



Dual Induction Log

Pioneer Energy Services

API No.	Company H & C Oil Operating, Inc.			
	Well Delbert #19-1			
	Field Wildcat			
	County	Graham	State	Kansas
	Location	SE SW NW NW 1150' FNL / 475' FWL		
	Sec: 19	Twp: 10S	Rge: 25W	Other Services CNL / CDL MEL
Permanent Datum	Ground Level	Elevation 2536		Elevation
Log Measured From	Kelly Bushing	7 Ft. Above Perm. Datum		K.B. 2543
Drilling Measured From	Kelly Bushing			D.F. 2536
Date	8/6/2014			G.L. 2536
Run Number	One			
Depth Driller	4080			
Depth Logger	4080			
Bottom Logged Interval	4079			
Top Log Interval	250			
Casing Driller	8.625 @ 265			
Casing Logger	260			
Bit Size	7.875			
Type Fluid in Hole	Chemical			
Salinity, ppm CL	900			
Density / Viscosity	9.5 65			
pH / Fluid Loss	10.0 8.4			
Source of Sample	Flowline			
Rm @ Meas. Temp	0.55 @ 90			
Rmf @ Meas. Temp	0.41 @ 90			
Rmc @ Meas. Temp	0.74 @ 90			
Source of Rmf / Rmc	Charts			
Rm @ BHT	0.42 @ 117			
Operating Rig Time	4 Hours			
Max Rec. Temp. F	117			
Equipment Number	91			
Location	Hays			
Recorded By	R. Barnhart			
Witnessed By	Anthony Luna			

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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

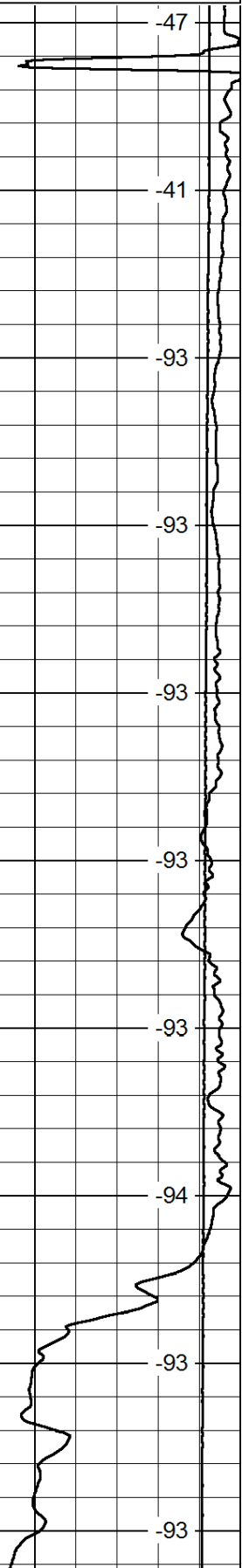
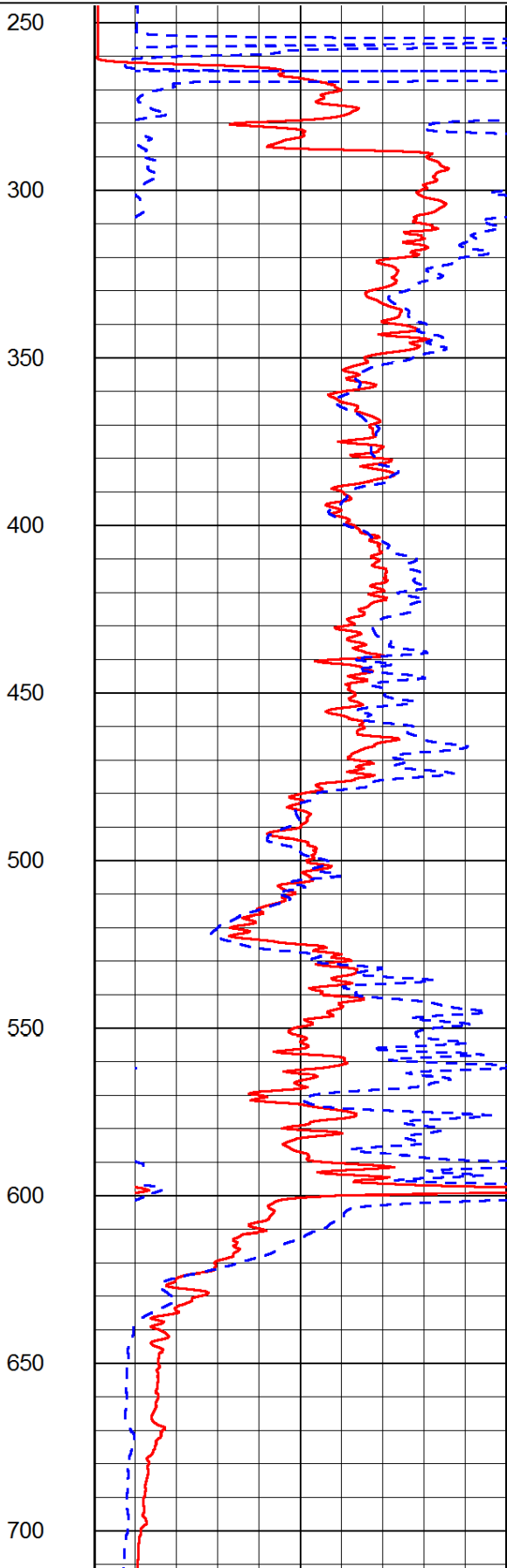
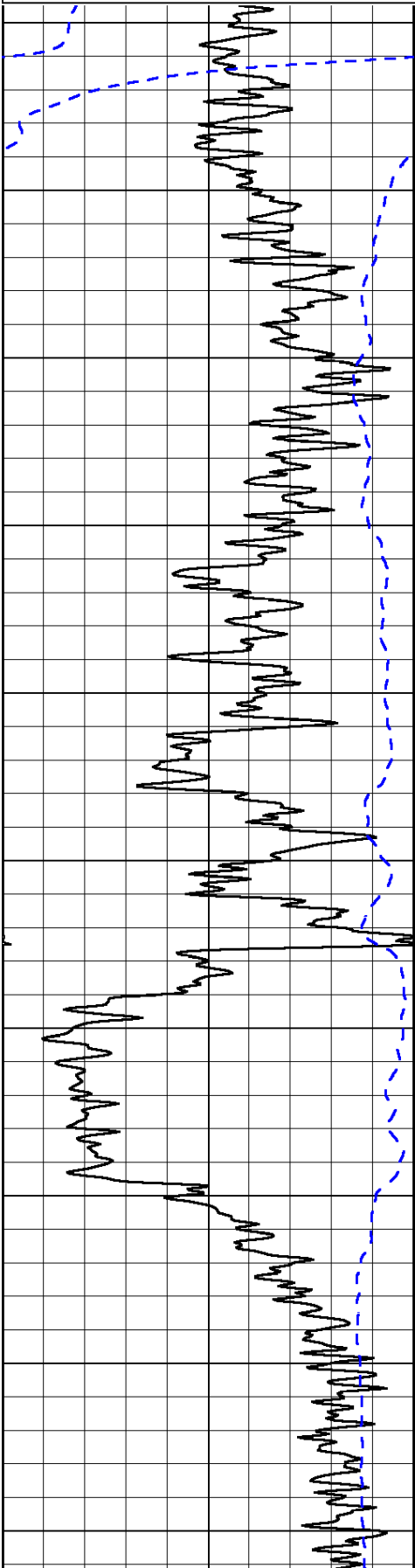
Collyer, KS:
Collyer Exit: N to Old 40, 5W to 78 Rd., 8N to 130 Rd., 1E, S into

