



Dual Induction Log

Pioneer Energy Services

API No.

15-167-23962-00-00

Company **RJM Company**

Well **Grasmick # 1**

Field **Trapp**

County **Russell** State **Kansas**

Location **330' FNL & 1250' FEL**

Sec: **34** Twp: **15 S** Rge: **13 W**

Other Services
CNL/CDL
MEI/BHCS

Permanent Datum **Ground Level** Elevation **1862**

Log Measured From **Kelly Bushing** 8 Ft. Above Perm. Datum

Elevation
K.B. 1870
D.F. 1862
G.L. 1862

Date **04-22-2014**

Run Number **One**

Depth Driller **3325**

Depth Logger **3320**

Bottom Logged Interval **3319**

Top Log Interval **350**

Casing Driller **8.625 @ 389**

Casing Logger **388**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity,ppm CL **9000**

Density / Viscosity **9.2 @ 48**

pH / Fluid Loss **9.5 @ 8.8**

Source of Sample **Flowline**

Rm @ Meas. Temp **1.40 @ 65**

Rmf @ Meas. Temp **1.05 @ 65**

Rmc @ Meas. Temp **1.89 @ 65**

Source of Rmf / Rmc **Charts**

Rm @ BHT **0.83 @ 109**

Operating Rig Time **4 1/2 Hours**

Max Rec. Temp. F **109**

Equipment Number **17**

Location **Hays**

Recorded By **Y. Ruiz**

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

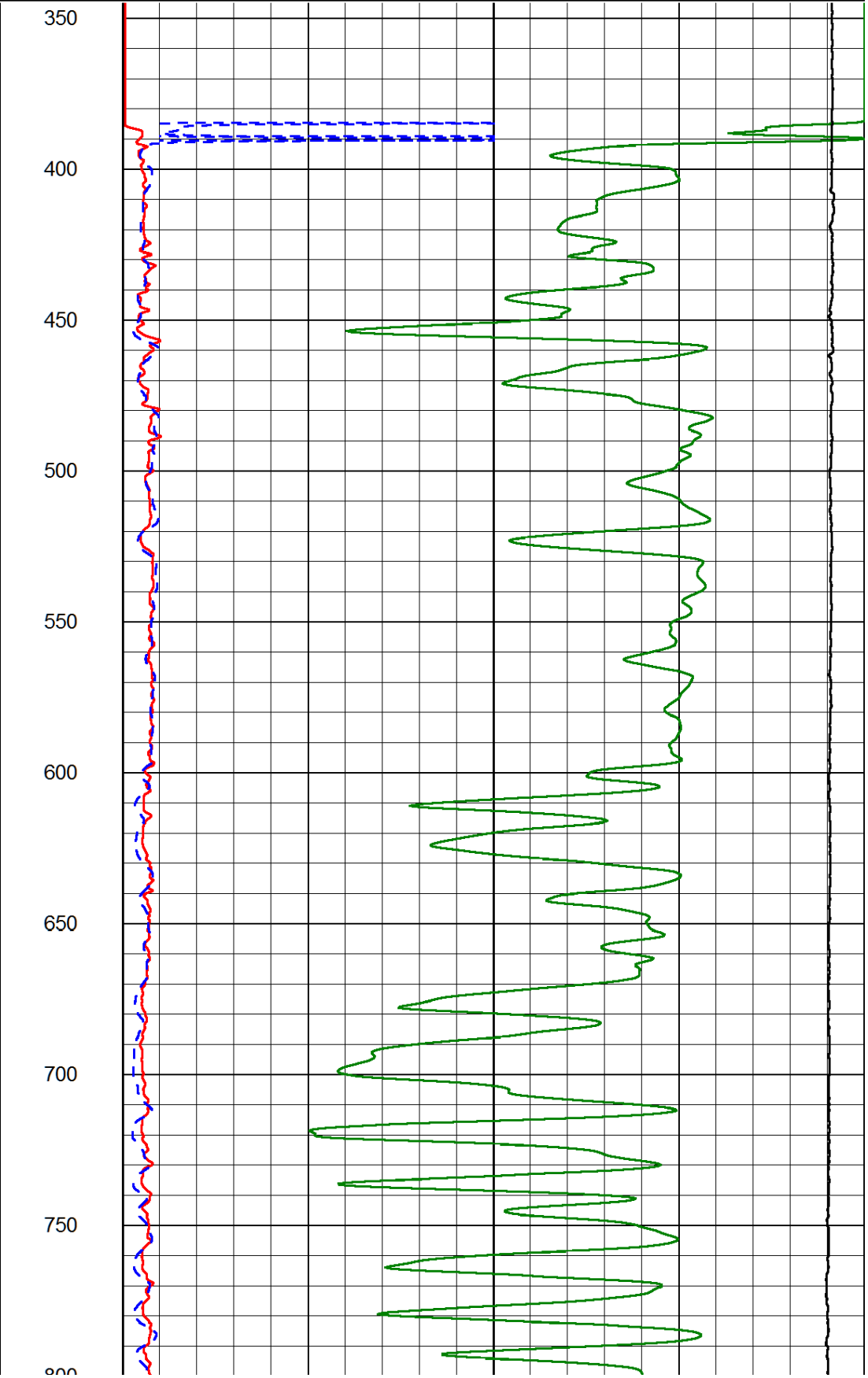
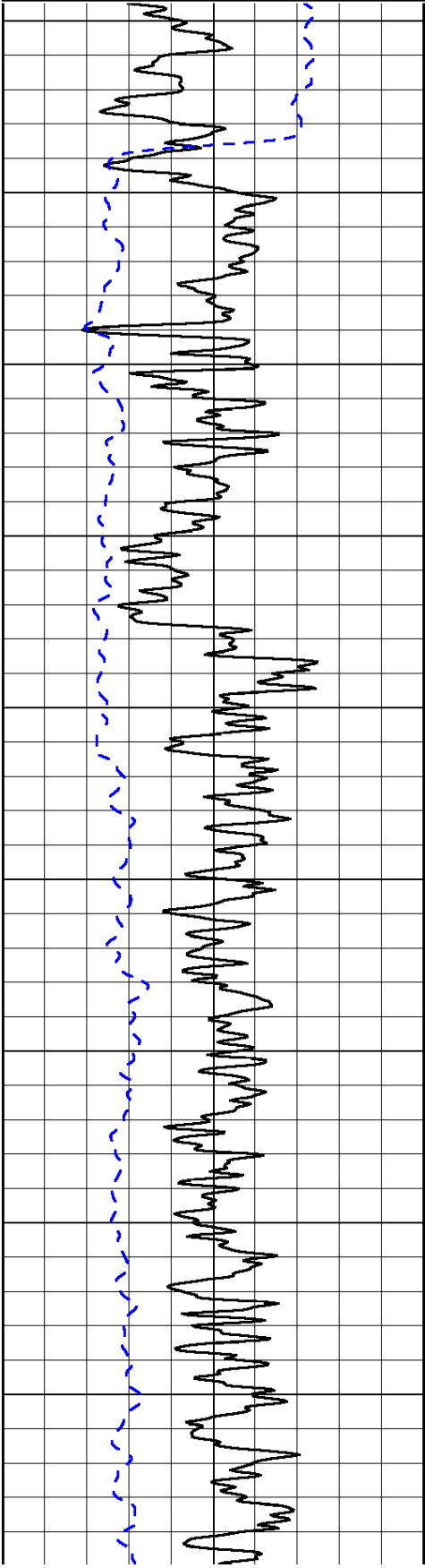
Thank you for using Log-Tech, Inc.
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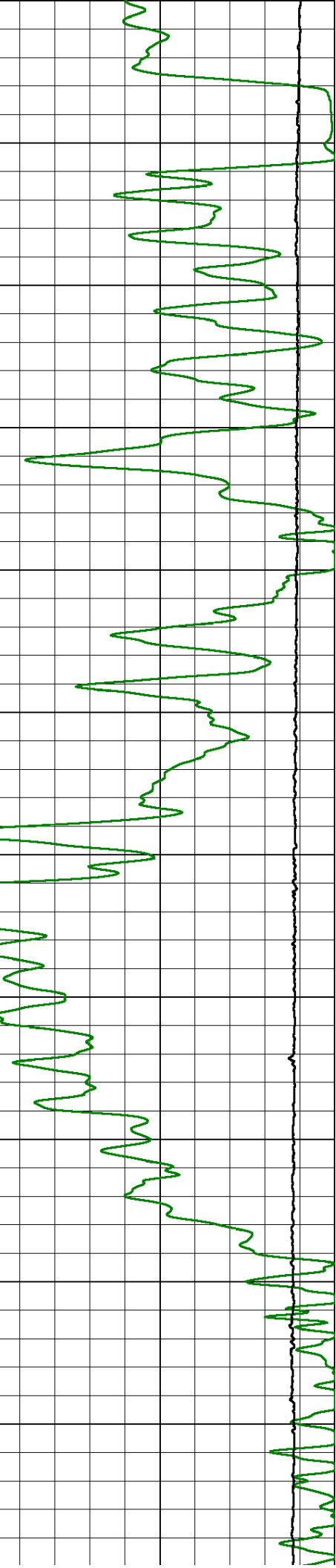
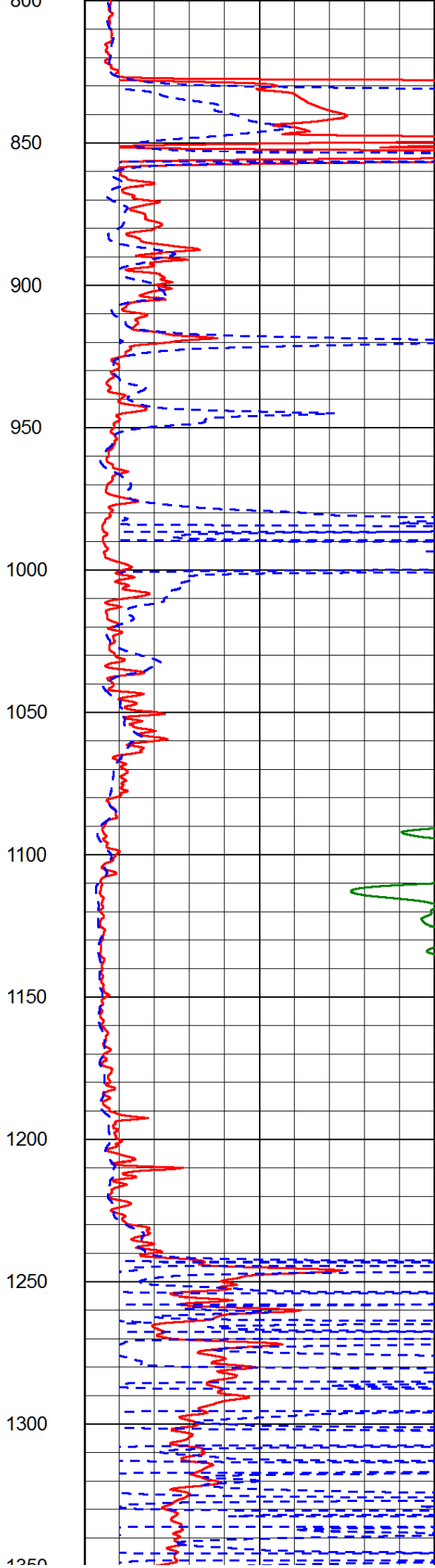
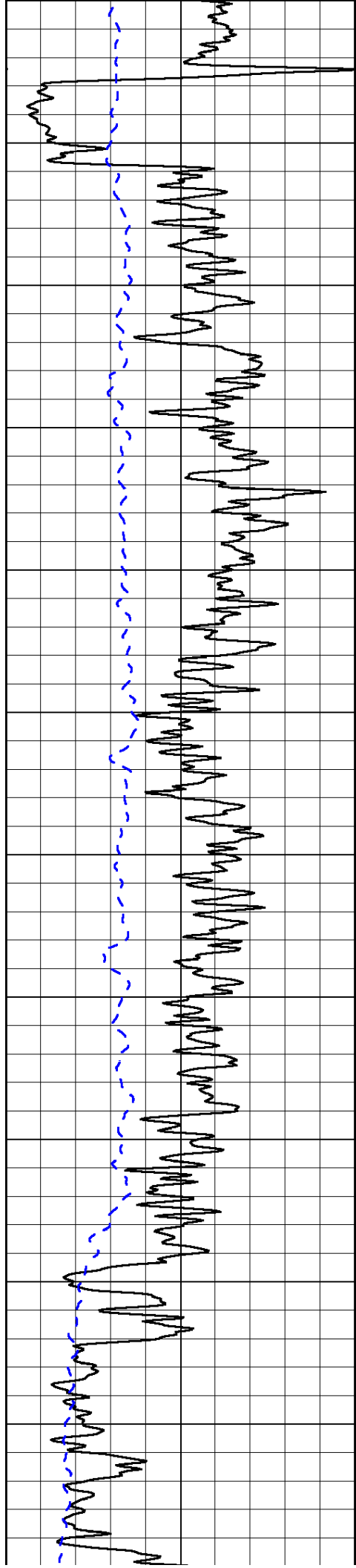
Susank,
North to 230 Rd, 1/2 East, 1 North, 3/4 East,
South into

