



Pioneer Energy Services

# Dual Induction Log

15-159-22,721-00-00

API No.

Company American Warrior, Inc.

Well Vokland No.2-32

Field Chase-Silica

County Rice State Kansas

Location 1050' FSL & 2292' FWL

Sec: 32 Twp: 18S Rge: 9W

Permanent Datum Ground Level Elevation 1712

Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Other Services  
CNL/CDL  
MEL/BHCS

Elevation

K.B. 1720  
D.F.  
G.L. 1712

Date 12/29/2012

Run Number One

Depth Driller 3340

Depth Logger 3338

Bottom Logged Interval 3337

Top Log Interval 300

Casing Driller 8.625 @ 335

Casing Logger 327

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity,ppm CL 7.600

Density / Viscosity 9.1 46

pH / Fluid Loss 10.5 8.8

Source of Sample Flowline

Rm @ Meas. Temp .45 @ 41

Rmf @ Meas. Temp .34 @ 41

Rmc @ Meas. Temp .61 @ 41

Source of Rmf / Rmc Charts

Rm @ BHT .17 @ 109

Operating Rig Time 4 Hours

Max Rec. Temp. F 109

Equipment Number 17

Location Hays

Recorded By C. Desaire

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 Pioneer Energy Services  
www.pioneerenergy.com  
785 625 3858

Chase KS, 5 1/2 N, 1/2 E, N Into

Database File: c:\warrior\data\amwar\_vokland no.2-32\awhd.db  
Dataset Pathname: dil/awstc  
Presentation Format: dil2in  
Dataset Creation: Sat Dec 29 16:56:24 2012  
Charted by: Depth in Feet scaled 1:600

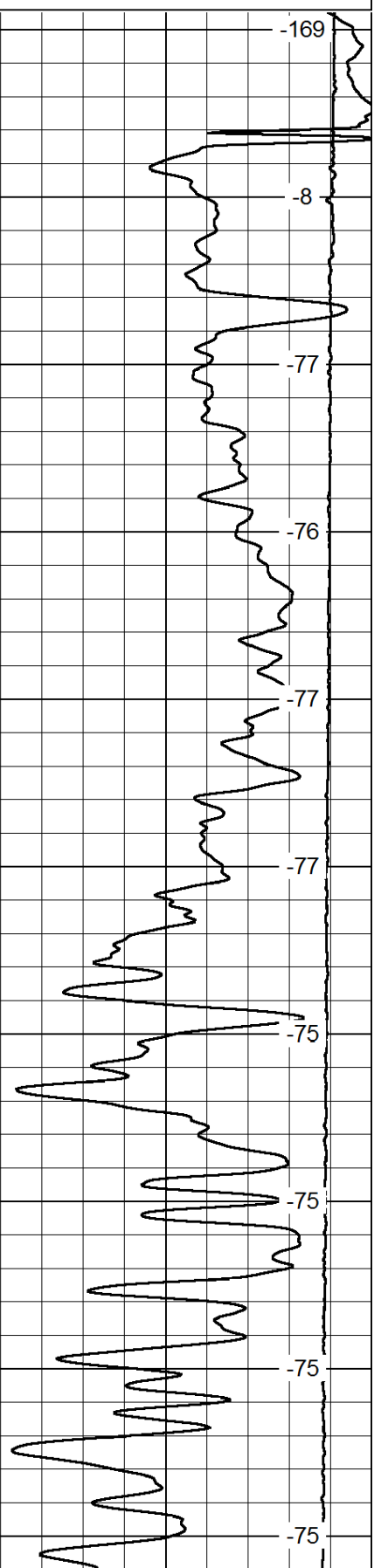
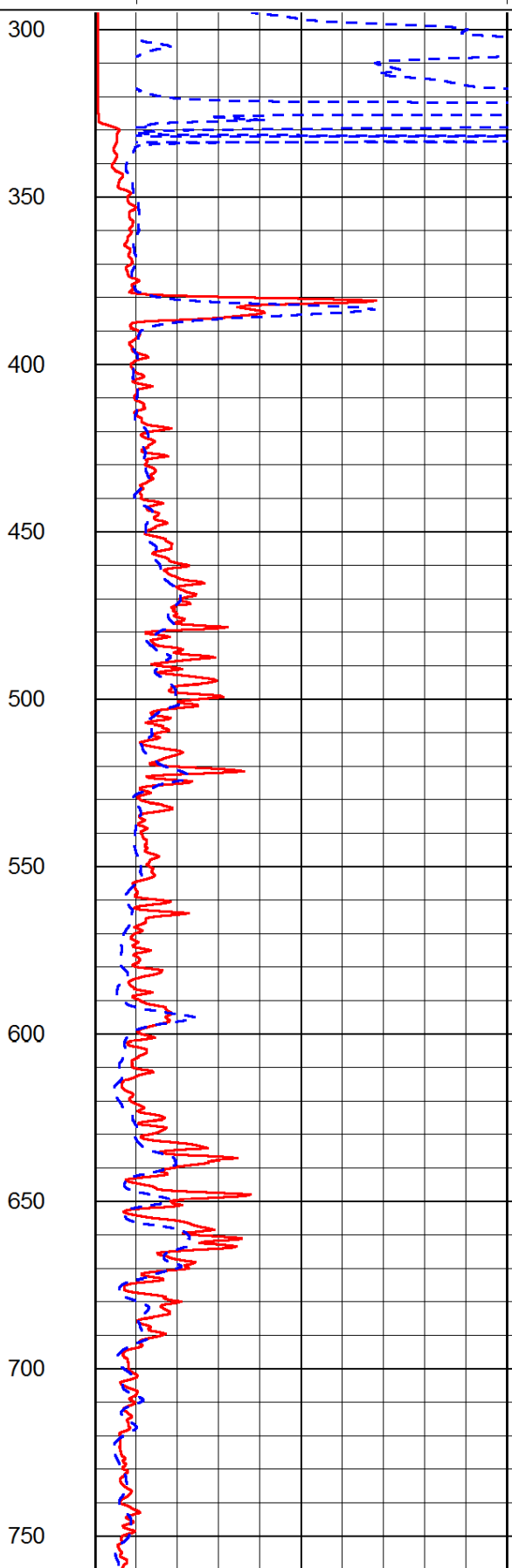
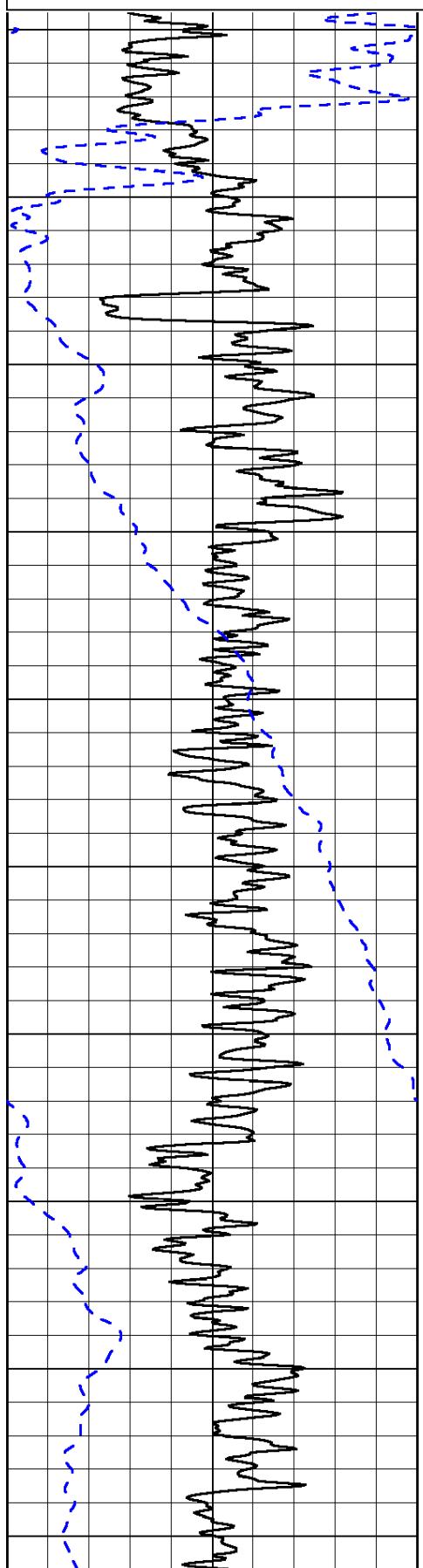
0	Gamma Ray	150
-200	SP (mV)	0

