

Company: ENCANA OIL & GAS (USA) INC

Well: MCU 26-4B (I27W)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

SLIM CEMENT MAPPING LOG  
CBL-VDL  
GR-CCL

County:	GARFIELD		
Field:	MAMM CREEK		
Location:	SHL: 501 FEL & 1973 FSL		
Well:	MCU 26-4B (I27W)		
Company:	ENCANA OIL & GAS (USA) INC		
	LOCATION		
	SHL: 501 FEL & 1973 FSL BHL: 965 FWL & 1025 FNL	Elev.: K.B. 7224.00 ft G.L. 7202.00 ft D.F. 7223.00 ft	
	Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____	GROUND LEVEL _____ KELLY BUSHING _____ KELLY BUSHING _____	Elev.: 7202.00 ft 22.00 ft above Perm. Datum
	API Serial No. 05-045-21604-0C	Section 27	Township 7S Range 93W

	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	22-Jan-2013		
Run Number	1		
Depth Driller	9643 ft		
Schlumberger Depth	9539 ft		
Bottom Log Interval	9530 ft		
Top Log Interval	60 ft		
Casing Fluid Type	FRESH WATER		
Salinity			
Density	8.4 lbm/gal		
Fluid Level	60 ft		
BIT/CASING/TUBING STRING			
Bit Size	7.875 in		
From	7035 ft		
To	9643 ft		
Casing/Tubing Size	4.500 in		
Weight	11.6 lbm/ft		
Grade	S-80		
From	22 ft		
To	9623 ft		
Maximum Recorded Temperatures	245 degF		
Logger On Bottom	22-Jan-2013	16:45	
Unit Number	391	GRAND JUNCTION	
Recorded By	KIRSTIE BUNTING		
Witnessed By	EUGENE		

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: 12-DEC-2012 9:29:15

## 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:	
Calibration Date:	4-24-2012	Calibration Date:	28-11-2012	Length:	19700 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878		
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Conveyance Method:	Wireline
Wheel Correction 1:	-3	Calibration RMS:	6	Rig Type:	LAND
Wheel Correction 2:	-4	Calibration Peak Error:	11		

## Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	200.00 FT
Rig Up Length At Bottom:	200.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	
Tool Zero Check At Surface:	

### Depth Control Remarks

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: RESERVOIR SATURATION	OS1:
OS2: LOG	OS2:
OS3: SIGMA MODE	OS3:
OS4: GR-CCL	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	
ENTRANCE TIME: 16:15	
TIME AT TD: 16:45	
EXIT TIME: 19:45	

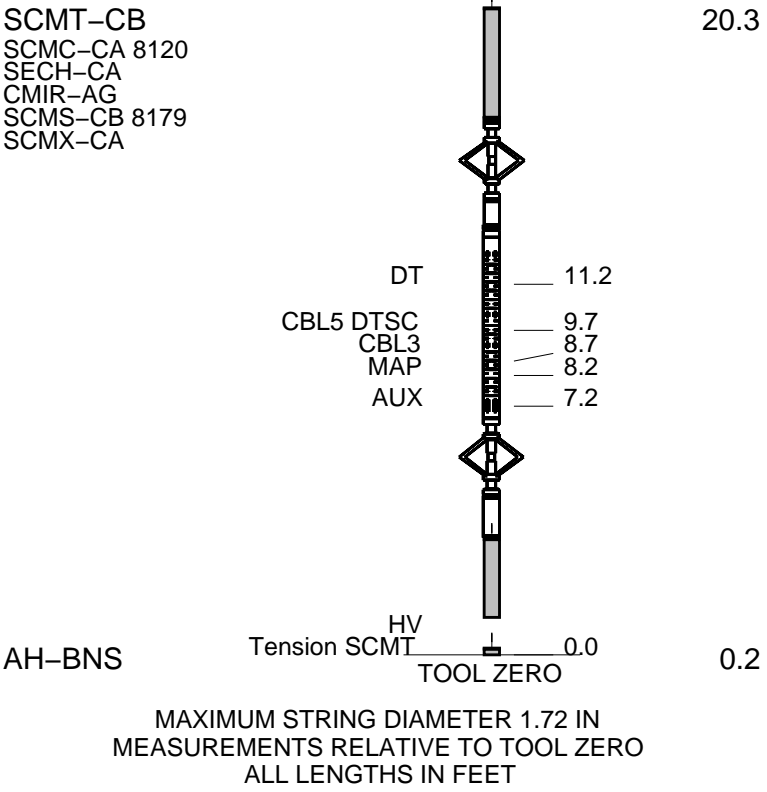
MAXIMUM RECORDED TEMPERATURE: 245 DEG F	
MAXIMUM RECORDED PRESSURE: 3849 PSIA	
SHORT JOINTS: 8420 FT & 7410 FT	
MAIN PASS LOGGED WITH ZERO SURFACE PRESSURE	
EXPECTED CBL AMP IN FREE PIPE 80MV	
THANK YOU FOR CHOOSING E&P WIRELINE, A SCHLUMBERGER COMPANY	
CREW: KRISTINE, DADDY WAZIT BRANDBOTTOM	

RUN 1			RUN 2		
SERVICE ORDER #:		CGF9-00012	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:		60 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION	
RUN 1	RUN 2
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
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99	99
100	100

WITM-A PSC_16MHZ	SURFACE EQUIPMENT	
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DOWNHOLE EQUIPMENT					
MH-22					53.4
MH-22					
AH-38	Detail MT				
	TelStatus				
	CTEM		—	51.5	51.8
PSPT					51.5
PSC-A					
PSPT-B 928					
PSTC-A 928					
PBMS-B 928	GR		—	47.8	
CQG_F_Mano					
RTD_Thermometer					
GR	Well_Temp		/	44.8	
CCL	CQG Manom		/	44.5	
PBMS 928	CCL		/	44.0	
	PBMS PSTC		—	43.3	
RST-C					43.3
RSCH-A 469					
RSC-E					
RSS-A 461					
RSXH-A 493					
RSX-E					
	RSC-A Far		/	34.2	
	RSC-A PNG		/		
	RSC-A Nea		/		
	RSX-A PNG		—	33.7	



Schlumberger

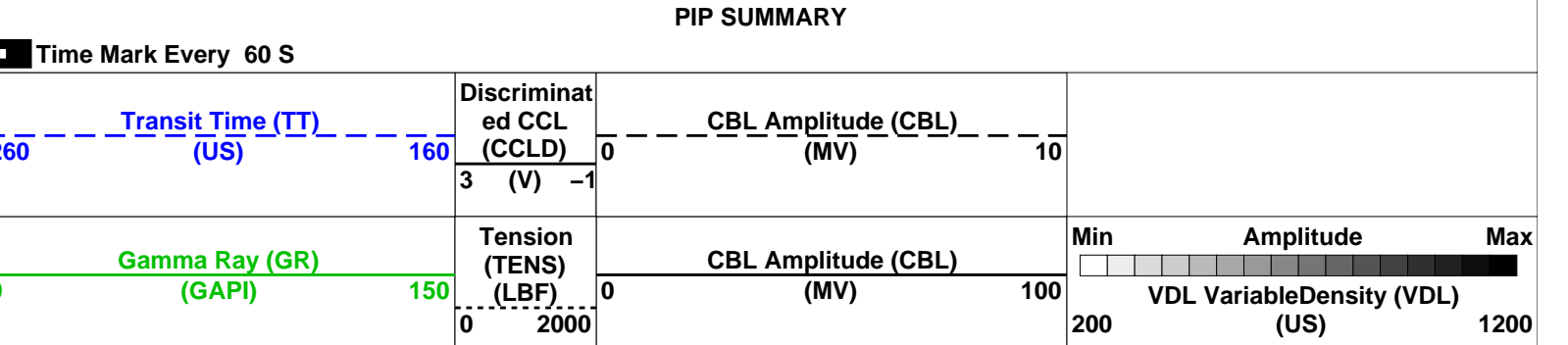
MAIN PASS CBL VDL

MAXIS Field Log

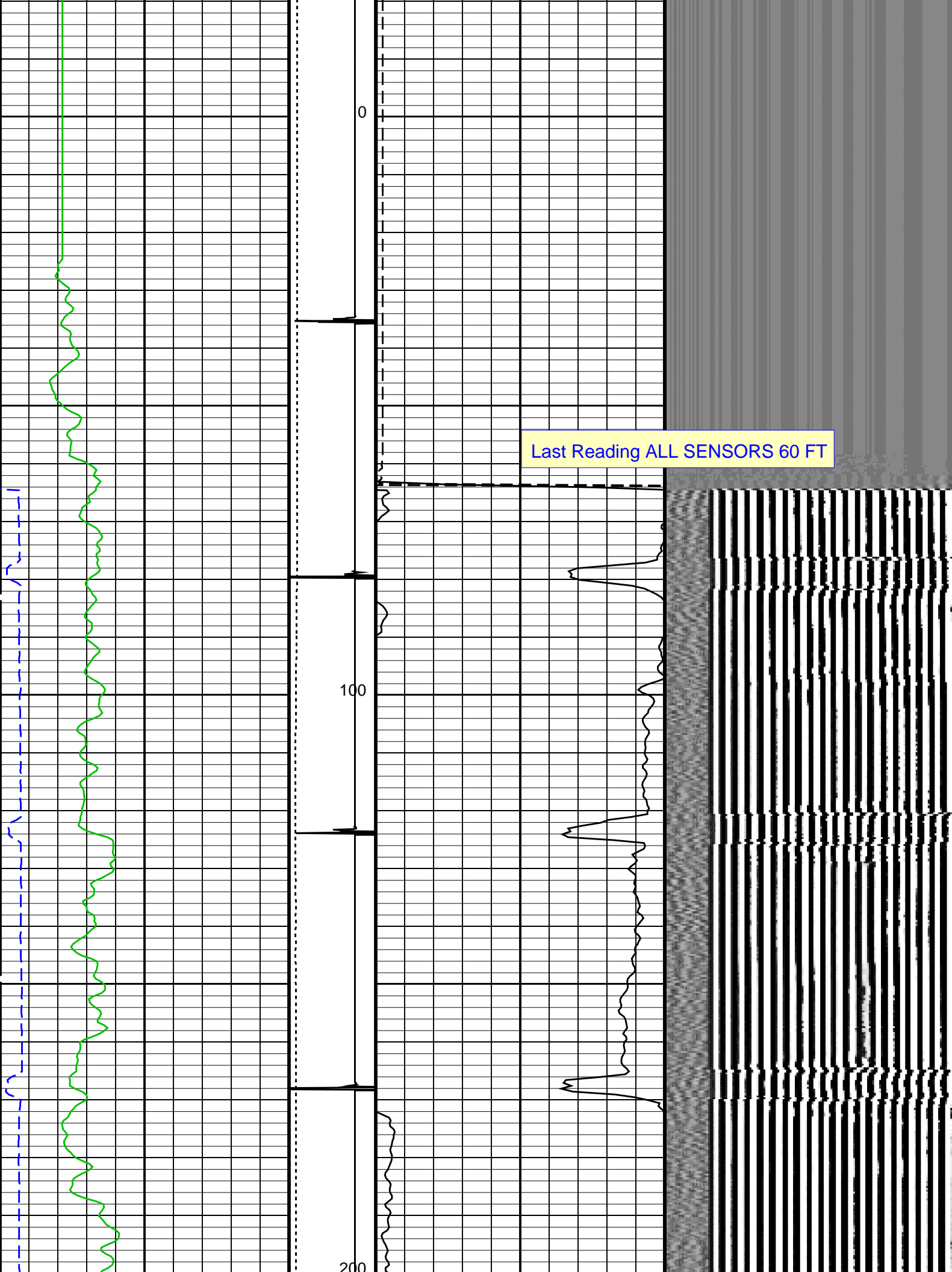
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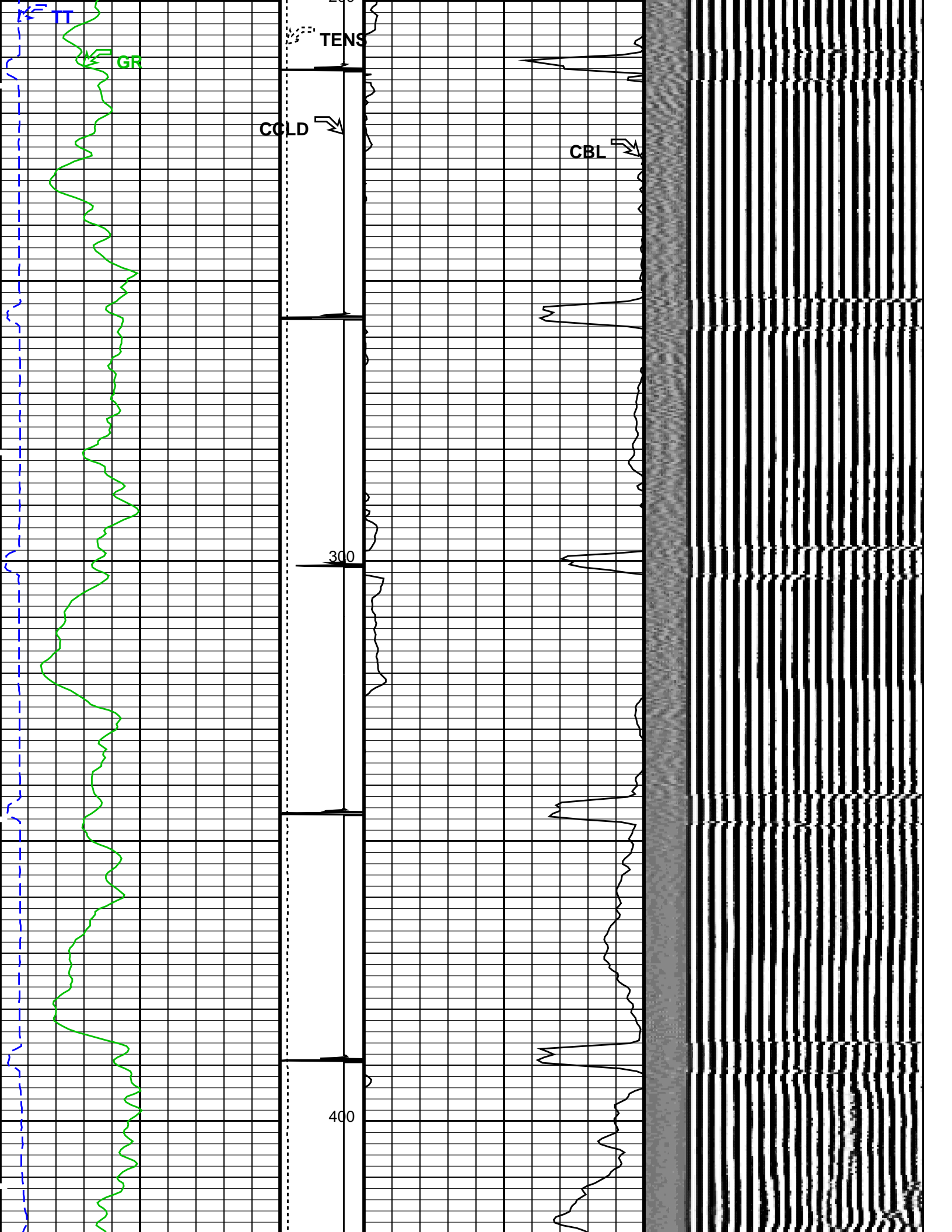
Well: MCU 26-4B (I27W)

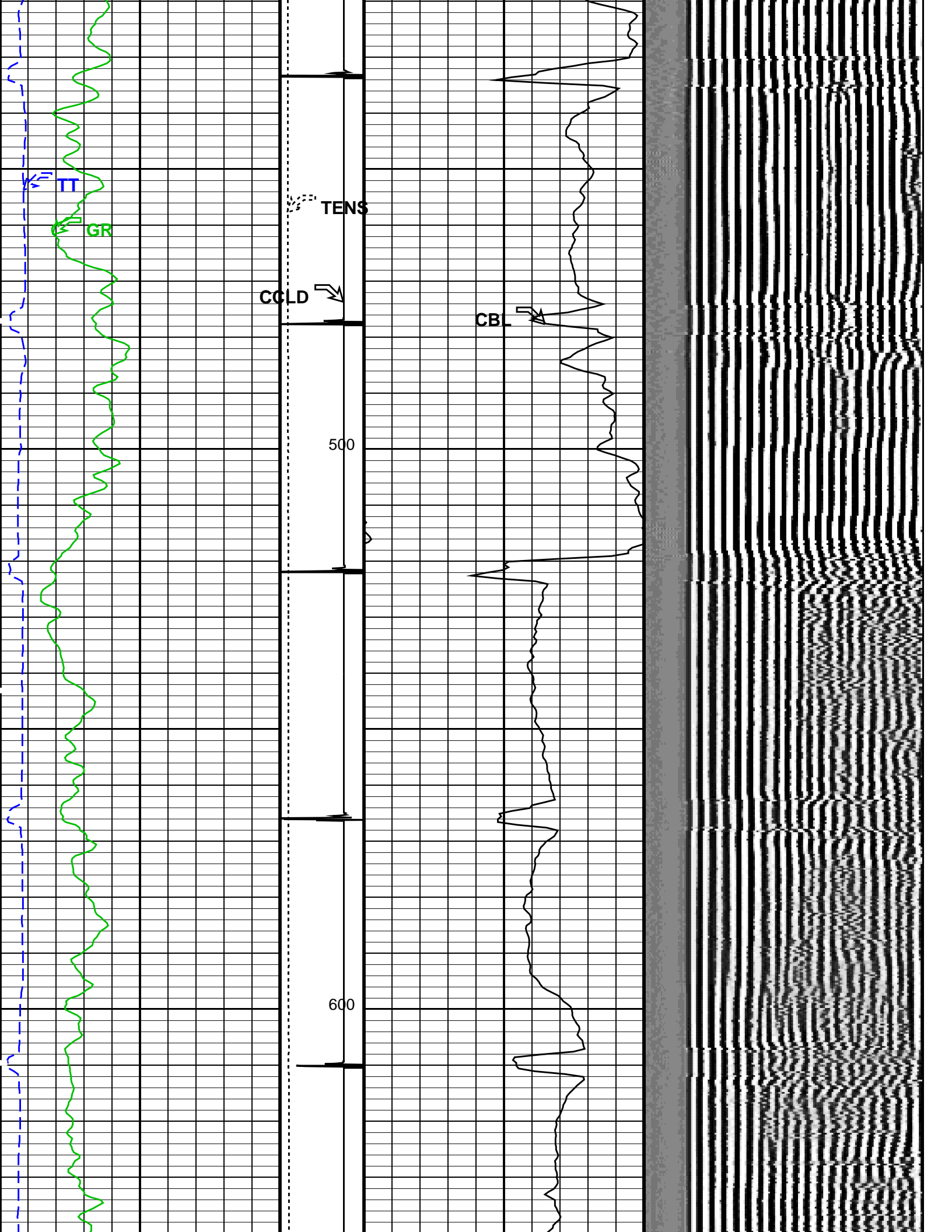
Input DLIS Files						
DEFAULT	SCMT_RST_PSP_051LUP	FN:50	PRODUCER	22-Jan-2013 16:44	9550.5 FT	19.5 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_054PUP	FN:53	PRODUCER	22-Jan-2013 19:14	9554.5 FT	-21.0 FT
OP System Version: 19C0-187						
SCMT-CB	SRPC-5214-H2-2012-OP1	RST-C		SRPC-5214-H2-2012-OP1		
PSPT	SRPC-5214-H2-2012-OP1					

