



Dual Induction Log

Pioneer Energy Services

API No.	Company Palmer Oil, Inc.		
	Well Willis #23-6		
	Field Willis		
	County Stevens	State	Kansas
Location		2100' FNL & 1400' FEL	
Sec: 23		Twp: 32S	Rge: 37W
Permanent Datum		Ground Level	Elevation 3105
Log Measured From		Kelly Bushing	13 Ft. Above Perm. Datum
Drilling Measured From		From Kelly Bushing	K.B. 3118 D.F. 3105 G.L. 3105
Date	1/11/2014		
Run Number	One		
Depth Driller	6500		
Depth Logger	6500		
Bottom Logged Interval	6499		
Top Log Interval	1700		
Casing Driller	8.625 @ 1755		
Casing Logger	1748		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	2,000		
Density / Viscosity	9.4 60		
pH / Fluid Loss	8.5 8.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	1.4 @ 58		
Rmf @ Meas. Temp	1.05 @ 58		
Rmc @ Meas. Temp	1.89 @ 58		
Source of Rmf / Rmc	Charts		
Rm @ BHT	.58 @ 141		
Operating Rig Time	5 Hours		
Max Rec. Temp. F	141		
Equipment Number	17		
Location	Hays		
Recorded By	C. Desaire		
Witnessed By	Wyatt Urban		

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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.

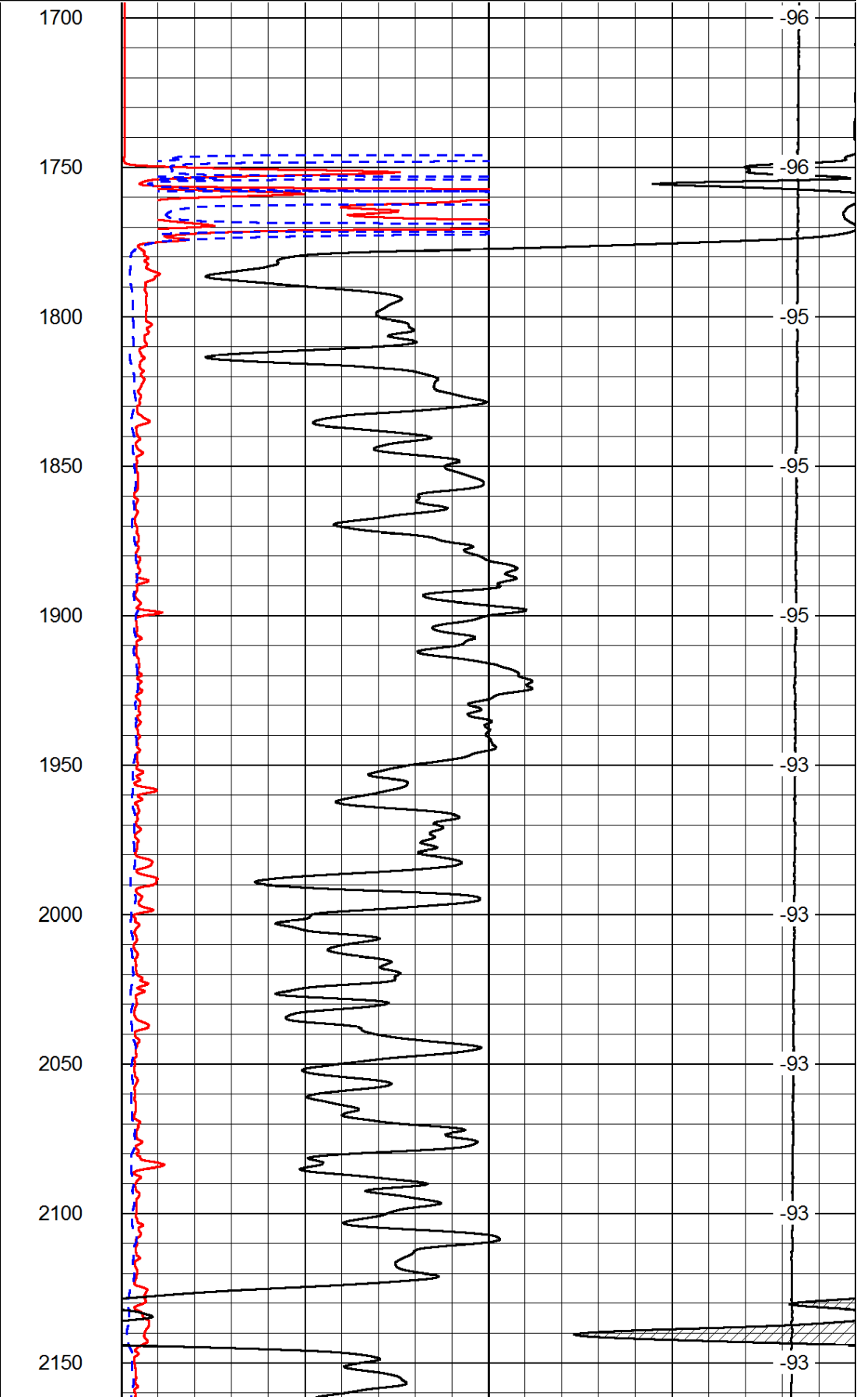
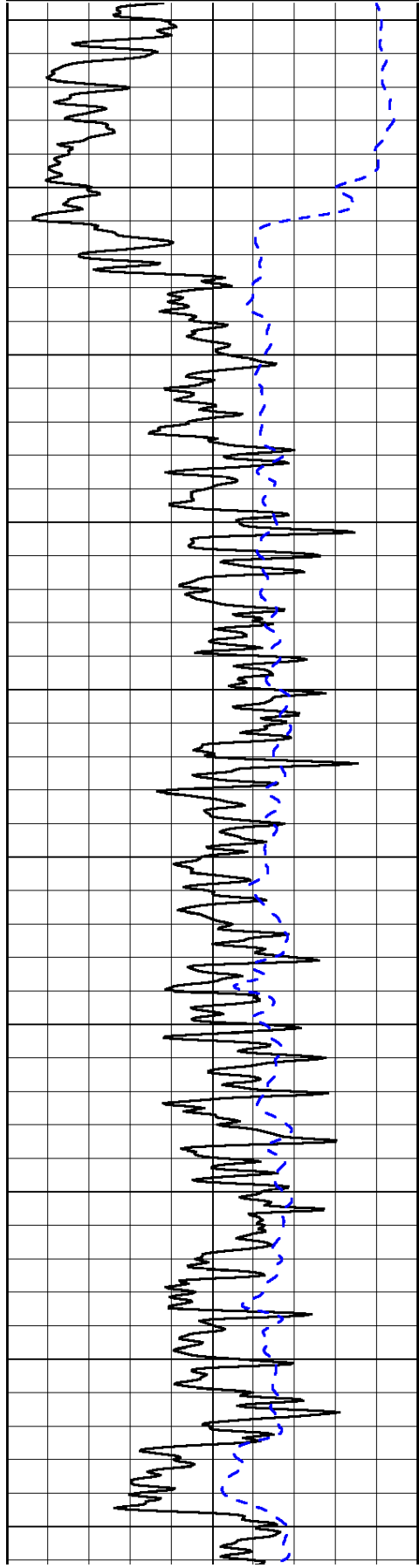
Comments

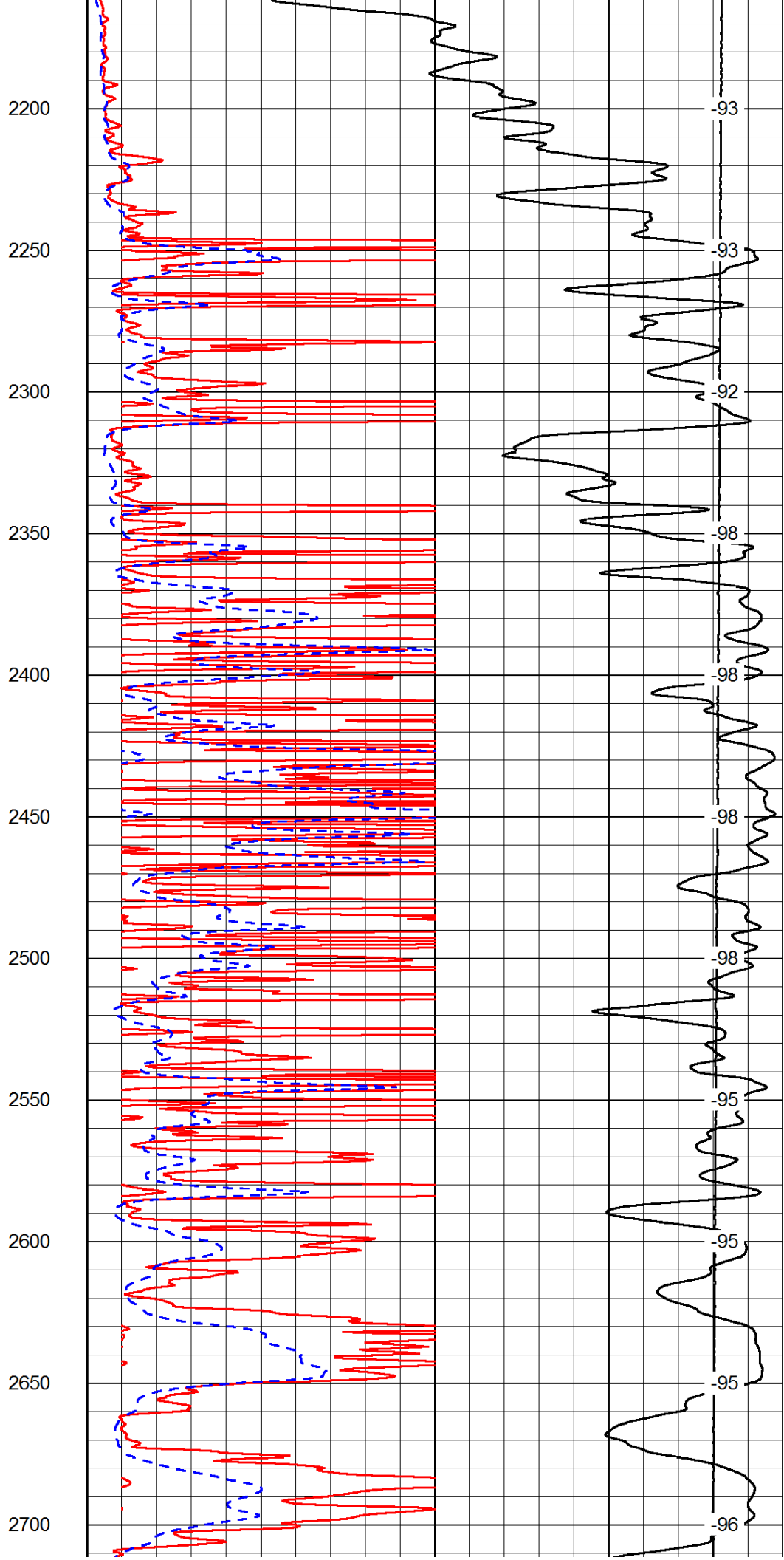
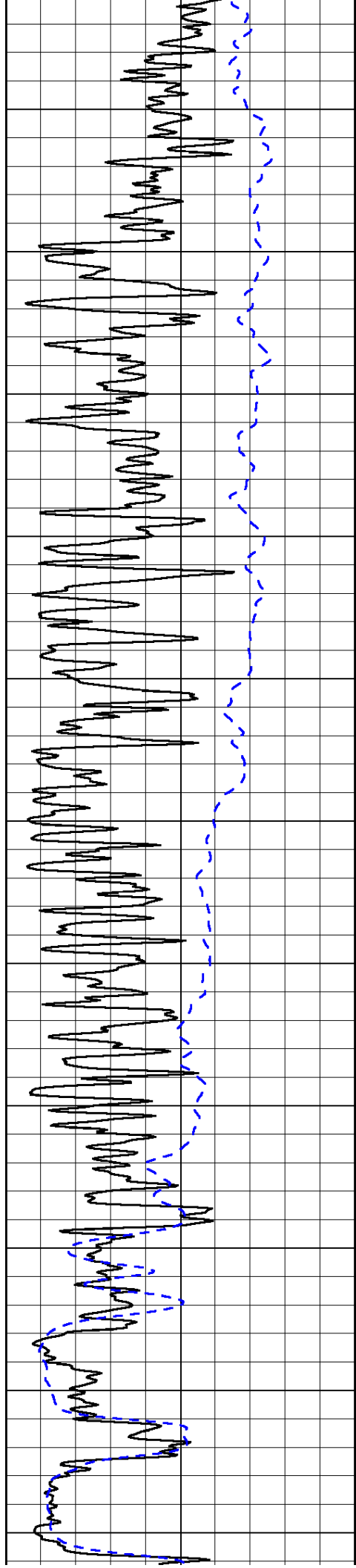
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858

