



Pioneer Energy Services

# Dual Induction Log

API No.	15-065-23,957-00-00		
Company	H&C Oil Operating, Inc.		
Well	North Fork Farms No.25-2		
Field			
County	Graham	State	Kansas
Location	800' FNL & 1150' FEL		
Sec: 25	Twp: 9S	Rge: 25W	Other Services CNL/CDL MEL

Permanent Datum	Ground Level	Elevation 2582
Log Measured From	Kelly Bushing	5 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date	8/1/2013	
Run Number	One	
Depth Driller	4190	
Depth Logger	4193	
Bottom Logged Interval	4192	
Top Log Interval	250	
Casing Driller	8.625 @ 263	
Casing Logger	264	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity,ppm CL	1,600	
Density / Viscosity	9.2	60
pH / Fluid Loss	10.0	7.6
Source of Sample	Flowline	
Rm @ Meas. Temp	.88	@ 70
Rmf @ Meas. Temp	.66	@ 70
Rmc @ Meas. Temp	1.19	@ 70
Source of Rmf / Rmc	Charts	
Rm @ BHT	.52	@ 118
Operating Rig Time	3 1/2 Hours	
Max Rec. Temp. F	118	
Equipment Number	17	
Location	Hays	
Recorded By	C. Desaire	
Witnessed By	Marc Downing	

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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.

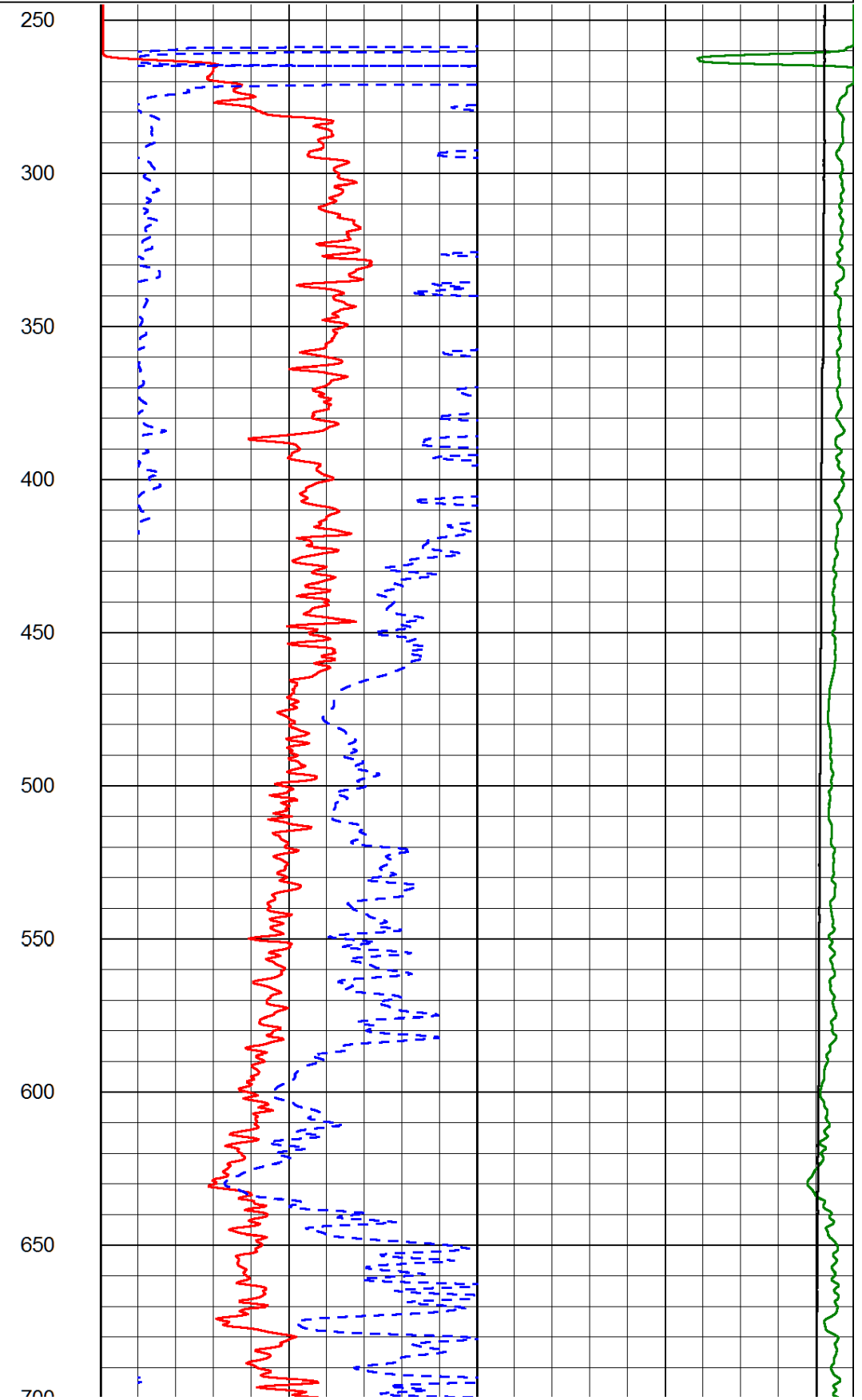
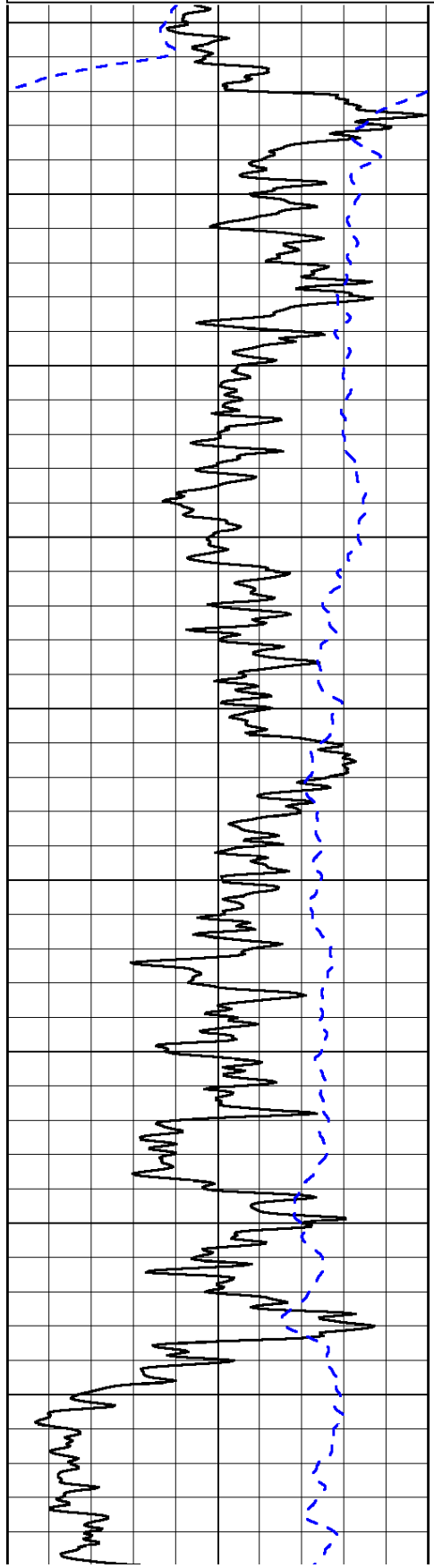
### Comments

