



PIONEER

Pioneer Energy Services

**Sonic Cement
Bond Log**

API No.

15-083-21795-00-00

Company **Redland Resources, Inc.**

Well **Betty No. 25-2**

Field **Gray Hawk Northwest**

County **Hodgeman** State **Kansas**

Location

350' FNL & 1157' FEL

Other Services

Sec: **25** Twp: **23 S** Rge: **25 W**

Elevation

Permanent Datum **Ground Level** Elevation **2499**

Log Measured From **Kelly Bushing** 9 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing** K.B. 2508
D.F. 2499
G.L. 2499

Run Number

One

Date Survey

09/18/2012

Date Cementing

08/15/2012

Type Cementing Operation

Primary

Depth Driller

4900

Depth Logger

4873

Logged Interval

4872 to 3500

Casing Driller

4.5 @ 4900

Float Collar -- D.V. Tool

1390

Squeeze Depth

1390

Amount & Type Cement

1390

Amount & Type Admix

1390

Type Fluid In Hole

Water

Fluid Level

514

Salinity PPM CL

1390

Weight lb/gal -- Vis.

1390

Approx. Logged Cement Top

3650

Calculated Cement Top

1390

Max. Hole Temperature

125

Tool No.

RBT 3-6

Spacing Recorded

3'-5"

Equipment -- Location

18 Hays

Recorded By

D. Hagan

Witnessed By

David Hickman

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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 Pioneer Energy Services
785.625.3858

Jetmore, Ks. 8 West to 210 Rd. 4 South to H Rd.
2 East, North into

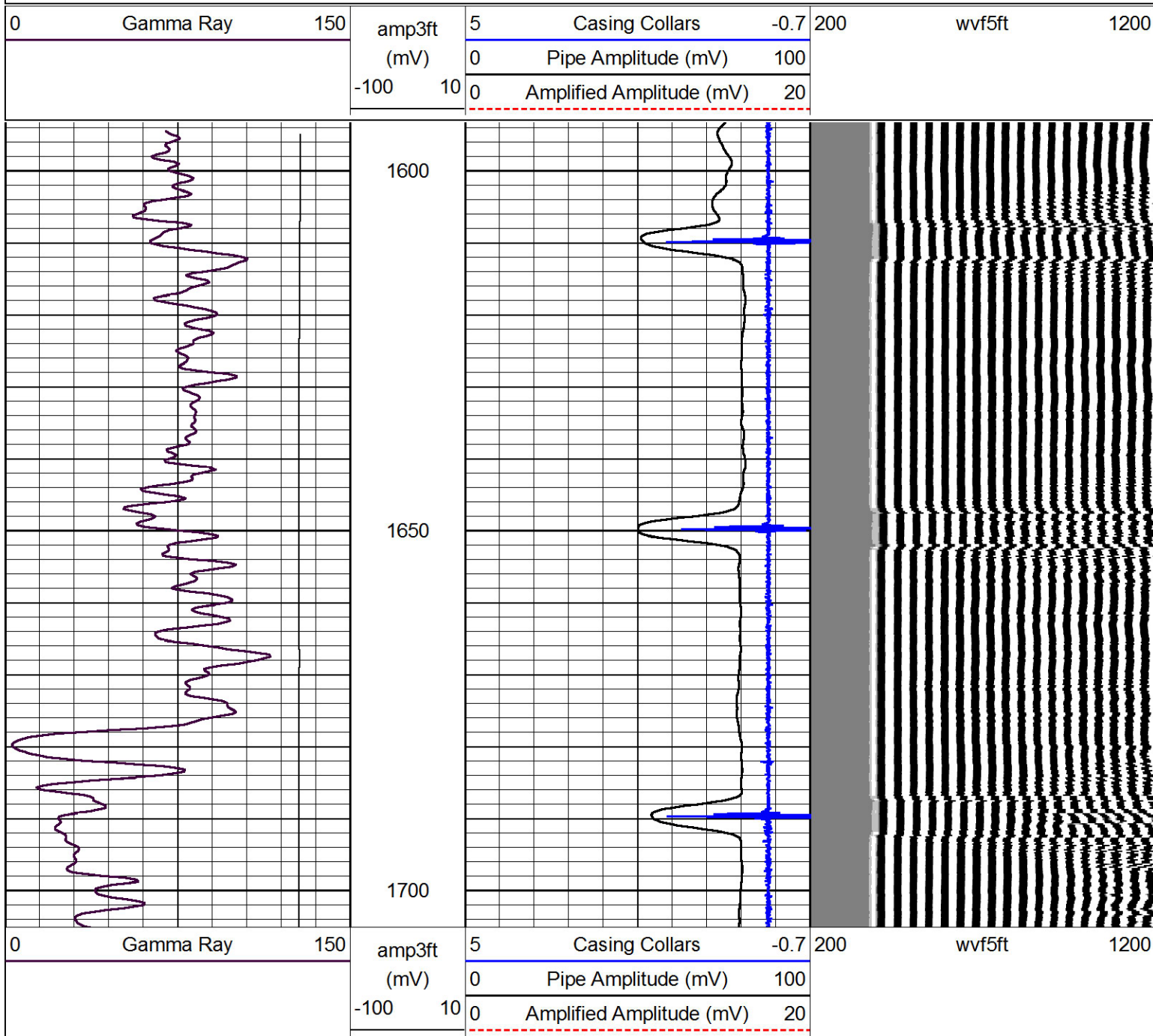


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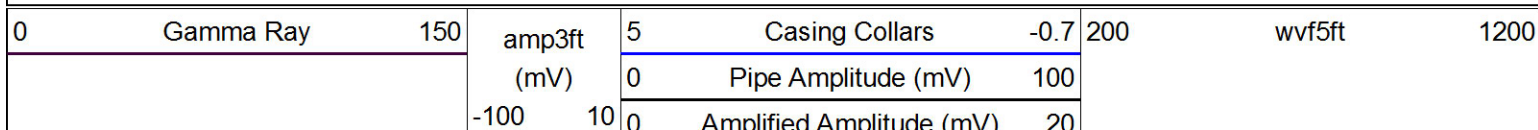
Free Pipe Section

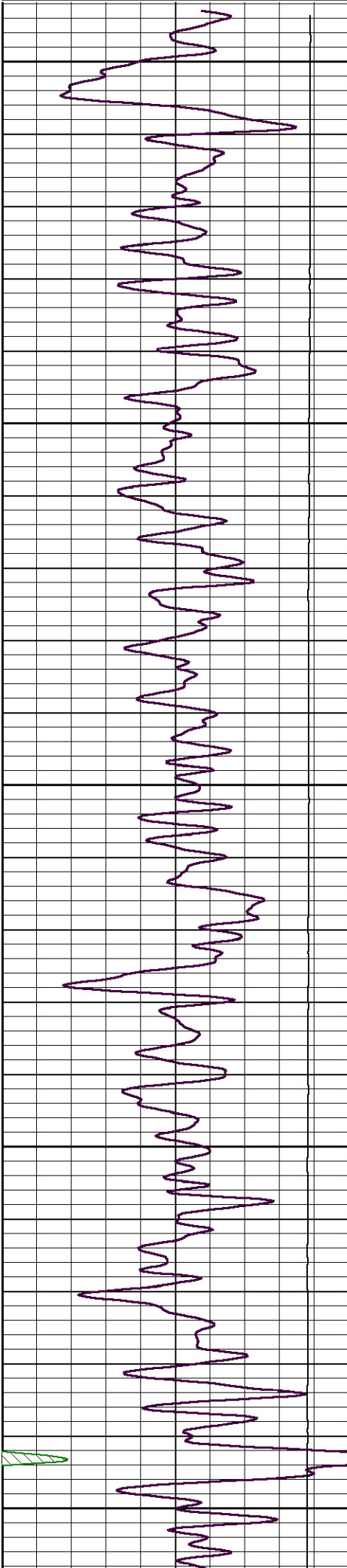
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 Charted by: Depth in Feet scaled 1:240



