



Pioneer Energy Services

# Microresistivity Log

15-101-22,499-00-00

API No.

Company **Larson Engineering, Inc.**

Well **Mckenna Unit #1-9**

Field **Wildcat**

County **Lane** State **Kansas**

Location **2290' FSL & 155' FEL**

Sec: **9** Twp: **18S** Rge: **29W**

Permanent Datum **Ground Level** Elevation **2797**  
 Log Measured From **Kelly Bushing** **7** Ft. Above Perm. Datum  
 Drilling Measured From **Kelly Bushing**

Other Services  
 CNL/CDL  
 DIL

Elevation

K.B. 2804  
 D.F. 2797  
 G.L. 2797

Date **3/17/2014**

Run Number **Two**

Depth Driller **4625**

Depth Logger **4625**

Bottom Logged Interval **4624**

Top Log Interval **3600**

Casing Driller **8.625 @ 264**

Casing Logger **264**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **2,000**

Density / Viscosity **9.1 55**

pH / Fluid Loss **10.0 8.4**

Source of Sample **Flowline**

Rm @ Meas. Temp **.75 @ 63**

Rmf @ Meas. Temp **.56 @ 63**

Rmc @ Meas. Temp **1.01 @ 63**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.39 @ 122**

Operating Rig Time **4 Hours**

Max Rec. Temp. F **122**

Equipment Number **17**

Location **Hays**

Recorded By **C. Desai**

Witnessed By **Vern Schrag**

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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

