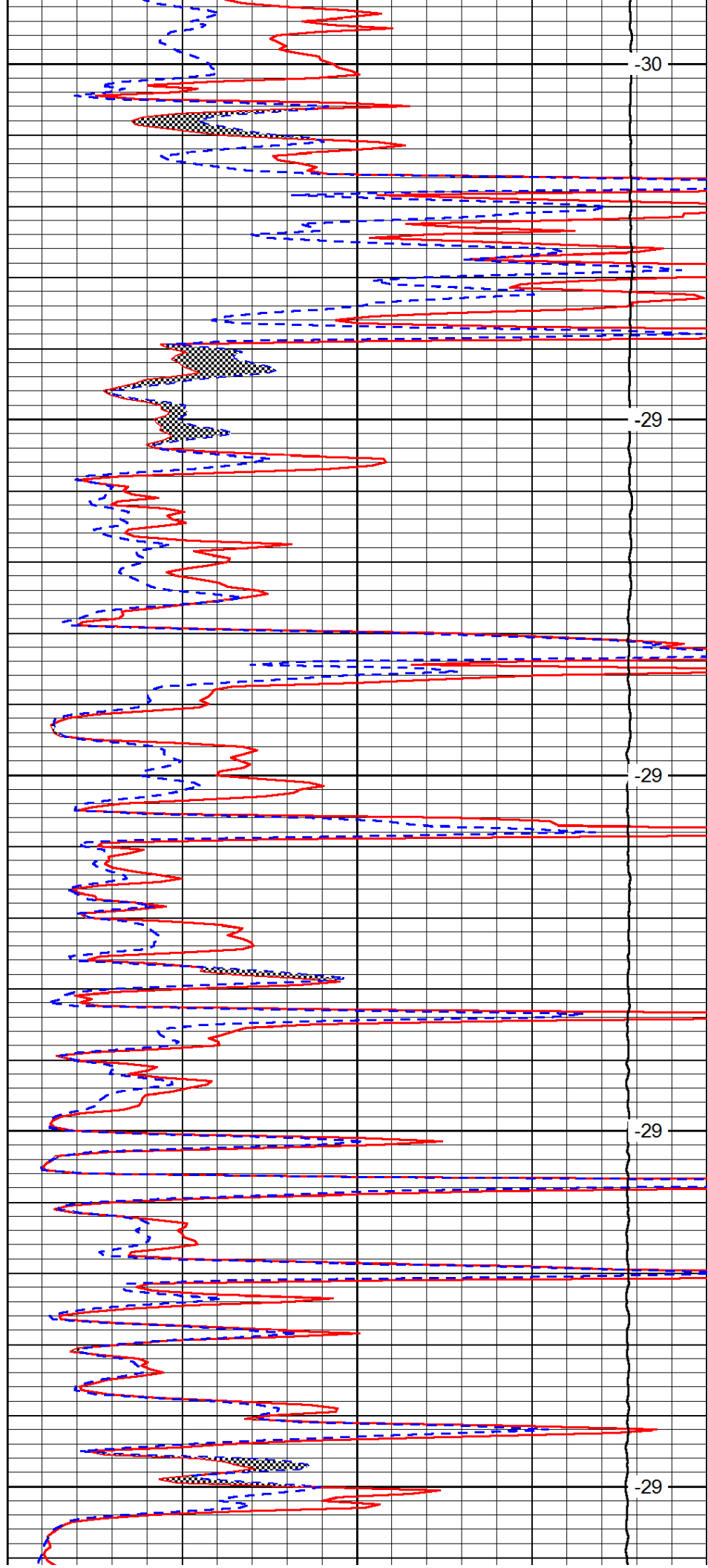
3700

3750

3800

3850

3900



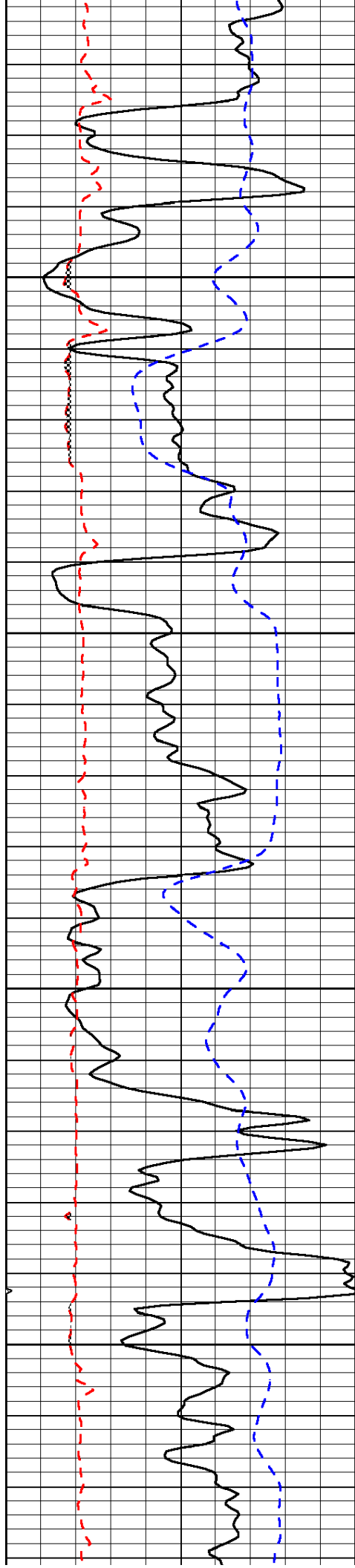
