



Pioneer Energy Services

Dual Induction Log

API No.

15-009-25,879-00-00

Company American Warrior, Inc.

Well Hofmeister No. 3-15

Field Beaver

County Barton State

Kansas

Location 420' FSL & 1050' FWL

Other Services
CNL/CDL

Sec: 15 Twp: 16S Rge: 12W

Permanent Datum Ground Level Elevation 1907
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elevation
K.B. 1915
D.F. 1915
G.L. 1907

Date 9/12/13

Run Number One

Depth Driller 3465

Depth Logger 3465

Bottom Logged Interval 3464

Top Log Interval 400

Casing Driller 8.625 @ 420

Casing Logger 412

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 5.600

Density / Viscosity 9.2 58

pH / Fluid Loss 10.0 8.8

Source of Sample Flowline

Rm @ Meas. Temp 1.0 @ 75

Rmf @ Meas. Temp .75 @ 75

Rmc @ Meas. Temp 1.35 @ 75

Source of Rmf / Rmc Charts

Rm @ BHT .68 @ 111

Operating Rig Time 5 1/2 Hours

Max Rec. Temp. F 111

Equipment Number 10

Location Hays

Recorded By J. Henrickson

Witnessed By Kurt Talbott

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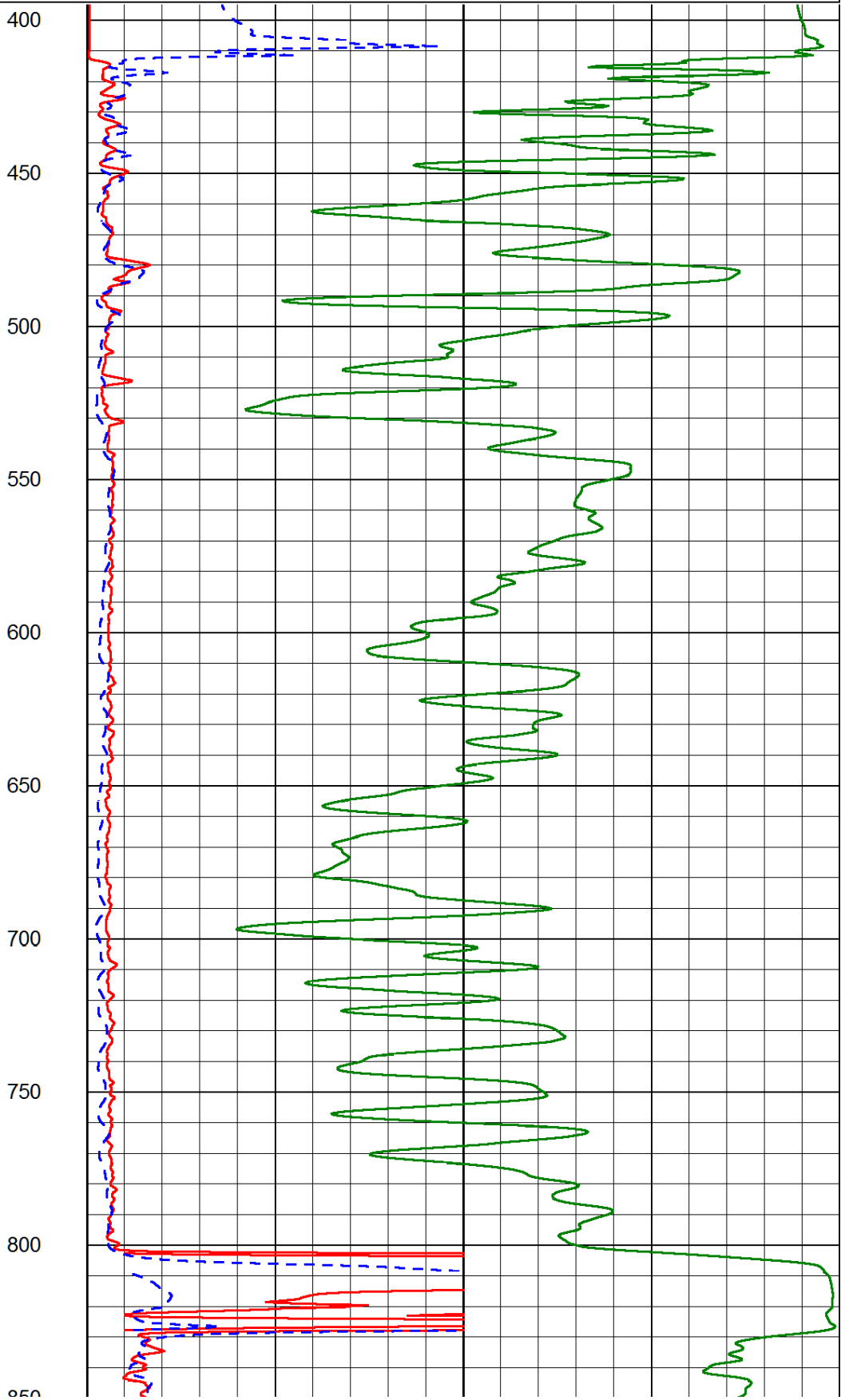
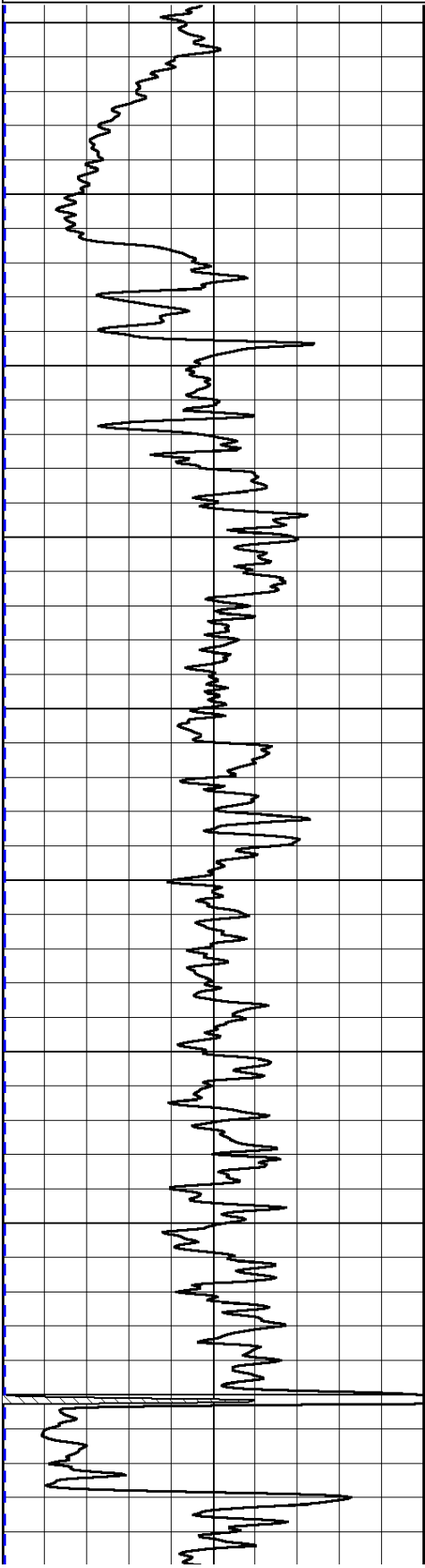
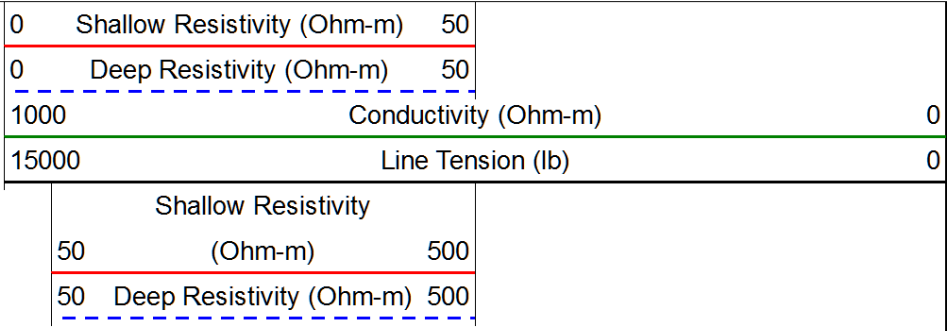
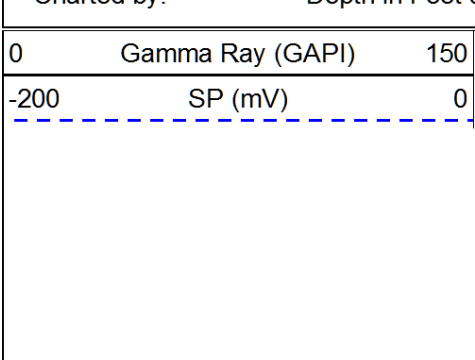
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

