

Company: ENCANA OIL & GAS (USA) INC

Well: ENCANA FEE 19-13D (K19CNE)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

County: GARFIELD

Field: MAMM CREEK

Location: SHL: 2420 FSL& 310 FWL

Well: ENCANA FEE 19-13D (K19CNE)

Company: ENCANA OIL & GAS (USA) INC

SLIM CEMENT MAPPING LOG

CBL – VDL

GAMMA RAY – CCL

SHL: 2420 FSL& 310 FWL

BHL: 423 FSL & 680 FWL

Elev.: K.B. 5666.00 ft

G.L. 5666.00 ft

D.F. 5666.00 ft

Permanent Datum: _____

GROUND LEVEL _____

Elev.: 5666.00 ft _____

Log Measured From: KELLY BUSHING

22.00 ft above Perm. Datum

Drilling Measured From: KELLY BUSHING

API Serial No. 05-045-20757-0C

Section 19

Township 6S

Range 92W

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						
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 1-May-2013

Run Number 1

Depth Driller 9115 ft

Schlumberger Depth 9020 ft

Bottom Log Interval 9011 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 6635 ft

To 9115 ft

Casing/Tubing Size 4.500 in

Weight 11.6 lbm/ft

Grade

From 22 ft

To 9102 ft

Maximum Recorded Temperatures 237 degF

Logger On Bottom 1-May-2013 13:30

Unit Number 391 Location GRAND JUNCTION

Recorded By JASON BARRY

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: 30-APR-2013 11:07:37

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:	30-APR-201	Length:	19500 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878	Conveyance Method: Wireline Rig Type: LAND	
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10		
Wheel Correction 1:	-3	Calibration RMS:	7		
Wheel Correction 2:	-4	Calibration Peak Error:	15		

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 POLICIES APPLIED
2. IDW USED AS PRIMARY DEPTH REFERENCE
3. SWPT DRUM COUNTER USED AS SECONDARY DEPTH REFERENCE
- 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: 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 CORRELATED TO DOWNLOG	
TOOL RAN AS PER TOOL SKETCH	
ENTRANCE TIME: 12:30	
TIME ON BOTTOM: 13:30	
EXIT TIME: 16:00	

MAX RECORDED TEMPERATURE: 237 DEGF	
MAX RECORDED PRESSURE: 3653 PSIA	
SHORT JOINTS: 5592 FT & 6666 FT	
MAIN PASS LOGGED UNDER ZERO SURFACE PRESSURE	
EXPECTED CBL AMP IN FREE PIPE = 80MV	
CREW: J BARRY, K BUNTING, K JOHNS, K BOZARTH, T LEGGITT	
THANK YOU FOR CHOOSING E&P WIRELINE. A SCHLUMBERGER COMPANY	

RUN 1 SERVICE ORDER #: C920-00071 PROGRAM VERSION: 19C0-187 FLUID LEVEL: 60 ft			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

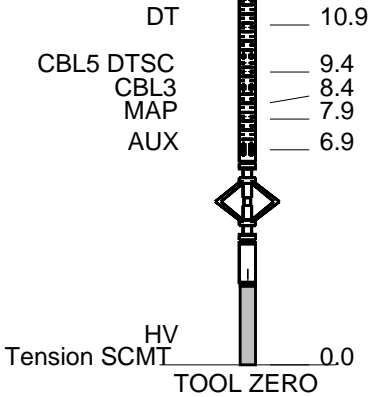
	EQUIPMENT DESCRIPTION	
RUN 1		RUN 2

SURFACE EQUIPMENT		
WITM-A		
PSC_16MHZ		

DOWNHOLE EQUIPMENT			
MH-22			53.2
MH-22			
Detail MT			
AH-38	TelStatus		51.6
PSPT	CTEM		51.3
PSC-A			51.3
PSPT-B 928			
PSTC-A			
PBMS-B	GR		47.6
CQG_F_Mano			
RTD_Thermometer			
GR	Well_Temp		44.5
CCL	CQG Manom		44.2
PBMS	CCL		43.8
	PBMS PSTC		43.0
RST-C			43.0
RSCH-A 469			
RSC-E			
RSS-A 255			
RSXH-A 493			
RSX-E			
	RSC-A Far		33.9
	RSC-A PNG		
	RSC-A Nea		
	RSX-A PNG		33.4

SCMT-CB
SCMC-CA 8317
SECH-CA
CMIR-AG
SCMS-CB 8303
SCMX-CA

20.0



MAXIMUM STRING DIAMETER 1.72 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET



MAIN PASS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC Well: ENCANA FEE 19-13D (K19CNE)

Input DLIS Files

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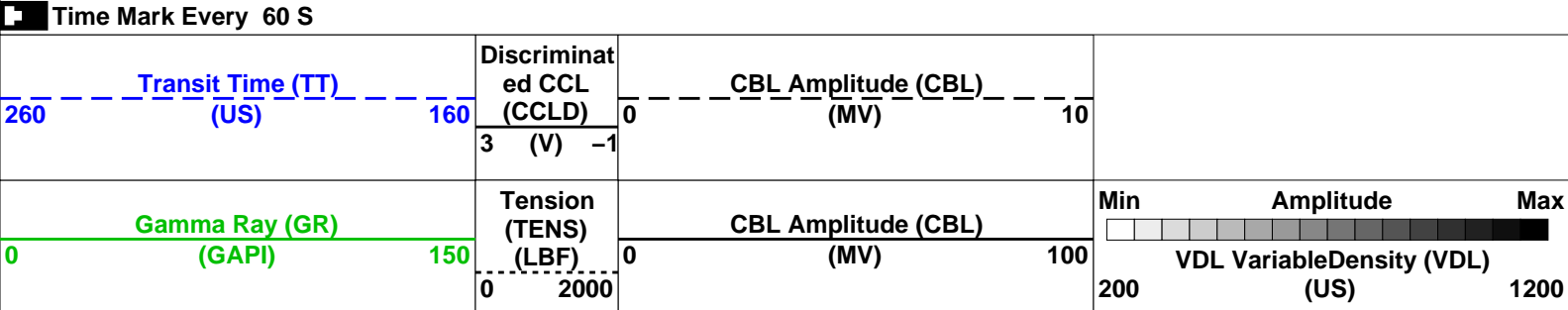
Output DLIS Files

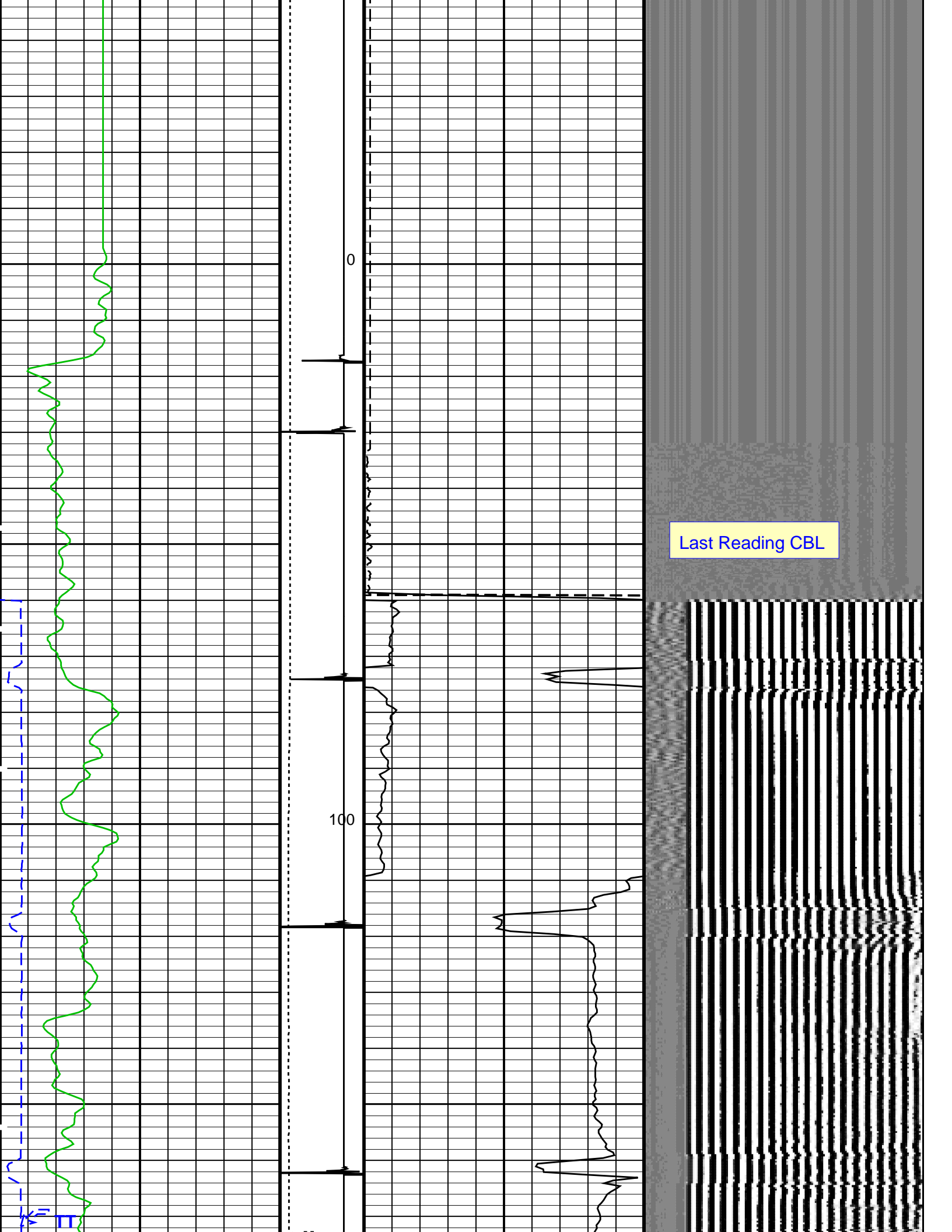
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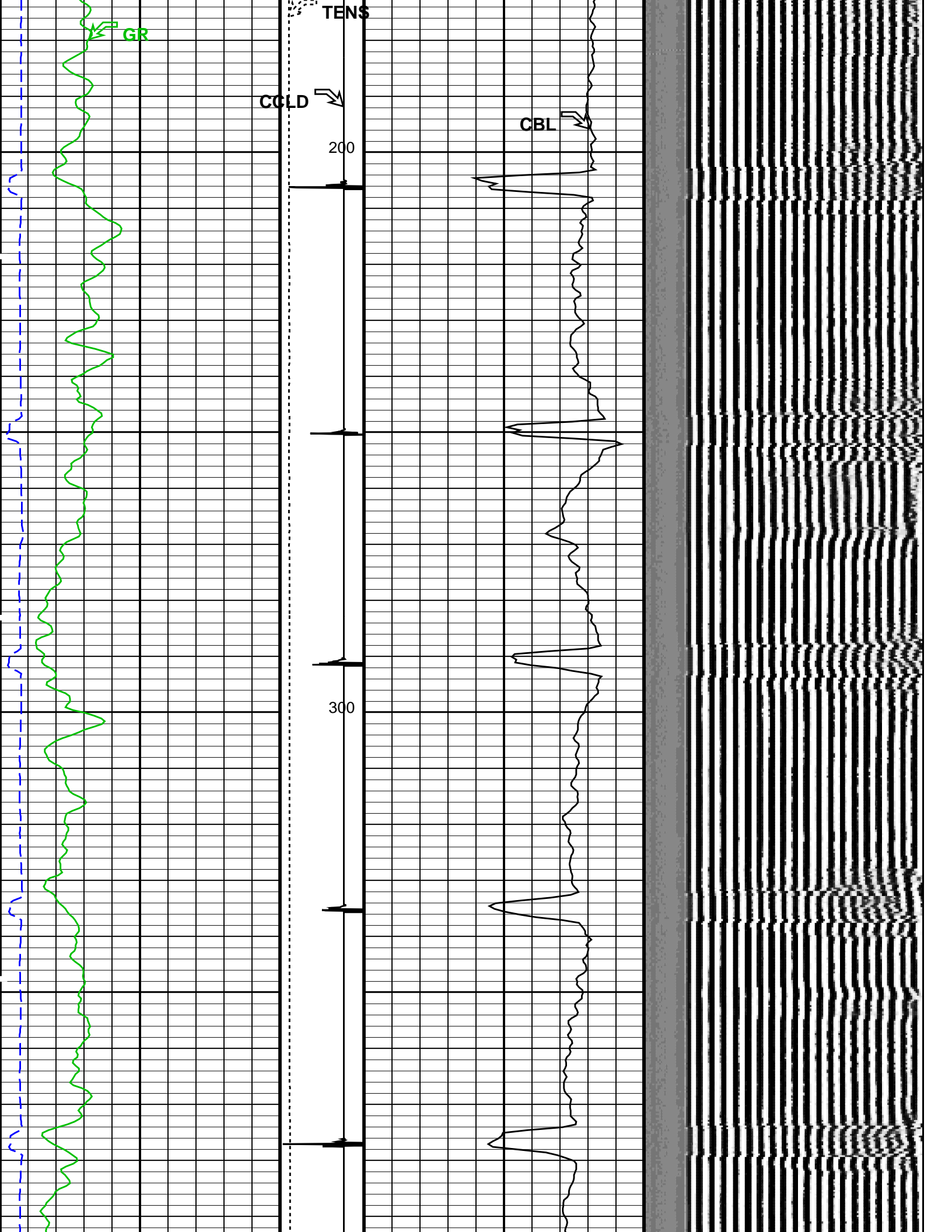
OP System Version: 19C0-187

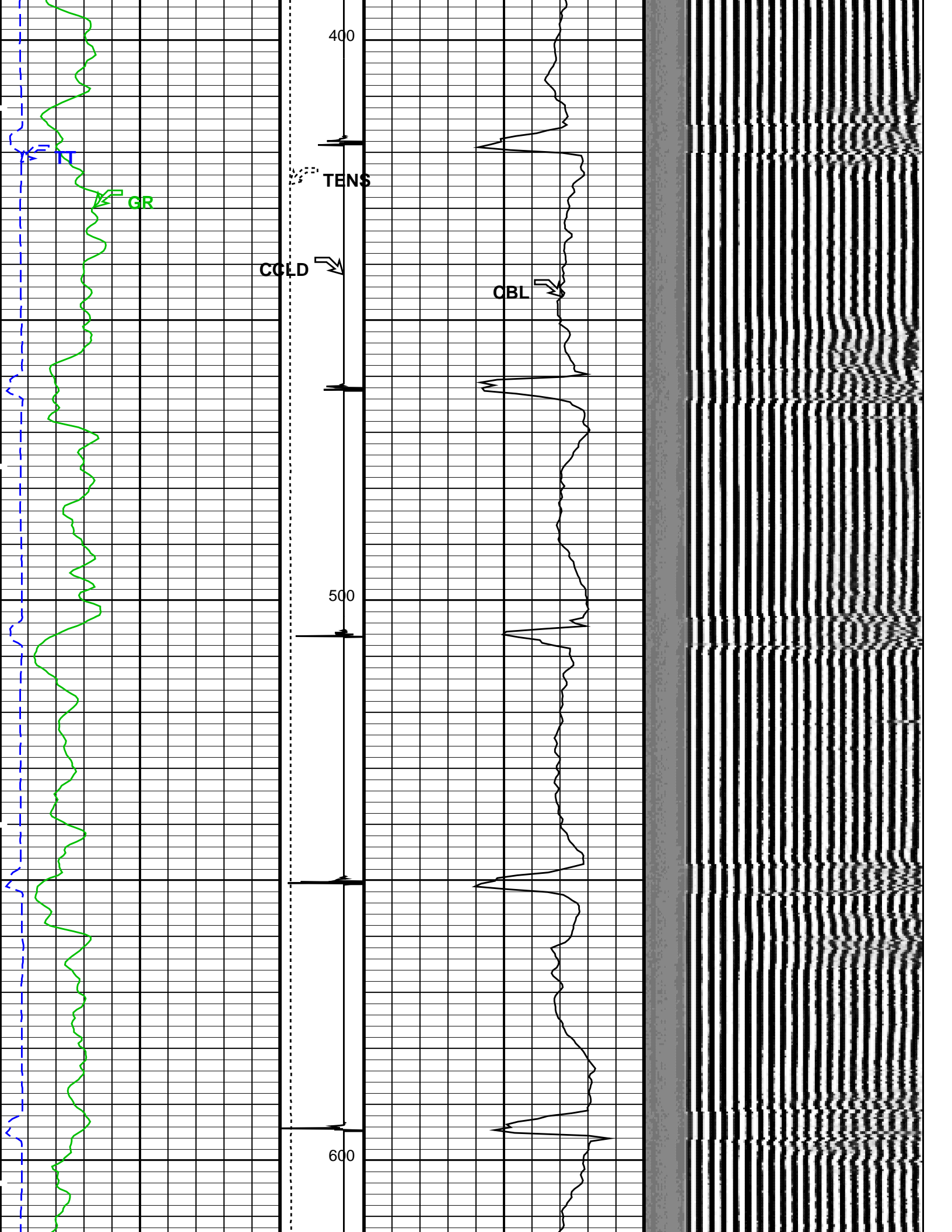
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PSPT SRPC-5214-H2-2012-OP1

