



Dual Induction Log

Pioneer Energy Services

API No.

15-009-25936-00-00

Company Bird Dog Oil, LLC

Well Lakin-Sieker #1-23

Field Lanternman

County Barton State

Kansas

Location 1335' FNL & 1000' FWL

Sec: 23 Twp: 19S Rge: 11W

Other Services
CNL/CDL
MEL/BHCS

Permanent Datum Ground Level Elevation 1775
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date 2/2/2014

Run Number One

Depth Driller 3450

Depth Logger 3448

Bottom Logged Interval 3447

Top Log Interval 300

Casing Driller 8.625 @ 309

Casing Logger 309

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 8500

Density / Viscosity 9.3 47

pH / Fluid Loss 8.0 8.0

Source of Sample Flowline

Rm @ Meas. Temp 0.30 @ 38

Rmf @ Meas. Temp 0.23 @ 38

Rmc @ Meas. Temp 0.41 @ 38

Source of Rmf / Rmc Charts

Rm @ BHT 0.10 @ 111

Operating Rig Time 5 Hours

Max Rec. Temp. F 111

Equipment Number 10

Location Hays

Recorded By D. Schmidt

Witnessed By Adam Nighswonger

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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

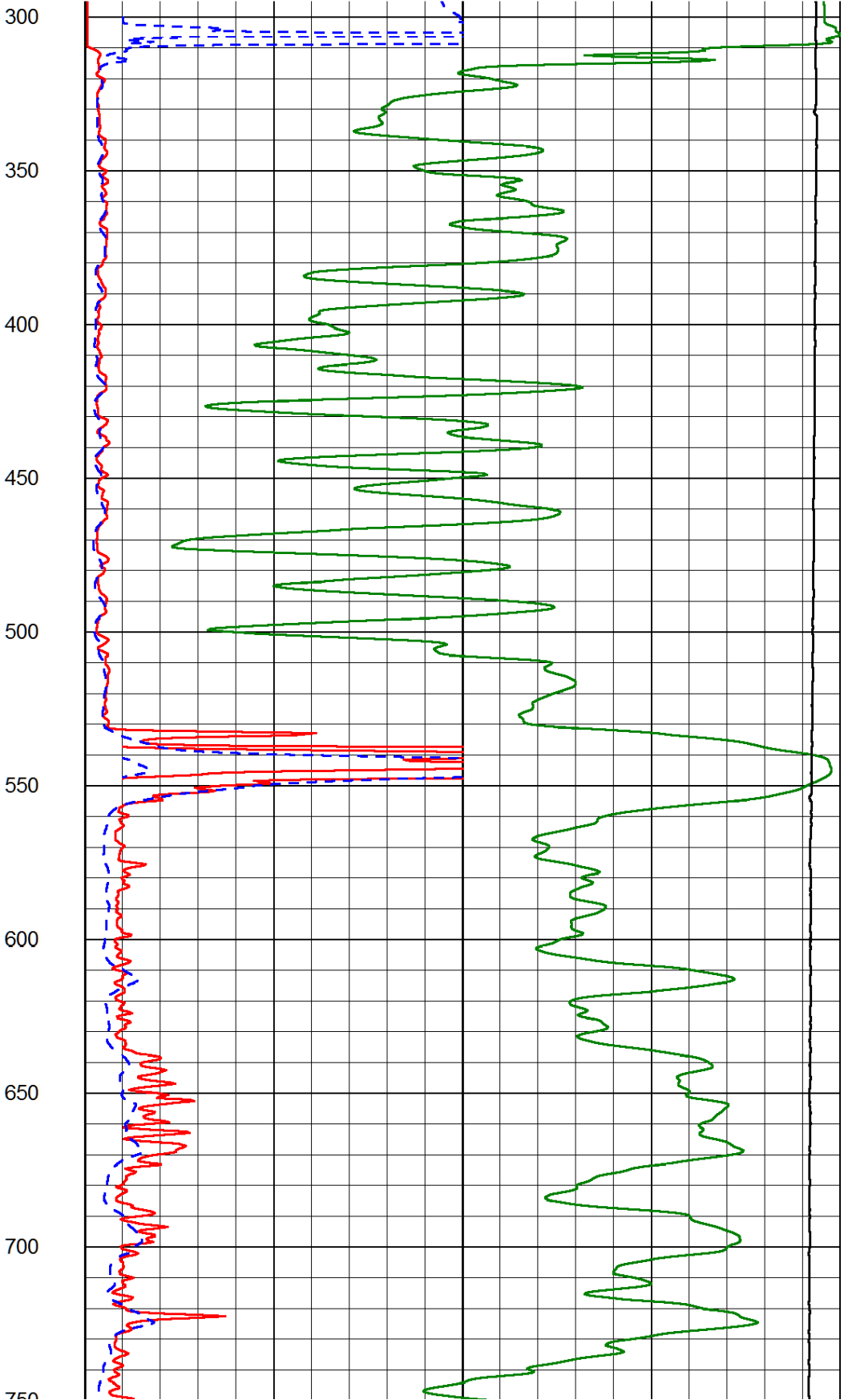
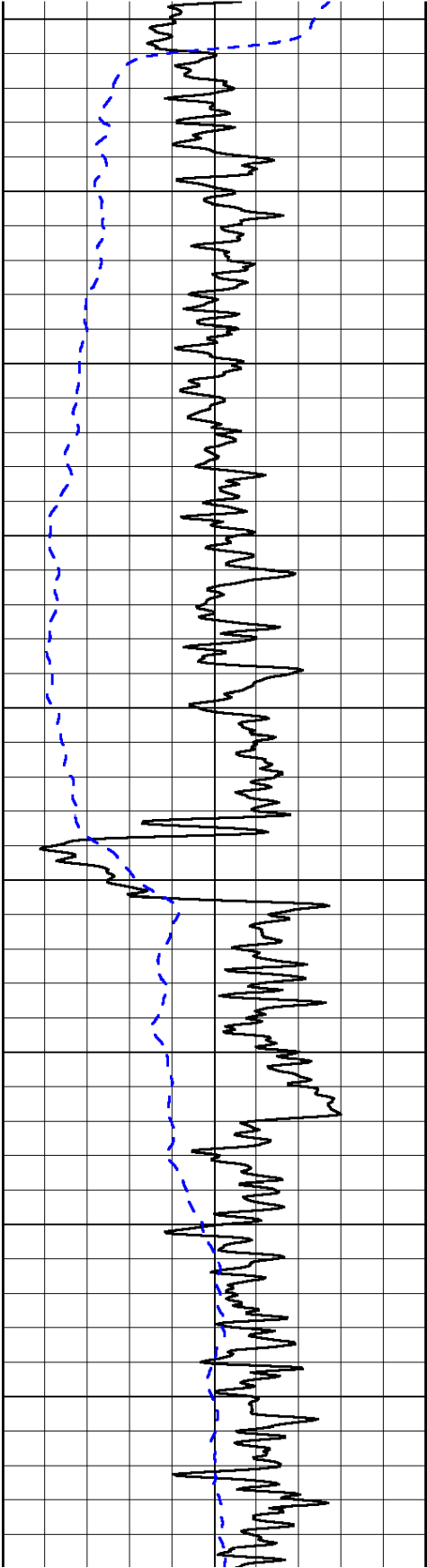
Thank you for using Log-Tech, Inc.
(785) 625-3858

Ellinwood,
3 East to 140 Rd, 2 1/2 North,
East & North into

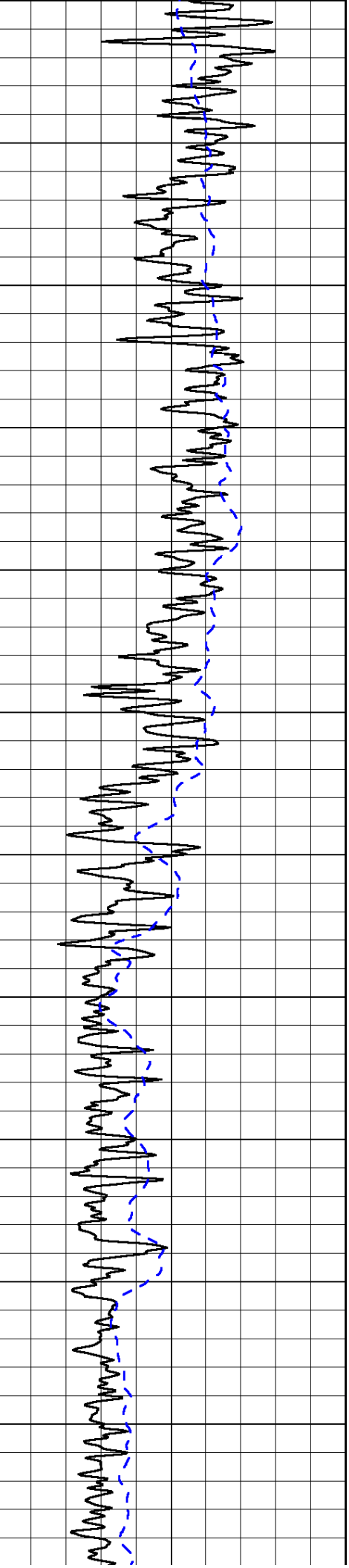
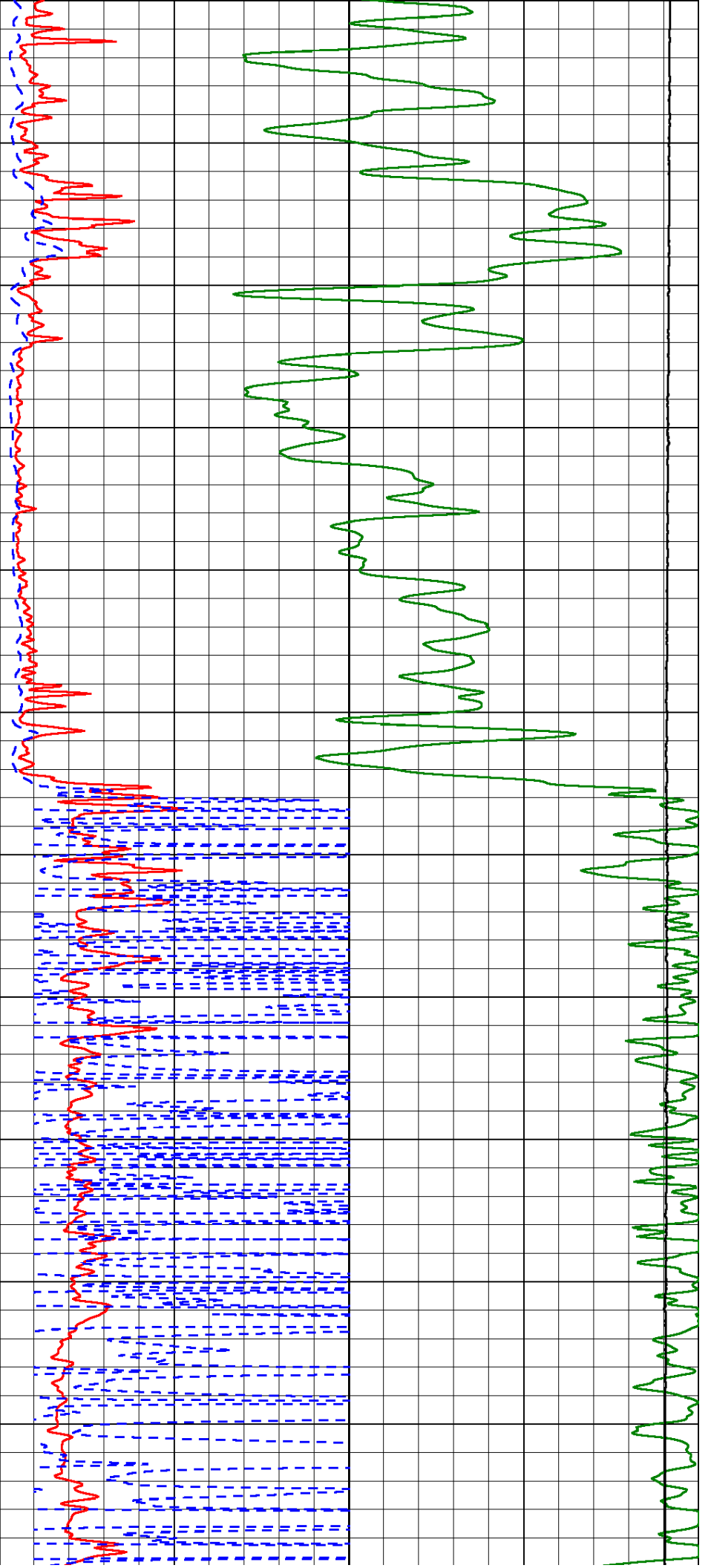
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Dataset Pathname: dil/bdstck
Presentation Format: dil2in
Dataset Creation: Sun Feb 02 05:42:50 2014
Charted by: Depth in Feet scaled 1:600

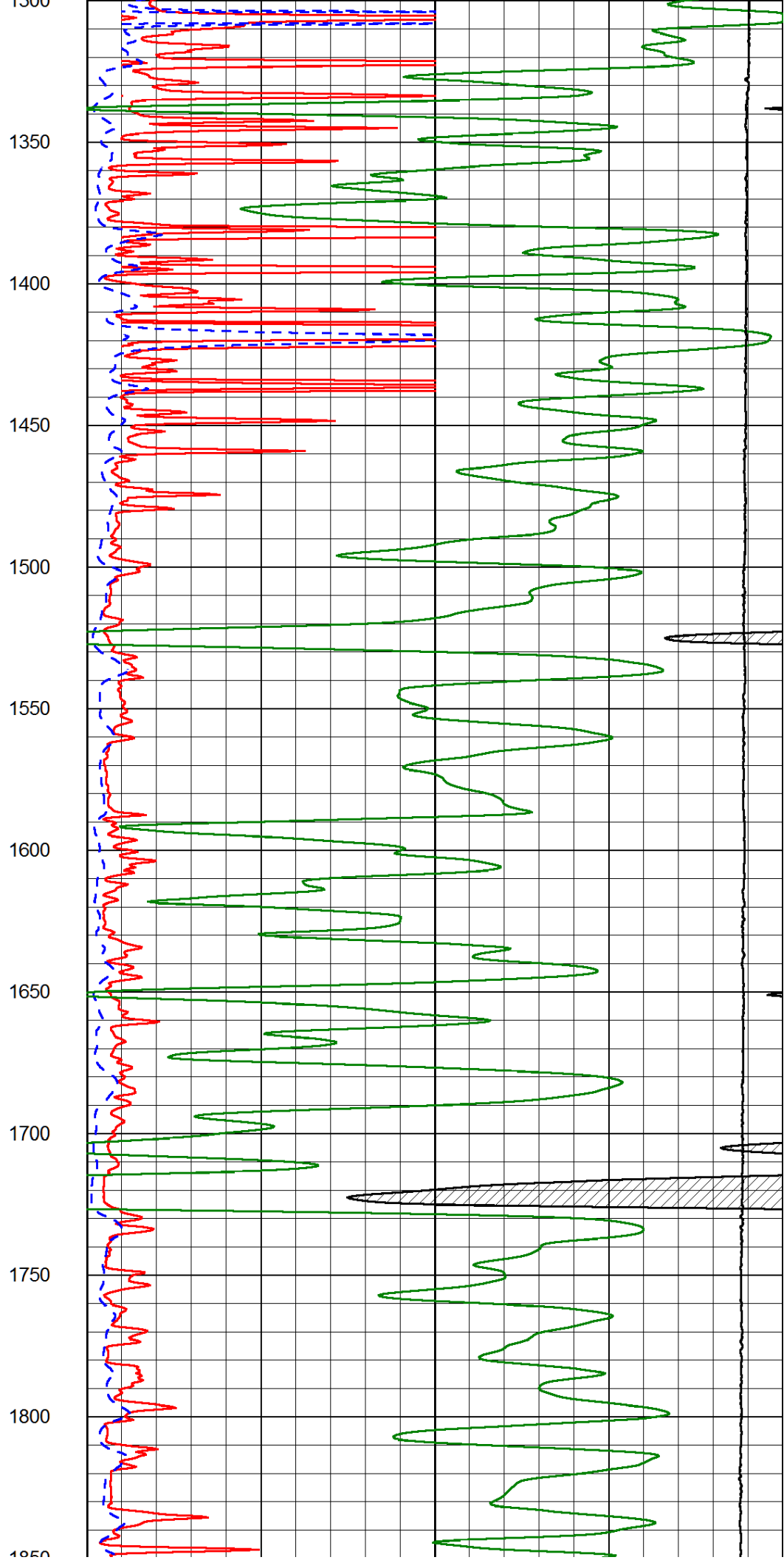
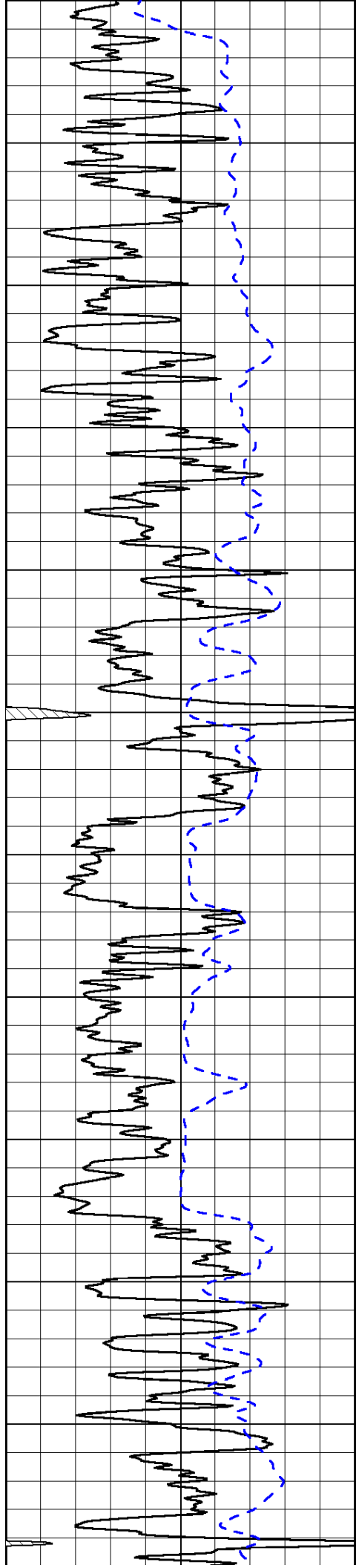
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-200	SP (mV)	0

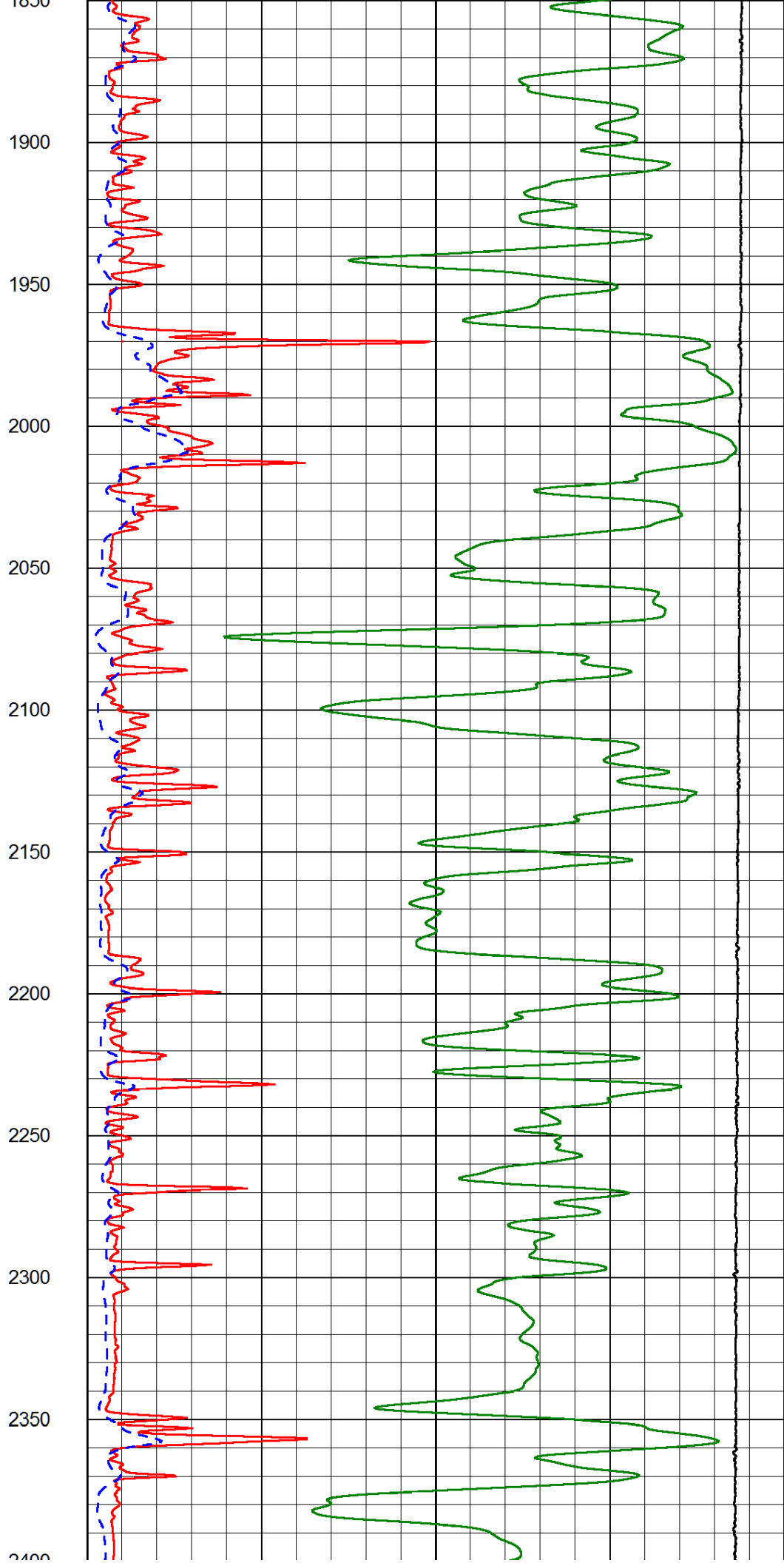
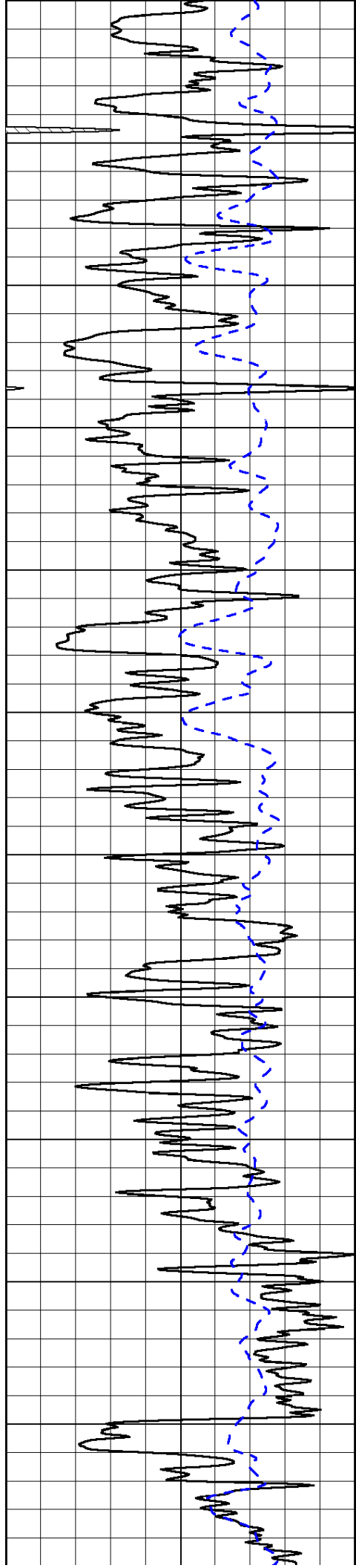
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

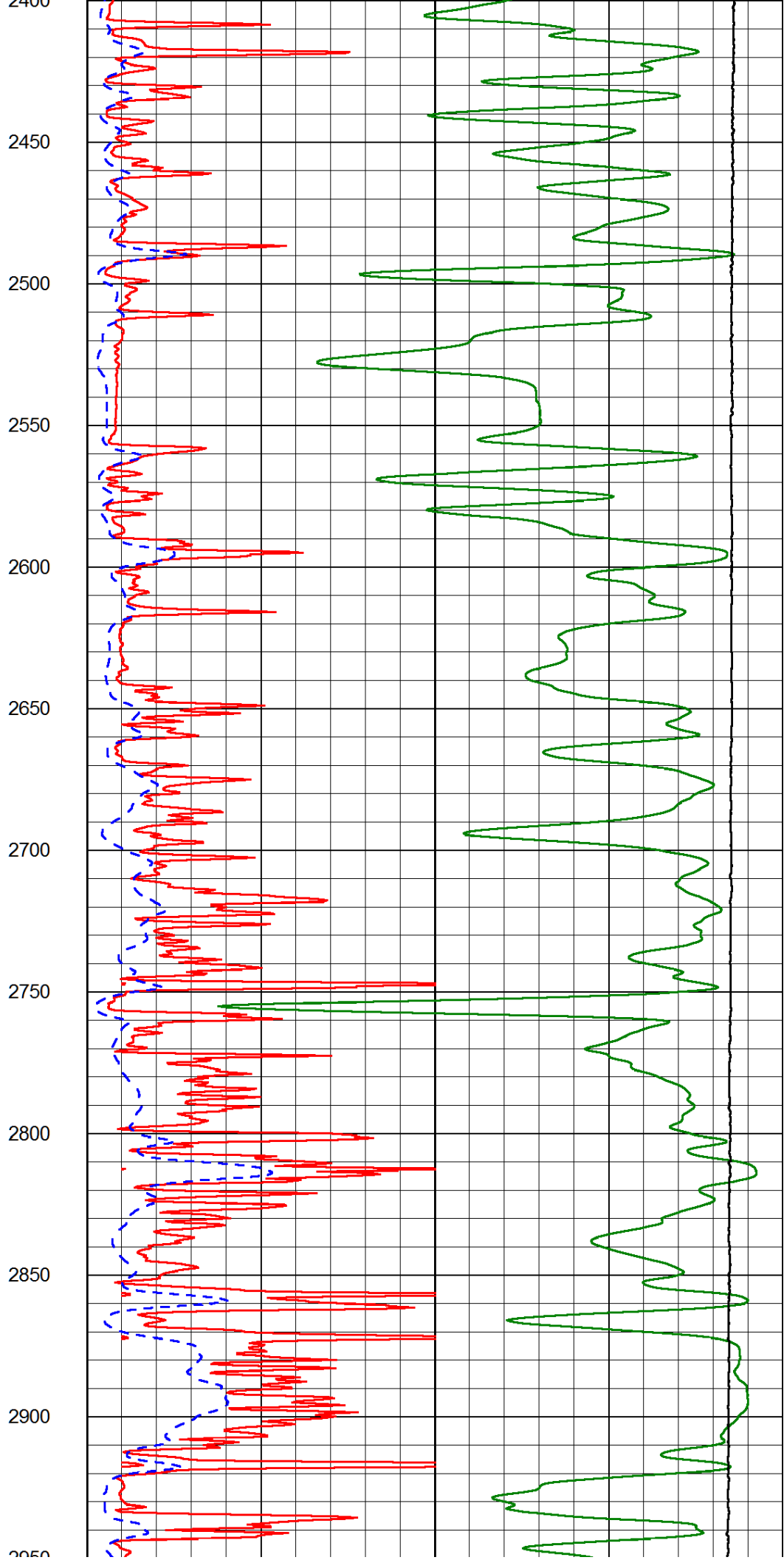
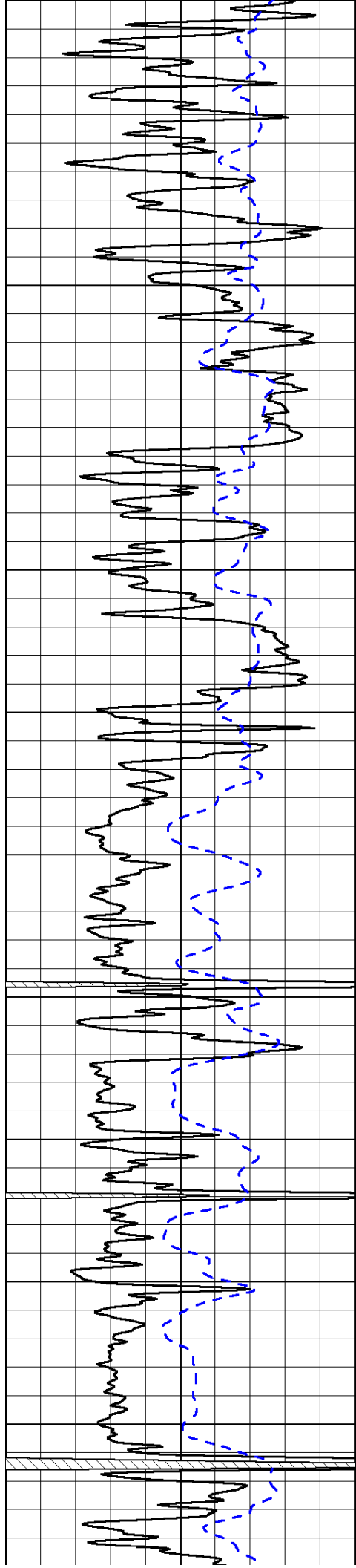


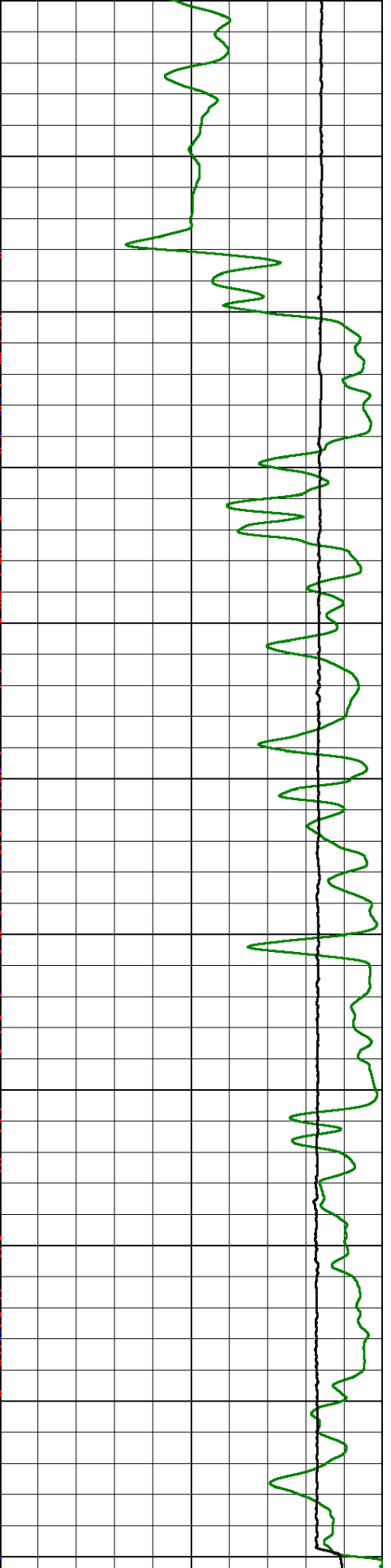
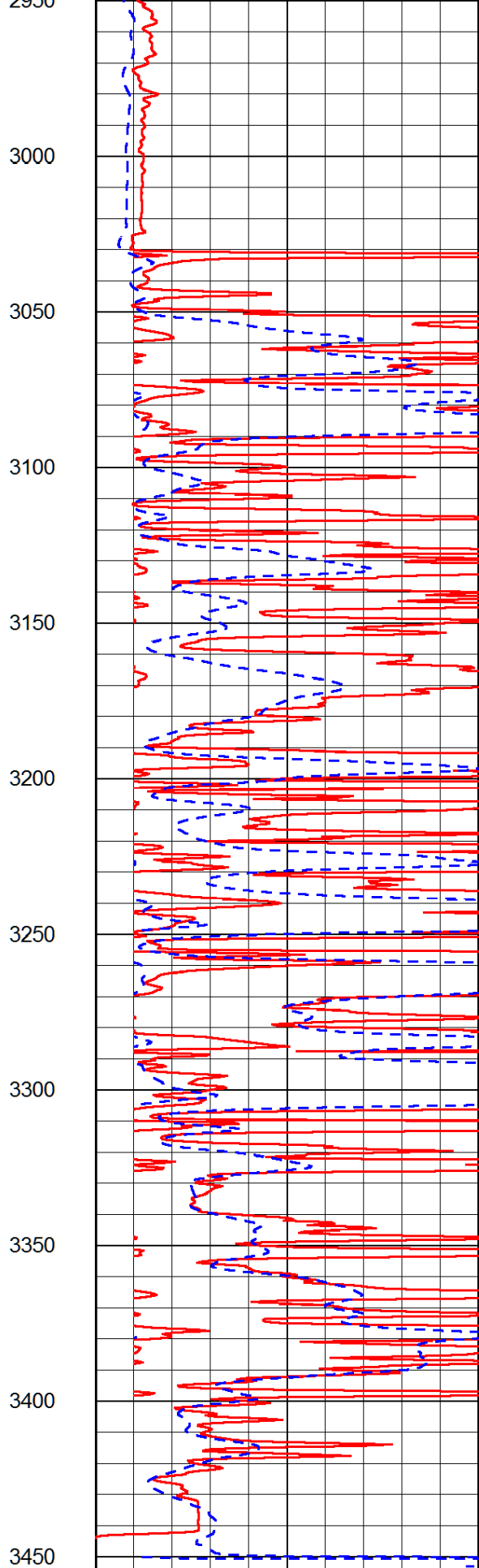
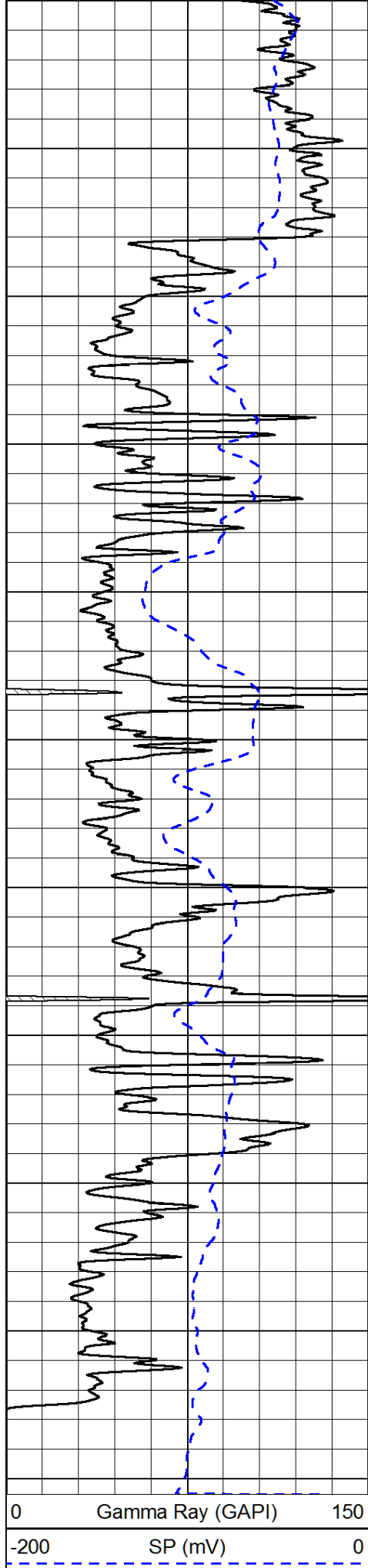
750
800
850
900
950
1000
1050
1100
1150
1200
1250
1300











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

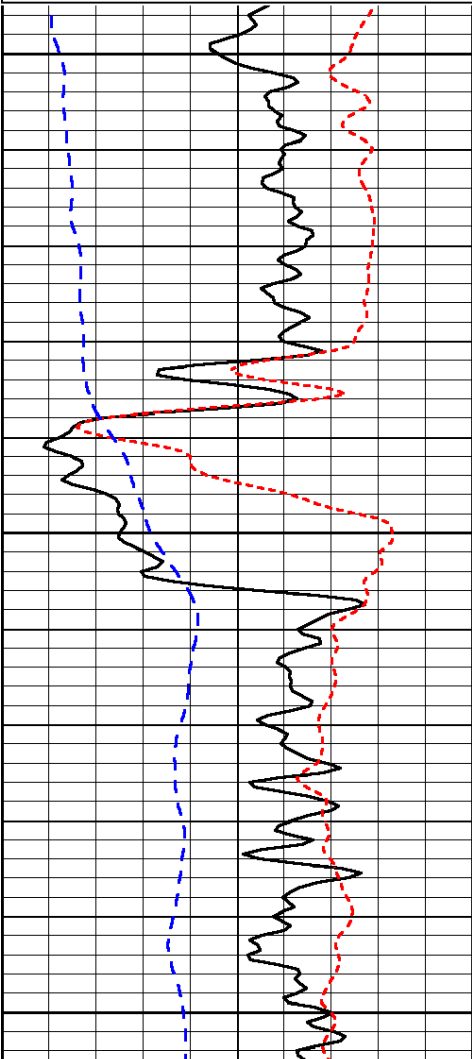
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

Database File: birddog_020214hd.db
 Dataset Pathname: dil/bdstck
 Presentation Format: dil
 Dataset Creation: Sun Feb 02 05:42:50 2014
 Charted by: Depth in Feet scaled 1:240

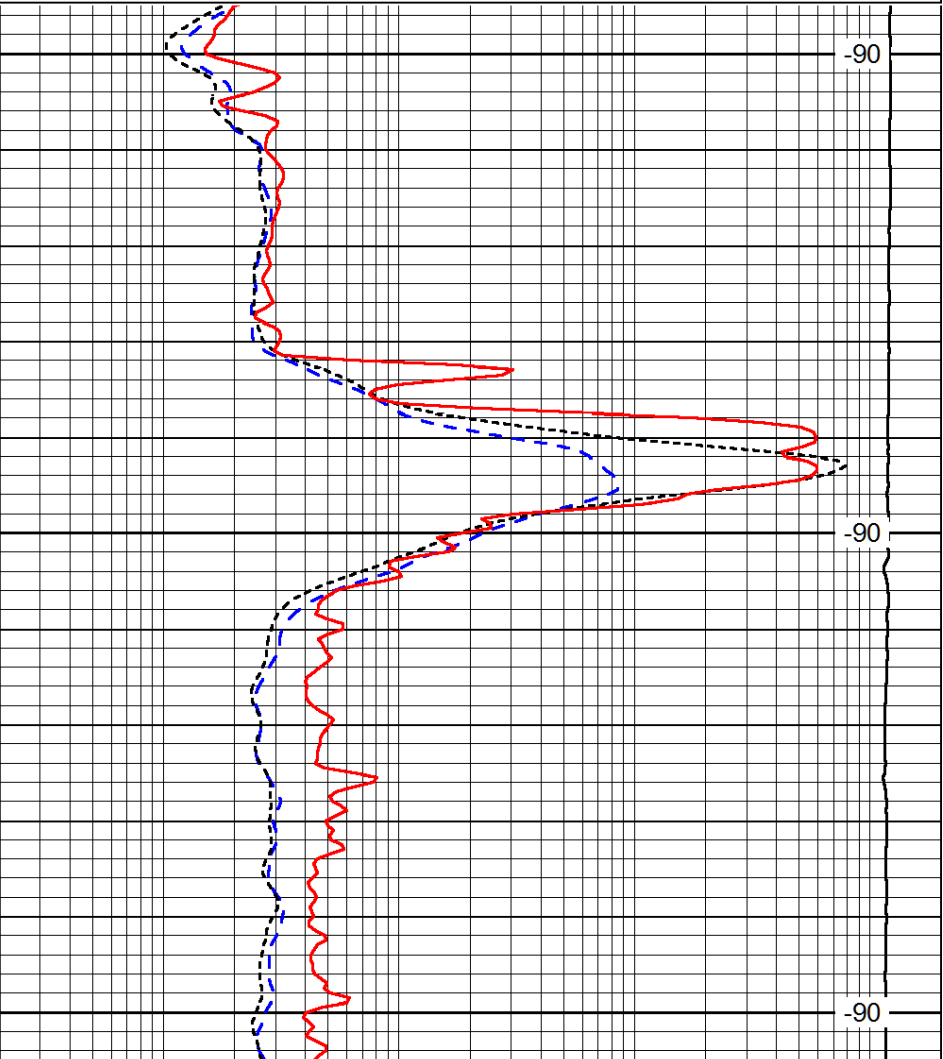
0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

