



Microresistivity Log

Pioneer Energy Services

API No.

15-009-25863-00-00

Company K&N Petroleum, Inc.

Well Betty Mae #1

Field Klepper

County Barton State

Kansas

Location 943' FSL & 1875' FEL

Sec: 3 Twp: 19 S Rge: 11 W

Other Services
CNL/CDL
DIL/BHCS

Permanent Datum Ground Level Elevation 1780

Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing Elevation
K.B. 1787
D.F. 1780
G.L. 1780

Date 08-17-2013

Run Number Two

Depth Driller 3460

Depth Logger 3460

Bottom Logged Interval 3459

Top Log Interval 2800

Casing Driller 8.625 @ 390

Casing Logger 386

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 7000

Density / Viscosity 9.3 52

pH / Fluid Loss 9.5 8.8

Source of Sample Flowline

Rm @ Meas. Temp 0.65 @ 75

Rmf @ Meas. Temp 0.48 @ 75

Rmc @ Meas. Temp 0.87 @ 75

Source of Rmf / Rmc Charts

Rm @ BHT 0.43 @ 113

Operating Rig Time 4 Hours

Max Rec. Temp. F 113

Equipment Number 91

Location Hays

Recorded By Y. Ruiz

Witnessed By Wyatt Urban

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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.

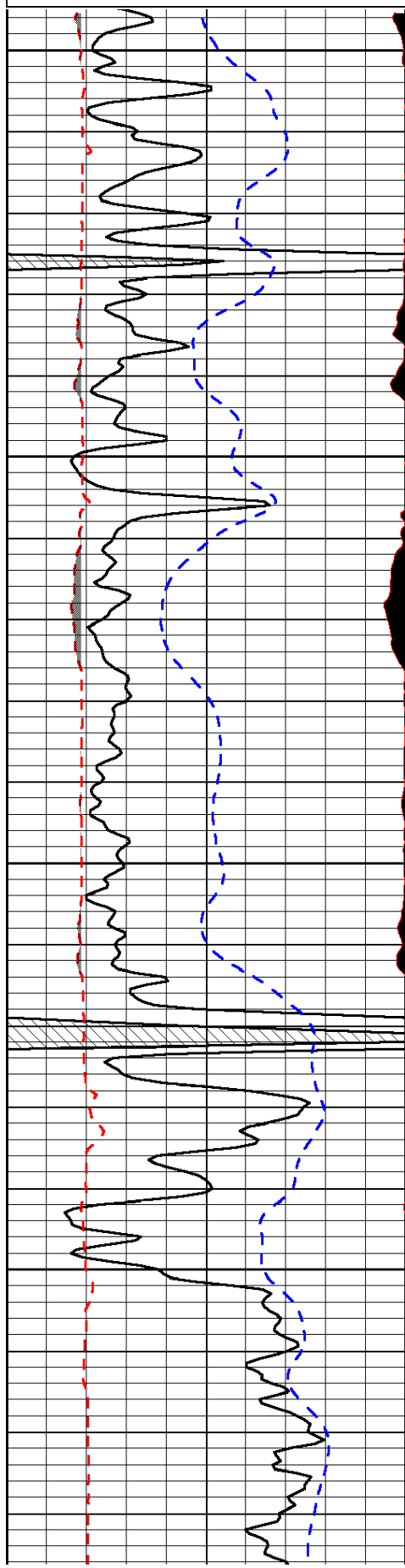
Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

Ellinwood,
4 1/2 North, 3 1/2 East,
North into

Database File: k&n081713hd.db
Dataset Pathname: dil/knstck
Presentation Format: micro
Dataset Creation: Sat Aug 17 23:11:04 2013
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



