



Pioneer Energy Services

# Dual Induction Log

**Company** Culbreath Oil & Gas Company, Inc.

**Well** Deines No.1-29

**Field** Splitter SW  
**County** Trego **State** Kansas

**Location**

1650' FSL & 2210' FEL

Other Services  
 CNL/CDL  
 MEL

**Sec:** 29 **Twp:** 15S **Rge:** 25W

Elevation

**Permanent Datum** Ground Level Elevation 2515  
**Log Measured From** Kelly Bushing 9 Ft. Above Perm. Datum  
**Drilling Measured From** Kelly Bushing

K.B. 2524  
 D.F. 2515  
 G.L. 2515

15-195-22,800-00-00

Date	9/26/2012	
Run Number	One	
Depth Driller	4520	
Depth Logger	4526	
Bottom Logged Interval	4525	
Top Log Interval	250	
Casing Driller	8.625 @ 272	
Casing Logger	262	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	3,200	
Density / Viscosity	9.4 45	
pH / Fluid Loss	9.5 10.0	
Source of Sample	Flowline	
Rm @ Meas. Temp	1.1 @ 67	
Rmf @ Meas. Temp	.83 @ 67	
Rmc @ Meas. Temp	1.49 @ 67	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.61 @ 121	
Operating Rig Time	4 Hours	
Max Rec. Temp. F	121	
Equipment Number	17	
Location	Hays	
Recorded By	C. Desaire	
Witnessed By	Pat Deenihan	

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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

Arnold KS, 3 W to H Rd,  
 4 N, 1 W, 1 N, 1/2 W, N Into

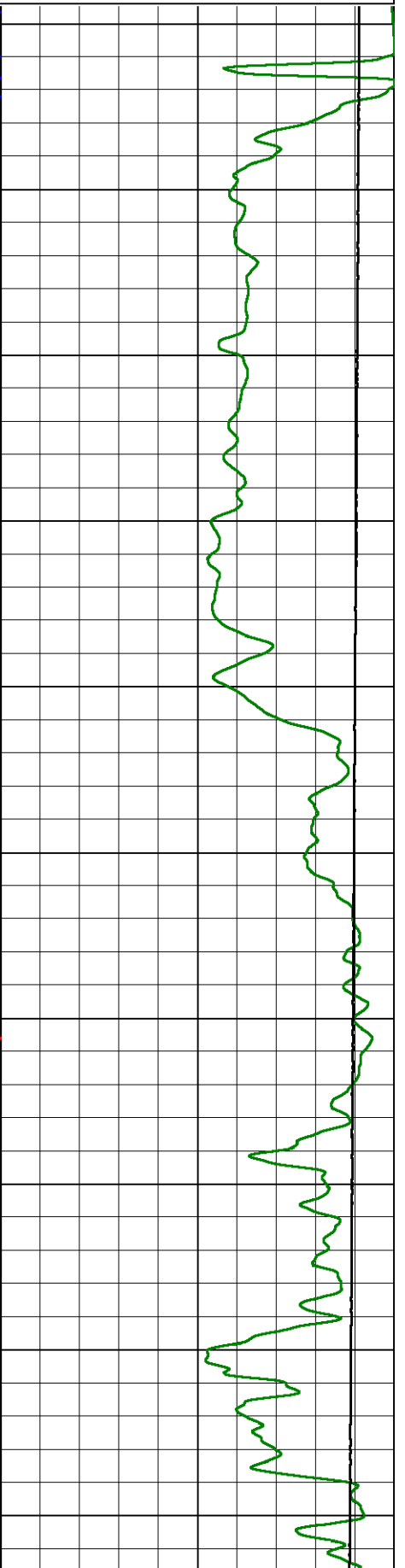
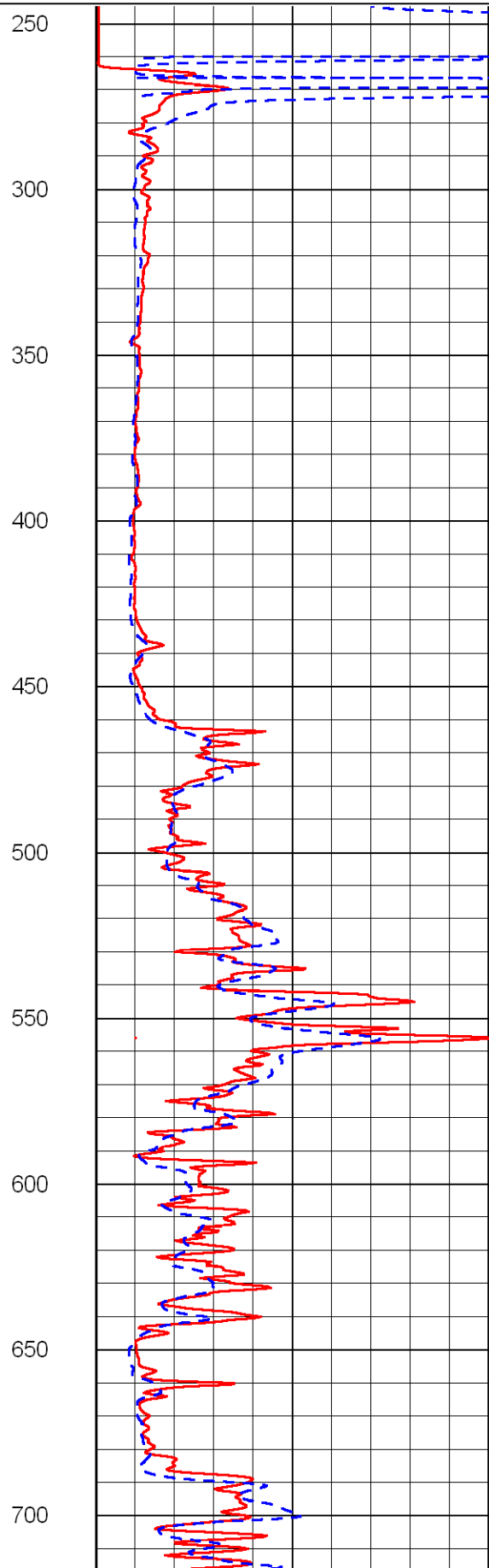
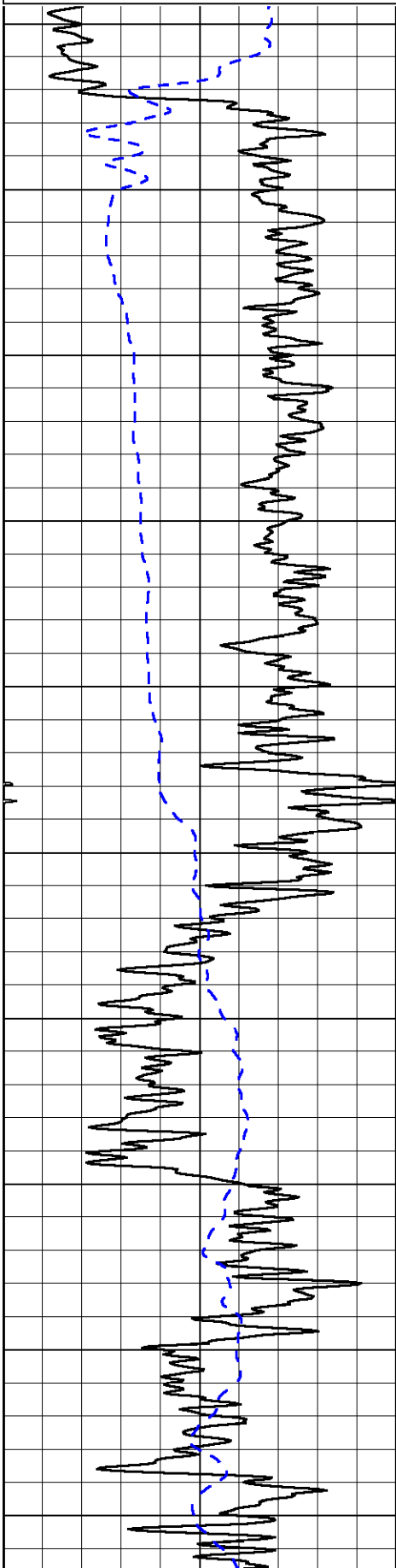
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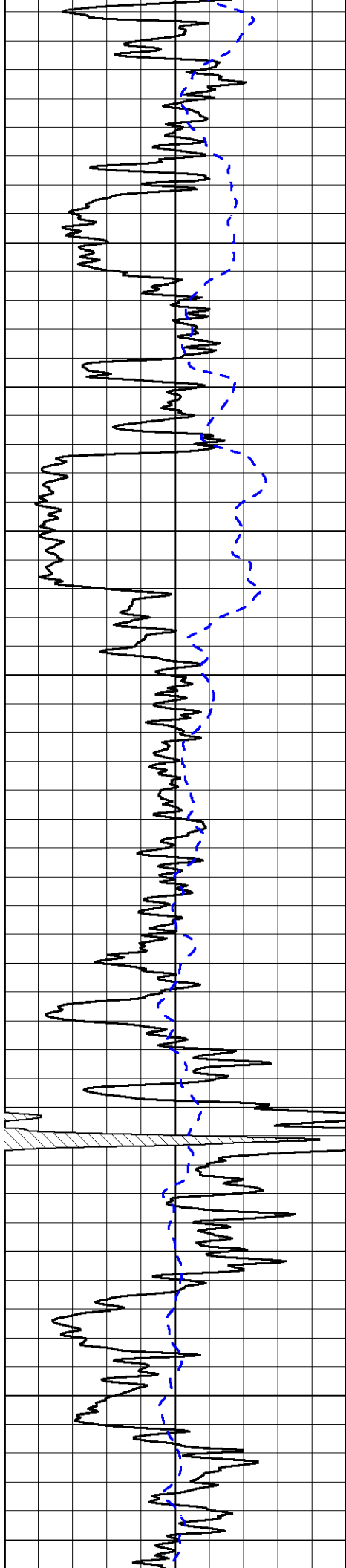
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-200 SP 0

