

Company: ENCANA OIL & GAS (USA) INC

Well: SHIDELER 30-2C (O19EB)

Field: MAMM CREEK

County: GARFIELD State: COLORADO

SLIM CEMENT MAPPING LOG
CBL – VDL
GR–CCL

County:	GARFIELD			
Field:	MAMM CREEK			
Location:	SHL: 571 FSL & 1645 FEL			
Well:	SHIDELER 30-2C (O19EB)			
Company:	ENCANA OIL & GAS (USA) INC			
	LOCATION			
	SHL: 571 FSL & 1645 FEL BHL: 1043 FNL & 1905 FEL		Elev.: K.B. 6631.00 ft G.L. 6509.00 ft D.F. 6530.00 ft	
	Permanent Datum:	GROUND LEVEL	Elev.: 6509.00 ft	
	Log Measured From:	KELLY BUSHING	22.00 ft	above Perm. Datum
	Drilling Measured From:	KELLY BUSHING		
	API Serial No.	Section 19	Township 7S	Range 92W
	05-045-21834-000C			

	Oil Density	Run 1	Run 2	Run 3
	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	28-Apr-2013			
Run Number	1			
Depth Driller	9170 ft			
Schlumberger Depth	8955 ft			
Bottom Log Interval	8946 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	6165 ft			
To	9170 ft			
Casing/Tubing Size	4.500 in			
Weight	11.6 lbm/ft			
Grade				
From	22 ft			
To	9101 ft			
Maximum Recorded Temperatures	250 degF			
Logger On Bottom	28-Apr-2013		19:15	
Unit Number	Location			
Recorded By	JASON BARRY			
Witnessed By	BILLY MYERS			

	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	Location		
	Recorded By			
	Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 14-MAR-2013 10:41:08

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:	20-FEB-2011	Length:	19500 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878	Conveyance Method:	Wireline
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-3	Calibration RMS:	4		
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 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 DOWN LOG	
TOOL RAN AS PER TOOL SKETCH	
MAXIMUM RECORDED TEMPERATURE= 250 DEGF	
MAXIMUM RECORDED PRESSURE= 3684 PSIA	
ENTRANCE TIME= 18:30	

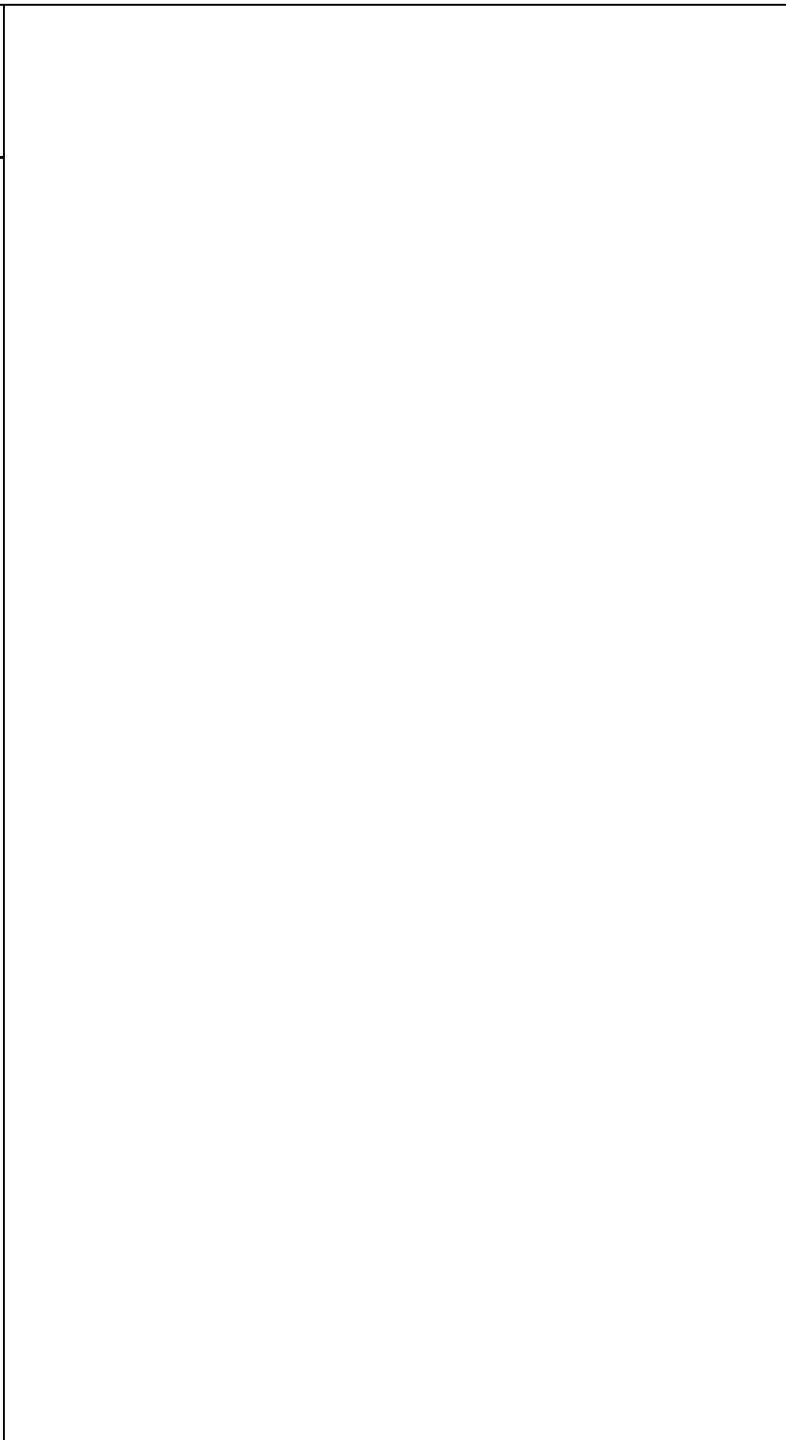
TIME ON BOTTOM= 19:15	
EXIT TIME= 21:45	
SHORT JOINTS: 5572 FT & 6561 FT	
MAIN PASS LOGGED UNDER ZERO SURFACE PRESURE	
EXPECTED CBL AMP IN FREE PIPE = 80MV	
THANK YOU FOR CHOOSING E&P WIRELINE, A SCHLUMBERGR COMPANY	
CREW: KBUNTING JBARRY KJOHNS JMANN	

