



Pioneer Energy Services

Radiation Guard Log

15-167-23842-00-00

API No.

Company **Bear Petroleum, LLC**

Well **Krug #11**

Field **Trapp**

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

Location

**S2 SE NE SE
1350' FSL / 330' FEL**

Other Services
MEL

Sec: **24** Twp: **15S** Rge: **14W**

Permanent Datum **Ground Level** Elevation **1882**

Log Measured From **Kelly Bushing** 13 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Elevation
K.B. 1895
D.F. 1882
G.L. 1882

Date **12/7/2012**

Run Number **One**

Depth Driller **3367**

Depth Logger **3365**

Bottom Logged Interval **3364**

Top Log Interval **400**

Casing Driller **8.625 @ 436**

Casing Logger **430**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **3000**

Density / Viscosity **9.0 @ 58**

pH / Fluid Loss **9.8 @ 8.8**

Source of Sample **Flowline**

Rm @ Meas. Temp **1.10 @ 54**

Rmf @ Meas. Temp **0.83 @ 54**

Rmc @ Meas. Temp **1.49 @ 54**

Source of Rmf / Rmc **Charts**

Rm @ BHT **0.54 @ 110**

Operating Rig Time **4 Hours**

Max Rec. Temp. F **110**

Equipment Number **15**

Location **Hays**

Recorded By **R. Barnhart**

Witnessed By **Keith Reavis**

<<< Fold Here >>>

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

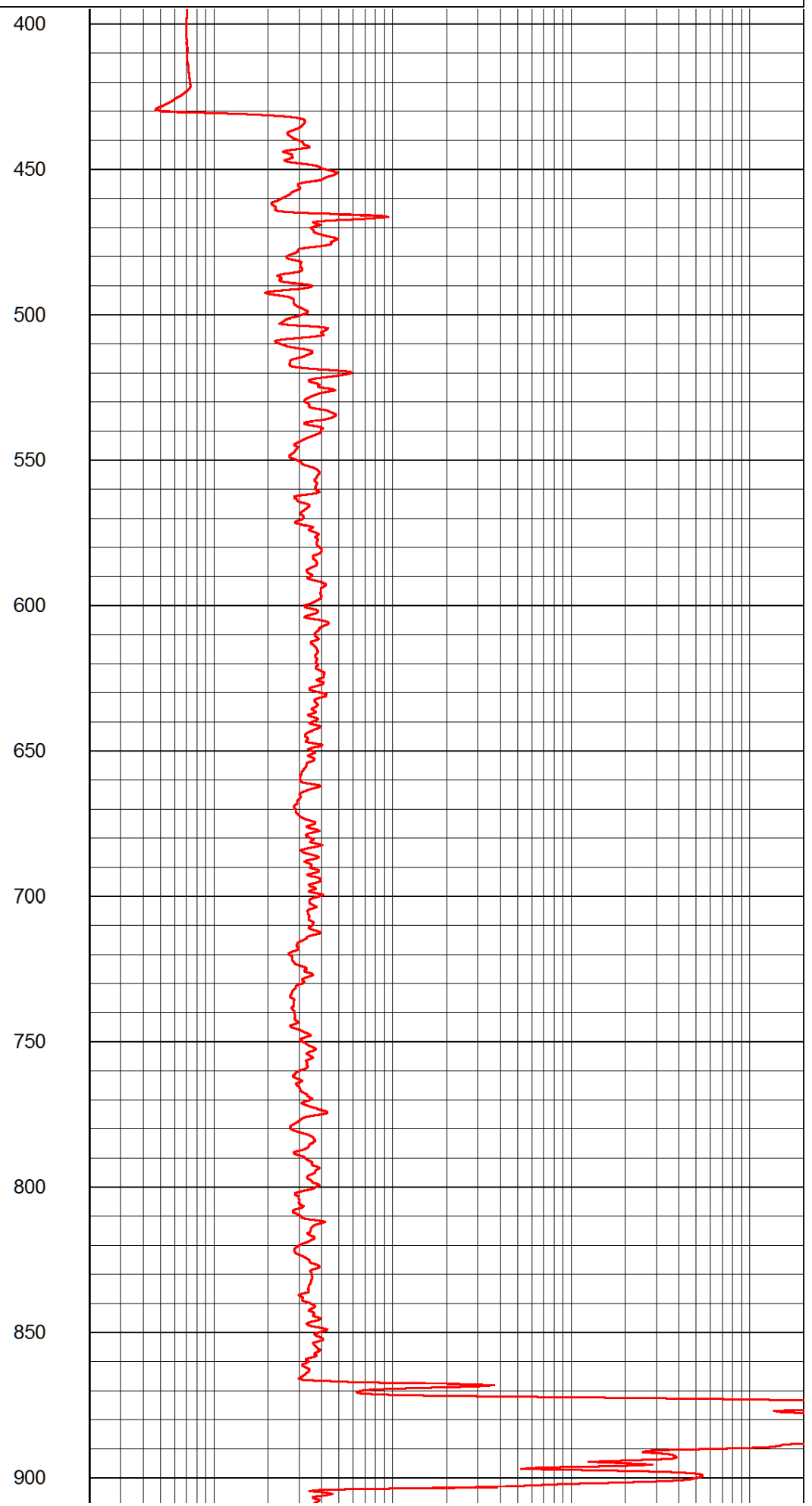
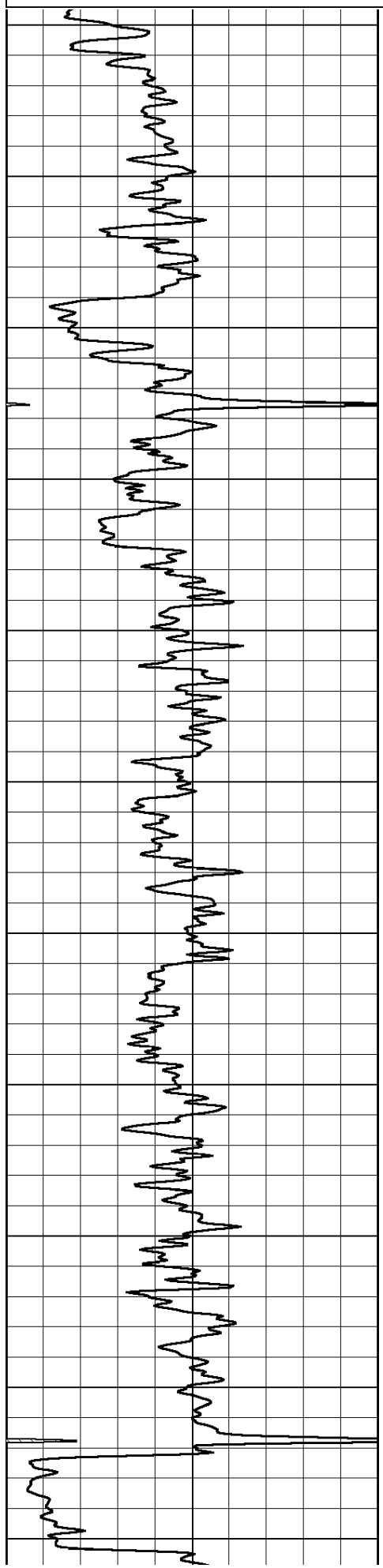
Russell, KS:
S to Stickney Rd., 2E, 1/4N, W into

