



Company: ENCANA OIL & GAS (USA) INC.

Well: NP EF11E-27 (P27 595)

Field: NORTH PARACHUTE

County: GARFIELD

State: COLORADO

SLIM CEMENT MAPPING TOOL  
CBL-VDL  
GR-CCL

County: GARFIELD  
Field: NORTH PARACHUTE  
Location: SHL: 725' FSL & 601' FEL  
Well: NP EF11E-27 (P27 595)  
Company: ENCANA OIL & GAS (USA) INC.

LOCATION			
SHL: 725' FSL & 601' FEL BHL: 1653' FSL & 2080' FWL	Elev.: K.B. 6673.50 ft G.L. 6650.00 ft D.F. 6672.50 ft		
Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____	GROUND LEVEL _____ KELLY BUSHING _____ KELLY BUSHING _____	Elev.: _____ 23.50 ft	above Perm. Datum
API Serial No. 05-045-20301-00	Section 27	Township 5S	Range 95W

				Run 1	Run 2	Run
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			15-Aug-2012						
Run Number			1						
Depth Driller			10835 ft						
Schlumberger Depth			10780 ft						
Bottom Log Interval			10771 ft						
Top Log Interval			100 ft						
Casing Fluid Type			FRESH WATER						
Salinity									
Density			8.4 lbm/gal						
Fluid Level			70 ft						
BIT/CASING/TUBING STRING									
Bit Size			8.750 in						
From			23.5 ft						
To			10835 ft						
Casing/Tubing Size			4.500 in						
Weight			11.6 lbm/ft						
Grade			S80						
From			23.5 ft						
To			10825 ft						
Maximum Recorded Temperatures			279 degF						
Logger On Bottom			15-Aug-2012		Time	20:30			
Unit Number		Location	391		GRAND JUNCTION				
Recorded By			KIRSTIE BUNTING						
Witnessed By			JOHN MILLER						

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: 15-AUG-2012 9:56:44

## 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:	5006	Serial Number:	111306
Calibration Date:	04-24-2012	Calibration Date:	08-14-2012	Length:	16000 FT
Calibrator Serial Number:	33	Calibrator Serial Number:	174878		
Calibration Cable Type:	1-25P	Number of Calibration Points:	10	Conveyance Method:	Wireline
Wheel Correction 1:	-3	Calibration RMS:	5	Rig Type:	LAND
Wheel Correction 2:	-4	Calibration Peak Error:	7		

## 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
<b>Stretch Correction:</b>	<b>0.00 FT</b>
Tool Zero Check At Surface:	

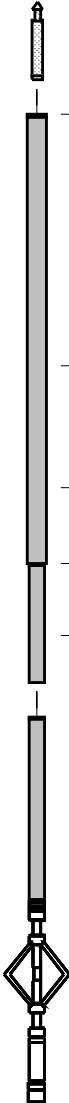
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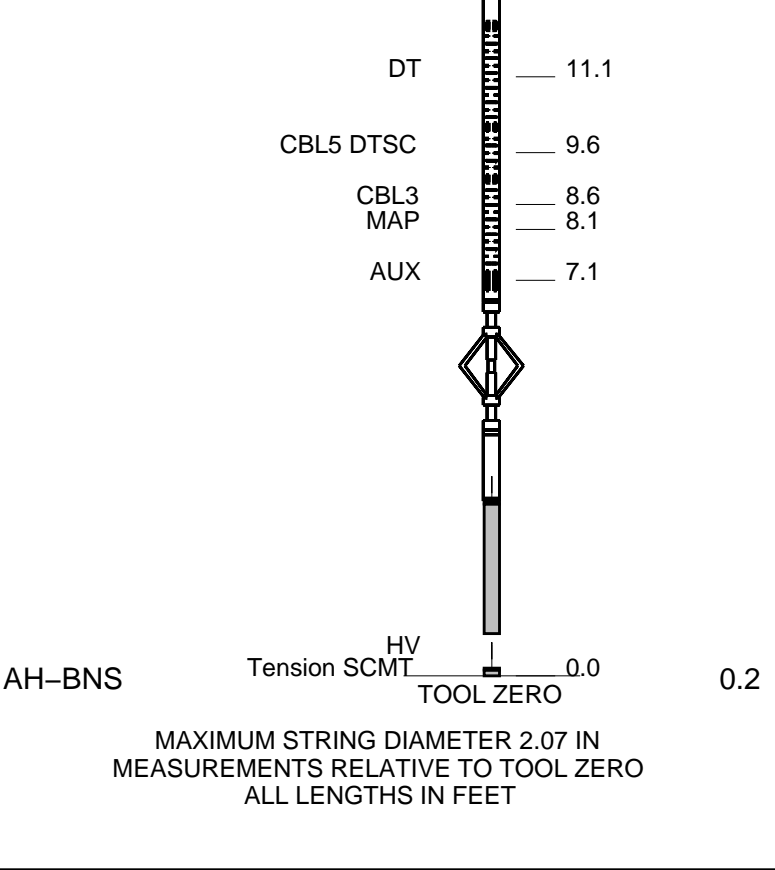
1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES UTILIZED
2. PRIMARY DEPTH CONTROL : IDW
3. SECONDARY DEPTH CONTROL: DRUM COUNTER (SWPT)
- 4.
- 5.
- 6.

## DISCLAIMER

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OTHER SERVICES1 OS1: NONE OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRELATED TO DOWN LOG	
TOOL RAN AS PER TOOL SKETCH	
TOTAL DEPTH TAGGED = 10780 FT	
STRETCH CORRECTION = 8 FT	
MAXIMUM RECORDED TEMPERATURE = 279 DEGF	
MAXIMUM RECORDED PRESSURE = 4303 PSIA	

EXPECTED CBL AMPLITUDE 80MV IN FREE PIPE					
CYCLE SKIPPING DUE TO GOOD BOND					
MAIN LOG RAN WITH ZERO SURFACE PRESSURE					
THANK YOU FOR CHOOSING E&P WIRELINE A SCHLUMBERGER COMPANY					
SLB CREW: KBUNTING, WFLOYD, WAZIZ, KJOHNS, CARNOLD					
RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
CADB-00014 19C0-187 70 ft					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM-A PSC_16MHZ					
DOWNHOLE EQUIPMENT					



# MAIN PASS CBL – VDL

MAXIS Field Log

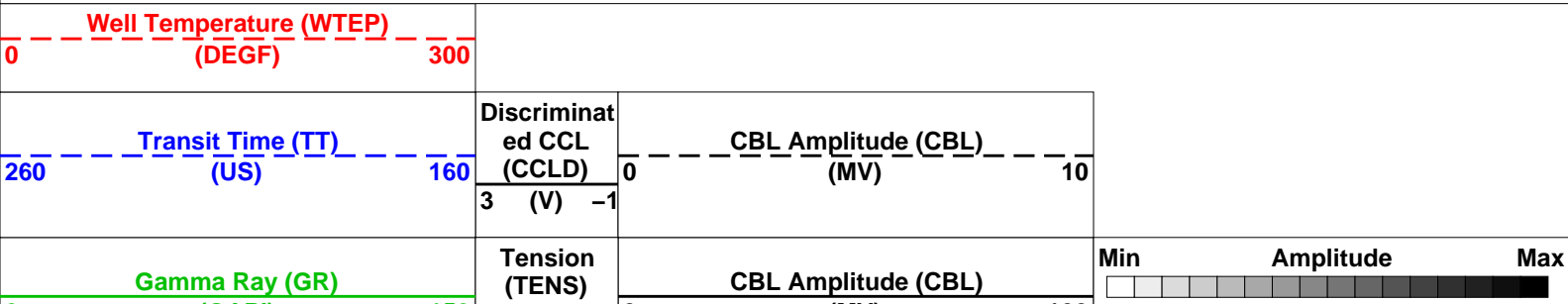
Company: ENCANA OIL & GAS (USA) INC. Well: NP EF11E-27 (P27 595)

Input DLIS Files						
DEFAULT	SCMT_HBMS_044LUP	FN:43	PRODUCER	15-Aug-2012 20:34	10794.0 FT	20.0 FT
Output DLIS Files						
DEFAULT	SCMT_HBMS_046PUP	FN:45	PRODUCER	15-Aug-2012 23:48	10802.0 FT	-3.5 FT

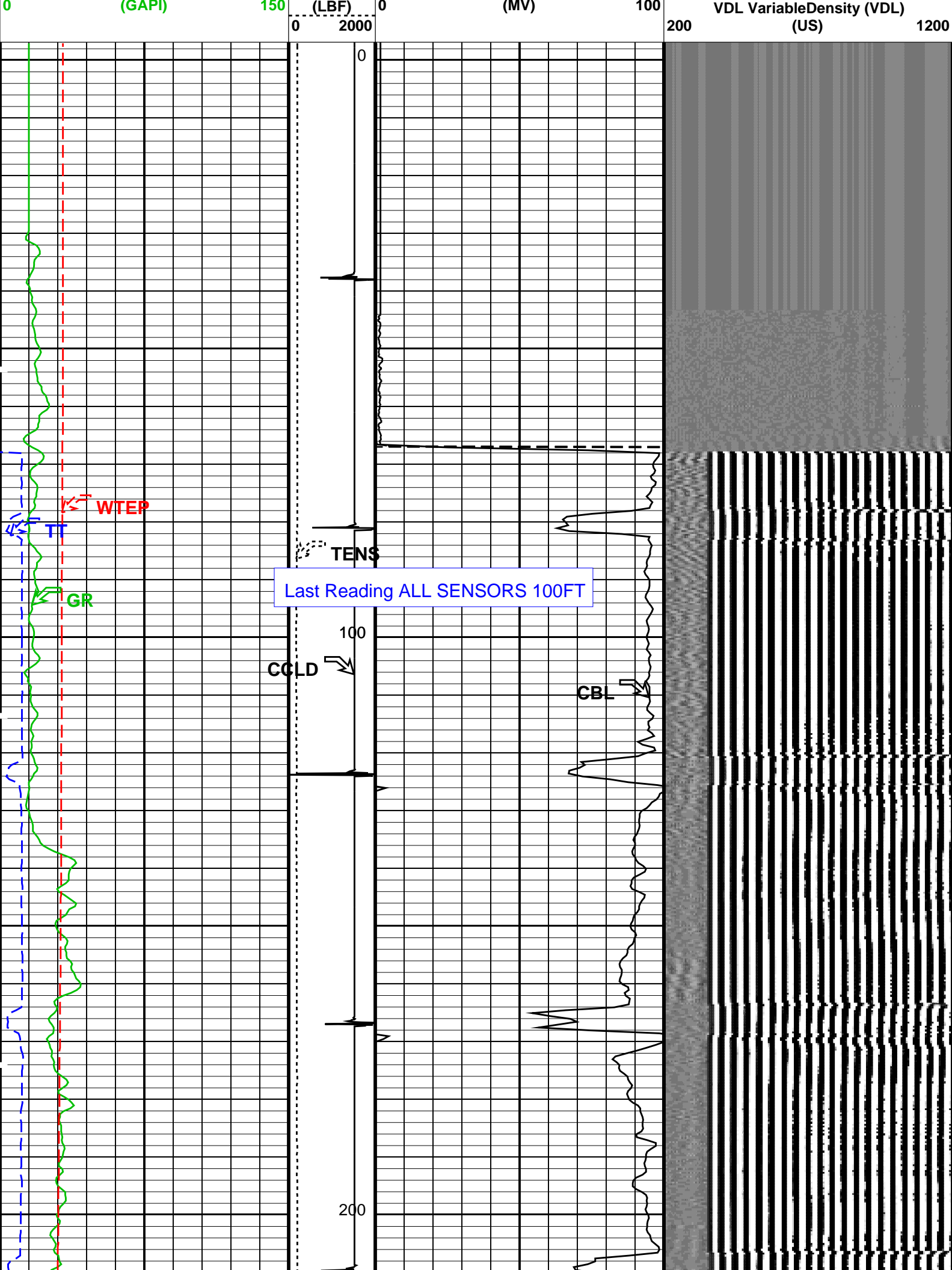
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SCMT-CB	SRPC-5095-H2-2011-OP19	HBMS-B	19C0-187

