

W R C J L M T F G W O T F B F E D S O T B S D R L

County: Rio Blanco



Company: ExxonMobil Production Corp

Well: PCU 297-11B8

Field: Piceance Creek

Rio Blanco

County:

State: COLORADO

CORRELATION PRINT

CCL / GAMMA RAY

Field: Piceance Creek

Location: 392' FSL 480' FEL

Well: PCU 297-11B8

Company: ExxonMobil Production Corp

LOCATION	
392' FSL 480' FEL	Elev.: K.B. 7153.10 ft G.L. 7127.00 ft D.F. 7152.00 ft
Permanent Datum: _____	GROUND LEVEL _____
Log Measured From: _____	KELLY BUSHING _____
Drilling Measured From: _____	KELLY BUSHING _____
API Serial No. _____	Section _____
05-103-11371-00-X	11
Township _____	Range _____
2S	97W

Logging Date: 2-Dec-2009

Run Number: ONE

Depth Driller: 8626 ft

Schlumberger Depth: 8575 ft

Bottom Log Interval: 8575 ft

Top Log Interval: 200 ft

Casing Fluid Type: WBM

Salinity:

Density: 9.6 lbm/gal

Fluid Level: 10 ft

BIT/CASING/TUBING STRING:

Bit Size: 9.875 in

From:

To:

Casing/Tubing Size: 7.000 in

Weight: 26 lbm/ft

Grade:

From: 0 ft

To: 8626 ft

Maximum Recorded Temperatures:

Logger On Bottom: 2-Dec-2009

Unit Number: 2276

Recorded By: JASON EDWARDS

Witnessed By: JOHN WOOD

PVT DATA

	Run 1	Run 2	Run 3
Oil Density			
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation	2.5 deg		
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density	11 lbm/gal		
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom:			
Unit Number			
Recorded By			
Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 2-DEC-2009 14:52:34

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B	Type: CMTD-B/A	Type: 7-46A XS
Serial Number:	Serial Number:	Serial Number:
Calibration Date: 1-MARCH-200	Calibration Date:	Length: 22690 FT
Calibrator Serial Number: 1	Calibrator Serial Number:	Conveyance Method: Wireline
Calibration Cable Type: 7-42P	Number of Calibration Points: 10	Rig Type: LAND
Wheel Correction 1: -9	Calibration RMS: 36	
Wheel Correction 2: -8	Calibration Peak Error: 63	

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	227.40 FT
Rig Up Length At Bottom:	225.60 FT
Rig Up Length Correction:	1.80 FT
Stretch Correction:	6.00 FT
Tool Zero Check At Surface:	0.70 FT

Depth Control Remarks

1. All current Schlumberger depth control policies followed
2. IDW used as primary depth reference, z-chart used as secondary reference
3.
4.
5.
6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: None	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Tool ran as per tool sketch	
Tool eccentered with 2 GEMCOs	
UFAO = 2	
Neutron tool ran for gamma ray only	
Logged at 1800 FT/HR	
BHT - 166 DEGF	
BHP - 4270	
Expected casing thickness = .362	

MUD WEIGHT WAS 11 PPG UP TO APPROX 7100 FT
 ABOVE 7100 FT MUD WEIGHT BECAME 9.6 PPG
 MUD INFORMATION WAS PROVIDED BY THE CLIENT

THANK YOU FOR CHOOSING SCHLUMBERGER WIRELINE
 YOUR SCHLUMBERGER CREW:
 J. EDWARDS, T. JACKSON, W. BARBER

RUN 1		
SERVICE ORDER #:		
PROGRAM VERSION:	17C0-154	
FLUID LEVEL:	10 ft	
LOGGED INTERVAL	START	STOP

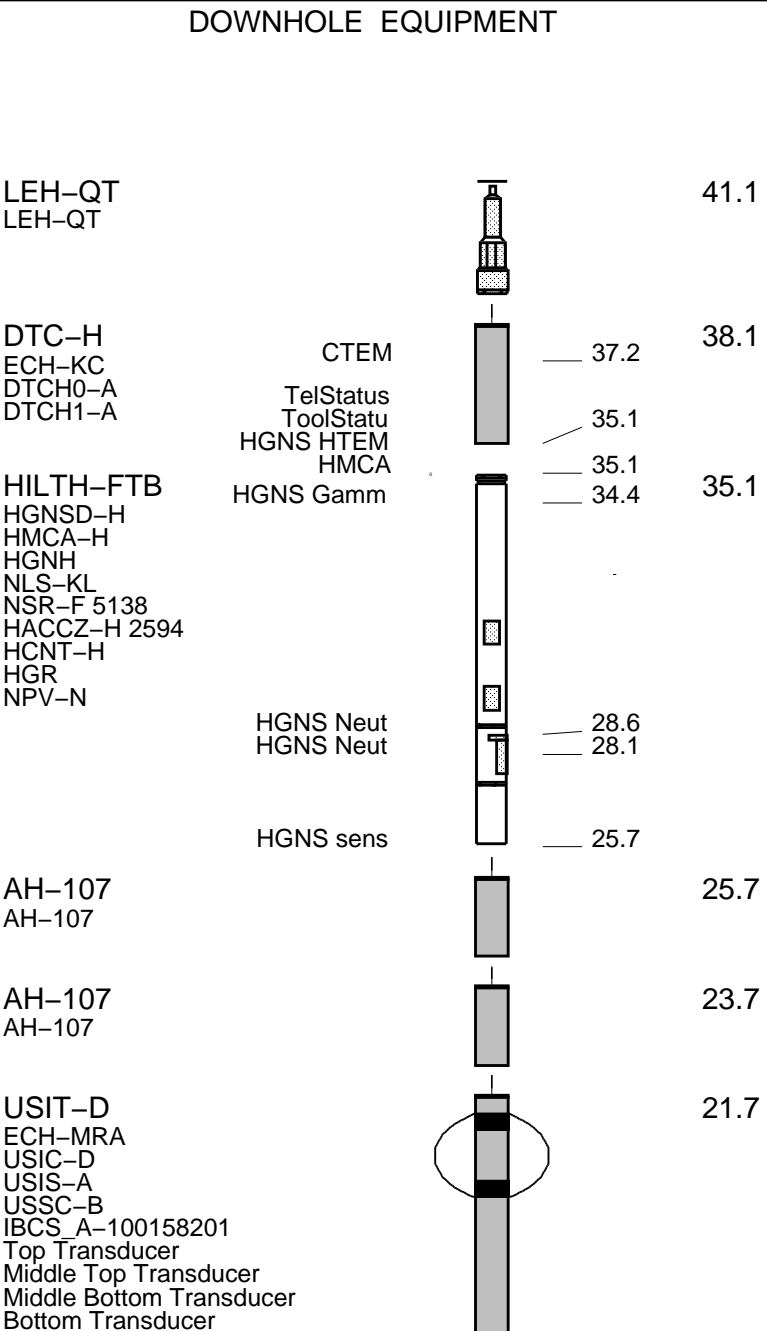
RUN 2		
SERVICE ORDER #:		
PROGRAM VERSION:		
FLUID LEVEL:		
LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

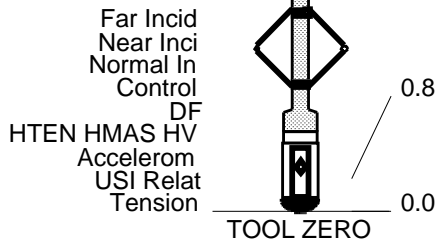
RUN 1

SURFACE EQUIPMENT
 WITM (DTS)-A

GSR-U/Y
 NCT-B
 CNB-AB
 NCS-VB



RUN 2



MAXIMUM STRING DIAMETER 7.50 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN FEET



Correlation

MAXIS Field Log

Company: ExxonMobil Production Corp

Well: PCU 297-11B8

Output DLIS Files

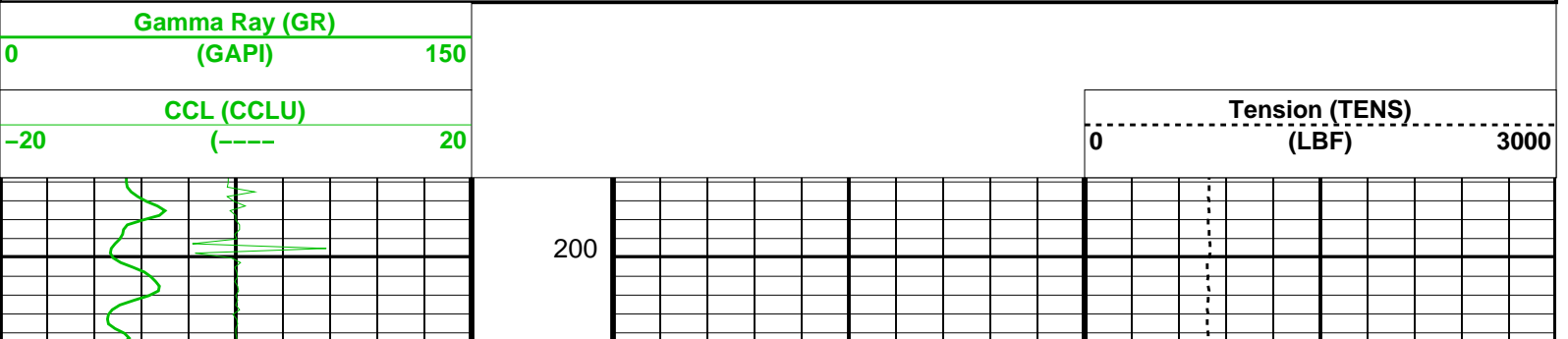
DEFAULT	USI_TLD_MCFL_CNL_007LUP	FN:10	PRODUCER	02-Dec-2009 17:55	8575.5 FT	191.5 FT
BACKUP	USI_TLD_MCFL_CNL_007LUP	FN:11	PRODUCER	02-Dec-2009 17:55	8575.5 FT	191.5 FT

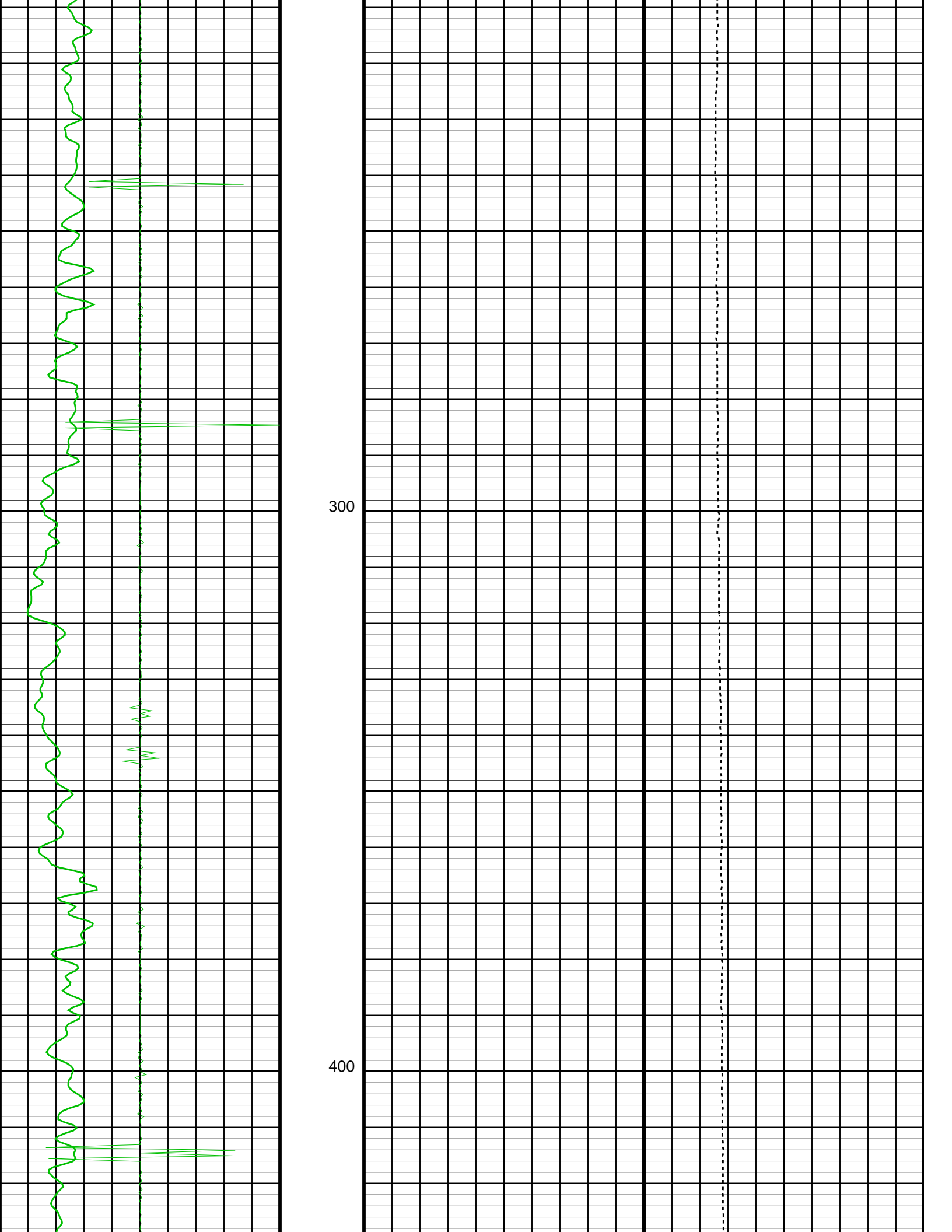
OP System Version: 17C0-154

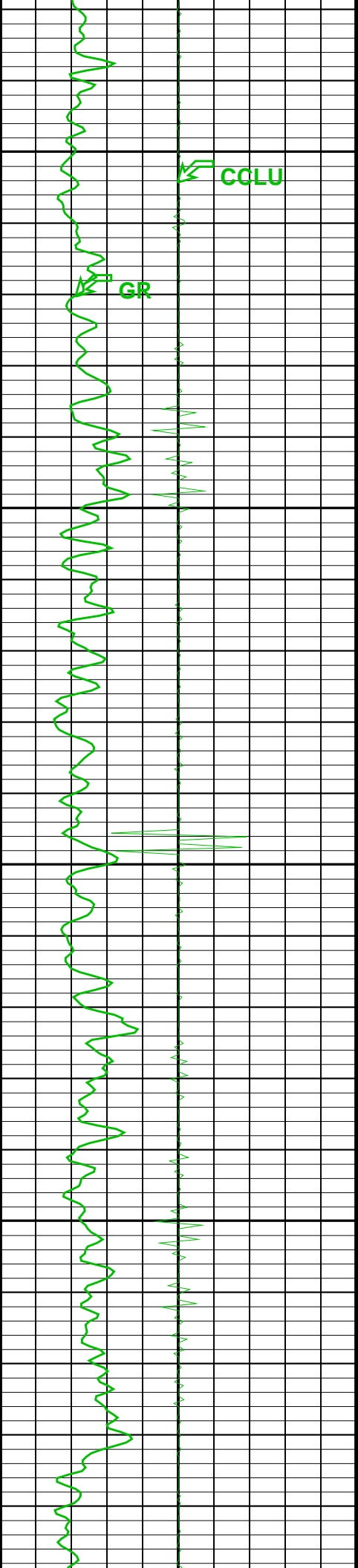
USIT-D	17C0-154	HILTH-FTB	17C0-154
DTC-H	17C0-154		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
MW	9.6 LB/G	11 LB/G	7099.1 18:45:13

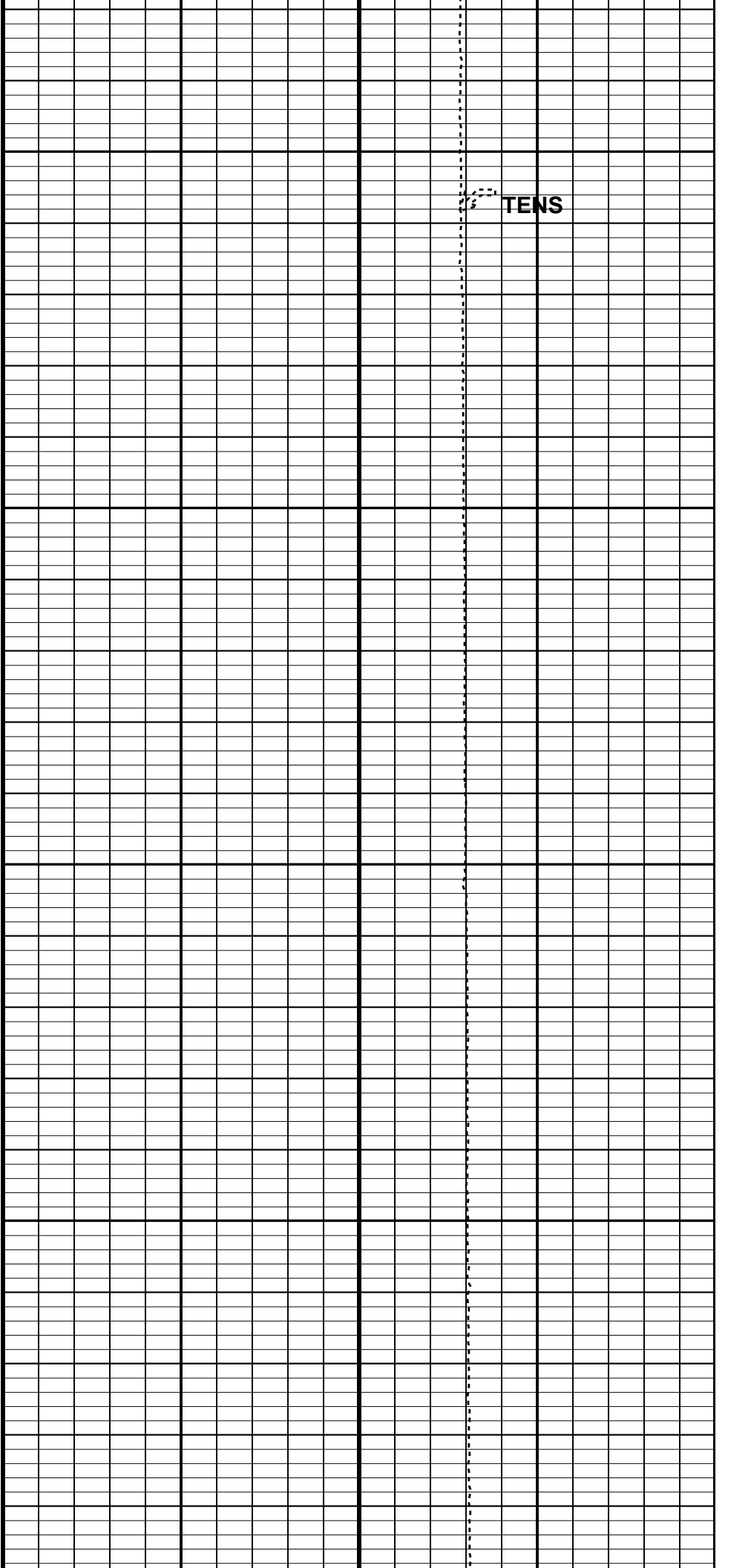






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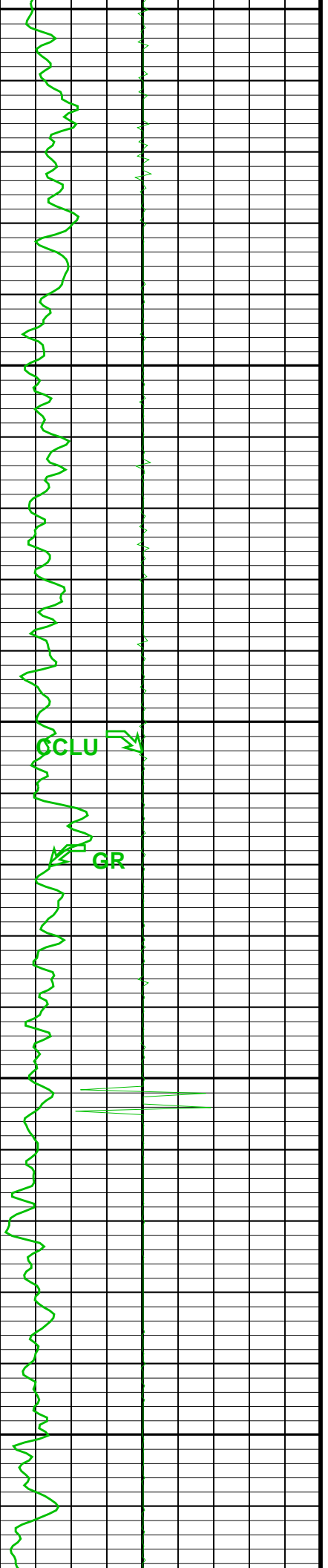
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TENS

