



Pioneer Energy Services

Dual Induction Log

API No.

15-051-26528-00-00

Company TDI, Inc.

Well George #1

Field Unnamed

County Ellis

State

Kansas

Location

2040' FNL & 1360' FWL

Sec: 18

Twp: 12 S

Rge: 18 W

Permanent Datum Ground Level
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Elevation
K.B. 2217
D.F. 2207
G.L. 2207

Date

06-20-2013

Run Number

One

Depth Driller

3900

Depth Logger

3898

Bottom Logged Interval

3897

Top Log Interval

200

Casing Driller

8.625 @ 220

Casing Logger

222

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

2500

Density / Viscosity

9.3 55

pH / Fluid Loss

10.5 7.2

Source of Sample

Flowline

Rm @ Meas. Temp

0.30 @ 80

Rmf @ Meas. Temp

0.22 @ 80

Rmc @ Meas. Temp

0.40 @ 80

Source of Rmf / Rmc

Charts

Rm @ BHT

0.21 @ 117

Operating Rig Time

3 1/2 Hours

Max Rec. Temp. F

117

Equipment Number

91

Location

Hays

Recorded By

Y. Ruiz

Witnessed By

Tom Denning

Herb Deines

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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

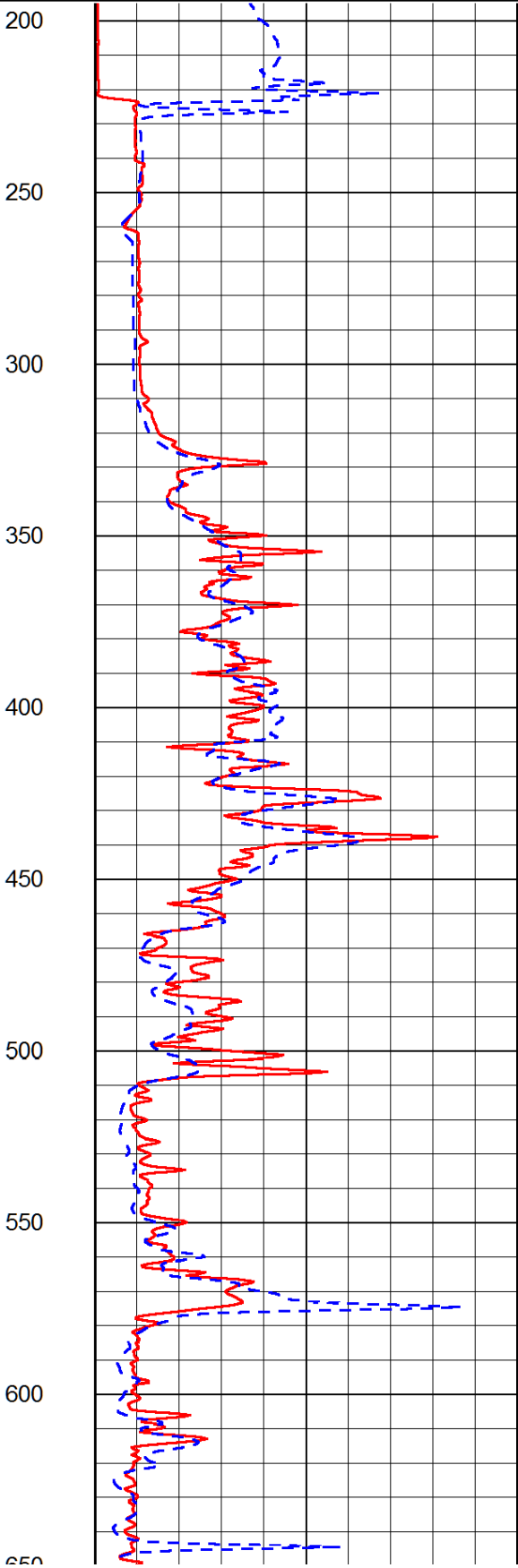
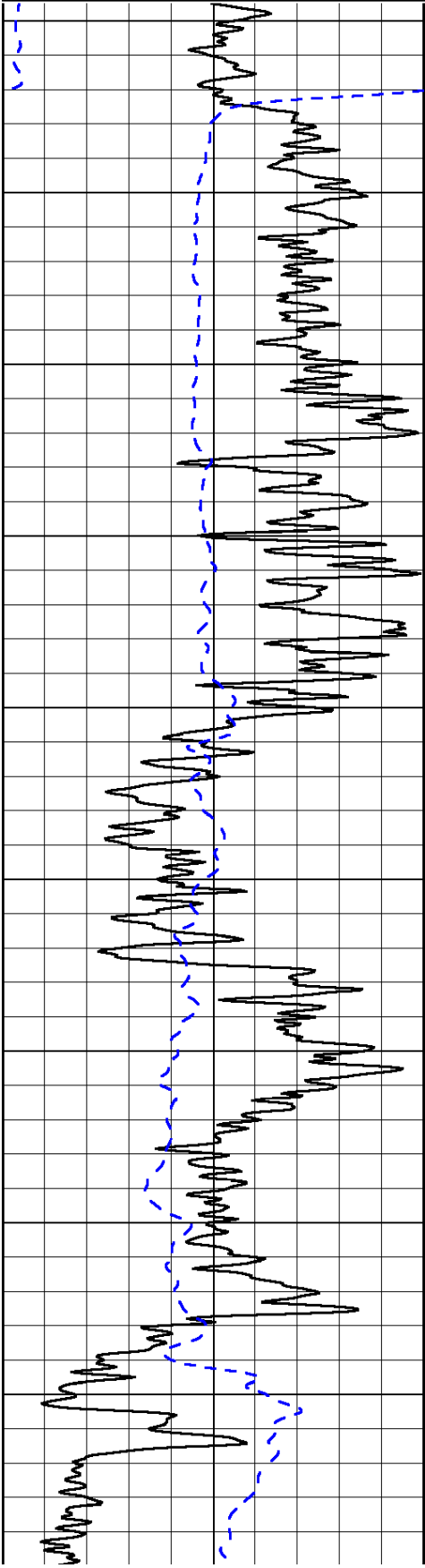
Thank you for using Log-Tech, Inc.
(785) 625-3858

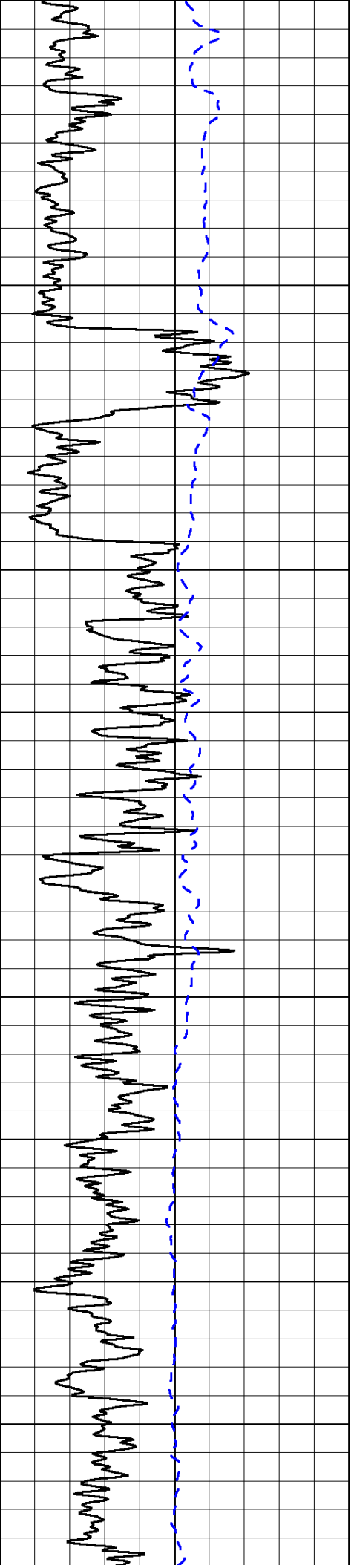
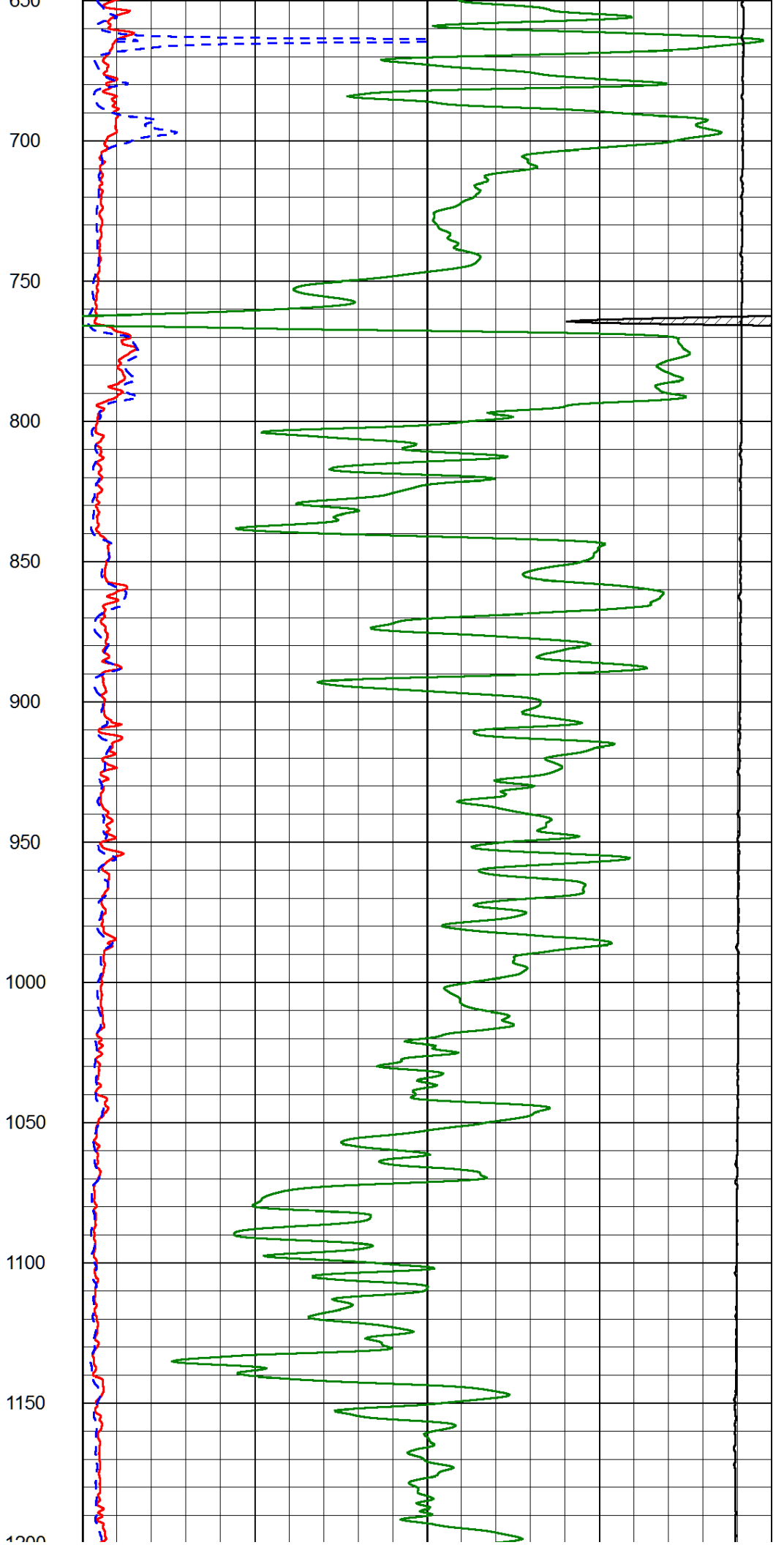
Hays,
Hwy 183 North to Buckeye Rd, 2 West, 1/2 North,
West into

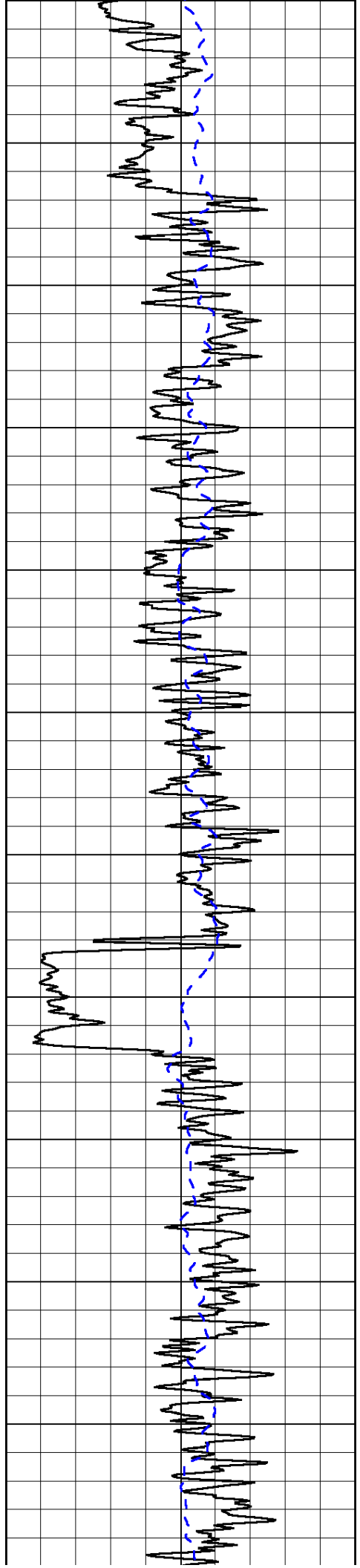
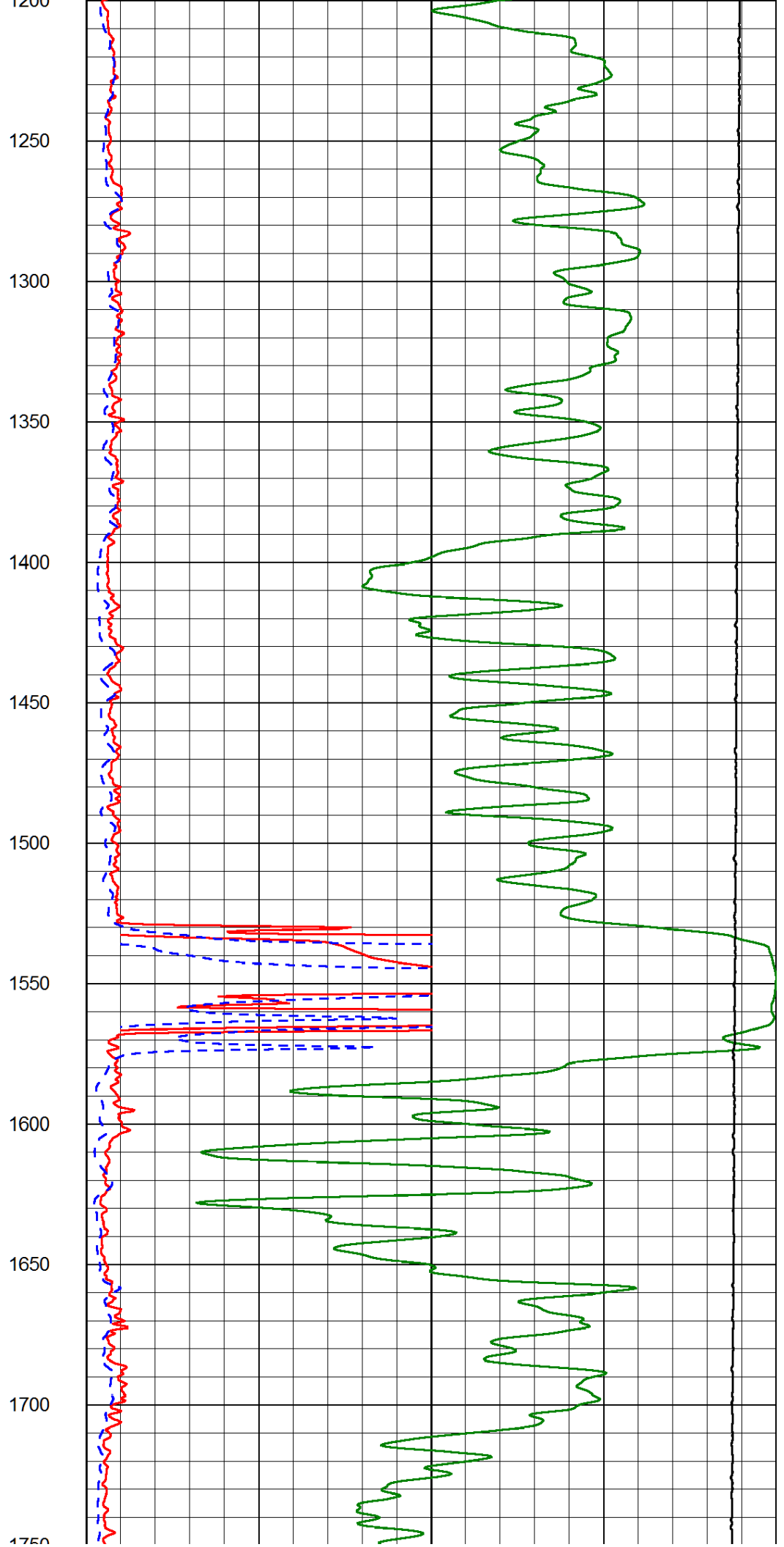
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Presentation Format: dil2in
Dataset Creation: Thu Jun 20 19:28:26 2013
Charted by: Depth in Feet scaled 1:600

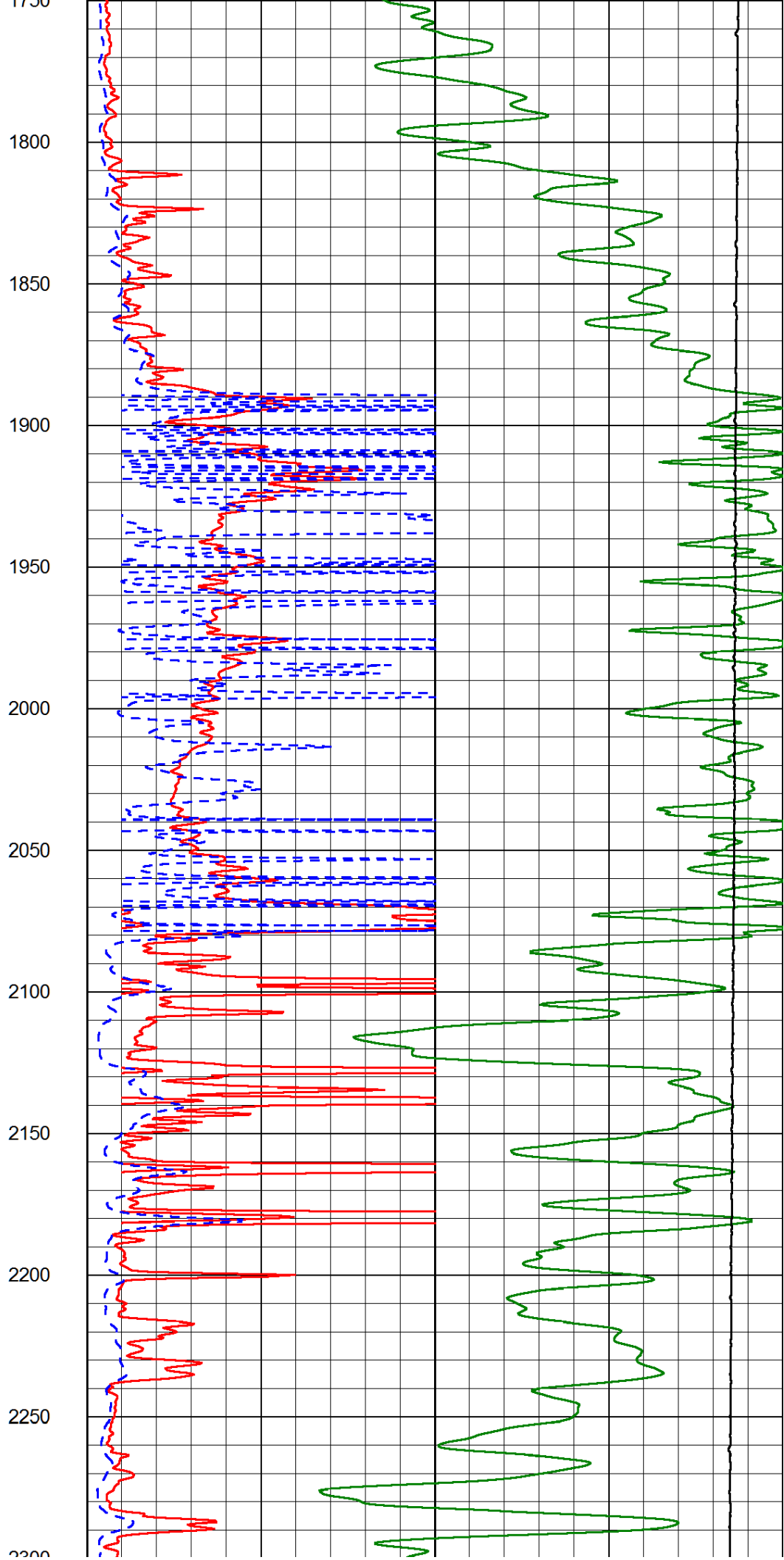
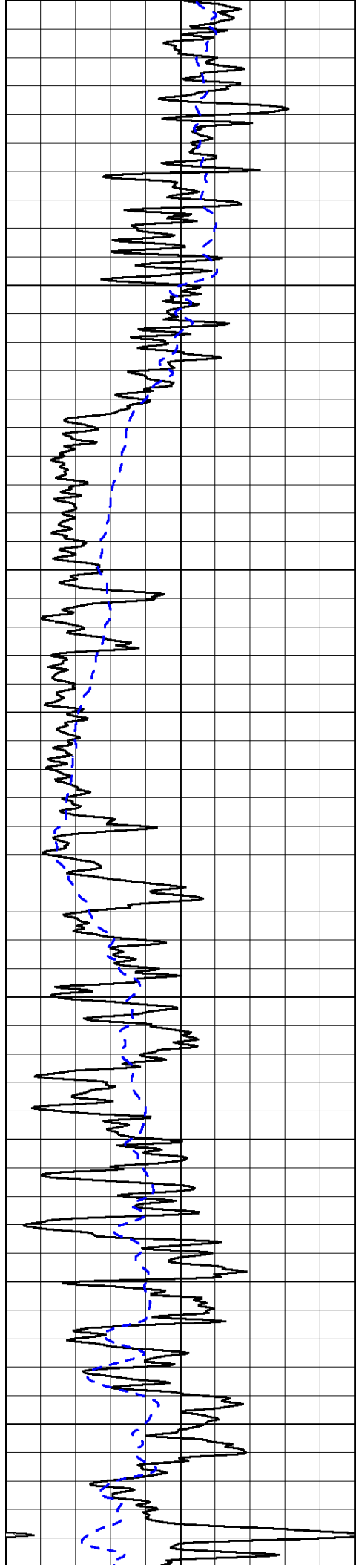
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

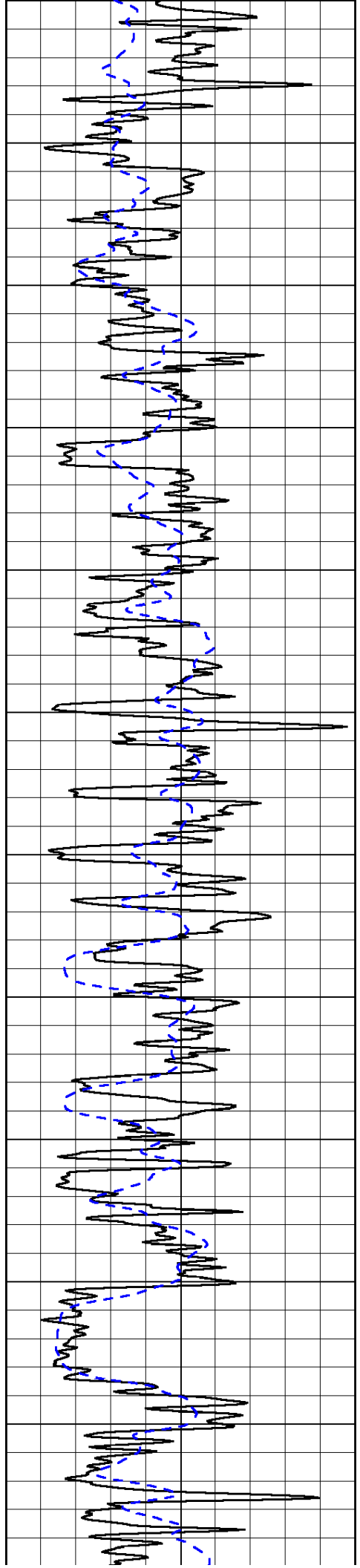
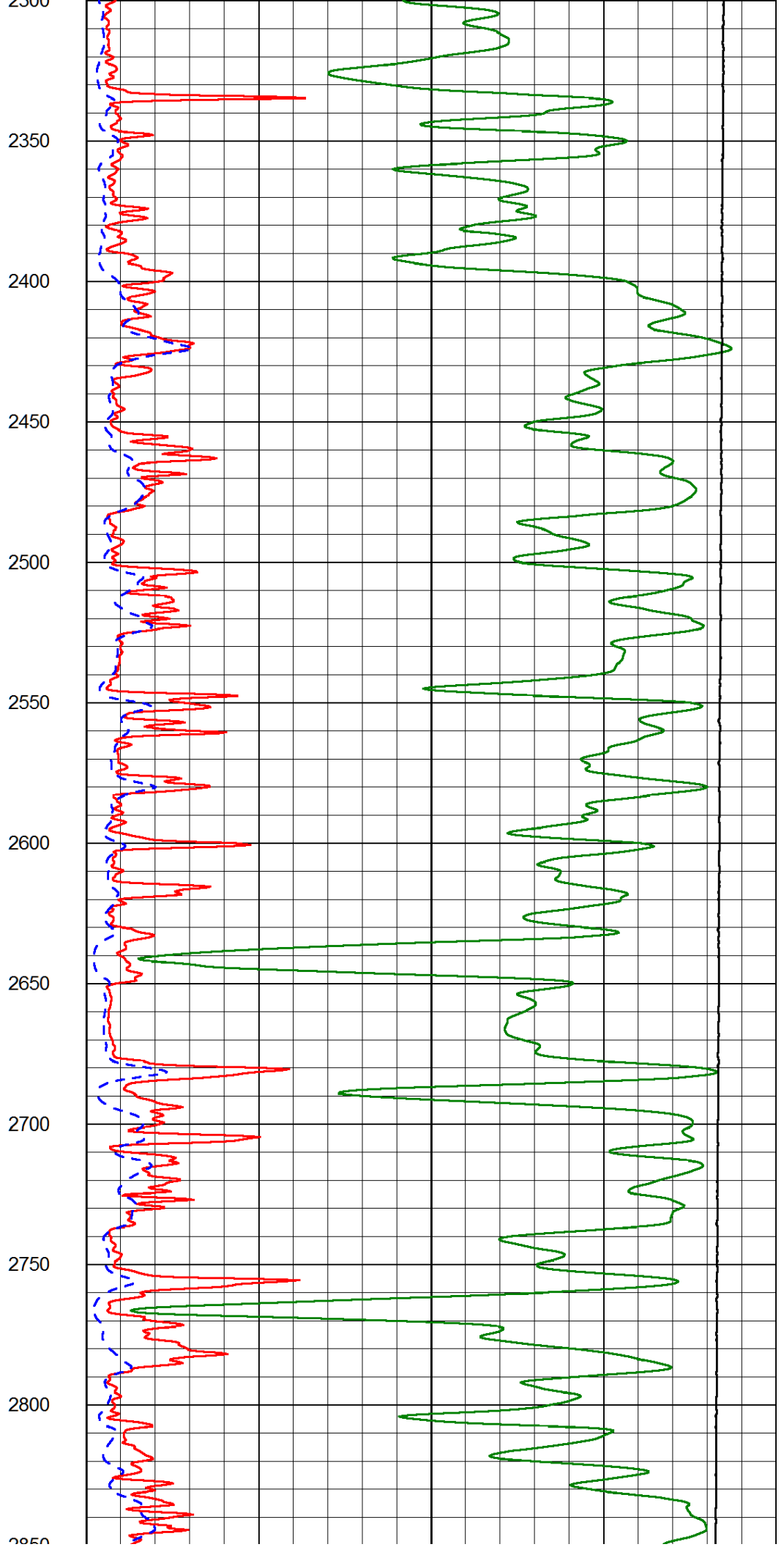
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0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
	Shallow Resistivity	
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

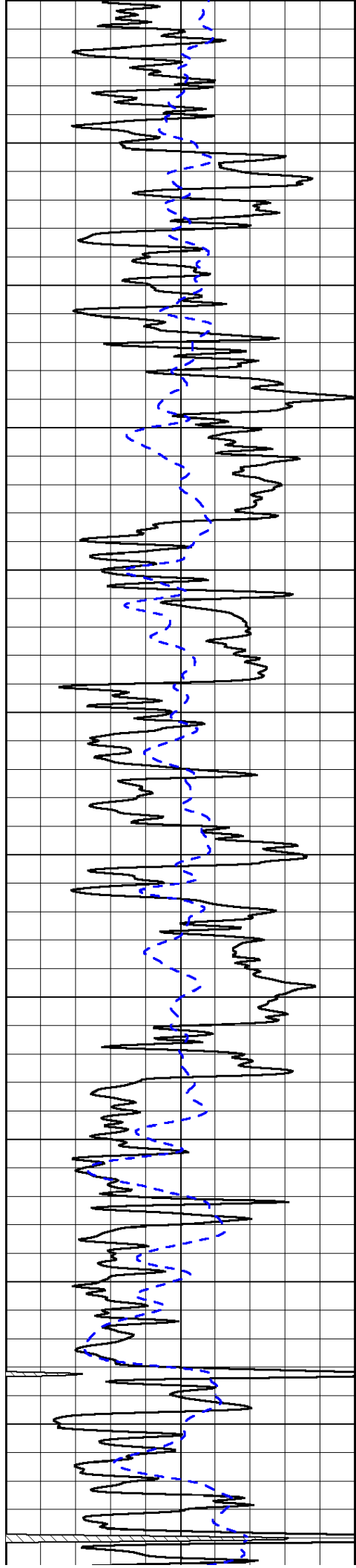




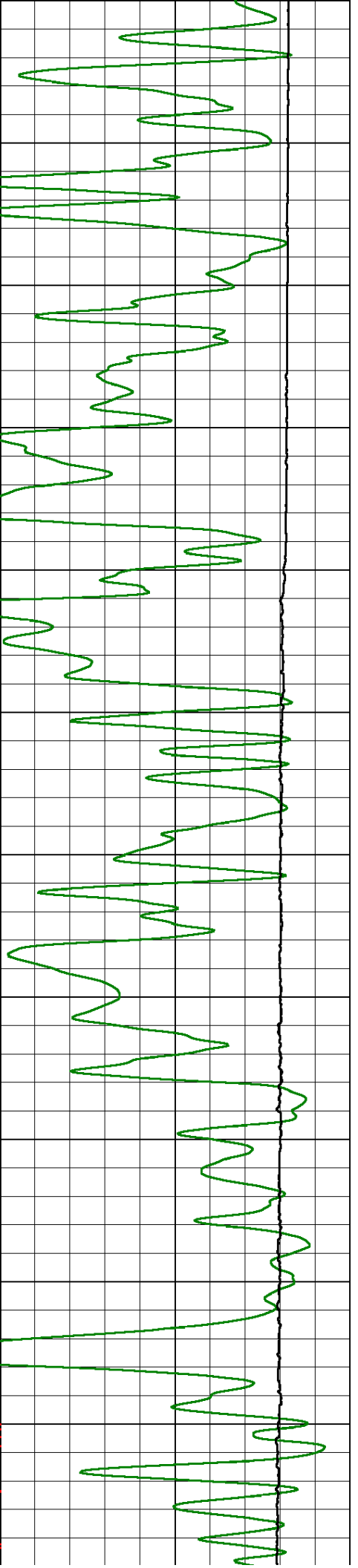
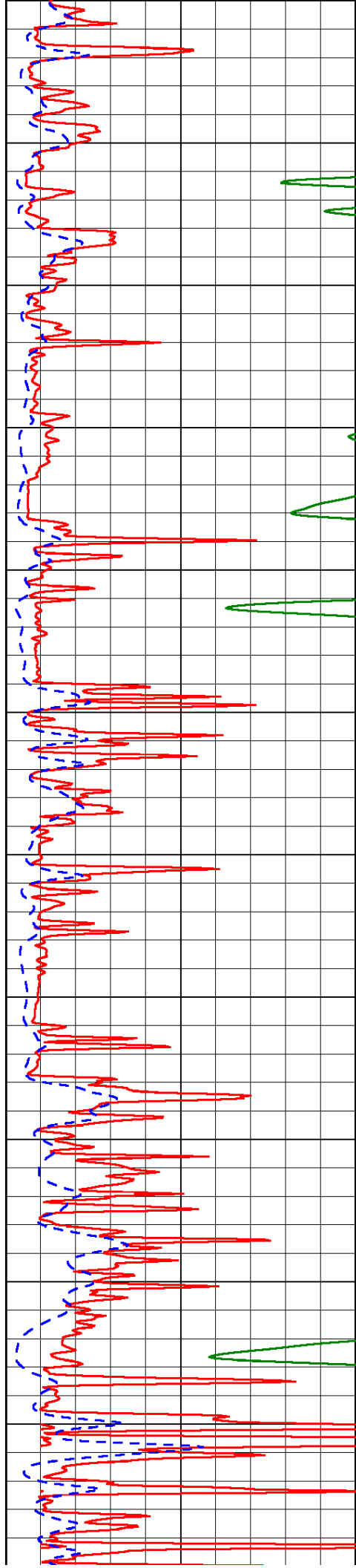