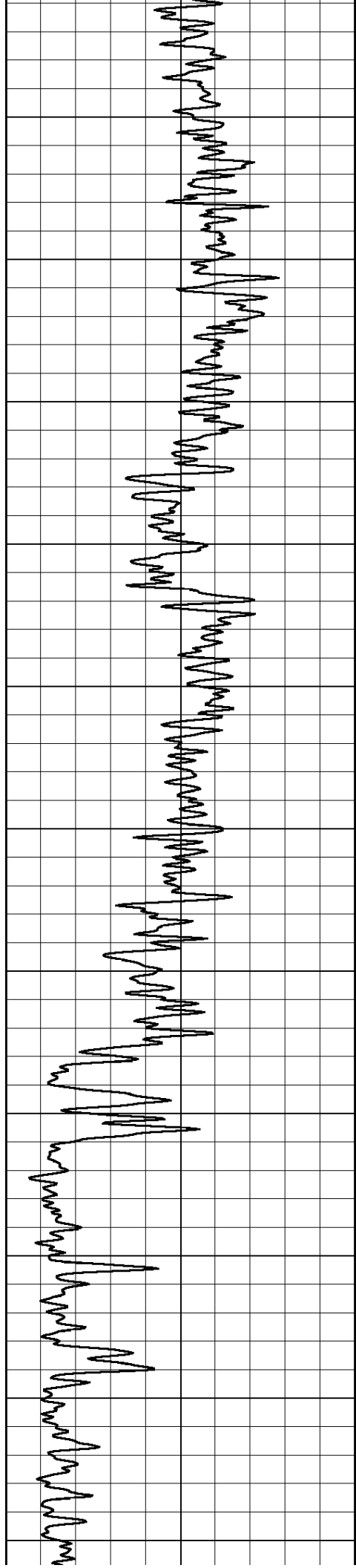
Database File: bear_hd.db
Dataset Pathname: rag/brmain
Presentation Format: rag2in
Dataset Creation: Fri Dec 07 22:52:13 2012
Charted by: Depth in Feet scaled 1:600