700

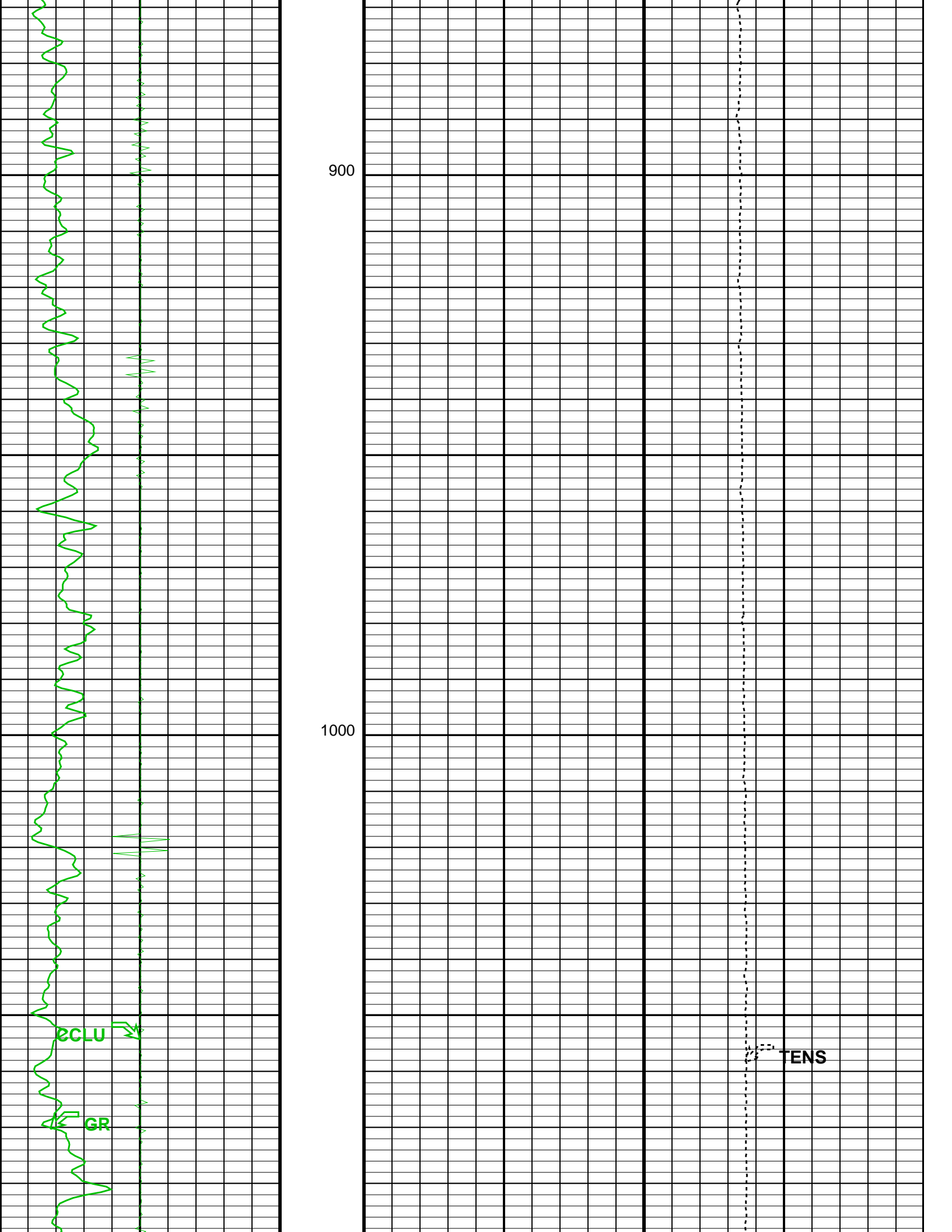
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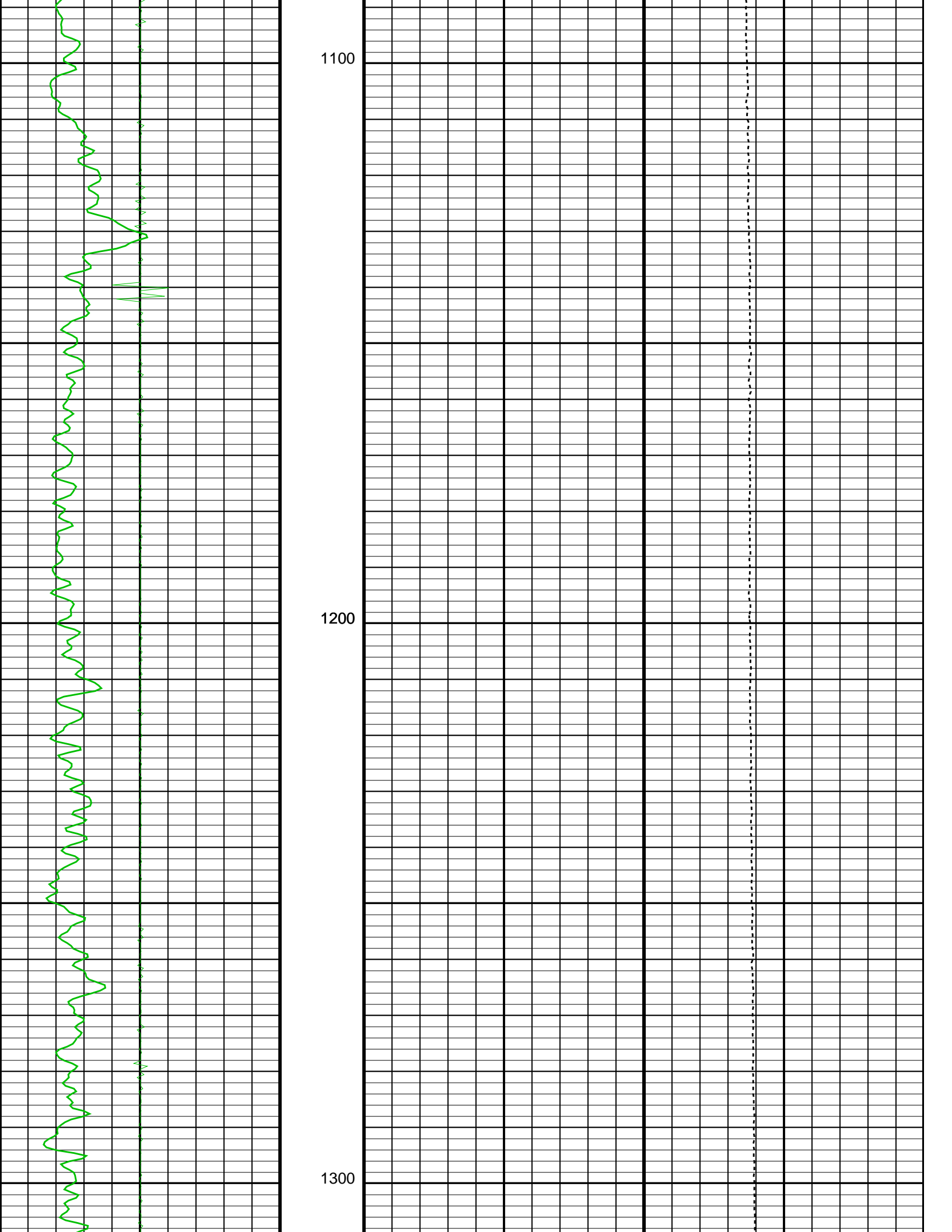


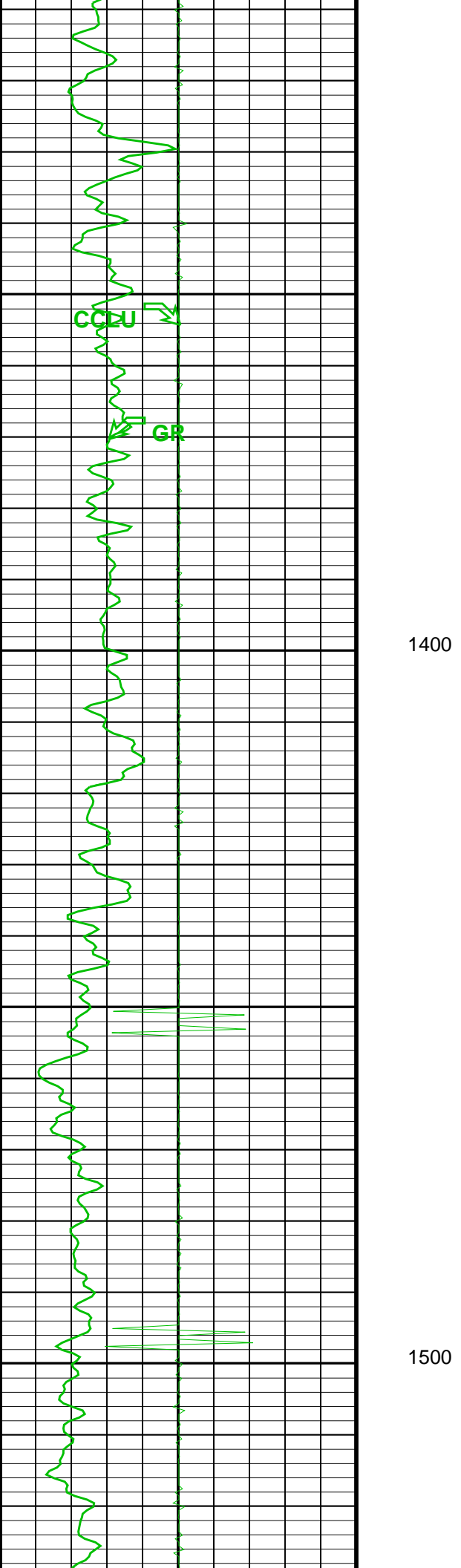
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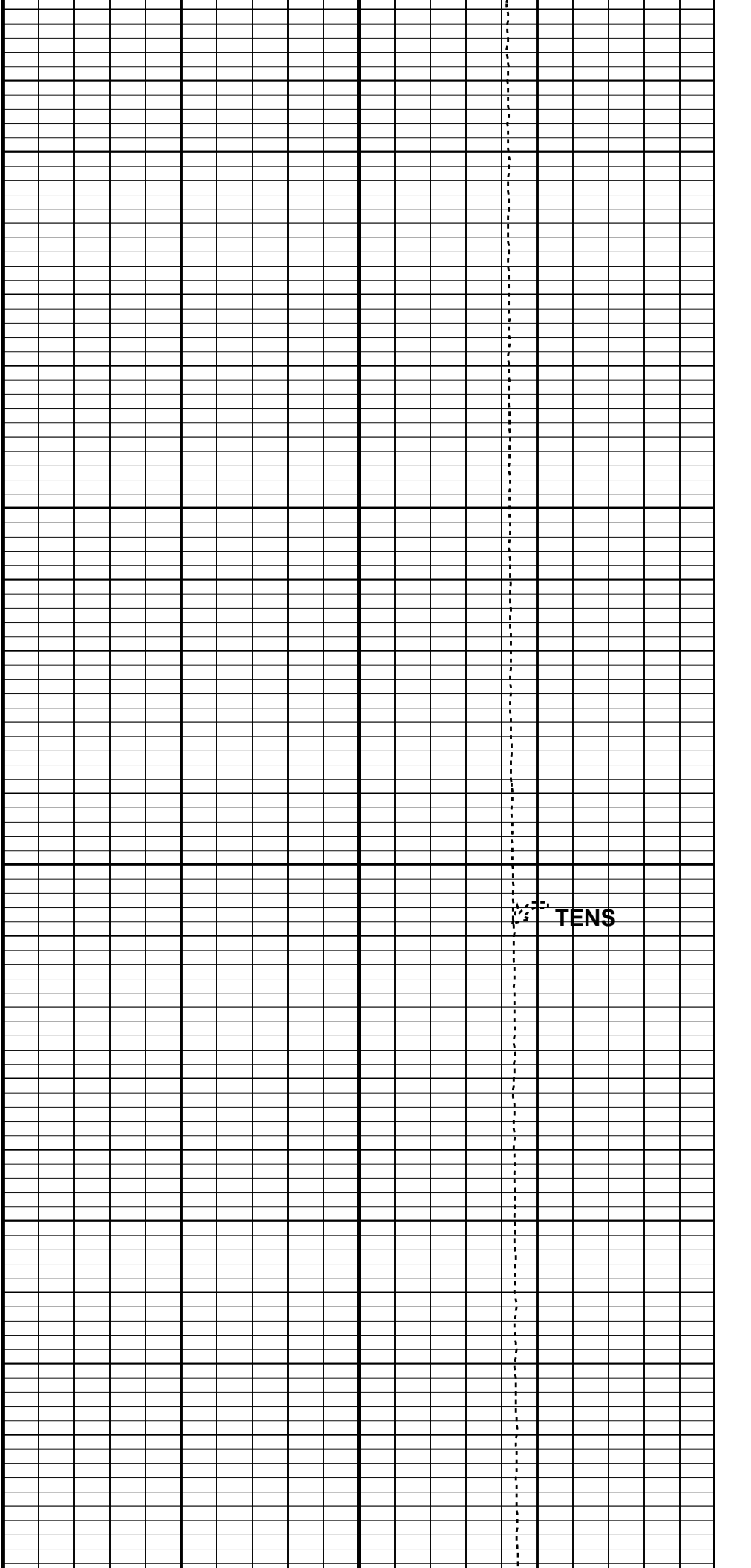
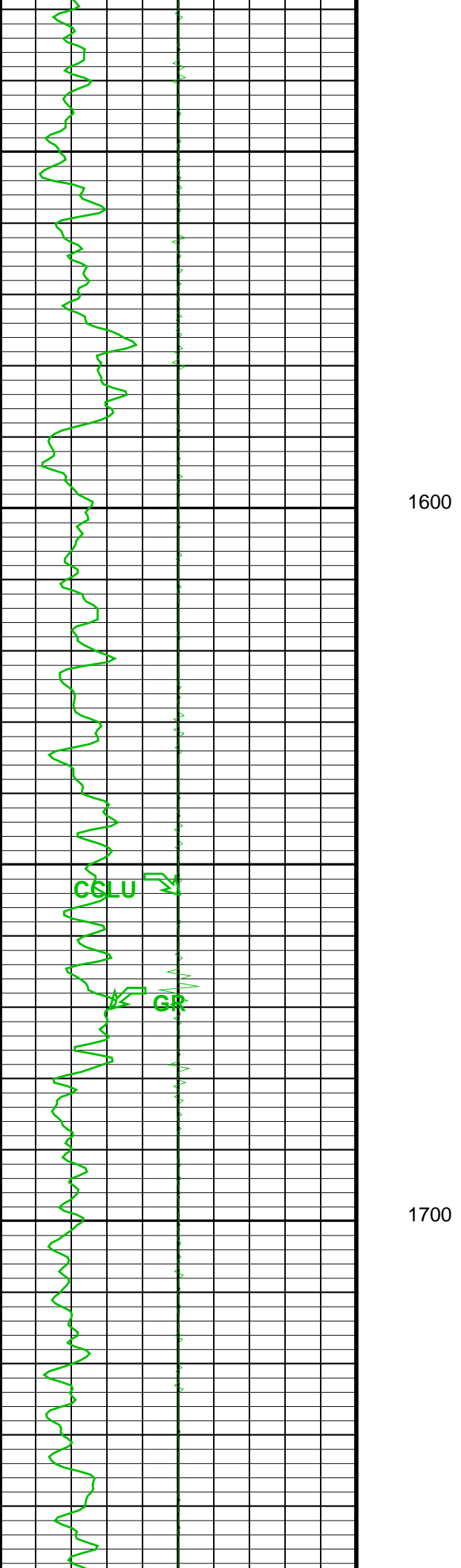
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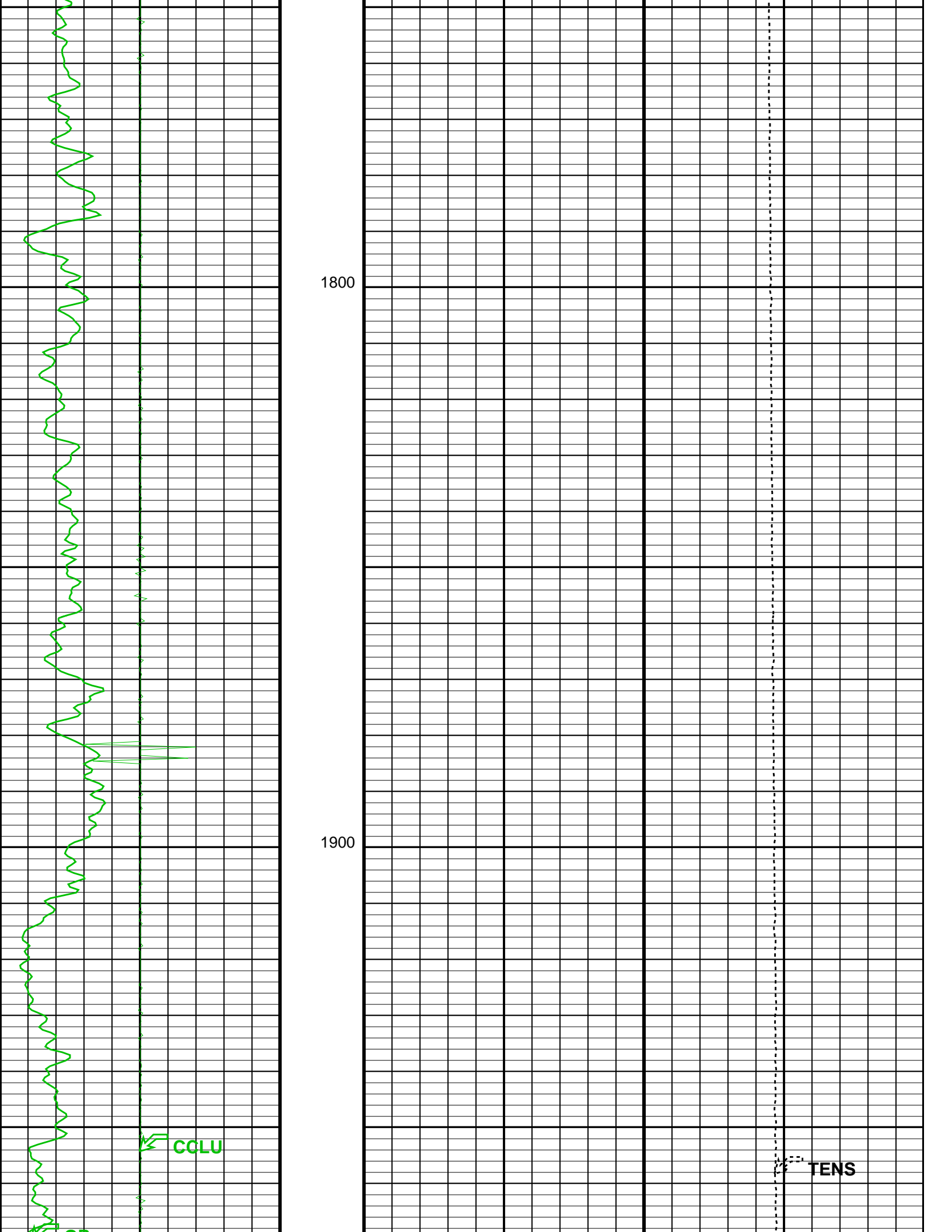
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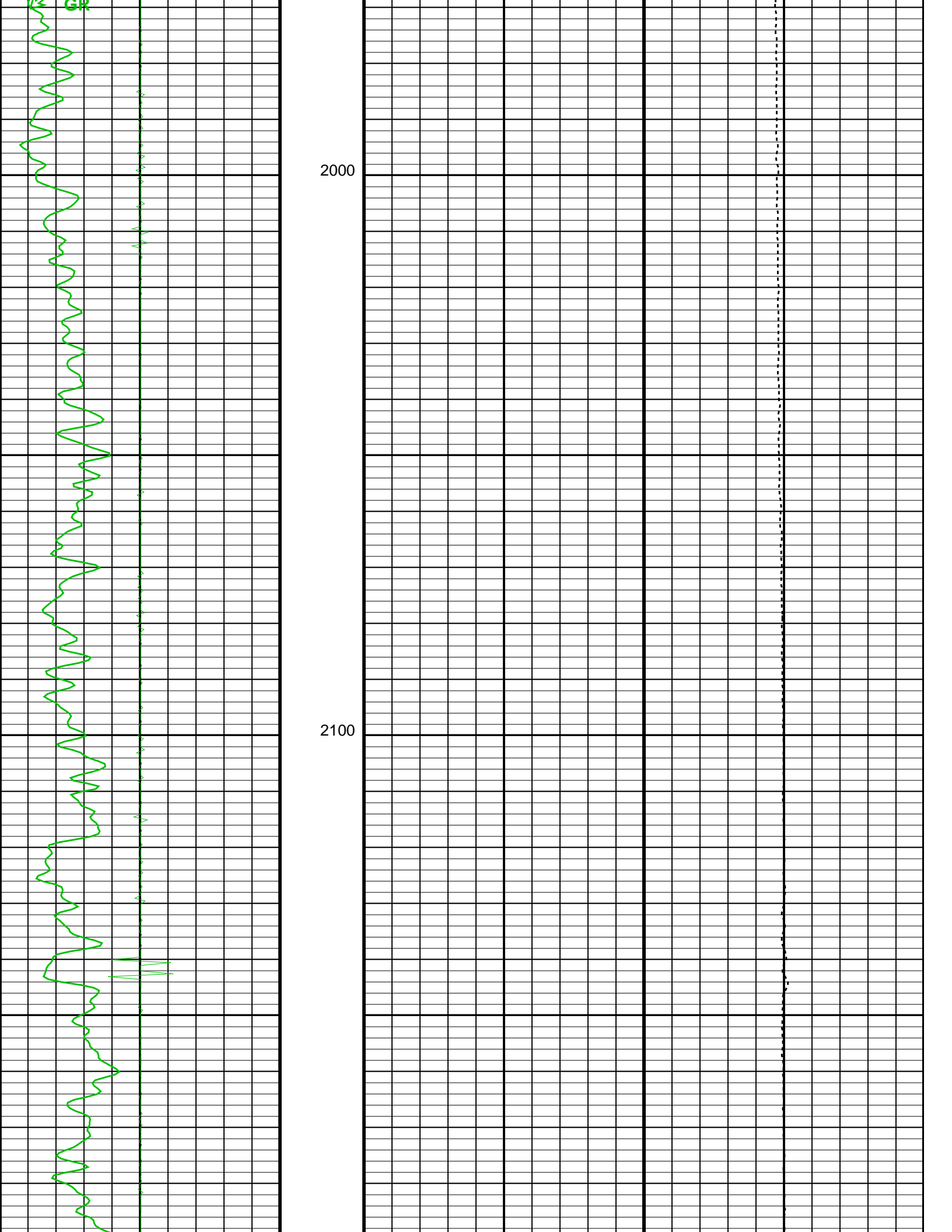


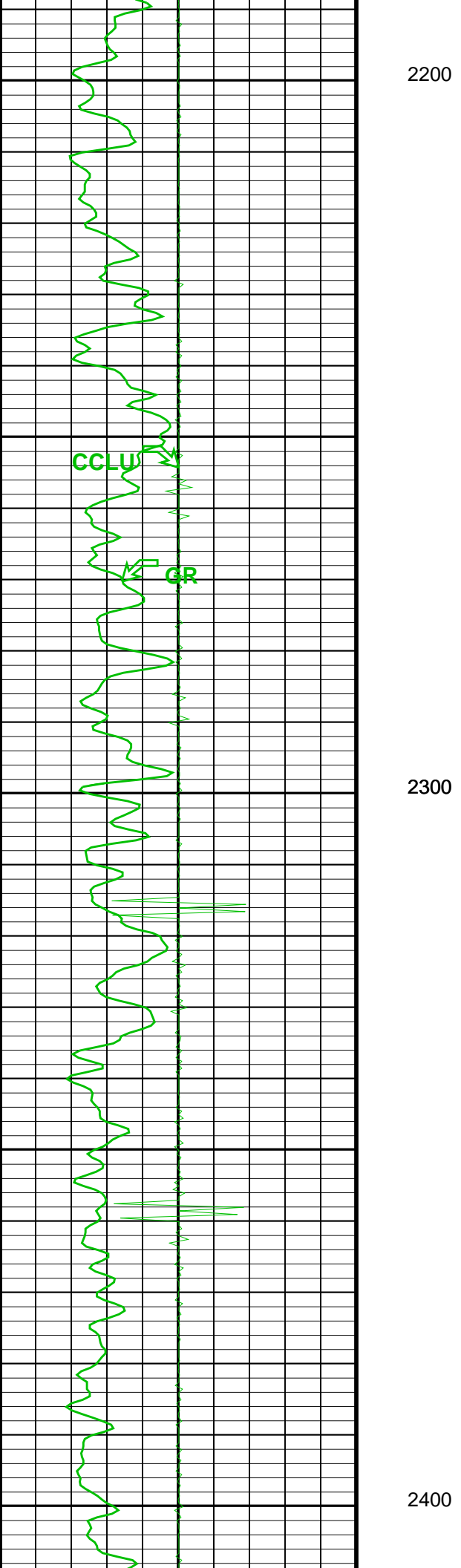










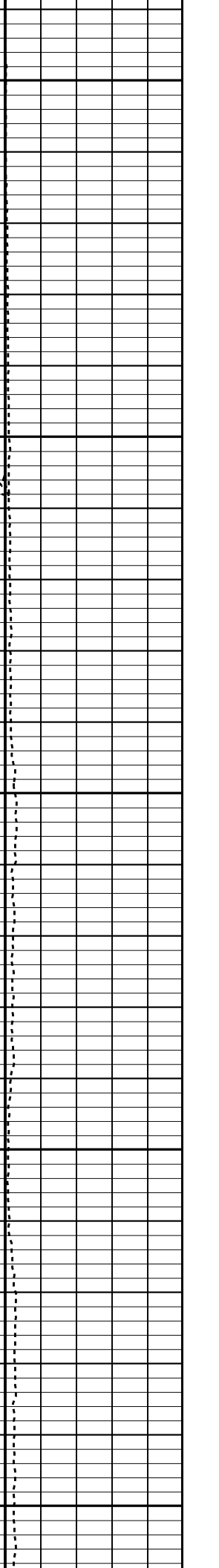


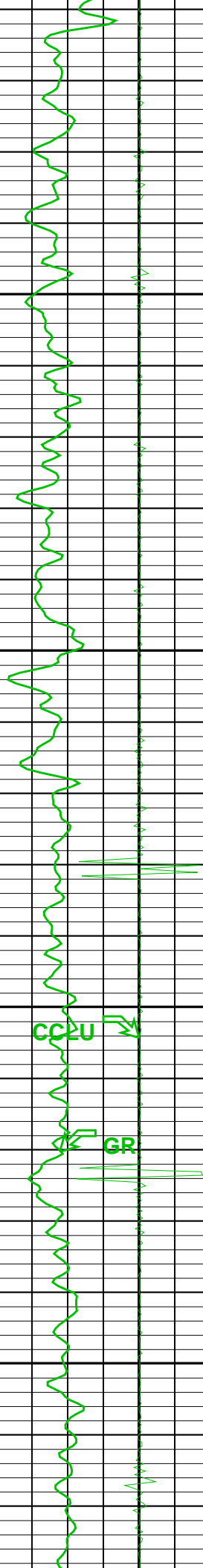
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2300