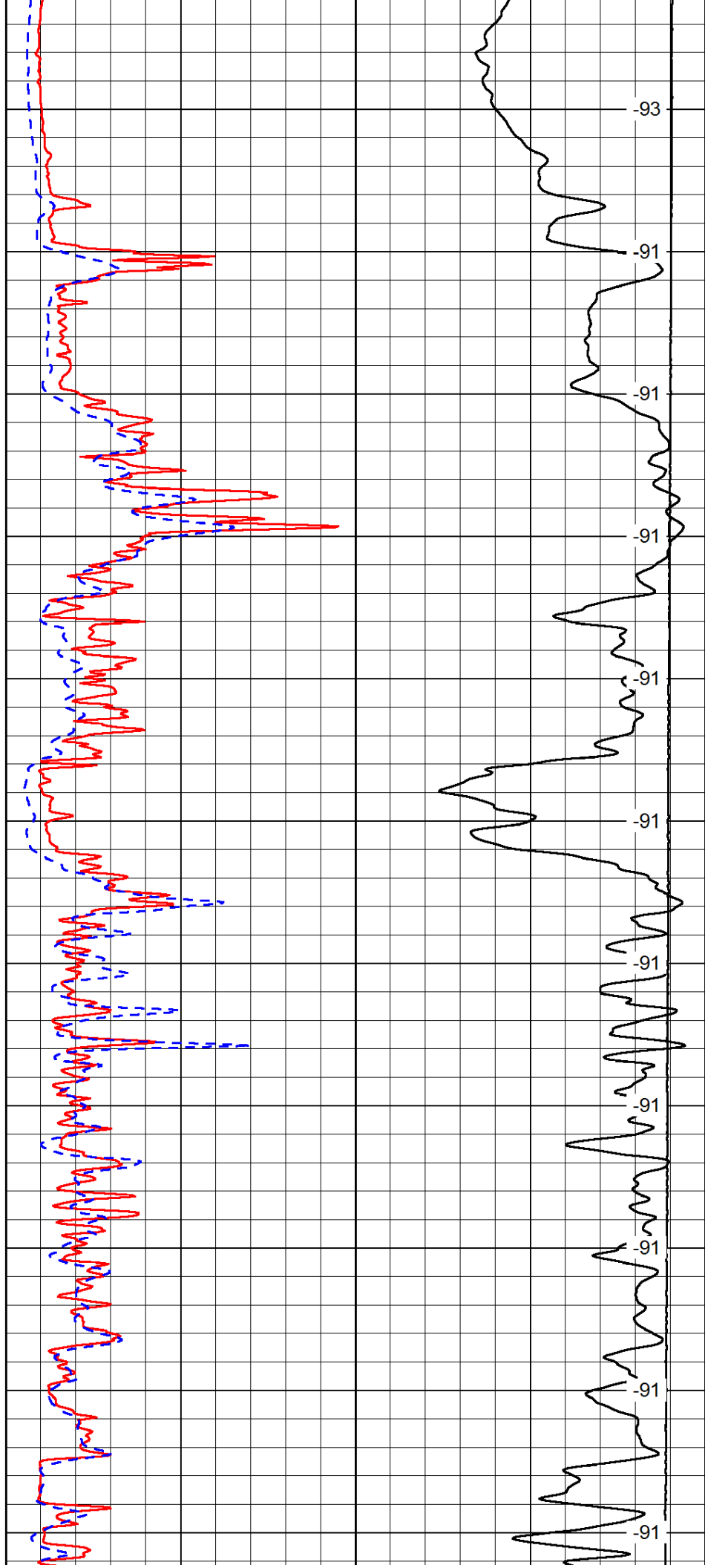
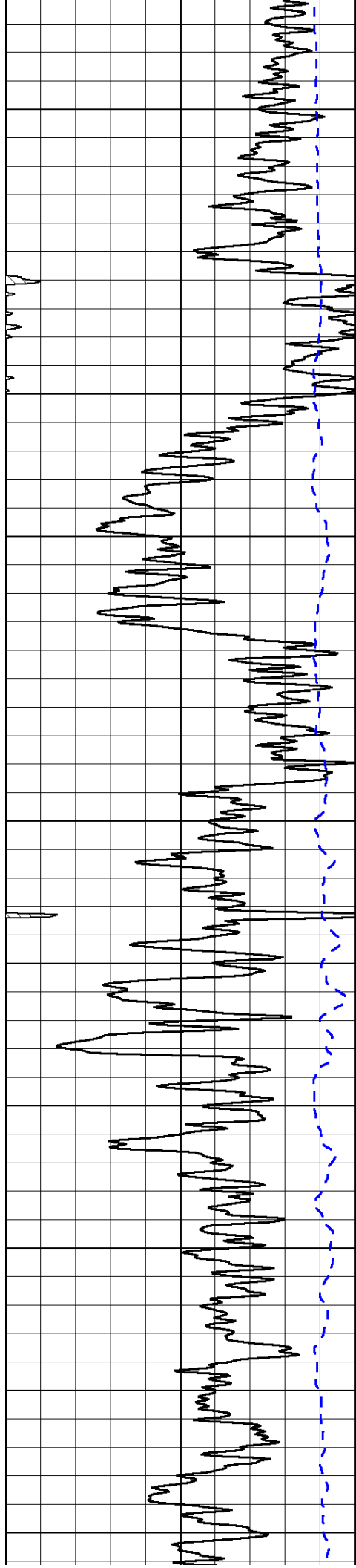
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Presentation Format: dil2in
Dataset Creation: Wed Aug 06 21:08:29 2014
Charted by: Depth in Feet scaled 1:600

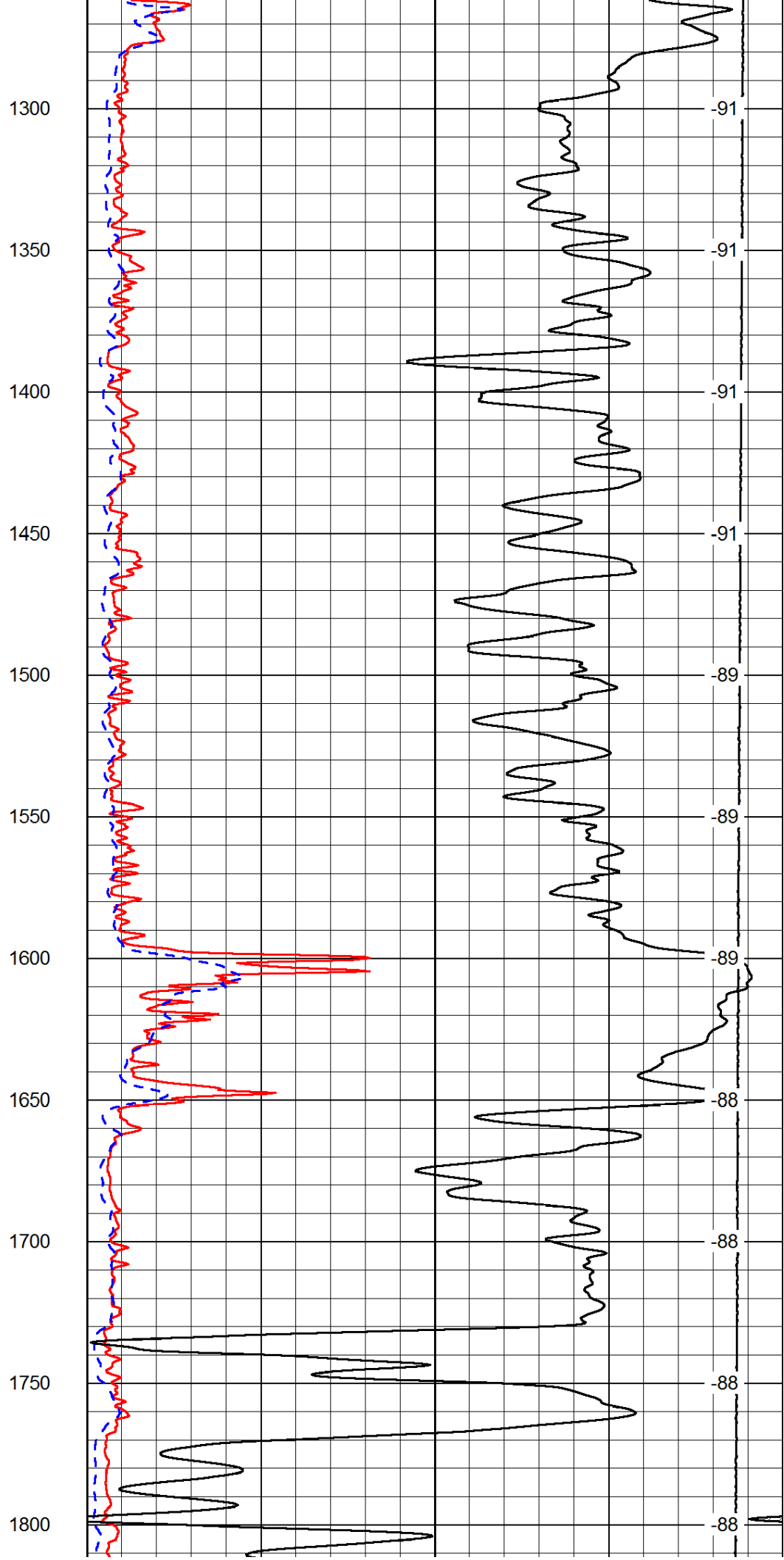
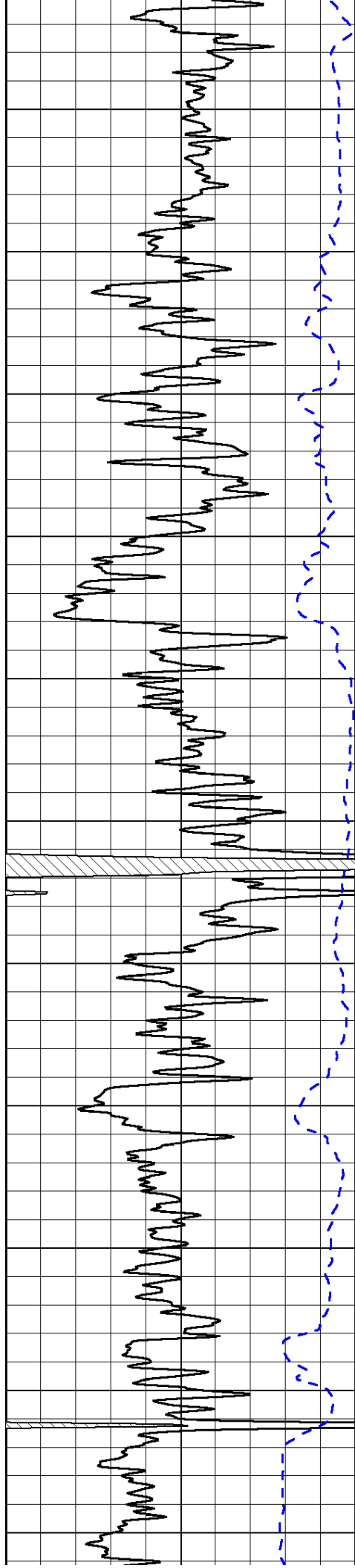
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-200	SP (mV)	0

