



Pioneer Energy Services

Dual Induction Log

API No.

15-101-22,533-00-00

Company Larson Engineering, Inc.

Well Rhonda No. 1-16

Field Wildcat

County Lane State Kansas

Location NE-SW-NE-SW

1865' FSL & 1797' FWL

Sec: 16 Twp: 18S Rge: 29W

Permanent Datum Ground Level Elevation 2813

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

Drilling Measured From Kelly Bushing

Date 8/31/14

Run Number One

Depth Driller 4611

Depth Logger 4610

Bottom Logged Interval 4609

Top Log Interval 250

Casing Driller 8.625 @ 262

Casing Logger 258

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 2,400

Density / Viscosity 9.1 54

pH / Fluid Loss 10.0 8.4

Source of Sample Flowline

Rm @ Meas. Temp .50 @ 80

Rmf @ Meas. Temp .38 @ 80

Rmc @ Meas. Temp .68 @ 80

Source of Rmf / Rmc Charts

Rm @ BHT .33 @ 122

Operating Rig Time 3 1/2 Hours

Max Rec. Temp. F 122

Equipment Number 10

Location Hays

Recorded By J. Henrickson

Witnessed By Vern Schrag

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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

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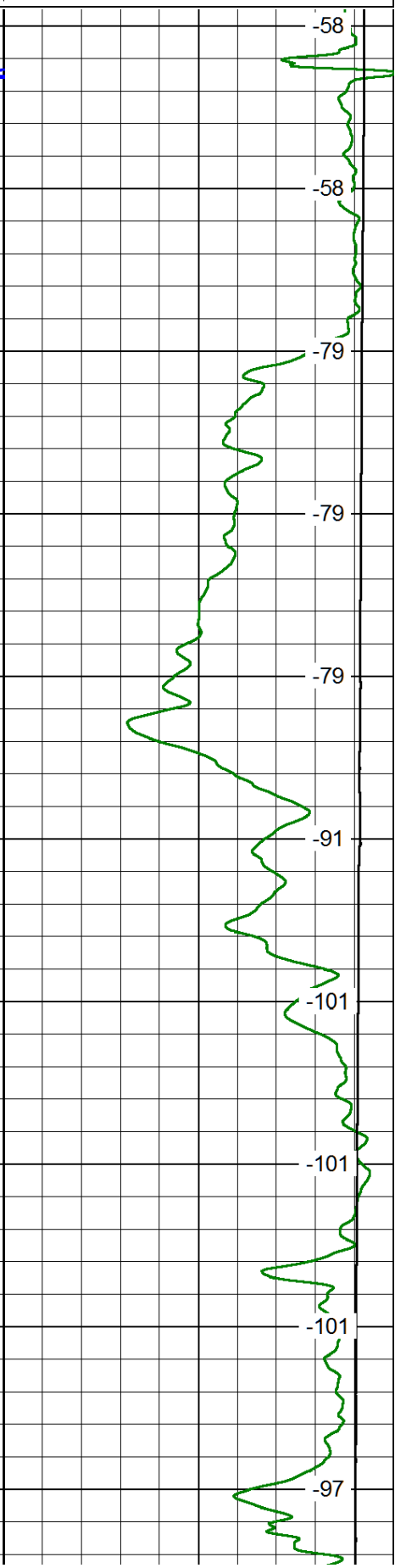
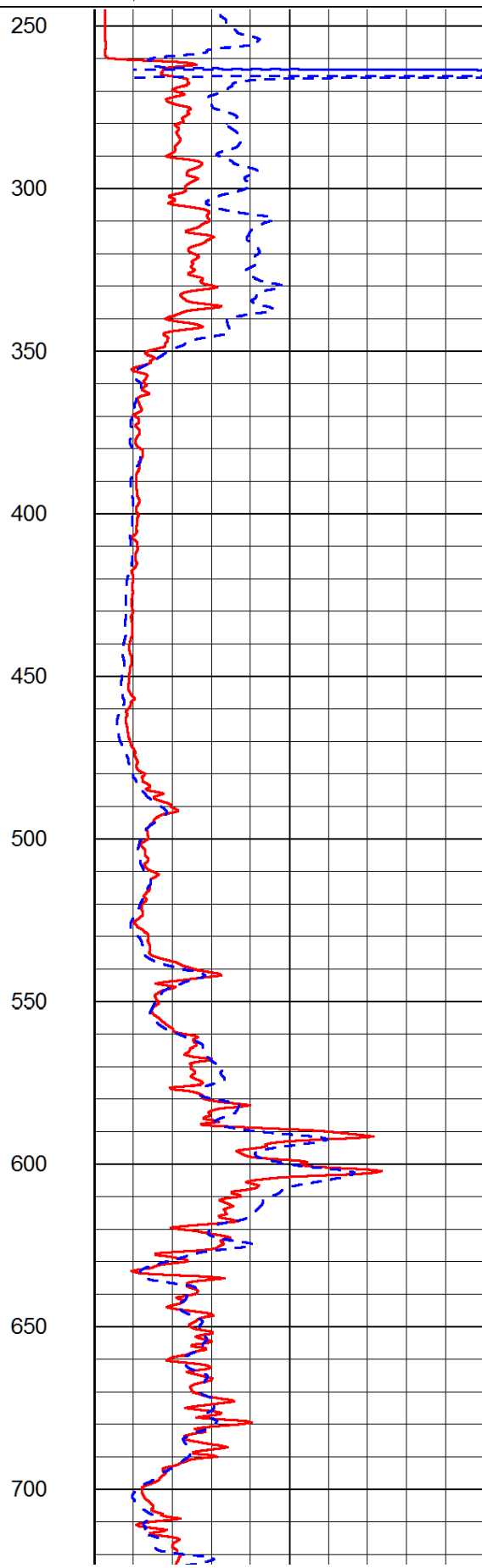
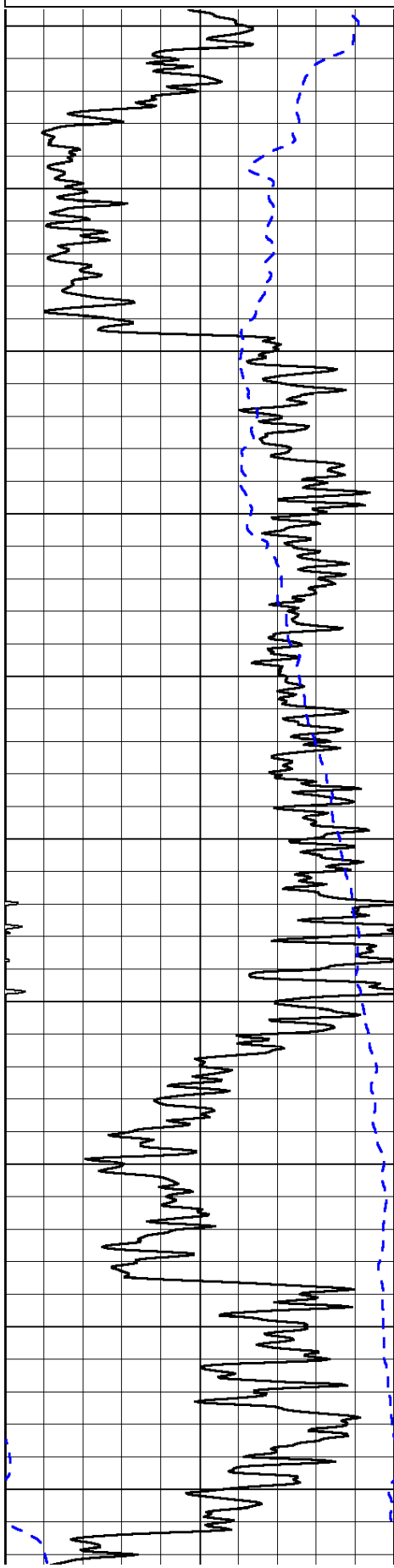
Dighton KS
4 West to Hickock, 1/3 North, East Into

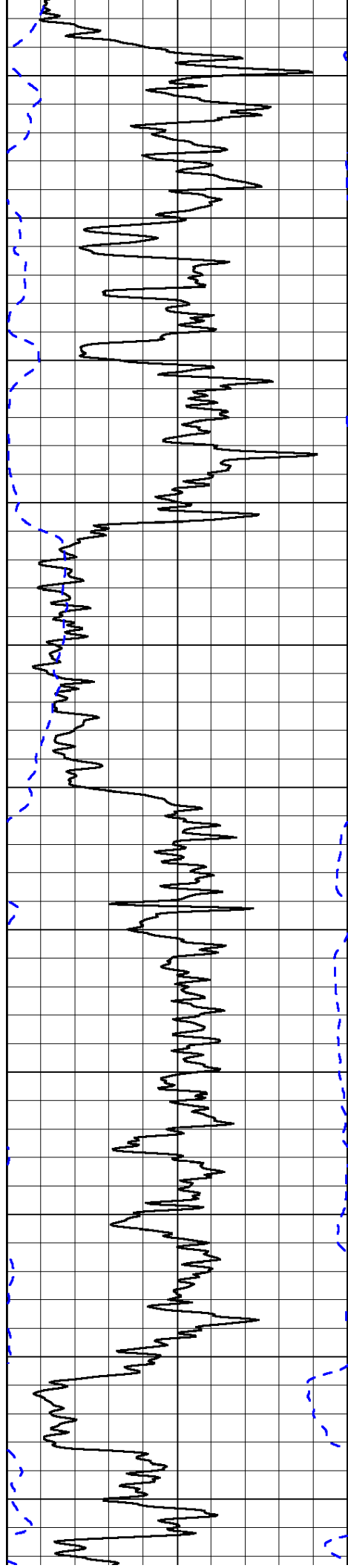
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Dataset Pathname: DIL/larstk
Presentation Format: dil2in
Dataset Creation: Sun Aug 31 20:32:06 2014
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150
-200	SP (mV)	0

