Schlumberger

Company: **STONE ENERGY**

Well: **POTOCZNY UNIT A 1−H**

Field: **FARMINGTON**

County: **MARION** State: **WEST VIRGINIA**

PLATFORM EXPRESS

LITHO DENSITY / COMPENSATED NEUTRON

CALIPER / GAMMA RAY

County: MARION
Field: FARMINGTON
Location: LAT. 39* 34' 08.9" N
Well: POTOCZNY UNIT A 1−H
Company: STONE ENERGY

LOCATION

LAT. 39* 34' 08.9" N
LONG. 80* 16' 04.2" W

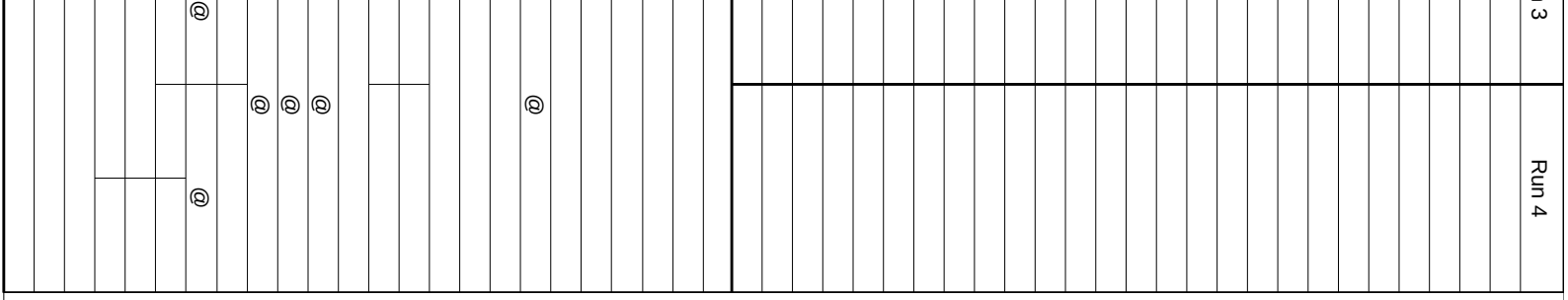
Elev.: K.B. 1414.00 ft
G.L. 1404.00 ft
D.F. 1414.00 ft

Permanent Datum: GROUND LEVEL Elev.: 1404.00 ft
Log Measured From: KELLY BUSHING 10.00 ft above Perm. Datum
Drilling Measured From: KELLY BUSHING

API Serial No.	District:	Watershed:	Quadrangle:
47−049−02094	LINCOLN	DUNKARD MILL RUN	MANNINGTON 7.5'

	Run 1	Run 2	Run
Logging Date	8−May−2010		
Run Number	2		
Depth Driller	8006 ft		
Schlumberger Depth	7996 ft		
Bottom Log Interval	7994 ft		
Top Log Interval	2422 ft		
Casing Driller Size @ Depth	9.625 in @ 2421 ft	@	@
Casing Schlumberger	2422 ft		
Bit Size	8.750 in		
Type Fluid In Hole	3% KCL MUD		
MUD Density / Viscosity	8.48 lbm/gal / 40 s		
MUD Fluid Loss / PH	/		
MUD Source Of Sample	LATEROLOG		
RM @ Measured Temperature	0.217 ohm.m @ 103 degF	@	@
RMF @ Measured Temperature	0.163 ohm.m @ 103 degF	@	@
RMC @ Measured Temperature	0.325 ohm.m @ 103 degF	@	@
Source RMF / RMC	CALCULATED / CALCULATED		
RM @ MRT / RMF @ MRT	0.181 @ 125 / 0.136 @ 125	@ /	@
Maximum Recorded Temperatures	125 degF		
Circulation Stopped / Time			
Logger On Bottom / Time	8−May−2010 / 3:15		
Unit Number / Location	3125 / WESTON, WV		
Recorded By	MICHAEL WINTER		
Witnessed By	DAVE OLDHAM / DUSTY MCCLURE		

	Run 1	Run 2	Run
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity	/		
MUD Fluid Loss / PH	/		
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC	/		
RM @ MRT / RMF @ MRT	@ /	@	
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location	/		
Recorded By			
Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 8−MAY−2010 5:06:24

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−39P LXS
Serial Number:	6693	Serial Number:	1740	Serial Number:	708268
Calibration Date:	30−NOV−2009	Calibration Date:	21−APR−2010	Length:	17450 FT
Calibrator Serial Number:	33	Calibrator Serial Number:	78769		
Calibration Cable Type:	7−39P LXS	Number of Calibration Points:	10	Conveyance Method:	Wireline
Wheel Correction 1:	−7	Calibration RMS:	57	Rig Type:	LAND
Wheel Correction 2:	−4	Calibration Peak Error:	82		

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	PLATFORM EXPRESS
Reference Log Run Number:	1
Reference Log Date:	06−MAY−2010
Subsequent Trip Down Log Correction:	1.50 FT

Depth Control Remarks

1. SCHLUMBERGER SUBSEQUENT TRIP DEPTH POLICY FOLLOWED
2. IDW WAS PRIMARY DEPTH CONTROL
3. Z−CHART WAS SECONDARY DEPTH CONTROL
4.
5.
6.

OTHER SERVICES1	OTHER SERVICES2
OS1: ECS	OS1:
OS2: HRLA	OS2:
OS3: BHC	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
PRESENTATIONS AS PER CLIENT REQUEST	
TOOLS RUN AS PER TOOL SKETCH	
ALL SCHLUMBERGER DEPTH CONTROL POLICIES FOLLOWED	
MATRIX = LIMESTONE	
MATRIX DENSITY = 2.71 G/CC	

MUD RESISTIVITY WAS TAKEN FROM LATEROLOG BECAUSE
WELL WAS BOTTOM LOAD

1 FOOT OF FILL BETWEEN FIRST AND SECOND RUN

THANK YOU FOR CHOOSING SCHLUMBERGER WIRELINE!
YOUR CREW TODAY: MARK IRELAND & BLAINE DOUGLAS

RUN 1		RUN 2	
SERVICE ORDER #:	BEUA−00006	SERVICE ORDER #:	
PROGRAM VERSION:	17C0−154	PROGRAM VERSION:	
FLUID LEVEL:	1100 ft	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

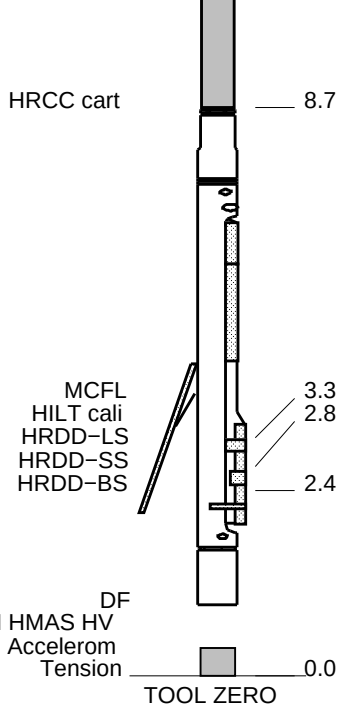
GSR−U/Y 1156
NCT−B
CNB−AB
NCS−VB
WITM (DTS)−A

DOWNHOLE EQUIPMENT

LEH−Q
LEH−Q

DTC−H
ECH−KC
DTCH0−A
DTCH1−A

HILTH−FTB
HGNSD−H 4951
HMCA−H
HGNH 4803
NLS−KL
NSR−F 5242
HACCZ−H 7648
HCNT−H
HGR
HRCC−H 4945
HRMS−H 4940
HRGD−H 5751
GLS−VJ 5436
MCFL Device−H
HILT Nucl. LS−H 10523
HILT Nucl. SS−H 42377
HILT Nucl. BS−H 41320
BOW−SPR
NPV−N



BNS−CCS

0.5

MAXIMUM STRING DIAMETER 4.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

Main Pass
2 Inch / 100 Feet

MAXIS Field Log

Input DLIS Files

DEFAULT	MERGE_TLD_MCFL_CNL_018GUP	FN:1	PRODUCER	08−May−2010 06:12	8011.5 FT	21.0 FT

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_019PUP	FN:14	PRODUCER	08−May−2010 06:14	8011.5 FT	21.5 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 2361.01 F3

Cement Volume = 1441.21 F3 (assuming 5.50 IN casing O.D.)

Computed from 7997.0 FT to 2422.0 FT using data channel(s) HCAL

OP System Version: 17C0−154

HILTH−FTB	17C0−154	DTC−H	17C0−154

PIP SUMMARY

Integrated Hole Volume Minor Pip Every 10 F3
Integrated Hole Volume Major Pip Every 100 F3
Integrated Cement Volume Minor Pip Every 10 F3
Integrated Cement Volume Major Pip Every 100 F3