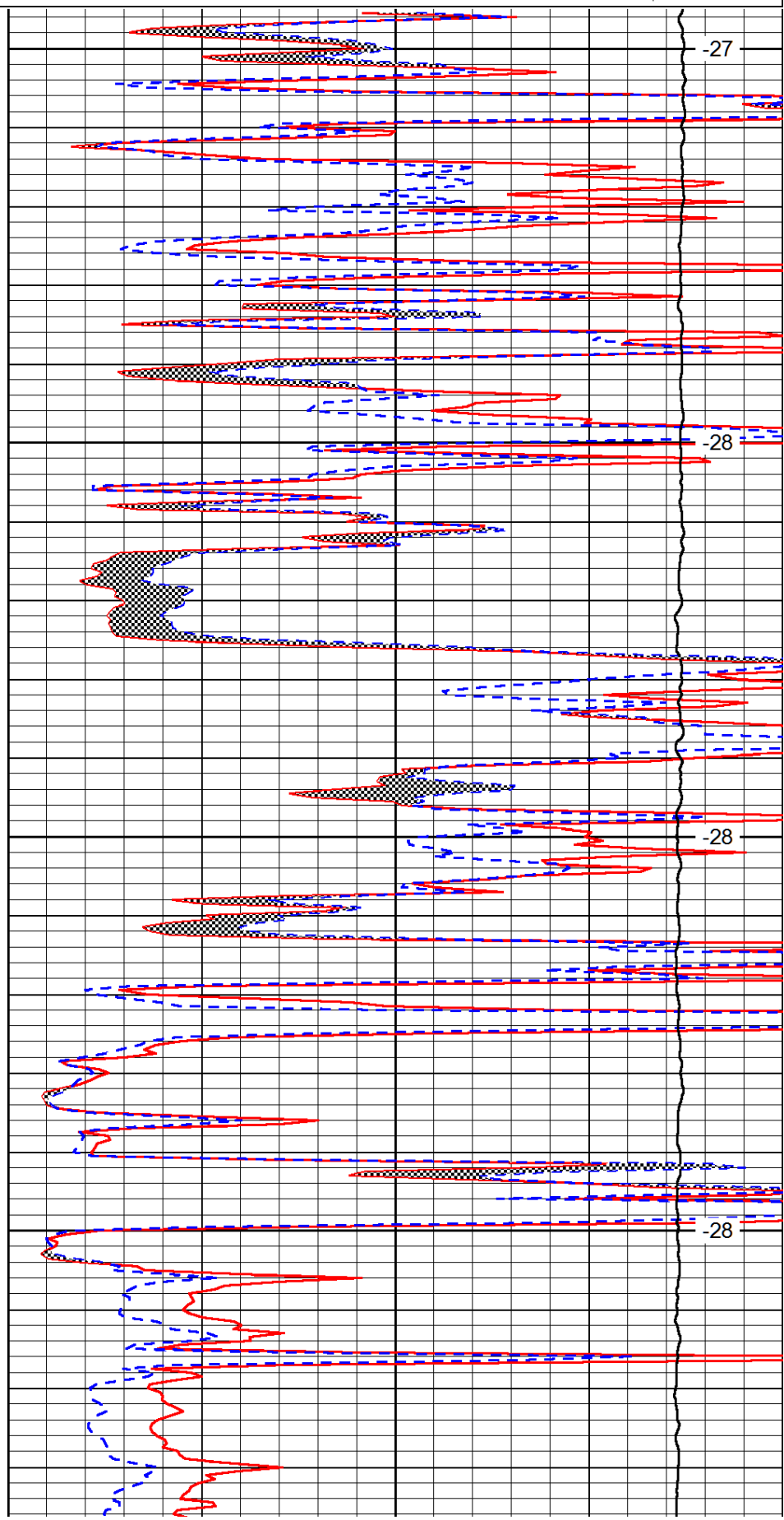
2800

2850

2900

2950

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