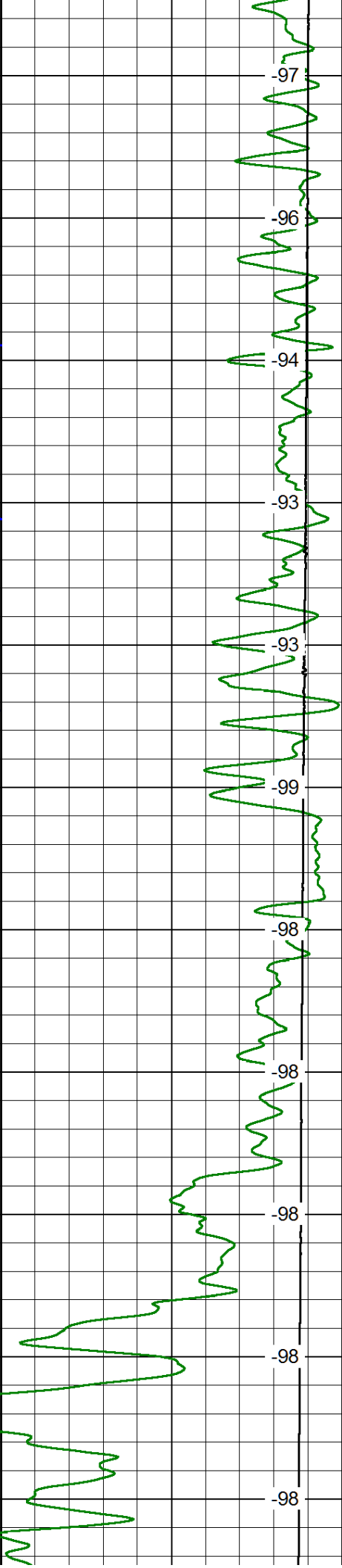
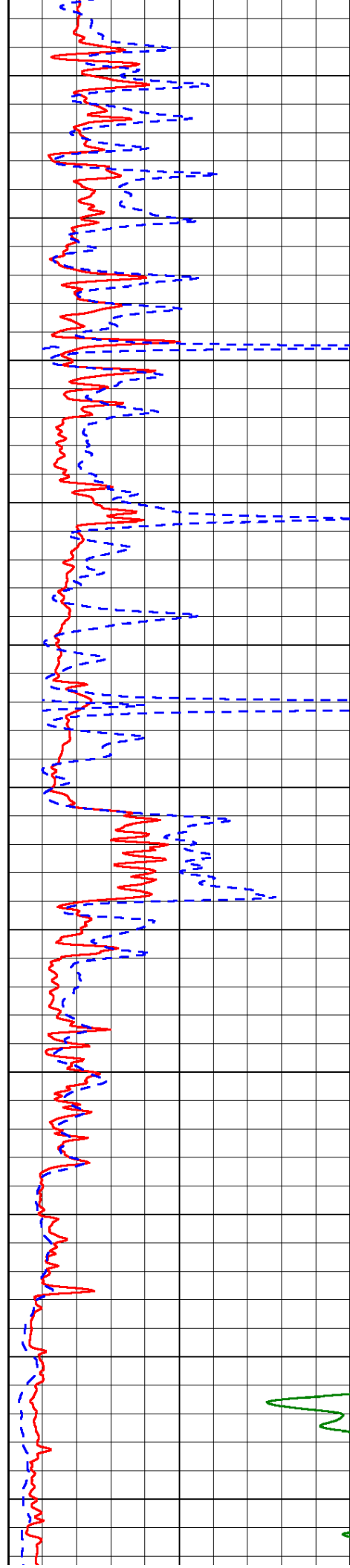
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50	Deep Resistivity	500

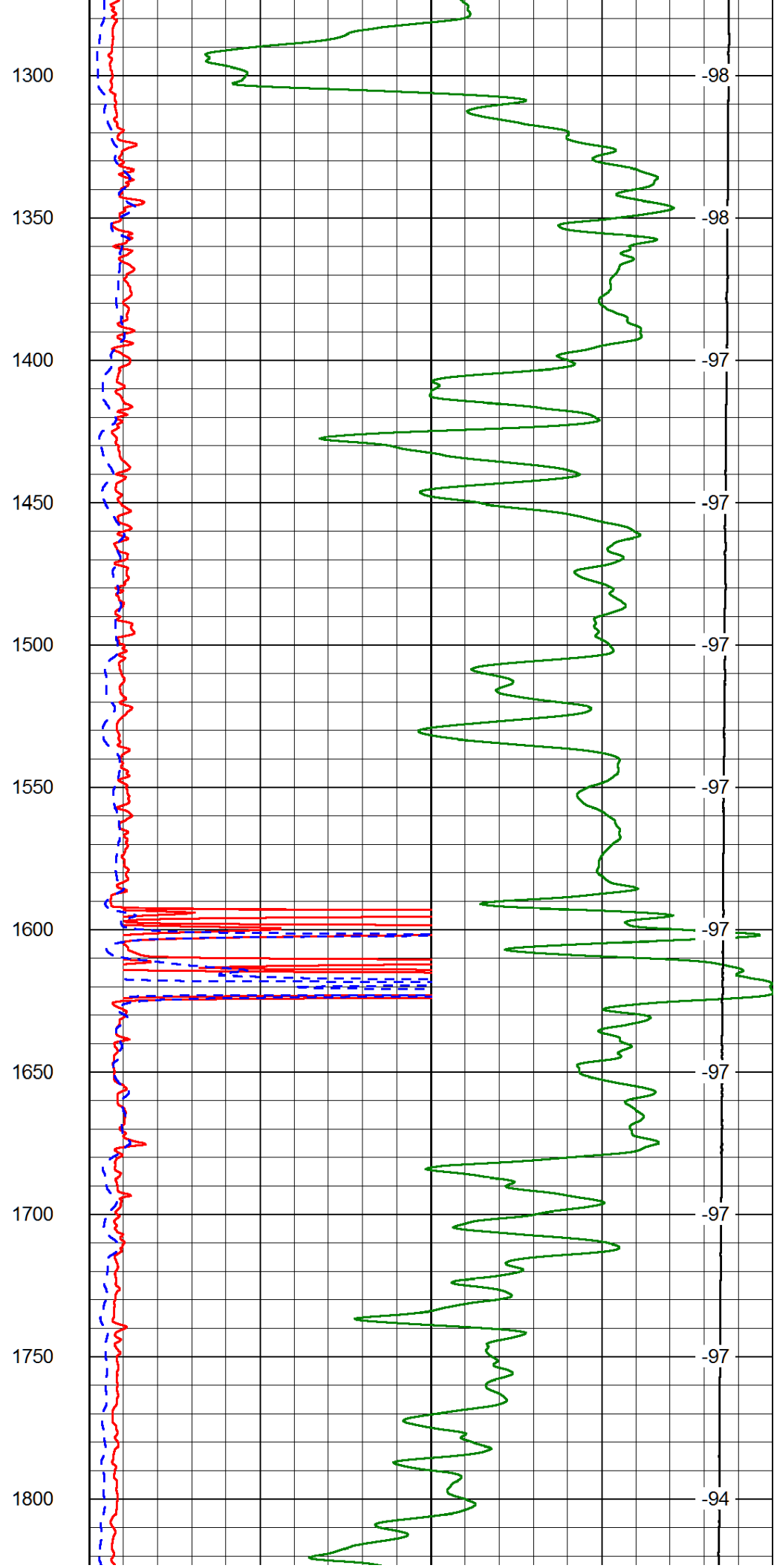
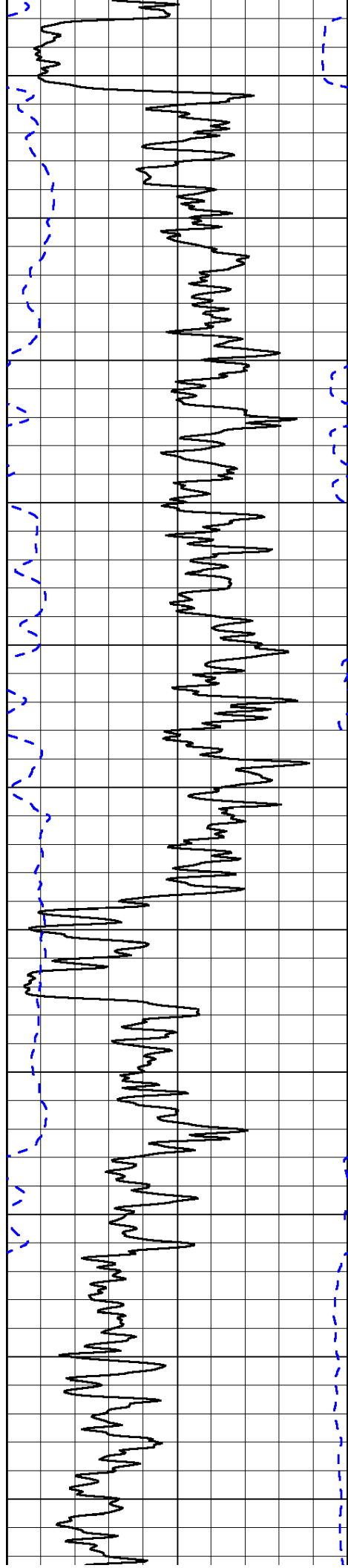
LSPD