0 Shallow Resistivity 50  
0 Deep Resistivity 50

1000 Conductivity 0  
15000 Line Tension 0

50 Shallow Resistivity 500  
50 Deep Resistivity 500





750

800

850

900

950

1000

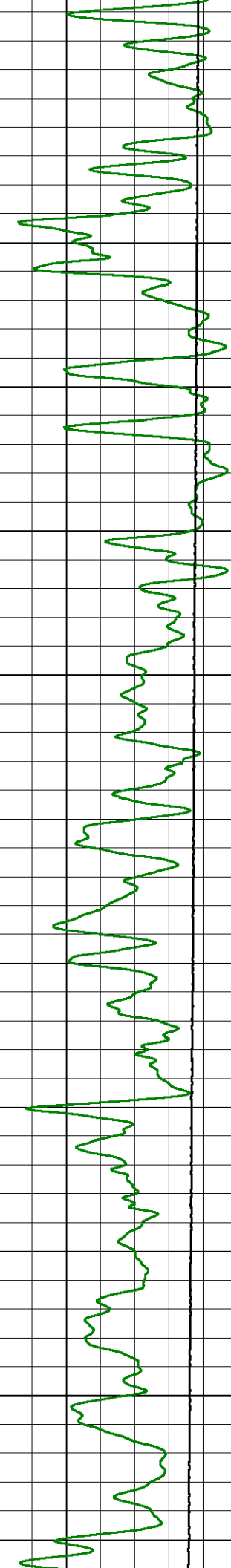
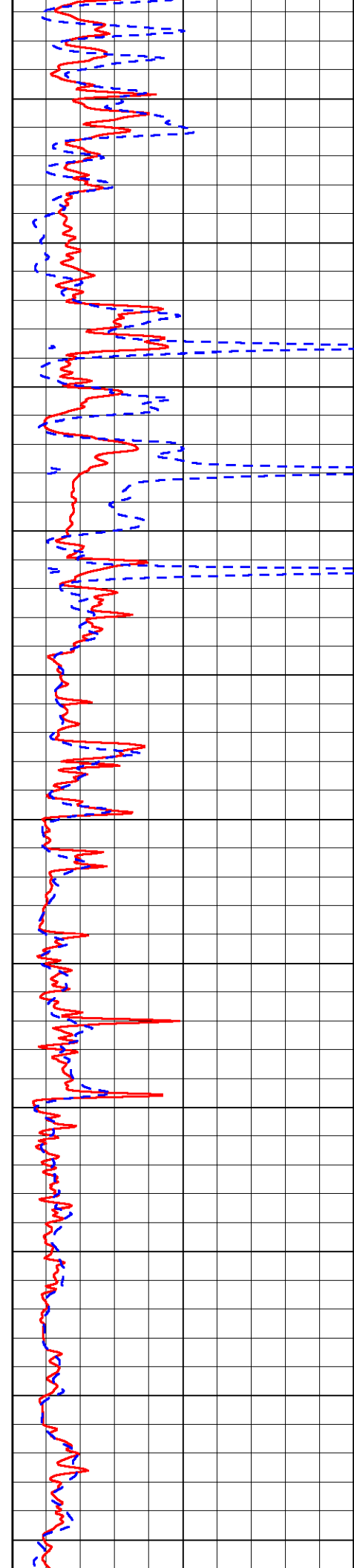
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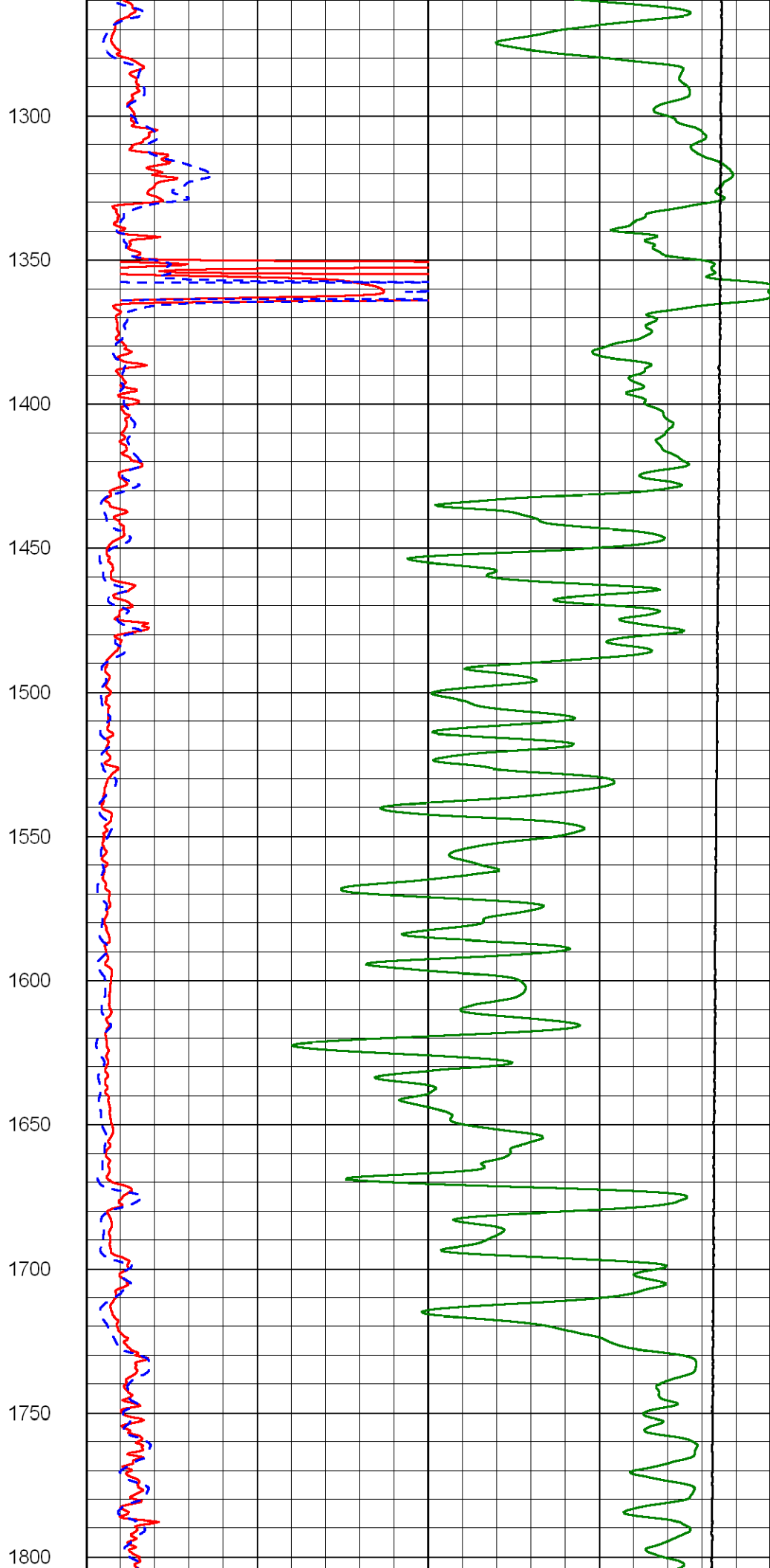
