HIGH RESOLUTION INDUCTION

PIONEER
Pioneer Energy Services

Company Bonanza Creek Energy Operating Co. LLC
Well Antelope B11-V41-33HNC
Field Wattenberg
County Weld
State Colorado

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Field Wattenberg
County Weld State Colorado

Location: API #: 05123390650000
SHL: 1471' FNL & 350' FWL
SW NW
SEC 33 TWP 5N RGE 62W

Other Services
Density
Neutron

Permanent Datum	GL
Log Measured From	KB
Drilling Measured From	KB

Elevation 4579

Elevation
K.B. 4595
D.F. 4594
G.L. 4579

Date	May 9, 2014		
Run Number	1		
Depth Driller	5830		
Depth Logger	5841		
Bottom Logged Interval	5841		
Top Log Interval	Casing		
Casing Driller	467		
Casing Logger	467		
Bit Size	8-3/4"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.2 / 42		
pH / Fluid Loss	8.5 / --		
Source of Sample	Flowline		
Rm @ Meas. Temp	2.97 @ 68 F		
Rmf @ Meas. Temp	2.38 @ 68 F		
Rmc @ Meas. Temp	3.56 @ 68 F		
Source of Rmf / Rmc	Calc / Calc		
Rm @ BHT	1.19 @ 170 F		
Time Circulation Stopped	1100		
Time Logger on Bottom	1745		
Maximum Recorded Temperature	170 F		
Equipment Number	49		
Location	Brighton, CO		
Recorded By	Matt Gill		
Witnessed By	John Bradley		

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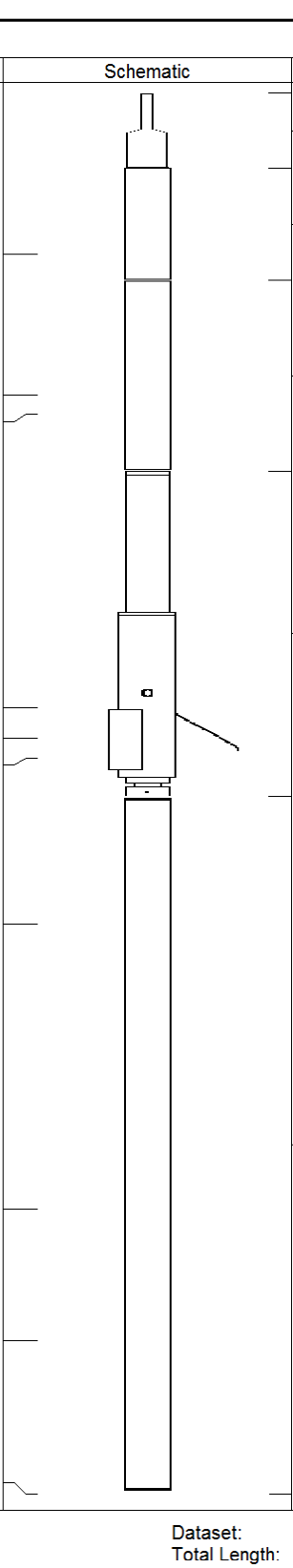
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, 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
Cade Drilling Rig 26
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
GR	0.00		GR-PSI (939)	2.92	3.50	40.00
CNLSC CNSSC	-3.67 -4.17		CNT-PSI (826)	5.00	3.50	70.00
DCAL LSD SSD	-11.84 -12.67 -13.17		CDL-PSI (128)	8.50	5.00	285.00
RLL3 CILD CILM SP	-17.52 -24.97 -28.42 -32.42		DIL-PSI (1024)	18.25	3.75	175.00

Dataset: 13550.db: field/well/run1/final
Total Length: 36.67 ft
Total Weight: 600.00 lb
O.D. 5.00 in

Database File: 13550.db
Dataset Pathname: final
Presentation Format: dilin5
Dataset Creation: Fri May 09 18:25:49 2014
Charted by: Depth in Feet scaled 1:600

0 SP (mV) 200	0 Deep Resistivity (Ohm-m) 50	1000 CILD (mmho/m) 0
6 Caliper (in) 16	0 Shallow Resistivity (Ohm-m) 50	
0 Gamma Ray (GAPI) 200	50 RILD (Ohm-m) 500	
TBHV (ft3) ABHV (ft3)	50 RLL3 (Ohm-m) 500	

0 SP (mV) 200	0 Deep Resistivity (Ohm-m) 50	1000 CILD (mmho/m) 0
6 Caliper (in) 16	0 Shallow Resistivity (Ohm-m) 50	
0 Gamma Ray (GAPI) 200	50 RILD (Ohm-m) 500	
TBHV (ft3) ABHV (ft3)	50 RLL3 (Ohm-m) 500	

Database File: 13550.db
Dataset Pathname: final
Presentation Format: dil
Dataset Creation: Fri May 09 18:25:49 2014
Charted by: Depth in Feet scaled 1:240

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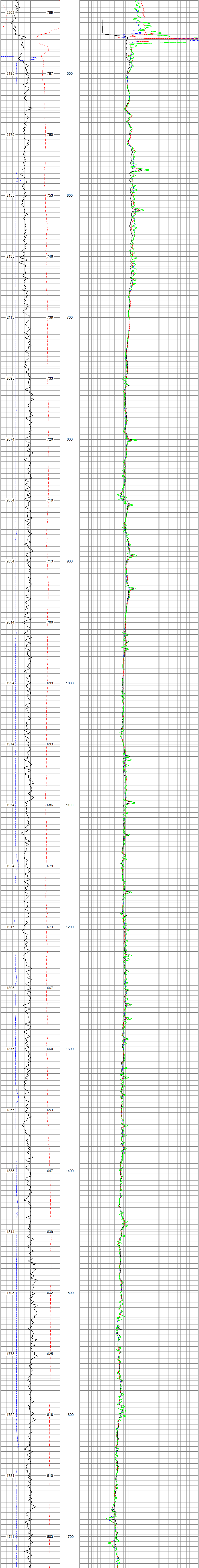
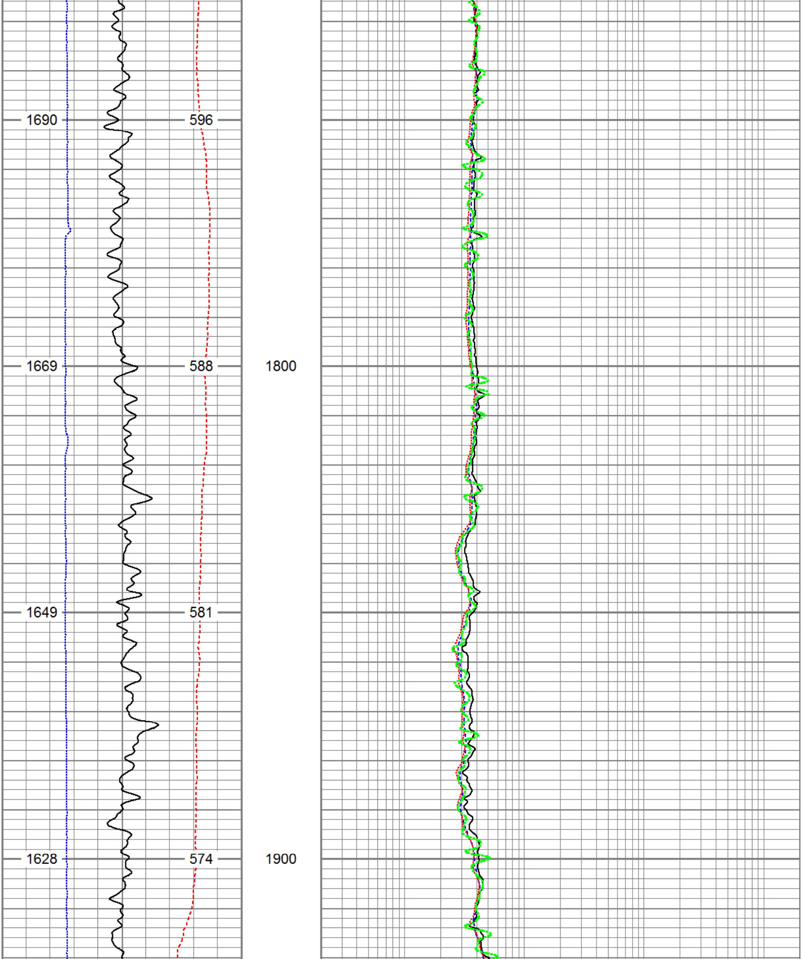
0 SP (mV) 200	0.2 Shallow Resistivity (Ohm-m) 2000
6 Caliper (in) 16	0.2 Medium Resistivity (Ohm-m) 2000
TBHV (ft3) ABHV (ft3)	0.2 Rt (Ohm-m) 2000

