



Pioneer Energy Services

Microresistivity Log

API No.	Company Dan Haffner		
	Well Haffner No.2-18		
	Field		
	County	Sheridan	State
	Kansas		
	Location	2125' FSL & 1170' FWL	
	Sec: 18	Twp: 9S	Rge: 27W
	Permanent Datum	Ground Level	Elevation 2756
	Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum
	Drilling Measured From	Kelly Bushing	
Date	12/11/2012		
Run Number	Two		
Depth Driller	4491		
Depth Logger	4494		
Bottom Logged Interval	4493		
Top Log Interval	3500		
Casing Driller	8.625 @ 264		
Casing Logger	261		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity,ppm CL	1100		
Density / Viscosity	9.6	48	
pH / Fluid Loss	9.0	7.6	
Source of Sample	Flowline		
Rm @ Meas. Temp	1.45 @ 58		
Rmf @ Meas. Temp	1.09 @ 58		
Rmc @ Meas. Temp	1.96 @ 58		
Source of Rmf / Rmc	Charts		
Rm @ BHT	.70 @ 121		
Operating Rig Time	4 Hours		
Max Rec. Temp. F	121		
Equipment Number	15		
Location	Hays		
Recorded By	D. Kerr		
Witnessed By	Richard Bell		

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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.

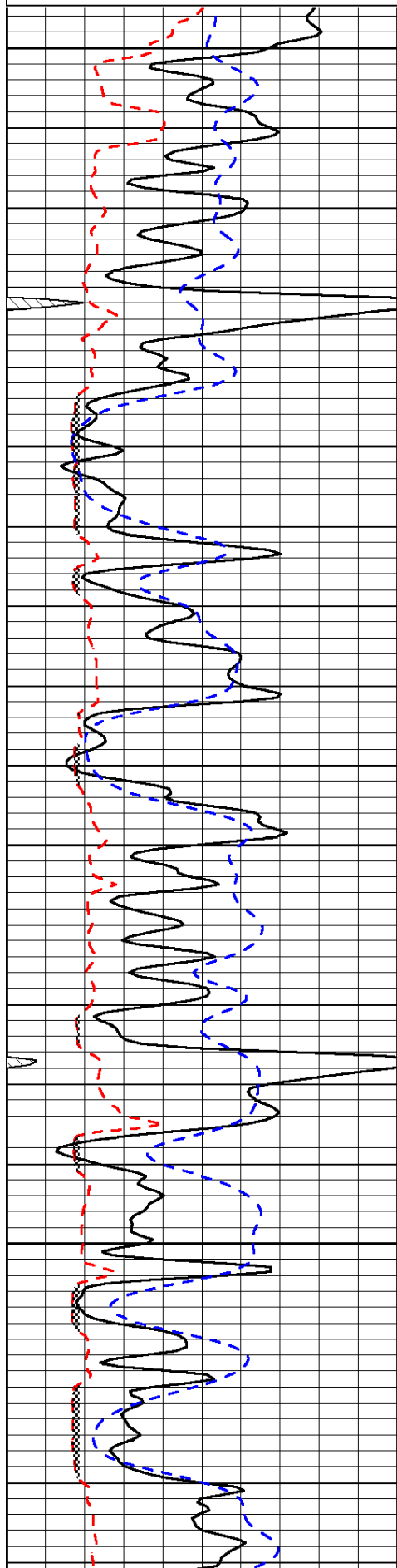
Comments

Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858

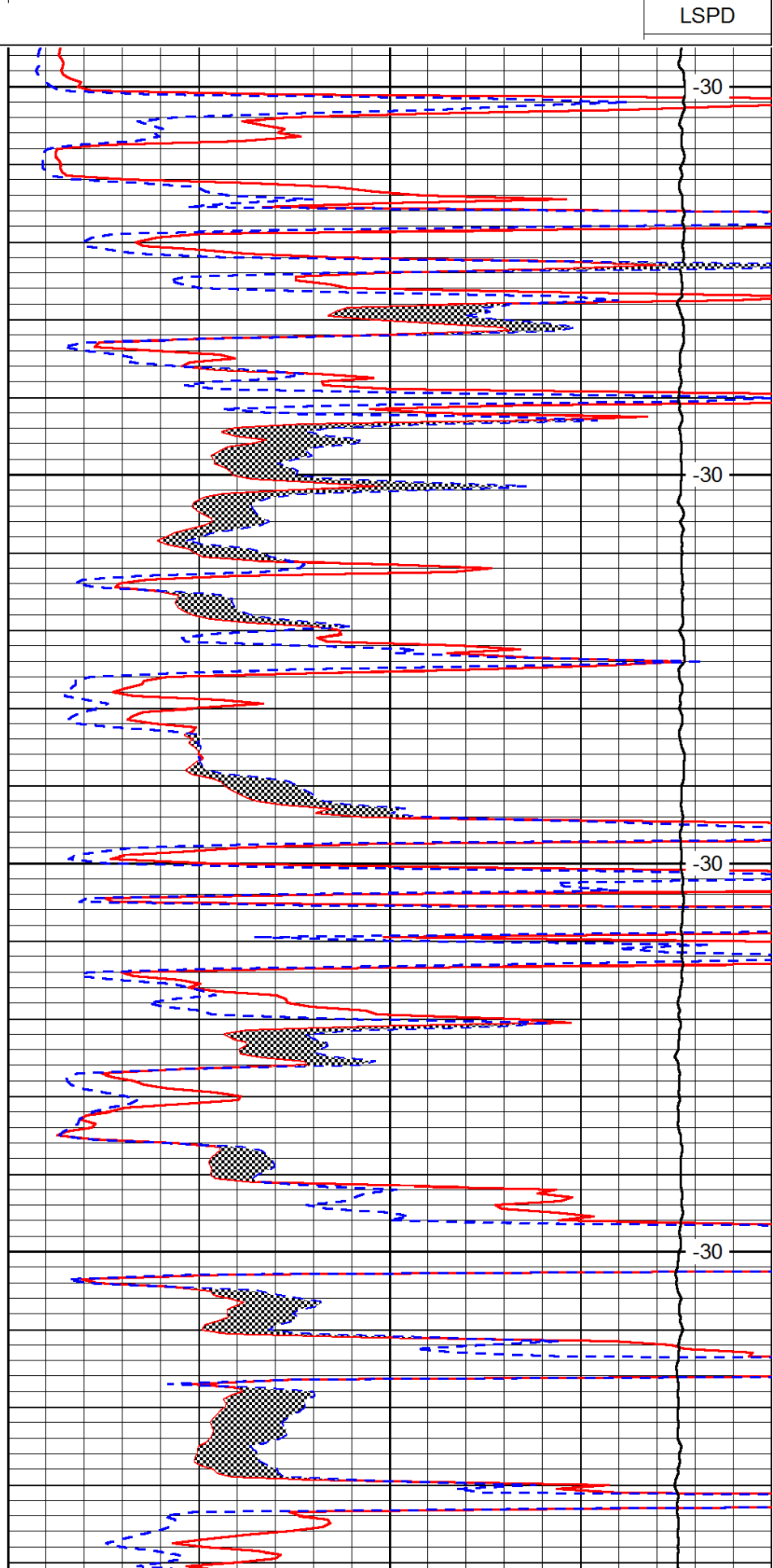
Hoxie Ks, 6 South to 406 RD (70 S RD),
3 1/2 East, North Into

