



Pioneer Energy Services

# Microresistivity Log

15-185-23,816-00-00

API No.

Company **H&D Exploration, LLC**

Well **Fritzemeier #1**

Field **Wildcat**

County **Stafford** State **Kansas**

Location

**W2 NE NE NE  
330' FNL & 425' FEL**

Sec: **20** Twp: **25S** Rge: **12W**

Other Services  
CNL/CDL  
DIL/BHCS

Elevation

K.B. 1884  
D.F. 1874  
G.L. 1874

Permanent Datum Ground Level Elevation 1874  
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum  
Drilling Measured From Kelly Bushing

Date	7/1/2013	
Run Number	Two	
Depth Driller	4240	
Depth Logger	4239	
Bottom Logged Interval	4238	
Top Log Interval	2800	
Casing Driller	8.625 @ 717	
Casing Logger	714	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	8000	
Density / Viscosity	9.4 54	
pH / Fluid Loss	11.5 9.2	
Source of Sample	Flowline	
Rm @ Meas. Temp	.36 @ 78	
Rmf @ Meas. Temp	.27 @ 78	
Rmc @ Meas. Temp	.49 @ 78	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.24 @ 118	
Operating Rig Time	4 Hours	
Max Rec. Temp. F	118	
Equipment Number	108	
Location	Hays	
Recorded By	J. Long	
Witnessed By	Josh Austin	

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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.

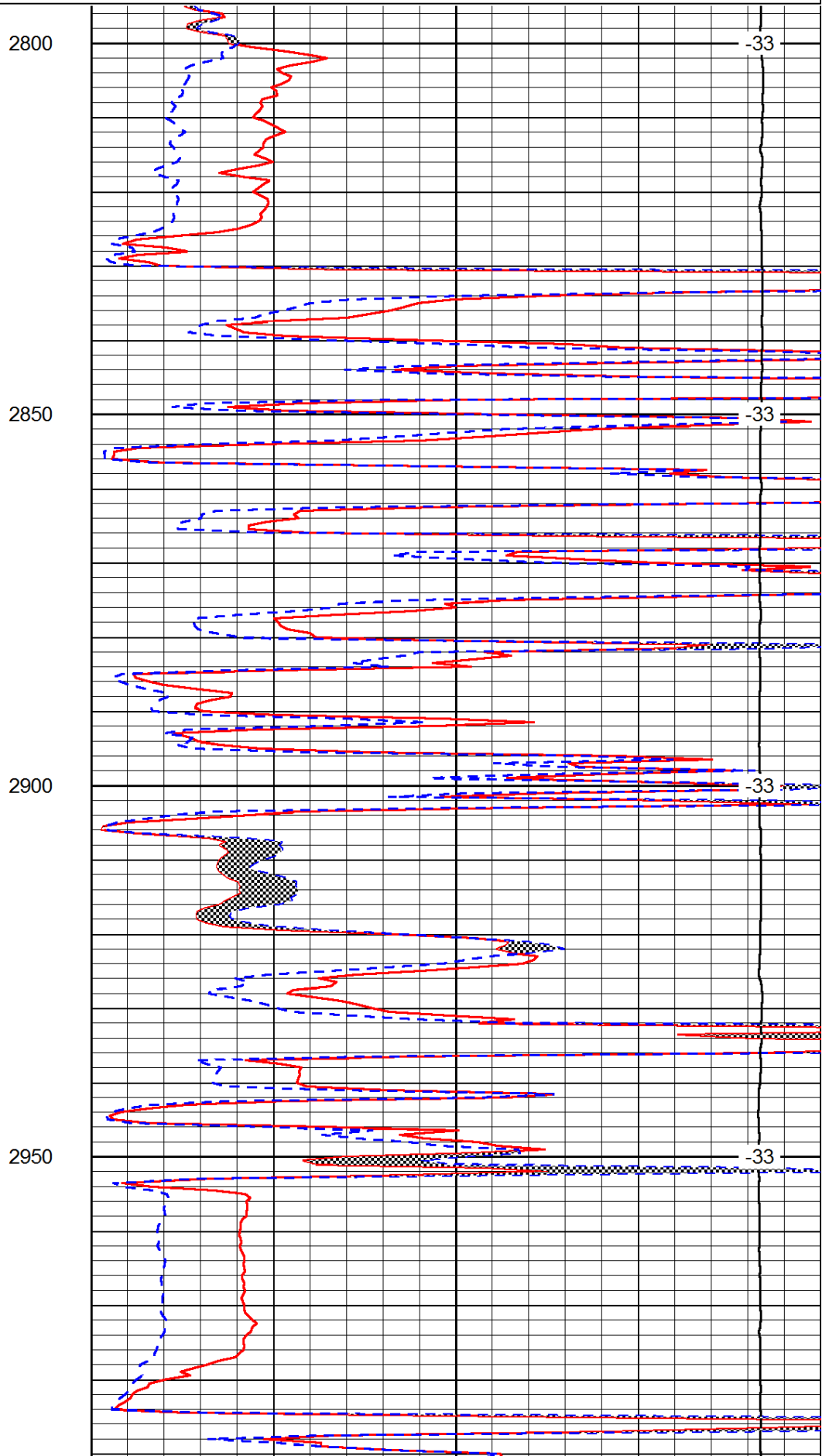
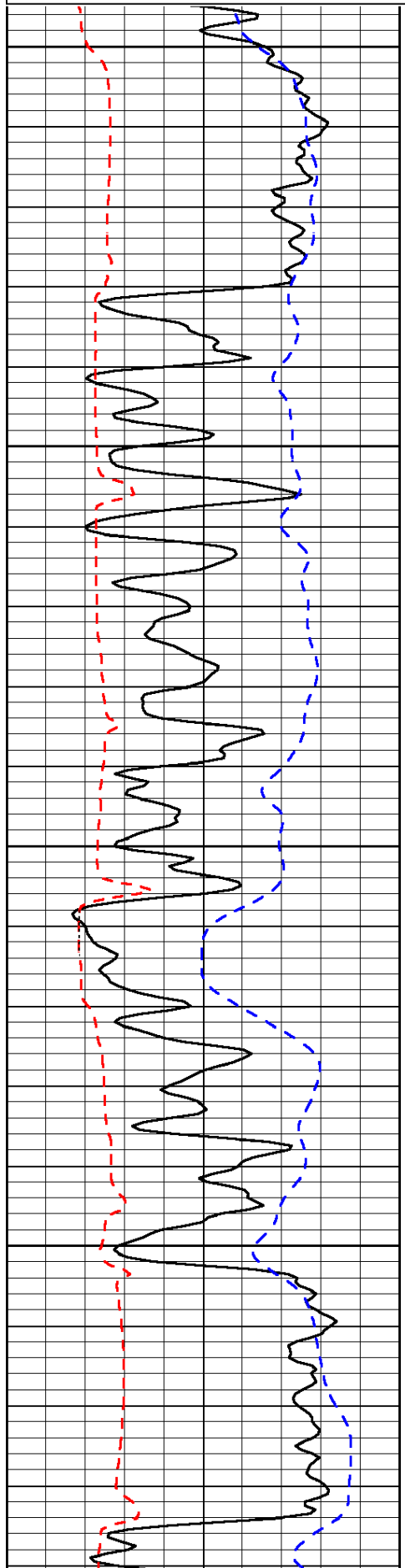
Comments

