

Company: ENCANA OIL & GAS (USA) INC

Well: HMU 6-11A (J6SEB)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

SLIM CEMENT MAPPING LOG
CBL-VDL
GAMMA RAY-CCL

County:	GARFIELD				
Field:	MAMM CREEK				
Location:	SHL: 1957 FSL & 1920 FEL				
Well:	HMU 6-11A (J6SEB)				
Company:	ENCANA OIL & GAS (USA) INC				
LOCATION		SHL: 1957 FSL & 1920 FEL		Elev.: K.B. 7166.00 ft	
		BHL: 2358 FSL & 1352 FWL			G.L. 7144.00 ft
				D.F. 7165.00 ft	
		Permanent Datum:		GROUND LEVEL	
Log Measured From:		KELLY BUSHING		22.00 ft above Perm. Datum	
Drilling Measured From:		KELLY BUSHING			
API Serial No.		Section	Township	Range	
05-045-21938-000C		6	8S	92W	

	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	25-Nov-2013			
Run Number	1			
Depth Driller	9939 ft			
Schlumberger Depth	9866 ft			
Bottom Log Interval	9857 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	6705 ft			
To	9939 ft			
Casing/Tubing Size	4.500 in			
Weight	11.6 lbm/ft			
Grade	S-80			
From	22 ft			
To	9915 ft			
Maximum Recorded Temperatures	269 degF			
Logger On Bottom	25-Nov-2013		18:15	
Unit Number	391	GRAND JUNCTION		
Recorded By	KIRSTIE BUNTING			
Witnessed By	JIM DYKEMAN			

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: 14-AUG-2013 11:54:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-JB	Type:	CMTD-B/A	Type:	1-25ZT
Serial Number:	6349	Serial Number:	3421	Serial Number:	112136
Calibration Date:	7-31-2013	Calibration Date:	14-AUG-201	Length:	19000 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:	-5	Calibration RMS:	3		
Wheel Correction 2:	-4	Calibration Peak Error:	8		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	
Tool Zero Check At Surface:	

Depth Control Remarks

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

DISCLAIMER













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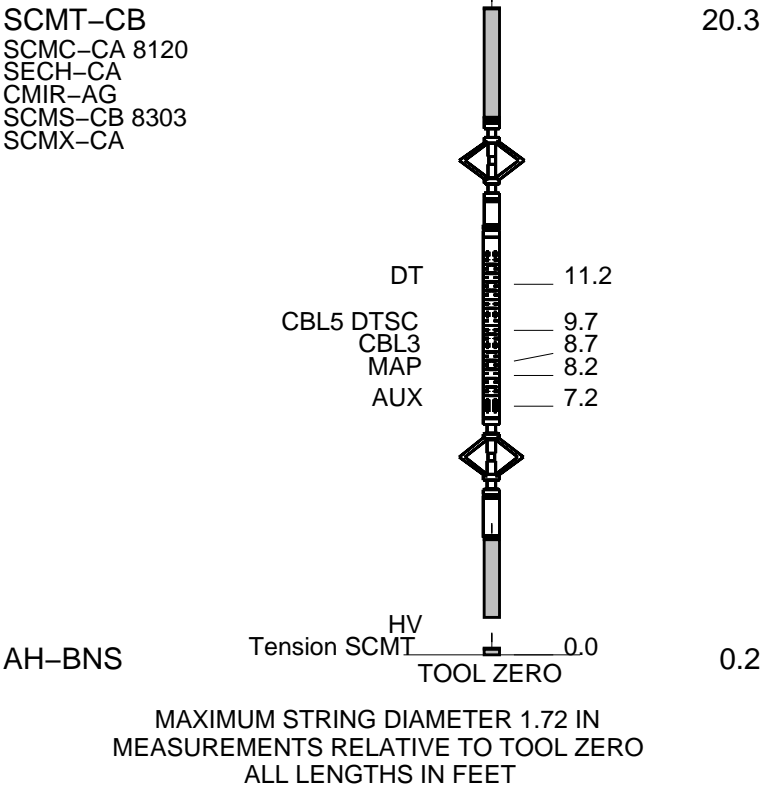
OTHER SERVICES1	OTHER SERVICES2
OS1: RESERVOIR SATURATION	OS1:
OS2: LOG	OS2:
OS3: SIGMA MODE	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRLEATED TO SLB PLATFORM EXPRESS RUN ON 08-NOV-13	
TOOL RAN AS PER TOOL SKETCH	
ENTRANCE: 17:30	
TIME ON BOTTOM: 18:15	
EXIT: 21:00	

MAXIMUM RECORDED TEMPERATURE: 269 DEGF	
MAXIMUM RECORDED PRESSURE: 4146 PSIA	
SHORT JOINTS: 6591 FT & 7595 FT	
MAIN PASS LOGGED UNDER ZERO SURFACE PRESSURE	
EXPECTED CBL AMPLITUDE IN FREE PIPE IS 80MV	
CREW: KBUNTING, WAZIZ, KJOHNS, KBOZARTH	
THANK YOU FOR CHOOSING E&P WIRELINE. A SCHLUMBERGER COMPANY	

RUN 1 SERVICE ORDER #: CGF9-00172 PROGRAM VERSION: 19C0-187 FLUID LEVEL: 70 ft			RUN 2 SERVICE ORDER #: PROGRAM VERSION: 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			53.4
MH-22			
Detail MT			
AH-38	TelStatus		51.8
	CTEM		
PSPT			51.5
PSC-A			
PSPT-B			
PSTC-A			
PBMS-B 928	GR		47.8
CQG_F_Mano			
RTD_Thermometer			
GR	Well_Temp		44.8
CCL	CQG Manom		44.5
PBMS	CCL		44.0
	PBMS PSTC		43.3
RST-C			43.3
RSCH-A			
RSC-E 374			
RSS-A 350			
RSXH-A			
RSX-E 220			
	RSC-A Far		34.2
	RSC-A PNG		
	RSC-A Nea		
	RSX-A PNG		33.7



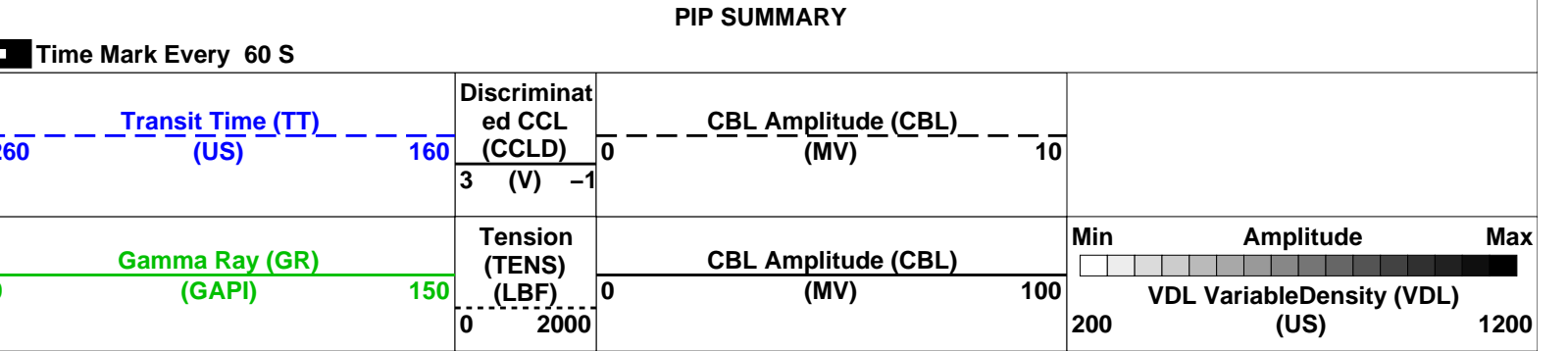
Schlumberger

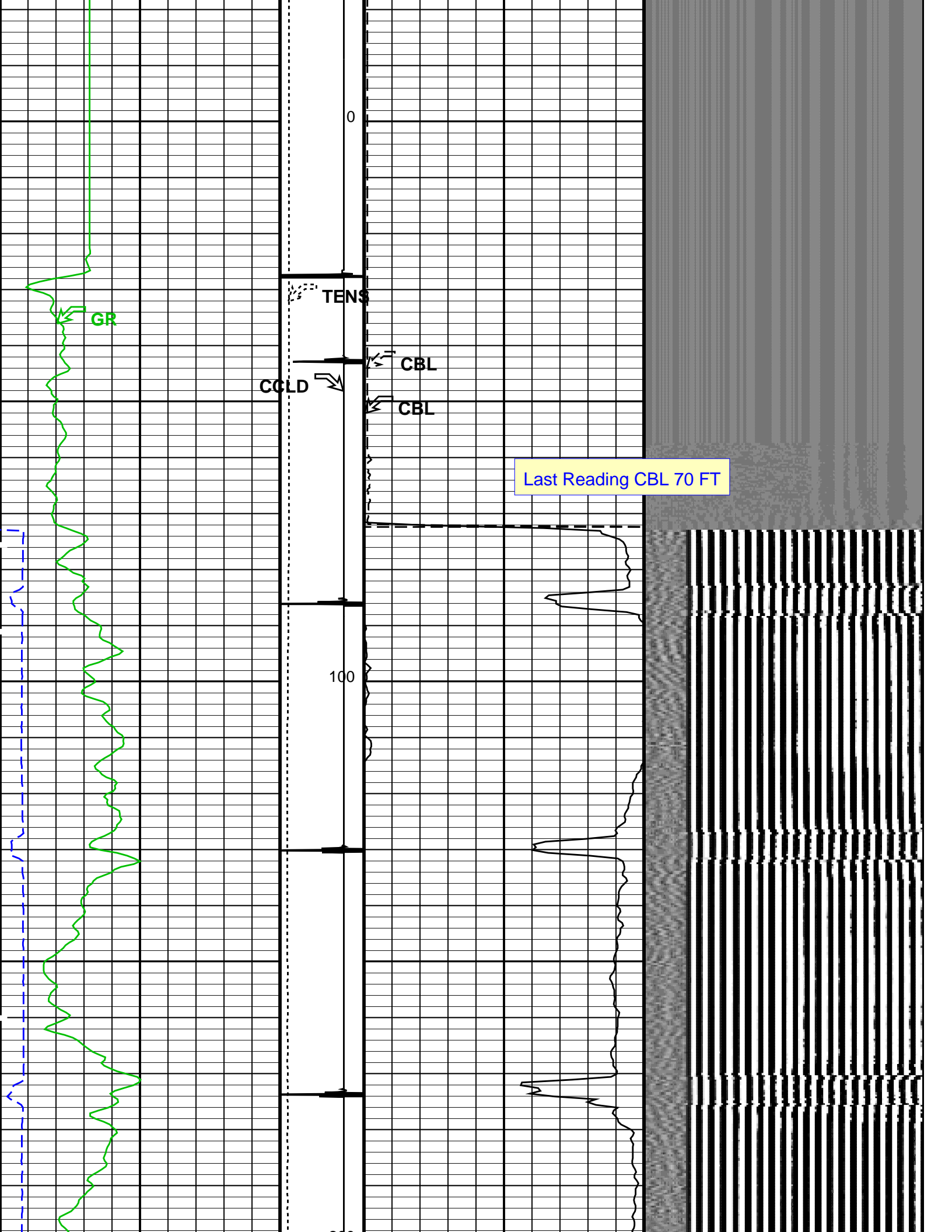
MAIN PASS CBL VDL

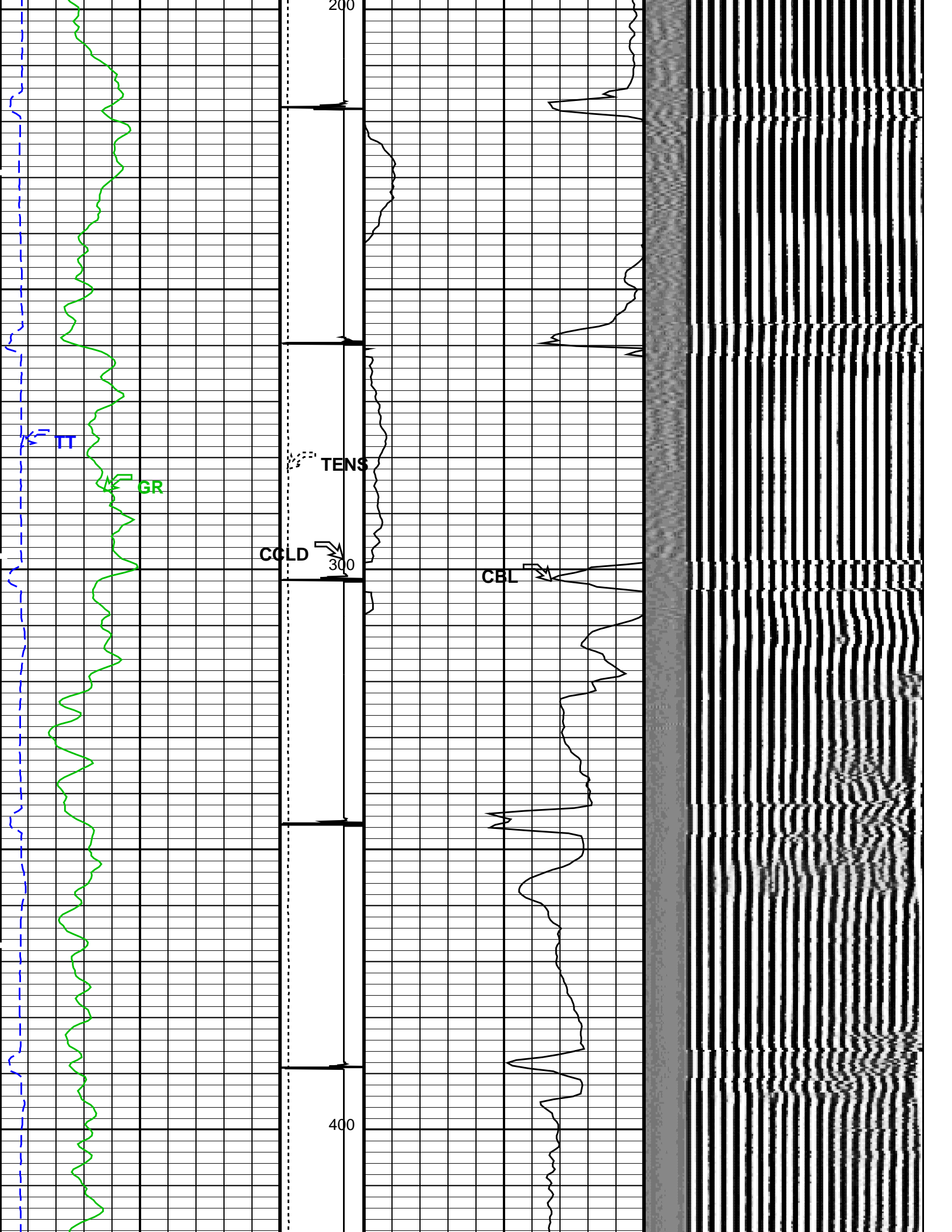
MAXIS Field Log

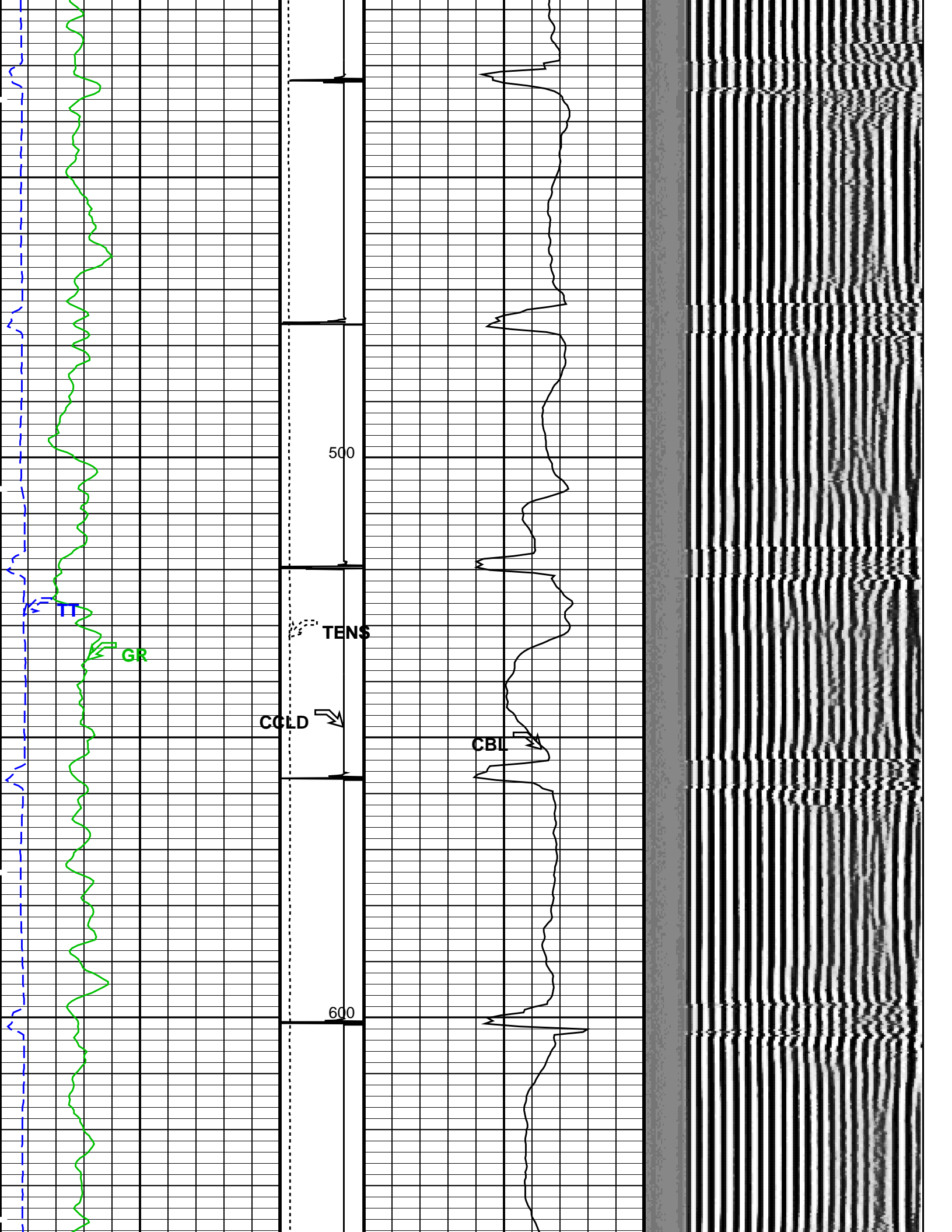
Company: ENCANA OIL & GAS (USA) INC Well: HMU 6-11A (J6SEB)

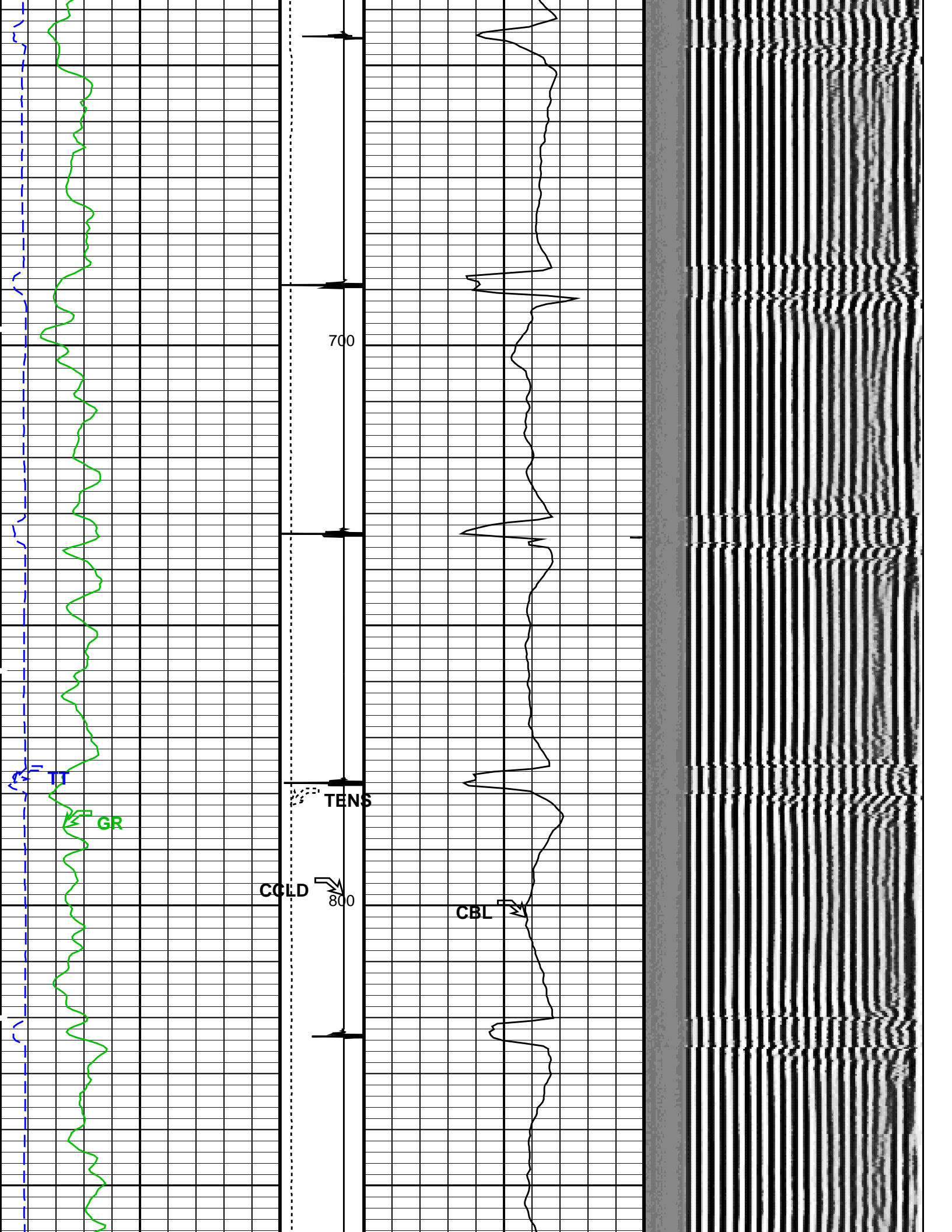
Input DLIS Files						
DEFAULT	SCMT_RST_PSP_038LUP	FN:36	PRODUCER	25-Nov-2013 18:12	9866.5 FT	12.0 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_042PUP	FN:40	PRODUCER	25-Nov-2013 20:51	9876.5 FT	-22.5 FT
OP System Version: 19C0-187						
SCMT-CB	SRPC-5214-H2-2012-OP1		RST-C	SRPC-5214-H2-2012-OP1		
PSPT	SRPC-5214-H2-2012-OP1					