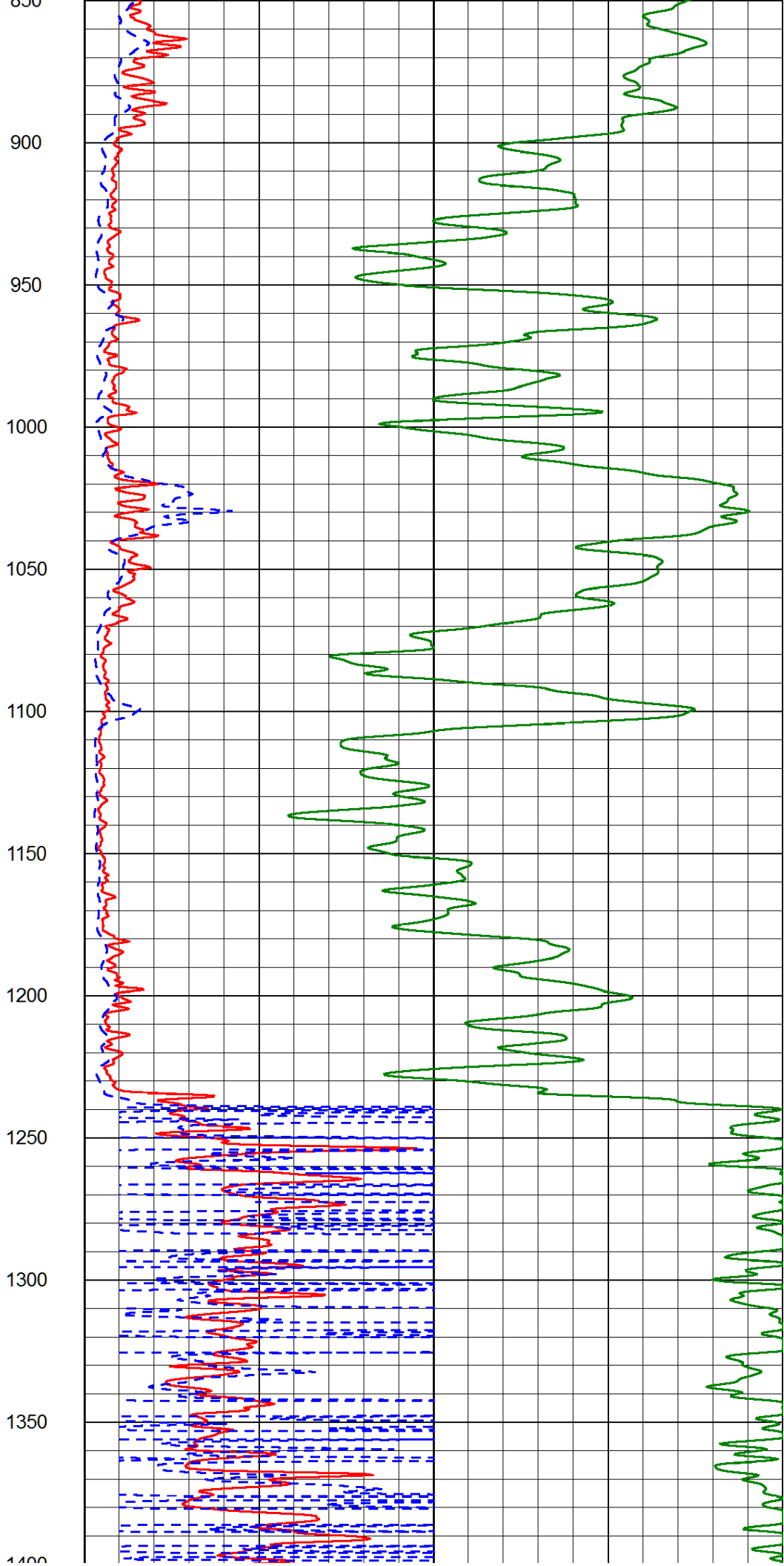
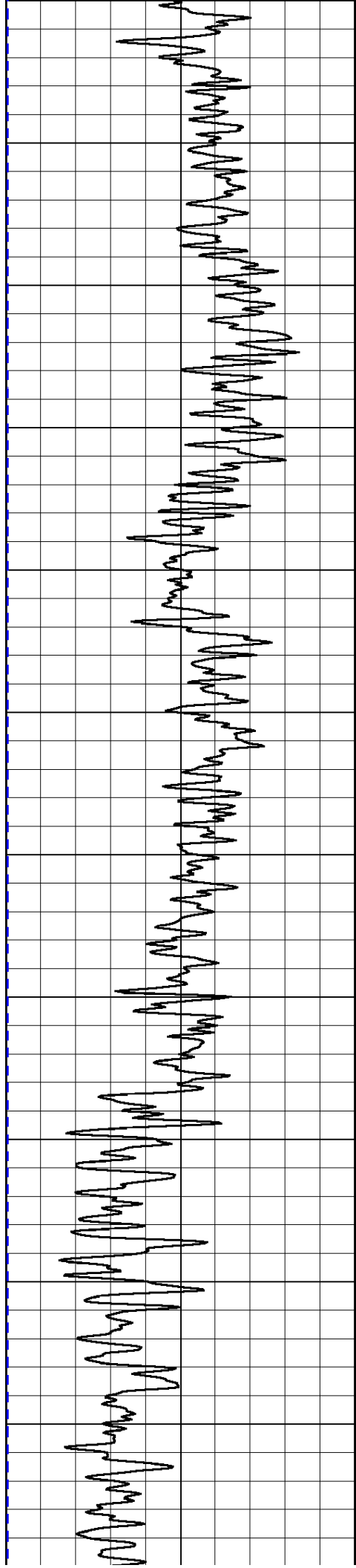
Comments