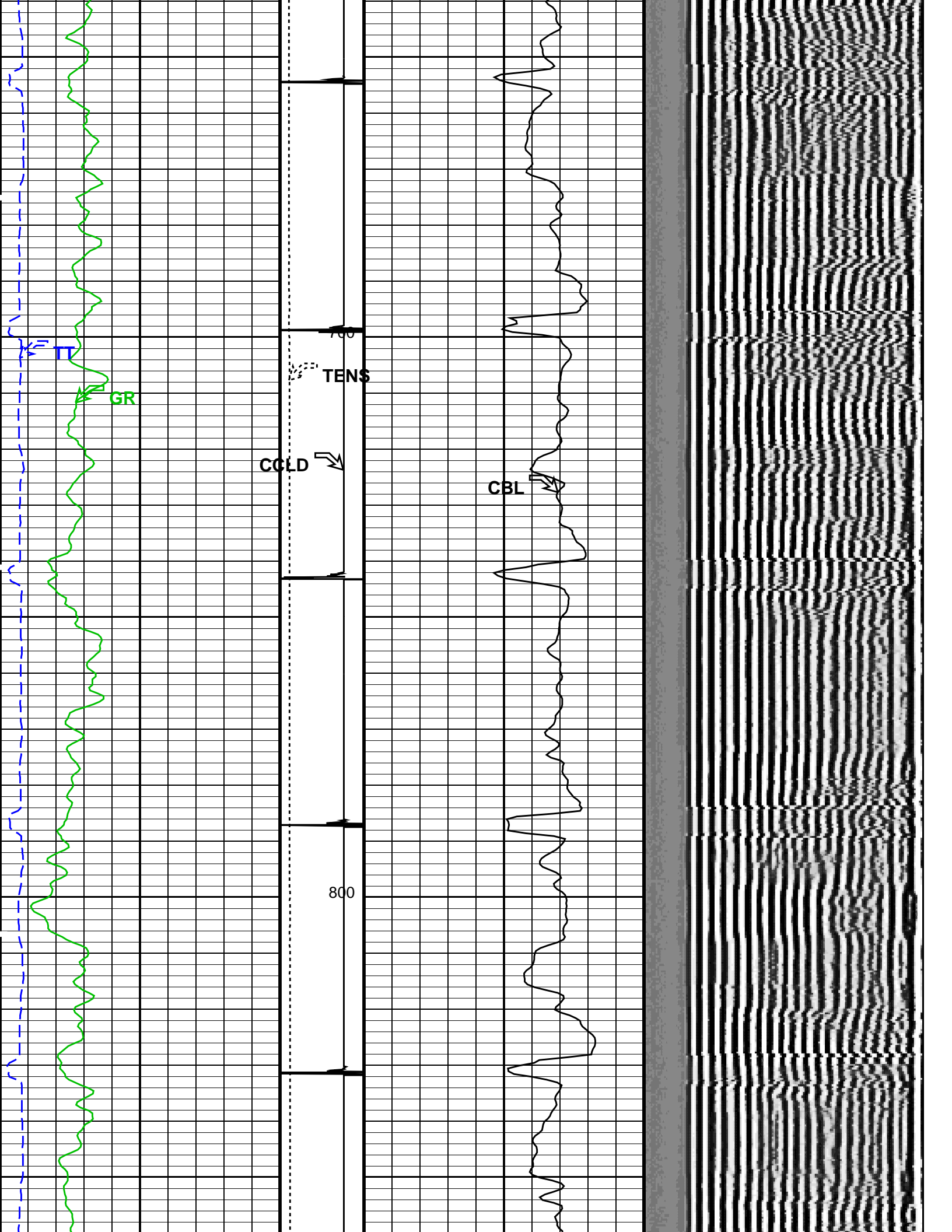


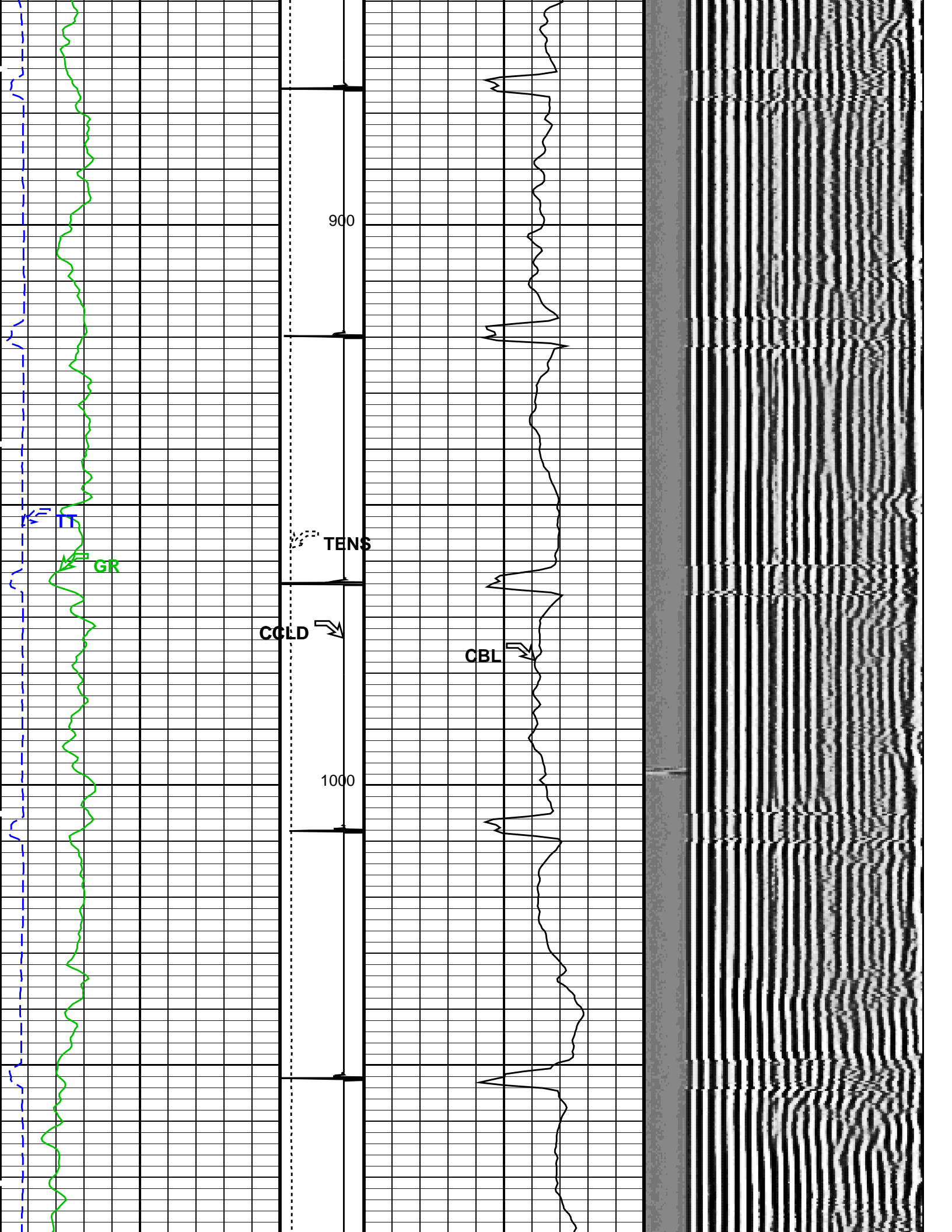




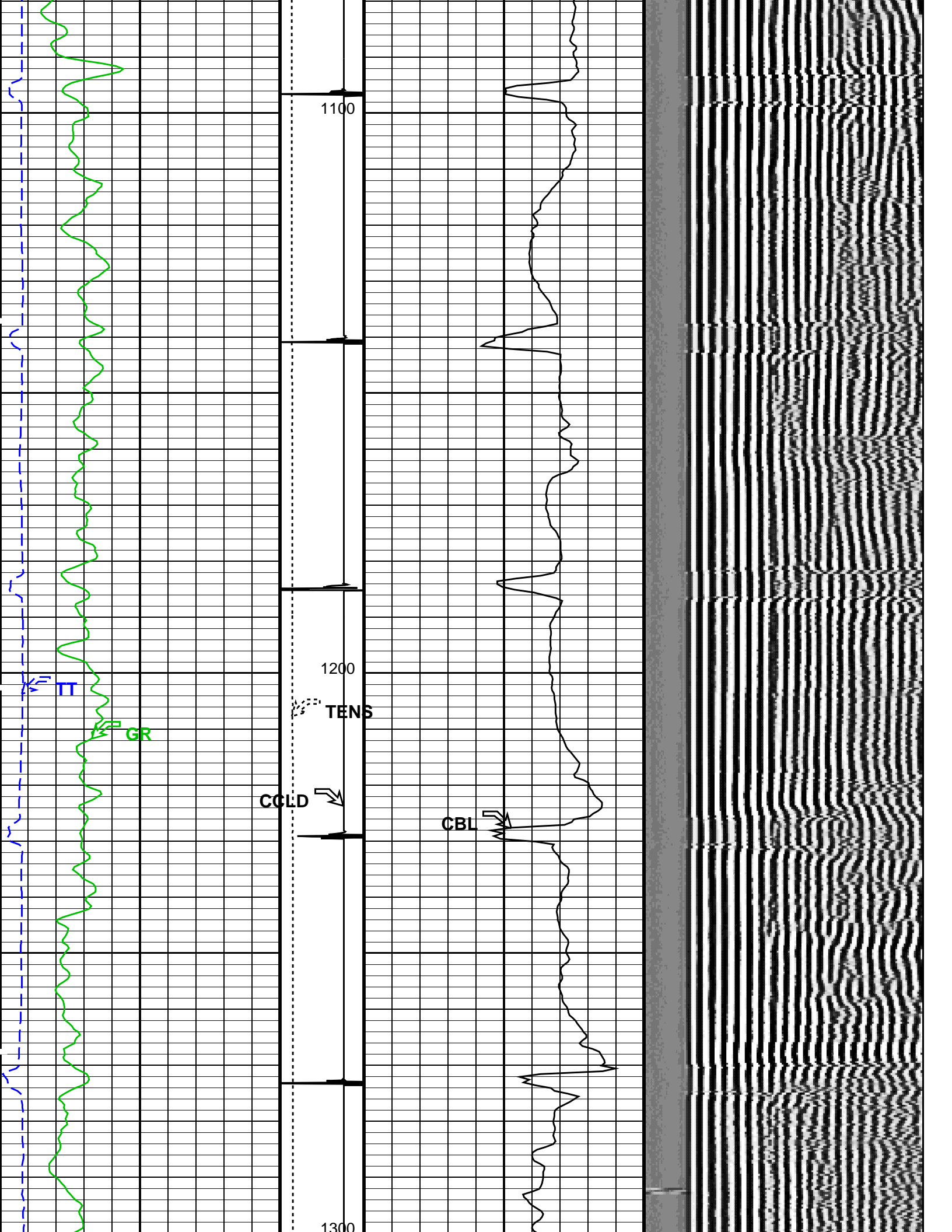


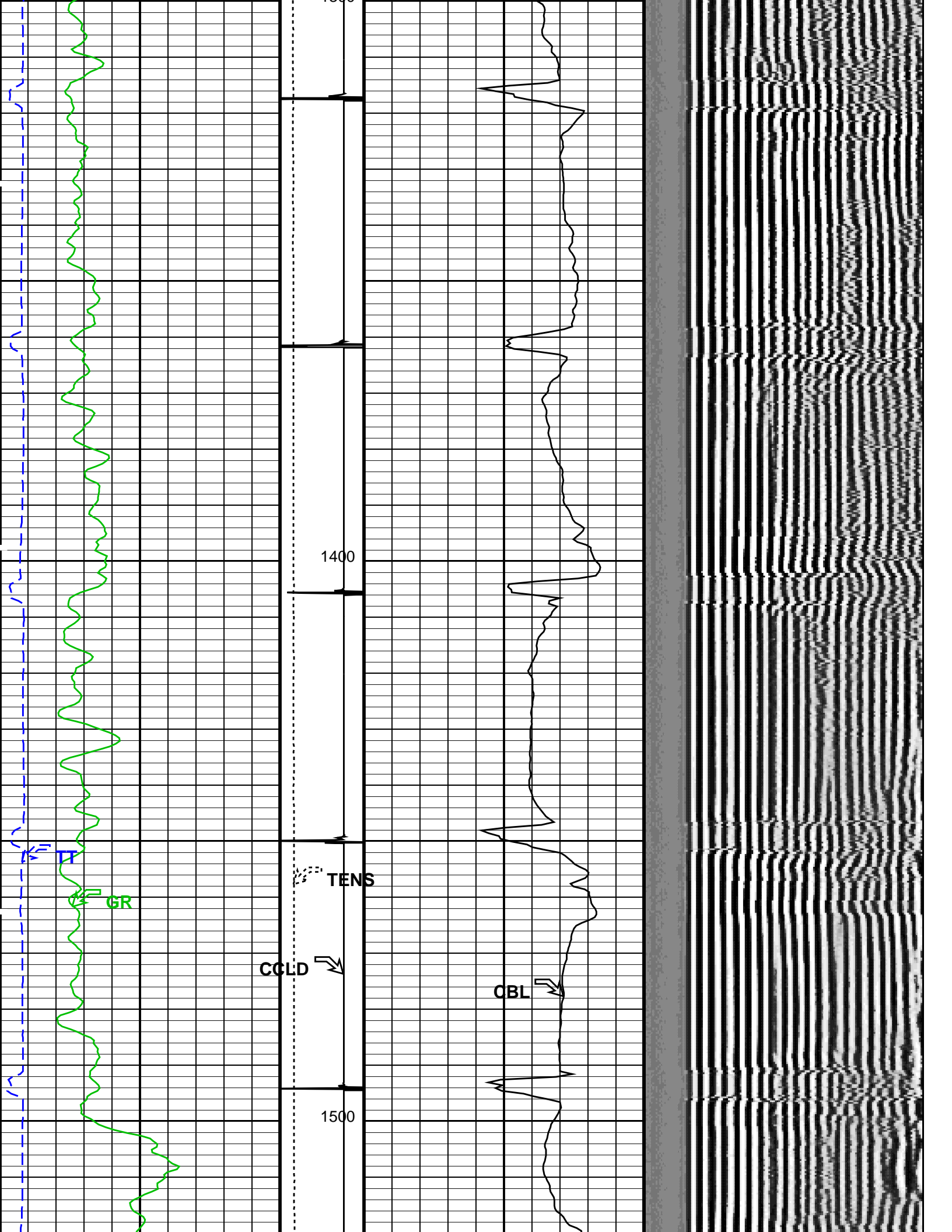


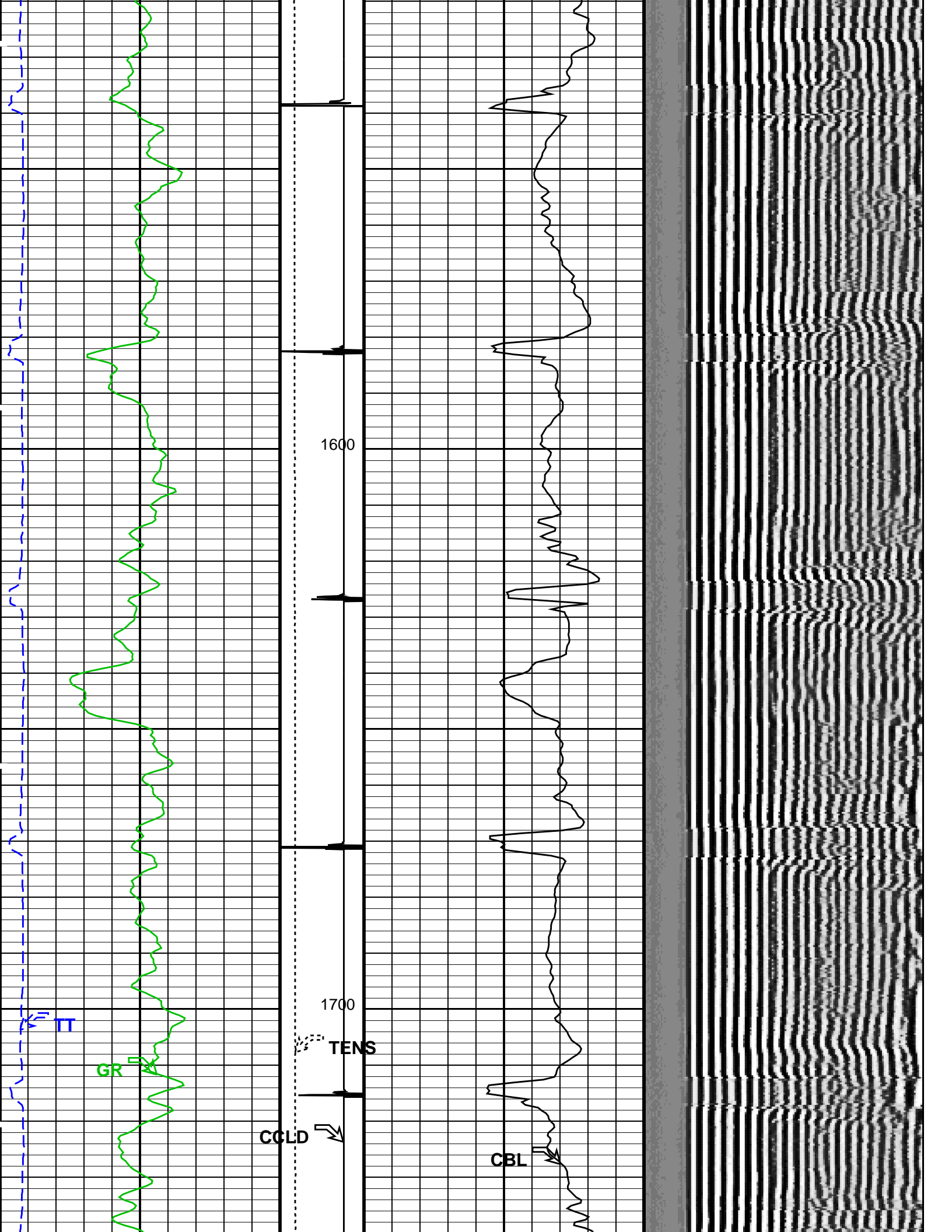




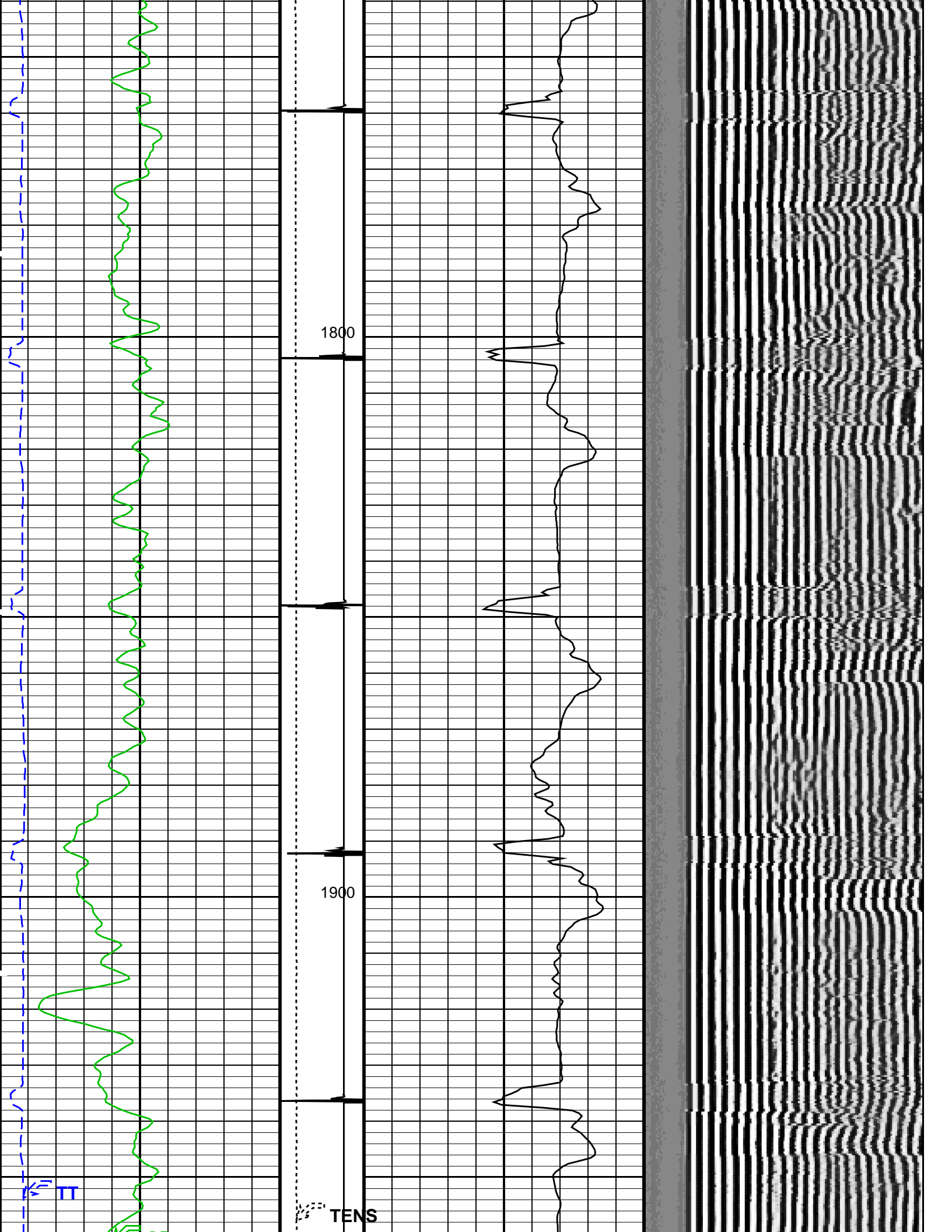


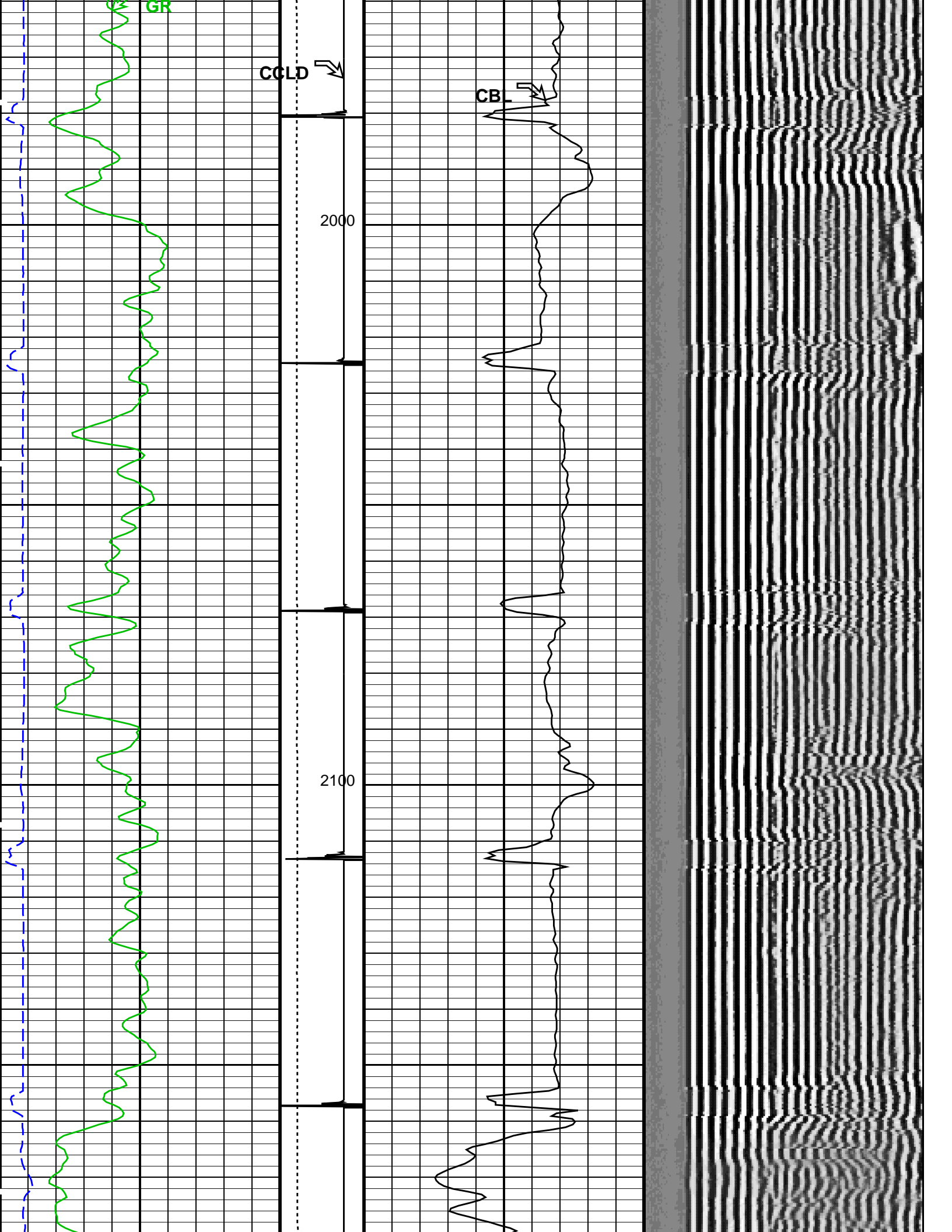


