



Pioneer Energy Services

Radiation Guard Log

15-159-22,759-00-00

Company **Cobalt Energy, LLC**
 Well **Gustus Unit "A" No.1-2**
 Field

County **Rice** State **Kansas**

Location **907' FNL & 2537' FEL**

Sec: **2** Twp: **18S** Rge: **8W**

Other Services
NONE

Permanent Datum **Ground Level** Elevation **1771**
 Log Measured From **Kelly Bushing** **8** Ft. Above Perm. Datum
 Drilling Measured From **Kelly Bushing**

Elevation
 K.B. 1779
 D.F. 1779
 G.L. 1771

Date	12/17/2013	
Run Number	One	
Depth Driller	3365	
Depth Logger	3356	
Bottom Logged Interval	3355	
Top Log Interval	350	
Casing Driller	8.625 @ 380	
Casing Logger	378	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	7,200	
Density / Viscosity	9.4 50	
pH / Fluid Loss	10.5 8.0	
Source of Sample	Flowline	
Rm @ Meas. Temp	.9 @ 52	
Rmf @ Meas. Temp	.68 @ 52	
Rmc @ Meas. Temp	1.22 @ 52	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.43 @ 110	
Operating Rig Time	2 1/2 Hours	
Max Rec. Temp. F	110	
Equipment Number	17	
Location	Hays	
Recorded By	C. Desaire	
Witnessed By	Corey Baker	

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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

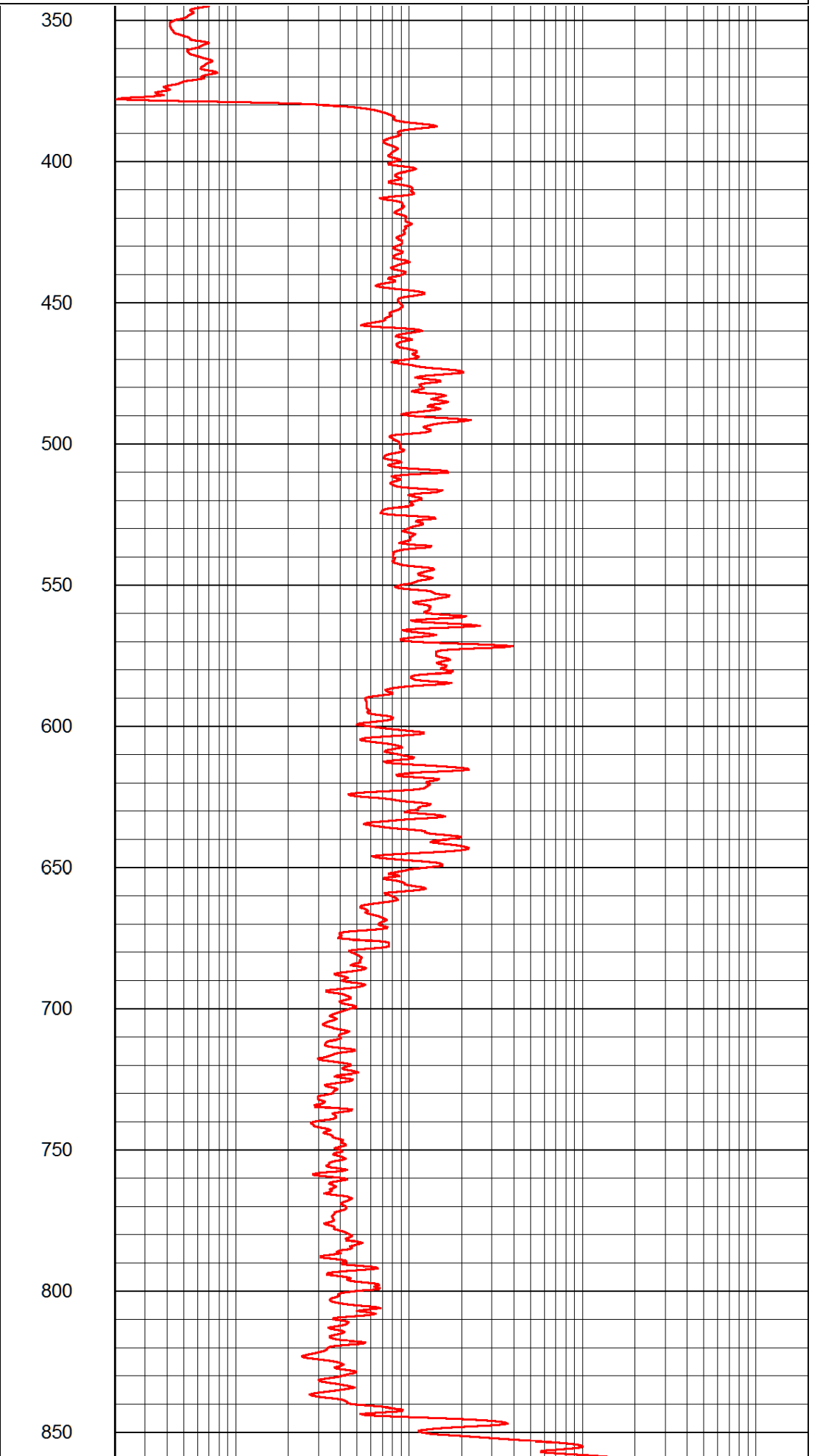
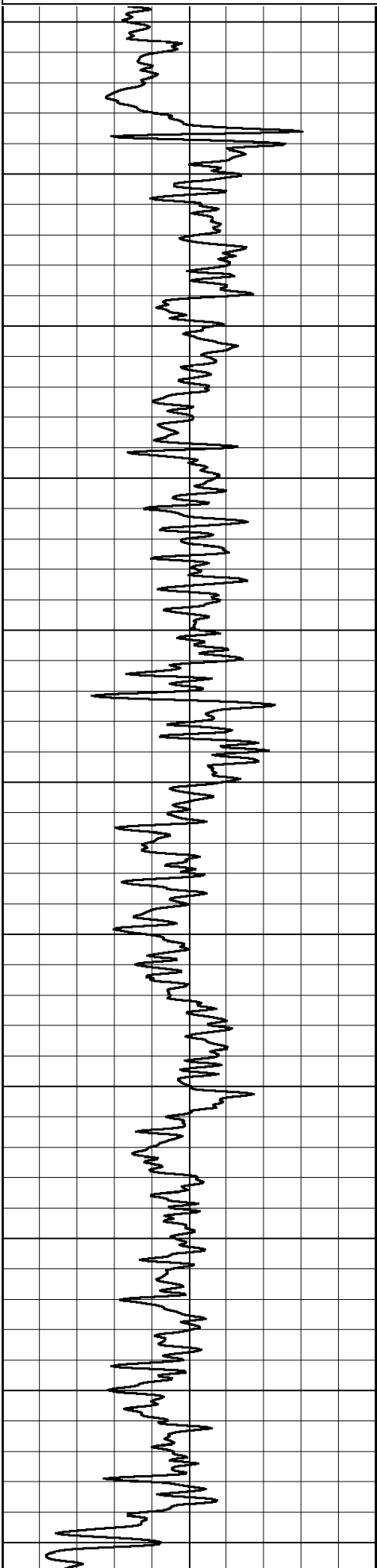
Geneseo KS, 1 W to 17 Rd,
 1/2 N to Y Rd, 1/2 W, S Into

