



Pioneer Energy Services

# HIGH RESOLUTION INDUCTION GUARD LOG - SP GAMMA RAY

Company Carrizo Niobrara LLC		Company Carrizo Niobrara LLC	
Well	Bringelson Ranch 5-34-9-58	Well	Bringelson Ranch 5-34-9-58
Field	Wildcat	Field	Wildcat
County	Weld	County	Weld
State	Colorado	State	Colorado
Location:		API # : 05-123-39948	
367' FNL & 825' FWL NWNW		None	
SEC 34 TWP 9N RGE 58W		Elevation	
Permanent Datum	GL	Elevation 4805'	
Log Measured From	KB		
Drilling Measured From	KB	K.B. 4822' D.F. 4821' G.L. 4805'	
Date	August 10, 2014		
Run Number	1		
Depth Driller	5245		
Depth Logger	3360	Bridge @ 3360	
Bottom Logged Interval	3360		
Top Log Interval	Casing		
Casing Driller	1450		
Casing Logger	1450		
Bit Size	8-3/4"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.4 / 46		
pH / Fluid Loss	10.4 / 6.4		
Source of Sample	Flowline		
Rm @ Meas. Temp	2.19 @ 71 F		
Rmf @ Meas. Temp	1.64 @ 71 F		
Rmc @ Meas. Temp	2.74 @ 71 F		
Source of Rmf / Rmc	Calc / Calc		
Rm @ BHT	1.25 @ 124 F		
Time Circulation Stopped	0940		
Time Logger on Bottom	1630		
Maximum Recorded Temperature	124 F		
Equipment Number	49		
Location	Fort Morgan, CO		
Recorded By	Clint Christensen		
Witnessed By	Bob McNeese		

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

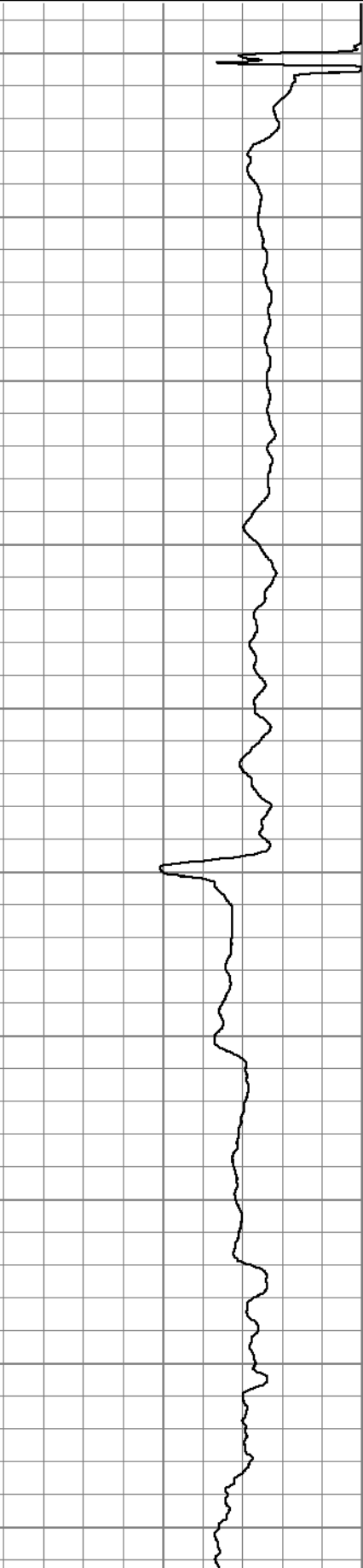
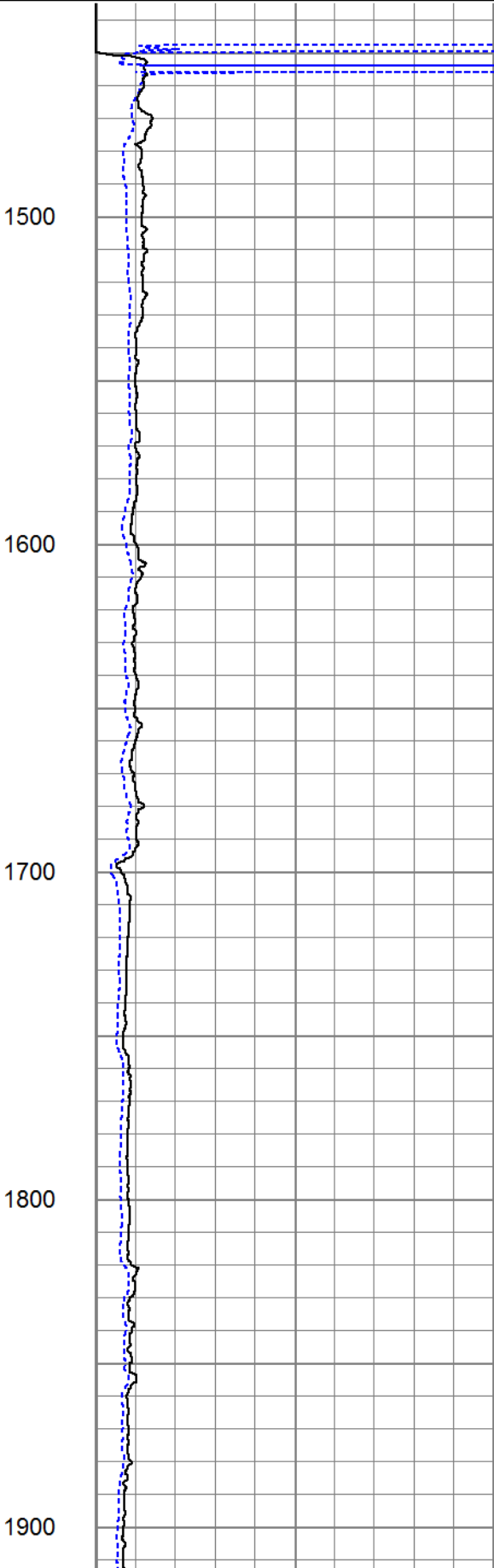
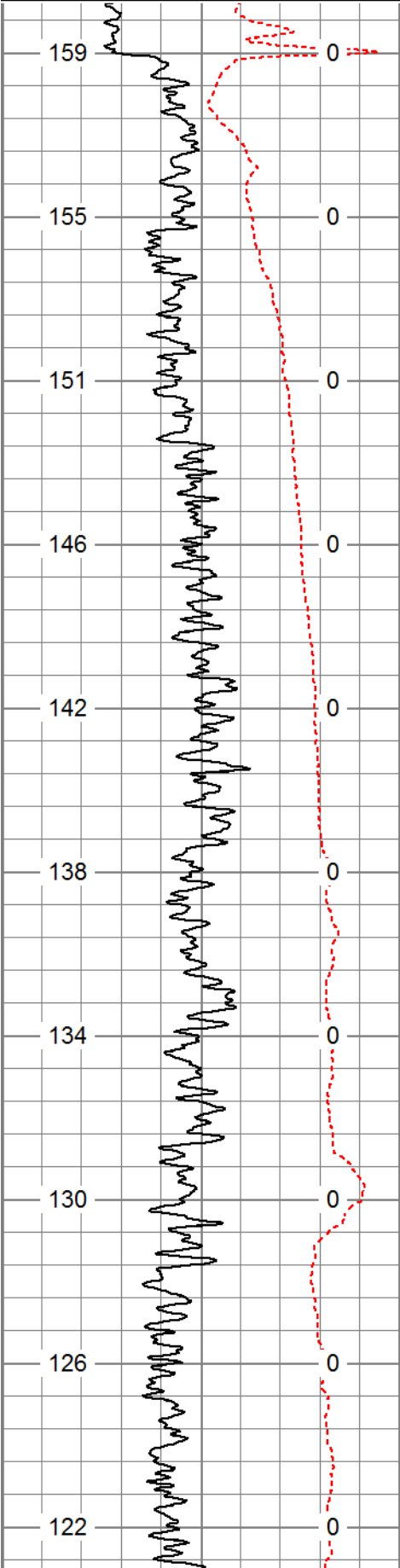
## Comments

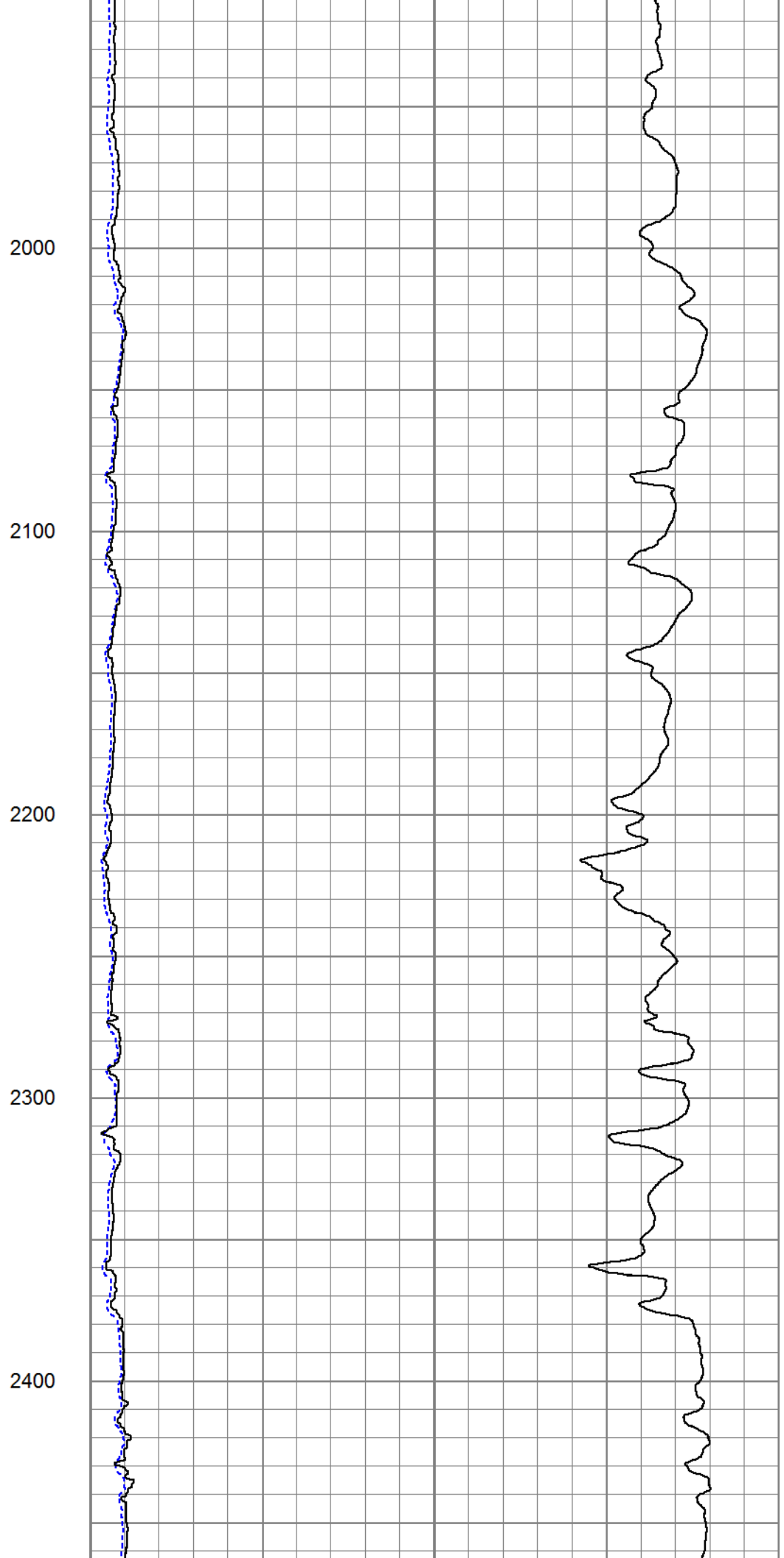
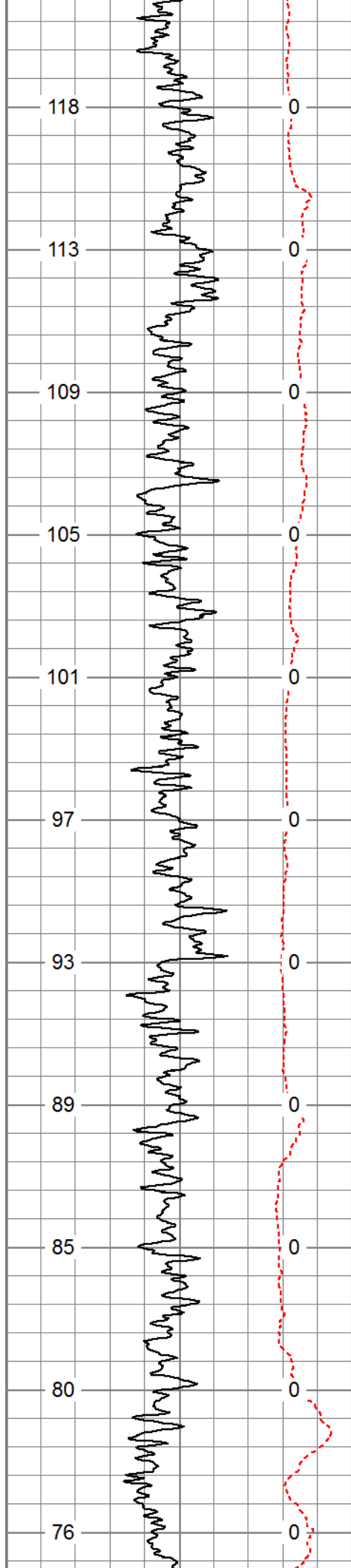
Annular volume calculated for 7" casing  
Extreme Drilling Rig #19  
Thank you for using Pioneer Energy Services  
SO# 2-013623

