



Microresistivity Log

Pioneer Energy Services

API No.

15-051-26,481-00-00

Company American Warrior, Inc.

Well G.E. Riedel No. 4-31

Field Irvin

County Ellis

State

Kansas

Location

1,685' FSL & 1,664' FEL

Other Services
CNL/CDL
DIL/BHCS

Sec: 31

Twp: 13S

Rge: 19W

Elevation

Permanent Datum Ground Level
Log Measured From Kelly Bushing

Elevation 2268
8 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

K.B. 2276
D.F. 2268
G.L. 2268

Date

3/13/2013

Run Number

Two

Depth Driller

3980

Depth Logger

3979

Bottom Logged Interval

3978

Top Log Interval

3100

Casing Driller

8.625 @ 221

Casing Logger

219

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

6500

Density / Viscosity

9.3 55

pH / Fluid Loss

10.5 8.4

Source of Sample

Flowline

Rm @ Meas. Temp

.50 @ 65

Rmf @ Meas. Temp

.38 @ 65

Rmc @ Meas. Temp

.68 @ 65

Source of Rmf / Rmc

Charts

Rm @ BHT

.28 @ 116

Operating Rig Time

4 Hours

Max Rec. Temp. F

116

Equipment Number

108

Location

Hays

Recorded By

J. Long

Witnessed By

Jason Alm

Austin Klaus

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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.