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)



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

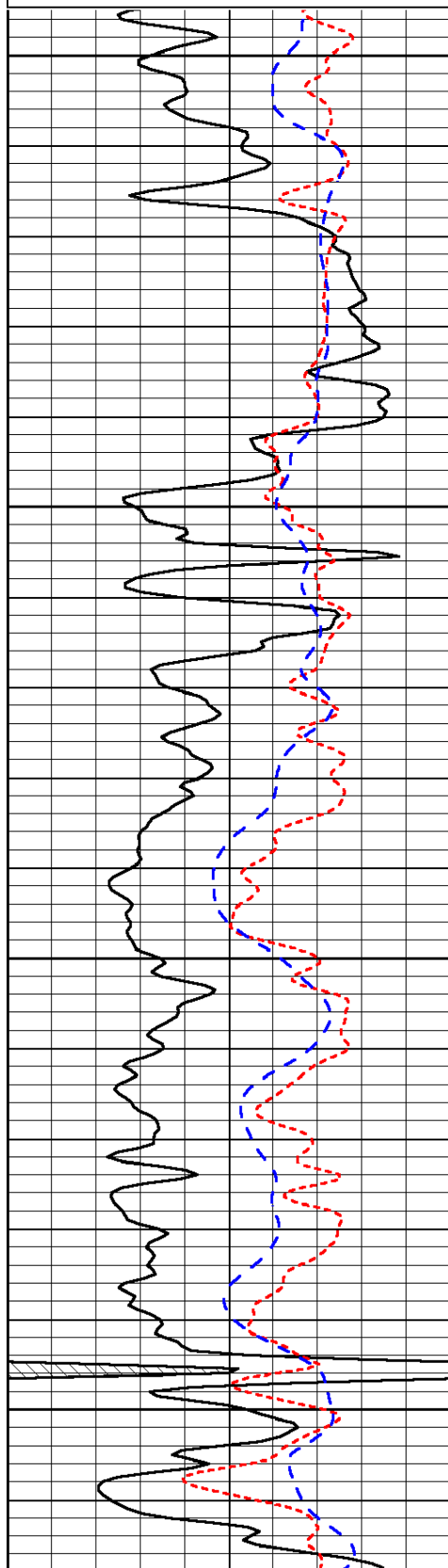
LSPD
(ft/min)

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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)

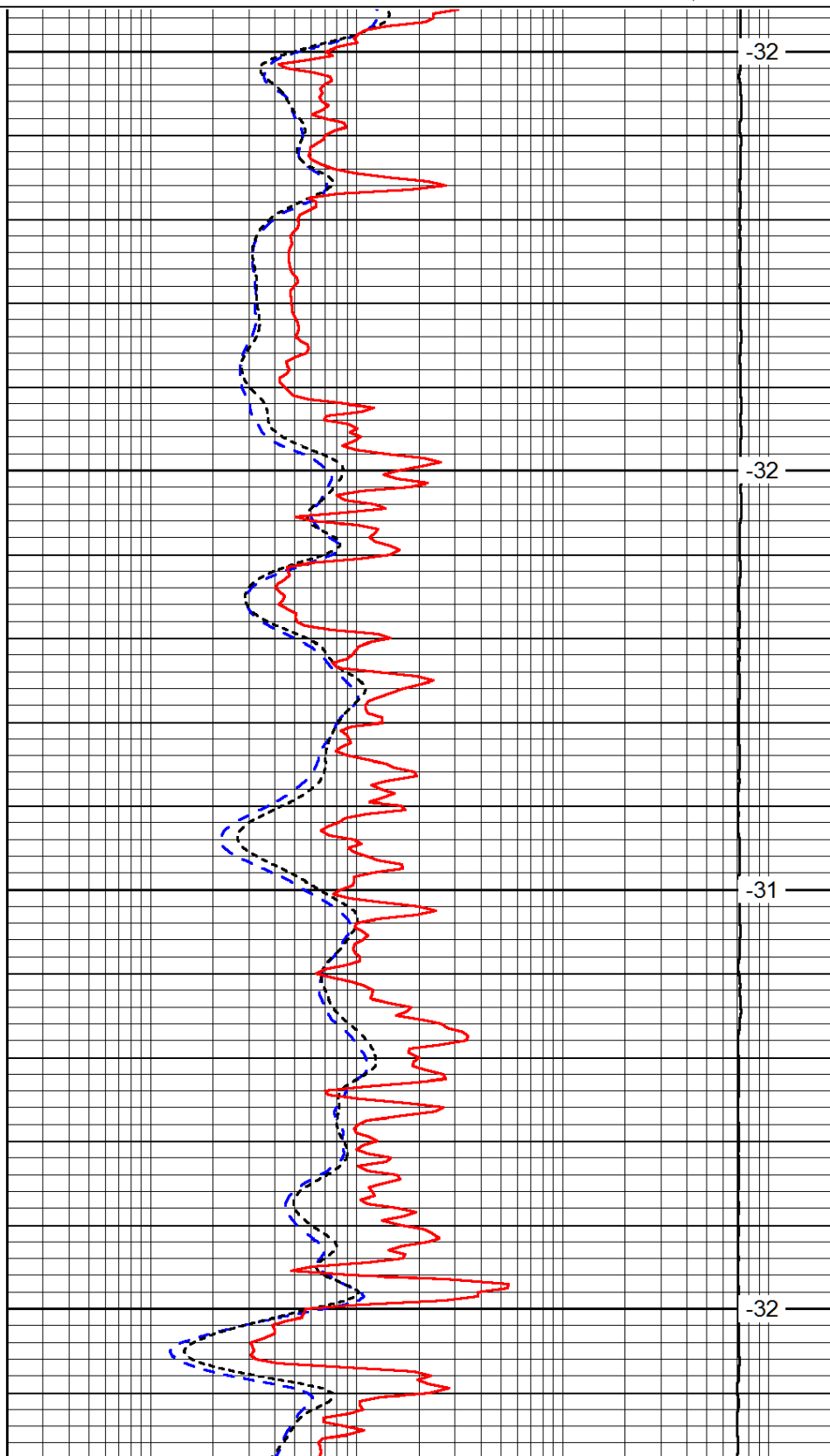


2600

2650

2700

2750

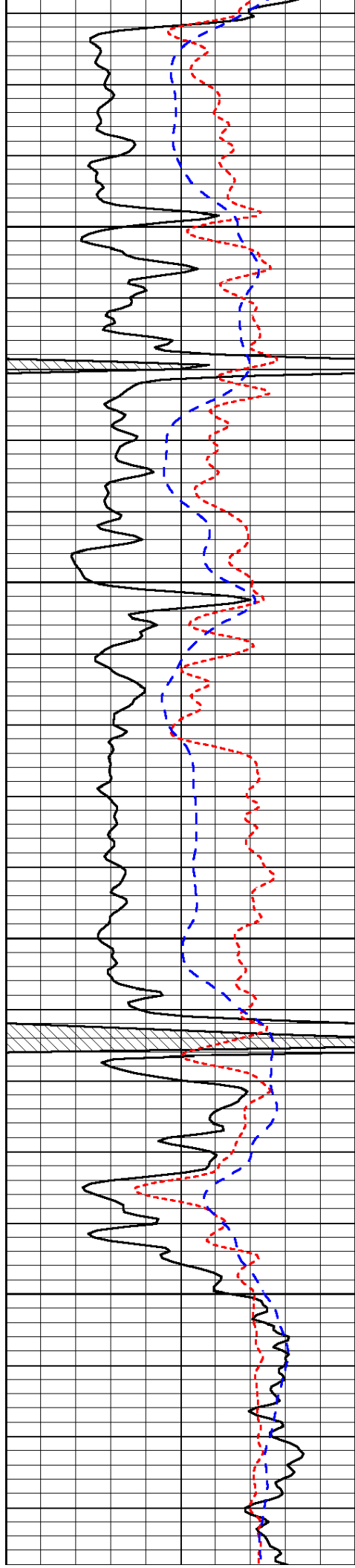


-32

-32

-31

-32

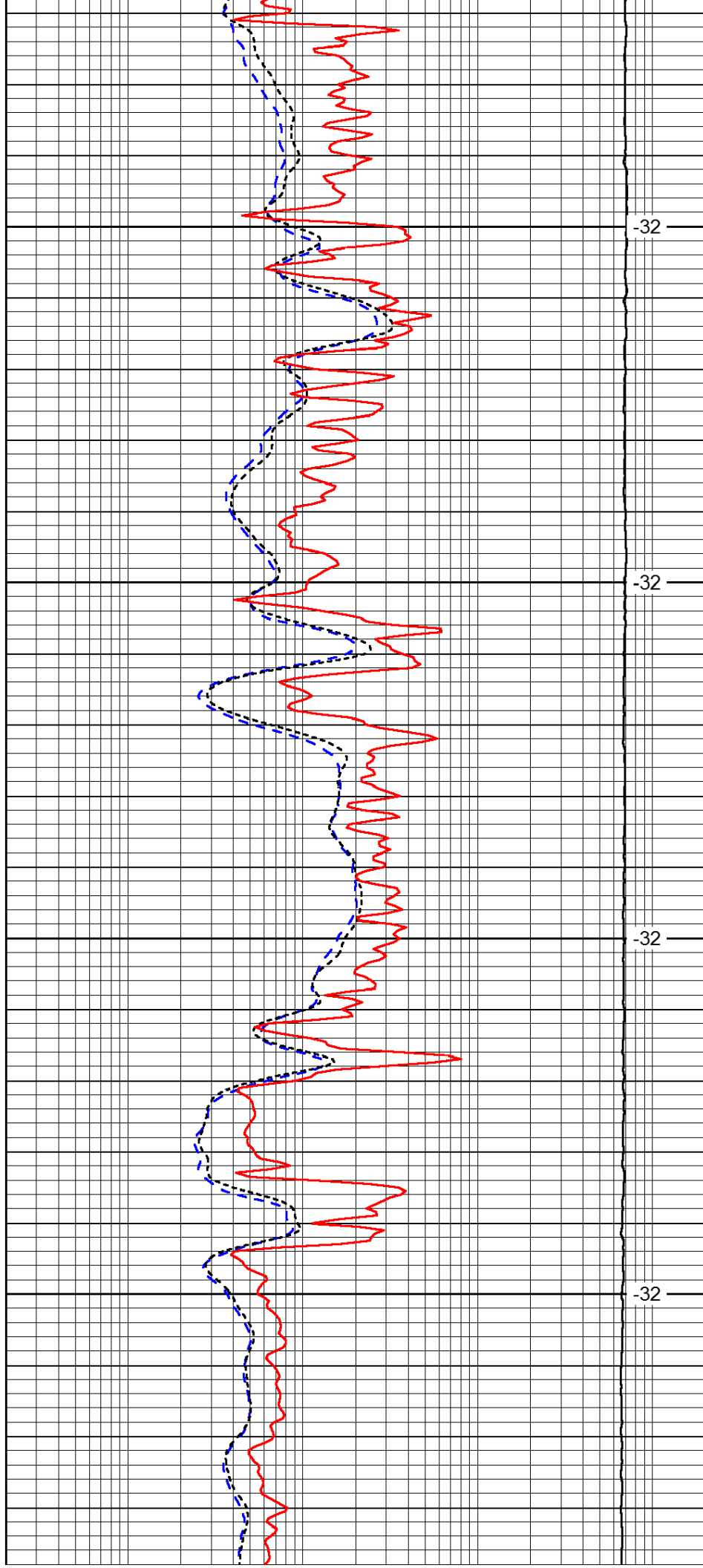


2800

2850

2900

2950

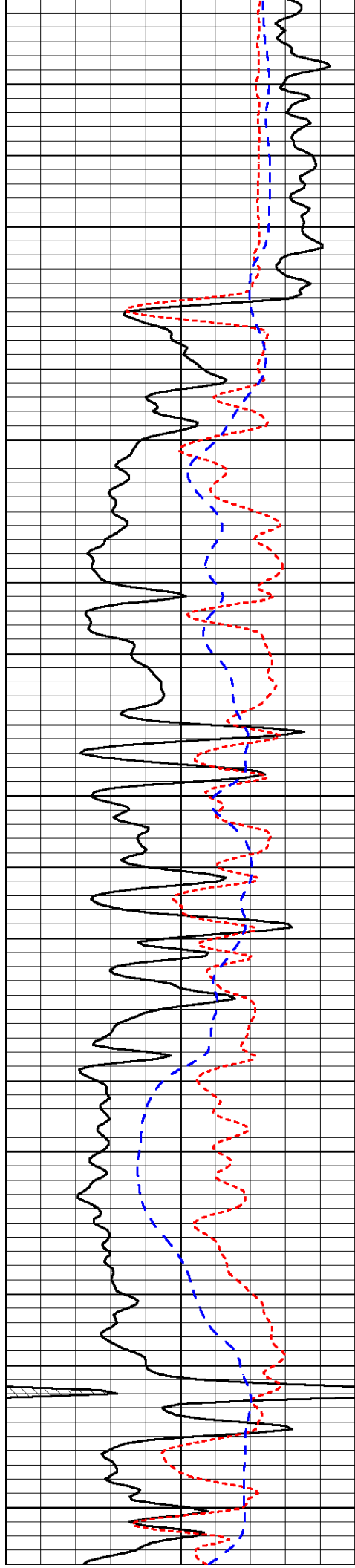


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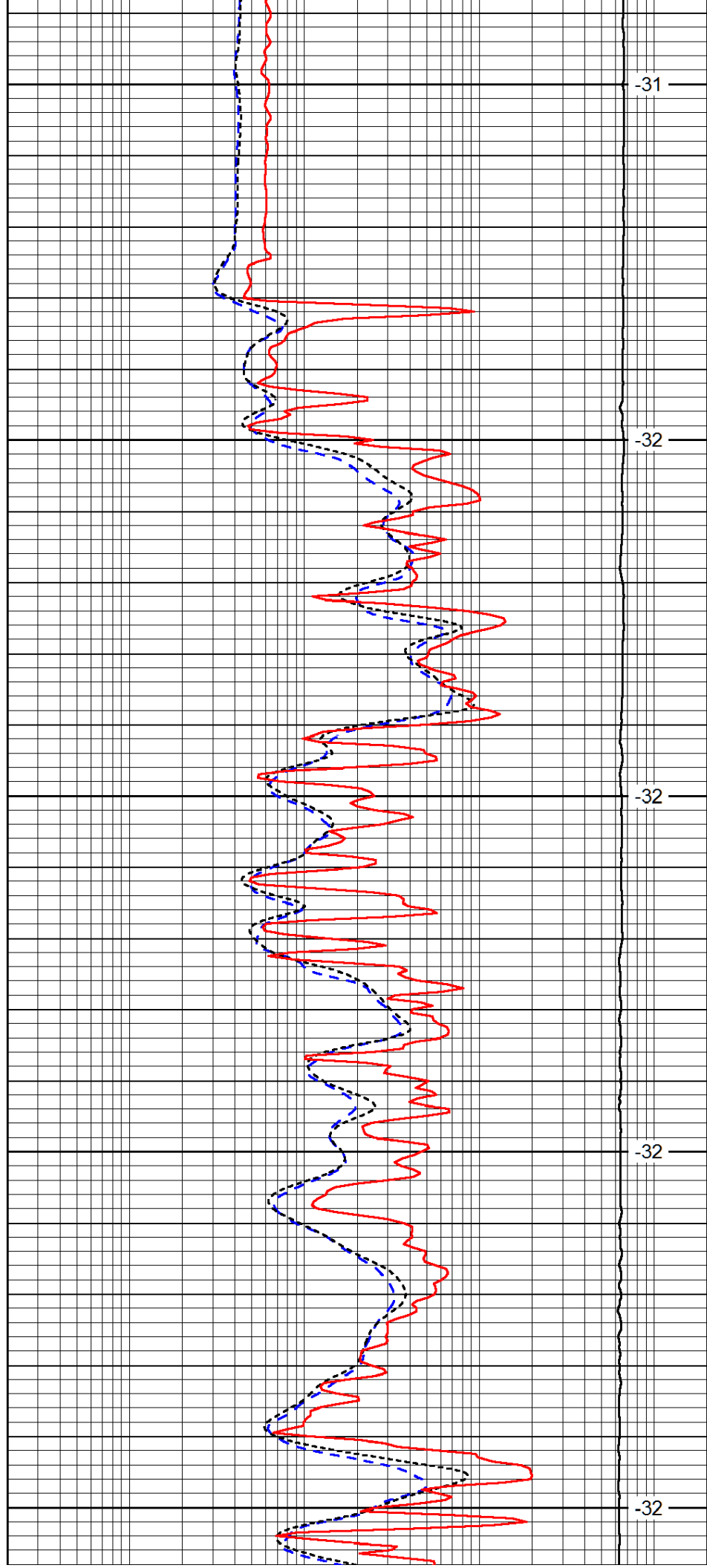
3000

3050

3100

3150

3200



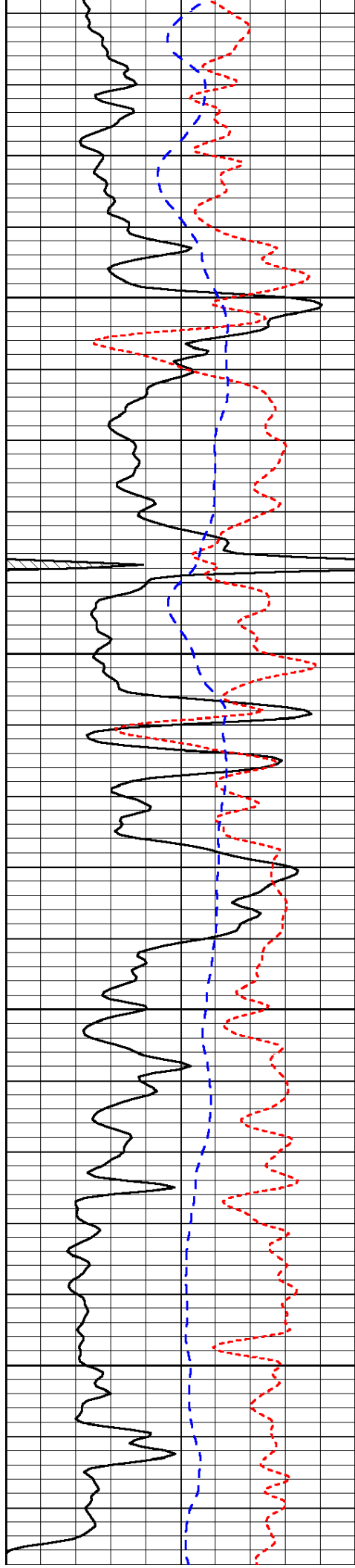
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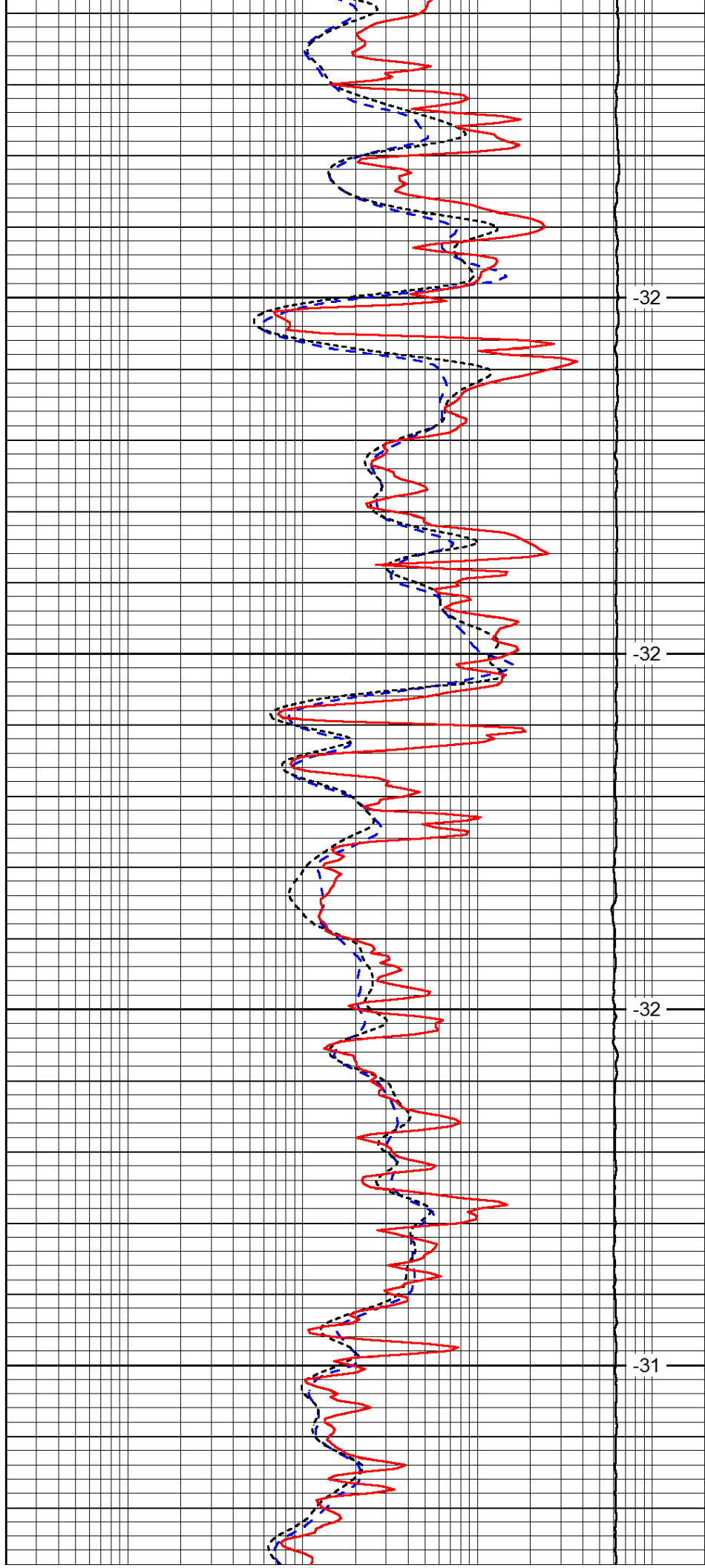


3250

3300

3350

3400

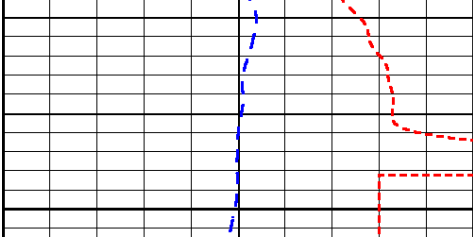


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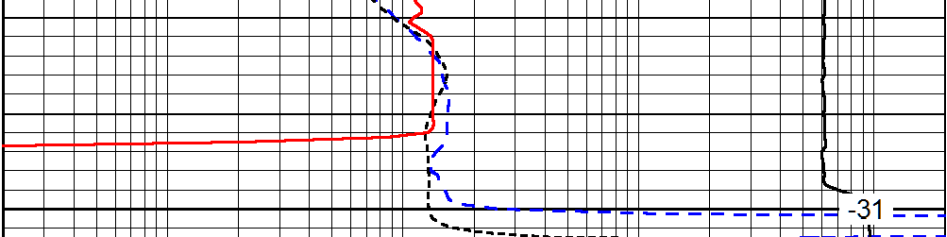
-32

-31



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

3450



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)