		<b>MEASURED DEPTH</b> <b>COMPENSATED NEUTRON-DENSITY POROSITY</b> <b>SPECTRAL GAMMA RAY LOG</b>	
Company: CONFLUENCE DJ LLC  Well: DESHA 4-15-1 Field: WATTENBURG  County: WELD State: CO		COMPANY: CONFLUENCE DJ LLC  WELL: DESHA 4-15-1 FIELD: WATTENBURG COUNTY: WELD STATE: CO	
Permanent Datum: GROUND LEVEL Elevation: 5078 ft Log meas. from: KELLY BUSHING 16.0 ft above Perm. Datum Drill. meas. from: KELLY BUSHING		API No. 05-123-47343 Location LAT:40.002280 LONG:-104.676800 SEC 33 TWP 1N RNG 65W 635' FSL & 450' FWL	Other Services PROPAGATION RESISTIVITY
Date	22-AUG-2018		Elev.: K.B. 5094.0 ft D.F. ----- G.L. 5078.0 ft
Run No.	1 (HORIZONTAL)	TVD	
Depth Driller	11504.0 ft	7119.5 ft	
Depth Logger	11504.0 ft	7119.5 ft	
Bottom Logged Interval	11050.0 ft	7116.7 ft	
Top Logged Interval	6567.0 ft	6512.8 ft	
Casing Driller	1560.0 ft	1559.8 ft	
Casing Logger	NA	N/A	
Bitsize	8.75 in		
Type Fluid in Hole	OBM		
Density / Viscosity	9.8 ppq	54 sec/qt	
pH / Water Loss	N/A	N/A	
Source of Sample	N/A		
Rm at Meas. Temp.	N/A		
Rm at Meas. Temp.	N/A		
Rmc at Meas. Temp.	N/A		
Source Rmf/Rmc	N/A	N/A	
Rm at BHT	N/A		
End Circulation	21-AUG-2018 @ 09:10		
Logger on Bottom	21-AUG-2018 @ 12:25		
Max. Recorded Temp.	202.9 °F		
Equip. No / Location	DL-313 OKC		
Recorded by	J. SLAFF	J. BERGERON	
Witnessed by	C. MONTROYA		

Fold Here

In making interpretations of logs, Contractors employees will give the Customer the benefit of their best judgement, but since all interpretations are opinions, based on inferences from electrical or other measurements, Contractor cannot, and does not guarantee the accuracy or the correctness of any interpretation.

ANTARES WinAPIot Software - Copyright (c) 1997 - 2008 ANTARES Datensysteme GmbH

REMARKS

TOOLS PUMPED DOWN FROM SURFACE; LOGGING PERFORMED WHILE TRIPPING OUT  
COMPENSATED NEUTRON-DENSITY PRESENTED LIMESTONE MATRIX  
MAX DEVIATION: 96.67 DEG @ 8005.0 ft  
DRILLING RIG: XTREME 24  
SURFACE CASING SIZE: 9.625 in, 36.0 lbm/ft FROM 0.0 ft TO 1560.0 ft  
BITSIZE: 8.5 in FROM 1560.0 ft TO 11504.0 ft  
ALL LOG DEPTHS WERE RECORDED WITH EDR (PASON), AND CORRECTED TO PIPE TALLY

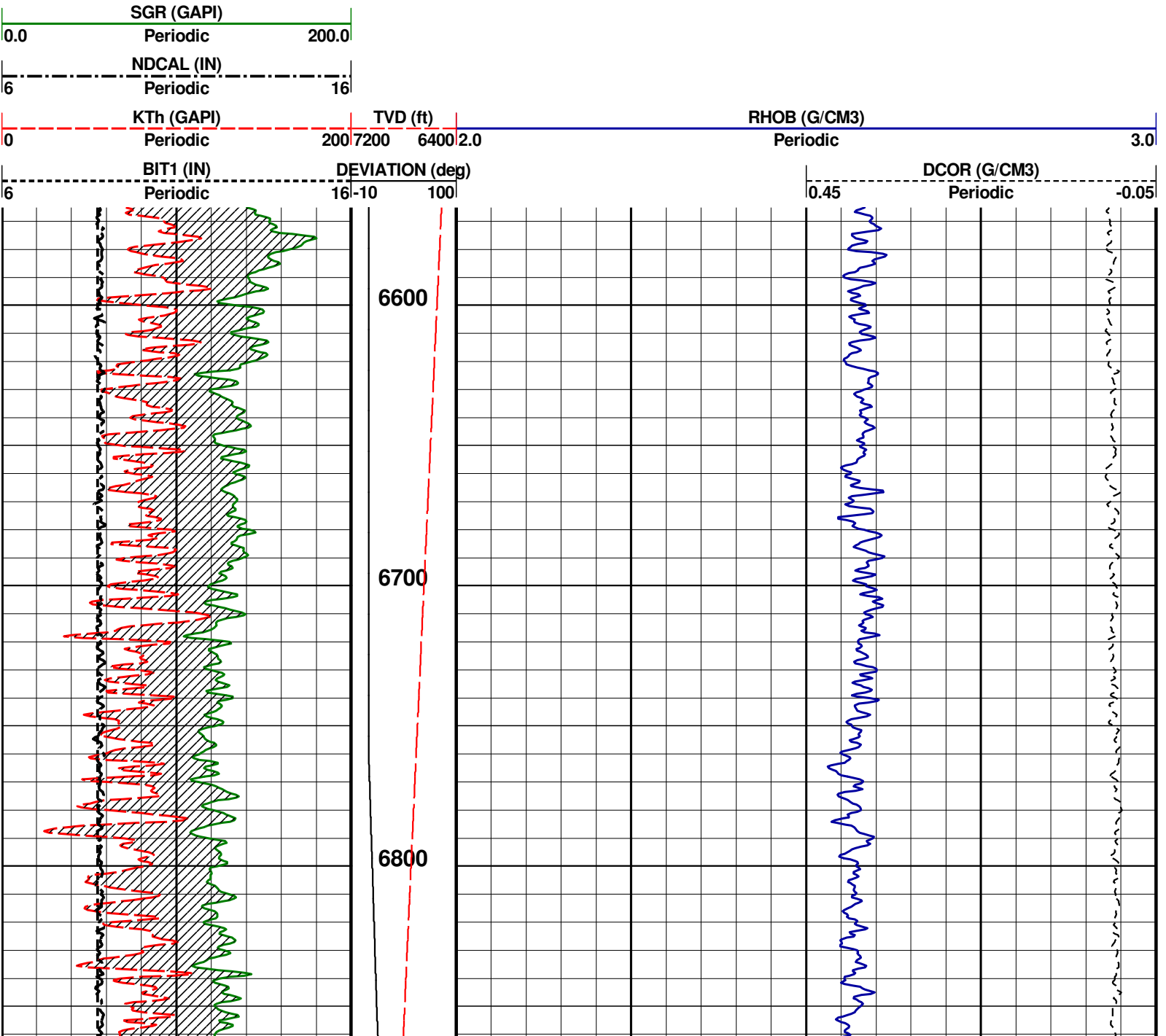
EQUIPMENT DATA					
Run	Trip	Instrument	Serial No.	Series No.	Distance to Reference
1	1	TELEMETRY	3102018		476.5 ft
1	1	SGR	1460017		
1	1	GR-CN	1473020 U	1473020 L	
1	1	KNUCKLE	0813002		
1	1	DENSITY	1481006		
1	1	PDT	RX0013		436.2 ft
1	1	STEEL COLLAR	DL-45XH-6		
1	1	STEEL COLLAR	DL-L1972-XH-5		
1	1	OMEGA	DS465007		

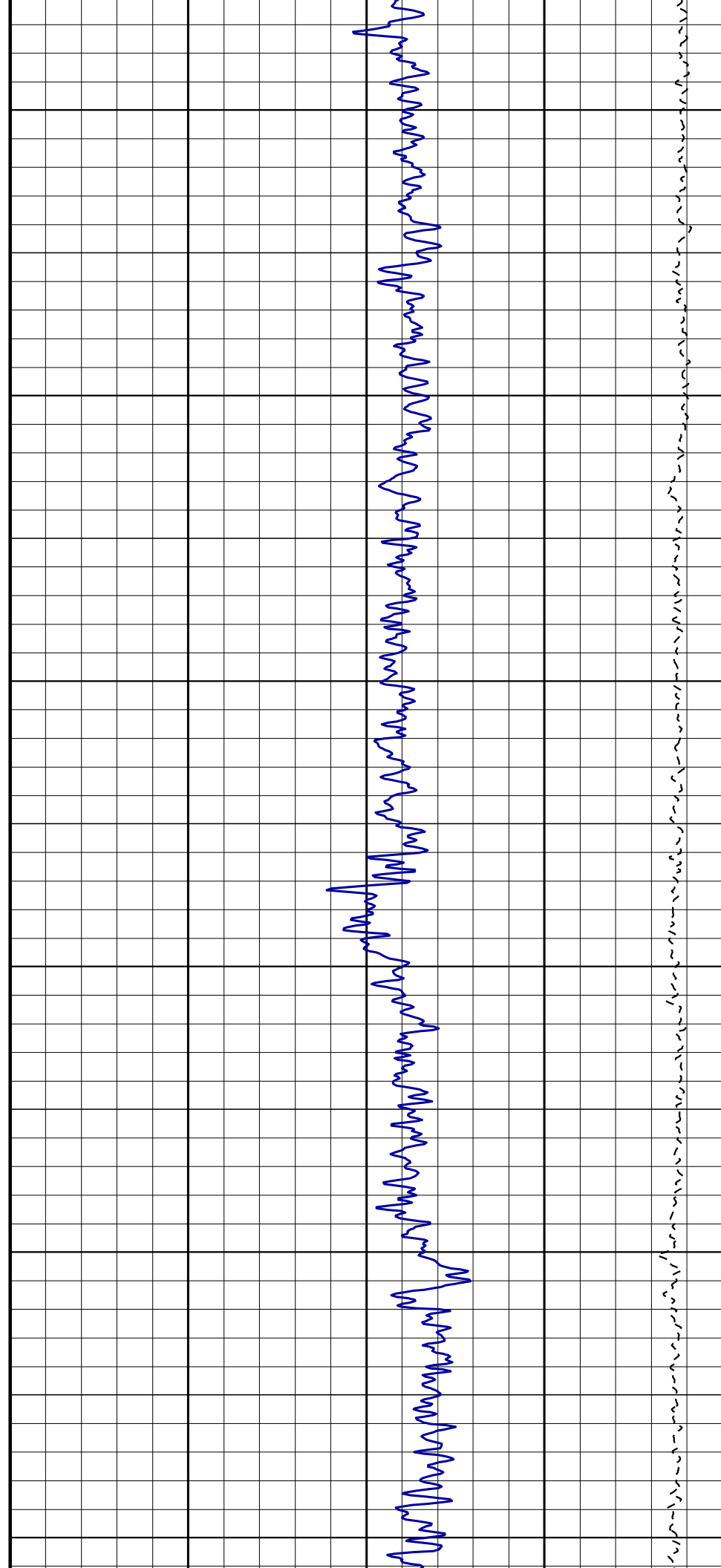
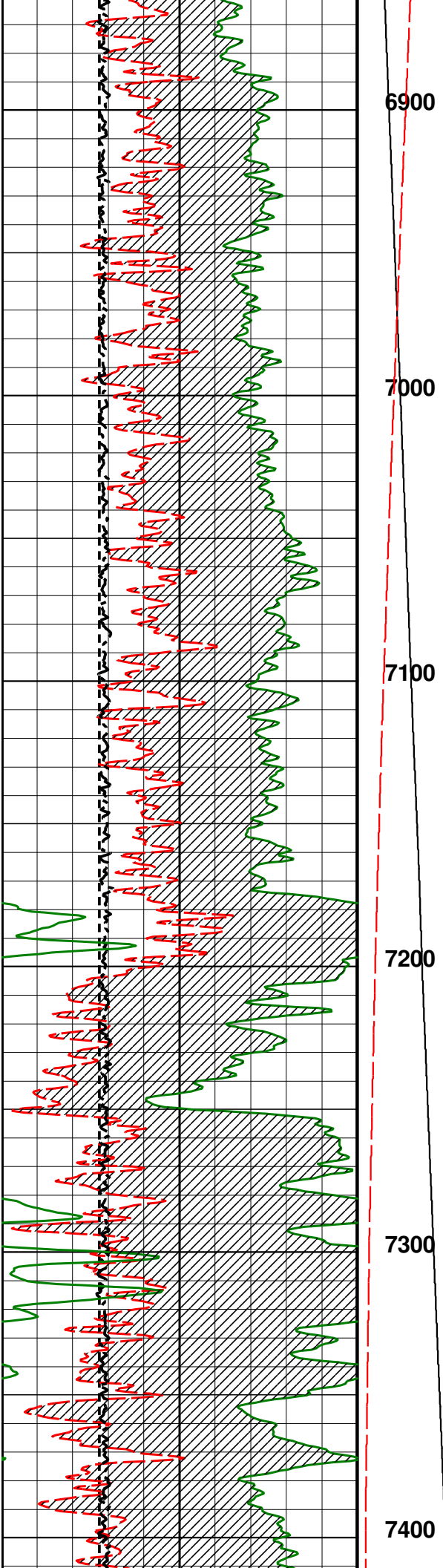
		OMEGA	RSA65007		
		Am241Be / Cs137	77812	79967B	

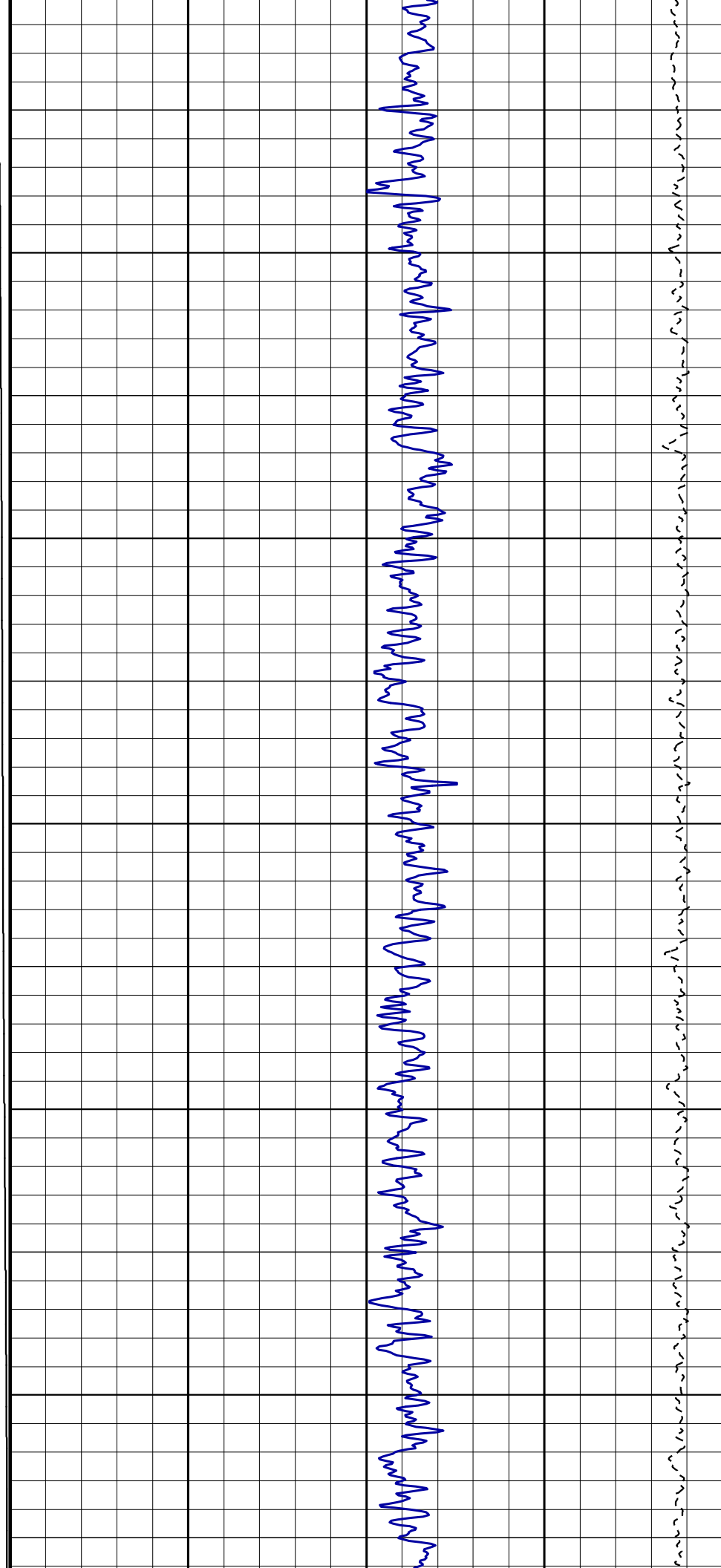
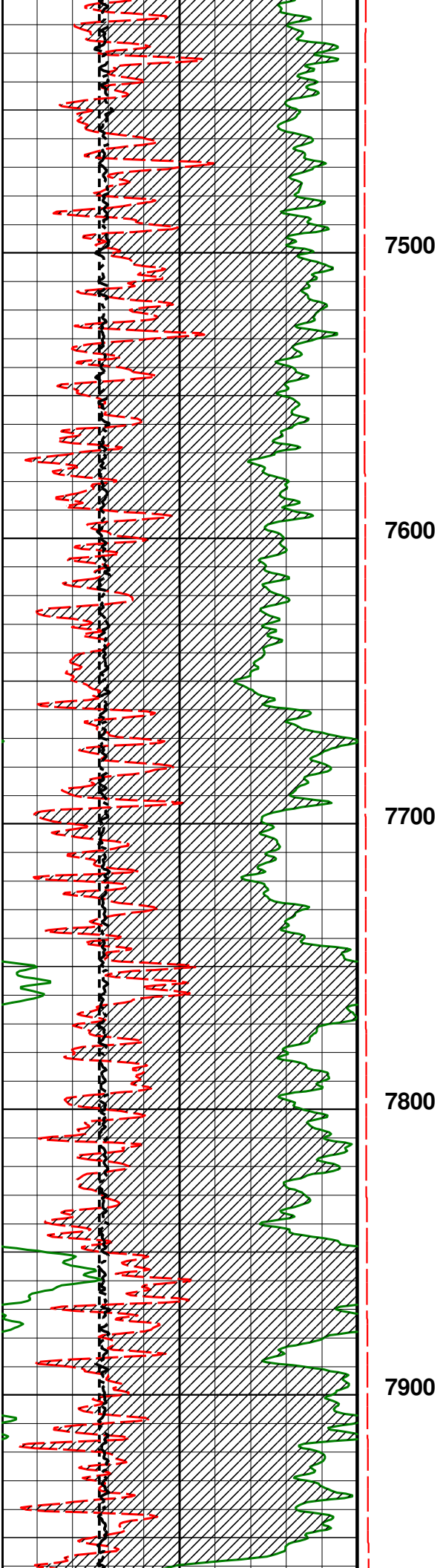
2" BULK DENSITY