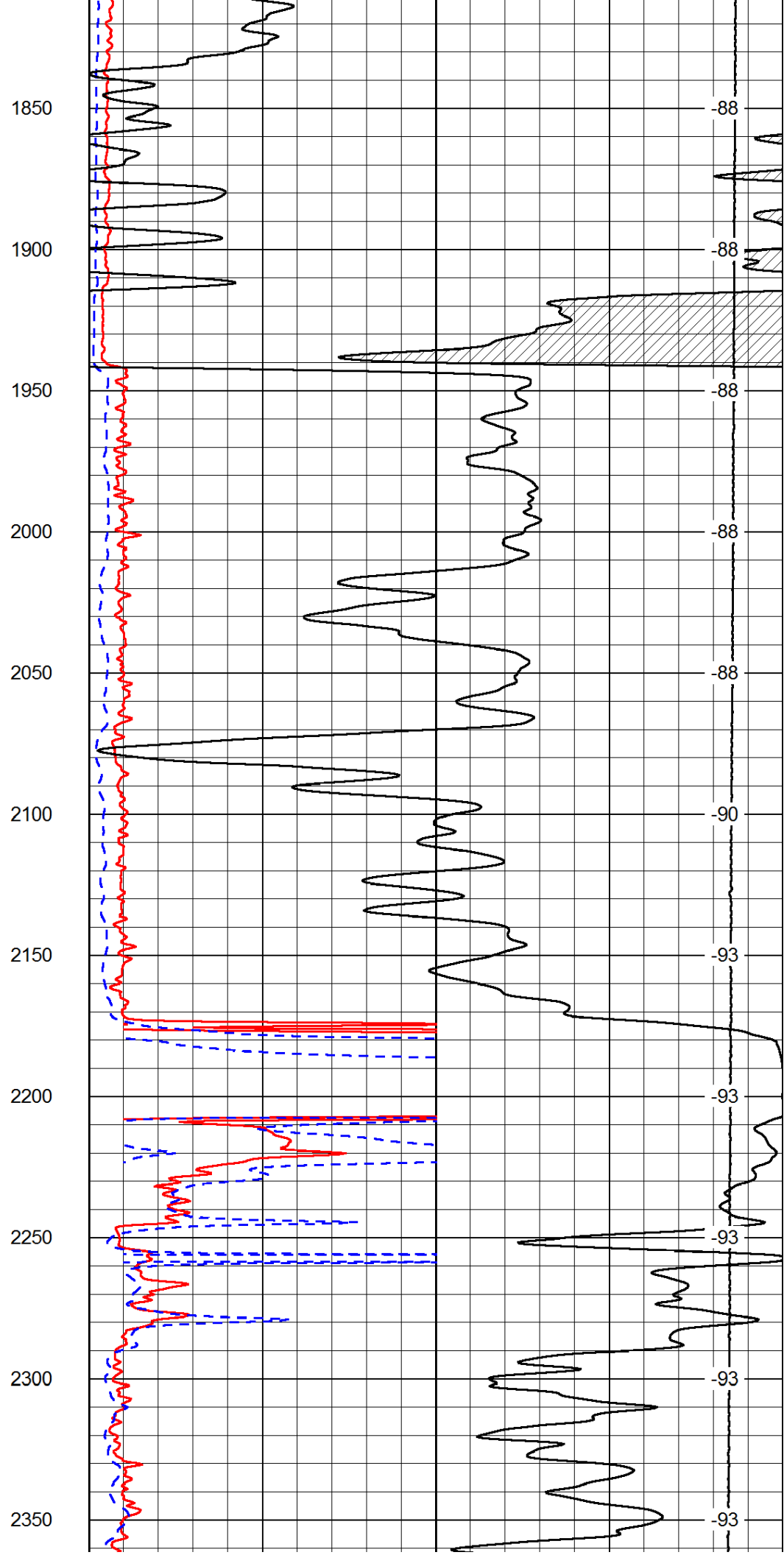
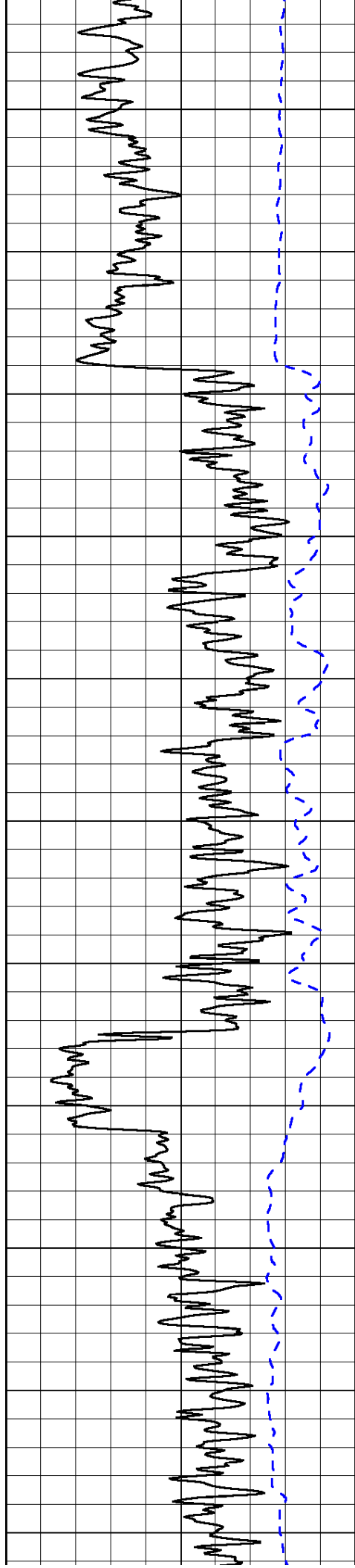
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

