



DIGITAL LOG (785) 625-3858

Dual Induction Log

API No.	15-101-22,278-00-00	
Company	Larson Engineering, Inc.	
Well	Harris Unit No. 1-20	
Field	Cowdery	
County	Lane	State Kansas
Location	SE NE SE SW 758' FSL & 2,502' FWL	
Sec: 20	Twp: 18 S	Rge: 30 W
Other Services	CNL/CDL MEL	

Permanent Datum	Ground Level	Elevation 2889
Log Measured From	Kelly Bushing	7 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date	2/21/2011	

Run Number	One
Depth Driller	4650
Depth Logger	4651
Bottom Logged Interval	4650
Top Log Interval	250
Casing Driller	8.625 @ 255
Casing Logger	254
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	3000
Density / Viscosity	9.4 58
pH / Fluid Loss	11.0 8.0
Source of Sample	Flowline
Rm @ Meas. Temp	1.50 @ 48
Rmf @ Meas. Temp	1.13 @ 48
Rmc @ Meas. Temp	2.03 @ 48
Source of Rmf / Rmc	Charts
Rm @ BHT	.59 @ 123
Operating Rig Time	4 Hours
Max Rec. Temp. F	123
Equipment Number	10
Location	Hays
Recorded By	Jim Schuler
Witnessed By	Bob Lewellyn

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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

Dighton, Kansas, 10 Miles West to Bison Road,
1 Mile South to 140 RD, West 1/2 Mile, North Into

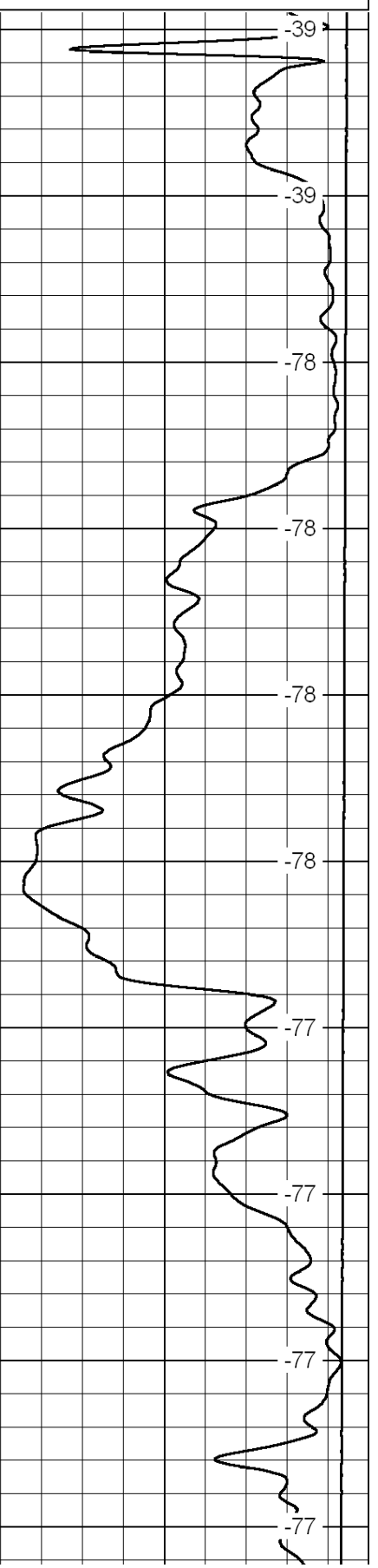
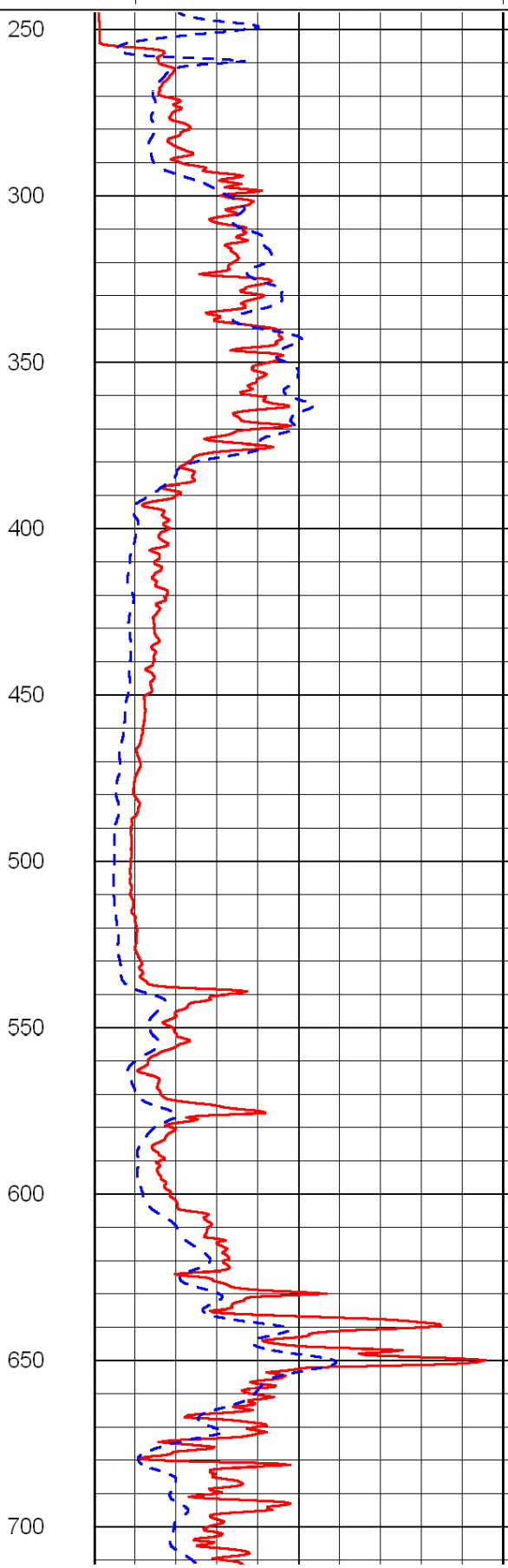
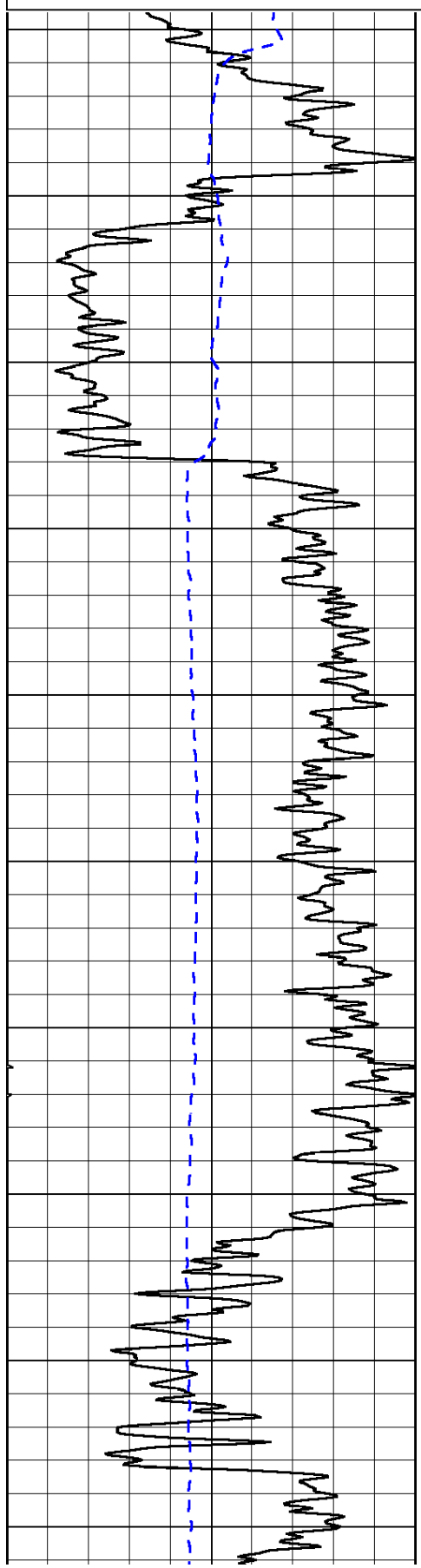
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-200	SP (mV)	0

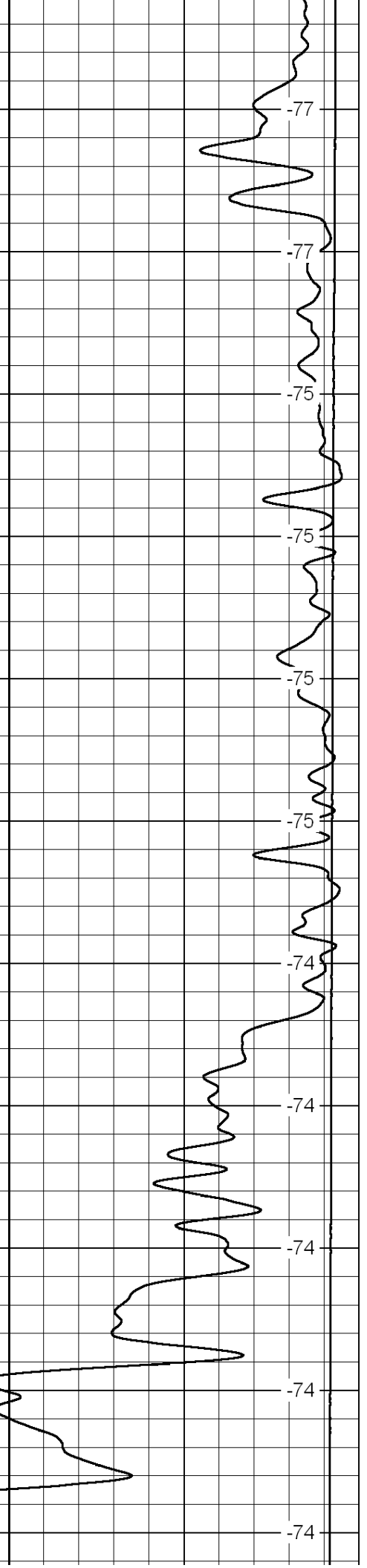
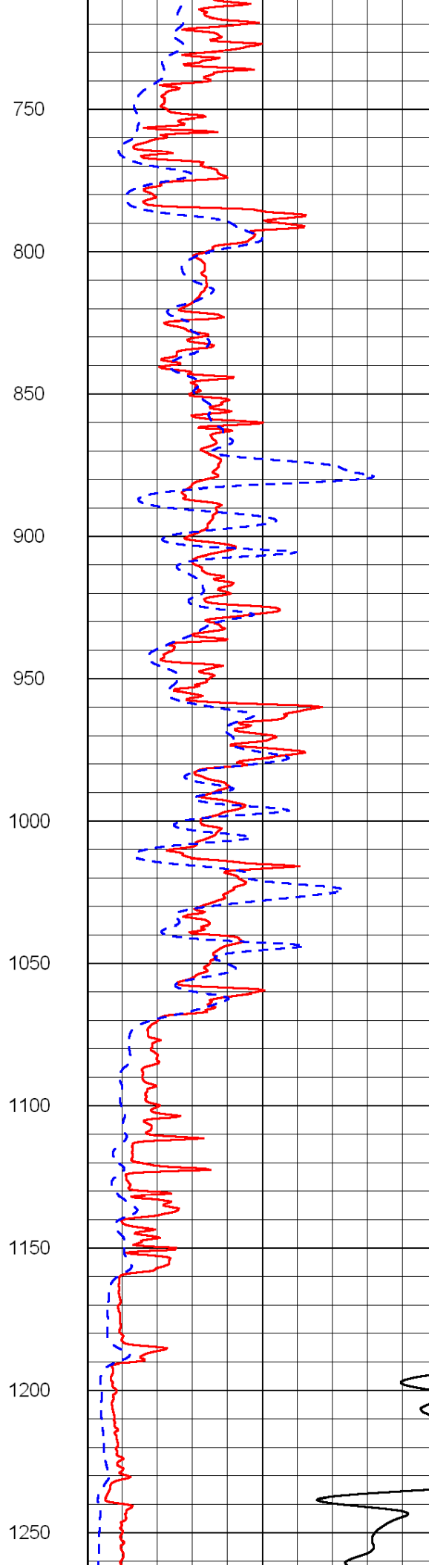
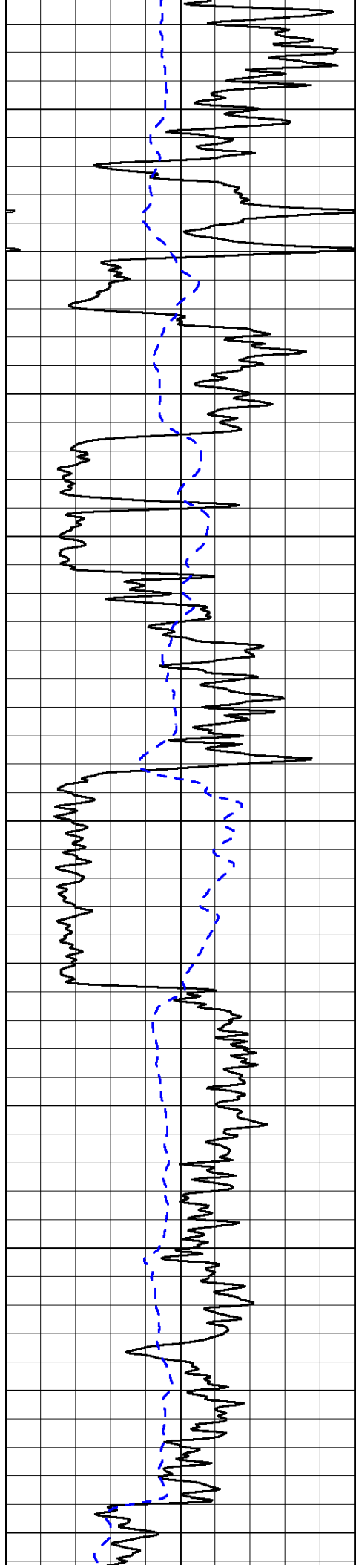
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0	Deep Resistivity	50

