



Dual Induction Log

Pioneer Energy Services

API No.		Company American Warrior, Inc.	
15-051-26667-00-00		Well Riedel C # 1-31	
Field Irvin		County Ellis State Kansas	
Location 2170' FNL & 2304' FEL		Other Services CNL/CDL MEL	
Sec: 31 Twp: 13 S Rge: 19 W		Elevation	
Permanent Datum Ground Level		K.B. 2279	
Log Measured From Kelly Bushing		D.F. 2271	
Drilling Measured From Kelly Bushing		G.L. 2271	
Date	2/17/2014		
Run Number	One		
Depth Driller	3993		
Depth Logger	3995		
Bottom Logged Interval	3994		
Top Log Interval	200		
Casing Driller	8.625 @ 211		
Casing Logger	211		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	5000		
Density / Viscosity	8.8 57		
pH / Fluid Loss	10.0 6.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	0.52 @ 48		
Rmf @ Meas. Temp	0.39 @ 48		
Rmc @ Meas. Temp	0.70 @ 48		
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.21 @ 118		
Operating Rig Time	4 Hours		
Max Rec. Temp. F	118		
Equipment Number	91		
Location	Hays		
Recorded By	Y. Ruiz		
Witnessed By	Jason Alm		

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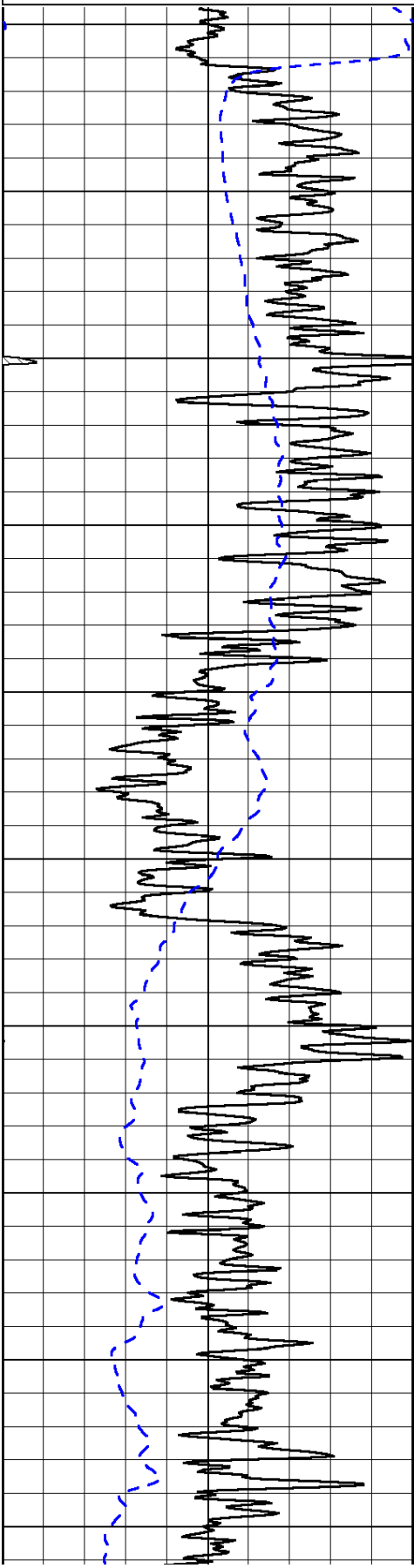
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.pioneerres.com
785 625 3858
Hays,
7 West on Golf Course, 1 North on 170th Rd, 1/2 West,
North to the Y, East and North,
West into

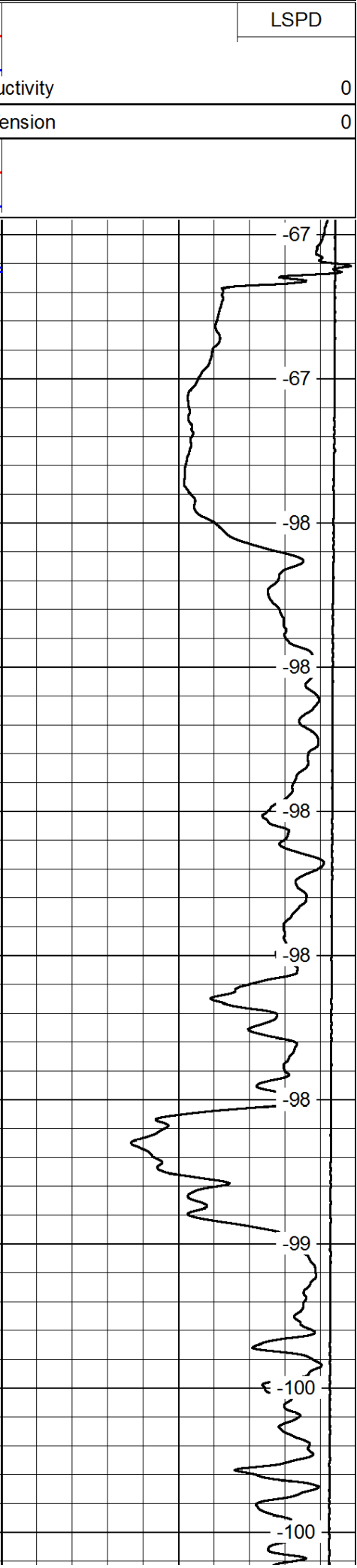
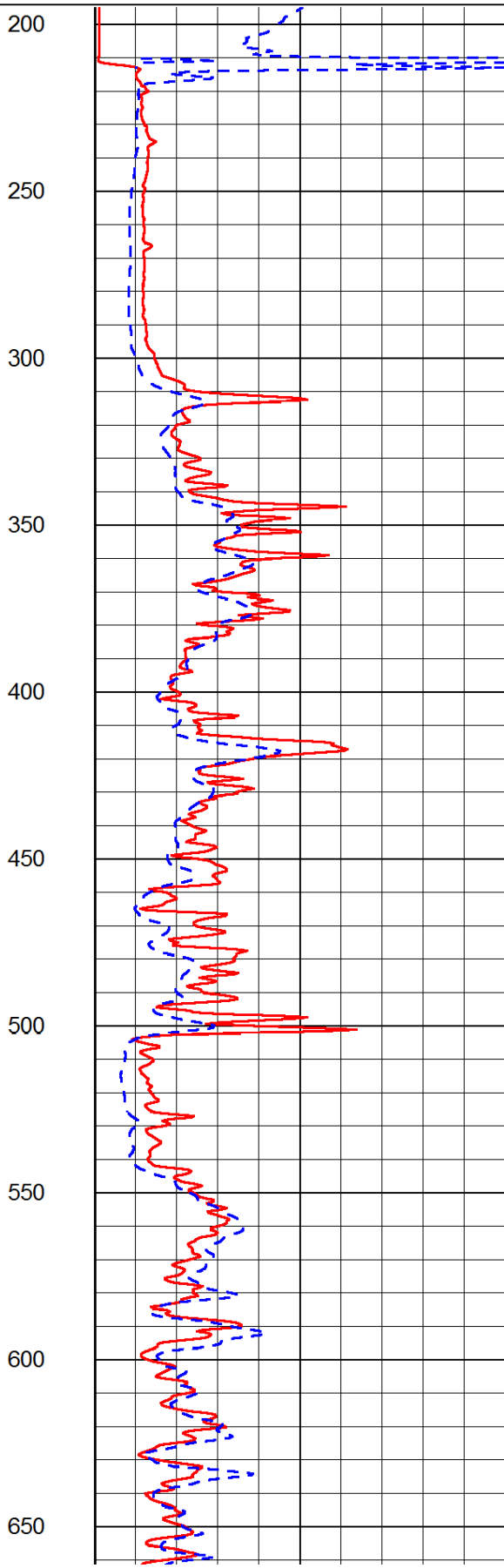
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Dataset Pathname: DIL\awstk
Presentation Format: dil2in
Dataset Creation: Mon Feb 17 23:11:28 2014
Charted by: Depth in Feet scaled 1:600