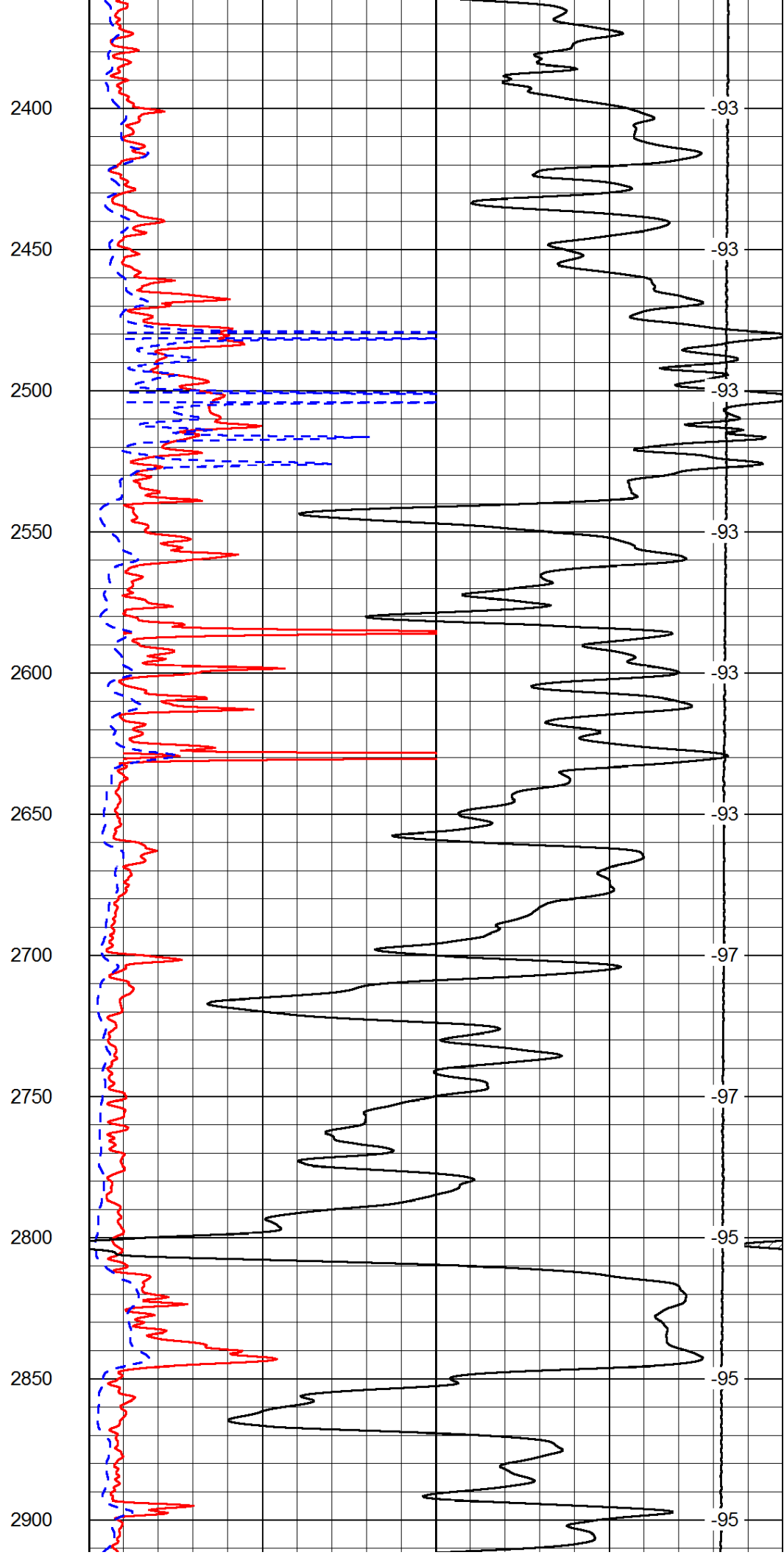
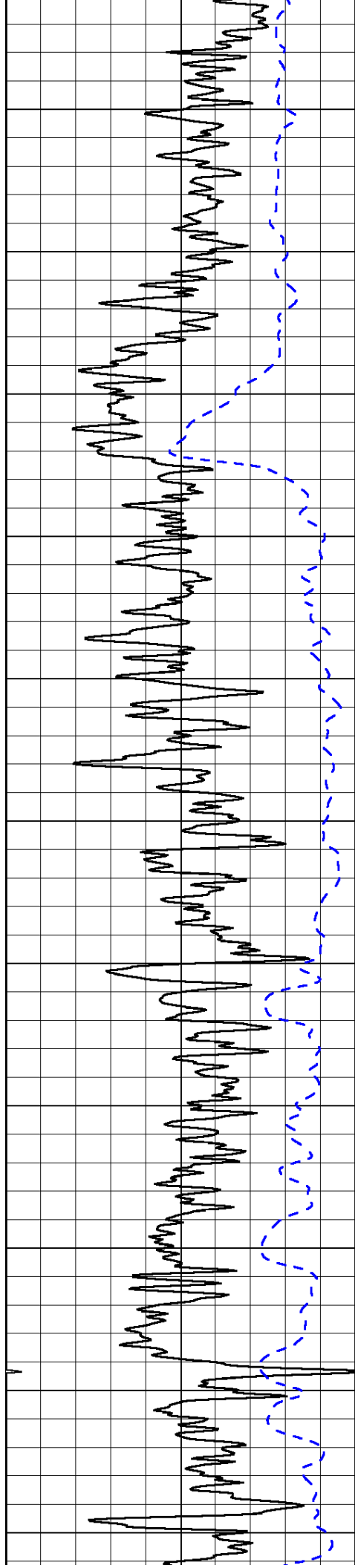
LSPD
0
0

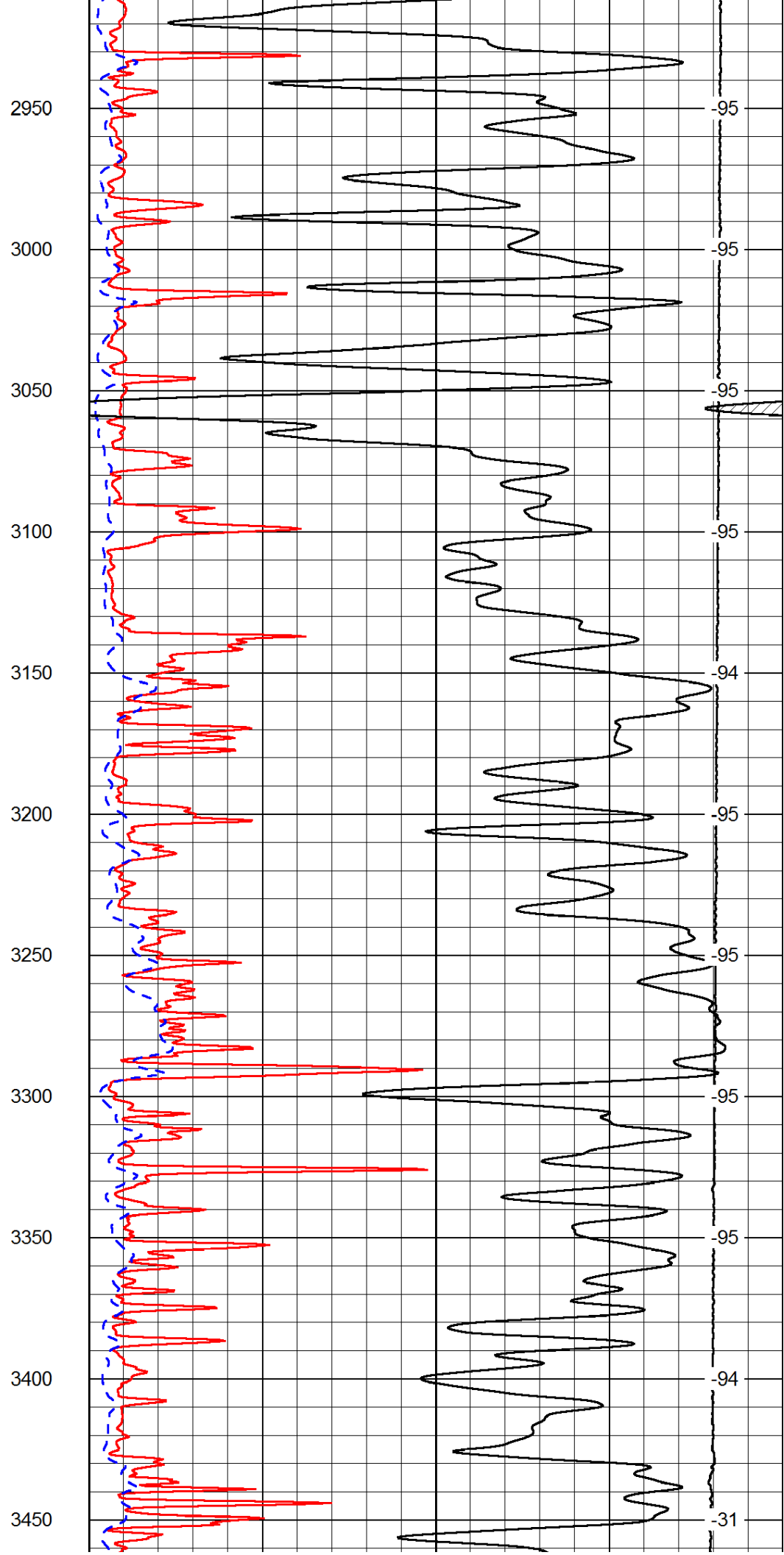
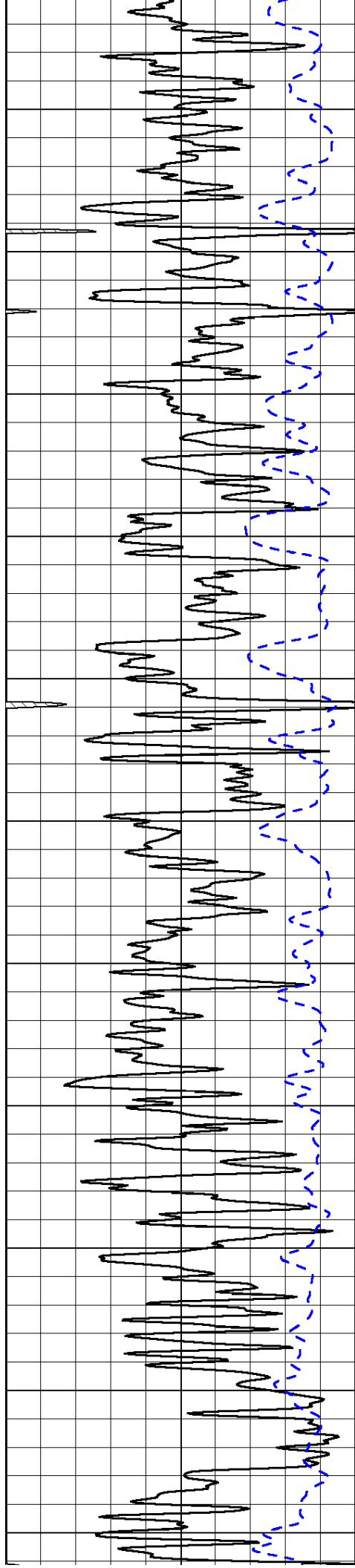