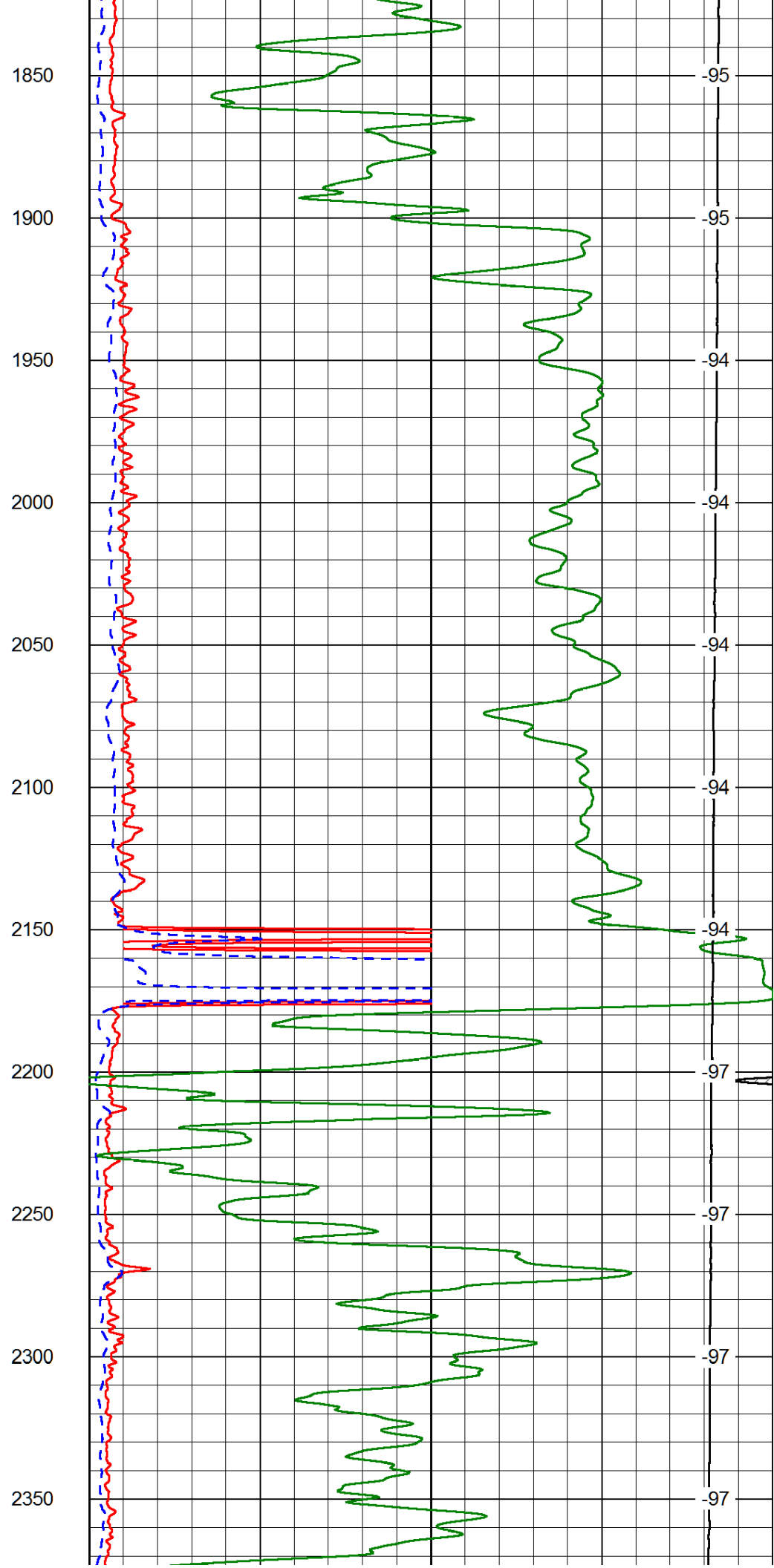
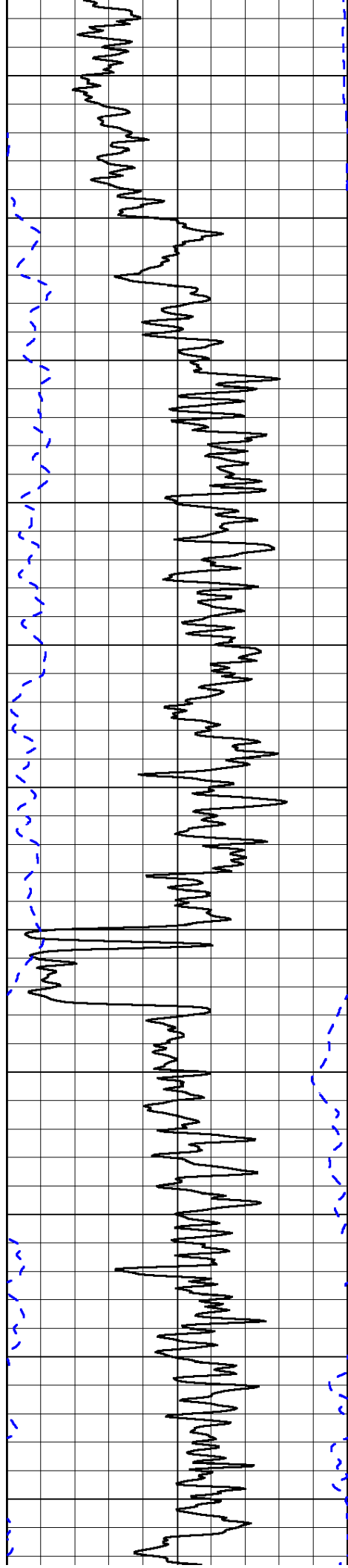


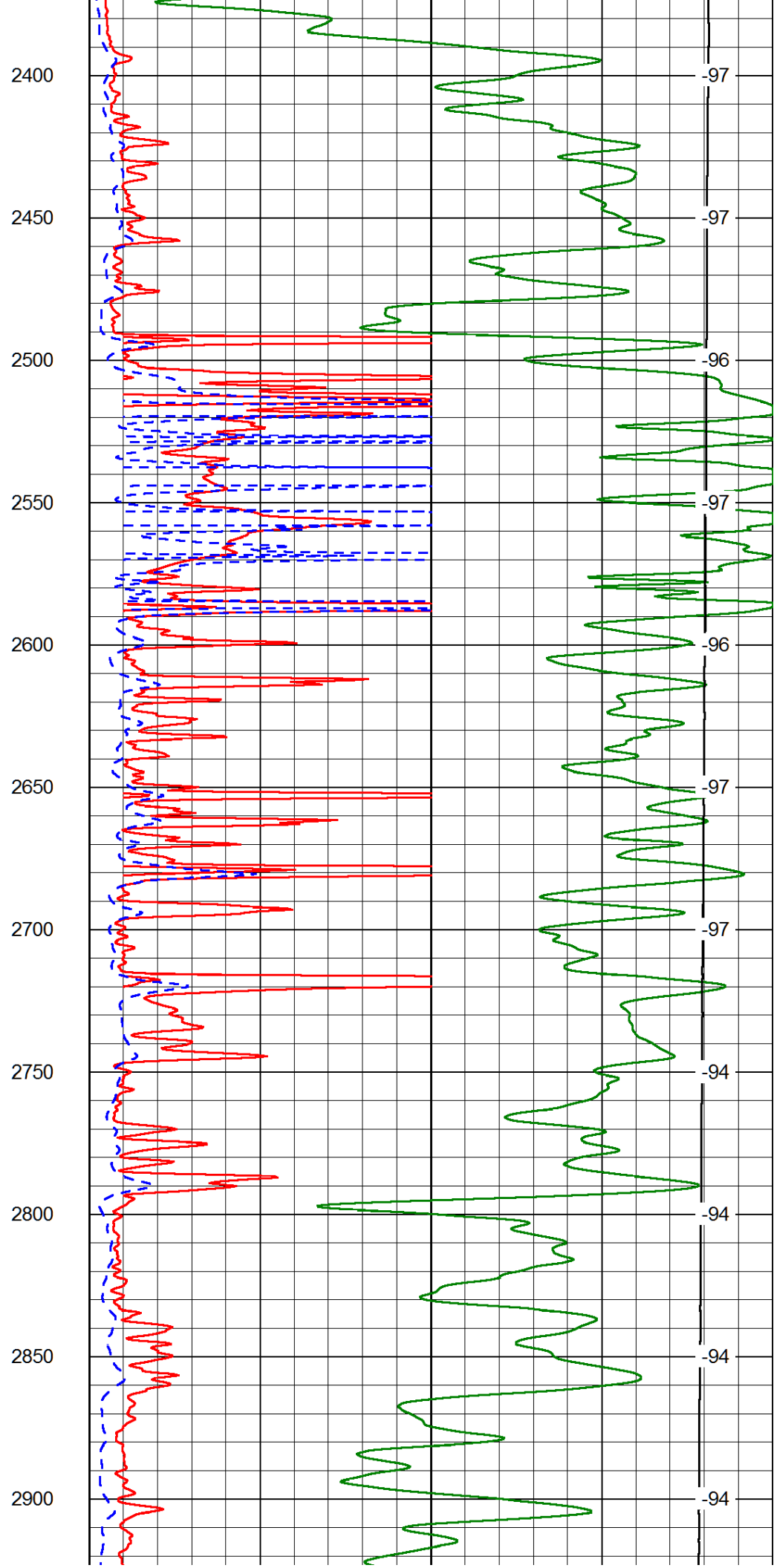
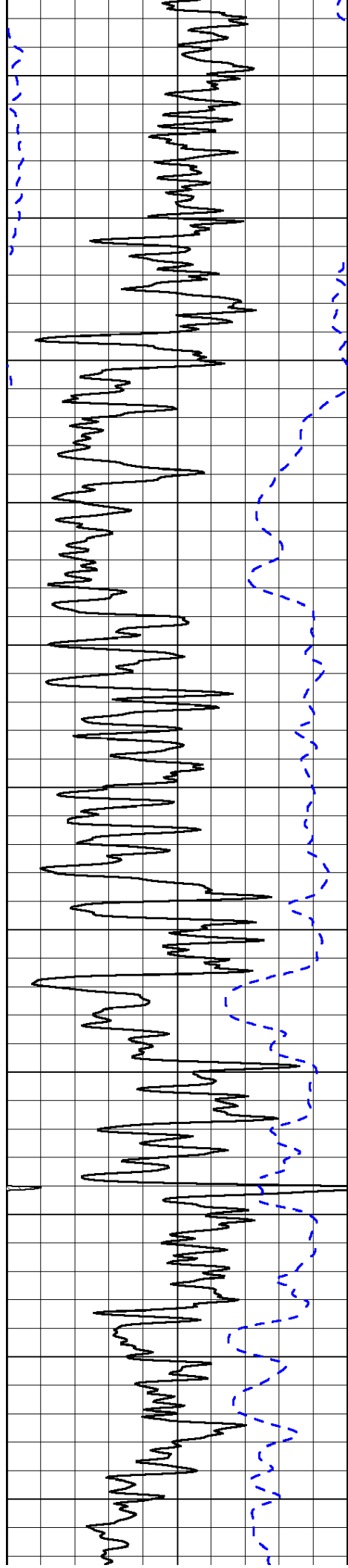