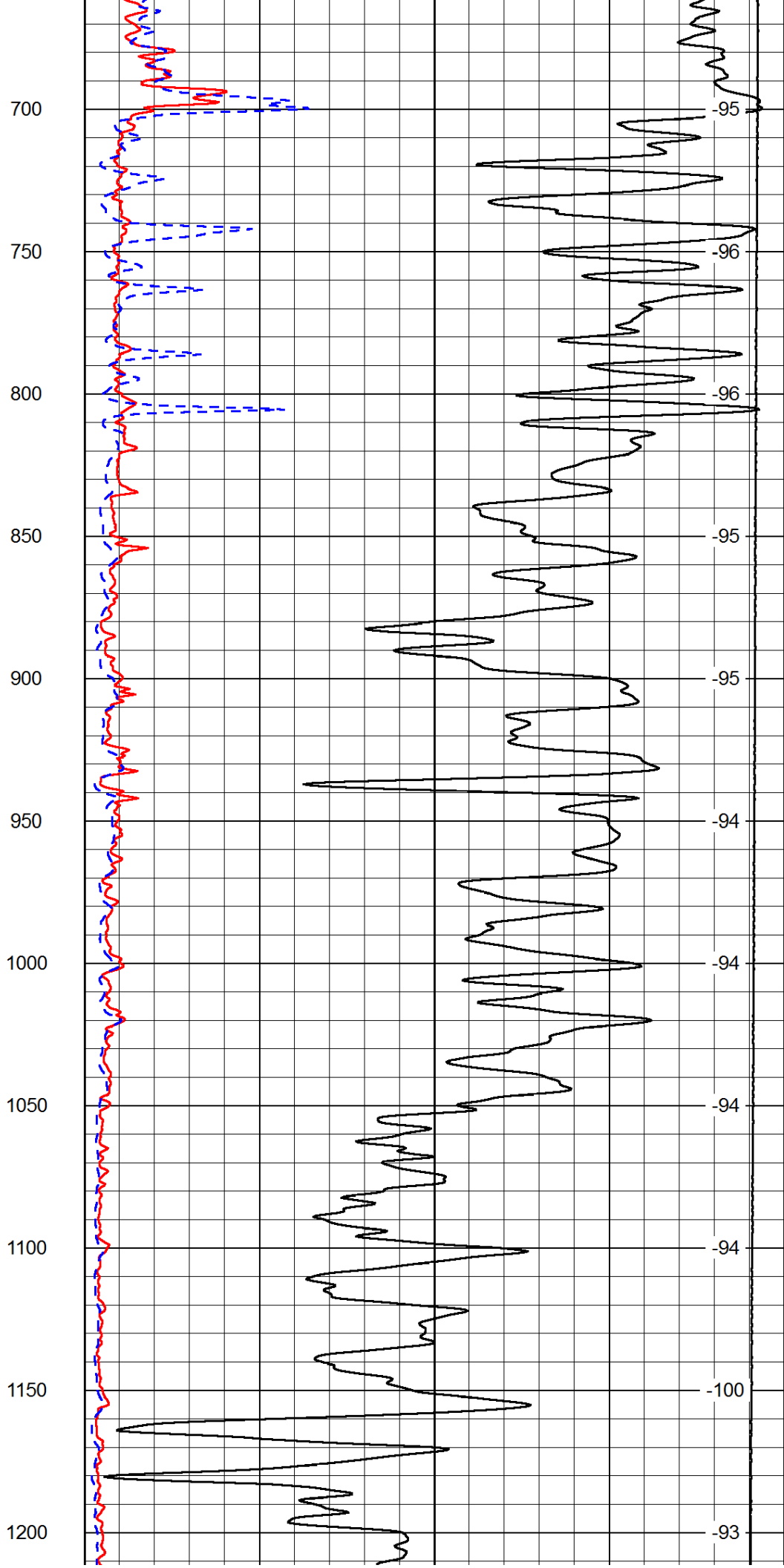
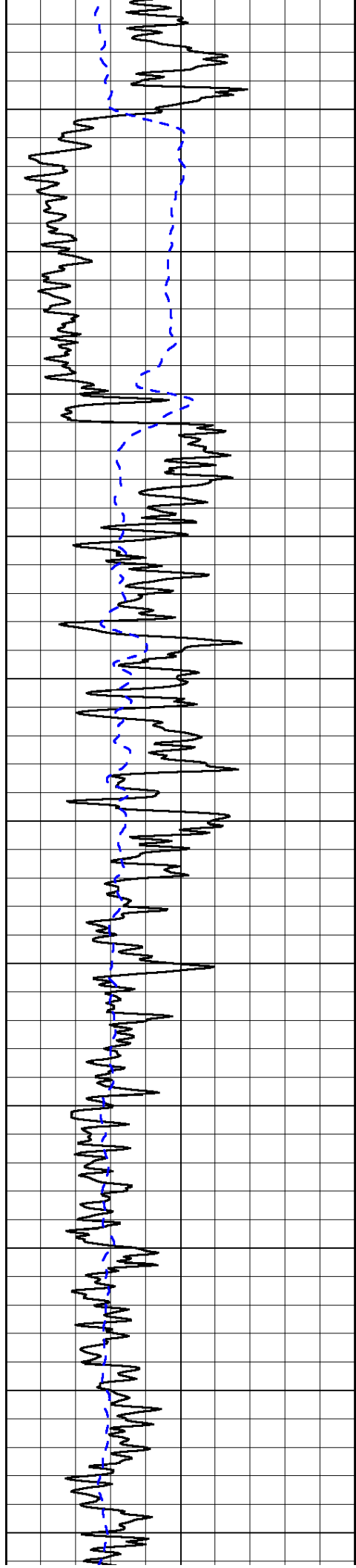
0	Gamma Ray	150
-200	SP (mV)	0

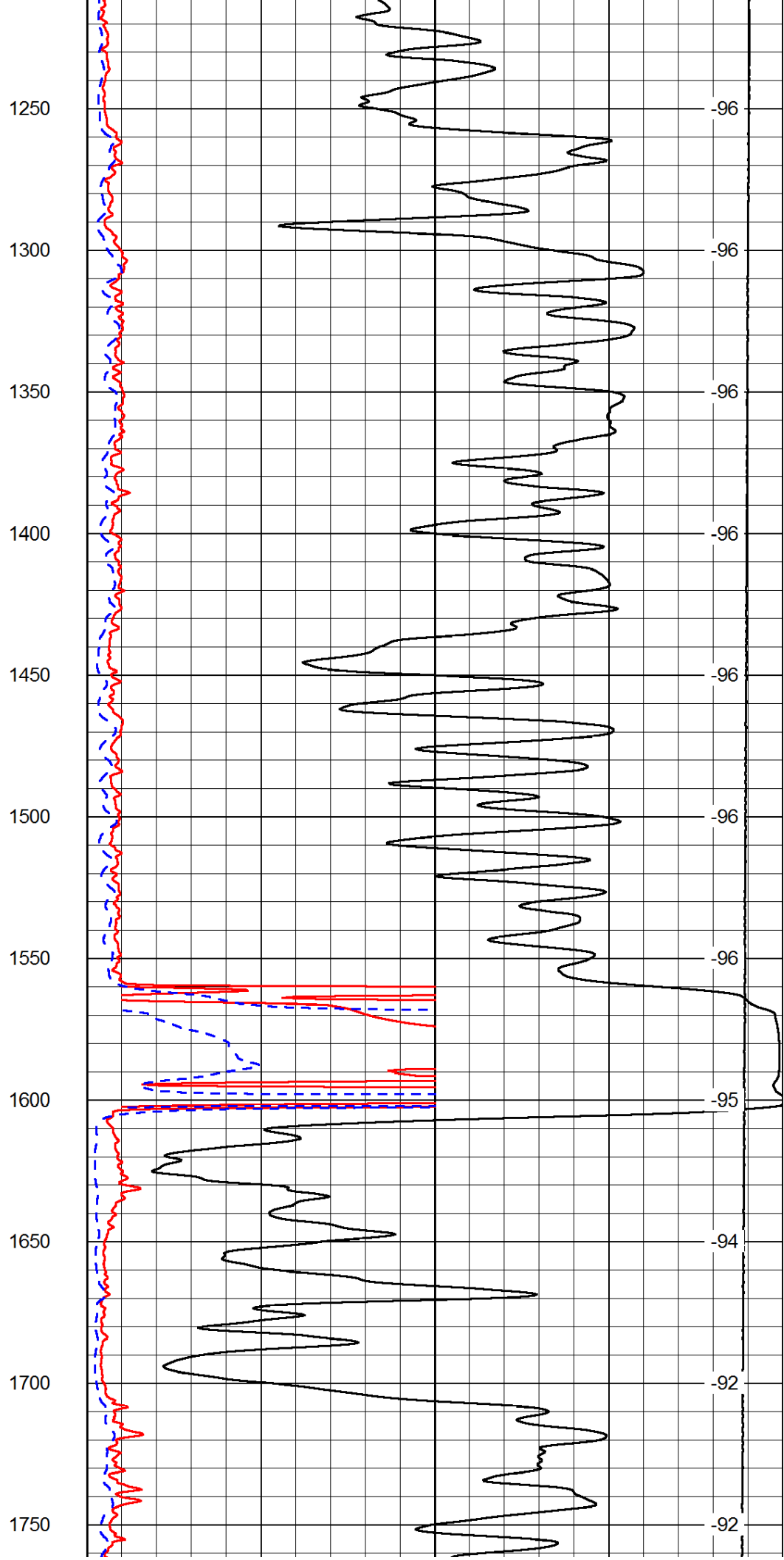
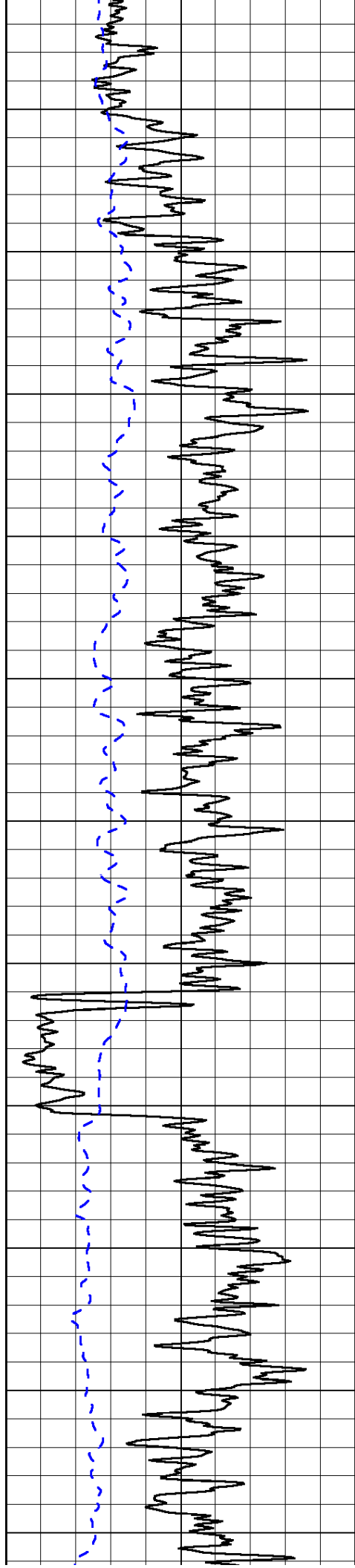