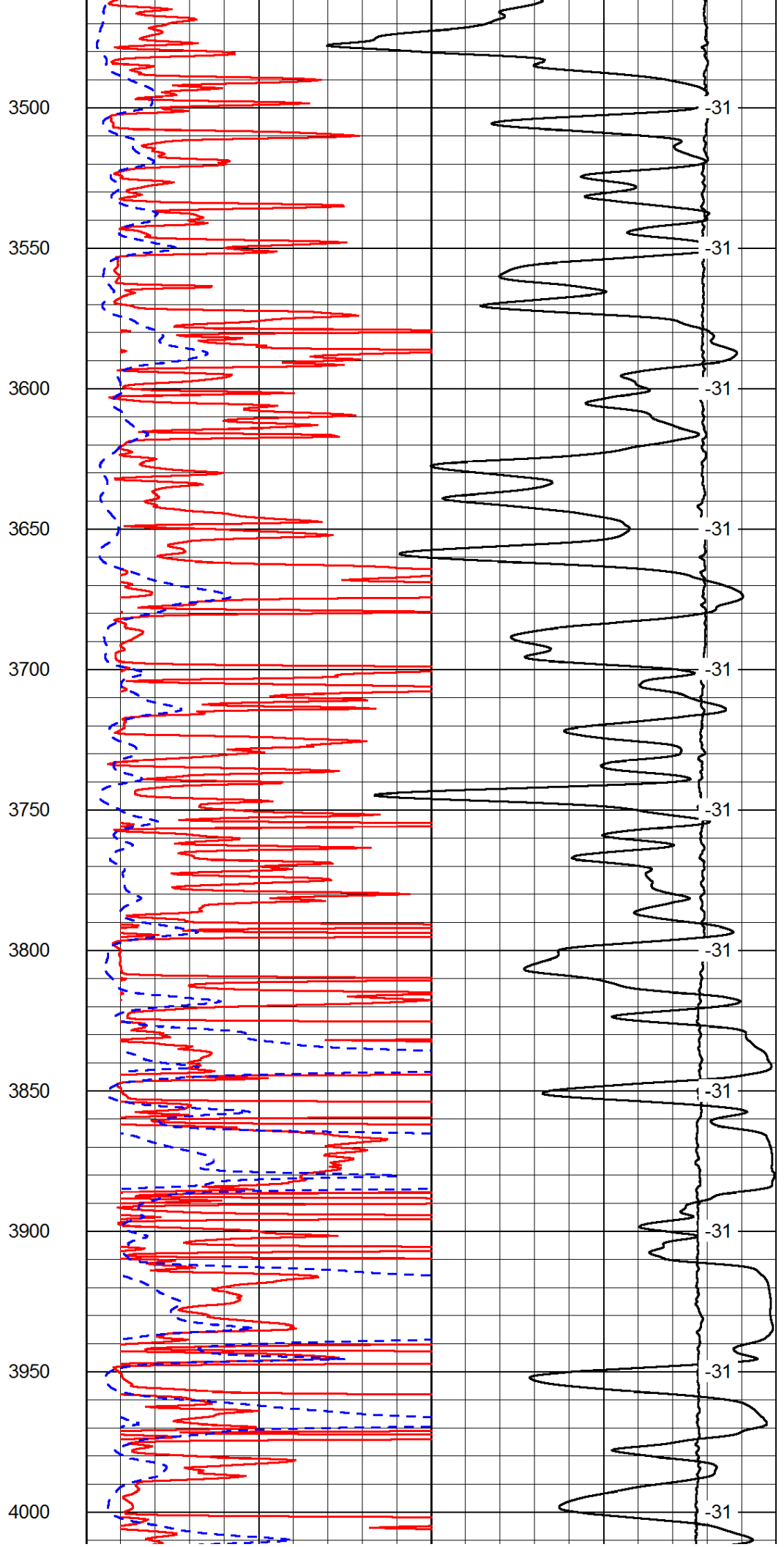
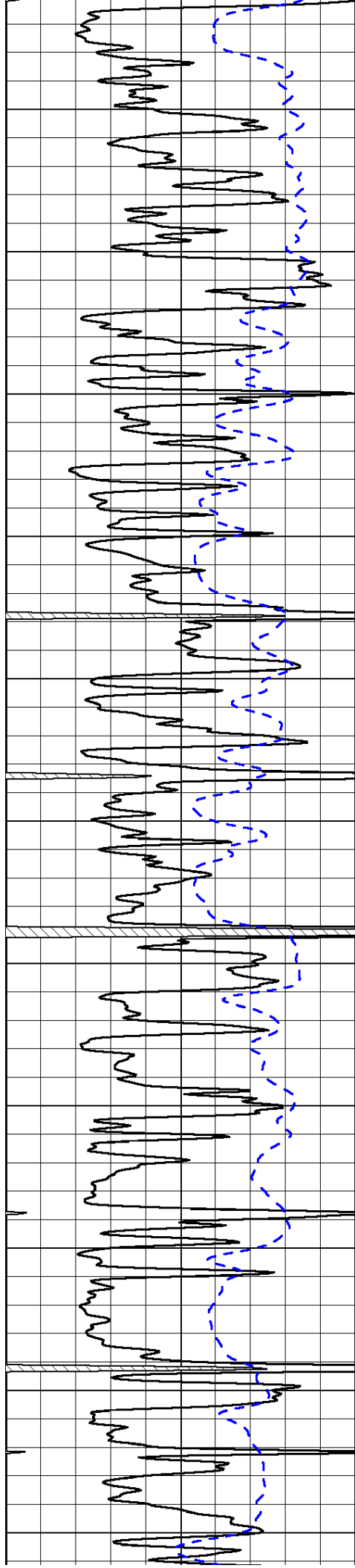