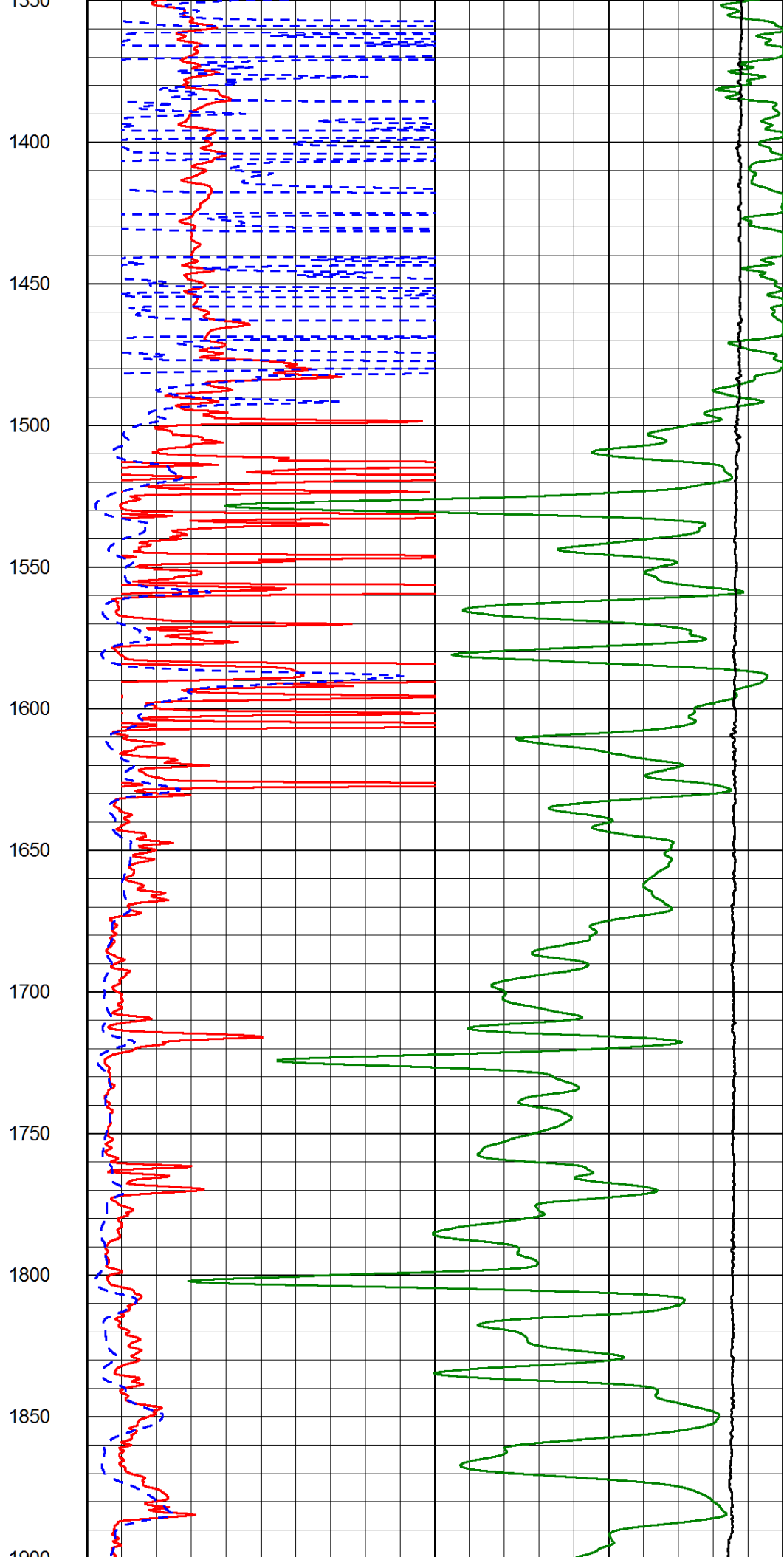
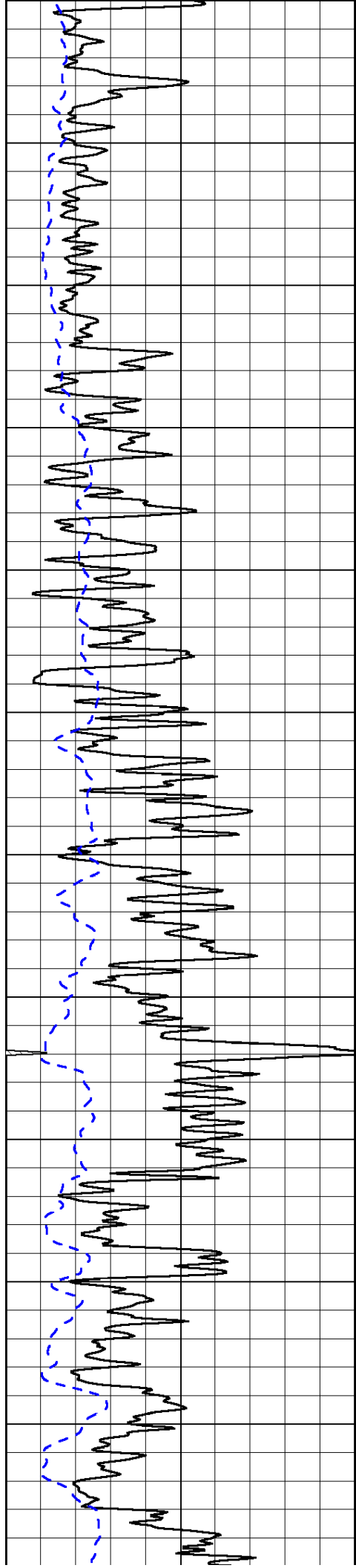
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Dataset Pathname: DIL/rjmstk
Presentation Format: dil2in
Dataset Creation: Tue Apr 22 23:56:10 2014
Charted by: Depth in Feet scaled 1:600

