

LOG-TECH



Dual Induction Log

DIGITAL LOG

(785) 625-3858

API No.

15-137-20,511-00-00

Company Pioneer Resources

Well Kemper No.2

Field Ray West

County Norton State Kansas

Location

NW NE SE SE
1100' FSL & 650' FEL

Sec: 23 Twp: 5S Rge: 21W

Permanent Datum Ground Level Elevation 2174
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
MEL
Elevation
K.B. 2182
D.F.
G.L. 2174

Date 12/20/2009

Run Number One

Depth Driller 3680

Depth Logger 3670

Bottom Logged Interval 3669

Top Log Interval 200

Casing Driller 8.625 @ 238

Casing Logger 238

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 2.000

Density / Viscosity 9.3 50

pH / Fluid Loss 10.0 7.8

Source of Sample Flowline

Rm @ Meas. Temp 2.2 @ 65

Rmf @ Meas. Temp 1.65 @ 65

Rmc @ Meas. Temp 2.97 @ 65

Source of Rmf / Rmc Charts

Rm @ BHT 1.27 @ 113

Operating Rig Time 3 1/2 Hours

Max Rec. Temp. F 113

Equipment Number 15

Location Hays

Recorded By C. Desaire

Witnessed By Randy Kilian

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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

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(785) 625-3858

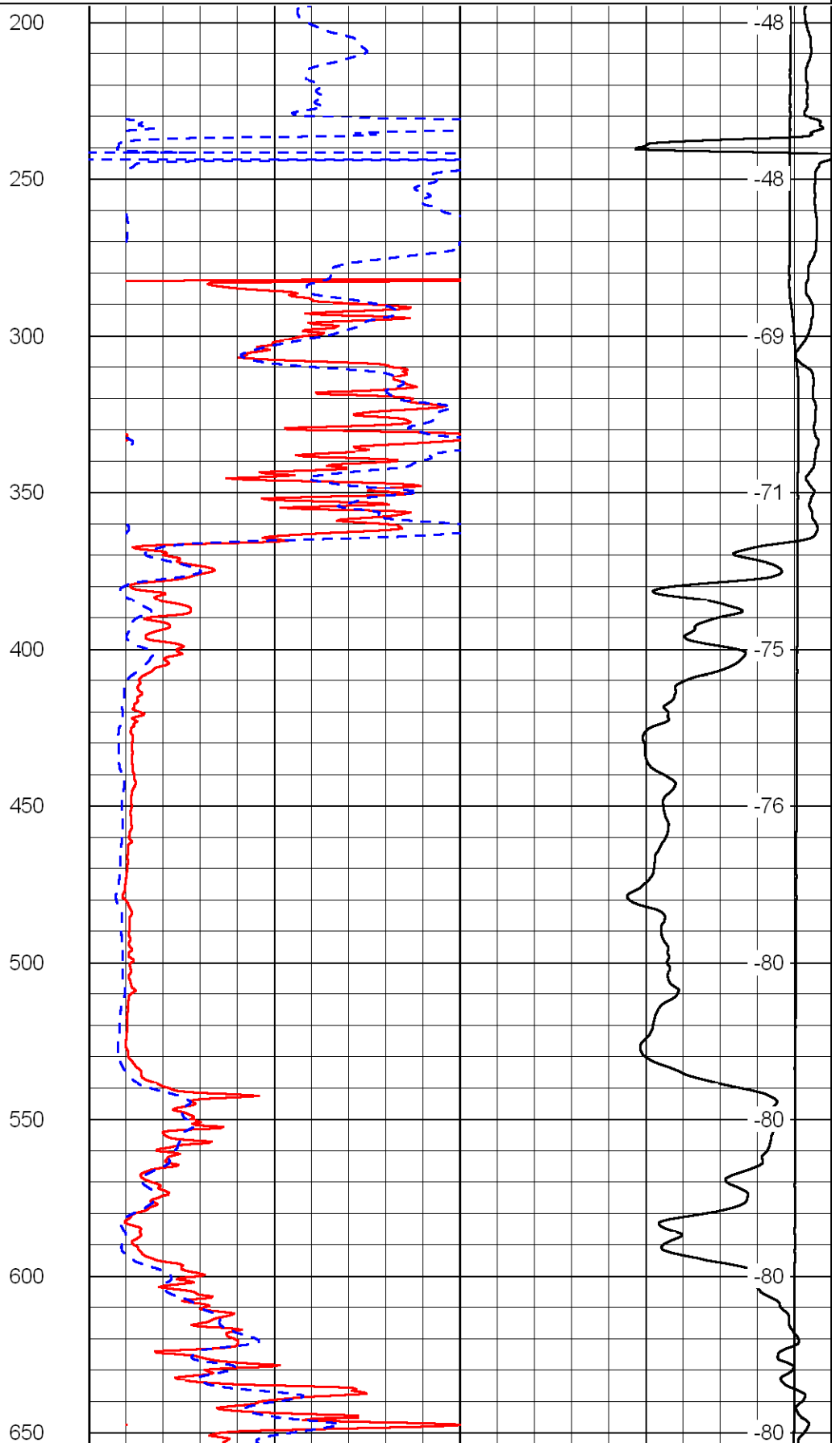
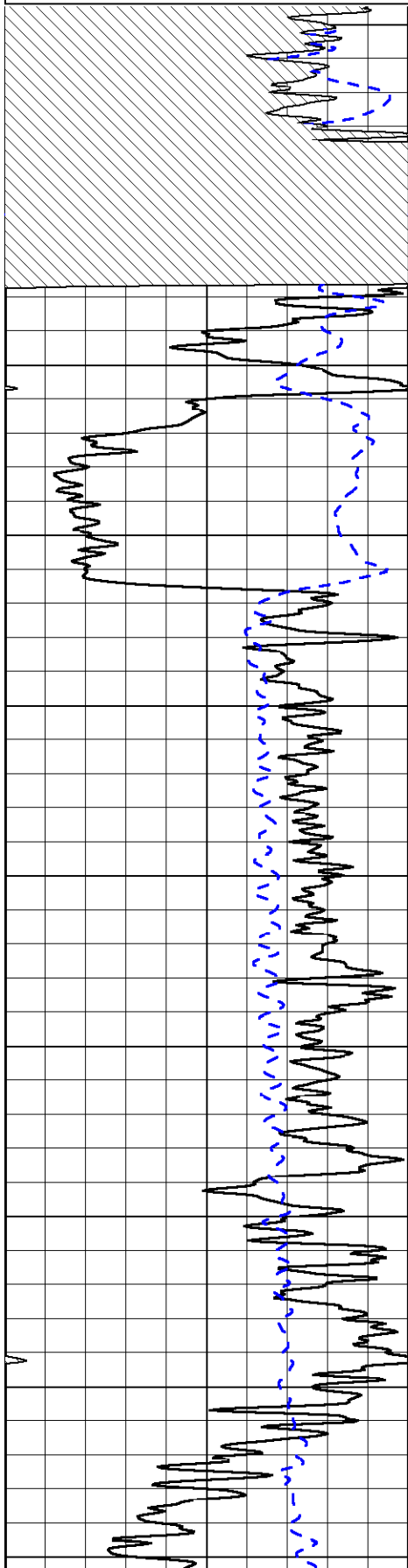
Stockton, N to Cozy Cove Rd,
W to Logan Rd, 1 S to Day Dream Rd,
4 W to 13 Rd, 3/4 N, W Into

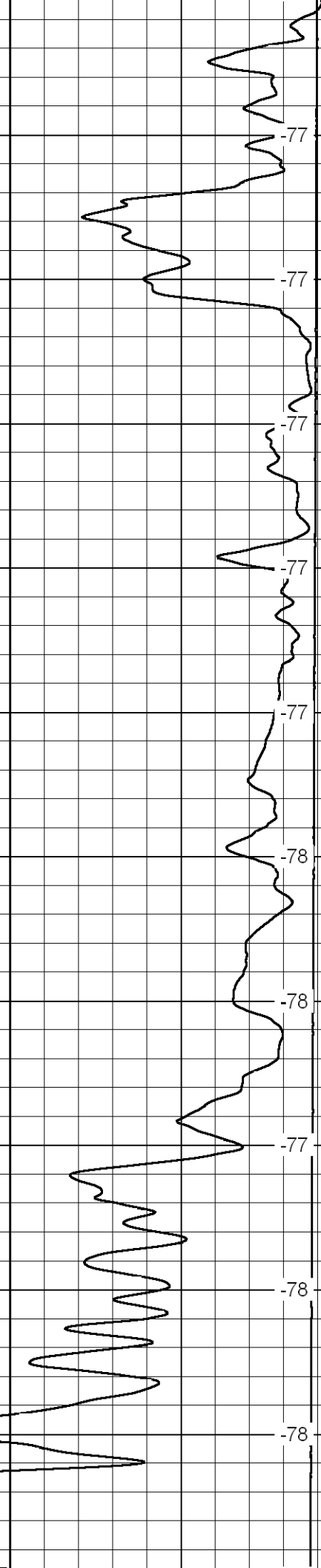
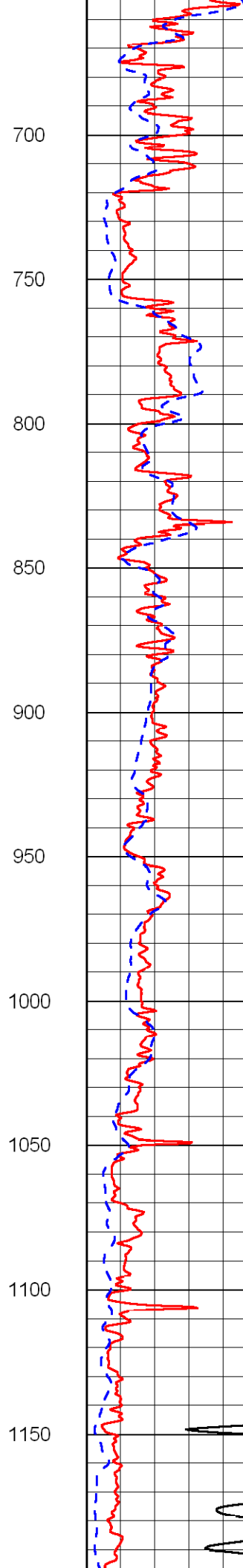
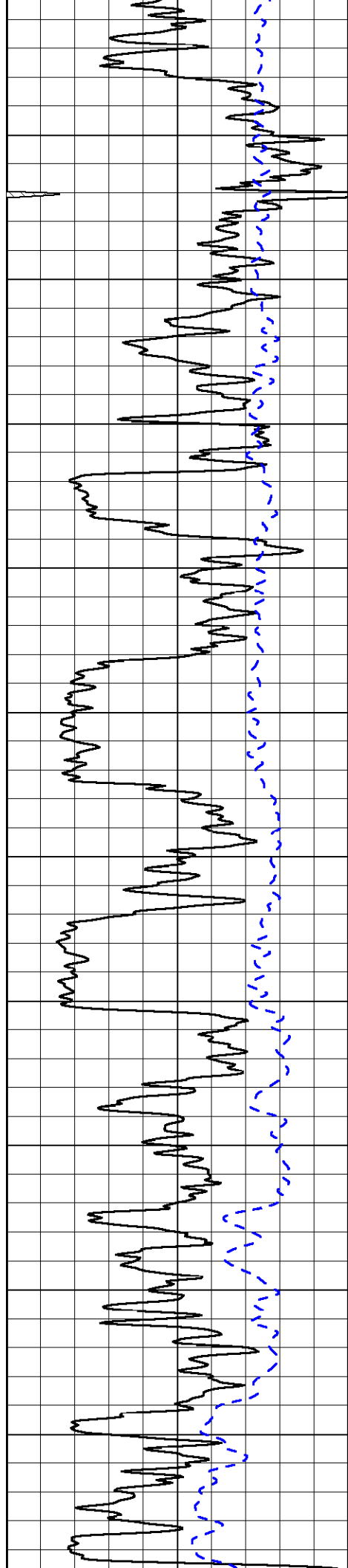
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Dataset Pathname: dil\pnrstk
Presentation Format: dil2in
Dataset Creation: Sun Dec 20 20:47:11 2009
Charted by: Depth in Feet scaled 1:600

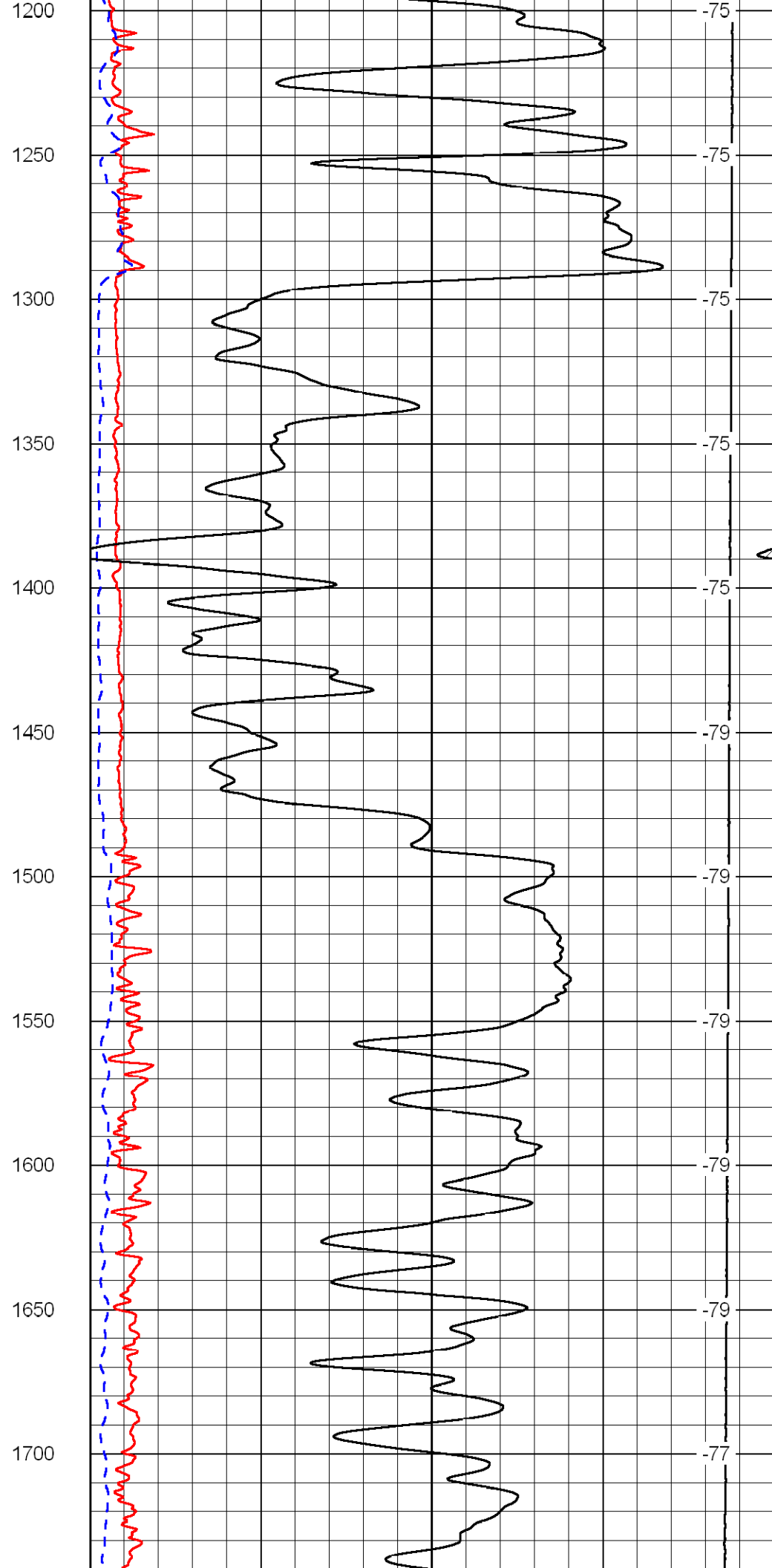
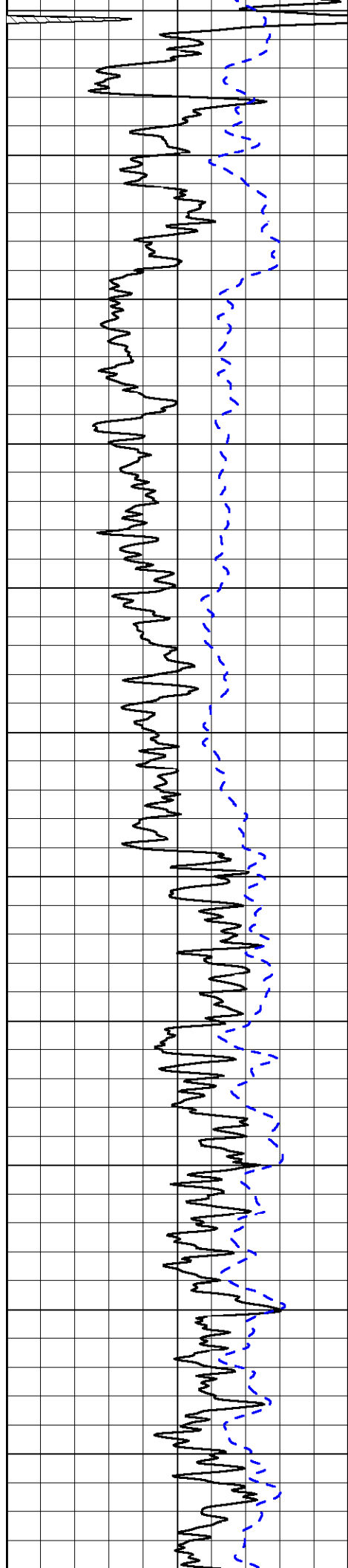
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-200	SP (MV)	0

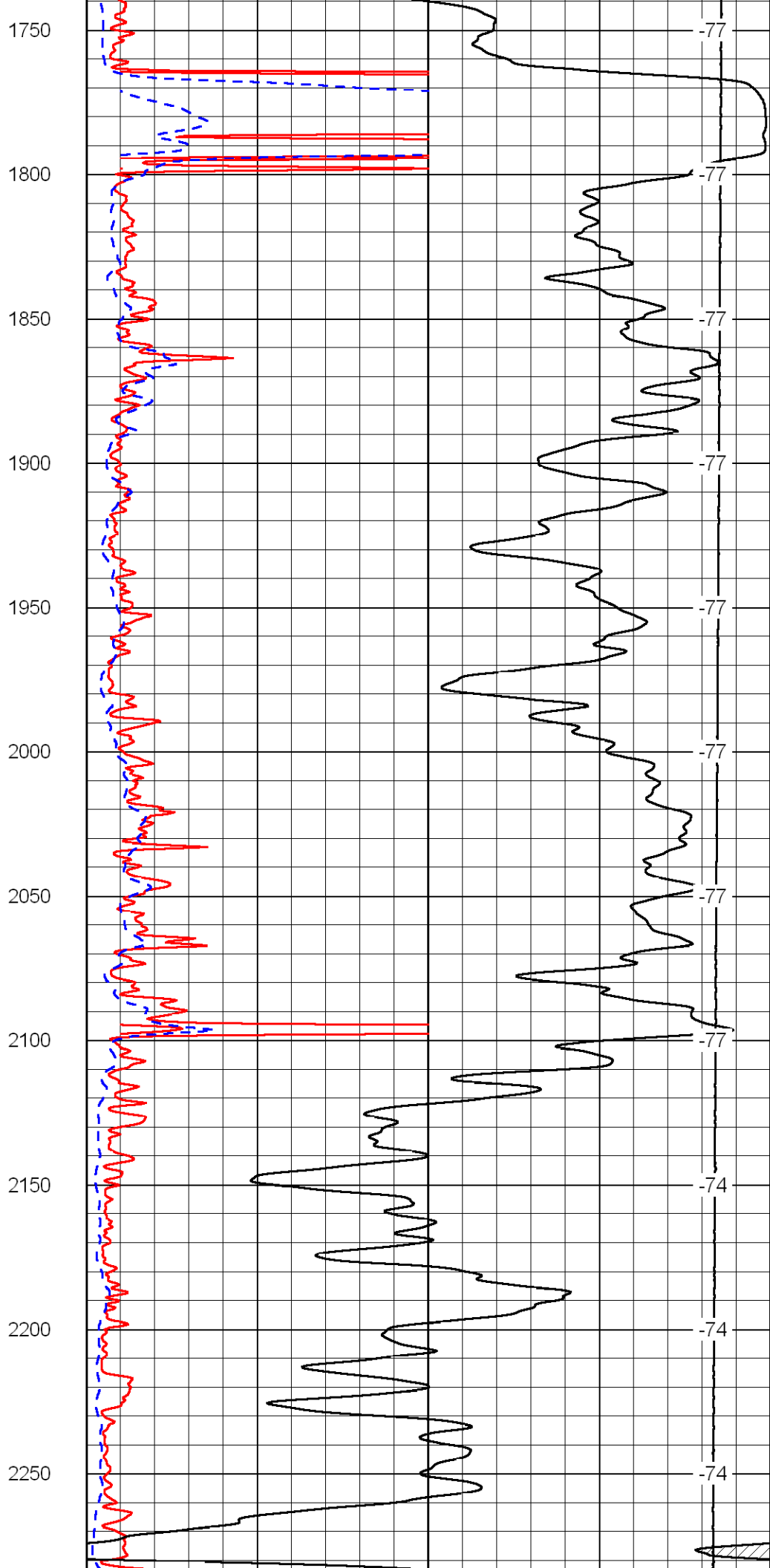
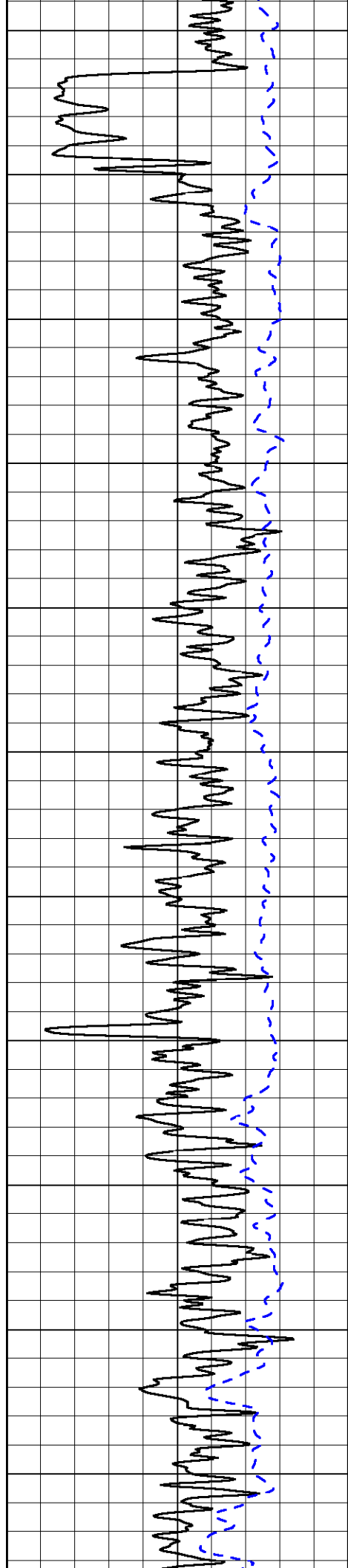
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

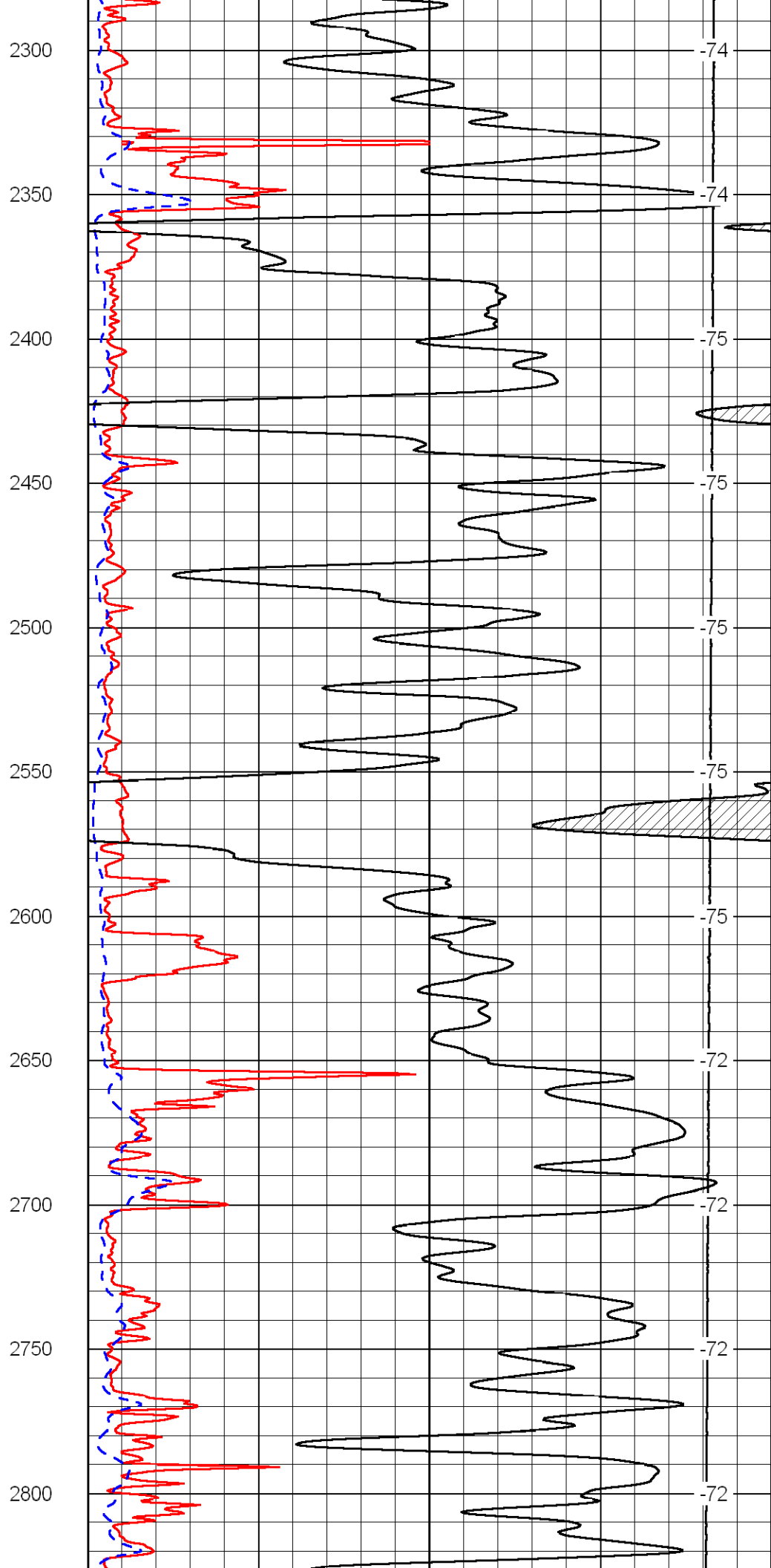
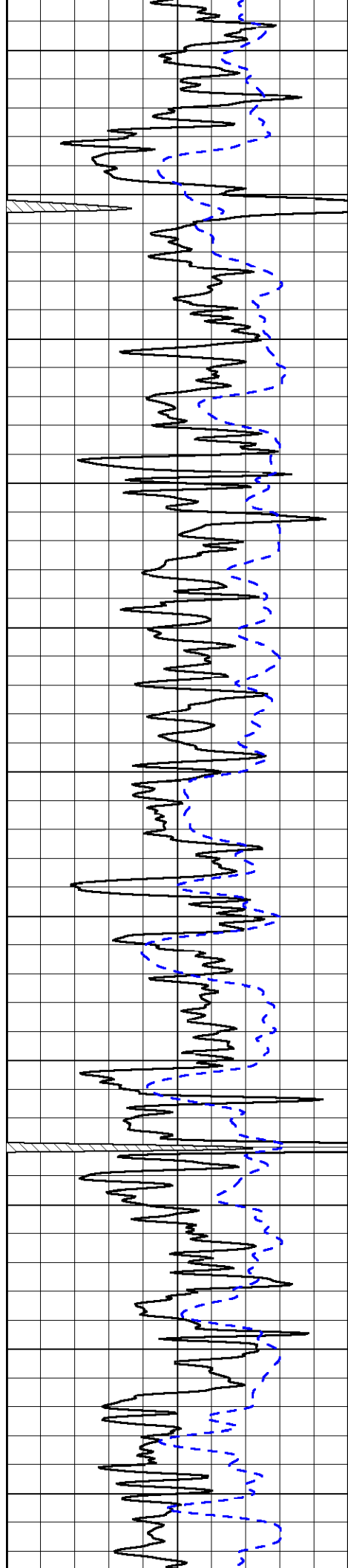
LSPD
(ft/min)

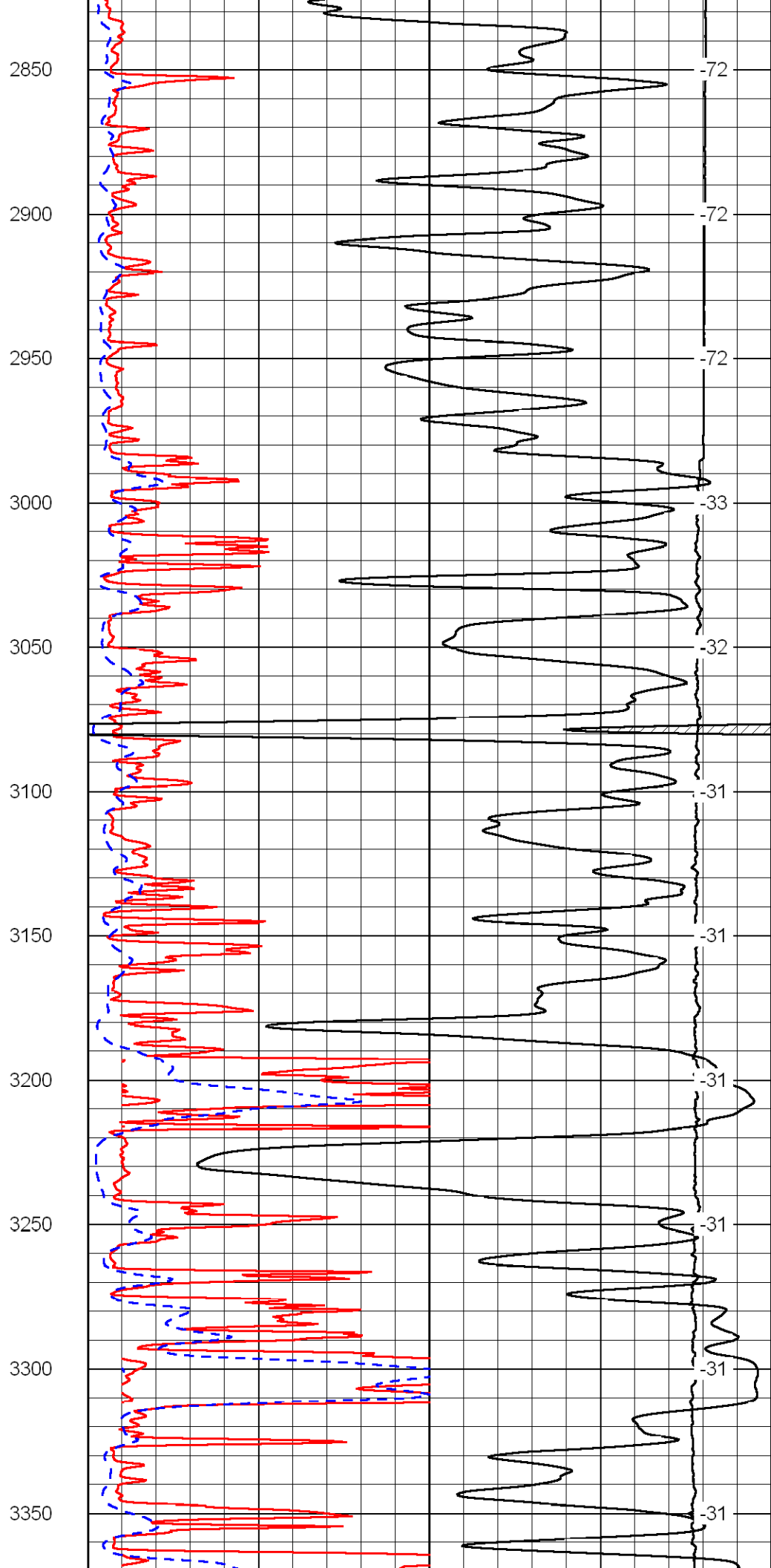
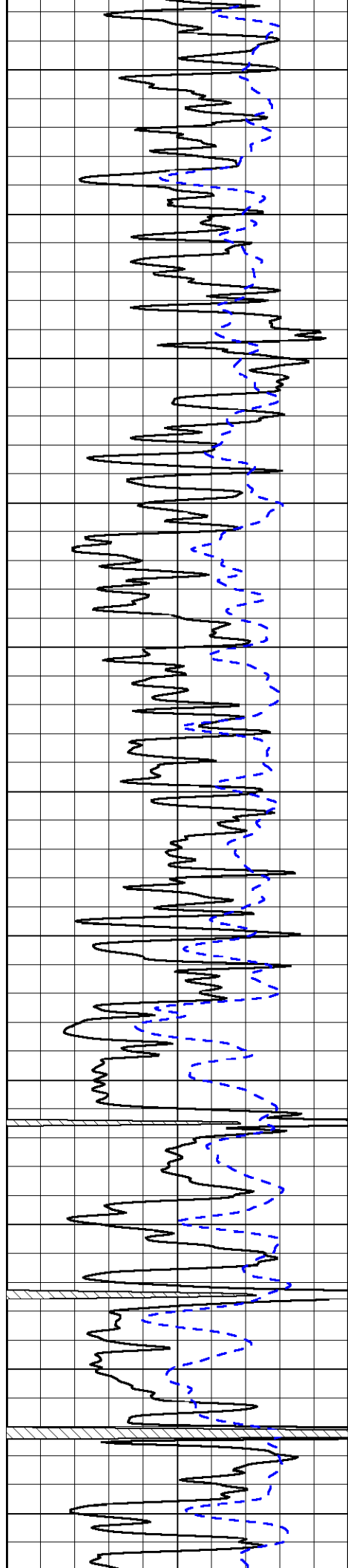