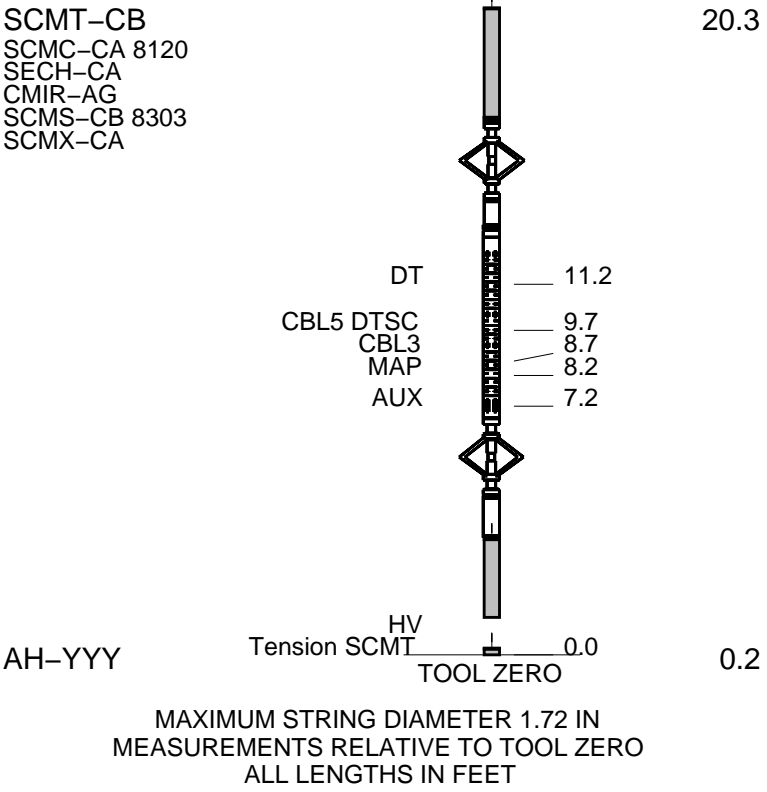
RUN 1			RUN 2		
SERVICE ORDER #:		CGF9-00048	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:		60 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT	
WITM-A PSC_16MHZ	