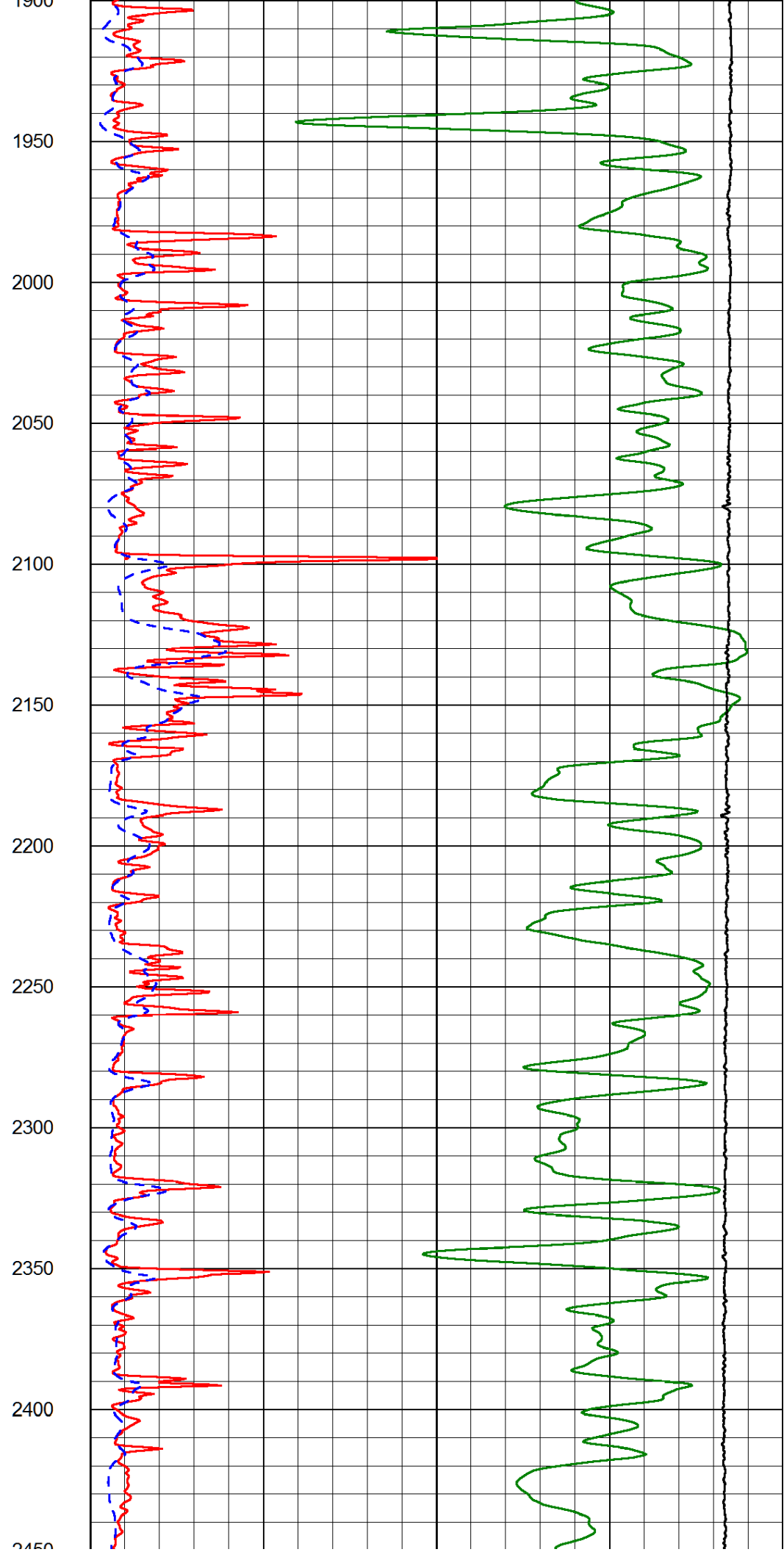
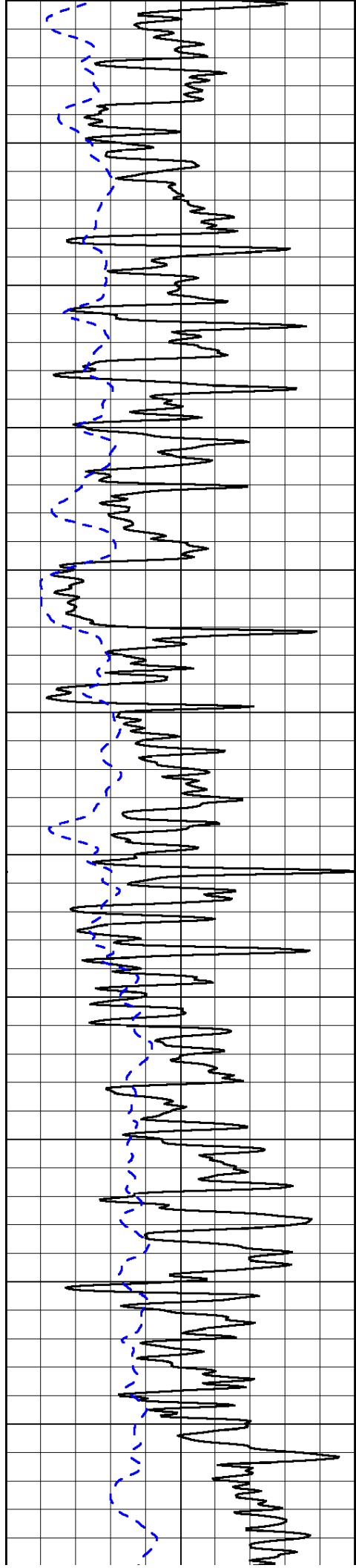
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