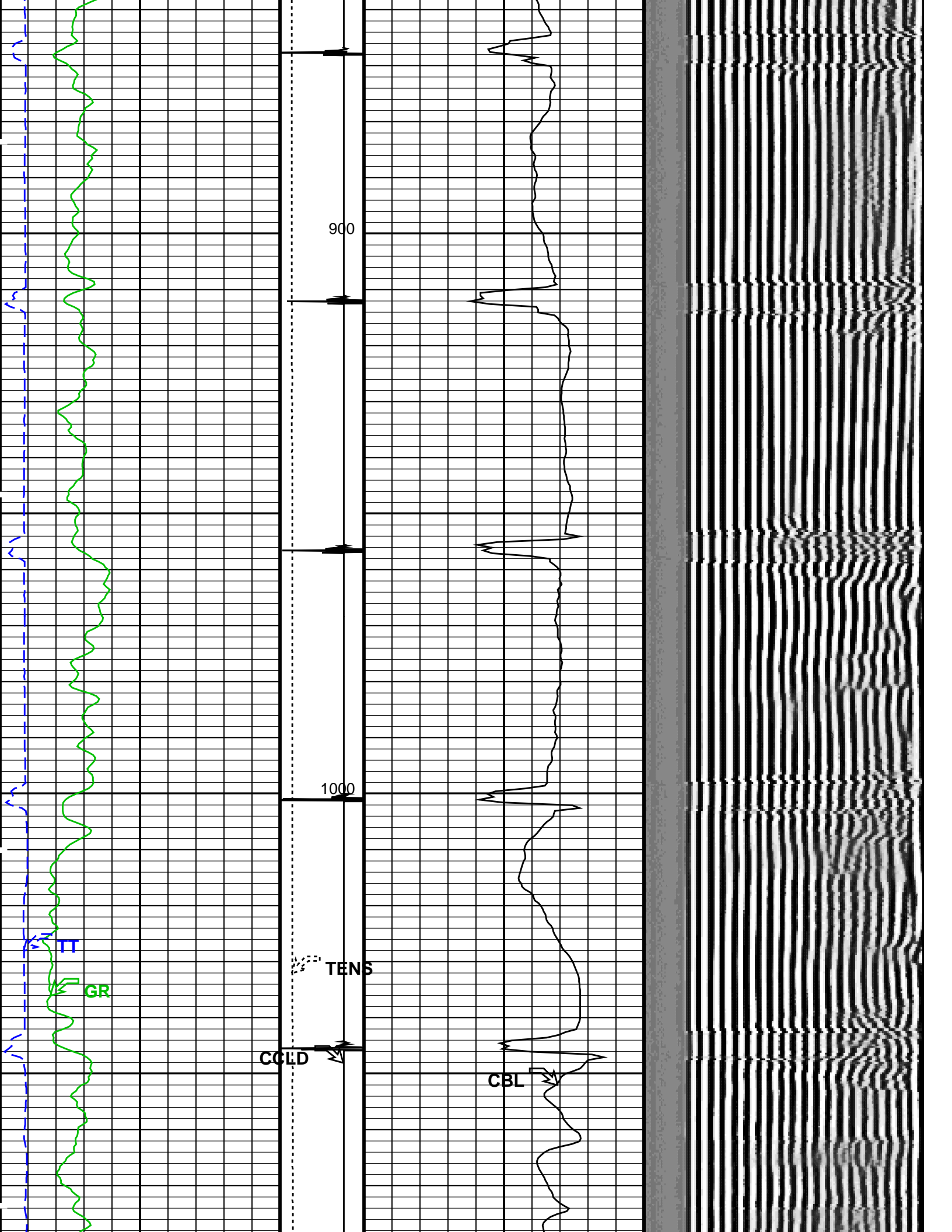


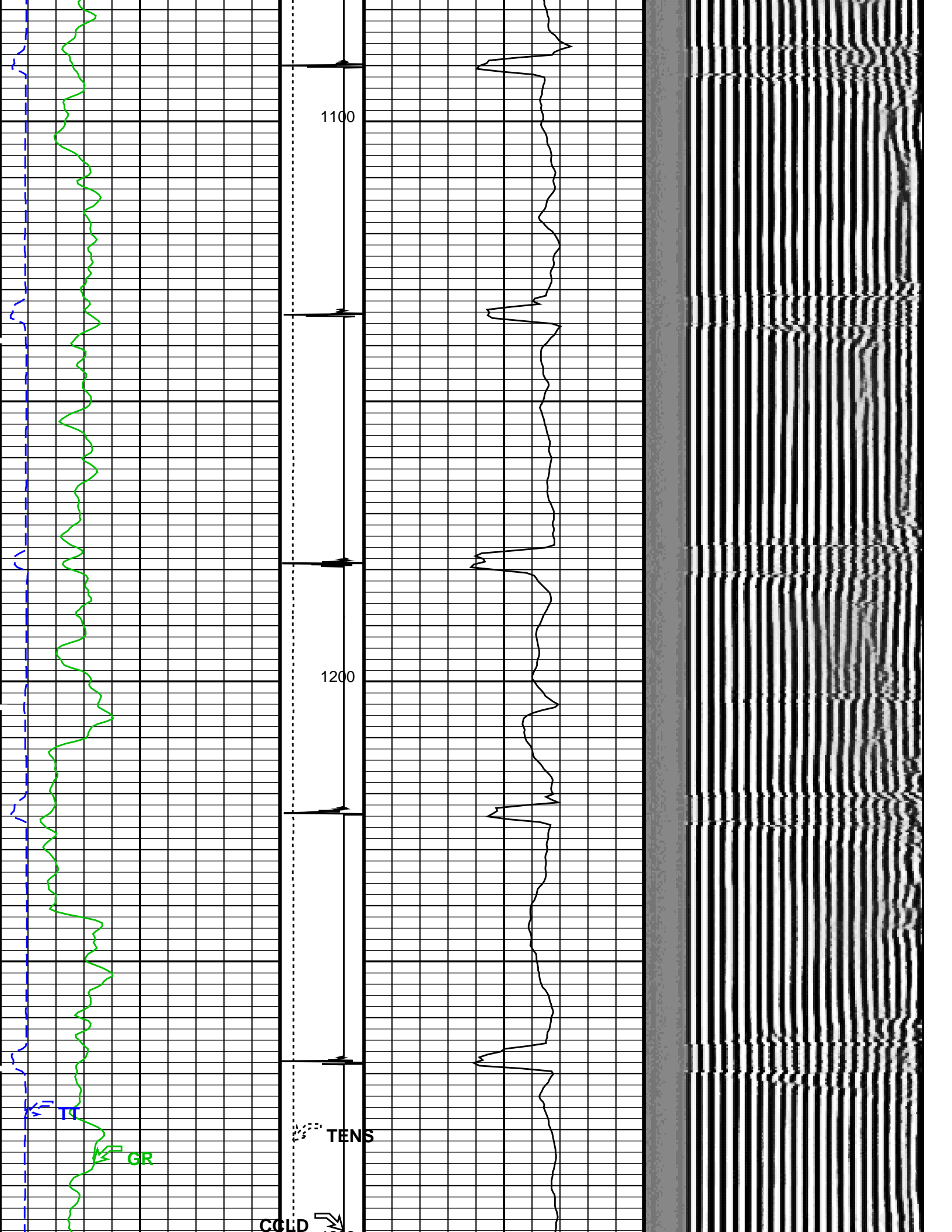


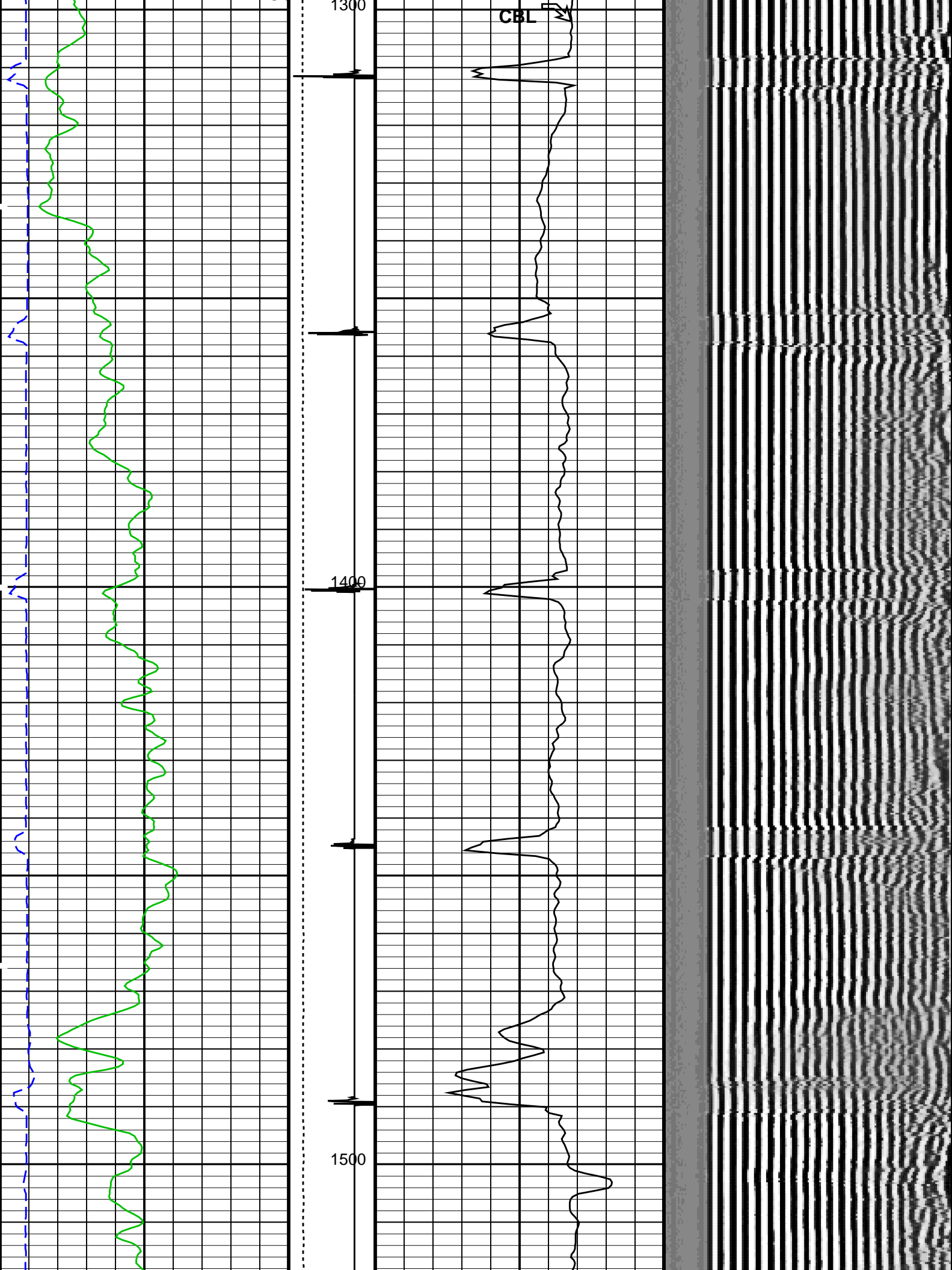


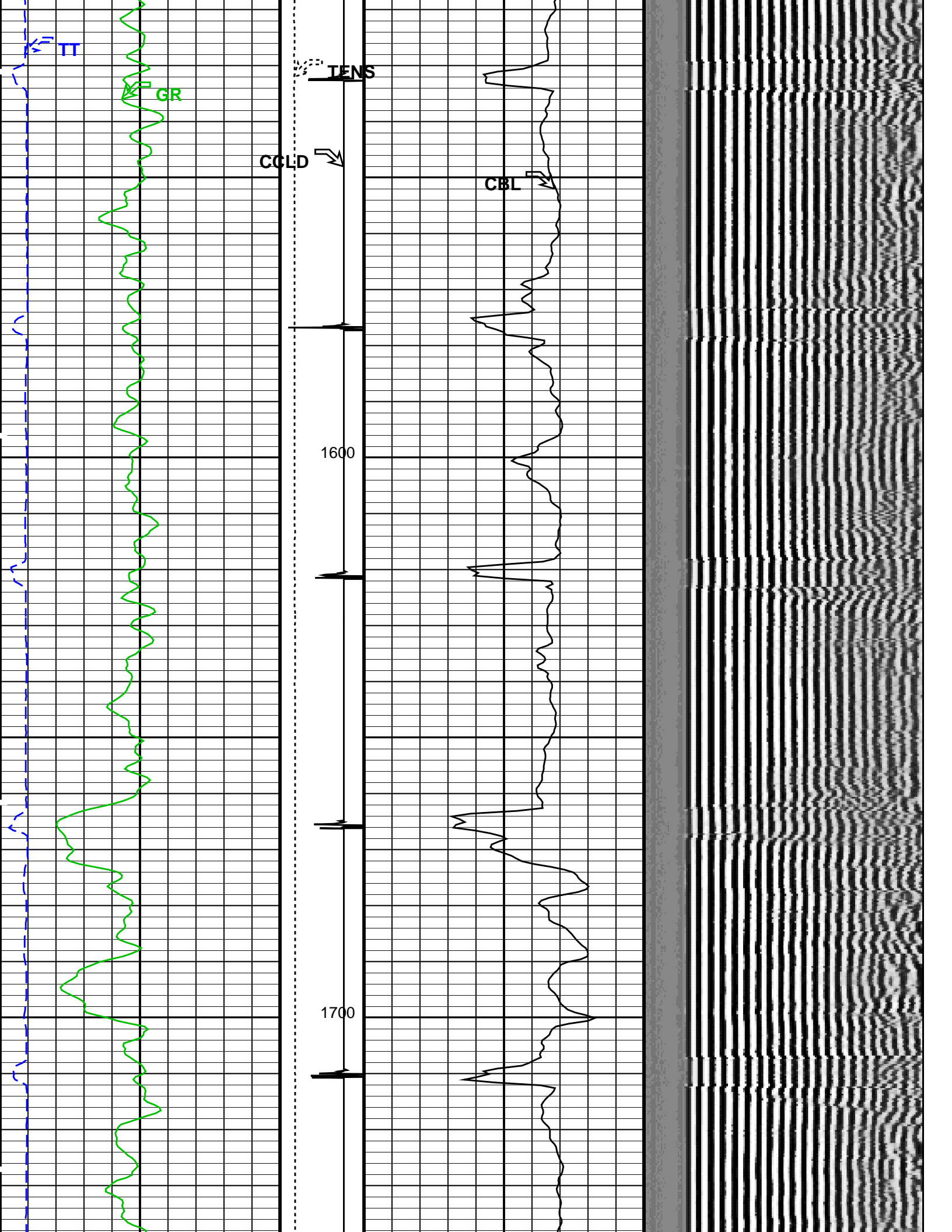


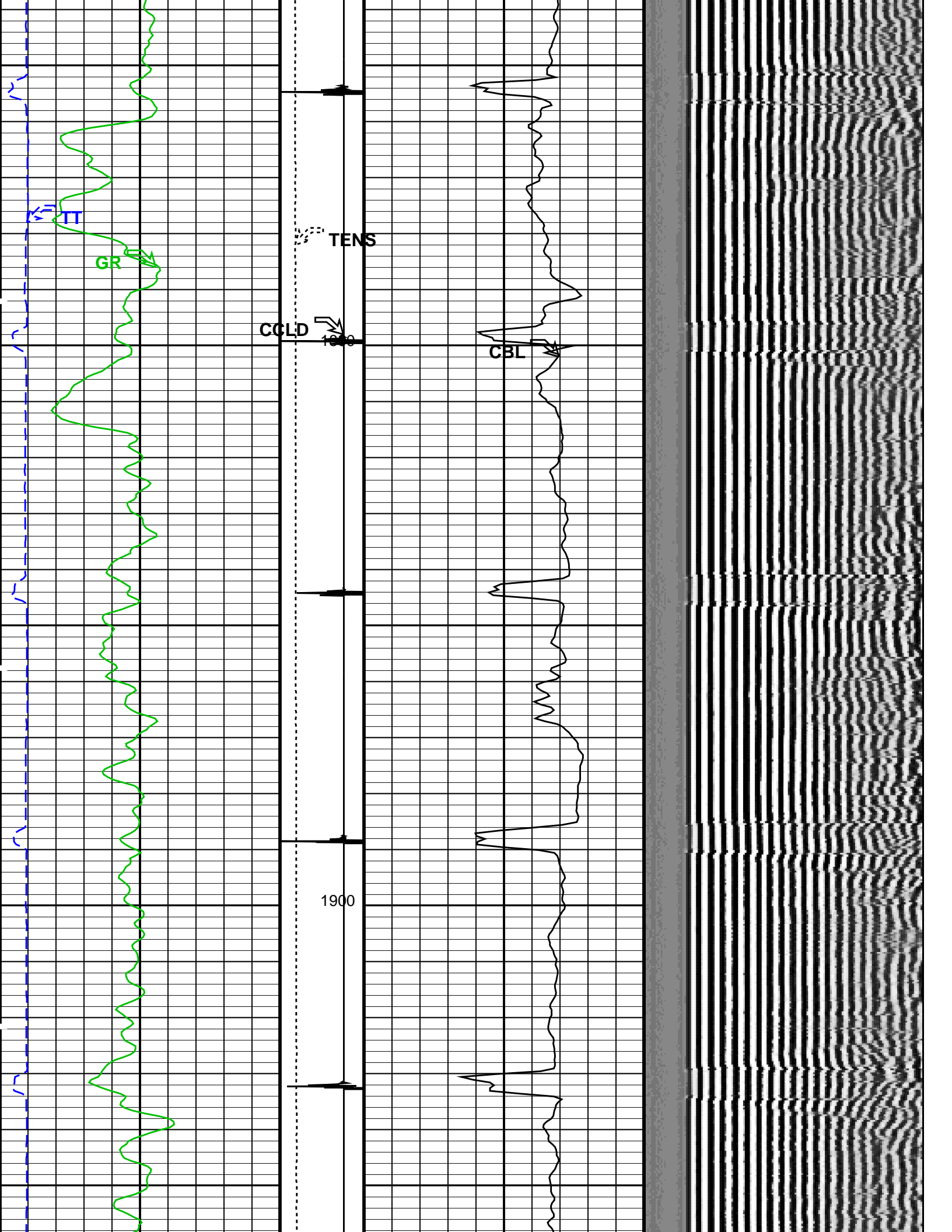


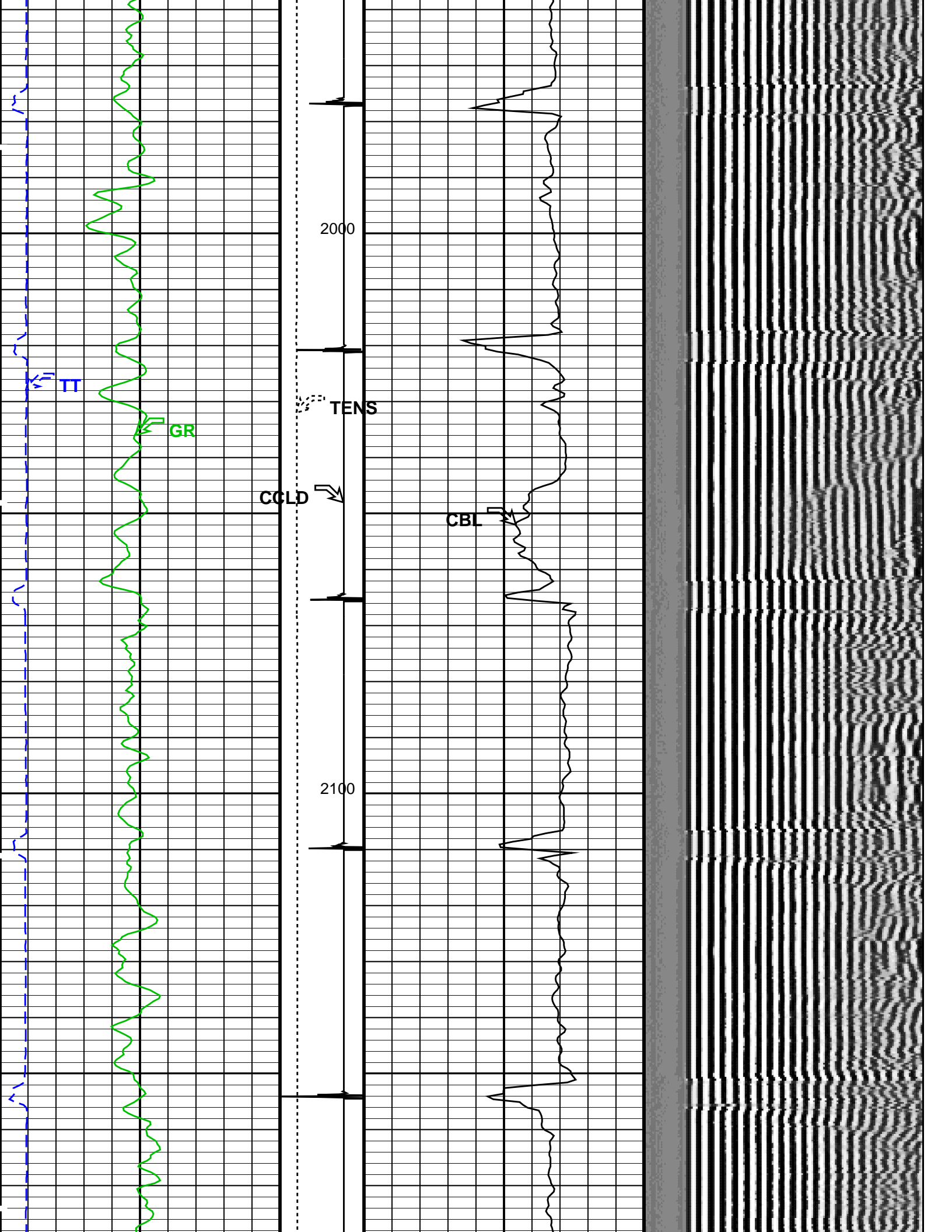


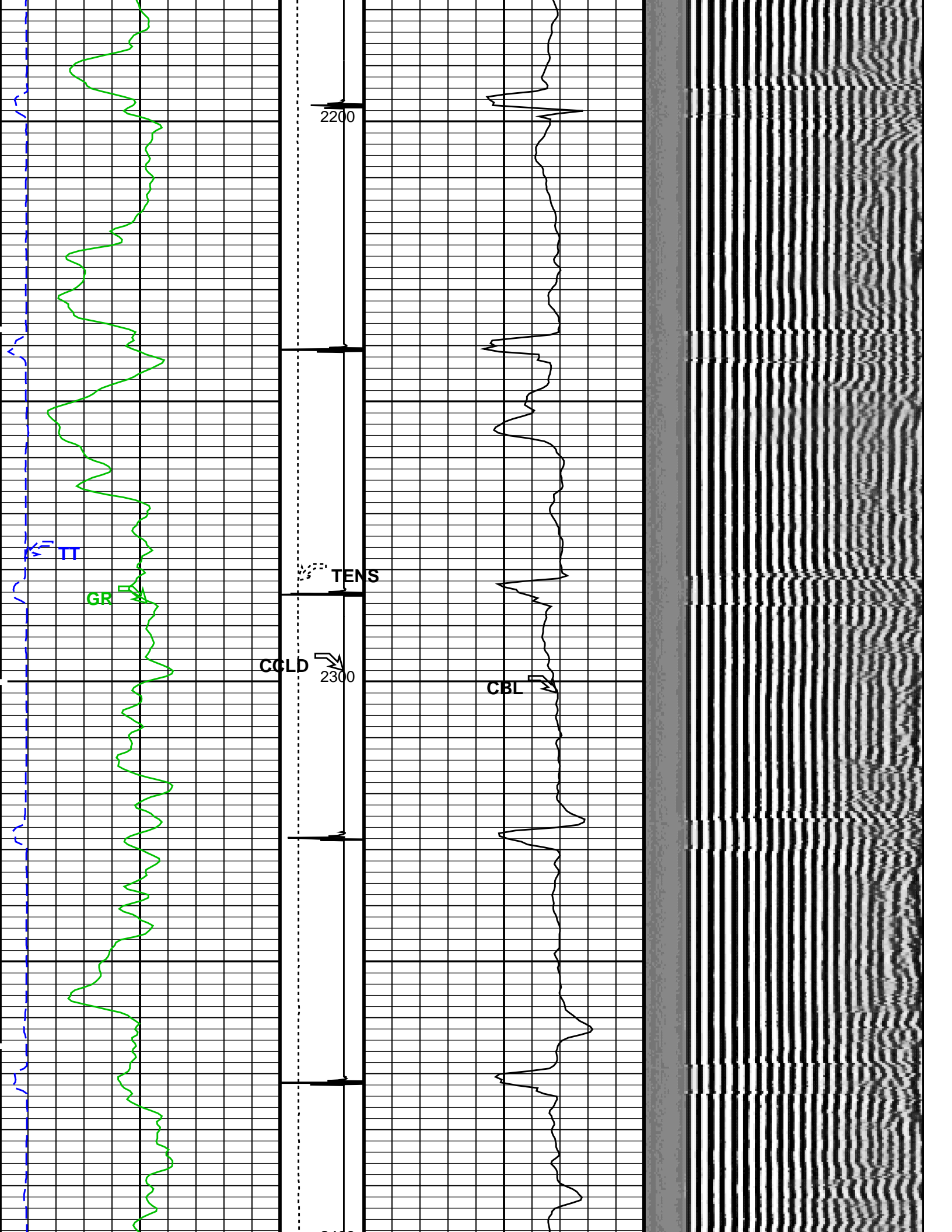


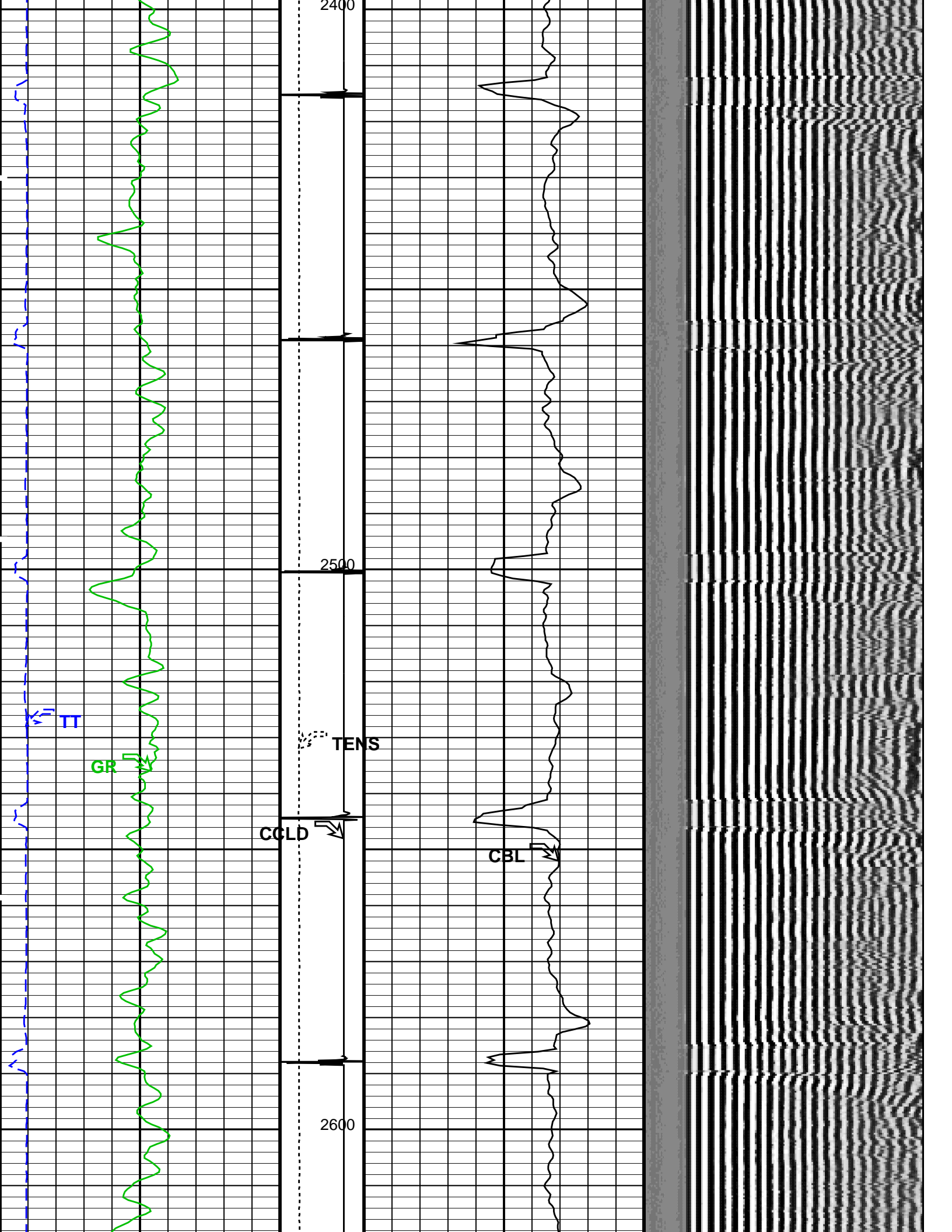


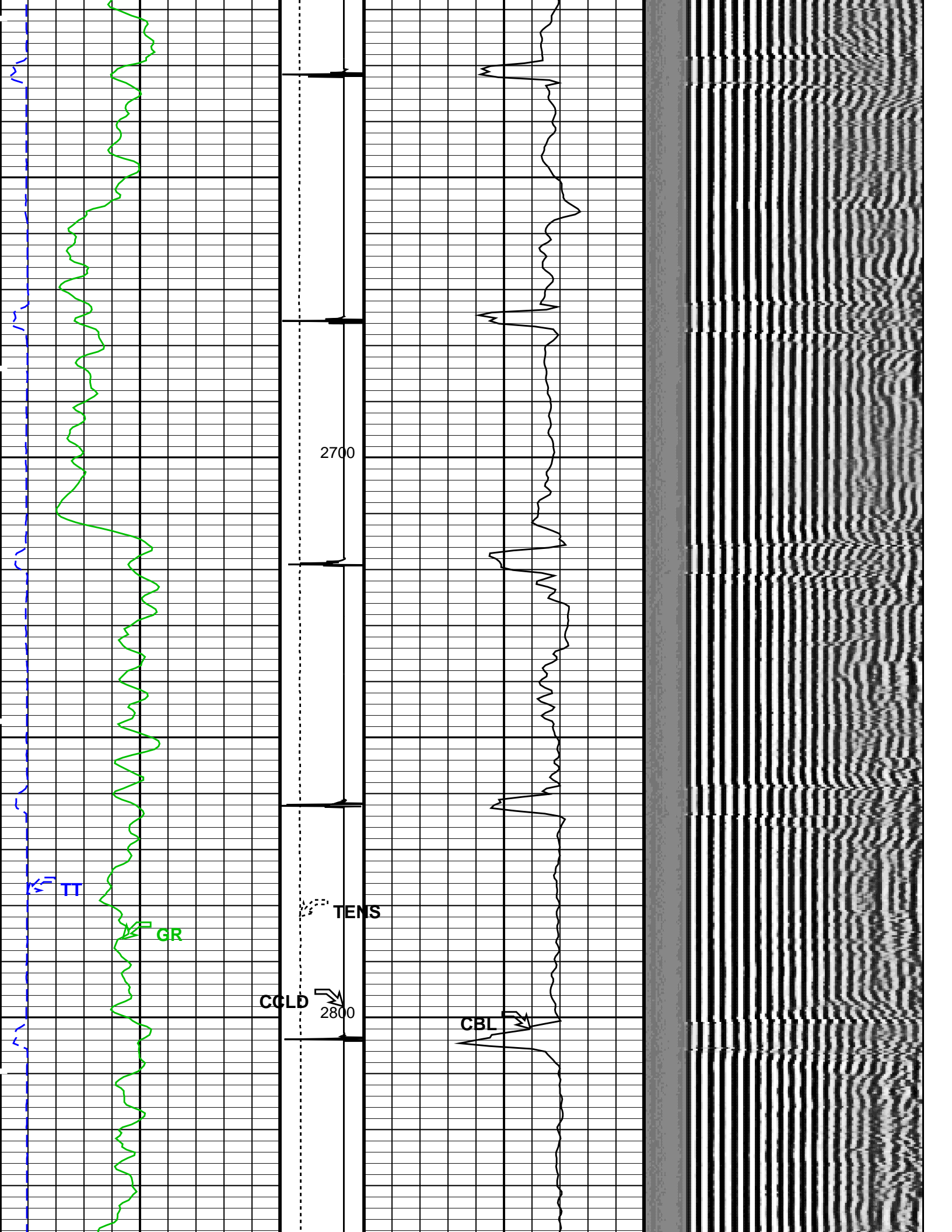


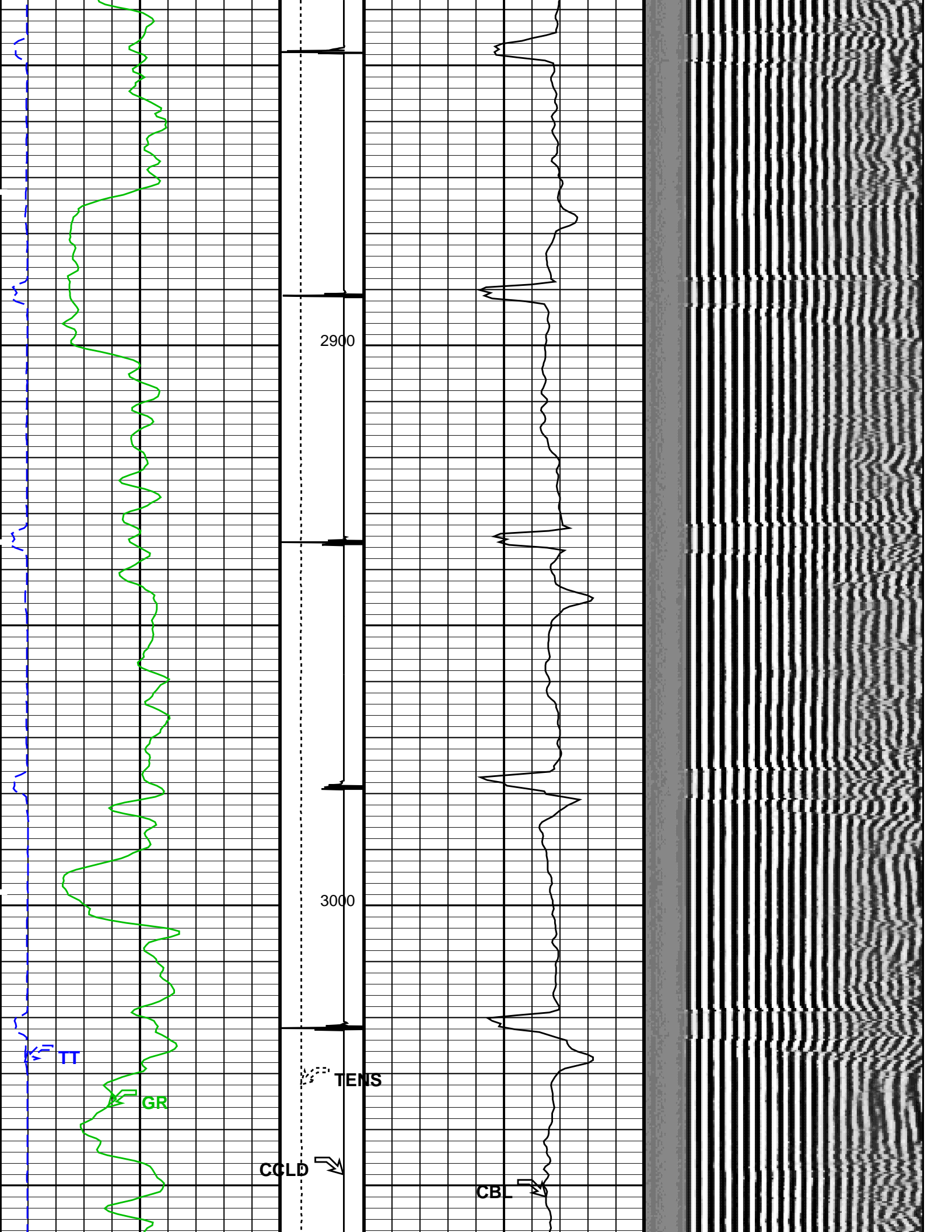


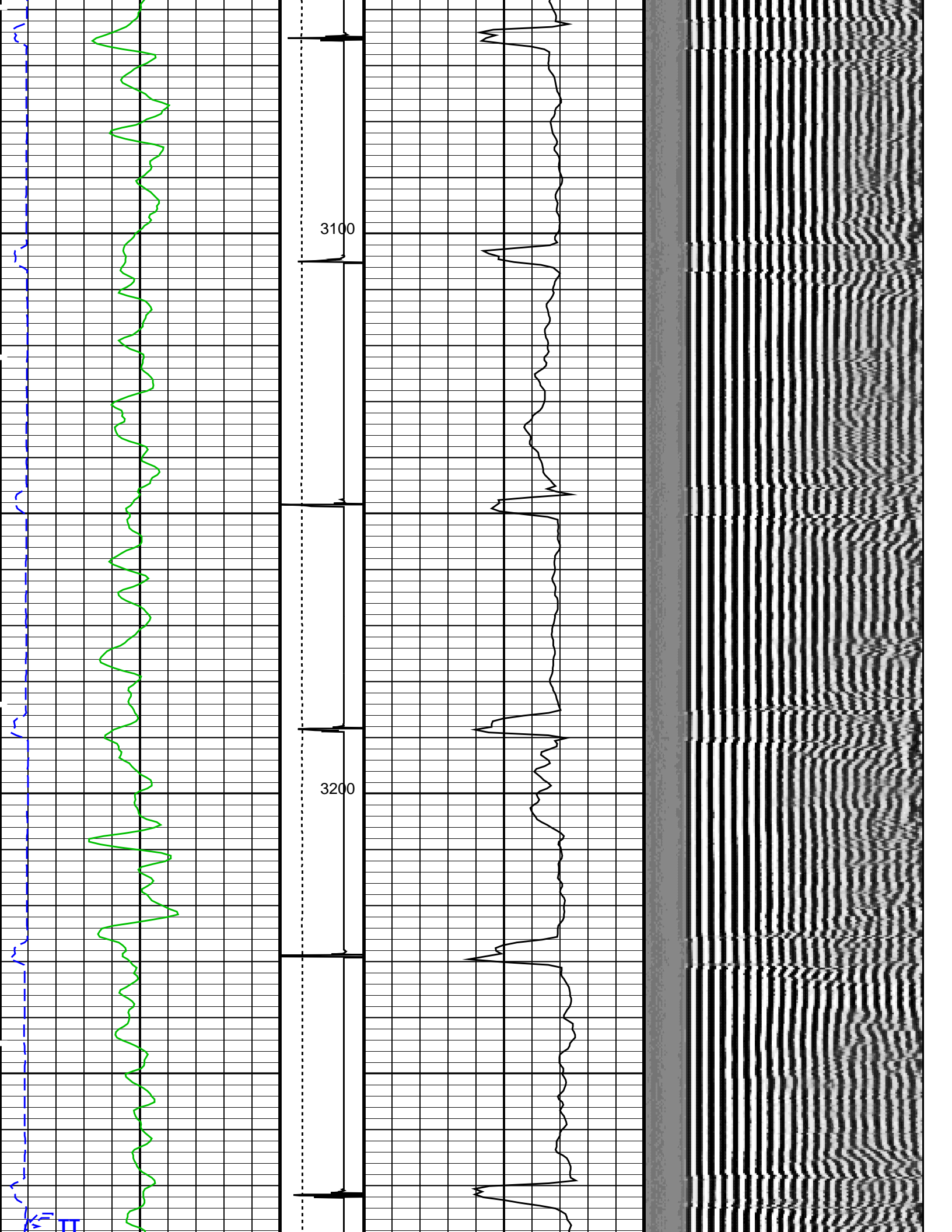


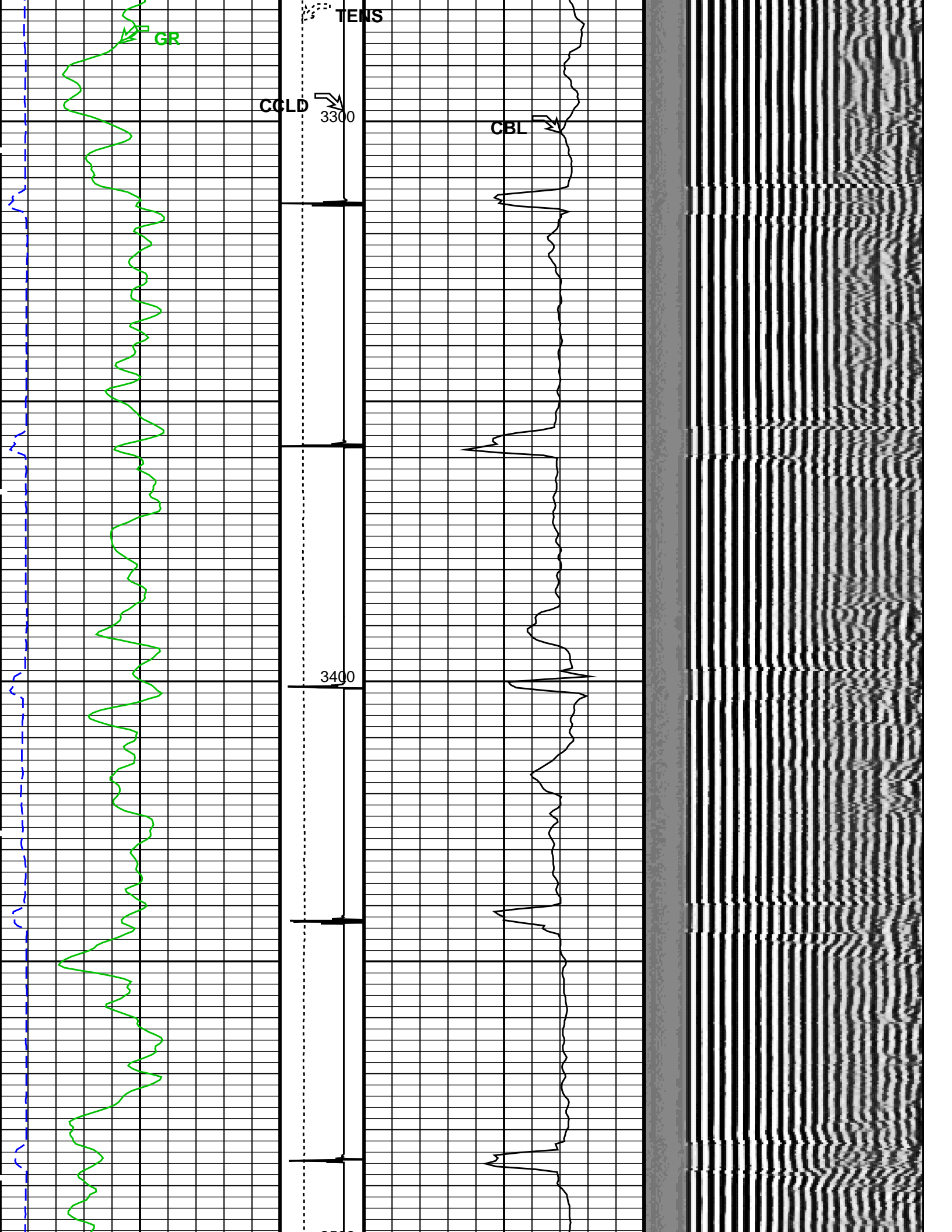


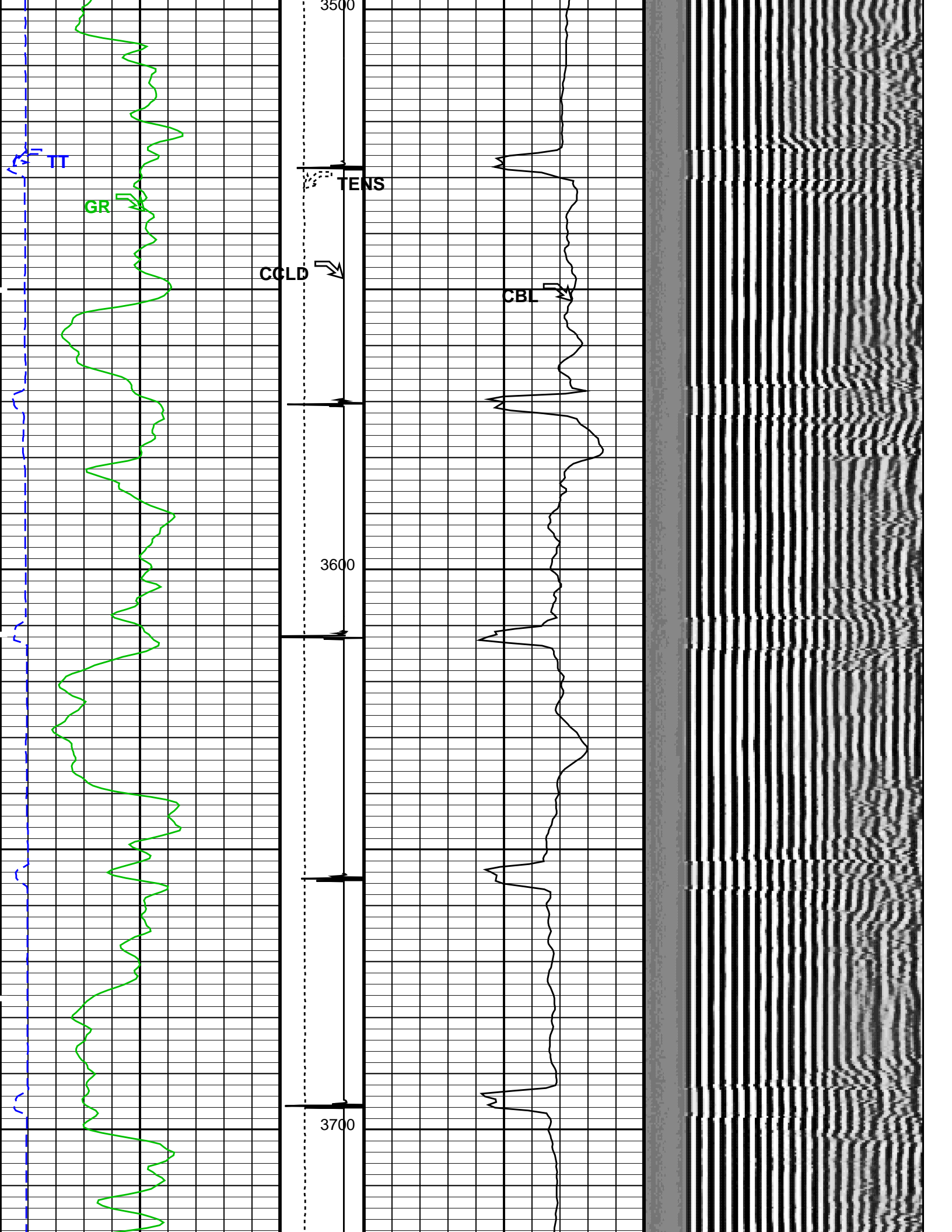


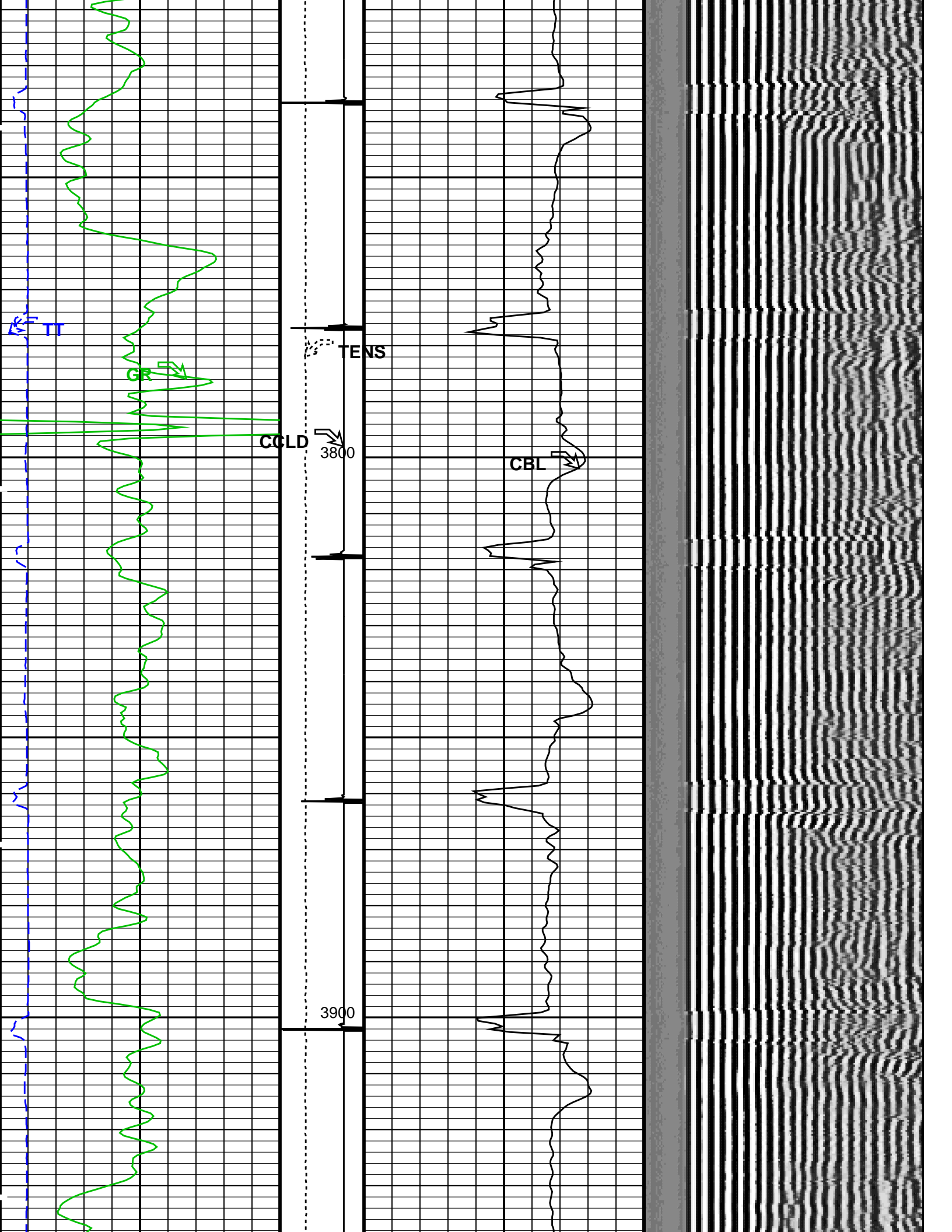


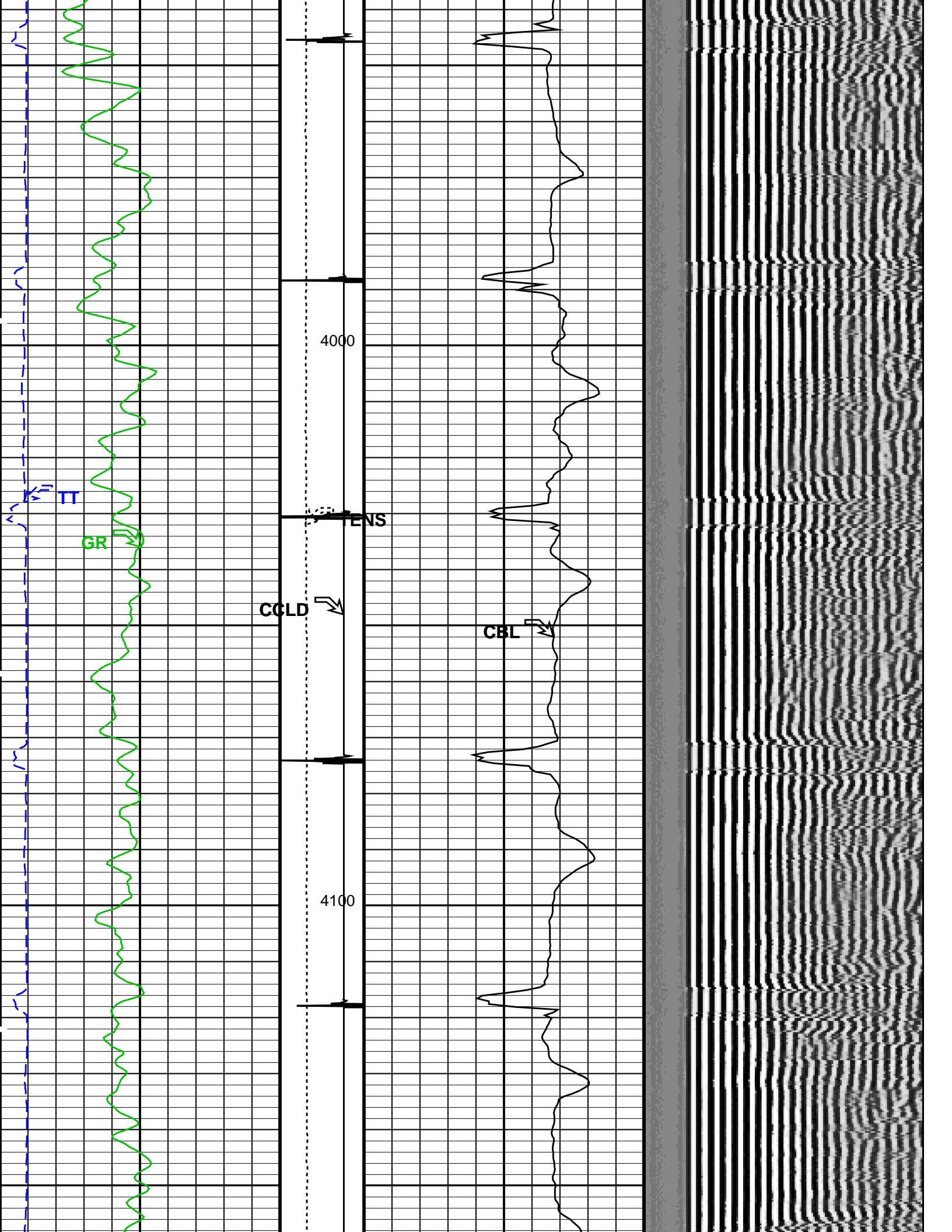


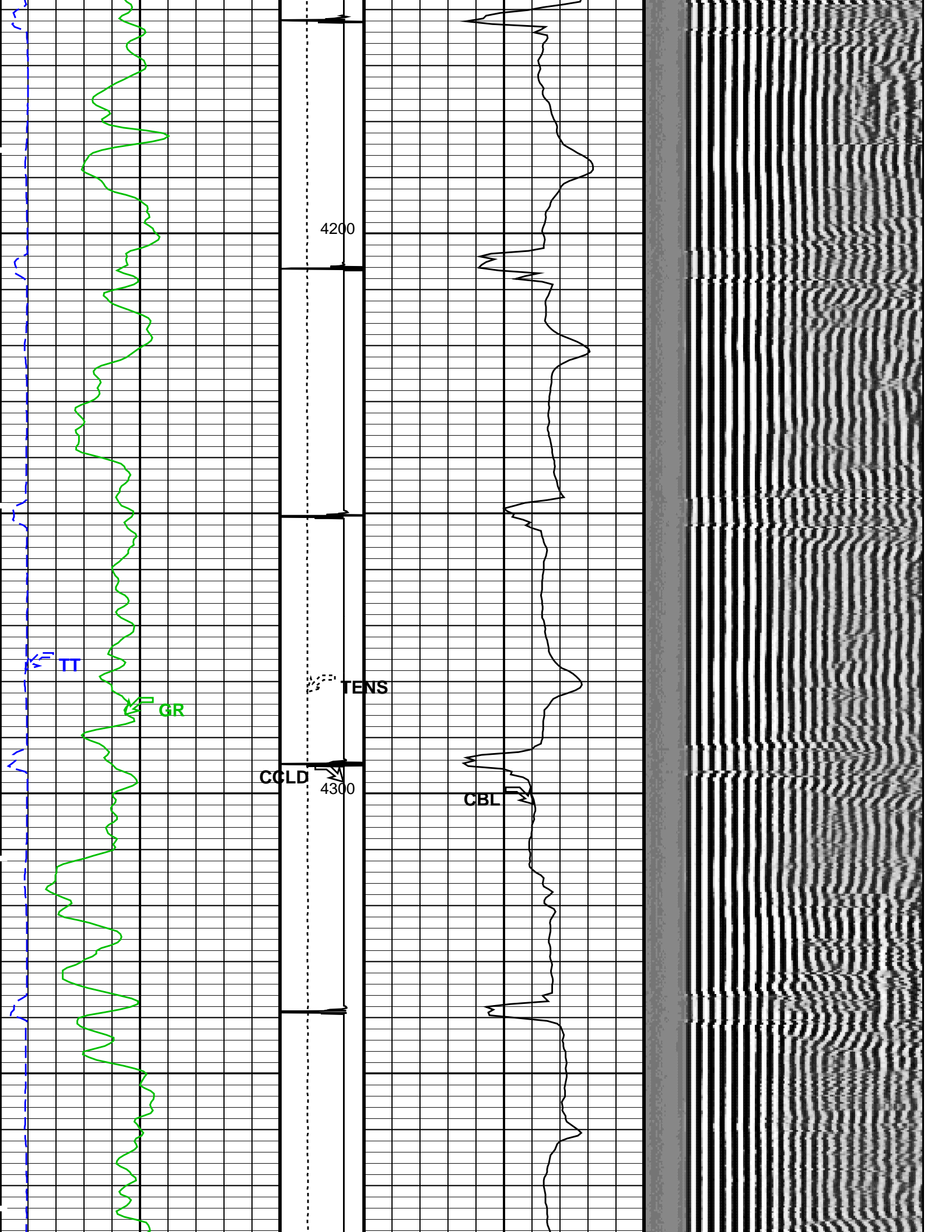


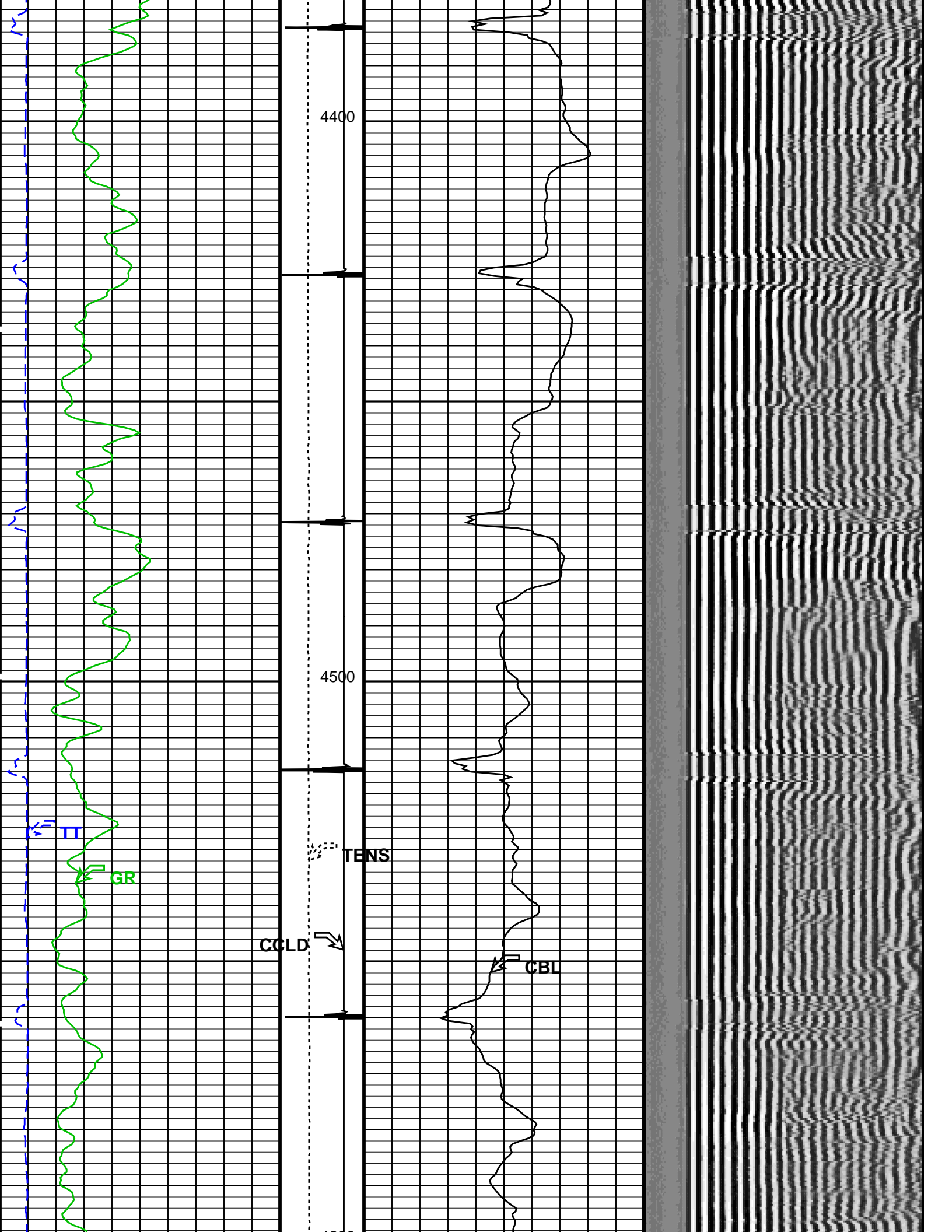


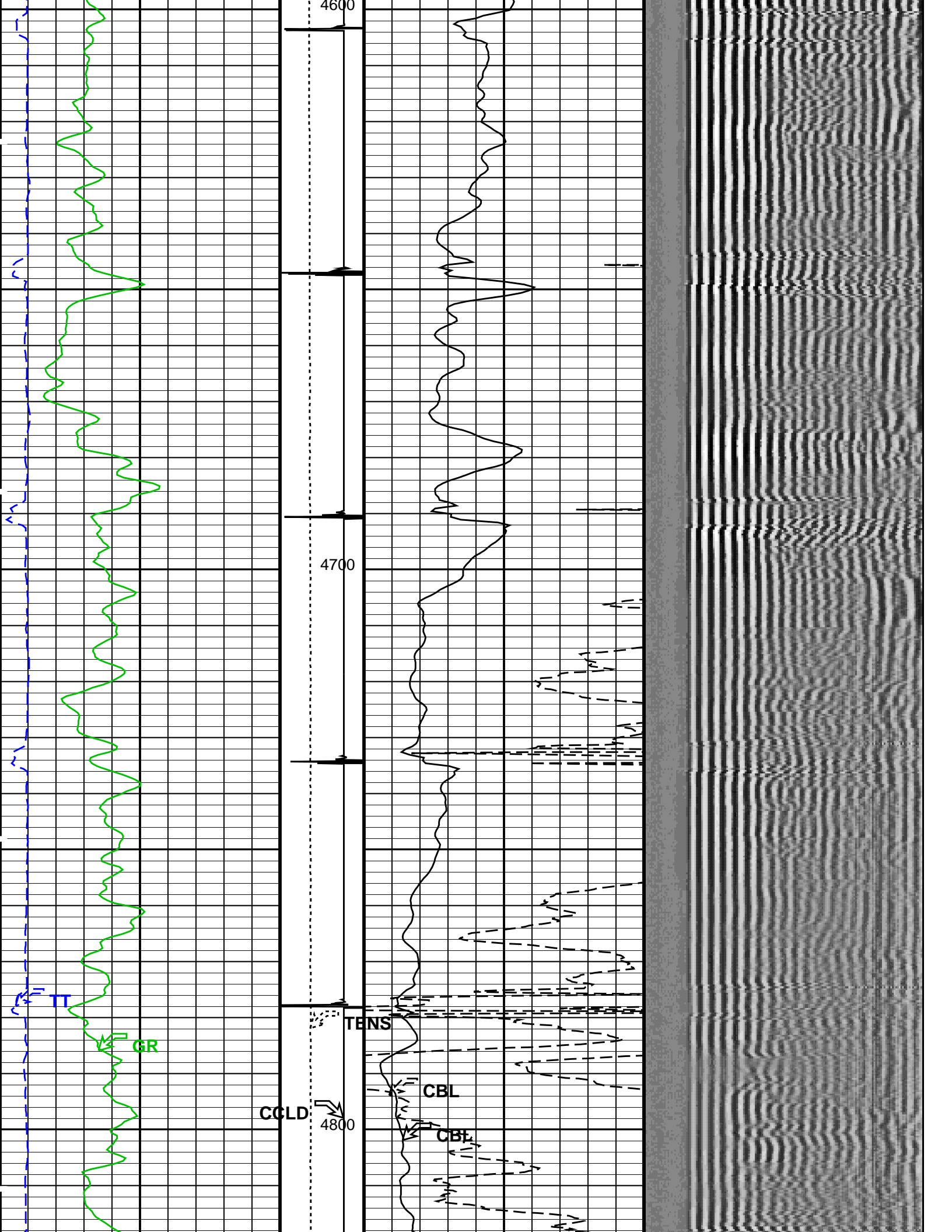


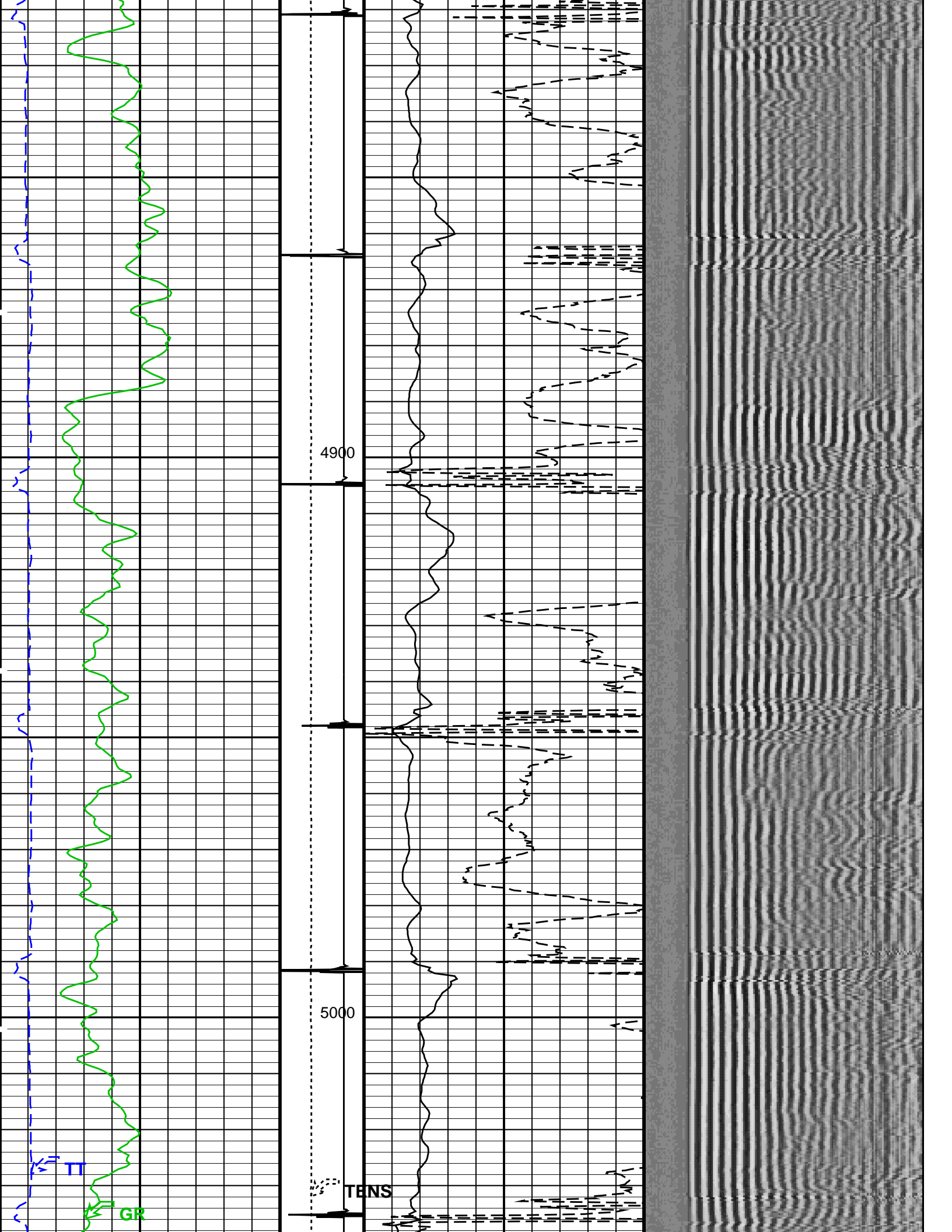


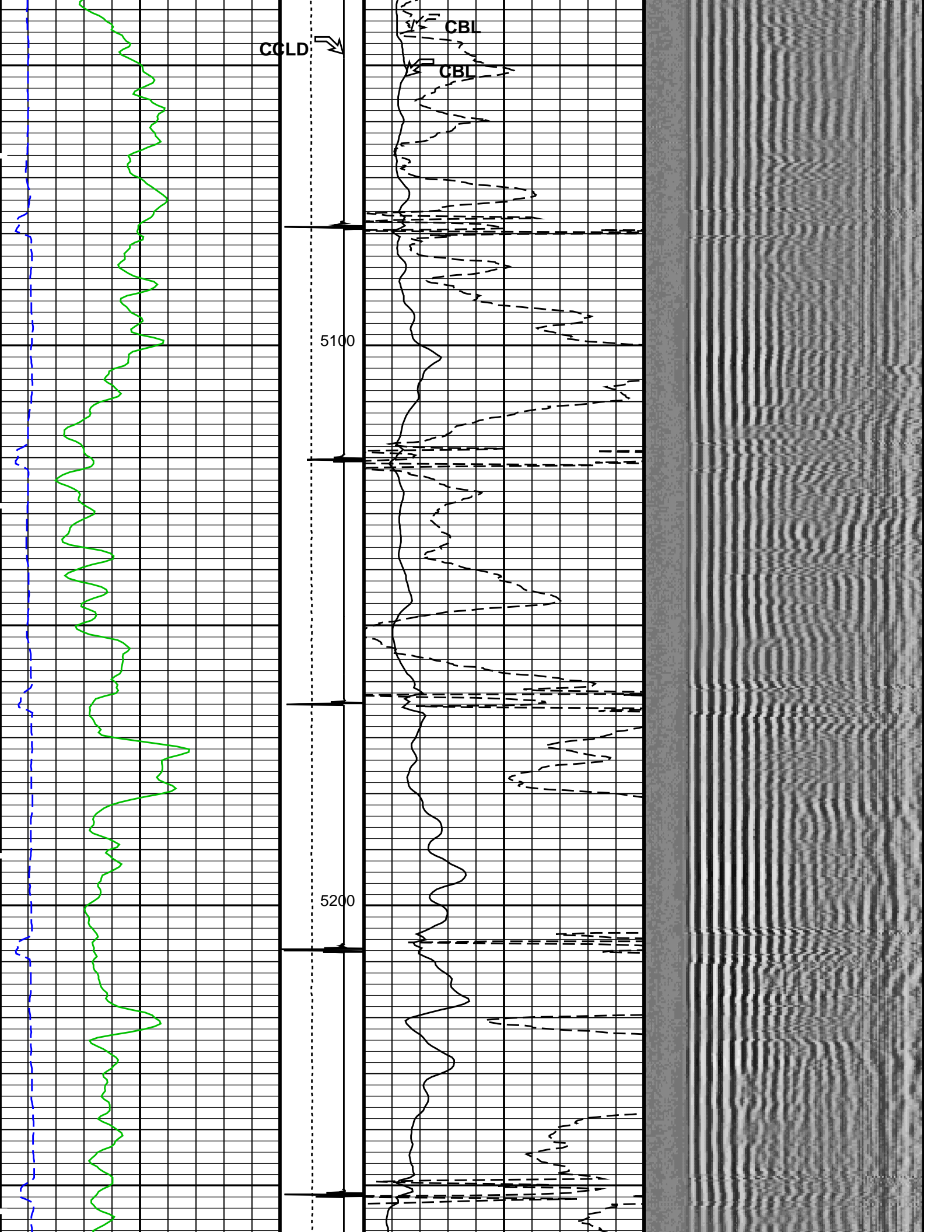


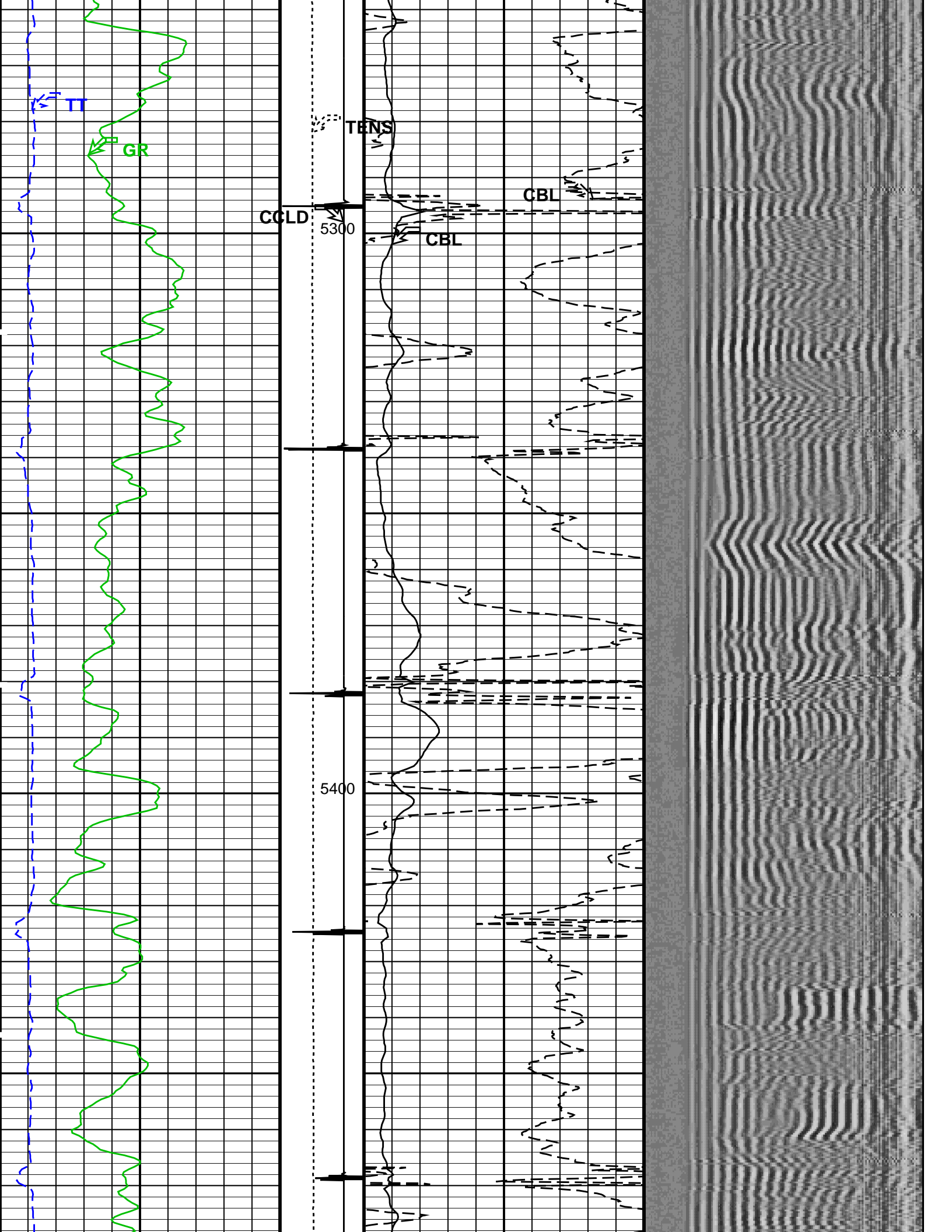


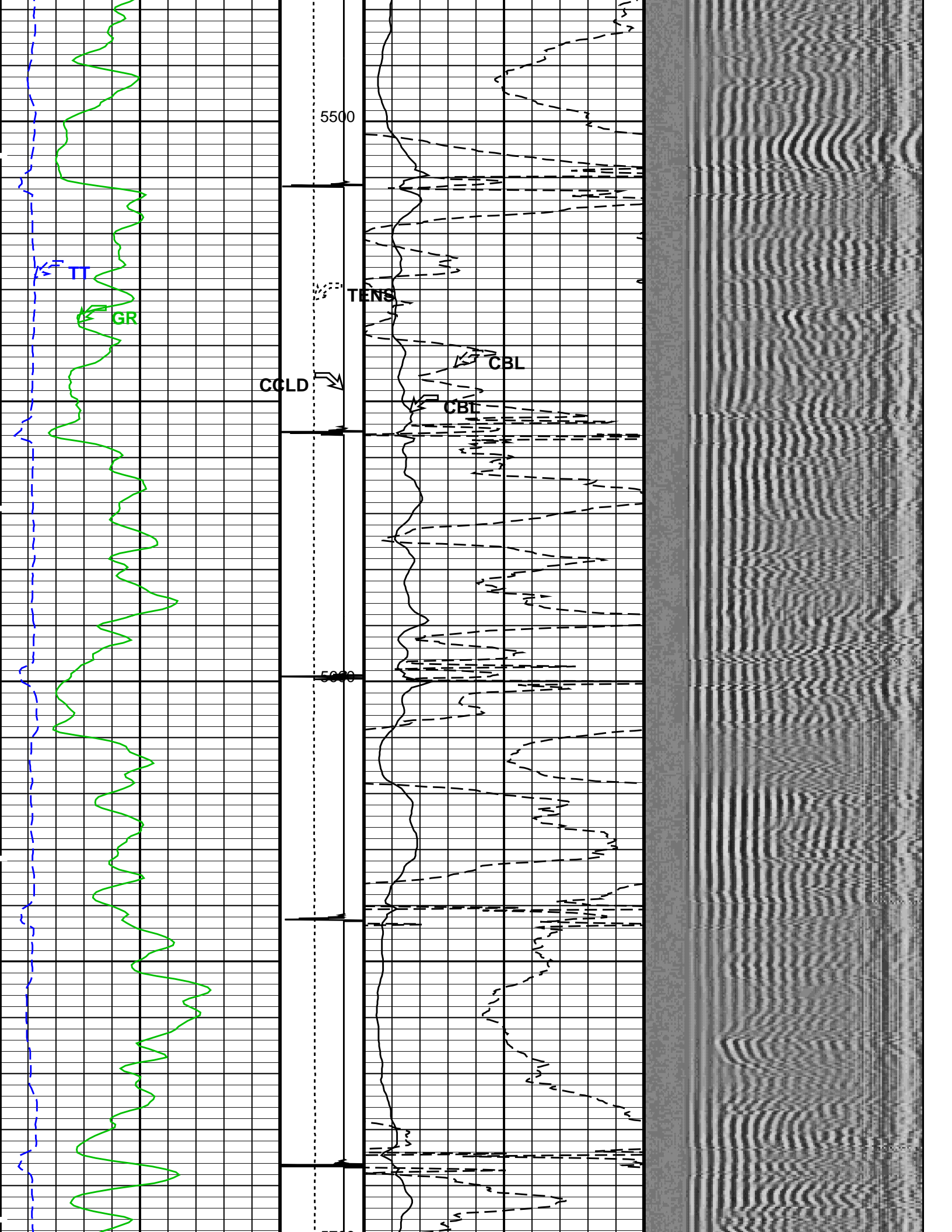


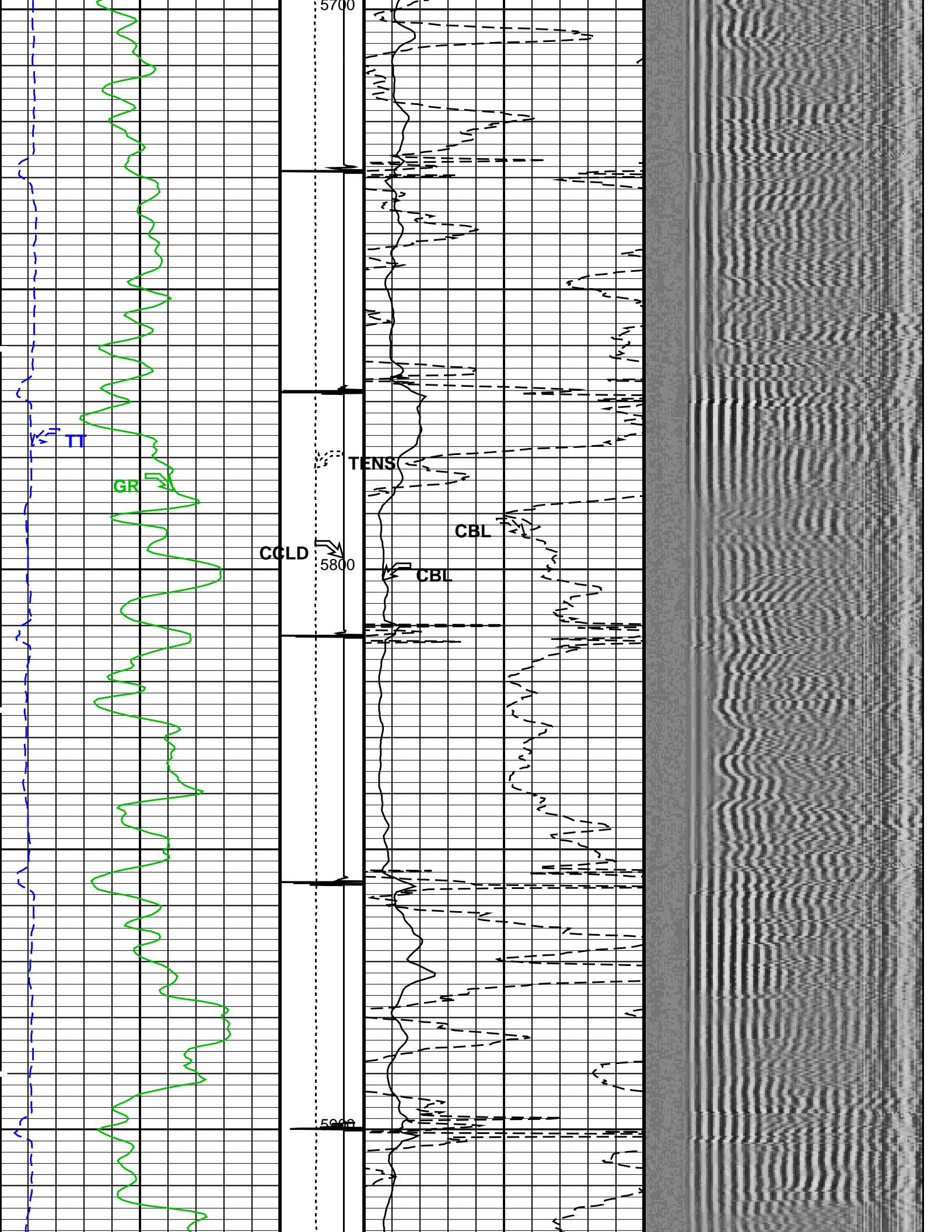


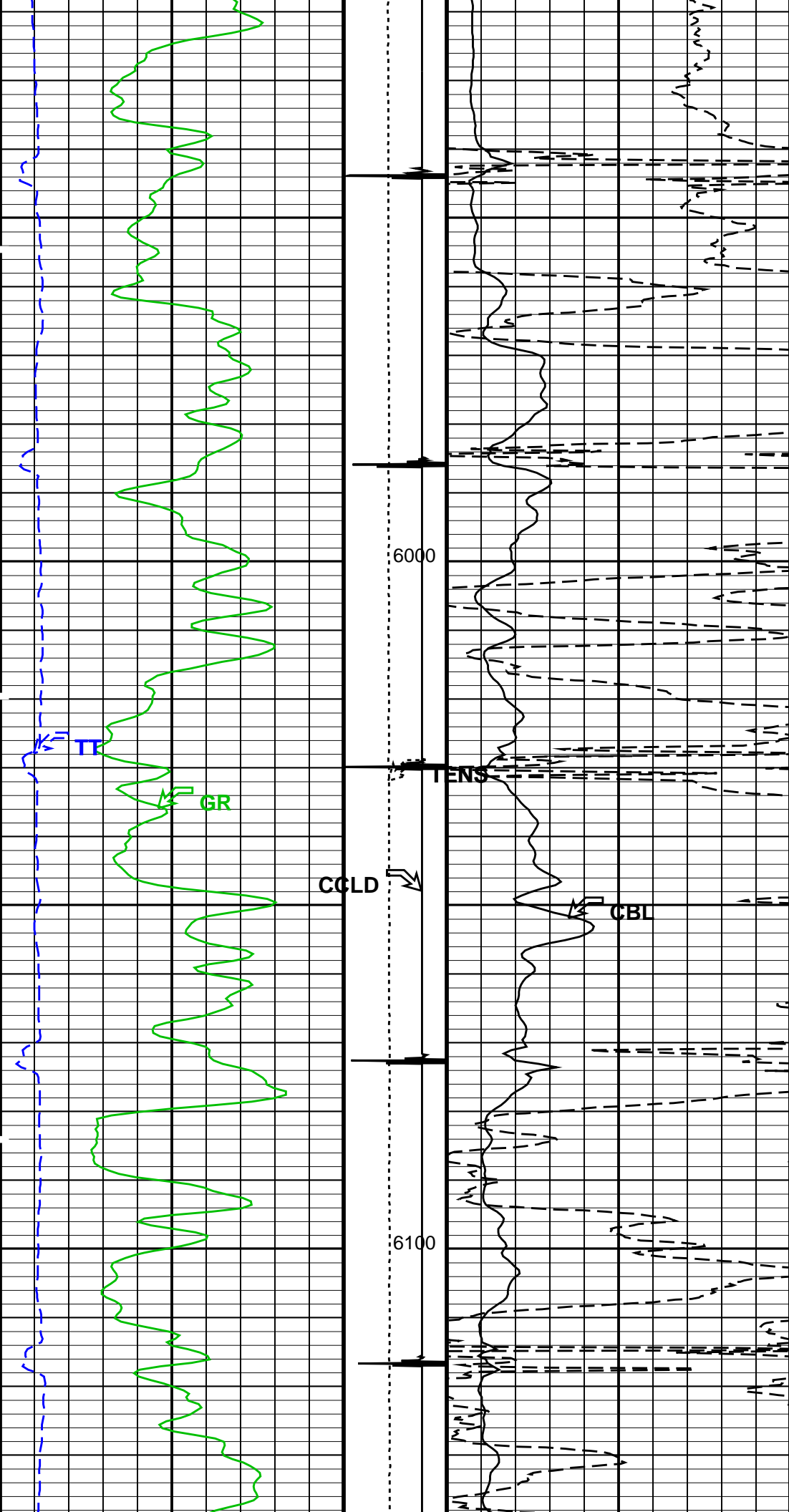


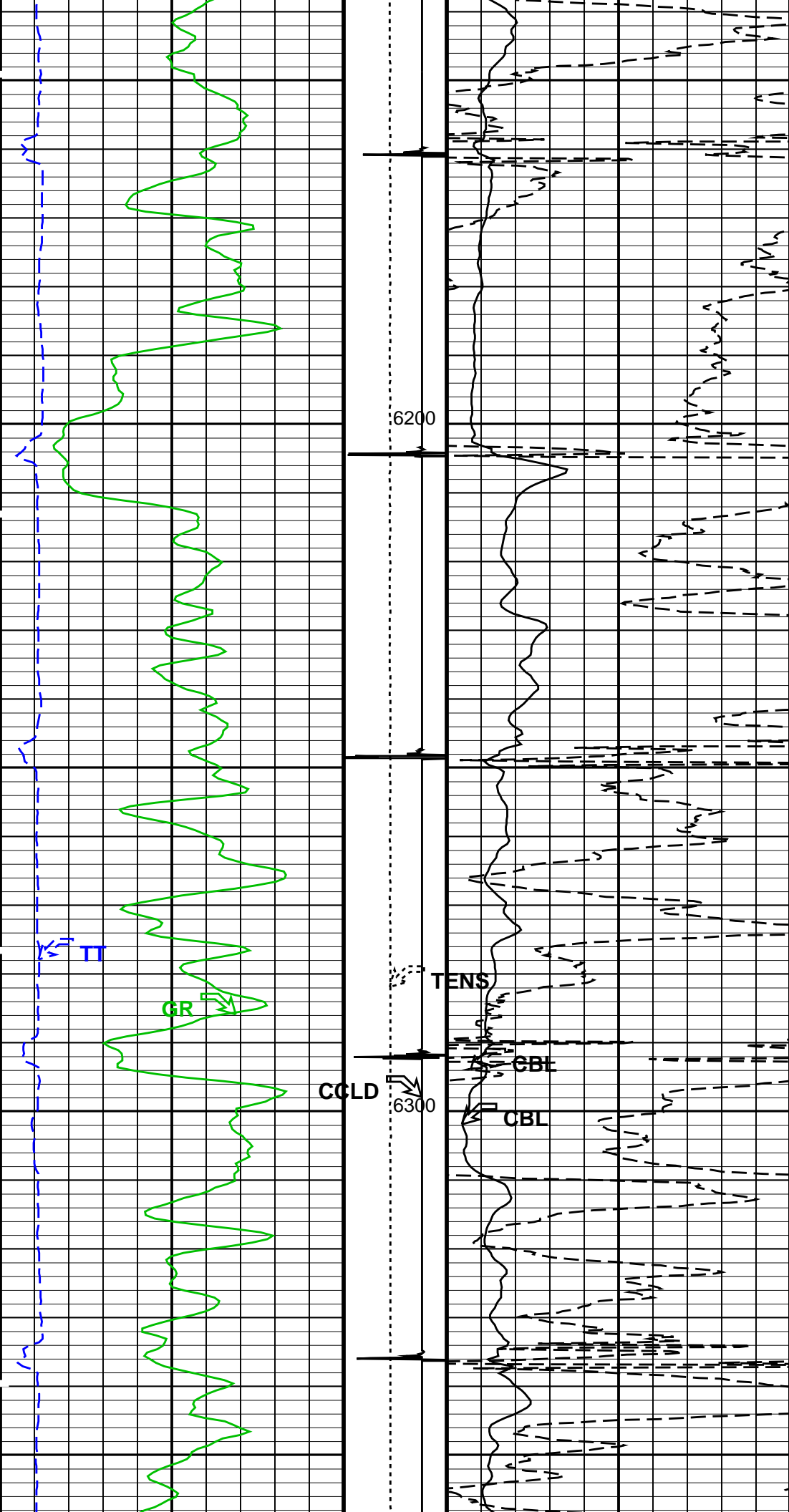


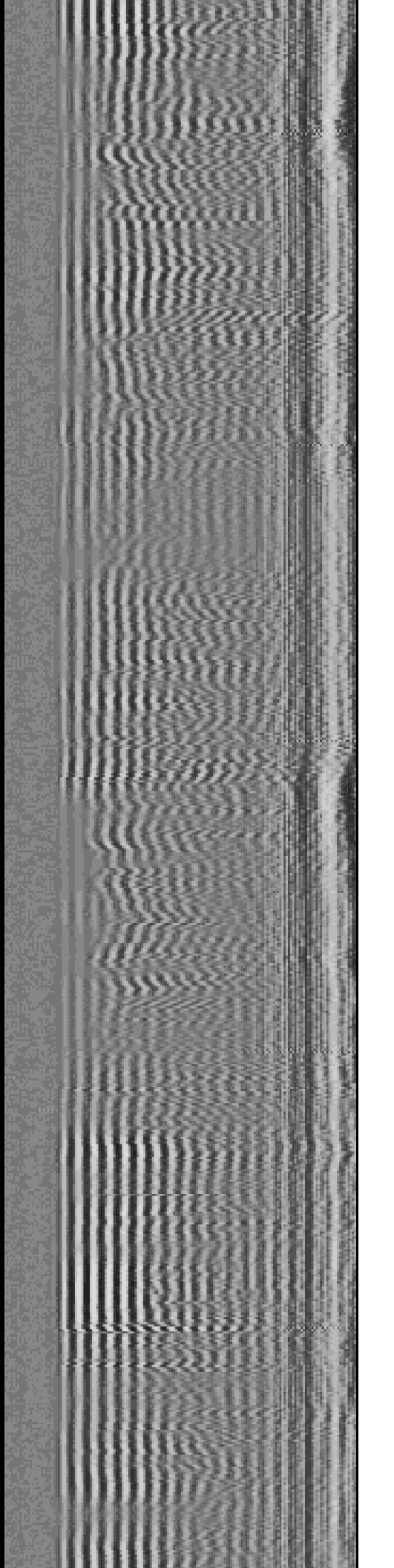
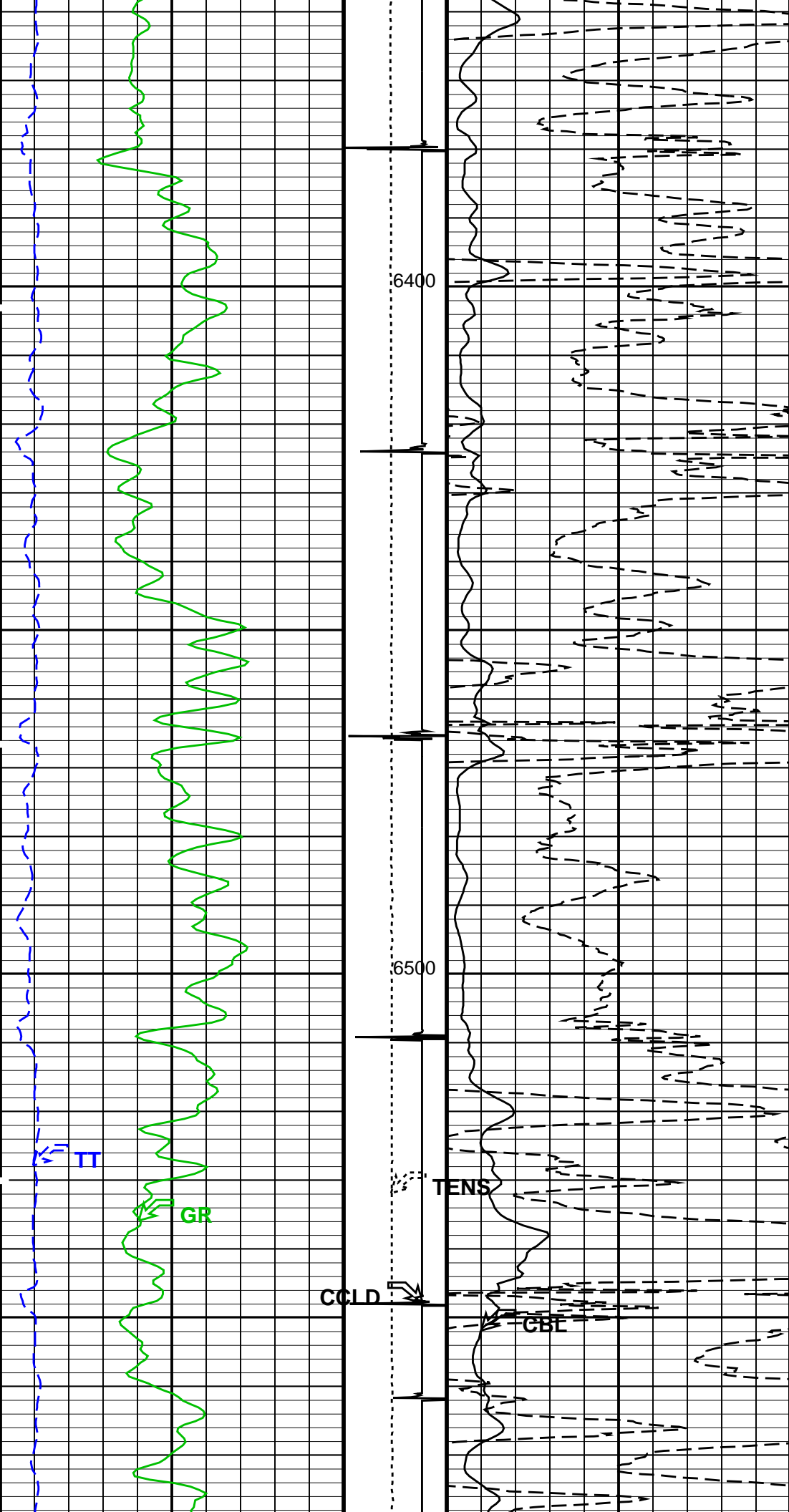


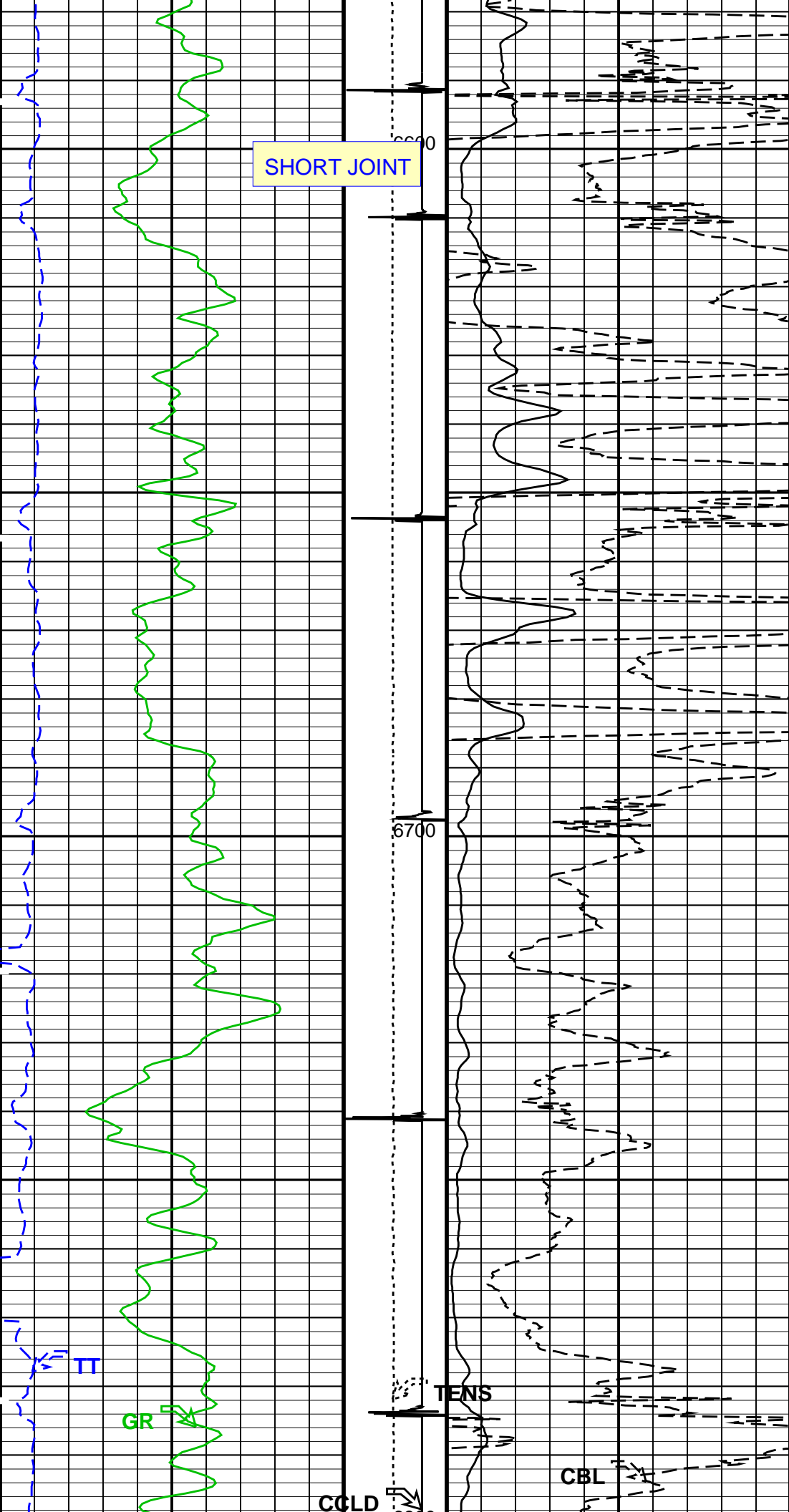


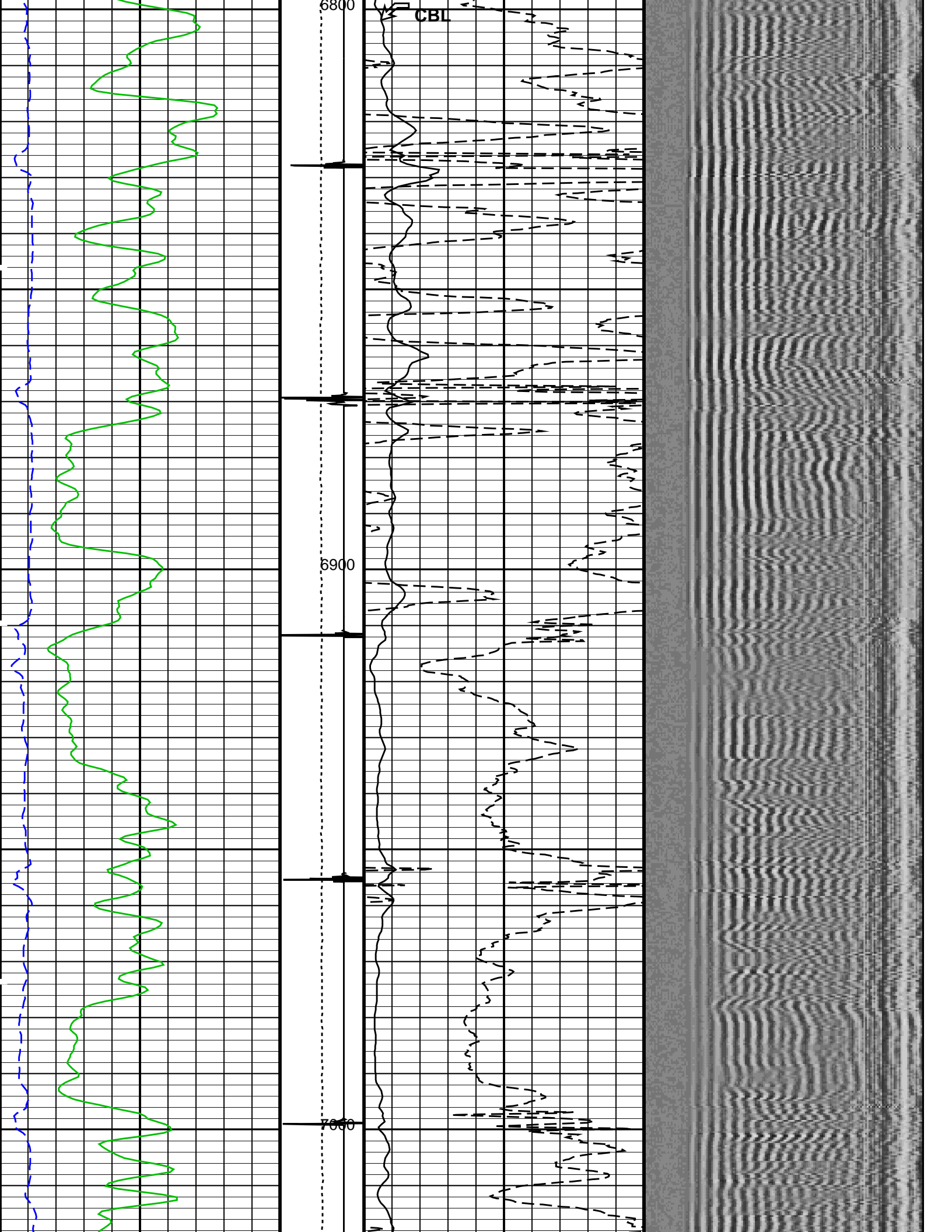


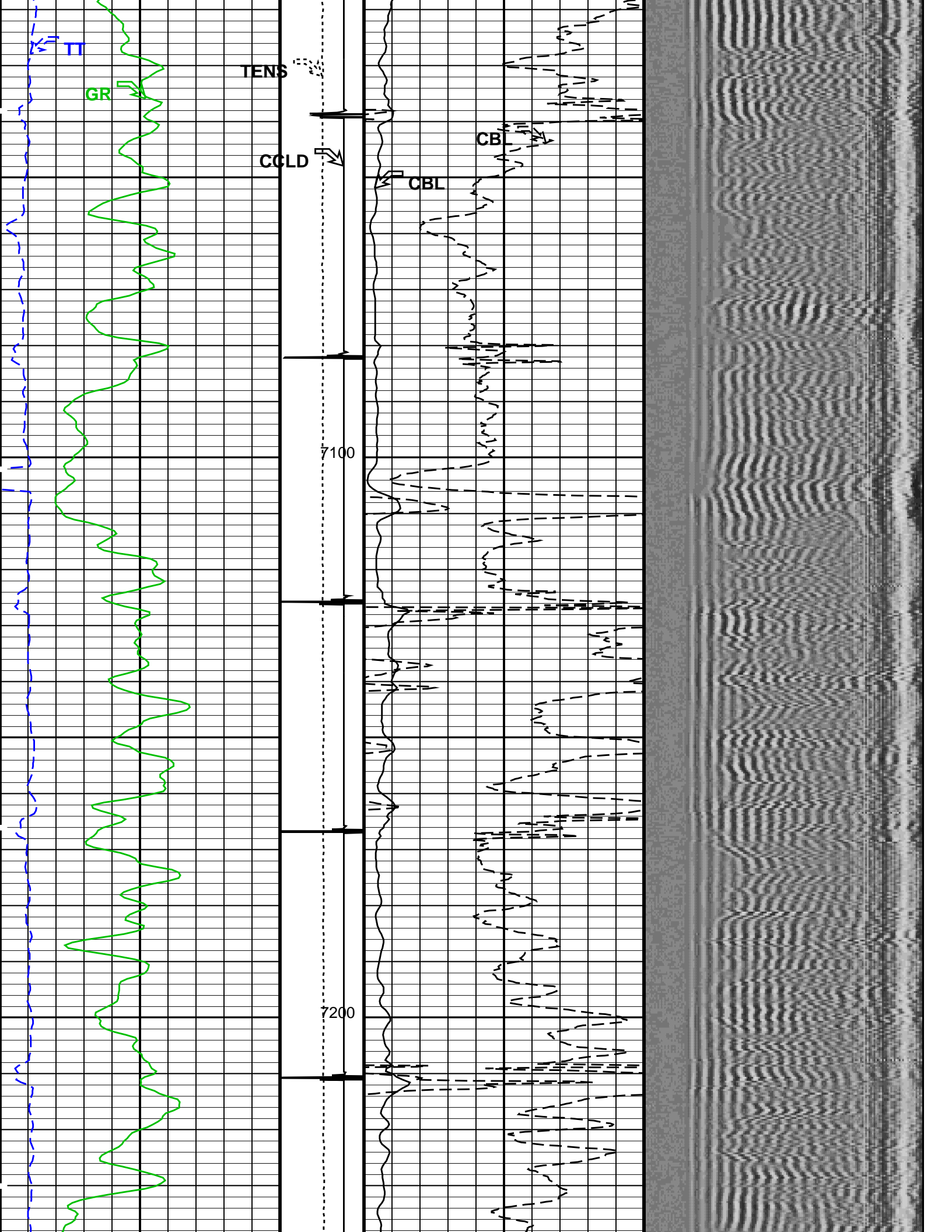


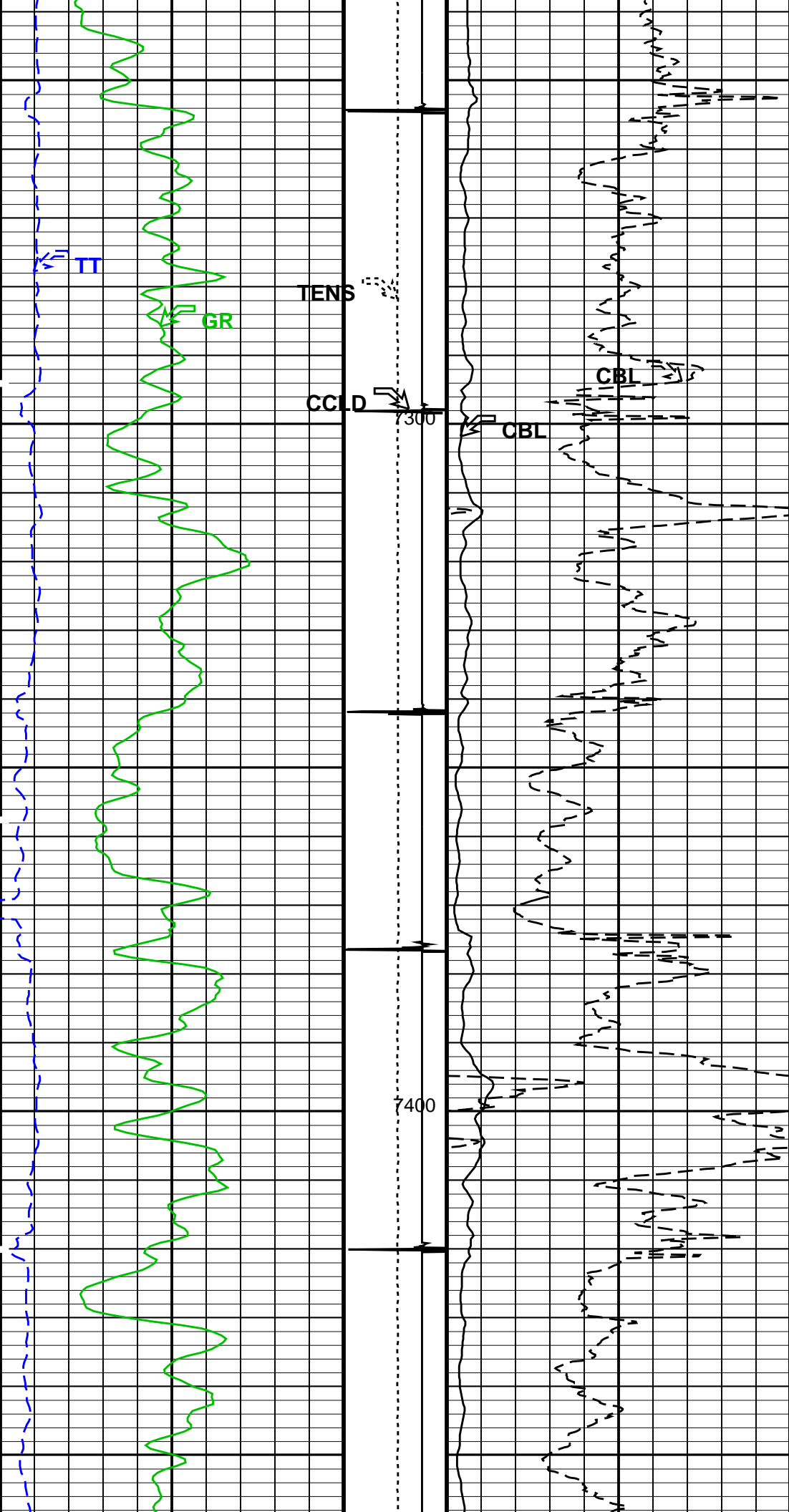


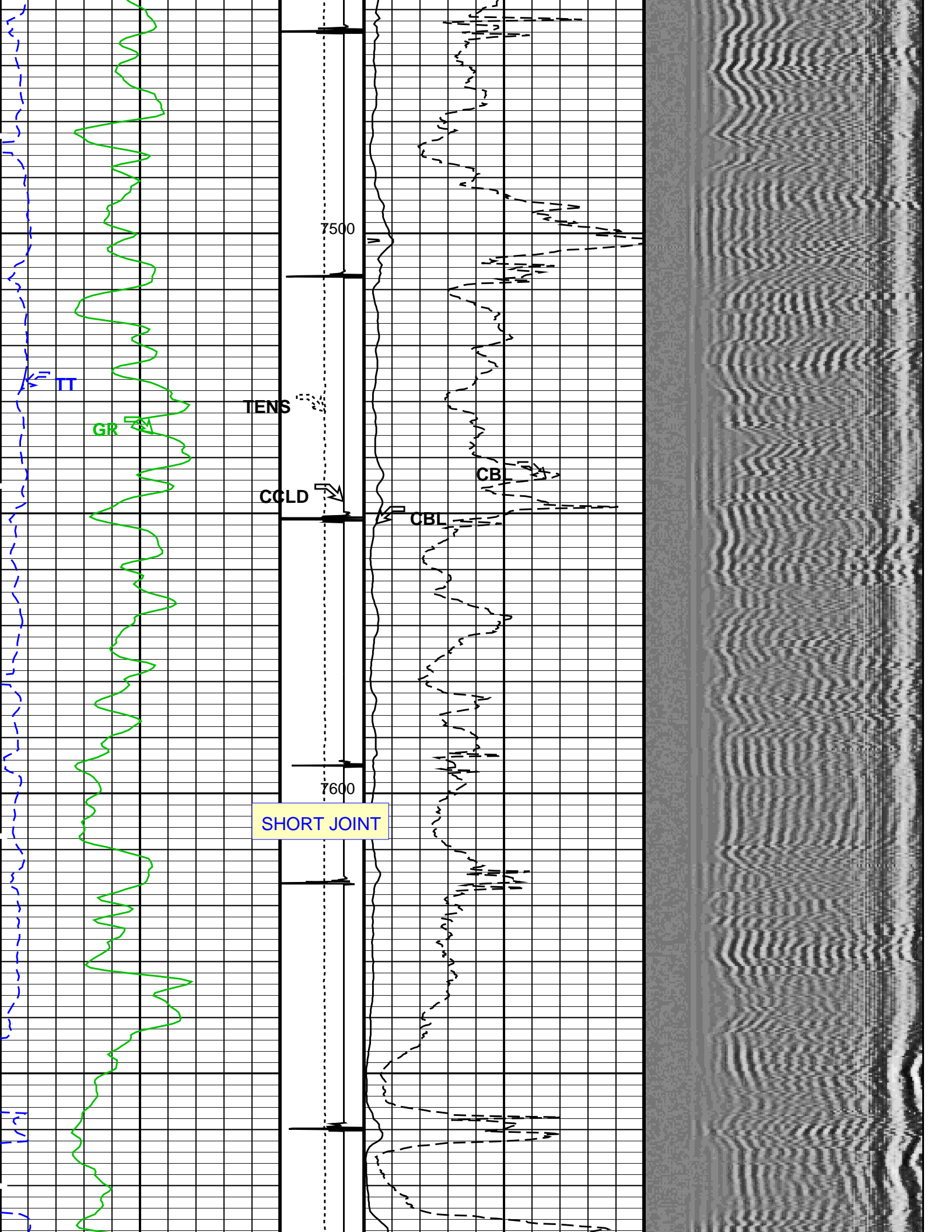


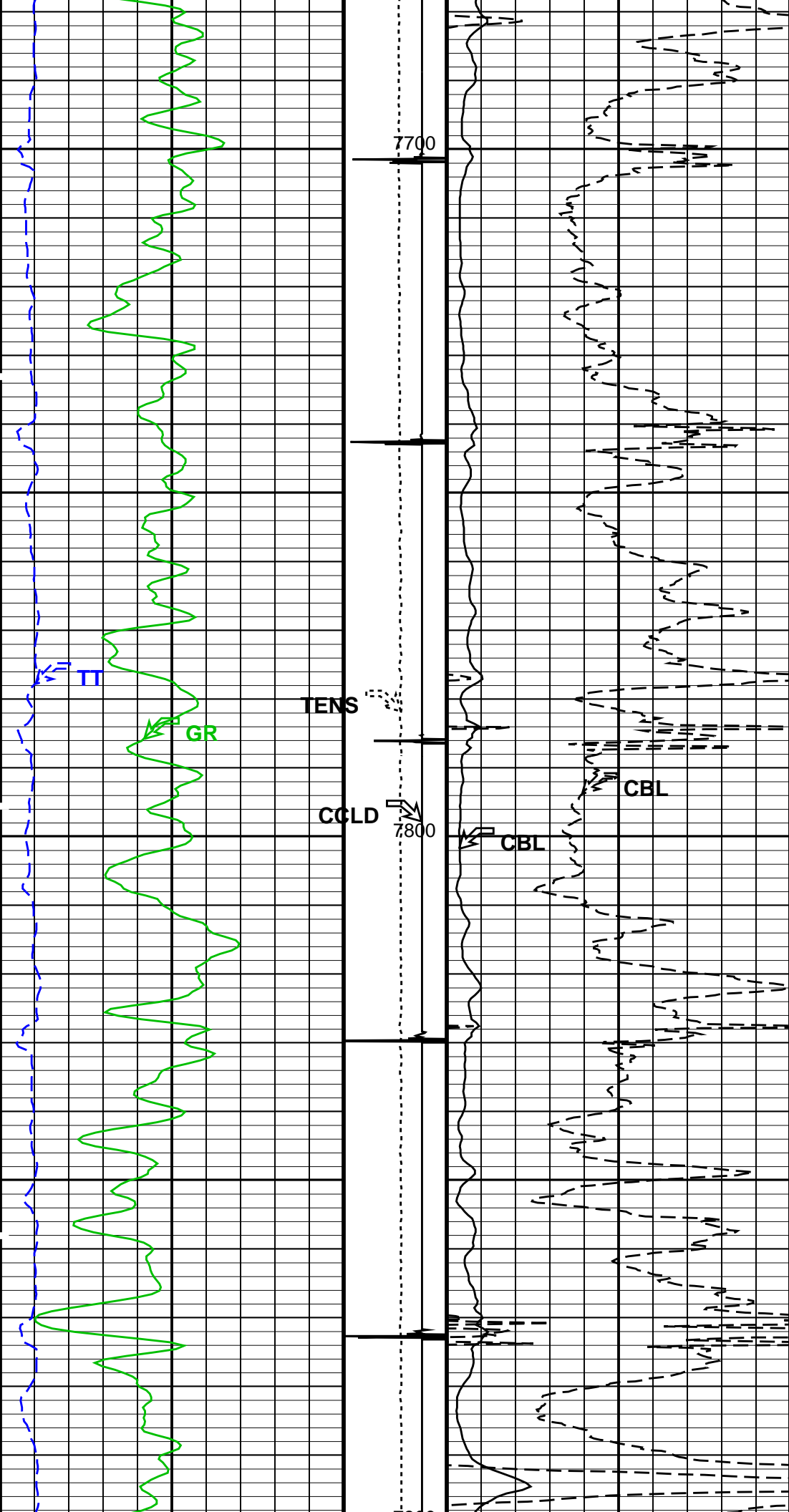


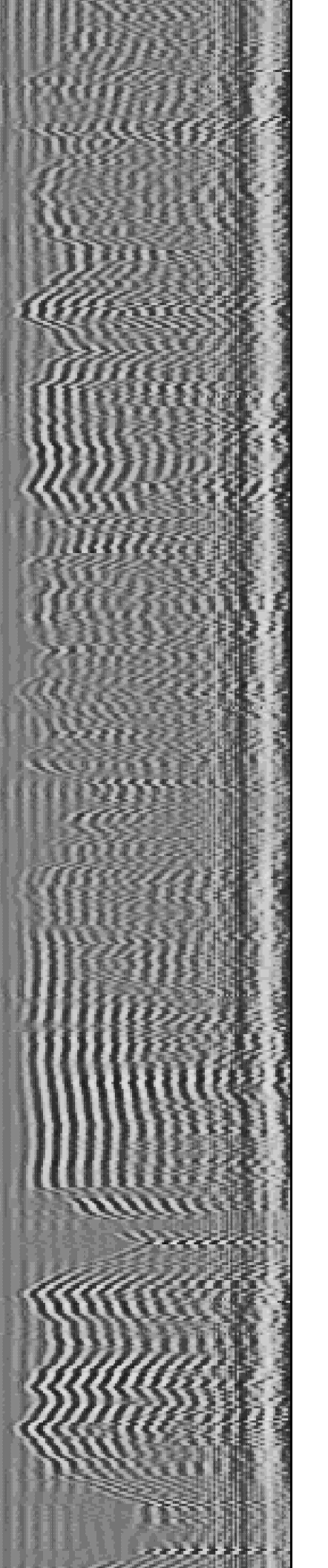
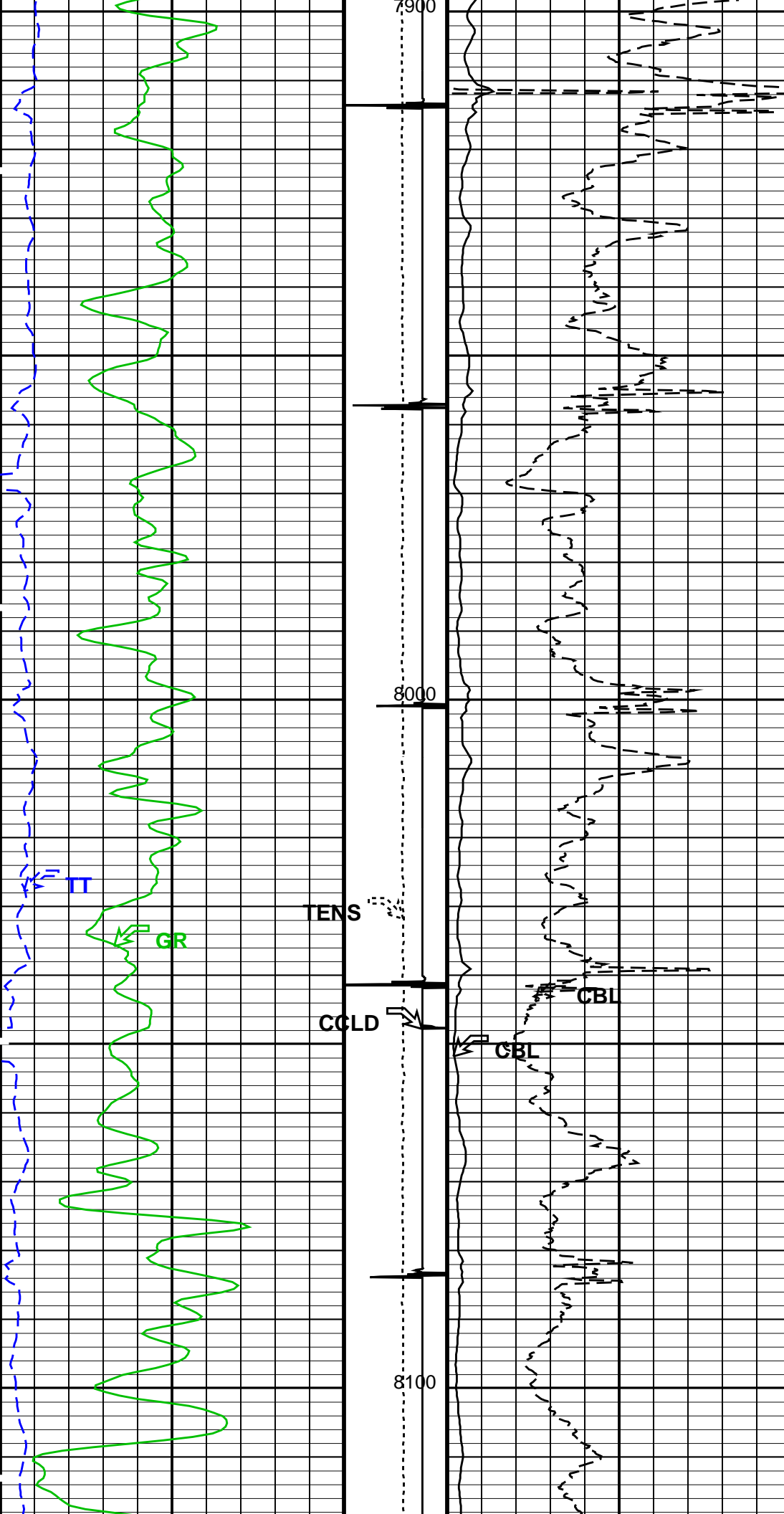


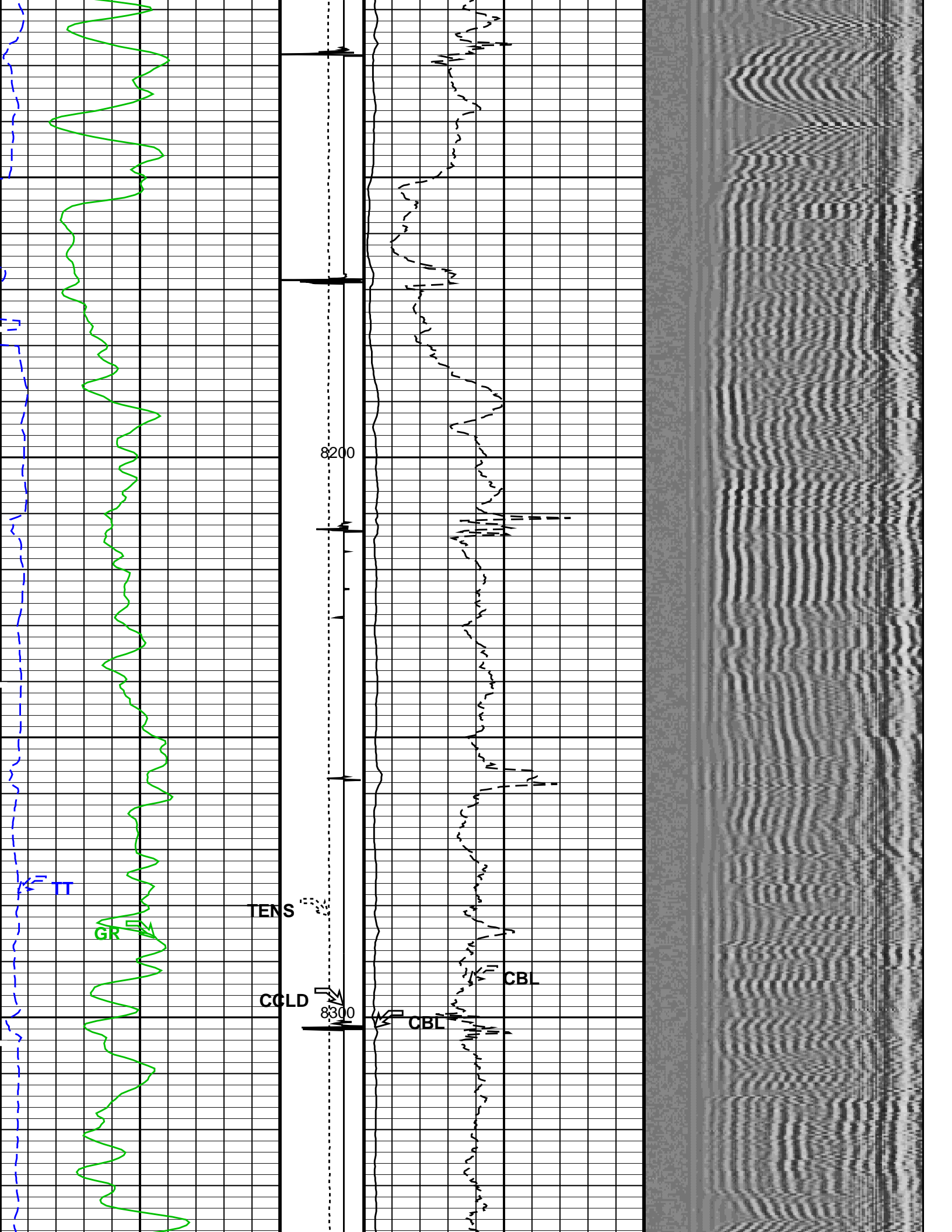


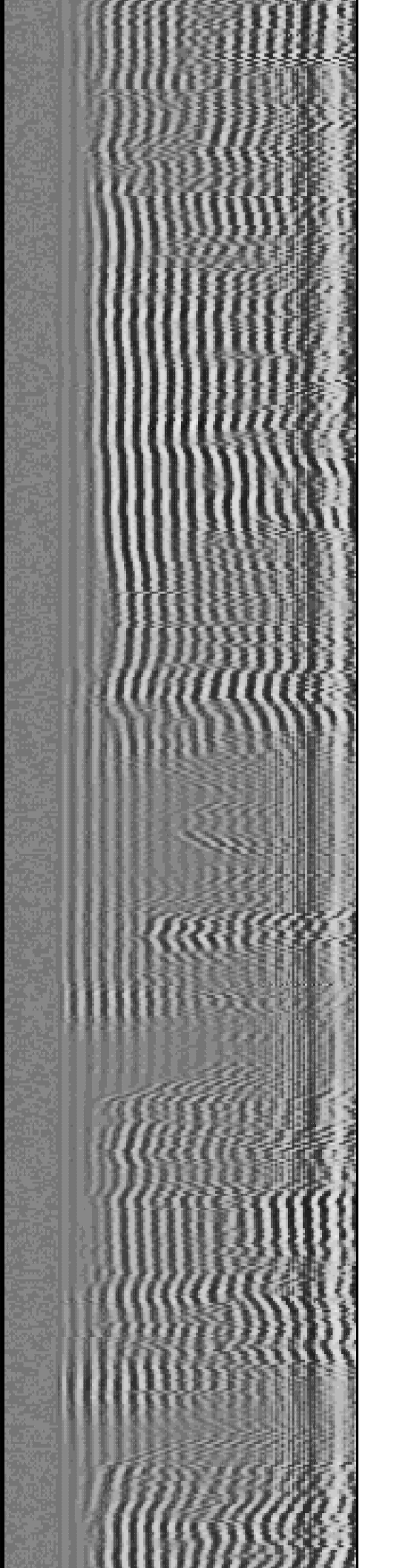
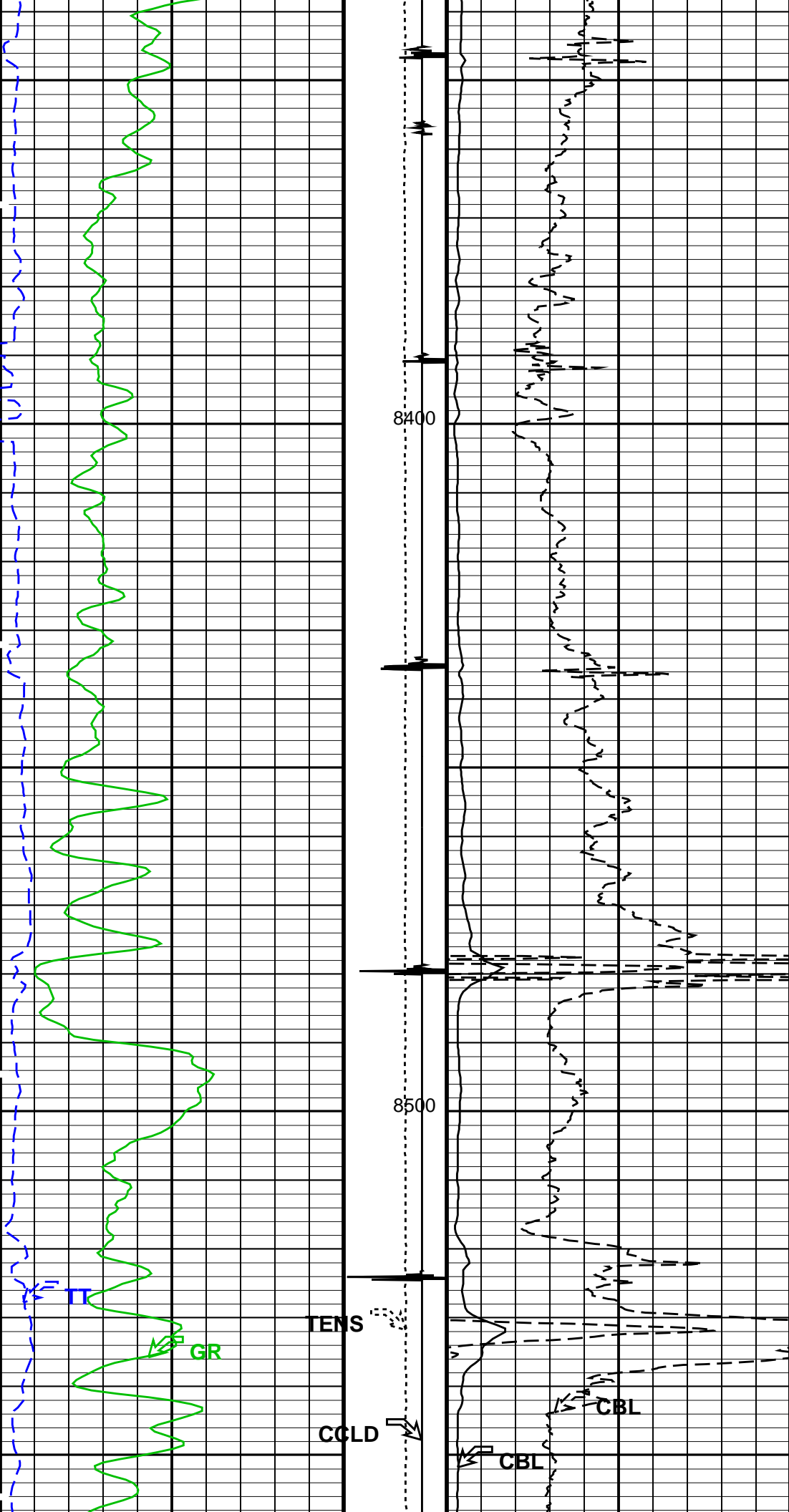


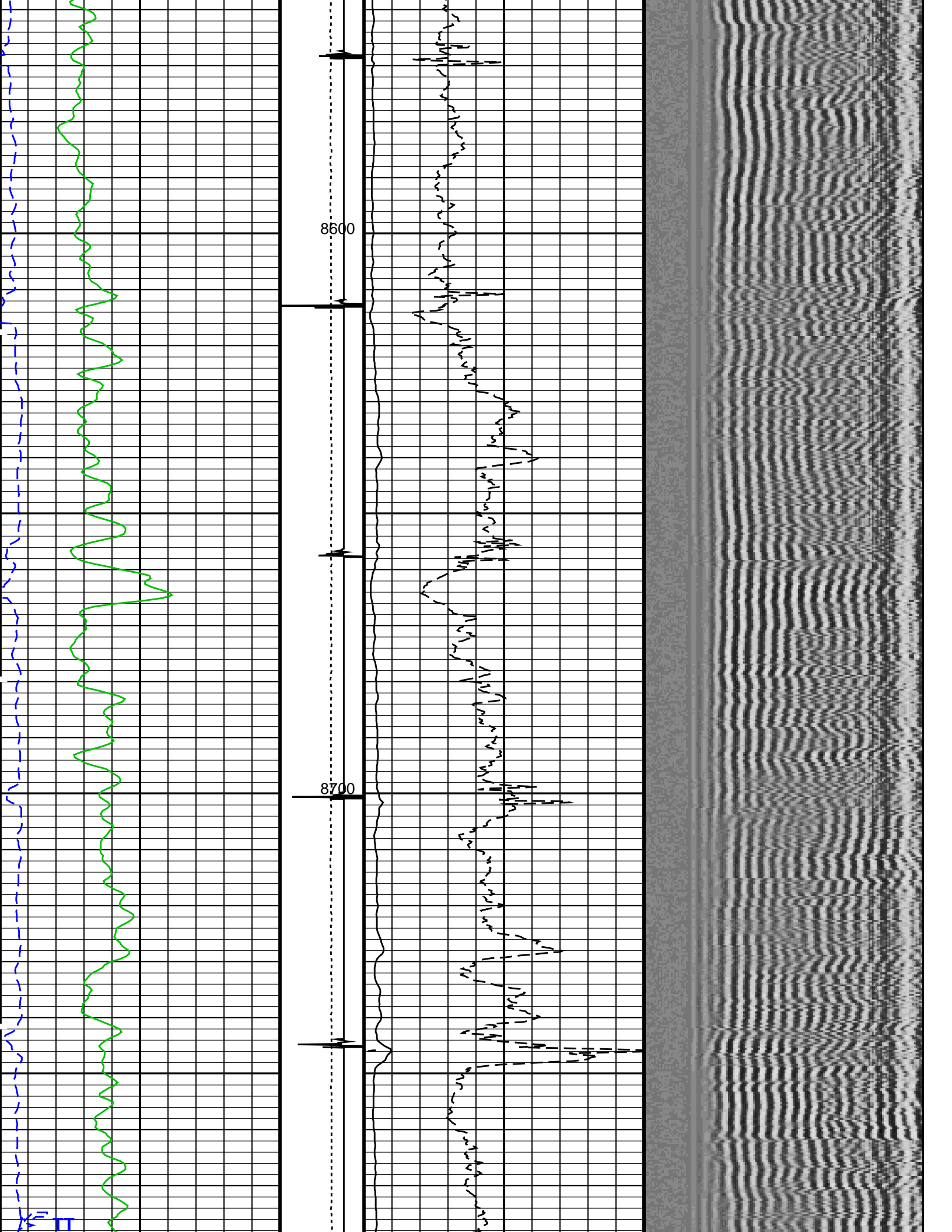


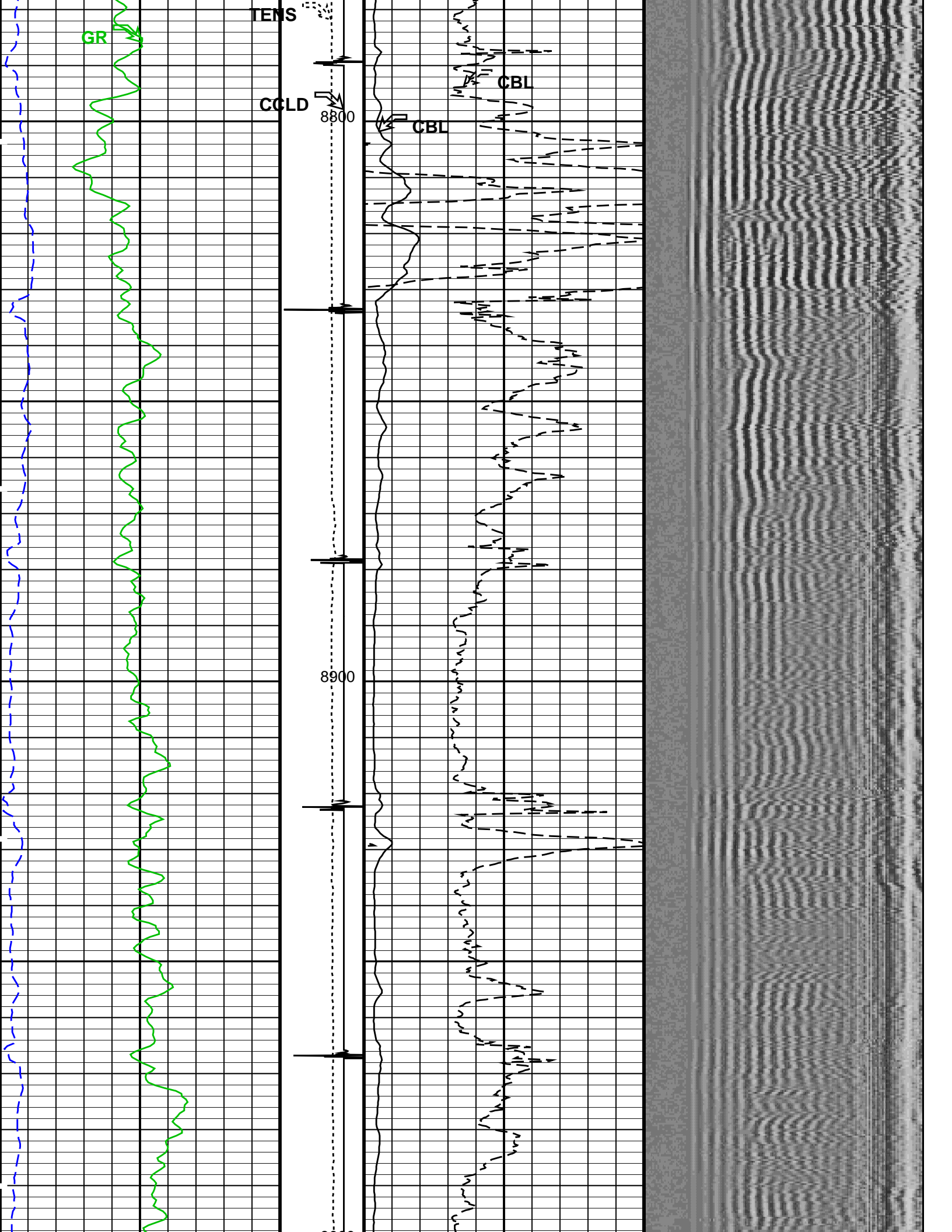


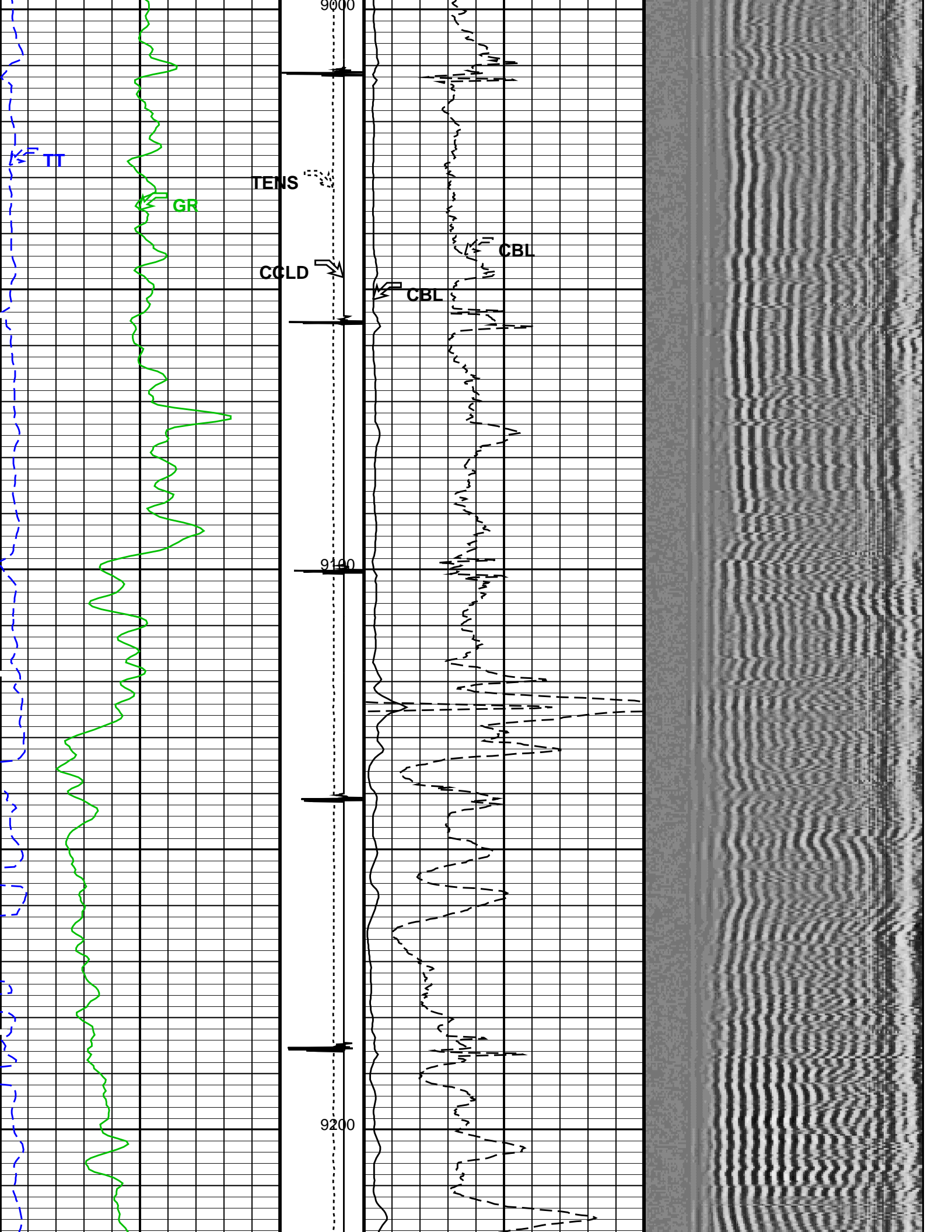


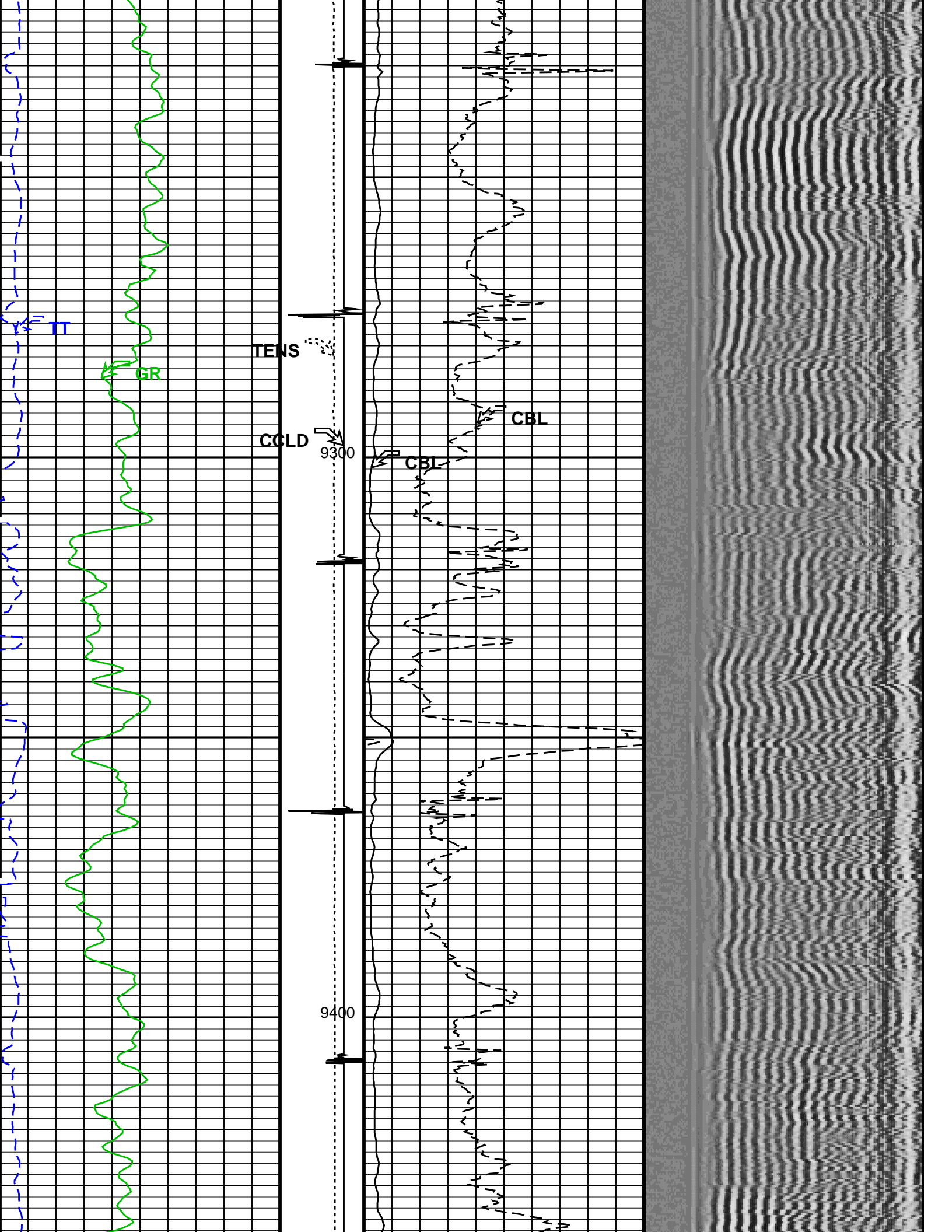


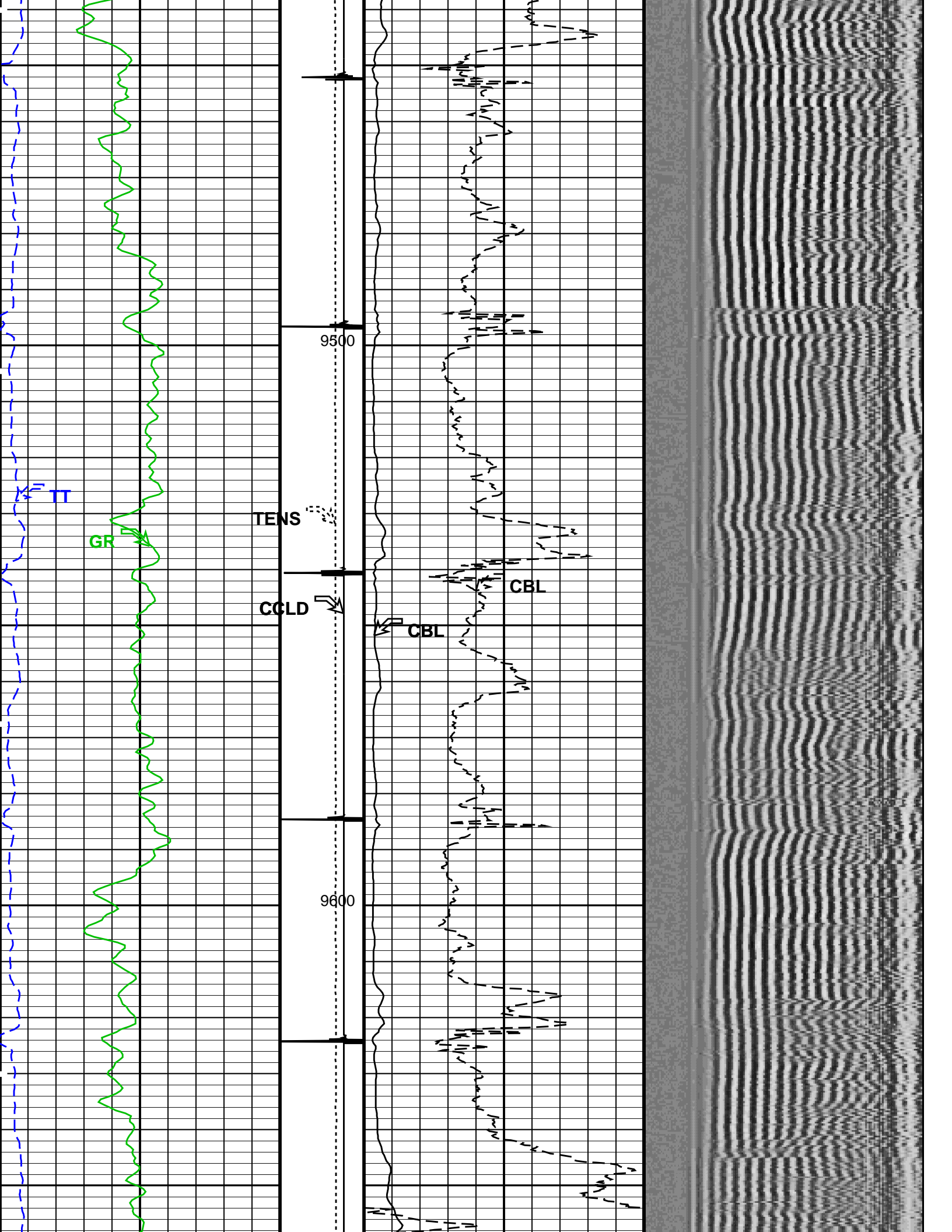


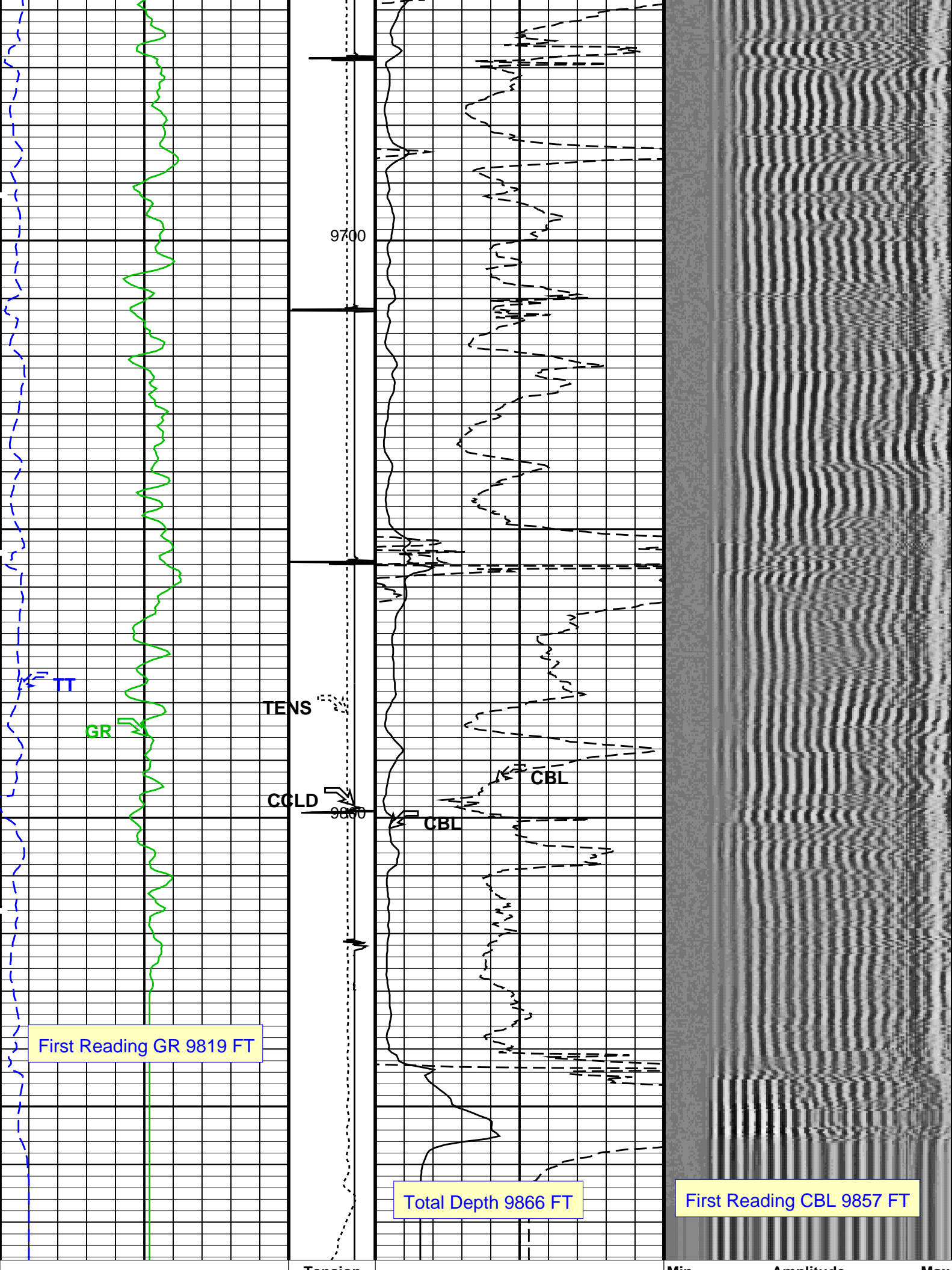


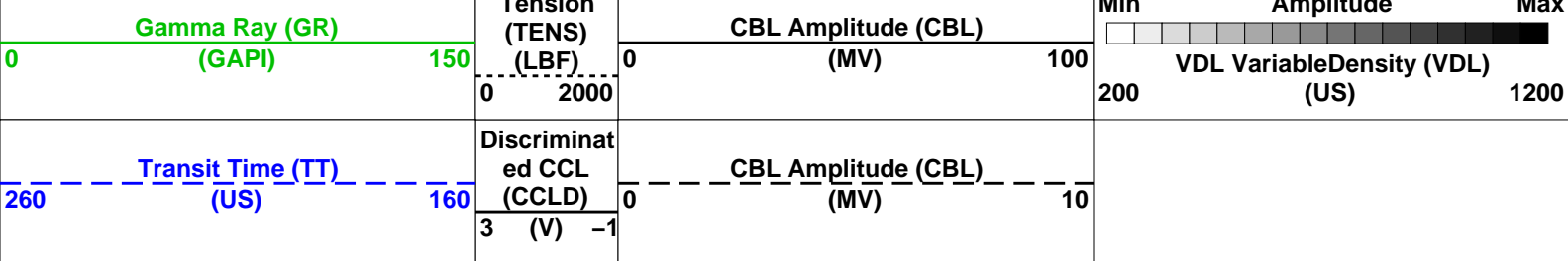












PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100'

Graphics File Created: 25-Nov-2013 20:51

OP System Version: 19C0-187

SCMT-CB SRPC-5214-H2-2012-OP1: RST-C SRPC-5214-H2-2012-OP1:
PSPT SRPC-5214-H2-2012-OP1:

<<<SCMT Cement Evaluation Information Summary>>>			
Sonde Serial Number	SCMS-CB 8303		
Current Casing Size	4.50000 IN		
Casing Weight	11.6000 LB/F		
Expected CBL Amplitude in Free Pipe Section	80 MV	Minimum Sonic Amplitude	0.579149 MV (100% Cement) 1.55185 MV (80% Cement)
		MAP Minimum Sonic Amplitude	4.32284 MV (100% Cement) 8.10244 MV (80% Cement)
Master Calibration (Normalization)		Before Calibration (Adjustment)	
Date of Master Calibration	19-NOV-2013		
CBL Correction Factor	0.0743678	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.127925	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.120622		
MAP 3 Correction Factor	0.153607		
MAP 4 Correction Factor	0.159414		
MAP 5 Correction Factor	0.164508		
MAP 6 Correction Factor	0.182220		
MAP 7 Correction Factor	0.190086		
MAP 8 Correction Factor	0.182177		

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	224.559	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	338.559	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	80	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	0.255617	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	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F

MAT	Maximum Attenuation	10.3443	DB
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	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			
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	10.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9866	FT

Input DLIS Files

DEFAULT SCMT_RST_PSP_038LUP FN:36 PRODUCER 25-Nov-2013 18:12 9866.5 FT 12.0 FT

Output DLIS Files

DEFAULT SCMT_RST_PSP_042PUP FN:40 PRODUCER 25-Nov-2013 20:51

Schlumberger

REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC Well: HMU 6-11A (J6SEB)

Input DLIS Files

DEFAULT SCMT_RST_PSP_036LUP FN:34 PRODUCER 25-Nov-2013 17:50 6763.0 FT 6454.5 FT
DEFAULT SCMT_RST_PSP_042PUP FN:40 PRODUCER 25-Nov-2013 20:51 9876.5 FT -22.5 FT

Output DLIS Files

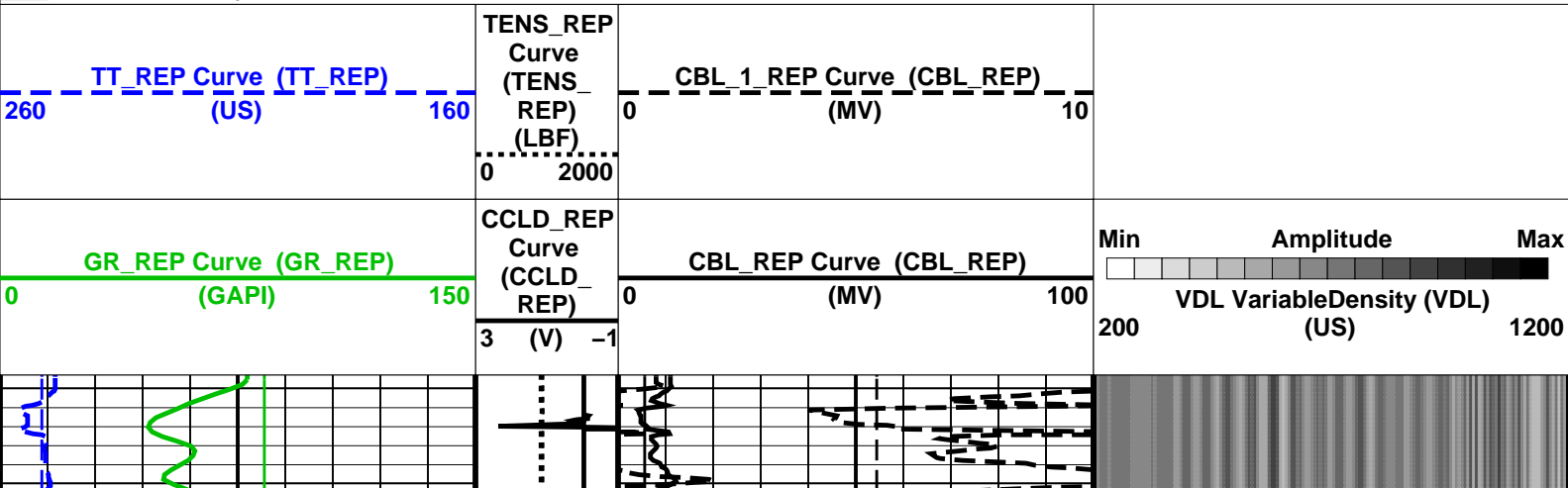
DEFAULT SCMT_RST_PSP_043PUP FN:41 PRODUCER 25-Nov-2013 20:58 6771.0 FT 6418.0 FT

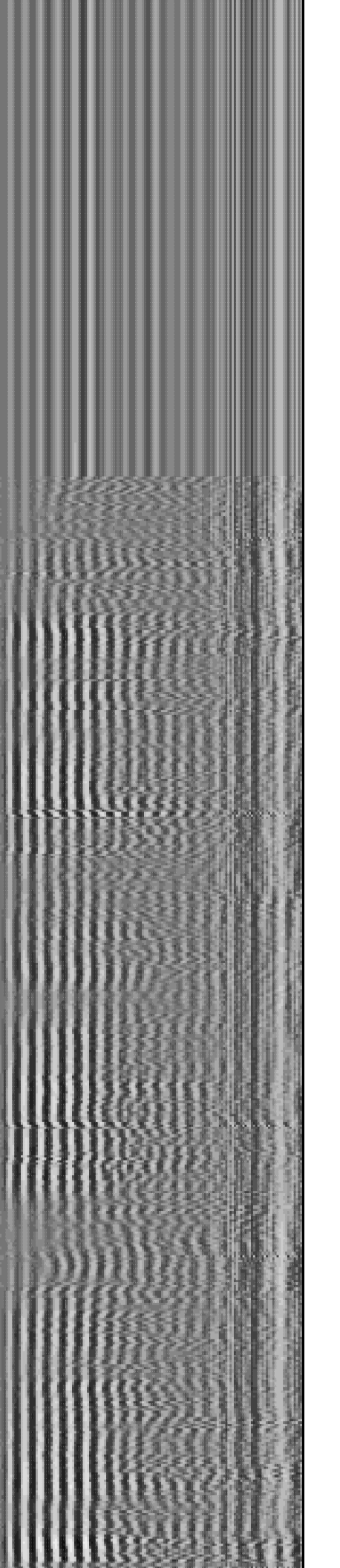
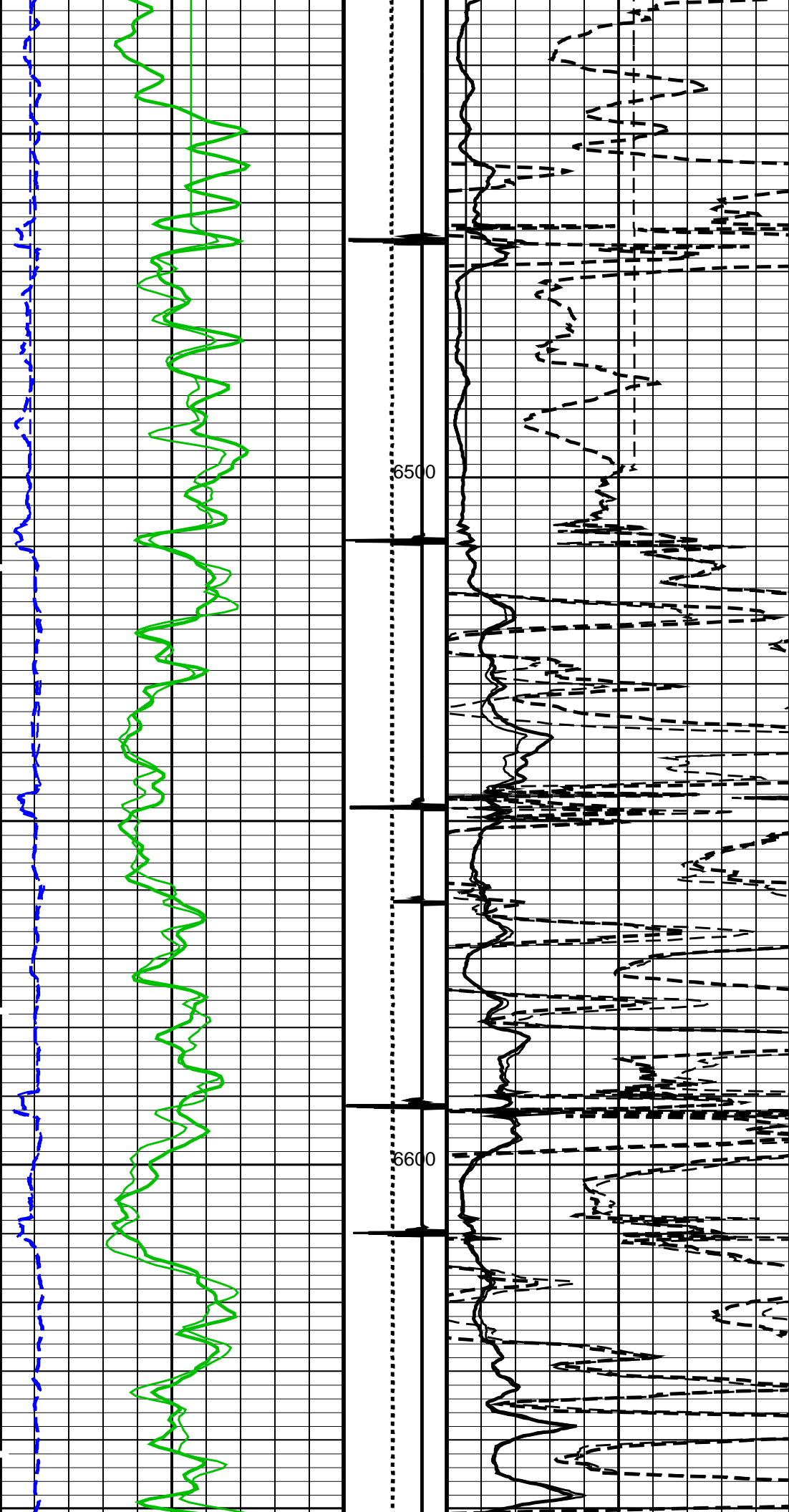
OP System Version: 19C0-187

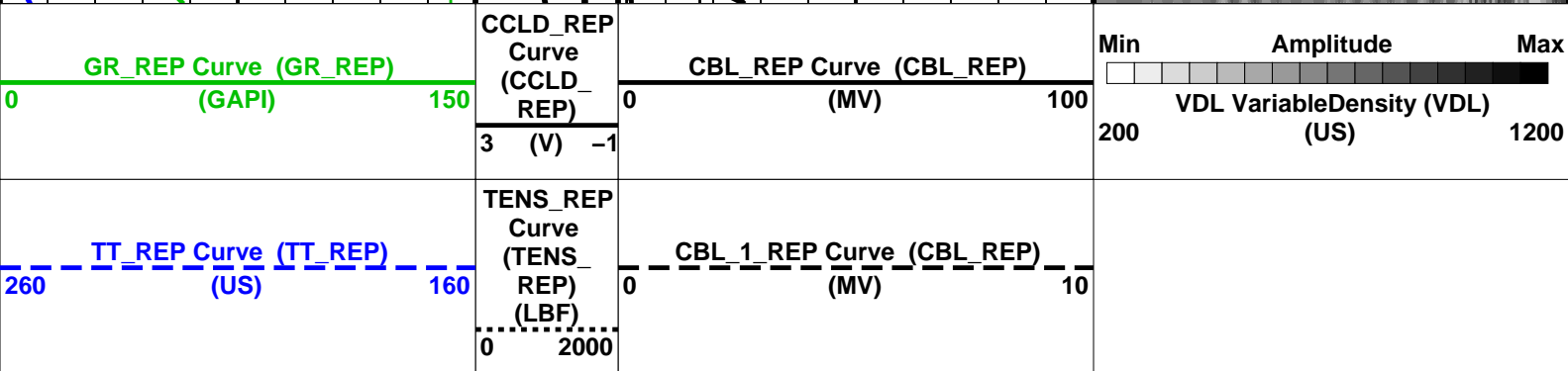
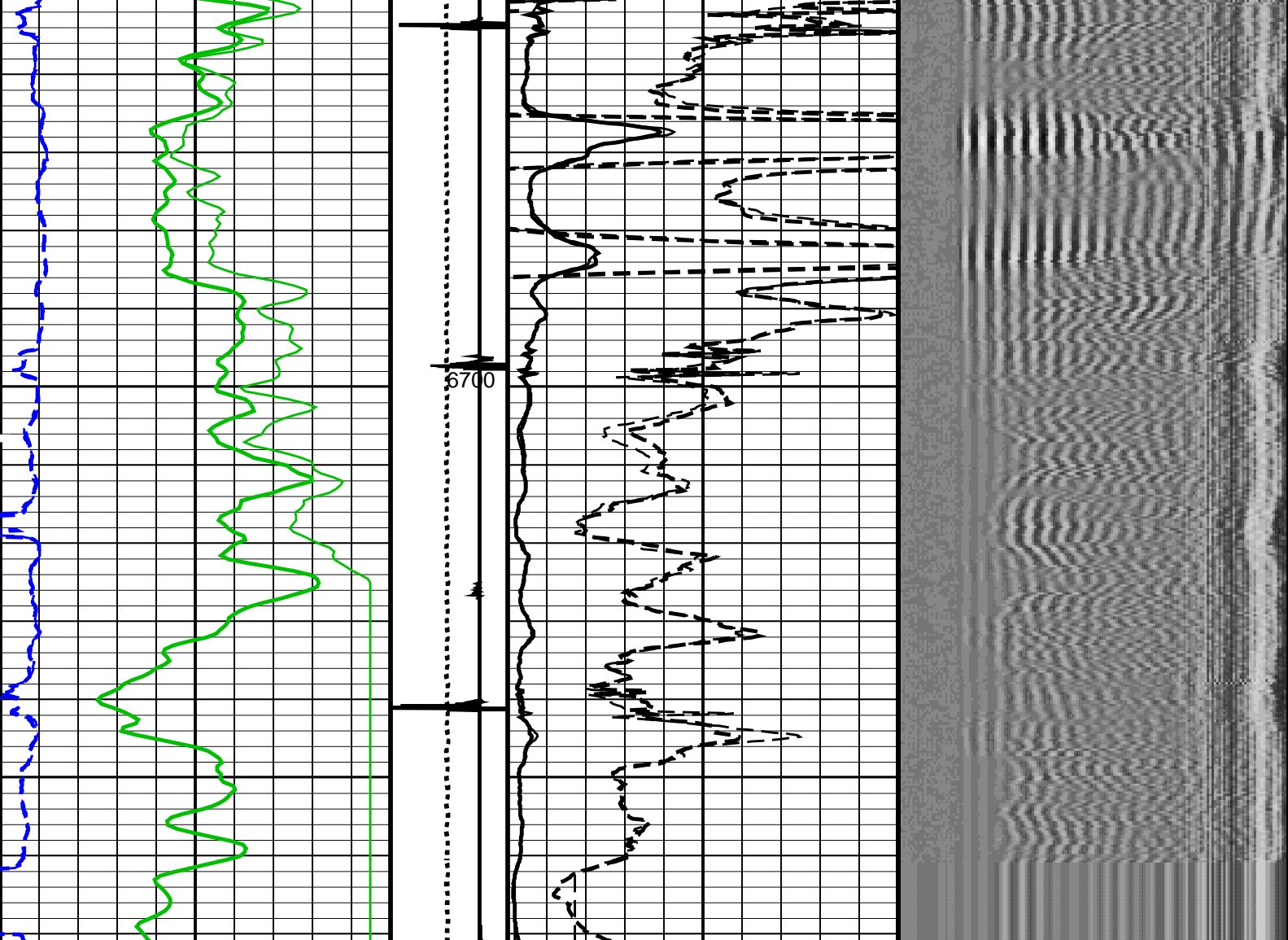
SCMT-CB SRPC-5214-H2-2012-OP1! RST-C SRPC-5214-H2-2012-OP1!
PSPT SRPC-5214-H2-2012-OP1!

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: 25-Nov-2013 20:58

OP System Version: 19C0-187

SCMT-CB	SRPC-5214-H2-2012-OP1	RST-C	SRPC-5214-H2-2012-OP1
PSPT	SRPC-5214-H2-2012-OP1		

<<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number SCMS-CB 8303

Current Casing Size 4.50000 IN

Casing Weight 11.6000 LB/F

Expected CBL Amplitude
in Free Pipe Section 80 MV

Minimum Sonic Amplitude 0.579149 MV (100% Cement)
1.55185 MV (80% Cement)

MAP Minimum Sonic Amplitude 4.32284 MV (100% Cement)
8.10244 MV (80% Cement)

Master Calibration (Normalization)

Before Calibration (Adjustment)

Date of Master Calibration 19-NOV-2013

CBL Correction Factor 0.0743678

CBL Adjustment Factor (CBAF) 1.0

MAP 1 Correction Factor 0.127925

MAP Adjustment Factor (MPAF) 1.0

MAP 2 Correction Factor 0.120622

MAP 3 Correction Factor 0.153607

MAP 4 Correction Factor 0.159414

MAP 5 Correction Factor 0.164508

MAP 6 Correction Factor 0.182220

MAP 7 Correction Factor 0.190086

MAP 8 Correction Factor 0.182177

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	224.559	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	338.559	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	80	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	0.255617	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	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	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			
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	8.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9866	FT

Input DLIS Files

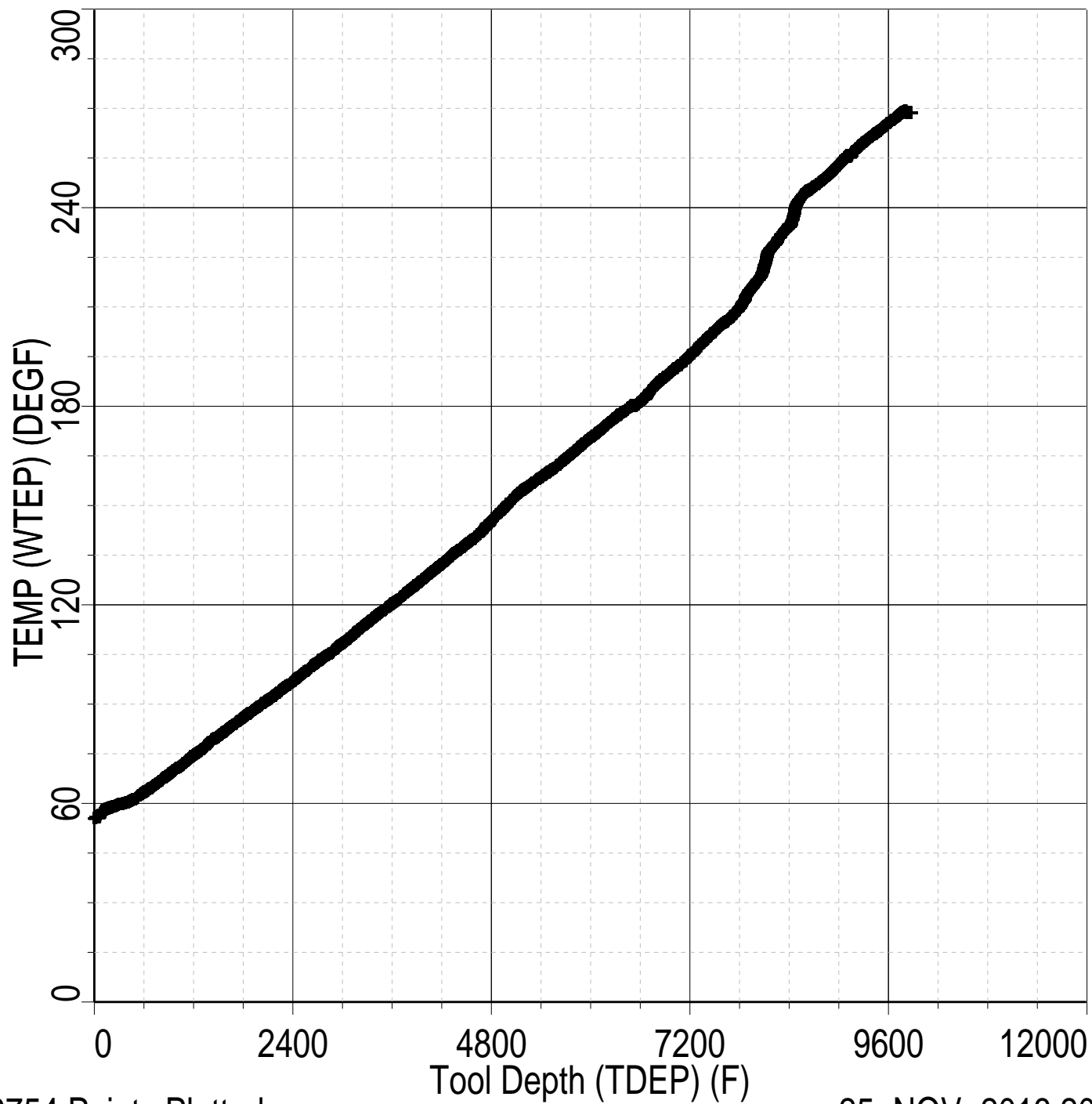
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Output DLIS Files

DEFAULT	SCMT_RST_PSP_043PUP	FN:41	PRODUCER	25-Nov-2013 20:58
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MAXIS Field Log

Index: 9876.5 – -22.5 FT



19754 Points Plotted

25-NOV-2013 20:57

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: HMU 6–11A (J6SEB)
Run date: 25–Nov–2013

Tool: PSP
Sub Type: PBMS
Sensor: GR

PBMS Gamma Ray

Sonde Serial NB RESISTORS FOR GR SENSOR N.33223, TOOL PBMS–BA0928. SENSOR S/N:
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: MAMM CREEK
Well: HMU 6–11A (J6SEB)
Run date: 25–Nov–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

It**3

It**4

It**5

Tt**0

+.957191300908E+01

−.711421725686E+00

0.0

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: HMU 6–11A (J6SEB)
Run date: 25–Nov–2013

Tool: PSP
Sub Type: PBMS
Sensor: CQG

PBMS Quartz Gauge type F

Sonde Serial NB

COEFFICIENTS FOR CQG PBMS–B.928 S/N:

Sensor Serial NB

928

Calib Date ddmmyy

280612

Matrix Size

66

Coeff CRC

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 928
Calib Date ddmmyy 280612
Matrix Size 66
Coeff CRC 283B

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+1.117016867873E+03	-.284359629614E-03	+6.04391180345E-08
Fb**1	-.598309140812E-02	+1.182731130848E-07	+1.160166486172E-12
Fb**2	-.307621454576E-07	+3.300601550309E-12	+3.311233548560E-17
Fb**3	-.419658736767E-12	+1.117473708647E-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	+1.114322792679E-12	+1.153807711176E-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	+3.10874009898E+05	+2.88920923041E-02	+6.97940727038E-06

	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.657432344763E-10	-.412920638782E-15	+2.13369826099E-20

PBMS Quartz Gauge type F

Sonde Serial NB :
Sensor Serial NB 928
Calib Date ddmmyy 280612
Matrix Size 16
Coeff CRC 0412

Clock Temp Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+1.15369519827E+03	-.565338877075E-02	-.333717531829E-07
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.124387135327E-12	+7.13102327208E-16	-.316084316842E-20



MASTER CALIBRATION

MAXIS Field Log

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

Primary Equipment:

Slim Cement Mapping Xmitter Electronics
 Slim Cement Mapping Sonde
 Slim Cement Mapping Cartridge

SCMX - CA
 SCMS - CB 8303
 SCMC - CA 8120

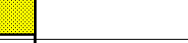
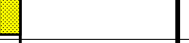







Auxiliary Equipment:

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		938.0	Master		994.8
	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		781.2	Master		752.8
	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		729.4	Master		658.5
	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		631.3	Master		658.7
	500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)			500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)	
Phase	CBL Amplitude Plus MV	Value			
Master		1291			
	1000 (Minimum) 1350 (Nominal) 1700 (Maximum)				

Master: 19-Nov-2013 13:46

Company: ENCANA OIL & GAS (USA) INC



Well: HMU 6–11A (J6SEB)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

SLIM CEMENT MAPPING LOG
CBL–VDL
GAMMA RAY–CCL