



Pioneer Energy Services

# Dual Induction Log

API No.	15-039-21182-00-00		
Company	The Bill Bowman Oil Company		
Well	Danley A #1		
Field	Hardesty		
County	Decatur	State	Kansas
Location	1175' FNL & 330' FWL		
Sec: 23	Twp: 5S	Rge: 27W	Other Services CNL/CDL MEL
Permanent Datum	Ground Level	Elevation 2645	Elevation
Log Measured From	Kelly Bushing	5 Ft. Above Perm. Datum	K.B. 2650
Drilling Measured From	Kelly Bushing		D.F. 2645
			G.L. 2645

Date	6/23/2013
Run Number	One
Depth Driller	3974
Depth Logger	3973
Bottom Logged Interval	3972
Top Log Interval	250
Casing Driller	8.625 @ 263
Casing Logger	260
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	1000
Density / Viscosity	9.1   50
pH / Fluid Loss	9.5   8.8
Source of Sample	Flowline
Rm @ Meas. Temp	0.50 @ 76
Rmf @ Meas. Temp	0.37 @ 76
Rmc @ Meas. Temp	0.67 @ 76
Source of Rmf / Rmc	Charts
Rm @ BHT	0.32 @ 118
Operating Rig Time	4 Hours
Max Rec. Temp. F	118
Equipment Number	91
Location	Hays
Recorded By	D. Schmidt
Witnessed By	Justin Carter

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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

Lenora,  
18 1/2 West, 2 3/4 North,  
East into

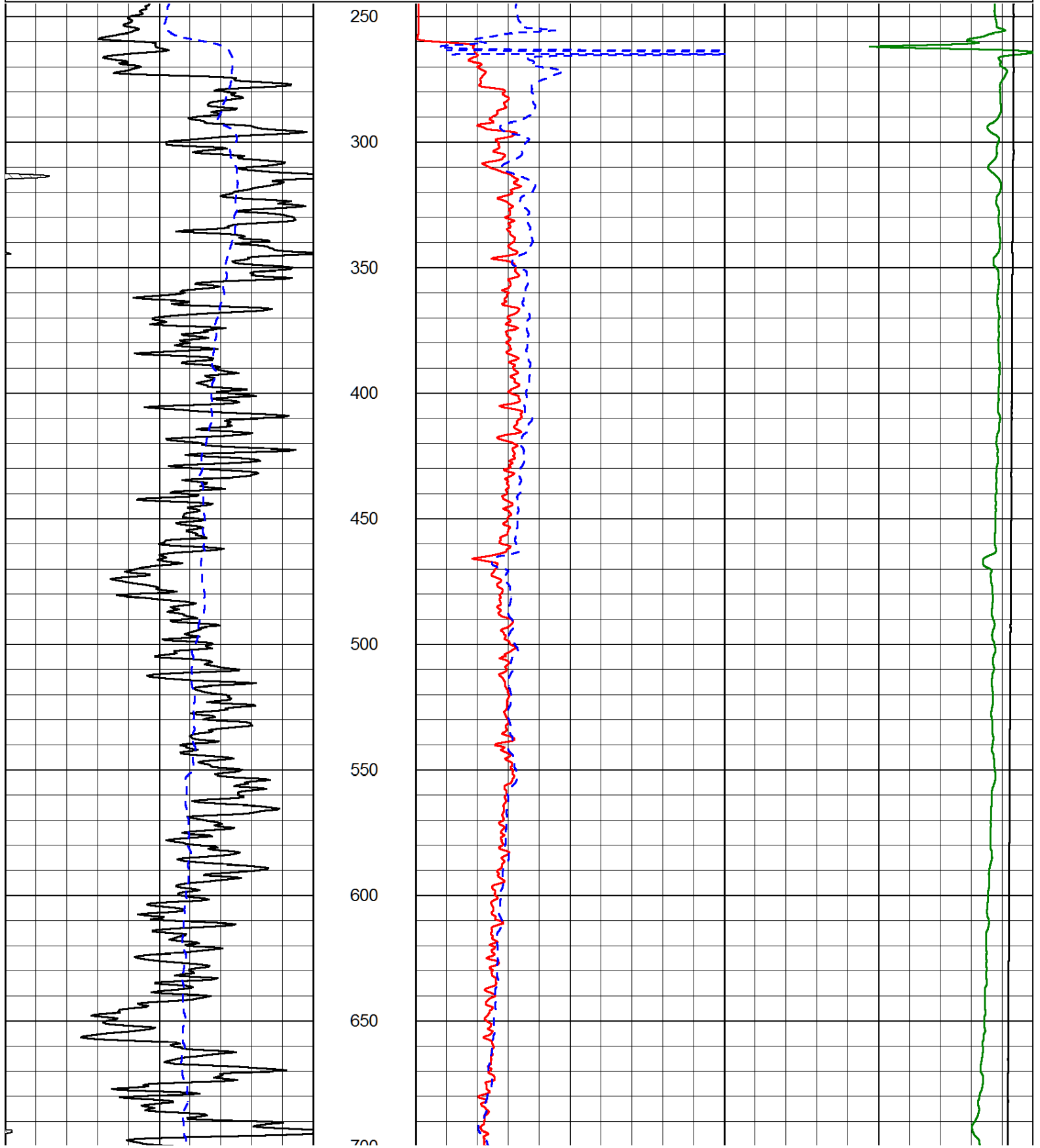
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 Dataset Pathname: dil/bowstk1  
 Presentation Format: dil2in  
 Dataset Creation: Sun Jun 23 08:17:07 2013  
 Charted by: Depth in Feet scaled 1:600