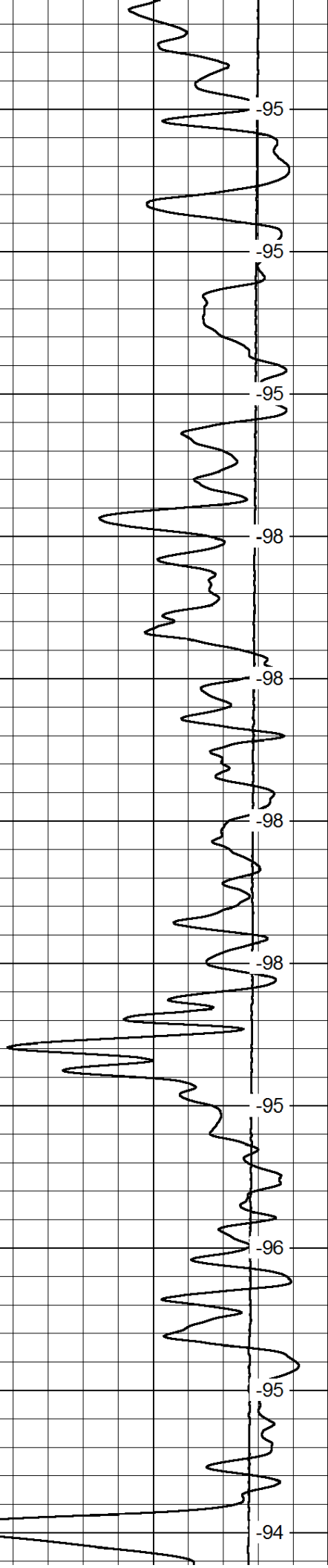
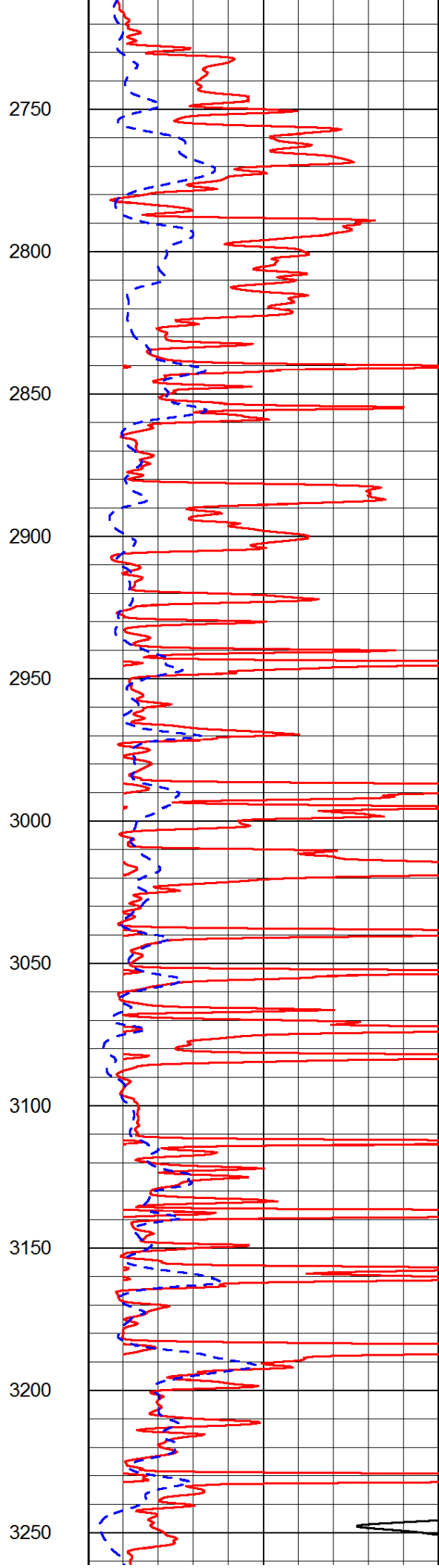
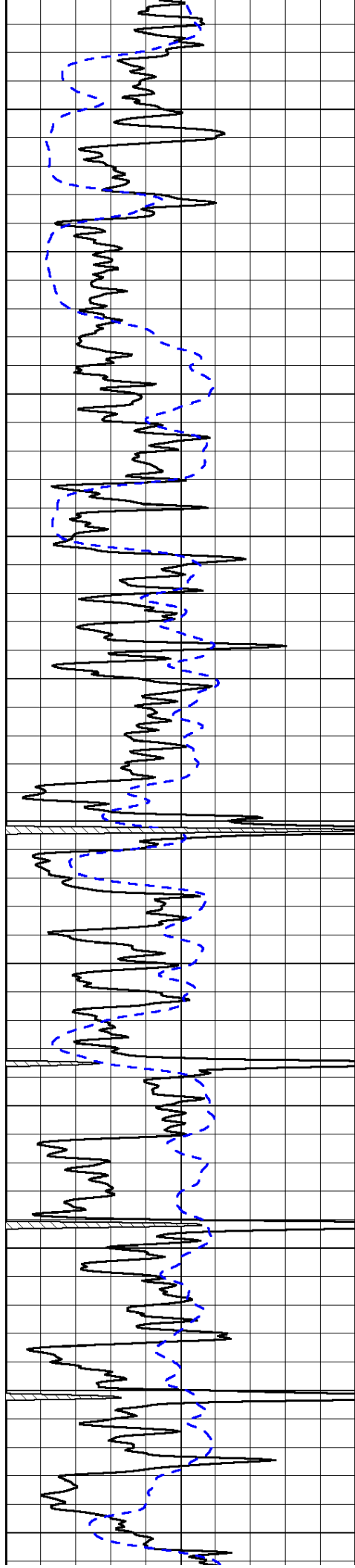
Moscow KS, S to U Rd,
1 W to 15 Rd, 1/4 S, W S W Into

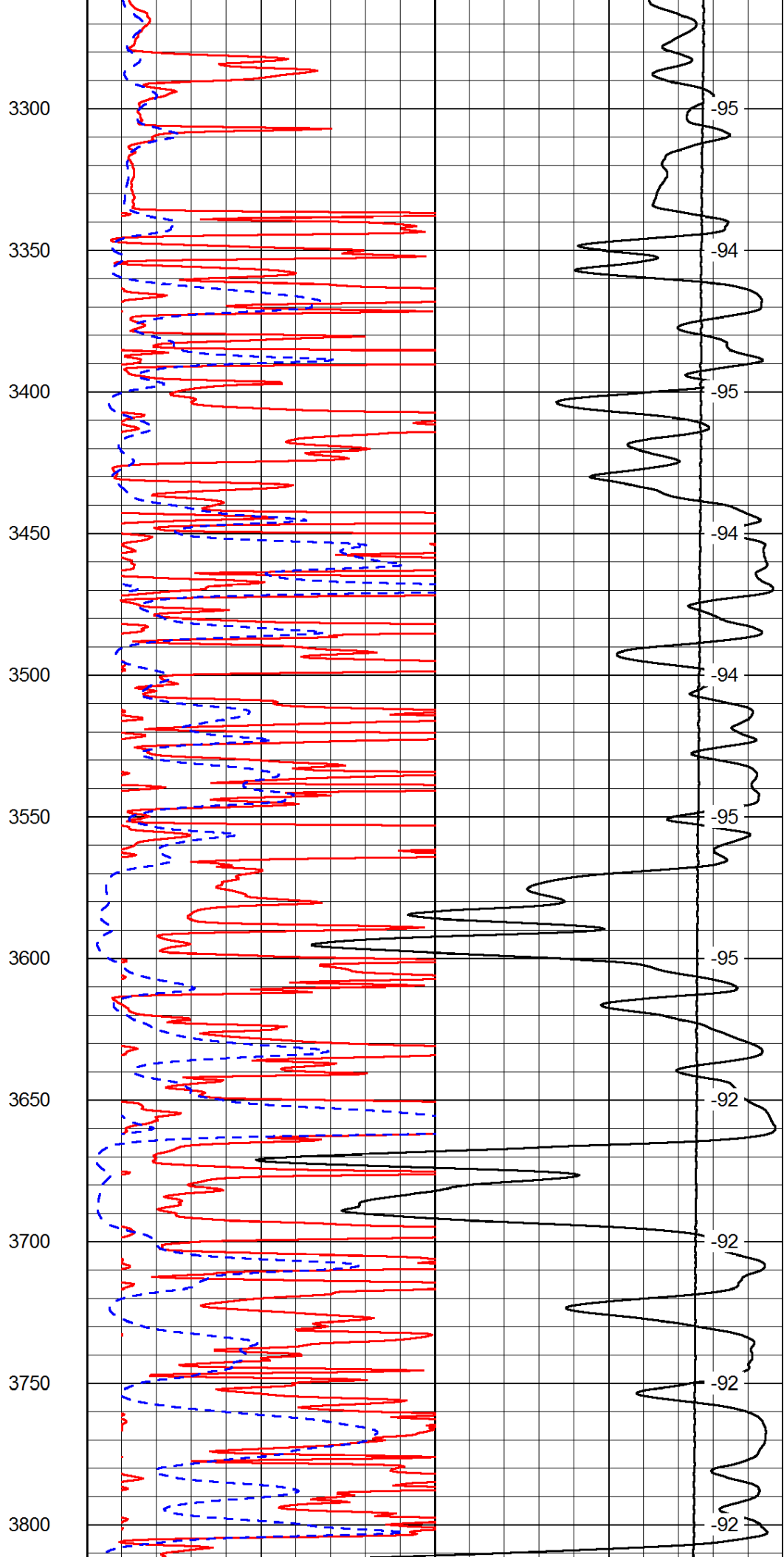
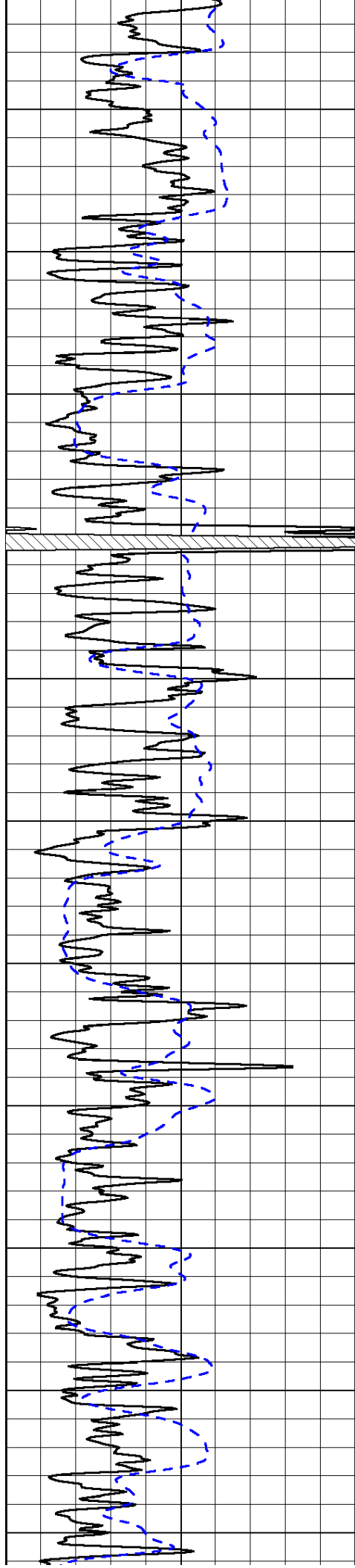
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Dataset Pathname: dil\palmstk
Presentation Format: dil2in
Dataset Creation: Sat Jan 11 18:51:19 2014
Charted by: Depth in Feet scaled 1:600