D.V. Tool @ 1390

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300

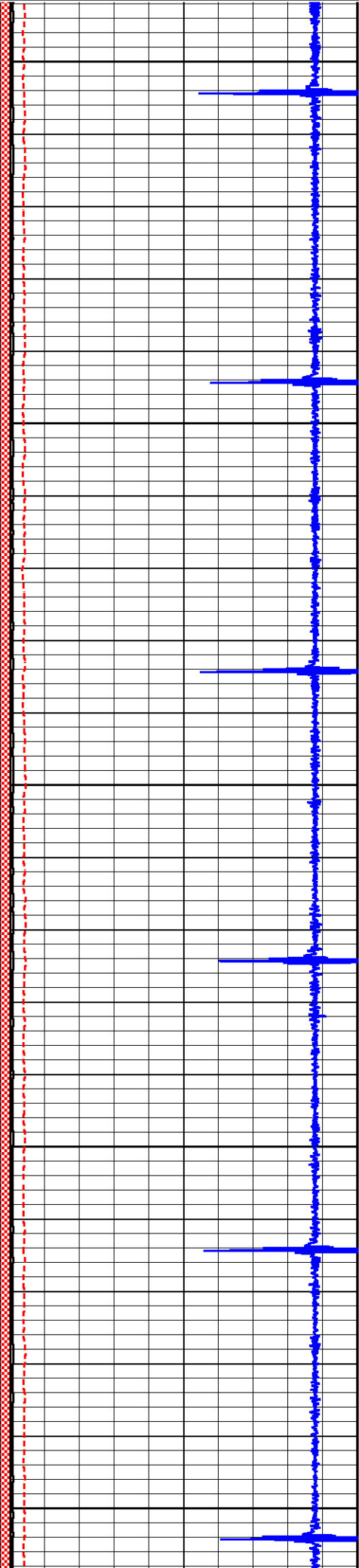
350

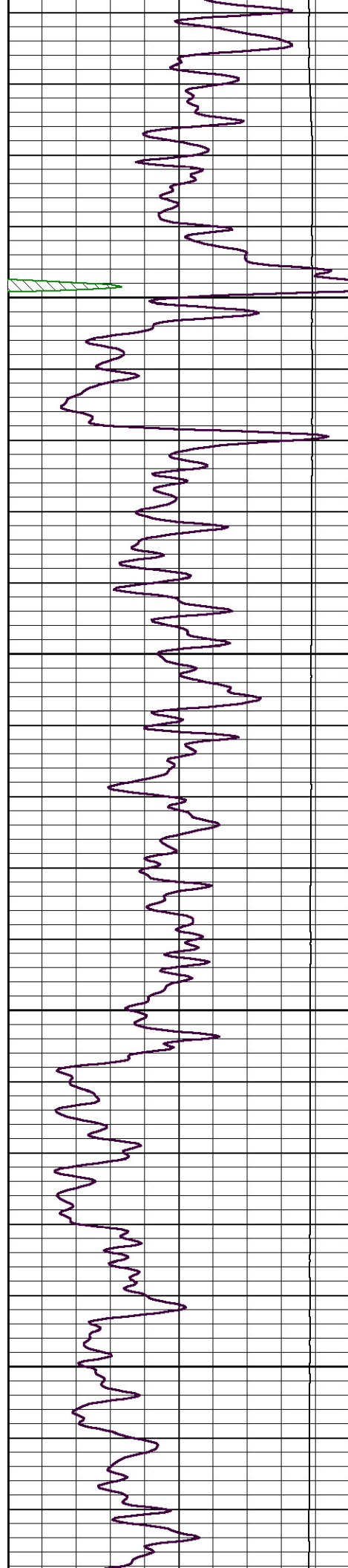
400

450

500

Amplitude (mV)



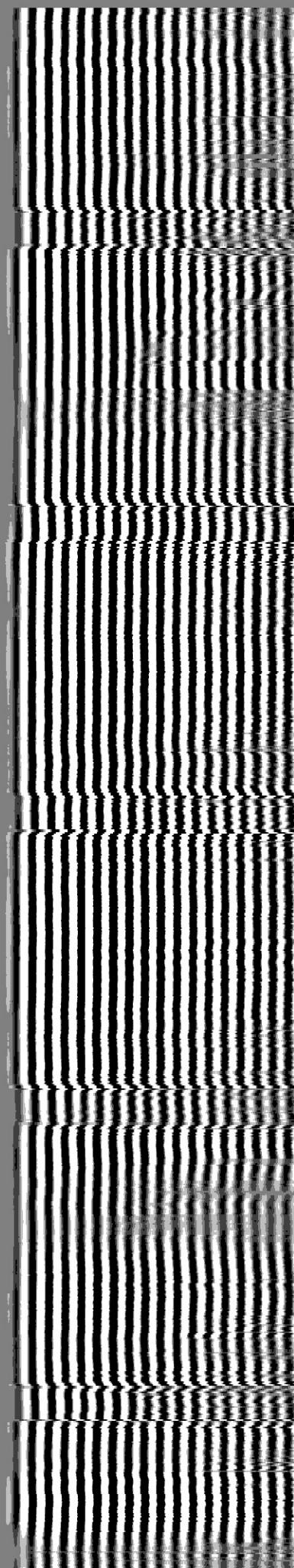
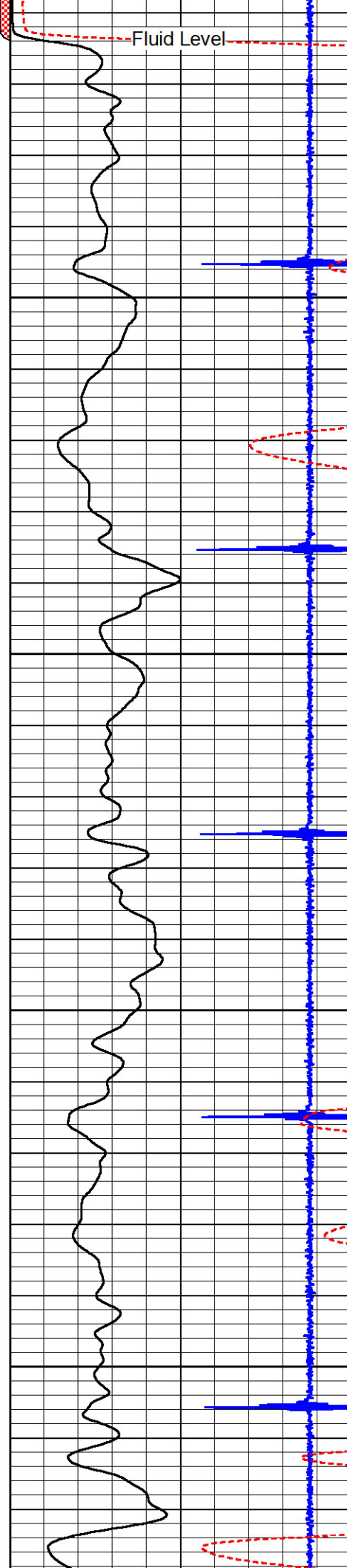