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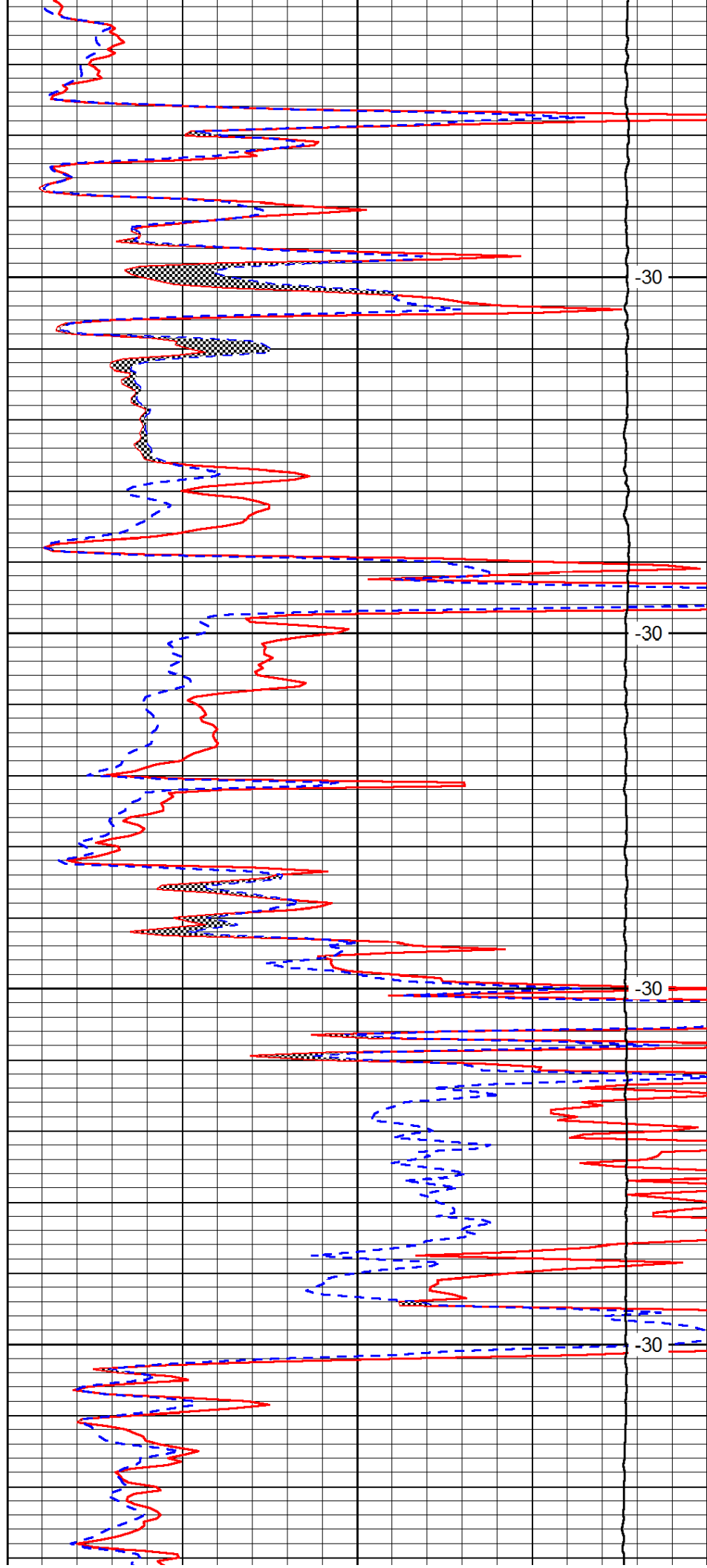