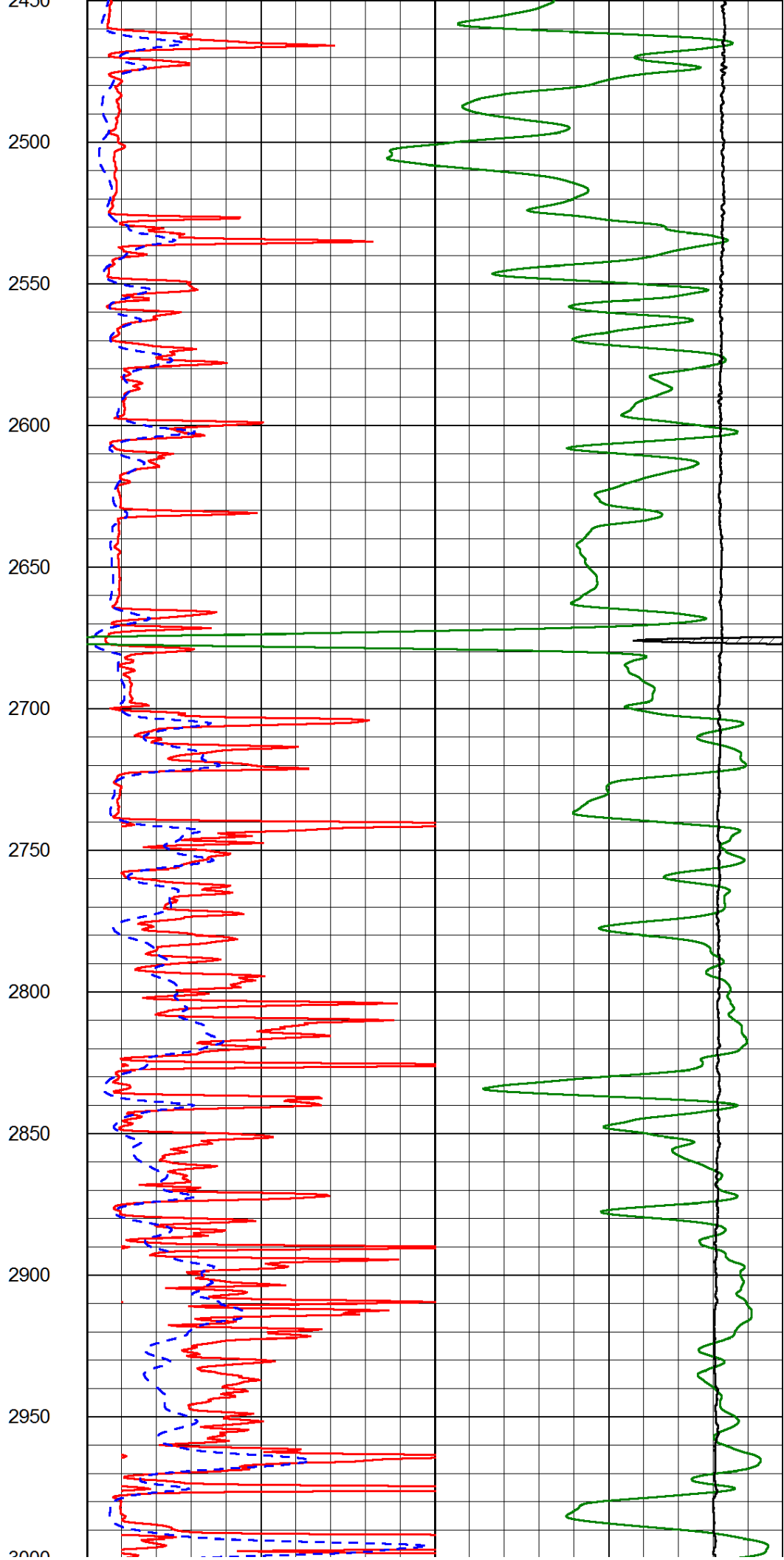
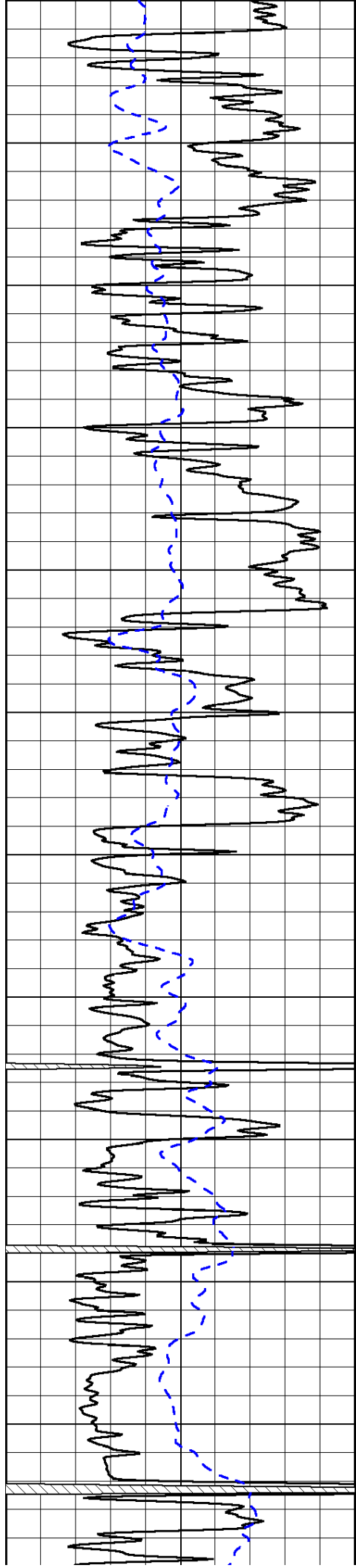
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
50	Shallow Resistivity (Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