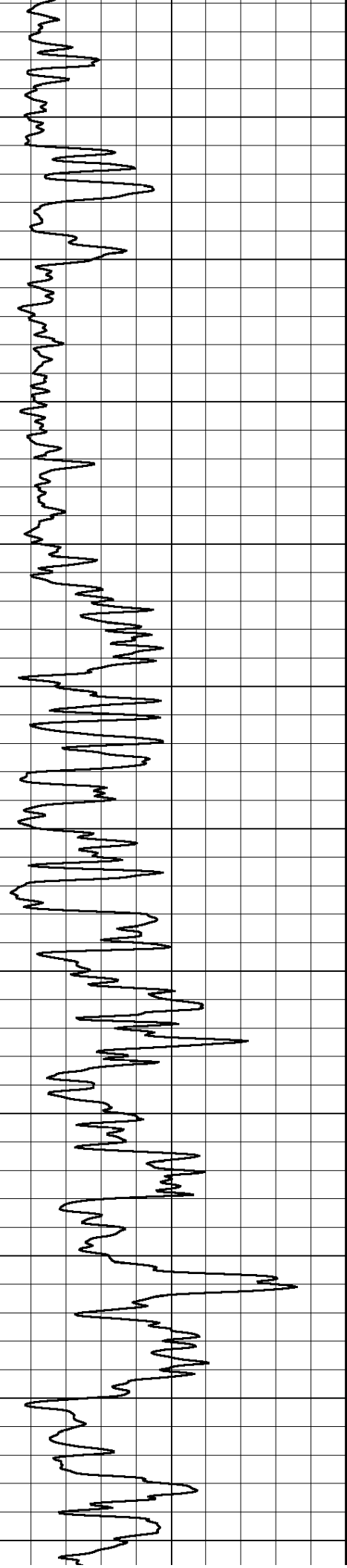
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 Presentation Format: rag2in
 Dataset Creation: Tue Dec 17 18:05:16 2013
 Charted by: Depth in Feet scaled 1:600

0 Gamma Ray (GAPI) 150

0.2 Igrd (Ohm-m)

2000





900

950

1000

1050

1100

1150

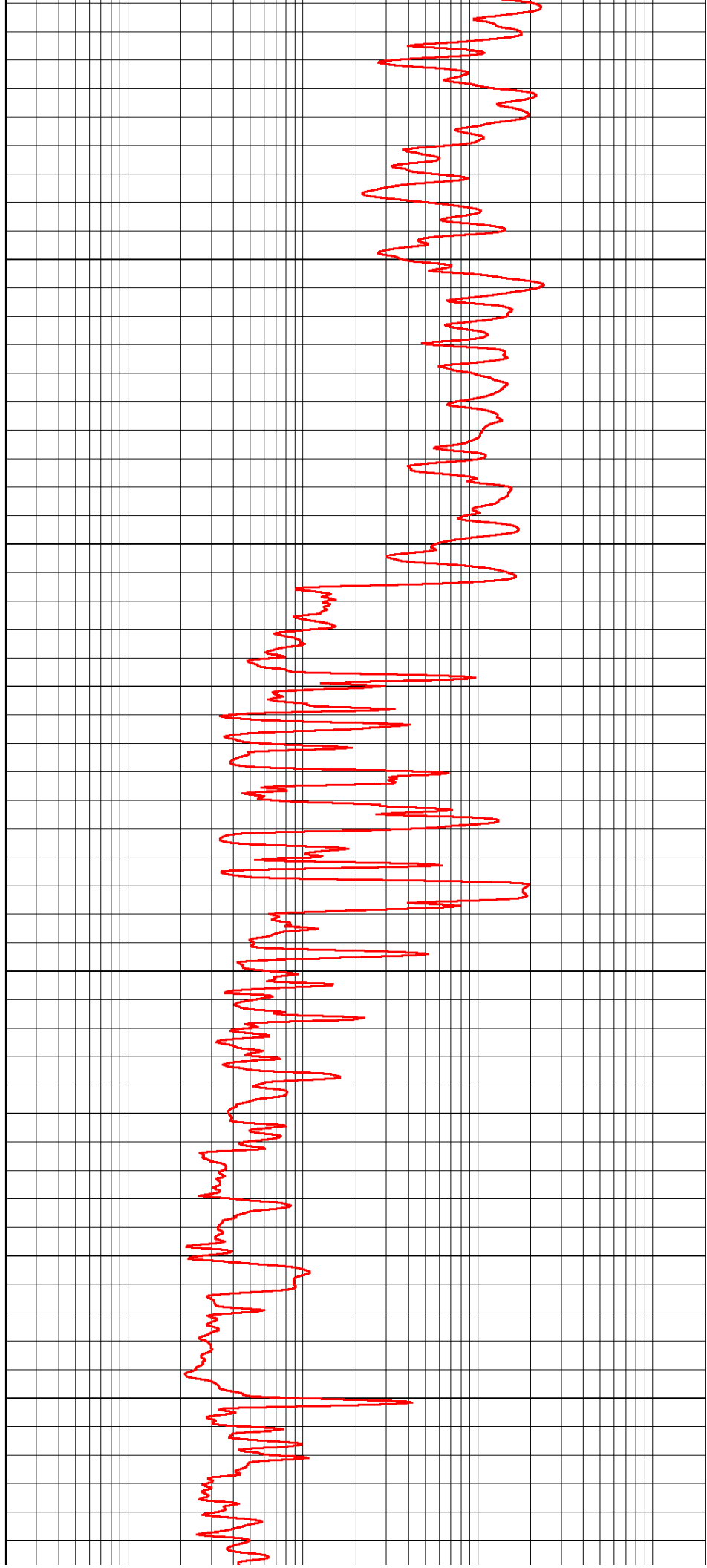
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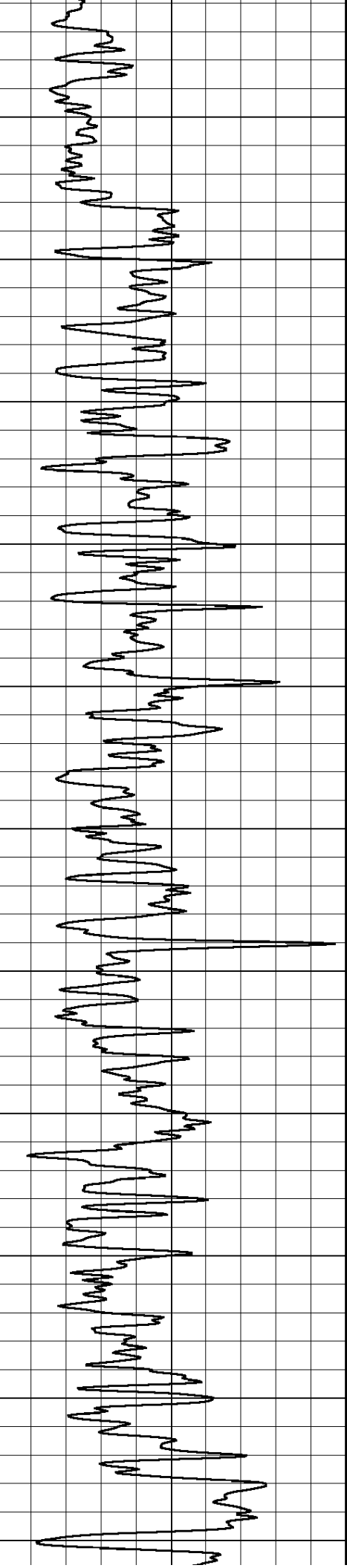
1250

