

Compensated Density Neutron Log

Company		Pioneer Natural Resources	
Well		Modavi 31-16	
Field		Purgatoire River	
County		Las Animas	
State		Co	
Location:		API #: 05-071-09833-0000	
SEC 16 TWP 34S RGE 65W		181 FNL 1619 FEL	
Permanent Datum Log Measured From		Ground Level Elevation 7266	
Drilling Measured From		5 AGL	
Other Services		IEL	
Elevation		K.B. 7271 D.F. 7266 G.L. 7266	
Date	21 April 11		
Run Number	TWO		
Depth Driller	1540		
Depth Logger	1539		
Bottom Logged Interval	1538		
Top Log Interval	910		
Casing Driller	923		
Casing Logger	921		
Bit Size	7 7/8		
Type Fluid in Hole	dry		
Density / Viscosity	//		
pH / Fluid Loss	//		
Source of Sample	//		
Rm @ Meas. Temp	//		
Rmf @ Meas. Temp	//		
Rmc @ Meas. Temp	//		
Source of Rmf / Rmc	//		
Rm @ BHT	//		
Time Circulation Stopped	2:15 am		
Time Logger on Bottom	4:30 am		
Maximum Recorded Temperature	//		
Equipment Number	590		
Location	Tr		
Recorded By	Patterson		
Witnessed By	Vigil		

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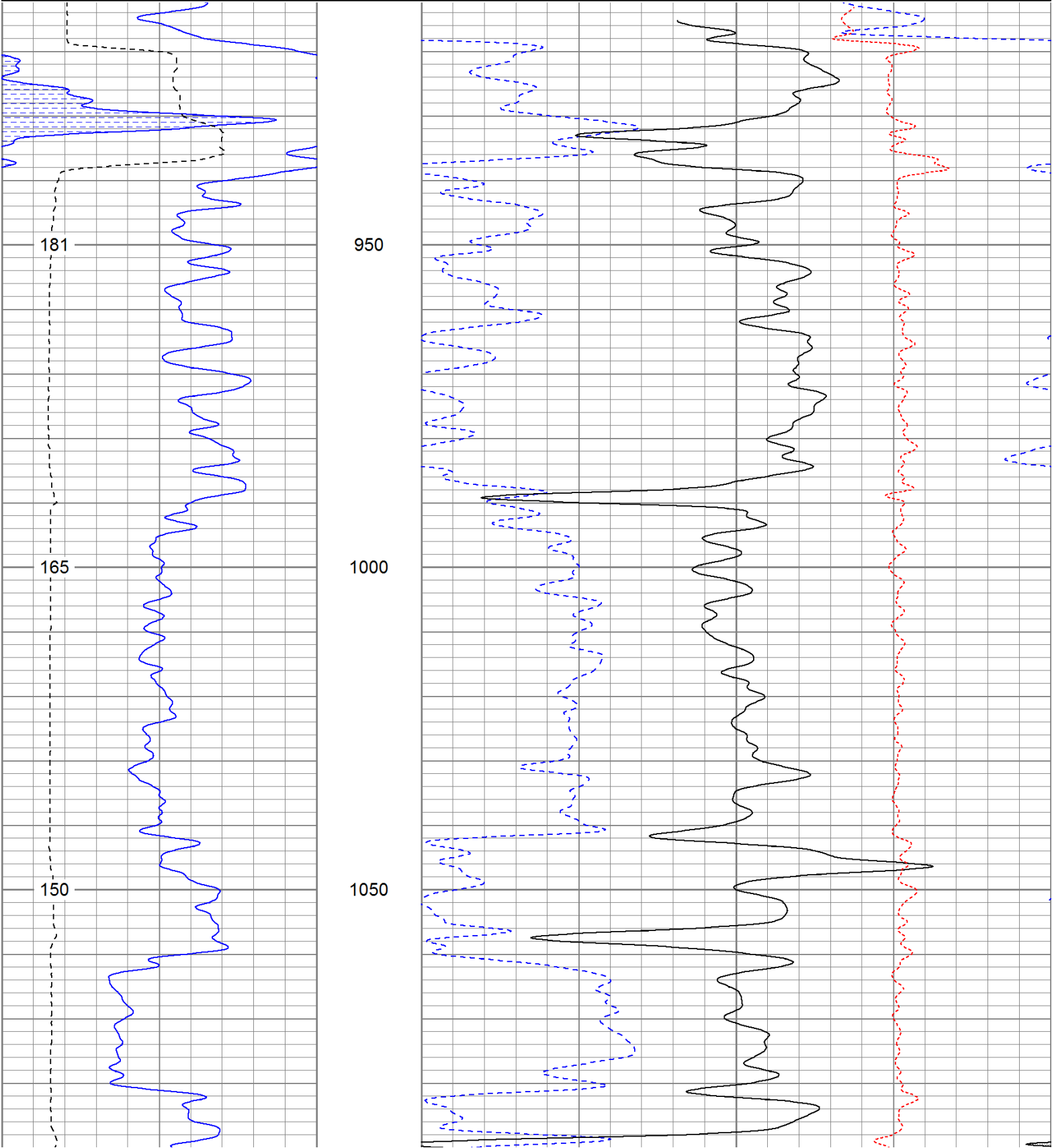
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

