



Dual Induction Log

Pioneer Energy Services

API No.	Company American Warrior, Inc.		
	Well Eberhardt #3-24		
	Field Eberhardt		
	County Barton	State	Kansas
	Location	1254' FNL & 985' FWL	
	Sec: 24	Twp: 19S	Rge: 11W
	Permanent Datum	Ground Level	Elevation 1774
	Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum
	Drilling Measured From	Kelly Bushing	
Date		11/14/2013	
Run Number		One	
Depth Driller		3450	
Depth Logger		3452	
Bottom Logged Interval		3451	
Top Log Interval		300	
Casing Driller		8.625 @ 310	
Casing Logger		304	
Bit Size		7.875	
Type Fluid in Hole		Chemical	
Salinity, ppm CL		8.200	
Density / Viscosity		9.4 61	
pH / Fluid Loss		10.0 8.8	
Source of Sample		Flowline	
Rm @ Meas. Temp		.32 @ 45	
Rmf @ Meas. Temp		.24 @ 45	
Rmc @ Meas. Temp		.43 @ 45	
Source of Rmf / Rmc		Charts	
Rm @ BHT		.13 @ 111	
Operating Rig Time		3 Hours	
Max Rec. Temp. F		111	
Equipment Number		17	
Location		Hays	
Recorded By		C. Desaire	
Witnessed By		Jim Musgrove	

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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

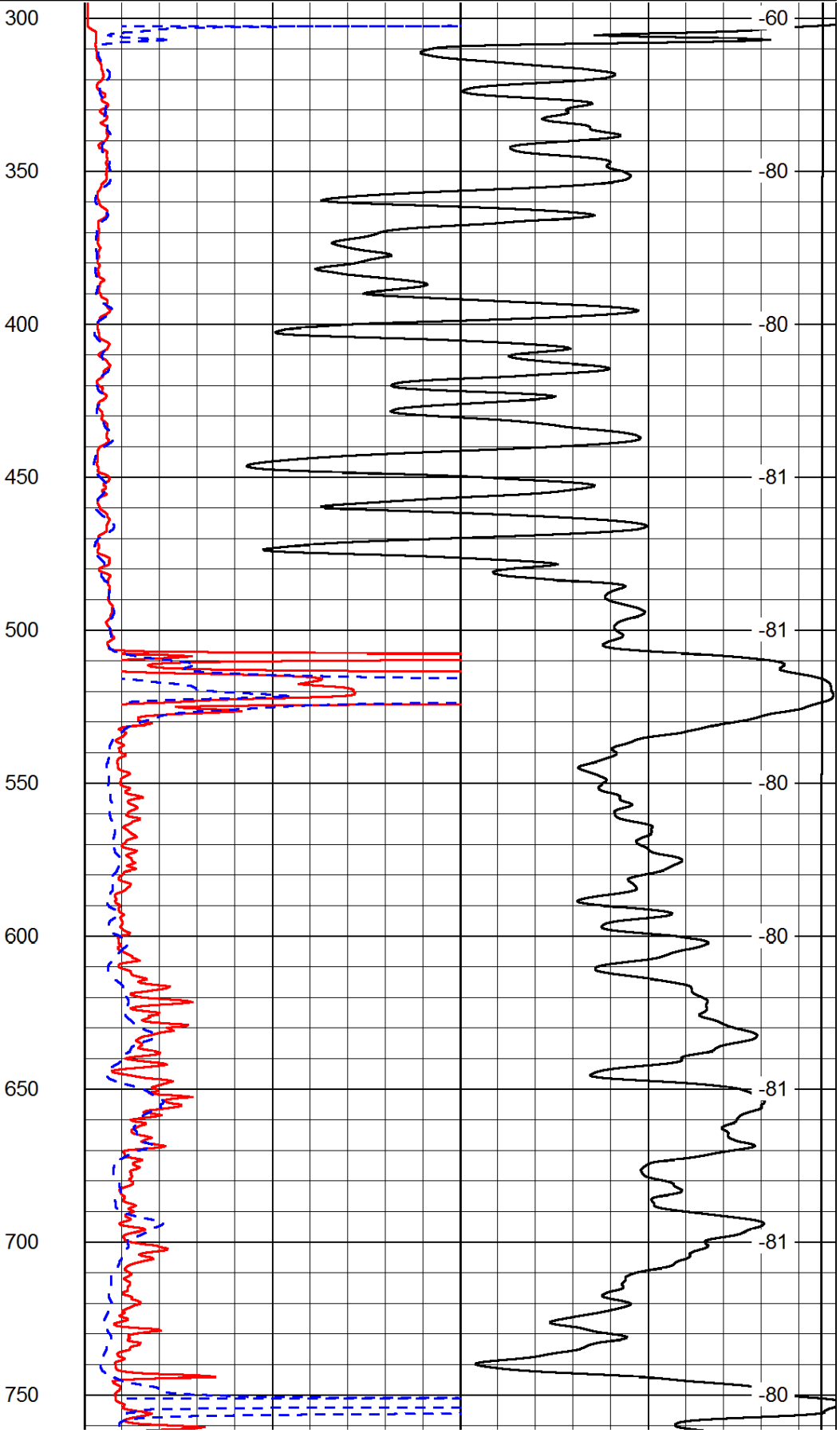
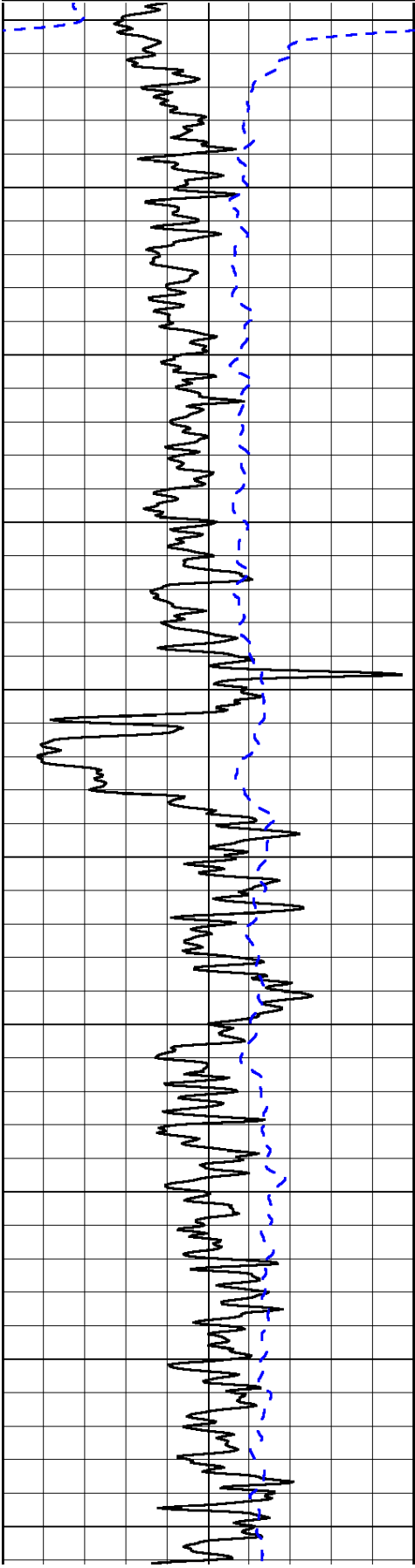
Ellinwood KS,
1 1/2 N on Hirsch St, 4 E, 1/2 N, E Into