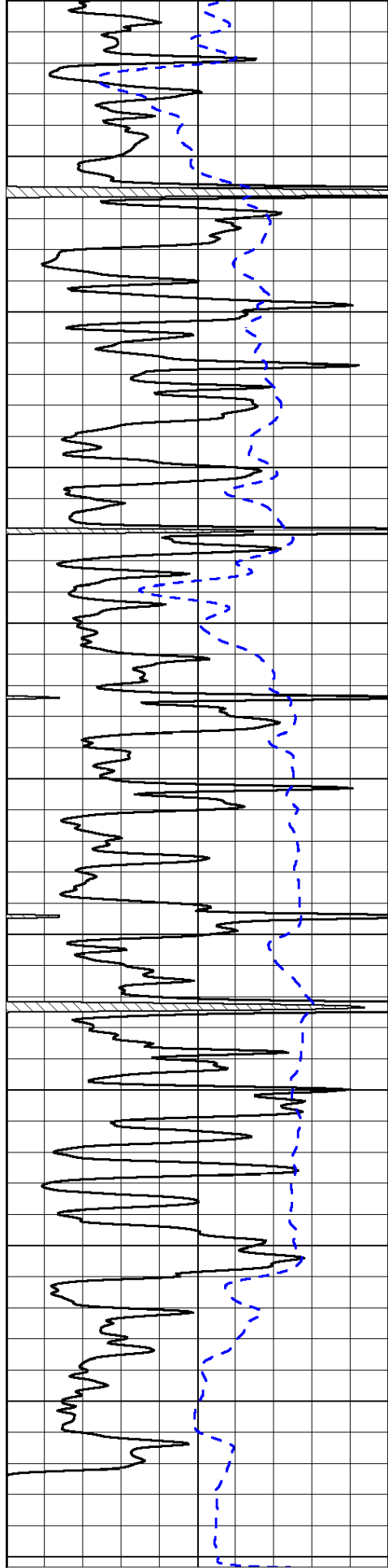




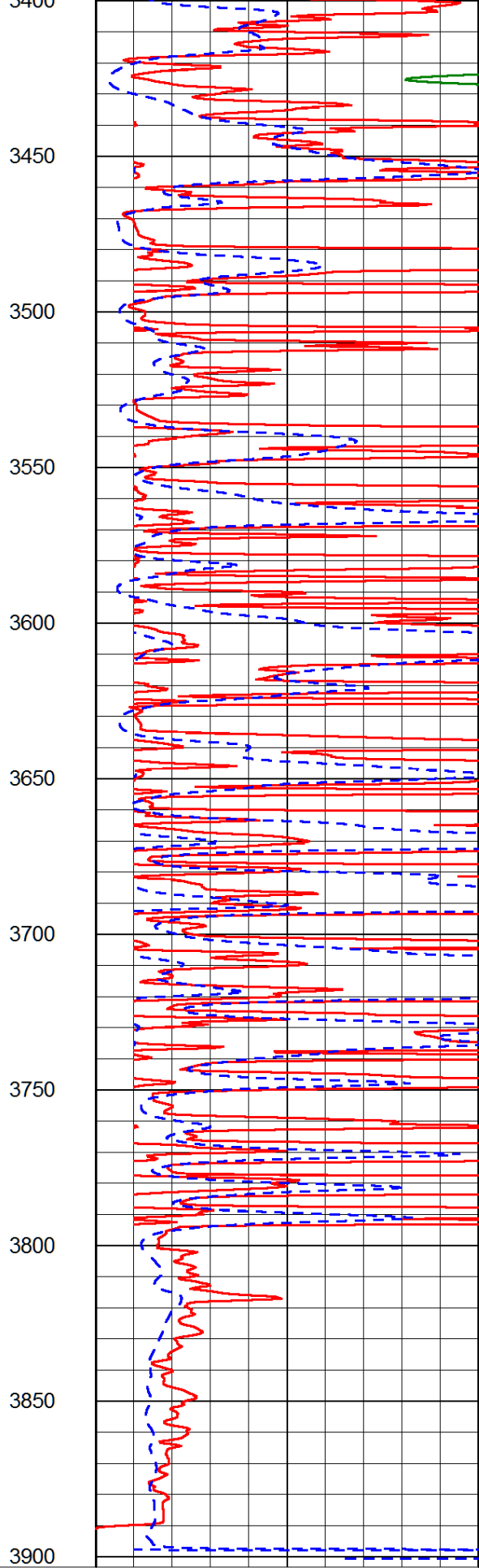


2850
2900
2950
3000
3050
3100
3150
3200
3250
3300
3350
3400

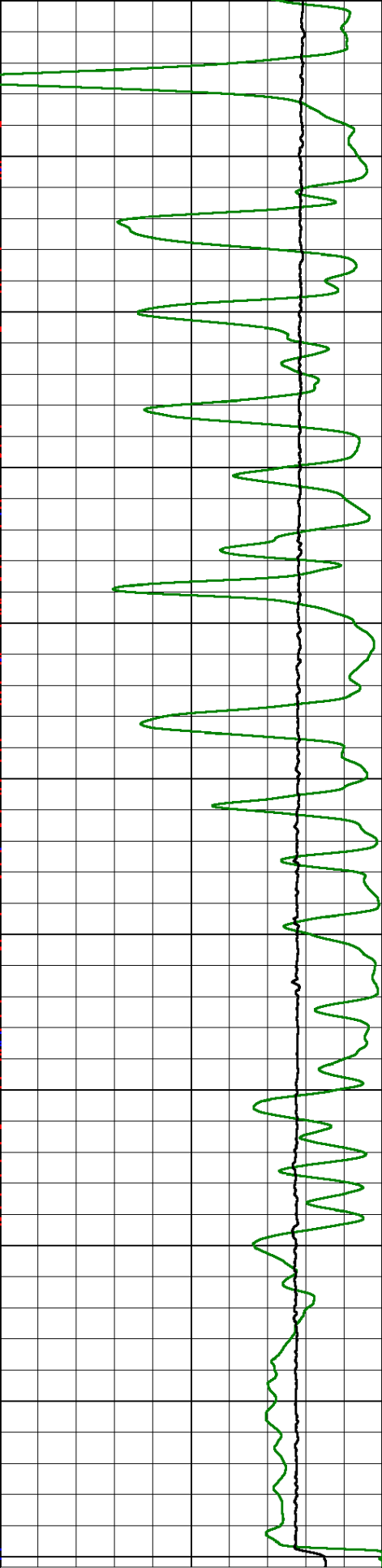




0 Gamma Ray (GAPI) 150
-200 SP (mV) 0



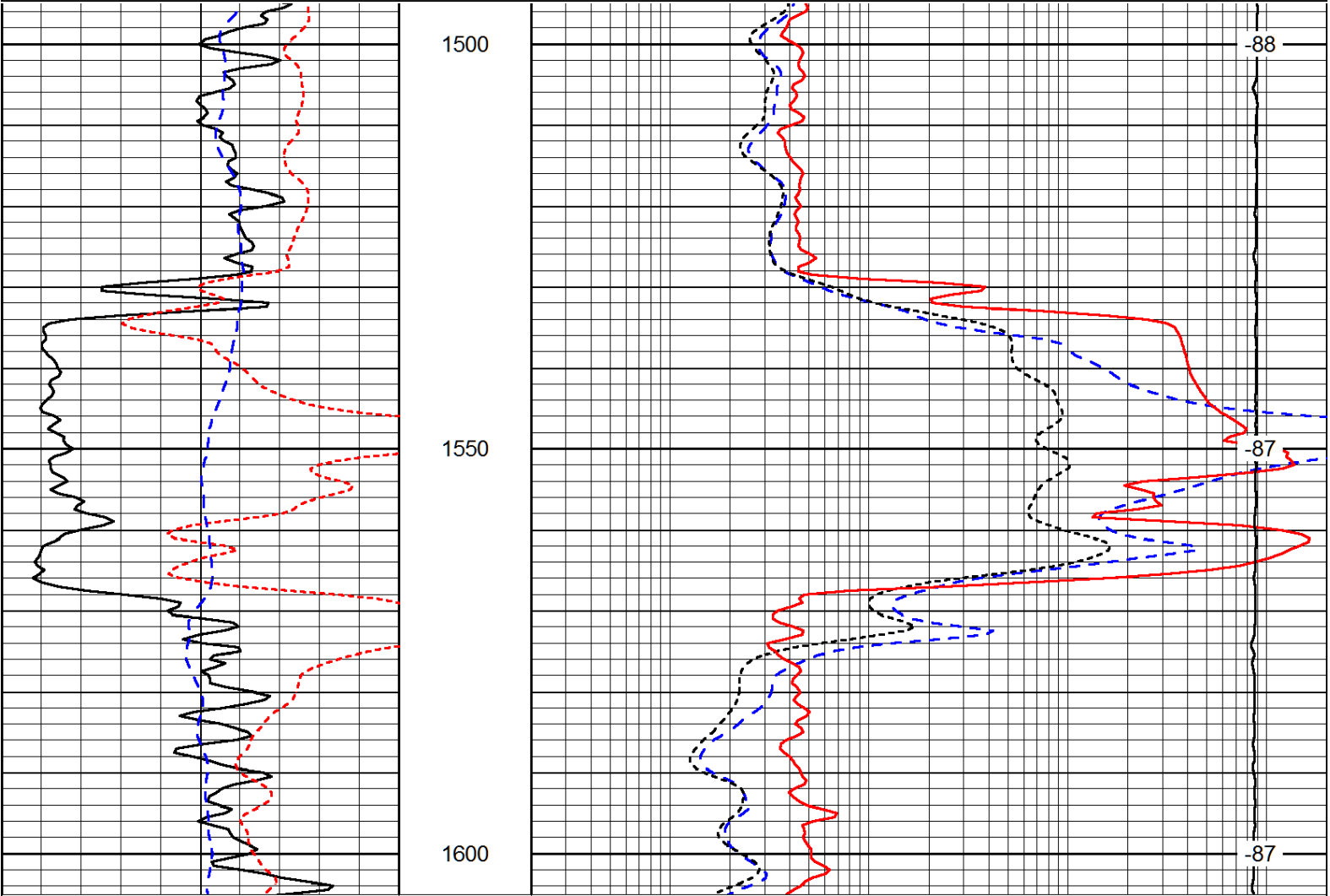
0 Shallow Resistivity (Ohm-m) 50
0 Deep Resistivity (Ohm-m) 50



1000 Conductivity (Ohm-m) 15000
0 Line Tension (lb) 0

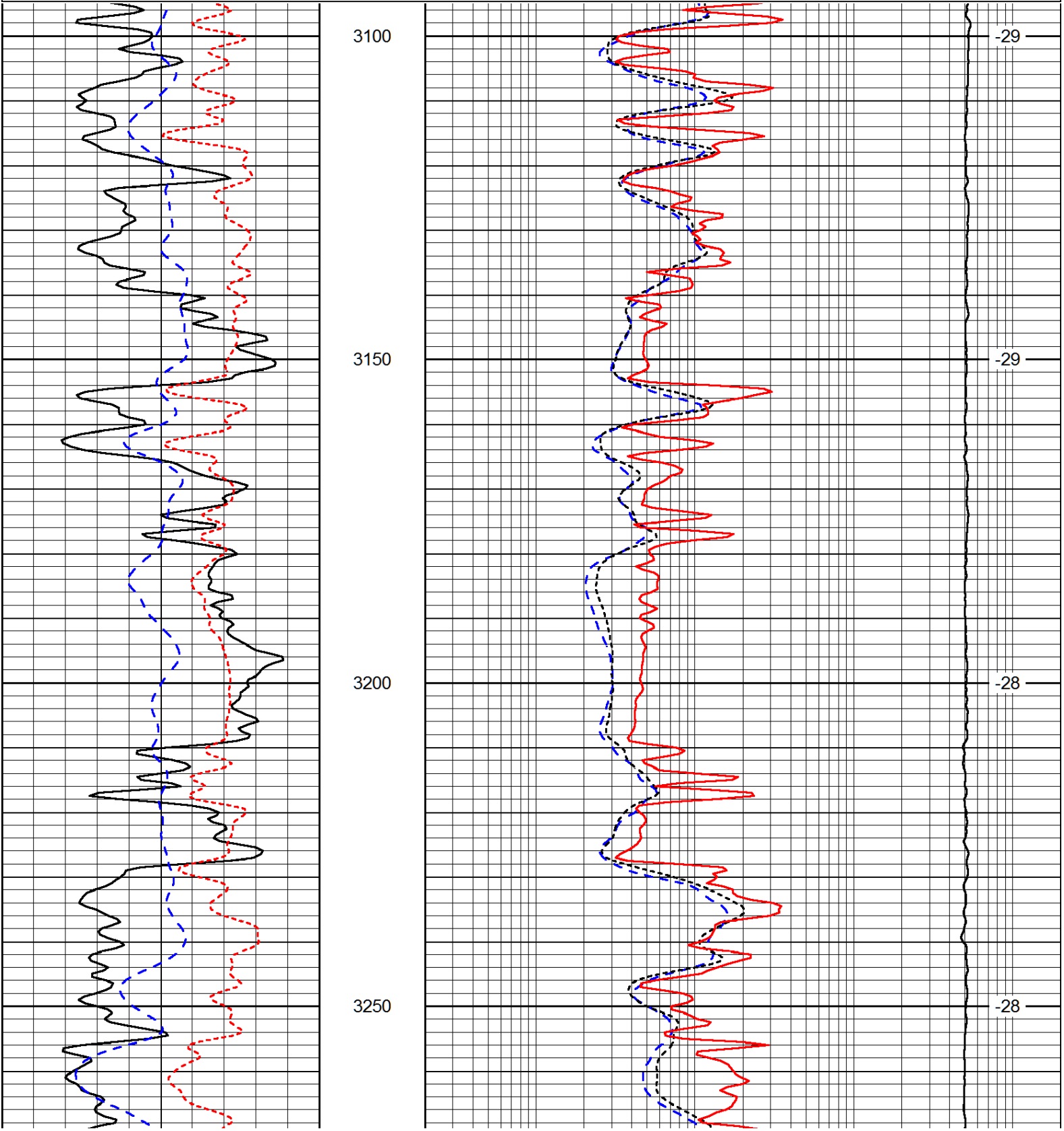
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

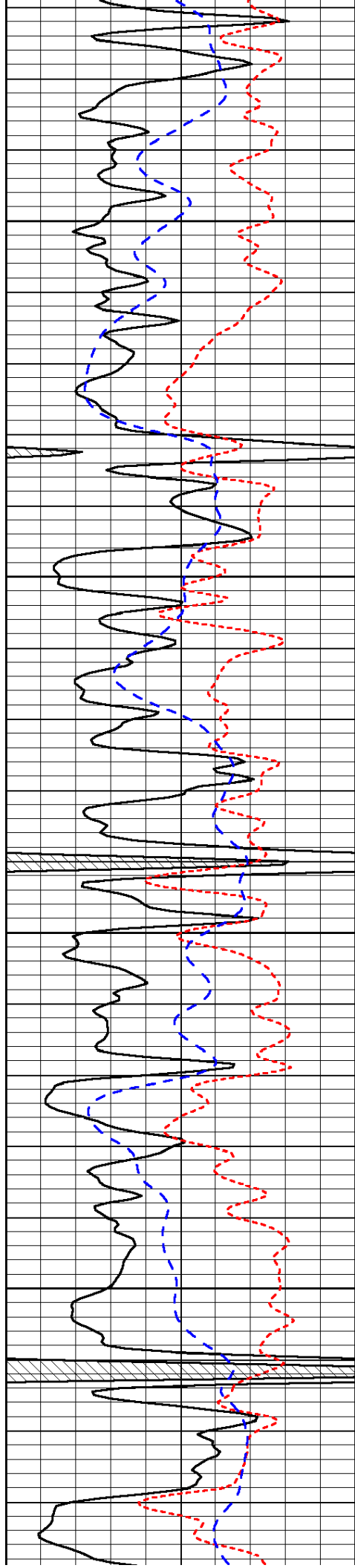
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Charted by: Depth in Feet scaled 1:240		
0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0
		LSPD (ft/min)



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	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXO/RT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0
					LSPD (ft/min)



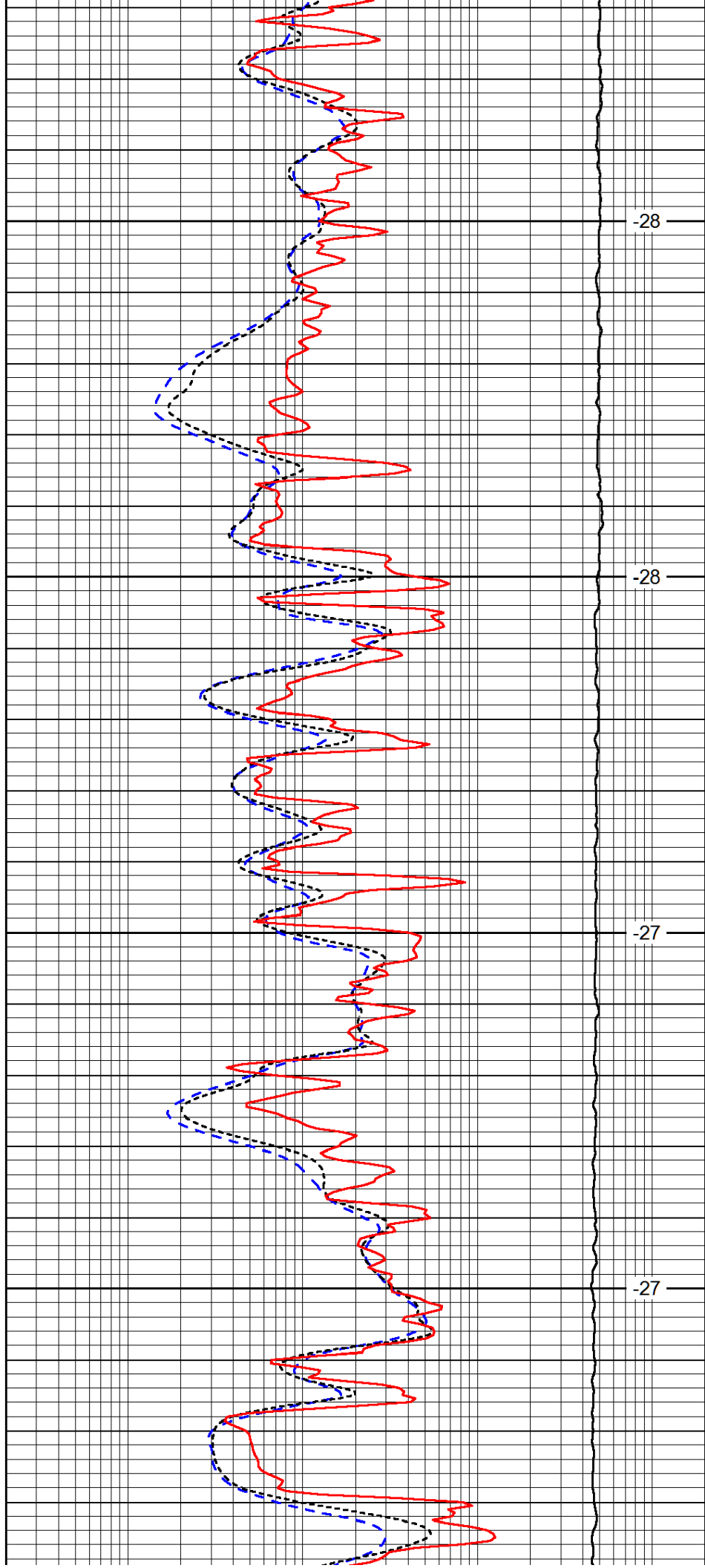


3300

3350

3400

3450

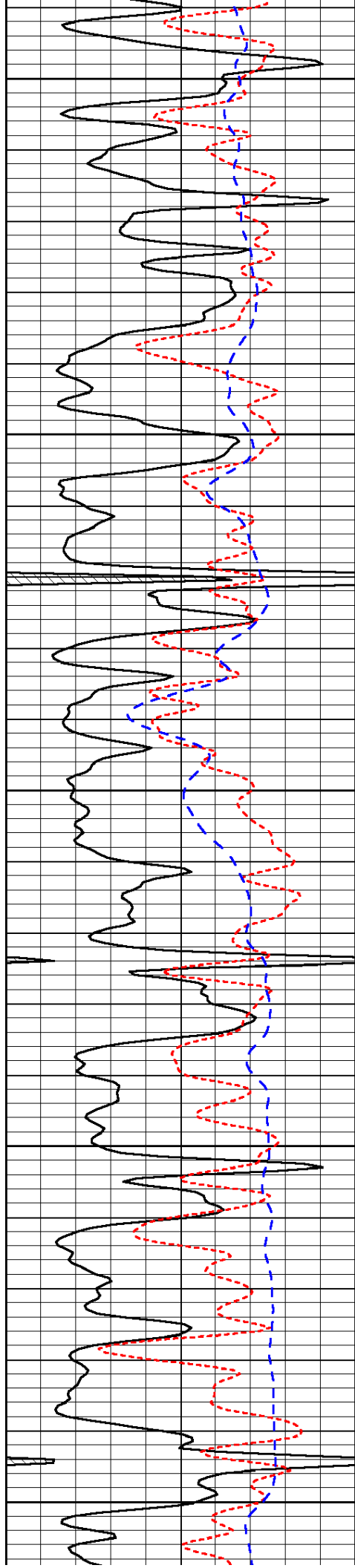


-28

-28

-27

-27



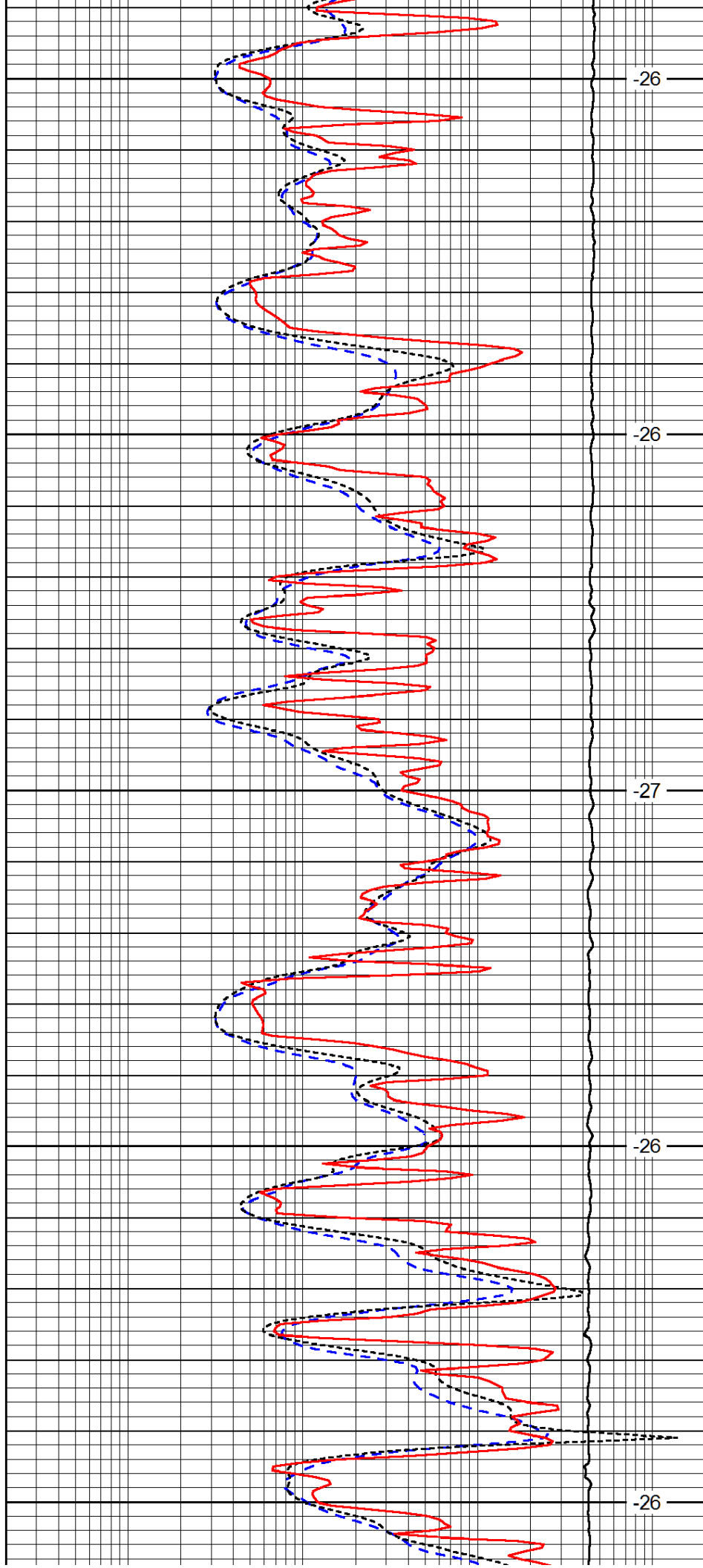
3500

3550

3600

3650

3700



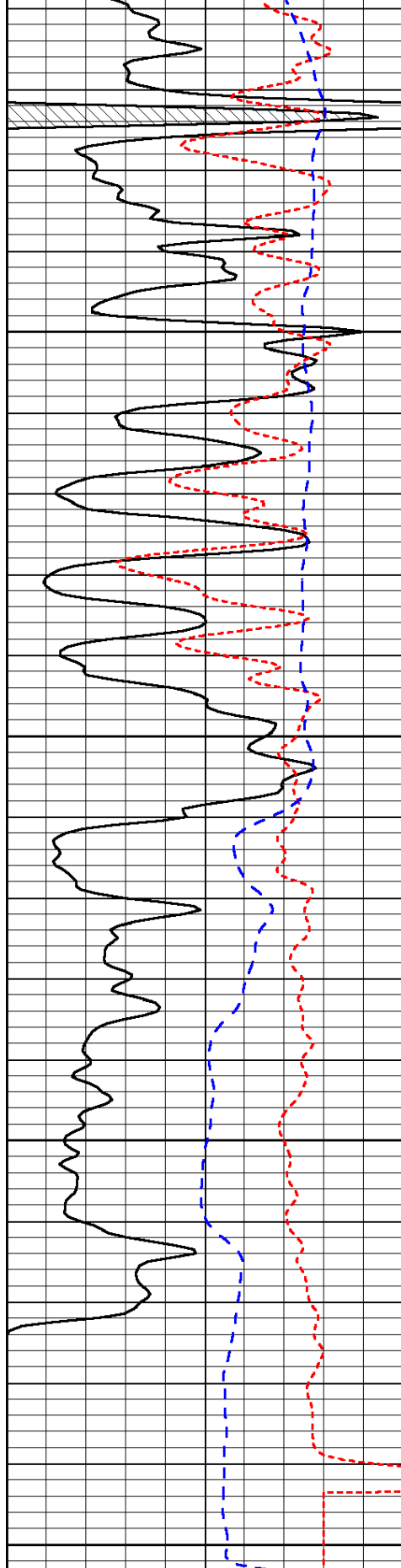
-26

-26

-27

-26

-26



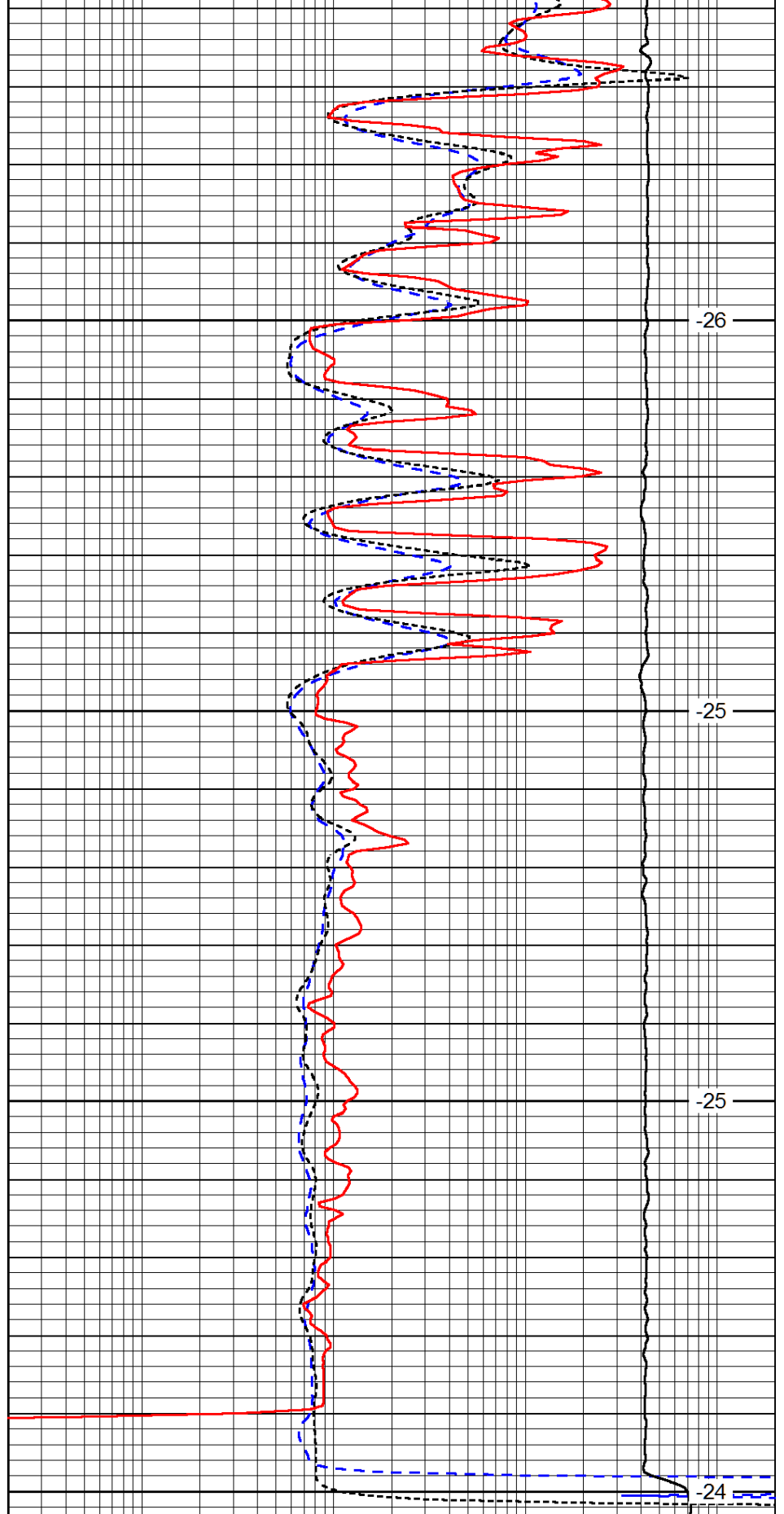
0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

3750

3800

3850

3900



-26

-25

-25

-24

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)