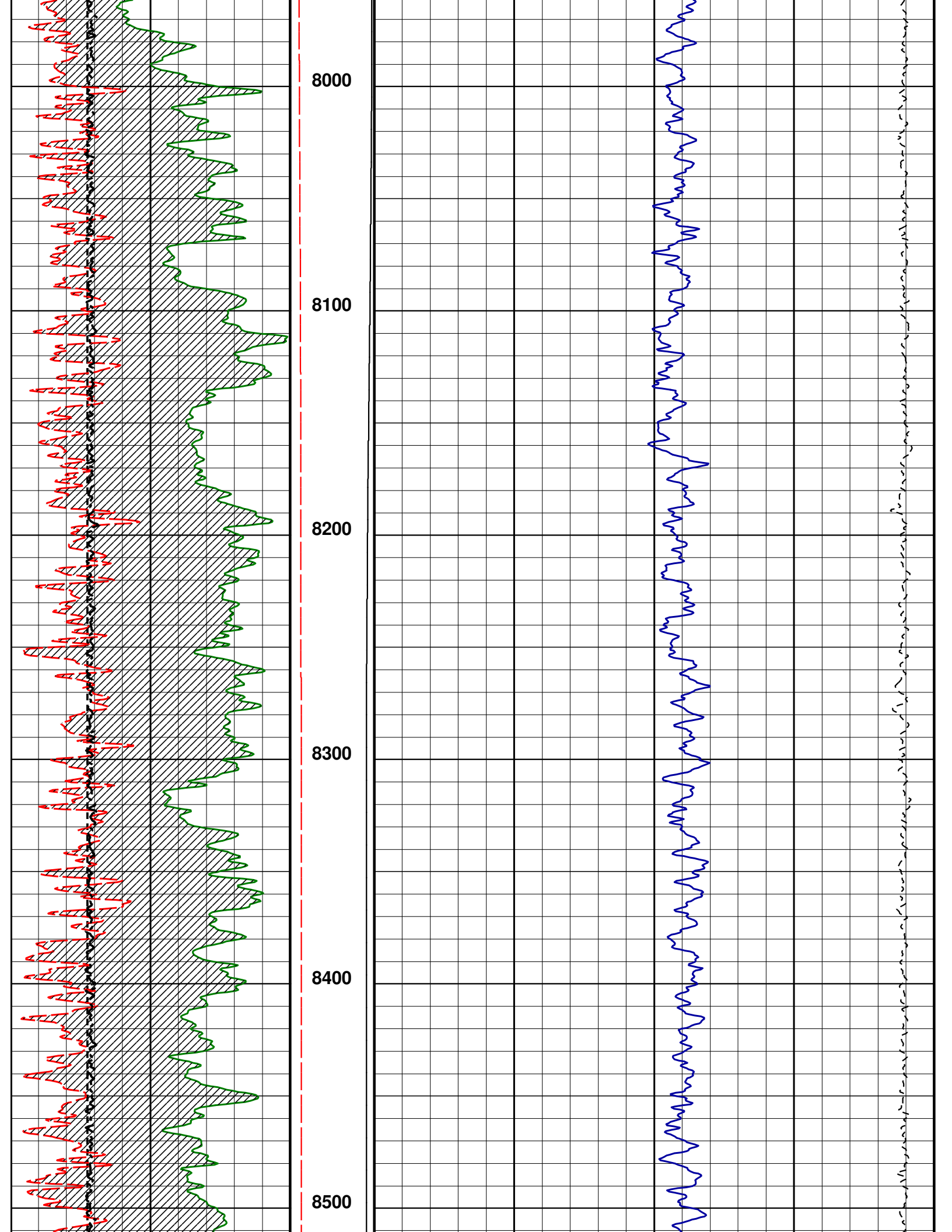
Company : CONFLUENCE DJ LLC  
Well : DESHA 4-15-1  
Scale : 1 : 600  
Depth in : Feet  
Software : WinAPlot Ver. 5, 87, 2, 0

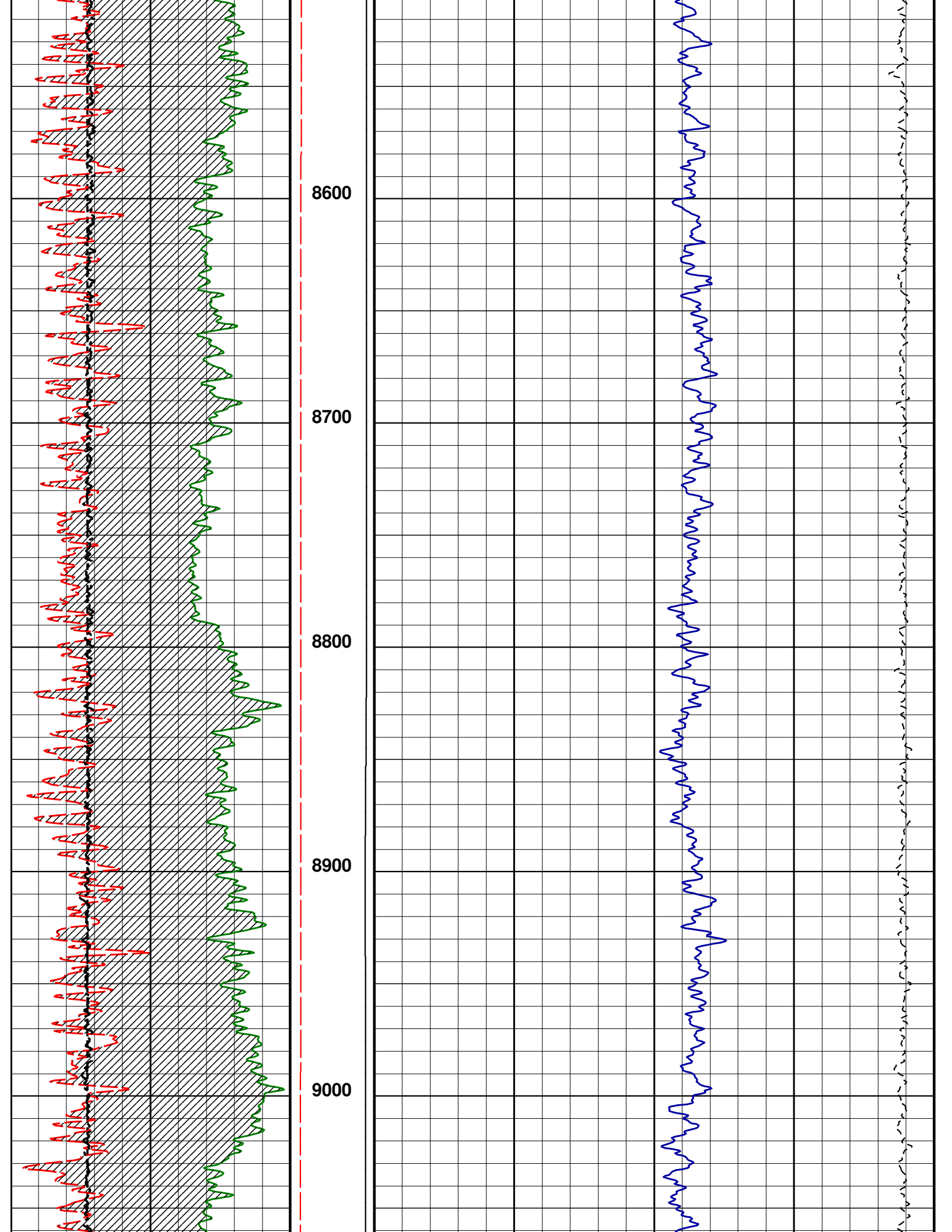
Date : 22-AUG-2018  
Time :  
Remarks :  
  
File Name : 834\_05-123-47343\_MAIN MD

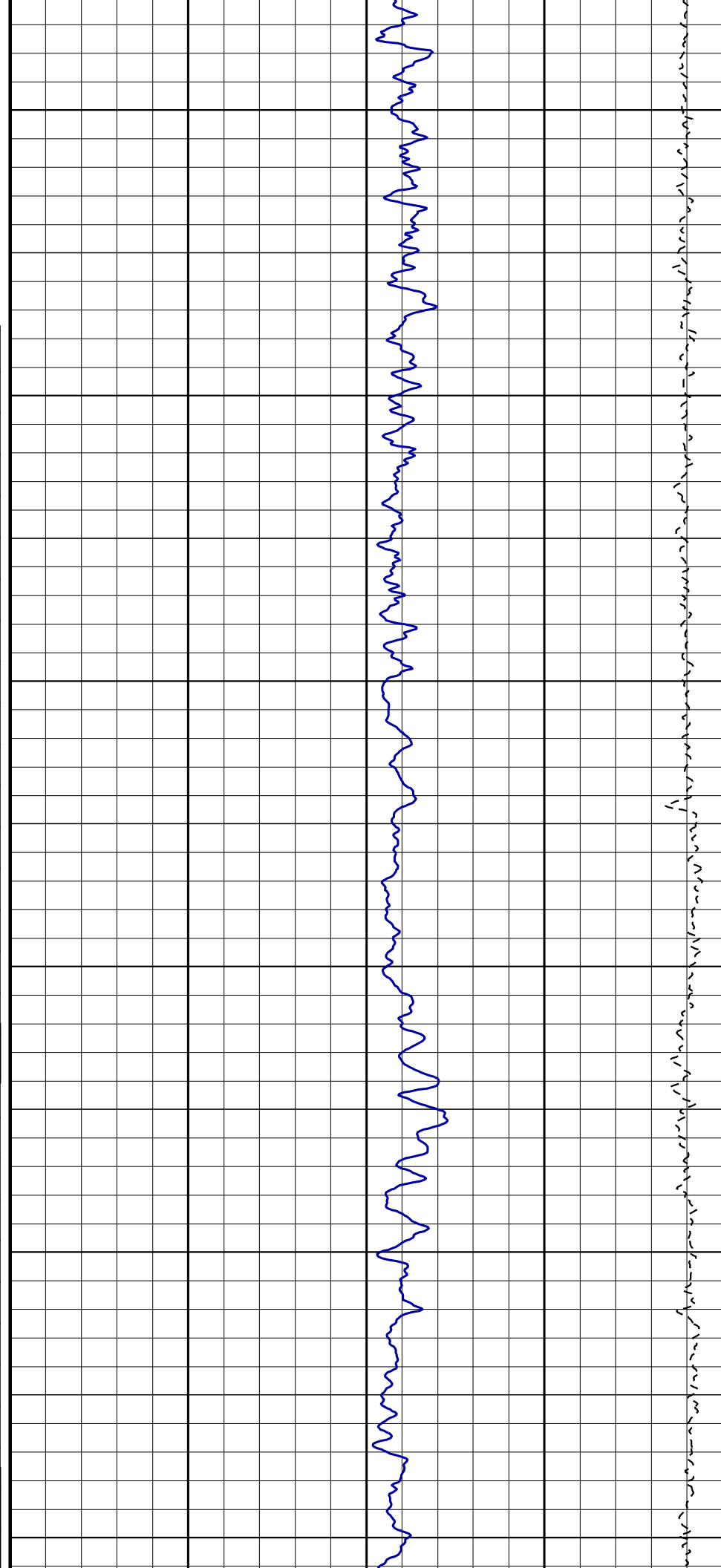
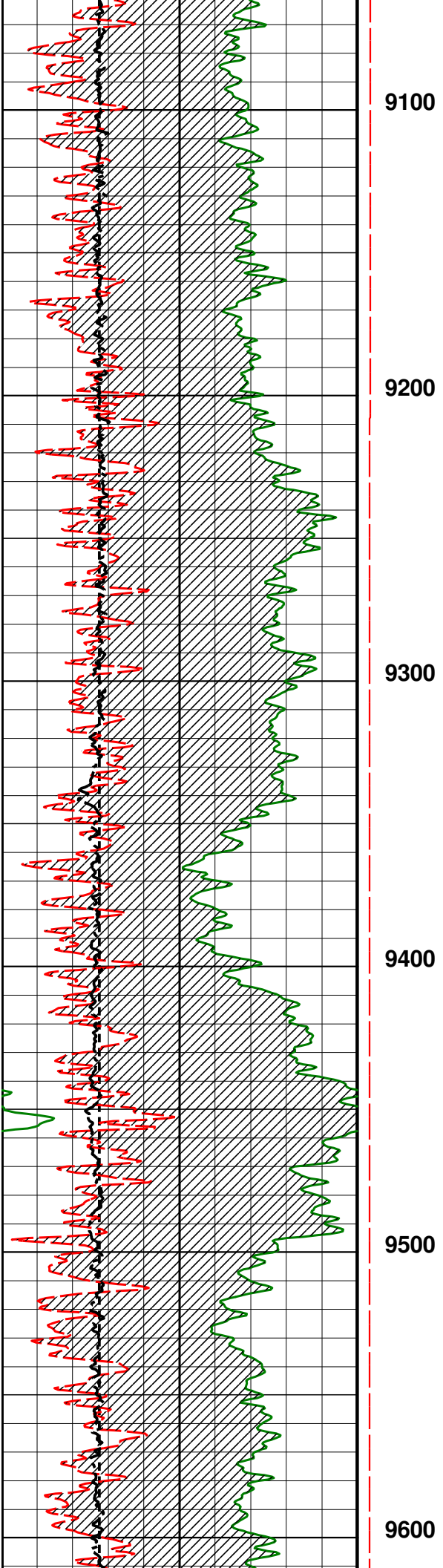