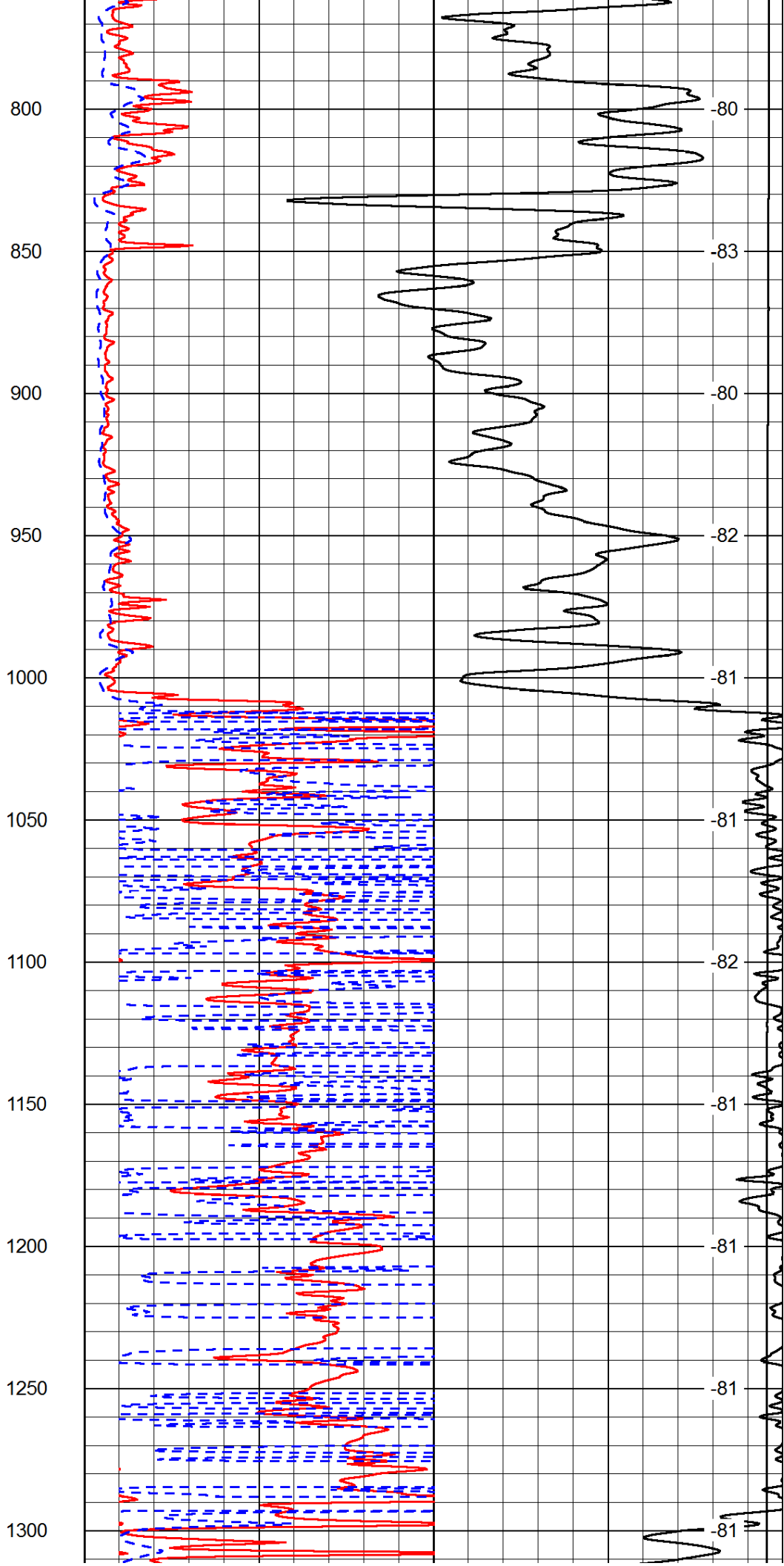
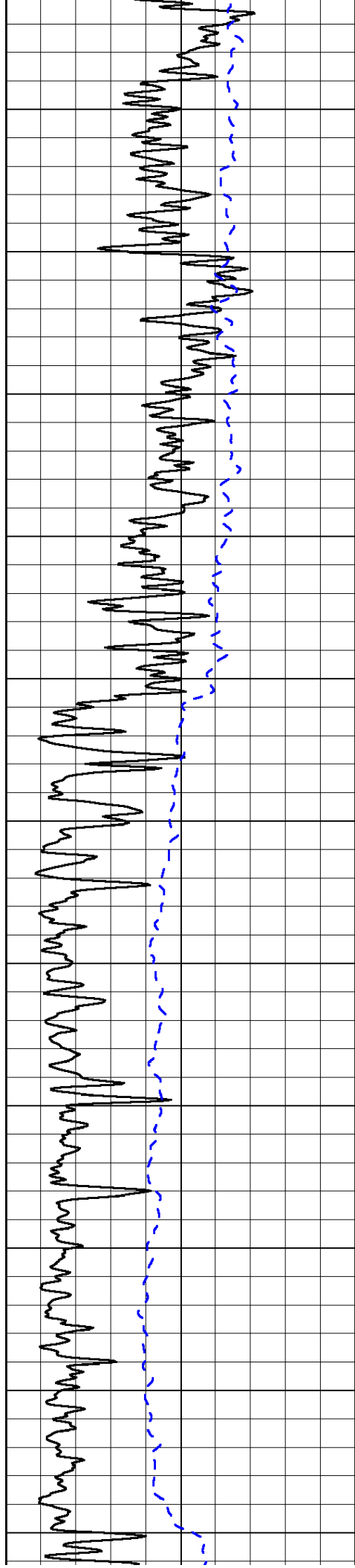
Database File: c:\warrior\data\amwar_eberhardt #3-24\awhd.db
Dataset Pathname: dil\awstk
Presentation Format: dil2in
Dataset Creation: Fri Nov 15 00:08:49 2013
Charted by: Depth in Feet scaled 1:600