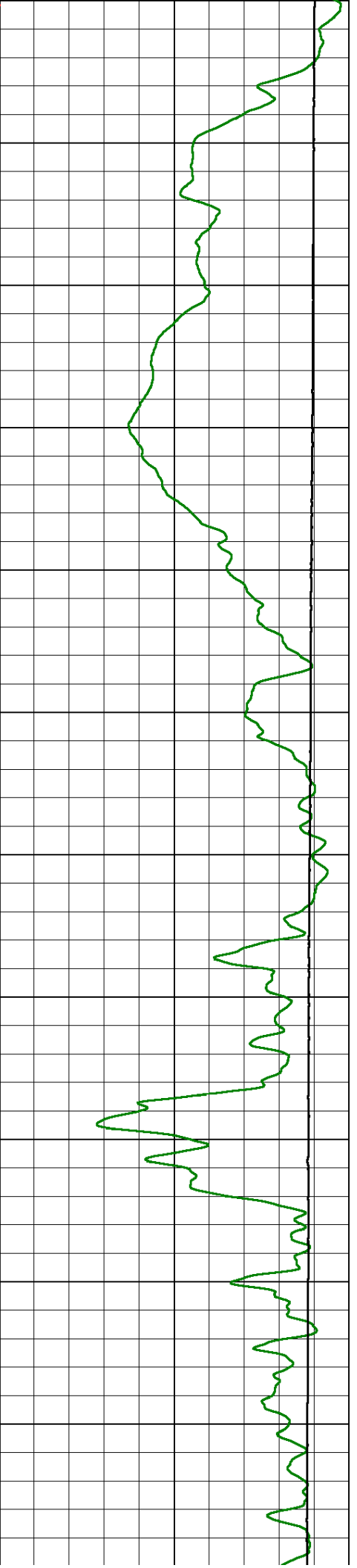
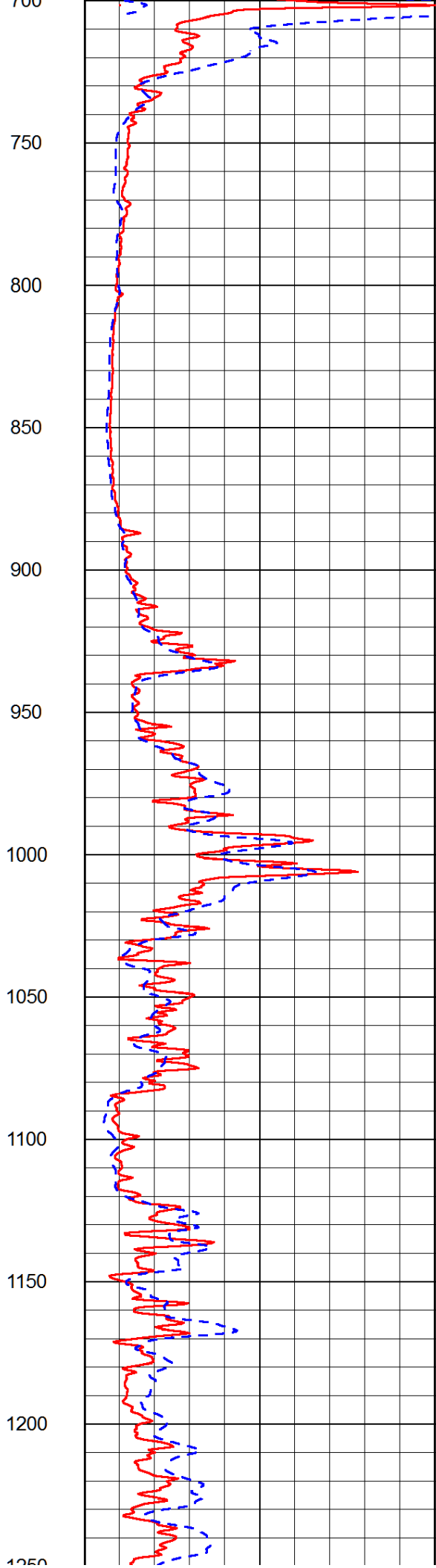
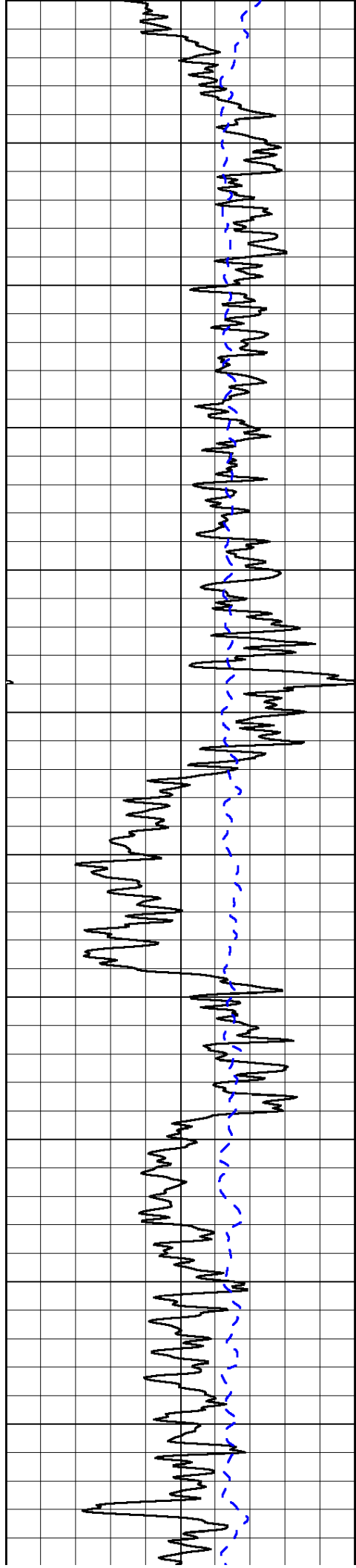
Thank you for using Log-Tech, Inc.  
 (785) 625-3858  
  
 Wakeeney KS, N to Red Line Rd,  
 W to 160 Rd, 3/4 N, 1/4 W(2nd Tank Battery),  
 N Into

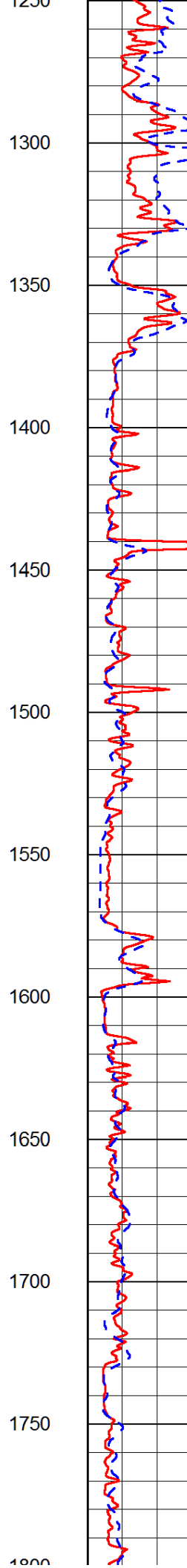
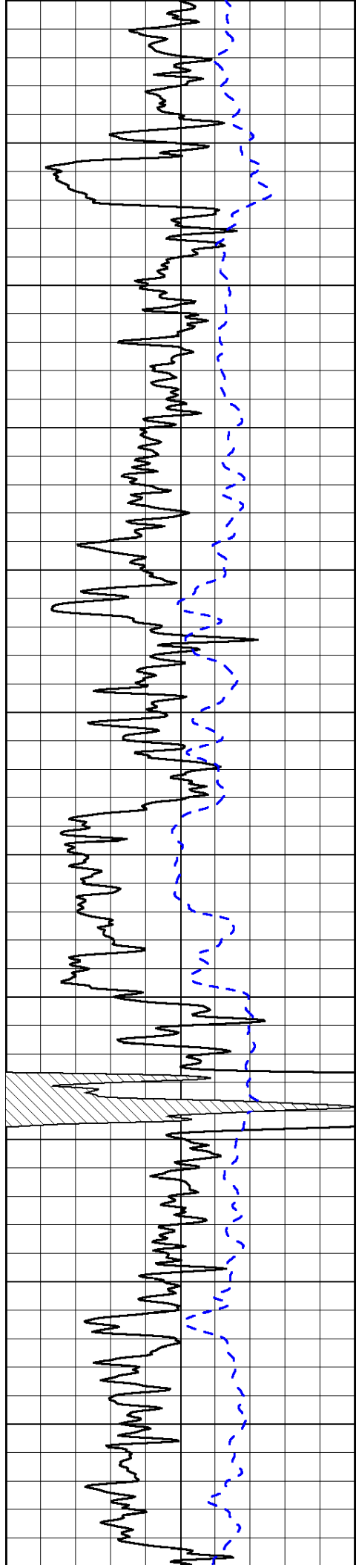
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 Presentation Format: dil2in  
 Dataset Creation: Thu Aug 01 07:54:25 2013  
 Charted by: Depth in Feet scaled 1:600