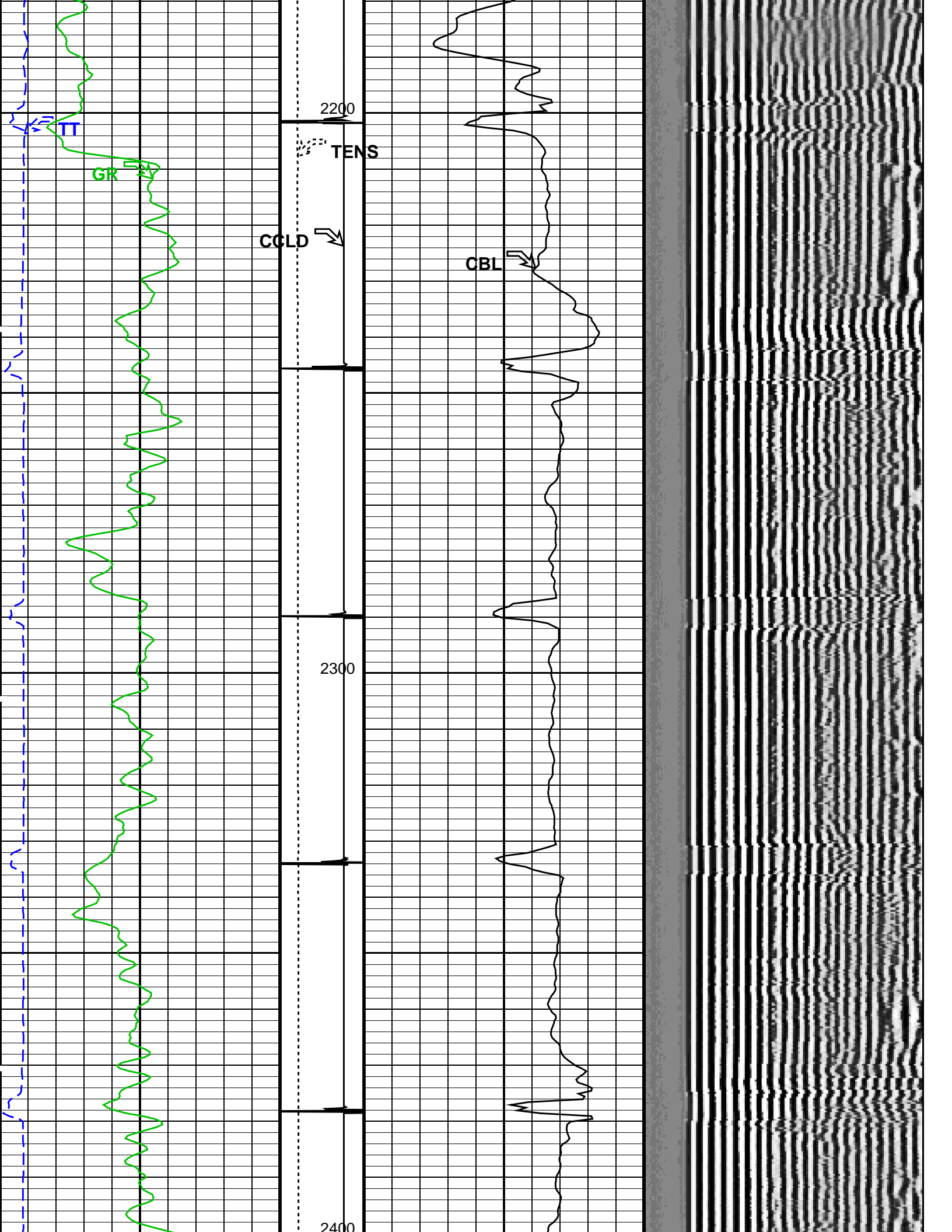


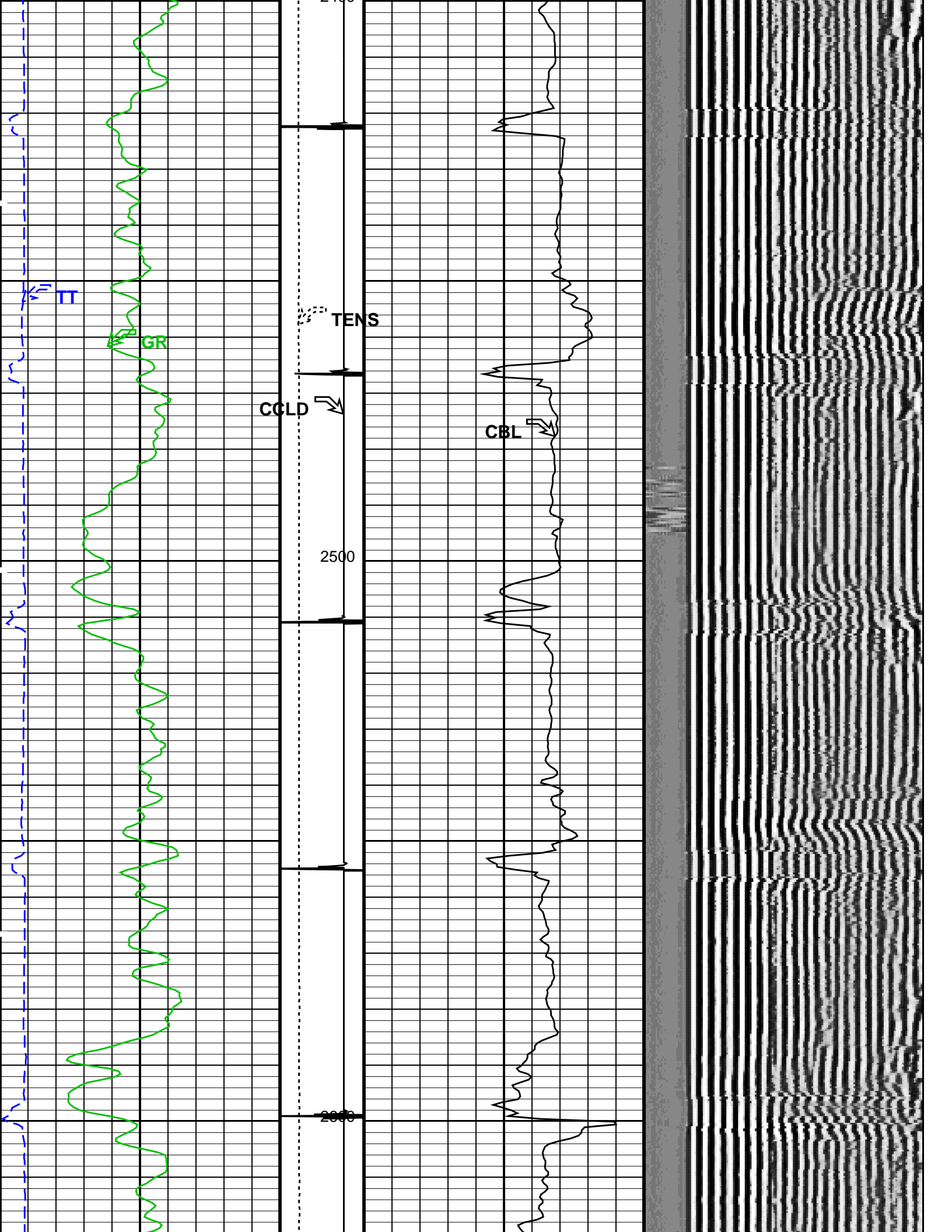




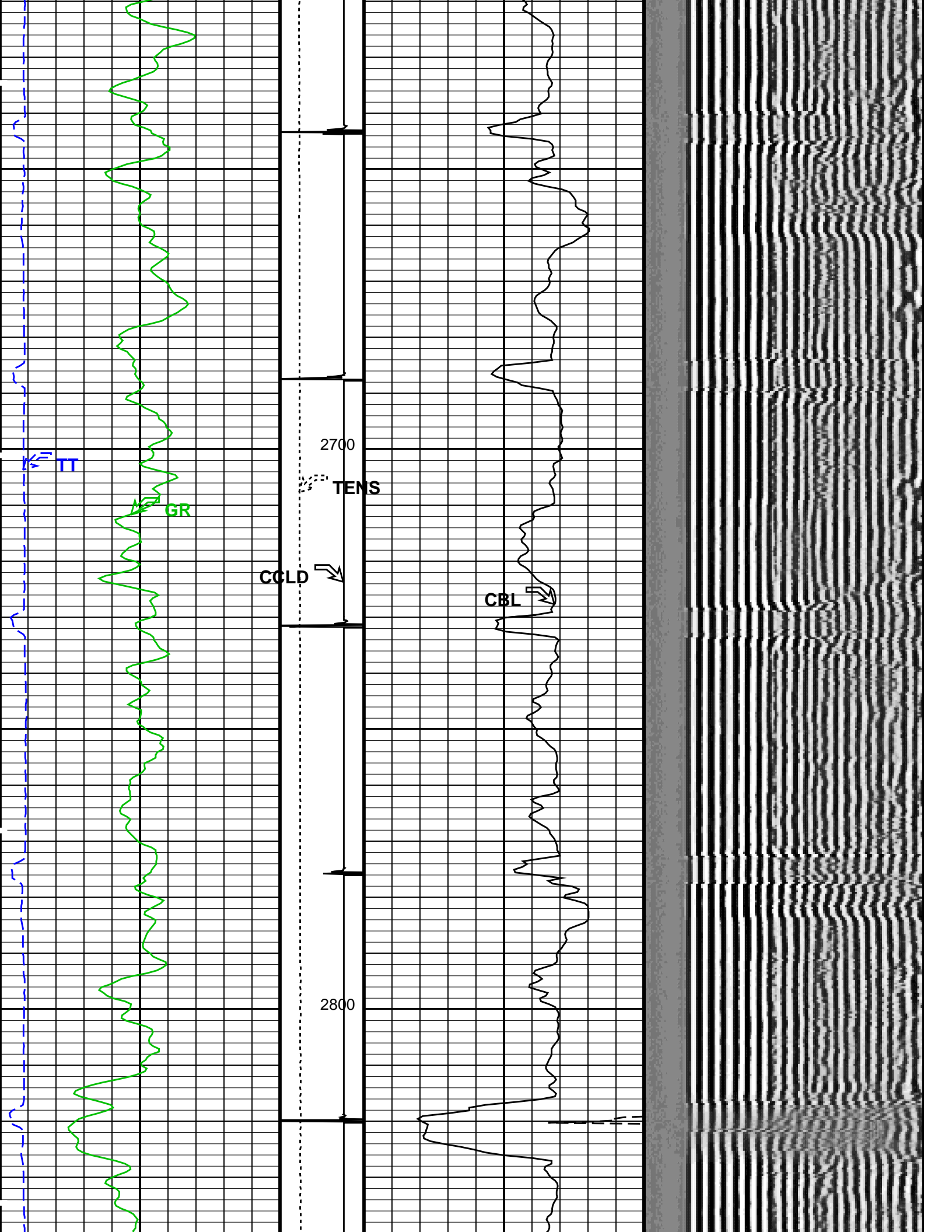


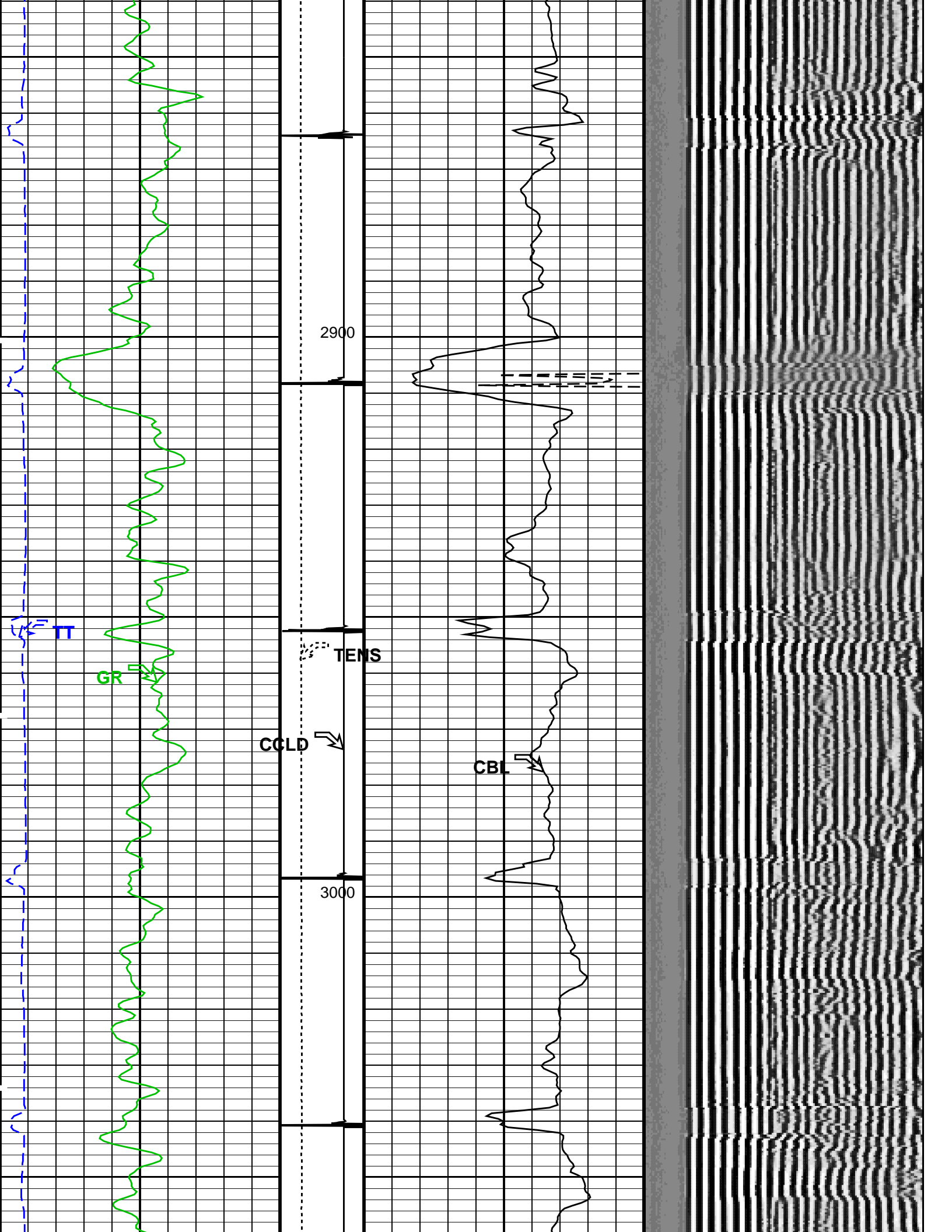


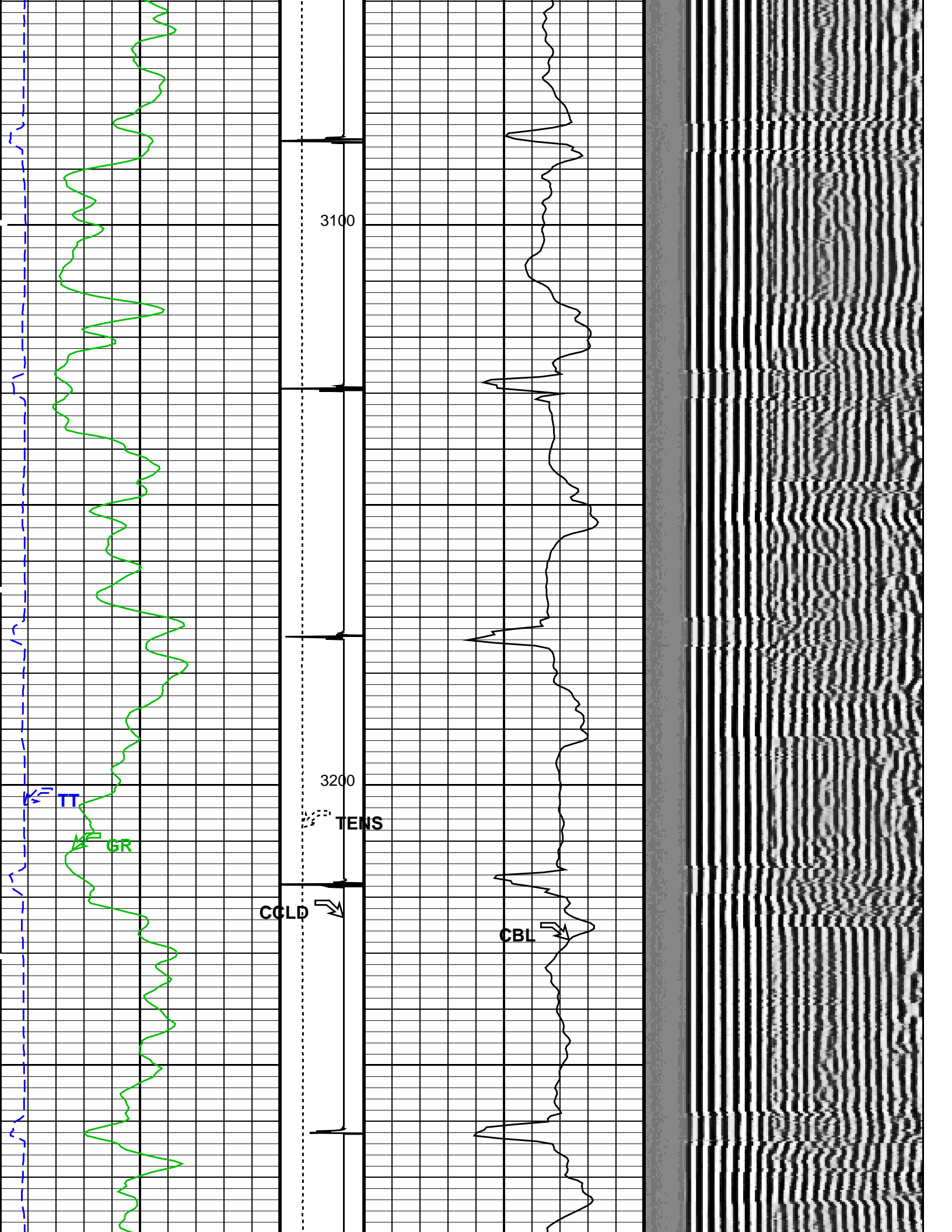


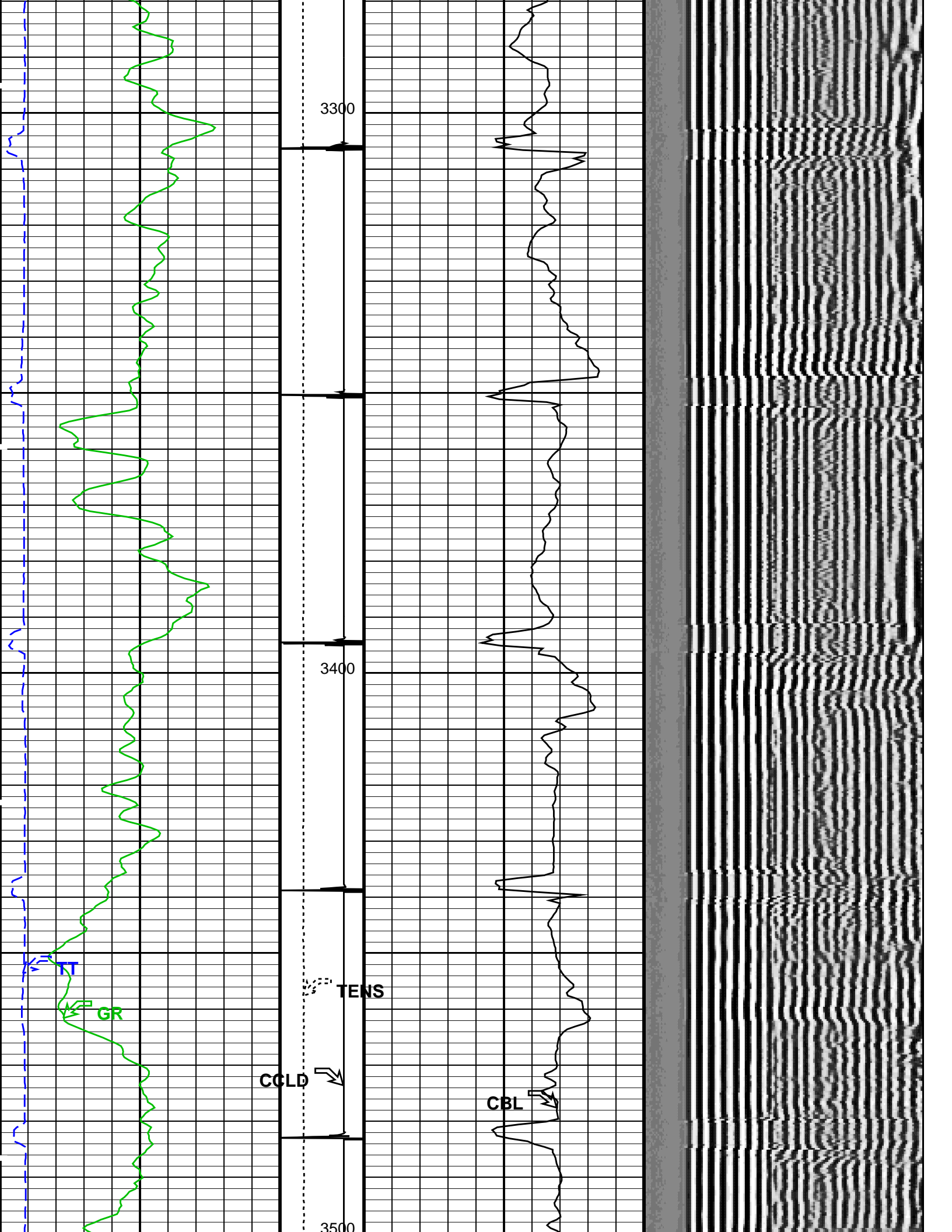




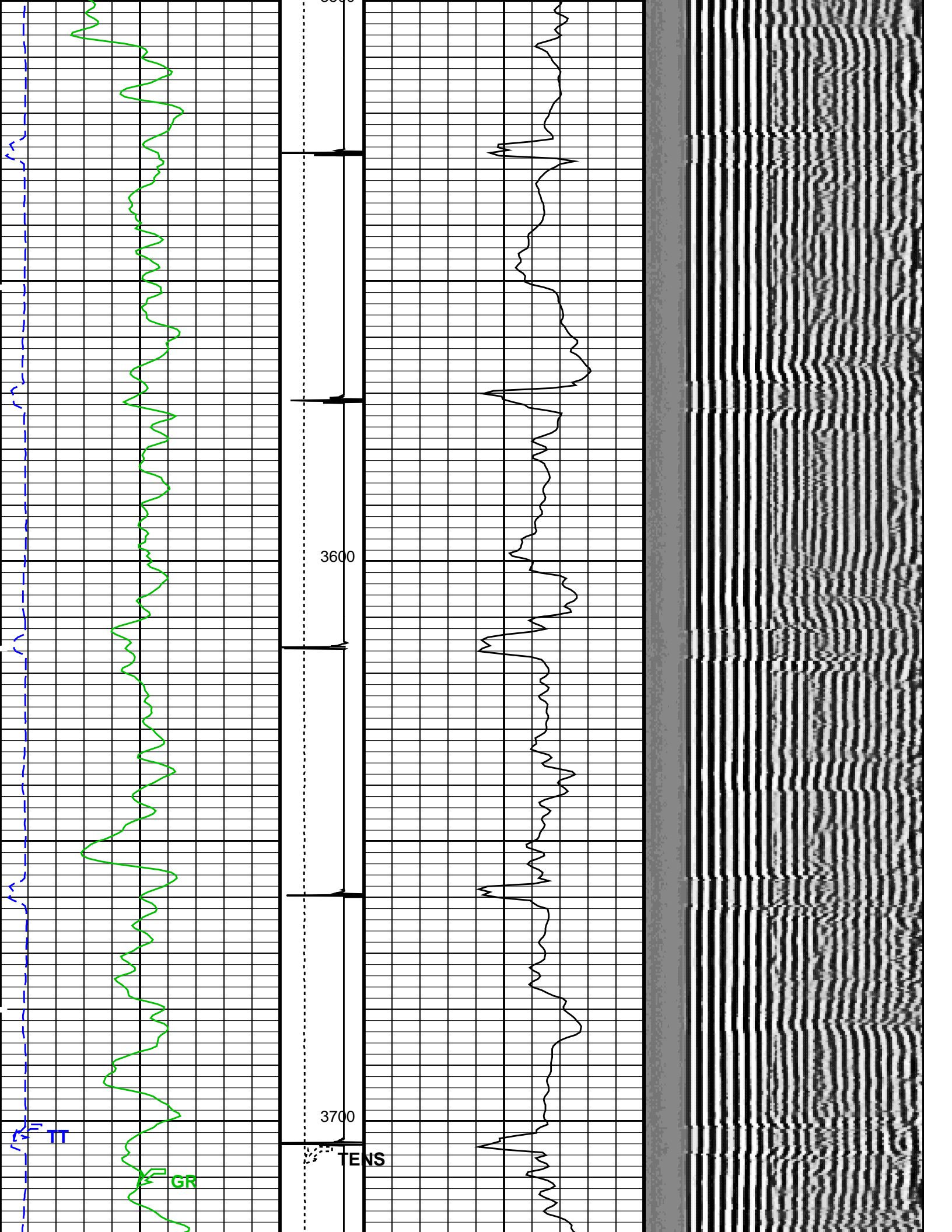