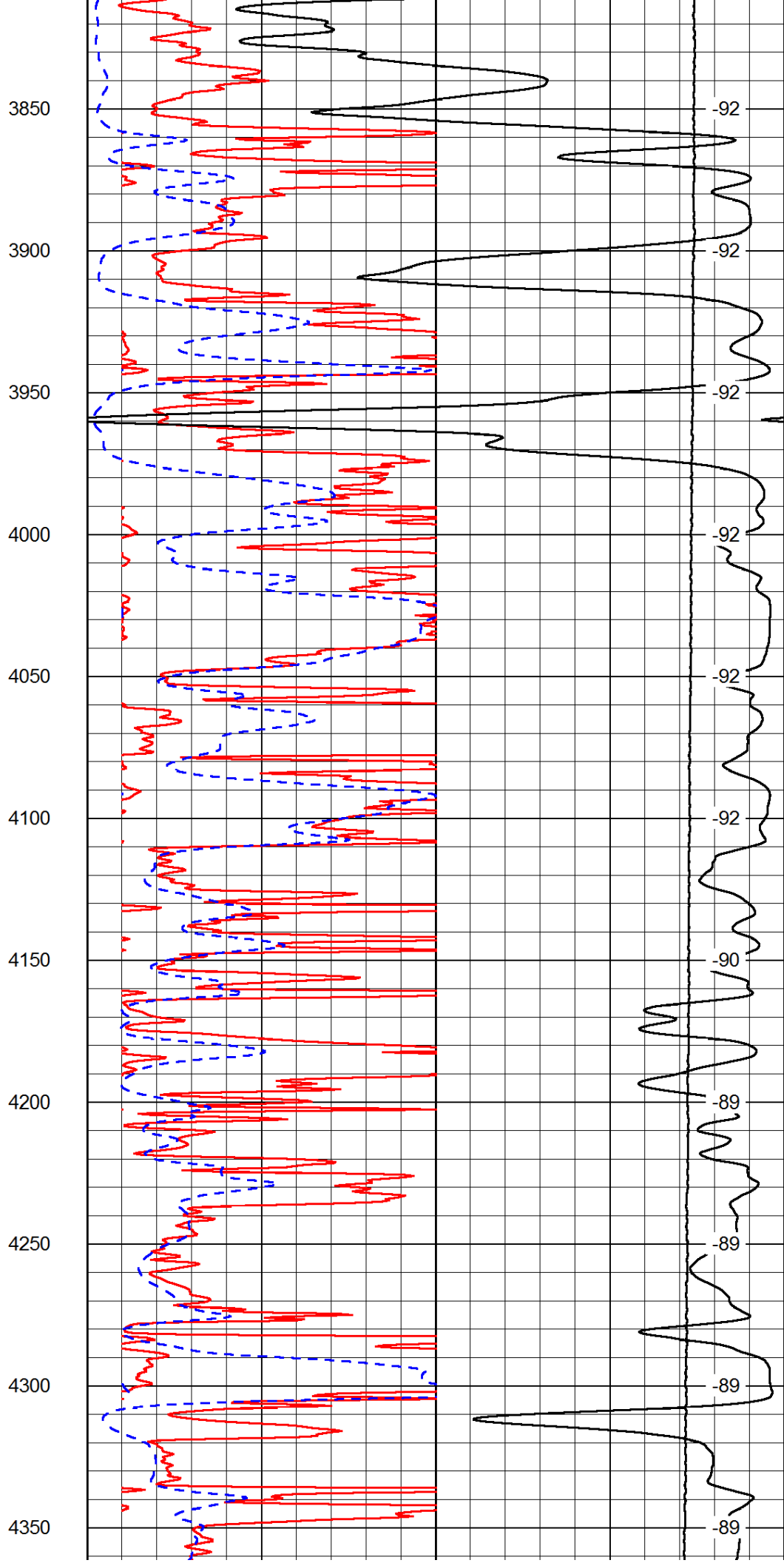
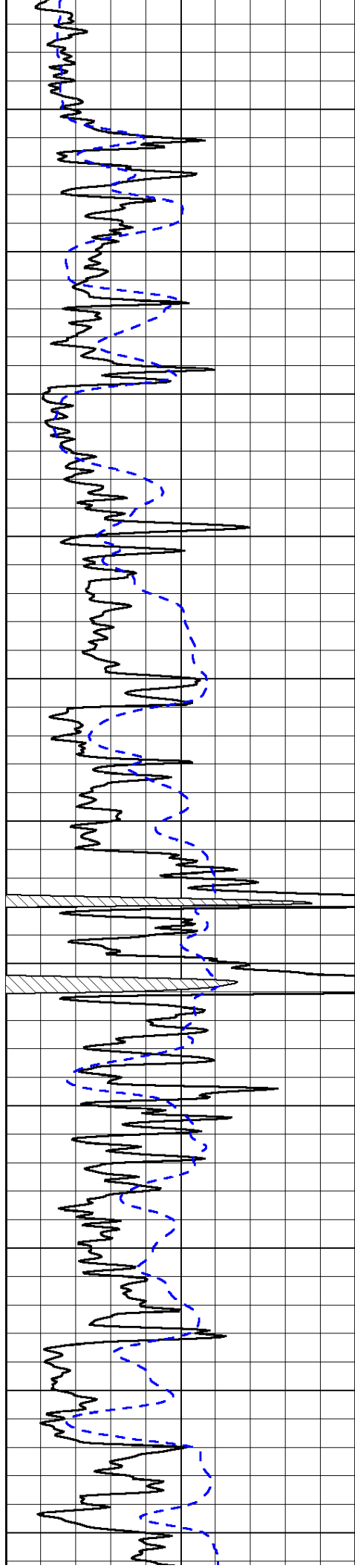
Charted by: _____ Depth in Feet scaled 1:600								
0	Gamma Ray	150	0	Shallow Resistivity	50	LSPD		
-200	SP (mV)	0	0	Deep Resistivity	50			
			1000	Conductivity		0		
			15000	Line Tension		0		
			50	Shallow Resistivity	500			
			50	Deep Resistivity	500			

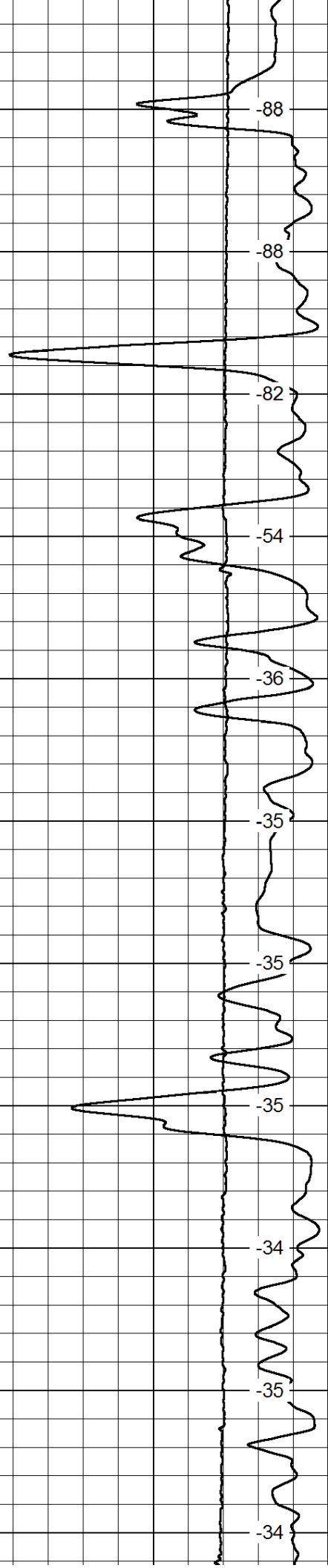
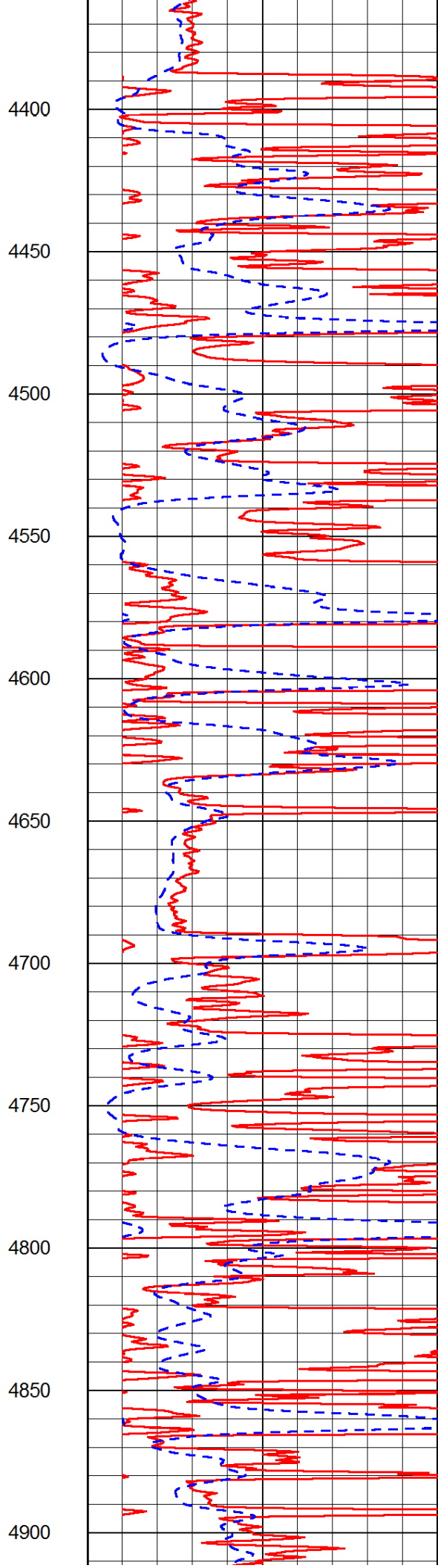
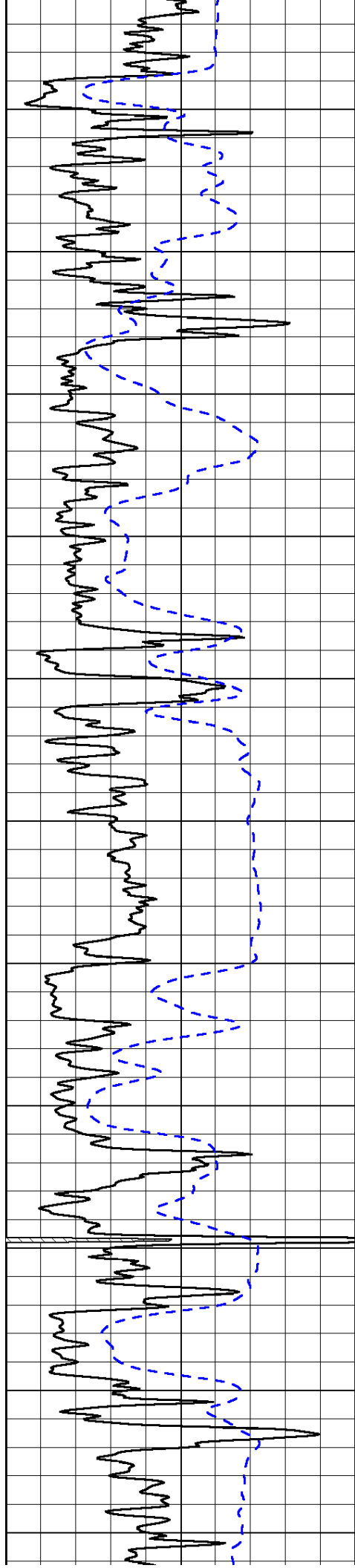