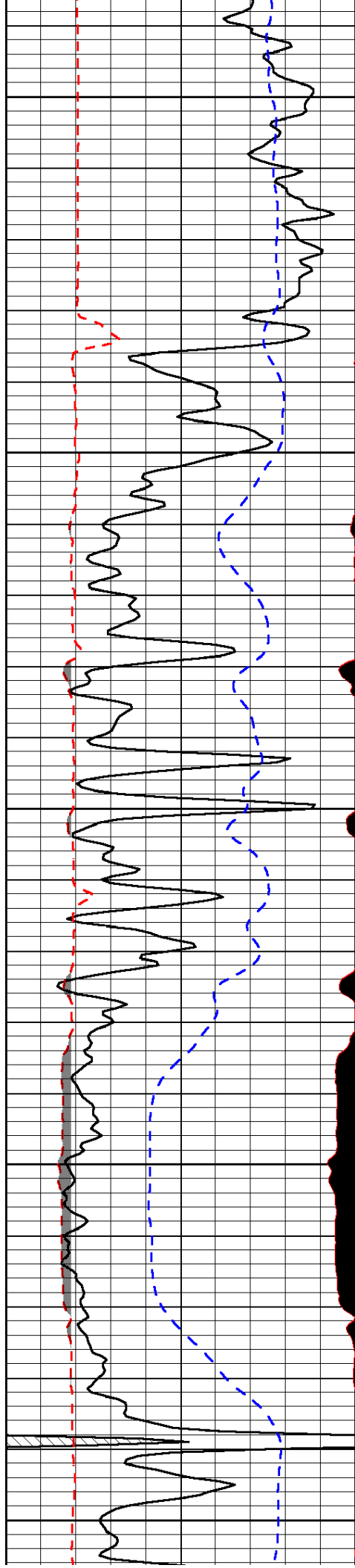


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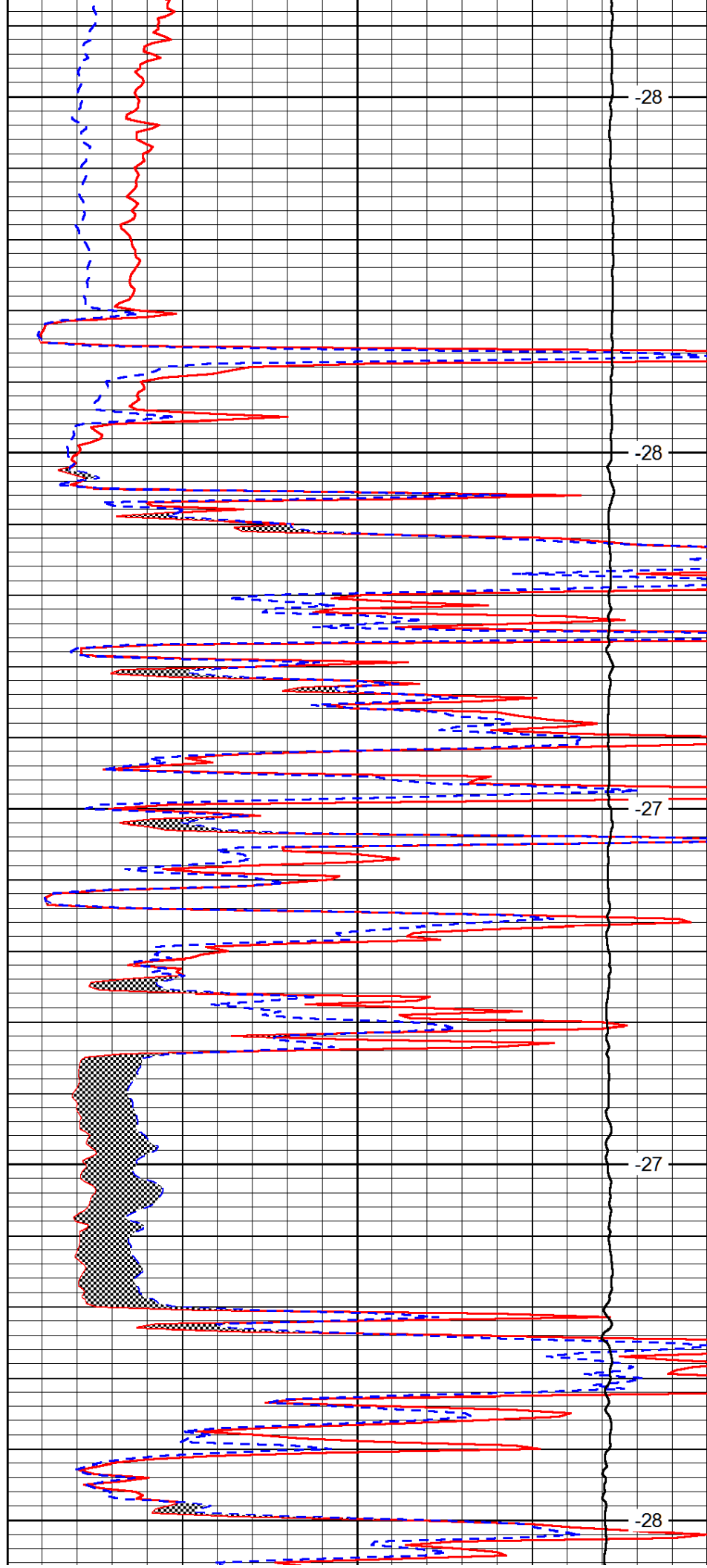
3000

