



Pioneer Energy Services

# Dual Induction Log

15-101-22,524-00-00

API No.

Company Larson Engineering, Inc.

Well Shapland Trust # 1-21

Field Wildcat

County Lane State

Kansas

Location

NE-NW-SW-SE  
1037' FSL & 2104' FEL

Sec: 21 Twp: 18S Rge: 28W

Permanent Datum Ground Level Elevation 2742  
Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum  
Drilling Measured From Kelly Bushing

Other Services  
CNL/CDL  
MEL

Elevation  
K.B. 2749  
D.F.  
G.L. 2742

Date	7/12/14	
Run Number	One	
Depth Driller	4625	
Depth Logger	4622	
Bottom Logged Interval	4621	
Top Log Interval	250	
Casing Driller	8.625 @ 263	
Casing Logger	260	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	3,500	
Density / Viscosity	9.2   53	
pH / Fluid Loss	9.5   10.4	
Source of Sample	Flowline	
Rm @ Meas. Temp	.17 @ 87	
Rmf @ Meas. Temp	.13 @ 87	
Rmc @ Meas. Temp	.23 @ 87	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.12 @ 122	
Operating Rig Time	4 Hours	
Max Rec. Temp. F	122	
Equipment Number	91	
Location	Hays	
Recorded By	J. Hennickson	
Witnessed By	Vern Schrag	

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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

Dighton Kansas  
2 East, 1 South, East Into

Database File: c:\warrior\data\laron\_shapland trust # 1-21\laron\_shapland\_trust\_1\_21hd.db  
Dataset Pathname: DIL\larstk  
Presentation Format: dil2in  
Dataset Creation: Sat Jul 12 17:42:44 2014  
Charted by: Depth in Feet scaled 1:600

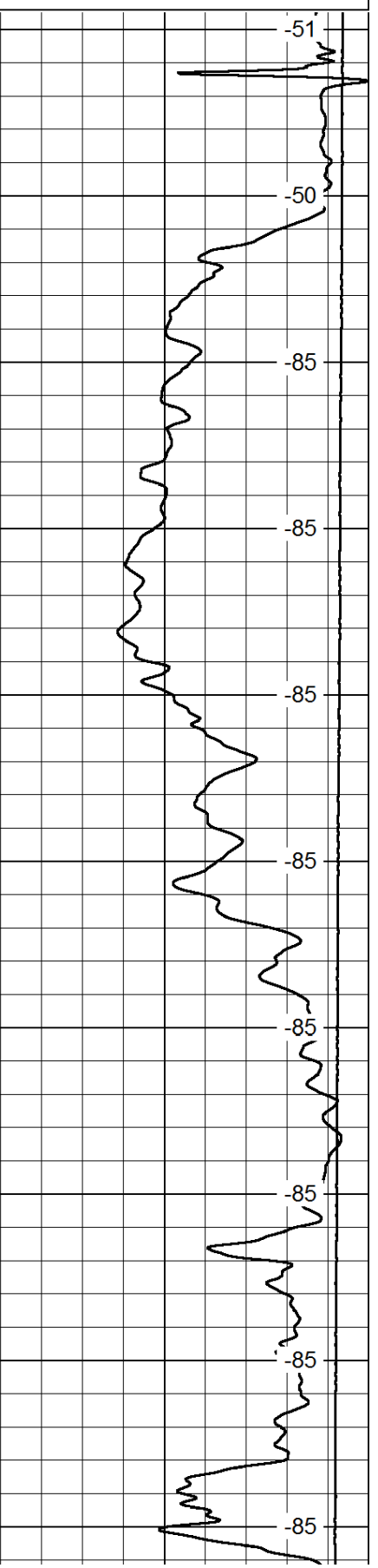
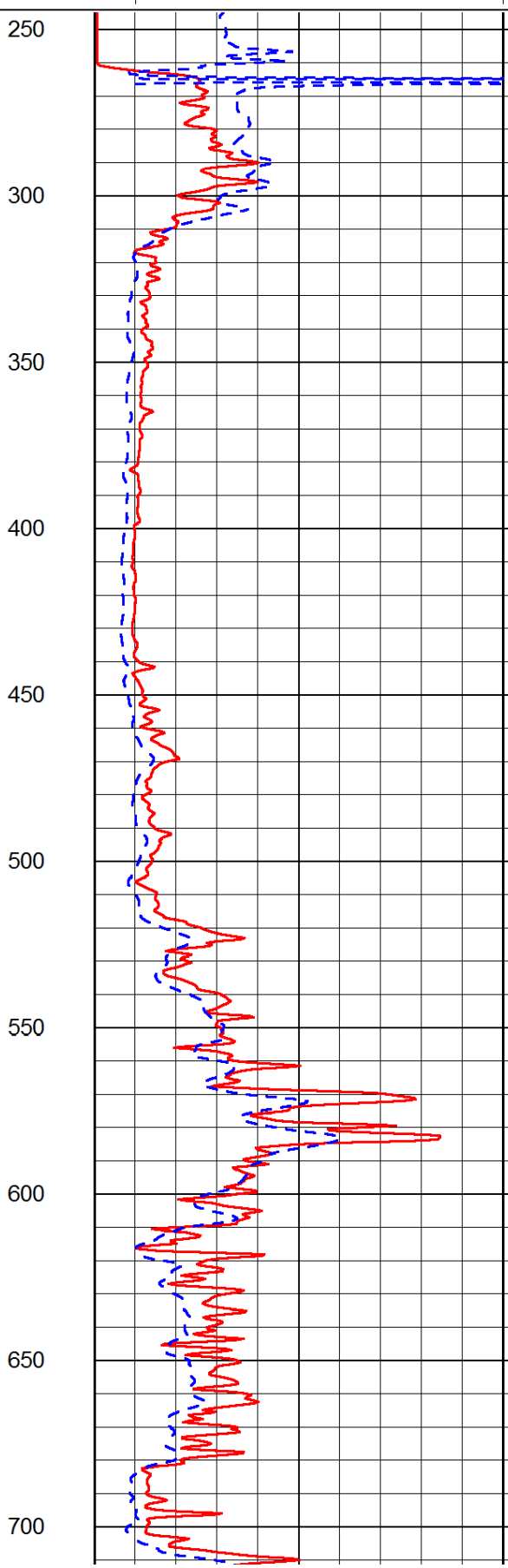
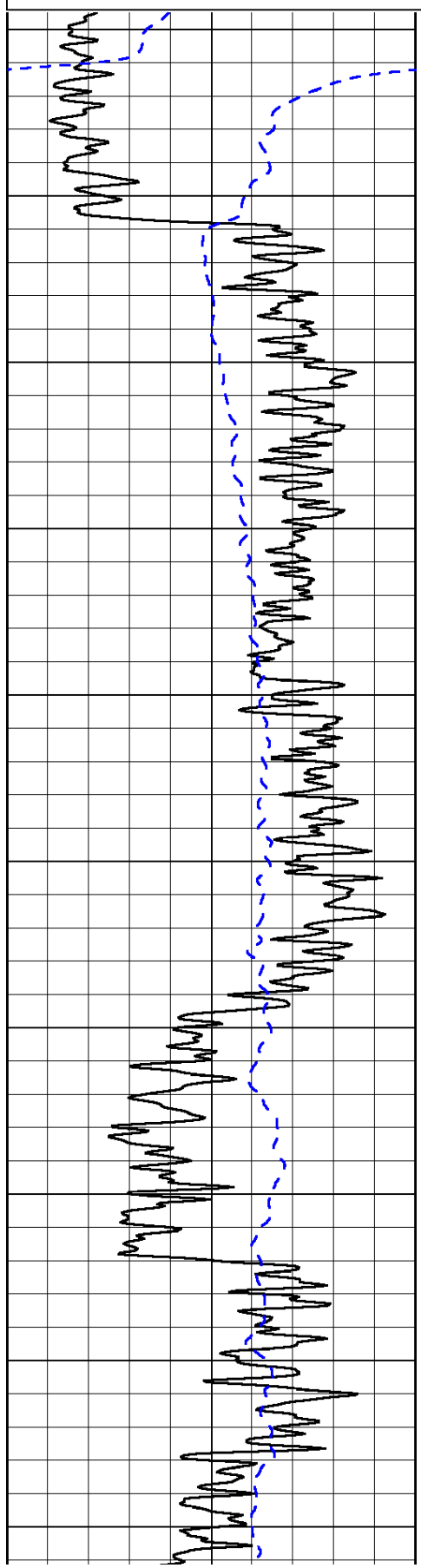
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-200	SP (mV)	0