2400

TENS

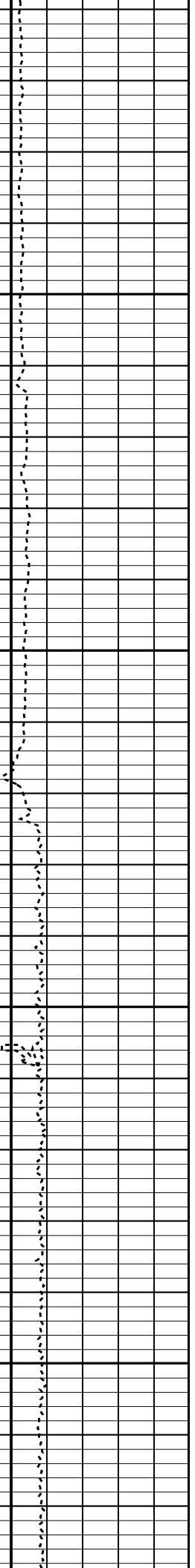


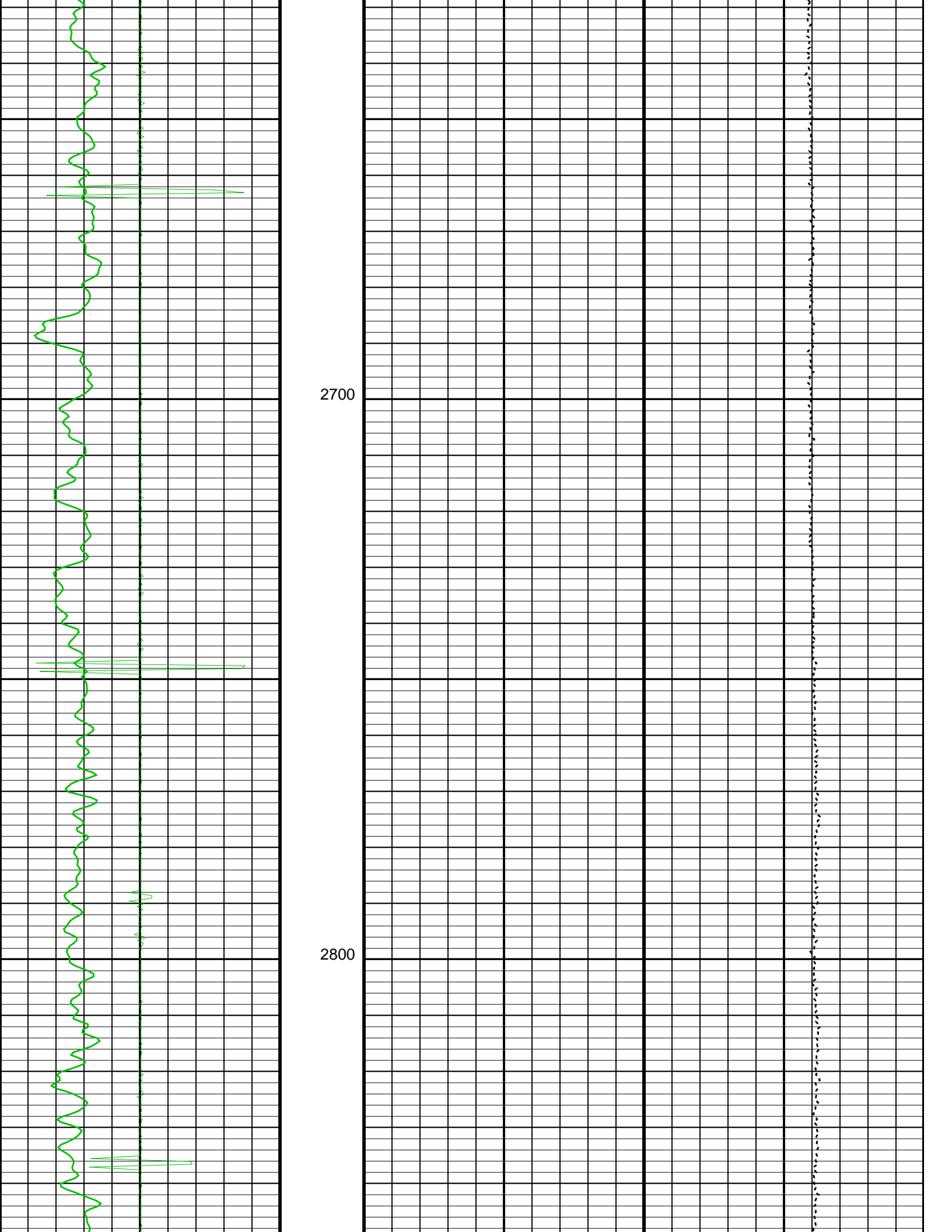


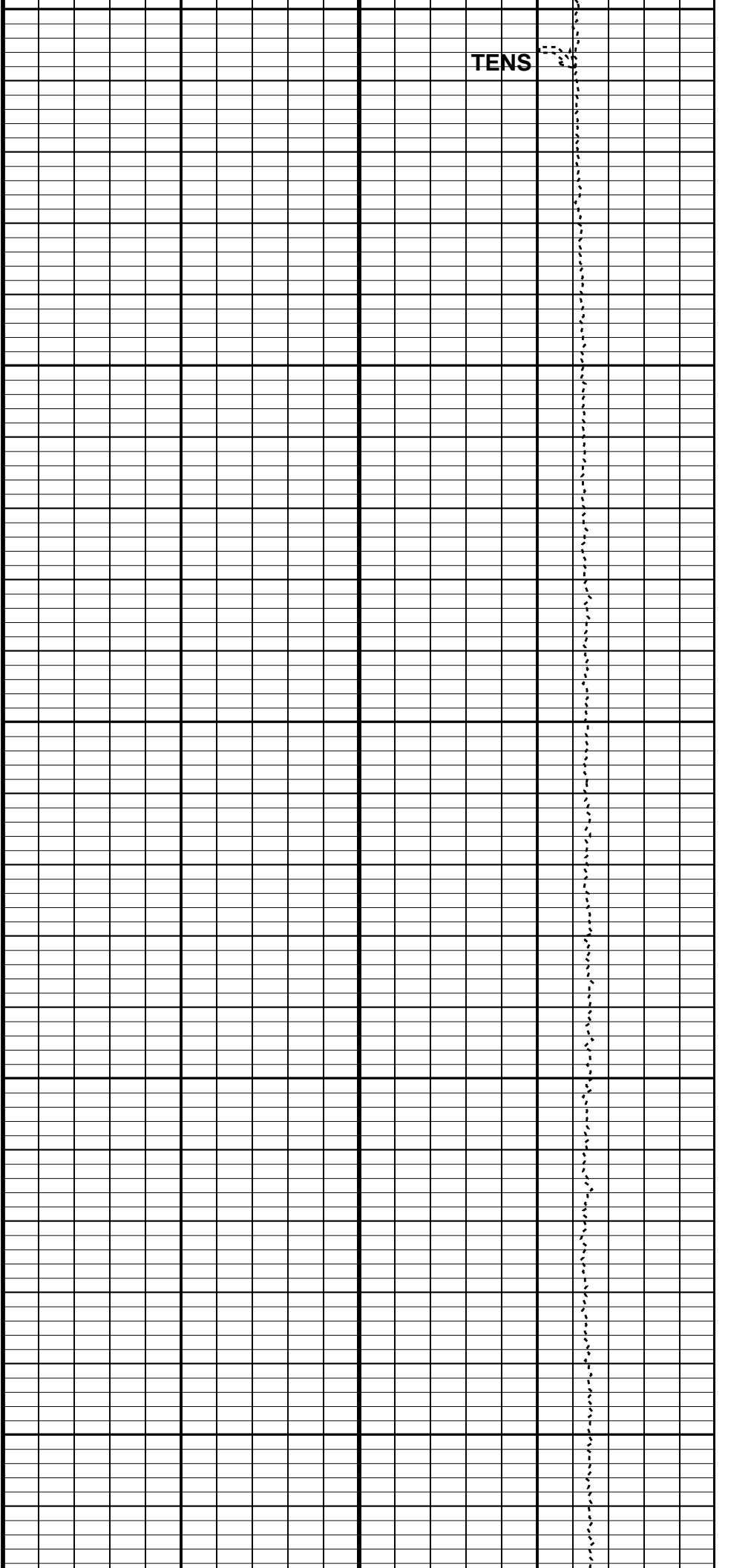
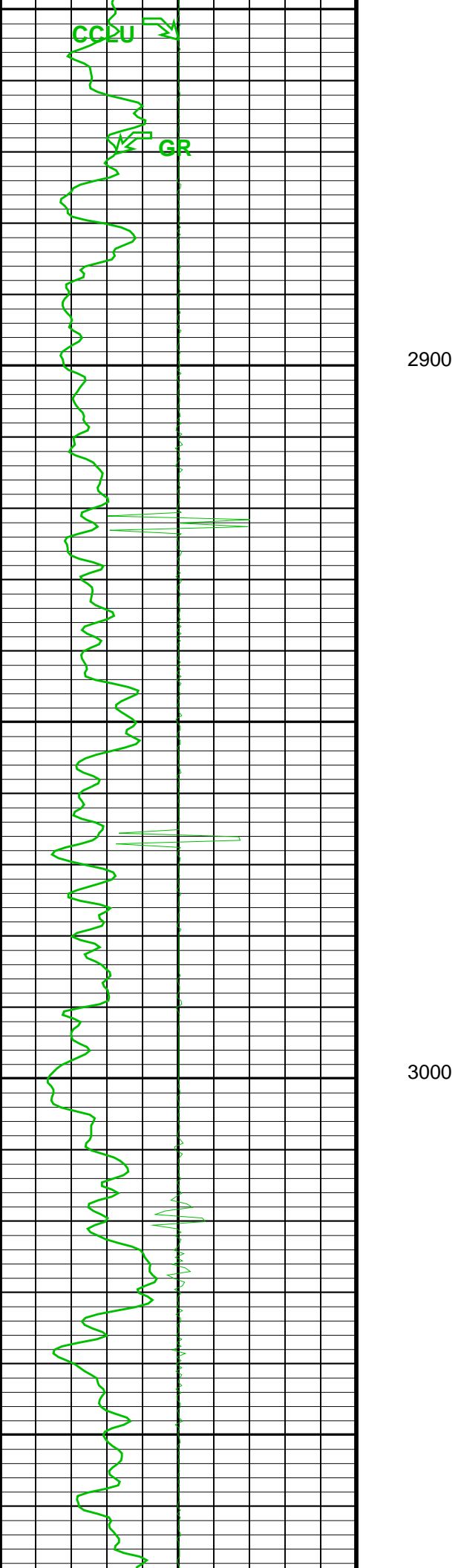
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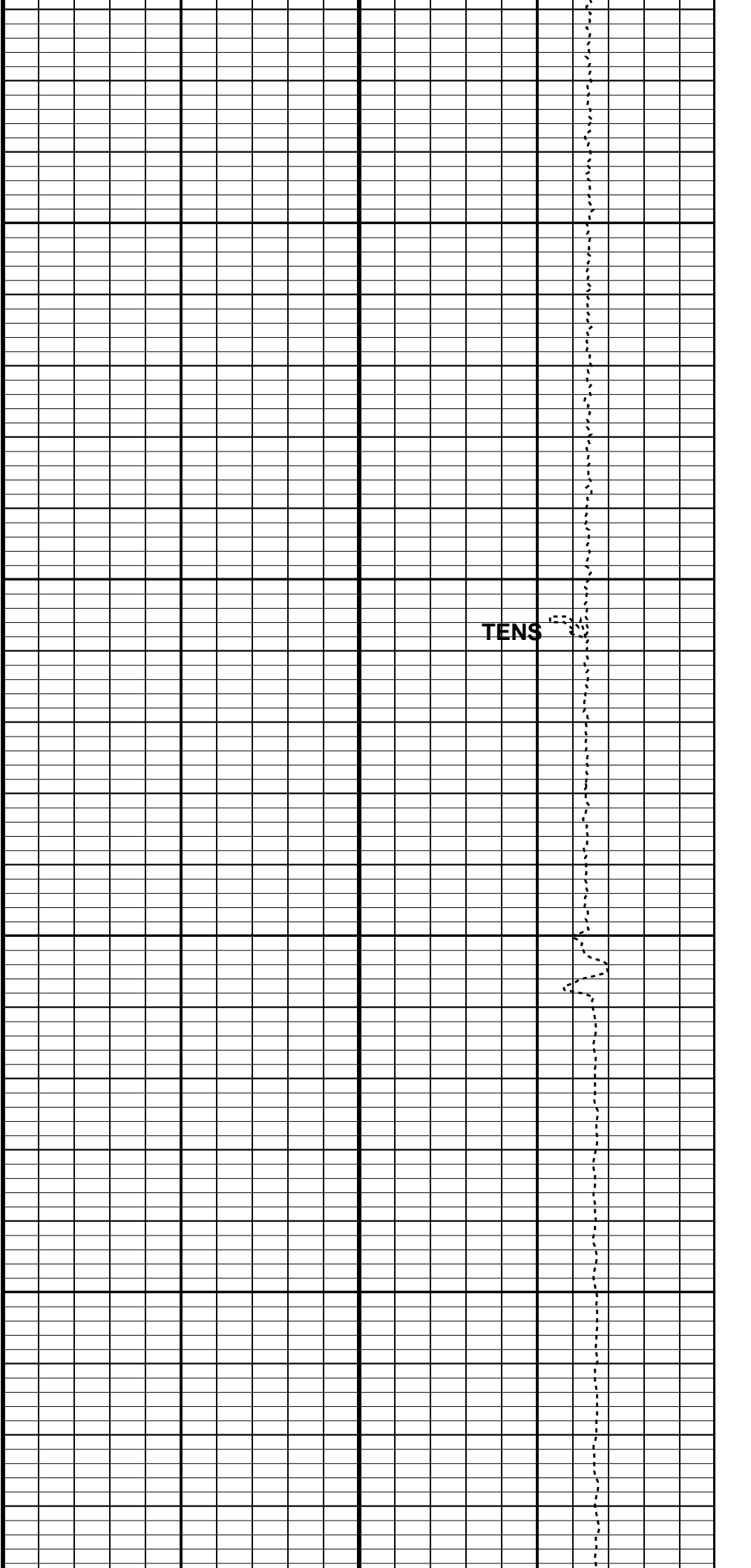
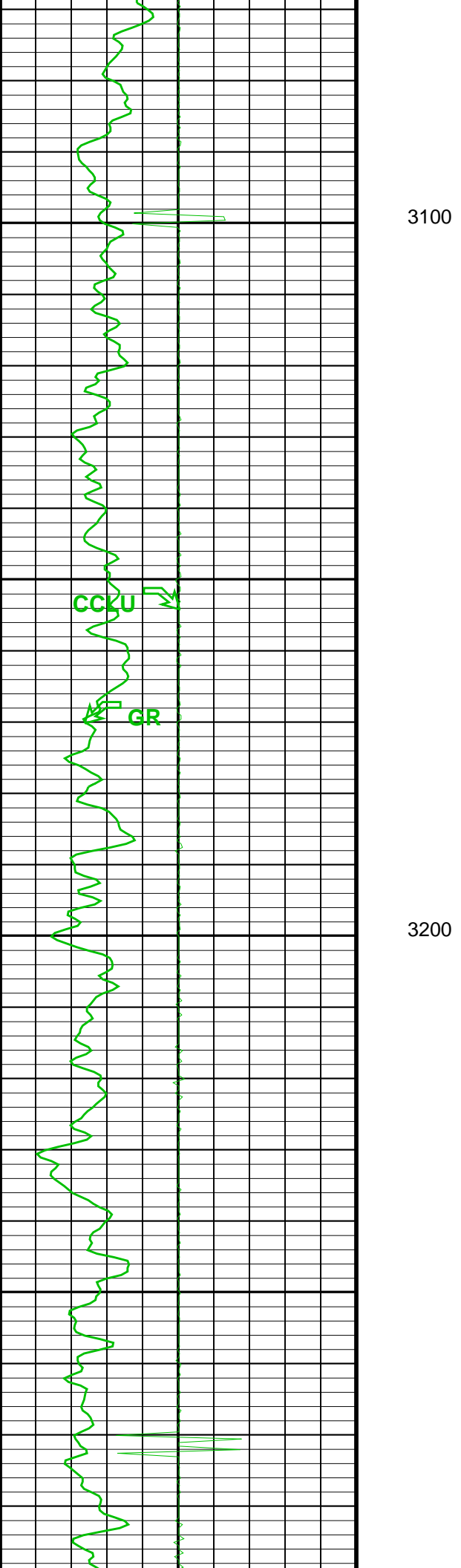
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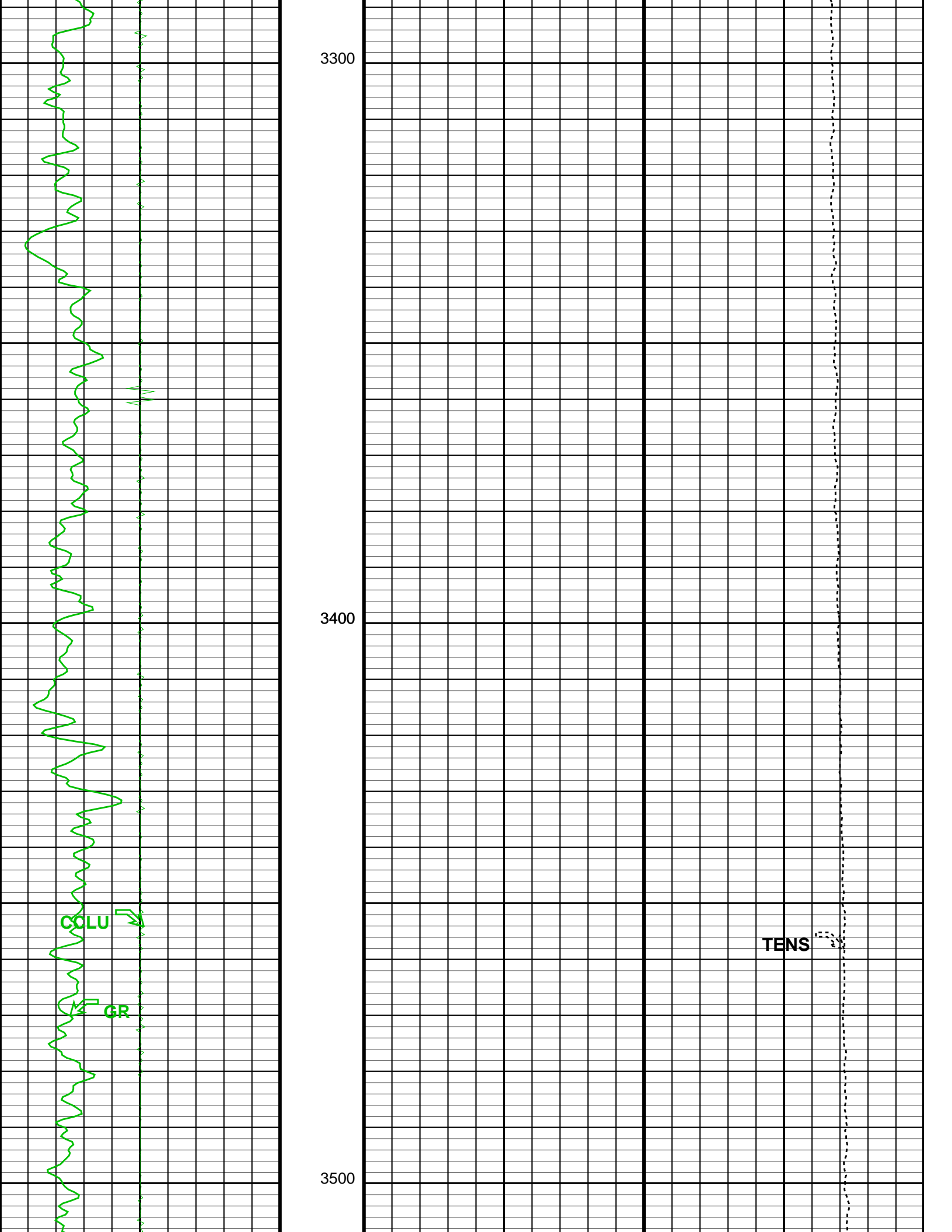
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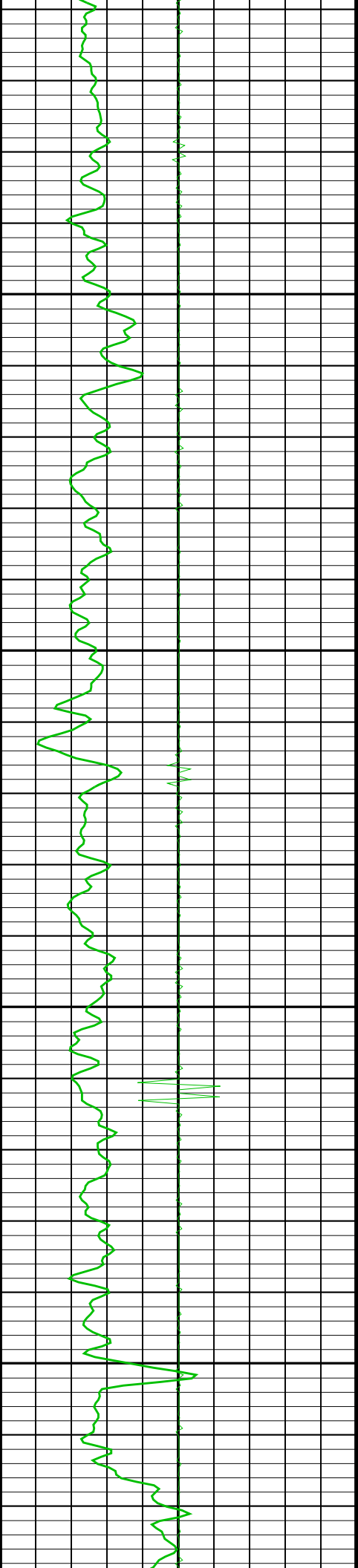