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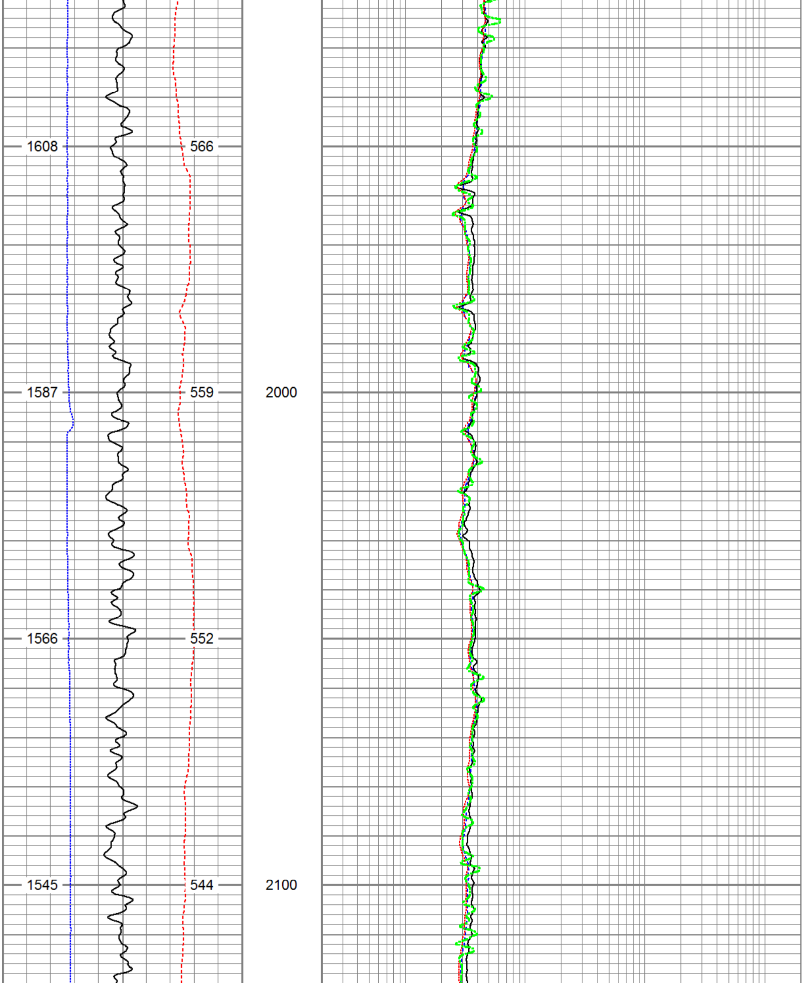
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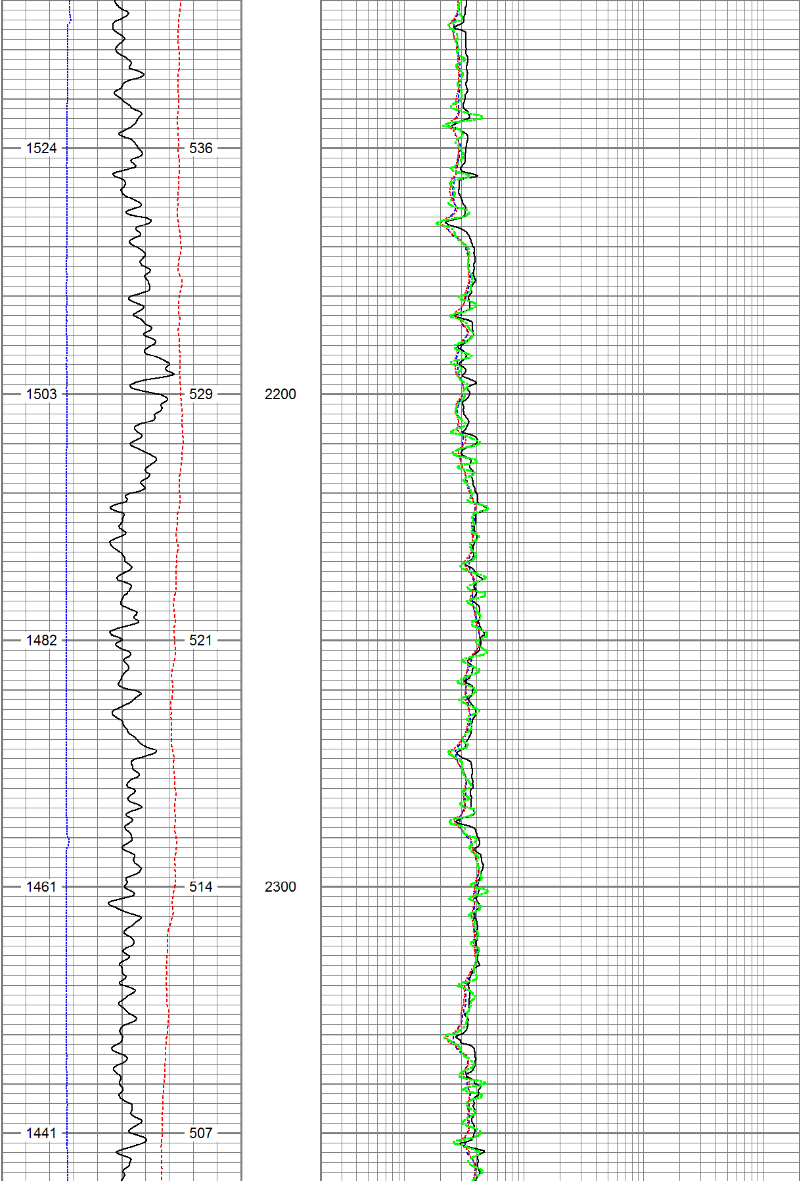
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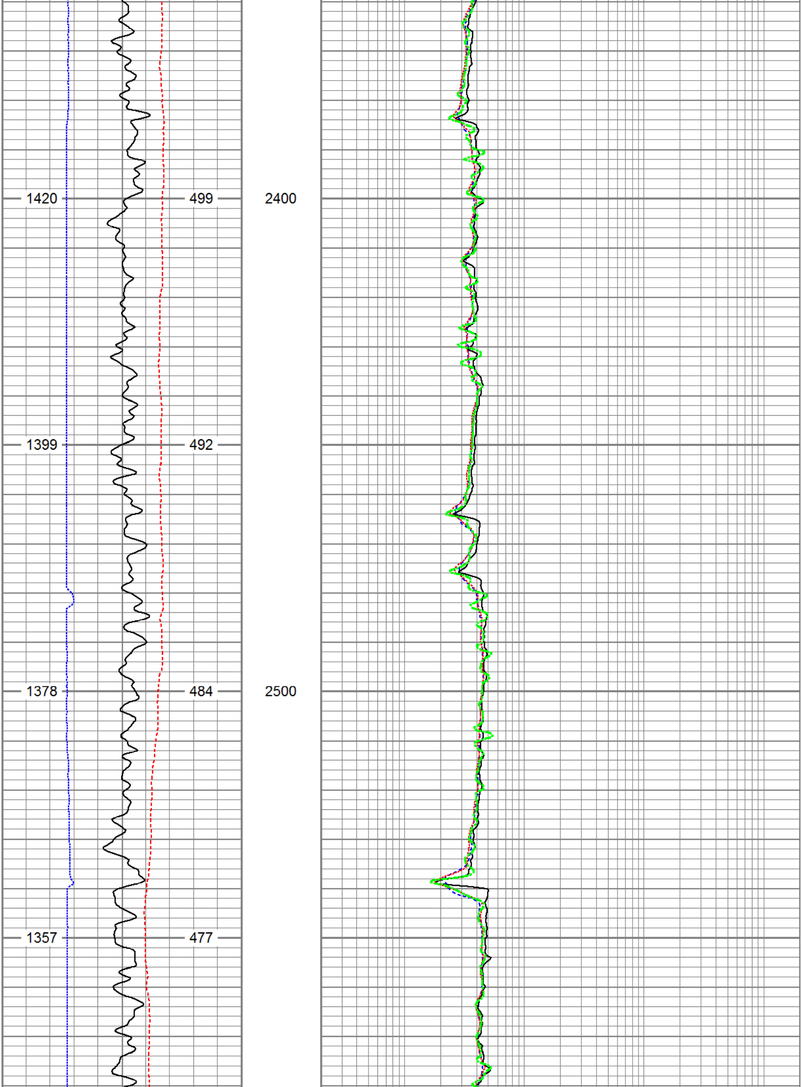
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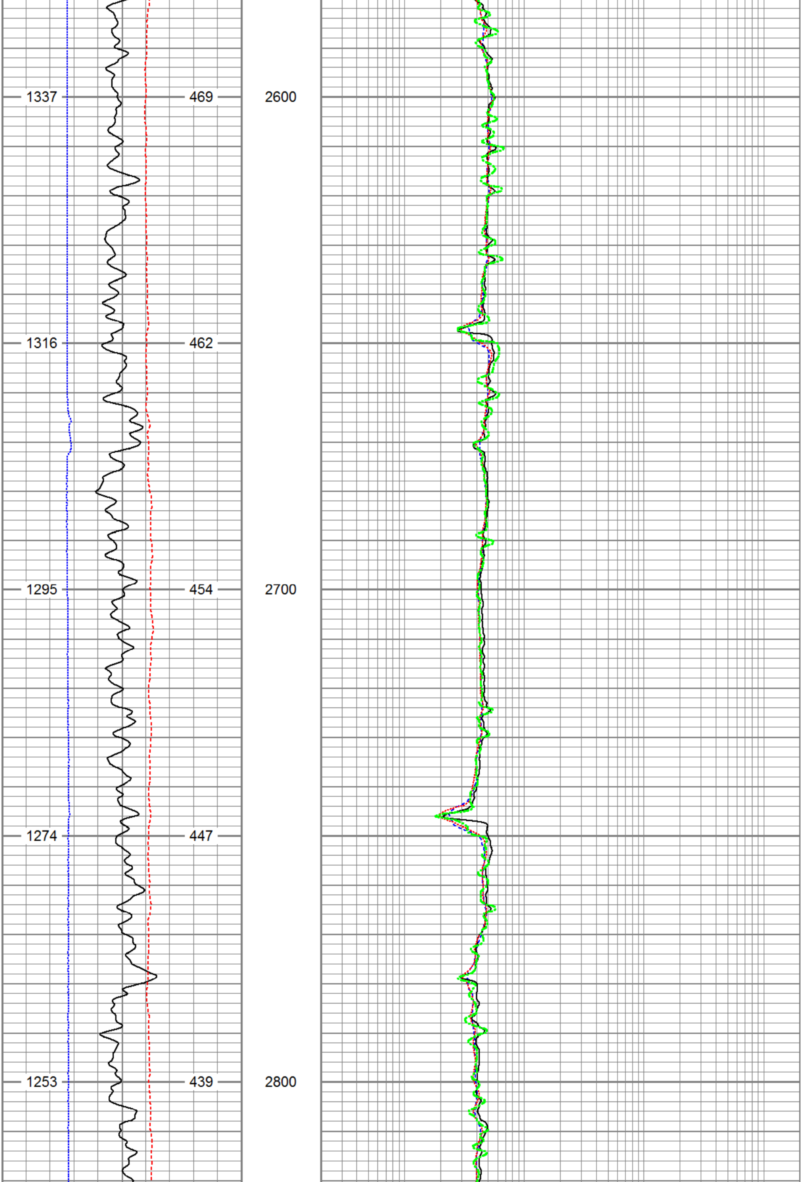
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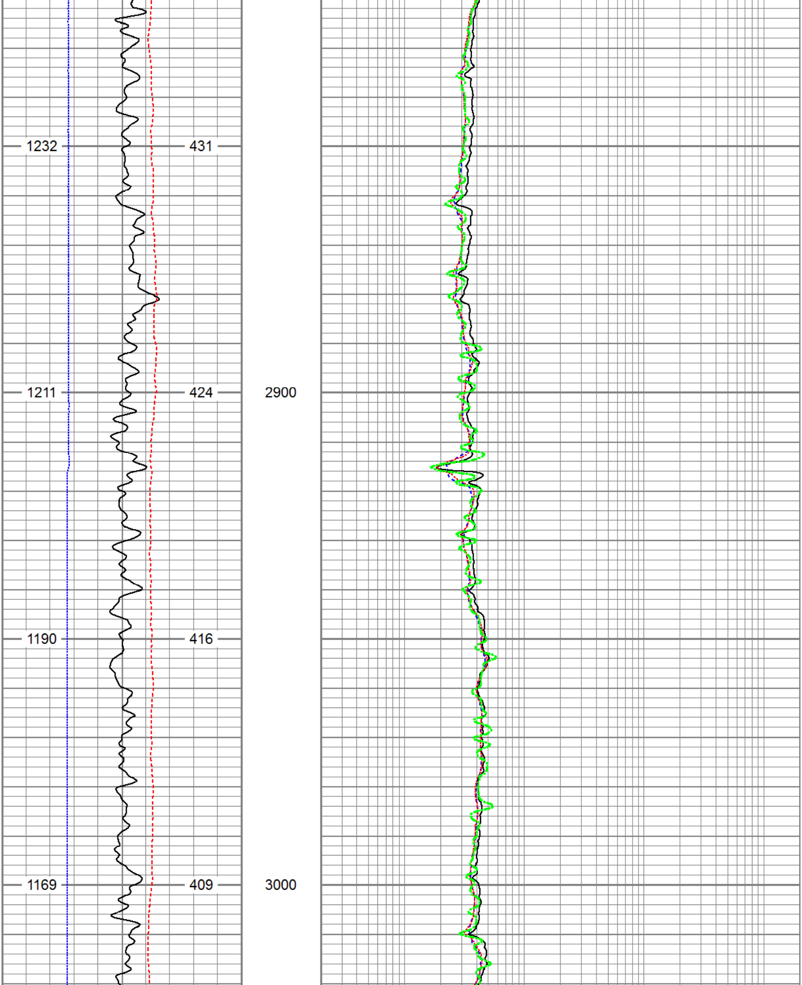
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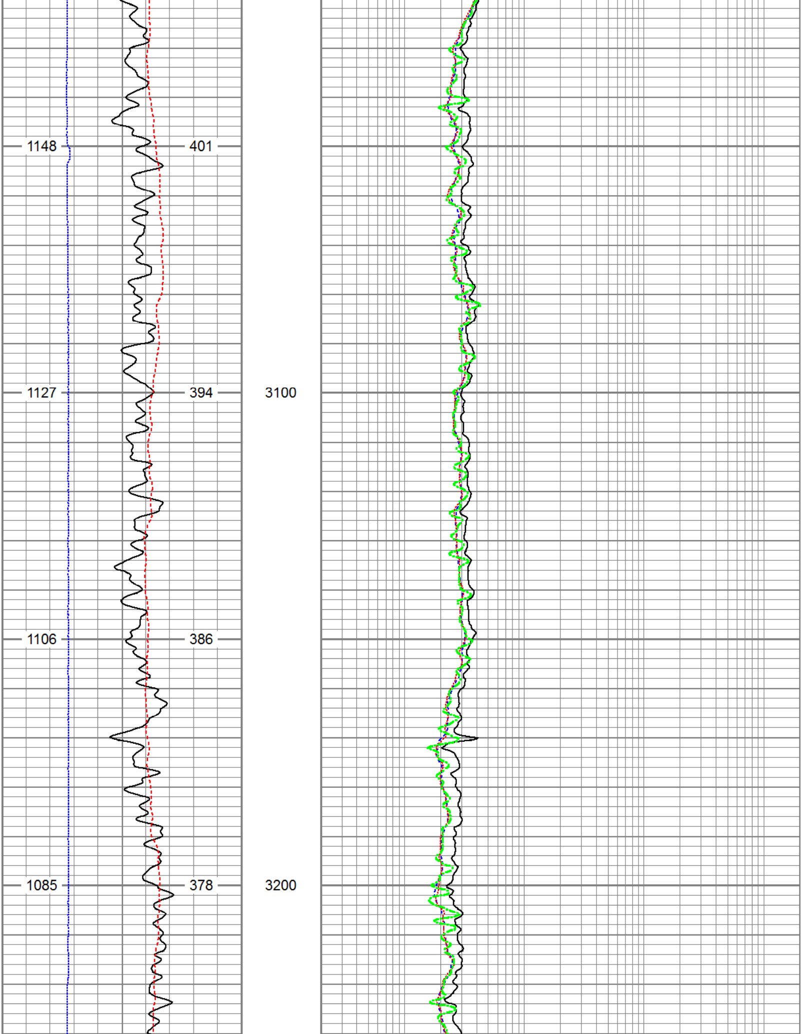
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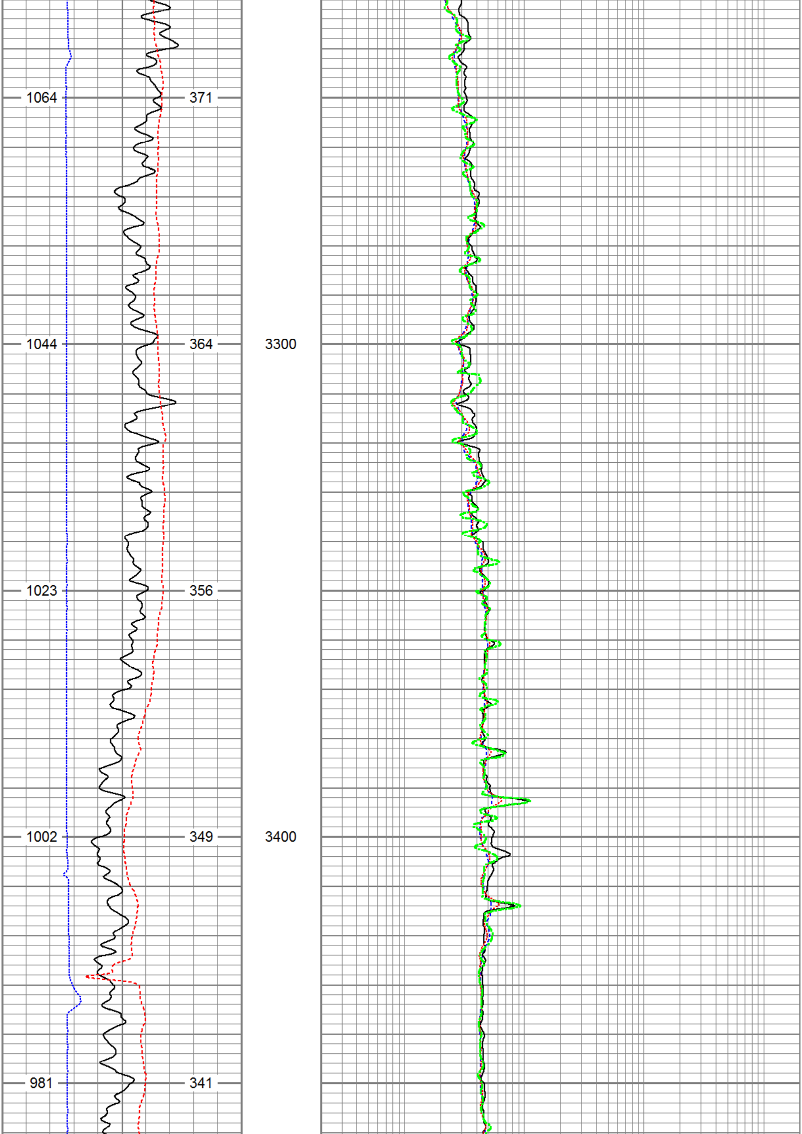
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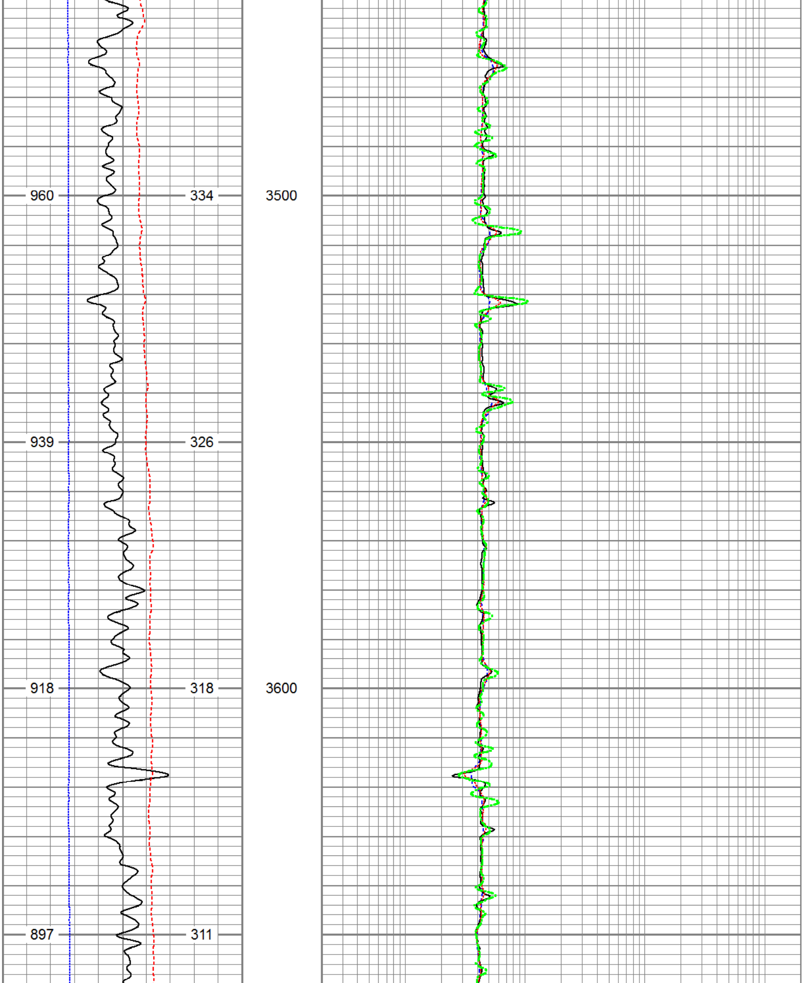
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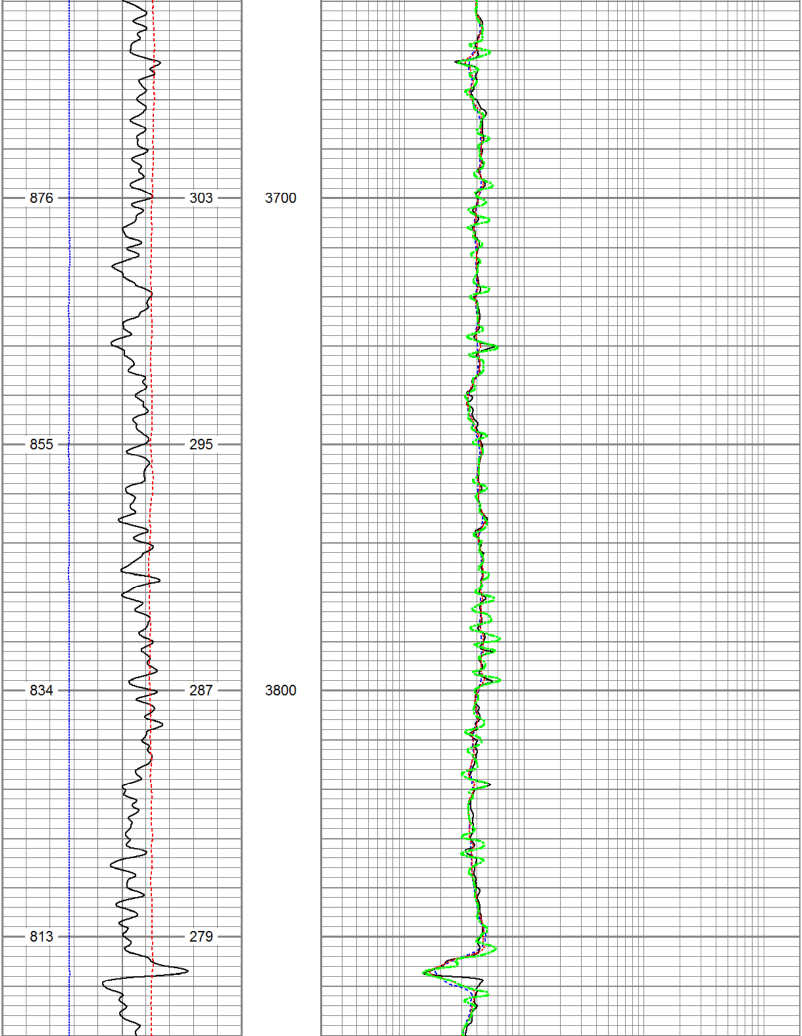
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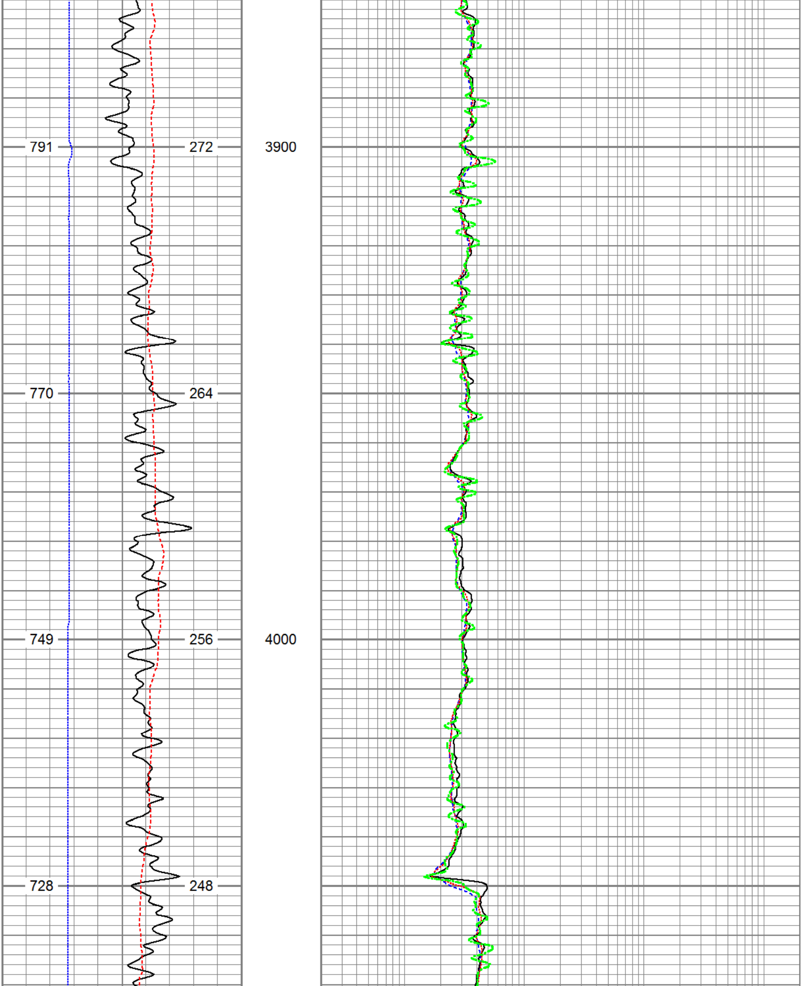
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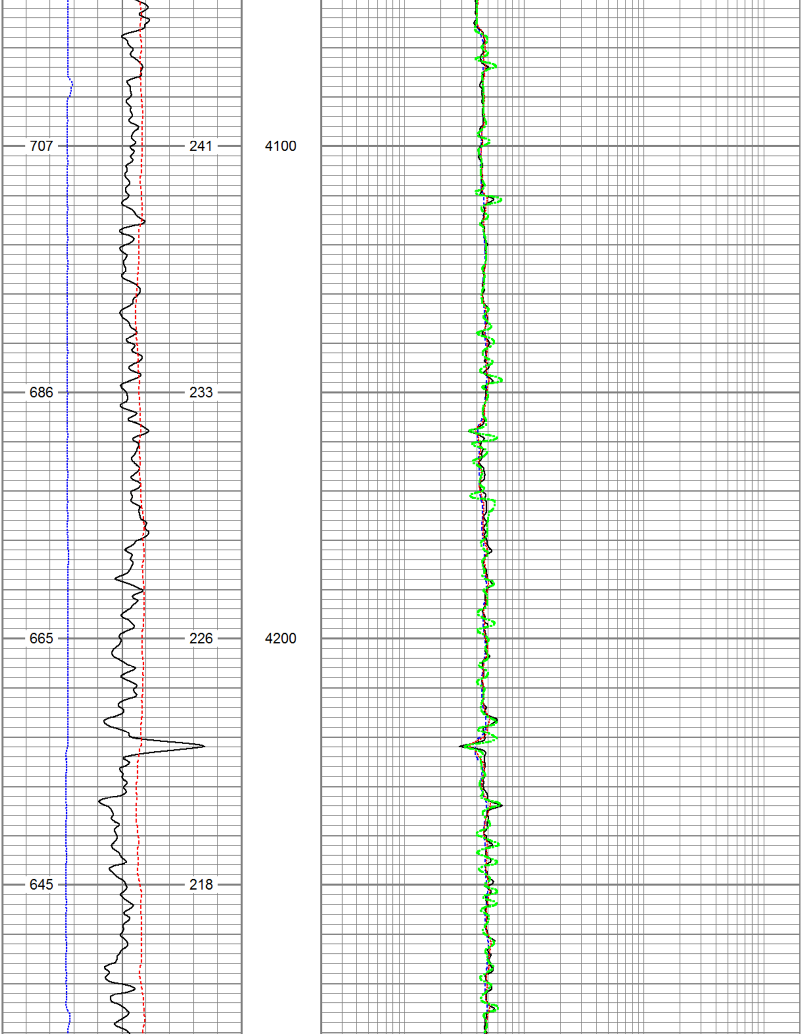
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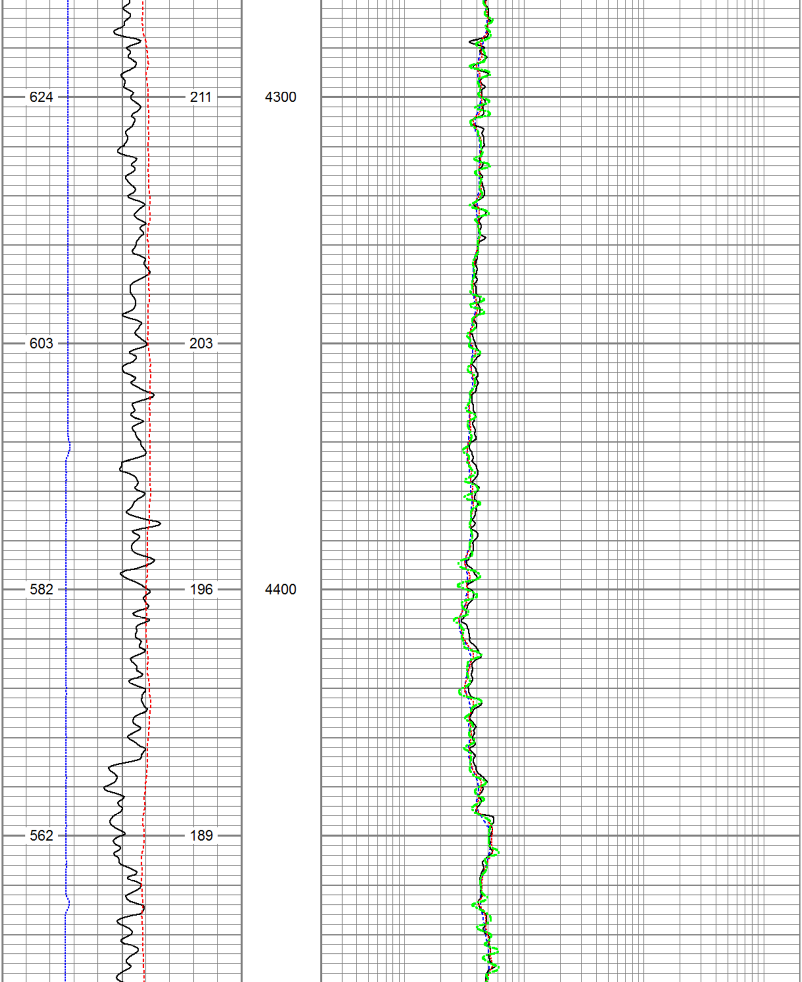
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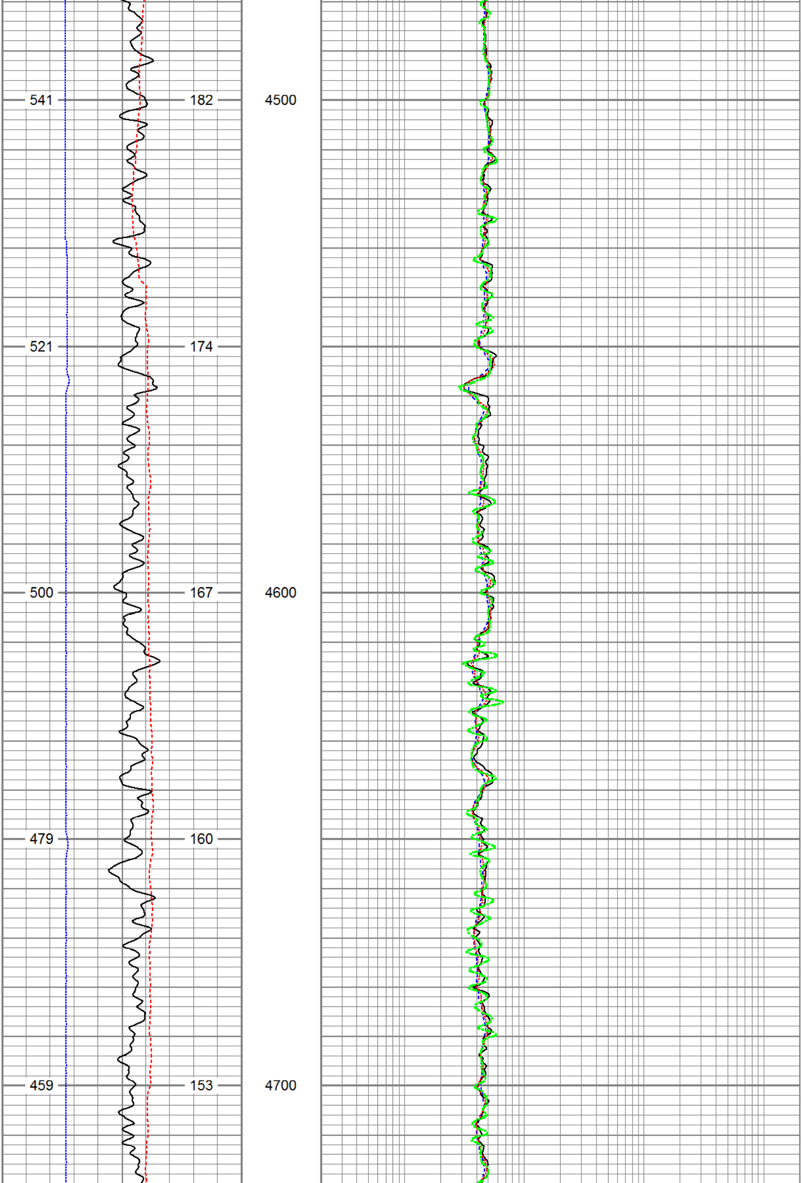
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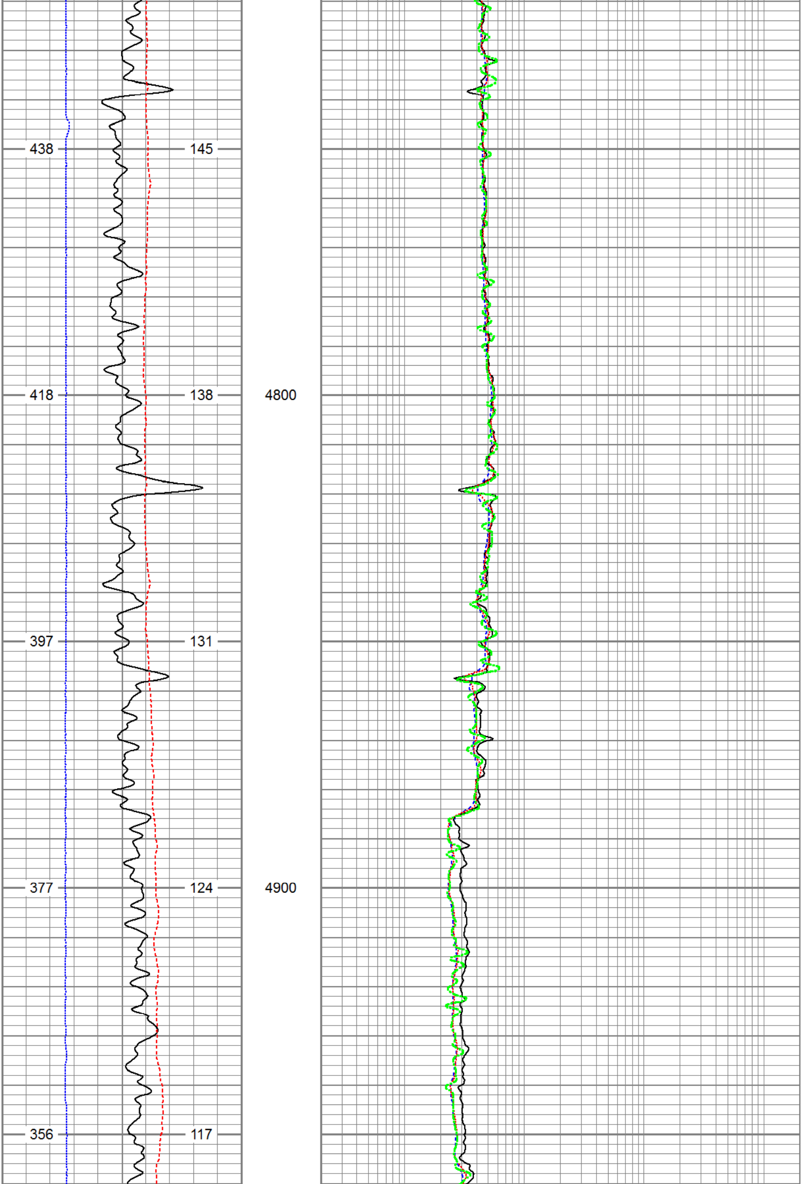
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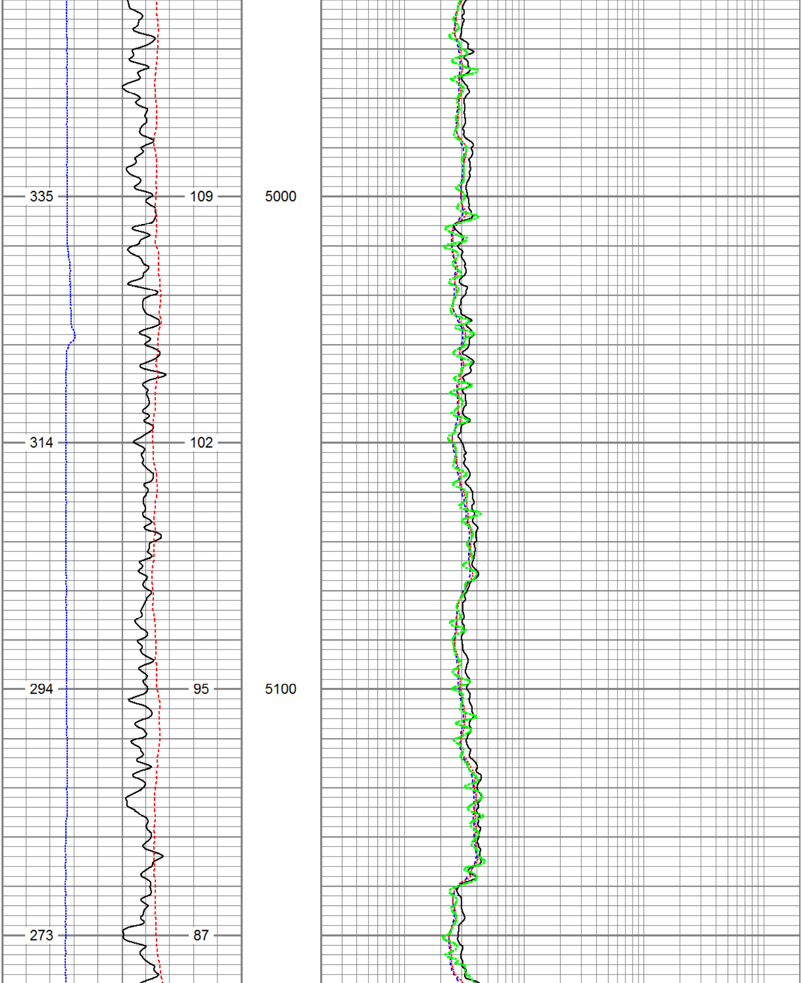
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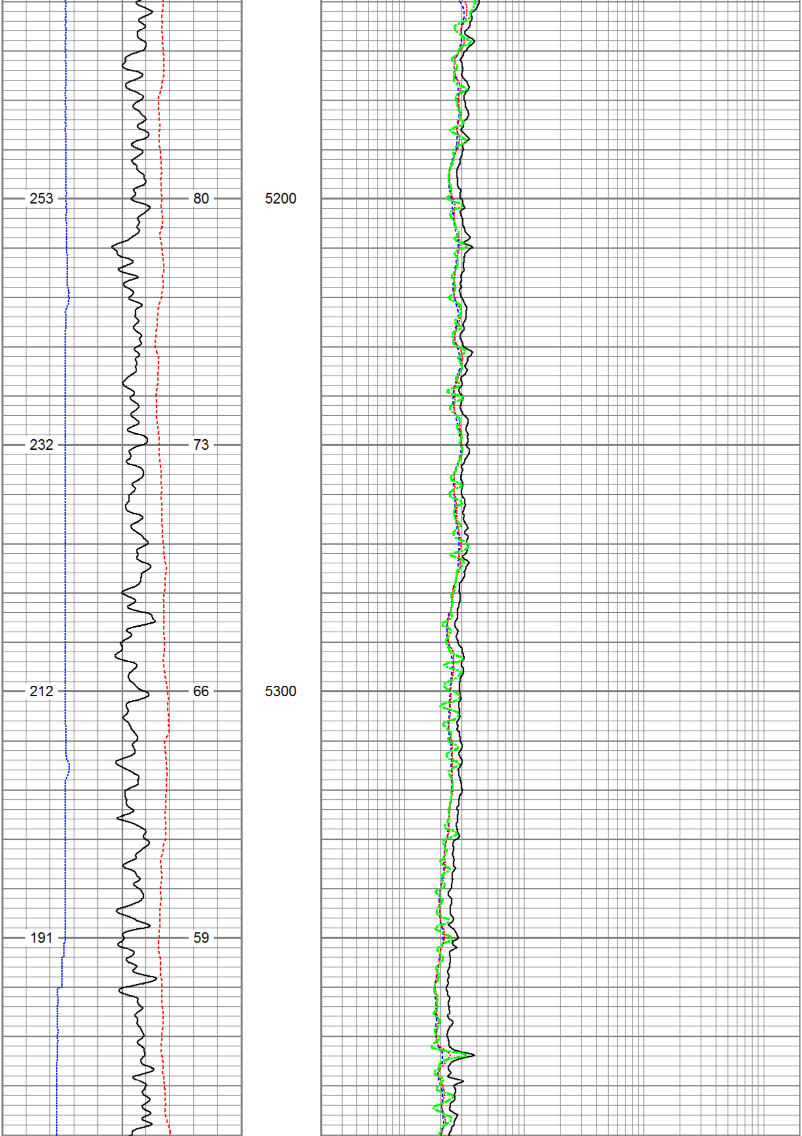
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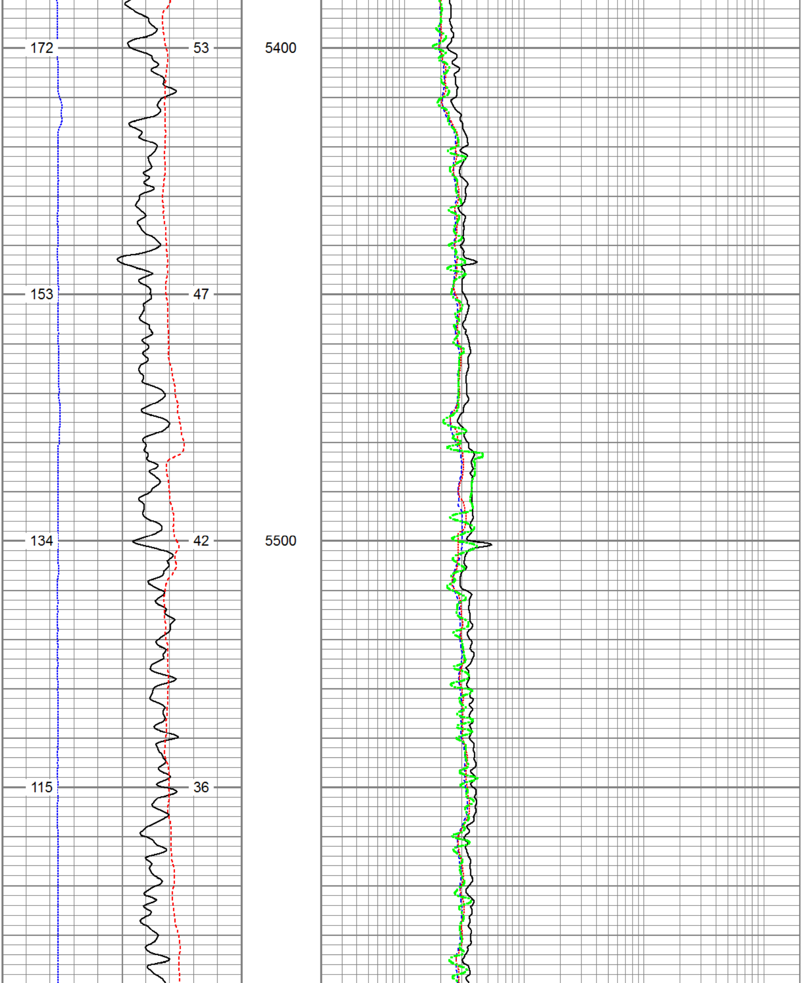
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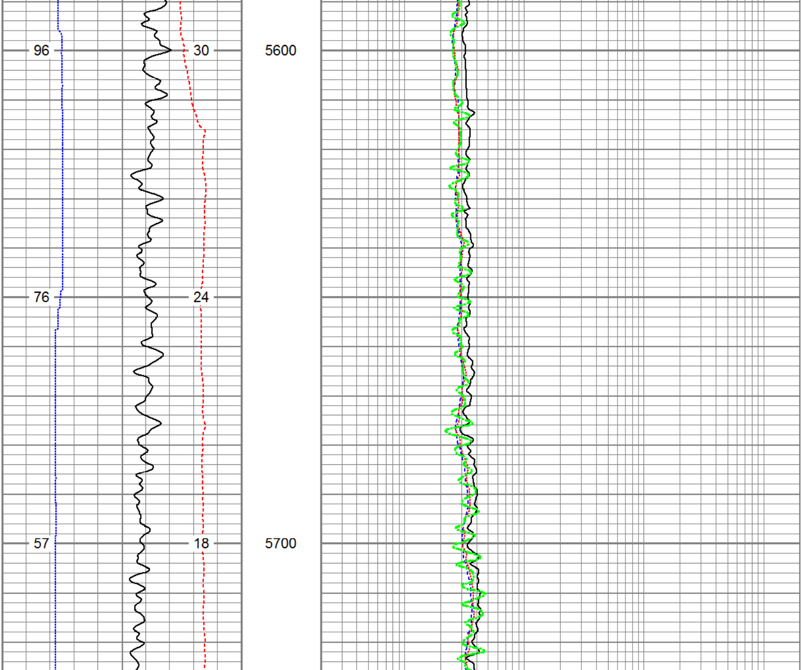
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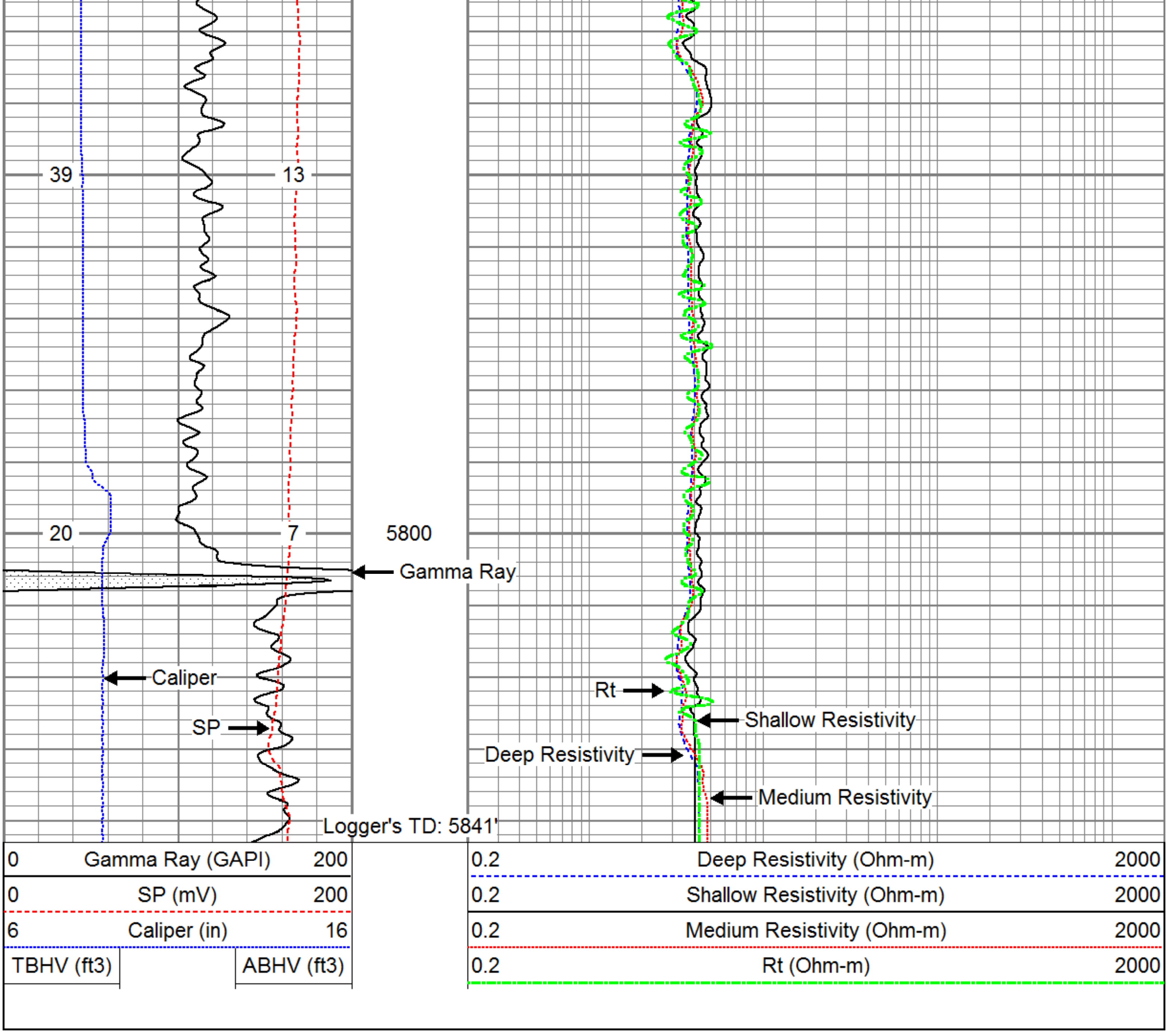

Calibration Report

Database File: 13550.db
Dataset Pathname: pass1
Dataset Creation: Fri May 09 17:14:14 2014 by Log 0

Dual Induction Calibration Report

Serial-Model: 1024-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	0.580	-45.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.510	-40.000

Compensated Density Calibration Report

Serial-Model: 128-PSI
Master Calibration Performed: Tue Nov 05 00:36:11 2013

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	5900.80	3069.93	cps
Aluminum	2.690	g/cc	1074.43	1919.88	cps

	Size		Reading
Small Ring		in	
Medium Ring		in	
Large Ring		in	

Compensated Neutron Calibration Report

Serial Number: 826
Tool Model: PSI

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.9000
Long Space	1.00	cps	1.00	cps	2.0900

Gamma Ray Calibration Report

Serial Number: 939
Tool Model: PSI
Performed: Mon Apr 21 14:34:25 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6200 GAPI/cps