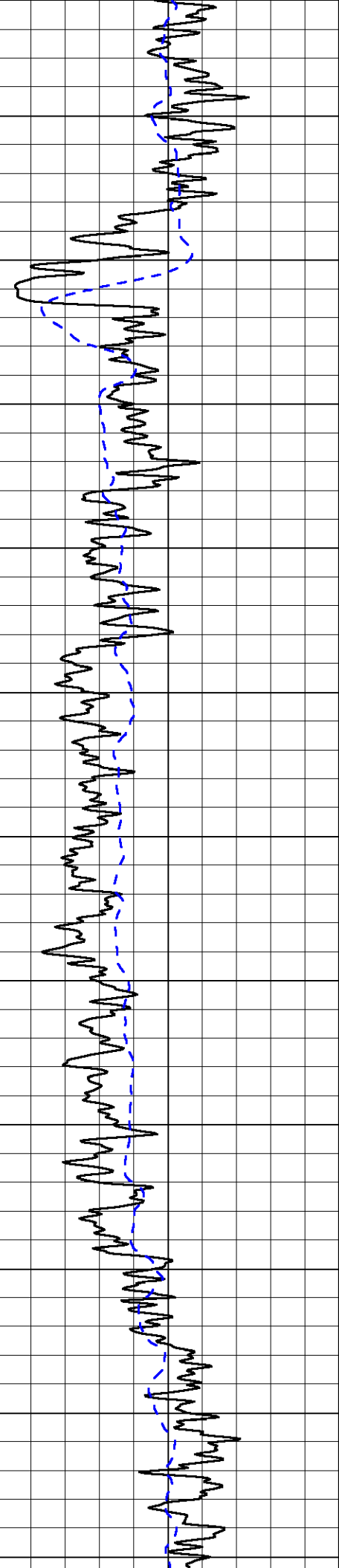
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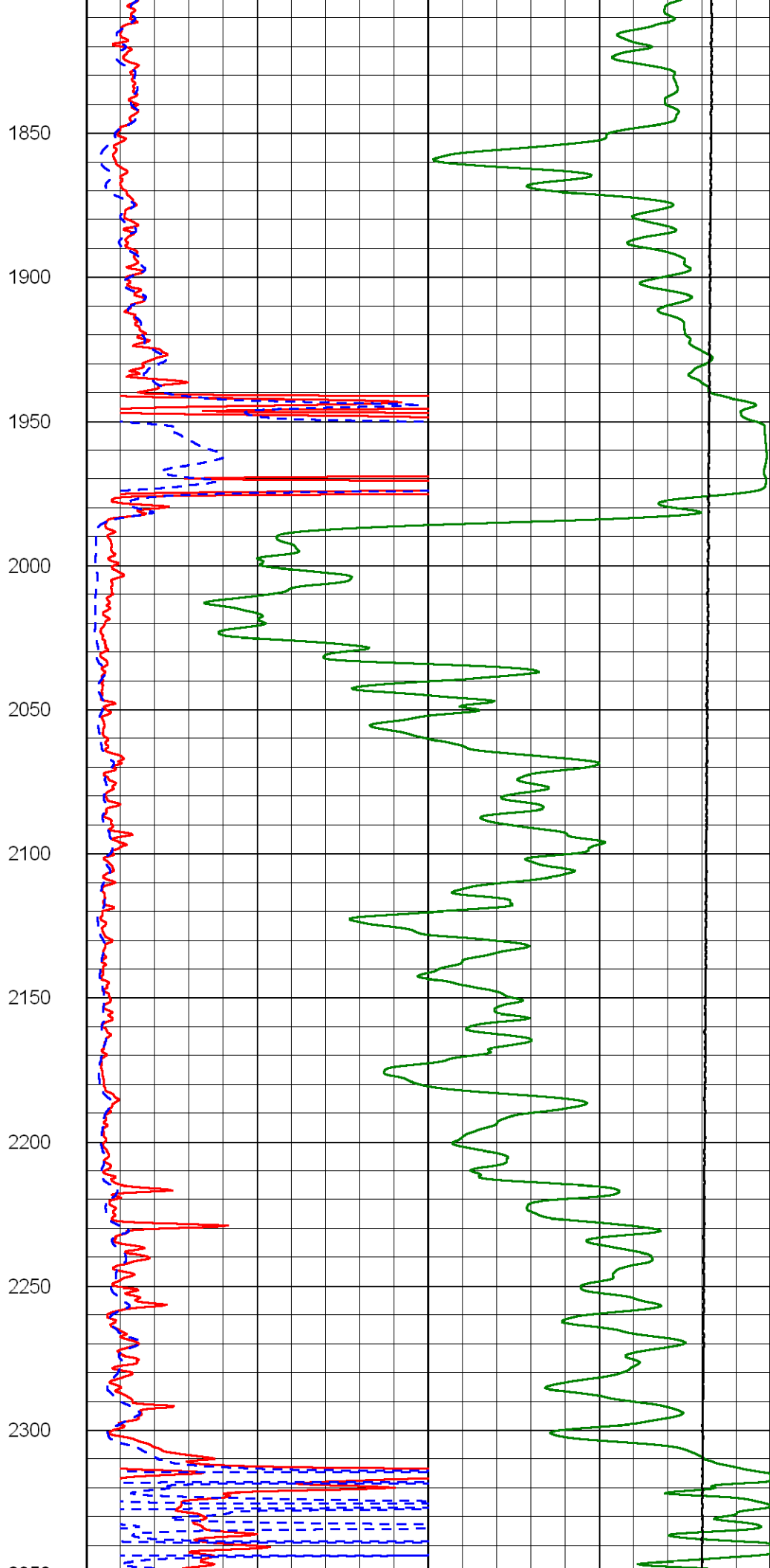
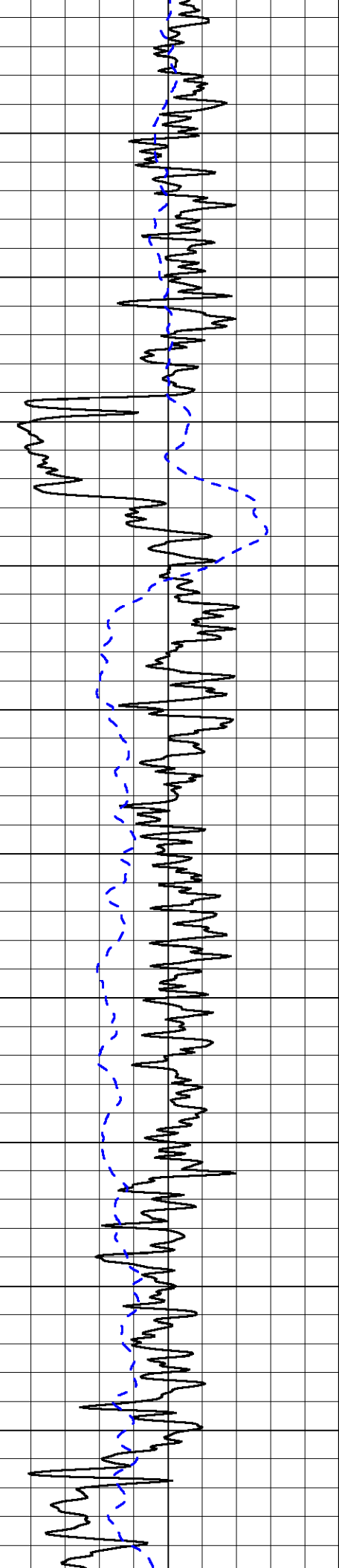
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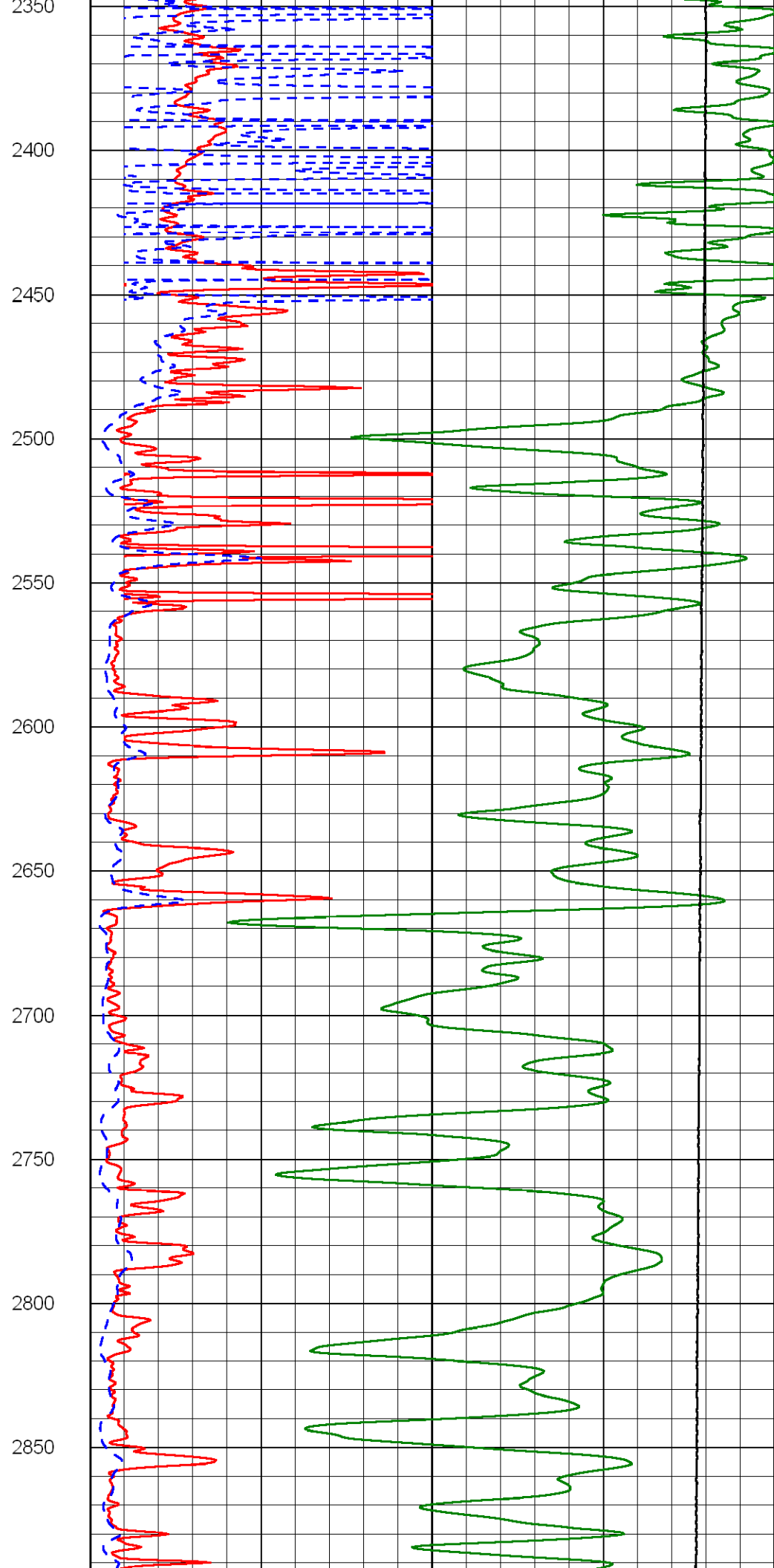
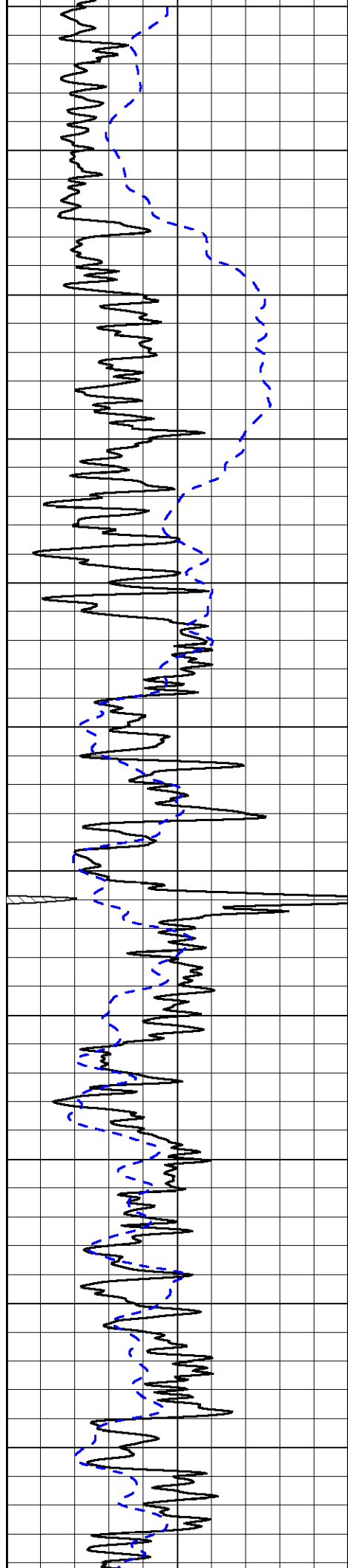