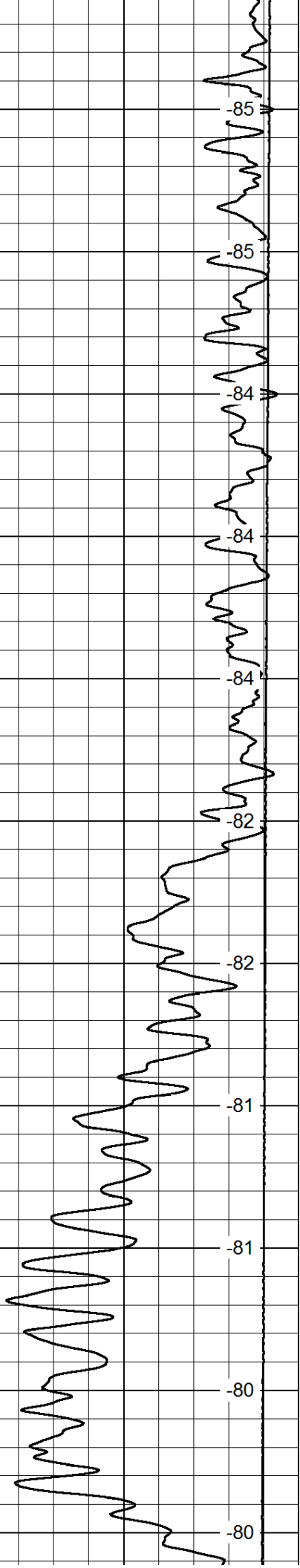
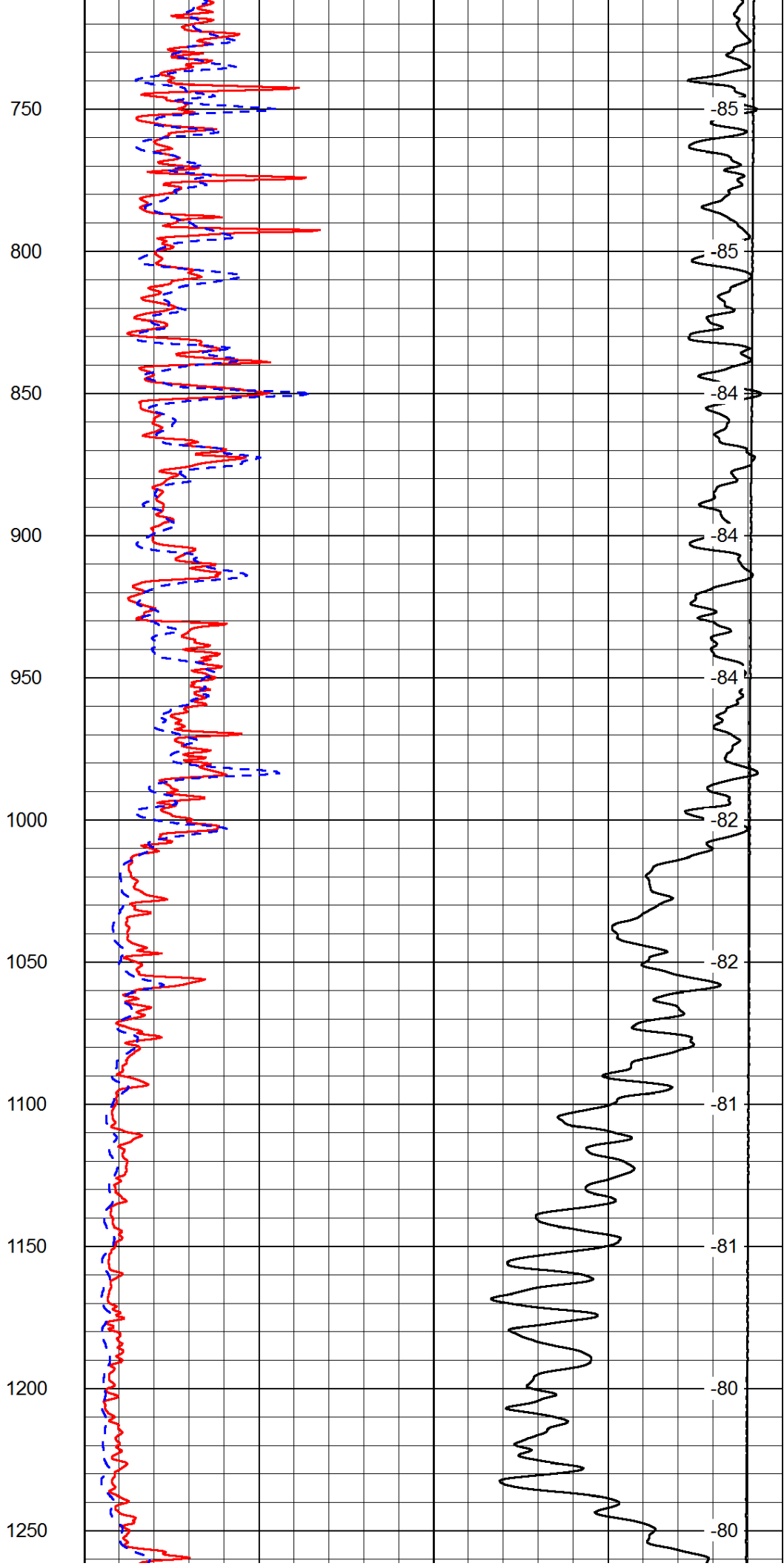
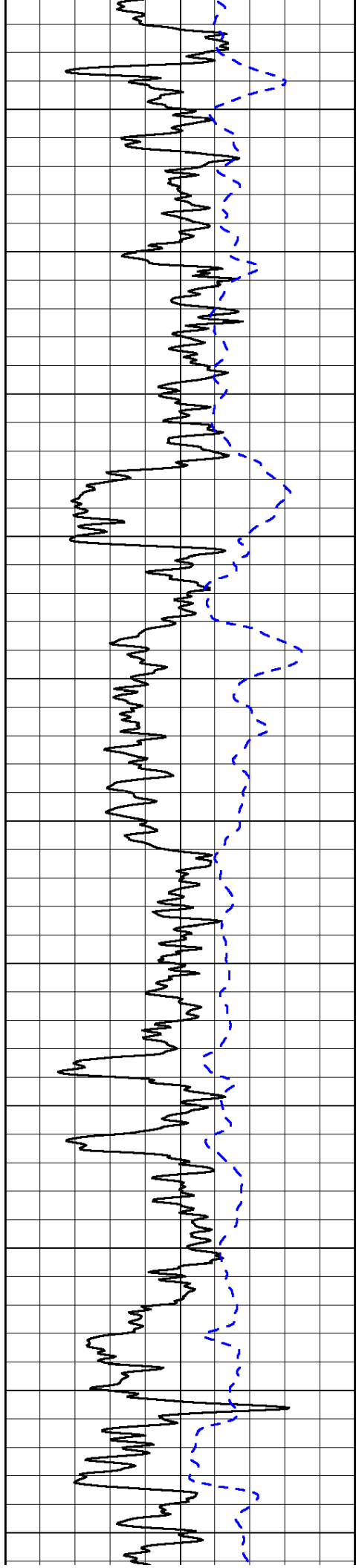
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0	Deep Resistivity	50

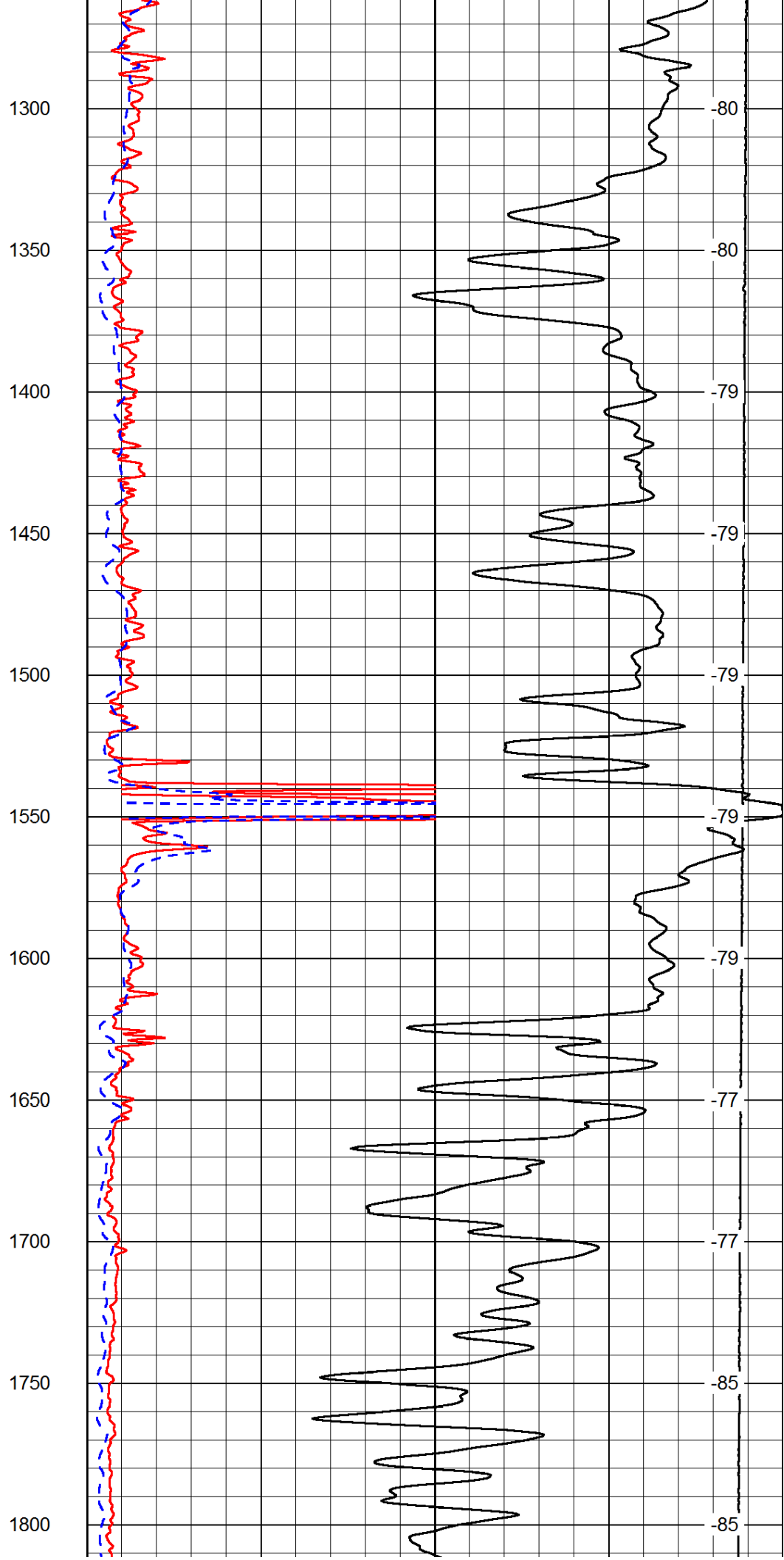
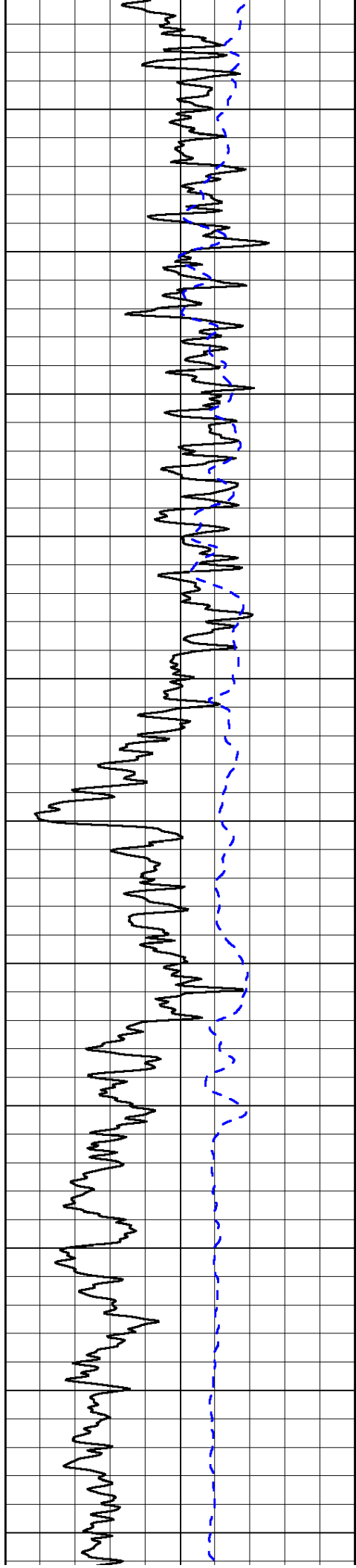
LSPD