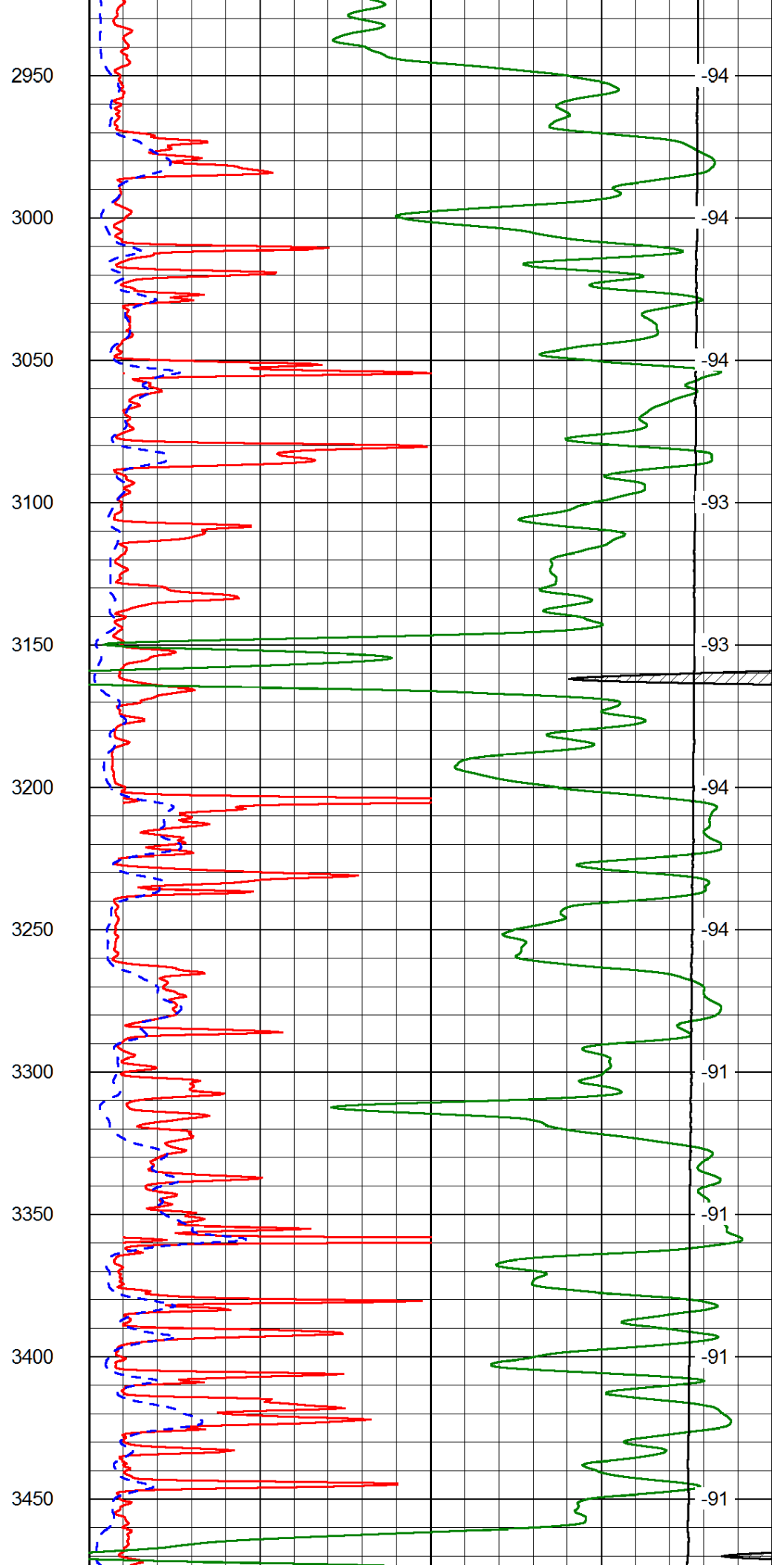
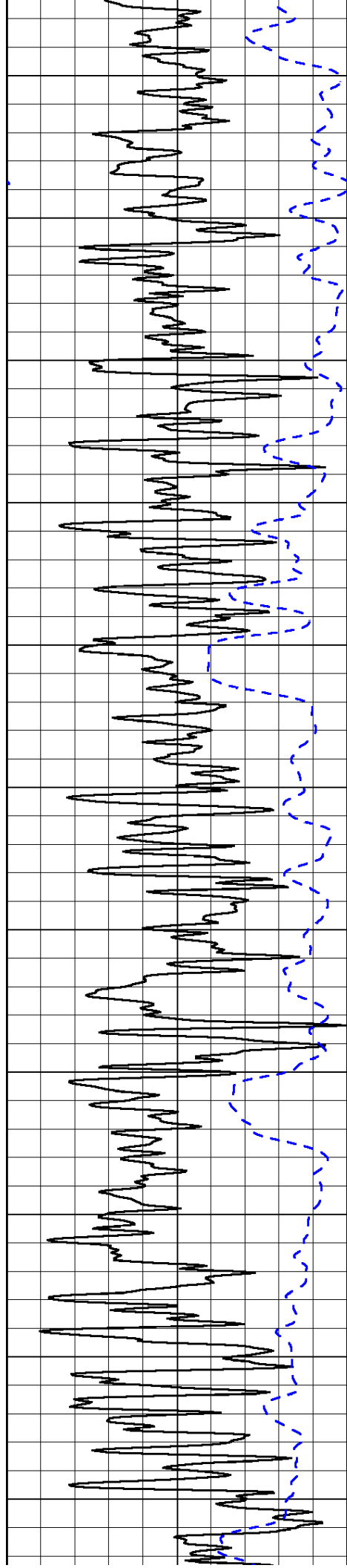
750
800
850
900
950
1000
1050
1100
1150
1200
1250

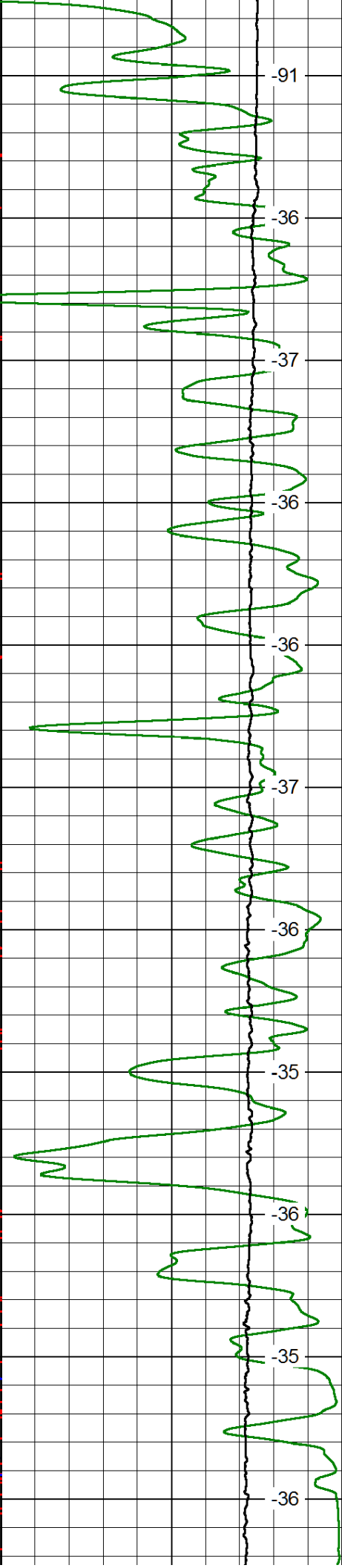
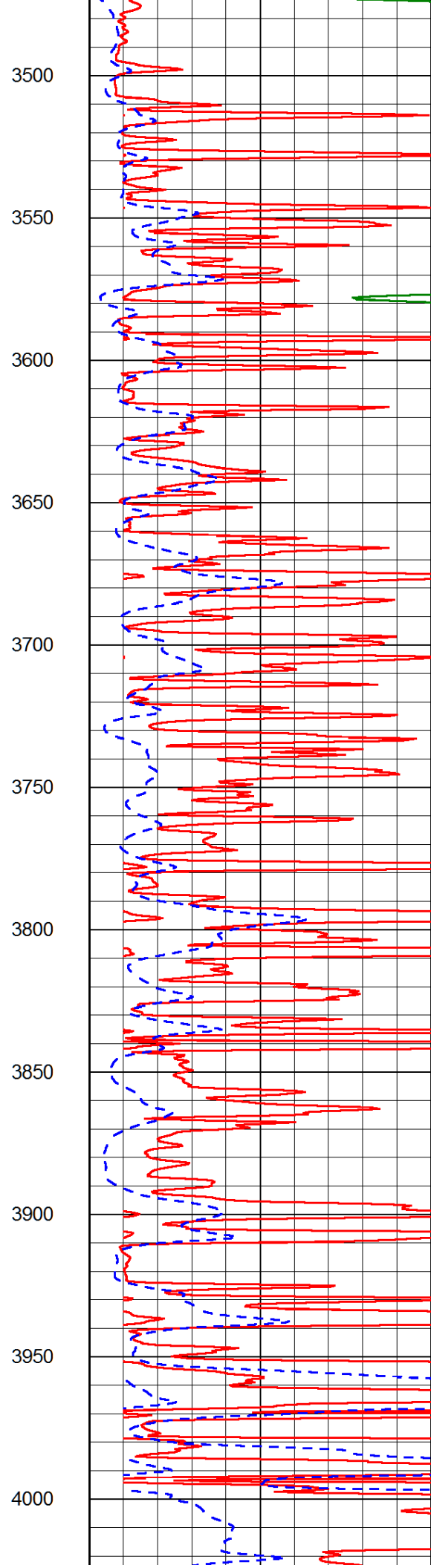
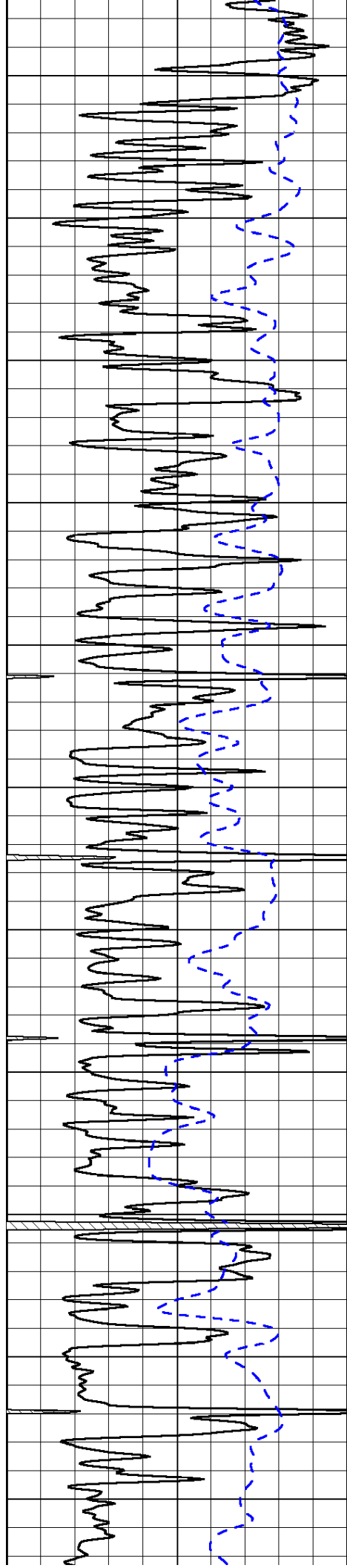