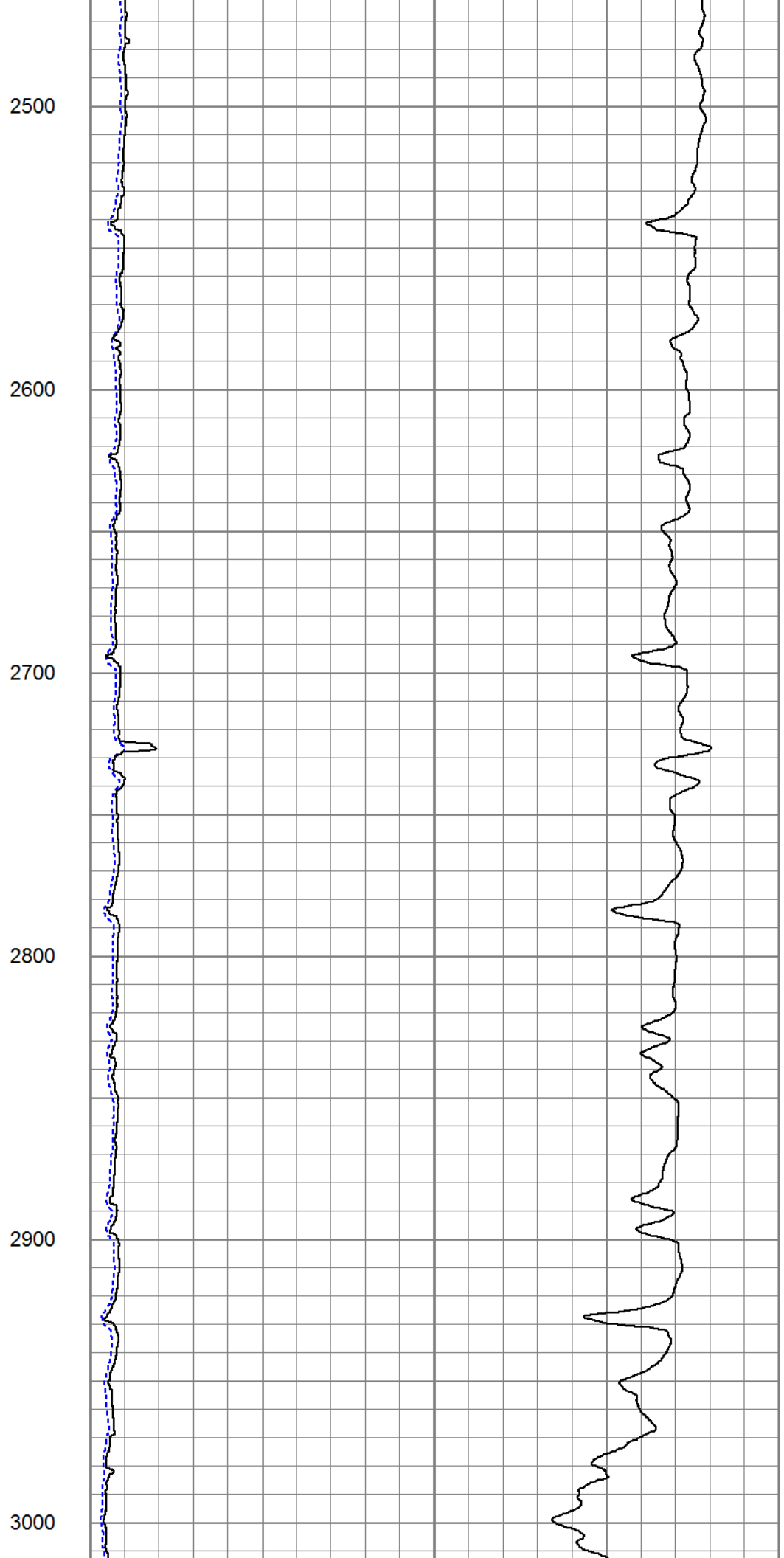
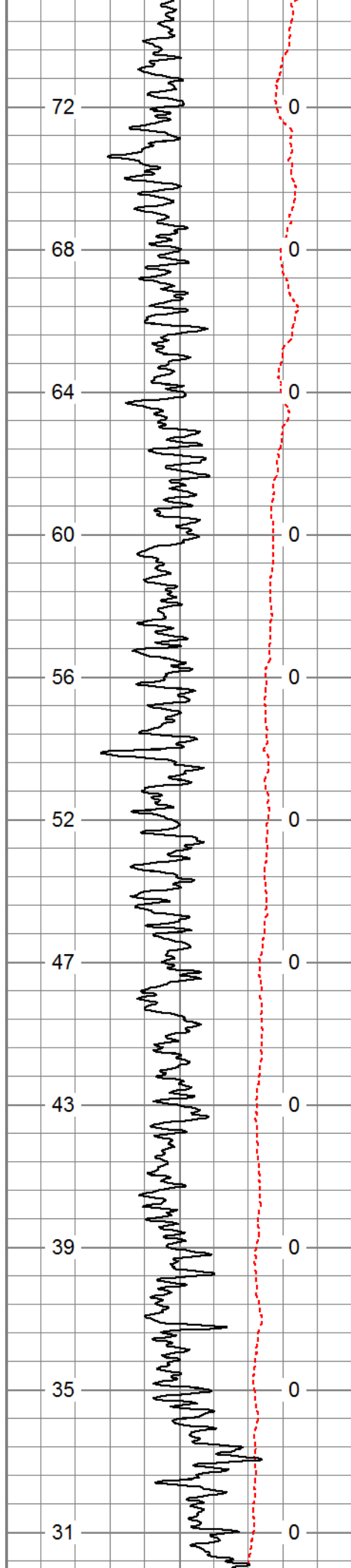
Database File: 13623.db  
Dataset Pathname: pass5  
Presentation Format: dilin5  
Dataset Creation: Sun Aug 10 17:13:55 2014  
Charted by: Depth in Feet scaled 1:600