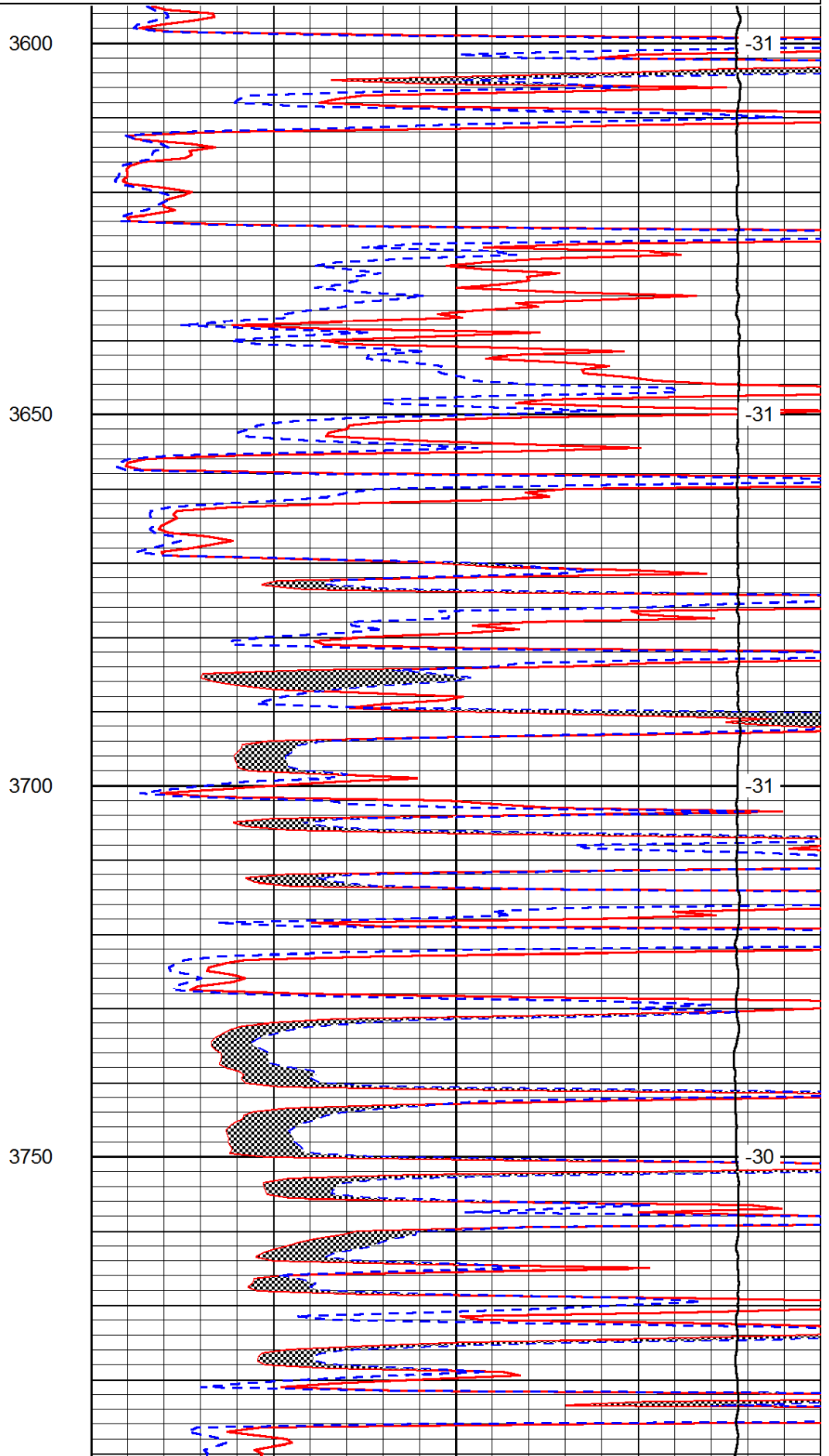
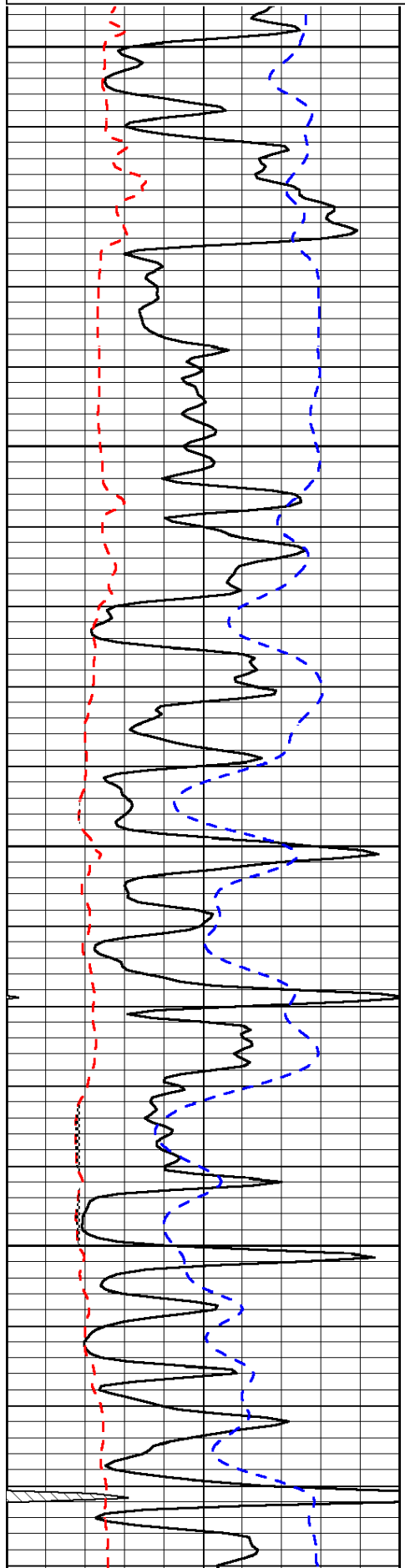
Thank you for using Pioneer Energy Services  
 www.pioneerres.com  
 785 625 3858  
 Dighton KS, 3 W to Ike Rd,  
 1 1/2 N, W Into