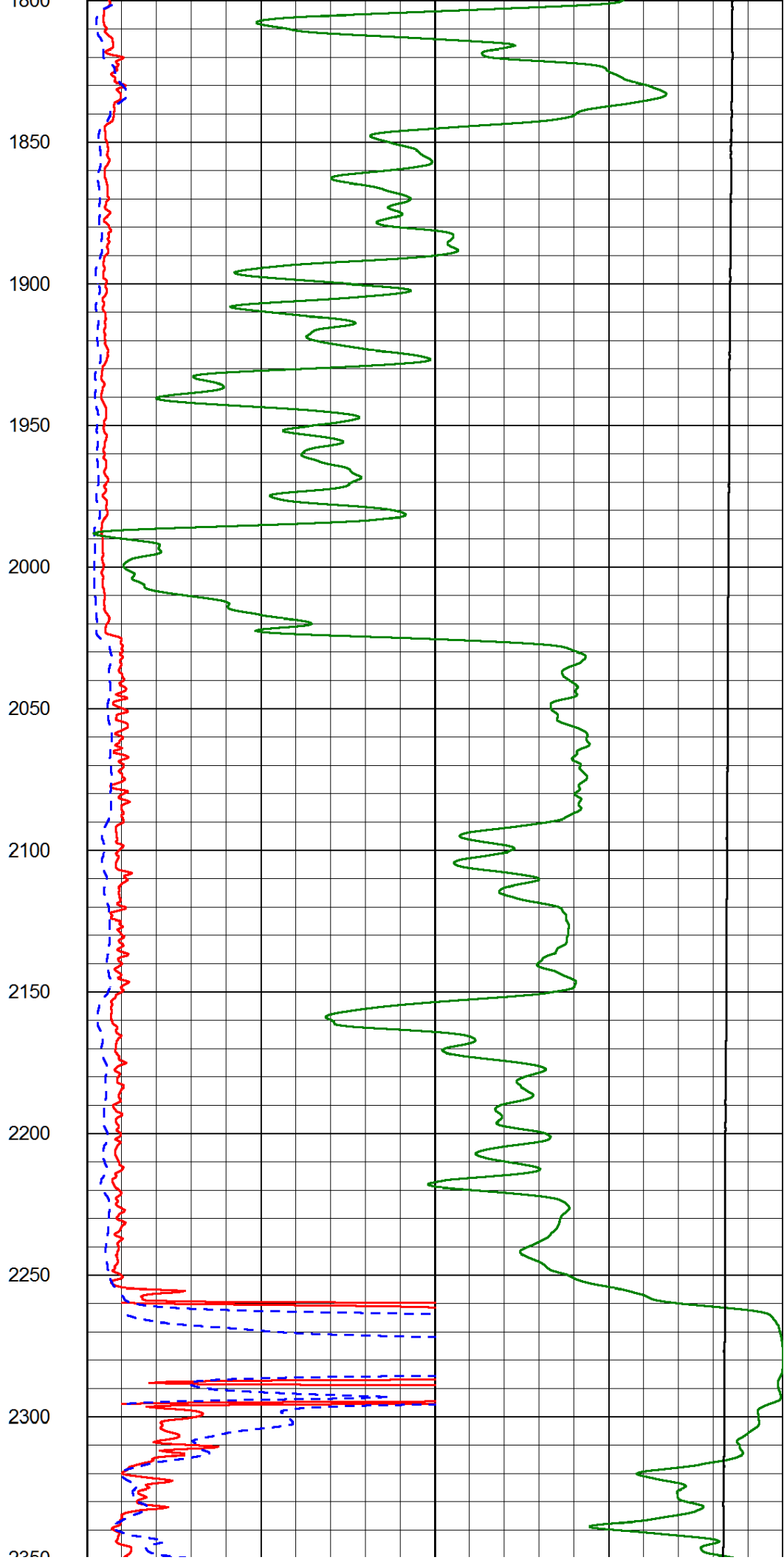
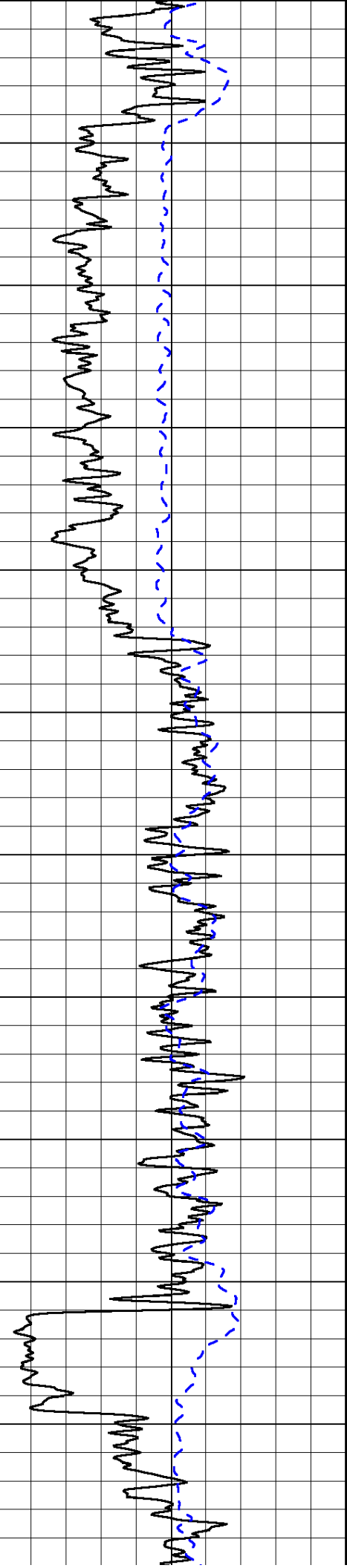
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-200	SP (mV)	0

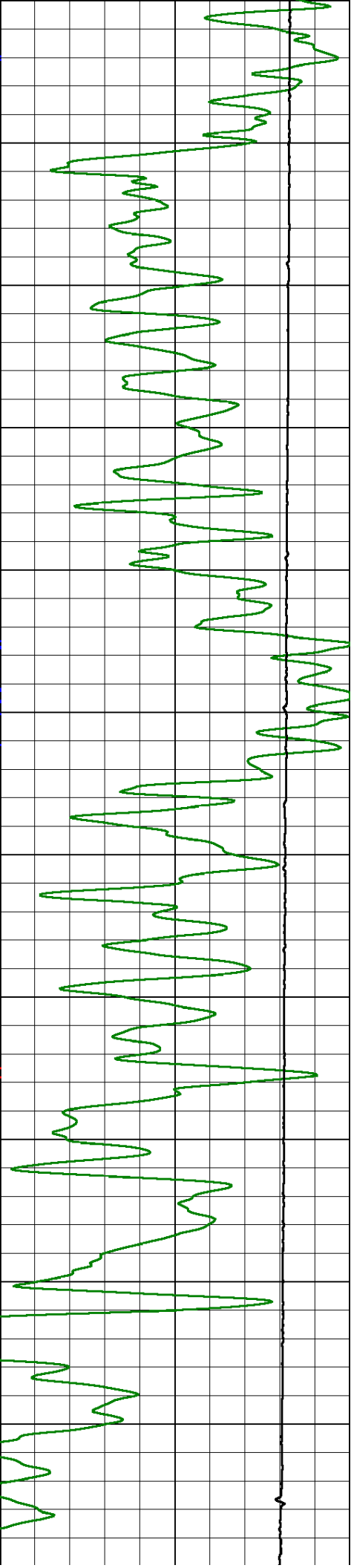
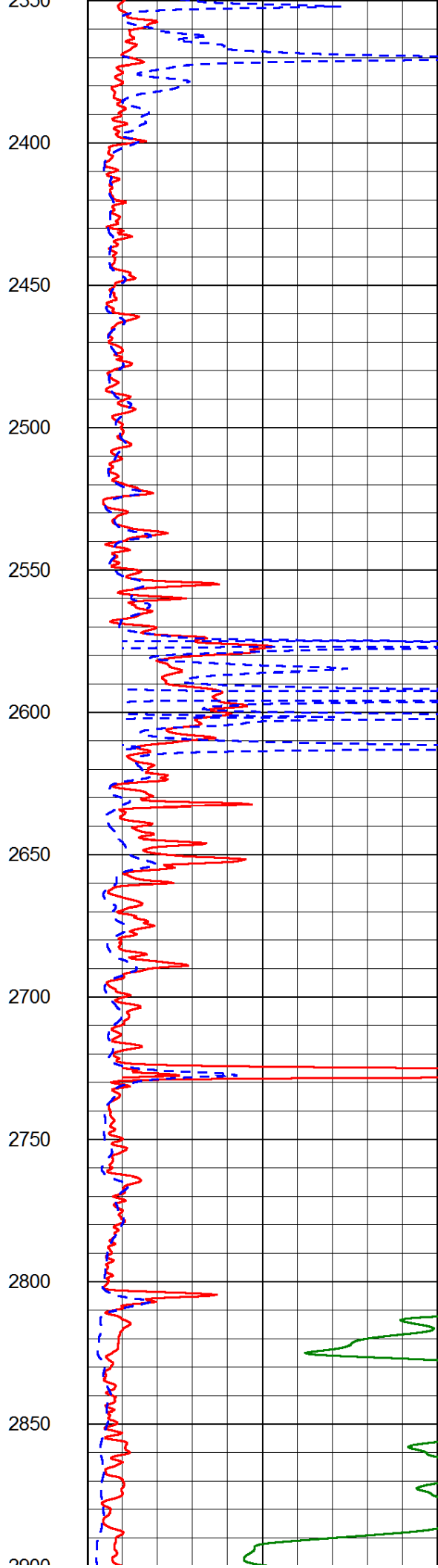
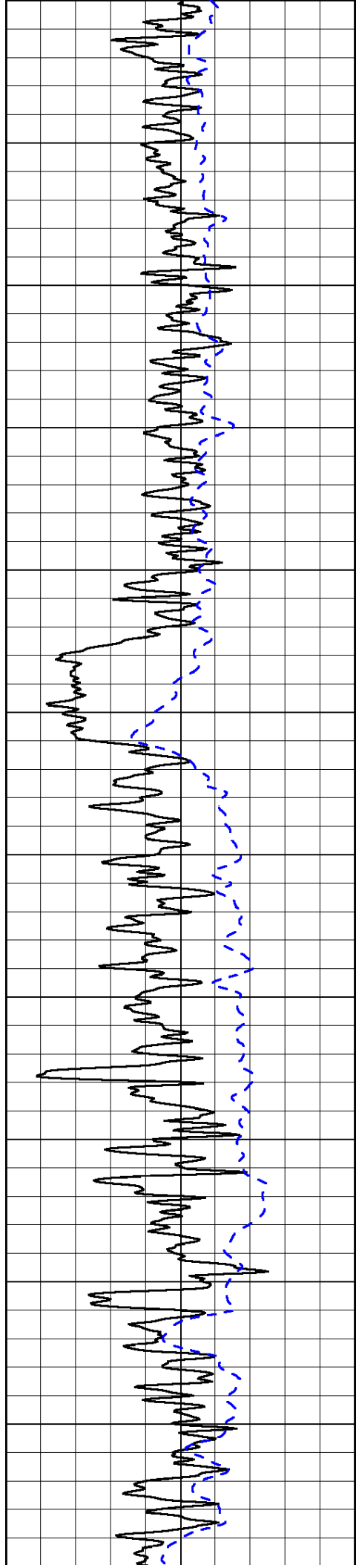
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
50	Shallow Resistivity (Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

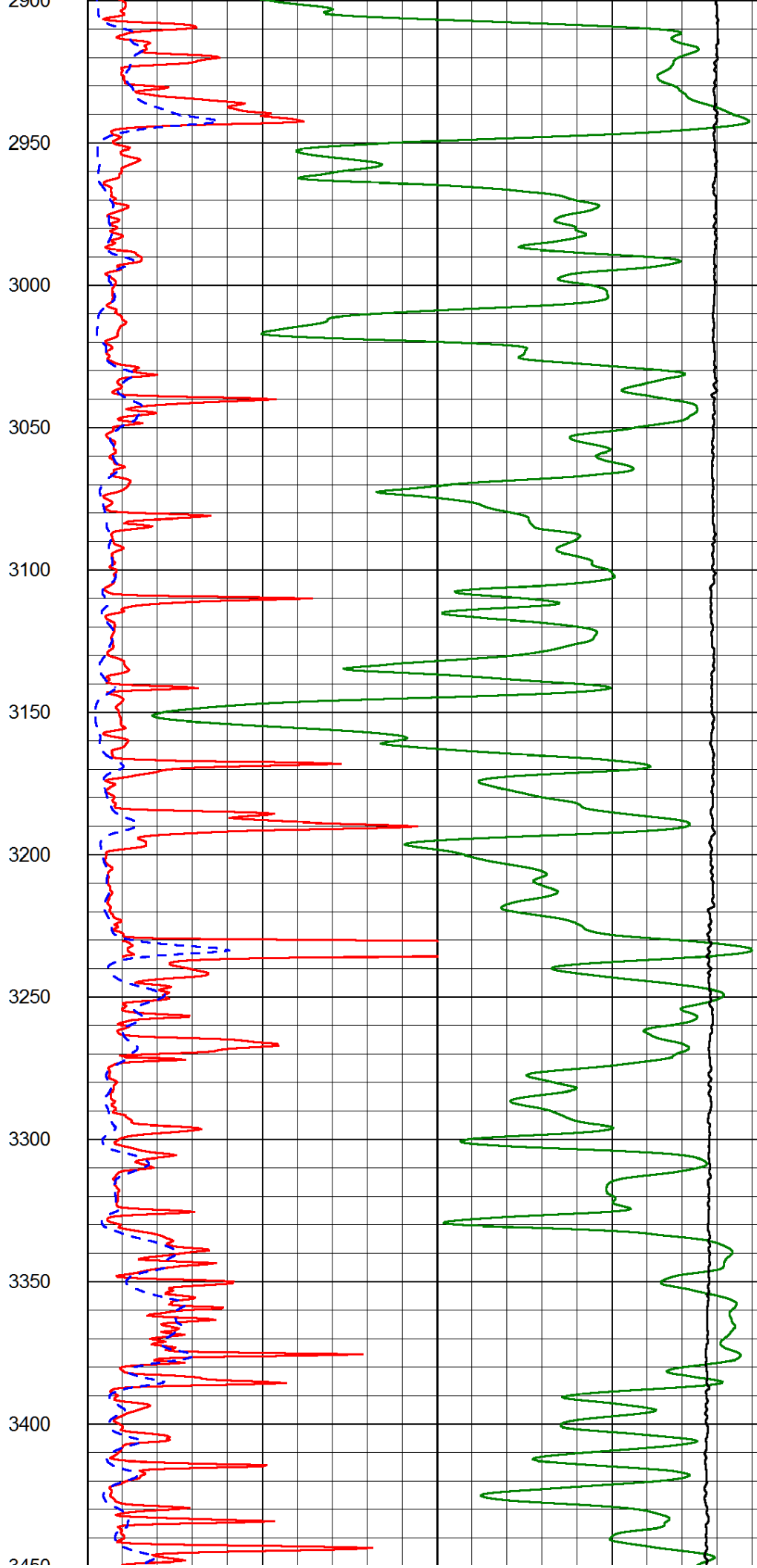
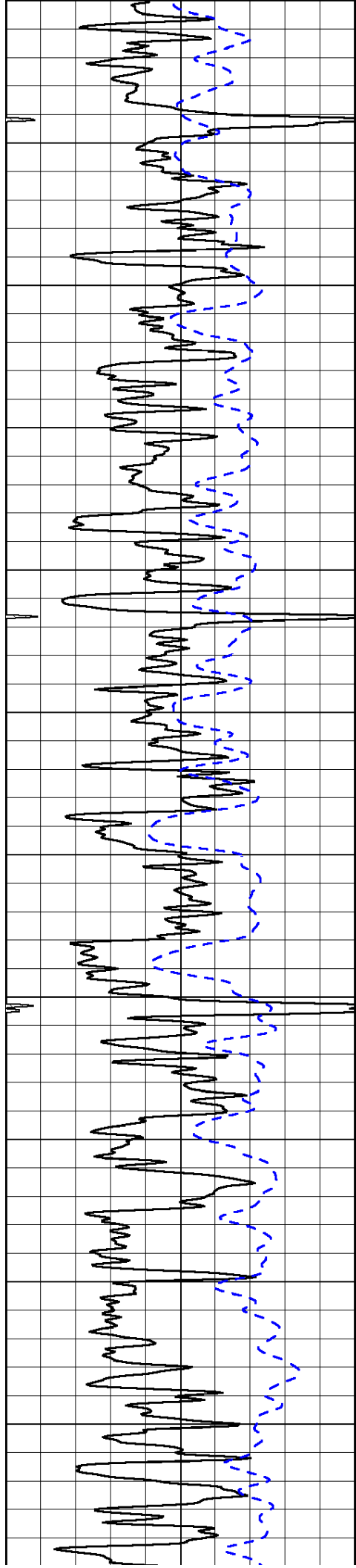