0 Gamma Ray (GAPI) 150

0.2 Igrd (Ohm-m)

2000





950

1000

1050

1100

1150

1200

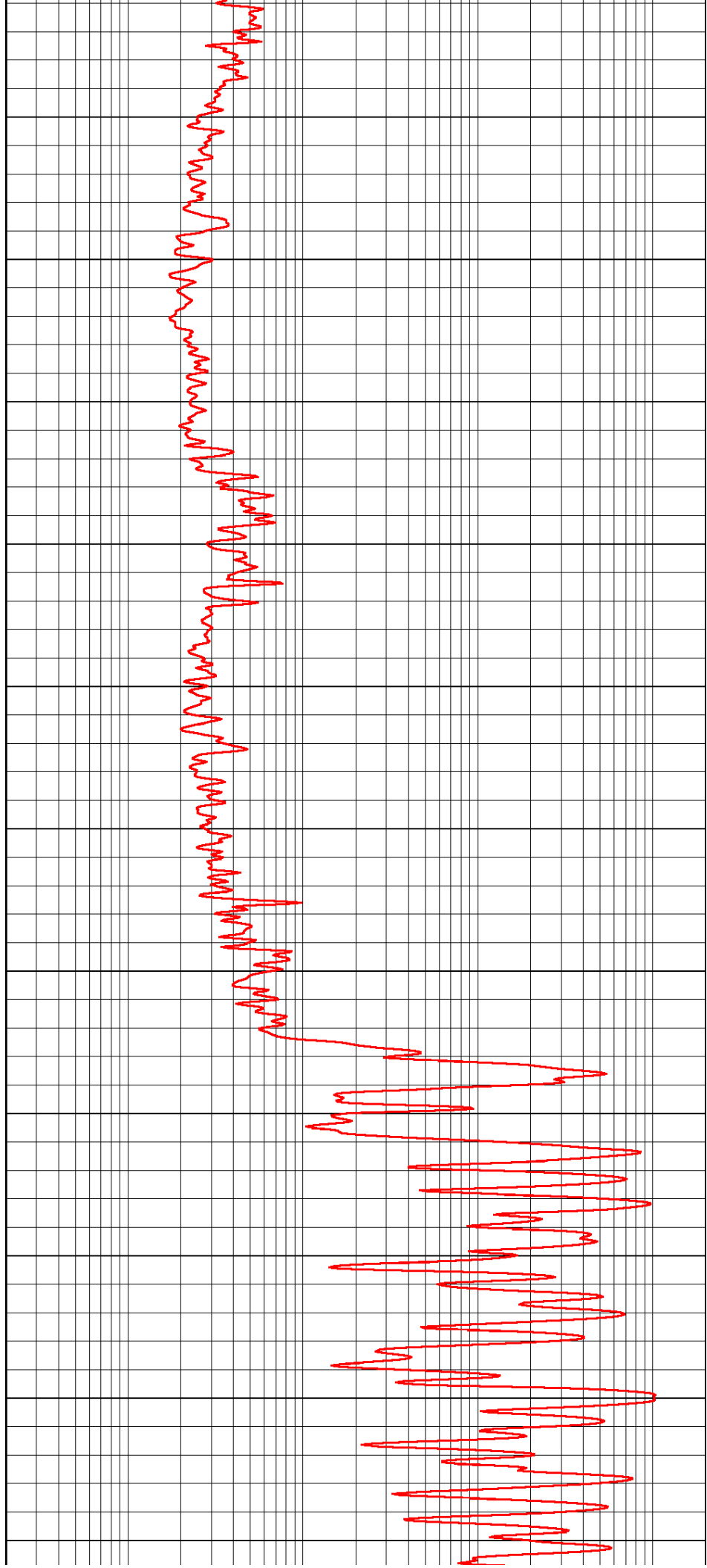
1250

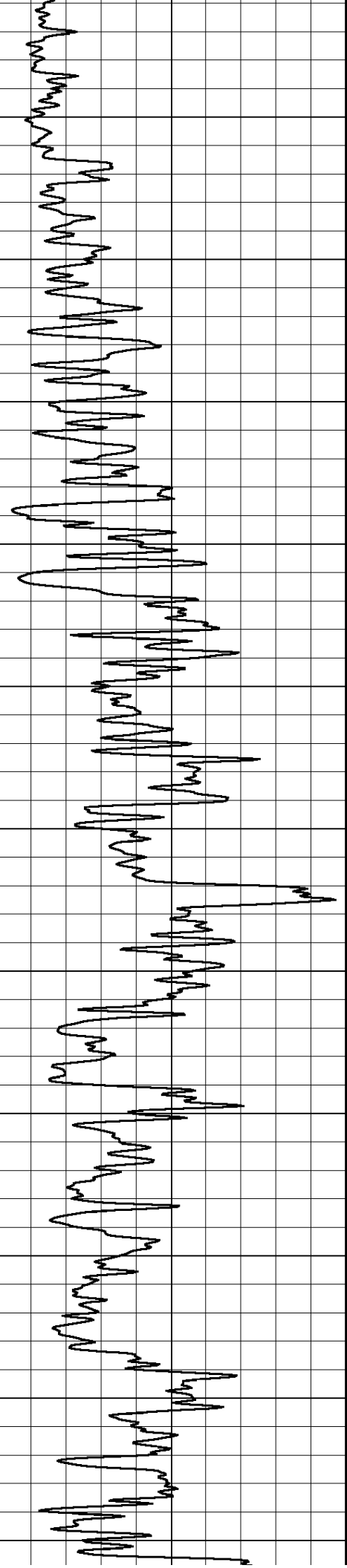
1300

1350

1400

1450





1500

1550

1600

1650

1700

1750

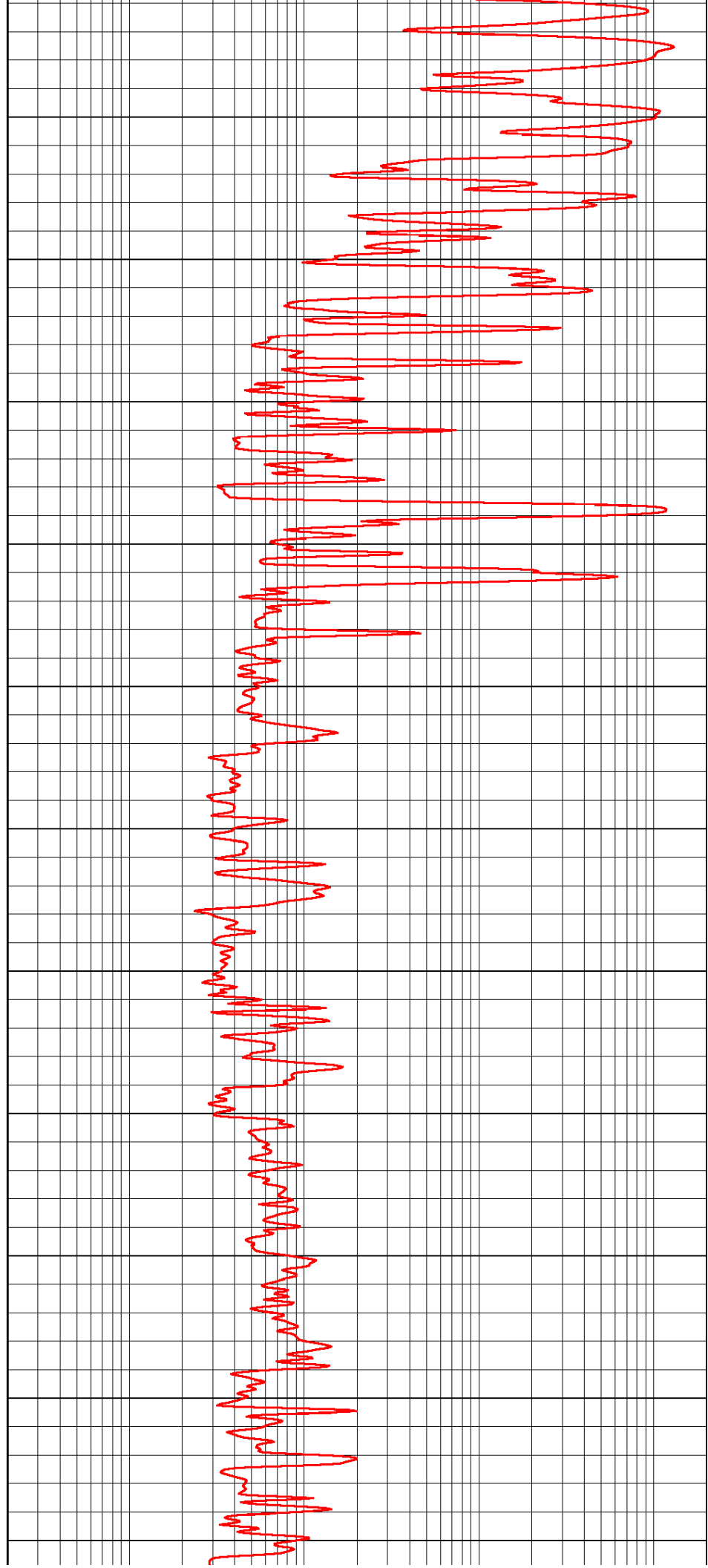