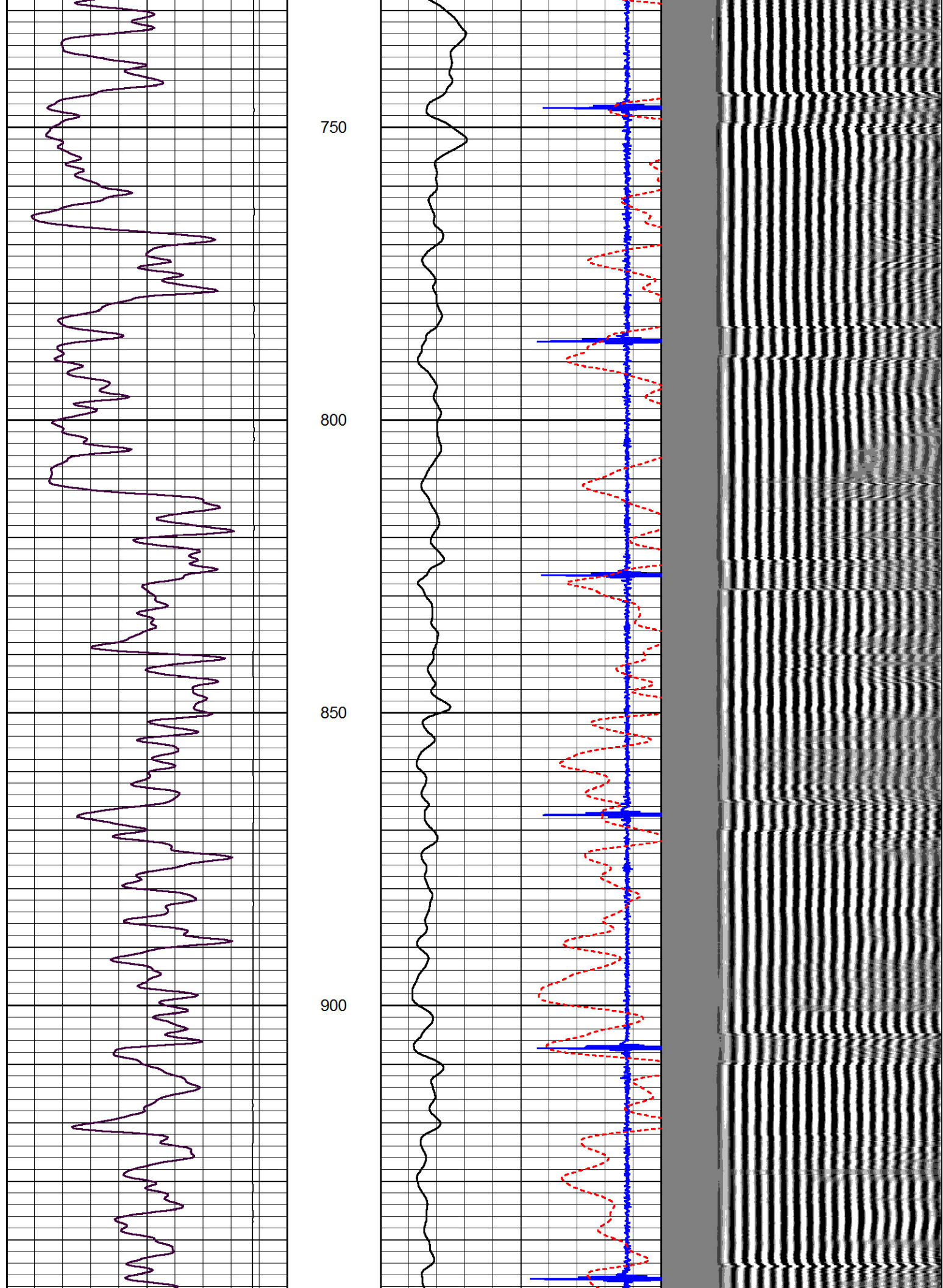
550

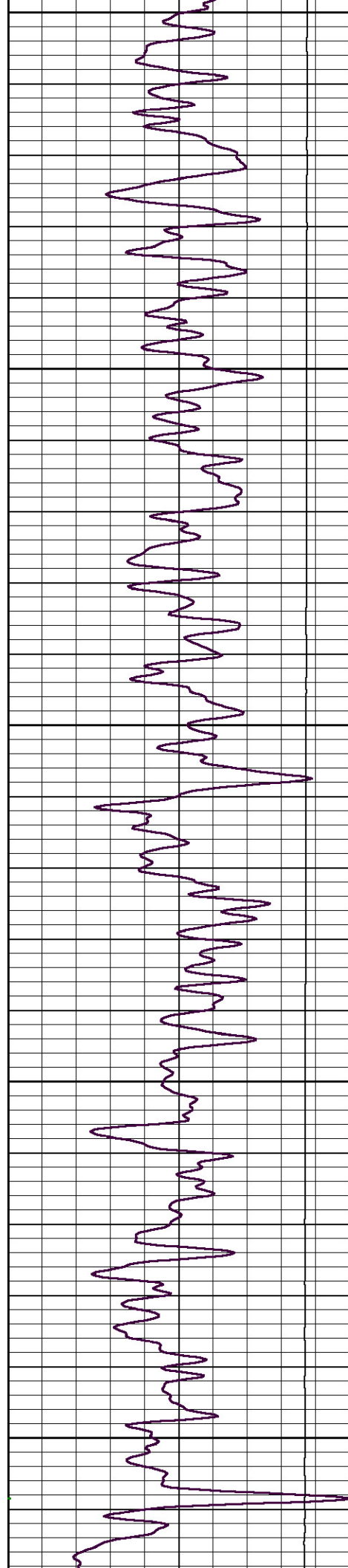
600

650

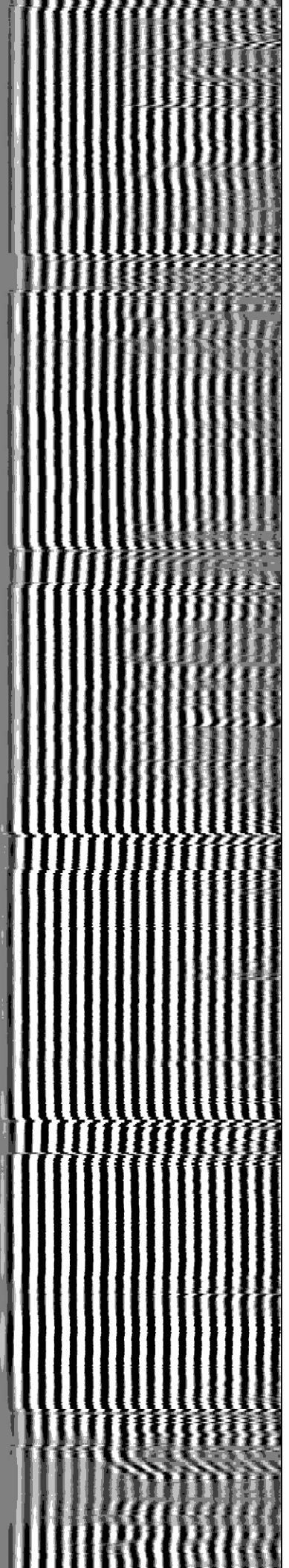
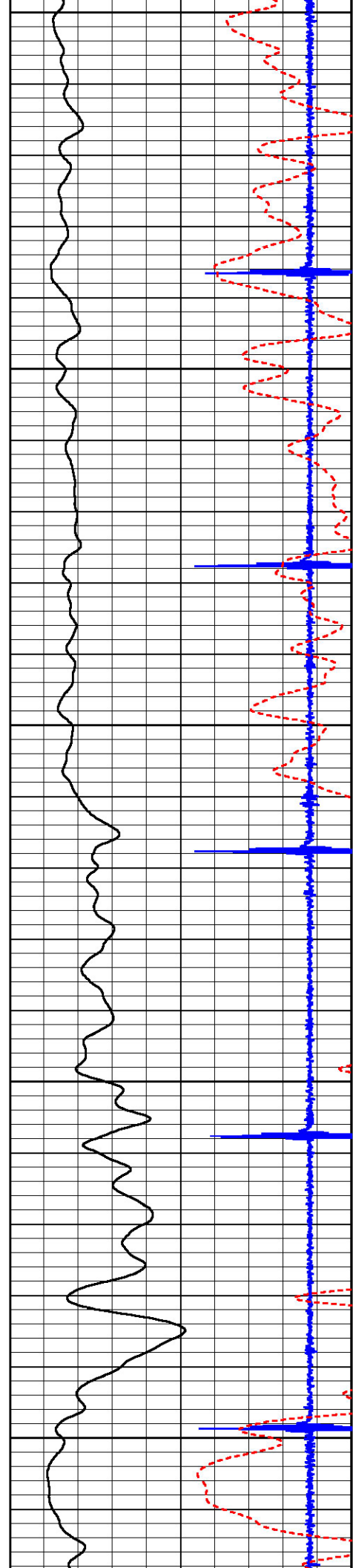
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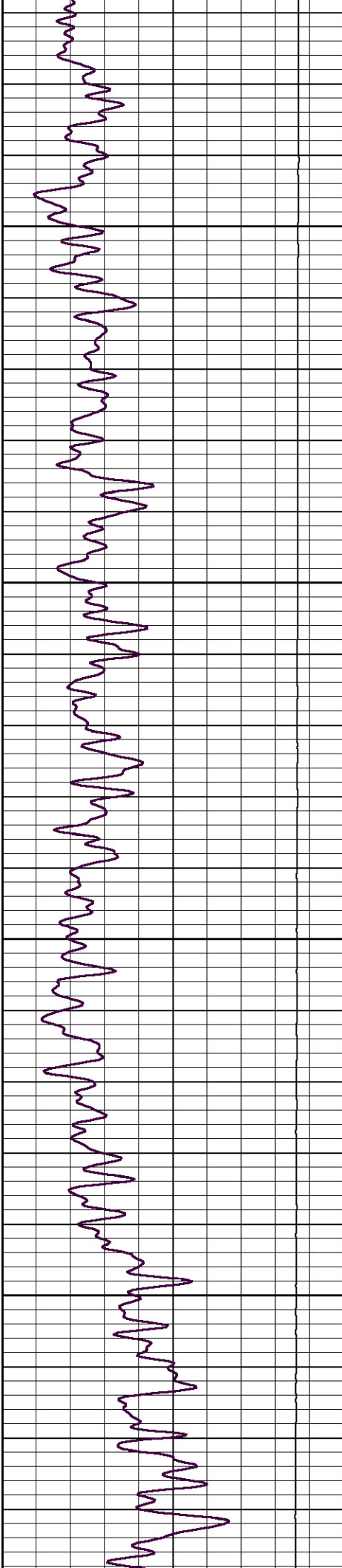