1300

1350

1400





1450

1500

1550

1600

1650

1700

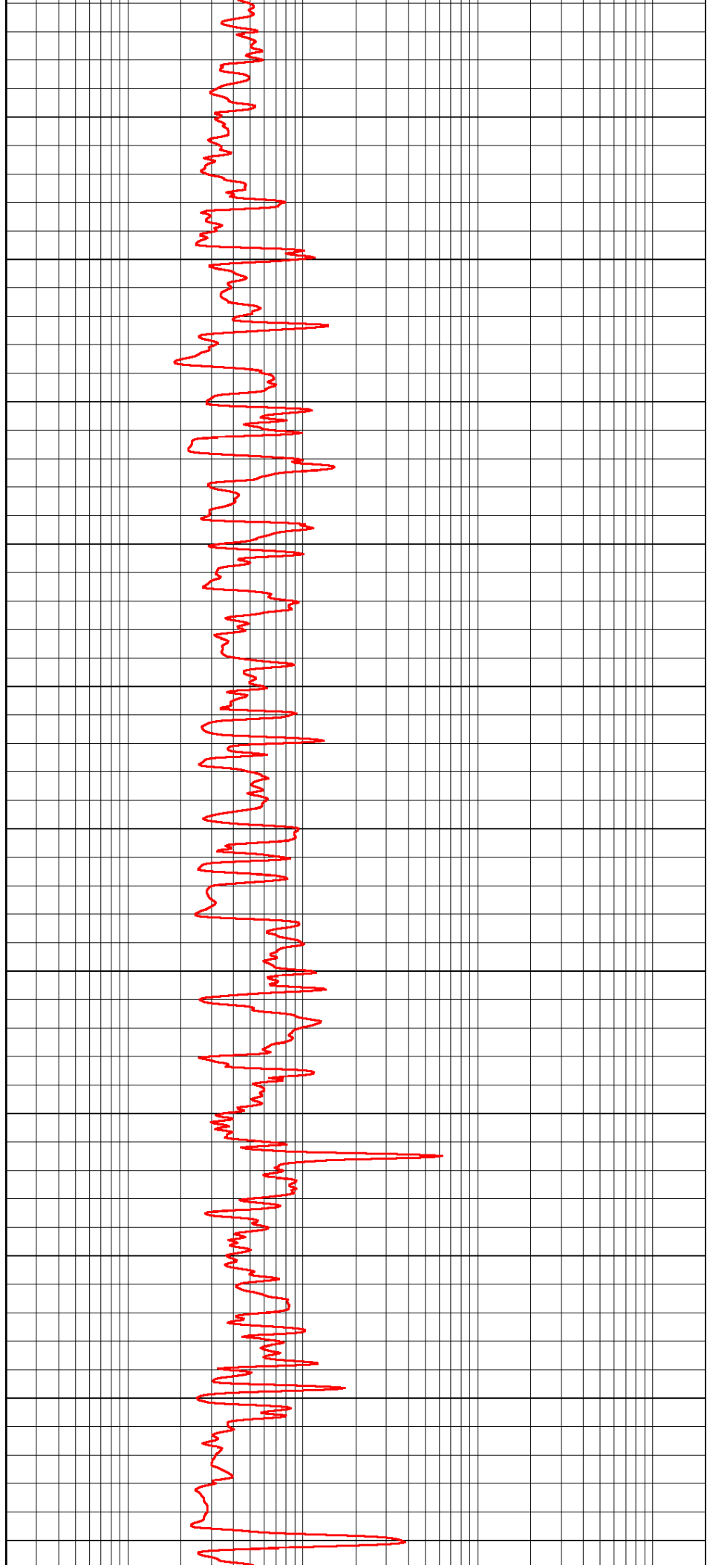
1750

1800

1850

1900

1950



1450

1500

1550

1600

1650

1700