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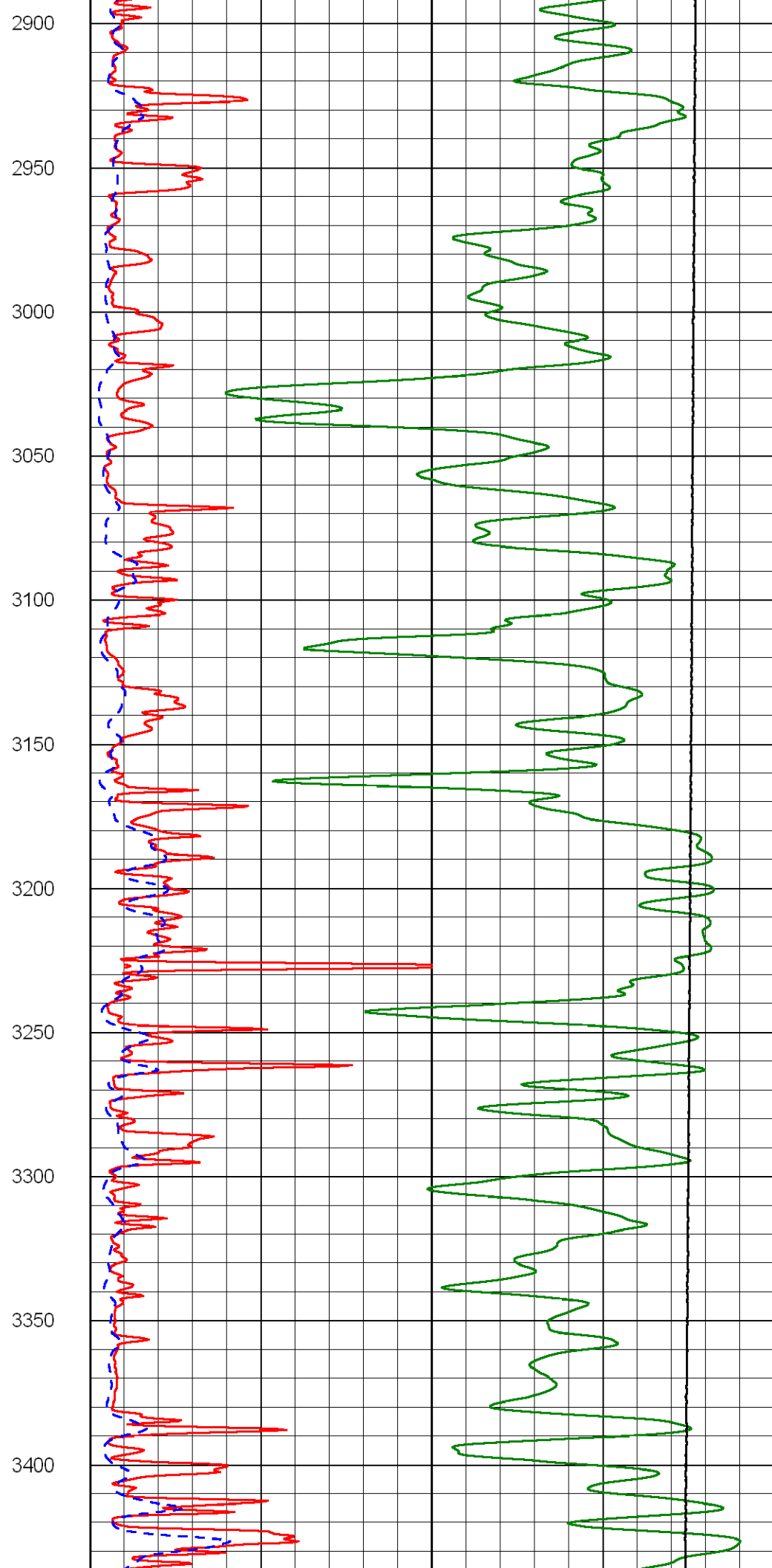
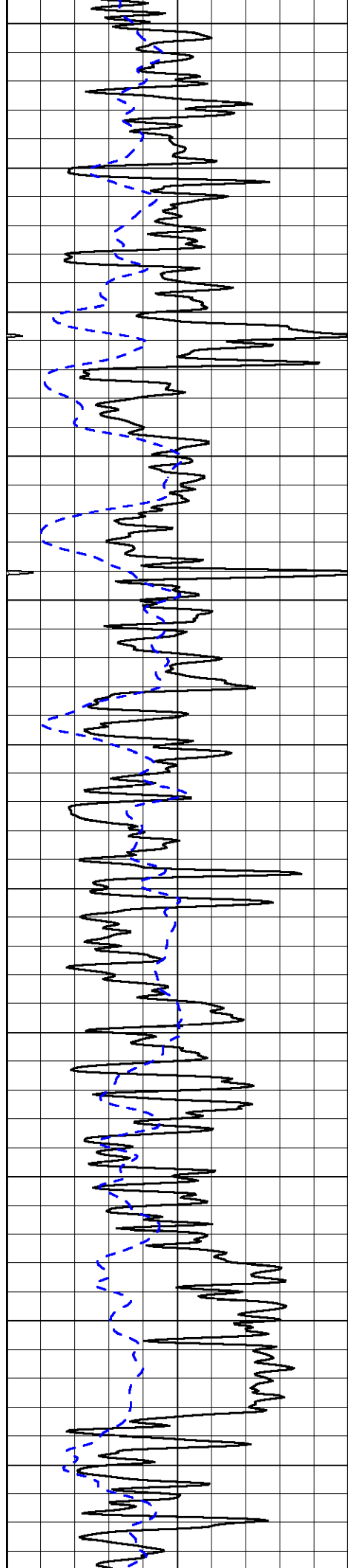
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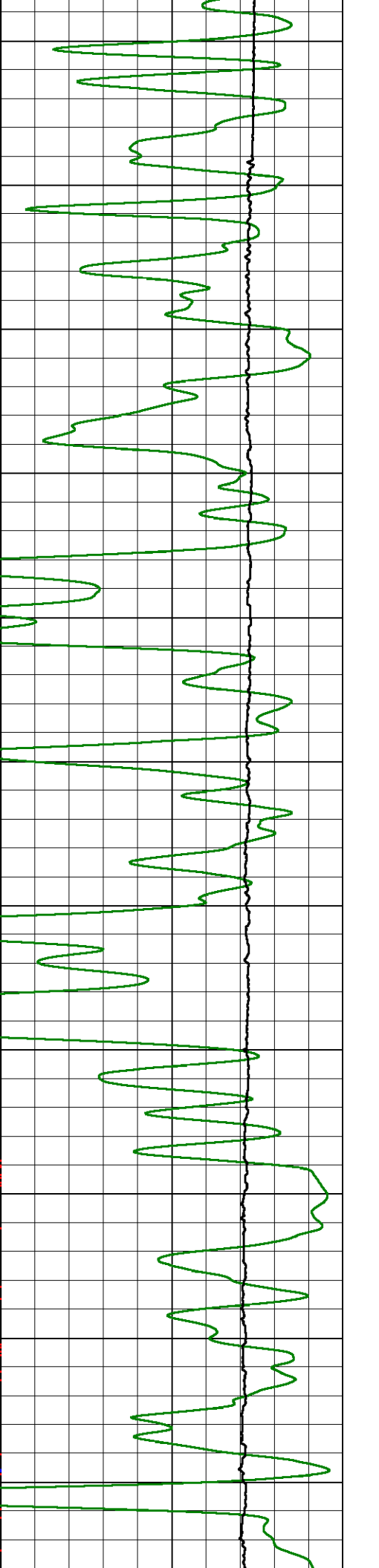
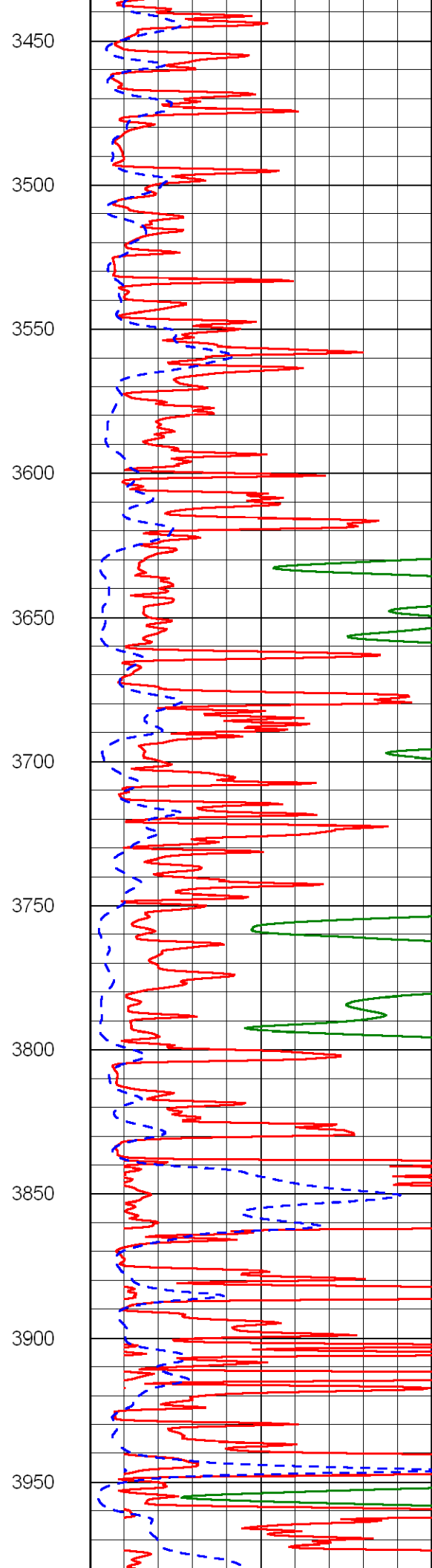
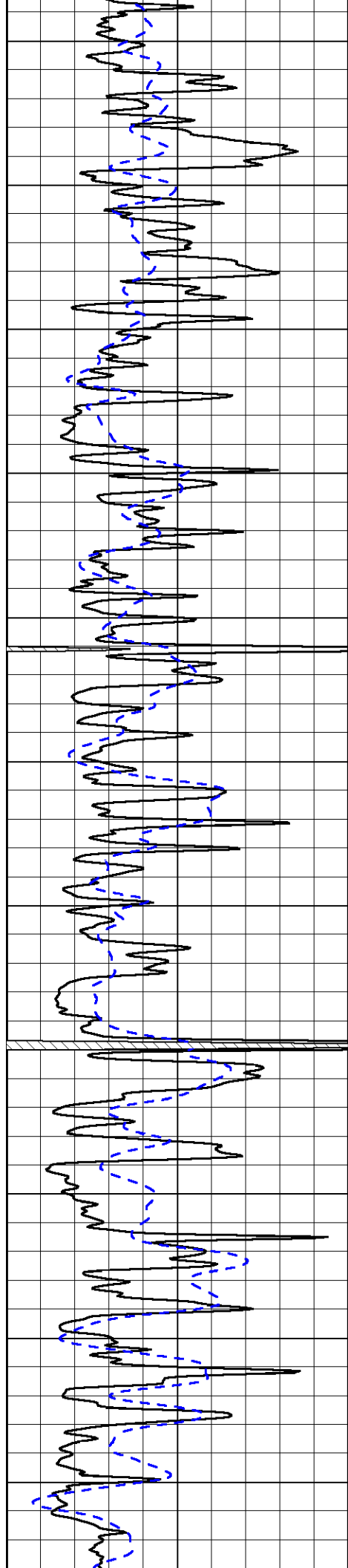