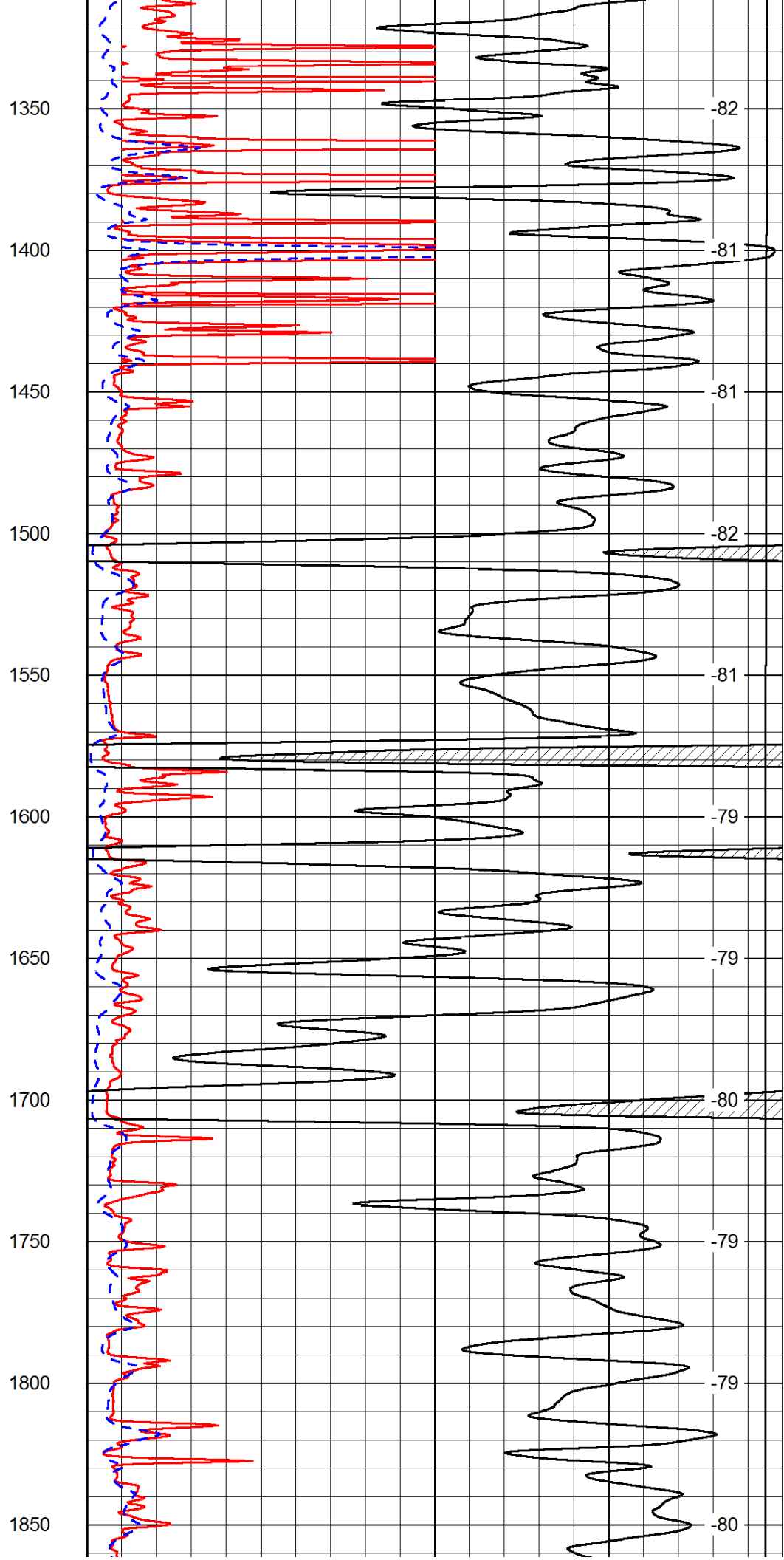
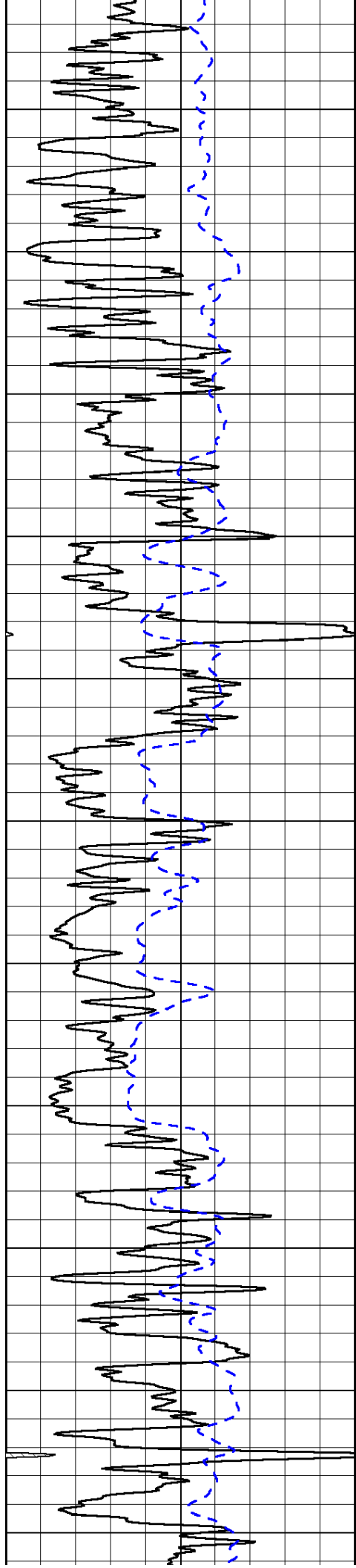
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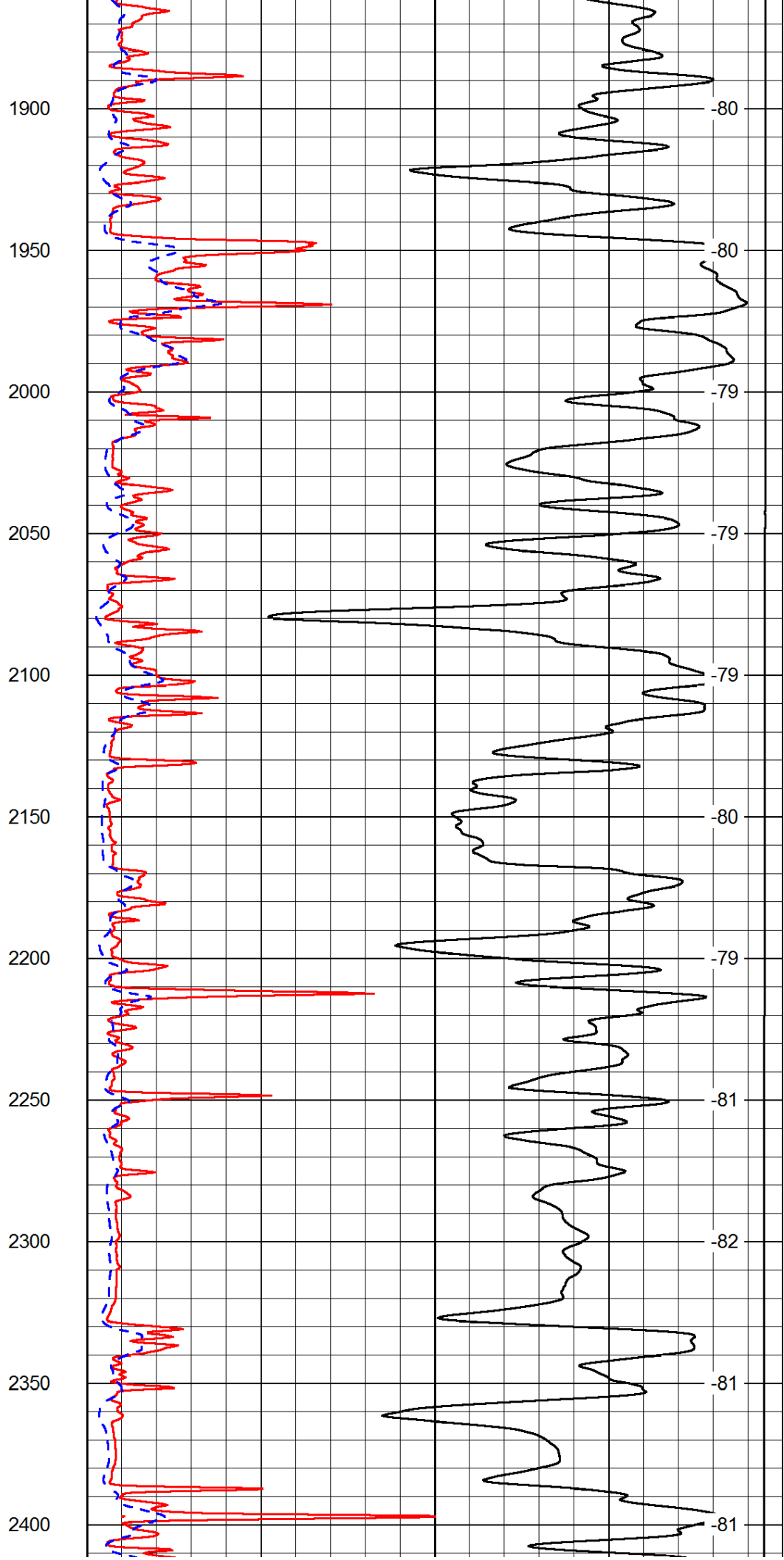
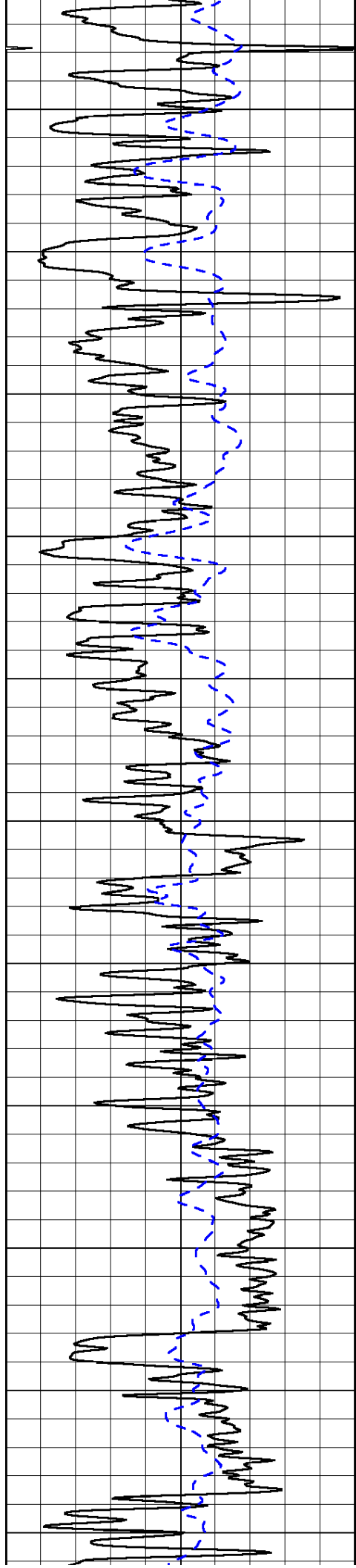
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-200	SP (mV)	0