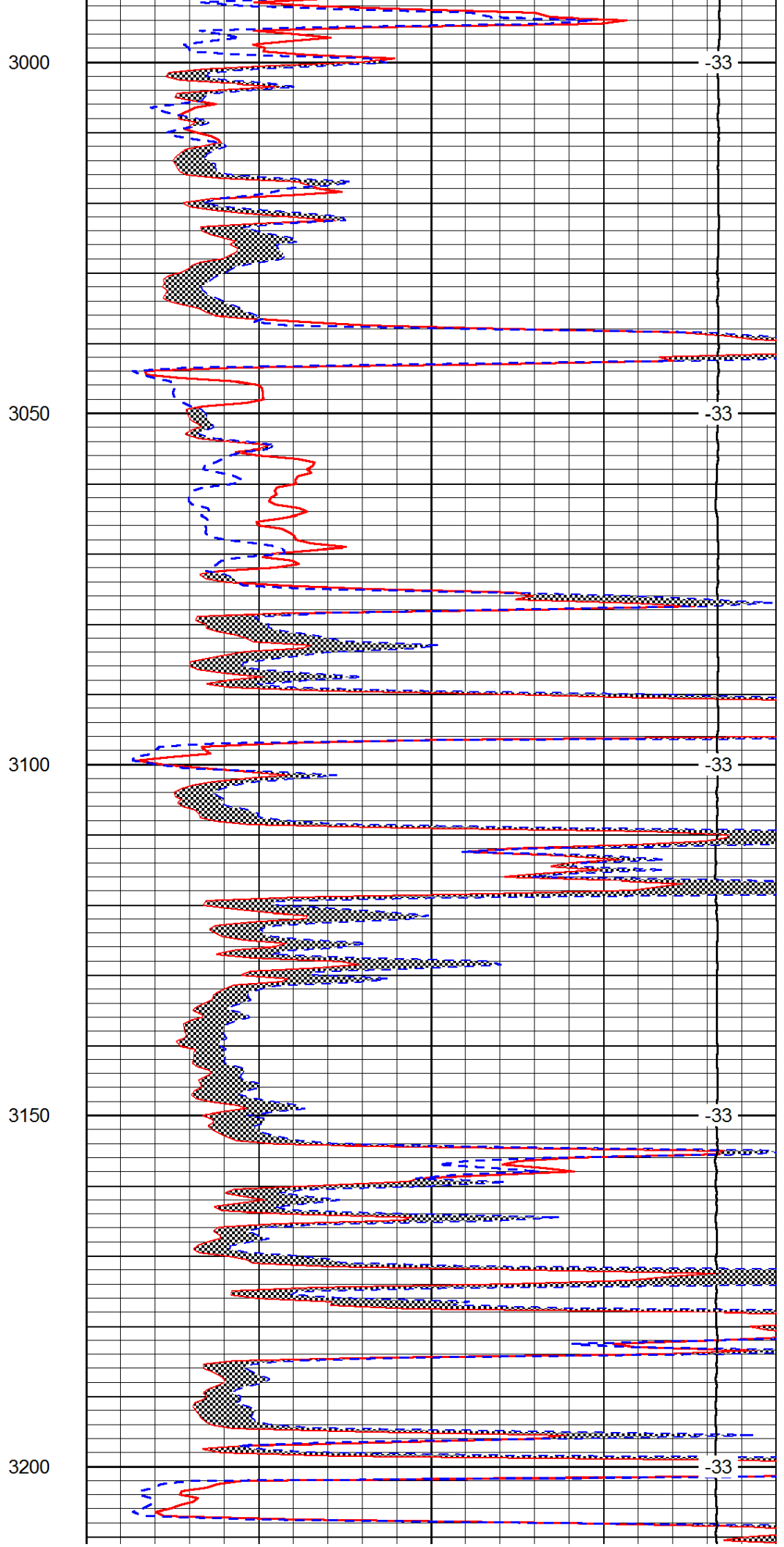
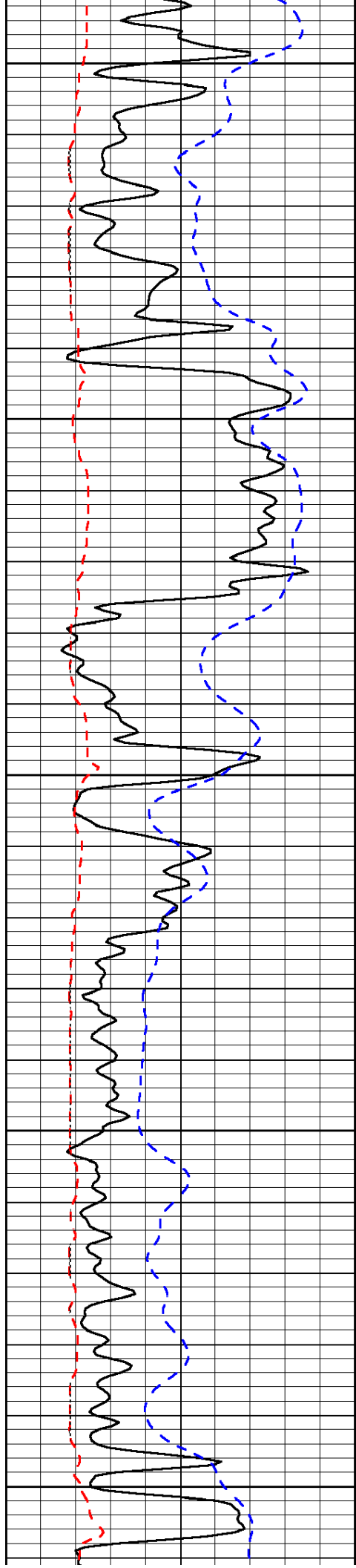
Thank you for using Pioneer Energy Services  
[www.pioneerenergy.com](http://www.pioneerenergy.com)  
 785 625 3858  
 Stafford, 6 South to 60 Road, 3 West, South Into