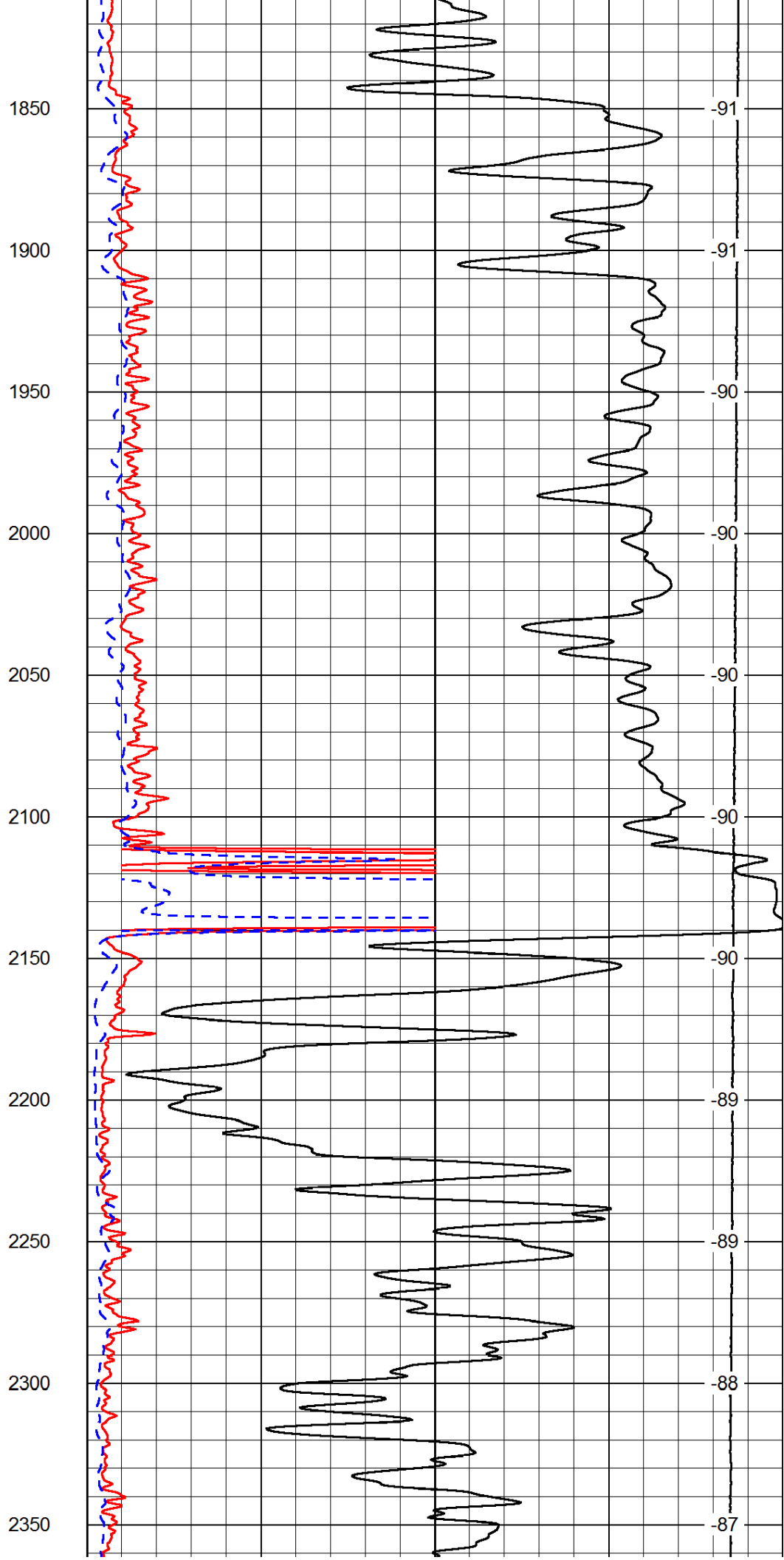
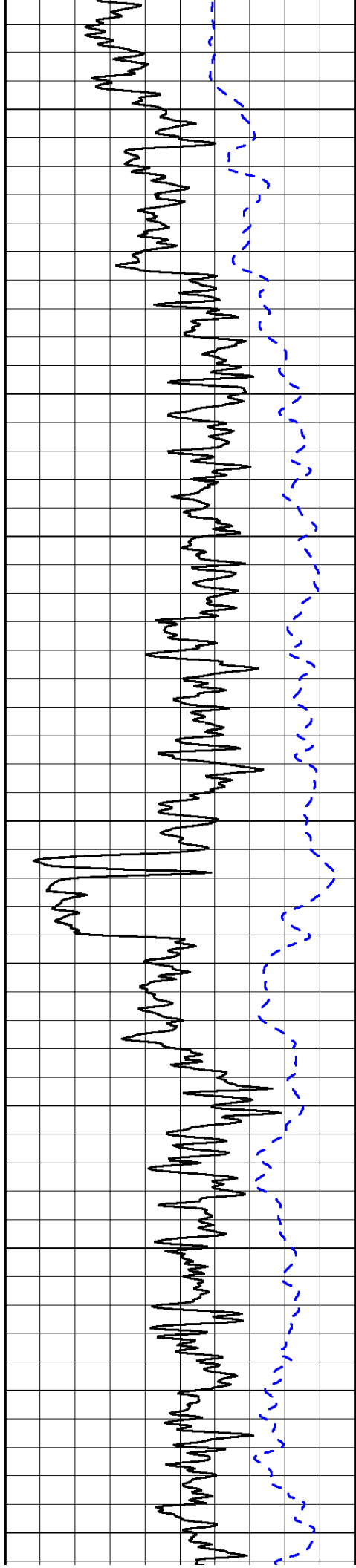
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15000	Line Tension	0

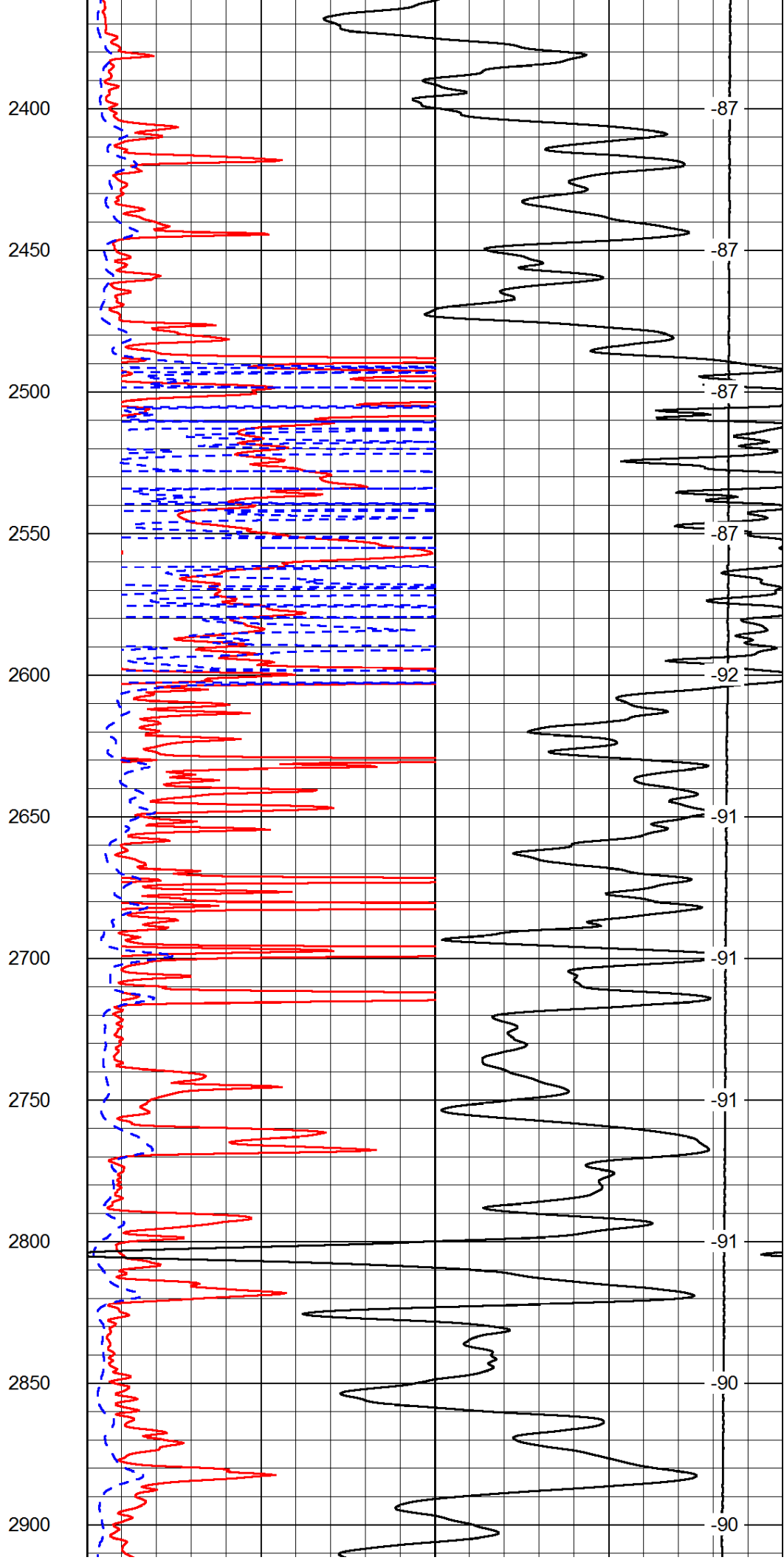
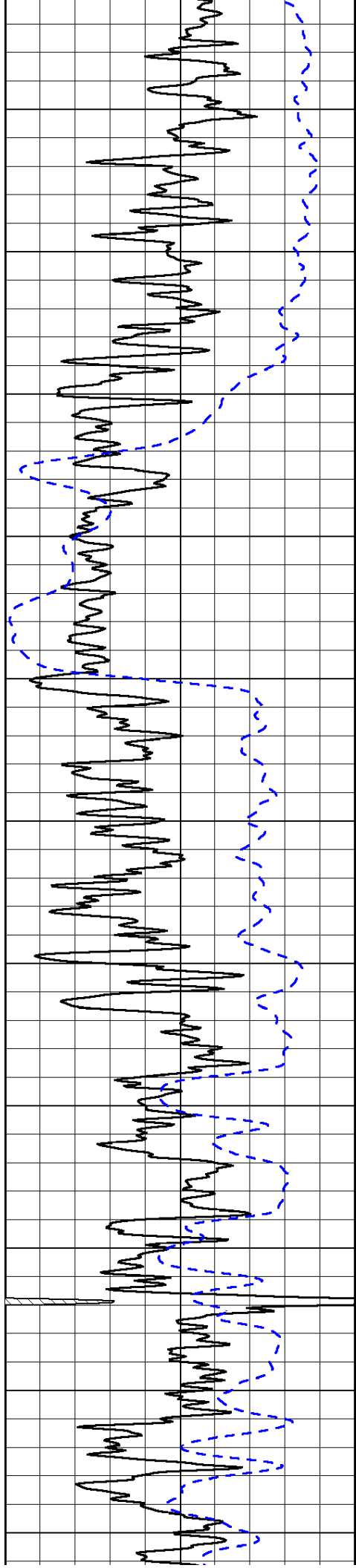
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50	Deep Resistivity	500