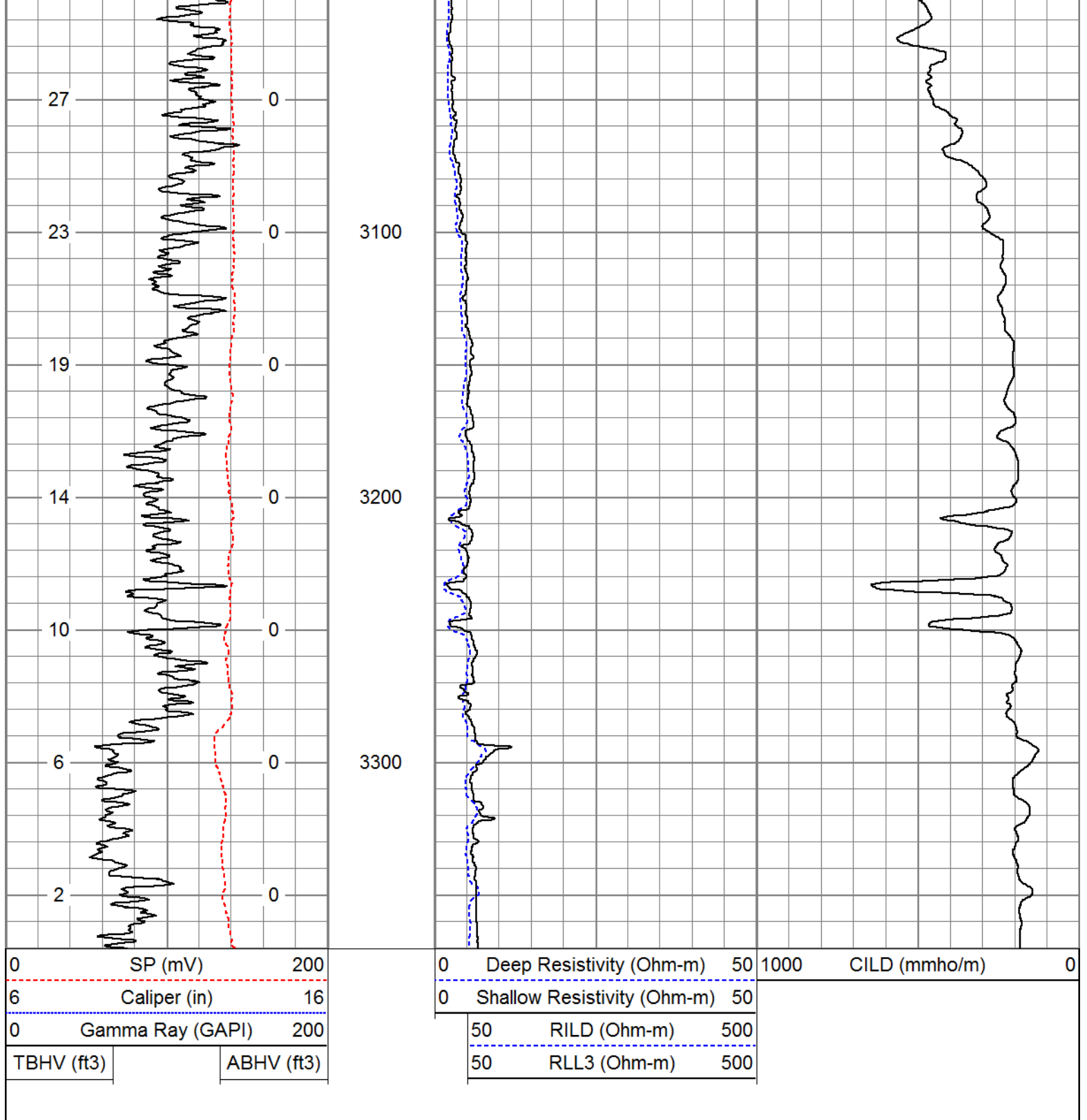
0	SP (mV)	200
6	Caliper (in)	16
0	Gamma Ray (GAPI)	200
TBHV (ft3)		ABHV (ft3)

0	Deep Resistivity (Ohm-m)	50	1000	CILD (mmho/m)	0
0	Shallow Resistivity (Ohm-m)	50			
50	RILD (Ohm-m)	500			
50	RLL3 (Ohm-m)	500			



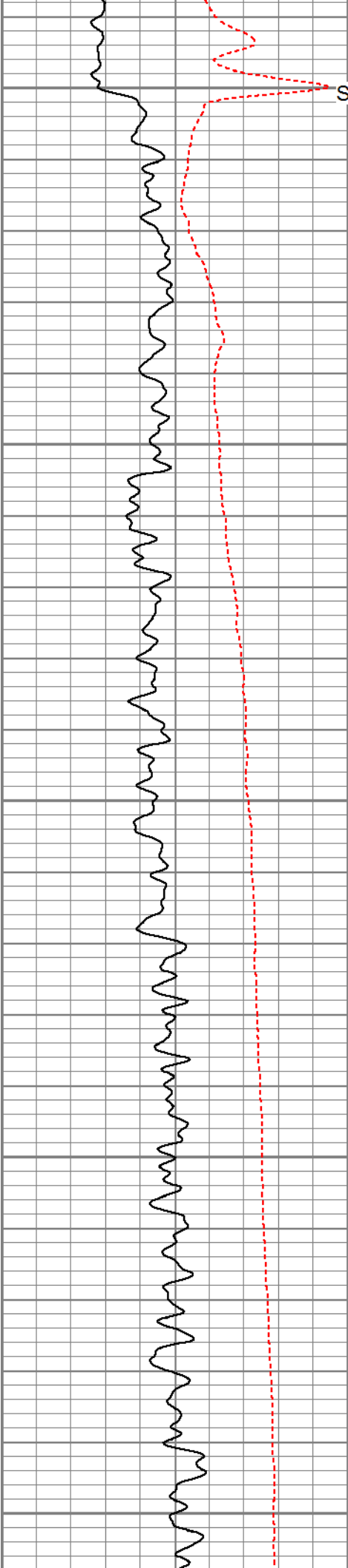






Database File:		13623.db	
Dataset Pathname:		pass5	
Presentation Format:		dil	
Dataset Creation:		Sun Aug 10 17:13:55 2014	
Charted by:		Depth in Feet scaled 1:240	

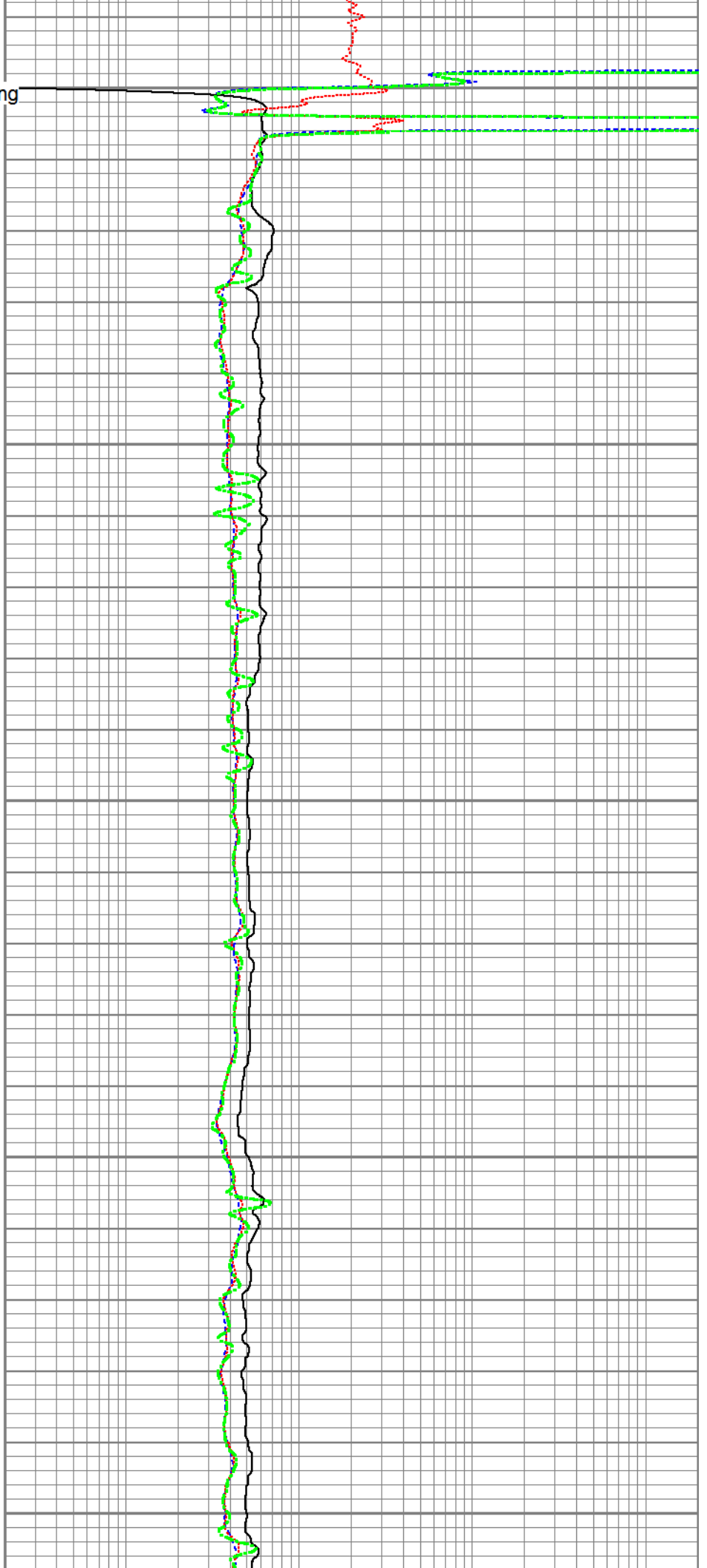
0	Gamma Ray (GAPI)	200	0.2	Deep Resistivity (Ohm-m)	2000
0	SP (mV)	200	0.2	Shallow Resistivity (Ohm-m)	2000
			0.2	Medium Resistivity (Ohm-m)	2000
			0.2	Rt (Ohm-m)	2000

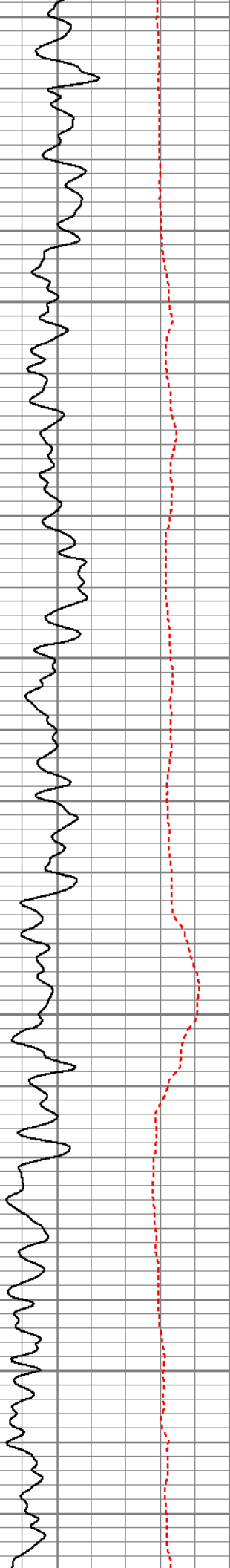


Surface Casing

1500

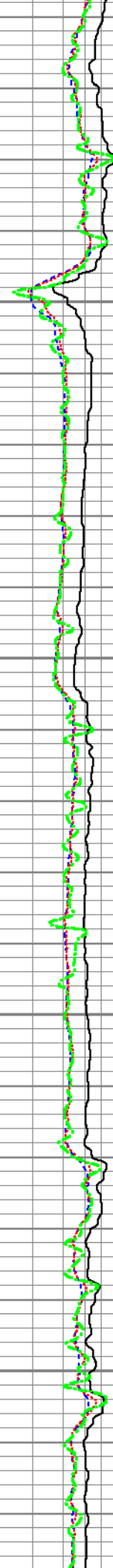
1600

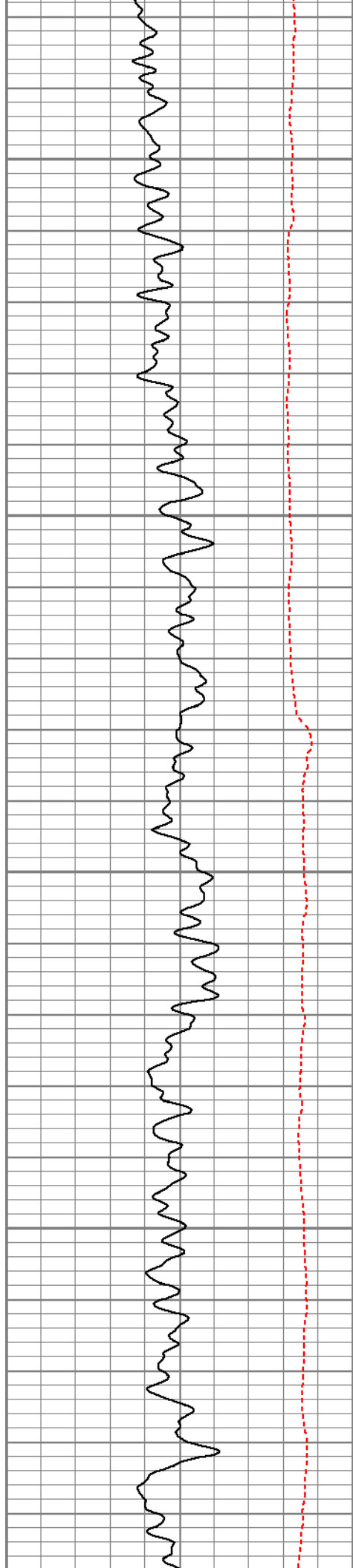




1700

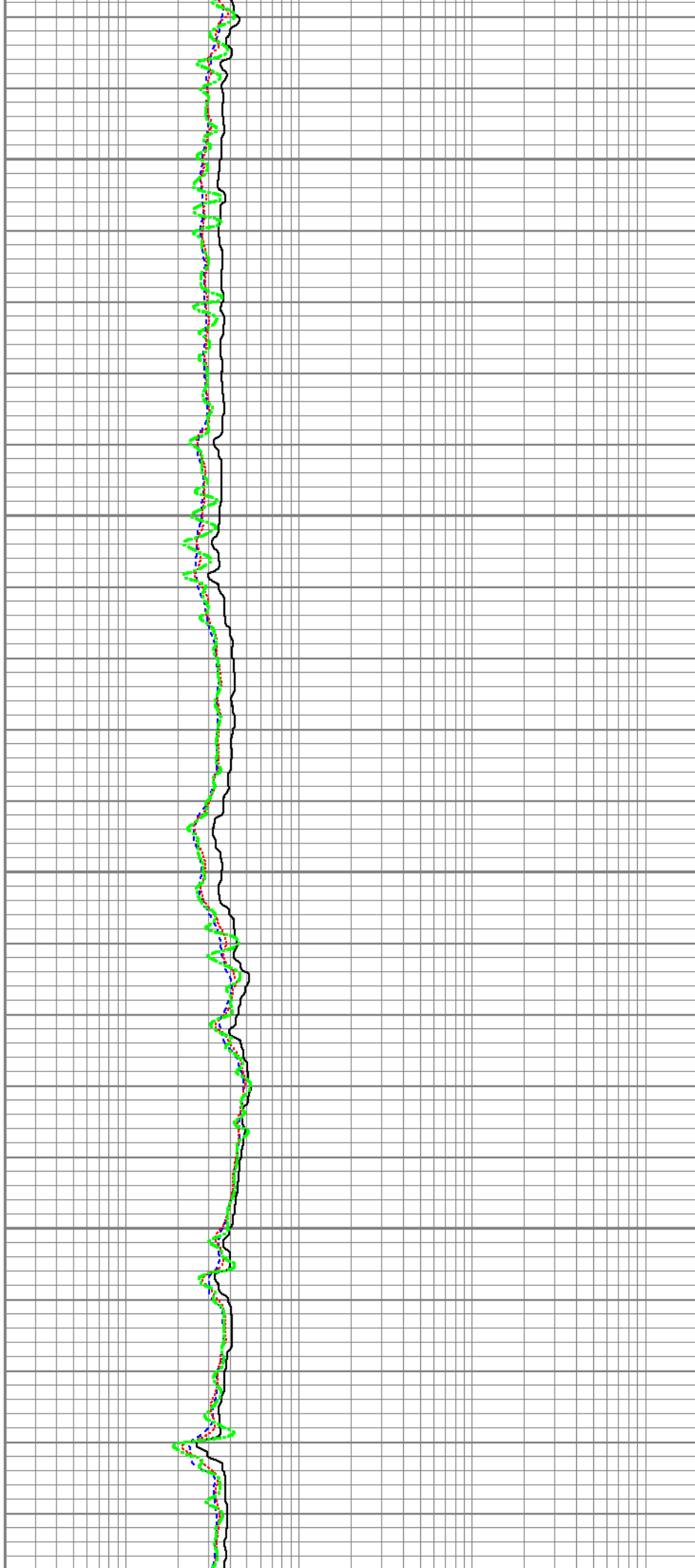
1800



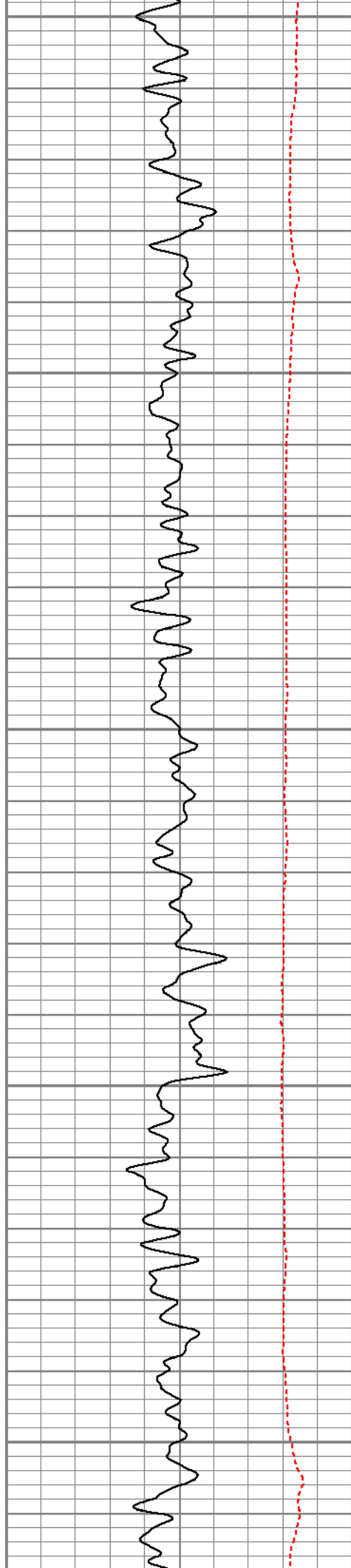


1900

2000



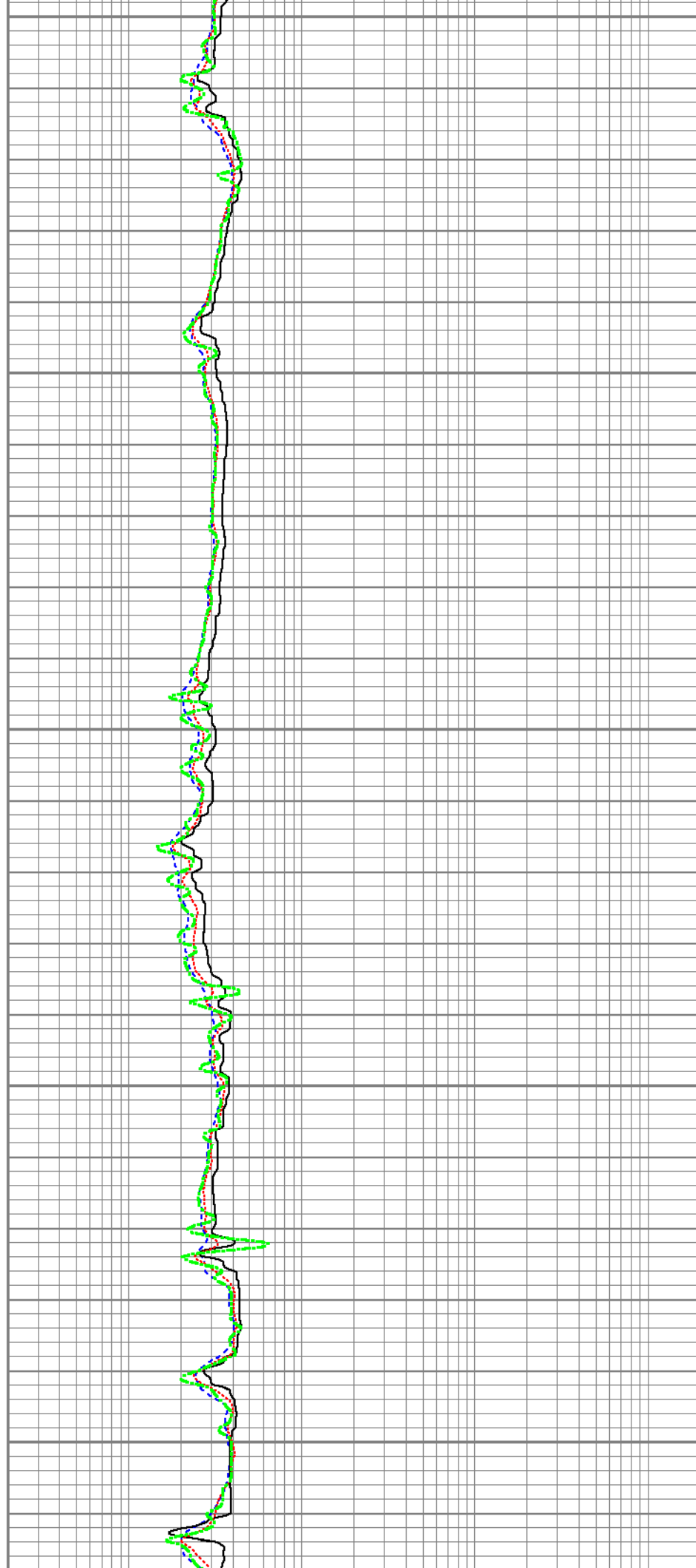


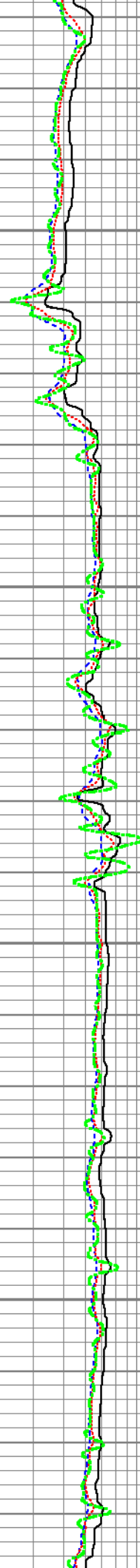
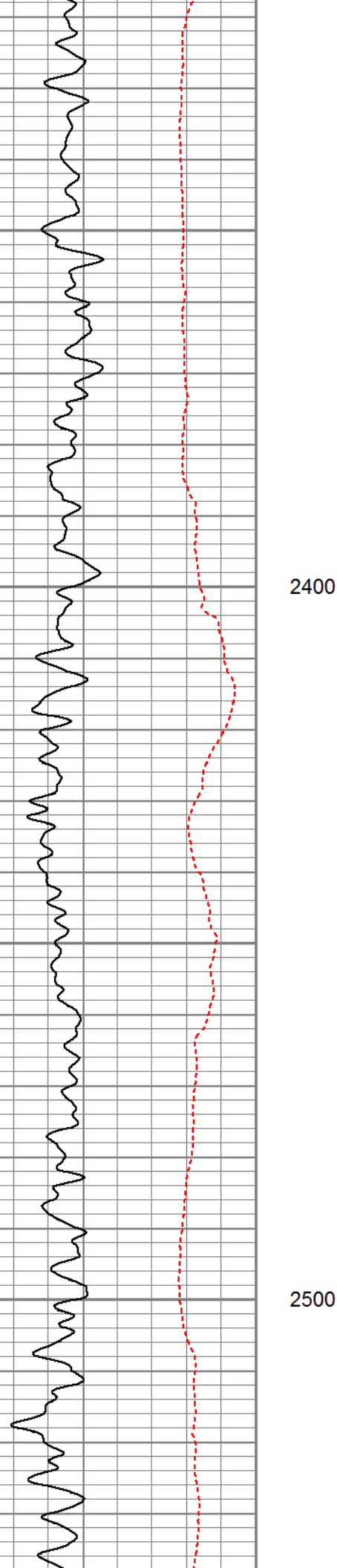


2100

2200

2300

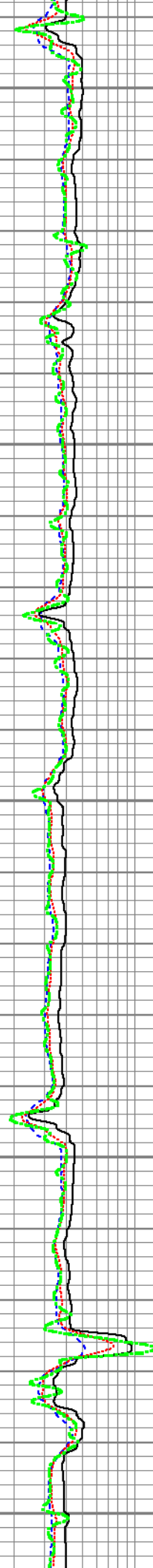






2600

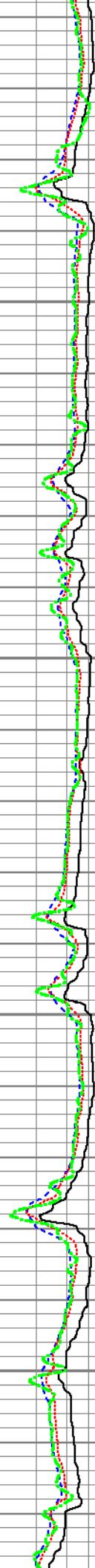
2700

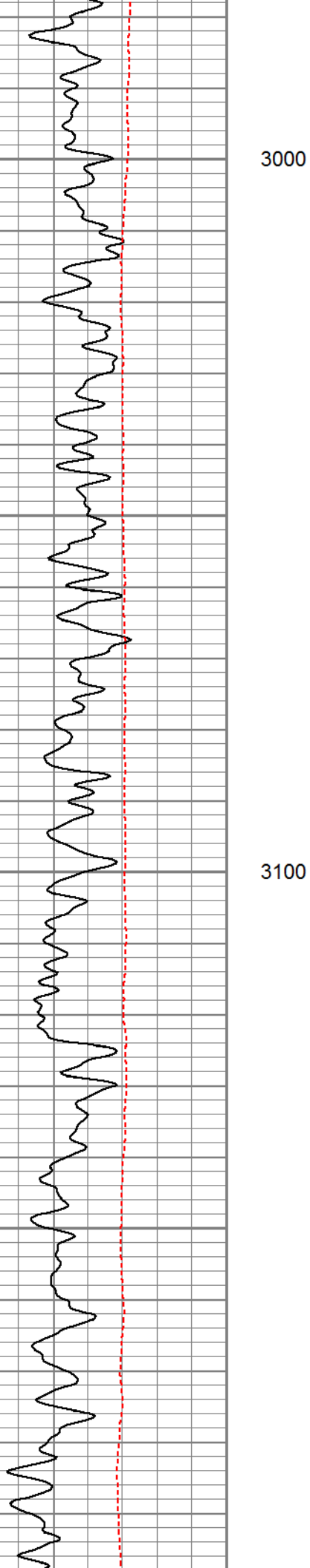




2800

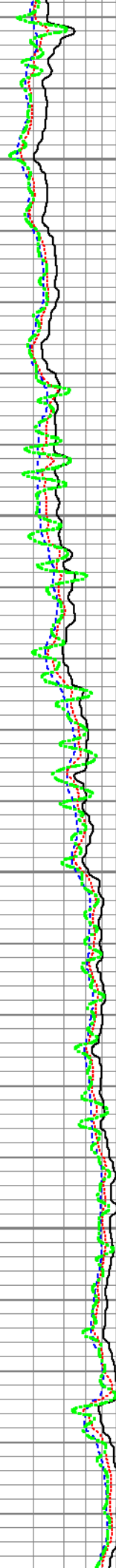
2900

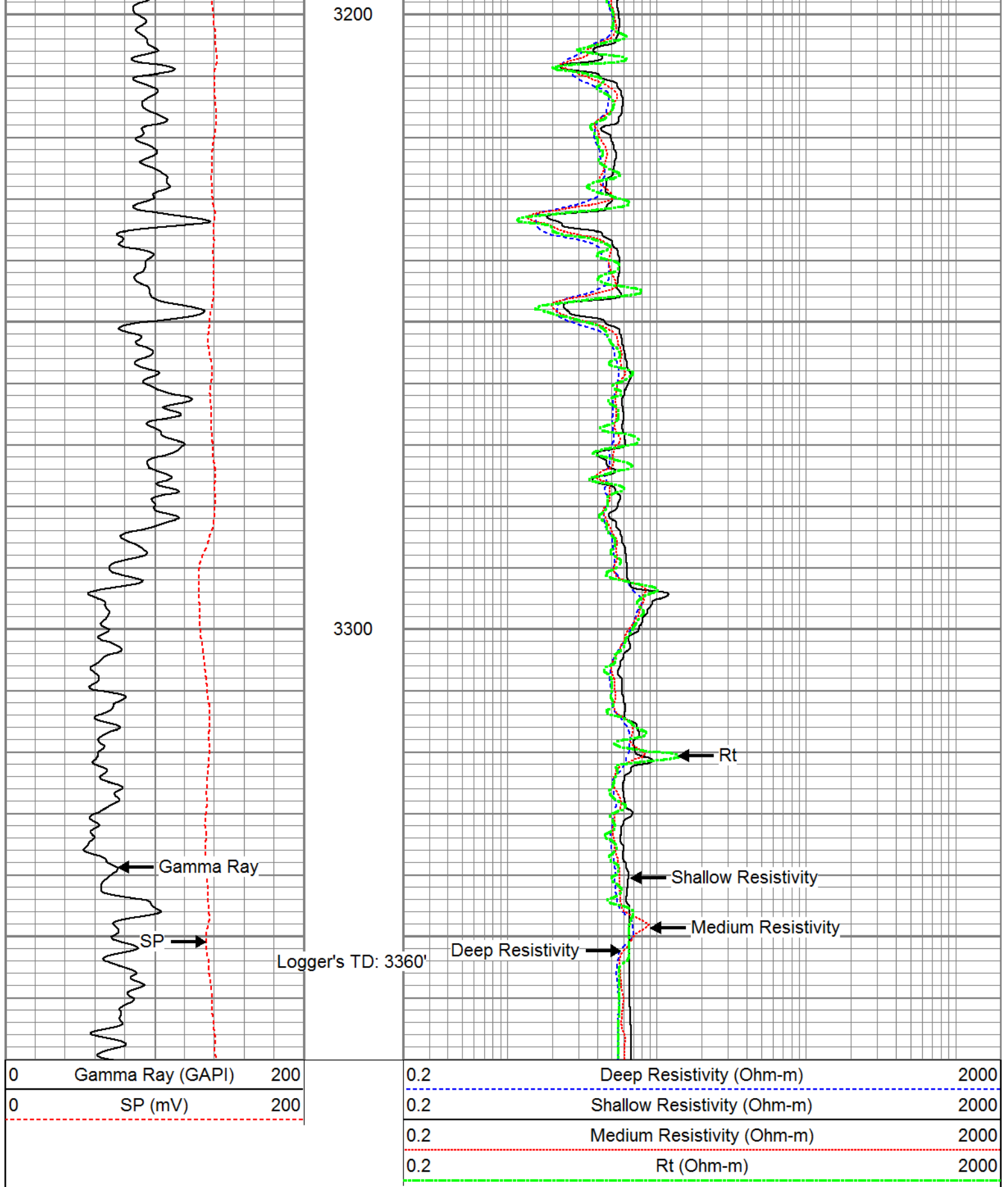




3000

3100





### Calibration Report

Database File: 13623.db  
Dataset Pathname: pass1  
Dataset Creation: Sun Aug 10 16:33:01 2014

# Gamma Ray Calibration Report

Serial-Model:  
Surface Cal Performed:

860-PSI

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.630	-46.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.410	-31.000

## Gamma Ray Calibration Report

Serial Number: 921  
 Tool Model: PSI  
 Performed: Thu Aug 07 14:31:23 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6300 GAPI/cps