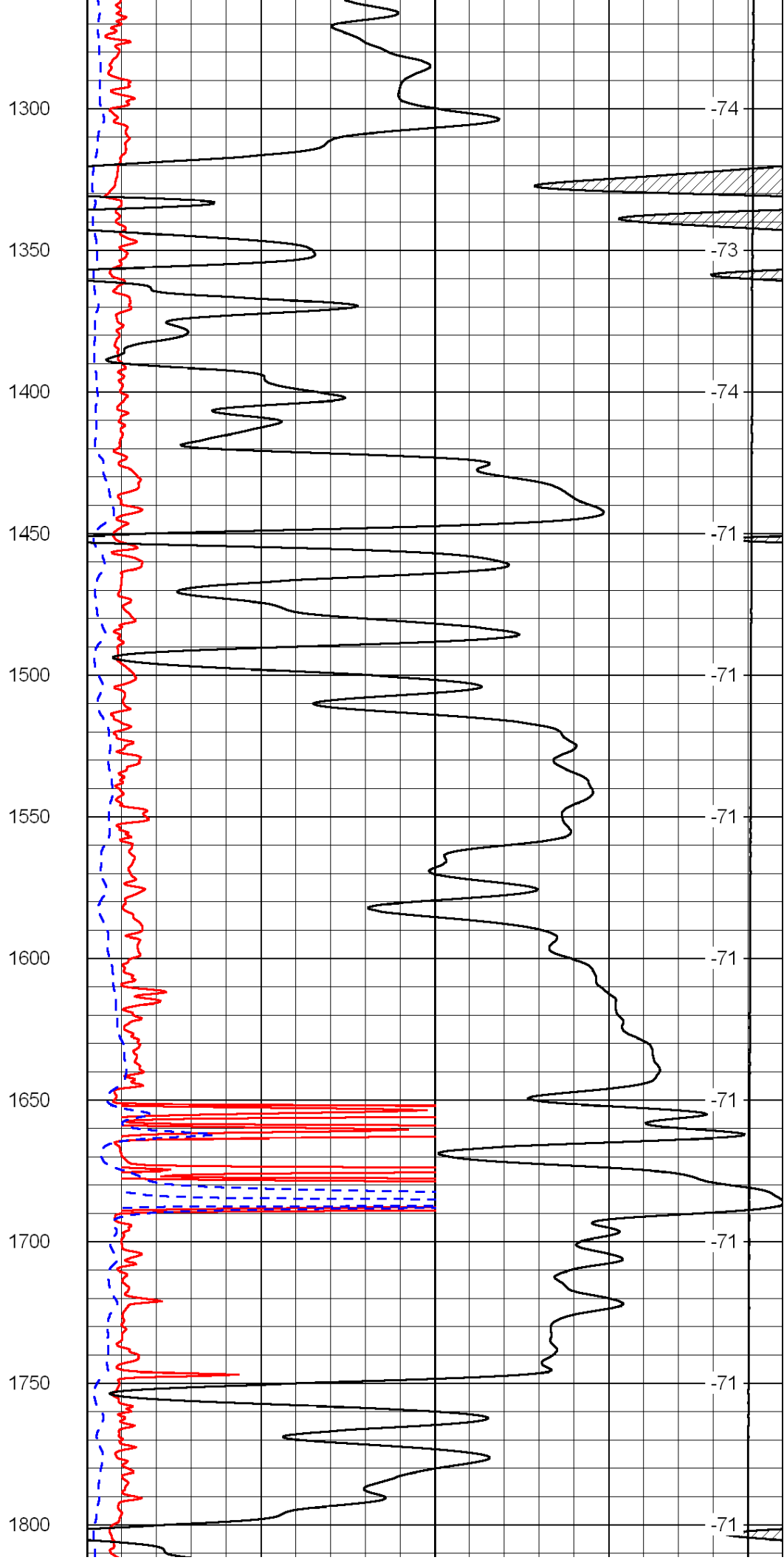
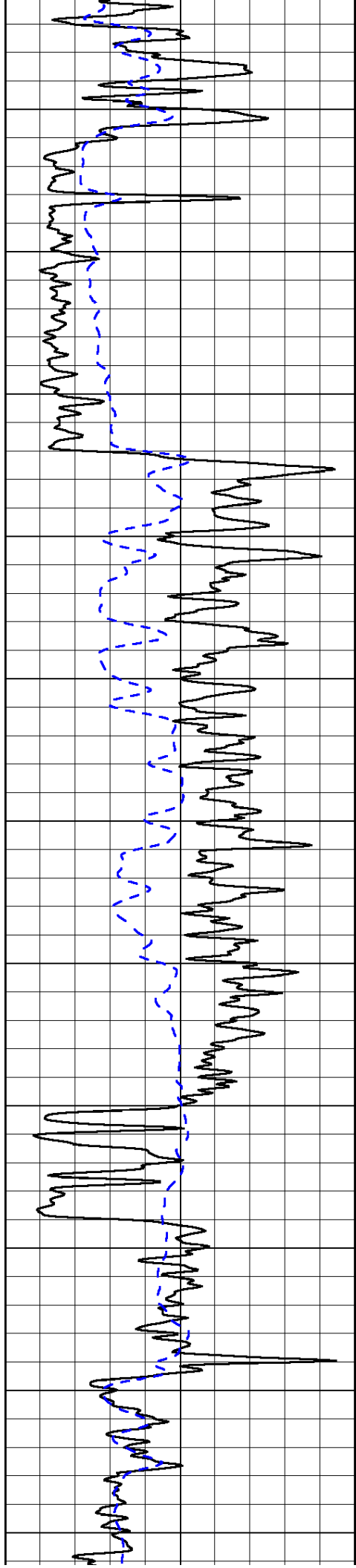
LSPD