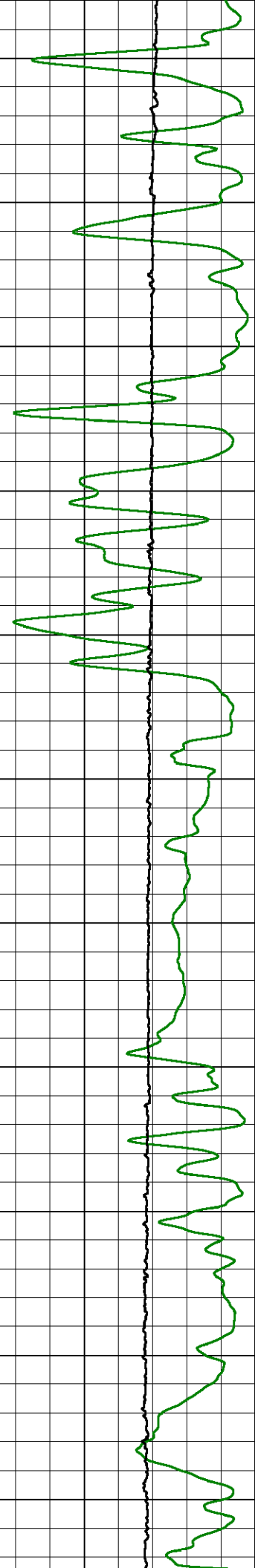
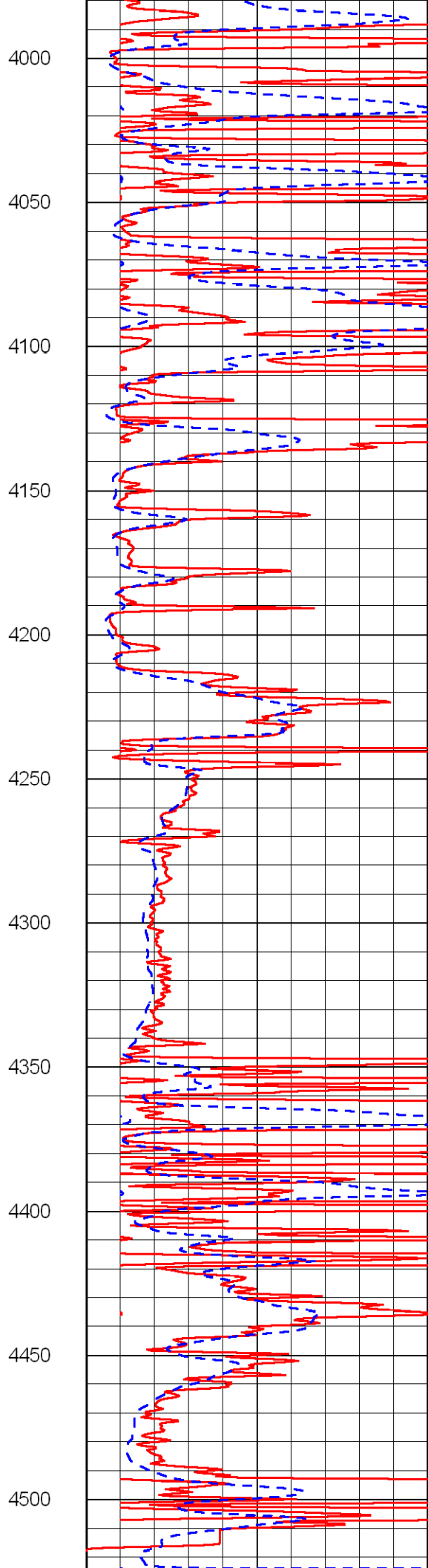
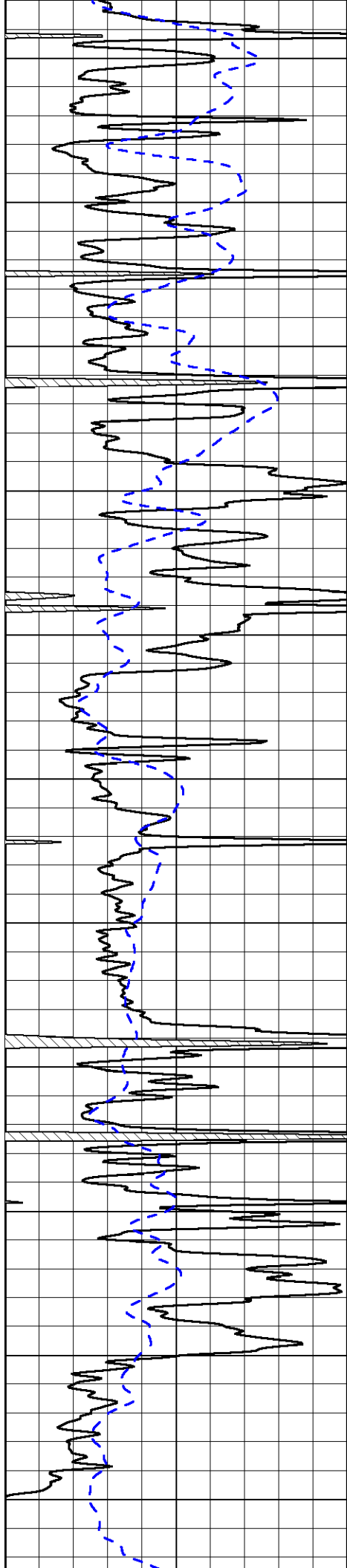