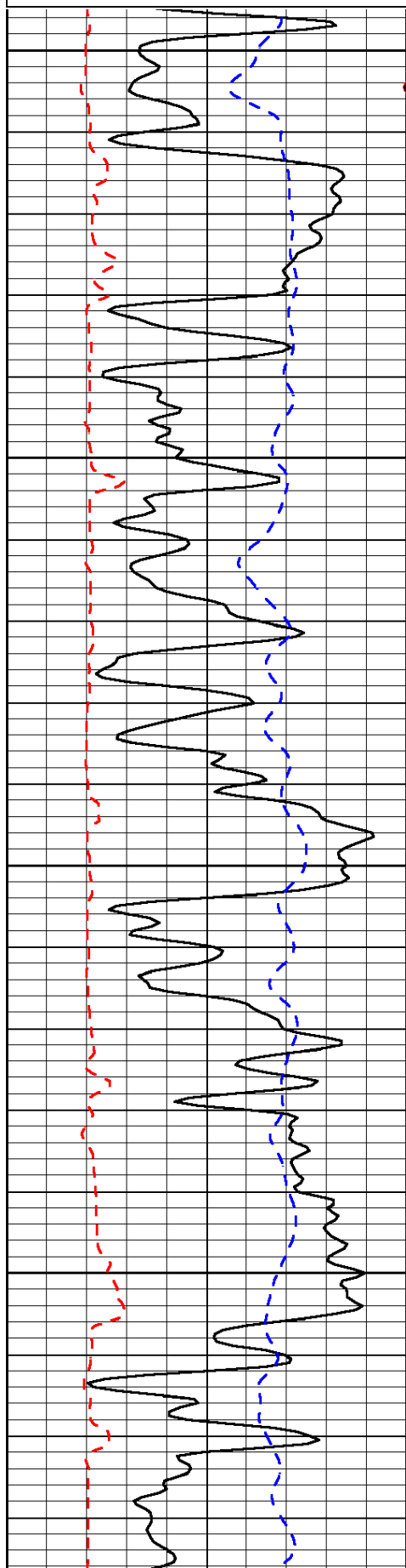
Comments

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

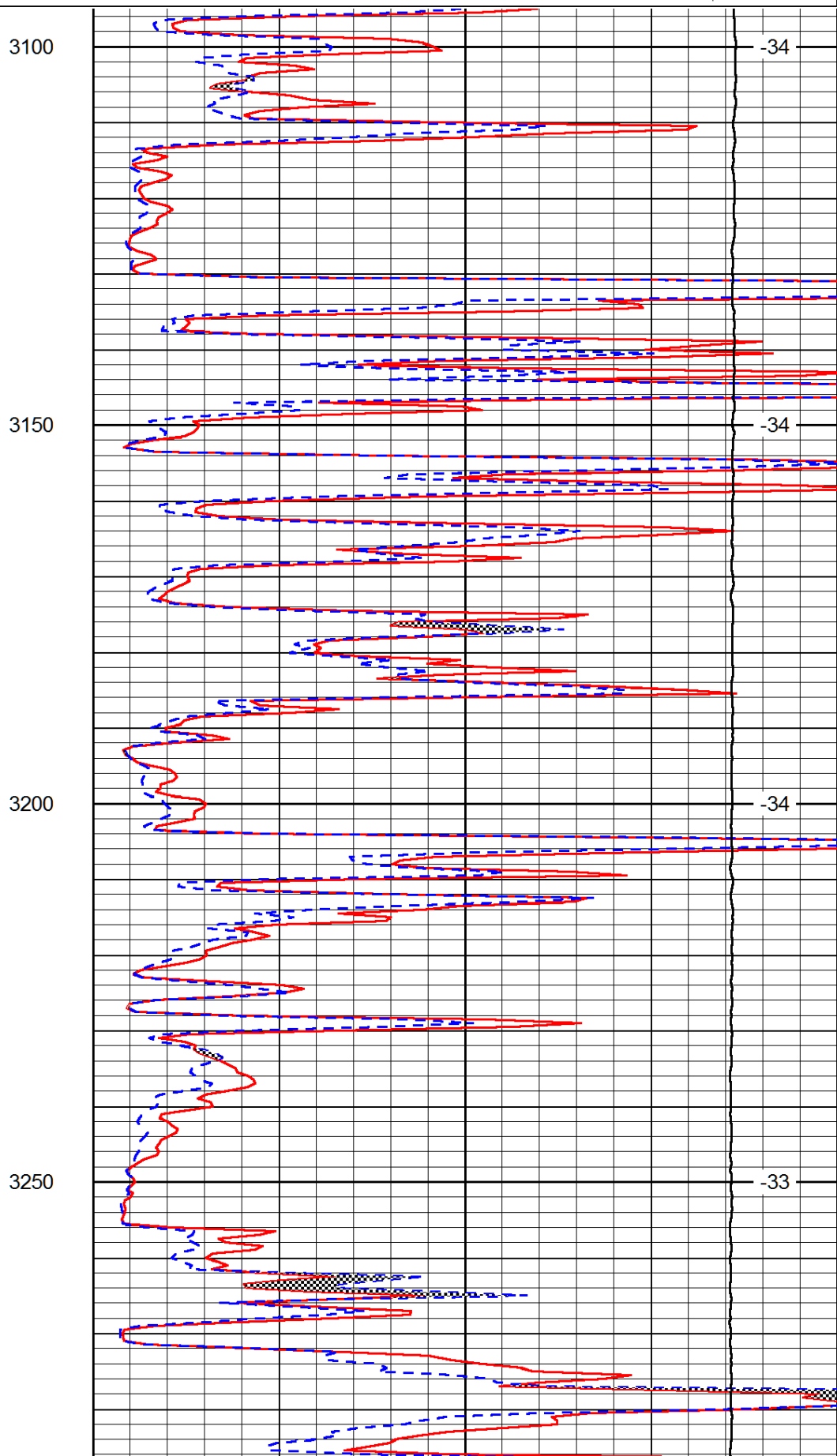
Hays, 7 West on Golf Course Road to 170 Road, 1 North, 1/2 West, North Into