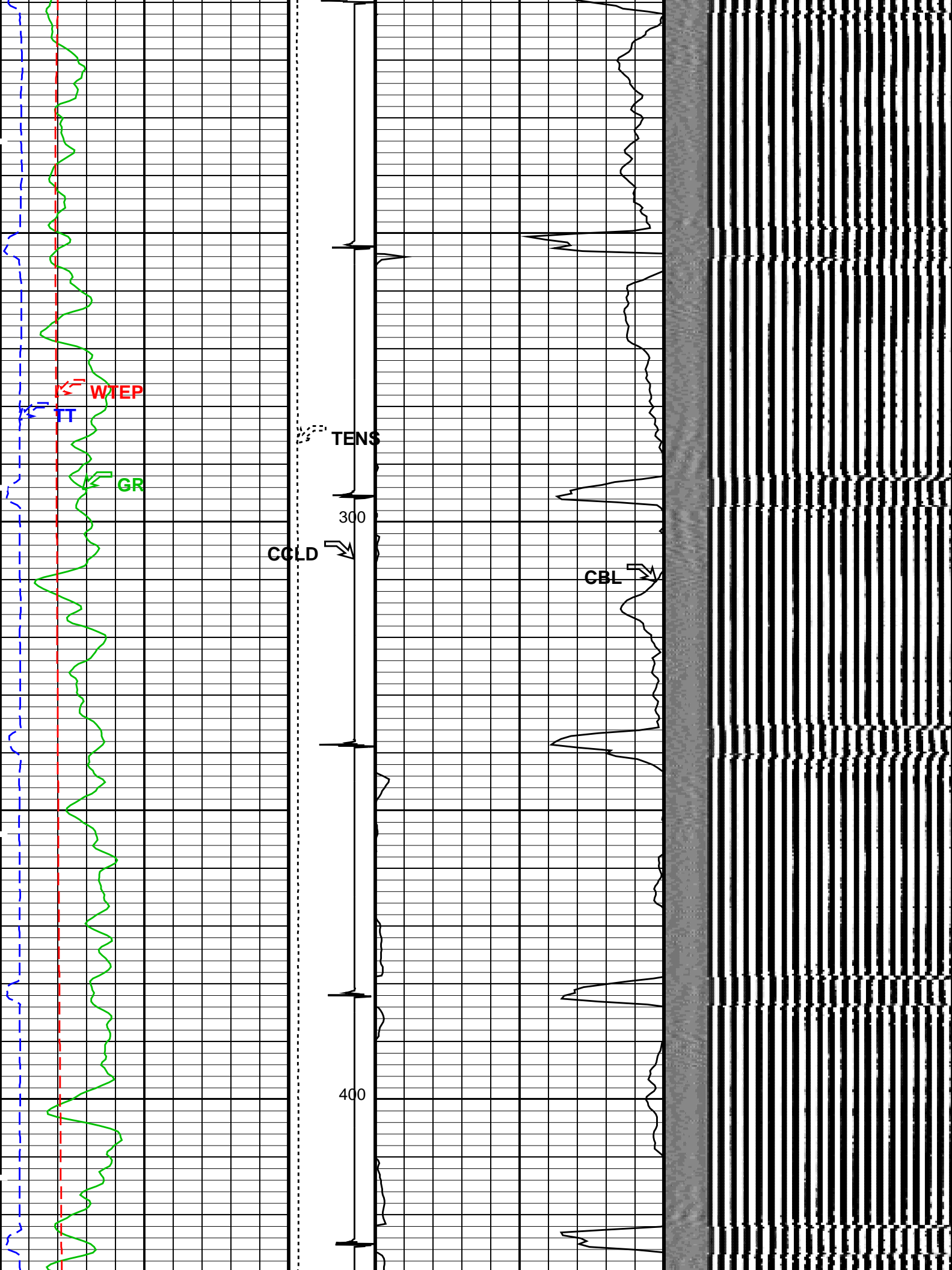
## PIP SUMMARY

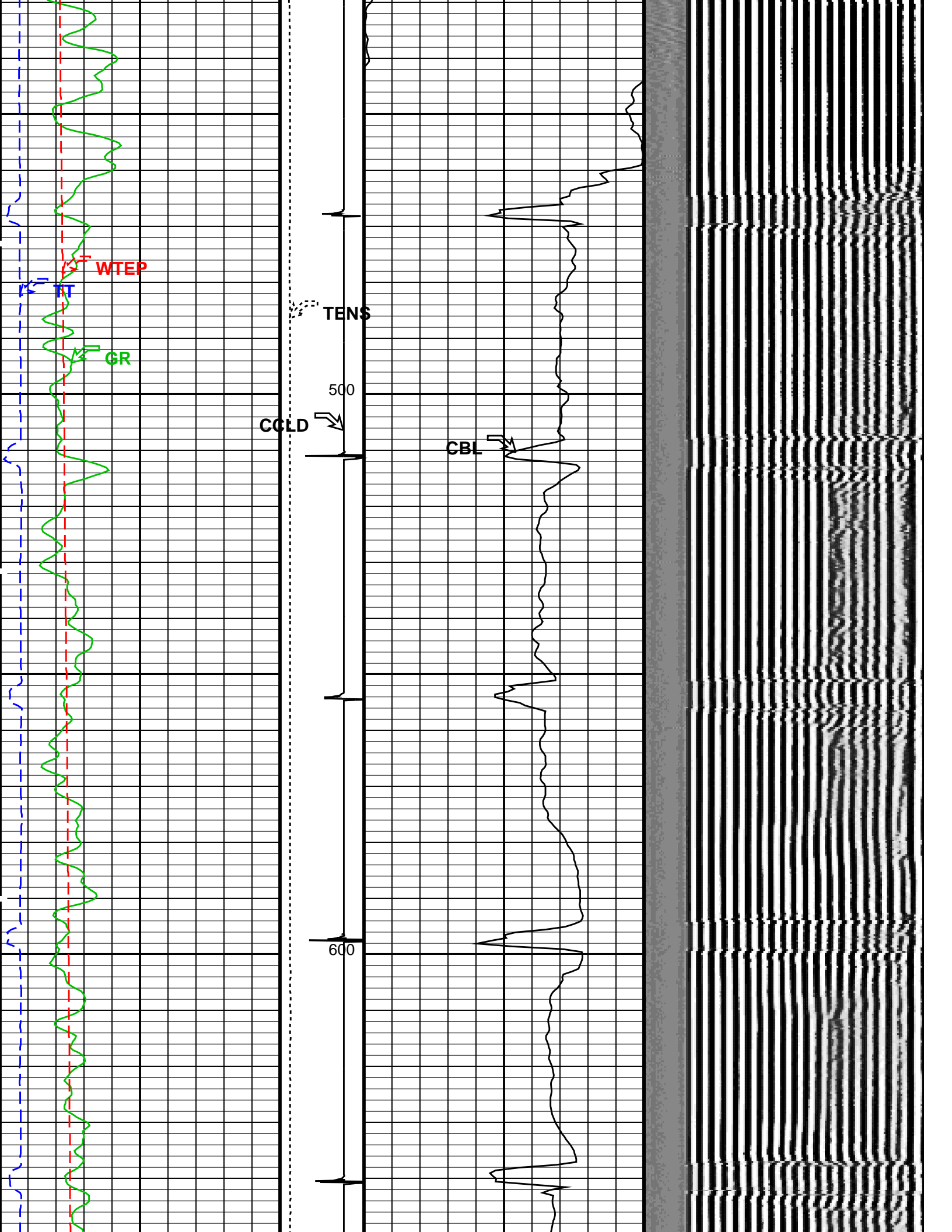
☒ Time Mark Every 60 S

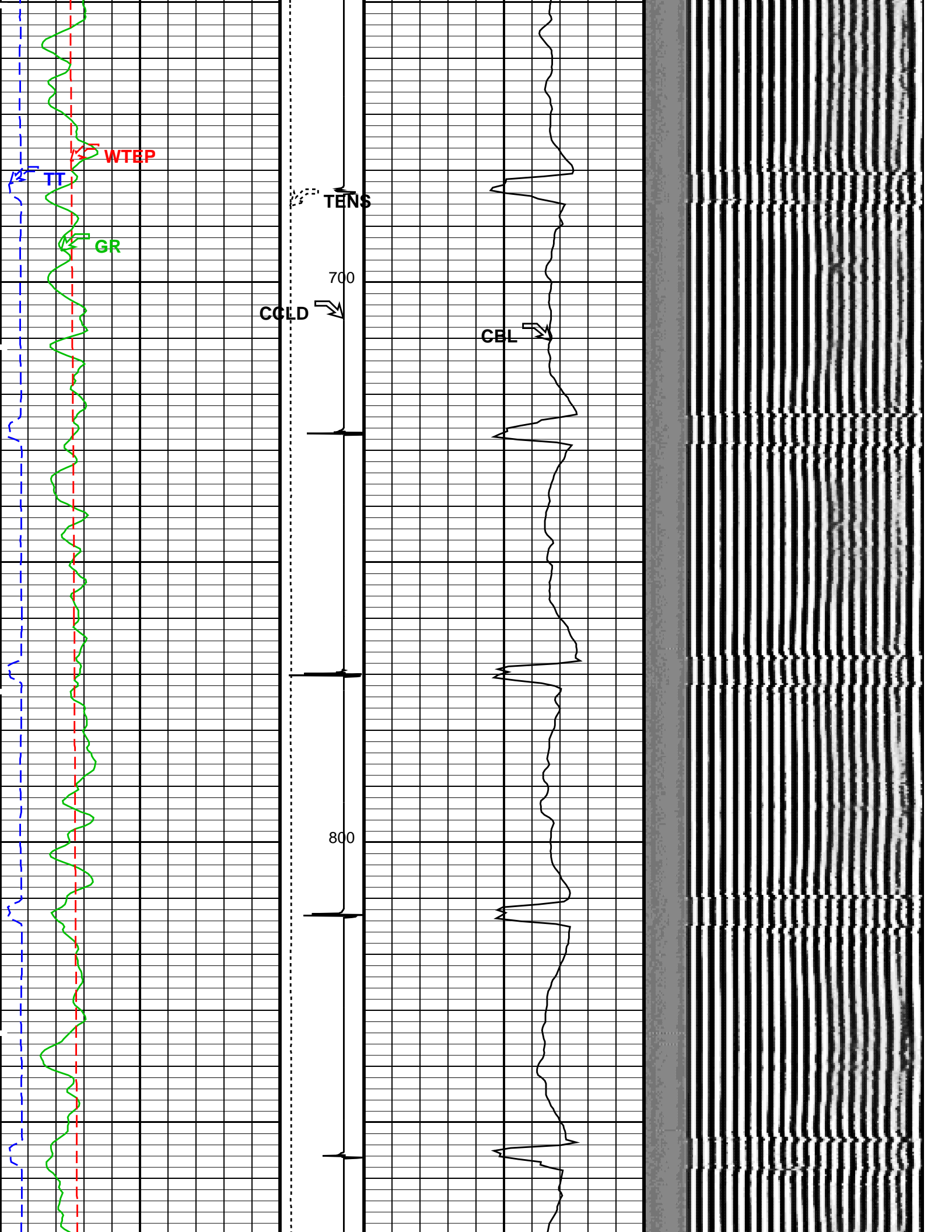


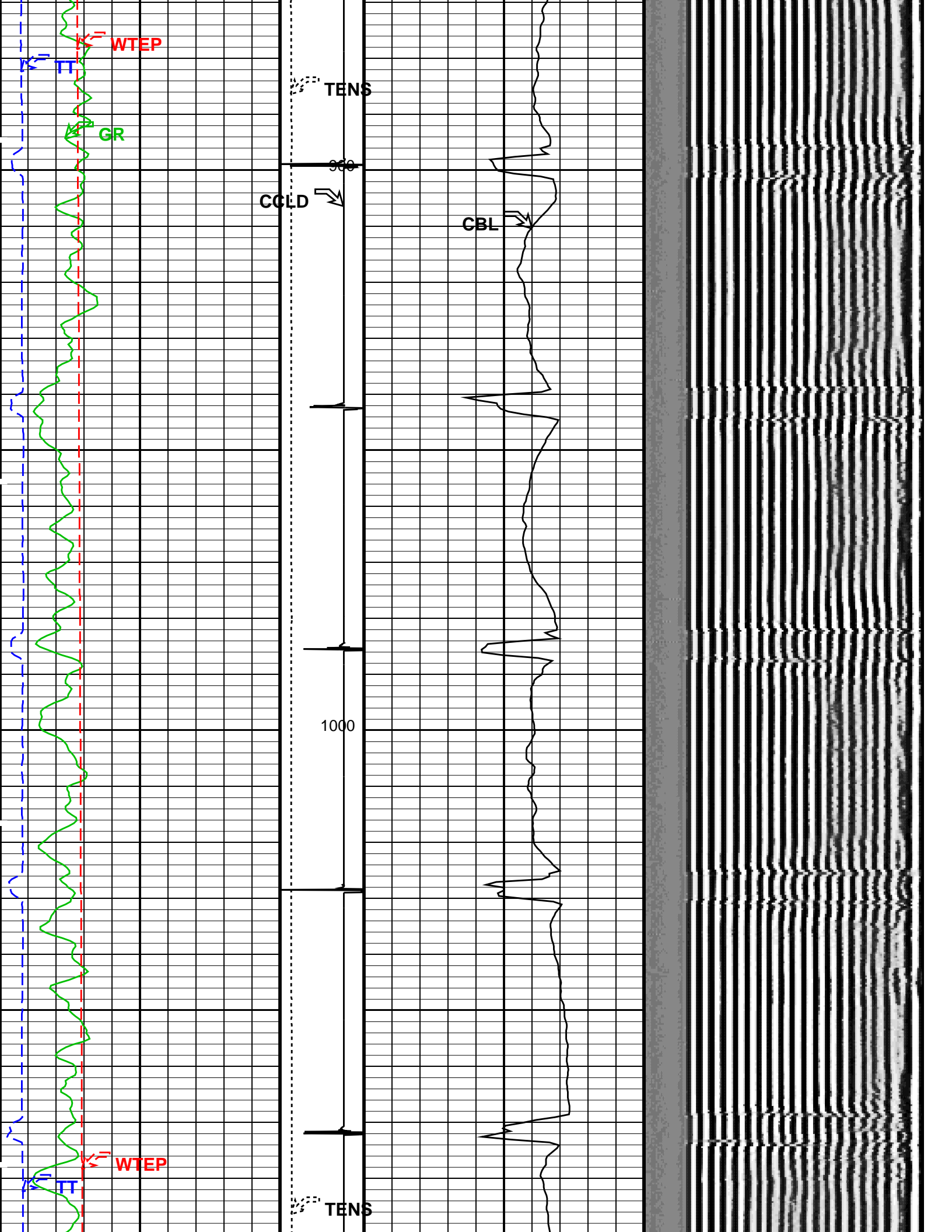




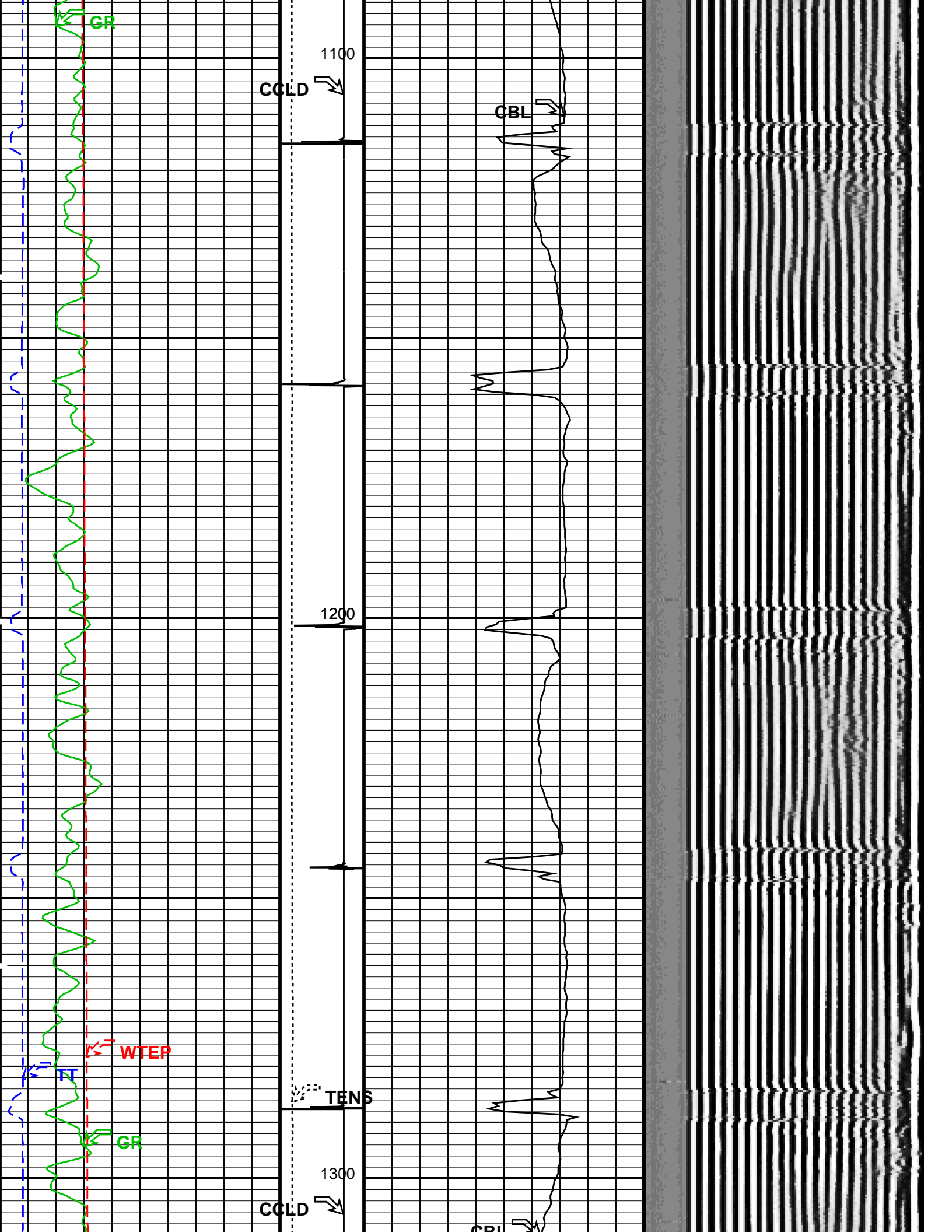


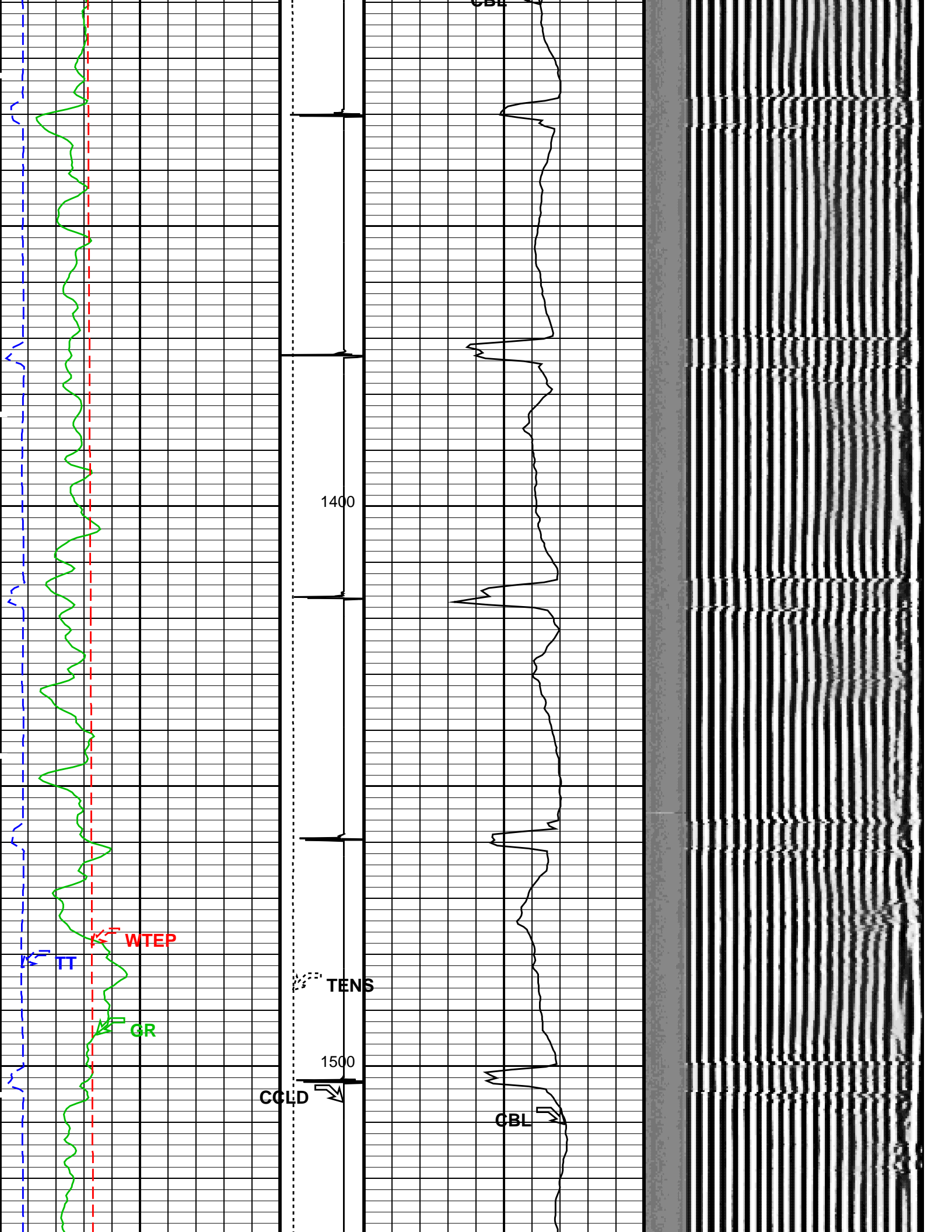


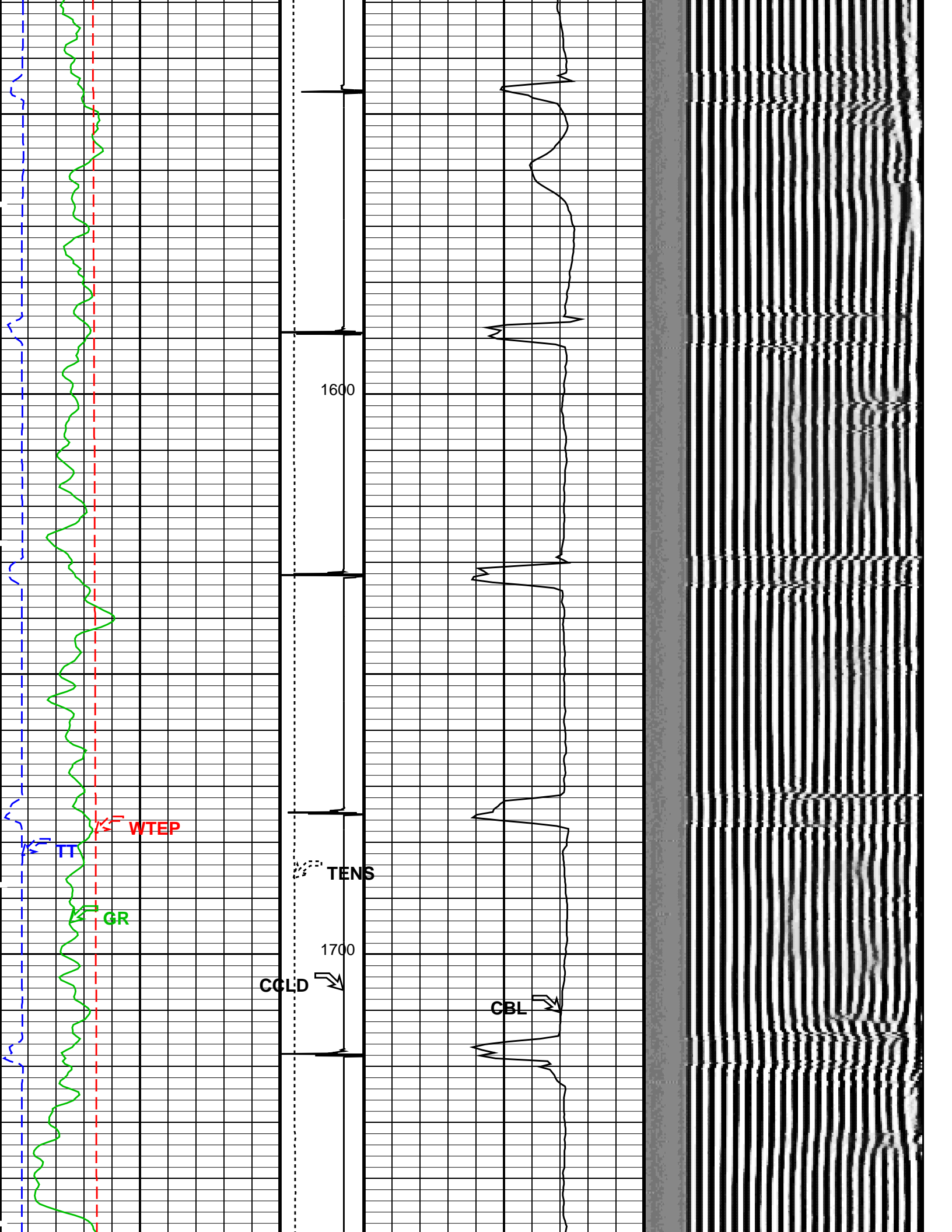




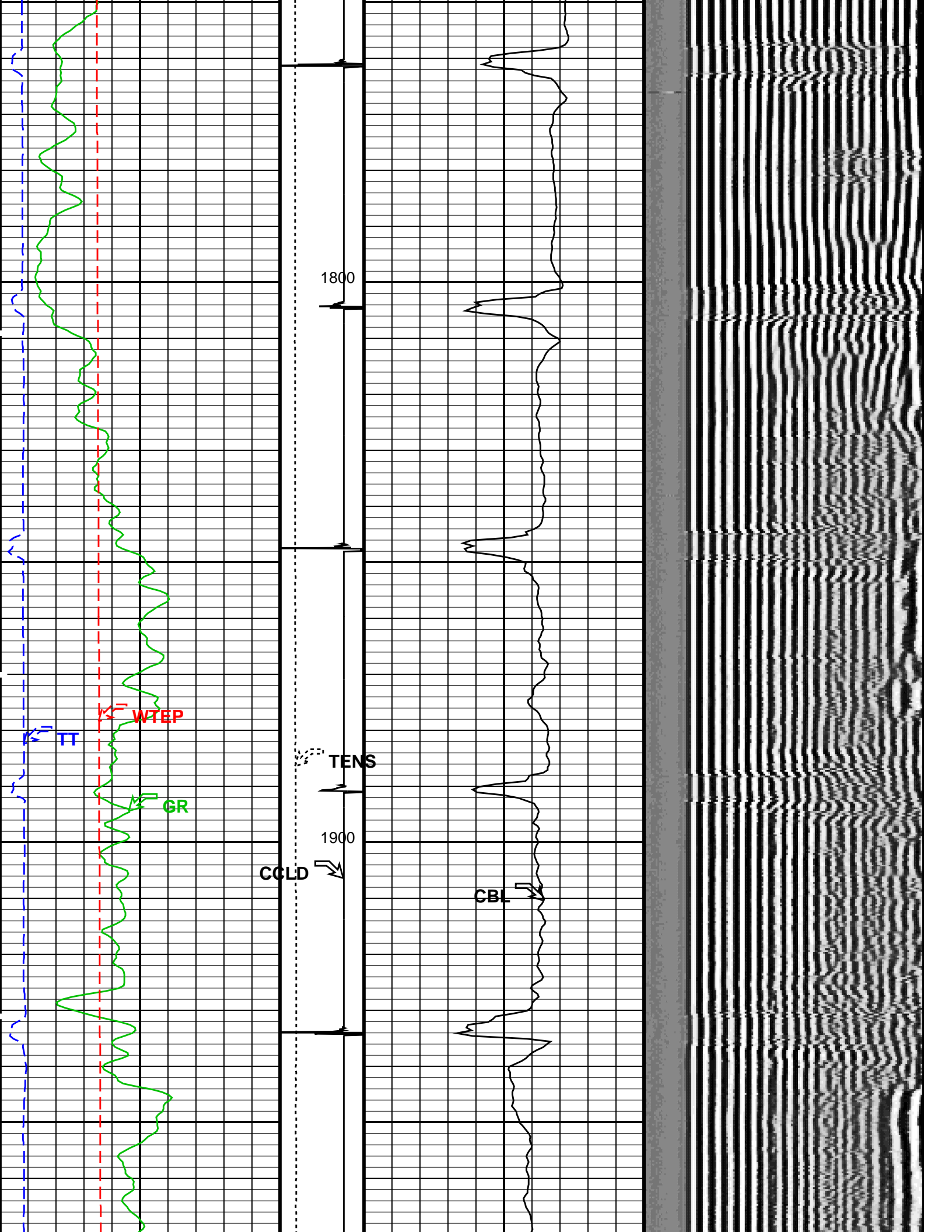


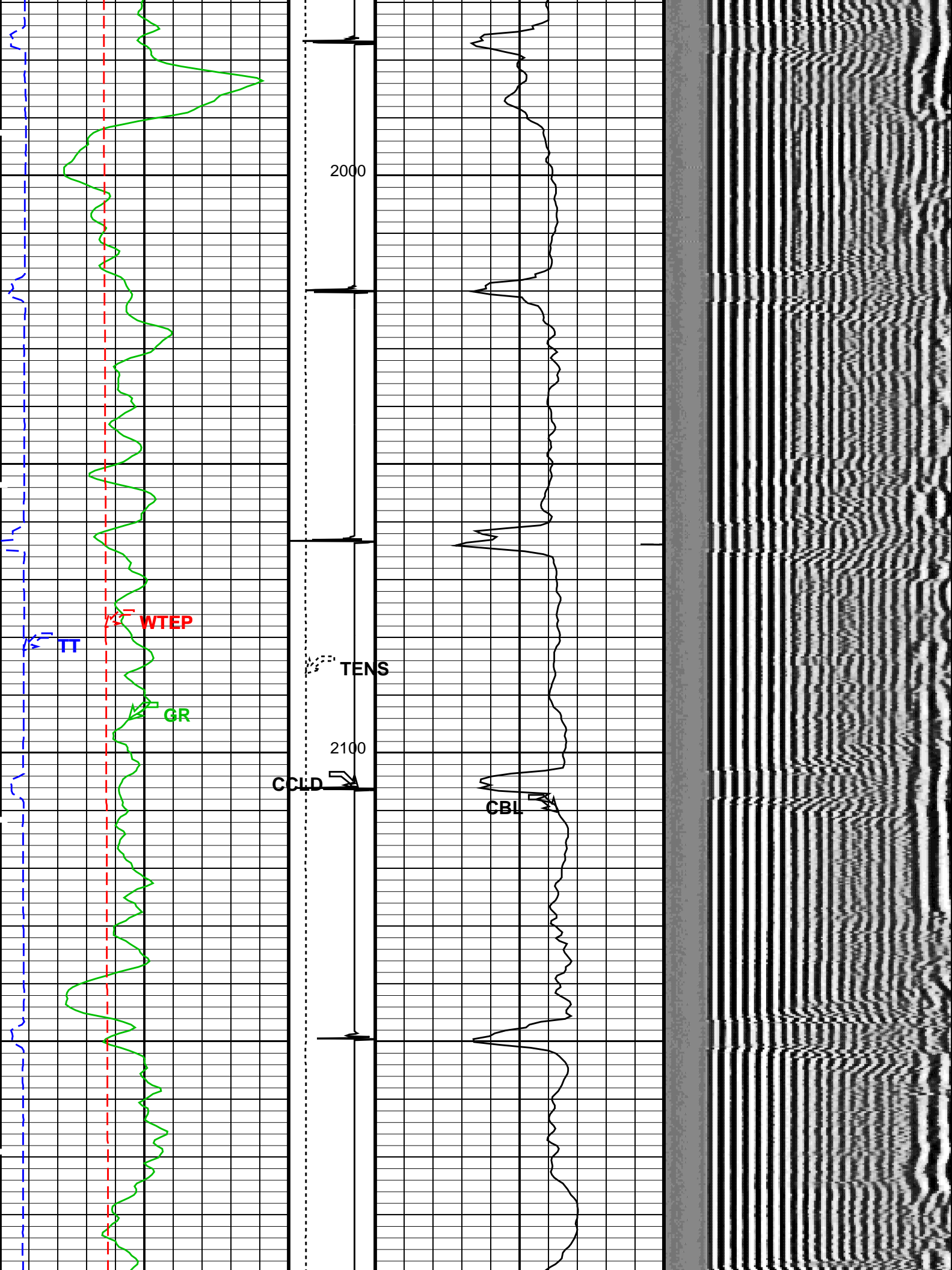


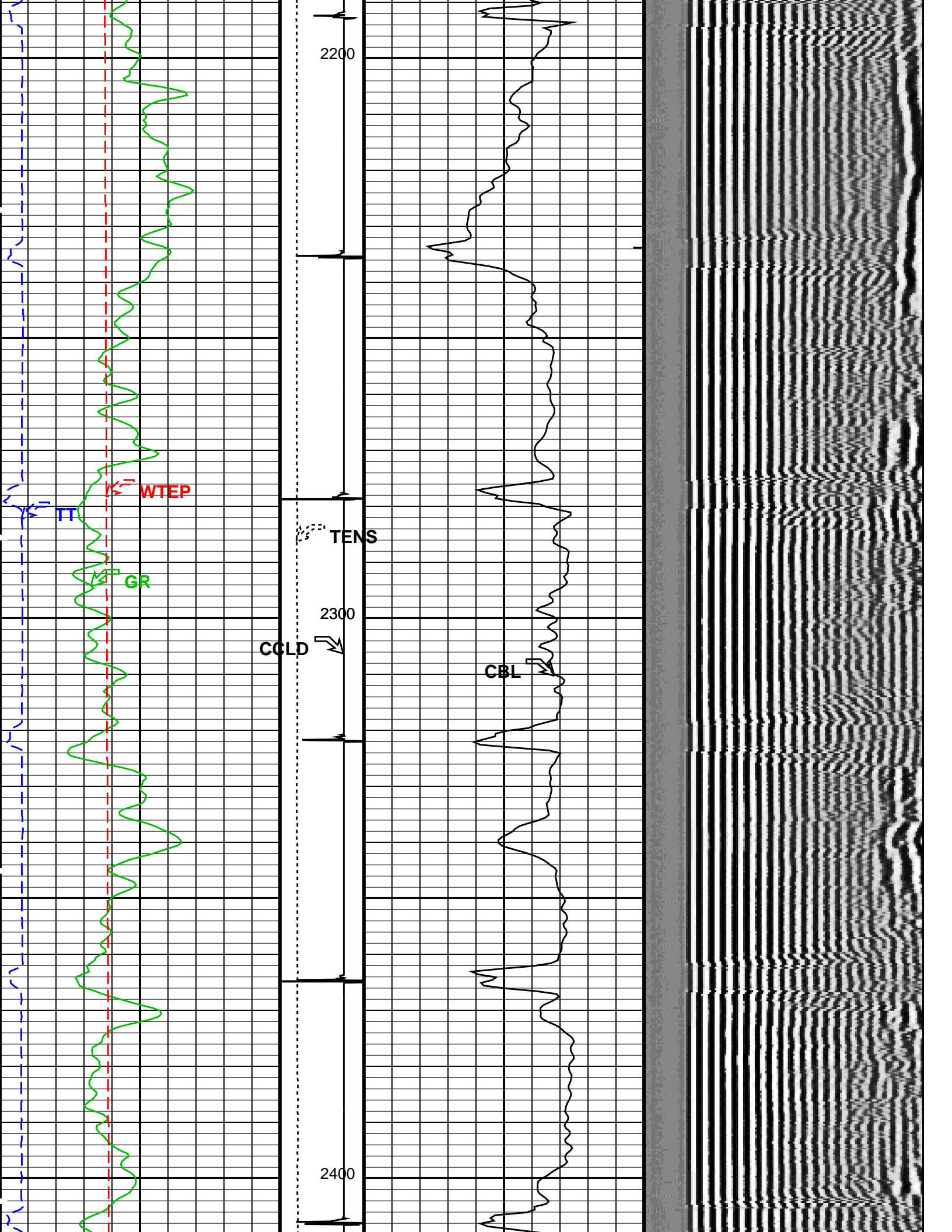


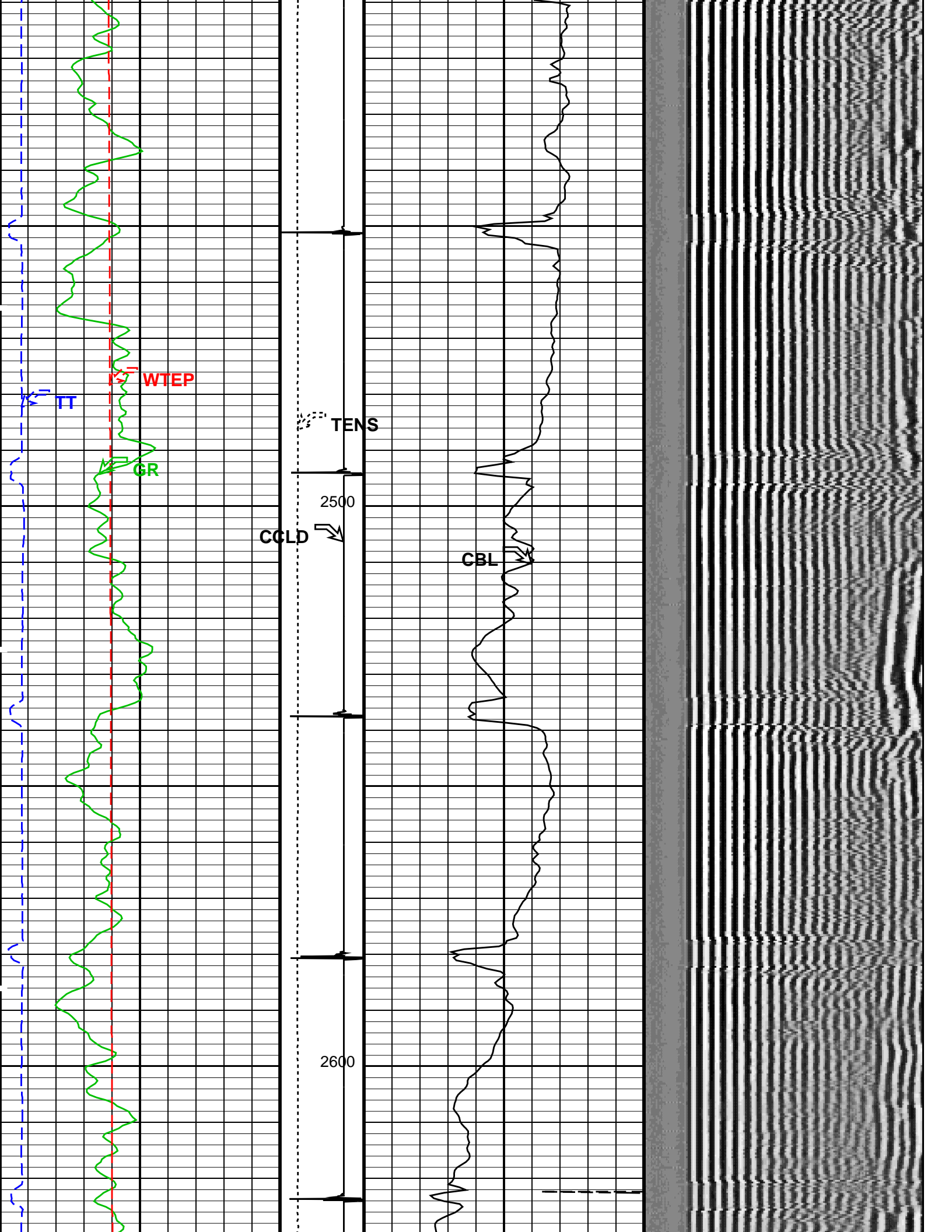