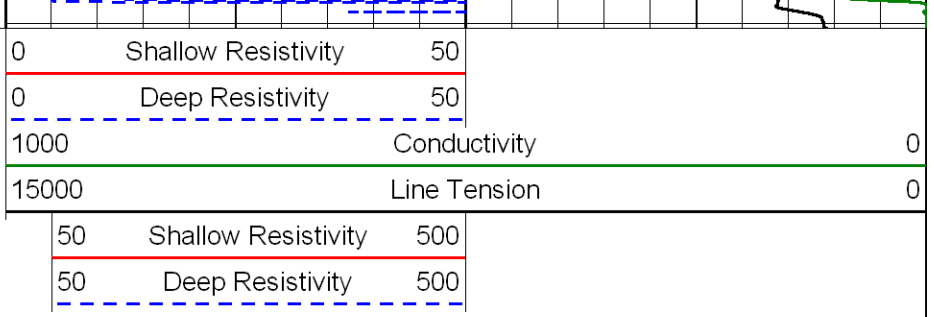
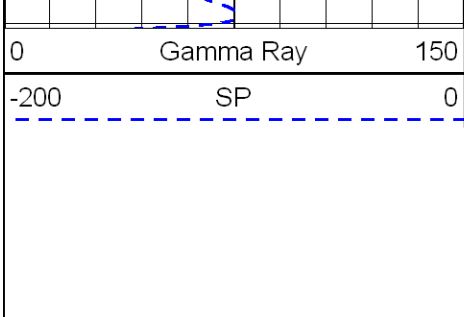




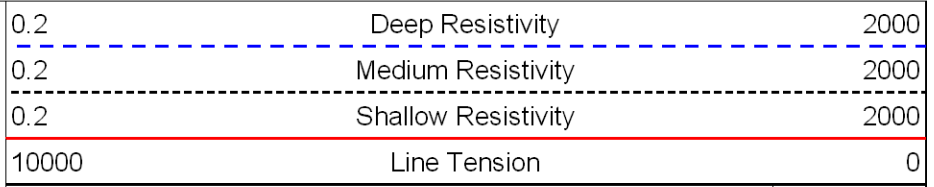
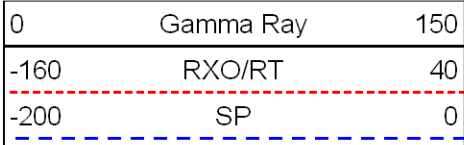