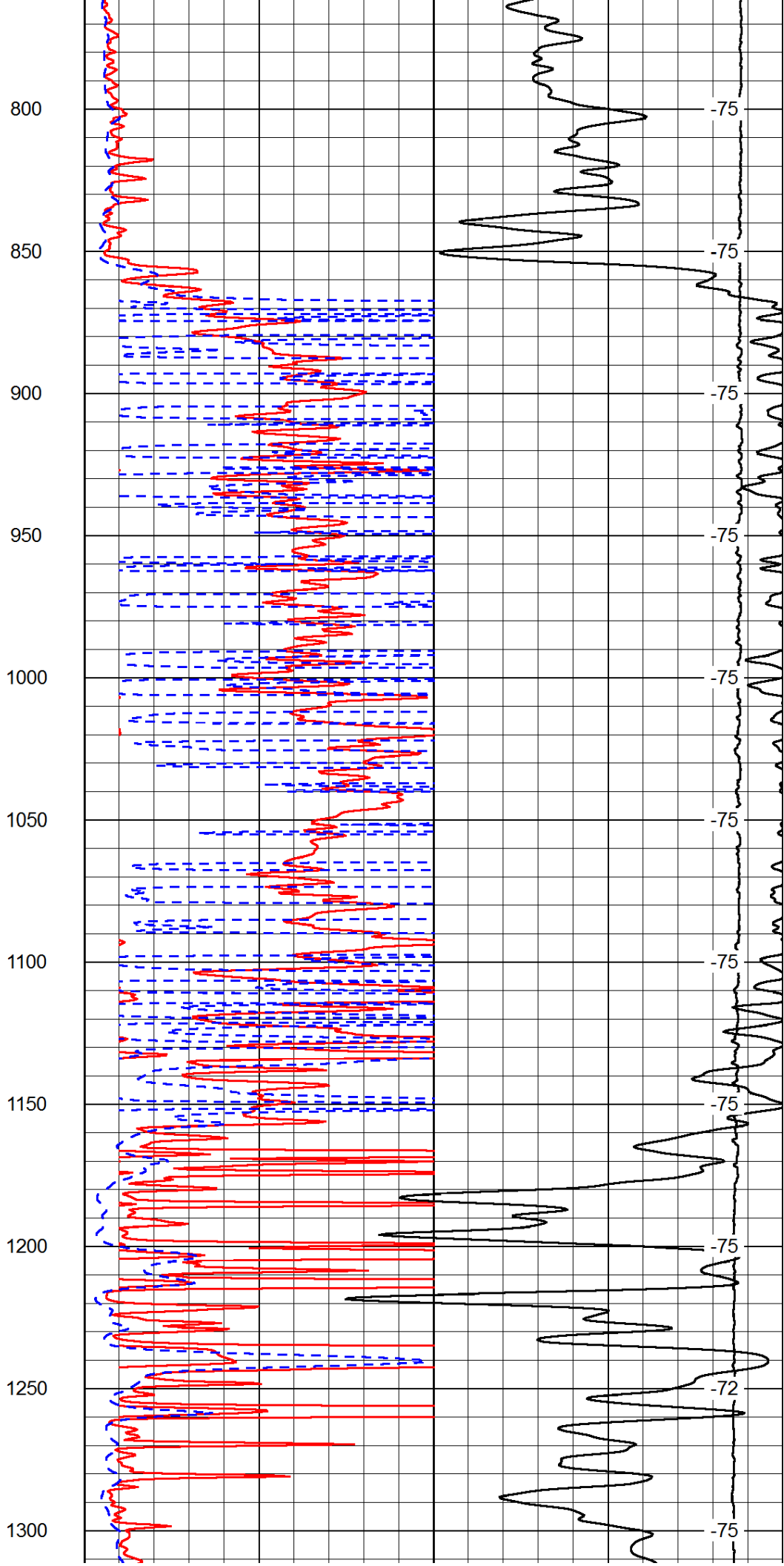
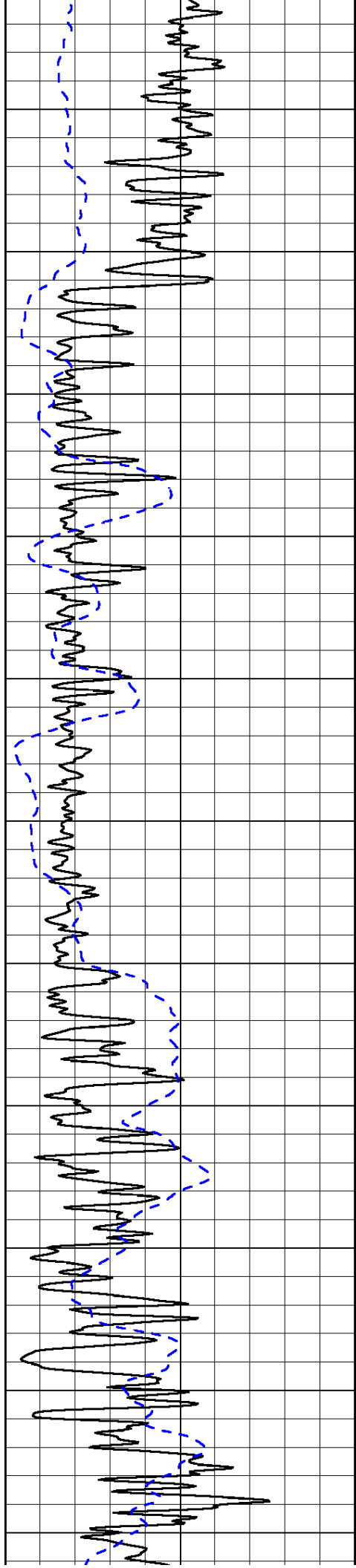
0	Shallow Resistivity	50
0	Deep Resistivity	50

