



Pioneer Energy Services

# Microresistivity Log

API No.	15-053-21304-00-00		
Company	American Warrior, Inc.		
Well	Grubb D #1-5		
Field	Stoltenberg		
County	Ellsworth	State	Kansas
Location	1698' FSL & 1644' FWL		
Sec: 5	Twp: 16S	Rge: 10W	Other Services CNL/CDL DIL

Permanent Datum	Ground Level	Elevation	1785
Log Measured From	Kelly Bushing	8	Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing		
Date	1/27/2014		
Run Number	One		
Depth Driller	3400		
Depth Logger	3403		
Bottom Logged Interval	3402		
Top Log Interval	2700		
Casing Driller	8.625 @ 364		
Casing Logger	360		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	4500		
Density / Viscosity	9.4	67	
pH / Fluid Loss	11.0	7.2	
Source of Sample	Flowline		
Rm @ Meas. Temp	0.89	@	35
Rmf @ Meas. Temp	0.67	@	35
Rmc @ Meas. Temp	1.20	@	35
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.28	@	112
Operating Rig Time	3 Hours		
Max Rec. Temp. F	112		
Equipment Number	91		
Location	Hays		
Recorded By	D. Schmidt		
Witnessed By	Jim Musgrove		

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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.

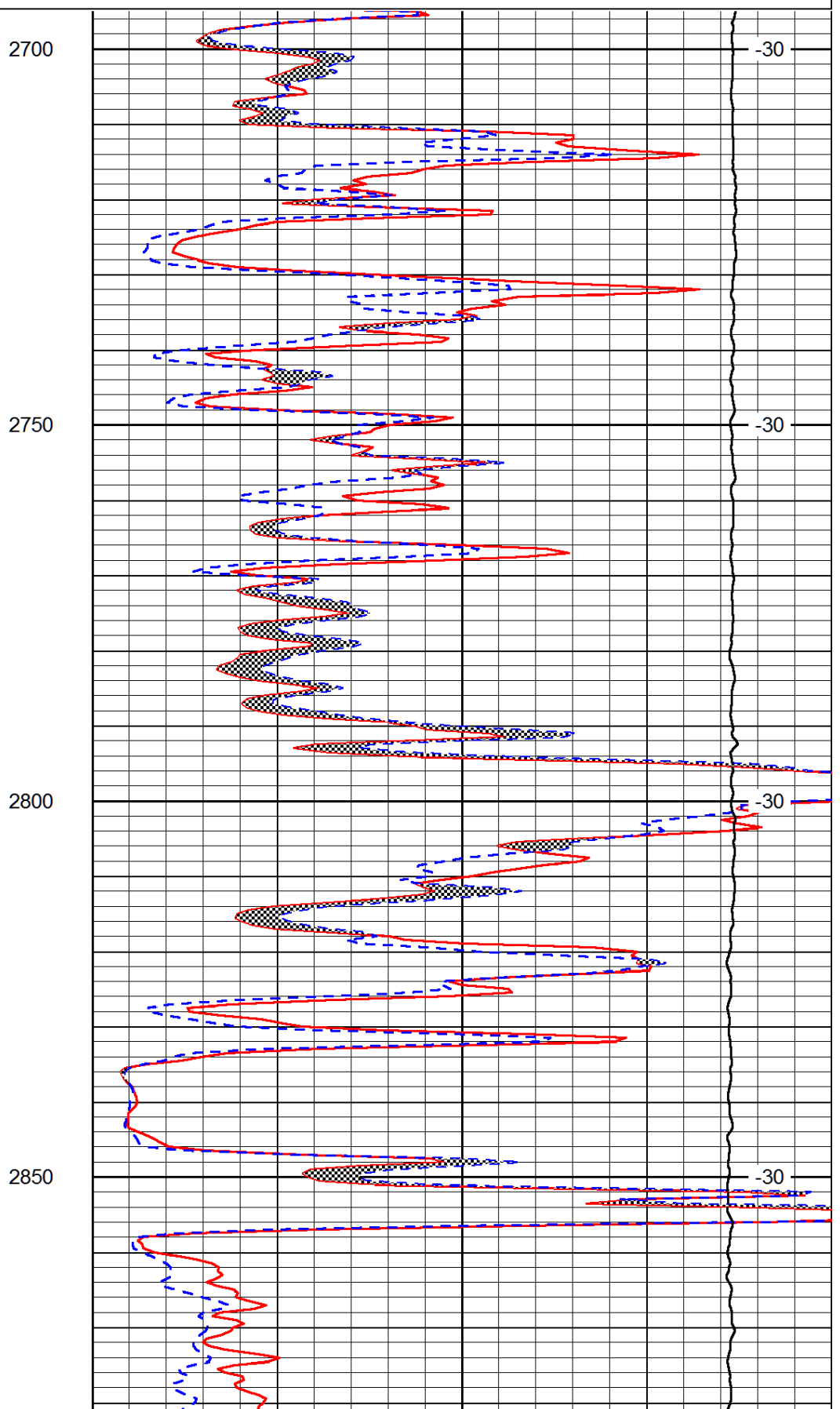
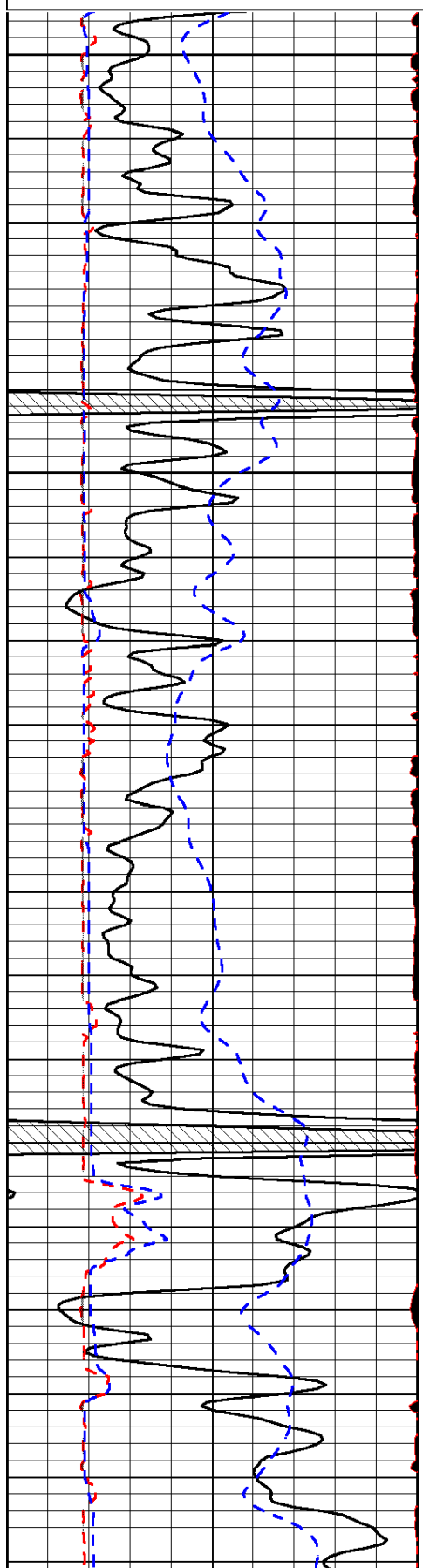
Comments