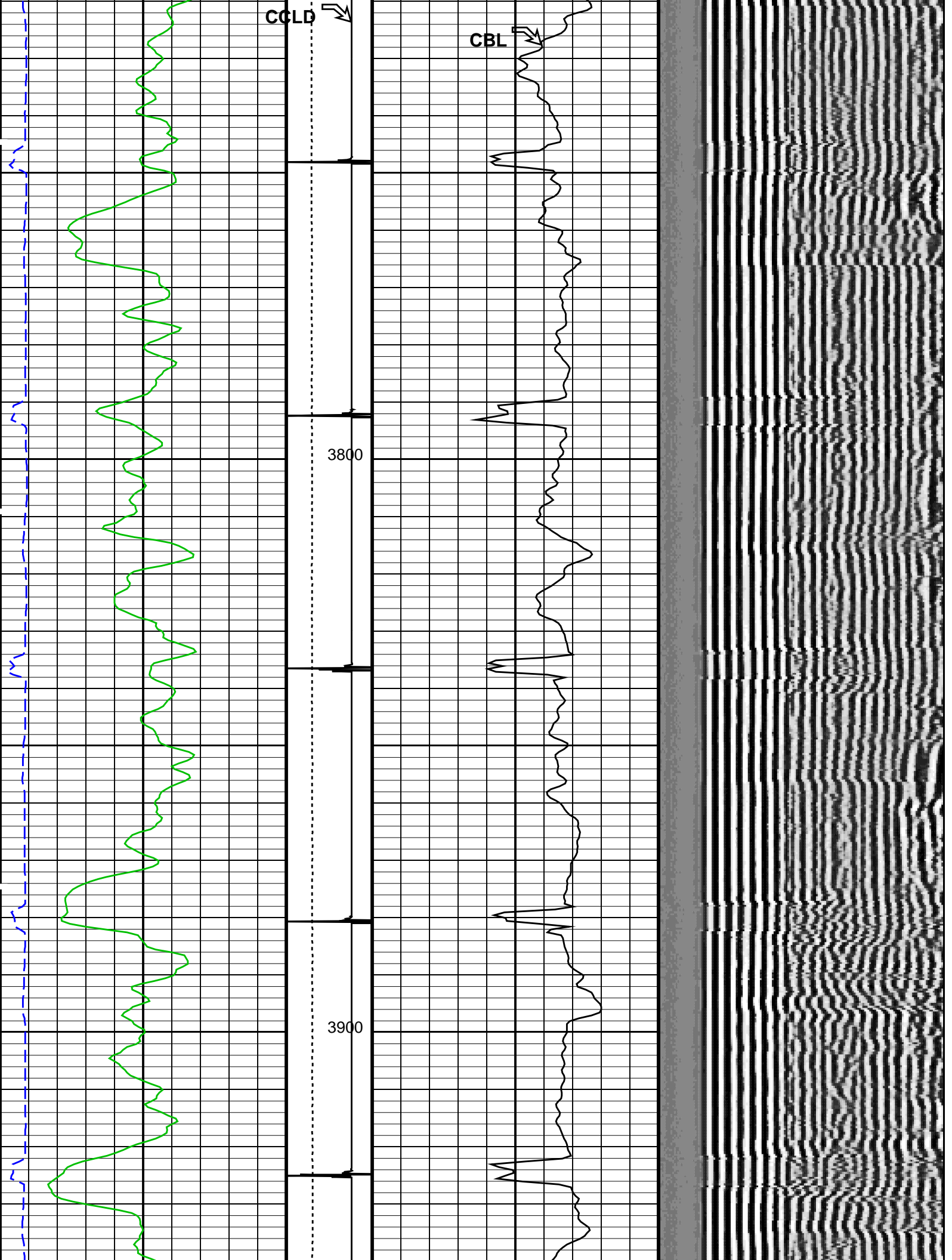


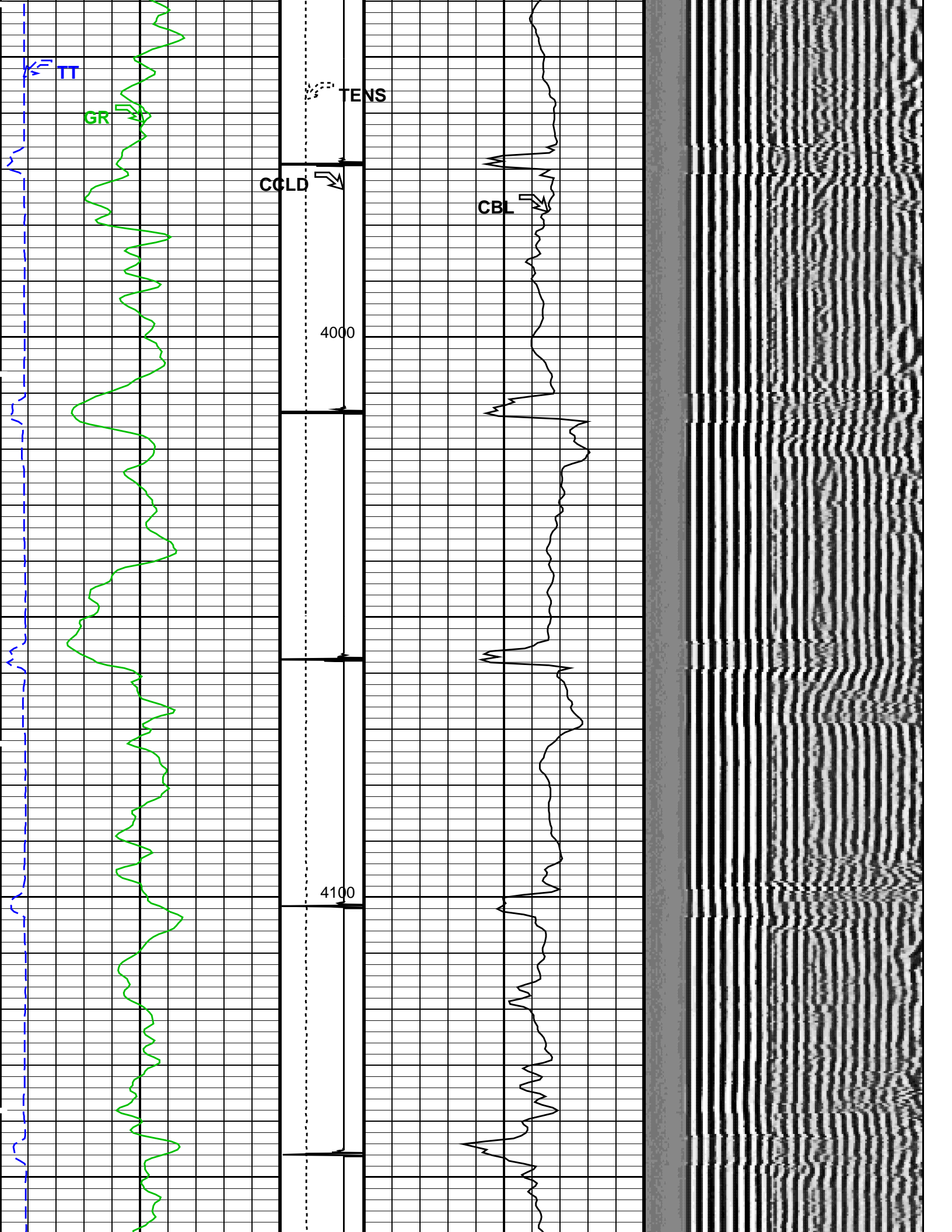


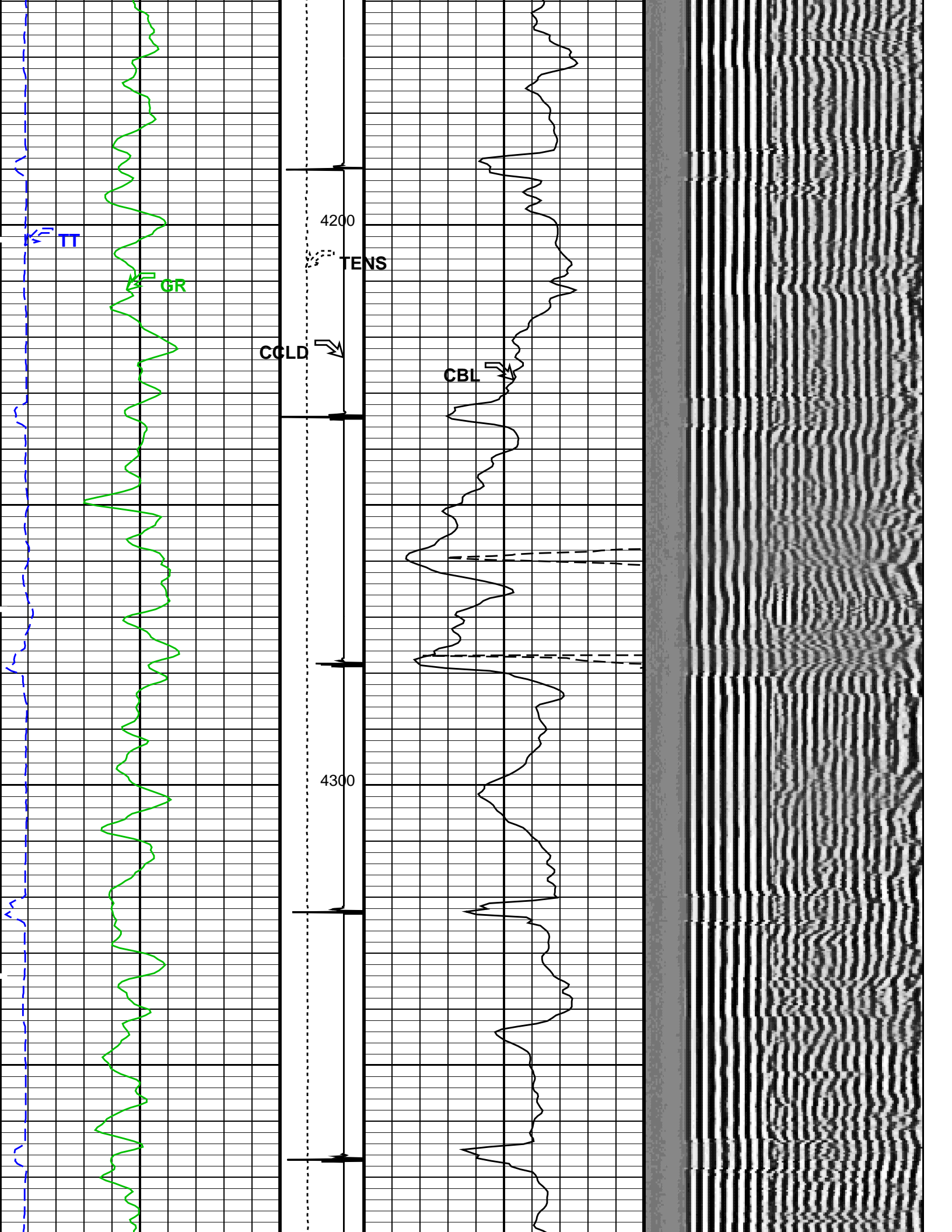




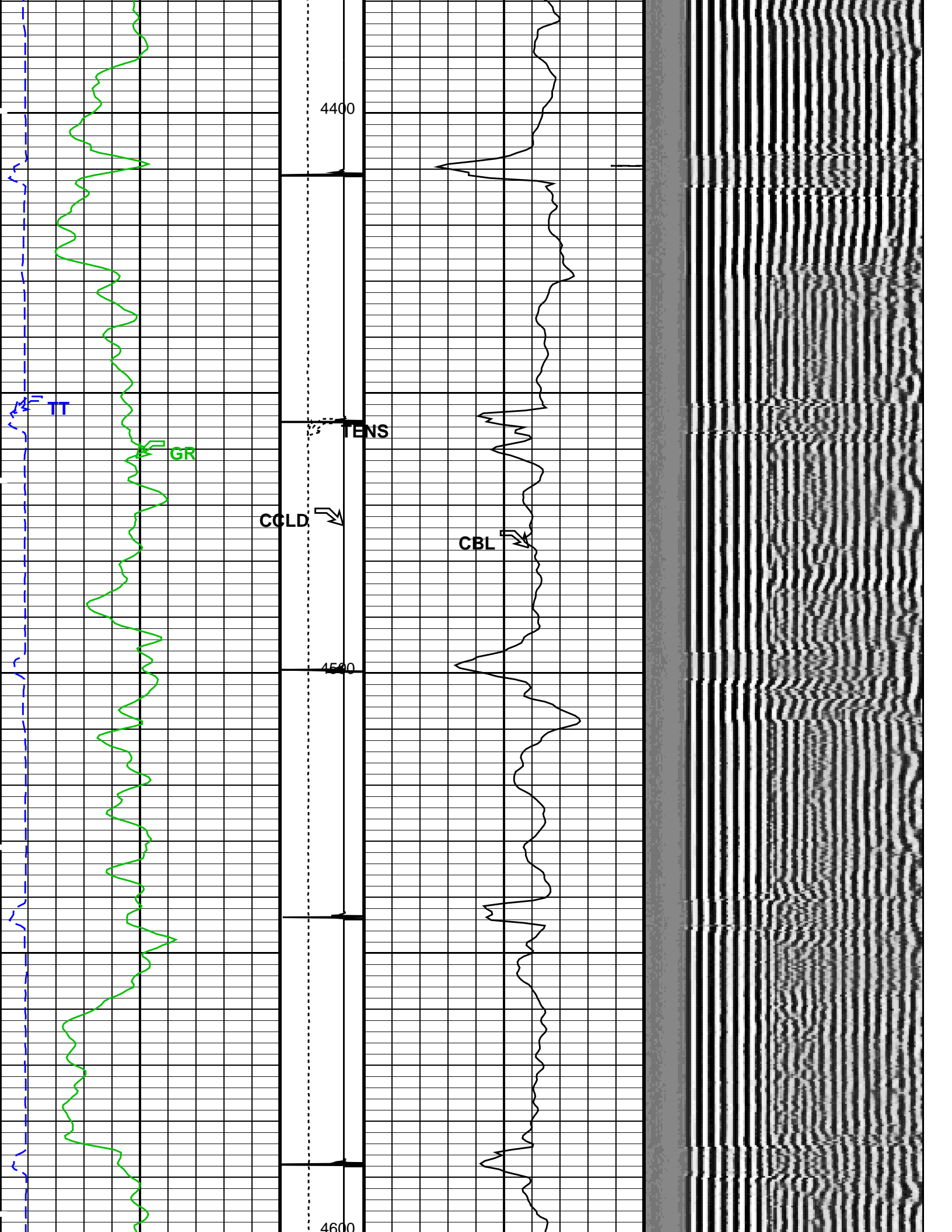


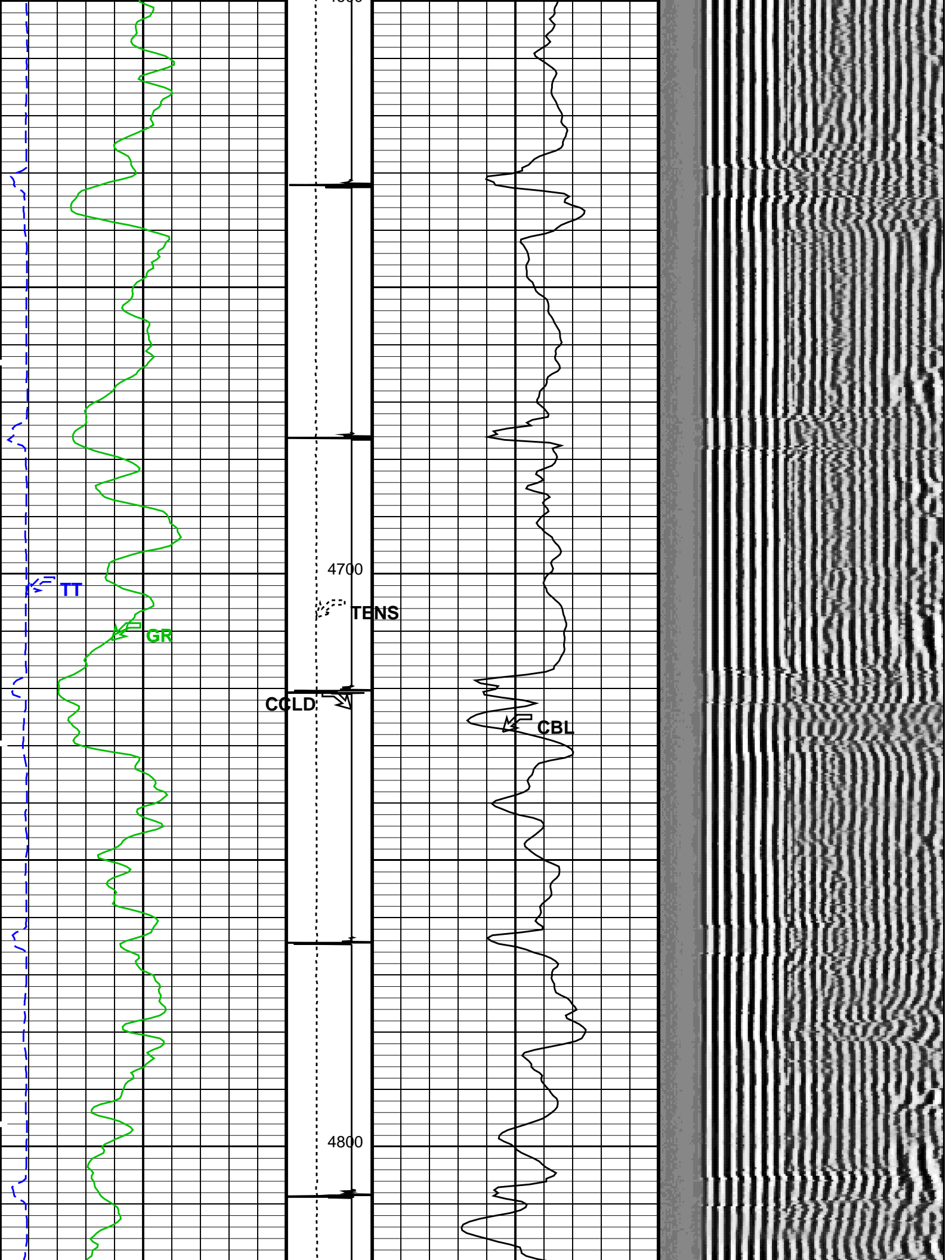


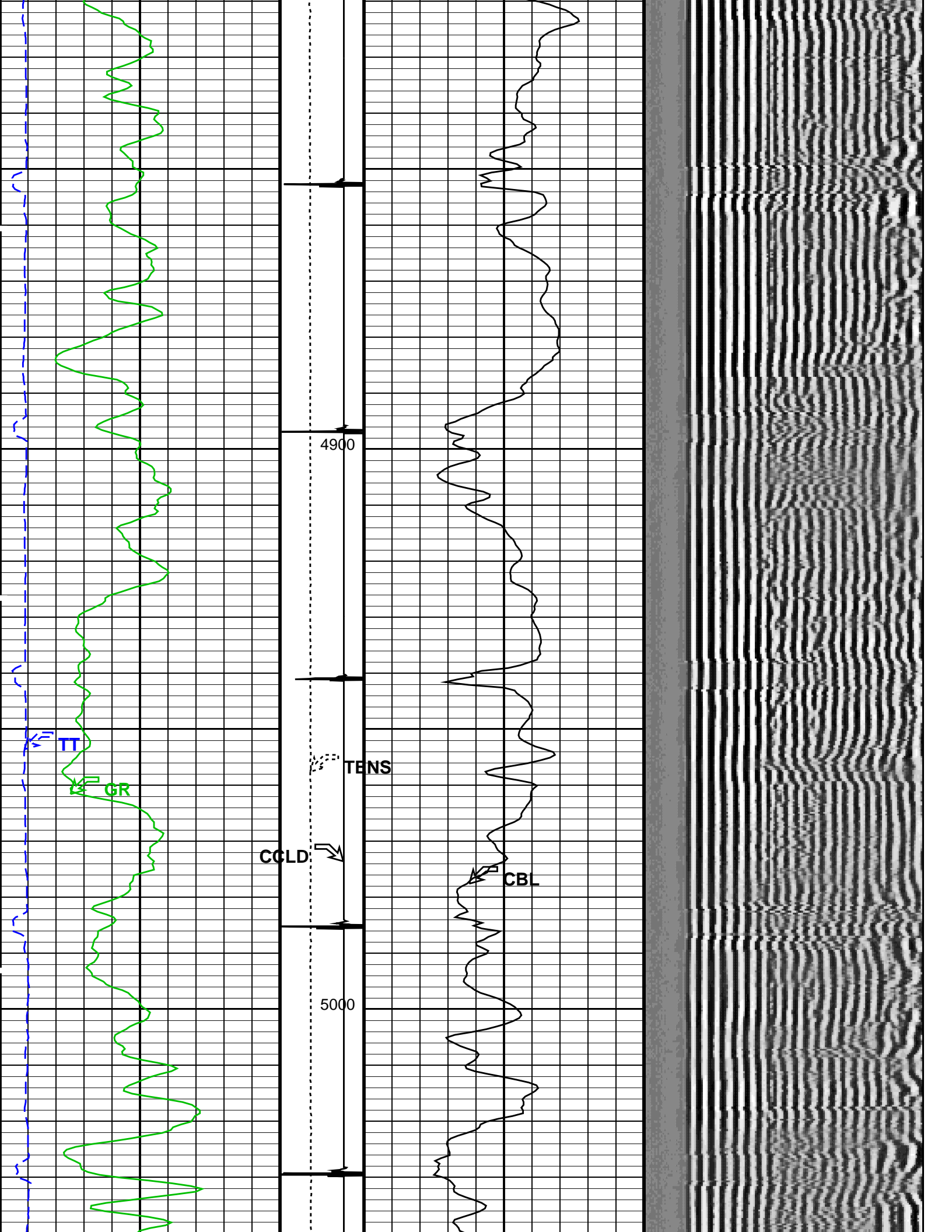


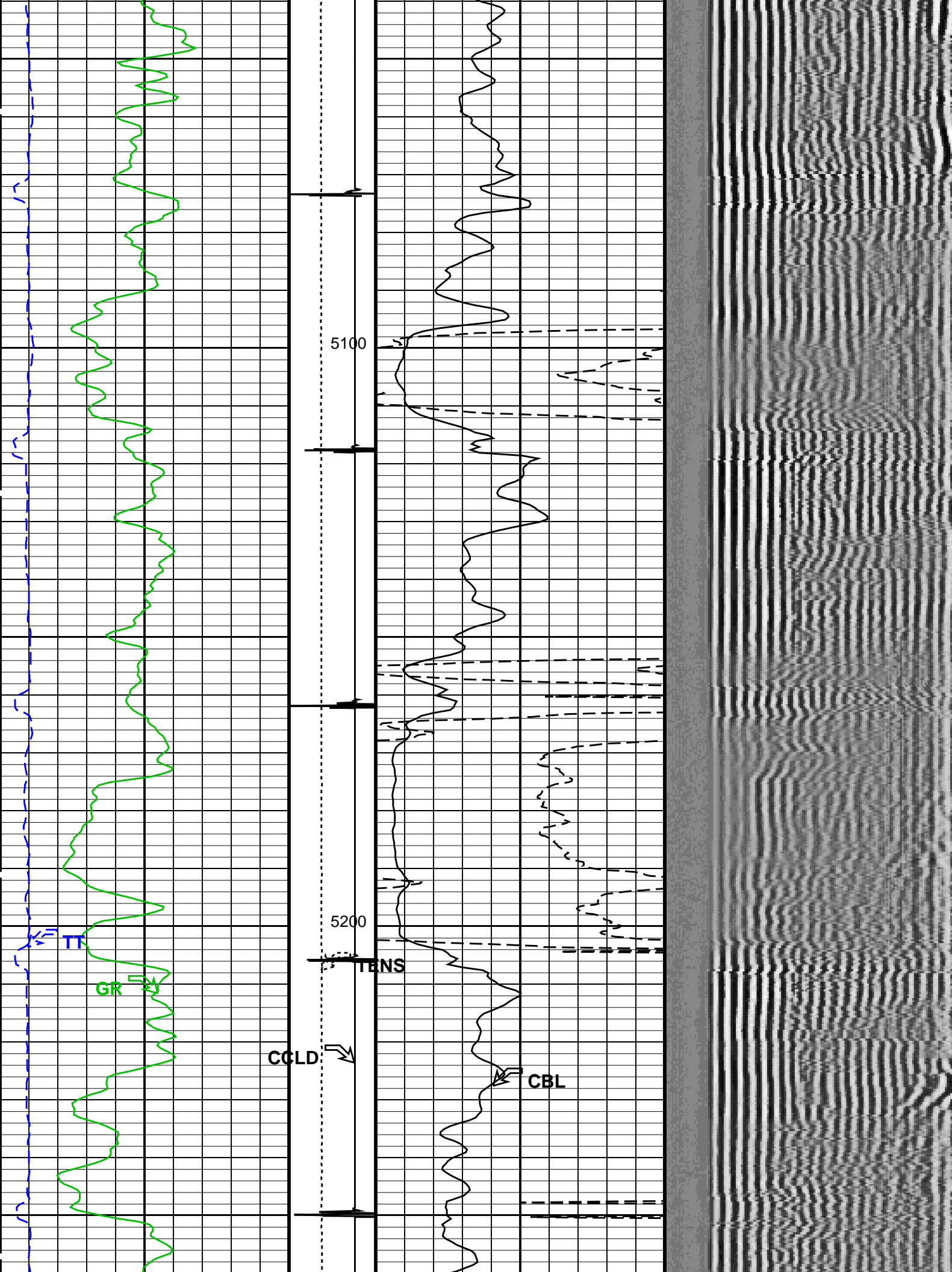




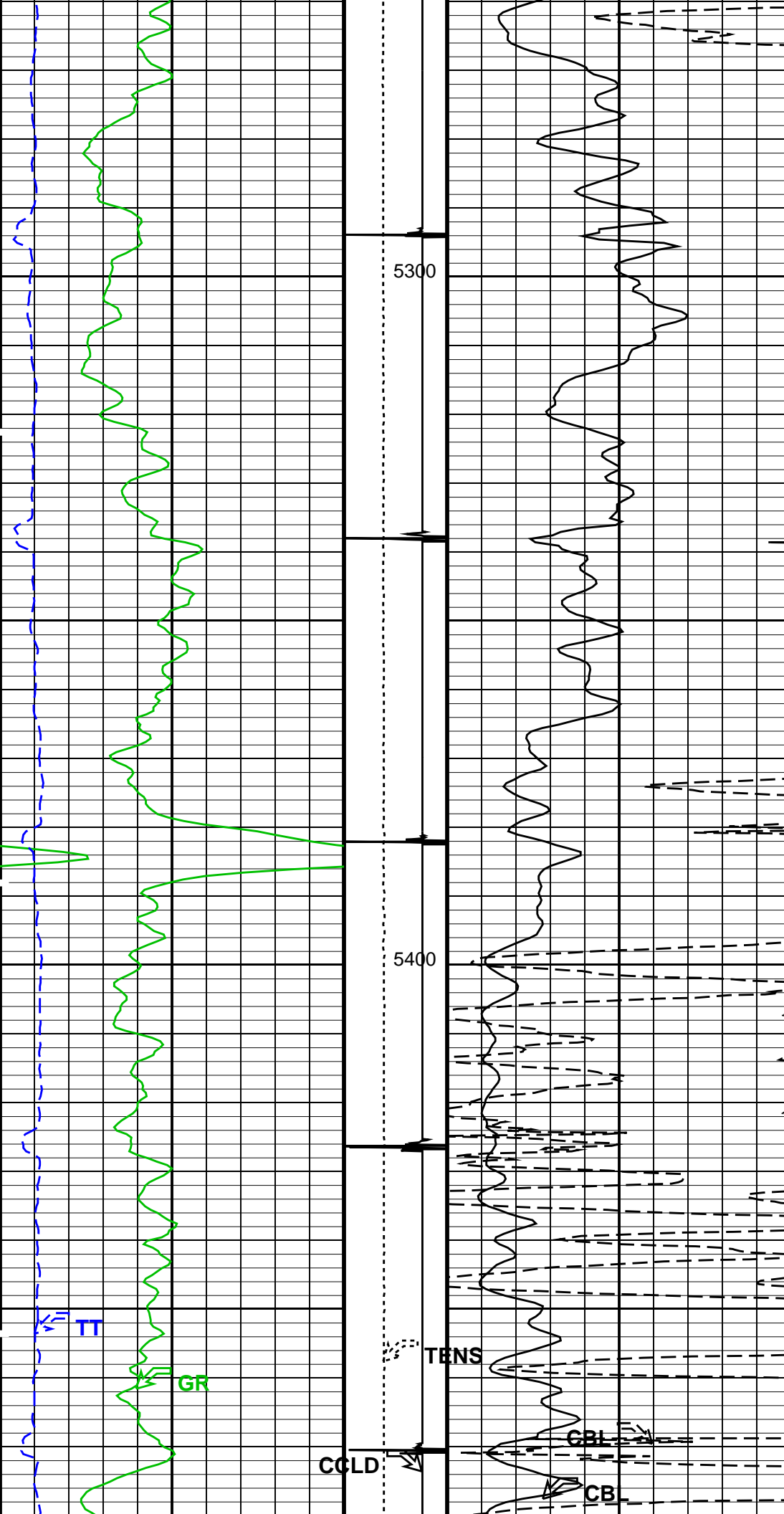


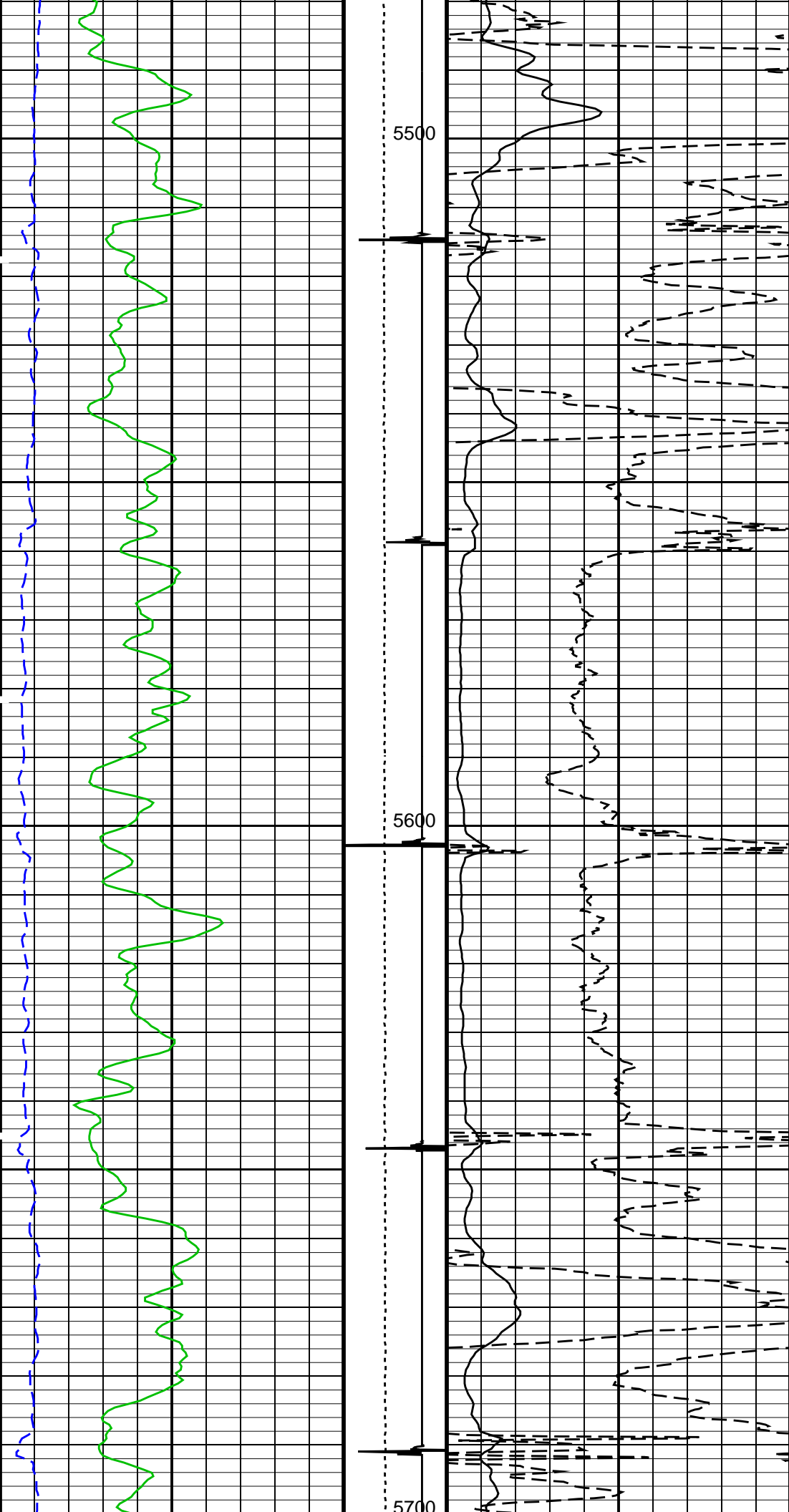


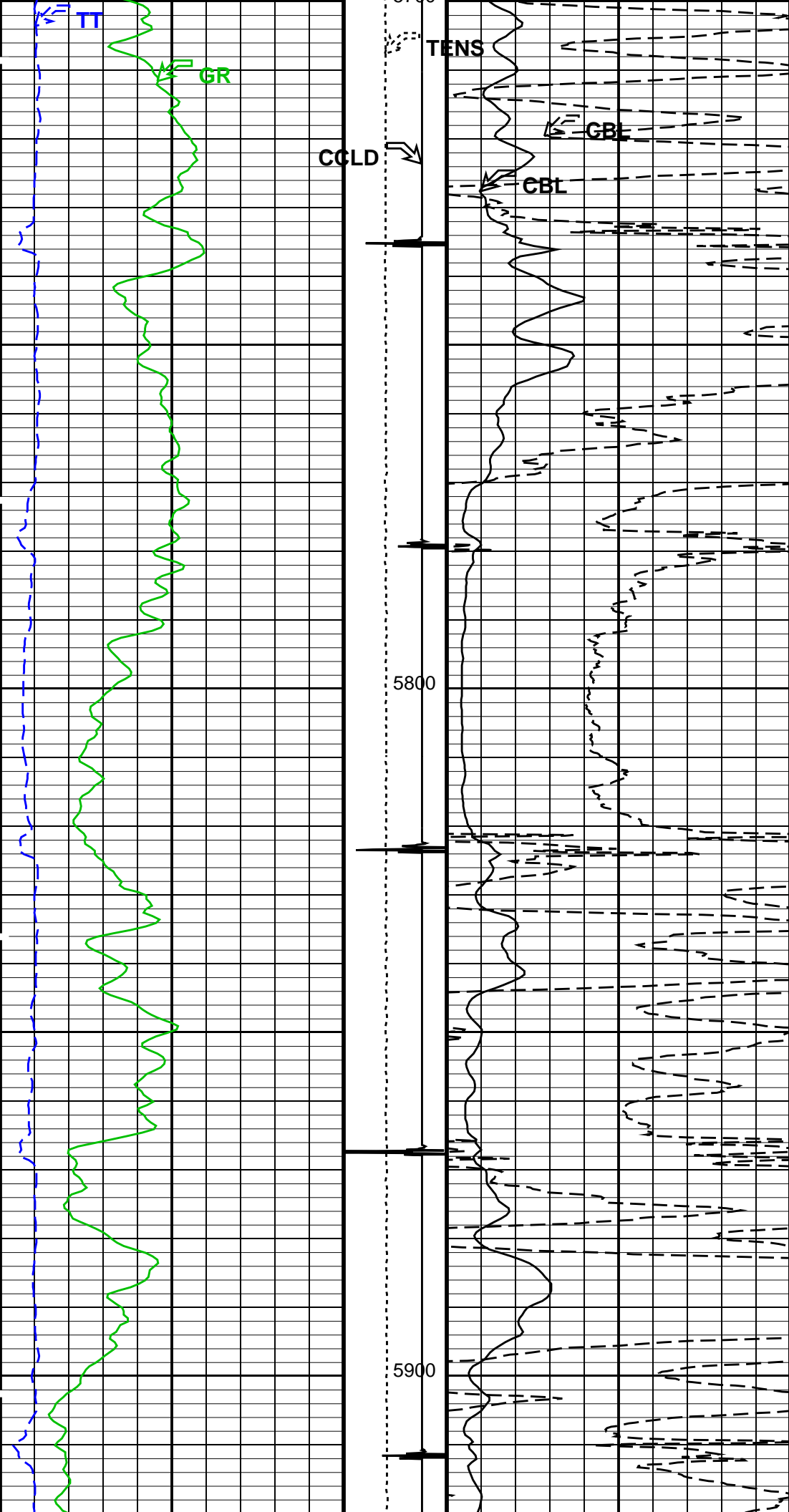


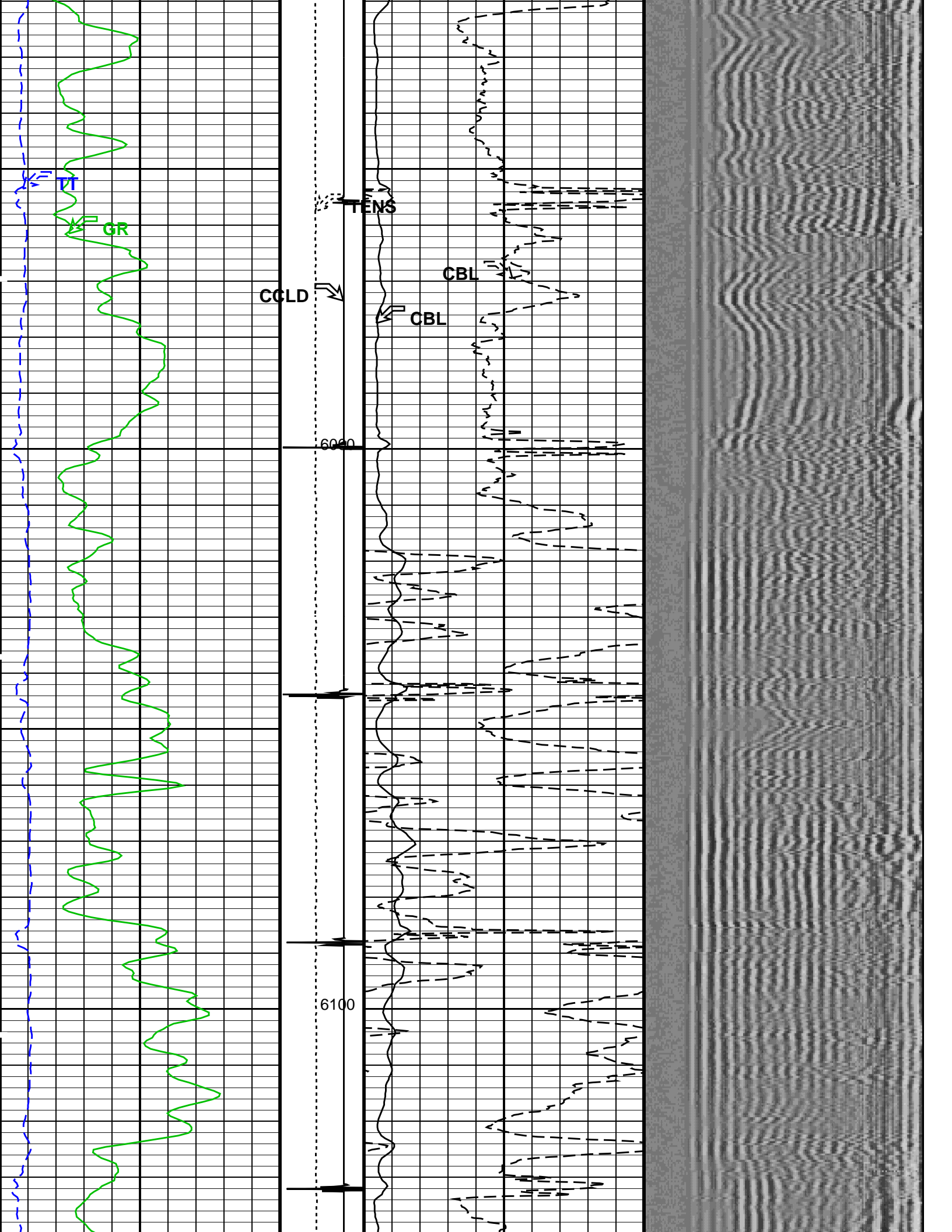




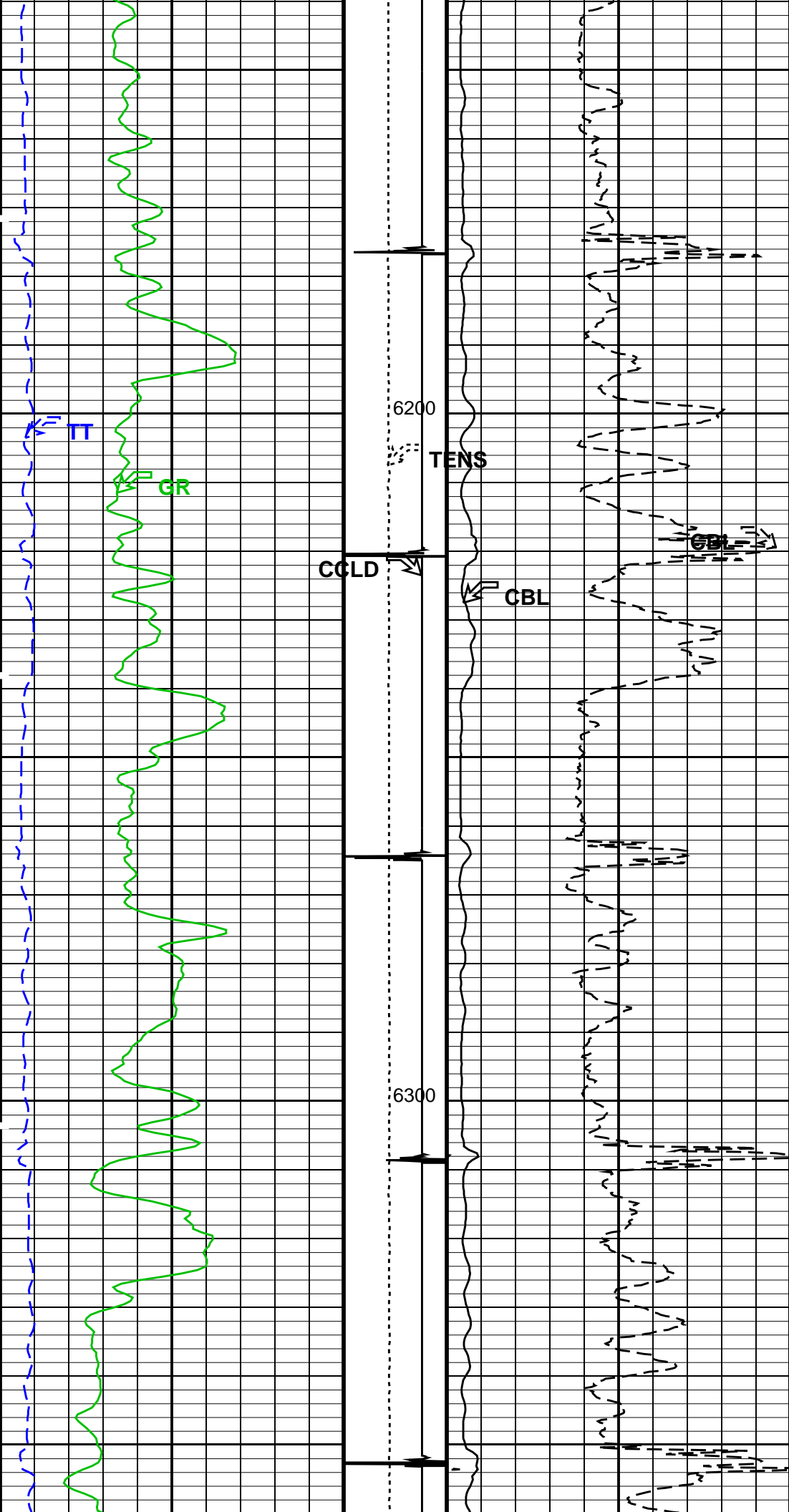


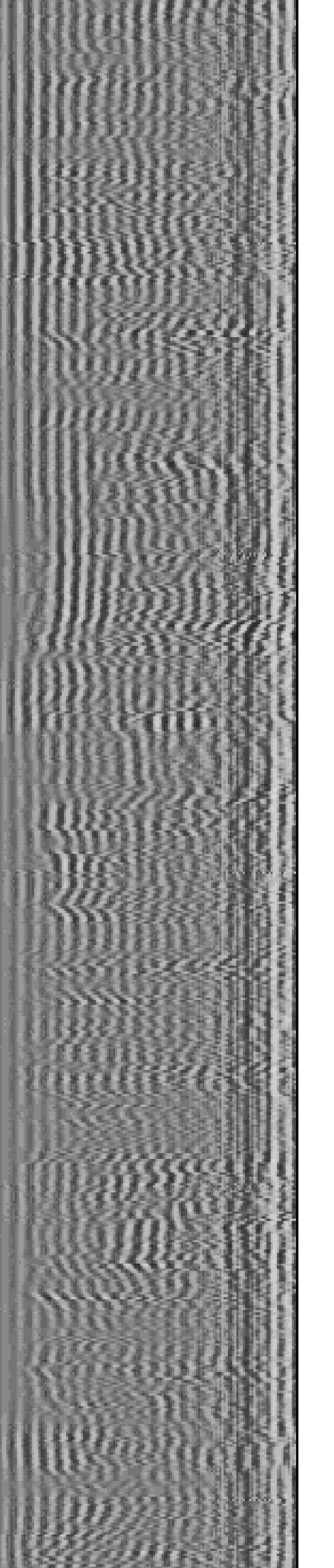
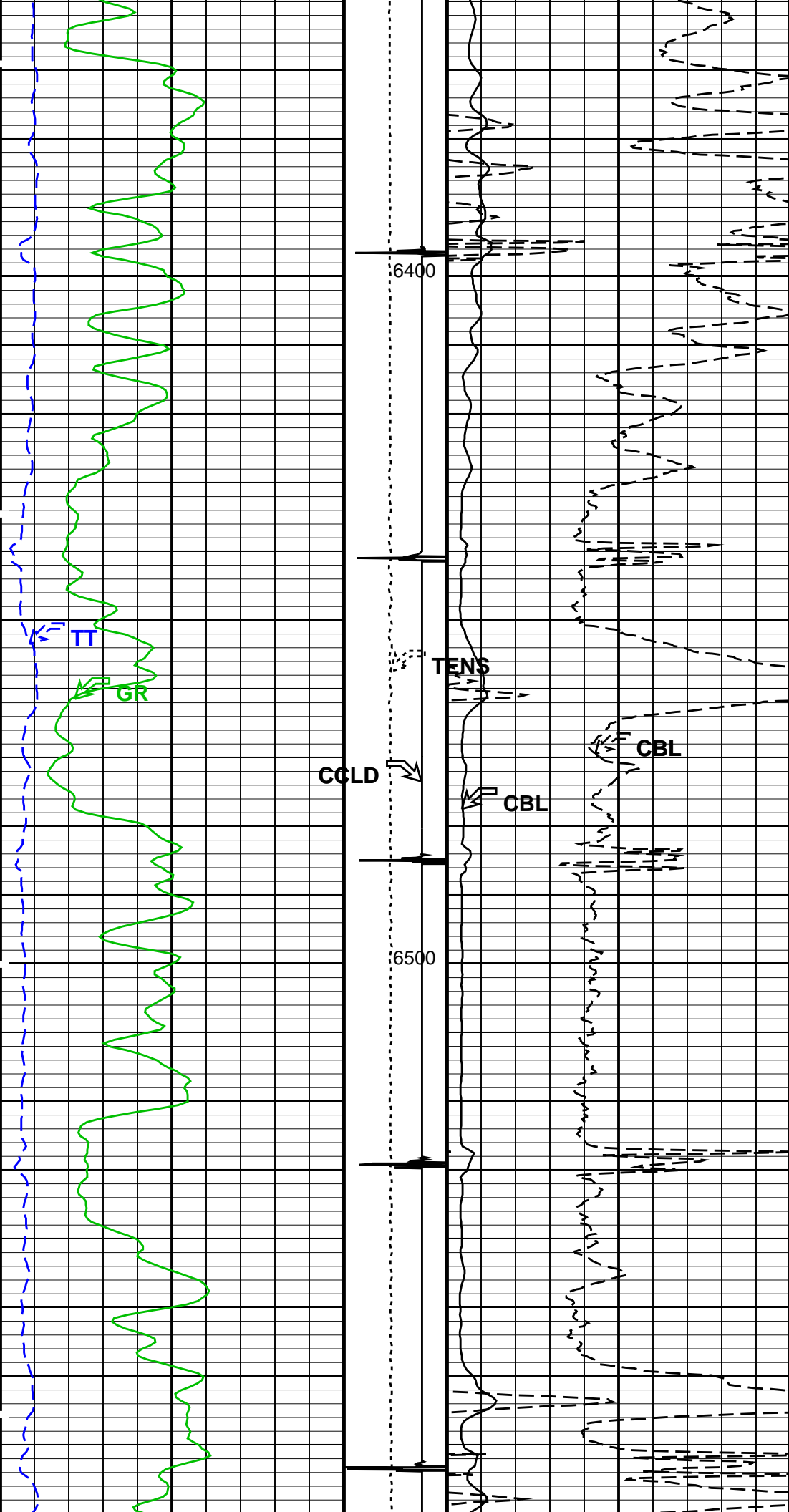