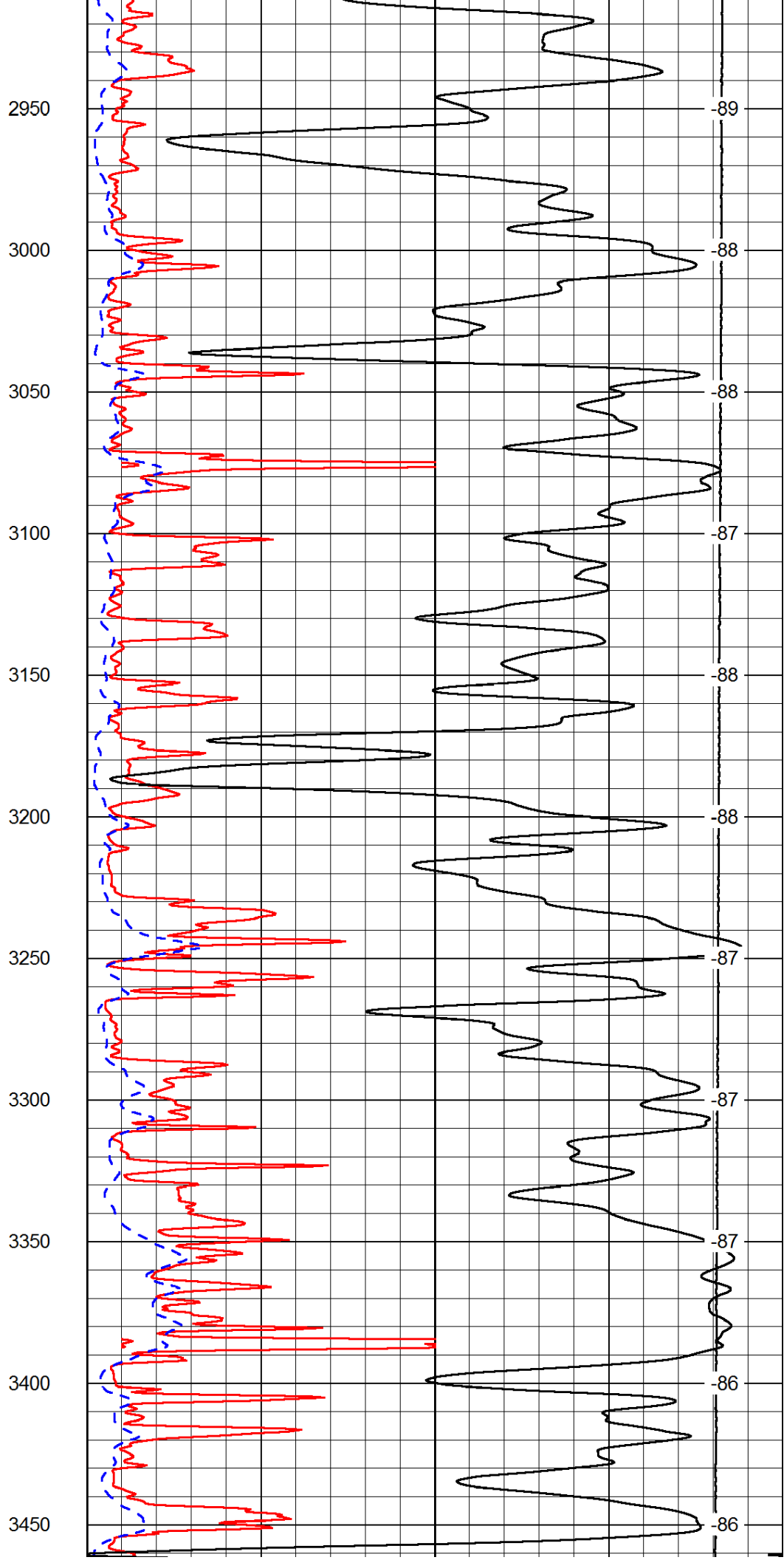
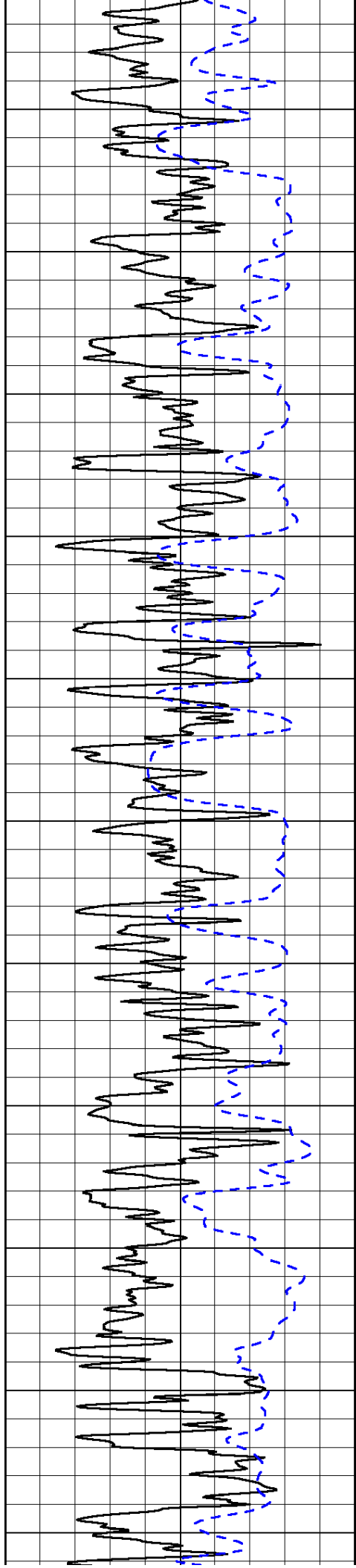


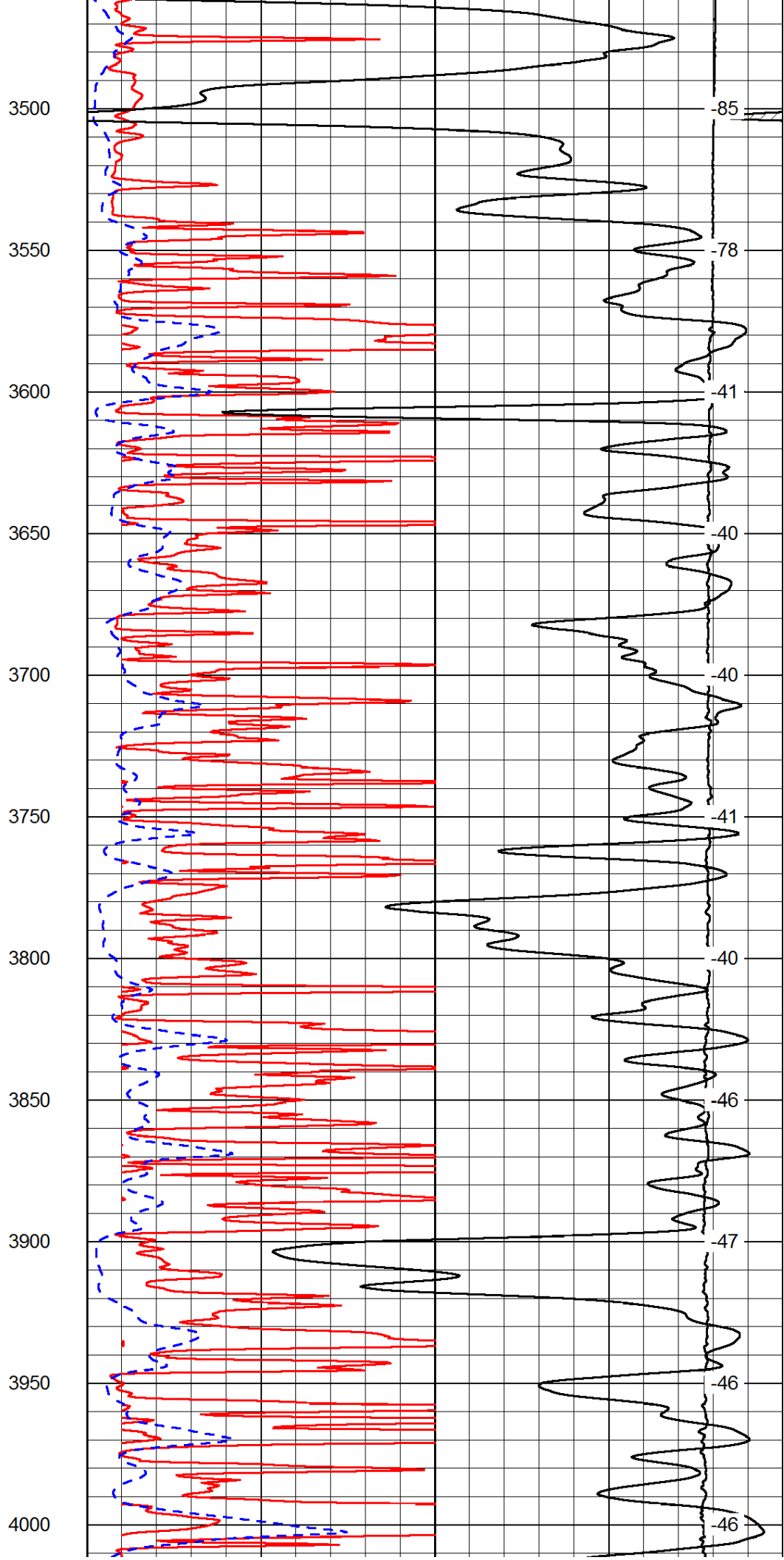
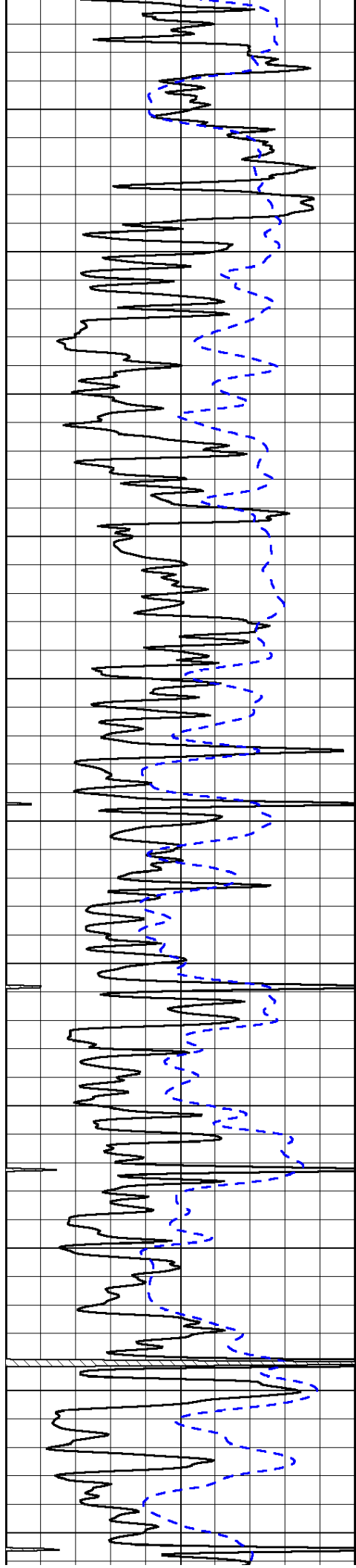