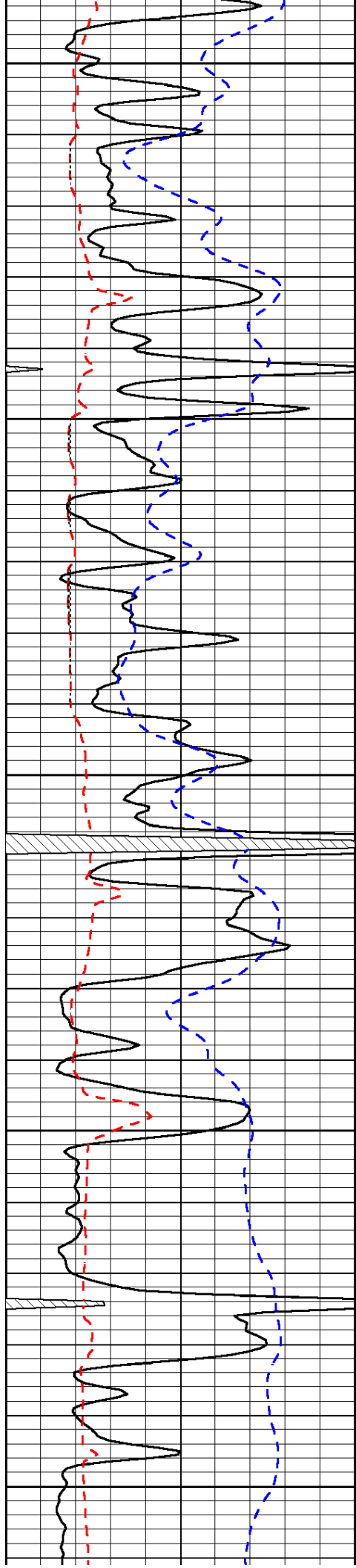
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 Dataset Pathname: dil\larstk  
 Presentation Format: micro  
 Dataset Creation: Mon Mar 17 18:05:33 2014  
 Charted by: Depth in Feet scaled 1:240

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





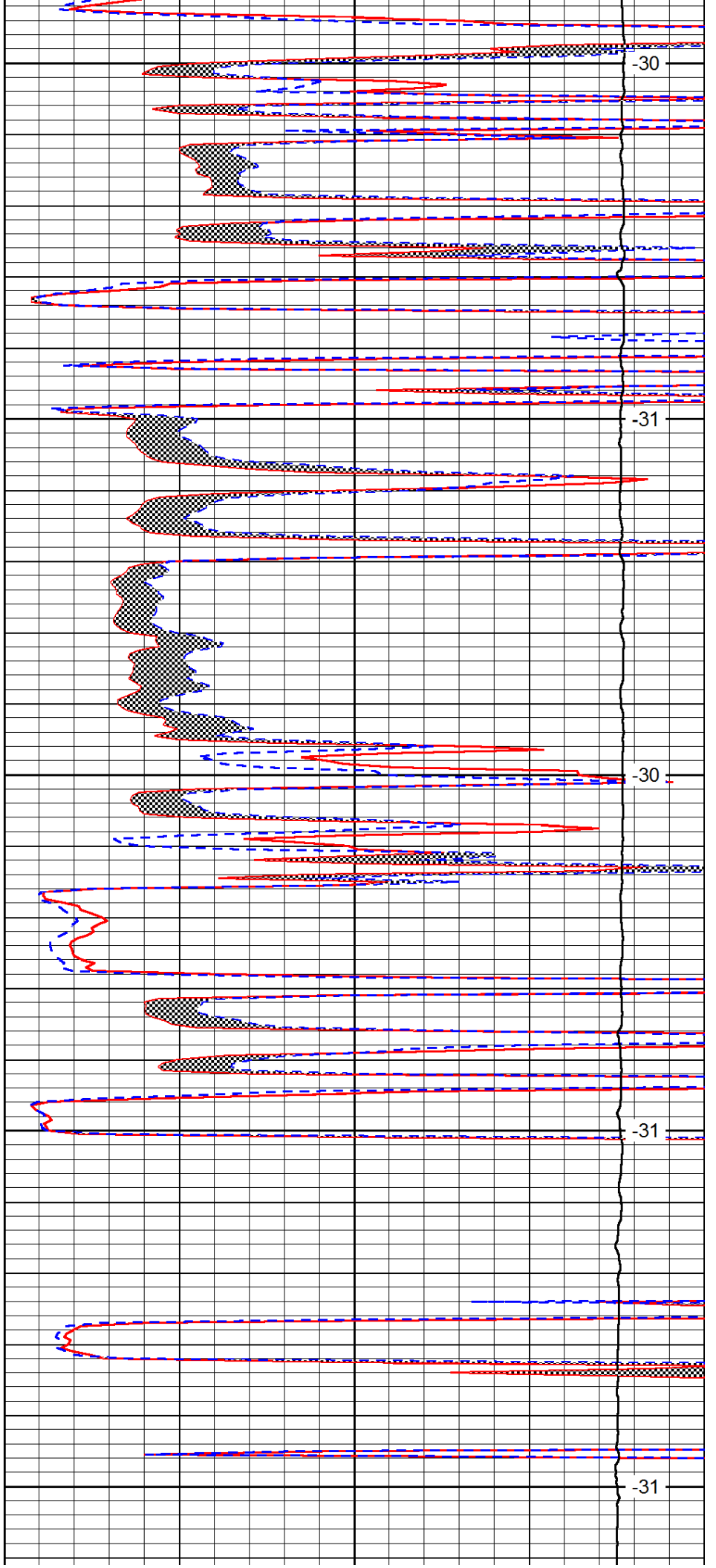
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3850