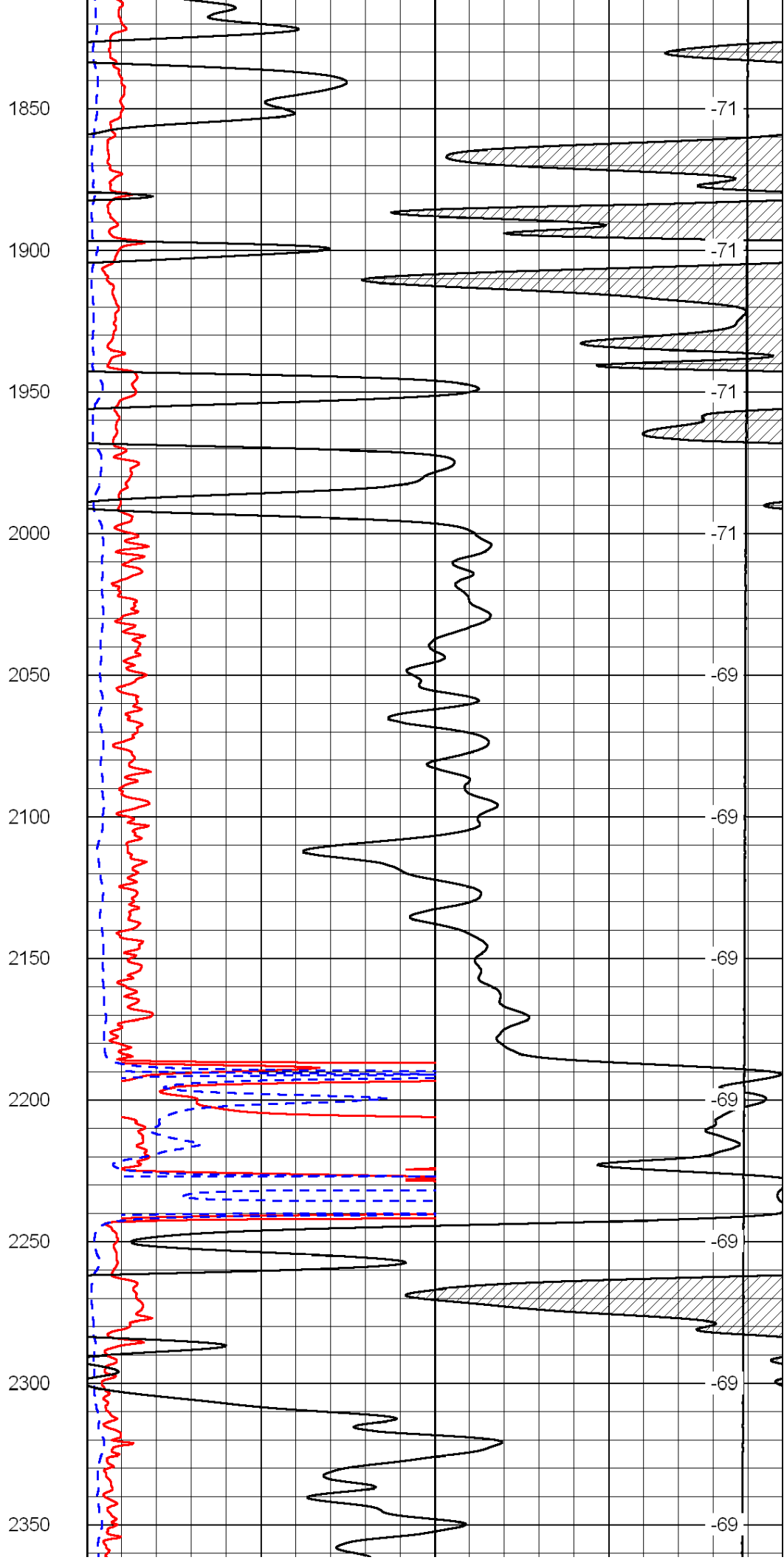
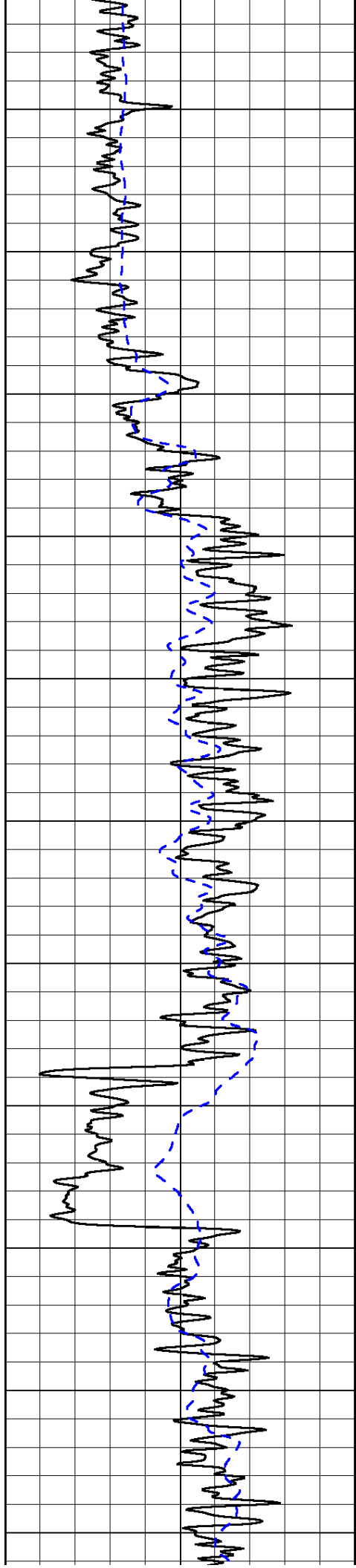
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15000	Line Tension	0

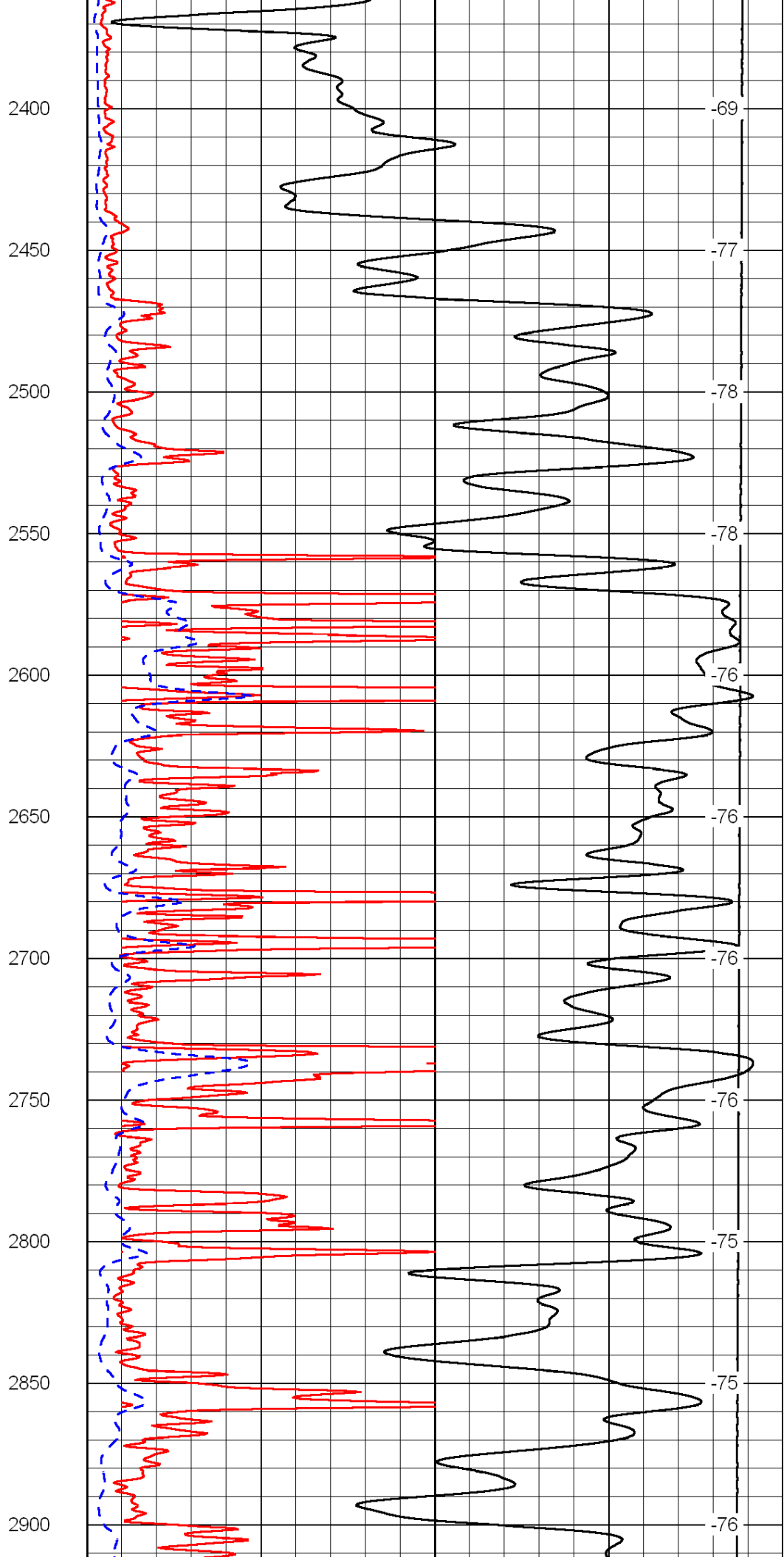
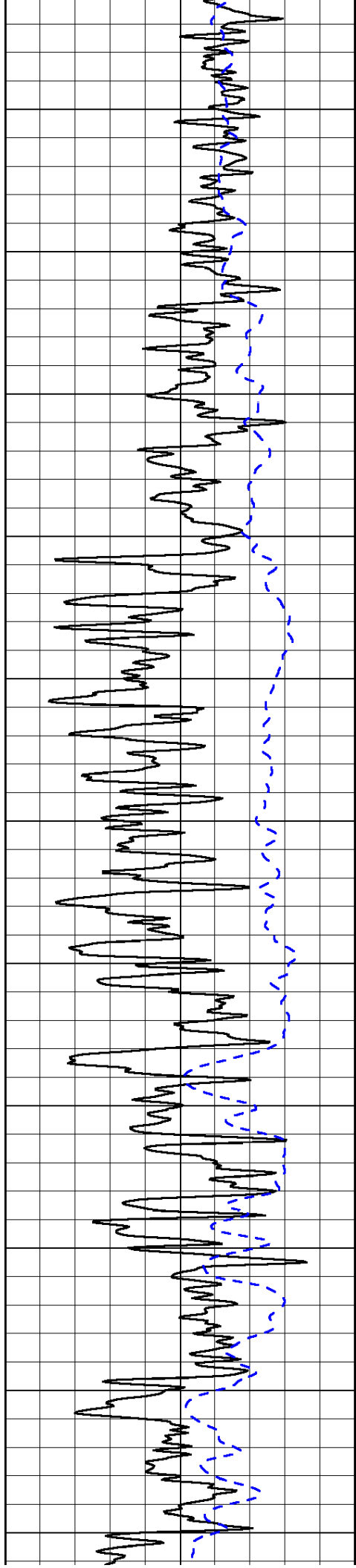
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50	Deep Resistivity	500