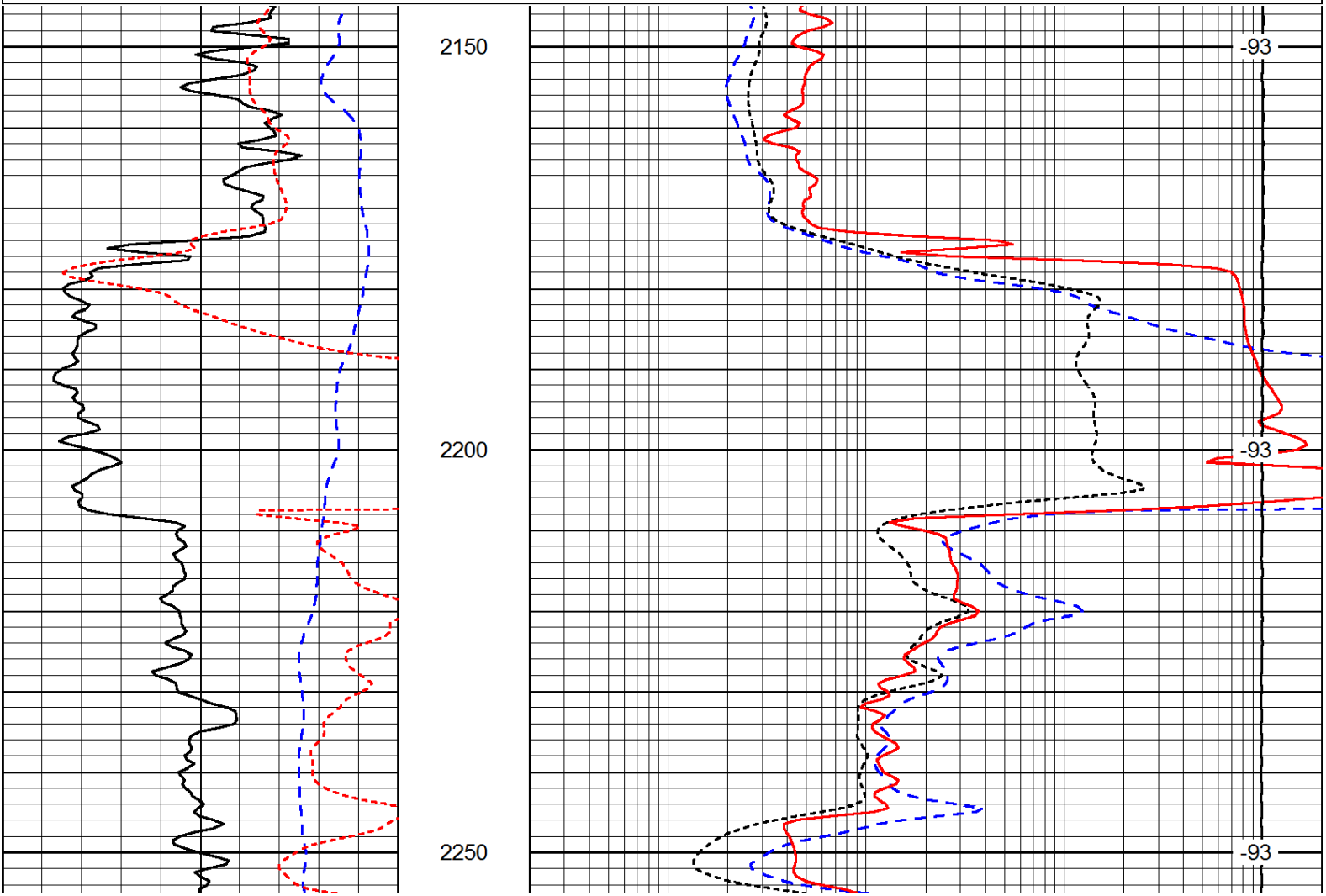
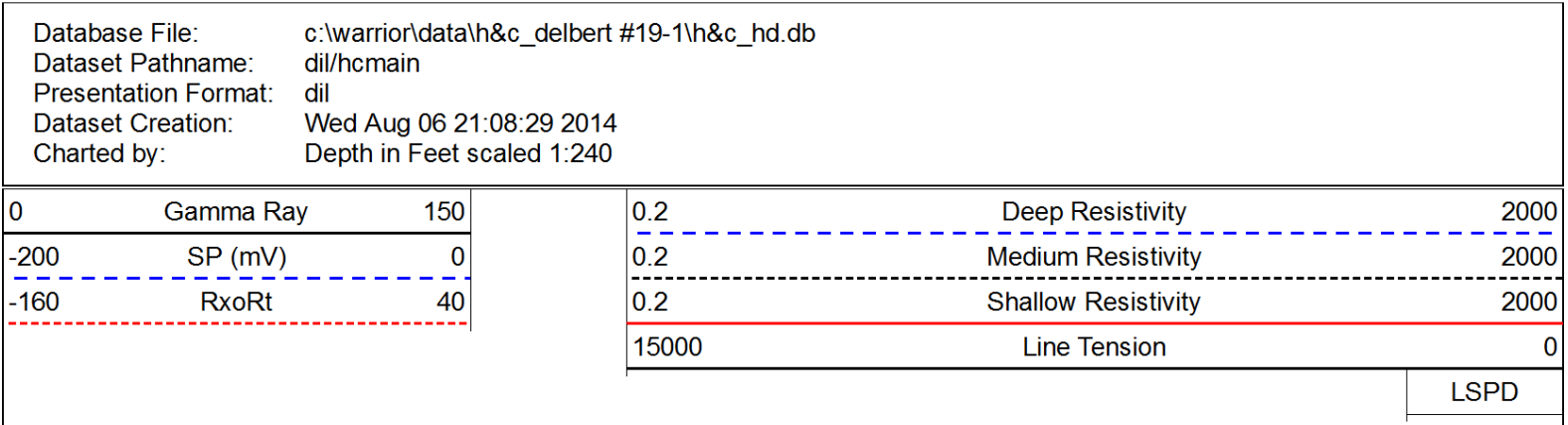
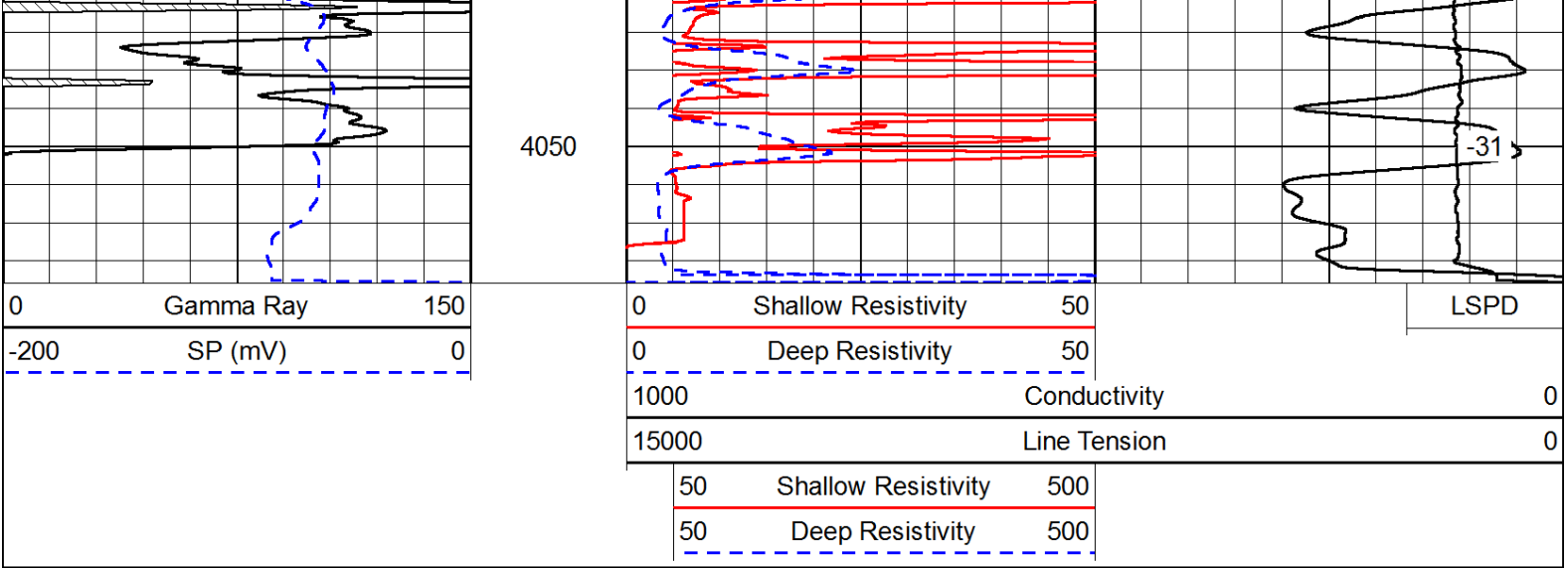