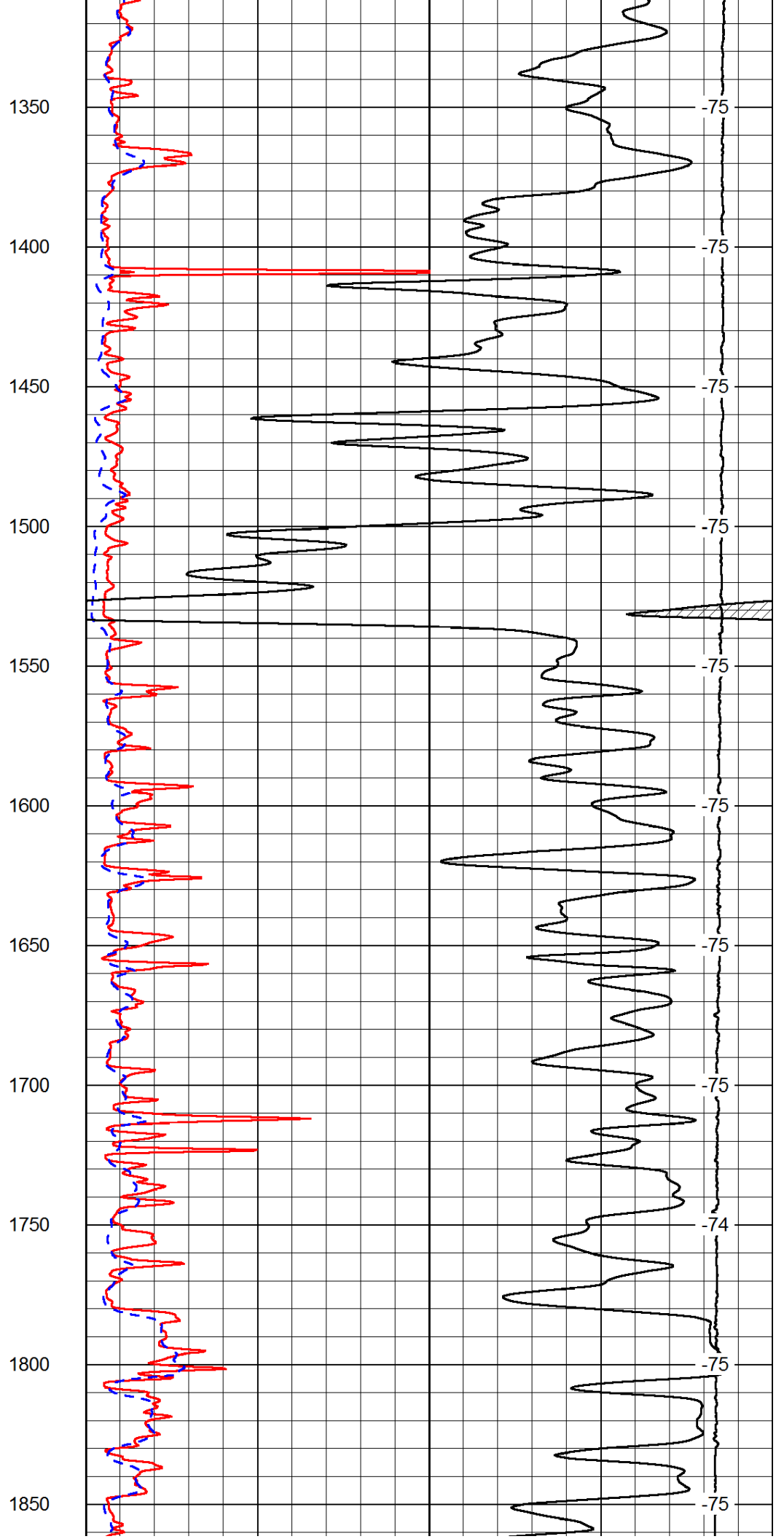
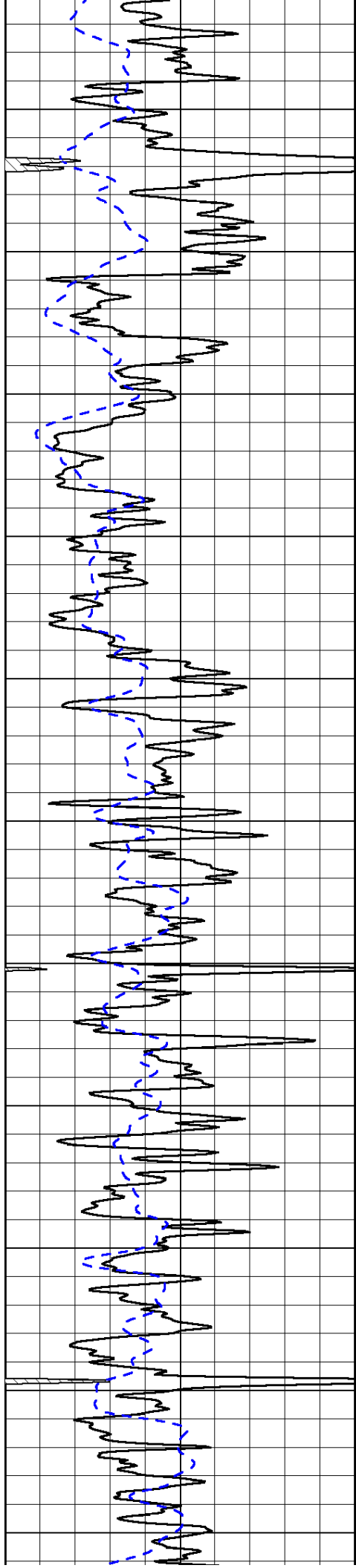
LSPD