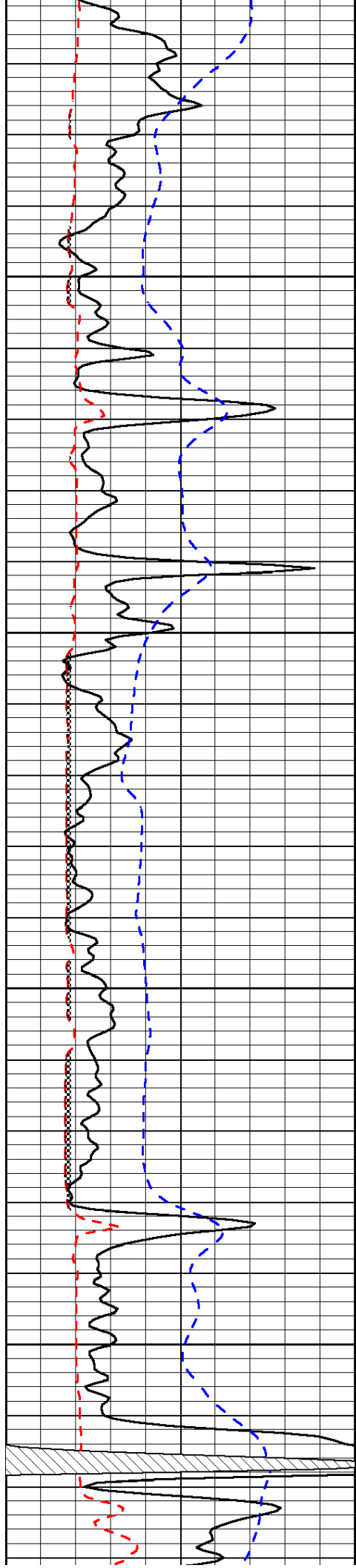
0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