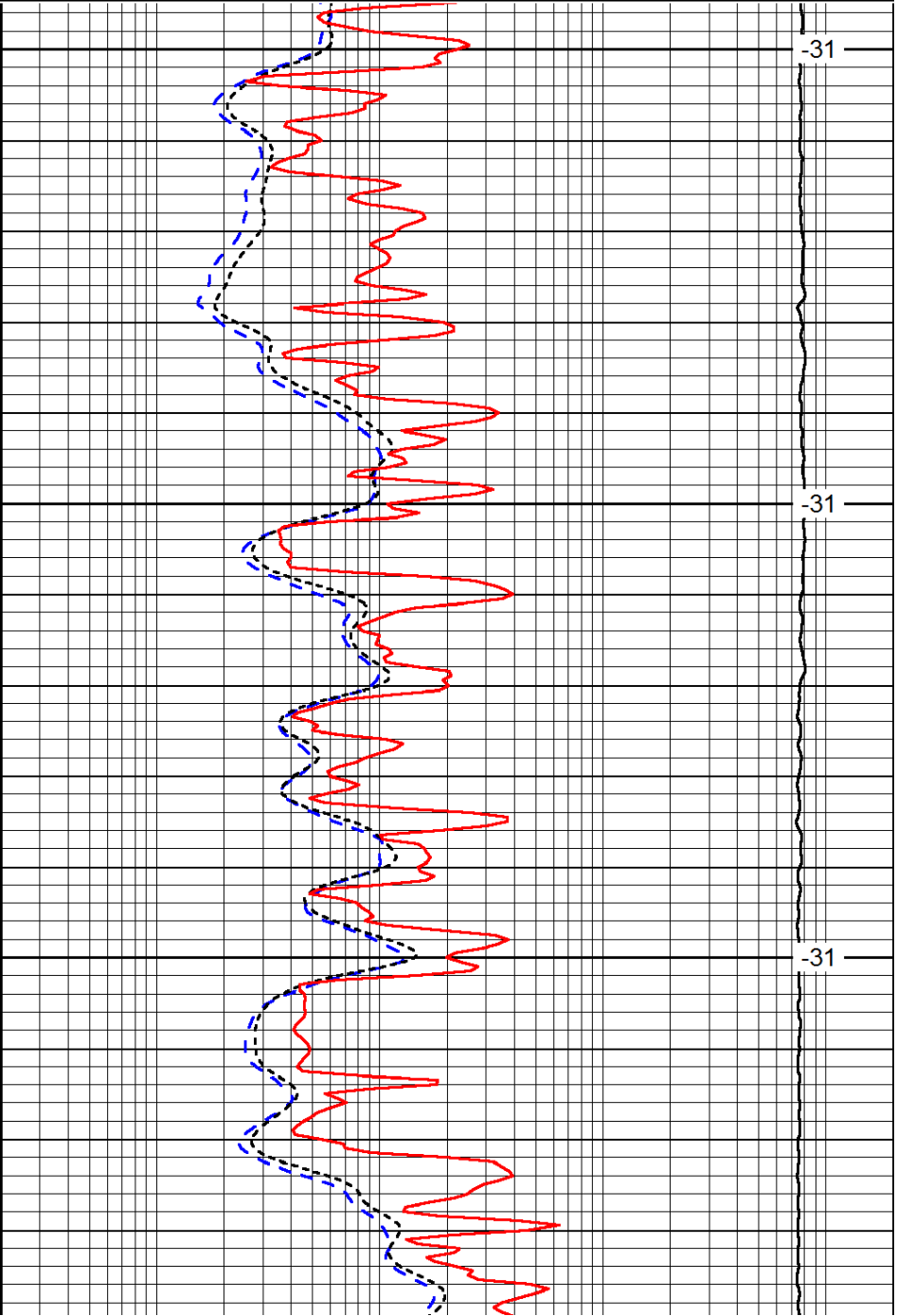
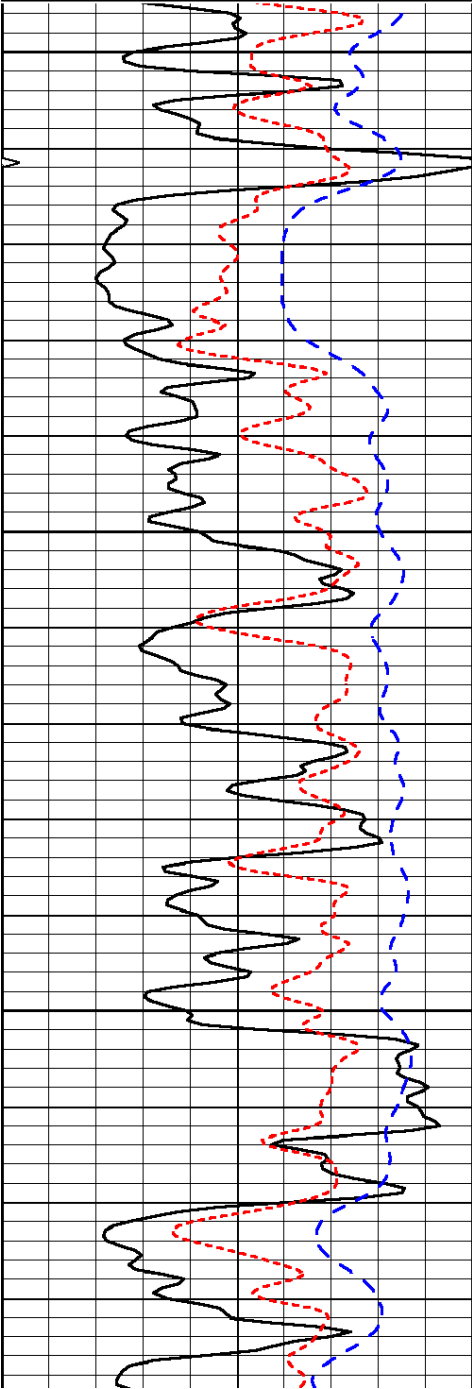
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-200	SP (mV)	0
-160	RxoRt	40

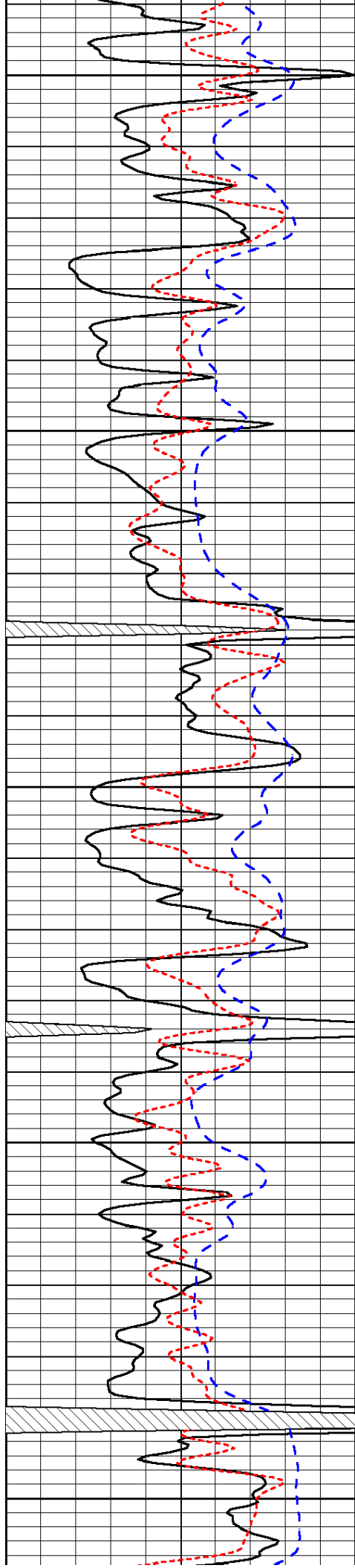
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD

Database File:	c:\warrior\data\h&c_delbert #19-1\h&c_hd.db
Dataset Pathname:	dil/hcmain
Presentation Format:	dil
Dataset Creation:	Wed Aug 06 21:08:29 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