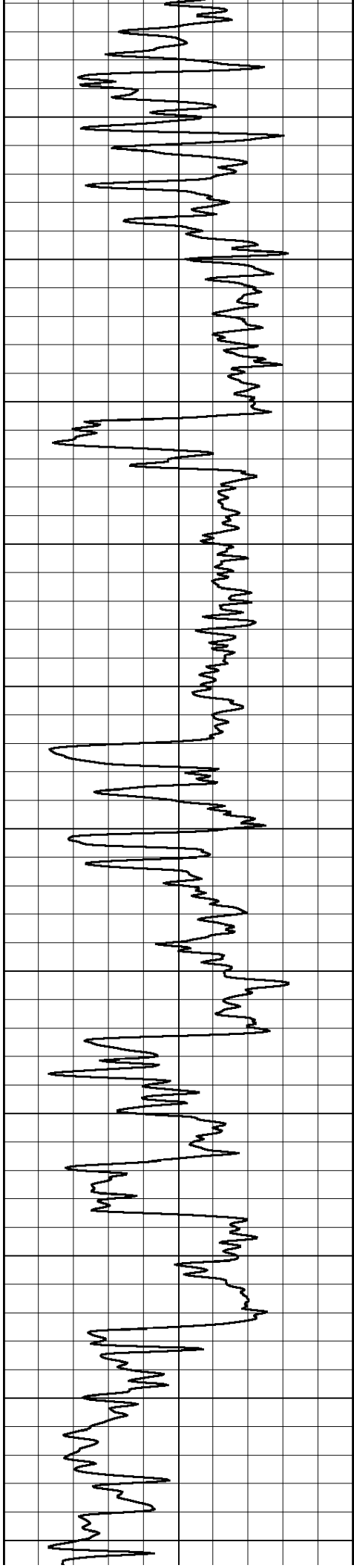
1750

1800

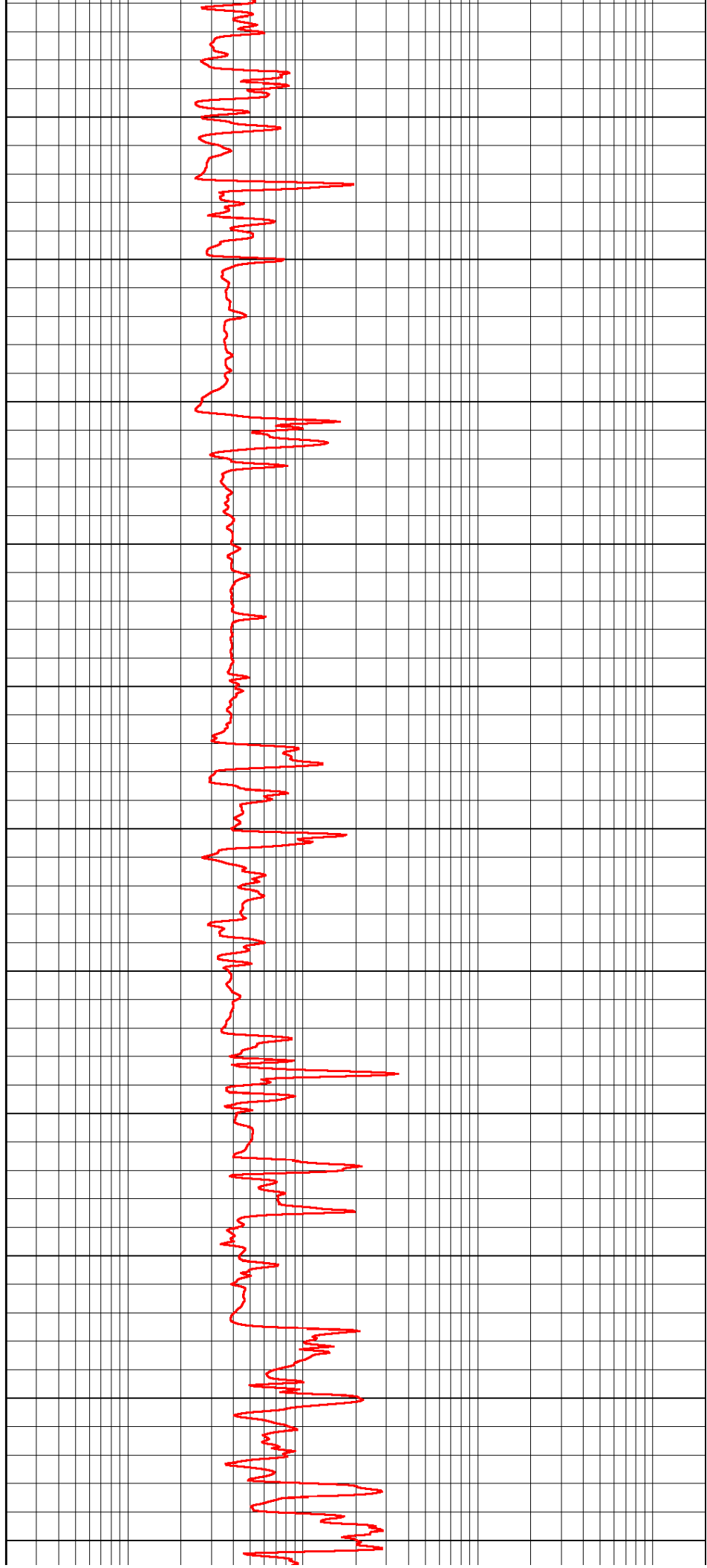
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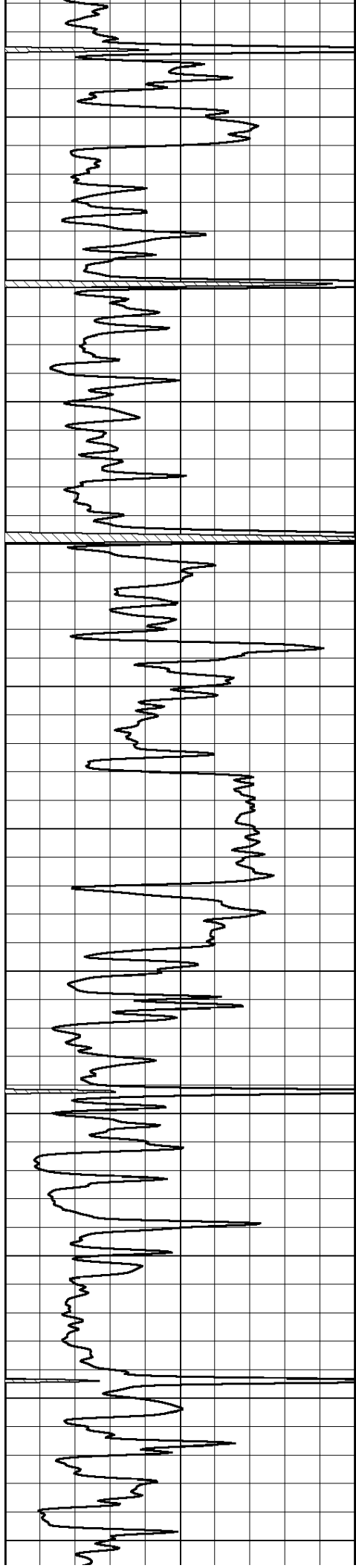
1900