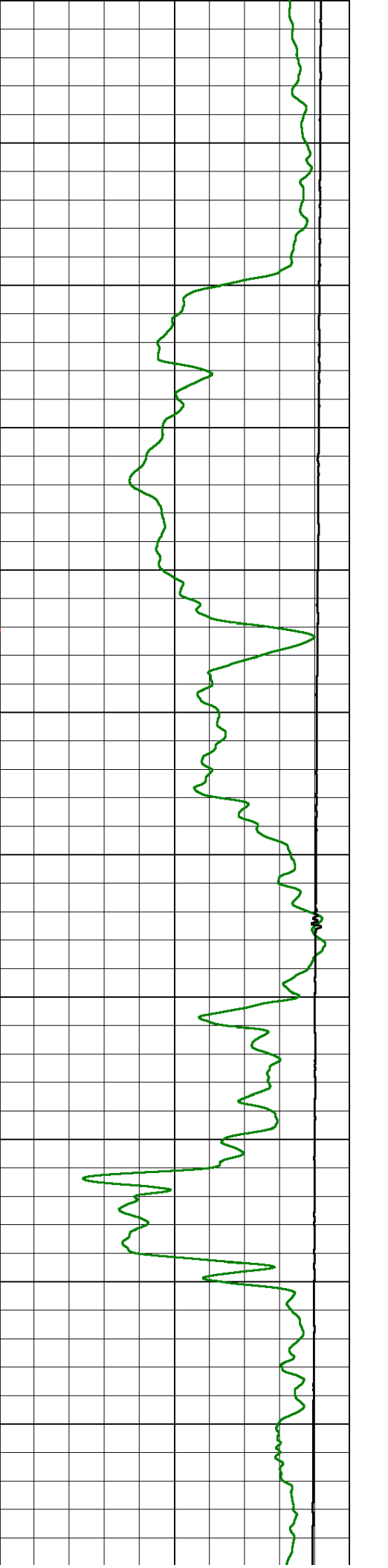
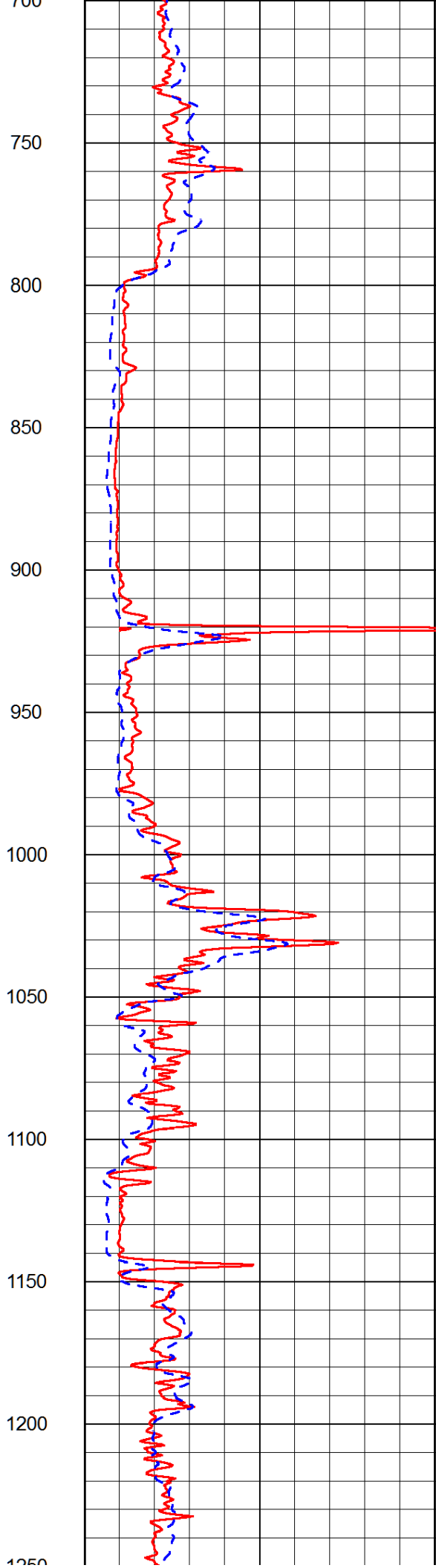
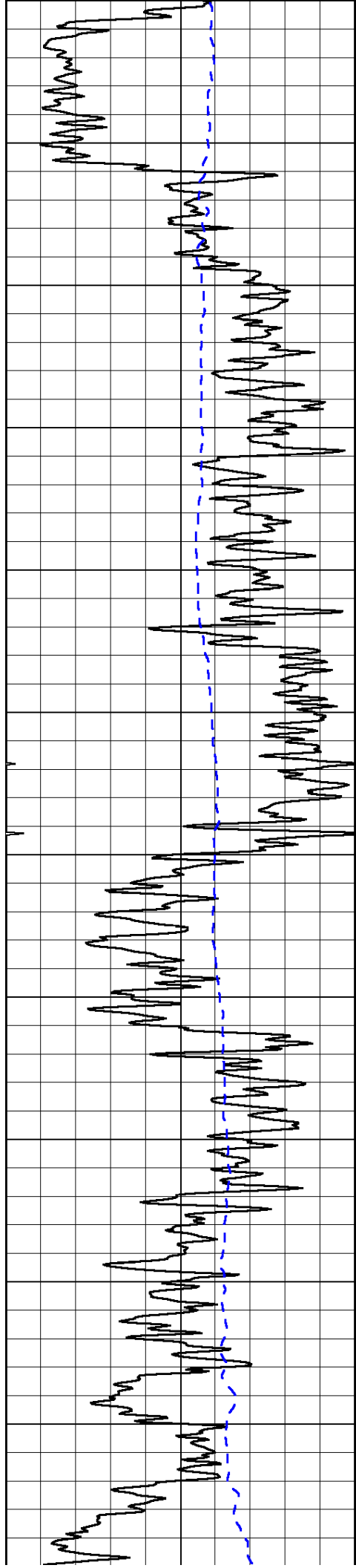
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

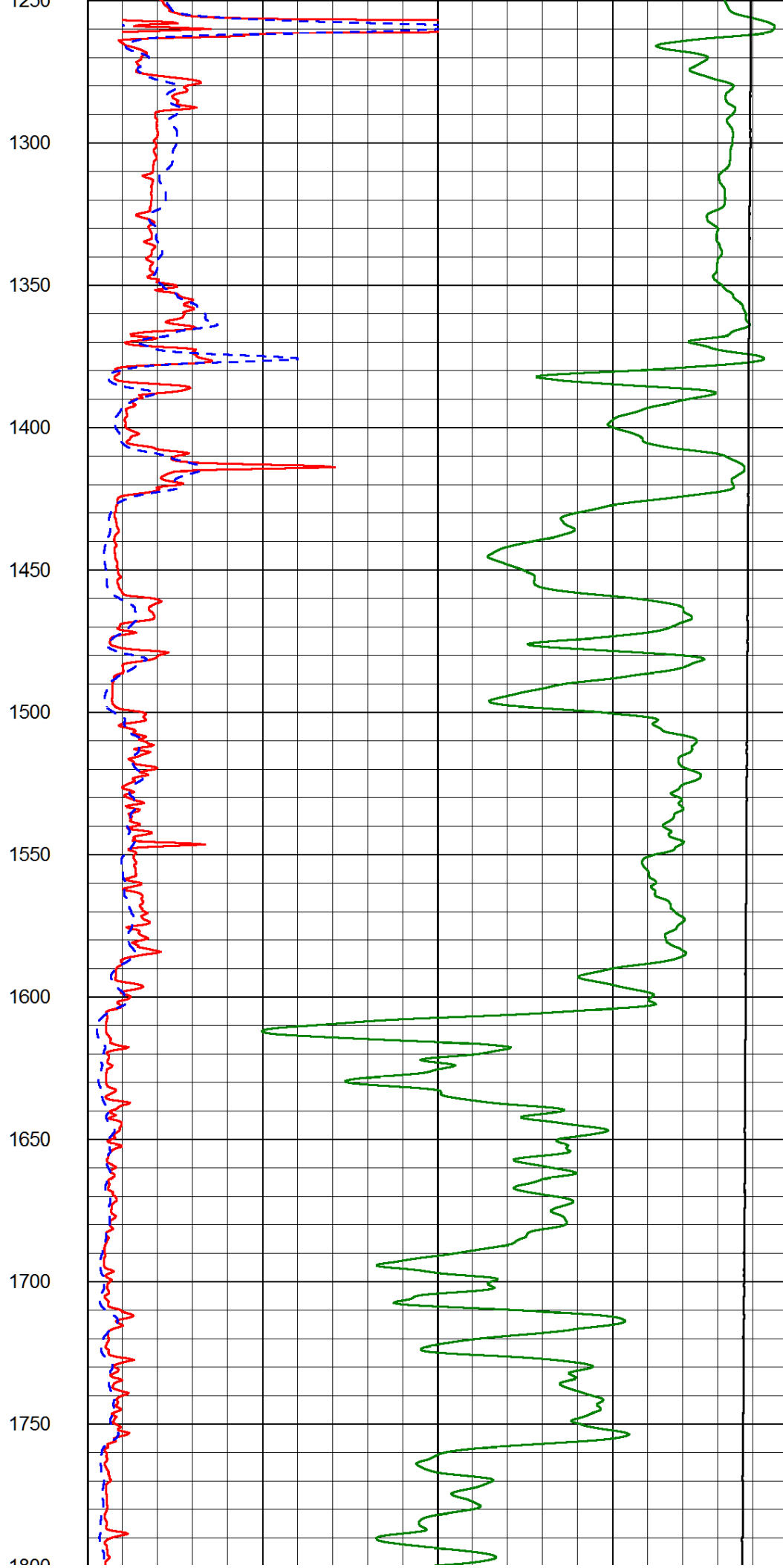
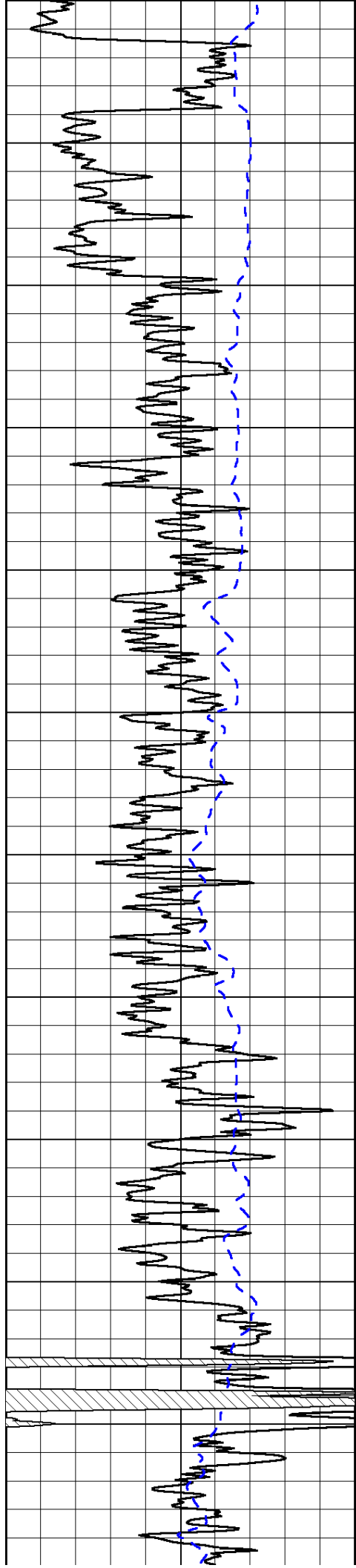
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0	Deep Resistivity (Ohm-m)	50