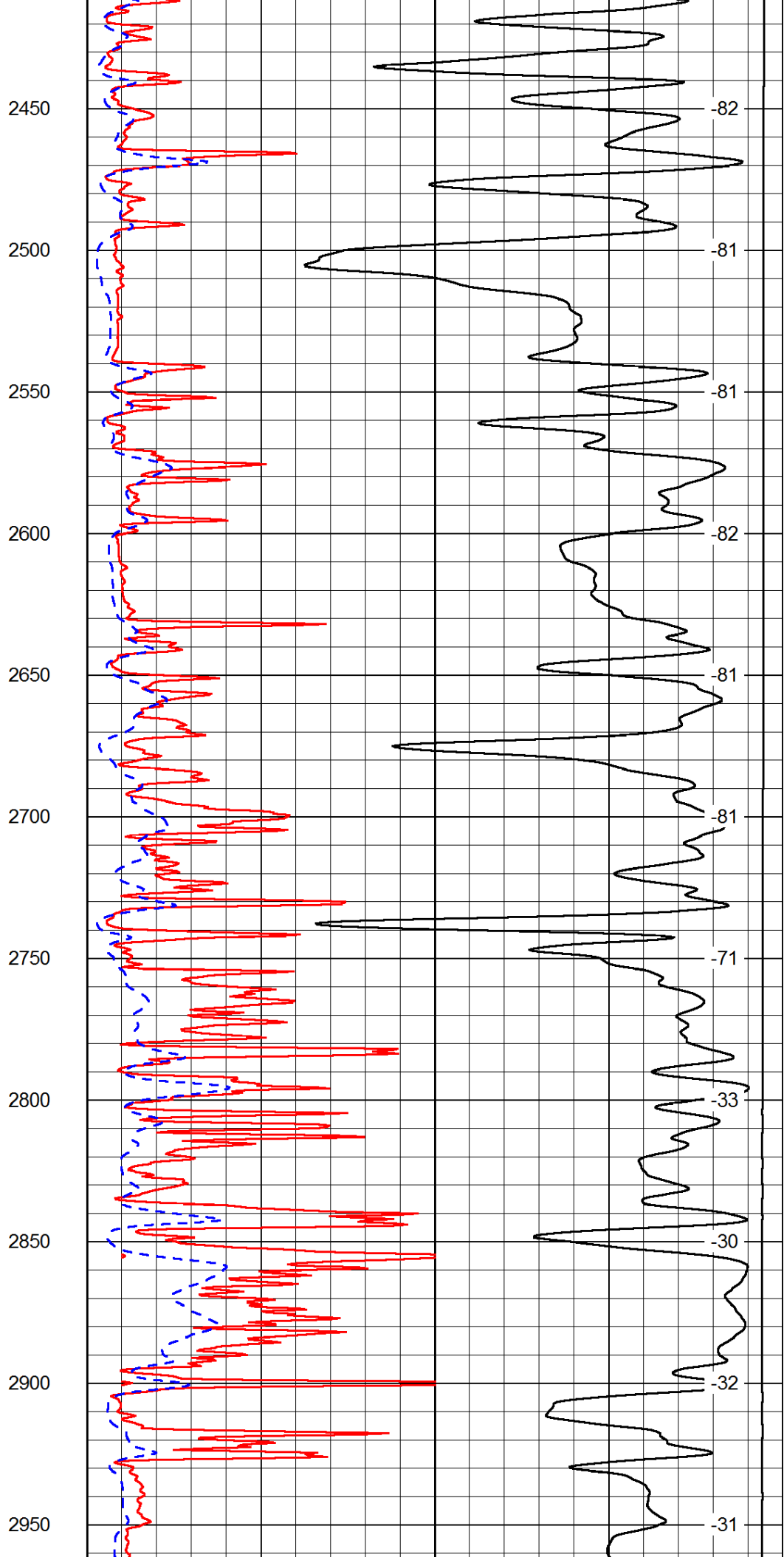
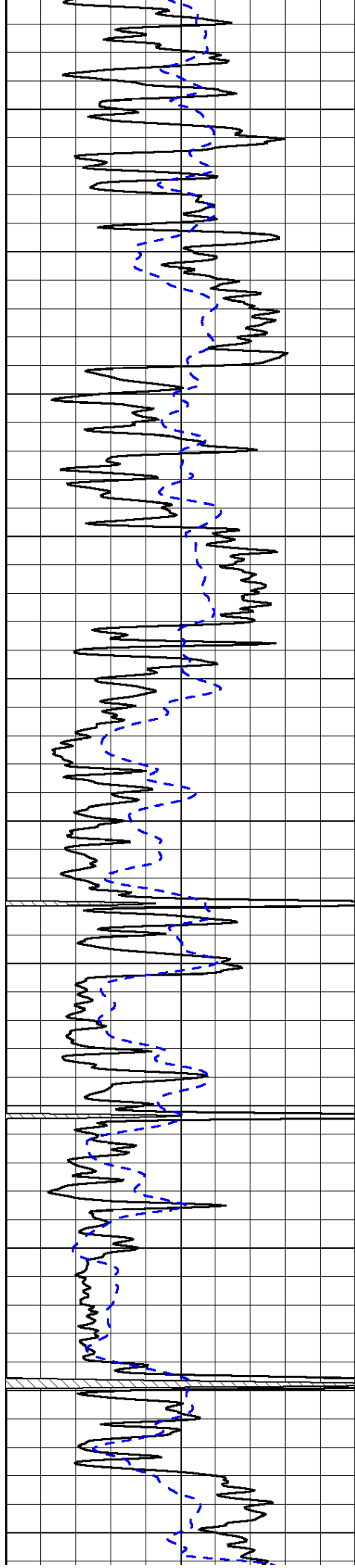
0	Shallow Resistivity	50	LSPD
0	Deep Resistivity	50	
1000	Conductivity		0
15000	Line Tension		0
50	Shallow Resistivity	500	
50	Deep Resistivity	500	

