



Pioneer Energy Services

Microresistivity Log

API No.

15-065-24056-00-00

Company Bowman Oil Company

Well Smith #9

Field Cooper

County Graham

State

Kansas

Location

NE SW NE NW
905' FNL / 1815' FWL

Sec: 5

Twp: 10S

Rge: 21W

Elevation

Permanent Datum Ground Level Elevation 2271
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 2279
D.F. 2271
G.L. 2271

Date 8/12/2014

Run Number Two

Depth Driller 3937

Depth Logger 3936

Bottom Logged Interval 3935

Top Log Interval 3200

Casing Driller 8.625 @ 221

Casing Logger 219

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 1000

Density / Viscosity 9.2 52

pH / Fluid Loss 10.5 8.8

Source of Sample Flowline

Rm @ Meas. Temp 1.10 @ 85

Rmf @ Meas. Temp 0.83 @ 85

Rmc @ Meas. Temp 1.49 @ 85

Source of Rmf / Rmc Charts

Rm @ BHT 0.81 @ 115

Operating Rig Time 4 Hours

Max Rec. Temp. F 115

Equipment Number 15

Location Hays

Recorded By R. Barnhart

Witnessed By Ed Glassman

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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

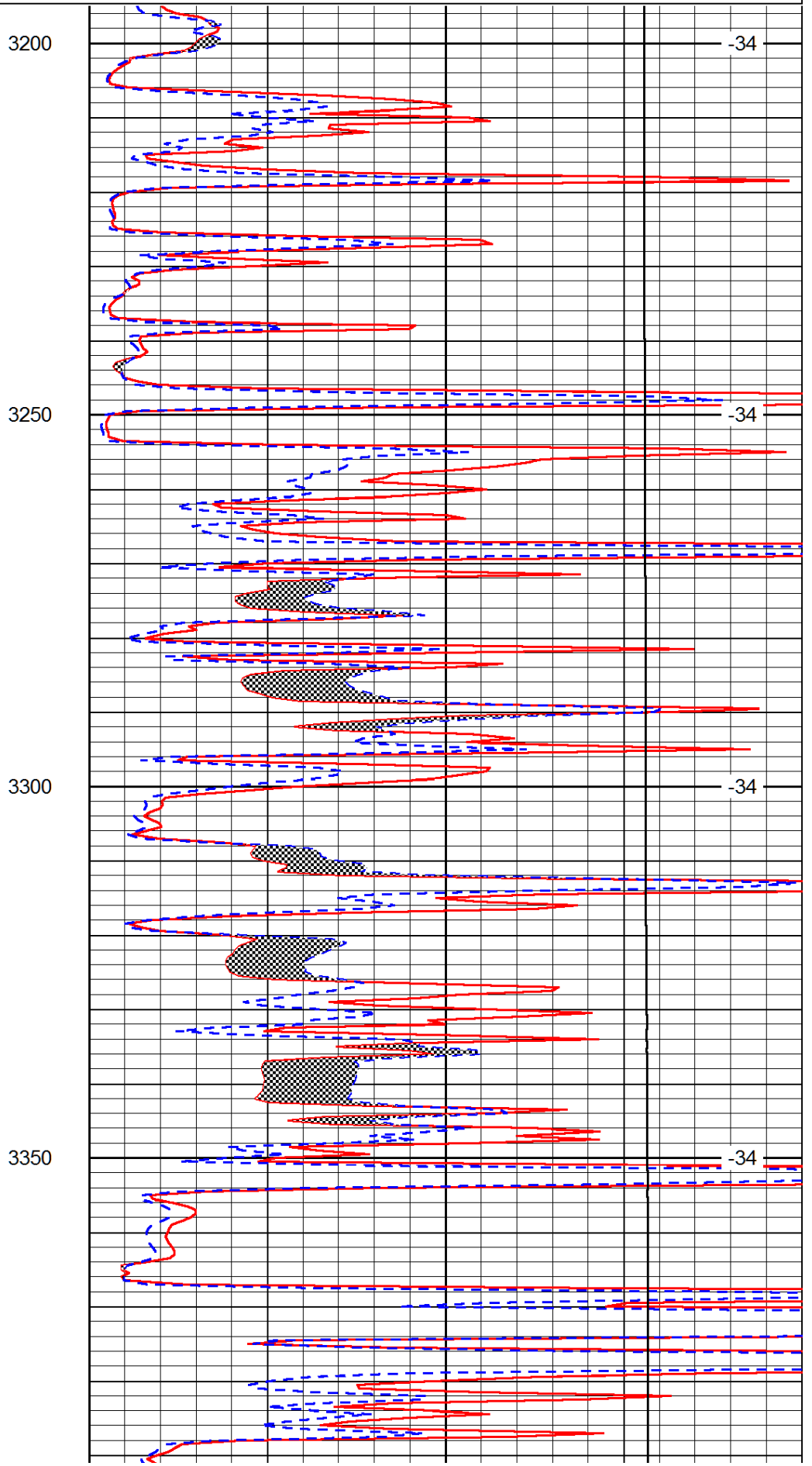
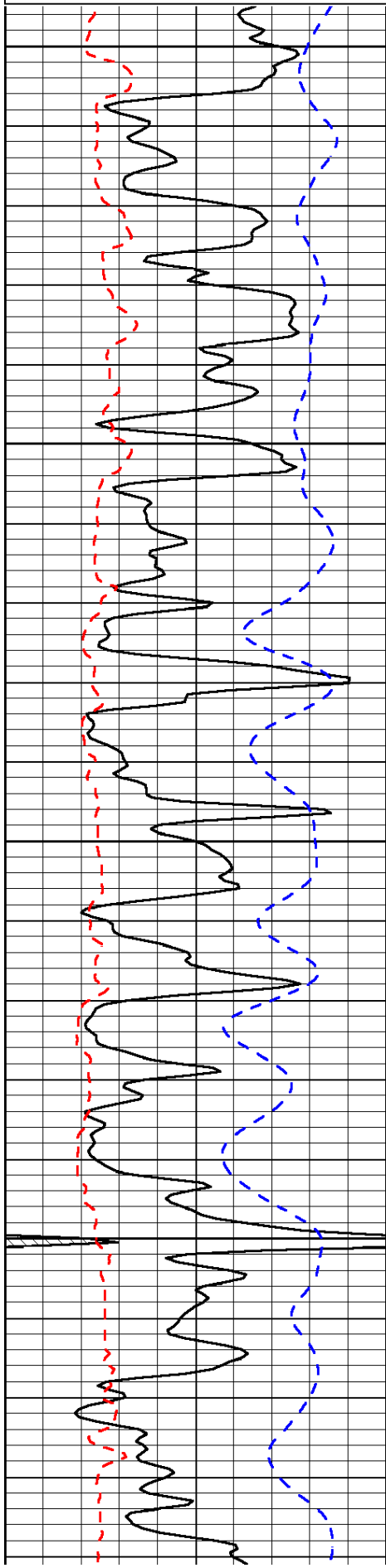
Thank you for using Log-Tech, Inc.
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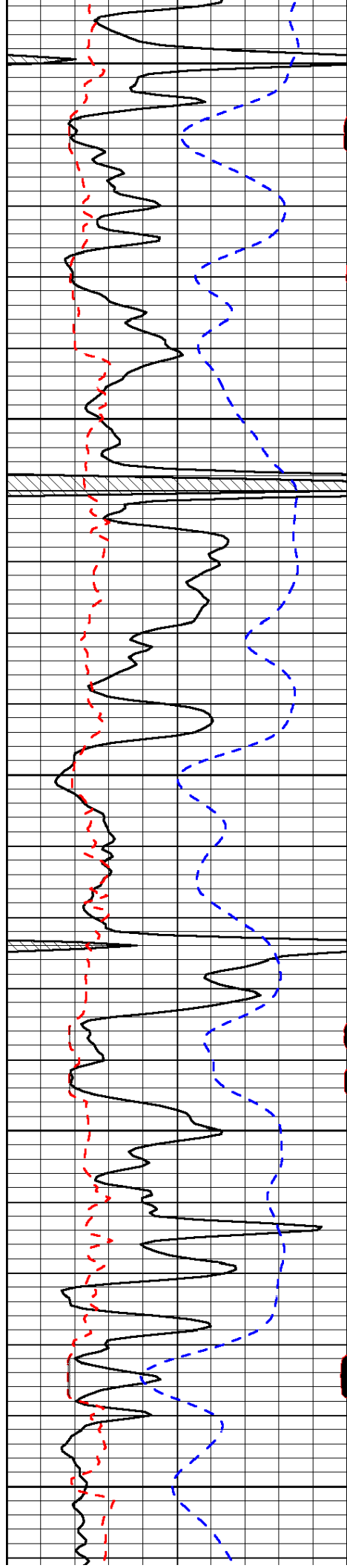
Palco, KS:
Ellis N to Redline Rd., From Church: 3W, 1S, 1/4E, S into