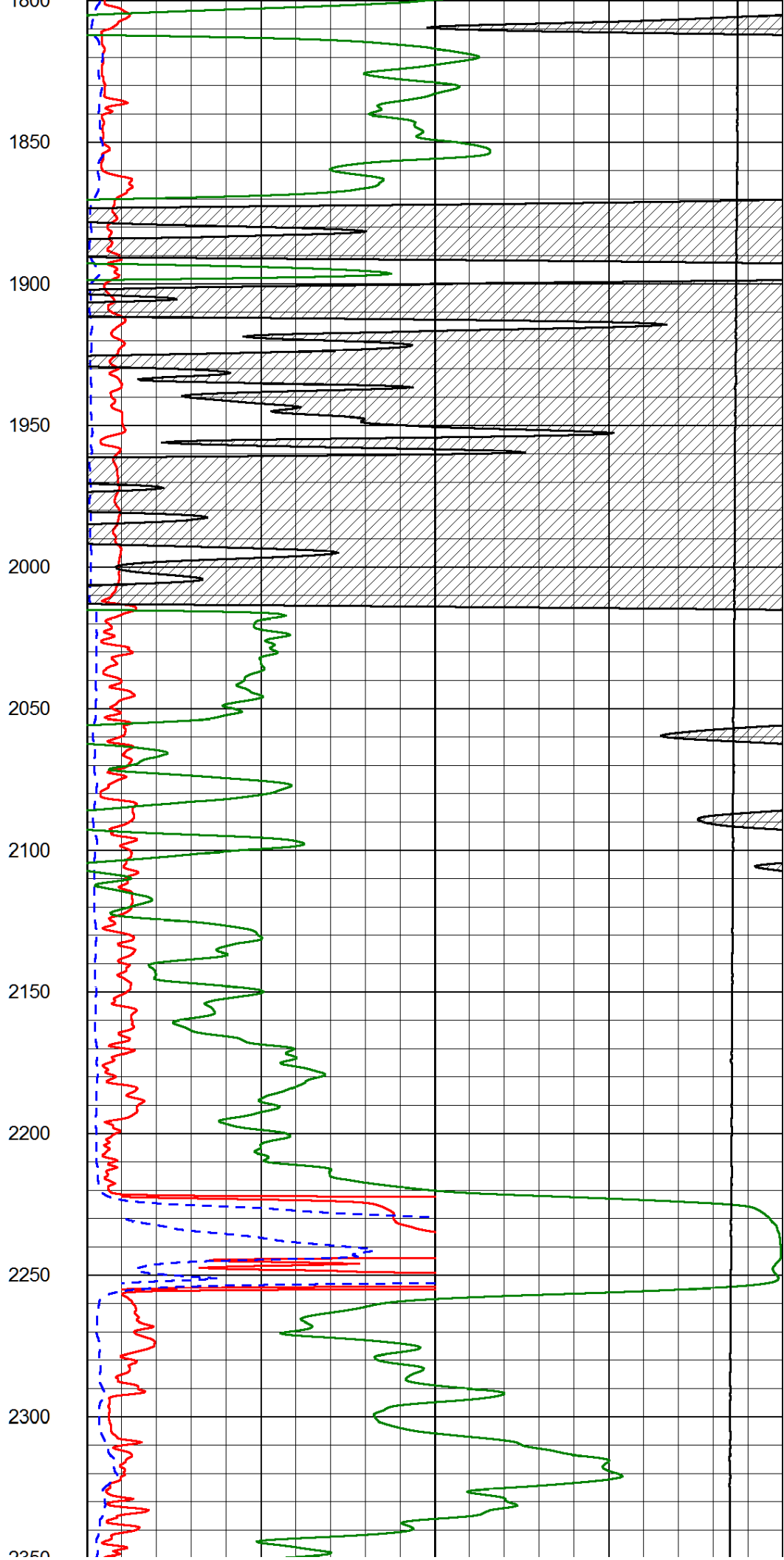
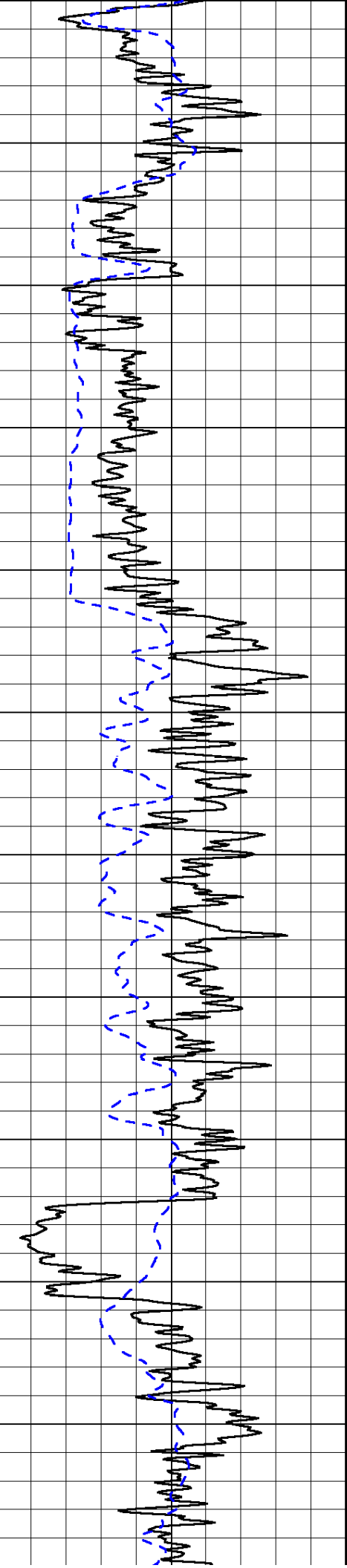
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