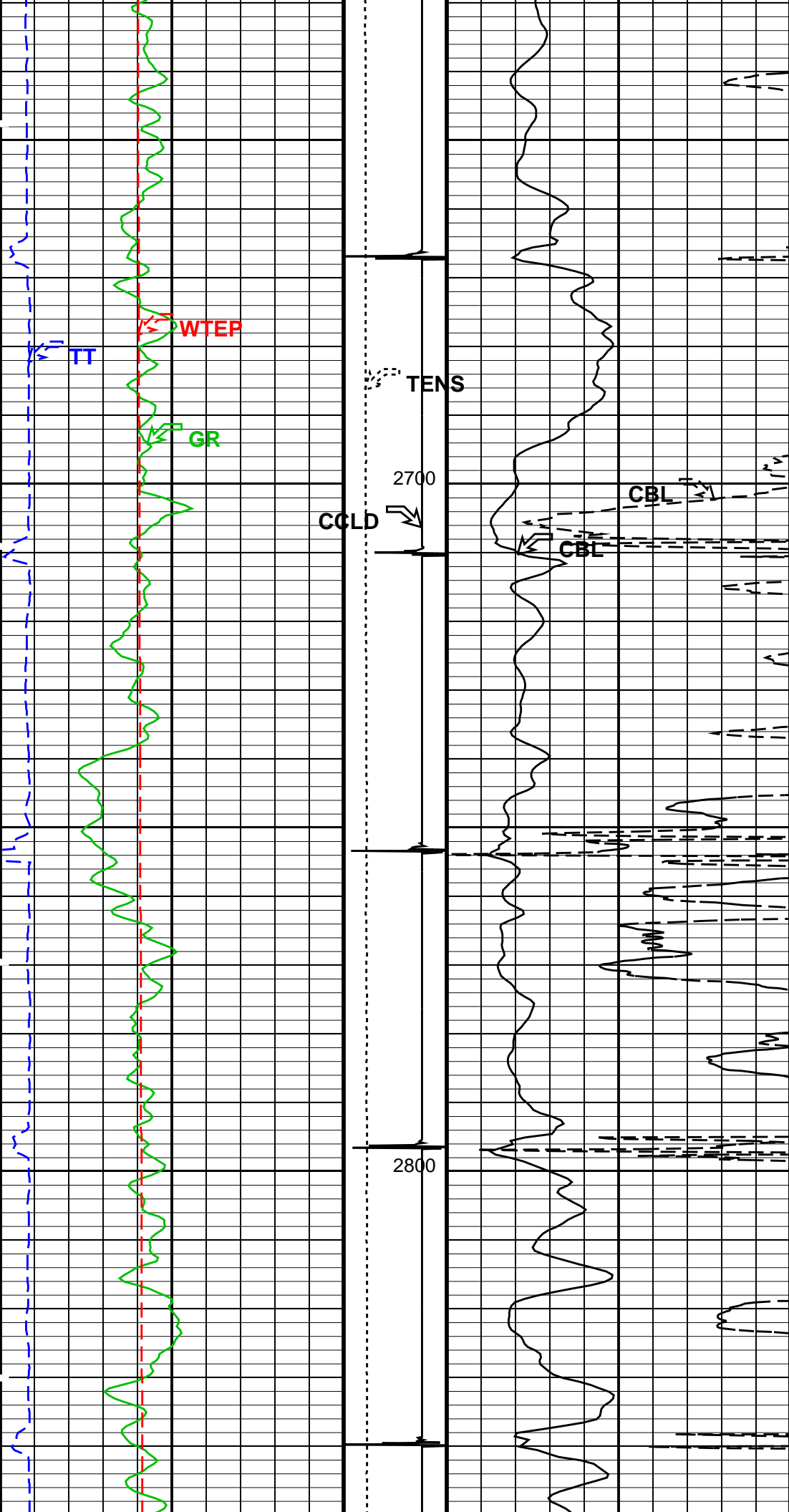


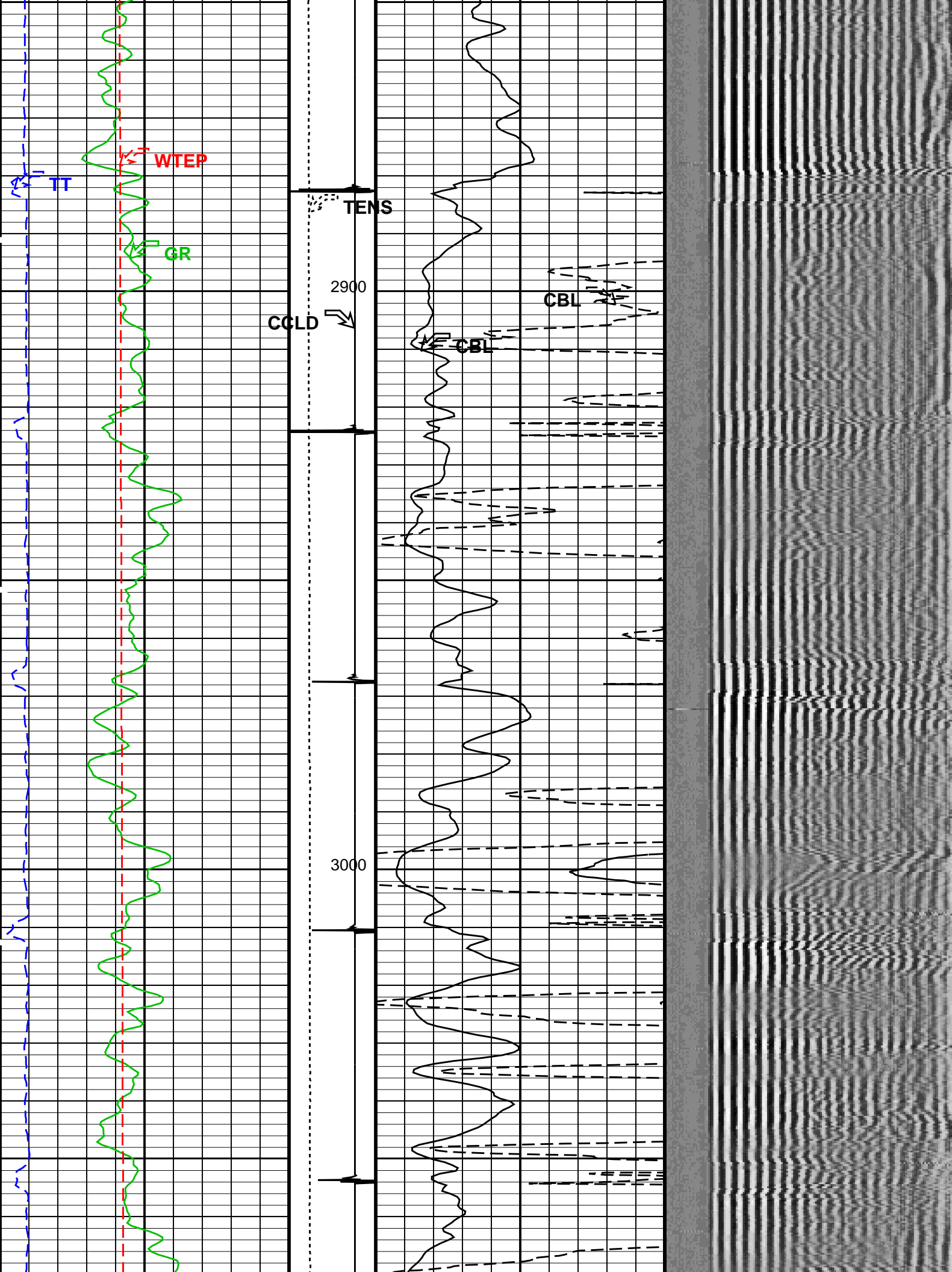


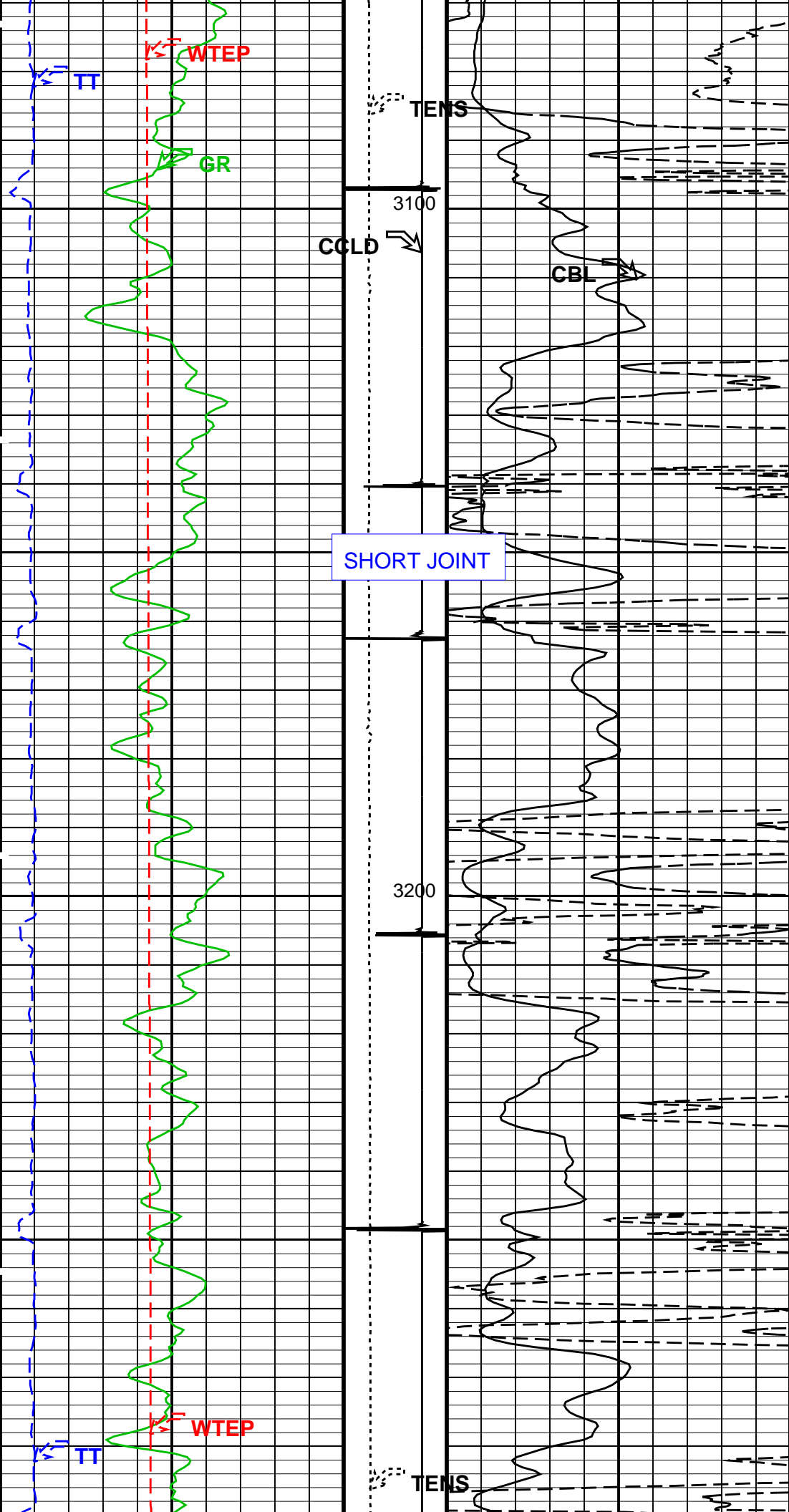




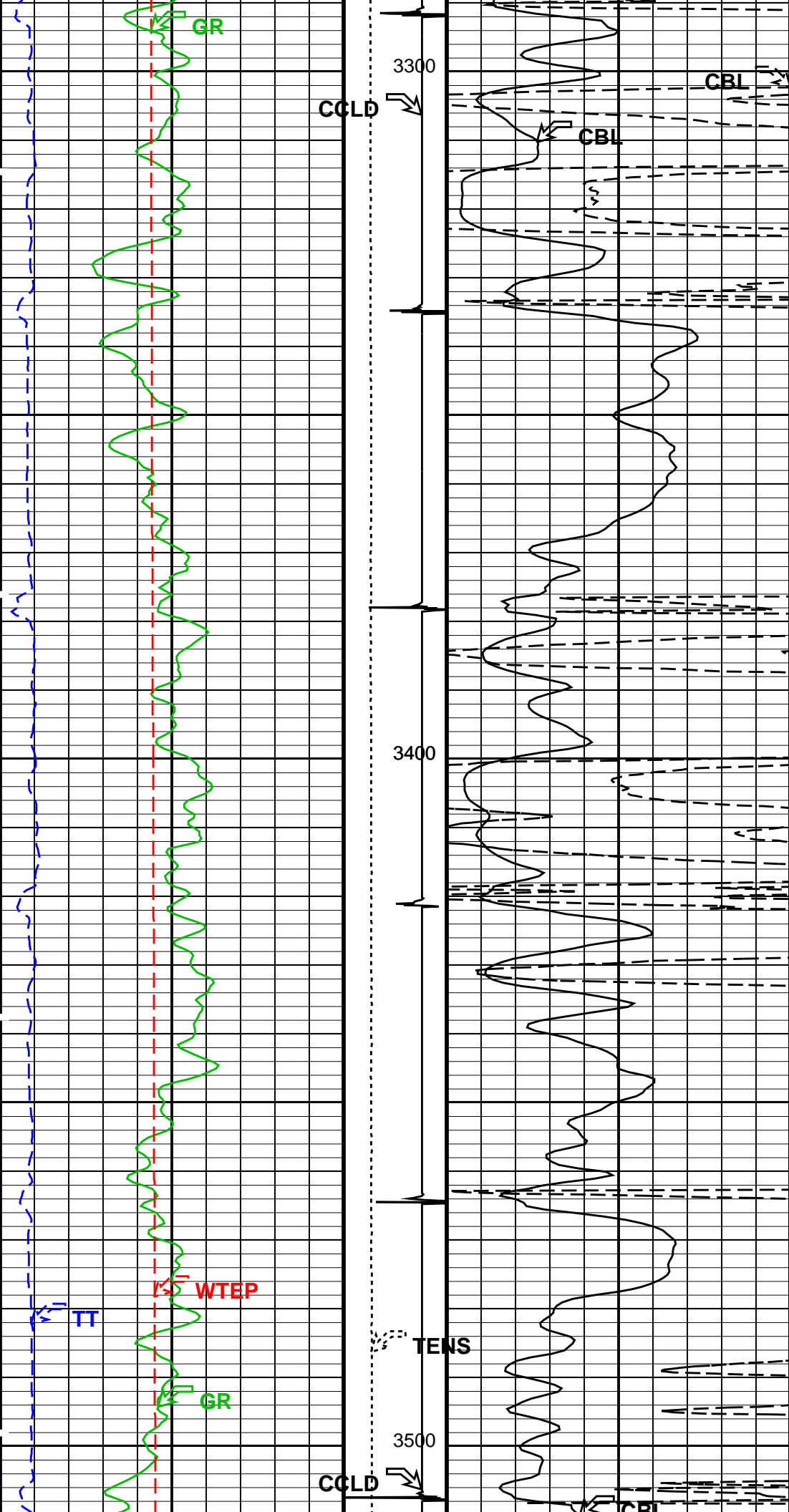




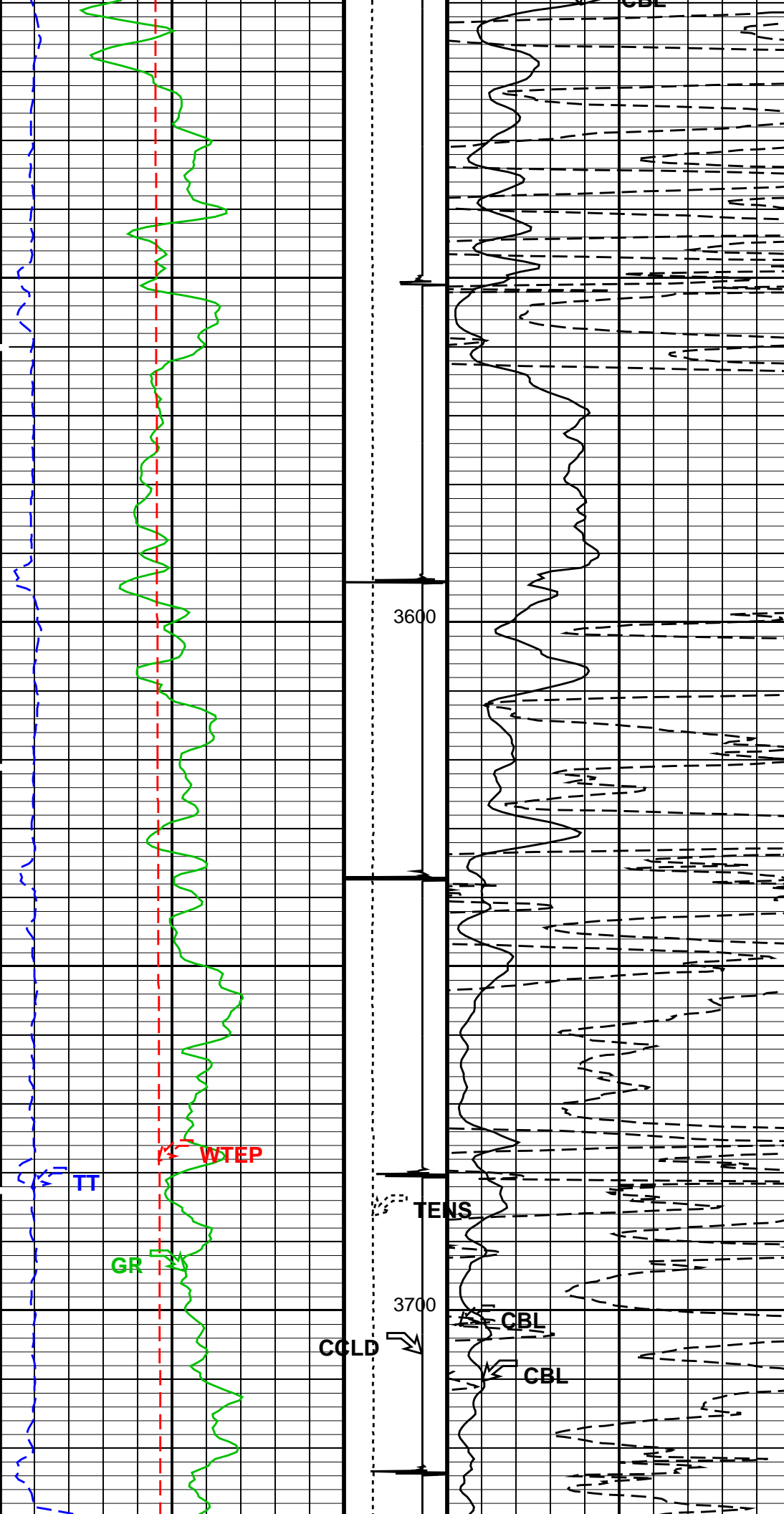


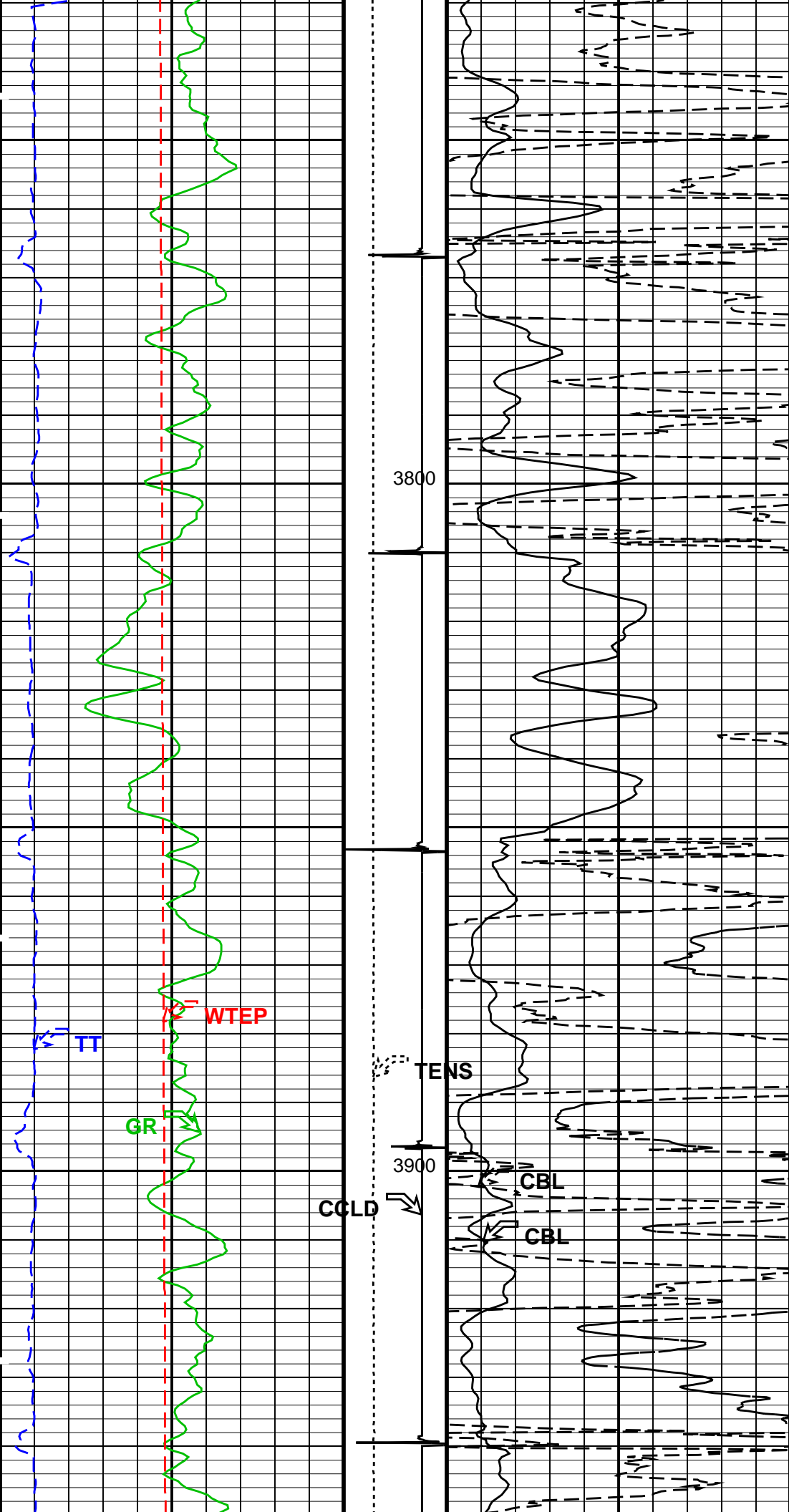


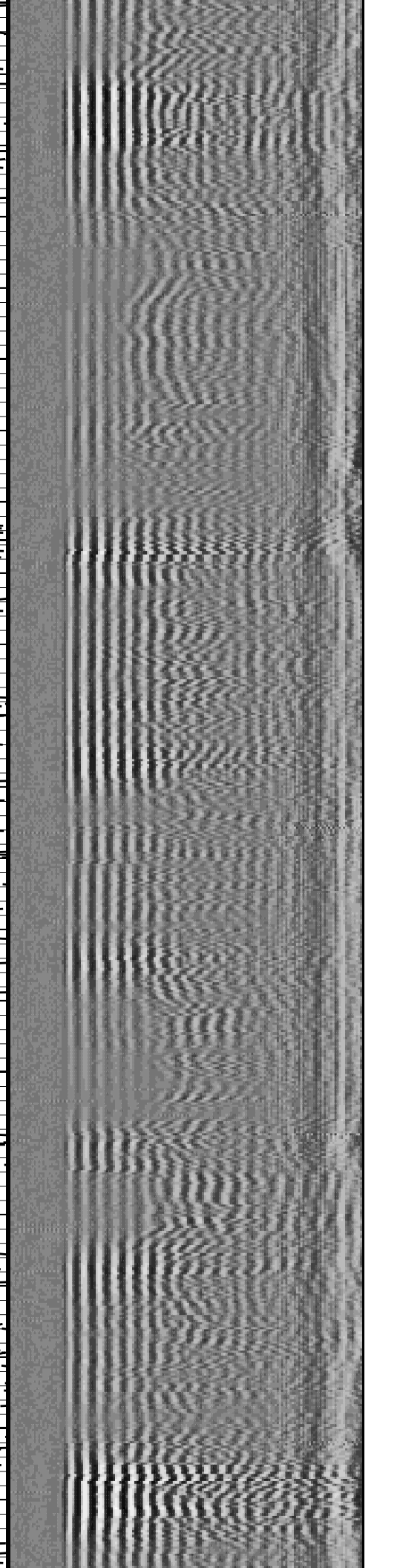
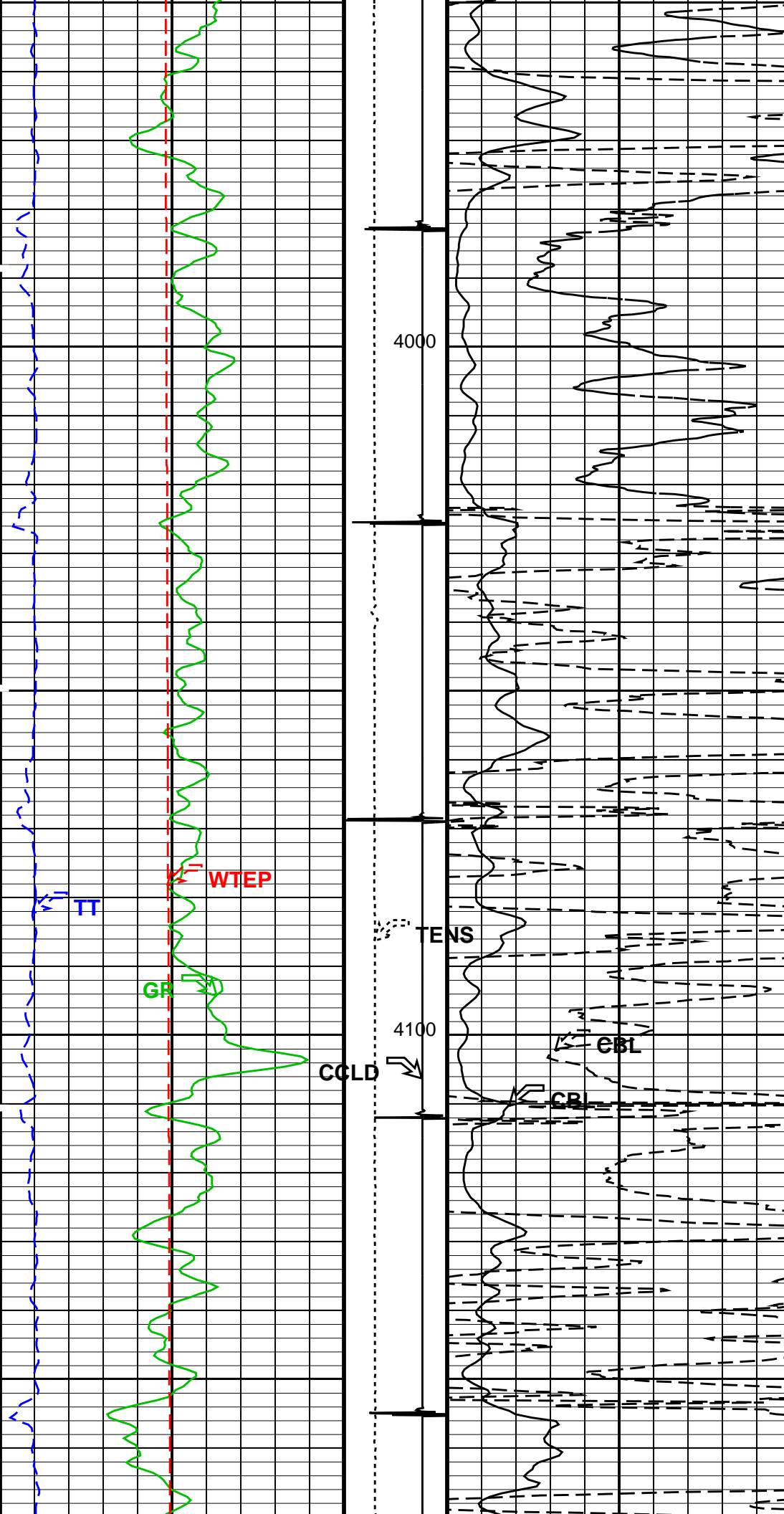




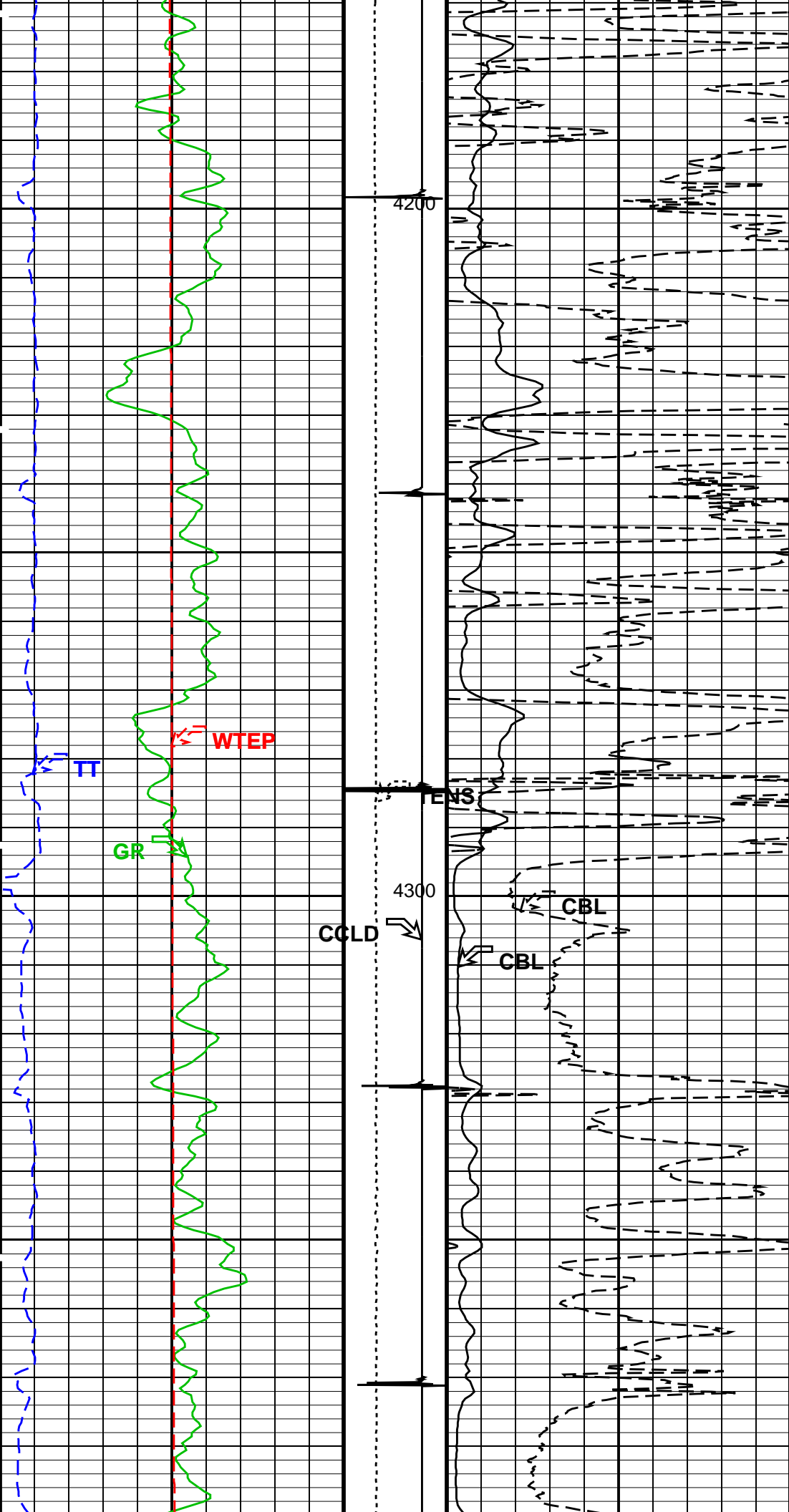


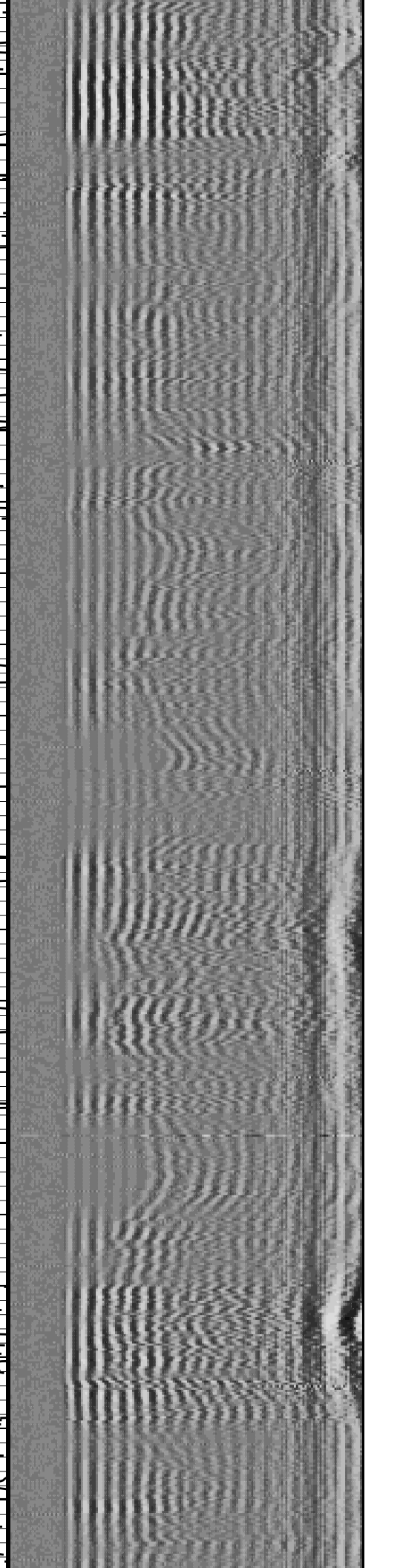
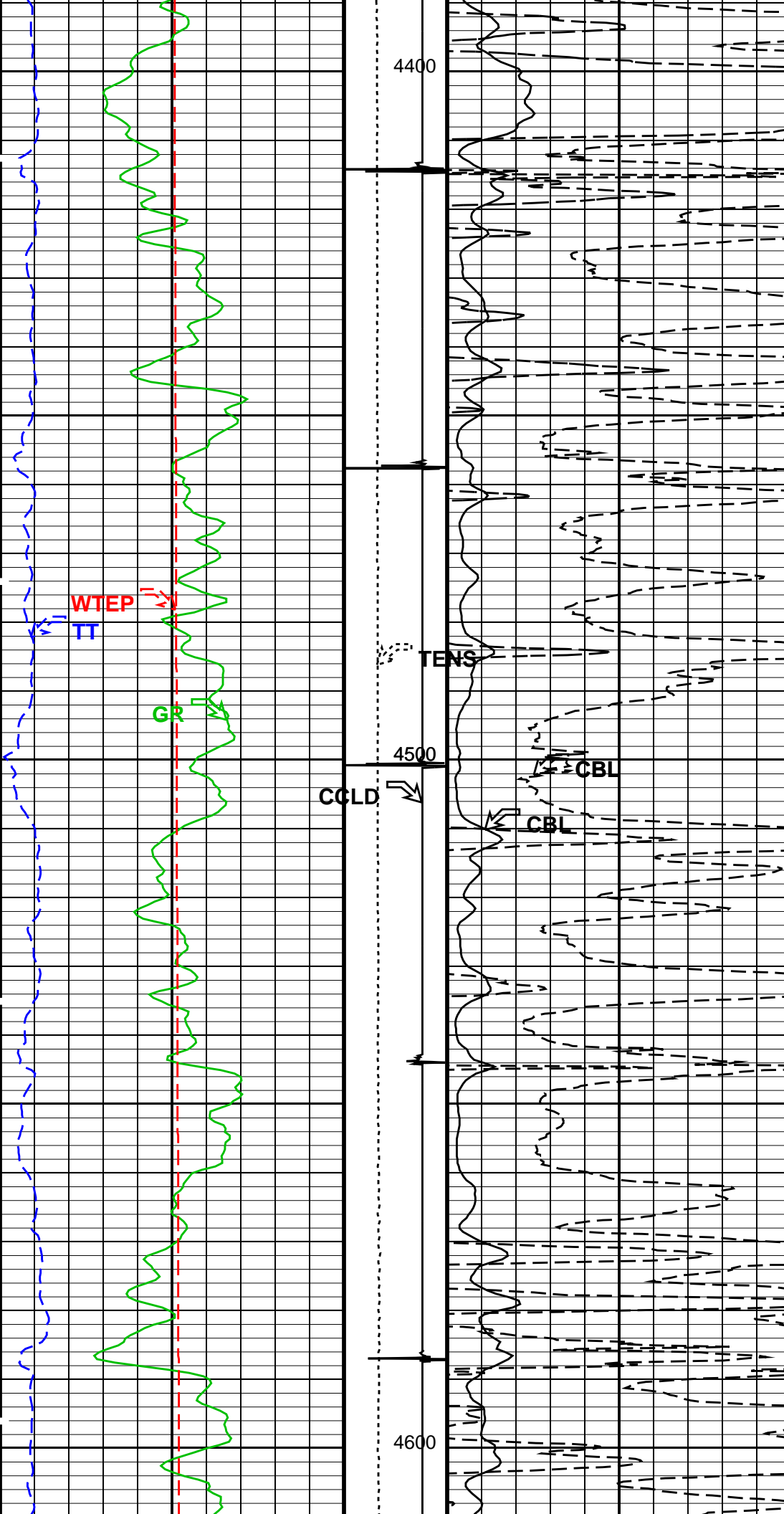