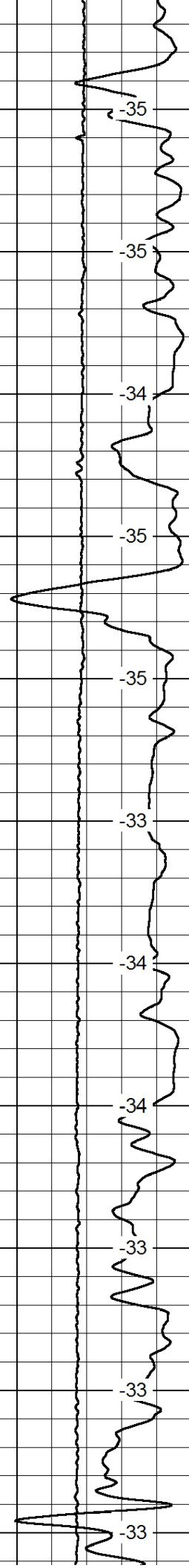
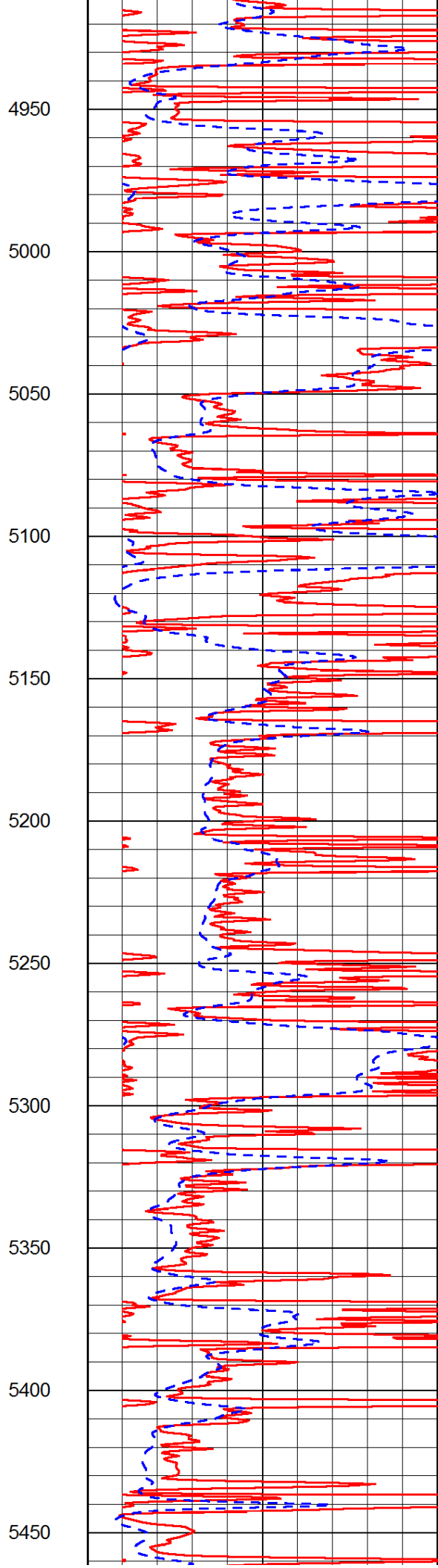
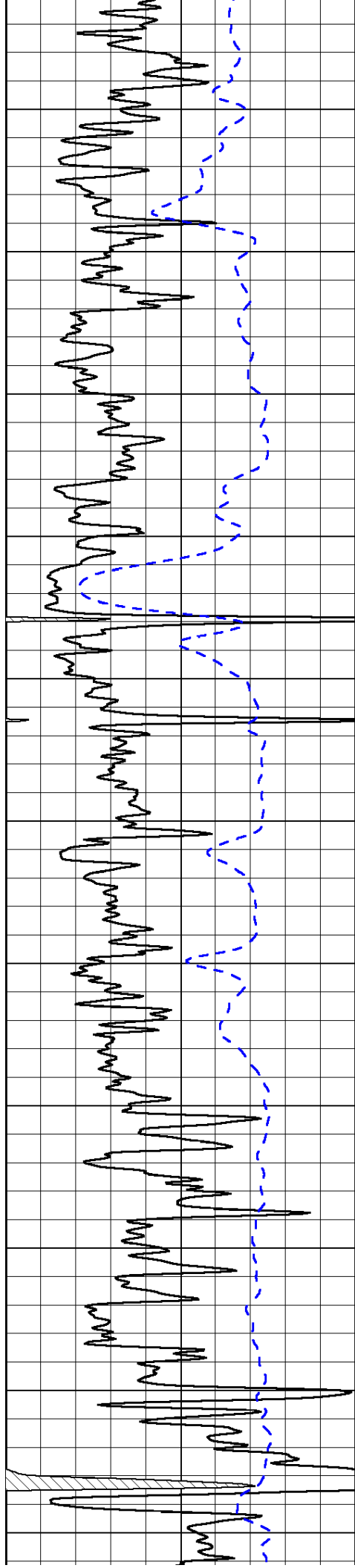


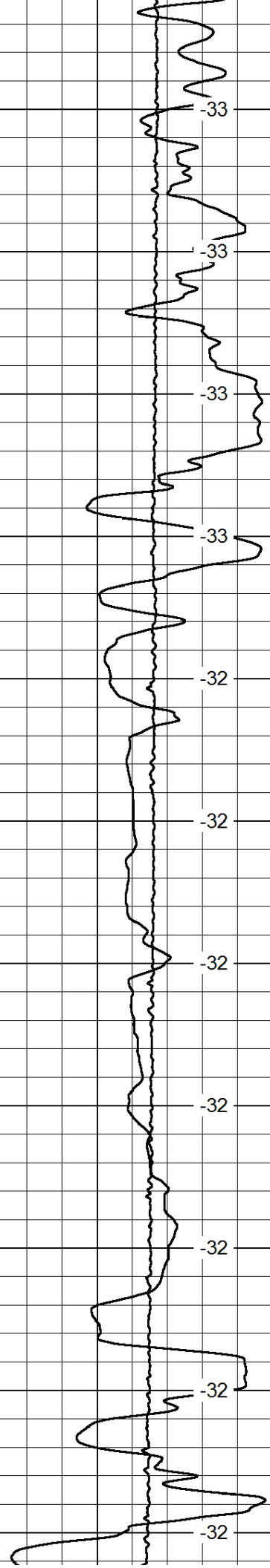
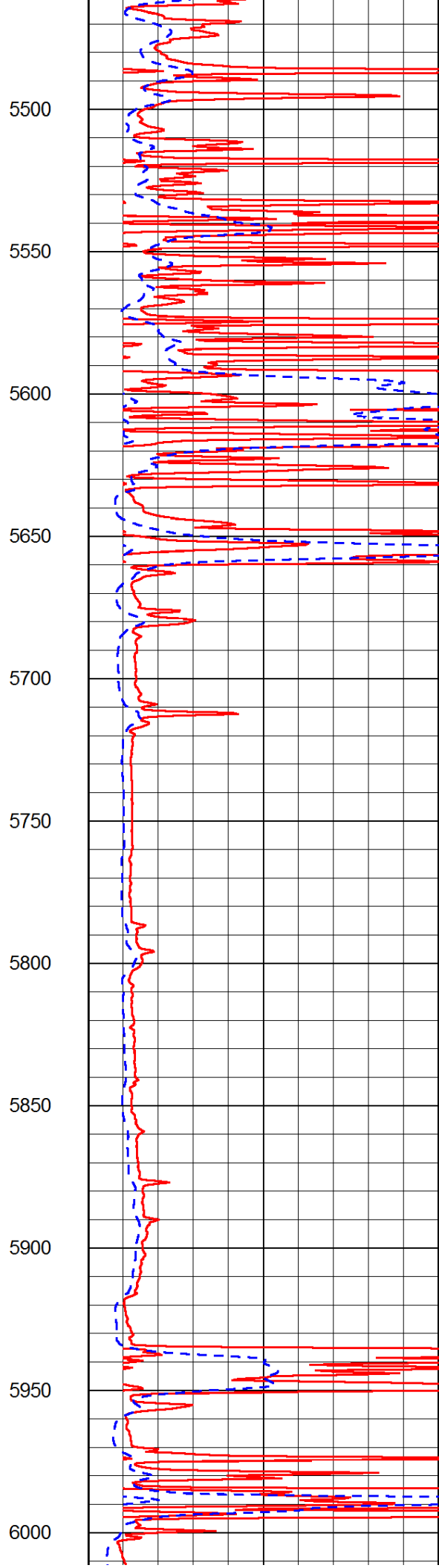
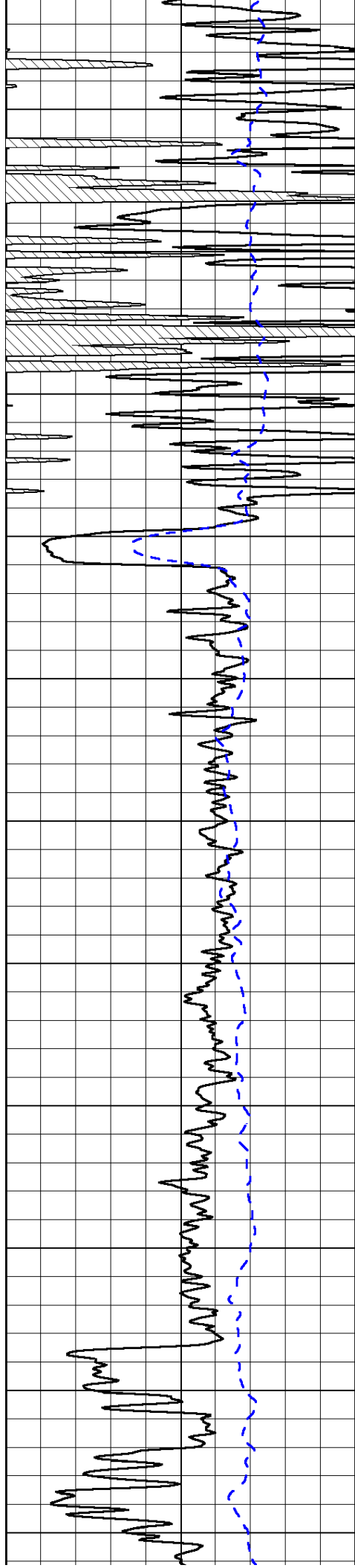