1950



2000
2050
2100
2150
2200
2250
2300
2350
2400
2450
2500





2550

2600

2650

2700

2750

2800

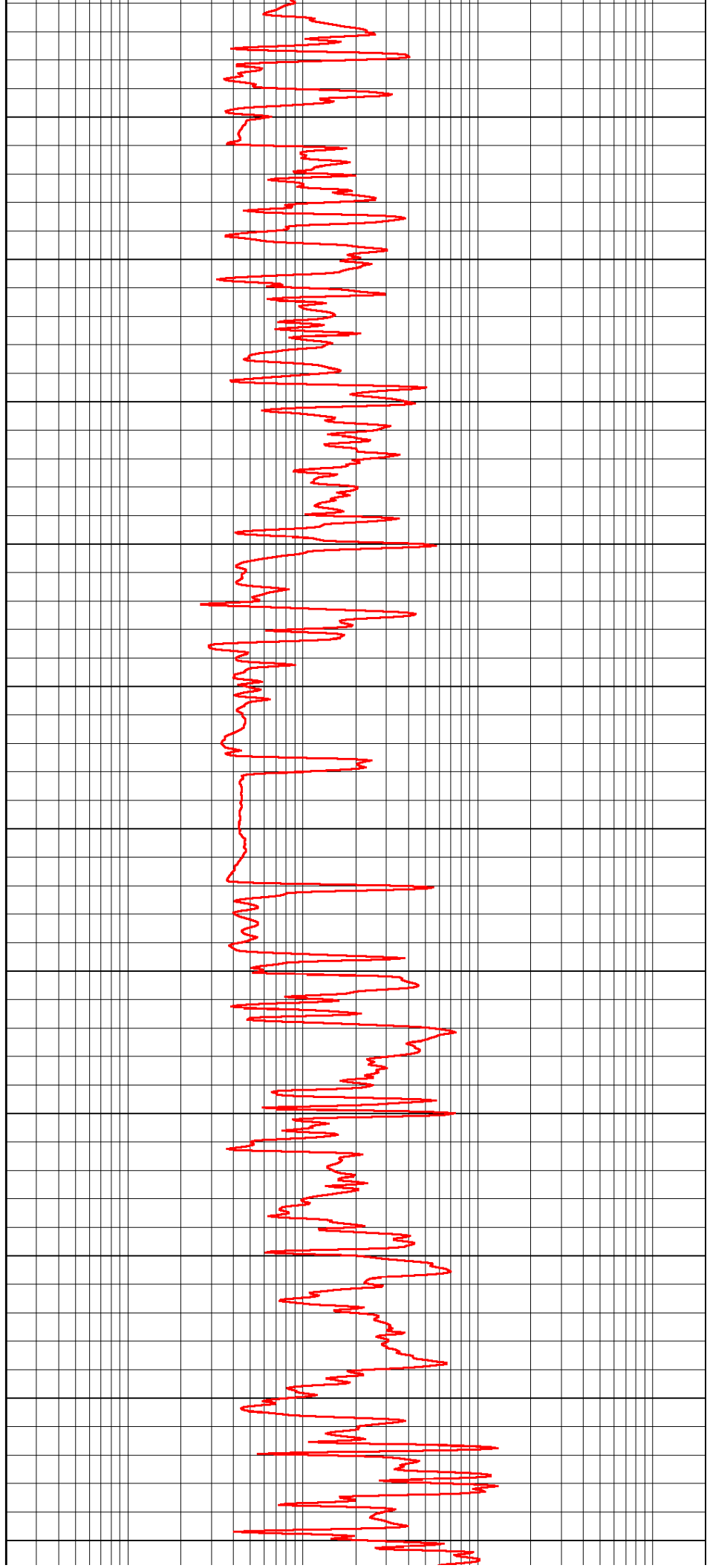
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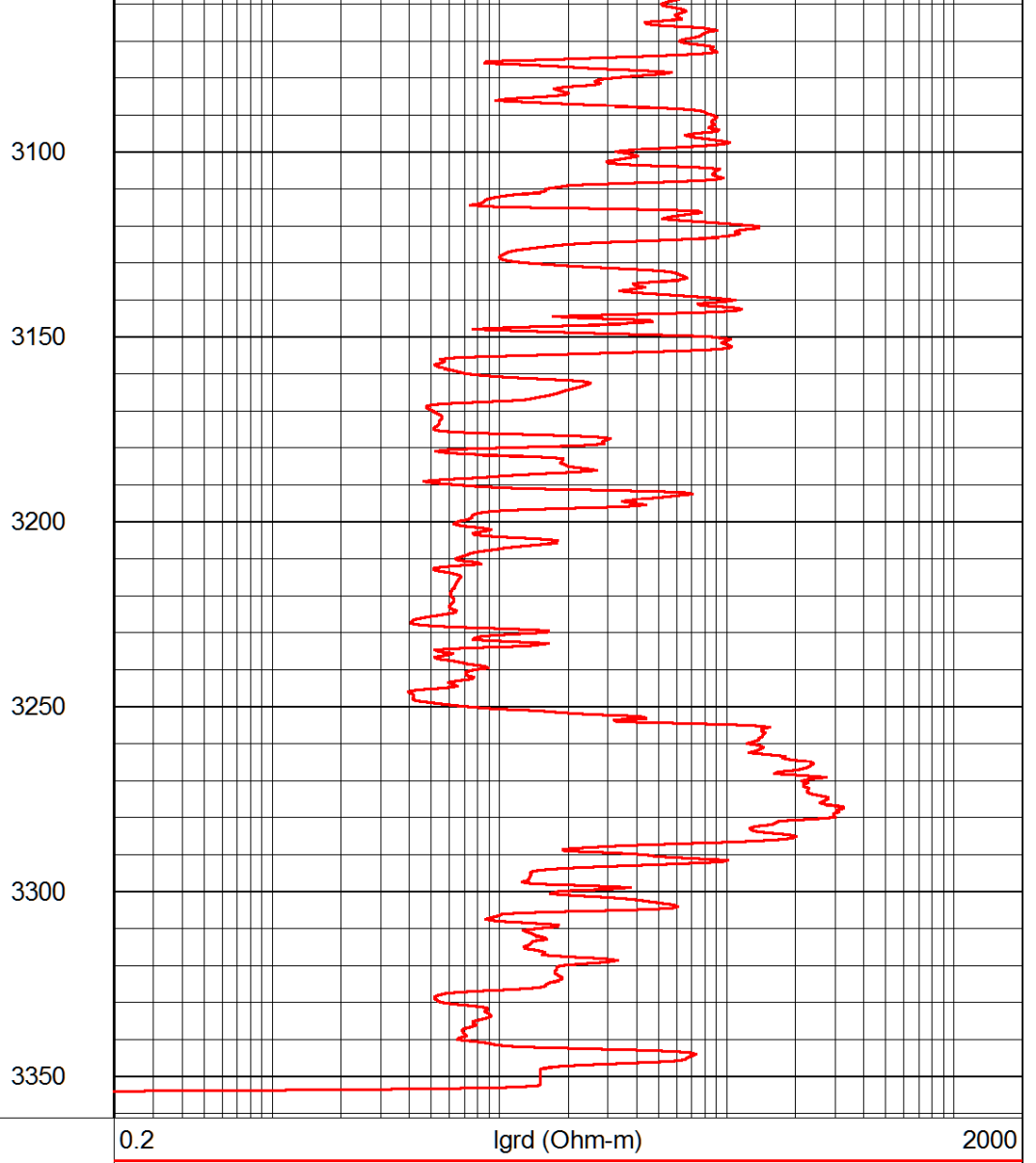
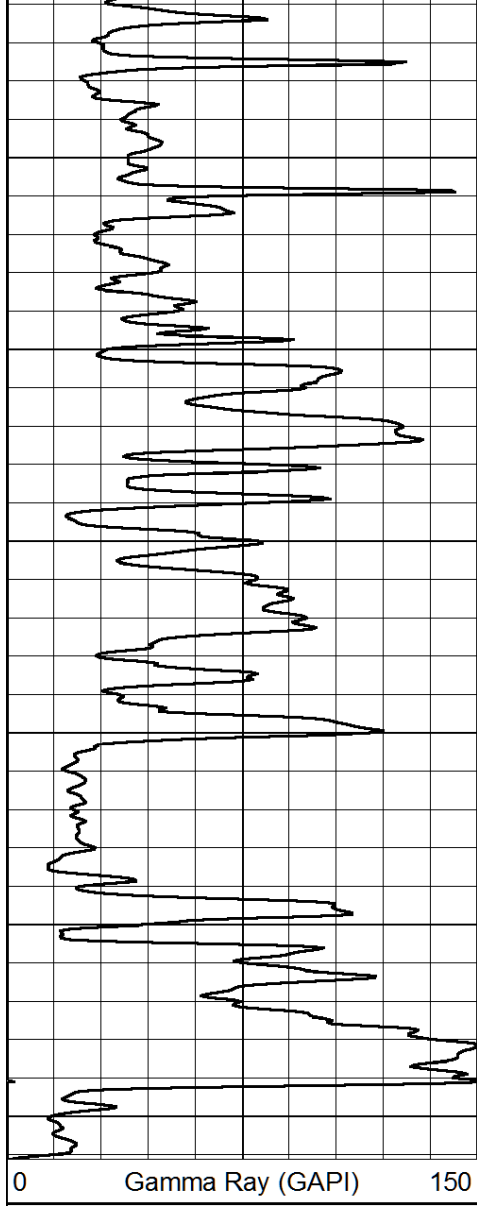
2900