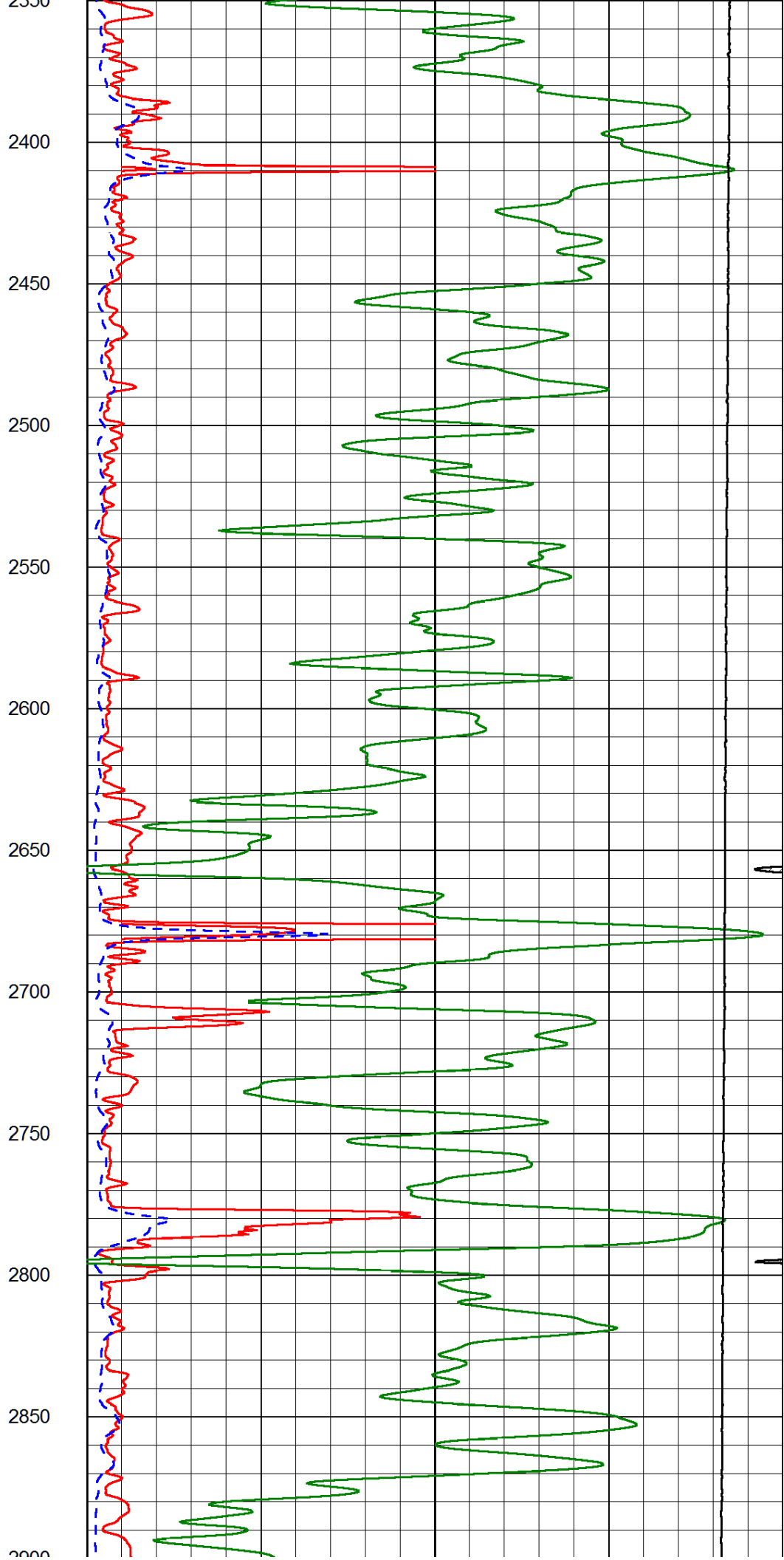
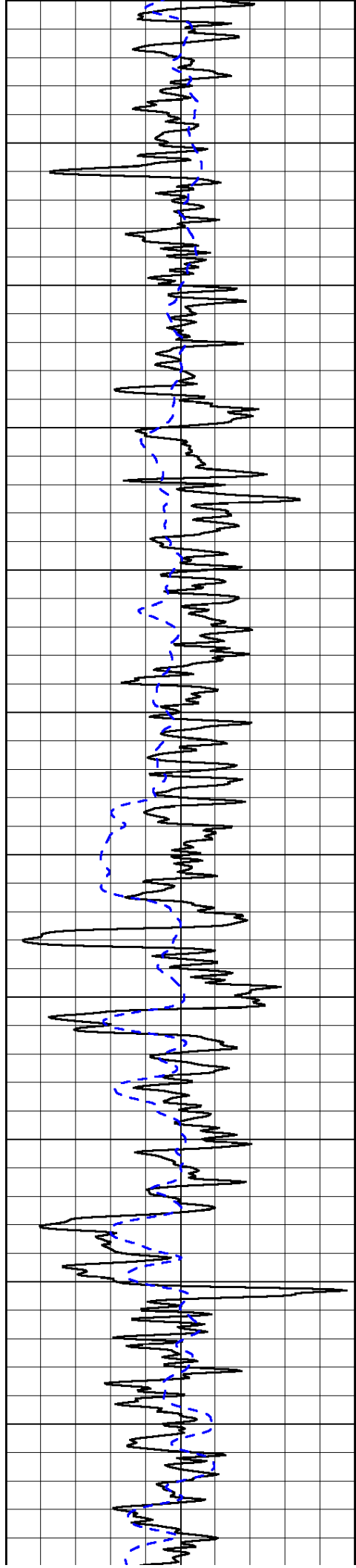
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