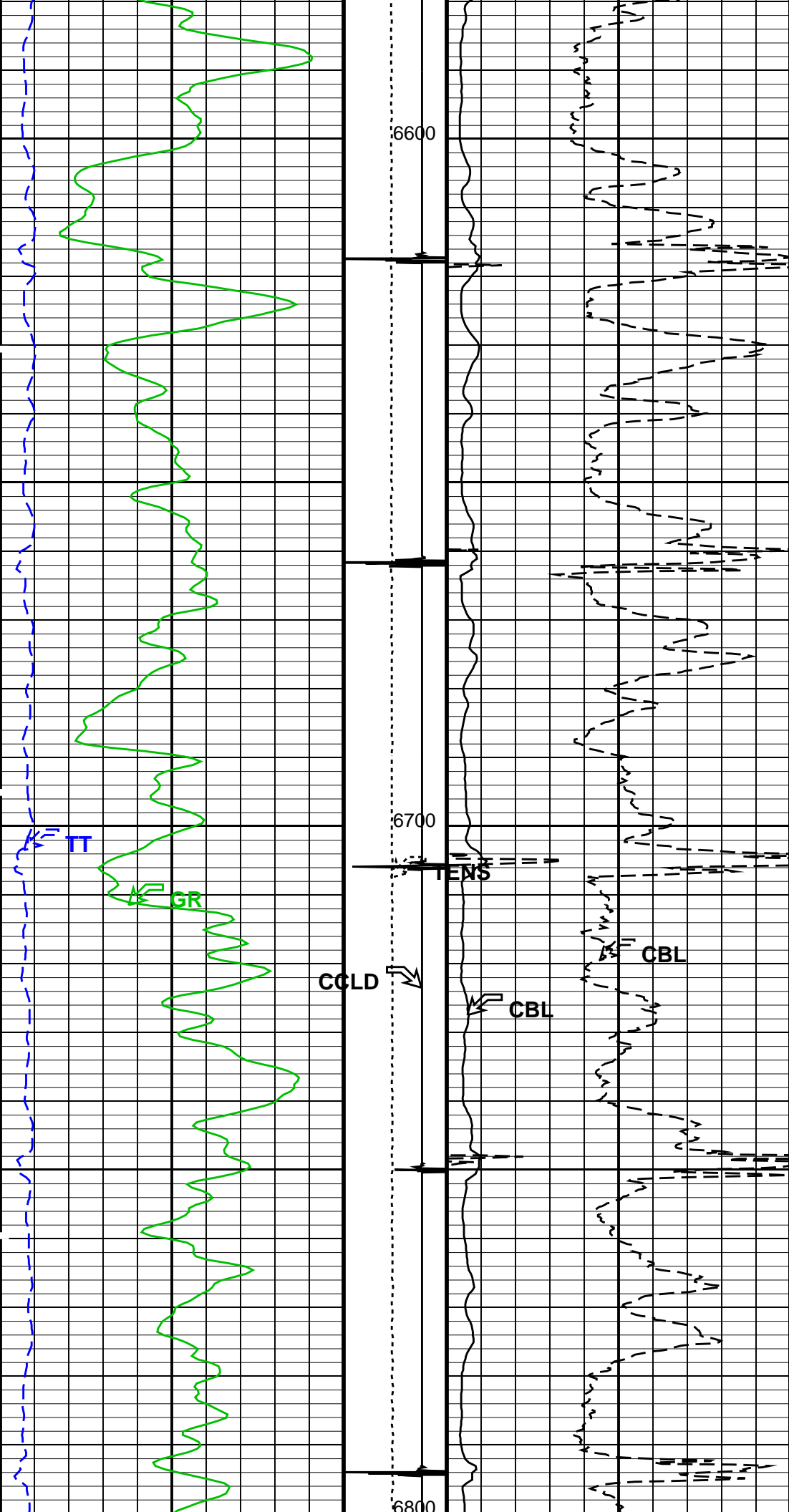


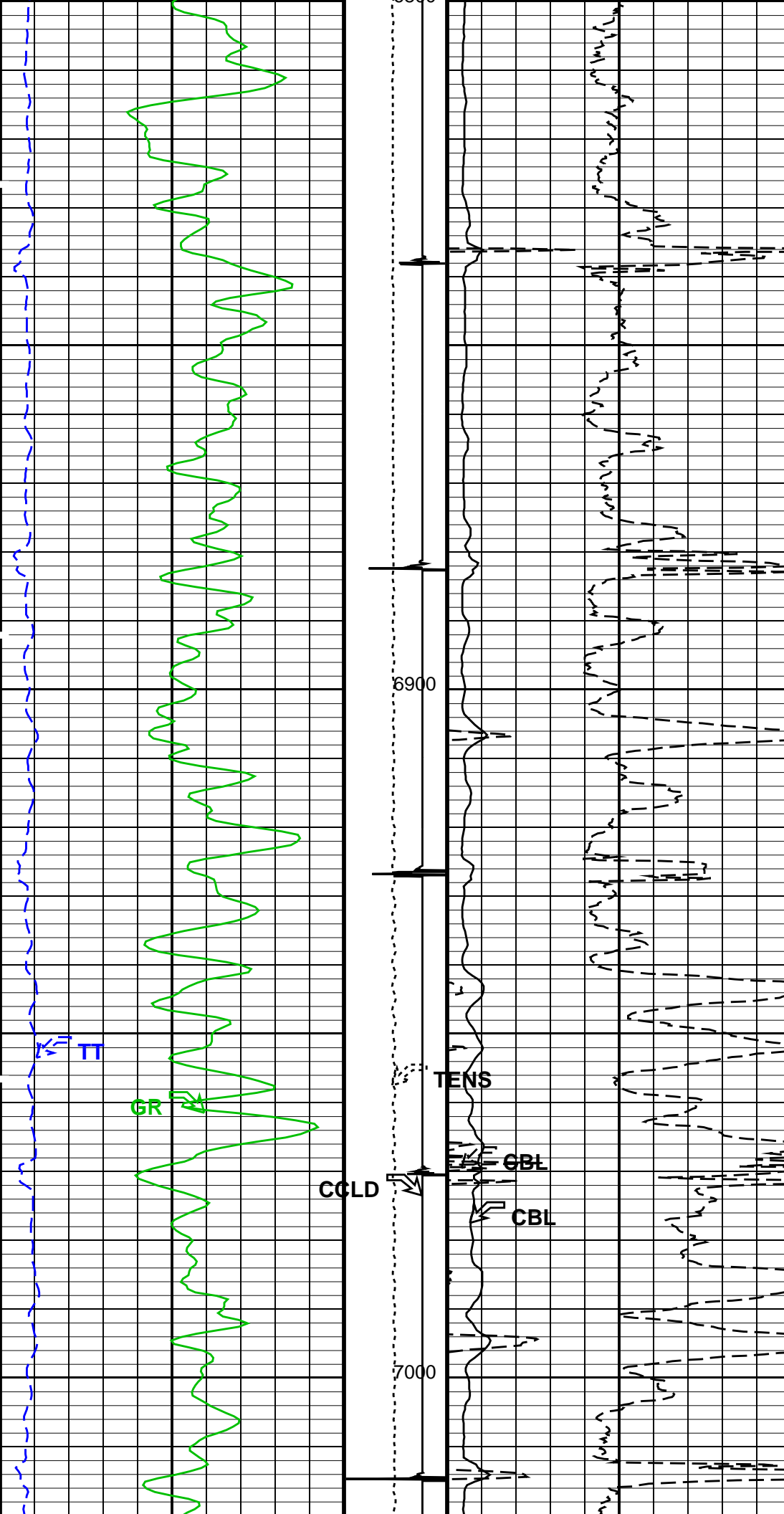




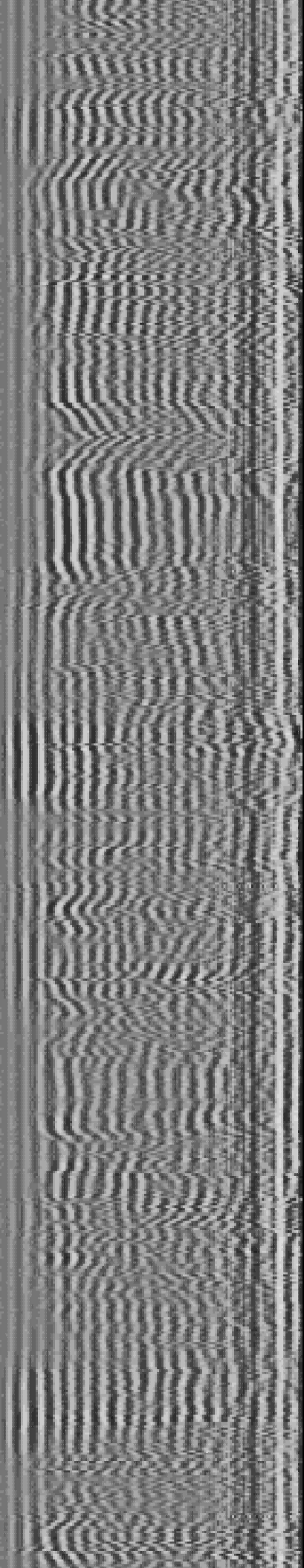
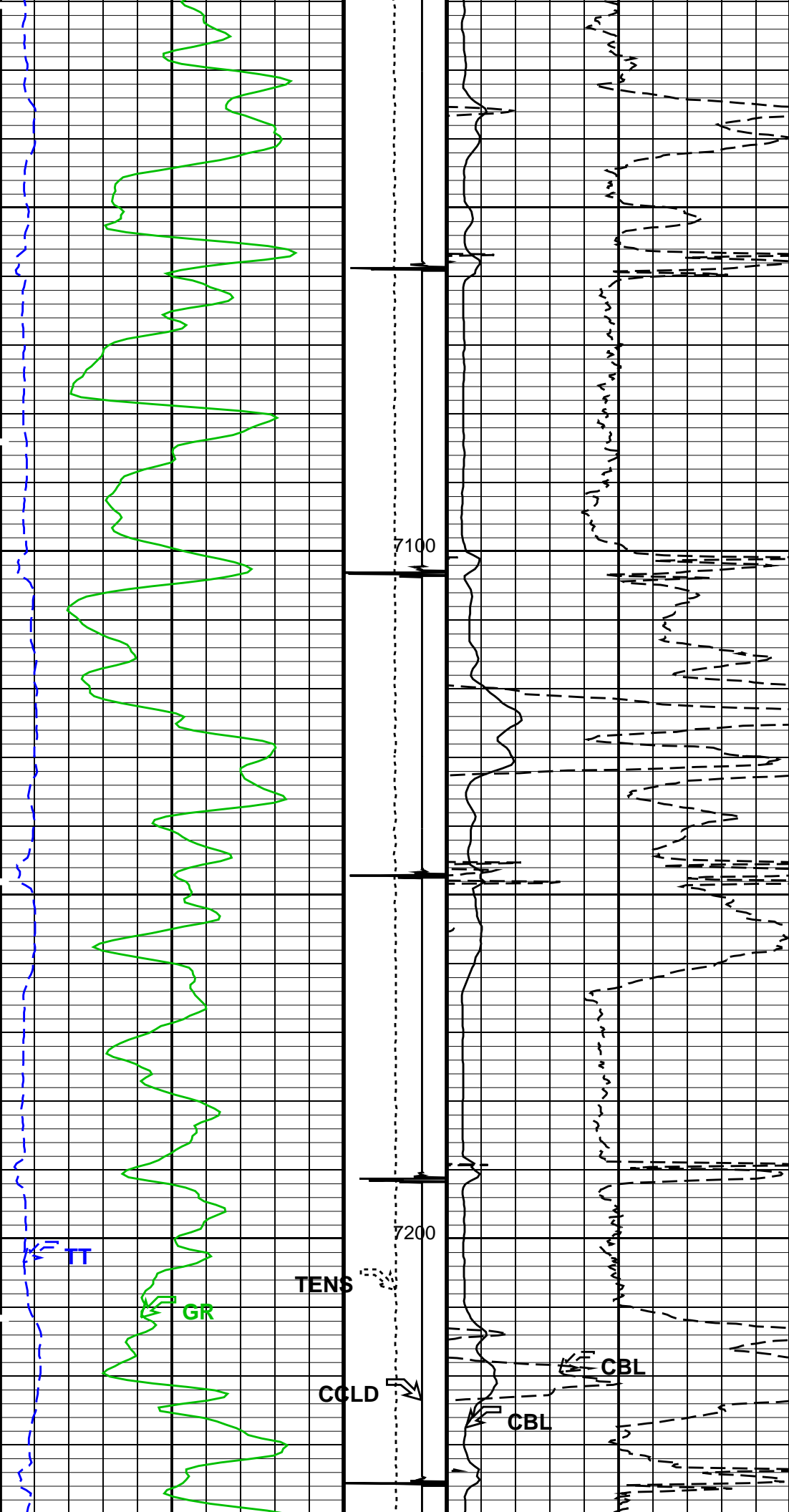


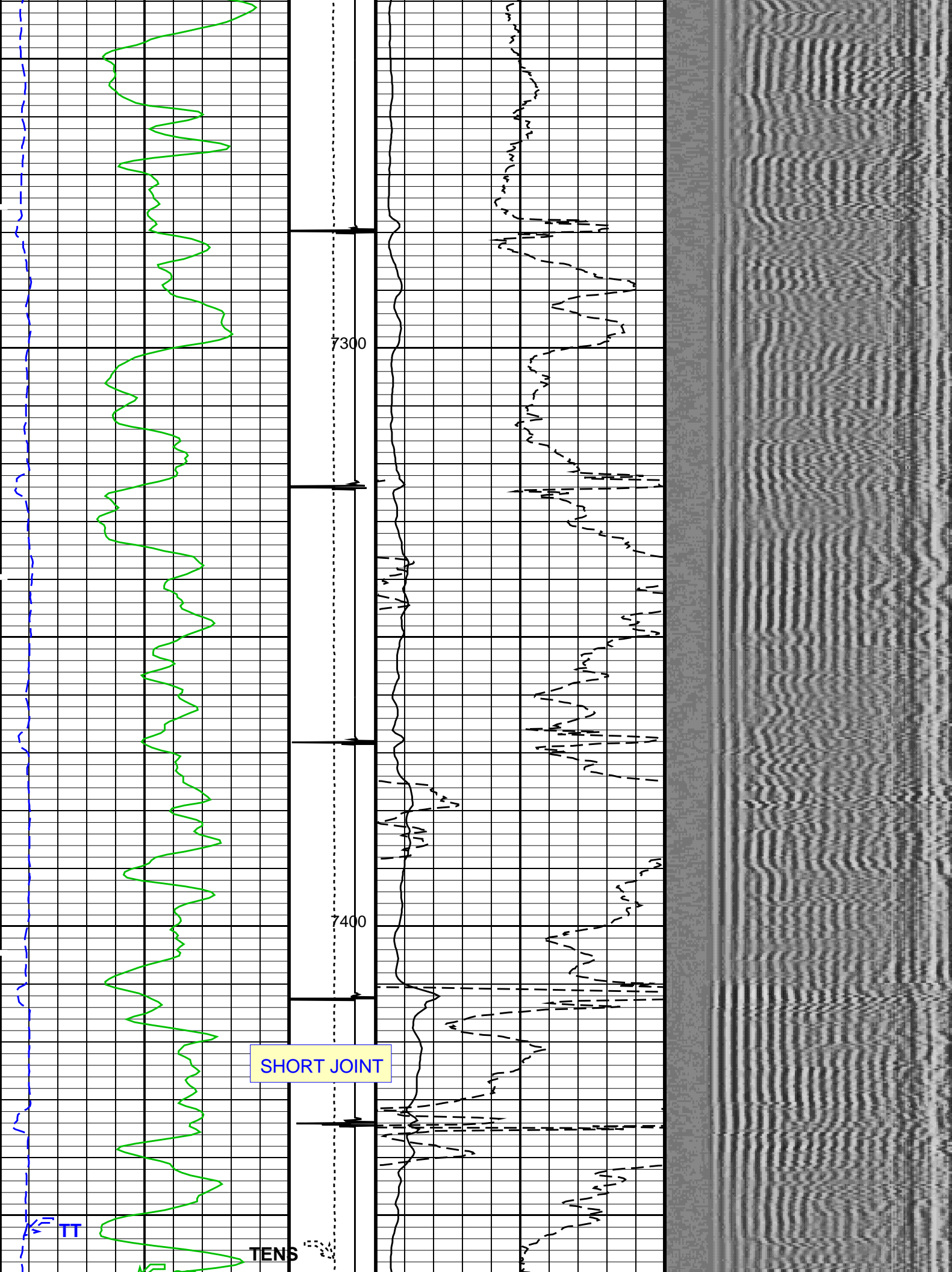


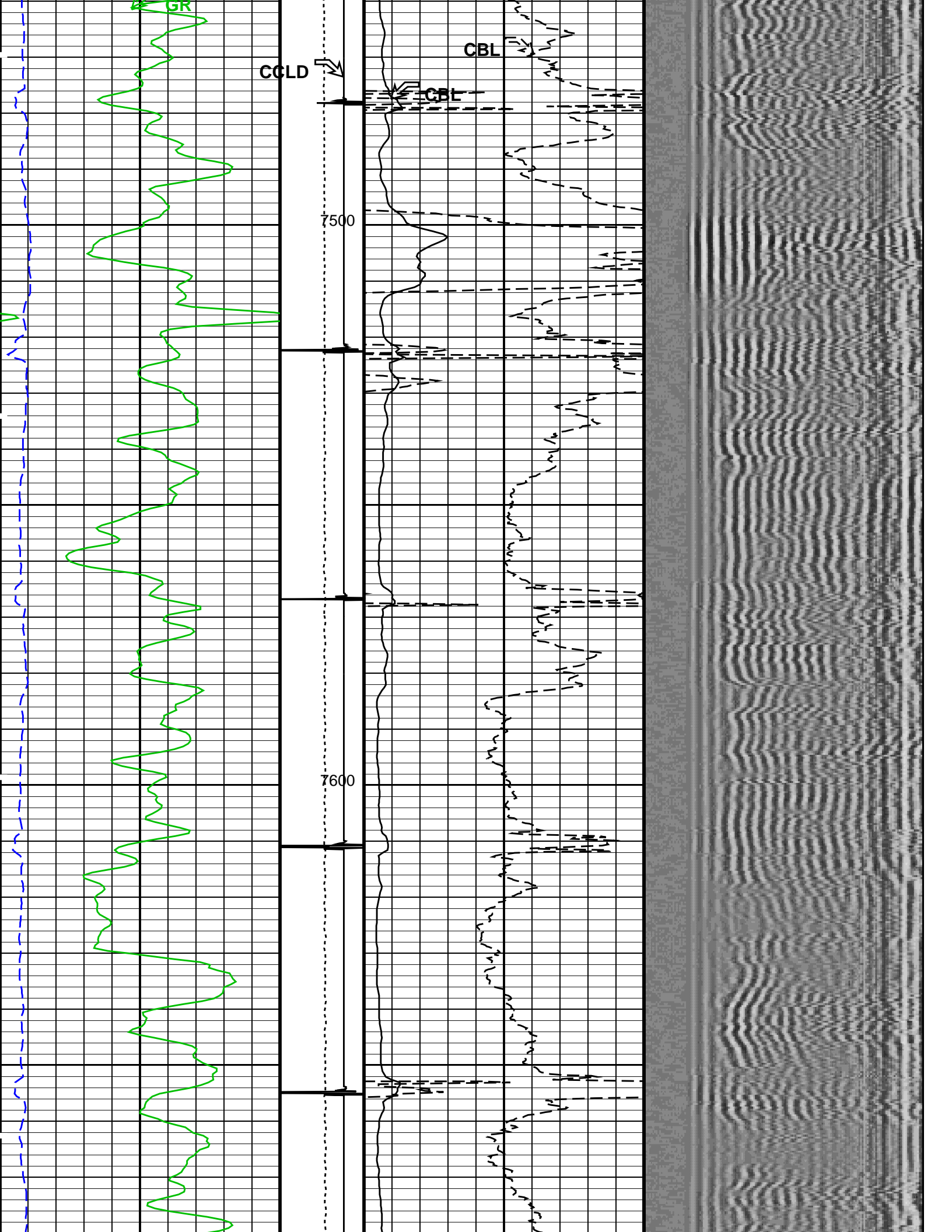


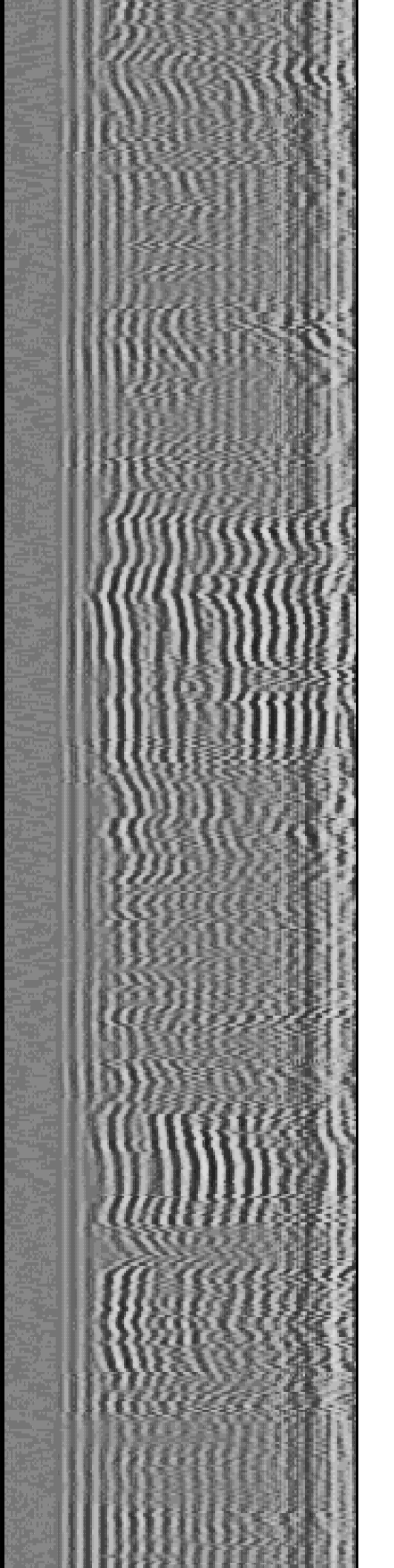
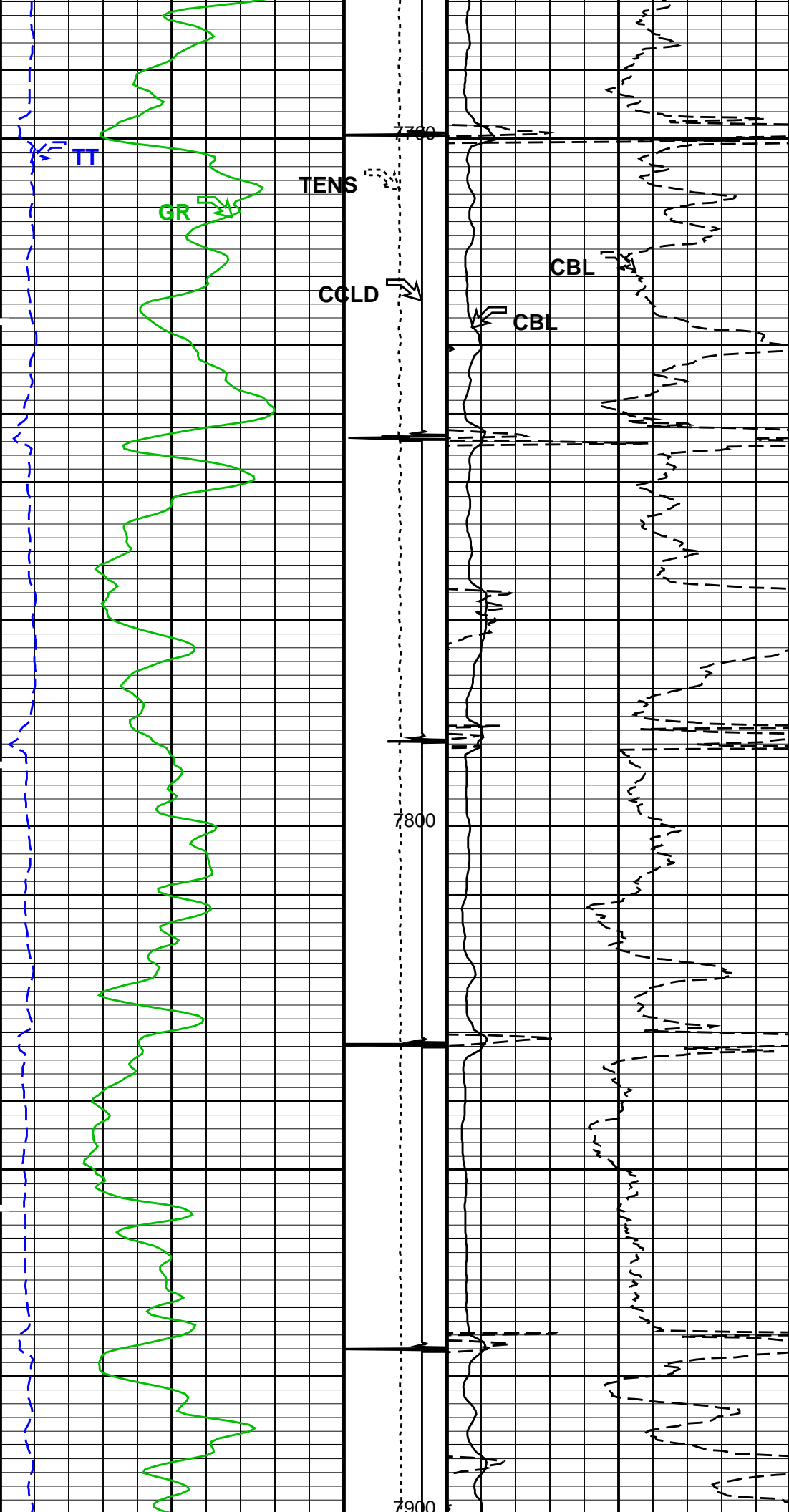