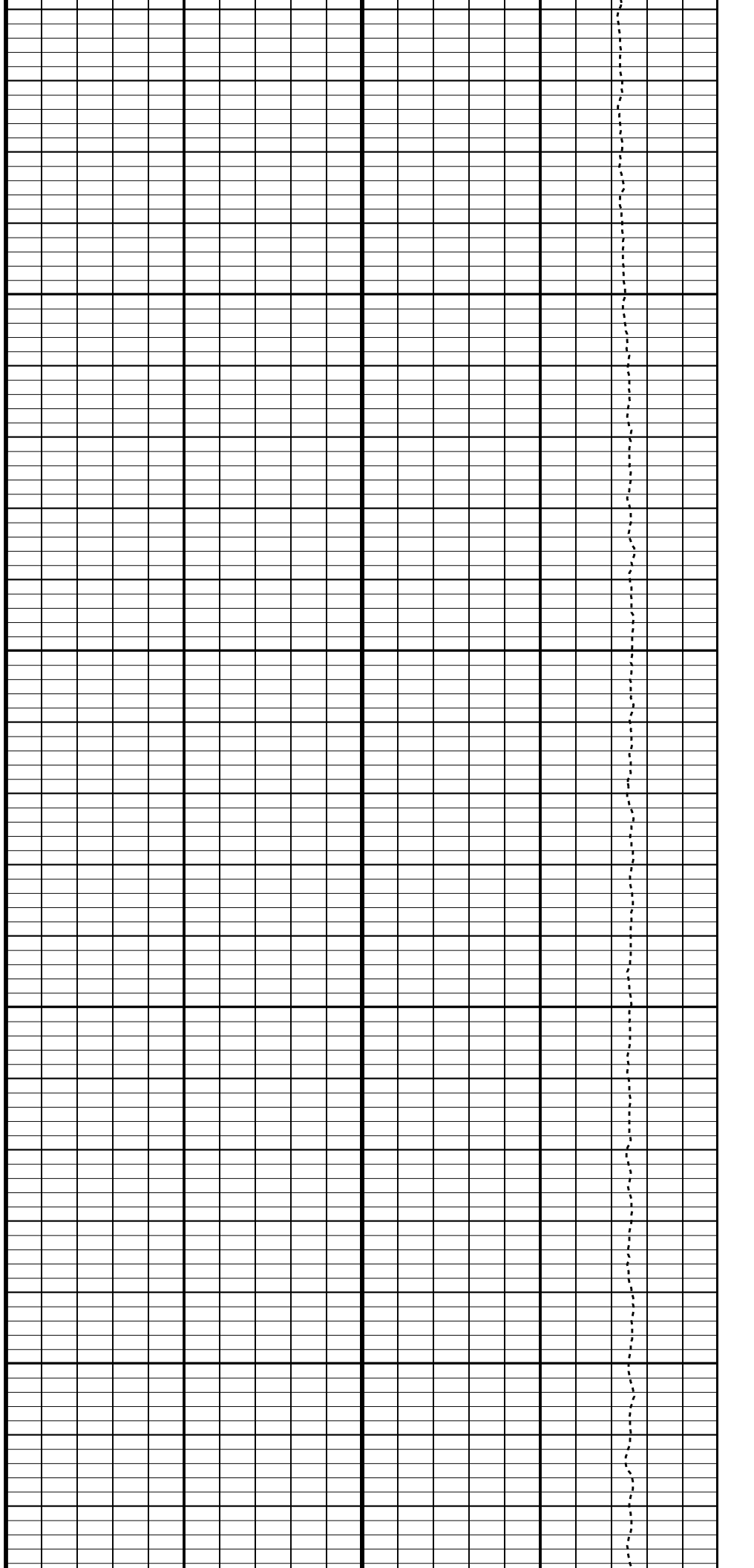


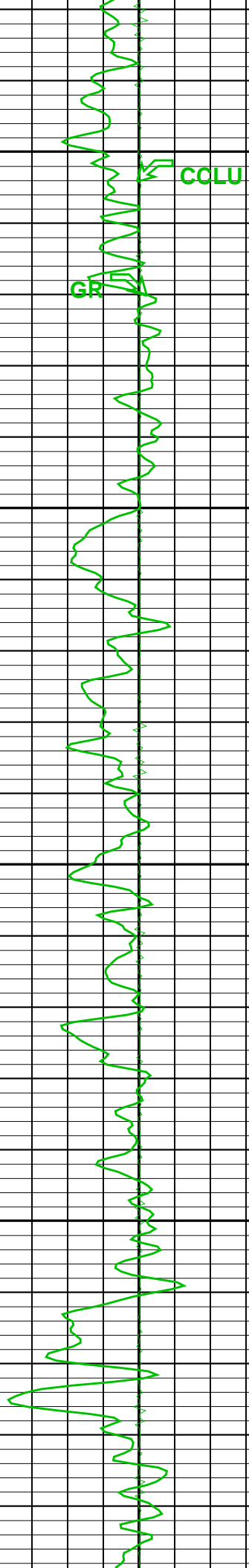




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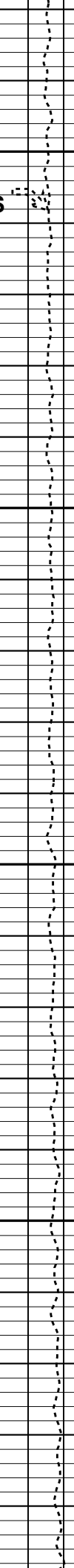


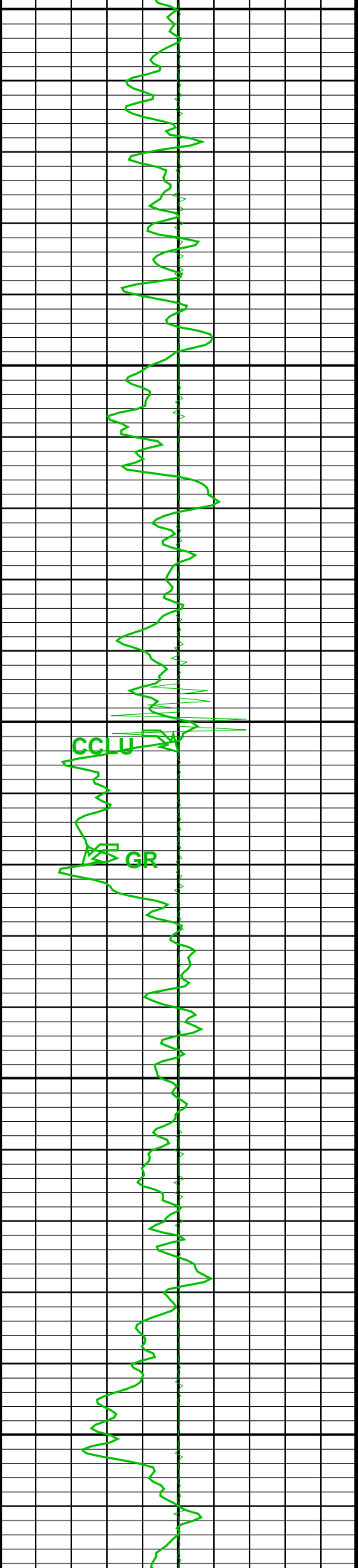


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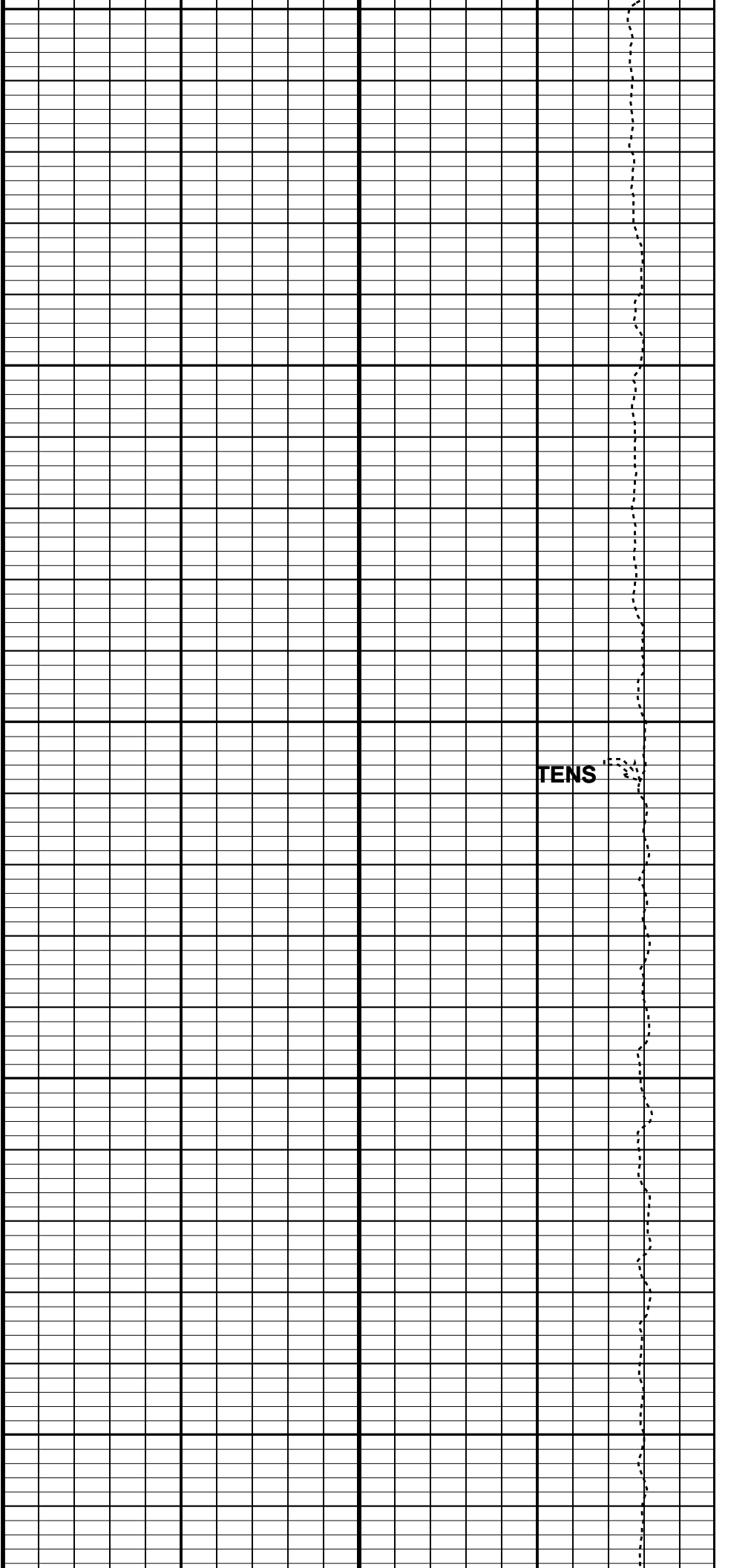


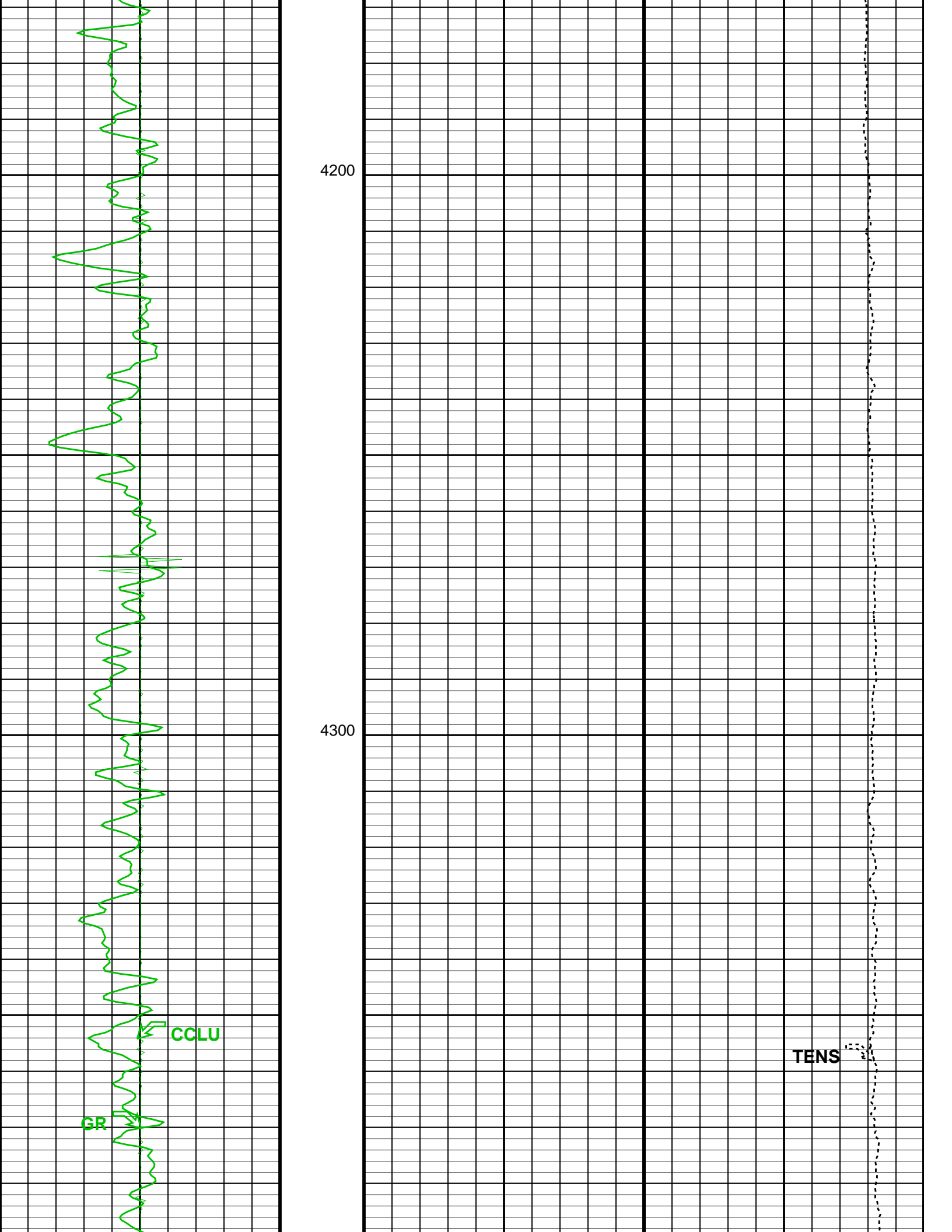


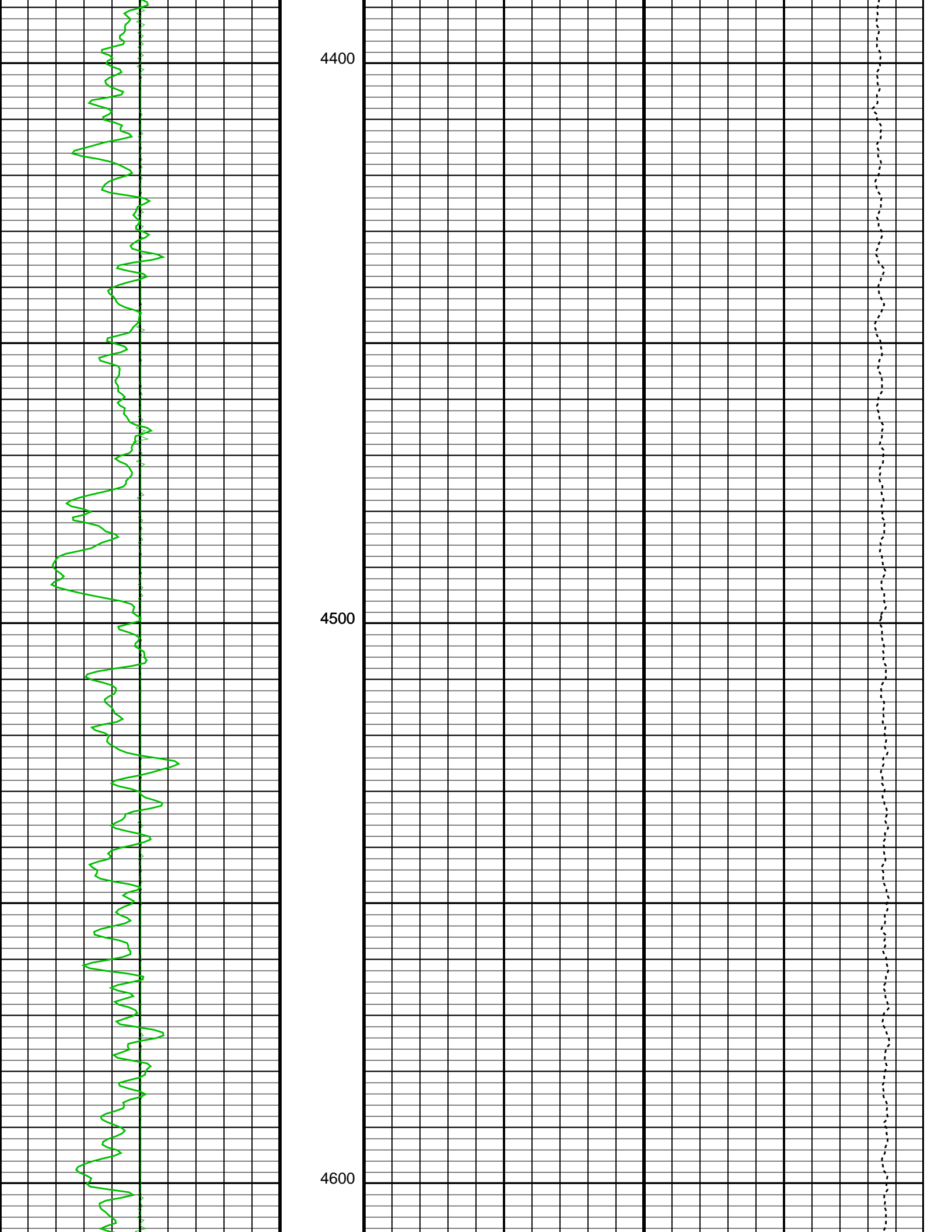
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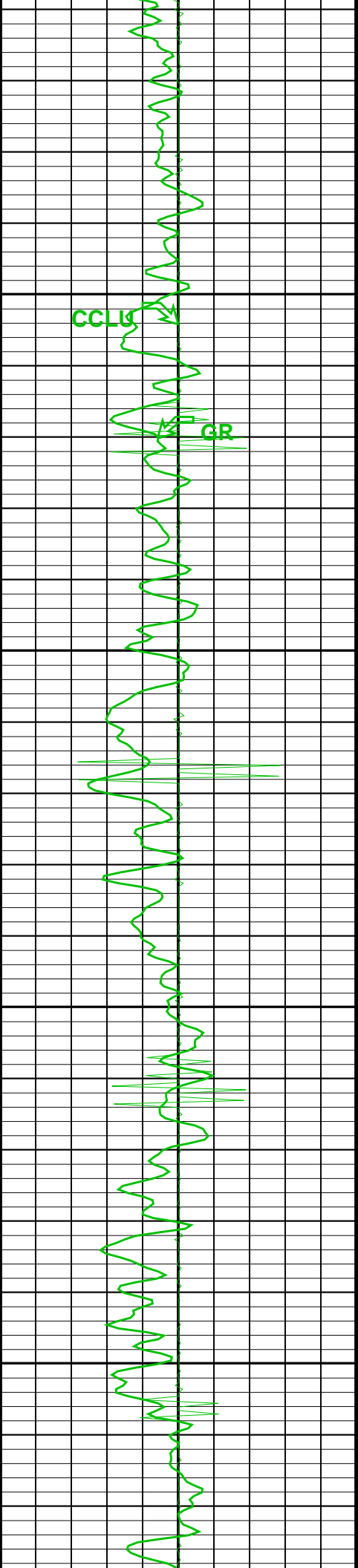
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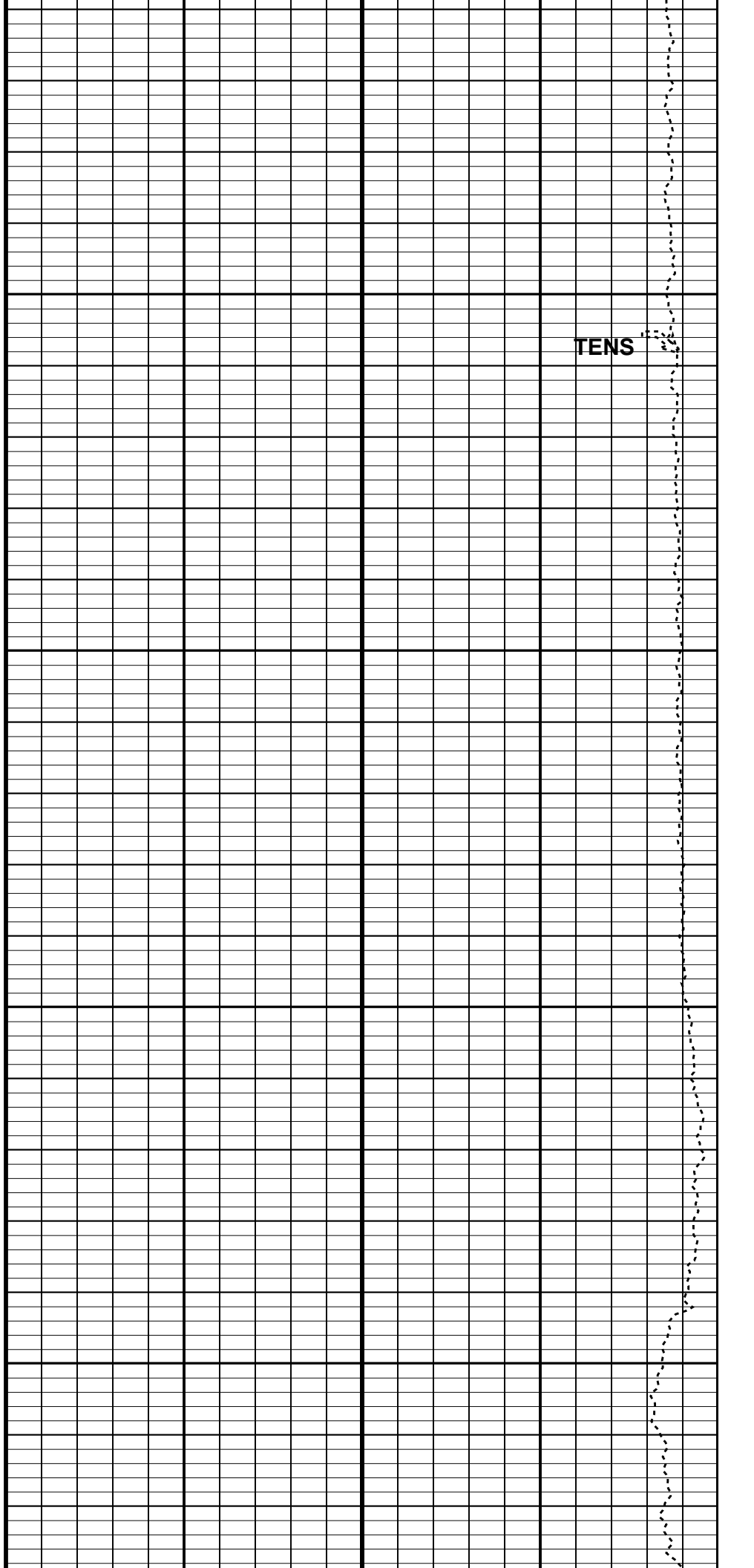