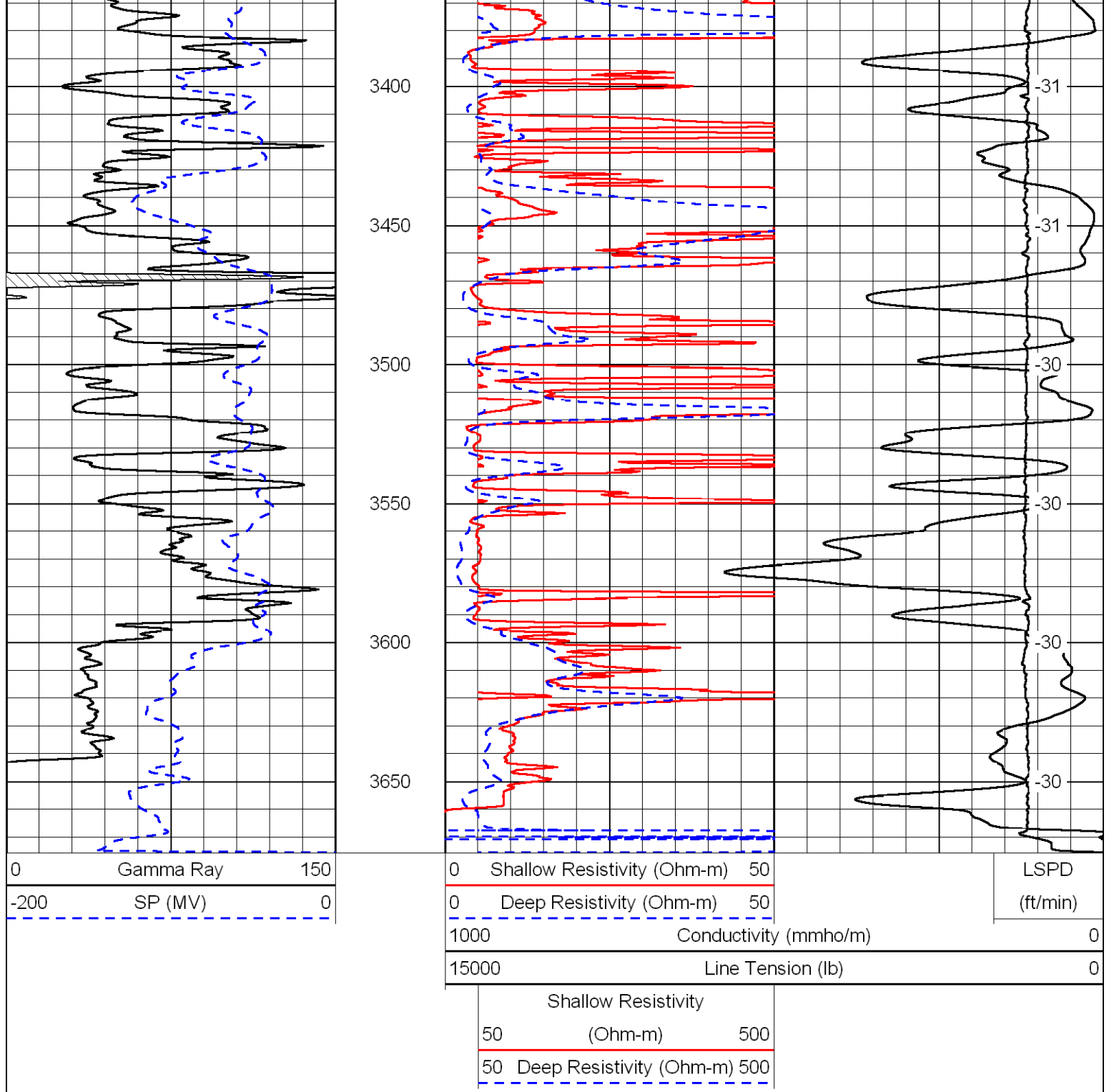




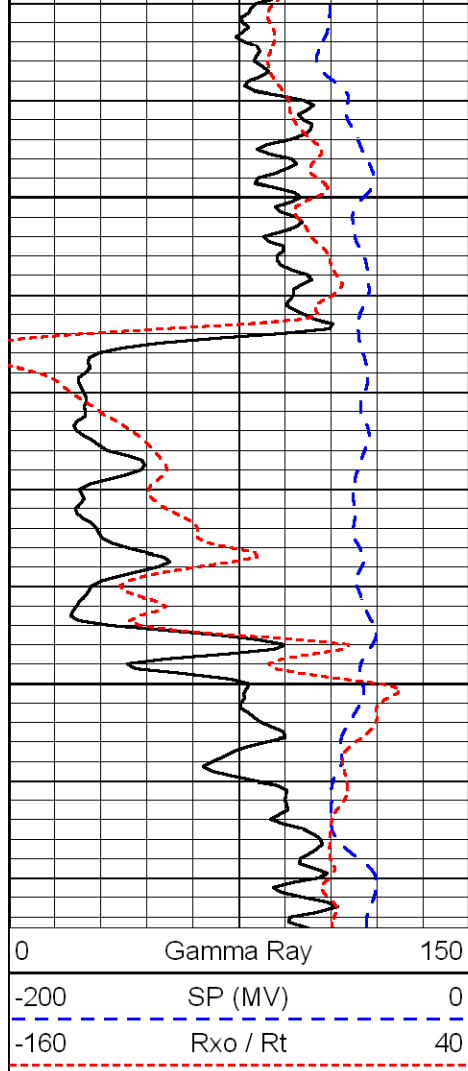






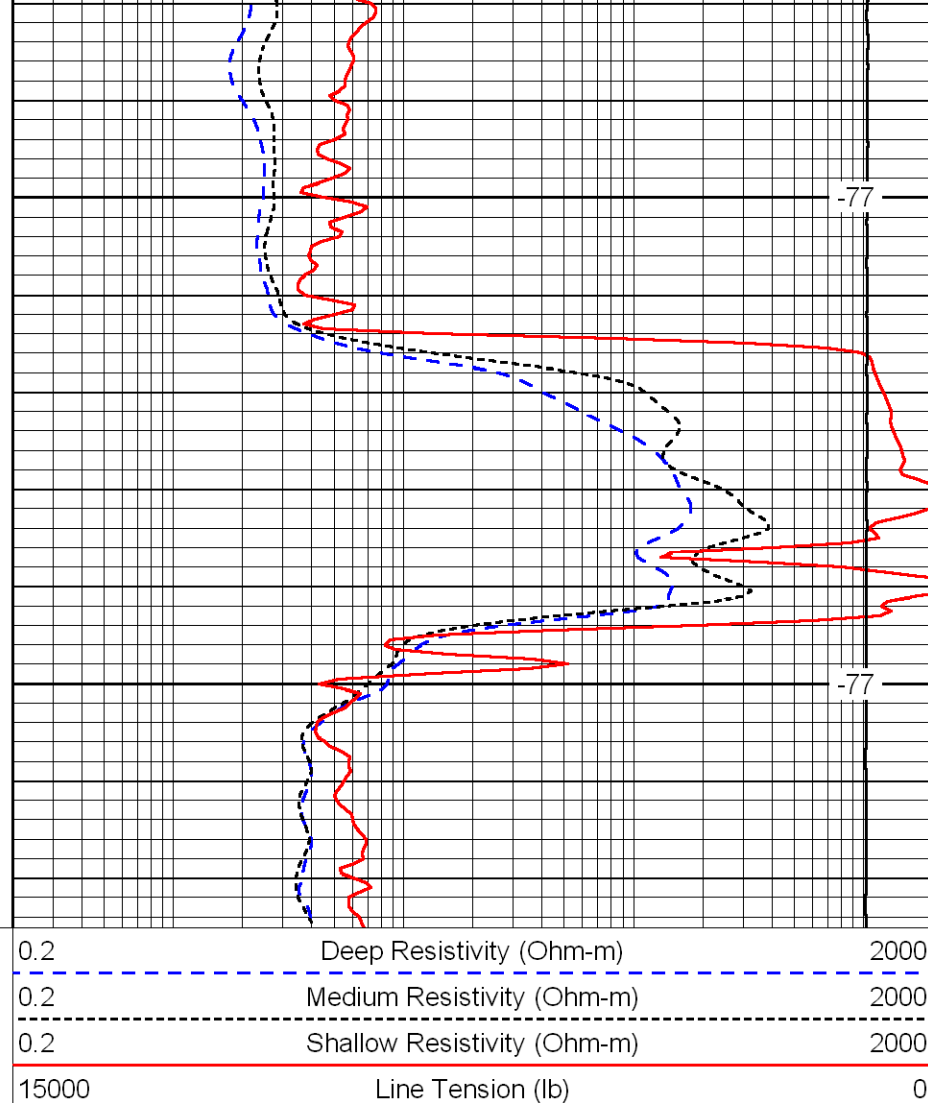


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Presentation Format:		dil	
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Charted by:		Depth in Feet scaled 1:240	
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-200	SP (MV)	0	
-160	Rxo / Rt	40	
0.2	Deep Resistivity (Ohm-m)	2000	
0.2	Medium Resistivity (Ohm-m)	2000	
0.2	Shallow Resistivity (Ohm-m)	2000	
15000	Line Tension (lb)	0	
			LSPD (ft/min)



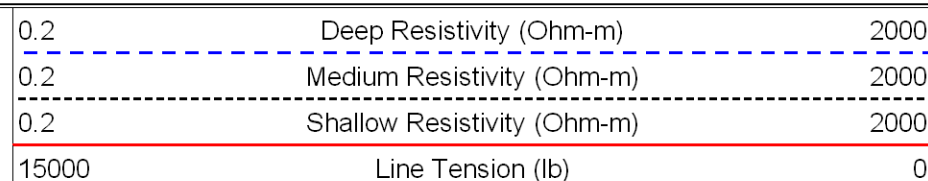
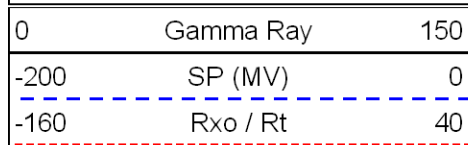
1750

1800

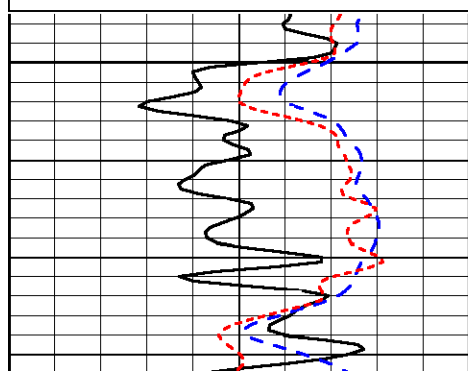


LSPD
(ft/min)

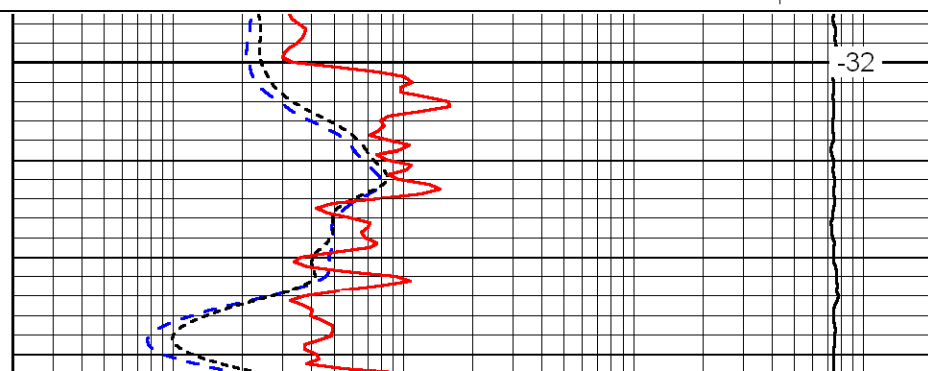
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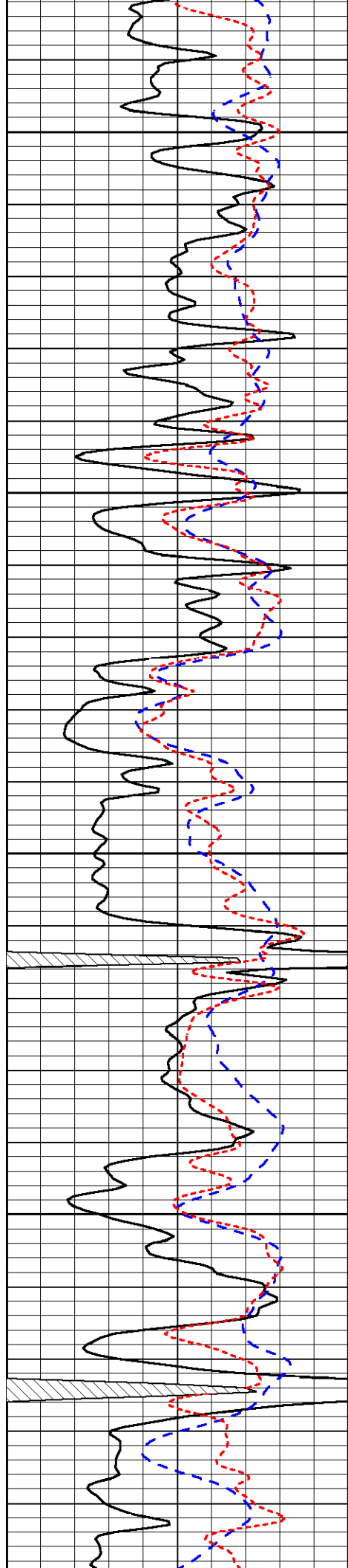
LSPD
(ft/min)



3050



-32

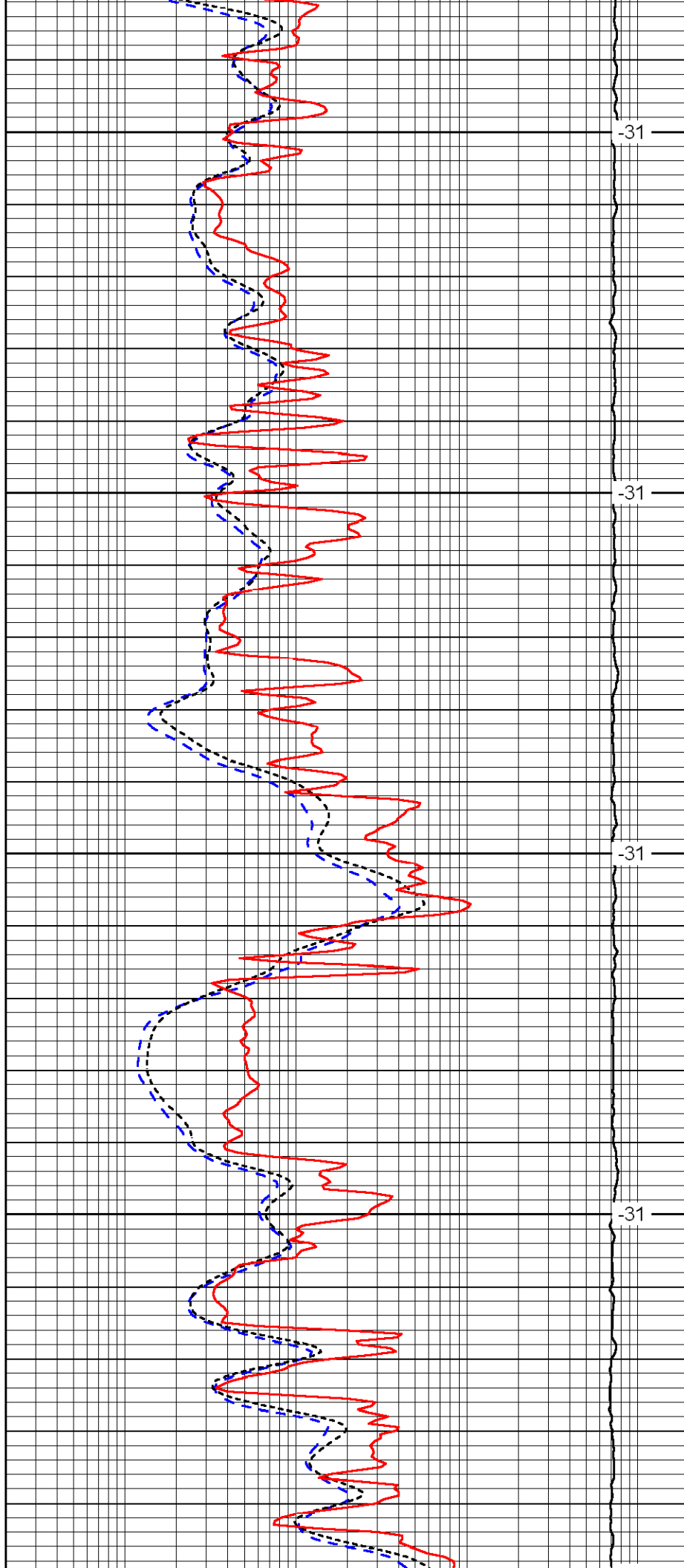


3100

3150

3200

3250

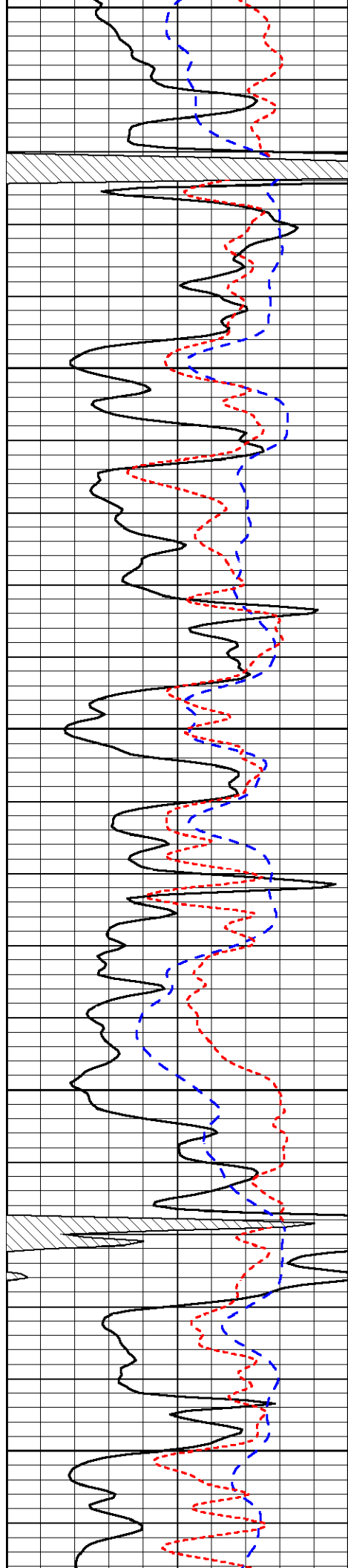


-31

-31

-31

-31



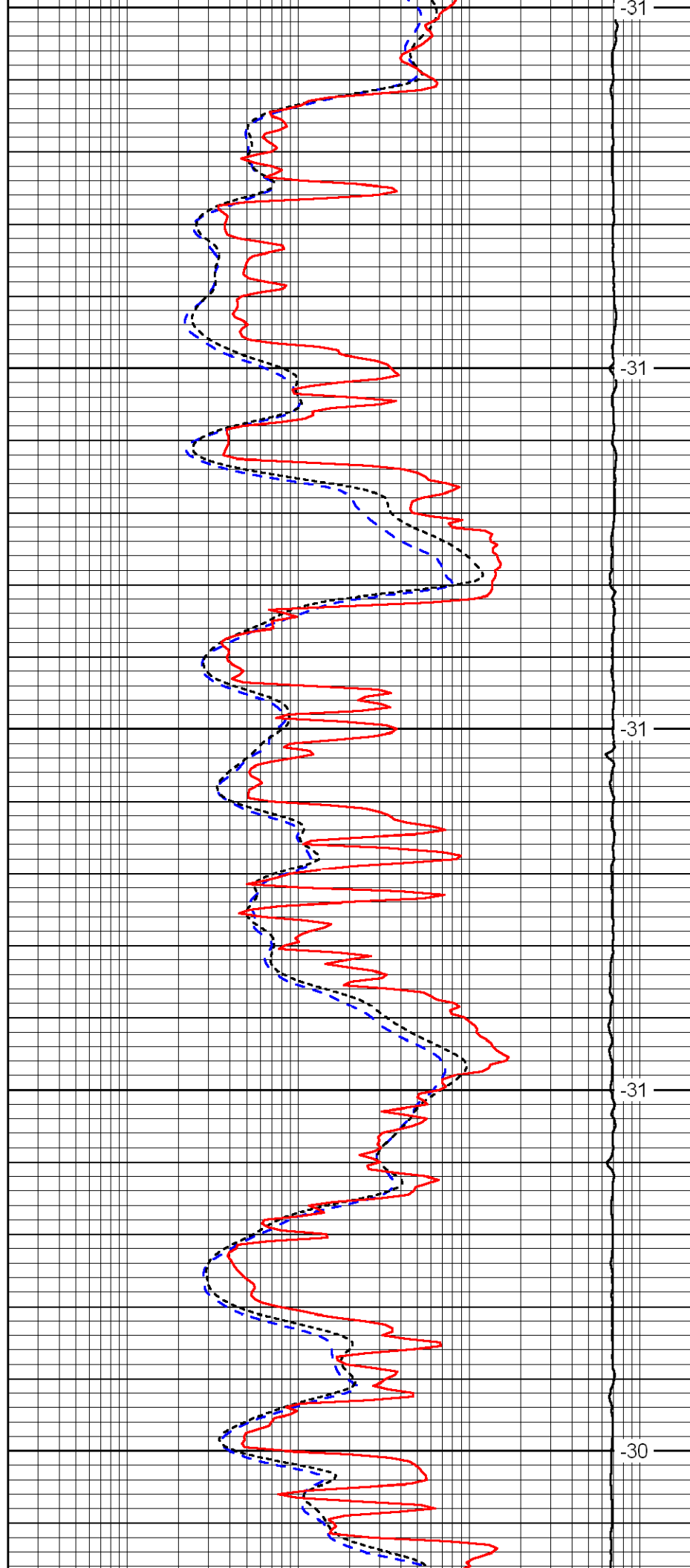
3300

3350

3400

3450

3500



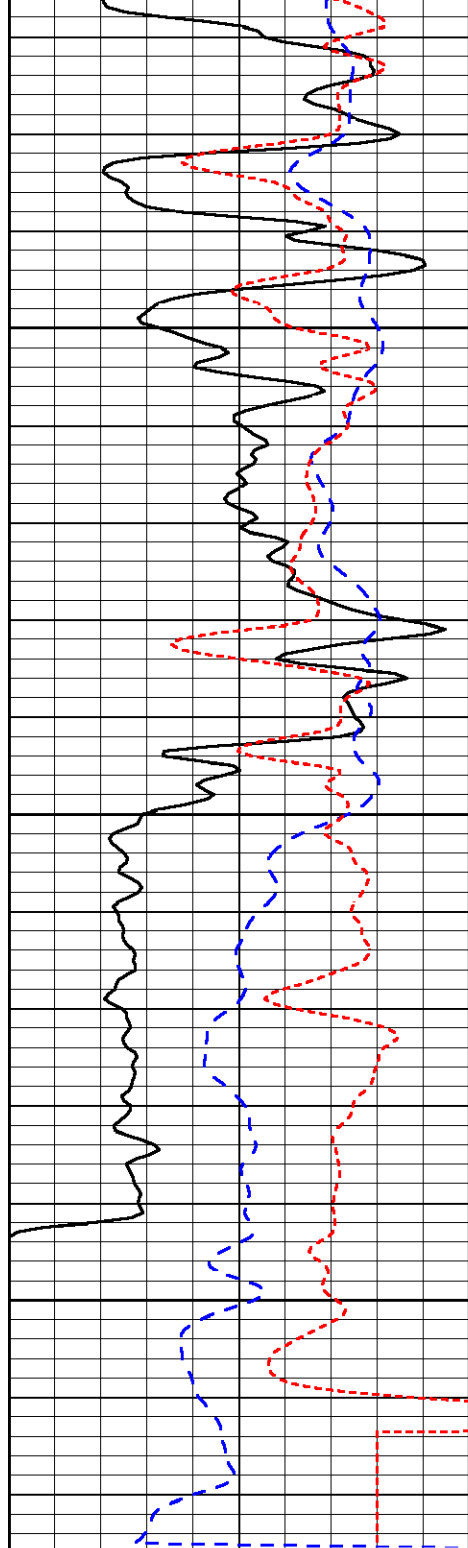
-31

-31

-31

-31

-30

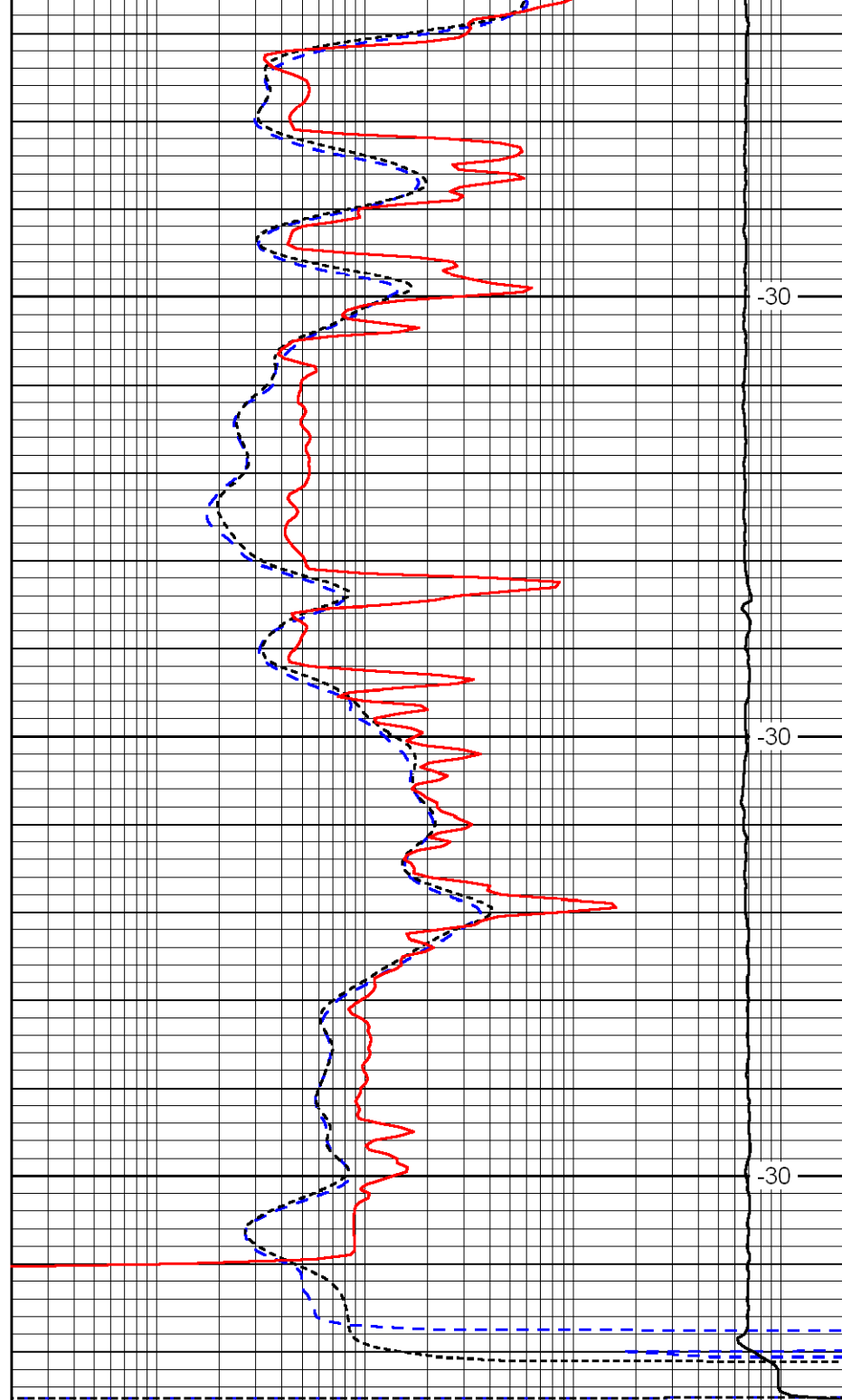


0	Gamma Ray	150
-200	SP (MV)	0
-160	Rxo / Rt	40

3550

3600

3650



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
15000	Line Tension (lb)	0

LSPD
(ft/min)