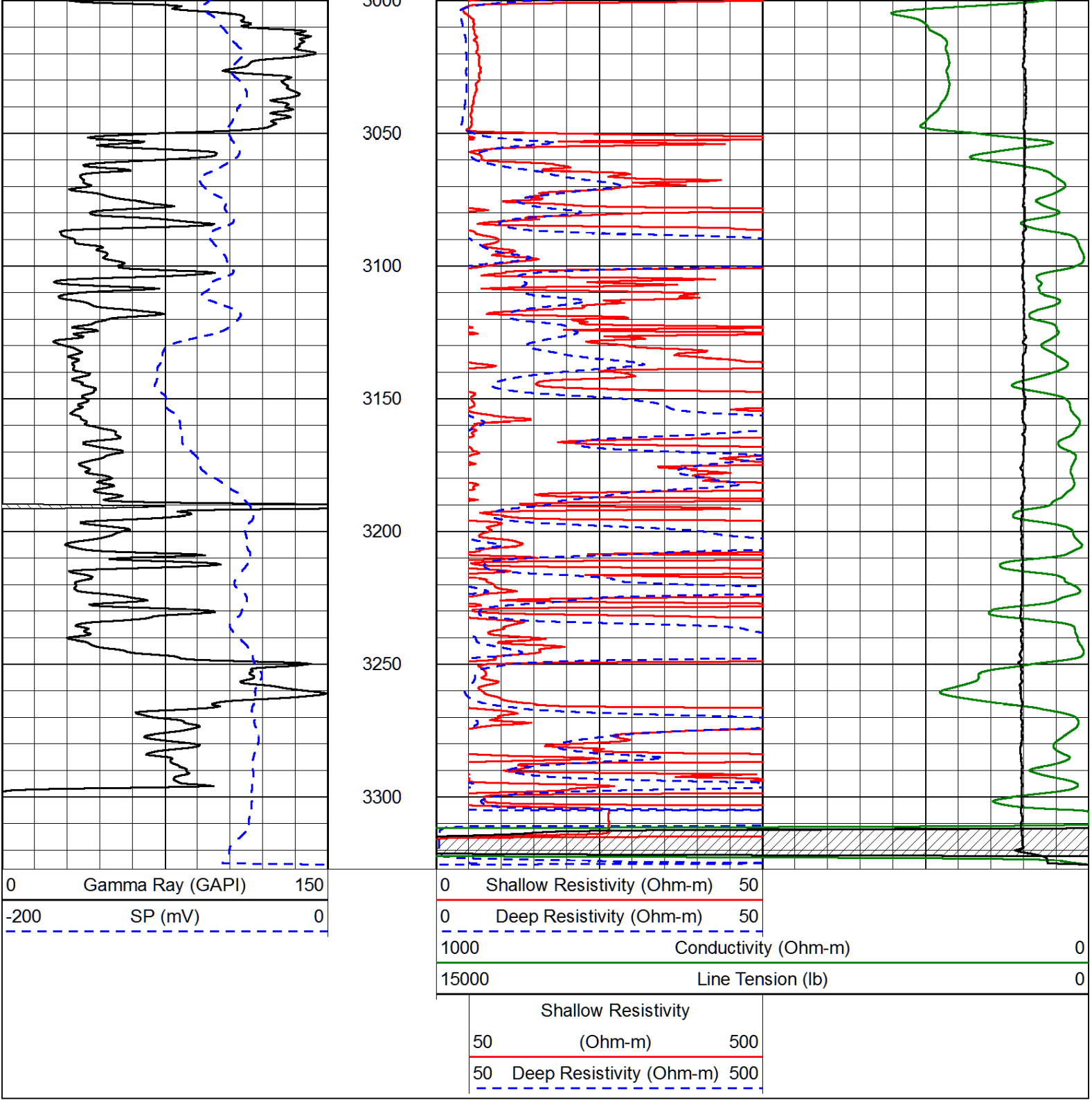




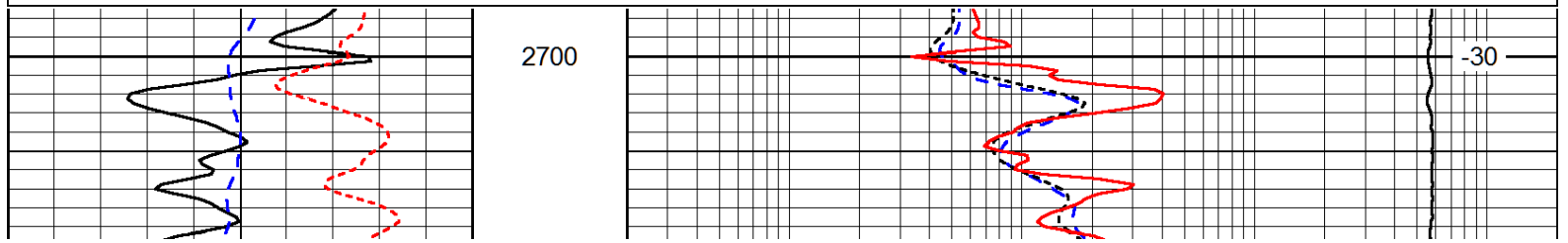
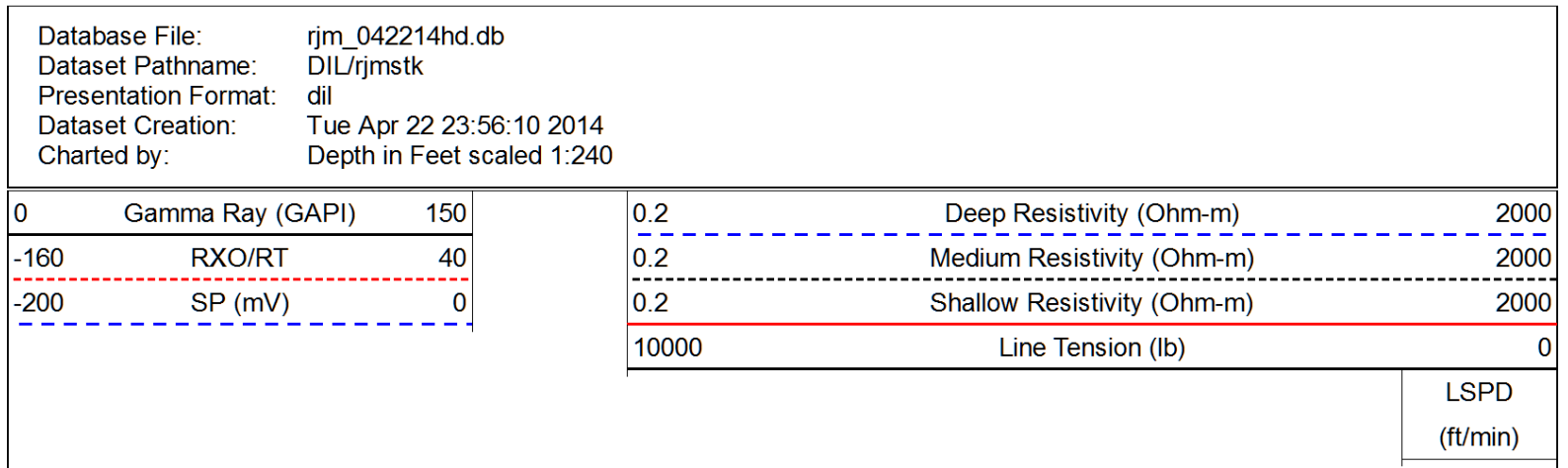
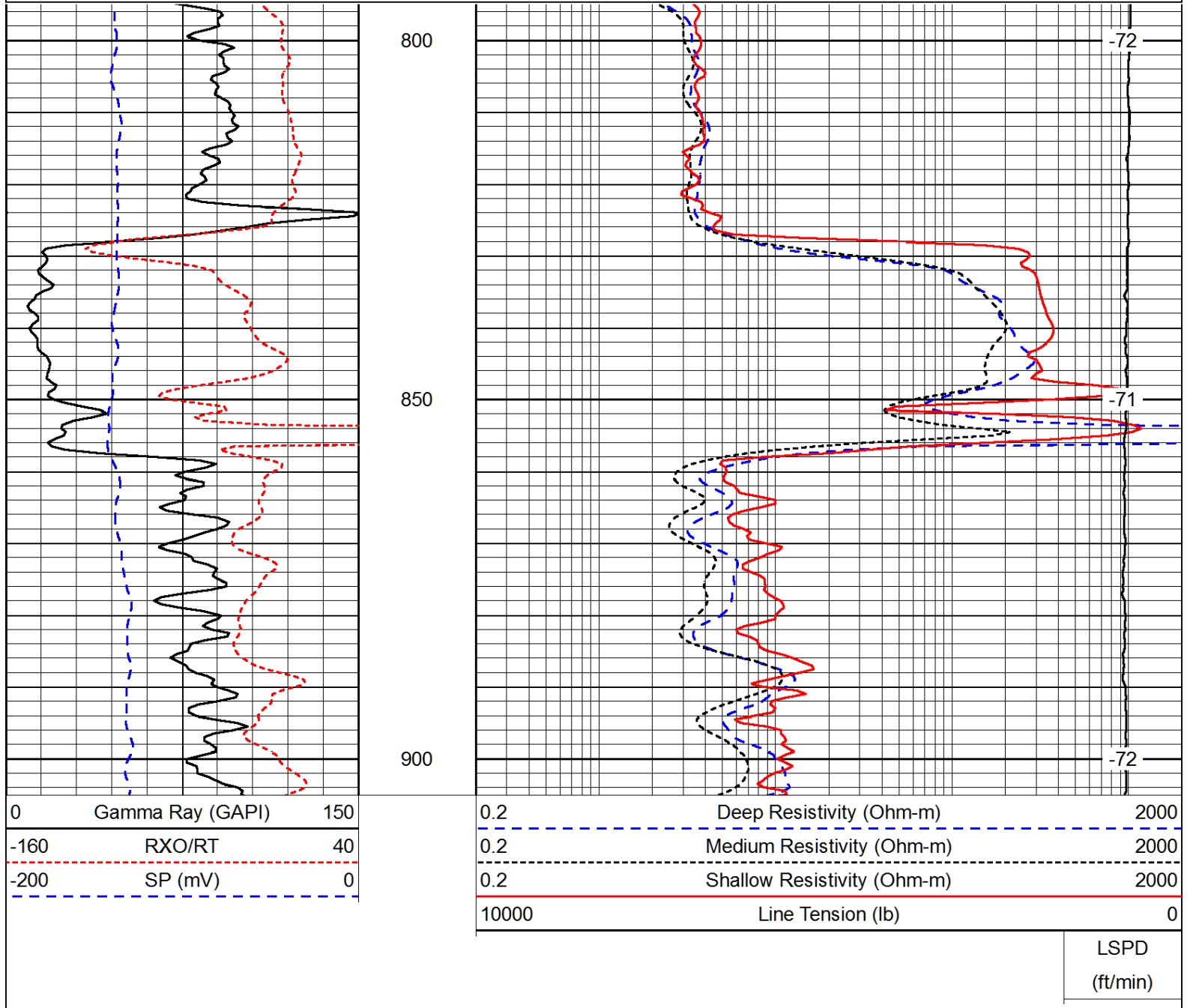


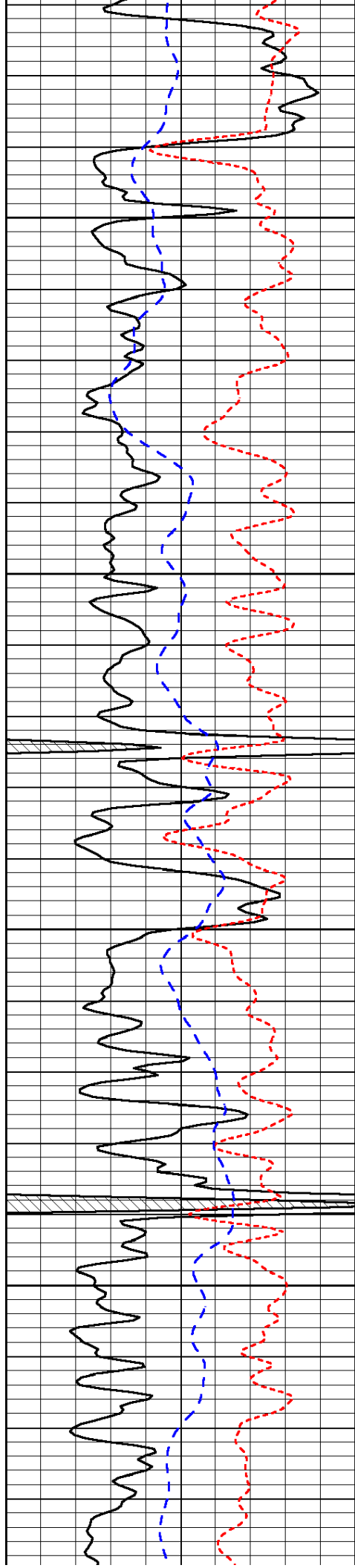






Database File: rjm_042214hd.db			
Dataset Pathname: DIL/rjmstk			
Presentation Format: dil			
Dataset Creation: Tue Apr 22 23:56:10 2014			
Charted by: Depth in Feet scaled 1:240			
0	Gamma Ray (GAPI)	150	
-160	RXO/RT	40	
-200	SP (mV)	0	
0.2	Deep Resistivity (Ohm-m)	2000	
0.2	Medium Resistivity (Ohm-m)	2000	
0.2	Shallow Resistivity (Ohm-m)	2000	
10000	Line Tension (lb)	0	
			LSPD (ft/min)