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

LSPD





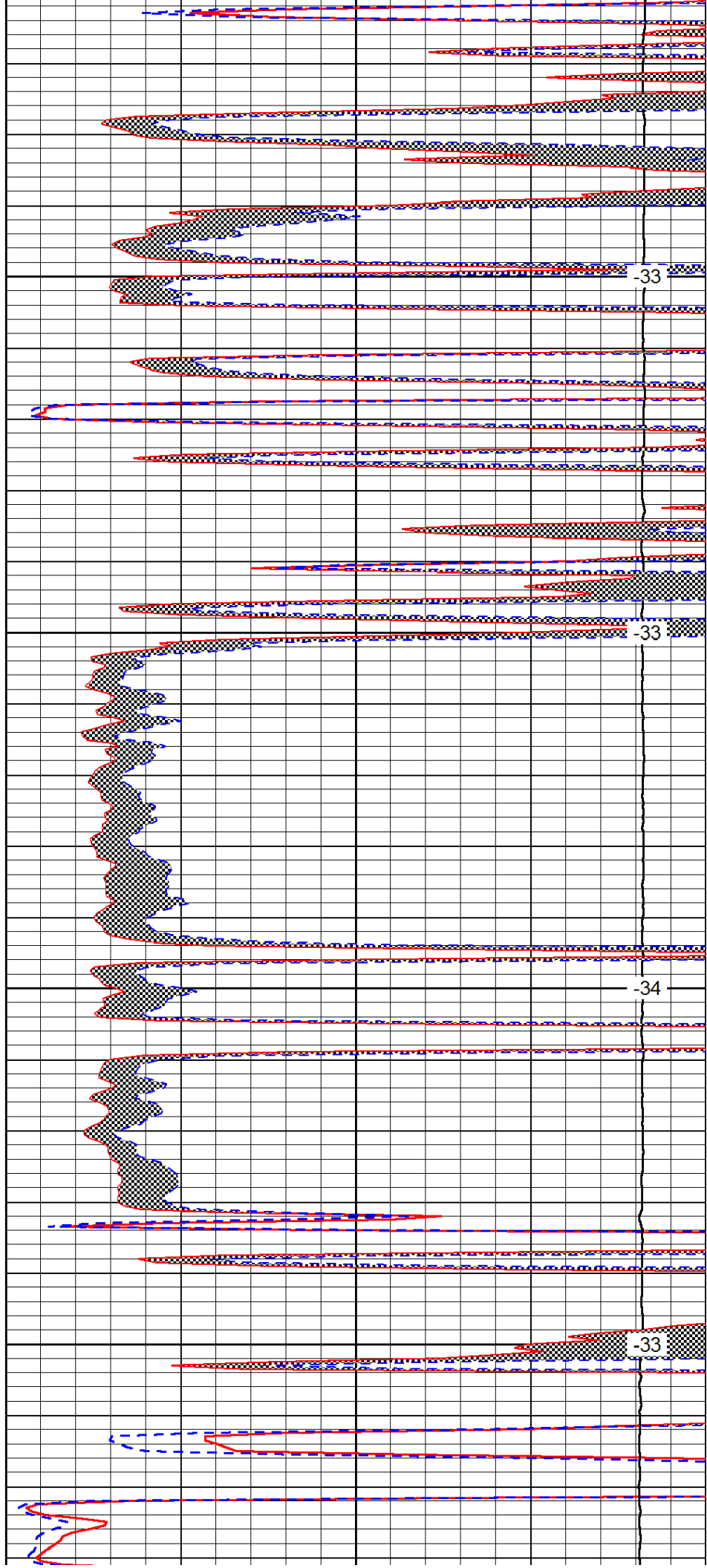


3250

3300

3350

3400

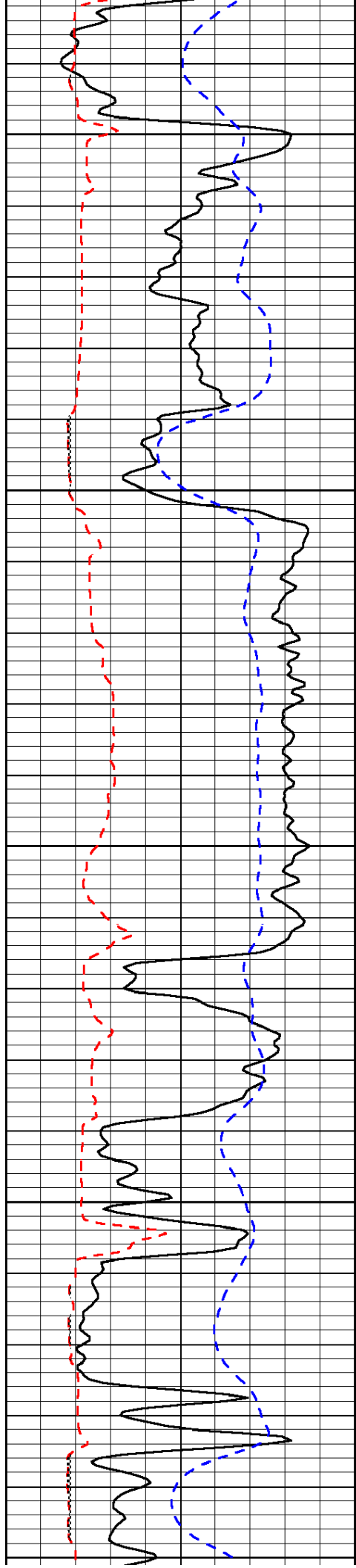


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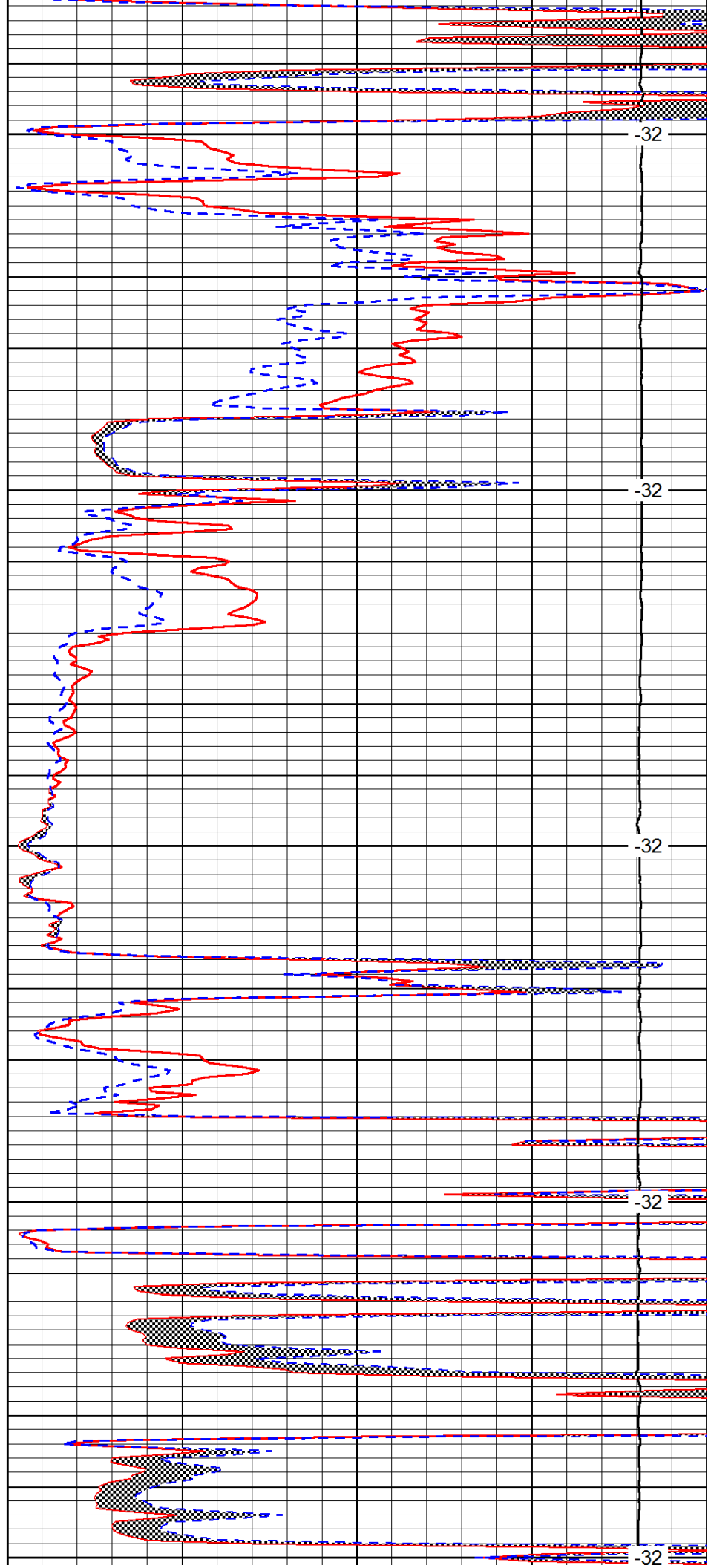
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3500

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3600

3650



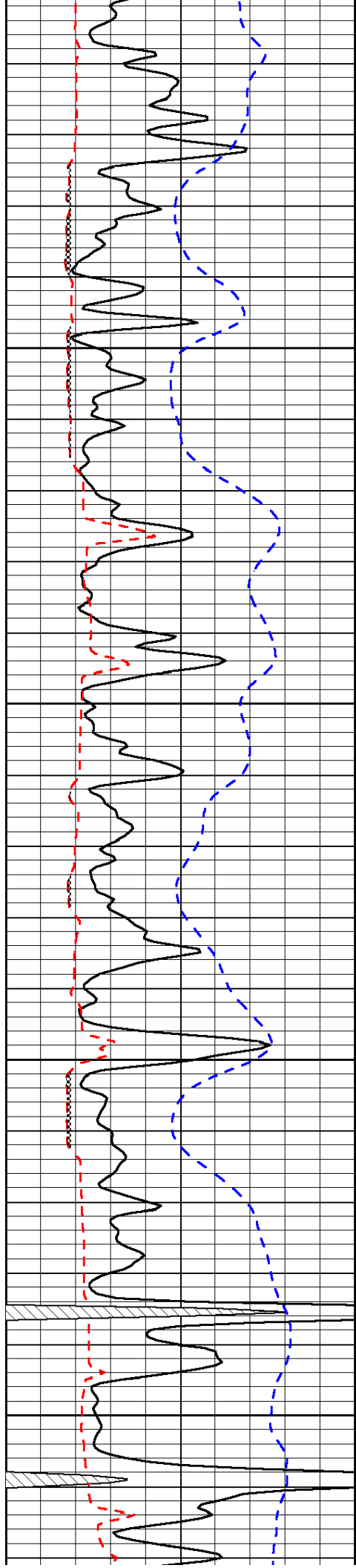
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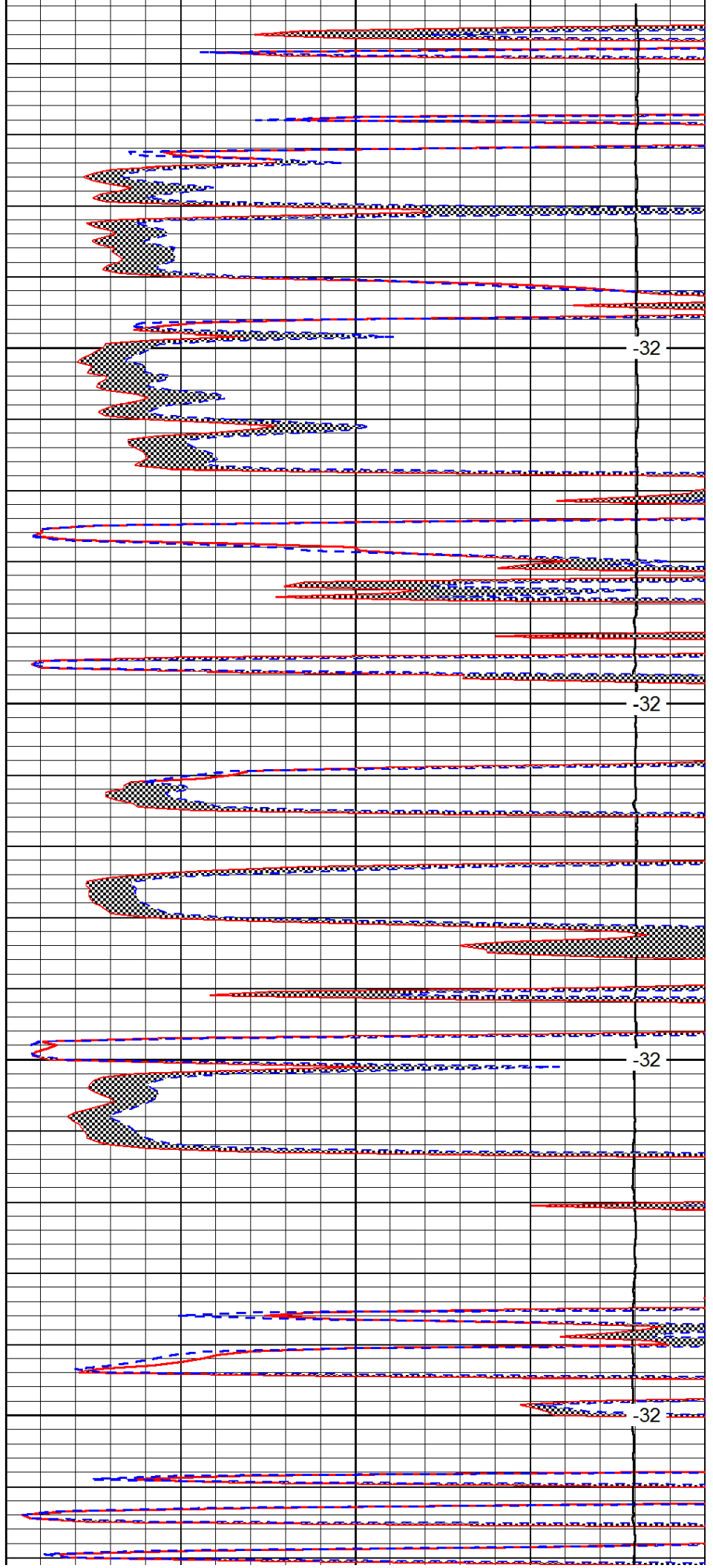


3700

3750

3800

3850

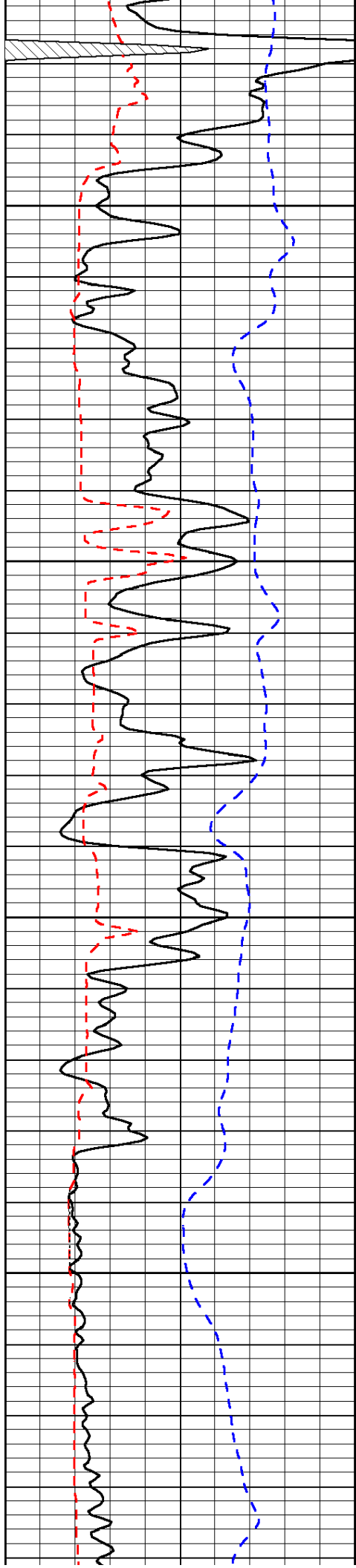


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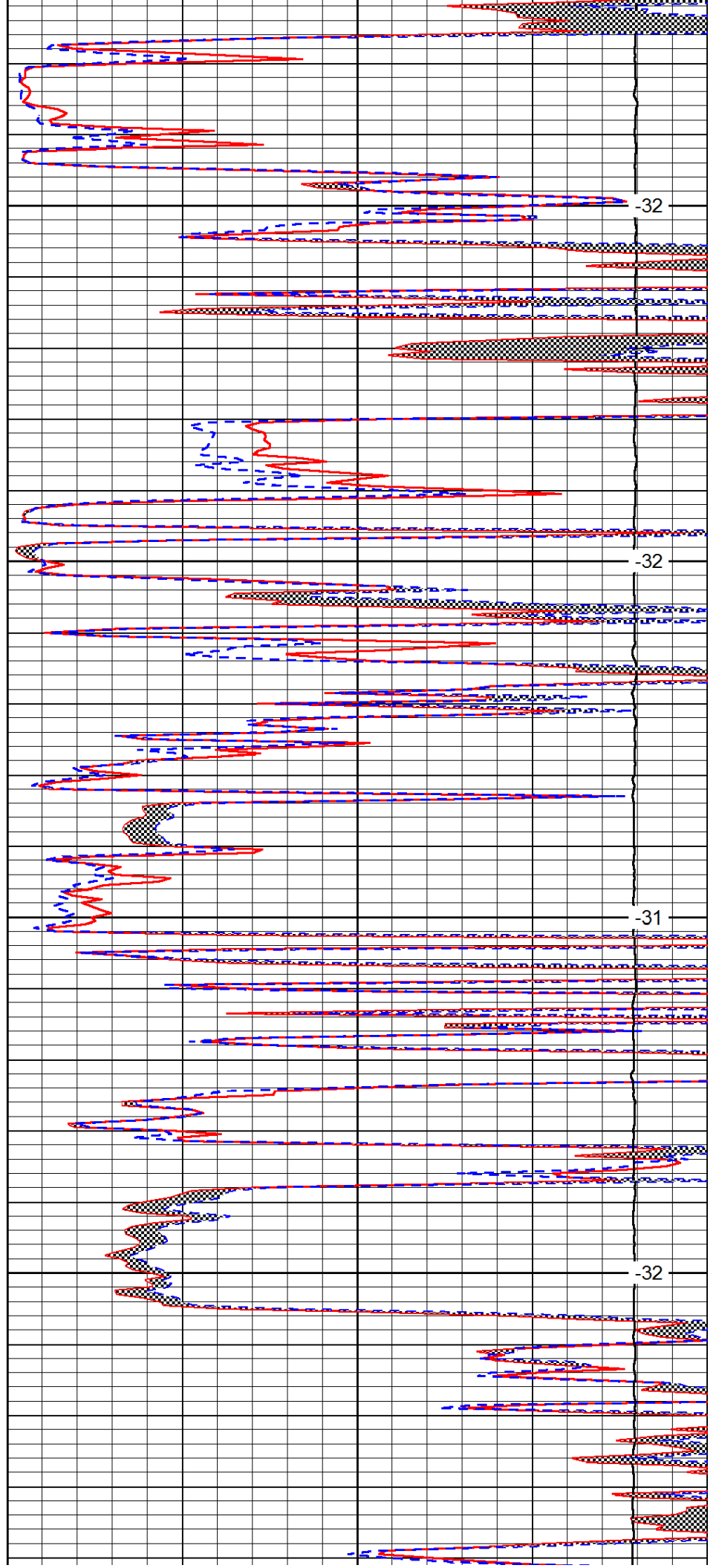