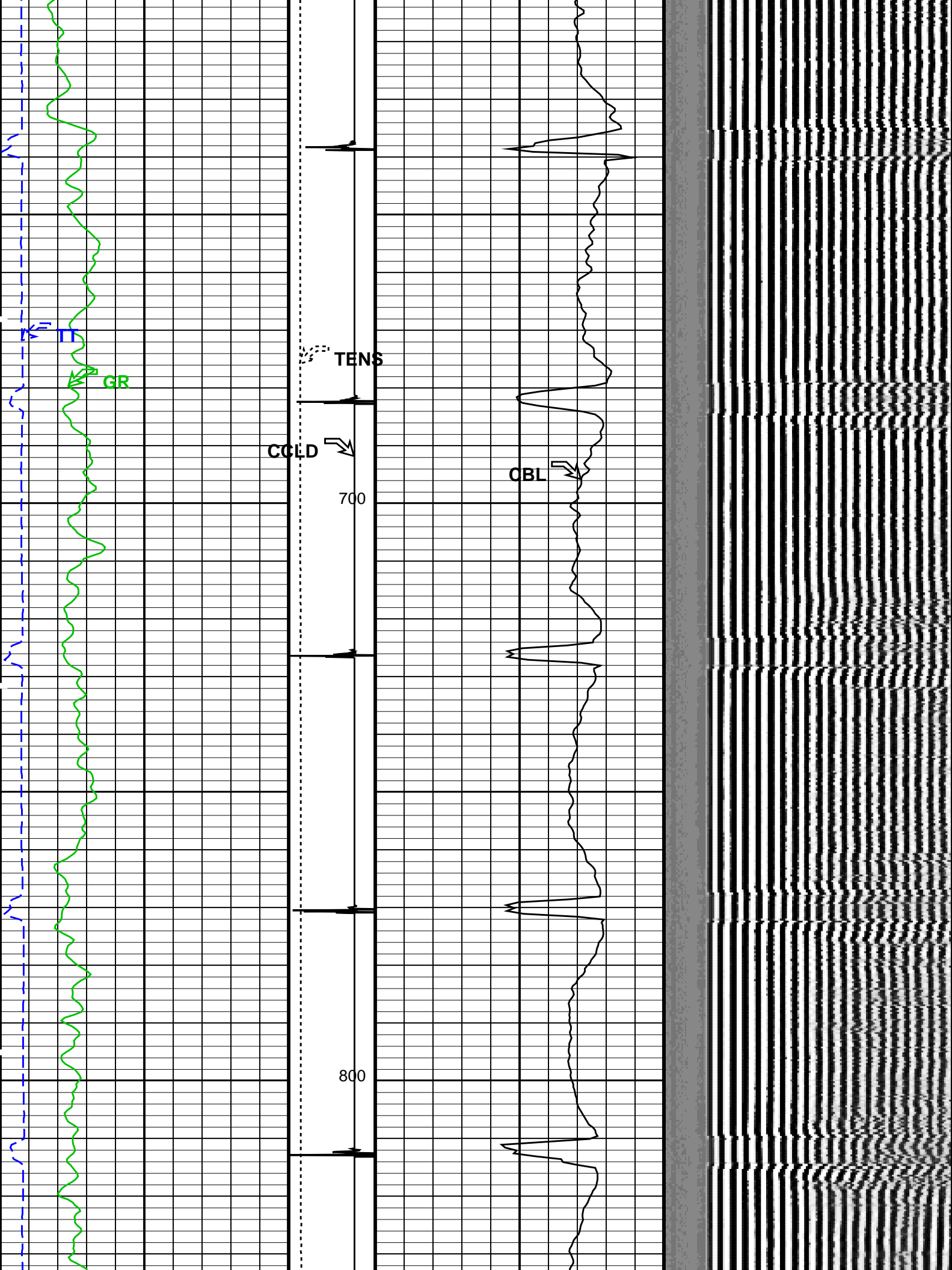
PIP SUMMARY

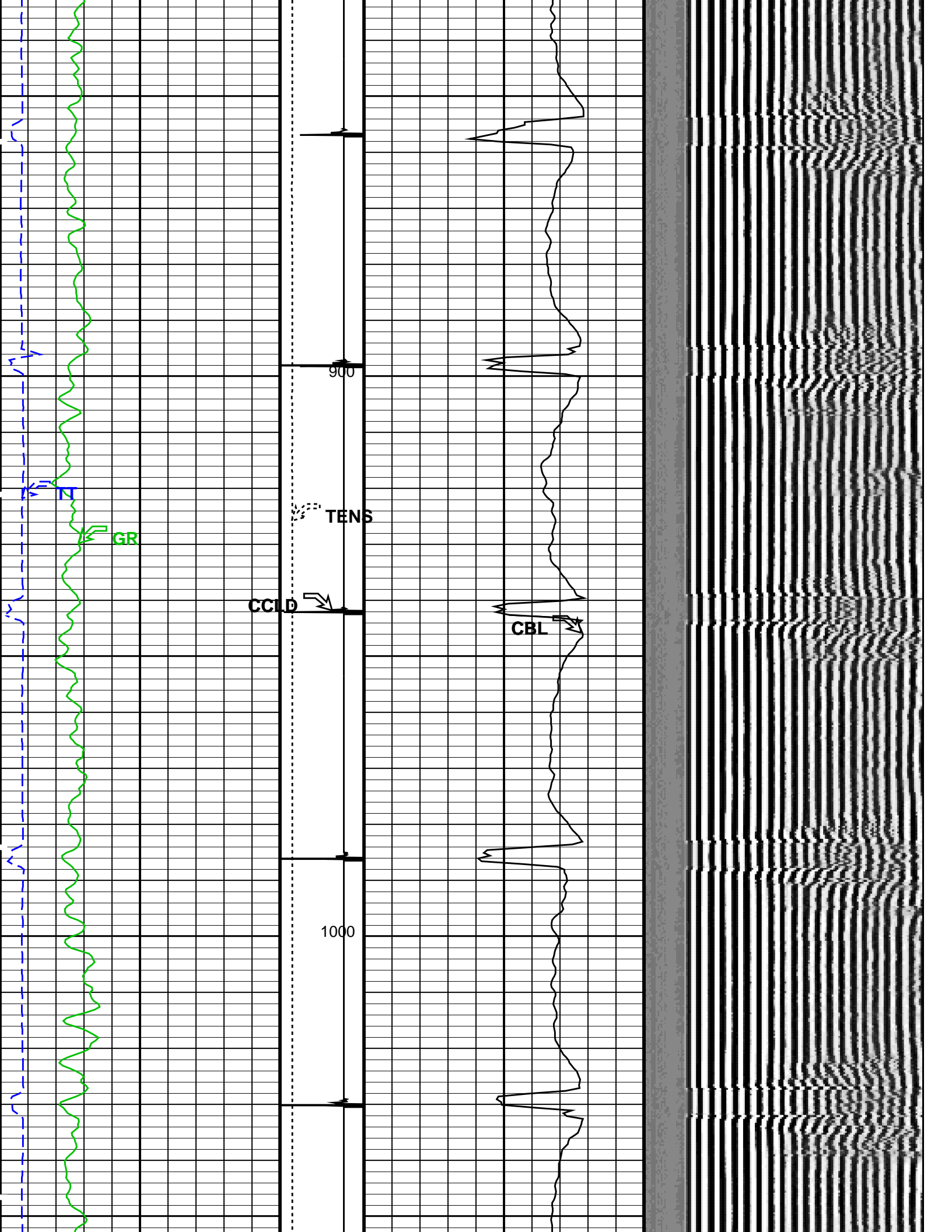


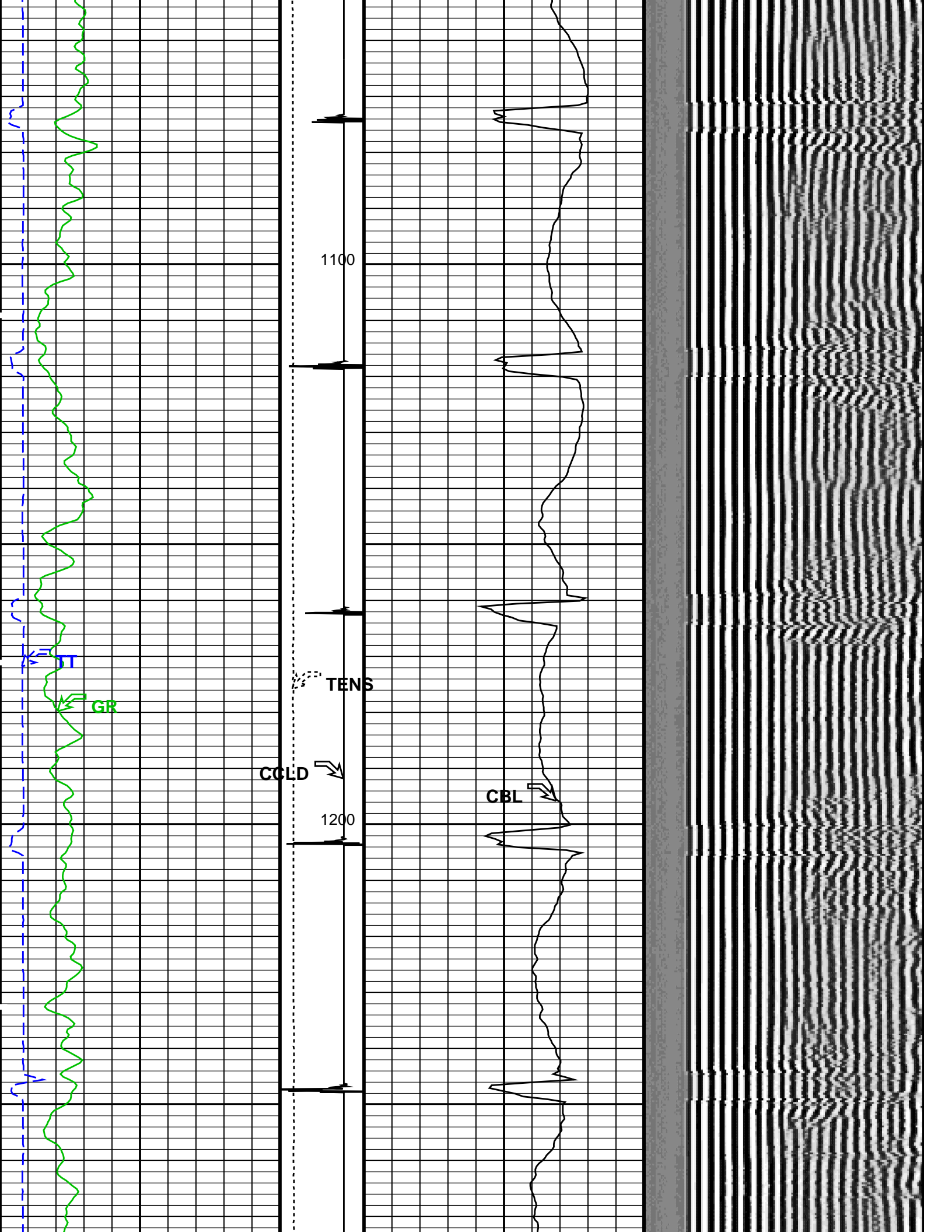


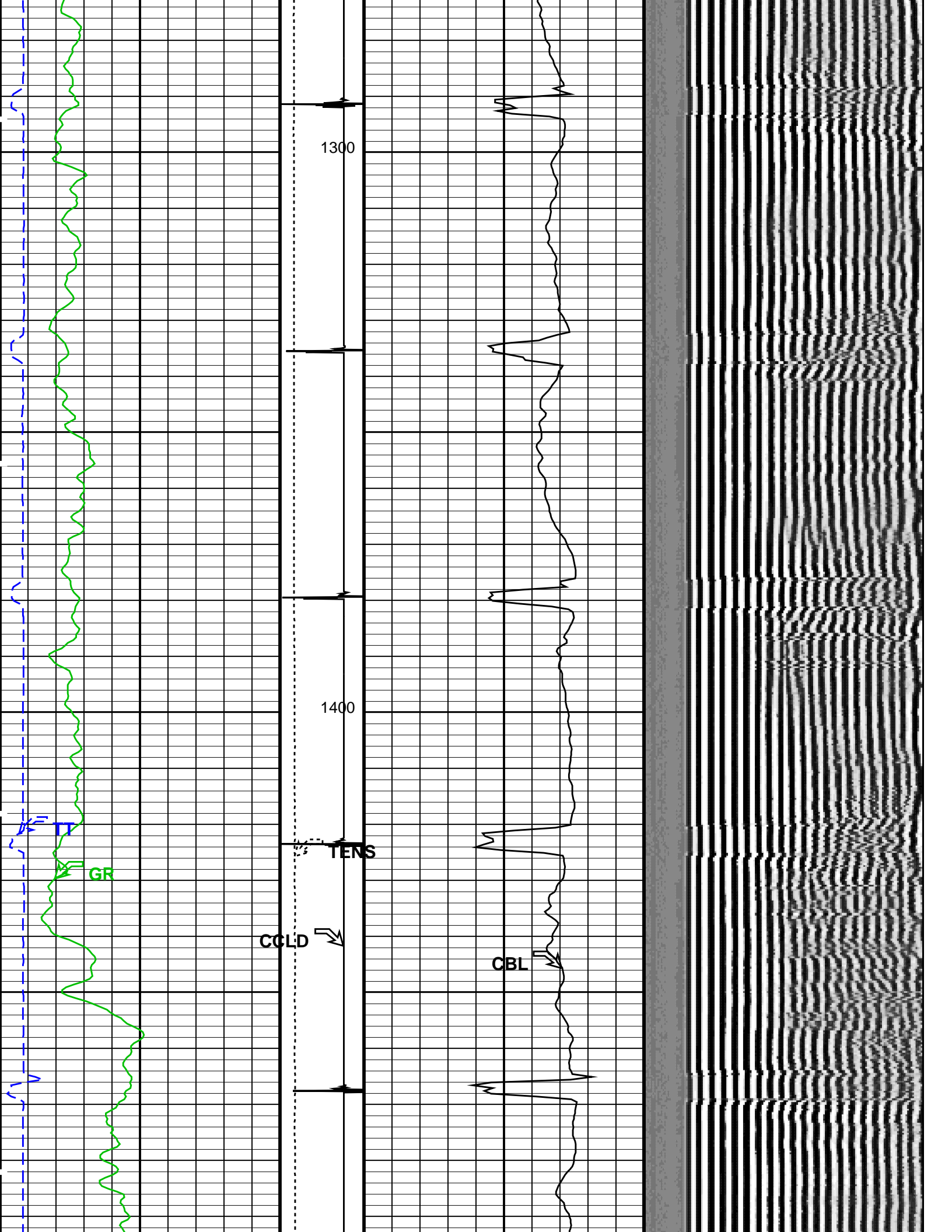


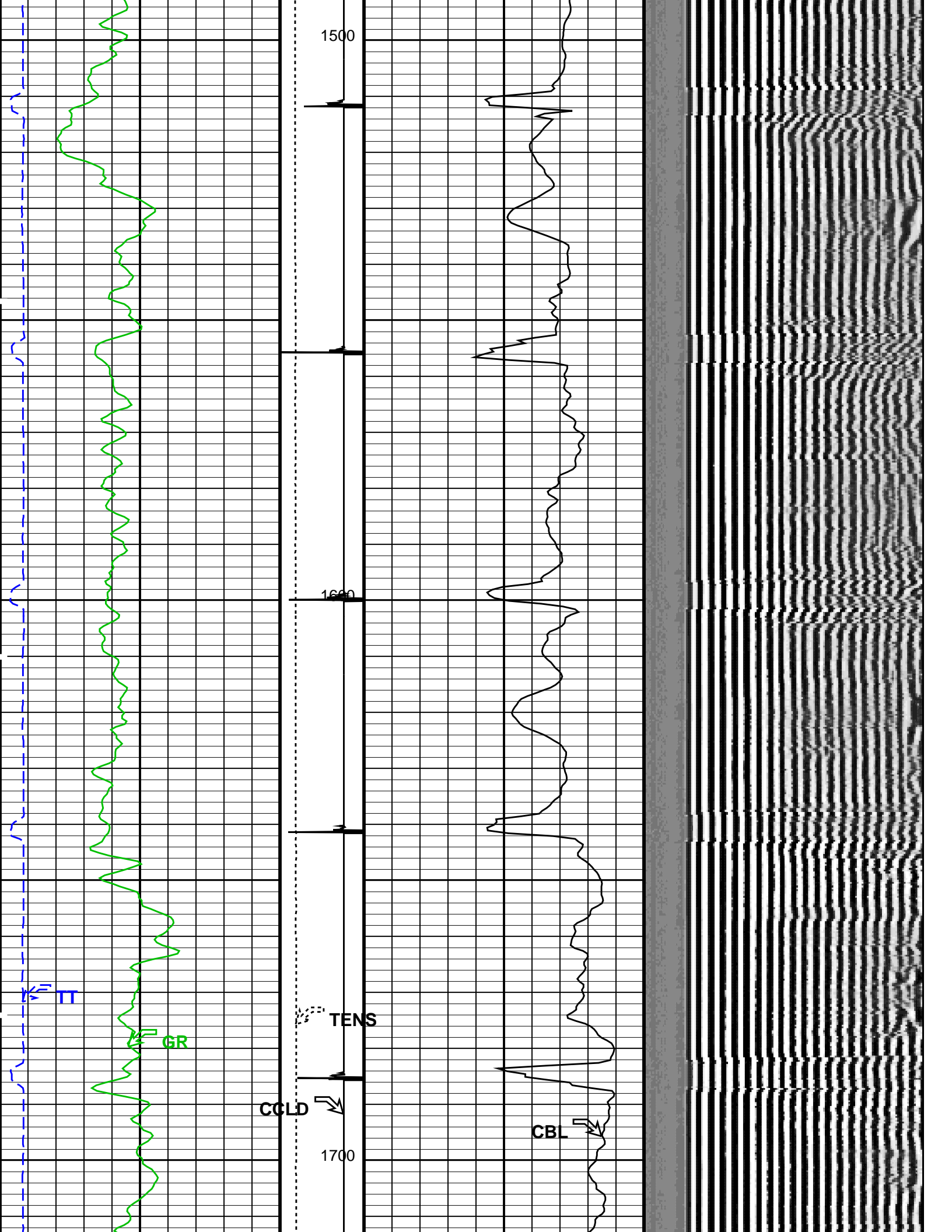


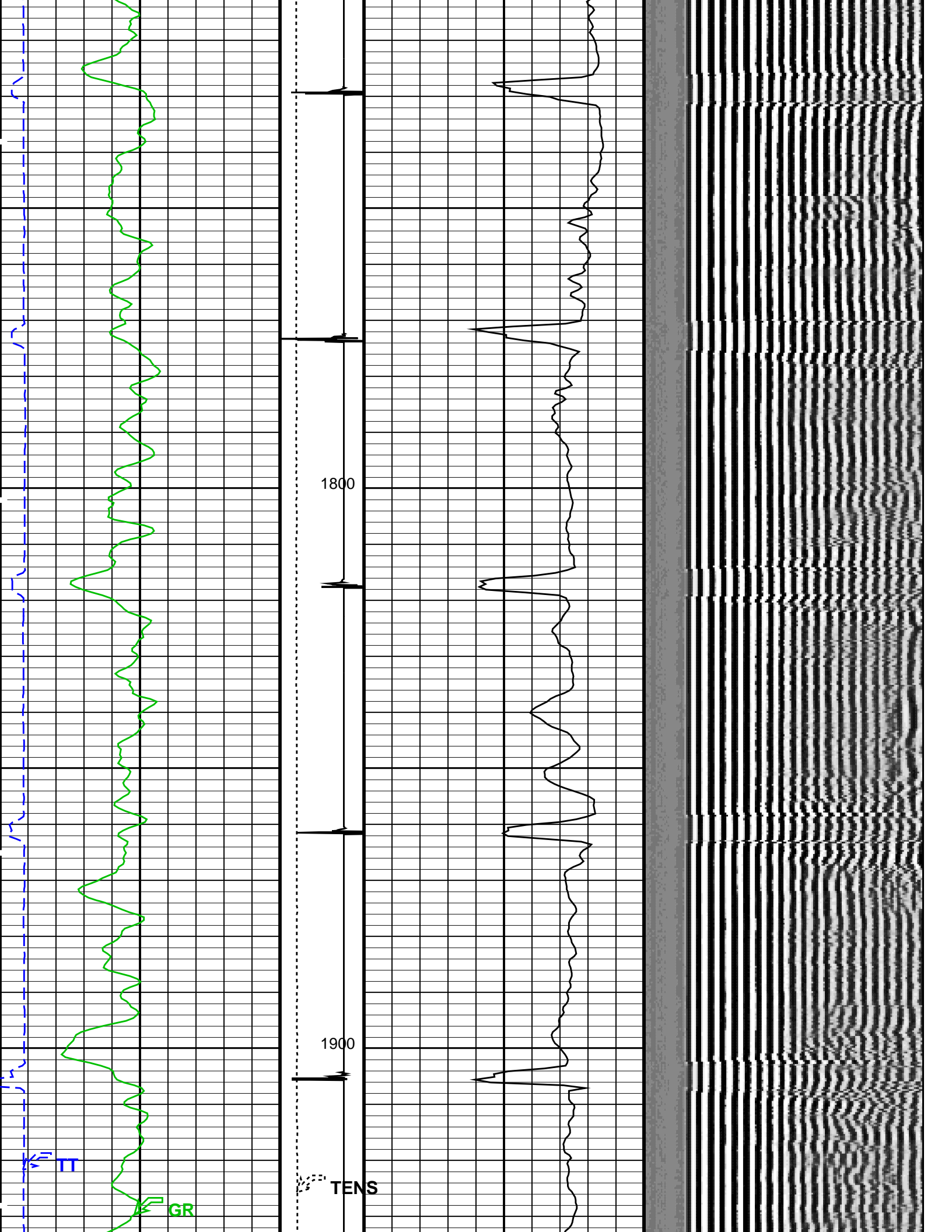


