



# DUAL INDUCTION GUARD LOG - SP GAMMA RAY

Pioneer Energy Services

Company Carrizo Niobrara LLC  
Well Bringelson Ranch 10-20-9-58  
Field Wildcat  
County Weld State Colorado

Location: API #: 05123386130000

SHL: 1992' FSL & 558' FWL NWSW

SEC 20 TWP 9N RGE 58W

Permanent Datum GL Elevation 4928  
Log Measured From KB  
Drilling Measured From KB

Other Services  
NONE

Elevation  
K.B. 4945  
D.F. 4944  
G.L. 4928

Date 3/15/2014

Run Number 1

Depth Driller 5331'

Depth Logger 5256'

Bottom Logged Interval 5256'

Top Log Interval Casing

Casing Driller 1441'

Casing Logger 1441'

Bit Size 8-3/4"

Type Fluid in Hole Chem Gel

Density / Viscosity 9.6 / 41

pH / Fluid Loss 9.2 / 7.2

Source of Sample Flowline

Rm @ Meas. Temp 2.91 @ 60 F

Rmf @ Meas. Temp 2.33 @ 60 F

Rmc @ Meas. Temp 3.49 @ 60 F

Source of Rmf / Rmc Measure / Calc

Rm @ BHT 1.22 @ 143 F

Time Circulation Stopped 2000 3/14/14

Time Logger on Bottom 12:00

Maximum Recorded Temperature 143 F

Equipment Number 49

Location Ft. Morgan

Recorded By Clint Christensen

Witnessed By Jeff Myers

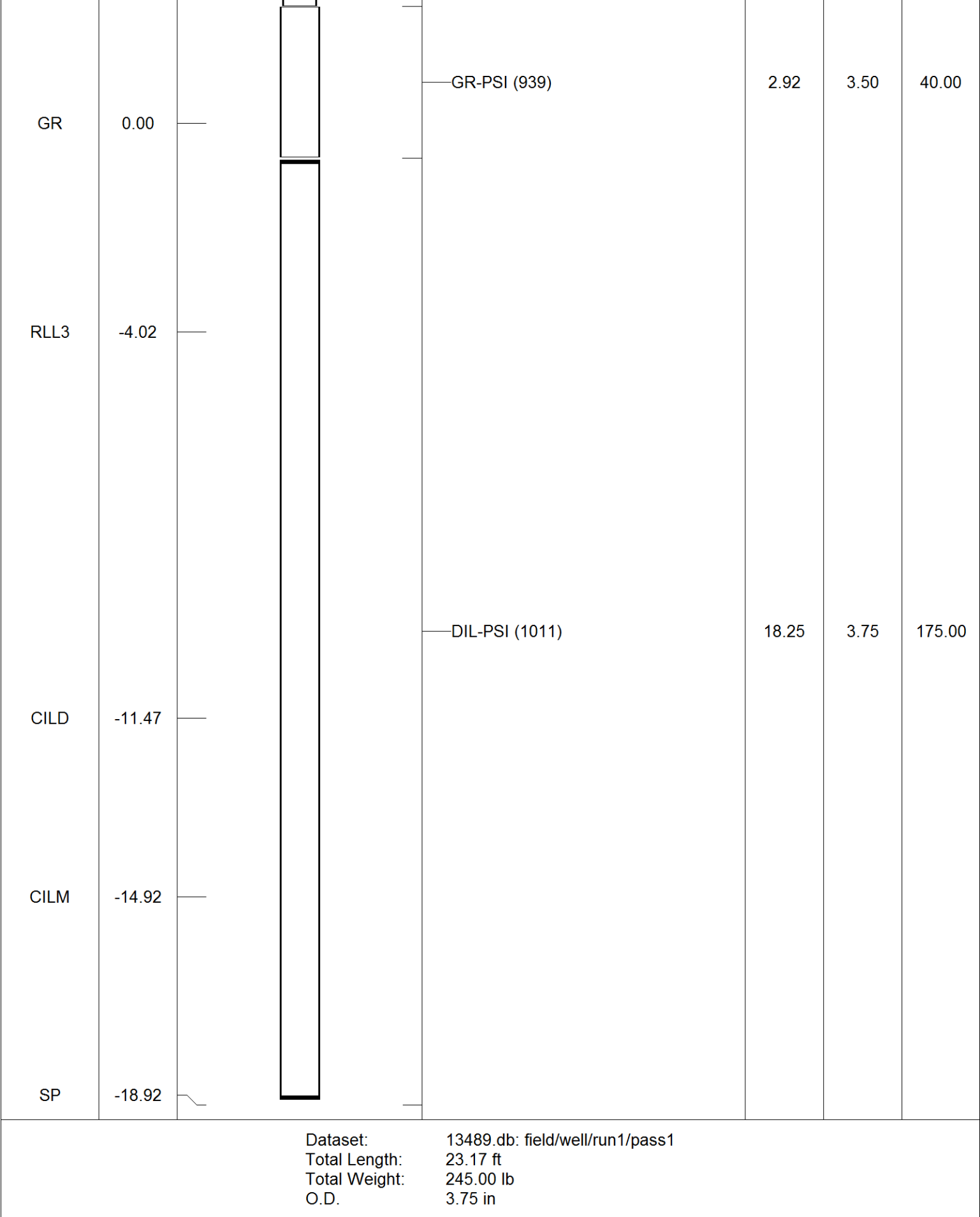
<<< Fold Here >>>

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

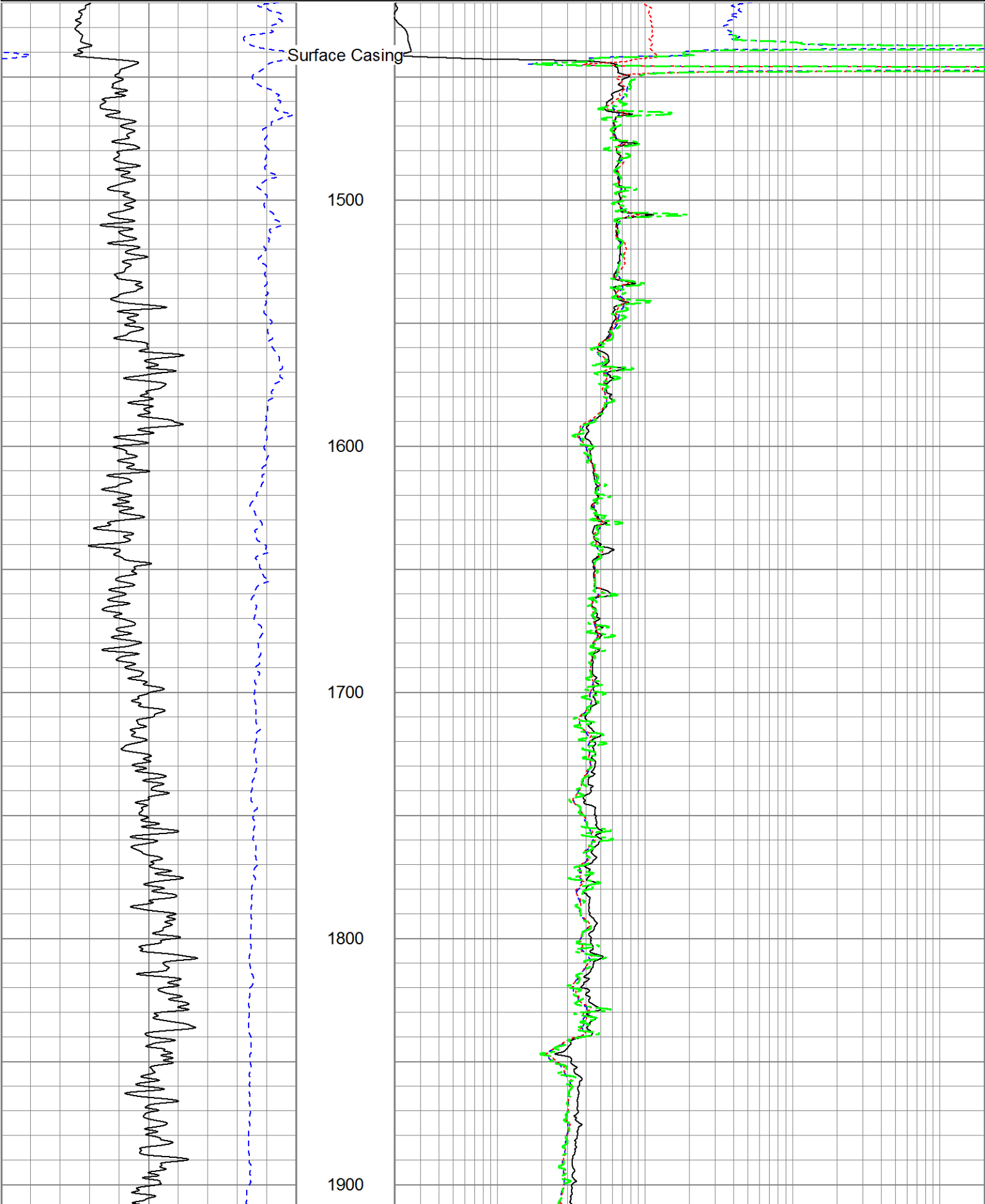
Xtreme Drilling Rig 19  
Thank you for using Pioneer Energy Services.