NUETRON−DENSITY CROSS OVER

NEUTRON-DENSITY CROSS OVER
From DPHZ to NPHI

Std. Res. Formation Density (RHOZ)
2 (G/C3) 3

GR > 200
From LHT1 to GR1

Std. Res. Formation Pe (PEFZ)
0 (----) 10

Tension (TENS)
10000 (LBF) 0

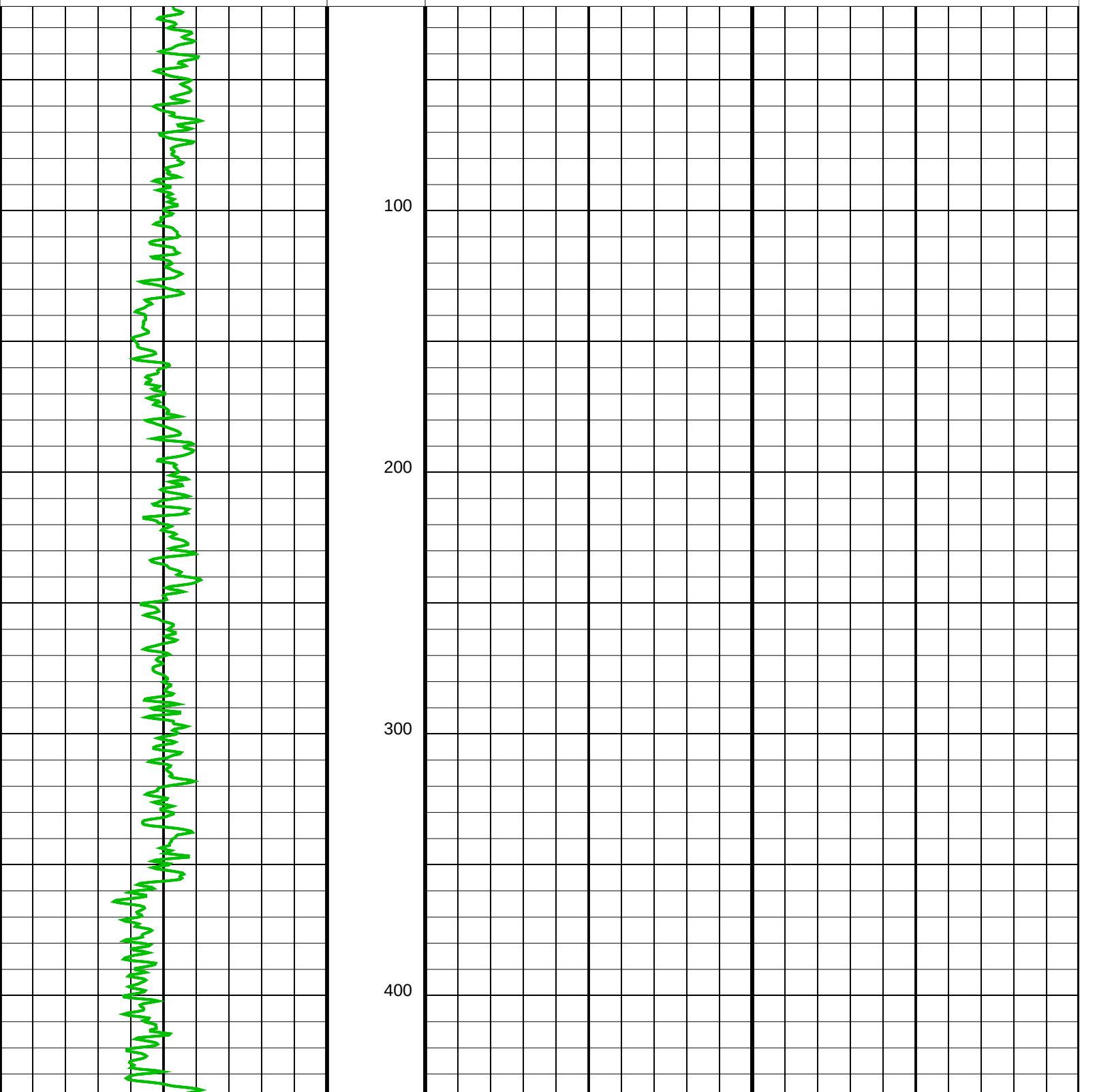
Neutron Porosity (NPHI)
0.3 (V/V) -0.1

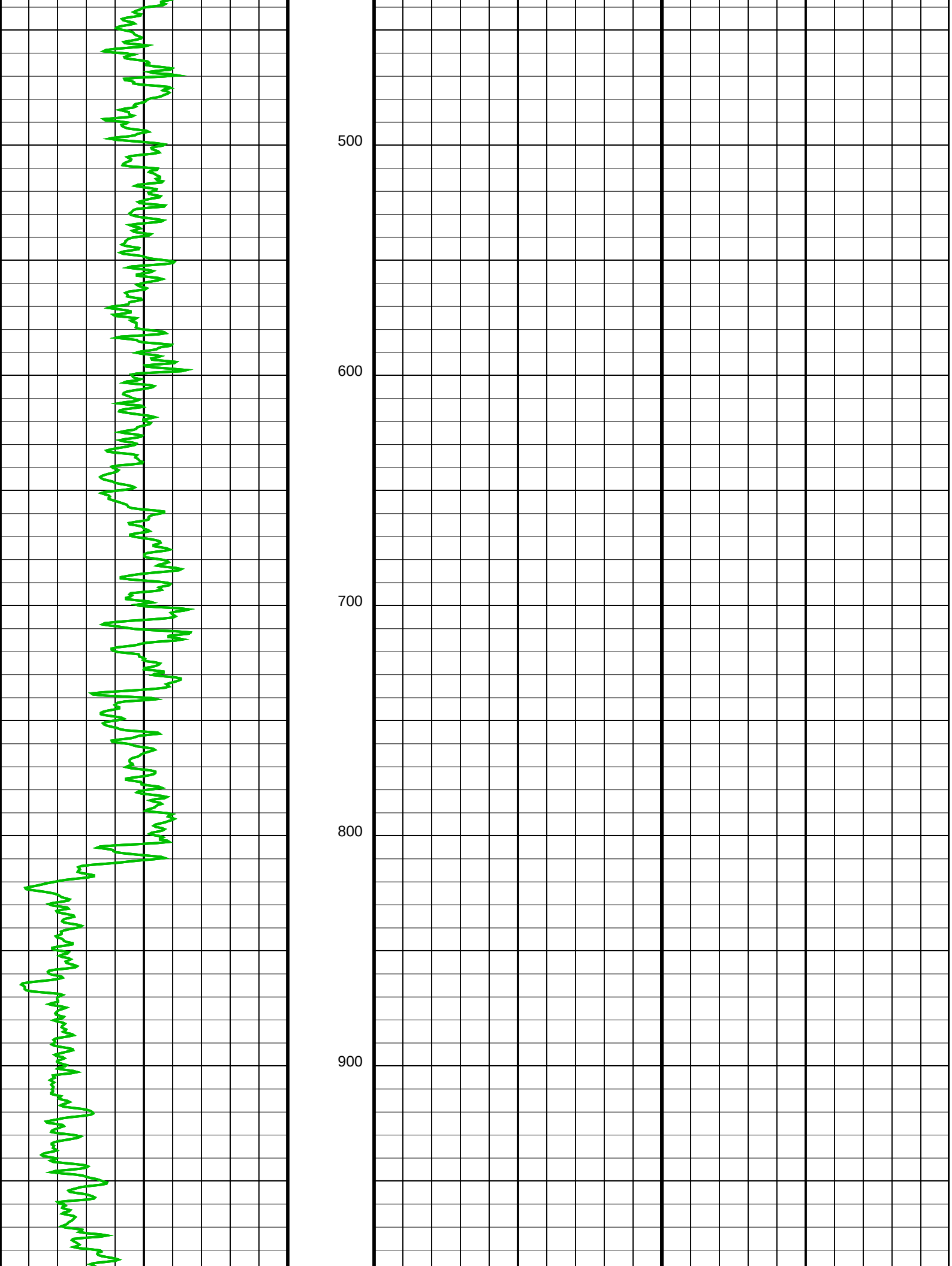
HILT Caliper (HCAL)
6 (IN) 16

Density Correction (HDRA)
-0.05 (G/C3) 0.45

Gamma Ray (GR)
0 (GAPI) 200

Std. Res. Density Porosity (DPHZ)
0.3 (V/V) -0.1

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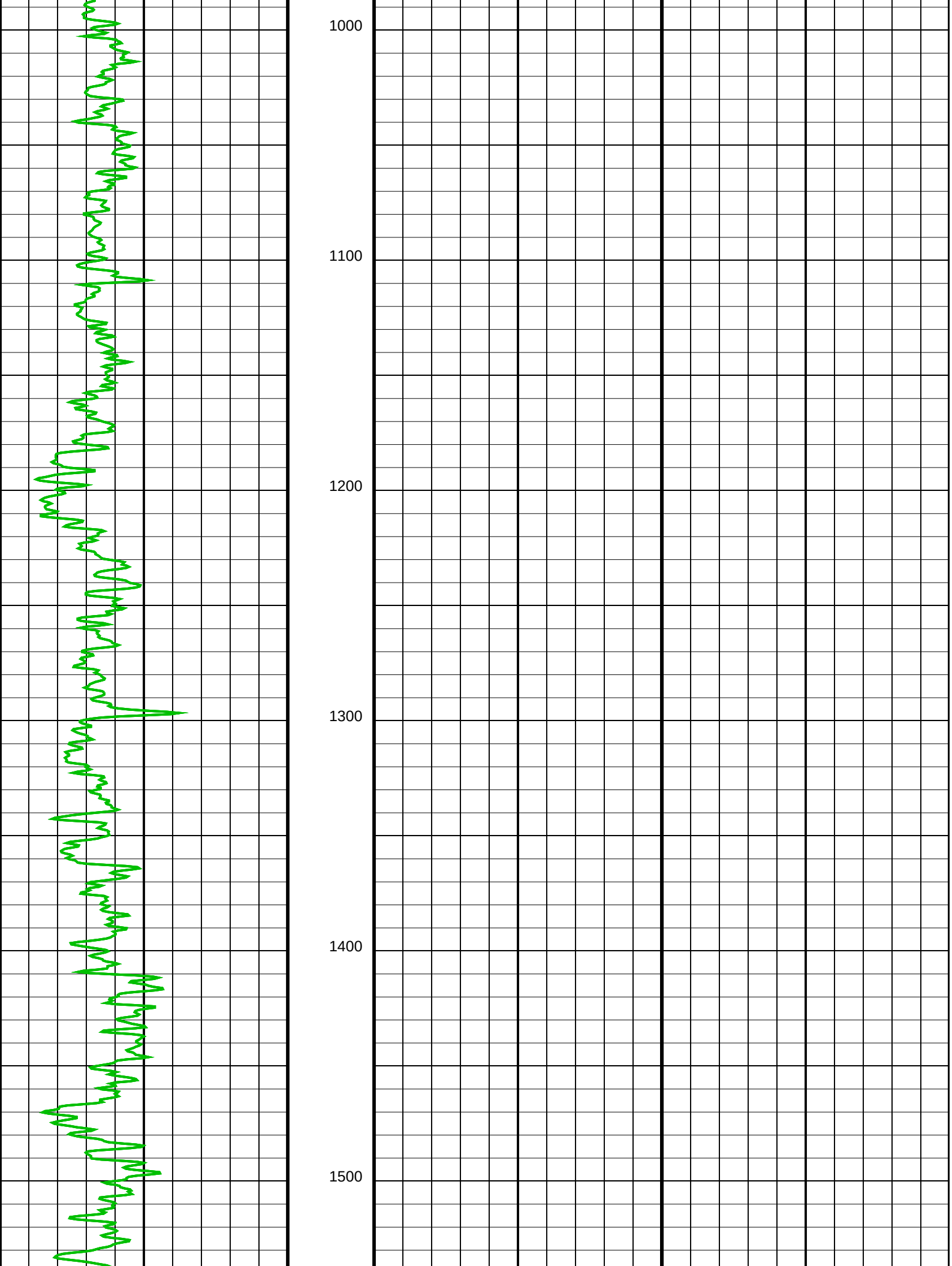
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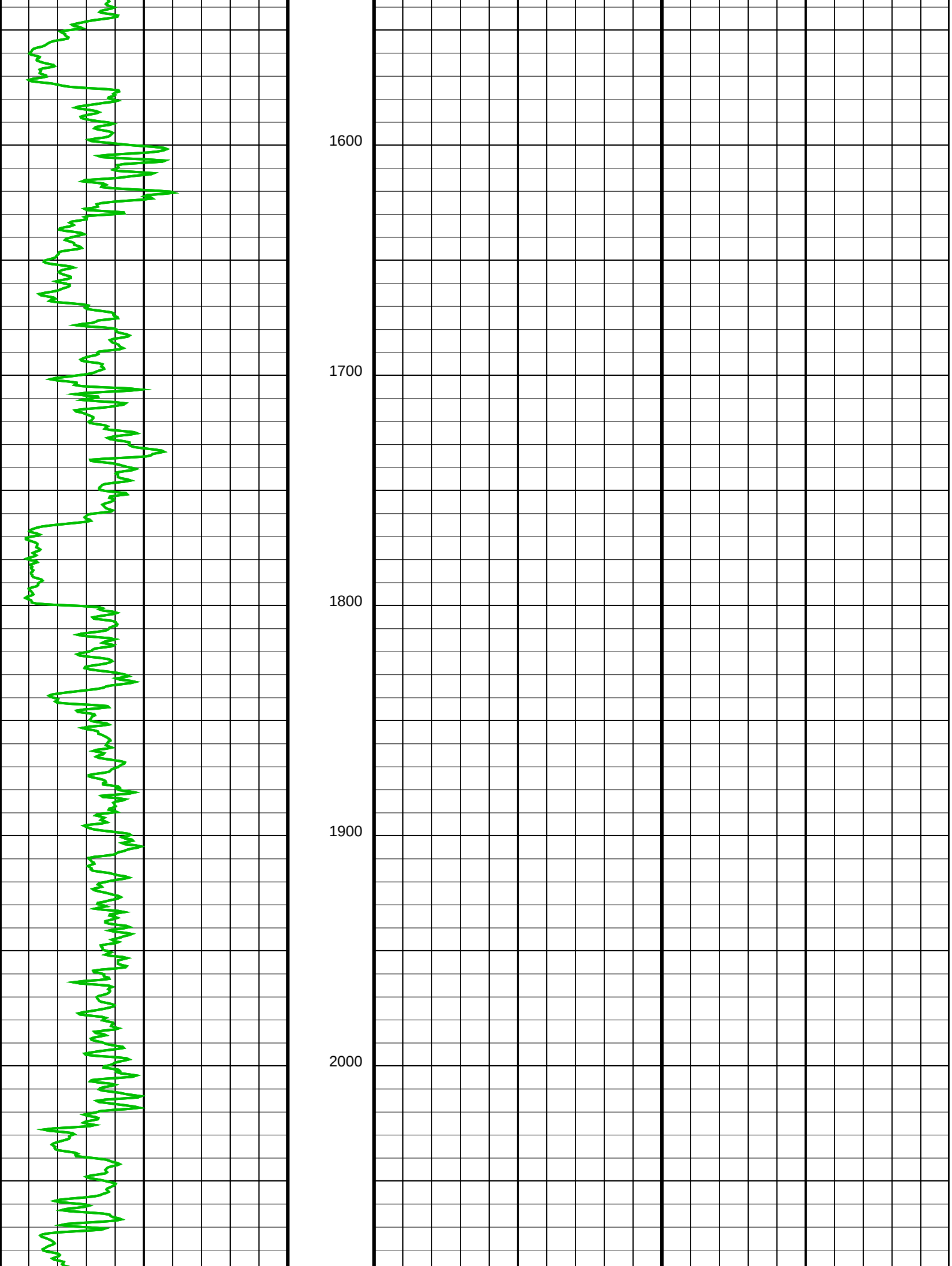
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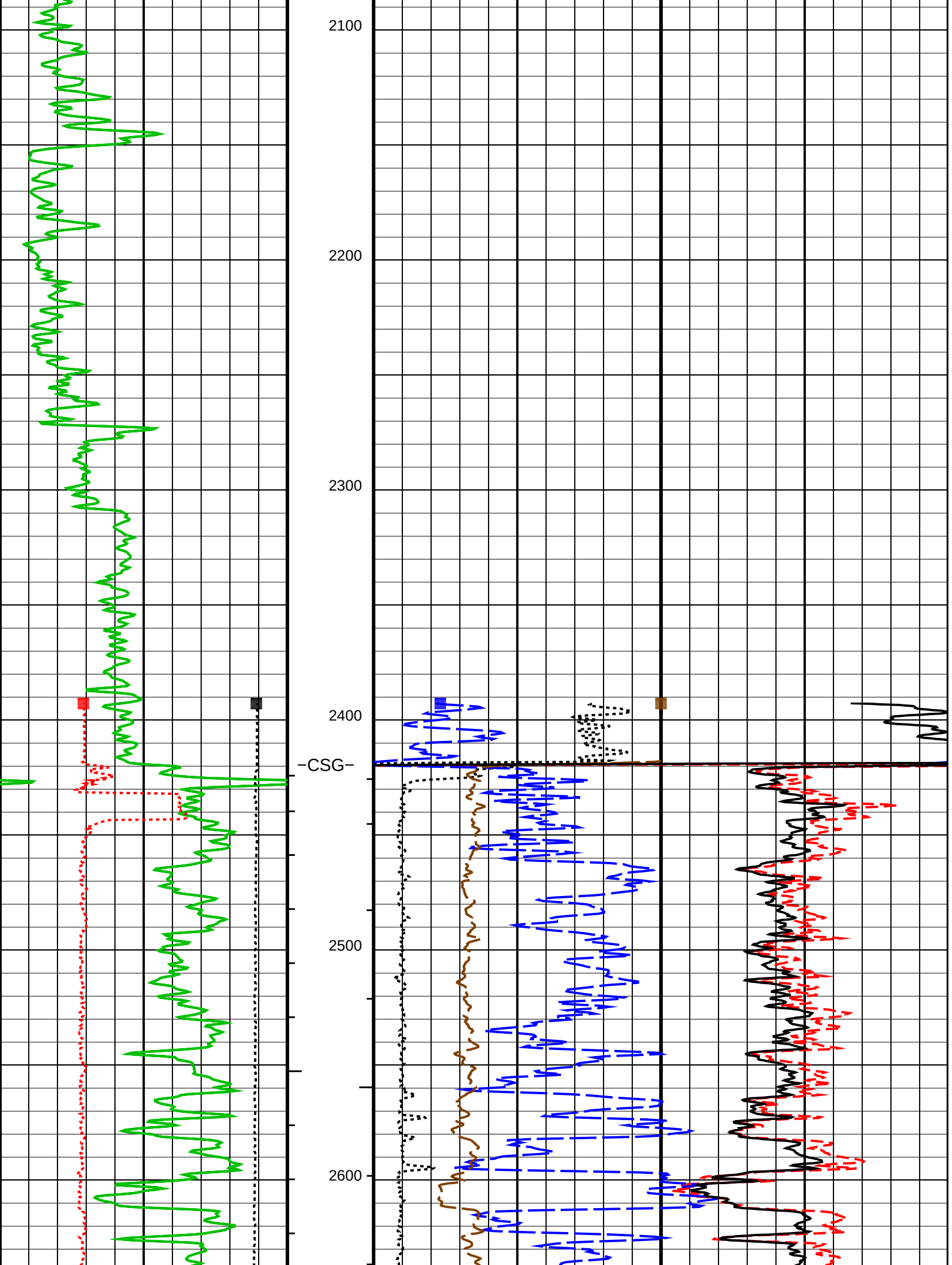
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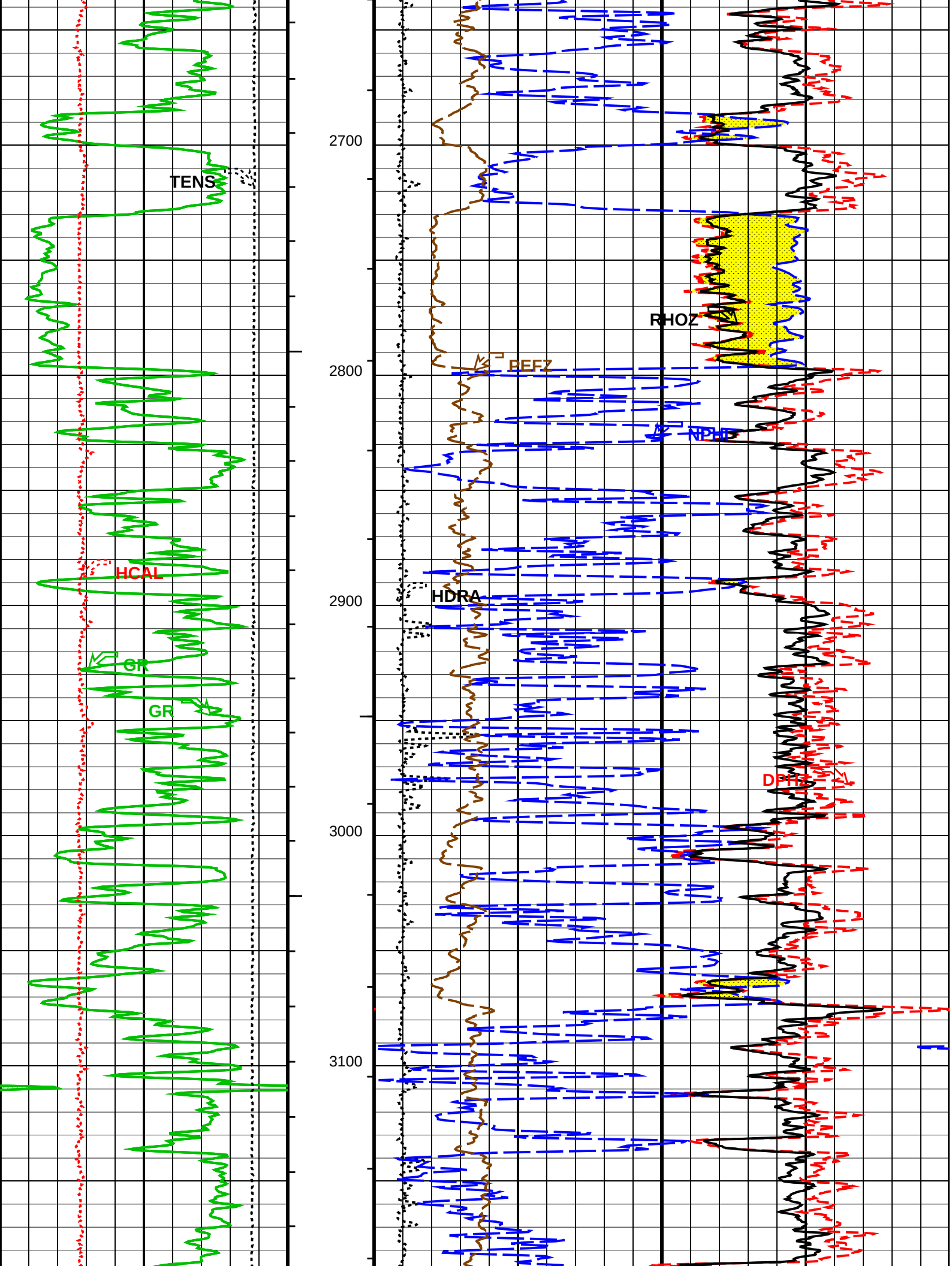
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HCAL
GR
GR
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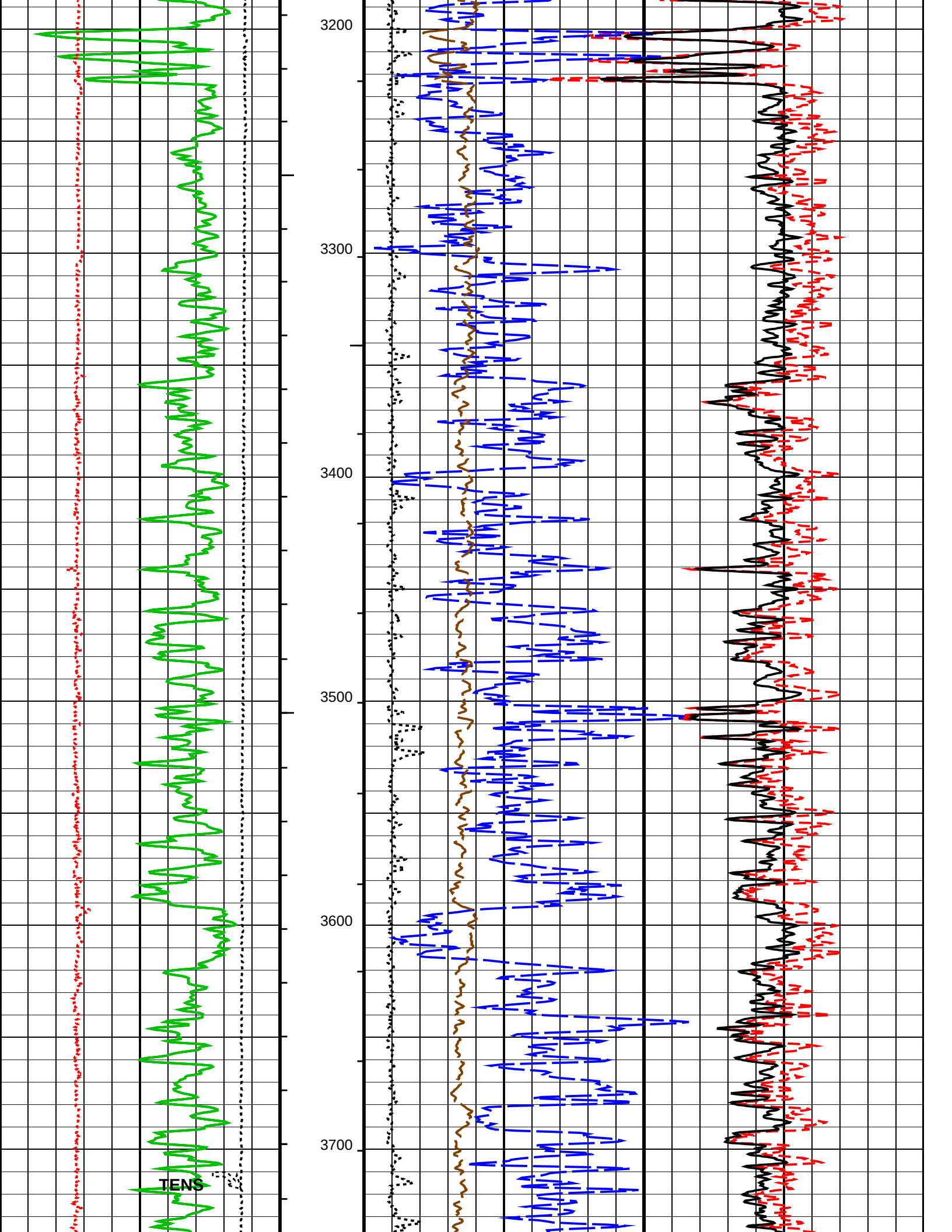
2800
2900
3000
3100
RHOZ
PEFZ
NPHI
HDRA
DPHZ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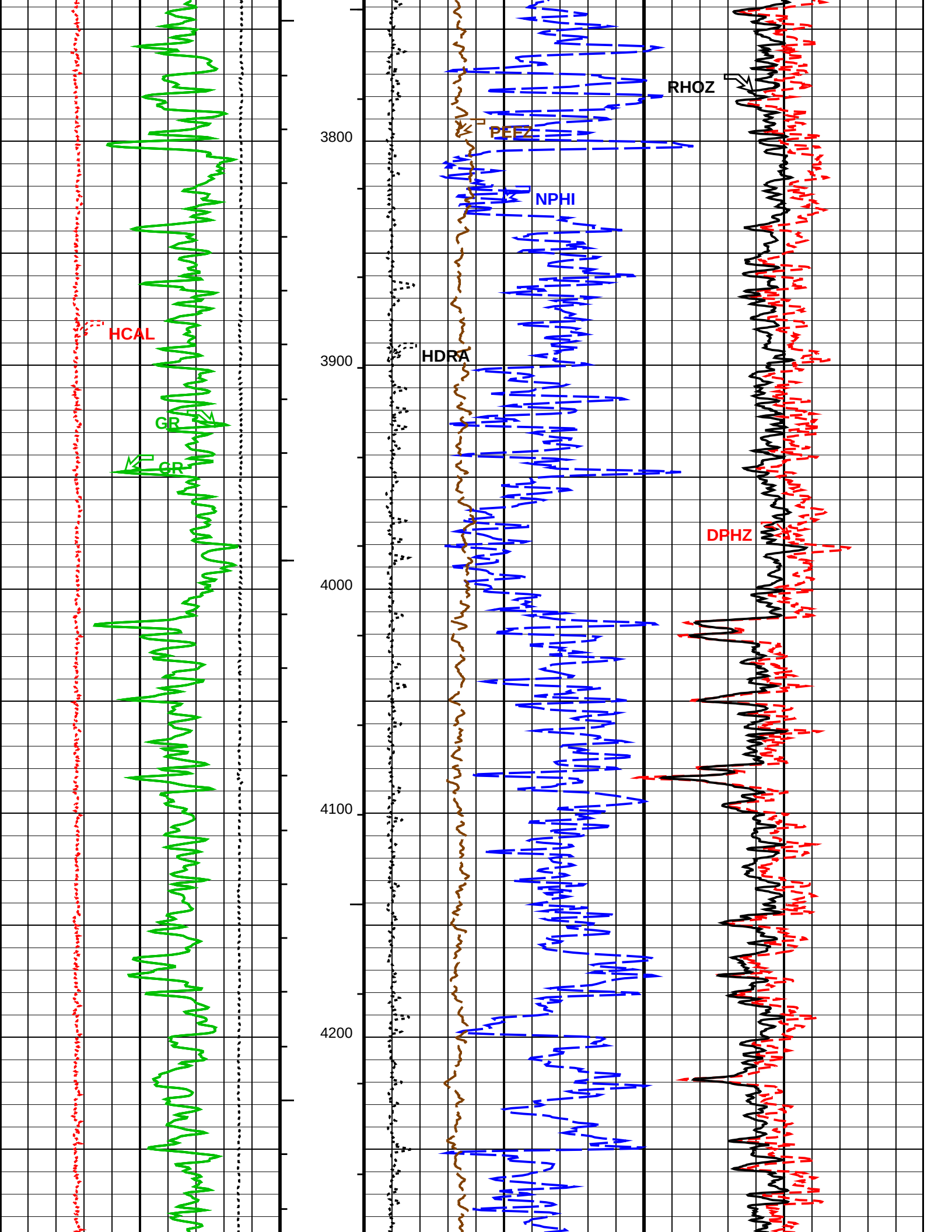
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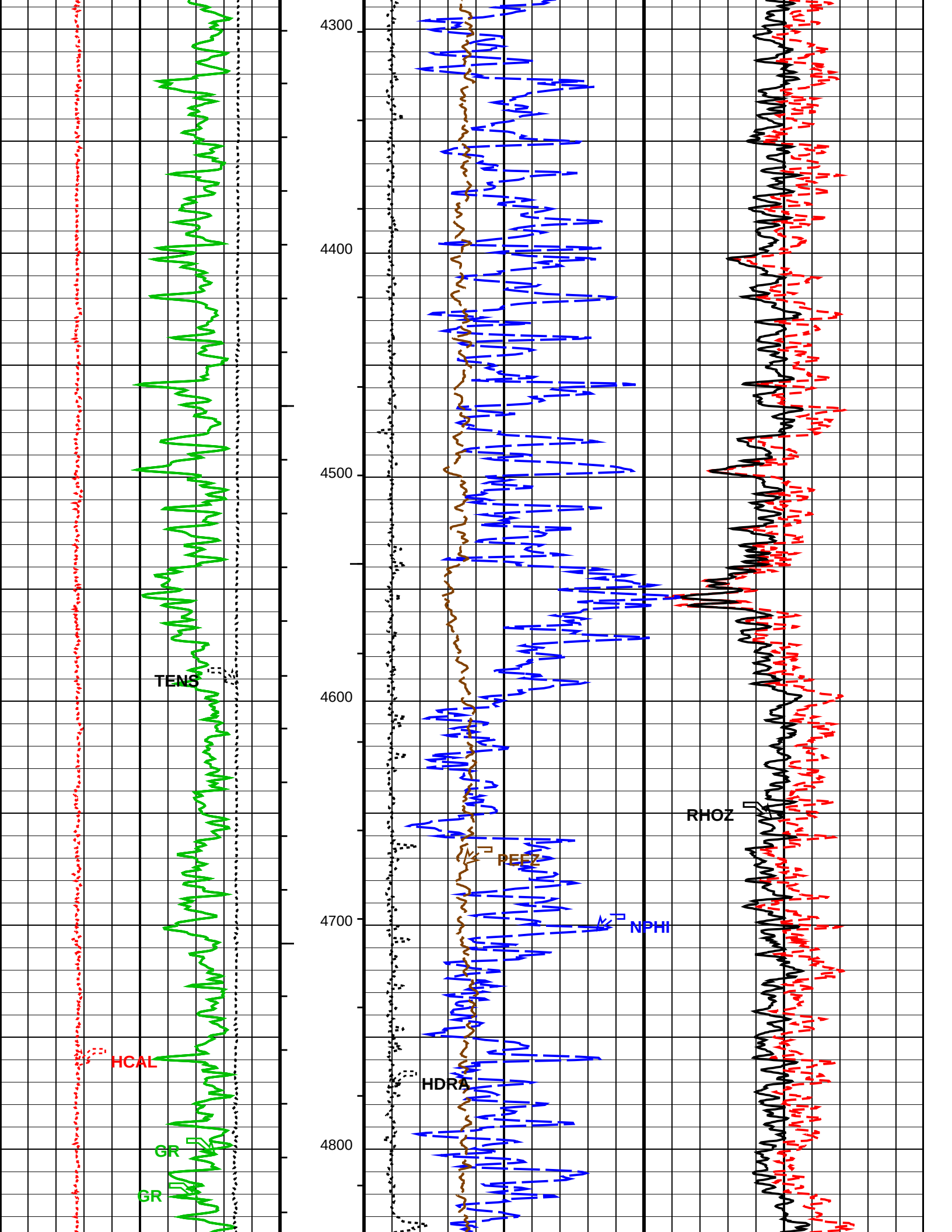
RHOZ
DPHZ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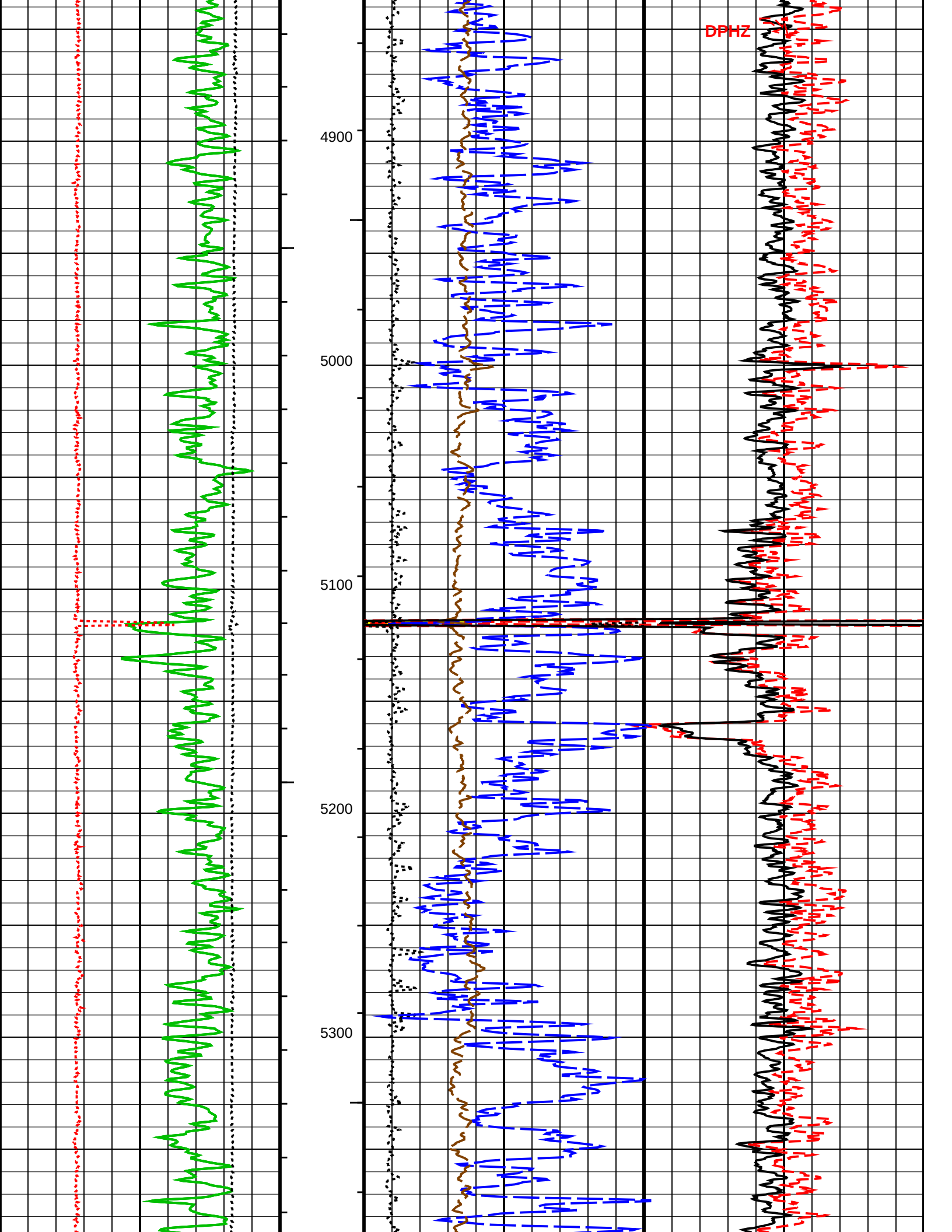
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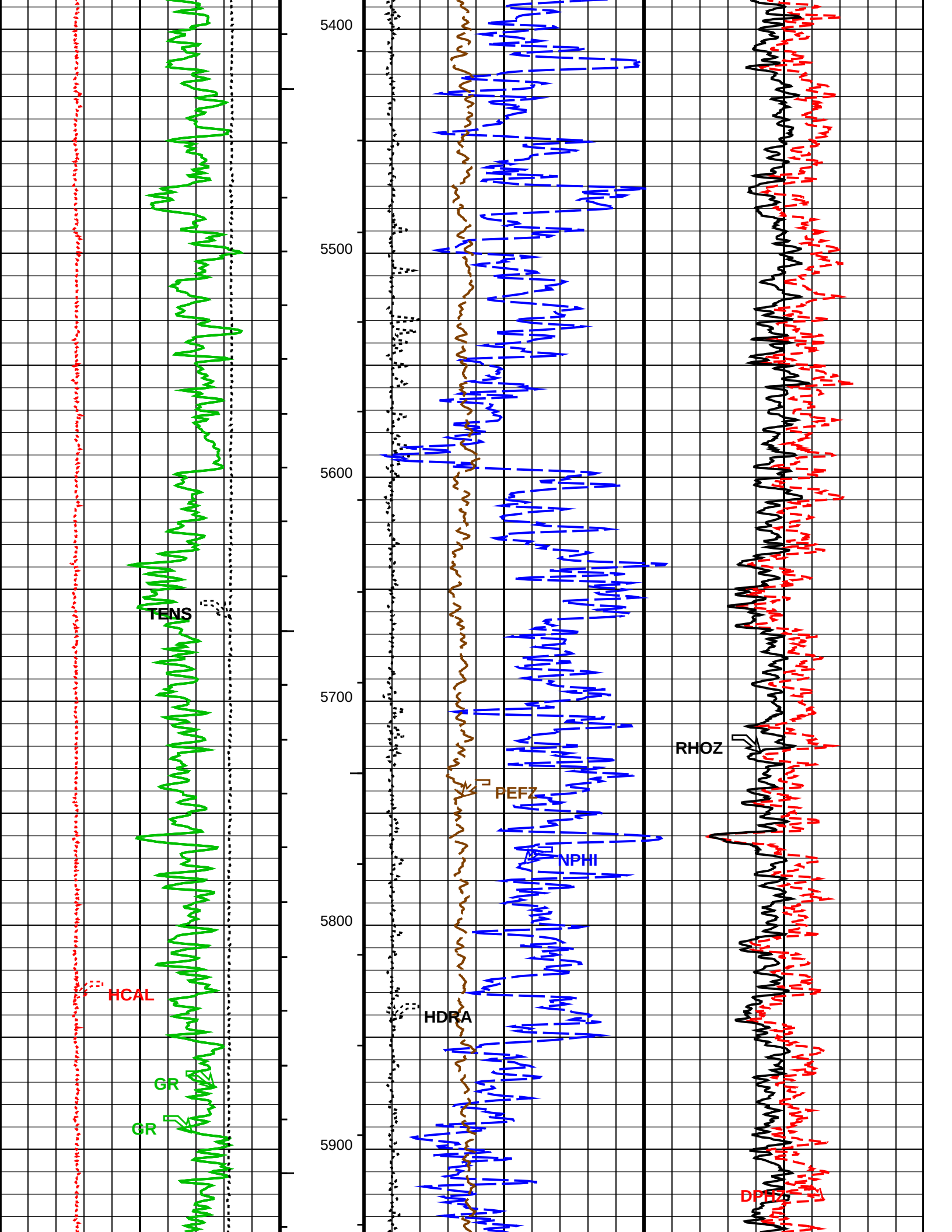
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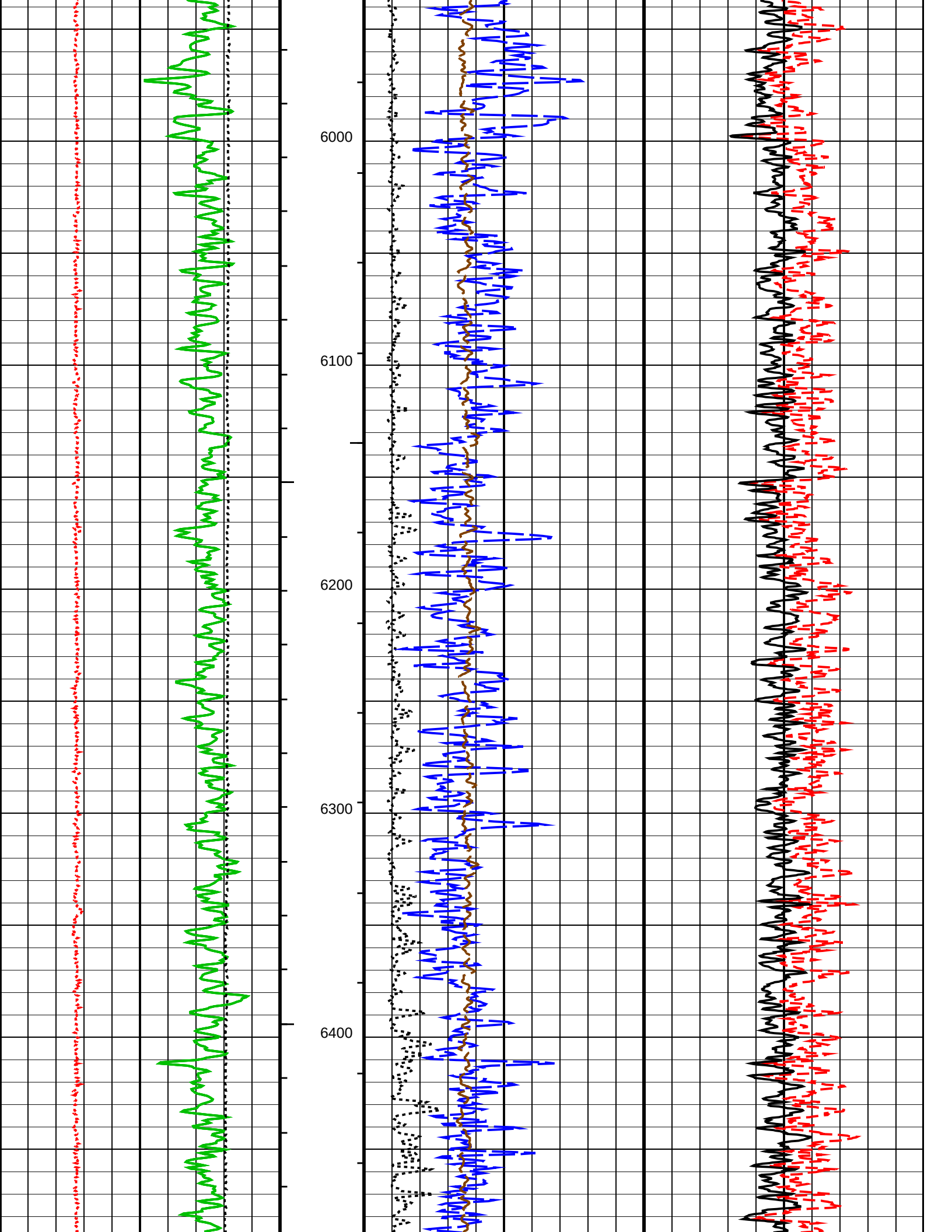
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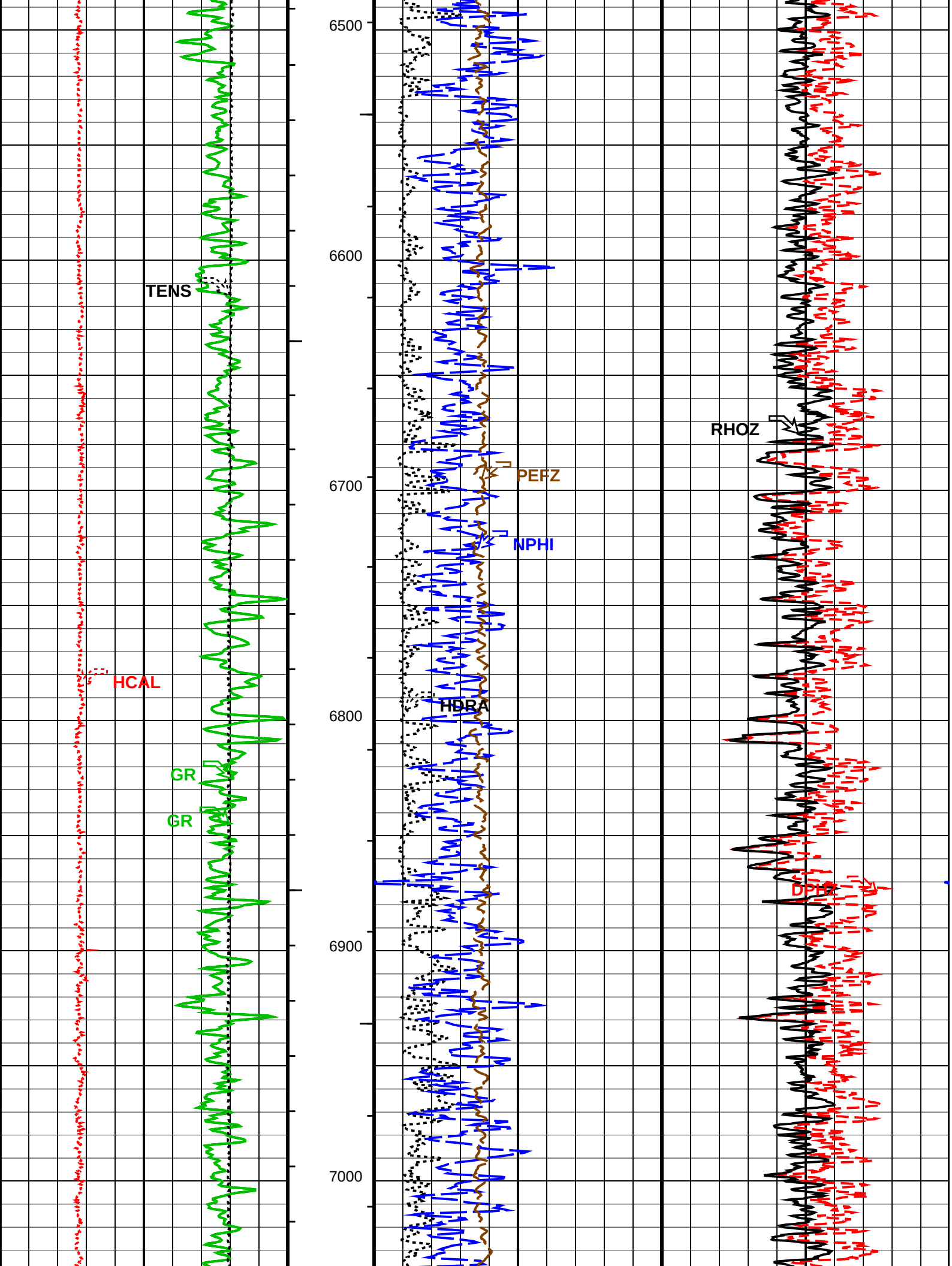
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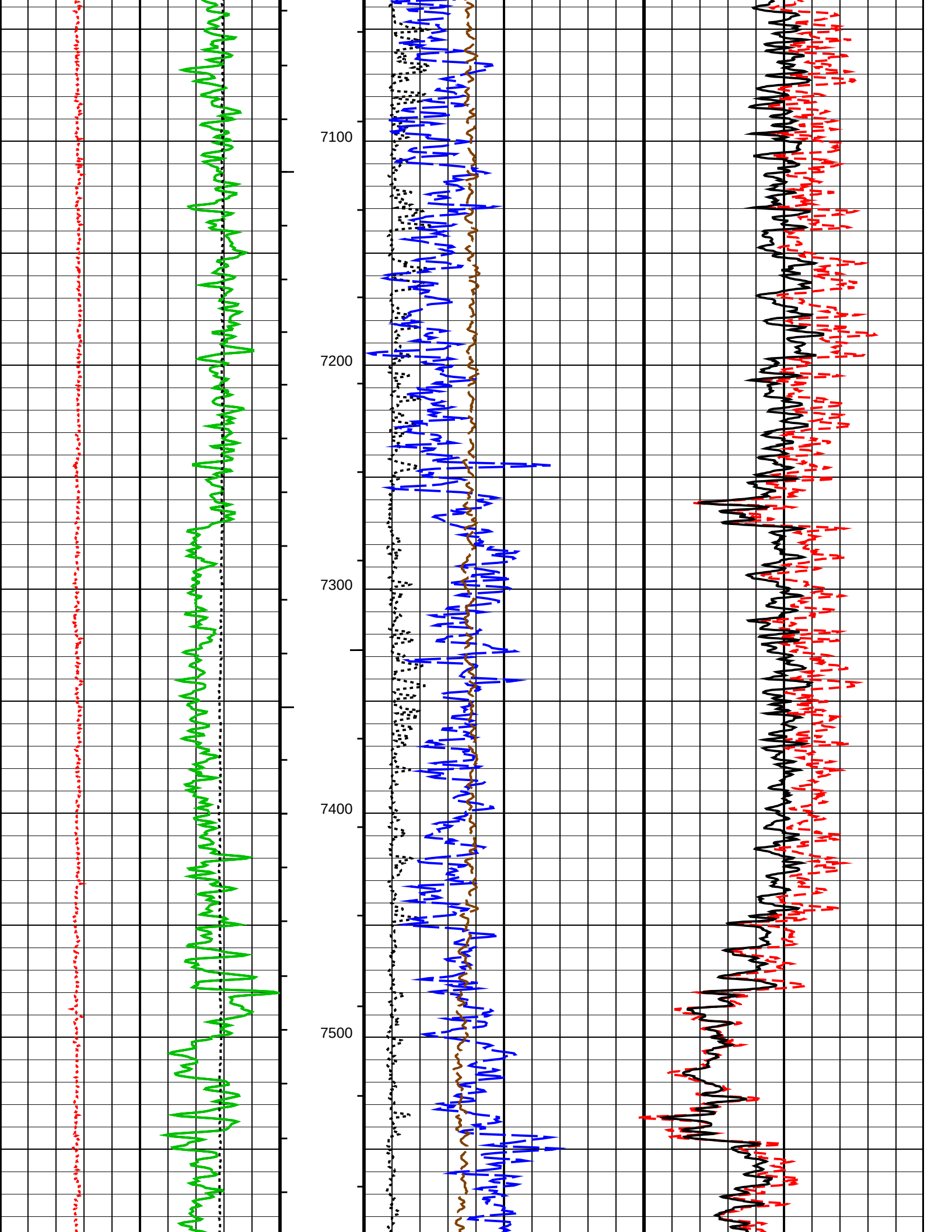
PEFZ
NPHI
HDRA
RHOZ
DPHZ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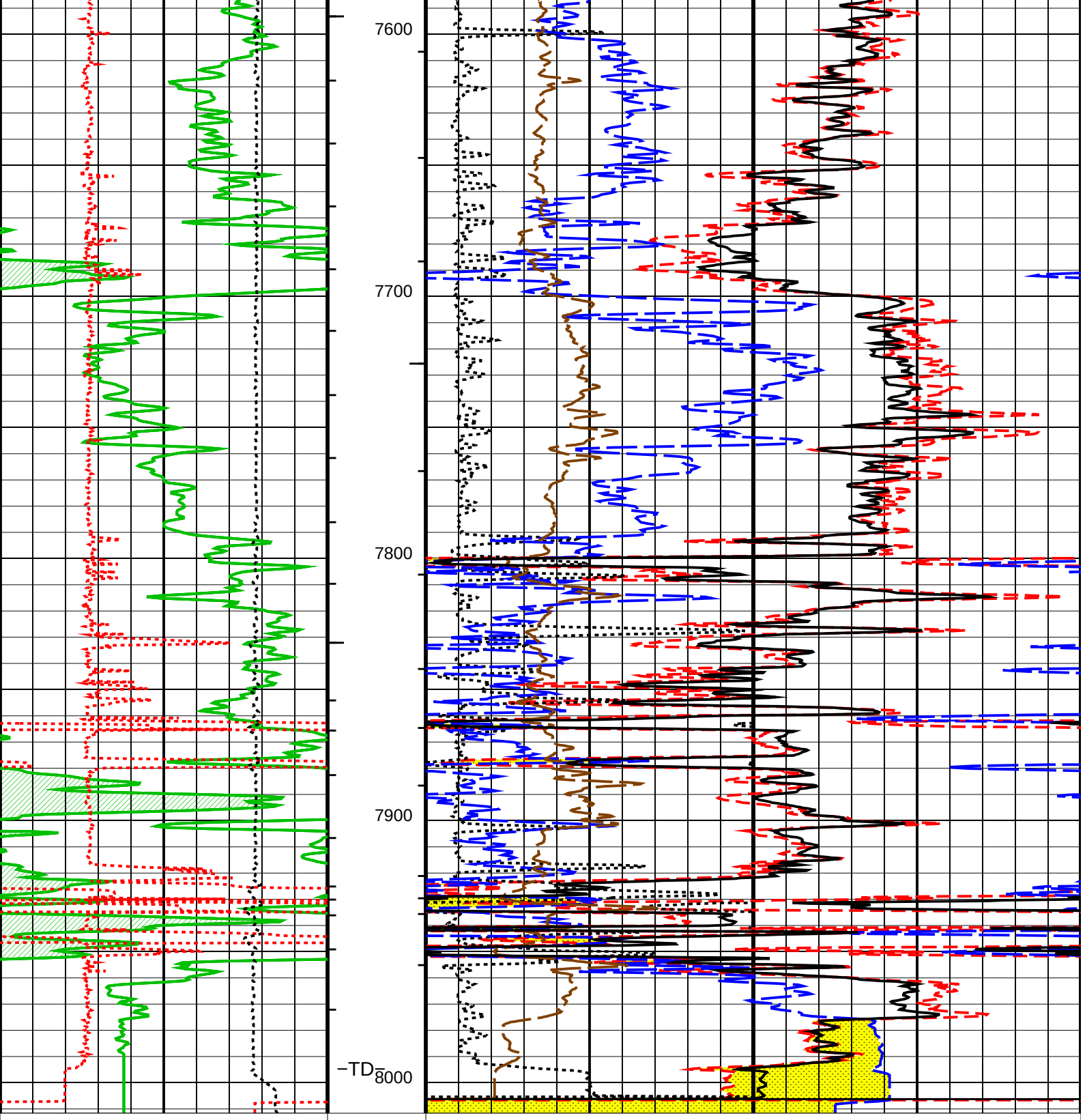