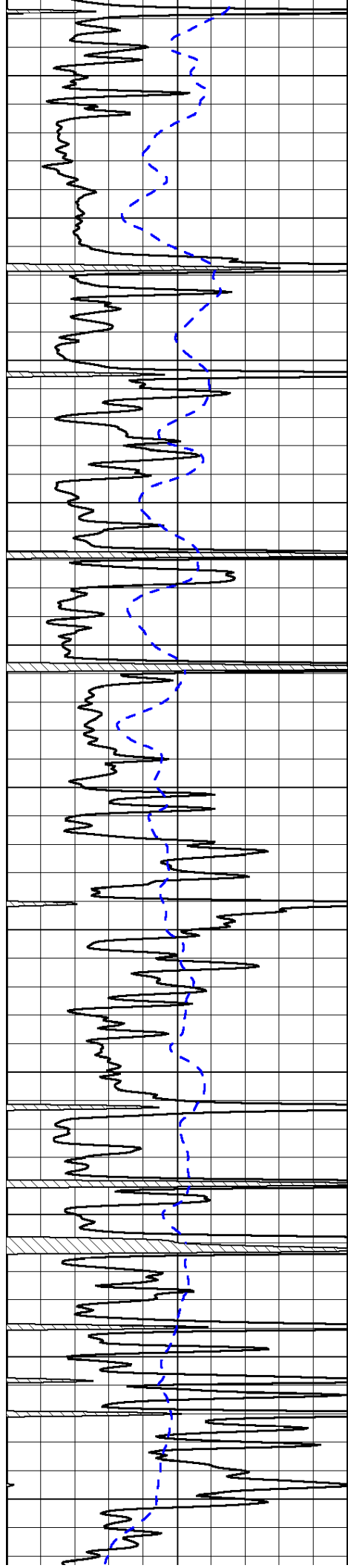












4050

4100

4150

4200

4250

4300

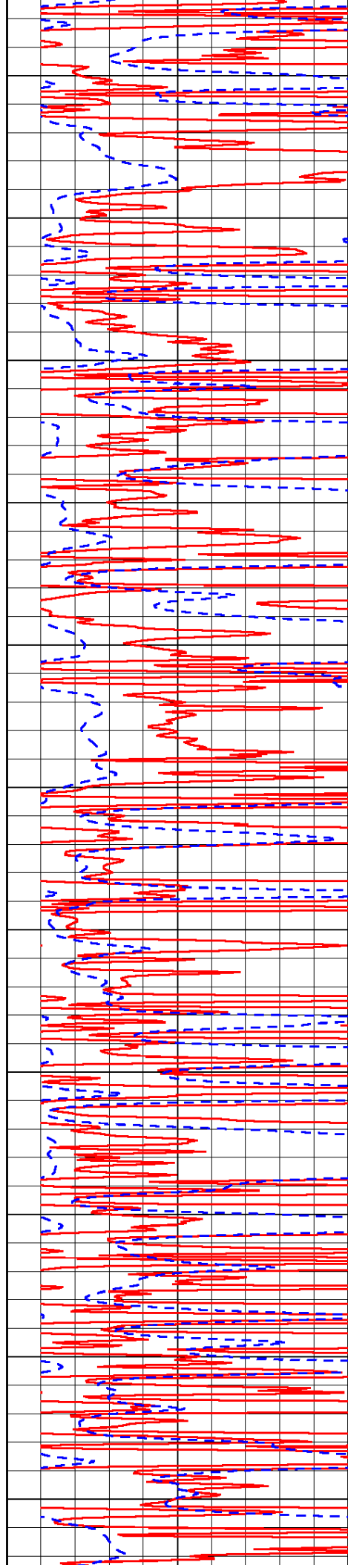
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4400

4450

4500

4550



-35

-35

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-35