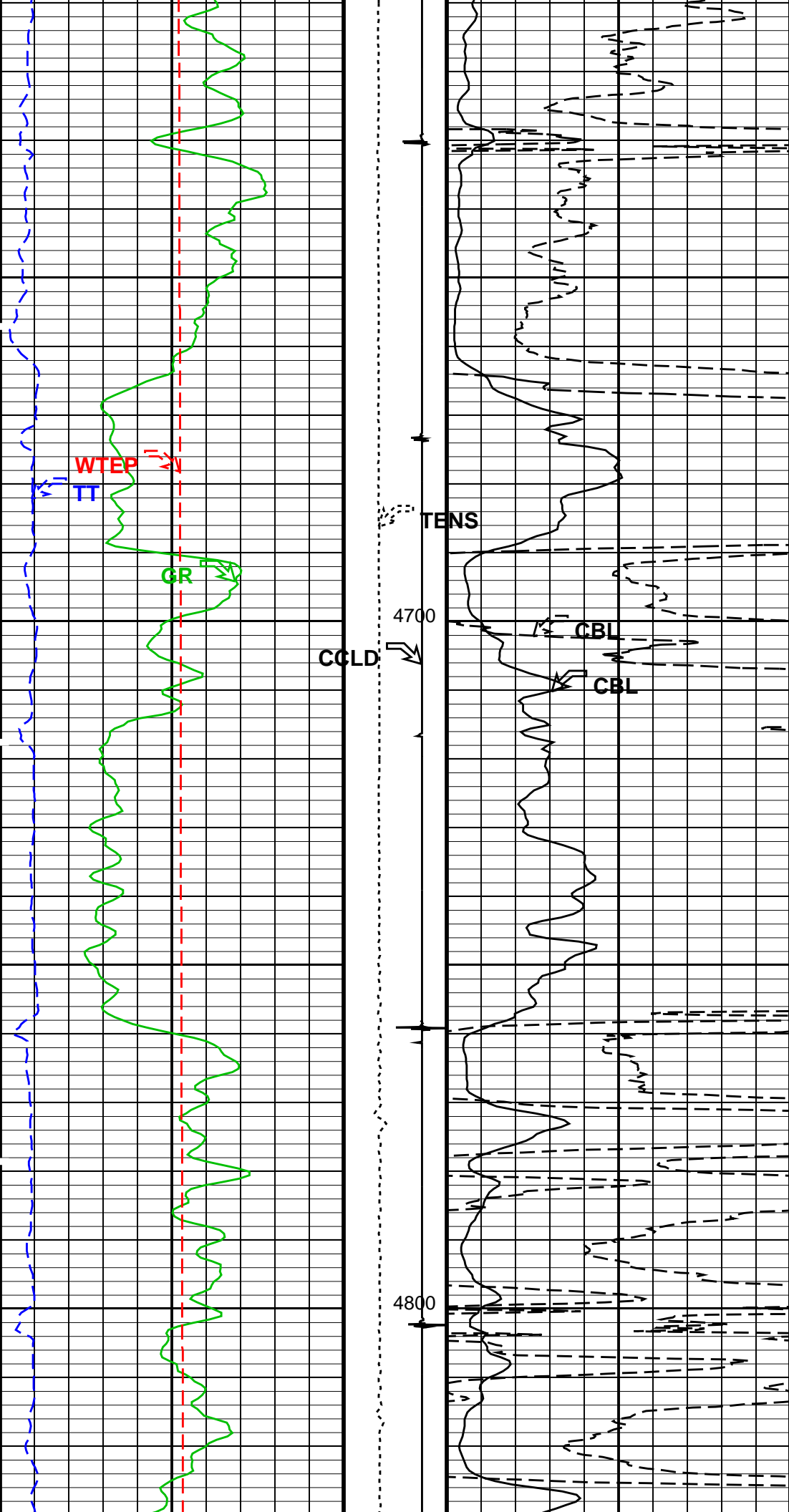




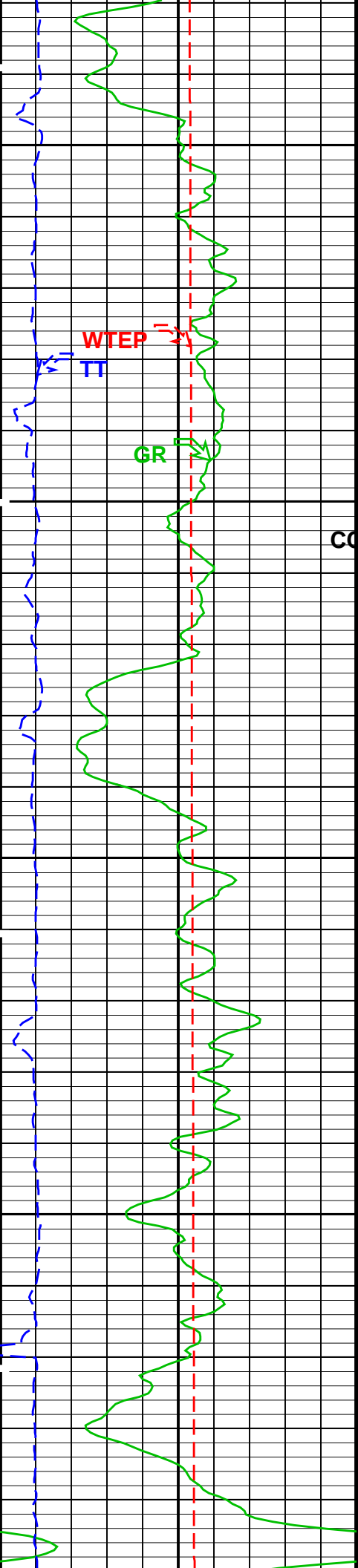








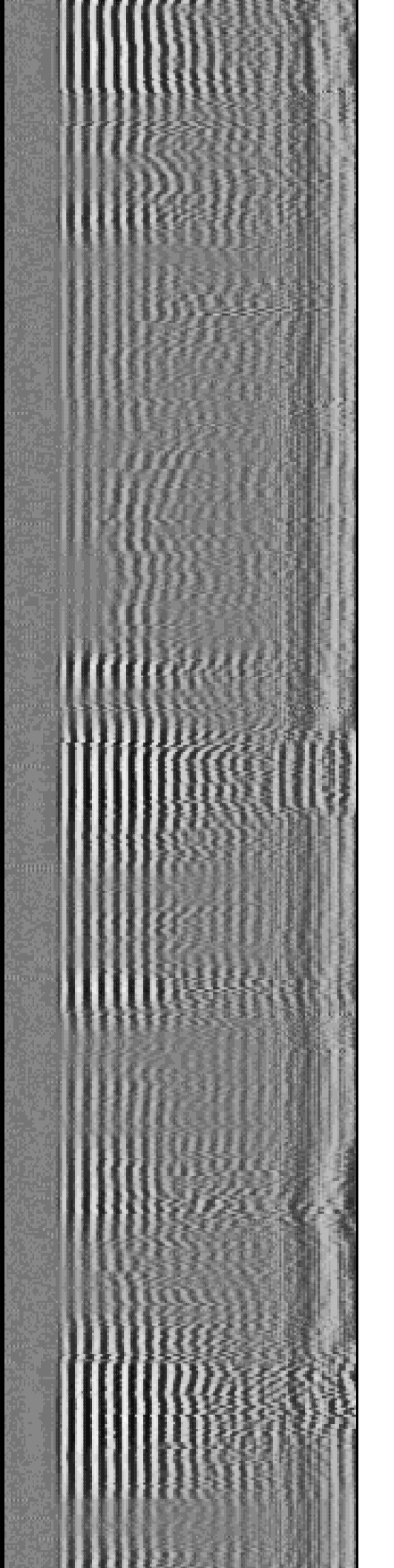
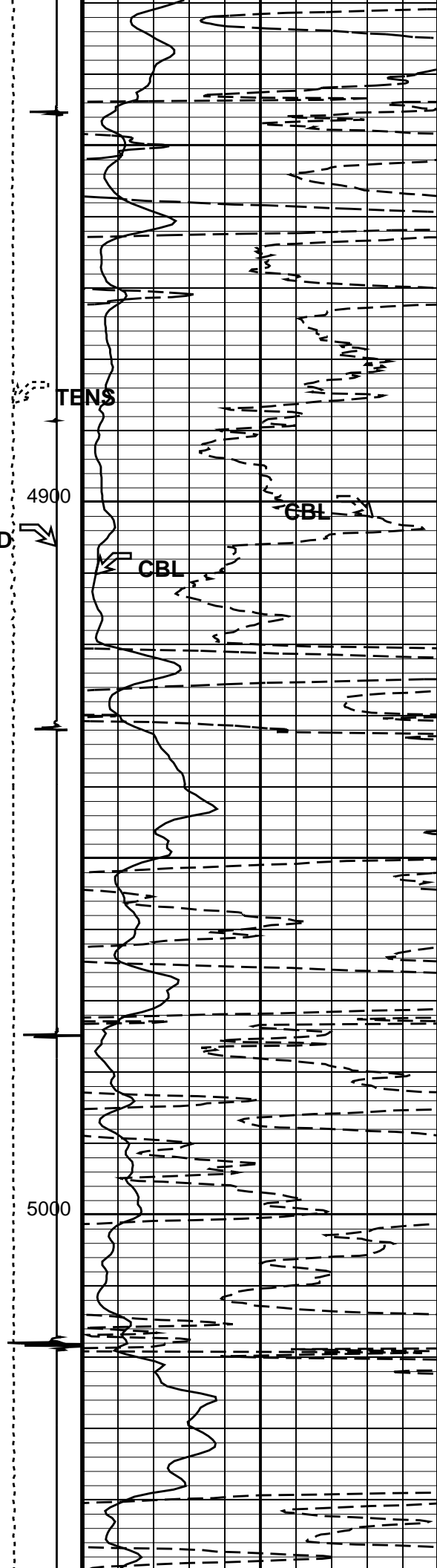


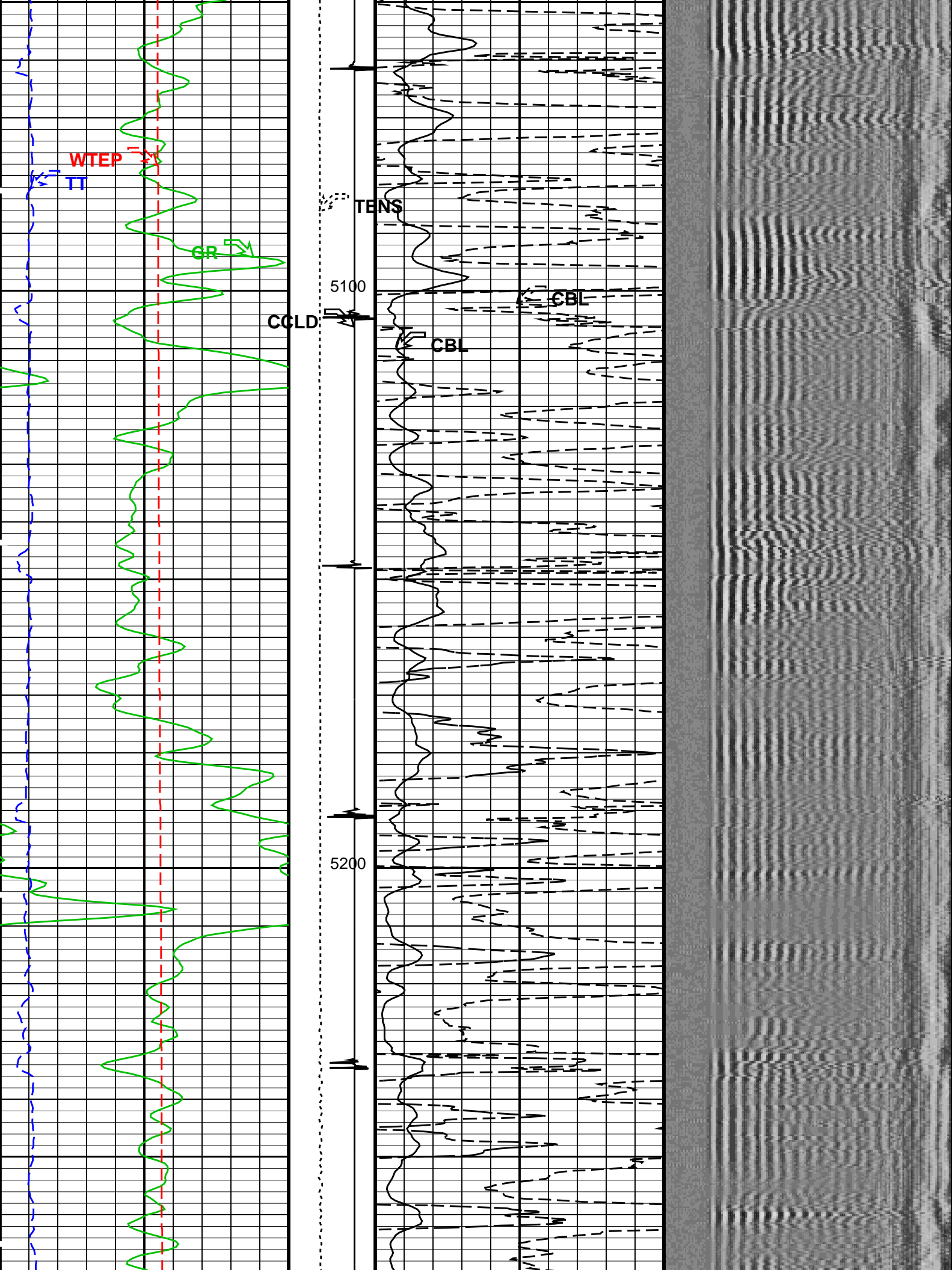


TENS

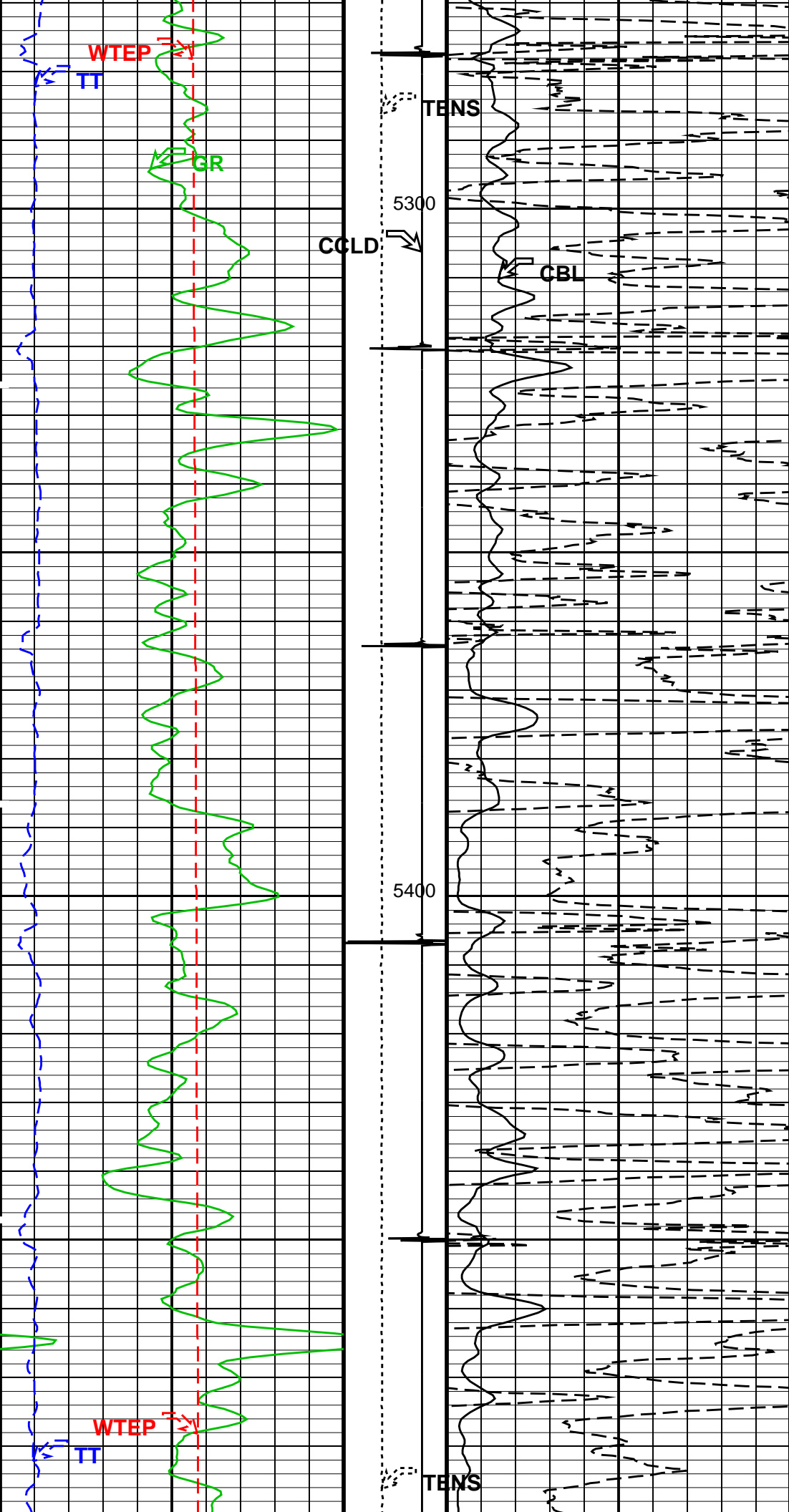
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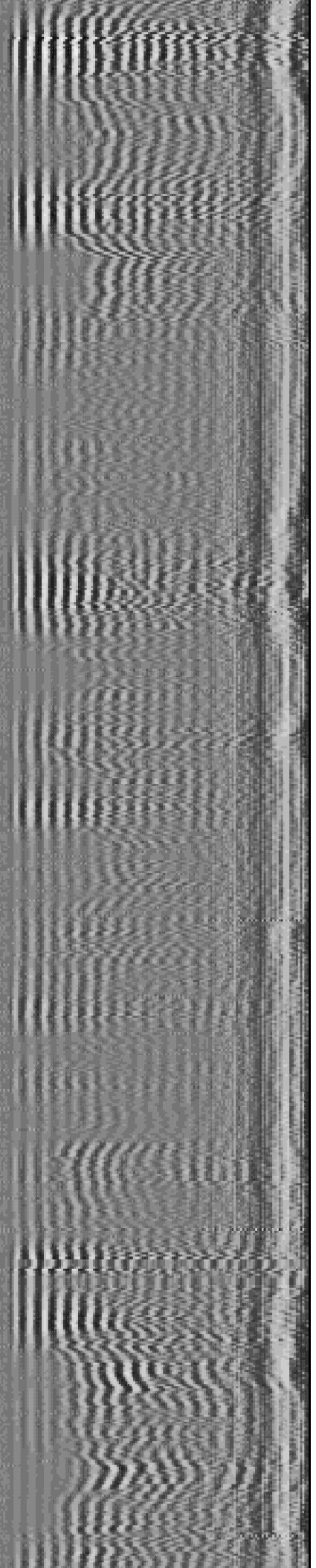
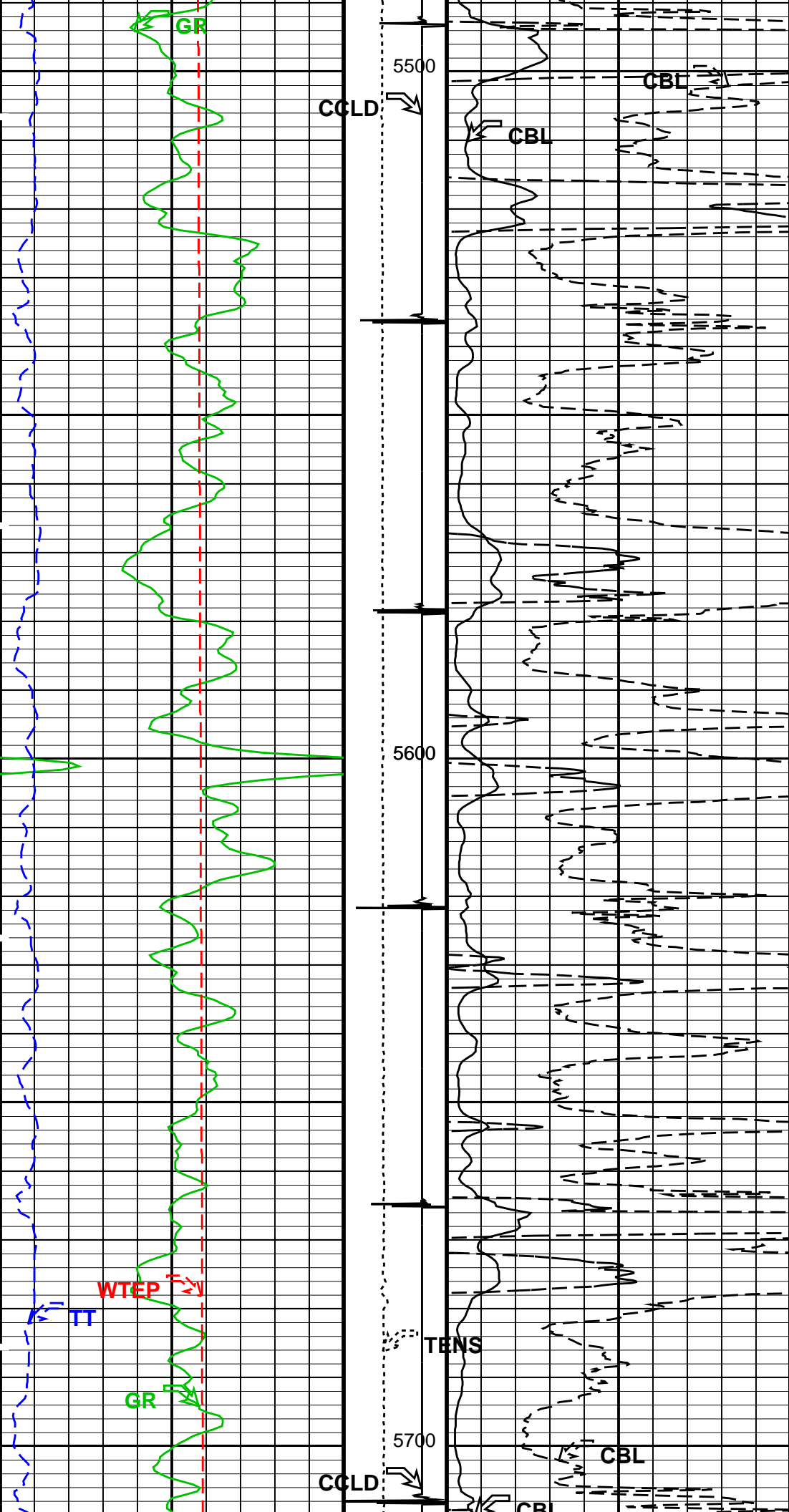
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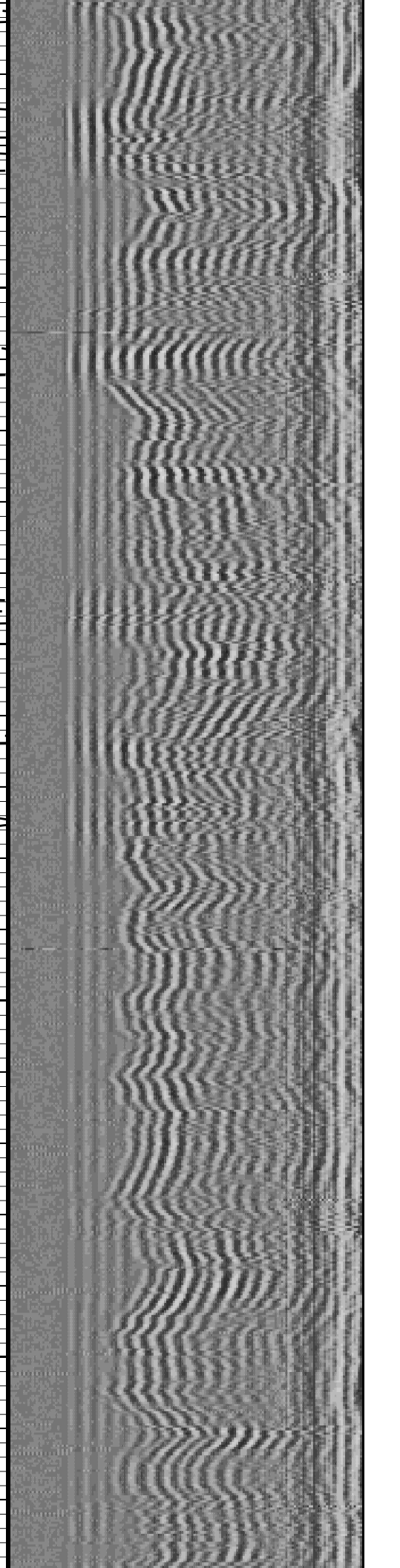
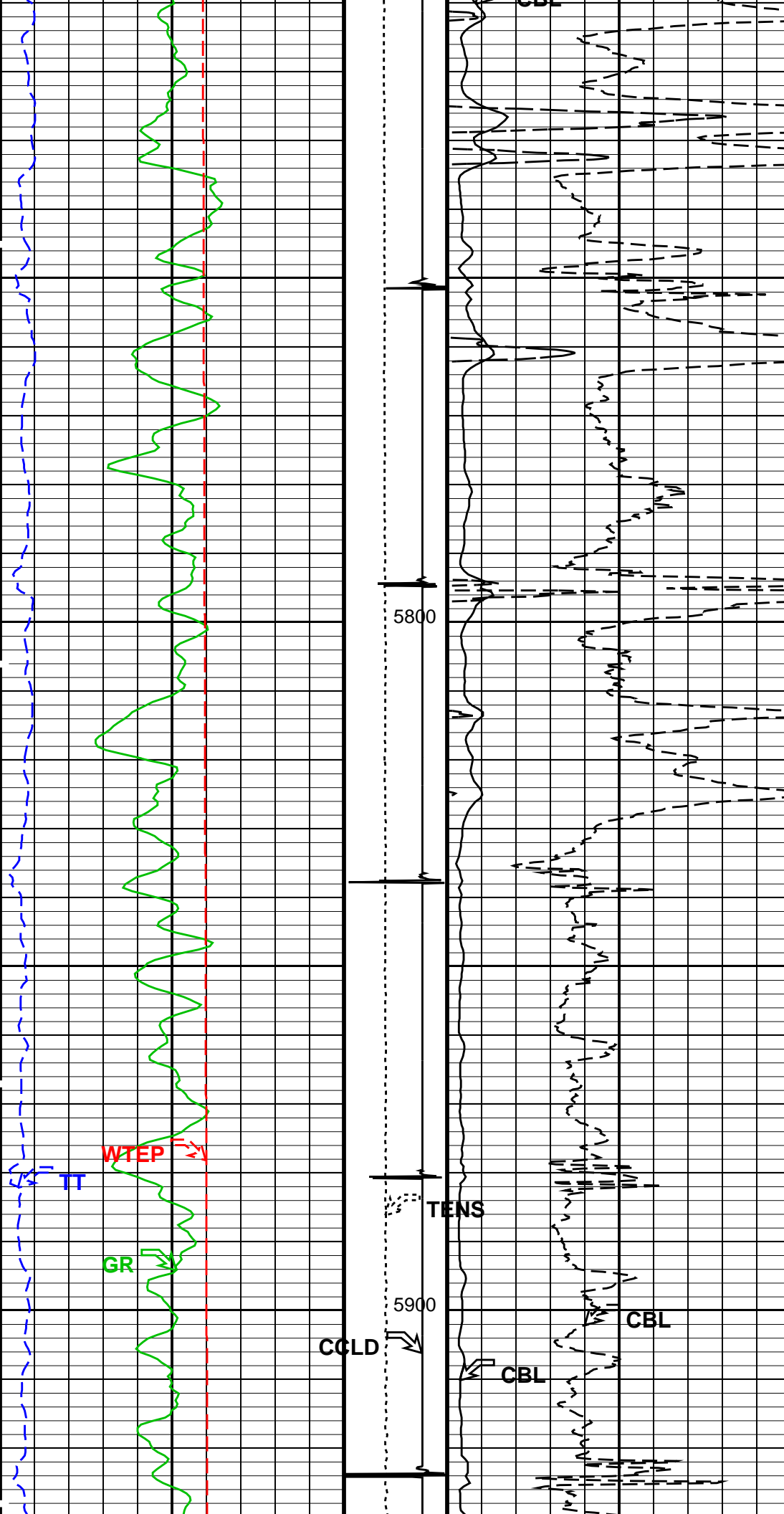