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





Schlumberger

MAIN PASS CBL VDL

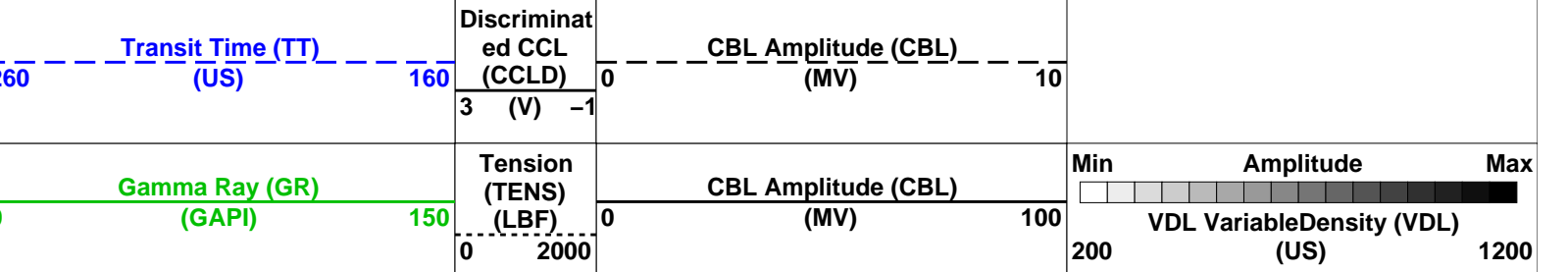
MAXIS Field Log

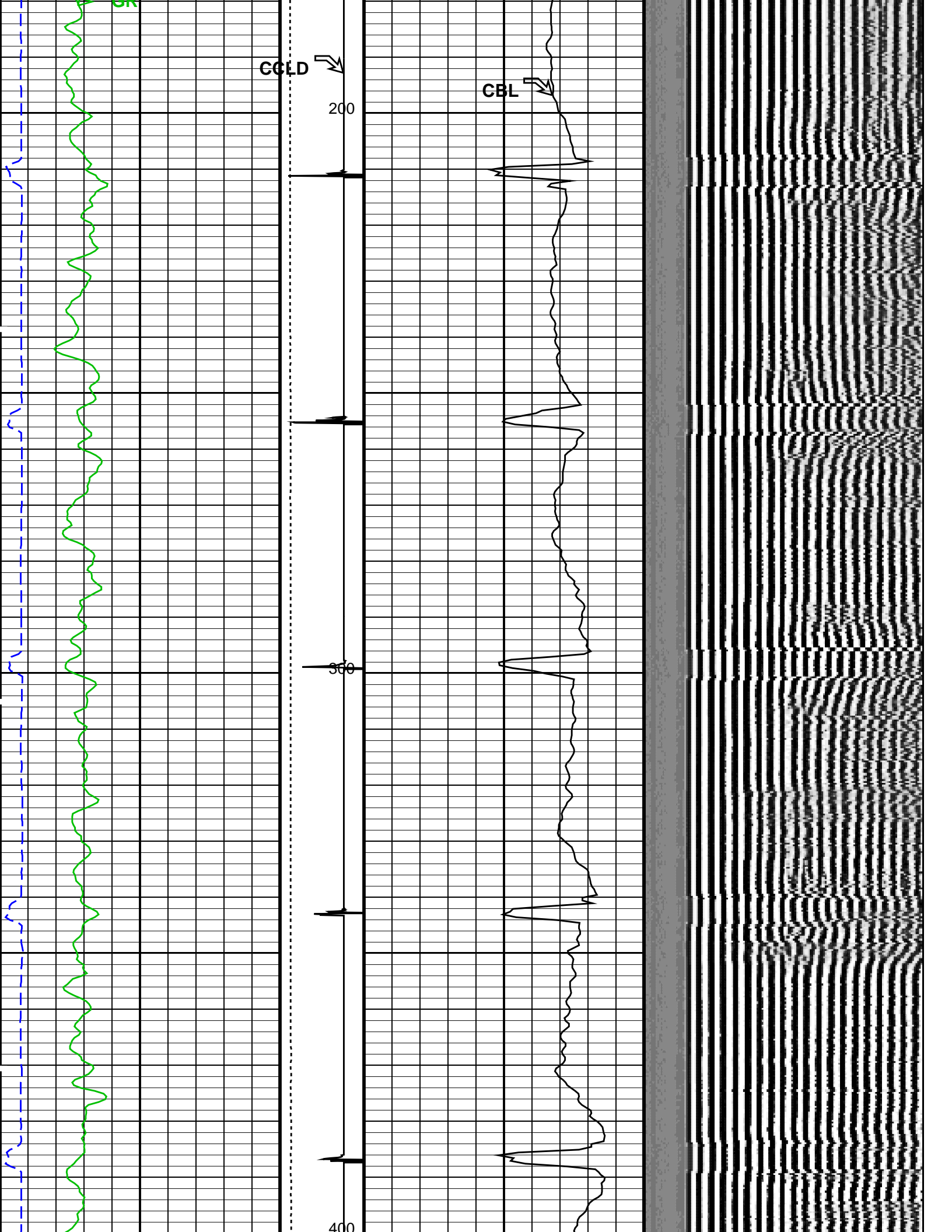
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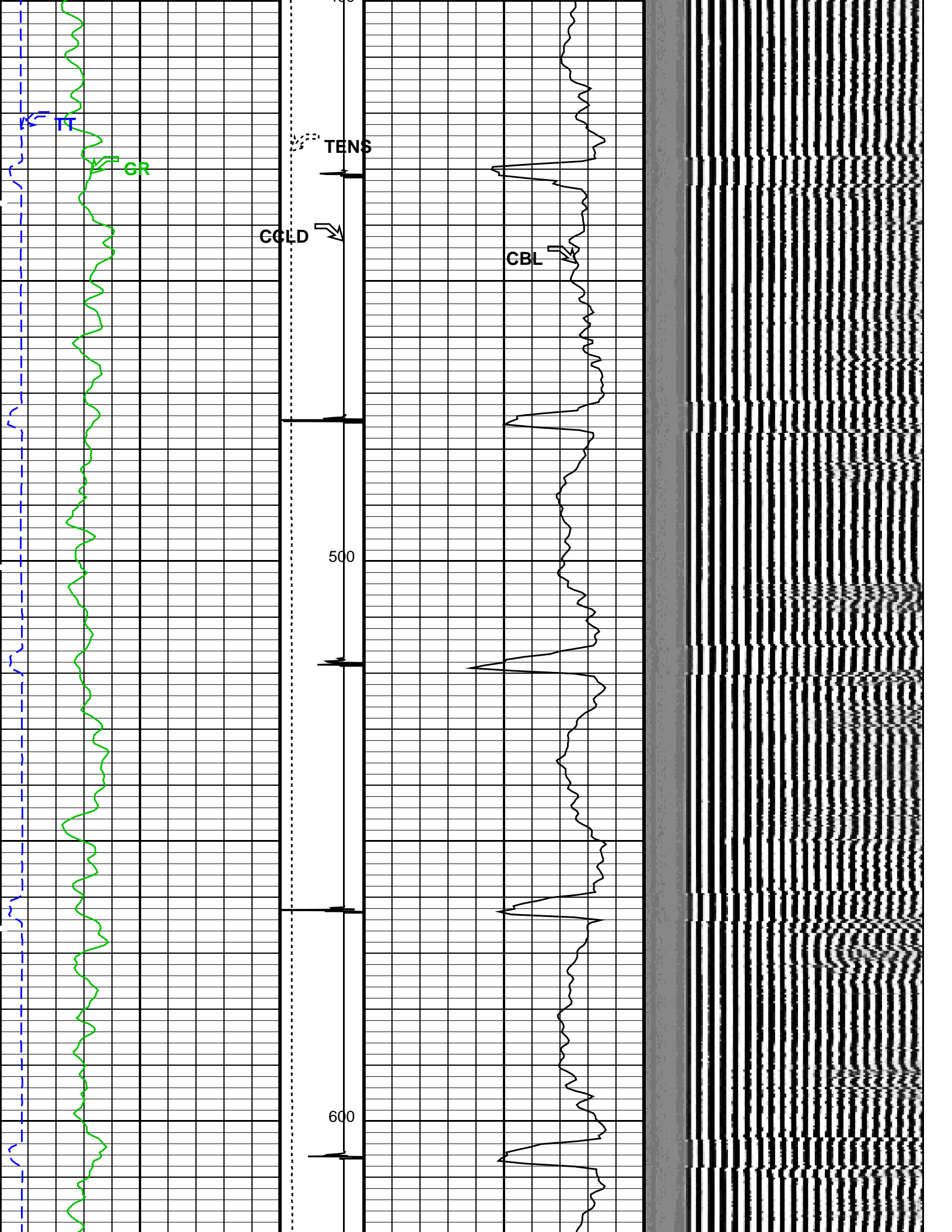
Input DLIS Files						
DEFAULT	SCMT_RST_PSP_090LUP	FN:88	PRODUCER	28-Apr-2013 19:13	8961.5 FT	-0.5 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_097PUP	FN:95	PRODUCER	28-Apr-2013 21:51	8965.5 FT	-41.0 FT
OP System Version: 19C0-187						
SCMT-CB	SRPC-5214-H2-2012-OP1	RST-C		SRPC-5214-H2-2012-OP1		
PSPT	SRPC-5214-H2-2012-OP1					