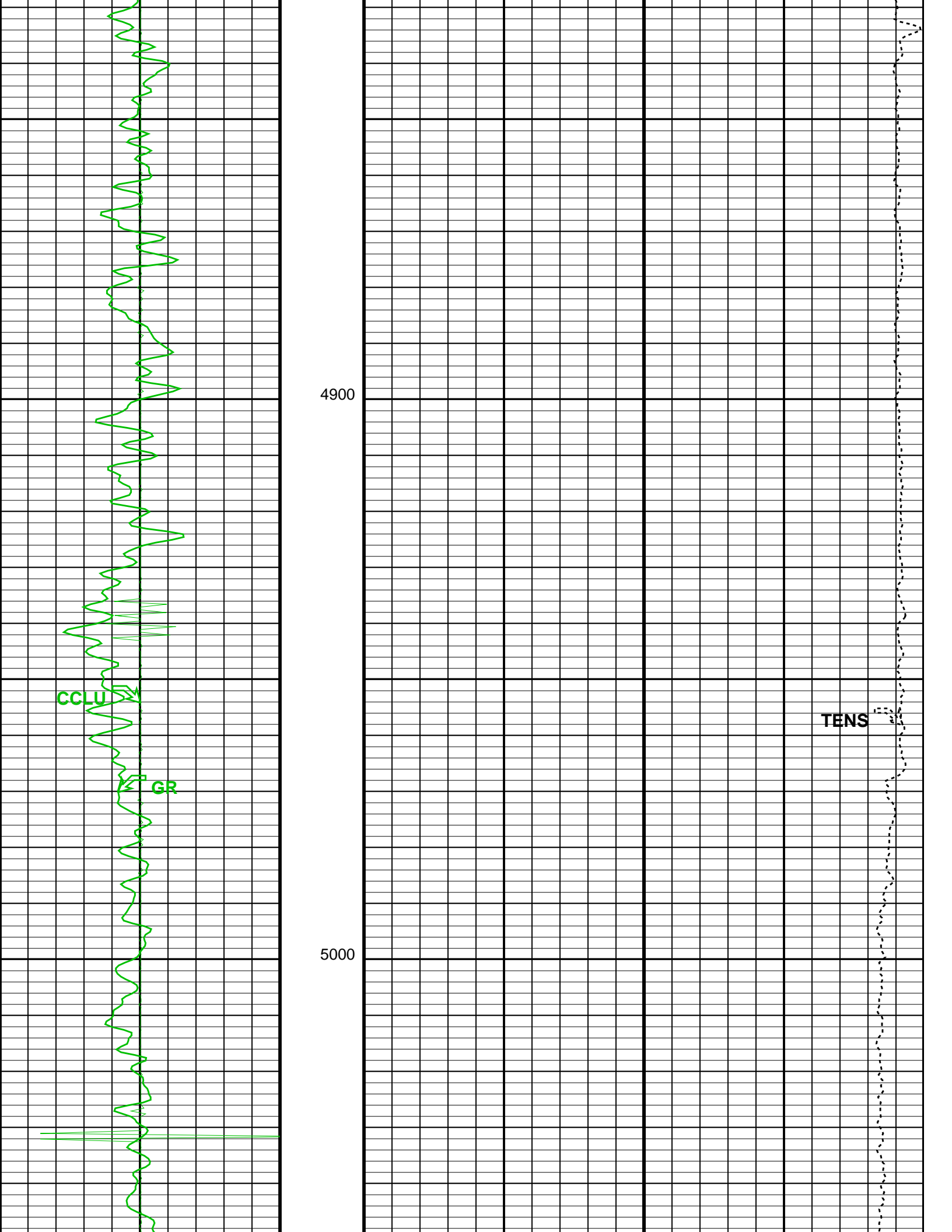


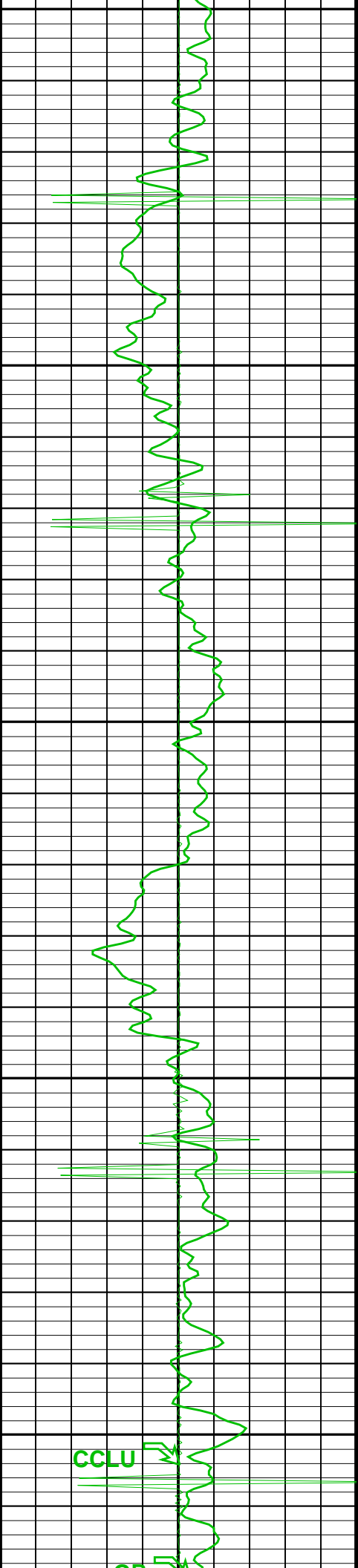
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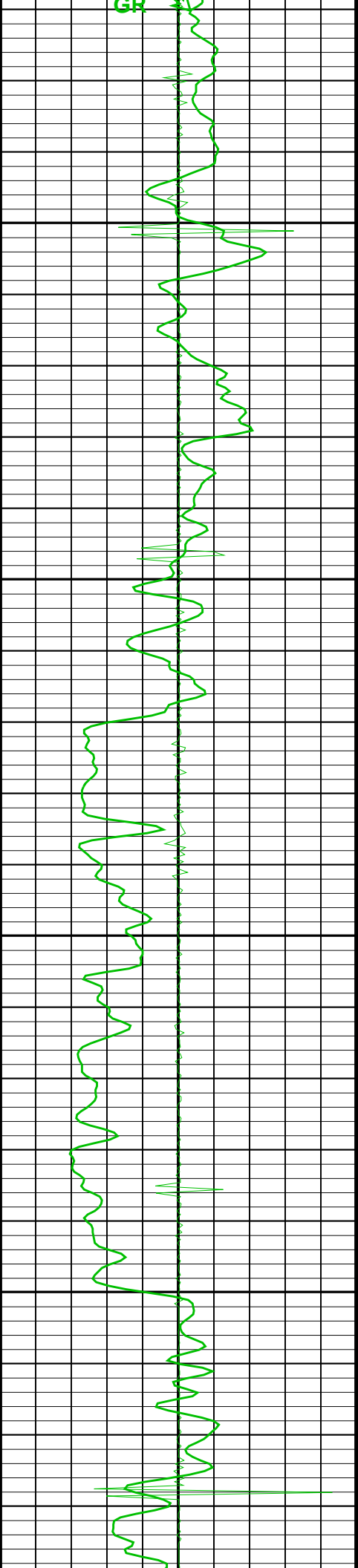


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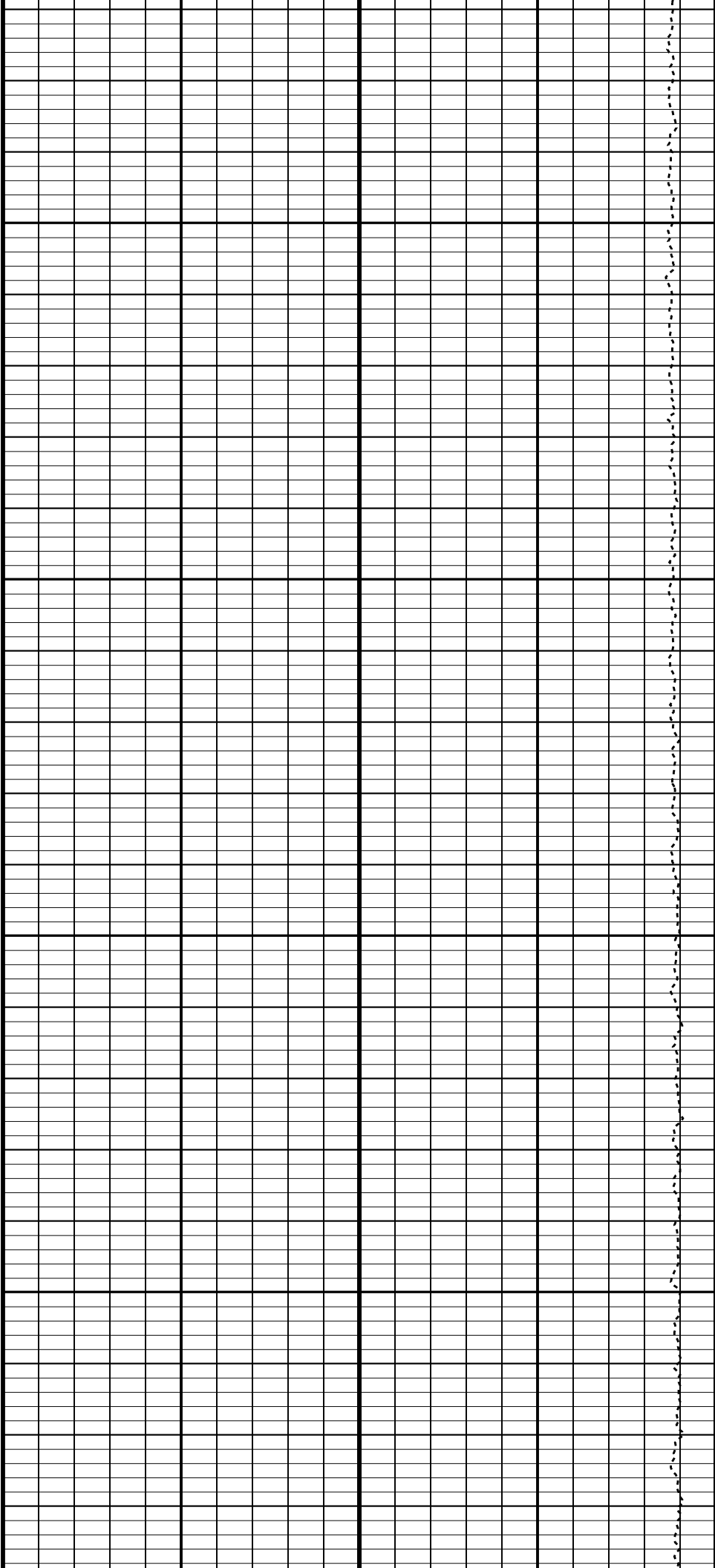
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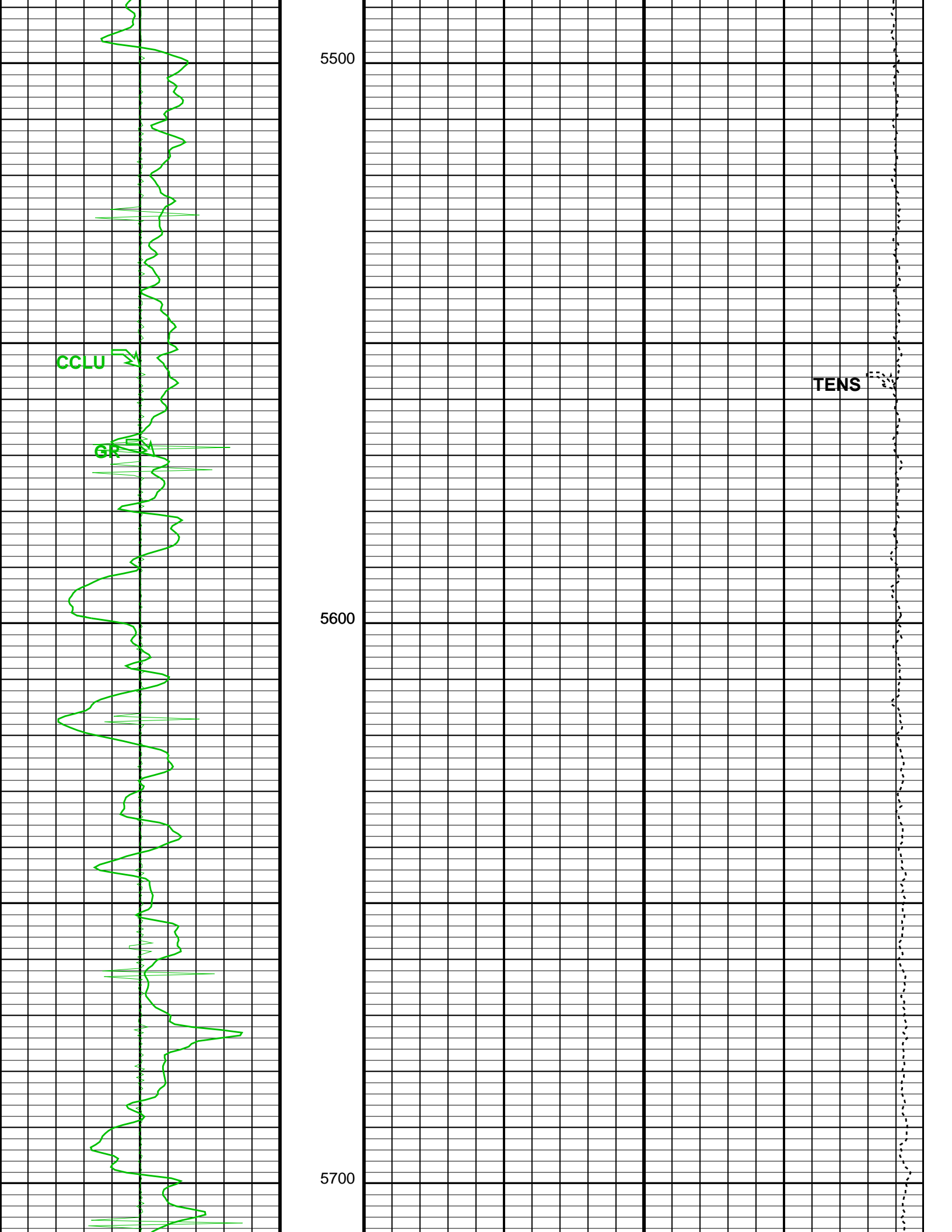
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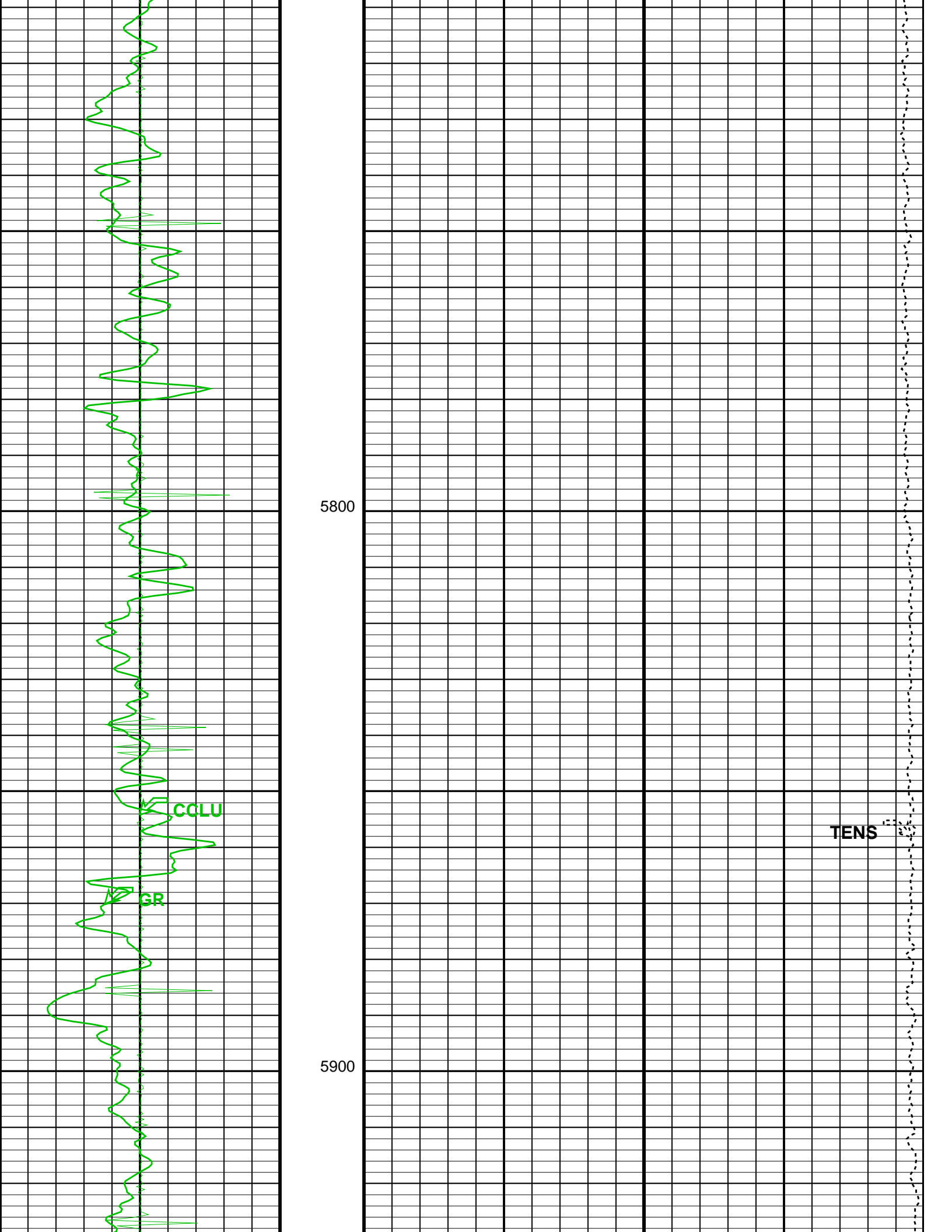
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CCLU

TENS

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5700



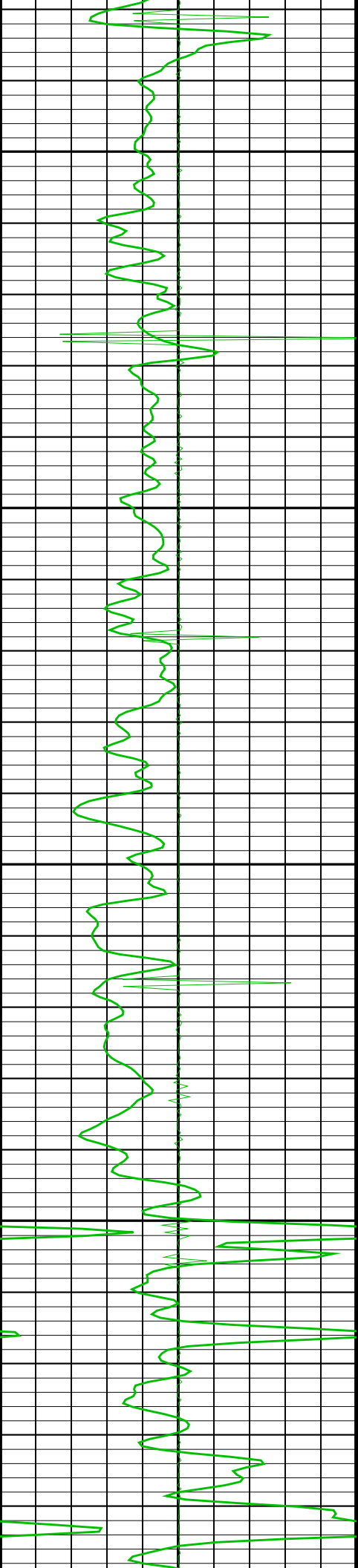
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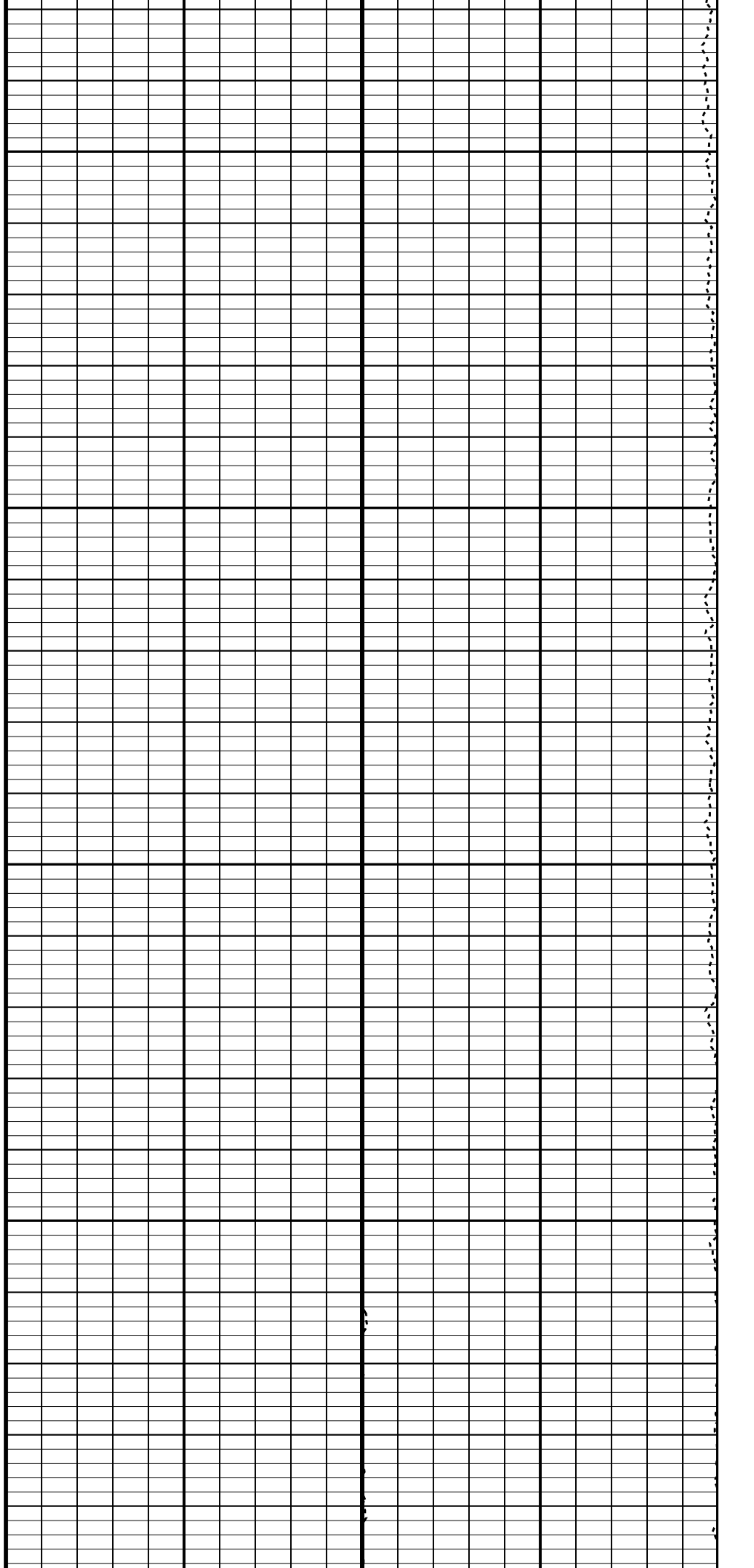
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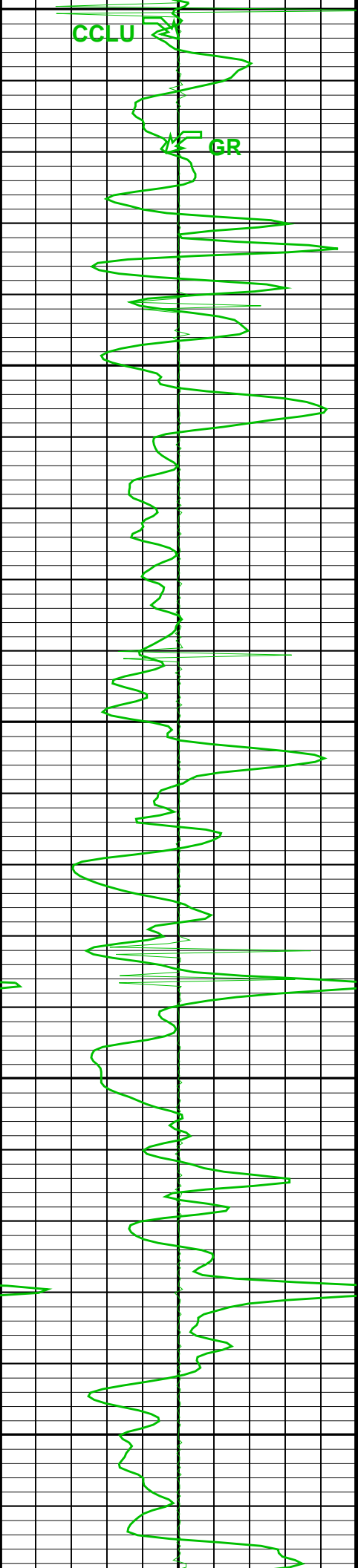
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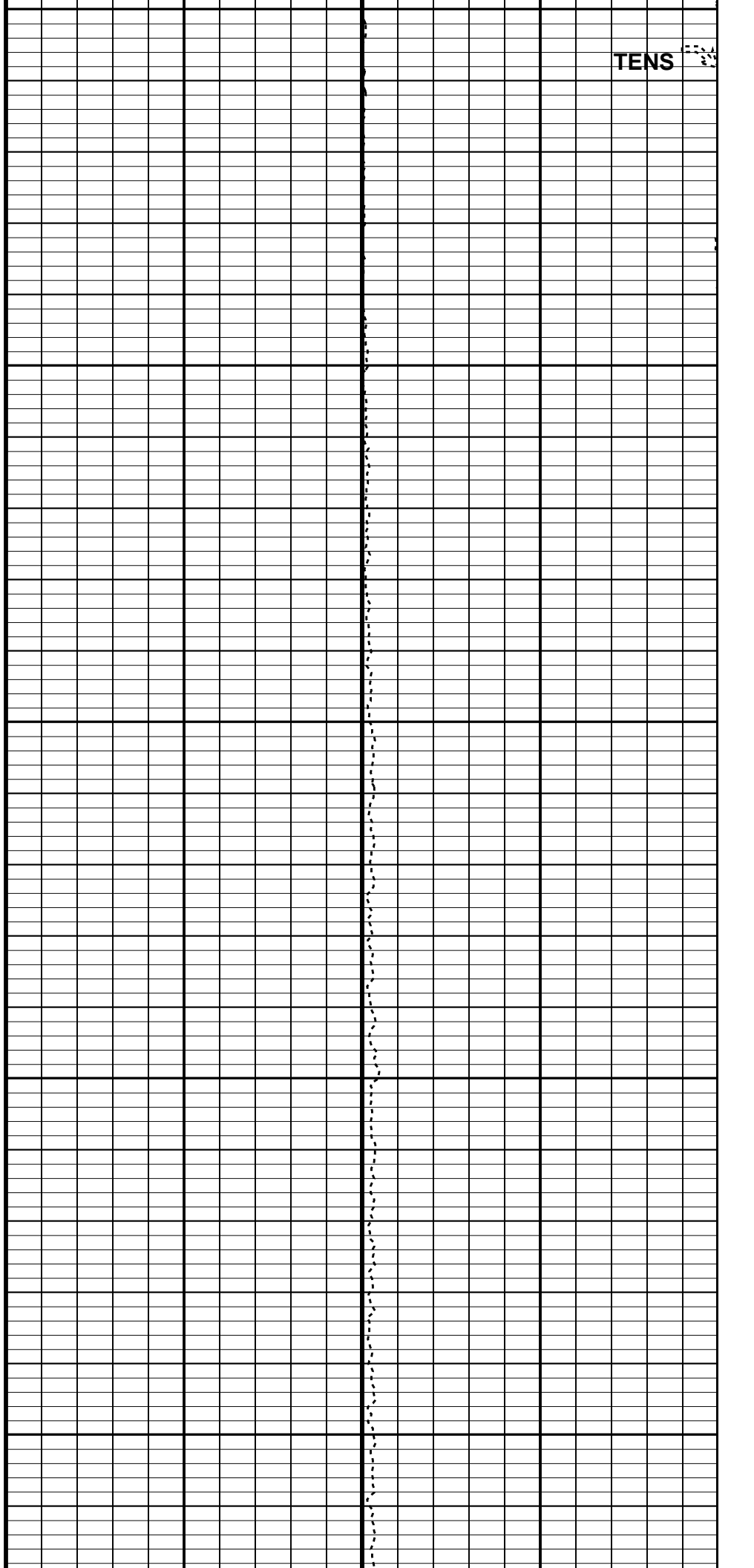