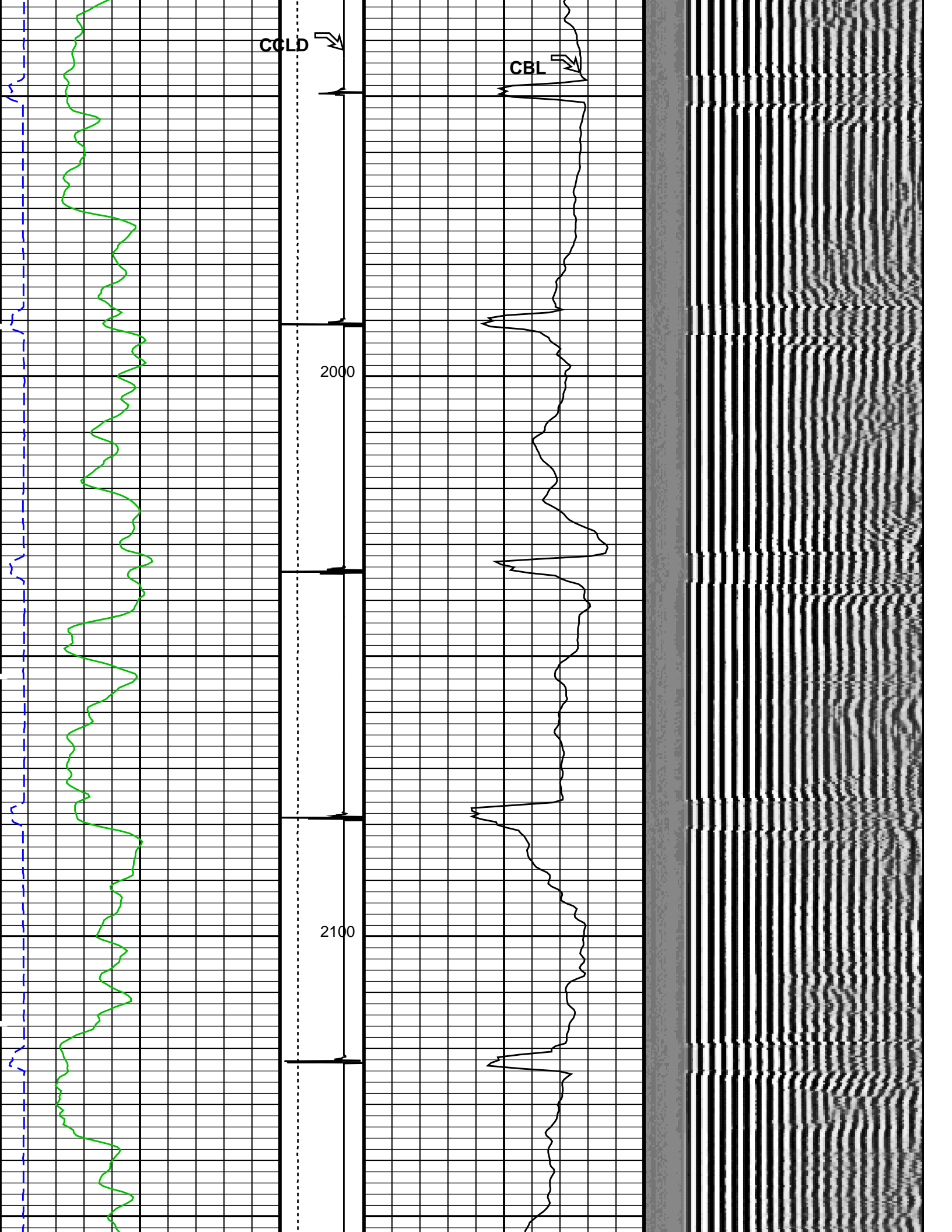


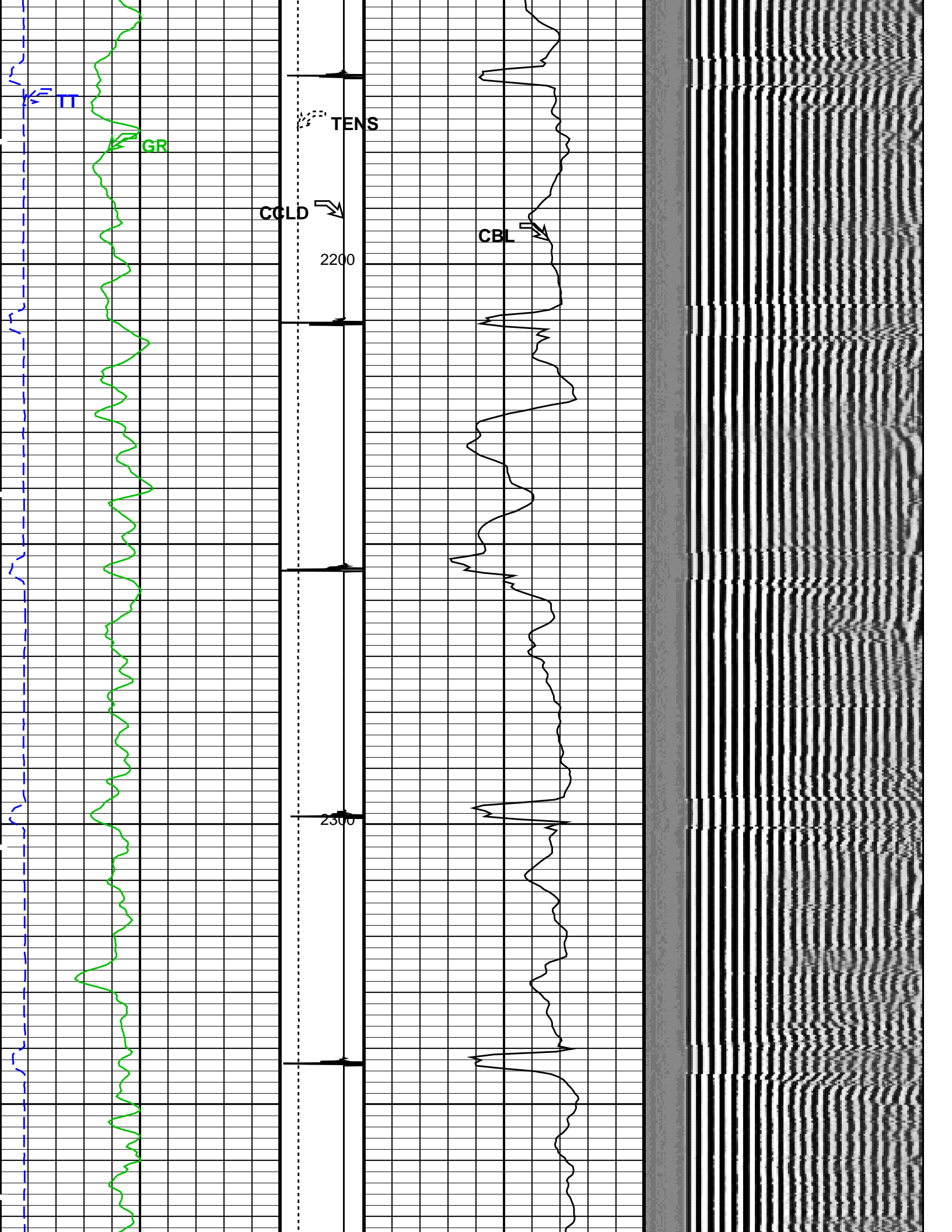


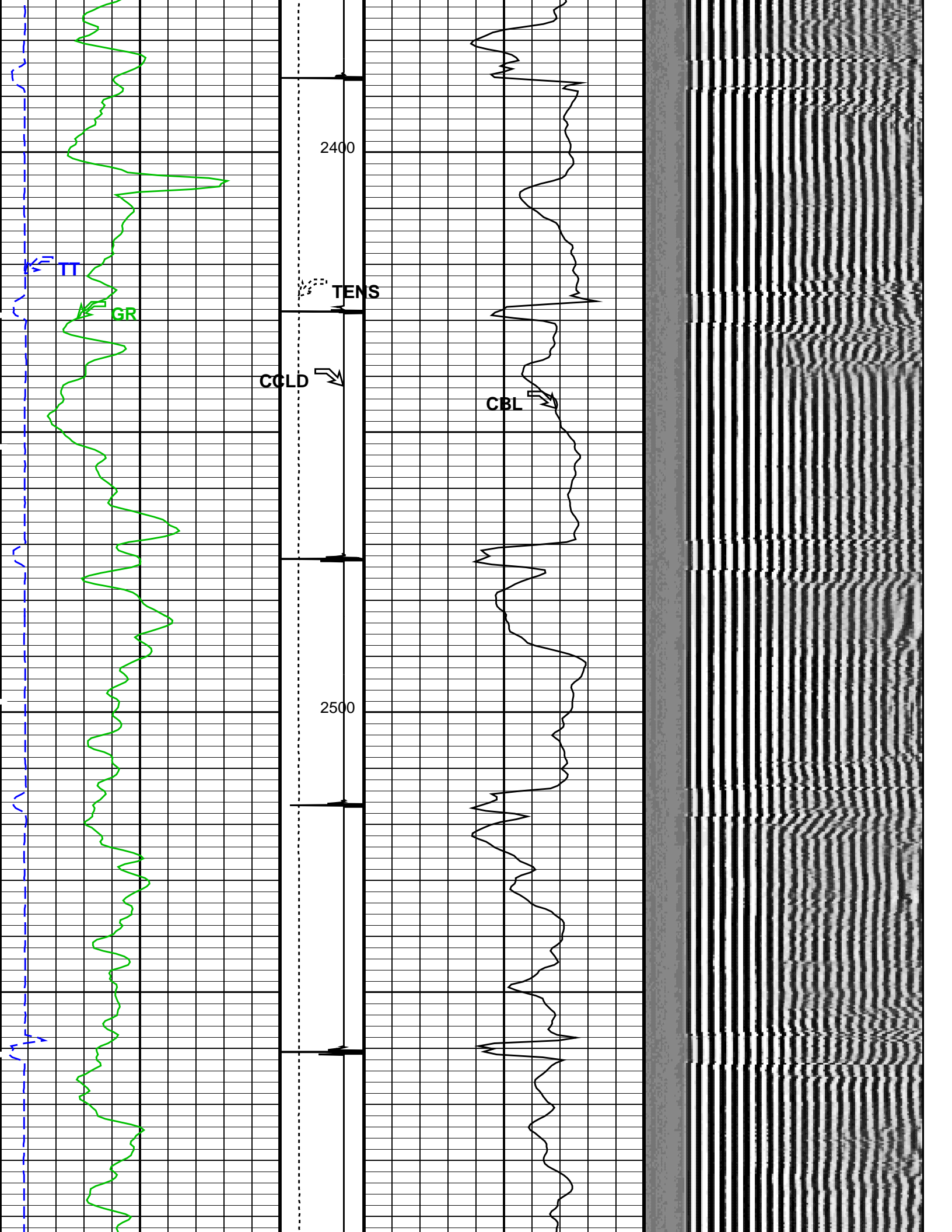


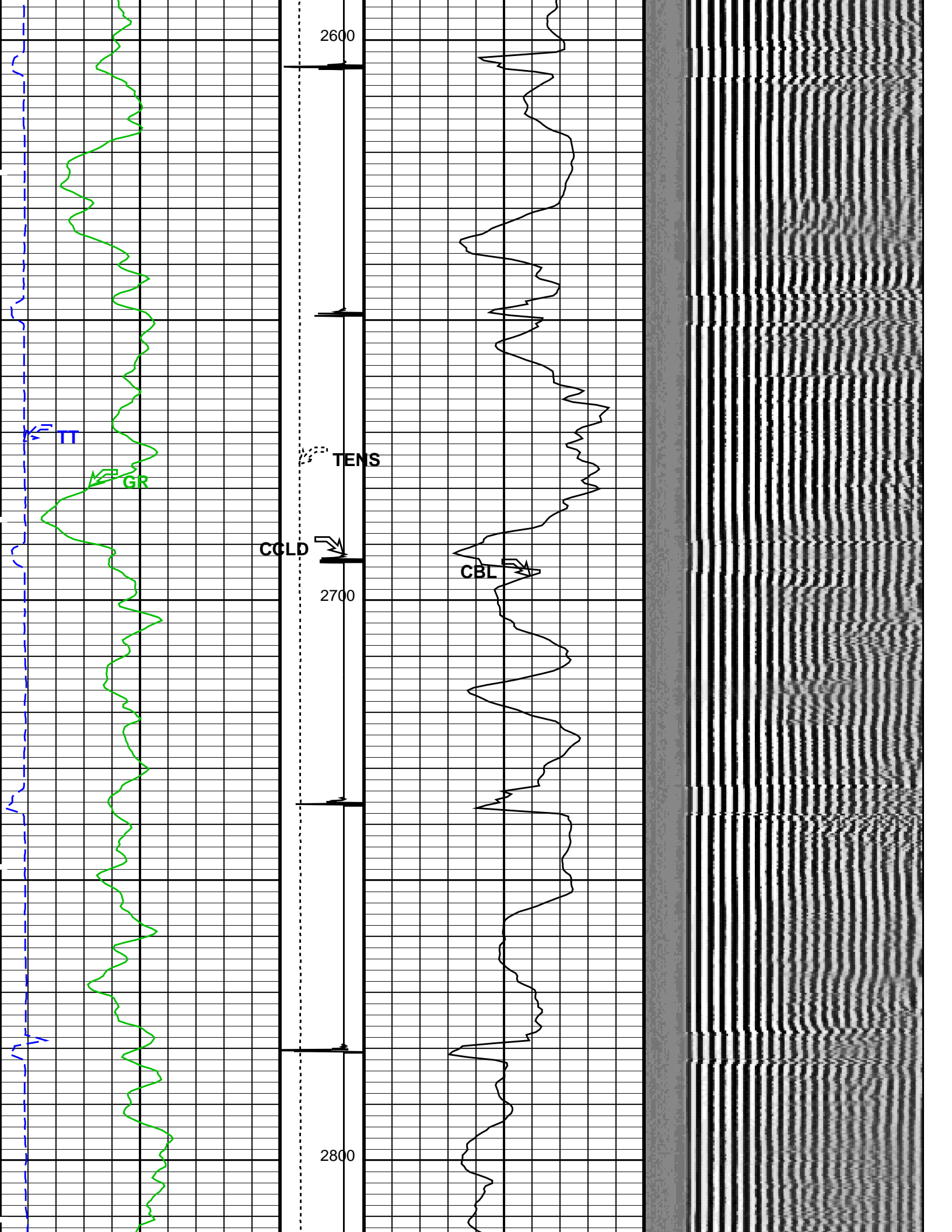


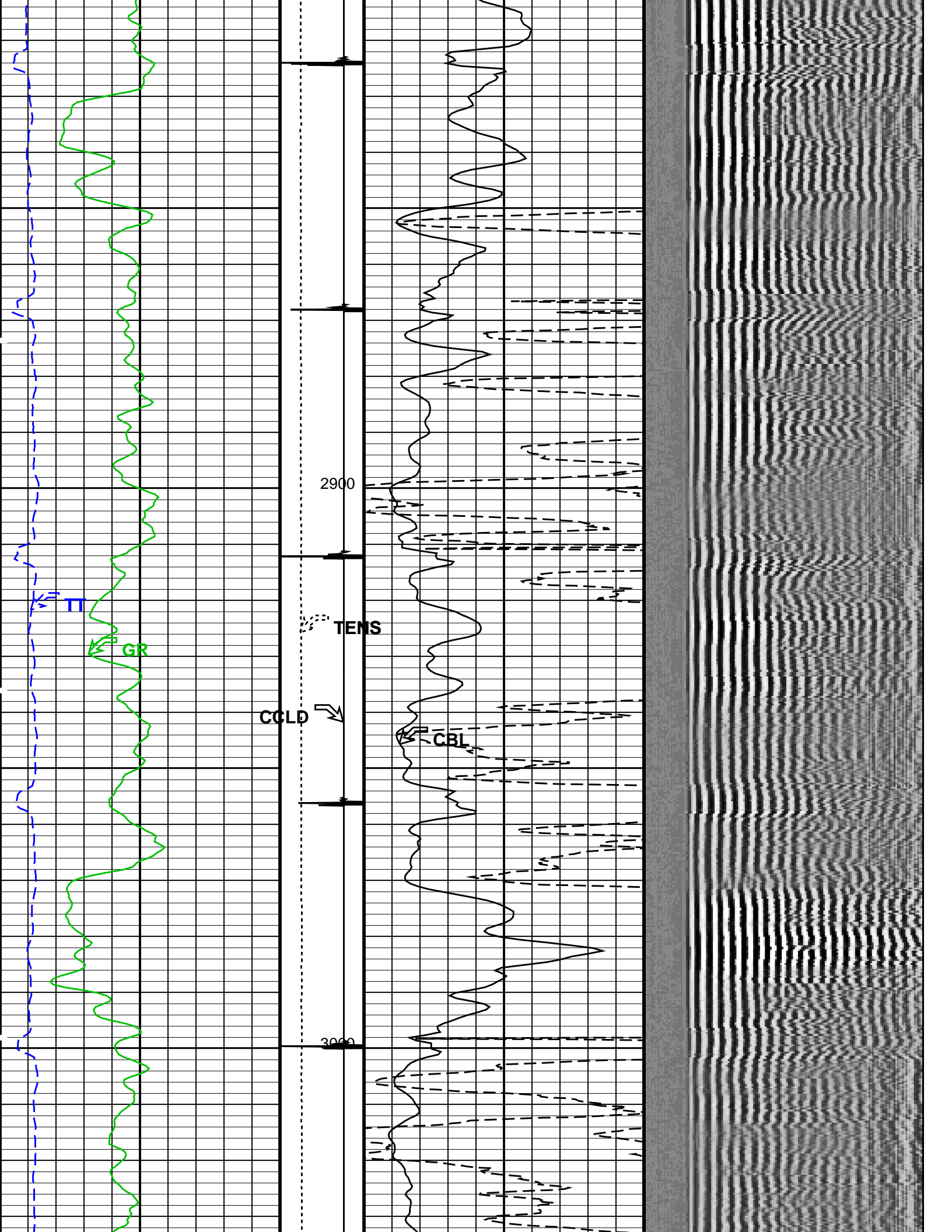


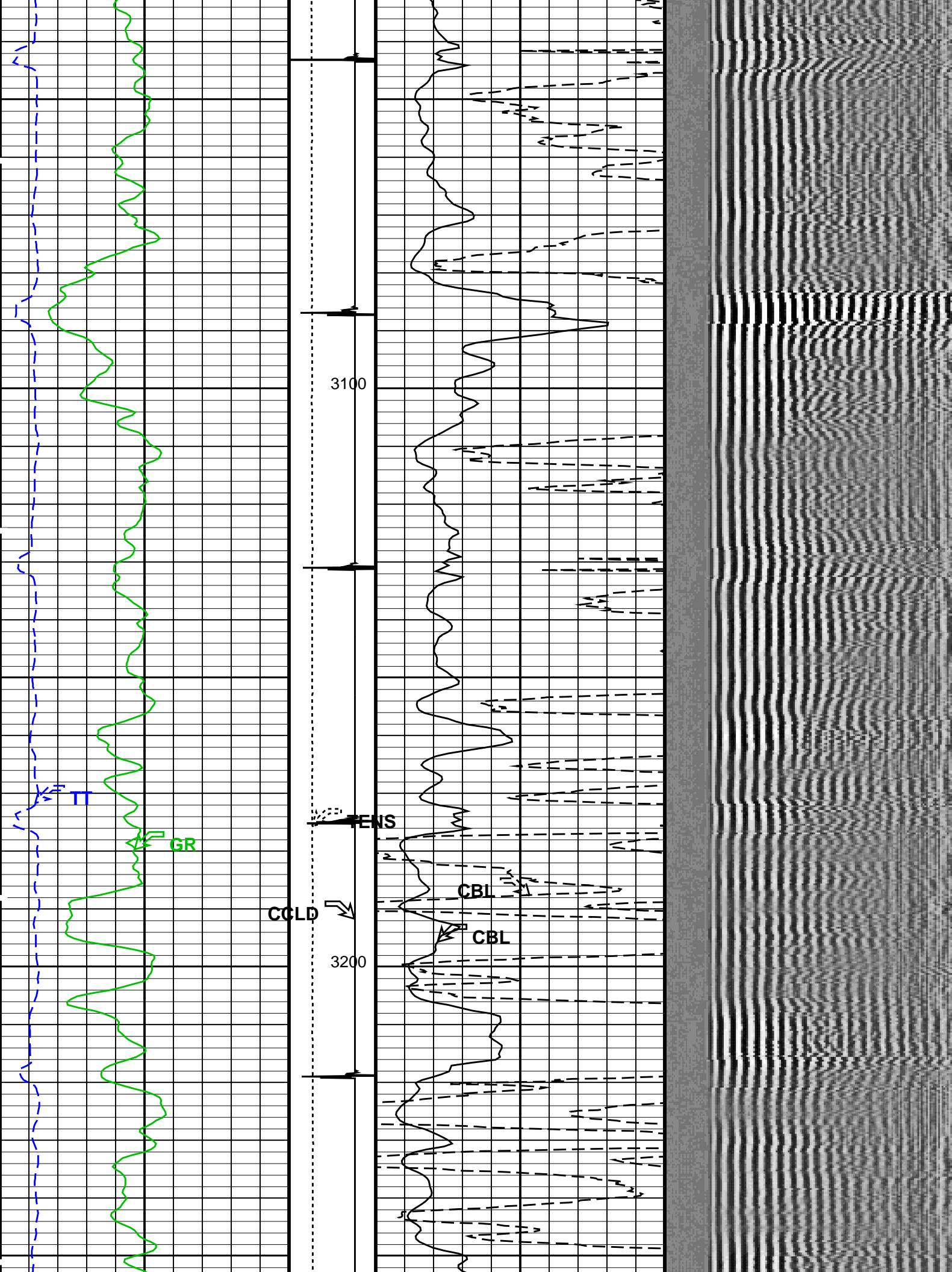


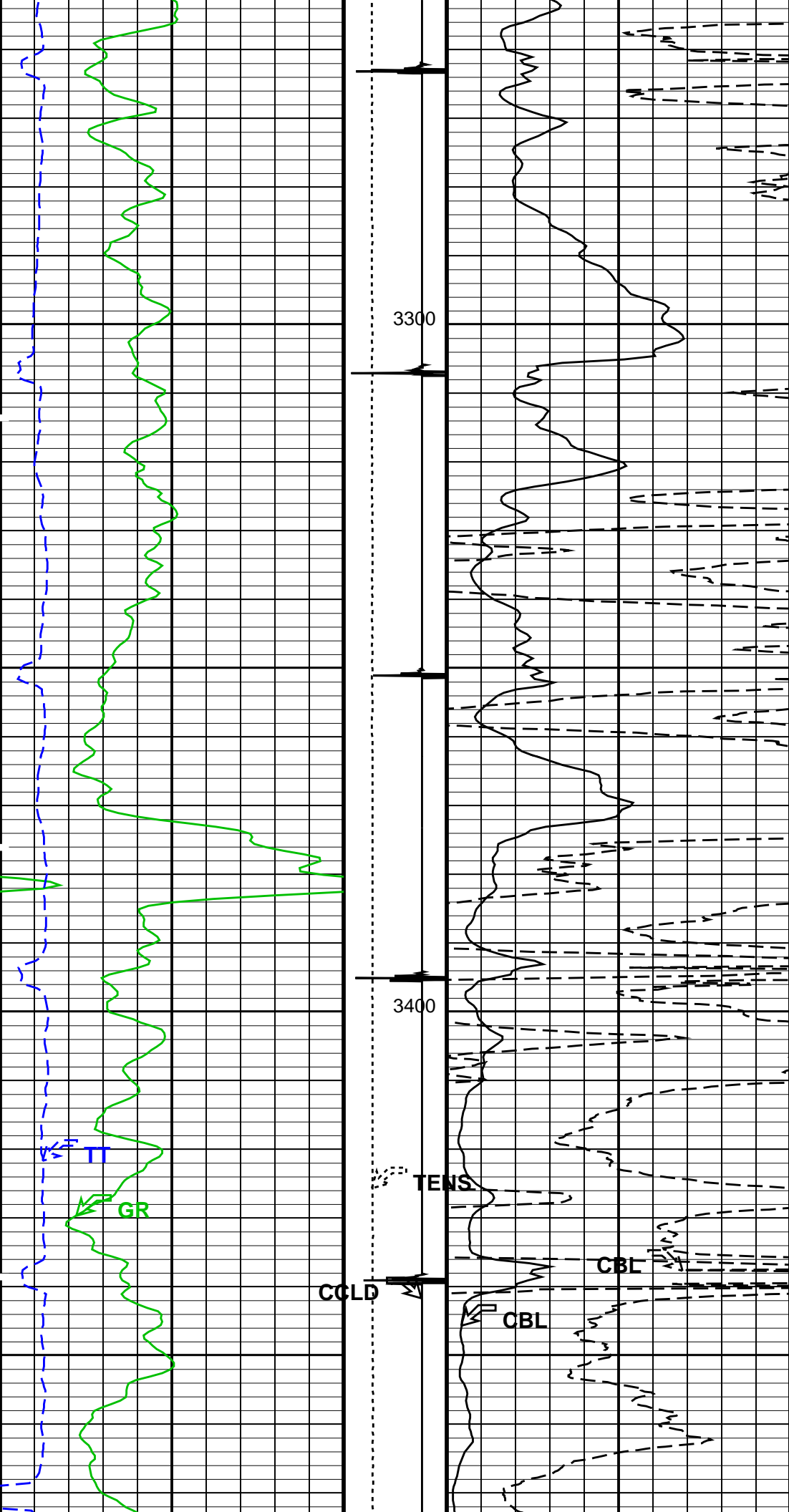