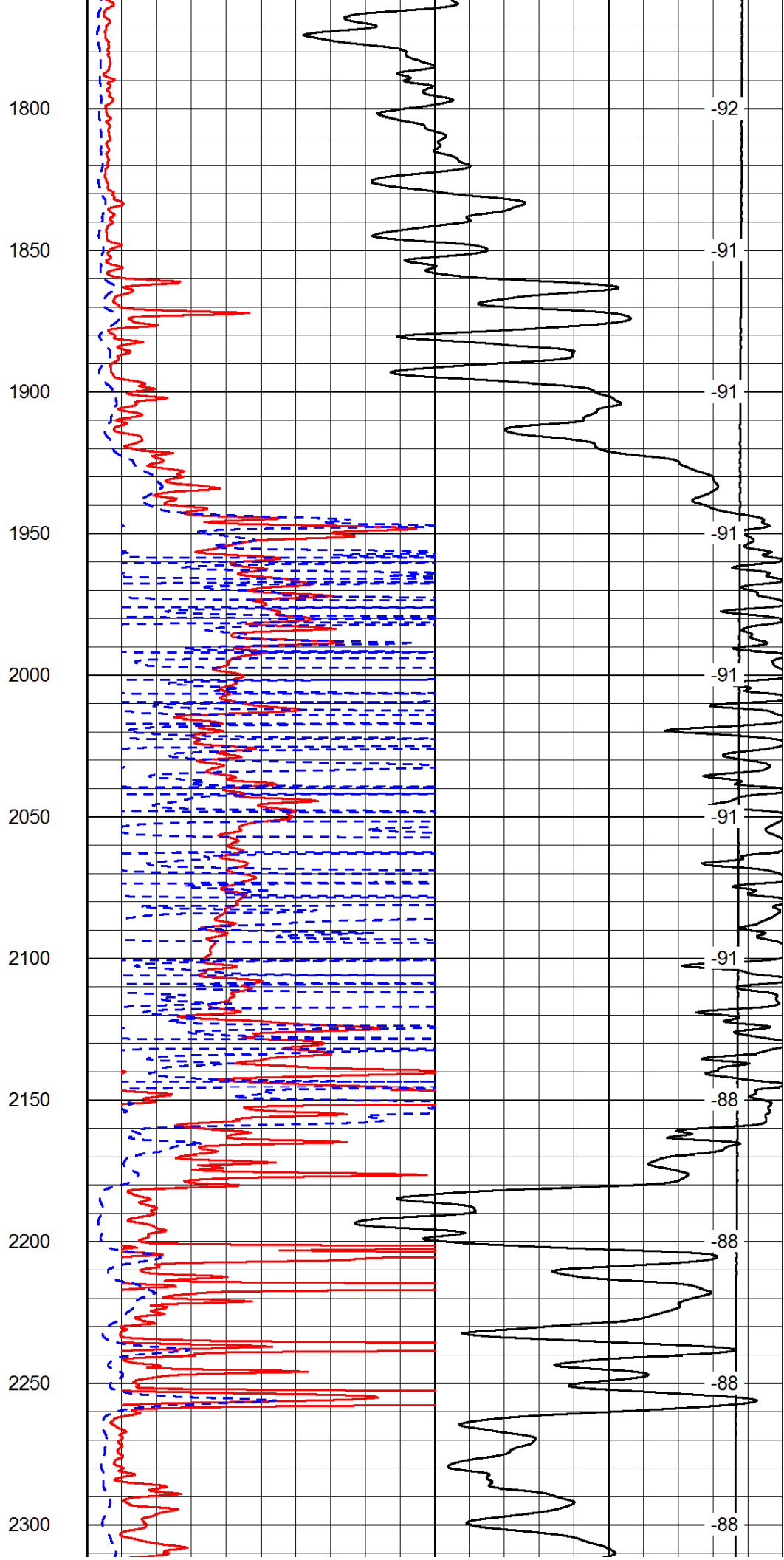
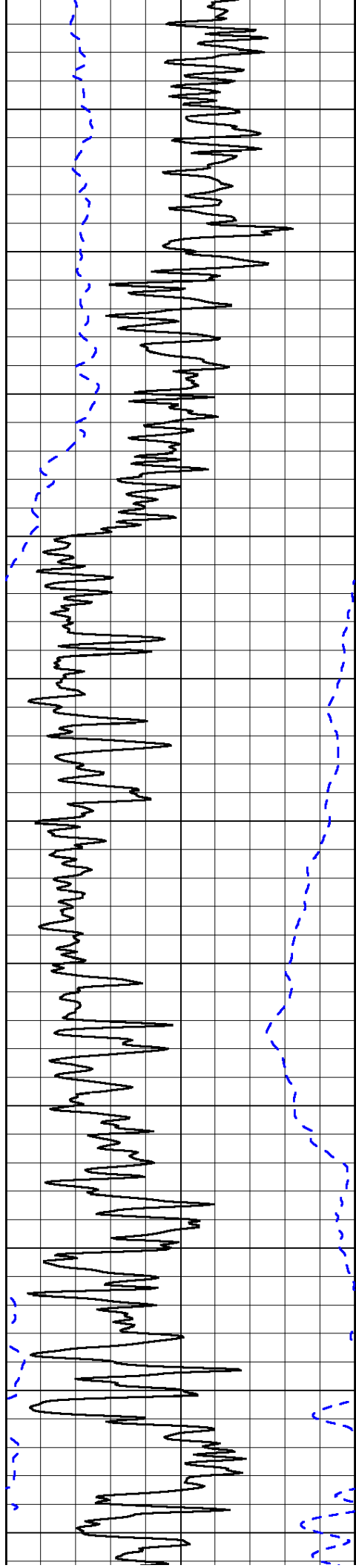
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

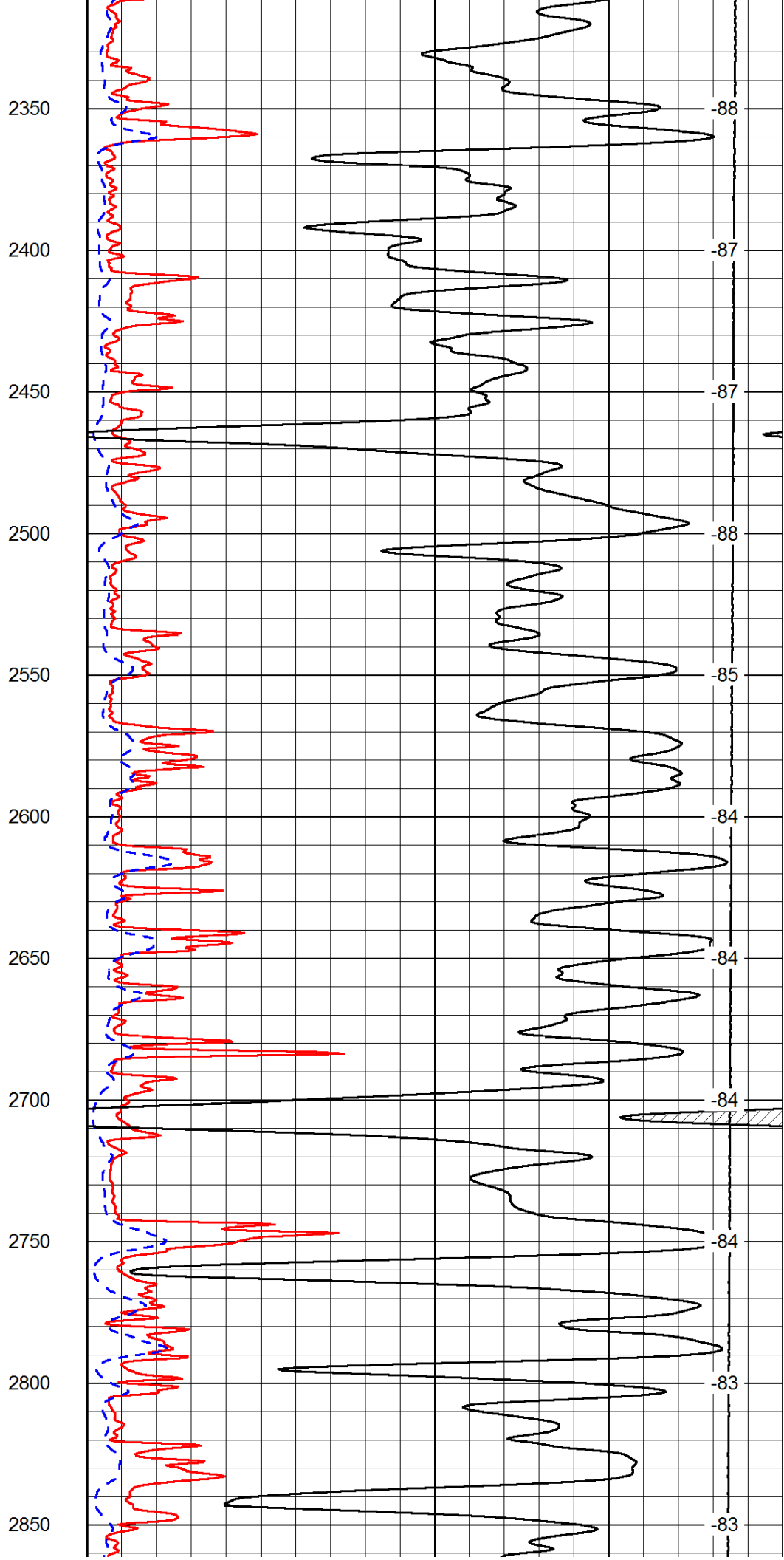
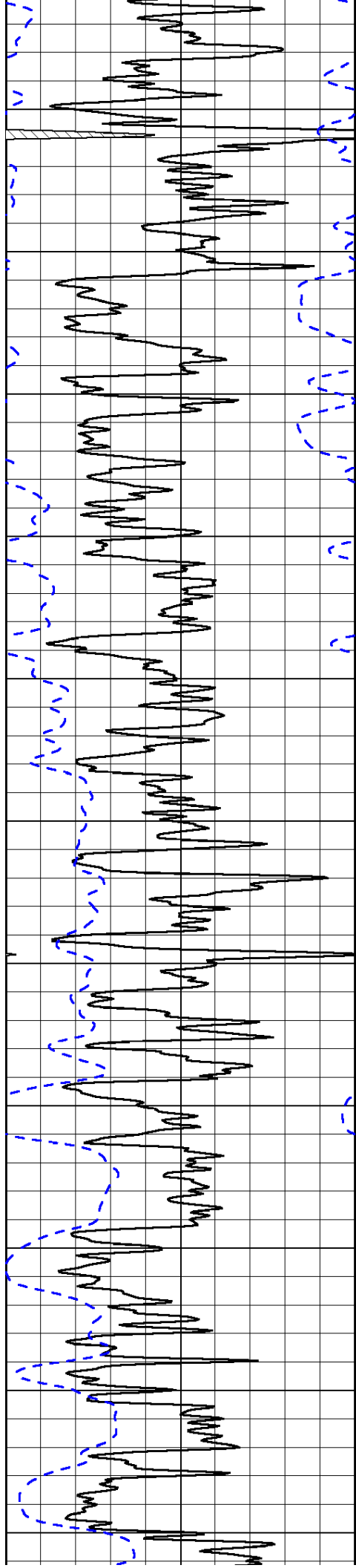
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50	Deep Resistivity	500