1800

1850

1900

1950

2000



1500

1550

1600

1650

1700

1750

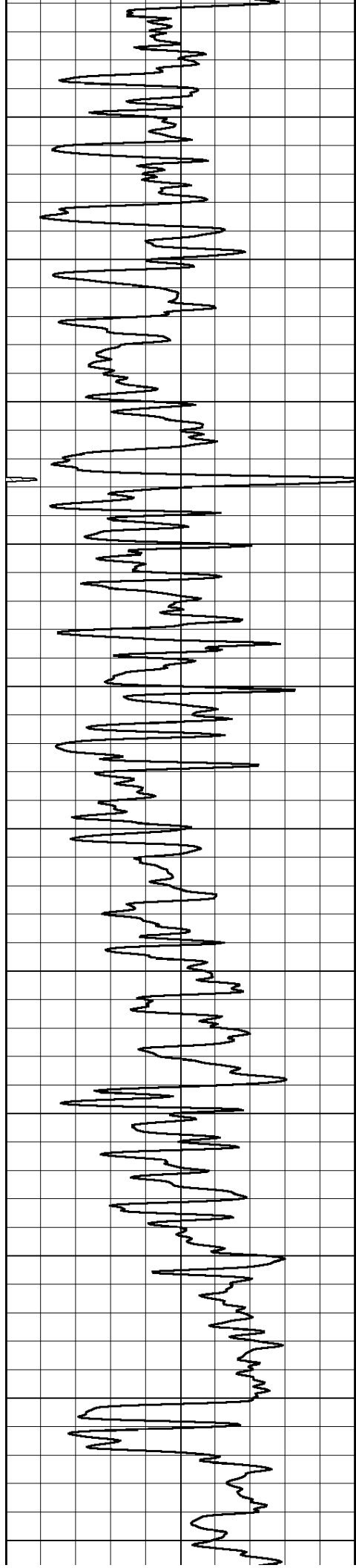
1800

1850

1900

1950

2000



2050

2100

2150

2200

2250

2300

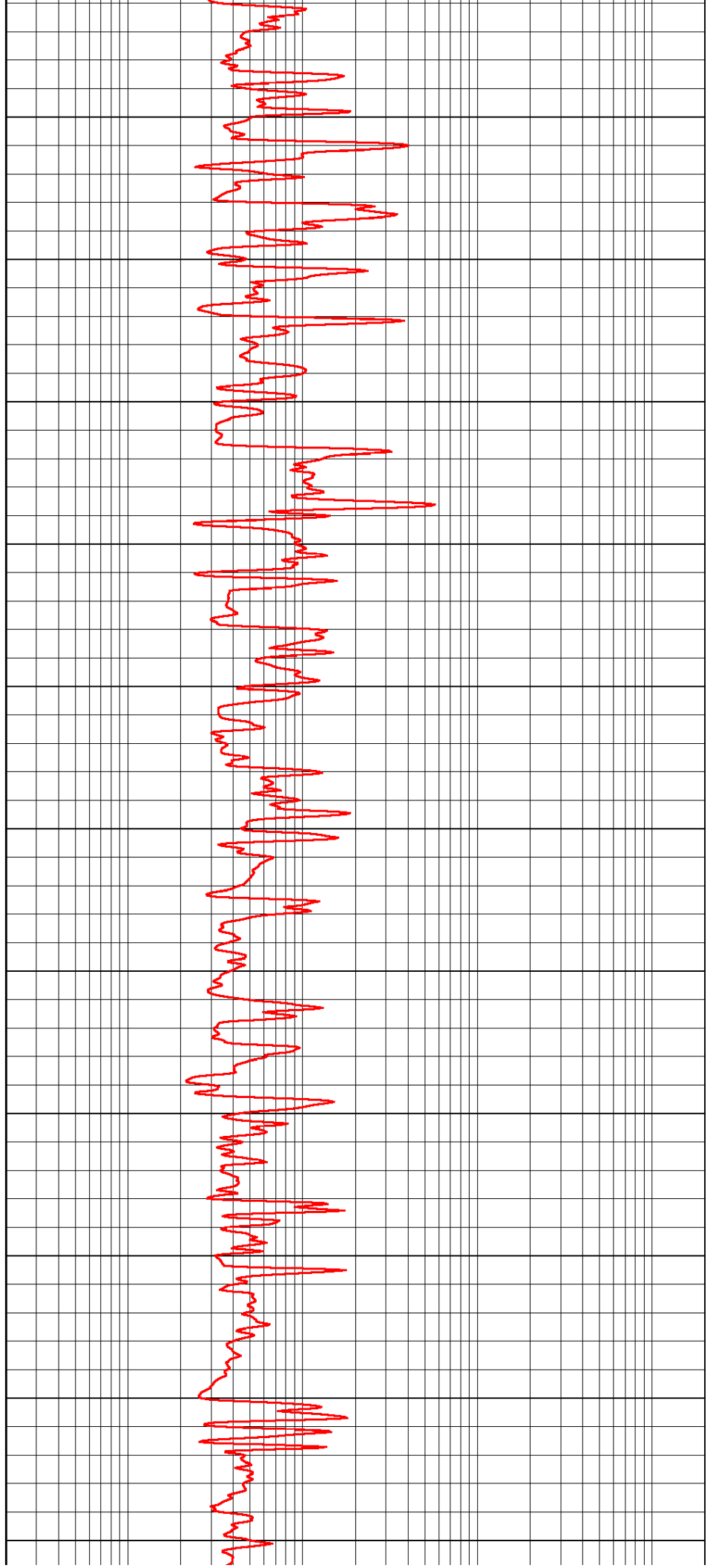
2350

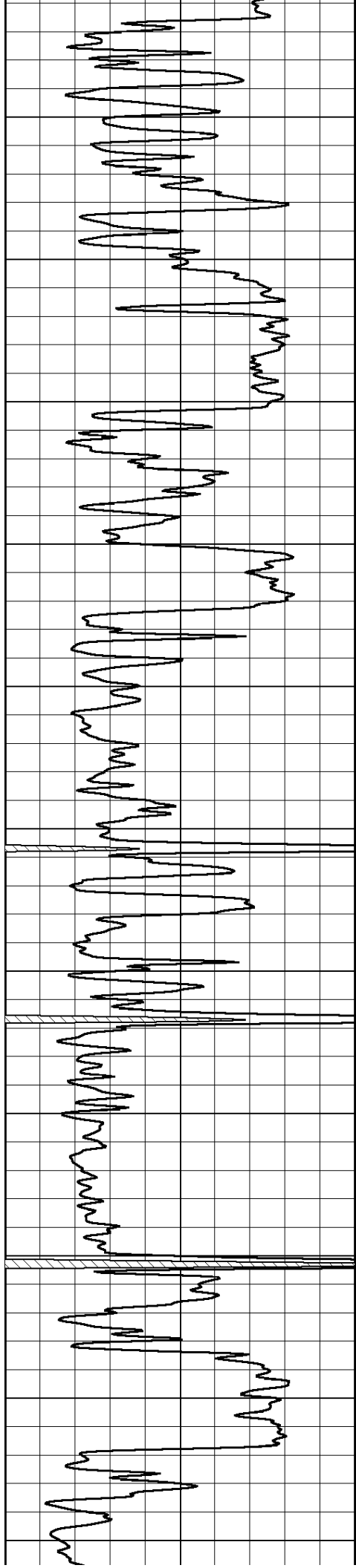
2400

2450

2500