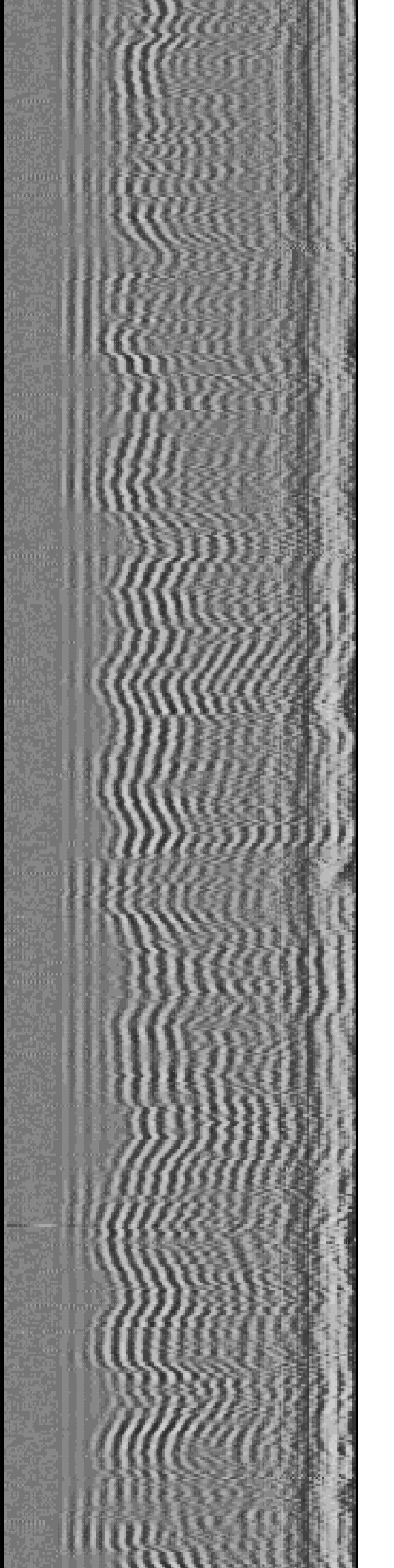
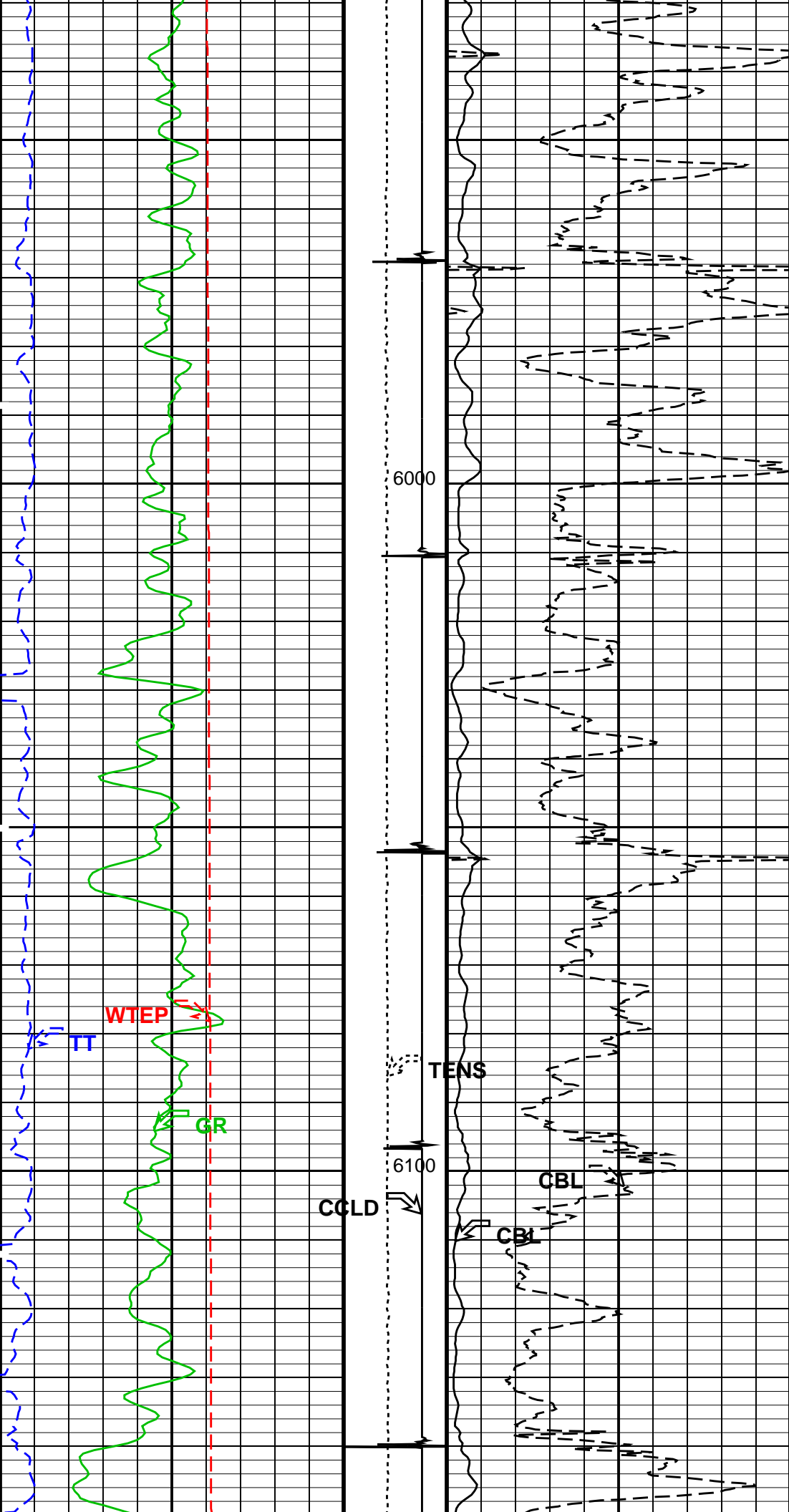


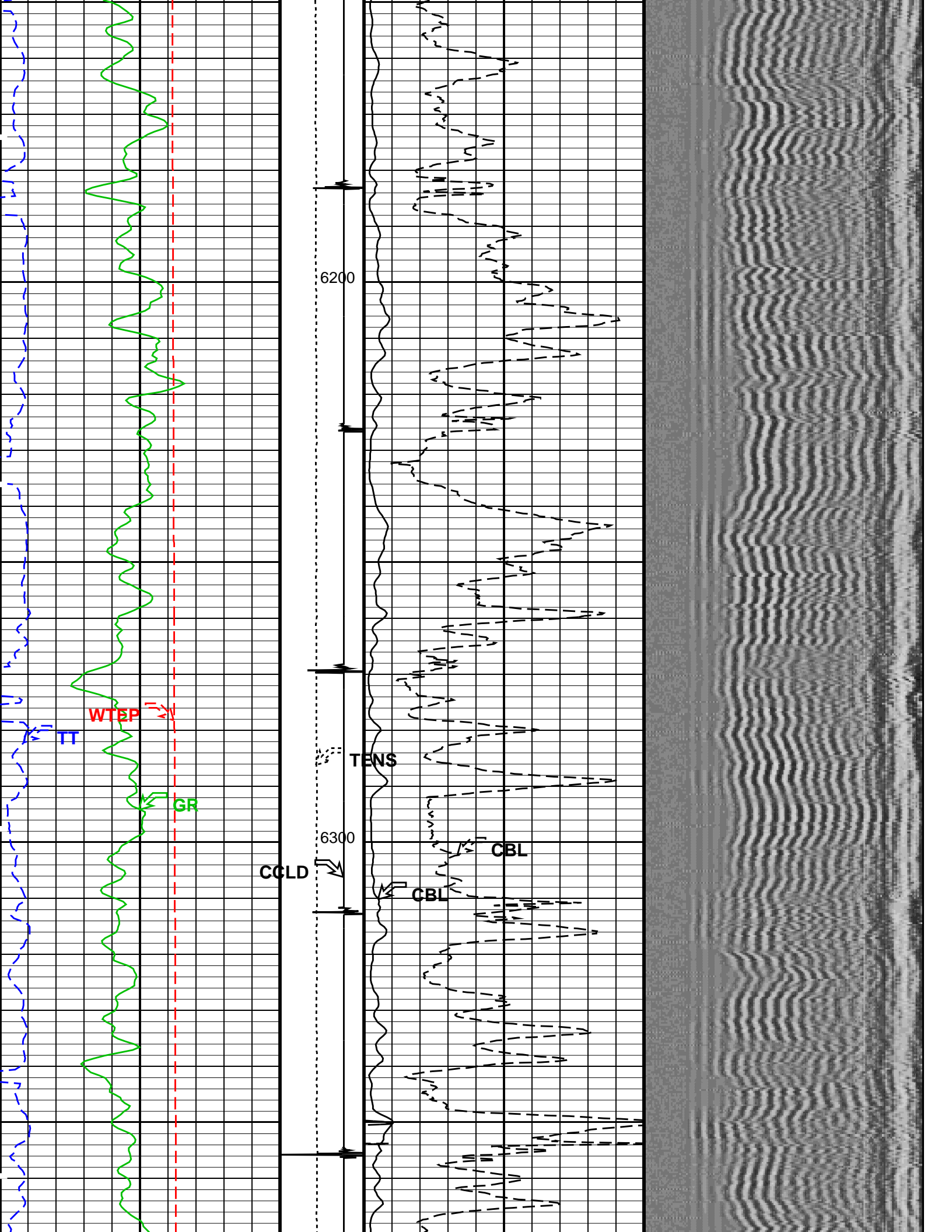


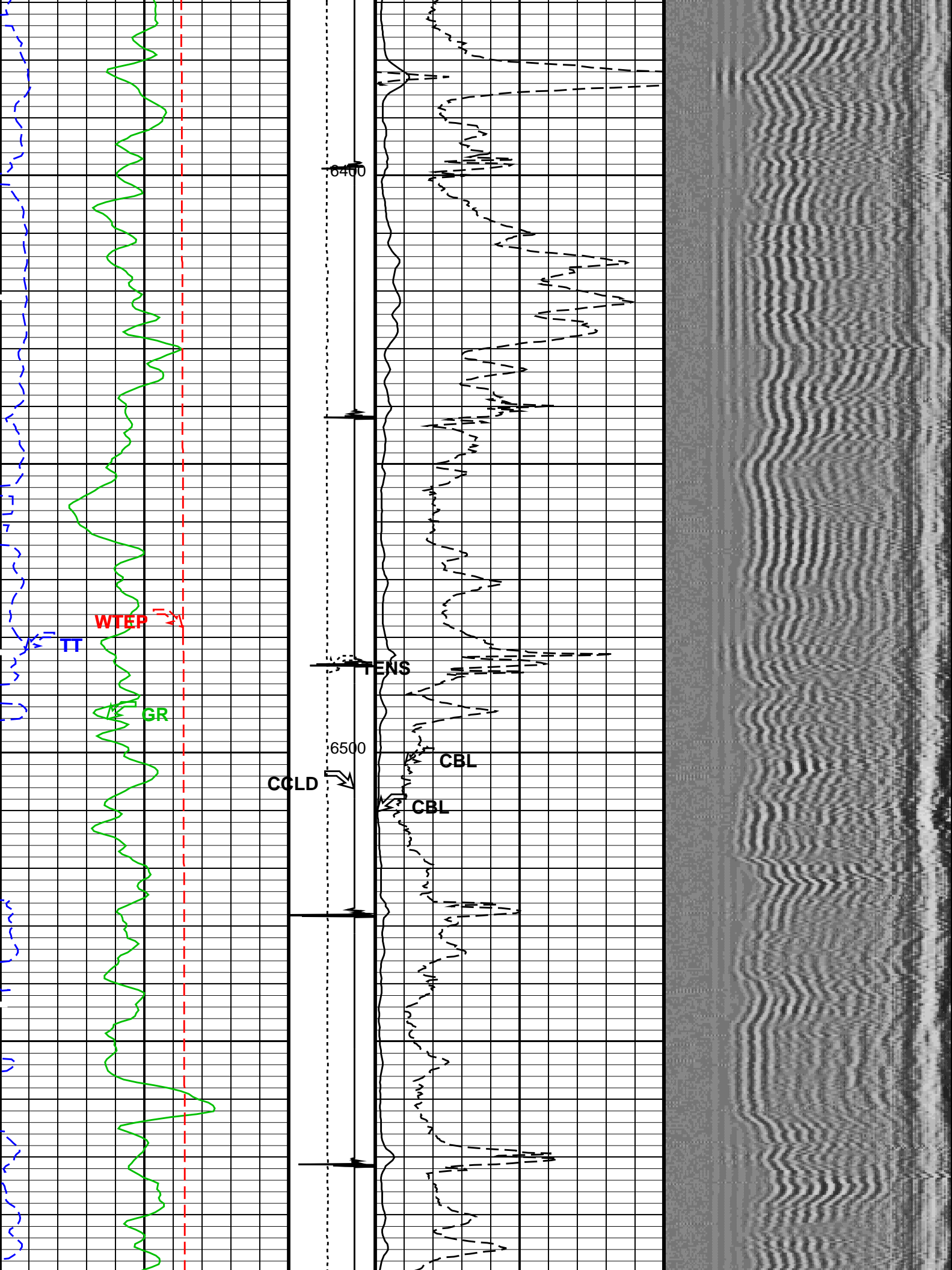


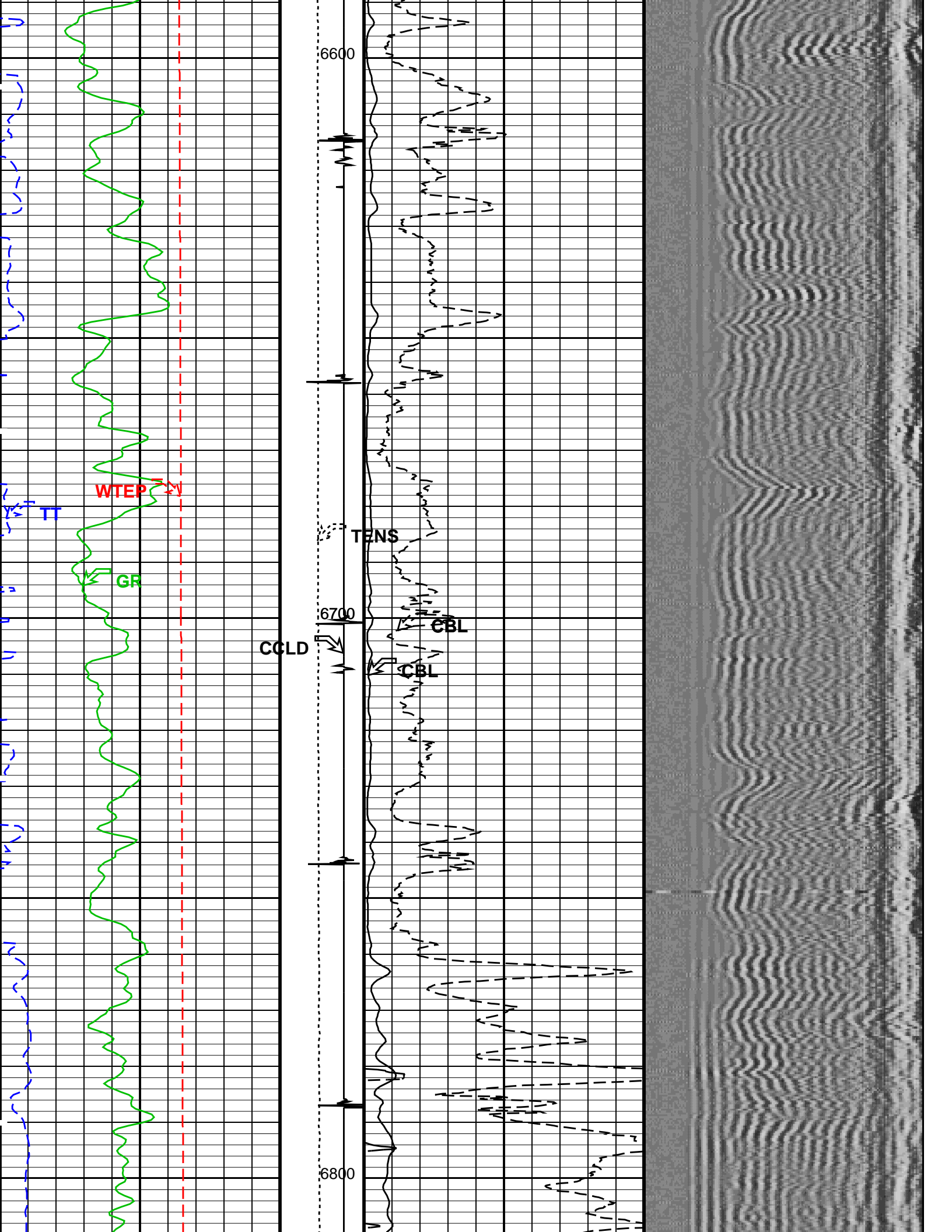




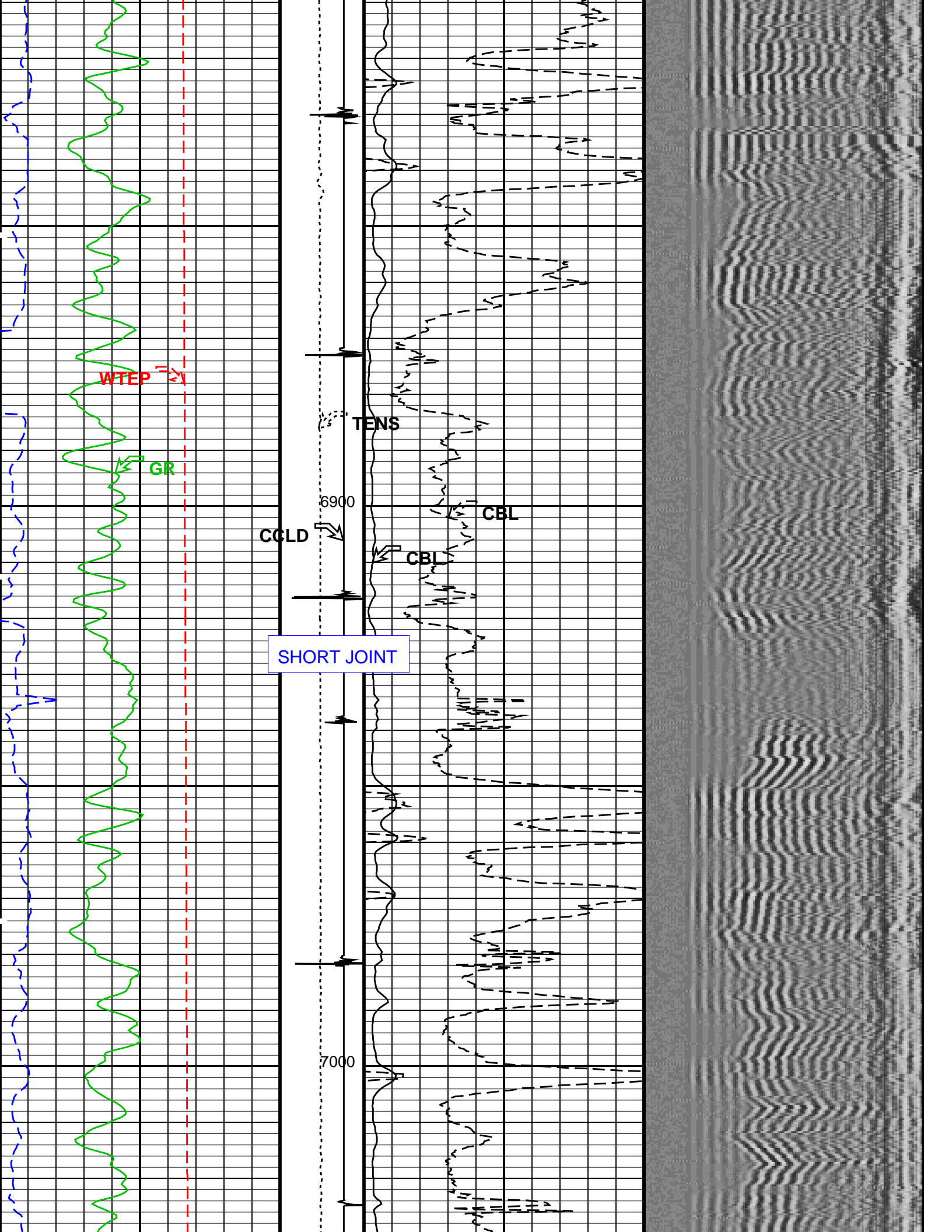




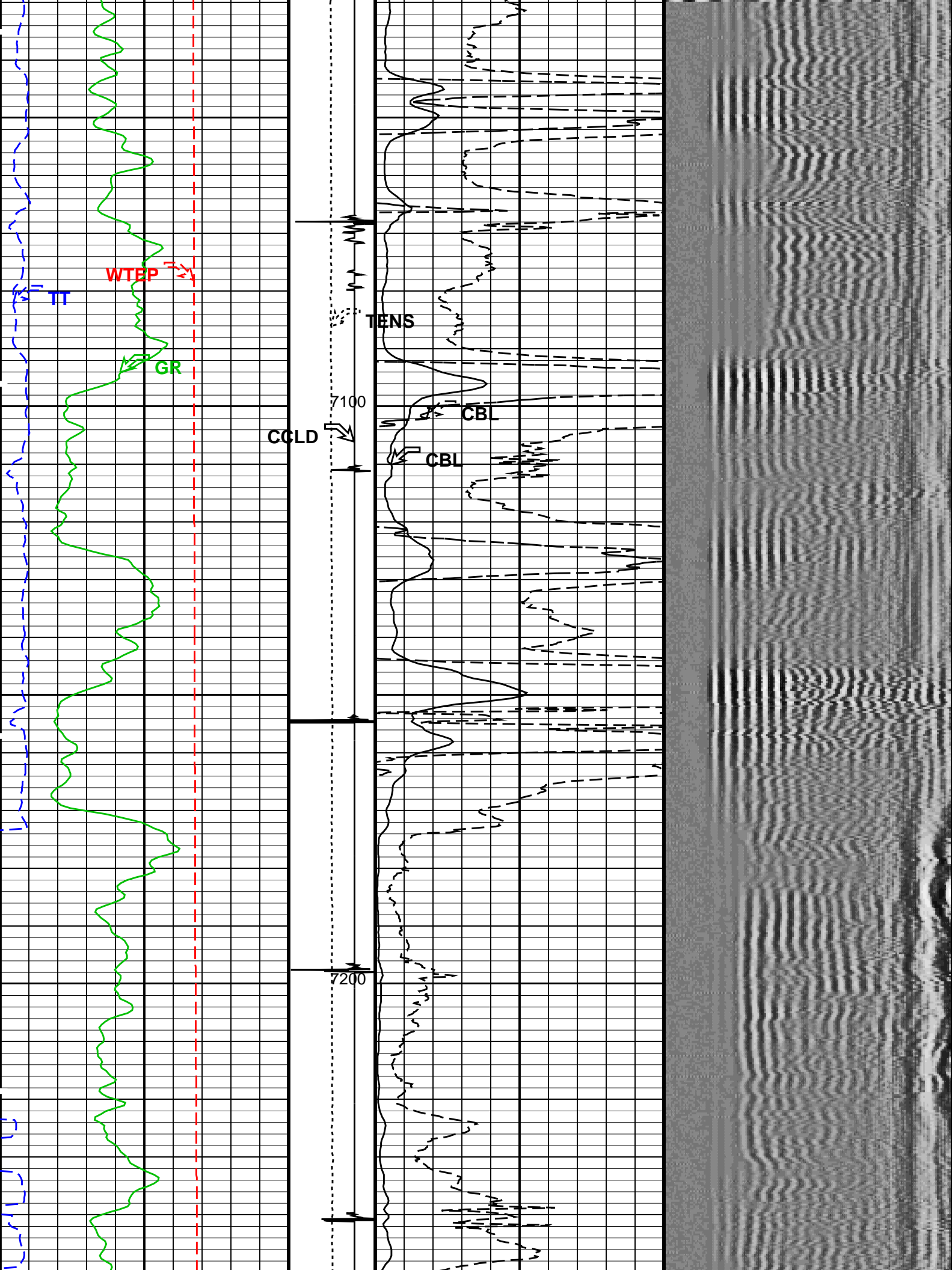


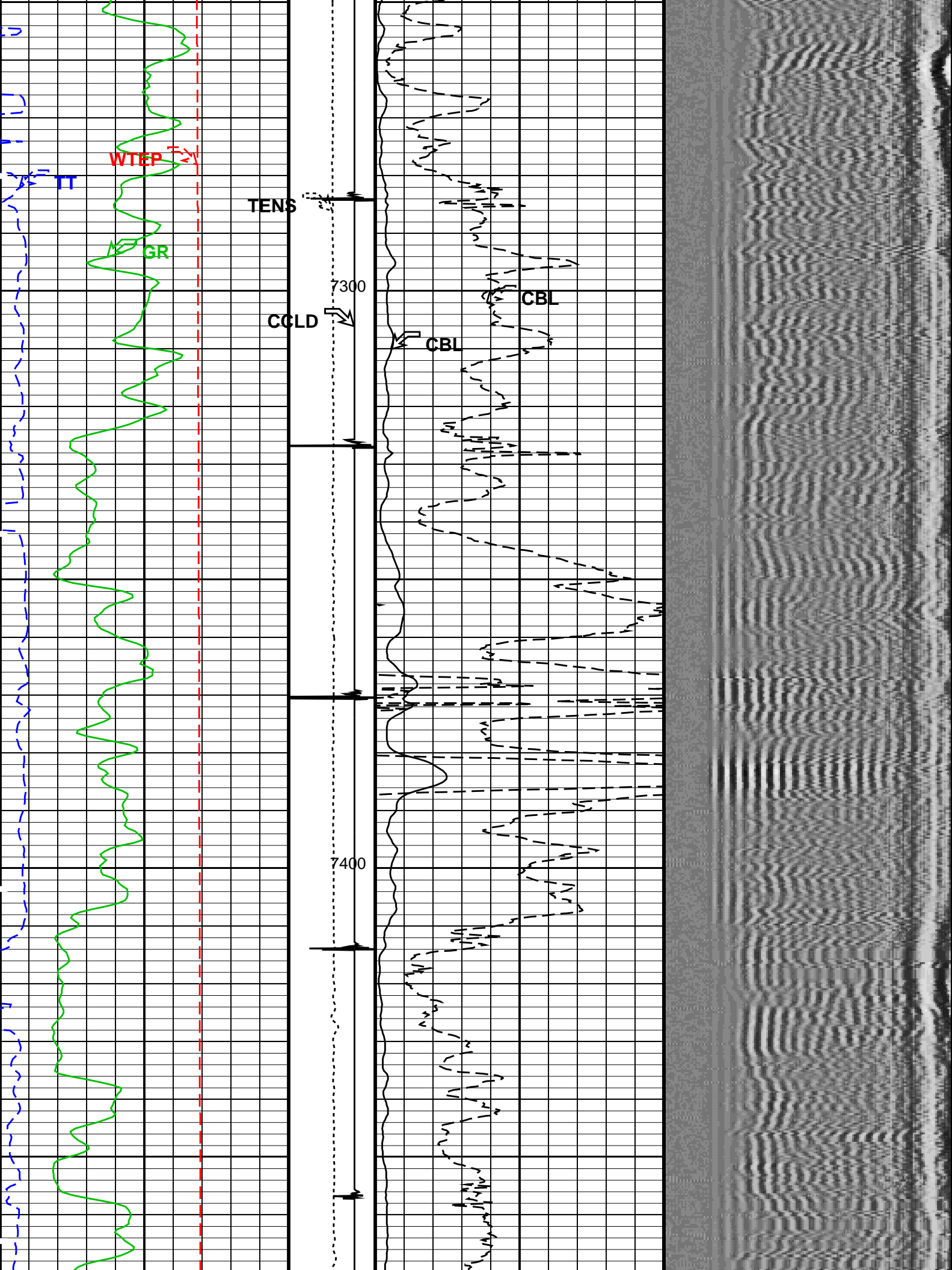


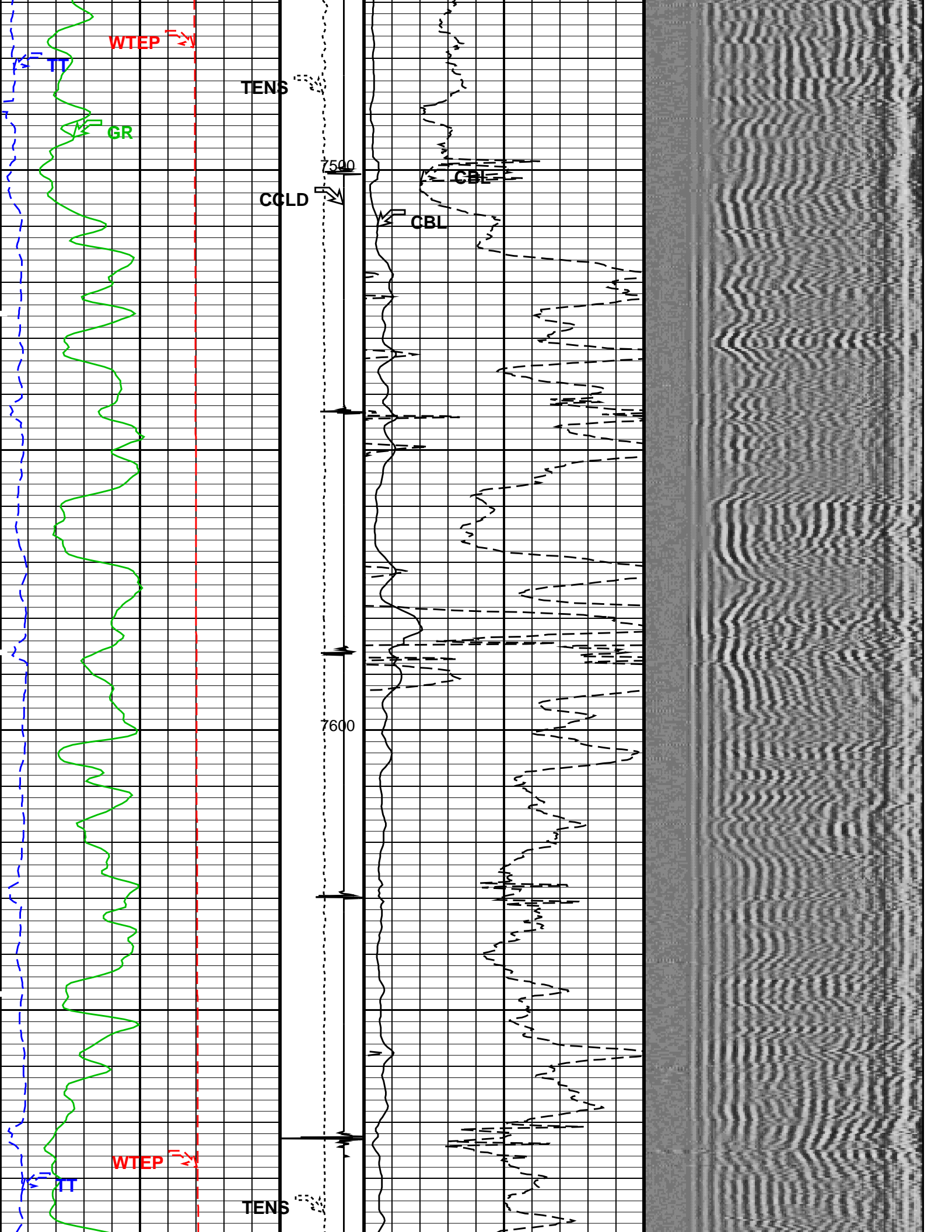




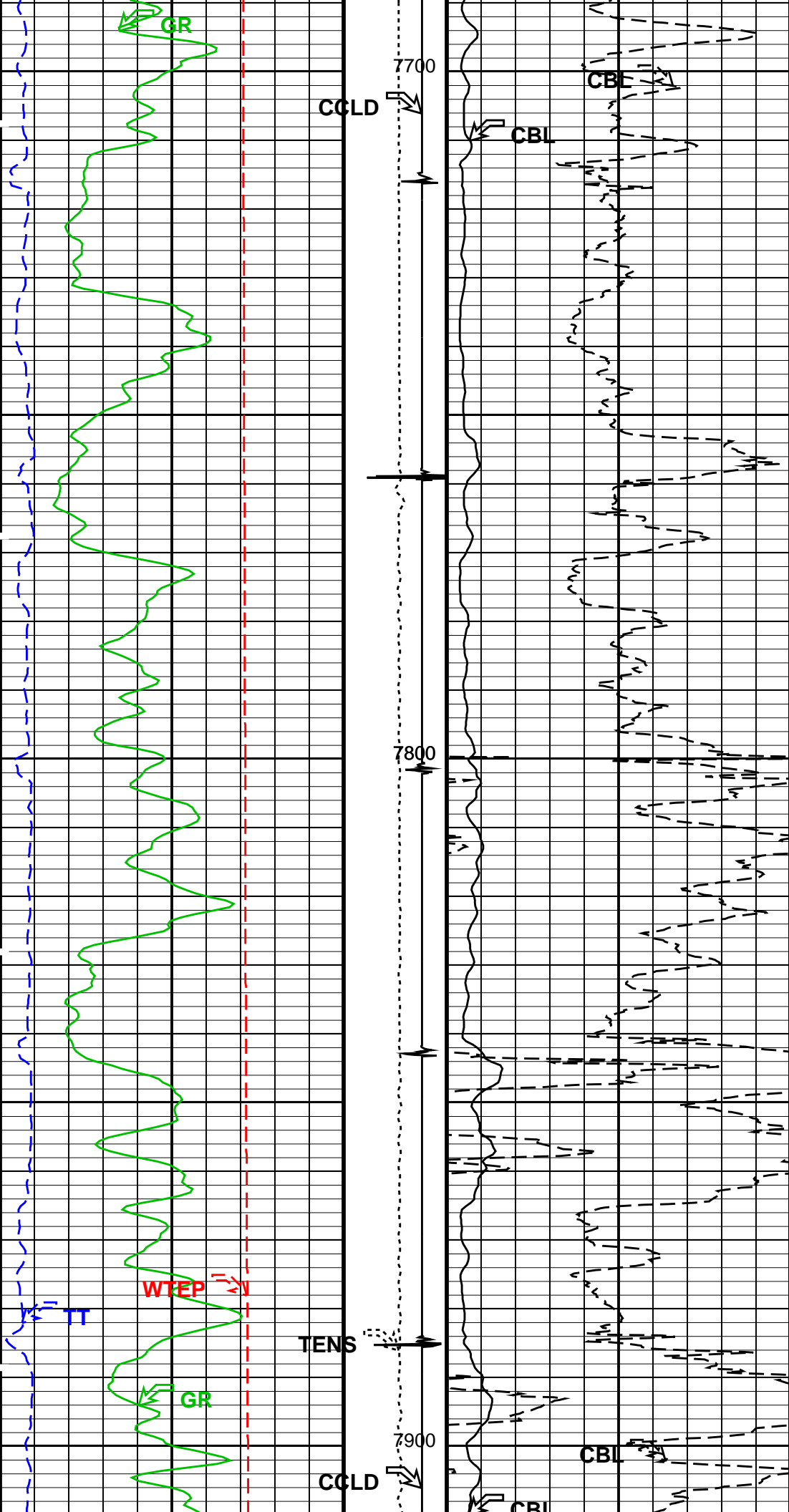


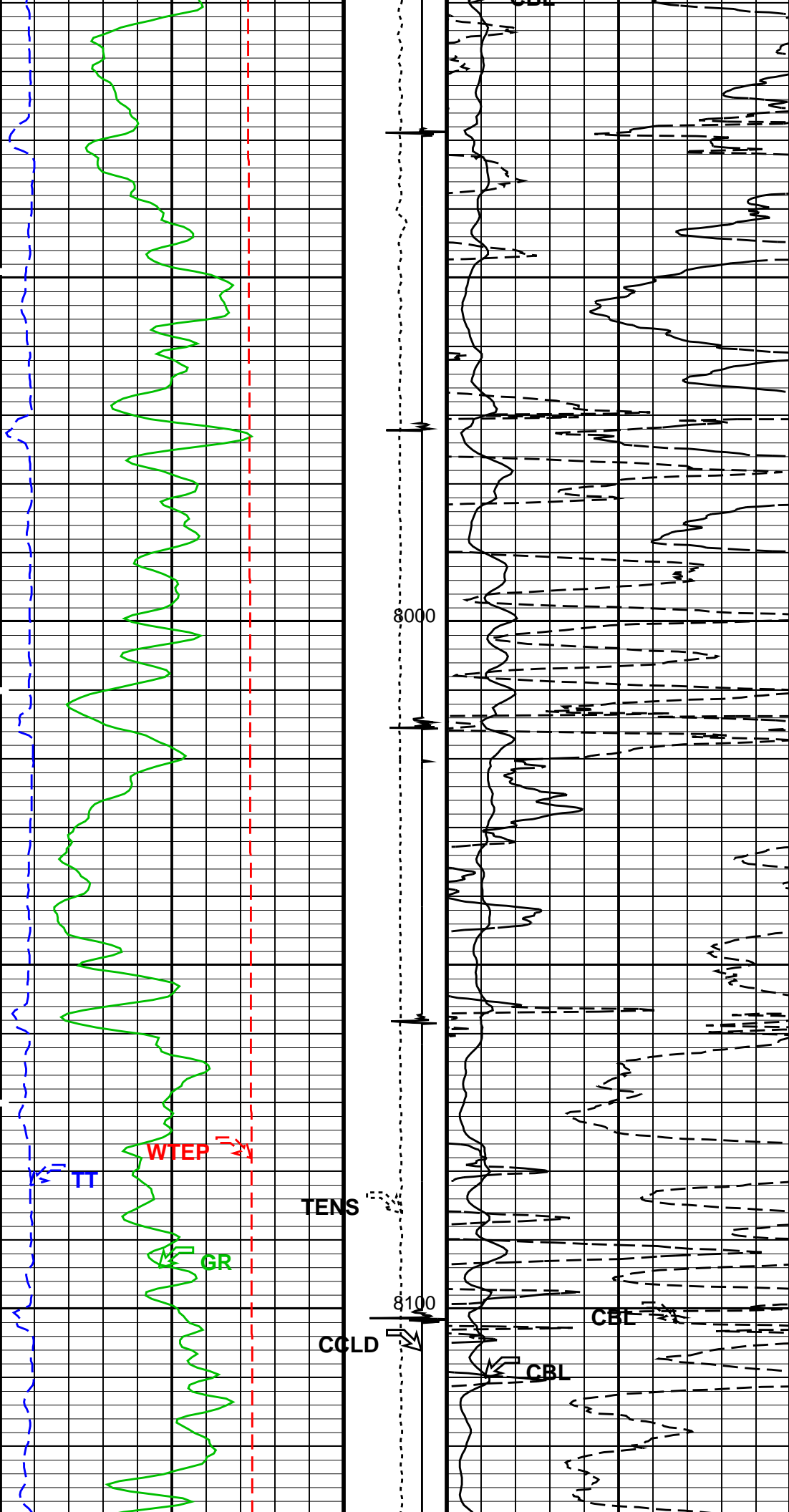




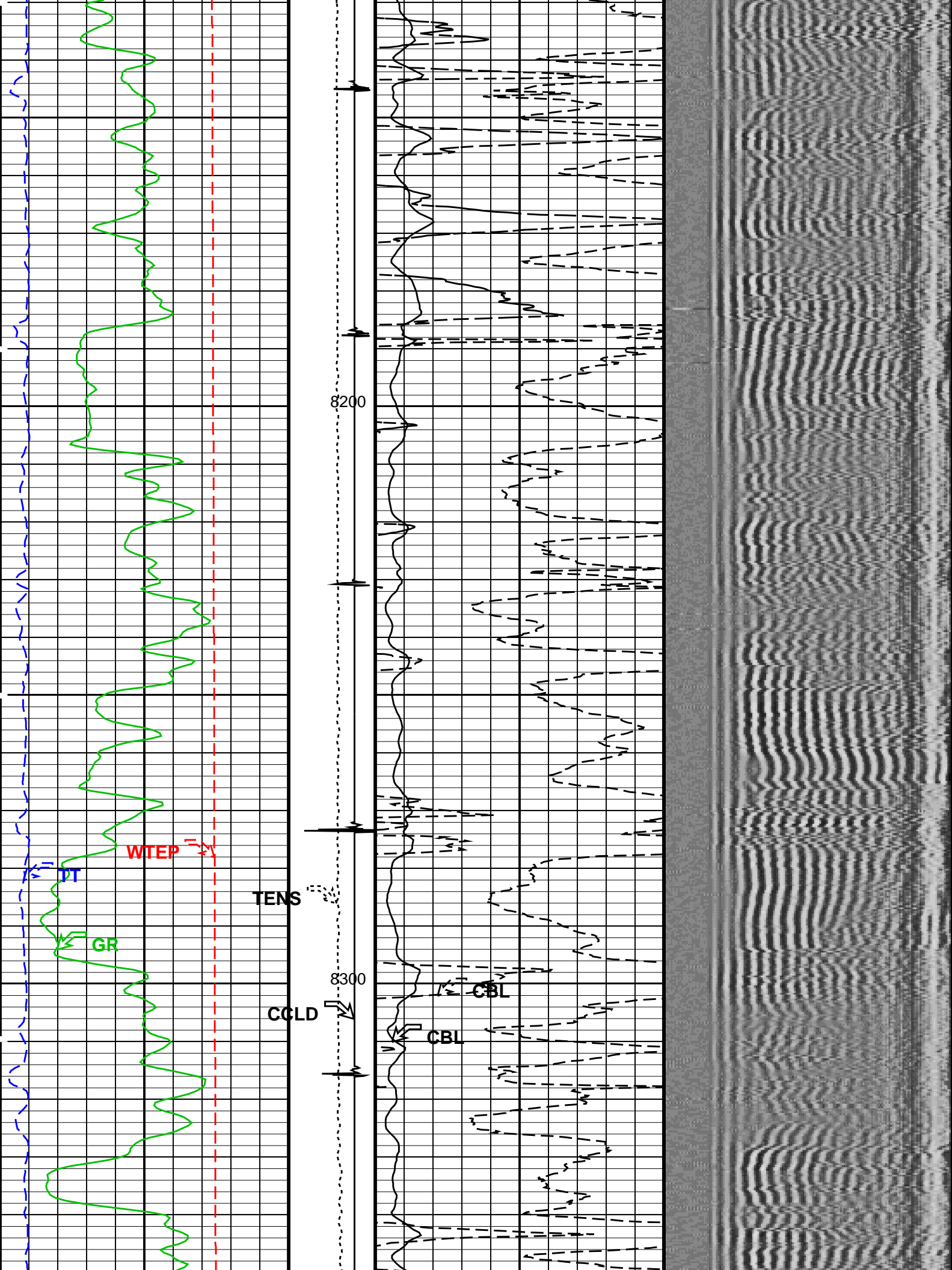