950
1000
1050
1100
1150



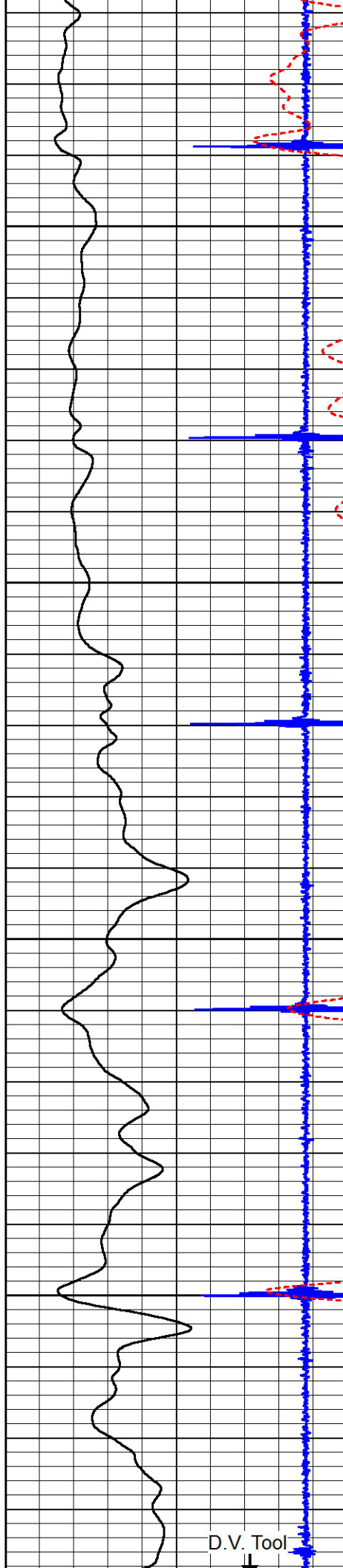


1200

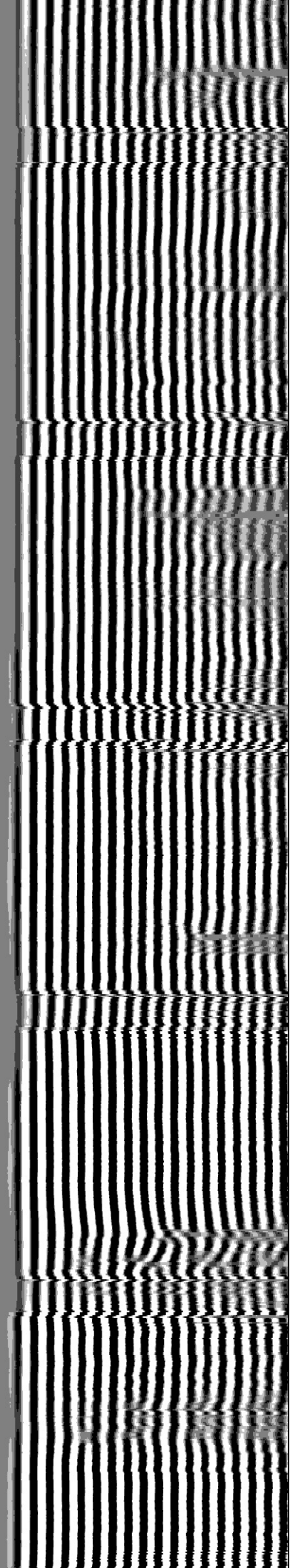
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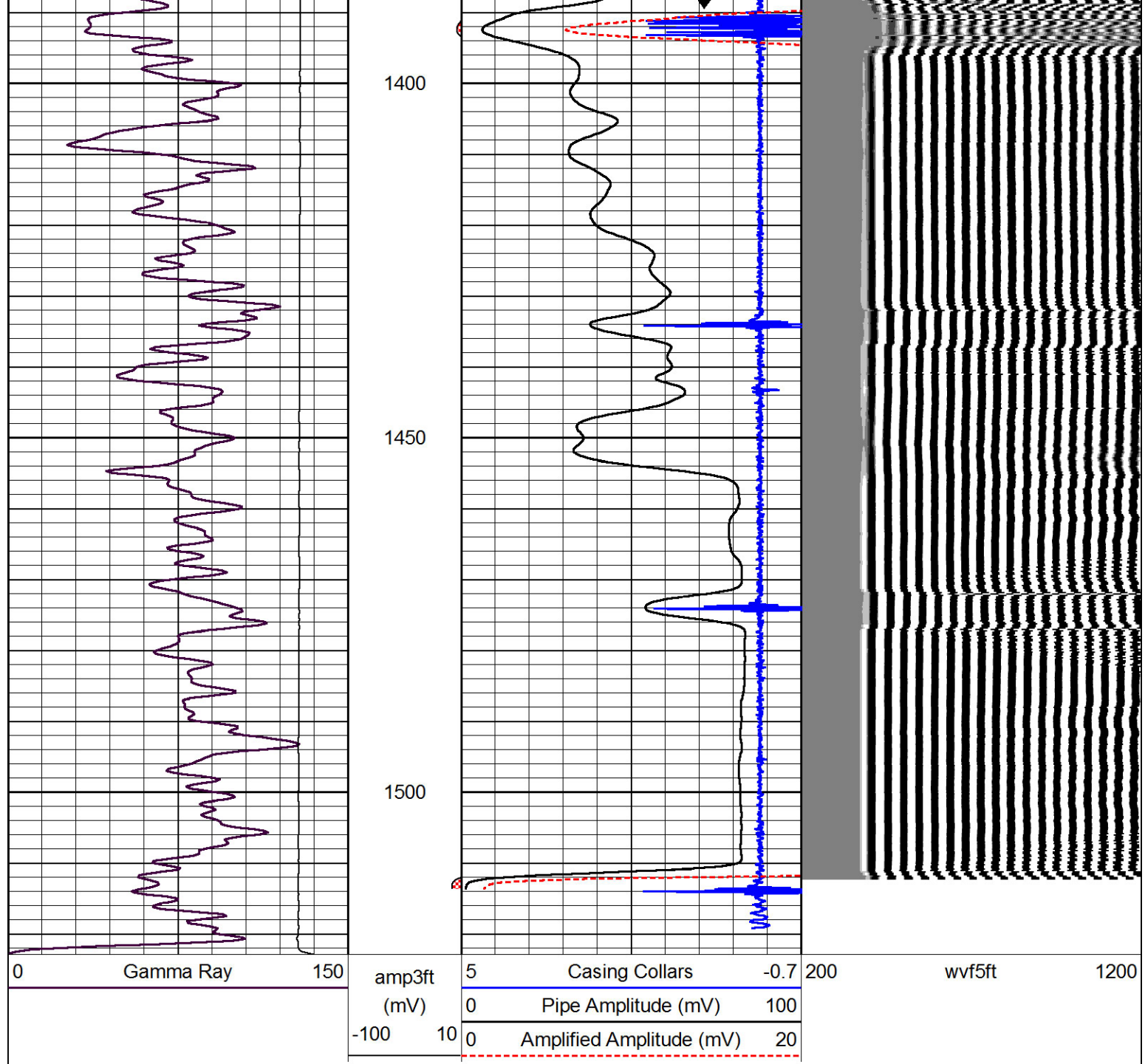
1300