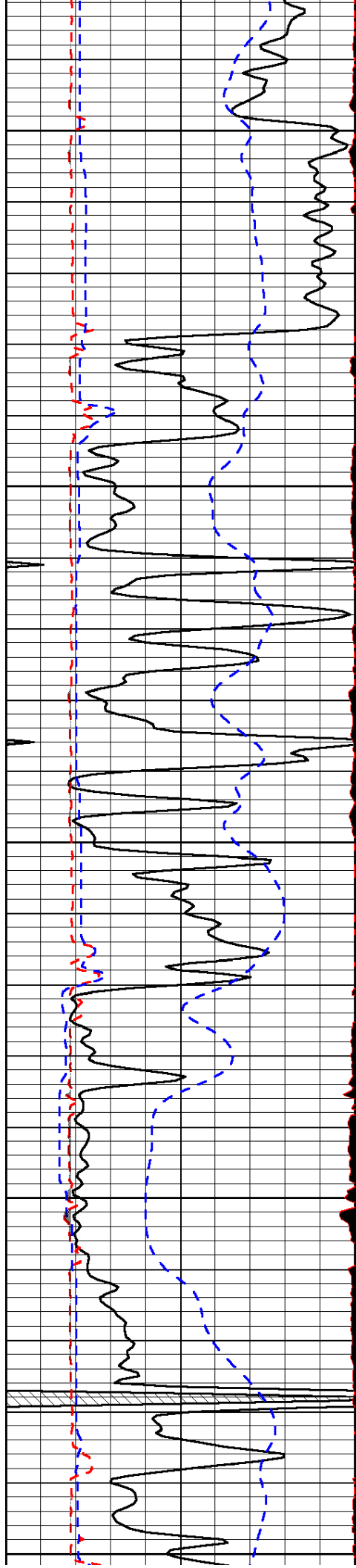
Thank you for using Log-Tech, Inc.  
 (785) 625-3858  
 Wilson,  
 10 South, 1.3 East to TB,  
 North and West into