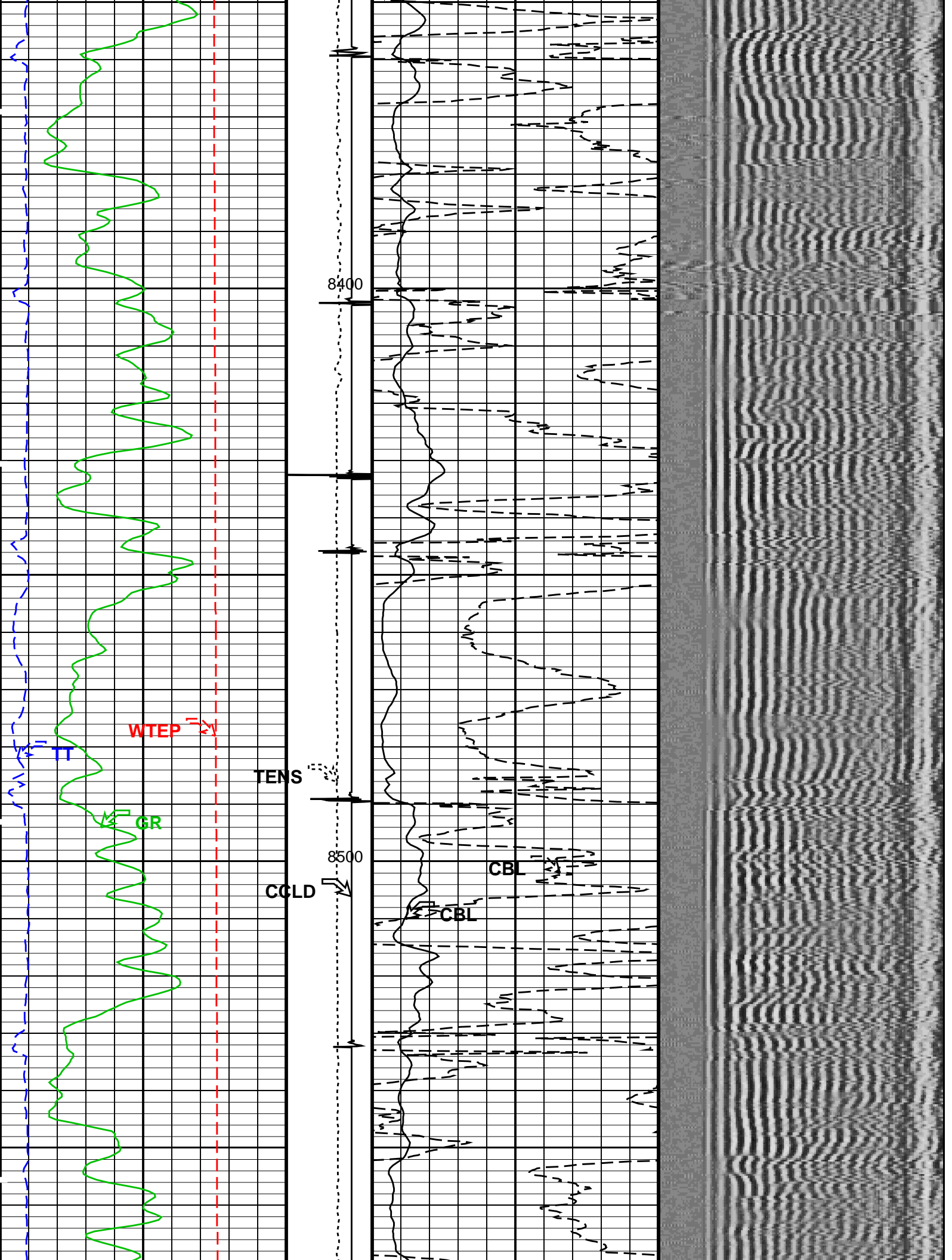


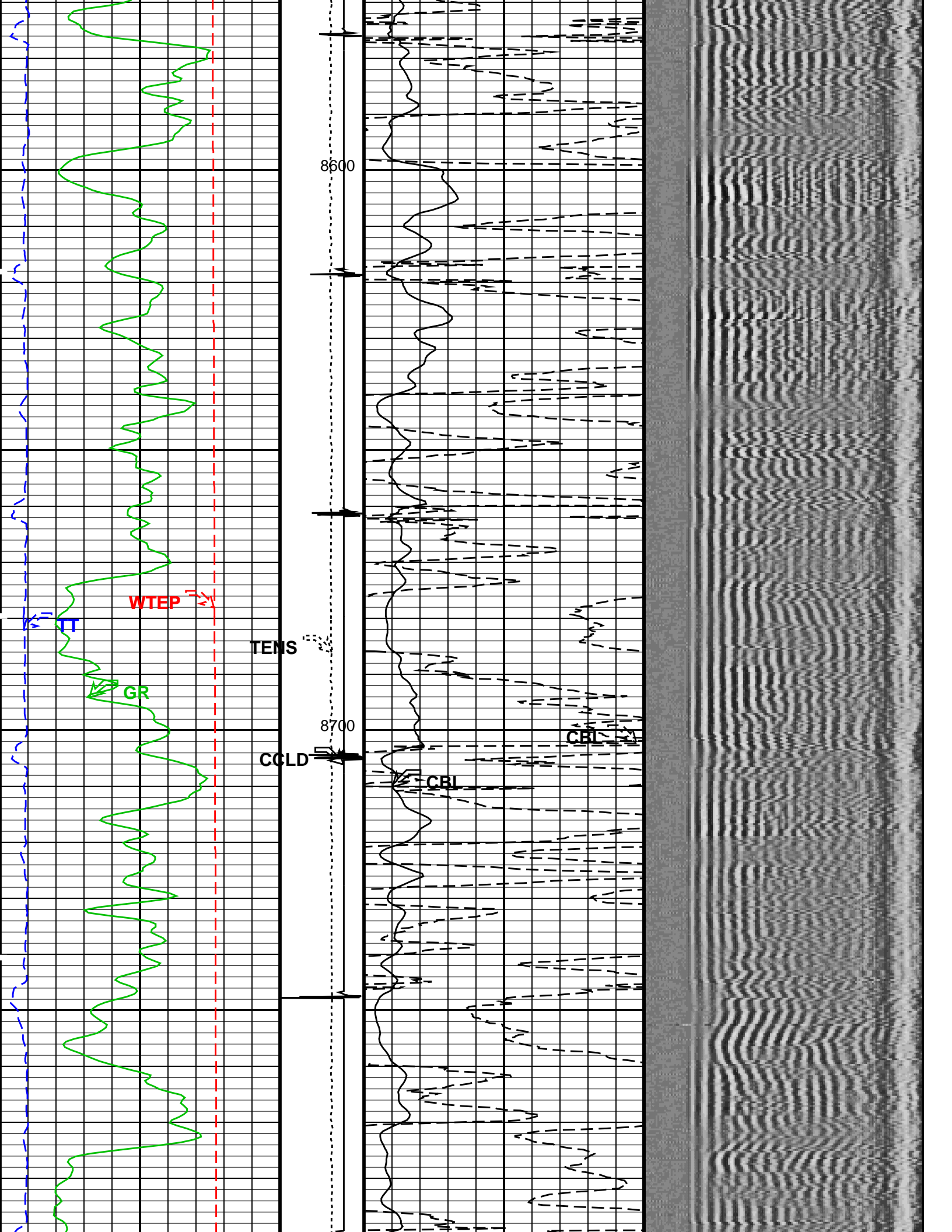




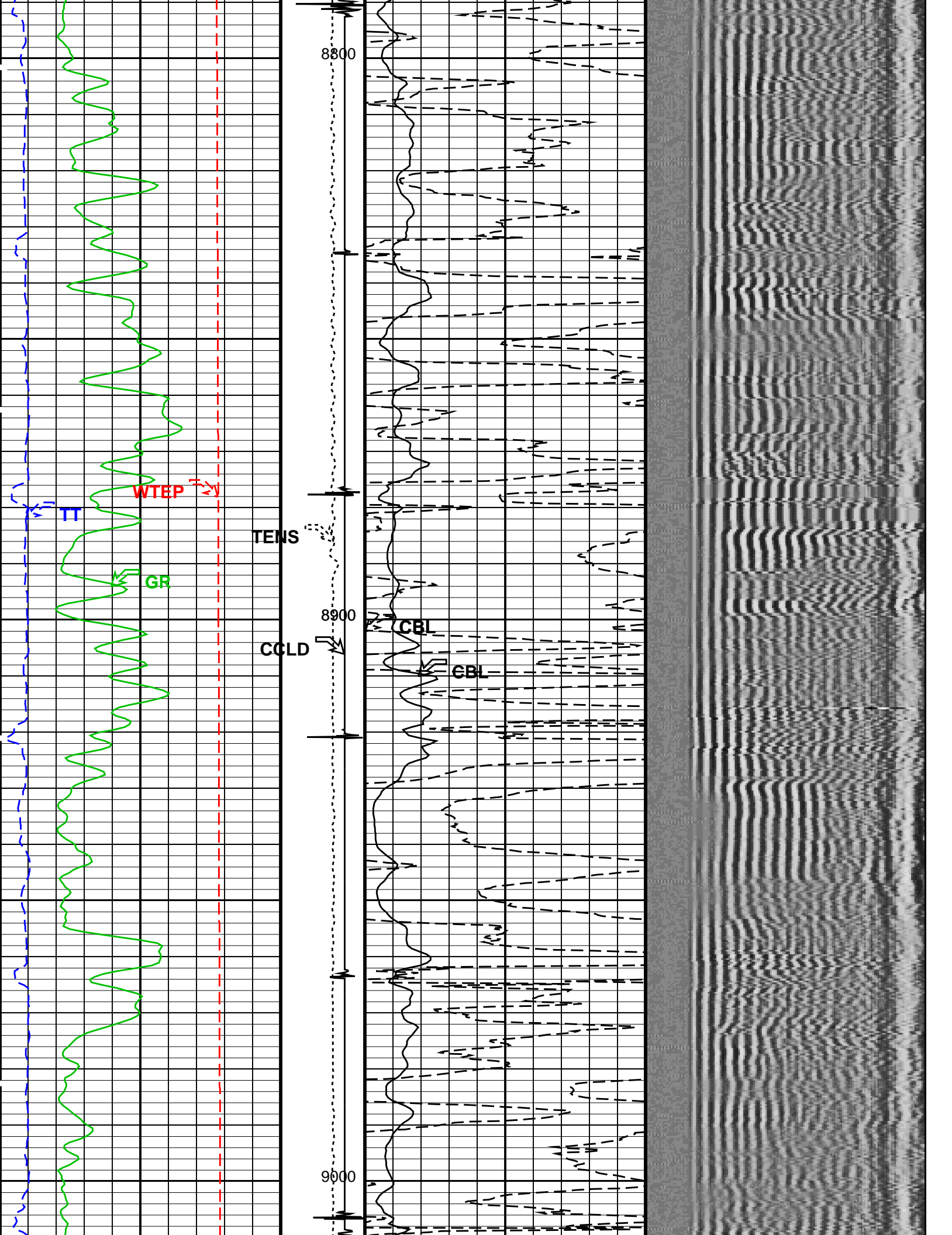




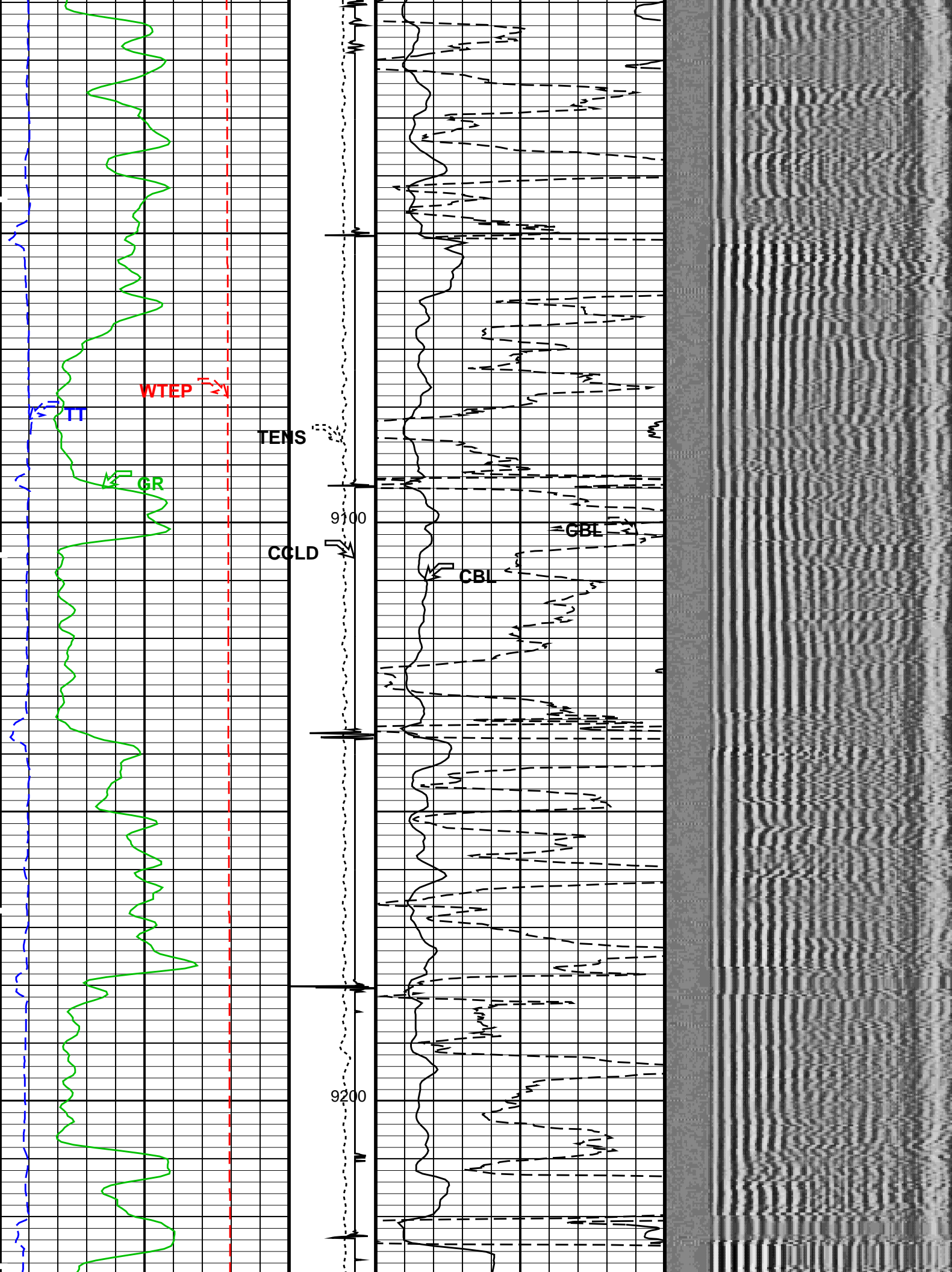


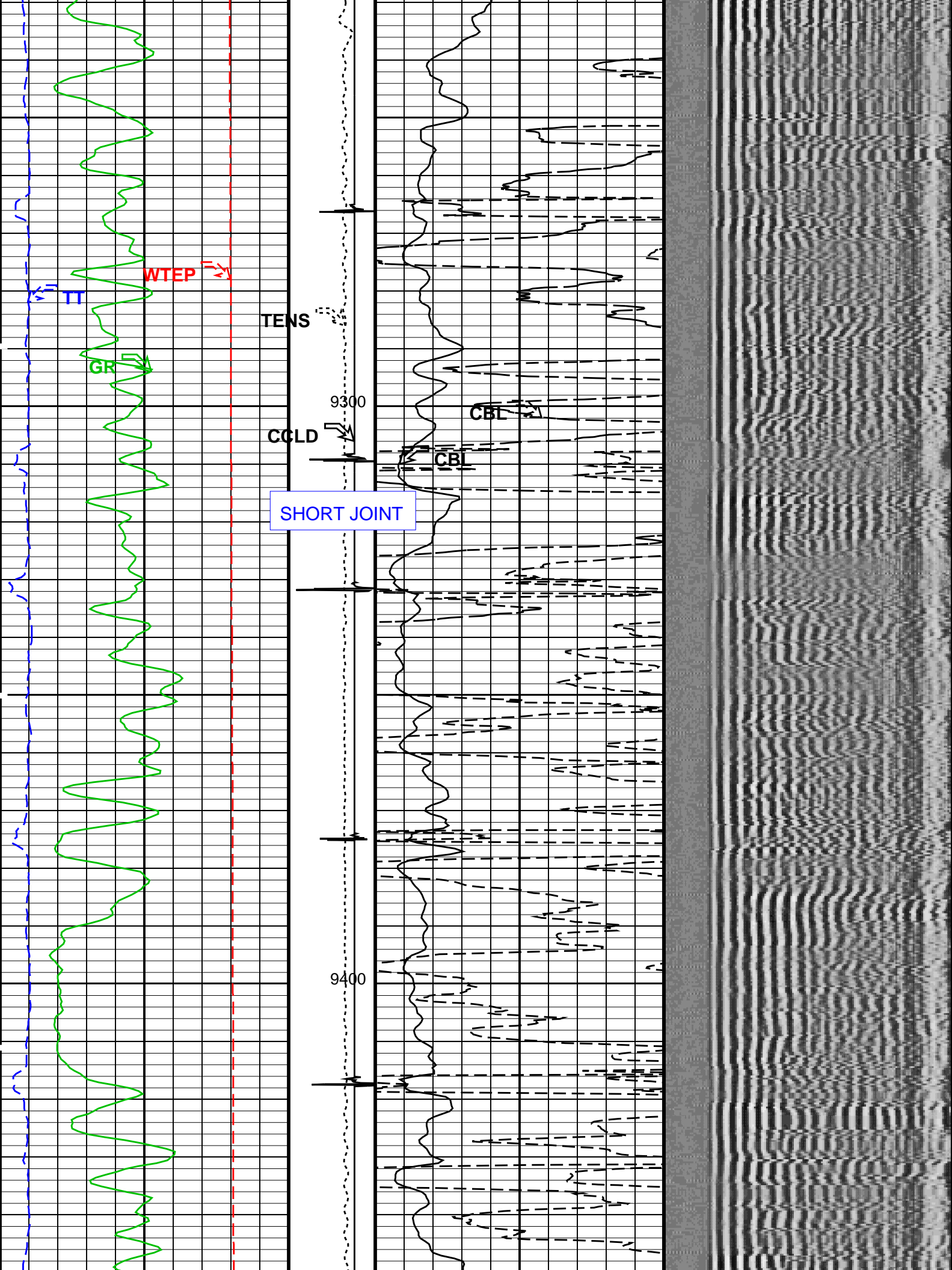


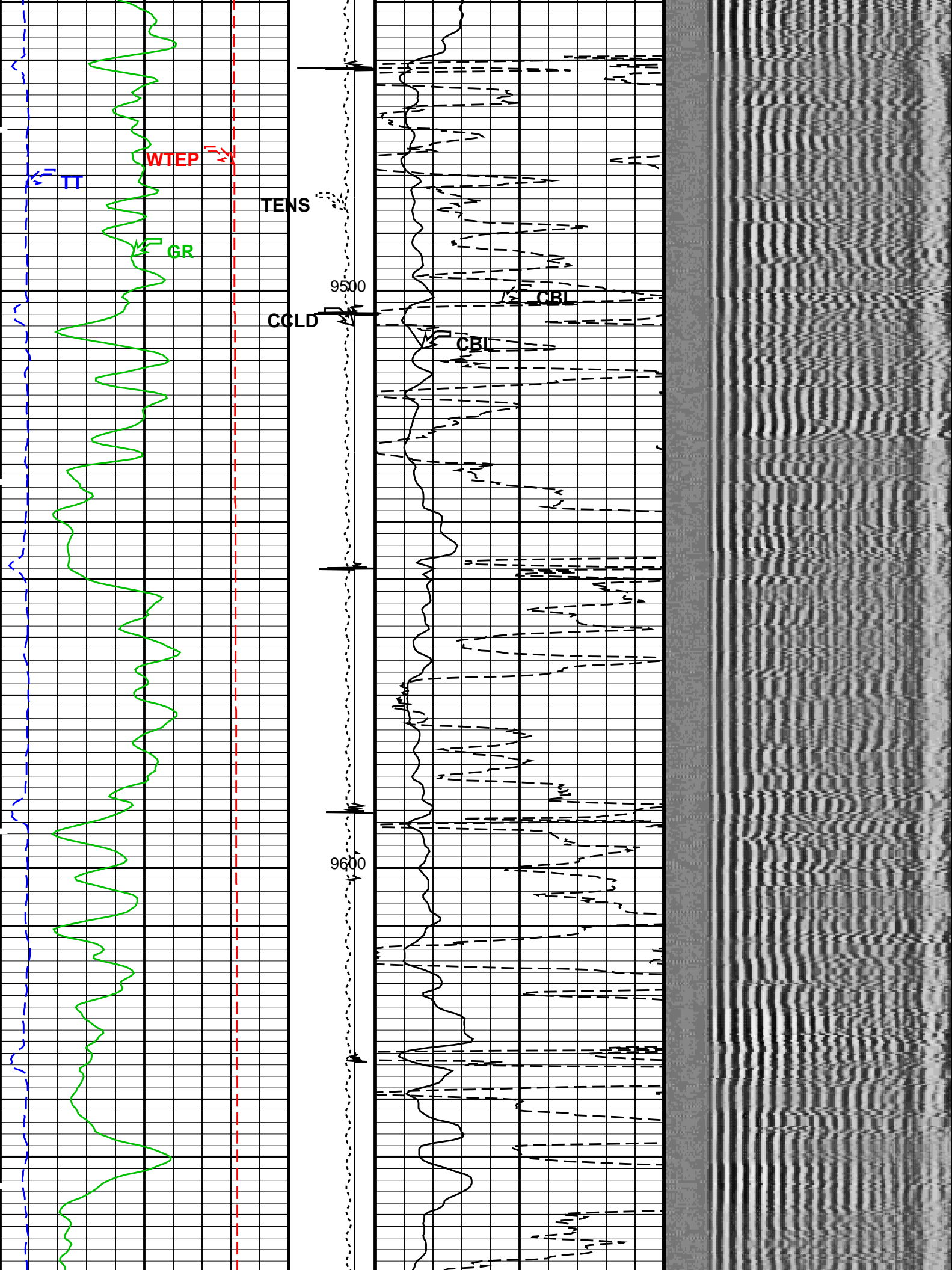




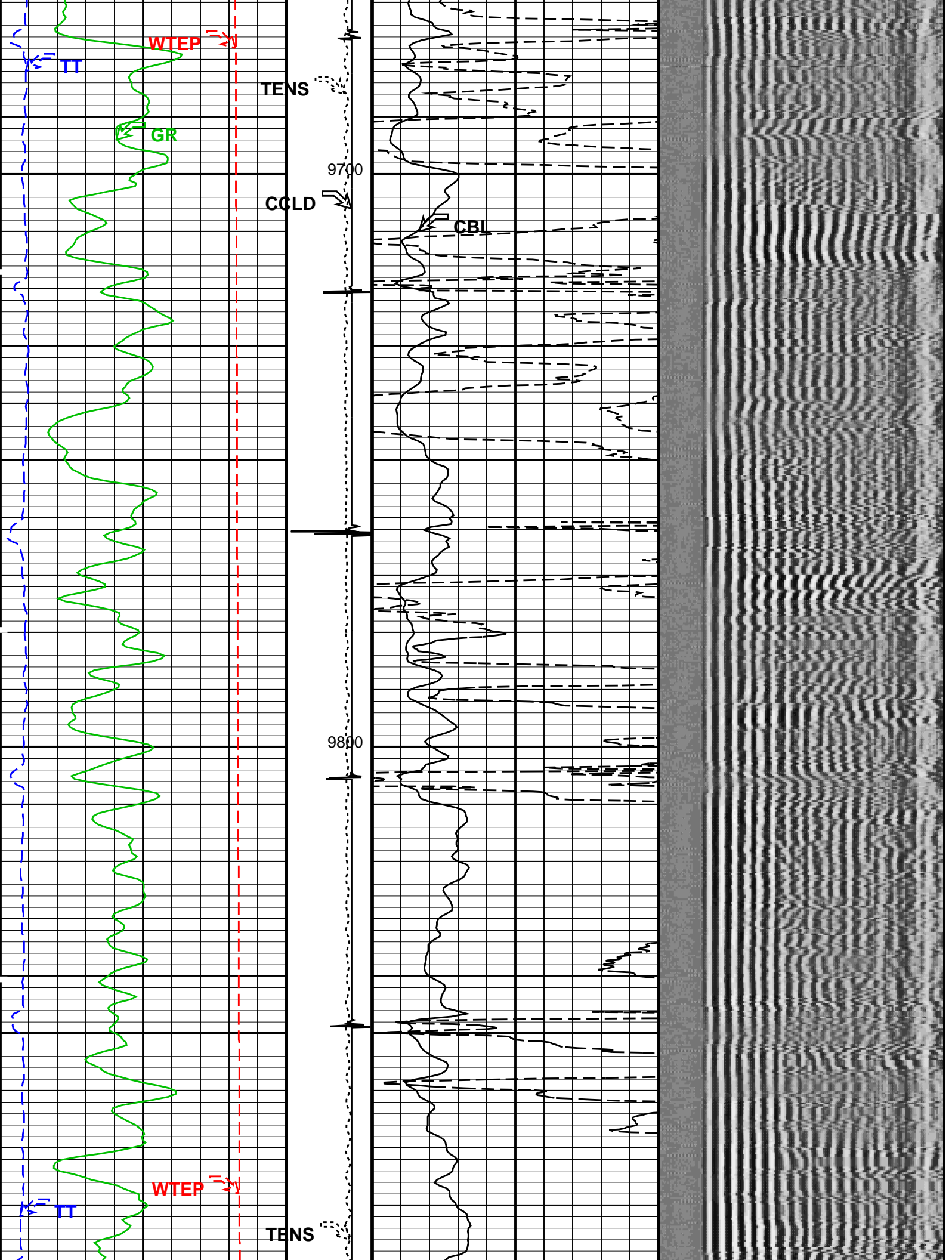




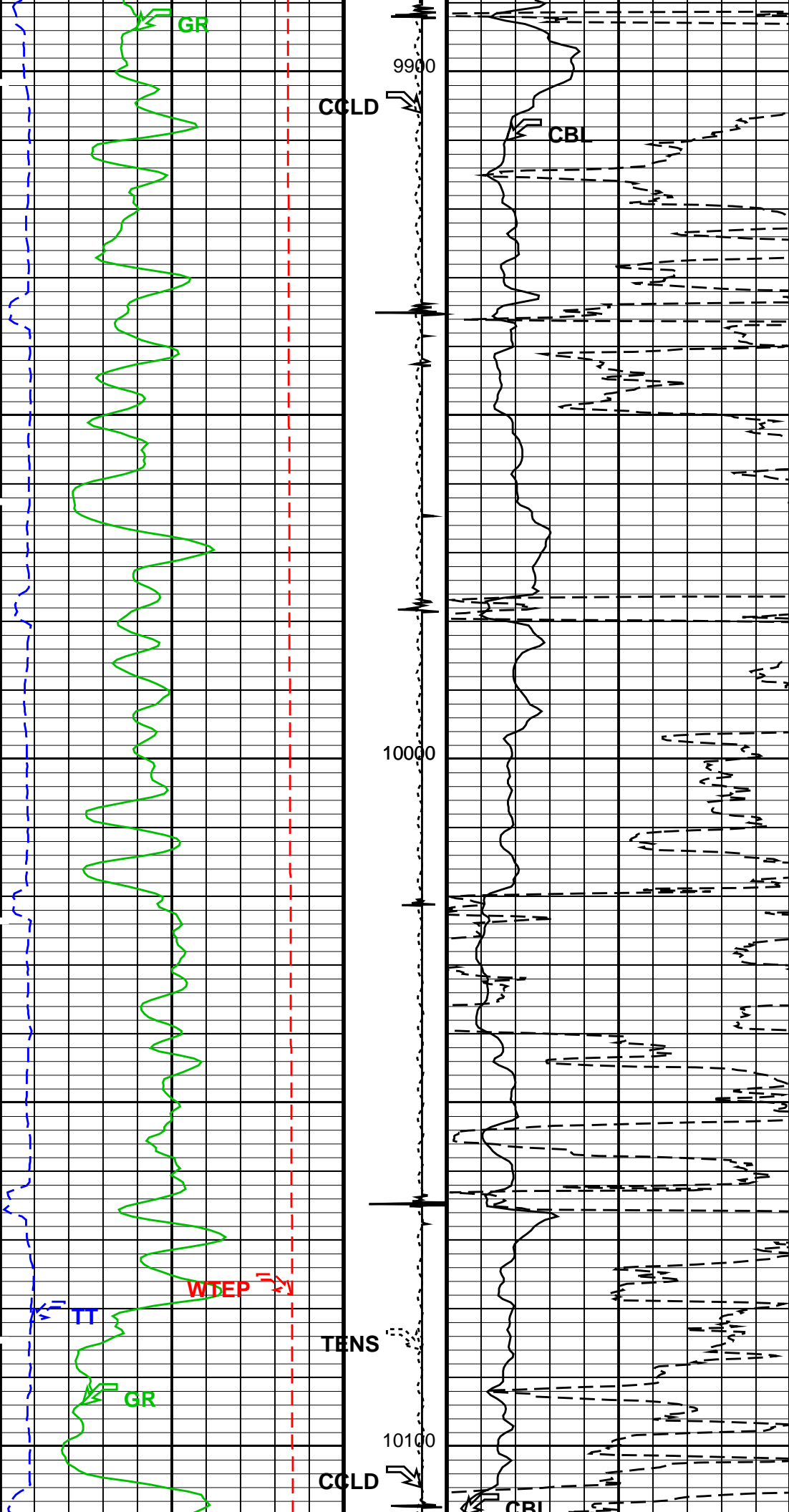


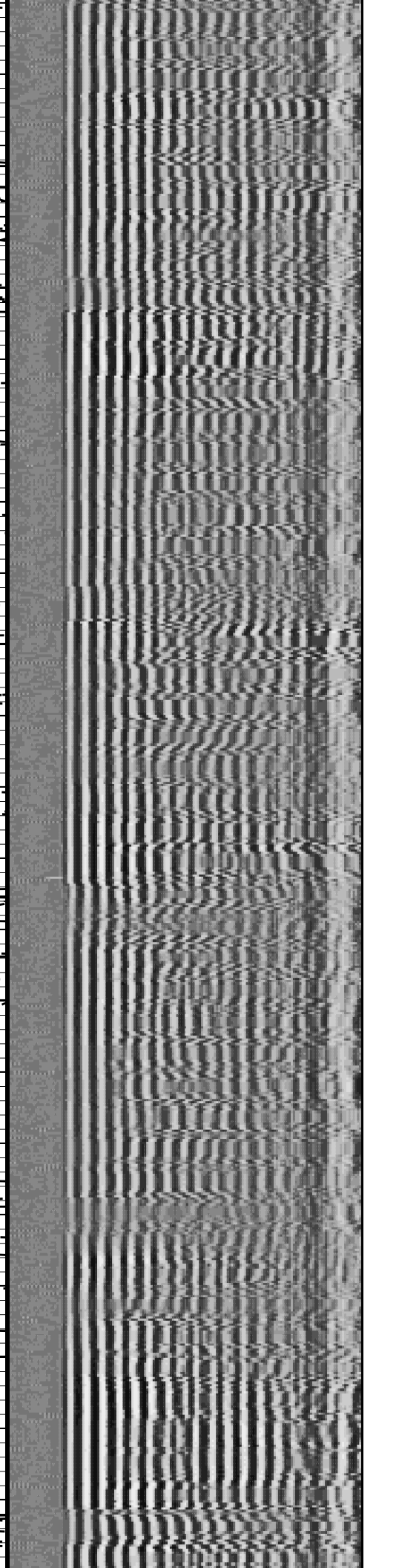
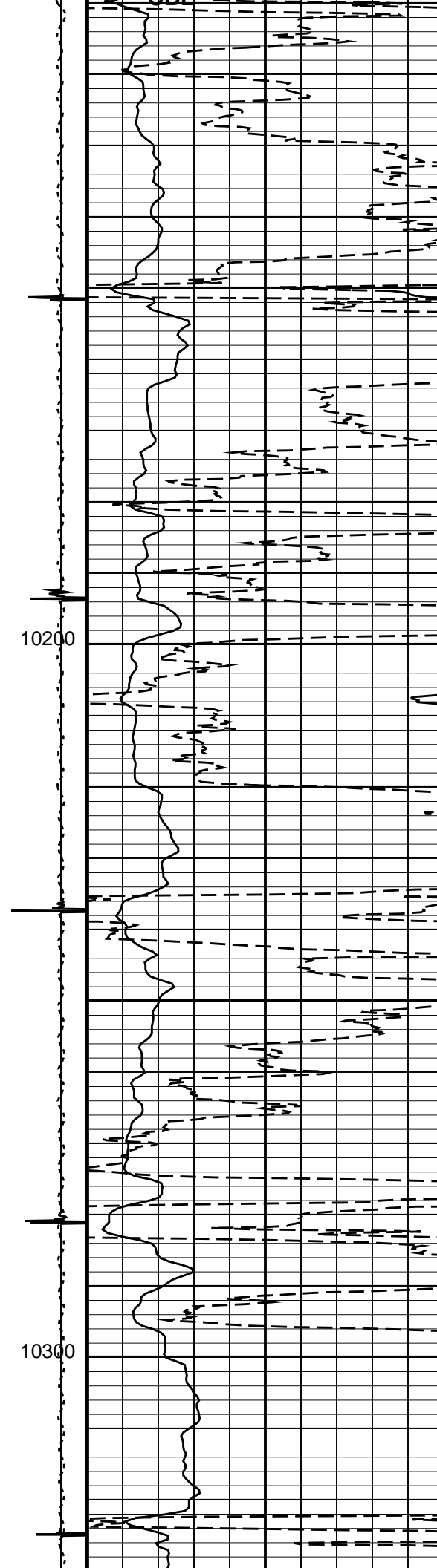
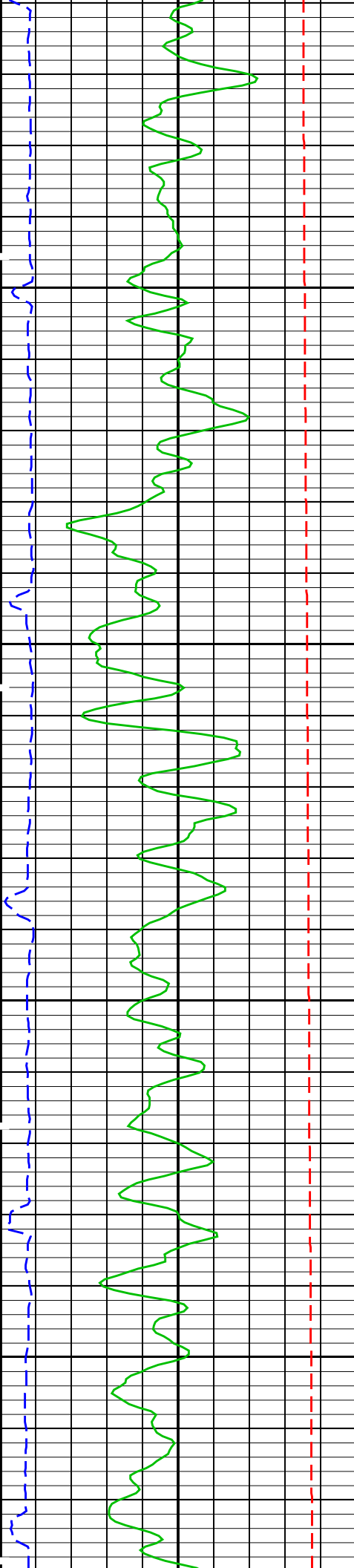