Gamma Ray (GR)
0 (GAPI) 200

HILT Caliper (HCAL)
6 (IN) 16

Tension (TENS)
10000 (LBF) 0

GR > 200
From LHT1 to GR1

Std. Res. Density Porosity (DPHZ)
0.3 (V/V) −0.1

Density Correction (HDRA)
−0.05 (G/C3) 0.45

Neutron Porosity (NPHI)
0.3 (V/V) −0.1

Std. Res. Formation Pe (PEFZ)
0 (----) 10

Std. Res. Formation Density (RHOZ)
2 (G/C3) 3

NEUTRON-DENSITY CROSS OVER

NUETRON−DENSITY CROSS OVER
From DPHZ to NPHI

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Parameters

DLIS Name	Description	Value	
	HILTH−FTB: High resolution Integrated Logging Tool−DTS		
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
GCLF	Germany Coal−like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.71	G/C3
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	8.48	LB/G
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	
TD	Total Depth	7997	FT

Format: DENSITY_2 Vertical Scale: 2" per 100’ Graphics File Created: 08−May−2010 06:15

OP System Version: 17C0−154

HILTH−FTB	17C0−154	DTC−H	17C0−154

Input DLIS Files

DEFAULT	MERGE_TLD_MCFL_CNL_018GUP	FN:1	PRODUCER	08−May−2010 06:12	8011.5 FT	21.0 FT

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_019PUP	FN:14	PRODUCER	08−May−2010 06:14		

Schlumberger

Main Pass
5 Inch / 100 Feet

MAXIS Field Log

Input DLIS Files

DEFAULT	MERGE_TLD_MCFL_CNL_018GUP	FN:1	PRODUCER	08−May−2010 06:12	8011.5 FT	21.0 FT

Output DLIS Files

DEFAULT TLD_MCFL_CNL_019PUP FN:14 PRODUCER 08−May−2010 06:14 8011.5 FT 21.5 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 2361.01 F3

Cement Volume = 1441.21 F3 (assuming 5.50 IN casing O.D.)