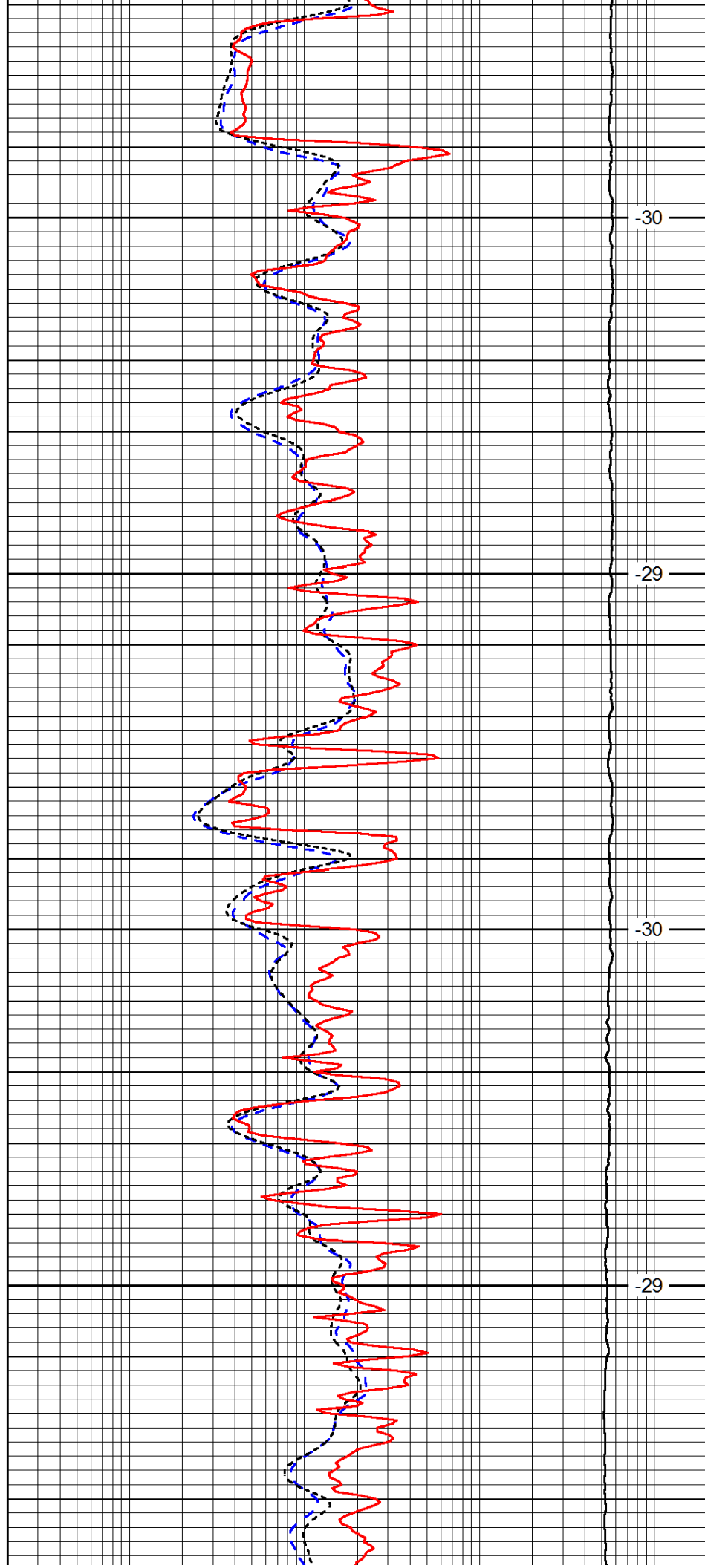


2750

2800

2850

2900

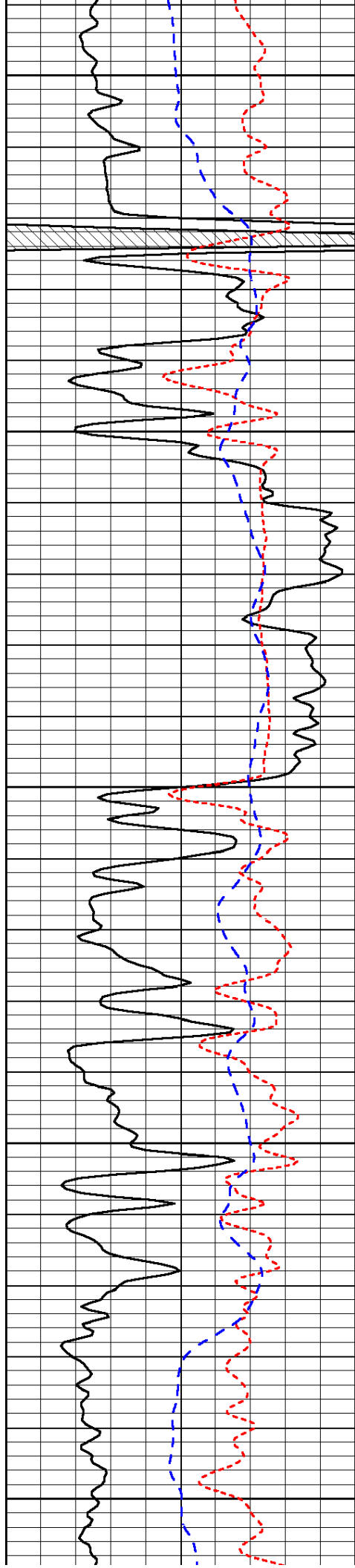


-30

-29

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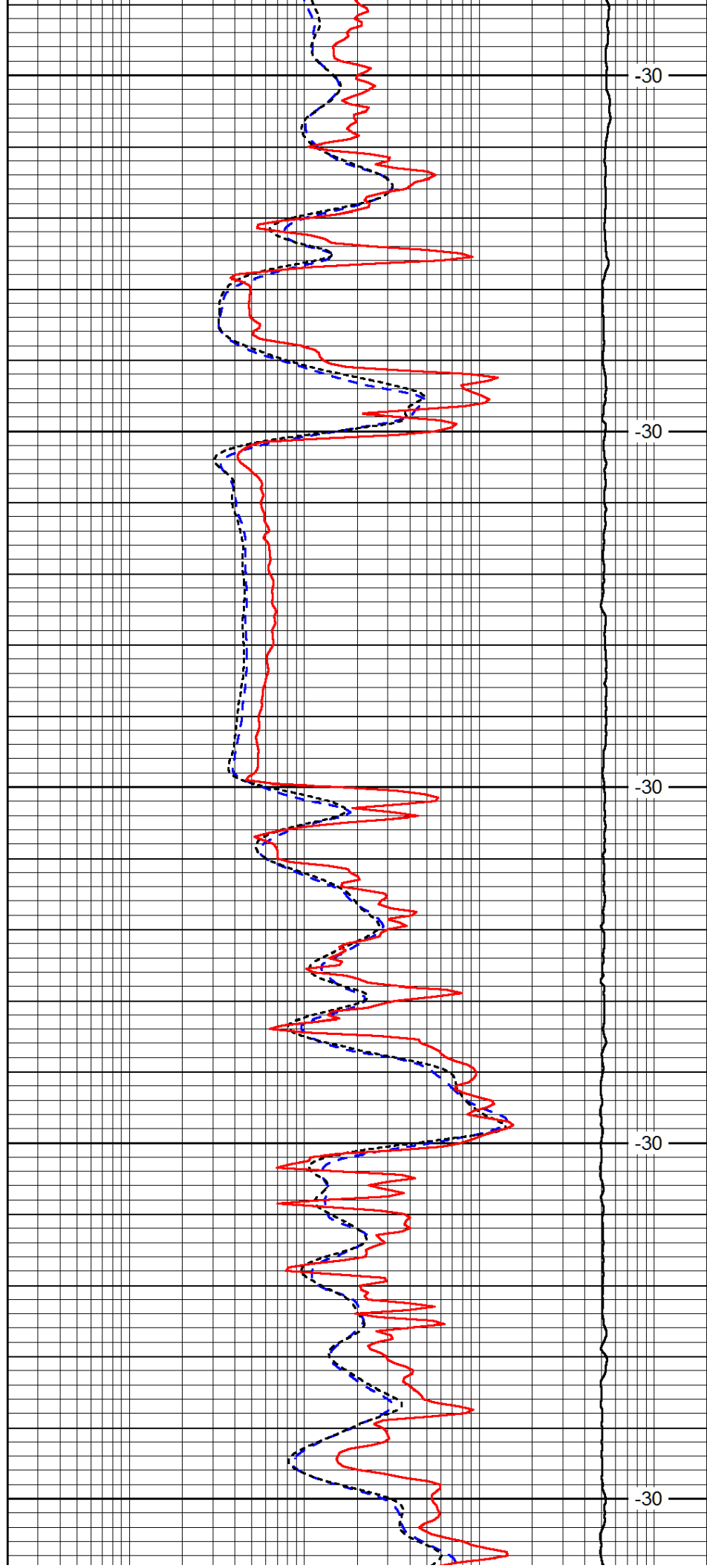
2950