1350



D.V. Tool

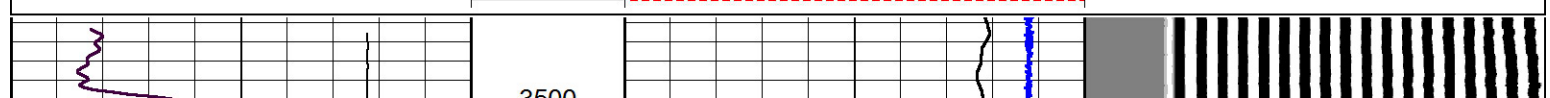
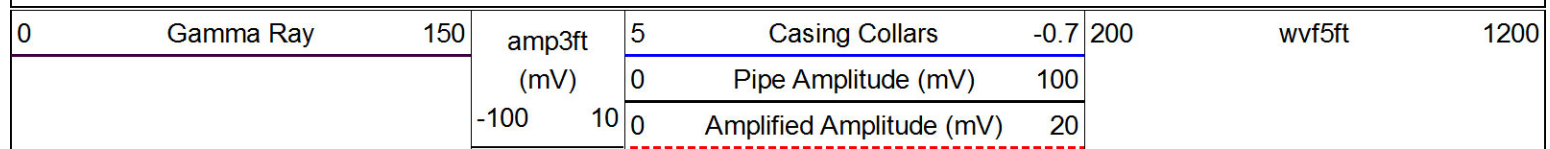


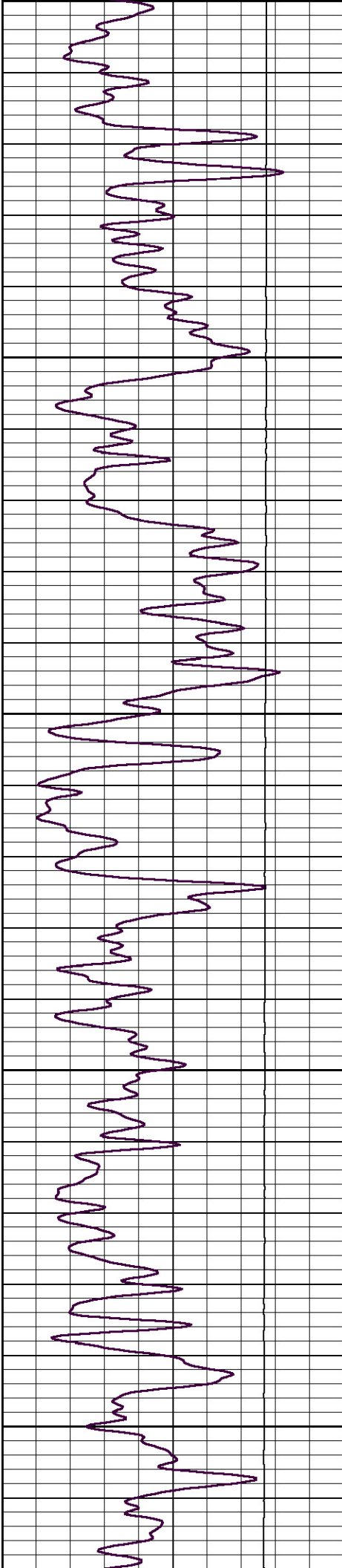


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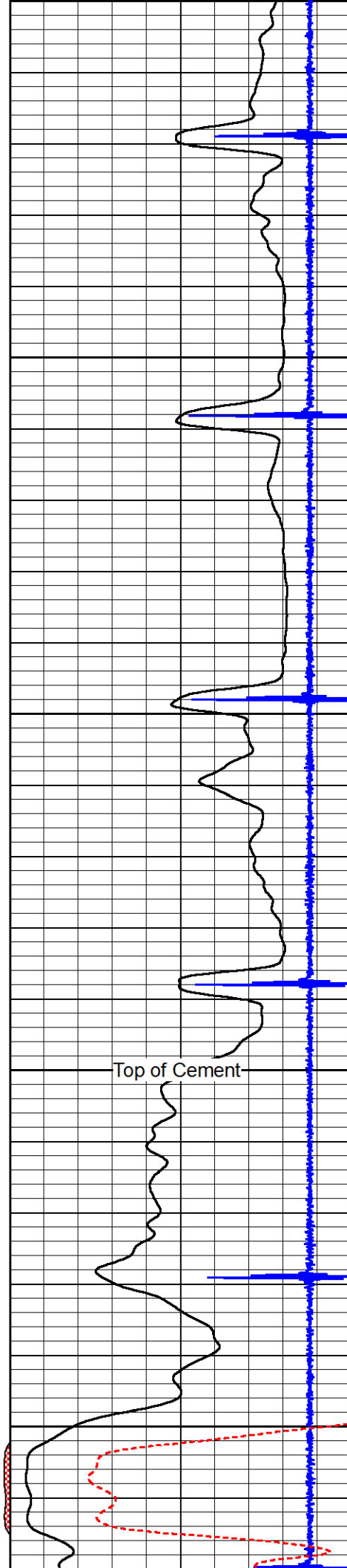
Main Pass

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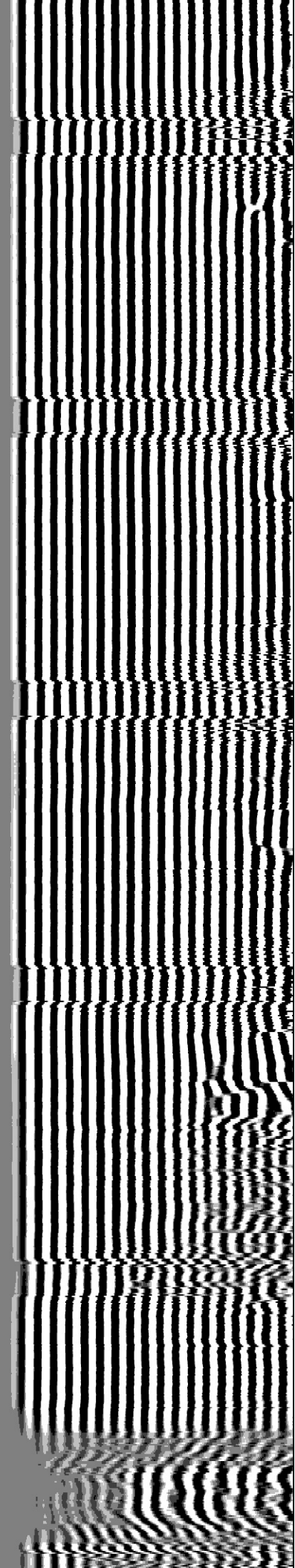