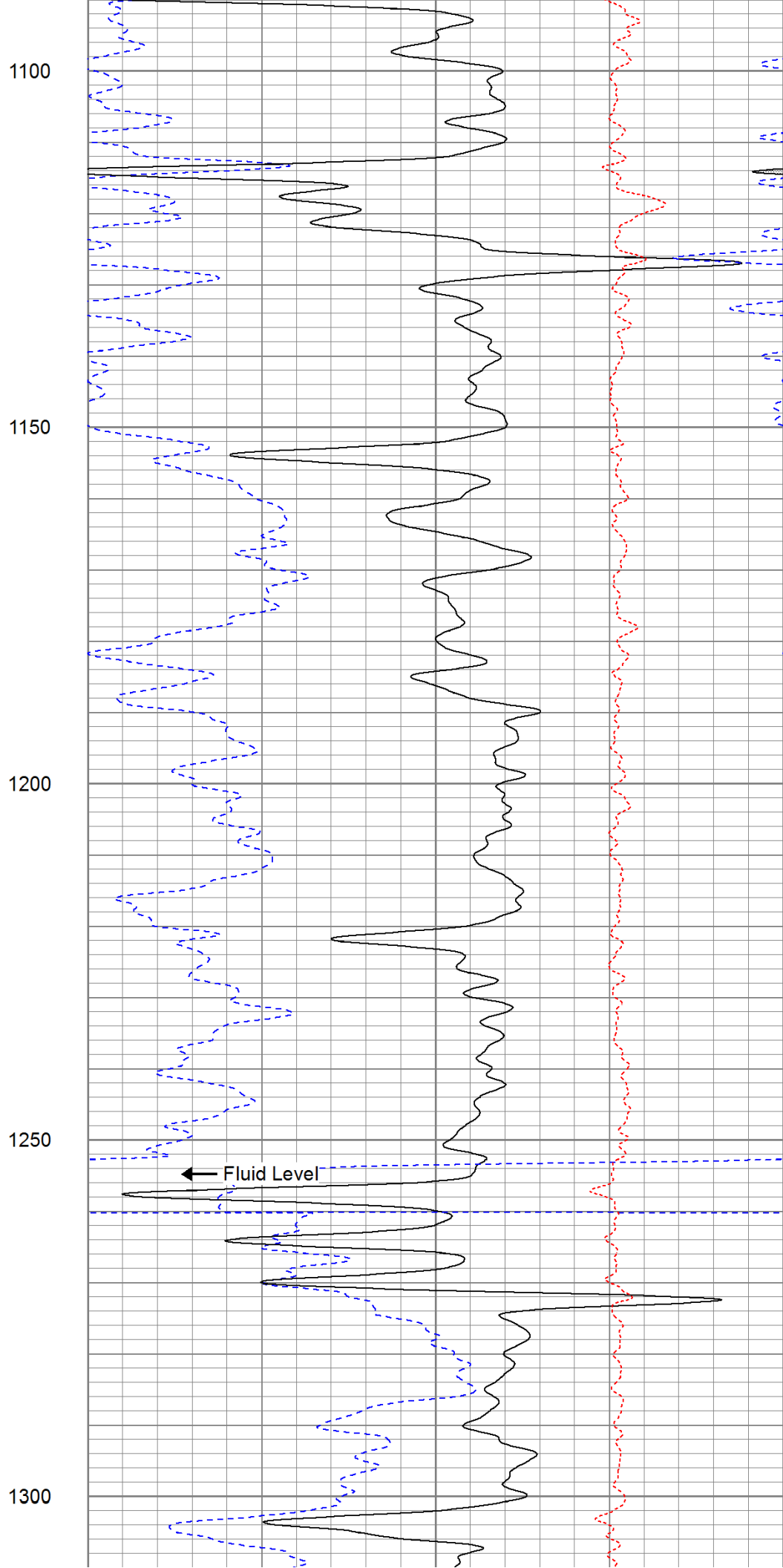
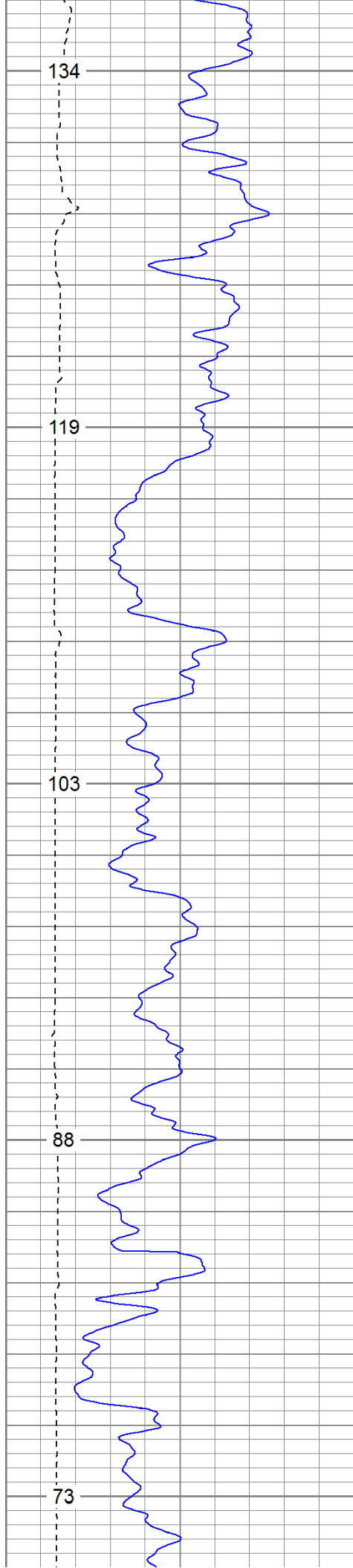
Comments

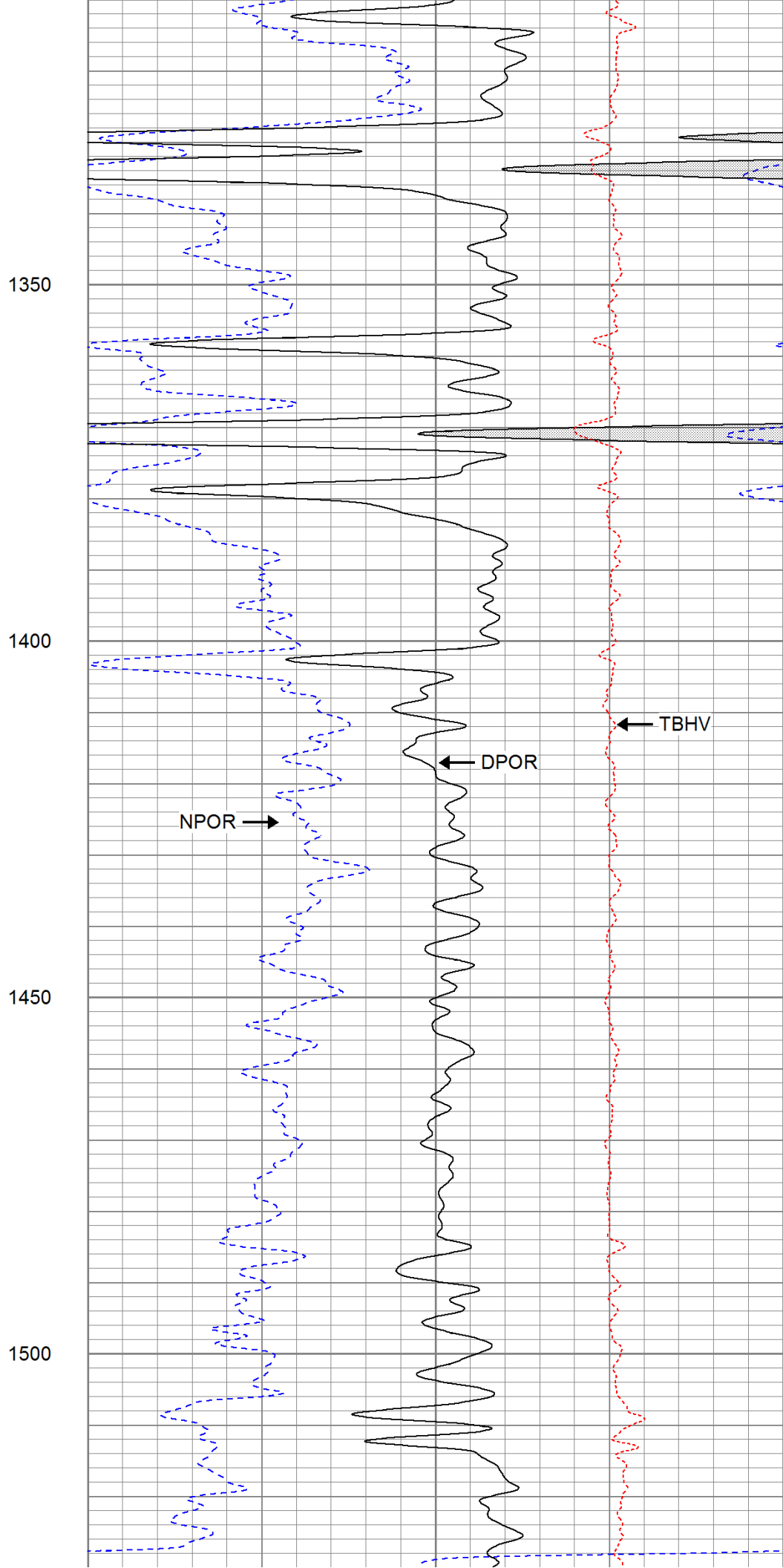
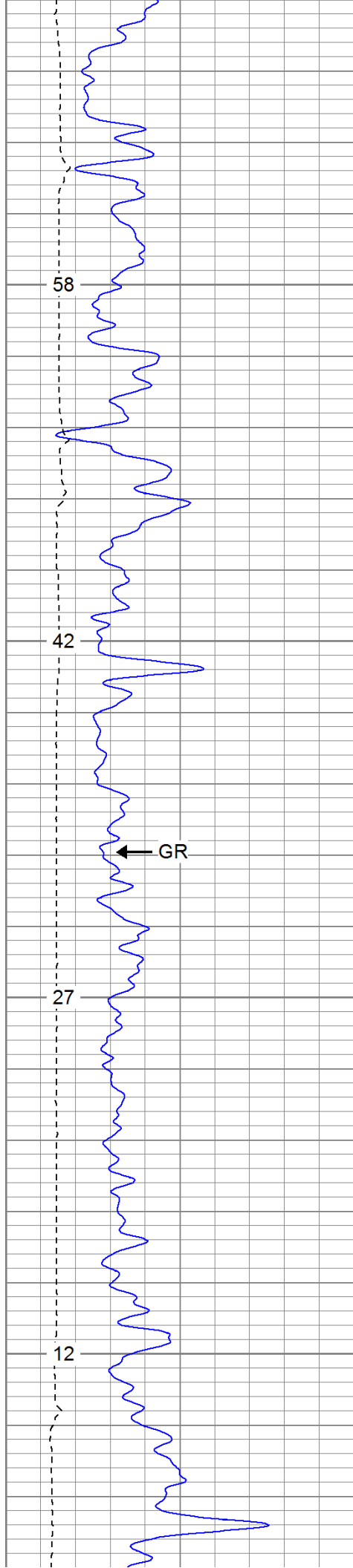
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Dataset Pathname: pass5.1
Presentation Format: cdnl
Dataset Creation: Thu Apr 21 09:58:28 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

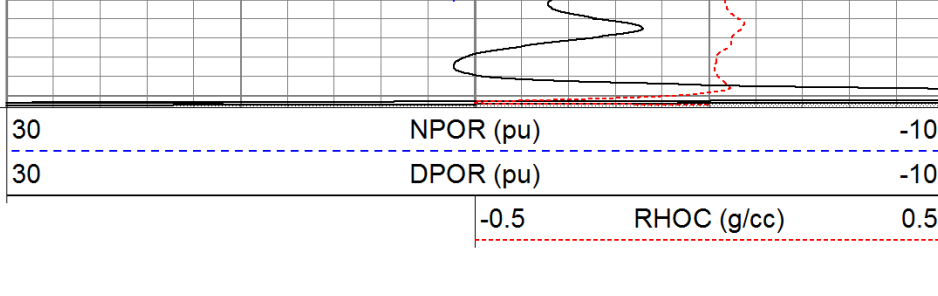
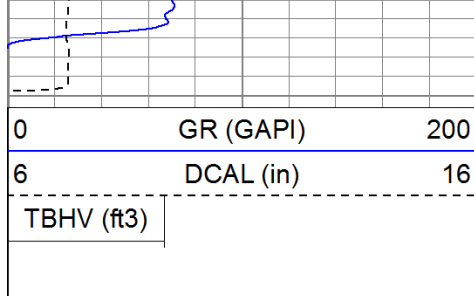
0	GR (GAPI)	200
6	DCAL (in)	16
TBHV (ft3)		

30	NPOR (pu)	-10
30	DPOR (pu)	-10
-0.5	RHOC (g/cc)	0.5



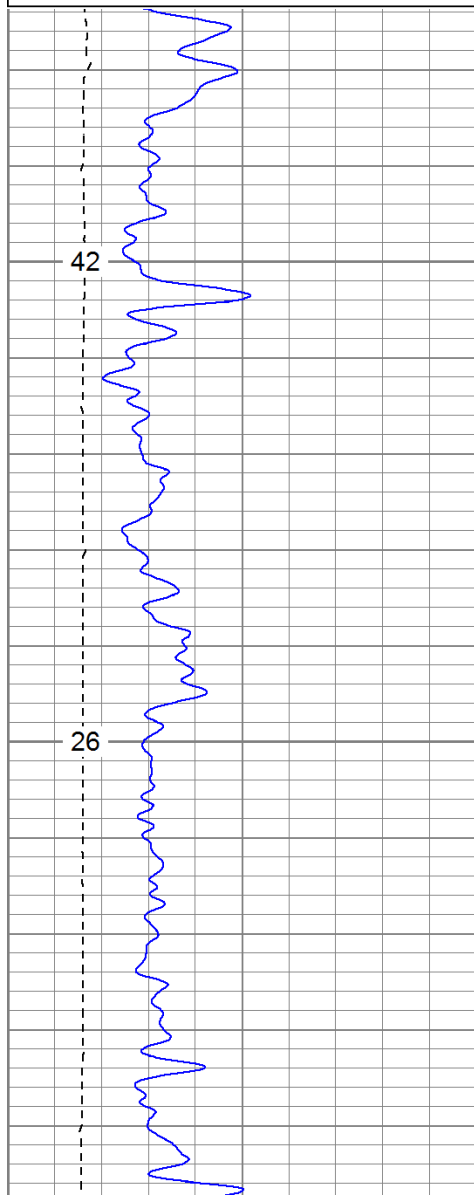
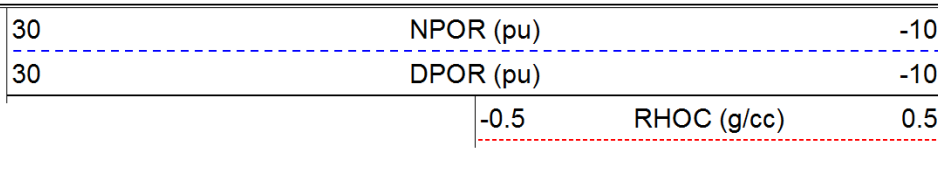
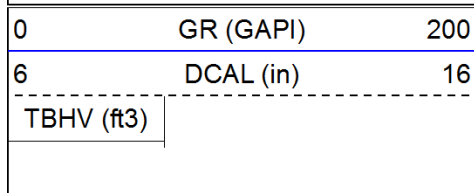






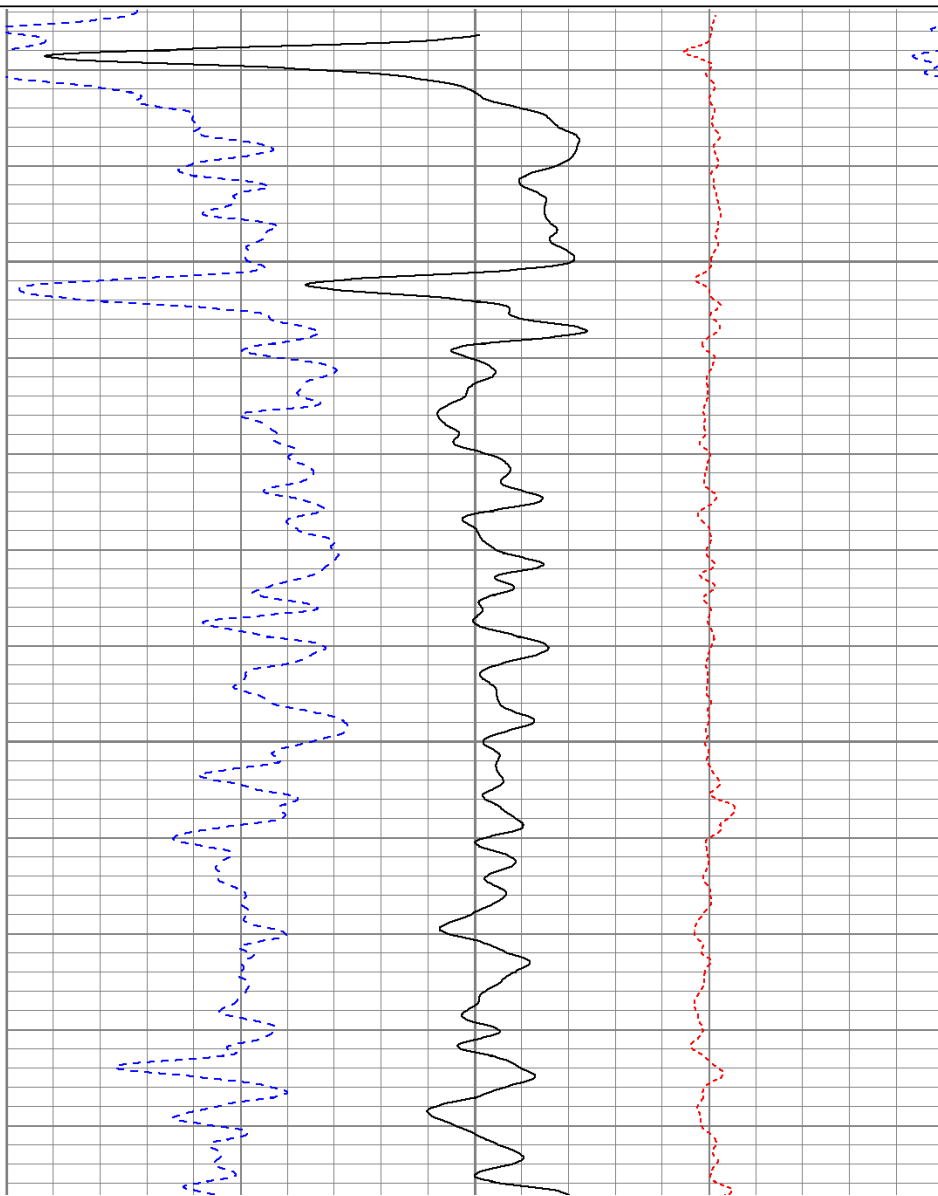
Repeat Section

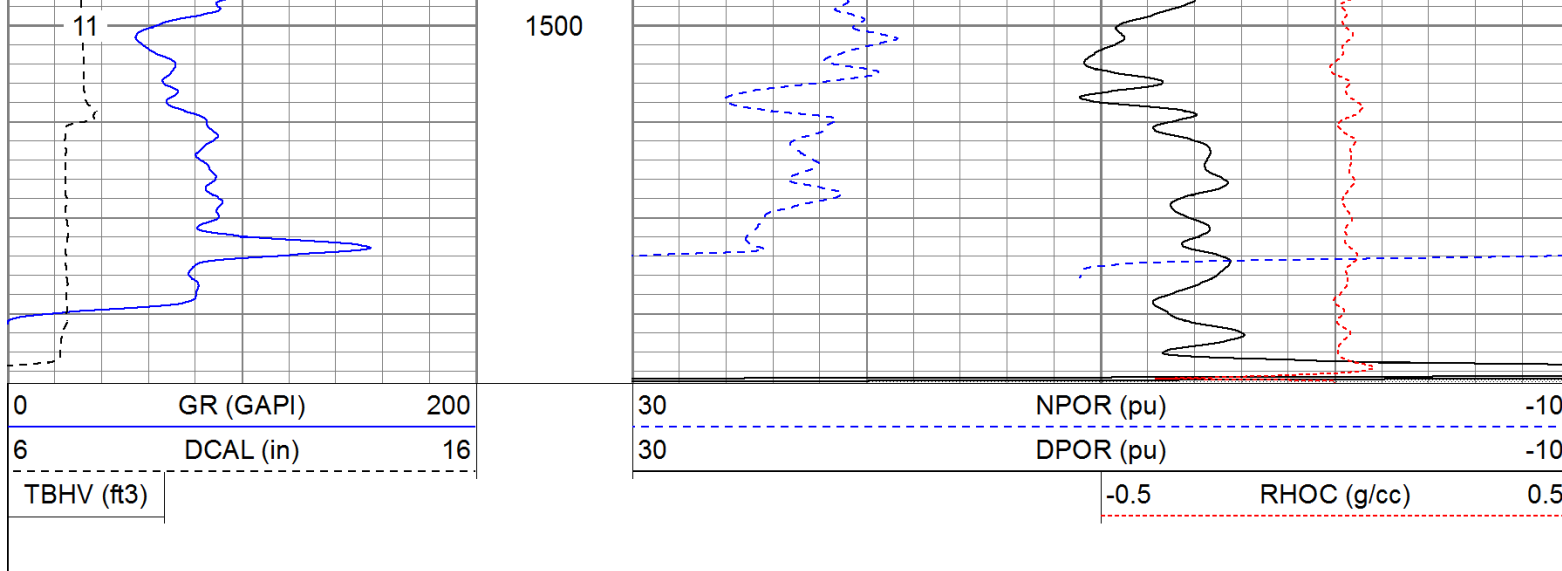
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Dataset Pathname: pass4.3
Presentation Format: cdnl
Dataset Creation: Thu Apr 21 09:41:10 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240



1400

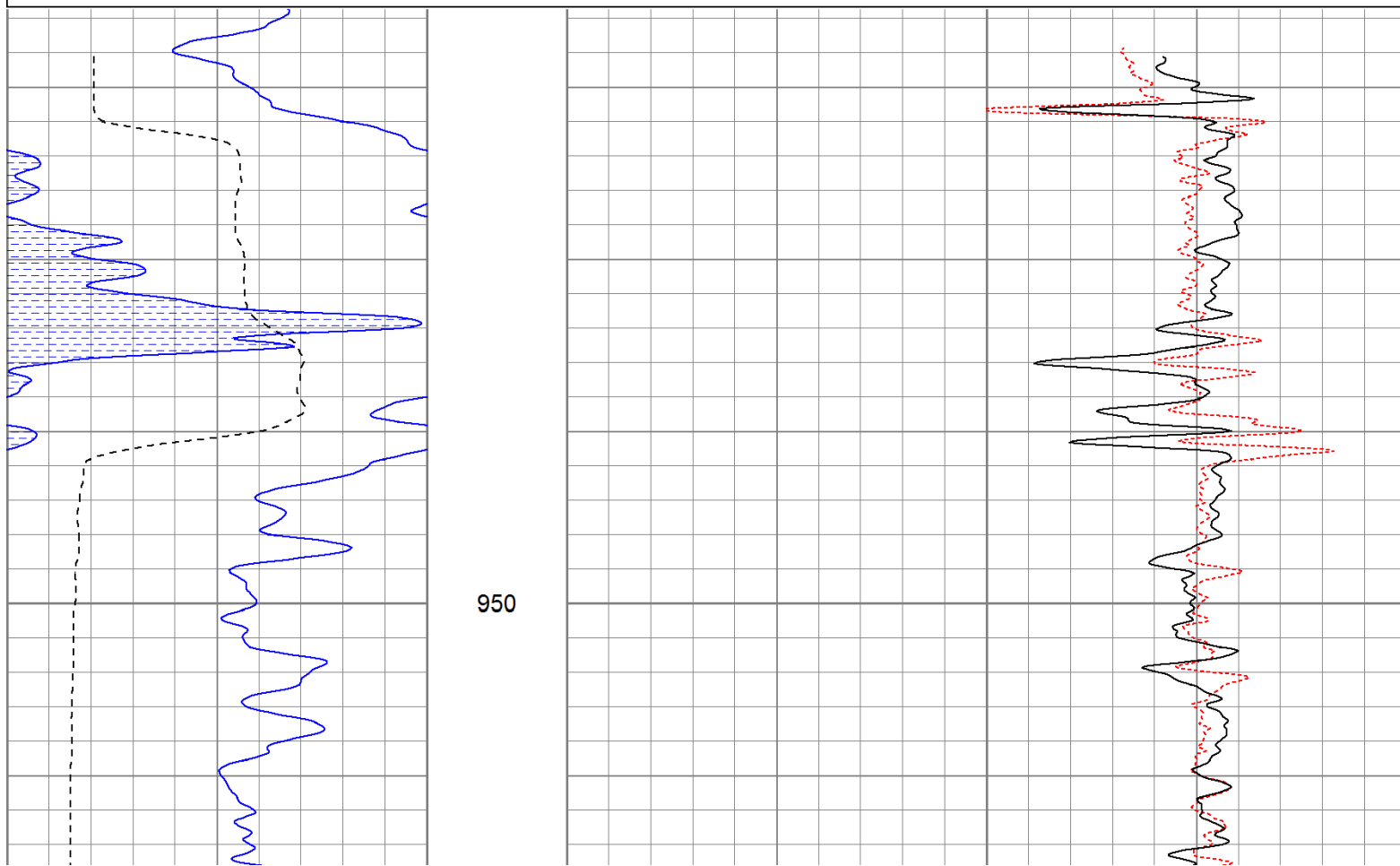
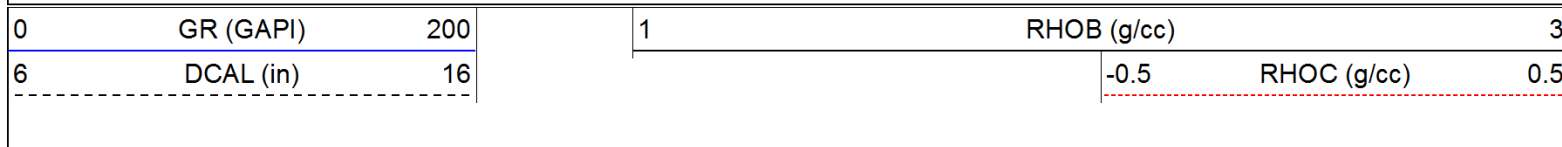
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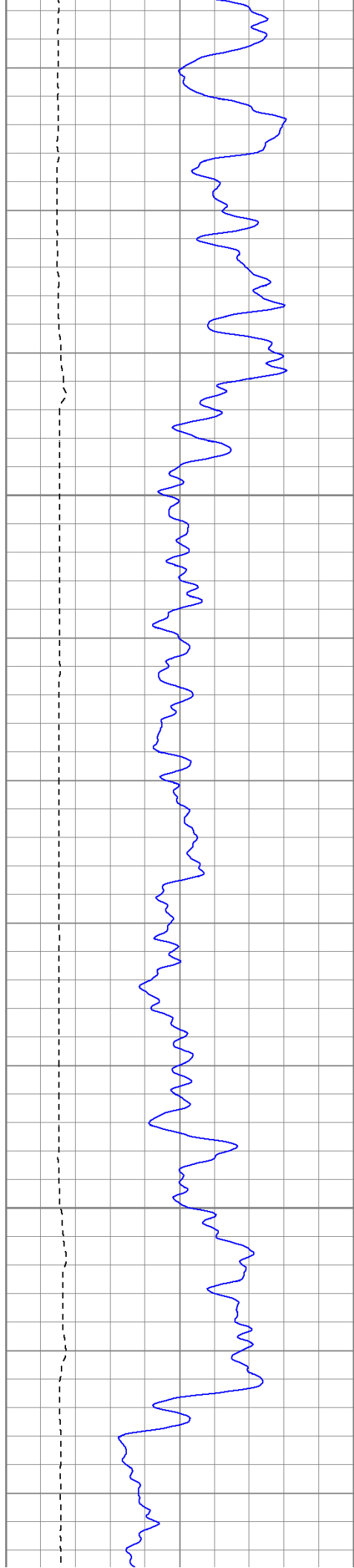




High Resolution

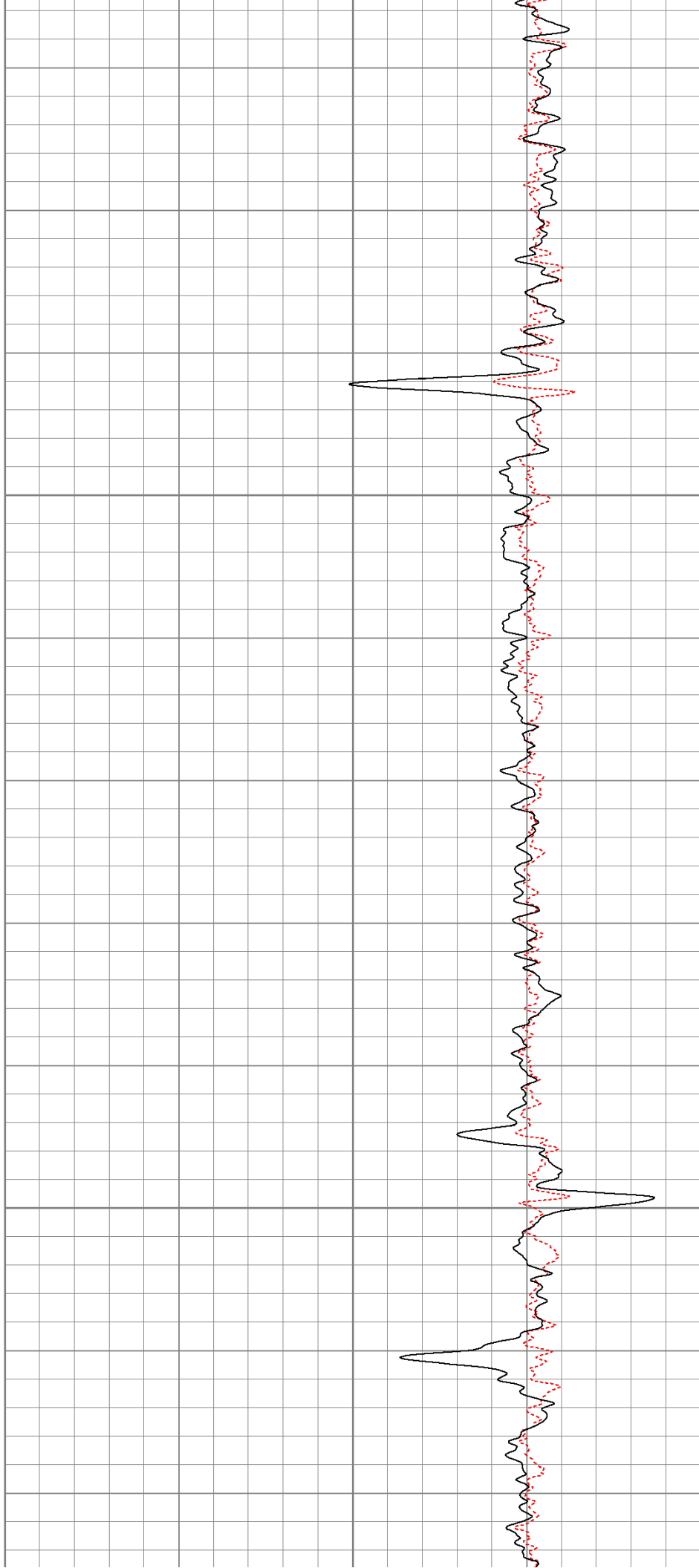
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 Charted by: Depth in Feet scaled 1:120

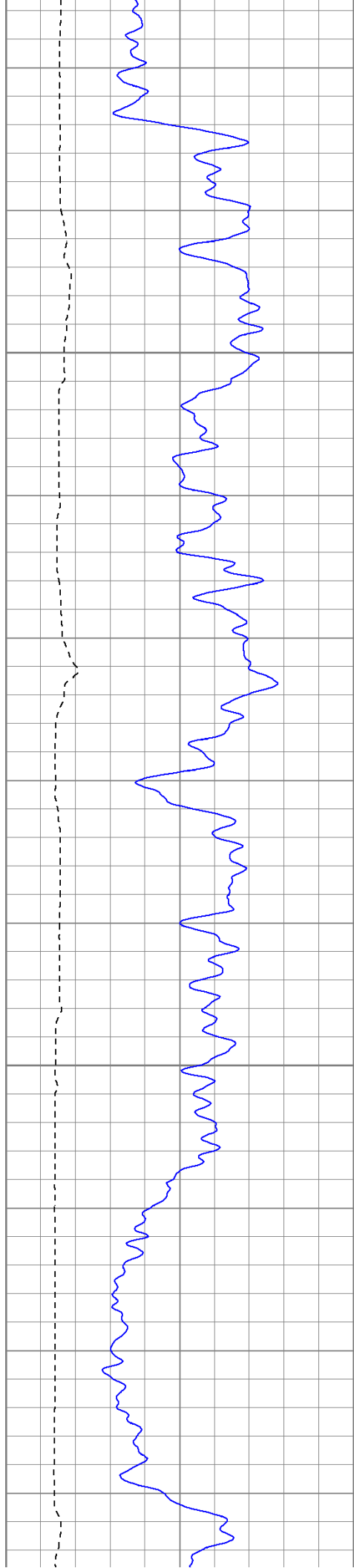




1000

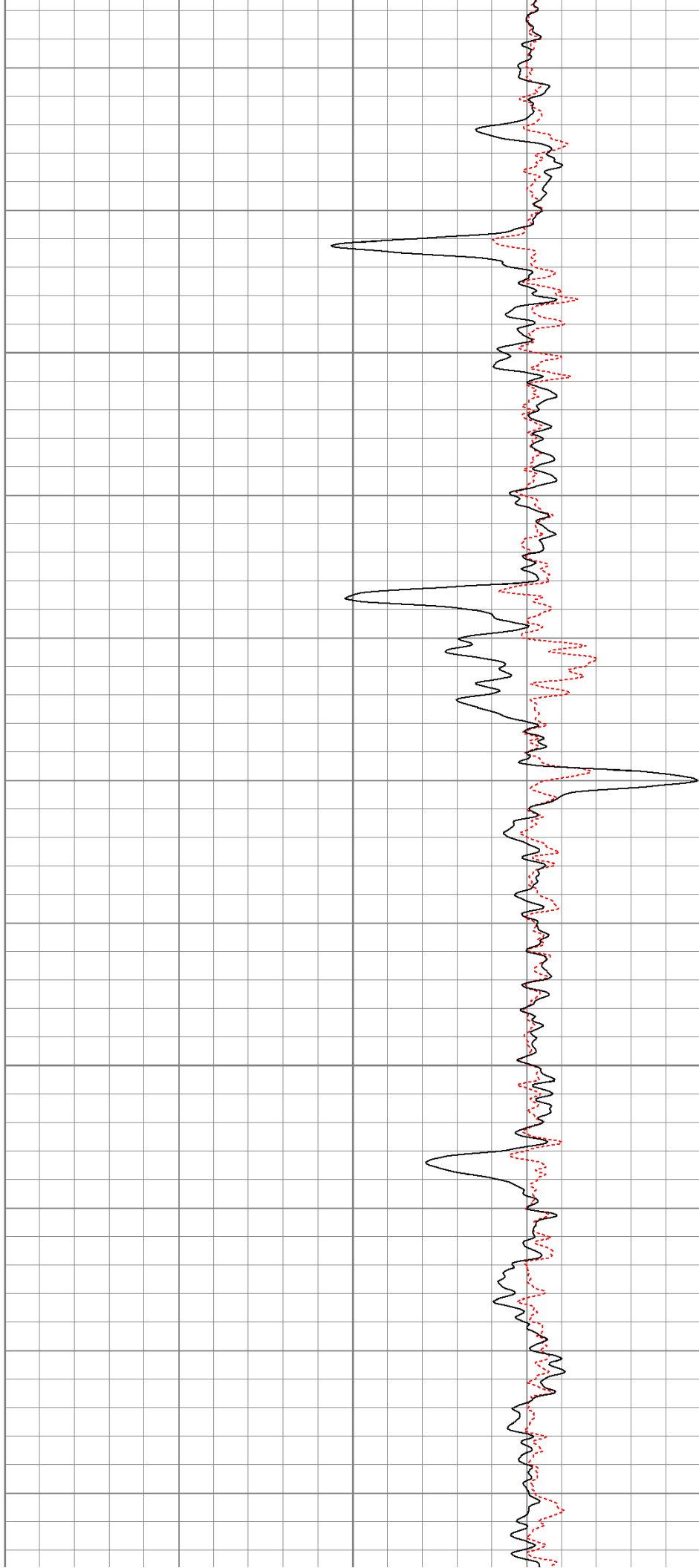
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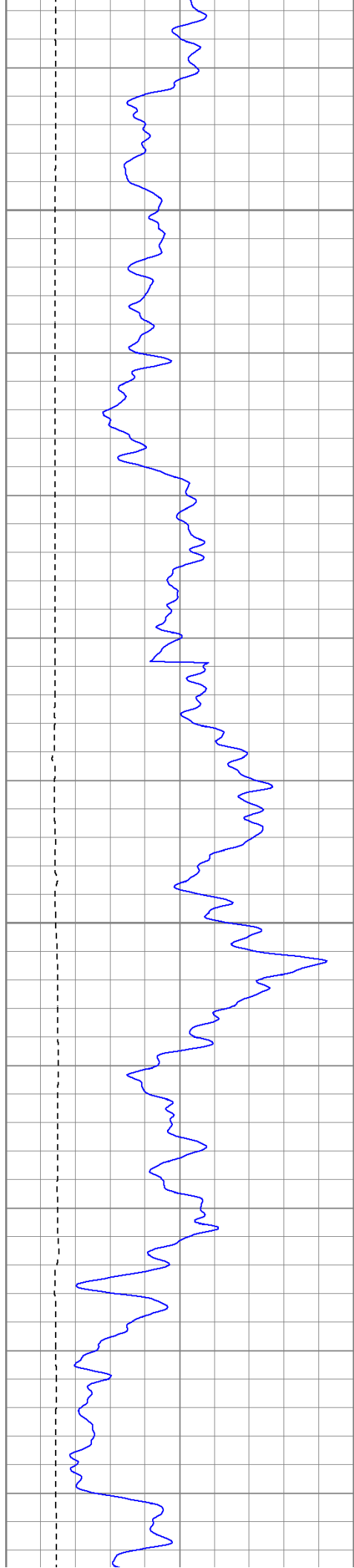




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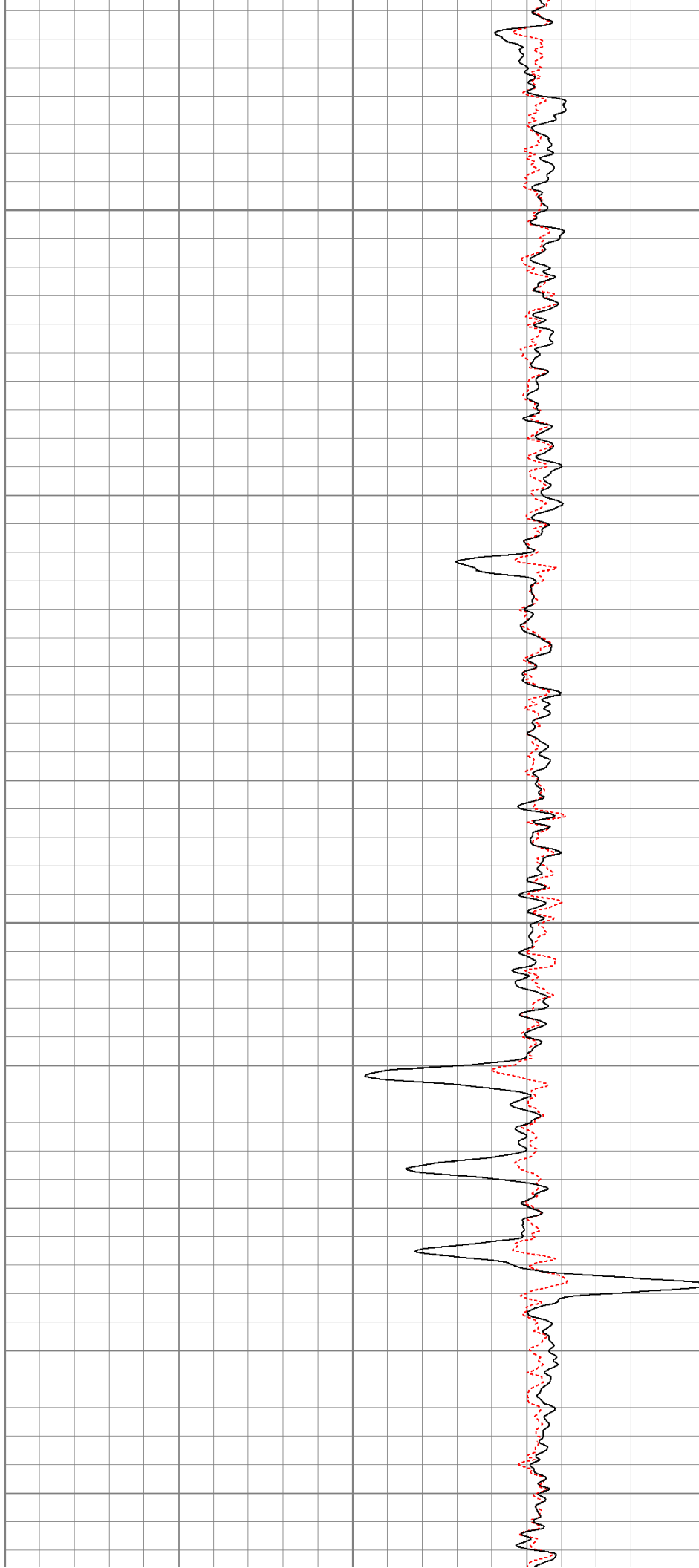
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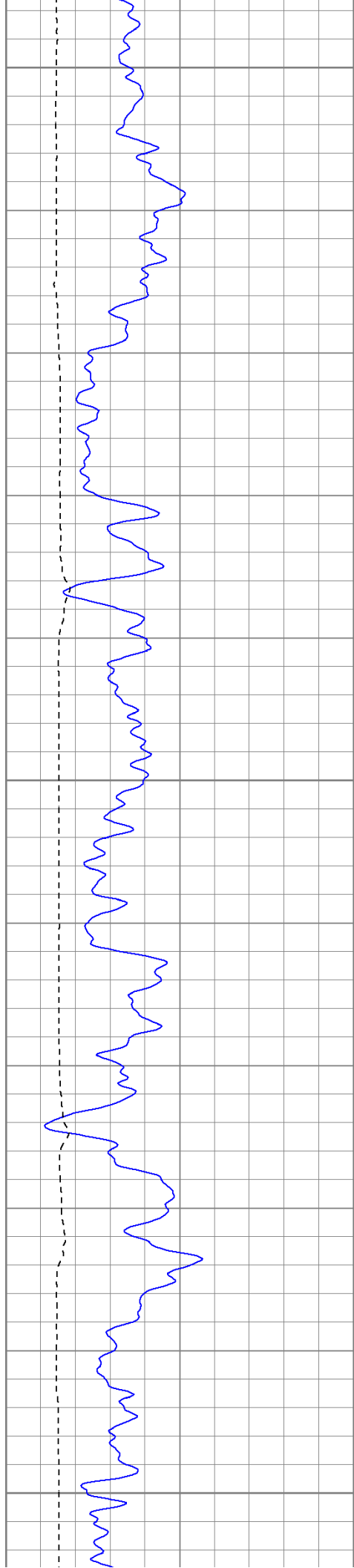




1200

1250

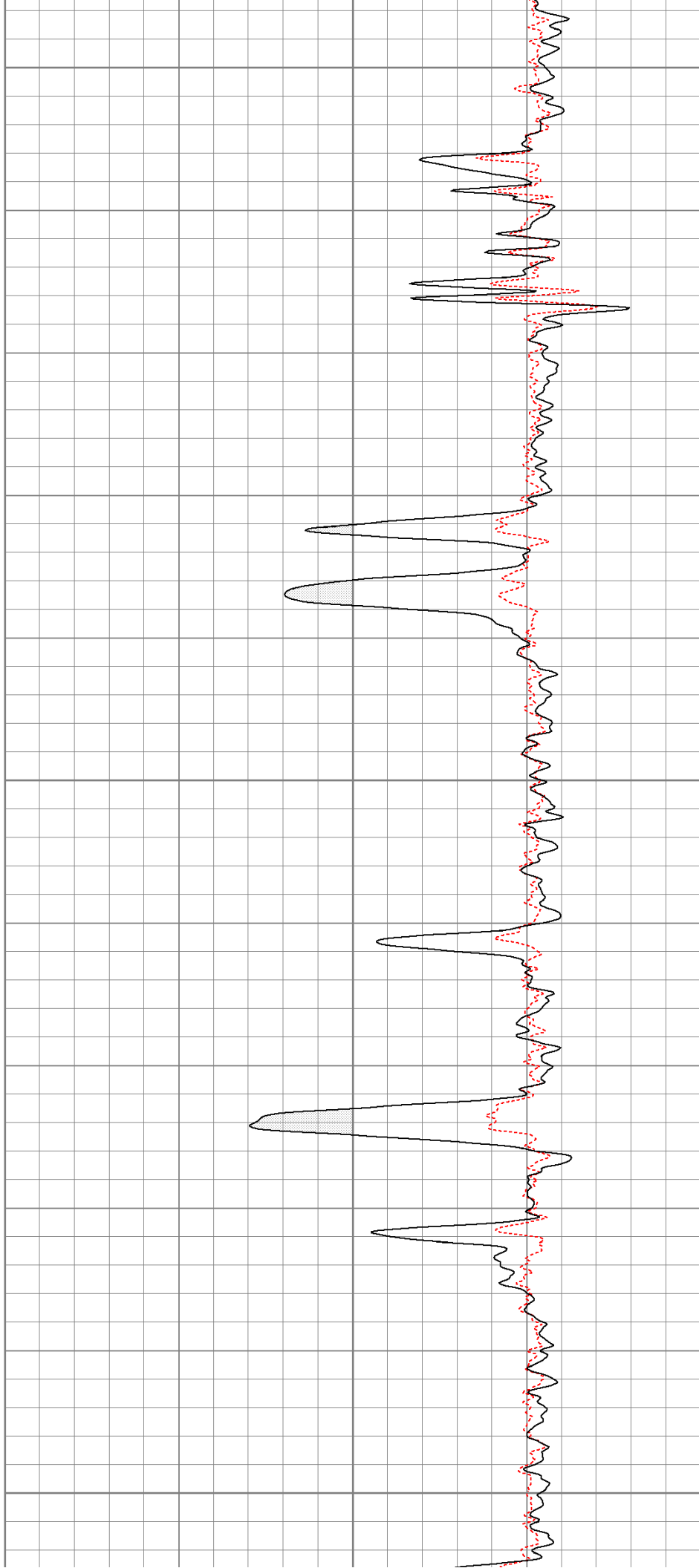


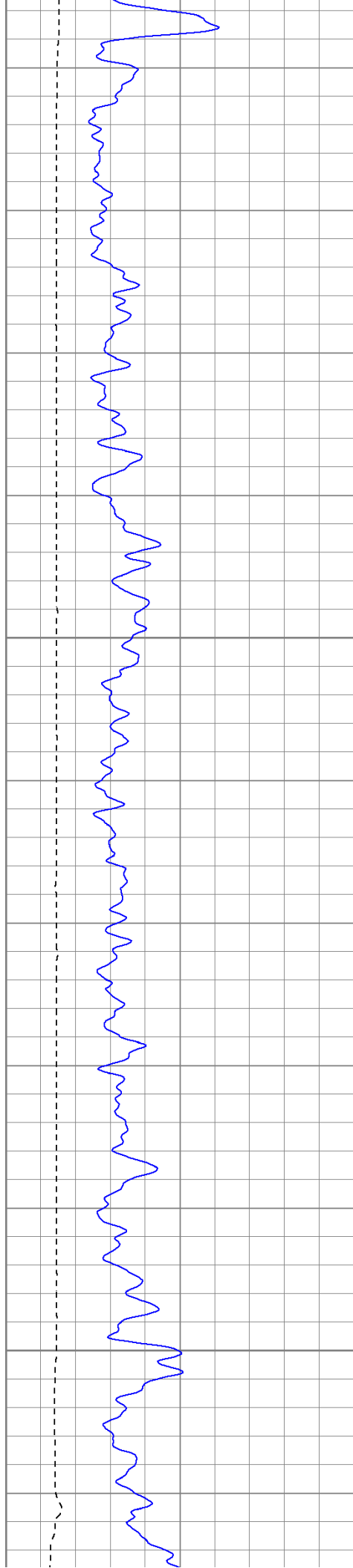


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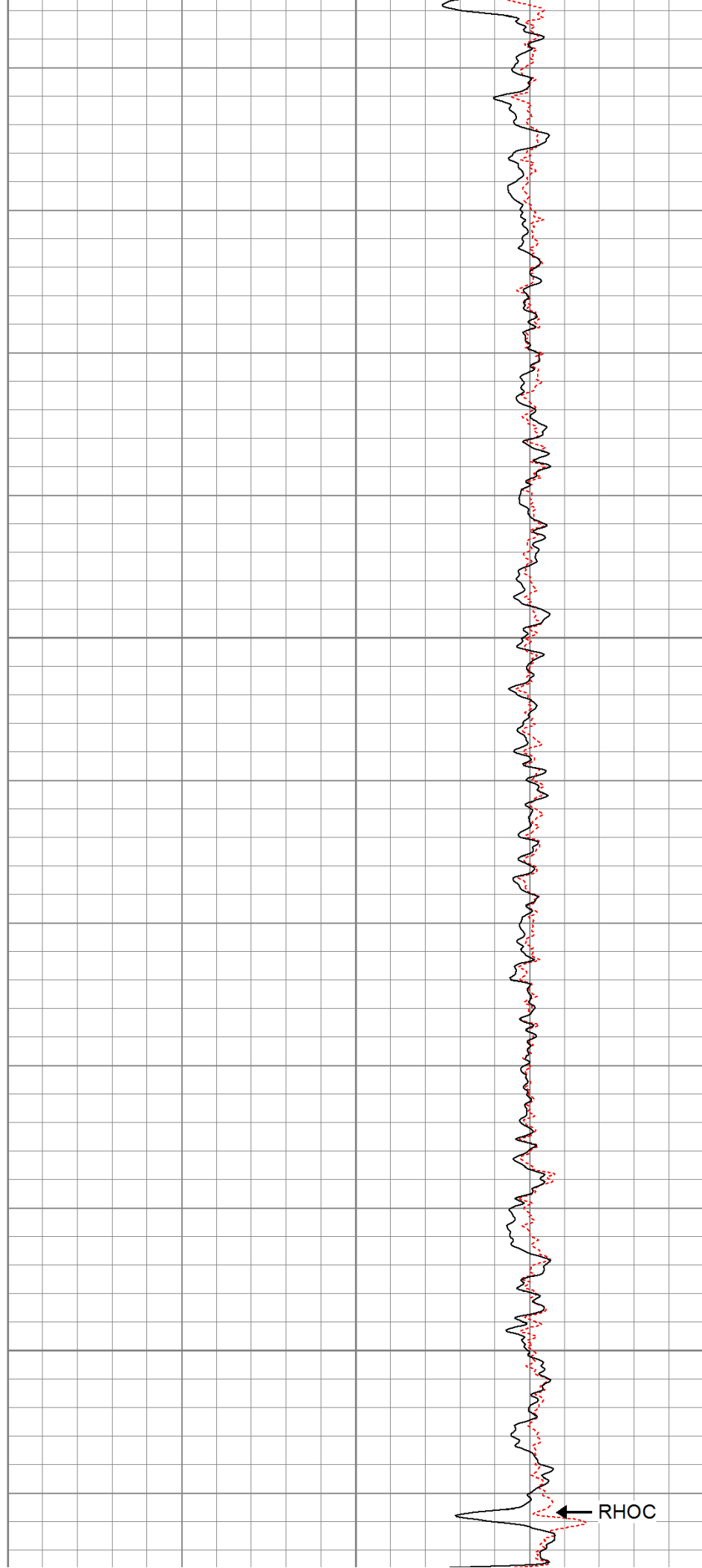
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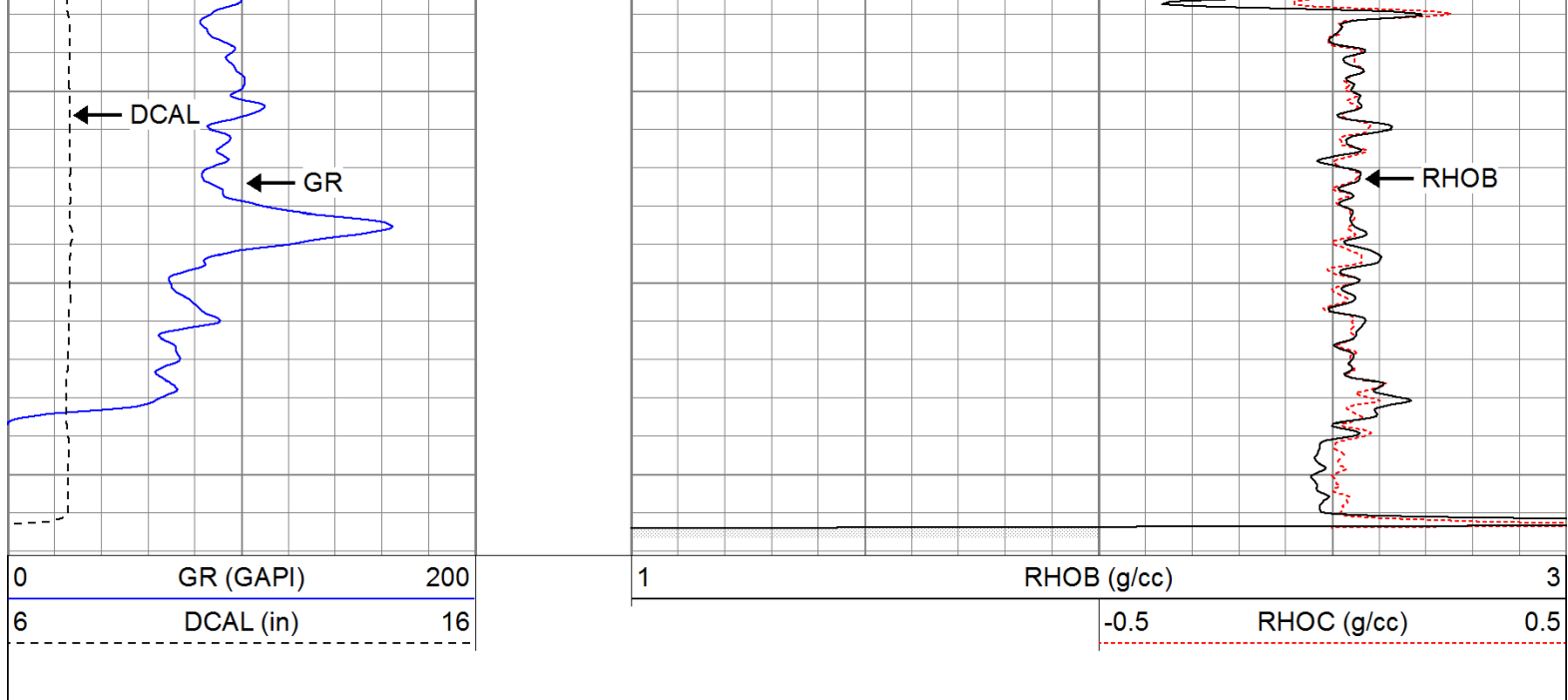




1450

1500





Calibration Report					
Database File:	modavi3116.db				
Dataset Pathname:	pass4.3				
Dataset Creation:	Thu Apr 21 09:41:10 2011 by Calc Open-Cased 110302				
Compensated Density Calibration Report					
Serial-Model:		2118-poilex			
Source / Verifier:		/			
Master Calibration Performed:		Sun Apr 17 12:05:12 2011			
Before Survey Verification Performed:					
After Survey Verification Performed:					
Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1293.24	739.78	cps
Aluminum	2.590	g/cc	100.94	298.43	cps
Spine Angle = 70.41			Density/Spine Ratio = 0.325		
	Size		Reading		
Small Ring	8.00	in	4.52	V	
Large Ring	14.00	in	8.31	V	
Before Survey Verification					
	Target		Measured		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc
After Survey Verification					
	Target		Measured		
		g/cc			g/cc
		g/cc			g/cc
		g/cc			g/cc

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Serial Number: 5145
Tool Model: G
Performed: Tue Dec 16 09:41:16 2008

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	12.86		NEU-G (5145) Gearhart Epithermal	5.65	3.50	85.00
GR	7.41		GR-Oilex (2119) Oilex	2.83	3.63	74.00
LSD	1.83		CDL-poilex (2118)	6.17	4.00	275.00
DCAL	1.42					
SSD	1.25					
Dataset: modavi3116.db: field/well/run1/pass4.3 Total Length: 14.65 ft Total Weight: 434.00 lb O.D. 4.00 in						