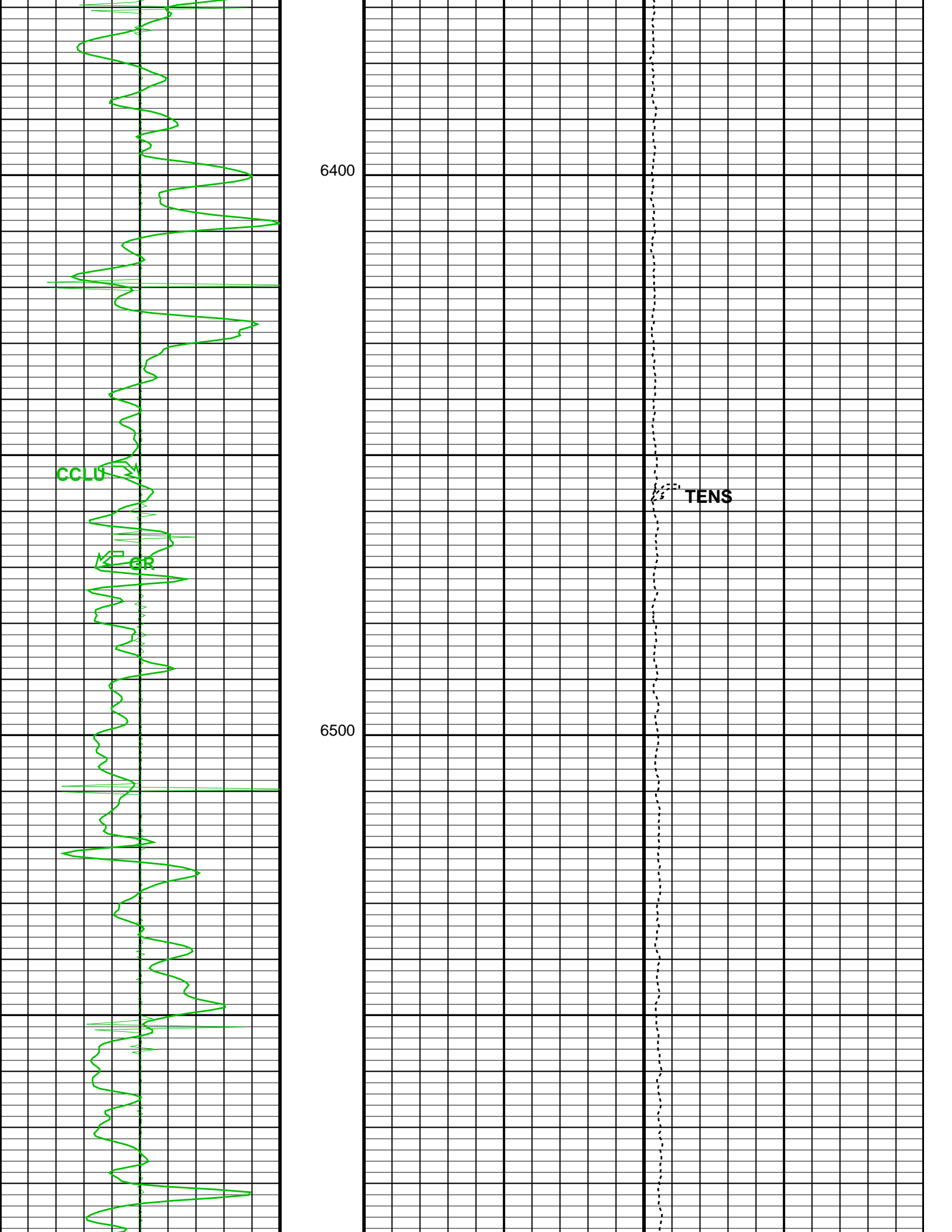


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6300

TENS





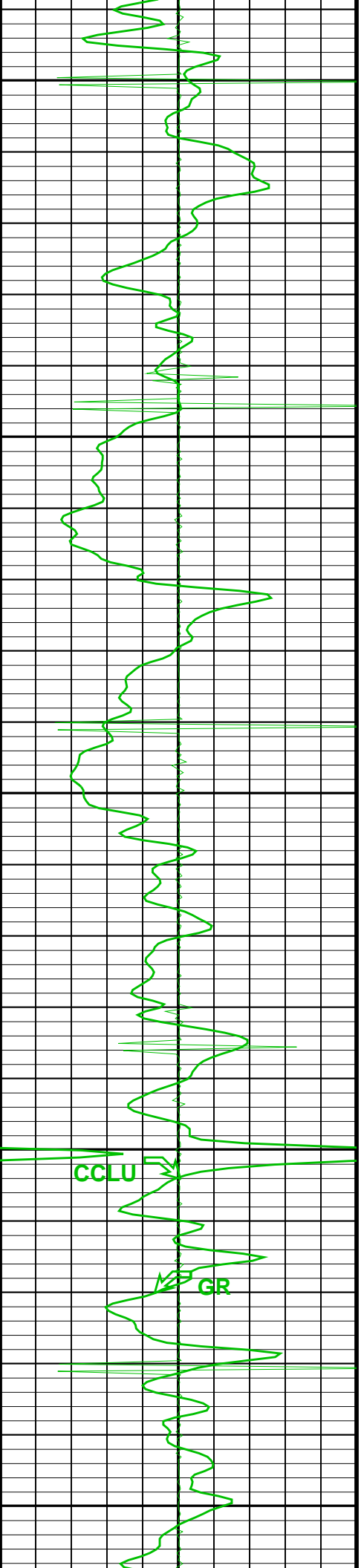
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CCLU

TENS

TENS

6500



6600

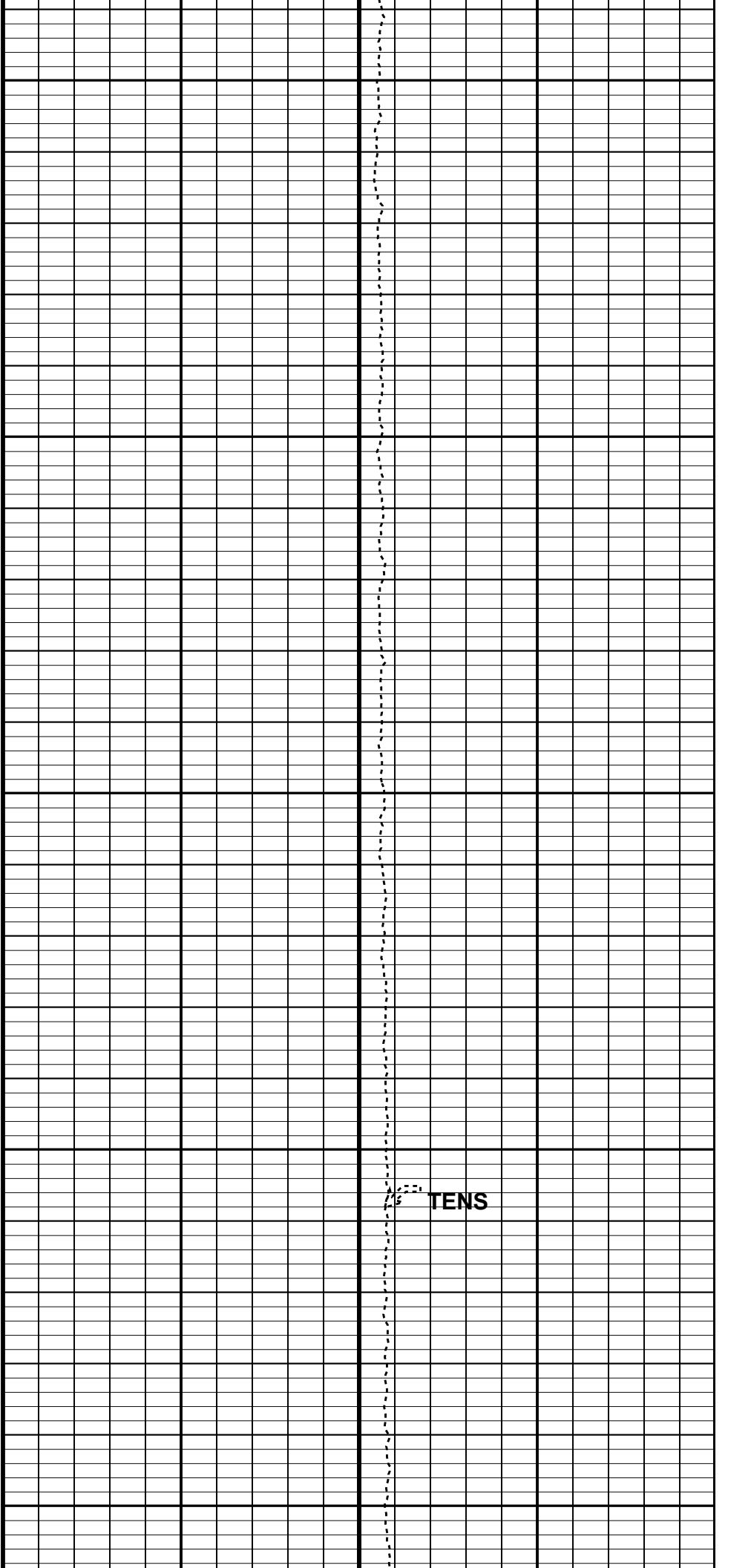
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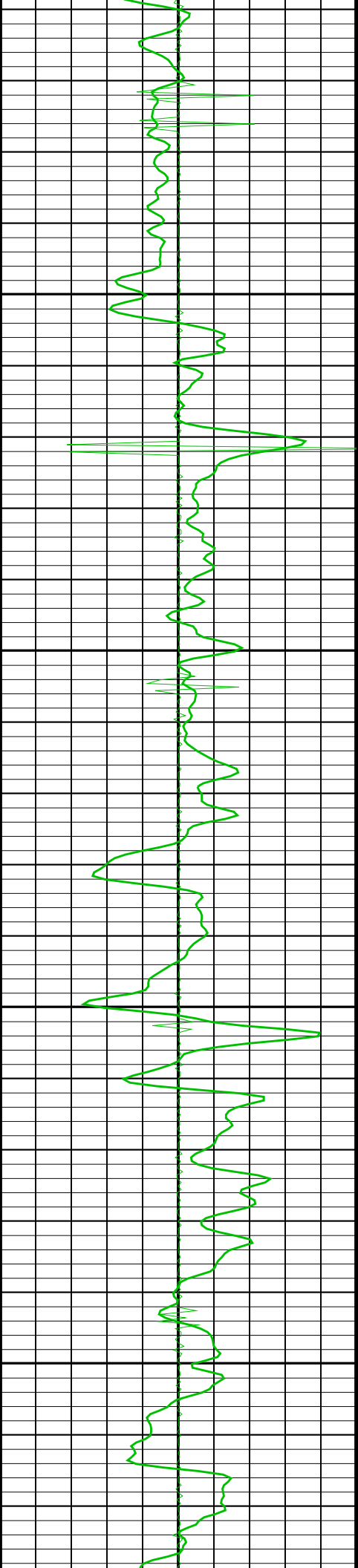
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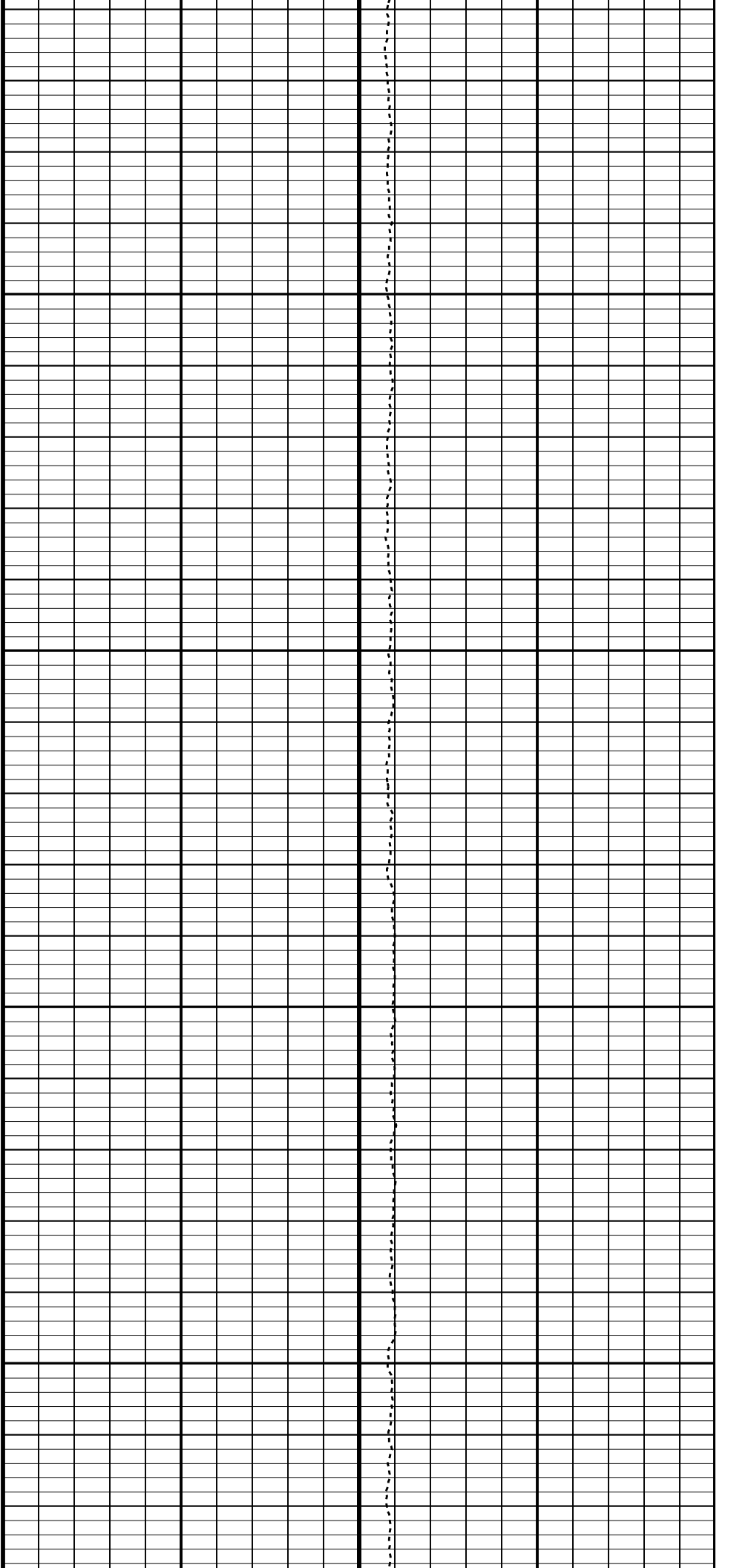
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7000