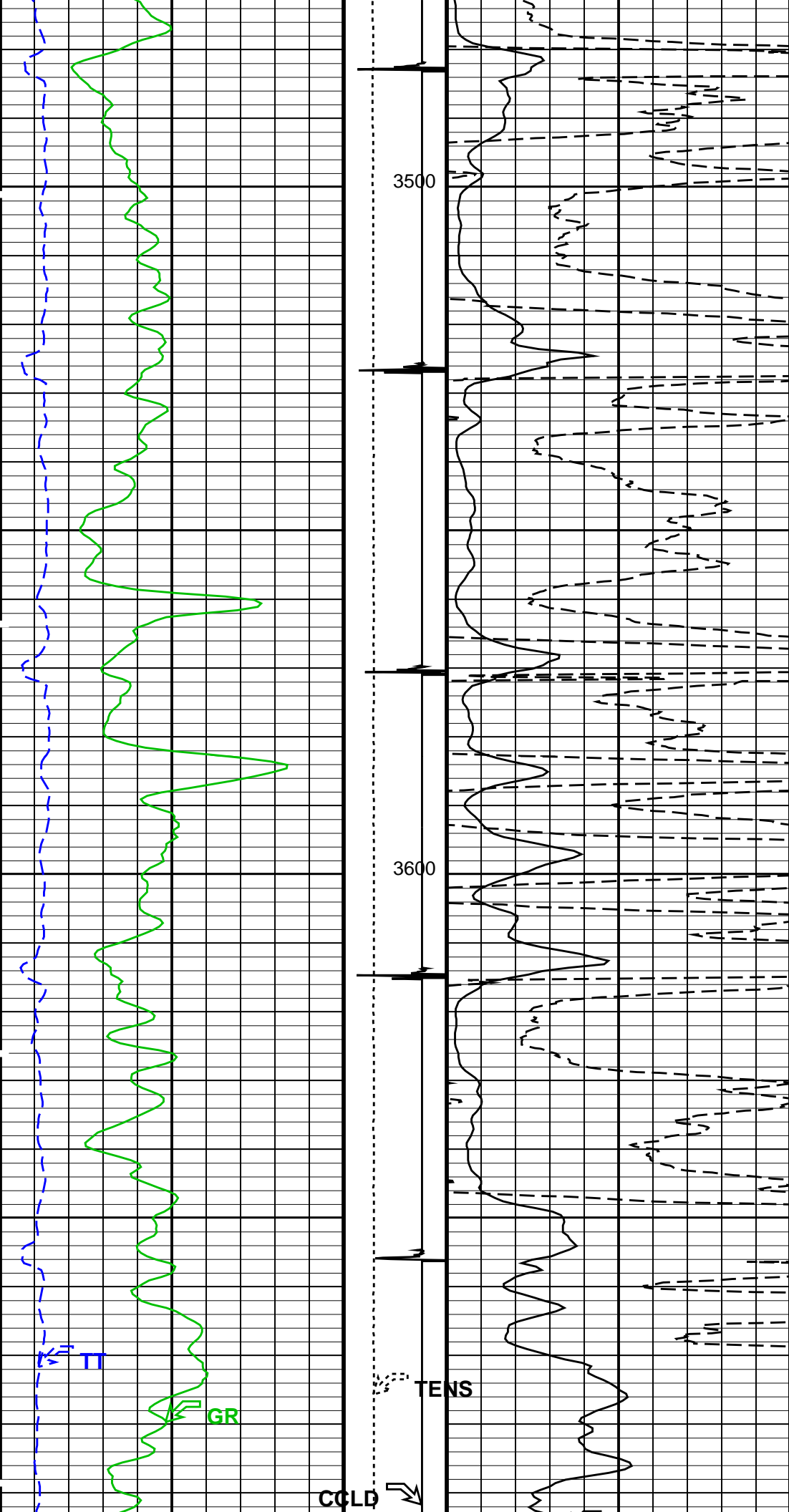


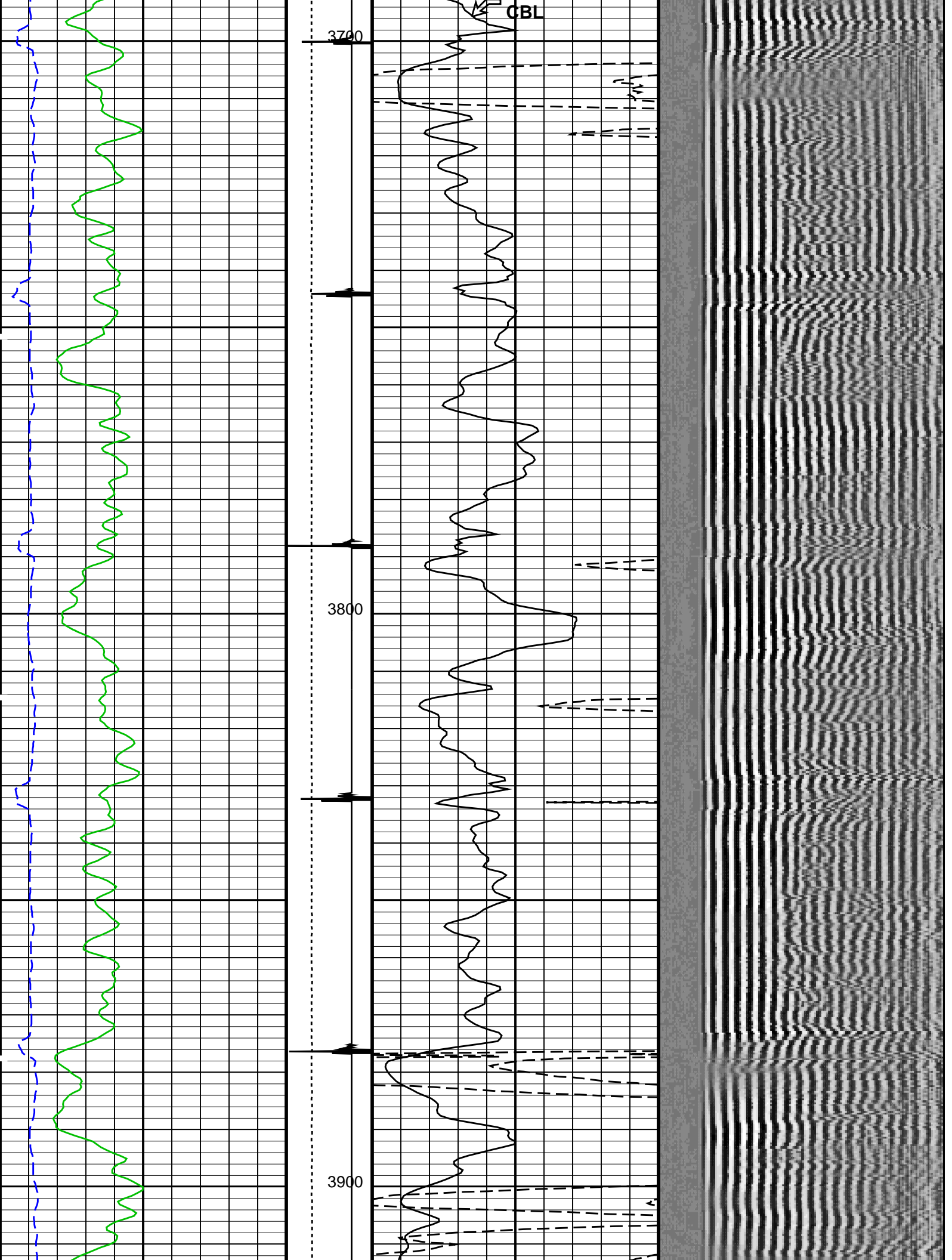


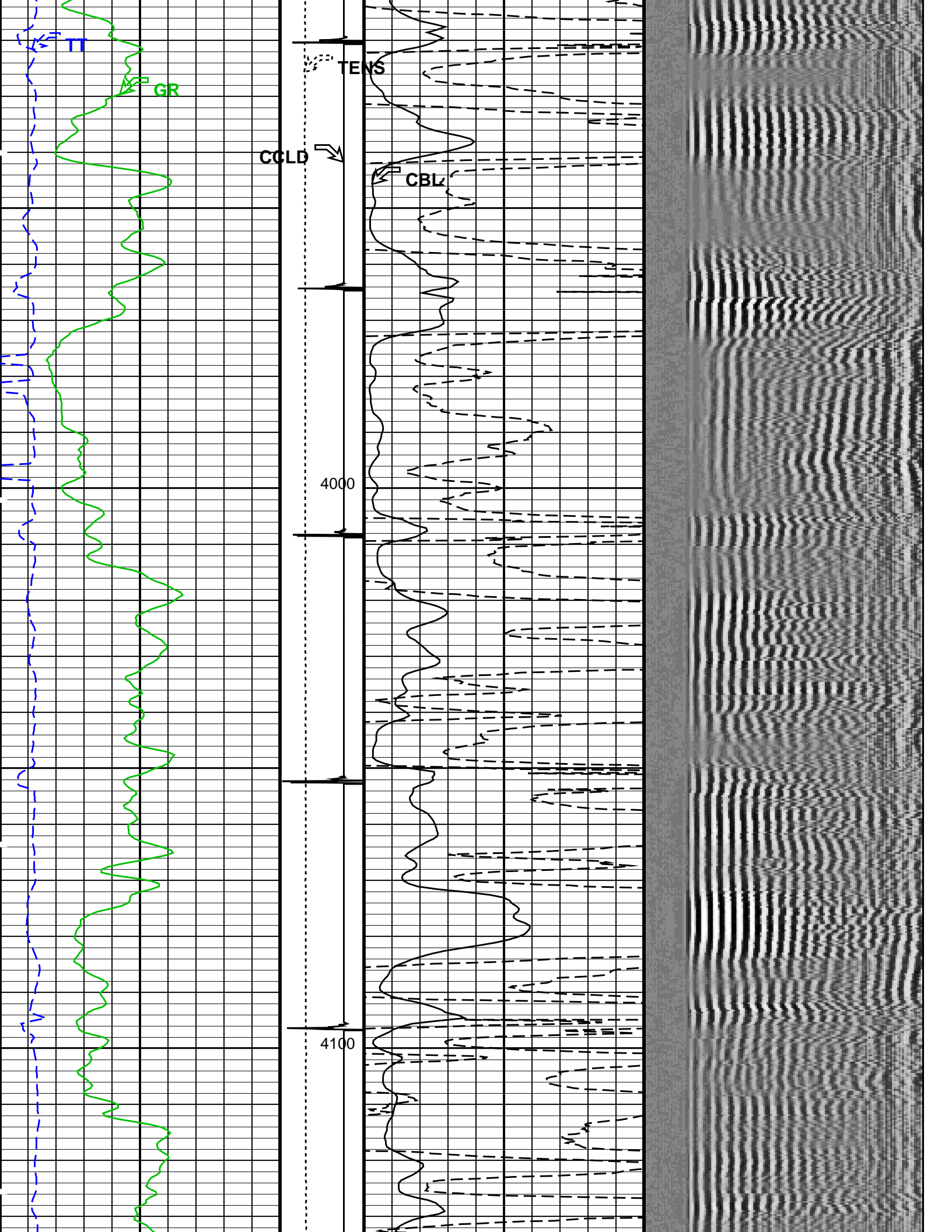


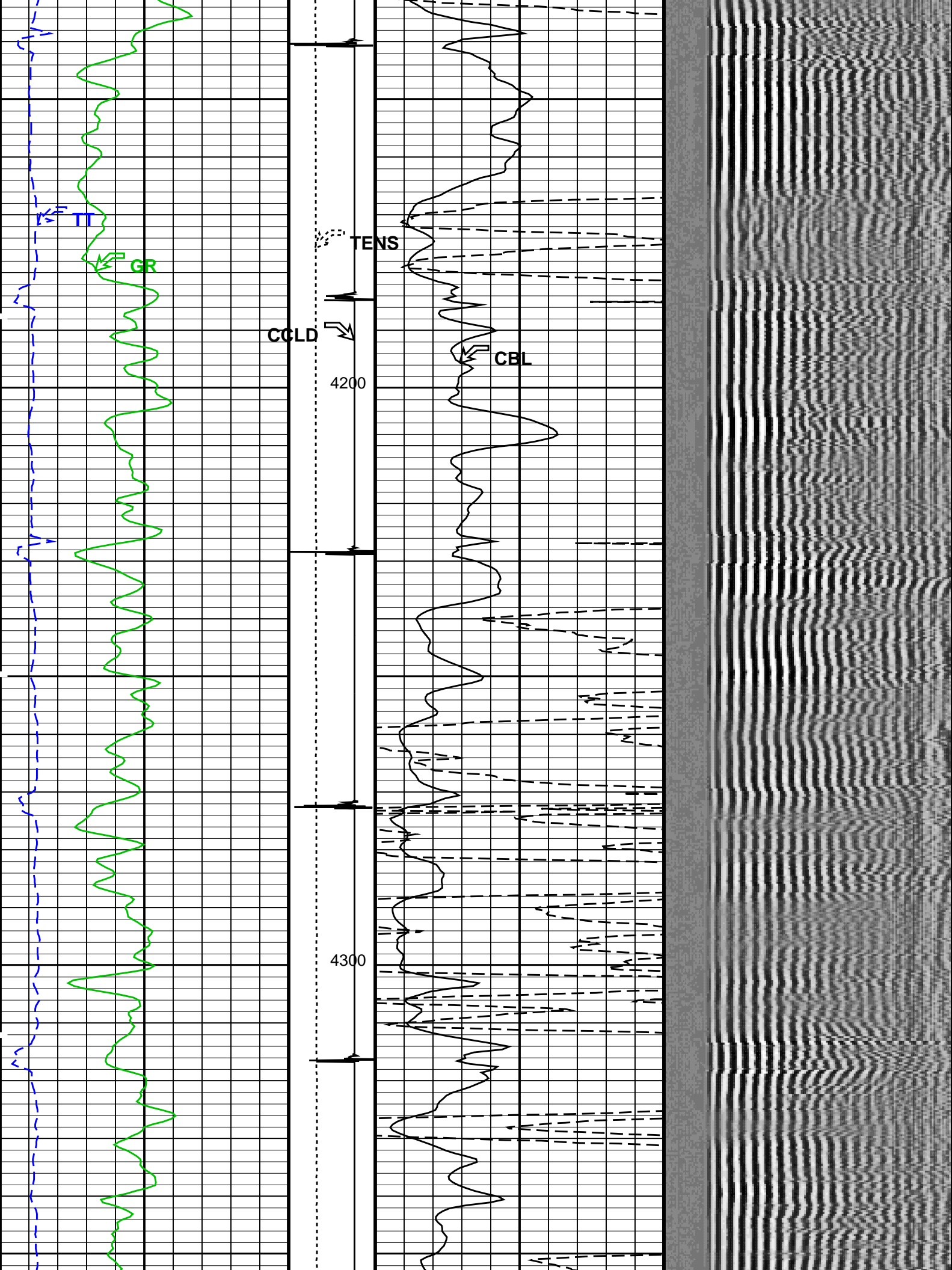


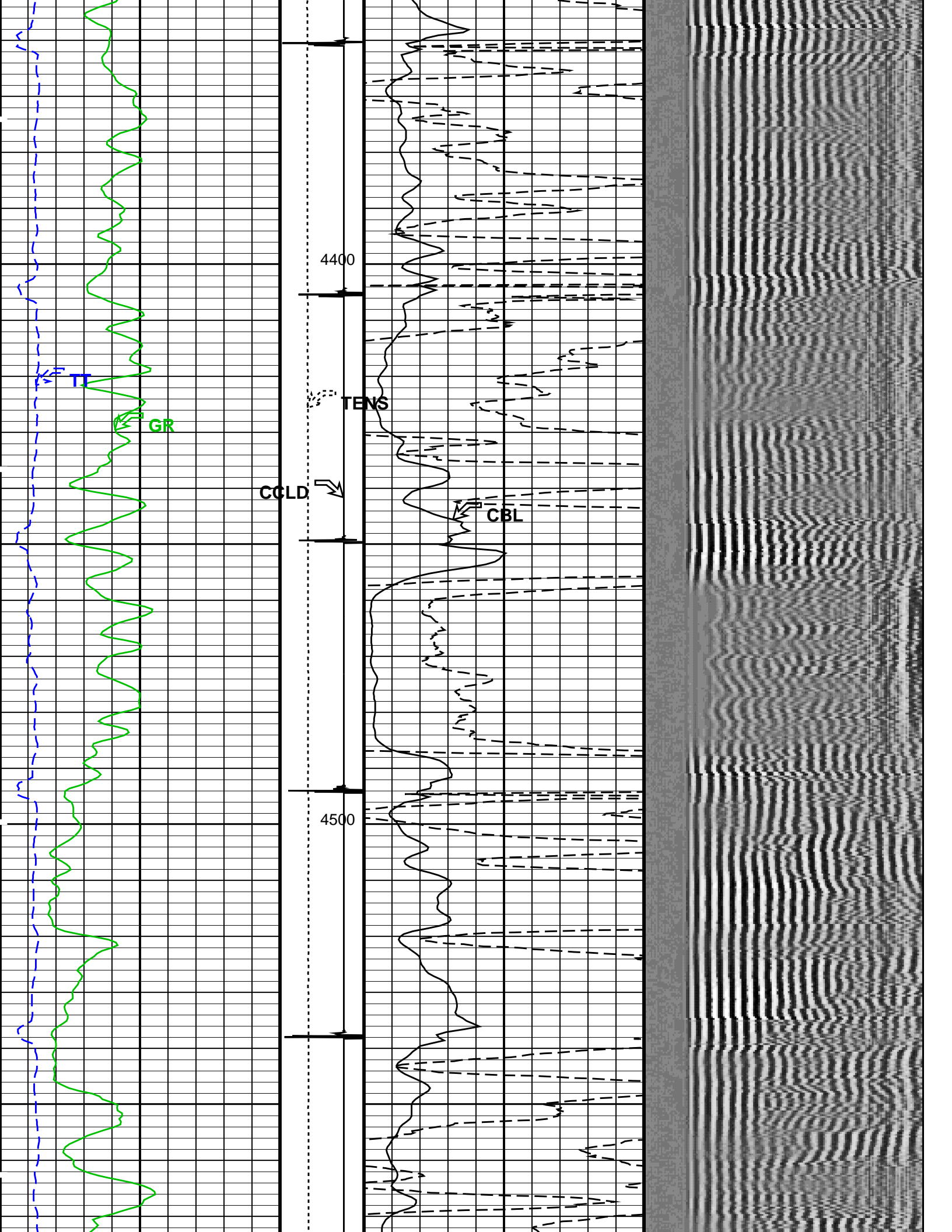


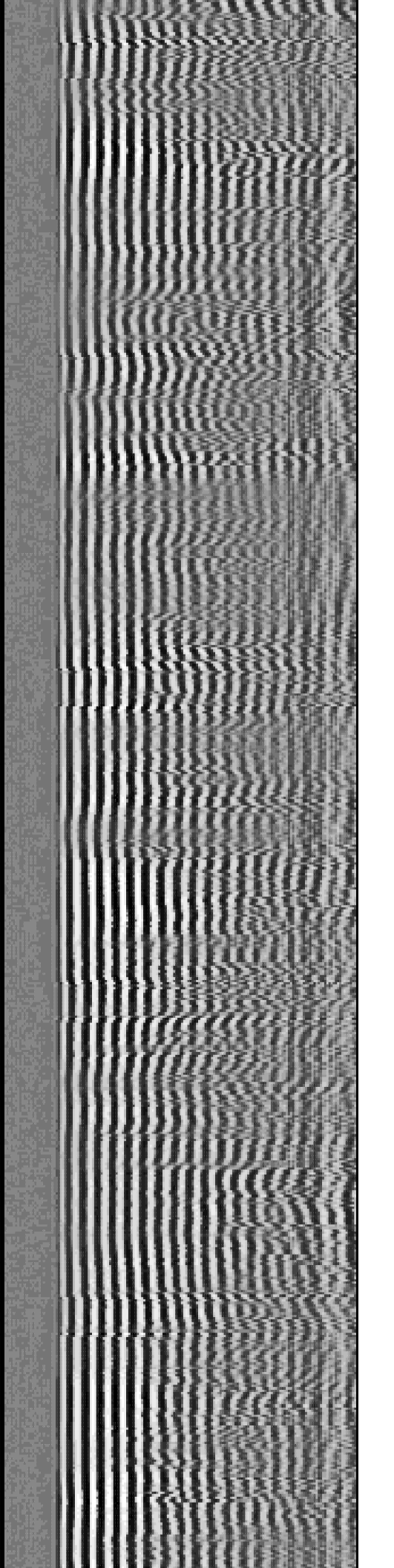
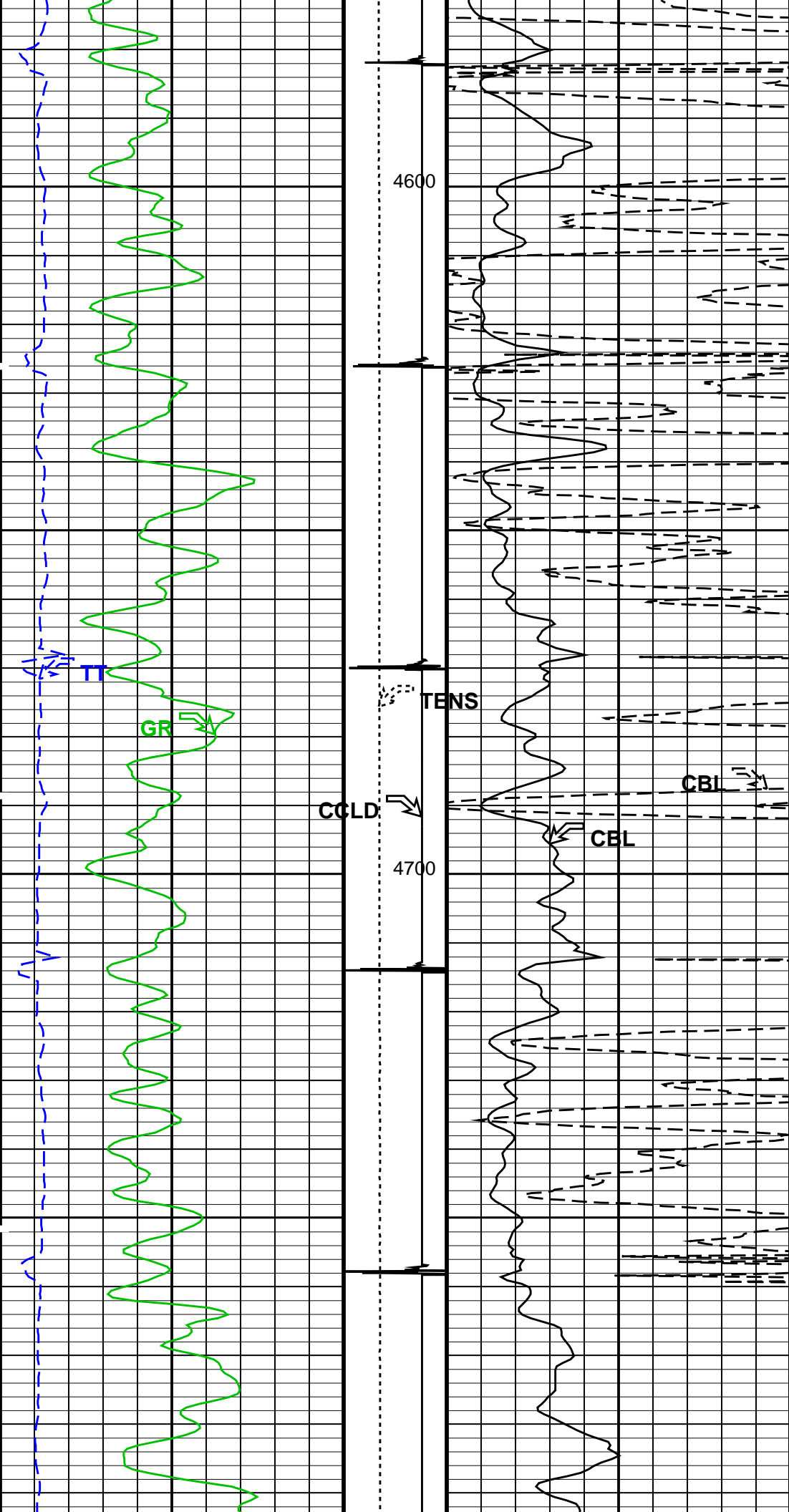