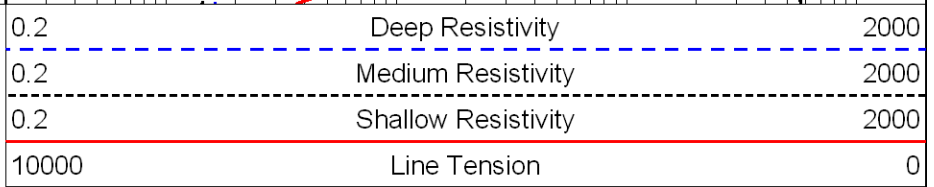
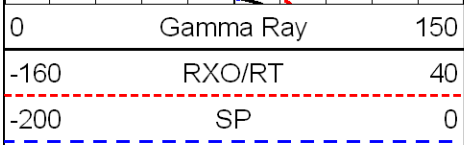
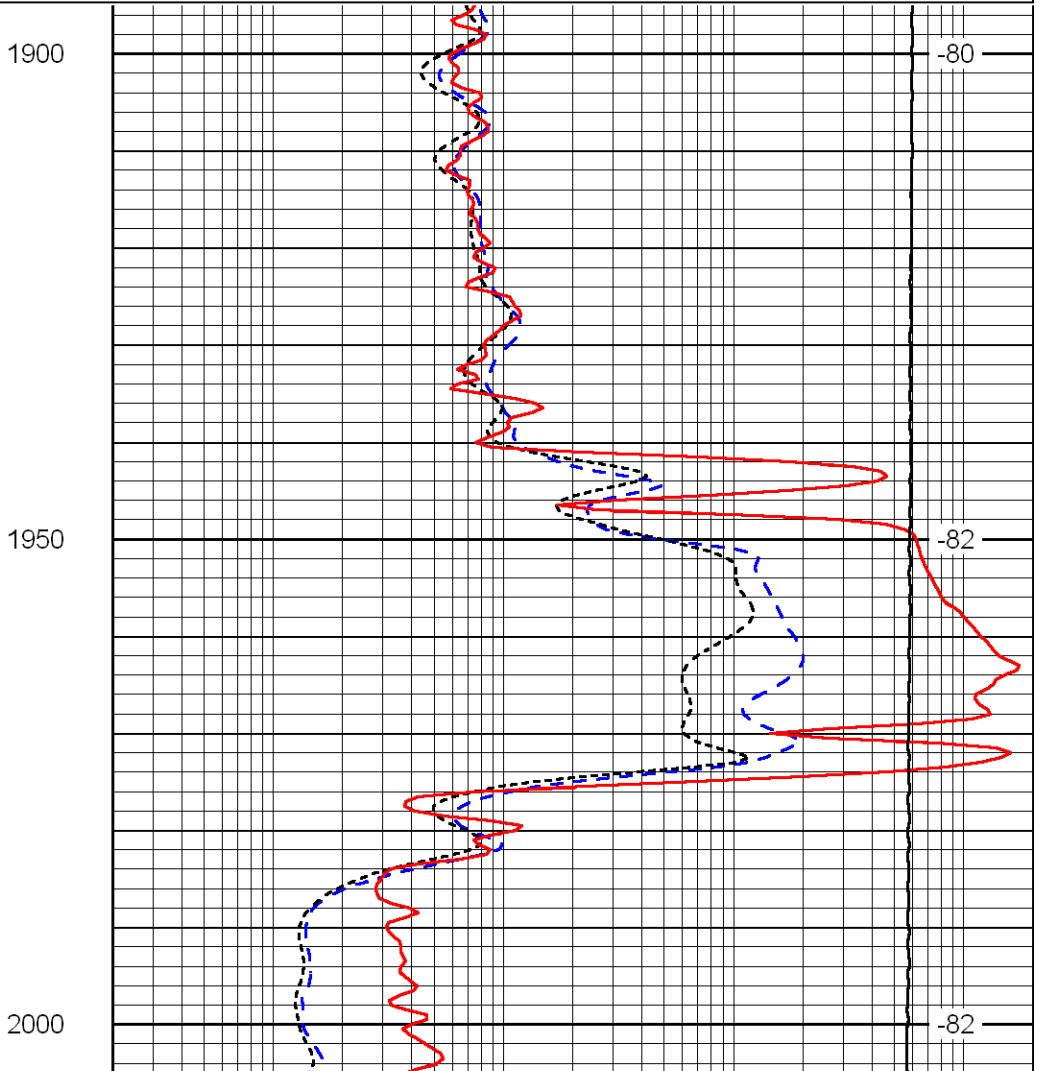
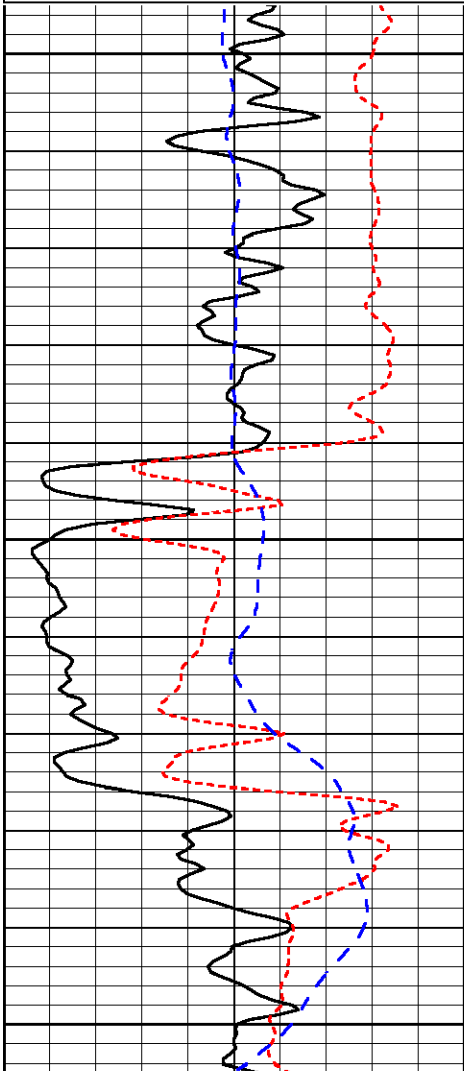




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LSPD



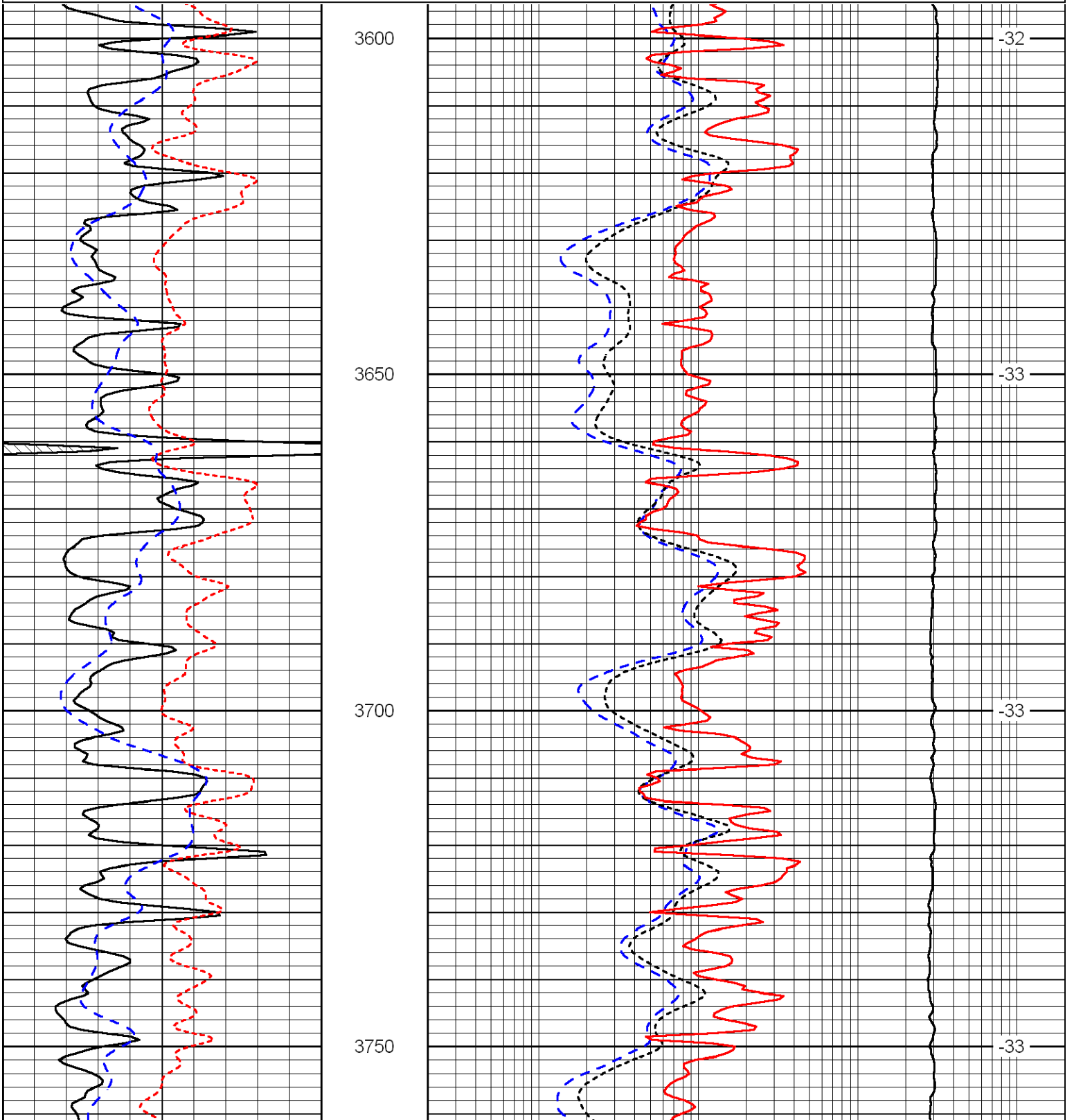
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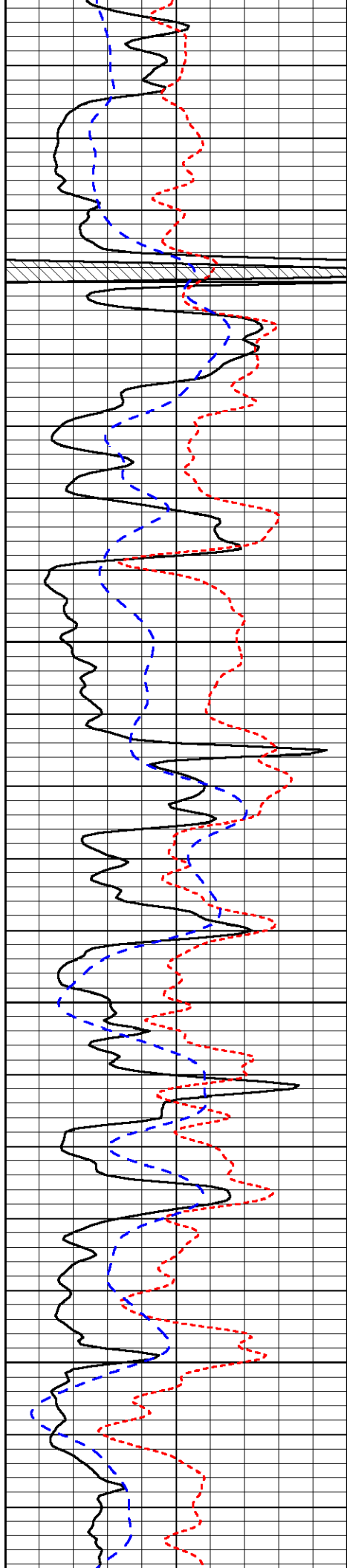
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-160	RXO/RT	40
-200	SP	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