Database File: amwar\_012714hd.db  
 Dataset Pathname: dil/awstck  
 Presentation Format: micro  
 Dataset Creation: Mon Jan 27 08:26:13 2014  
 Charted by: Depth in Feet scaled 1:240

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

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0
		LSPD (ft/min)





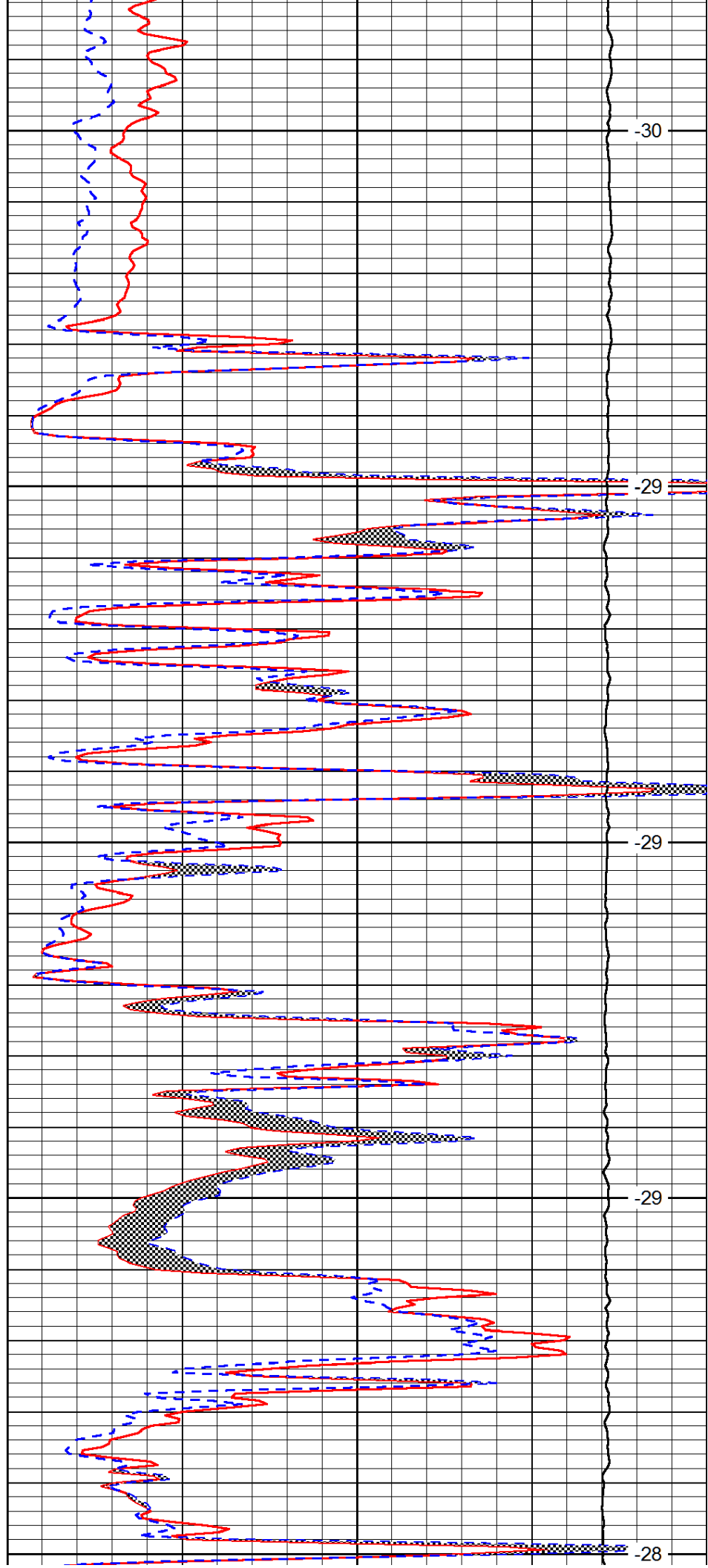
2900

2950

3000

3050

3100



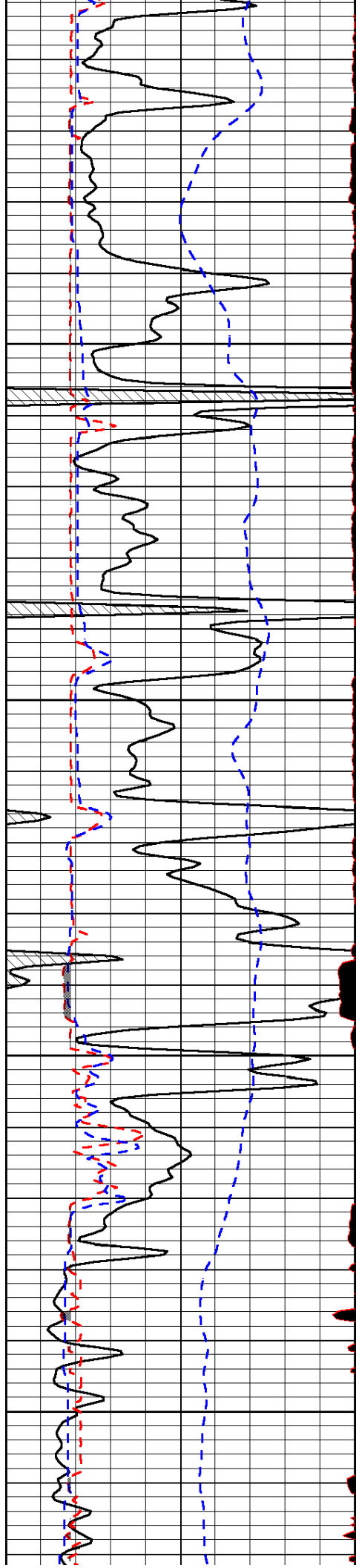
-30

-29

-29

-29

-28

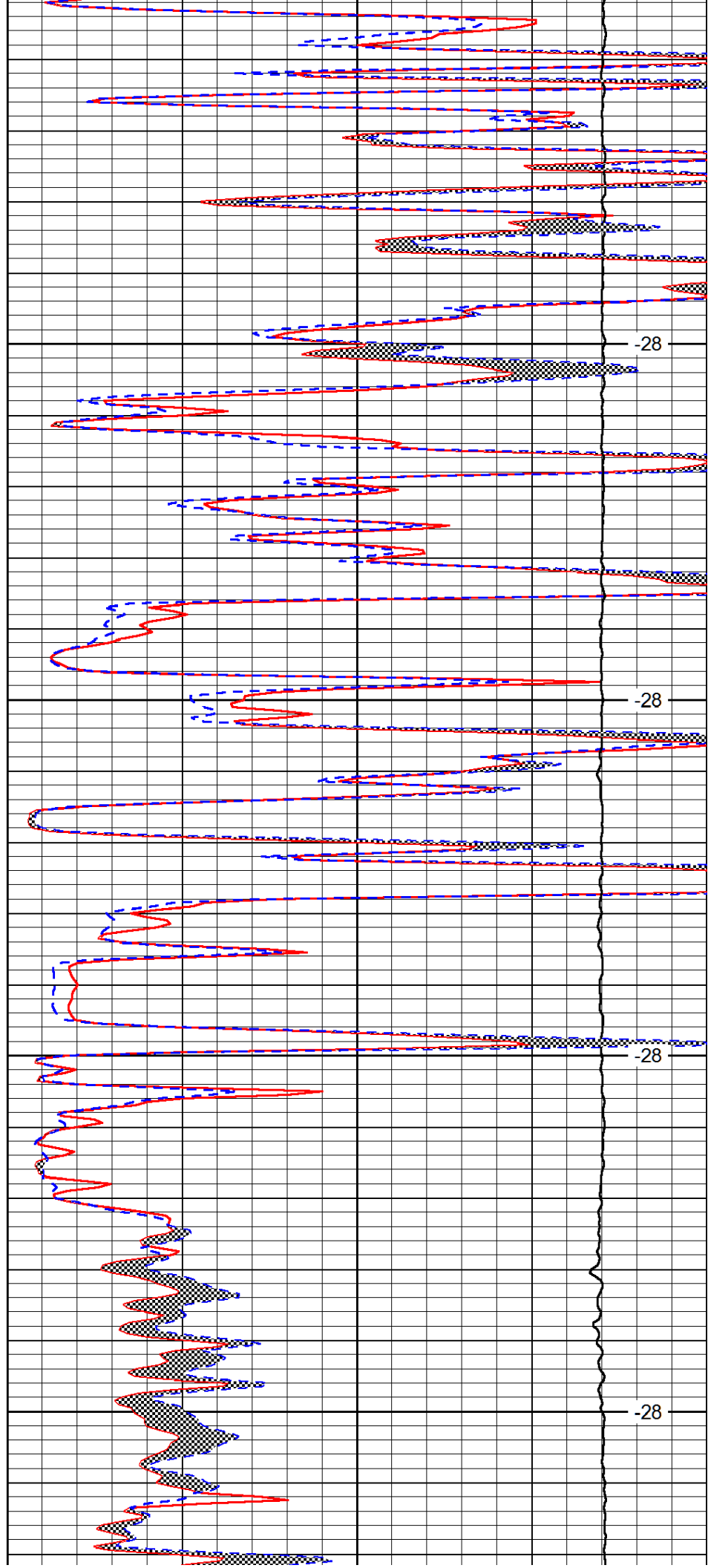