3900

3950

4000

4050

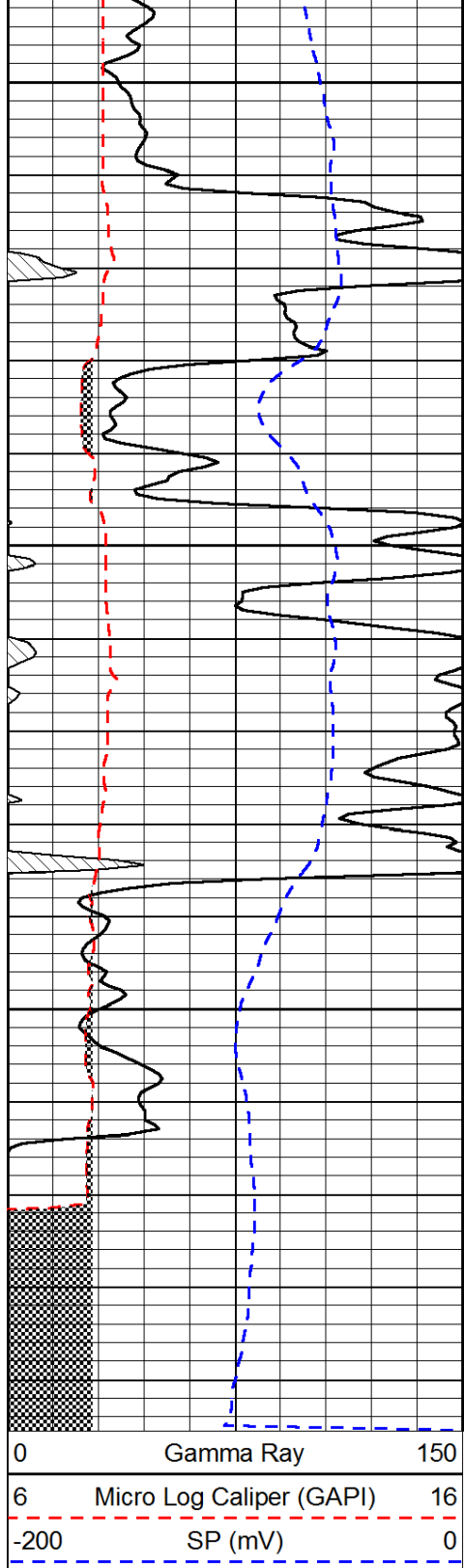


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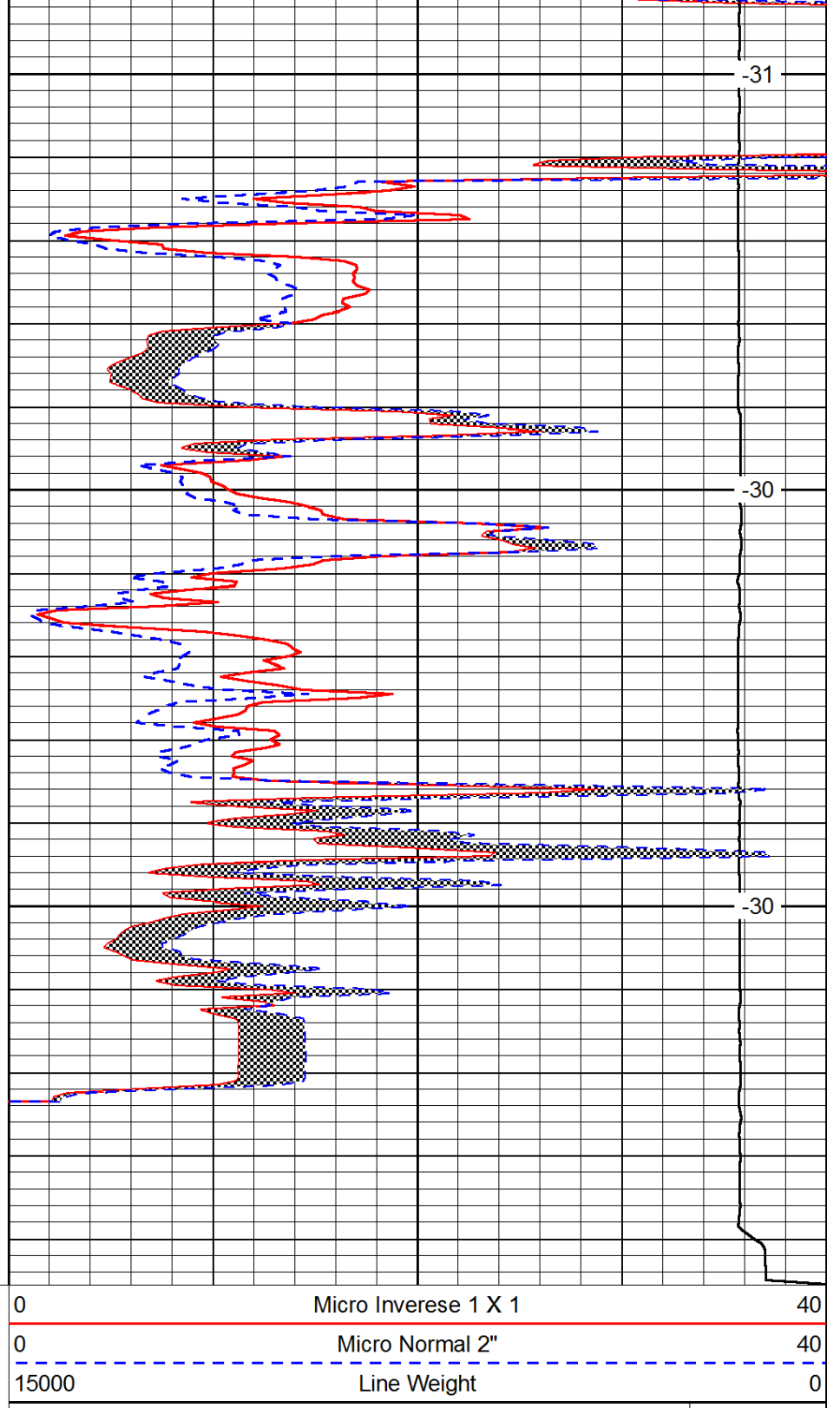
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4100  
4150  
4200



LSPD