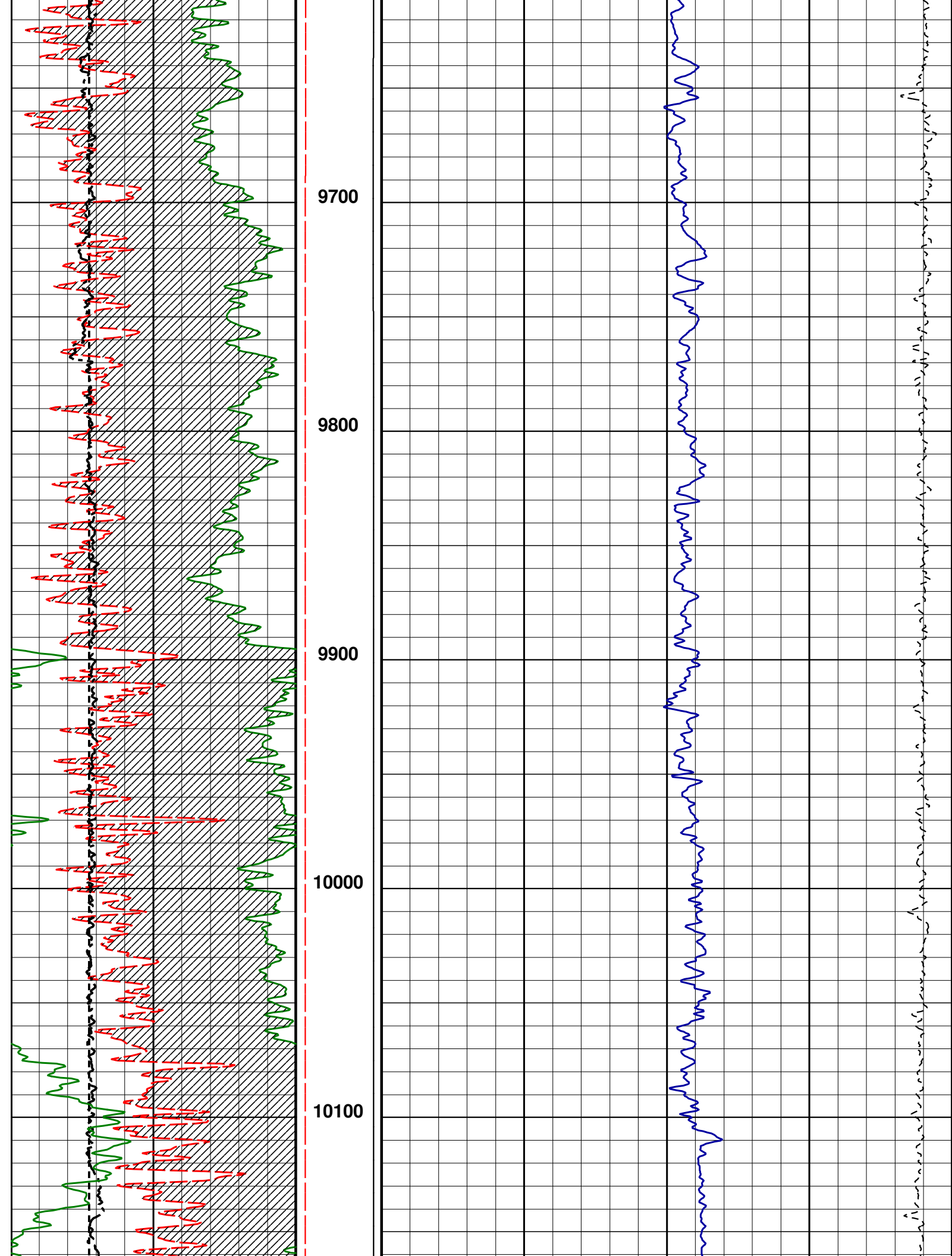




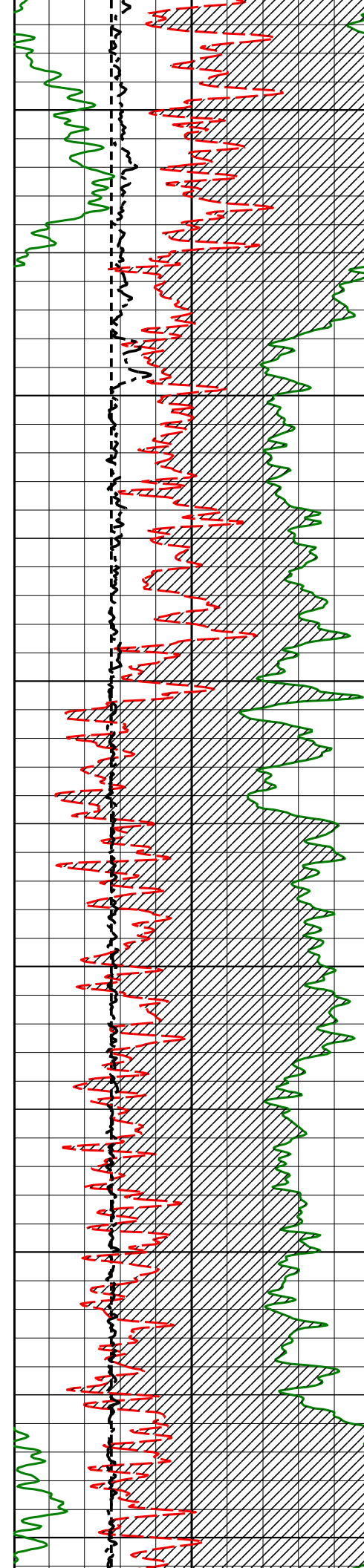












10200

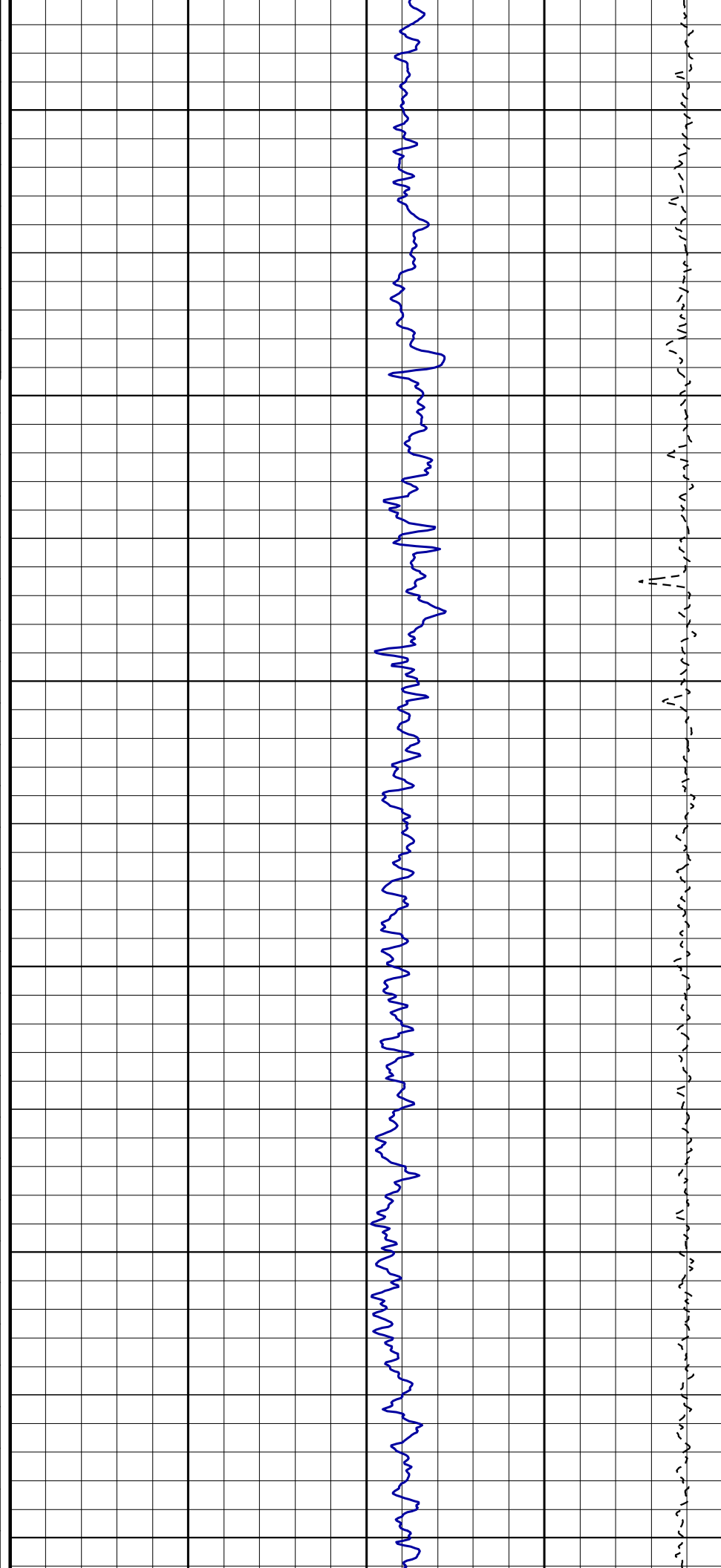
10300

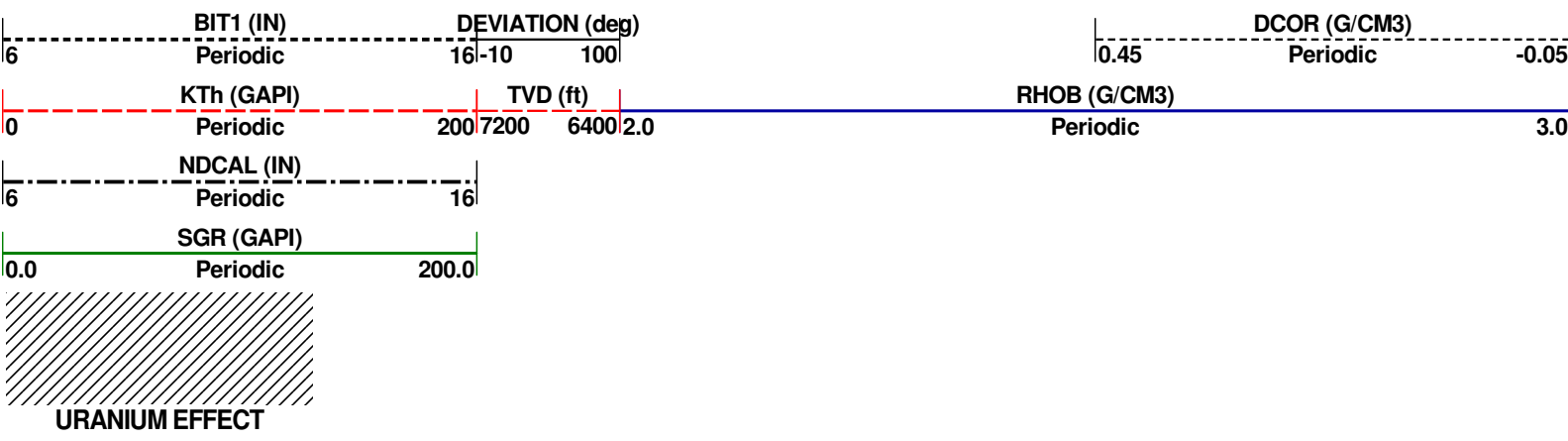
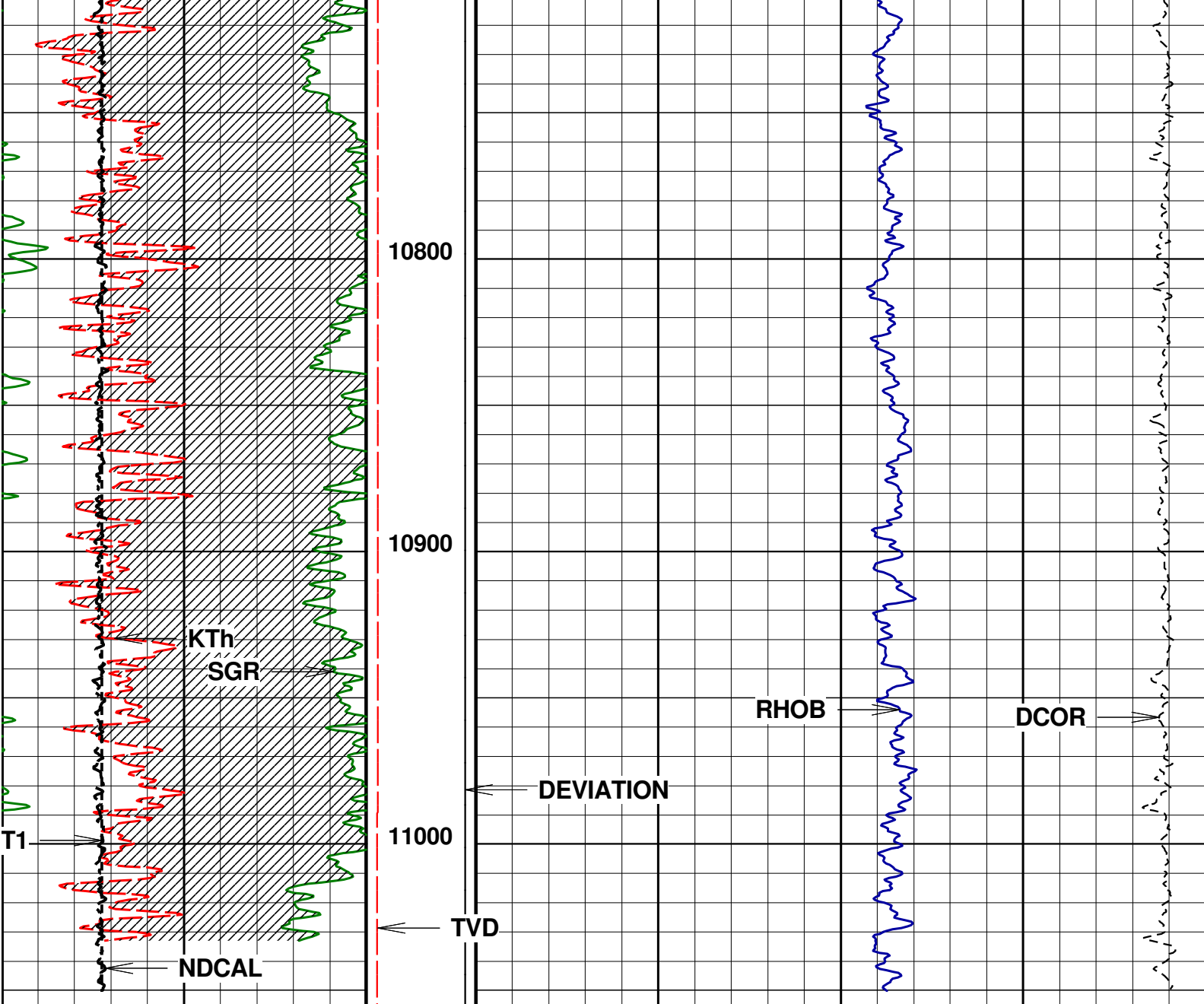
10400

10500

10600

10700





5" MAIN PASS LIMESTONE

Well : DESHA 4-15-1

Scale : 1 : 240

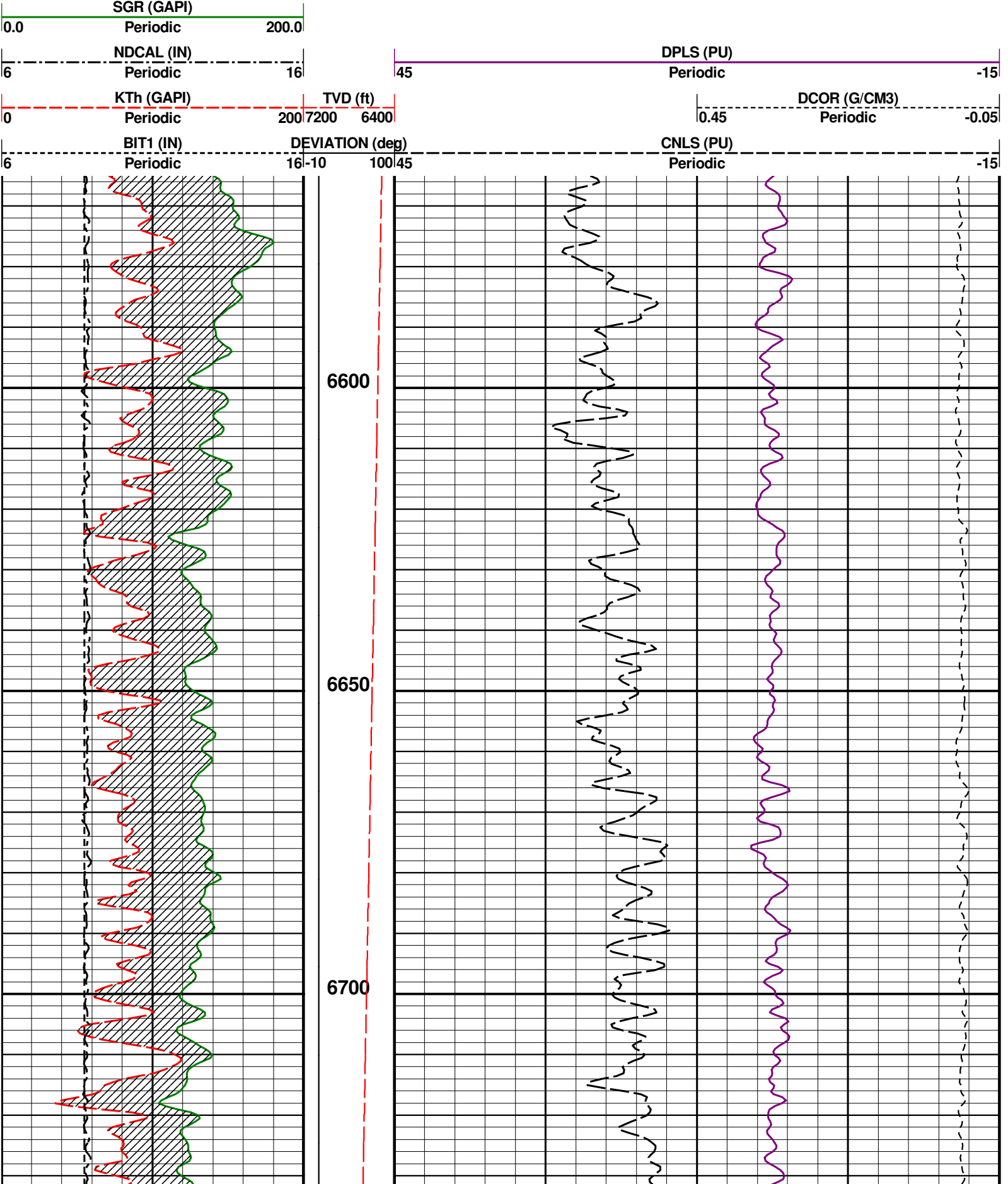
Depth in : Feet

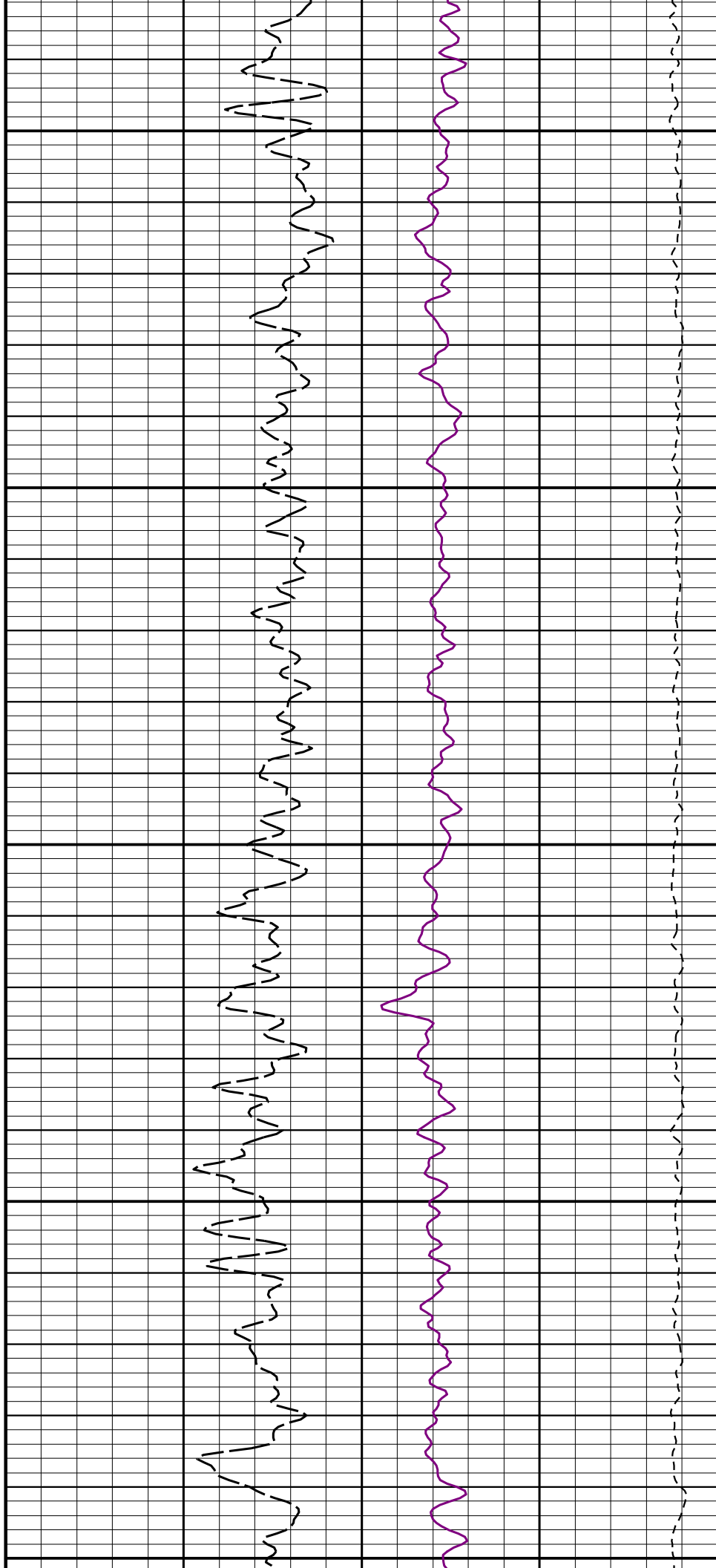
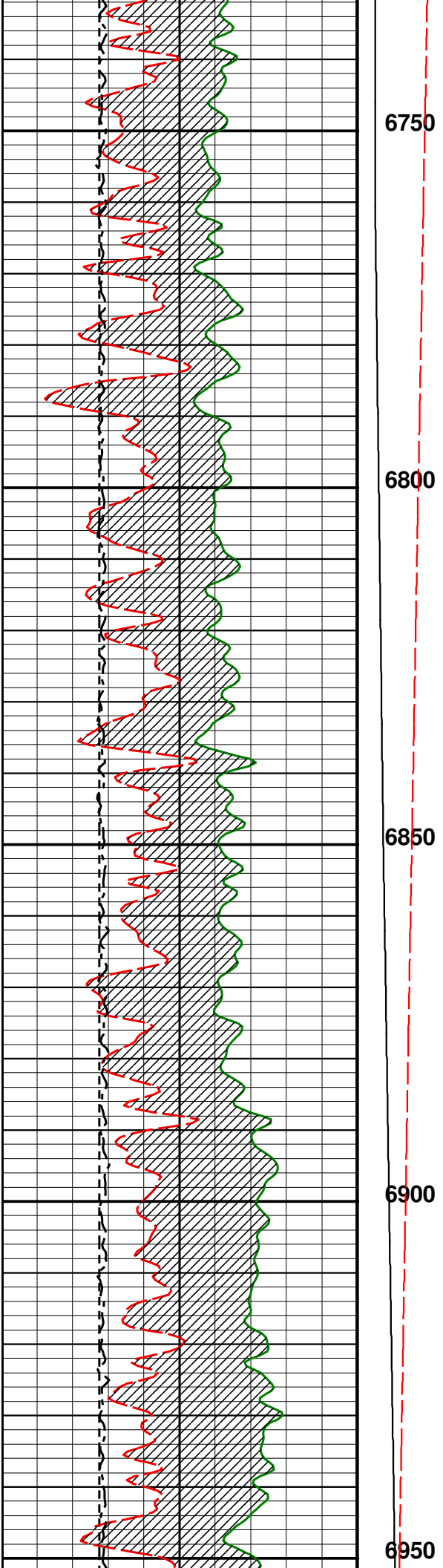
Software : WinAPlot Ver. 5, 87, 2, 0