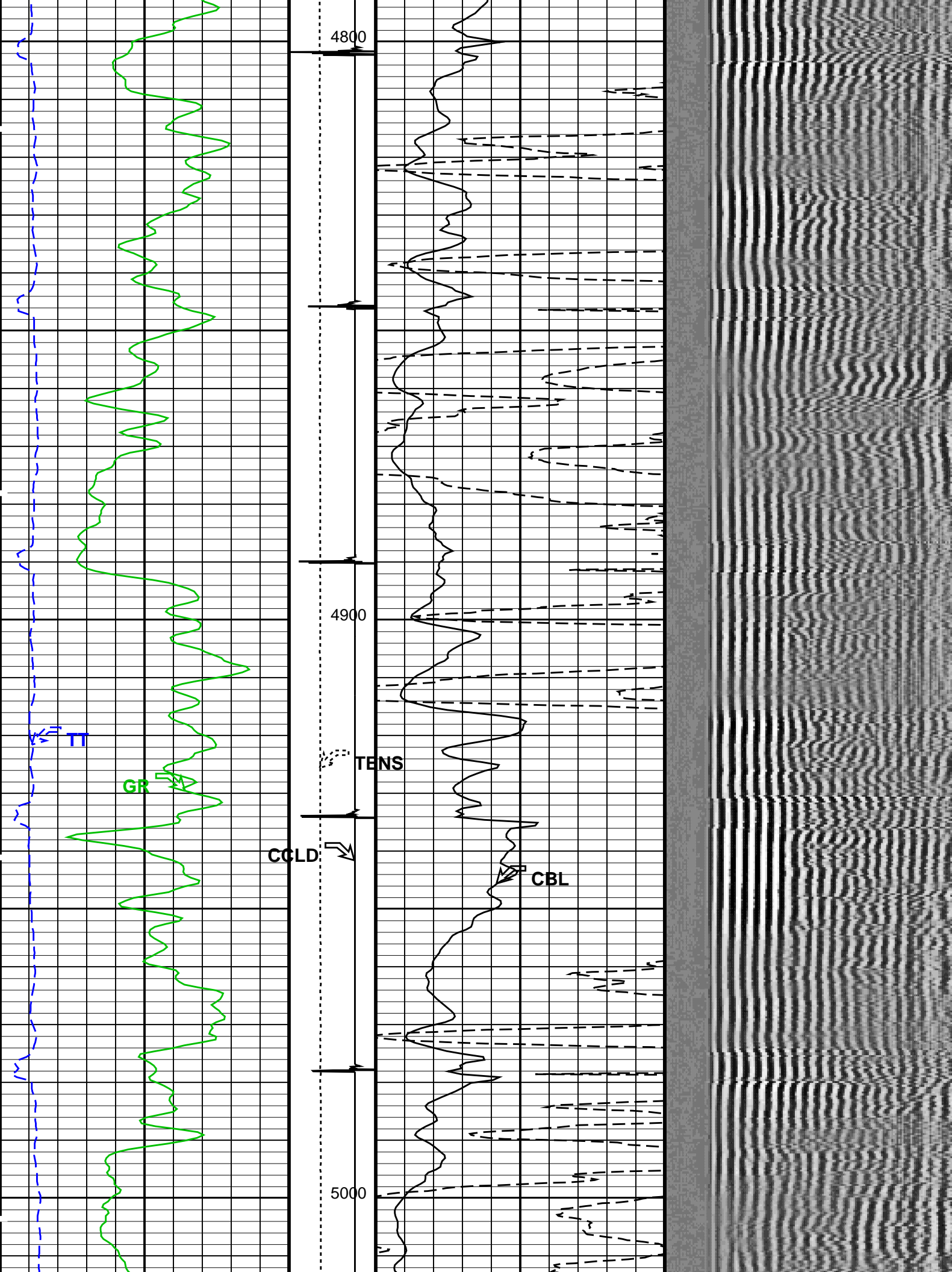


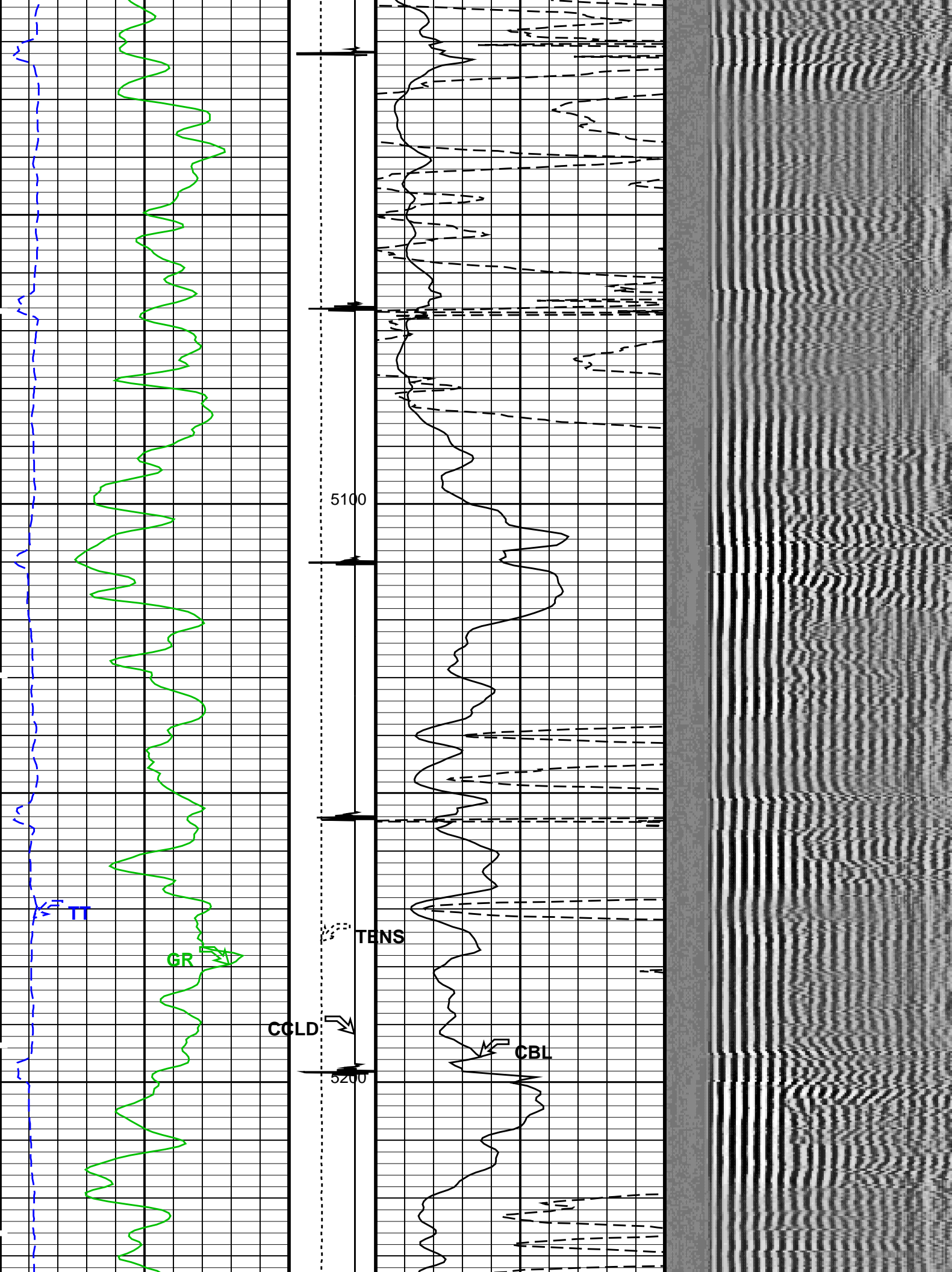


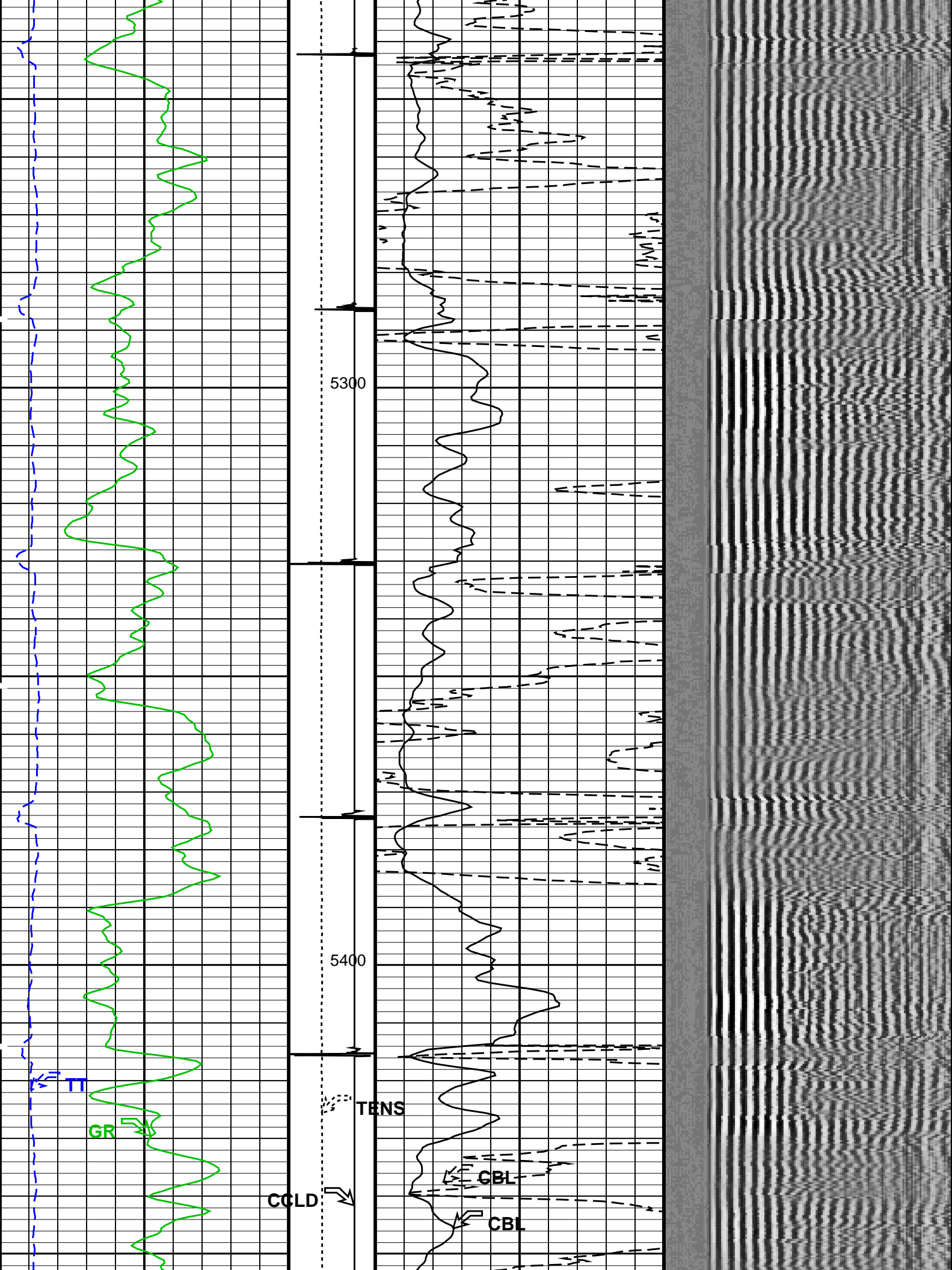


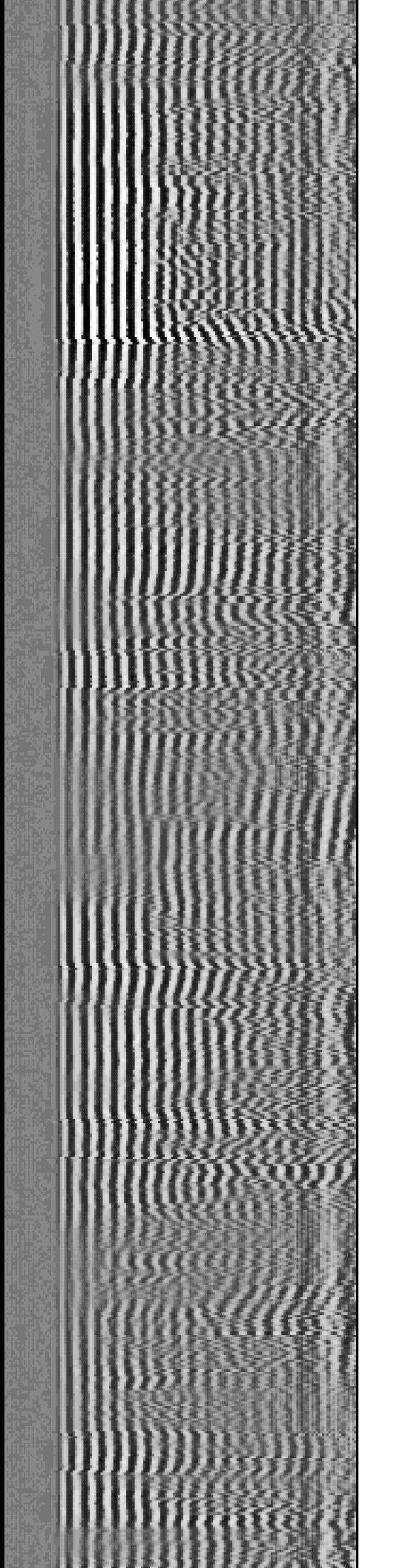
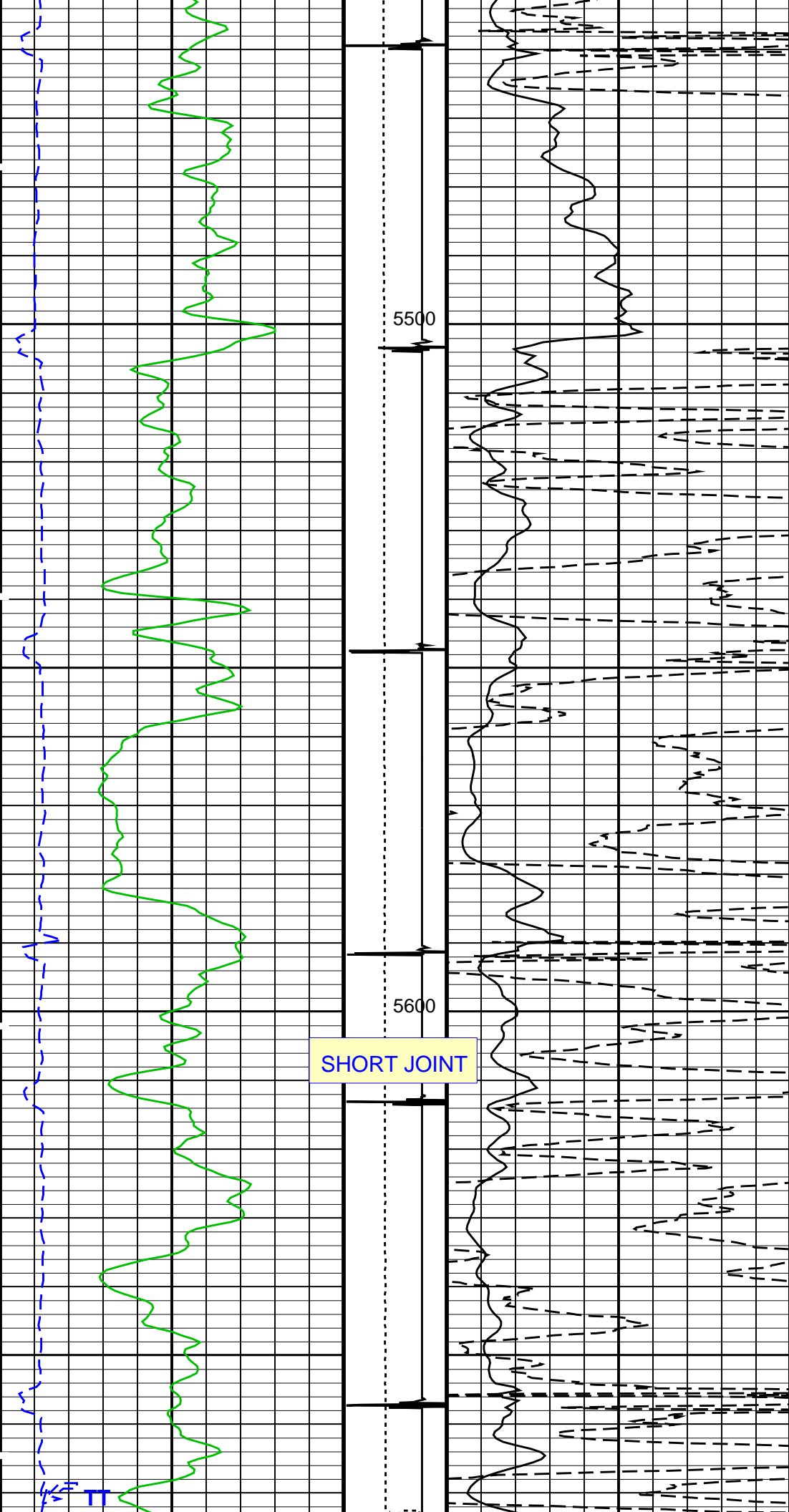