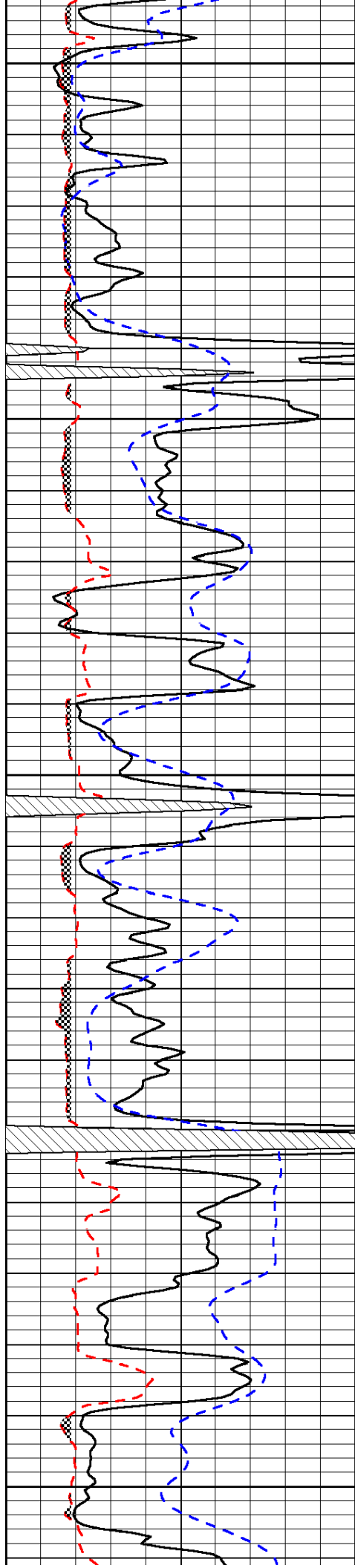
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Dataset Pathname: DIL\hafstk
Presentation Format: micro
Dataset Creation: Tue Dec 11 23:22:14 2012
Charted by: Depth in Feet scaled 1:240

Charted by: Depth in Feet scaled 1:2.15		
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





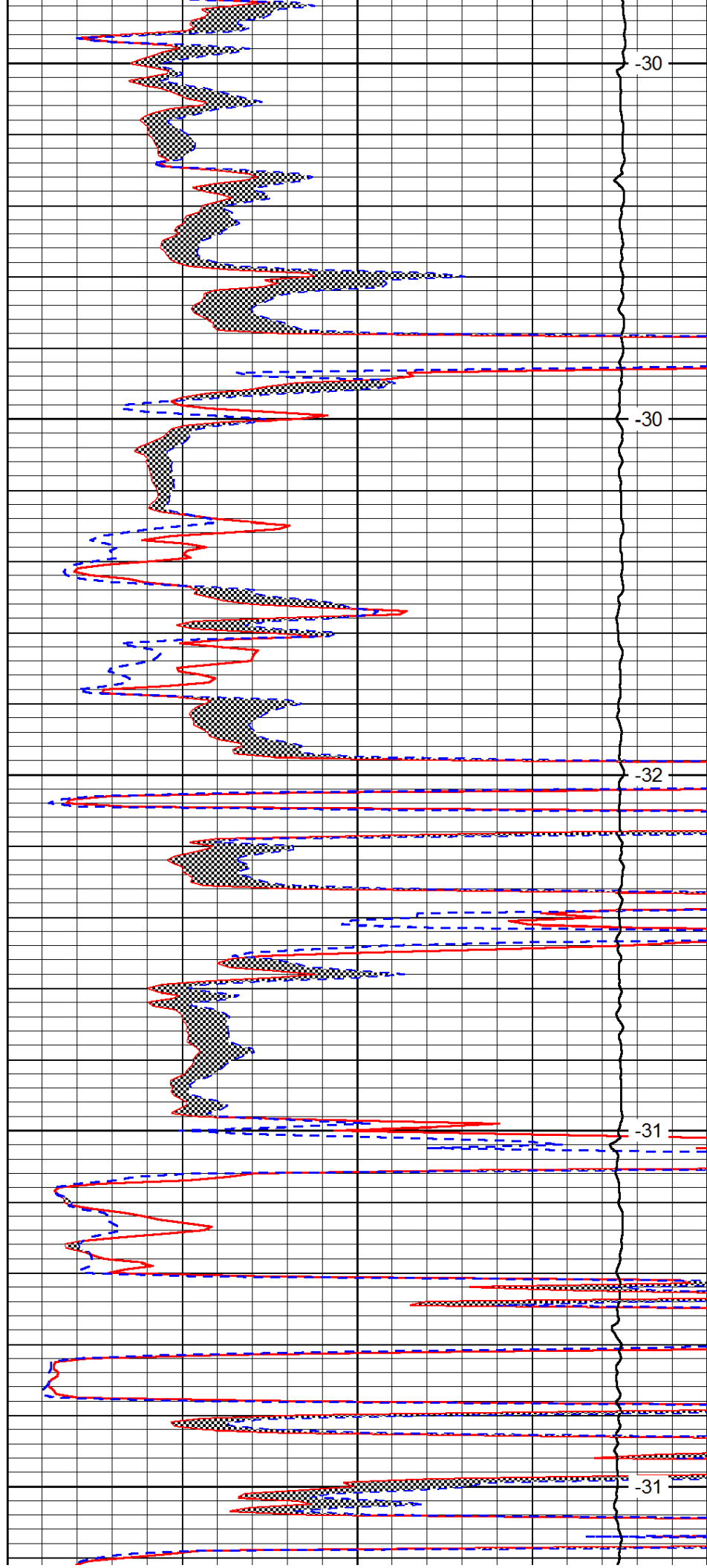
3700

3750

3800

3850

3900



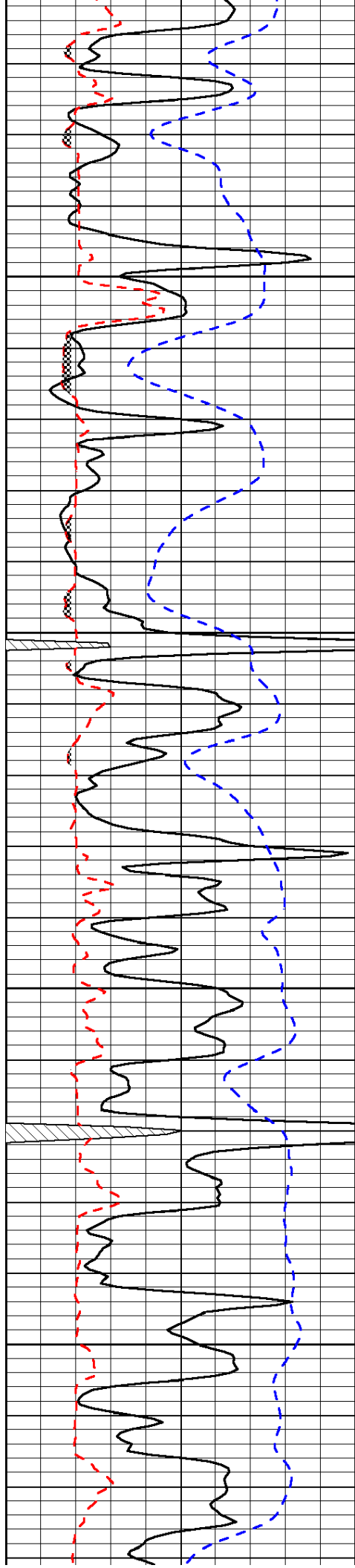
-30

-30

-32

-31

-31

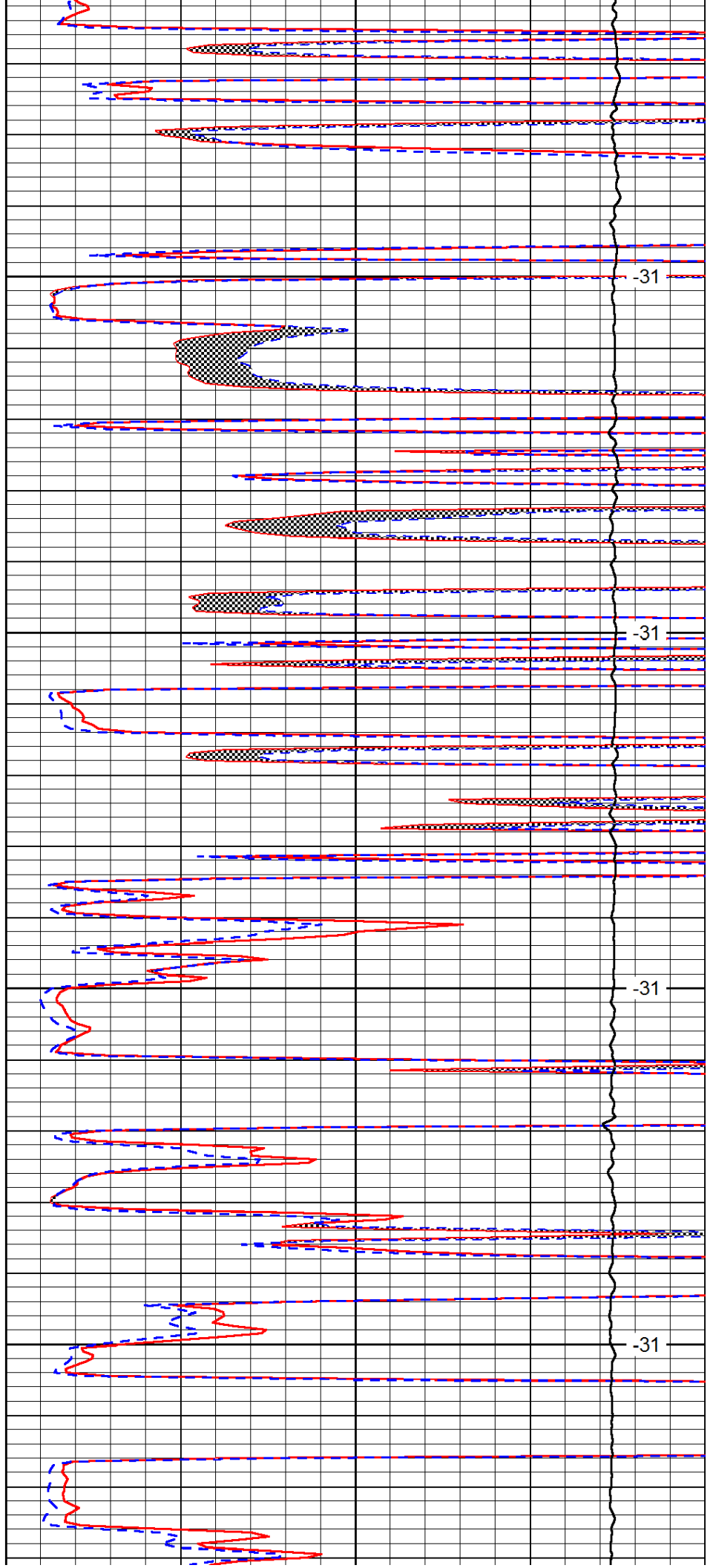


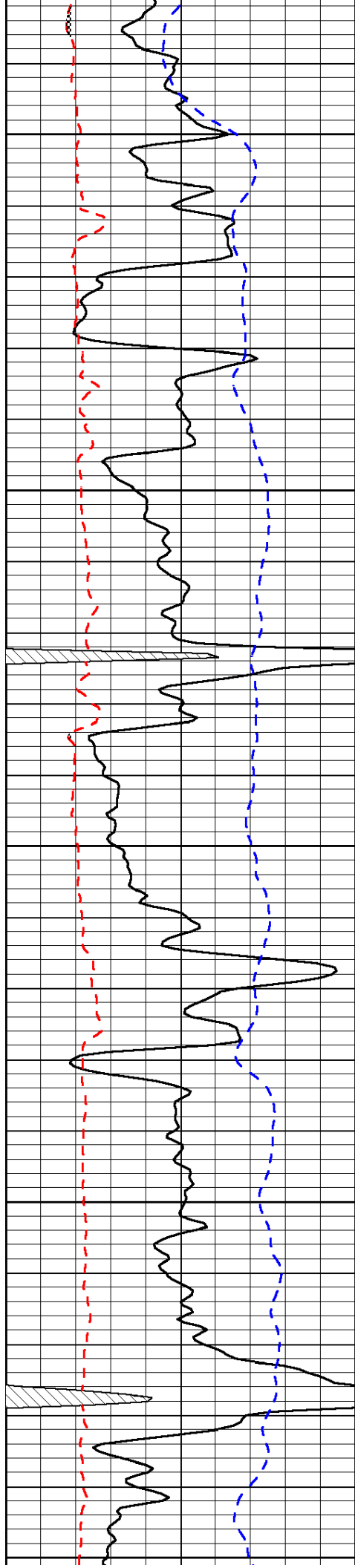
3950

4000

4050

4100





4150

4200

4250

4300

4350