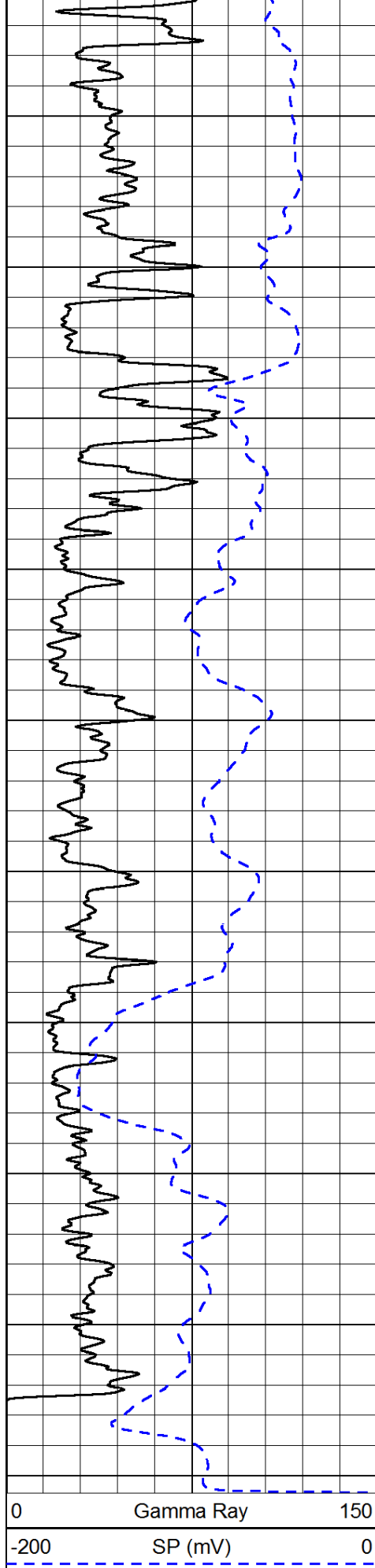




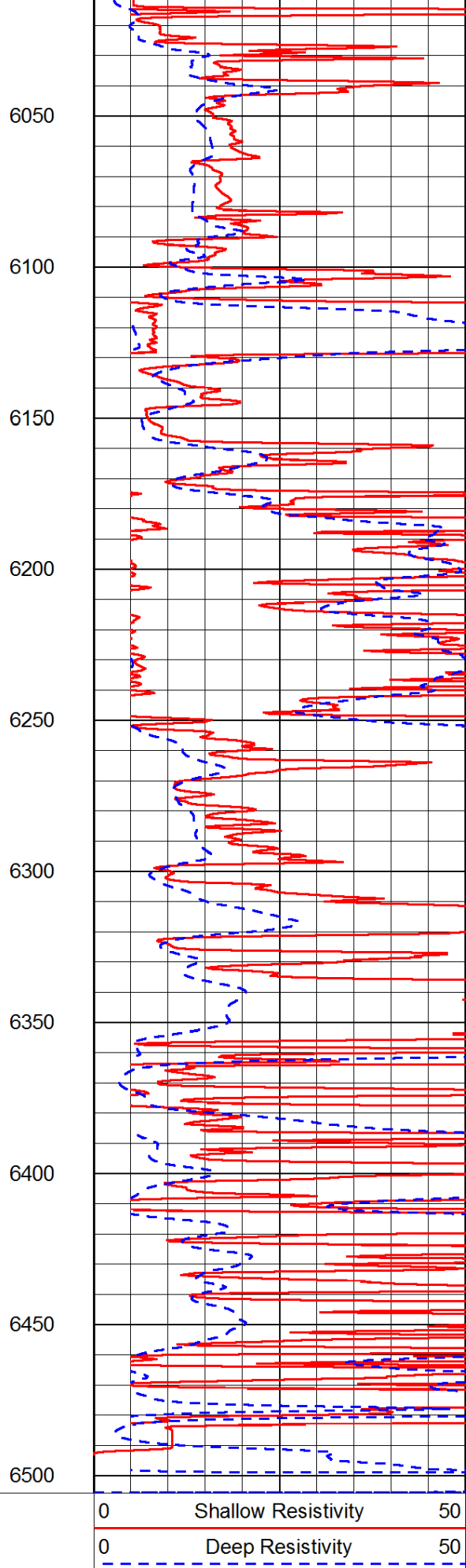




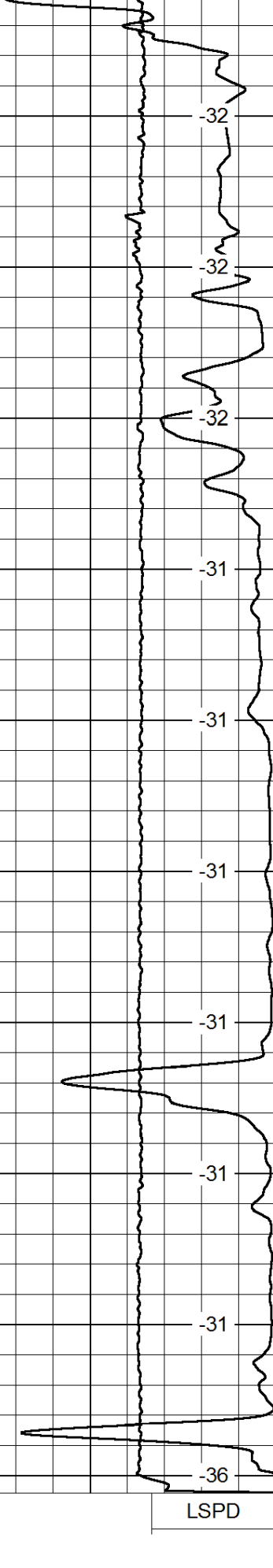




0	Gamma Ray	150
-200	SP (mV)	0



0	Shallow Resistivity	50
0	Deep Resistivity	50



	LSPD	
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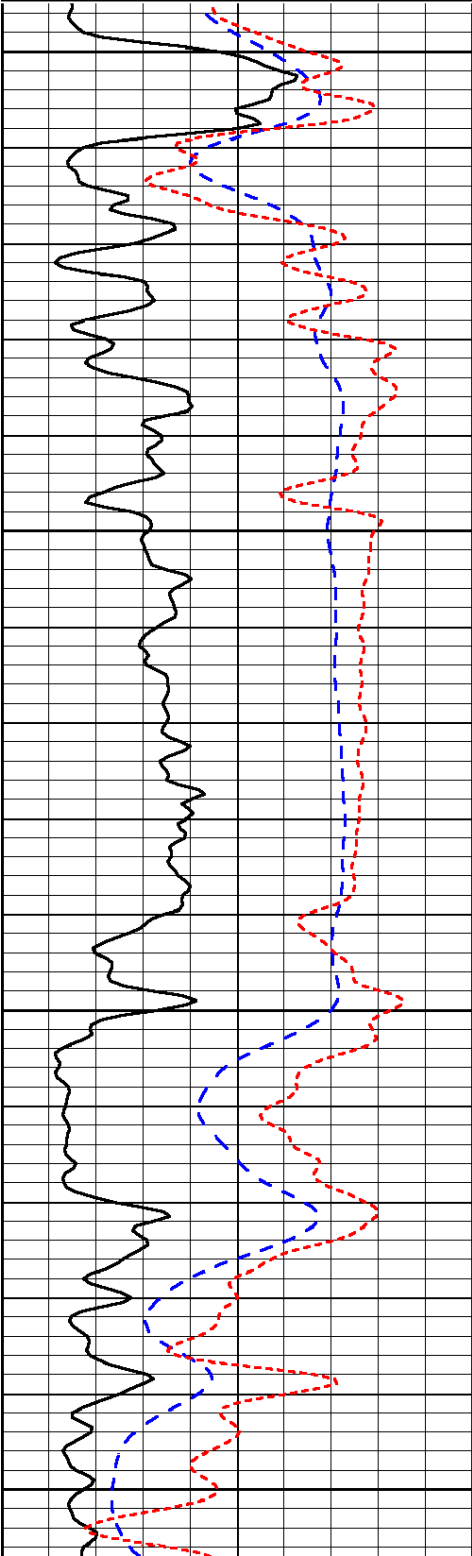
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500

Database File: c:\warrior\data\palmer_willis #23-6\palmhd.db
Dataset Pathname: dil/palmstk
Presentation Format: dil
Dataset Creation: Sat Jan 11 18:51:19 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

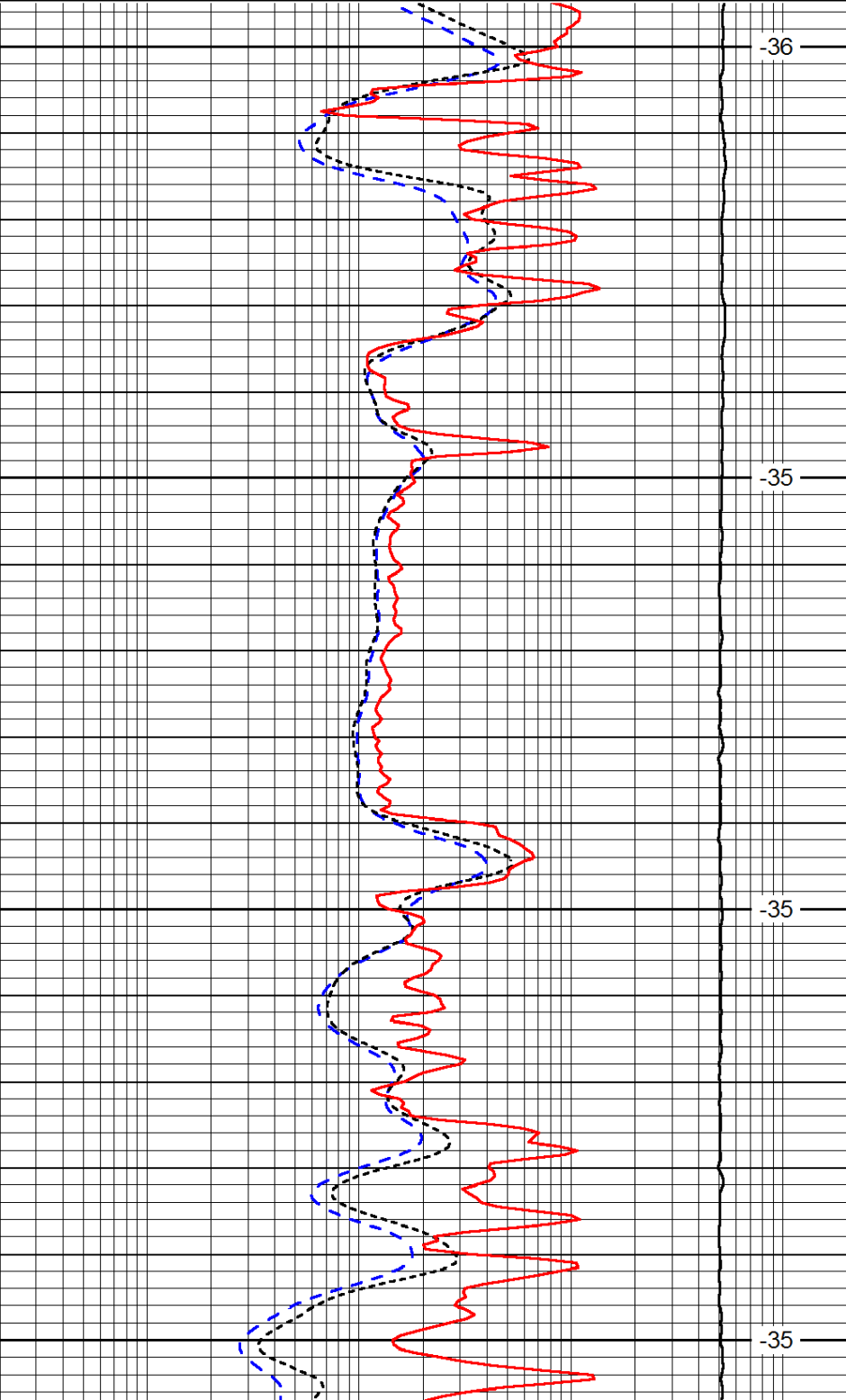


4600

4650

4700

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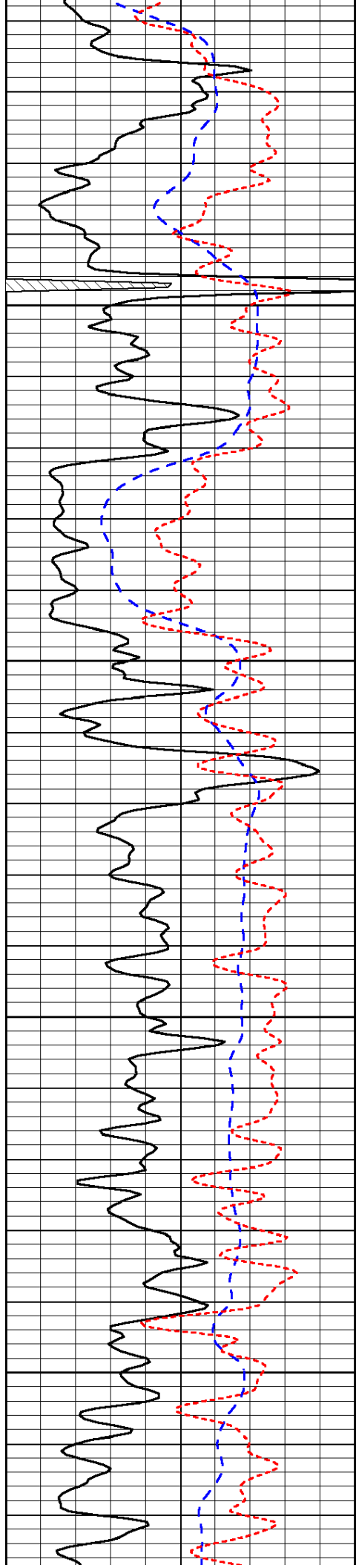


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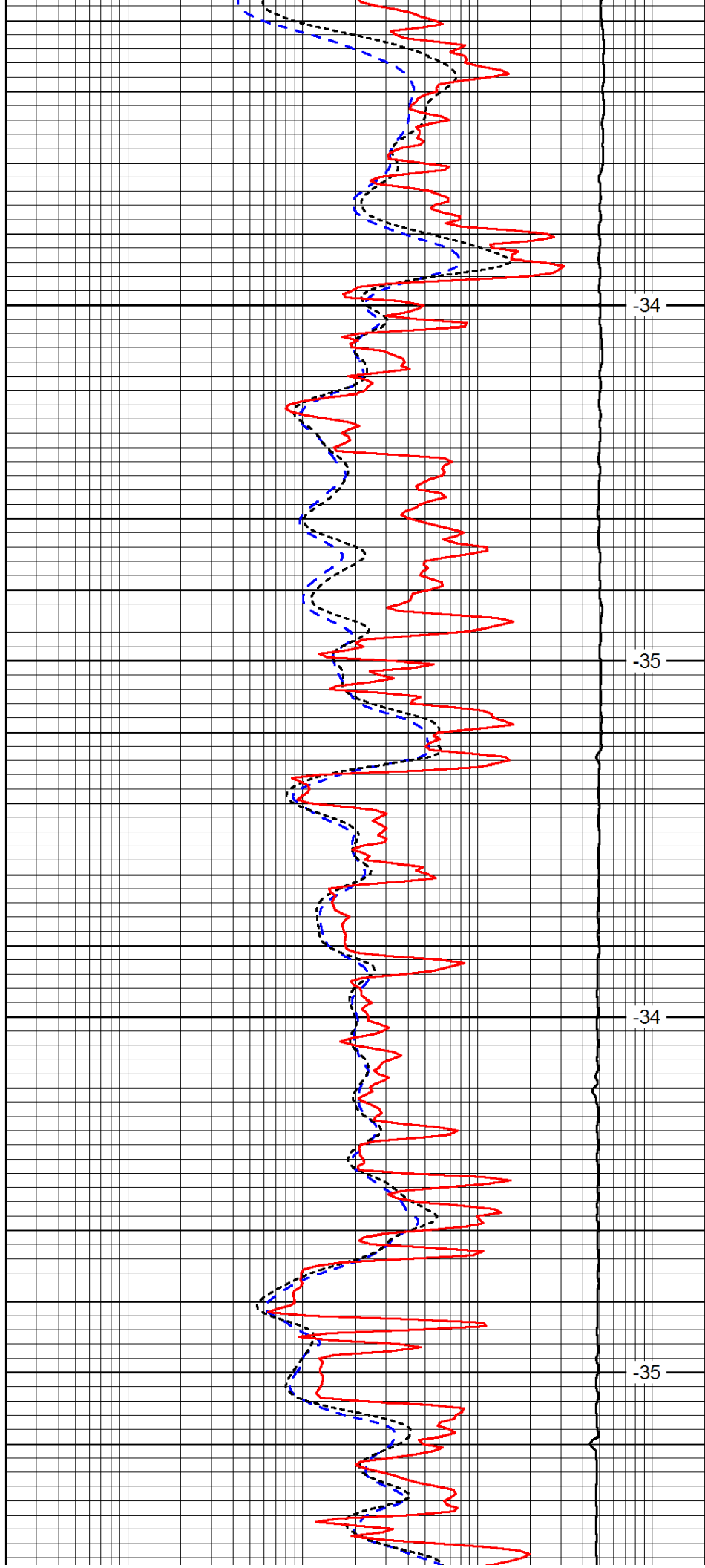