3950

4000

4050

4100

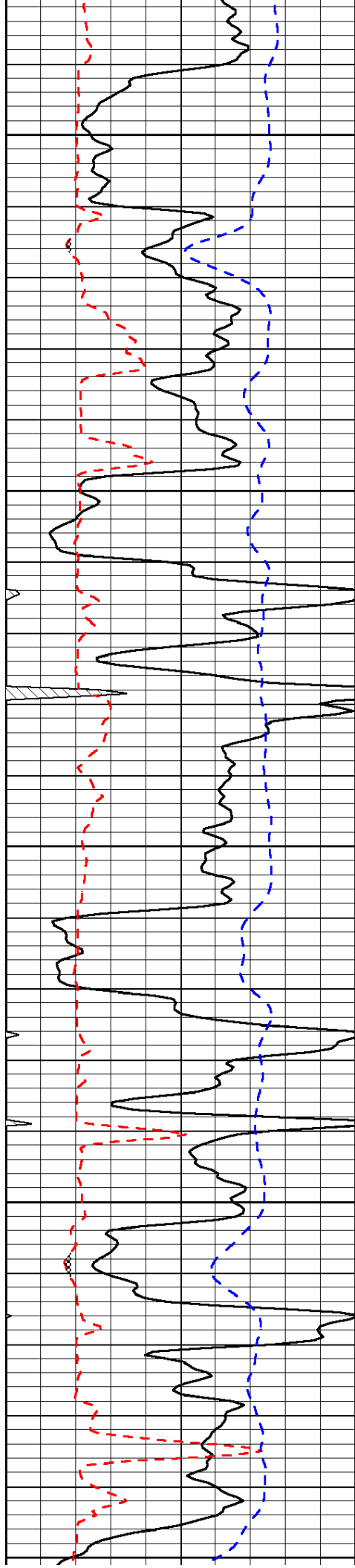


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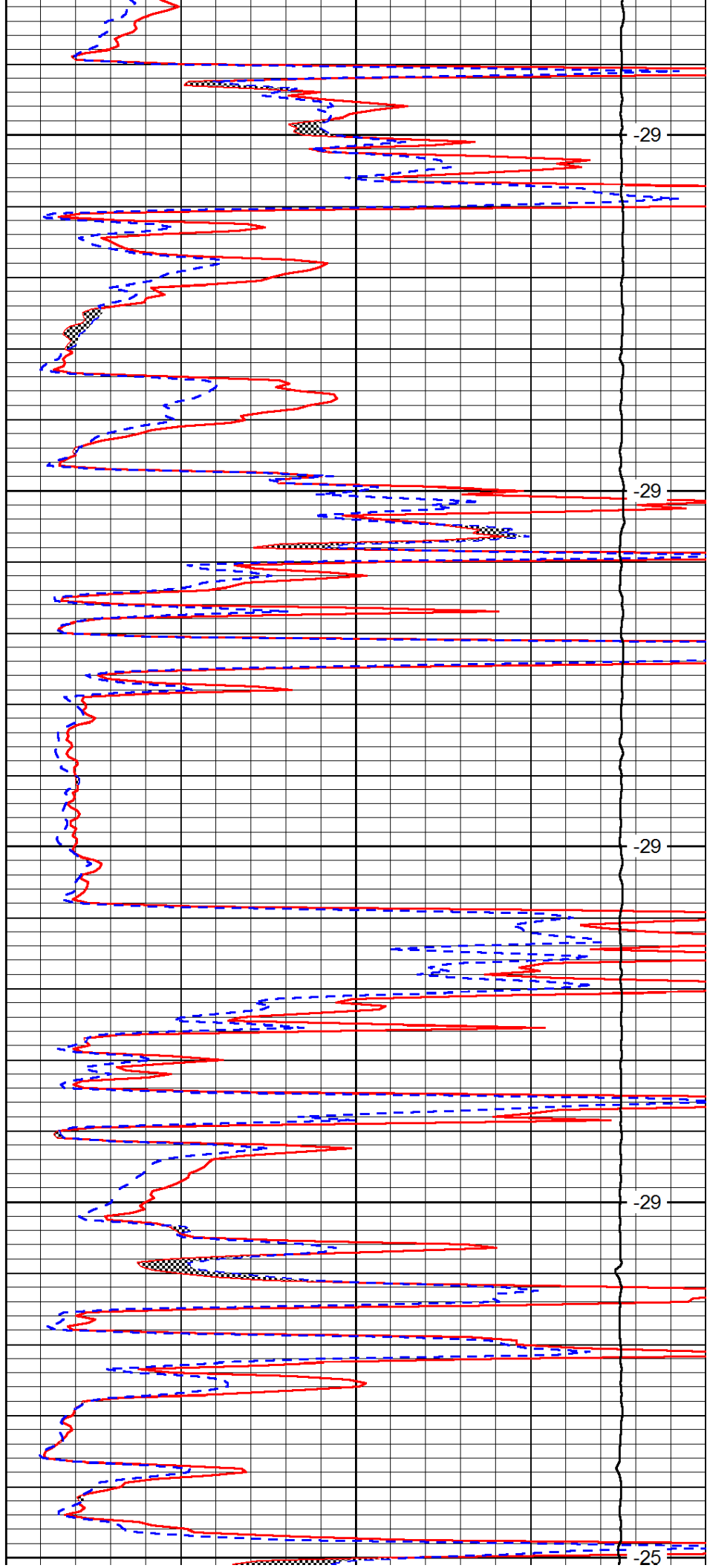
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4200