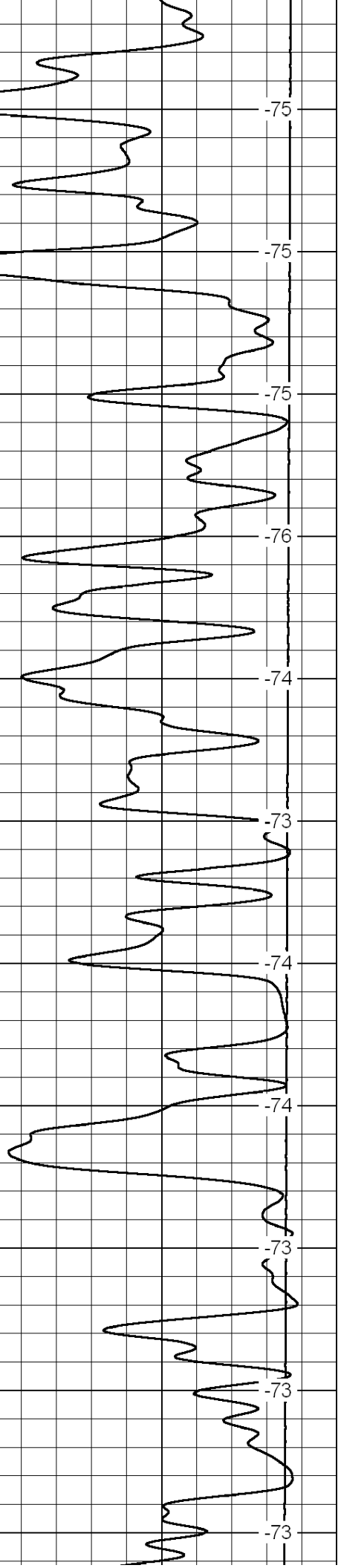
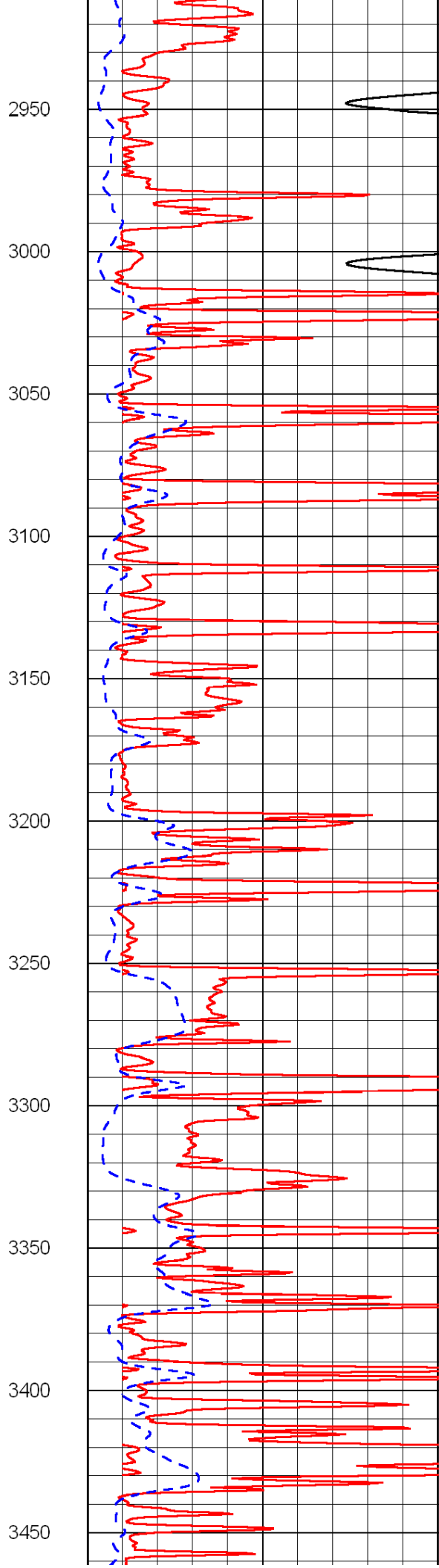
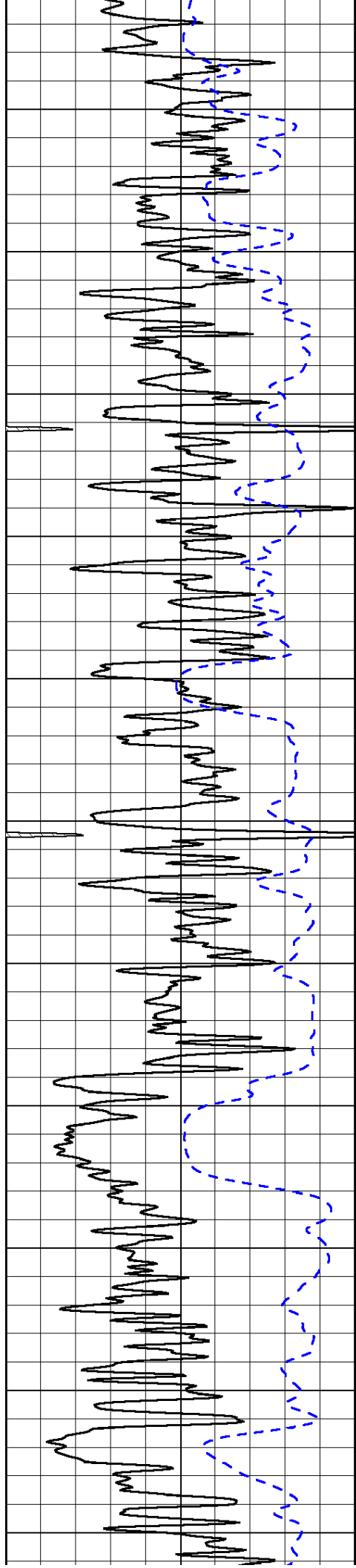


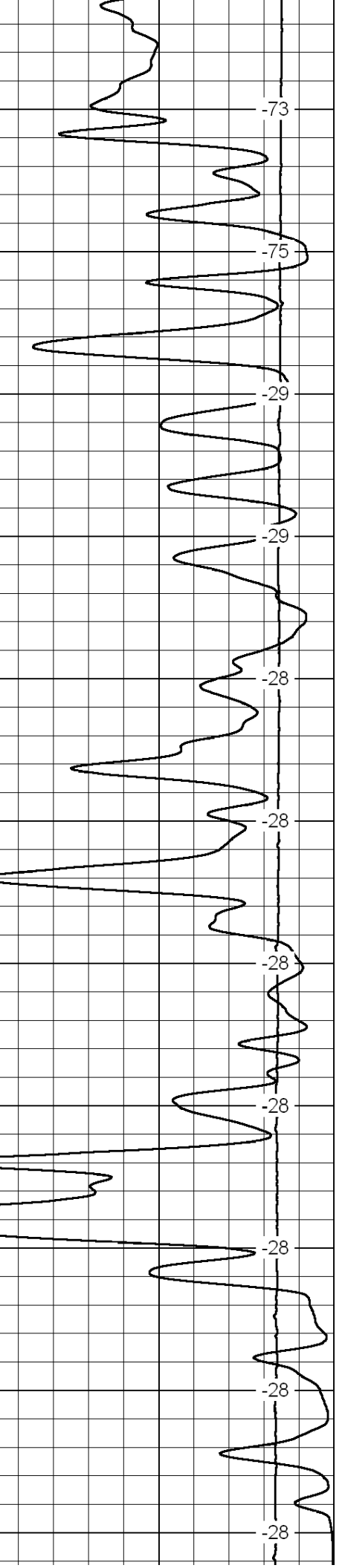
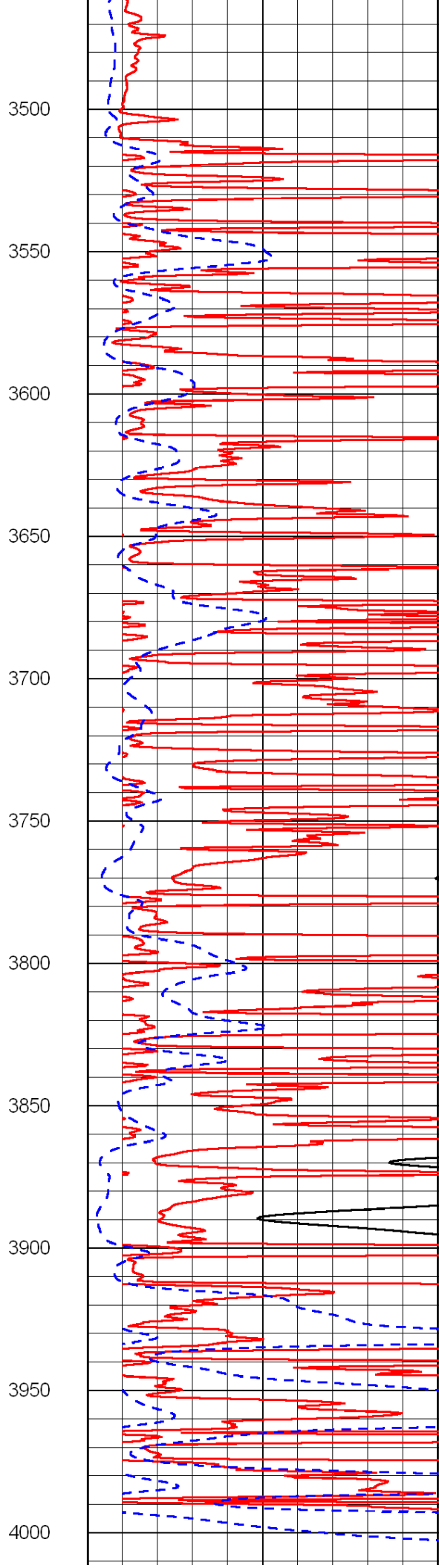
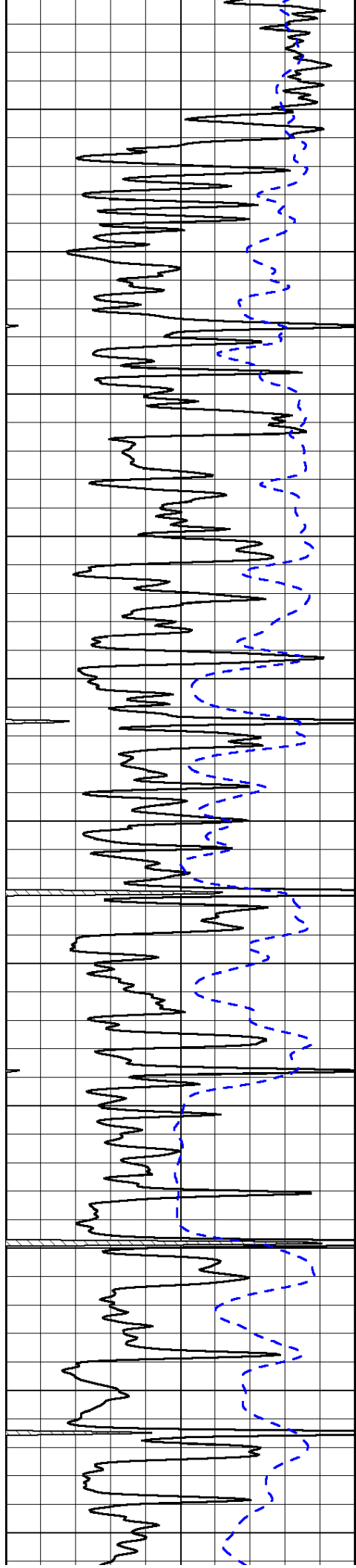