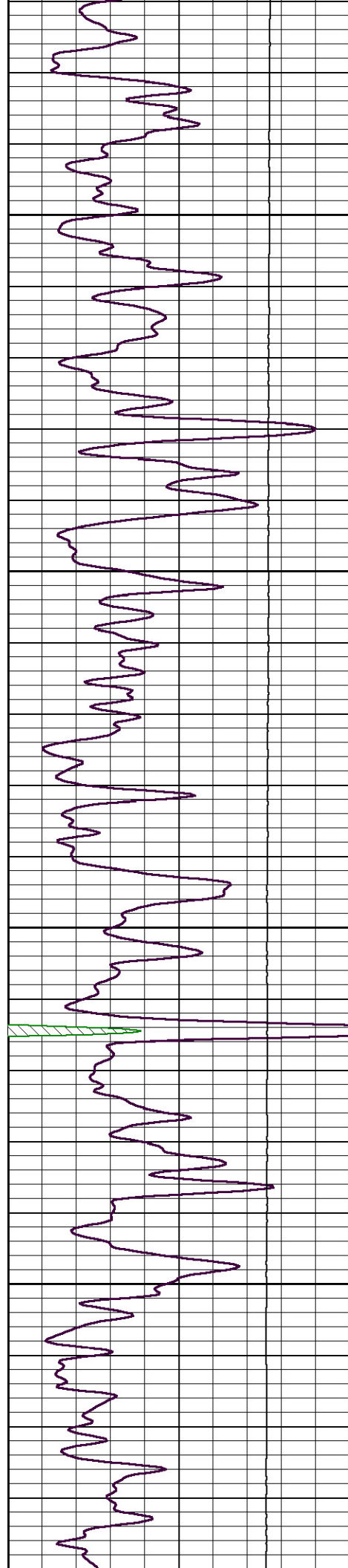


3500
3550
3600
3650
3700



Top of Cement



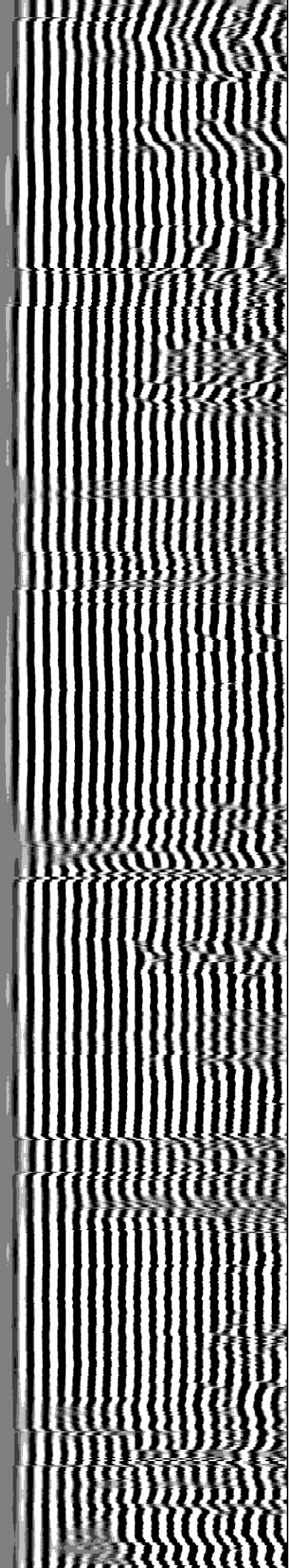
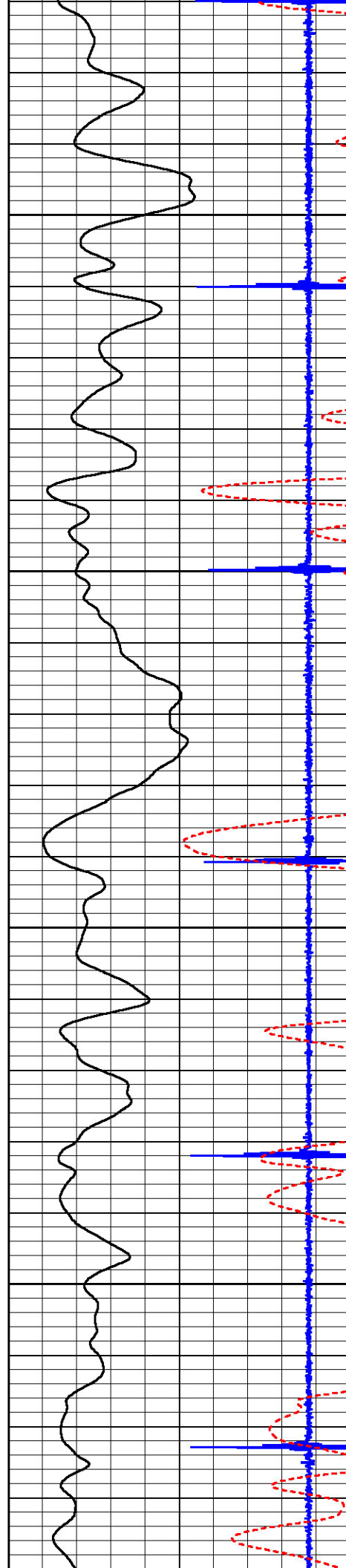