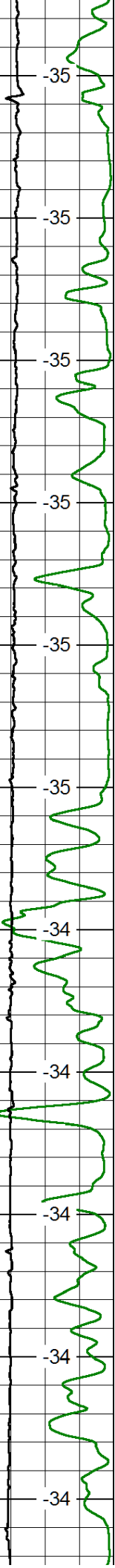
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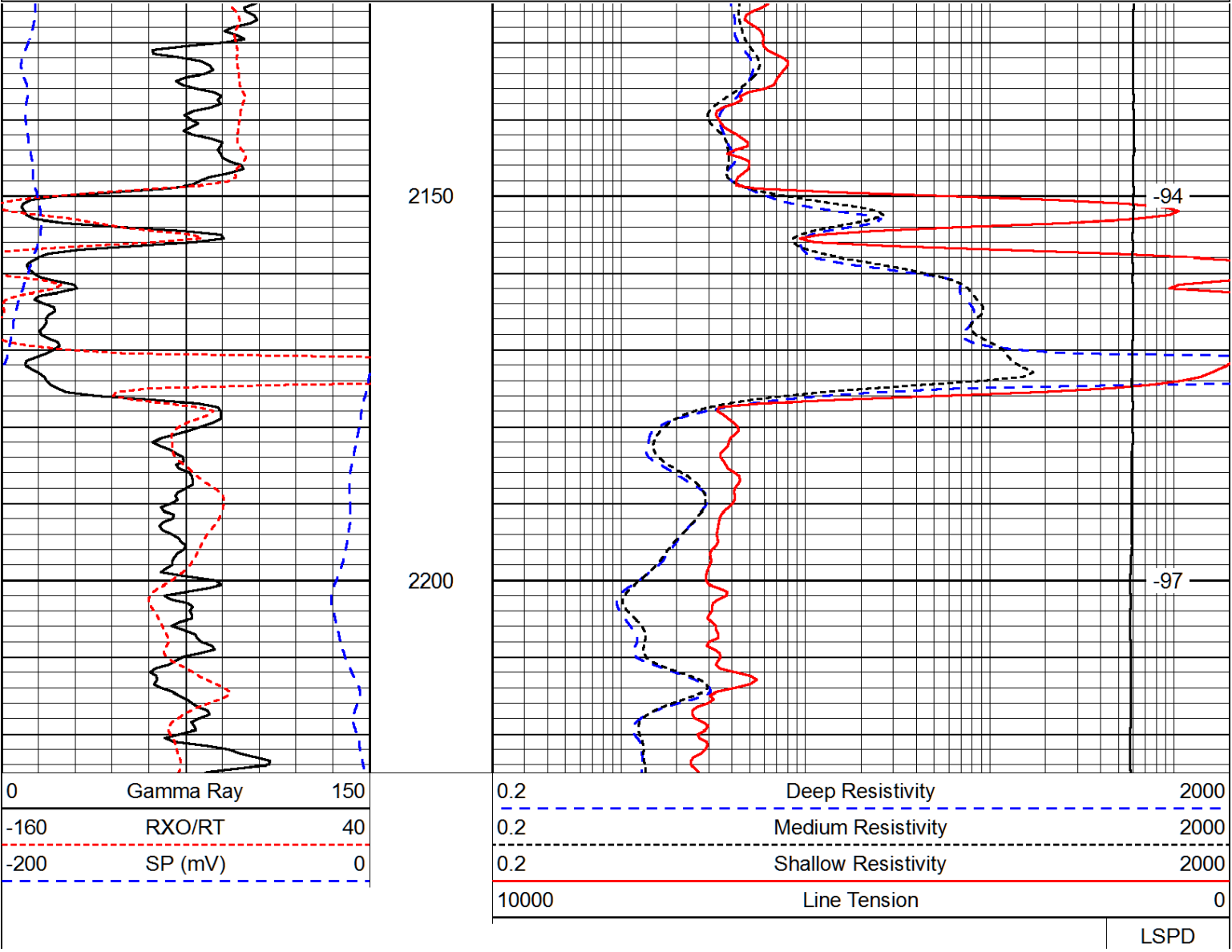
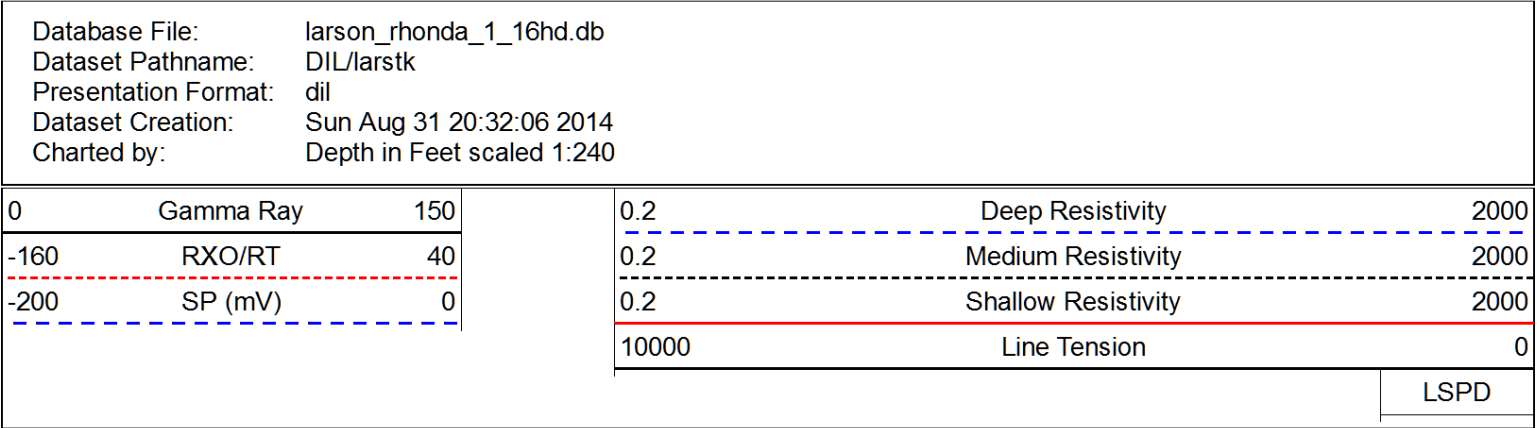
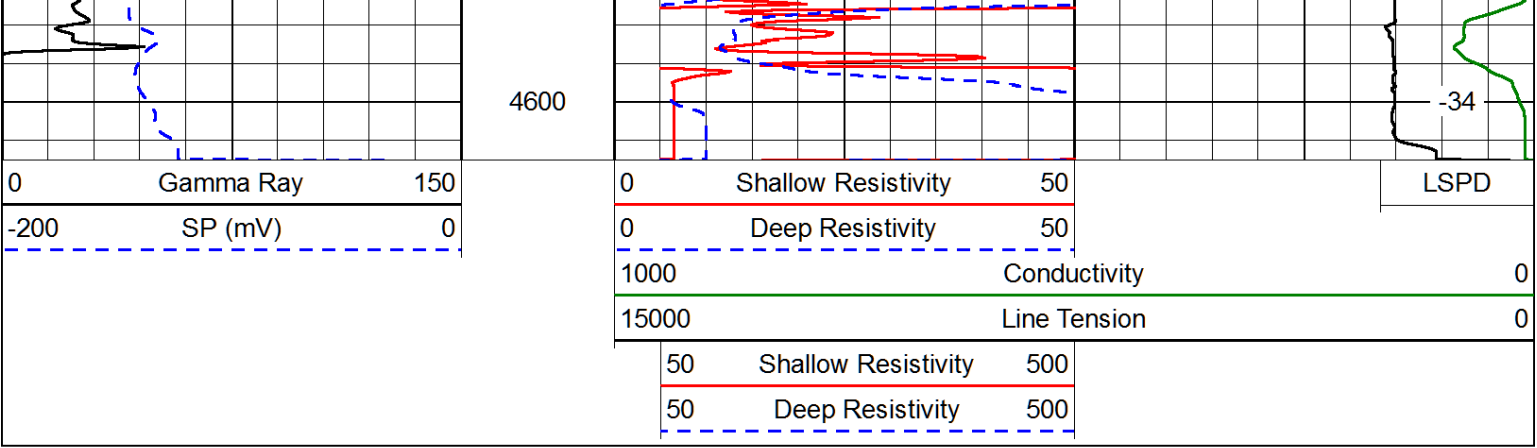
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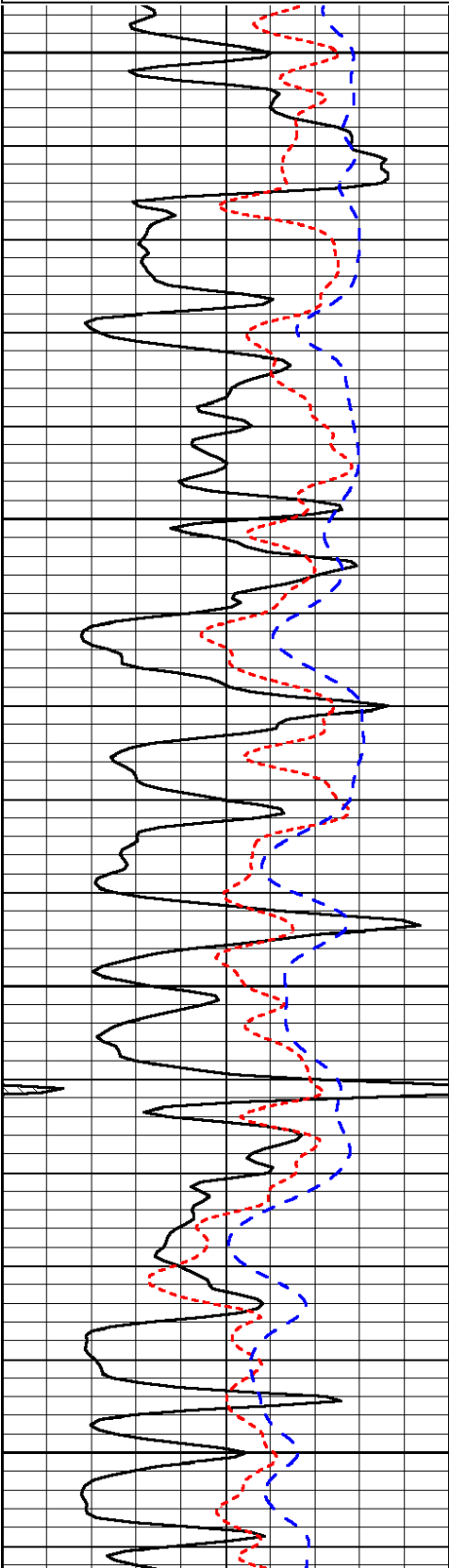


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Dataset Pathname: DIL/larstk
Presentation Format: dil
Dataset Creation: Sun Aug 31 20:32:06 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD

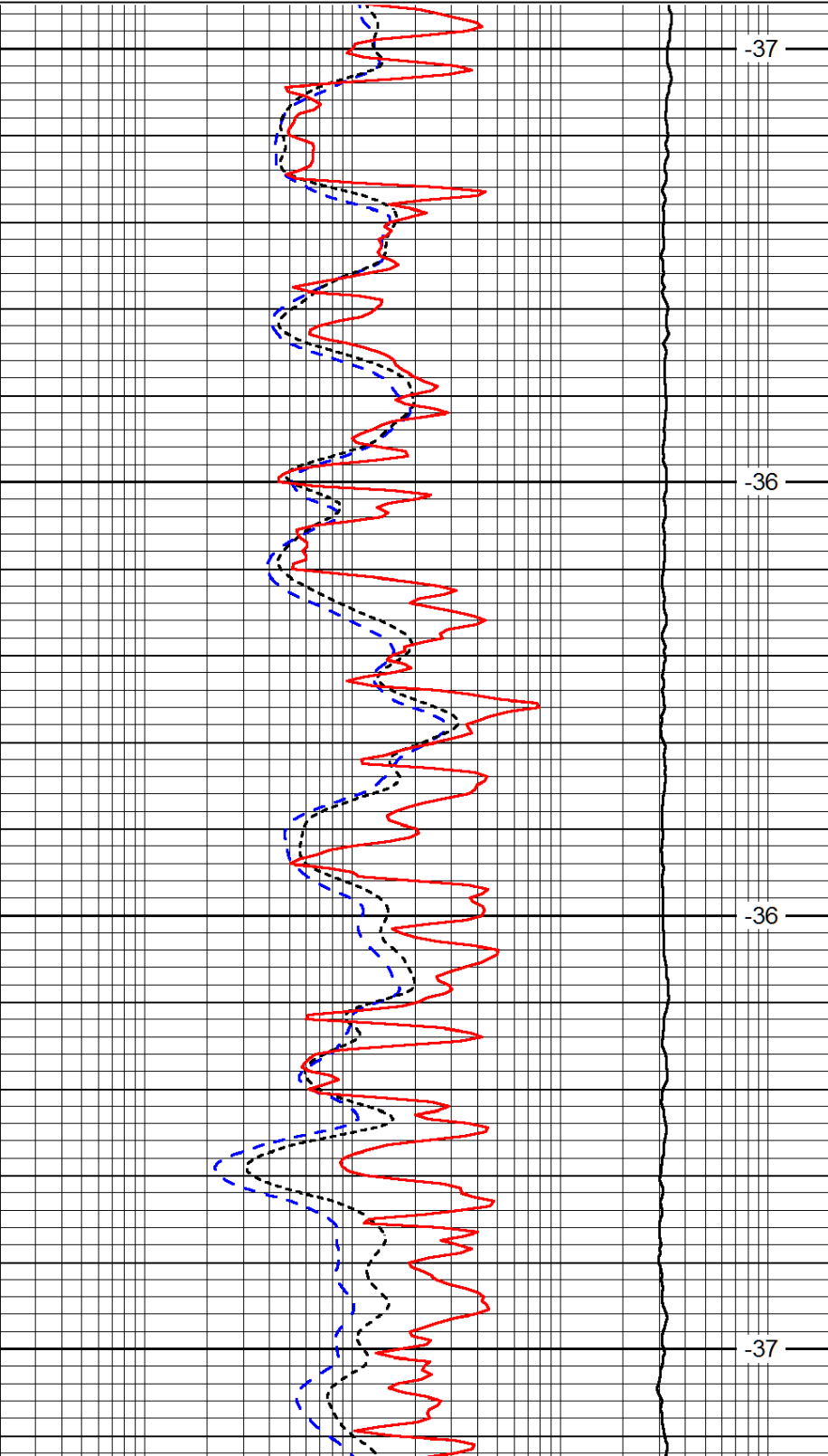


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3650

3700

3750

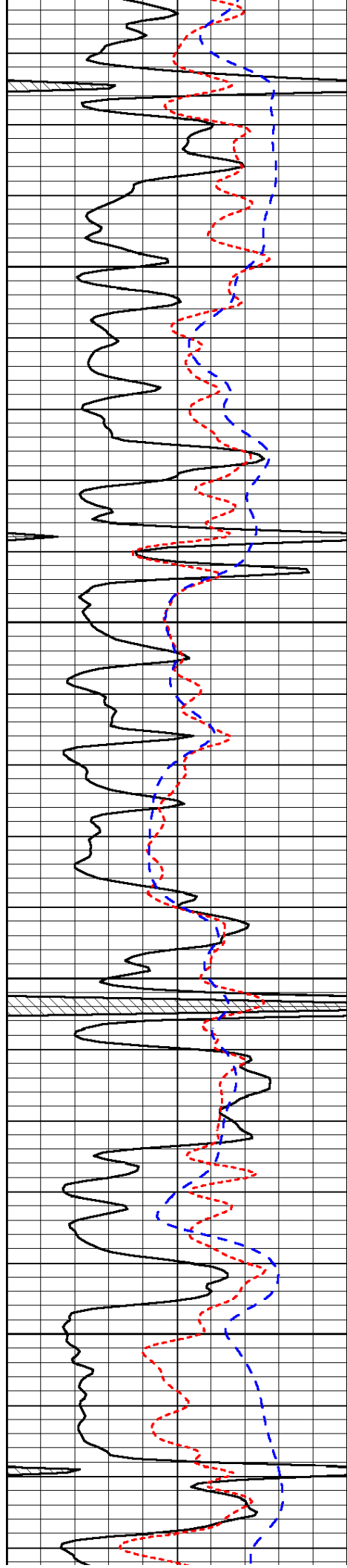


-37

-36

-36

-37

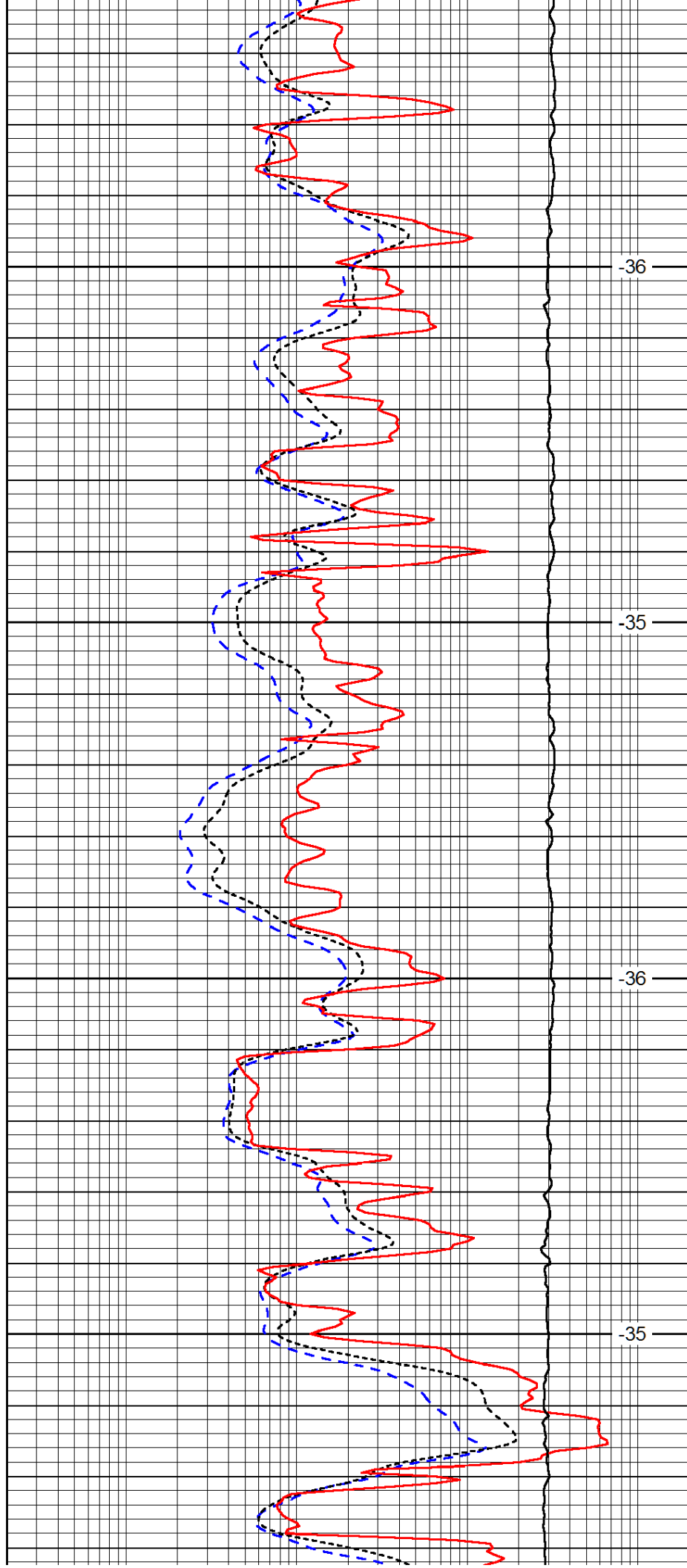


3800

3850

3900

3950

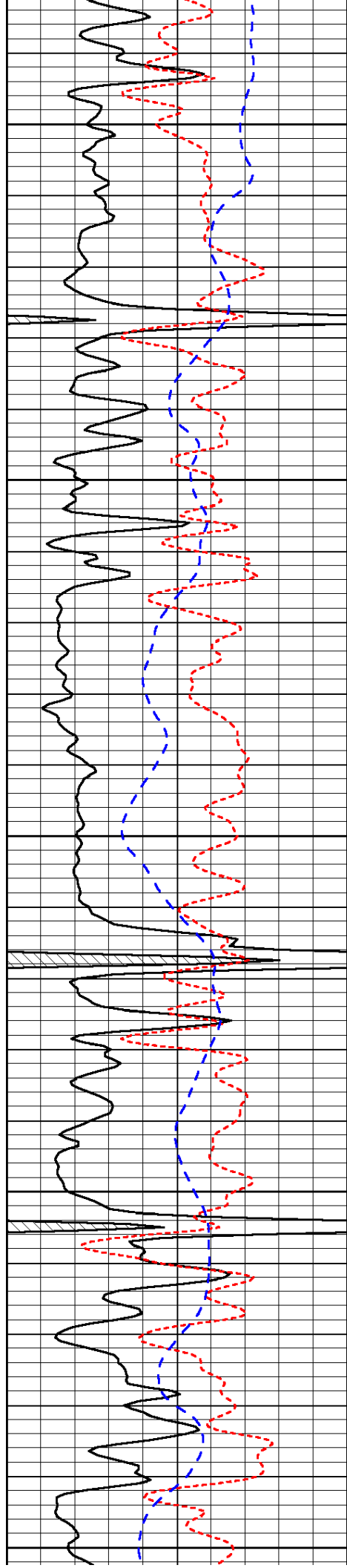


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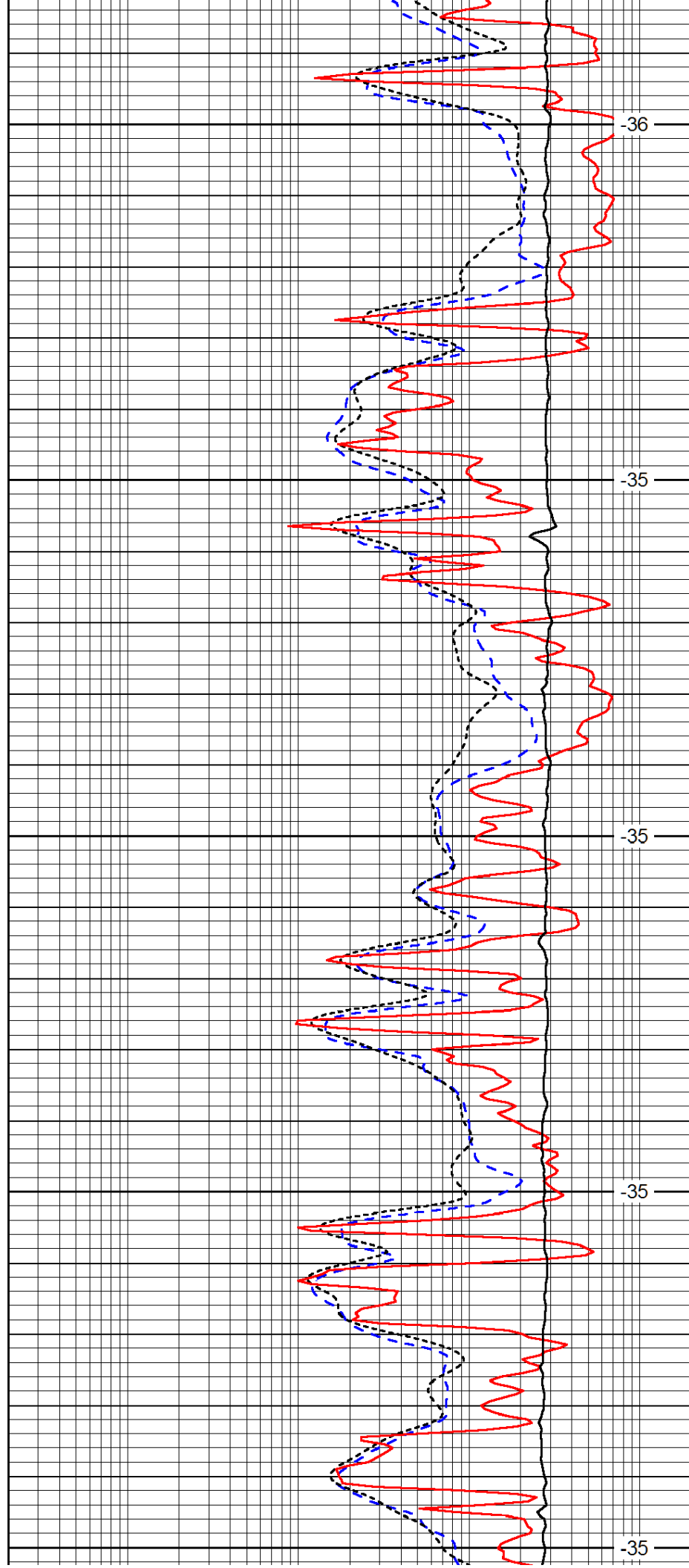
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4050

4100

4150

4200



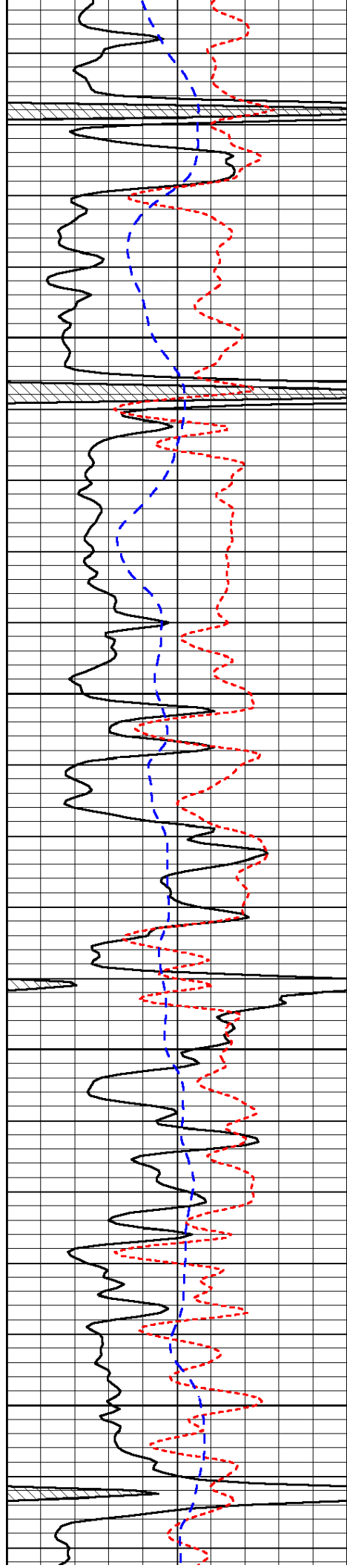
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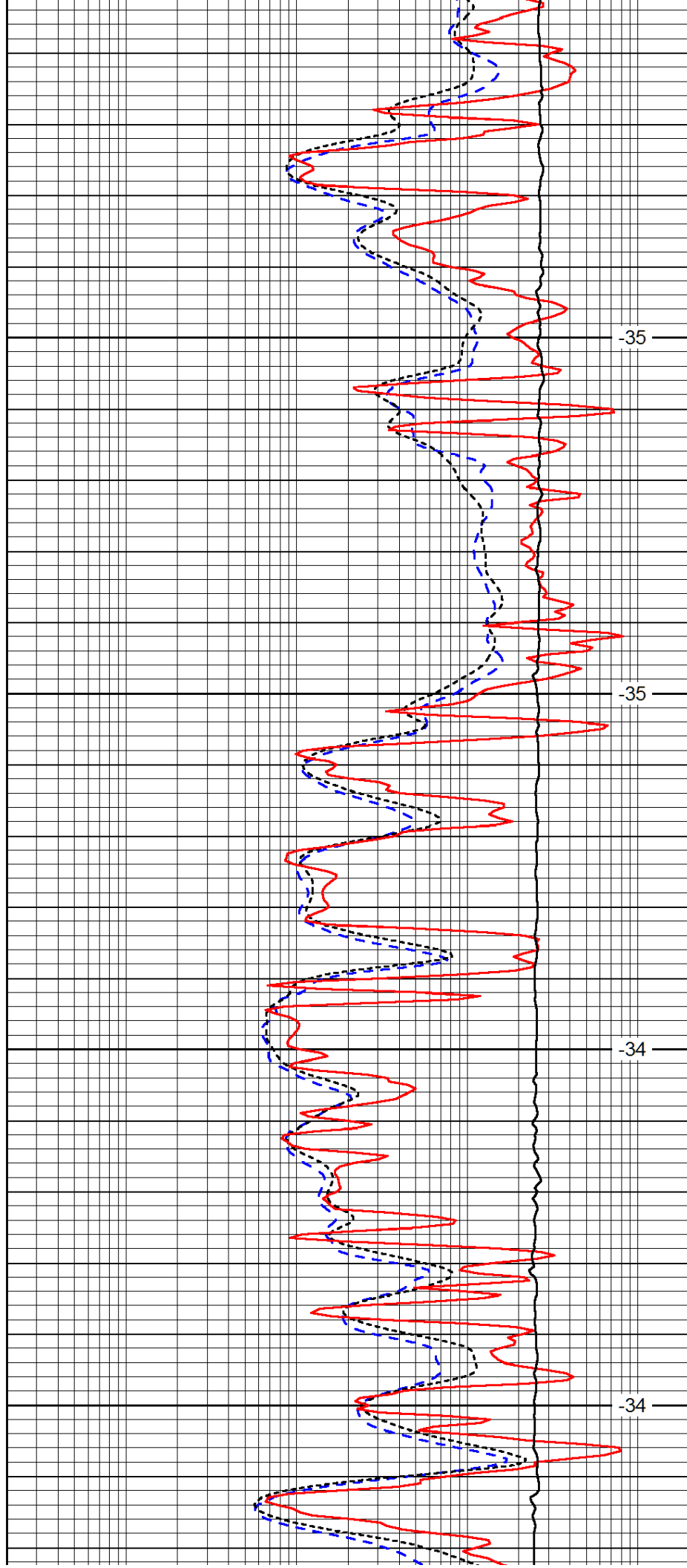


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4300

4350

4400

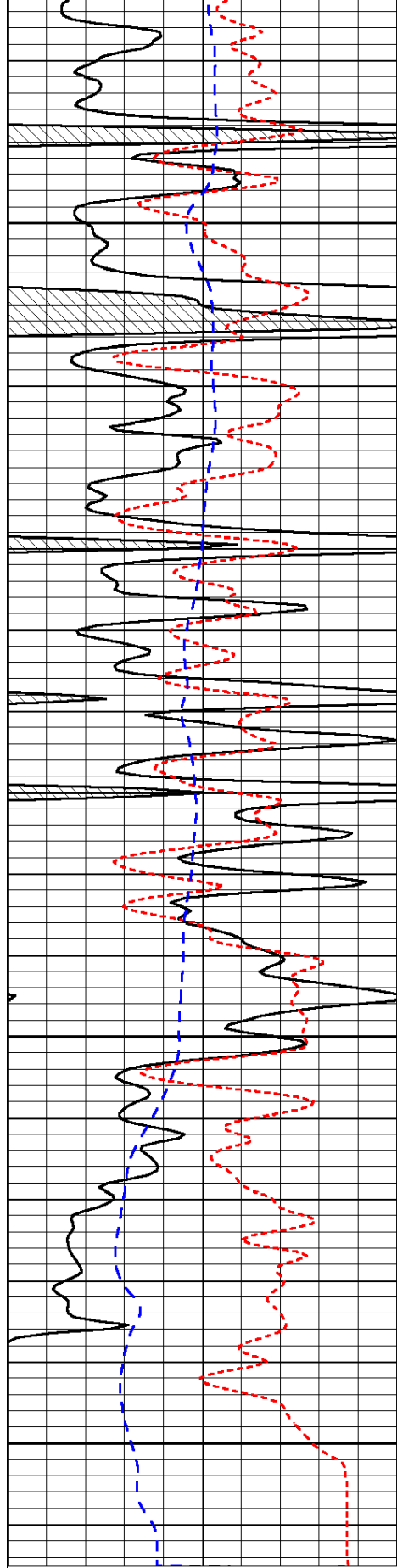


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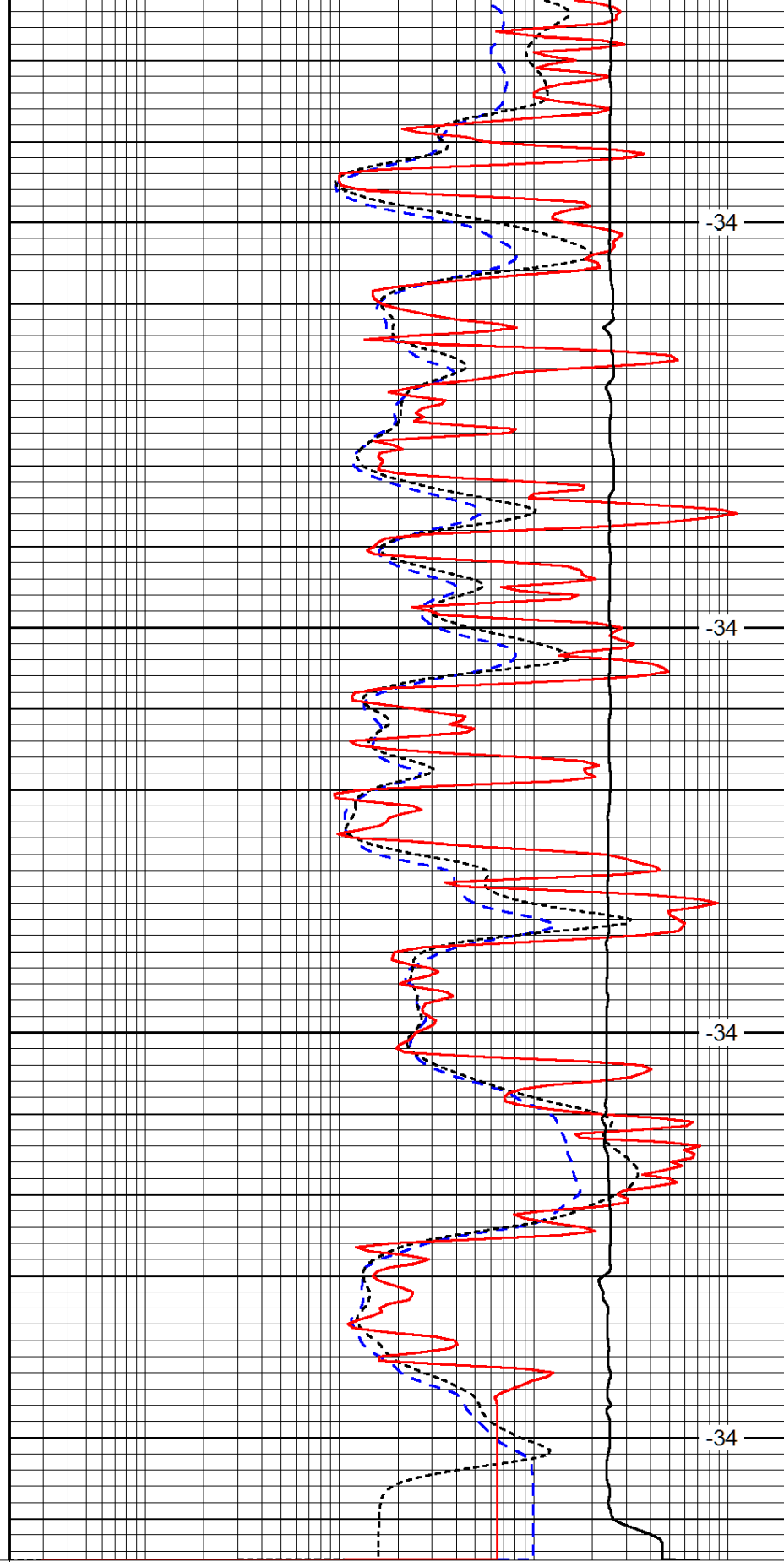
4450

4500

4550

4600

0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0



-34

-34

-34

-34

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD