



Pioneer Energy Services

Dual Induction Log

API No.

15-053-21,305-00-00

Company American Warrior, Inc.

Well D&S No. 1-5

Field Stollenberg

County Ellsworth State

Kansas

Location

NE NW SW SW
1,100' FSL & 500' FWL

Other Services
CNL/CDL
MEL

Sec: 5

Twp: 16S

Rge: 10W

Permanent Datum Ground Level Elevation 1811
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elevation
K.B. 1819
D.F. 1811
G.L. 1811

Date 2/3/2014

Run Number One

Depth Driller 3410

Depth Logger 3412

Bottom Logged Interval 3411

Top Log Interval 350

Casing Driller 8.625 @ 386

Casing Logger 380

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 4800

Density / Viscosity 9.4 58

pH / Fluid Loss 10.5 7.6

Source of Sample Flowline

Rm @ Meas. Temp .72 @ 52

Rmf @ Meas. Temp .54 @ 52

Rmc @ Meas. Temp .97 @ 52

Source of Rmf / Rmc Charts

Rm @ BHT .34 @ 110

Operating Rig Time 4 Hours

Max Rec. Temp. F 110

Equipment Number 108

Location Hays

Recorded By J. Long

Witnessed By Wyatt Urban

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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

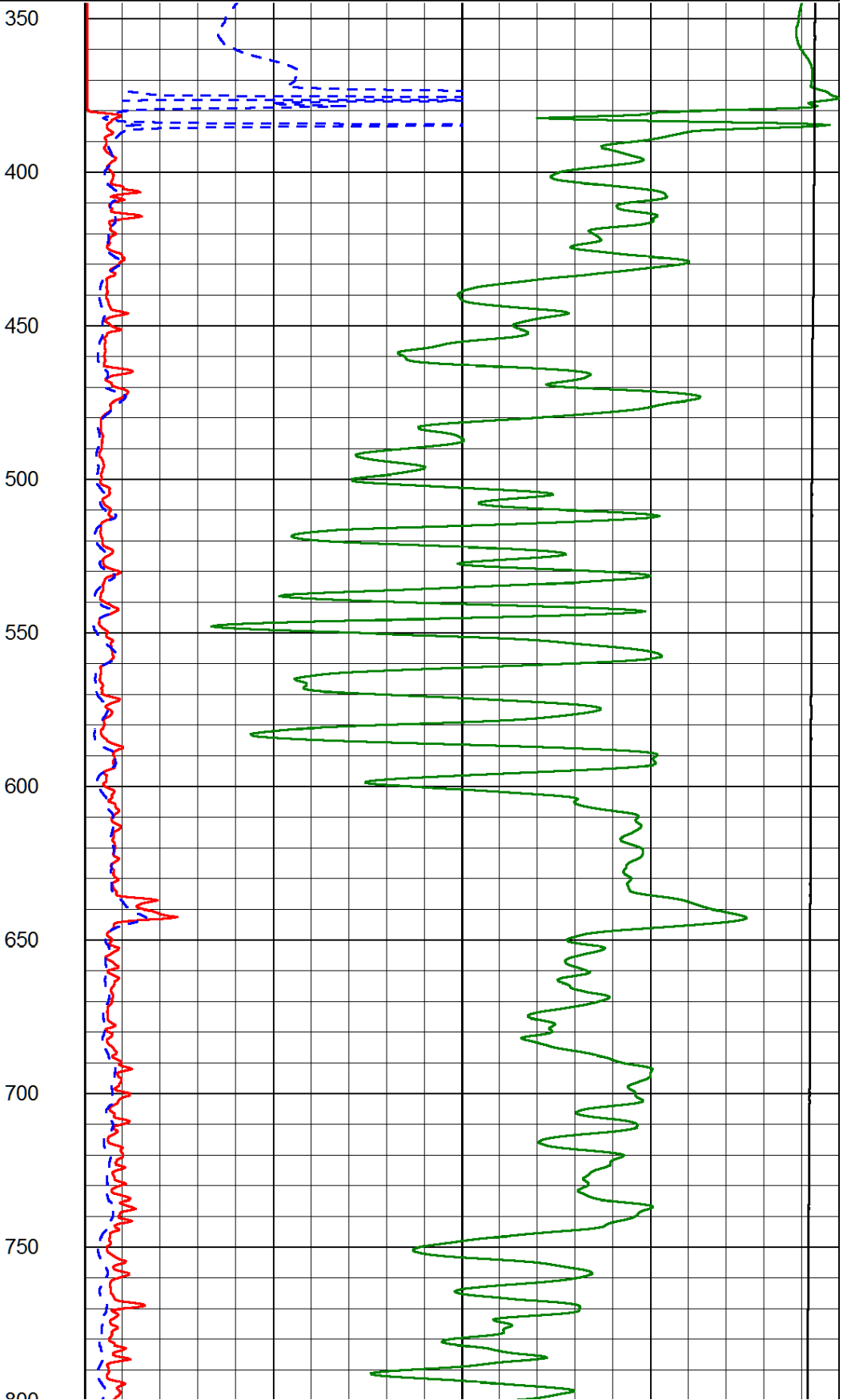
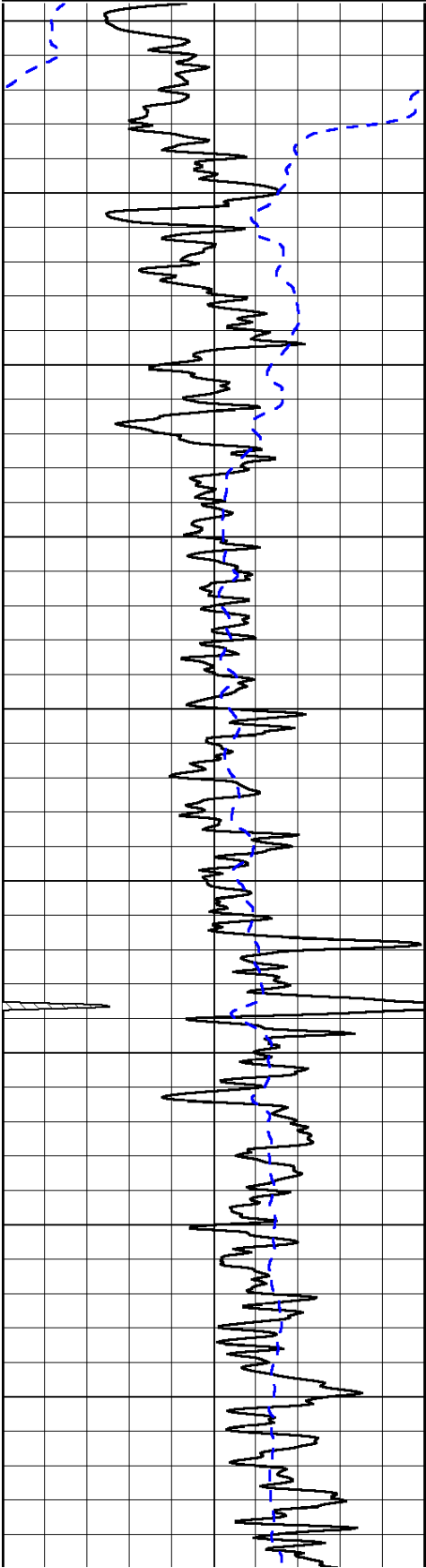
Thank you for using Log-Tech, Inc.
(785) 625-3858

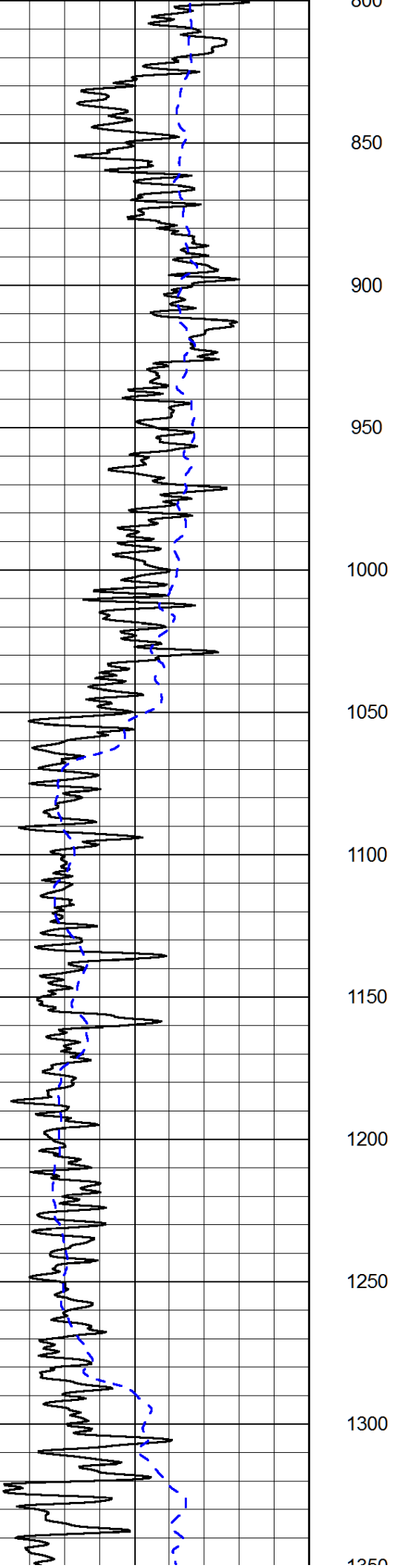
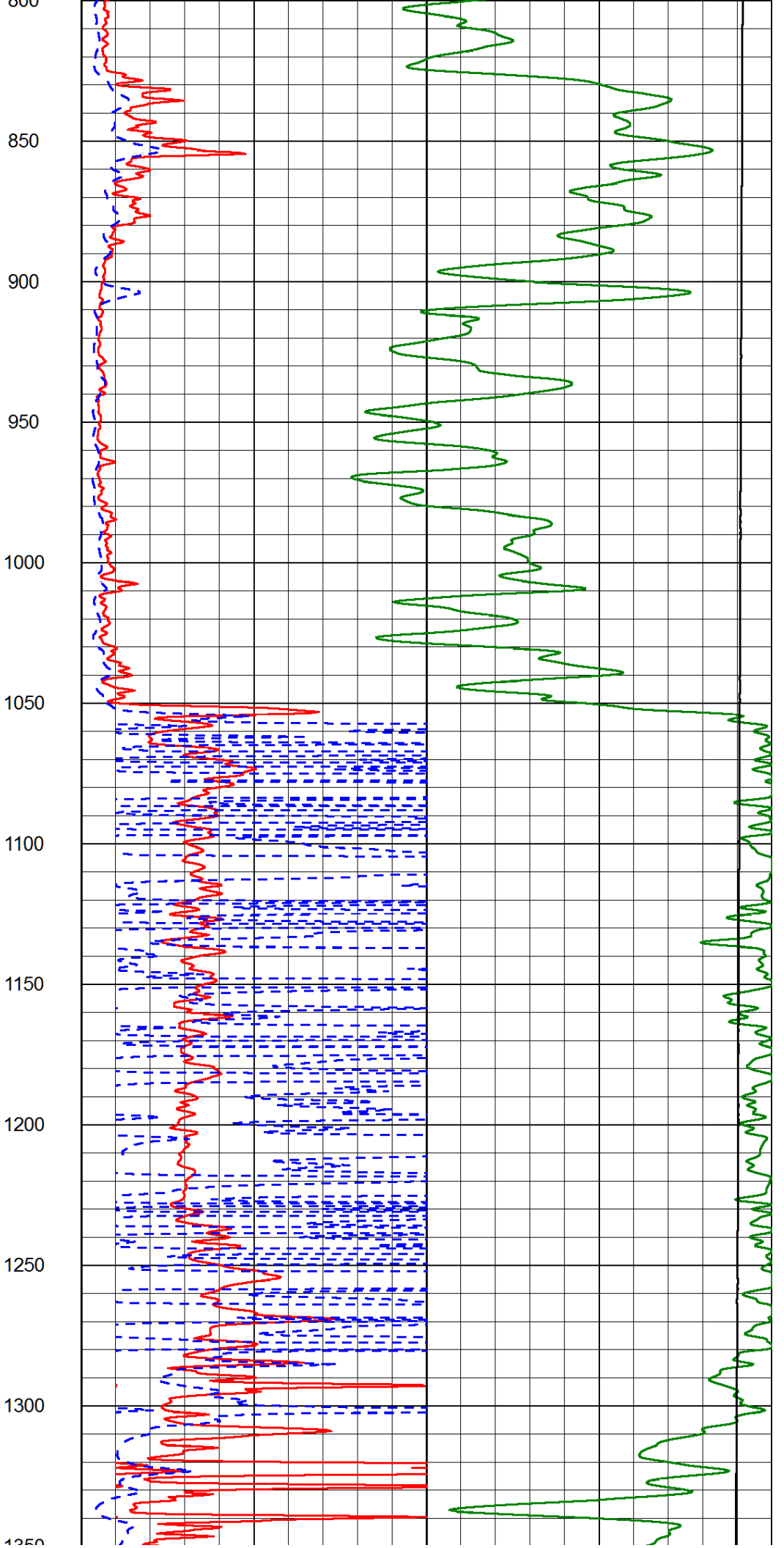
Wilson, 10 South to Avenue N (NE 220 Road), 1 East, 200 Yards North,
East Into

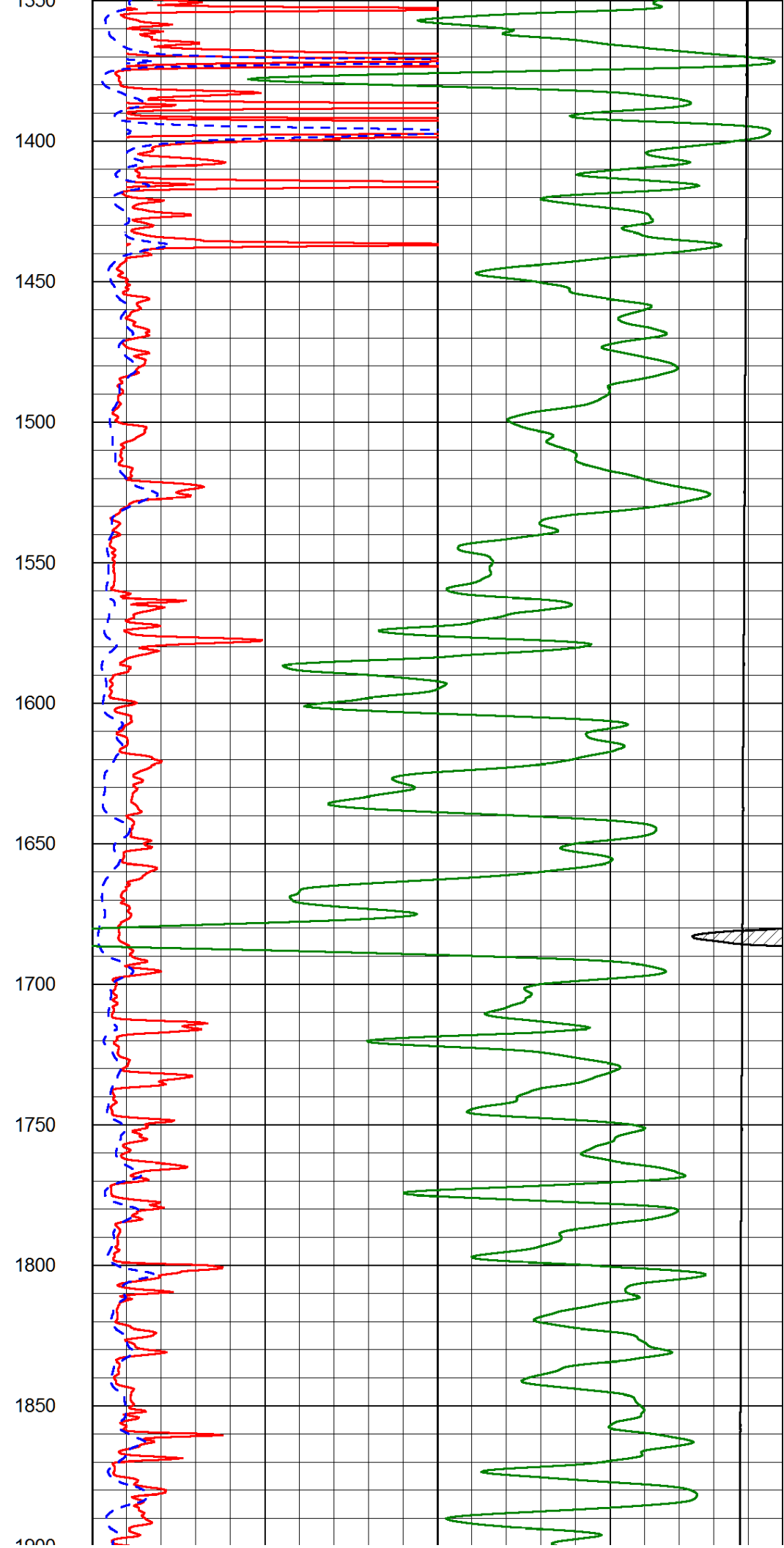
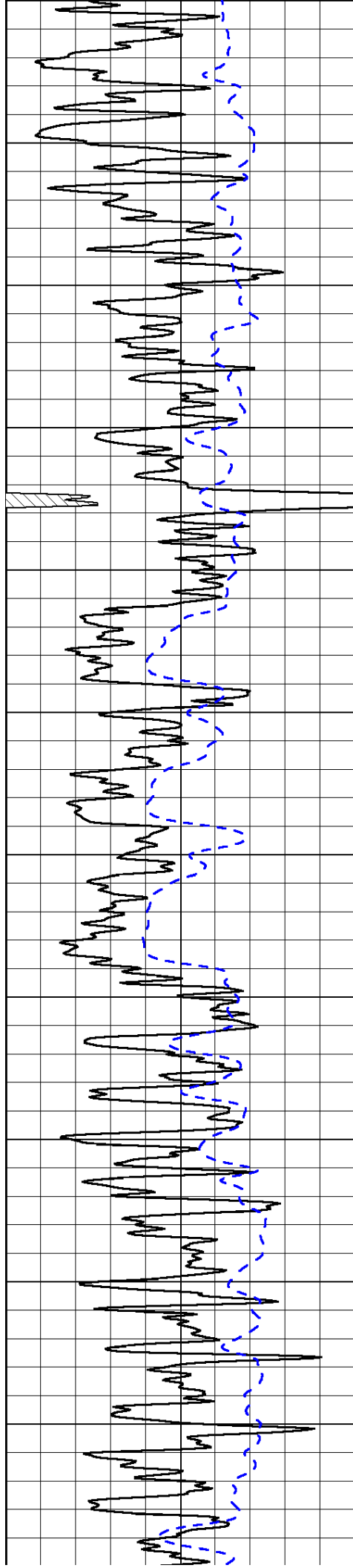
Database File: amwarrior_d&s_1-5hd.db
Dataset Pathname: dil/awstck
Presentation Format: dil2in
Dataset Creation: Mon Feb 03 06:59:52 2014
Charted by: Depth in Feet scaled 1:600

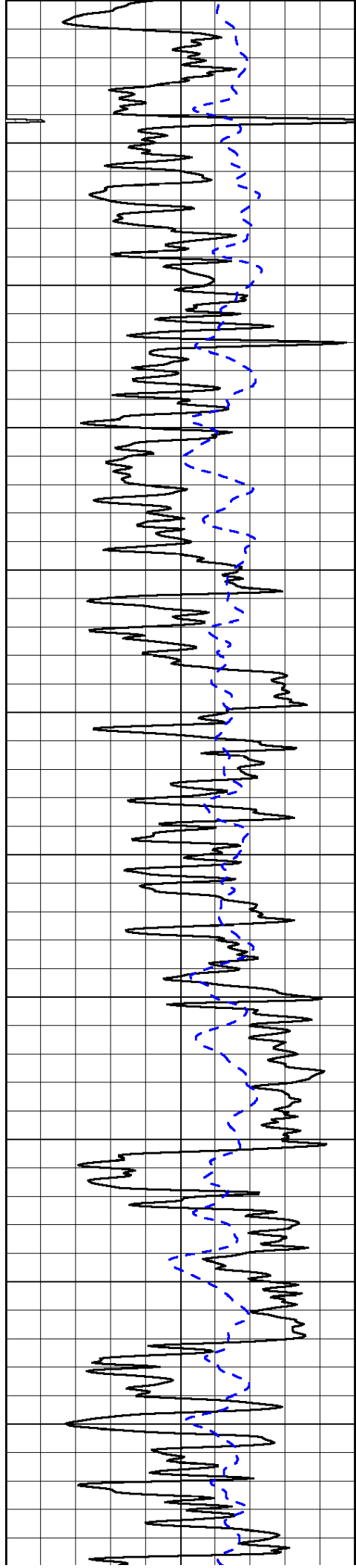
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

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

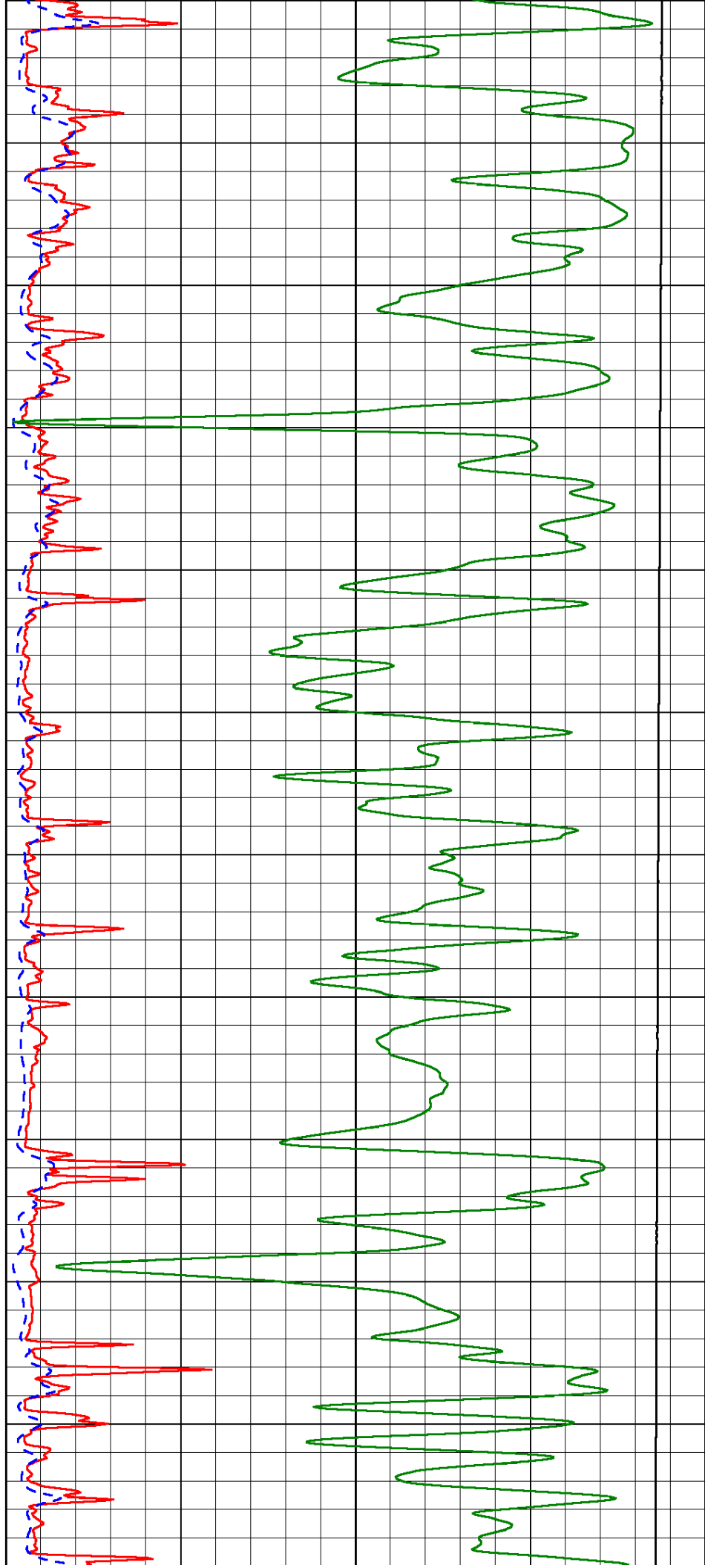


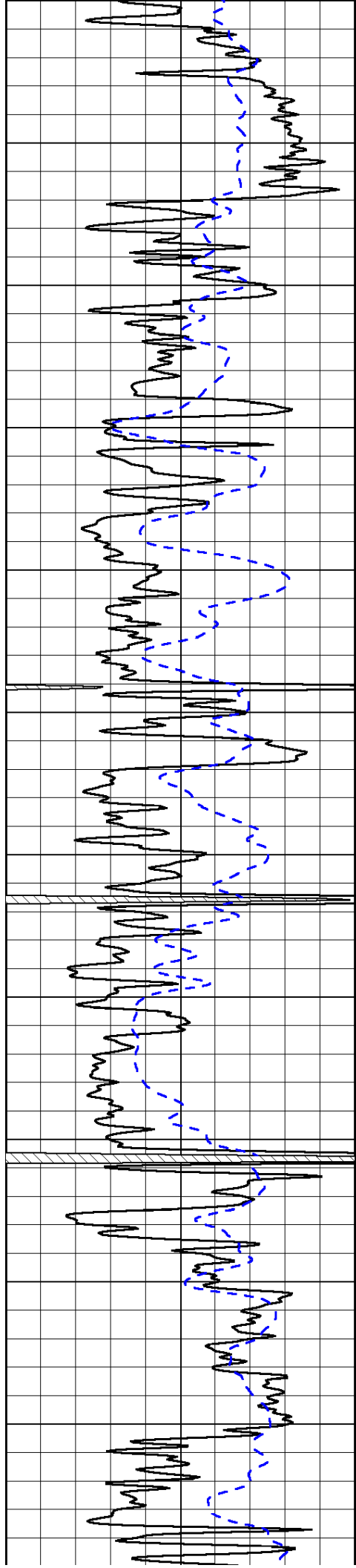




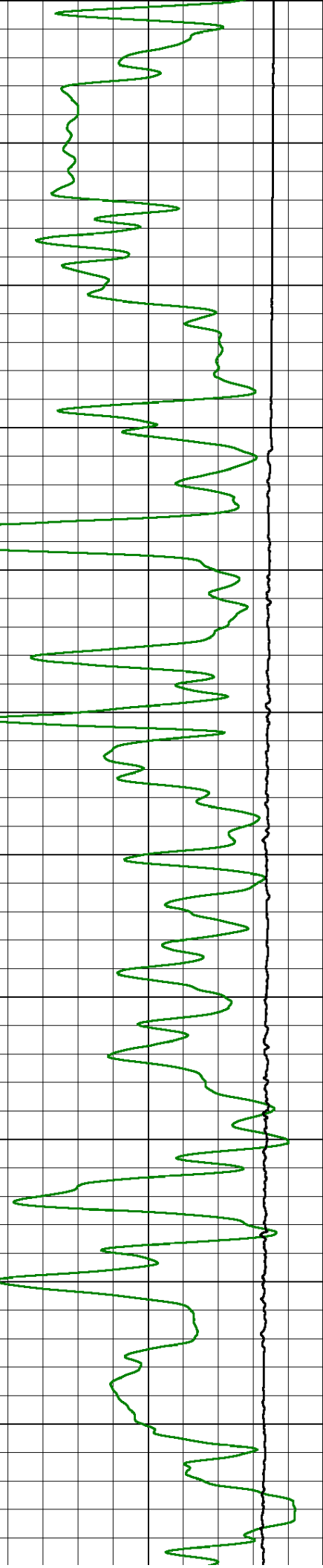
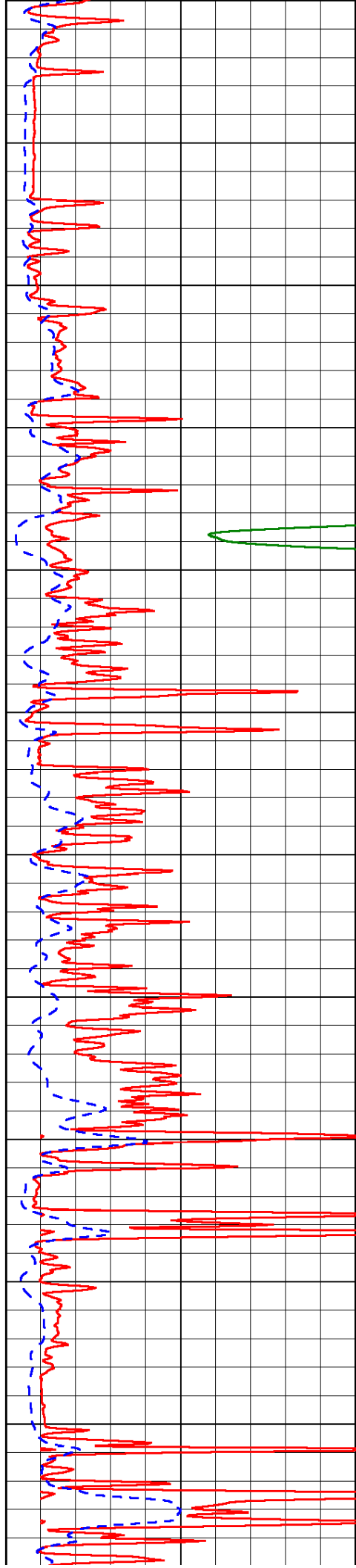


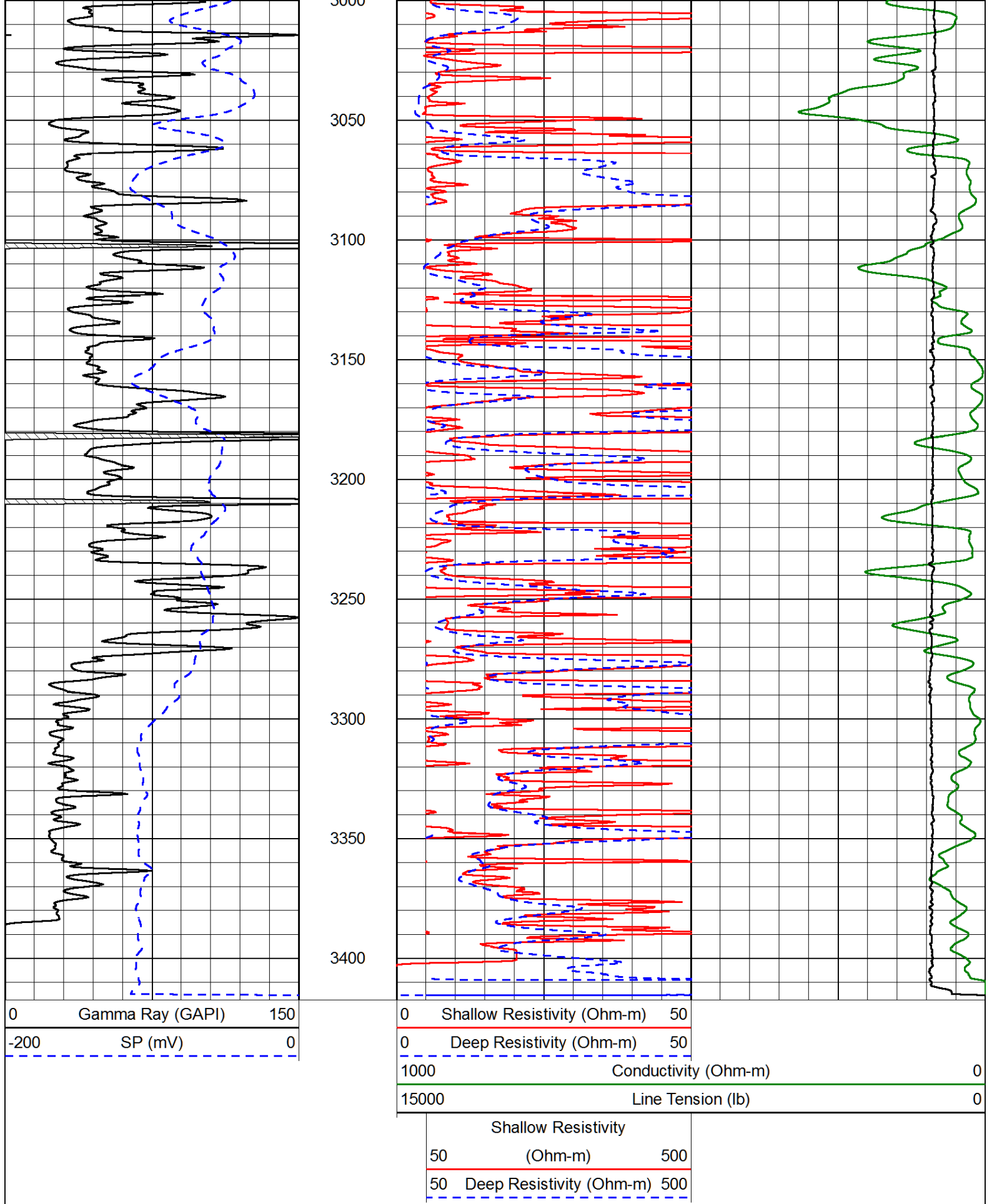
1900
1950
2000
2050
2100
2150
2200
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2300
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2450
2500
2550
2600
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2700
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2800
2850
2900
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3000

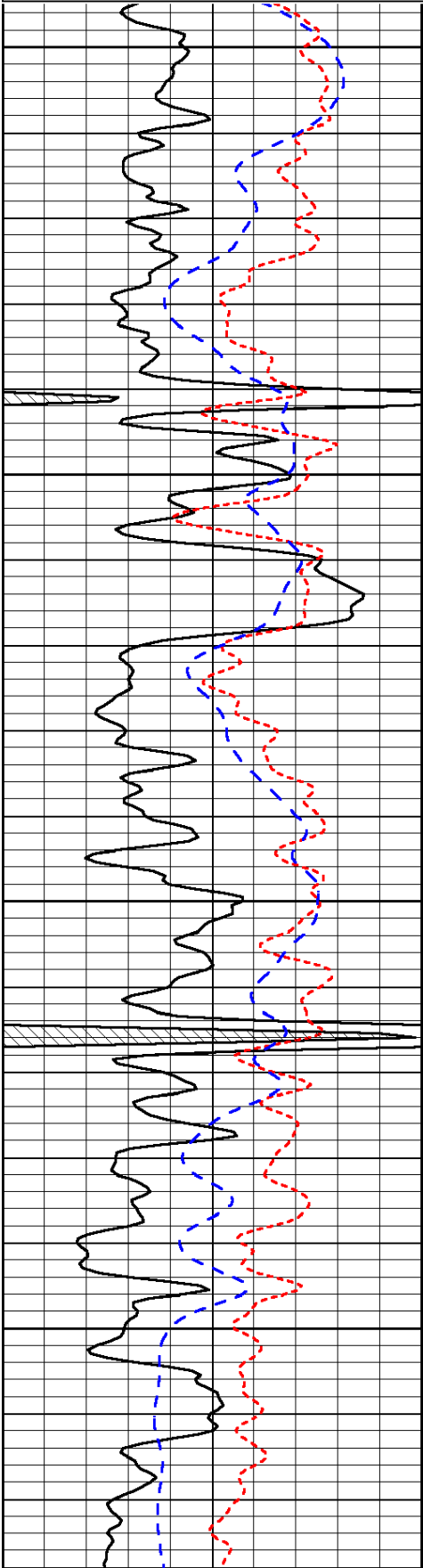




0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

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)

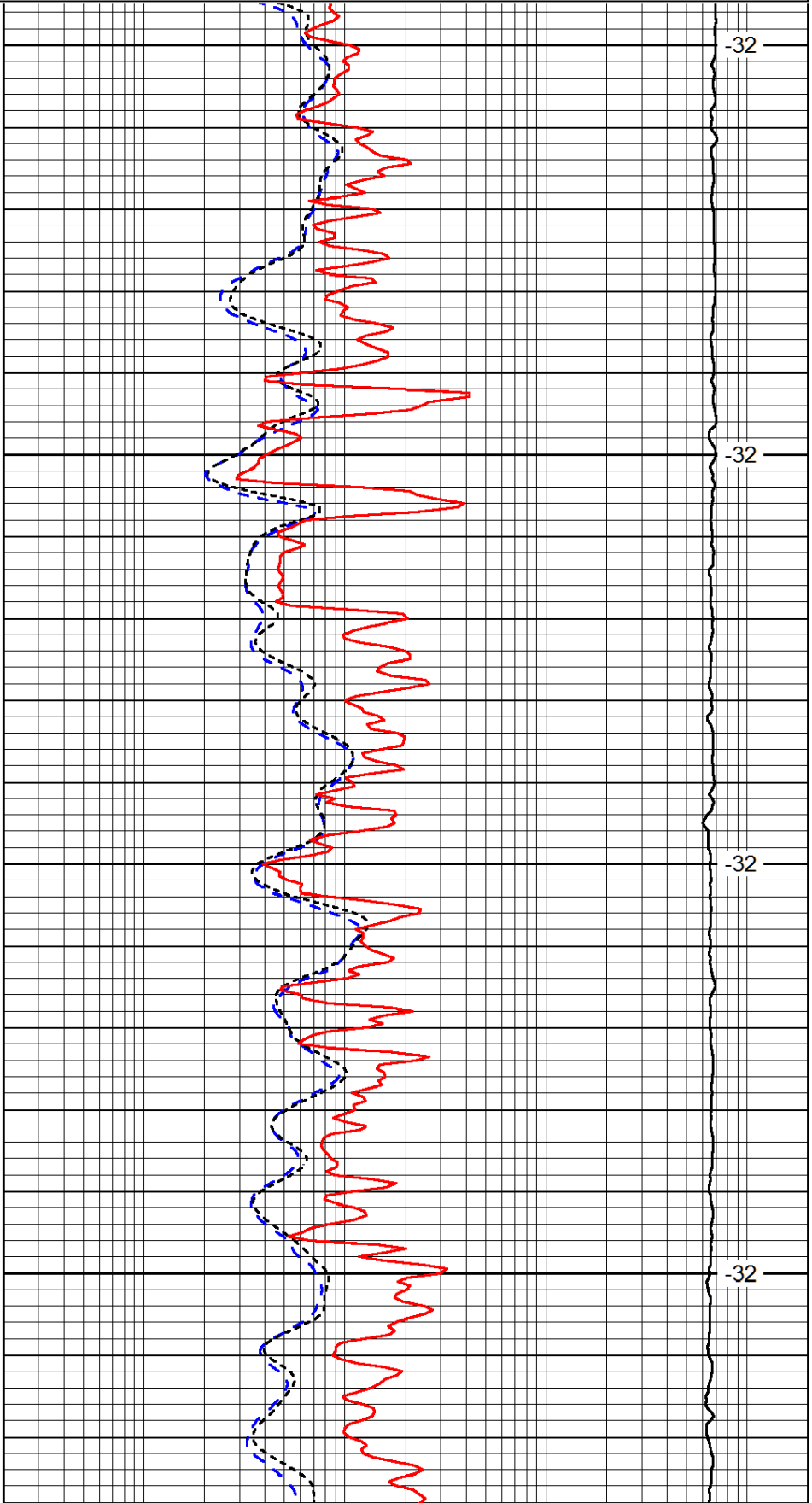


2650

2700

2750

2800

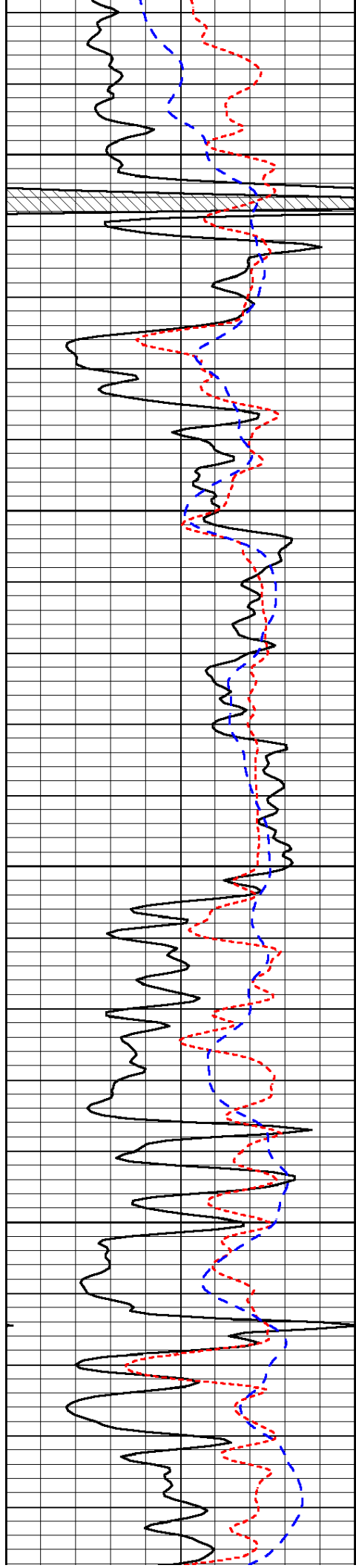


-32

-32

-32

-32

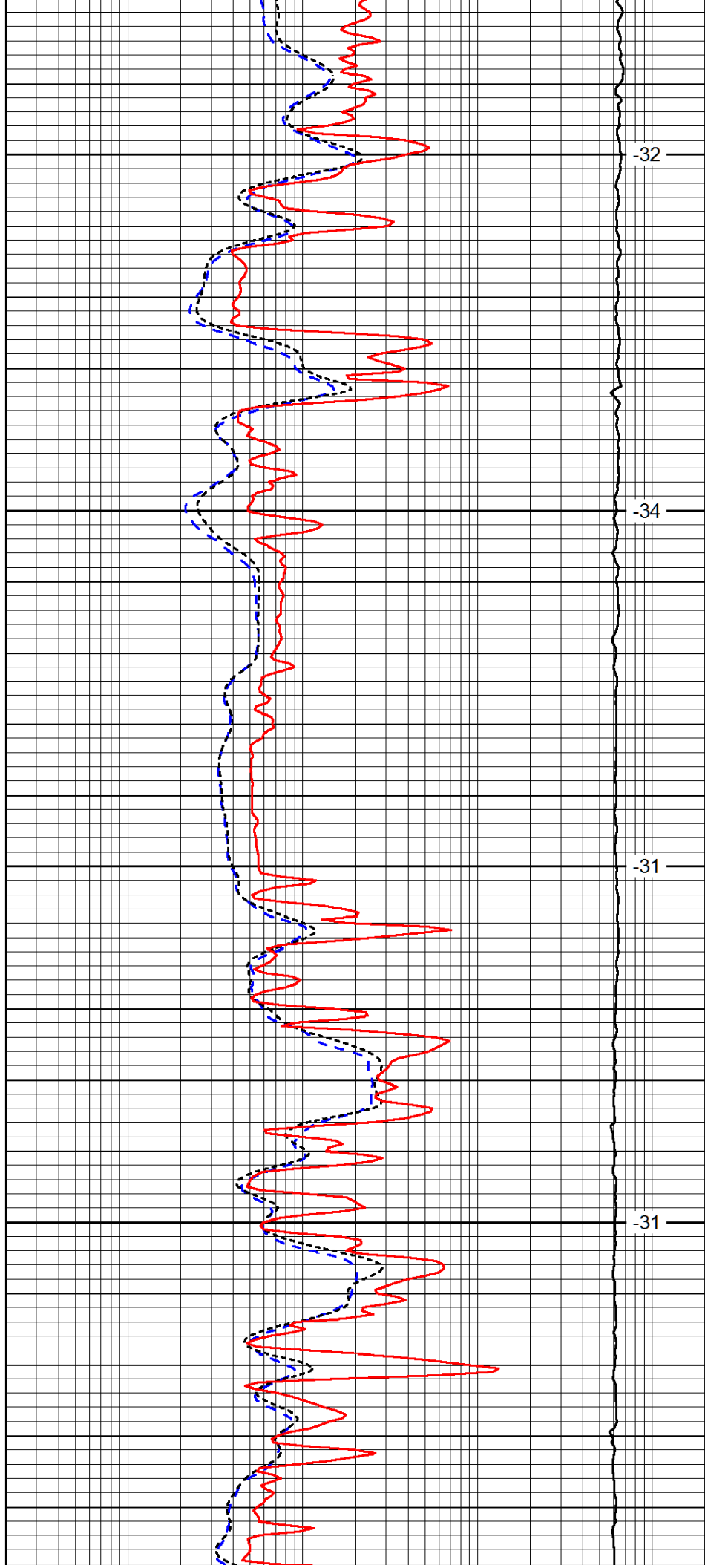


2850

2900

2950

3000

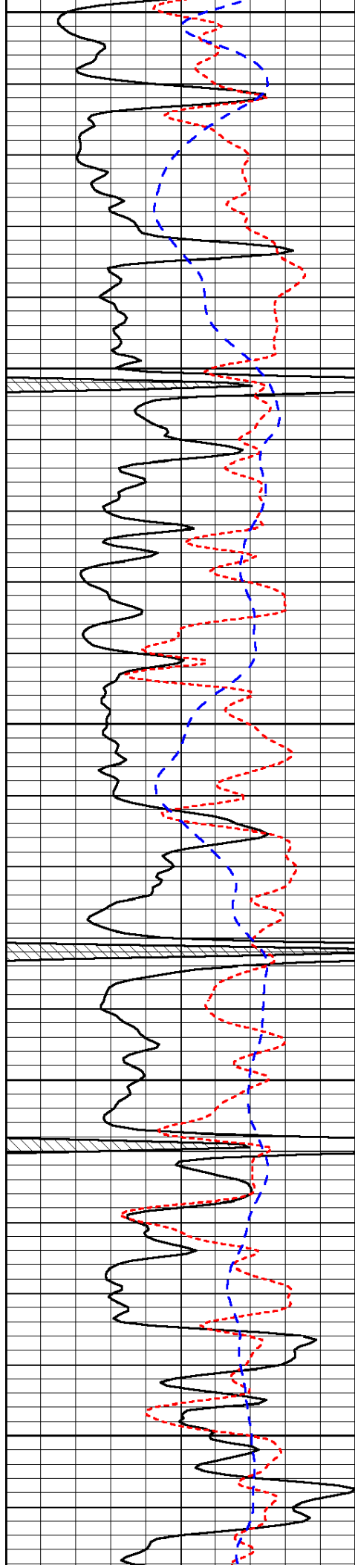


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-31



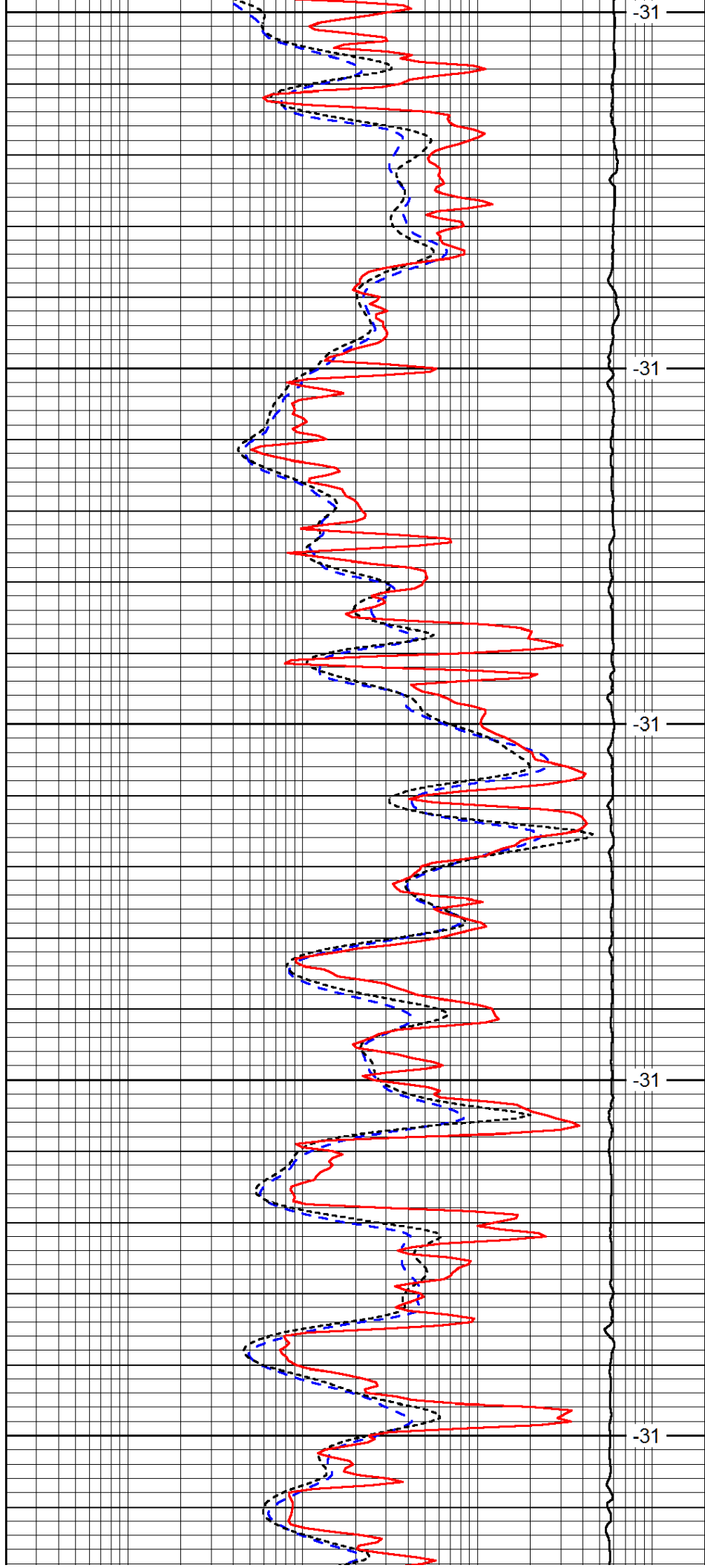
3050

3100

3150

3200

3250



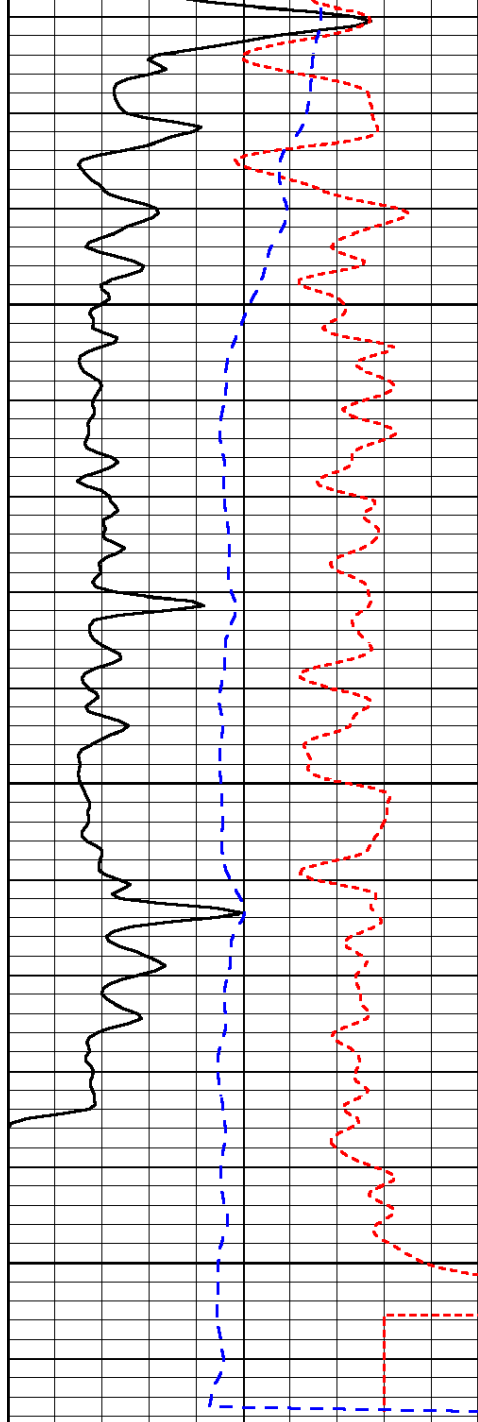
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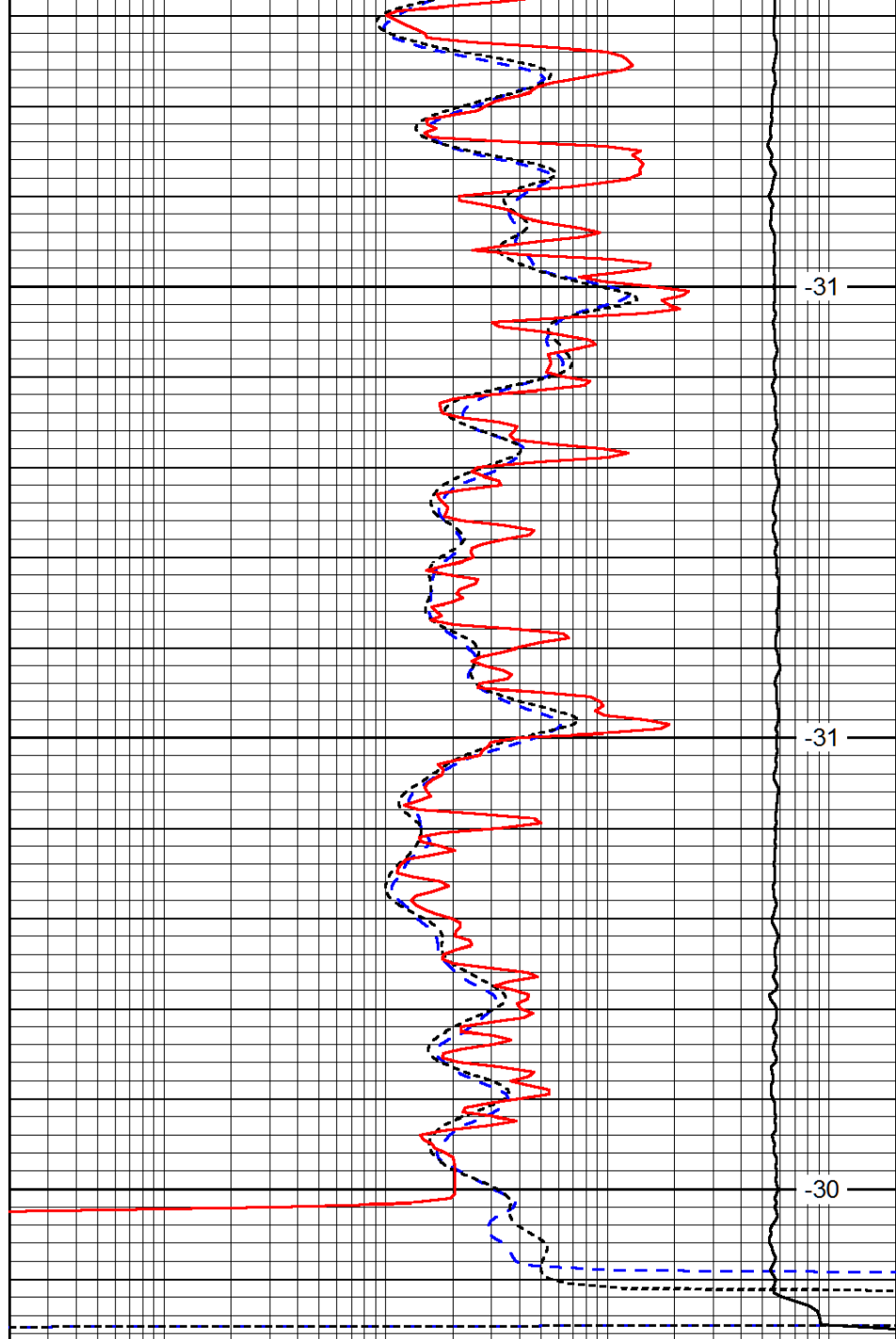


0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

3300

3350

3400



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)