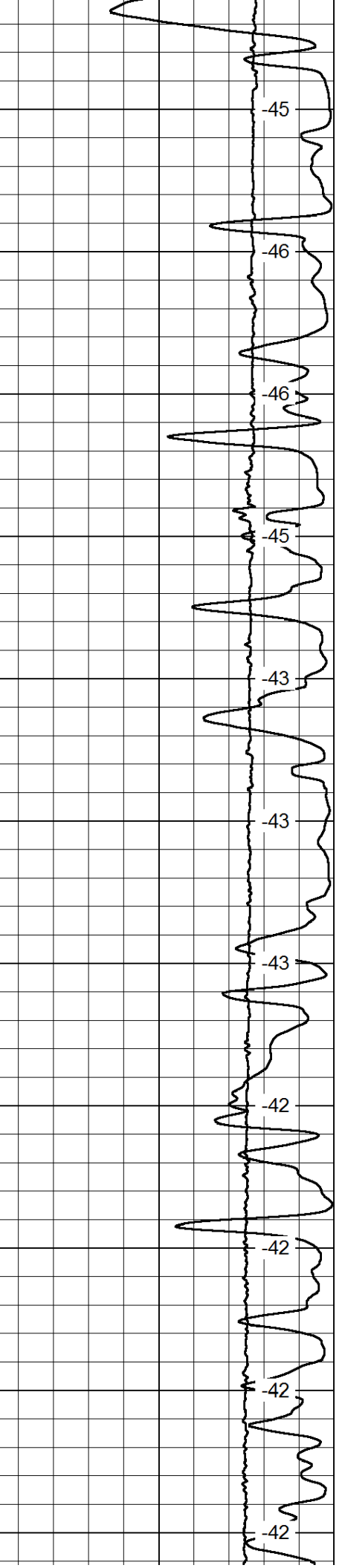
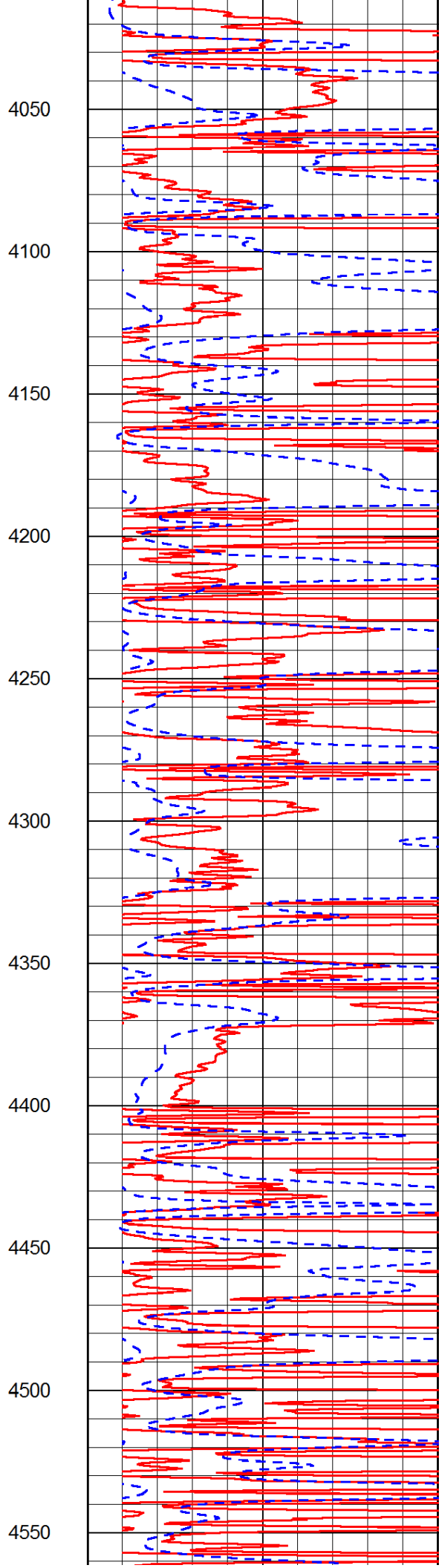
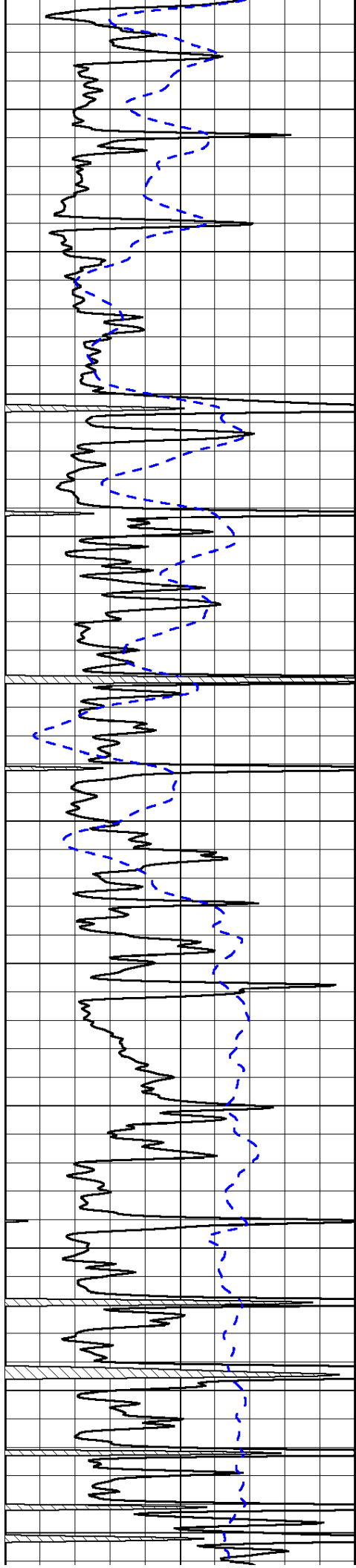