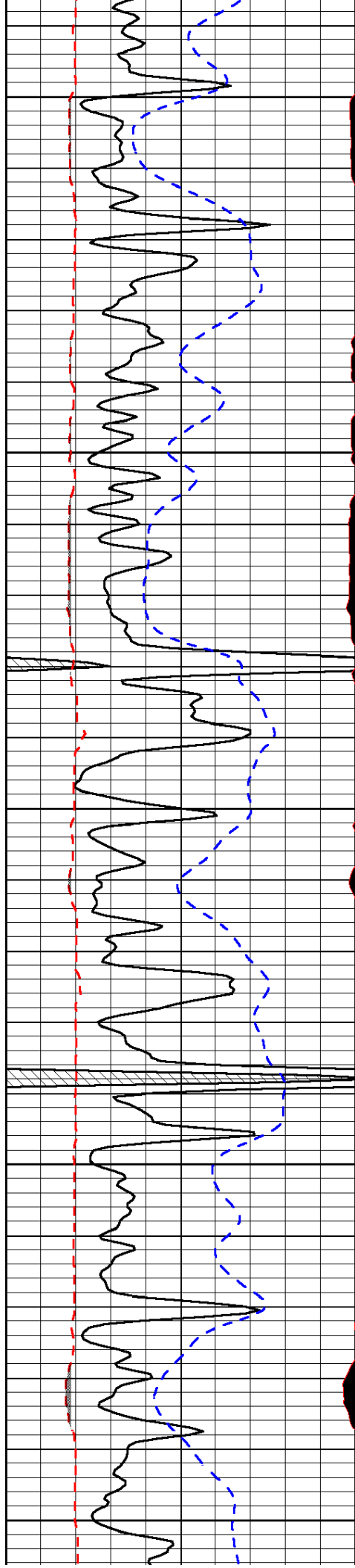
Database File: amwarrior_gieredel_4-31hd.db
Dataset Pathname: dil/awstck
Presentation Format: micro
Dataset Creation: Wed Mar 13 05:00:58 2013
Charted by: Depth in Feet scaled 1:240