2550





2600

2650

2700

2750

2800

2850

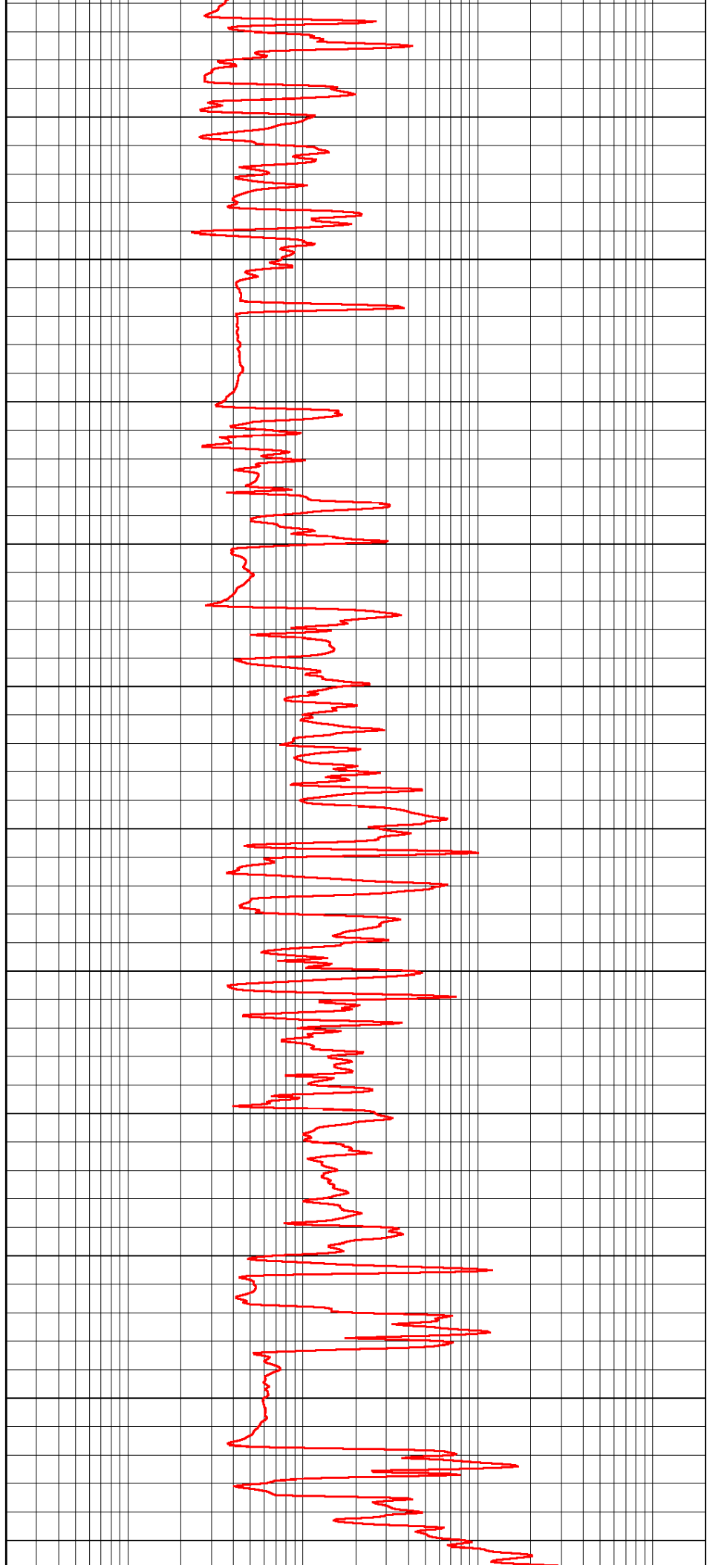
2900

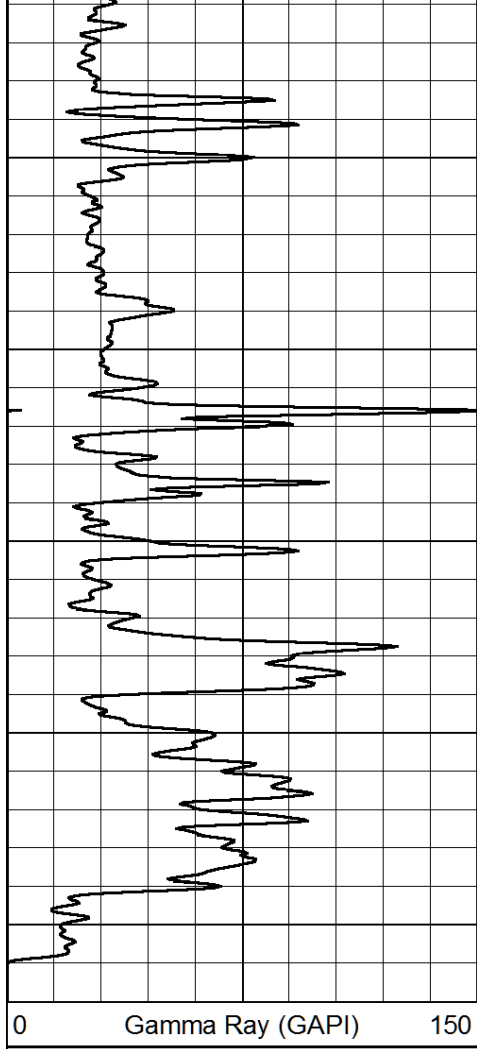
2950

3000

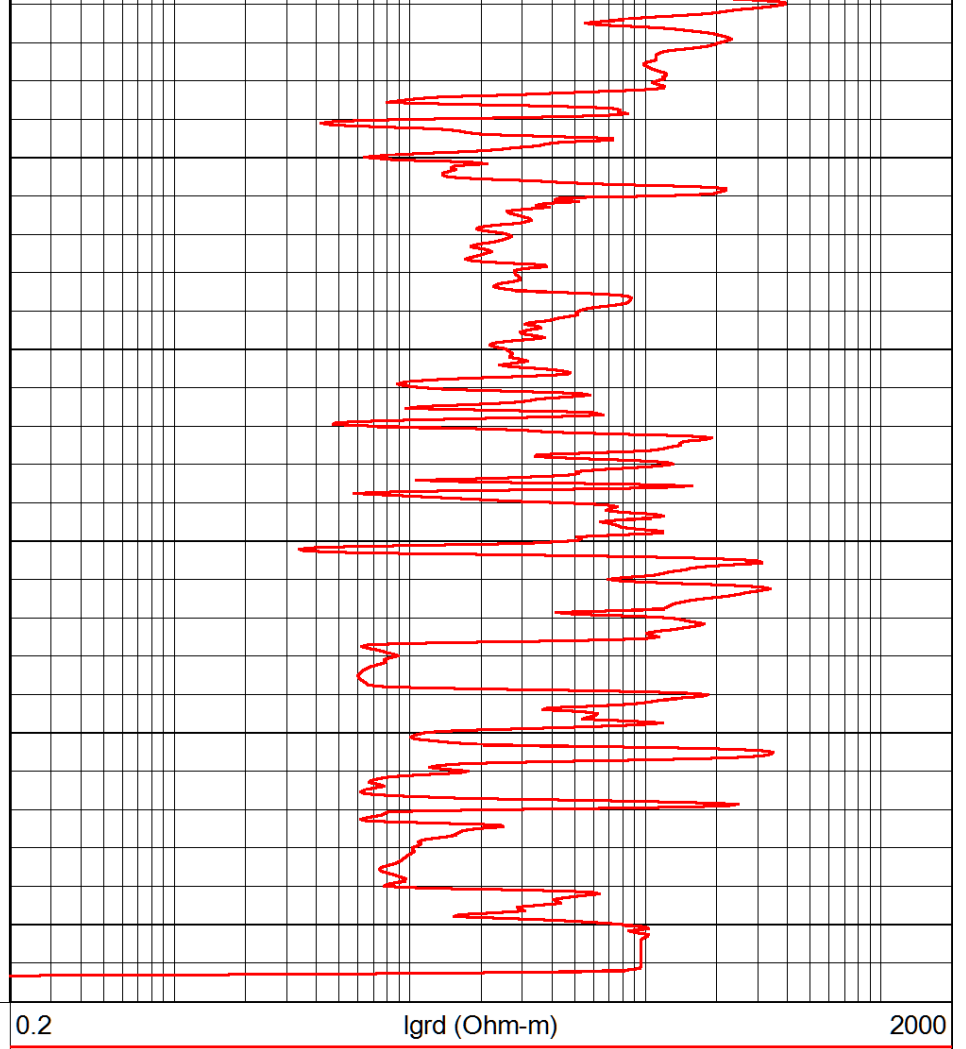
3050

3100



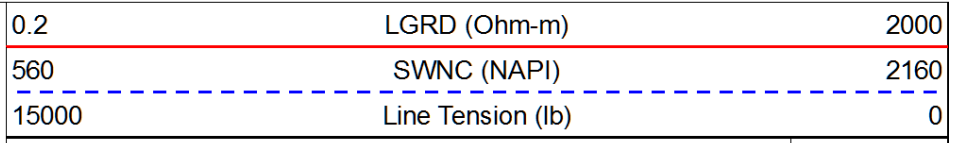
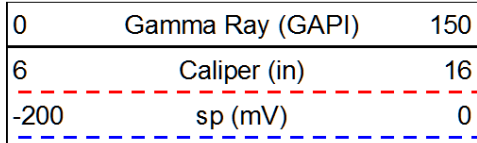