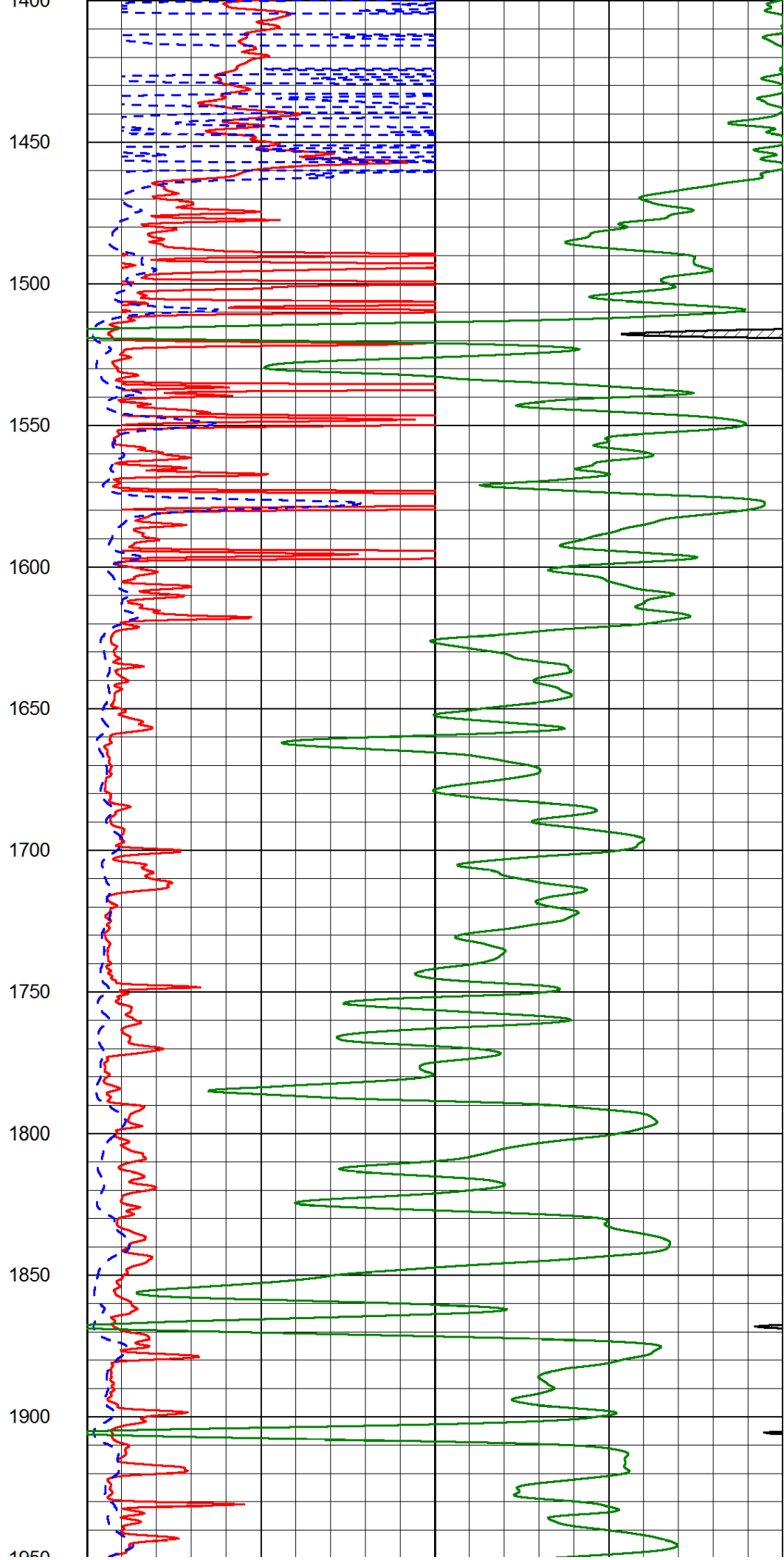
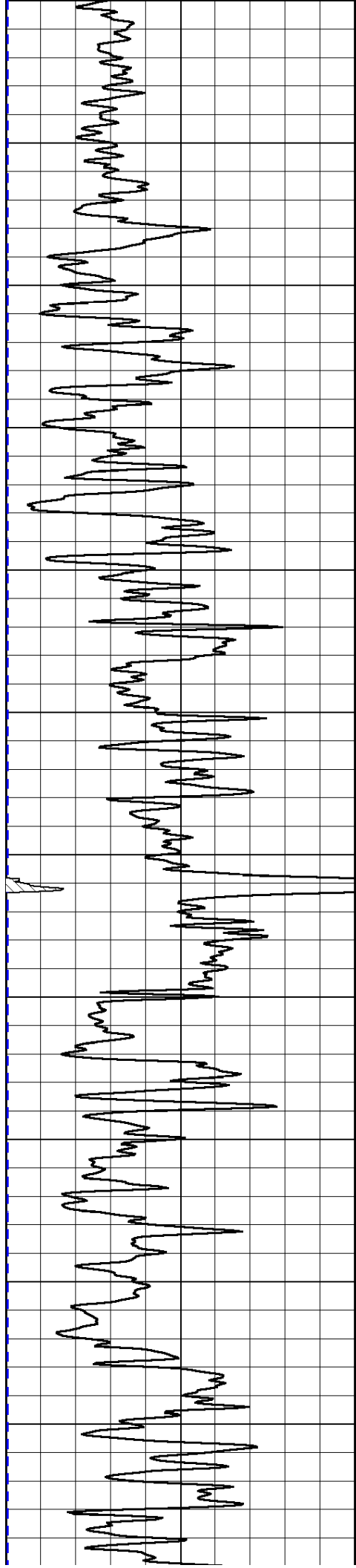
Thank you for using Log-Tech, Inc.
(785) 625-3858

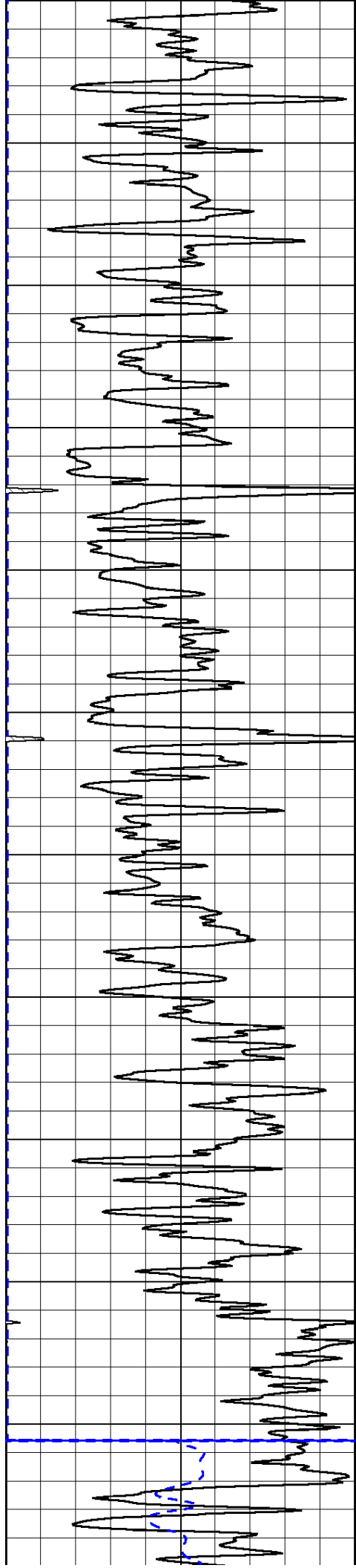
Beaver Kansas
1 North, 1 1/4 East, North Into

Database File: americanwarrior_hofmeister_3_15hd.db
Dataset Pathname: DIL/awstk
Presentation Format: dil2in
Dataset Creation: Thu Sep 12 17:50:27 2013
Charted by: Depth in Feet scaled 1:600

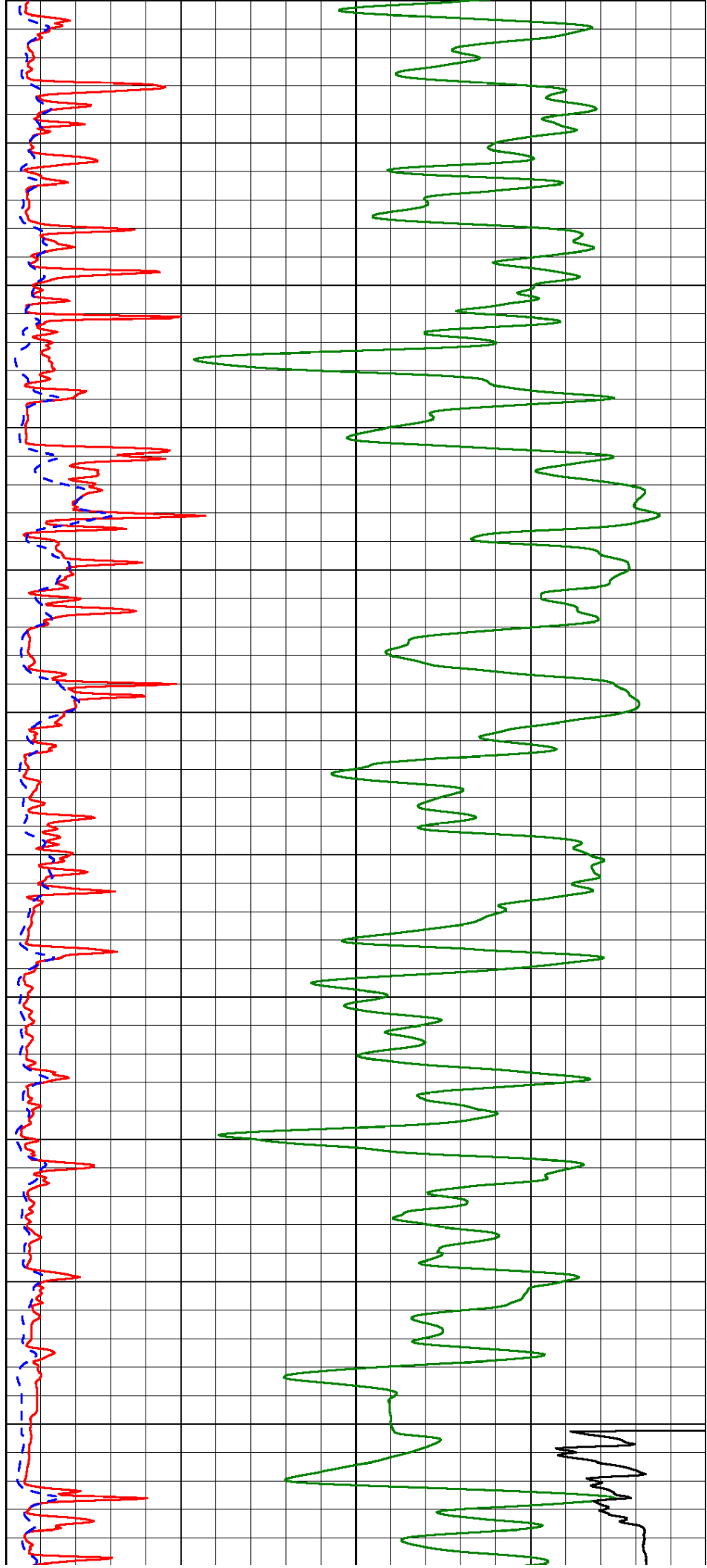


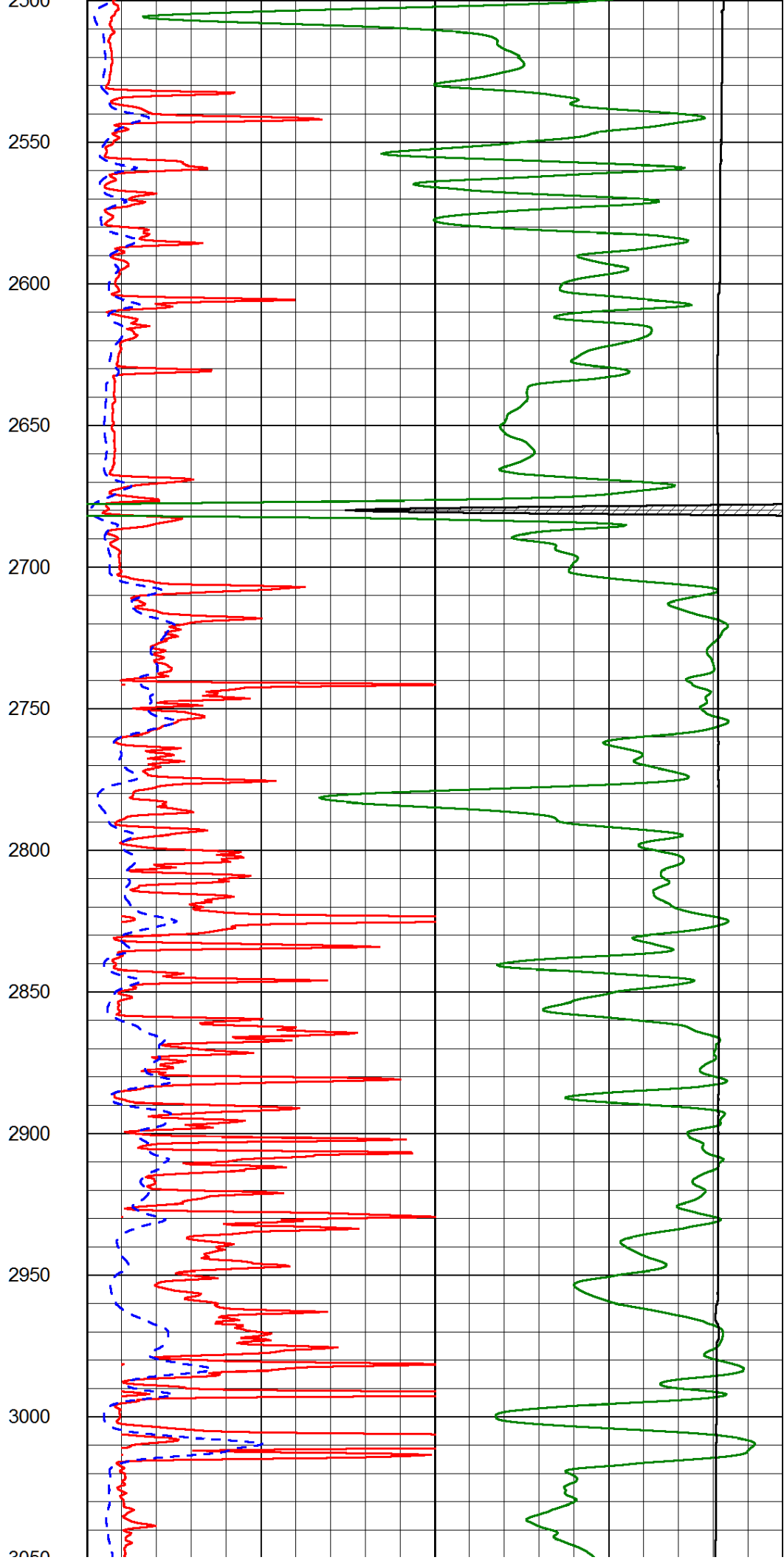
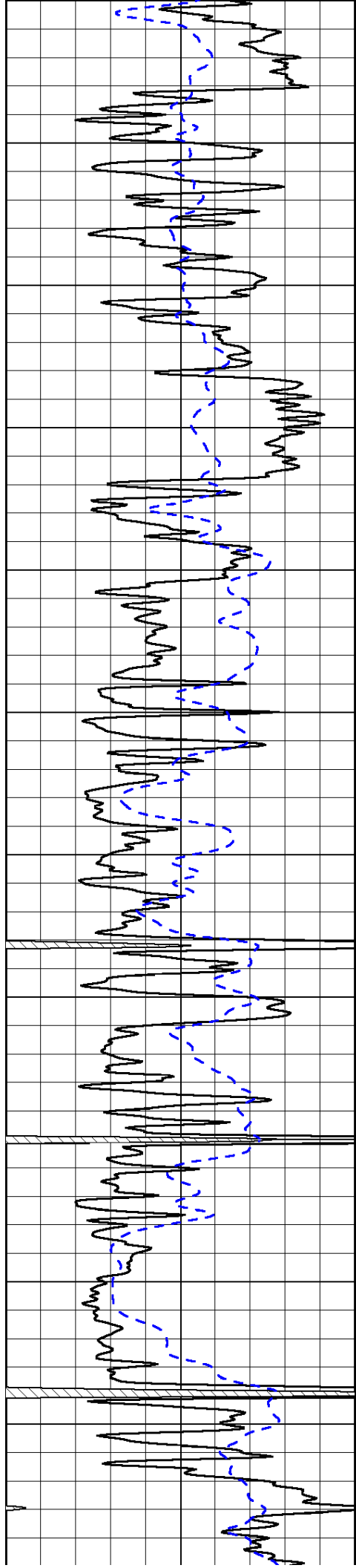


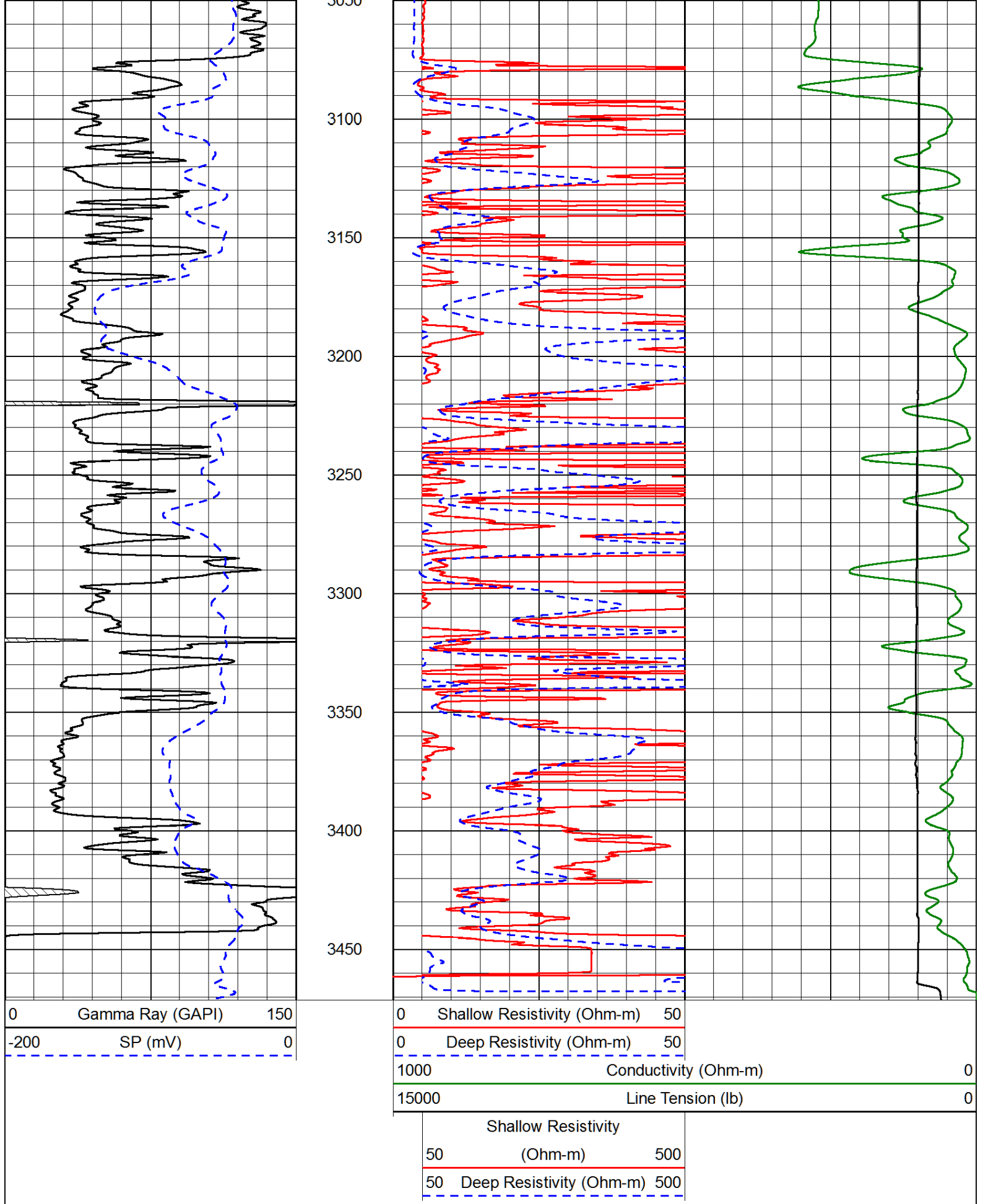




1950
2000
2050
2100
2150
2200
2250
2300
2350
2400
2450
2500



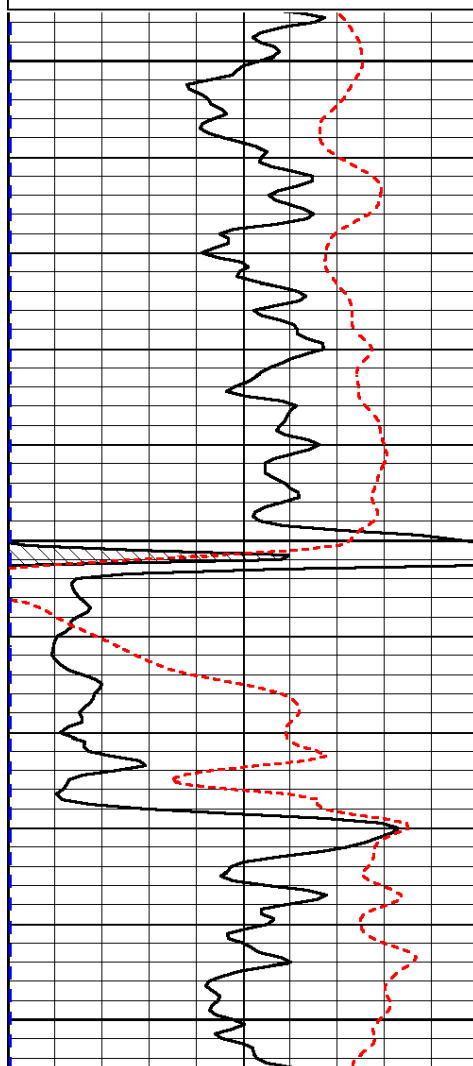




0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)

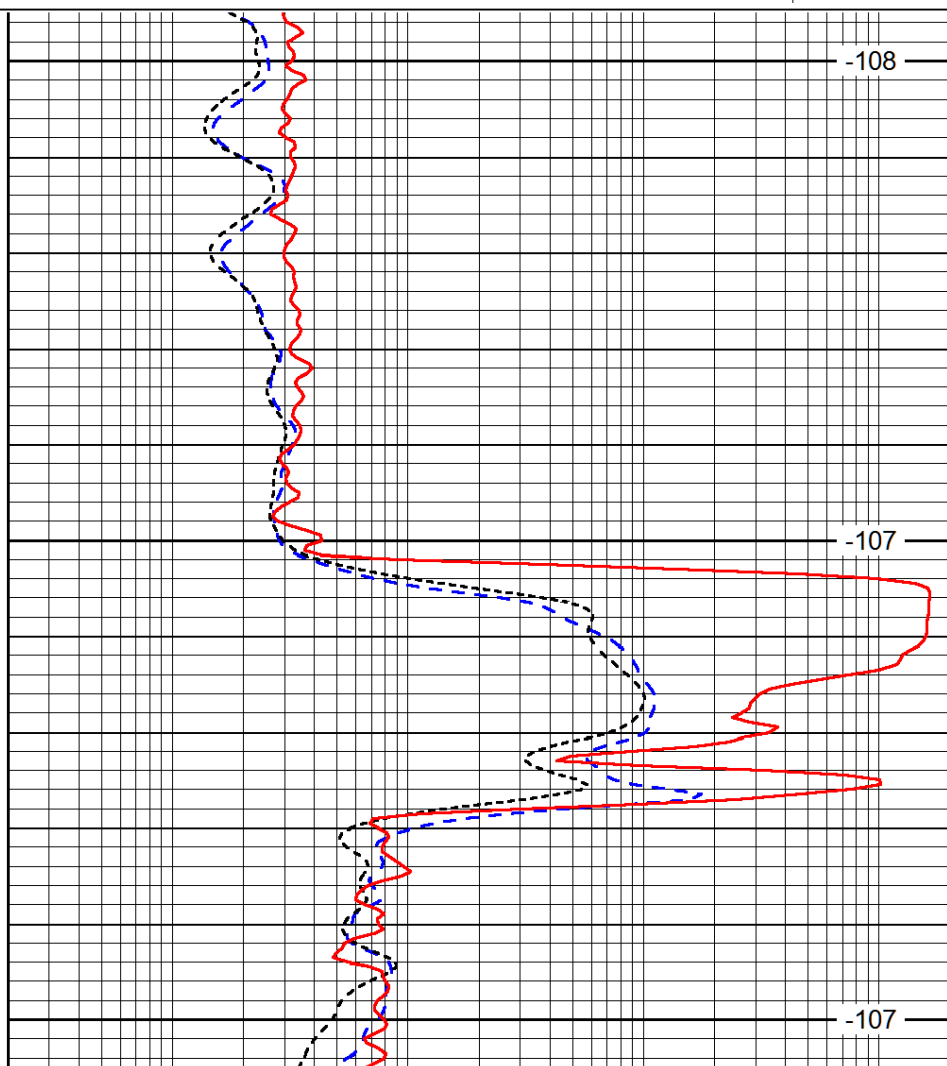


750

800

850

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



-108

-107

-107

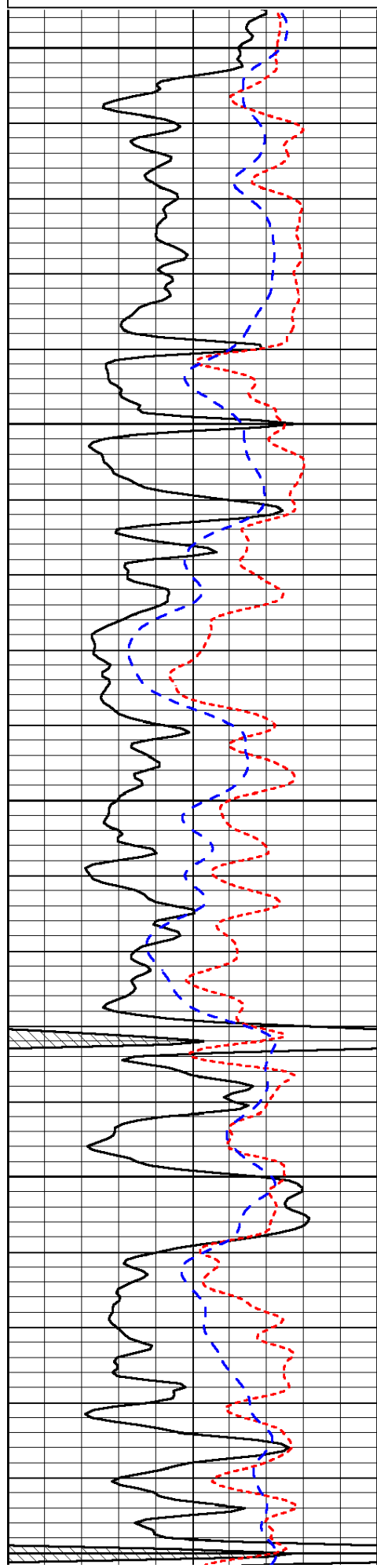
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0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)

Database File: americanwarrior_hofmeister_3_15hd.db
Dataset Pathname: DIL/awstk
Presentation Format: dil
Dataset Creation: Thu Sep 12 17:50:27 2013
Charted by: Depth in Feet scaled 1:240

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

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)

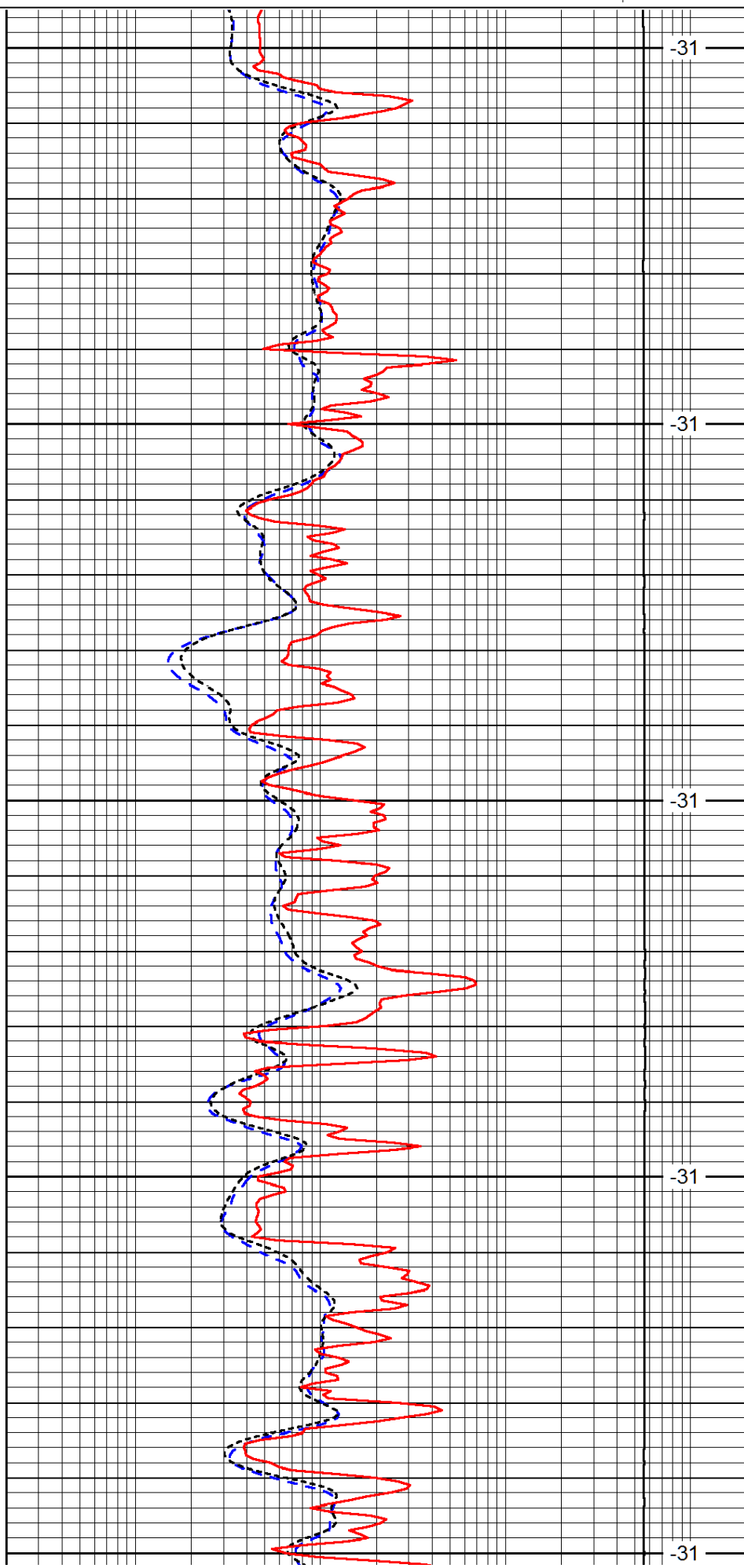
2700

2750

2800

2850

2900



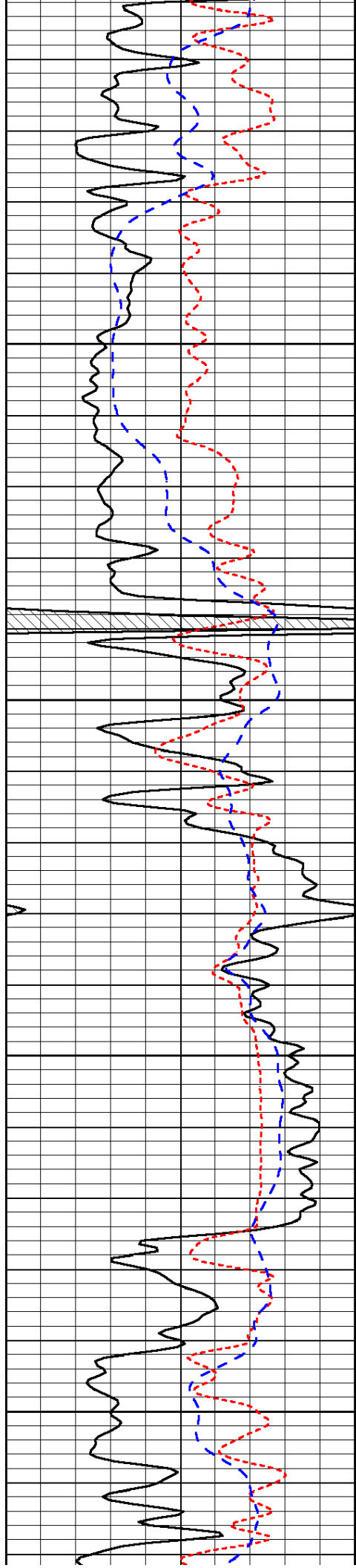
-31

-31

-31

-31

-31

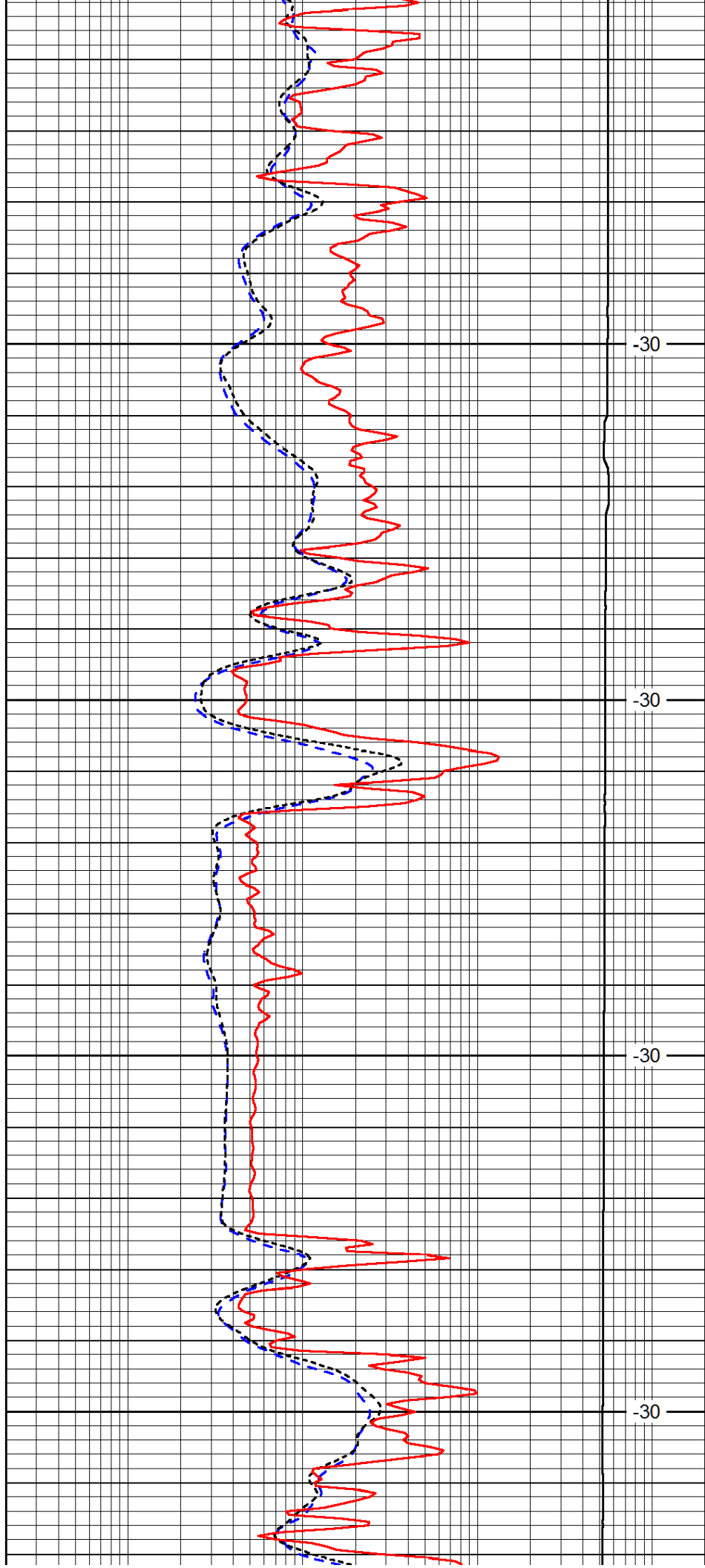


2950

3000

3050

3100

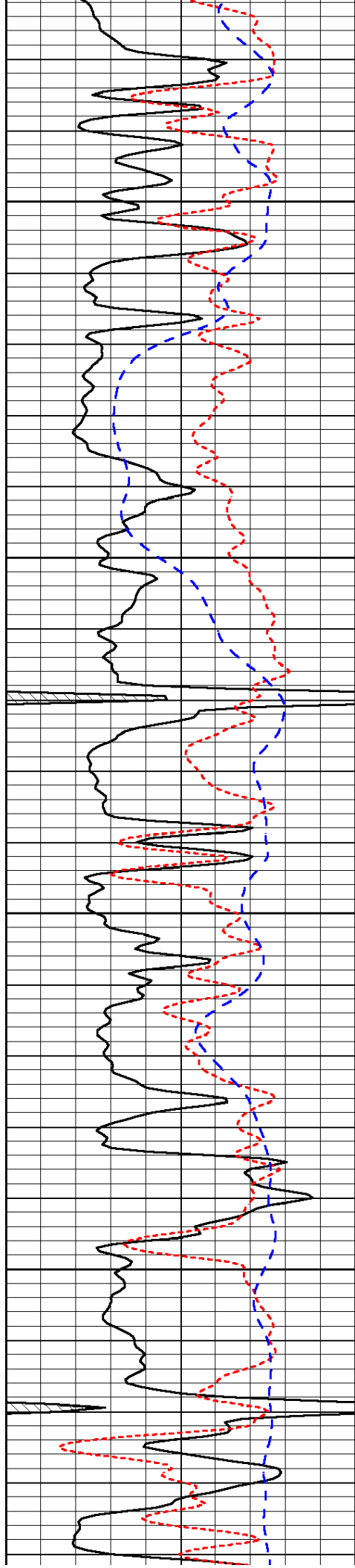


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-30

-30

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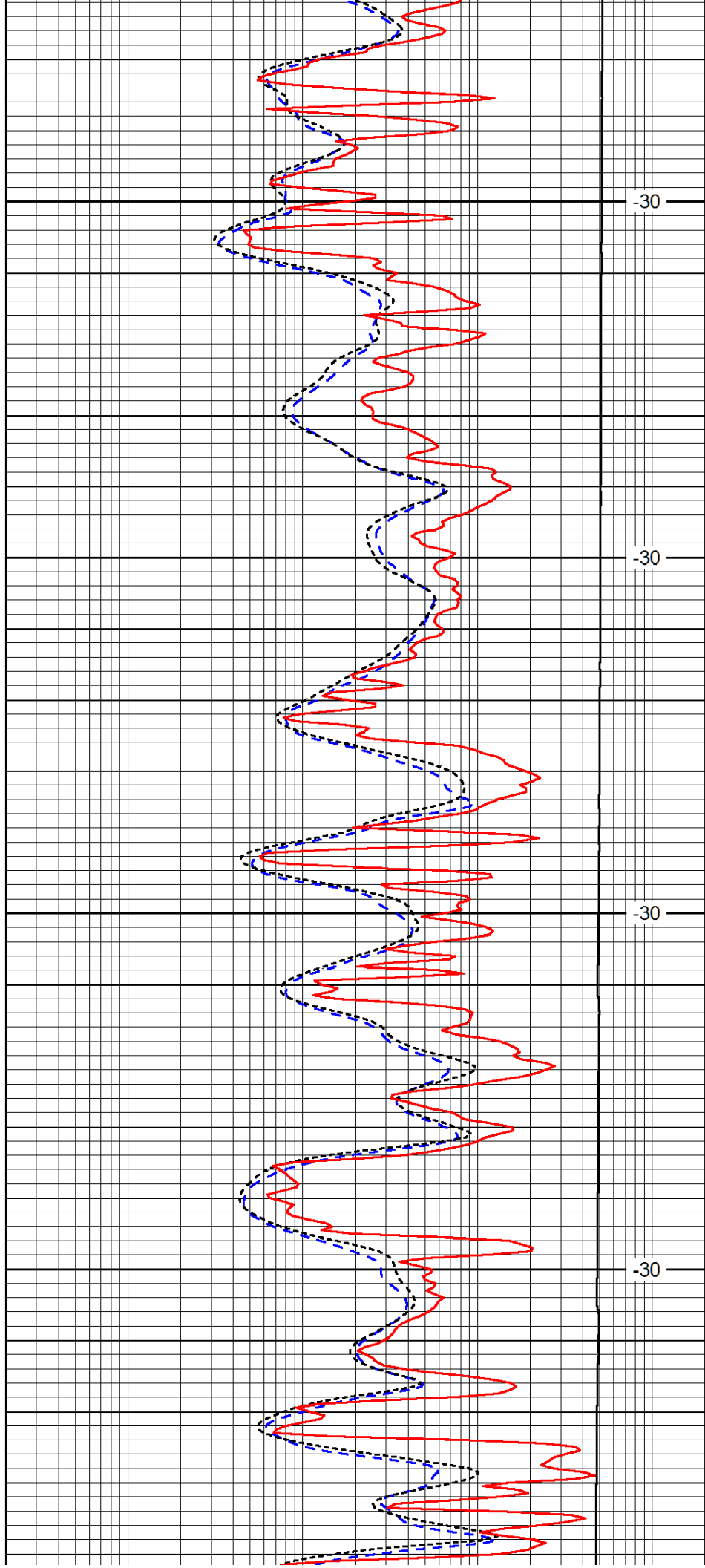


3150

3200

3250

3300

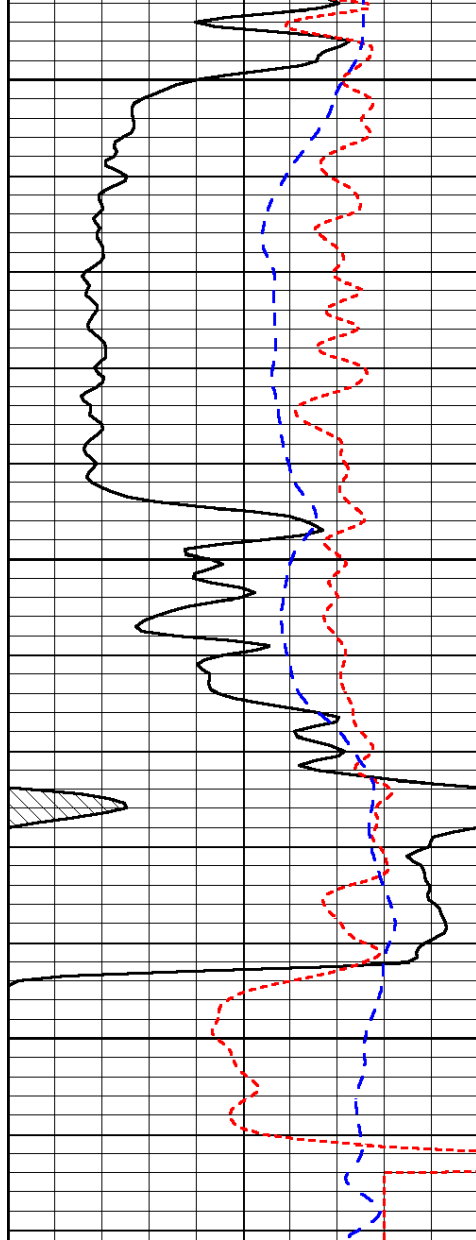


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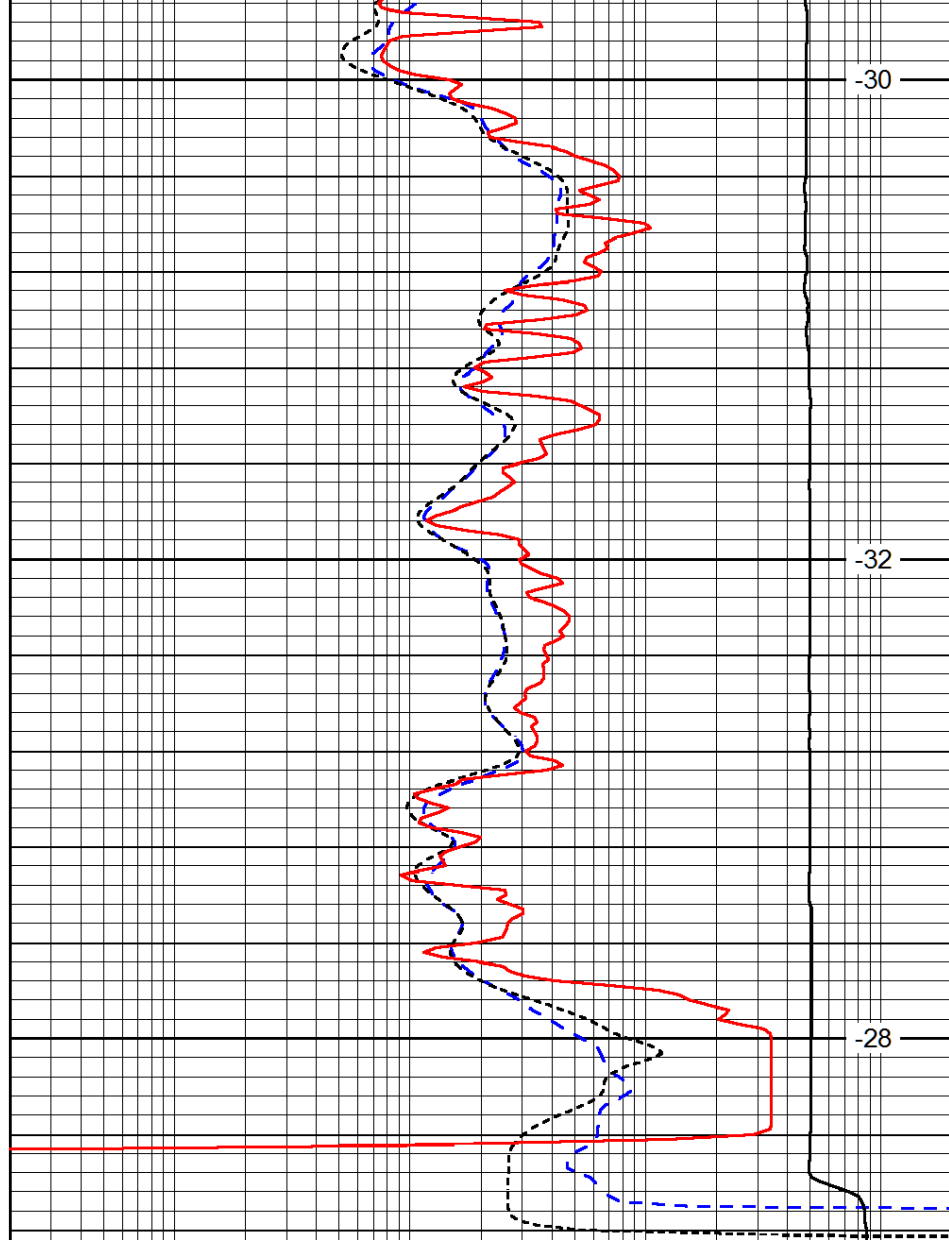


0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

3350

3400

3450



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(ft/min)