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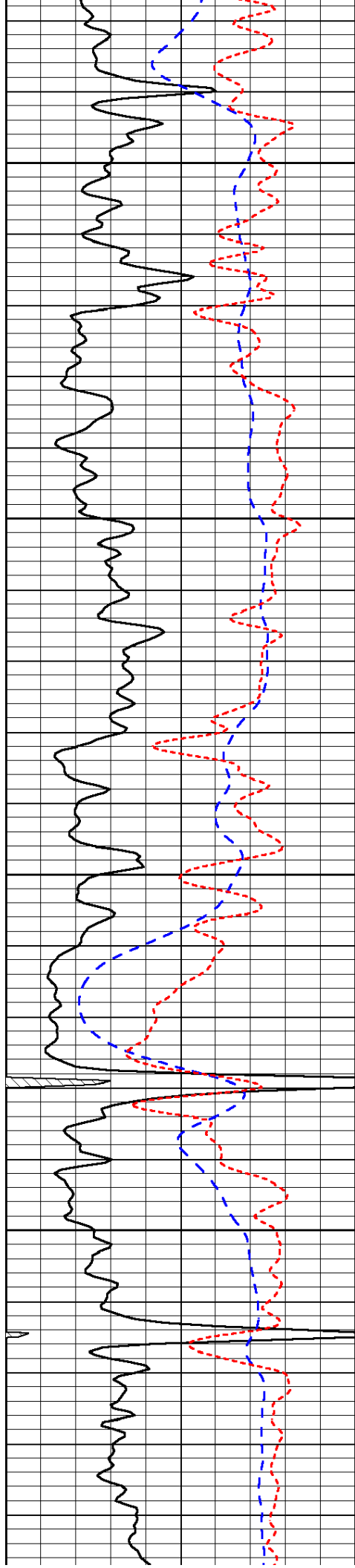


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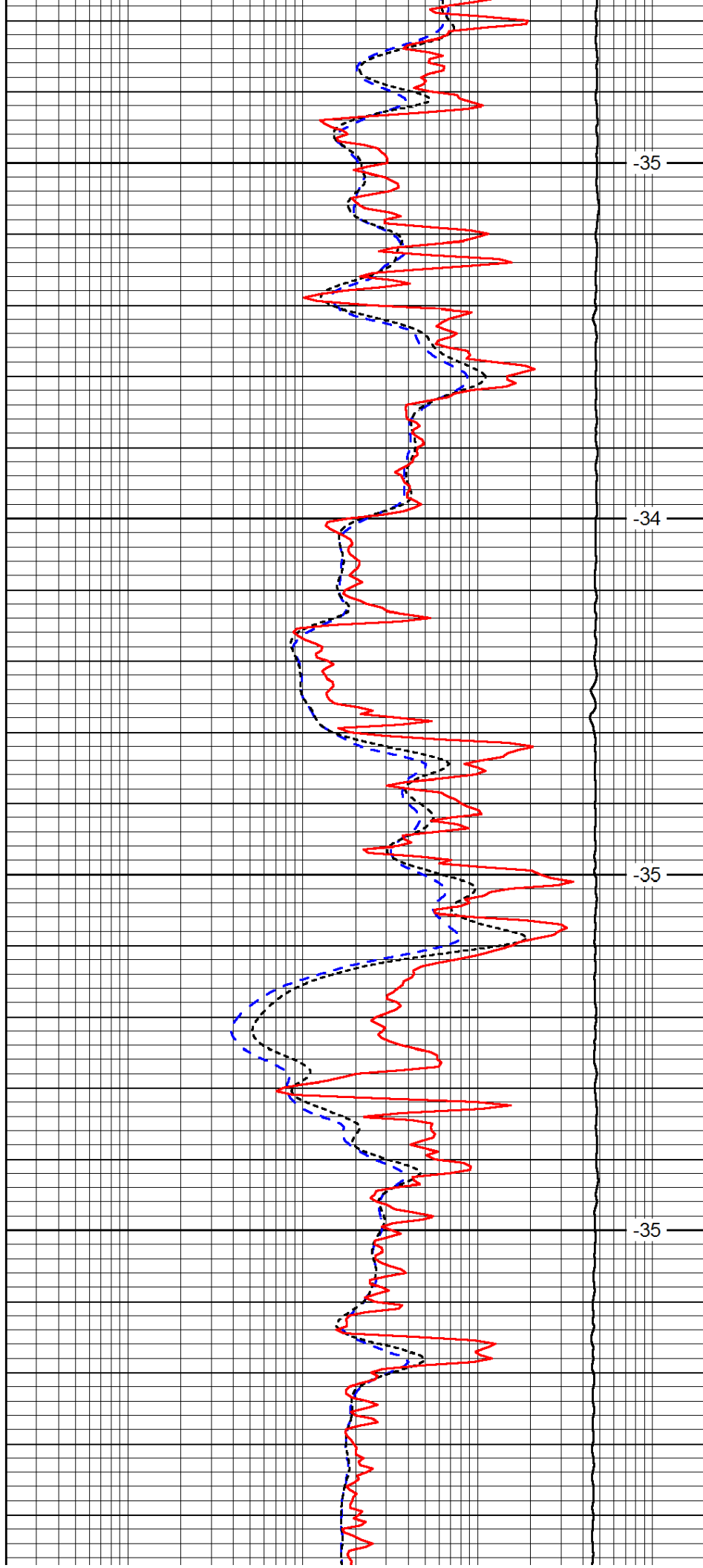


5000

5050

5100

5150

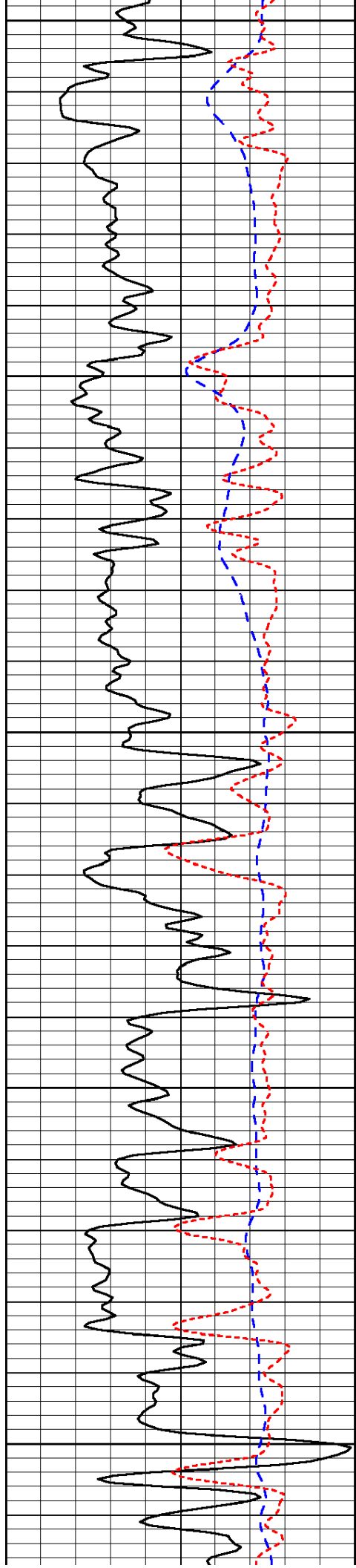


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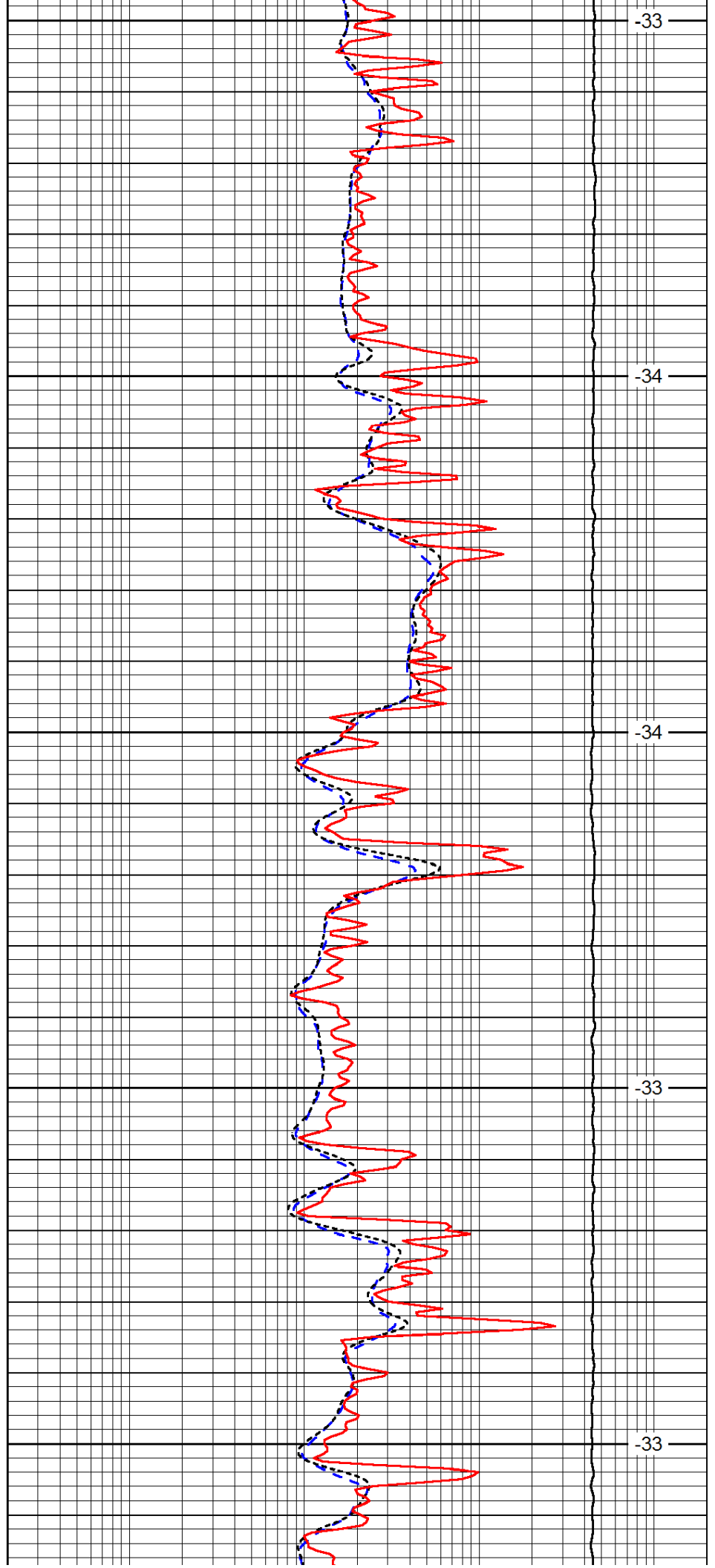
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5250