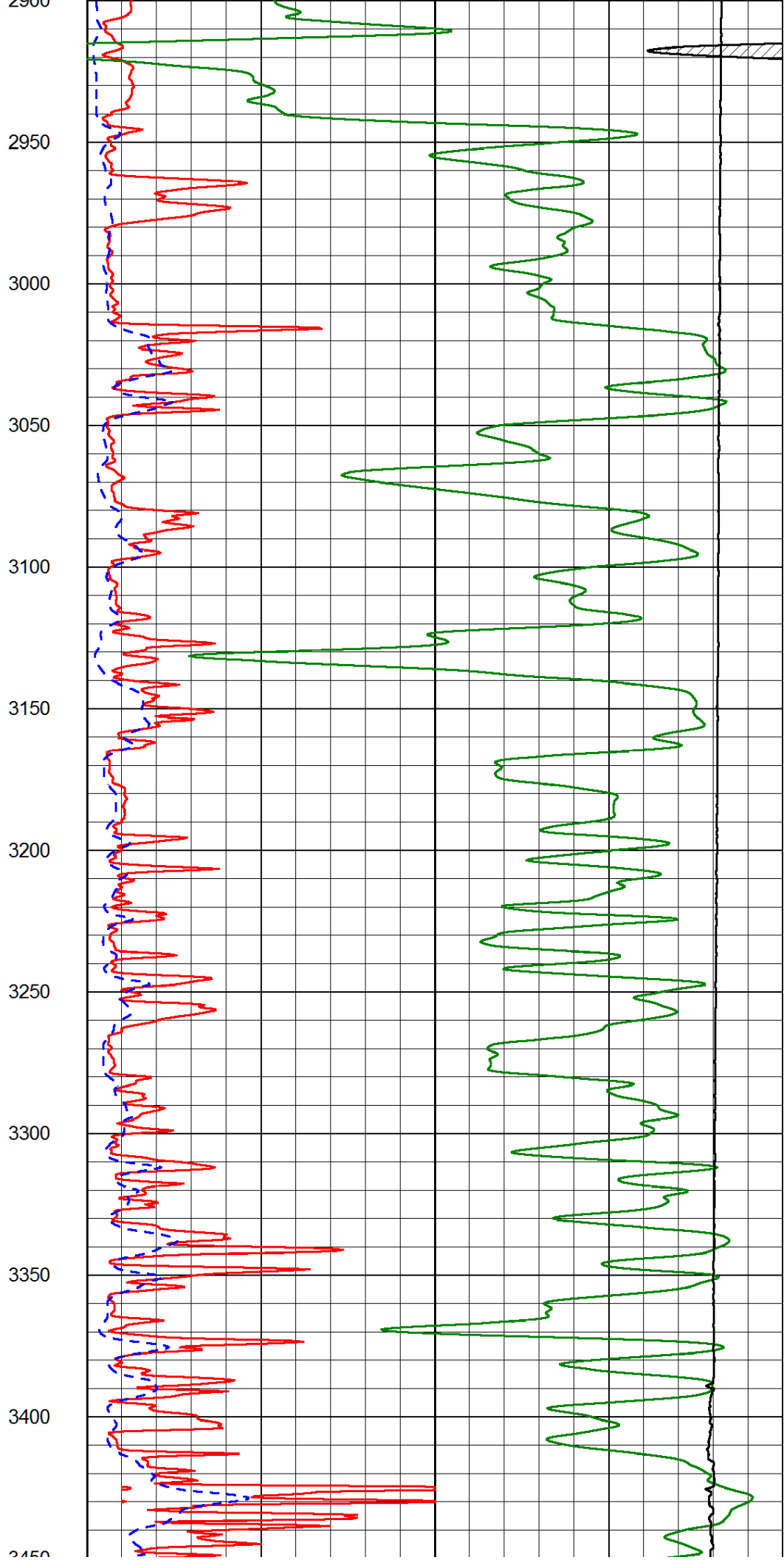
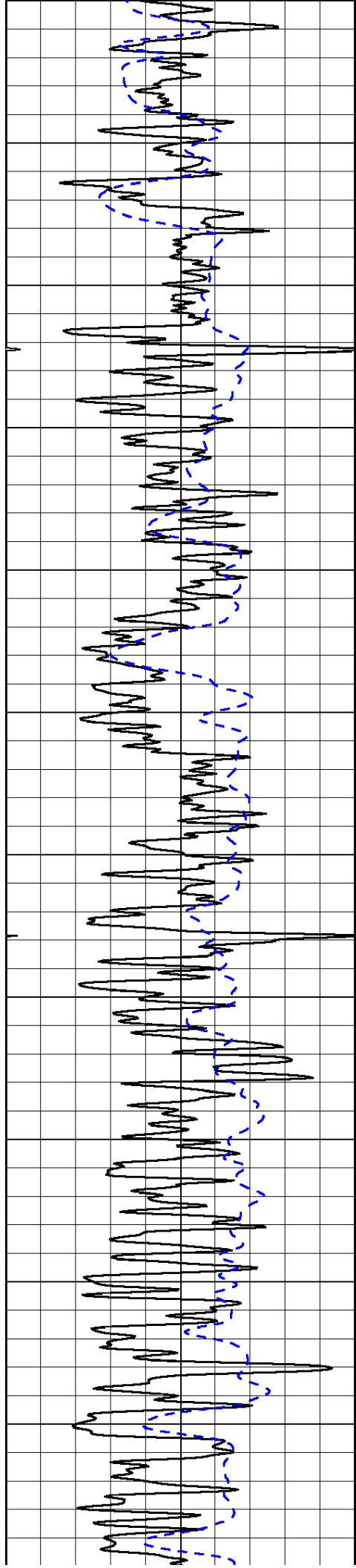