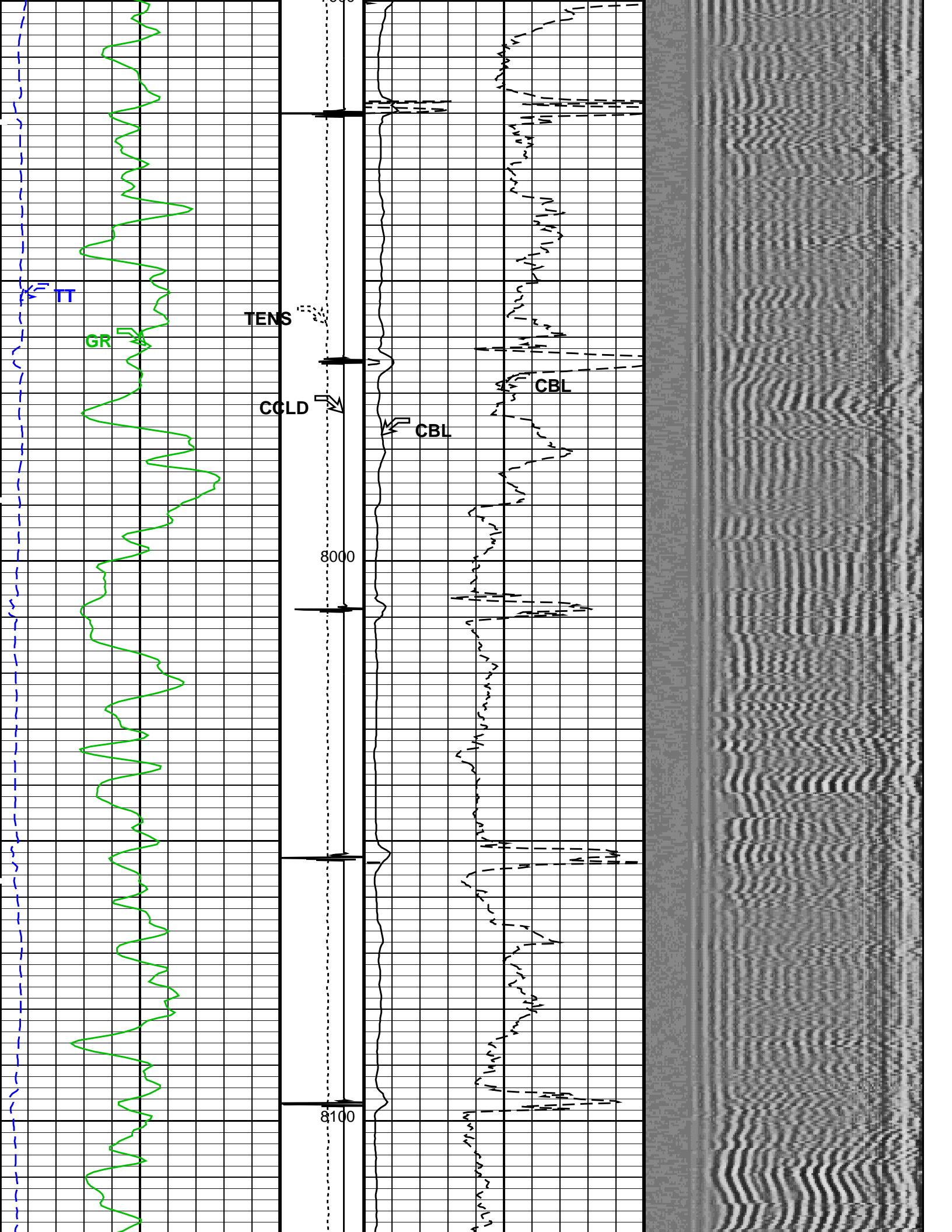




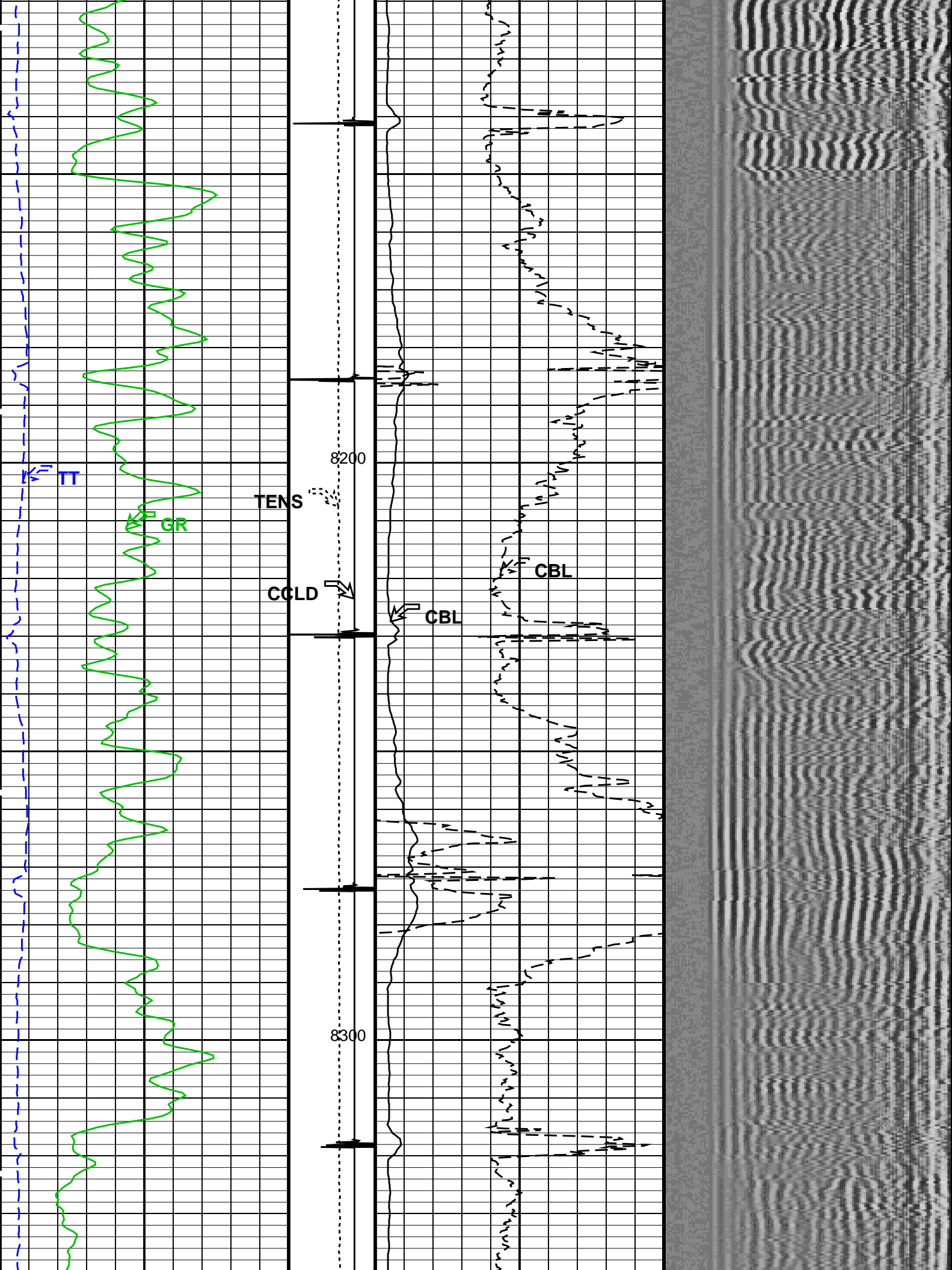


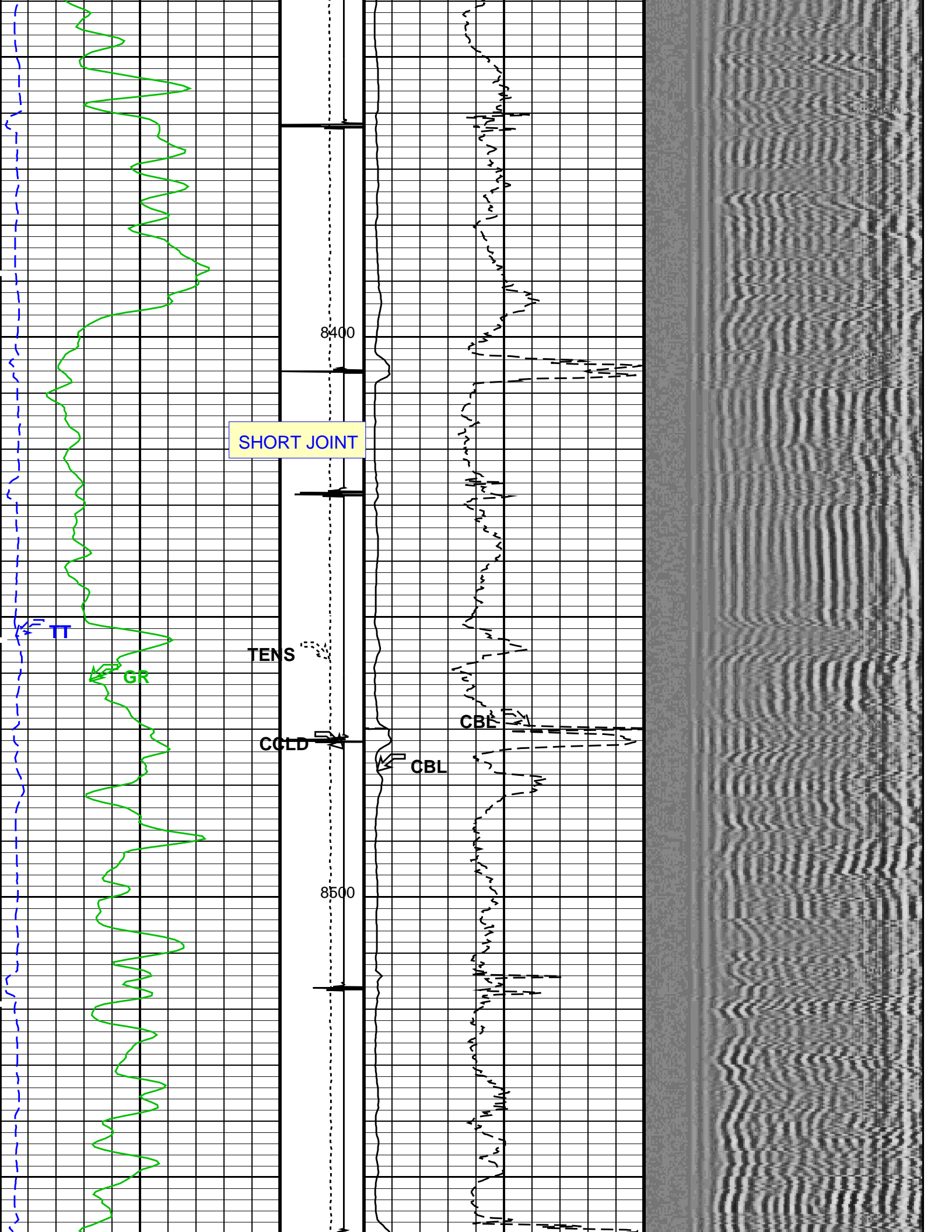


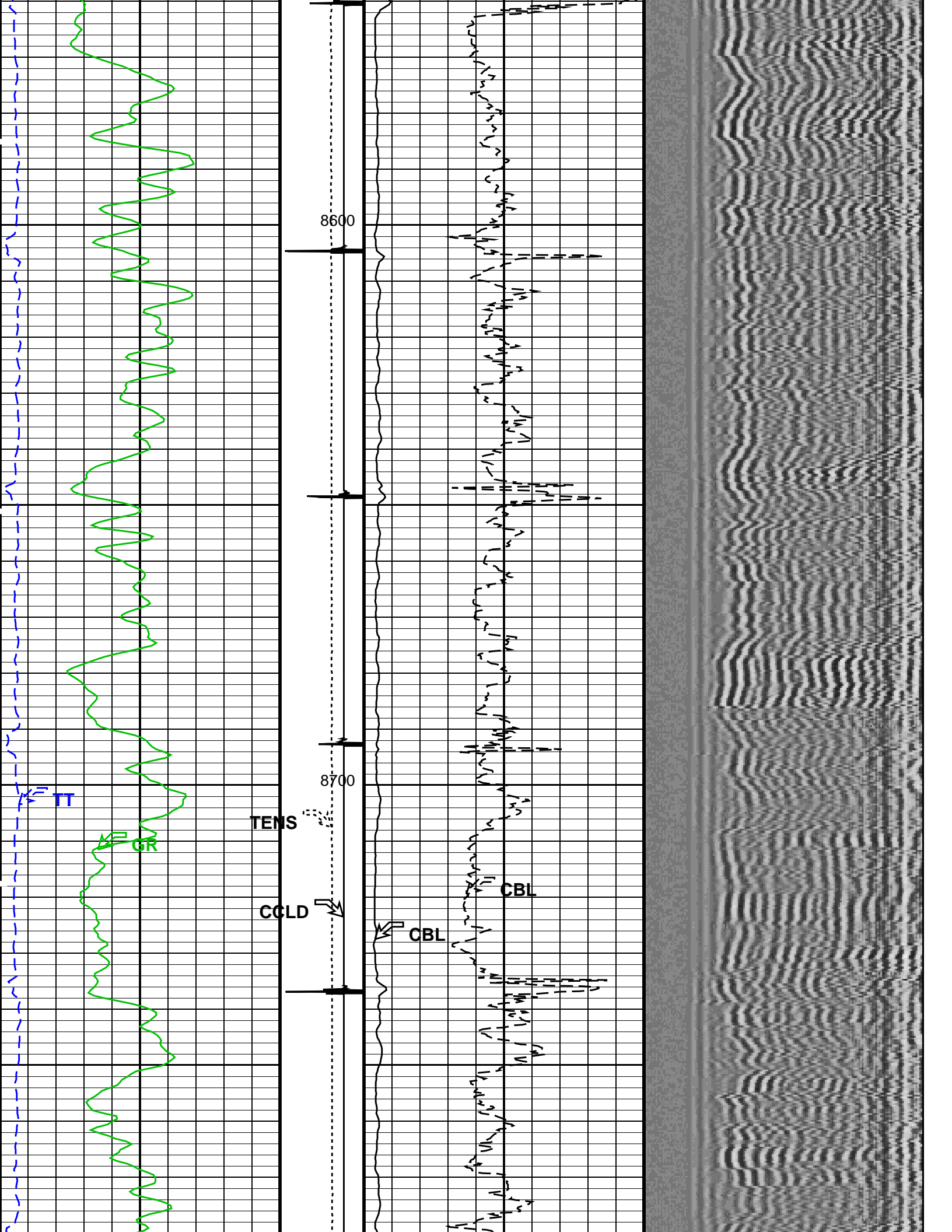


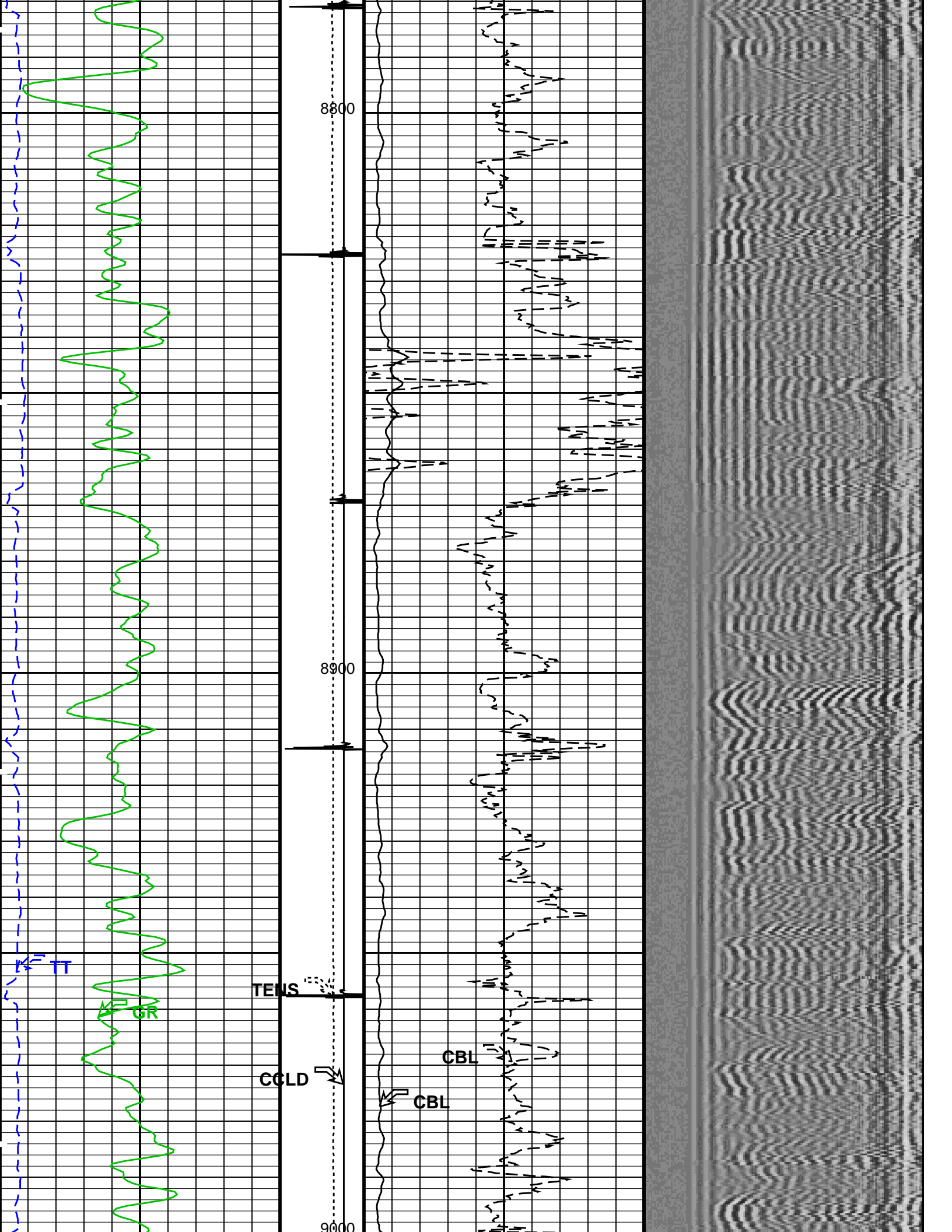




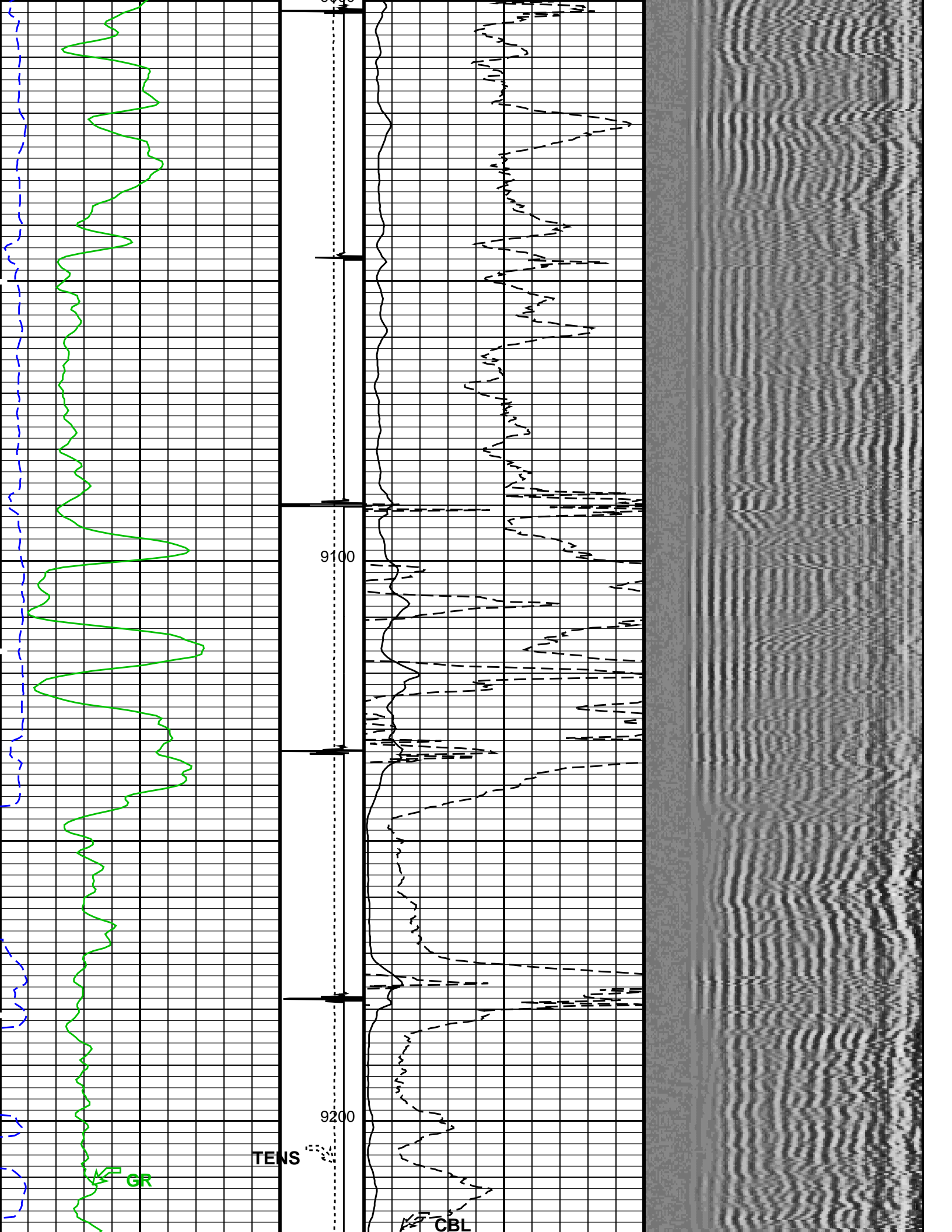




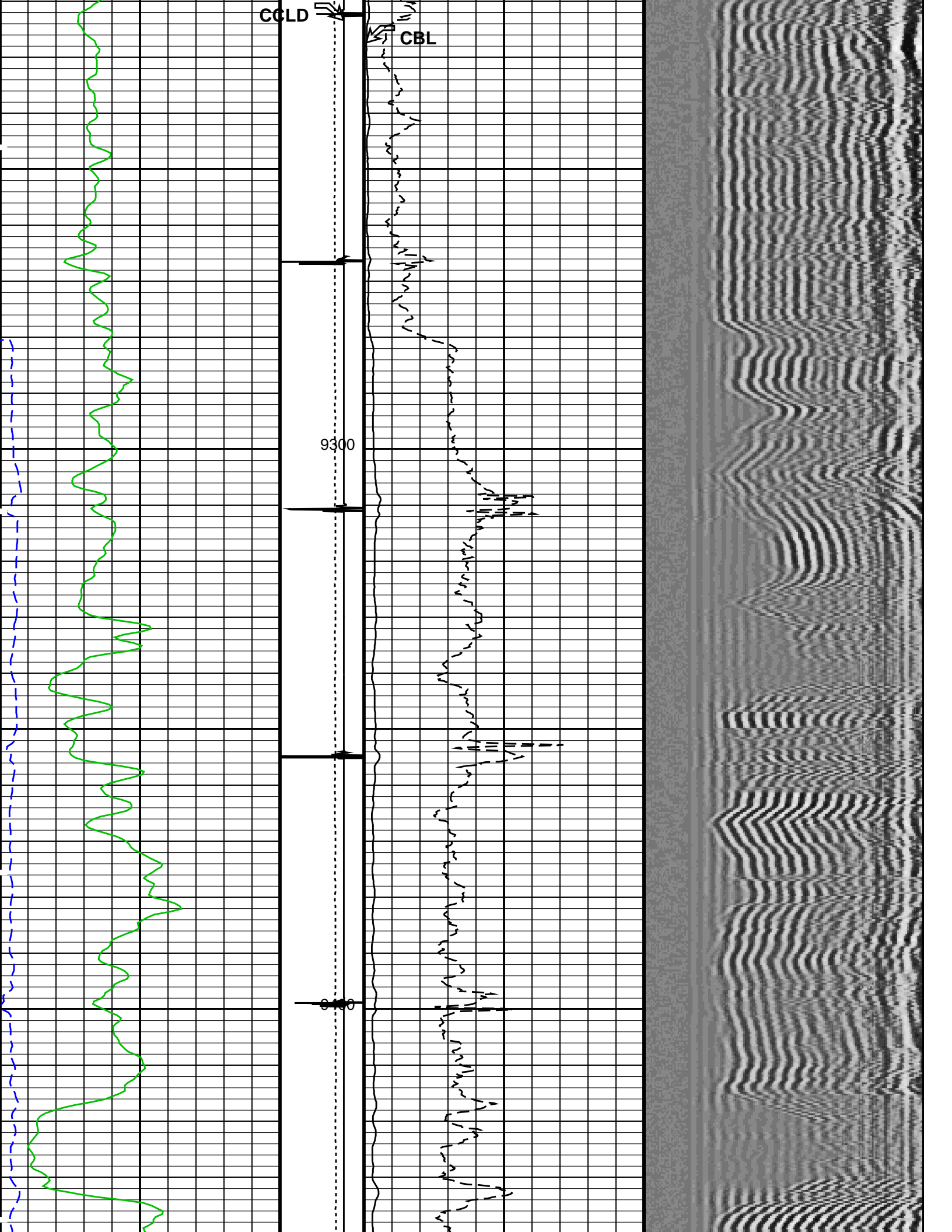


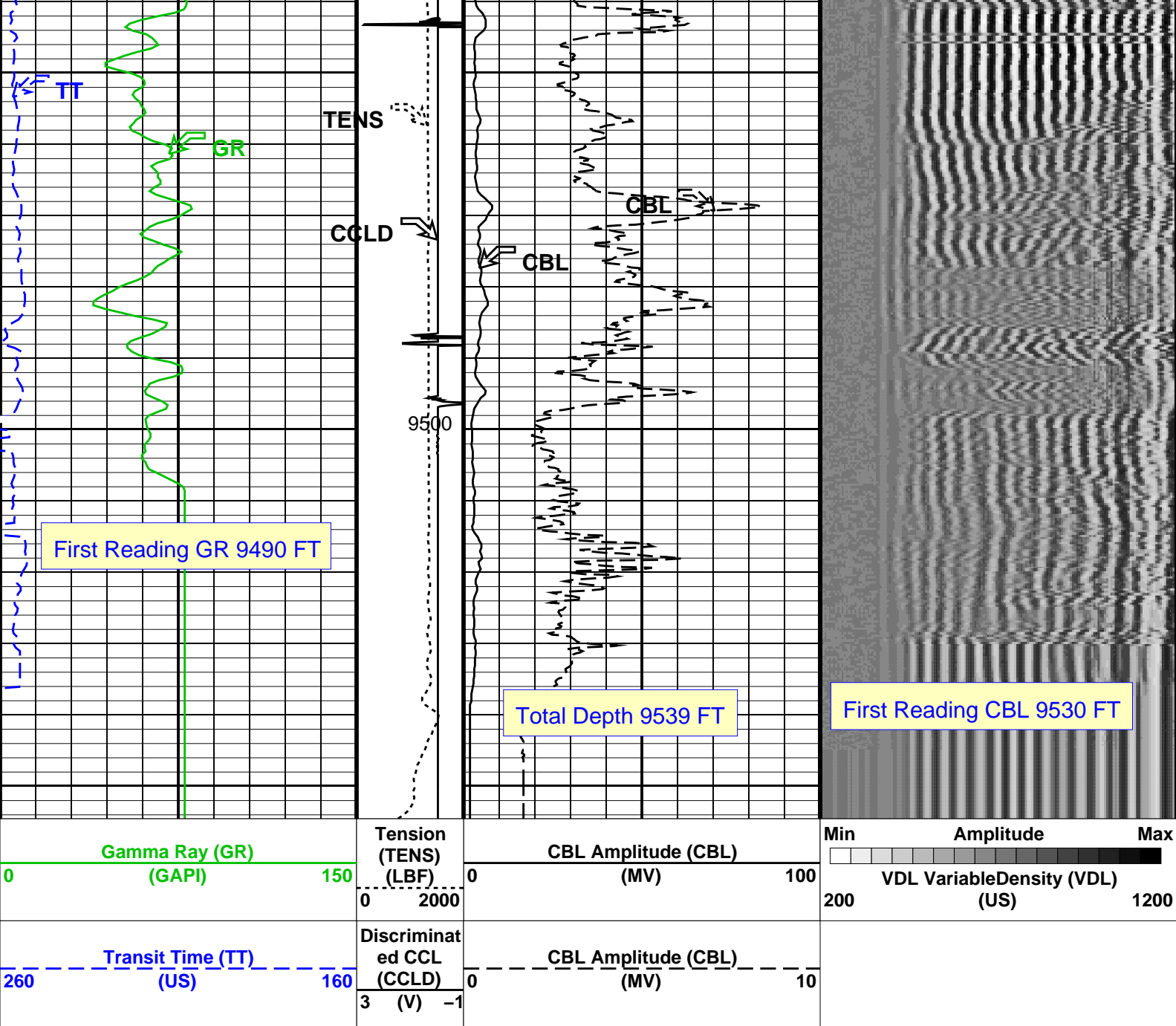












#### PIP SUMMARY

Time Mark Every 60 S

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

Graphics File Created: 22-Jan-2013 19:14

### OP System Version: 19C0-187

SCMT-CB PSPT	SRPC-5214-H2-2012-OP1; SRPC-5214-H2-2012-OP1;	RST-C	SRPC-5214-H2-2012-OP1;
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#### <<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number	SCMS-CB 8179		
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)		

CBL Correction Factor	0.0710826	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.103584	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.0974321		
MAP 3 Correction Factor	0.0970306		
MAP 4 Correction Factor	0.107300		
MAP 5 Correction Factor	0.113090		
MAP 6 Correction Factor	0.0923740		
MAP 7 Correction Factor	0.0954019		
MAP 8 Correction Factor	0.0947290		

## 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	4.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9539	FT

## Input DLIS Files

DEFAULT	SCMT_RST_PSP_051LUP	FN:50	PRODUCER	22--Jan--2013 16:44	9550.5 FT	19.5 FT
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## Output DLIS Files

DEFAULT	SCMT_RST_PSP_054PUP	FN:53	PRODUCER	22--Jan--2013 19:14
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REPEAT ANALYSIS CBL VDL

Input DLIS Files

DEFAULT	SCMT_RST_PSP_049LUP	FN:48	PRODUCER	22-Jan-2013 16:28	7550.0 FT	7239.0 FT
DEFAULT	SCMT_RST_PSP_054PUP	FN:53	PRODUCER	22-Jan-2013 19:14	9554.5 FT	-21.0 FT

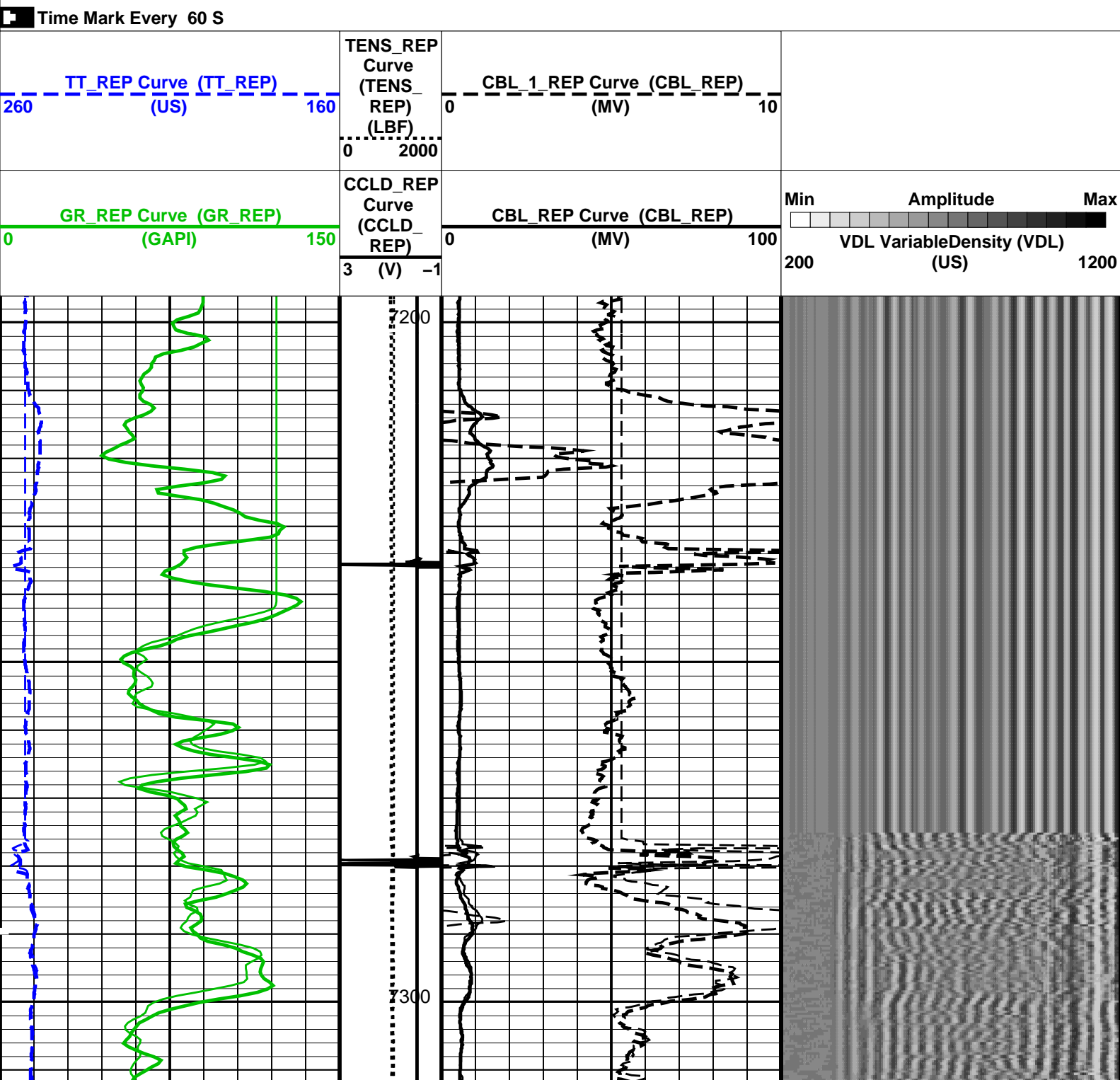
Output DLIS Files

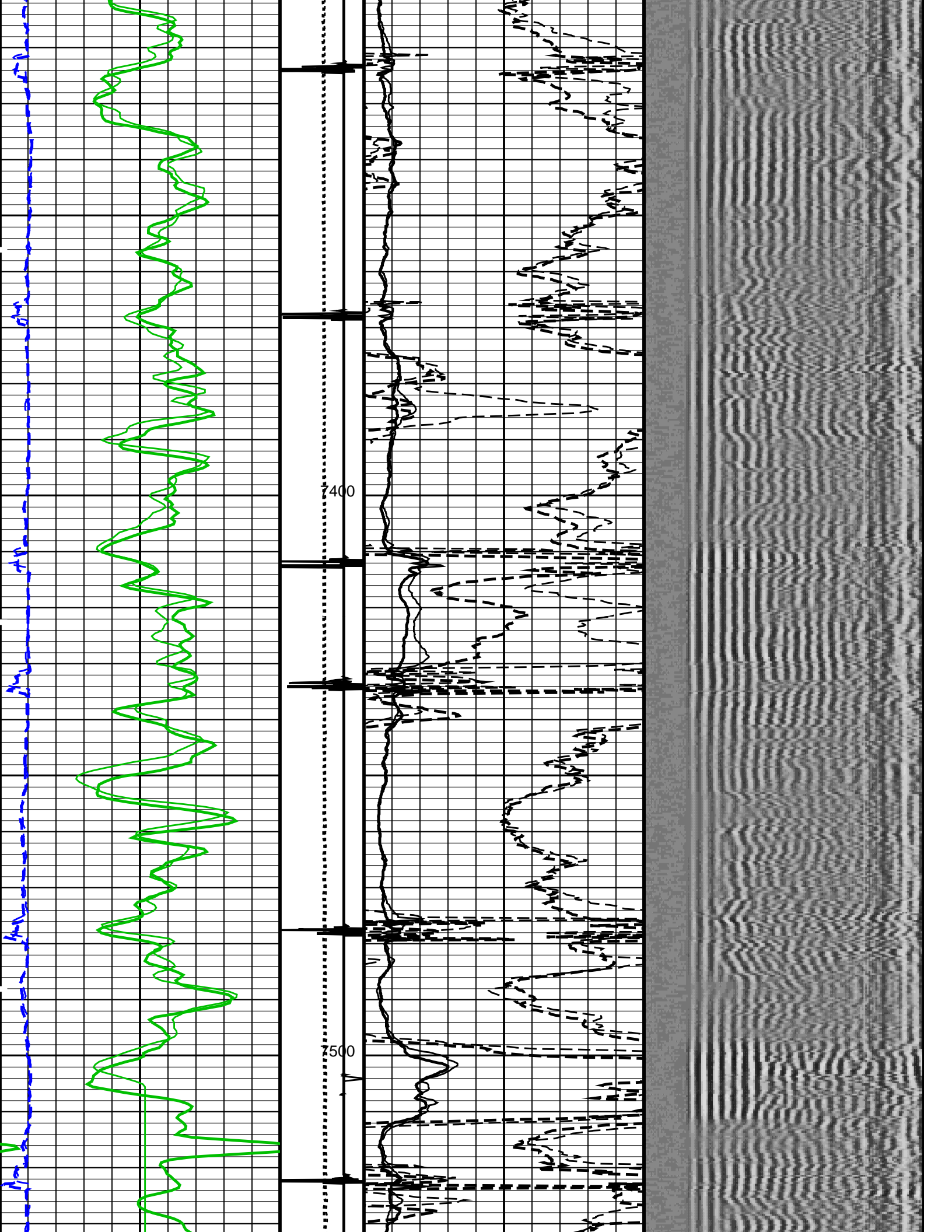
DEFAULT	SCMT_RST_PSP_055PUP	FN:54	PRODUCER	22-Jan-2013 19:25	7551.0 FT	7195.5 FT
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OP System Version: 19C0-187

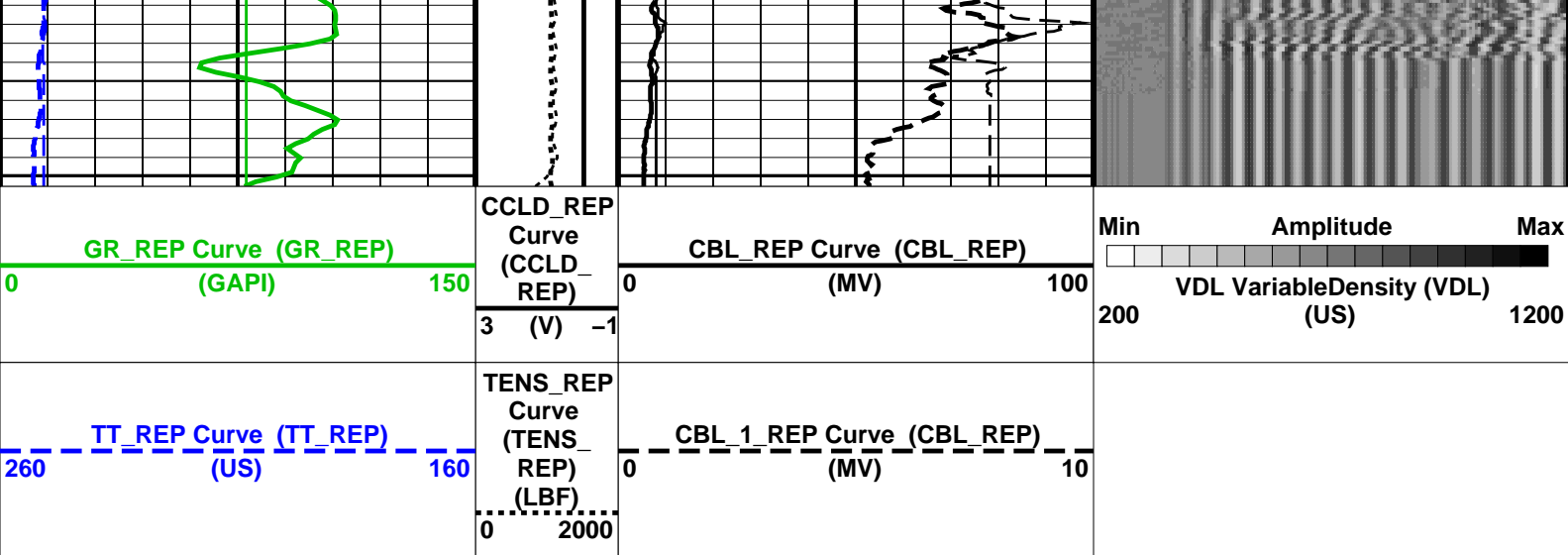
SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
PSPT	SRPC-5214-H2-2012-OP1!		

PIP SUMMARY









**PIP SUMMARY**

☐ Time Mark Every 60 S

Format: CBL\_VDL\_REP    Vertical Scale: 5" per 100'    Graphics File Created: 22-Jan-2013 19:25

**OP System Version: 19C0-187**

SCMT-CB PSPT	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
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<b>&lt;&lt;&lt;SCMT Cement Evaluation Information Summary&gt;&gt;&gt;</b>			
Sonde Serial Number	SCMS-CB 8179		
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	2-JAN-2013		
CBL Correction Factor	0.0710826	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.103584	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.0974321		
MAP 3 Correction Factor	0.0970306		
MAP 4 Correction Factor	0.107300		
MAP 5 Correction Factor	0.113090		
MAP 6 Correction Factor	0.0923740		
MAP 7 Correction Factor	0.0954019		
MAP 8 Correction Factor	0.0947290		

<b>Parameters</b>		
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	1.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9539	FT

### Input DLIS Files

DEFAULT	SCMT_RST_PSP_049LUP	FN:48	PRODUCER	22-Jan-2013 16:28	7550.0 FT	7239.0 FT
DEFAULT	SCMT_RST_PSP_054PUP	FN:53	PRODUCER	22-Jan-2013 19:14	9554.5 FT	-21.0 FT

### Output DLIS Files

DEFAULT	SCMT_RST_PSP_055PUP	FN:54	PRODUCER	22-Jan-2013 19:25
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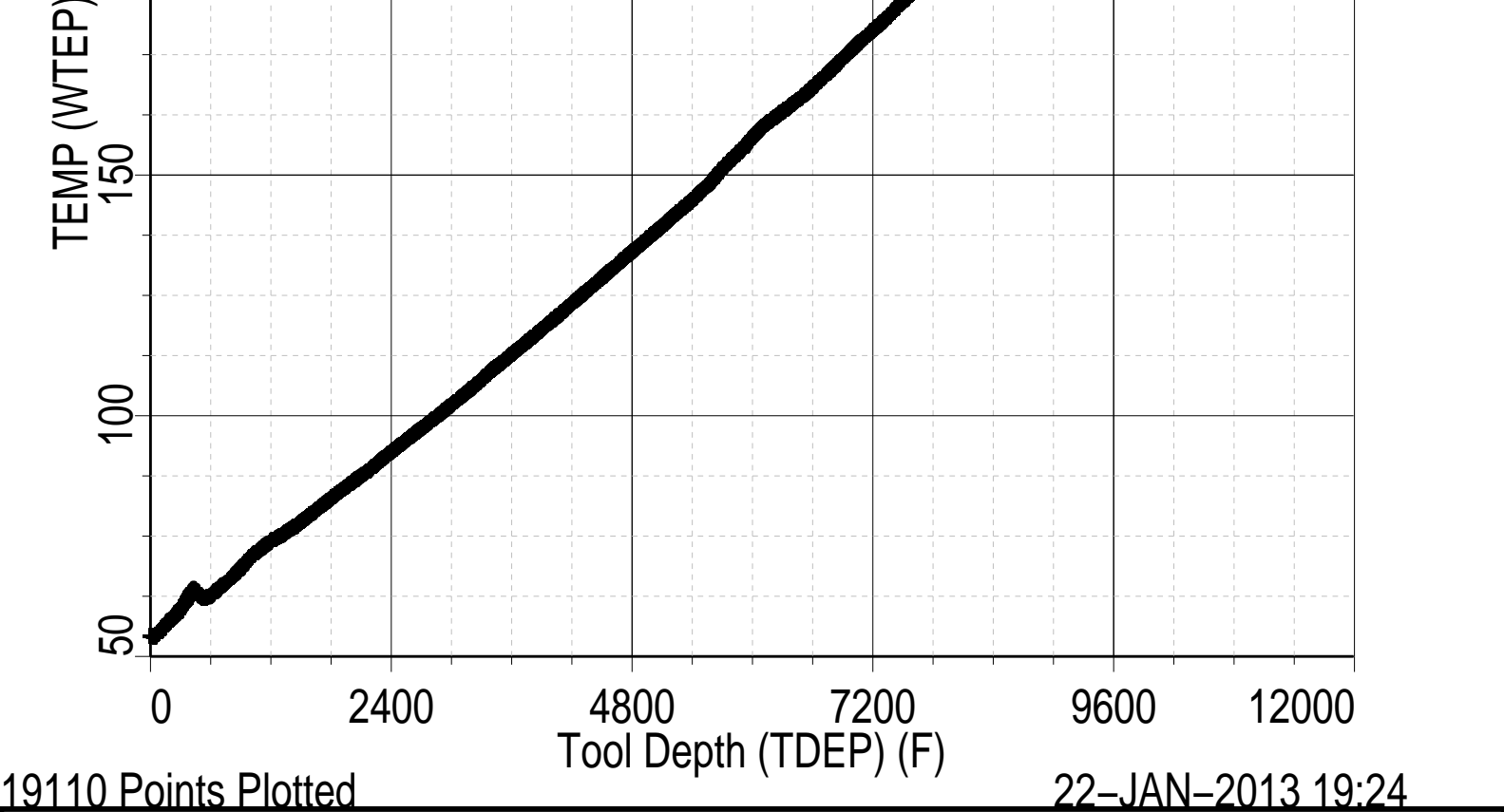
**Schlumberger**

## TEMPERATURE PLOT

MAXIS Field Log

Index: 9554.5 – -21.0 FT





**Schlumberger**

## PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC  
Field: MAMM CREEK  
Well: MCU 26-4B (I27W)  
Run date: 22-Jan-2013

Tool: PSP  
Sub Type: PBMS  
Sensor: GR

### PBMS Gamma Ray

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

RESISTORS FOR GR SENSOR N.33223, TOOL PBMS-BA0928. SENSOR S/N:

33223

090800

12

CFE2

GR HV Rt

Rt\*\*0

Rt\*\*1

Rt\*\*0

+.182000000000e+04

+.332000000000e+04

Client: ENCANA OIL & GAS (USA) INC

Field: MAMM CREEK

Well: MCU 26–4B (I27W)

Run date: 22–Jan–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

Client: ENCANA OIL & GAS (USA) INC

Field: MAMM CREEK

Well: MCU 26–4B (I27W)

Run date: 22–Jan–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	+.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

**Schlumberger**

**MASTER CALIBRATION**

MAXIS Field Log

Primary Equipment:	SCMX – CA	
Slim Cement Mapping Xmitter Electronics	SCMS – CB	8179
Slim Cement Mapping Sonde	SCMC – CA	8120
Slim Cement Mapping Cartridge		
Auxiliary Equipment:	SECH – CA	
Slim Electronics Cartridge Housing		

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 & GAS (USA) INC**

**Schlumberger**

Well: **MCU 26–4B (I27W)**

Field: **MAMM CREEK**

County: **GARFIELD**

State: **COLORADO**

**SLIM CEMENT MAPPING LOG**

**CBL–VDL**

**GR–CCL**