3050

3100

3150

3200



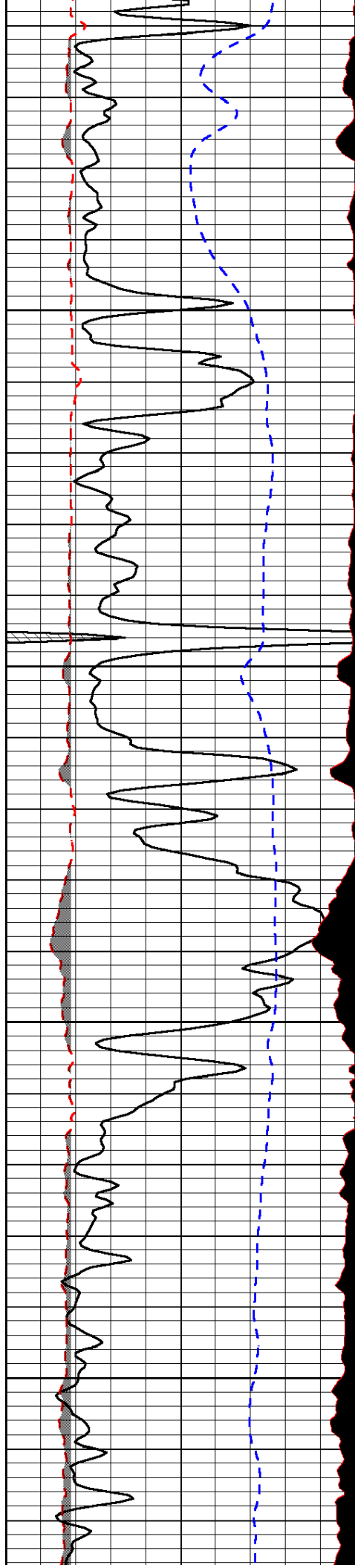
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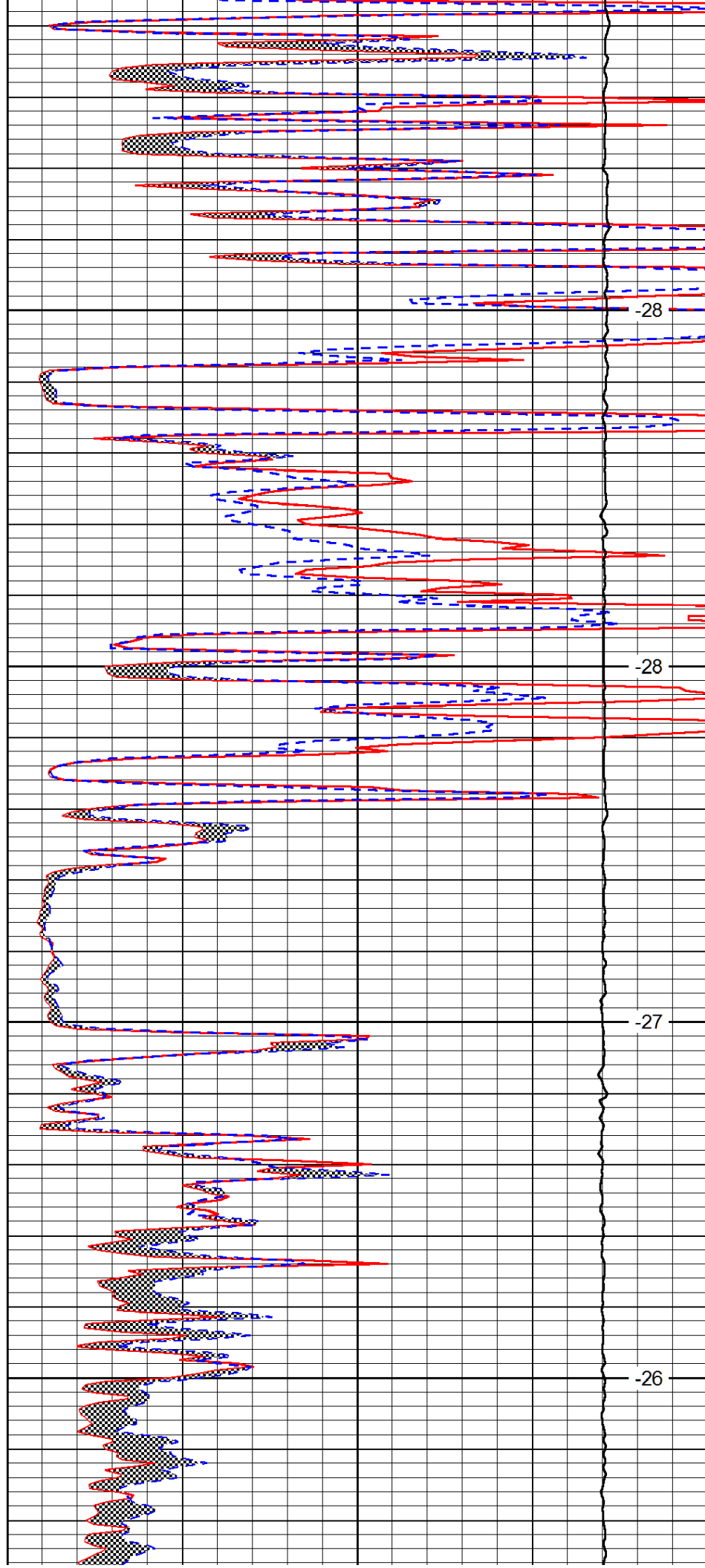