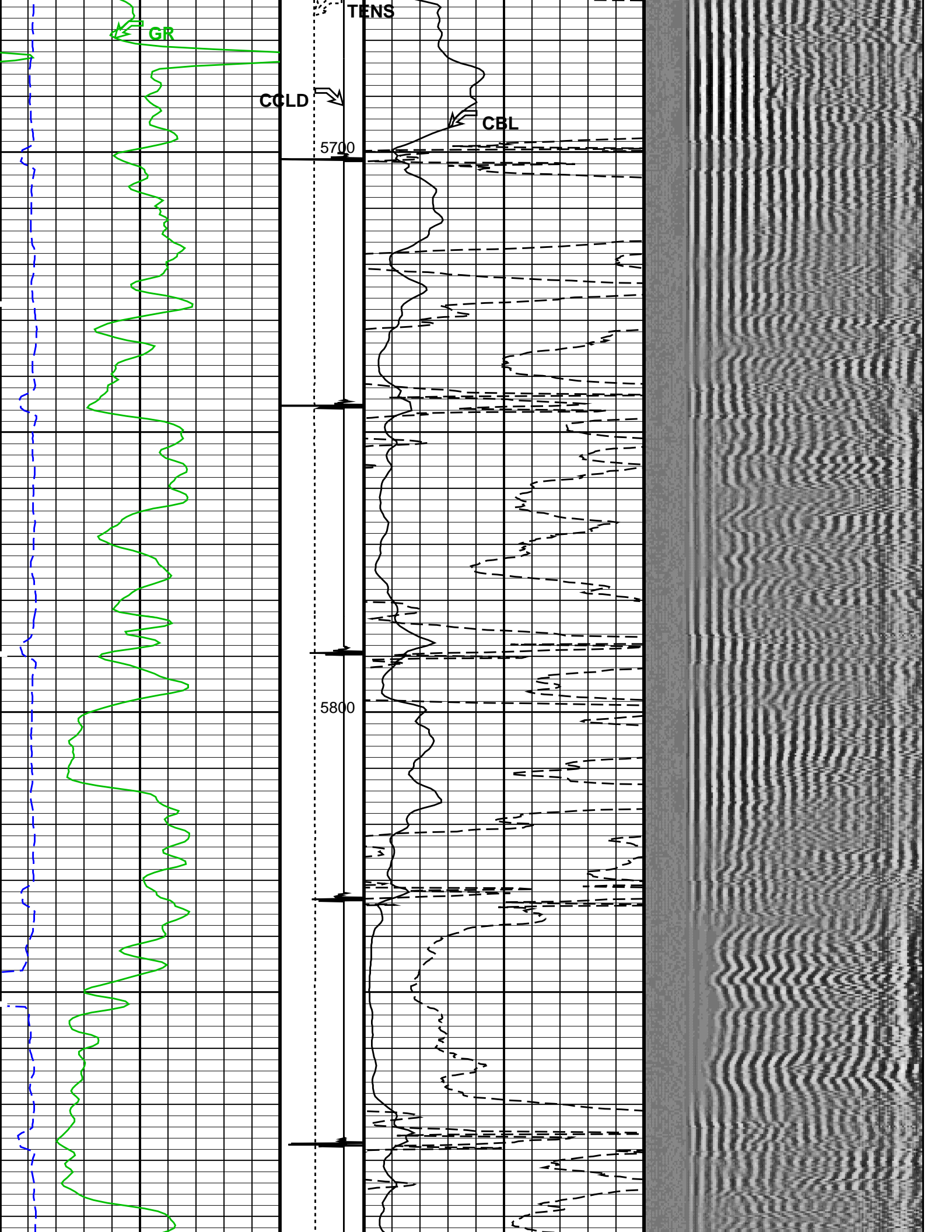


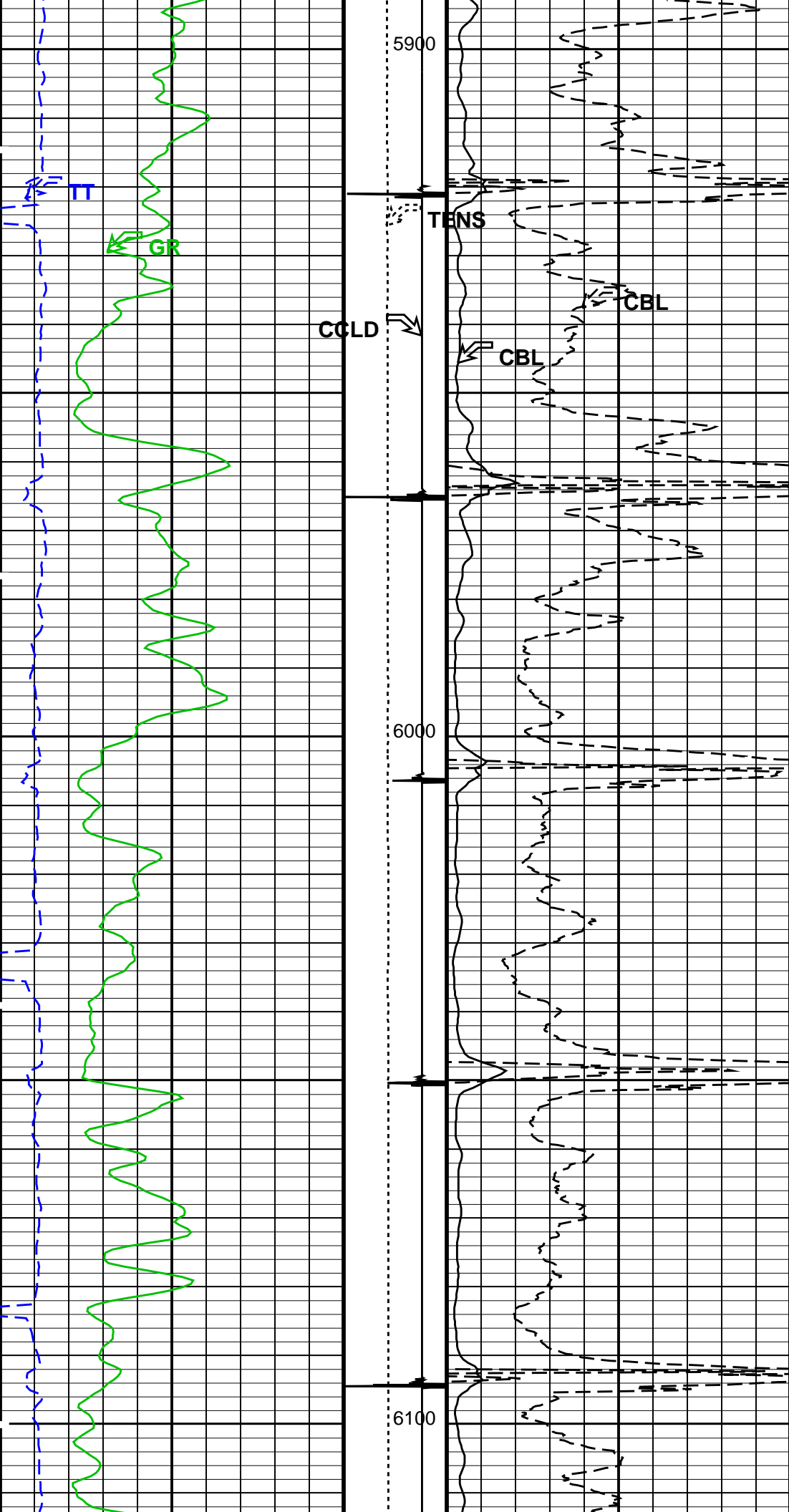


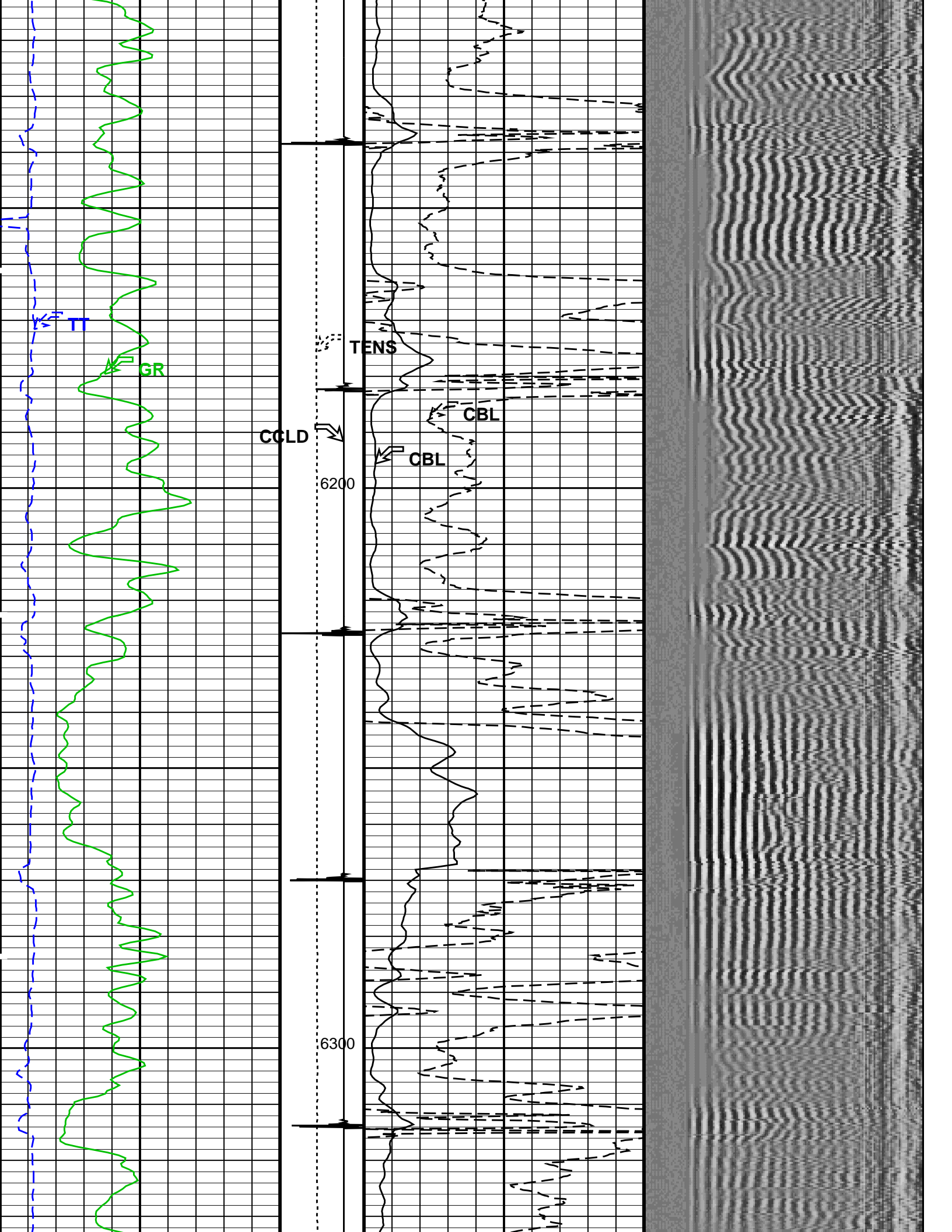


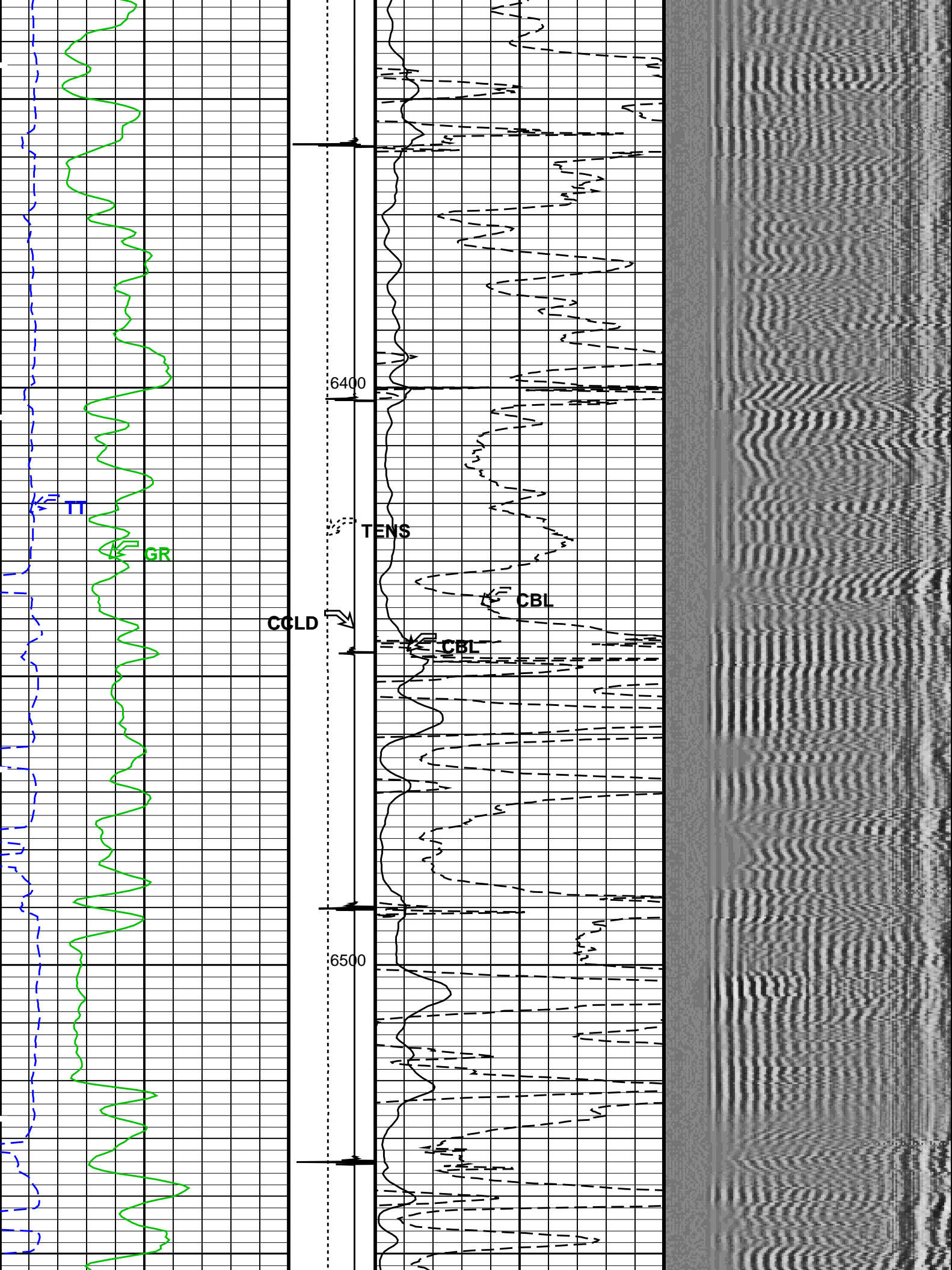


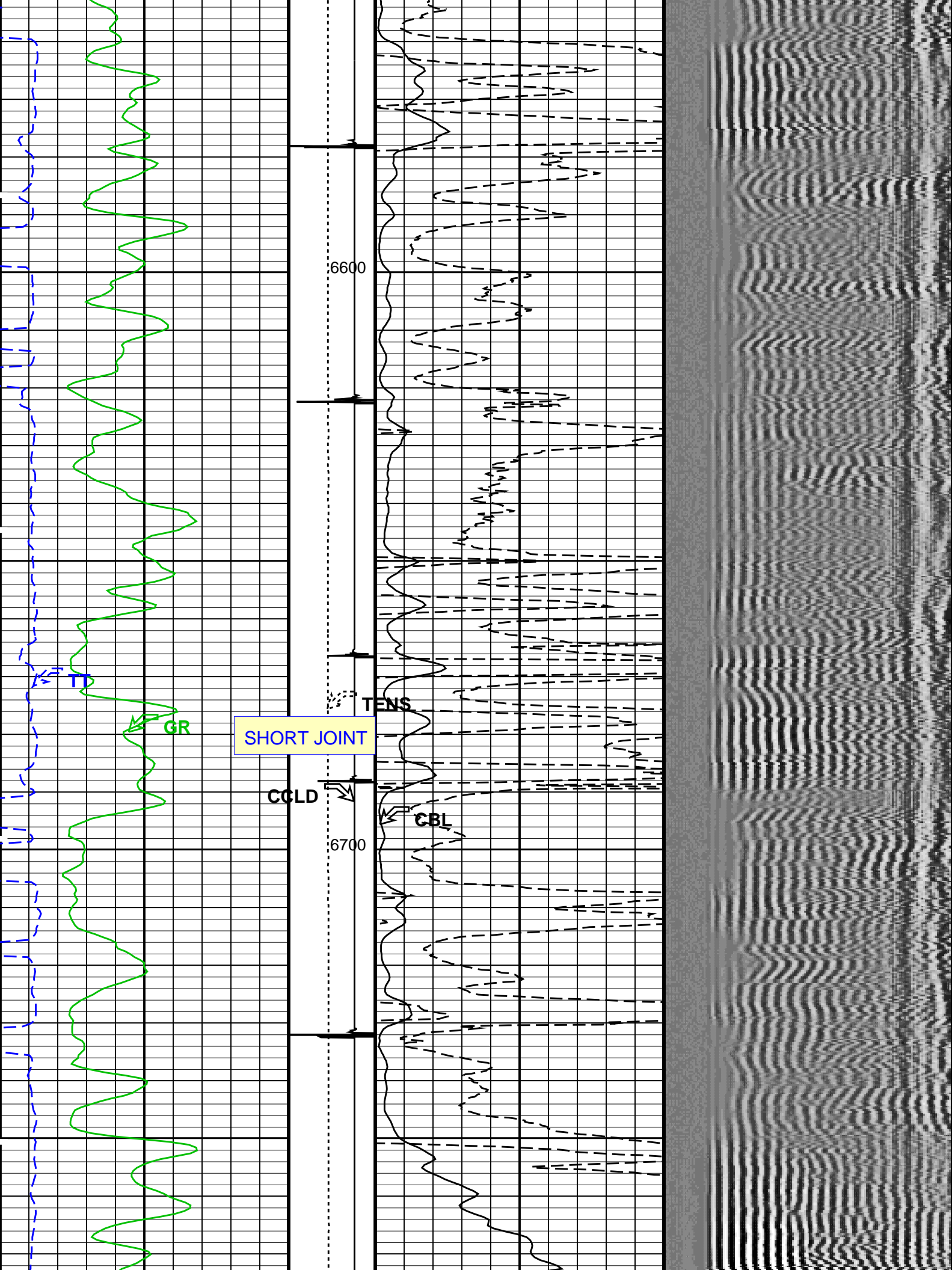


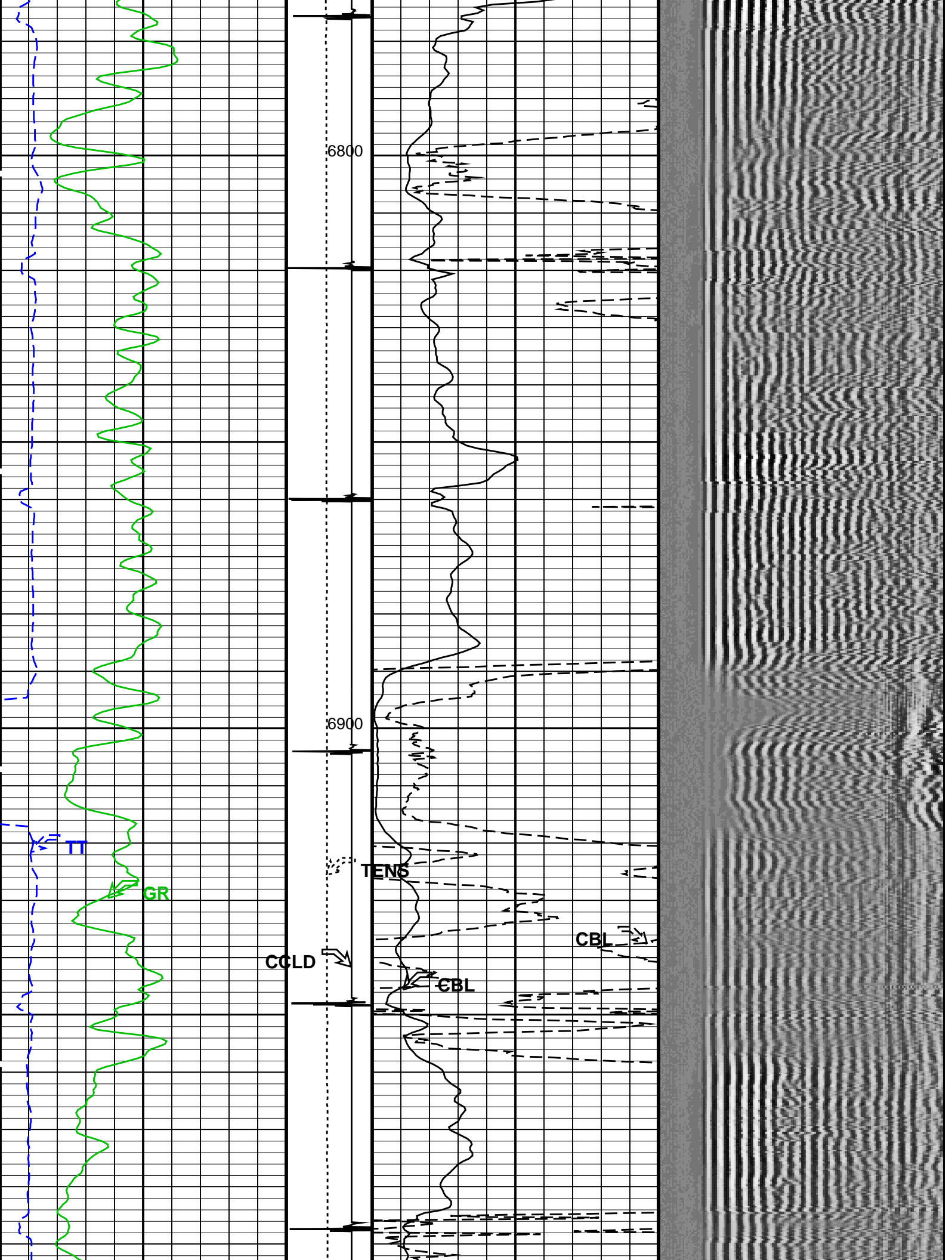


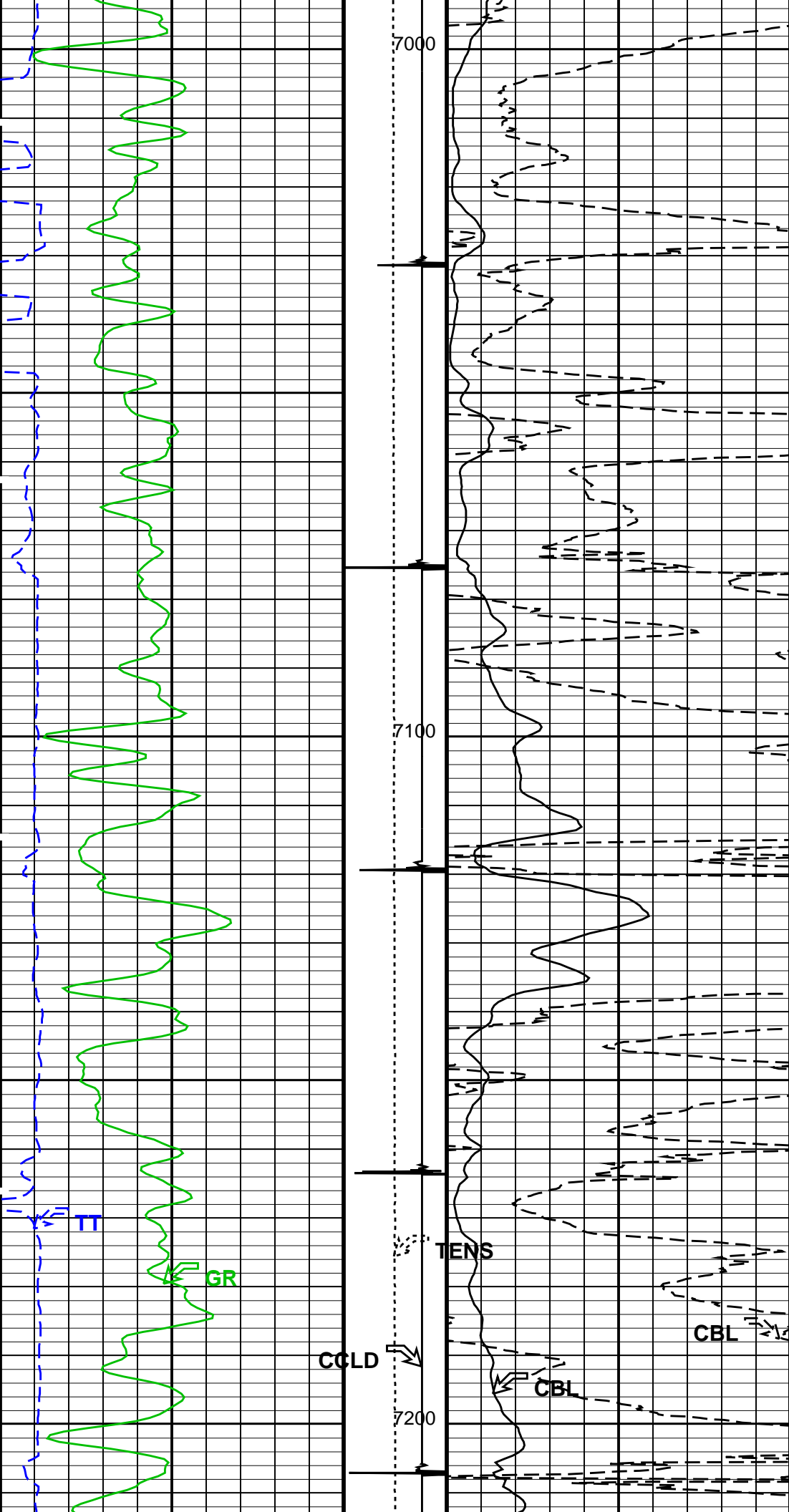


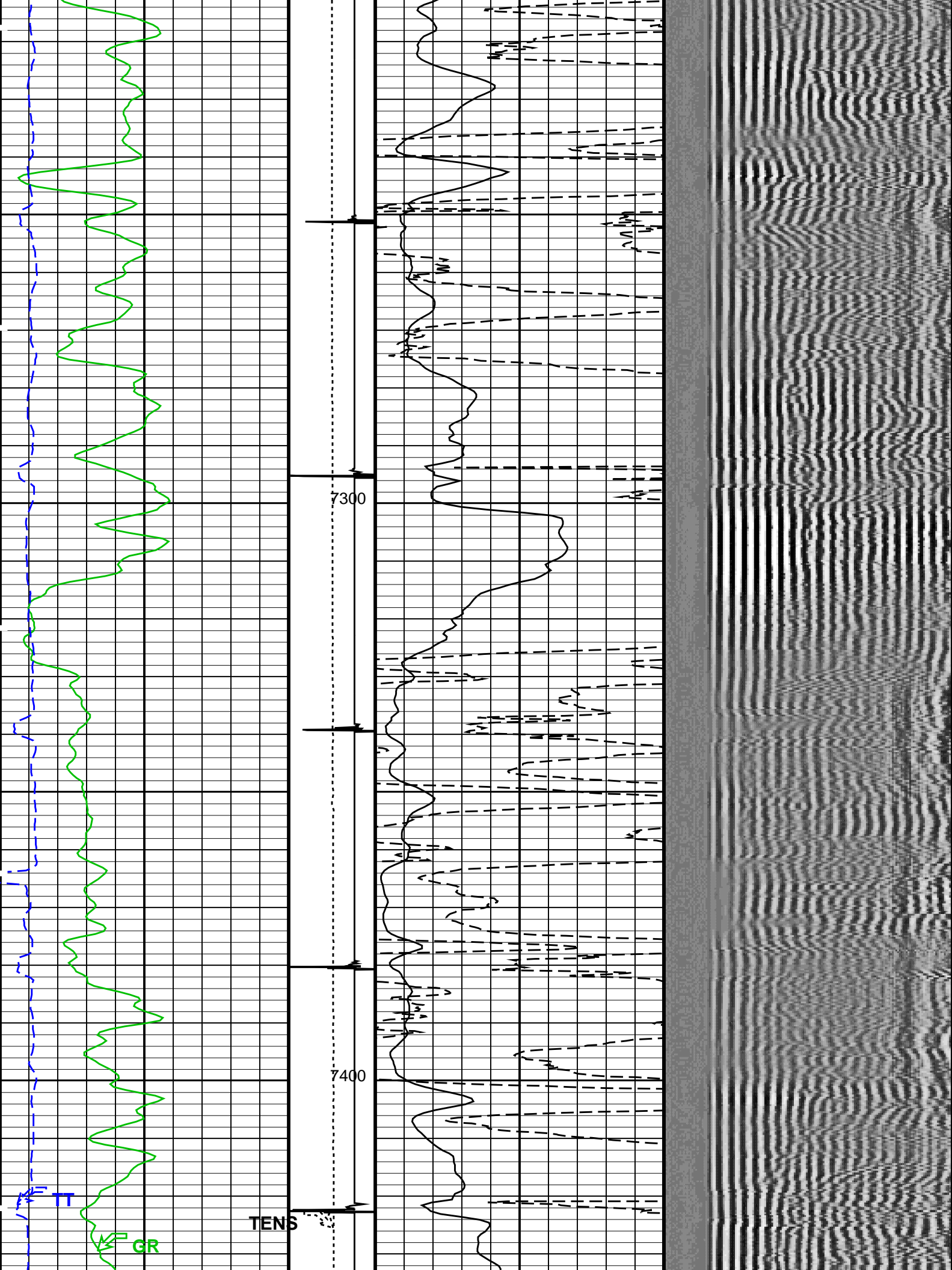


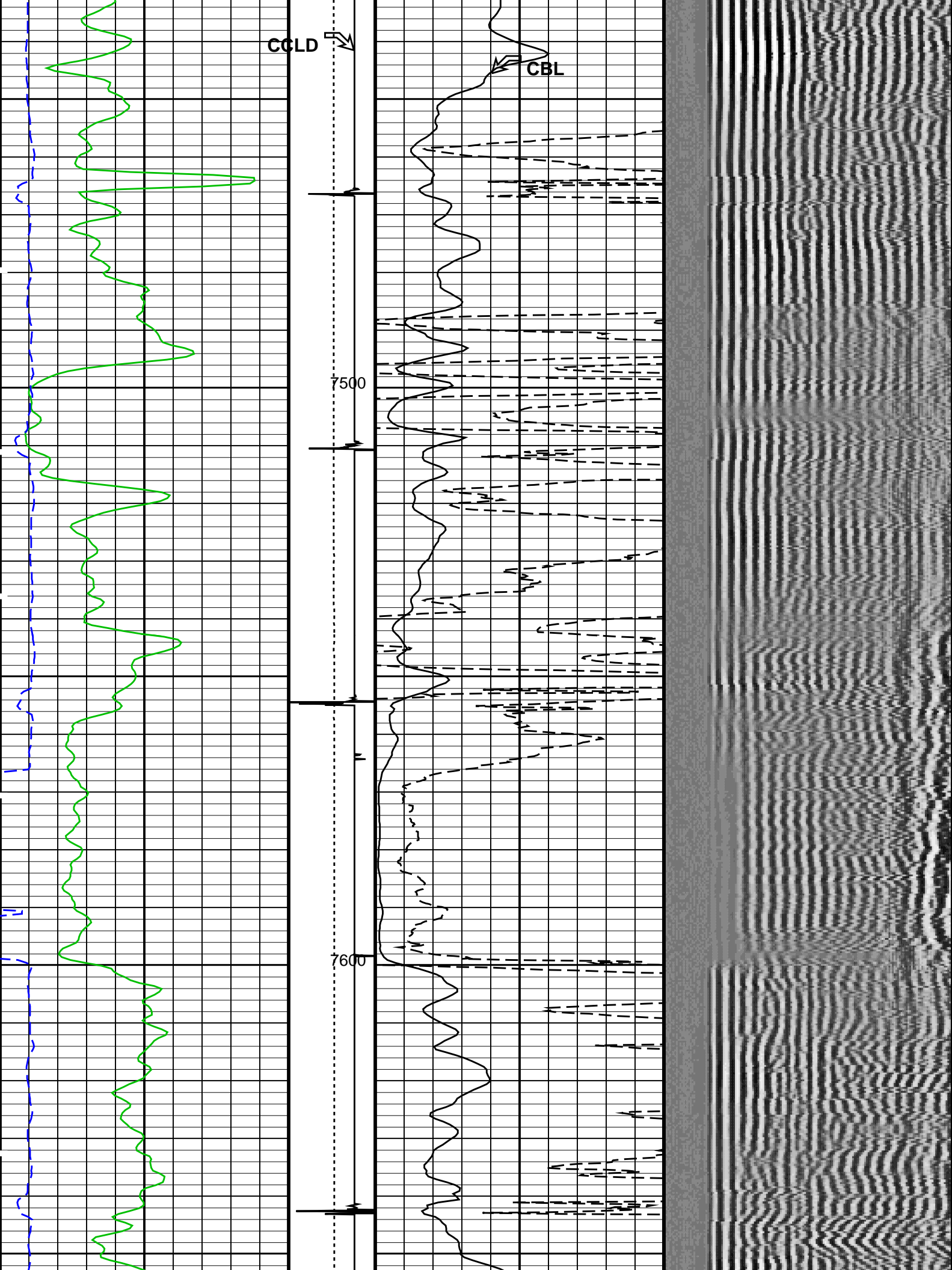


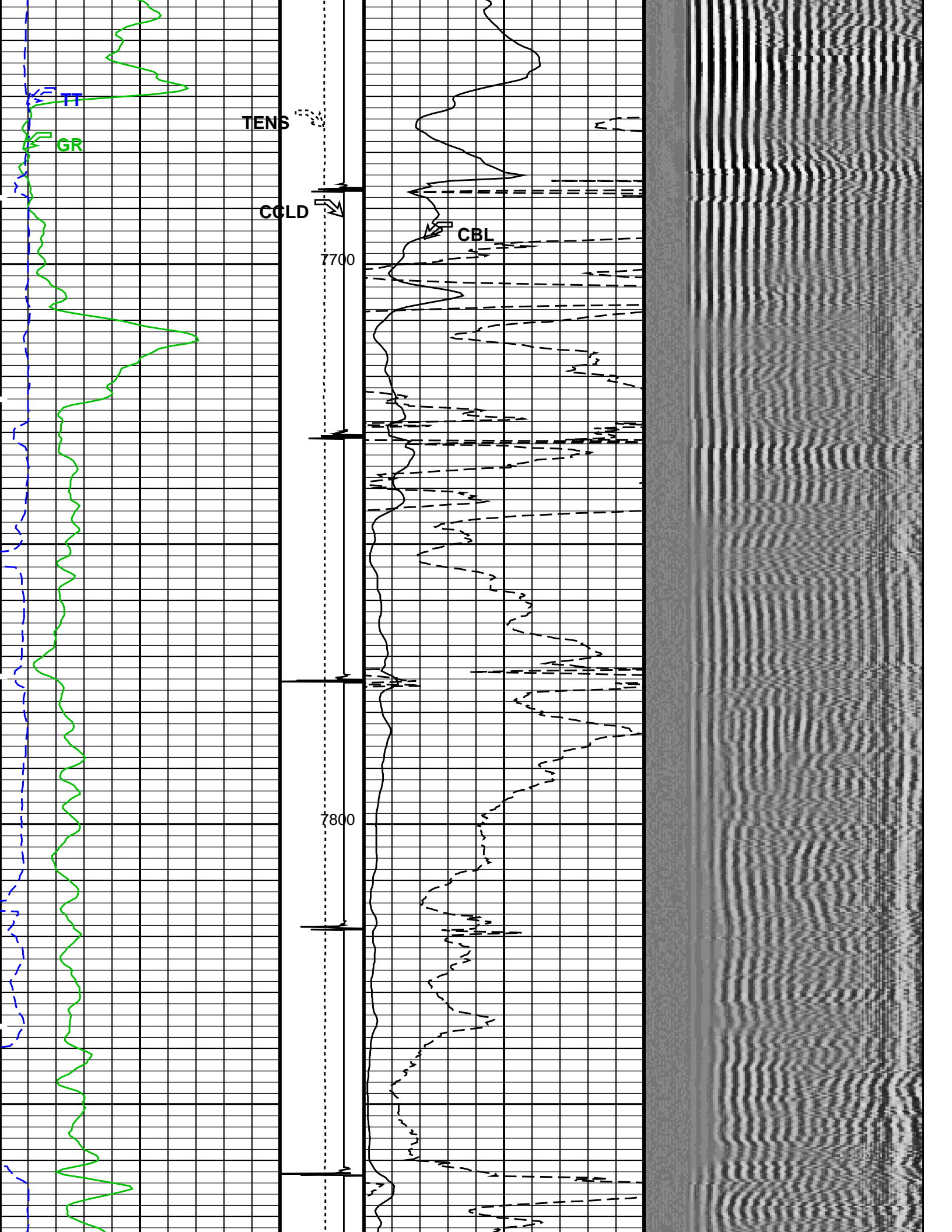


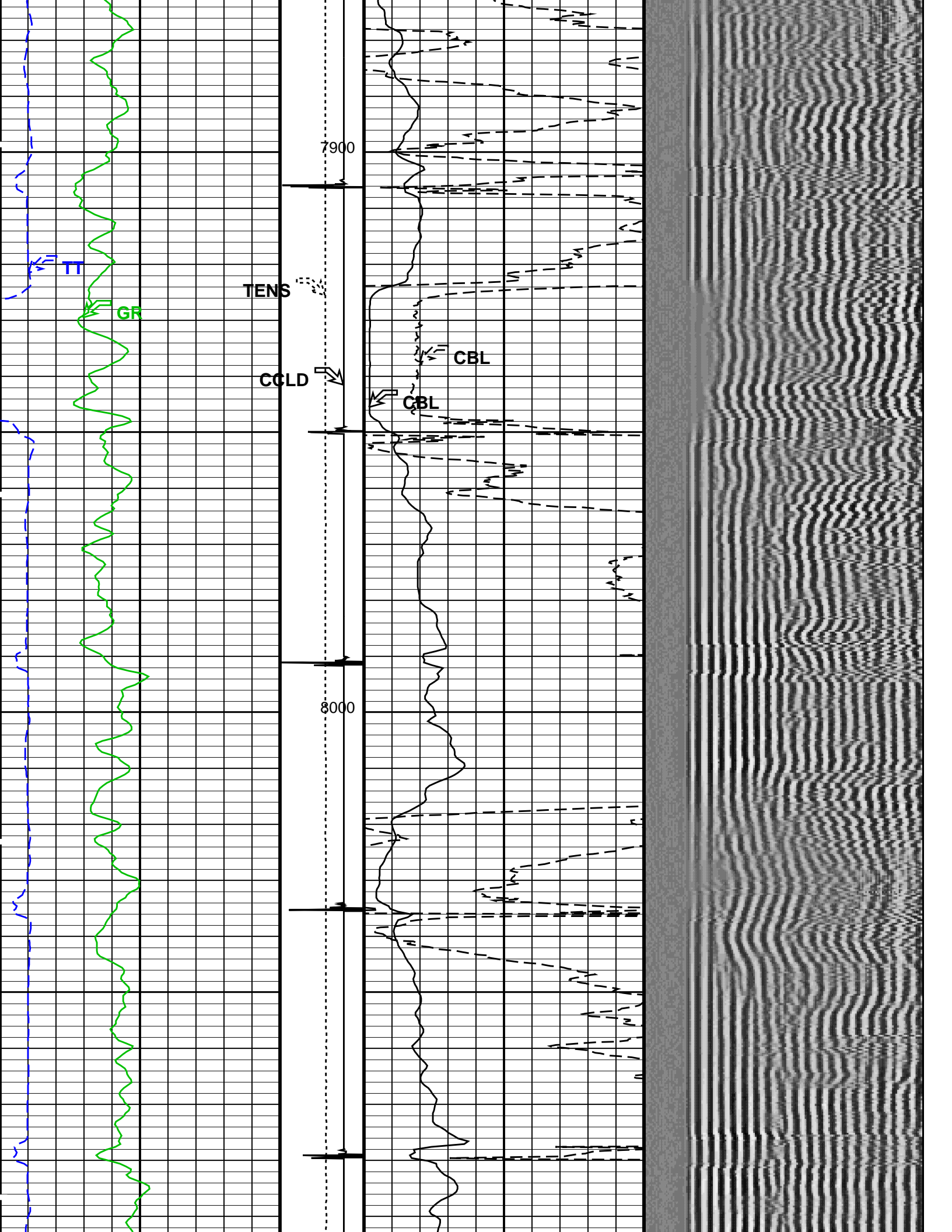


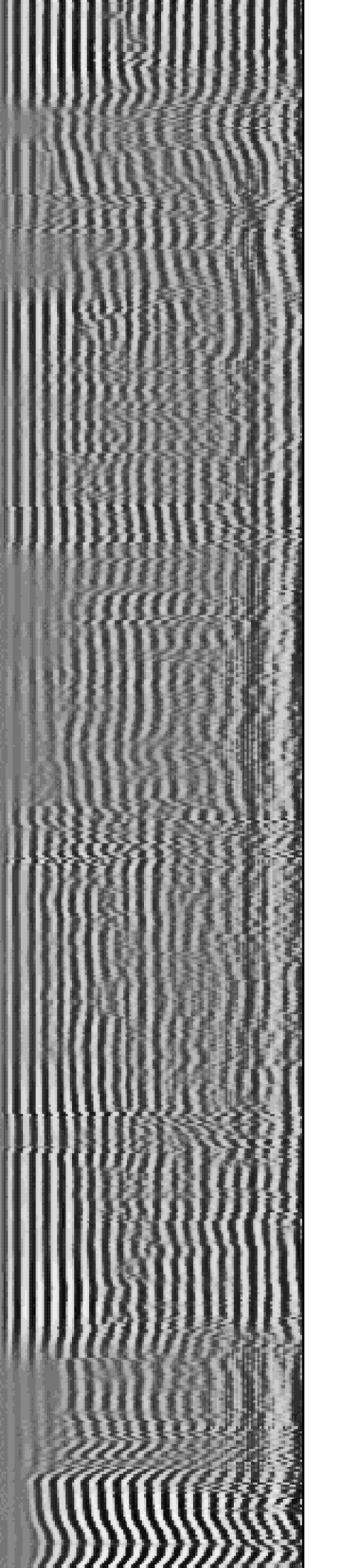
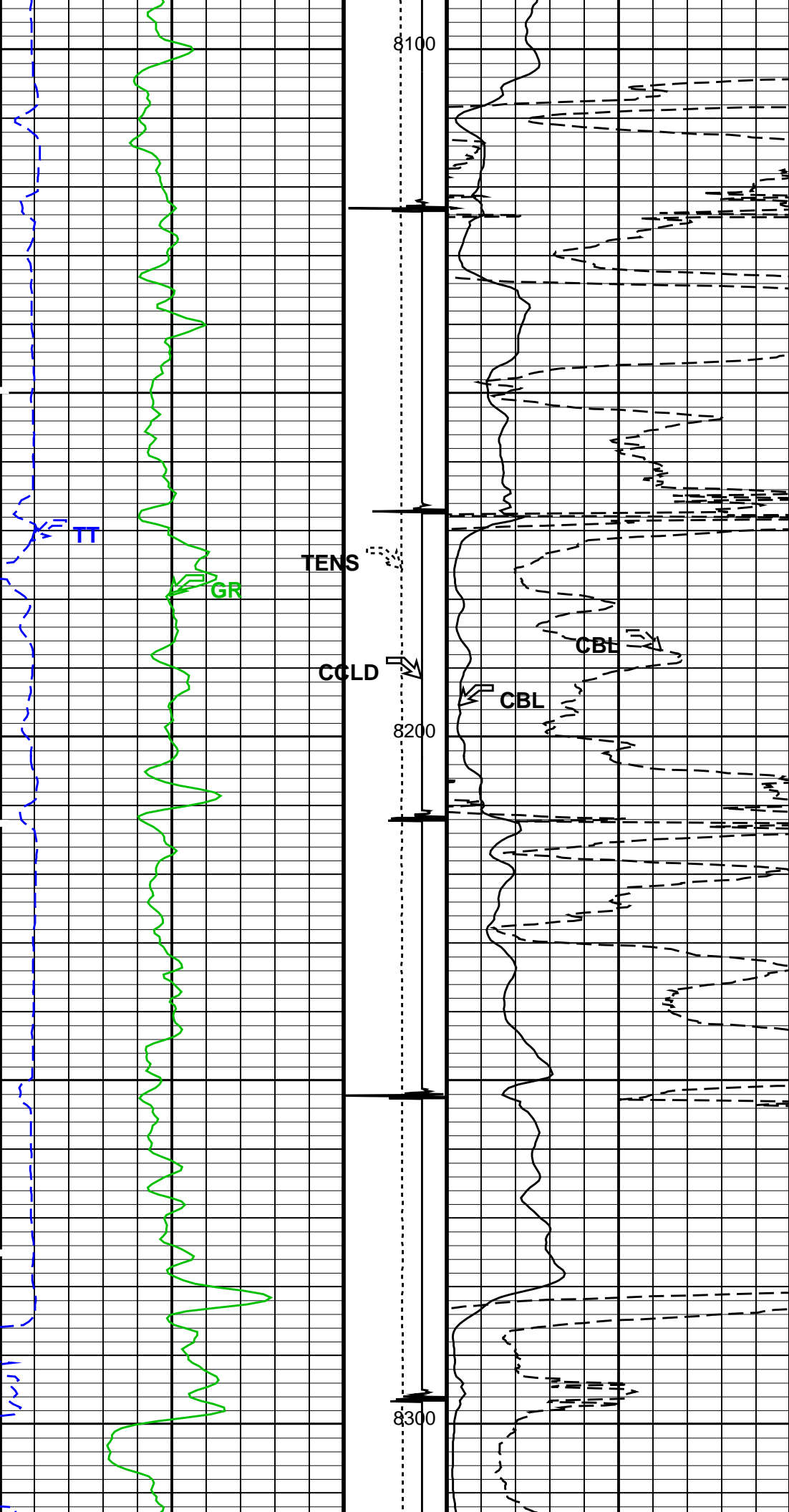


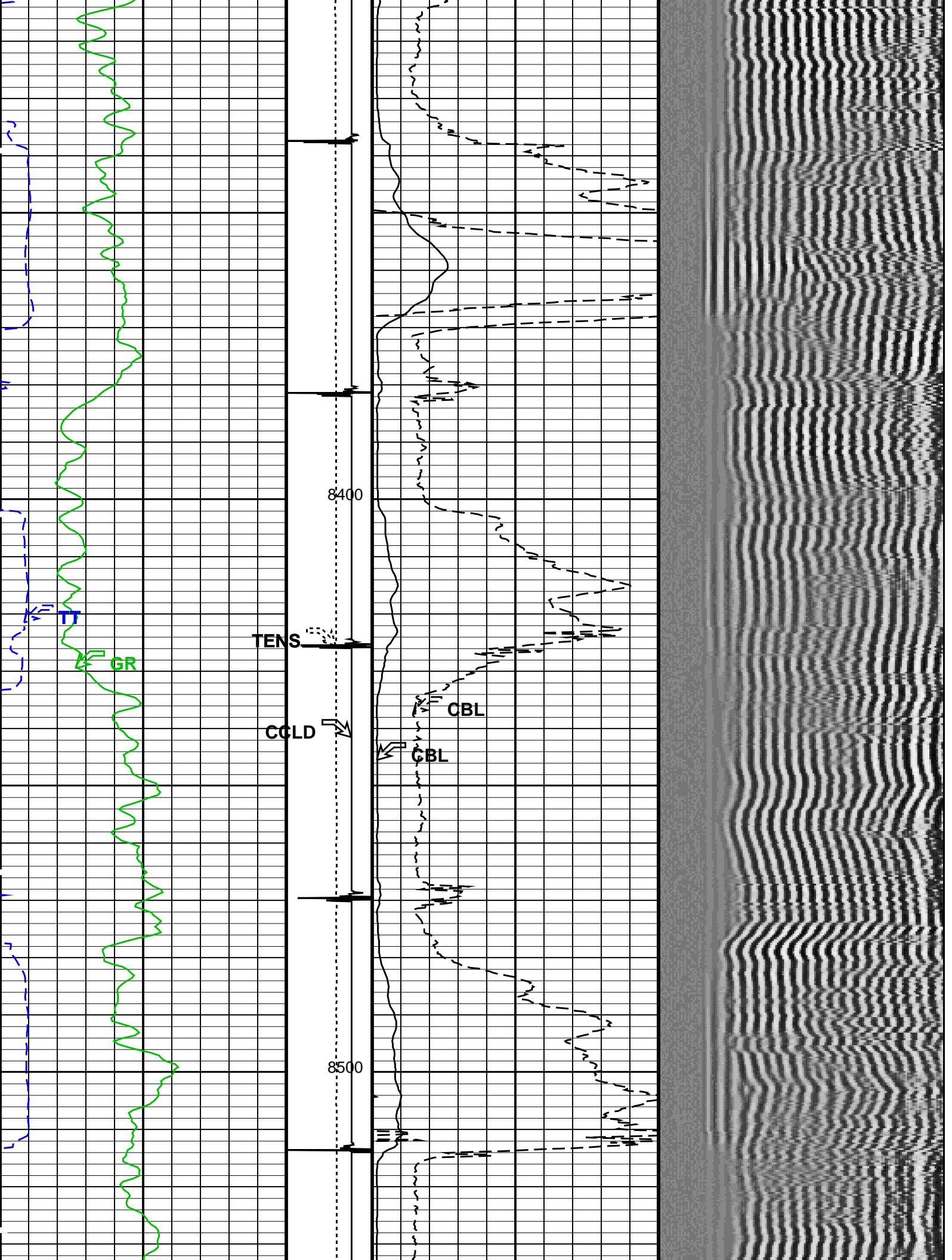


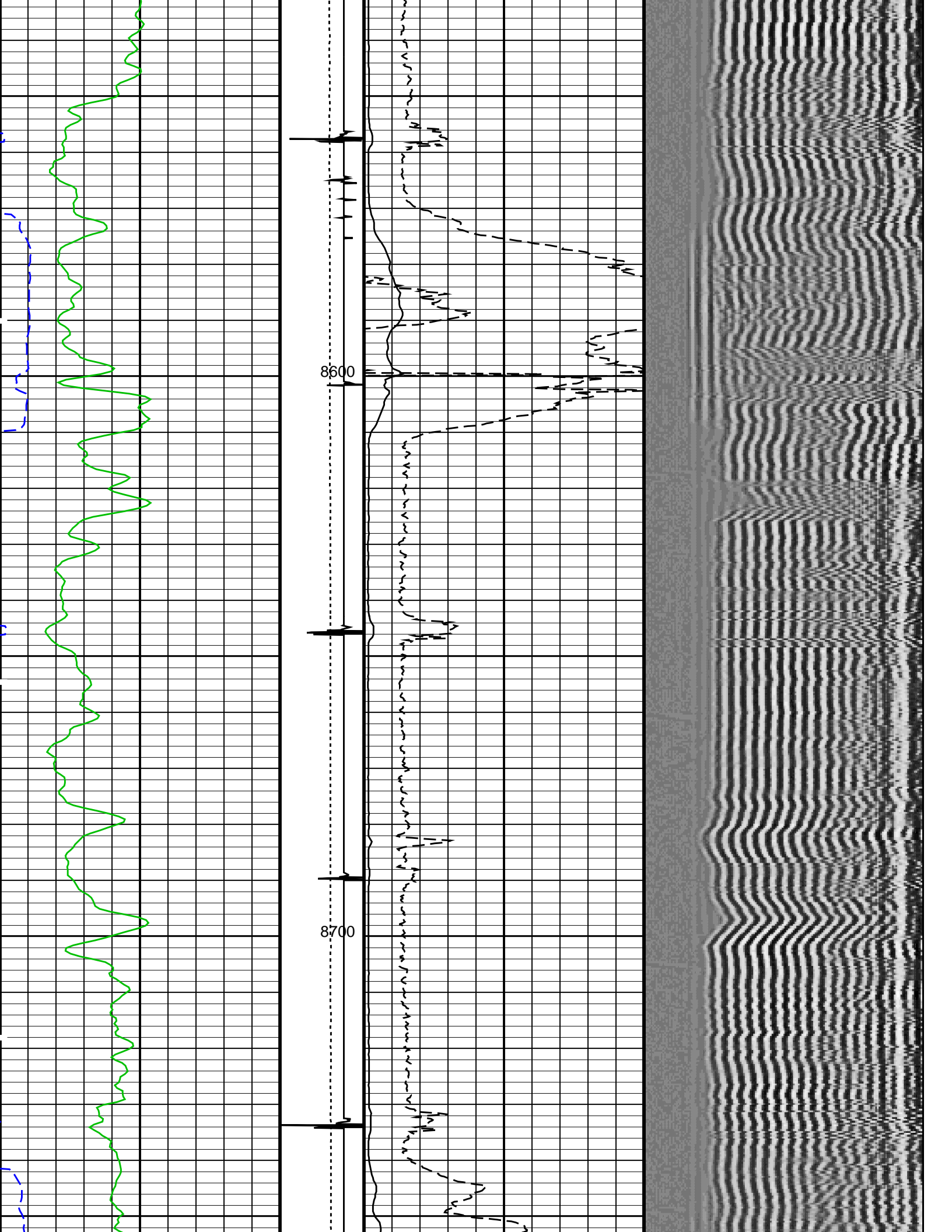


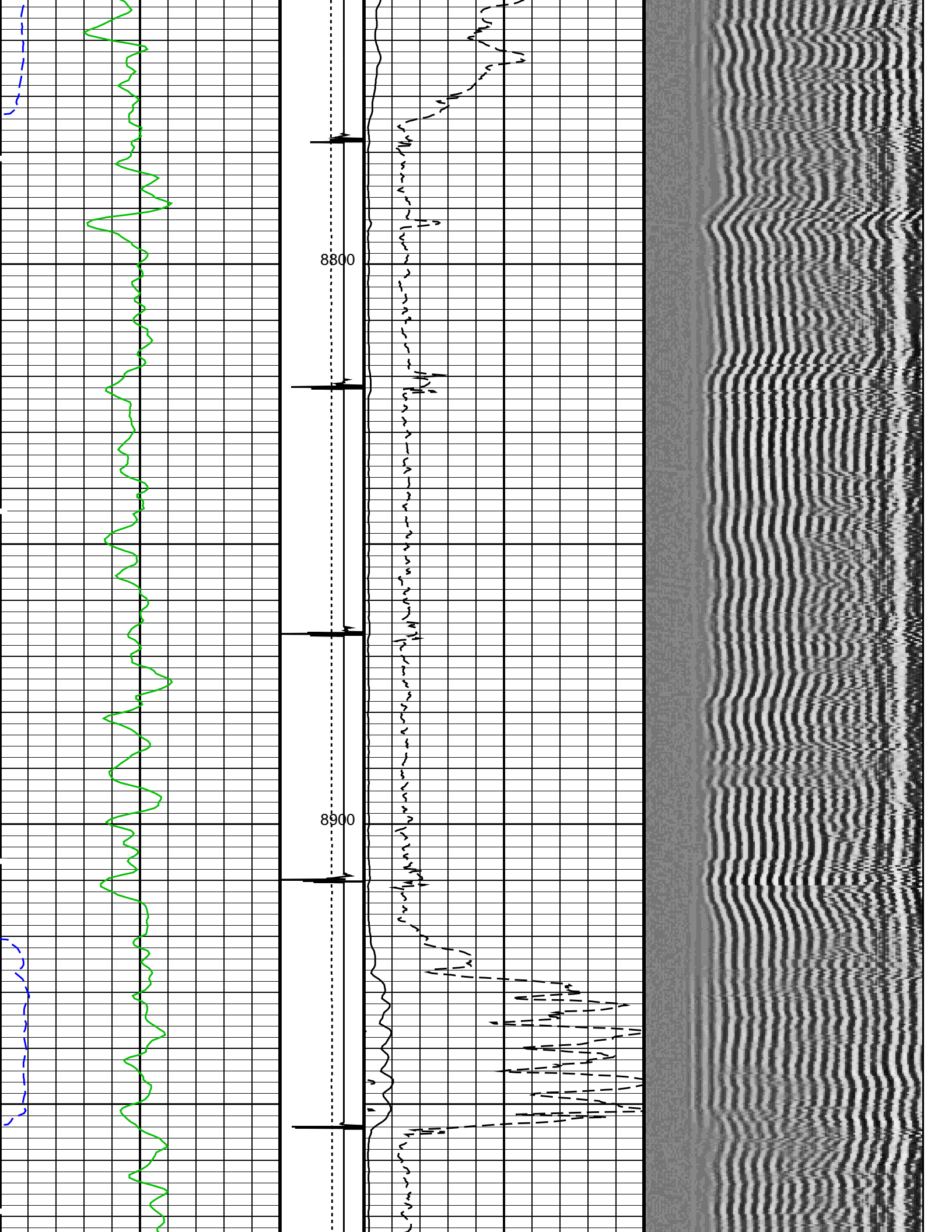


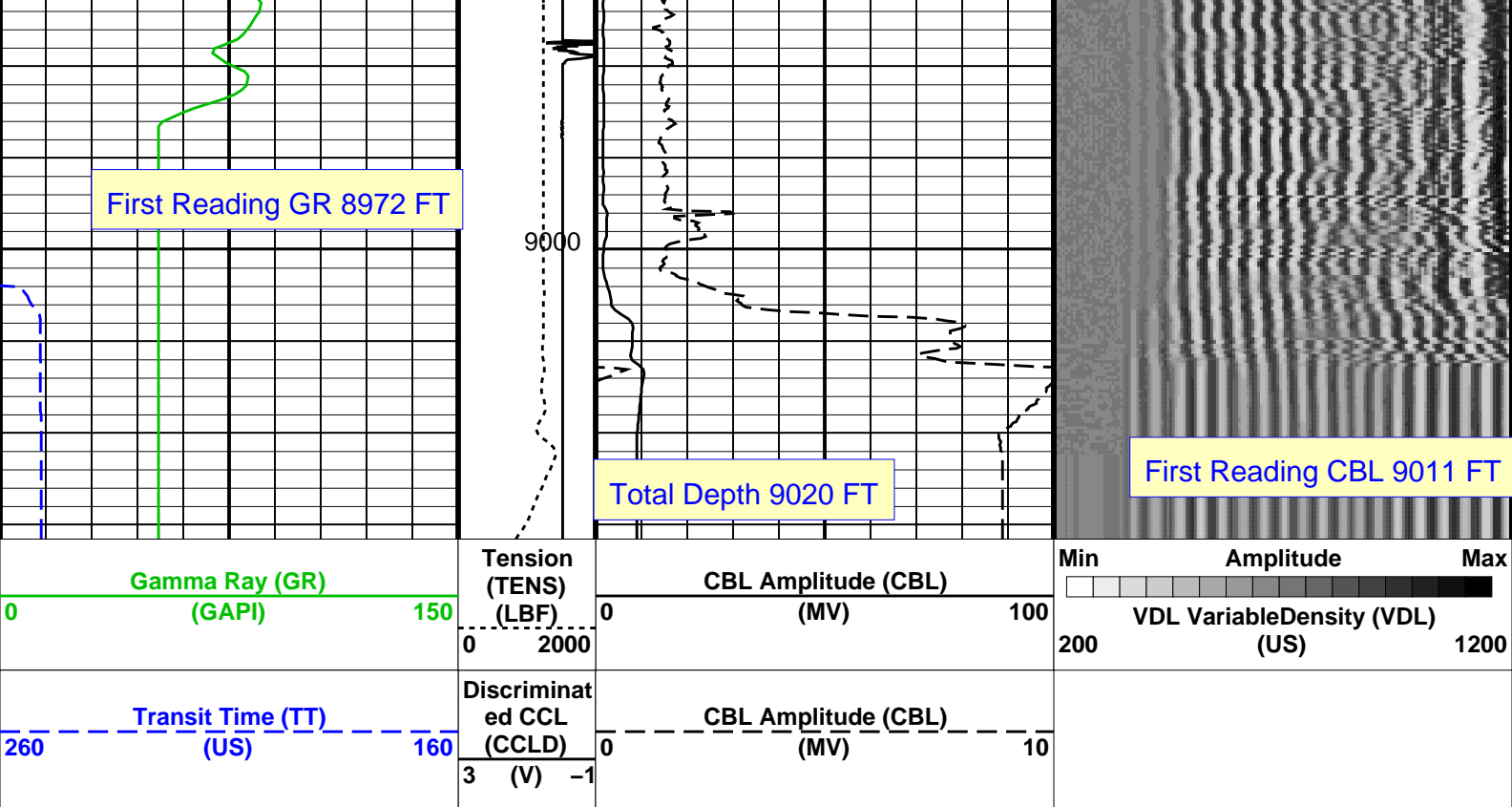












PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100'

Graphics File Created: 01-May-2013 16:04

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	7-SEP-2012		
CBL Correction Factor	0.0756720	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.136845	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.165126		
MAP 3 Correction Factor	0.125717		
MAP 4 Correction Factor	0.196395		
MAP 5 Correction Factor	0.147692		
MAP 6 Correction Factor	0.128887		
MAP 7 Correction Factor	0.150775		
MAP 8 Correction Factor	0.144577		

Parameters

DLIS Name	Description	Value
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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	40	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	9020	FT

Input DLIS Files

DEFAULT	SCMT_RST_PSP_004LUP	FN:3	PRODUCER	01-May-2013 13:23	9027.5 FT	-7.5 FT
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Output DLIS Files

DEFAULT	SCMT_RST_PSP_008PUP	FN:7	PRODUCER	01-May-2013 16:04
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REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC

Well: ENCANA FEE 19-13D (K19CNE)

Input DLIS Files

DEFAULT	SCMT_RST_PSP_002LUP	FN:1	PRODUCER	01-May-2013 12:58	5717.0 FT	5320.0 FT
DEFAULT	SCMT_RST_PSP_008PUP	FN:7	PRODUCER	01-May-2013 16:04	9031.5 FT	-48.0 FT

Output DLIS Files

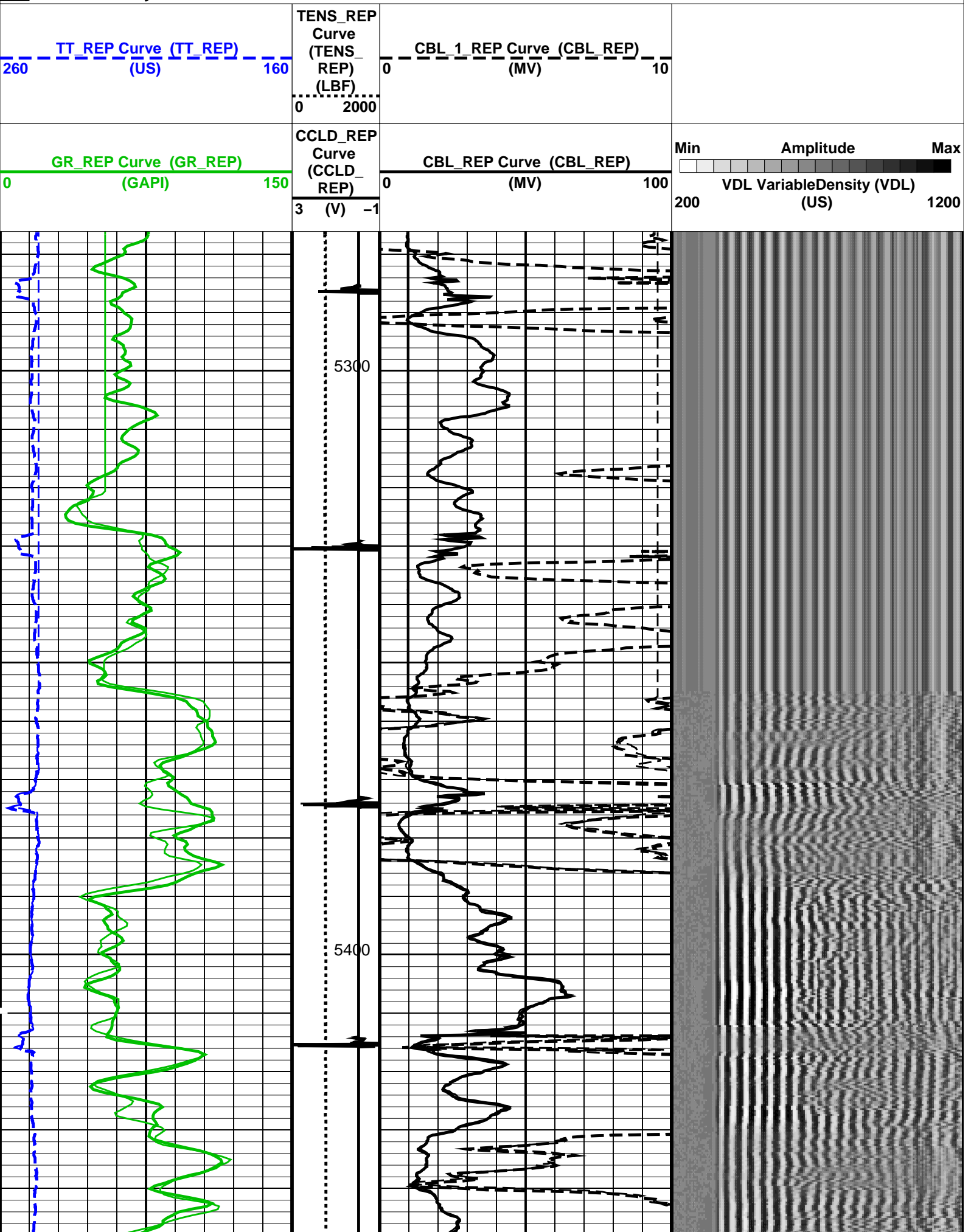
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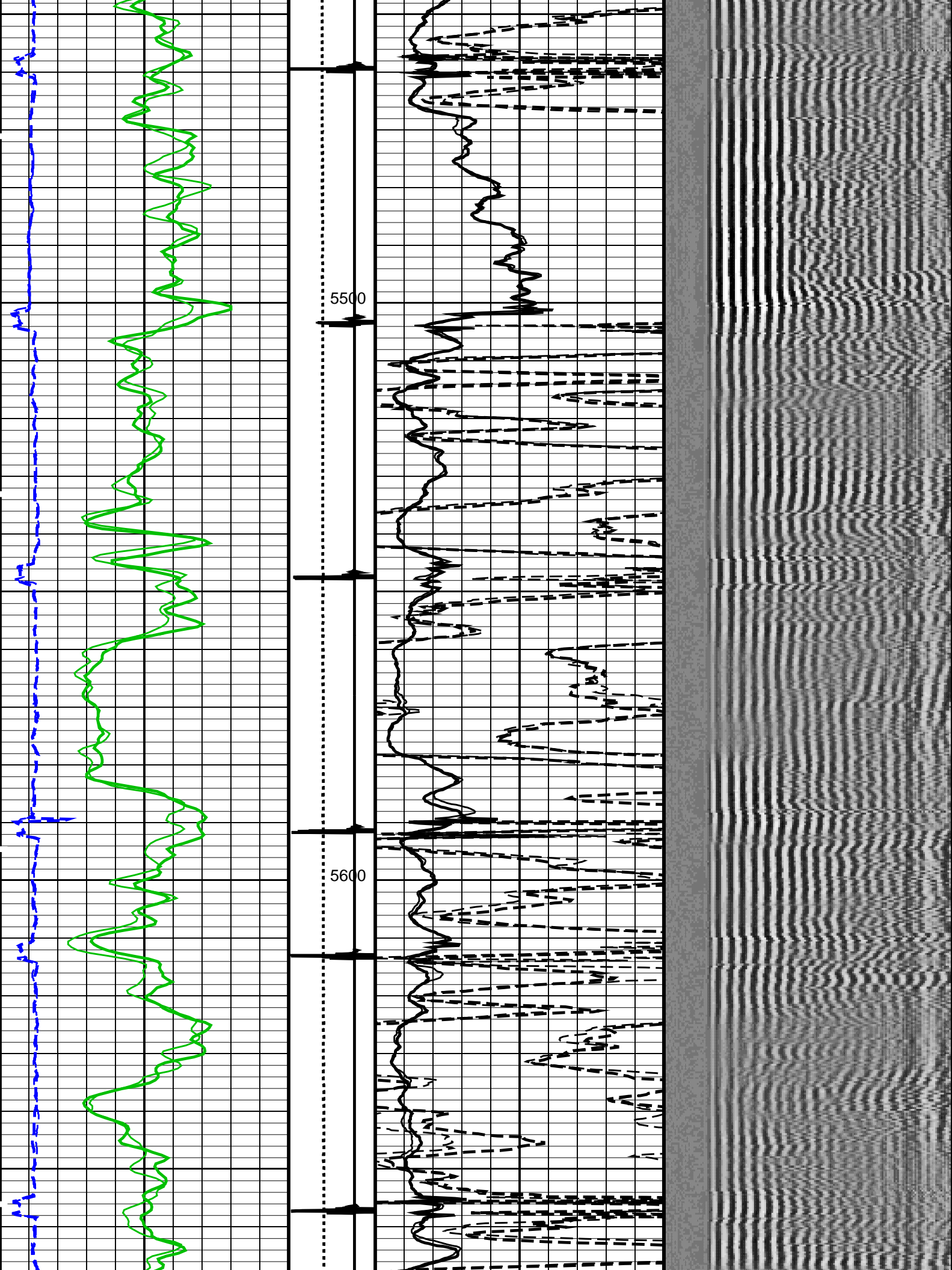
OP System Version: 19C0-187

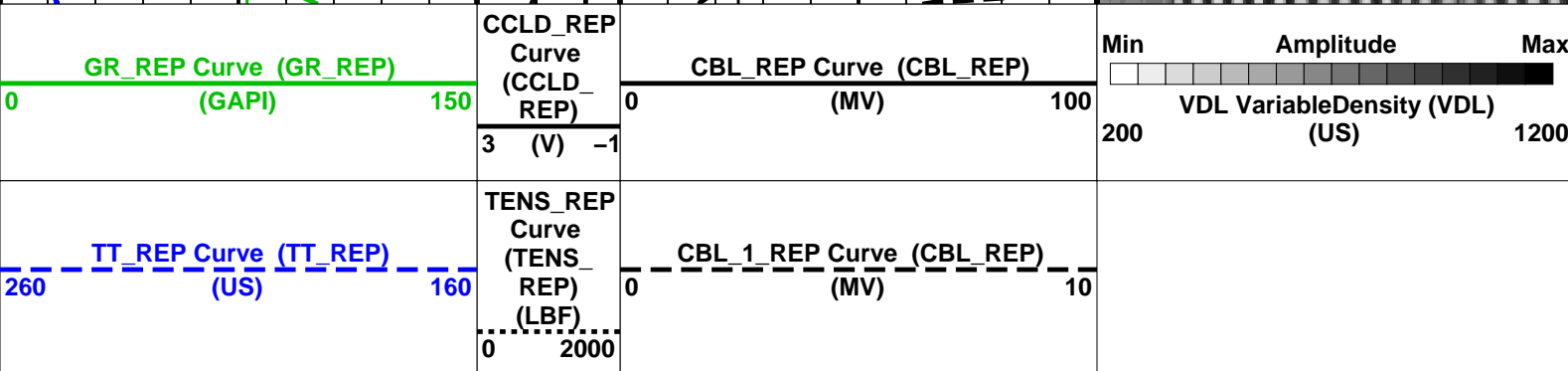
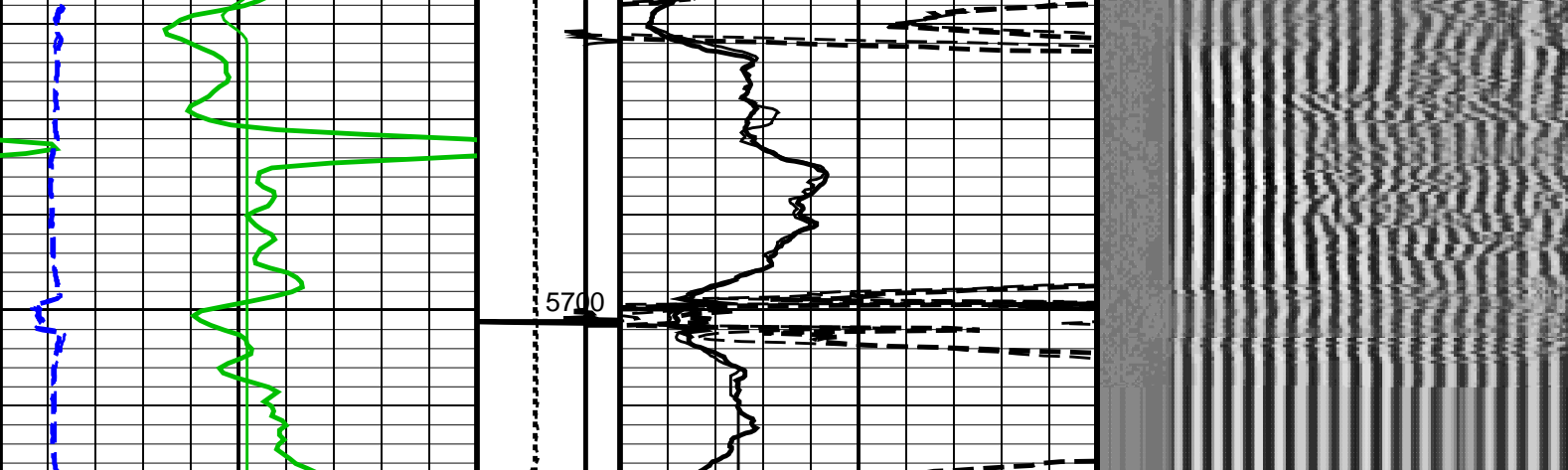
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PSPT	SRPC-5214-H2-2012-OP15		

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: 01-May-2013 16:13

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	7-SEP-2012		
CBL Correction Factor	0.0756720	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.136845	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.165126		
MAP 3 Correction Factor	0.125717		
MAP 4 Correction Factor	0.196395		
MAP 5 Correction Factor	0.147692		
MAP 6 Correction Factor	0.128887		
MAP 7 Correction Factor	0.150775		
MAP 8 Correction Factor	0.144577		

Parameters

DLIS Name	Description	Value
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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	40	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMT C	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	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9020	FT

Input DLIS Files

DEFAULT	SCMT_RST_PSP_002LUP	FN:1	PRODUCER	01-May-2013 12:58	5717.0 FT	5320.0 FT
DEFAULT	SCMT_RST_PSP_008PUP	FN:7	PRODUCER	01-May-2013 16:04	9031.5 FT	-48.0 FT

Output DLIS Files

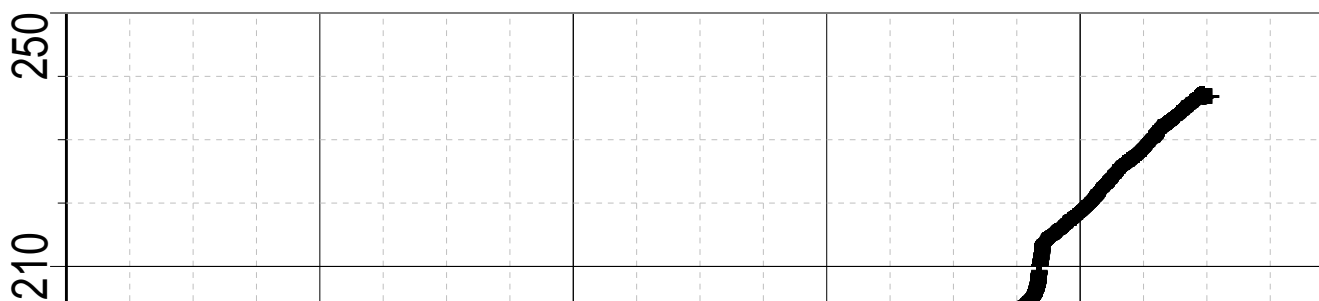
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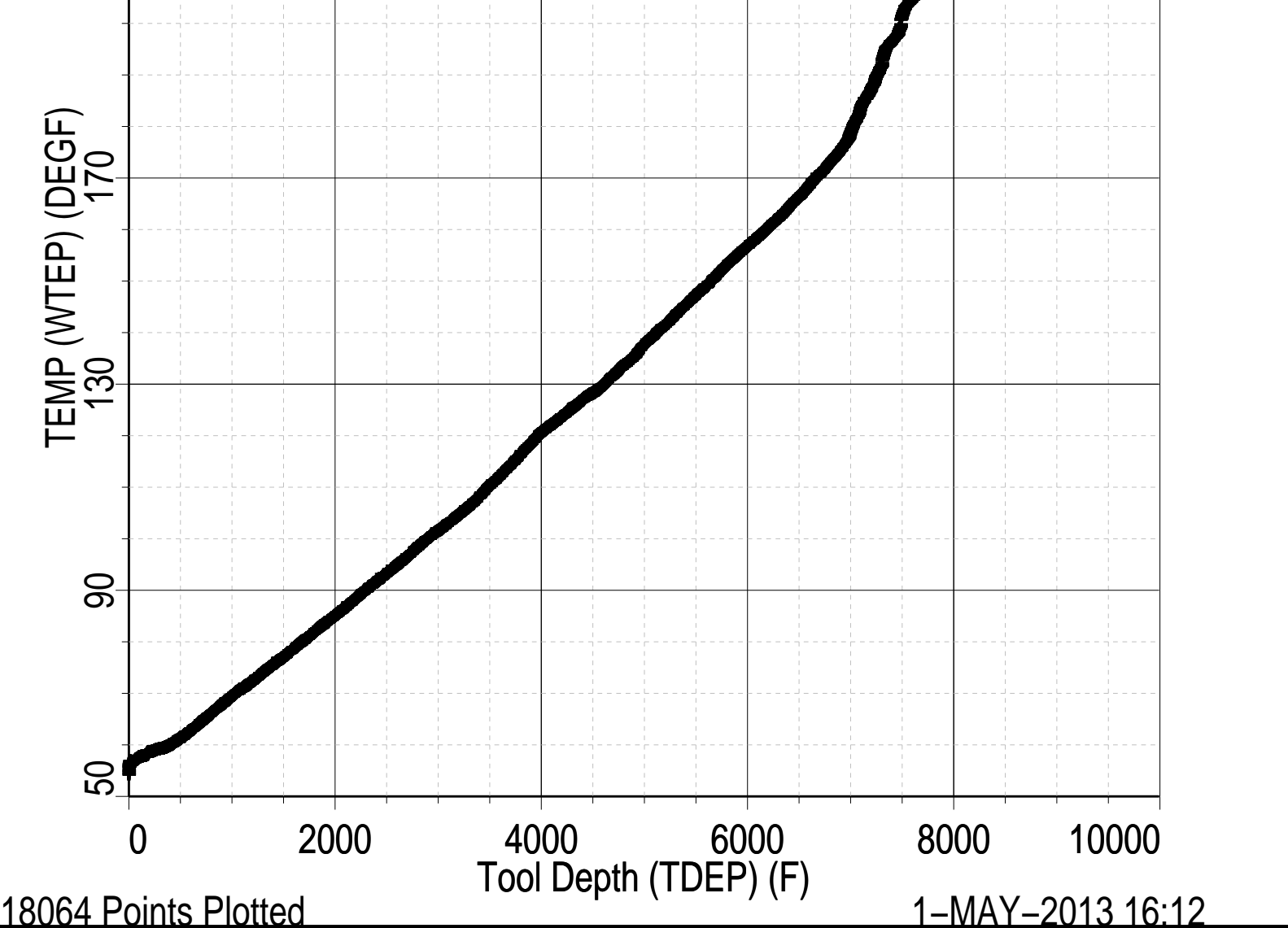
Schlumberger

TEMPERATURE PLOT

MAXIS Field Log

Index: 9031.5 – -48.0 FT





PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: ENCANA FEE 19-13D (K19CNE)
Run date: 1-May-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: ENCANA FEE 19-13D (K19CNE)
Run date: 1-May-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: ENCANA FEE 19-13D (K19CNE)

Tool: PSP
Sub Type: PBMS
Sensor: CQG

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

:
928
280612
66
9DC3

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

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	+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 8419

Clock Temp Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+1.115369519827E+03	-.565338877075E-02	-.333717531829E-07
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.124387135327E-12	+7.13102327208E-16	-.316084316842E-20

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

8303

Slim Cement Mapping Cartridge

SCMC – CA

8120




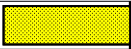





Auxiliary Equipment:

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				876.9	Master				726.7
	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				954.5	Master				611.0
	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				812.5	Master				931.0
	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				795.9	Master				830.0
	500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)			500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)	
Phase	CBL Amplitude Plus MV			Value					
Master				1269					
	1000 (Minimum)	1350 (Nominal)	1700 (Maximum)						
Master: 7-Sep-2012 16:30									

Company: **ENCANA OIL & GAS (USA) INC****Schlumberger**Well: **ENCANA FEE 19–13D (K19CNE)**Field: **MAMM CREEK**County: **GARFIELD**State: **COLORADO**

SLIM CEMENT MAPPING LOG

CBL – VDL

GAMMA RAY – CCL