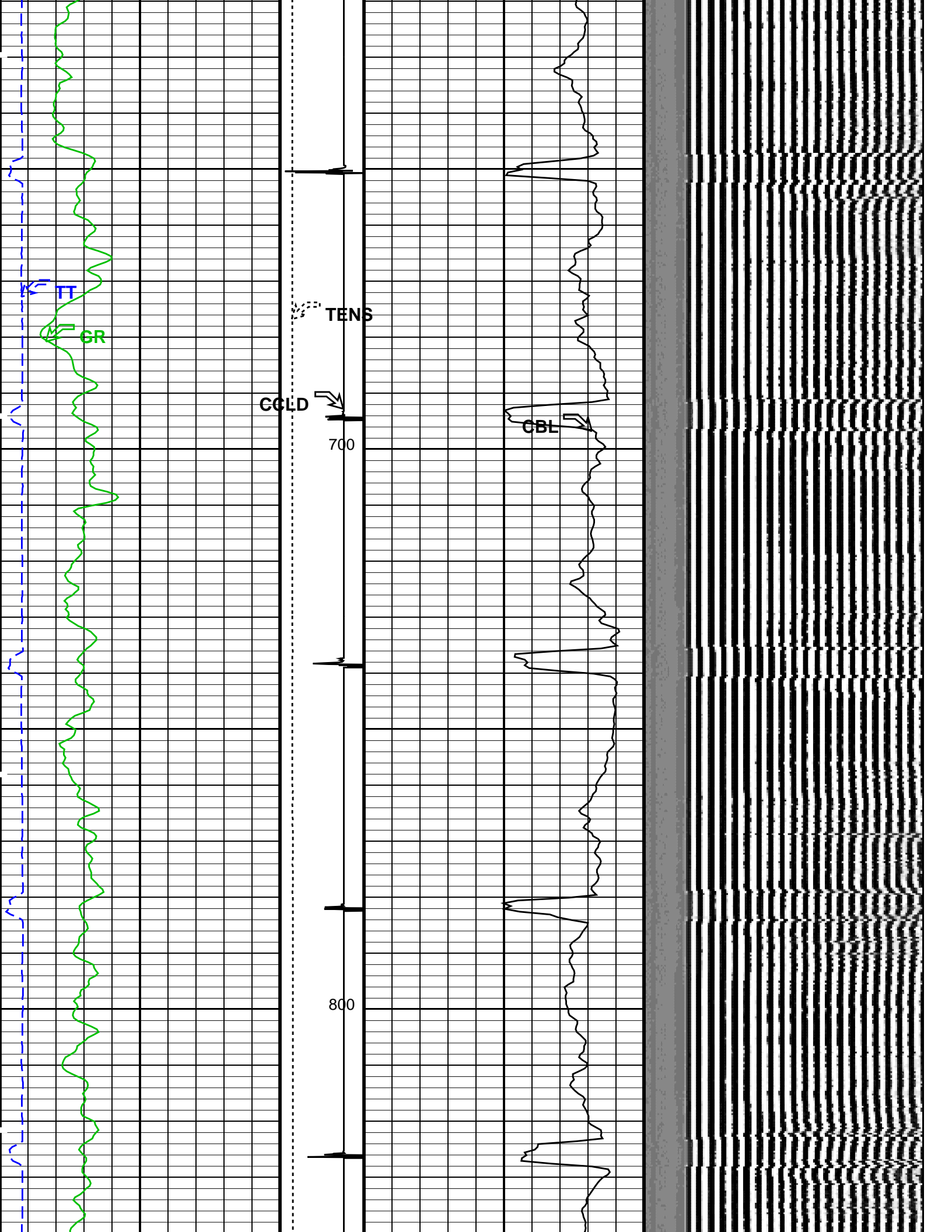
PIP SUMMARY

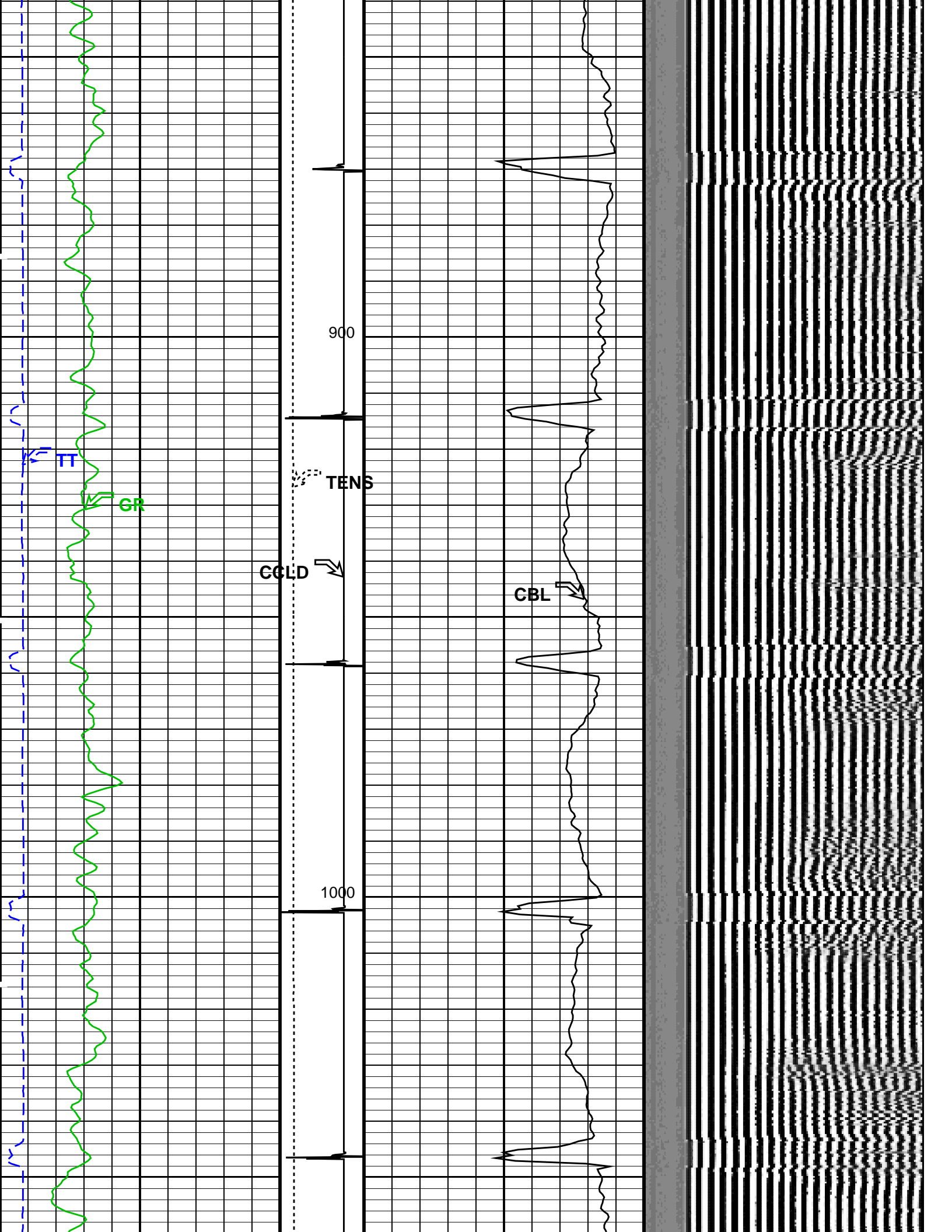