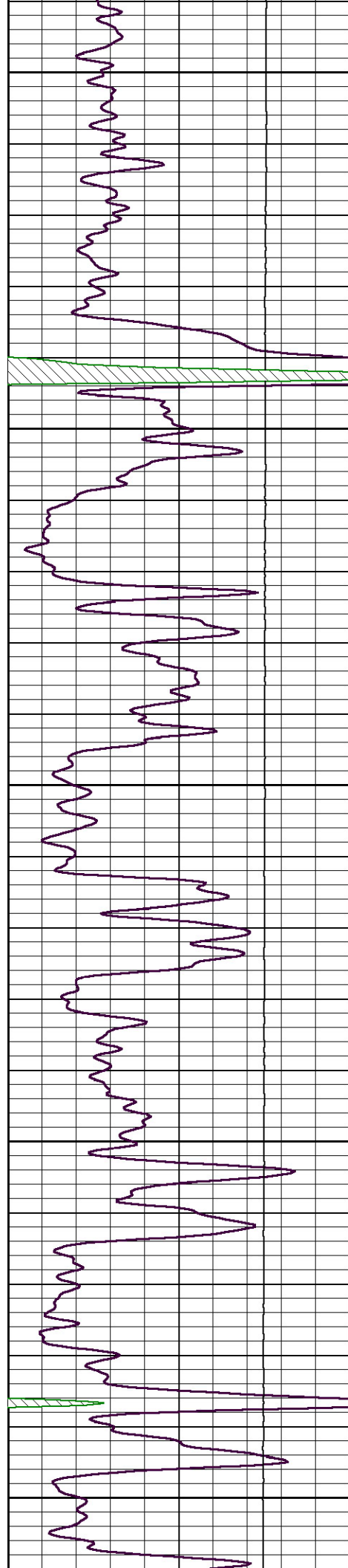
3750

3800

3850

3900





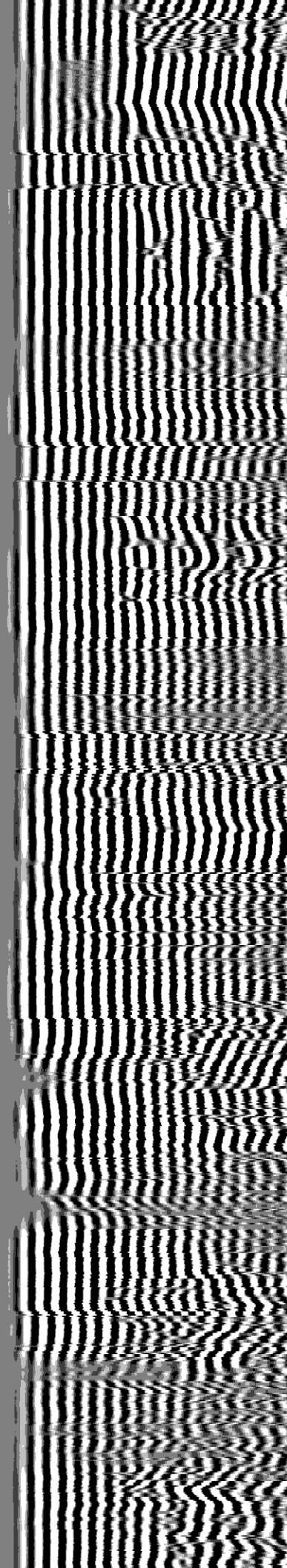
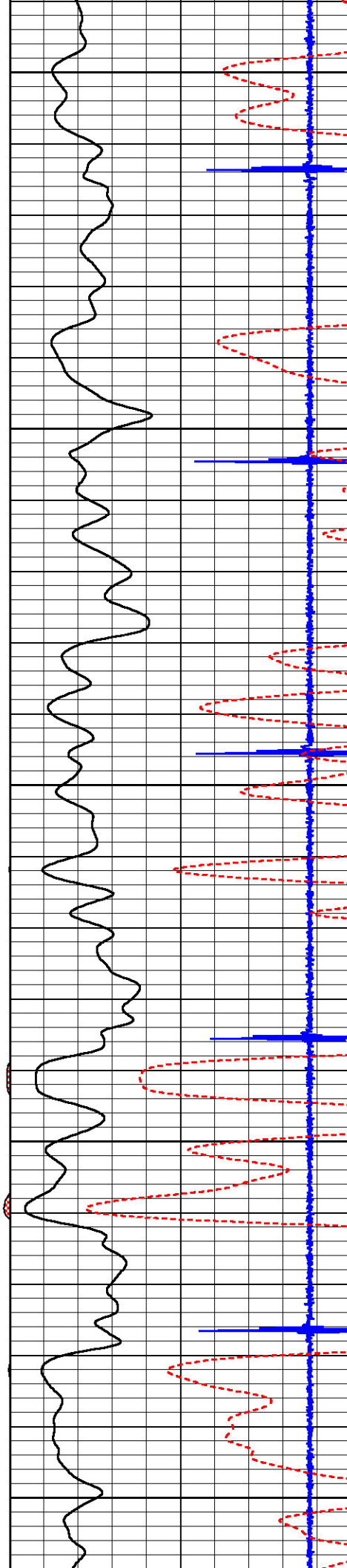
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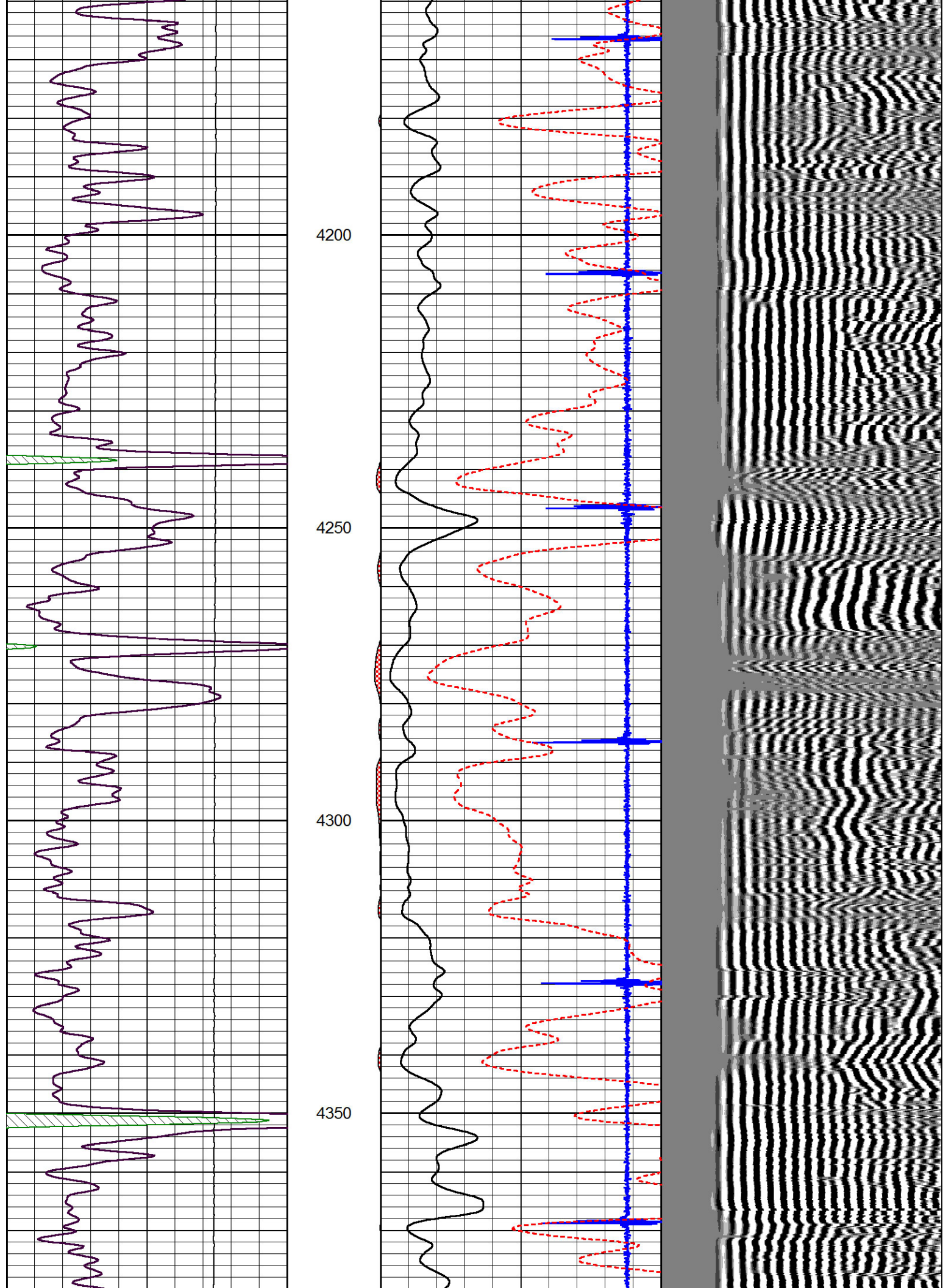
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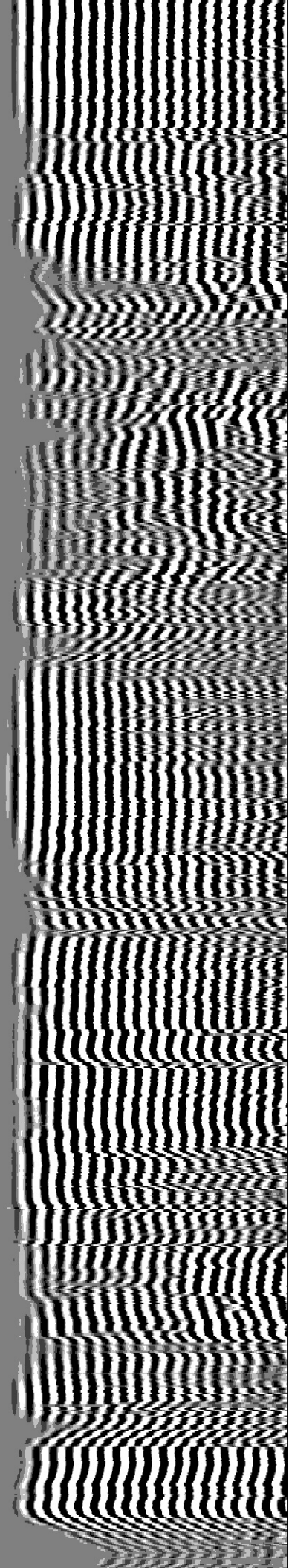
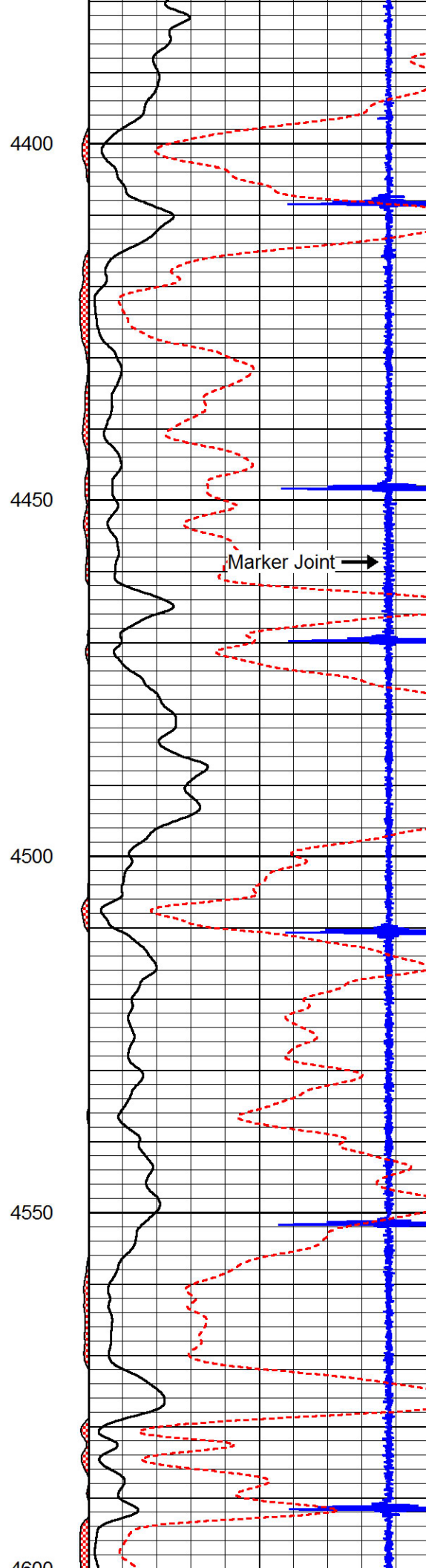
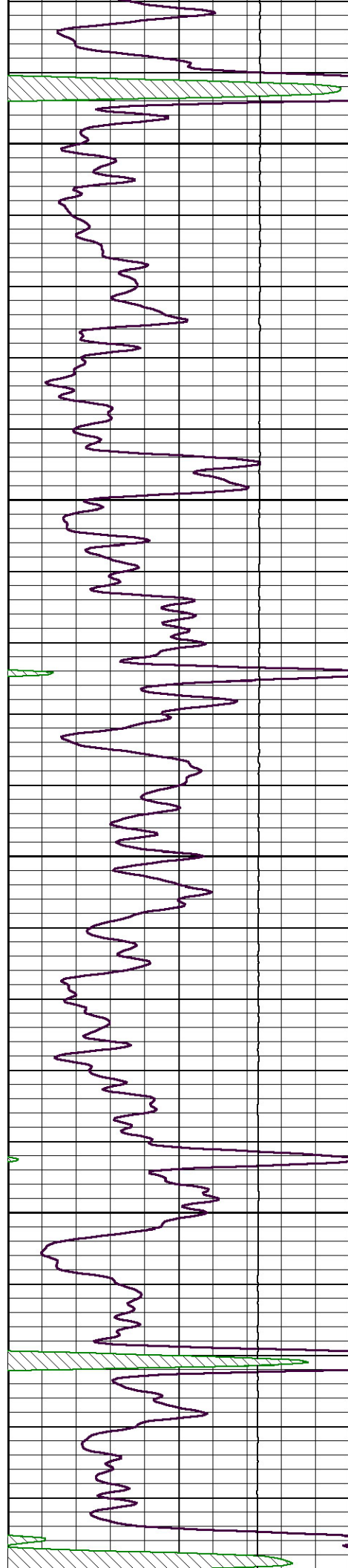
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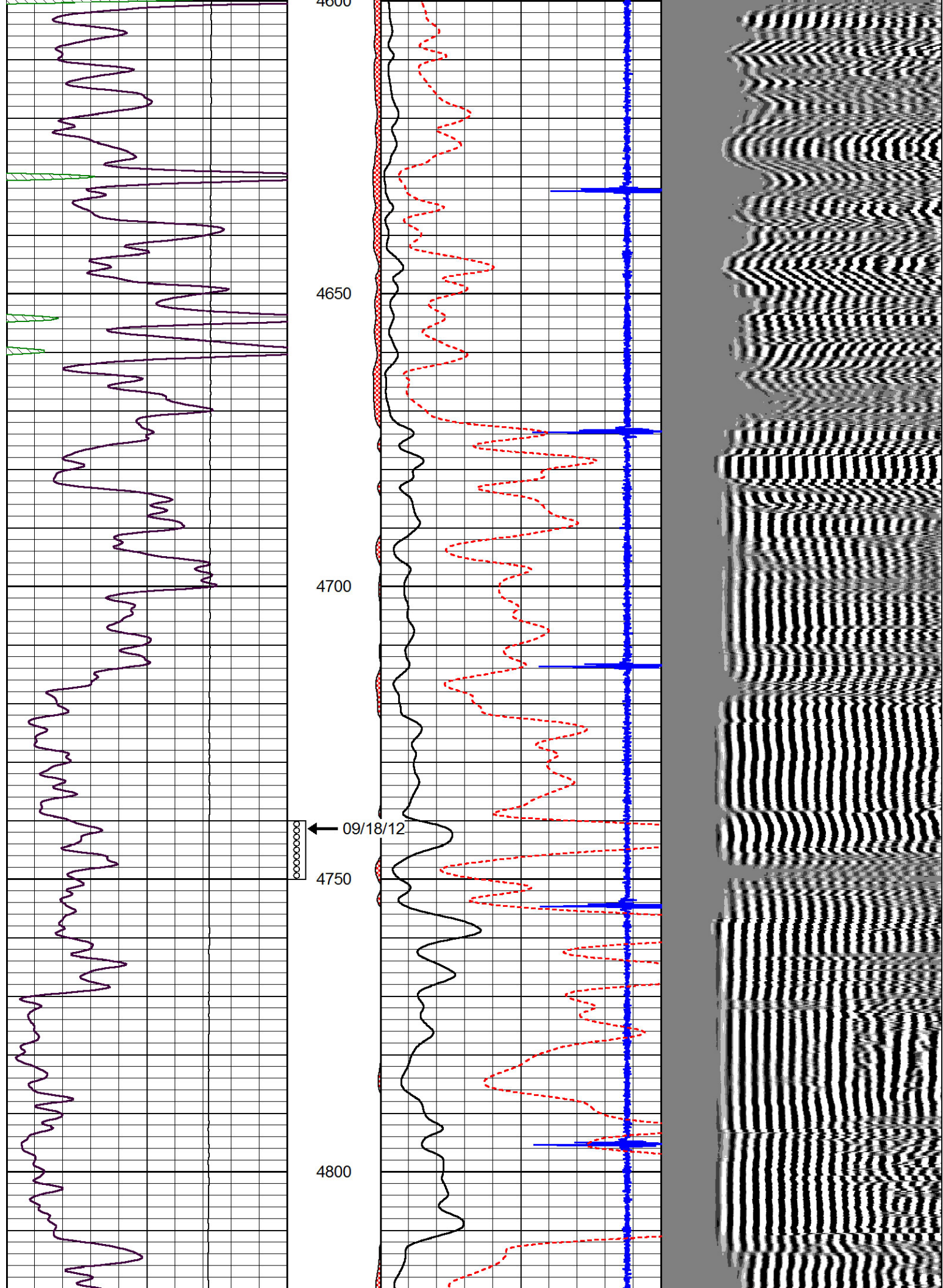
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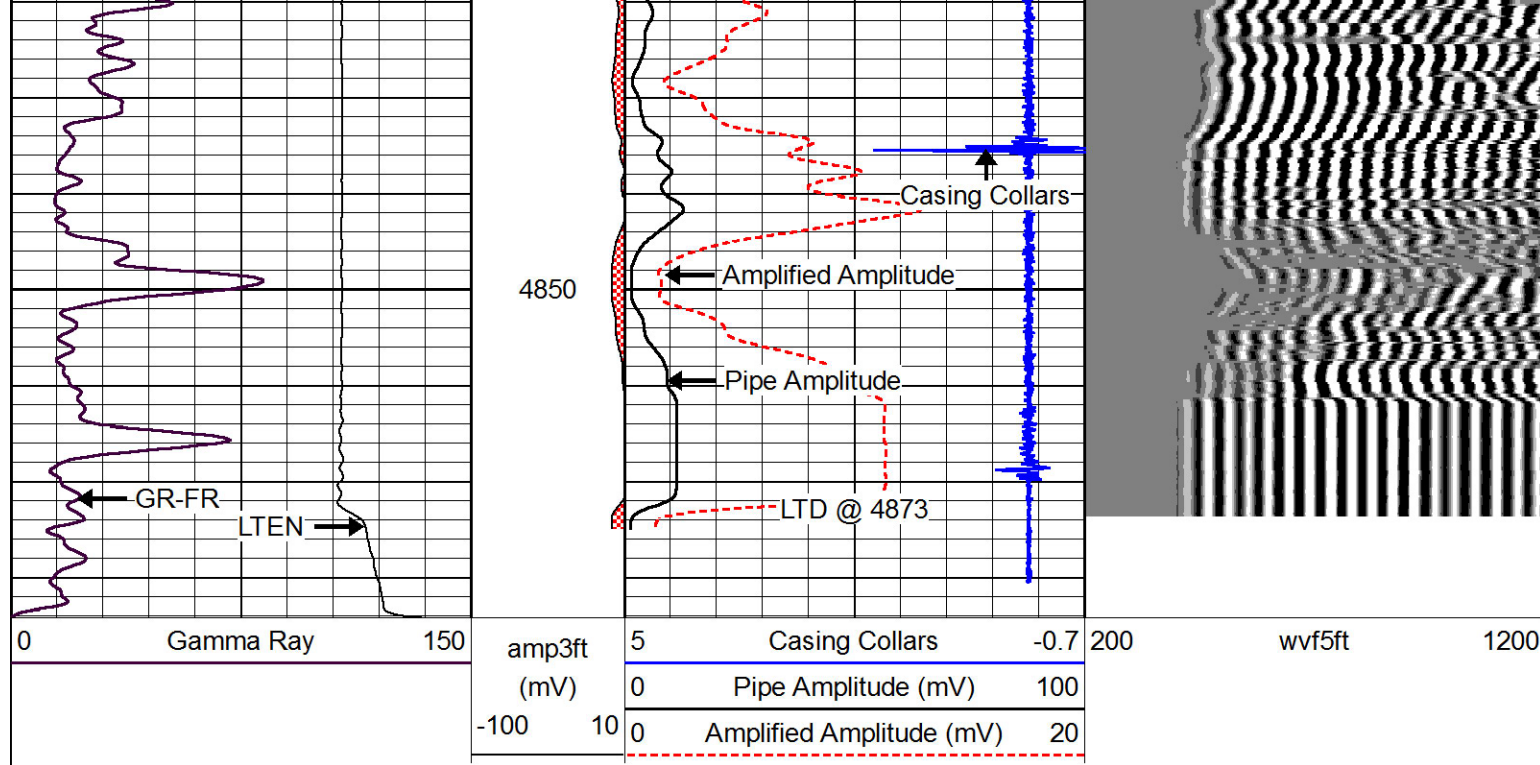
4150











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Repeat Section

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