Computed from 7997.0 FT to 2422.0 FT using data channel(s) HCAL

OP System Version: 17C0−154

HILTH−FTB 17C0−154 DTC−H 17C0−154

PIP SUMMARY

Integrated Hole Volume Minor Pip Every 10 F3

Integrated Hole Volume Major Pip Every 100 F3

Integrated Cement Volume Minor Pip Every 10 F3

Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

NUETRON−DENSITY CROSS OVER
From DPHZ to NPHI

Std. Res. Formation Density (RHOZ)
2 (G/C3) 3

GR > 200
From LHT1 to GR1

Std. Res. Formation Pe (PEFZ)
0 10

Tension (TENS)
10000 (LBF) 0

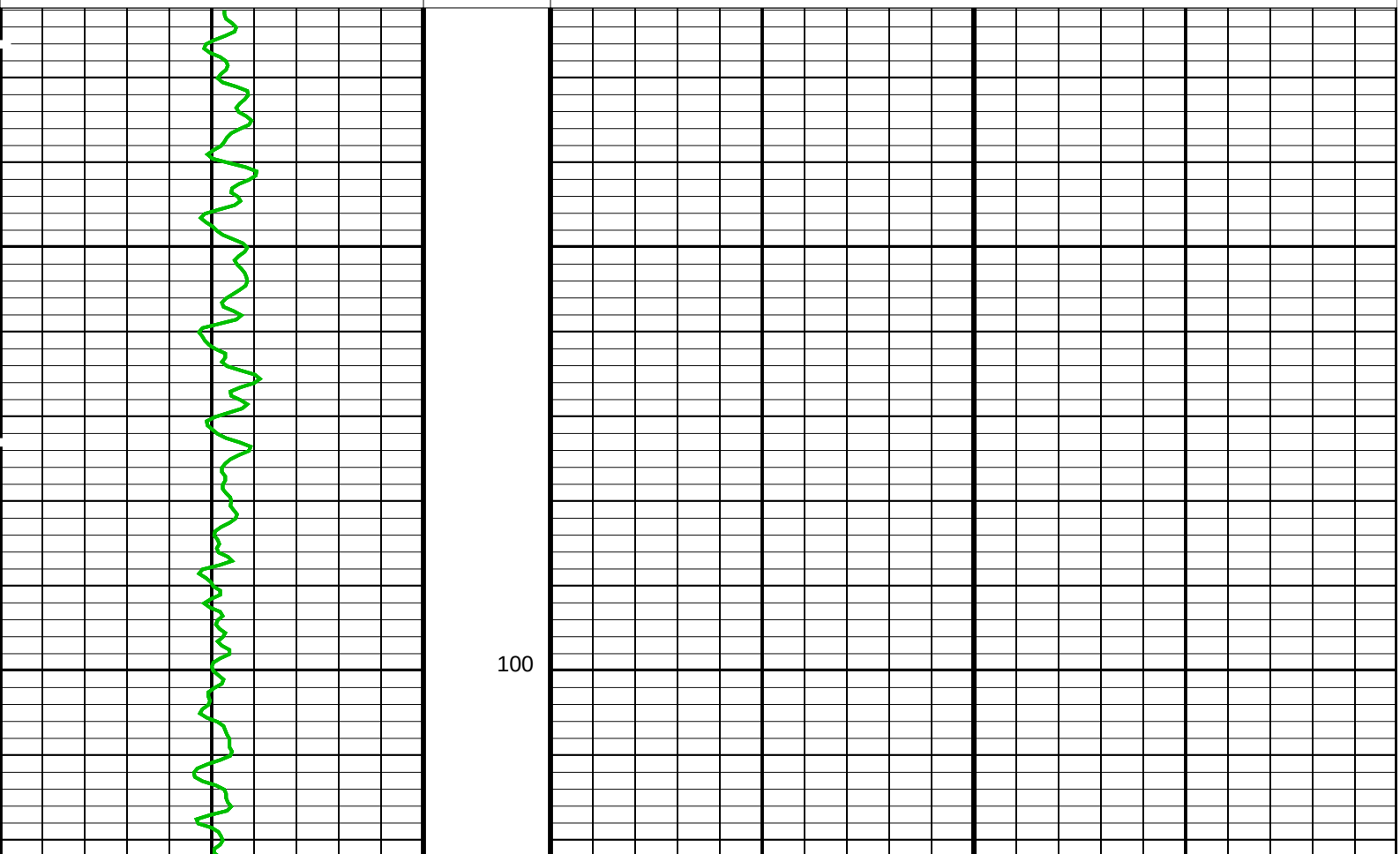
Neutron Porosity (NPHI)
0.3 (V/V) −0.1

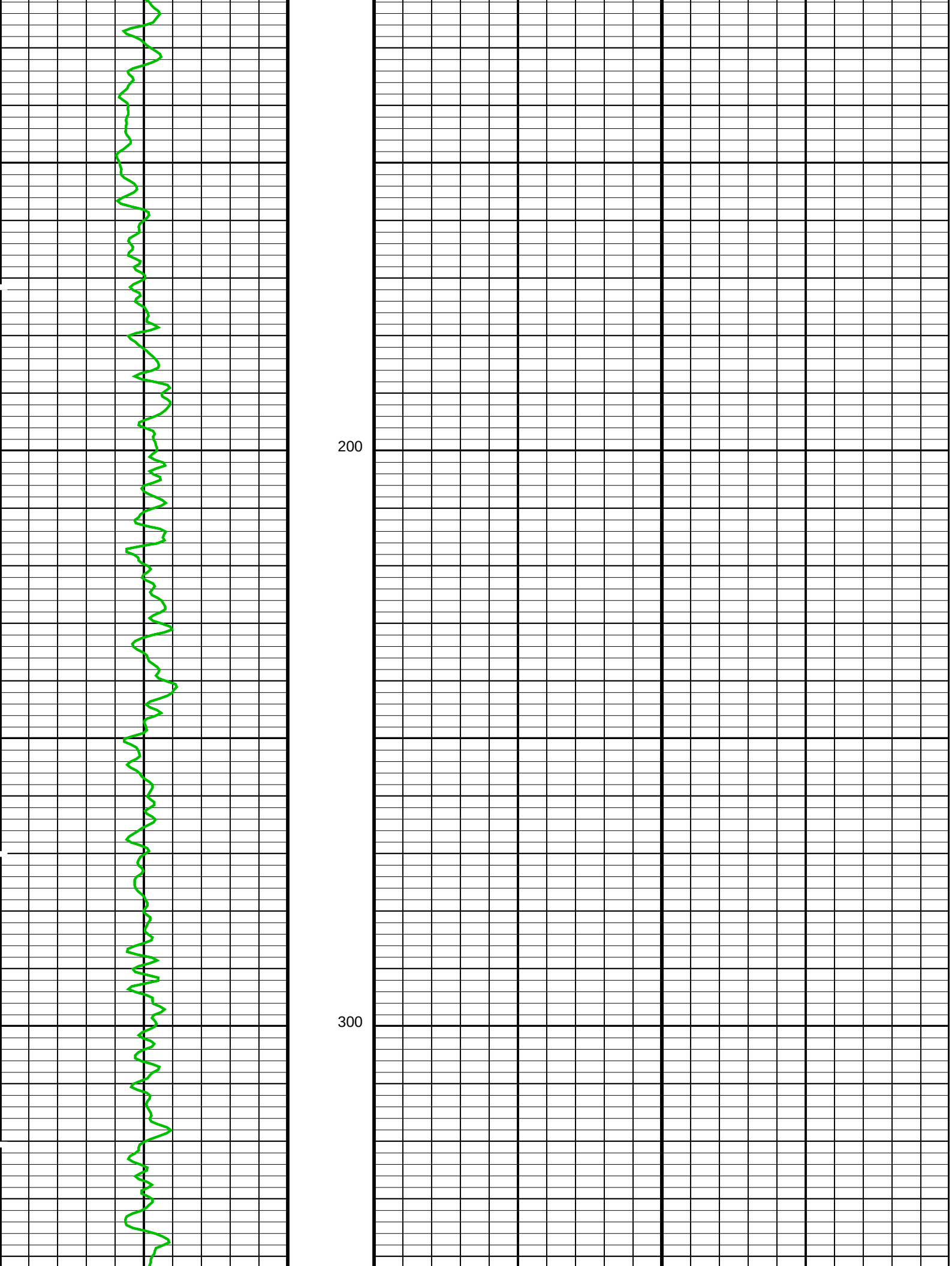
HILT Caliper (HCAL)
6 (IN) 16

Density Correction (HDRA)
−0.05 (G/C3) 0.45

Gamma Ray (GR)
0 (GAPI) 200

Std. Res. Density Porosity (DPHZ)
0.3 (V/V) −0.1

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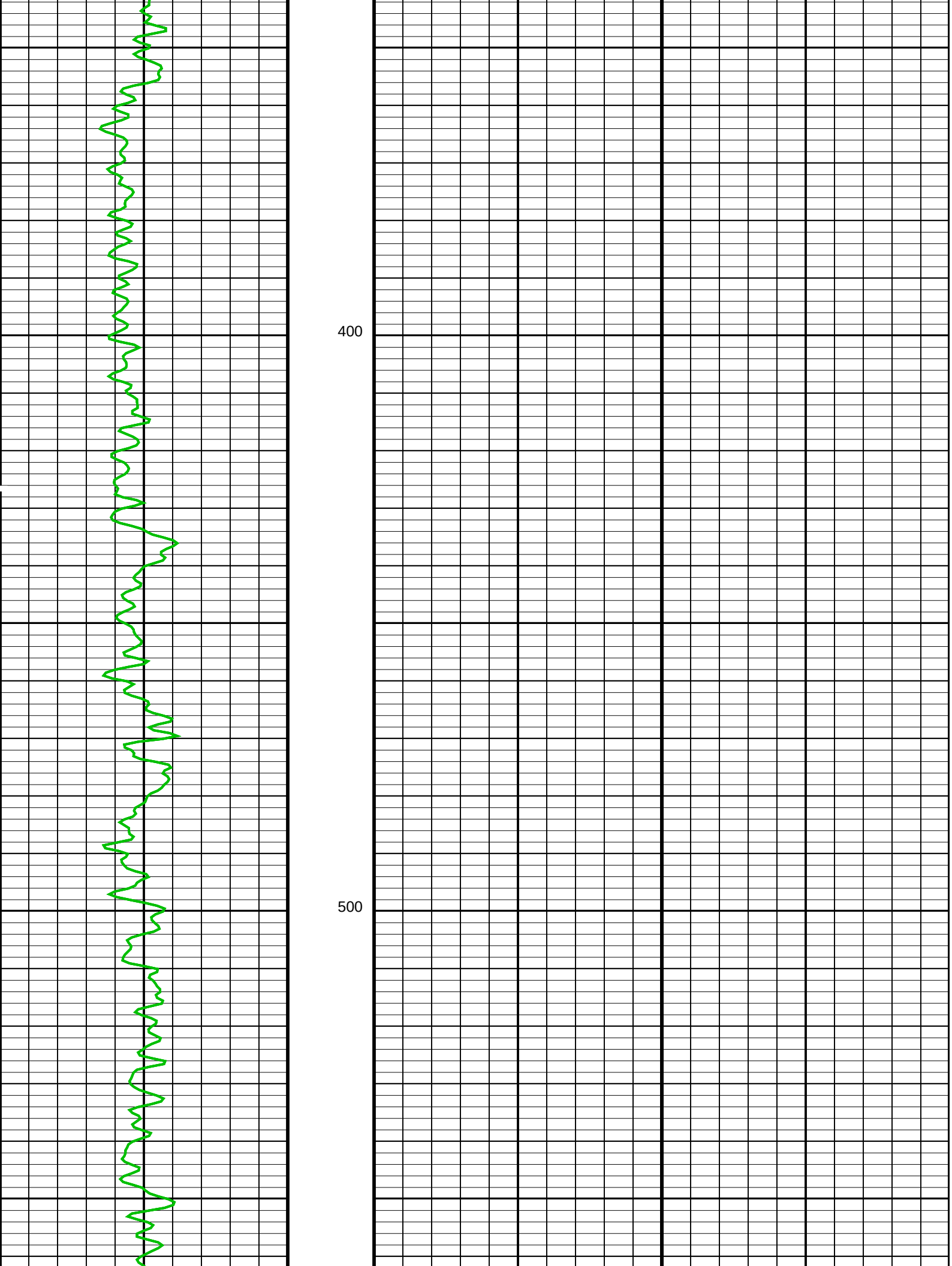
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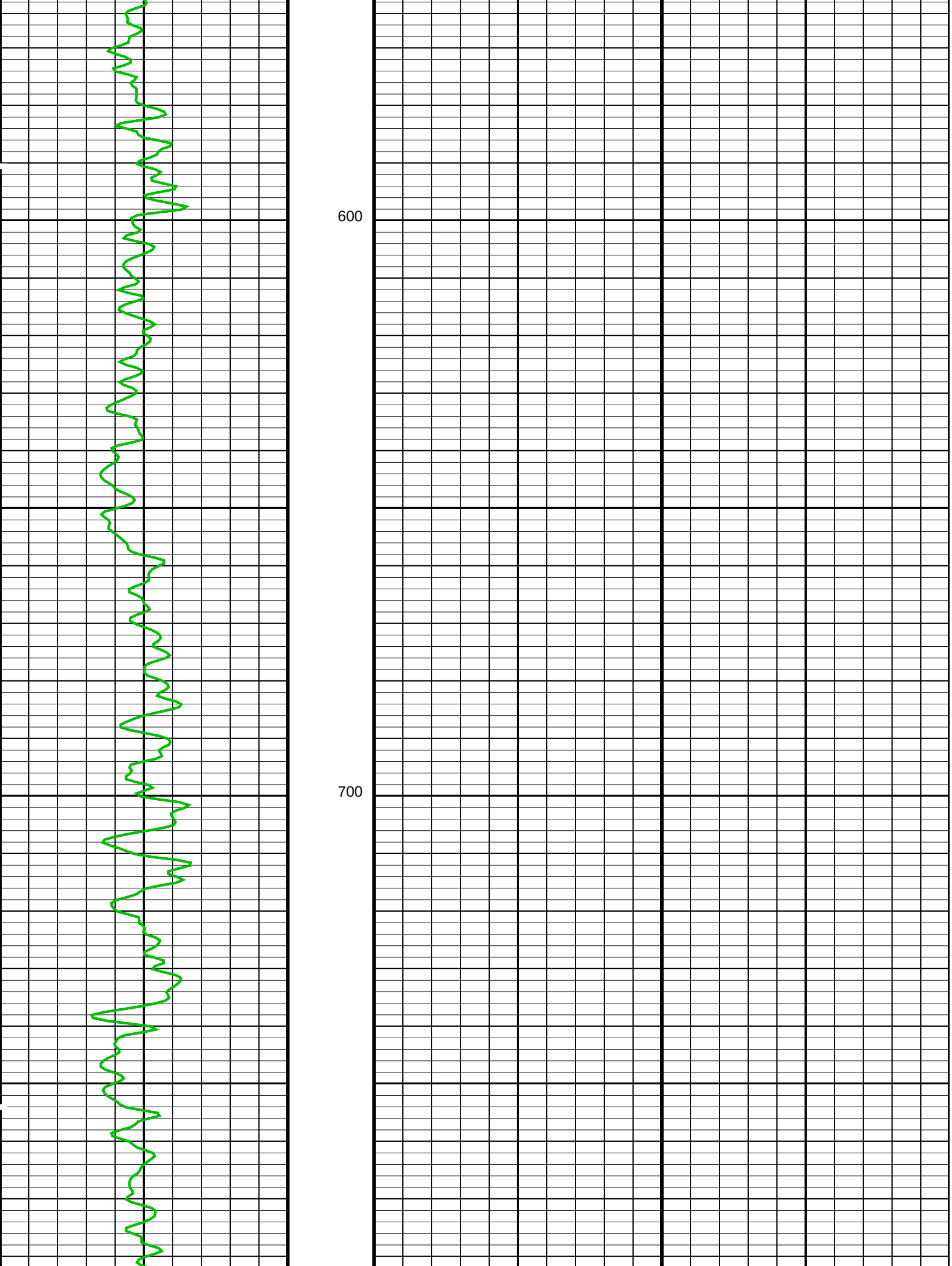
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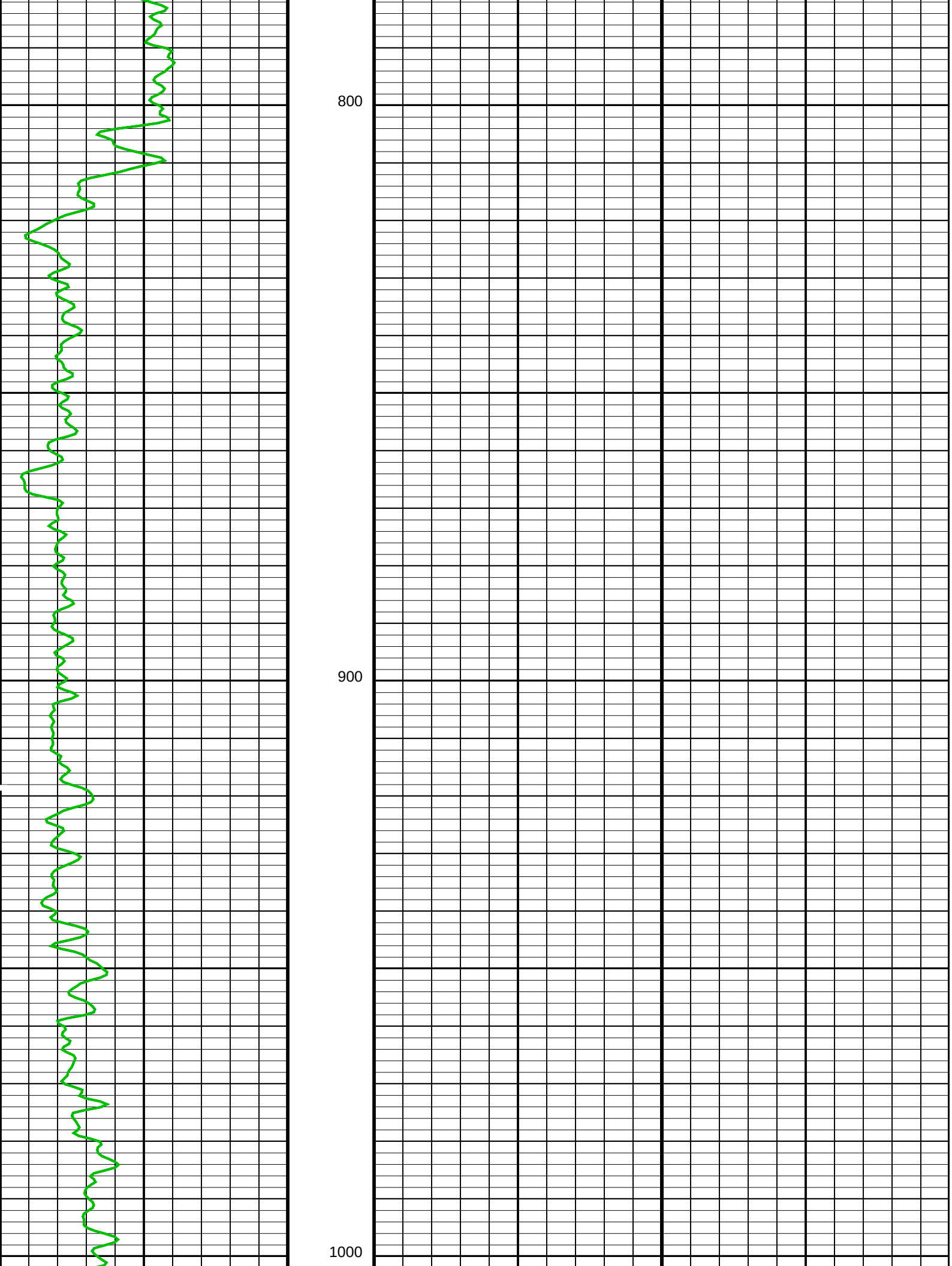
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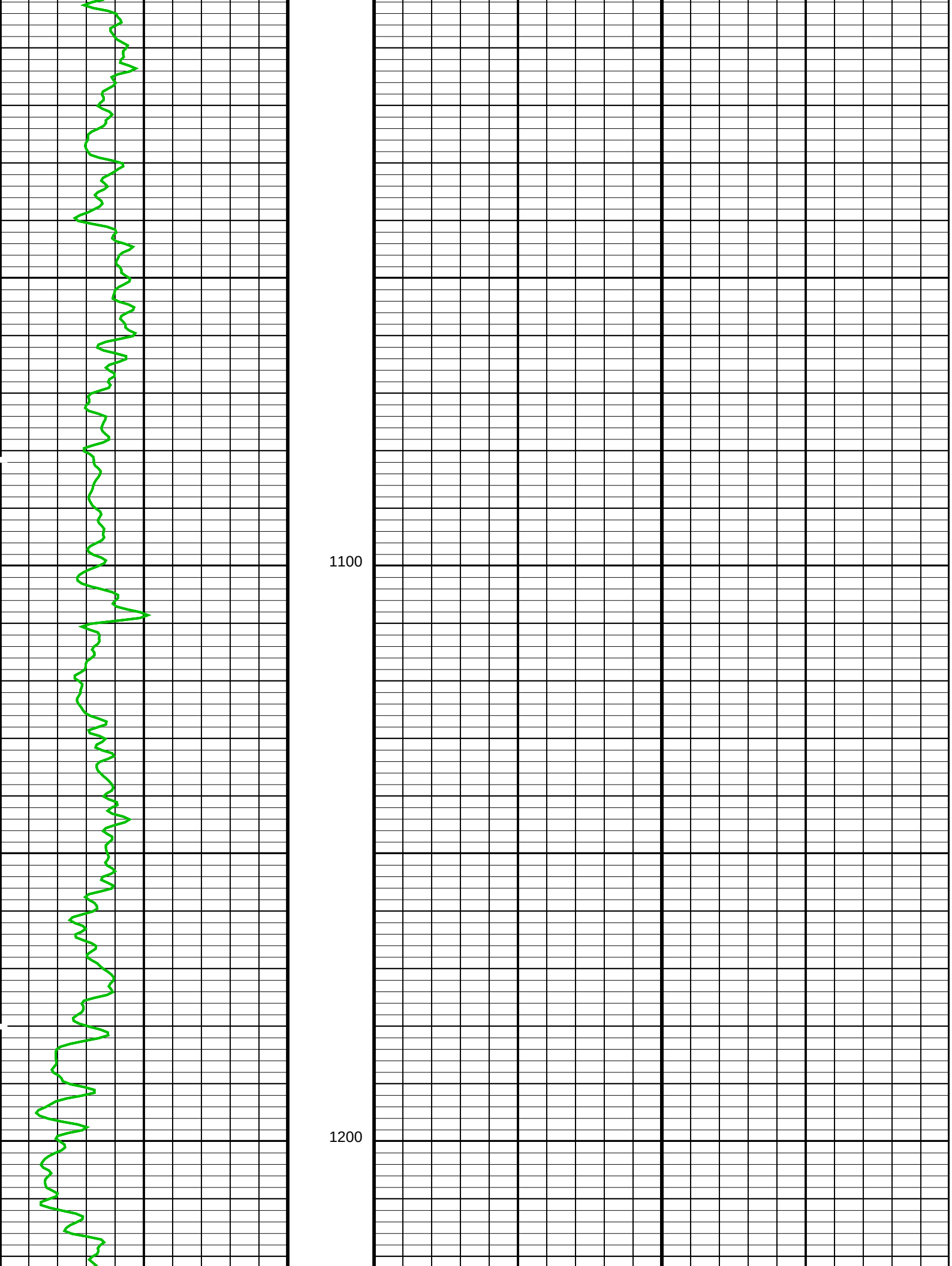
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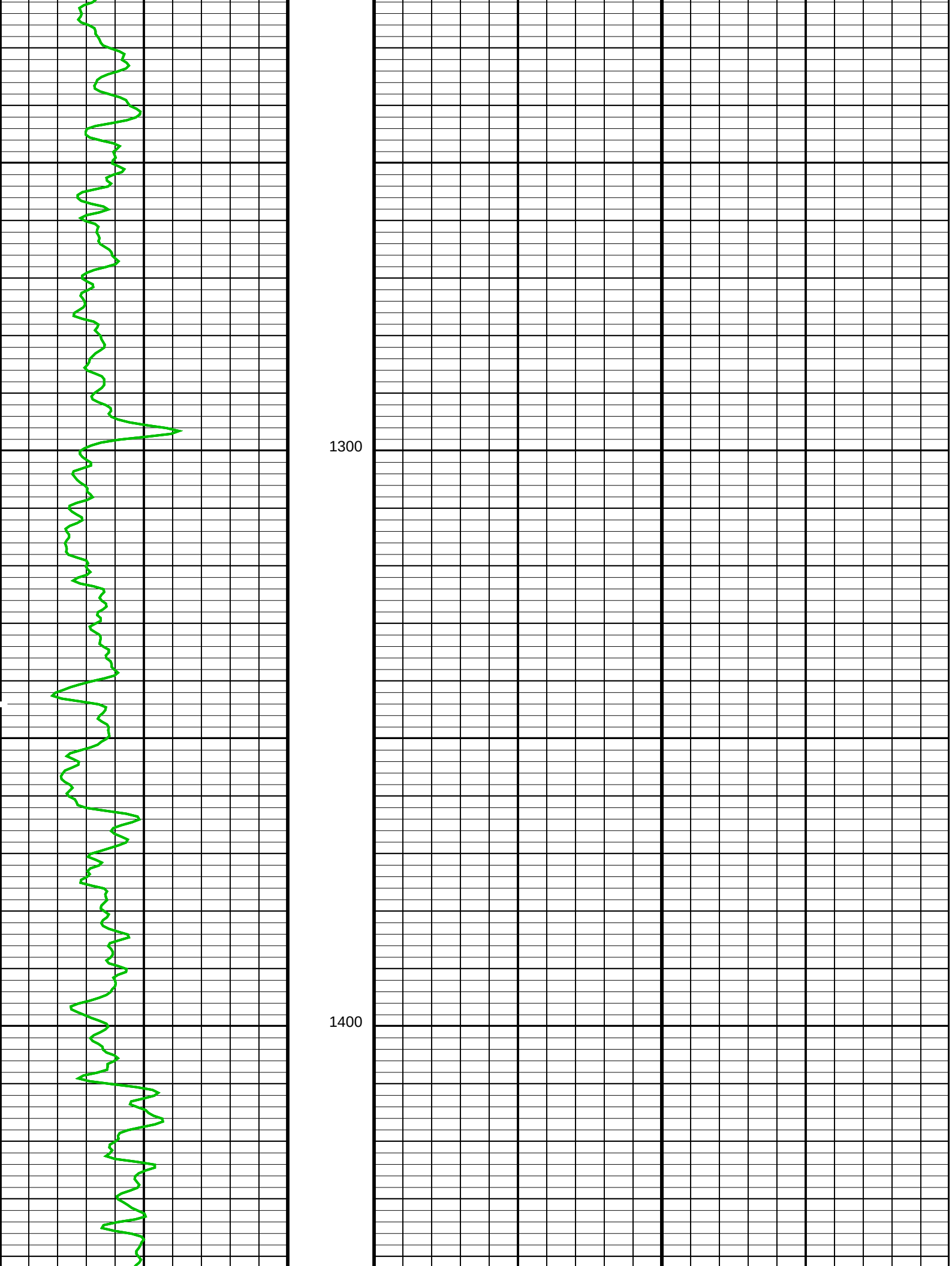
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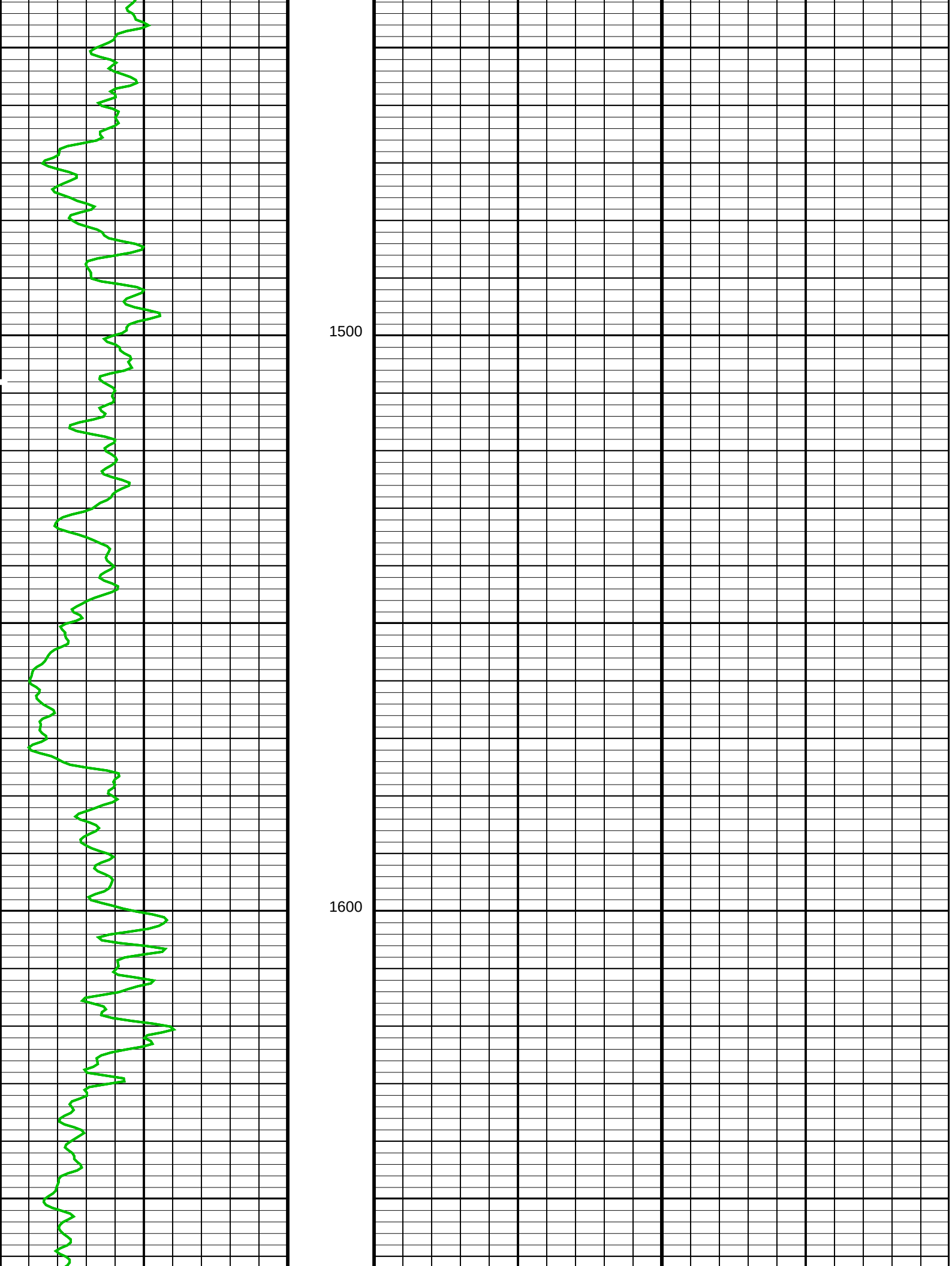
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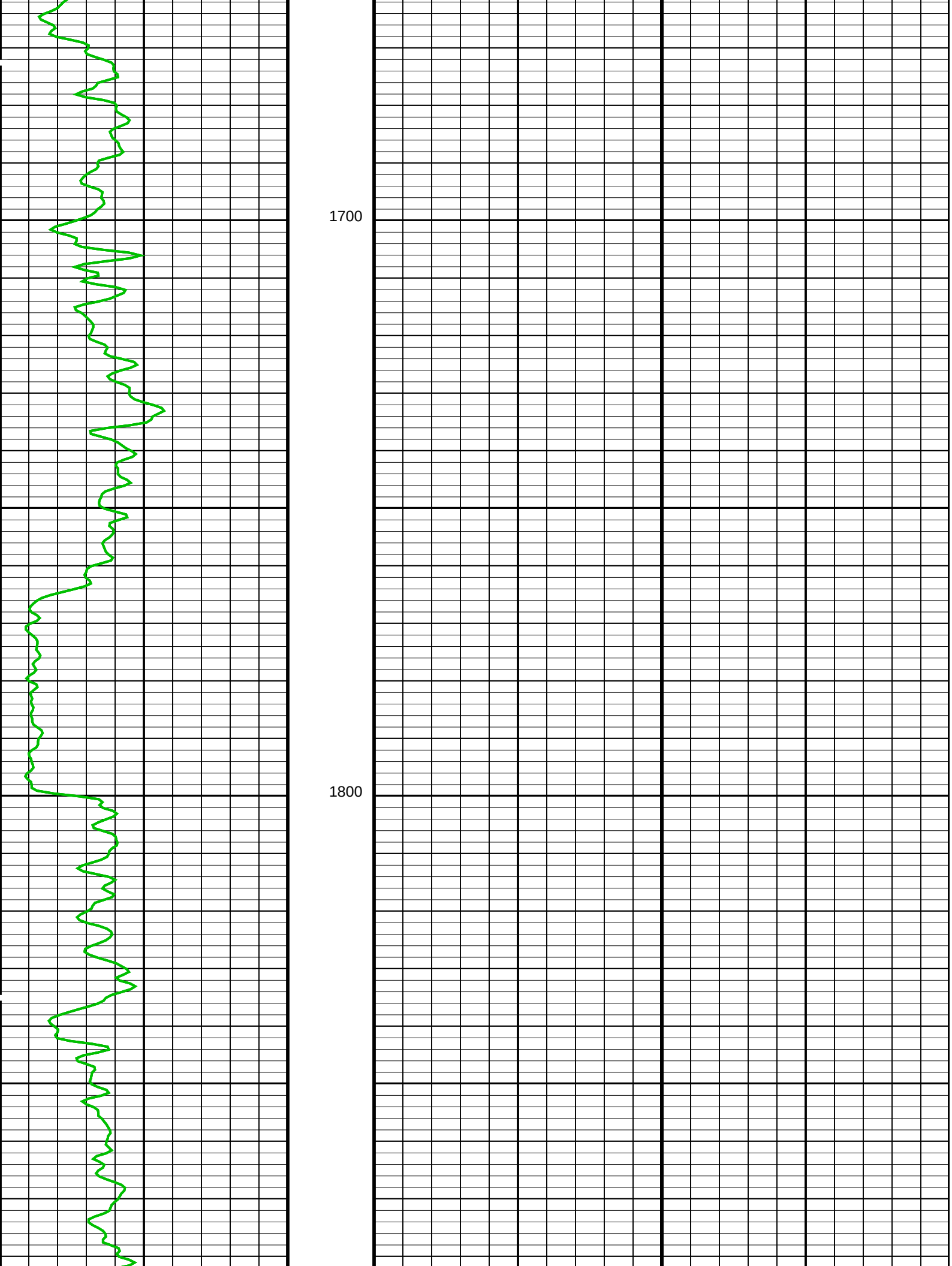
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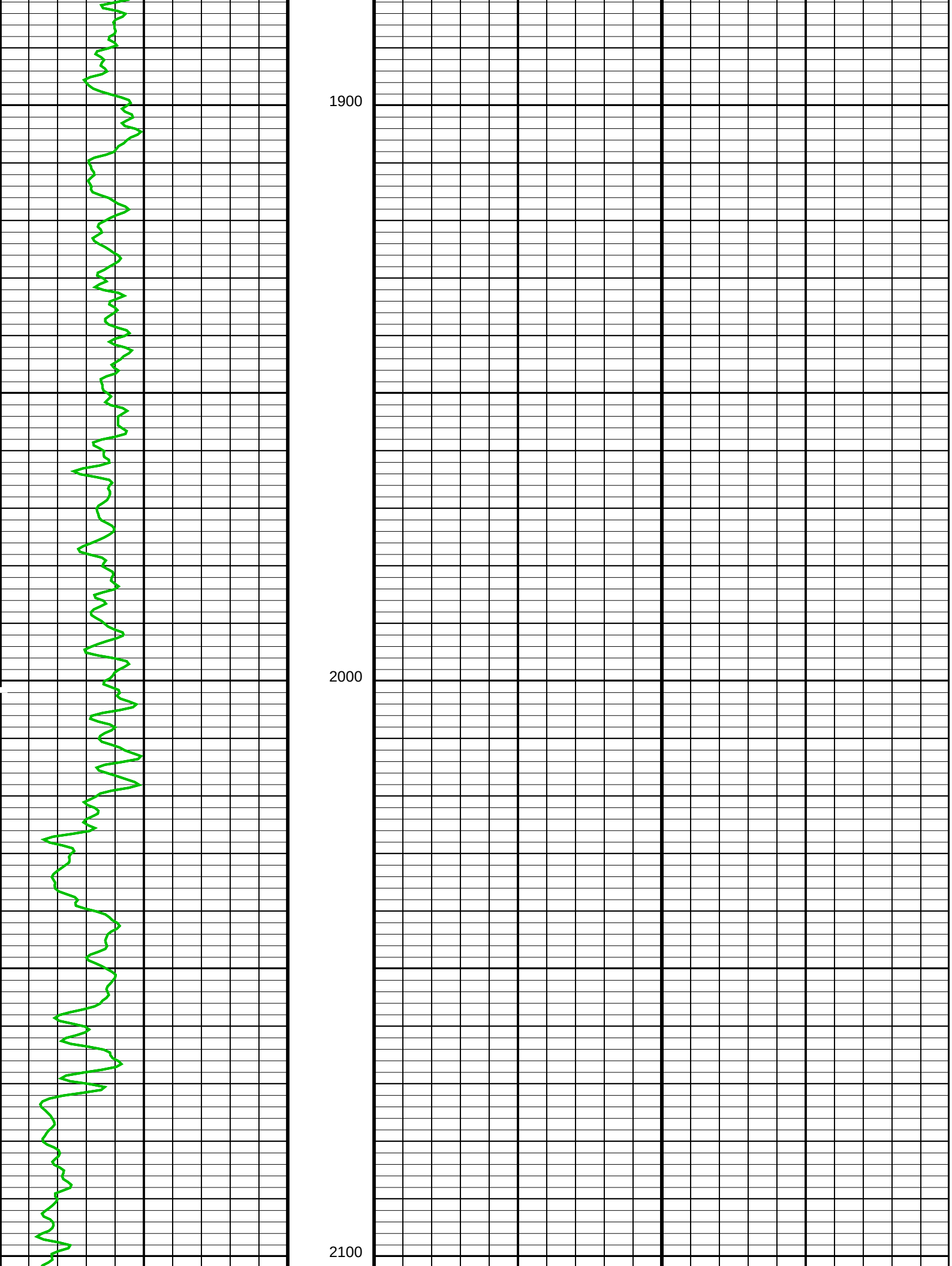
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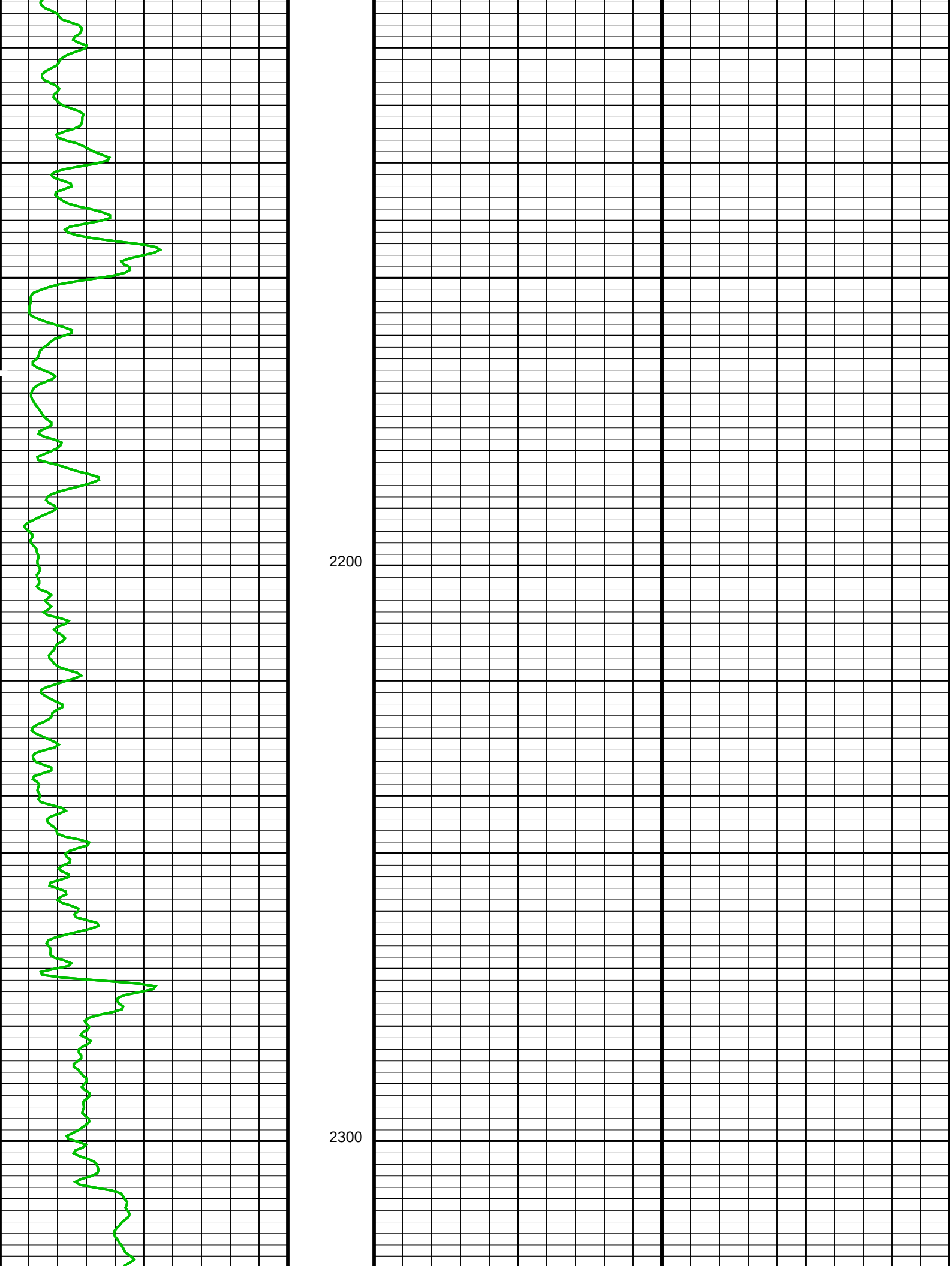
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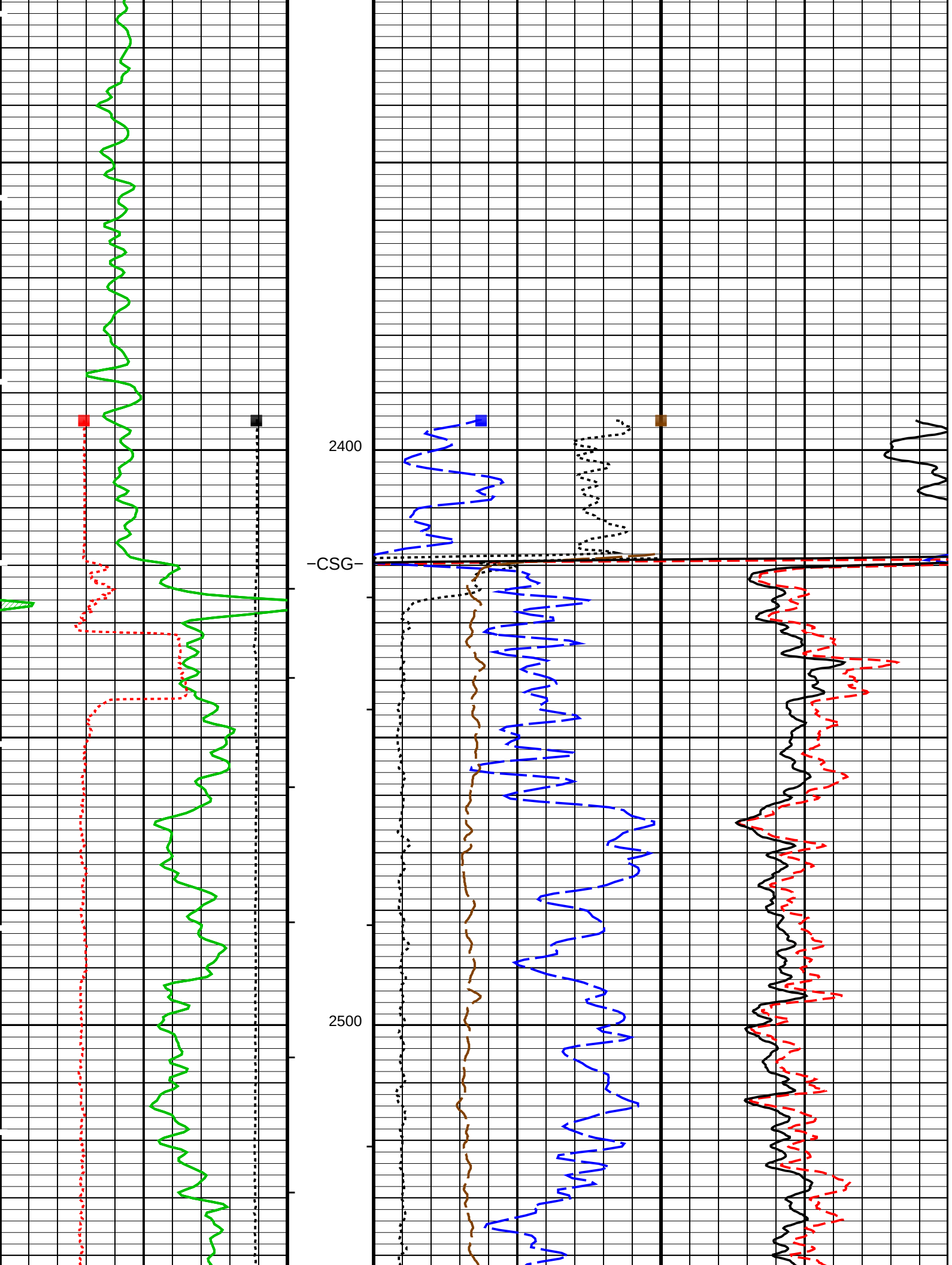
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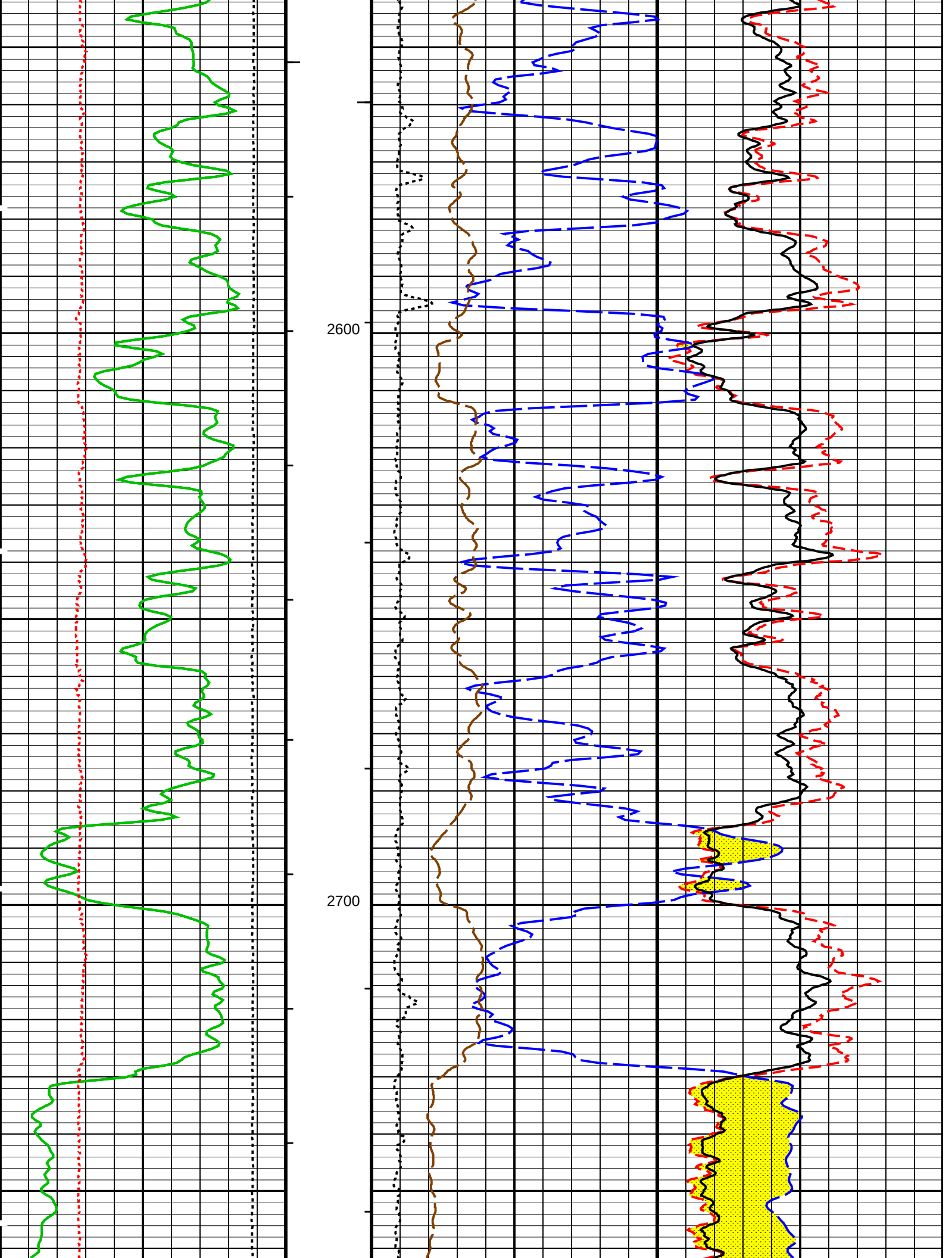
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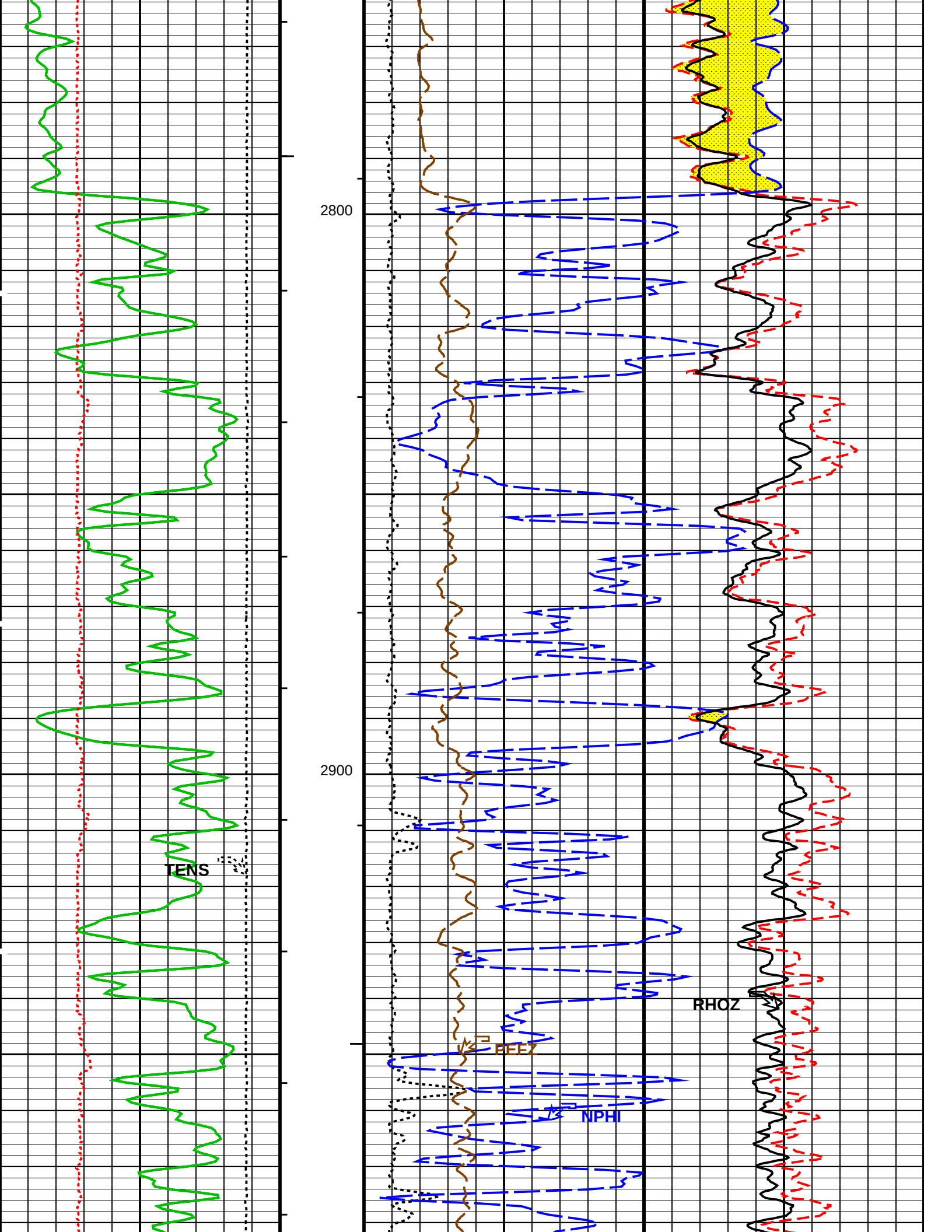
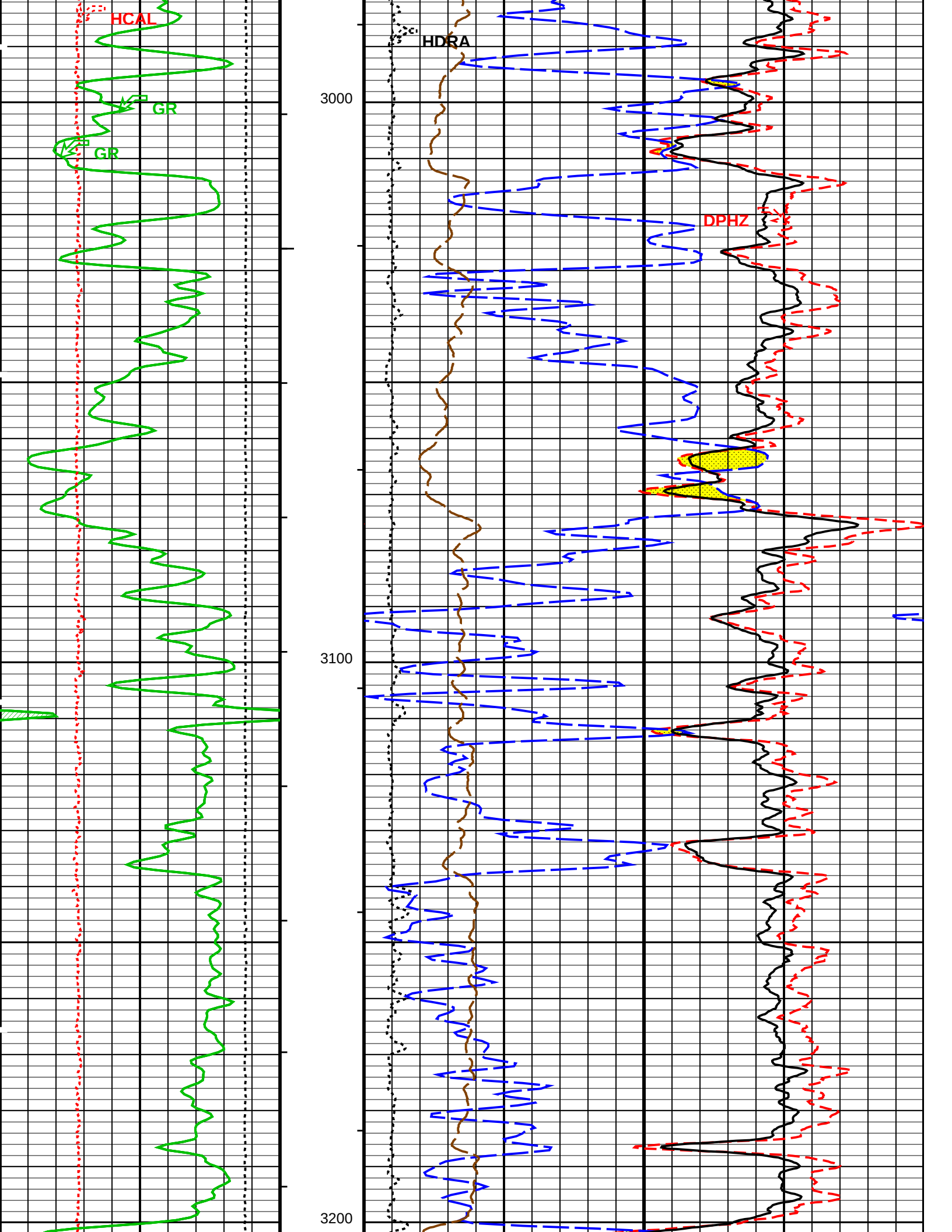
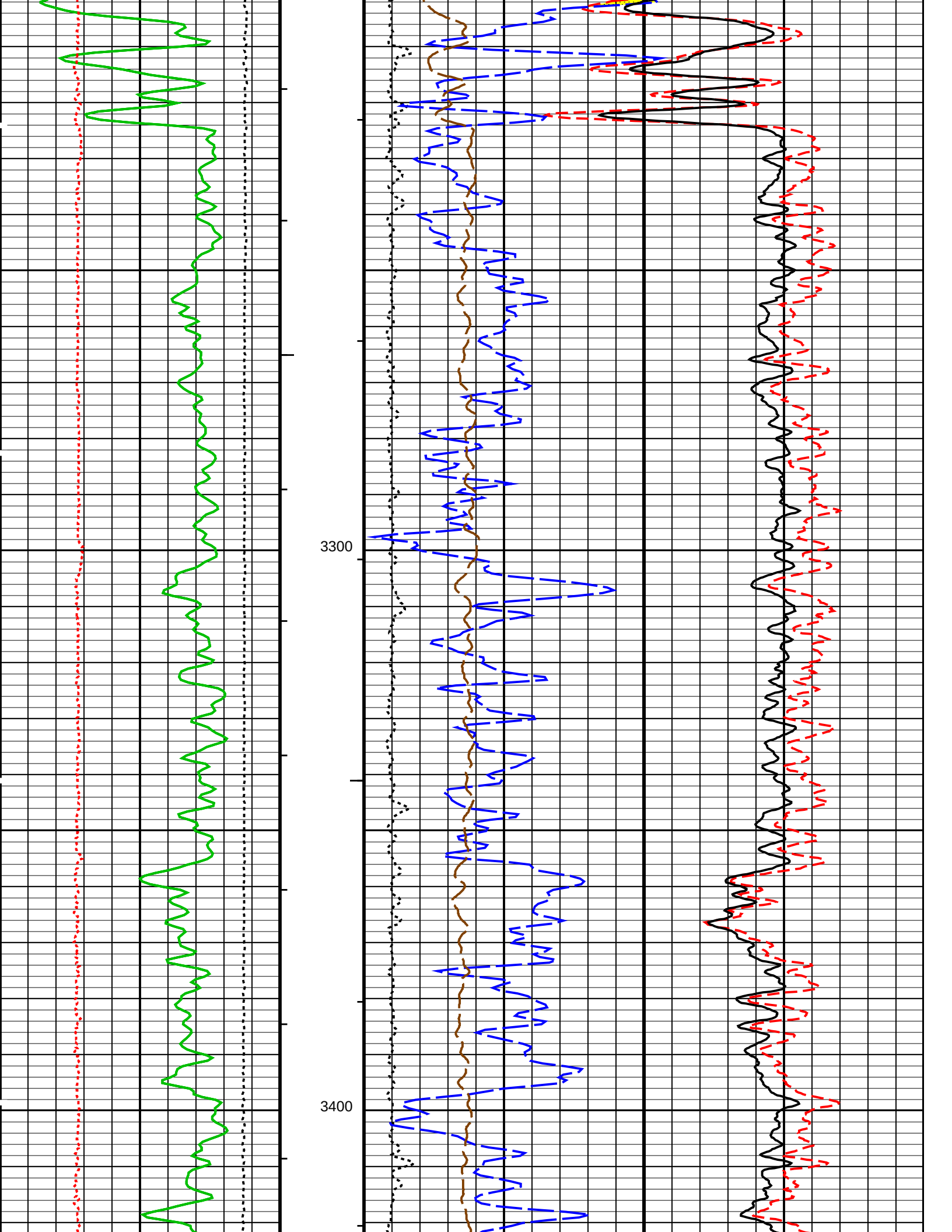