2950

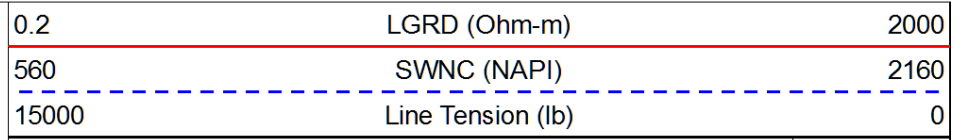
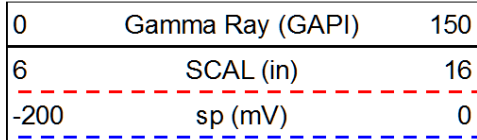
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3050

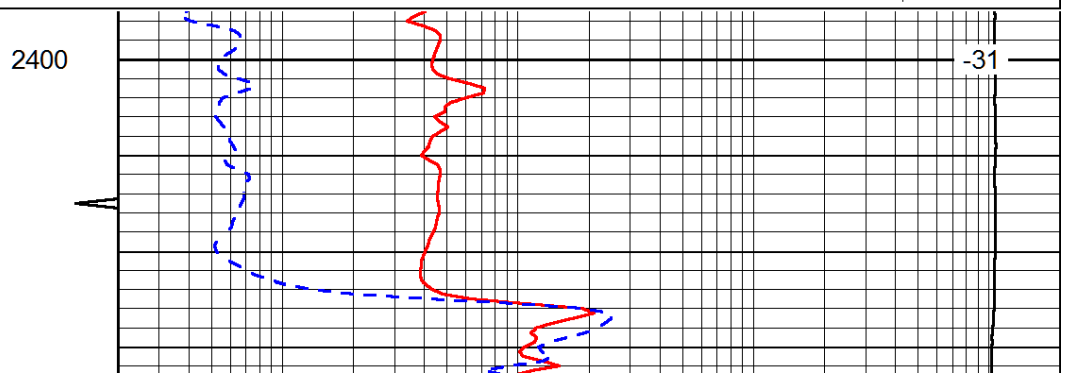
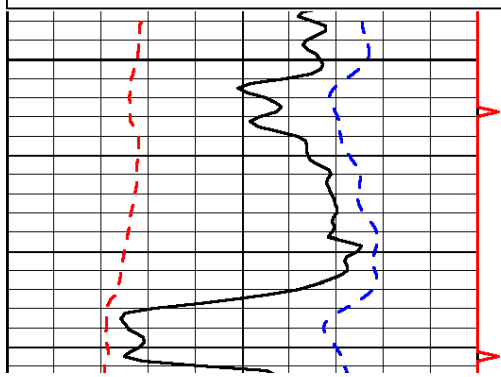