Charted by: Depth in Feet scaled 1:210		
0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	Mud Cake (in)	7.875
-200	SP (mV)	0



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





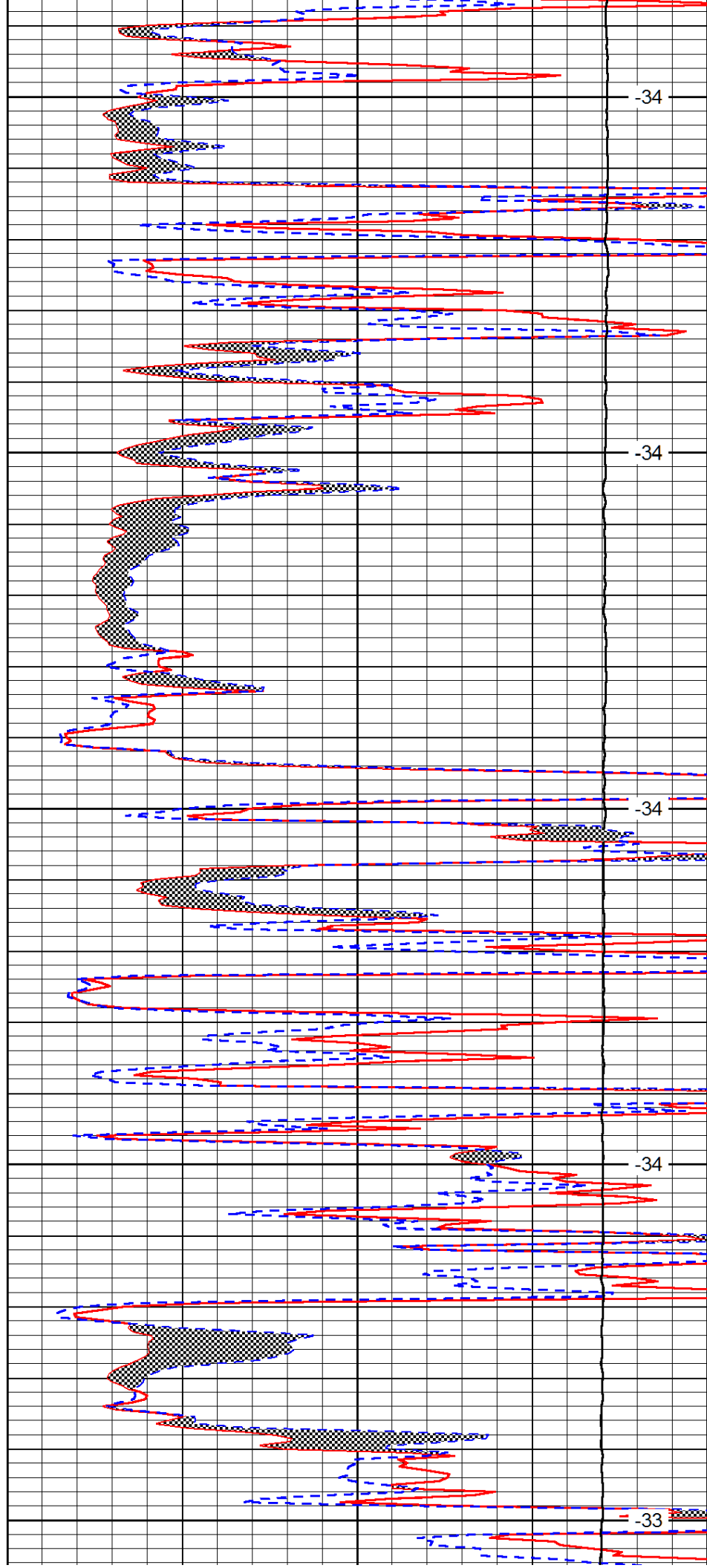