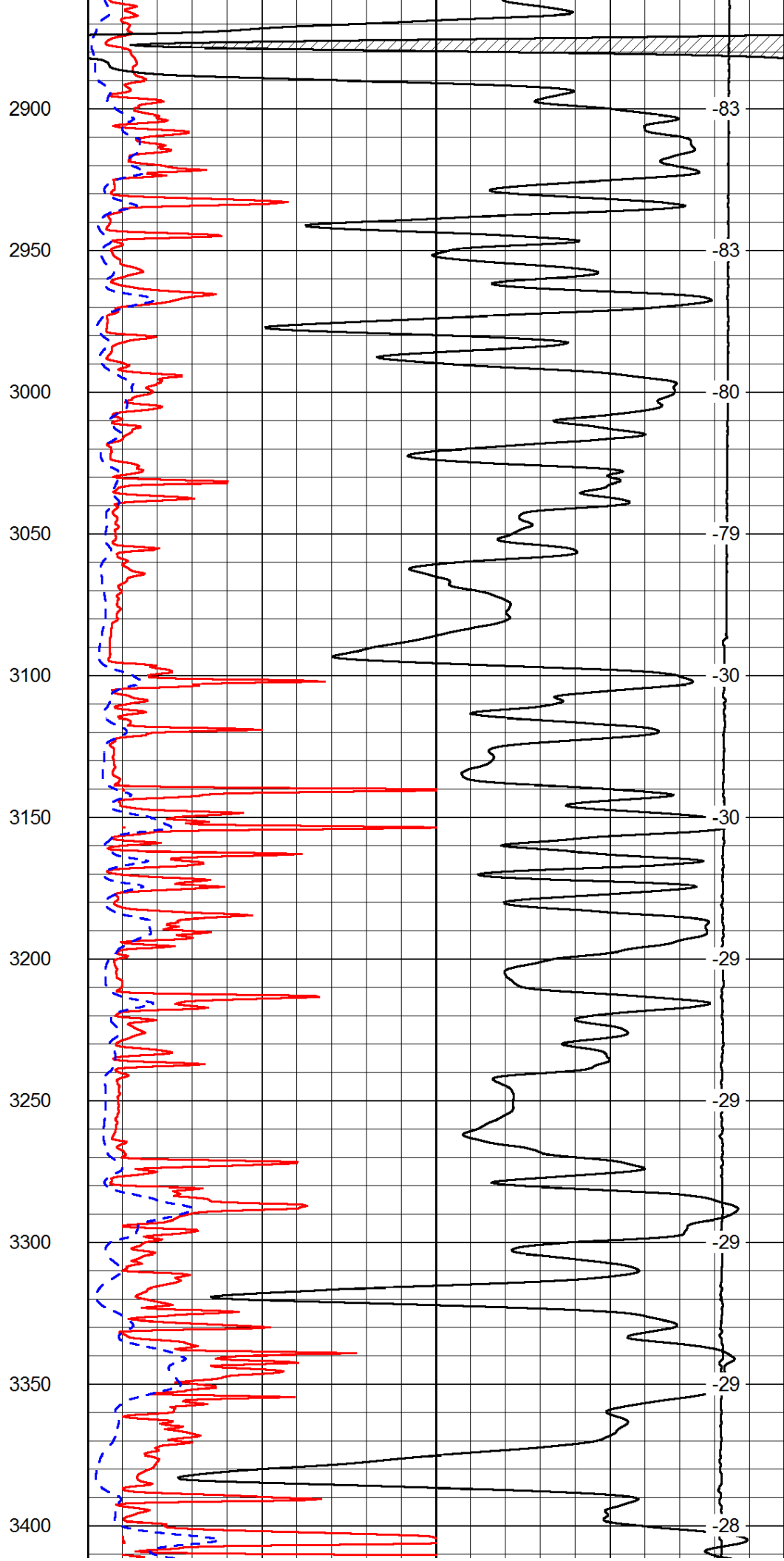
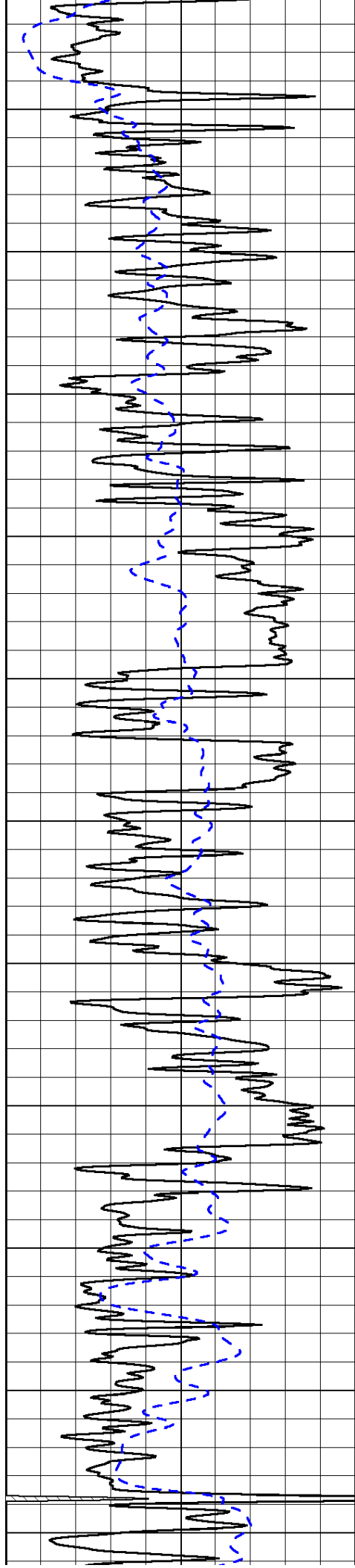