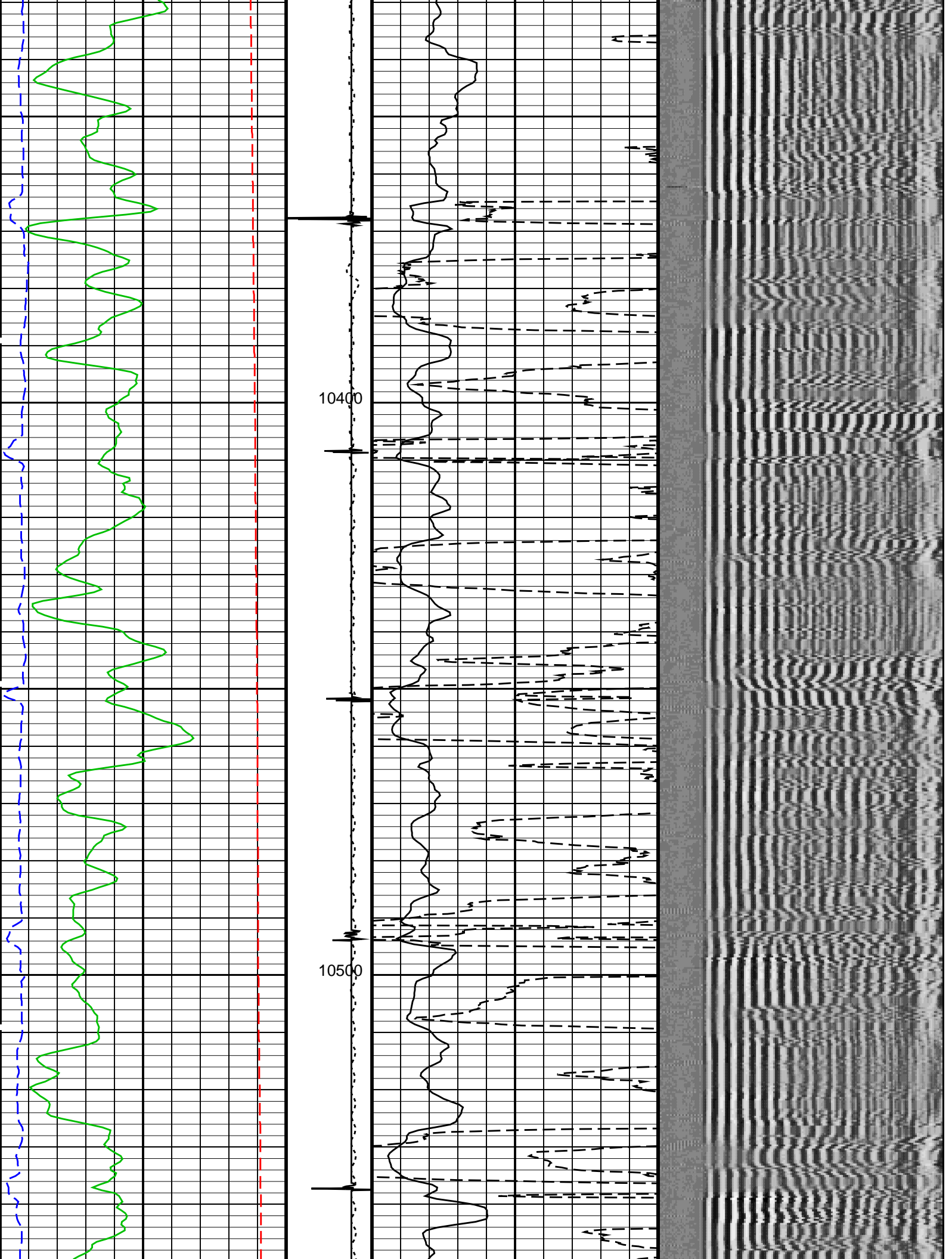




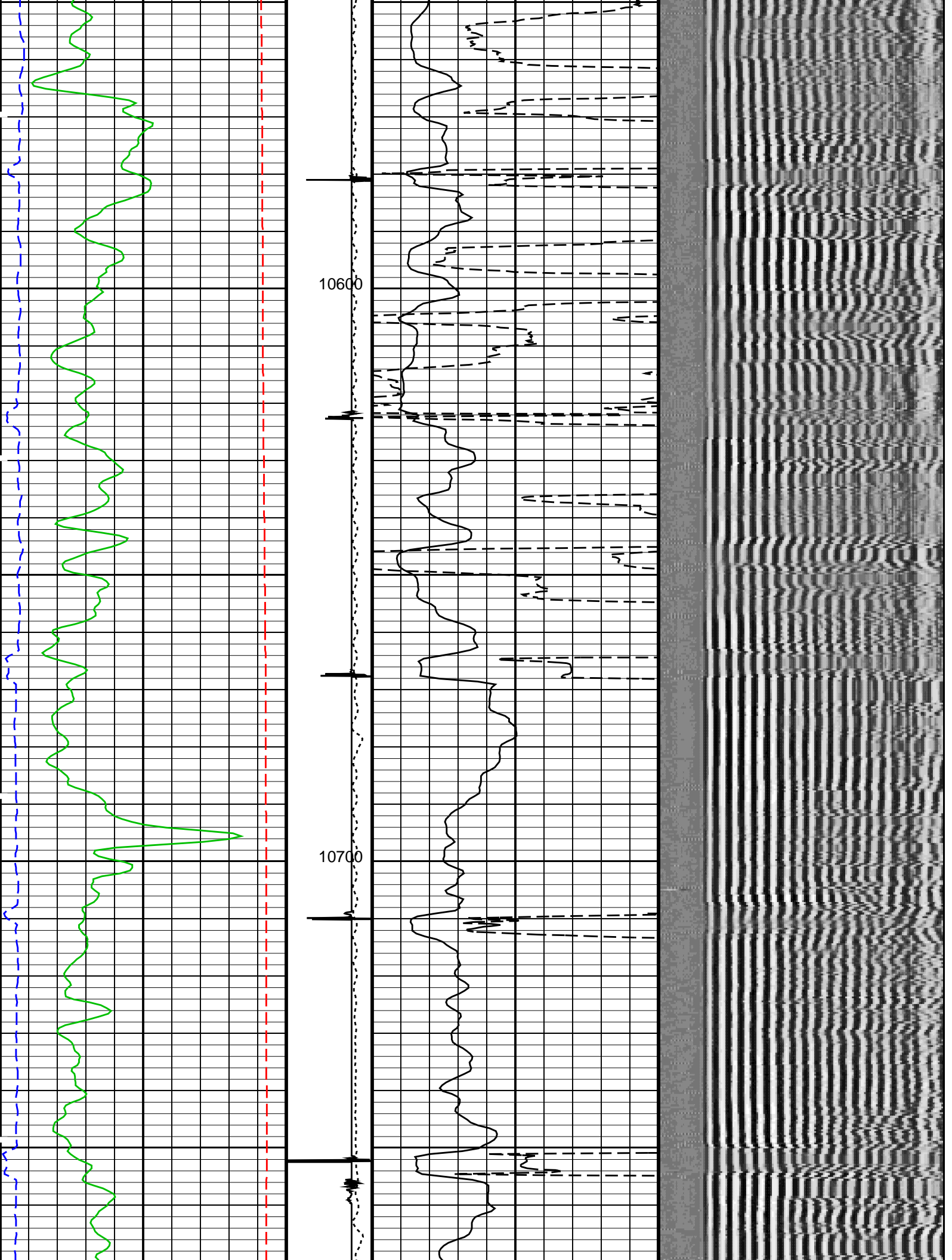




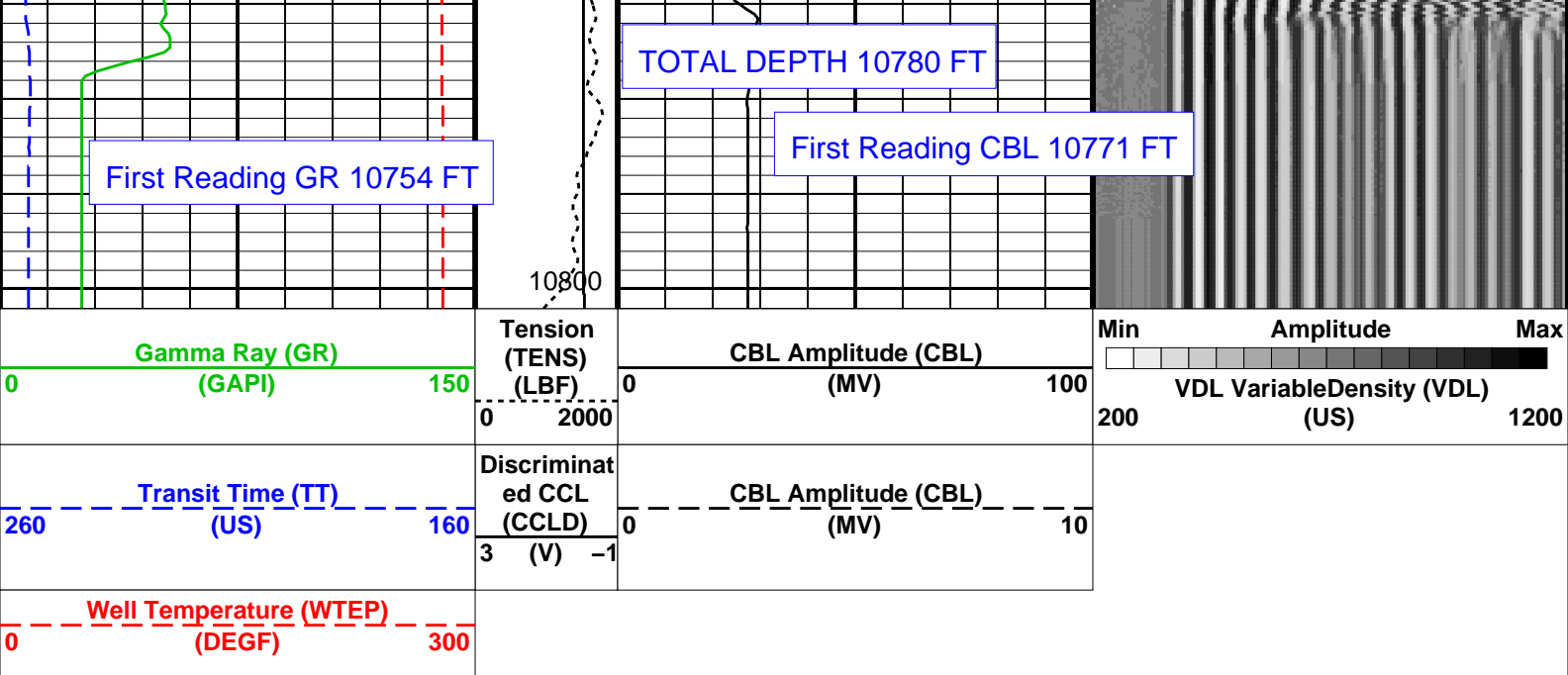












### PIP SUMMARY

Time Mark Every 60 S

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

Graphics File Created: 15-Aug-2012 23:48

## OP System Version: 19C0-187

SCMT-CB SRPC-5095-H2-2011-OP19 HBMS-B 19C0-187

### <<<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)	
Date of Master Calibration	6-MAR-2012		
CBL Correction Factor	0.0704263	CBL Adjustment Factor (CBAF)	1.0
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	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	228.559 US

CB3G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	338.359	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
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	10780	FT

### Input DLIS Files

DEFAULT SCMT\_HBMS\_044LUP FN:43 PRODUCER 15-Aug-2012 20:34 10794.0 FT 20.0 FT

### Output DLIS Files

DEFAULT SCMT\_HBMS\_046PUP FN:45 PRODUCER 15-Aug-2012 23:48

**Schlumberger**

**REPEAT PASS CBL – VDL**

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC.

Well: NP EF11E-27 (P27 595)

### Input DLIS Files

DEFAULT SCMT\_HBMS\_042LUP FN:41 PRODUCER 15-Aug-2012 19:54 3390.5 FT 3019.0 FT  
 DEFAULT SCMT\_HBMS\_046PUP FN:45 PRODUCER 15-Aug-2012 23:48 10802.0 FT -3.5 FT

### Output DLIS Files

DEFAULT SCMT\_HBMS\_047PUP FN:46 PRODUCER 15-Aug-2012 23:59 3390.5 FT 2987.5 FT

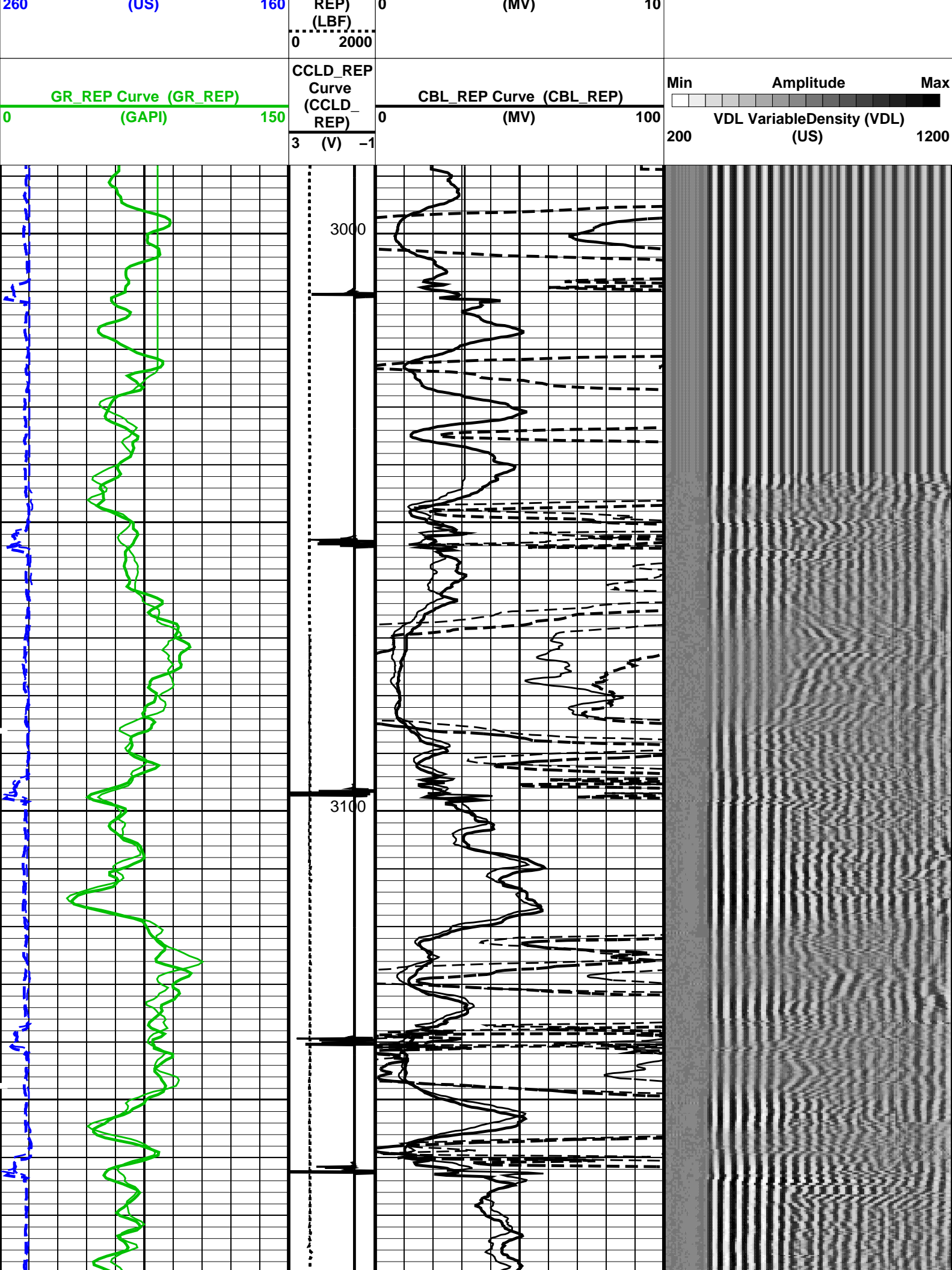
**OP System Version: 19C0-187**

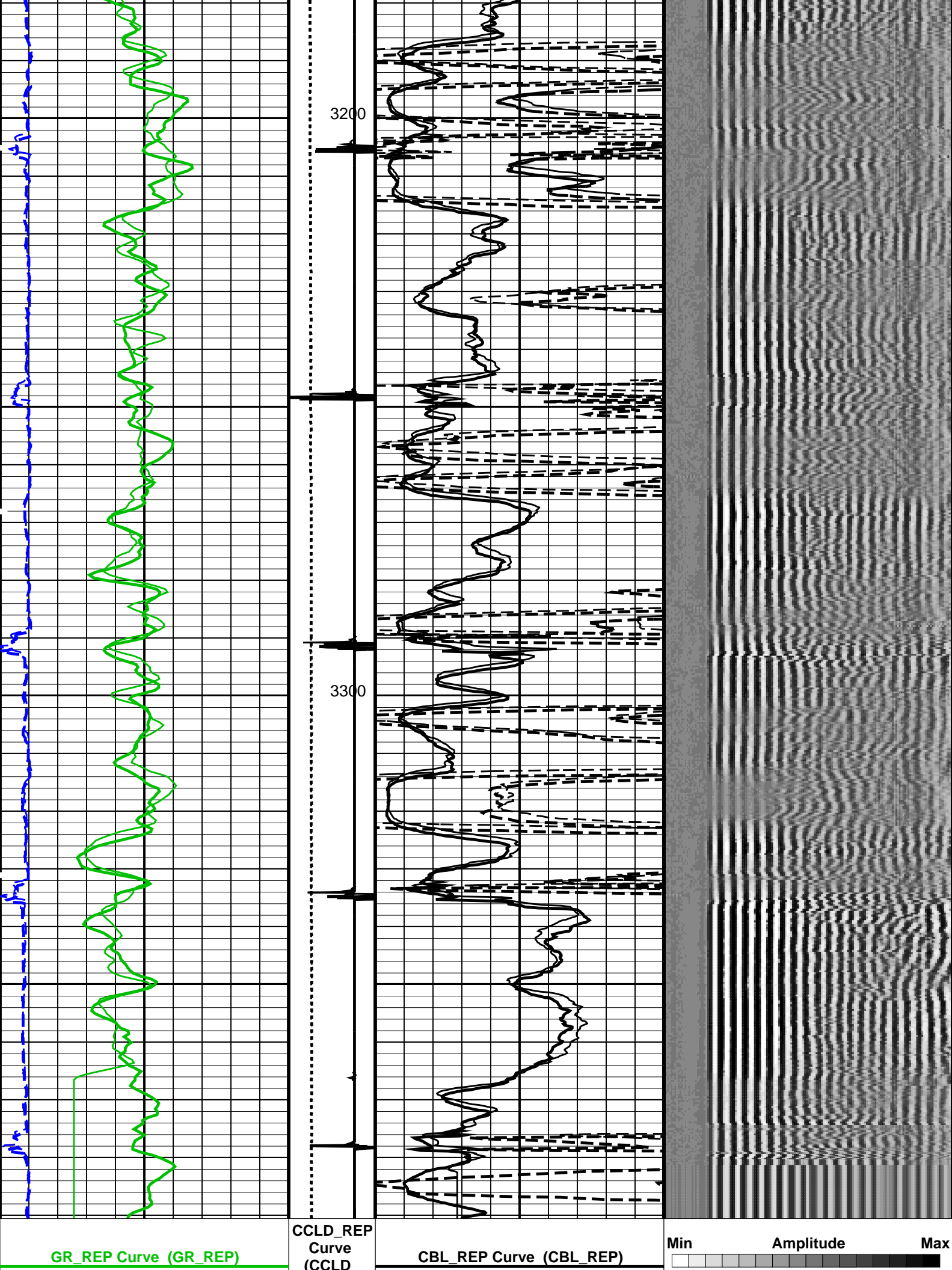
SCMT-CB SRPC-5095-H2-2011-OP19 HBMS-B 19C0-187

### PIP SUMMARY

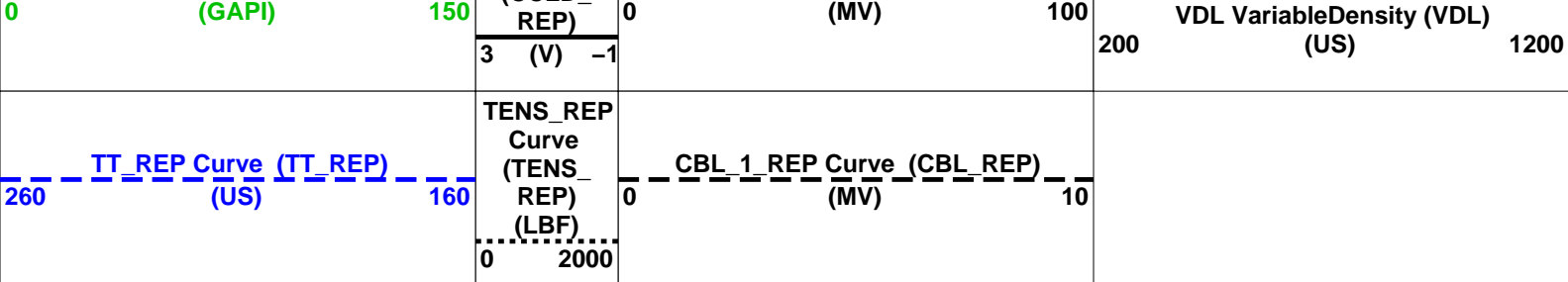
☒ Time Mark Every 60 S

TT_REP Curve (TT_REP)	TENS_REP Curve (TENS_	CBL_1_REP Curve (CBL_REP)
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### PIP SUMMARY

Time Mark Every 60 S

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

Graphics File Created: 15-Aug-2012 23:59

## OP System Version: 19C0-187

SCMT-CB SRPC-5095-H2-2011-OP19 HBMS-B 19C0-187

### <<<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)		
Date of Master Calibration	6-MAR-2012		
CBL Correction Factor	0.0704263	CBL Adjustment Factor (CBAF)	1.0
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	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	
CMT C	SCMT Slow Channel Multiplexer Mode	SCAN	
CMT M	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	16.5148	DB/F

MATT	Maximum Attenuation	16.3449	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	10780	FT

### Input DLIS Files

DEFAULT	SCMT_HBMS_042LUP	FN:41	PRODUCER	15-Aug-2012 19:54	3390.5 FT	3019.0 FT
DEFAULT	SCMT_HBMS_046PUP	FN:45	PRODUCER	15-Aug-2012 23:48	10802.0 FT	-3.5 FT

### Output DLIS Files

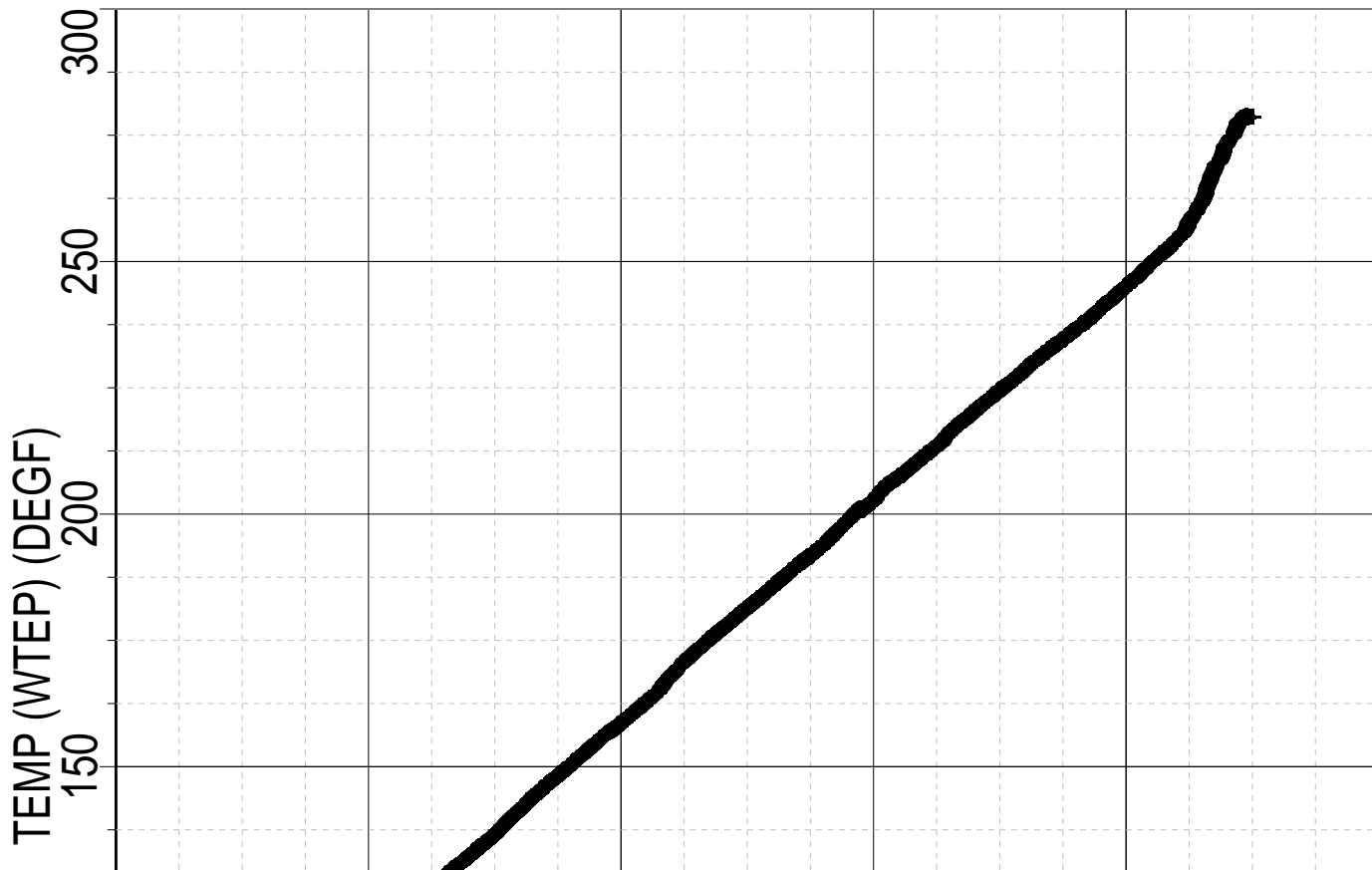
DEFAULT	SCMT_HBMS_047PUP	FN:46	PRODUCER	15-Aug-2012 23:59
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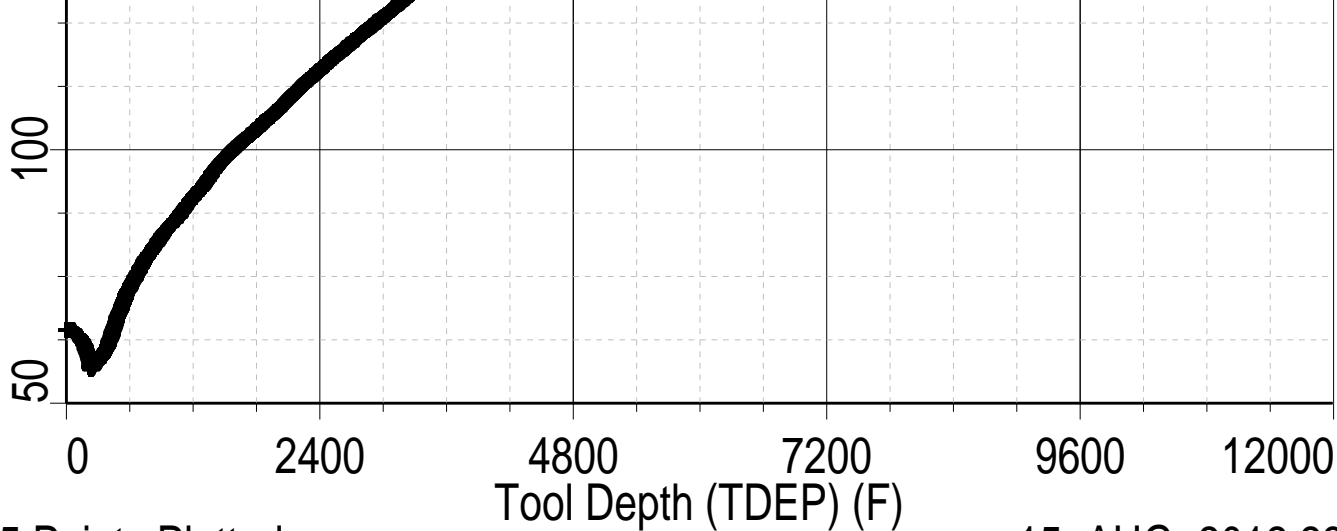
**Schlumberger**

## TEMPERATURE PLOT

MAXIS Field Log

Index: 10802.0 – -3.5 FT





**Schlumberger**

## PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC.  
Field: NORTH PARACHUTE  
Well: NP EF09D-27 (P27 595)  
Run date: 15-Aug-2015

Tool: PSP  
Sub Type: PBMS  
Sensor: GR

### PBMS Gamma Ray

Sonde Serial NB RESISTORS FOR GR SENSOR N.34473, TOOL HBMS-BA2884. SENSOR S/N:  
Sensor Serial NB 34473  
Calib Date ddmmyy 090506  
Matrix Size 12  
Coeff CRC 0708

GR HV Rt

Rt\*\*0

Rt\*\*1

Rt\*\*0

+.200000000000e+04

+.190000000000e+04

Client: ENCANA OIL & GAS (USA) INC.

Field: NORTH PARACHUTE

Well: NP EF09D-27 (P27 595)

Run date: 15-Aug-2015

Tool: PSP

Sub Type: PBMS

Sensor: WellTemp RTD

PBMS RTD Well Thermometer

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

COEFFICIENTS FOR RTD THERMOMETER PBMS-B.2884 S/N:

2884

290706

16

B134

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt**0	-.111322977181E+04	+.870150832462E+03	-.279503665762E+03
	Tt**3	Tt**4	Tt**5
Tt**0	+.449965652060E+02	-.264920434334E+01	0.0

Client: ENCANA OIL & GAS (USA) INC.

Field: NORTH PARACHUTE

Well: NP EF09D-27 (P27 595)

Run date: 15-Aug-2015

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

COEFFICIENTS FOR CQG PBMS-B.2884 S/N:

2884

290706

66

CA7A

Pres Coeff

	Fb**0	Fb**1	Fb**2
Fc**0	+.746225778248E+04	+.221418944849E-01	-.210426289152E-06



Fc**1	-.104881478055E+01	-.124860716120E-04	-.949662972749E-10
Fc**2	+.872904863754E-06	+.426833452654E-10	+.759423319181E-15
Fc**3	+.239319347612E-11	+.290279345385E-15	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0
<div> <div>Fb**3</div> <div>Fb**4</div> <div>Fb**5</div> </div>			
Fc**0	-.812091932516E-10	-.147717591127E-14	-.150620854654E-19
Fc**1	+.145644303959E-15	+.160803895109E-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

:

2884

290706

66

F21E

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+.113897507996E+03	-.324965333678E-03	+.697134219555E-08
Fb**1	-.601014483015E-02	+.175847256148E-07	+.180458009797E-12
Fb**2	-.317240807344E-07	+.374112953741E-12	+.133653042149E-17
Fb**3	-.236568542854E-12	+.787205826536E-17	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	+.881675188724E-13	-.146952444192E-16	-.415359060767E-21
Fb**1	-.553774805449E-18	-.739378844697E-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 2884  
Calib Date ddmmyy 290706  
Matrix Size 16  
Coeff CRC 72C9

Clock Freq Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+.310161623072E+05	+.363878692519E-02	+.311171630292E-06
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.277965051815E-10	-.181738305366E-14	-.633170122188E-20

PBMS Quartz Gauge type F

Sonde Serial NB :  
Sensor Serial NB 2884  
Calib Date ddmmyy 290706  
Matrix Size 16  
Coeff CRC 3E80

Clock Temp Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+.111177101155E+03	-.545261137223E-02	-.112186276799E-06
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	+.756690675632E-11	-.207457772298E-16	-.121623071907E-19

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SCMT MASTER CALIBRATION

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Slim Cement Mapping Tool, 1-11/16 OD Master Calibration - SCMT CBL and MAP Amplitude Normalization in SFT-155/-255							
Master: 6-Mar-2012 15:06							
MAP 1 Amplitude Plus	1075	1208	--	--	--	--	MV
MAP 2 Amplitude Plus	1075	1275	--	--	--	--	MV
MAP 3 Amplitude Plus	1075	1182	--	--	--	--	MV
MAP 4 Amplitude Plus	1075	1049	--	--	--	--	MV
MAP 5 Amplitude Plus	1075	937.6	--	--	--	--	MV
MAP 6 Amplitude Plus	1075	999.8	--	--	--	--	MV

MAP 6 Amplitude Plus	1075	990.2	--	--	--	--	MV
MAP 7 Amplitude Plus	1075	1063	--	--	--	--	MV
MAP 8 Amplitude Plus	1075	1166	--	--	--	--	MV
CBL Amplitude Plus	1350	1363	--	--	--	--	MV










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	8172

Auxiliary Equipment:

Slim Electronics Cartridge Housing	SECH – CA
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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			1208	Master			1275
	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			1182	Master			1049
	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			937.6	Master			990.2
	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			1063	Master			1166
	500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)		500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)
Phase	CBL Amplitude Plus MV		Value				
Master			1363				
	1000 (Minimum)	1350 (Nominal)	1700 (Maximum)				
Master: 6–Mar–2012 15:06							

Company: **ENCANA OIL & GAS (USA) INC.**

**Schlumberger**

Well: **NP EF11E-27 (P27 595)**

Field: **NORTH PARACHUTE**

County: **GARFIELD**

State: **COLORADO**

SLIM CEMENT MAPPING TOOL  
CBL-VDL  
GR-CCL