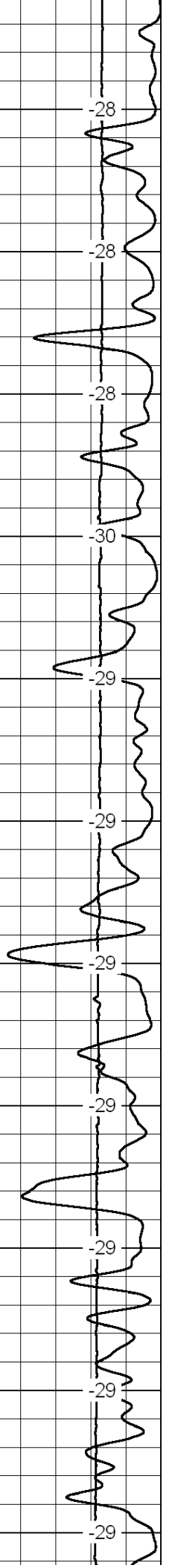
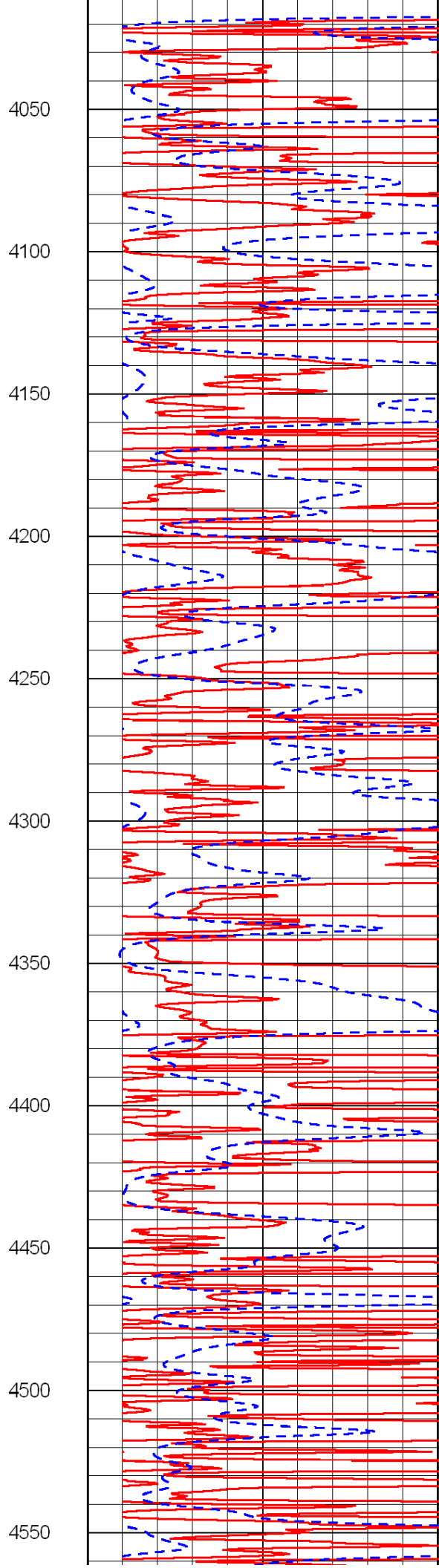
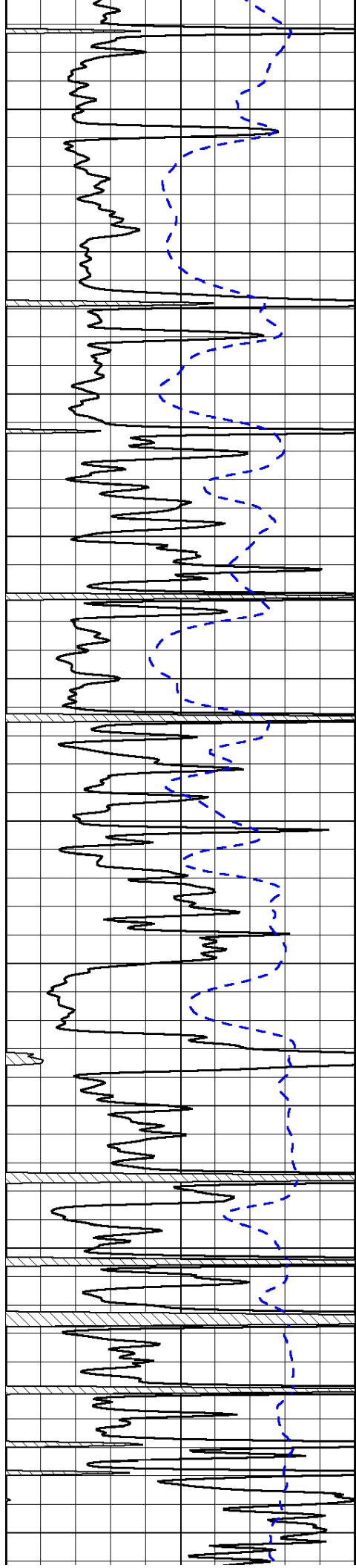


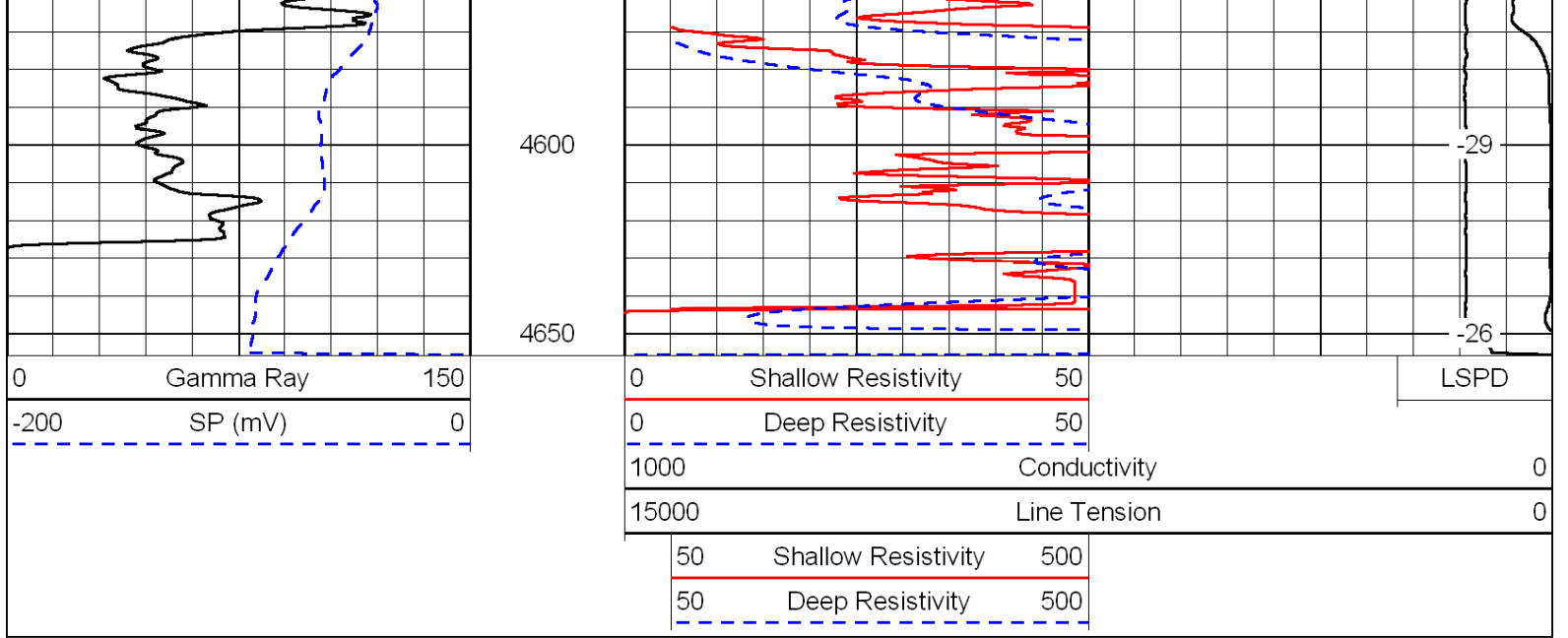




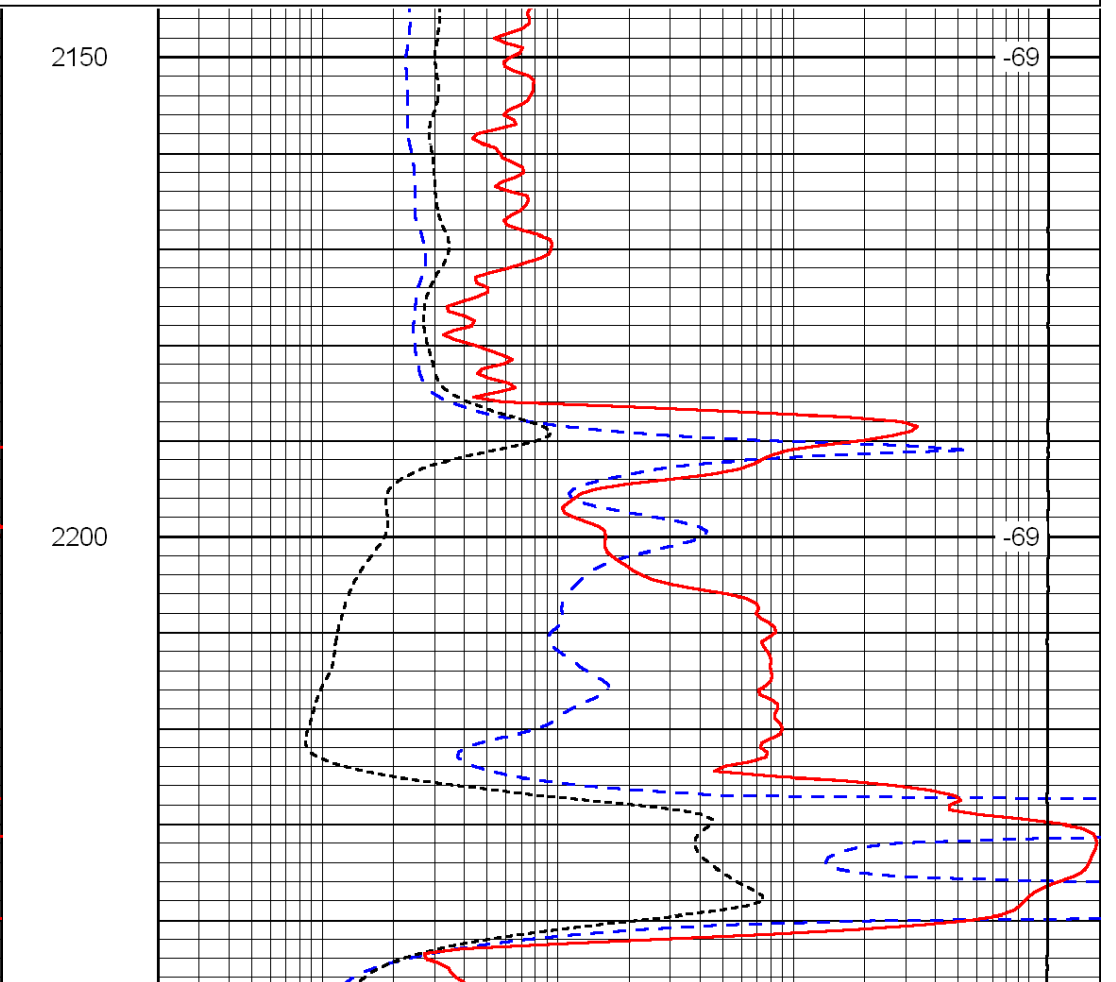
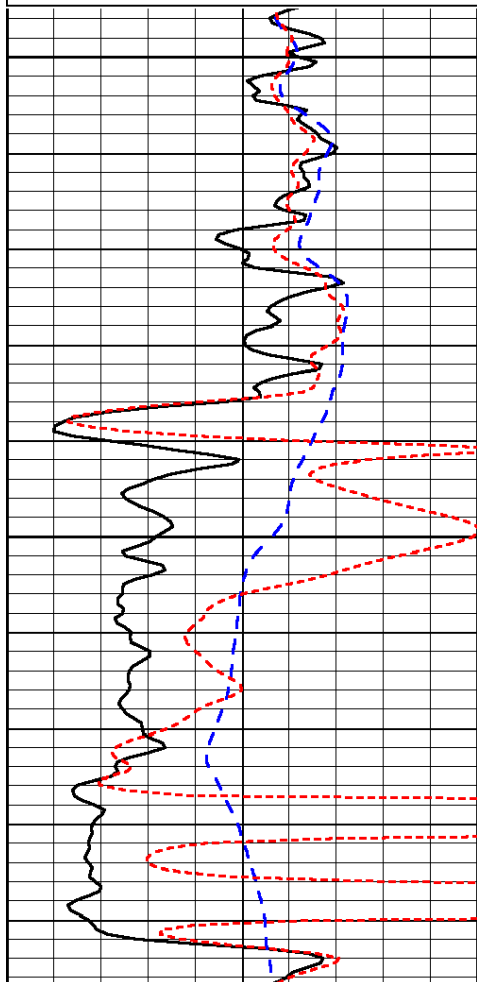
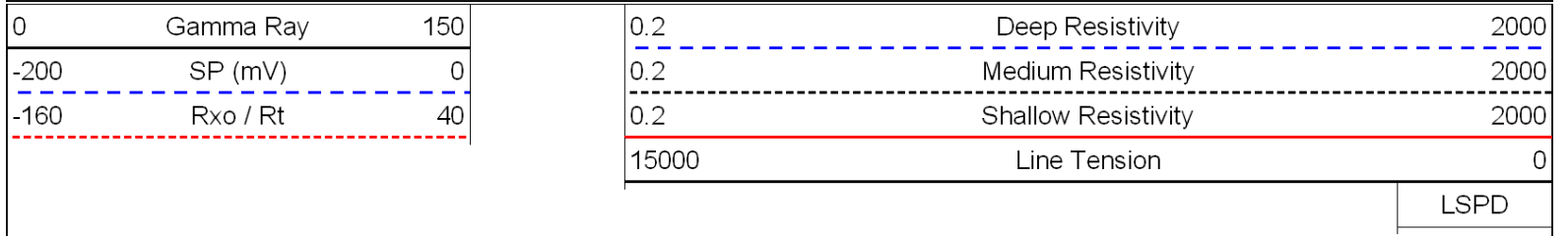