Database File: bowman_shd.db
Dataset Pathname: dil/bwmain
Presentation Format: micro
Dataset Creation: Tue Aug 12 15:28:49 2014
Charted by: Depth in Feet scaled 1:240

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

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0
		LSPD





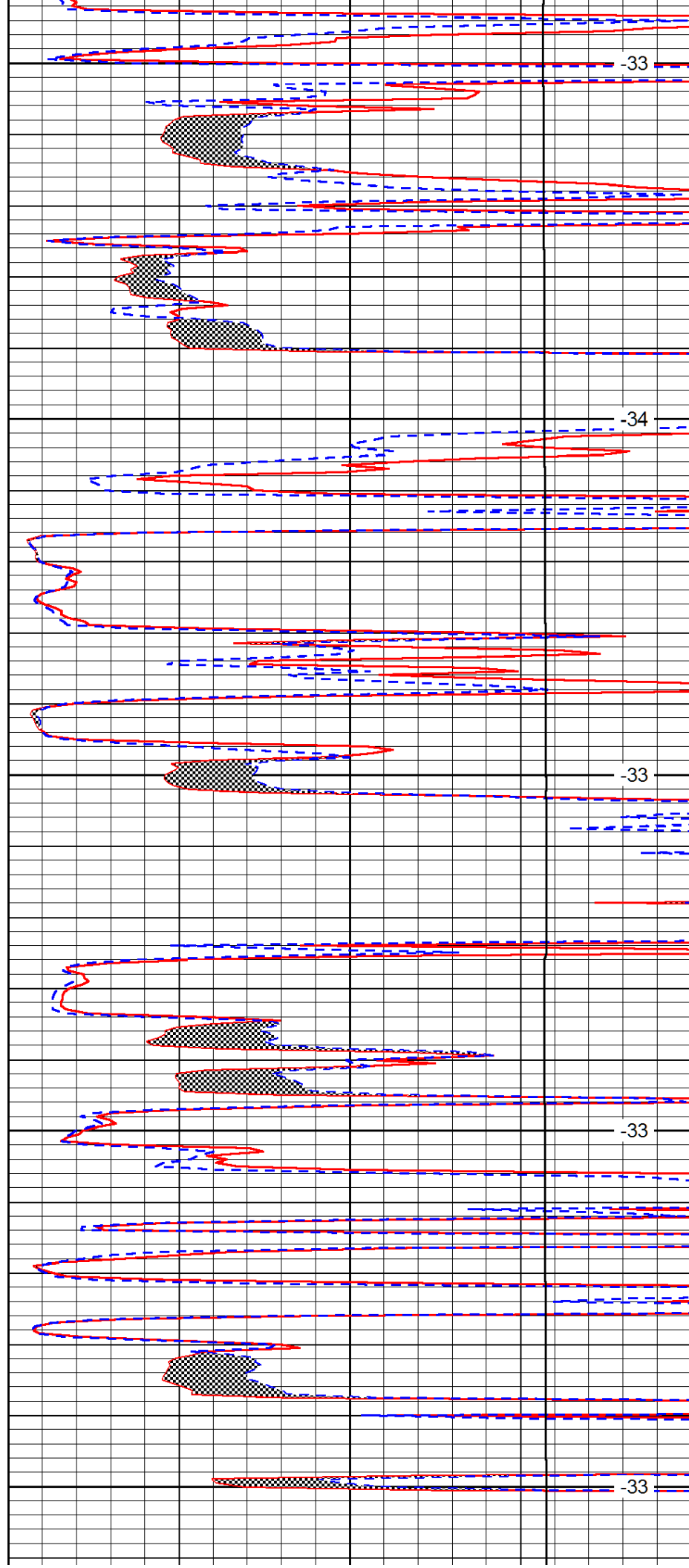
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3450

