



Pioneer Energy Services

Dual Induction Log

API No.

15-167-23,906-00-00

Company H&D Exploration, LLC

Well Staudinger No. 1

Field Driscoll West

County Russell State

Kansas

Location

W/2-SE-SE-SW
330' FSL & 2179' FWL

Other Services
CNL/CDL
MEI/BHCS

Sec: 25

Twp: 15S

Rge: 12W

Elevation

Permanent Datum Ground Level Elevation 1854
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 1863
D.F. 1854
G.L. 1854

Date

9/29/13

Run Number

One

Depth Driller

3375

Depth Logger

3376

Bottom Logged Interval

3375

Top Log Interval

750

Casing Driller

8.625 @ 760

Casing Logger

761

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

3,700

Density / Viscosity

9.2 46

pH / Fluid Loss

11.0 8.8

Source of Sample

Flowline

Rm @ Meas. Temp

.42 @ 55

Rmf @ Meas. Temp

.32 @ 55

Rmc @ Meas. Temp

.57 @ 55

Source of Rmf / Rmc

Charts

Rm @ BHT

.21 @ 110

Operating Rig Time

5 Hours

Max Rec. Temp. F

110

Equipment Number

17

Location

Hays

Recorded By

J. Henrickson

Witnessed By

Jim Musgrove

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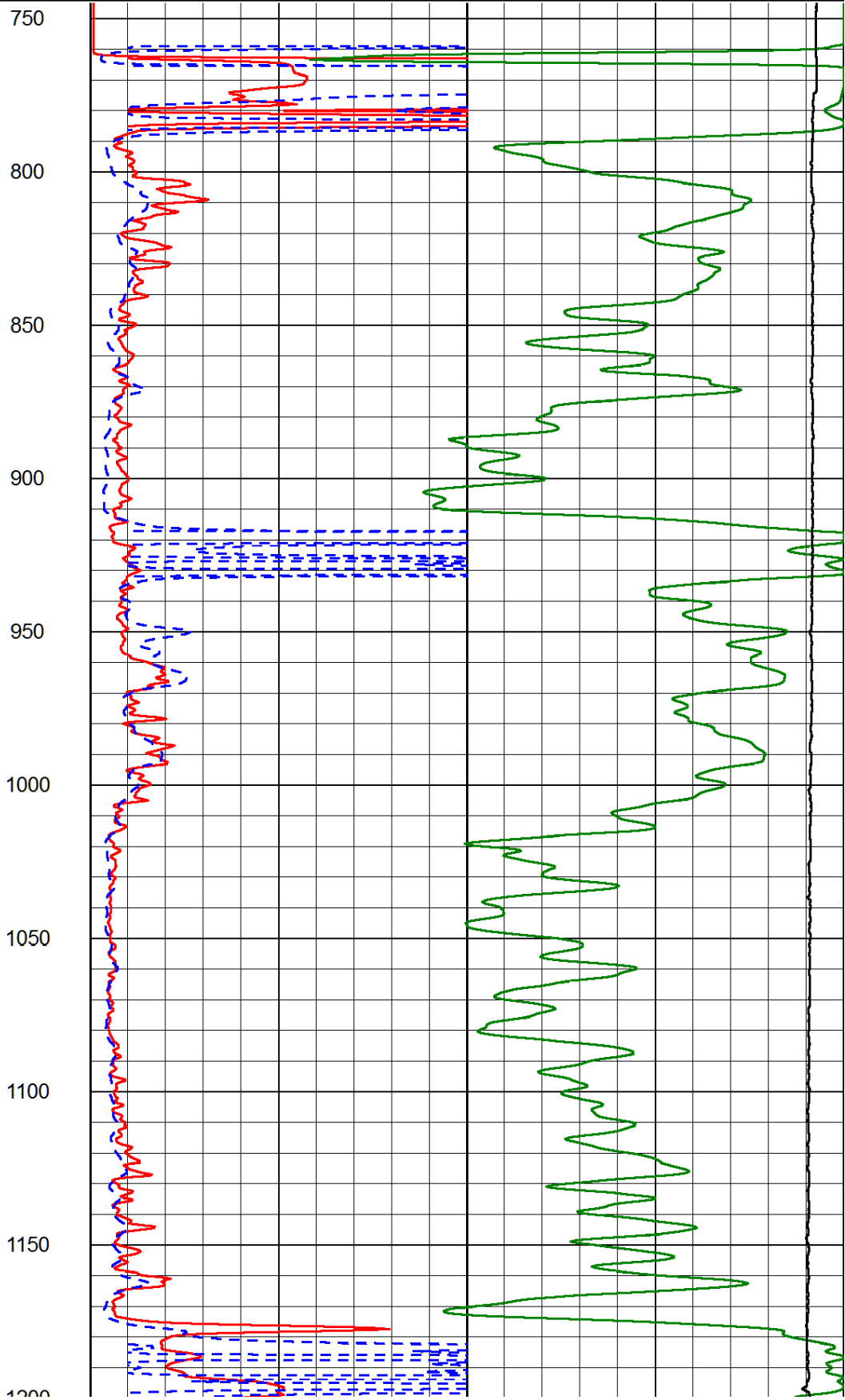
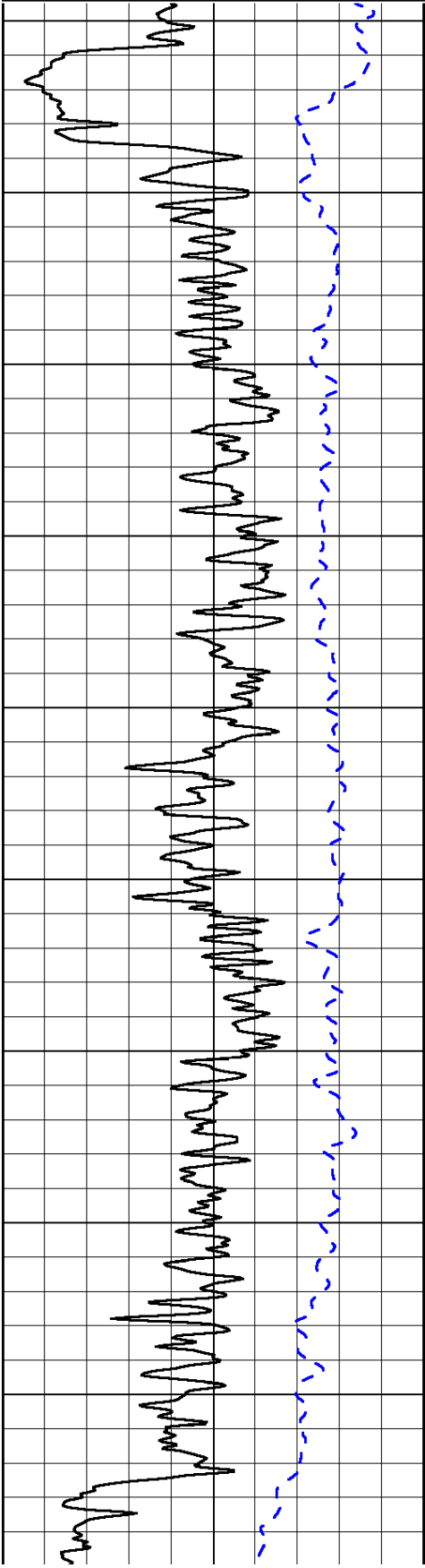
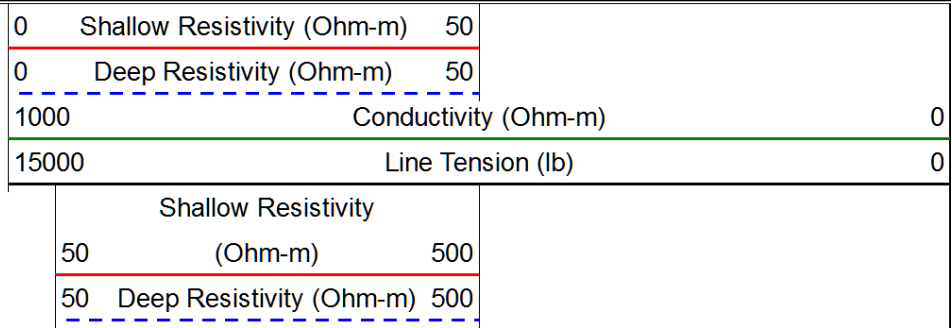
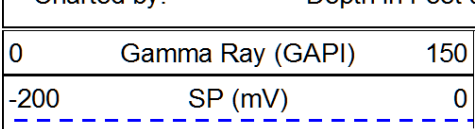
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

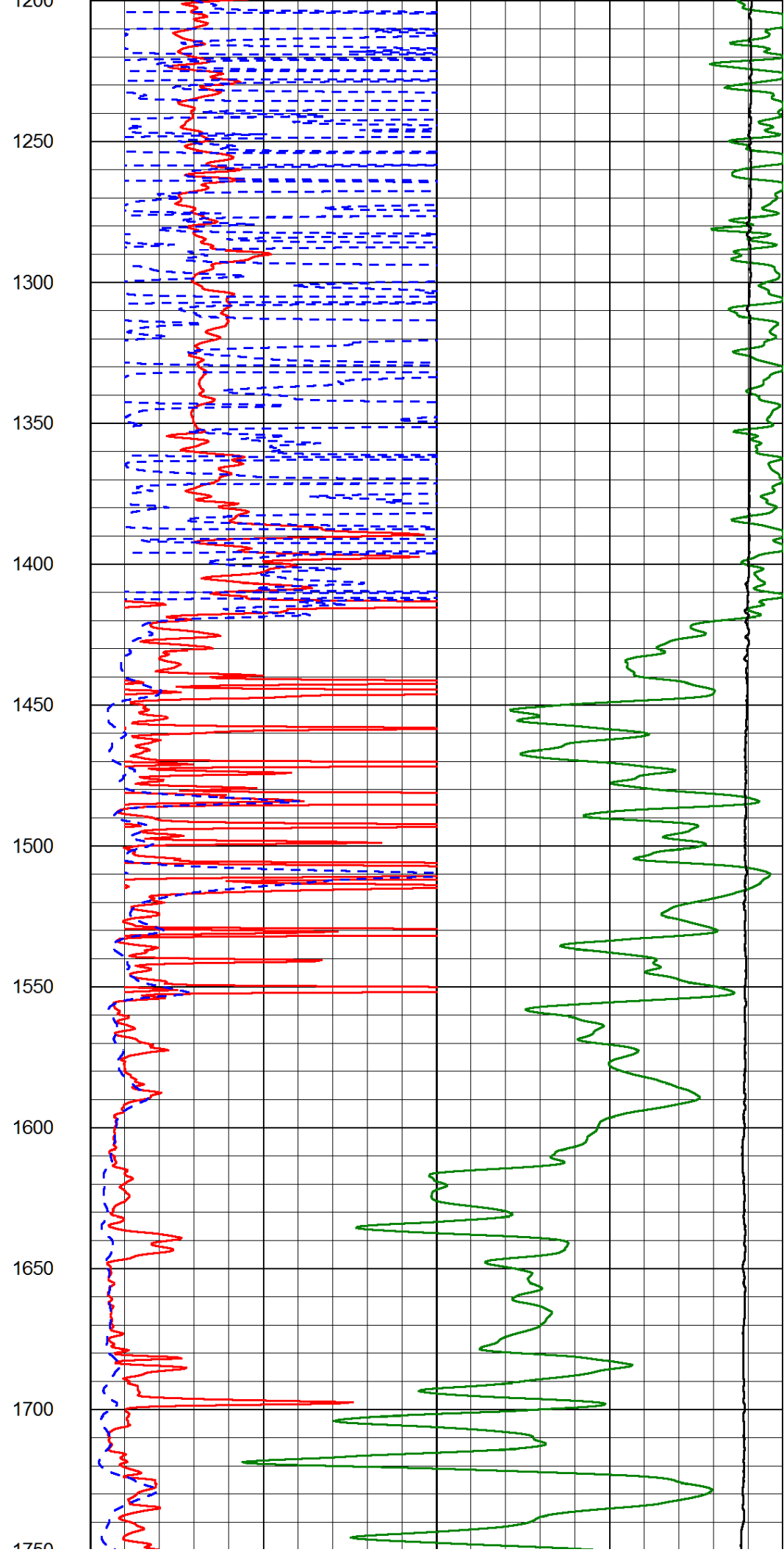
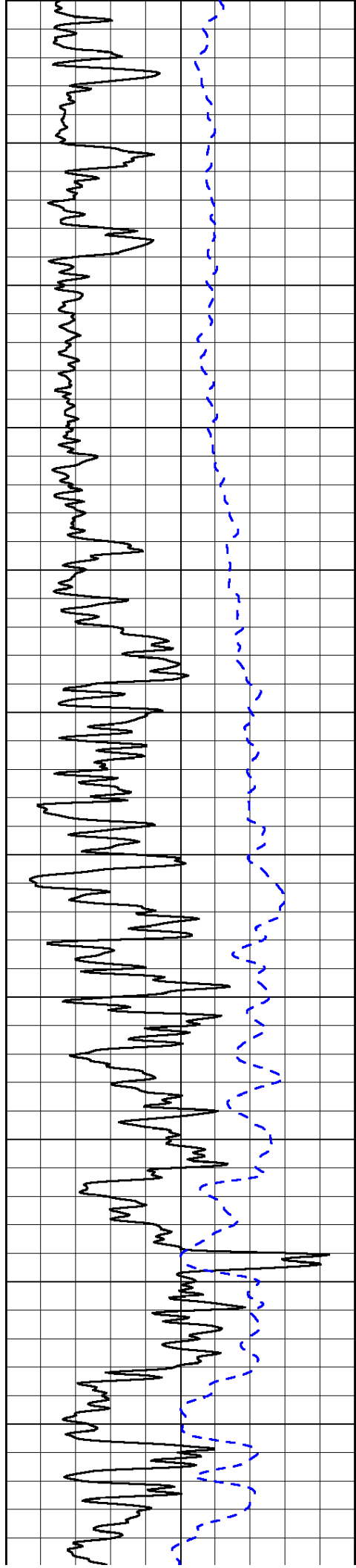
Comments

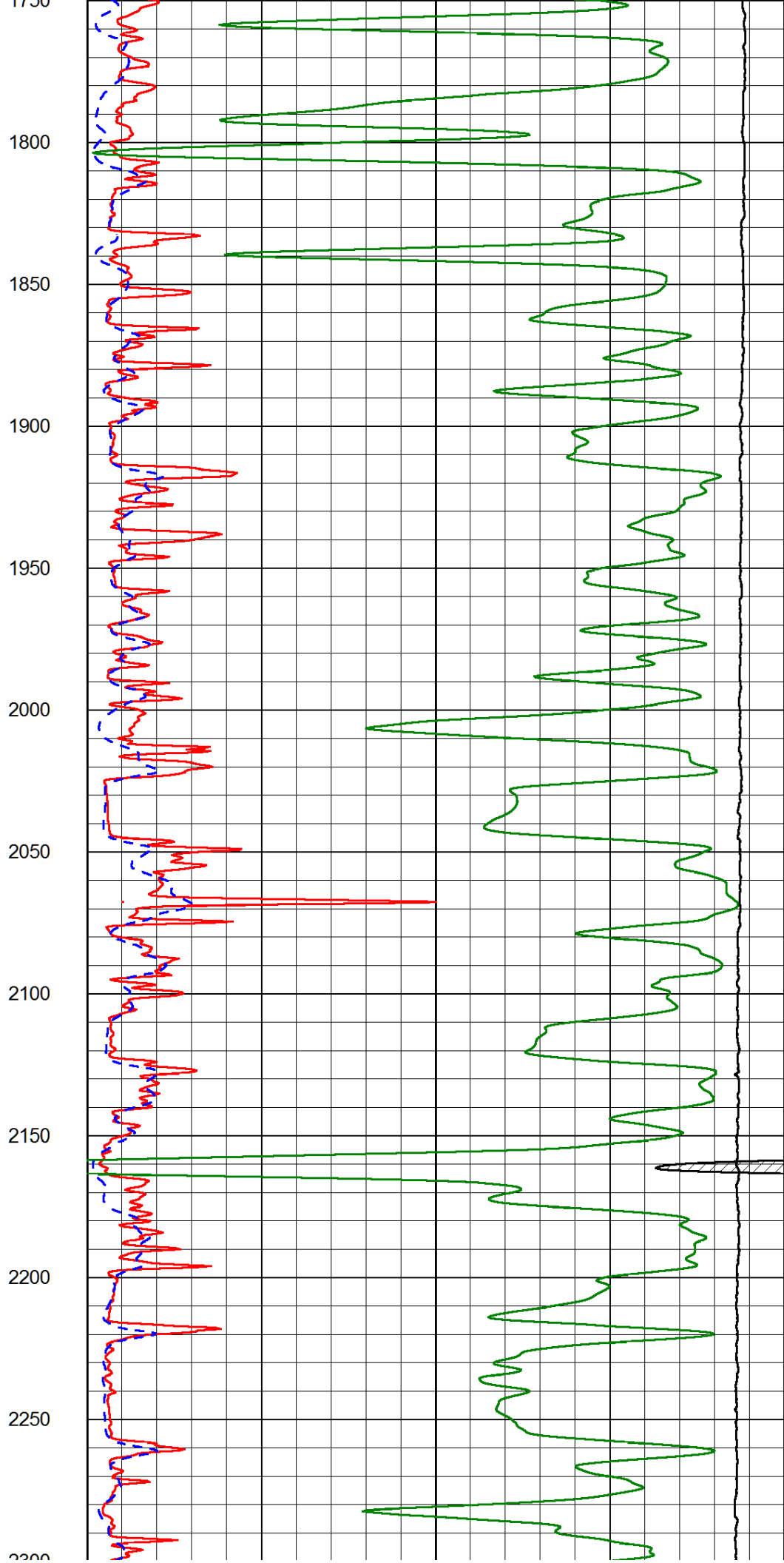
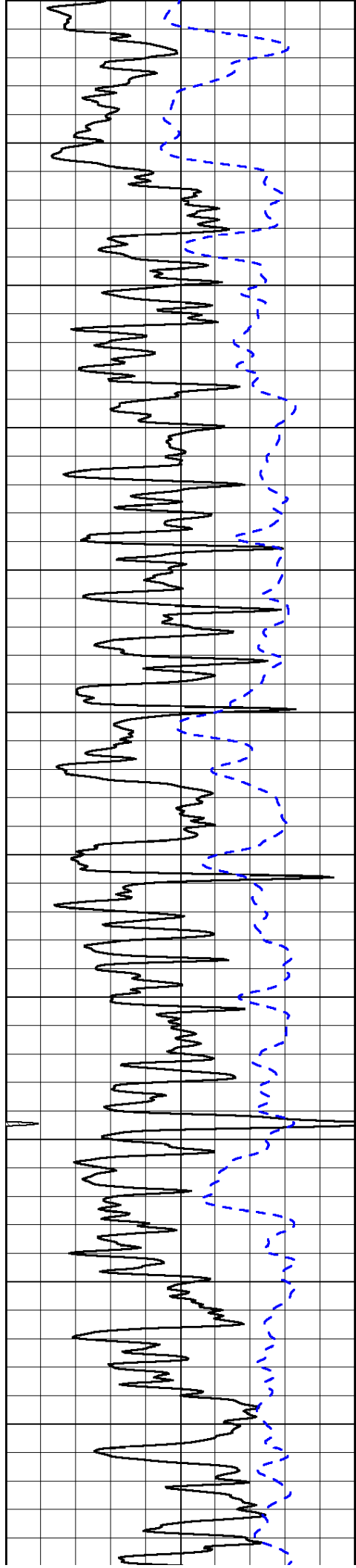
Thank you for using Log-Tech, Inc.
(785) 625-3858

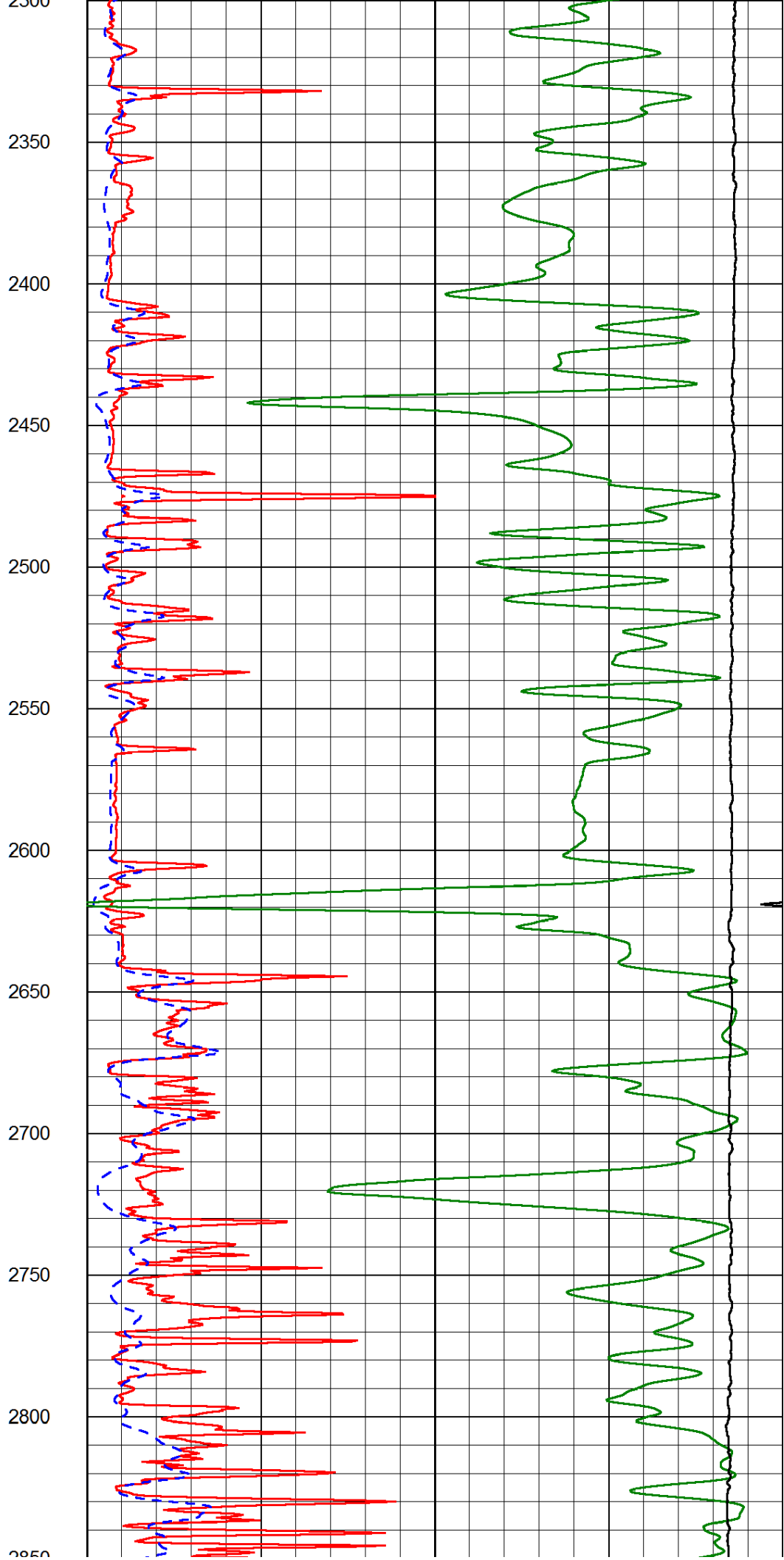
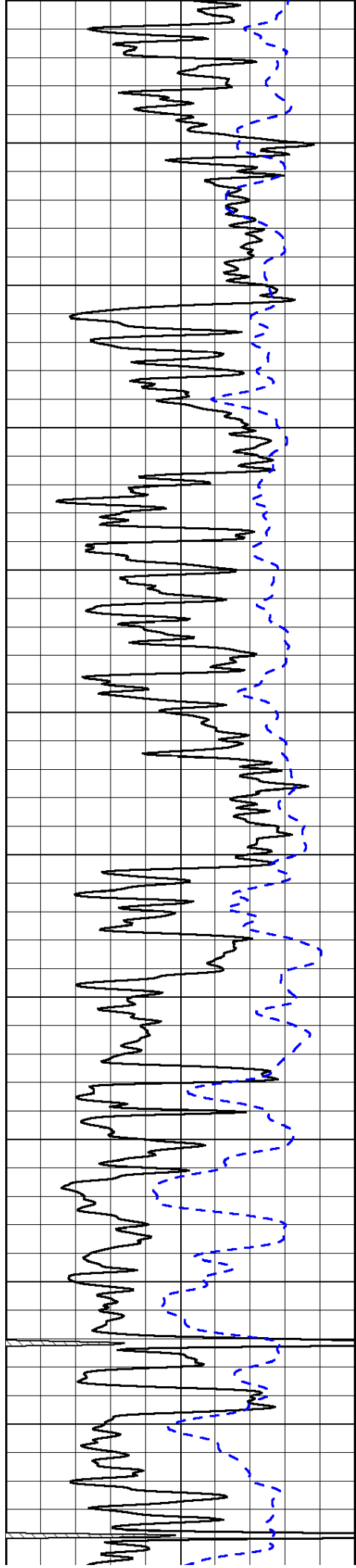
Odin Kansas
North to Church(Several Miles), 1/2 West, 1 North, 1/2 East, North Into

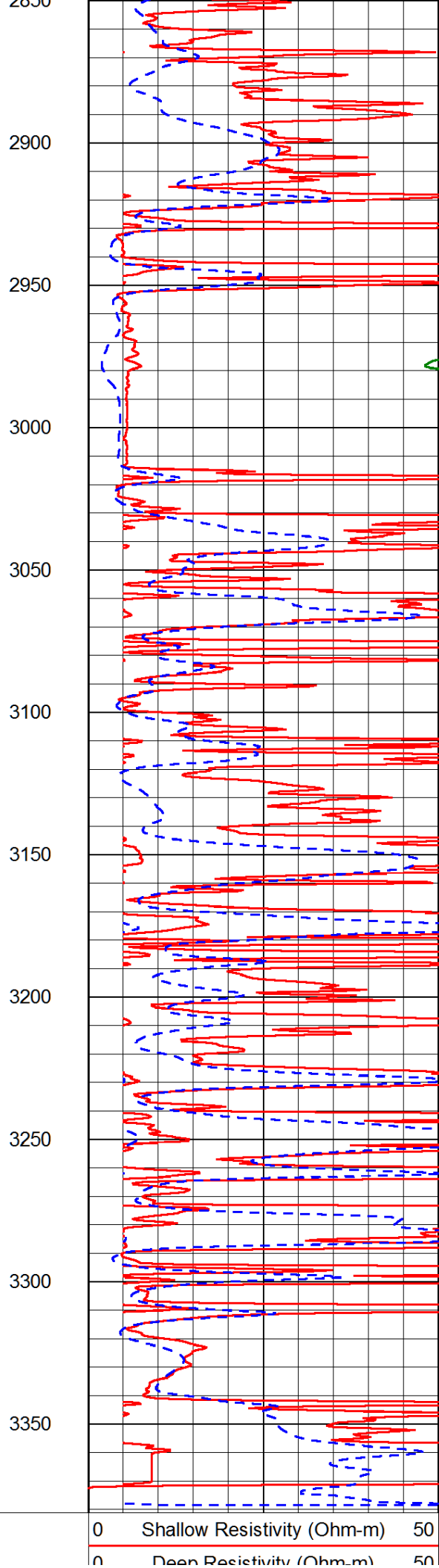
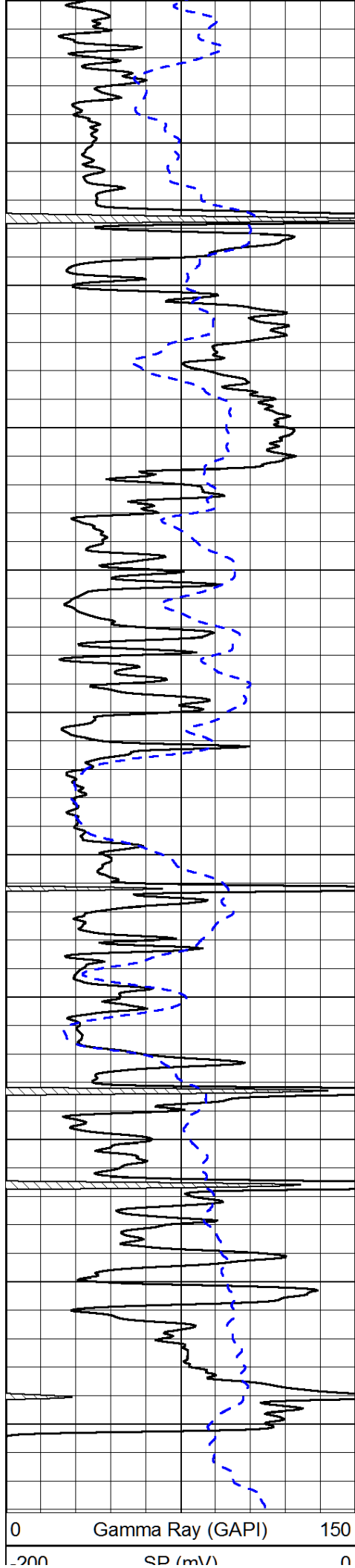
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Presentation Format: dil2in
Dataset Creation: Sun Sep 29 06:39:20 2013
Charted by: Depth in Feet scaled 1:600





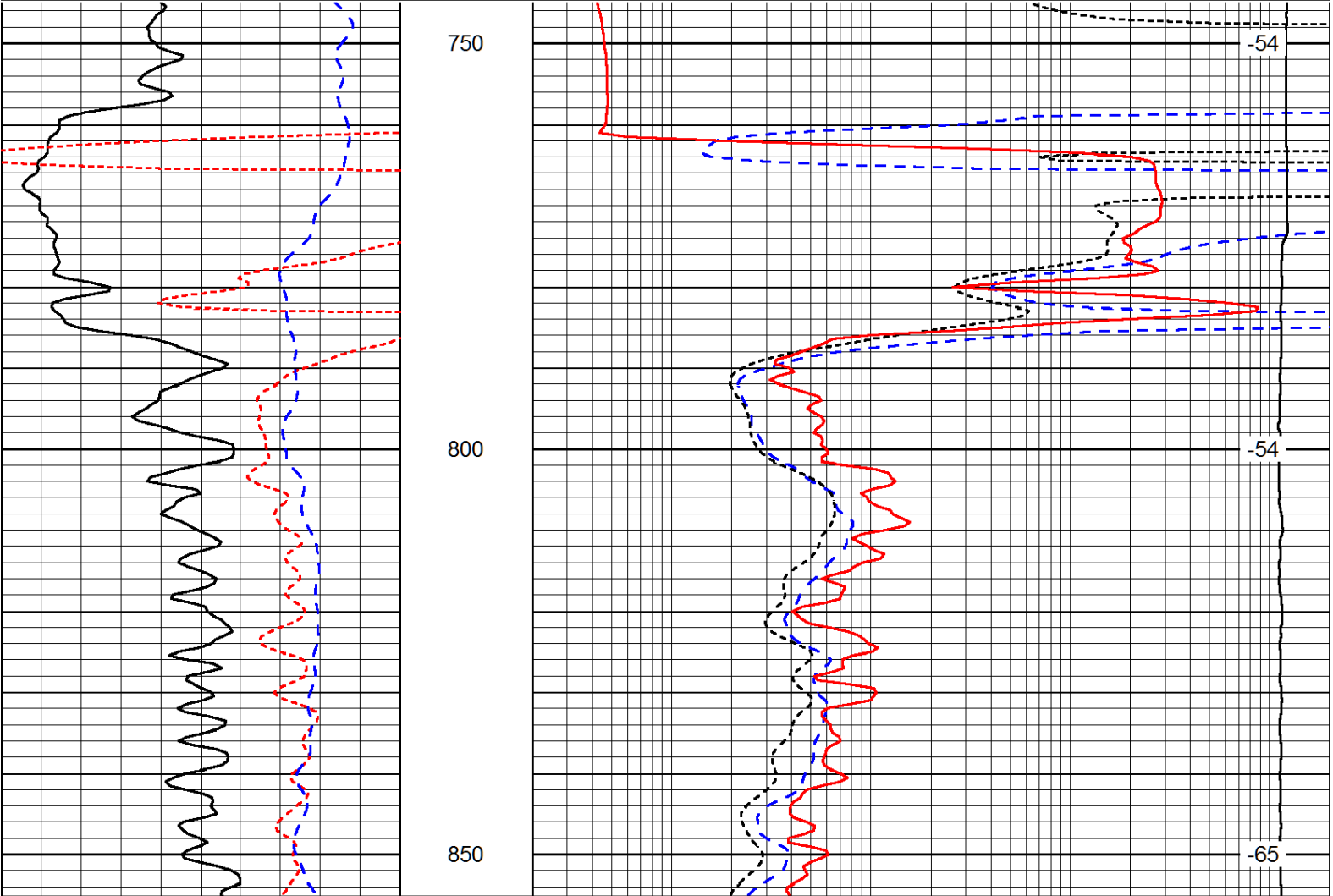






200	SP (mV)	0
0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

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Dataset Pathname: DIL/hdstk		
Presentation Format: dil		
Dataset Creation: Sun Sep 29 06:39:20 2013		
Charted by: Depth in Feet scaled 1:240		
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)



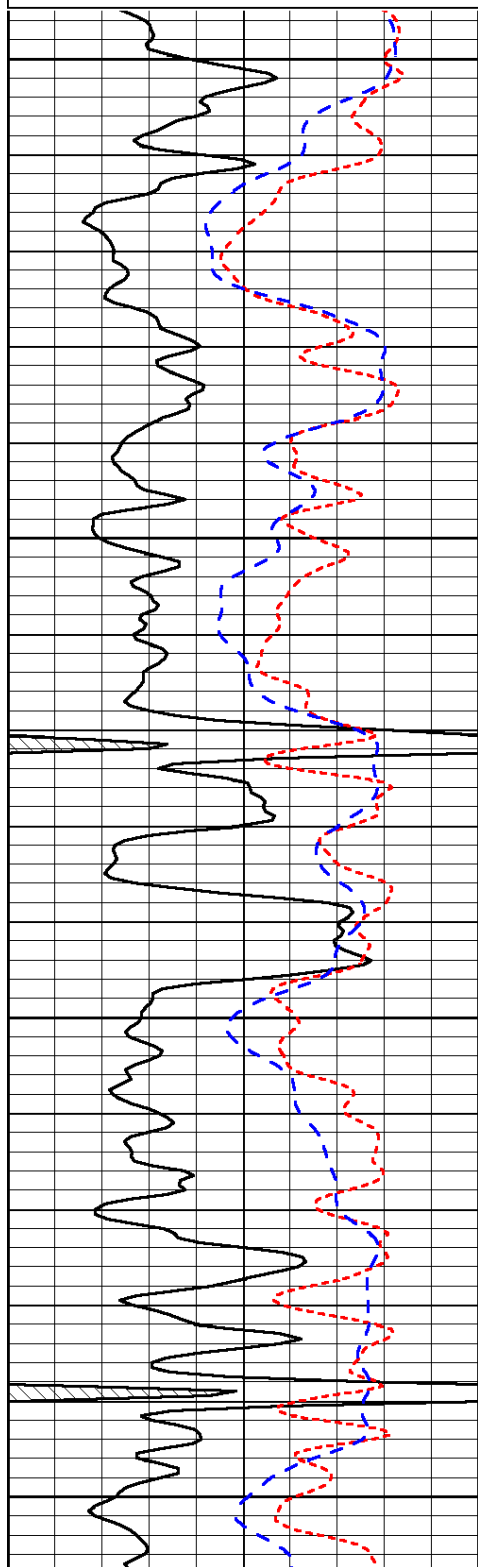
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LSPD
(ft/min)

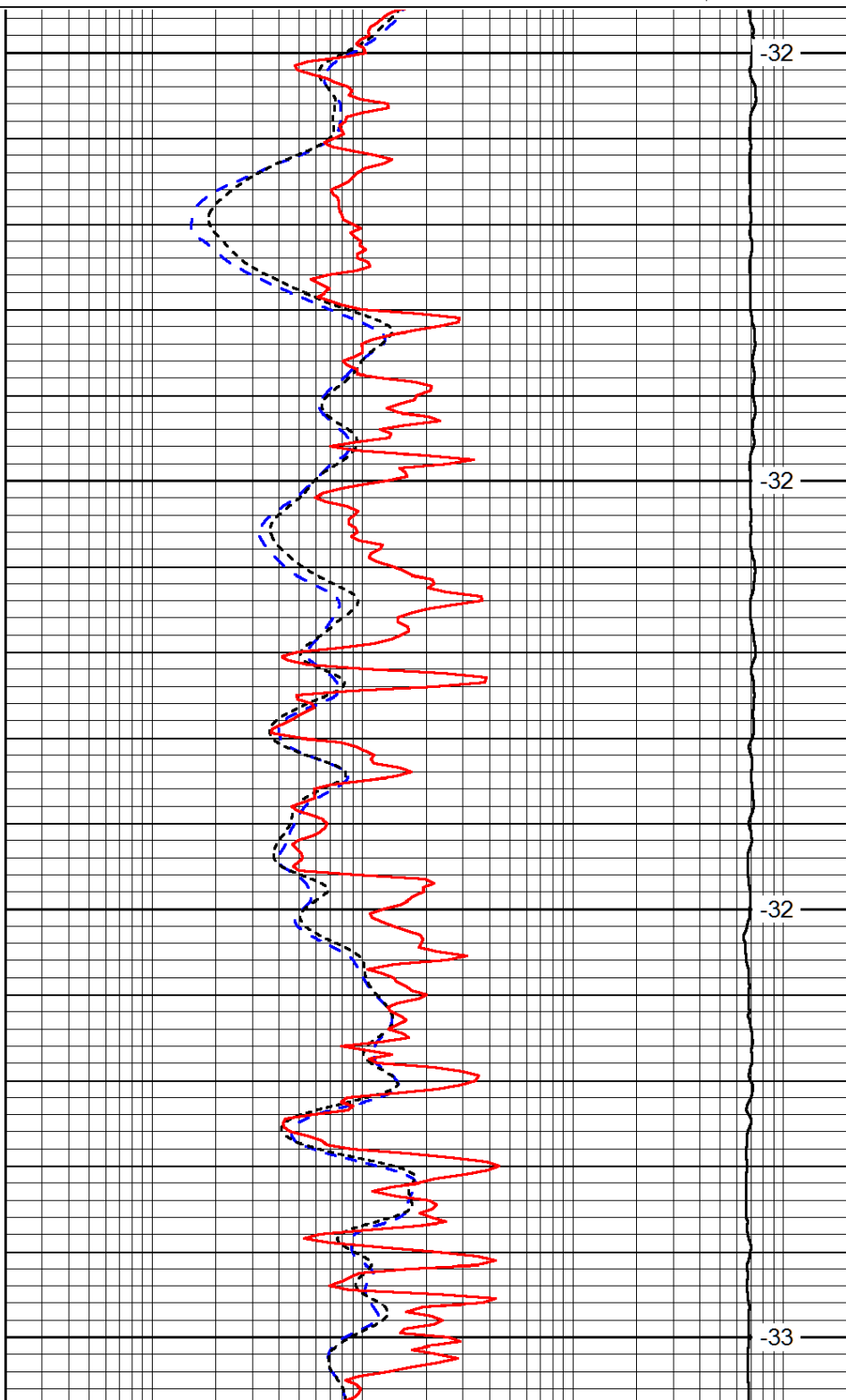


2700

2750

2800

2850

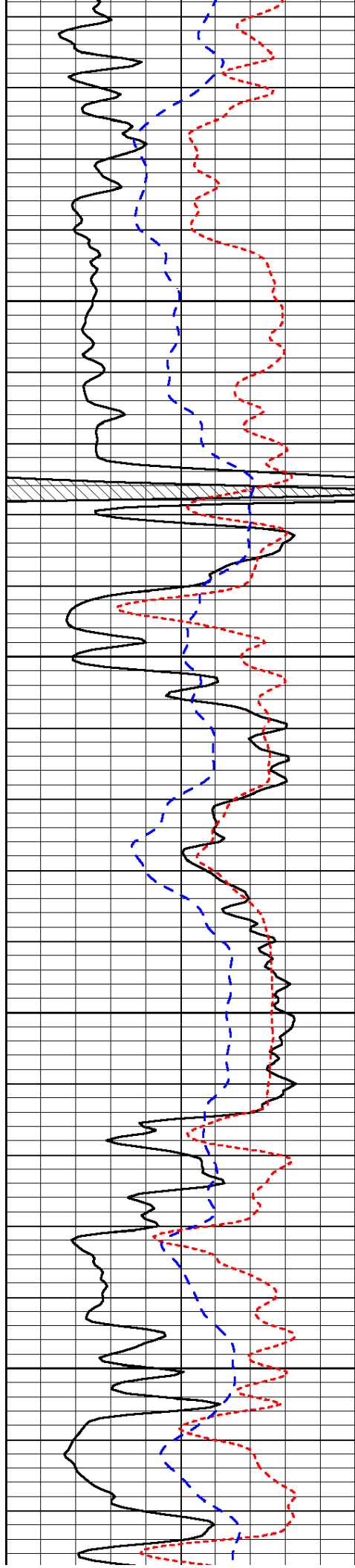


-32

-32

-32

-33

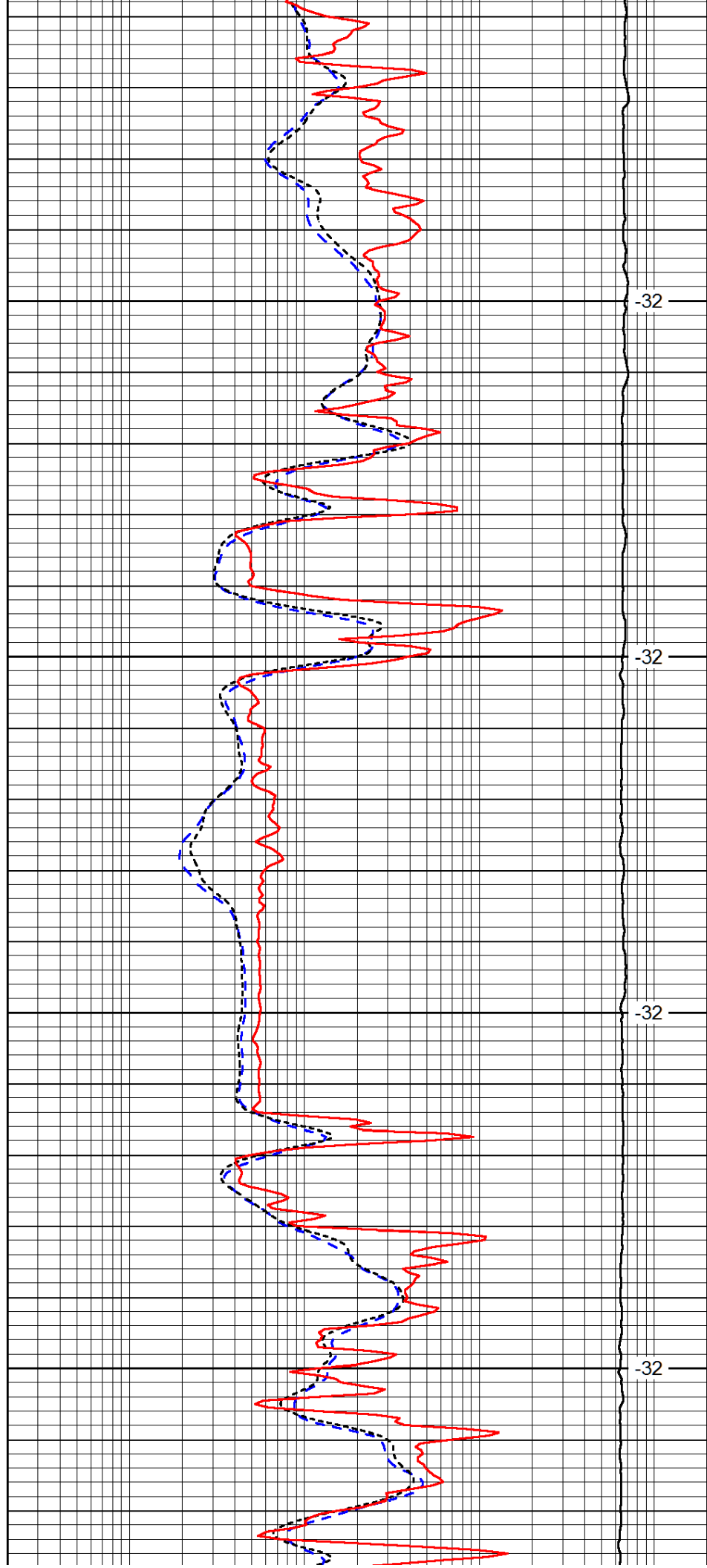


2900

2950

3000

3050

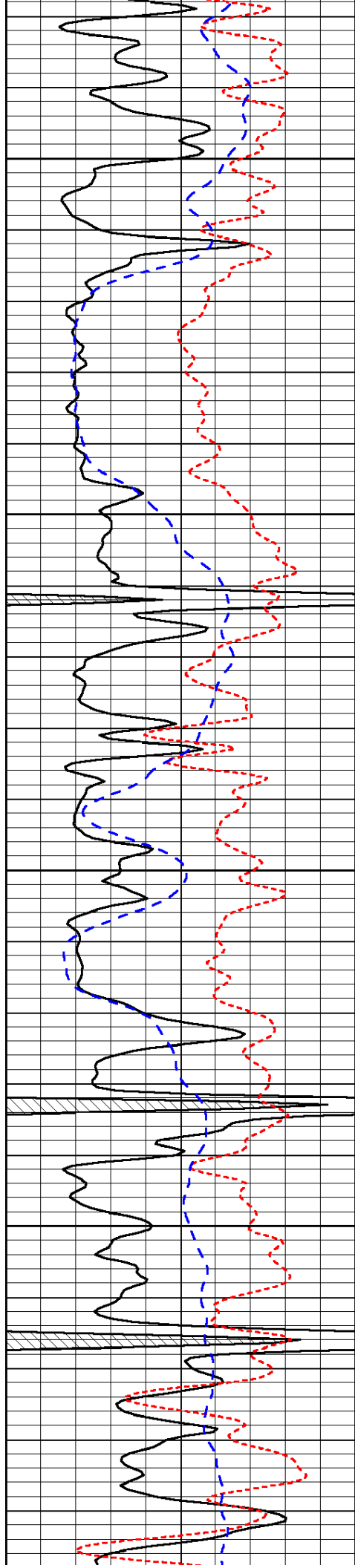


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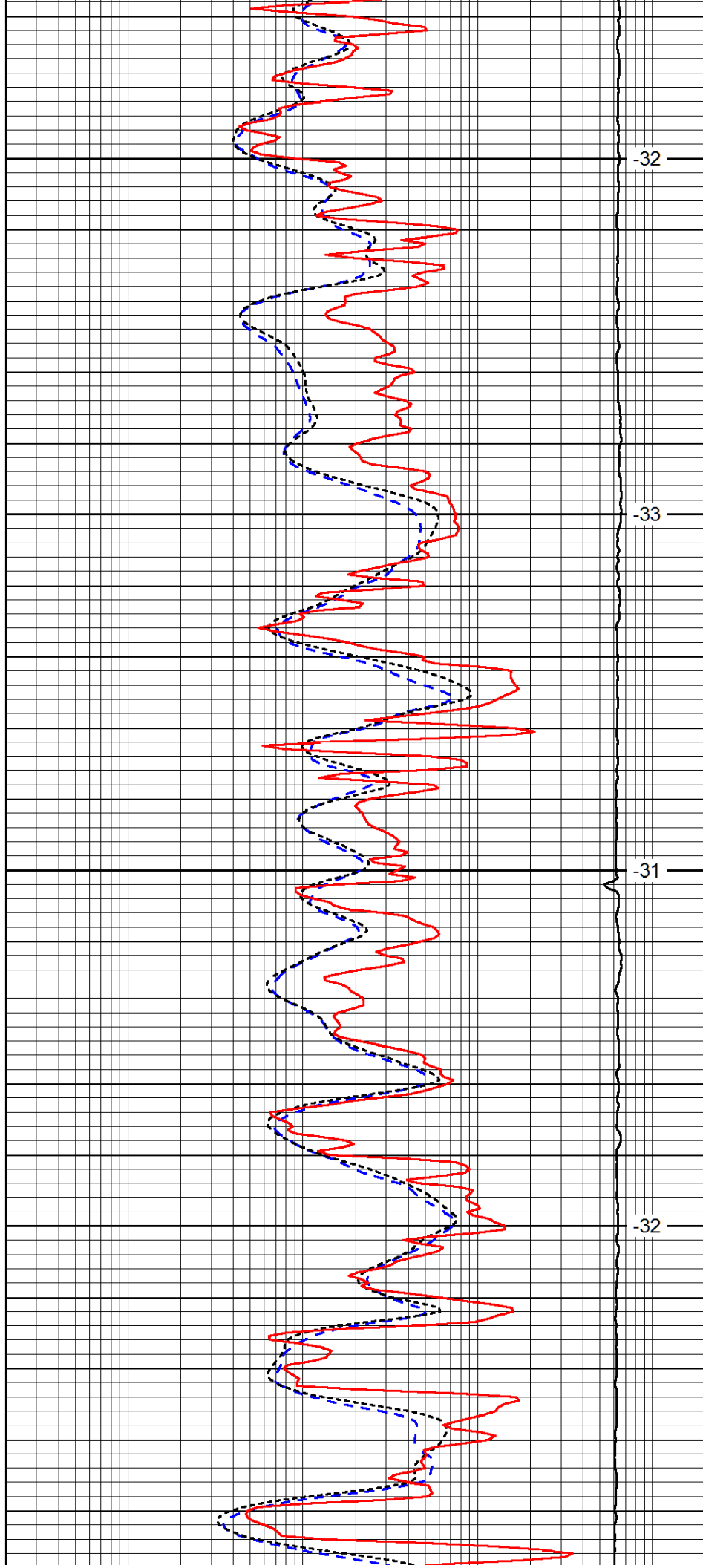


3100

3150

3200

3250

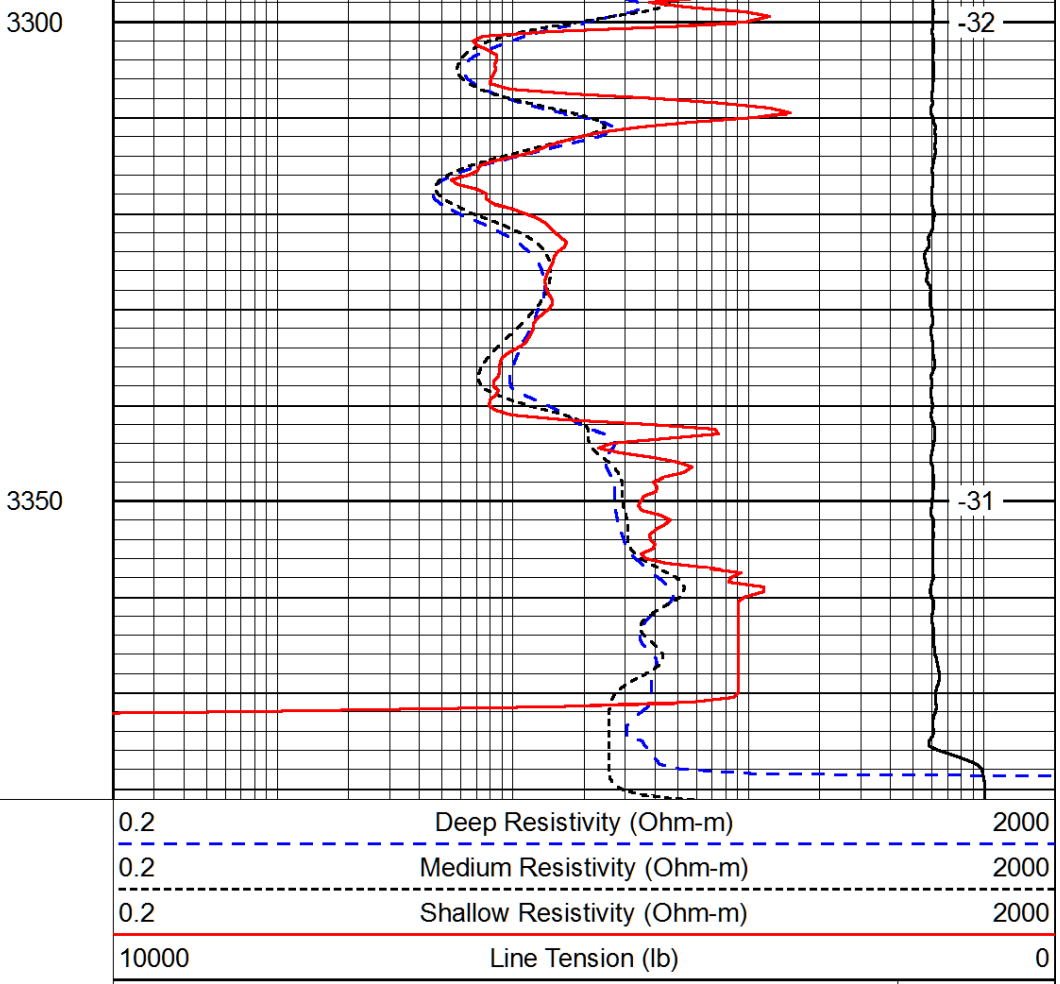
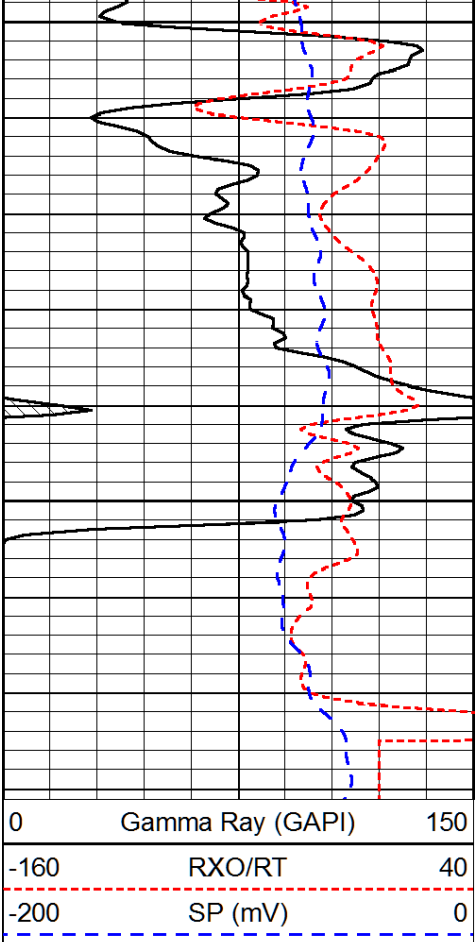


-32

-33

-31

-32



LSPD
(ft/min)