1000	Conductivity	0
15000	Line Tension	0

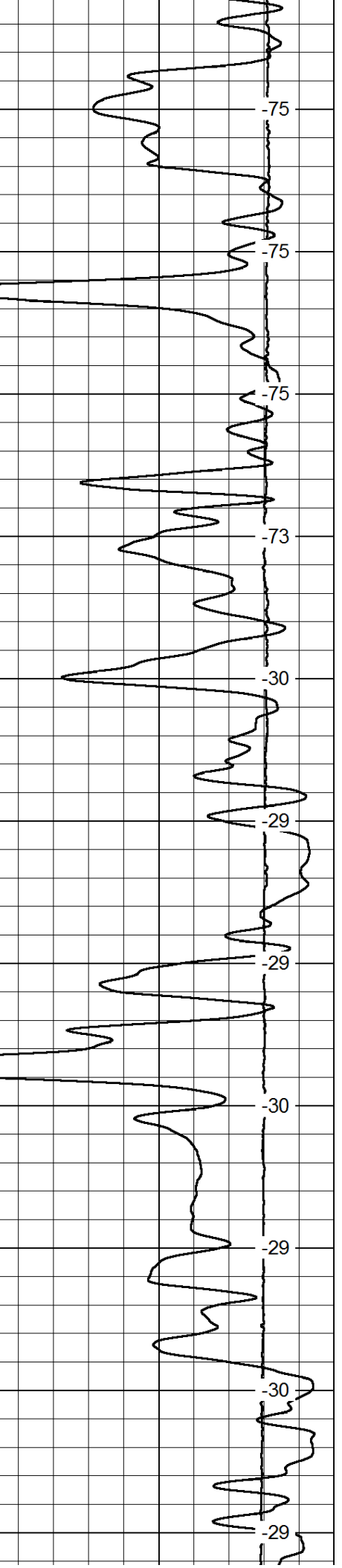
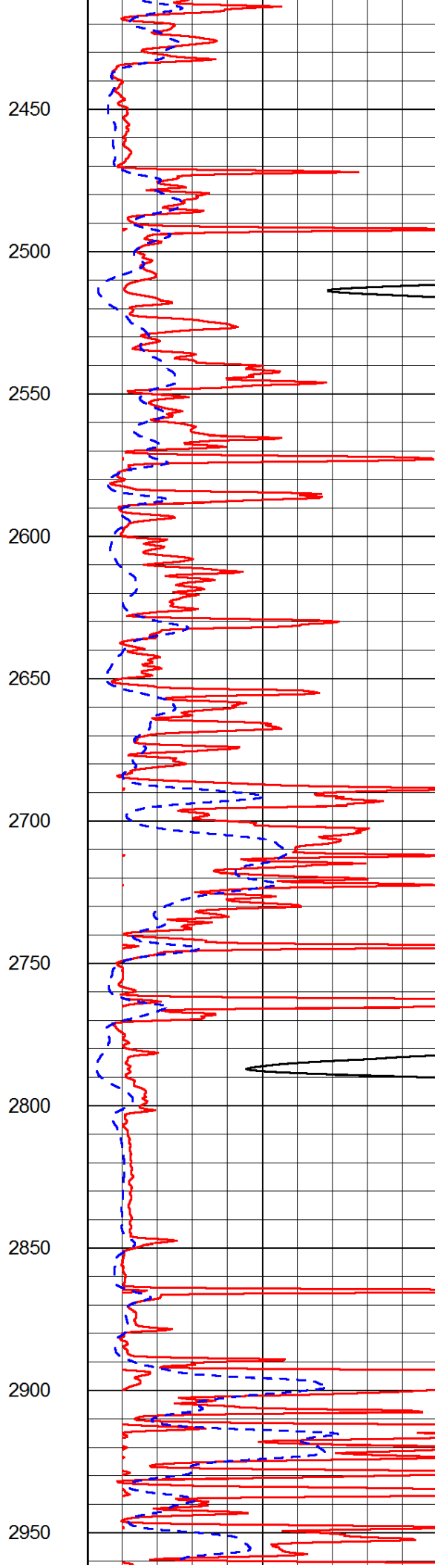
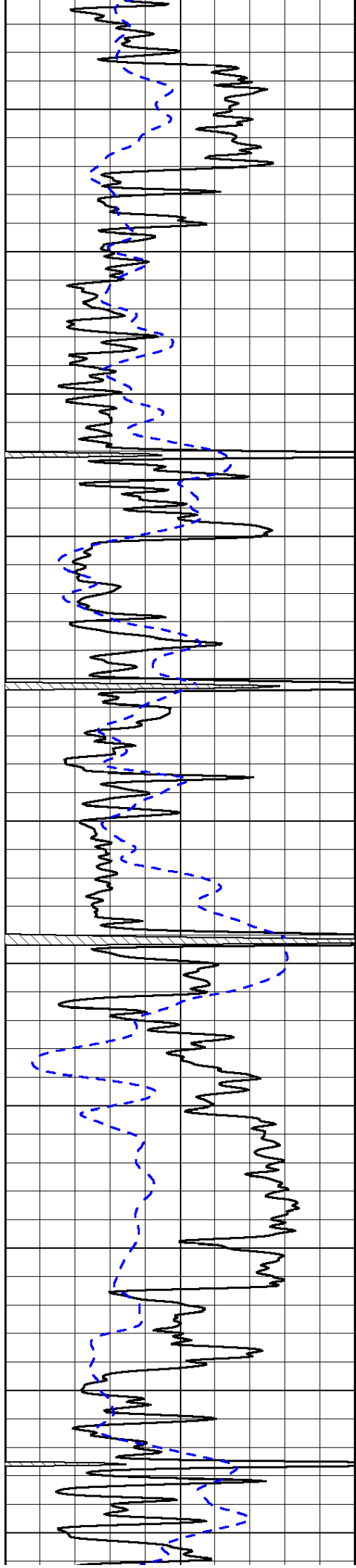
50	Shallow Resistivity	500
50	Deep Resistivity	500