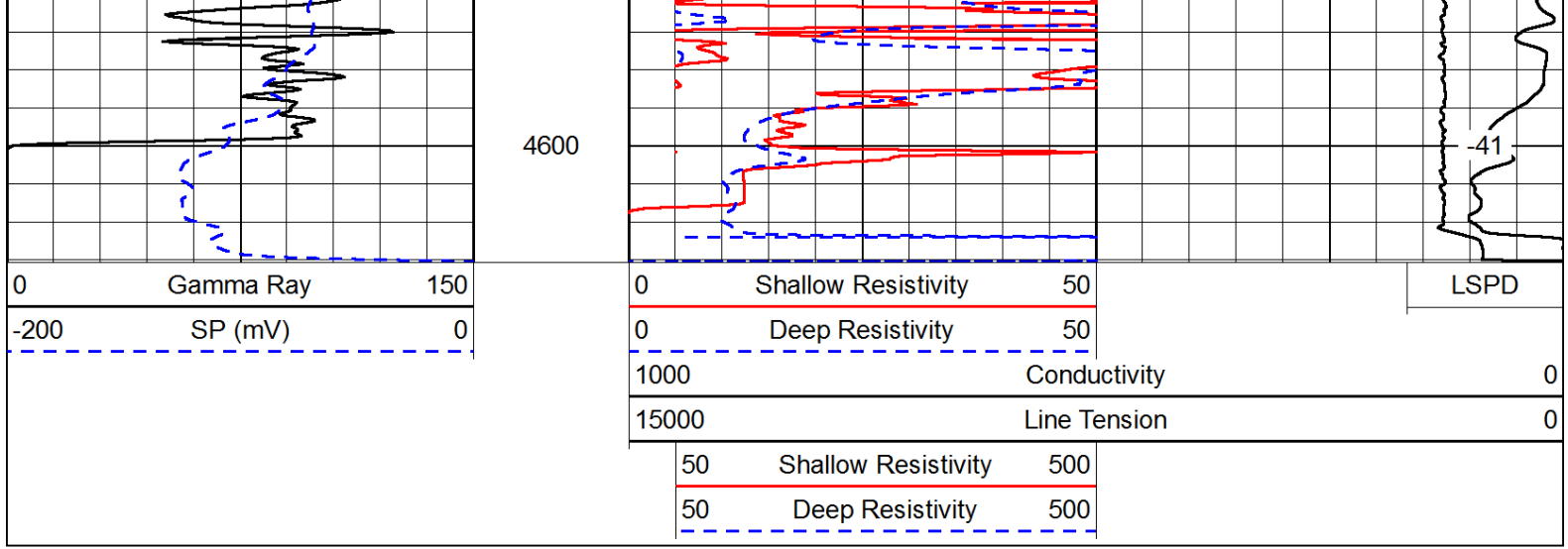




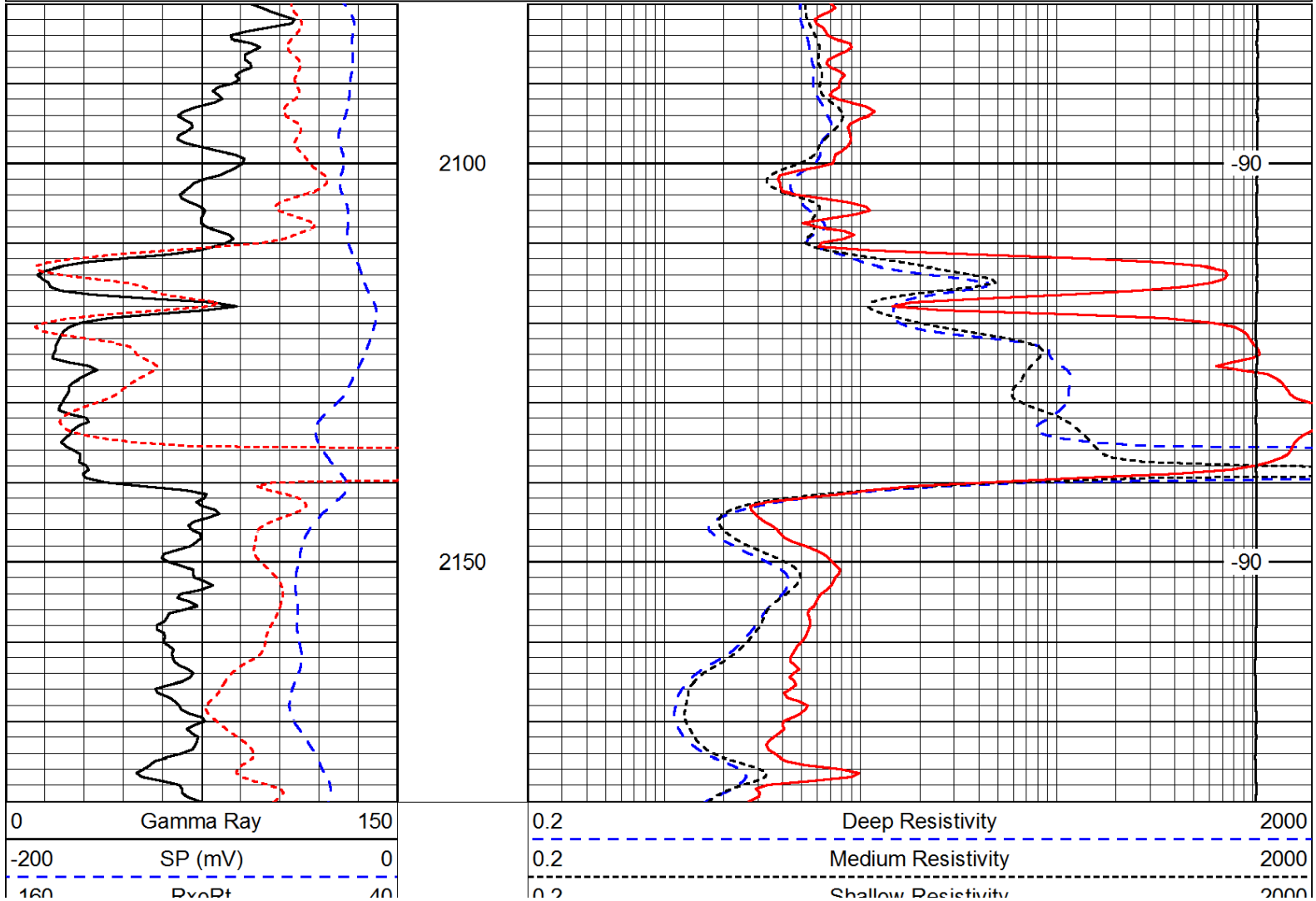
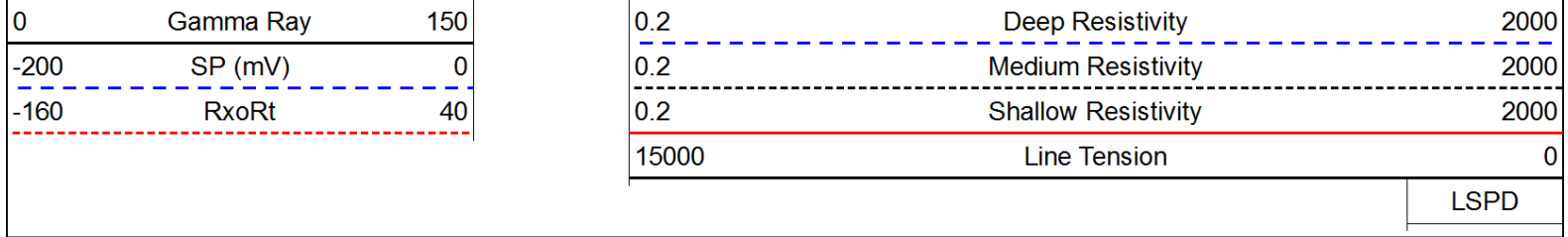


4050  
4100  
4150  
4200  
4250  
4300  
4350  
4400  
4450  
4500  
4550

-45  
-46  
-46  
-45  
-43  
-43  
-43  
-42  
-42  
-42  
-42



Database File: c:\warrior\data\larson\_shapland trust # 1-21\larson\_shapland\_trust\_1\_21hd.db  
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 Presentation Format: dil  
 Dataset Creation: Sat Jul 12 17:42:44 2014  
 Charted by: Depth in Feet scaled 1:240



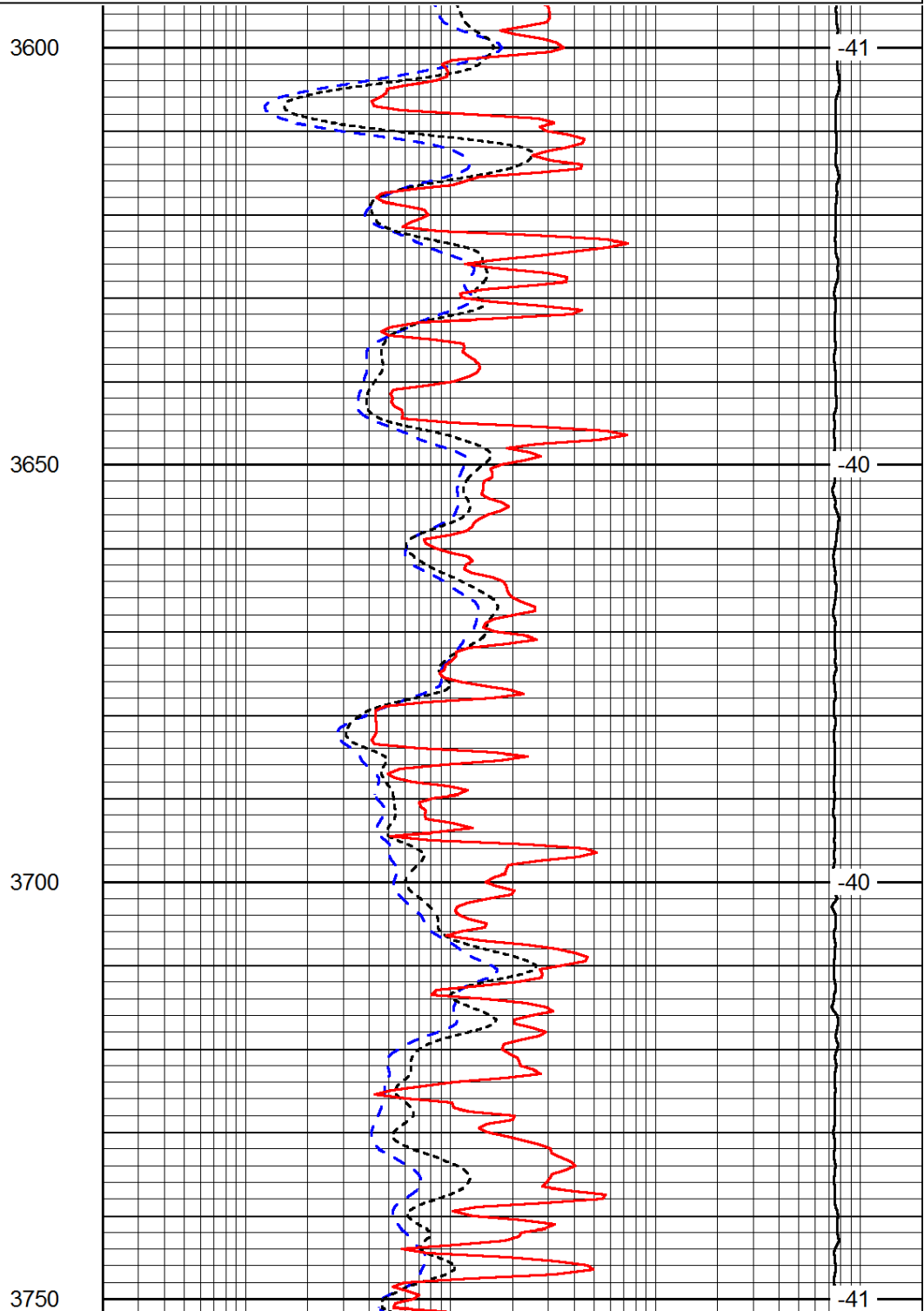
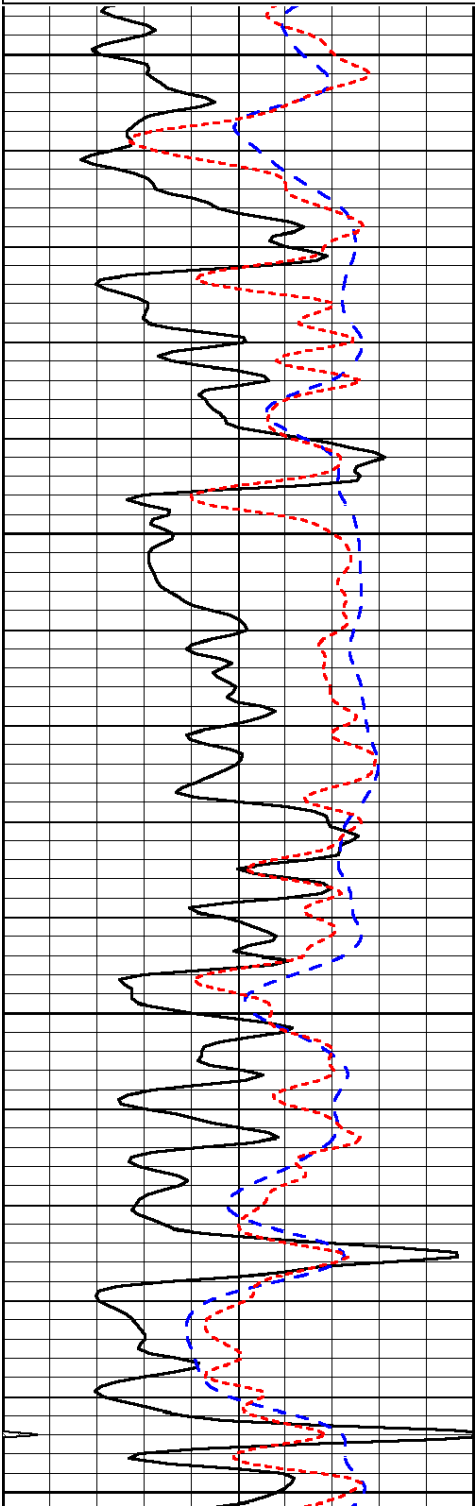
100	RxoRt	40
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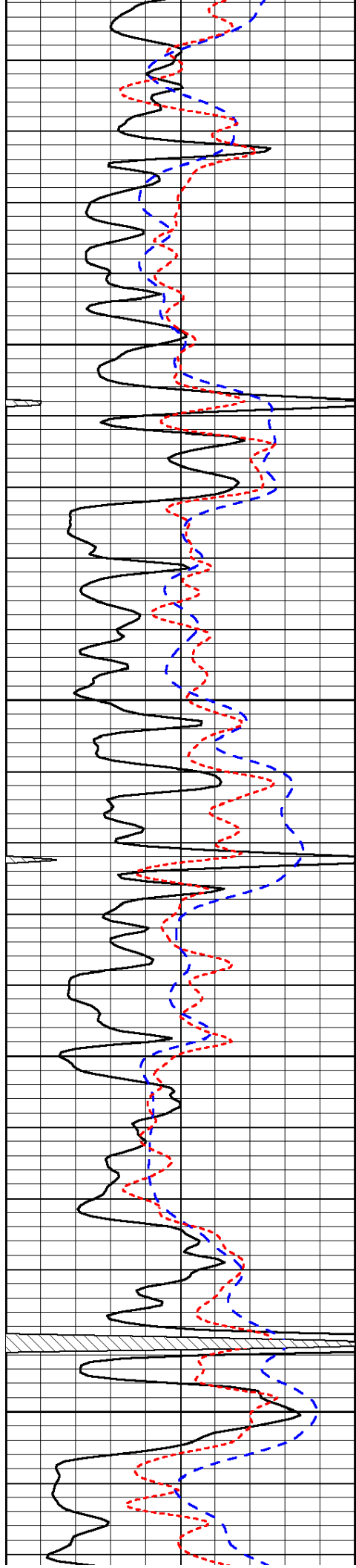
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD

Database File: c:\warrior\data\larson\_shapland trust # 1-21\larson\_shapland\_trust\_1\_21hd.db  
 Dataset Pathname: DIL/larstk  
 Presentation Format: dil  
 Dataset Creation: Sat Jul 12 17:42:44 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



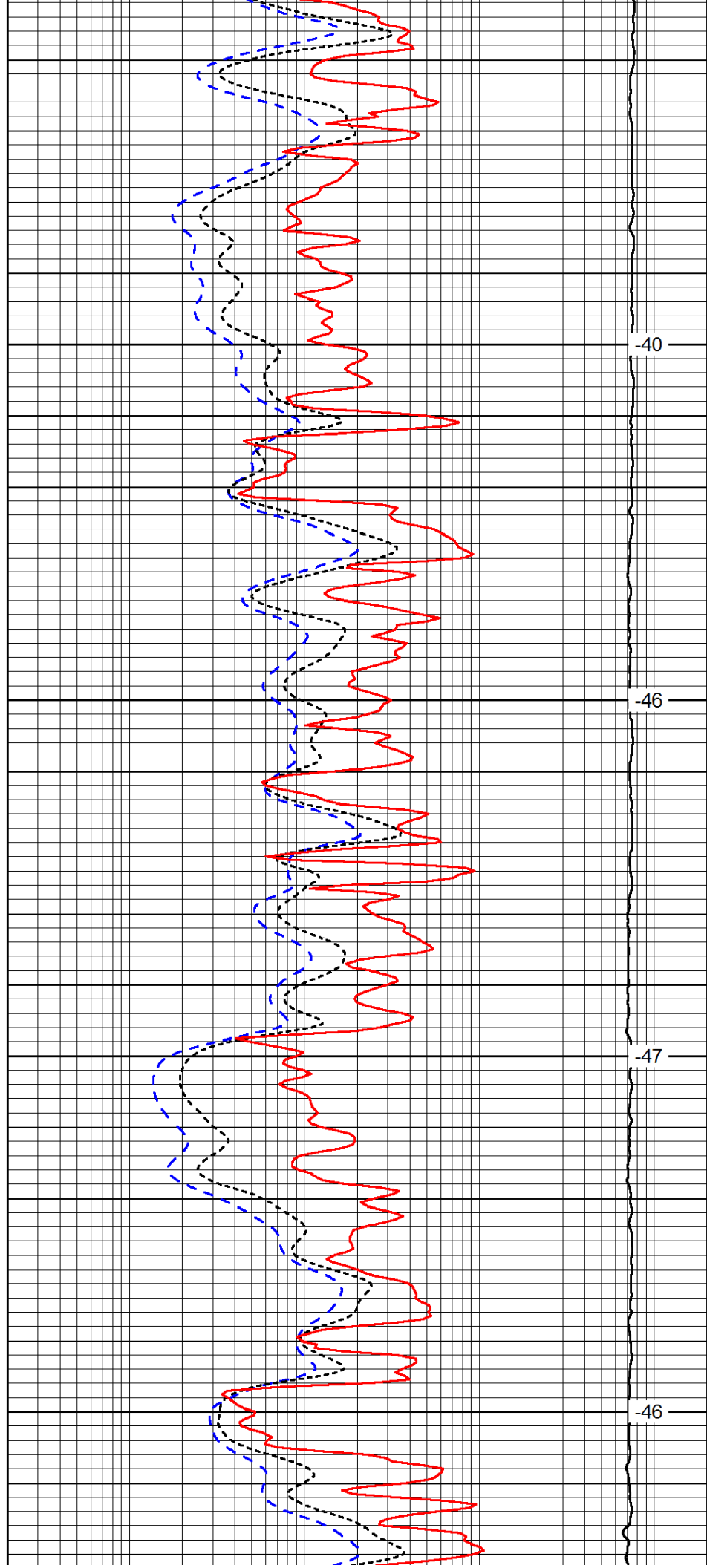


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3850

3900

3950

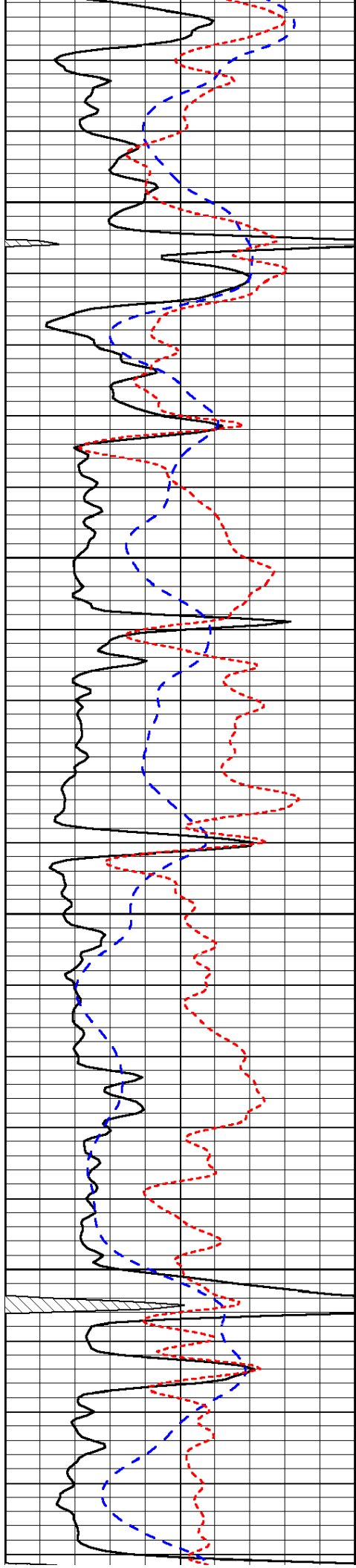


-40

-46

-47

-46

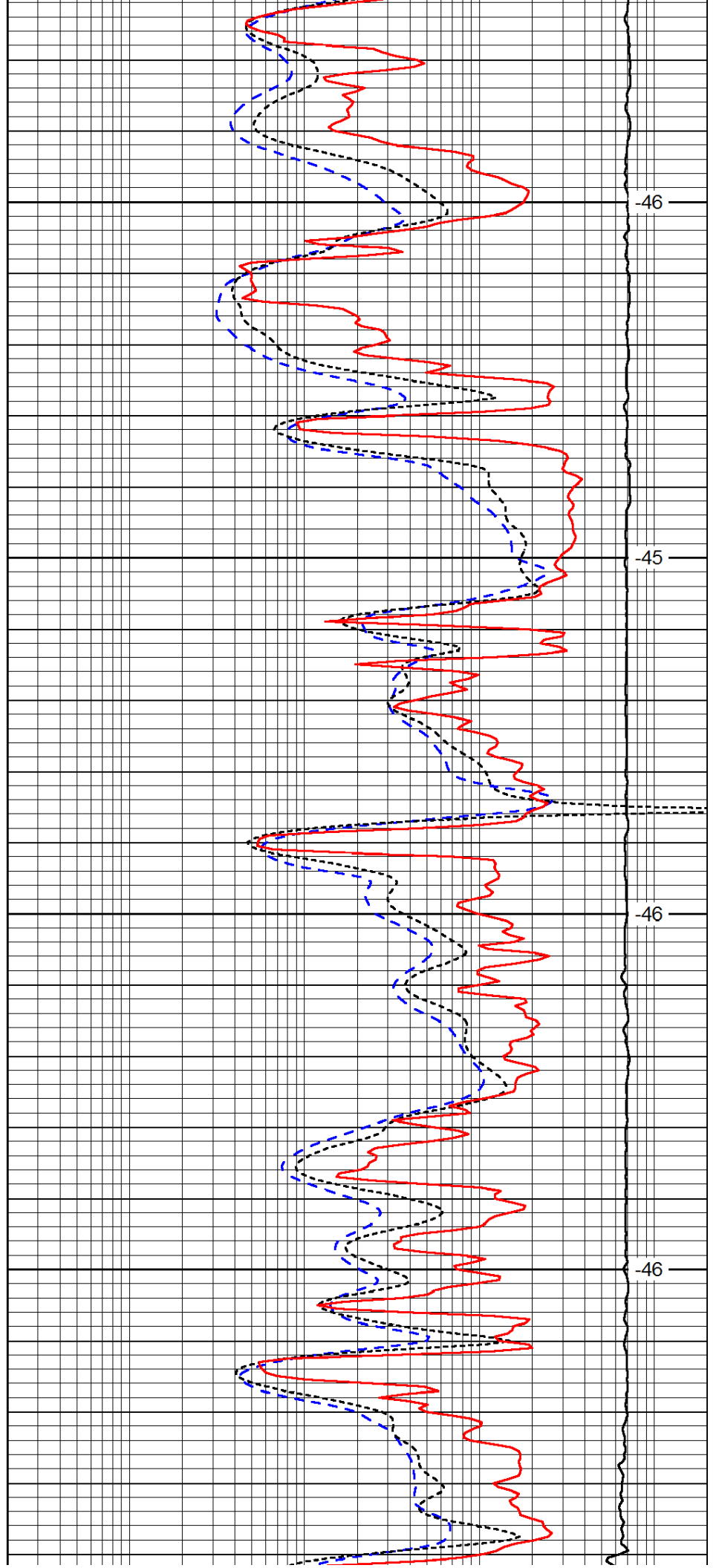


4000

4050

4100

4150