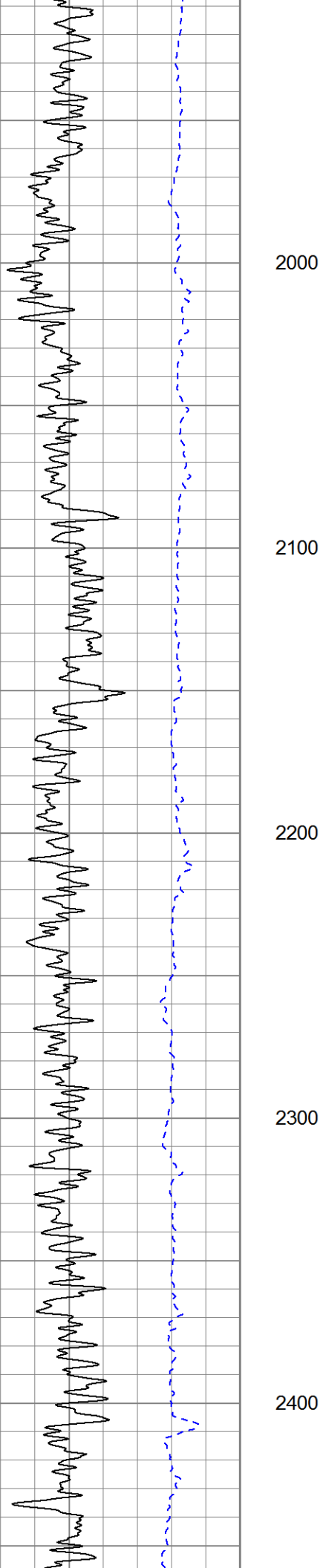
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD (~0)	2.00	3.50	30.00



0	Gamma Ray (GAPI)	200
50	SP (mV)	250

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Rt (Ohm-m)	2000





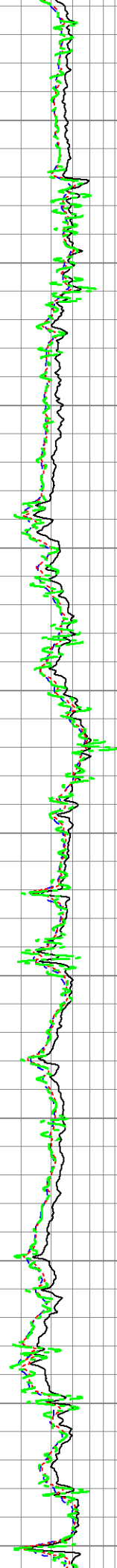
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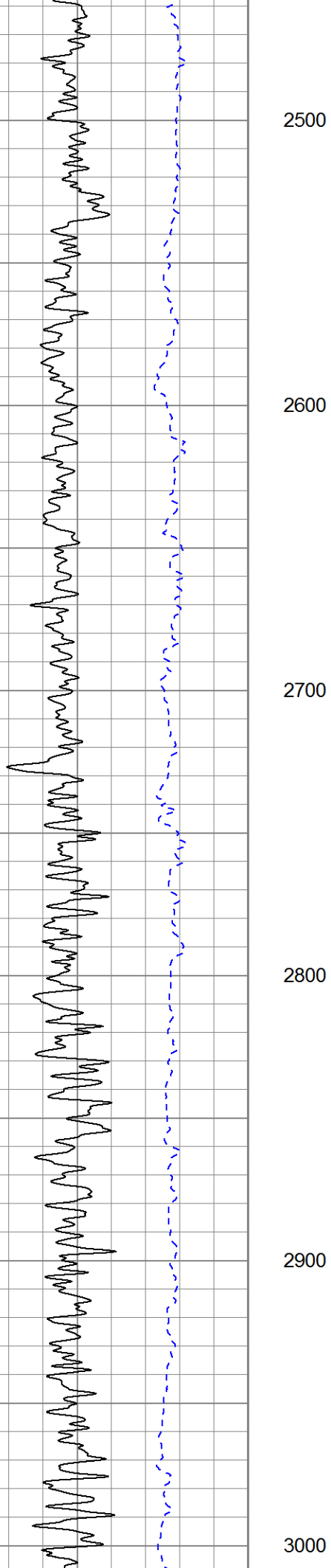
2100