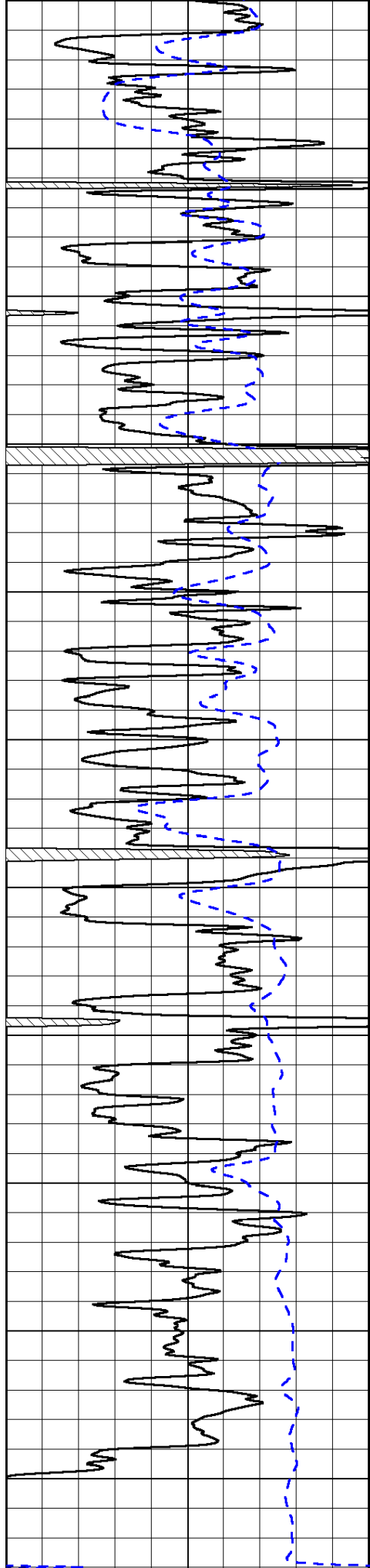




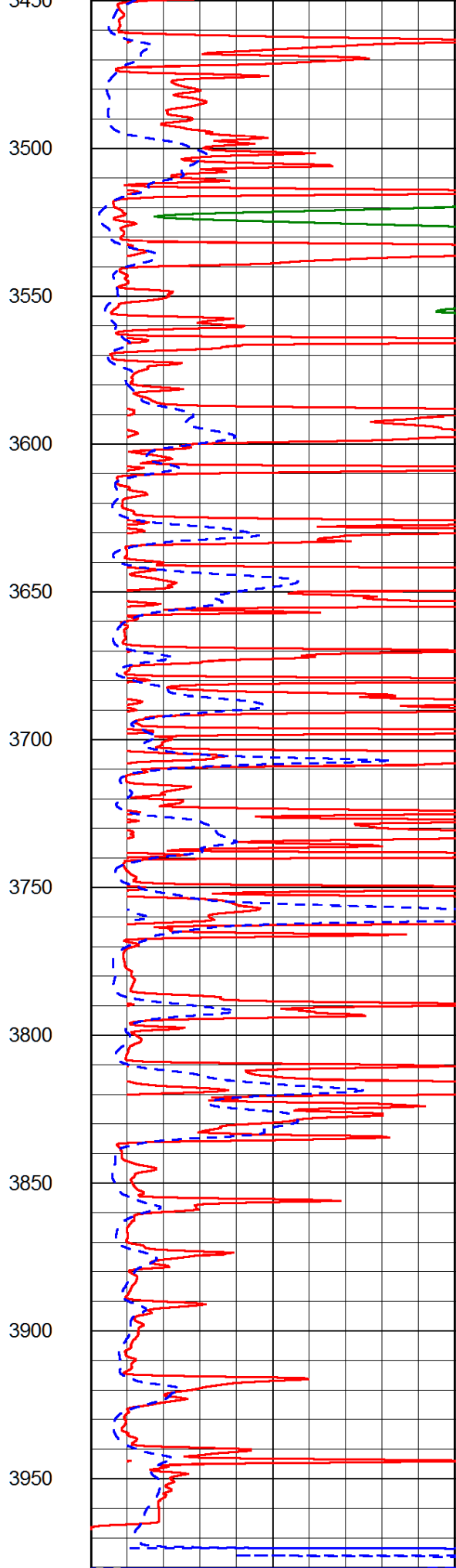




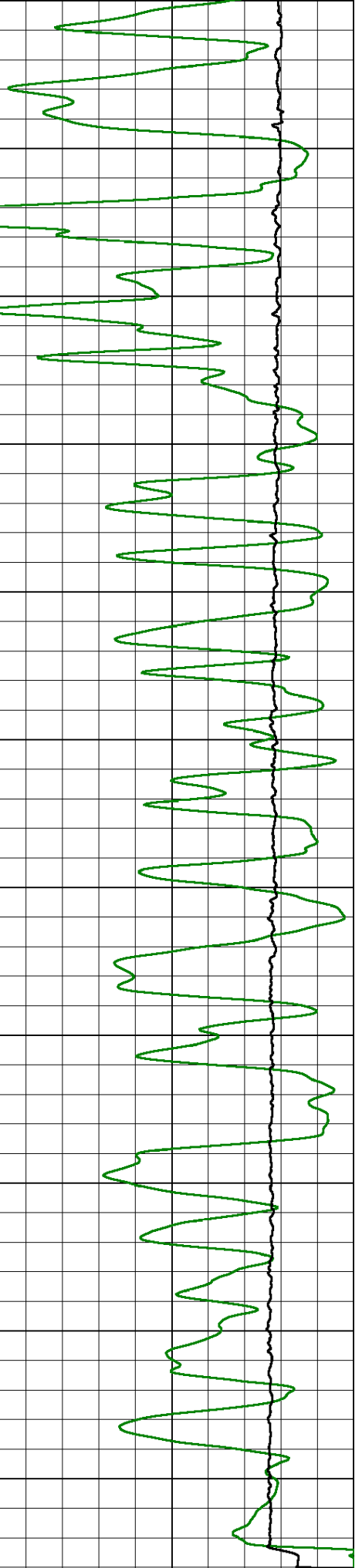




0 Gamma Ray (GAPI) 150  
-200 SP (mV) 0



0 Shallow Resistivity (Ohm-m) 50  
0 Deep Resistivity (Ohm-m) 50

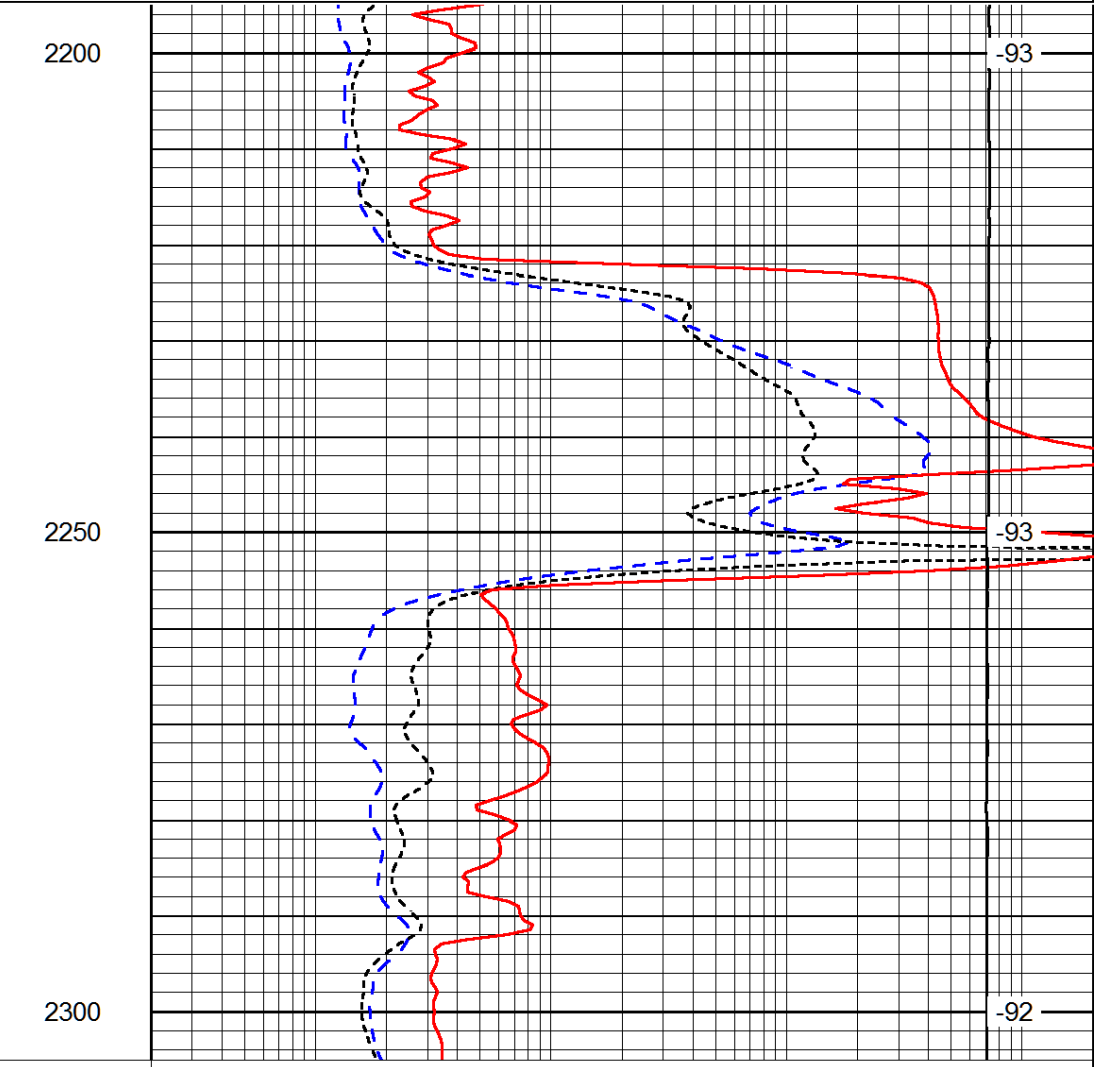
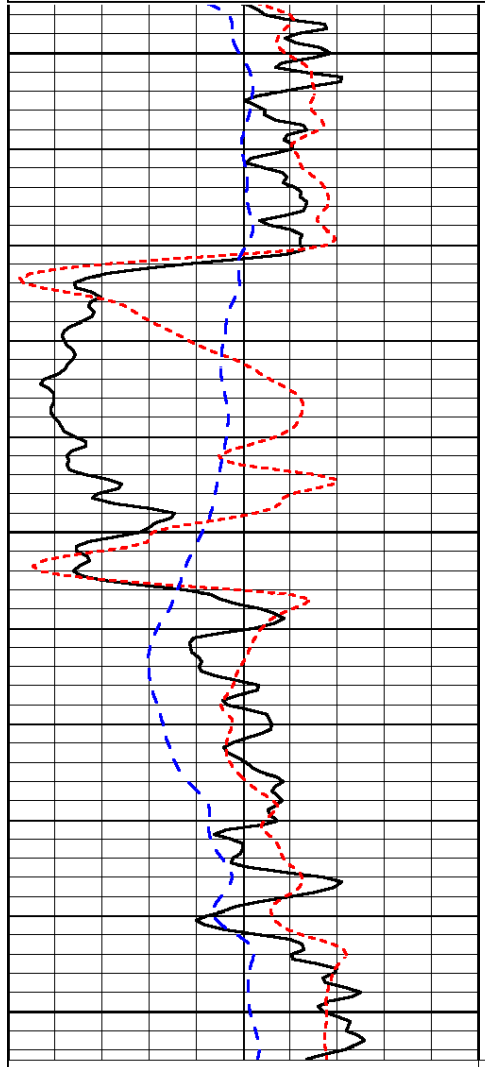