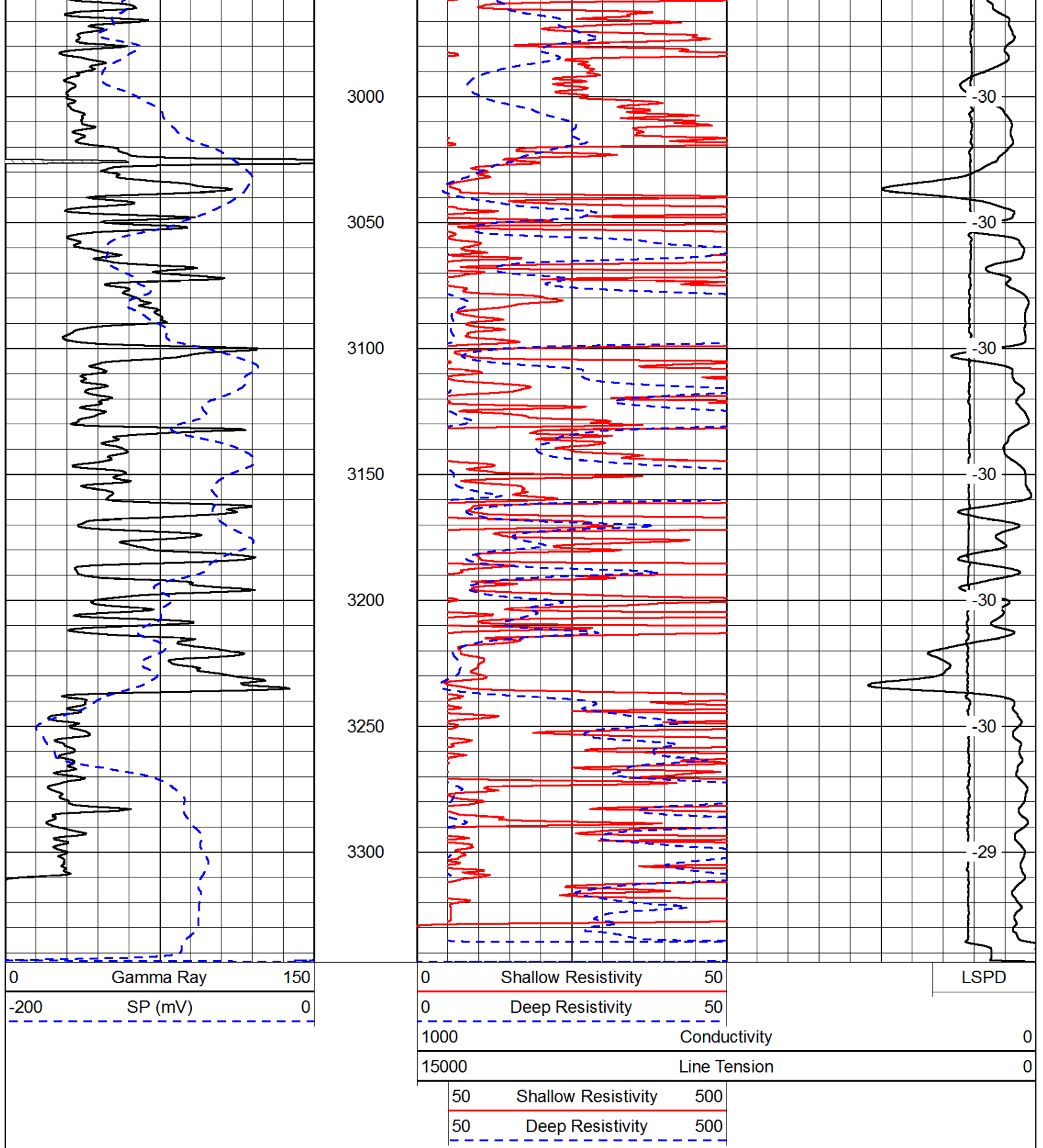






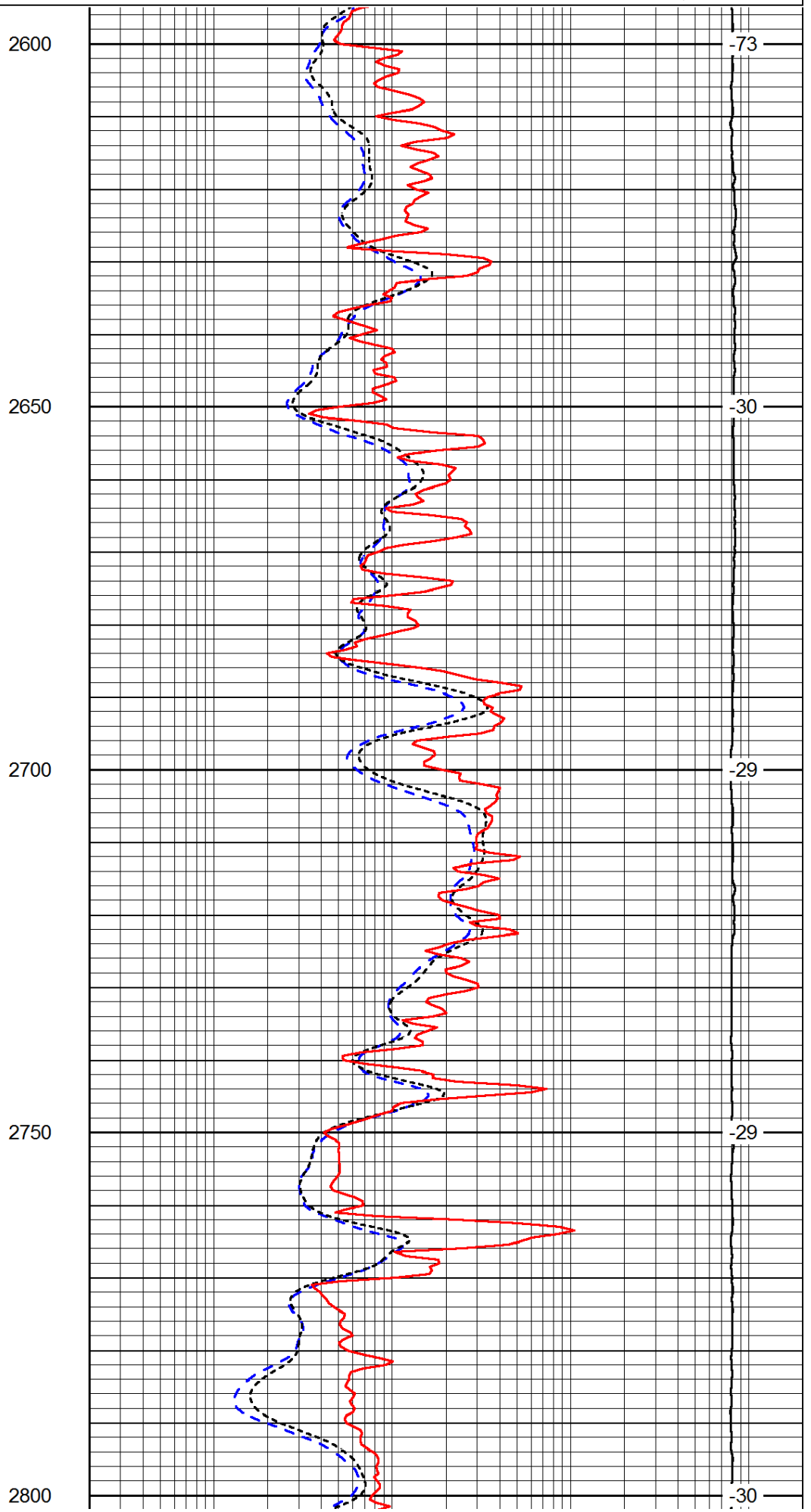
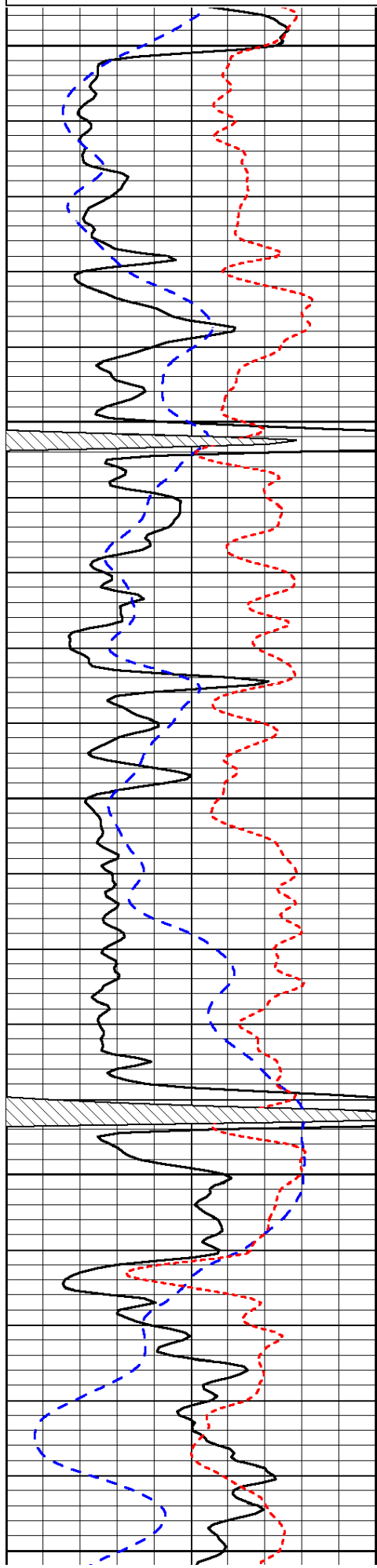