3900

3950

4000



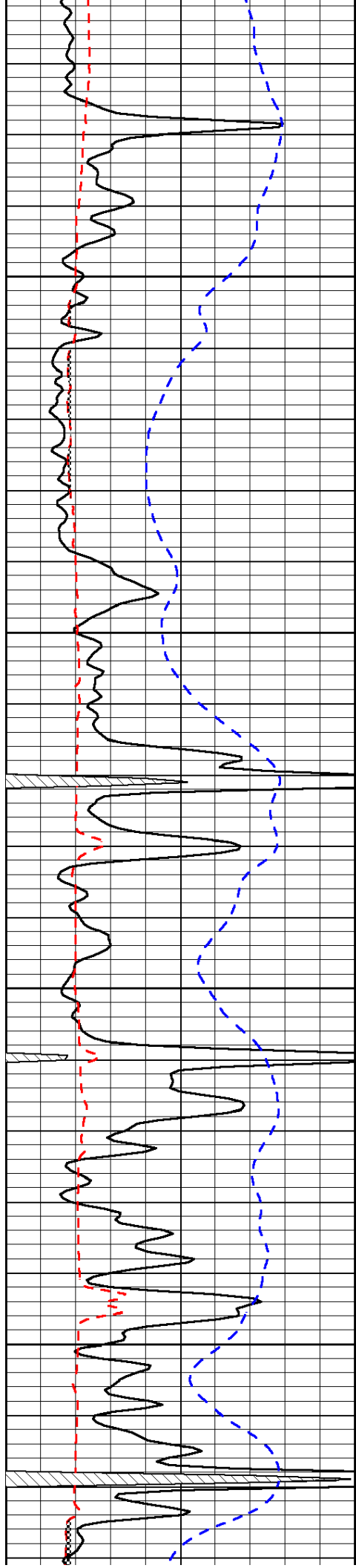
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-31