4250

4300

4350



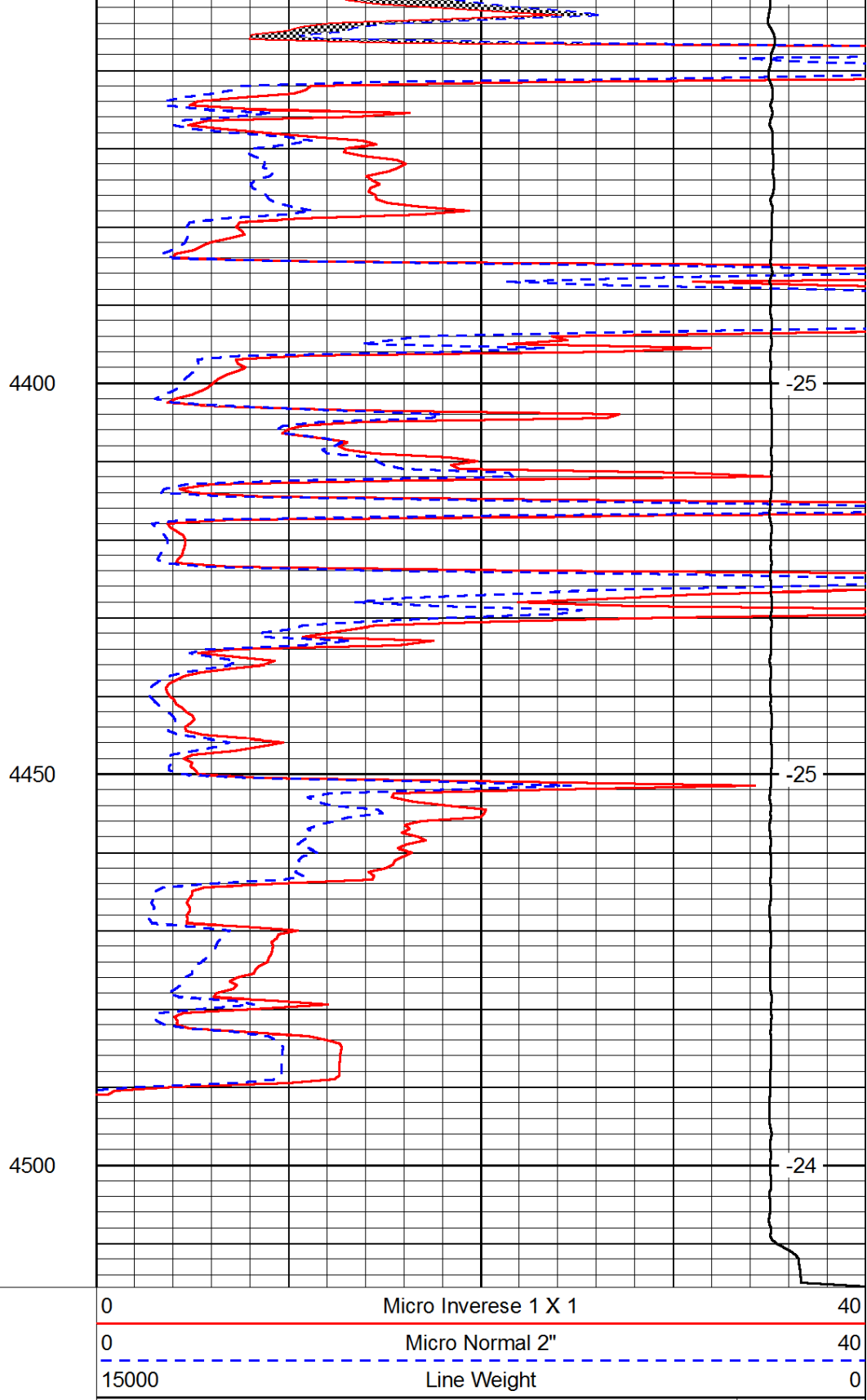