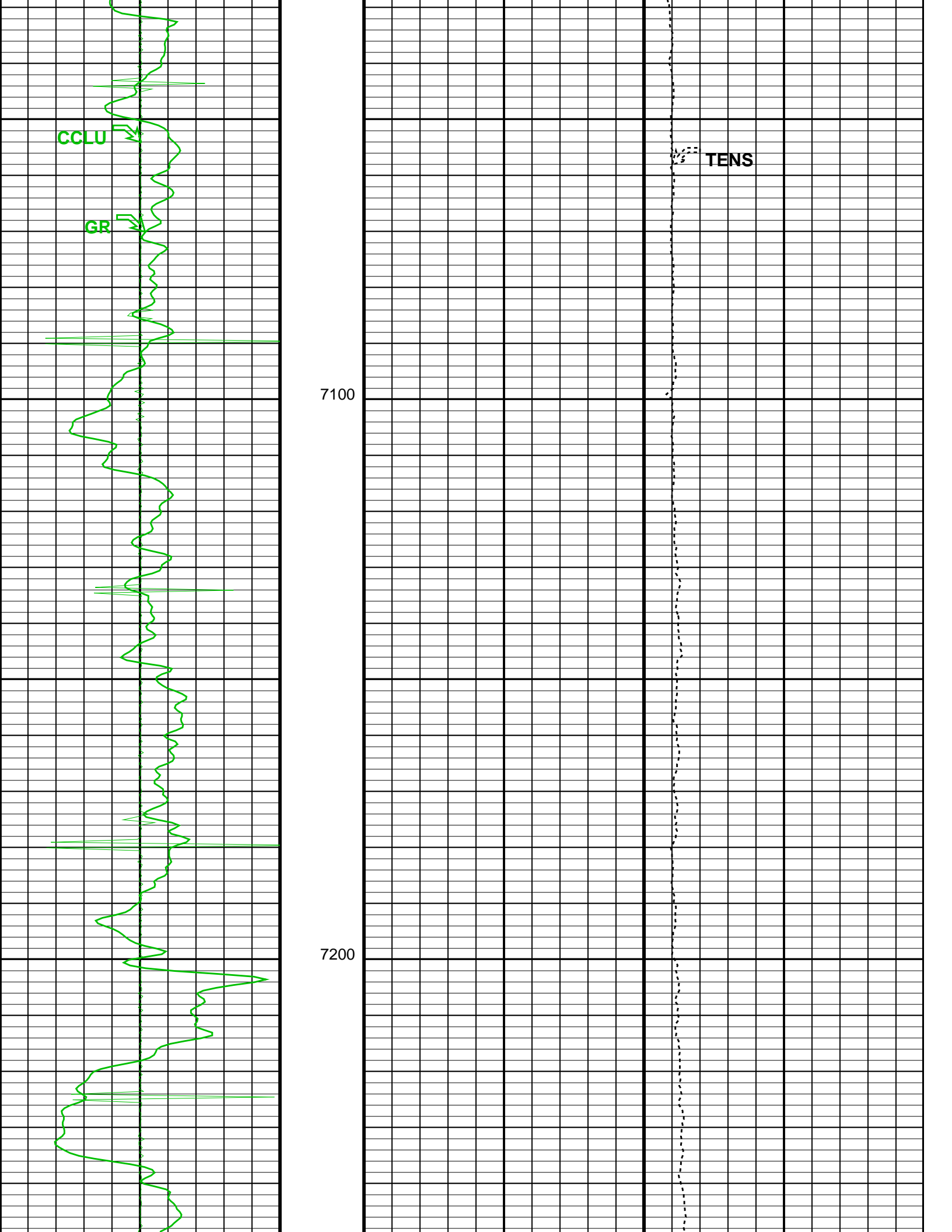
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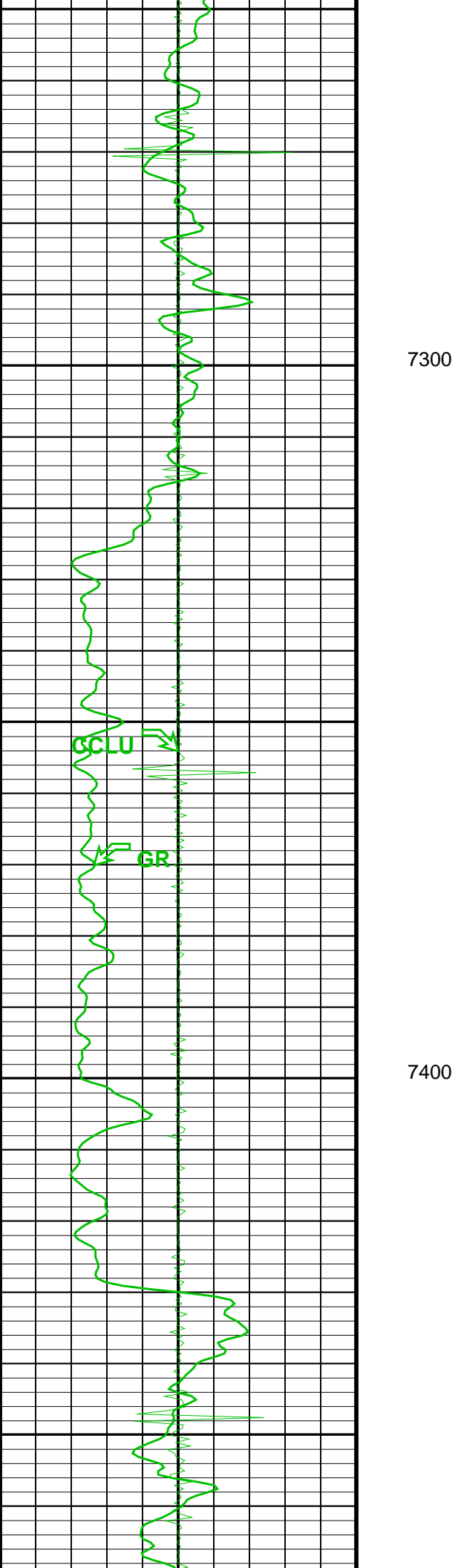
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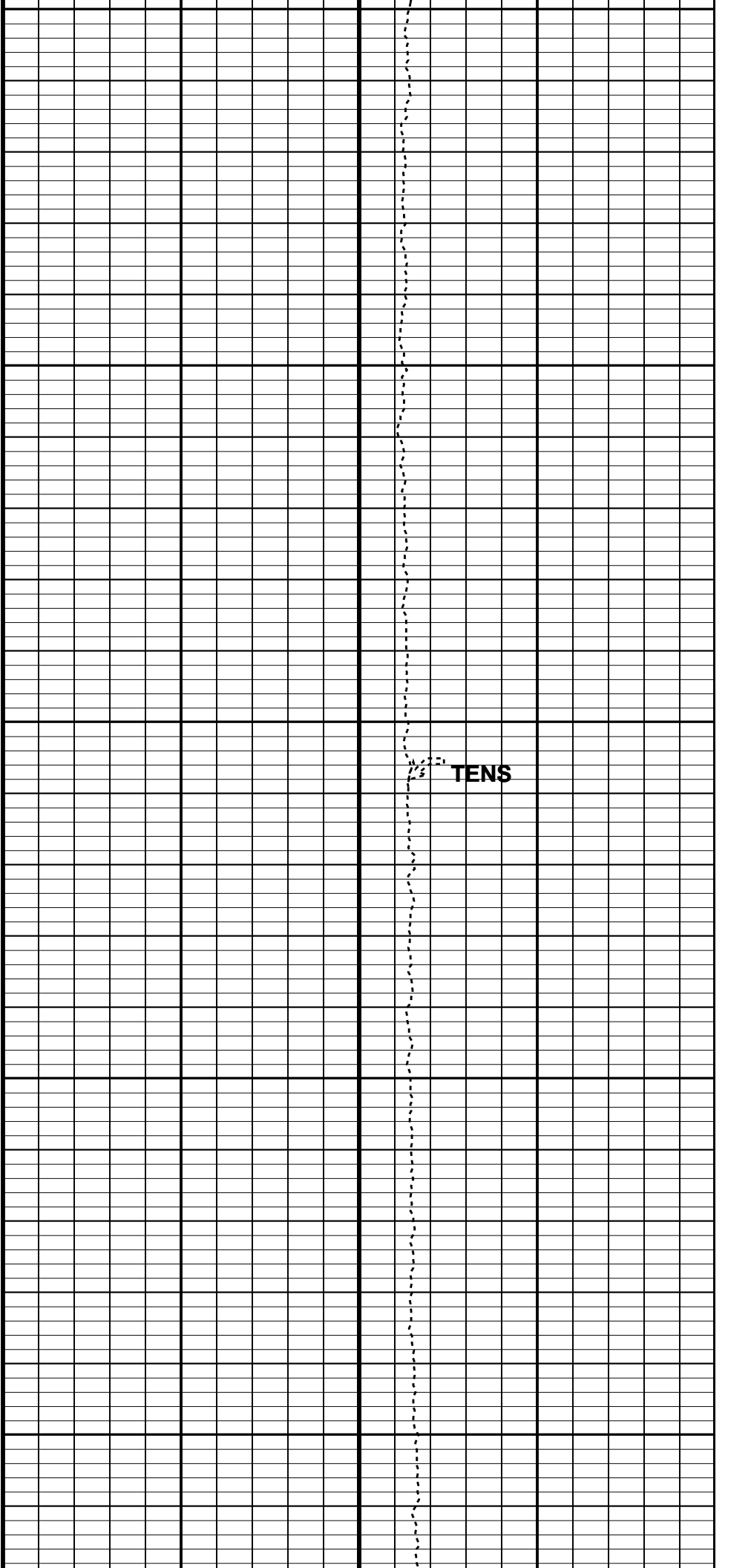
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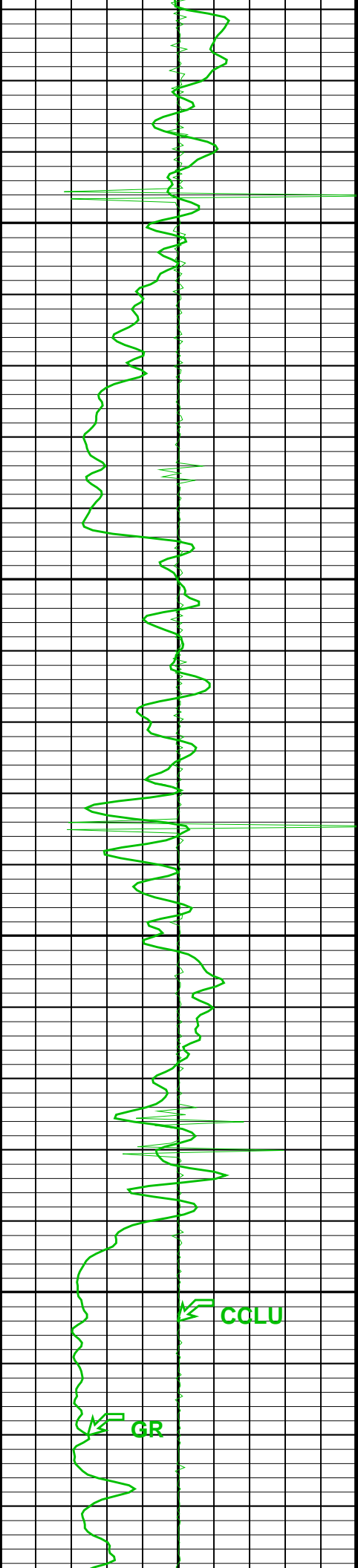


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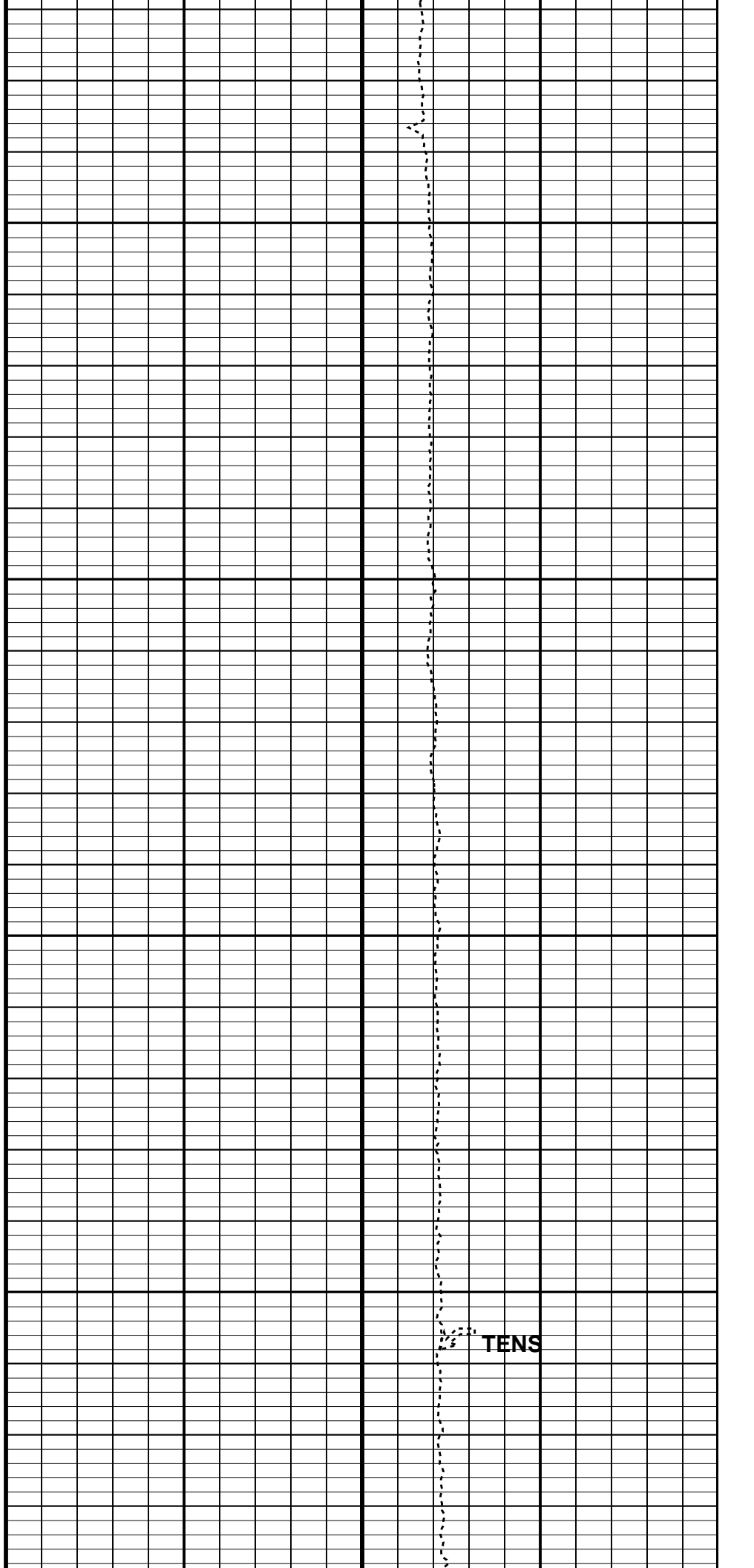


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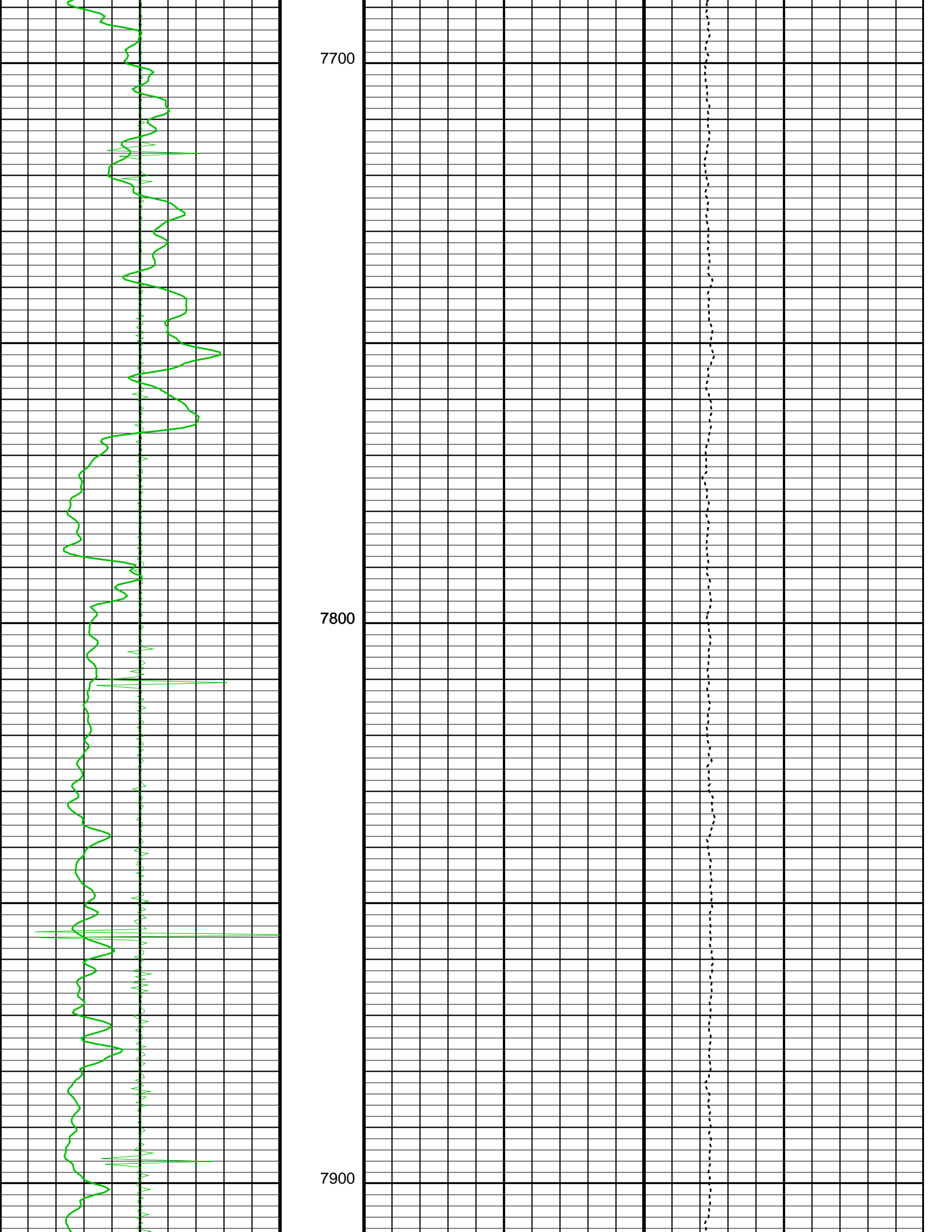


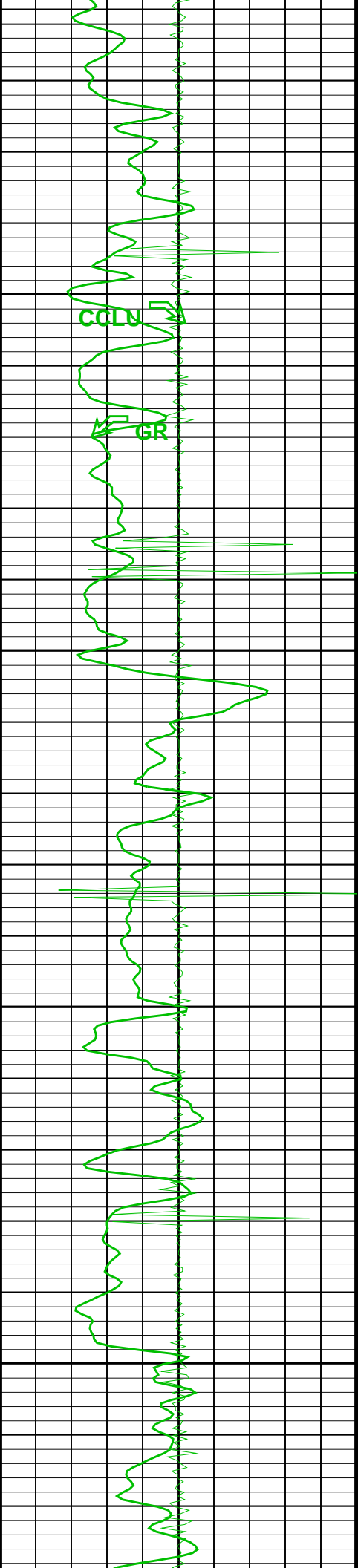
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TENS

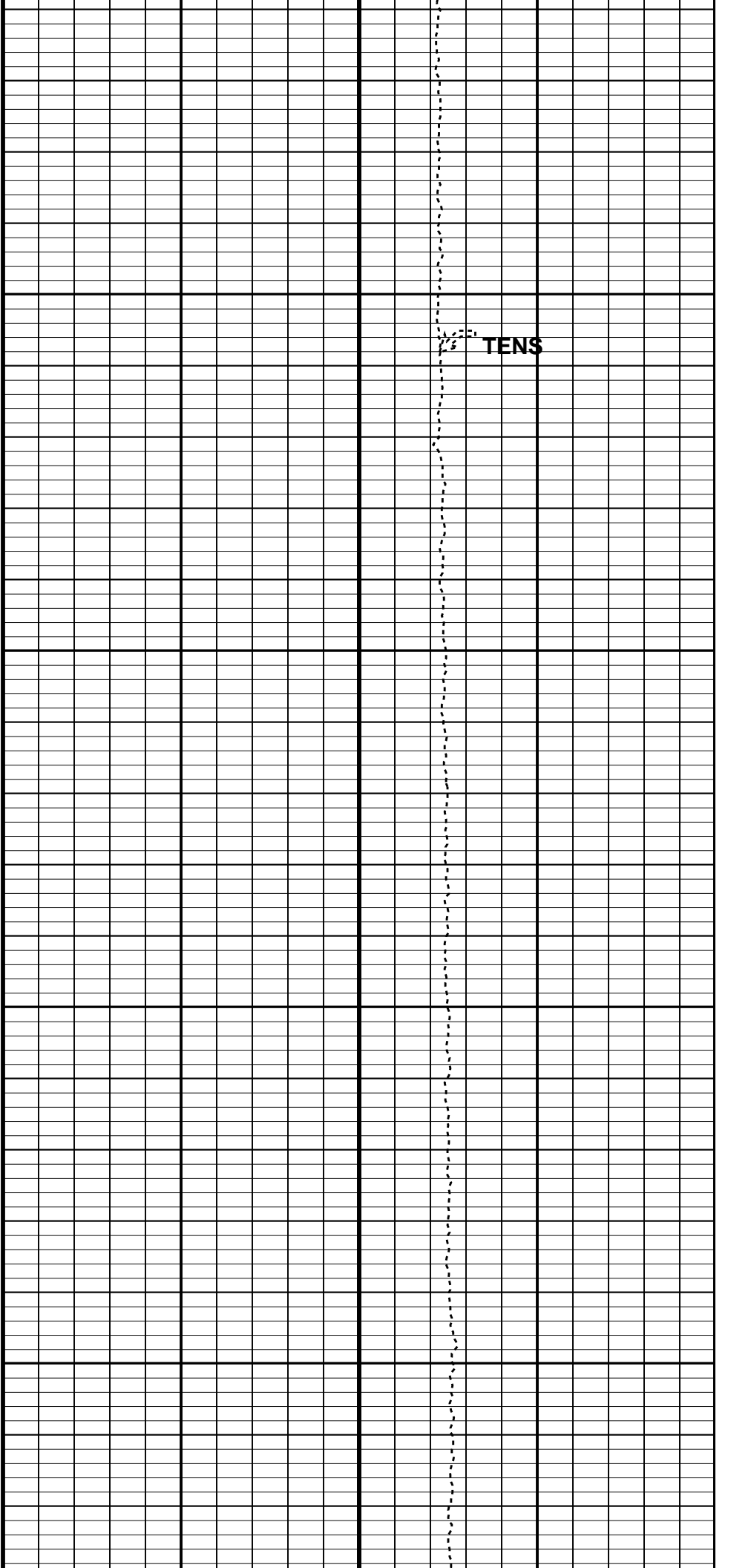


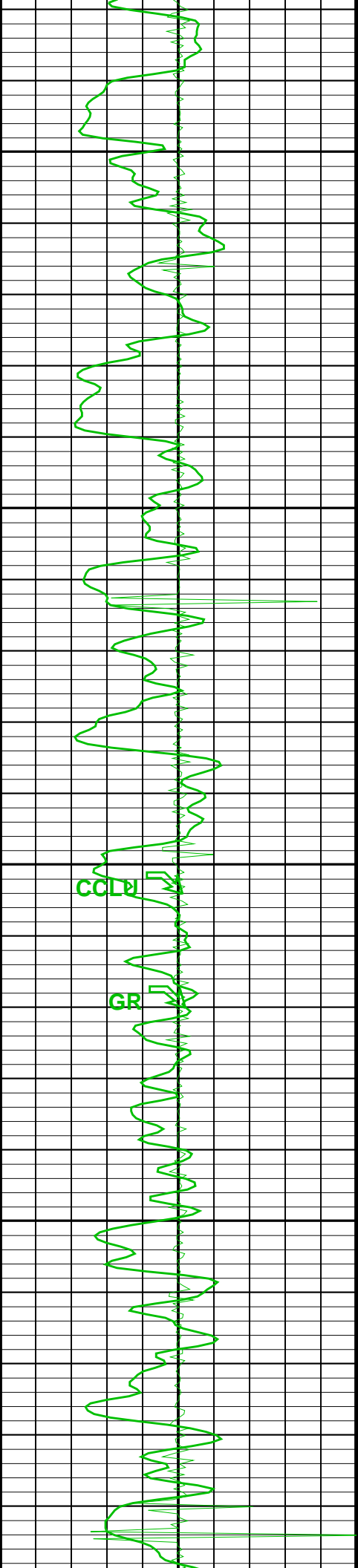


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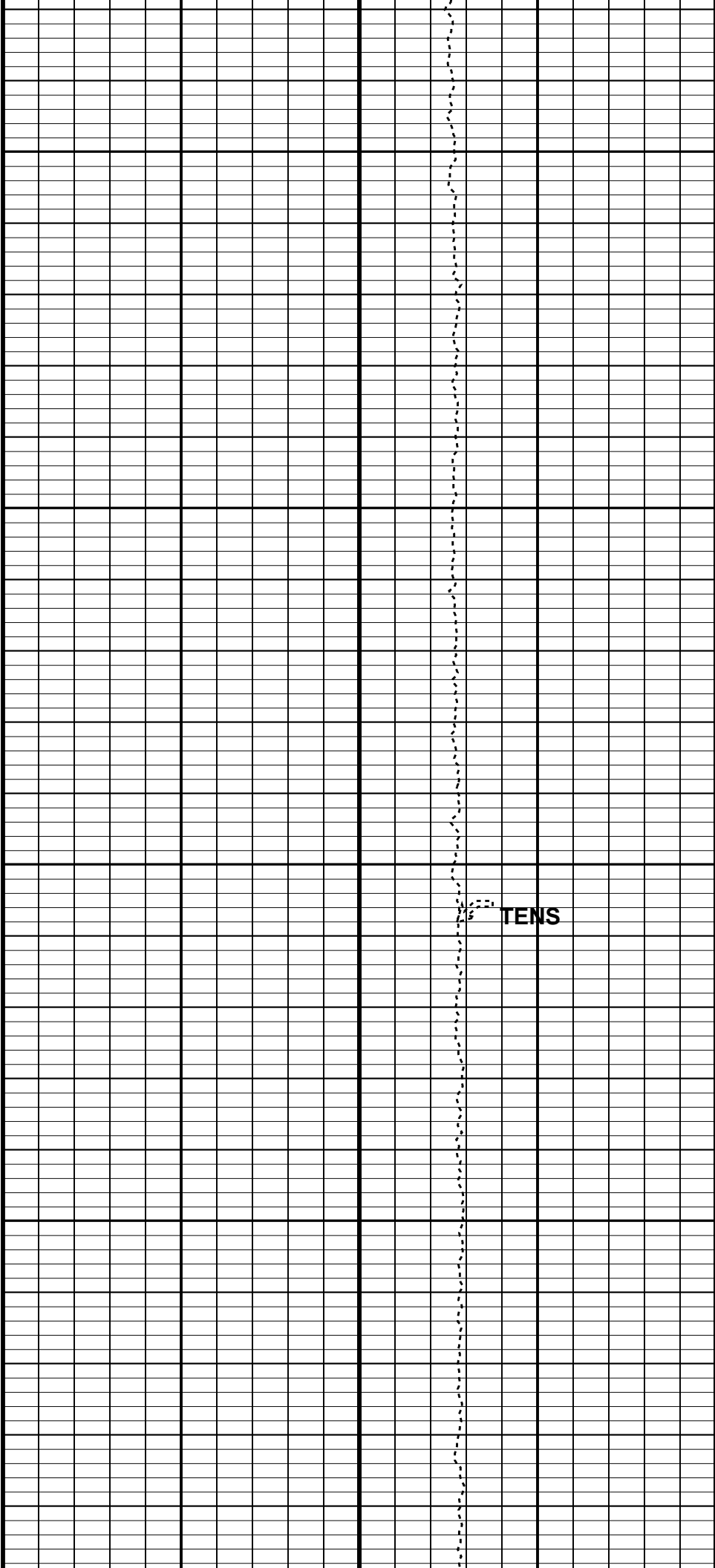
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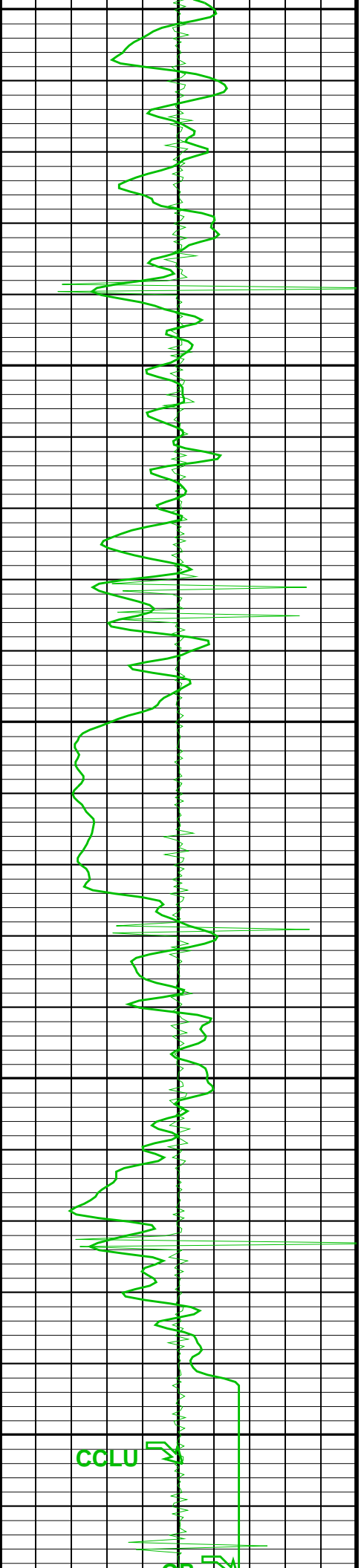