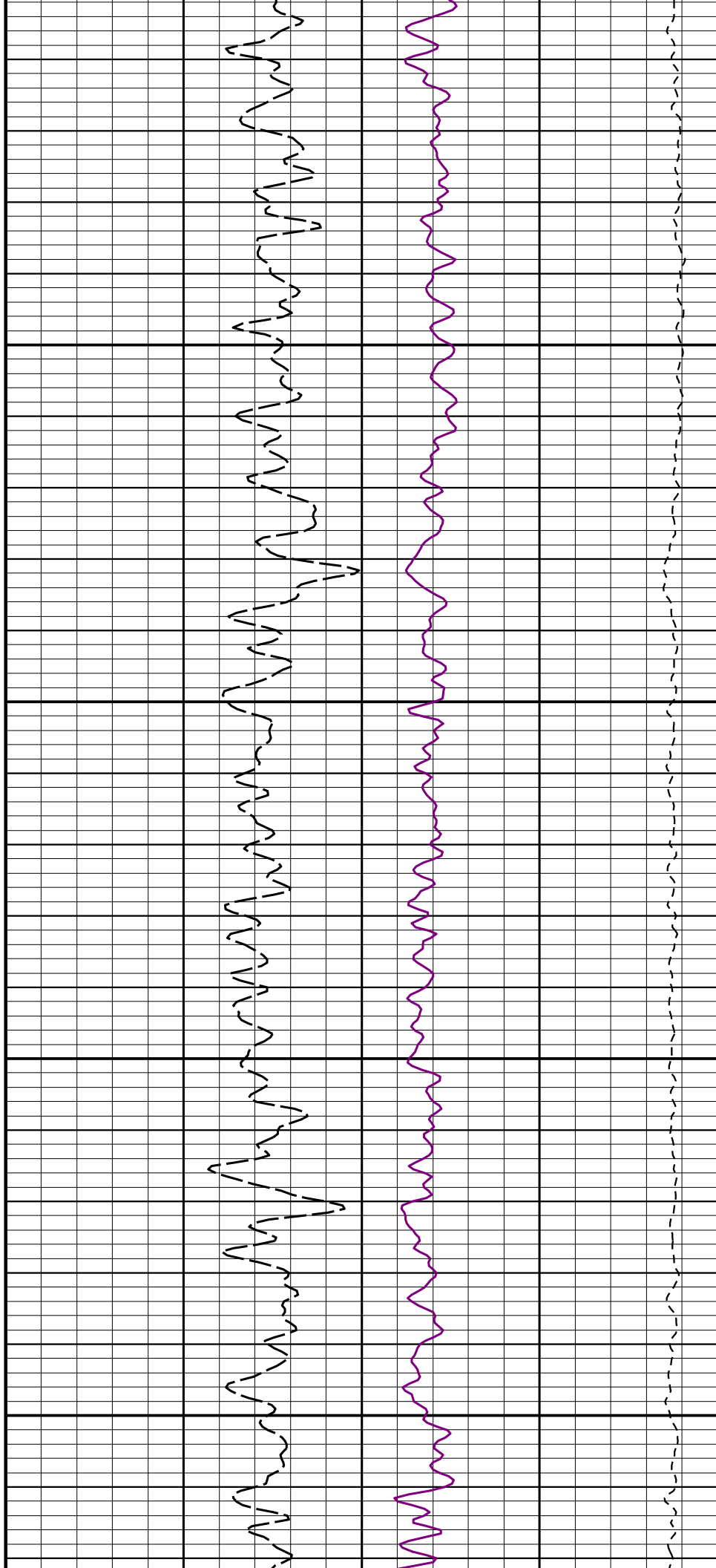
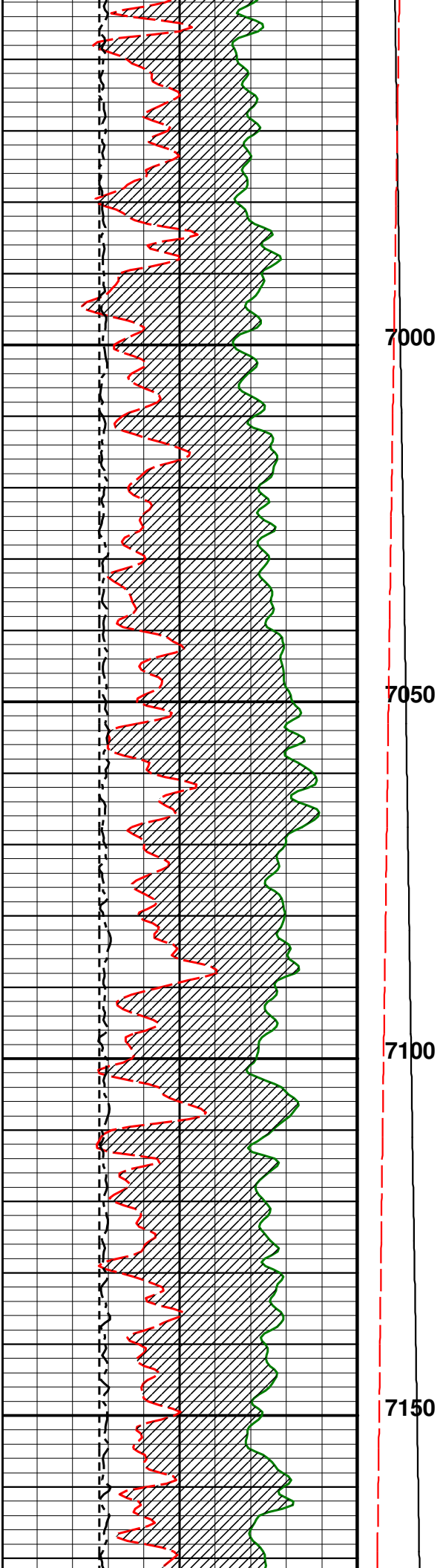
Time :

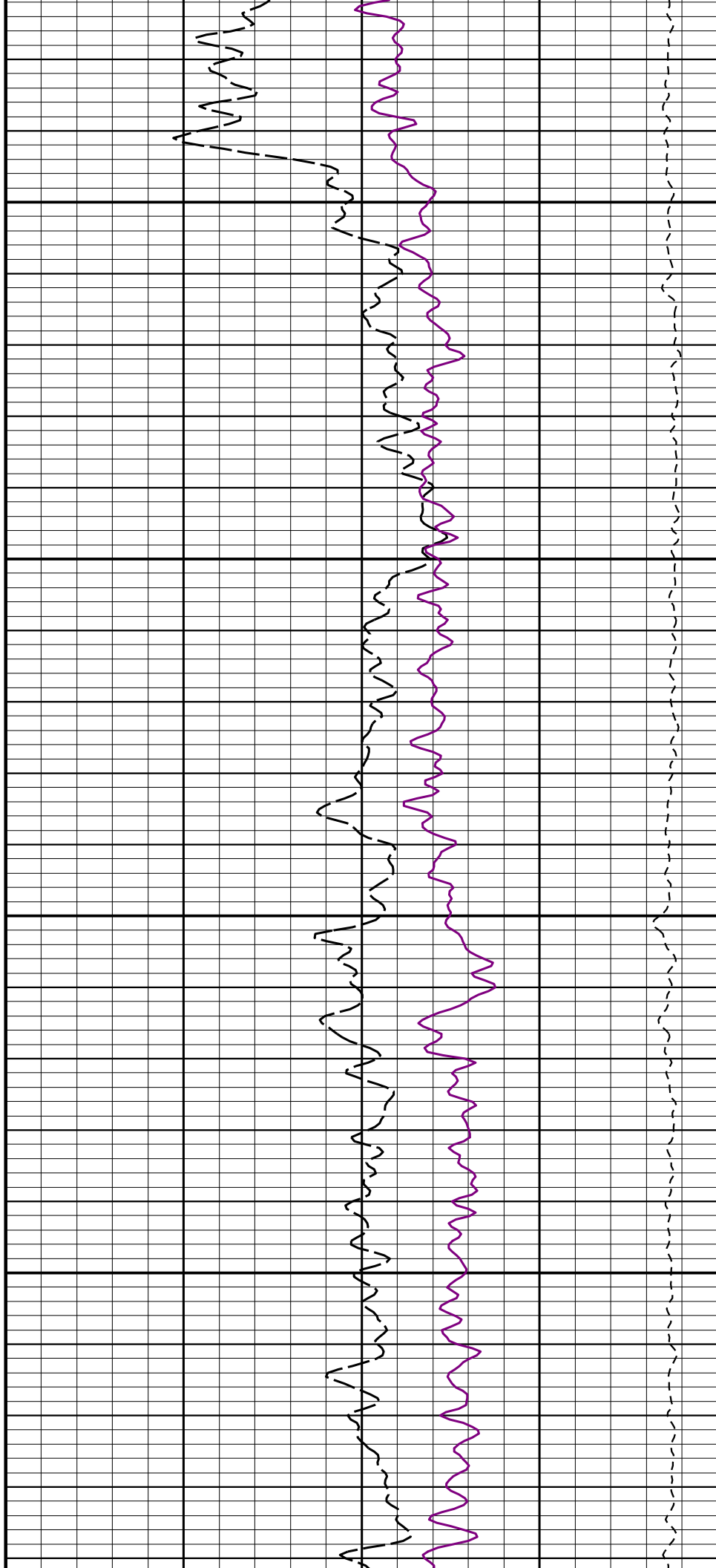
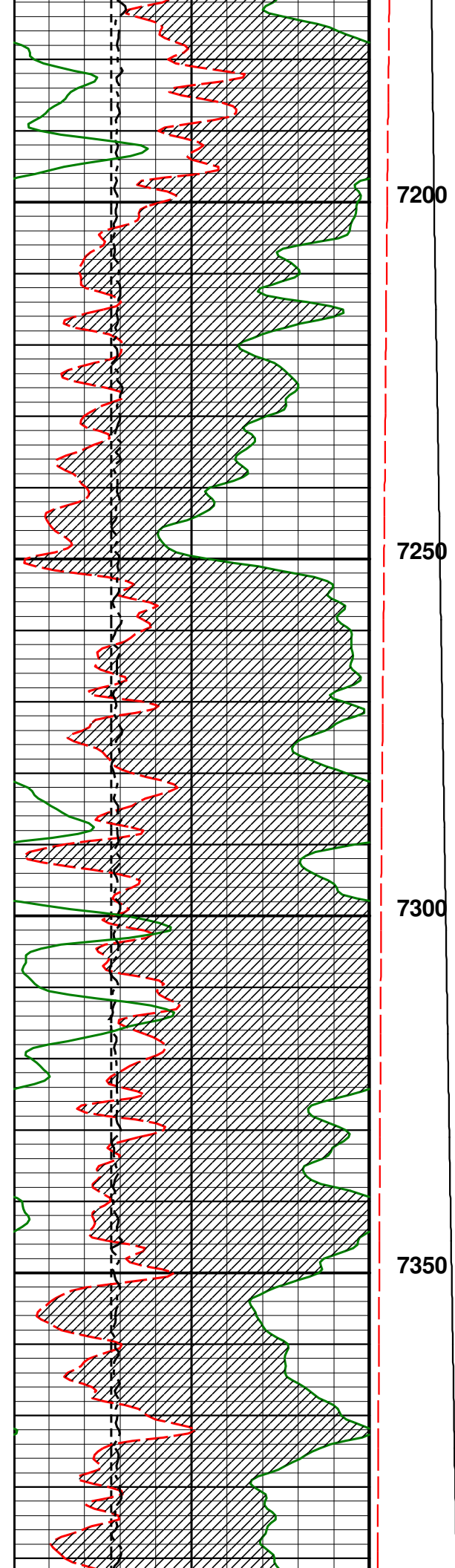
Remarks : LIMESTONE MATRIX

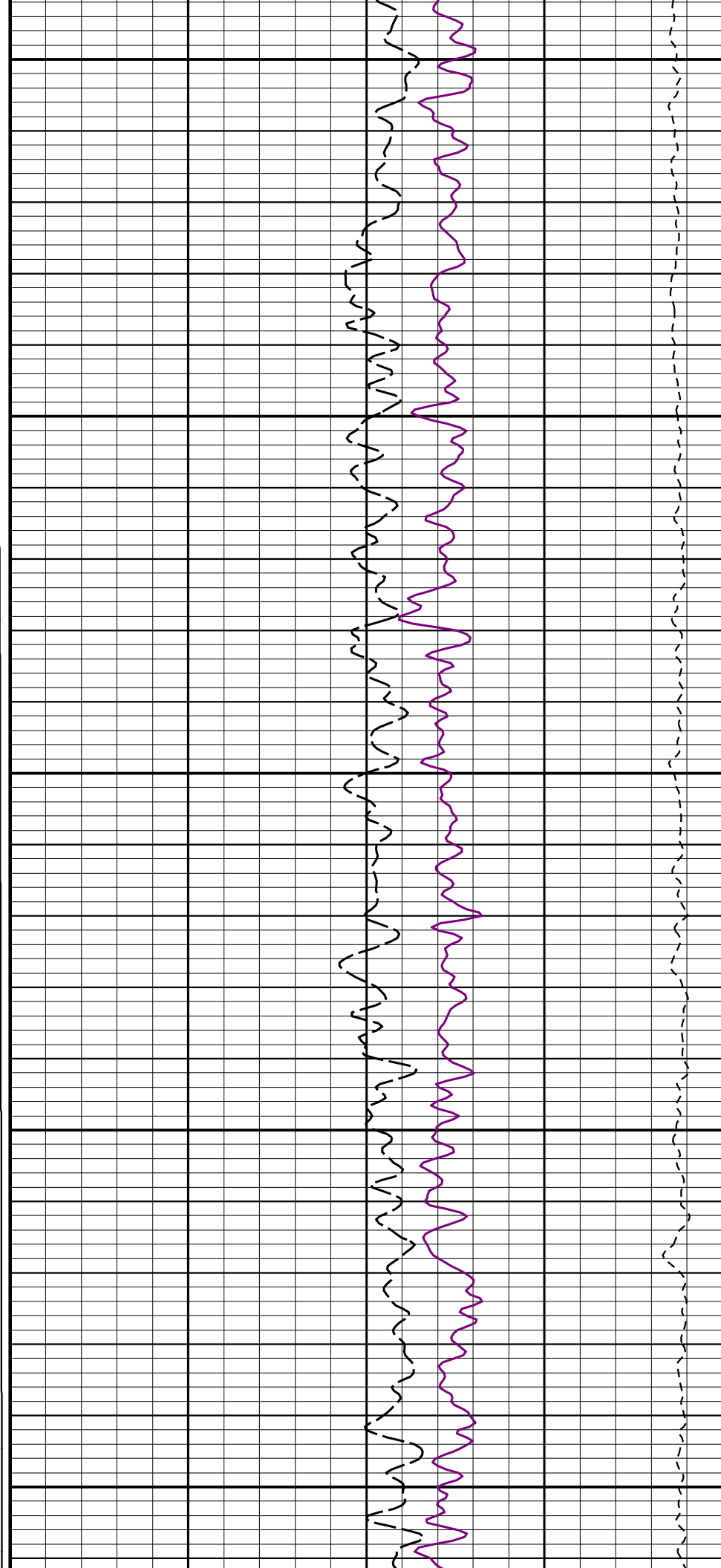
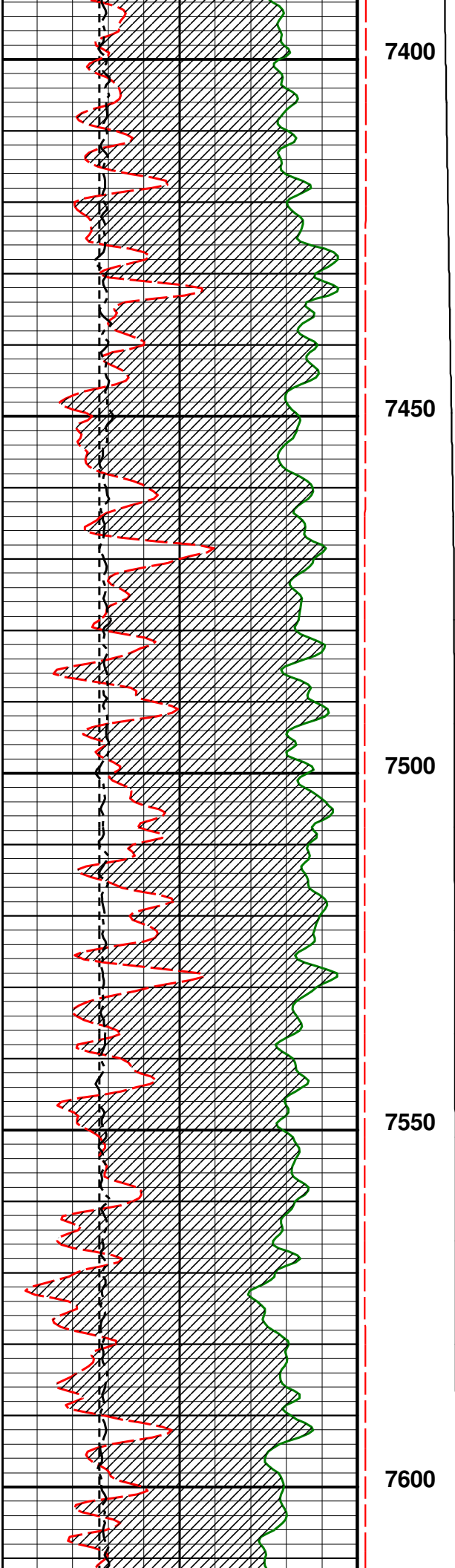
File Name : 834\_05-123-47343\_MAIN MD

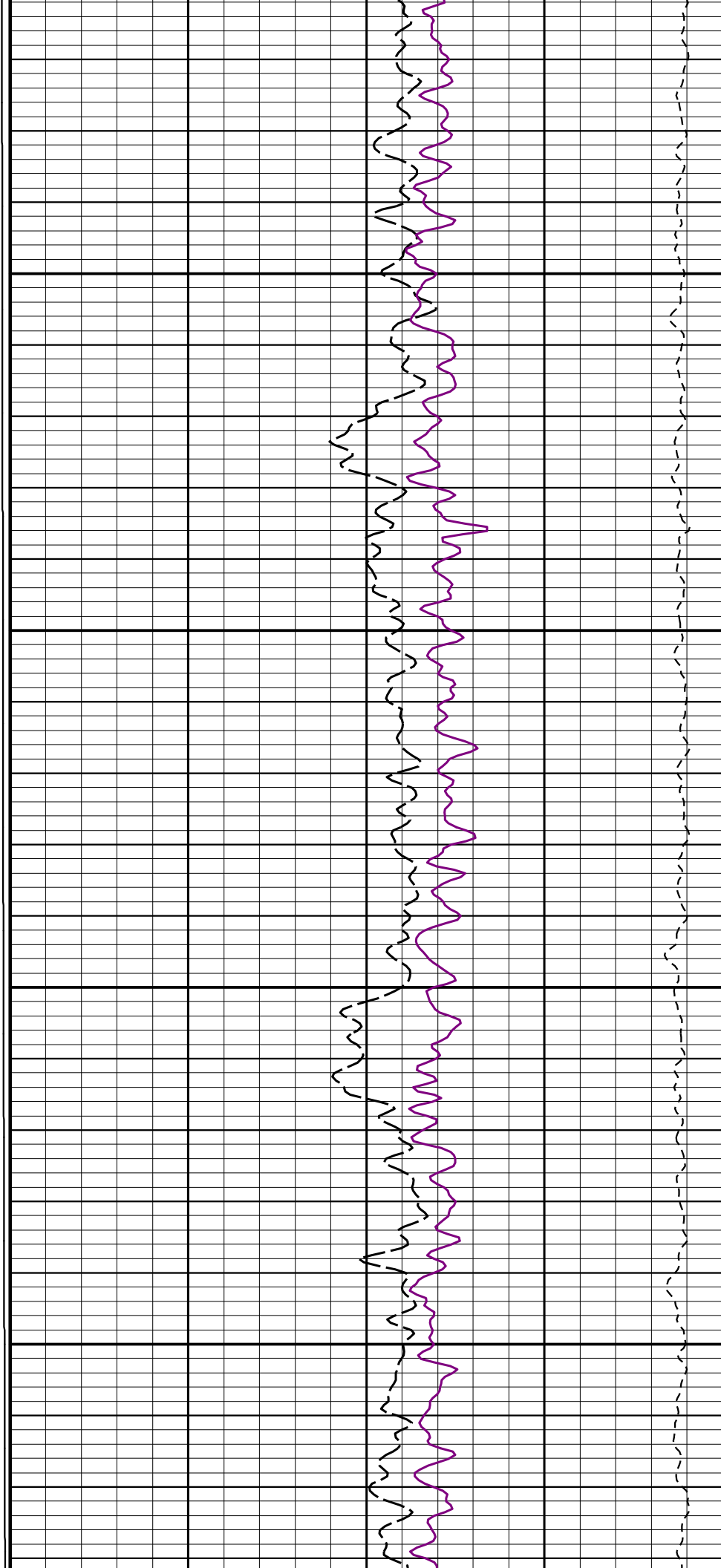
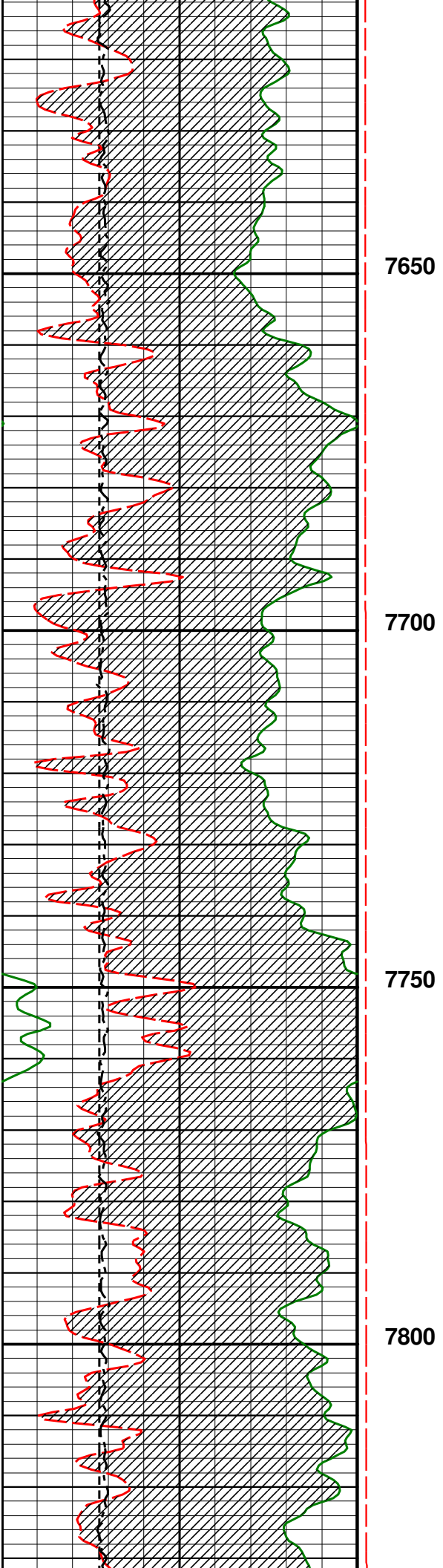