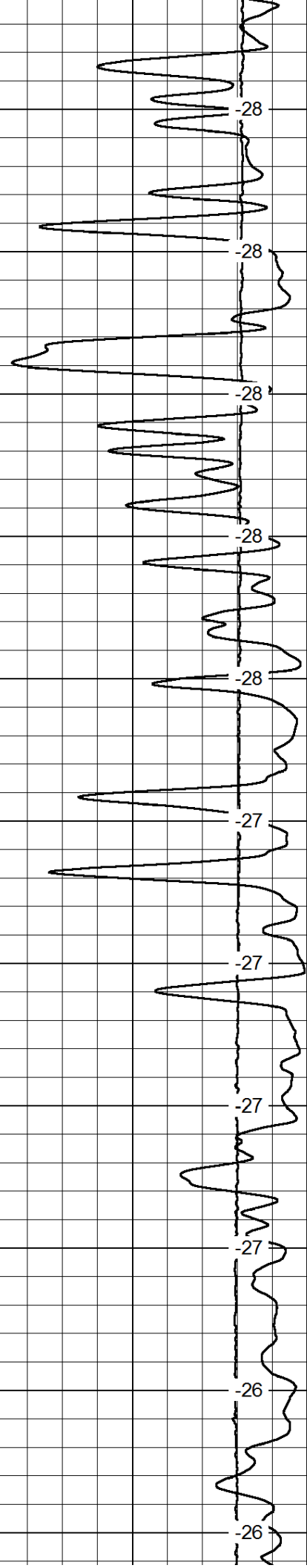
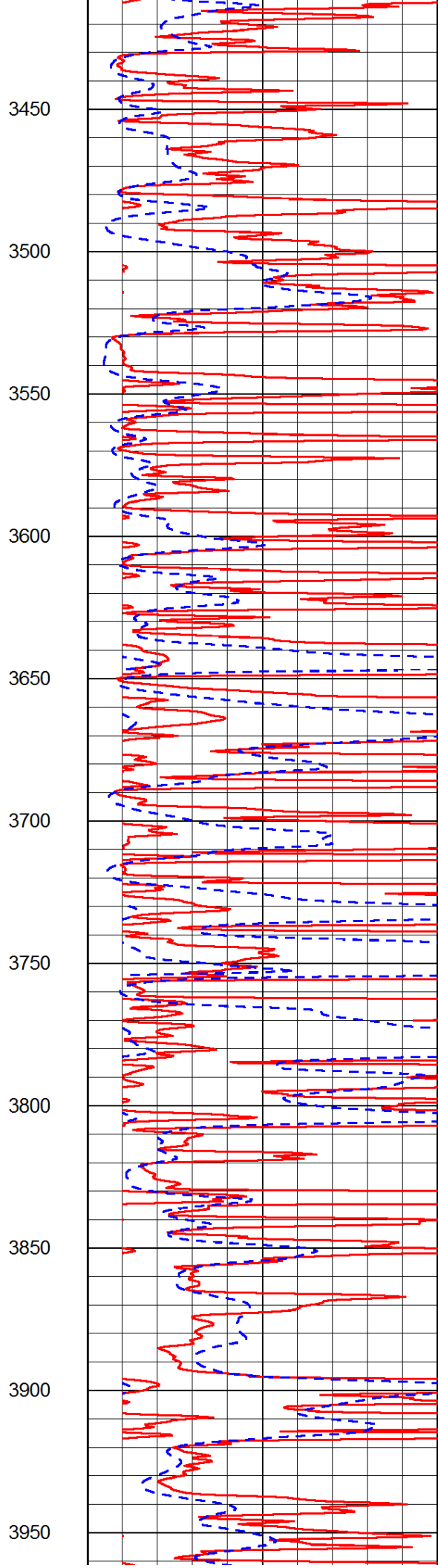
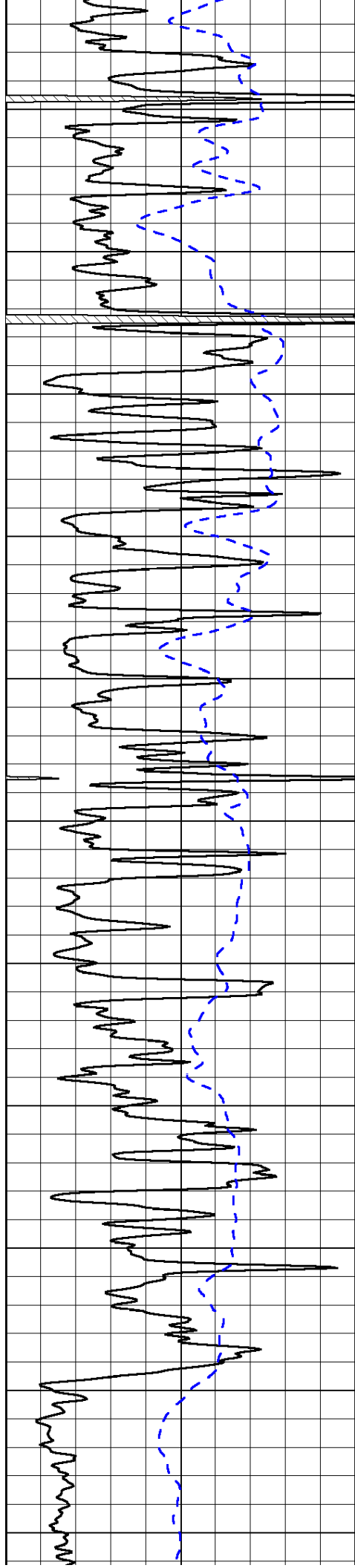


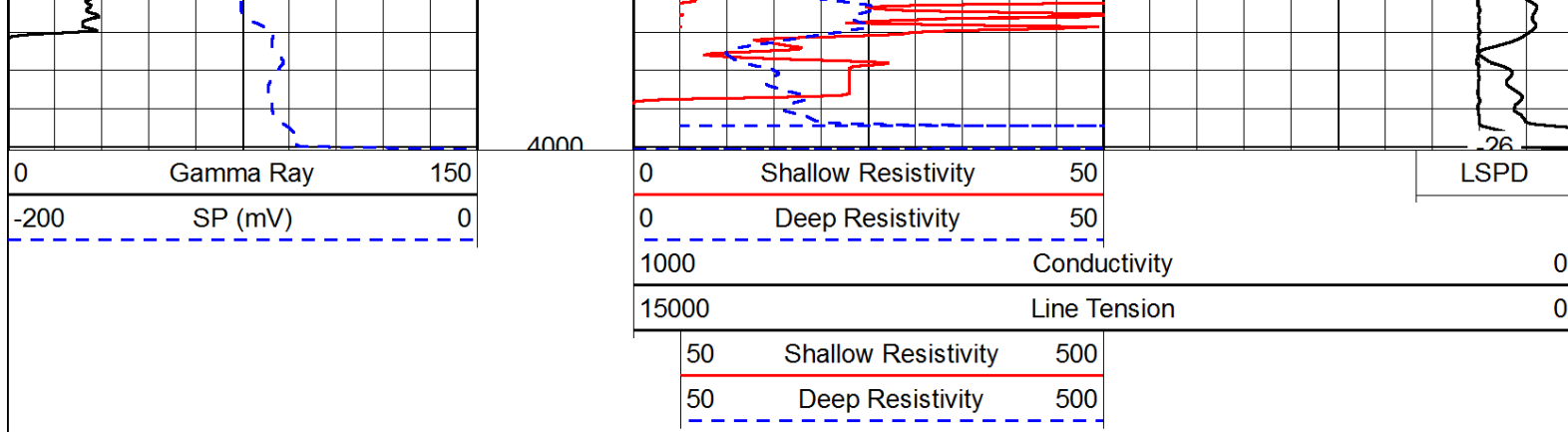




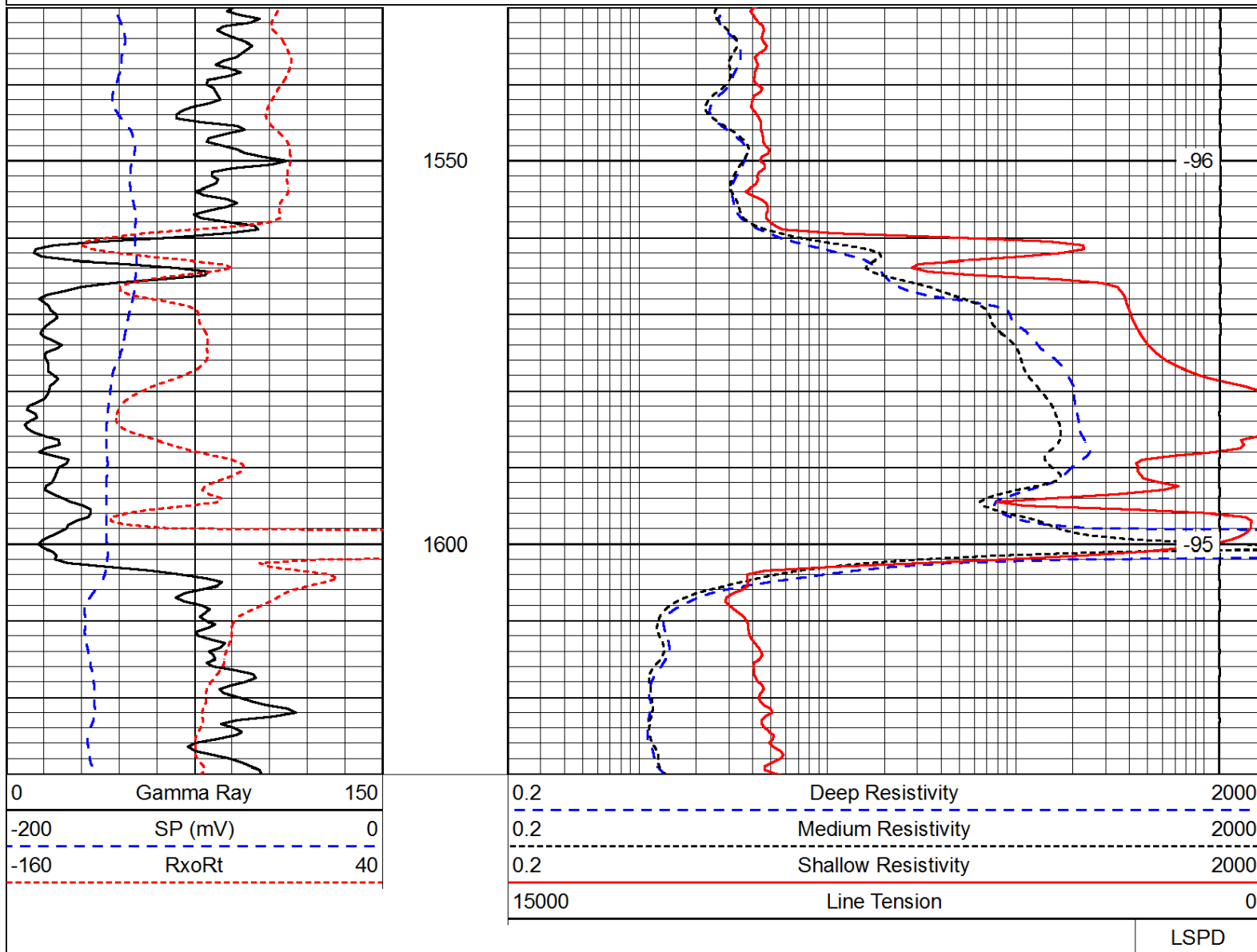
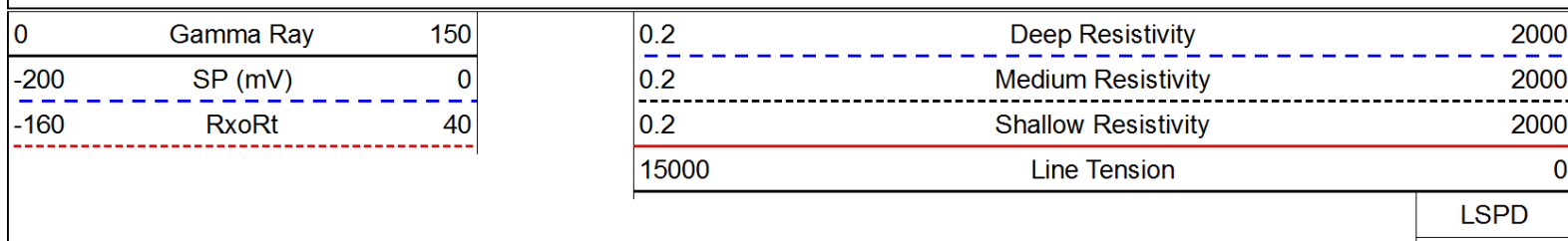