-30

-31

-31

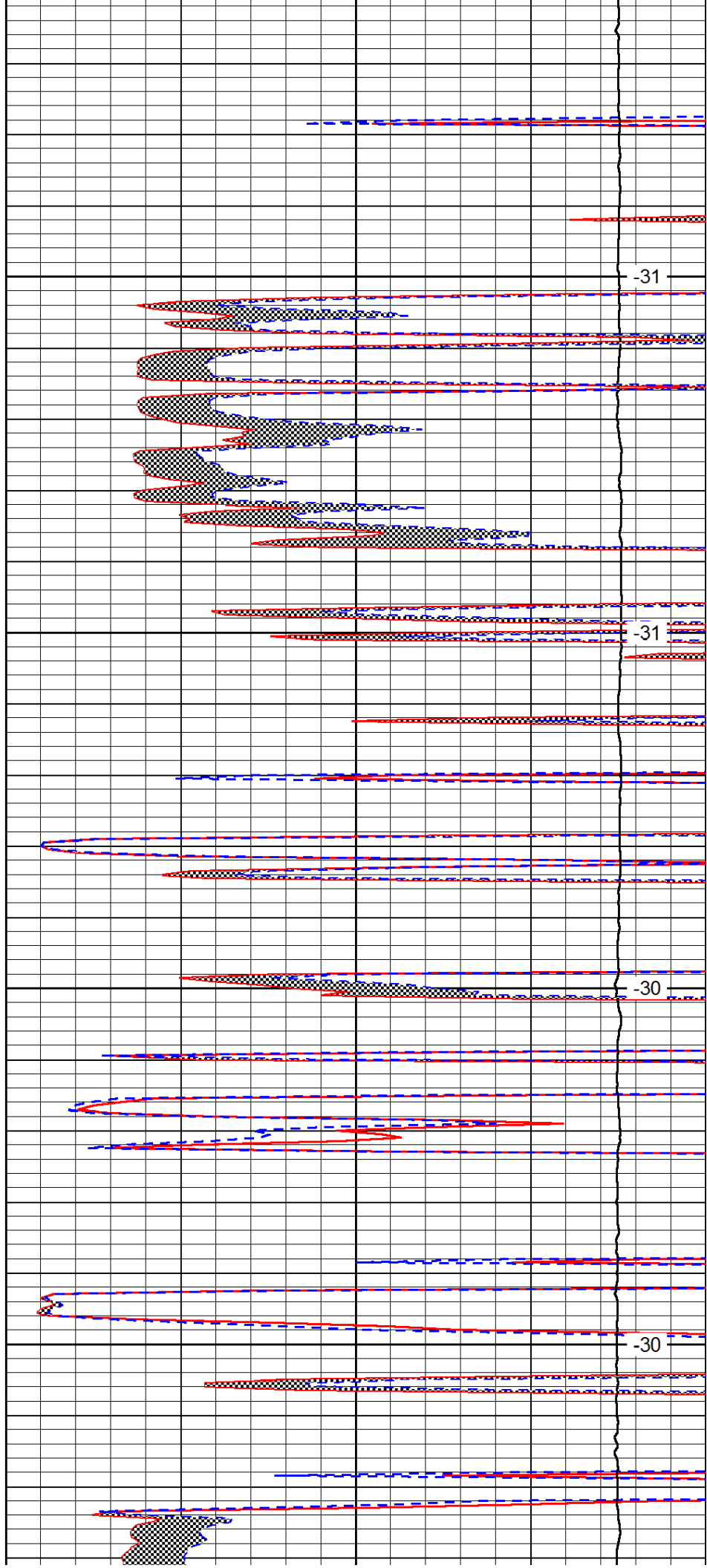


4050

4100

4150

4200

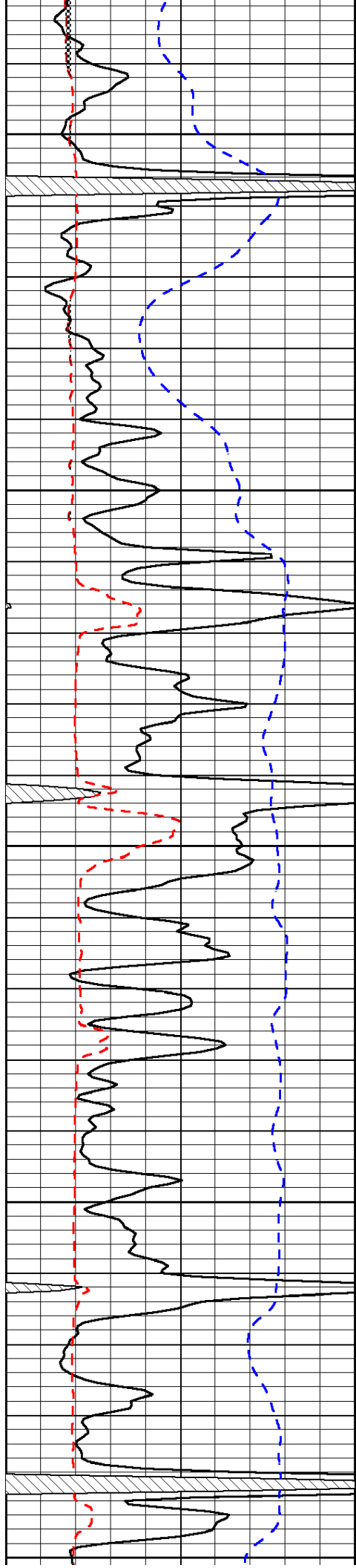