0 50

0	Deep Resistivity (Ohm-m)	2000
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

Database File: bowman\_062413hd.db  
 Dataset Pathname: dil/bowstk1  
 Presentation Format: dil  
 Dataset Creation: Sun Jun 23 08:17:07 2013  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXO/RT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0
					LSPD (ft/min)



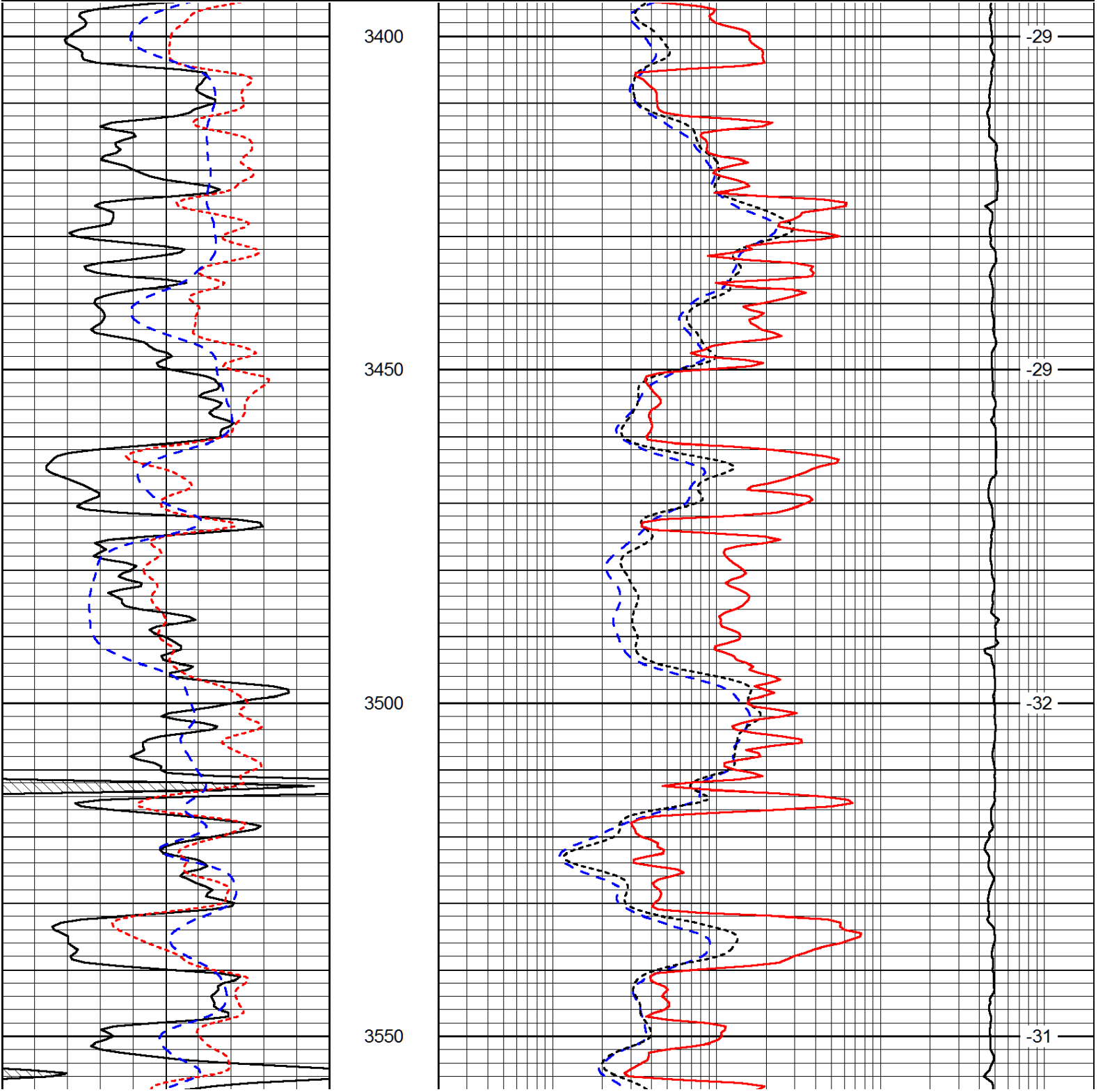
0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXO/RT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0
					LSPD (ft/min)

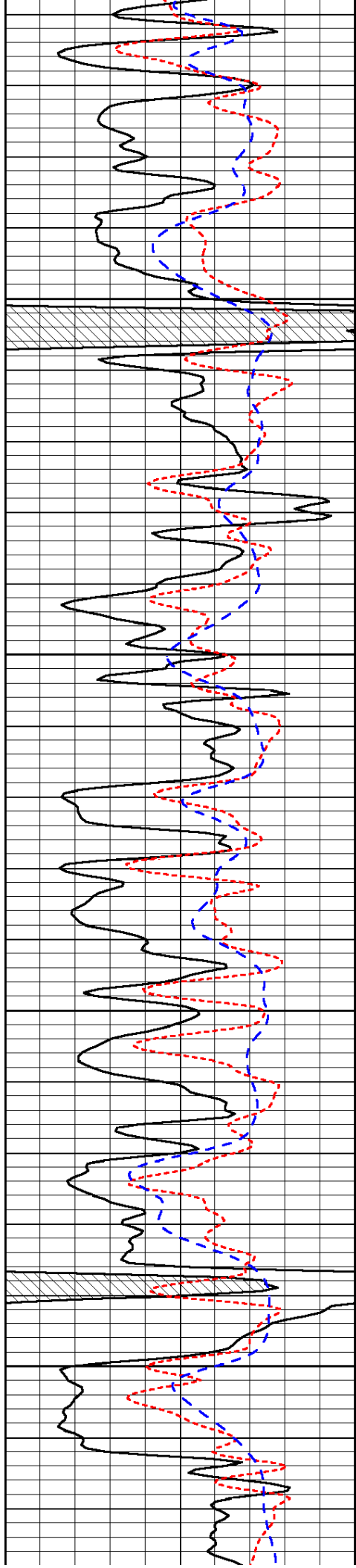
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0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

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)