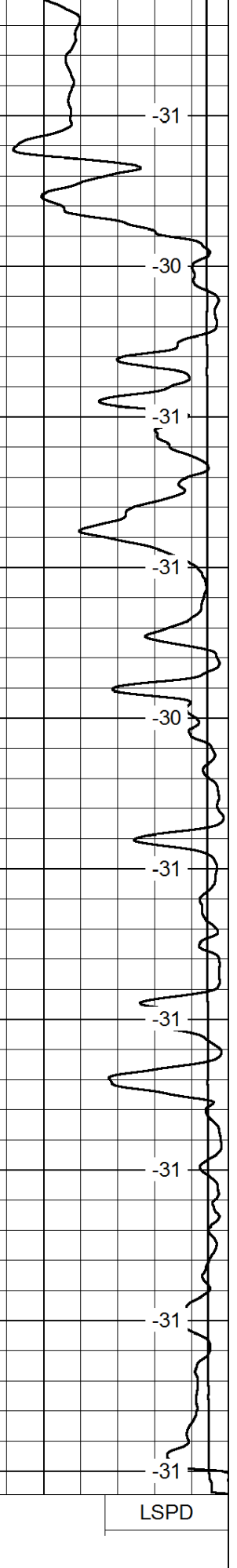
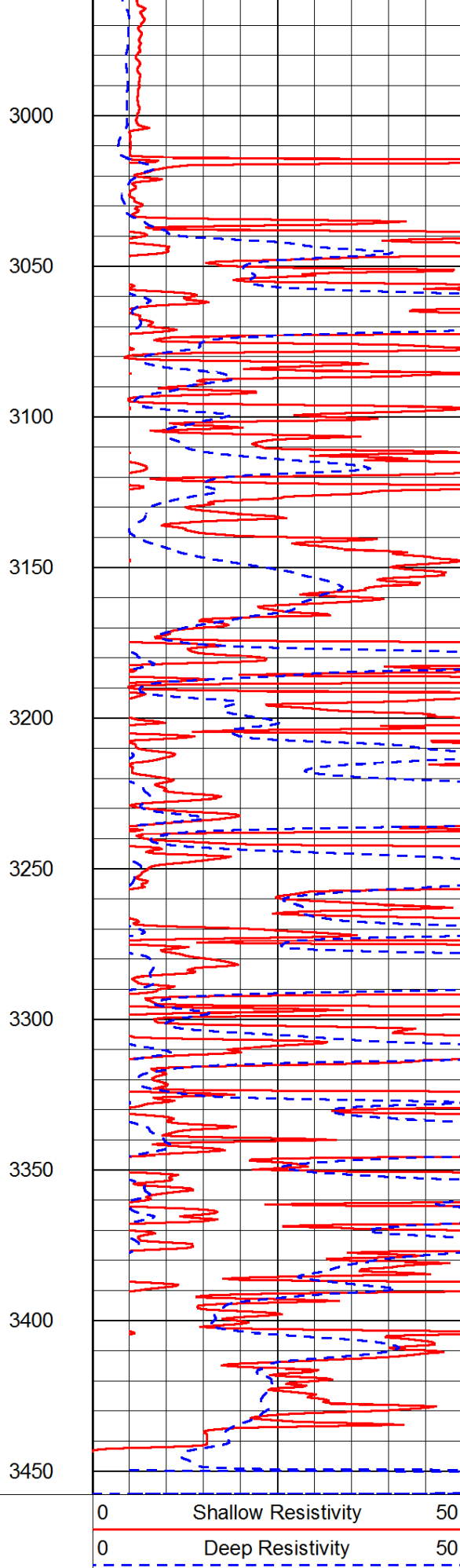
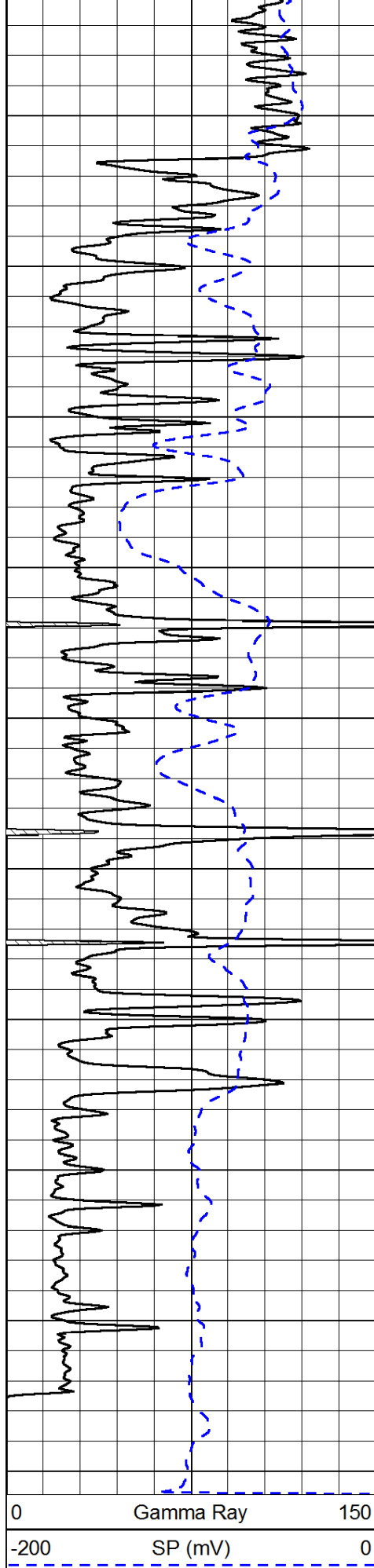












0	Gamma Ray	150	0	Shallow Resistivity	50			LSPD	
-200	SP (mV)	0	0	Deep Resistivity	50				
			1000		Conductivity				0
			15000		Line Tension				0
			50	Shallow Resistivity	500				

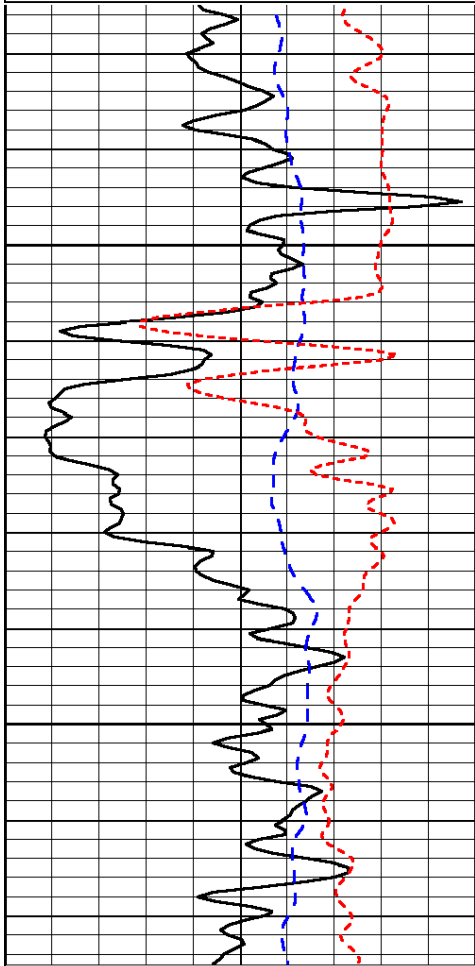
50	Shallow Resistivity	500
50	Deep Resistivity	500

Database File: c:\warrior\data\amwar_eberhardt #3-24\awhd.db
Dataset Pathname: dil/awstk
Presentation Format: dil
Dataset Creation: Fri Nov 15 00:08:49 2013
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

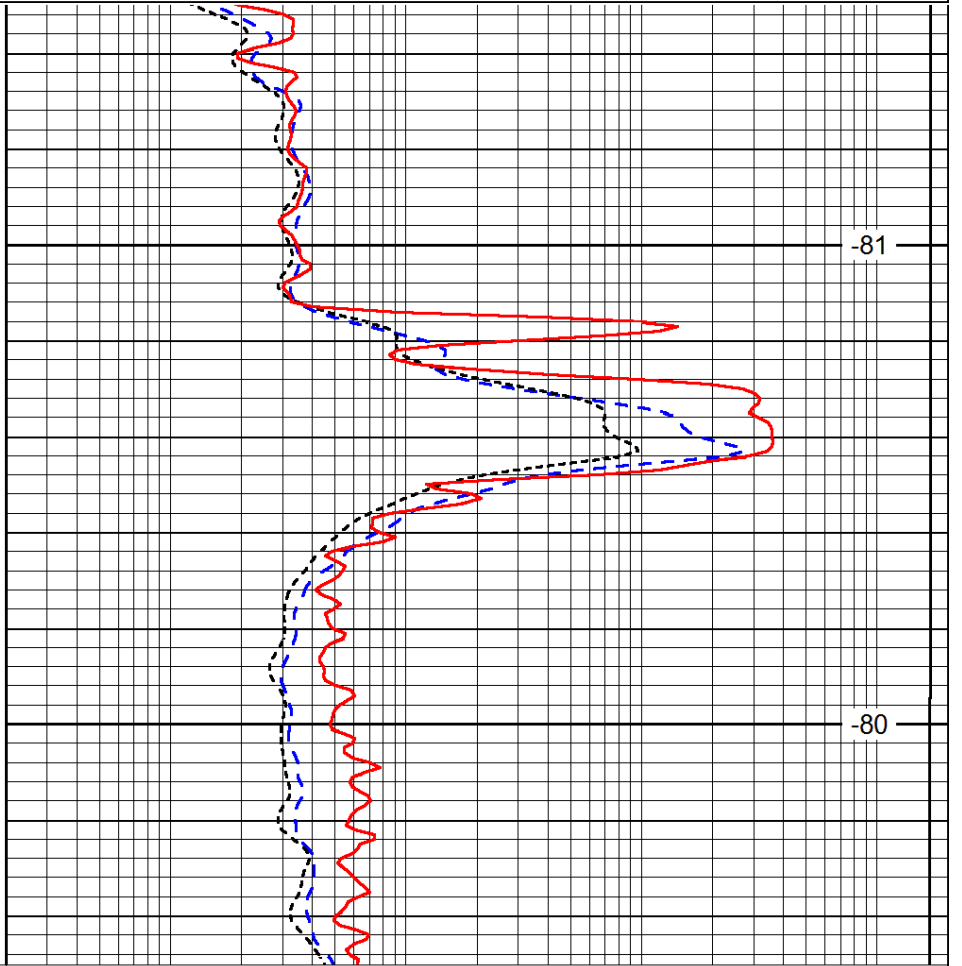
LSPD



500

550

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



-81

-80

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

LSPD

Database File: c:\warrior\data\amwar_eberhardt #3-24\awhd.db
Dataset Pathname: dil/awstk
Presentation Format: dil
Dataset Creation: Fri Nov 15 00:08:49 2013
Charted by: Depth in Feet scaled 1:240

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

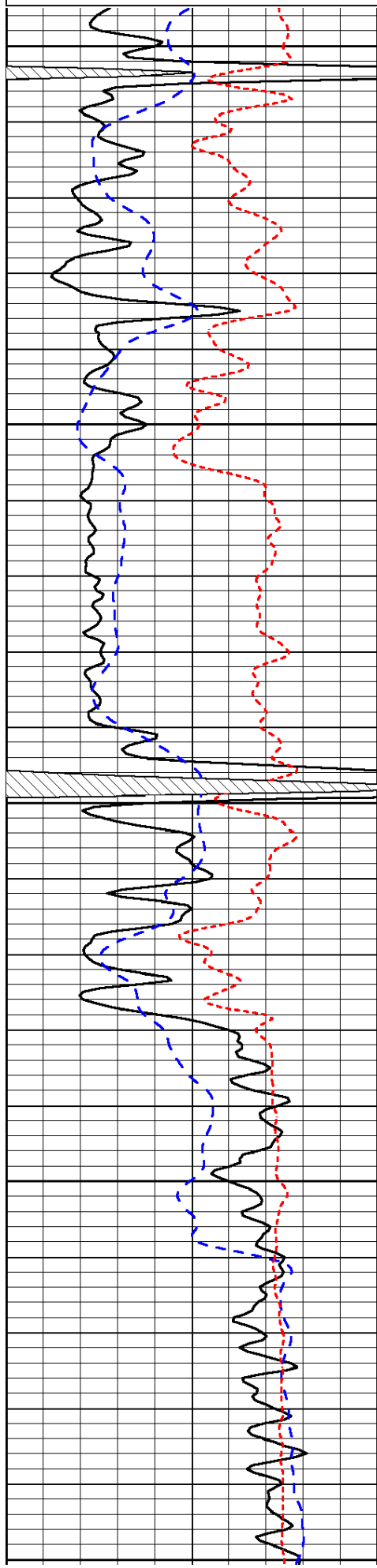
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000