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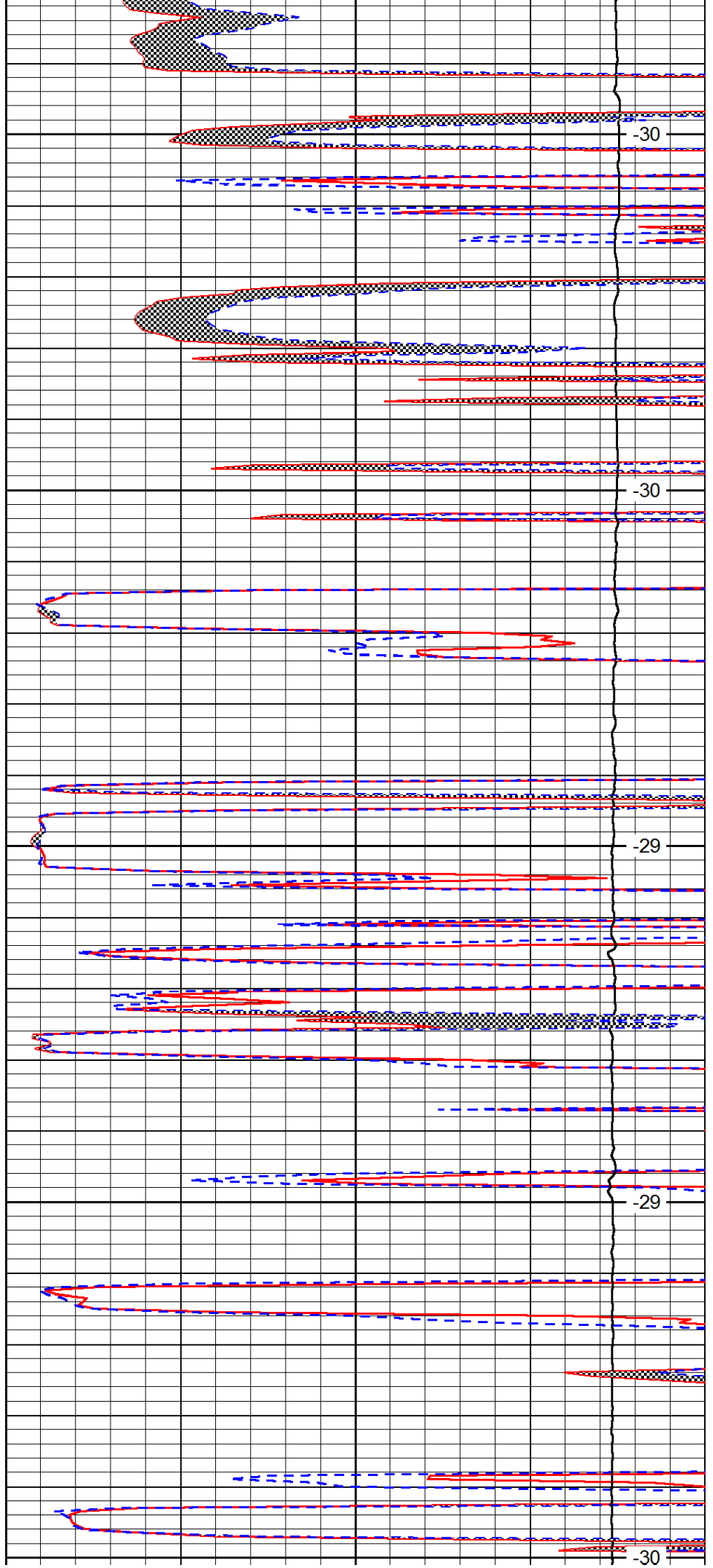
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4300