5300

5350

5400



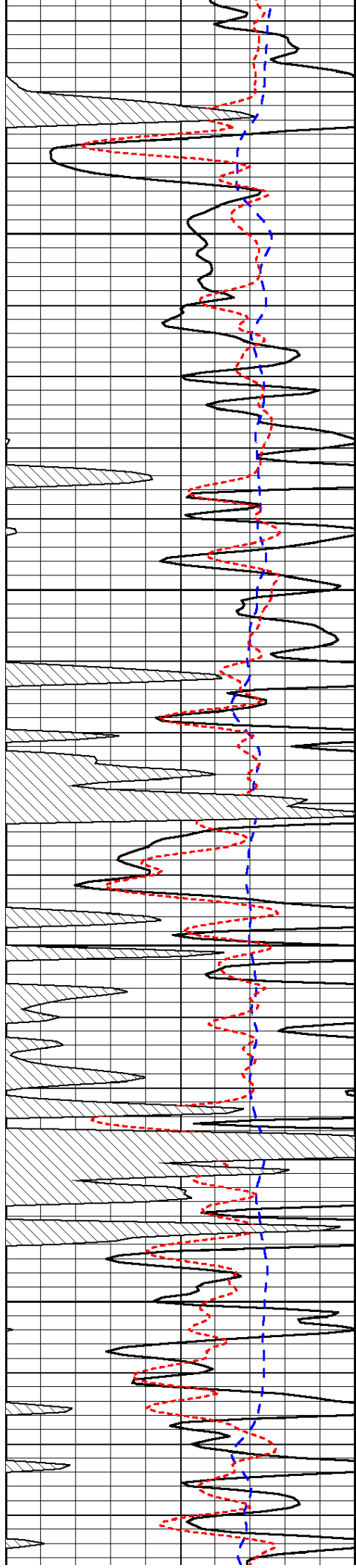
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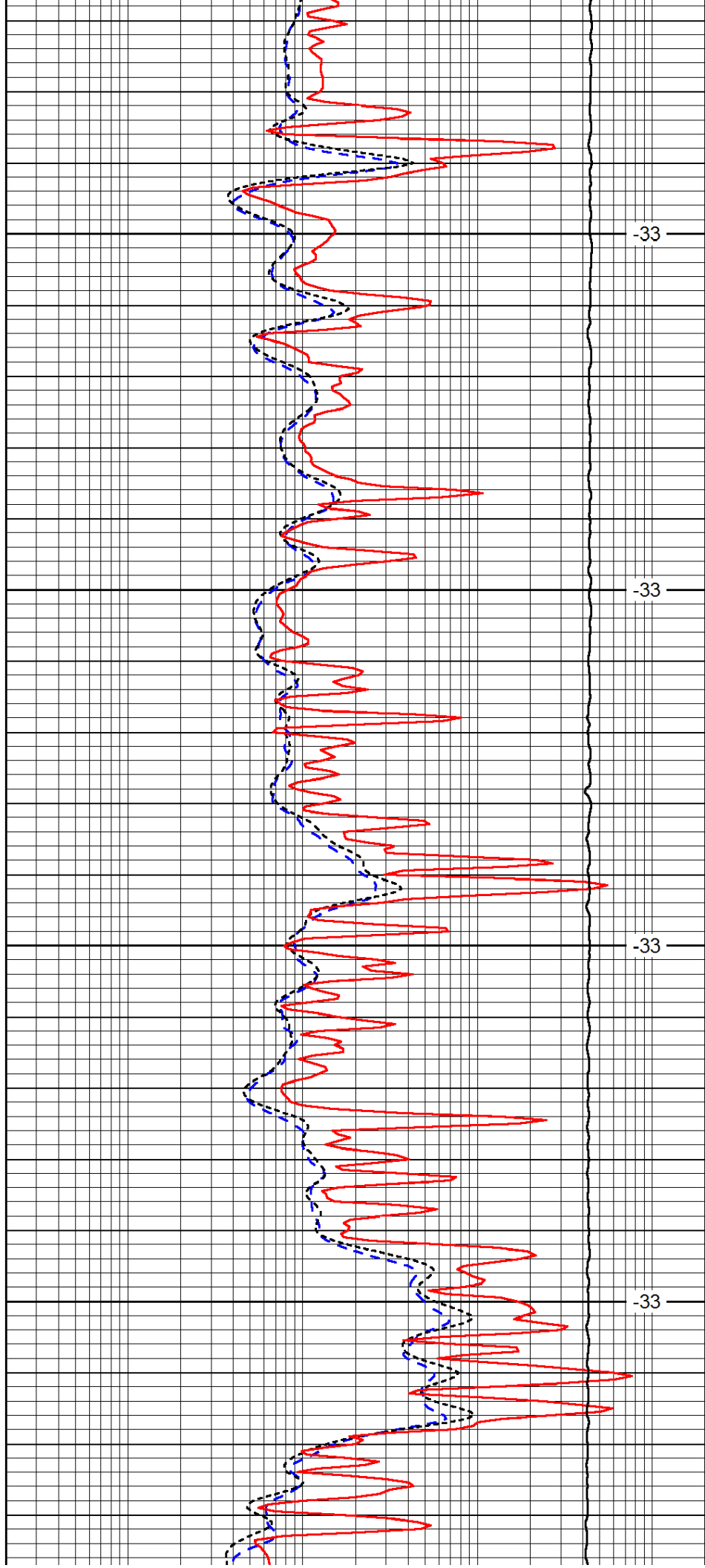


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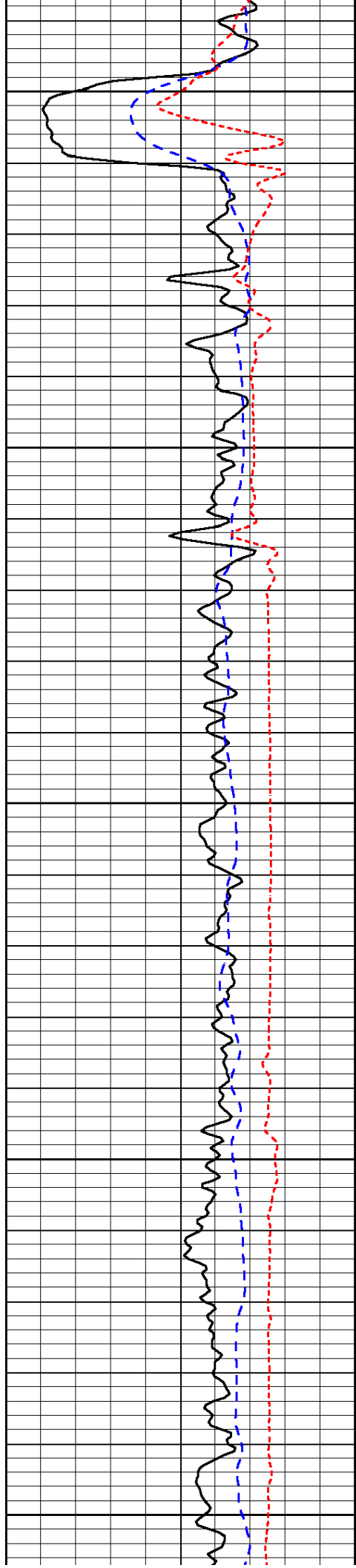


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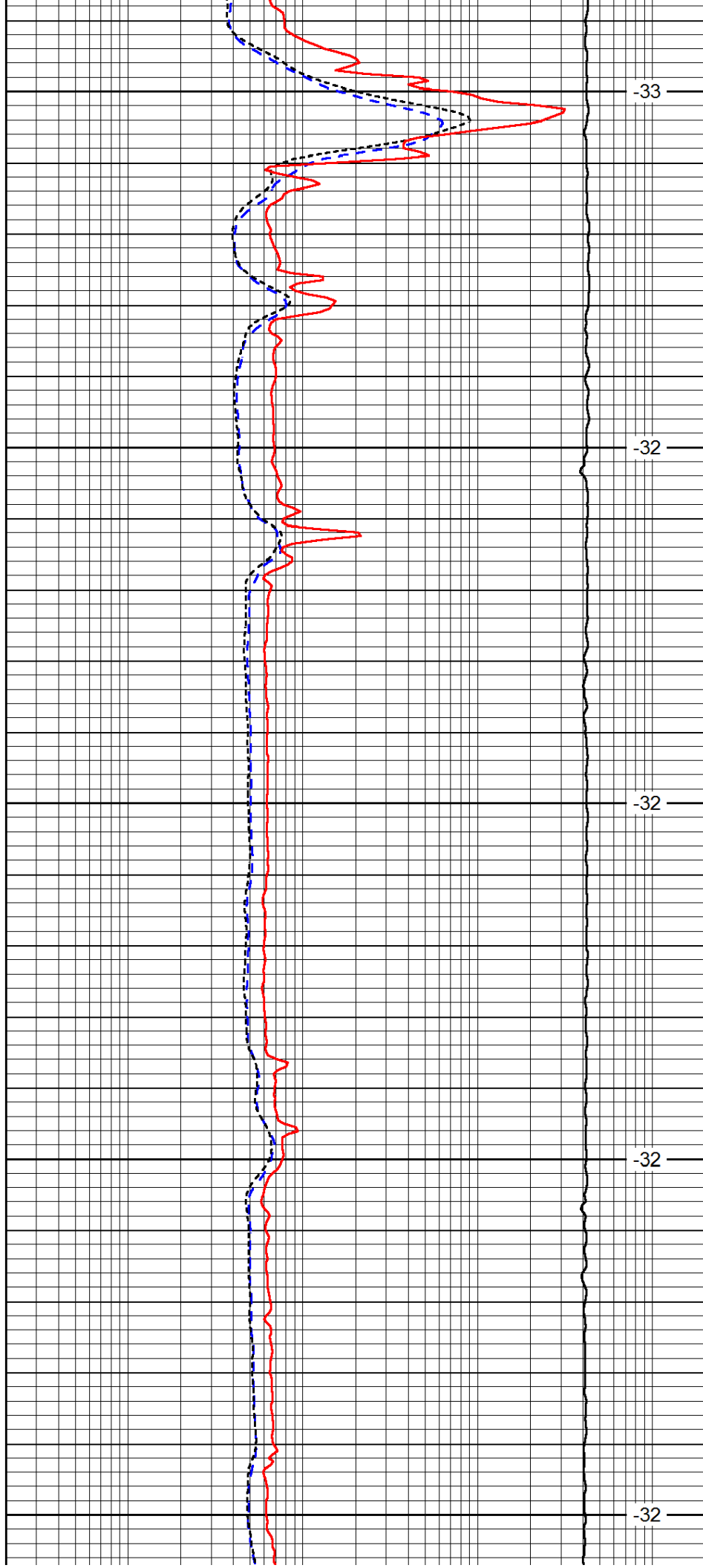
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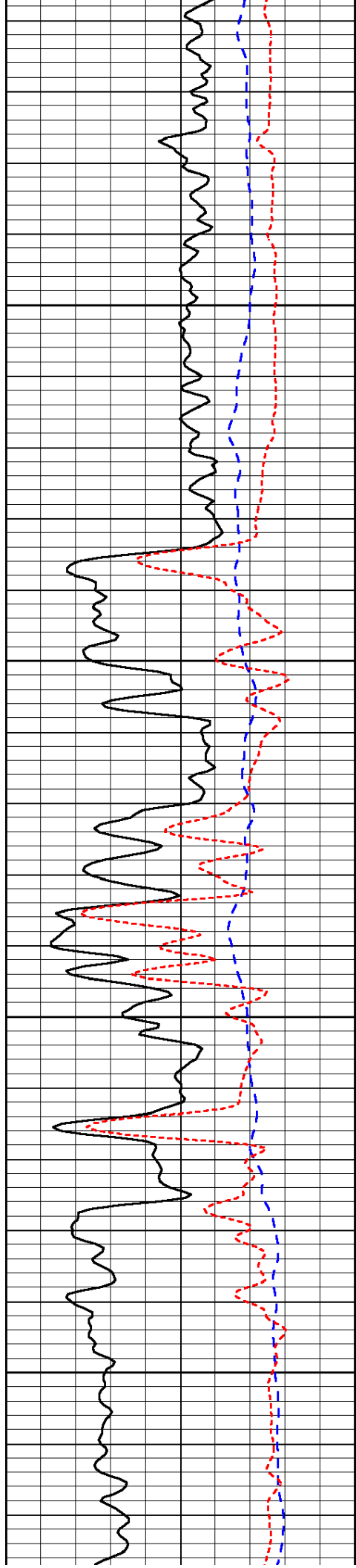
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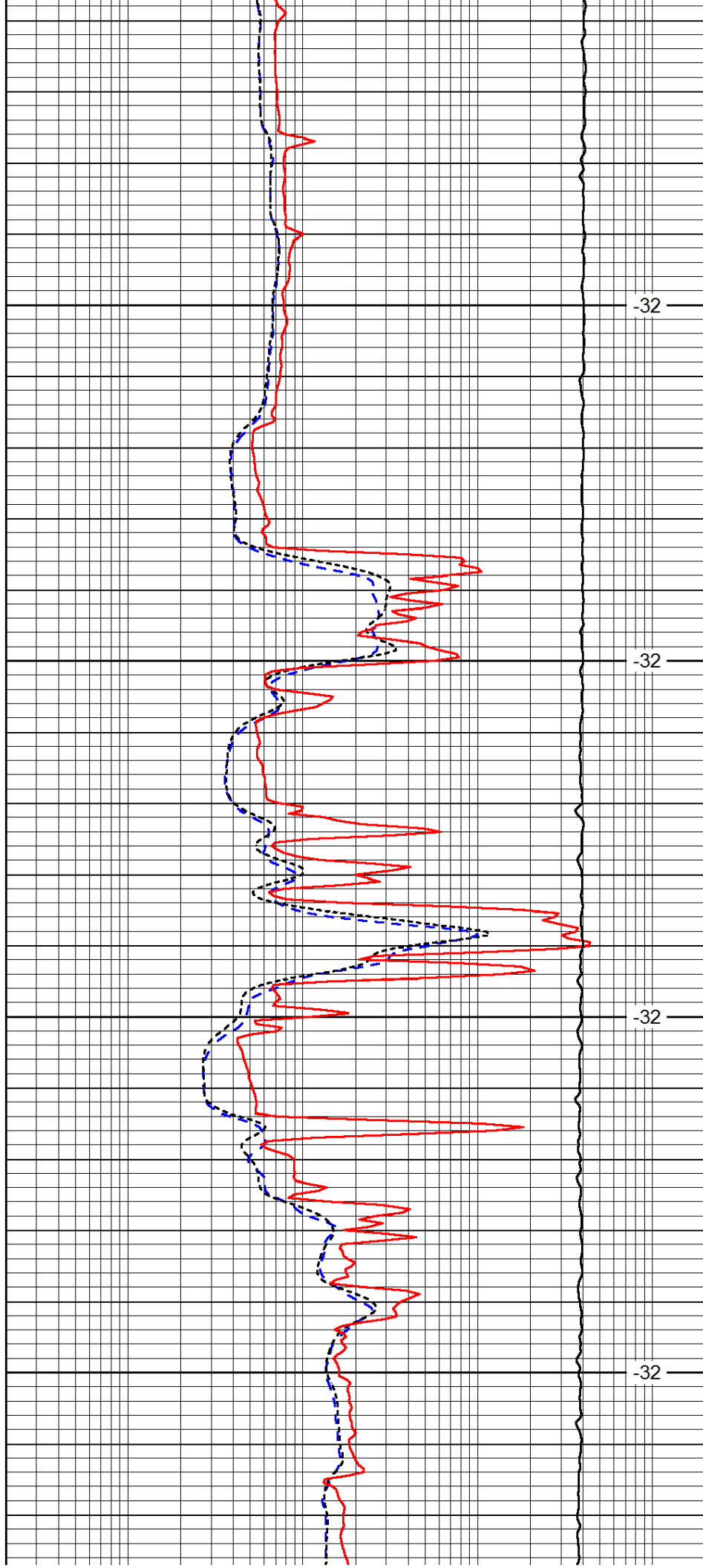


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5950

6000

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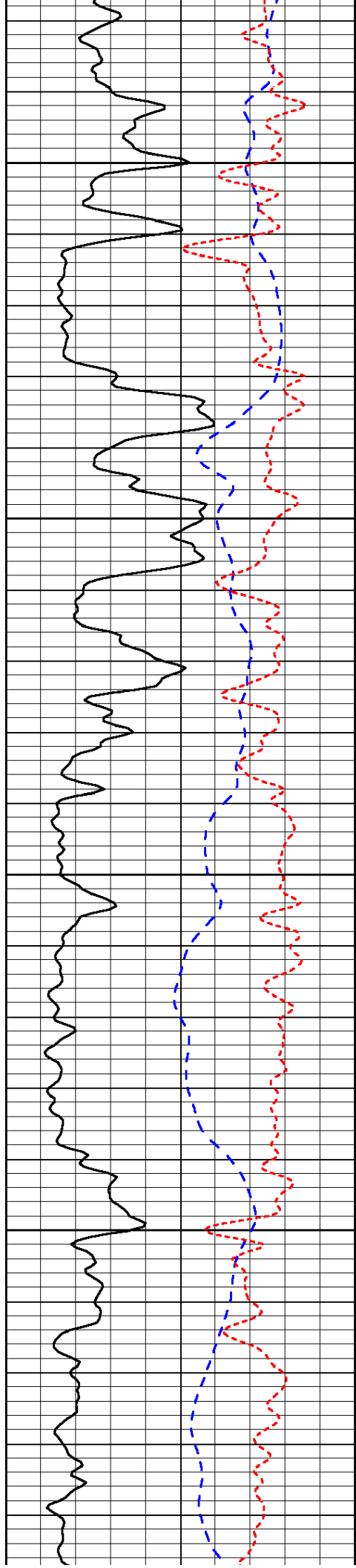


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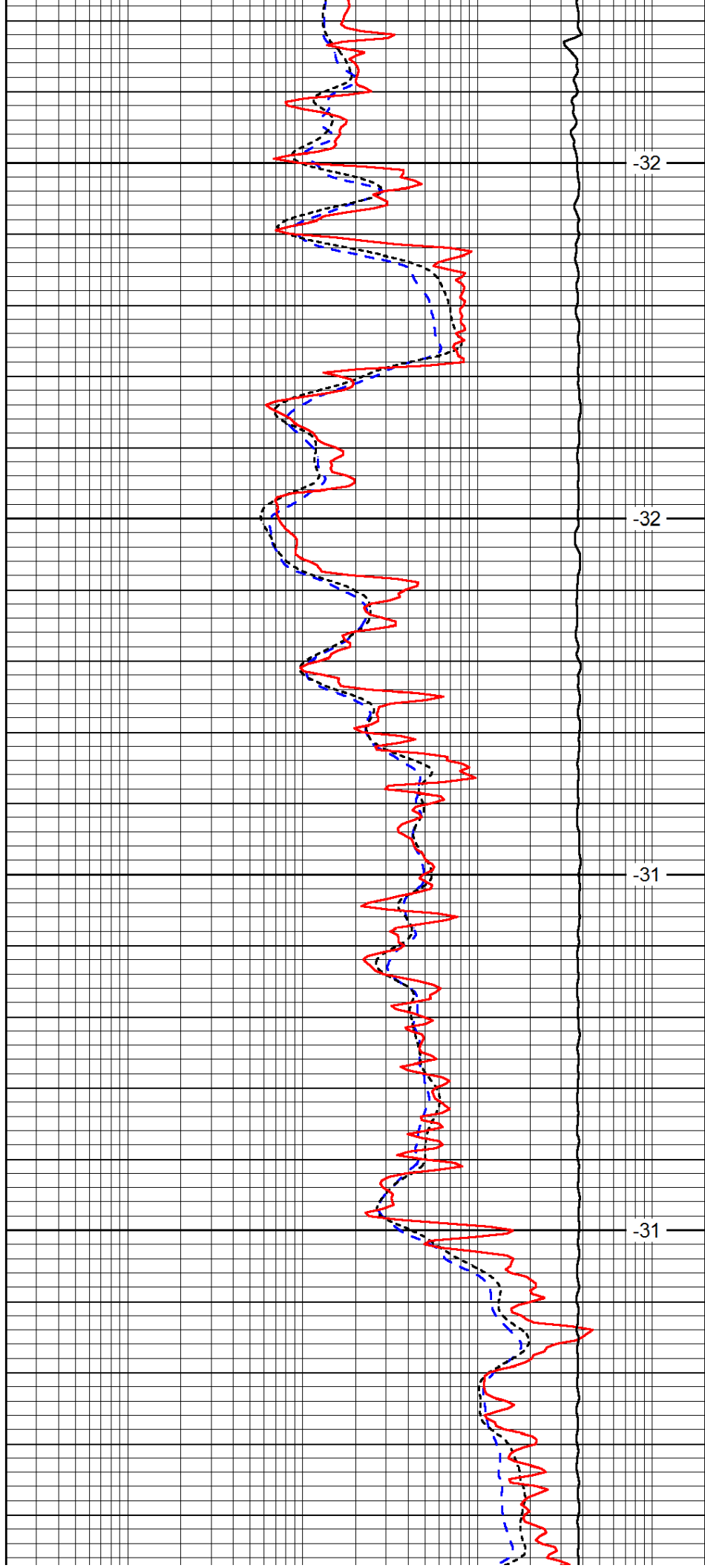


6100

6150

6200

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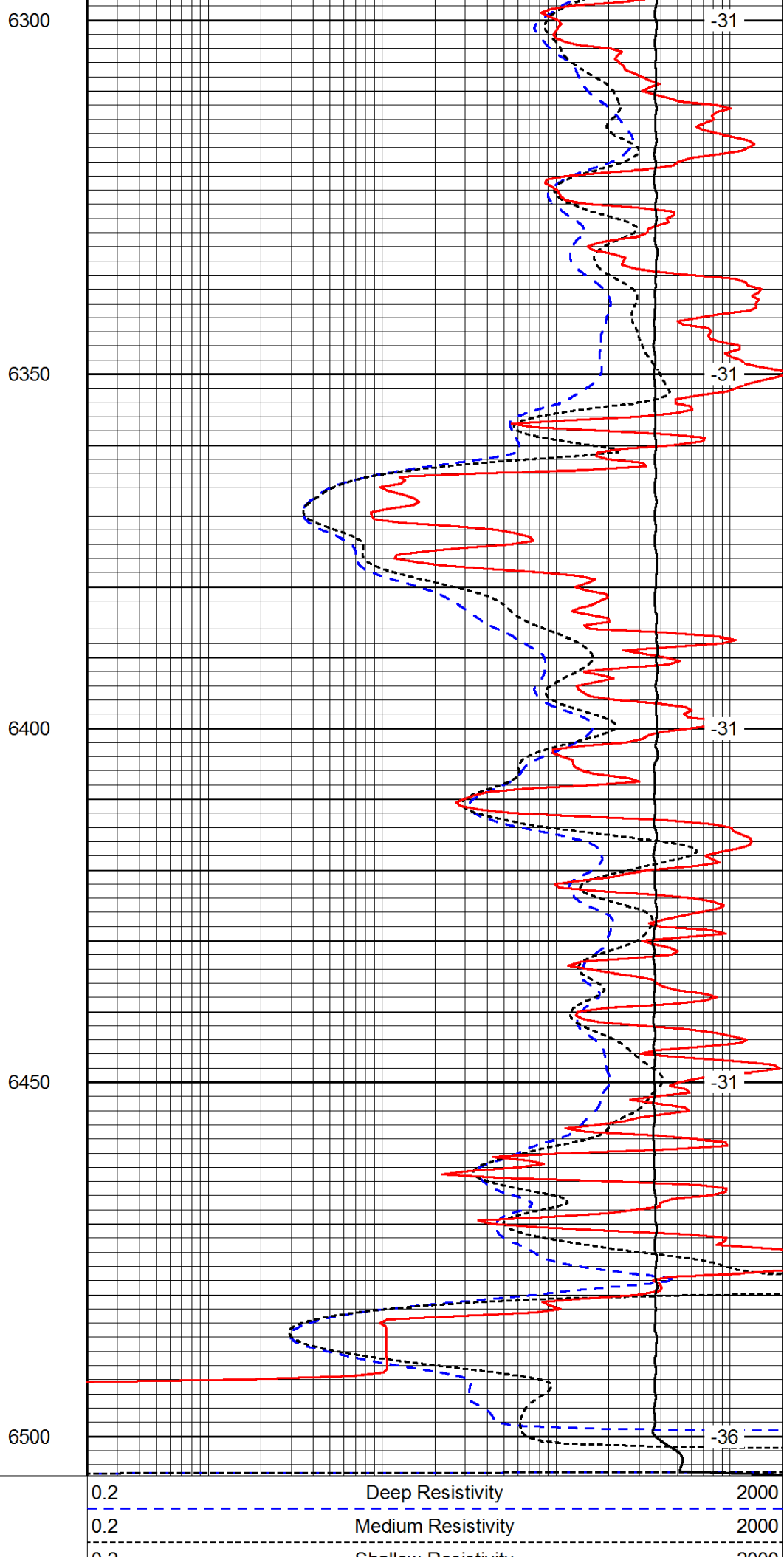
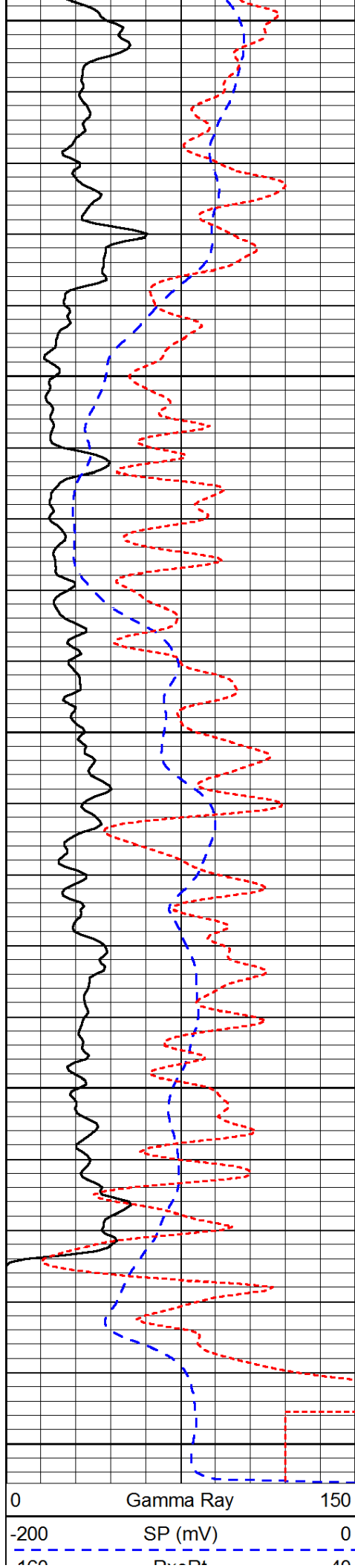


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-31



-160 RX0Rt 40

0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD