

Company: ENCANA OIL & GAS (USA) INC

Well: SGU 8509D-24 (L24 496)

Field: STORY GULCH

County: GARFIELD State: COLORADO

SLIM CEMENT MAPPING LOG  
CBL-VDL  
GR-CCL

County: GARFIELD

Field: STORY GULCH

Location: SHL: 1568 FSL & 873 FWL

Well: SGU 8509D-24 (L24 496)

Company: ENCANA OIL & GAS (USA) INC

LOCATION		Elev.: K.B. 8210.00 ft	
SHL: 1568 FSL & 873 FWL		G.L. 8180.00 ft	
BHL: 1755 FSL & 1998 FEL		D.F. 8209.00 ft	
Permanent Datum:	GROUND LEVEL	Elev.: 8180.00 ft	
Log Measured From:	KELLY BUSHING	30.00 ft above Perm. Datum	
Drilling Measured From:	KELLY BUSHING		
API Serial No.	Section 24	Township 4S	Range 96W
05-045-21178-000C			

	Run 1	Run 2	Run 3
PVT DATA			
Oil Density			
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation			
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			

Logging Date	13-Feb-2013		
Run Number	1		
Depth Driller	12785 ft		
Schlumberger Depth	12617 ft		
Bottom Log Interval	12608 ft		
Top Log Interval	70 ft		
Casing Fluid Type	FRESH WATER		
Salinity			
Density	8.4 lbm/gal		
Fluid Level	70 ft		
BIT/CASING/TUBING STRING			
Bit Size	7.875 in		
From	9149 ft		
To	12785 ft		
Casing/Tubing Size	4.500 in		
Weight	13.5 lbm/ft		
Grade	P-110		
From	30 ft		
To	12725 ft		
Maximum Recorded Temperatures	288 degF		
Logger On Bottom	13-Feb-2013	Time 11:45	
Unit Number	Location 391	GRAND JUNCTION	
Recorded By	JASON BARRY		
Witnessed By	RYAN TOMPKINS		

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		Time	
Unit Number	Location		
Recorded By			
Witnessed By			

## DEPTH SUMMARY LISTING

Date Created: 29-JAN-2013 10:07:01

## Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	1-25ZT
Serial Number:	6214	Serial Number:	3421	Serial Number:	112136
Calibration Date:	24-APR-2012	Calibration Date:	29-JAN-2013	Length:	19500 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878	Conveyance Method:	Wireline
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-3	Calibration RMS:	13		
Wheel Correction 2:	-4	Calibration Peak Error:	23		

## Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	
Rig Up Length At Bottom:	
Rig Up Length Correction:	
Stretch Correction:	
Tool Zero Check At Surface:	

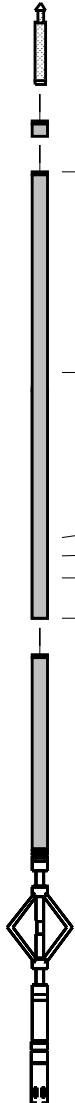
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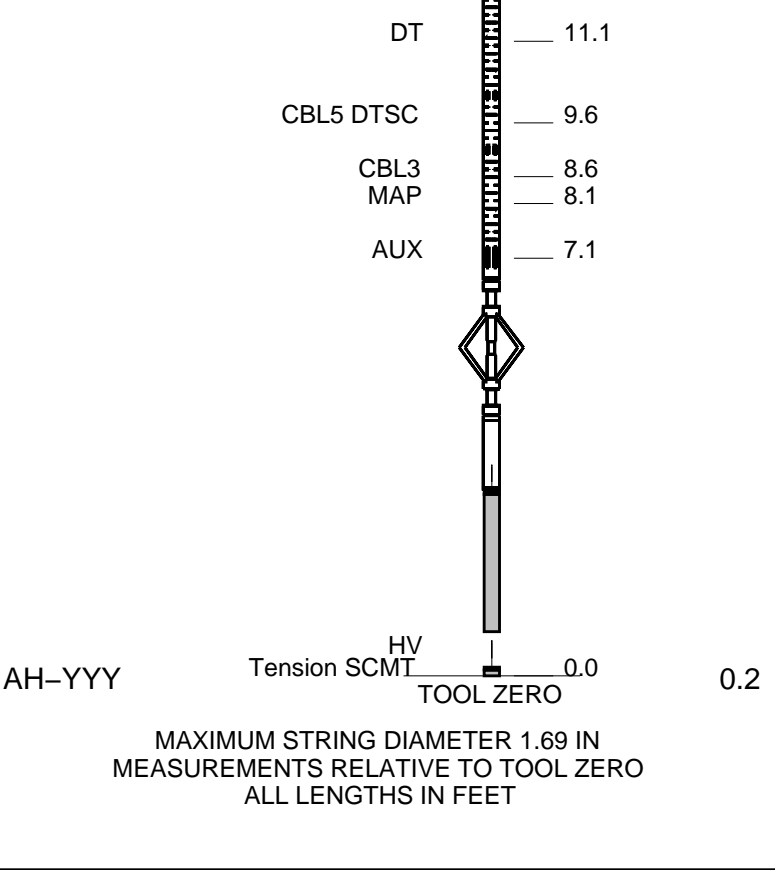
1. ALL SCHLUMBERGER DEPTH CONTROL POLICIES APPLIED
2. IDW USED AS PRIMARY DEPTH REFERENCE
3. SWPT DRUM COUNTER USED AS SECONDARY DEPTH REFERENCE
- 4.
- 5.
- 6.

## DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: NONE	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRELATED TO DOWN LOG	
TOOL RAN AS PER TOOL SKETCH	
MAX RECORDED TEMP = 288 DEGF	
MAX RECORDED PRESSURE = 5165 PSIA	
SHORT JOINTS = 8323 FT & 11313 FT	

ENTRANCE TIME = 11:00					
LOGGER ON BOTTOM = 11:45					
EXIT TIME = 15:00					
MAIN PASS LOGGED WITH ZERO SURFACE PRESSURE					
CYCLE SKIPPING DUE TO GOOD BOND					
EXPECTED CBL AMPLITUDE OF FREE PIPE 80MV					
THANK YOU FOR CHOOSING E&P WIRELINE SERVICES					
YOUR CREW, K. BUNTING, J.BARRY, K.JOHNS, B.RANSBOTTOM					
RUN 1			RUN 2		
SERVICE ORDER #:		C920-00041	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:		70 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM-A PSC_16MHZ					
DOWNHOLE EQUIPMENT					
MH-22 MH-22		30.3			
AH-38	Detail MT TelStatus CTEM	28.7			
PSPT		28.4			
PSC-A PSPT-B 928 PSTC-A PBMS-B CQG_F Manom RTD_Thermometer GR CCL PBMS	GR	24.7			
SCMT-CB SCMC-CA 8120 SECH-CA CMIR-AG SCMS-CB 8179 SCMX-CA		20.2			



# MAIN PASS CBL VDL

MAXIS Field Log

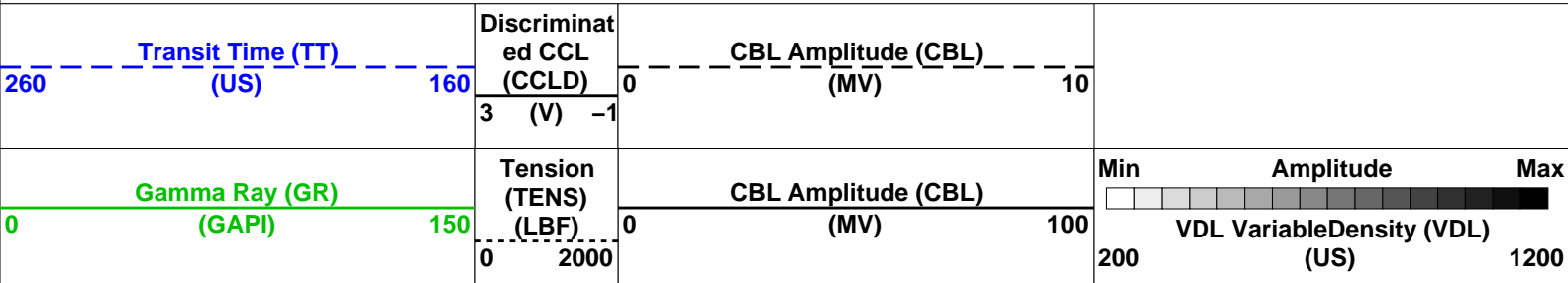
Company: ENCANA OIL & GAS (USA) INC Well: SGU 8509D-24 (L24 496)

Input DLIS Files						
DEFAULT	SCMT_PSP_011LUP	FN:10	PRODUCER	13-Feb-2013 18:42	12631.0 FT	49.0 FT
Output DLIS Files						
DEFAULT	SCMT_PSP_005PUP	FN:4	PRODUCER	13-Feb-2013 19:30	12637.0 FT	55.0 FT

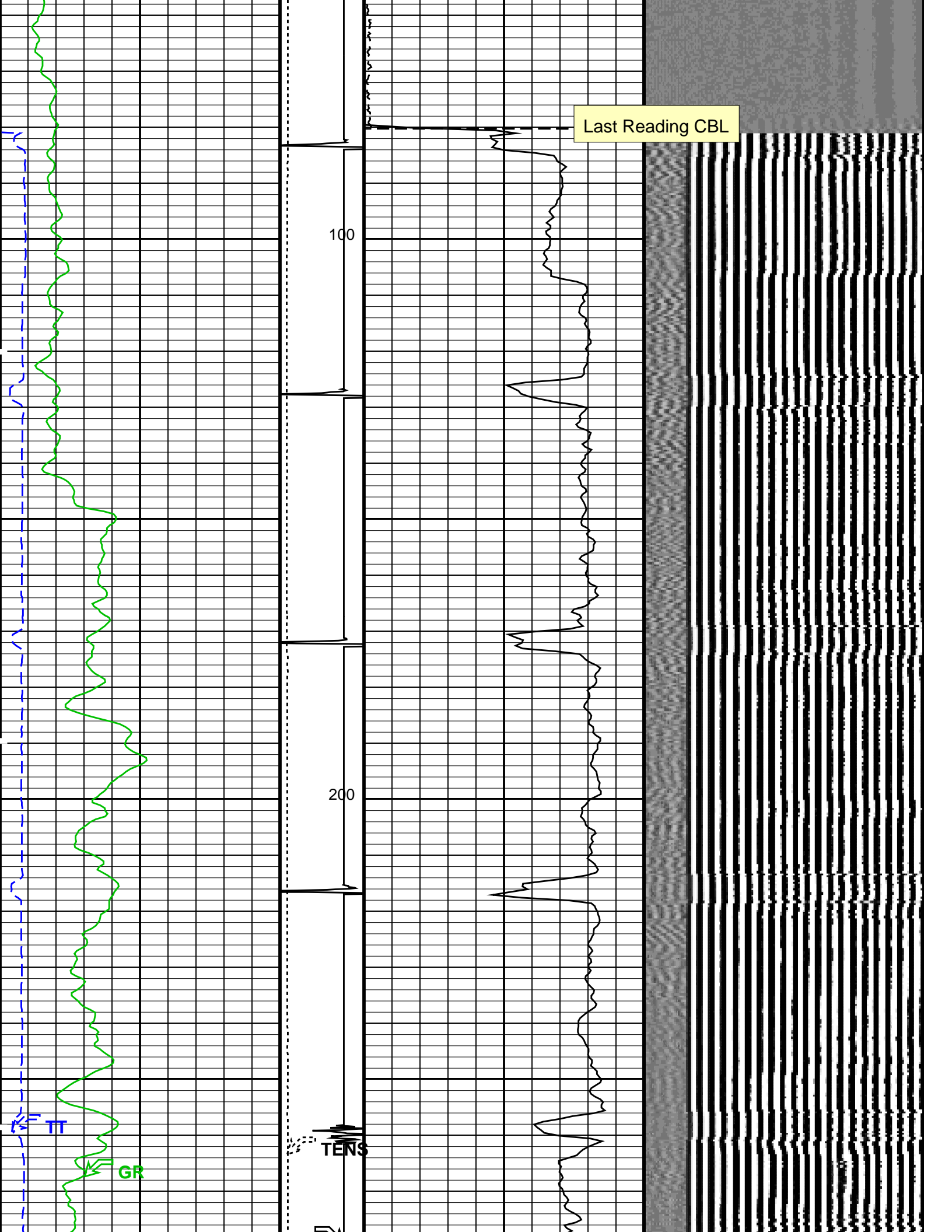
OP System Version: 19C0-187			
SCMT-CB	19C0-187	PSPT	19C0-187

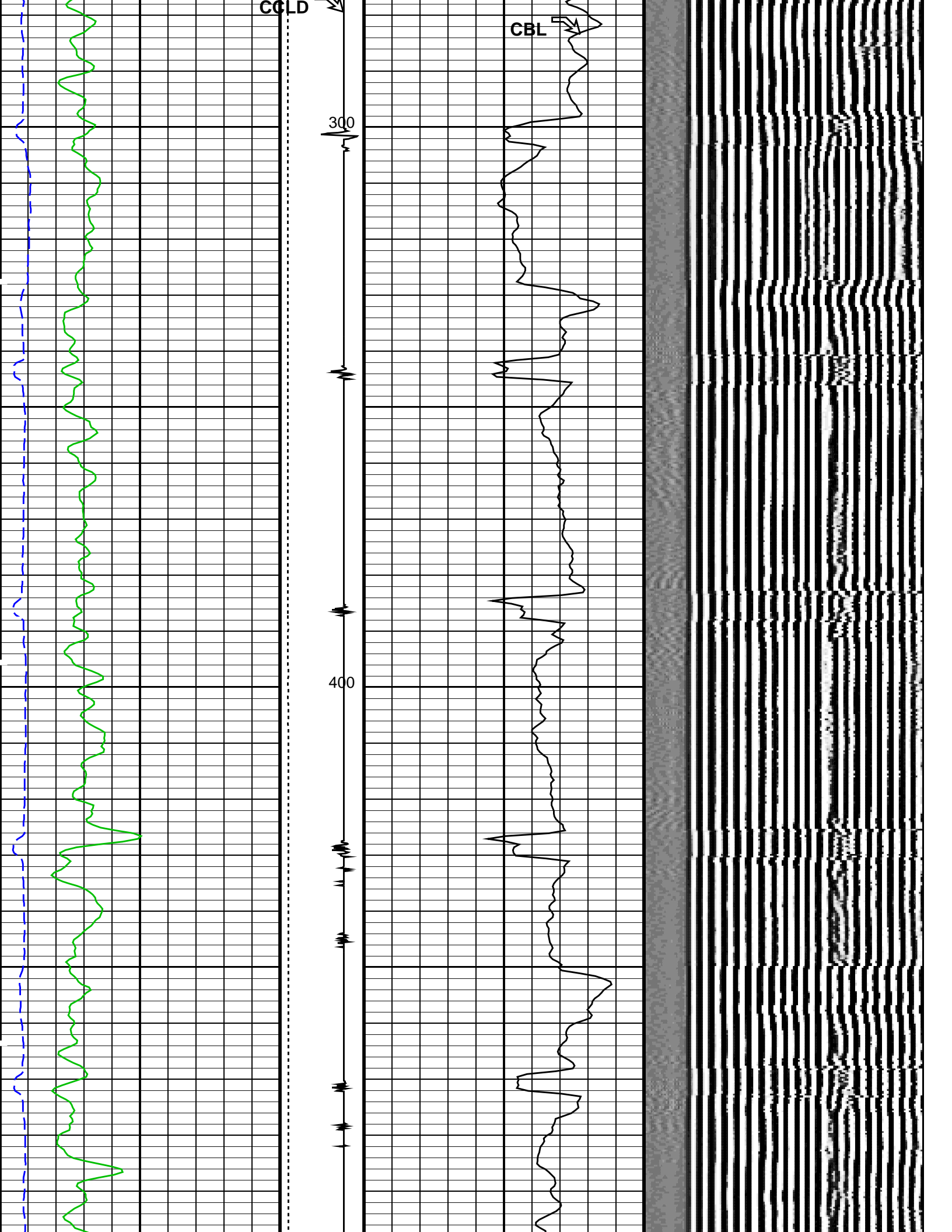
## PIP SUMMARY

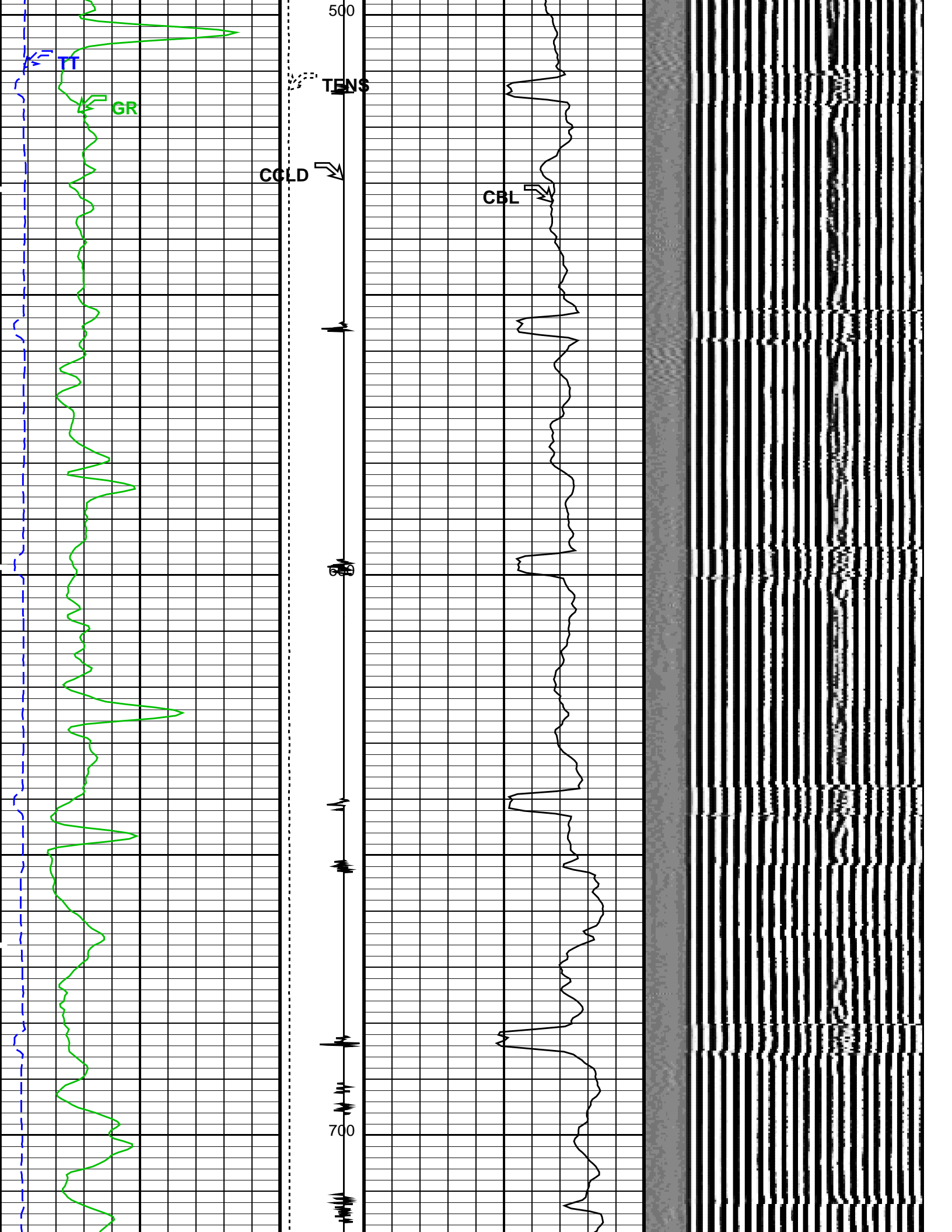
☒ Time Mark Every 60 S

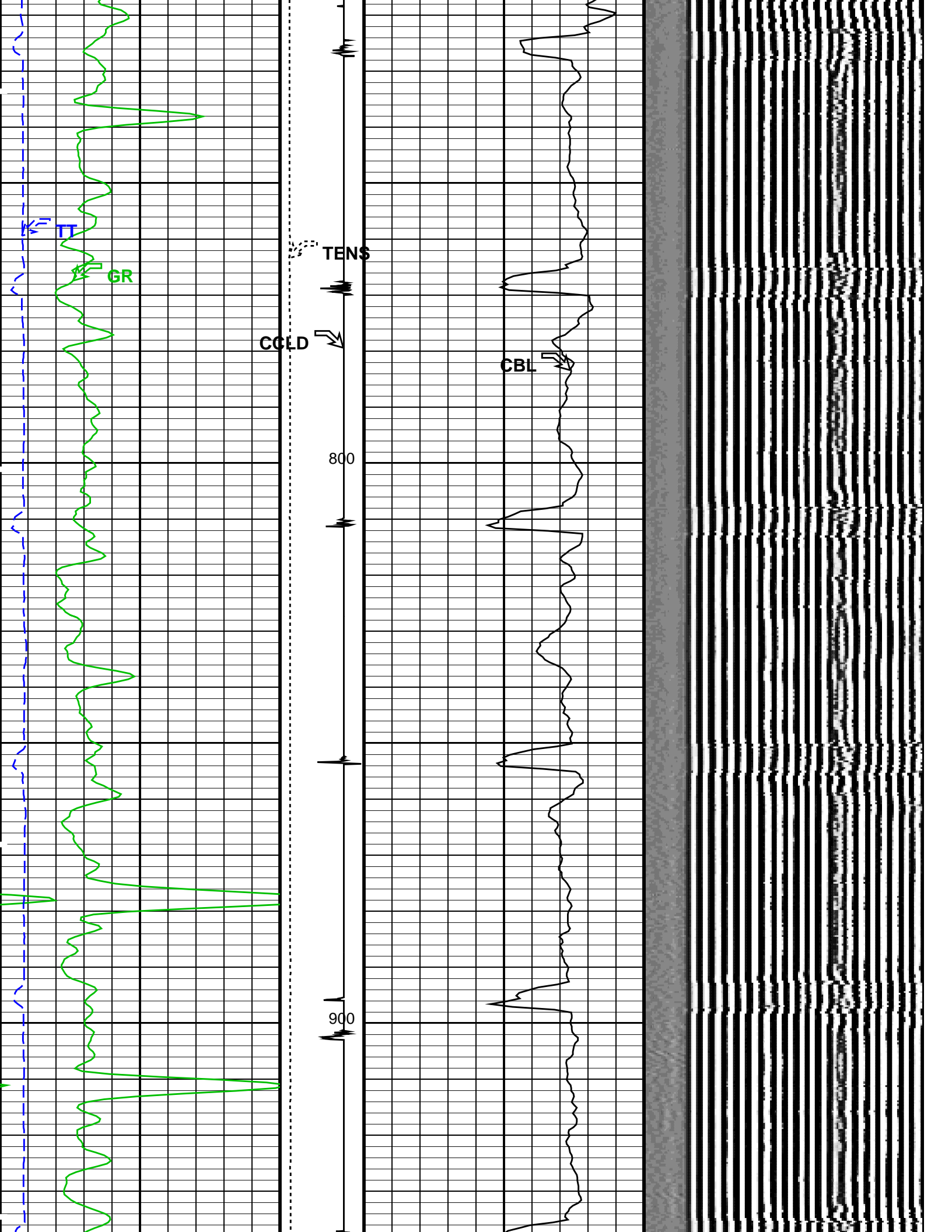


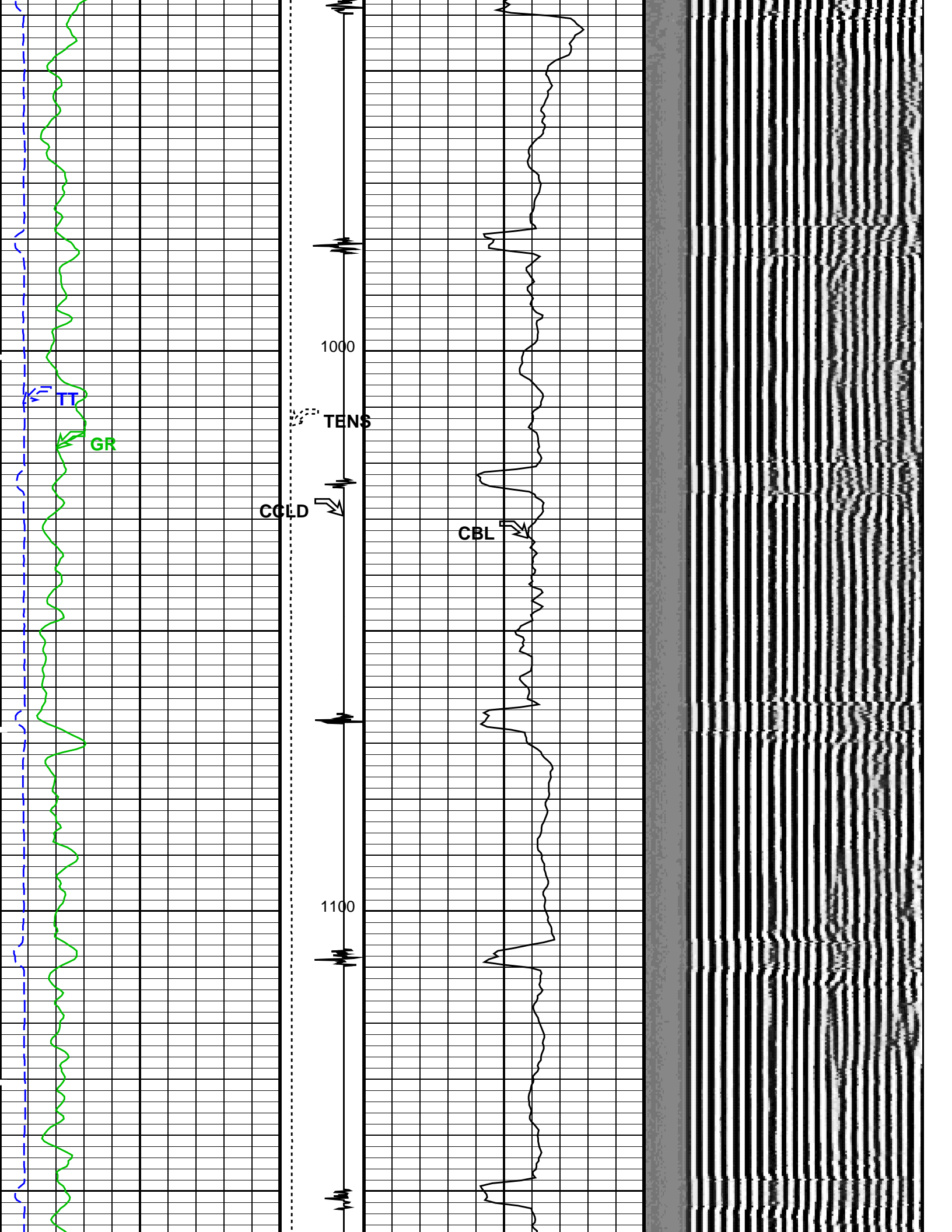




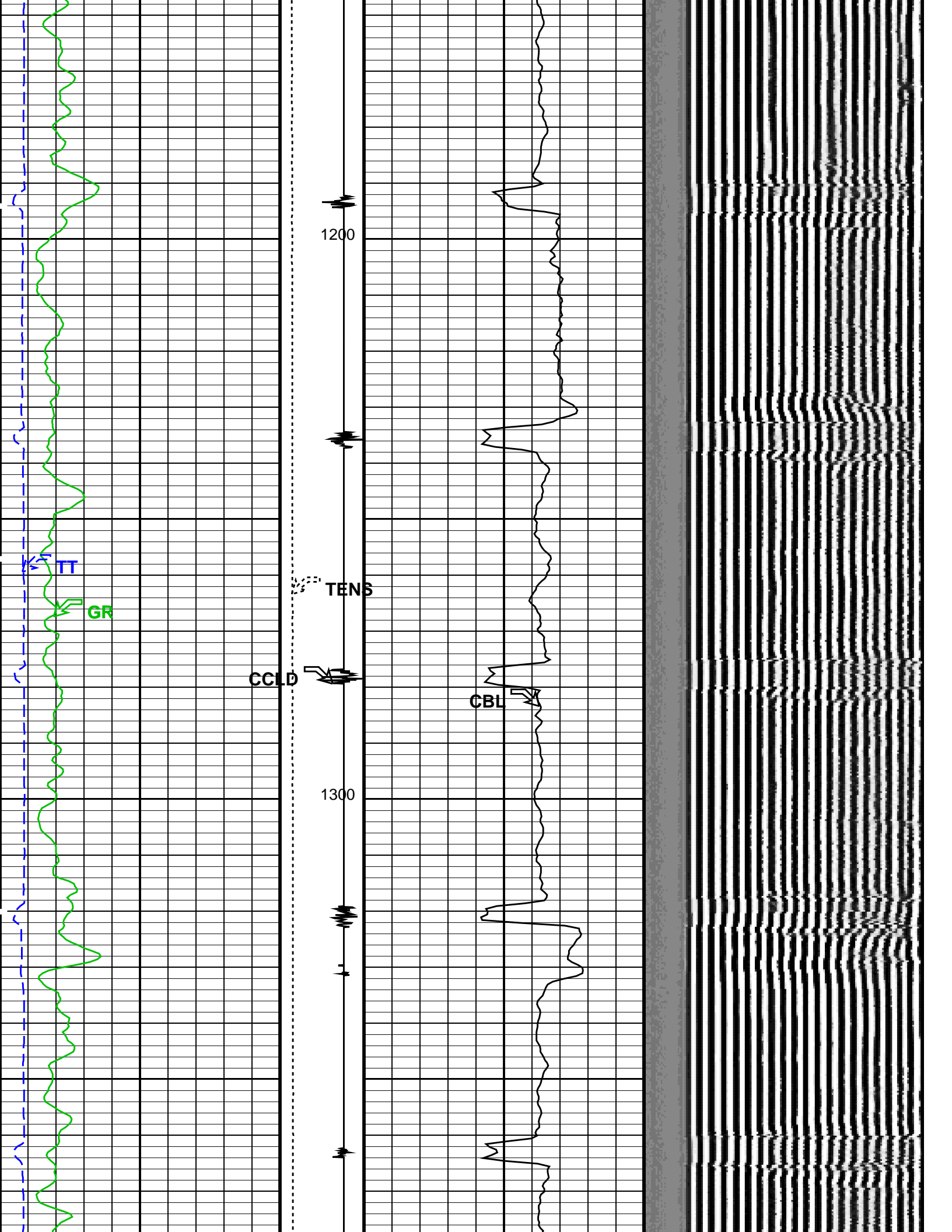


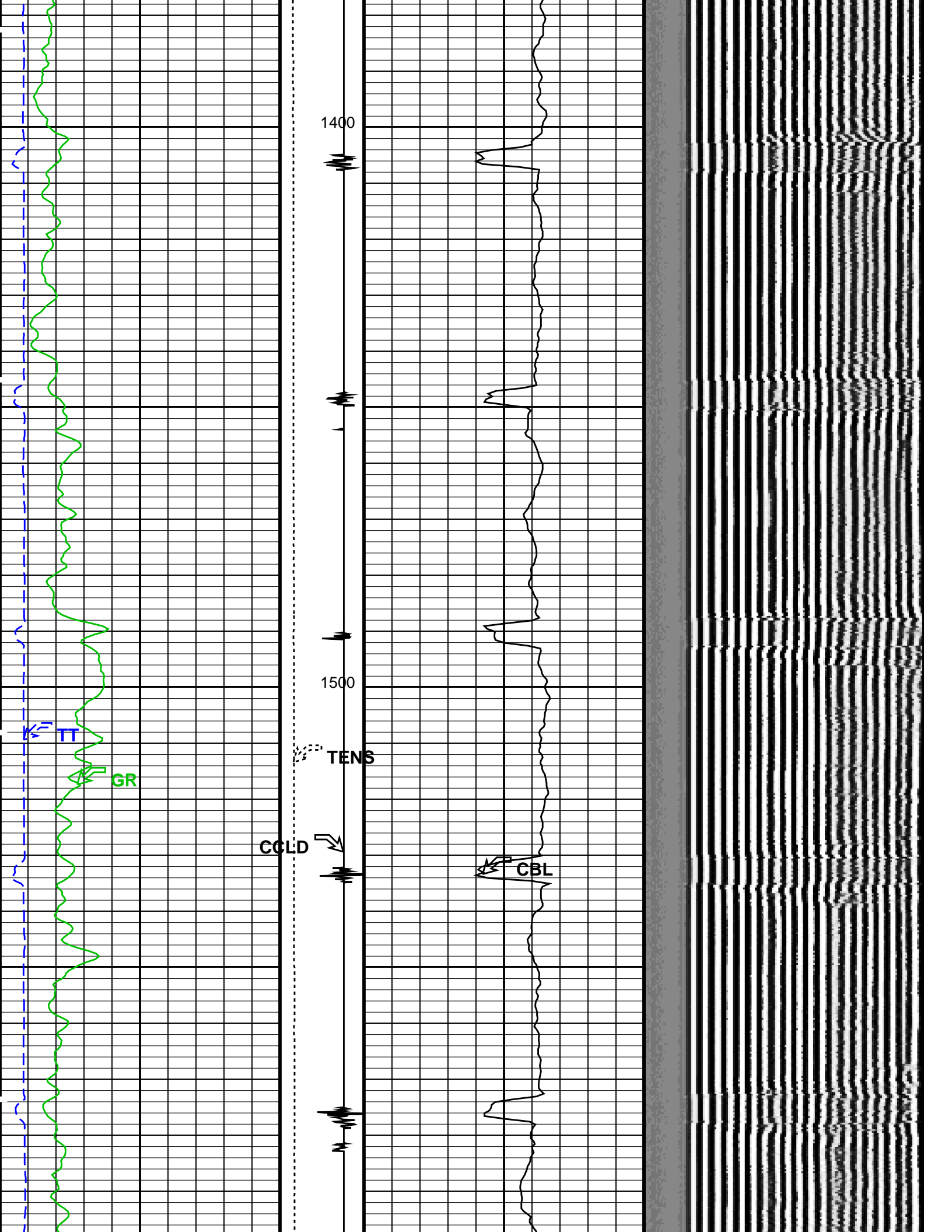


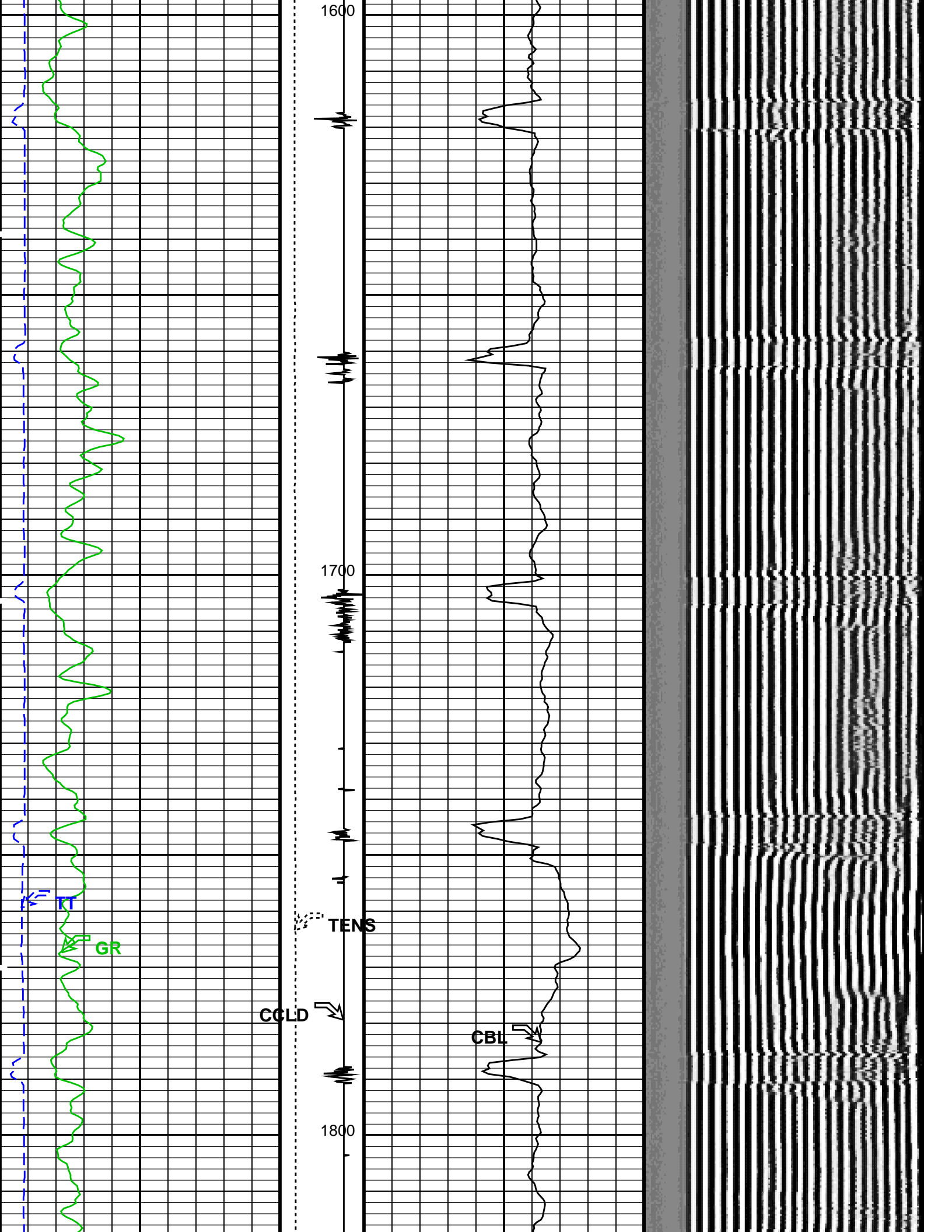




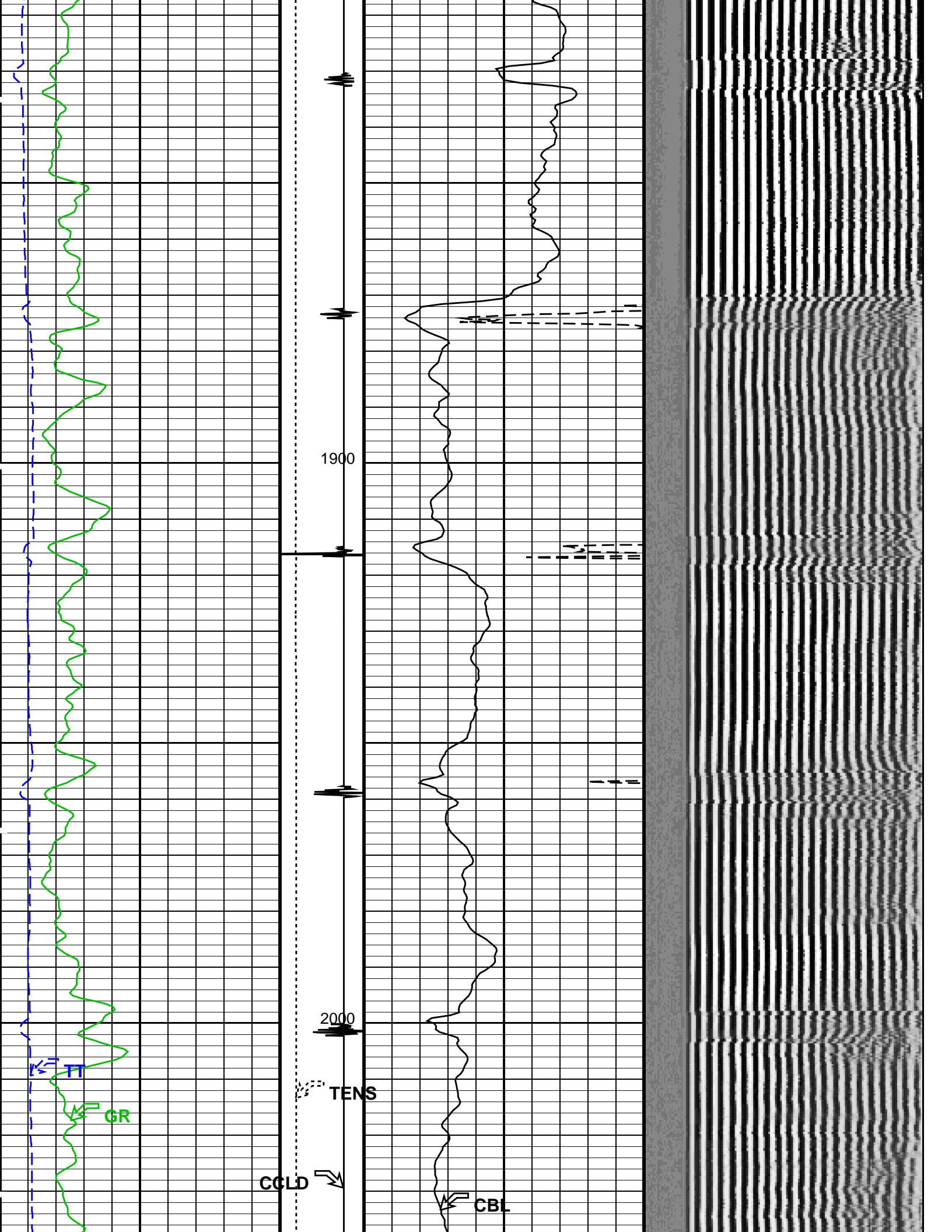


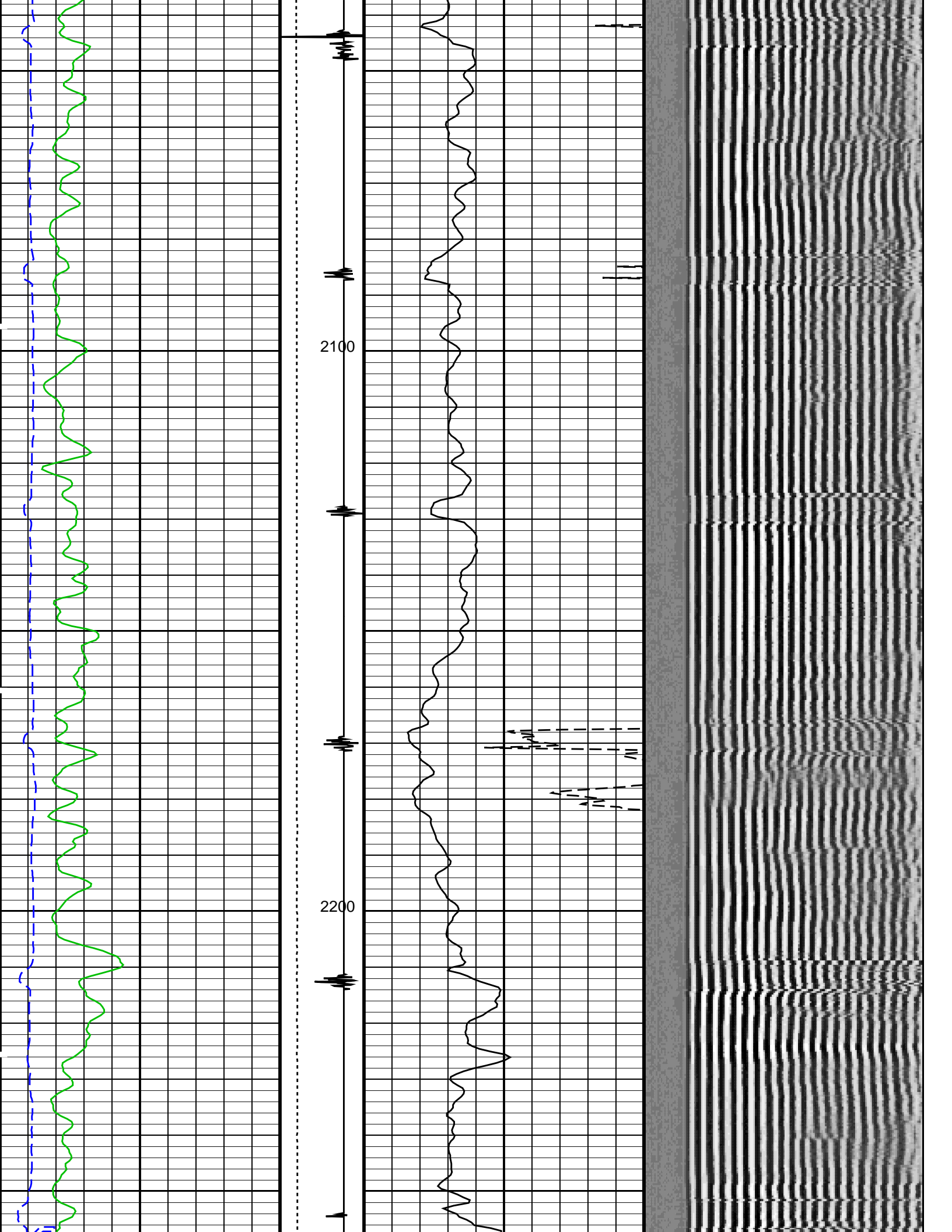


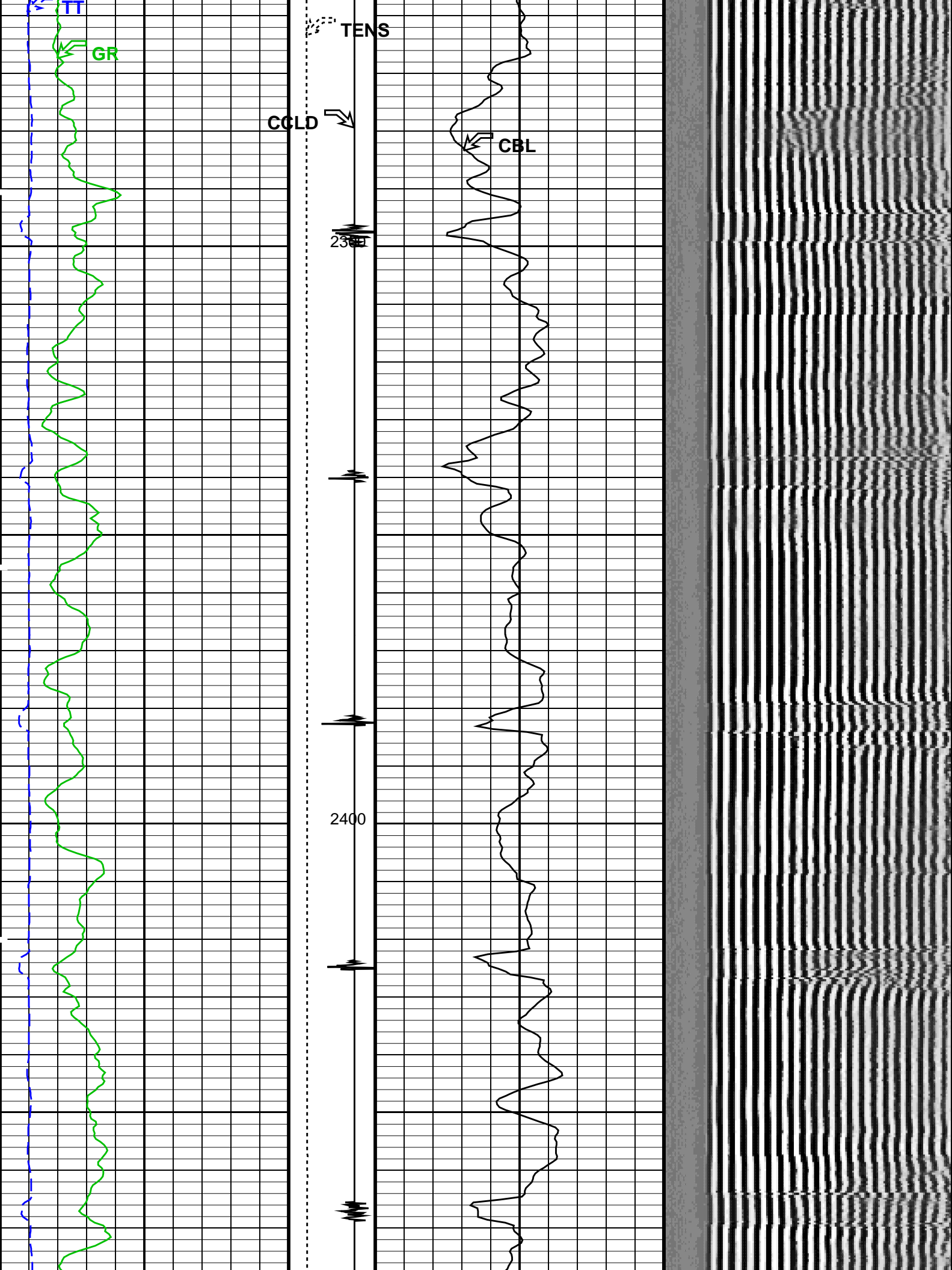


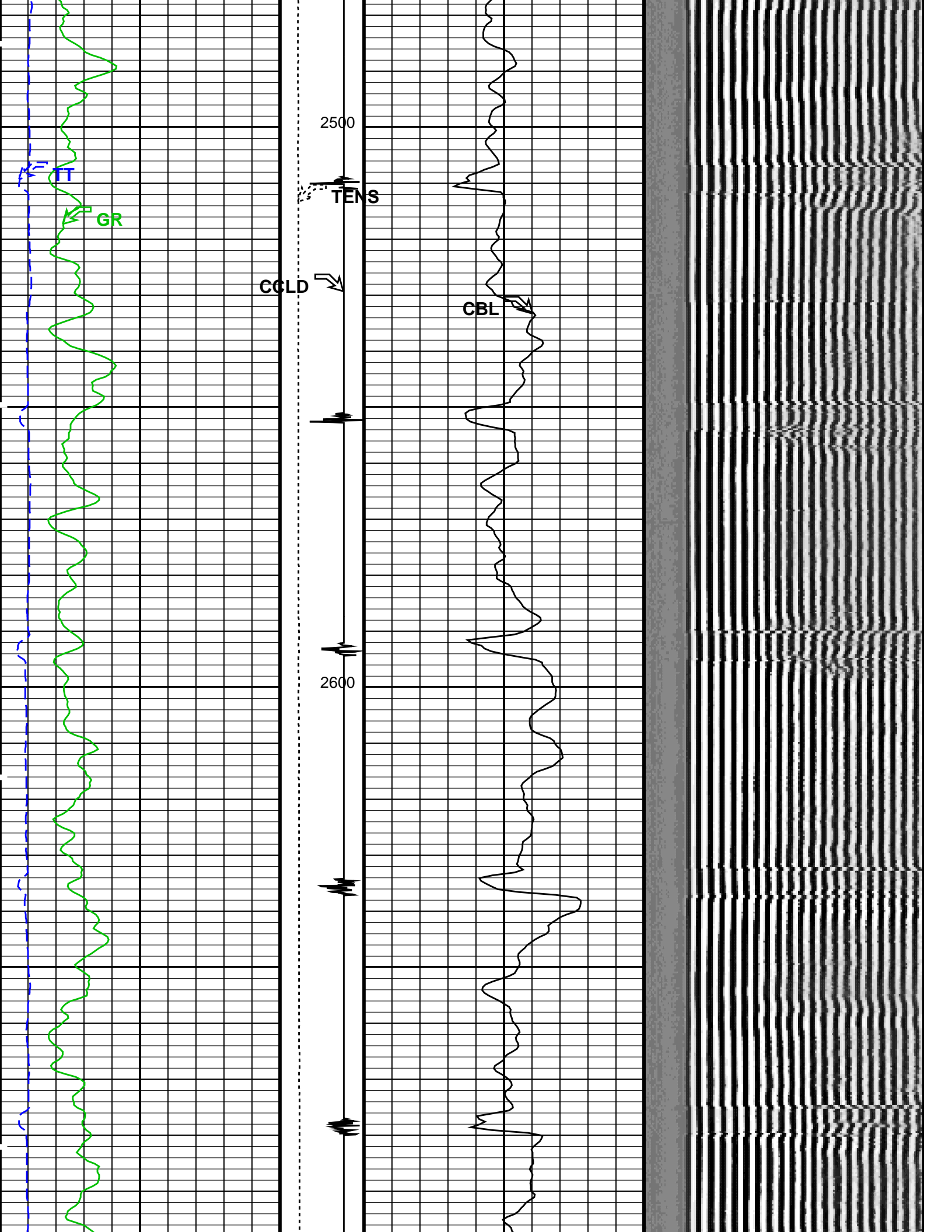




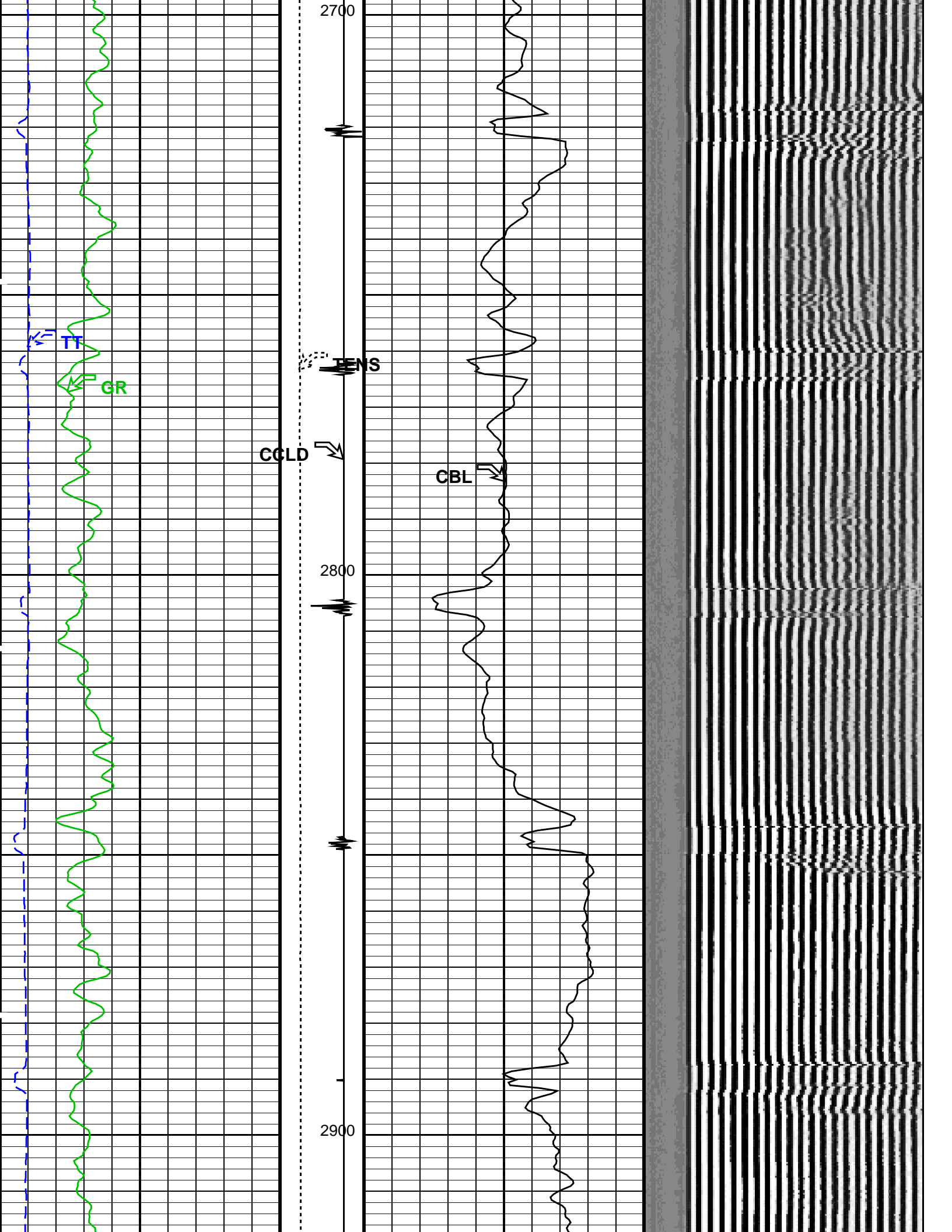


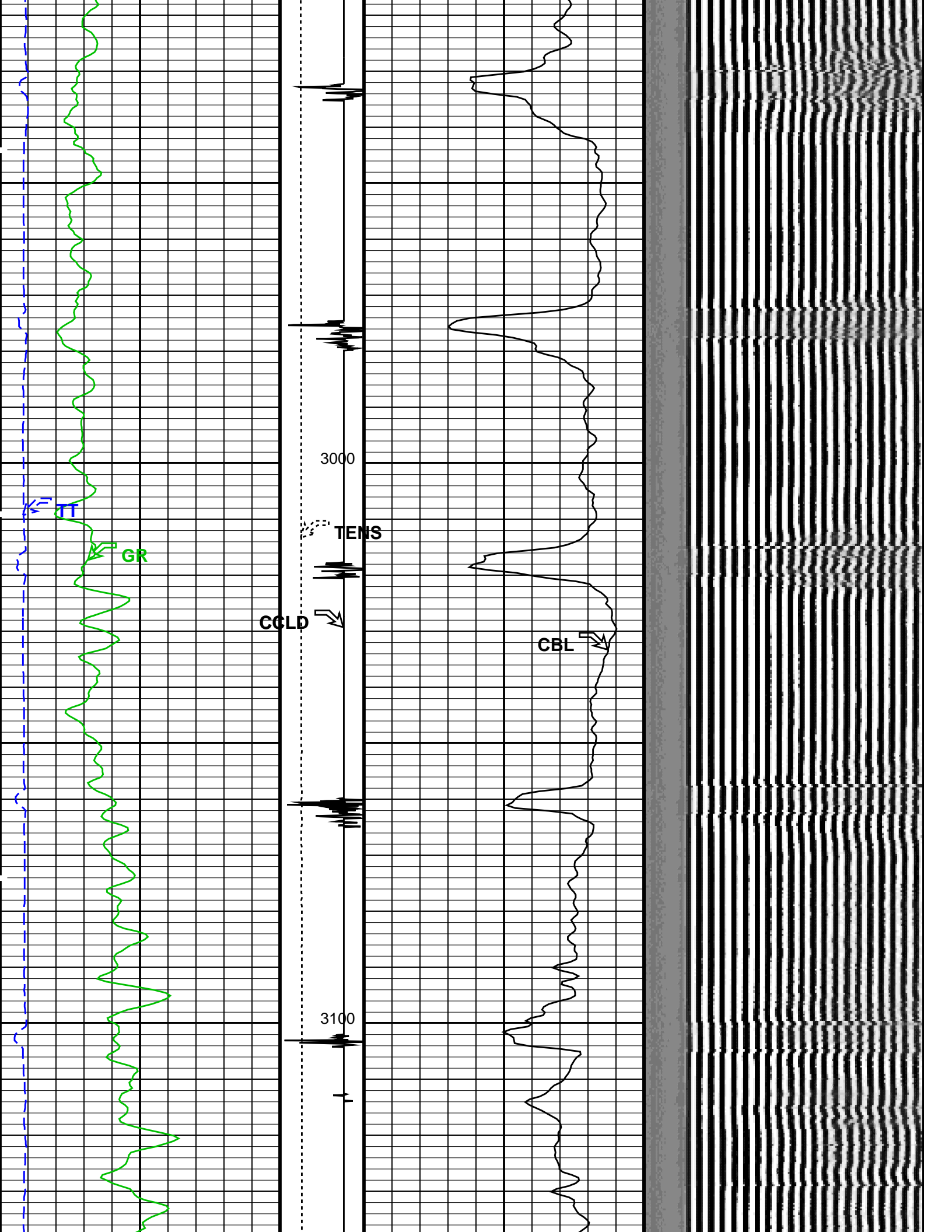


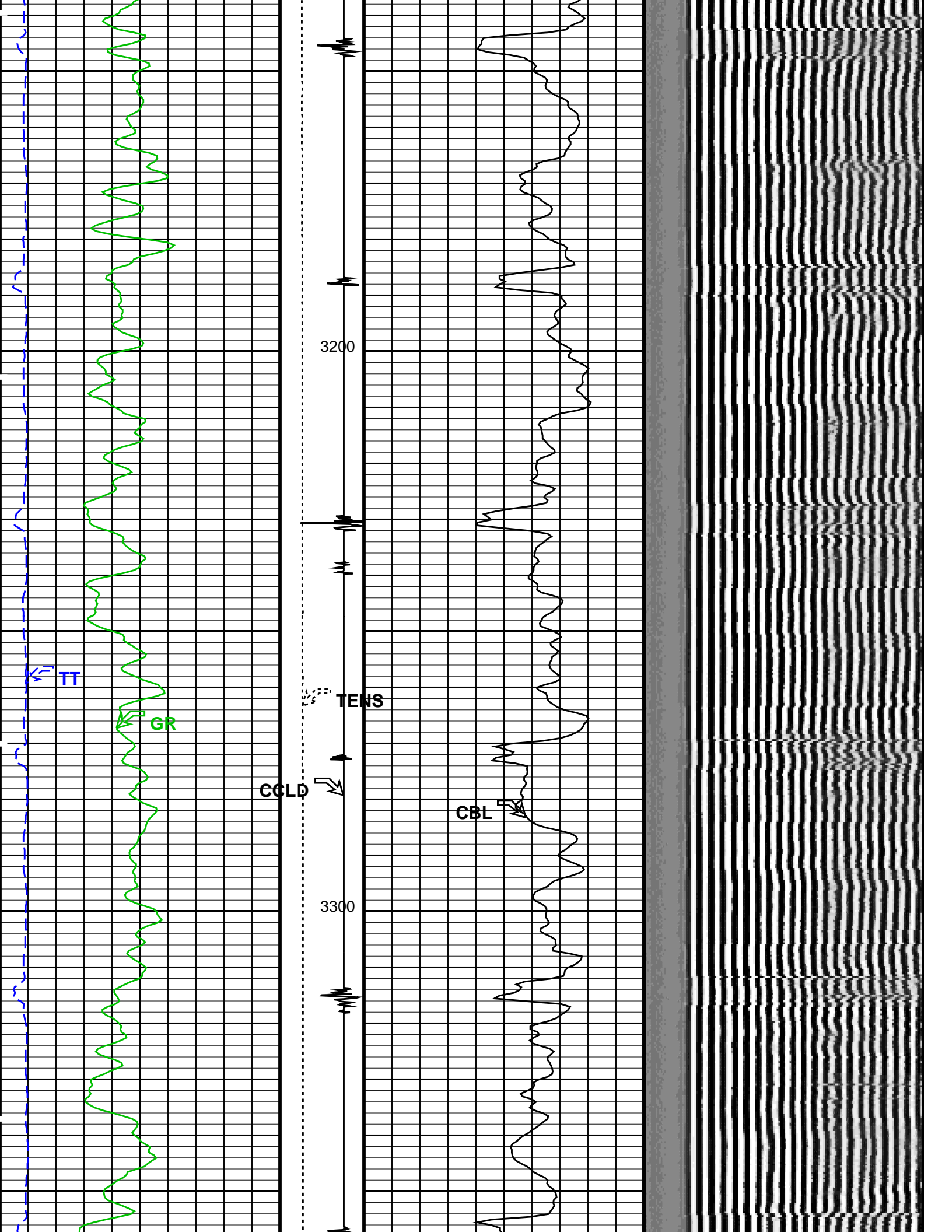


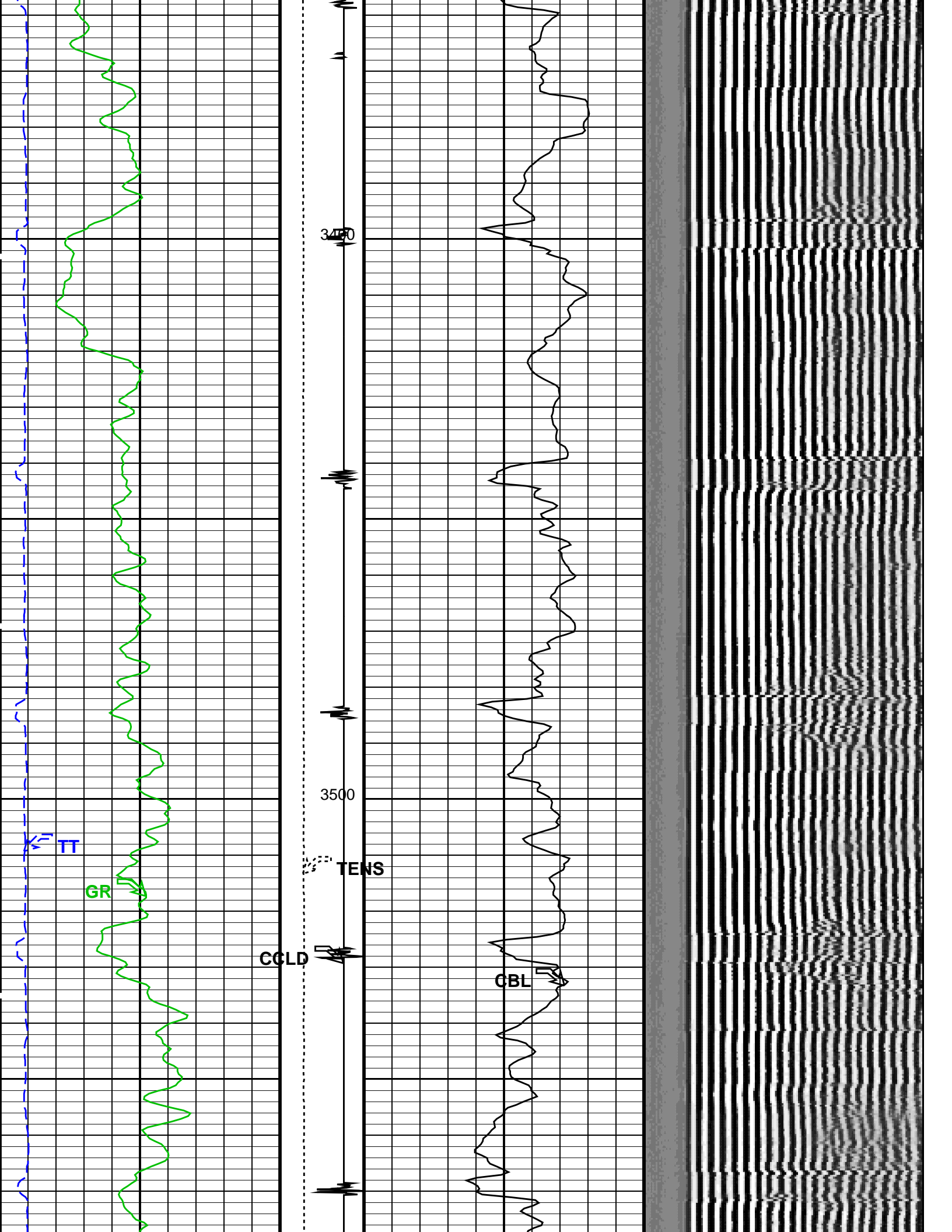




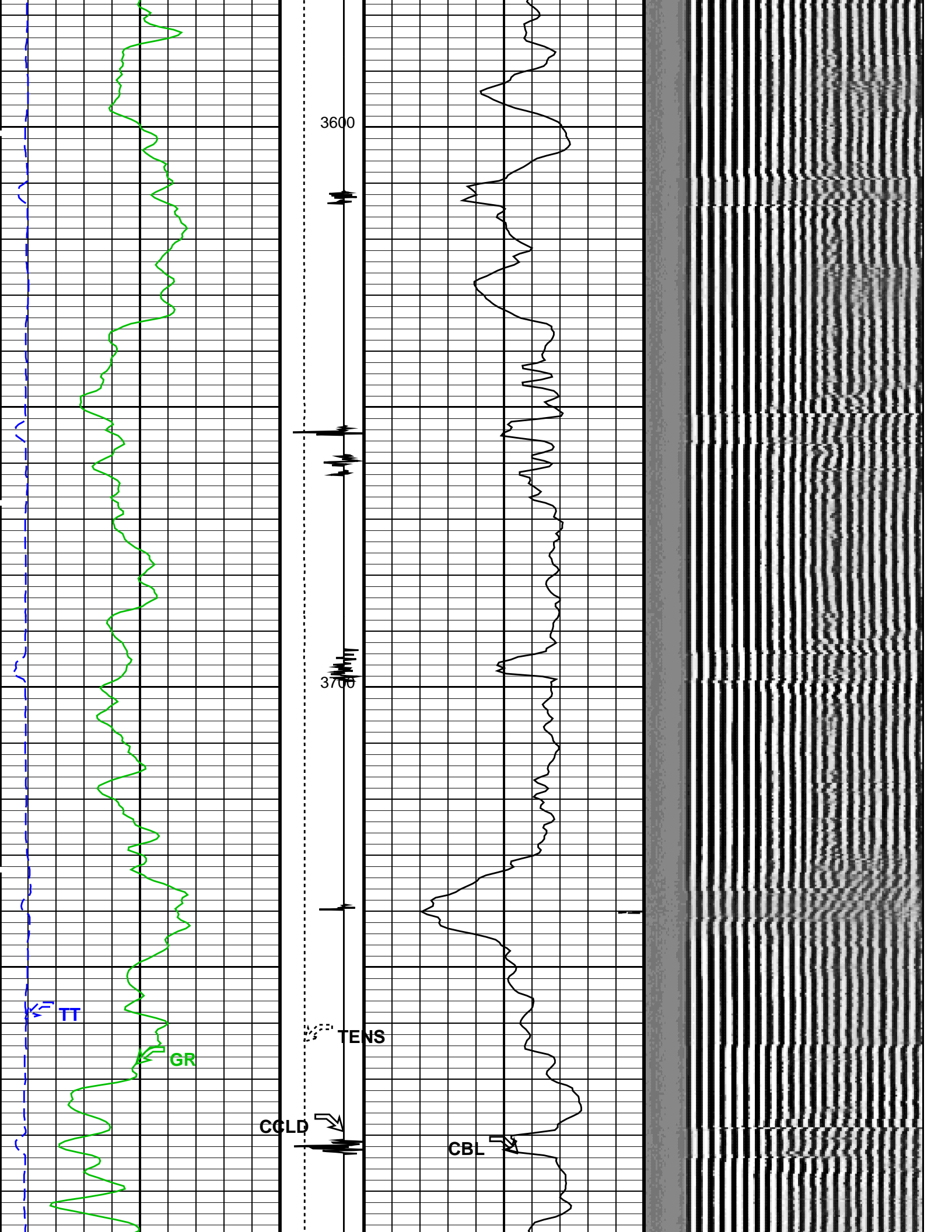


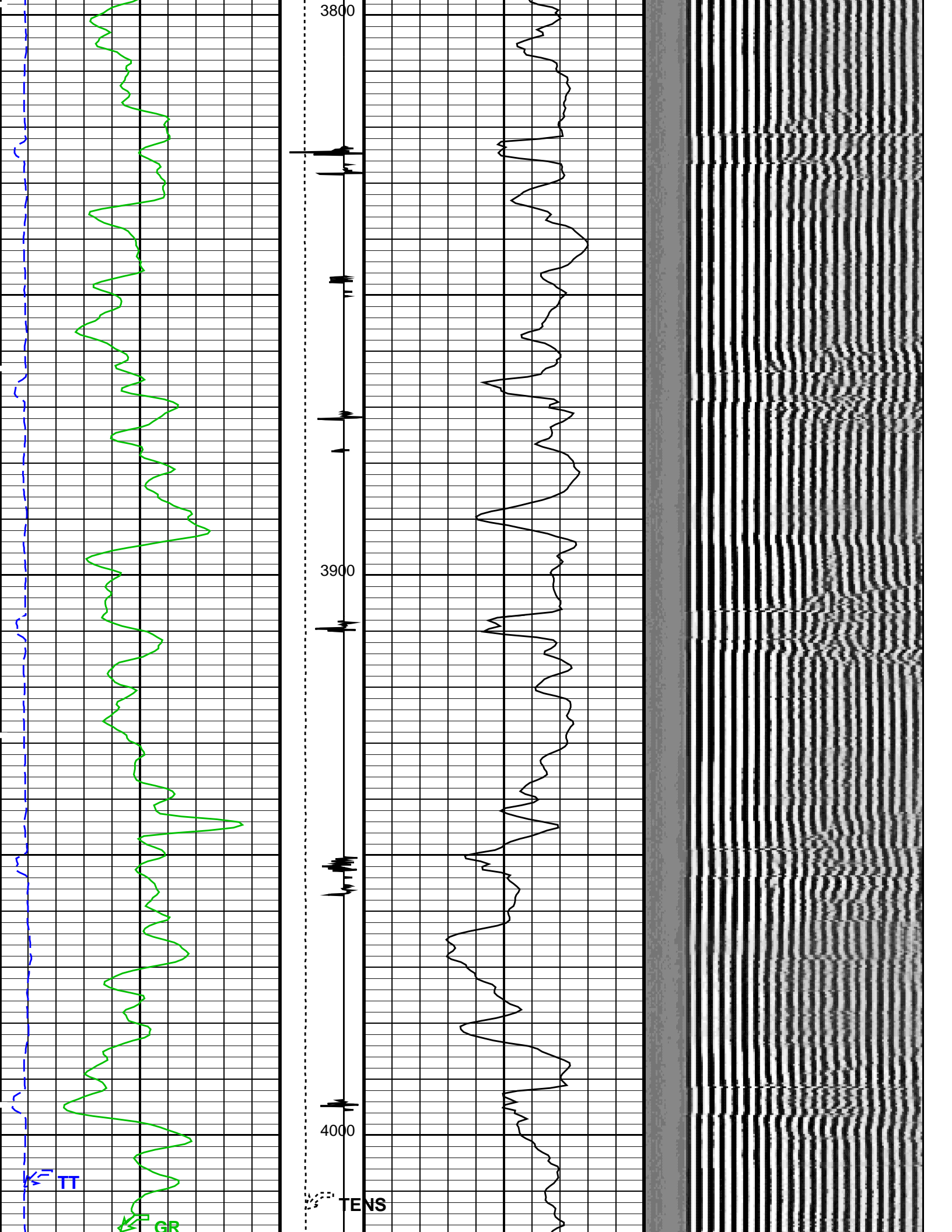


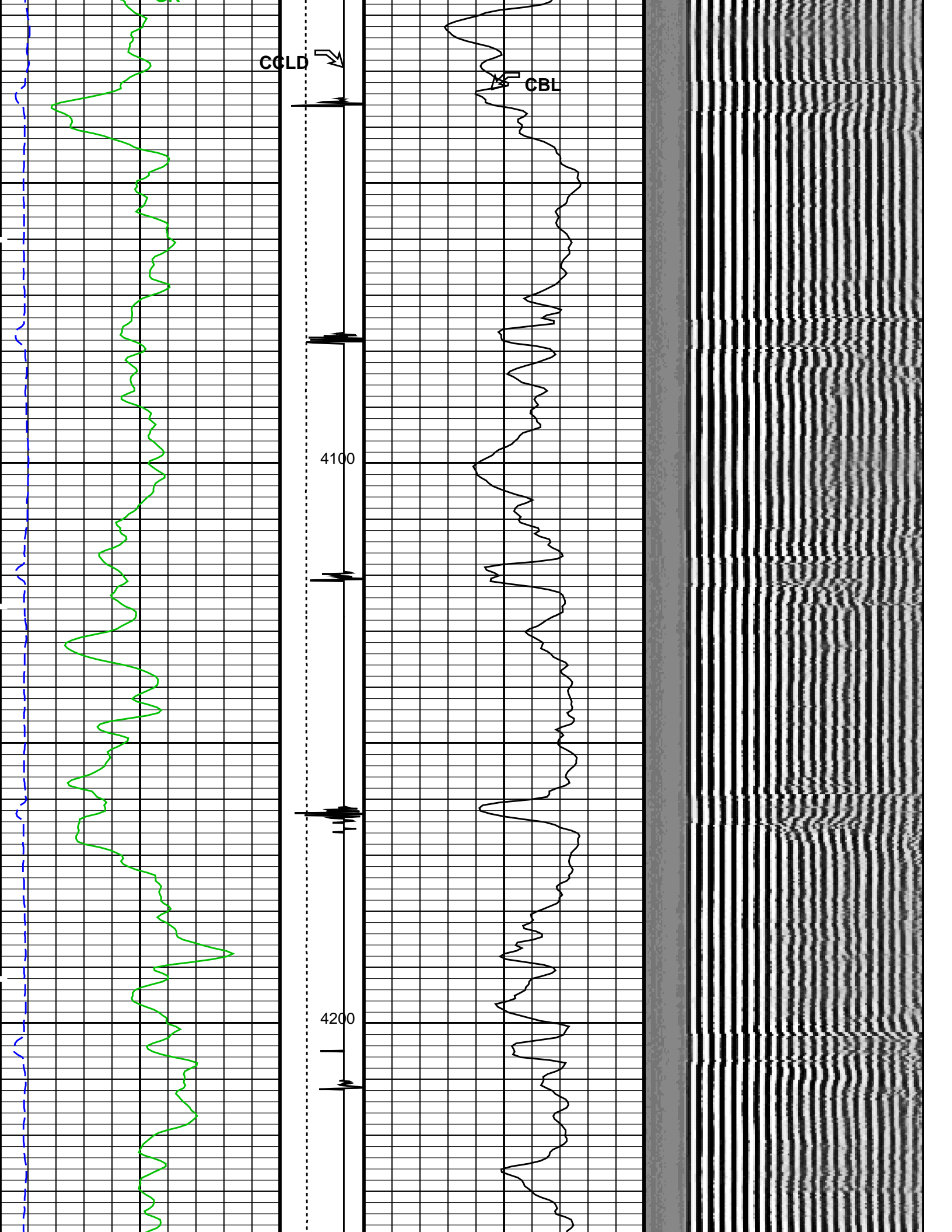


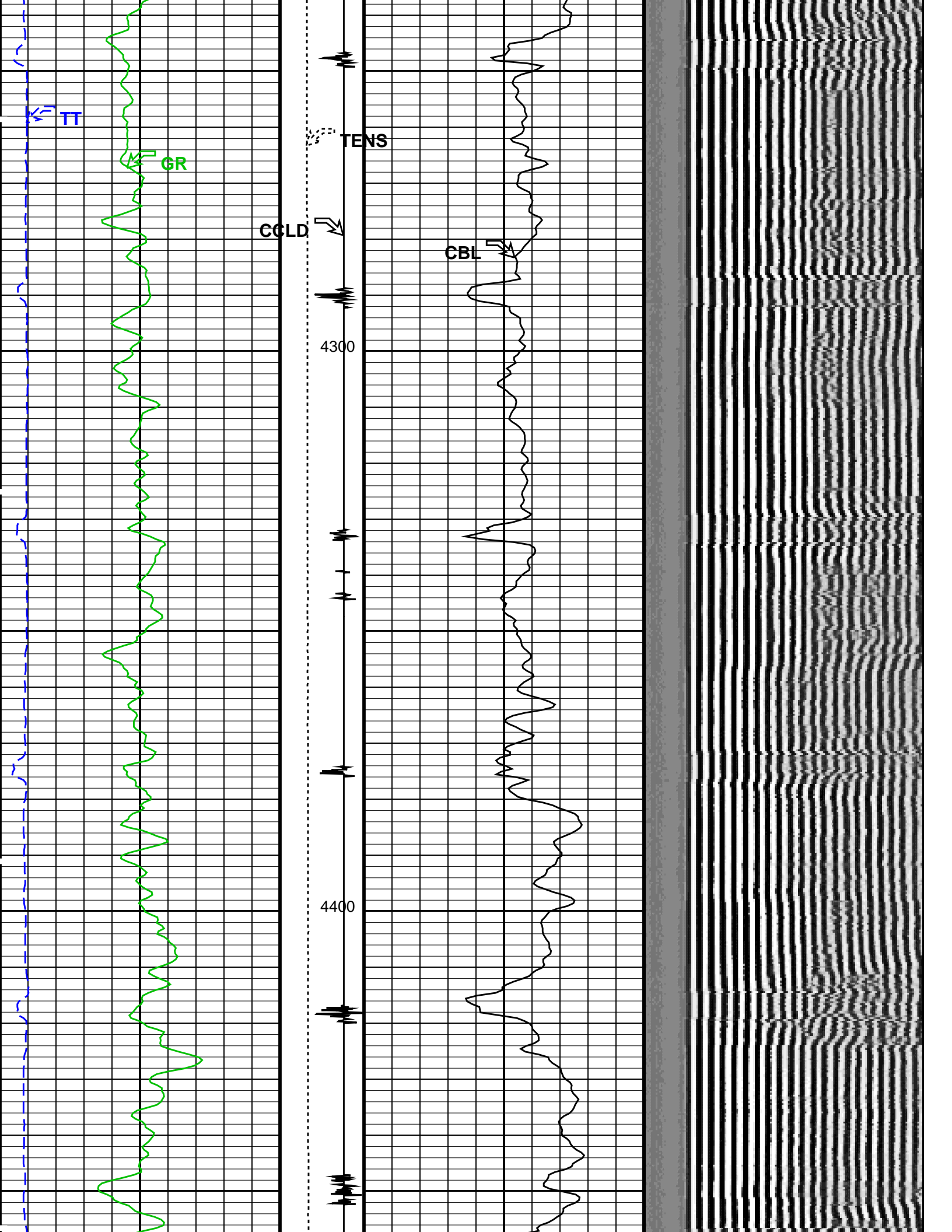




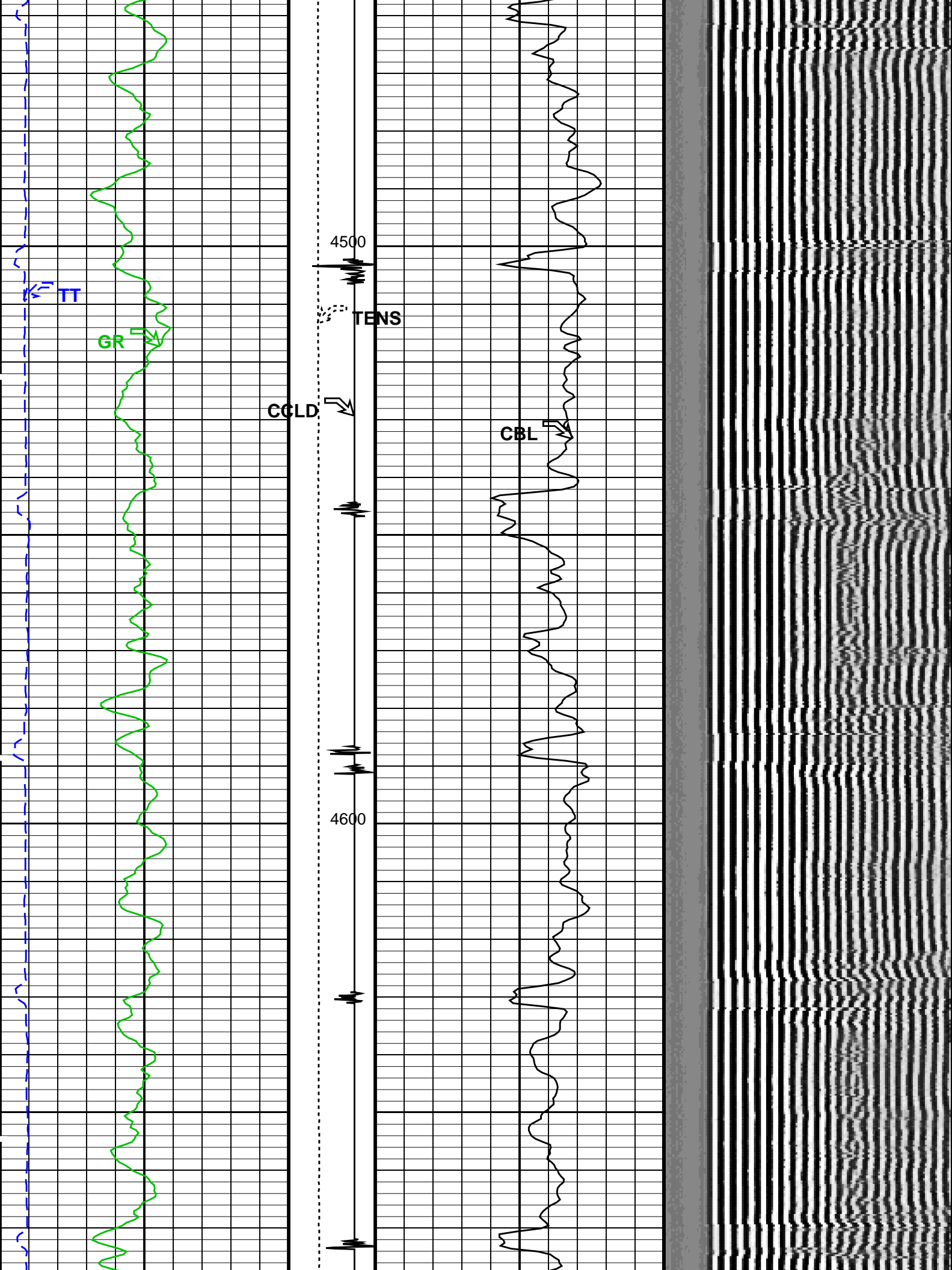


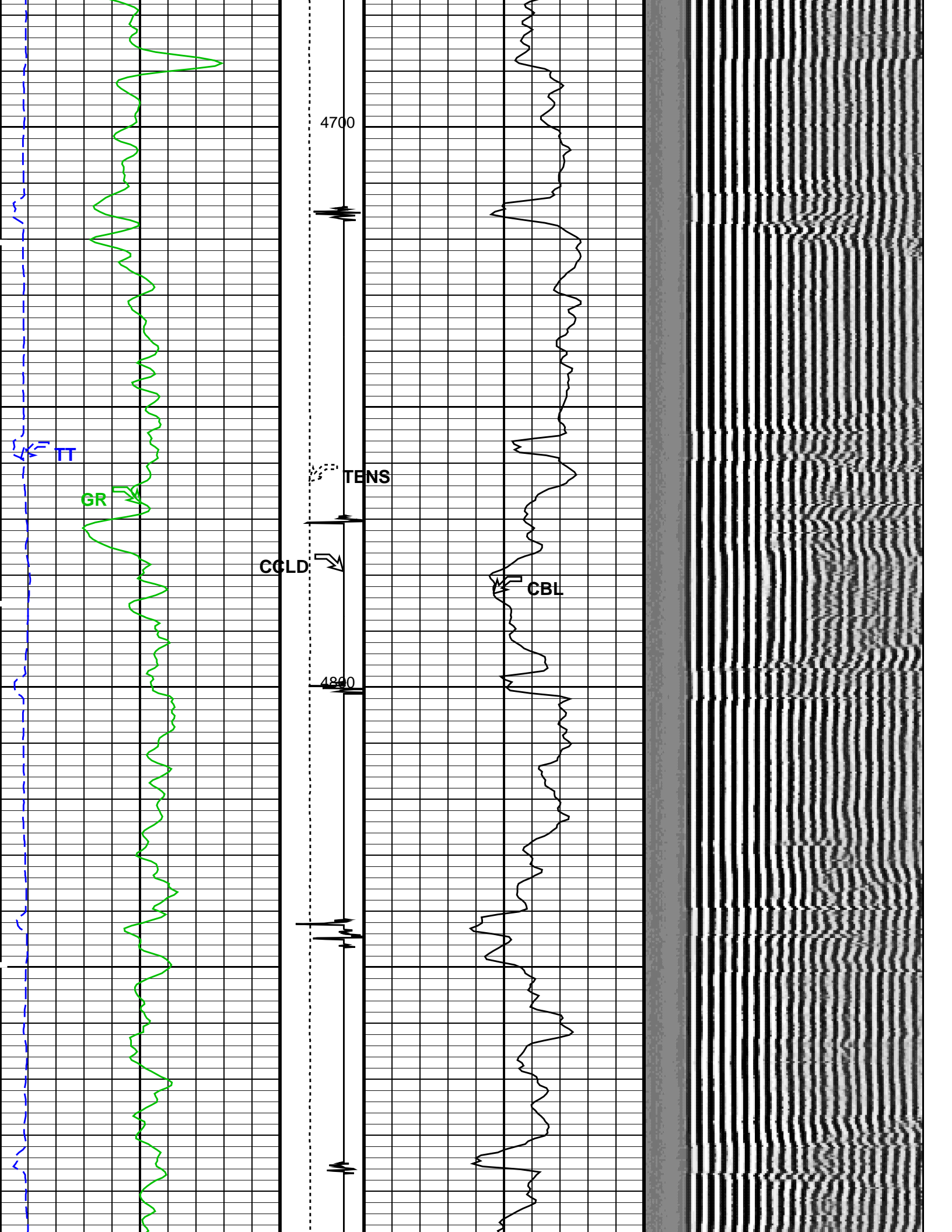


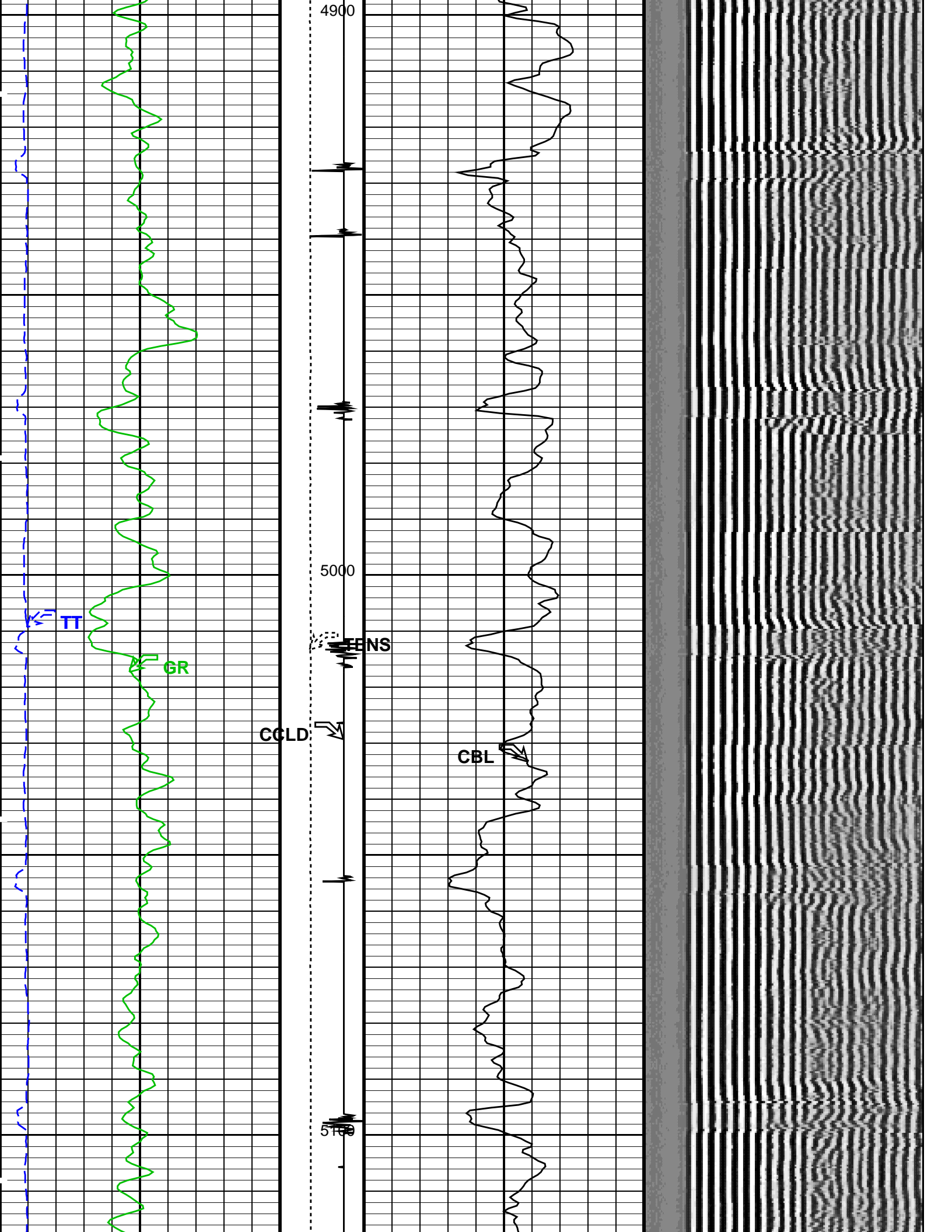


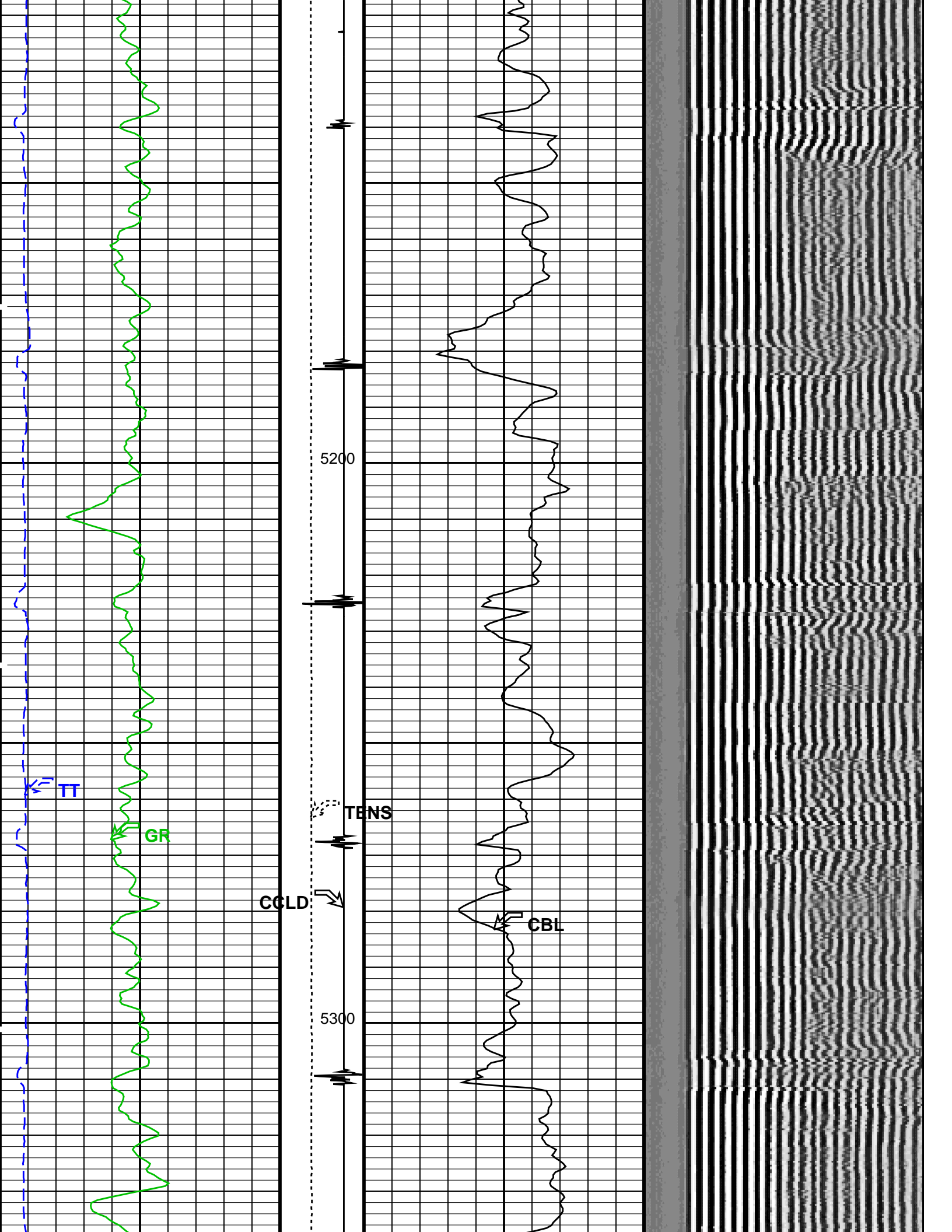




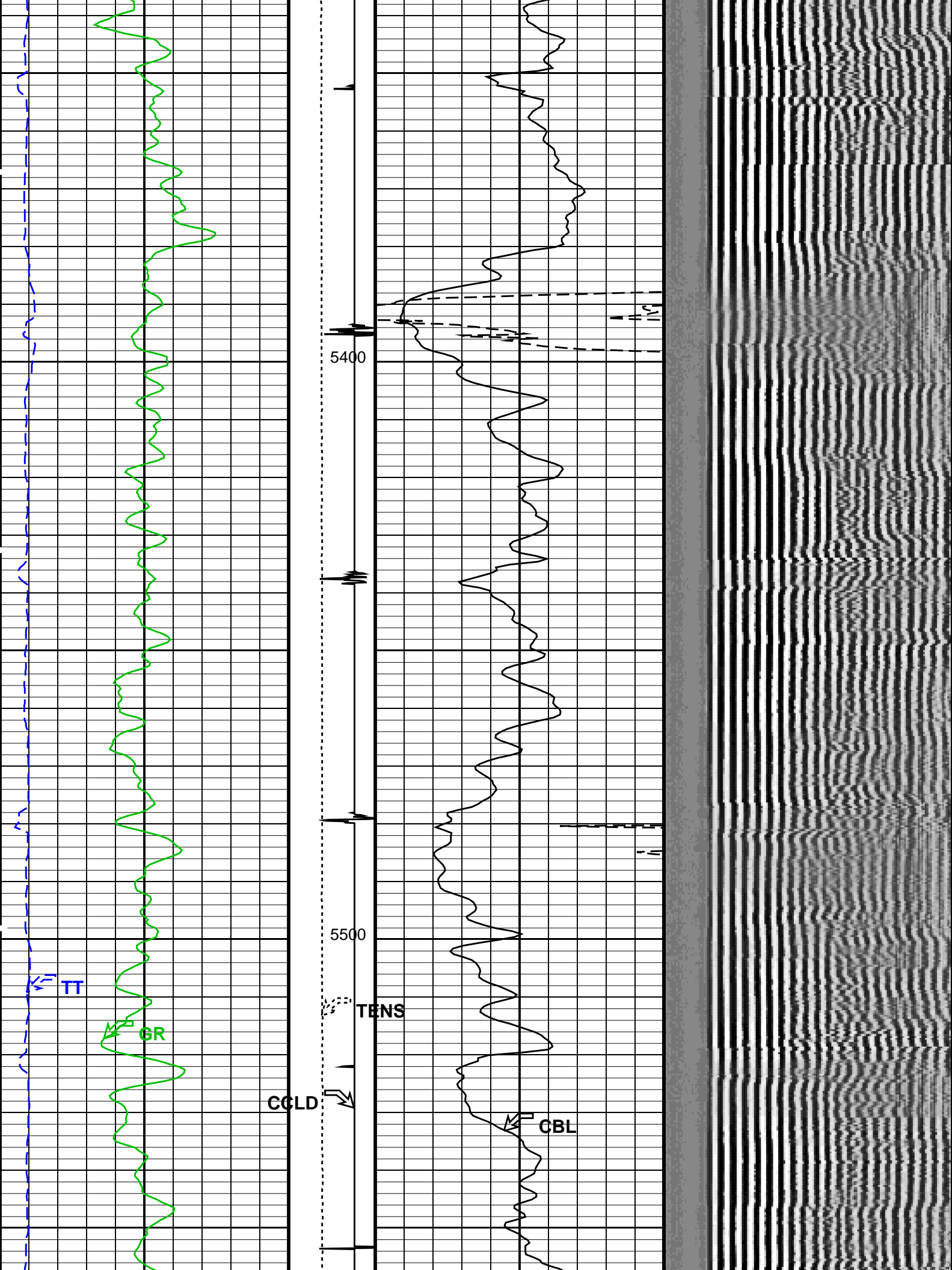


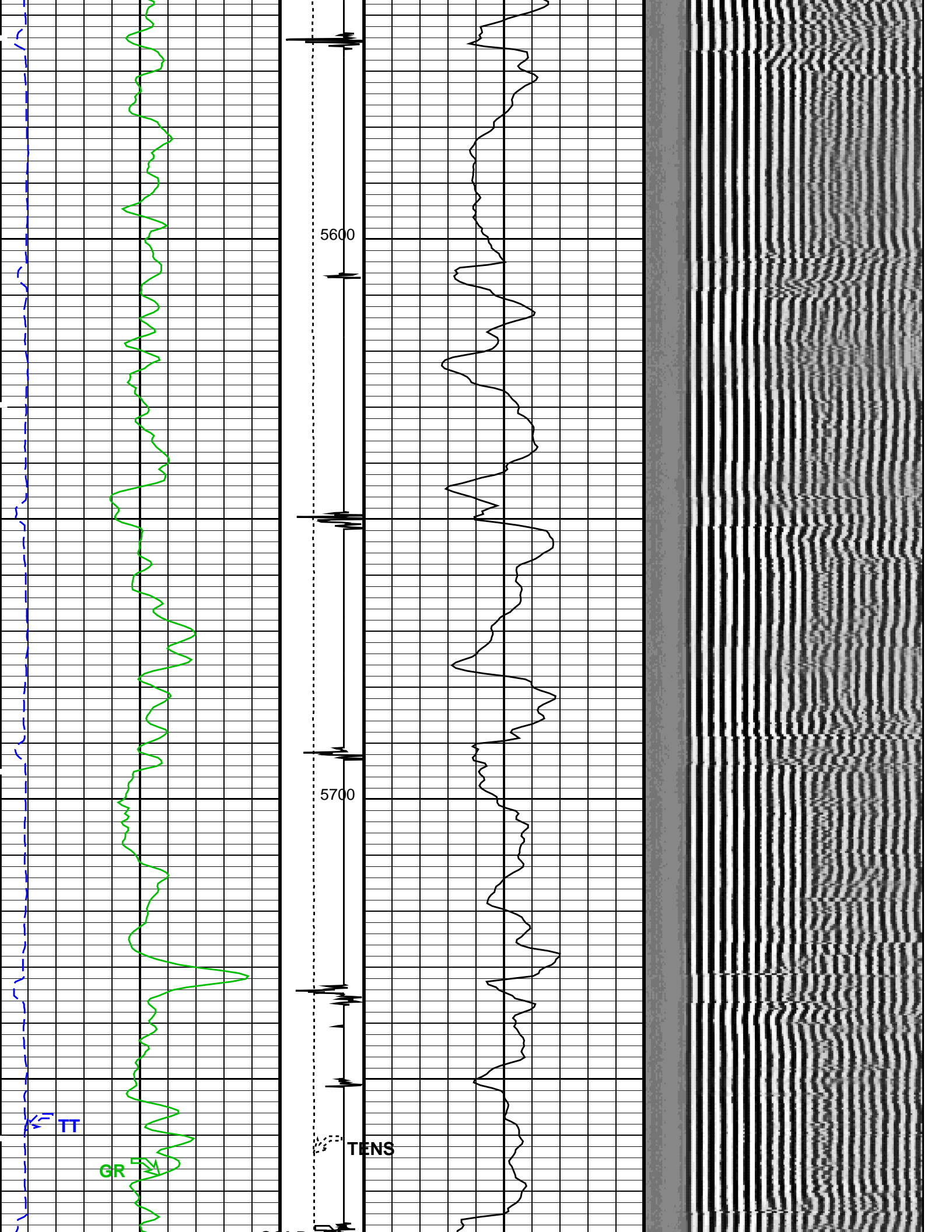


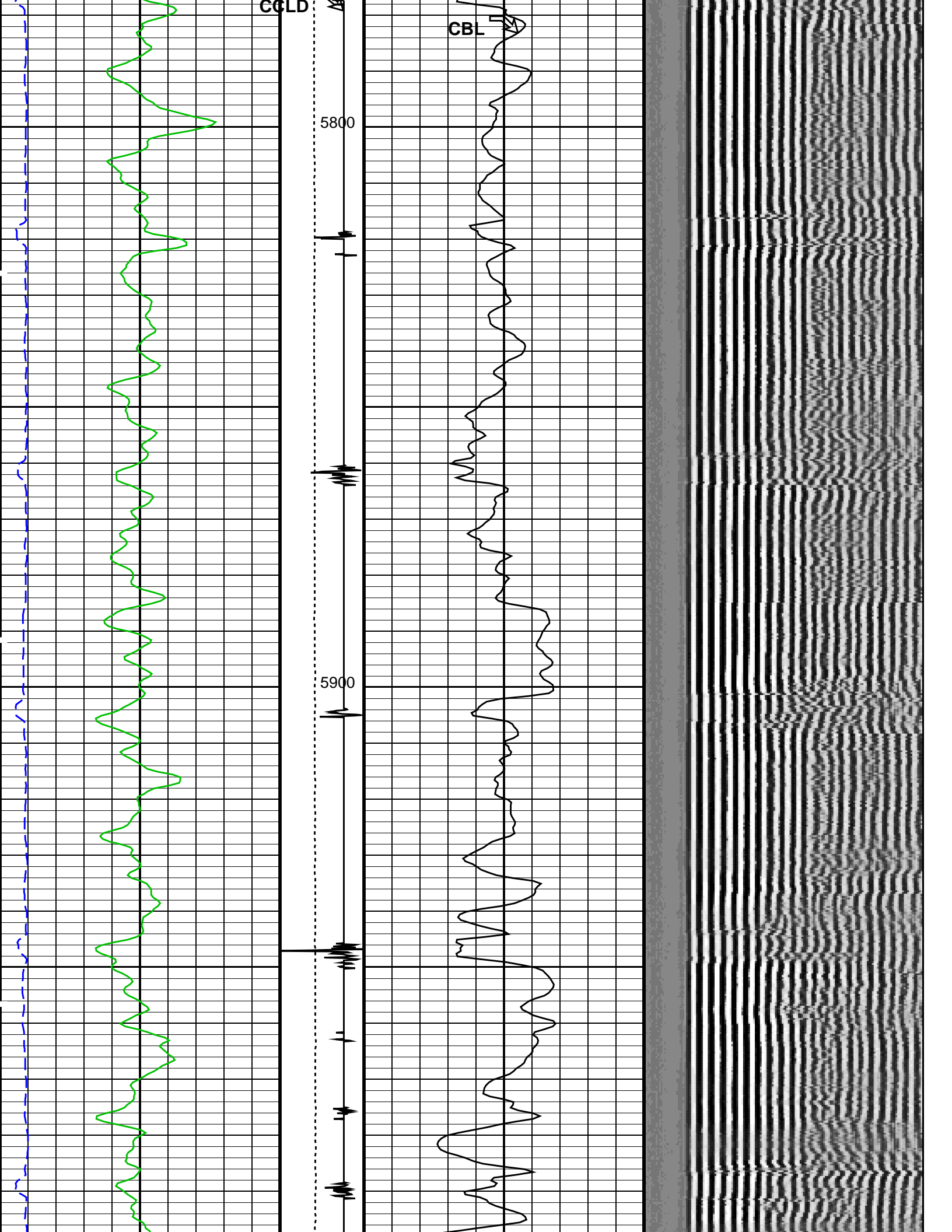


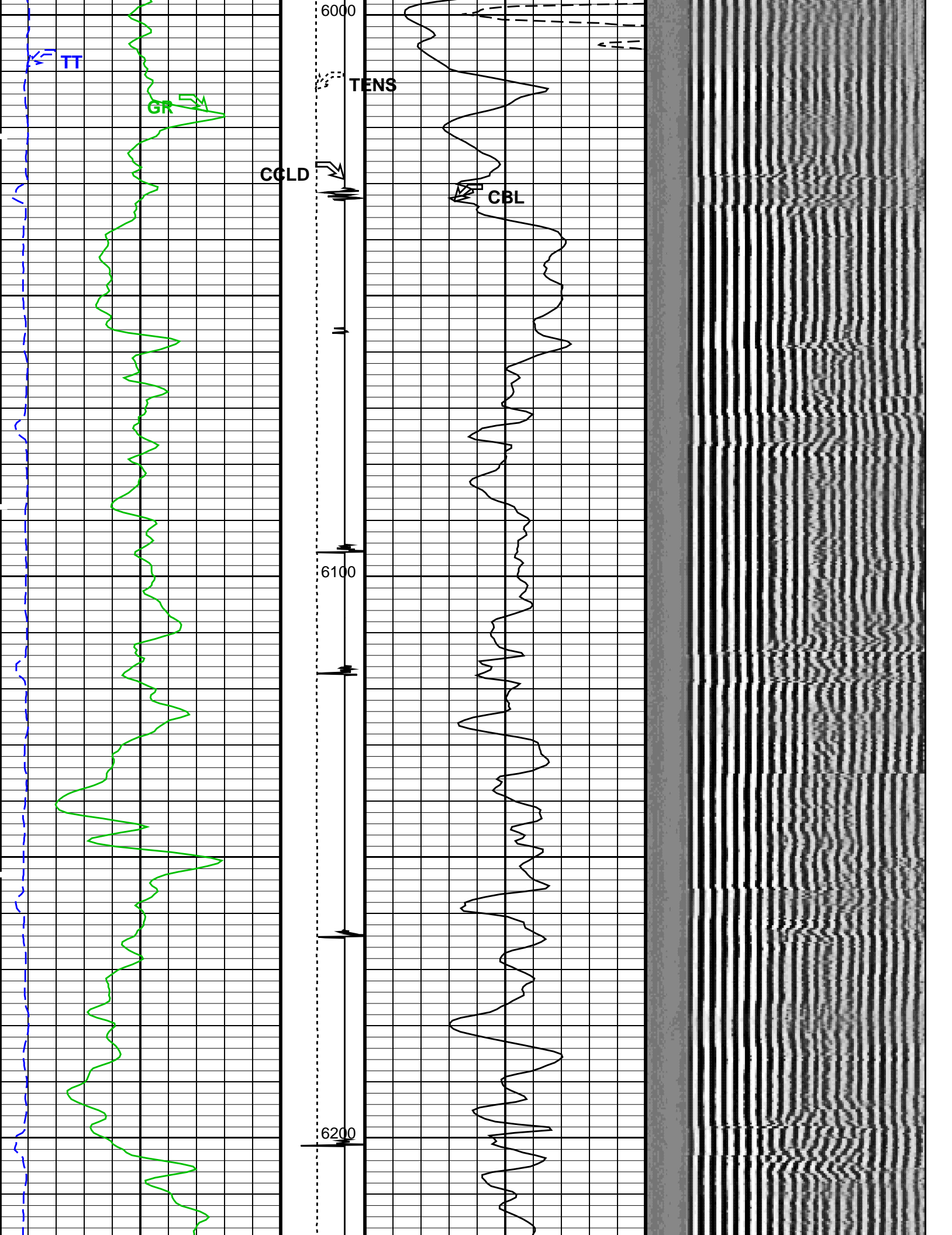




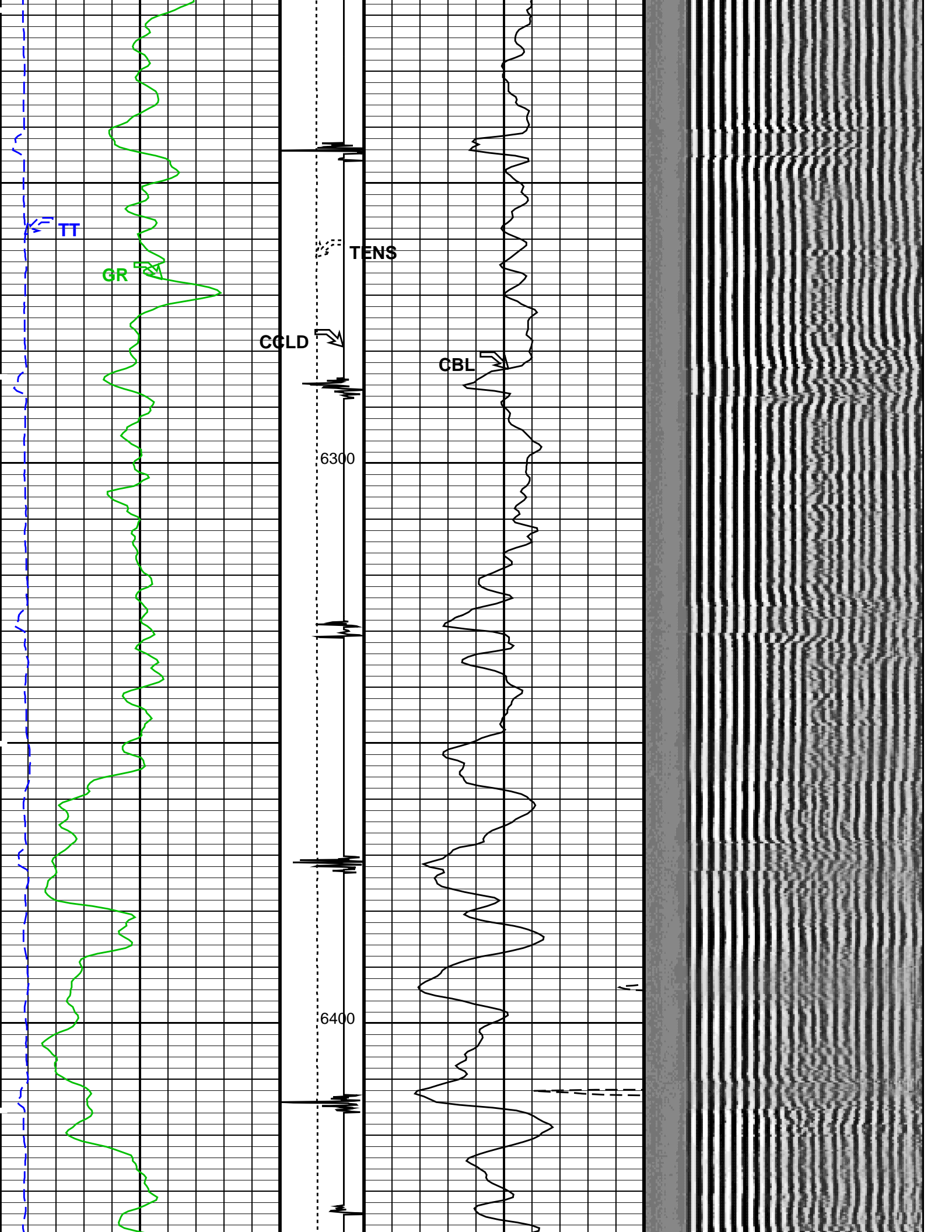


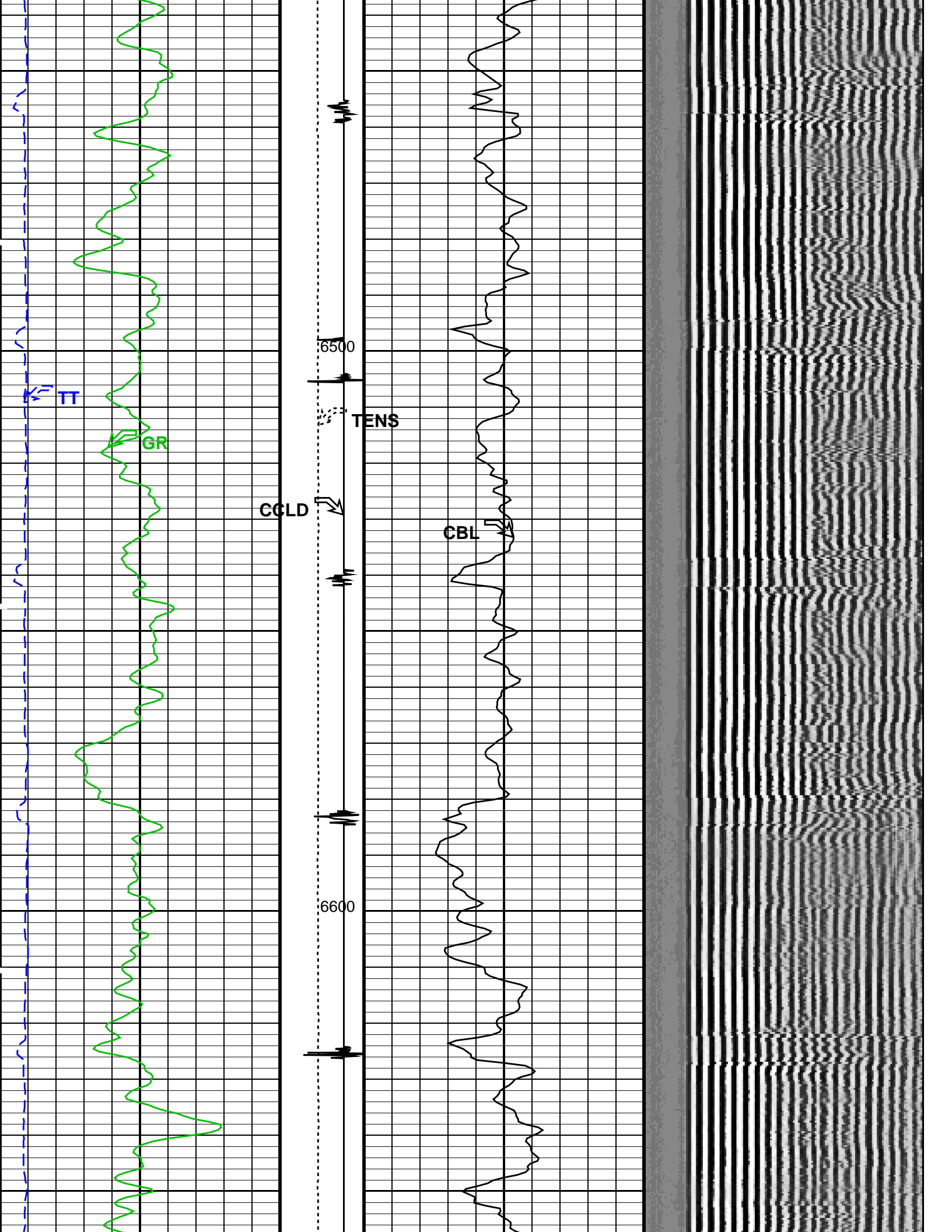


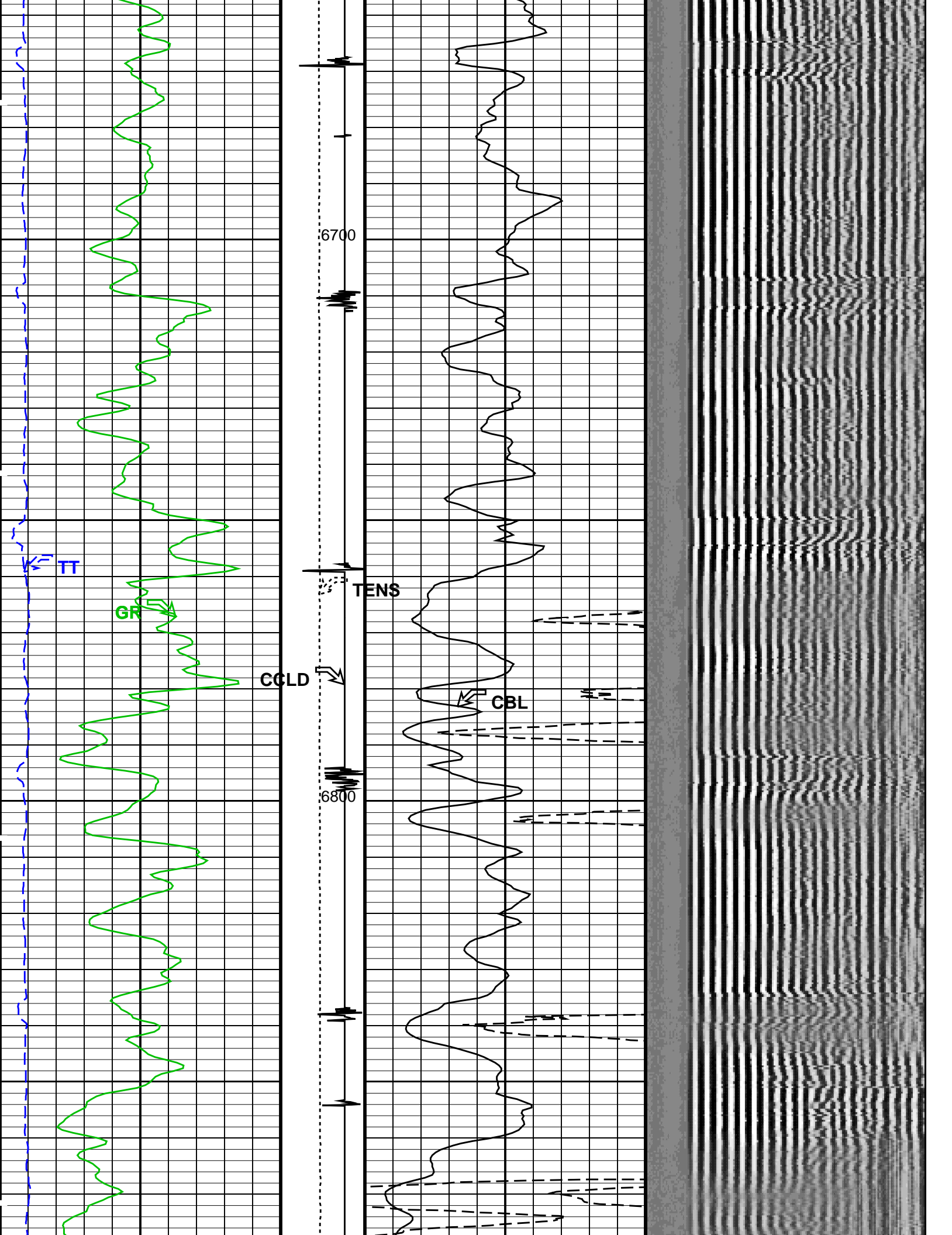


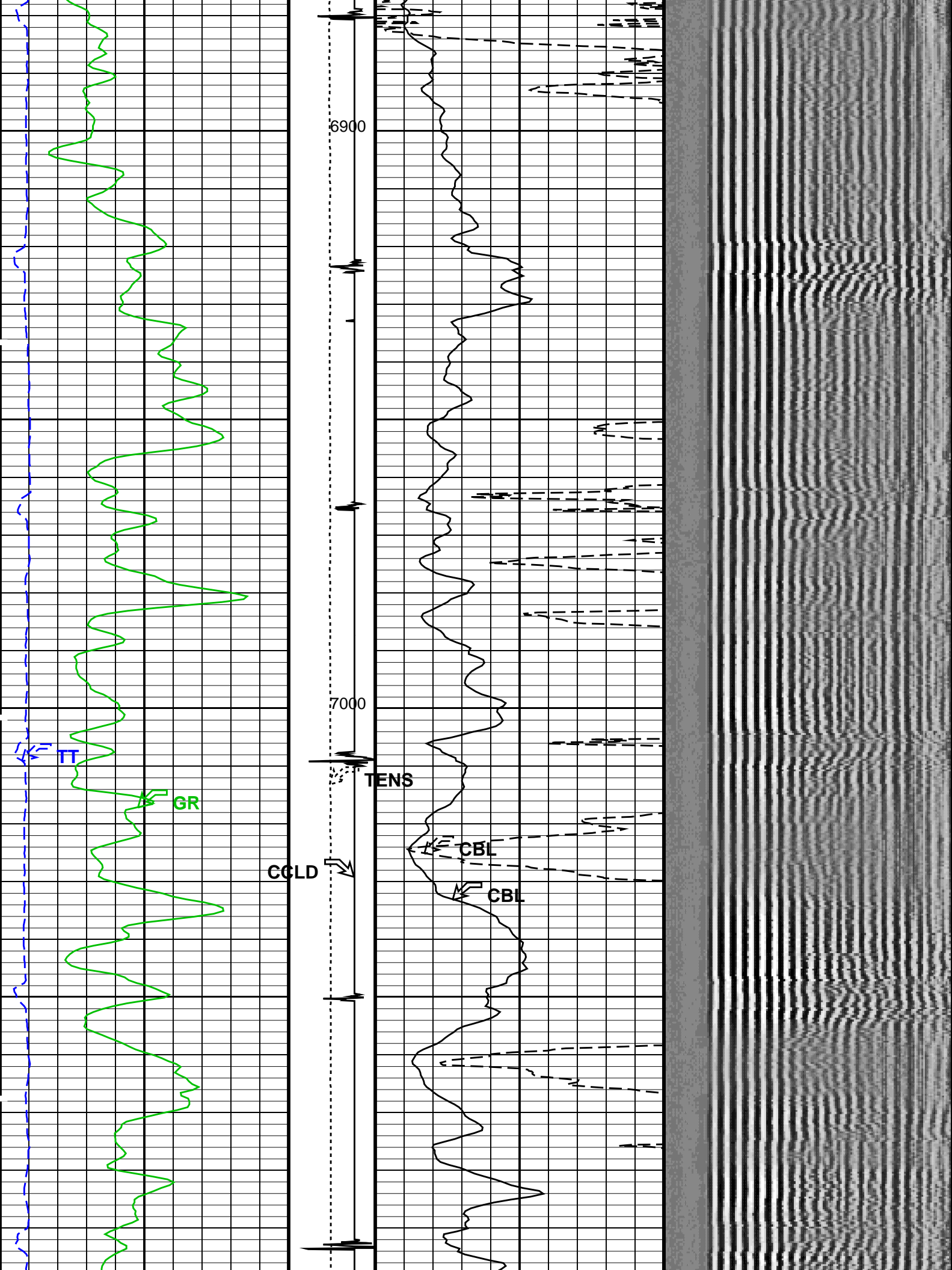




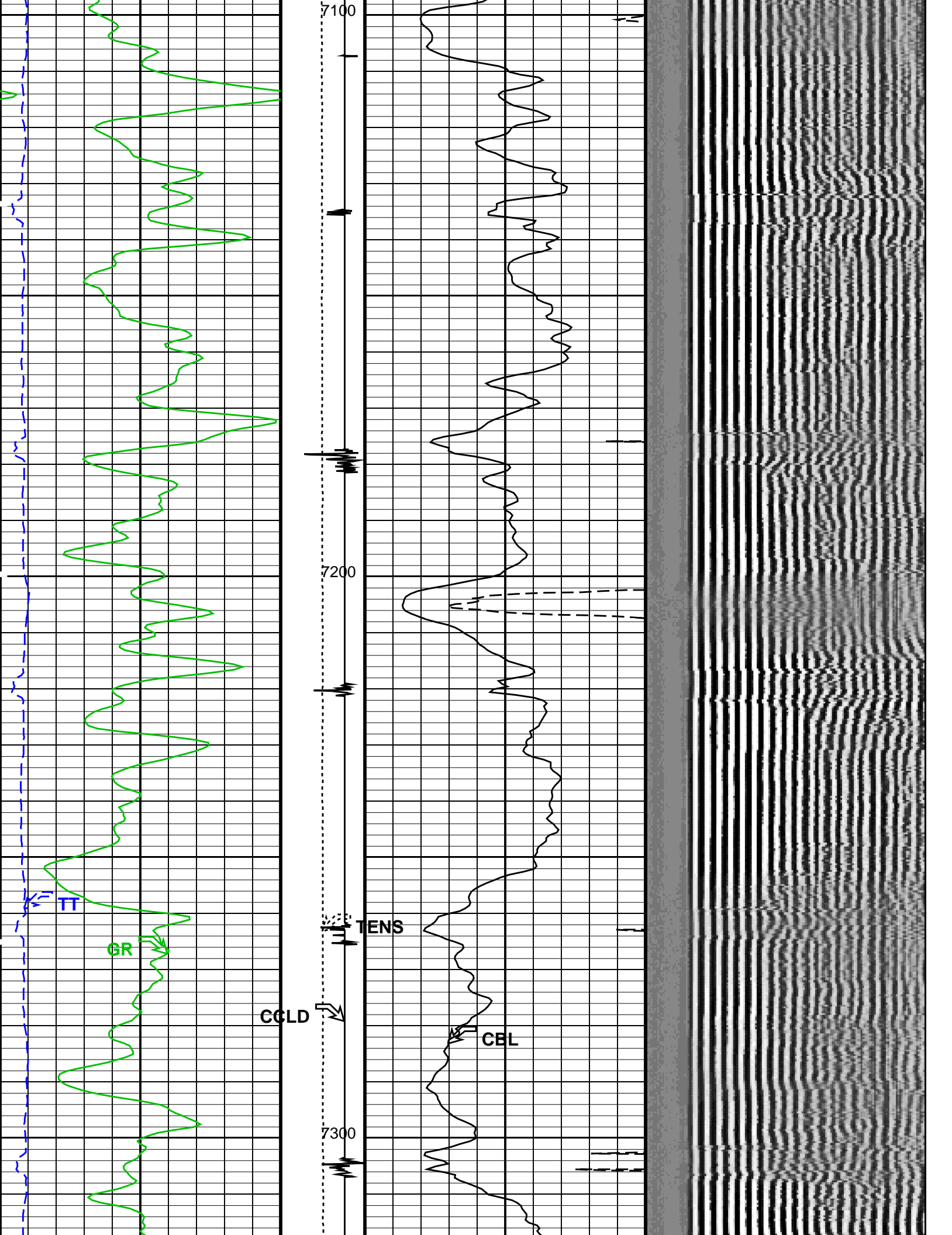


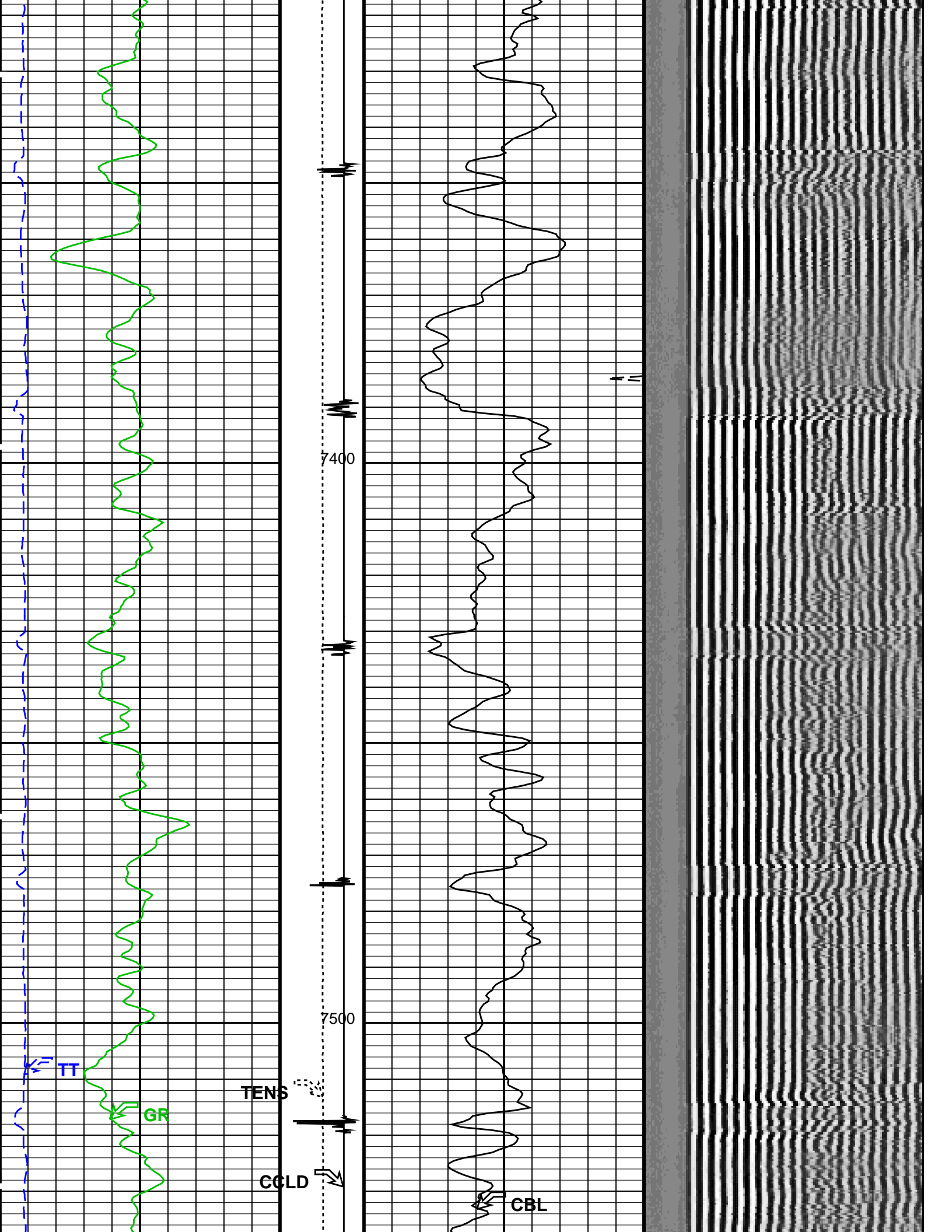


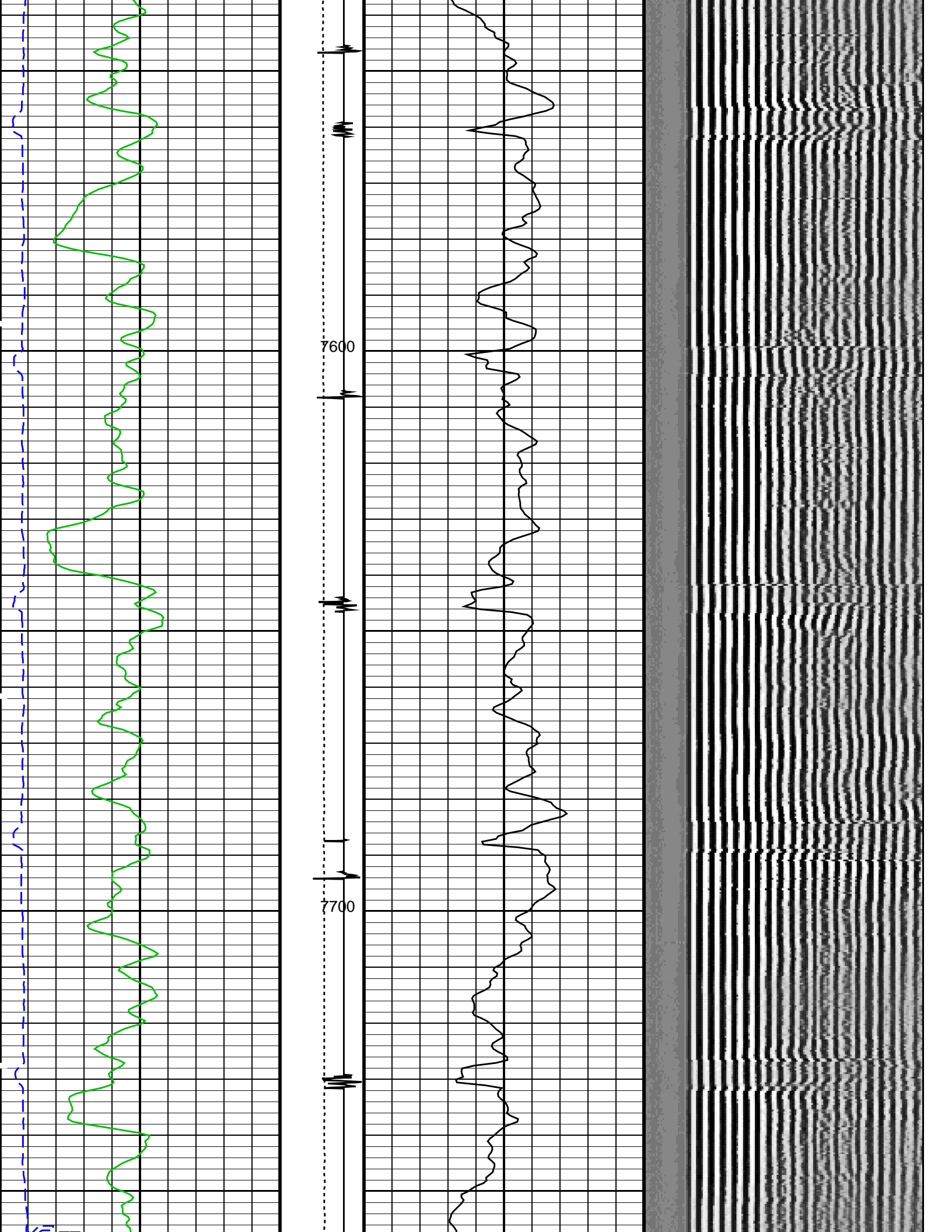


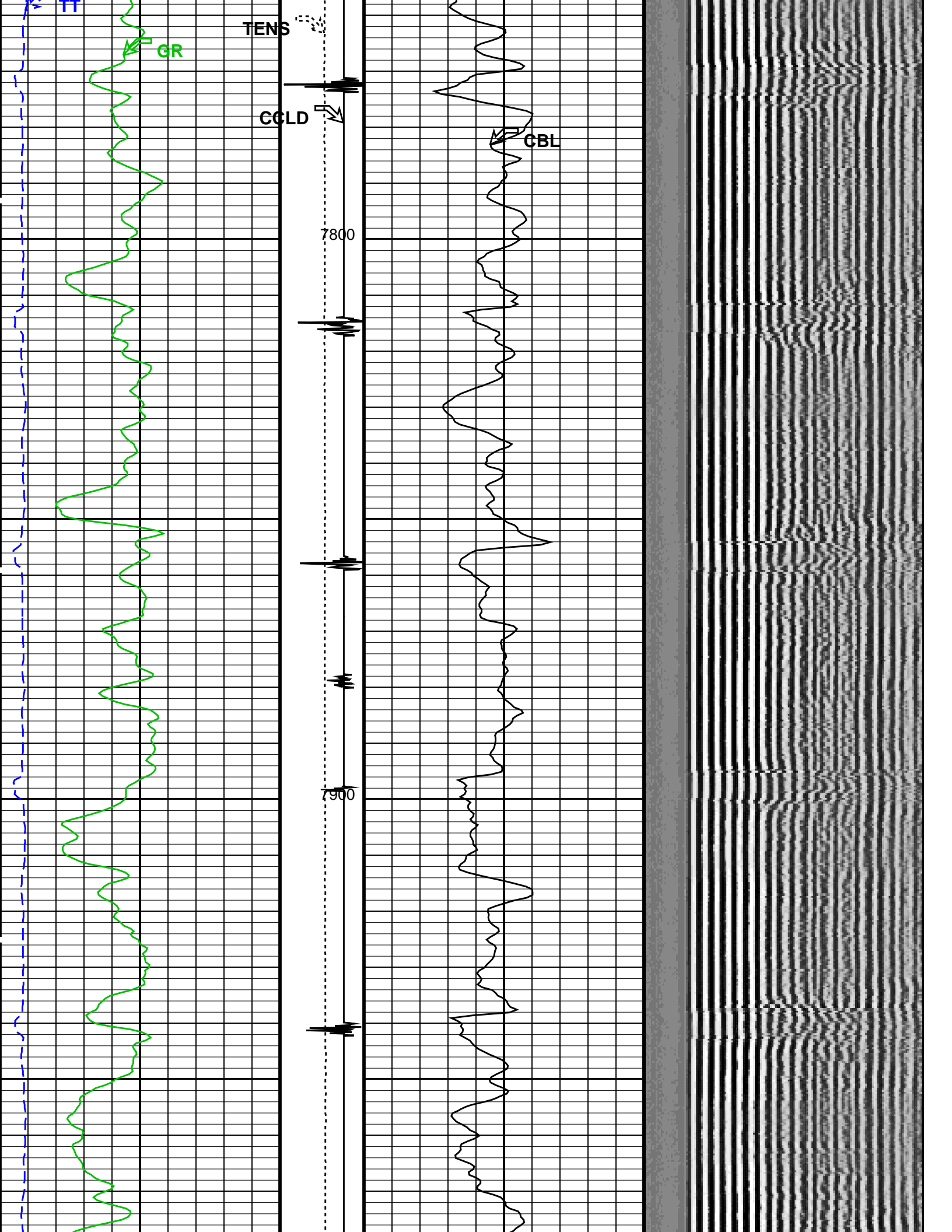




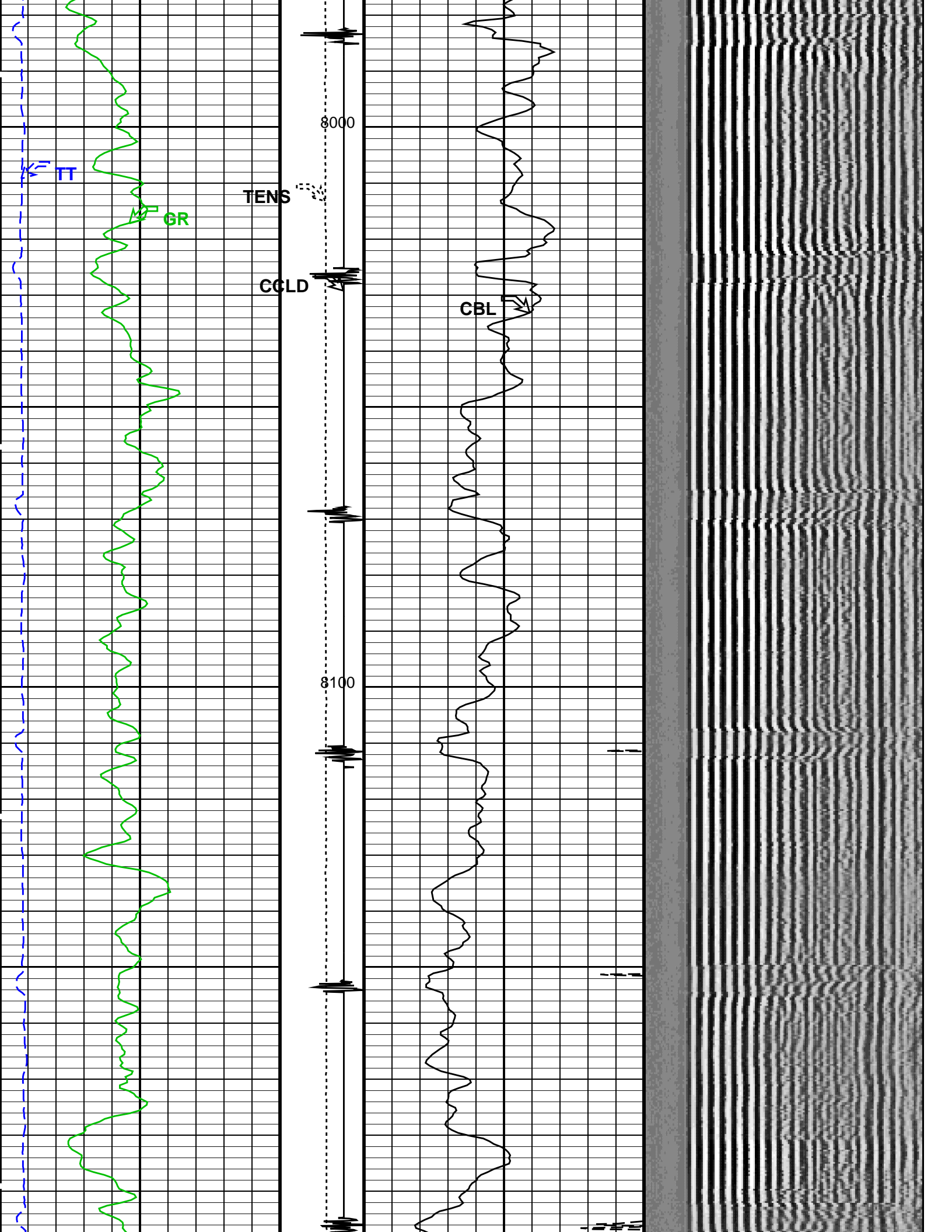


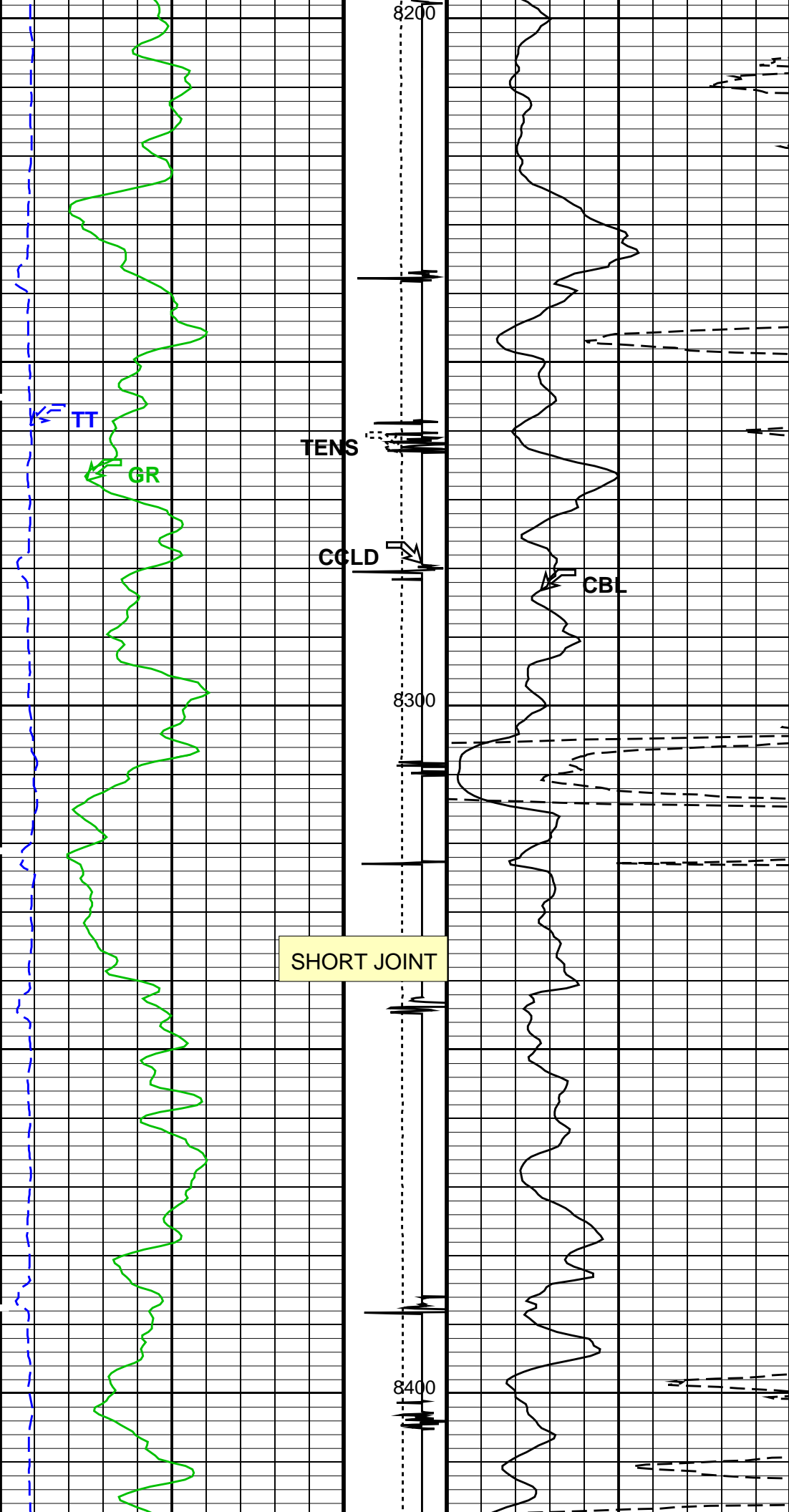




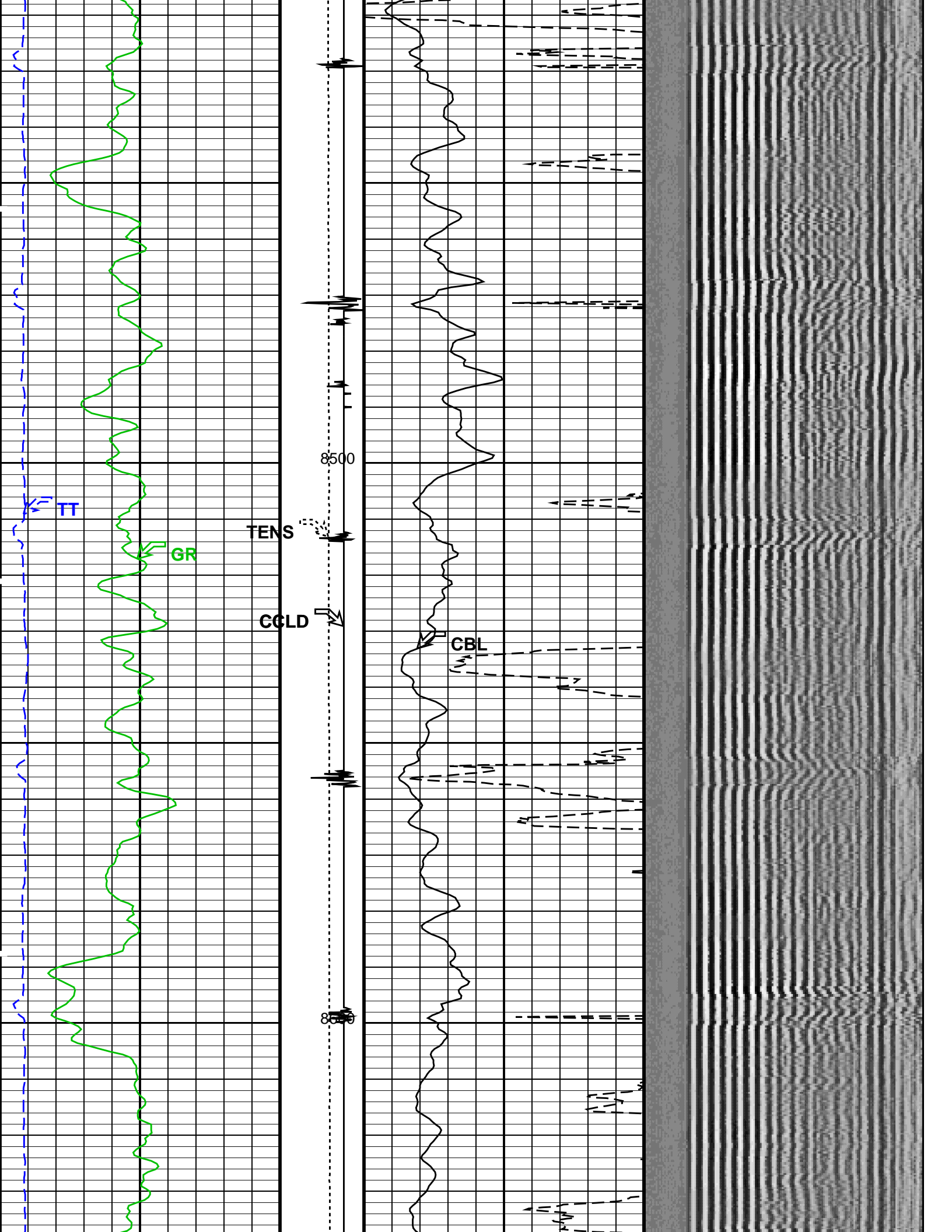


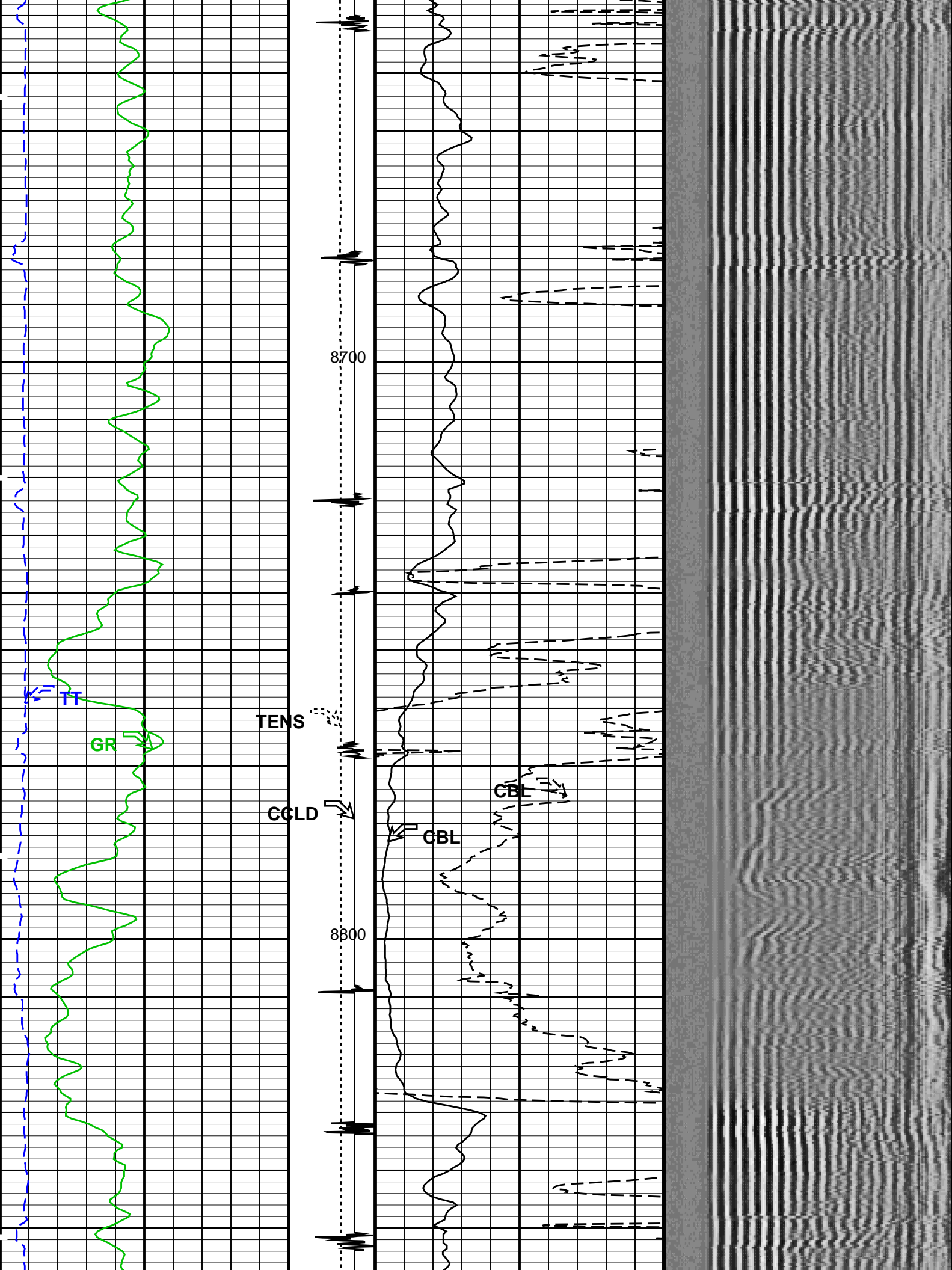


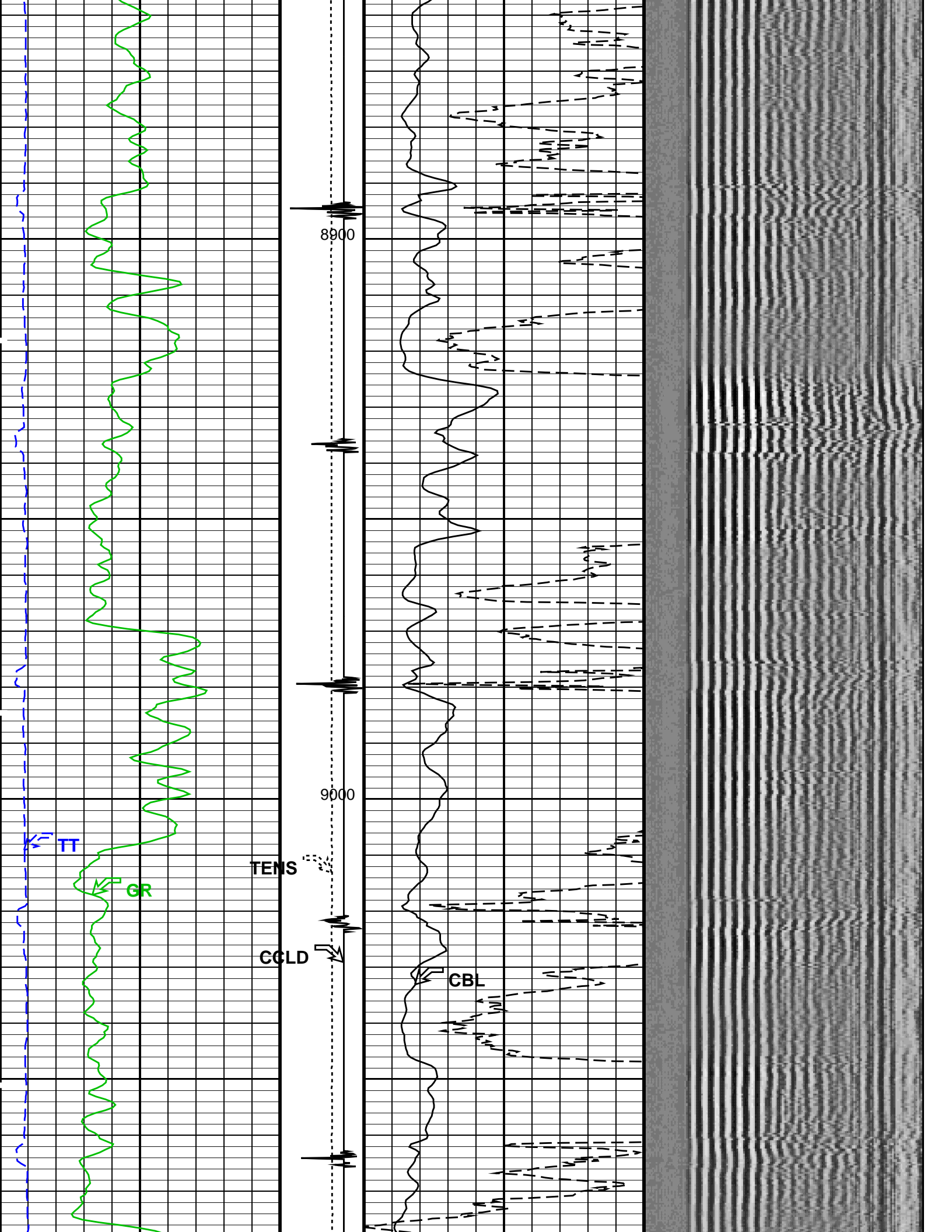


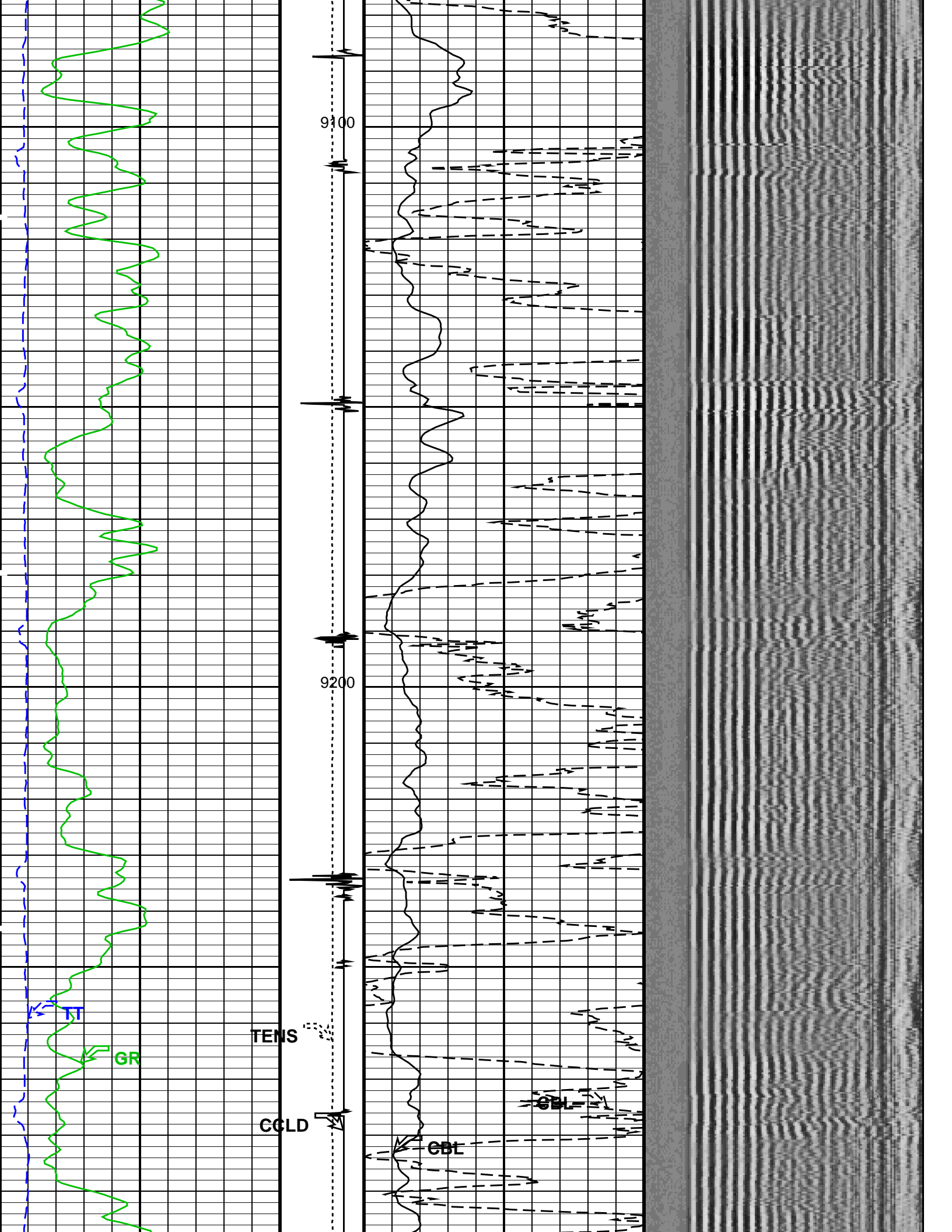




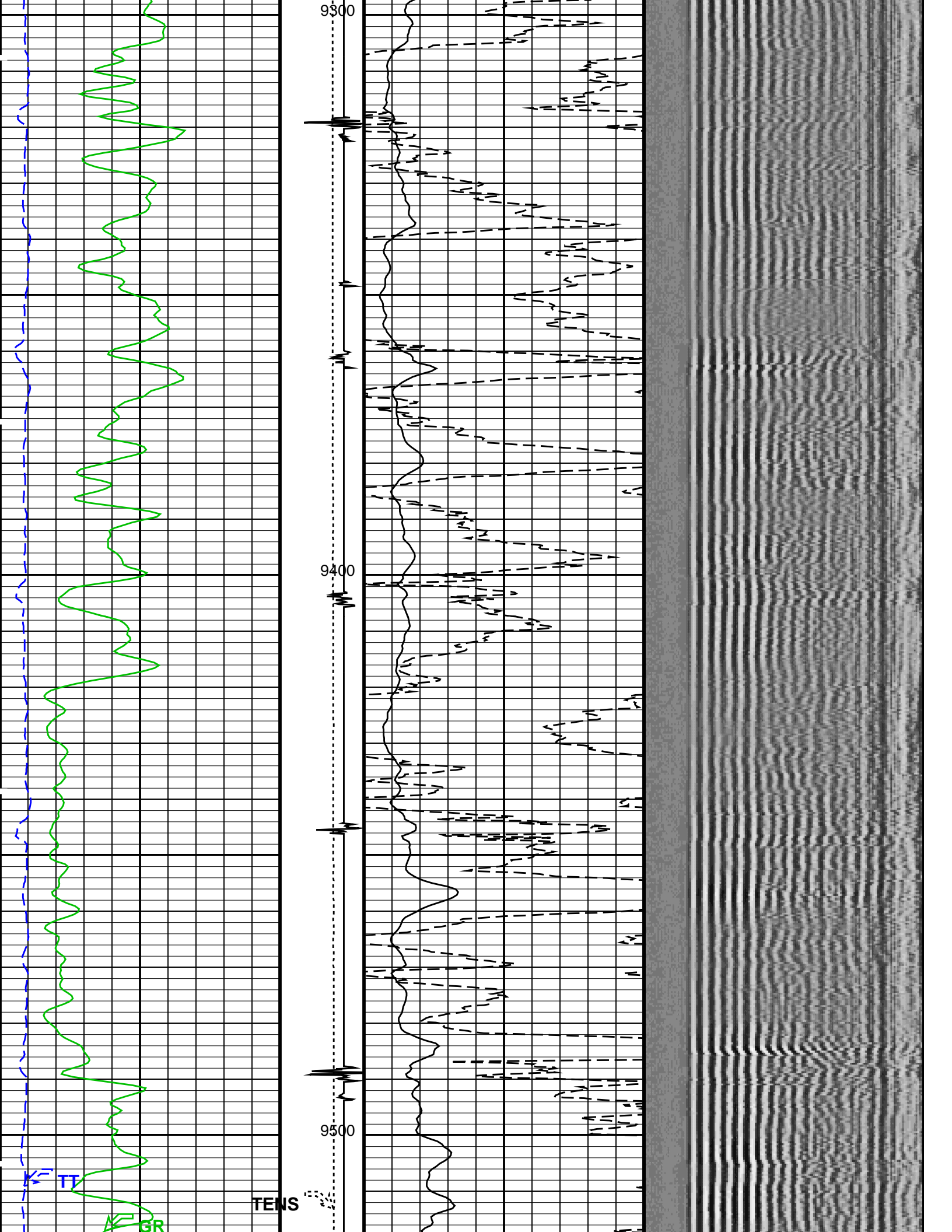




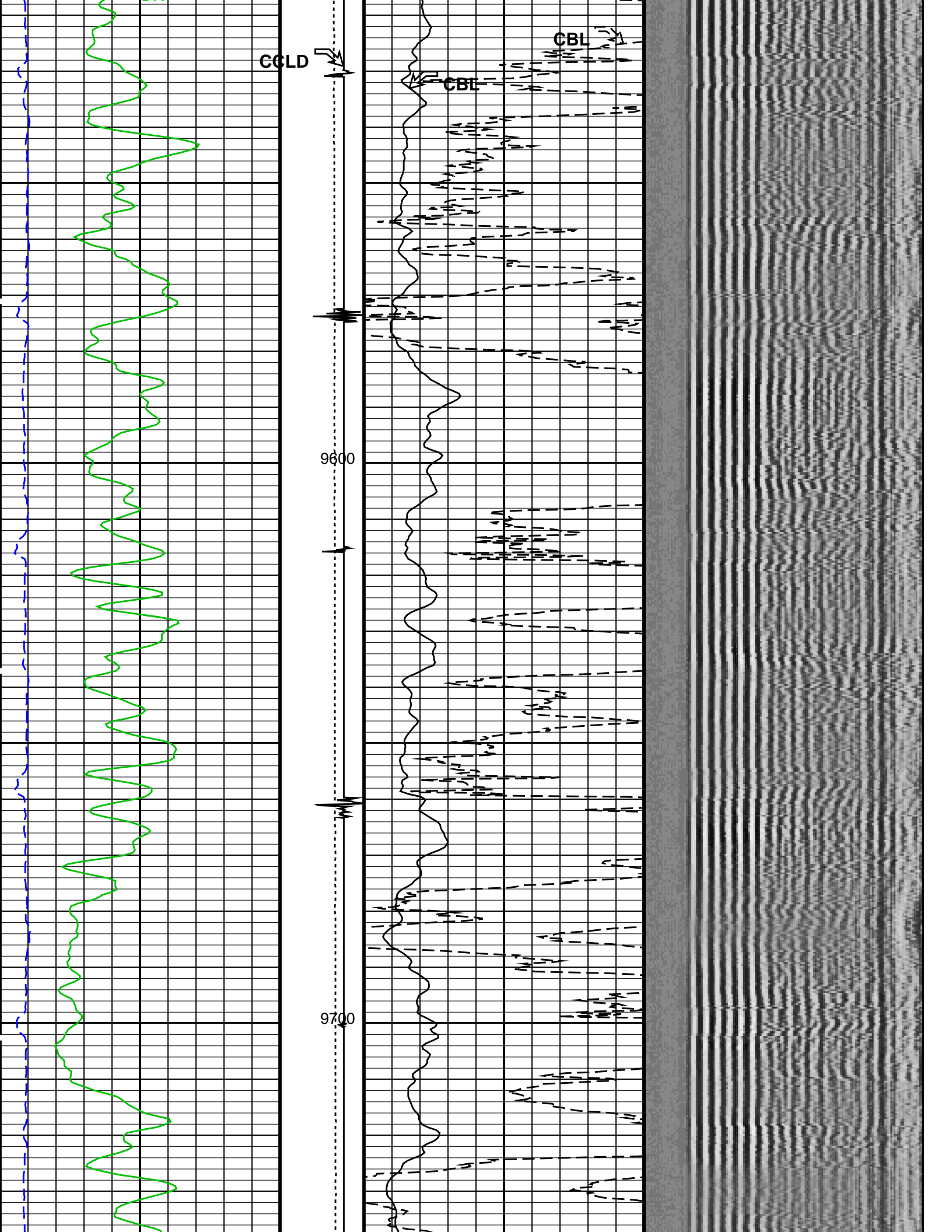


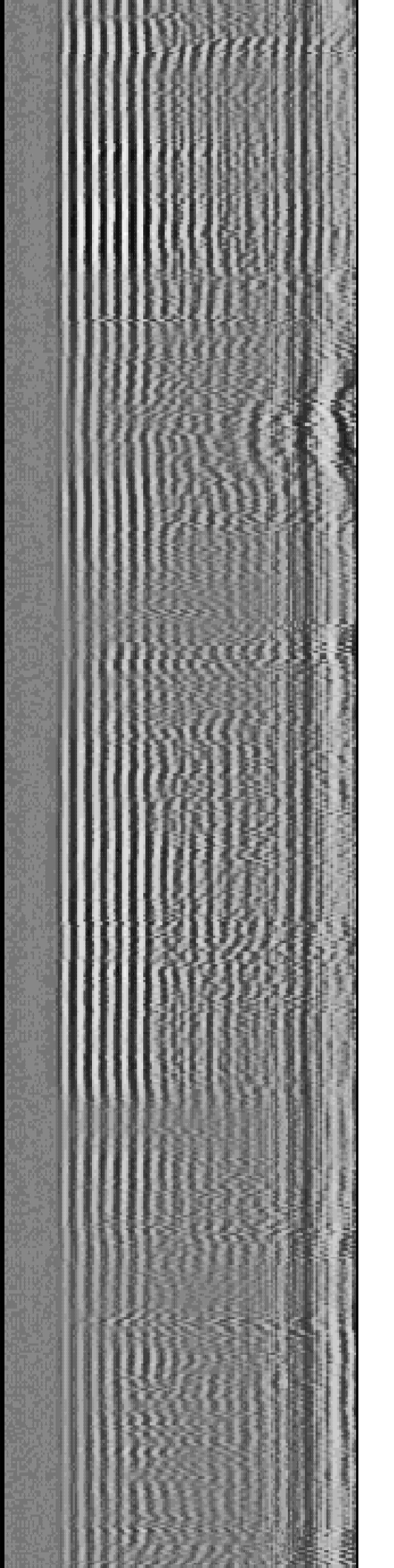
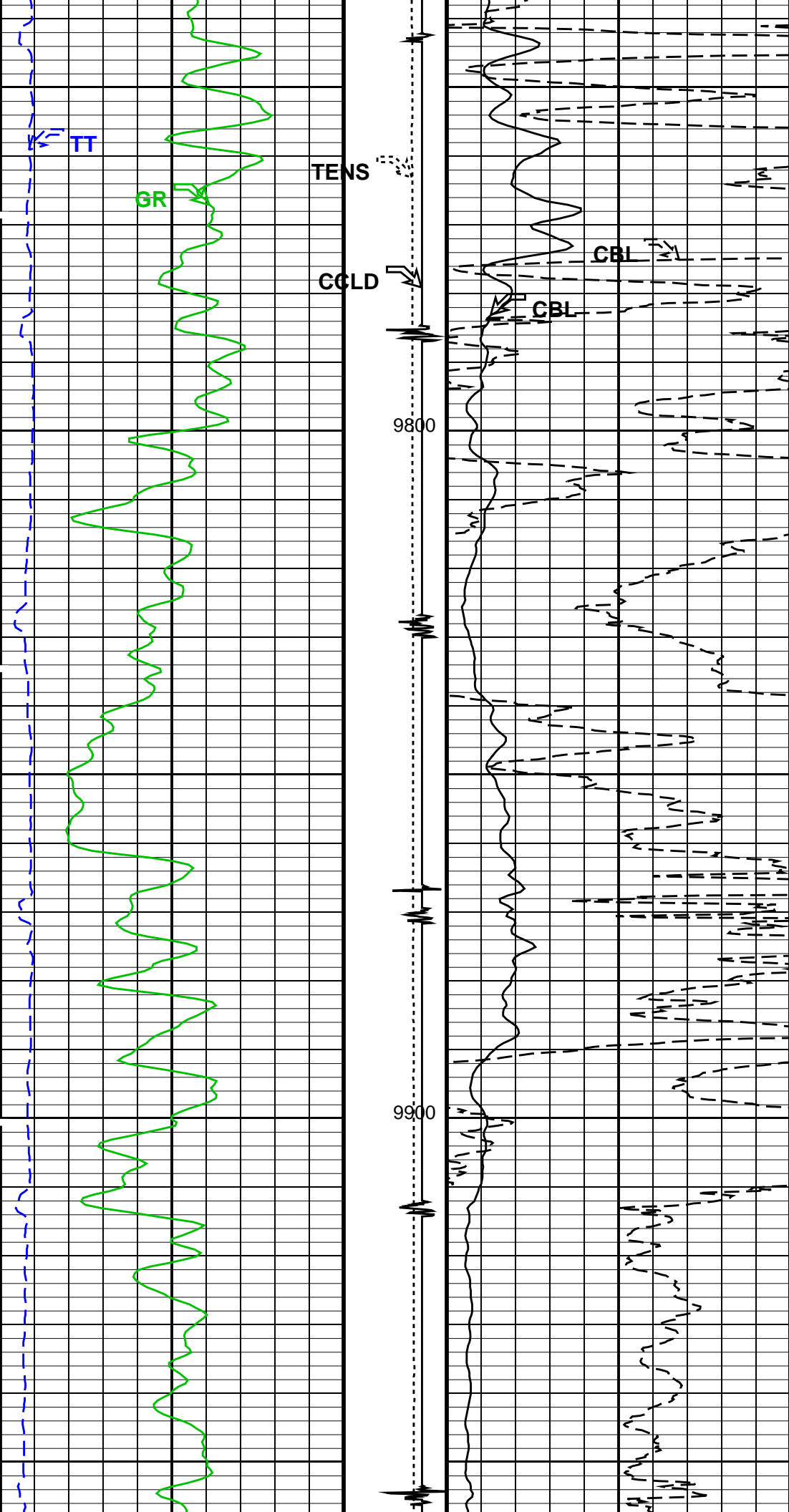


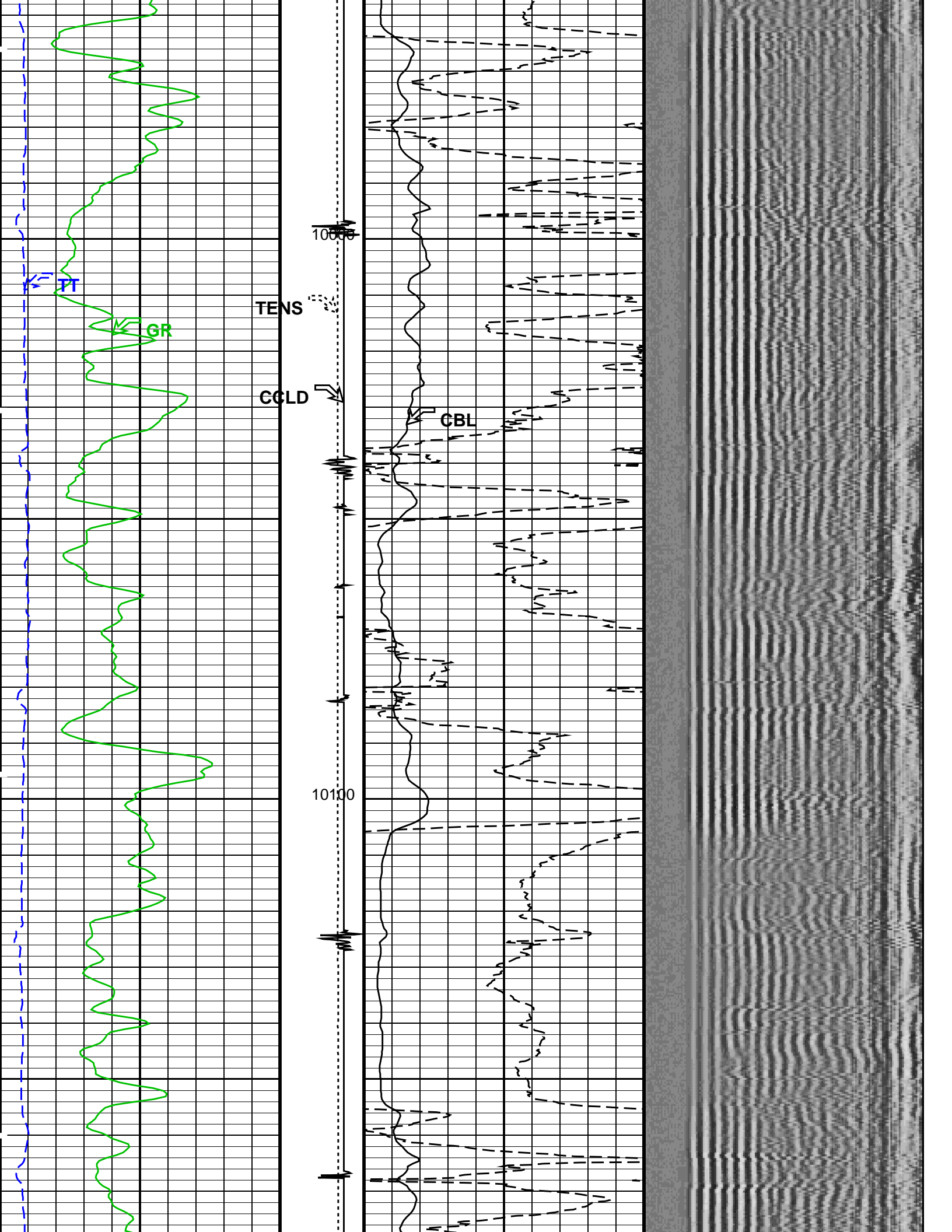


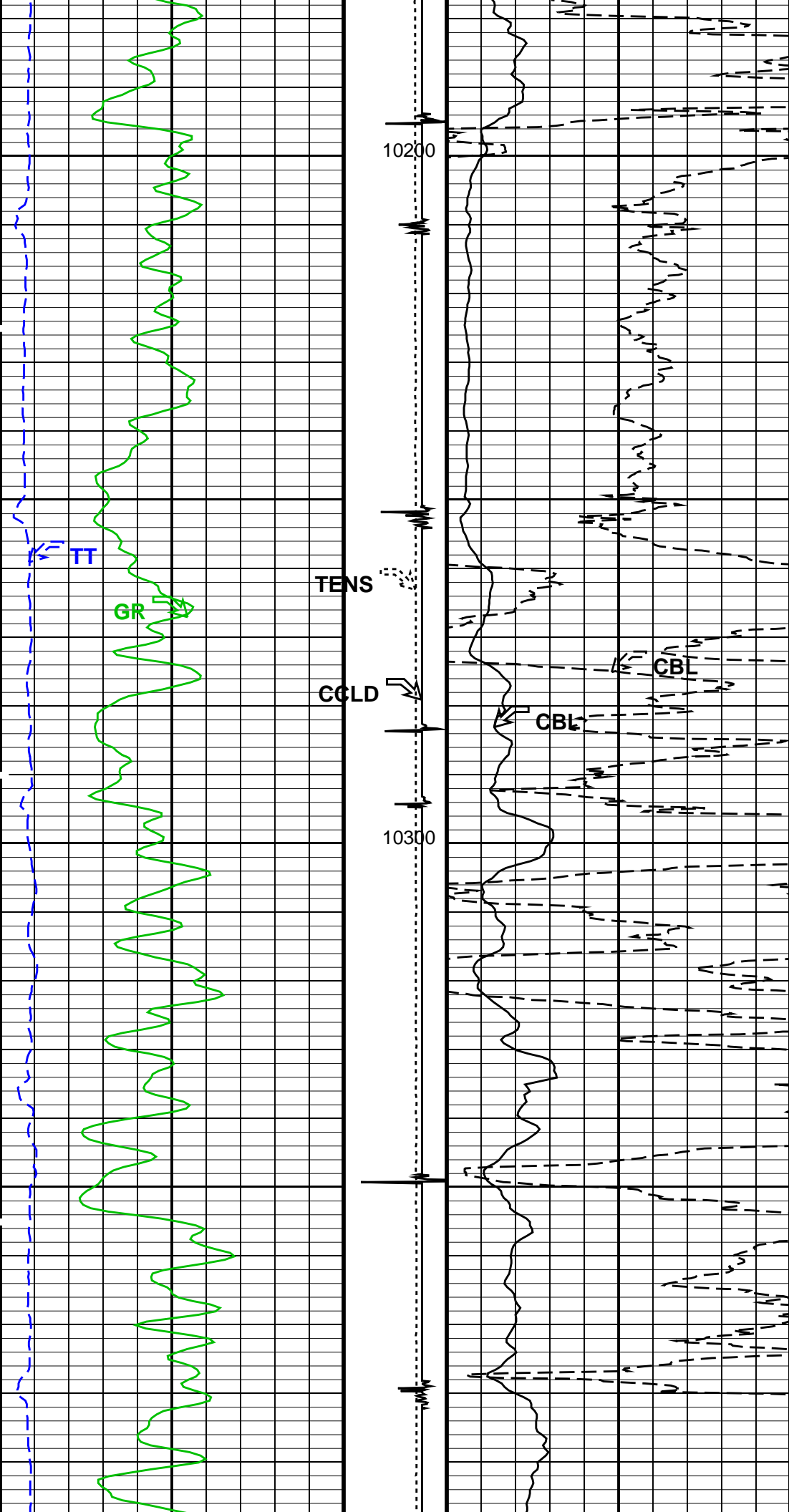




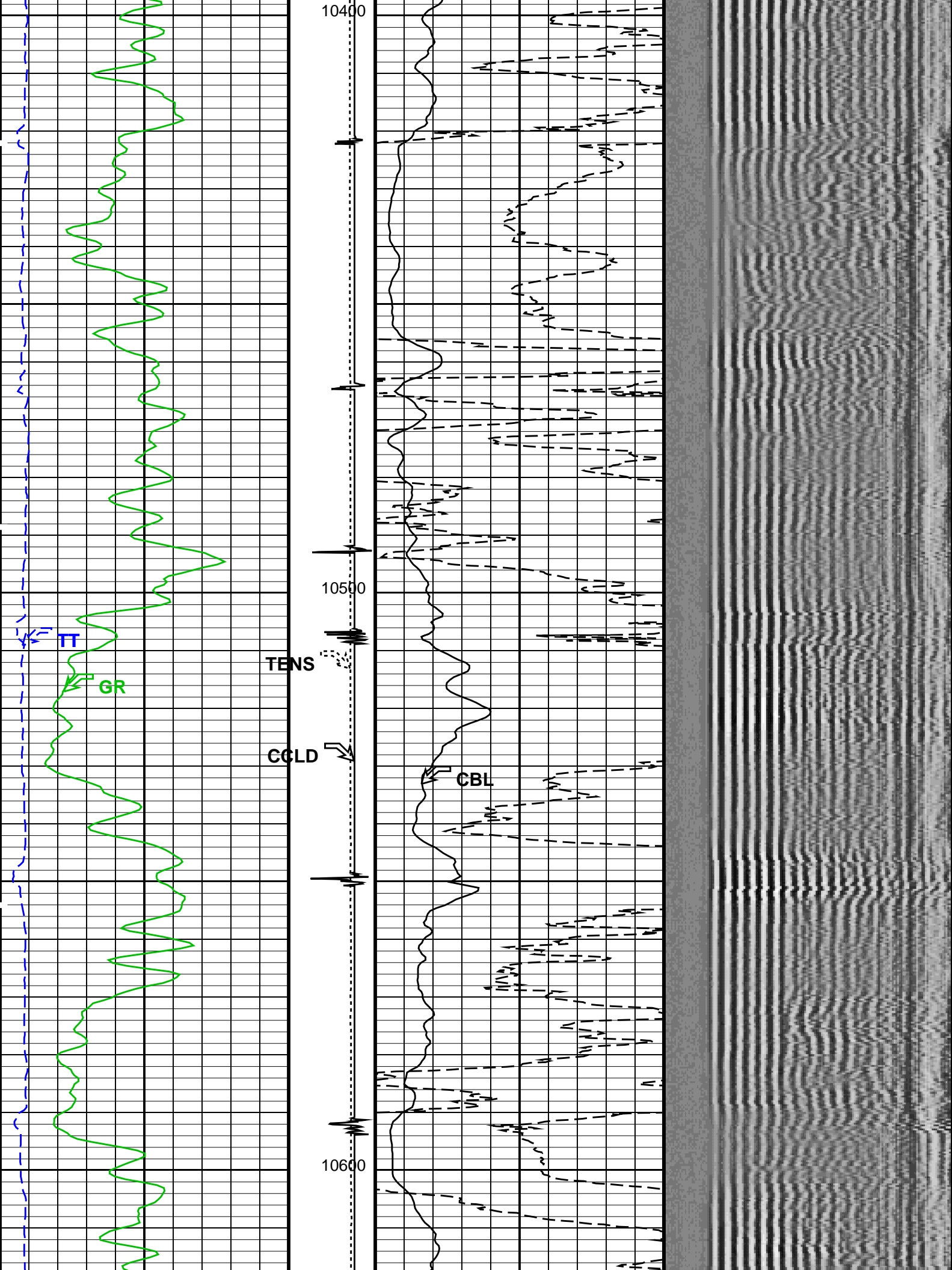




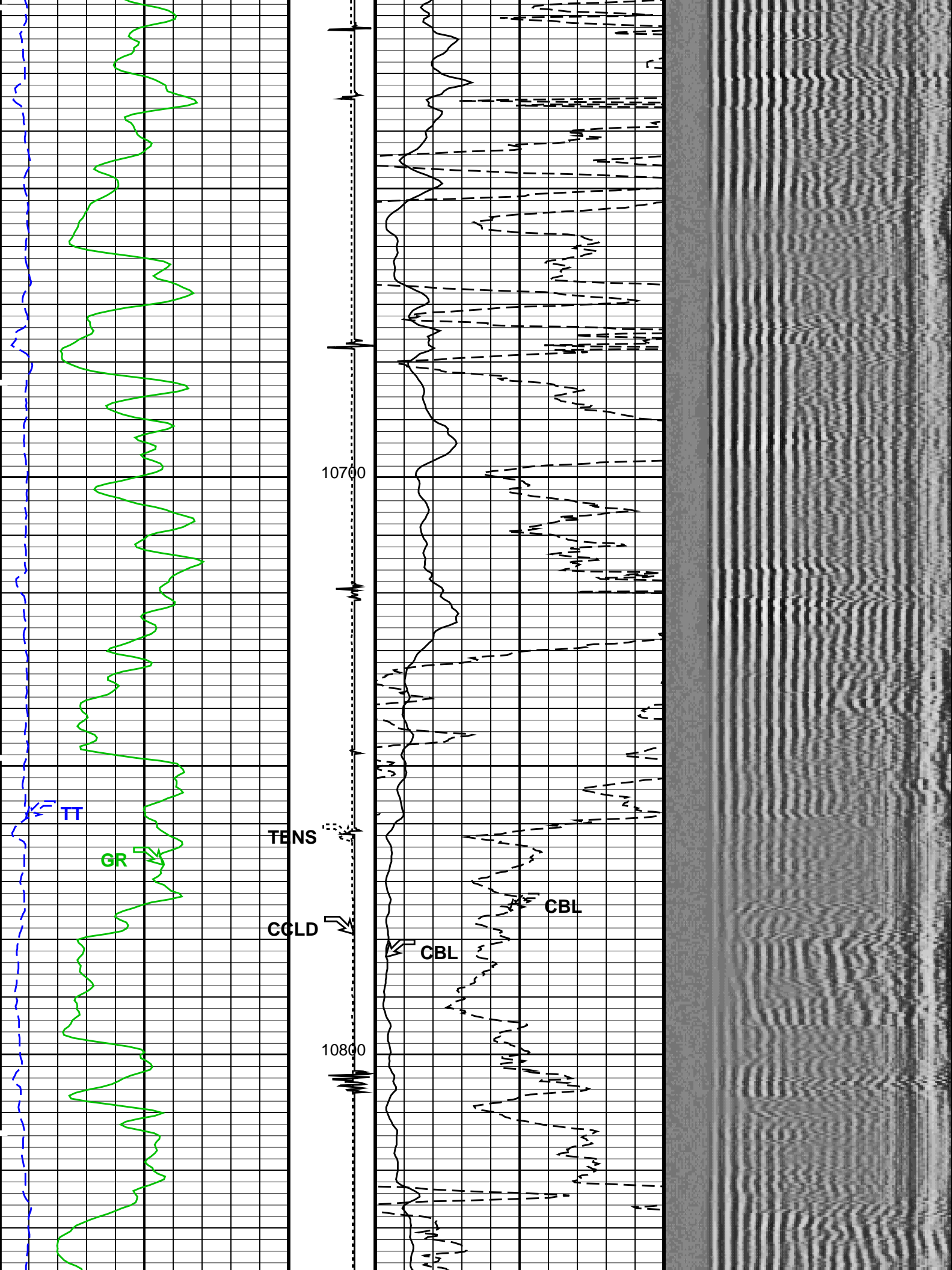


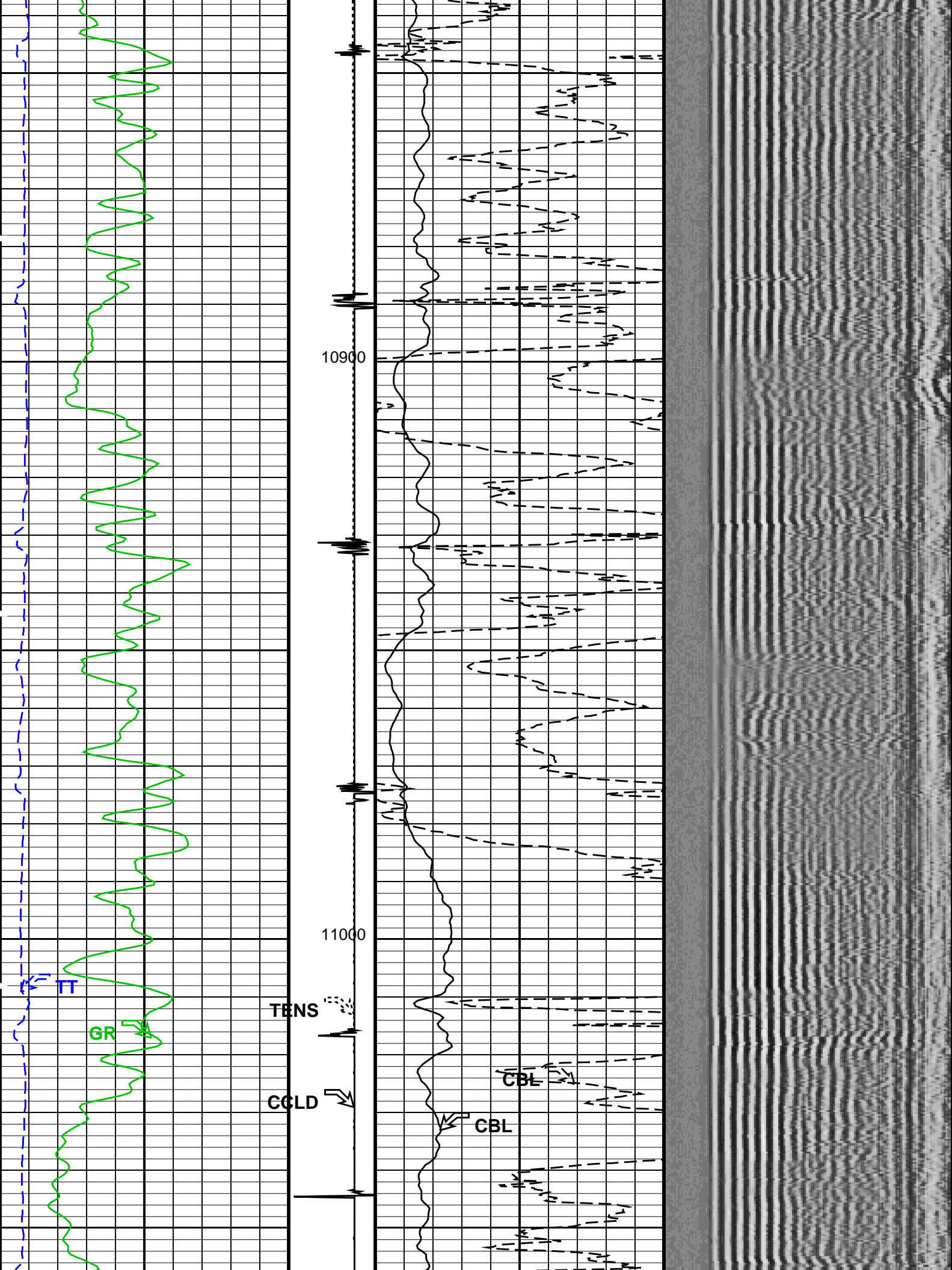


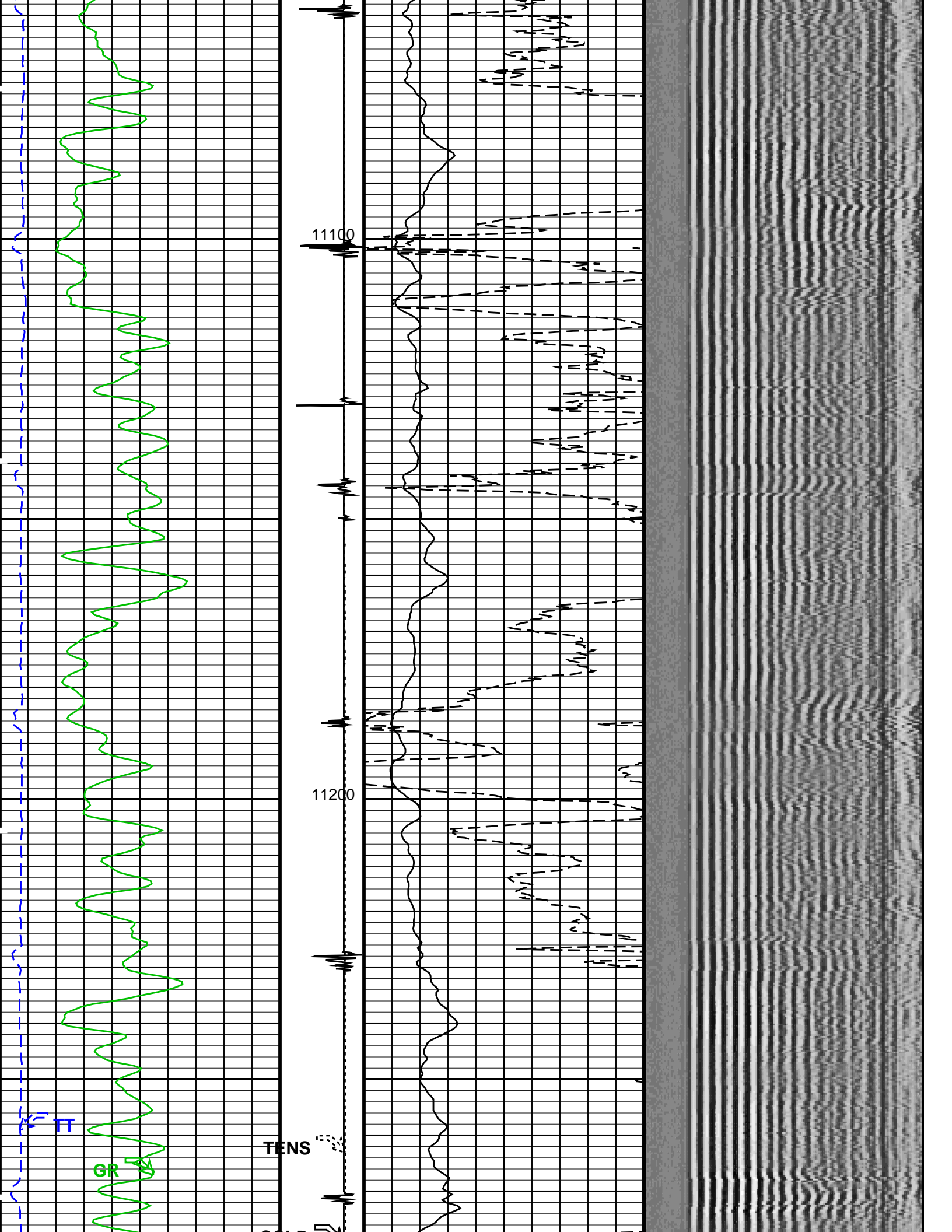


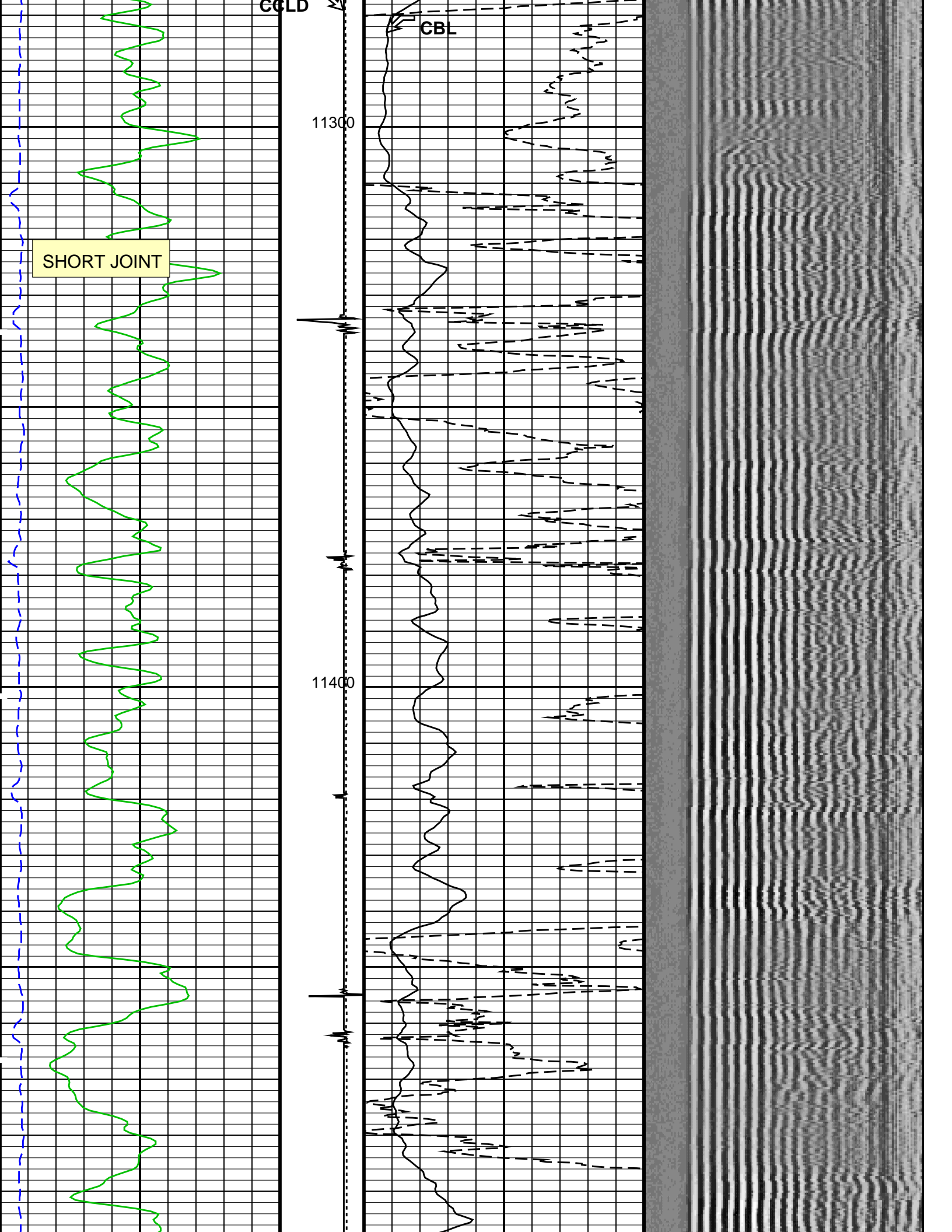




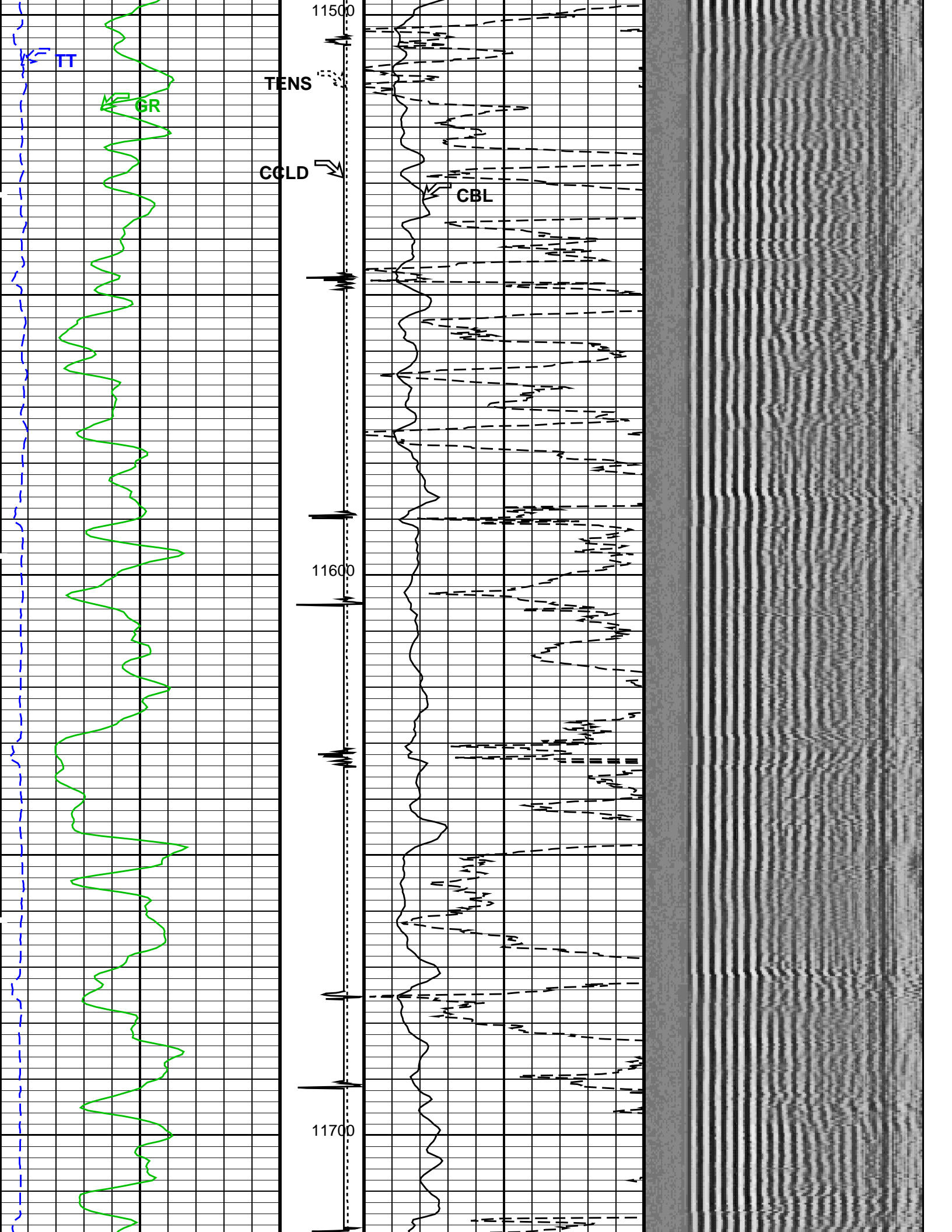




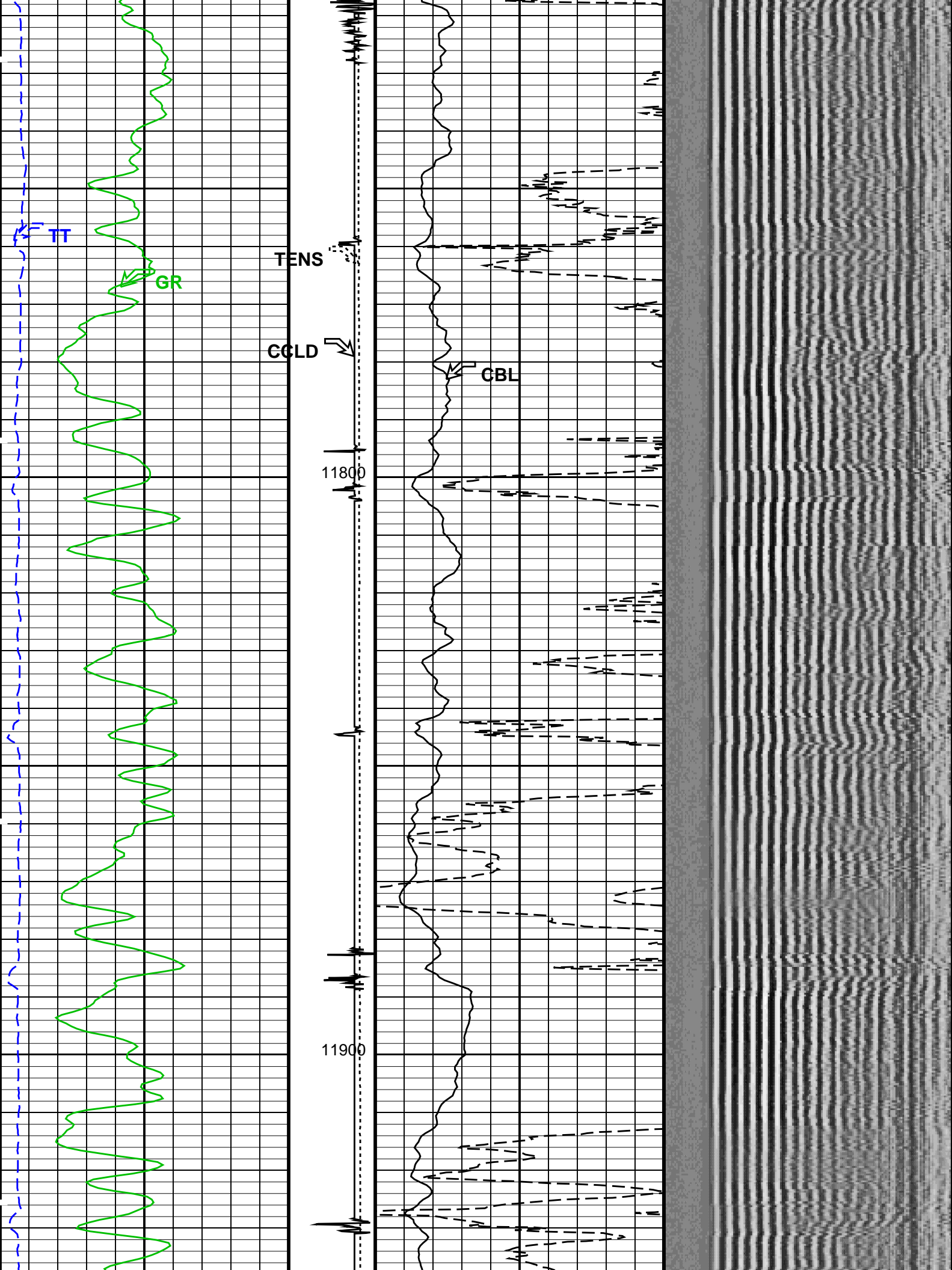


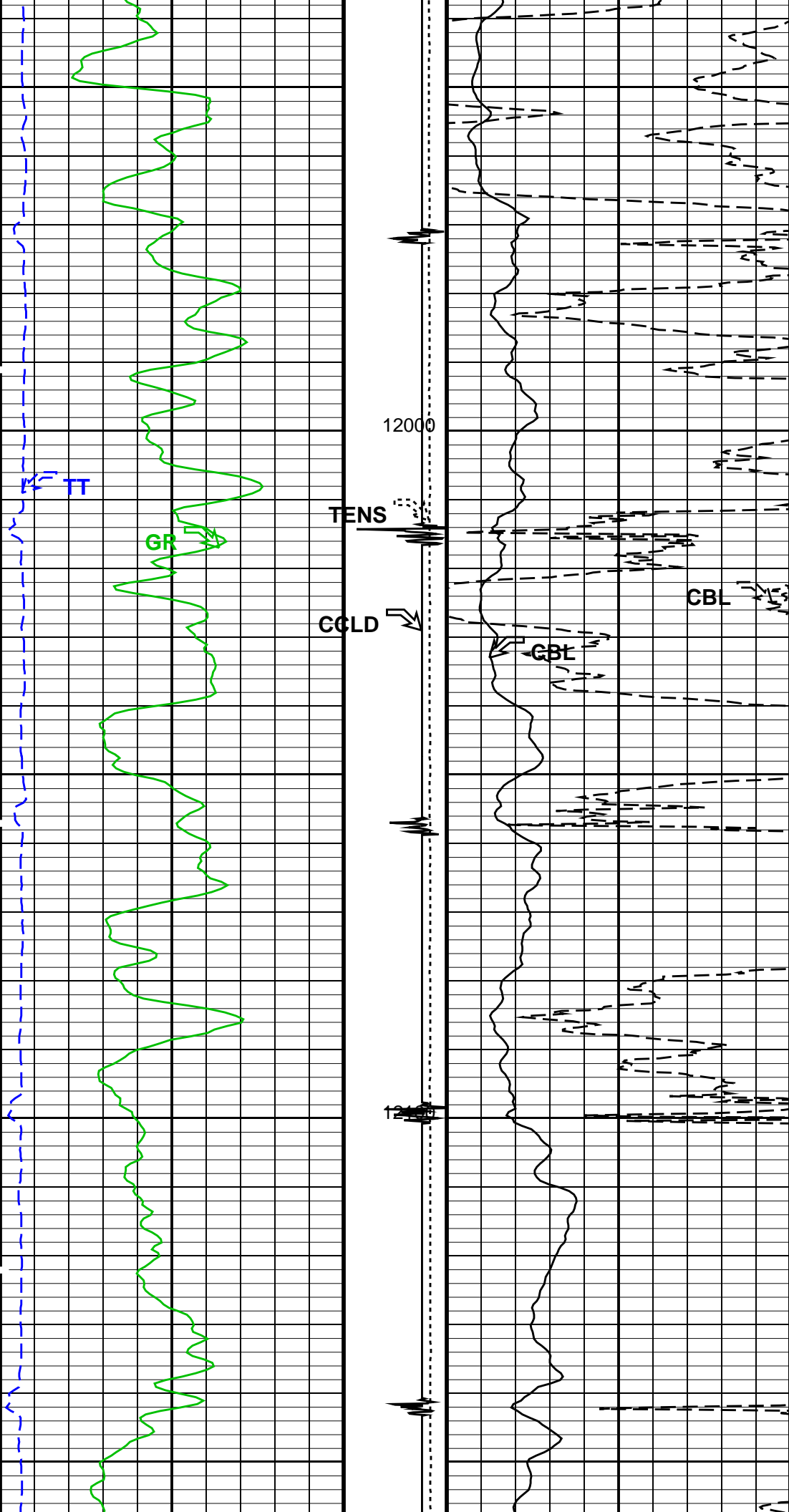


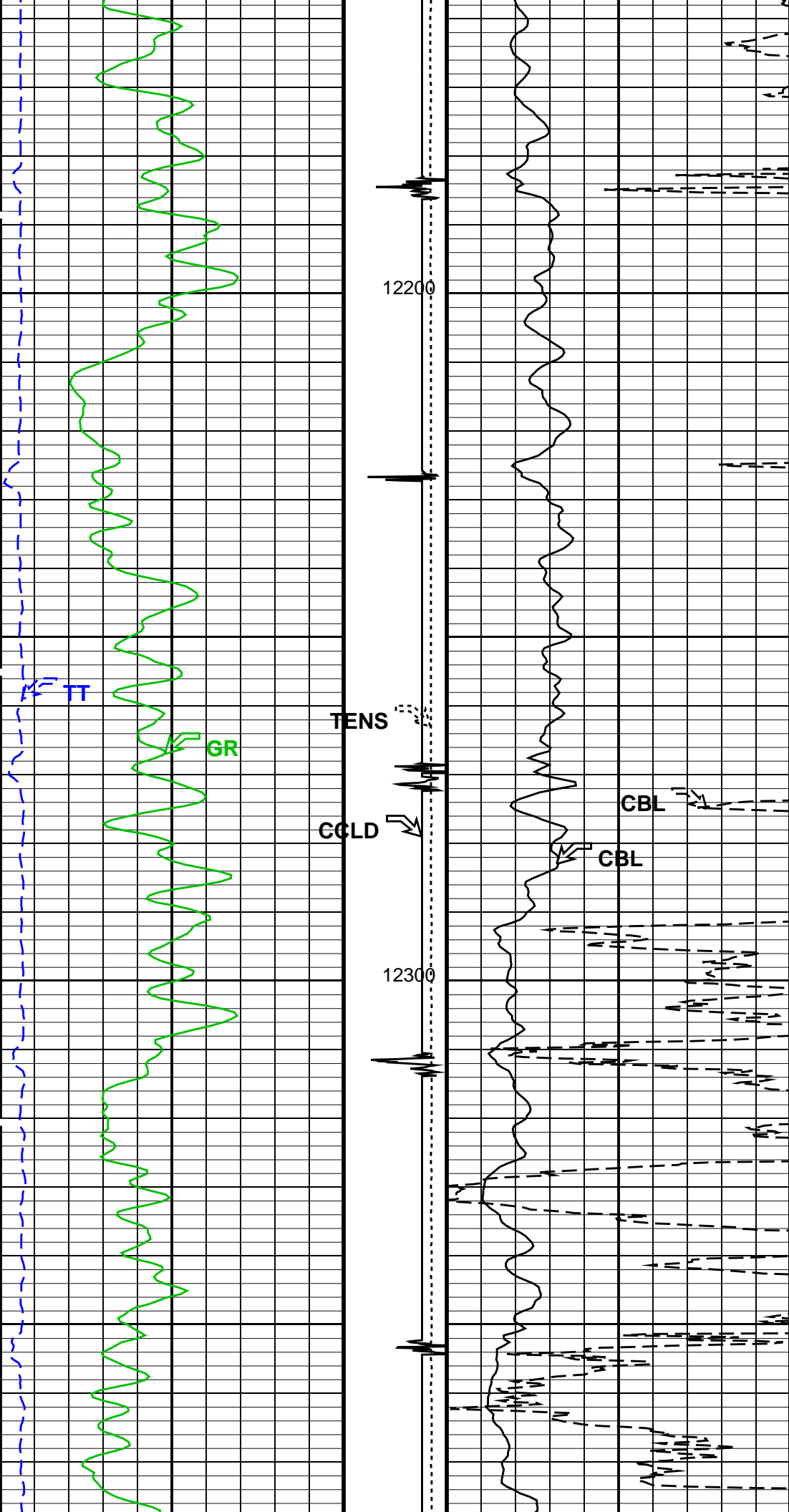


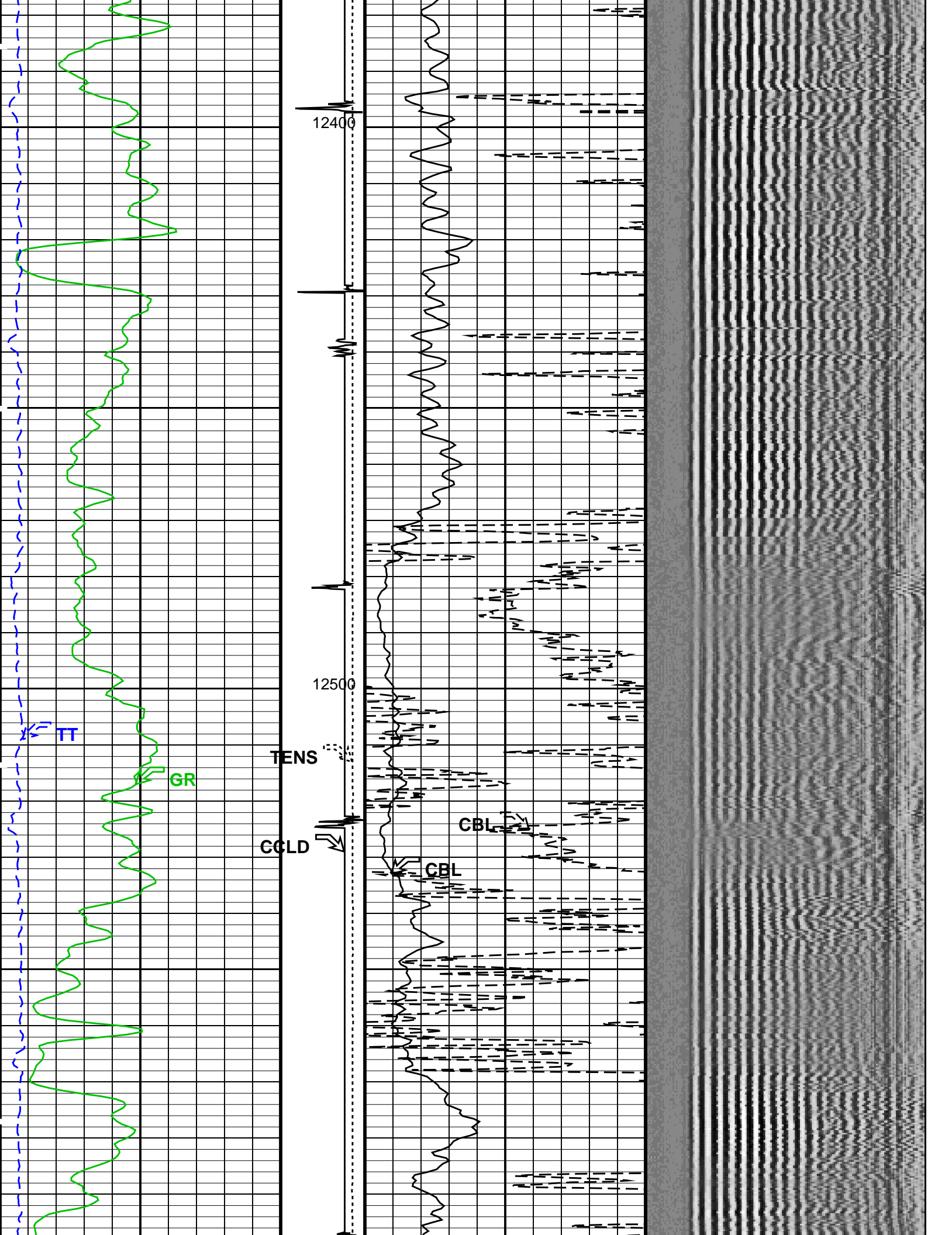




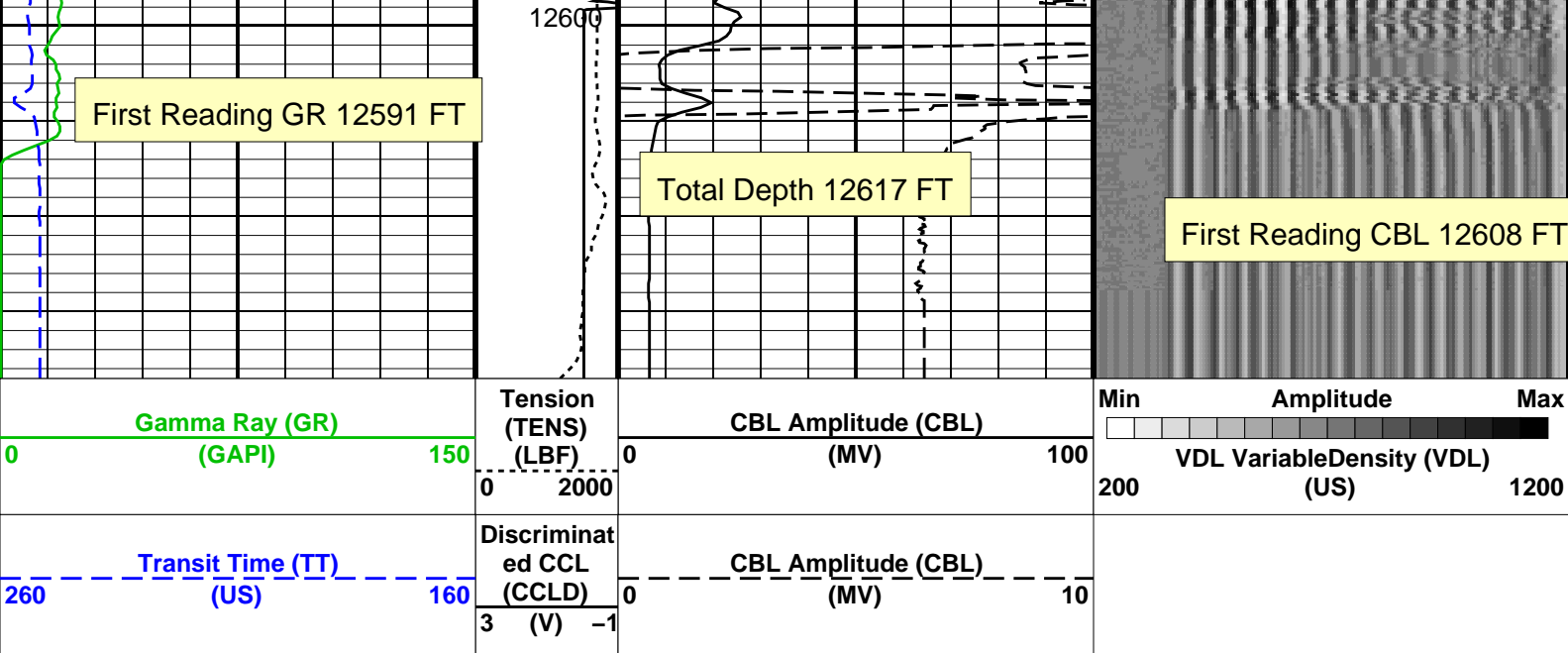












### PIP SUMMARY

Time Mark Every 60 S

Format: CBL\_VDL Vertical Scale: 5" per 100'

Graphics File Created: 13-Feb-2013 19:30

## OP System Version: 19C0-187

SCMT-CB 19C0-187 PSPT 19C0-187

### <<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number	SCMS-CB 8179		
Current Casing Size	4.50000 IN		
Casing Weight	13.5000 LB/F		
Expected CBL Amplitude in Free Pipe Section	81 MV	Minimum Sonic Amplitude	1.28673 MV (100% Cement)
			2.94636 MV (80% Cement)
		MAP Minimum Sonic Amplitude	7.12449 MV (100% Cement)
			12.0838 MV (80% Cement)
Master Calibration (Normalization)		Before Calibration (Adjustment)	
Date of Master Calibration	6-MAR-2012		
CBL Correction Factor	0.0704263	CBL Adjustment Factor (CBAF)	0.900000
MAP 1 Correction Factor	0.0993191	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.0941329		
MAP 3 Correction Factor	0.101552		
MAP 4 Correction Factor	0.114415		
MAP 5 Correction Factor	0.127992		
MAP 6 Correction Factor	0.121190		
MAP 7 Correction Factor	0.112867		
MAP 8 Correction Factor	0.102913		

## Parameters

DLIS Name	Description	Value	
	SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD		
BILI	Bond Index Level for Zone Isolation	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	223.206	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	337.206	US

CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	45	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	81	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.300677	IN
DTF	Delta-T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	2.94636	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	166.206	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	14.0905	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	7.12449	MV
MSA	Minimum Sonic Amplitude	1.28673	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
System and Miscellaneous			
CWEI	Casing Weight	13.50	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	6.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	12617	FT

### Input DLIS Files

DEFAULT	SCMT_PSP_011LUP	FN:10	PRODUCER	13-Feb-2013 18:42	12631.0 FT	49.0 FT
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### Output DLIS Files

DEFAULT	SCMT_PSP_005PUP	FN:4	PRODUCER	13-Feb-2013 19:30
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**Schlumberger**

## REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC	Well: SGU 8509D-24 (L24 496)
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### Input DLIS Files

DEFAULT	SCMT_PSP_009LUP	FN:8	PRODUCER	13-Feb-2013 18:42	11424.0 FT	11156.0 FT
DEFAULT	SCMT_PSP_005PUP	FN:4	PRODUCER	13-Feb-2013 19:30	12637.0 FT	55.0 FT

### Output DLIS Files

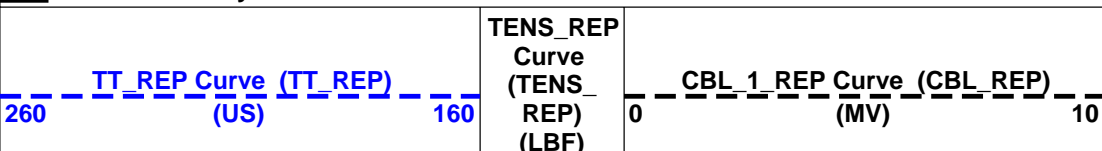
DEFAULT	SCMT_PSP_006PUP	FN:5	PRODUCER	13-Feb-2013 19:38	11428.0 FT	11160.0 FT
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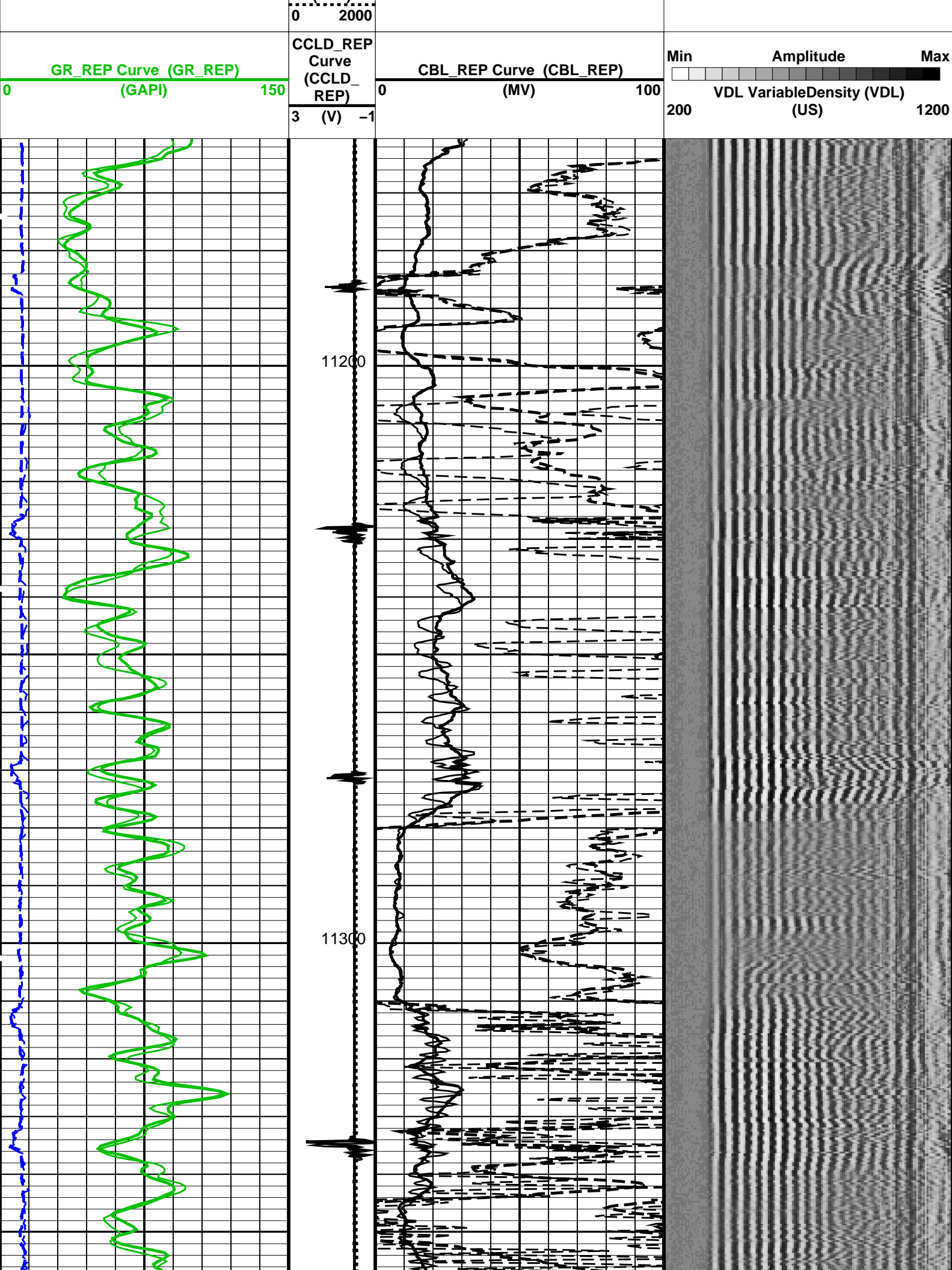
## OP System Version: 19C0-187

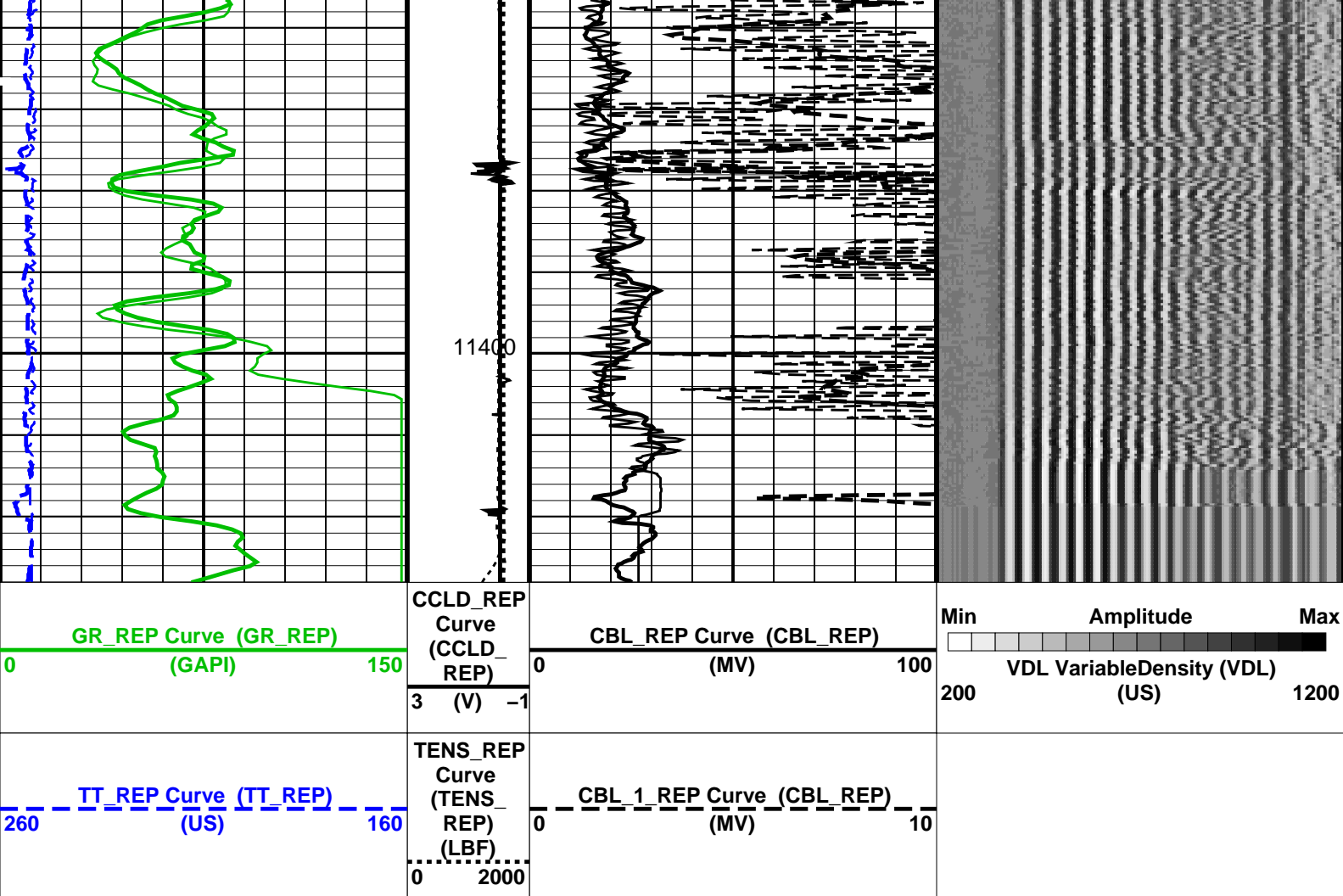
SCMT-CB	19C0-187	PSPT	19C0-187
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### PIP SUMMARY

☒ Time Mark Every 60 S







### PIP SUMMARY

Time Mark Every 60 S

Format: CBL\_VDL\_REP Vertical Scale: 5" per 100'

Graphics File Created: 13-Feb-2013 19:38

## OP System Version: 19C0-187

SCMT-CB 19C0-187 PSPT 19C0-187

### <<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number SCMS-CB 8179

Current Casing Size 4.50000 IN

Casing Weight 13.5000 LB/F

Expected CBL Amplitude 81 MV  
in Free Pipe Section

Minimum Sonic Amplitude 1.28673 MV (100% Cement)  
2.94636 MV (80% Cement)  
MAP Minimum Sonic Amplitude 7.12449 MV (100% Cement)  
12.0838 MV (80% Cement)

#### Master Calibration (Normalization)

Date of Master Calibration 6-MAR-2012

CBL Correction Factor 0.0704263

MAP 1 Correction Factor 0.0993191

MAP 2 Correction Factor 0.0941329

MAP 3 Correction Factor 0.101552

MAP 4 Correction Factor 0.114415

MAP 5 Correction Factor 0.127992

MAP 6 Correction Factor 0.121190

MAP 7 Correction Factor 0.112867

#### Before Calibration (Adjustment)

CBL Adjustment Factor (CBAF) 0.900000

MAP Adjustment Factor (MPAF) 1.0



Parameters				
DLIS Name	Description	Value		
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD				
BILI	Bond Index Level for Zone Isolation	0.8		
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK		
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	223.206	US	
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV	
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK		
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	337.206	US	
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV	
CBLG	CBL Gate Width	45	US	
CBRA	CBL LQC Reference Amplitude in Free Pipe	81	MV	
CMCF	CBL Cement Type Compensation Factor	1		
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN		
CMTM	SCMT Operating Mode	LOG		
CSCS	SCMT Slow Channel Index	VCC		
CTHI	Casing Thickness	0.300677	IN	
DTF	Delta-T Fluid	189	US/F	
FATT	Acoustic Attenuation due to Fluid	0	DB/F	
FCF	CBL Fluid Compensation Factor	0.924277		
GOBO	Good Bond	2.94636	MV	
MAPD	SCMT MAP Peak Detection Mode	PEAK		
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	166.206	US	
MAPT	SCMT MAP Fixed Threshold Level	30	MV	
MATT	Maximum Attenuation	14.0905	DB/F	
MCCF	MAP Cement Type Compensation Factor	1		
MCI	Minimum Cemented Interval for Isolation	1.25	FT	
MMSA	MAP Minimum Sonic Amplitude	7.12449	MV	
MSA	Minimum Sonic Amplitude	1.28673	MV	
PEDE	Peak Detection On/Off Switch in Playback	OFF		
VDLG	VDL Manual Gain	5		
ZCMT	Acoustic Impedance of Cement	6.8	MRAY	
System and Miscellaneous				
CWEI	Casing Weight	13.50	LB/F	
DFD	Drilling Fluid Density	8.40	LB/G	
DO	Depth Offset for Playback	4.0	FT	
DORL	Depth Offset for Repeat Analysis	0.0	FT	
PP	Playback Processing	RECOMPUTE		
TD	Total Depth	12617	FT	

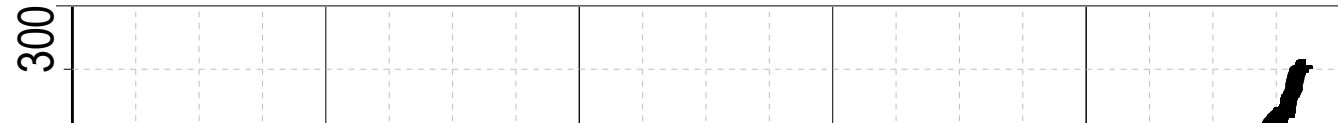
Input DLIS Files						
DEFAULT	SCMT_PSP_009LUP	FN:8	PRODUCER	13-Feb-2013 18:42	11424.0 FT	11156.0 FT
DEFAULT	SCMT_PSP_005PUP	FN:4	PRODUCER	13-Feb-2013 19:30	12637.0 FT	55.0 FT
Output DLIS Files						
DEFAULT	SCMT_PSP_006PUP	FN:5	PRODUCER	13-Feb-2013 19:38		

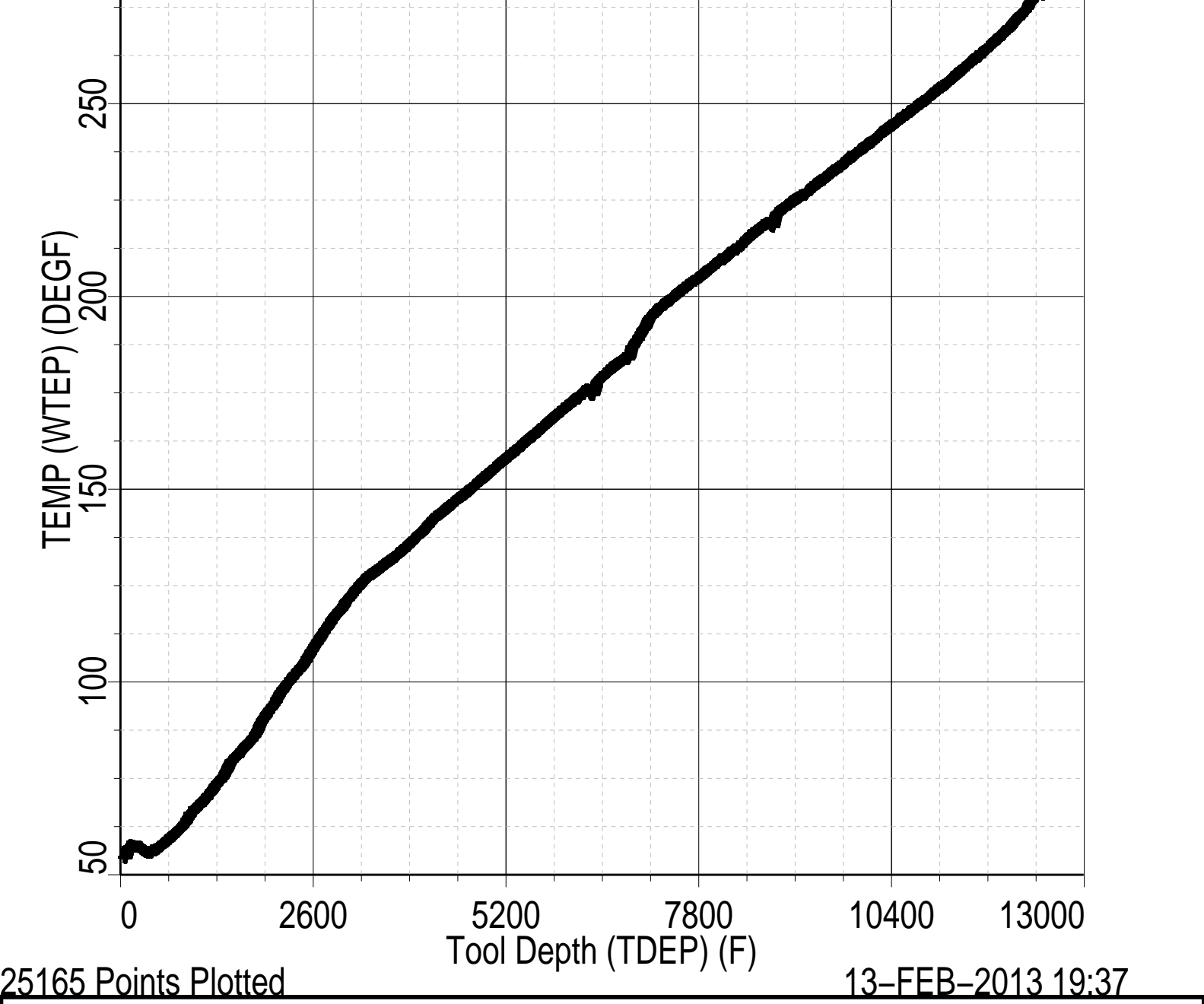


# TEMPERATURE PLOT

MAXIS Field Log

Index: 12637.0 – 55.0 FT





**Schlumberger**

## PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC  
Field: STORY GULTCH  
Well: SGU 8509D-24 (L24 496)  
Run date: 13-Feb-2013

Tool: PSP  
Sub Type: PBMS  
Sensor: GR

Sensor Serial NB 33223  
Calib Date ddmmyy 090800  
Matrix Size 12  
Coeff CRC CFE2

GR HV Rt

Rt\*\*0

Rt\*\*1

Rt\*\*0

+.182000000000e+04

+.332000000000e+04

Client: ENCANA OIL & GAS (USA) INC  
Field: STORY GULTCH  
Well: SGU 8509D-24 (L24 496)  
Run date: 13-Feb-2013

Tool: PSP  
Sub Type: PBMS  
Sensor: WellTemp RTD

PBMS RTD Well Thermometer

Sonde Serial NB COEFFICIENTS FOR RTD THERMOMETER PBMS-B.928 S/N:  
Sensor Serial NB 928  
Calib Date ddmmyy 280612  
Matrix Size 16  
Coeff CRC A24E

WTemp Coeff

Tt\*\*0

Tt\*\*1

Tt\*\*2

Tt\*\*0

-.391987973189E+03

+.191346892512E+03

-.440920753451E+02

Tt\*\*3

Tt\*\*4

Tt\*\*5

Tt\*\*0

+.957191300908E+01

-.711421725686E+00

0.0

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

COEFFICIENTS FOR CQG PBMS-B.928 S/N:

928

280612

66

9DC3

Pres Coeff

	Fb**0	Fb**1	Fb**2
Fc**0	+714463802232E+04	+183434658655E-01	-.156620073569E-06
Fc**1	-.100638308957E+01	-.119899563644E-04	-.912155899025E-10
Fc**2	+936268101283E-06	+423898071451E-10	+958076371919E-15
Fc**3	+185123362373E-11	+203107925433E-15	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

	Fb**3	Fb**4	Fb**5
Fc**0	-.746577997611E-10	-.588773826860E-15	-.622250441458E-19
Fc**1	-.120636521092E-15	+400325894750E-19	0.0
Fc**2	0.0	0.0	0.0
Fc**3	0.0	0.0	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

:

928

280612

66

283B

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+117016867873E+03	-.284359629614E-03	+604391180345E-08
Fb**1	-.598309140812E-02	+182731130848E-07	+160166486172E-12
Fb**2	-.307621454576E-07	+300601550309E-12	+311233548560E-17



Fb**3	-.419658736767E-12	+.117473708647E-16	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0
	Fc**3	Fc**4	Fc**5
Fb**0	+.114322792679E-12	+.153807711176E-17	-.736714260866E-21
Fb**1	-.528037875456E-18	-.220337637519E-21	0.0
Fb**2	0.0	0.0	0.0
Fb**3	0.0	0.0	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0

#### PBMS Quartz Gauge type F

Sonde Serial NB :  
 Sensor Serial NB 928  
 Calib Date ddmmyy 280612  
 Matrix Size 16  
 Coeff CRC 093F

#### Clock Freq Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+.310874009898E+05	+.288920923041E-02	+.697940727038E-06
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.657432344763E-10	-.412920638782E-15	+.213369826099E-20

#### PBMS Quartz Gauge type F

Sonde Serial NB :  
 Sensor Serial NB 928  
 Calib Date ddmmyy 280612  
 Matrix Size 16  
 Coeff CRC 8419

#### Clock Temp Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+.115369519827E+03	-.565338877075E-02	-.333717531829E-07
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.124387135327E-12	+.713102327208E-16	-.316084316842E-20

## MAXIS Field Log

## Slim Cement Mapping Tool, 1–11/16 OD / Equipment Identification

## Primary Equipment:

Slim Cement Mapping Xmitter Electronics

SCMX – CA

Slim Cement Mapping Sonde

SCMS – CB

8179

Slim Cement Mapping Cartridge

SCMC – CA

8120









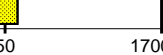
## Auxiliary Equipment:

Slim Electronics Cartridge Housing

SECH – CA

## Slim Cement Mapping Tool, 1–11/16 OD Master Calibration

## SCMT CBL and MAP Amplitude Normalization in SFT–155/–255

Phase	MAP 1 Amplitude Plus MV	Value	Phase	MAP 2 Amplitude Plus MV	Value
Master		1158	Master		1232
	500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)			500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)	
Phase	MAP 3 Amplitude Plus MV	Value	Phase	MAP 4 Amplitude Plus MV	Value
Master		1237	Master		1118
	500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)			500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)	
Phase	MAP 5 Amplitude Plus MV	Value	Phase	MAP 6 Amplitude Plus MV	Value
Master		1061	Master		1299
	500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)			500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)	
Phase	MAP 7 Amplitude Plus MV	Value	Phase	MAP 8 Amplitude Plus MV	Value
Master		1258	Master		1267
	500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)			500.0 (Minimum)      1075 (Nominal)      1650 (Maximum)	
Phase	CBL Amplitude Plus MV	Value			
Master		1351			
	1000 (Minimum)      1350 (Nominal)      1700 (Maximum)				

Master: 2–Jan–2013 15:55

Company: ENCANA OIL &amp; GAS (USA) INC

Schlumberger

Well: SGU 8509D–24 (L24 496)

Field: STORY GULCH

County: GARFIELD

State: COLORADO

SLIM CEMENT MAPPING LOG

CBL AND MAP

CBL-VDL  
GR-CCL