3150
3200
3250
3300
3350

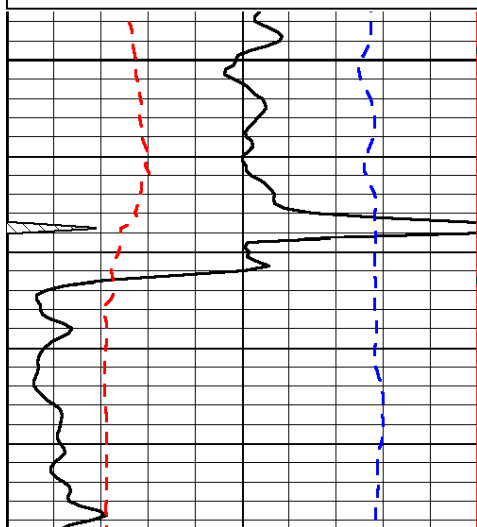


0.2 2000

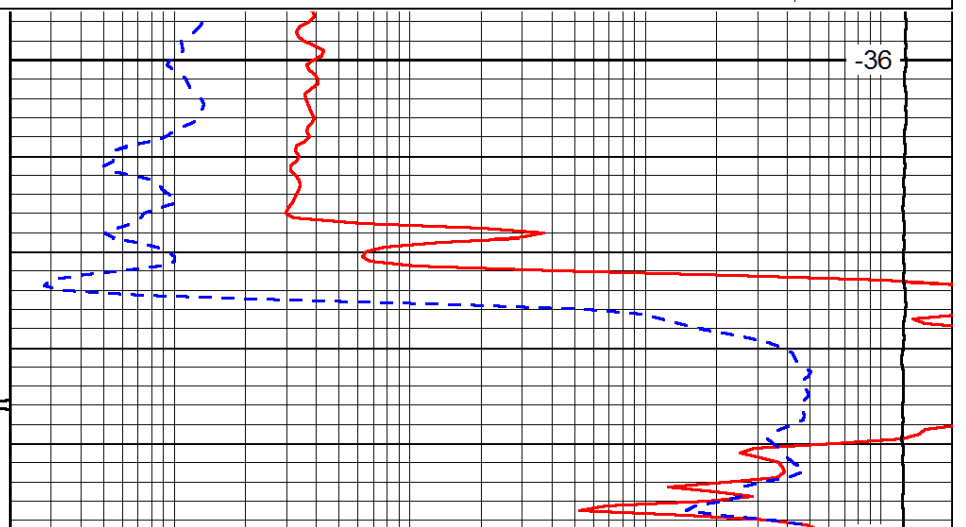
Database File: bear_hd.db
 Dataset Pathname: rag/brmain
 Presentation Format: rag
 Dataset Creation: Fri Dec 07 22:52:13 2012
 Charted by: Depth in Feet scaled 1:240



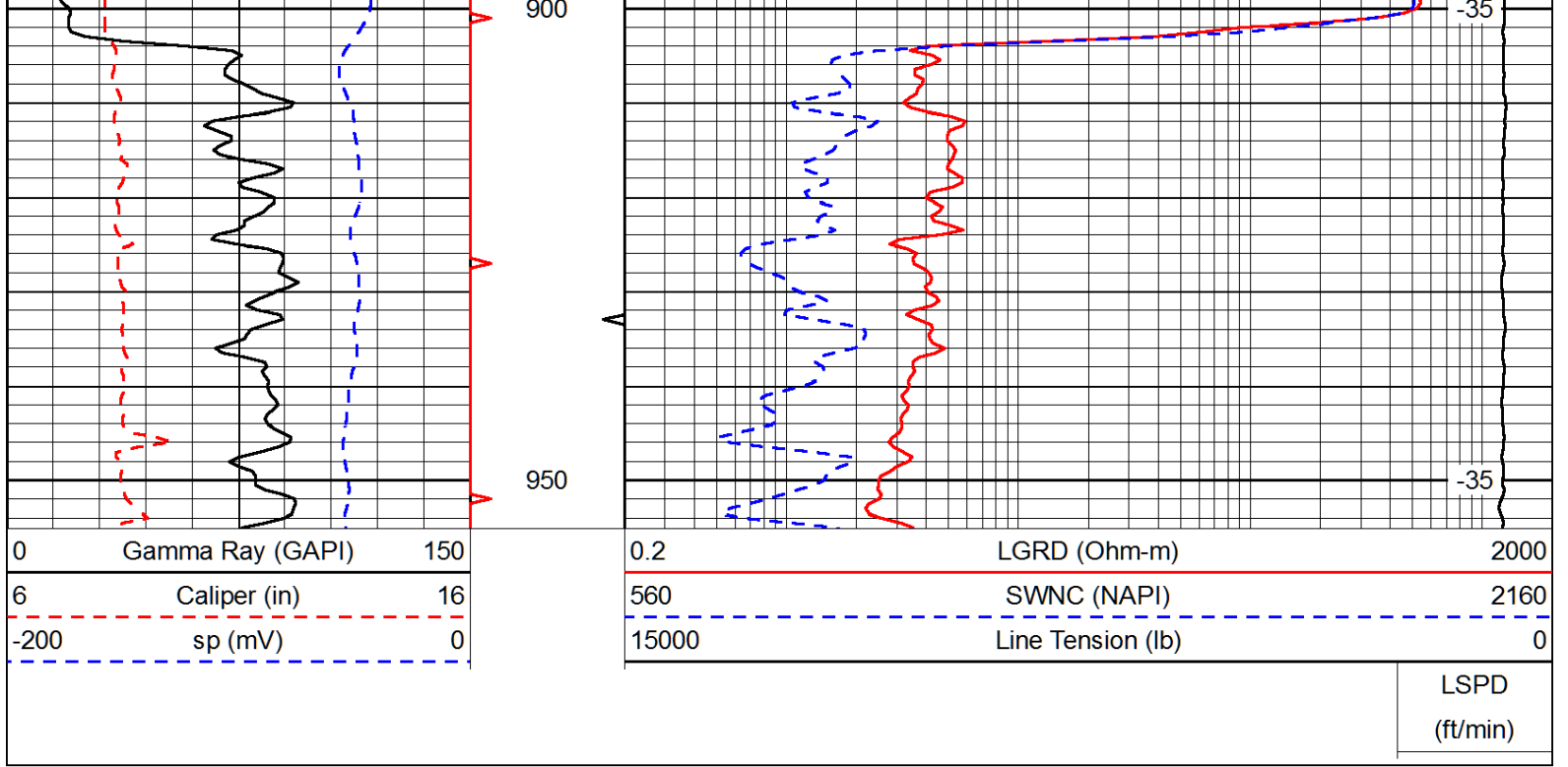
LSPD
(ft/min)