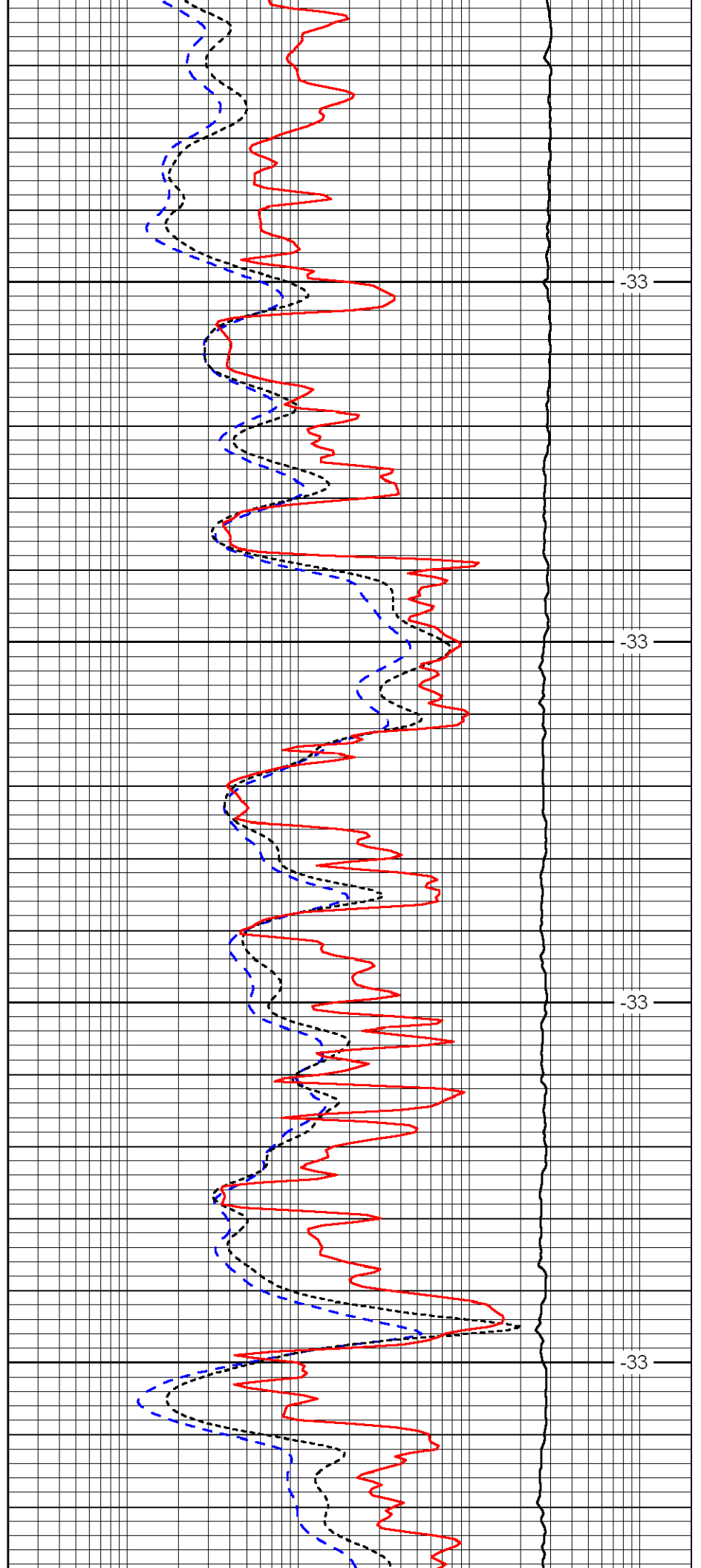


3800

3850

3900

3950

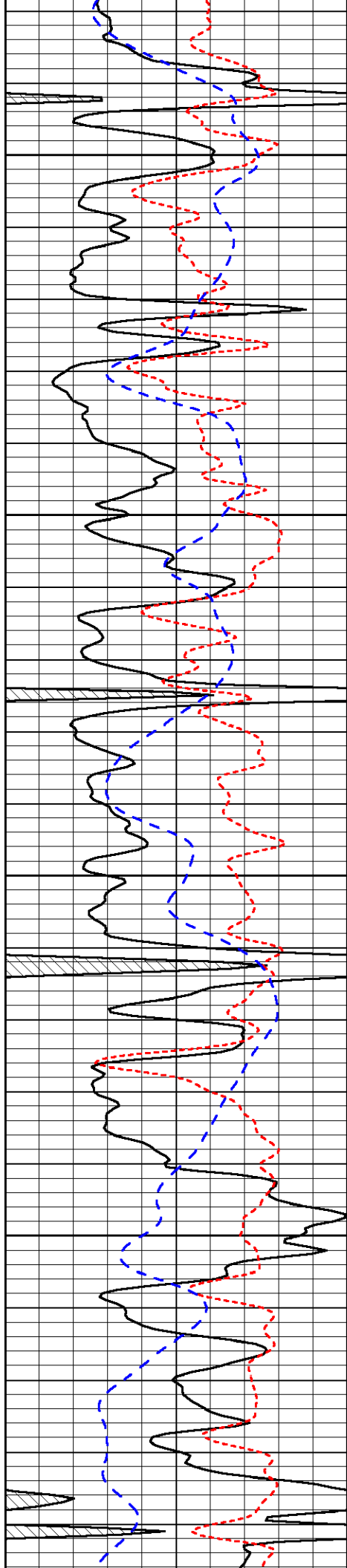


-33

-33

-33

-33

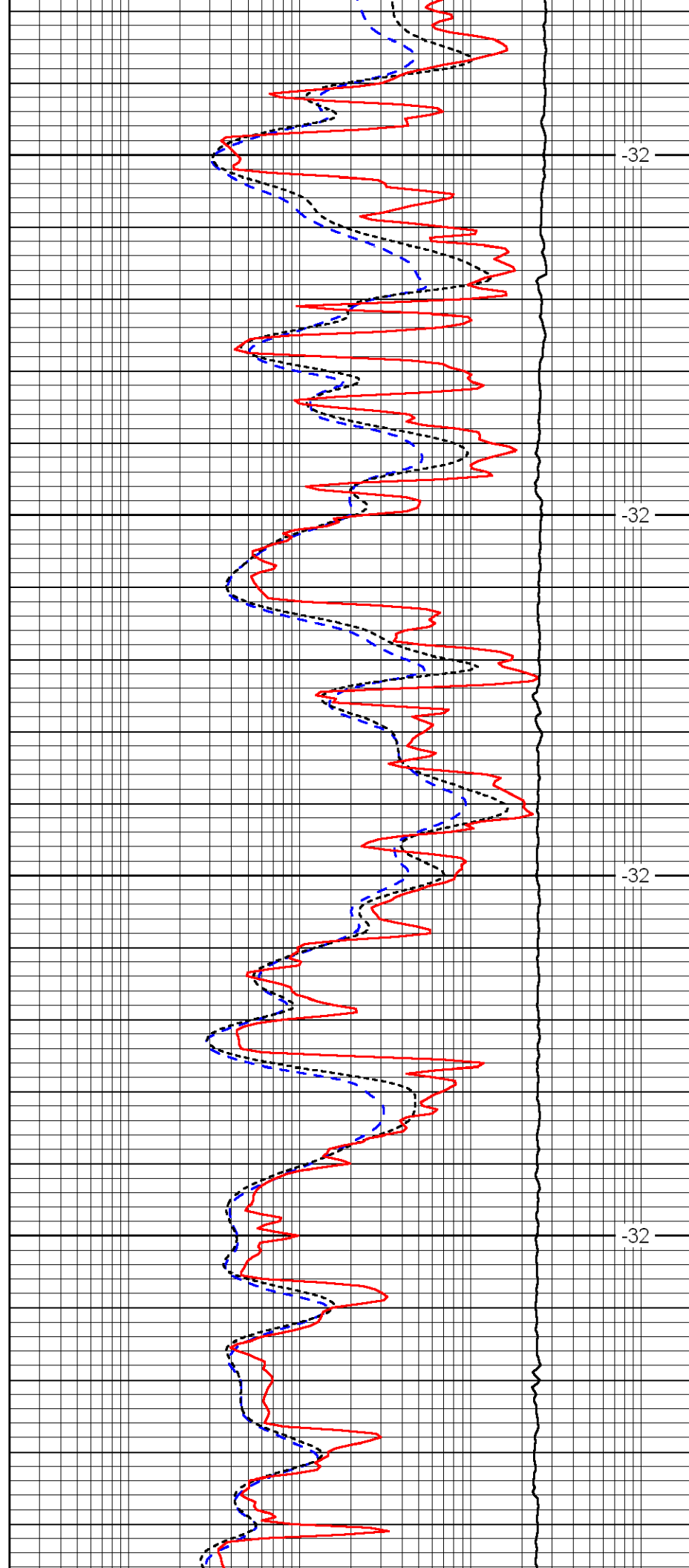


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4050

4100

4150

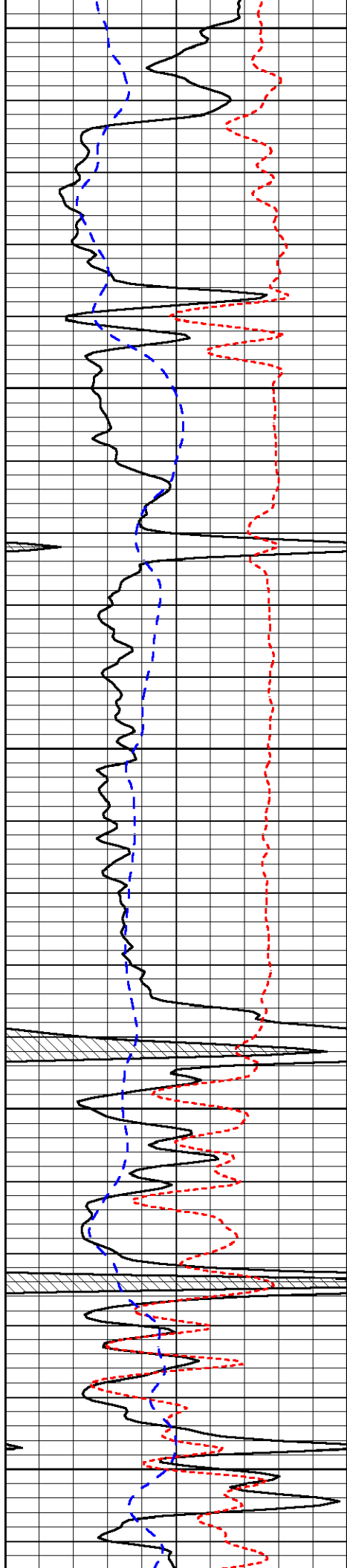


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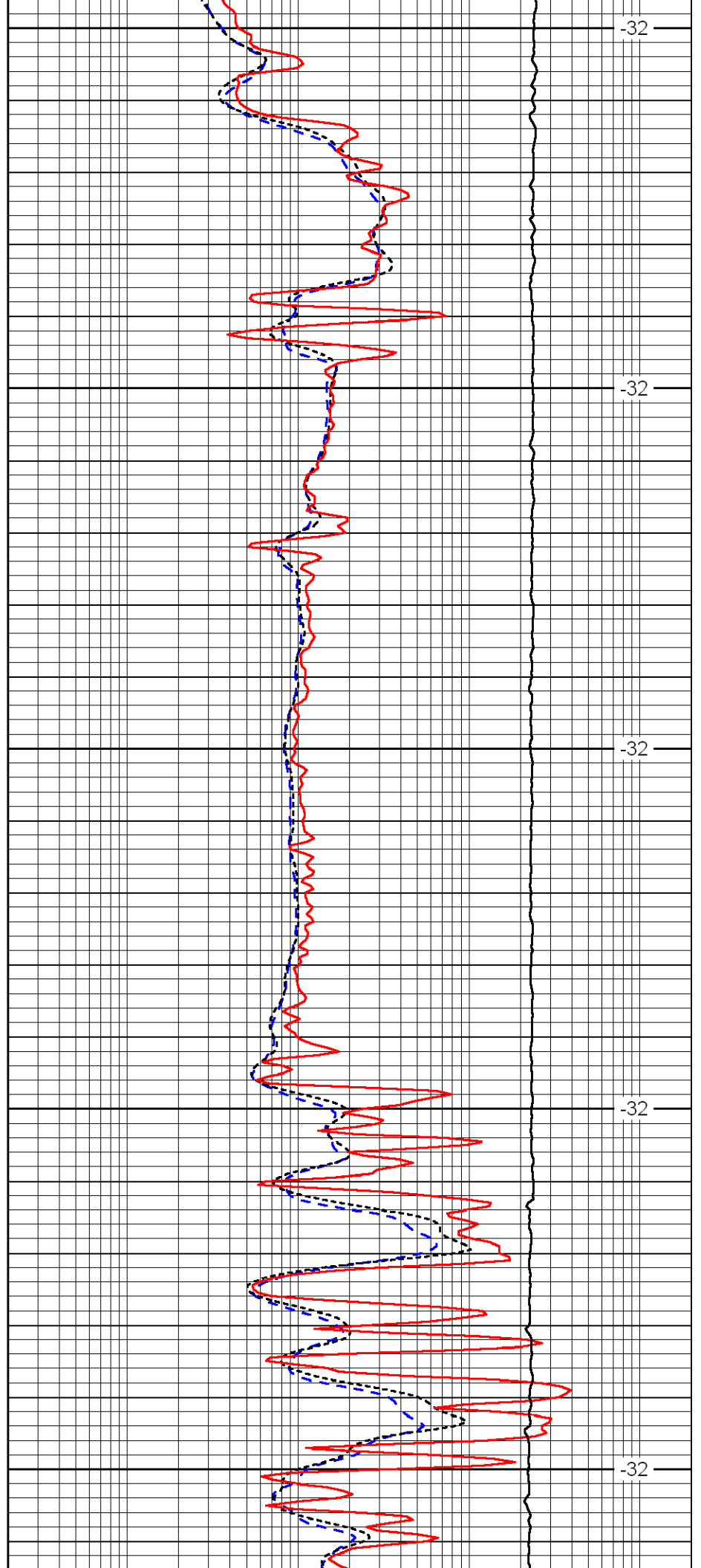
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4250

4300

4350

4400



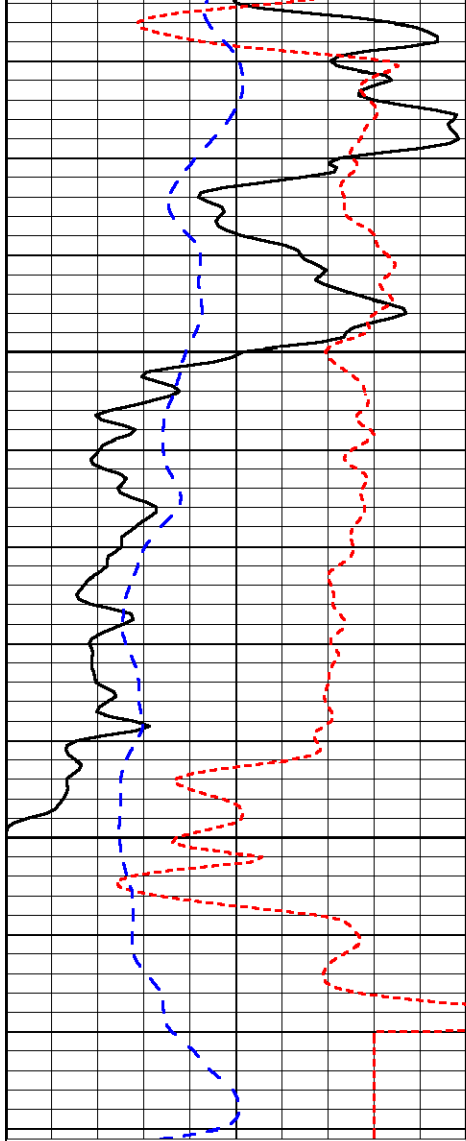
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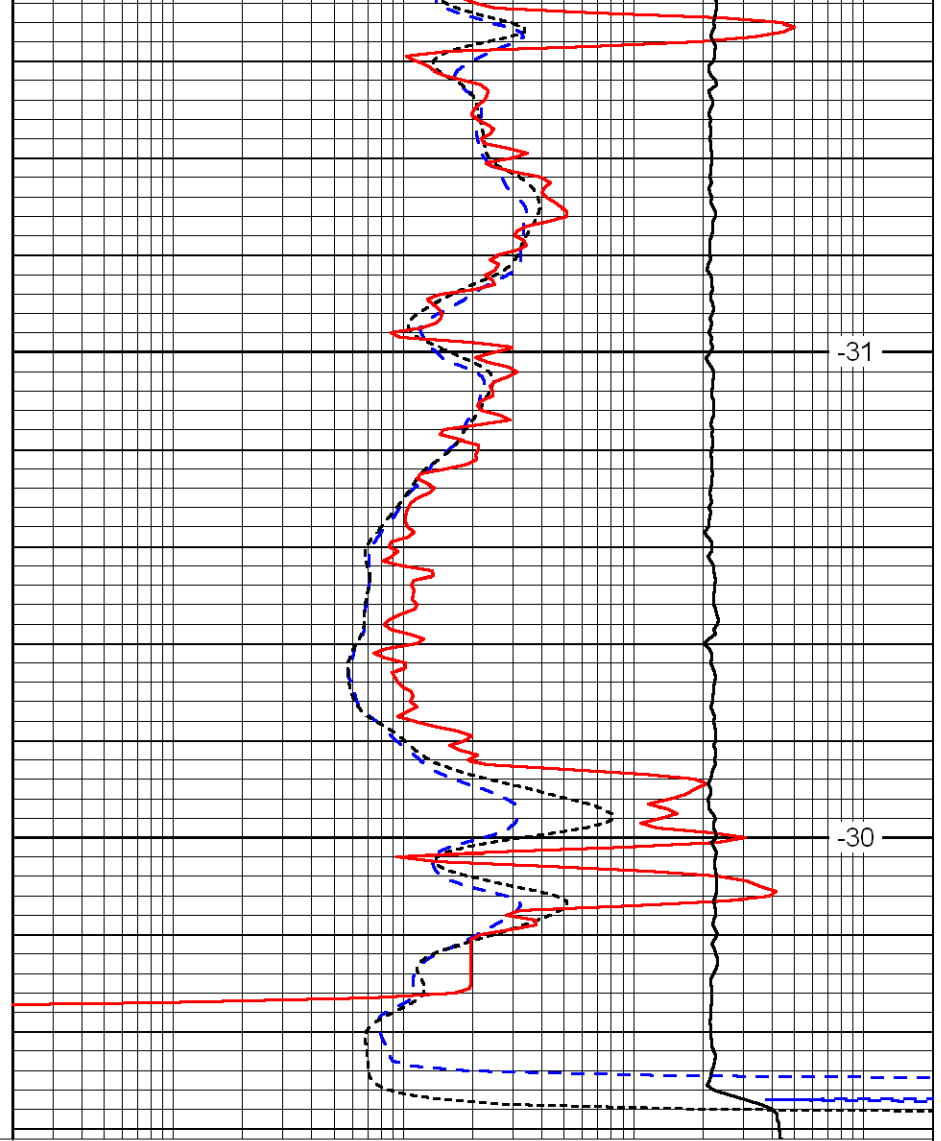
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0	Gamma Ray	150
-160	RXO/RT	40
-200	SP	0

4450

4500



-31

-30

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD