



Pioneer Energy Services

Dual Induction Log

API No.

15-083-21,876-00-00

Company American Warrior, Inc.

Well Chipman No. 1-16

Field Unknown

County Hodgeman State

Kansas

Location 335' FSL & 2286' FWL

Sec: 16 Twp: 22 S Rge: 21 W

Other Services
CDL/CNL
MEL

Permanent Datum Ground Level Elevation 2160
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date

1/28/2013

Elevation
K.B. 2171
D.F.
G.L. 2160

Run Number

One

Depth Driller

4460

Depth Logger

4461

Bottom Logged Interval

4460

Top Log Interval

1100

Casing Driller

8.625 @ 1101

Casing Logger

1098

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

9300

Density / Viscosity

9.3 70

pH / Fluid Loss

10.0 12.8

Source of Sample

Flowline

Rm @ Meas. Temp

.50 @ 55

Rmf @ Meas. Temp

.38 @ 55

Rmc @ Meas. Temp

.68 @ 55

Source of Rmf / Rmc

Charts

Rm @ BHT

.23 @ 121

Operating Rig Time

4 1/2 Hours

Max Rec. Temp. F

121

Equipment Number

15

Location

Hays

Recorded By

D. Martin

Witnessed By

Kevin Timson

<<< Fold Here >>>

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.

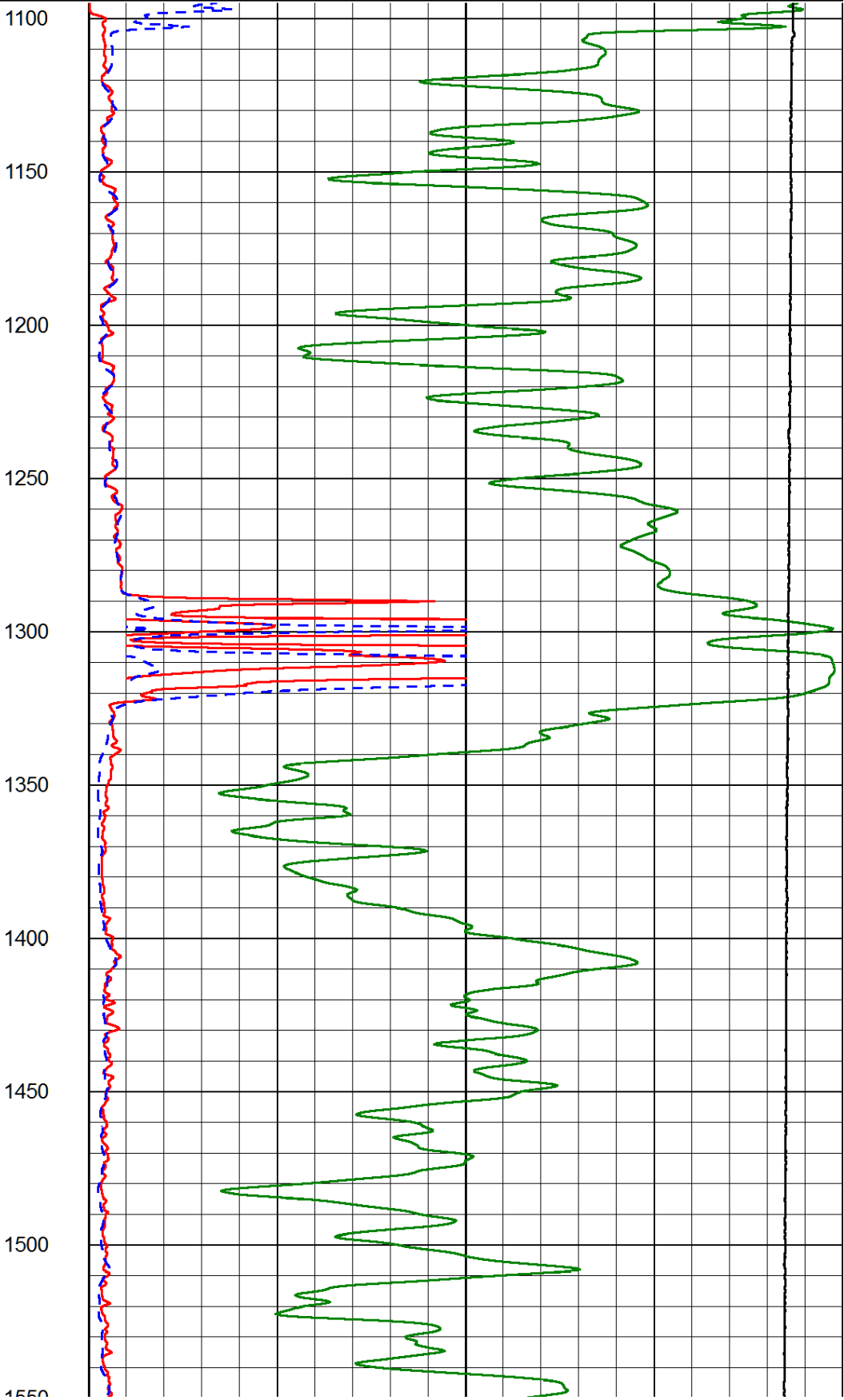
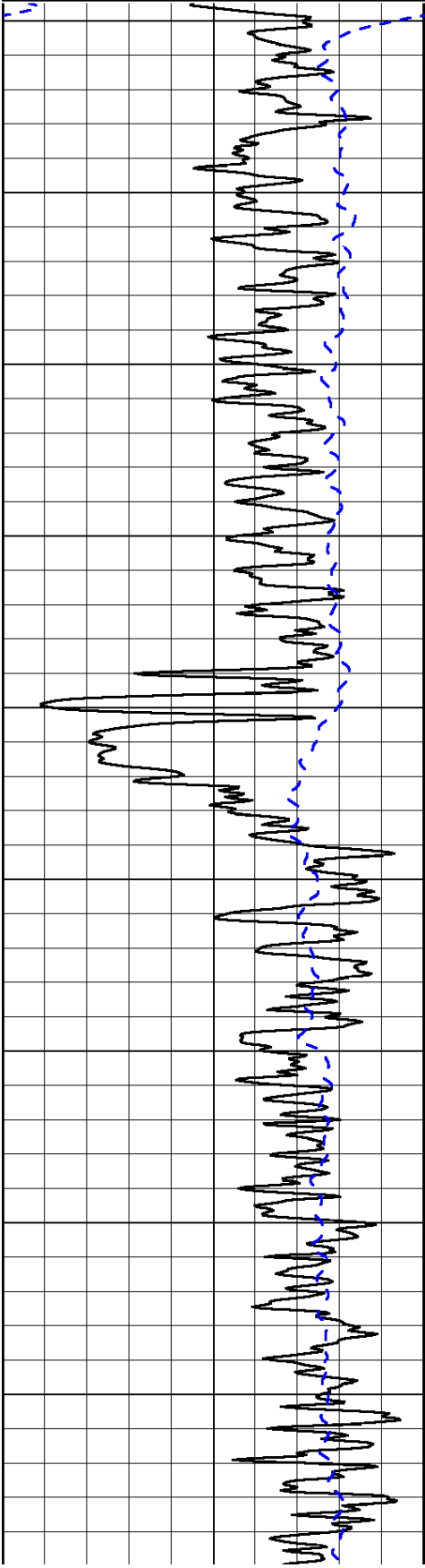
Comments

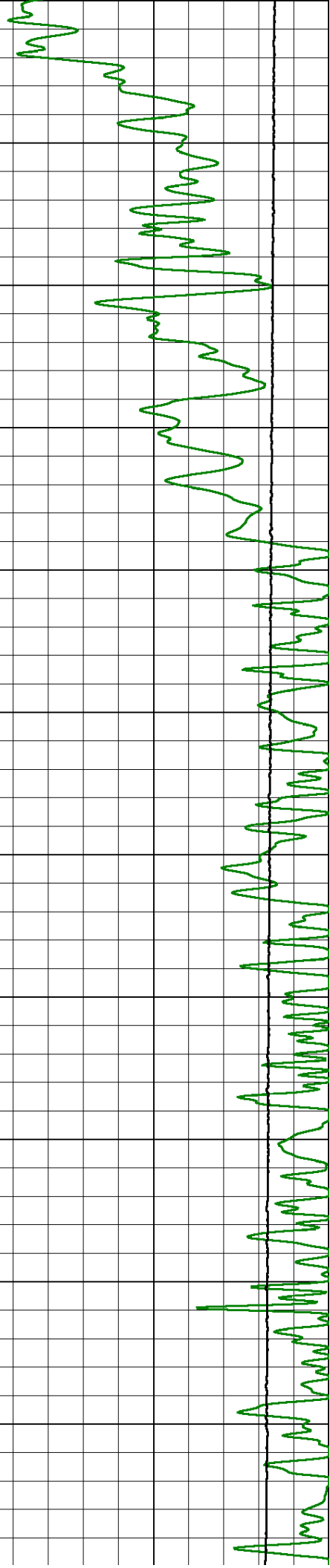
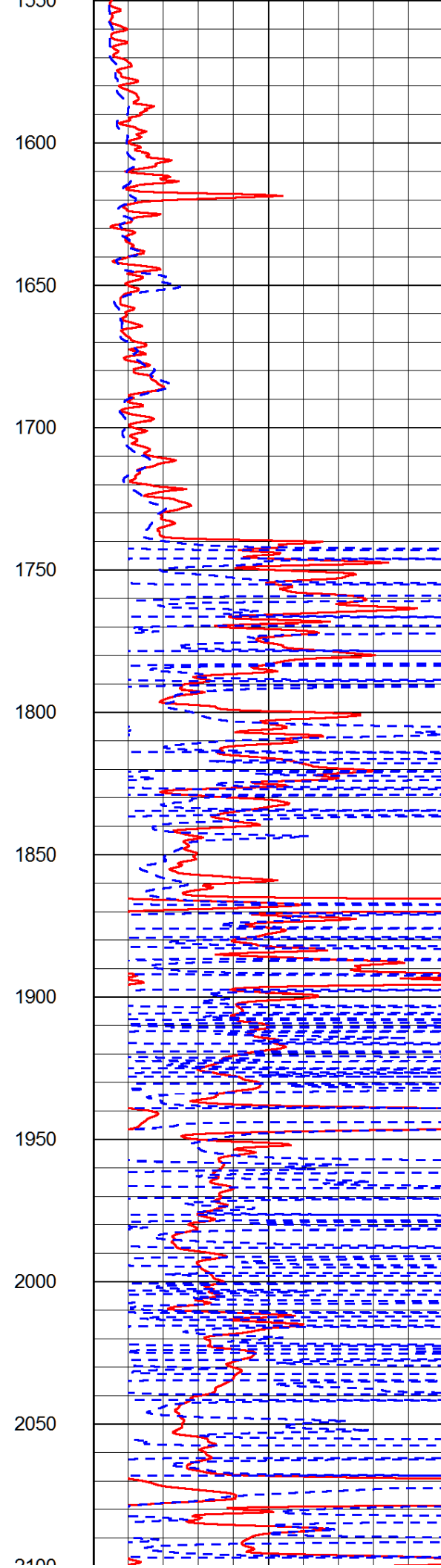
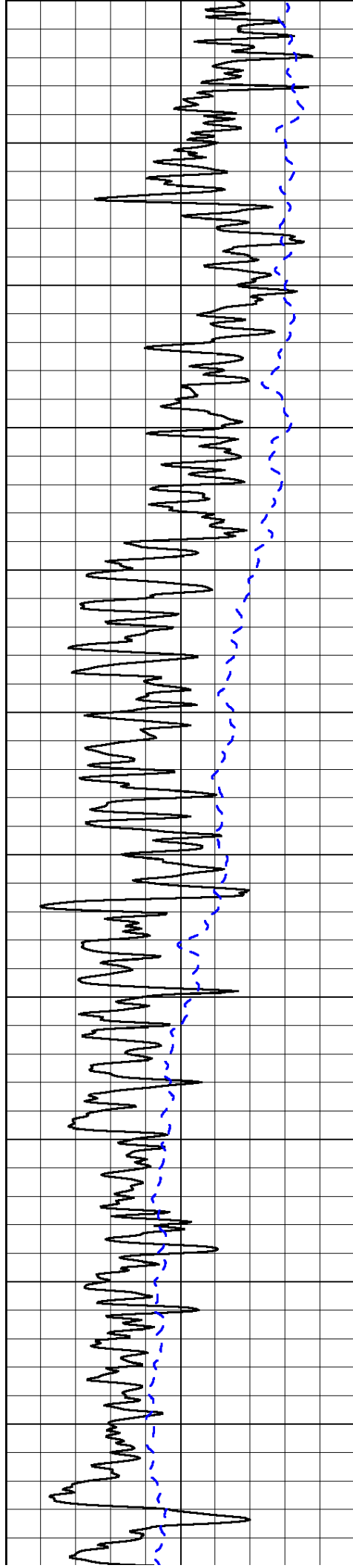
Thank you for using Log-Tech, Inc.
(785) 625-3858

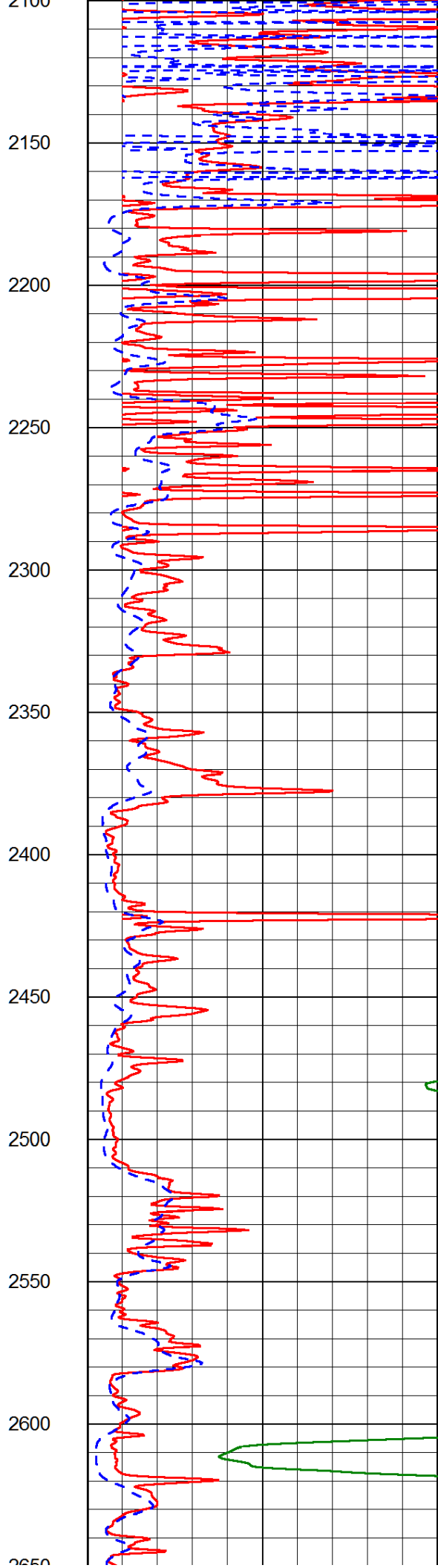
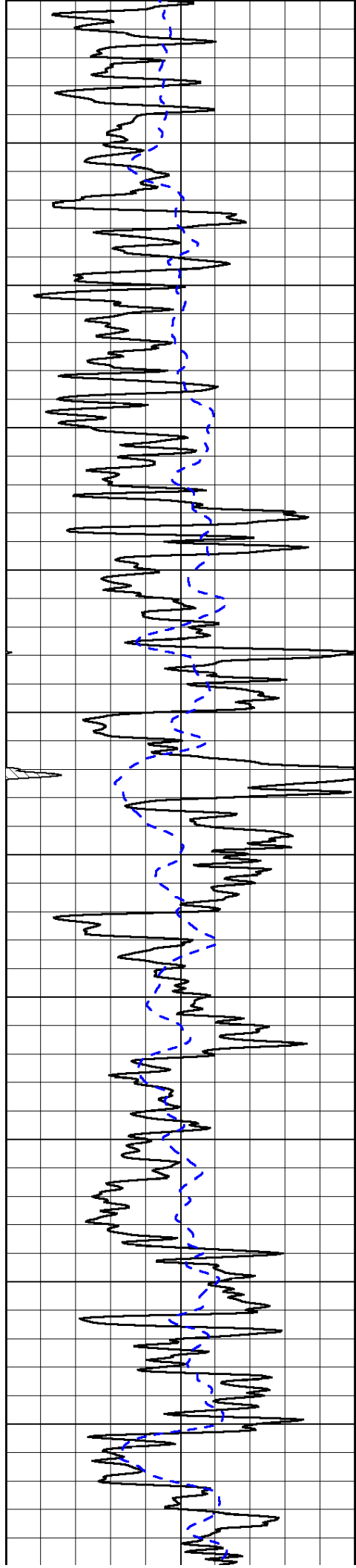
Burdett, KS
6 W to 233 Rd., 2 S to P Rd.,
3/4 W, N Into

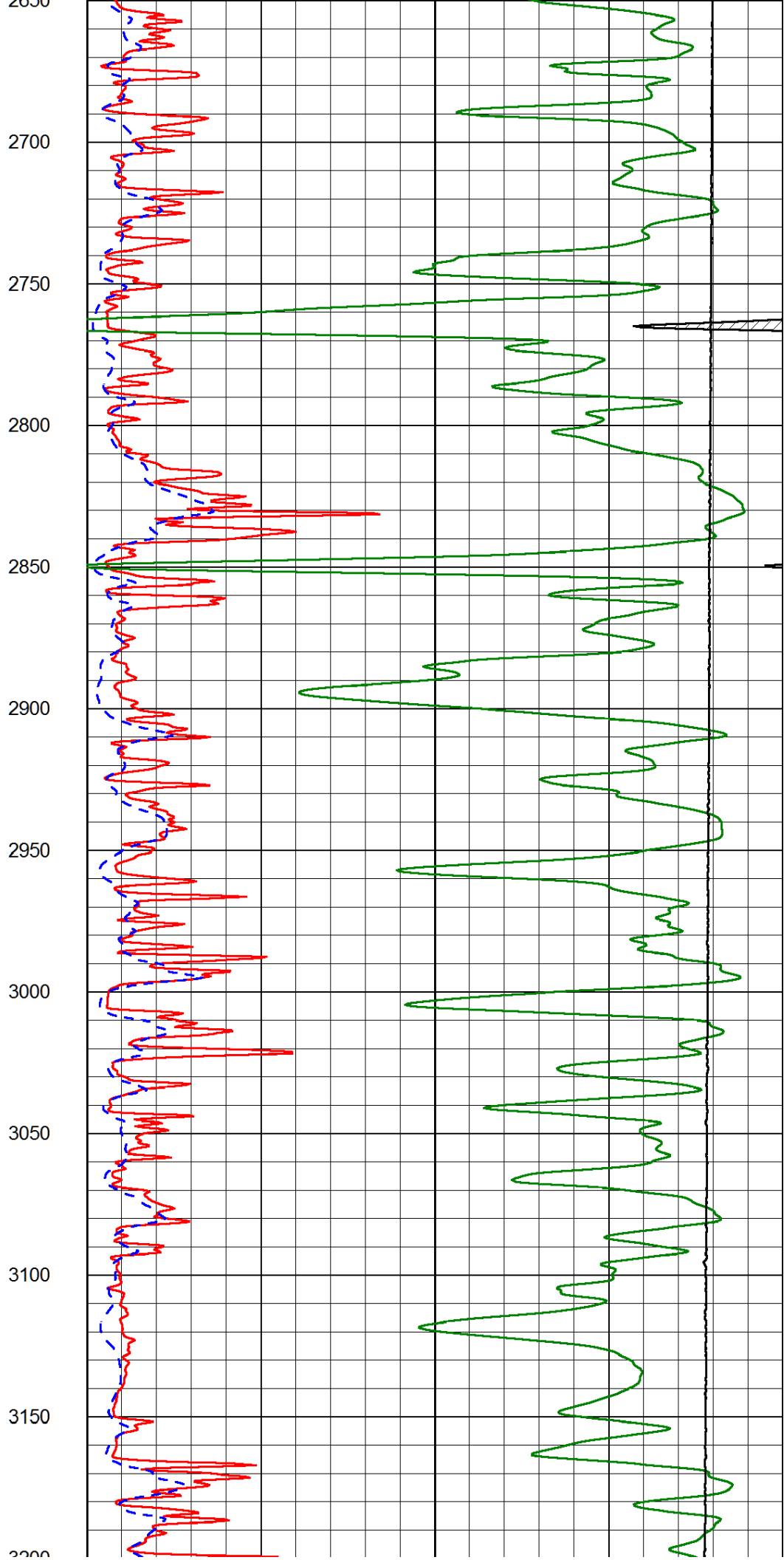
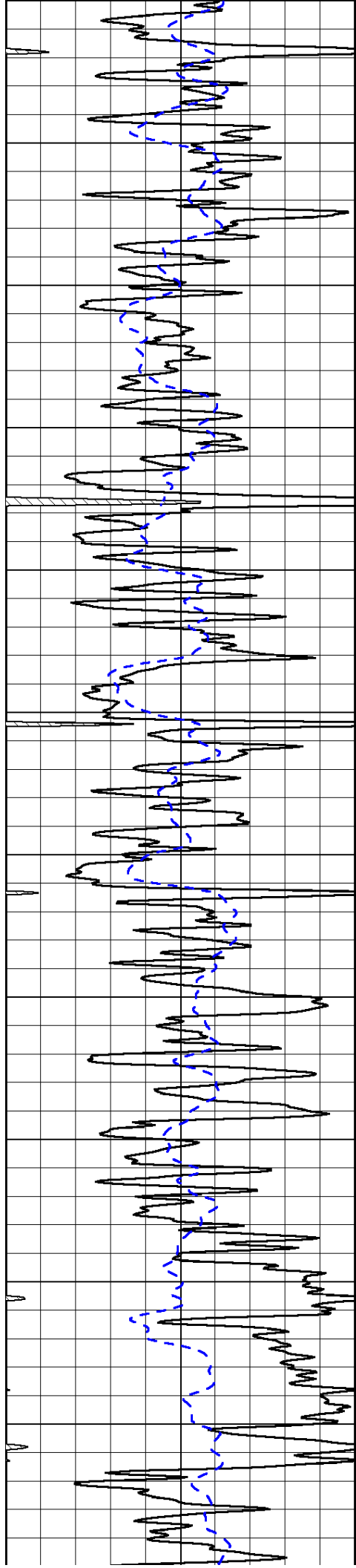
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-200	SP (mV)	0

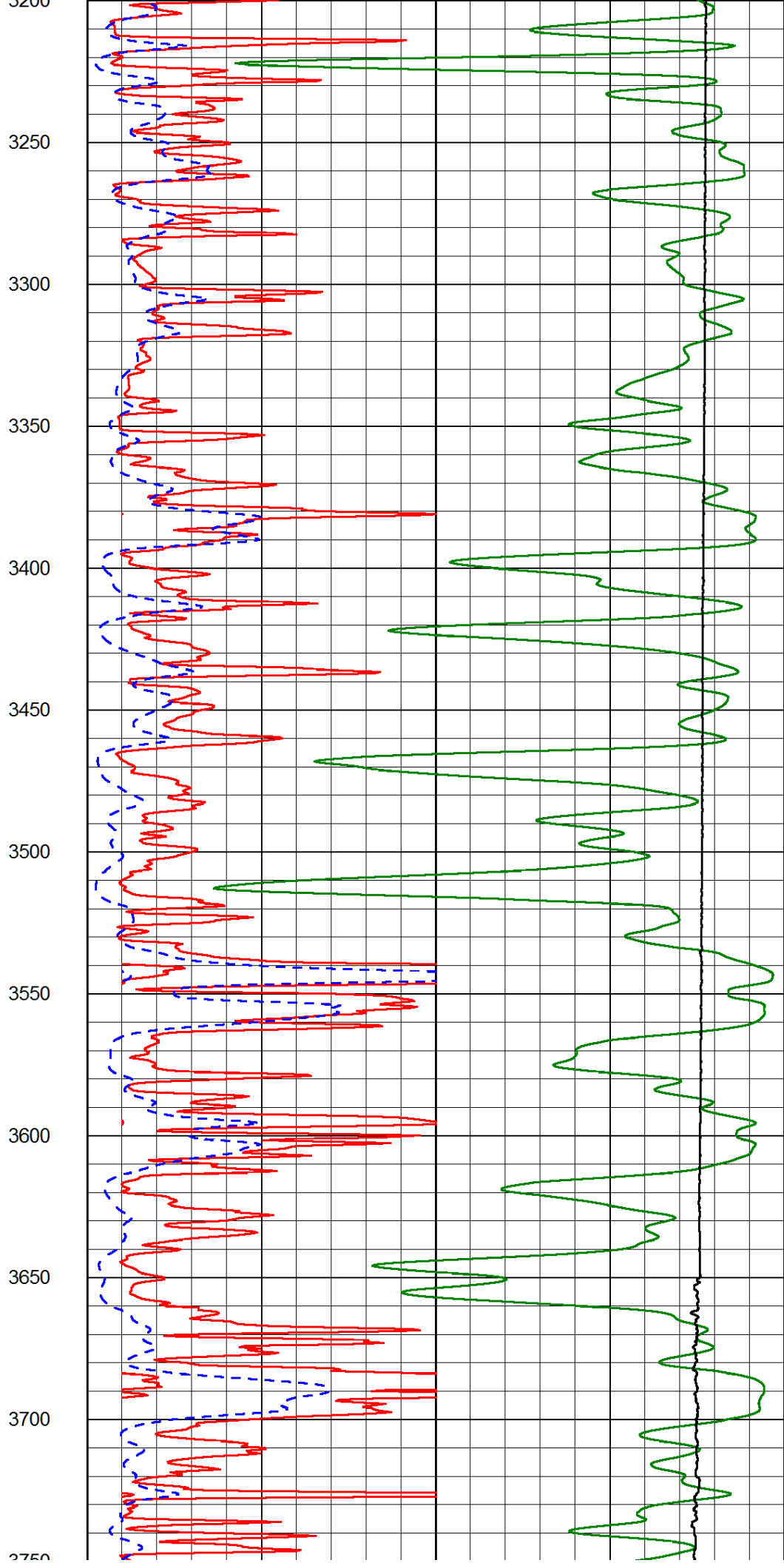
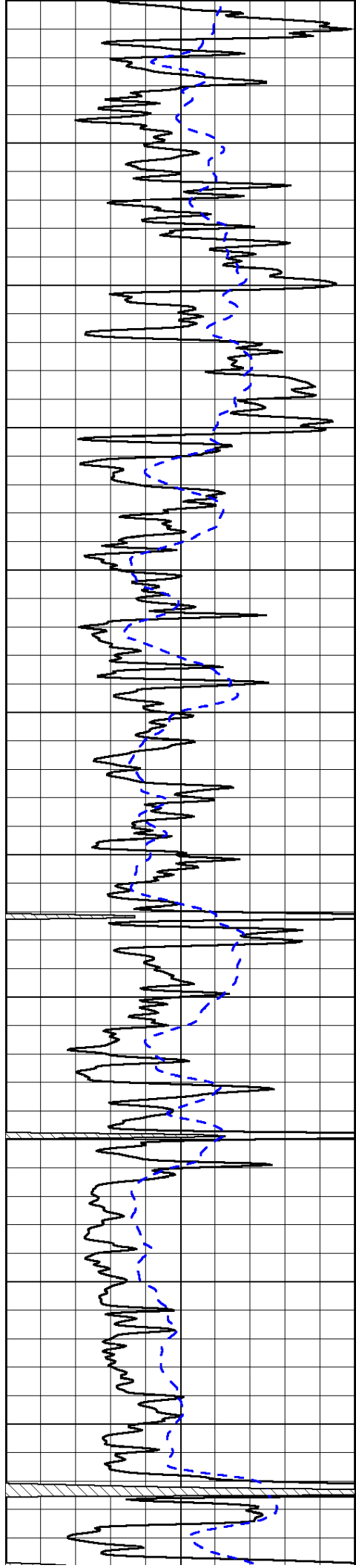
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

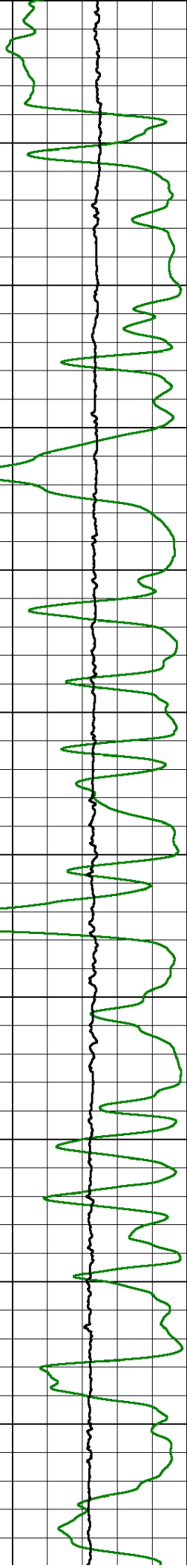
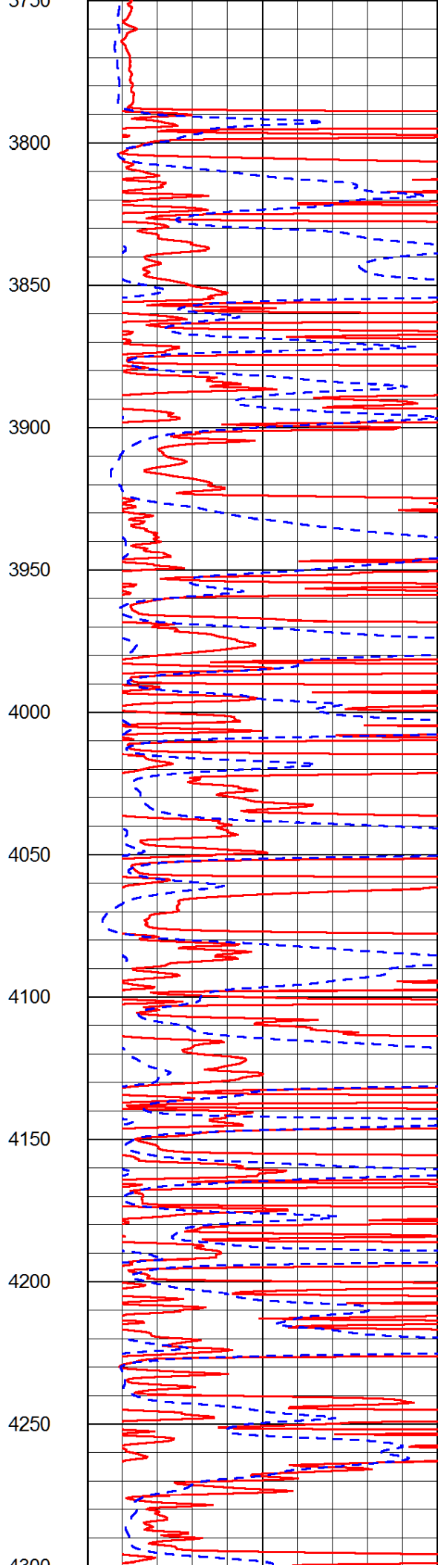
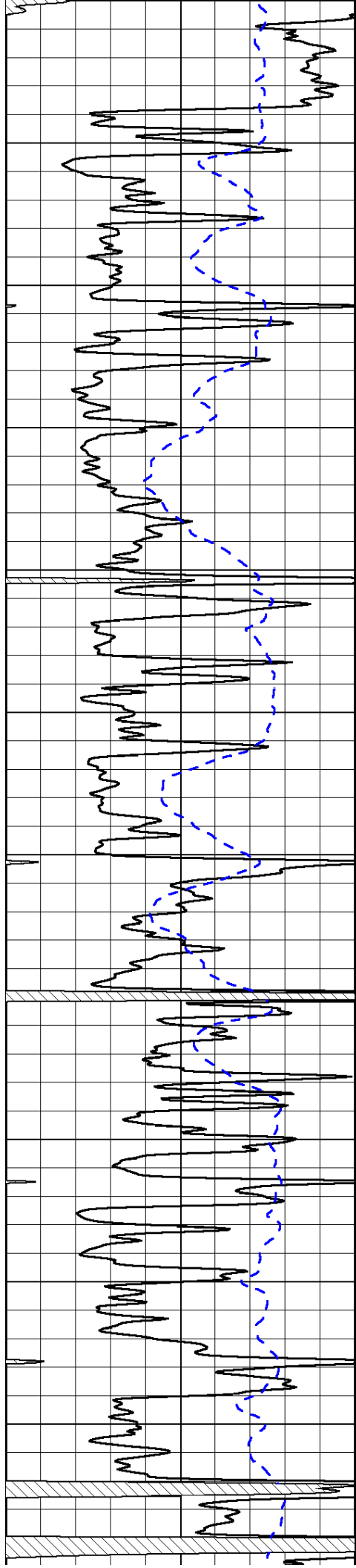


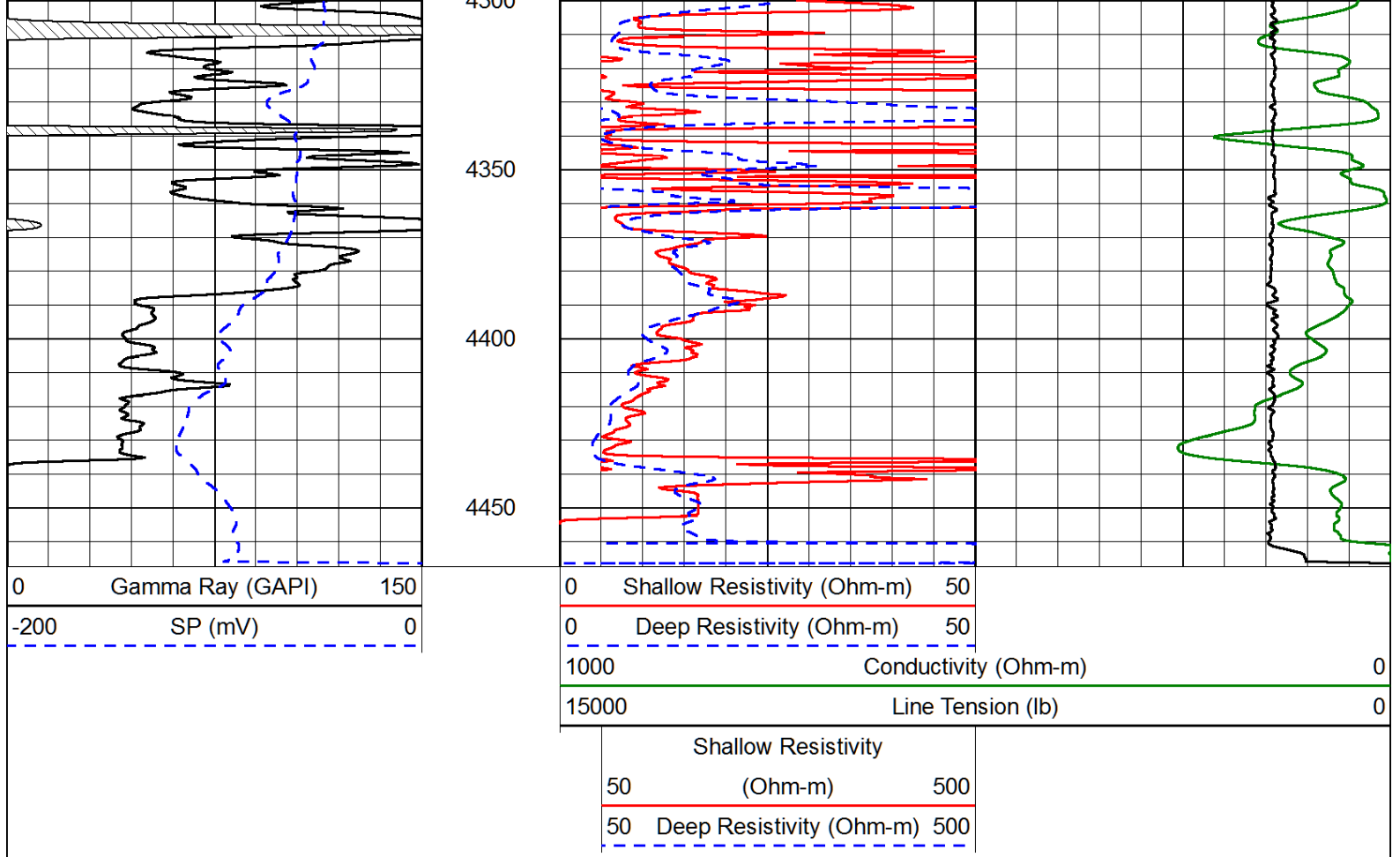




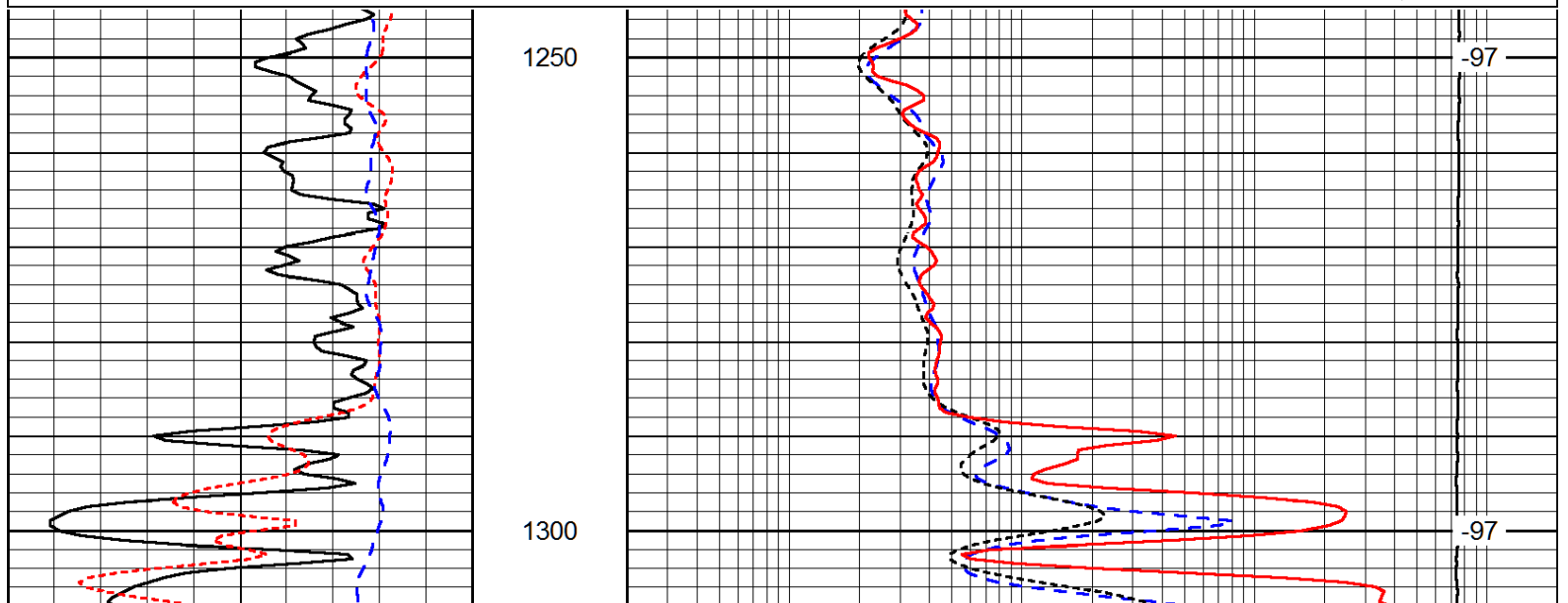
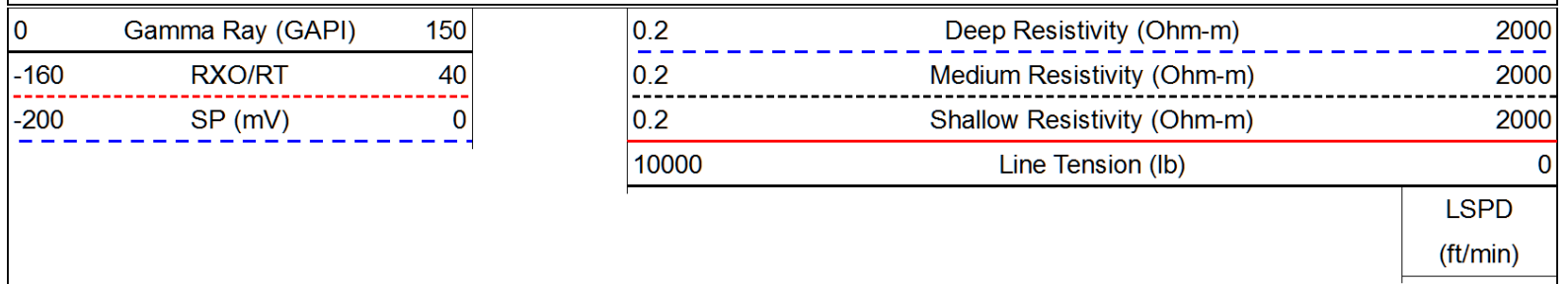


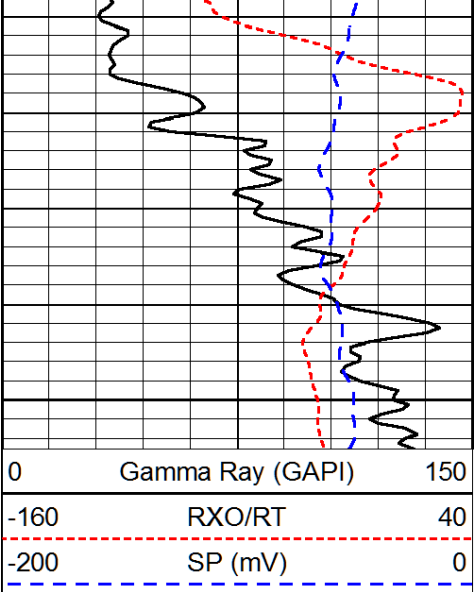




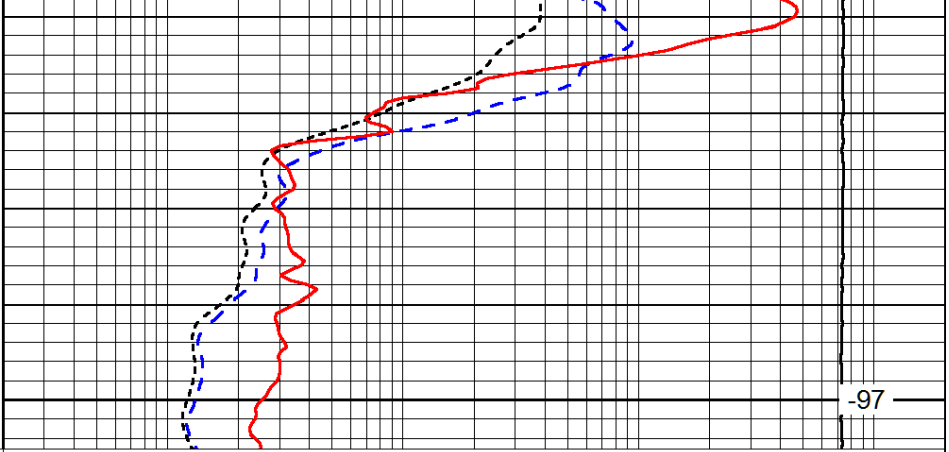


Database File: amwhd.db
 Dataset Pathname: DIL/amwstk
 Presentation Format: dil
 Dataset Creation: Mon Jan 28 10:32:32 2013
 Charted by: Depth in Feet scaled 1:240





1350

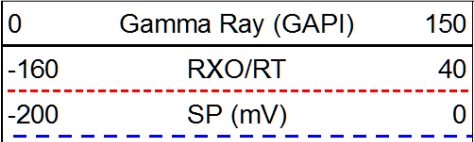


-97

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

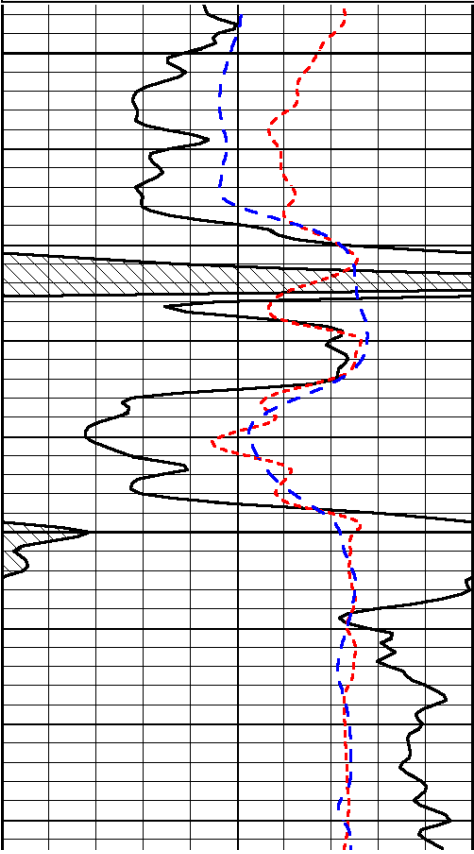
LSPD
(ft/min)

Database File: amwhd.db
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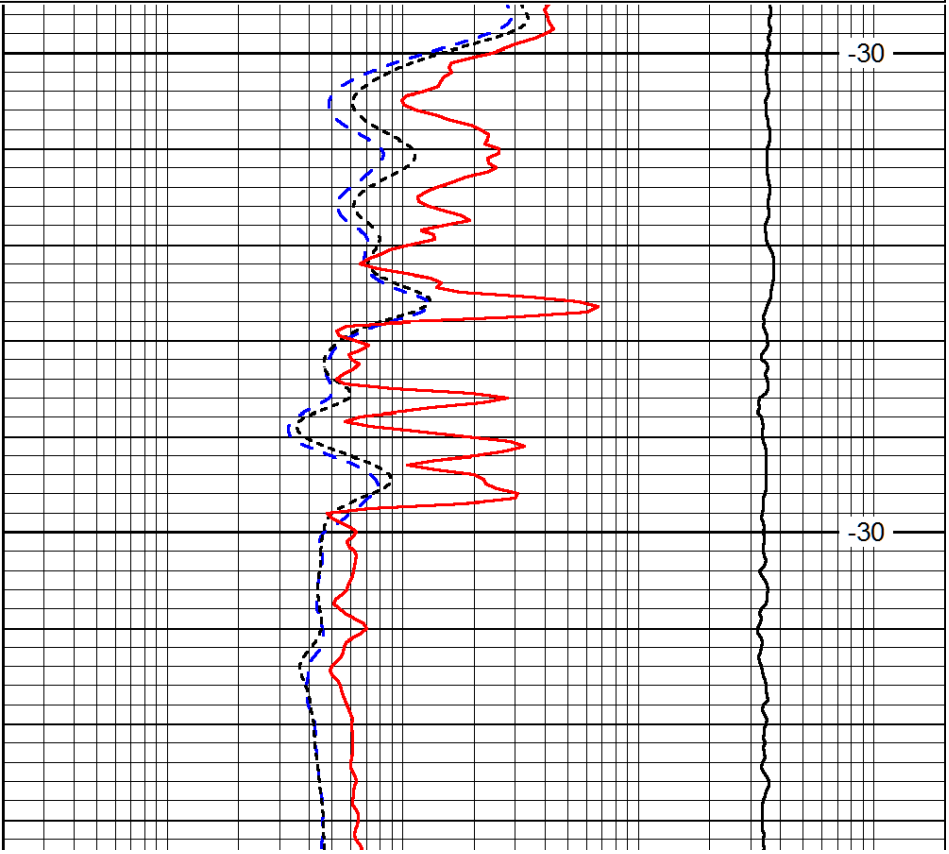
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0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)



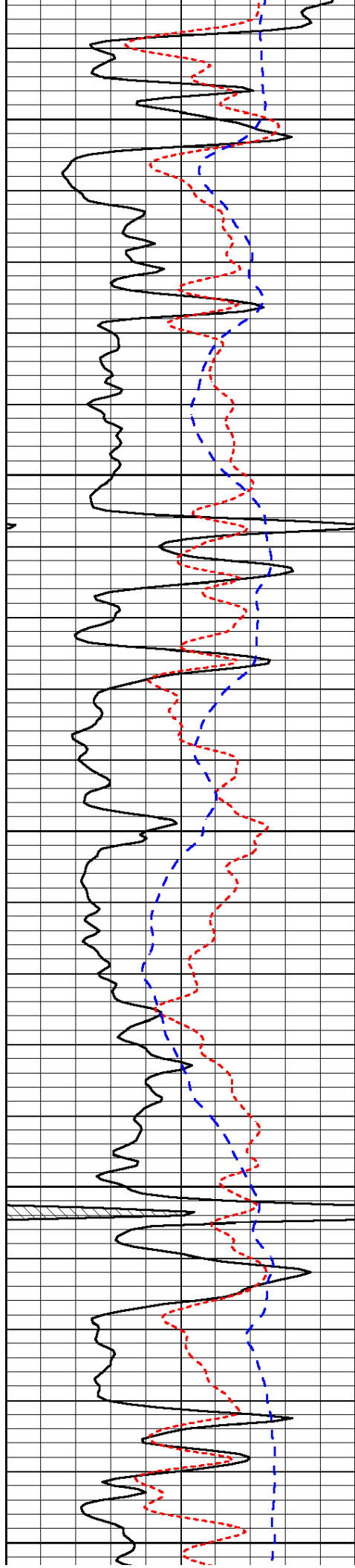
3700

3750



-30

-30



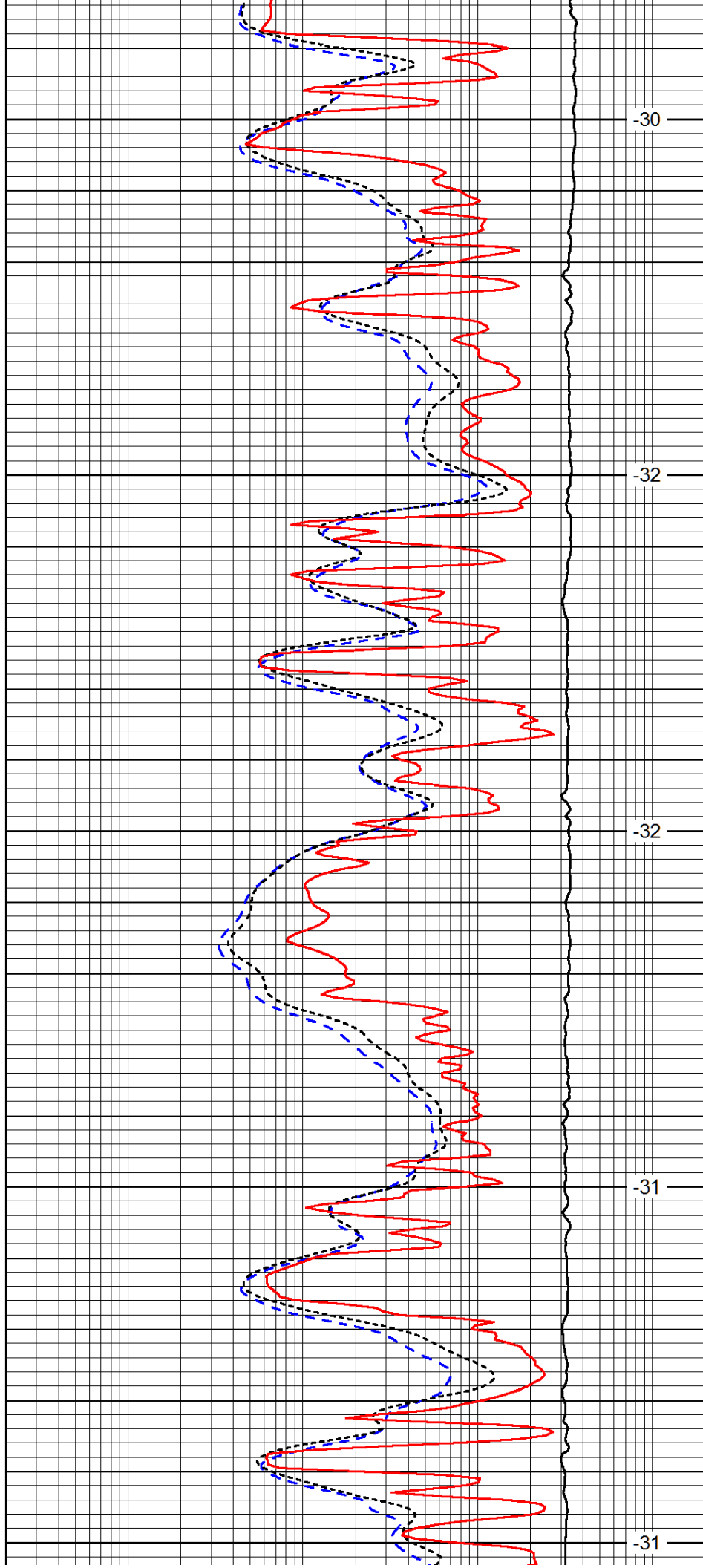
3800

3850

3900

3950

4000



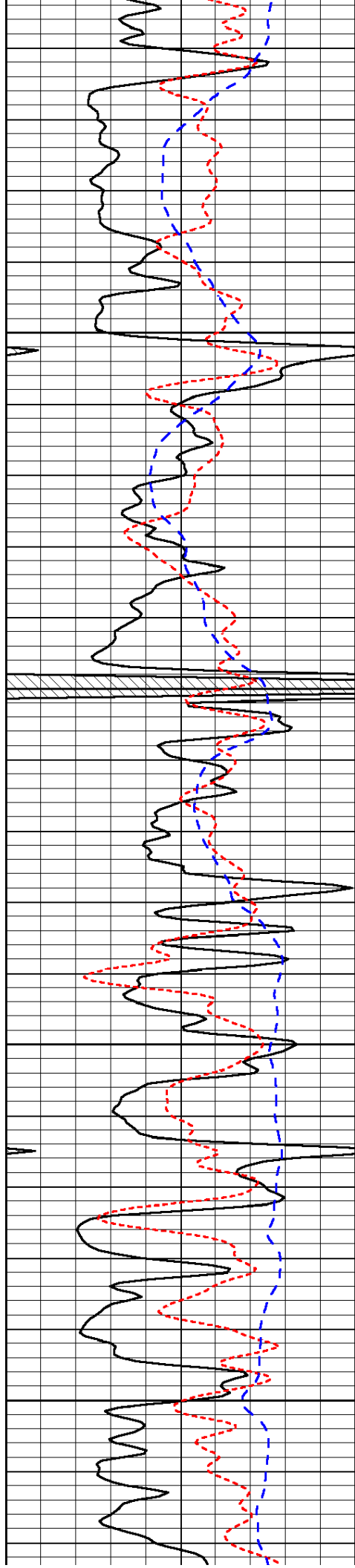
-30

-32

-32

-31

-31

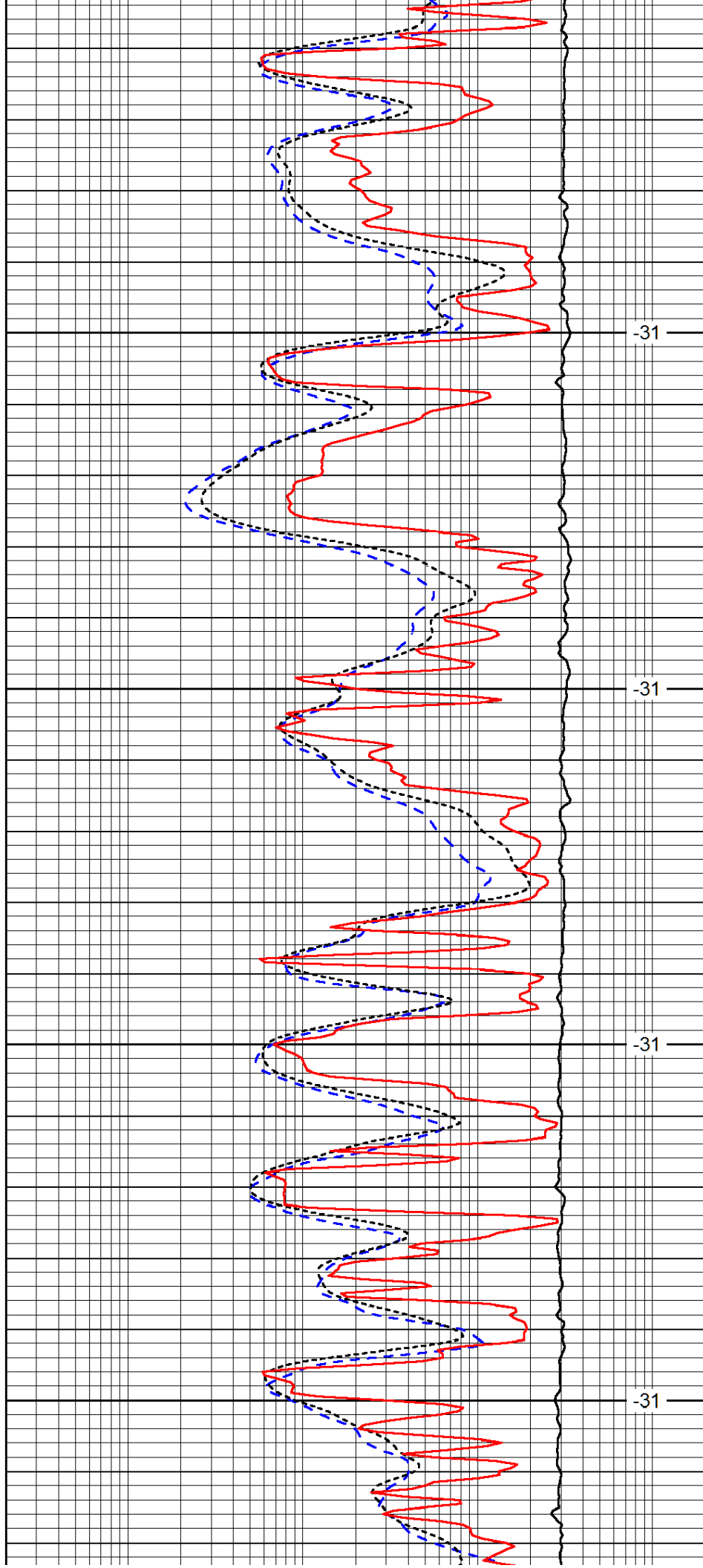


4050

4100

4150

4200

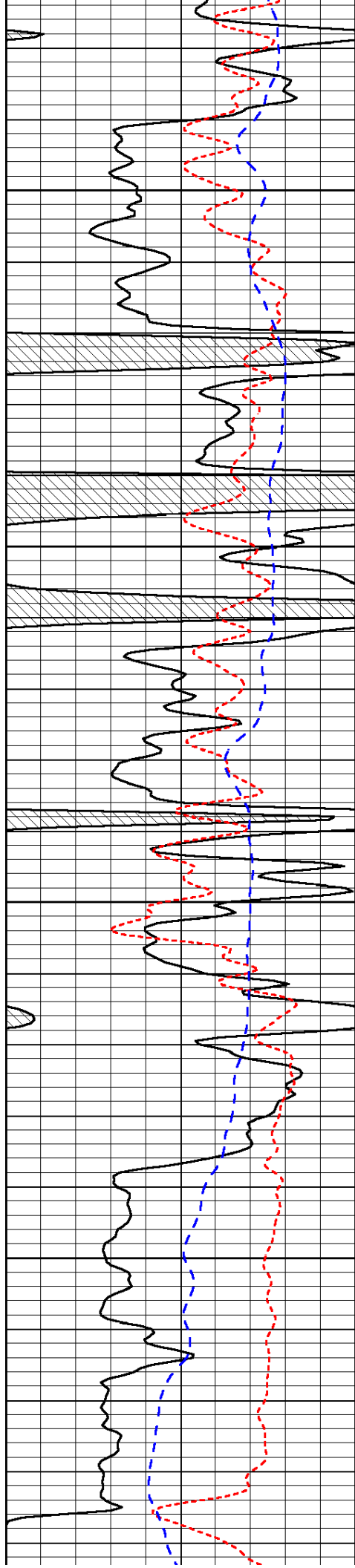


-31

-31

-31

-31

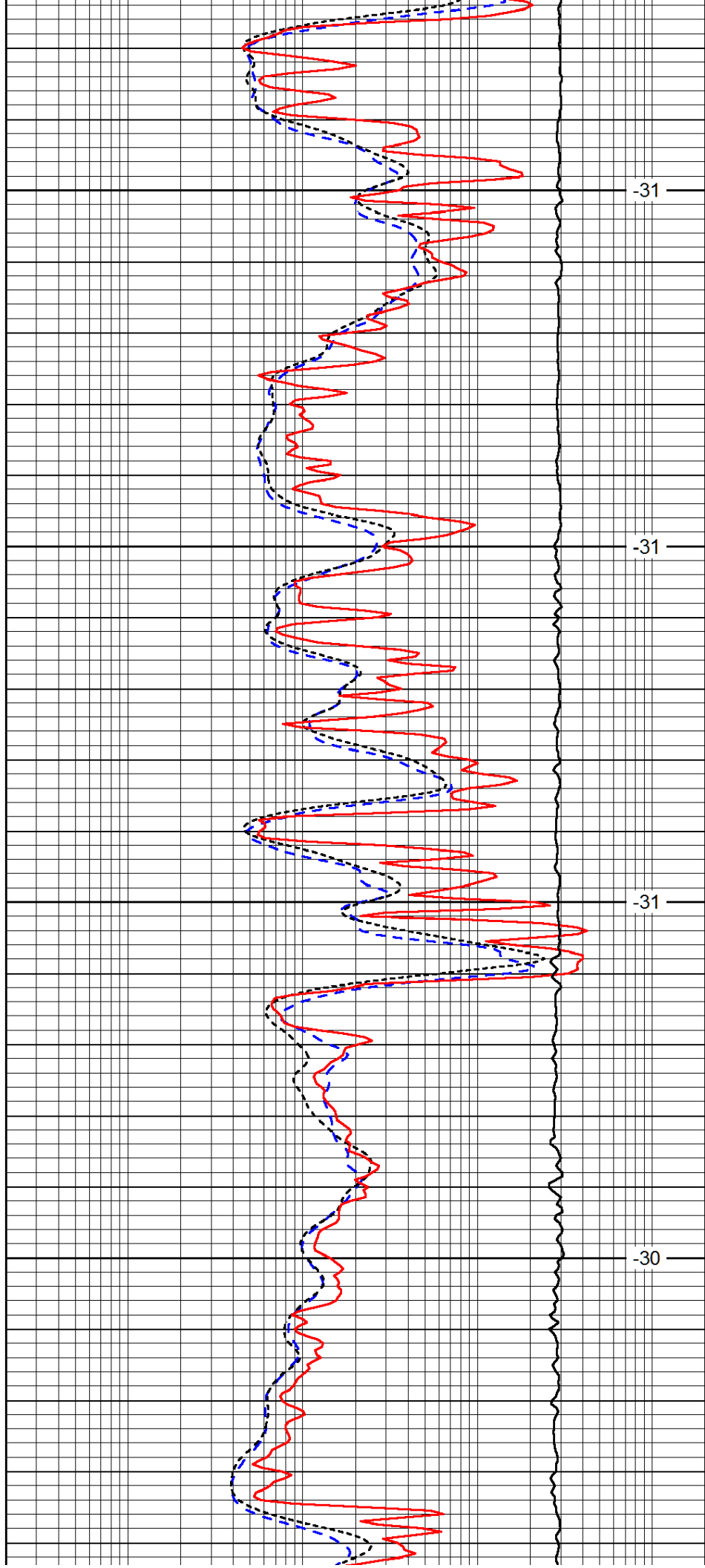


4250

4300

4350

4400

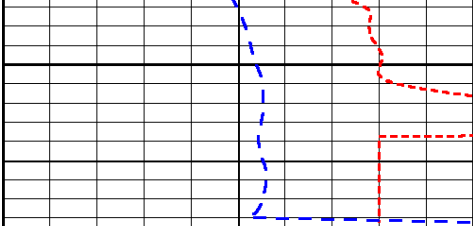


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-31

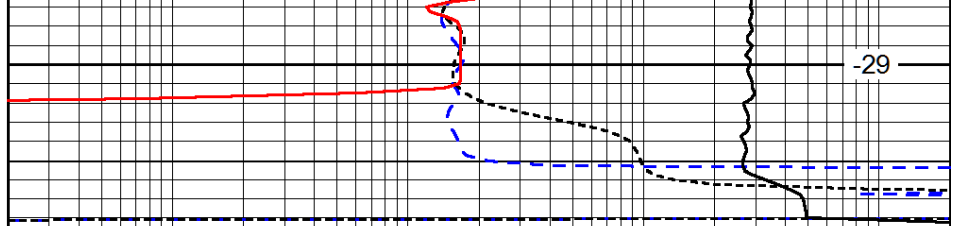
-31

-30



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

4450



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)