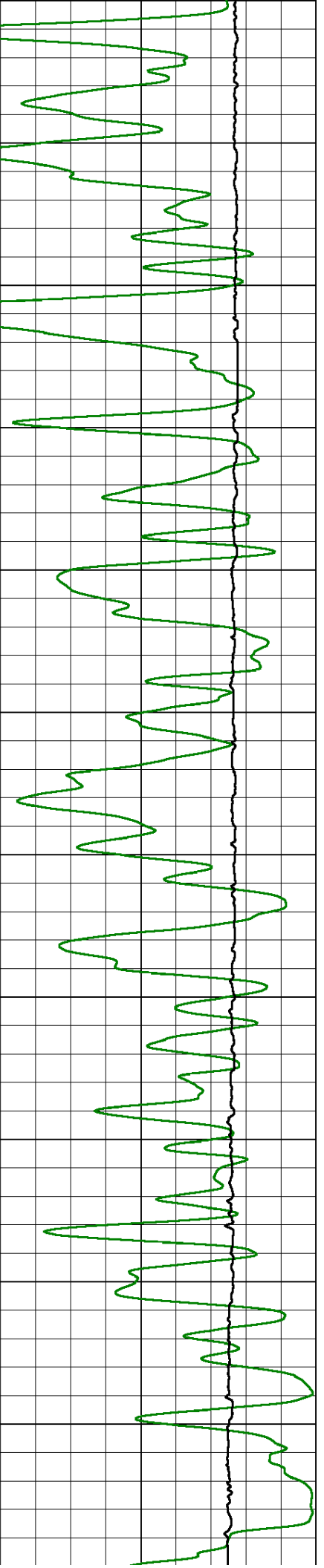
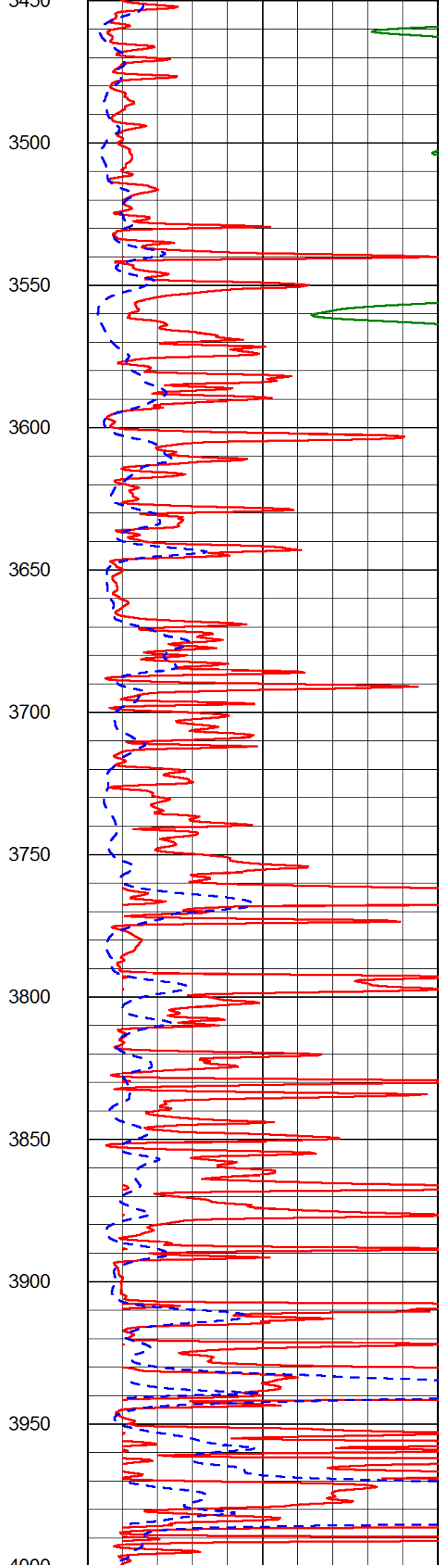
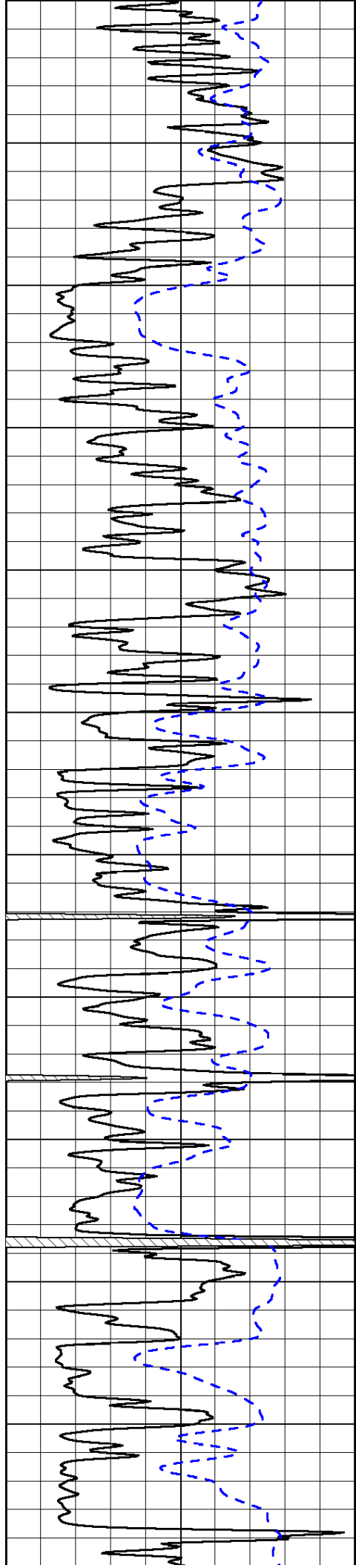




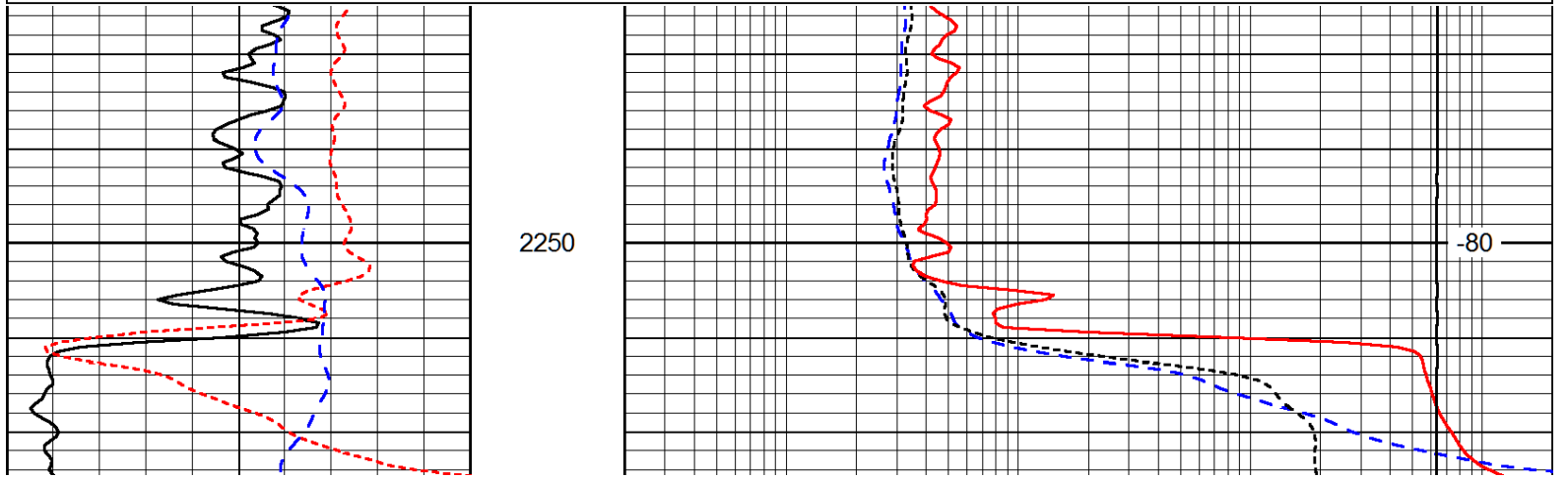
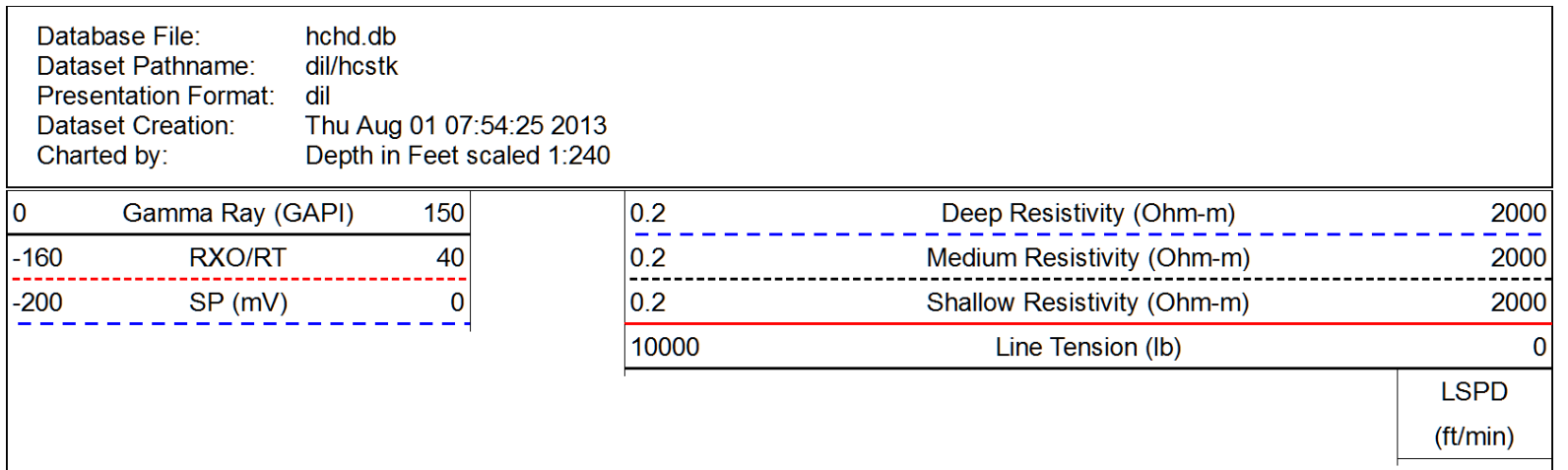
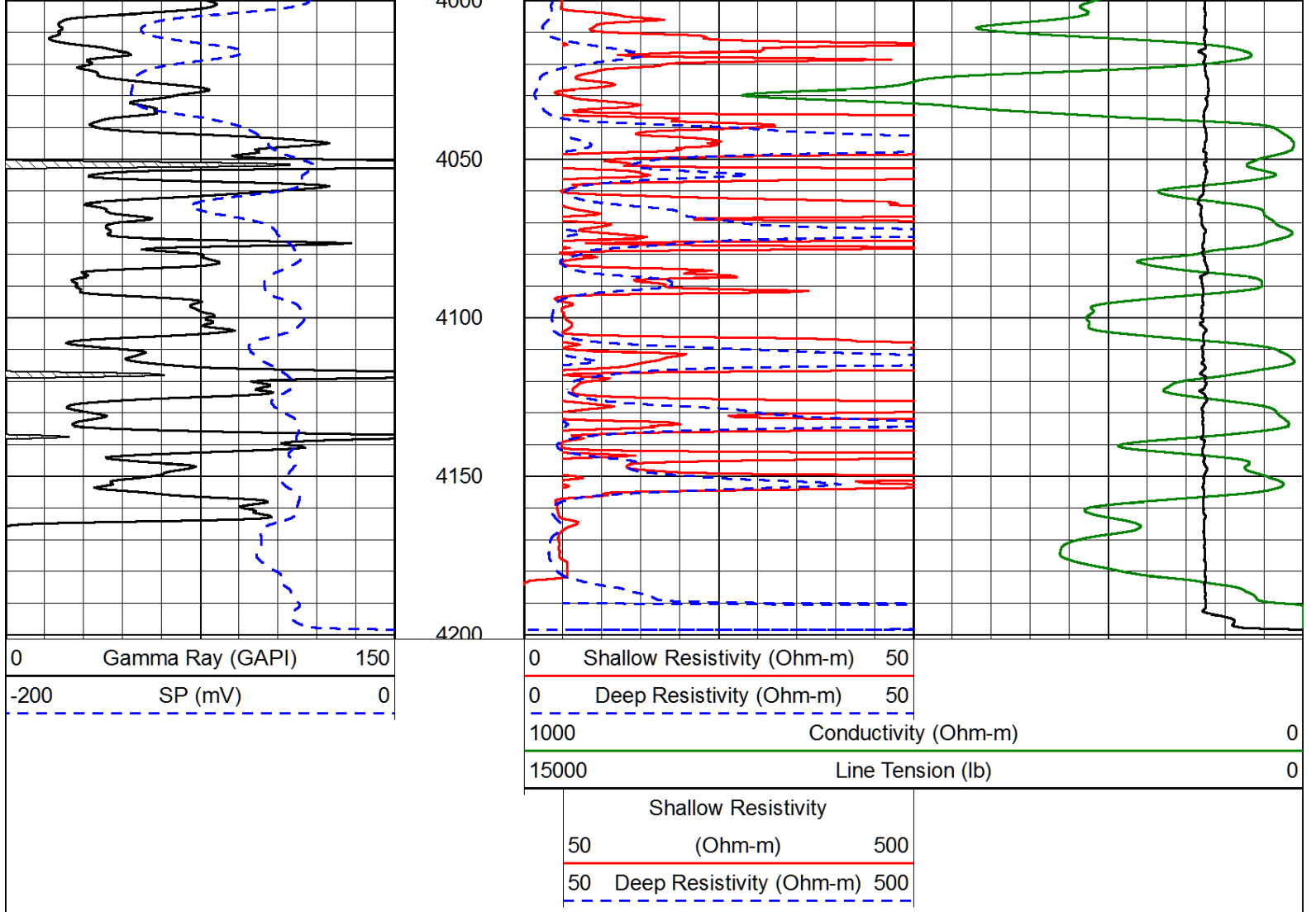