-160 RxoRt 40

0.2 Shallow Resistivity 2000

15000 Line Tension 0

LSPD



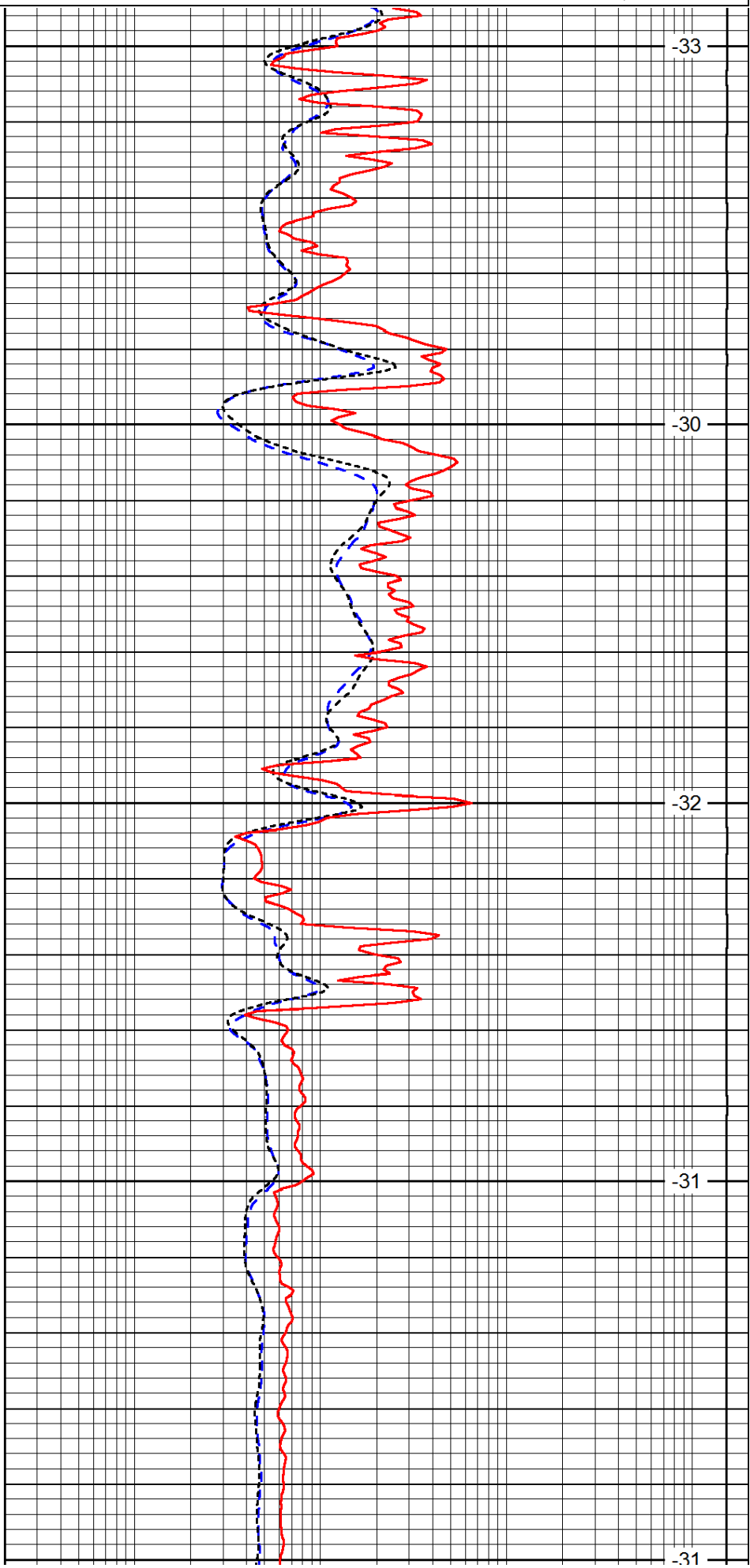
2800

2850

2900

2950

3000



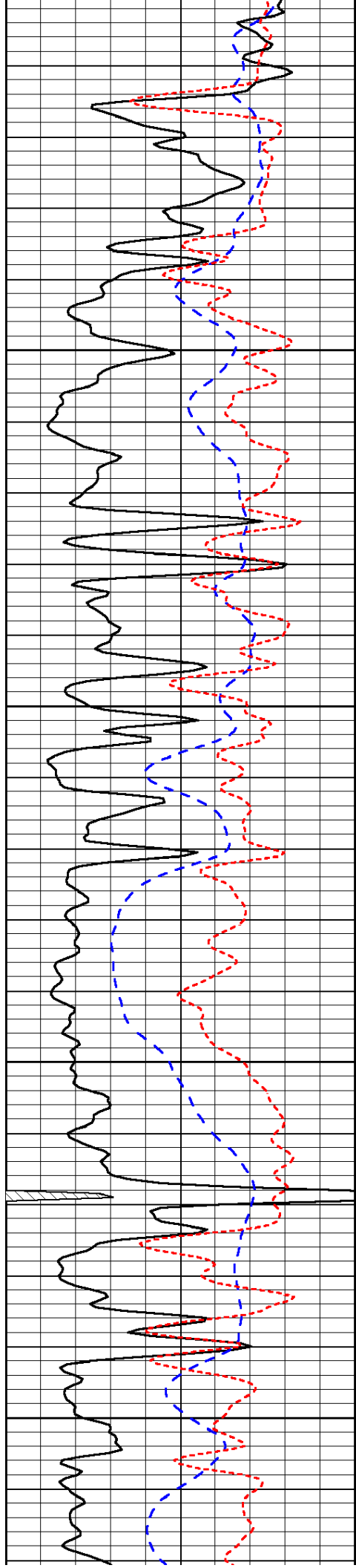
-33

-30

-32

-31

-31

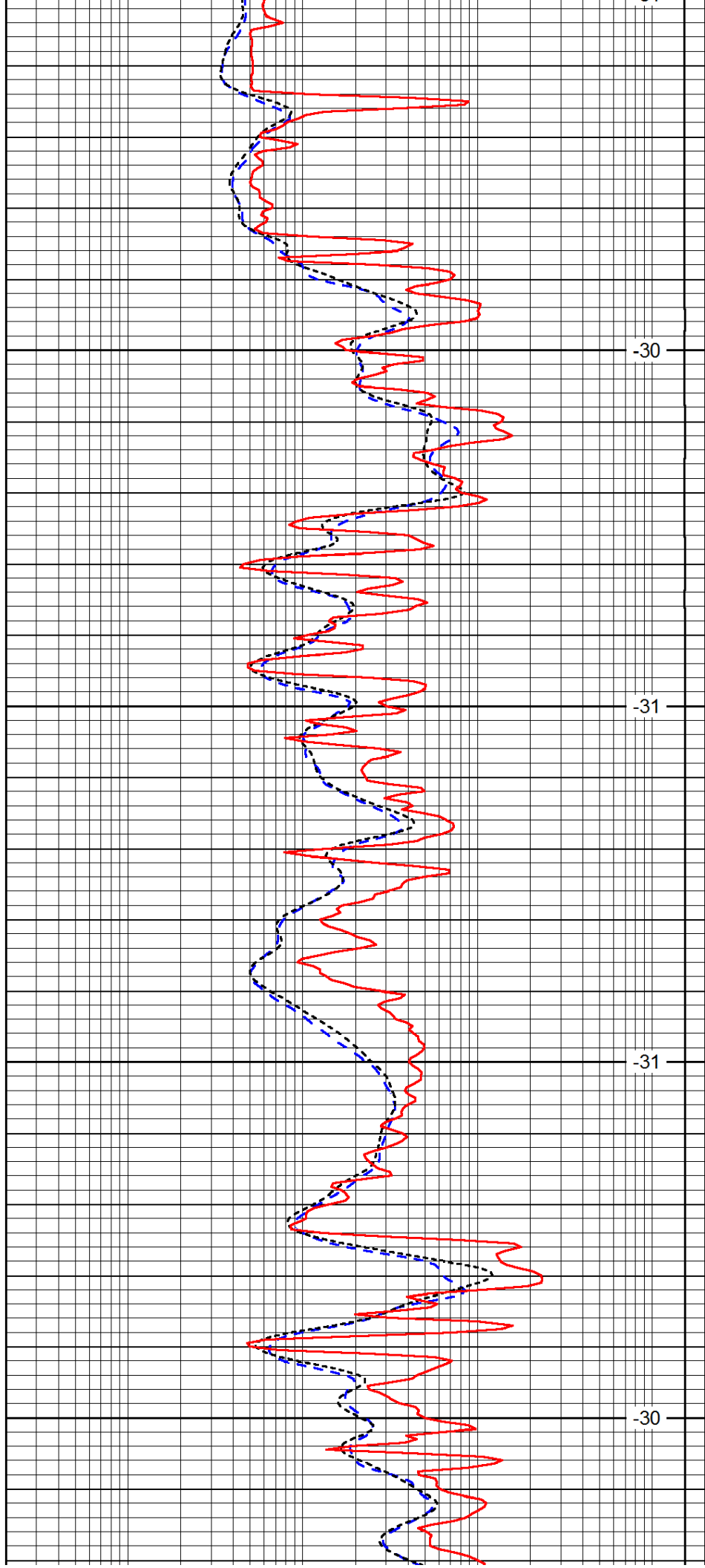


3050

3100

3150

3200

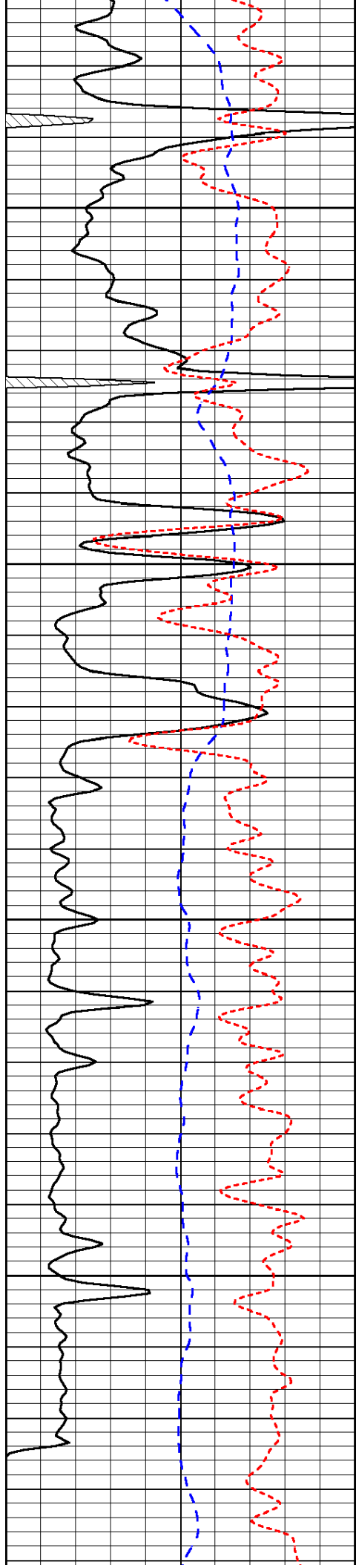


-30

-31

-31

-30

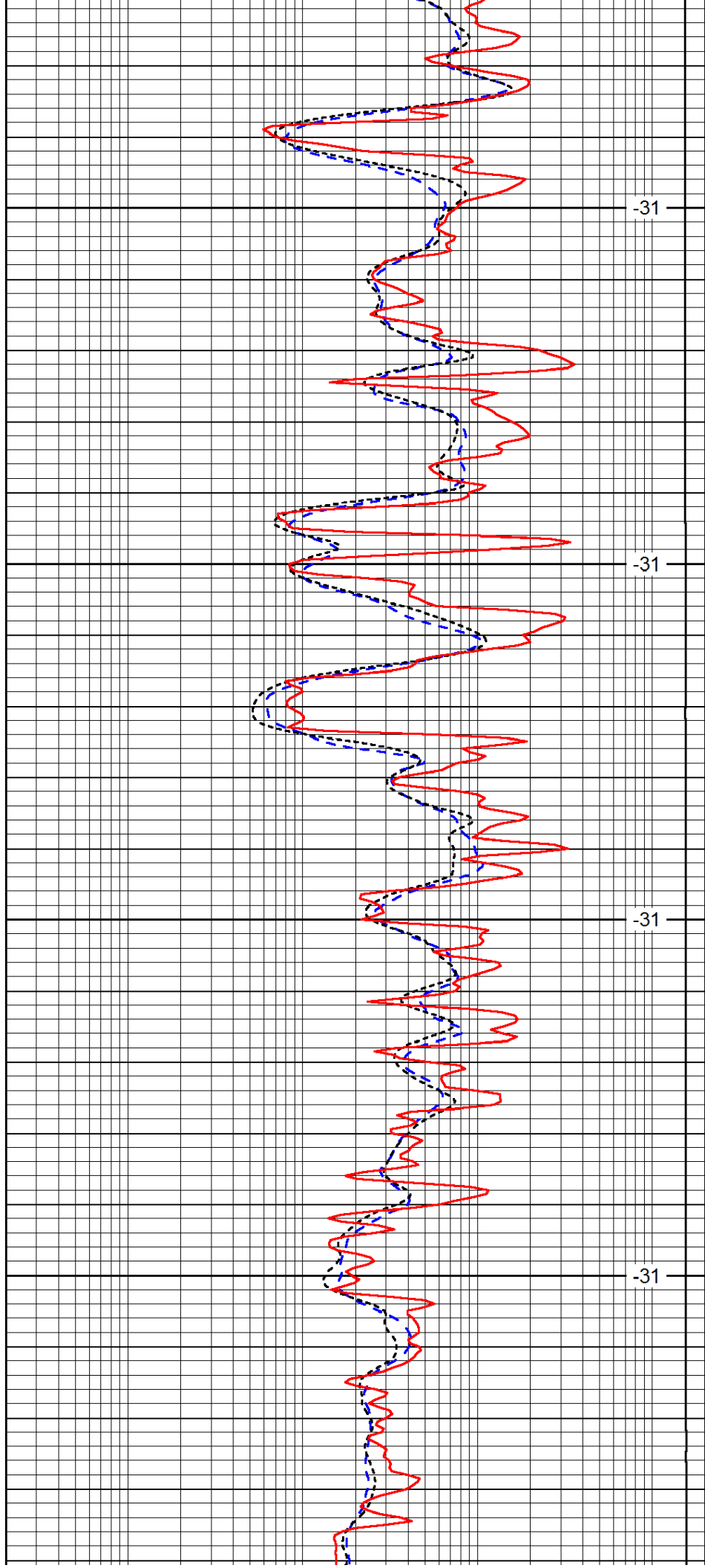


3250

3300

3350

3400



-31

-31

-31

-31