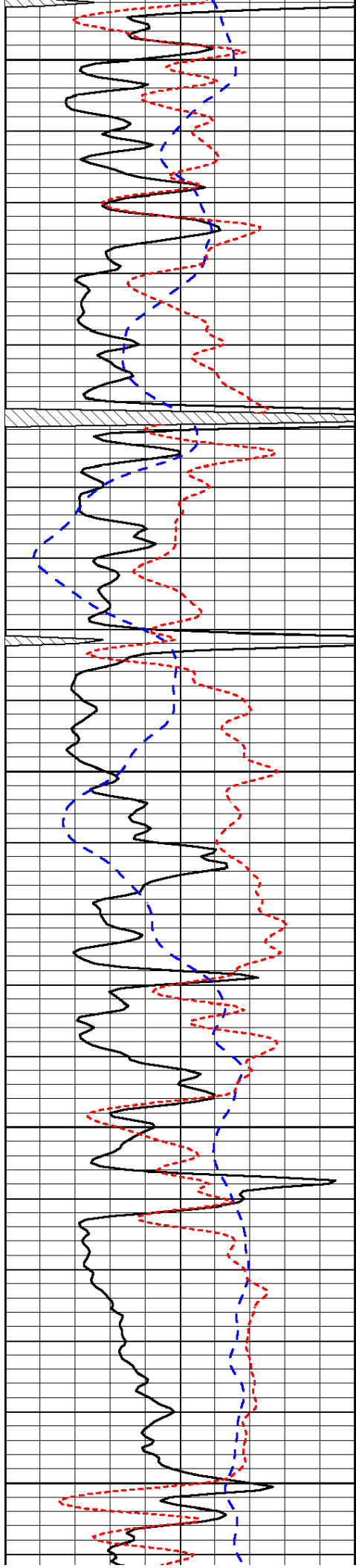


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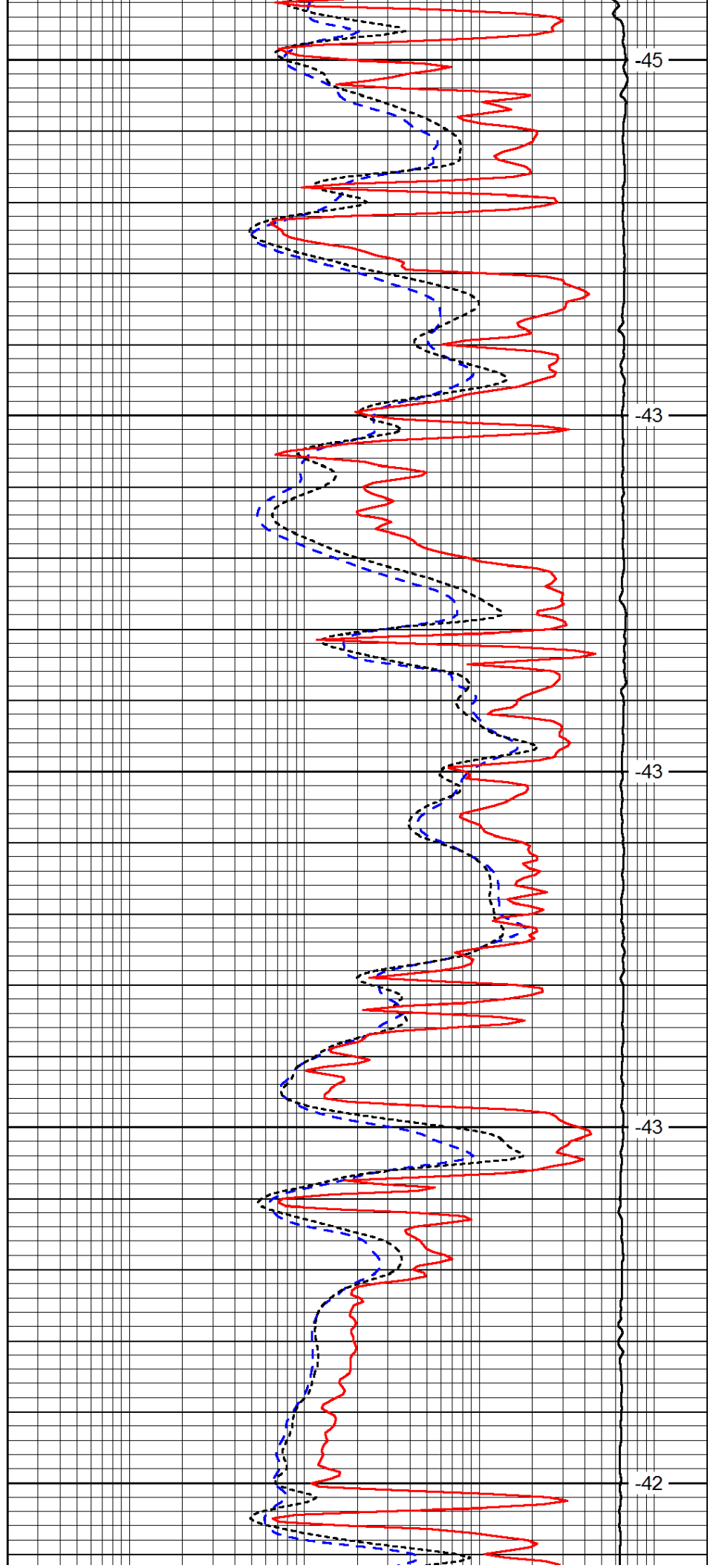
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4300

4350

4400



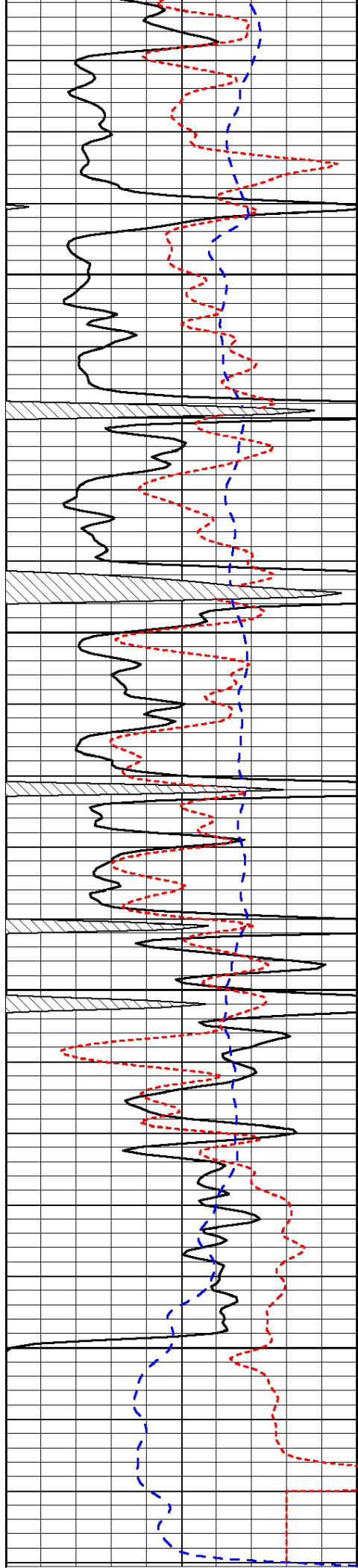
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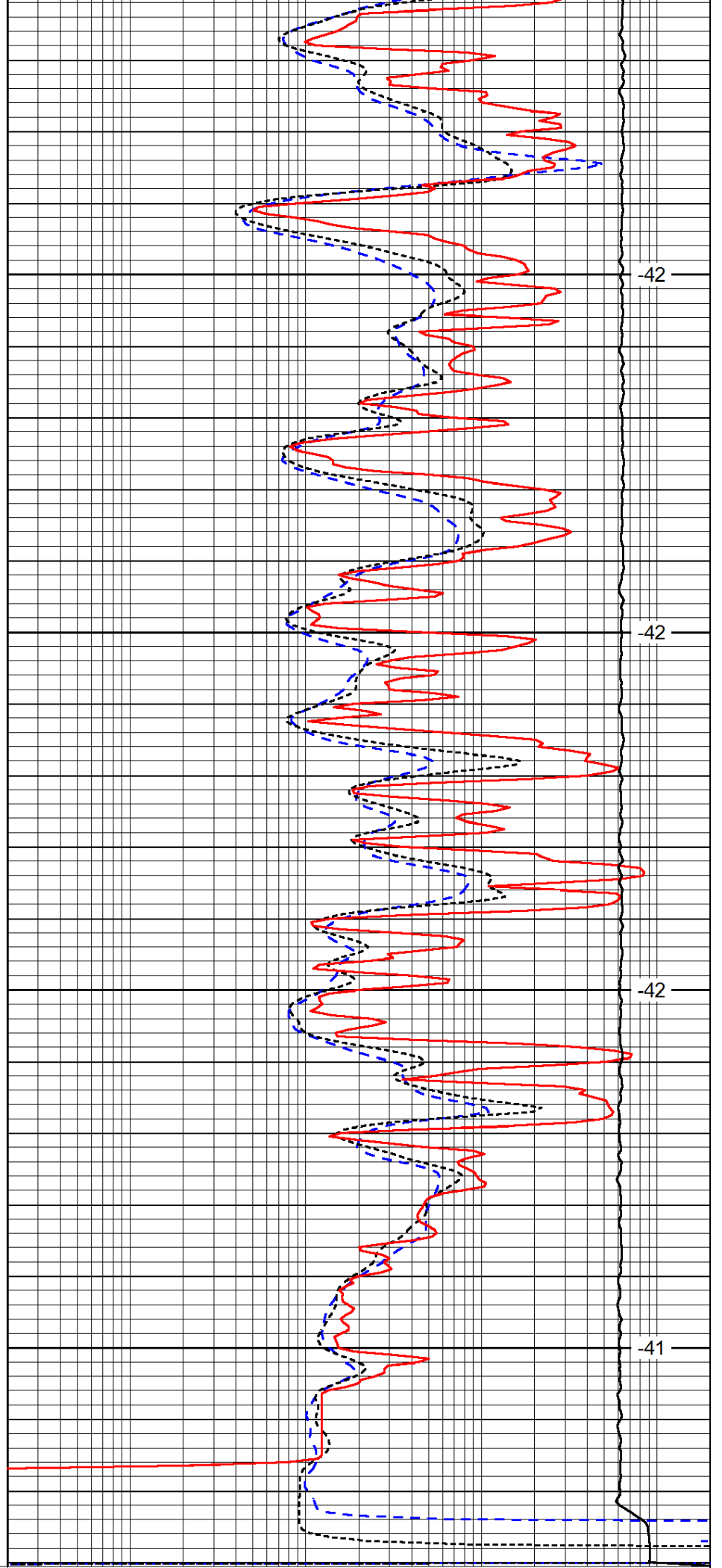


4450

4500

4550

4600



-42

-42

-42

-41

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
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