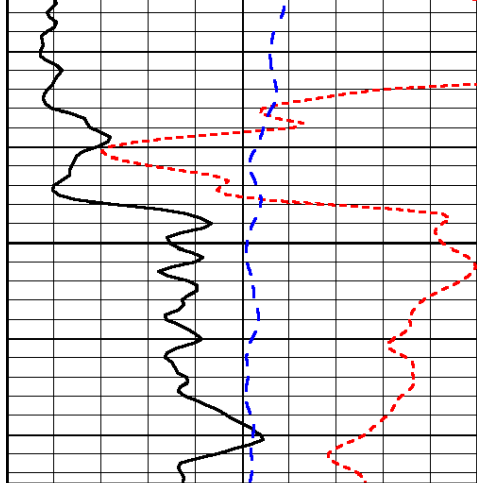






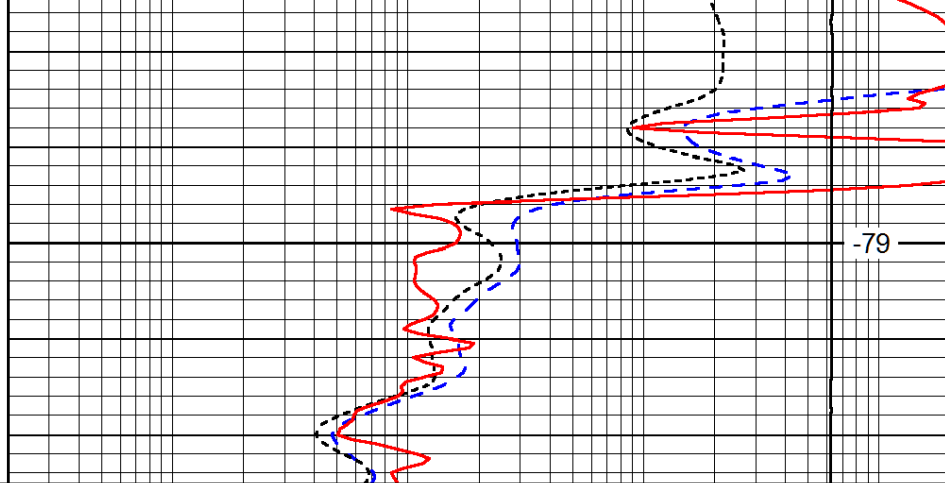






0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

2300



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

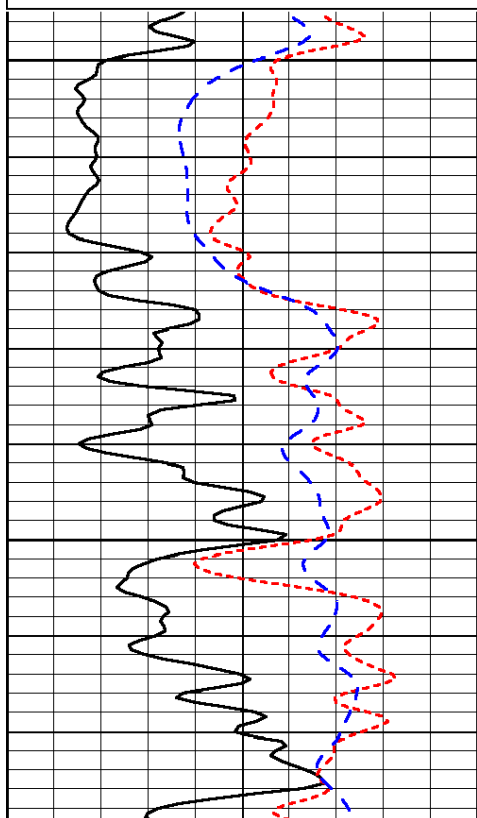
LSPD  
(ft/min)

Database File: hchd.db  
 Dataset Pathname: dil/hcstk  
 Presentation Format: dil  
 Dataset Creation: Thu Aug 01 07:54:25 2013  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
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-200	SP (mV)	0

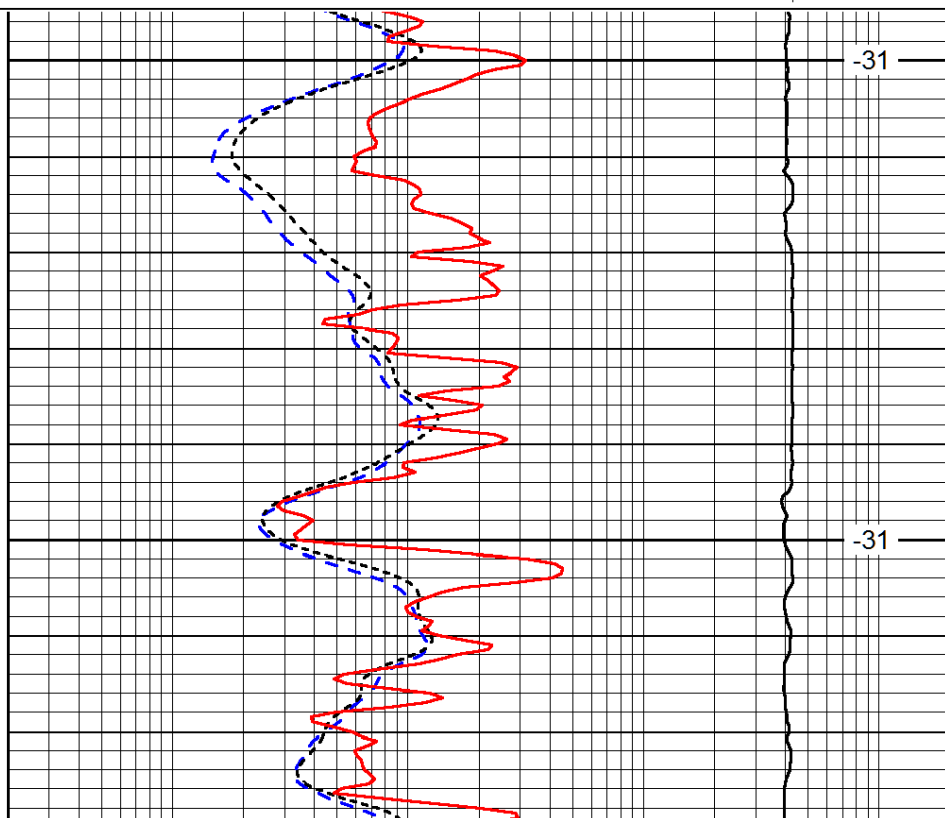
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0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD  
(ft/min)