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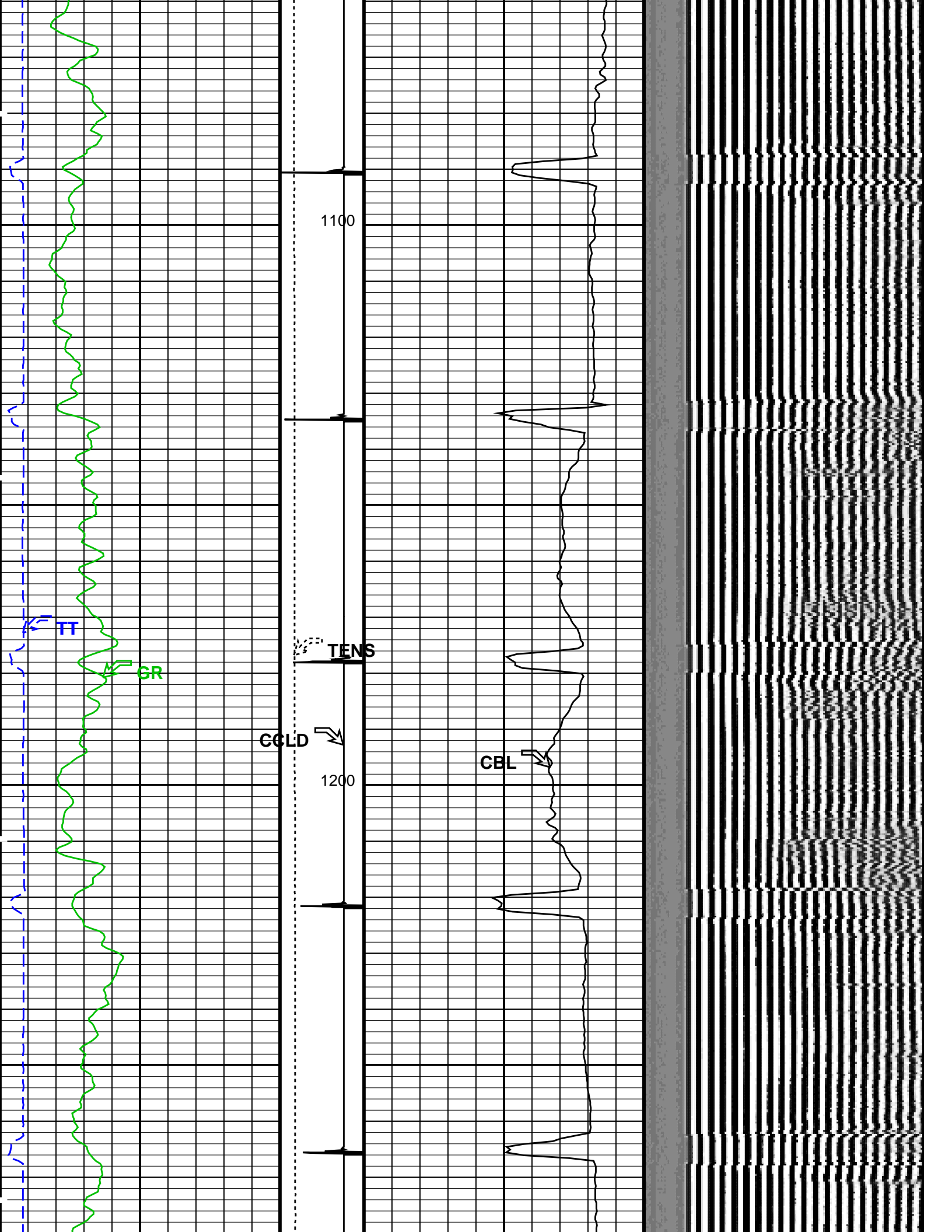