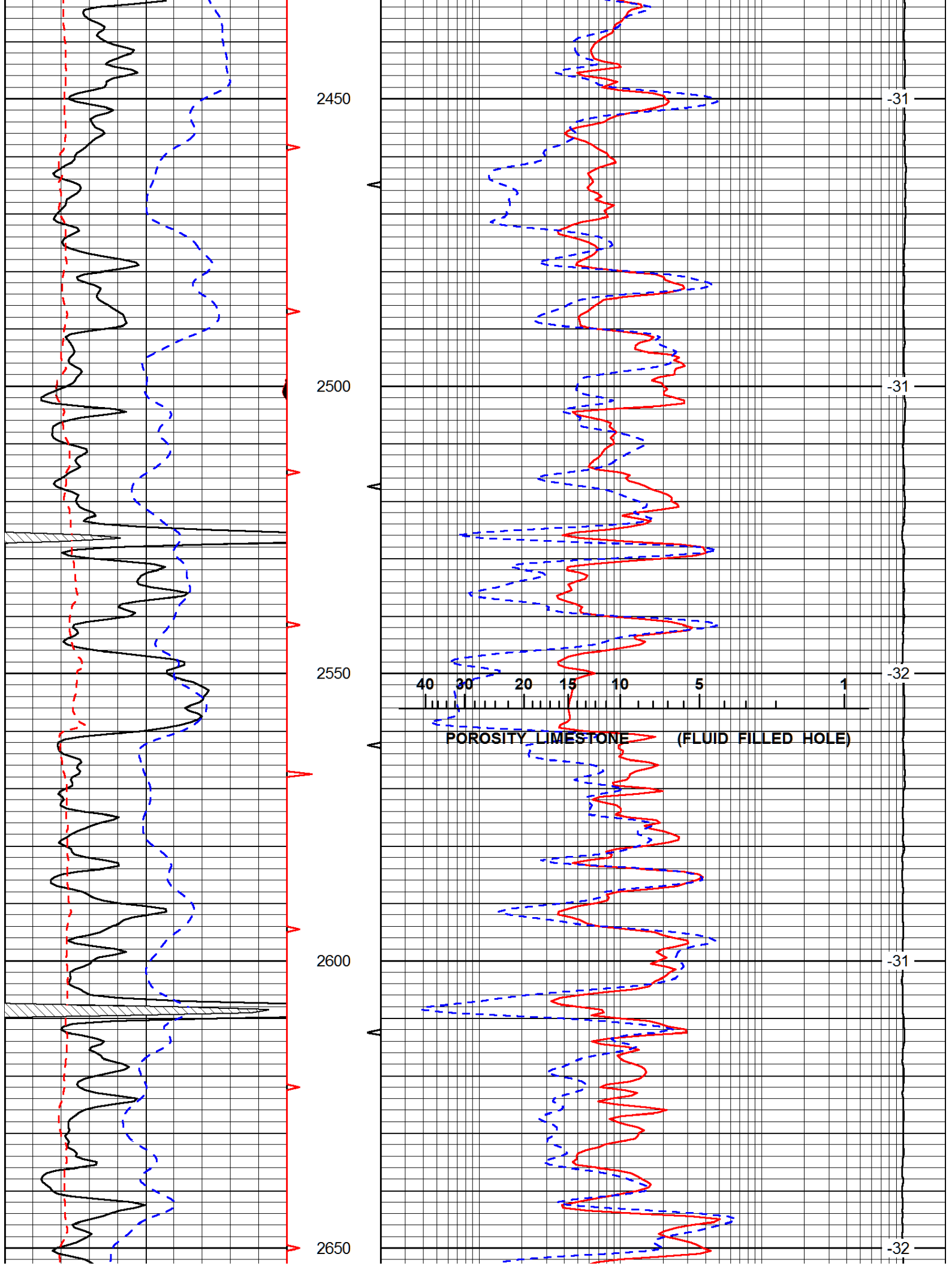


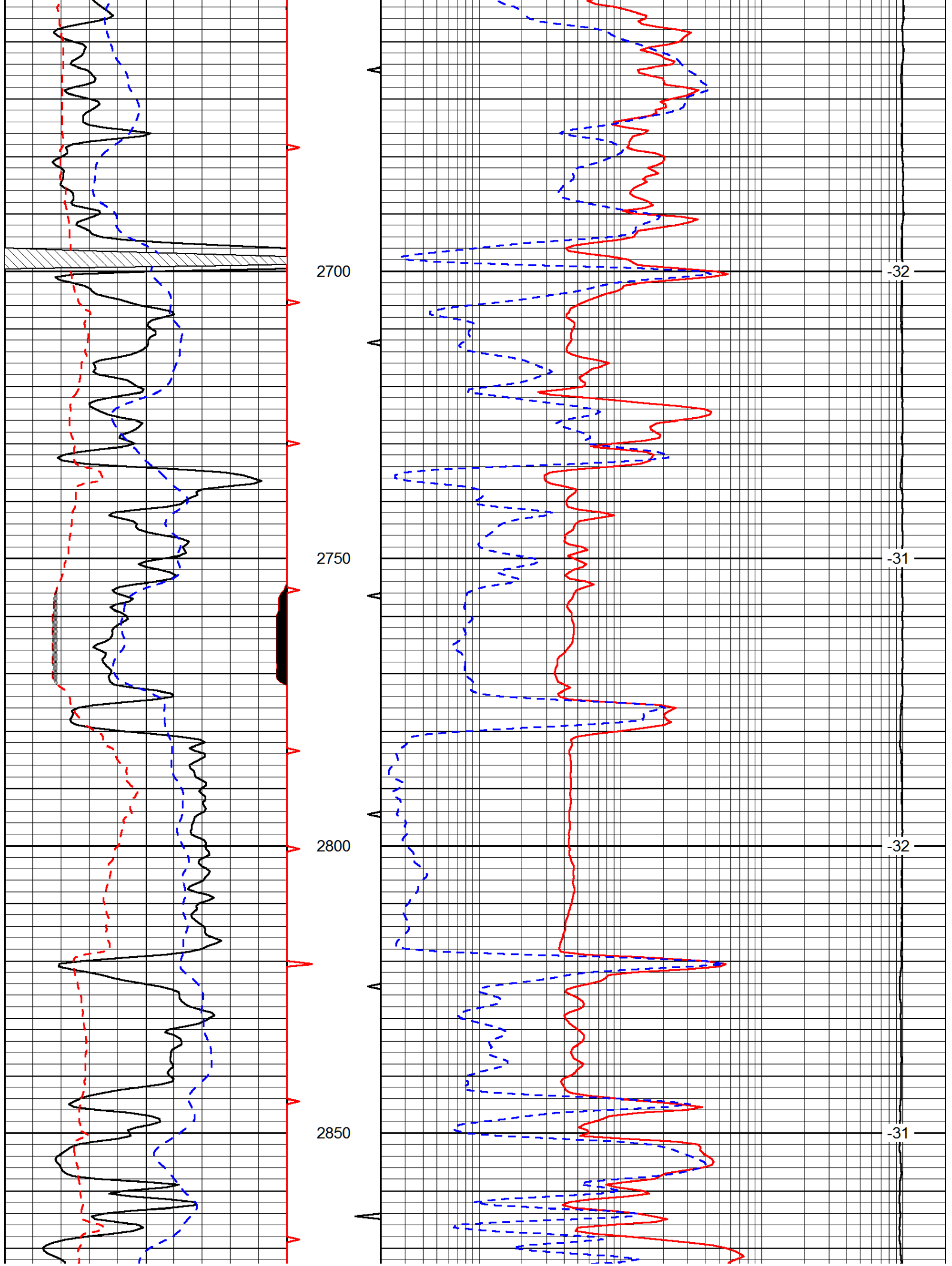
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LSPD
(ft/min)







40 30 20 15 10 5 1

POROSITY_LIMESTONE (FLUID FILLED HOLE)