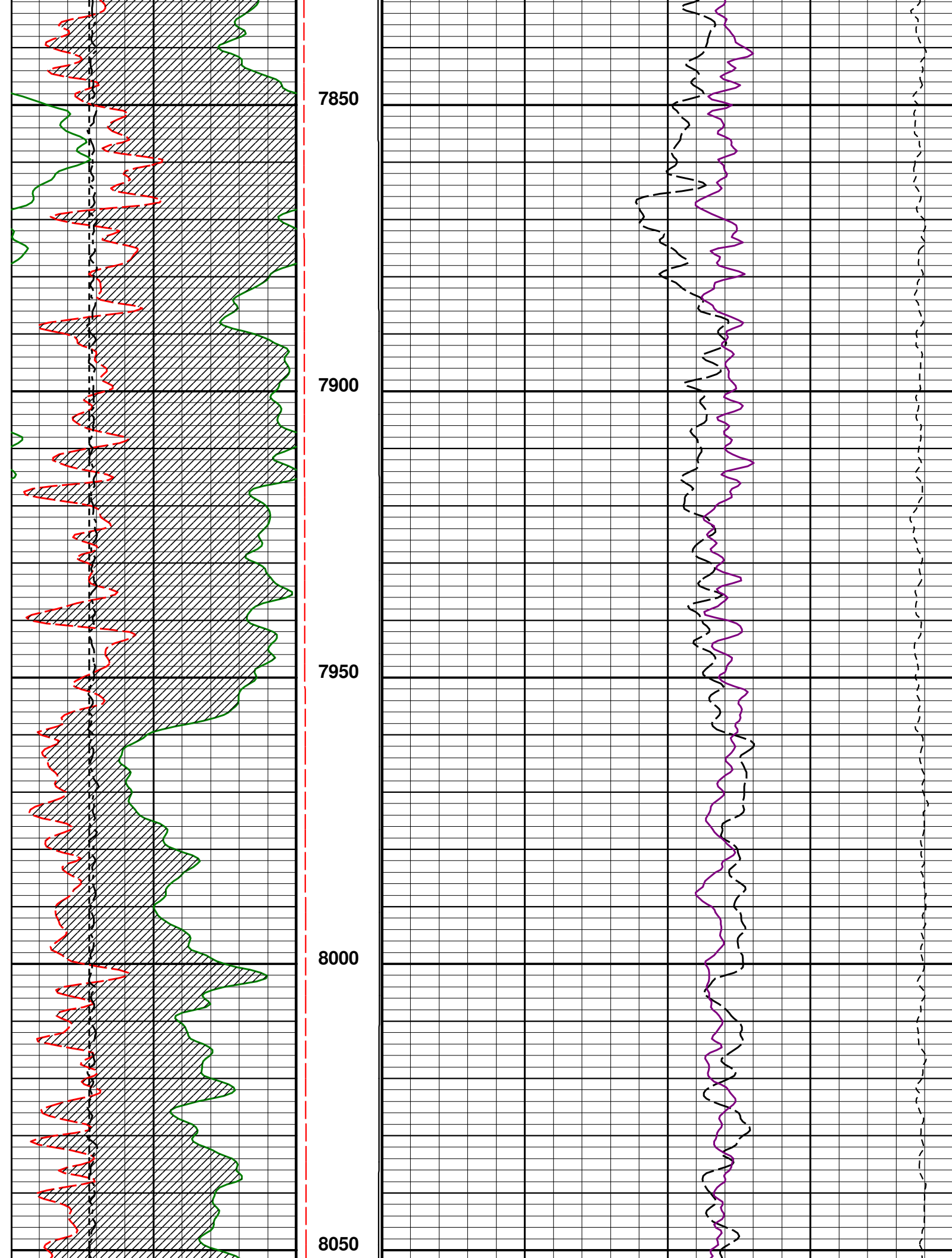


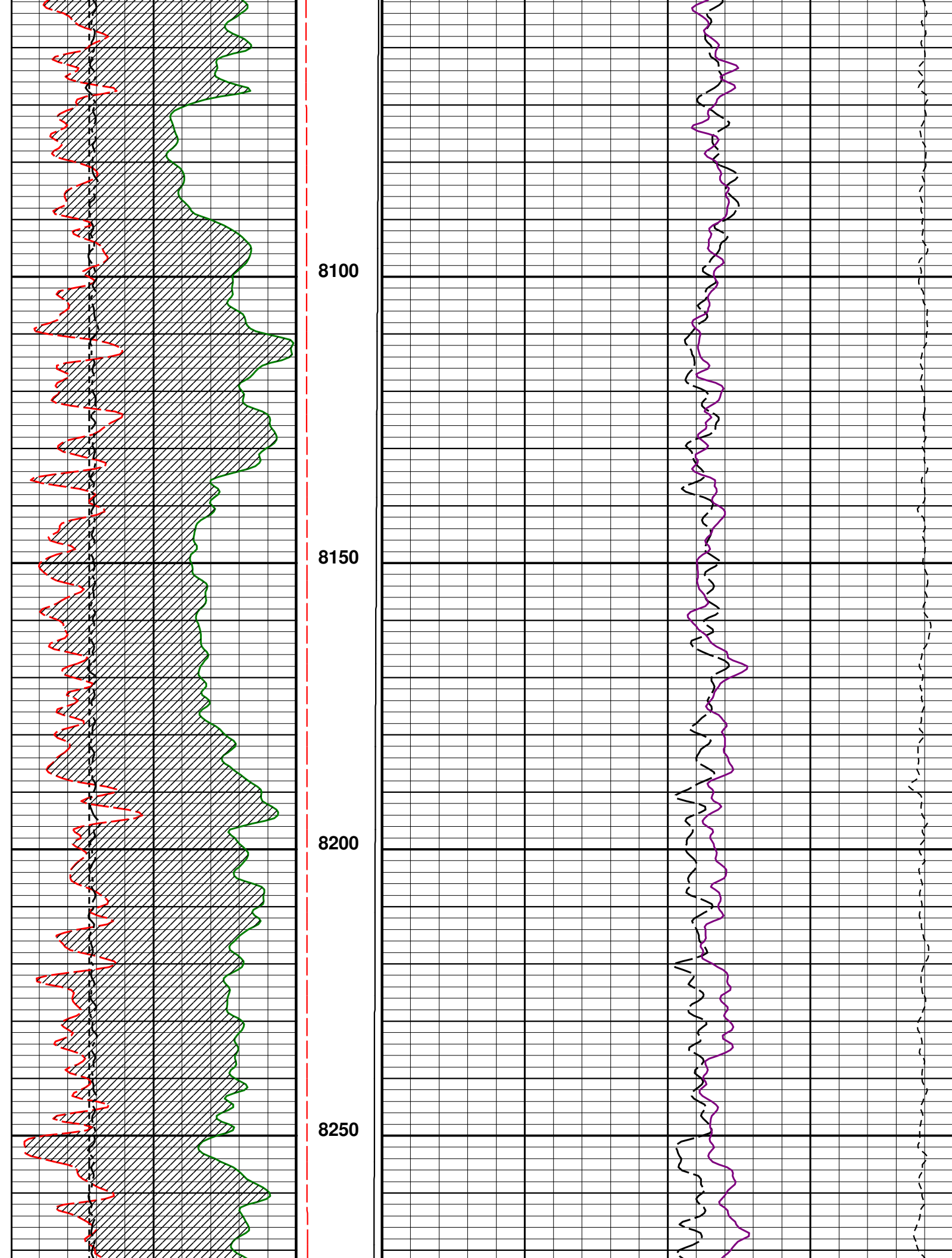


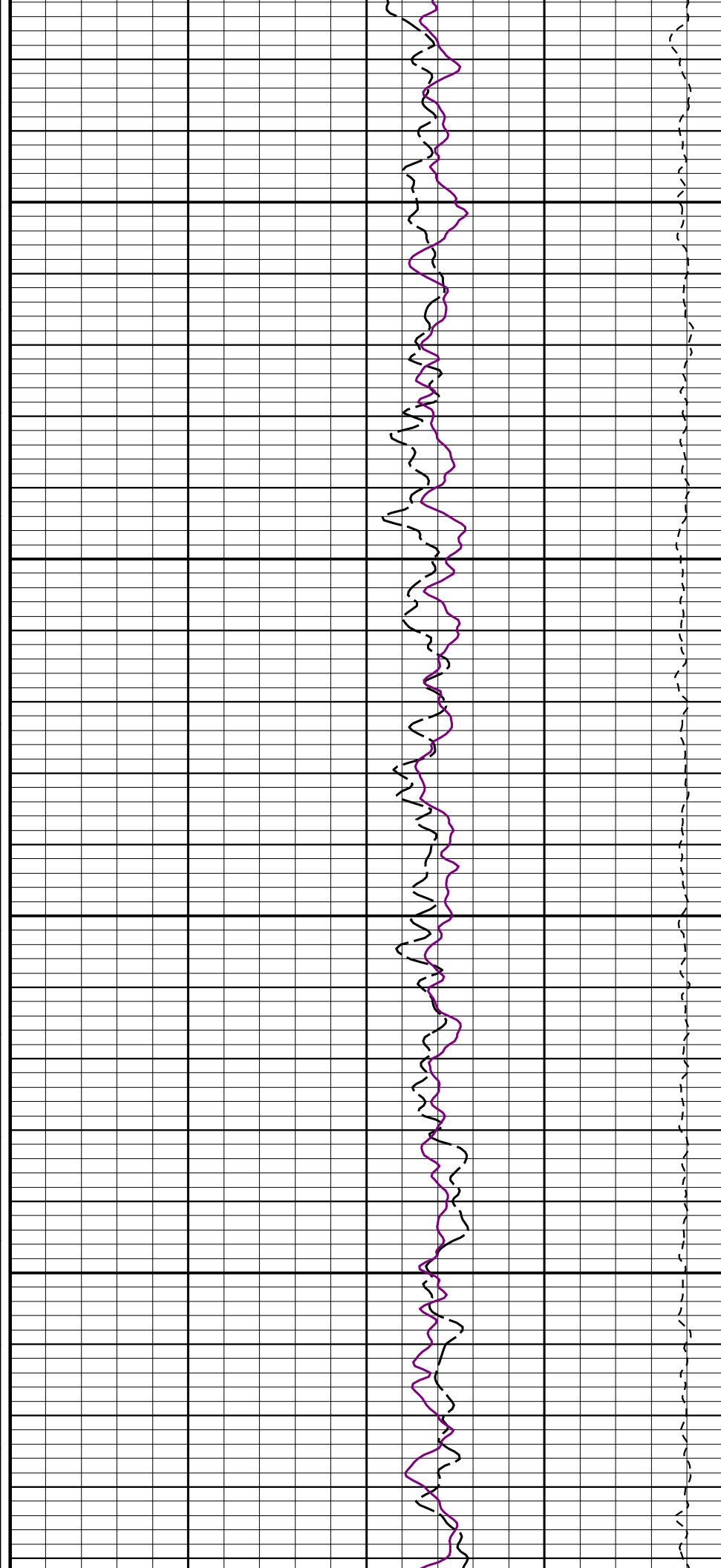
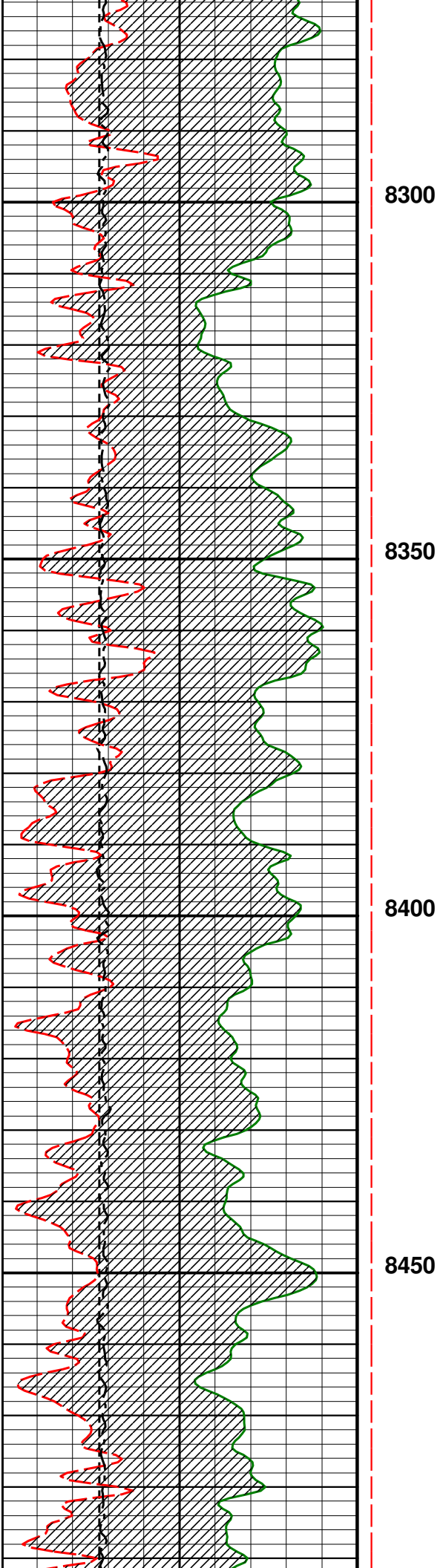


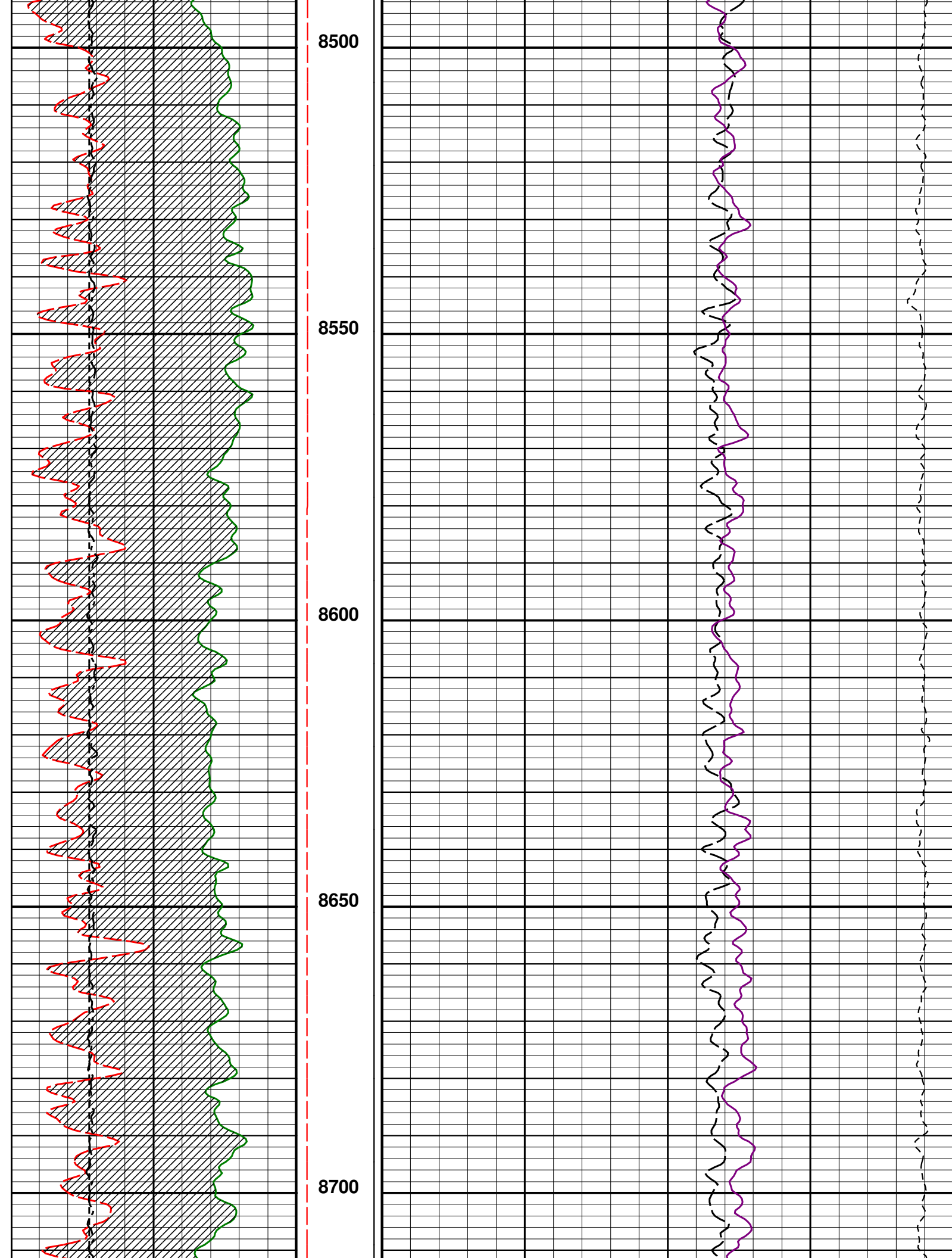


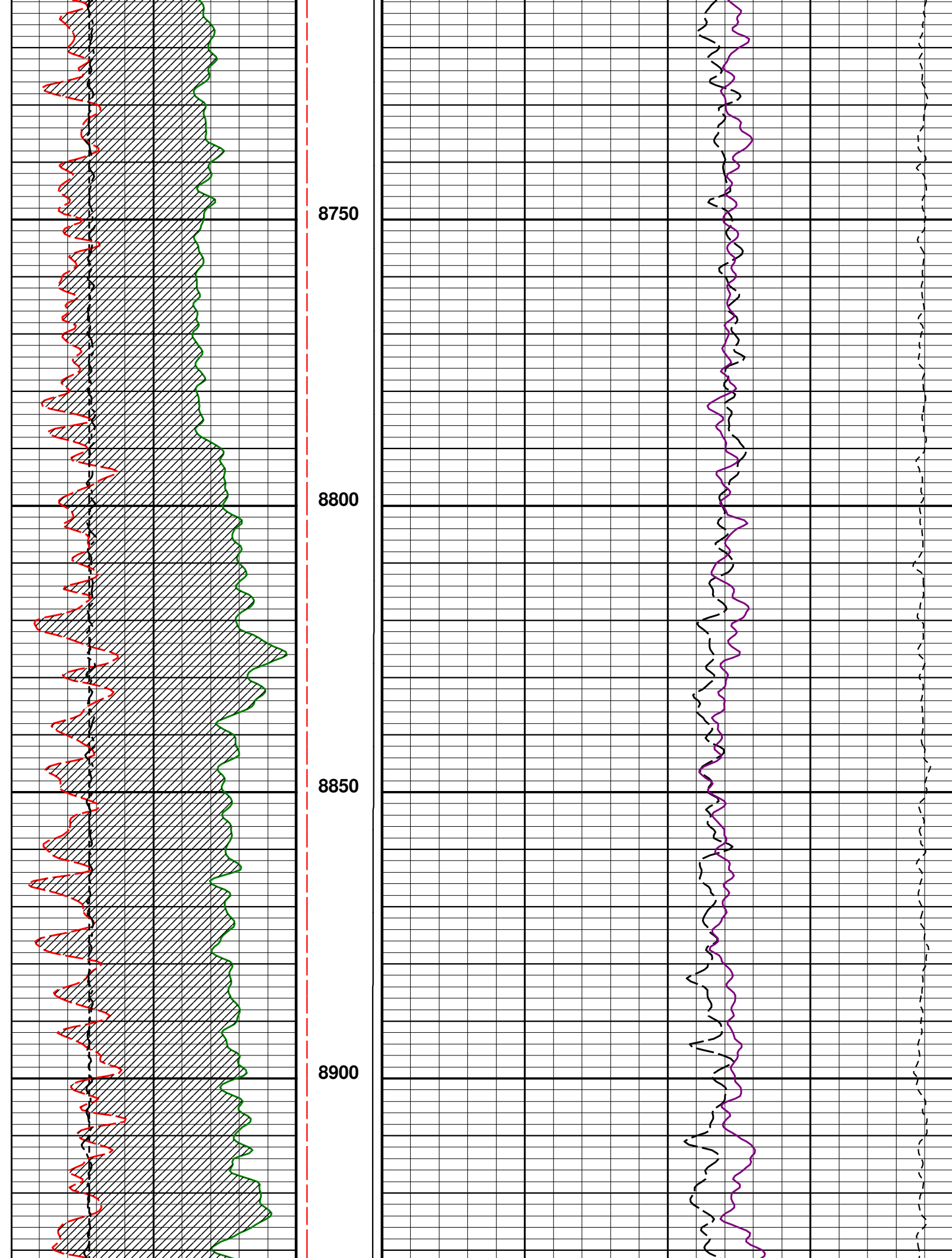


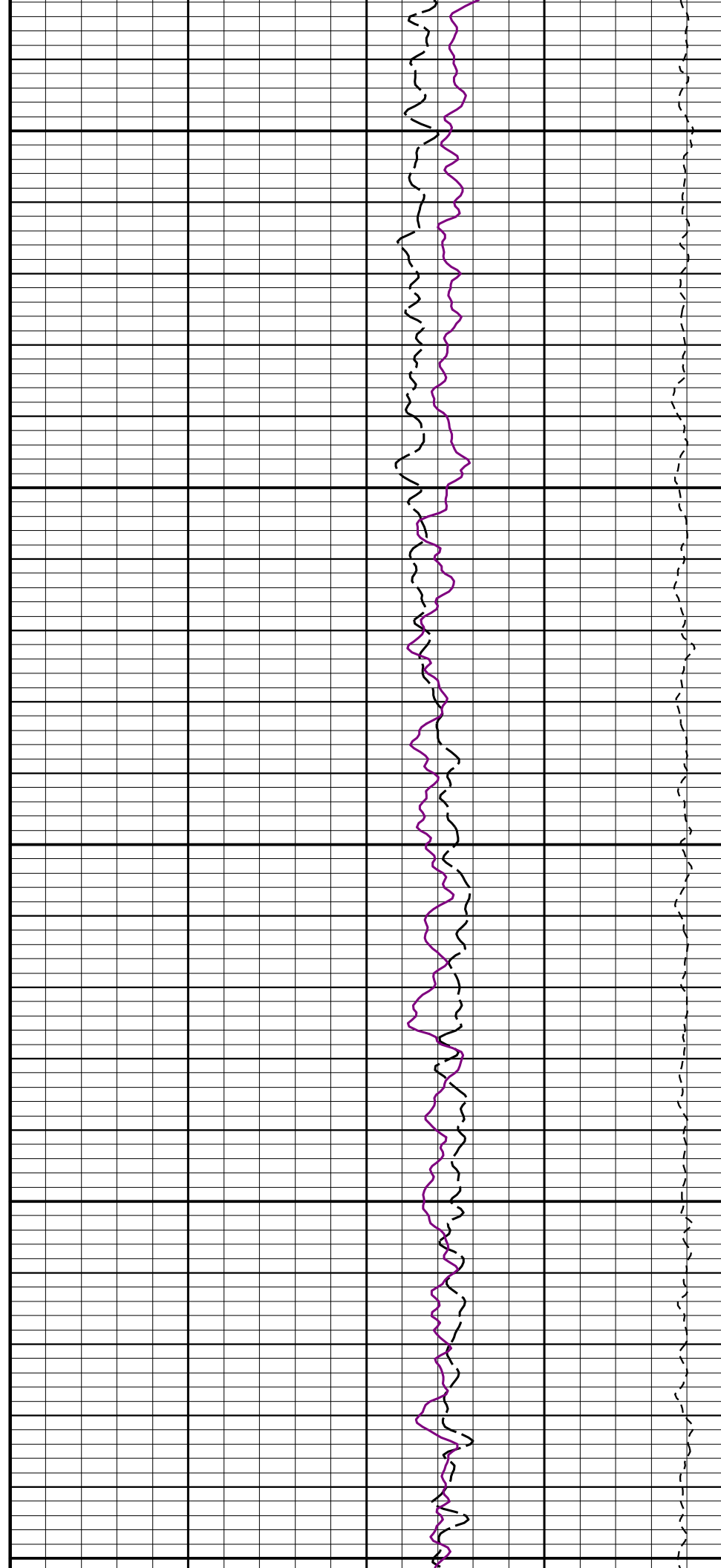
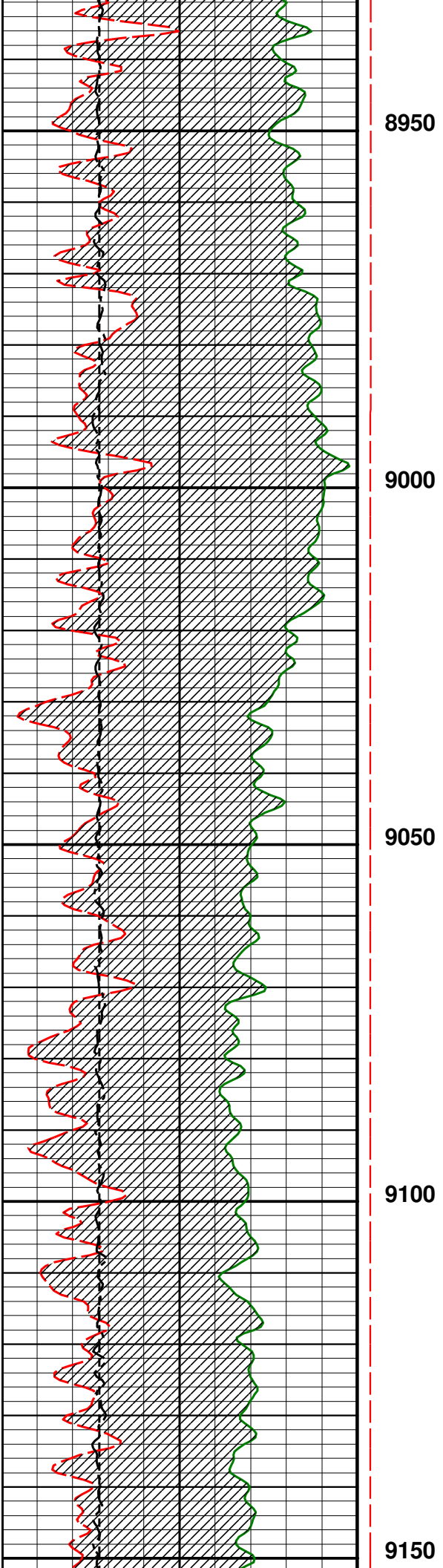


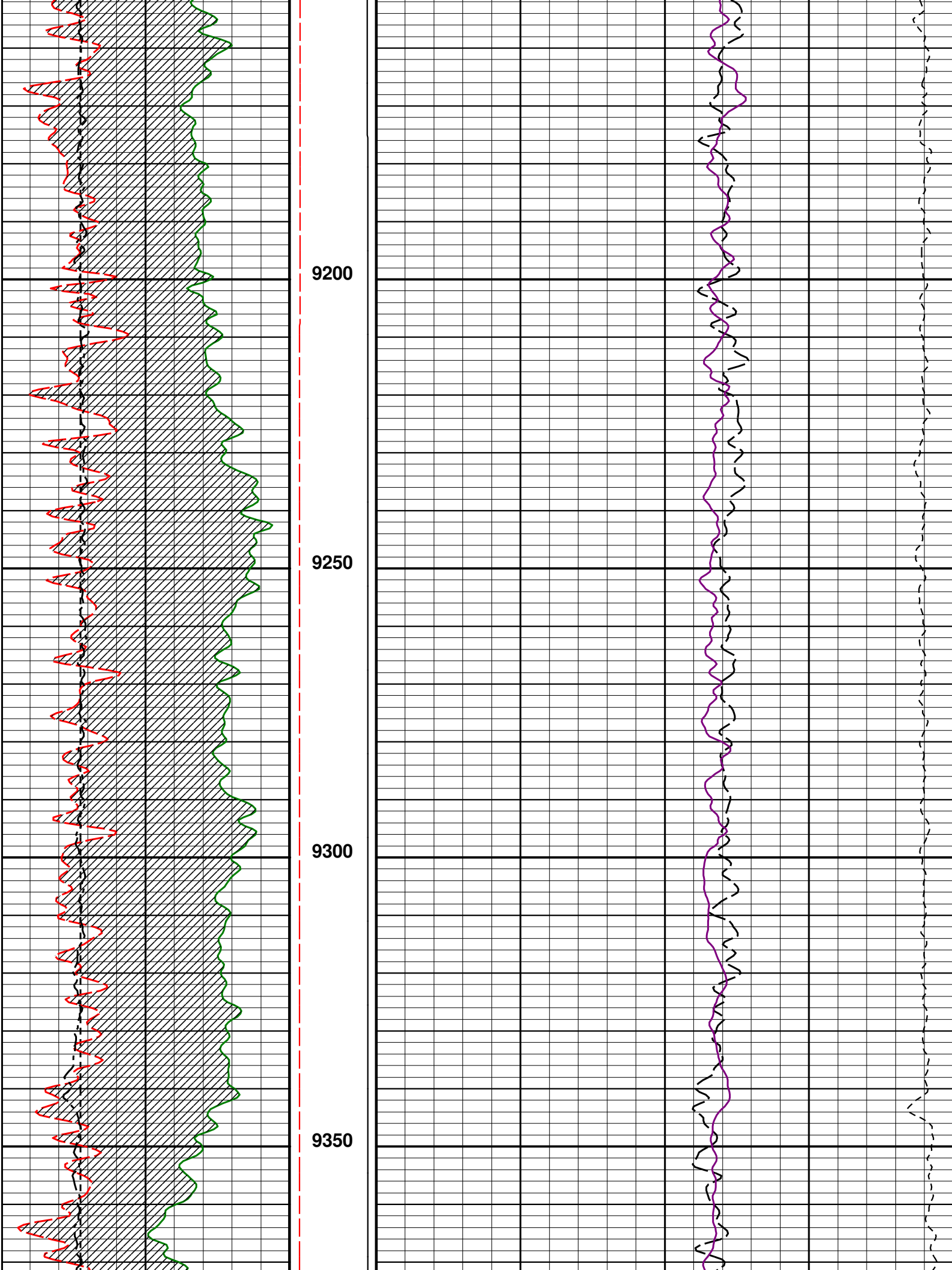


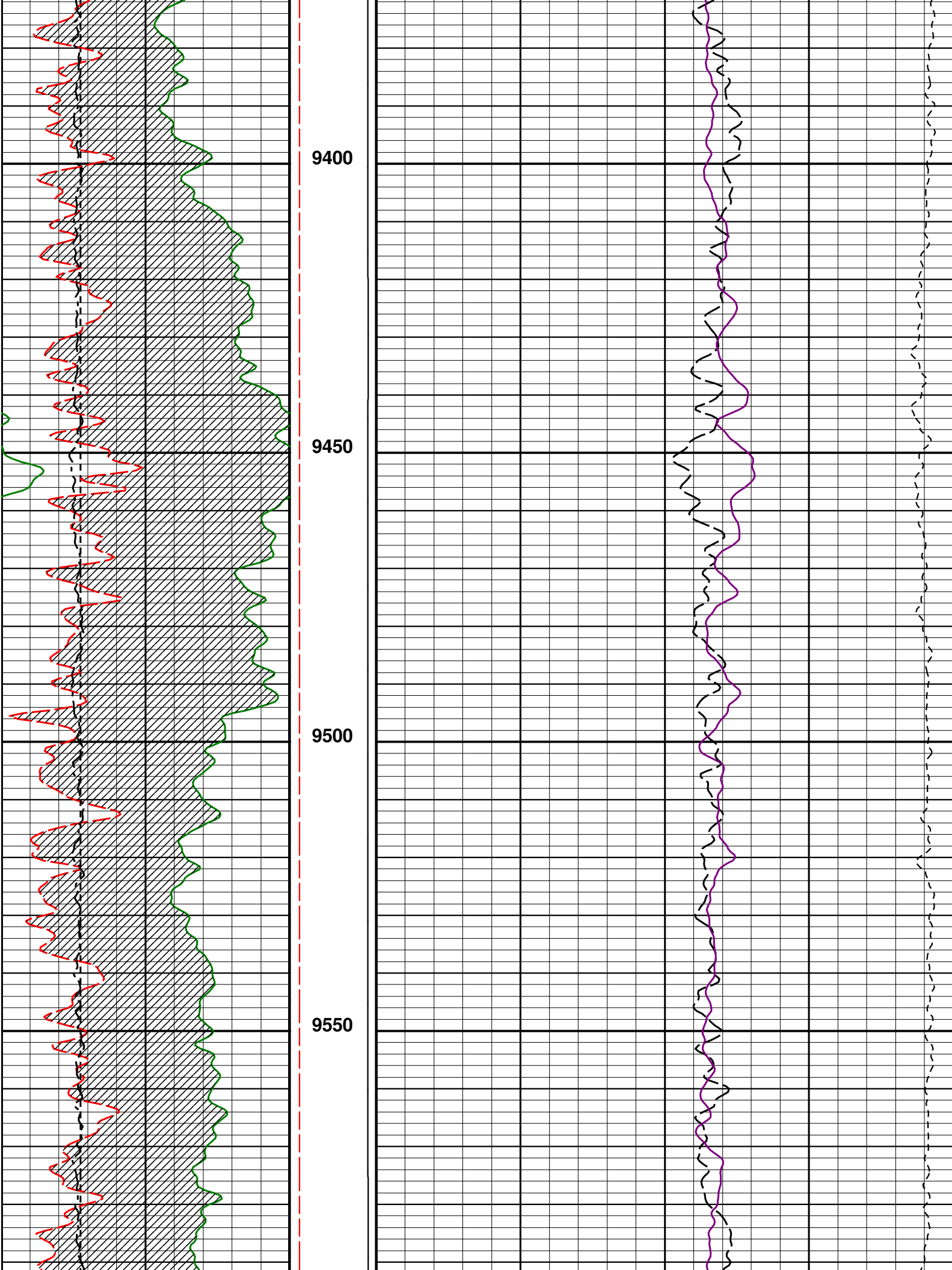




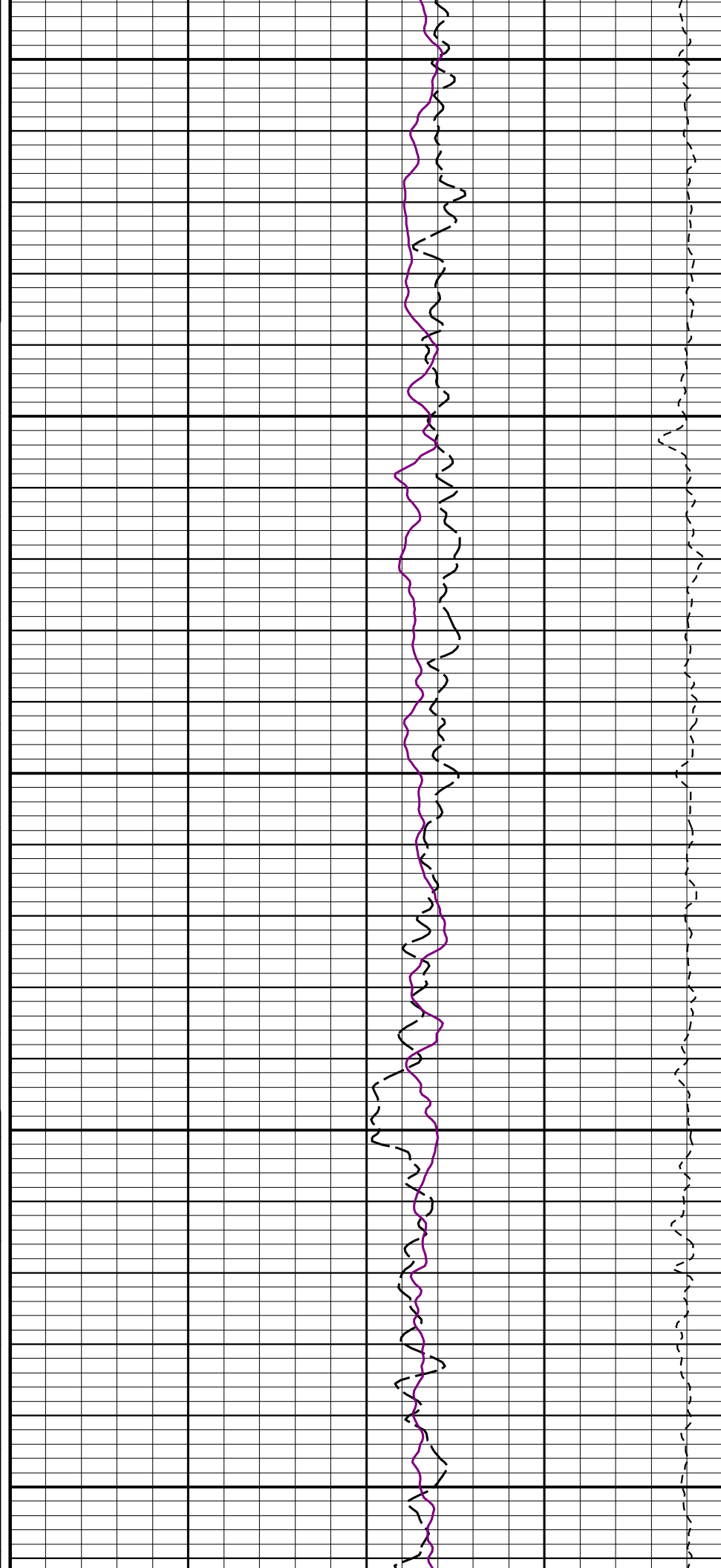
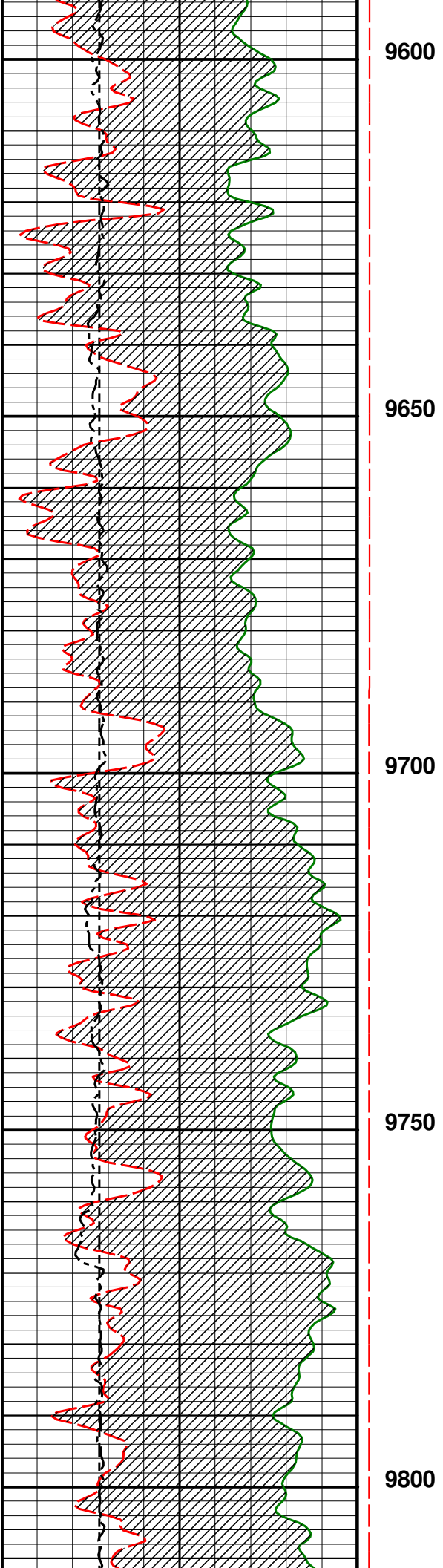


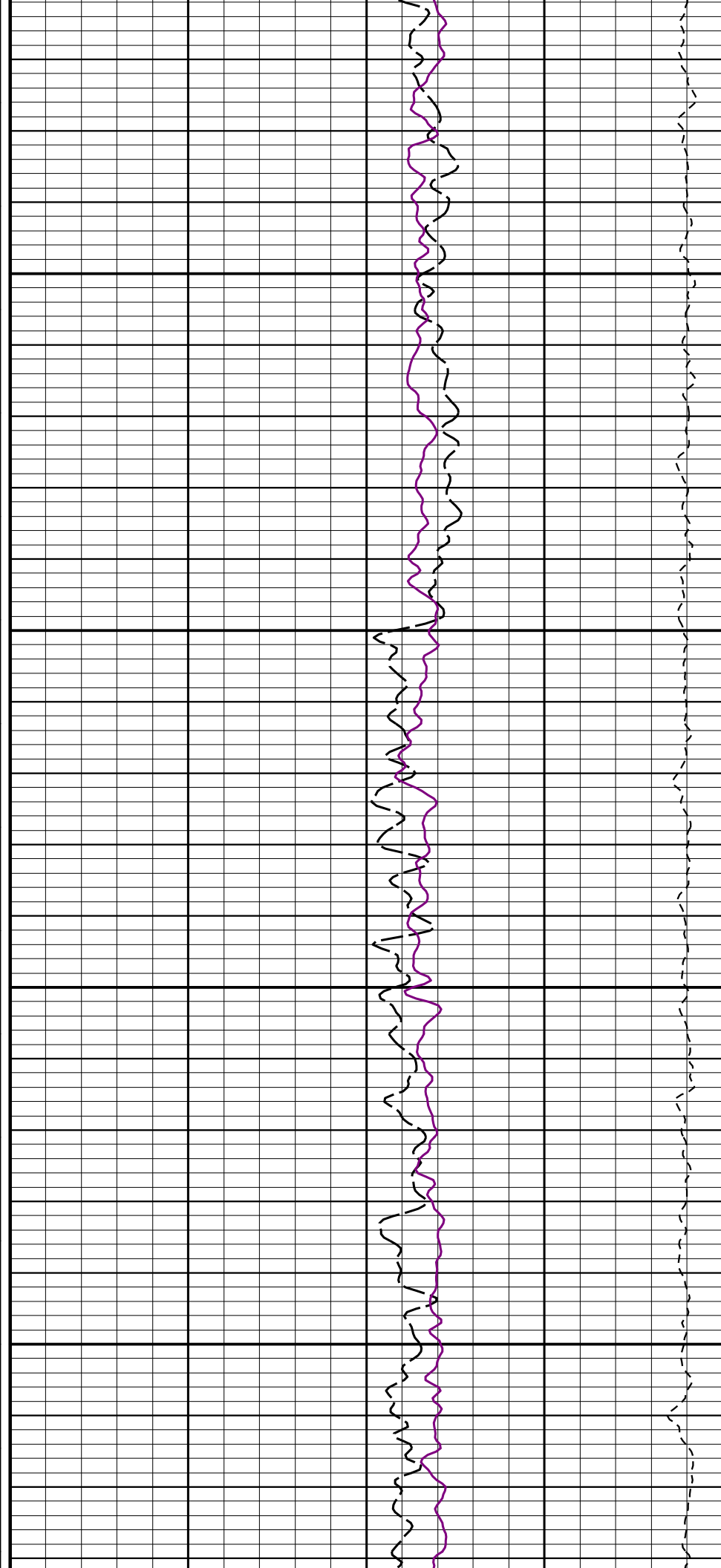
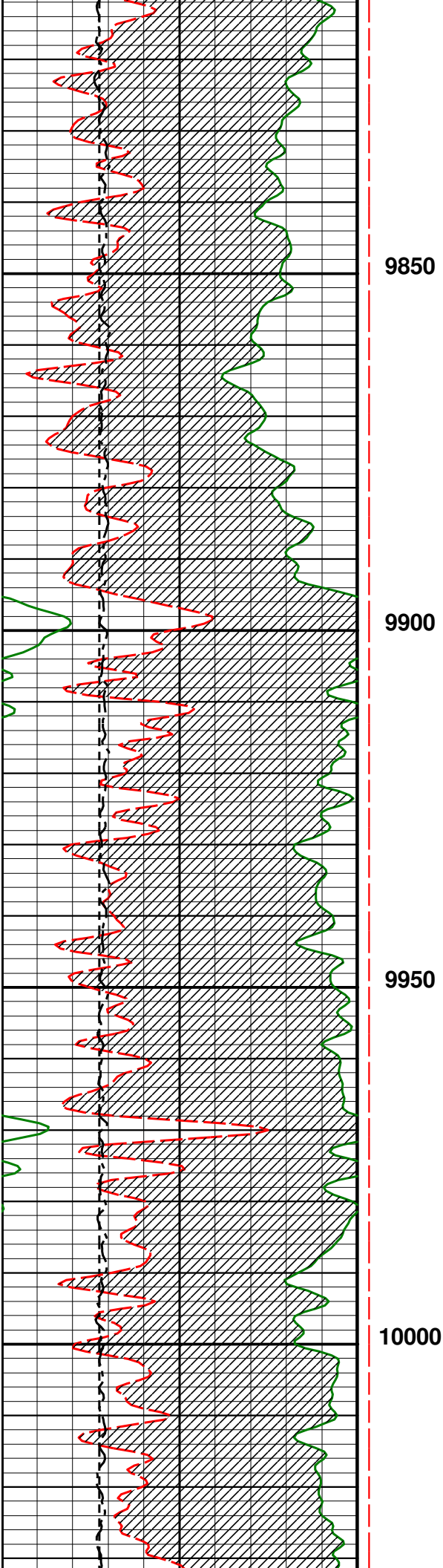


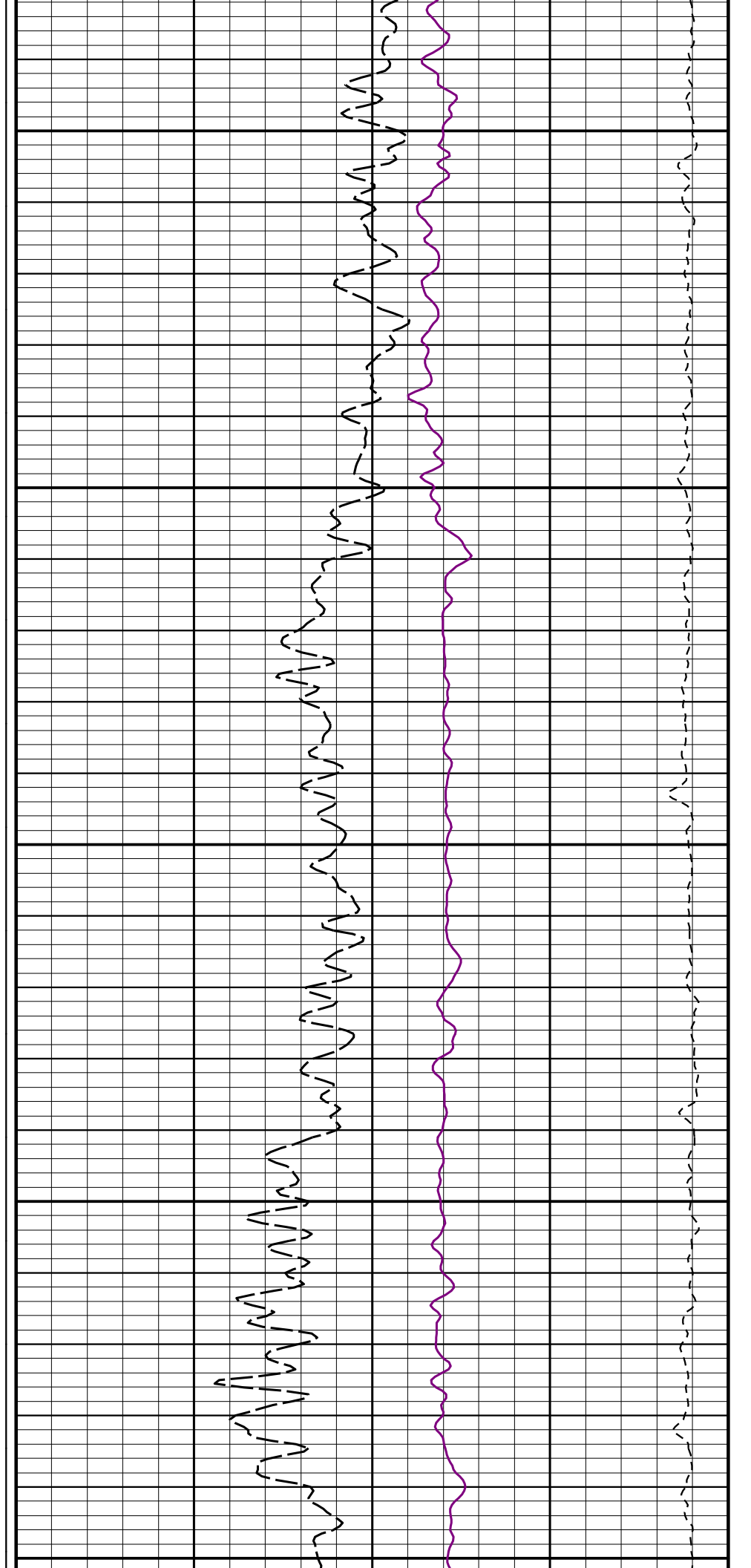
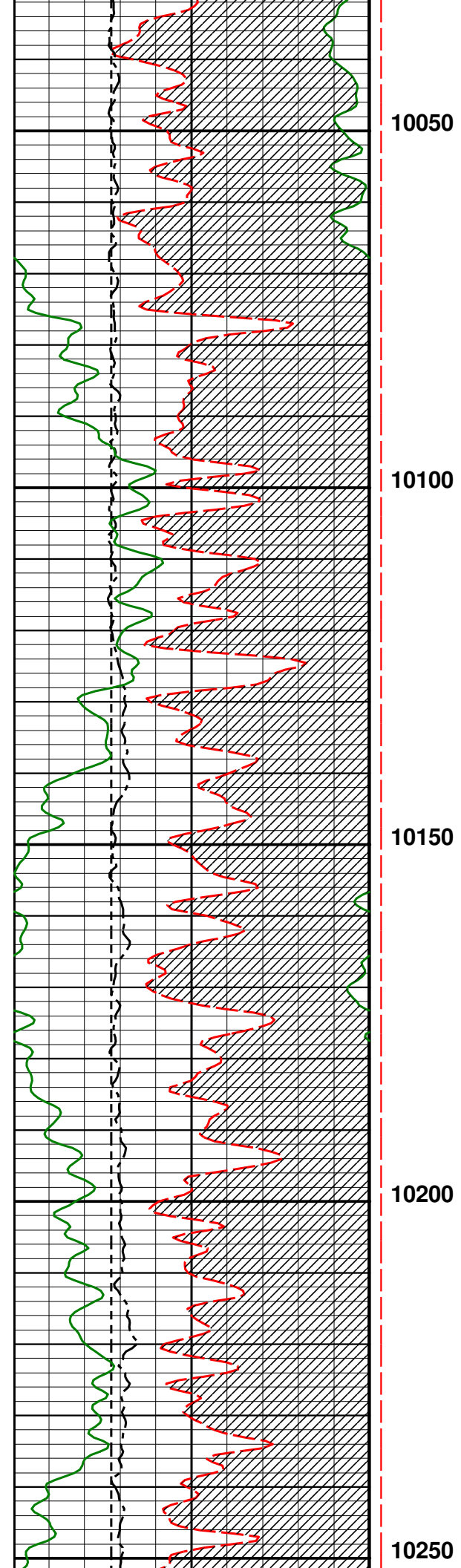


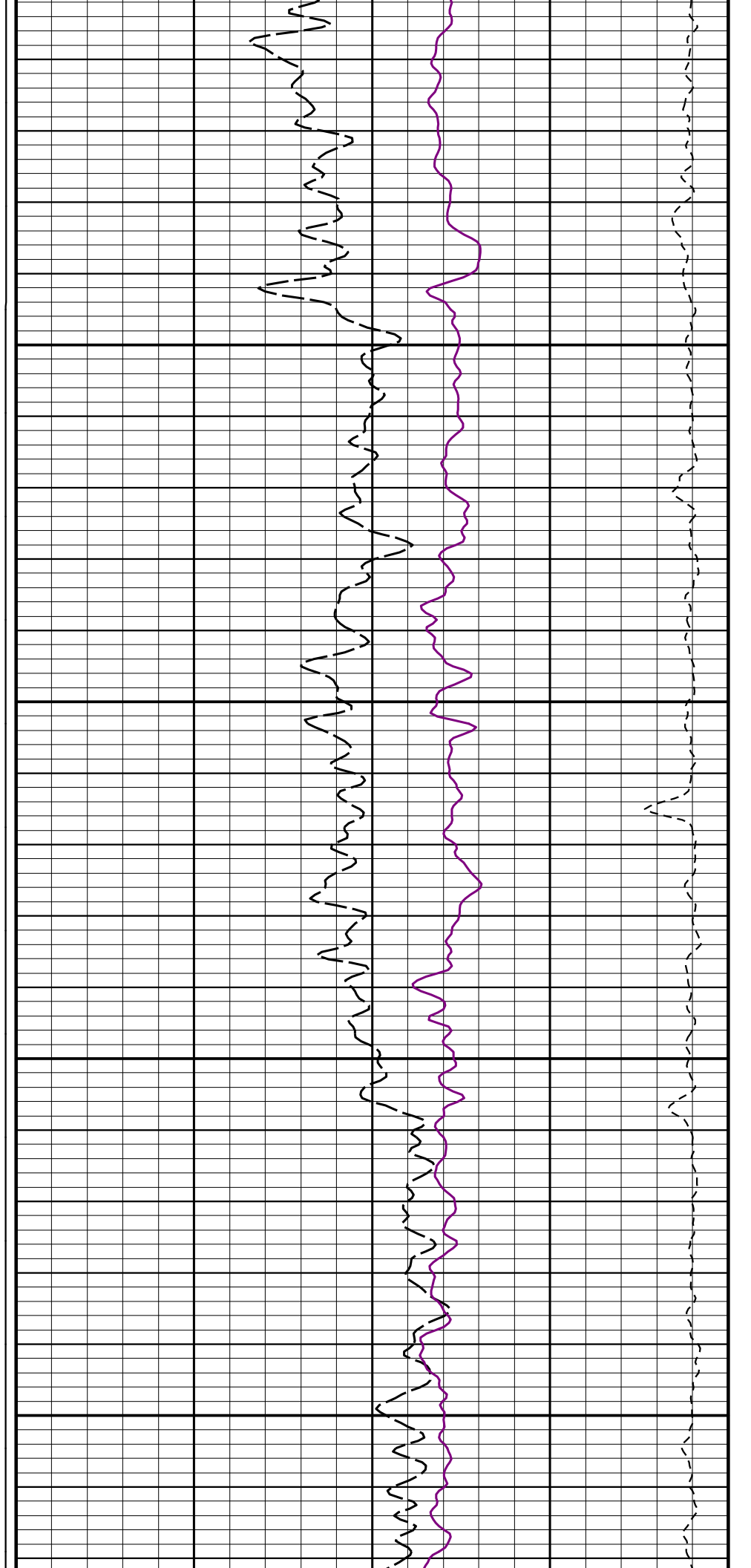
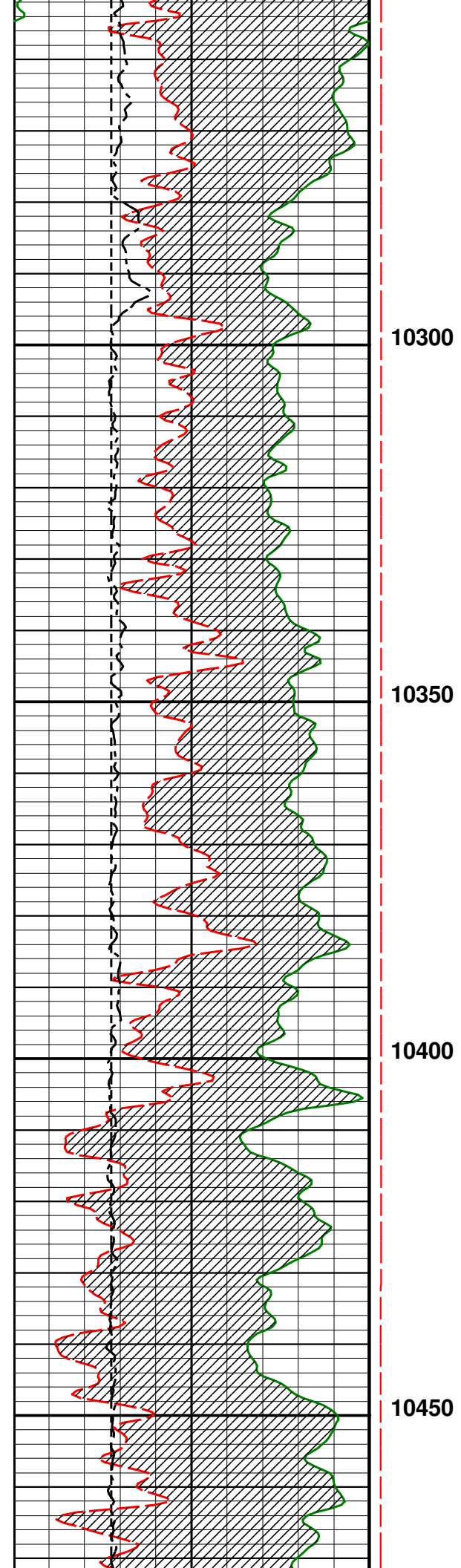


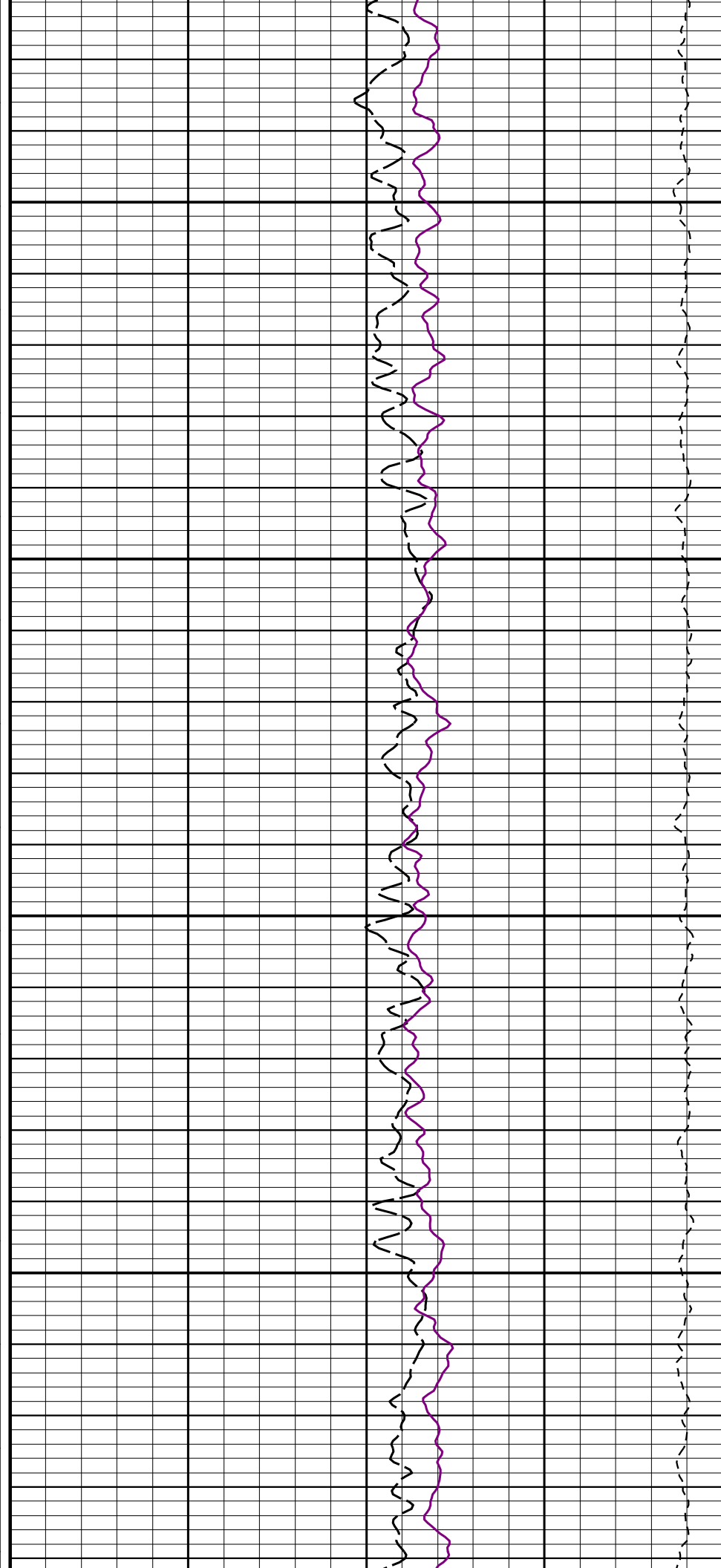
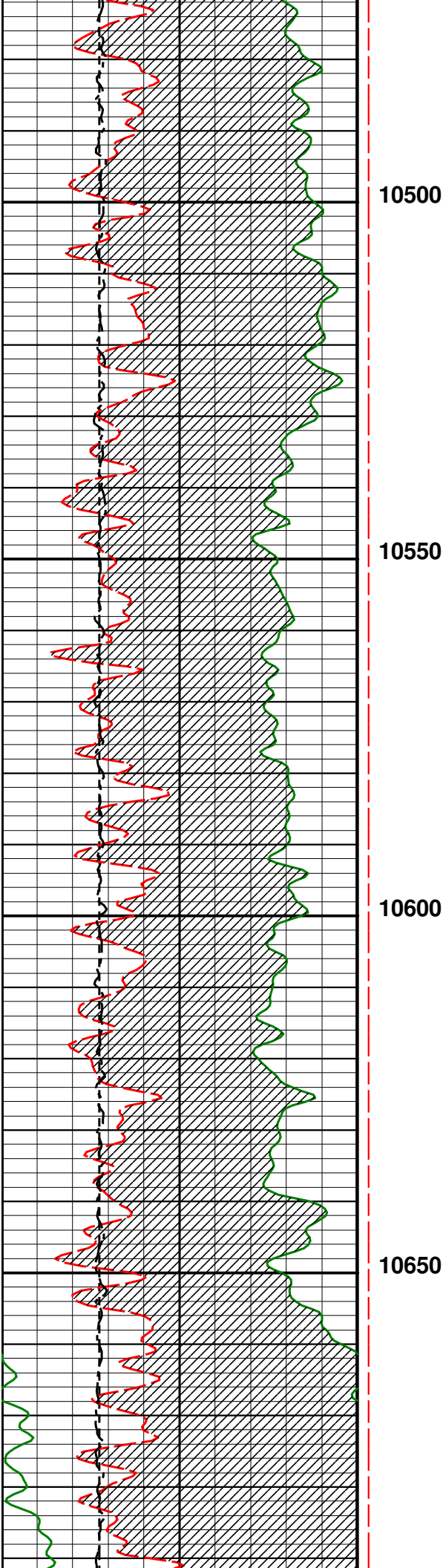


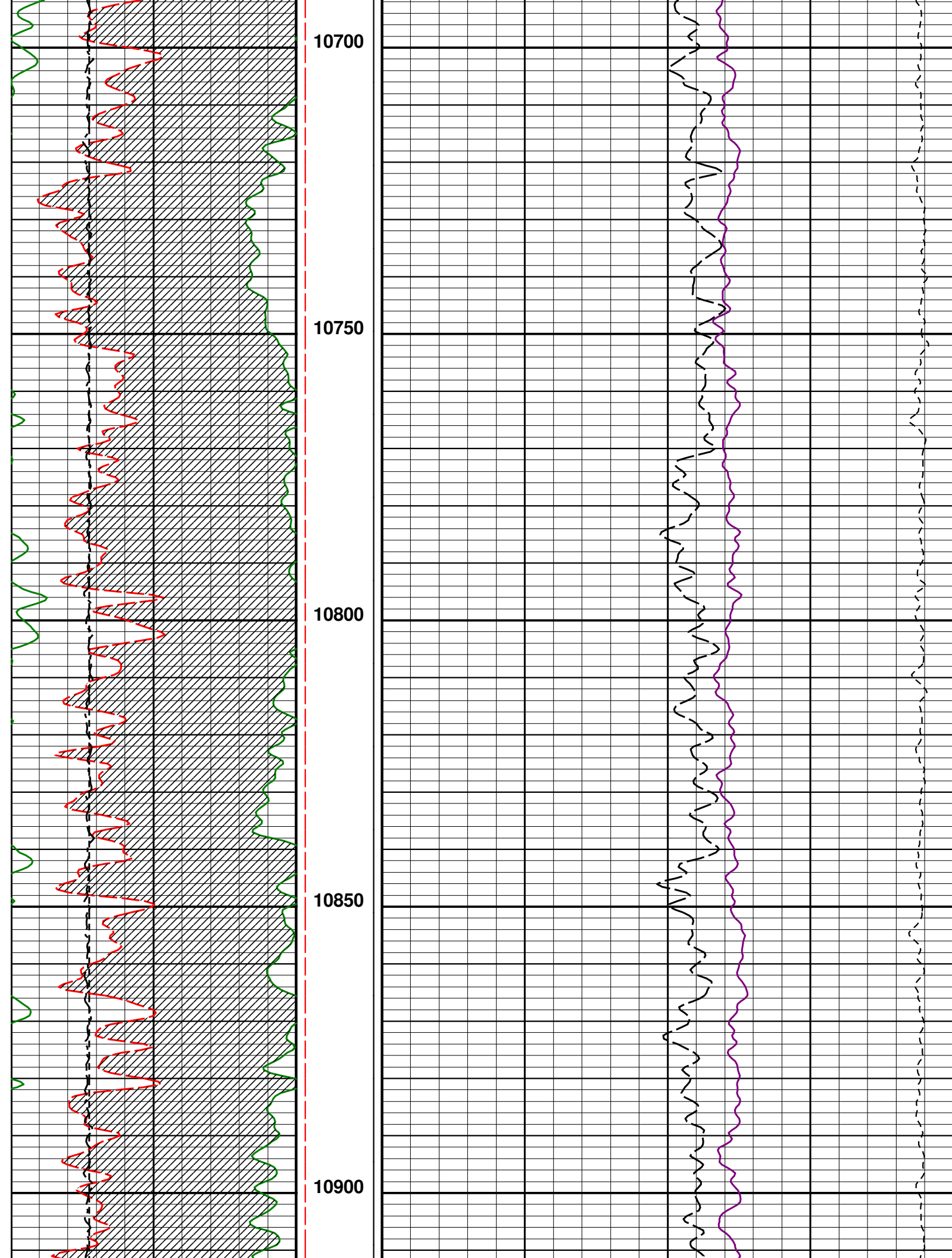


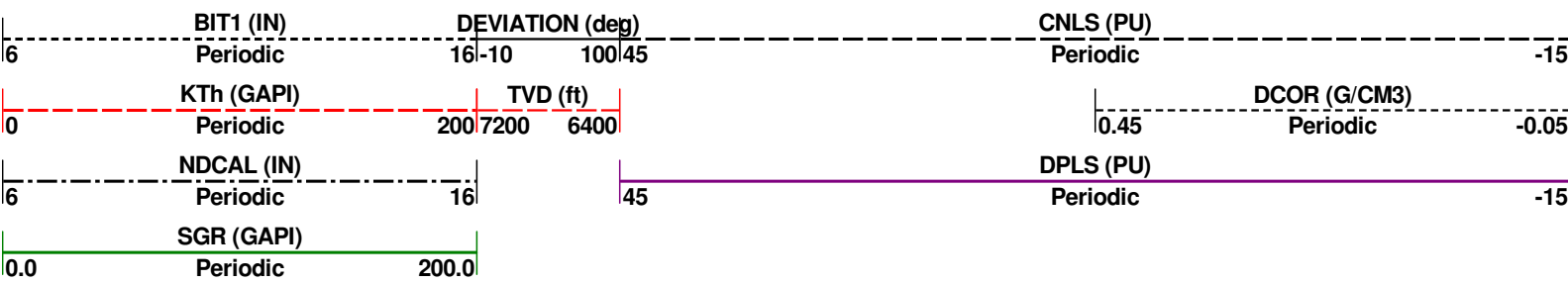
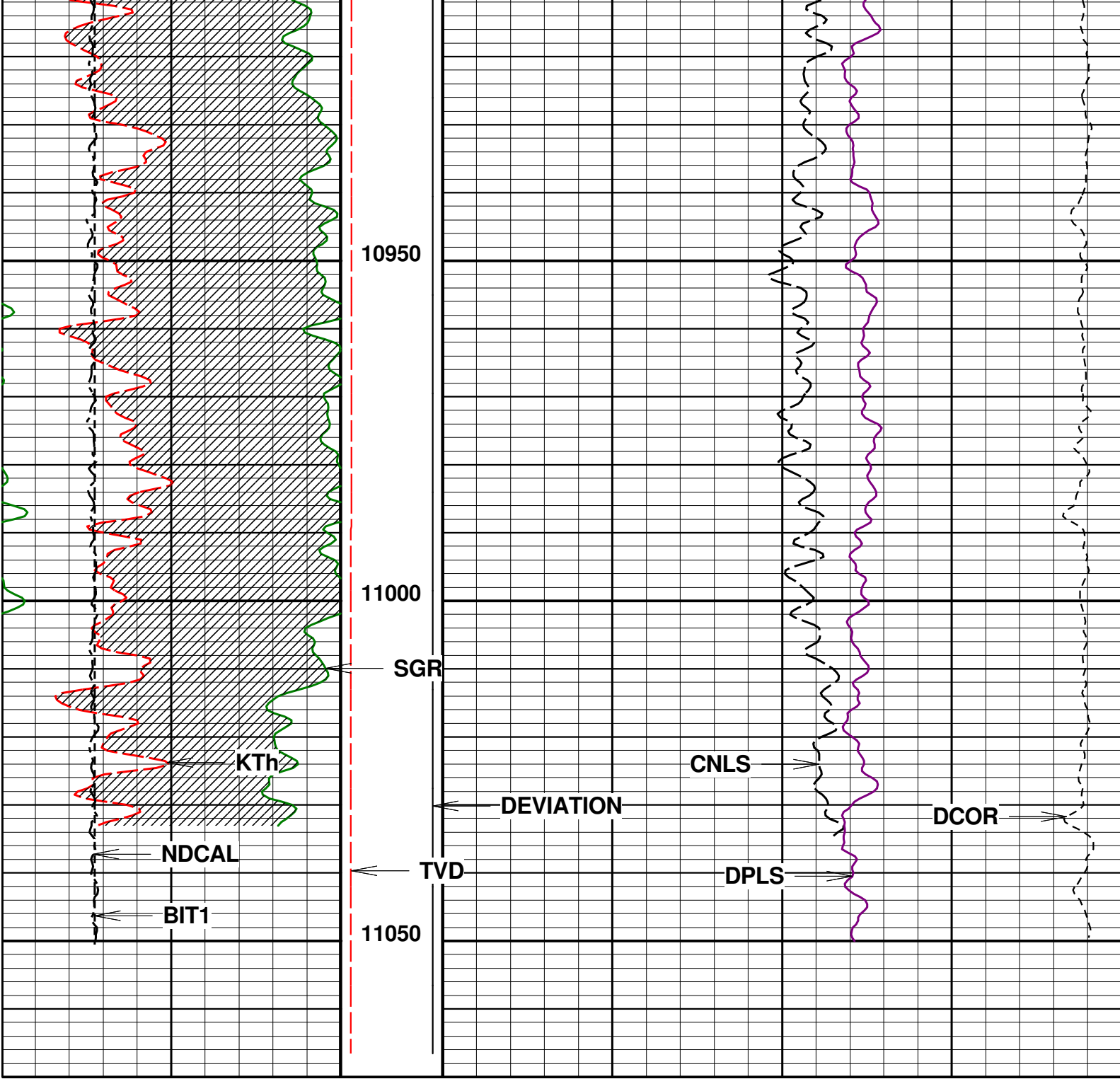












Tool name : **Dual Neutron**Asset : **020**Series : **1473**

Source ID :

**Gamma****Gamma Calibration**

Time Aug / 17 / 2018 08:53:00  
Setup  
Description 1473020\_1619-93\_AUG172018\_JS  
Setup Version 00046

Block	Raw Value	User Value	Device	Device SN	Mult.
Background	36.9237				
Jig ON	339.179				
Gamma	302.2553	249.9999 gAPI	Gamma Ray Jig	1619-93	0.8271151

287 325

**Gamma Primary Verification**

Time Aug / 17 / 2018 08:55:30  
Setup  
Description 1473020\_1619-93\_AUG172018\_JS  
Setup Version 00046

Block	Device	Device SN	Raw Value	User Value
Background			36.7927	
Jig ON	Gamma Ray JI	1619-93	345.015	
Gamma			254.9352 gAPI	

244.5 255.5

Tool name : **Dual Neutron**Asset : **020**Series : **1473**

Source ID :

**Ratio****Compensated Neutron Calibration**

Time Aug / 17 / 2018 09:19:50  
Setup  
Description 1473020\_77812\_2018AUG17\_JS  
Setup Version 00046

Curve Name	pt	Raw Value	User Value	Device	Mult.
Ratio	1	16.5413	17 none	Neutron Ratio	1.027731

16.15 17.85

**Compensated Neutron Primary Verification**

Time Aug / 17 / 2018 09:22:34  
Setup  
Description 1473020\_77812\_2018AUG17\_JS  
Setup Version 00046

Curve Name	pt	Device	Device Value	User Value
CN	1	Neutron Porosity	23 pu	24.1332 pu

21.16 24.84

File : C:\Users\Jake Slaff\Desktop\Post Job\MLT\_1481\_006.cvf

Tool name : **Density**Asset : **006**Series : **1481**

Source ID :

**Density****Density Calibration**



Time Aug / 17 / 2018 10:24:56  
Setup  
Description 1481006\_79967B\_2018AUG17\_JS  
Setup Version 00046

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
LSDensity	1	0.283416	2.7 g/c3	Aluminum Block	30.516950	-5.949
MSDensity	1	0.225191	2.7 g/c3	Aluminum Block	72.310310	-13.584
SSDensity	1	0.249199	2.7 g/c3	Aluminum Block	120.569900	-27.346
LSDensity	2	0.250975	1.71 g/c3	Concrete Block		
MSDensity	2	0.2115	1.71 g/c3	Concrete Block		
SSDensity	2	0.240988	1.71 g/c3	Concrete Block		

Telemetry3102

Identifier : 0913  
Asset Number : 018  
Length : 4.003 ft  
Diameter : 1.7 inch  
Weight : 14.6 lbs  
Measure Point : 0.000 ft : State

Spectrum Gamma

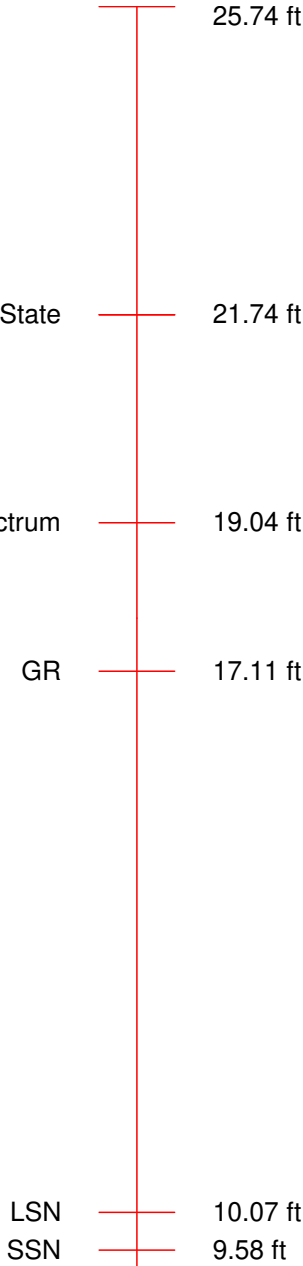
Identifier : 1460  
Asset Number : 017  
Length : 3.950 ft  
Diameter : 2.0 inch  
Weight : 22.7 lbs  
Measure Point : 1.247 ft : Spectrum

Dual Neutron

Identifier : 1473  
Asset Number : 020  
Length : 10.069 ft  
Diameter : 2.0 inch  
Weight : 58.4 lbs  
Measure Point : 1.854 ft : SSN  
Measure Point : 2.343 ft : LSN  
Measure Point : 9.383 ft : GR

Knuckle Joint

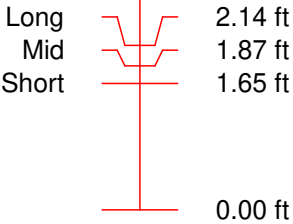
Identifier : 0813  
Asset Number : None  
Length : 2.297 ft  
Diameter : 1.7 inch




Weight : 16.1 lbs

Density

Identifier : 1481  
Asset Number : 006  
Length : 5.427 ft  
Diameter : 2.0 inch  
Weight : 38.4 lbs  
Measure Point : 1.647 ft : Short  
Measure Point : 1.870 ft : Mid  
Measure Point : 2.139 ft : Long



Total Length : 25.74 ft  
Total Weight : 150.13 lbs  
Max Diameter : 2.0 inch

	<div>COMPANY: CONFLUENCE DJ LLC</div> <div>WELL: DESHA 4-15-1</div> <div>FIELD: WATTENBURG</div> <div>COUNTY: WELD</div> <div>STATE: CO</div>
--	---