3000

3050

3100

3150



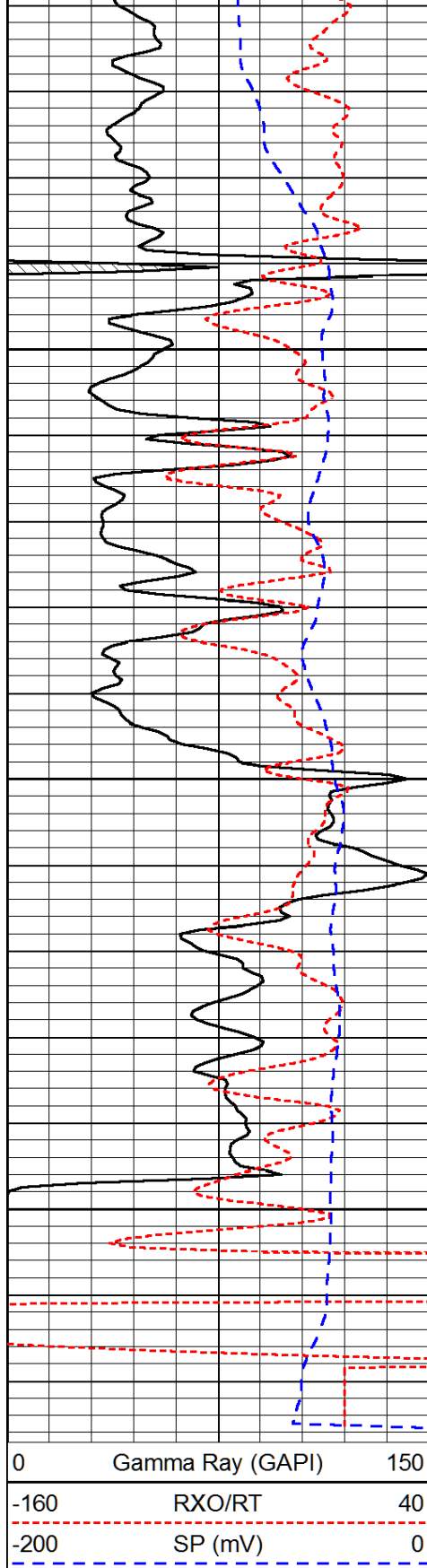
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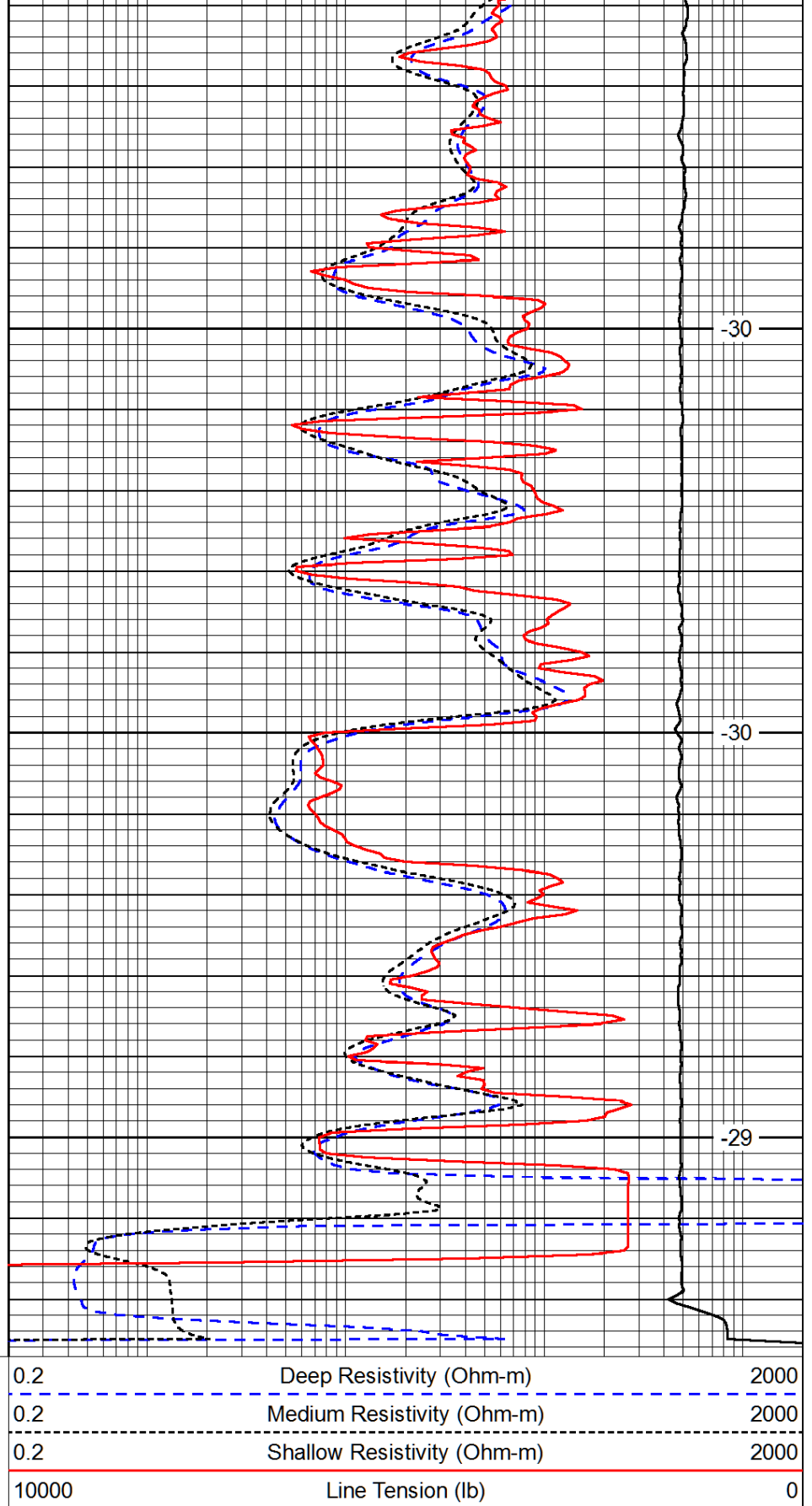
-30



3200

3250

3300



-30

-30

-29

LSPD
(ft/min)