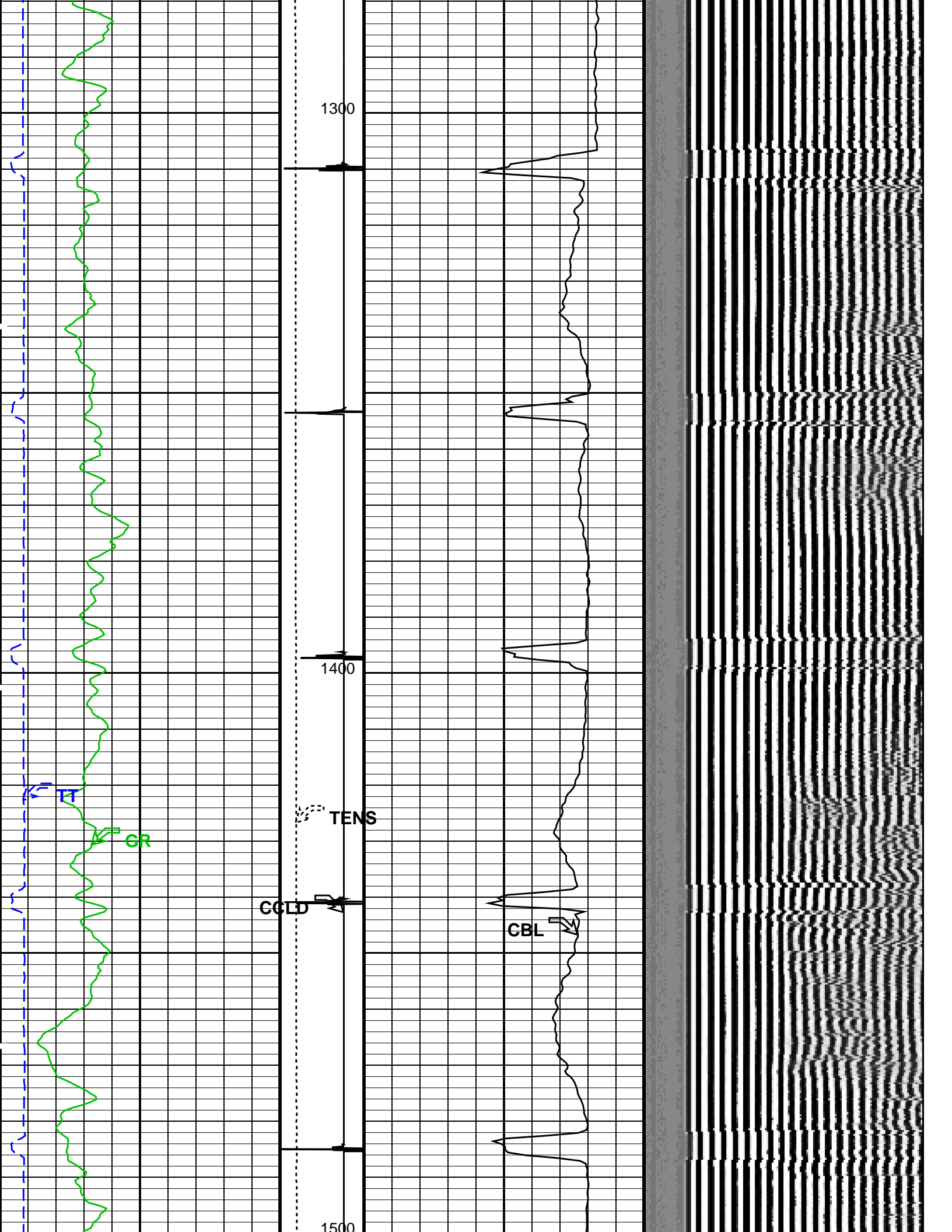


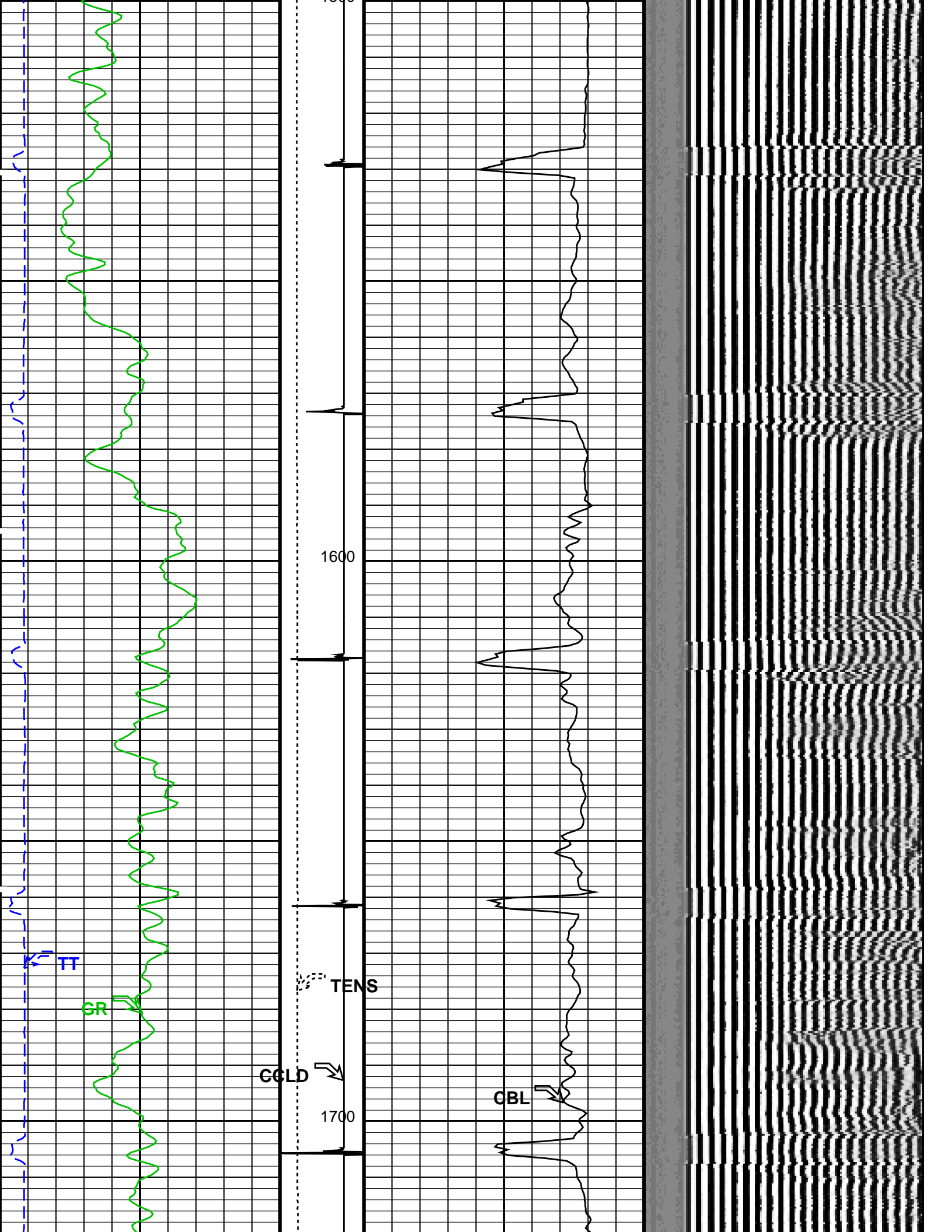