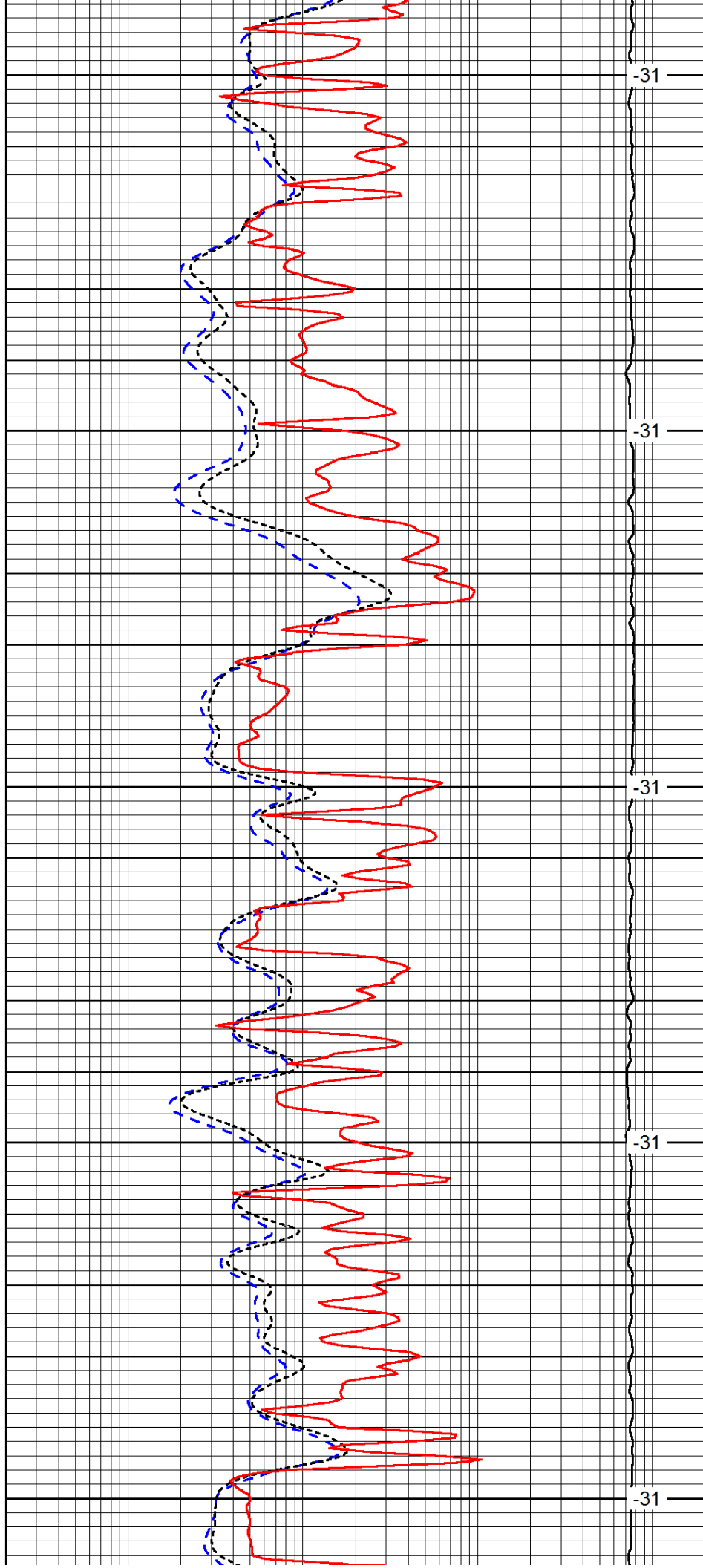
3600

3650

3700

3750

3800



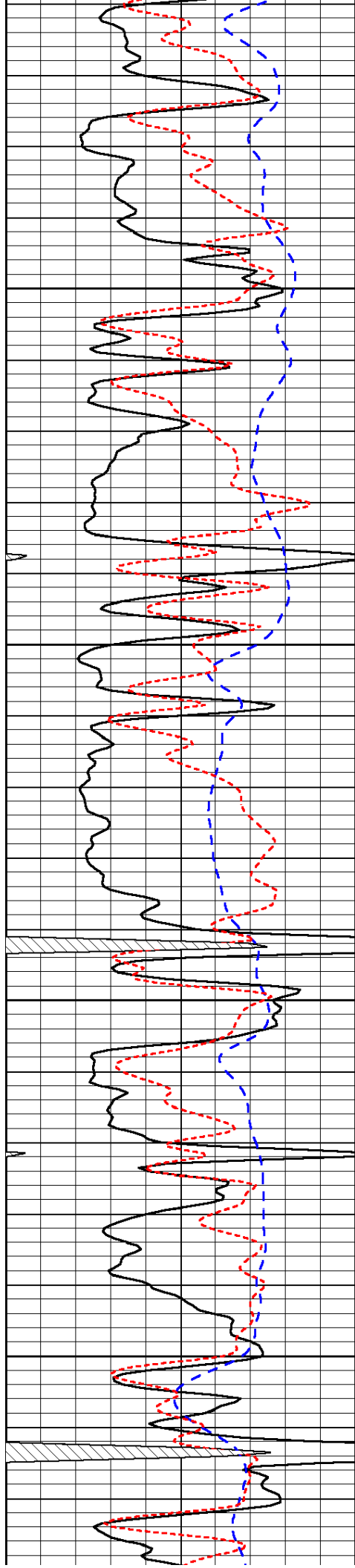
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-31

-31

-31

-31

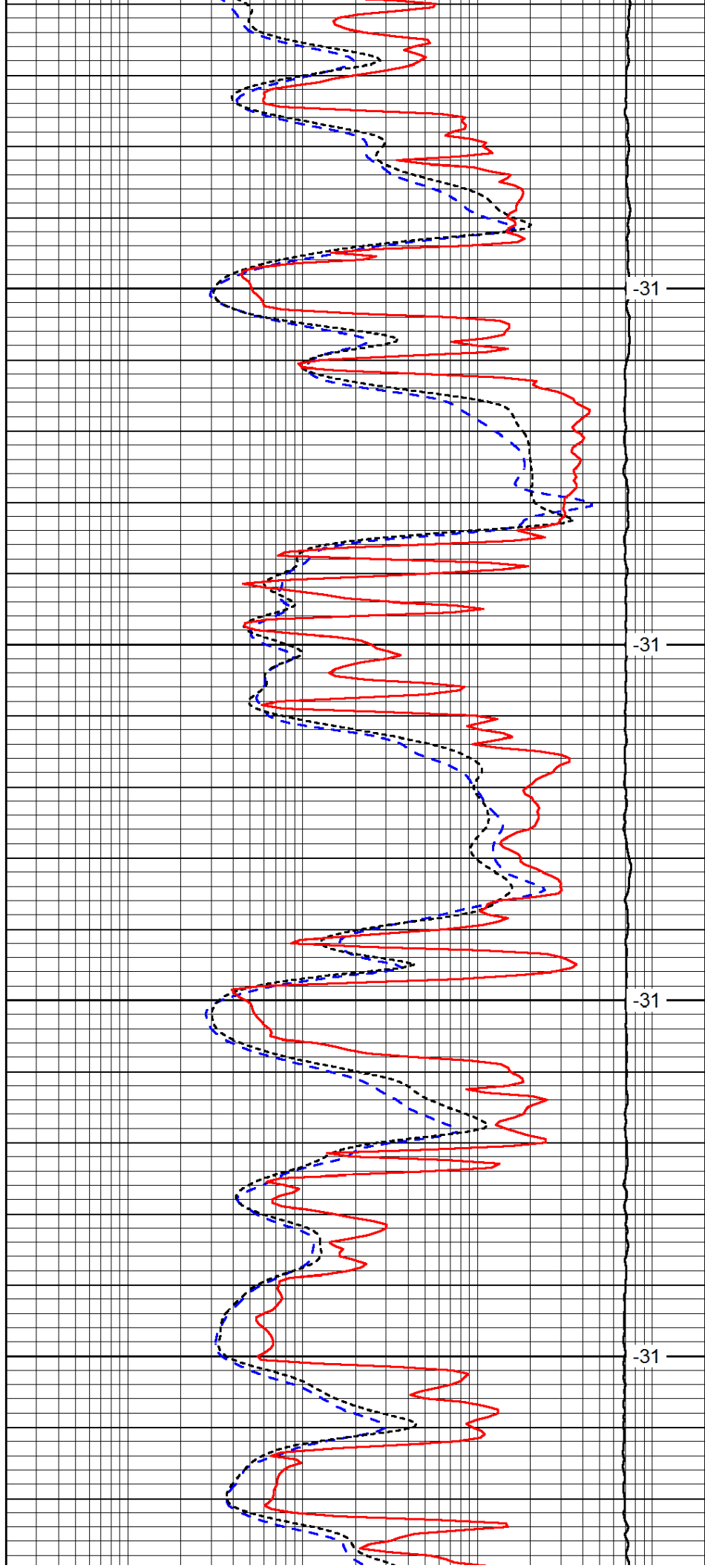


3850

3900

3950

4000

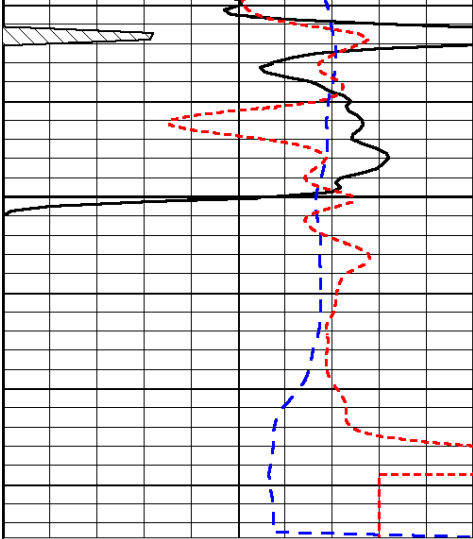


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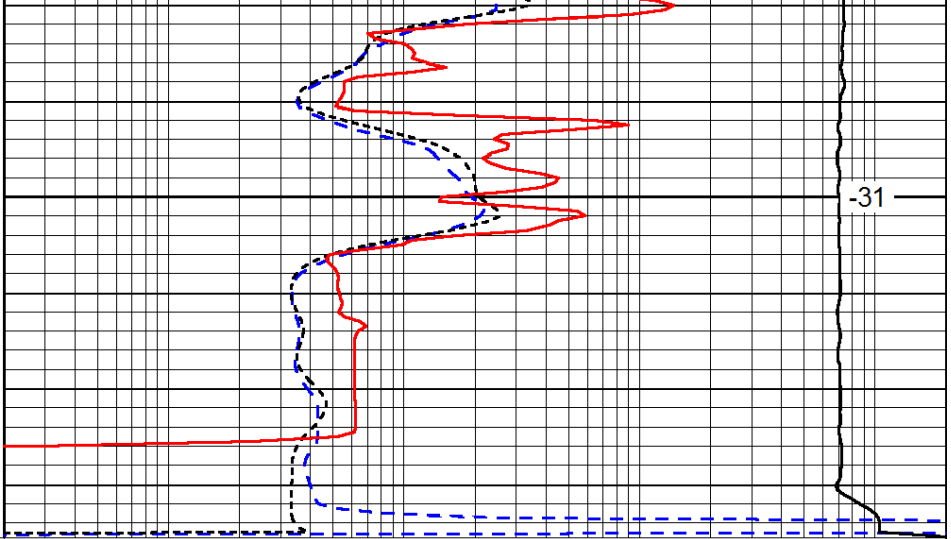
-31

-31



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

4050



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

LSPD