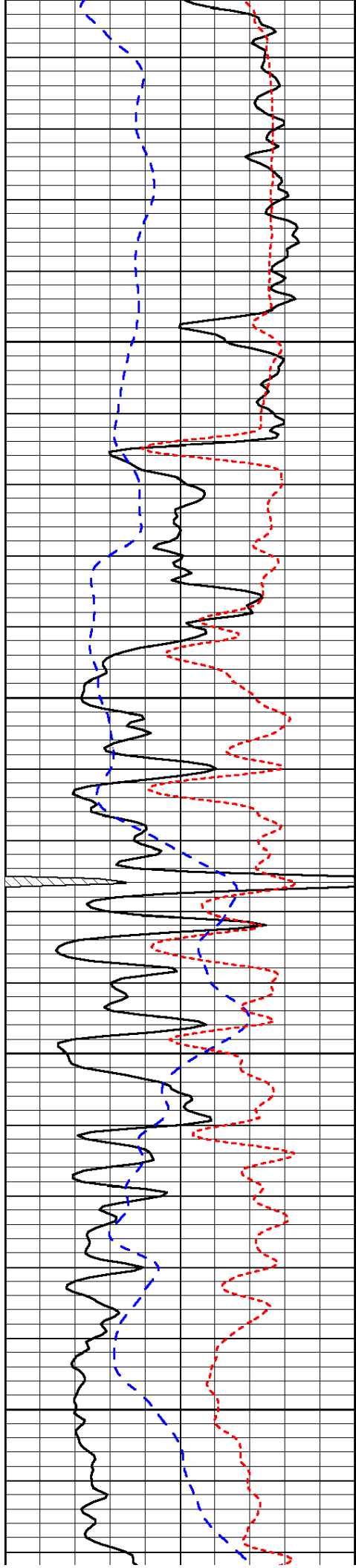




Database File: c:\warrior\data\amwar\_vokland no.2-32\awhd.db  
 Dataset Pathname: dil/awstk  
 Presentation Format: dil  
 Dataset Creation: Sat Dec 29 16:56:24 2012  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	0.2	Deep Resistivity	2000
-200	SP (mV)	0	0.2	Medium Resistivity	2000
-160	RyoRt	40	0.2	Shallow Resistivity	2000