850



-36

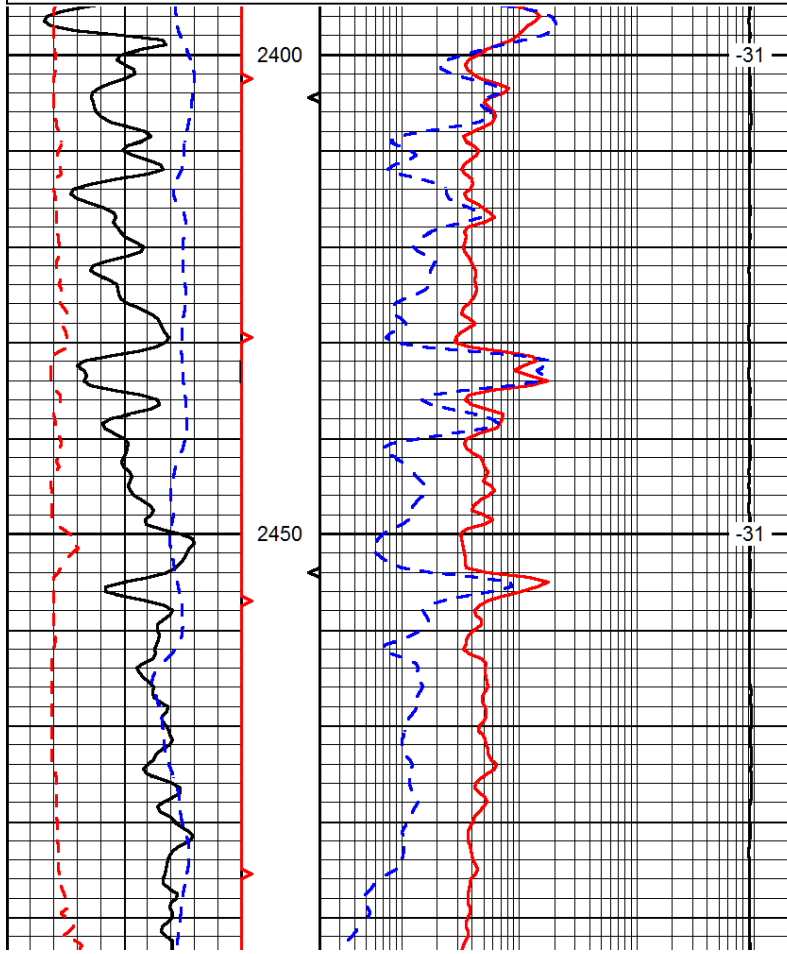


Database File: bear_hd.db
 Dataset Pathname: rag/brmain
 Presentation Format: rag
 Dataset Creation: Fri Dec 07 22:52:13 2012
 Charted by: Depth in Feet scaled 1:240

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

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

LSPD (ft/min)



140 80 20 10 5 1
POROSITY LIMESTONE (FLUID FILLED HOLE)

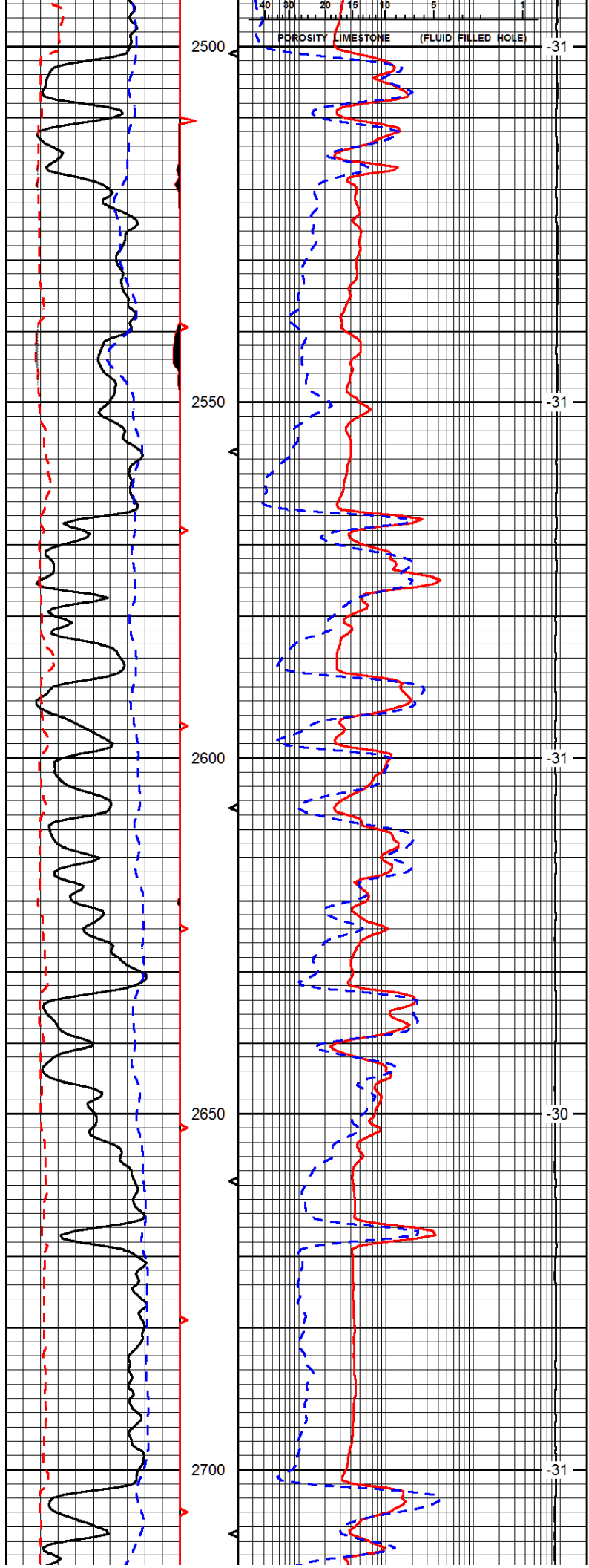
2500 -31

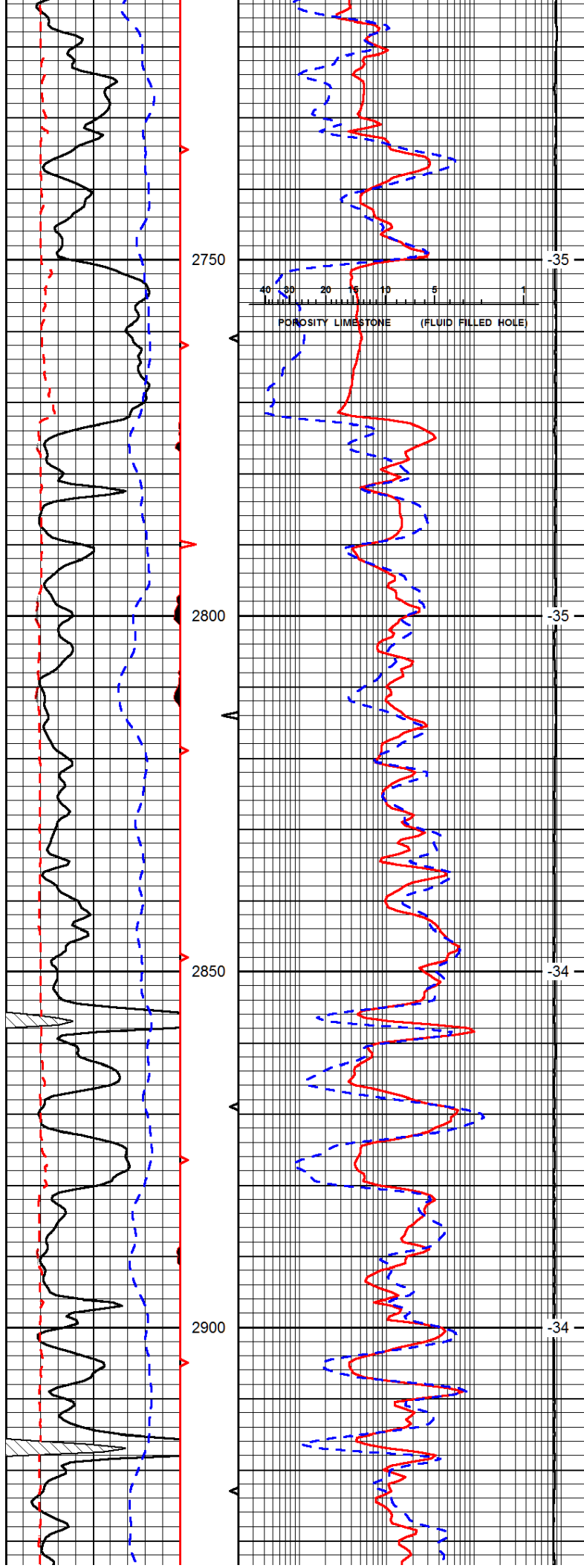
2550 -31

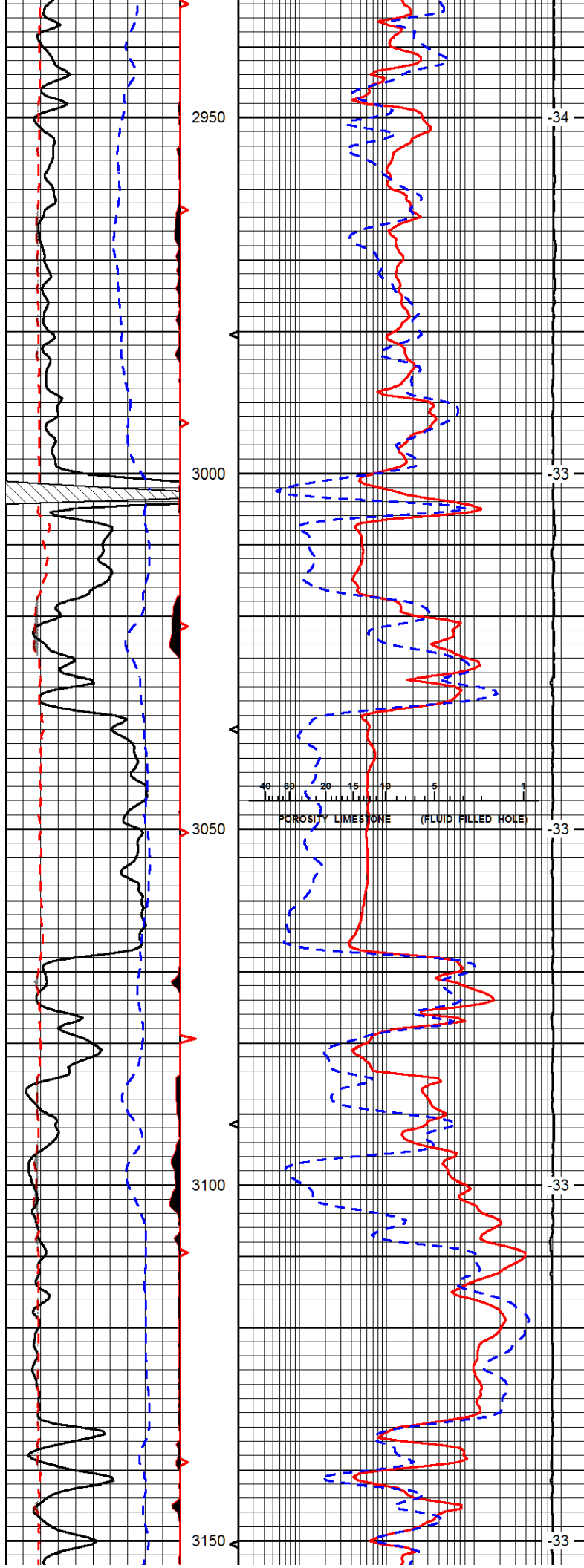
2600 -31

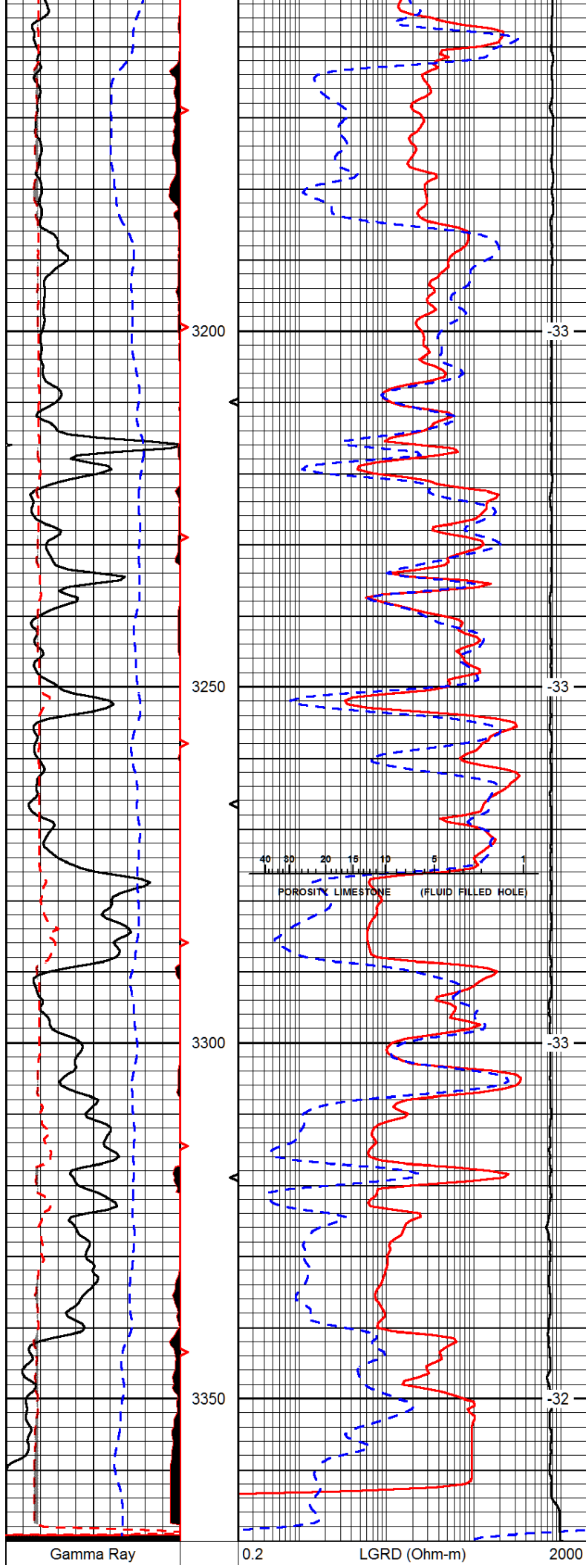
2650 -30

2700 -31









0	(GAPI)	150
6	Caliper (in)	16
-200	sp (mV)	0

560	SWNC (NAPI)	2160
15000	Line Tension (lb)	0
		LSPD
		(ft/min)