4350

4400

4450



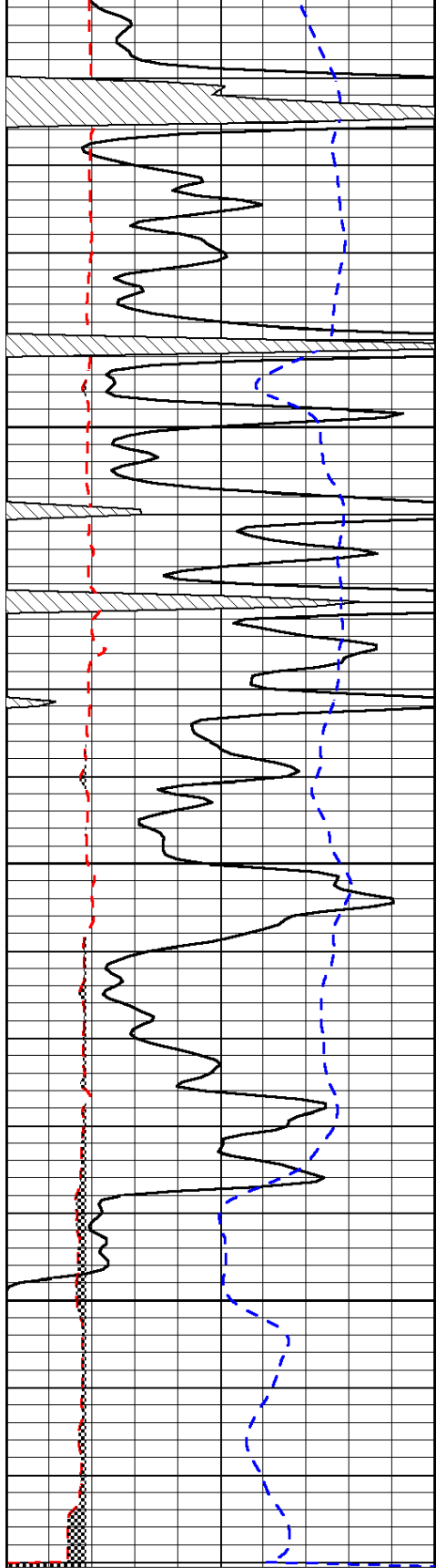
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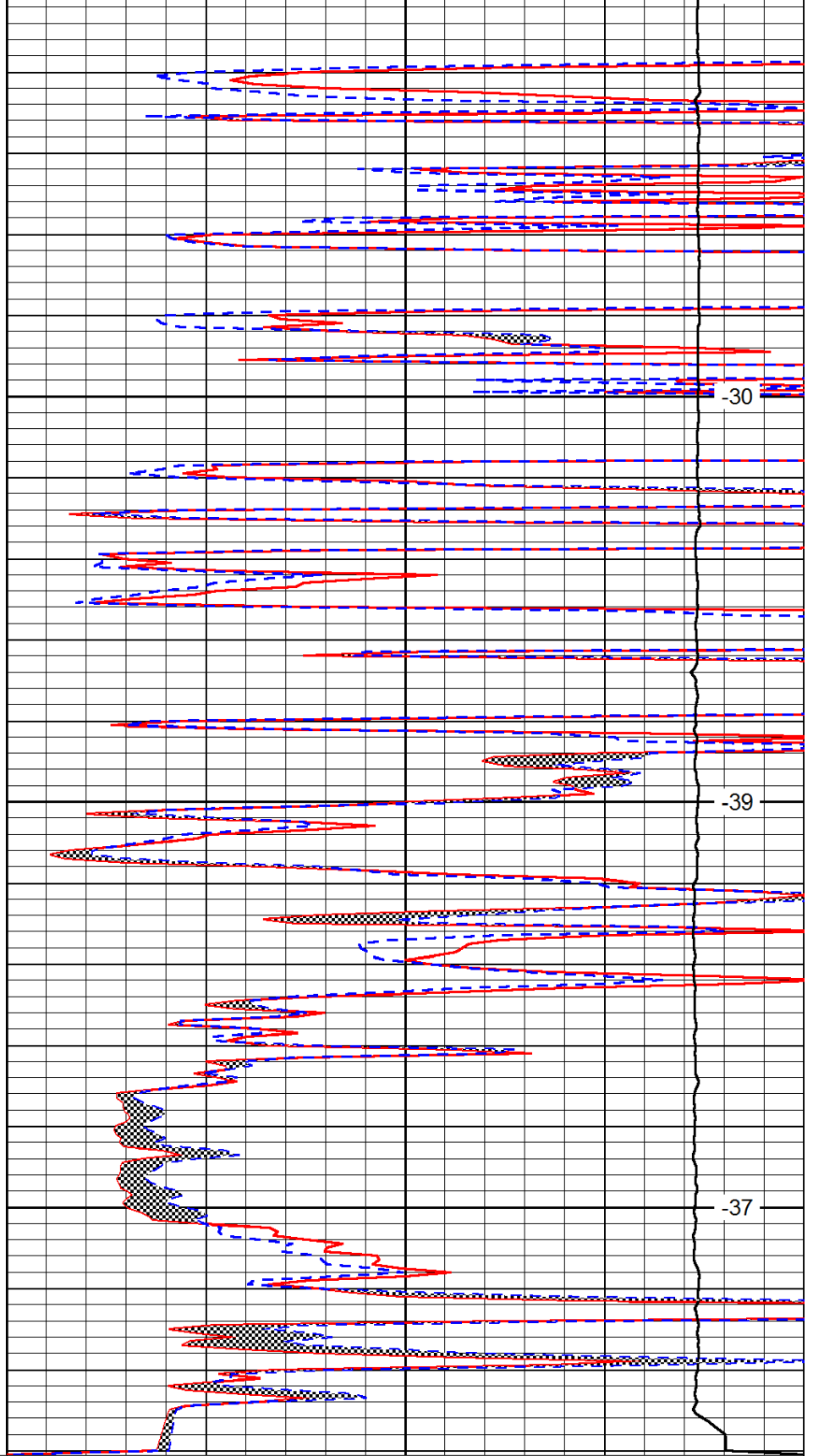


|      |                          |     |
|------|--------------------------|-----|
| 0    | Gamma Ray                | 150 |
| 6    | Micro Log Caliper (GAPI) | 16  |
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4500

4550

4600



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

-30

-39

-37

LSPD