3300

3350

3400

3450

3500



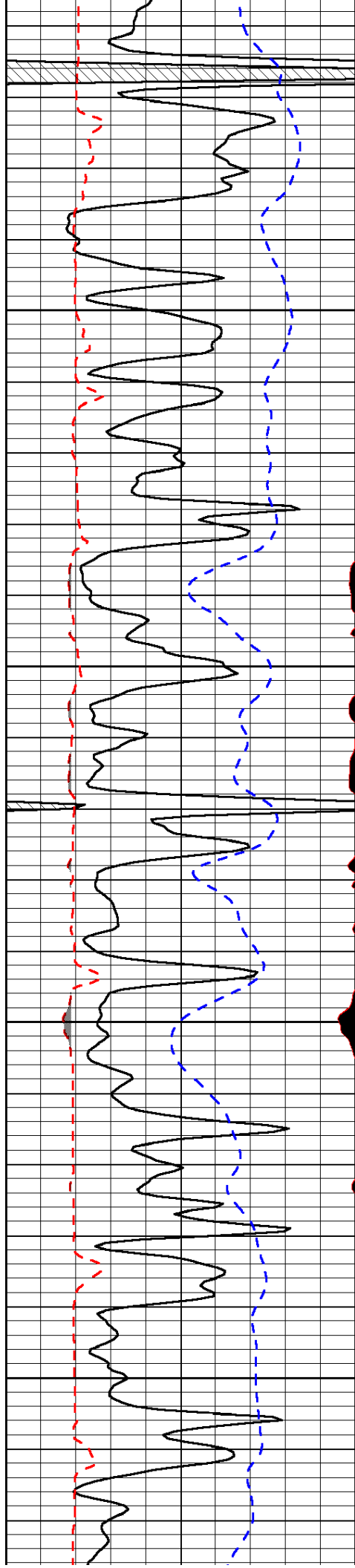
-34

-34

-34

-34

-33

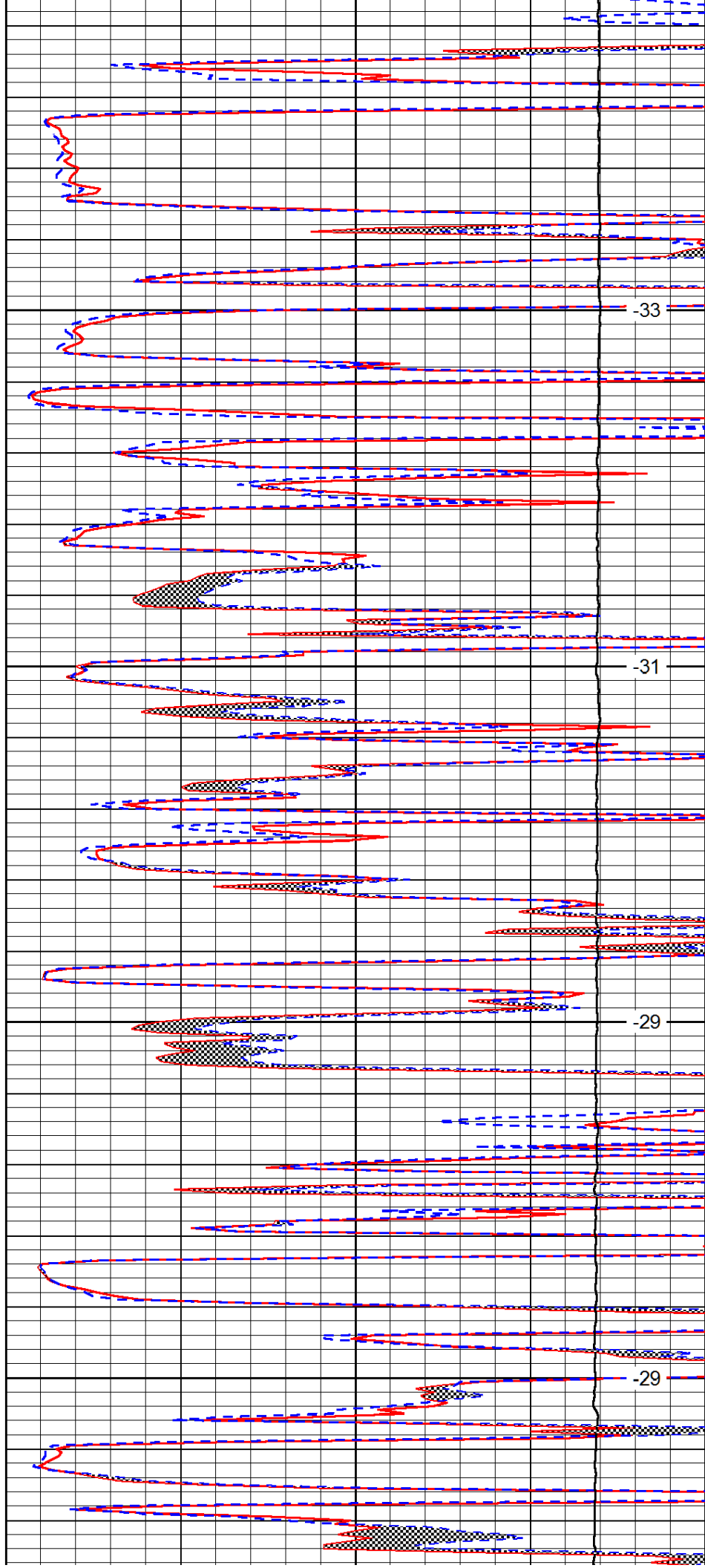


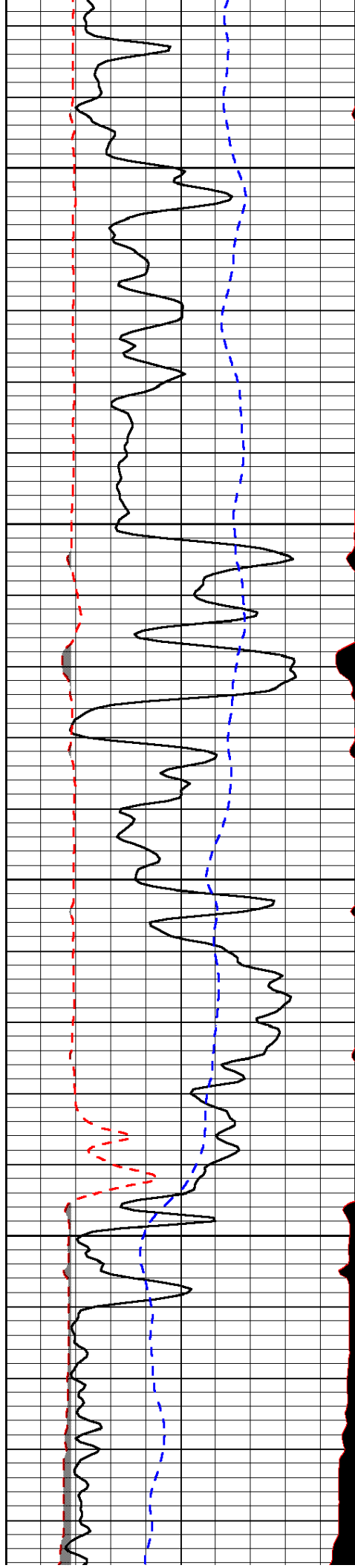
3550

3600

3650

3700