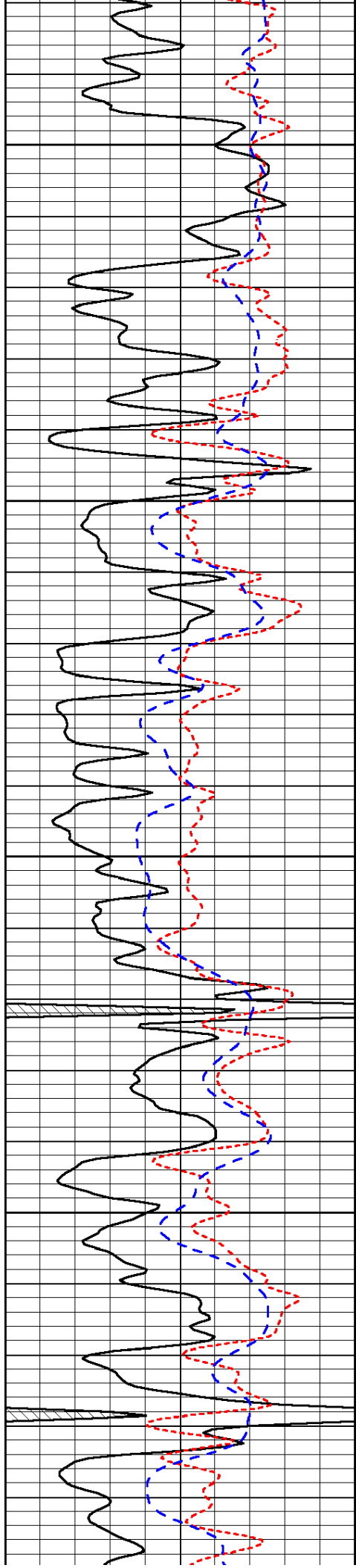
3550

3600



-31

-31



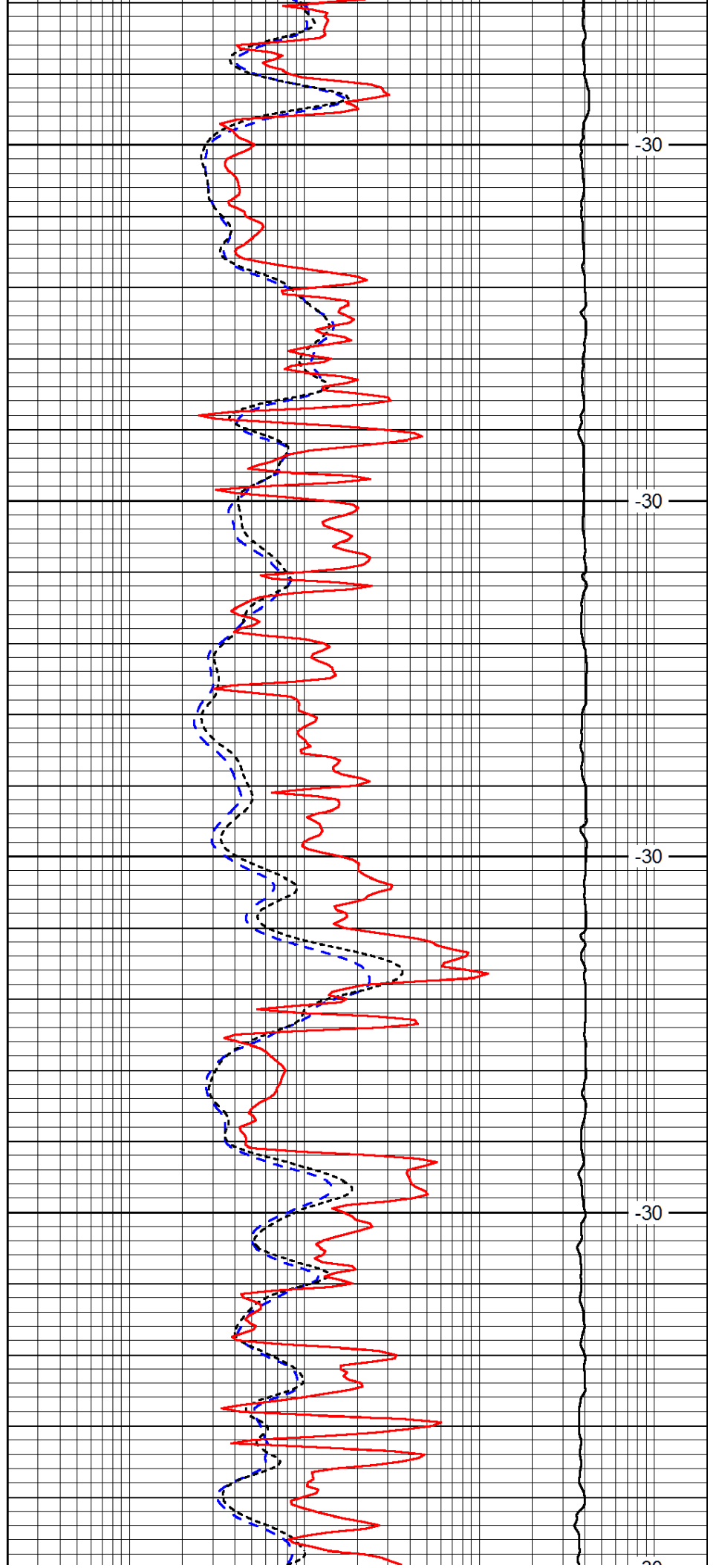
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3700

3750

3800

3850



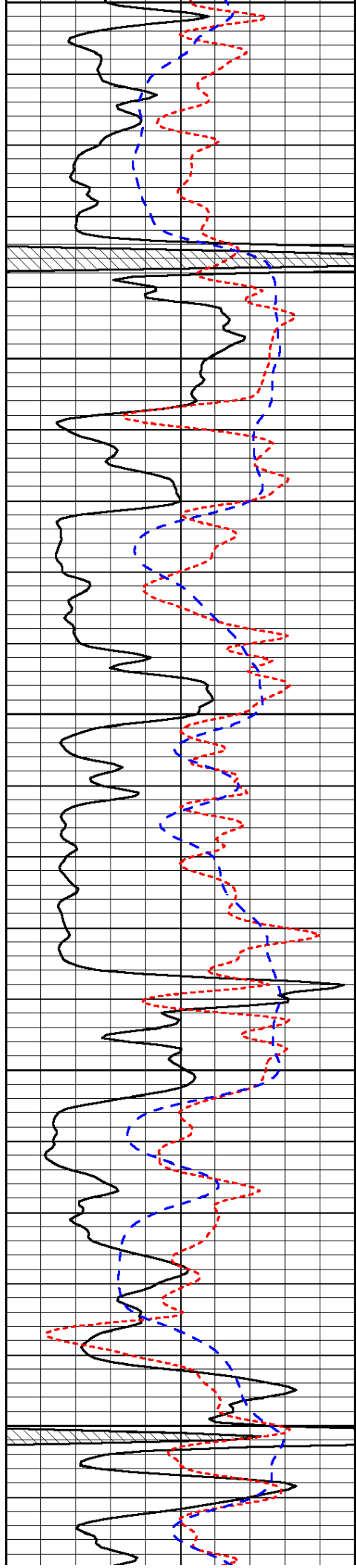
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-30

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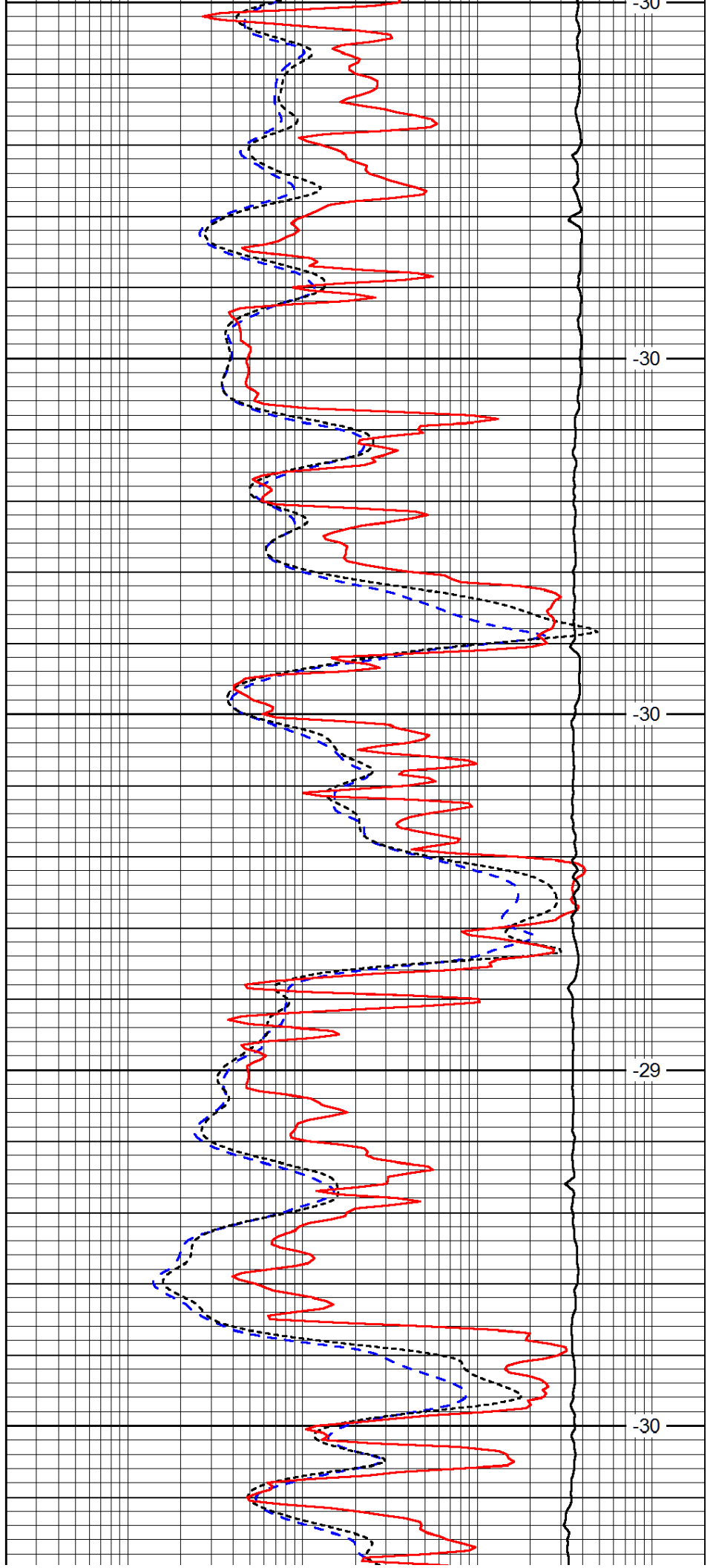
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3900

3950

4000

4050



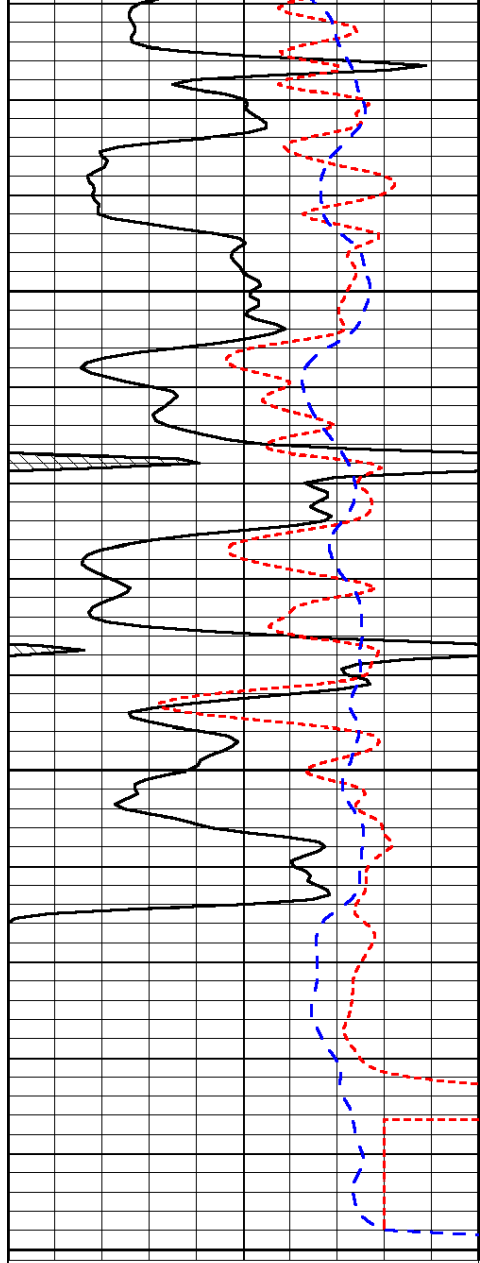
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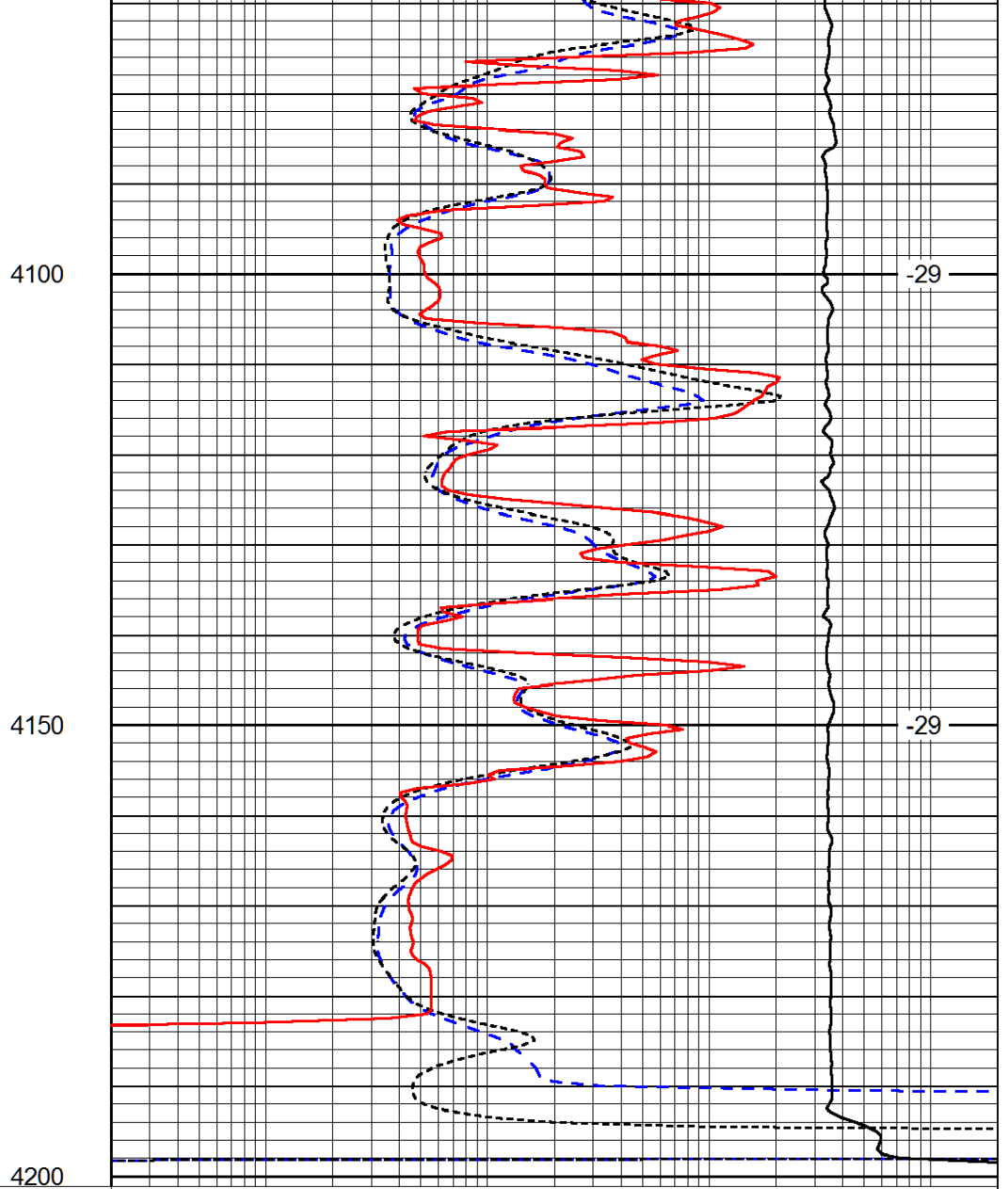
-30

-29

-30



0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD  
(ft/min)