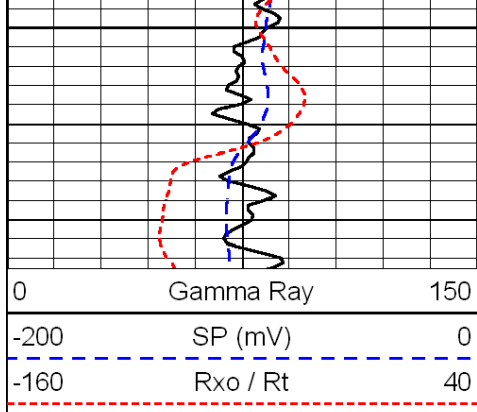




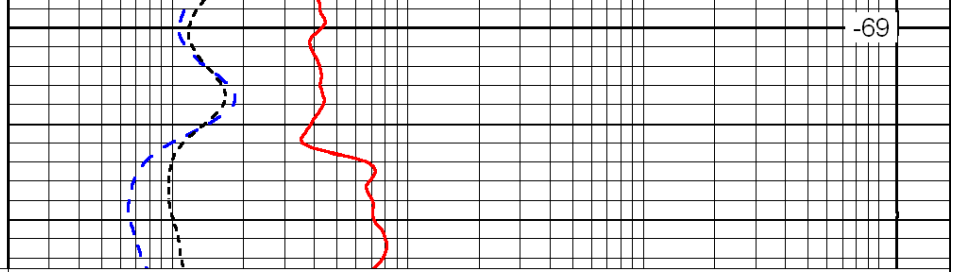


Database File: c:\warrior\data\larson_harris unit no. 1-20\larson.db
 Dataset Pathname: dil\larstk
 Presentation Format: dil
 Dataset Creation: Tue Feb 22 00:07:58 2011
 Charted by: Depth in Feet scaled 1:240





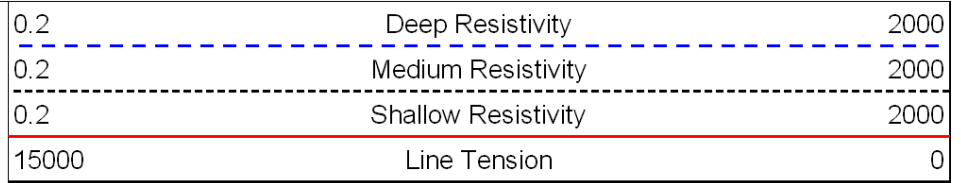
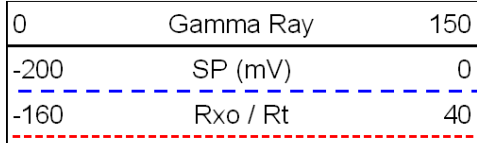
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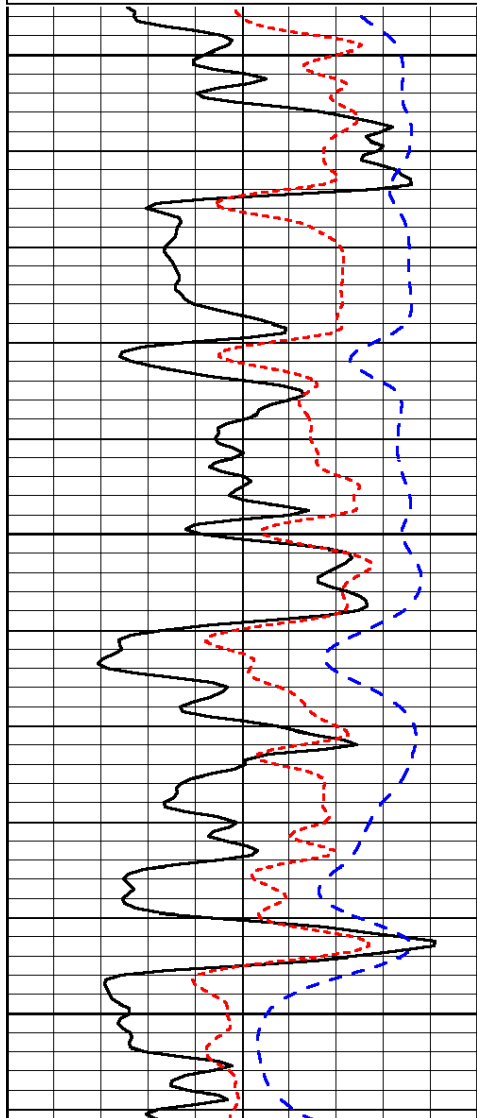
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LSPD

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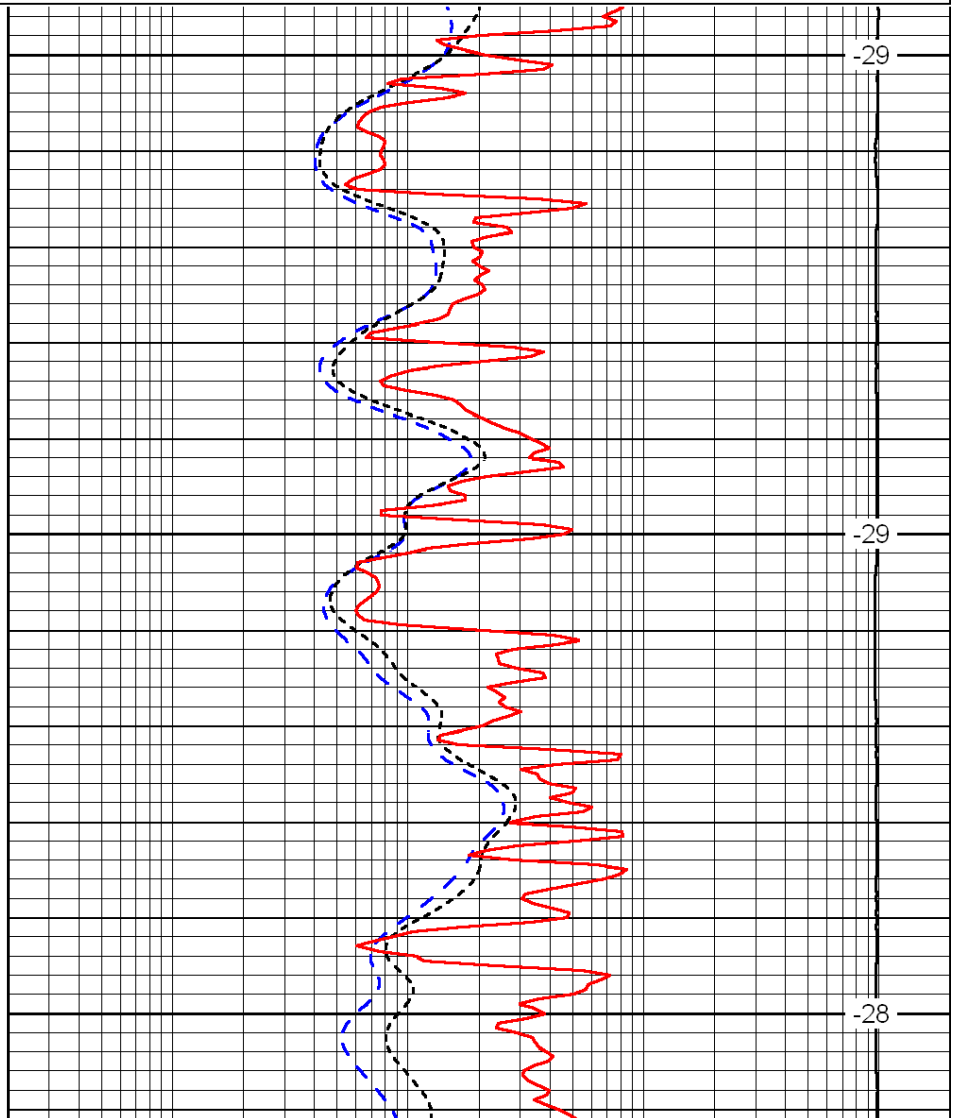
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3600

3650

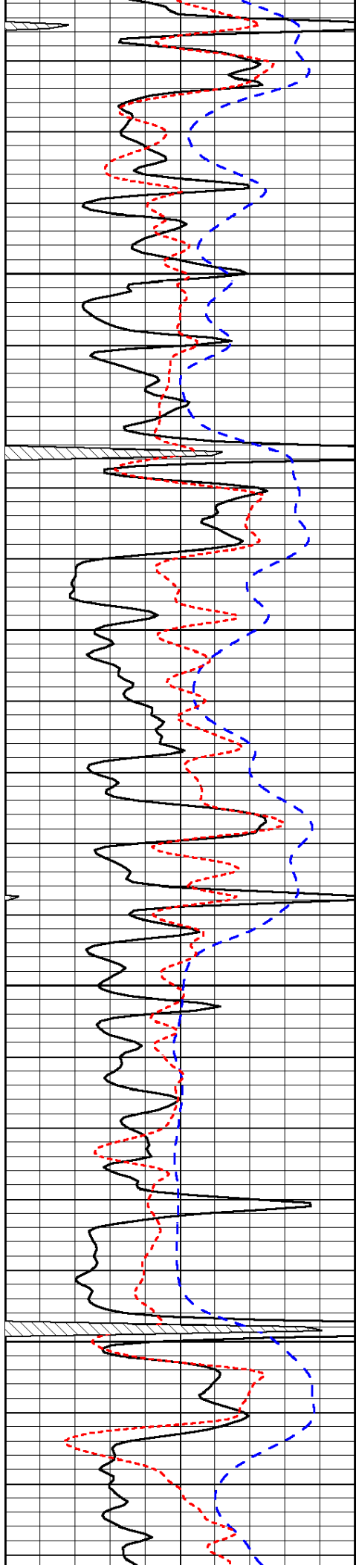
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-29

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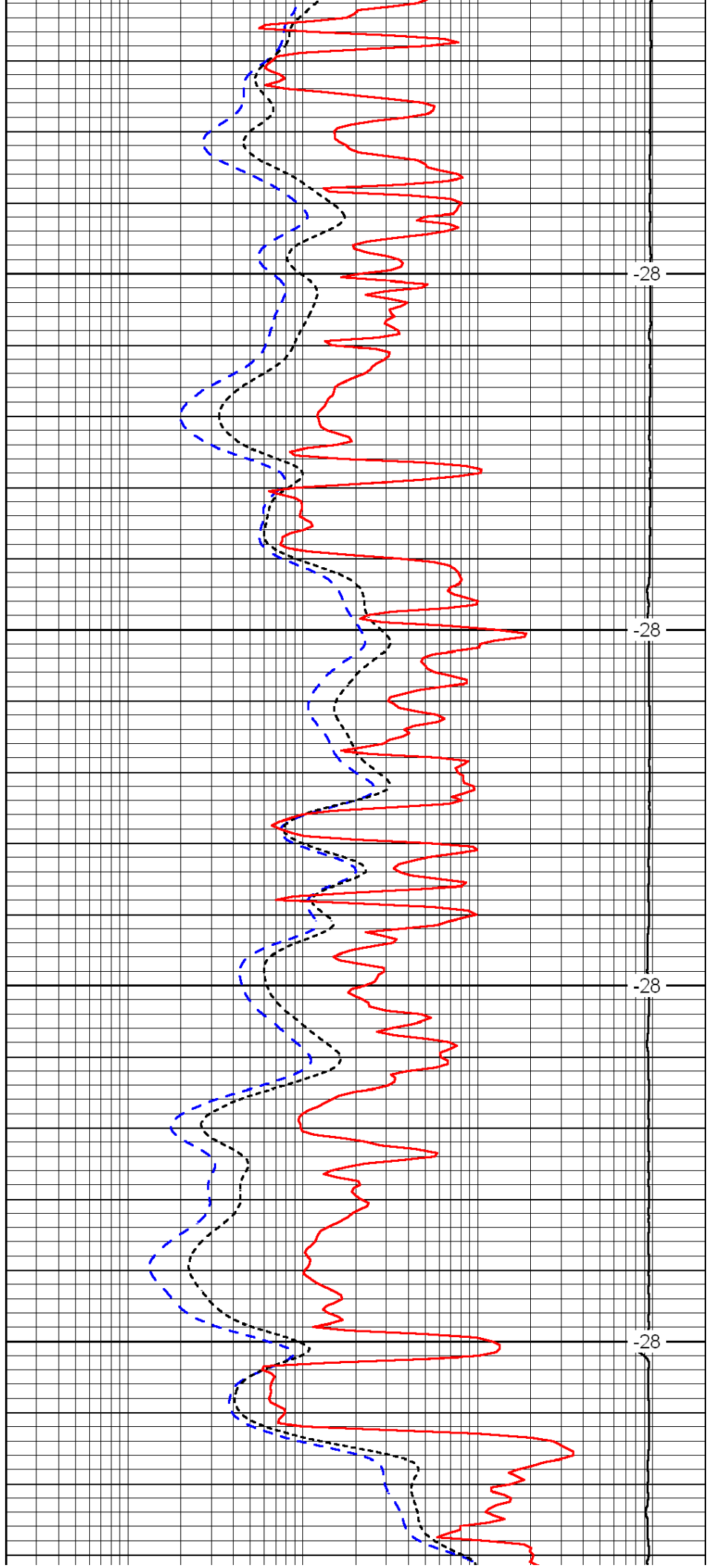


3750

3800

3850

3900

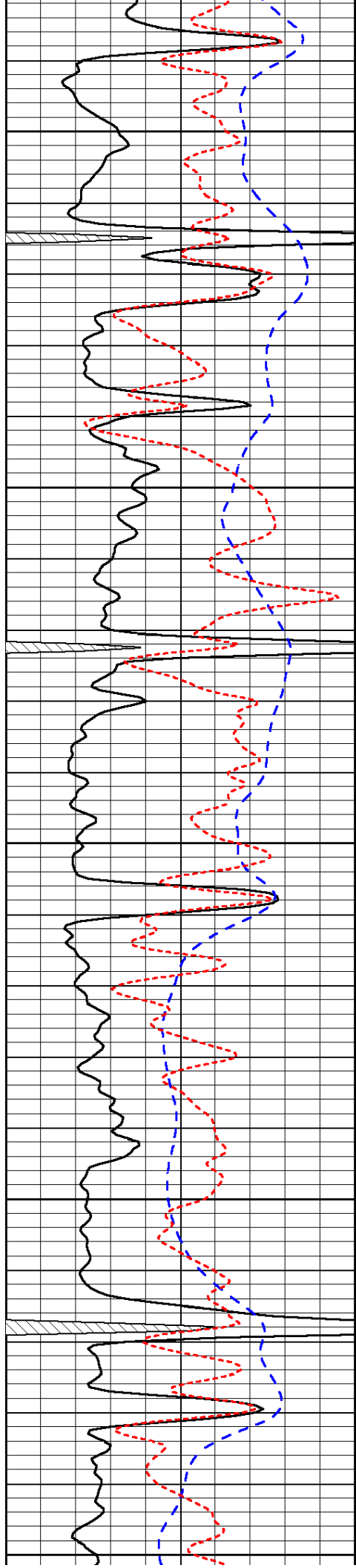


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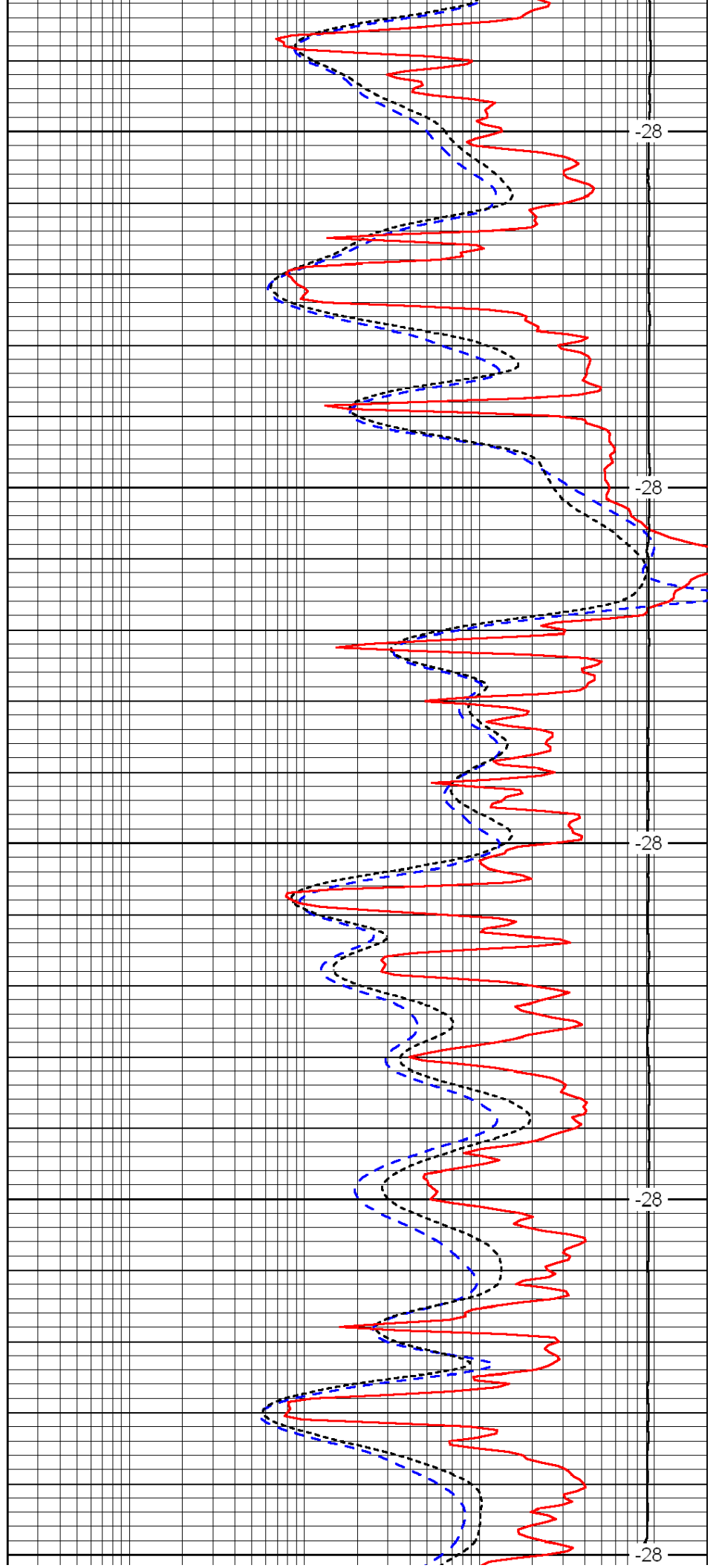
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4000

4050

4100

4150



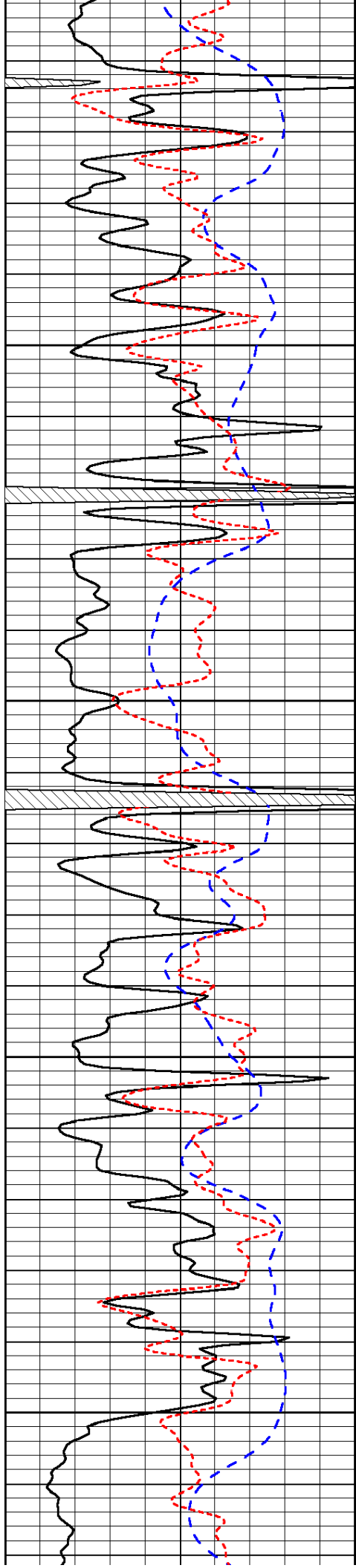
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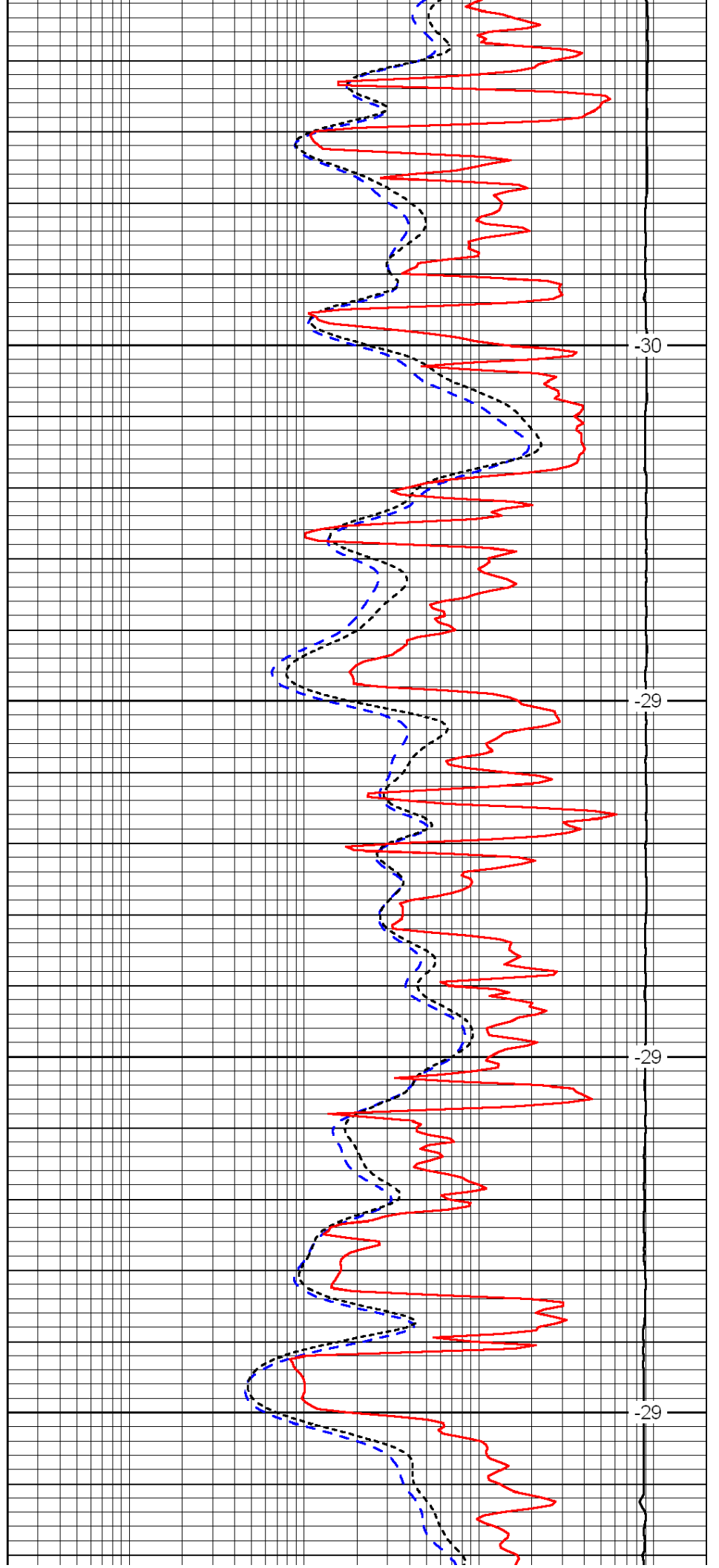


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4250

4300

4350

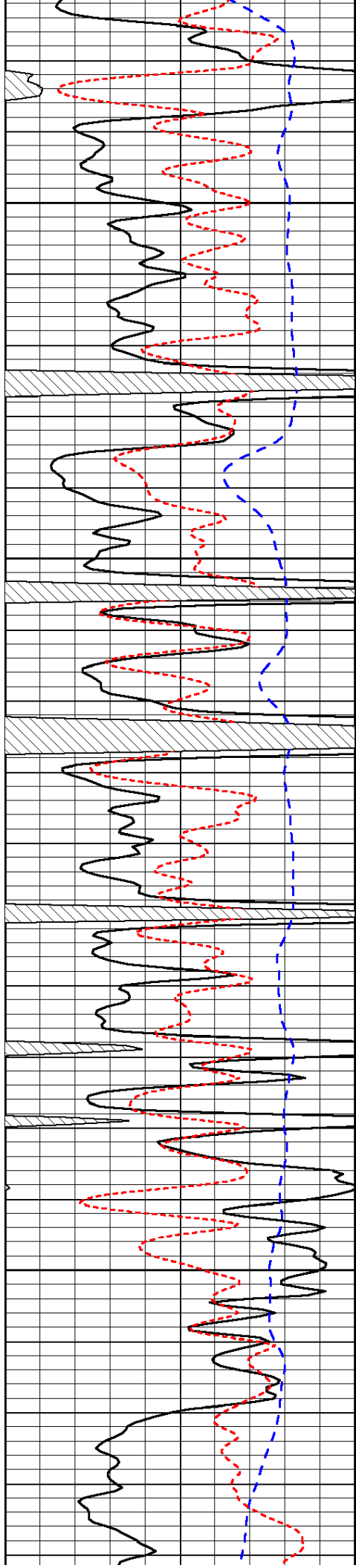


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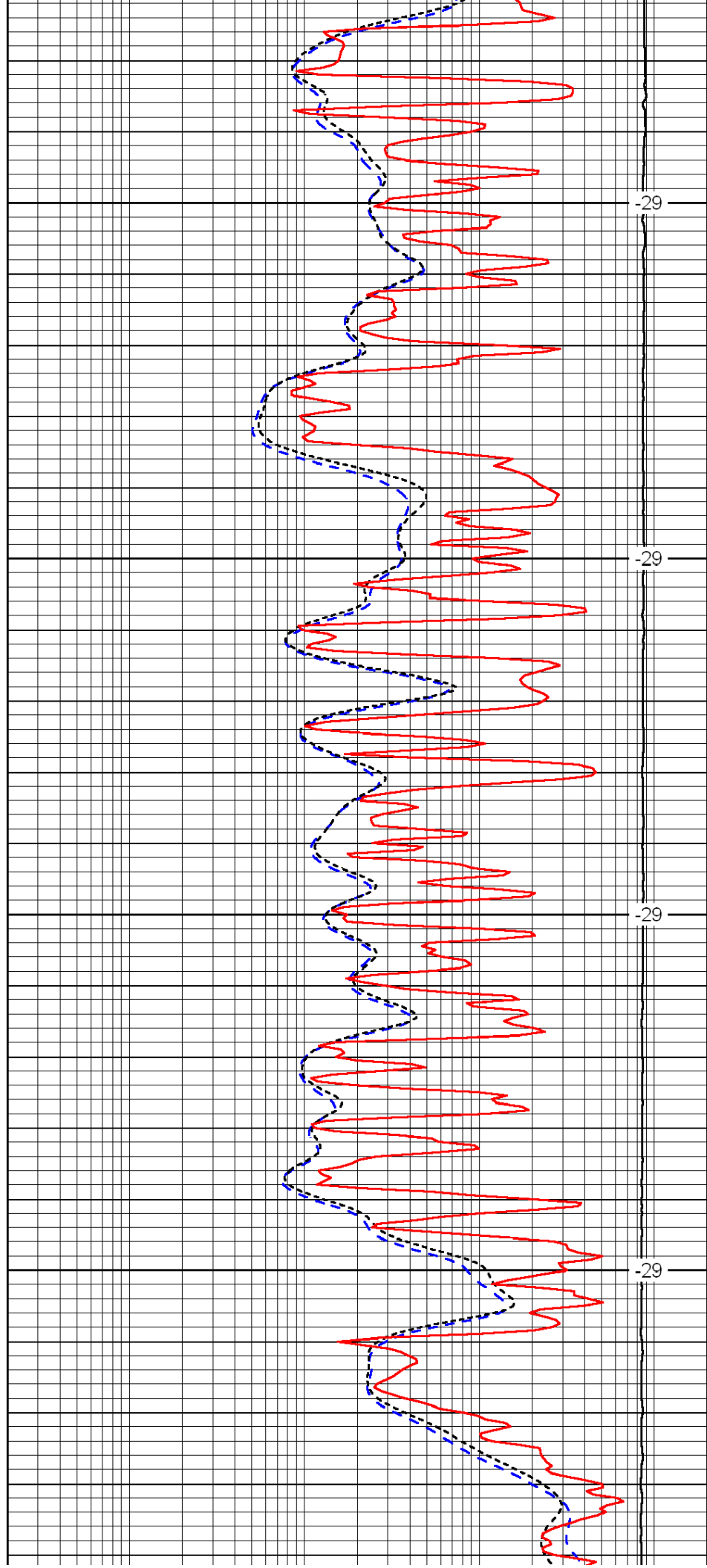


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4450

4500

4550

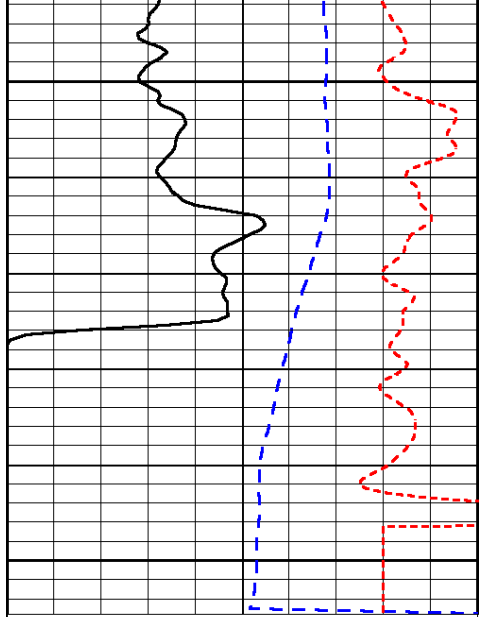


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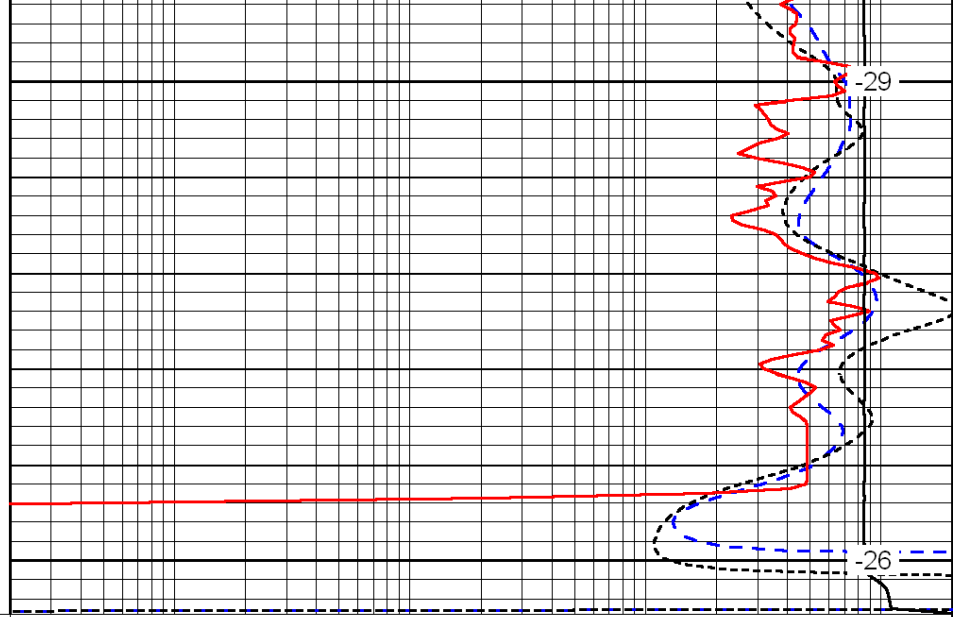
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0	Gamma Ray	150
-200	SP (mV)	0
-160	Rxo / Rt	40

4600

4650



-29

-26

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

LSPD