2200

2300

2400





2500

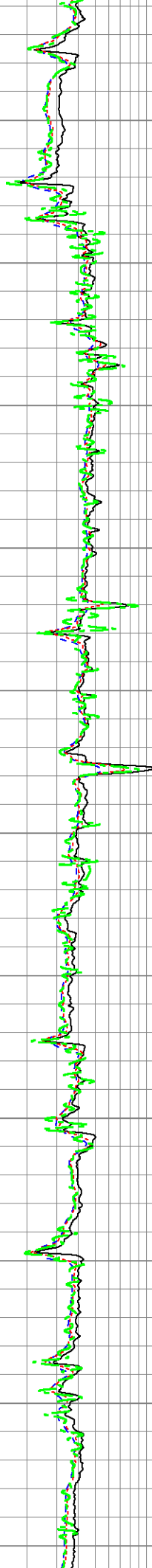
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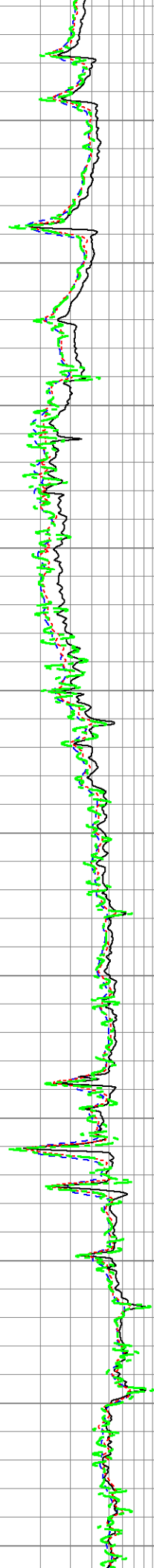
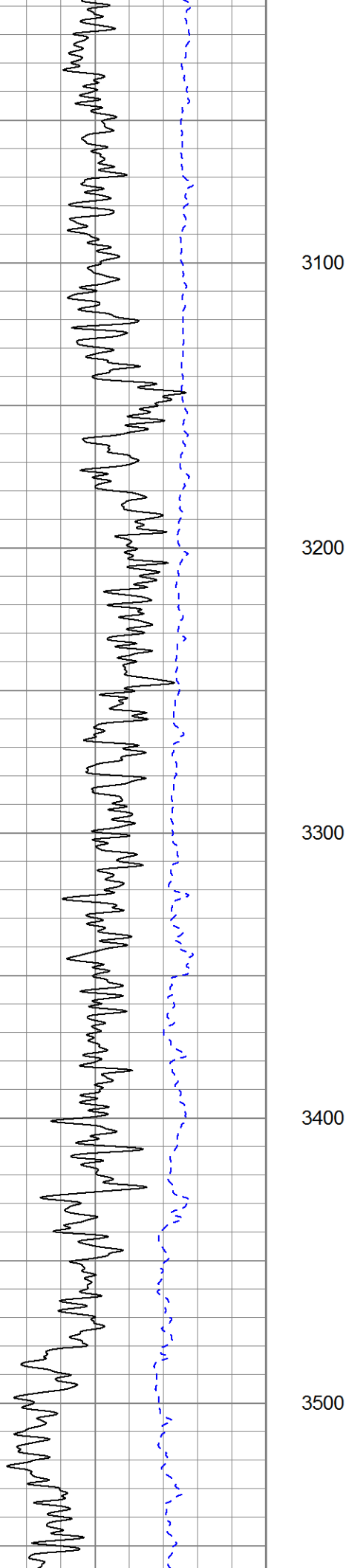
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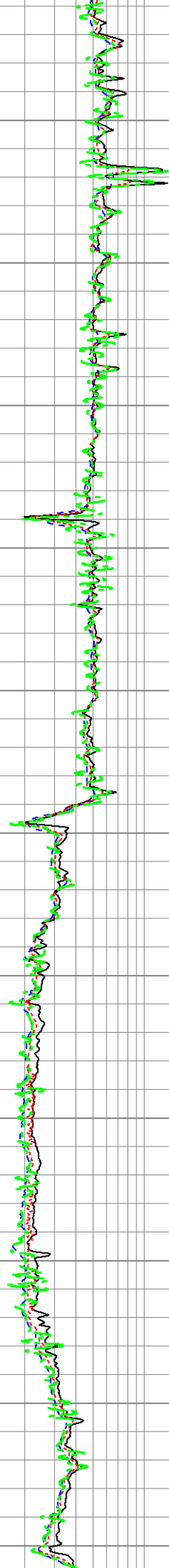
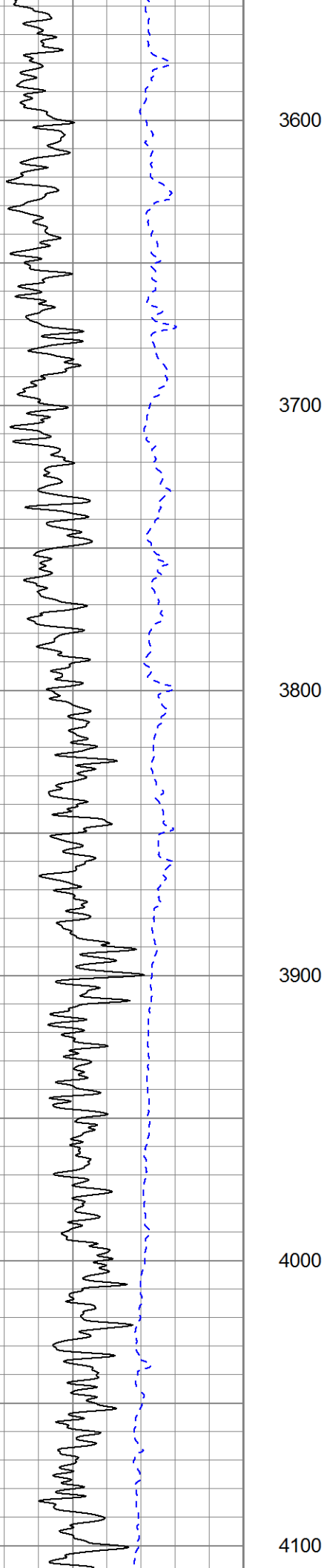
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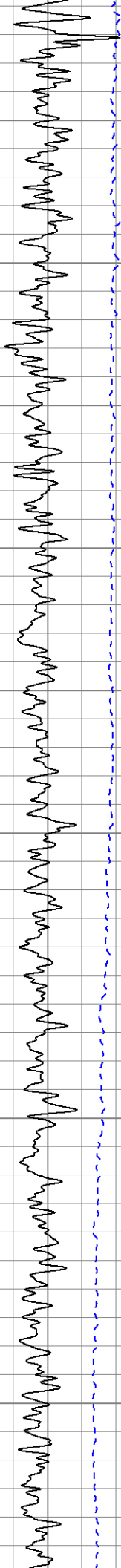
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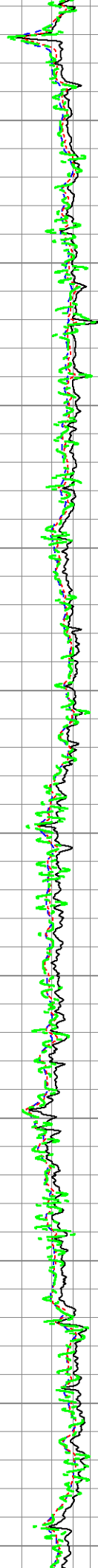
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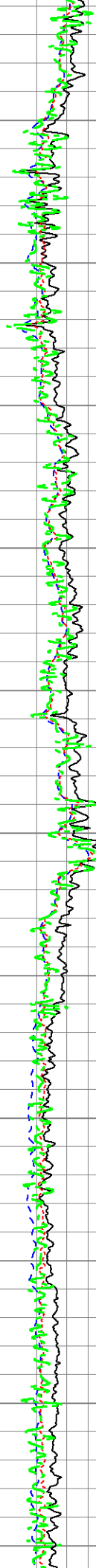
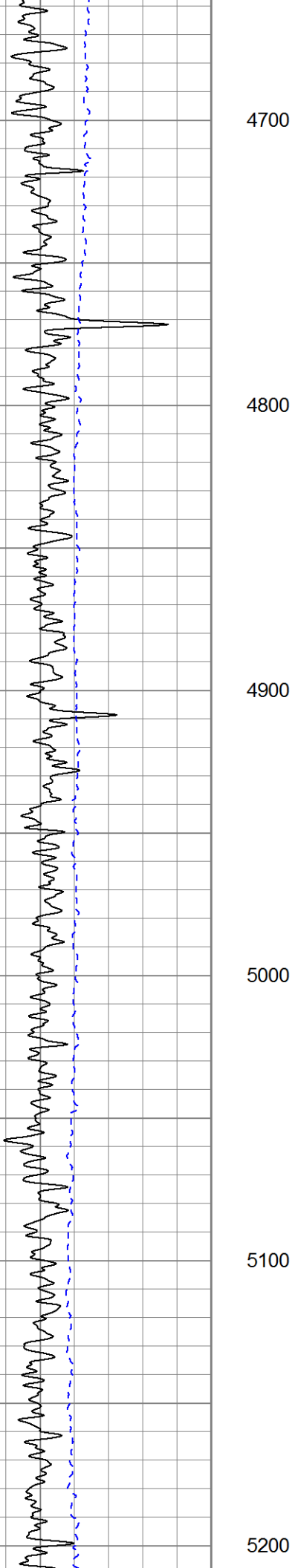
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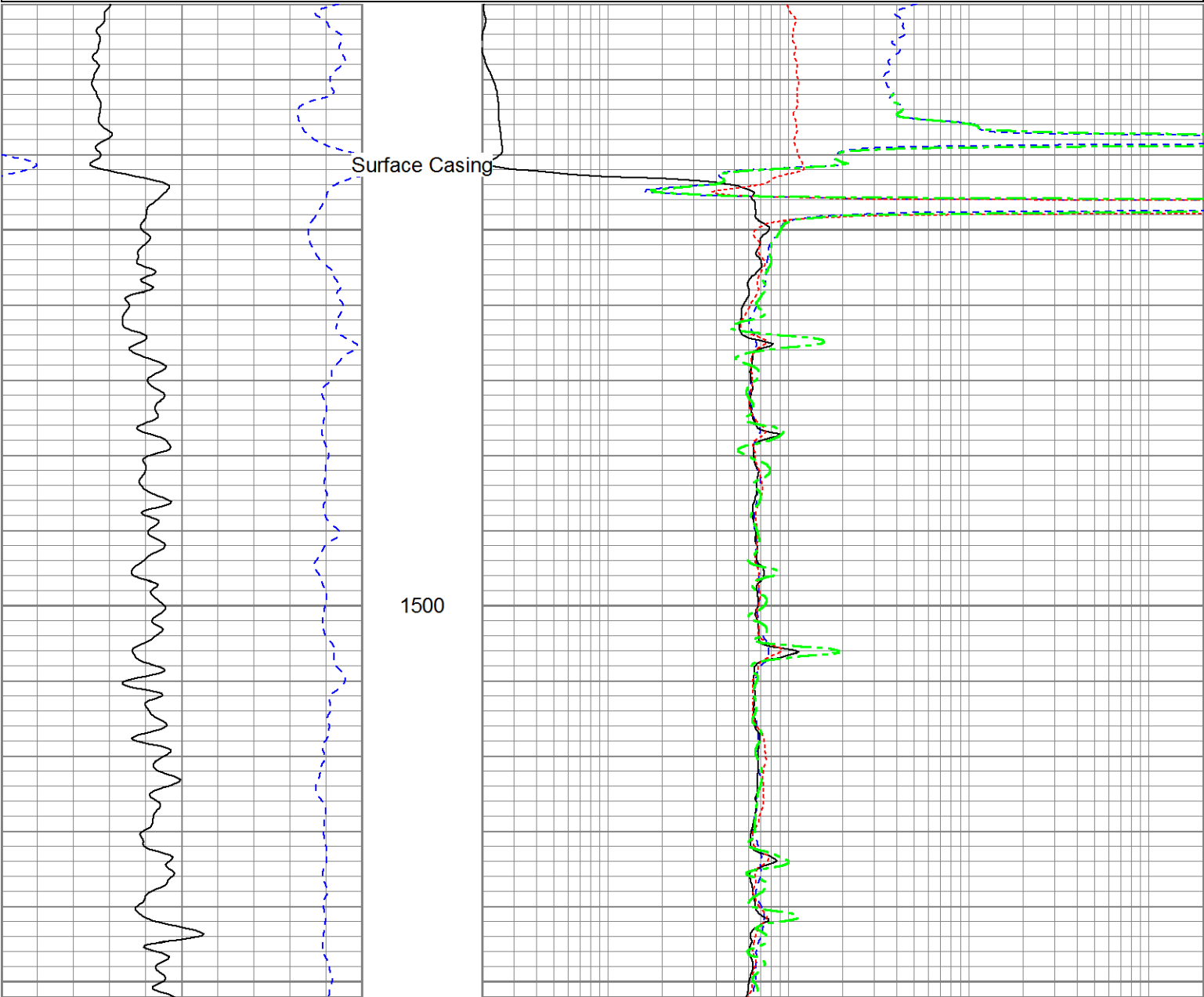
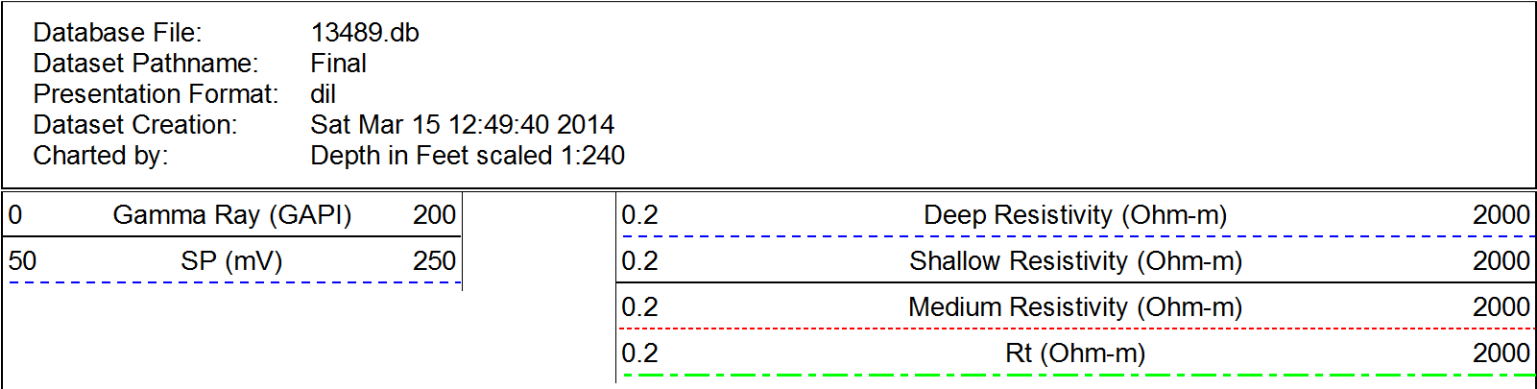
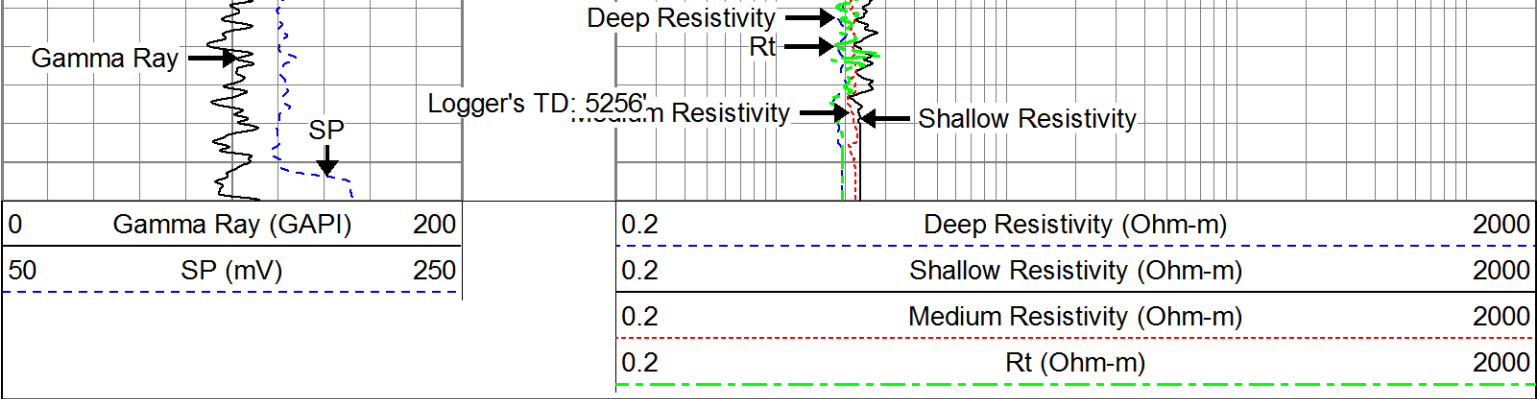
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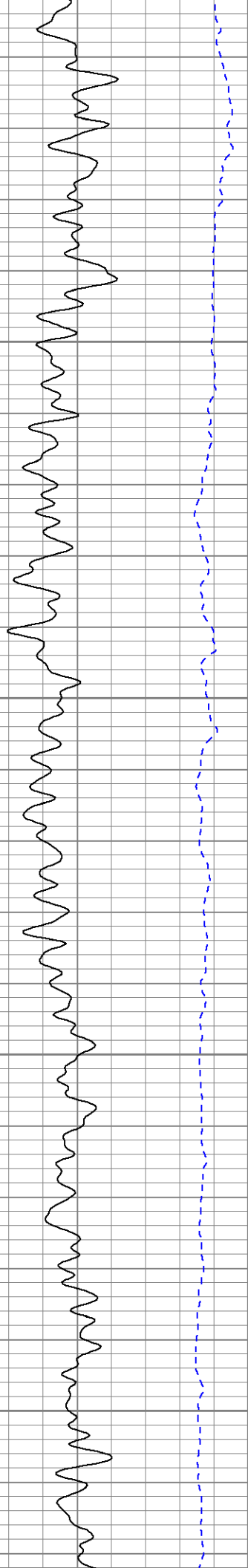
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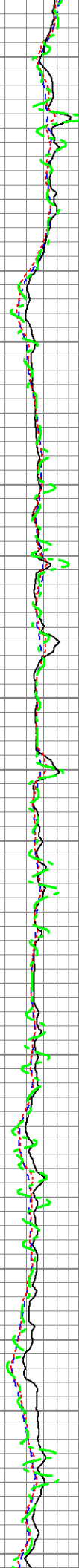






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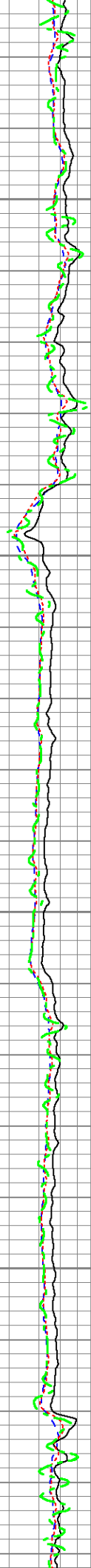
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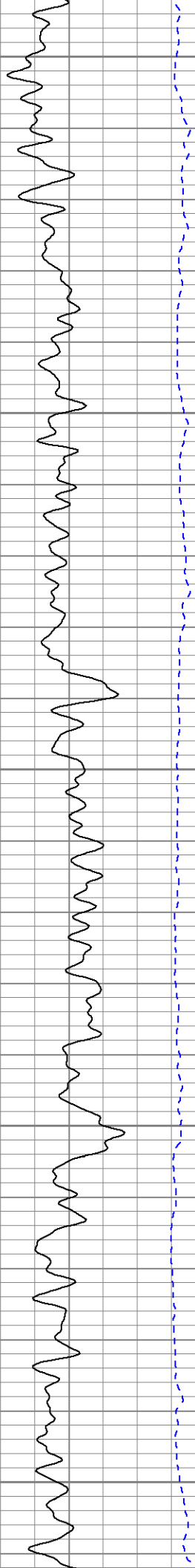




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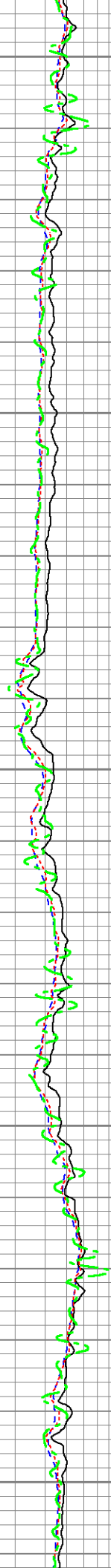


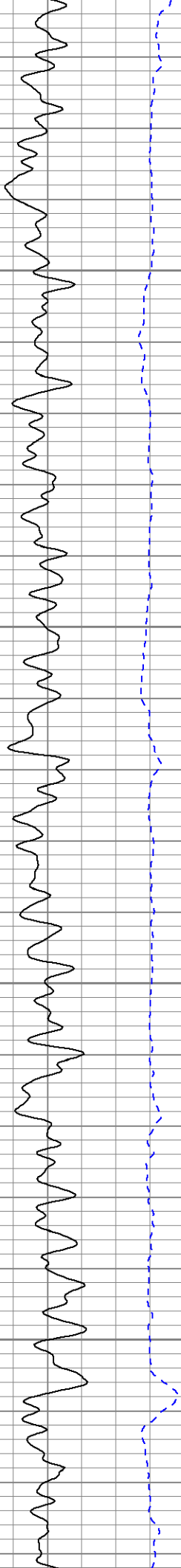


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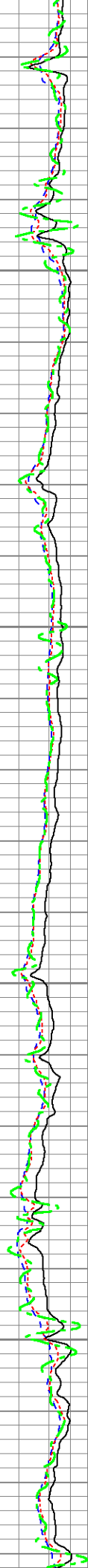
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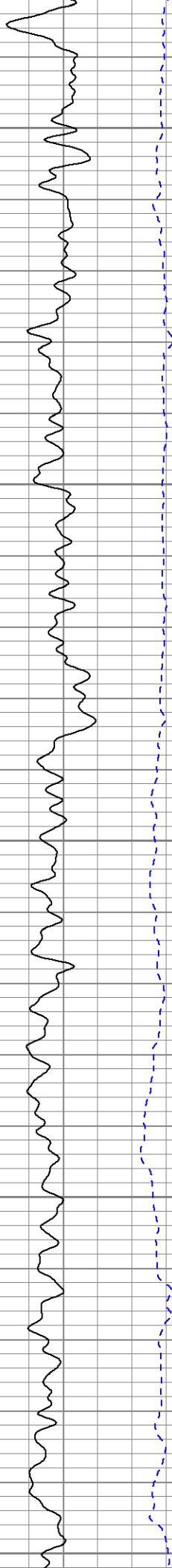




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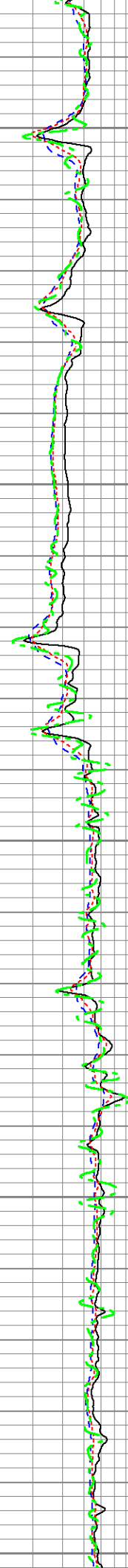
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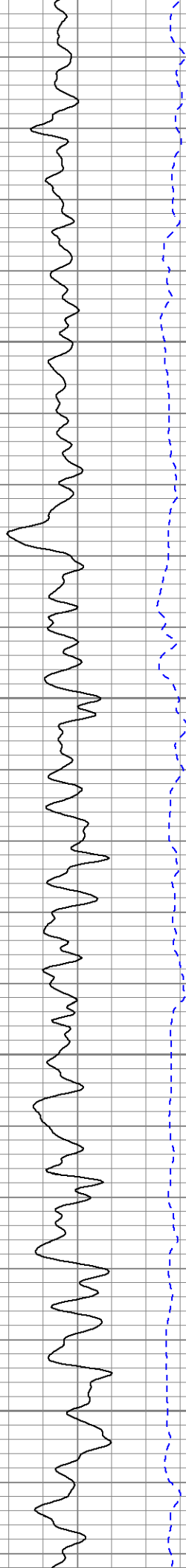




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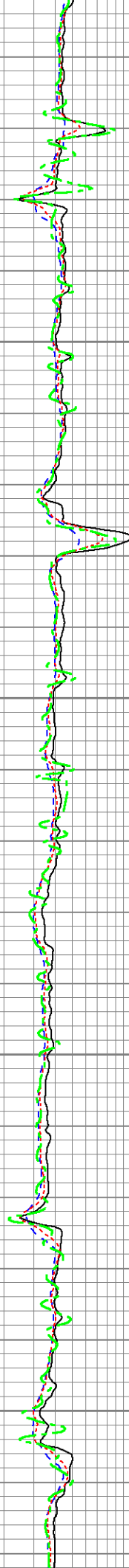
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2700

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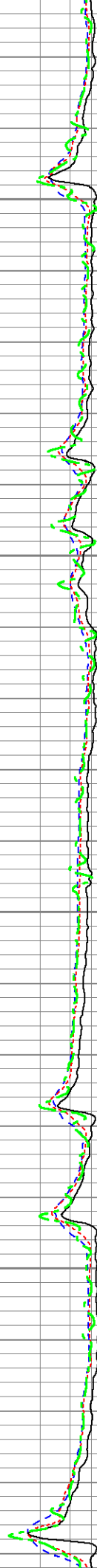


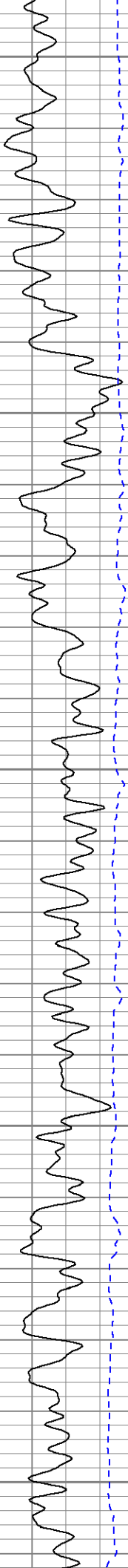




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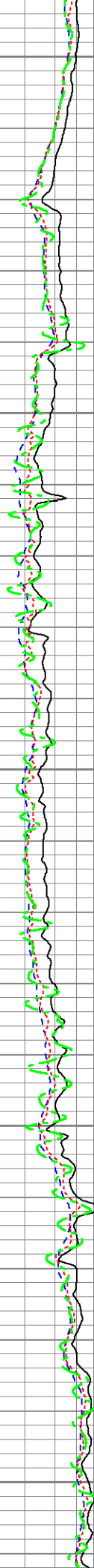


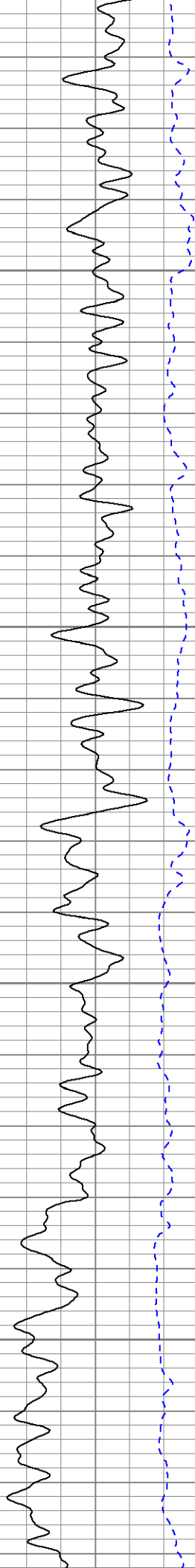


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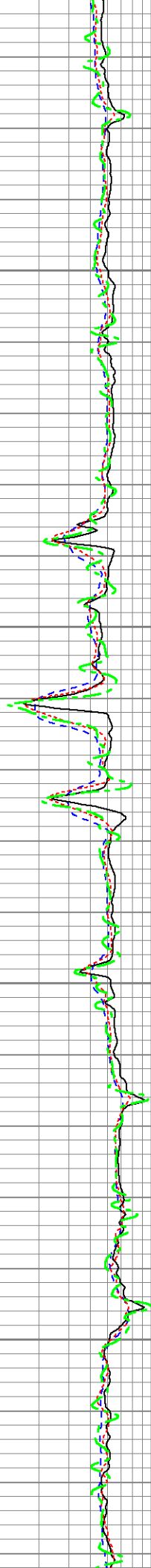
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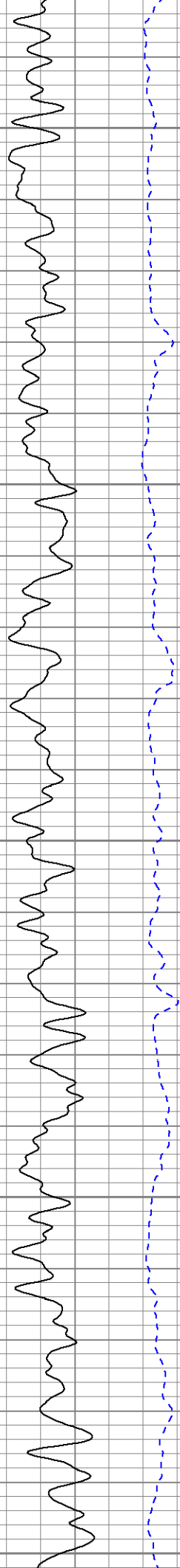




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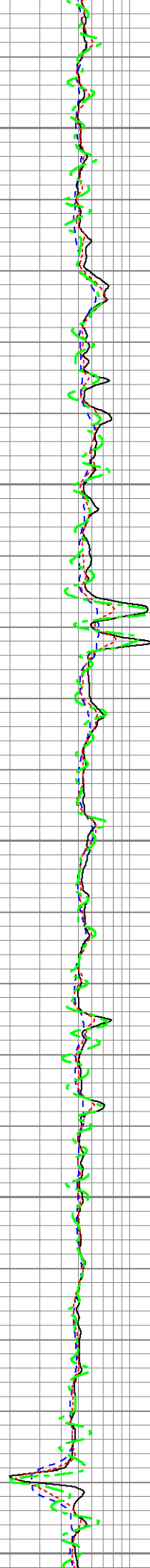
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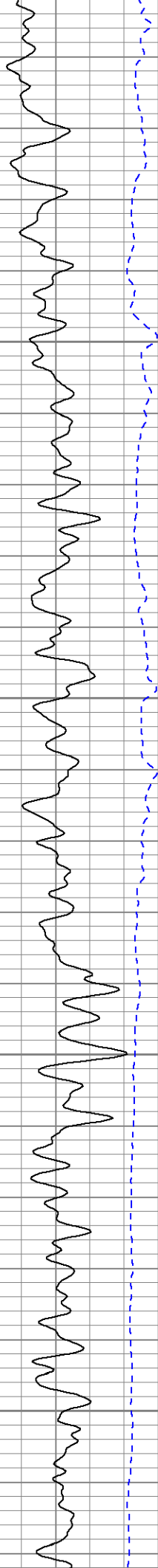




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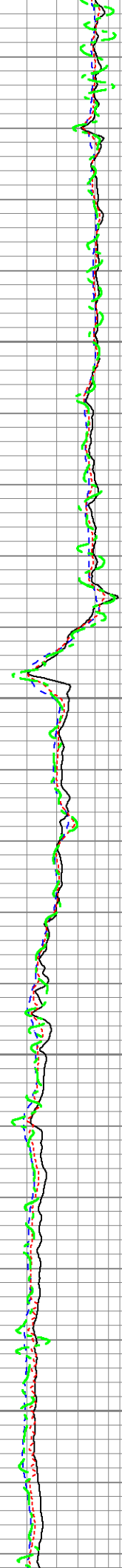
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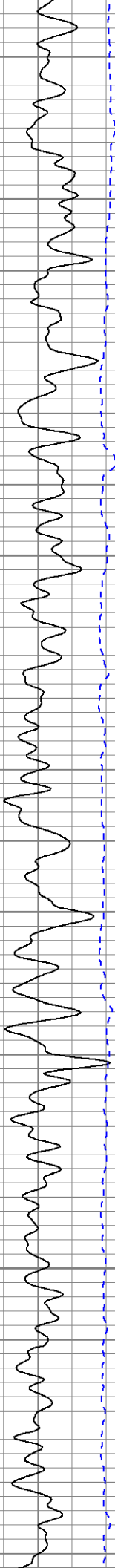




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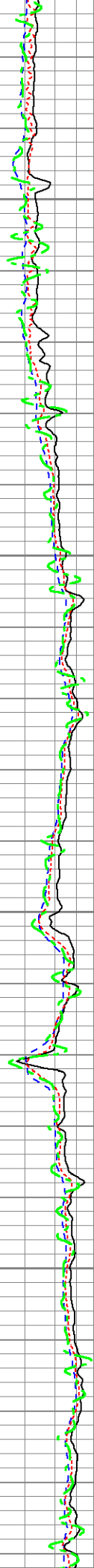
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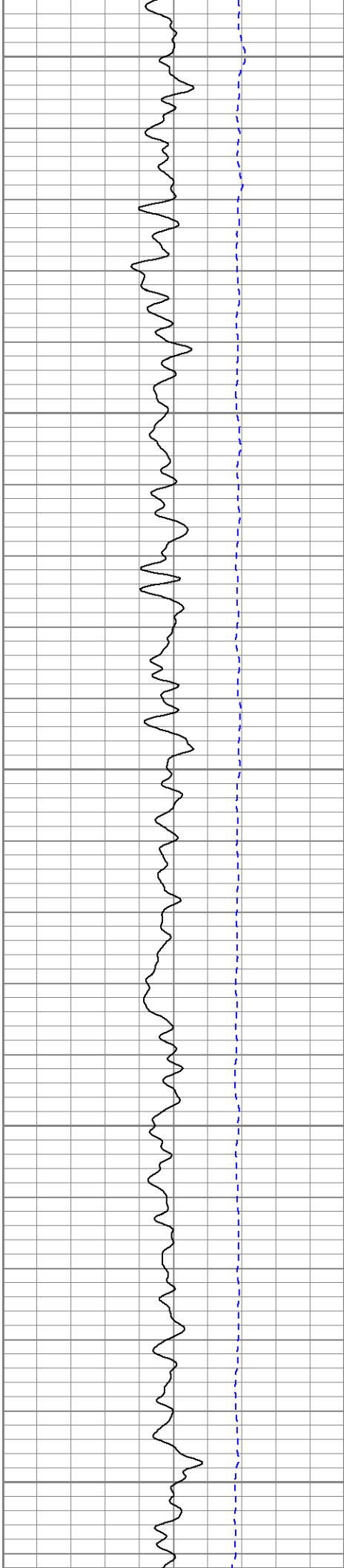




4000

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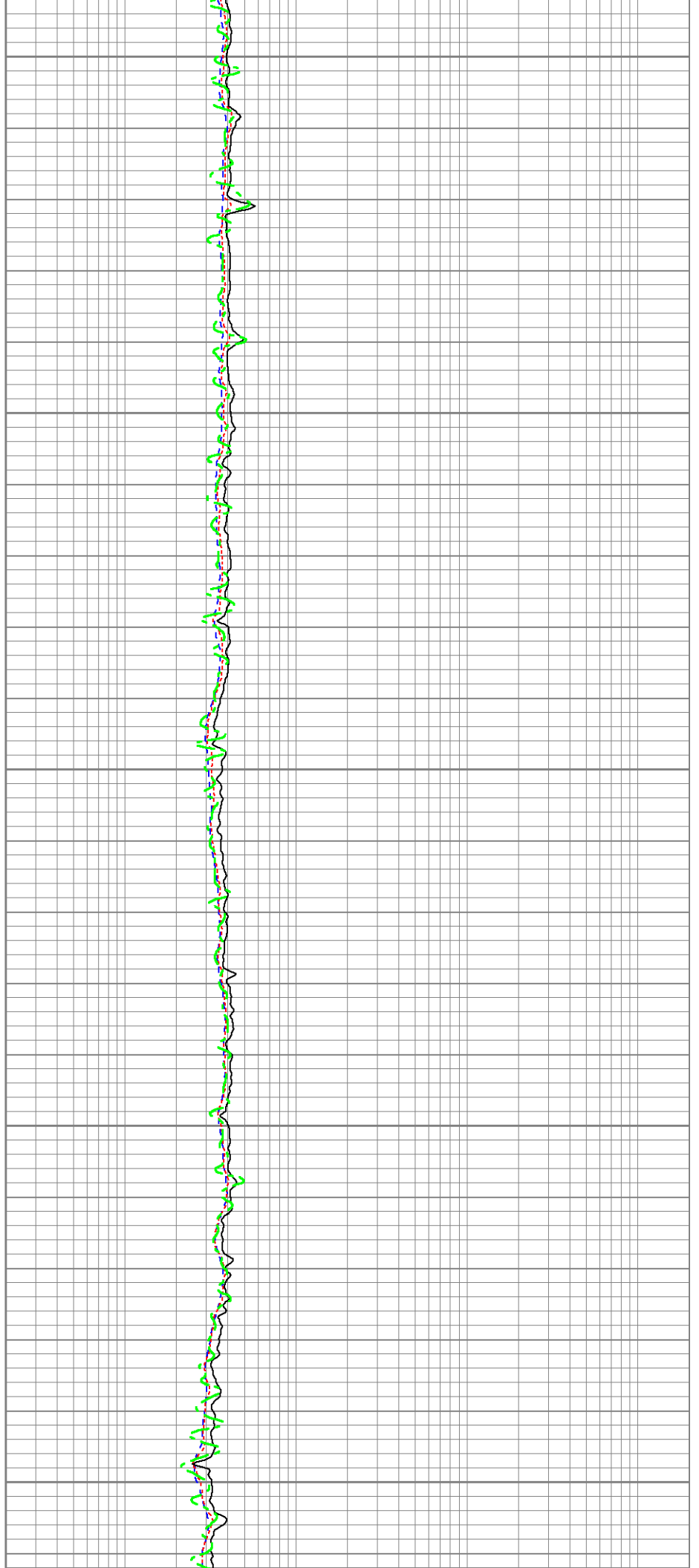




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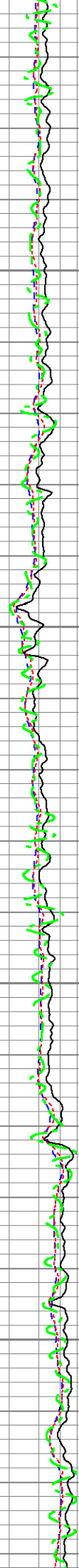
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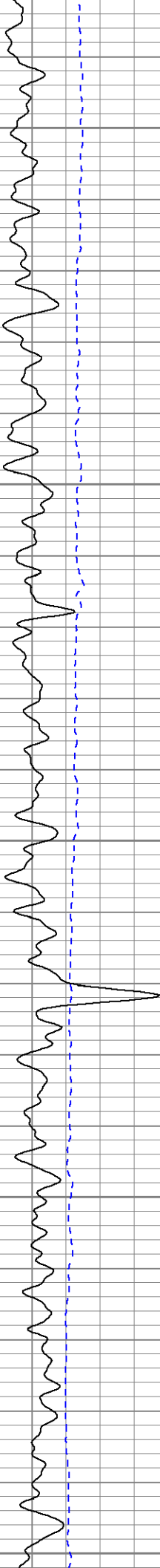


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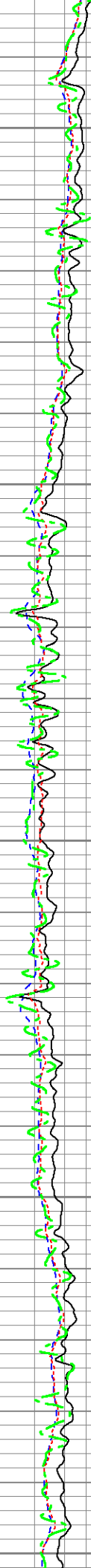


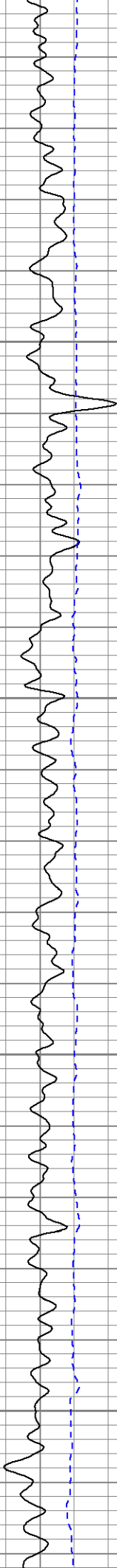




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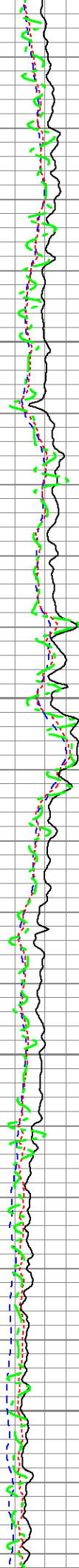
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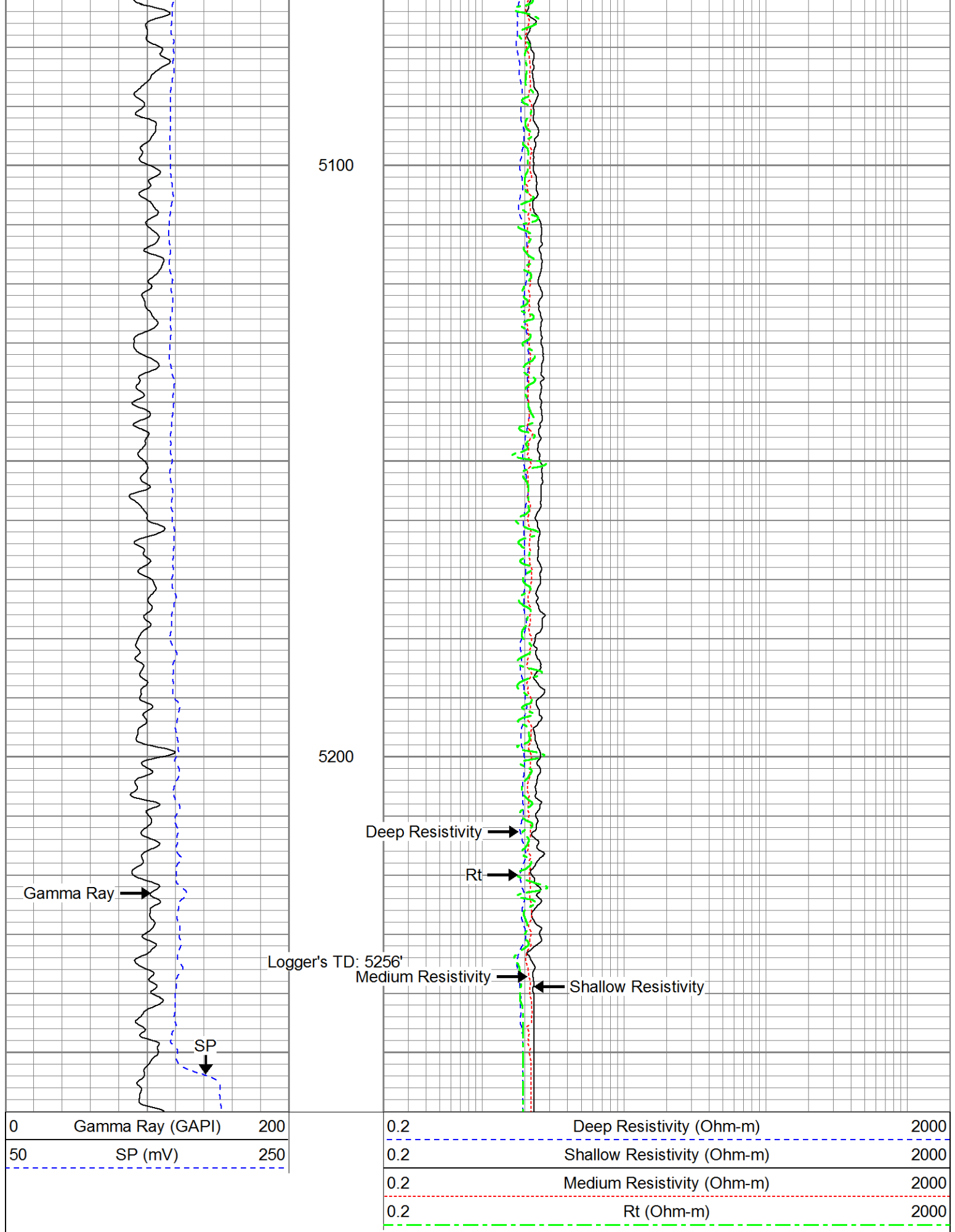




4900

5000





Database File: 13489.db  
Dataset Pathname: pass1  
Dataset Creation: Sat Mar 15 00:26:45 2014 by Log 0

Dual Induction Calibration Report

Serial-Model: 1011-PSI  
Surface Cal Performed:

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.510	-28.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.440	-28.000

Gamma Ray Calibration Report

Serial Number:	939	
Tool Model:	PSI	
Performed:	Fri Mar 14 12:33:12 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6200	GAPI/cps