Database File: c:\warrior\data\amwar_riedel c # 1-31\american_warrior_021714hd.db
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 Presentation Format: dil
 Dataset Creation: Mon Feb 17 23:11:28 2014
 Charted by: Depth in Feet scaled 1:240

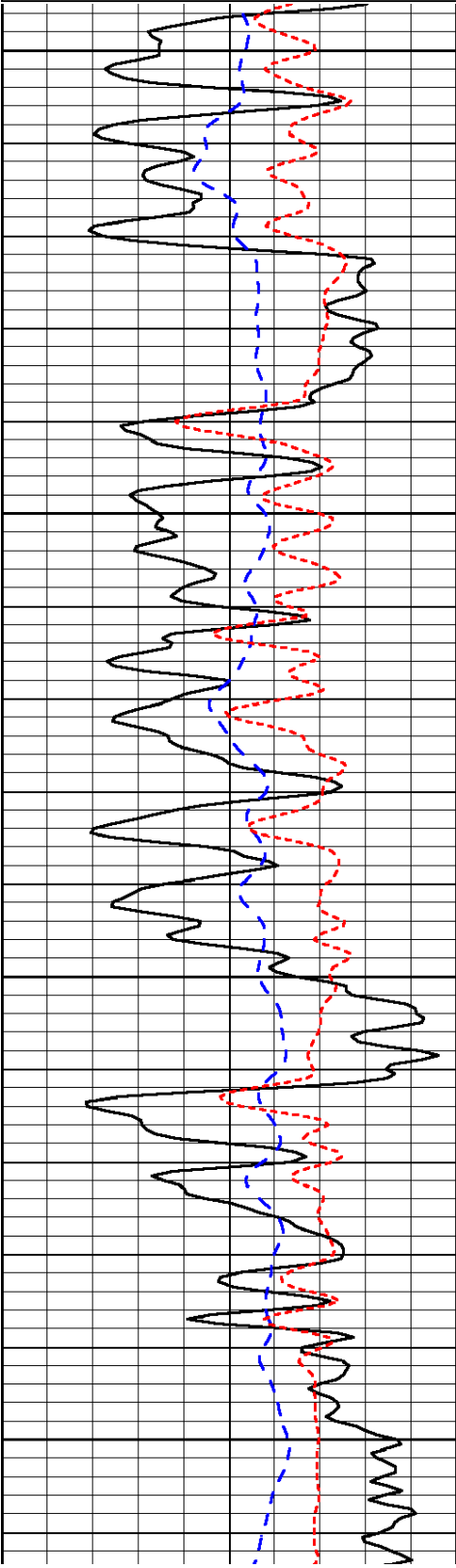


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Dataset Pathname: DIL\awstk
Presentation Format: dil
Dataset Creation: Mon Feb 17 23:11:28 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD

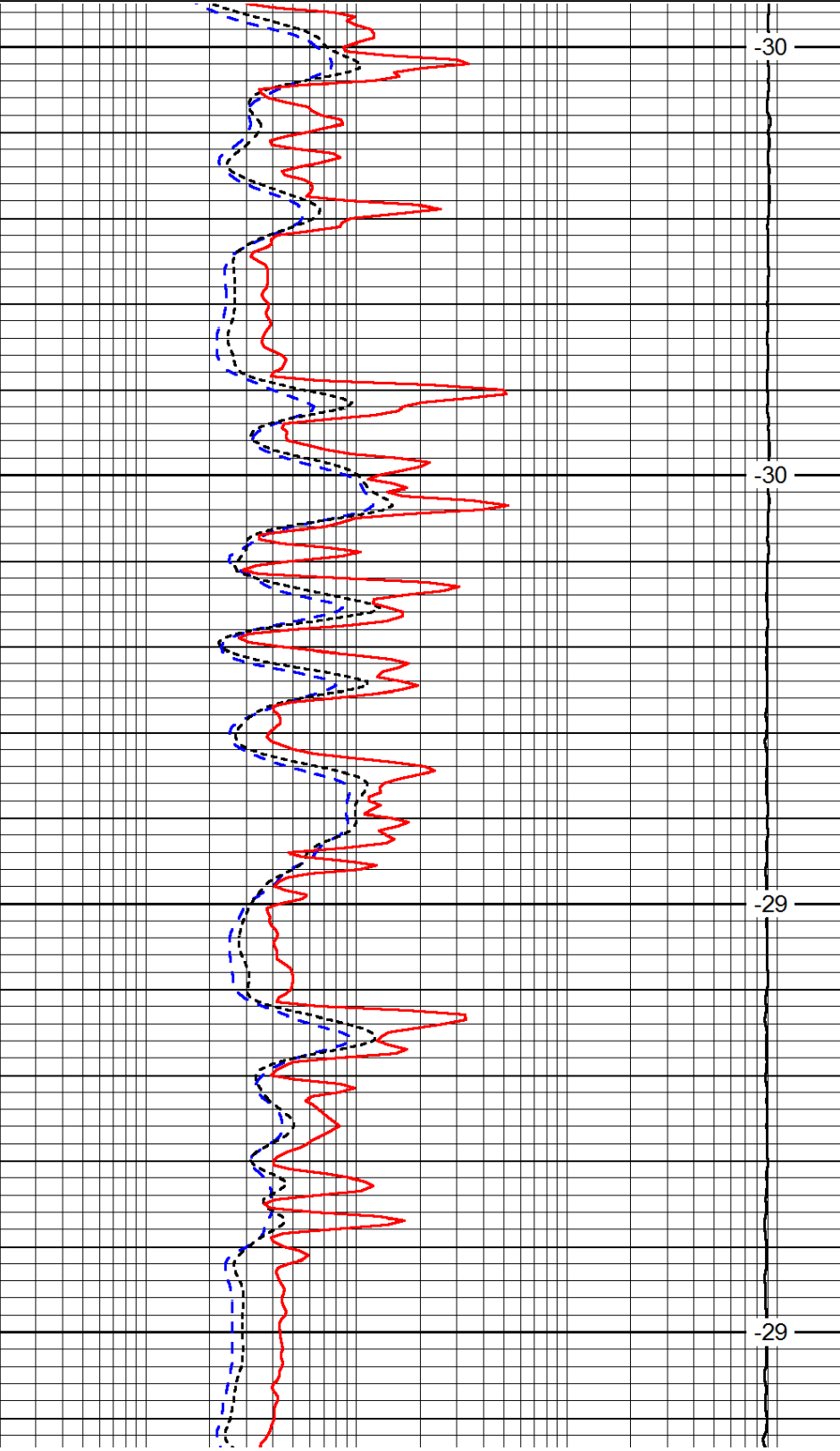


3100

3150

3200

3250

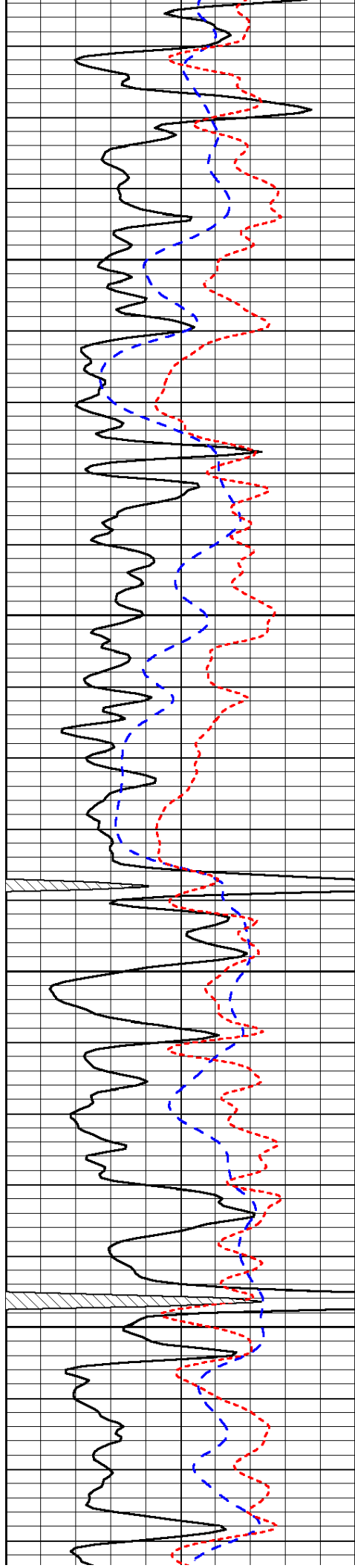


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-30

-29

-29

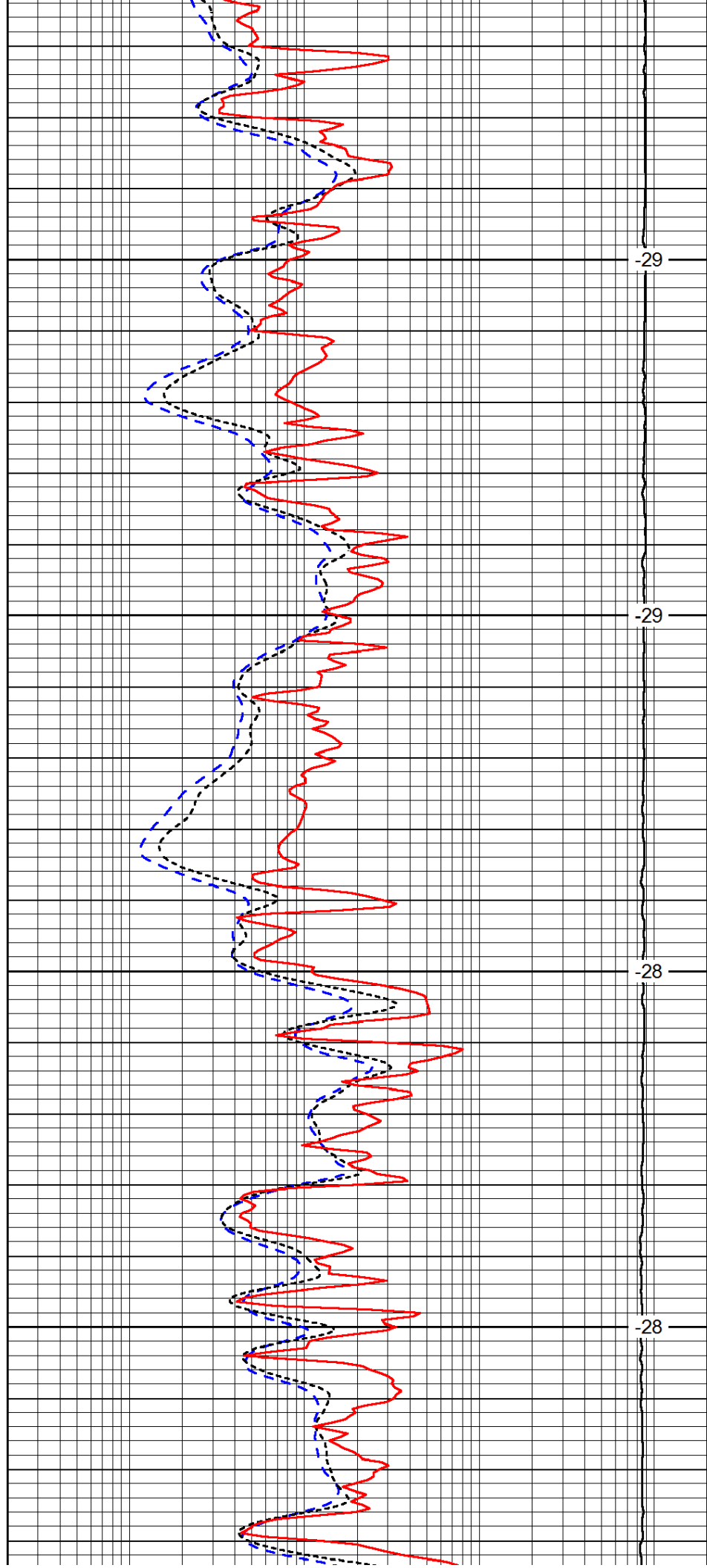


3300

3350

3400

3450

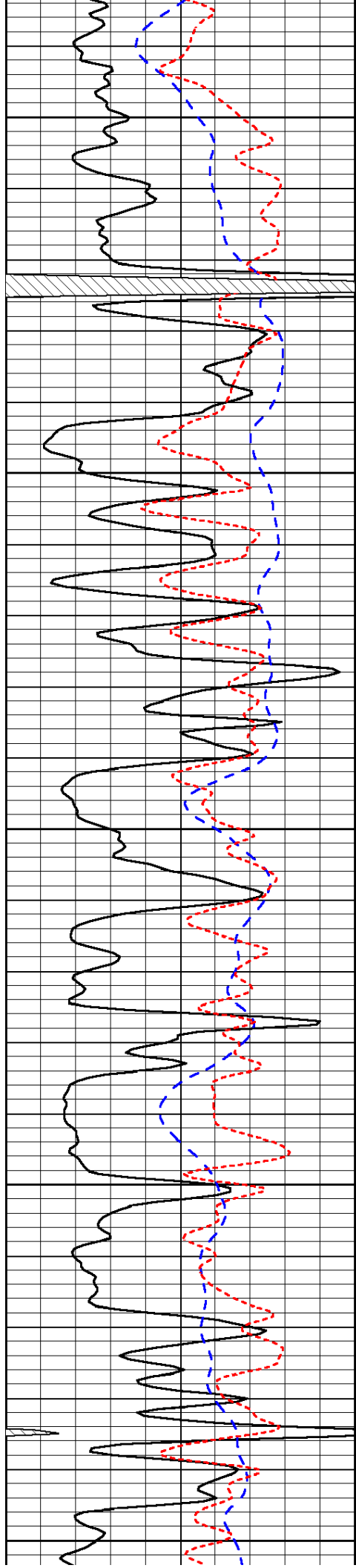


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-29

-28

-28



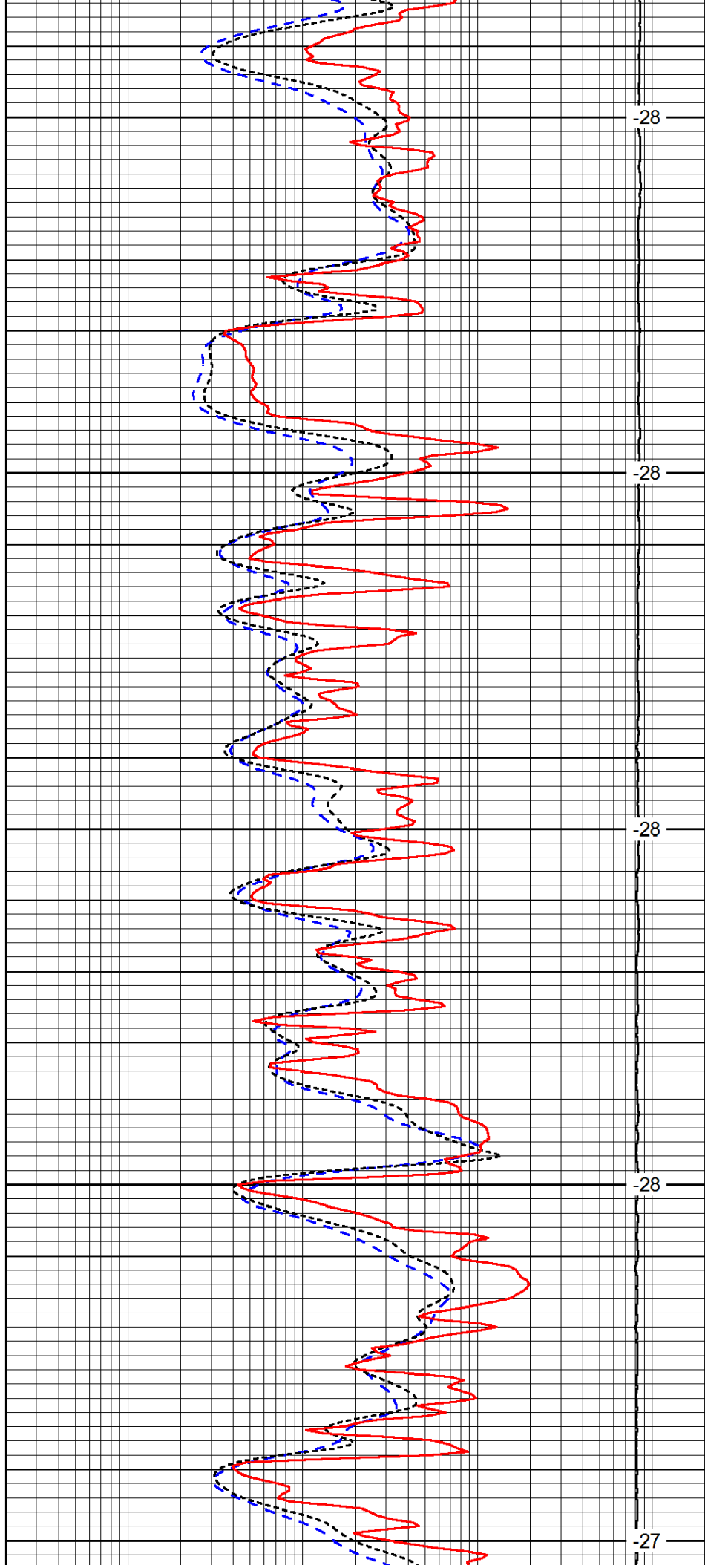
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3550