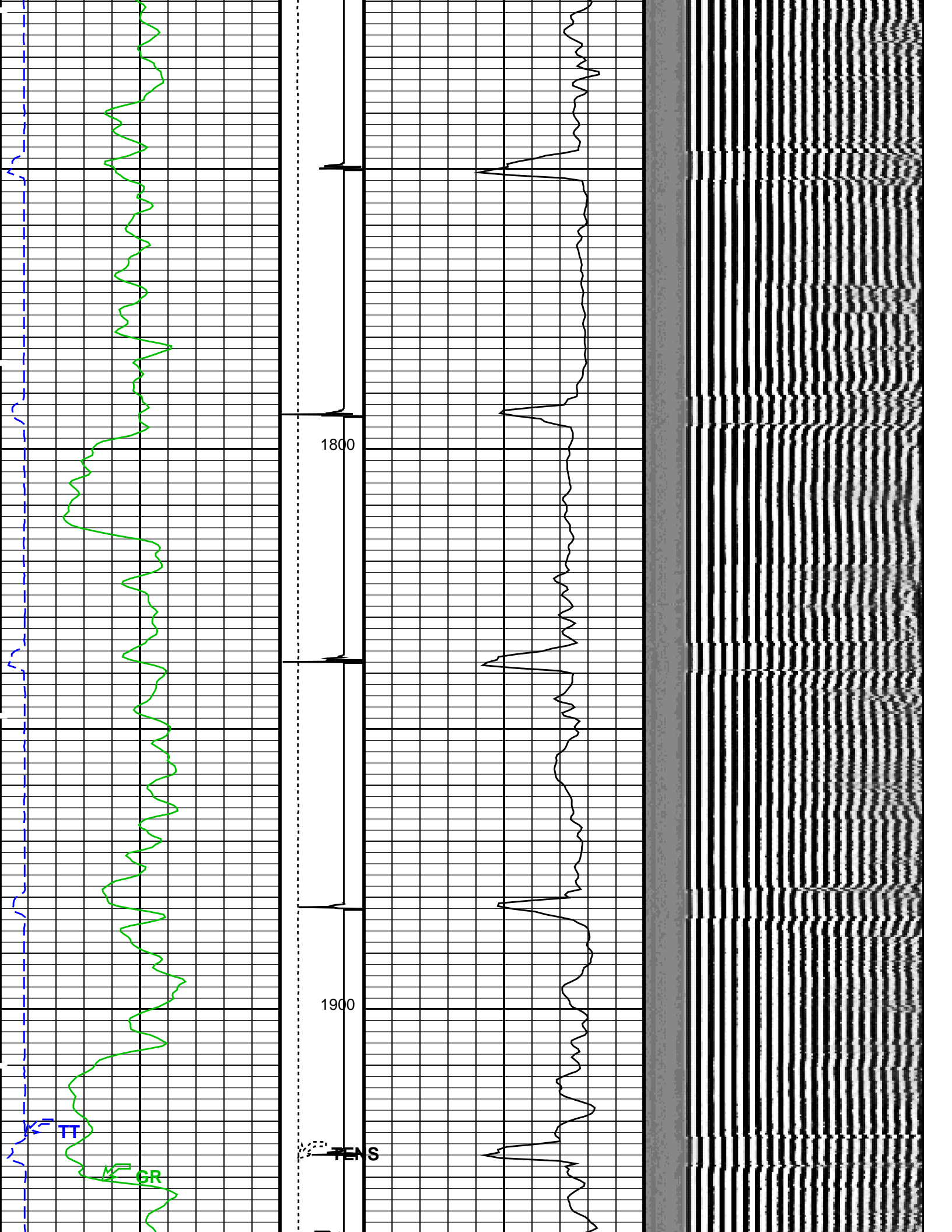