3250

3300

3350

3400

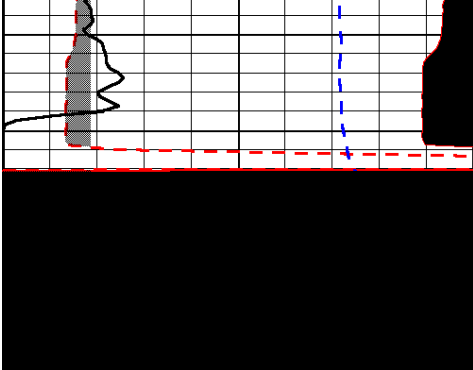


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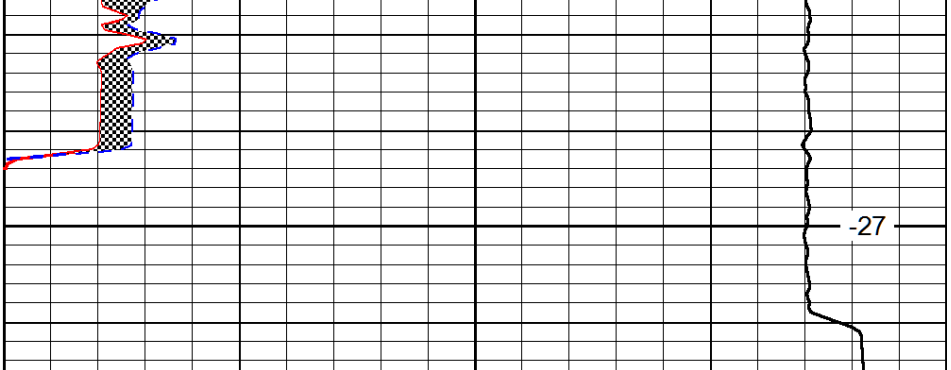
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3450

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(ft/min)