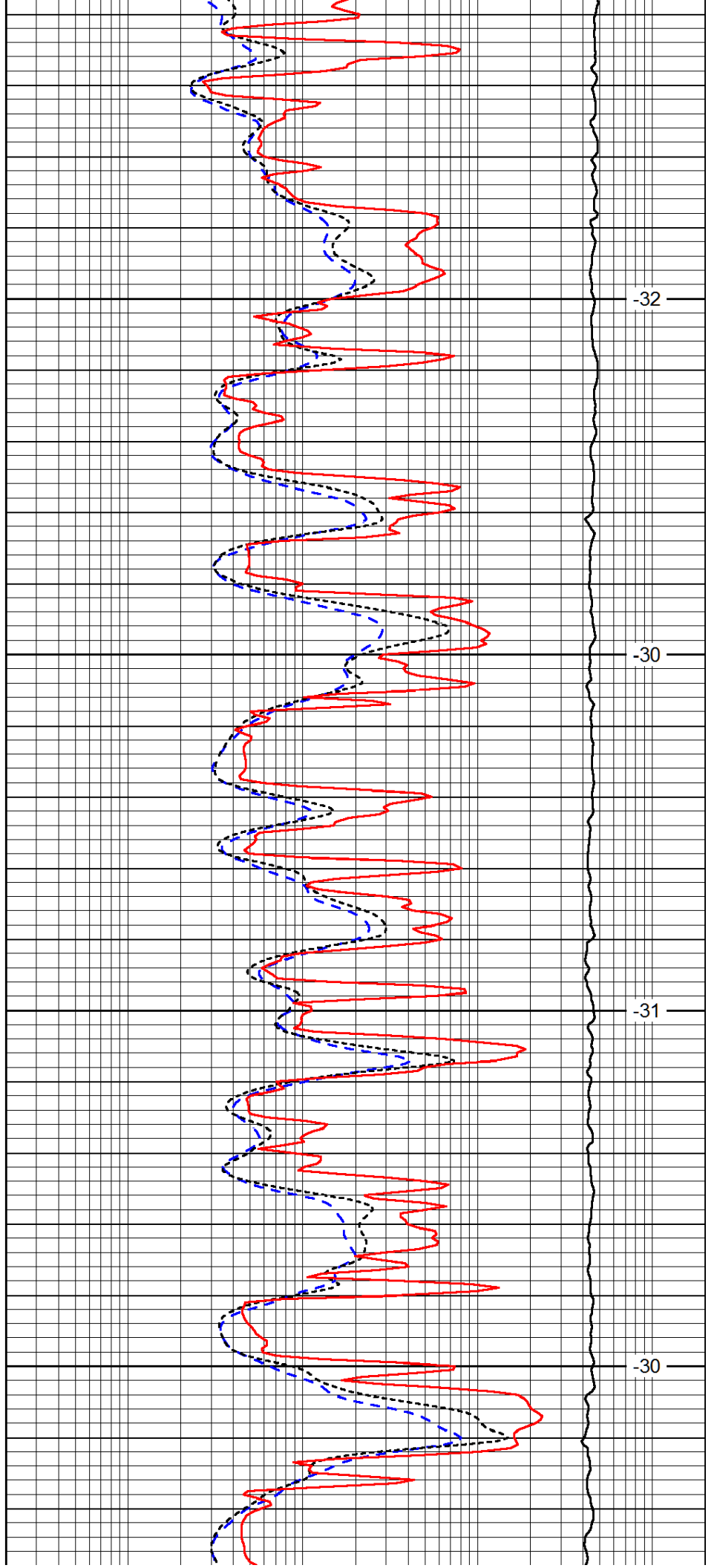


3600

3650

3700

3750

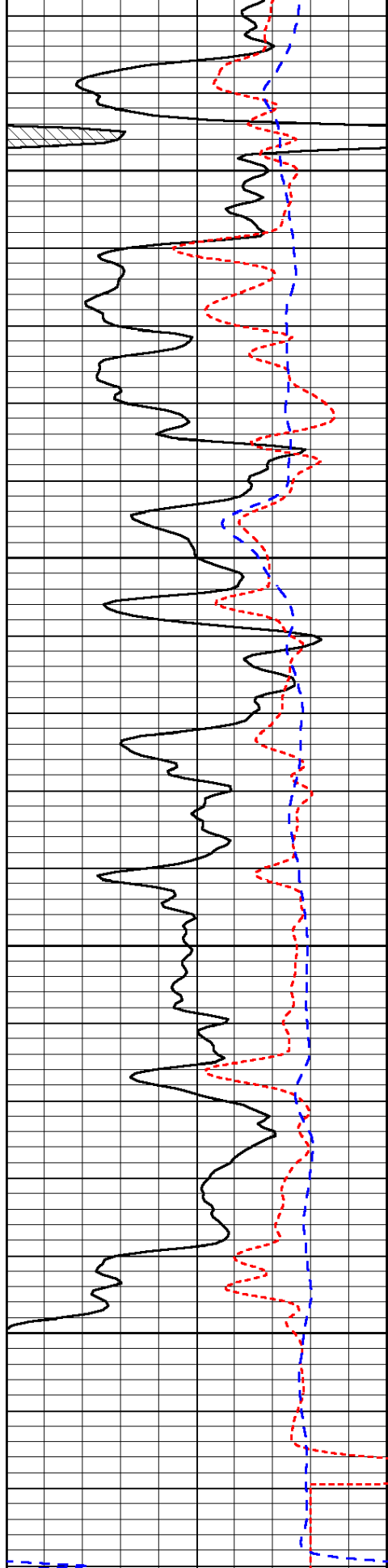


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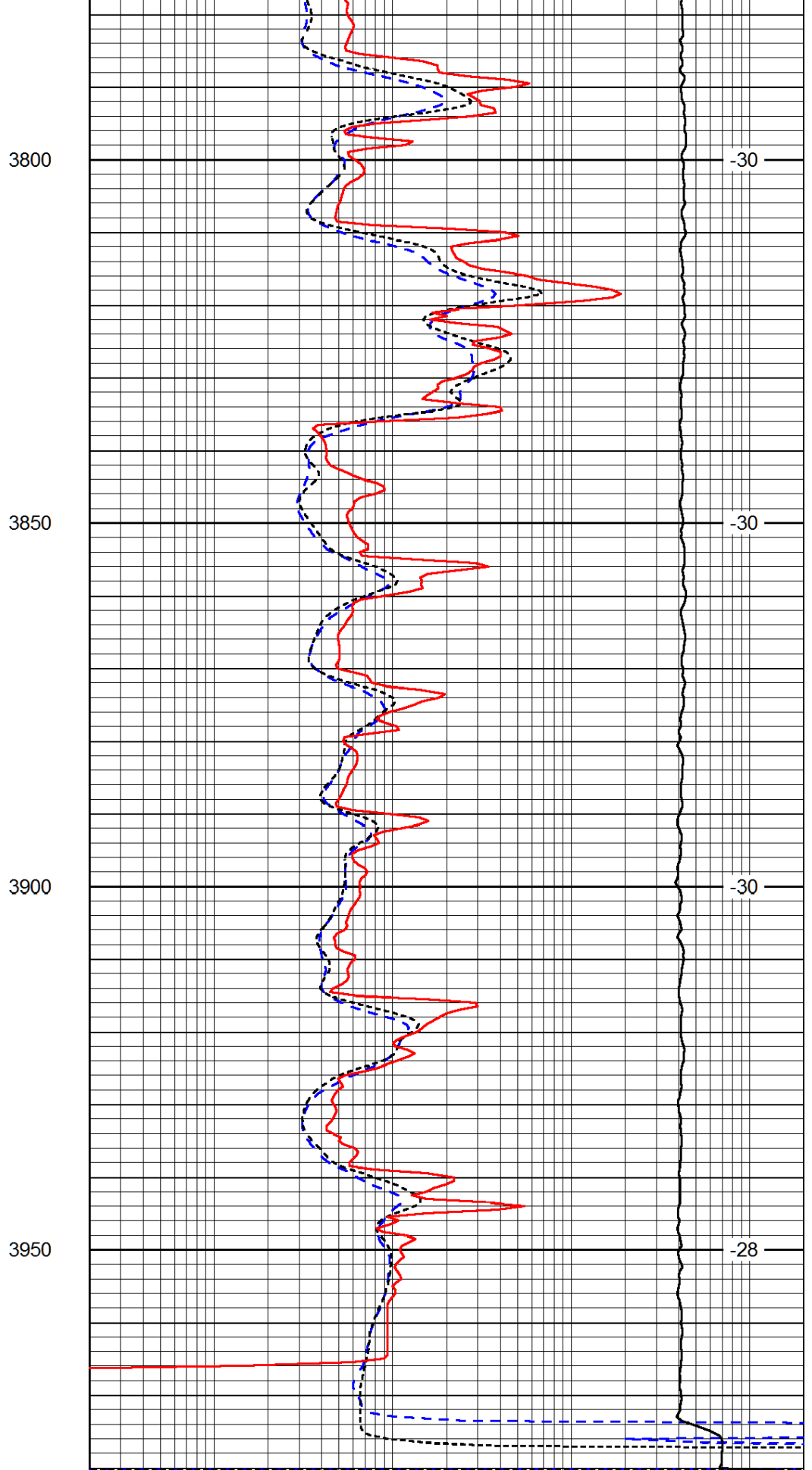
-30

-31

-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)