2800
2900
TENS
RHOZ
BEEZ
NPHI


HCAL
GR
GR
HDRA
DPHZ
3000
3100
3200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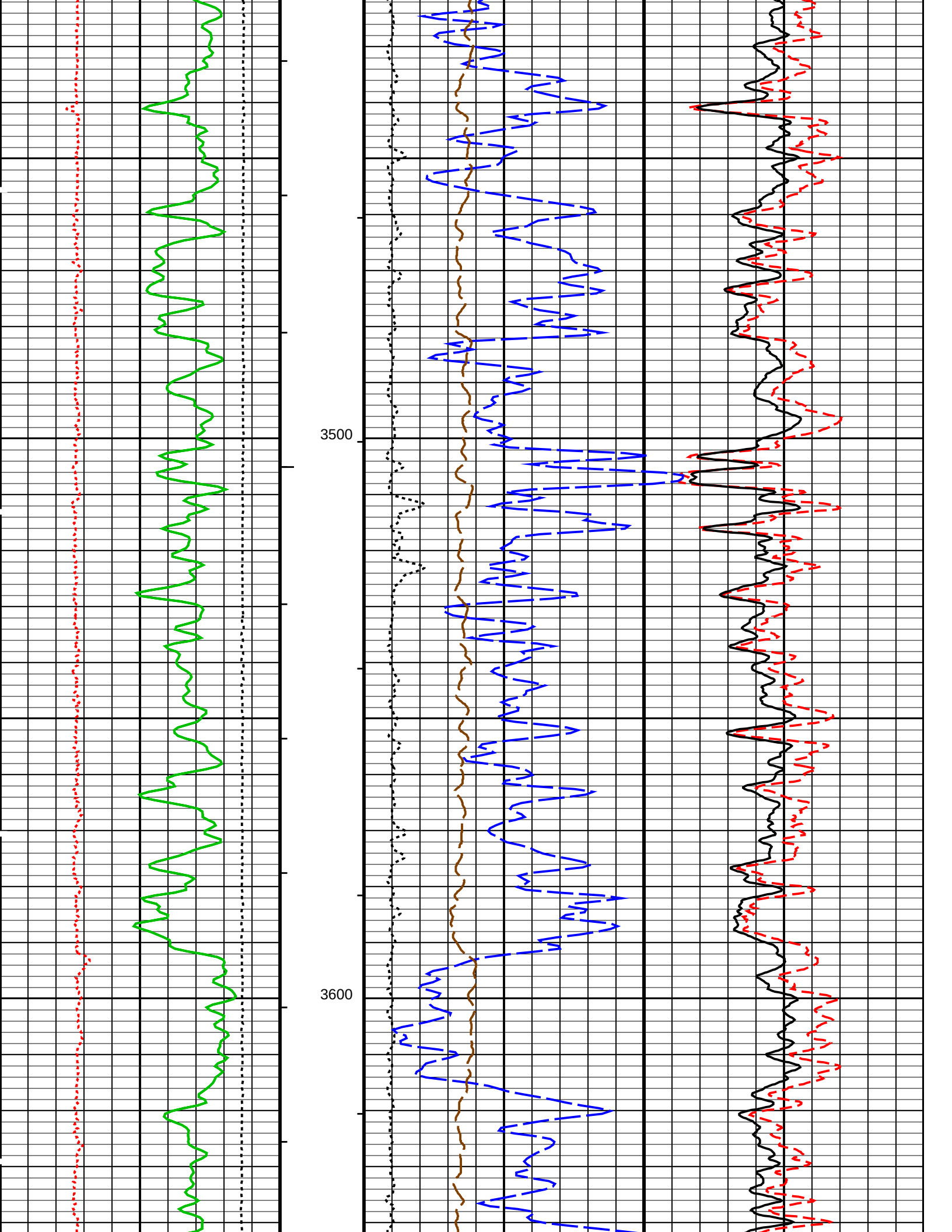
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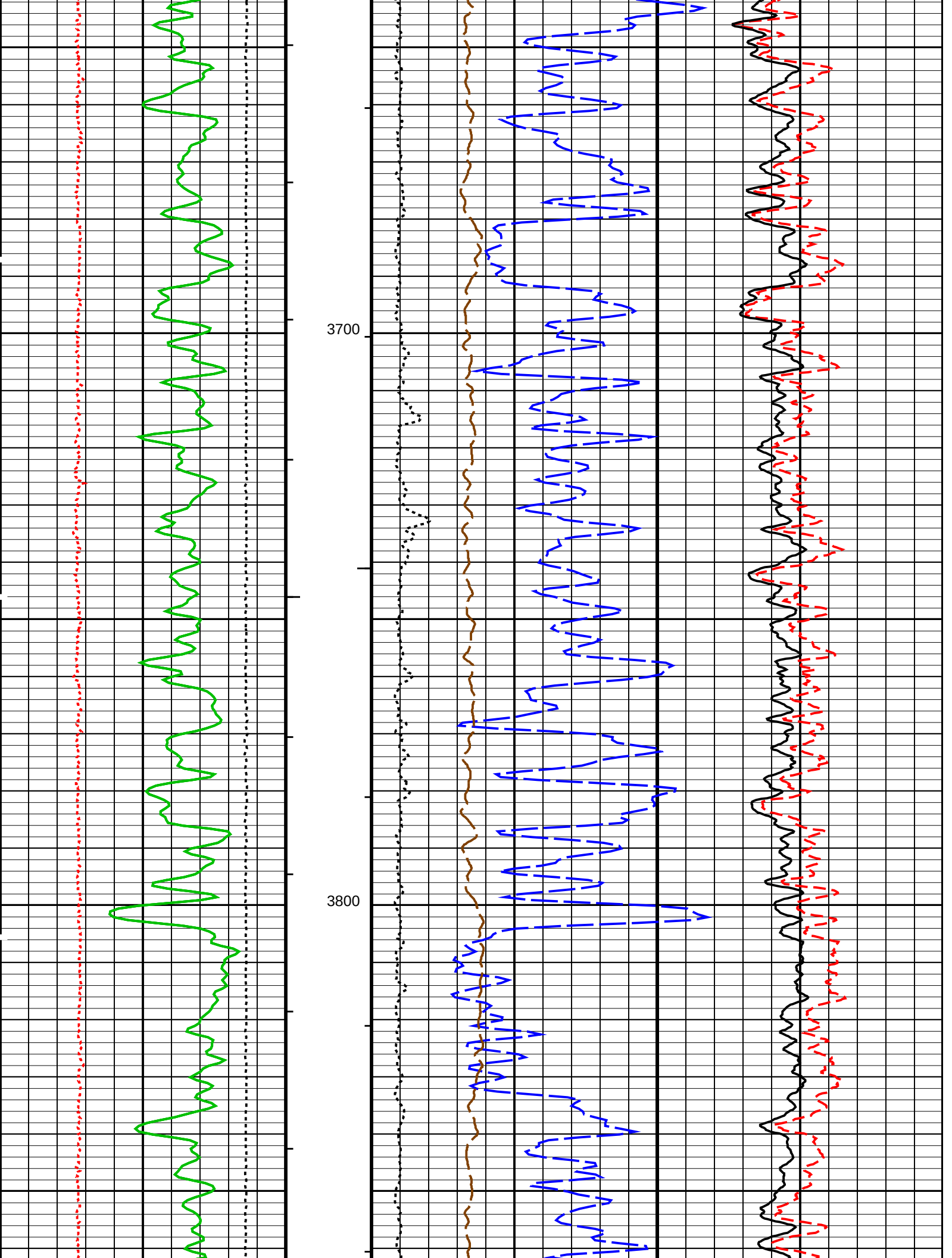
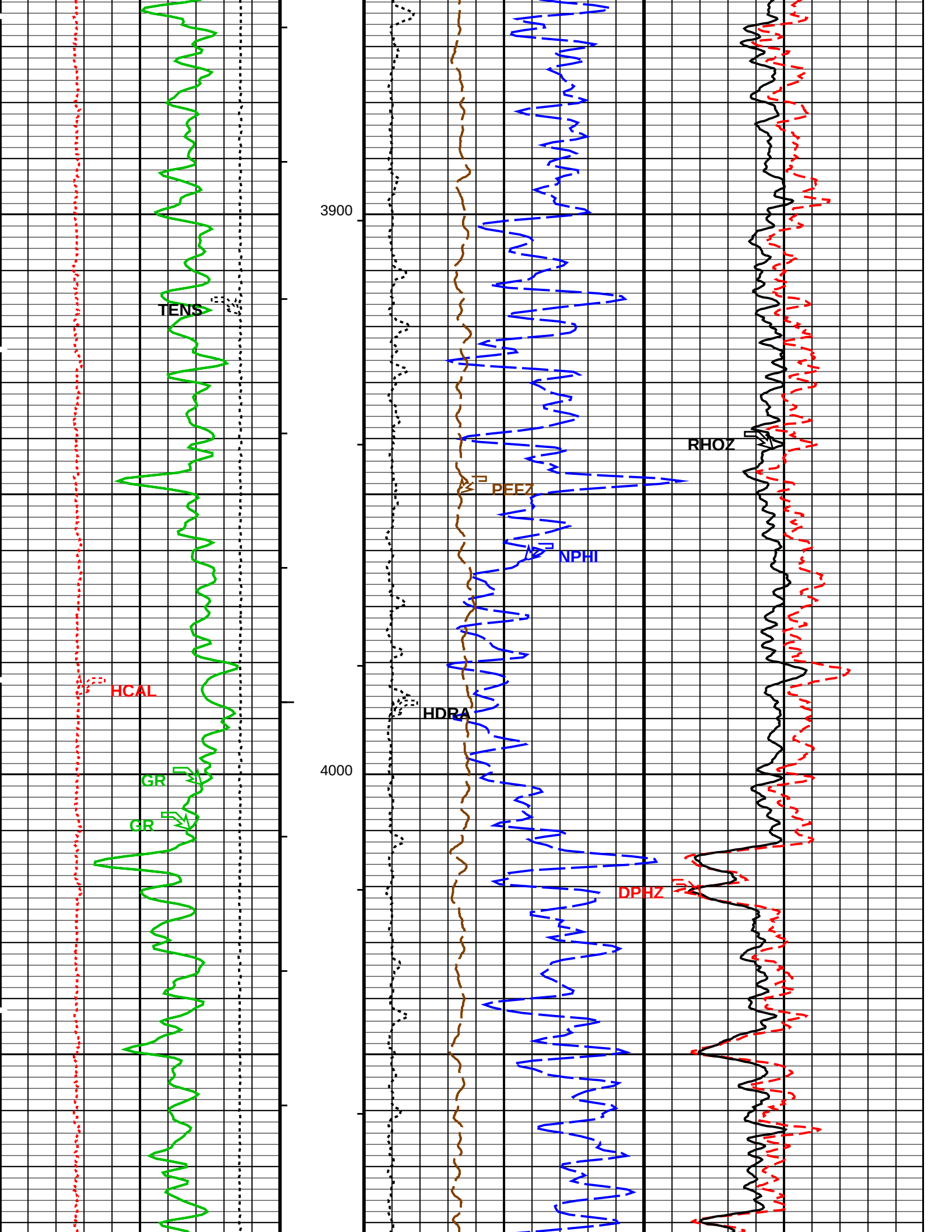
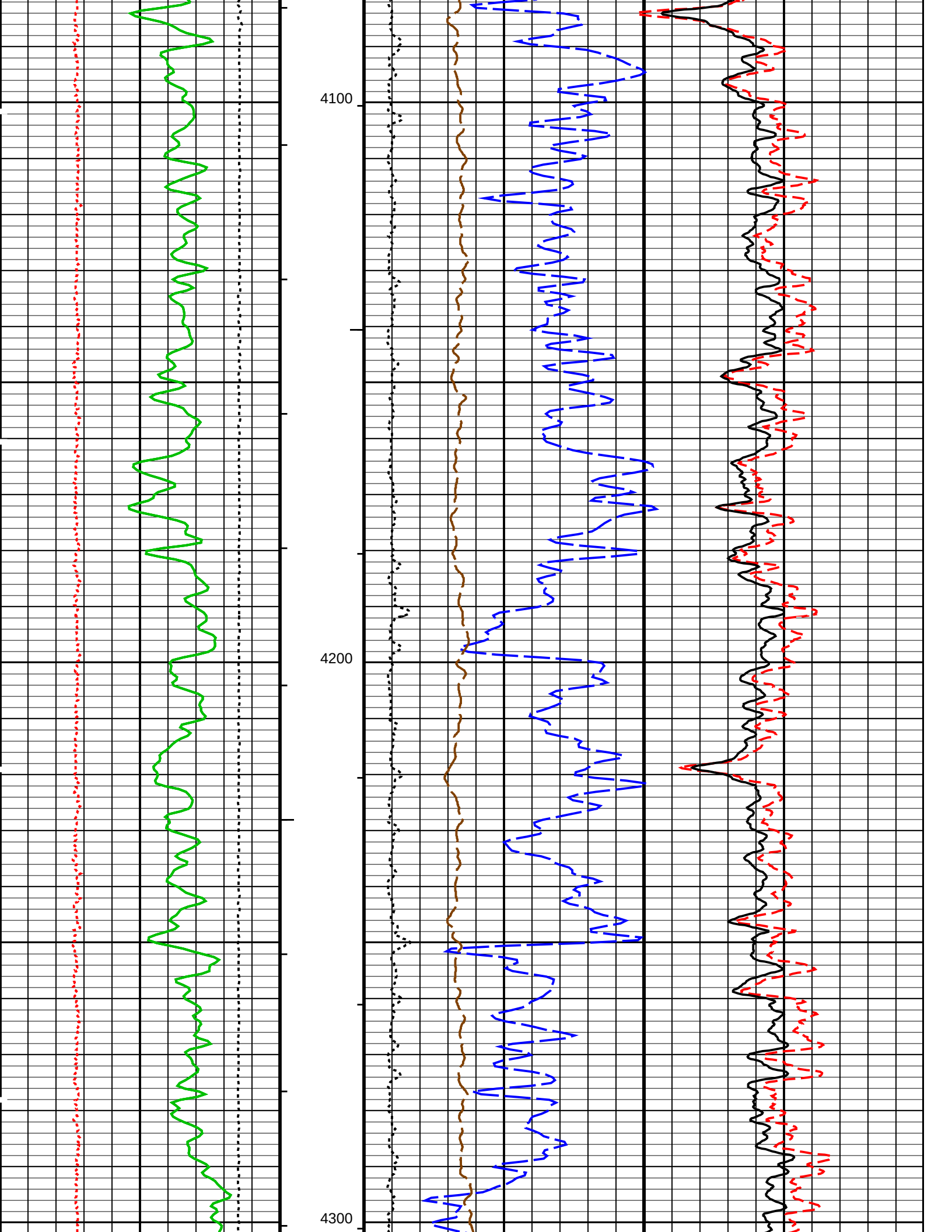
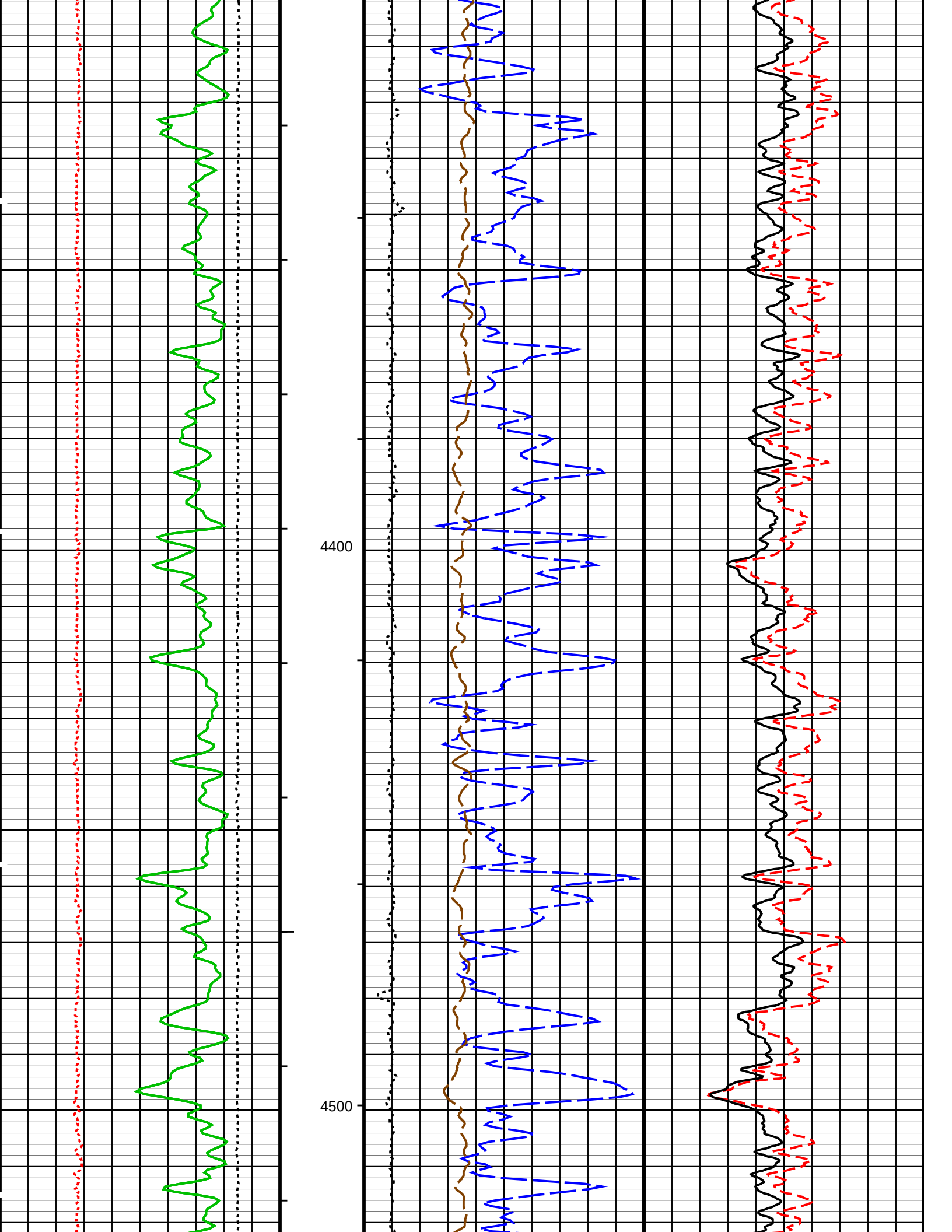
3600


3700
3800


3900
4000
TENS
HCAL
GR
GR
HDRA
PEFZ
NPHI
RHOZ
DPHZ


4100
4200
4300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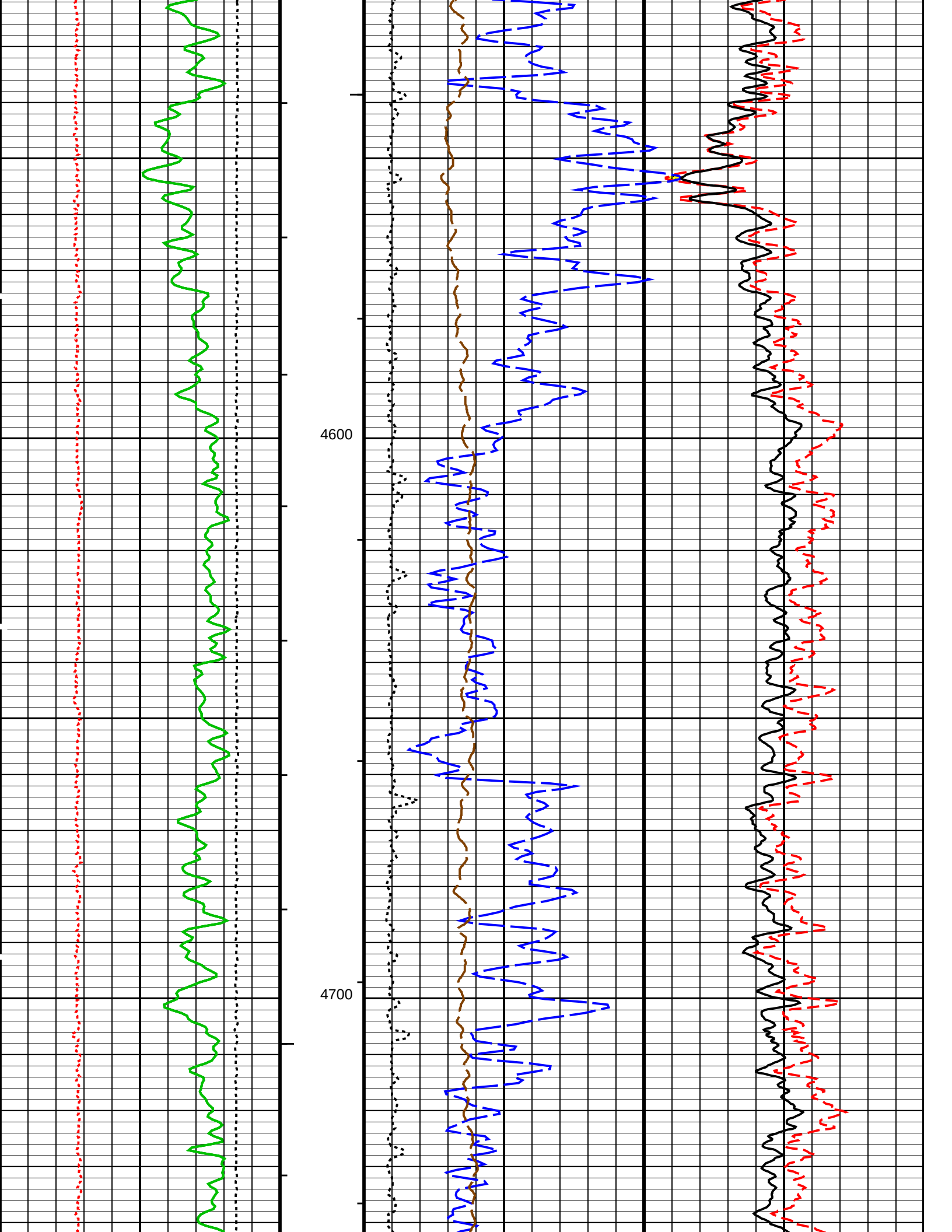
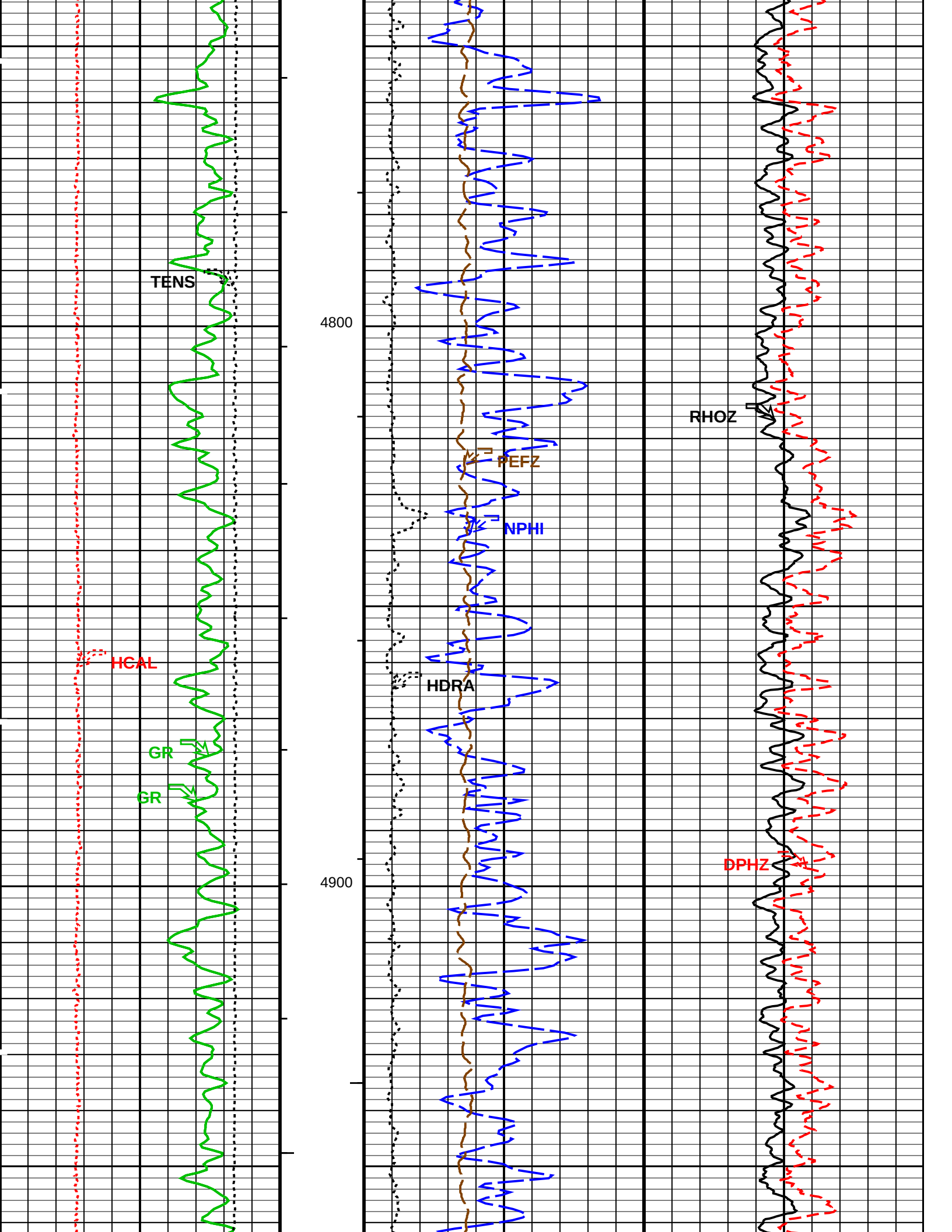
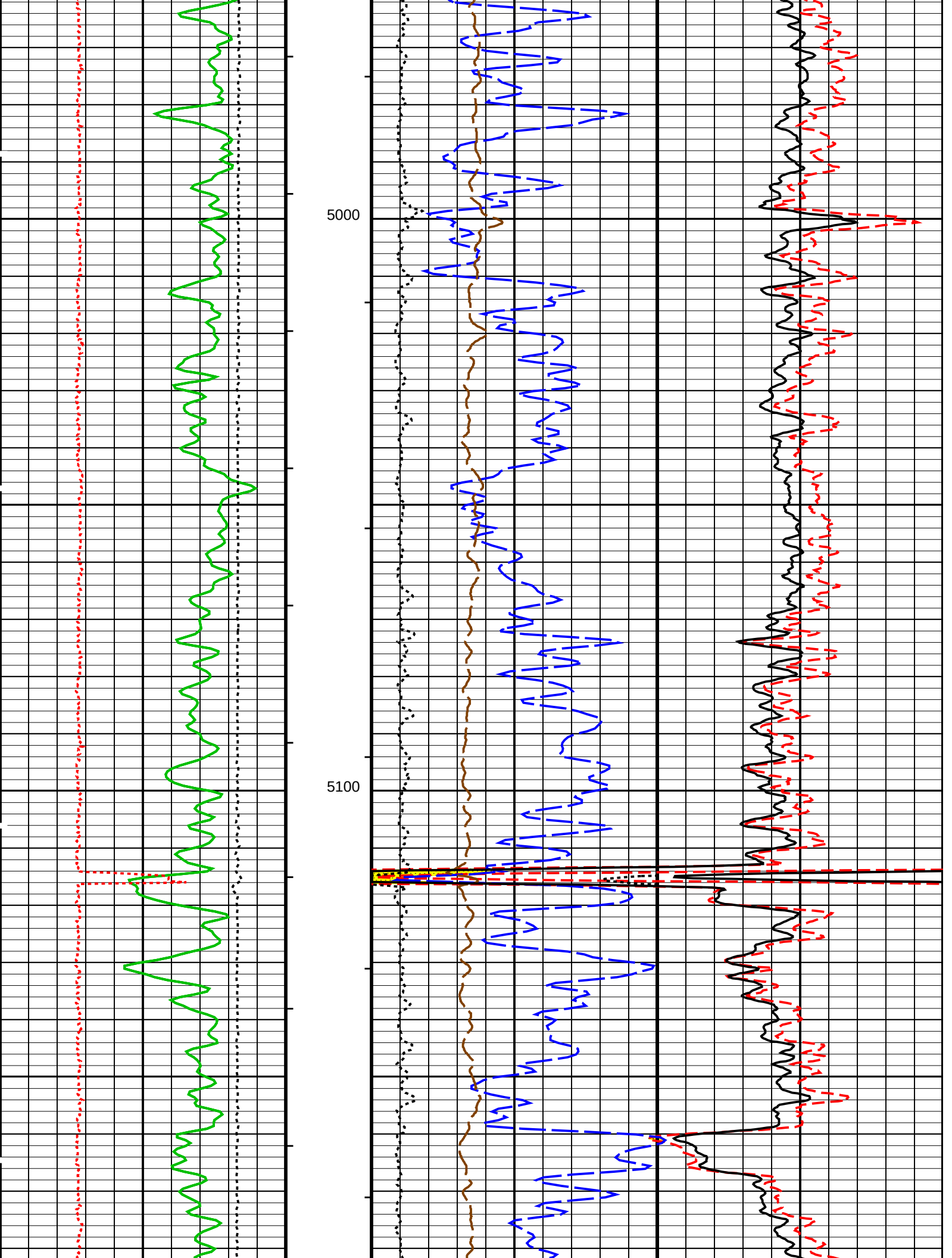
4500


4600
4700


TENS
HCAL
GR
GR
4800
4900
PEFZ
NPHI
HDRA
RHOZ
DPHZ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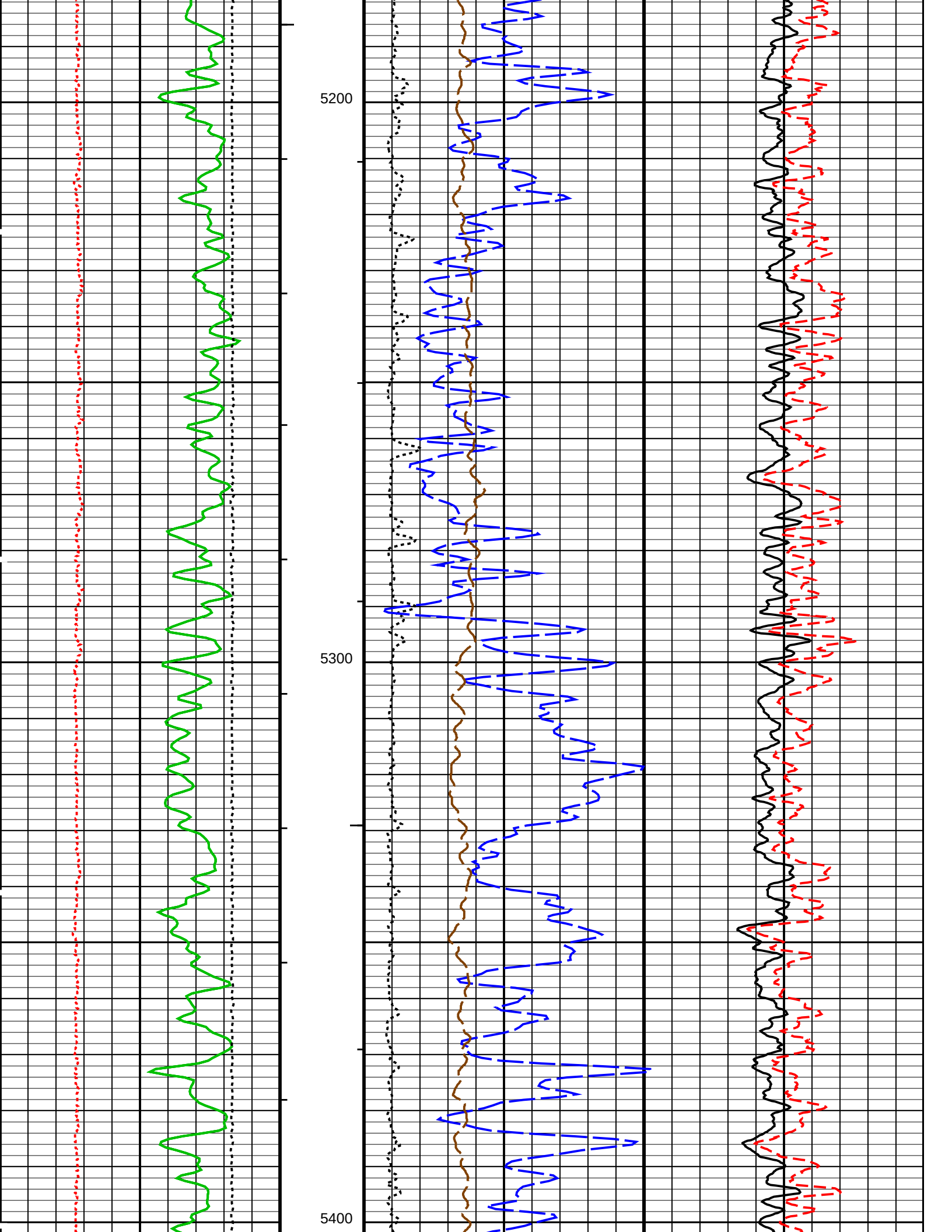
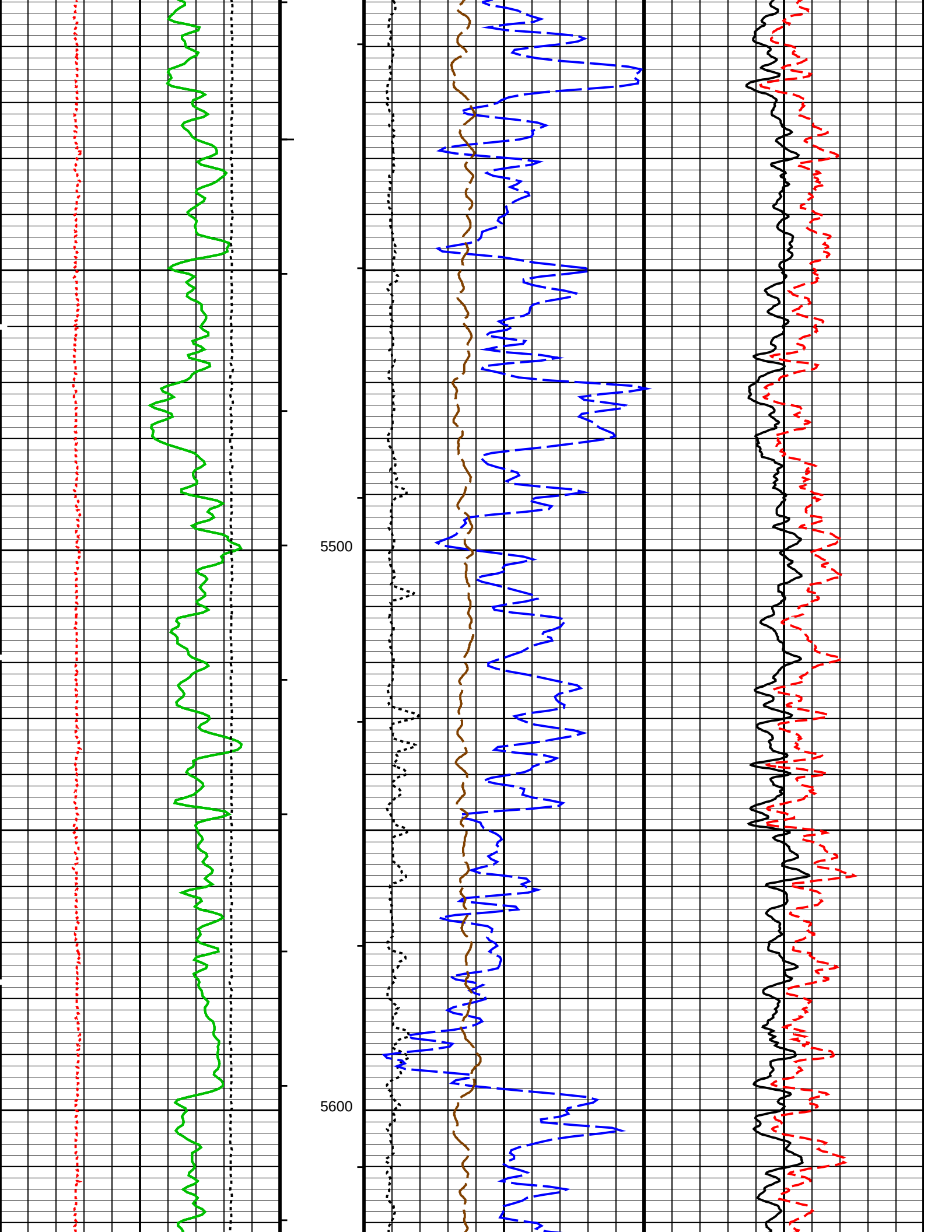
5100


5200
5300
5400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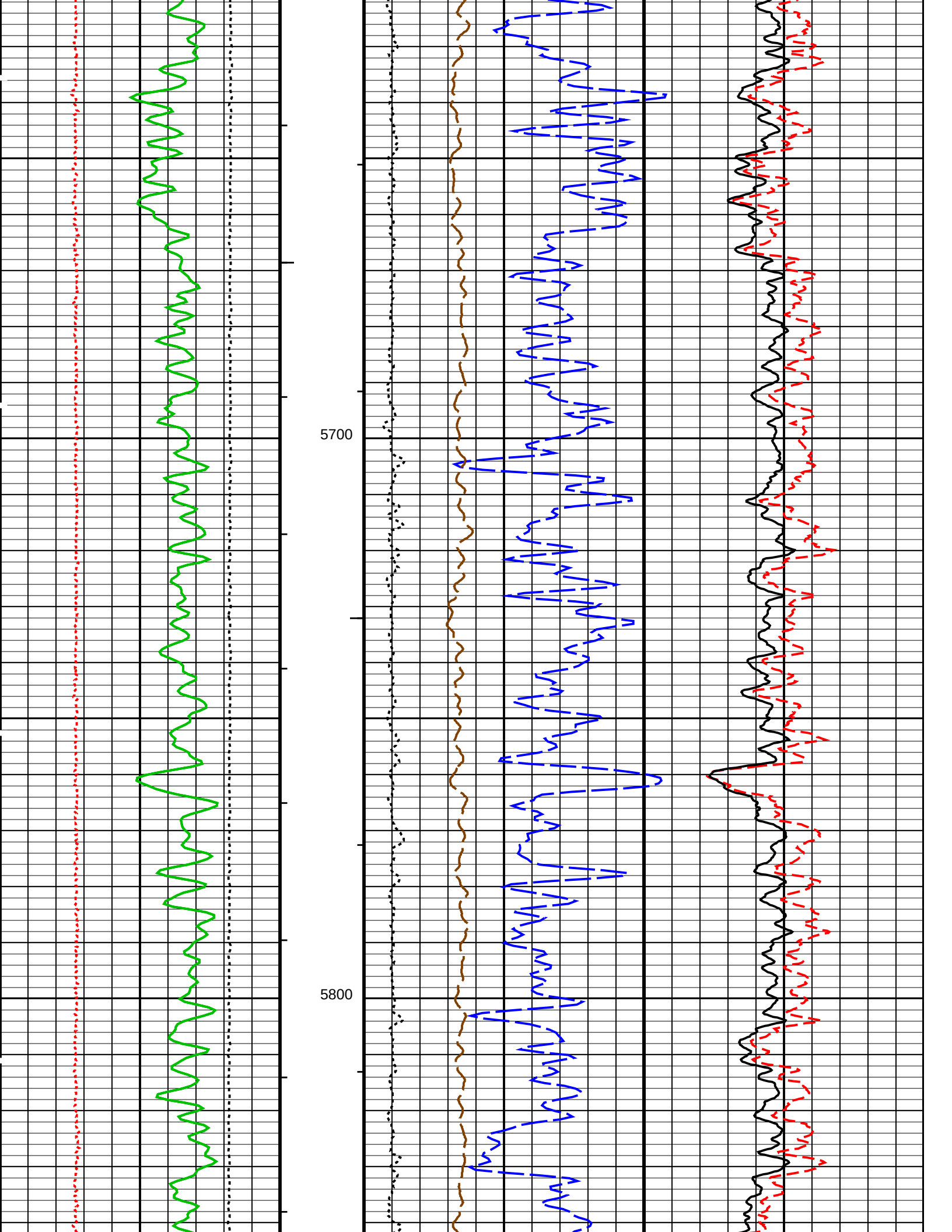
5600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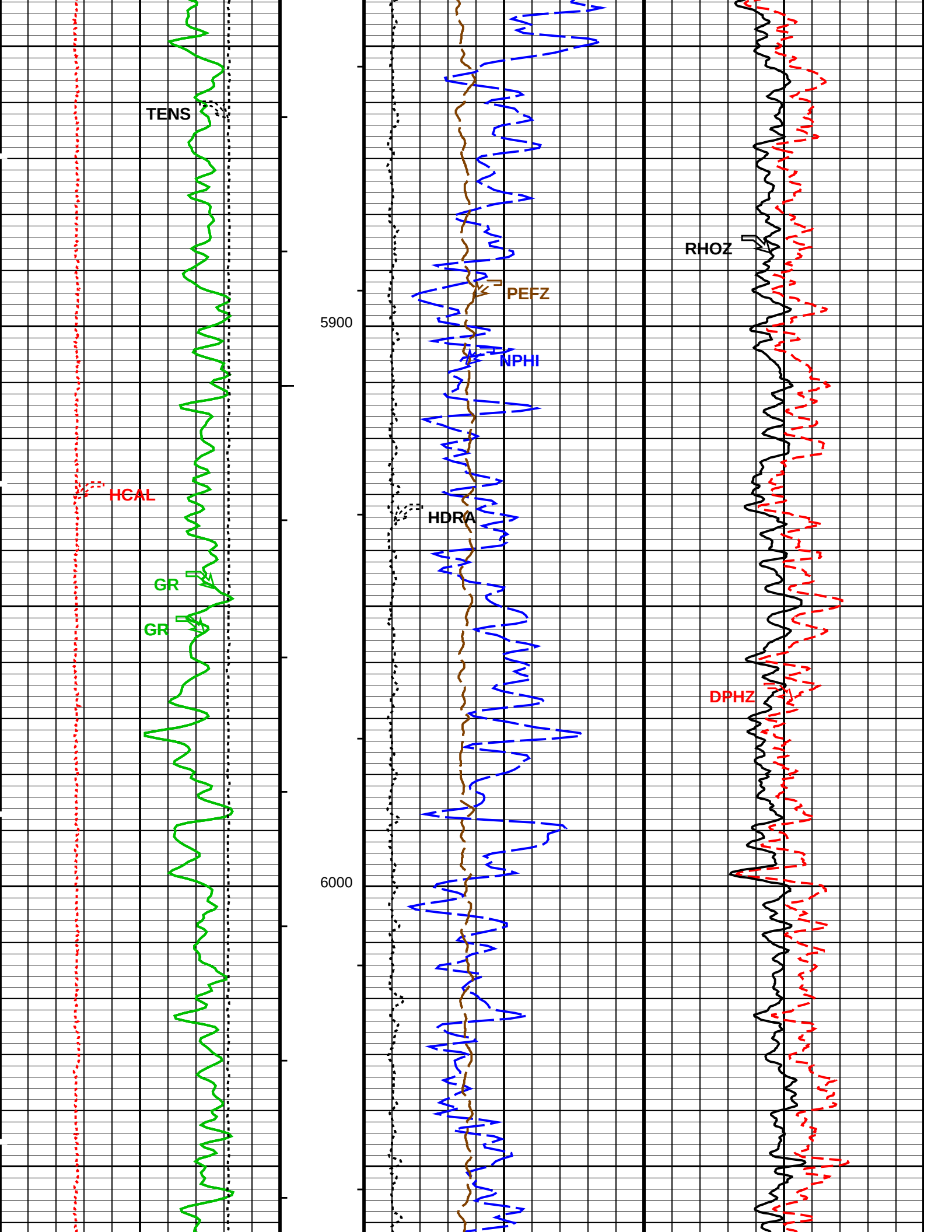
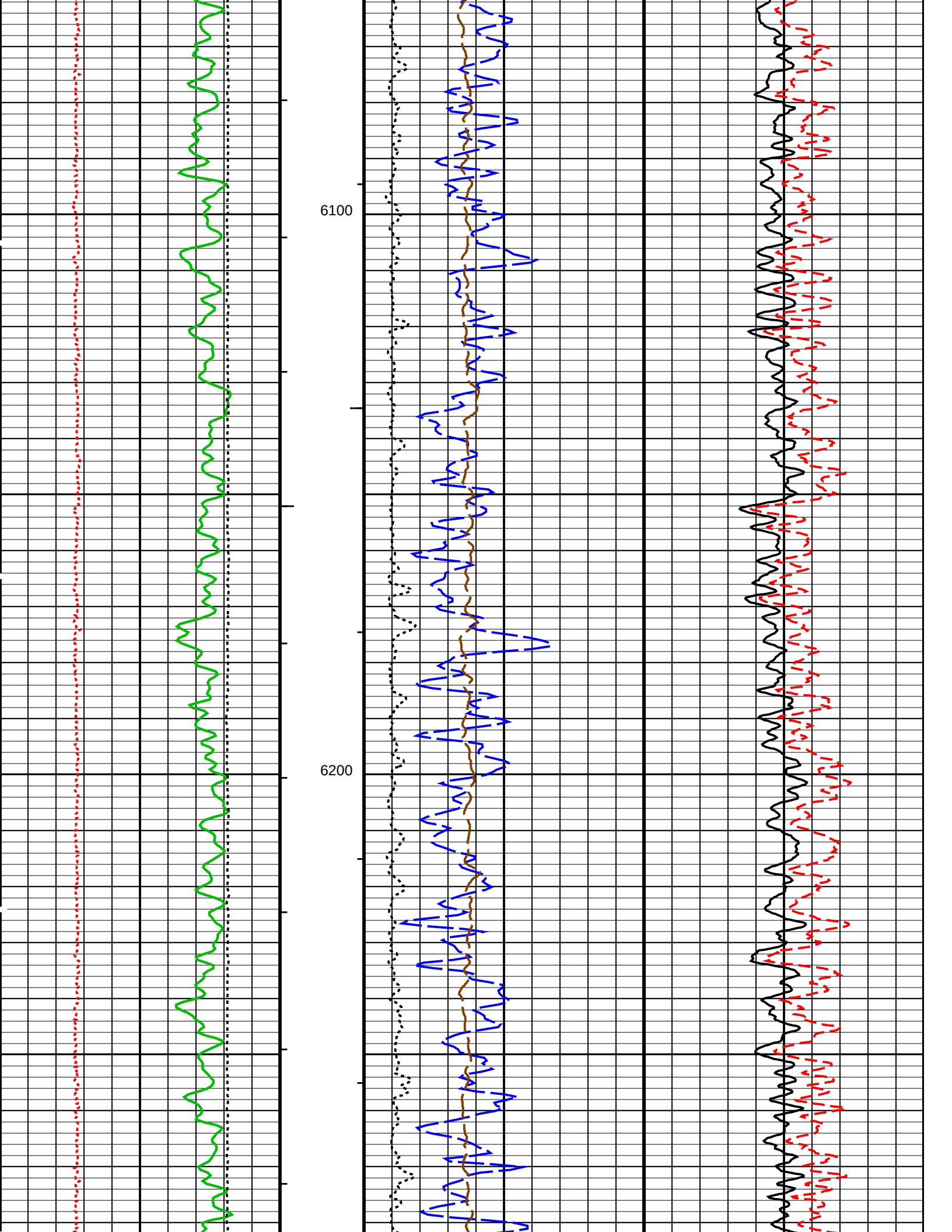
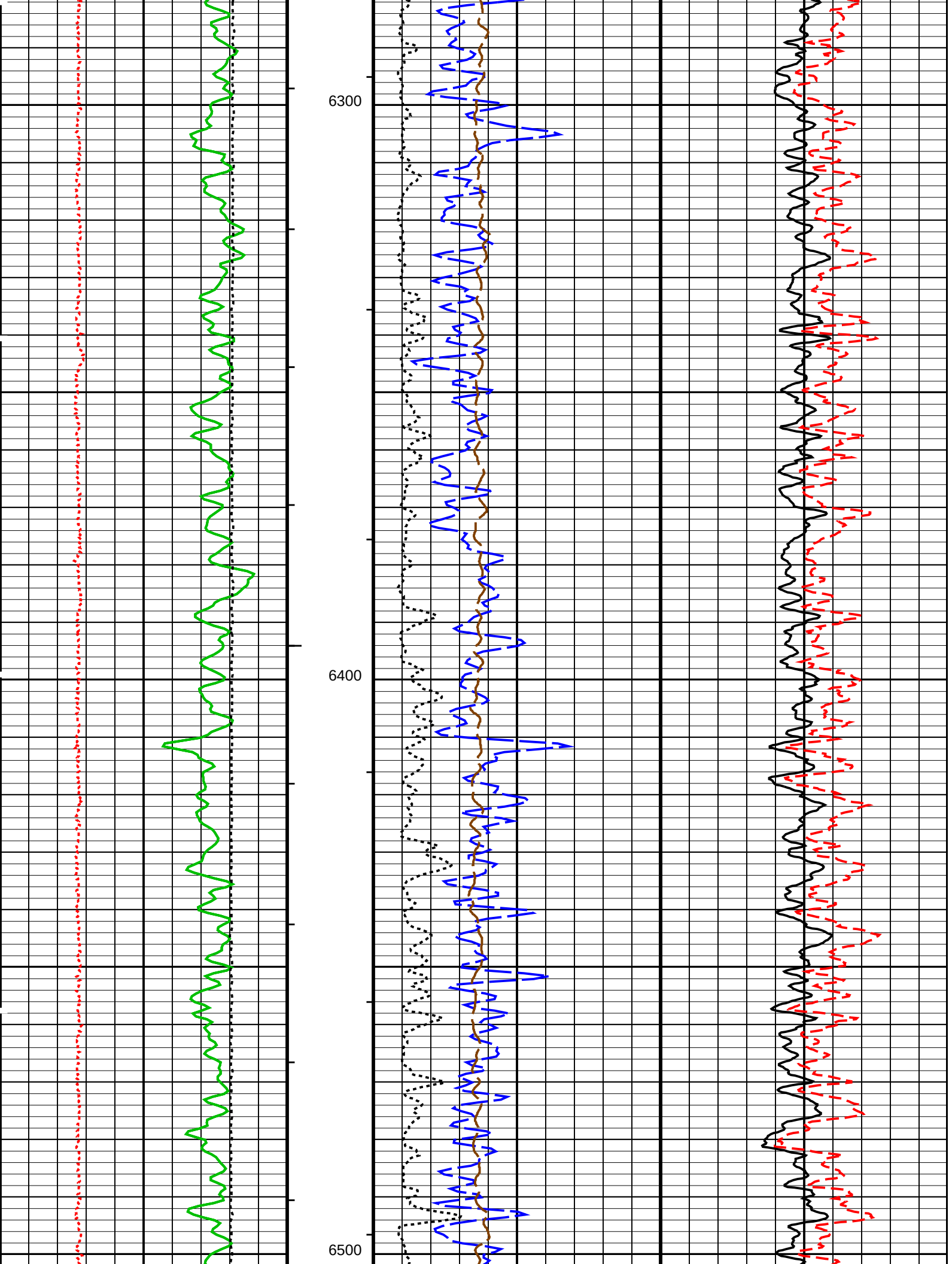
5800


TENS
HCAL
GR
GR
PEFZ
NPHI
HDRA
RHOZ
DPHZ
5900
6000


6100
6200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6400
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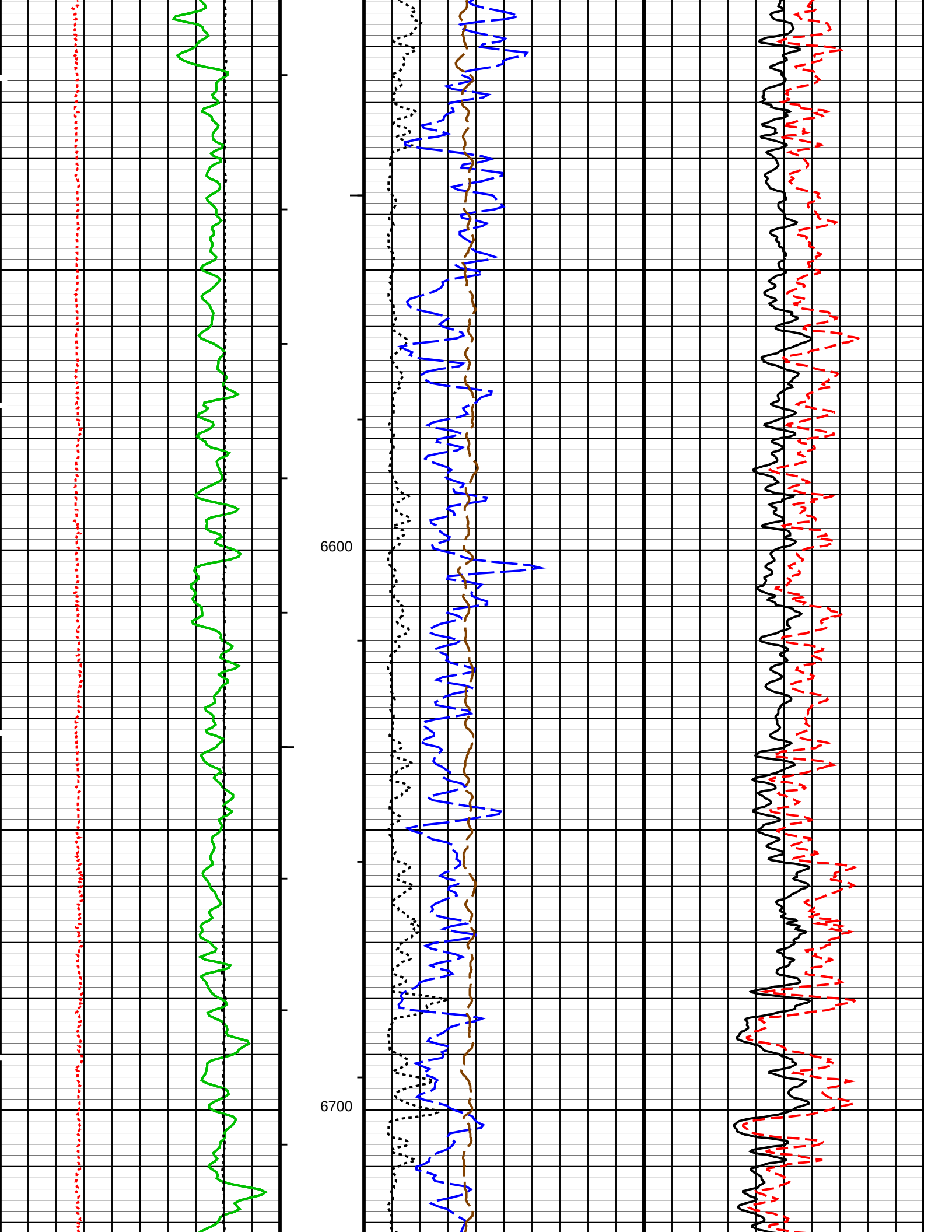
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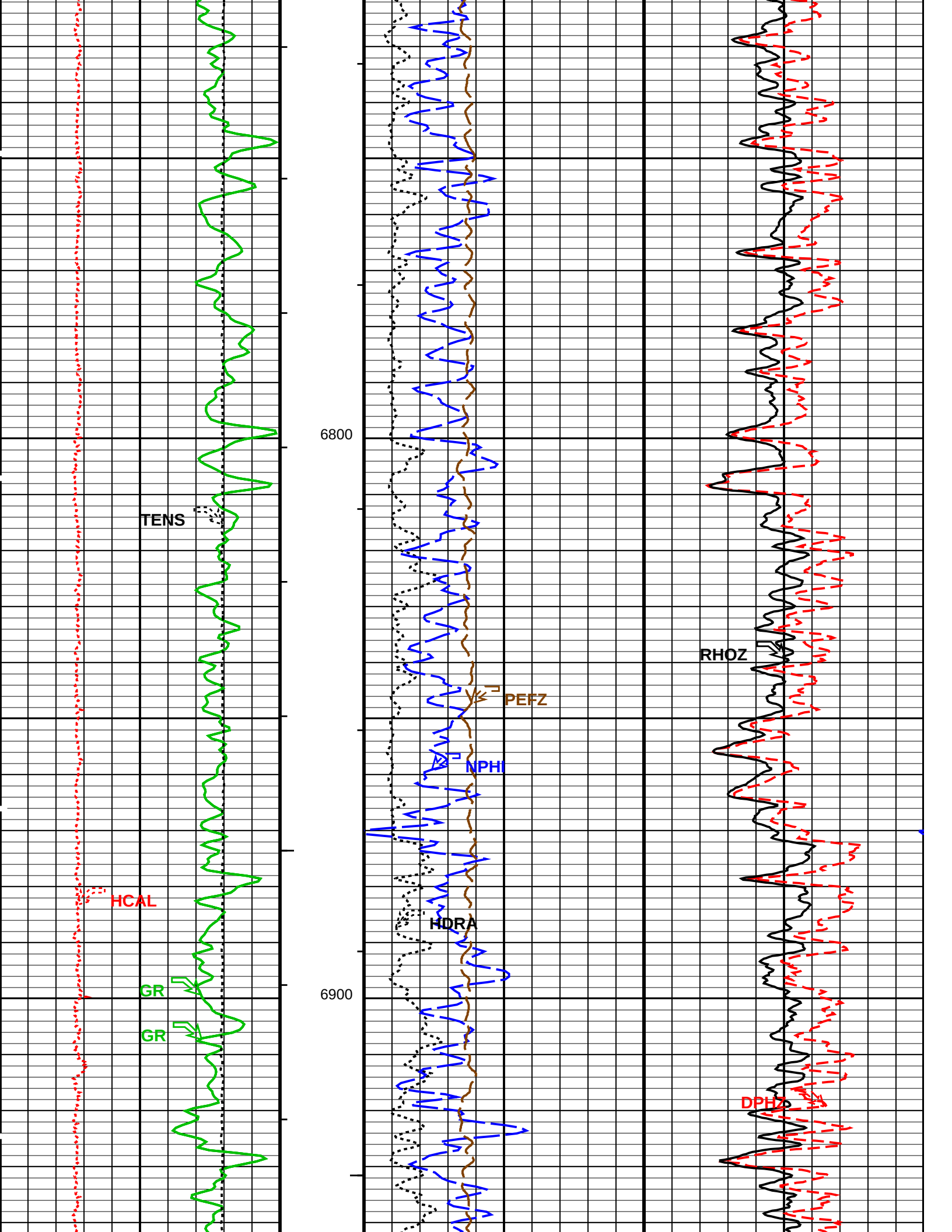
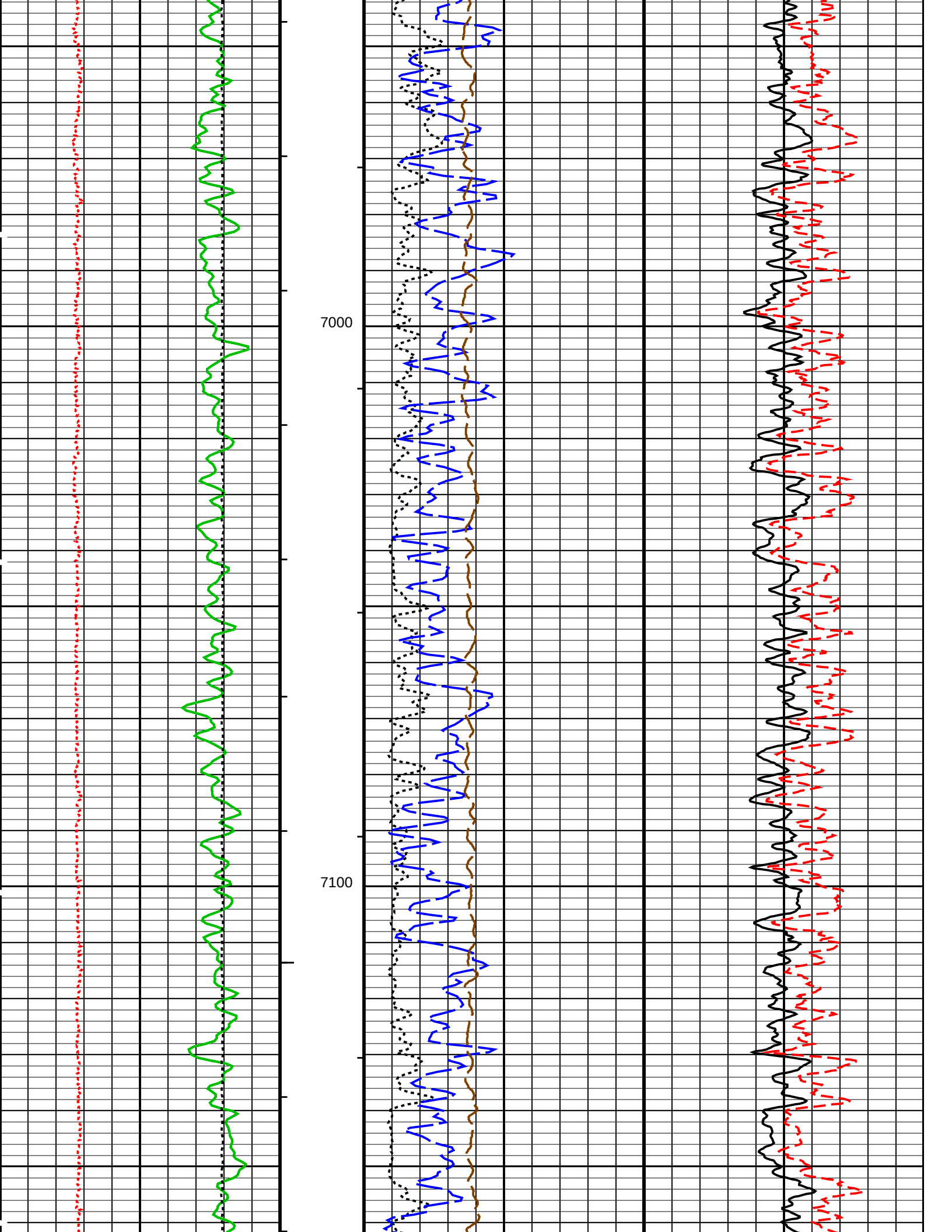
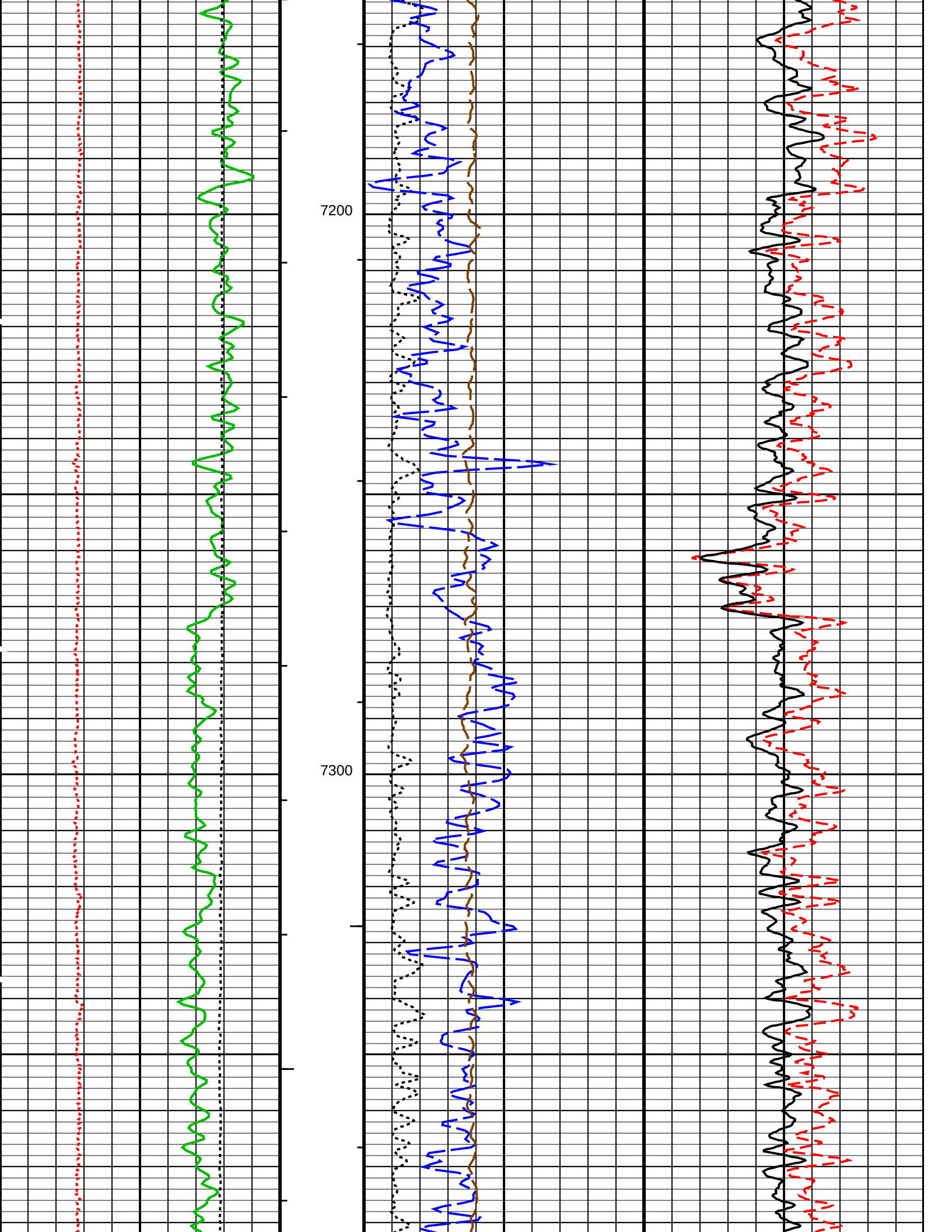
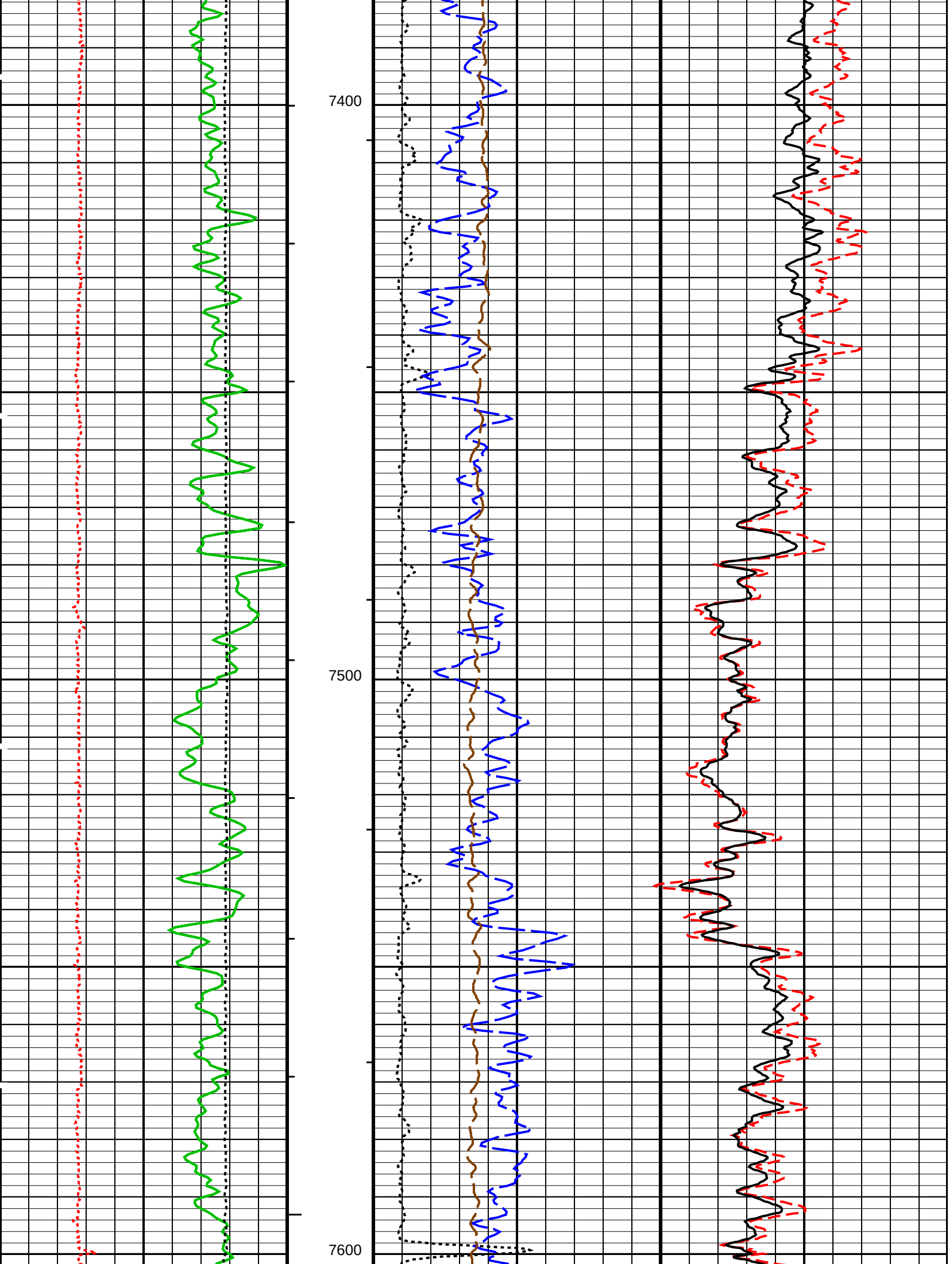
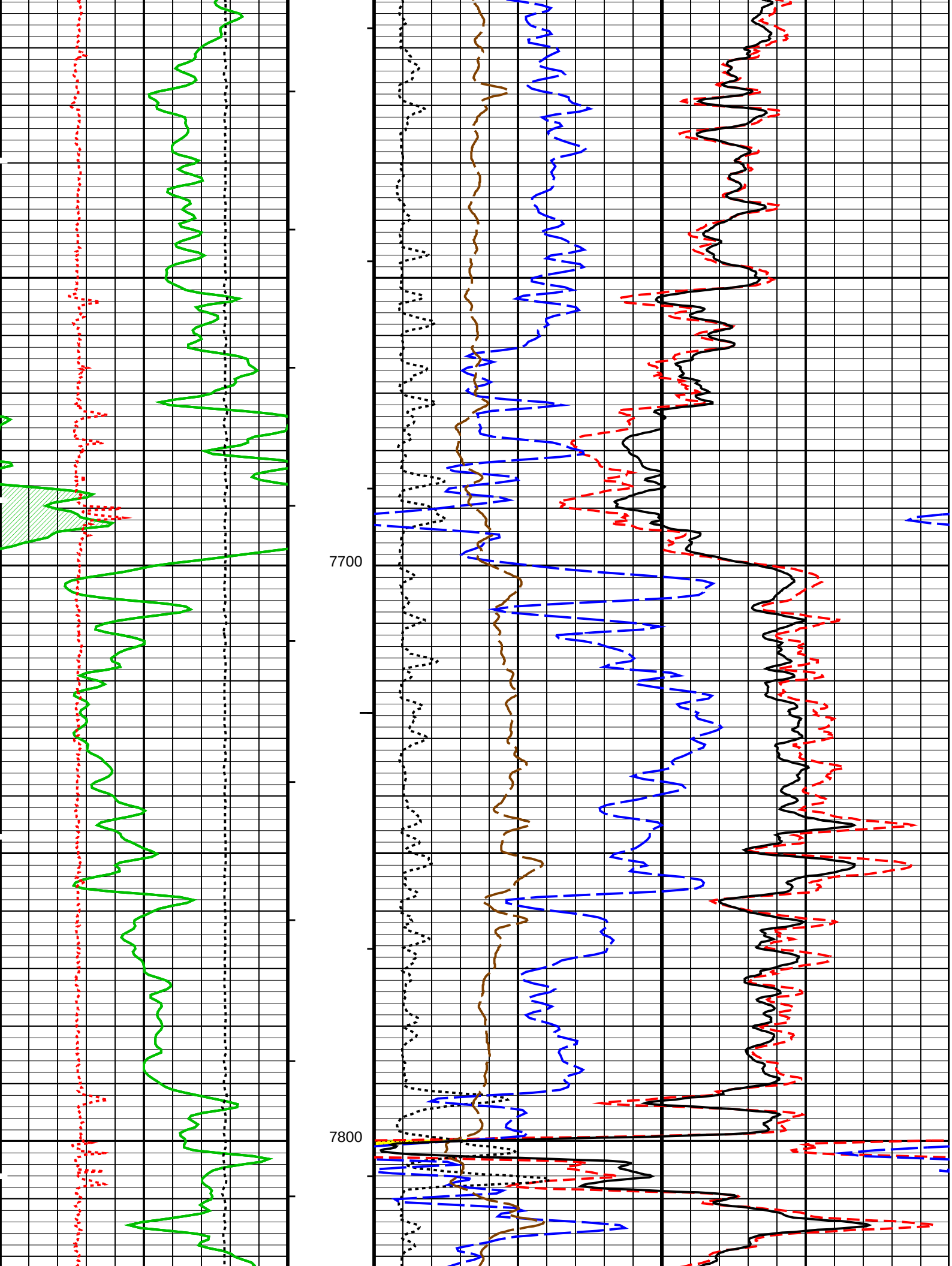
6700

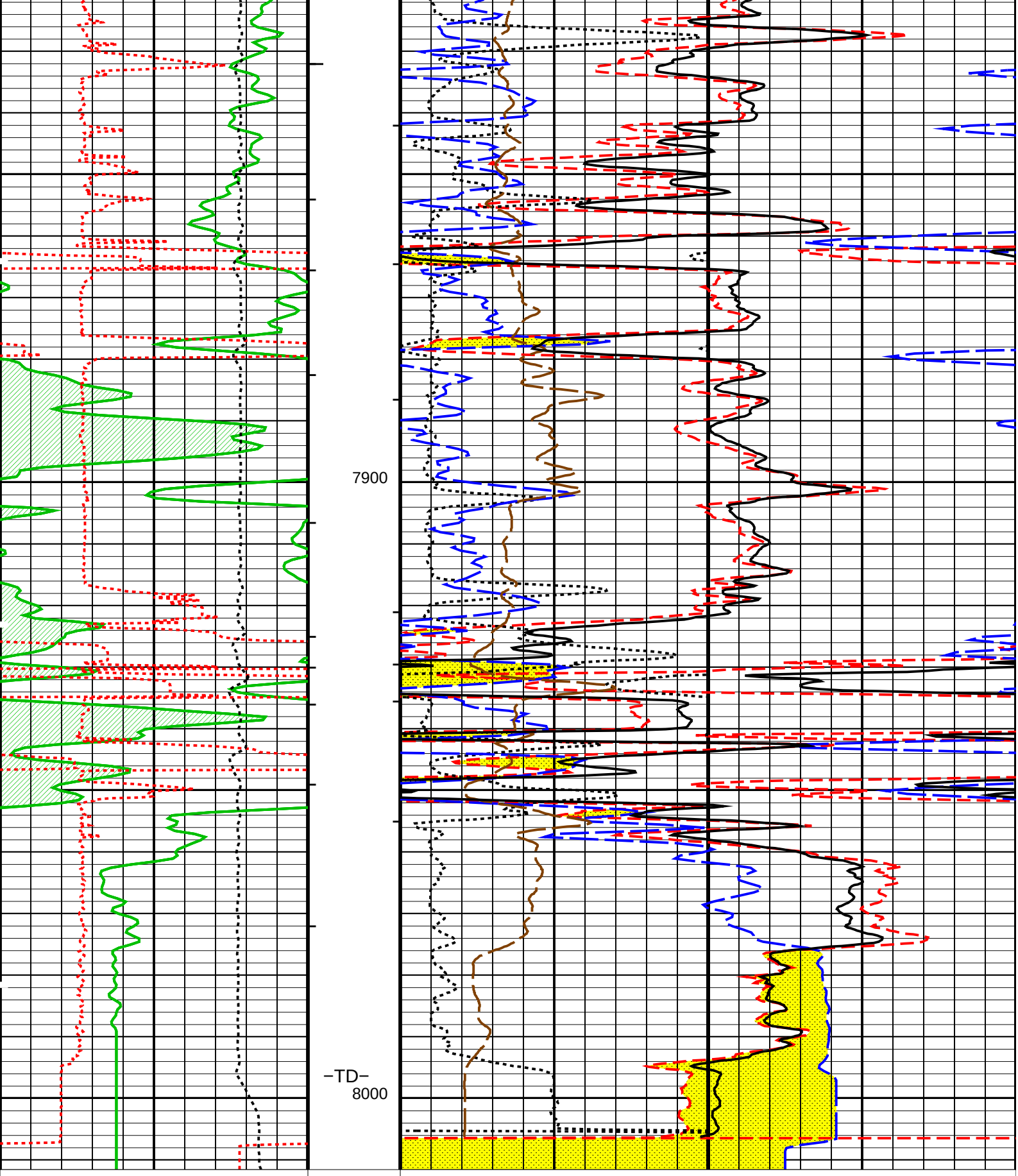

6800
6900
TENS
HCAL
GR
GR
HDRA
PEFZ
NPHI
RHOZ
DPHZ


7000
7100


7200
7300


7400
7500
7600


7700
7800



Gamma Ray (GR)
0 (GAPI) 200

HILT Caliper (HCAL)
6 (IN) 16

Tension (TENS)
10000 (LBF) 0

Std. Res. Density Porosity (DPHZ)
0.3 (V/V) −0.1

Density Correction (HDRA)
−0.05 (G/C3) 0.45

Neutron Porosity (NPHI)
0.3 (V/V) −0.1

GR > 200
From LHT1 to GR1

Std. Res. Formation Pe (PEFZ)
0 (----) 10

Std. Res. Formation Density (RHOZ)
2 (G/C3) 3

NUETRON-DENSITY CROSS OVER
From DPHZ to NPHI

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTH-FTB: High resolution Integrated Logging Tool-DTS		
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDEN	Matrix Density	2.71	G/C3
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	8.48	LB/G
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	
TD	Total Depth	7997	FT

Format: DENSITY_5 Vertical Scale: 5" per 100' Graphics File Created: 08-May-2010 06:15

OP System Version: 17C0-154

HILTH-FTB	17C0-154	DTC-H	17C0-154

Input DLIS Files

DEFAULT	MERGE_TLD_MCFL_CNL_018GUP	FN:1	PRODUCER	08-May-2010 06:12	8011.5 FT	21.0 FT

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_019PUP	FN:14	PRODUCER	08-May-2010 06:14

Schlumberger

Repeat Pass
5 Inch / 100 Feet

MAXIS Field Log

Input DLIS Files

DEFAULT	TLD_MCFL_CNL_011LUP	FN:8	PRODUCER	08−May−2010 03:04	8010.0 FT	7747.5 FT

Output DLIS Files

HILTHD.015	FN:12	08−May−2010 05:11	8011.5 FT	7749.0 FT	

Integrated Hole/Cement Volume Summary

Hole Volume = 133.92 ft3

Cement Volume = 93.00 ft3 (assuming 5.50 in casing O.D.)

Computed from 7996.5 ft to 7749.0 ft

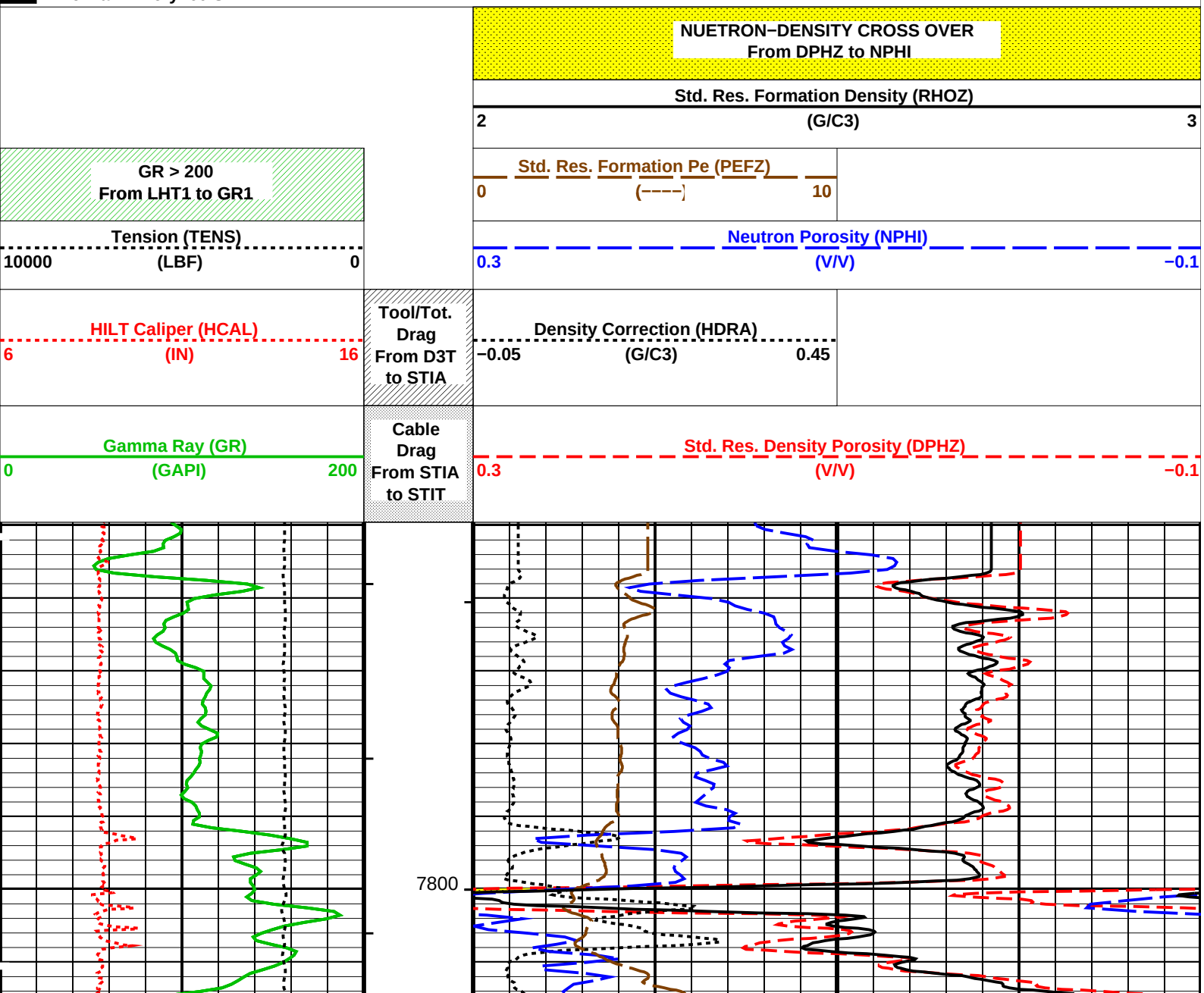
OP System Version: 17C0−154

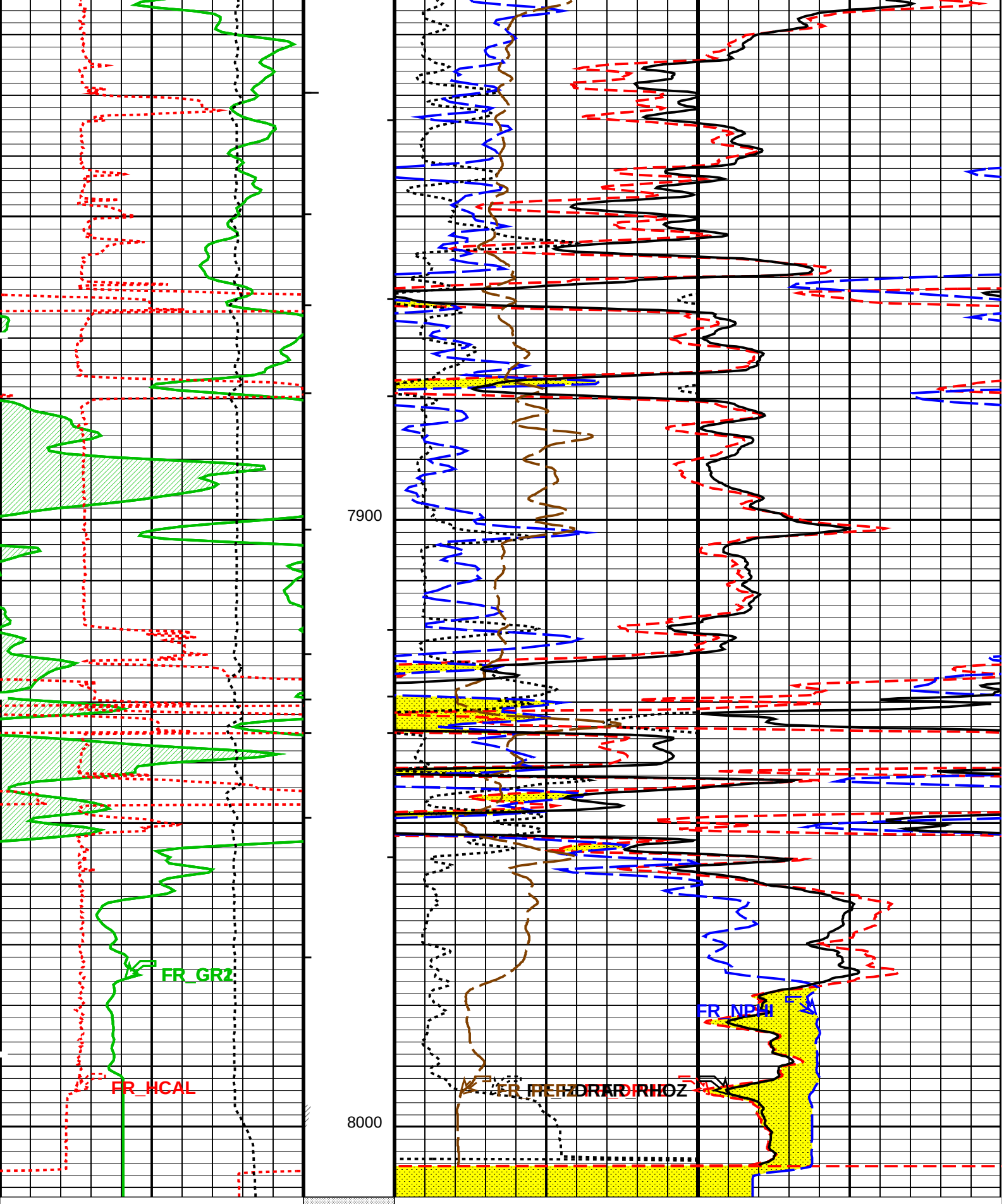
HILTHD	17C0−154	DTCH	17C0−154

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S





Gamma Ray (GR)
0 (GAPI) 200

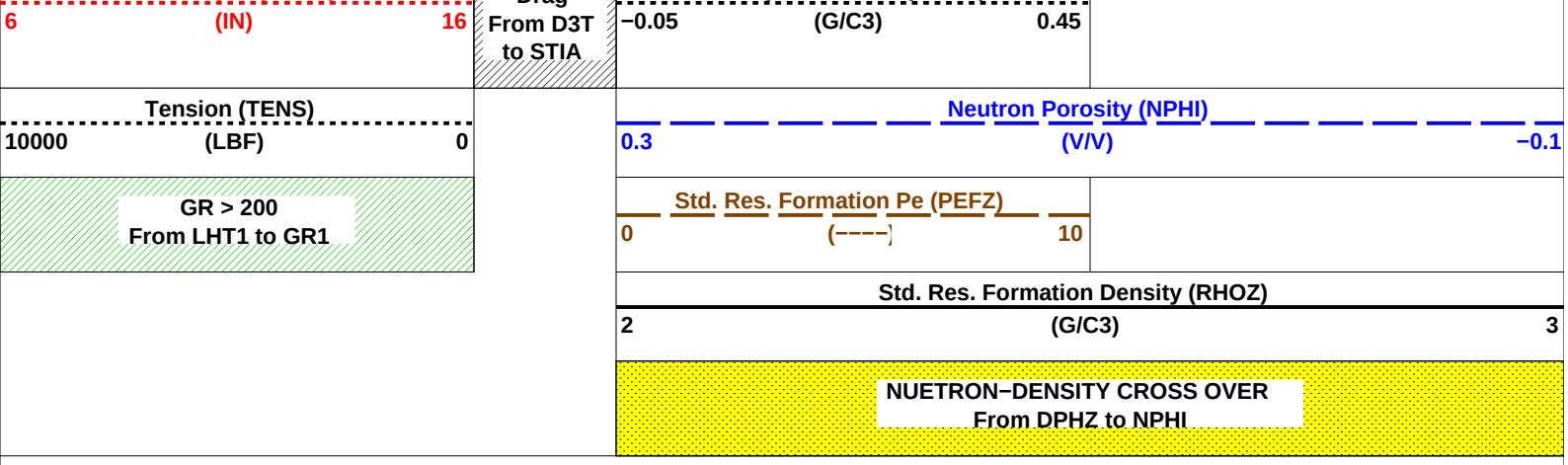
Cable Drag From STIA to STIT

Std. Res. Density Porosity (DPHZ)
0.3 (V/V) −0.1

HILT Caliper (HCAL)

Tool/Tot. Drag

Density Correction (HDRA)



PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTH−FTB: High resolution Integrated Logging Tool−DTS		
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
DHC	Density Hole Correction	BS	
DO	Depth Offset	1.5	ft
FD	Fluid Density	1.000	g/cm3
GCLF	Germany Coal−like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIME	
MDEN	Matrix Density	2.710	g/cm3
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HIRES	
NSAR	HRDD Depth Sampling Rate	1.000	in
	DTC−H: DTS Telemetry Tool		
DO	Depth Offset	1.5	ft
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
DO	Depth Offset	1.5	ft
GCSE	Generalized Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIME	
	STI: Stuck Tool Indicator		
DO	Depth Offset	1.5	ft
STKT	STI Stuck Threshold	2.500	ft
TDD	Total Depth − Driller	8006.0	ft
TDL	Total Depth − Logger	7997.0	ft
	System and Miscellaneous		
BS	Bit Size	8.750	in
DFD	Drilling Fluid Density	8.480	lbm/gal
DO	Depth Offset	1.5	ft

Format: DENSITY_REPEAT Vertical Scale: 5" per 100' Graphics File Created: 08−May−2010 05:11

OP System Version: 17C0−154

HILTHD	17C0−154	DTCH	17C0−154

Input DLIS Files

DEFAULT	TLD_MCFL_CNL_011LUP	FN:8	PRODUCER	08−May−2010 03:04	8010.0 FT	7747.5 FT

Output DLIS Files

HILTHD.015	FN:12	08−May−2010 05:11

Schlumberger

Calibration Listing

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Stab Measurement Summary							
Before: 7−May−2010 11:43							
BS Window Ratio	0.7483	N/A	0.7488	N/A	N/A	N/A	
BS Window Sum	29160	N/A	29340	N/A	N/A	N/A	CPS
SS Window Ratio	0.4761	N/A	0.4791	N/A	N/A	N/A	
SS Window Sum	12950	N/A	12900	N/A	N/A	N/A	CPS
LS Window Ratio	0.2988	N/A	0.2977	N/A	N/A	N/A	
LS Window Sum	1359	N/A	1353	N/A	N/A	N/A	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Photo−multiplier High Voltages Calibrations							
Before: 7−May−2010 11:43							
BS PM High Voltage (Command)	1565	N/A	1549	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1936	N/A	1937	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1402	N/A	1422	N/A	N/A	N/A	V
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Crystal Quality Resolutions Calibration							
Before: 7−May−2010 11:43							
BS Crystal Resolution	11.15	N/A	11.02	N/A	N/A	N/A	%
SS Crystal Resolution	11.43	N/A	11.59	N/A	N/A	N/A	%
LS Crystal Resolution	9.451	N/A	9.488	N/A	N/A	N/A	%
High resolution Integrated Logging Tool−DTS Wellsite Calibration − MCFL Calibration							
Before: 7−May−2010 11:43							
Raw B0 Resistivity	3875	N/A	3863	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3813	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3811	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool−DTS Wellsite Calibration − HILT Caliper Calibration							
Before: 7−May−2010 11:39							
HILT Caliper Zero Measurement	8.000	N/A	7.768	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.14	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Detector Calibration							
Before: 7−May−2010 11:41							
Gamma Ray Background	30.00	N/A	42.96	N/A	N/A	N/A	GAPI
Gamma Ray (Jig − Bkgd)	165.0	N/A	176.9	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Zero Measurement							
Master: 11−Mar−2010 11:44 Before: 7−May−2010 11:40							
CNTC Background	27.57	27.57	27.43	N/A	N/A	4.135	CPS
CFTC Background	27.40	27.40	30.31	N/A	N/A	4.110	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Ratio Measurement							
Master: 11−Mar−2010 11:44							
Thermal Near Corr. (Tank)	5800	5119	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2246	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.279	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Accelerometer Calibration							
Before: 8−May−2010 0:11							
Z−Axis Acceleration	32.19	N/A	32.08	N/A	N/A	N/A	F/S2
High resolution Integrated Logging Tool−DTS Master Calibration − Inversion results							
Master: 30−Apr−2010 12:40							
Rho Aluminum	2.596	2.597	−−	−−	−−	−−	G/C3
Rho Magnesium	1.686	1.690	−−	−−	−−	−−	G/C3
Pe Aluminum	2.570	2.530	−−	−−	−−	−−	
Pe Magnesium	2.650	2.632	−−	−−	−−	−−	
High resolution Integrated Logging Tool−DTS Master Calibration − Deviation Summary							
Master: 30−Apr−2010 12:40							

BS Average Deviation	0	0.3048	−−	−−	−−	−−	%
BS Max Deviation	0	0.5575	−−	−−	−−	−−	%
SS Average Deviation	0	0.2931	−−	−−	−−	−−	%
SS Max Deviation	0	1.010	−−	−−	−−	−−	%
LS Average Deviation	0	0.6262	−−	−−	−−	−−	%
LS Max Deviation	0	1.650	−−	−−	−−	−−	%

The GLS−VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT−B Water Temperature 35.0 DEGF.
Thermal Housing Size 3.373 IN.
NSR−F serial number 5242

High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:		
HILT high−Resolution Mechanical Sonde	HRMS − H	4940
HILT Rxo Gamma−ray Device	HRGD − H	5751
HILT Micro Cylindrically Focused Log Dev	MCFL − H	
GR Logging Source	GLS − VJ	5436
HILT High Res. Control Cartridge	HRCC − H	4945
HILT Gamma−Ray Neutron Sonde−DTS	HGNS − H	4951
HGNS Gamma−Ray Device	HGR −	
HGNS Neutron Detector with Alpha Source	HCNT − H	
Auxiliary Equipment:		
Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − U/Y	1156
HGNS Housing	HGNH −	4803

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value	Phase	LS Window Ratio			Value
Before				0.7488	Before				0.4791	Before				0.2977
	0.7109 (Minimum)	0.7483 (Nominal)	0.7857 (Maximum)			0.4523 (Minimum)	0.4761 (Nominal)	0.4999 (Maximum)			0.2839 (Minimum)	0.2988 (Nominal)	0.3138 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value	Phase	LS Window Sum CPS			Value
Before				29340	Before				12900	Before				1353
	27700 (Minimum)	29160 (Nominal)	30610 (Maximum)			12300 (Minimum)	12950 (Nominal)	13600 (Maximum)			1291 (Minimum)	1359 (Nominal)	1427 (Maximum)	

Before: 7−May−2010 11:43

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Photo−multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1549	Before				1937	Before				1422
	1465 (Minimum)	1565 (Nominal)	1665 (Maximum)			1836 (Minimum)	1936 (Nominal)	2036 (Maximum)			1302 (Minimum)	1402 (Nominal)	1502 (Maximum)	

Before: 7−May−2010 11:43

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %			Value	Phase	SS Crystal Resolution %			Value	Phase	LS Crystal Resolution %			Value
Before				11.02	Before				11.59	Before				9.488
	10.15 (Minimum)	11.15 (Nominal)	12.15 (Maximum)			10.43 (Minimum)	11.43 (Nominal)	12.43 (Maximum)			8.451 (Minimum)	9.451 (Nominal)	10.45 (Maximum)	

Before: 7−May−2010 11:43

High resolution Integrated Logging Tool−DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM			Value	Phase	Raw B1 Resistivity OHMM			Value	Phase	Raw B2 Resistivity OHMM			Value
Before				3863	Before				3813	Before				3811

3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	

Before: 7−May−2010 11:43

High resolution Integrated Logging Tool−DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value
Before		7.768	Before		12.14
	6.000 (Minimum) 8.000 (Nominal) 10.00 (Maximum)			9.000 (Minimum) 12.00 (Nominal) 15.00 (Maximum)	

Before: 7−May−2010 11:39

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkgd) GAPI	Value
Before		42.96	Before		176.9
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			157.1 (Minimum) 165.0 (Nominal) 206.3 (Maximum)	

Before: 7−May−2010 11:41

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		27.57	Master		27.40
Before		27.43	Before		30.31
	5.000 (Minimum) 27.57 (Nominal) 40.00 (Maximum)			5.000 (Minimum) 27.40 (Nominal) 40.00 (Maximum)	

Master: 11−Mar−2010 11:44 Before: 7−May−2010 11:40

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5119	Master		2246	Master		2.279
	4700 (Minimum) 5800 (Nominal) 6900 (Maximum)			1900 (Minimum) 2400 (Nominal) 2900 (Maximum)			2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)	

Master: 11−Mar−2010 11:44

High resolution Integrated Logging Tool−DTS

Wellsite Calibration

Accelerometer Calibration

Phase	Z−Axis Acceleration F/S2	Value
Before		32.08
	31.53 (Minimum) 32.19 (Nominal) 32.84 (Maximum)	

Before: 8−May−2010 0:11

High resolution Integrated Logging Tool−DTS Master Calibration

Inversion results

Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value
Master		2.597	Master		1.690
	2.586 (Minimum) 2.596 (Nominal) 2.606 (Maximum)			1.676 (Minimum) 1.686 (Nominal) 1.696 (Maximum)	
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value
Master		2.530	Master		2.632
	2.470 (Minimum) 2.570 (Nominal) 2.670 (Maximum)			2.550 (Minimum) 2.650 (Nominal) 2.750 (Maximum)	

Master: 30−Apr−2010 12:40

High resolution Integrated Logging Tool−DTS Master Calibration

Deviation Summary

Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %	Value
Master		0.3048	Master		0.2931	Master		0.6262
	−0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)			−1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)			−1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)	
Phase	BS Max Deviation %	Value	Phase	SS Max Deviation %	Value	Phase	LS Max Deviation %	Value

Master		0.5575	Master		1.010	Master		1.650
−1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)	−2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)	−3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)

Master: 30−Apr−2010 12:40

High resolution Integrated Logging Tool−DTS Master Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		27.57	Master		27.40
5.000 (Minimum)	27.57 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	27.40 (Nominal)	40.00 (Maximum)

Master: 11−Mar−2010 11:44

High resolution Integrated Logging Tool−DTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5119	Master		2246	Master		2.279
4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 11−Mar−2010 11:44

DTS Telemetry Tool / Equipment Identification

Primary Equipment:	
DTC−H Auxiliary Cartridge	DTCH − A
DTC−H Telemetry Cartridge	DTCH − A
Auxiliary Equipment:	
DTCH Telemetry Cartridge Housing	ECH − KC

Company: **STONE ENERGY**

Schlumberger

Well: **POTOCZNY UNIT A 1−H**
Field: **FARMINGTON**
County: **MARION**
State: **WEST VIRGINIA**

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