3500

3550

3600



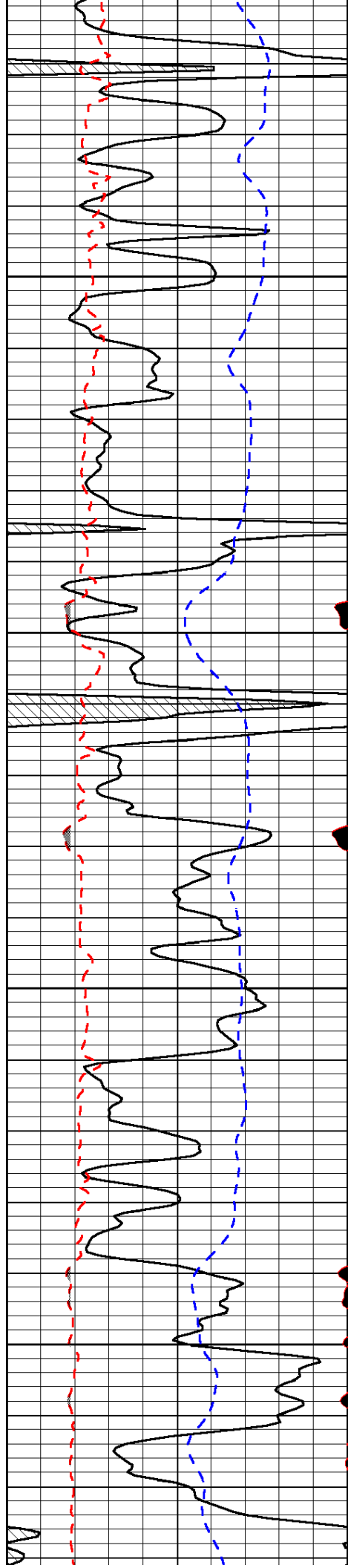
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-34

-33

-33

-33

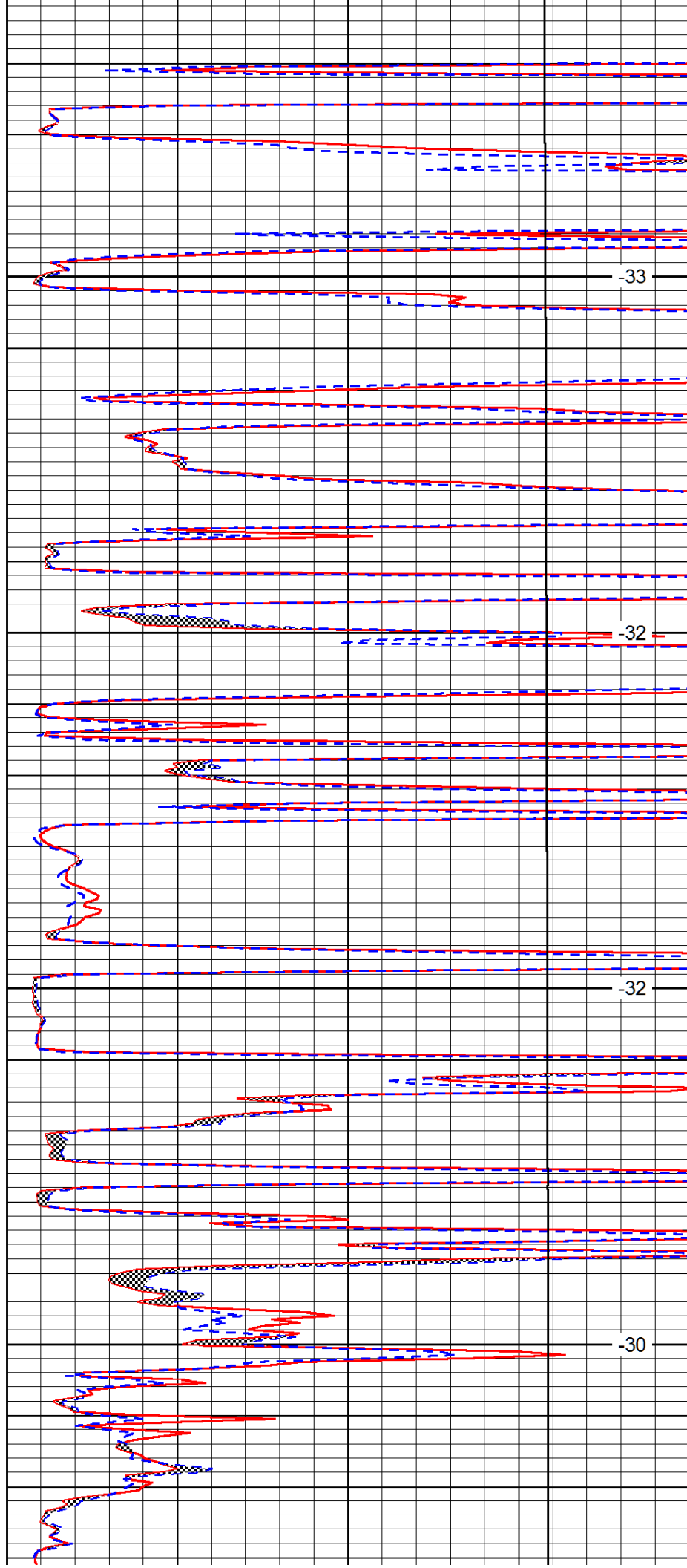


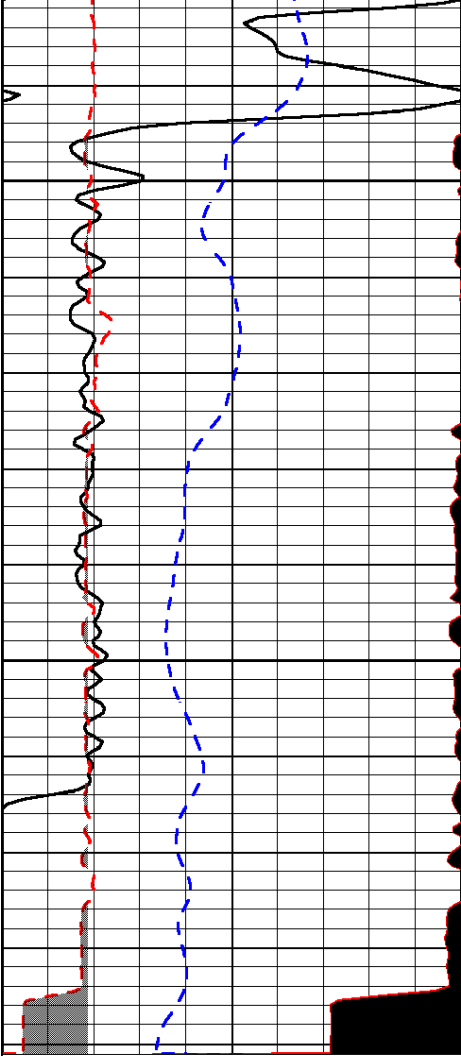
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3700

3750

3800

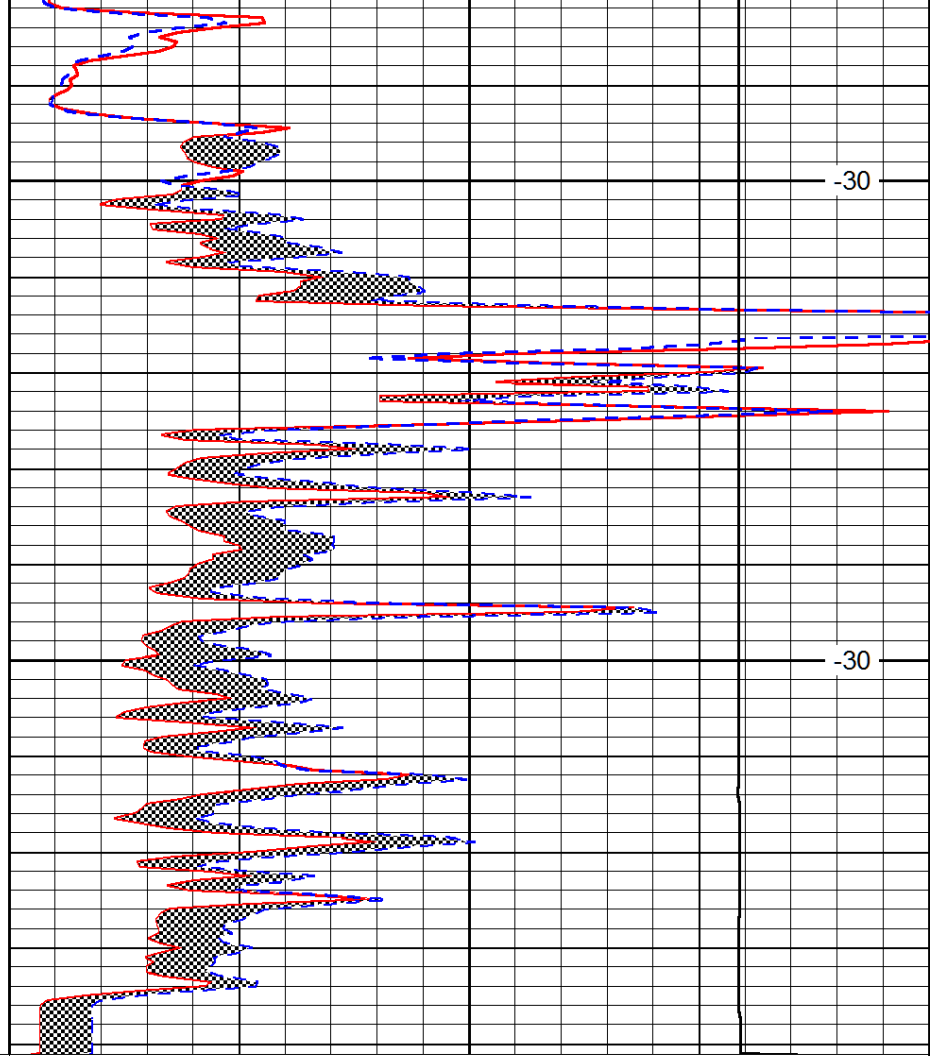




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