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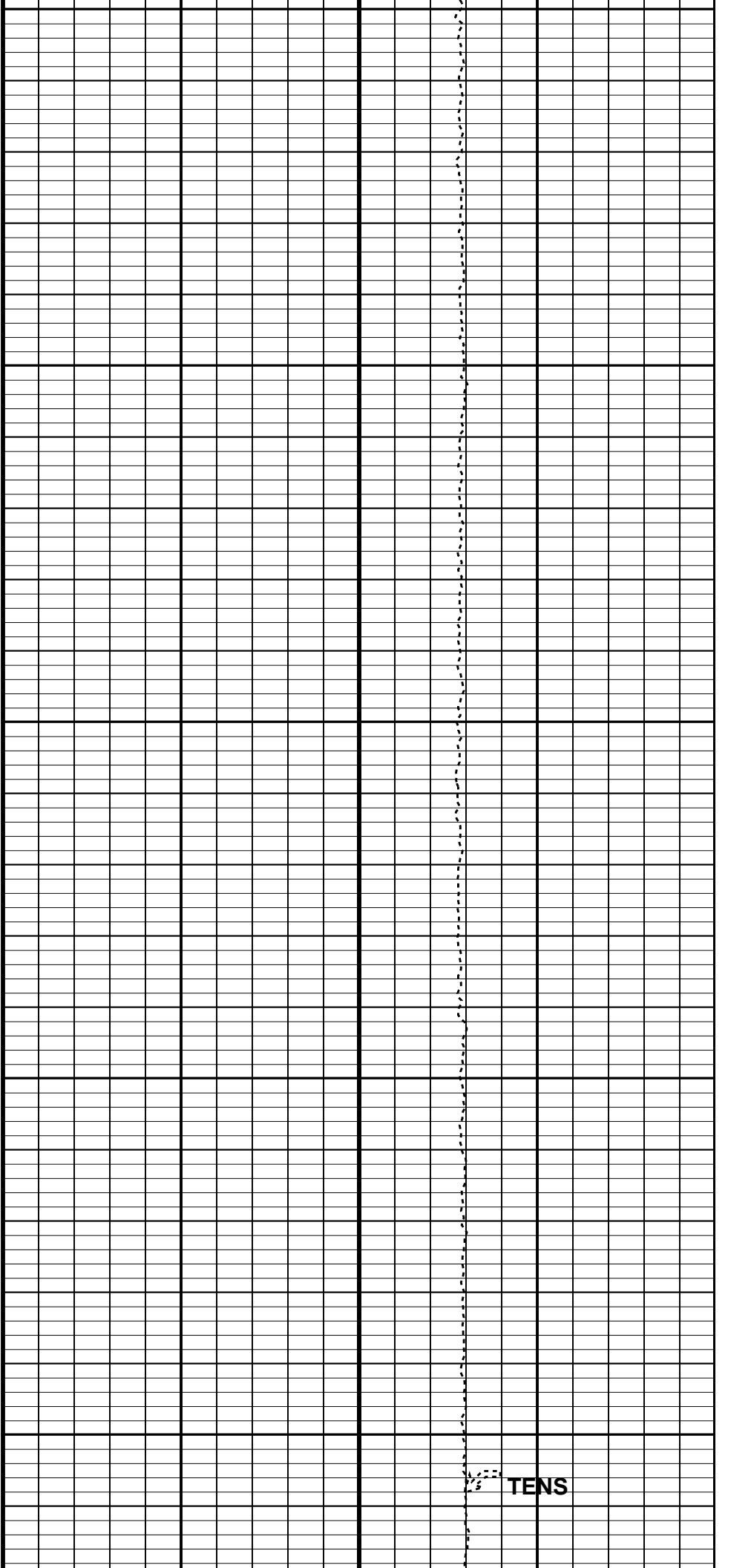


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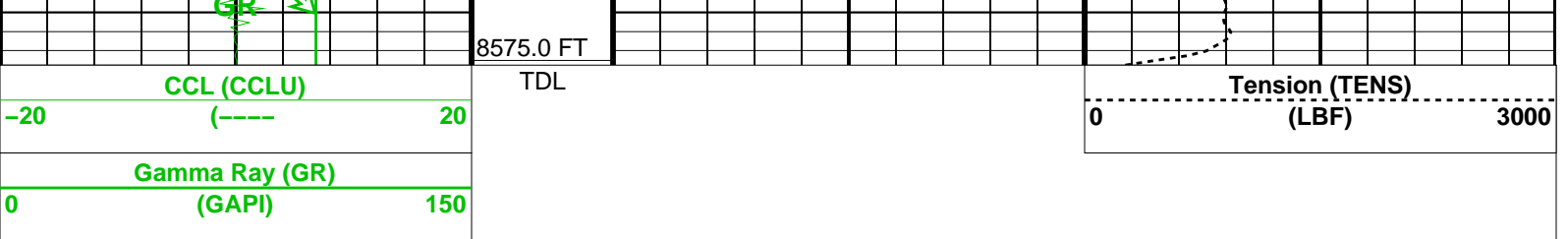


8400

8500



TENS



Parameters

DLIS Name	Description	Value	
USIT-D: Ultrasonic Imaging - D			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.276	IN
DFVL	Default Fluid Velocity	192	US/F
DOT	Diameter of Transducer Sensor	1.756	IN
EMXV	EMEX Voltage	110	V
MW	Mud Weight	11	LB/G
RCOD	Reference Calibrator Outer Diameter	4.5	IN
RCSO	Reference Calibrator Standoff	0.8425	IN
RCTH	Reference Calibrator Thickness	0.2165	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.362	IN
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_5_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	21.7078	US
ZCAS	Acoustic Impedance of Casing	46.2537	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.86	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
System and Miscellaneous			
CWEI	Casing Weight	26.00	LB/F
DORL	Depth Offset for Repeat Analysis	4.0	FT

Format: CORRELATION Vertical Scale: 5" per 100' Graphics File Created: 02-Dec-2009 17:55

OP System Version: 17C0-154

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

Output DLIS Files

DEFAULT	USI_TLD_MCFL_CNL_007LUP	FN:10	PRODUCER	02-Dec-2009 17:55
BACKUP	USI_TLD_MCFL_CNL_007LUP	FN:11	PRODUCER	02-Dec-2009 17:55



Correlation Repeat

MAXIS Field Log

Input DLIS Files

Output DLIS Files

DEFAULT USI_TLD_MCFL_CNL_007LUP FN:10 PRODUCER 02-Dec-2009 17:55
BACKUP USI_TLD_MCFL_CNL_007LUP FN:11 PRODUCER 02-Dec-2009 17:55

OP System Version: 17C0-154

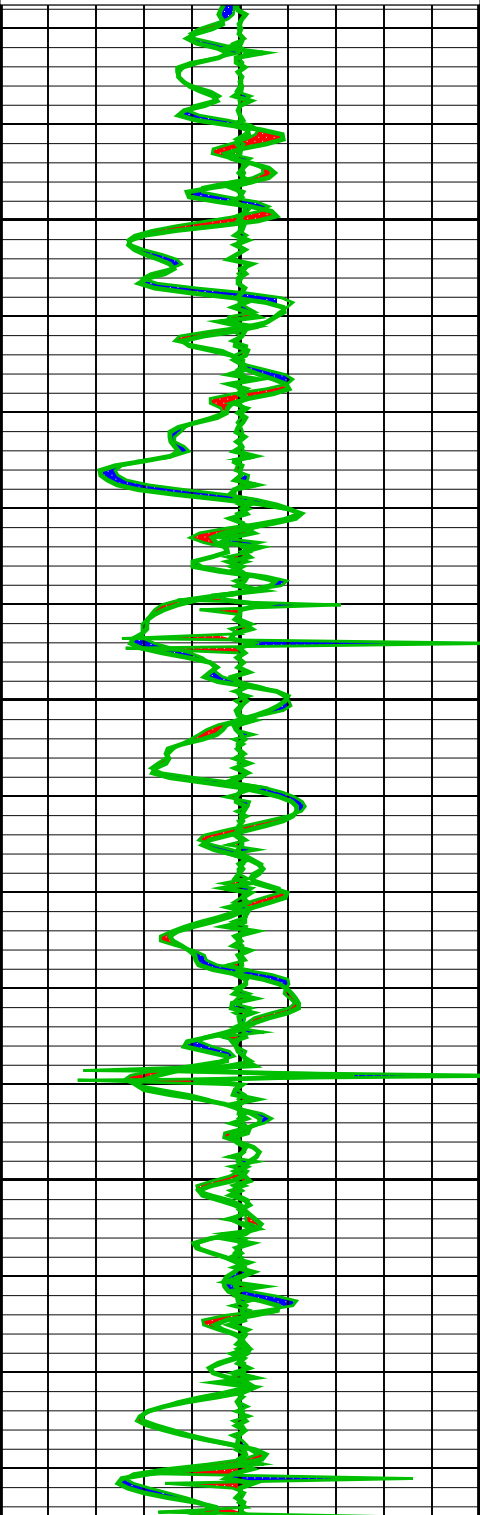
USIT-D 17C0-154 HILTH-FTB 17C0-154
DTC-H 17C0-154

USIT_CCLU_curve_REP Curve (CCLU_REP)

-20 (----) 20

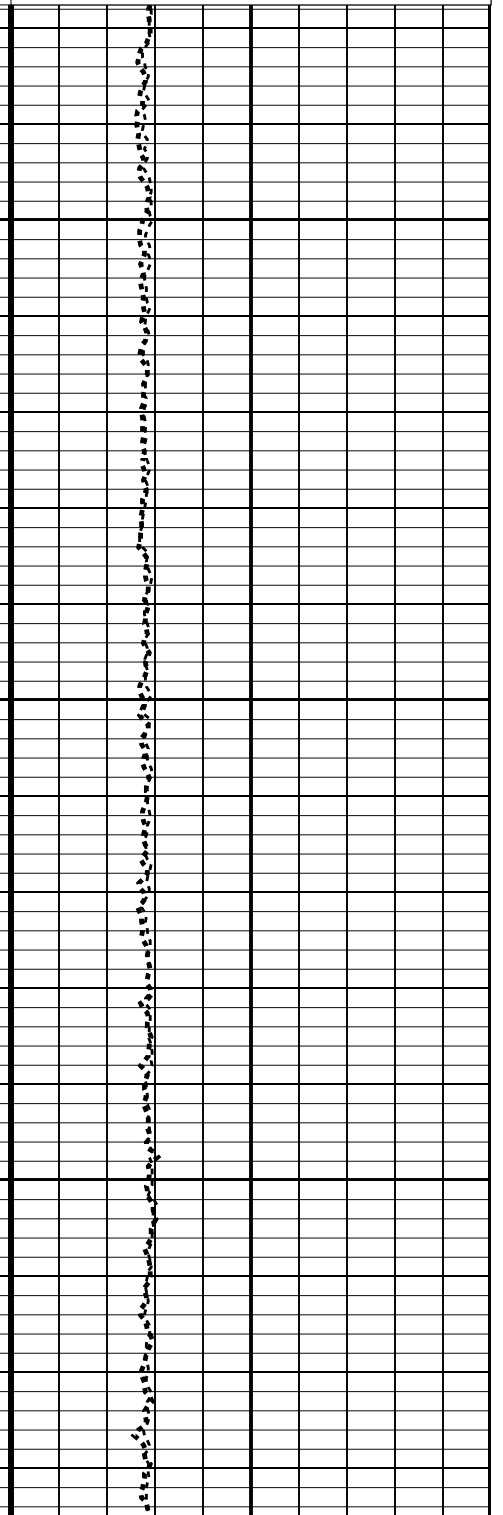
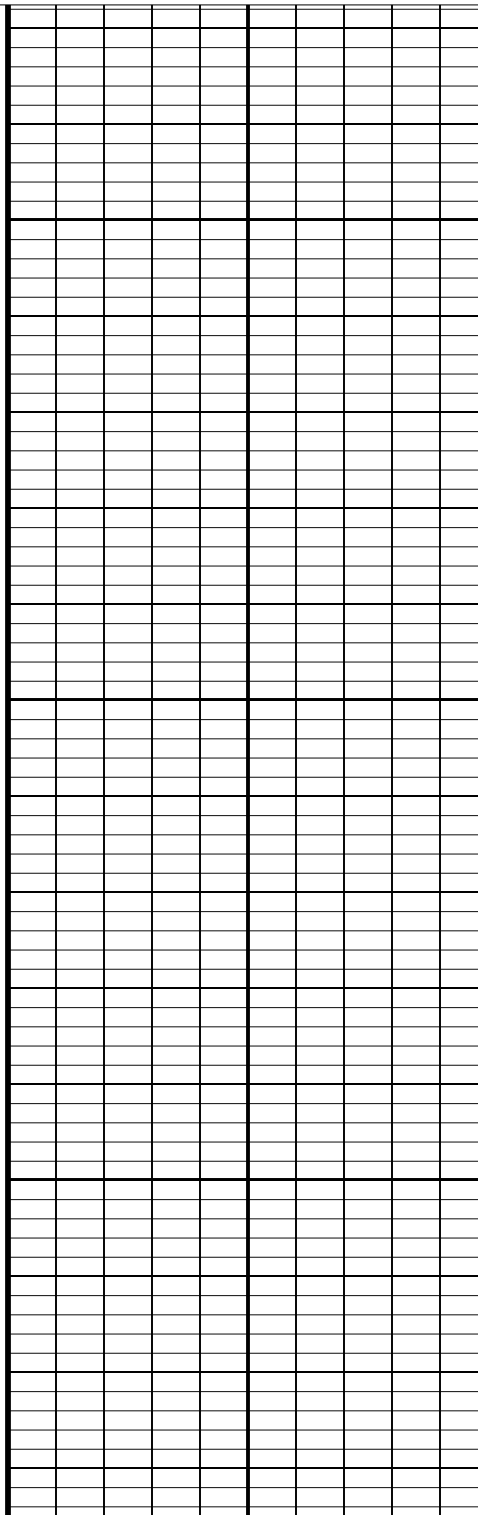
GR_REP Curve (GR_REP)
(GAPI) 0 150

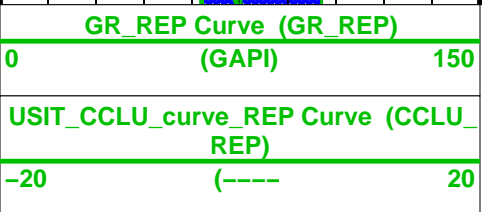
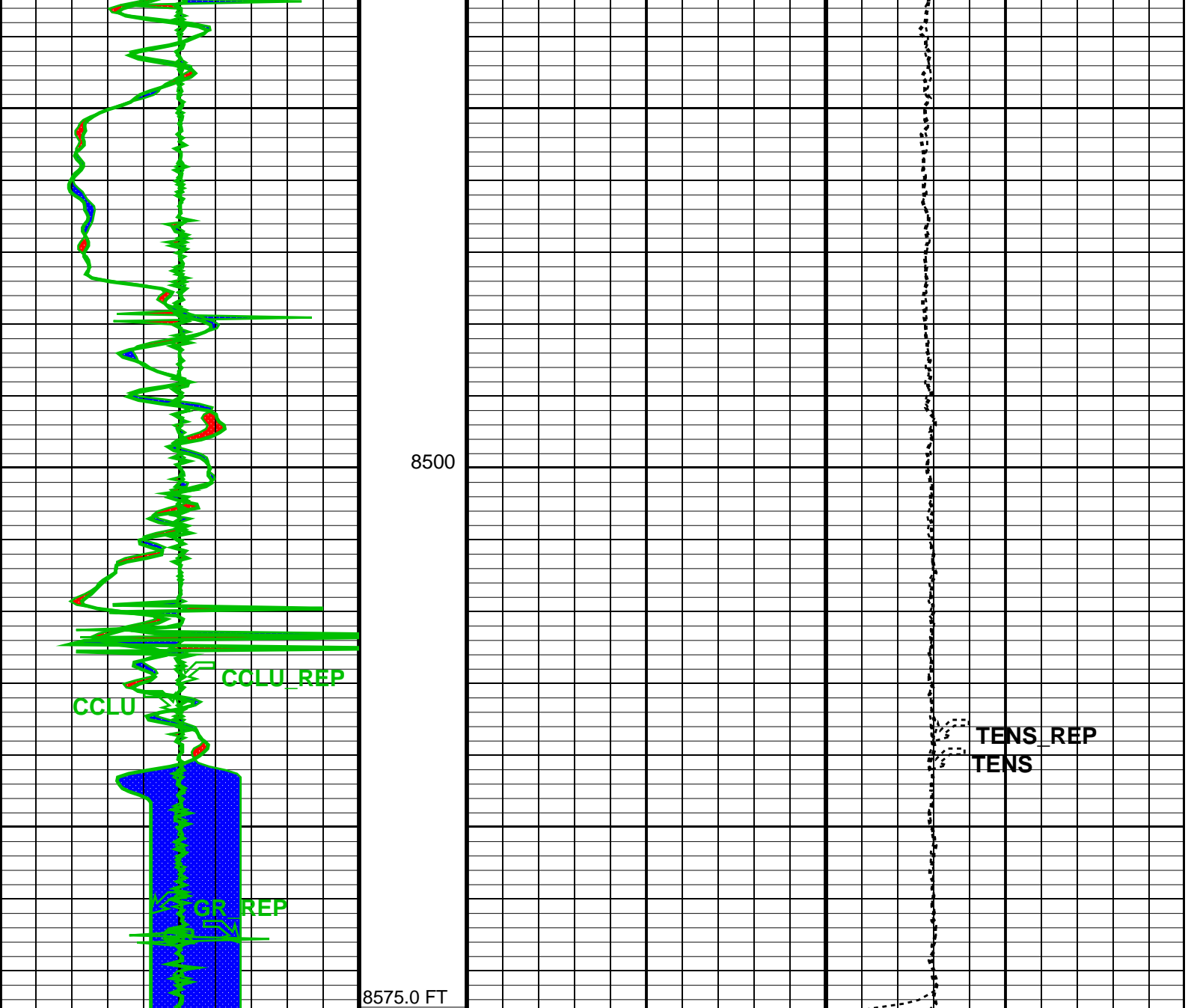
TENS_REP Curve (TENS_REP)
(LBF) 0 3000



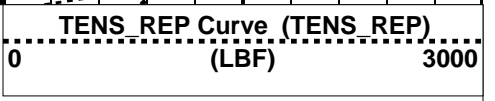
8300

8400





TDL



Parameters

DLIS Name	Description	Value
USIT-D: Ultrasonic Imaging - D		
AGMN	Minimum Gain of Cartridge	-4 DB
AGMX	Maximum Gain of Cartridge	20 DB
BERJ	Bad Echo Rejection	ON
CDIA	Casing Outer Diameter	7 IN
CSDE	Casing Density	486.94 LBCF
CSID	Casing Inner Diameter	6.276 IN
DFVL	Default Fluid Velocity	192 US/F
DOT	Diameter of Transducer Sensor	1.756 IN
EMXV	EMEX Voltage	110 V
MW	Mud Weight	11 LB/G
RCOD	Reference Calibrator Outer Diameter	4.5 IN
RCSO	Reference Calibrator Standoff	0.8425 IN
RCTH	Reference Calibrator Thickness	0.2165 IN
TCUB	T^3 Processing Level	Vax_Loop
THDH	Maximum Search Thickness (percentage of nominal)	130
TUPI	Minimum Search Thickness (percentage of nominal)	30

THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.362	IN
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_5_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	21.7078	US
ZCAS	Acoustic Impedance of Casing	46.2537	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.86	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
System and Miscellaneous			
CWEI	Casing Weight	26.00	LB/F
DORL	Depth Offset for Repeat Analysis	4.0	FT

Format: CORRELATION_REP Vertical Scale: 5" per 100' Graphics File Created: 02-Dec-2009 17:55

OP System Version: 17C0-154

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

Input DLIS Files

DEFAULT	USI_TLD_MCFL_CNL_006LUP	FN:8	PRODUCER	02-Dec-2009 17:37	8575.5 FT	8273.5 FT
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Output DLIS Files

DEFAULT	USI_TLD_MCFL_CNL_007LUP	FN:10	PRODUCER	02-Dec-2009 17:55		
BACKUP	USI_TLD_MCFL_CNL_007LUP	FN:11	PRODUCER	02-Dec-2009 17:55		

Company: ExxonMobil Production Corp Schlumberger

Well: PCU 297-11B8

Field: Piceance Creek

County: Rio Blanco

State: COLORADO

CORRELATION PRINT

CCL / GAMMA RAY