3600

3650

3700



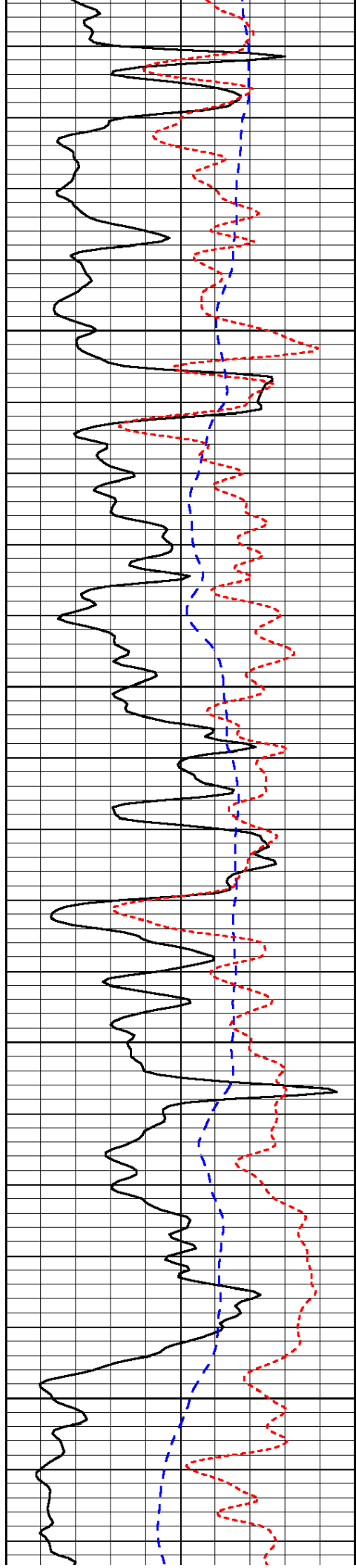
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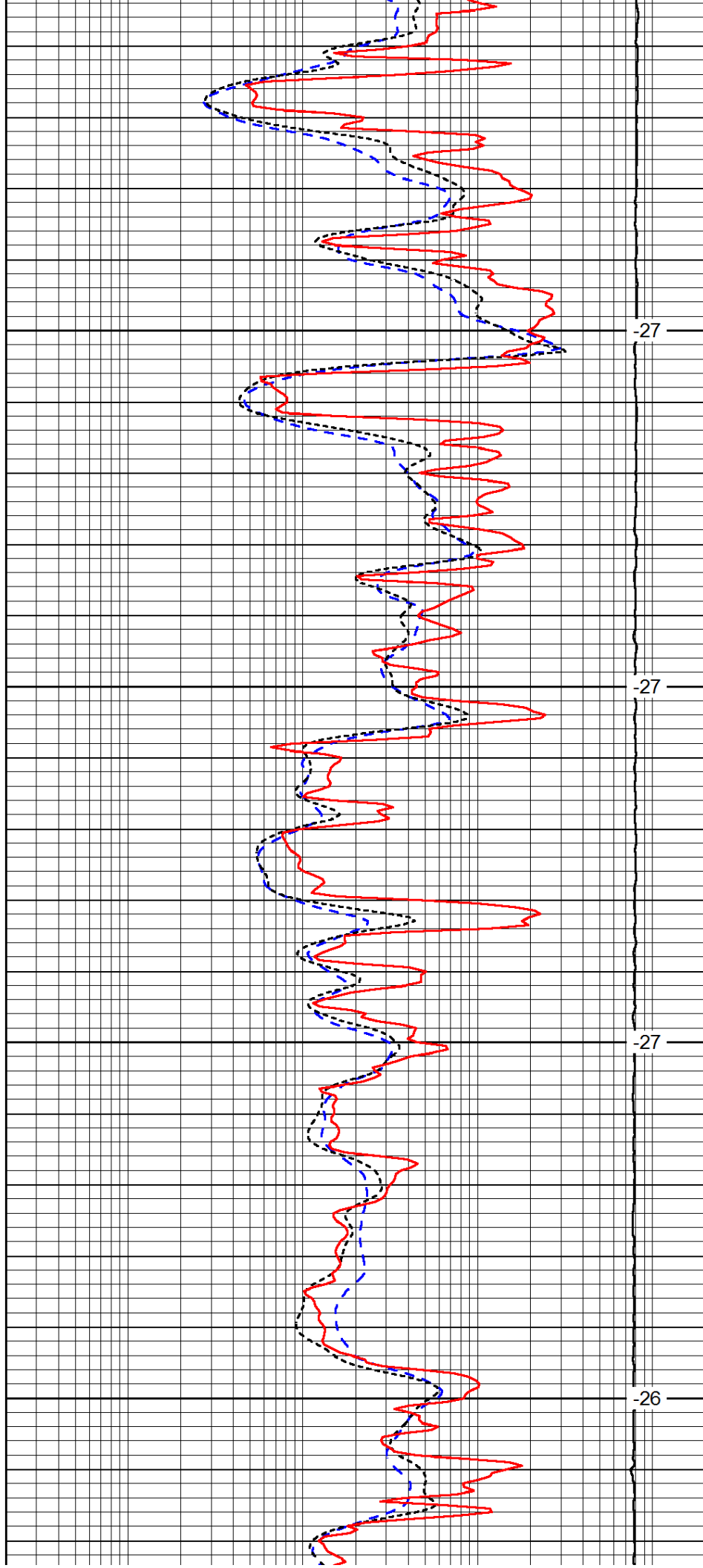


3750

3800

3850

3900

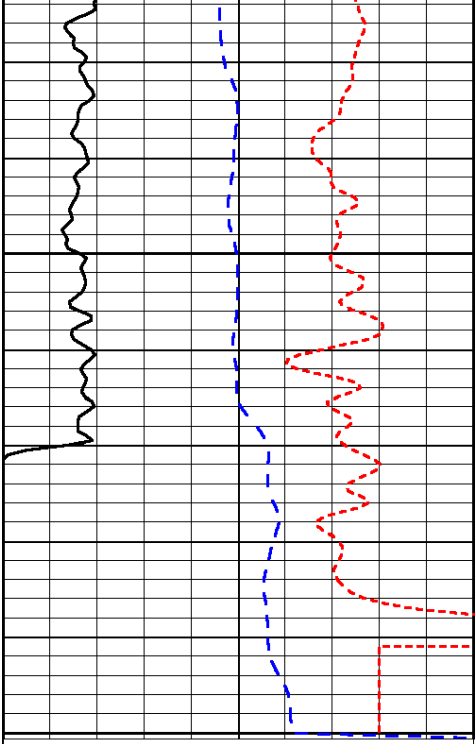


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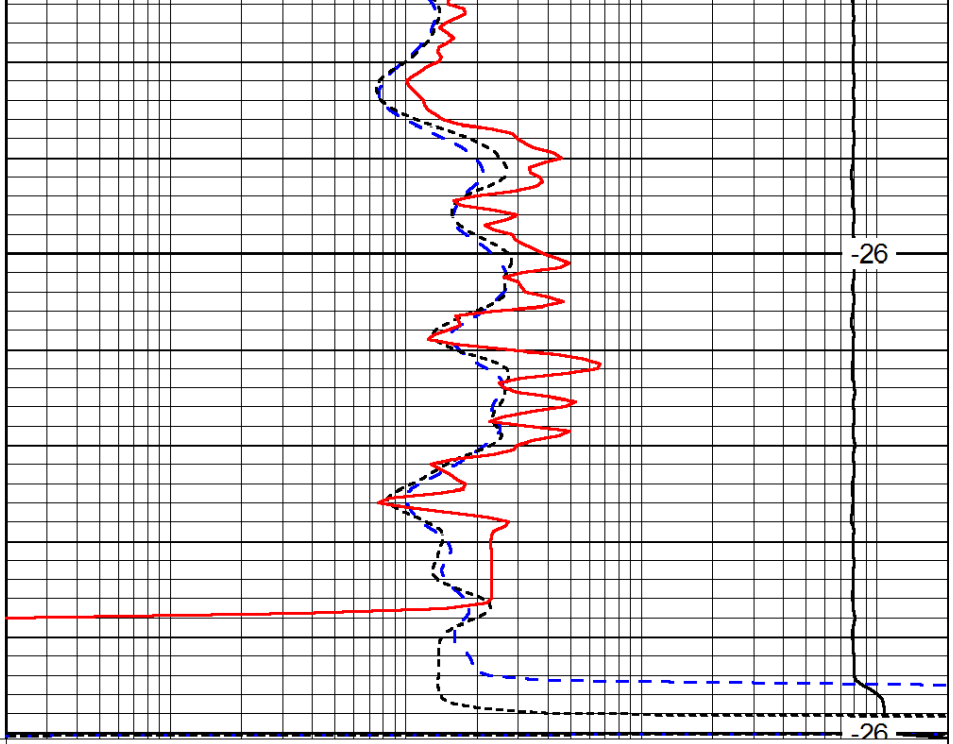
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0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

3950

4000



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

-26

-26

LSPD