2900

-31

2950

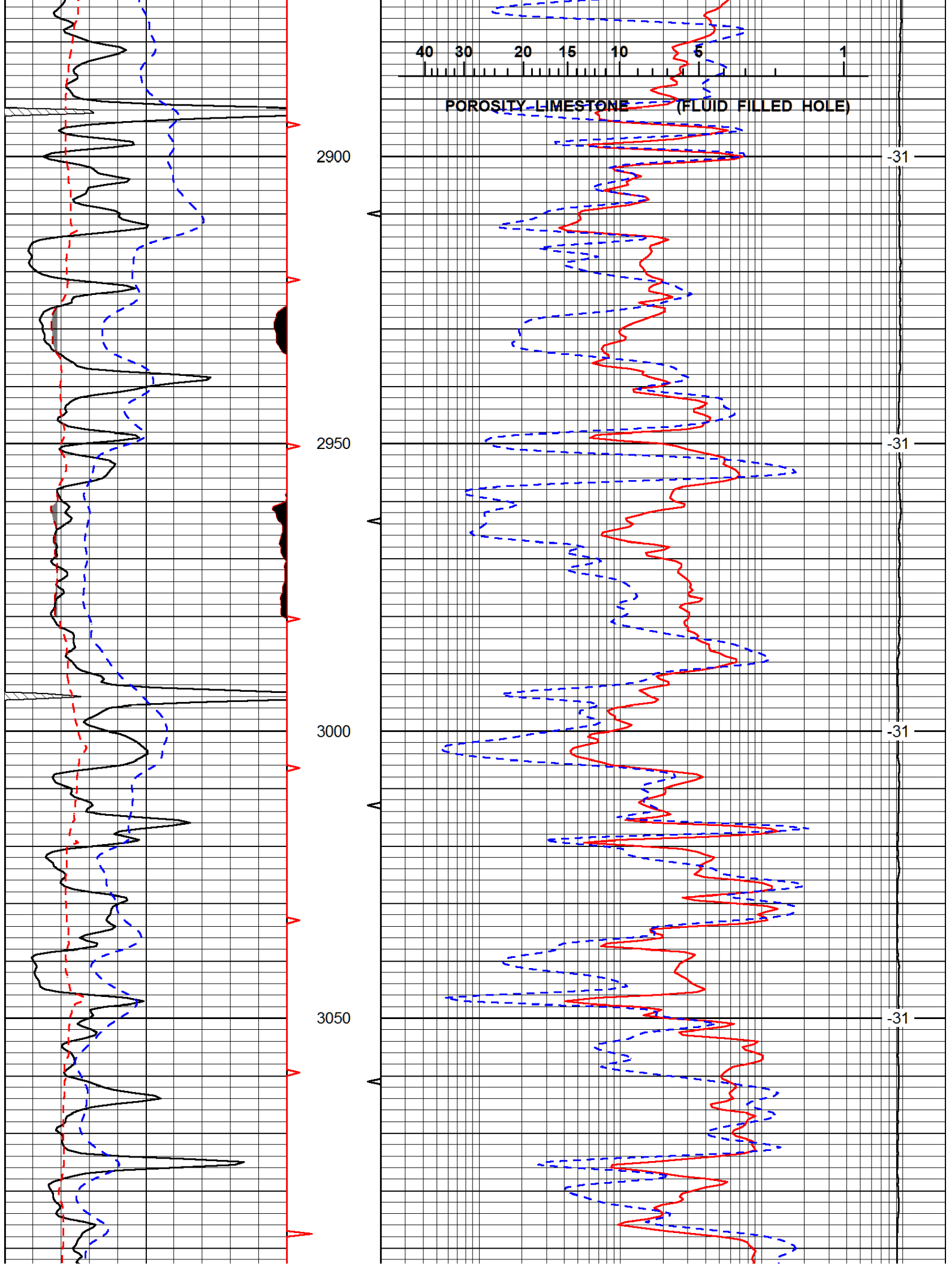
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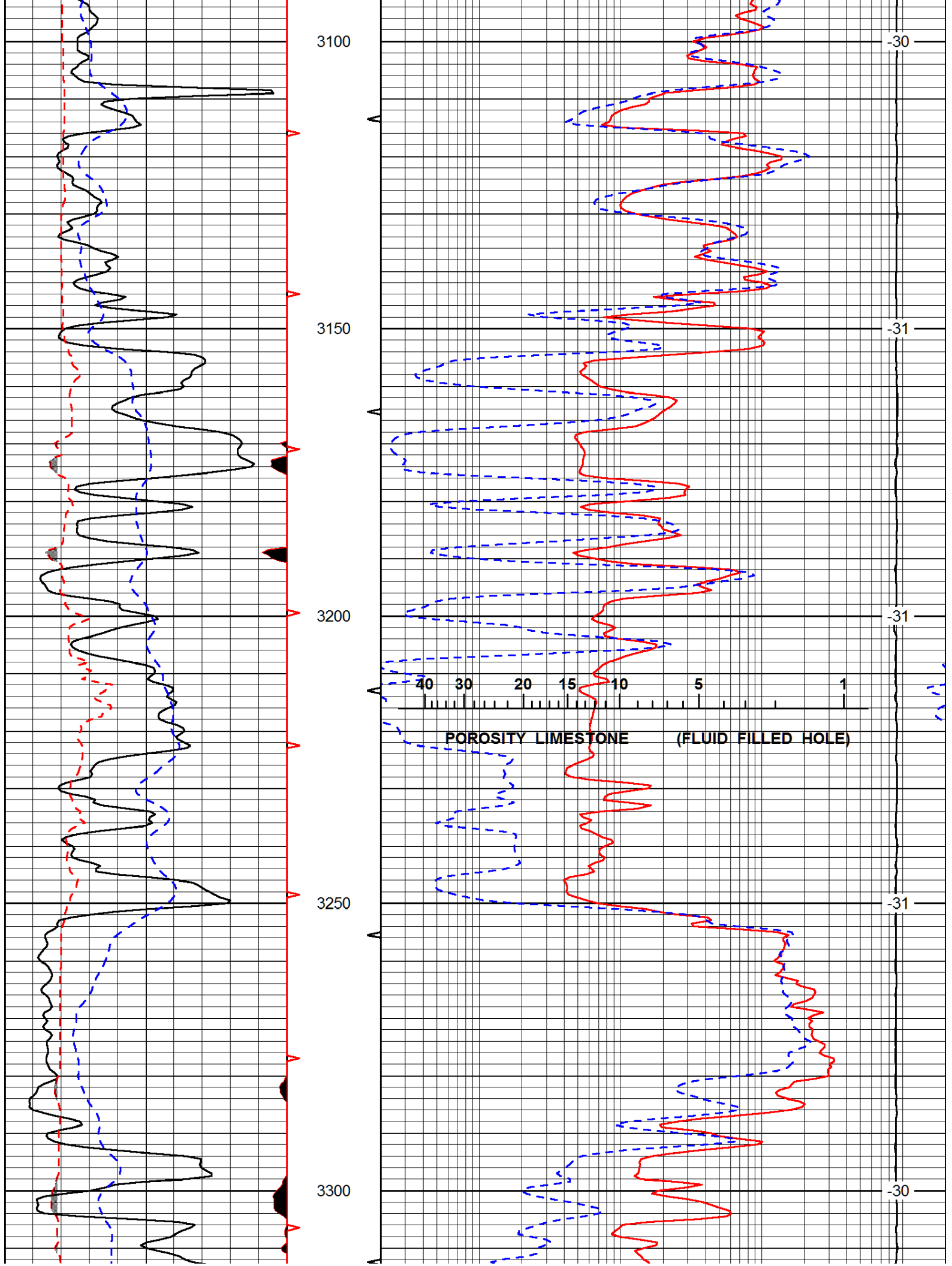
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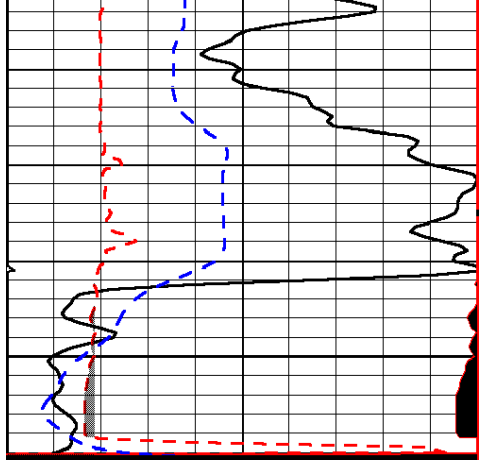
-31

3050

-31

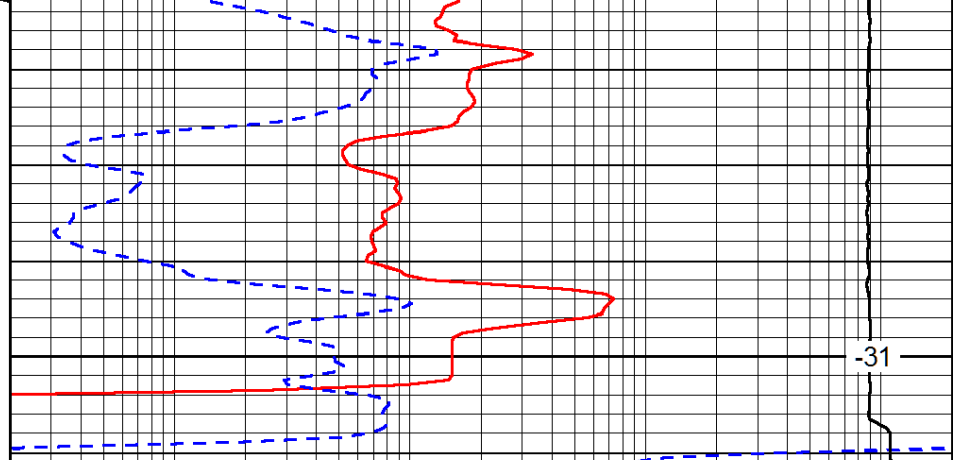






3350

0	Gamma Ray (GAPI)	150
6	SCAL (in)	16
-200	sp (mV)	0



-31

0.2	LGRD (Ohm-m)	2000
560	SWNC (NAPI)	2160
15000	Line Tension (lb)	0

LSPD
(ft/min)