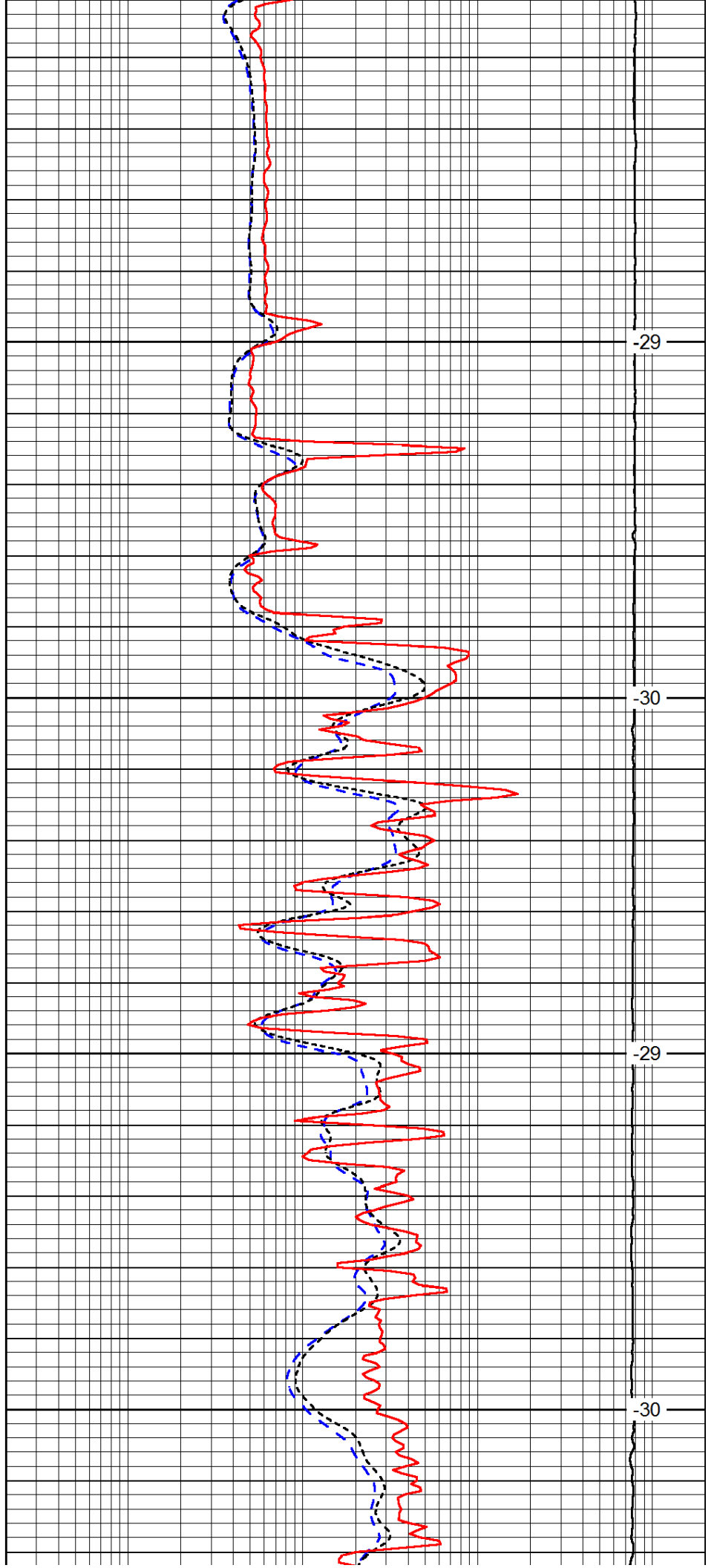


2850

2900

2950

3000

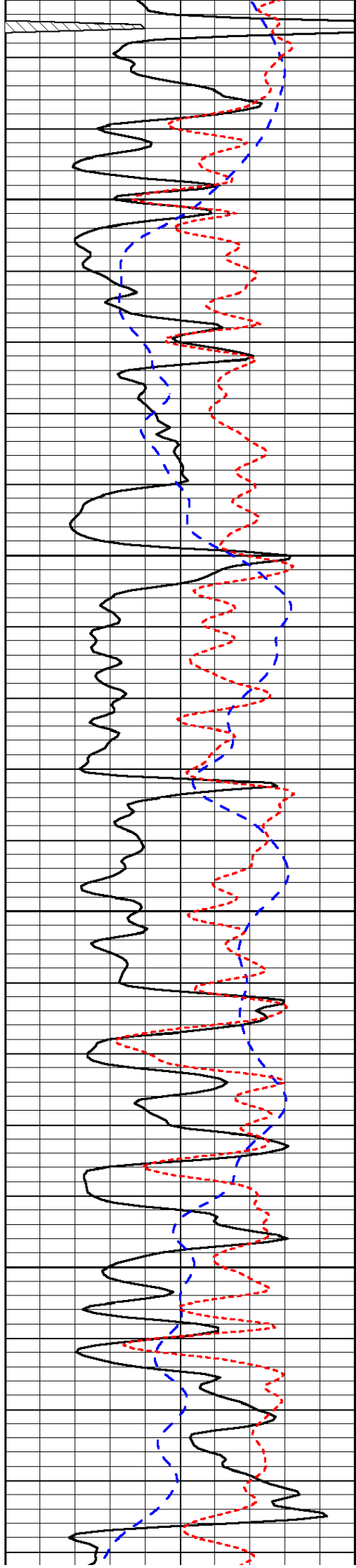


-29

-30

-29

-30

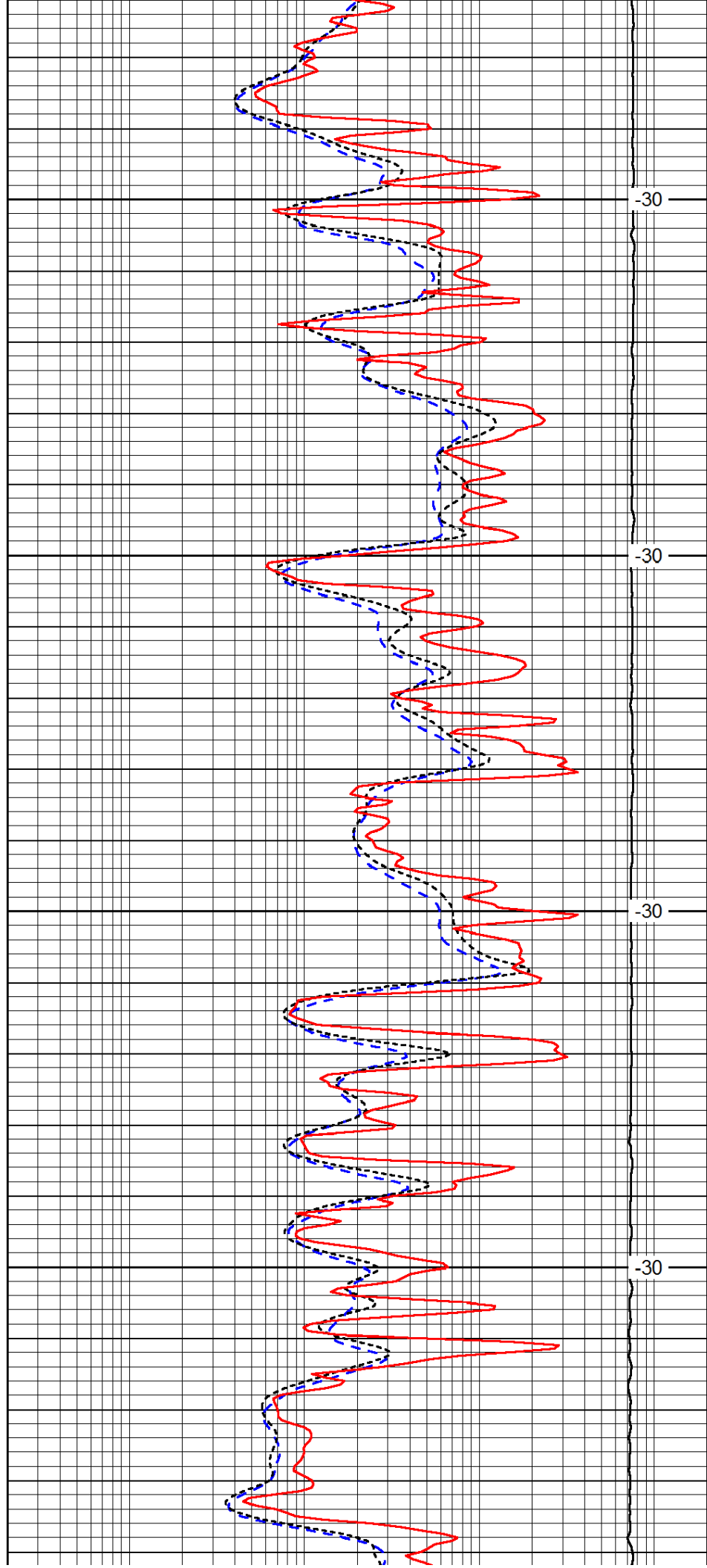


3050

3100

3150

3200

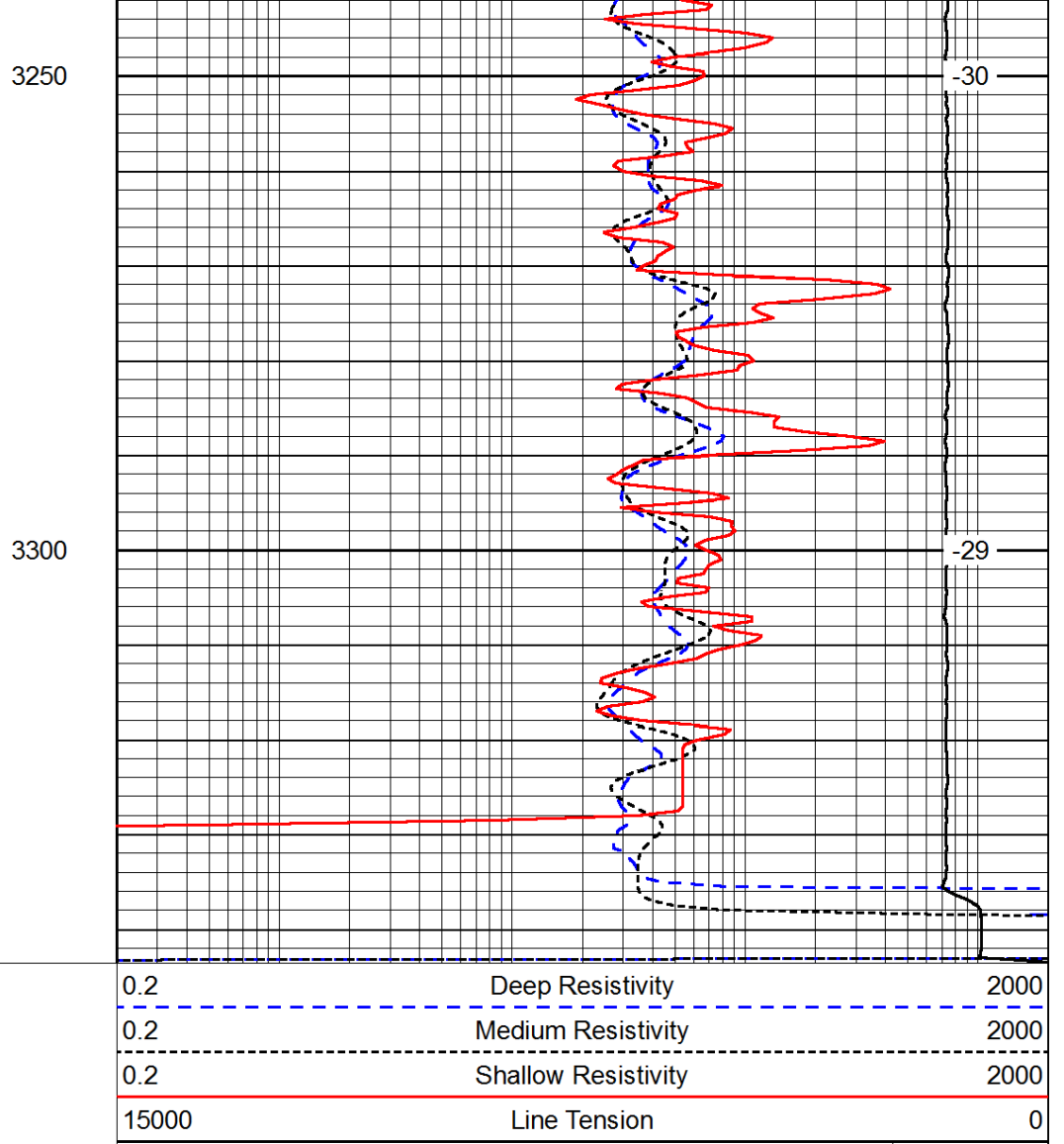
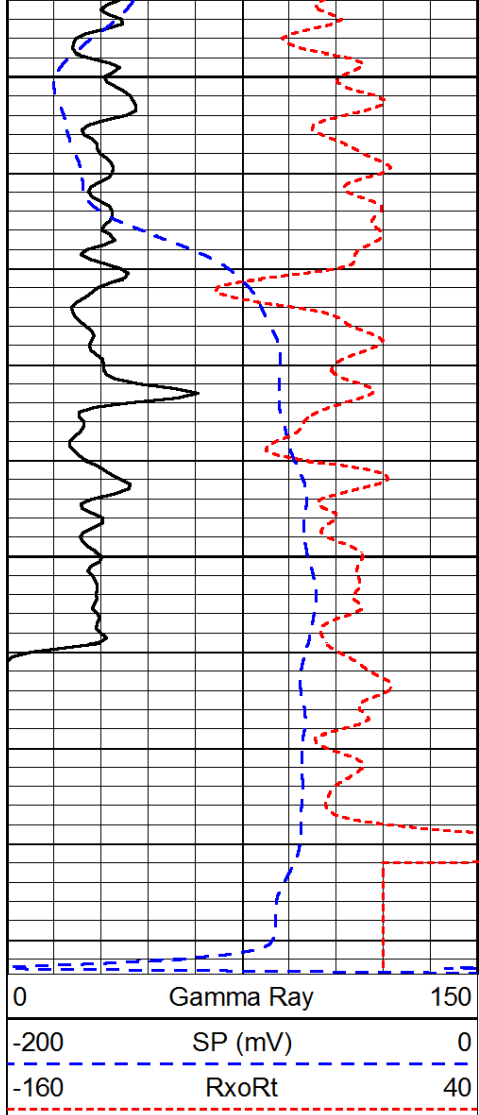


-30

-30

-30

-30



LSPD