3150

3200

3250

3300

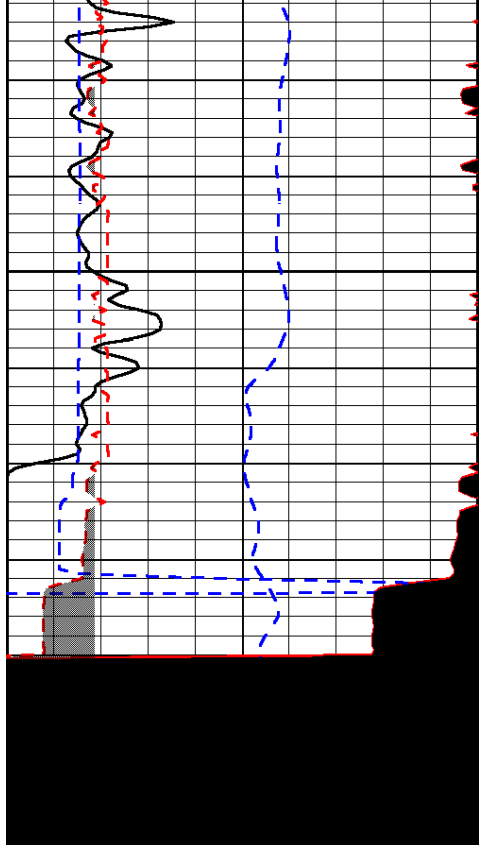


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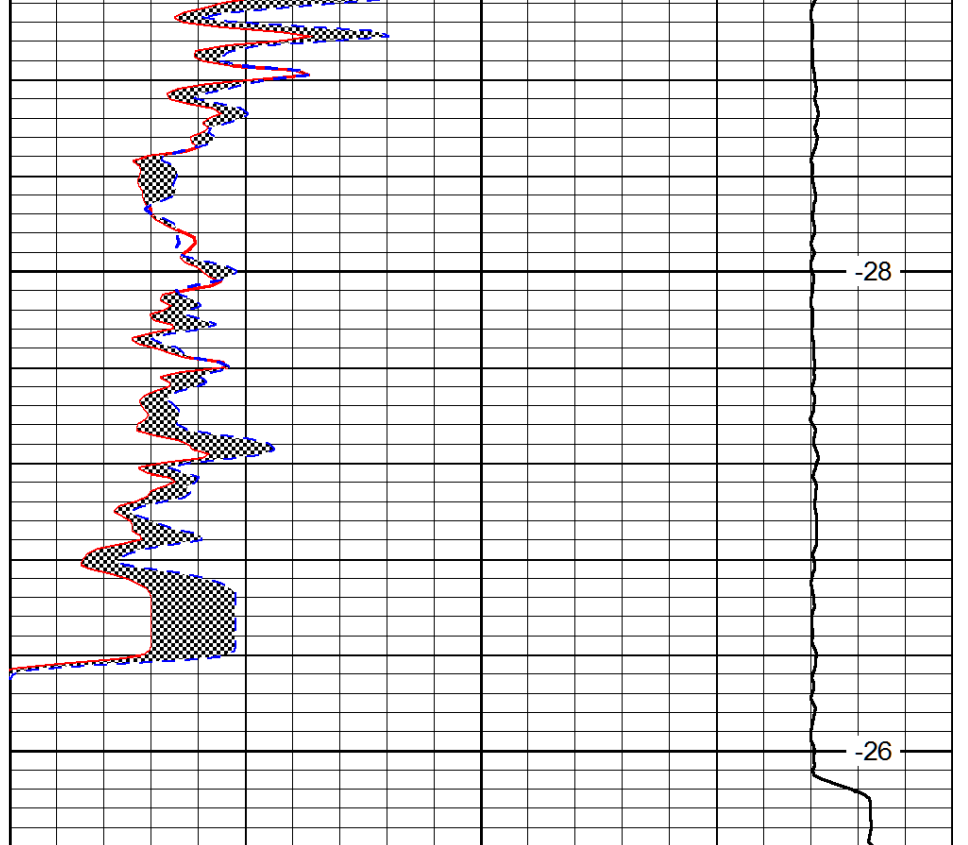
-28

-28



3350

3400



-28

-26

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