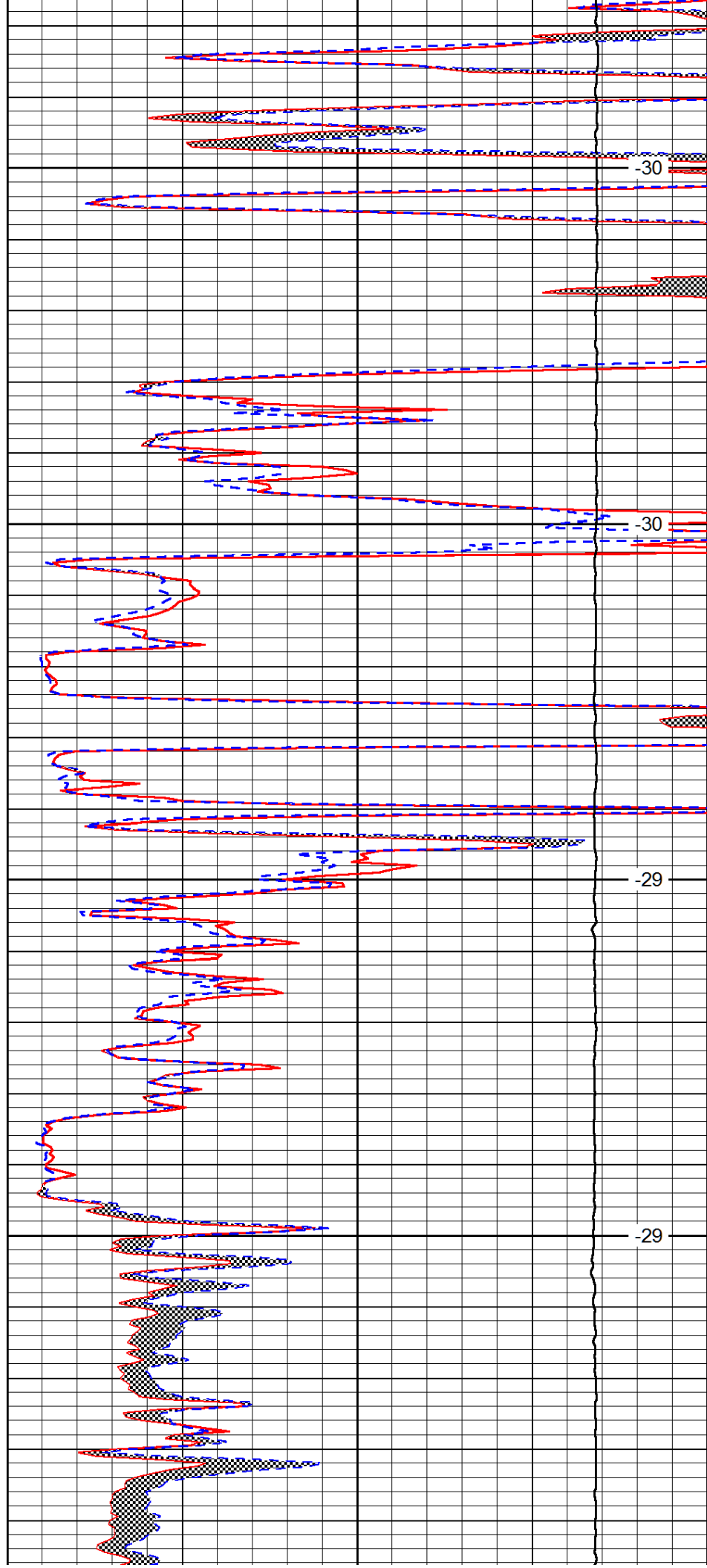


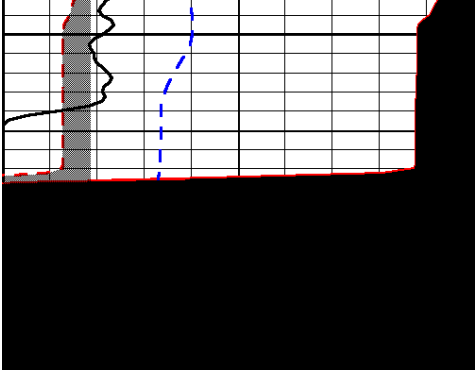
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3800

3850

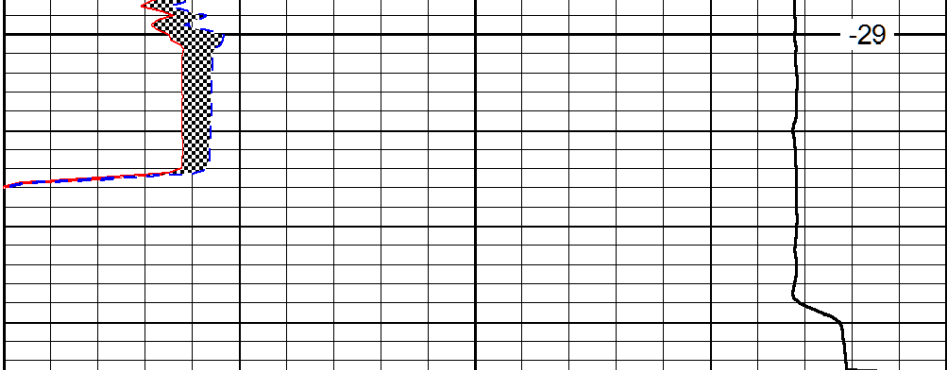
3900





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