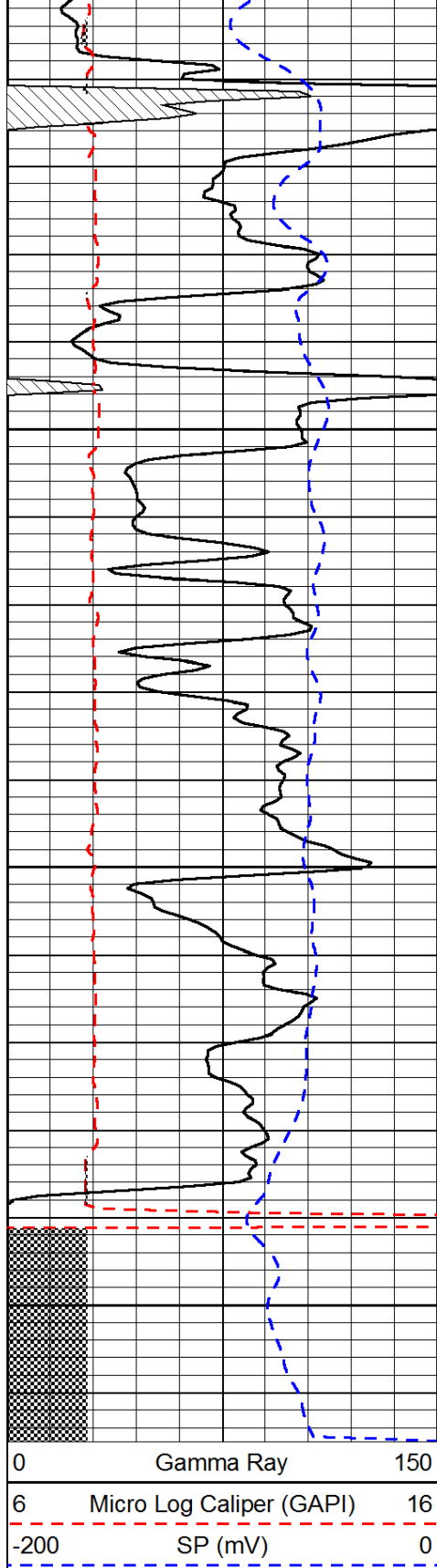
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