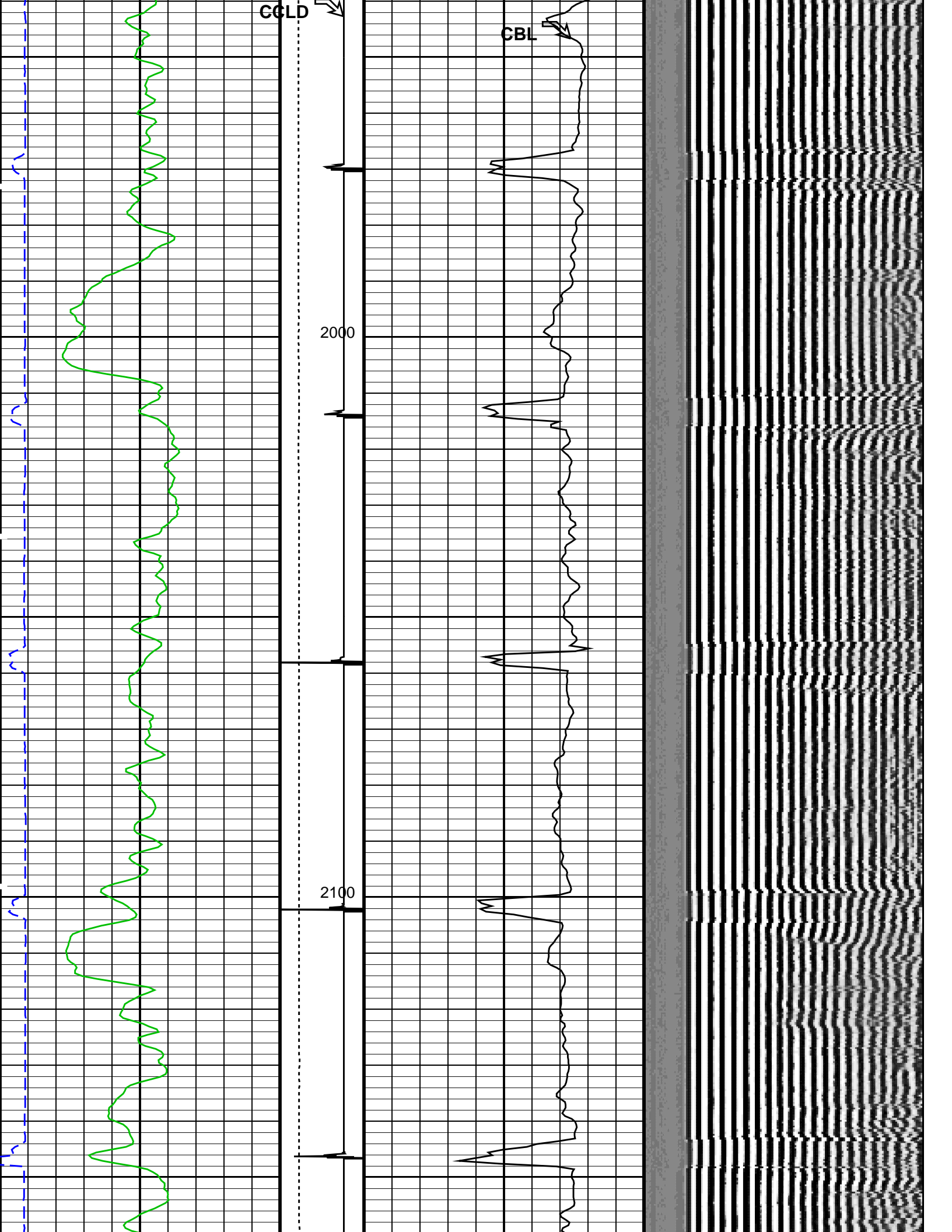


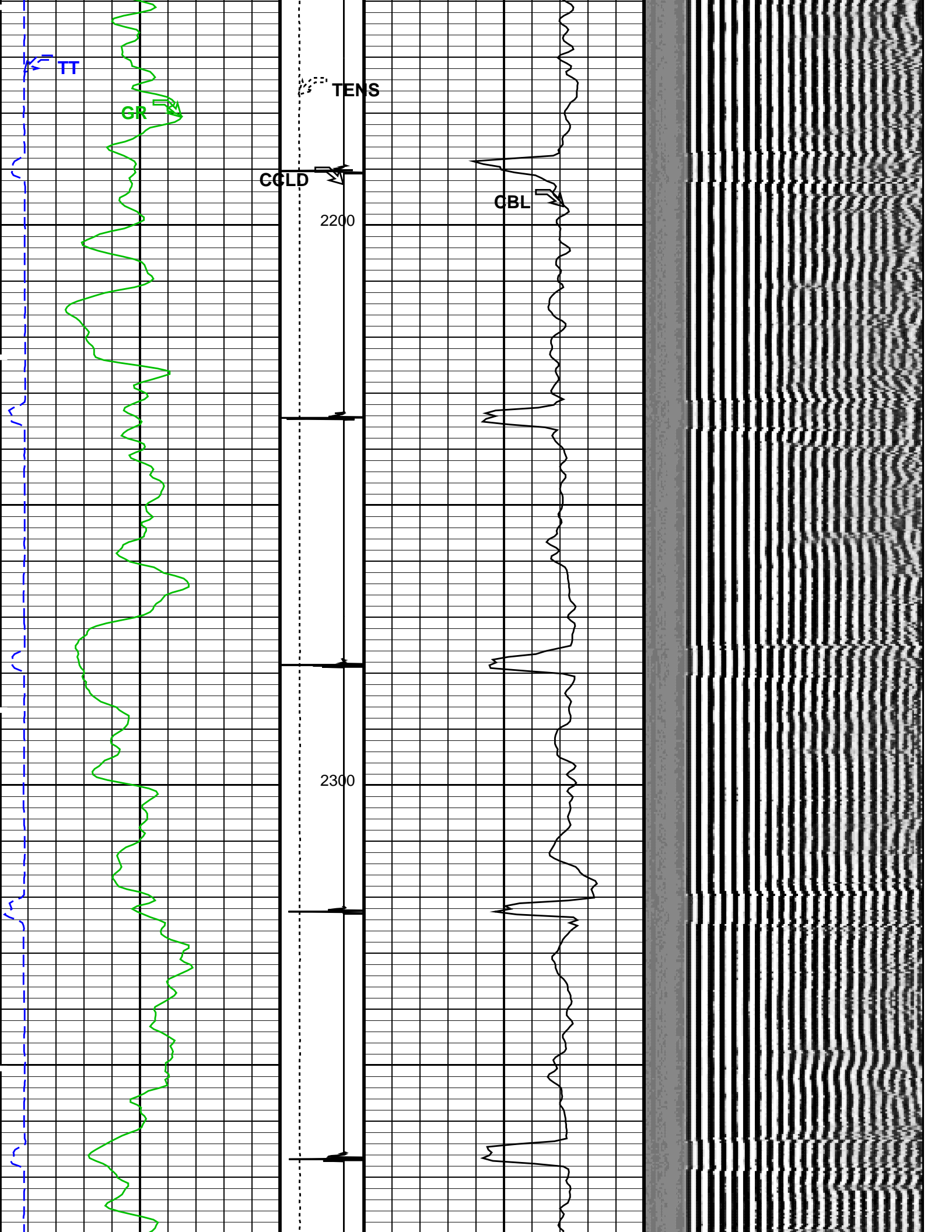


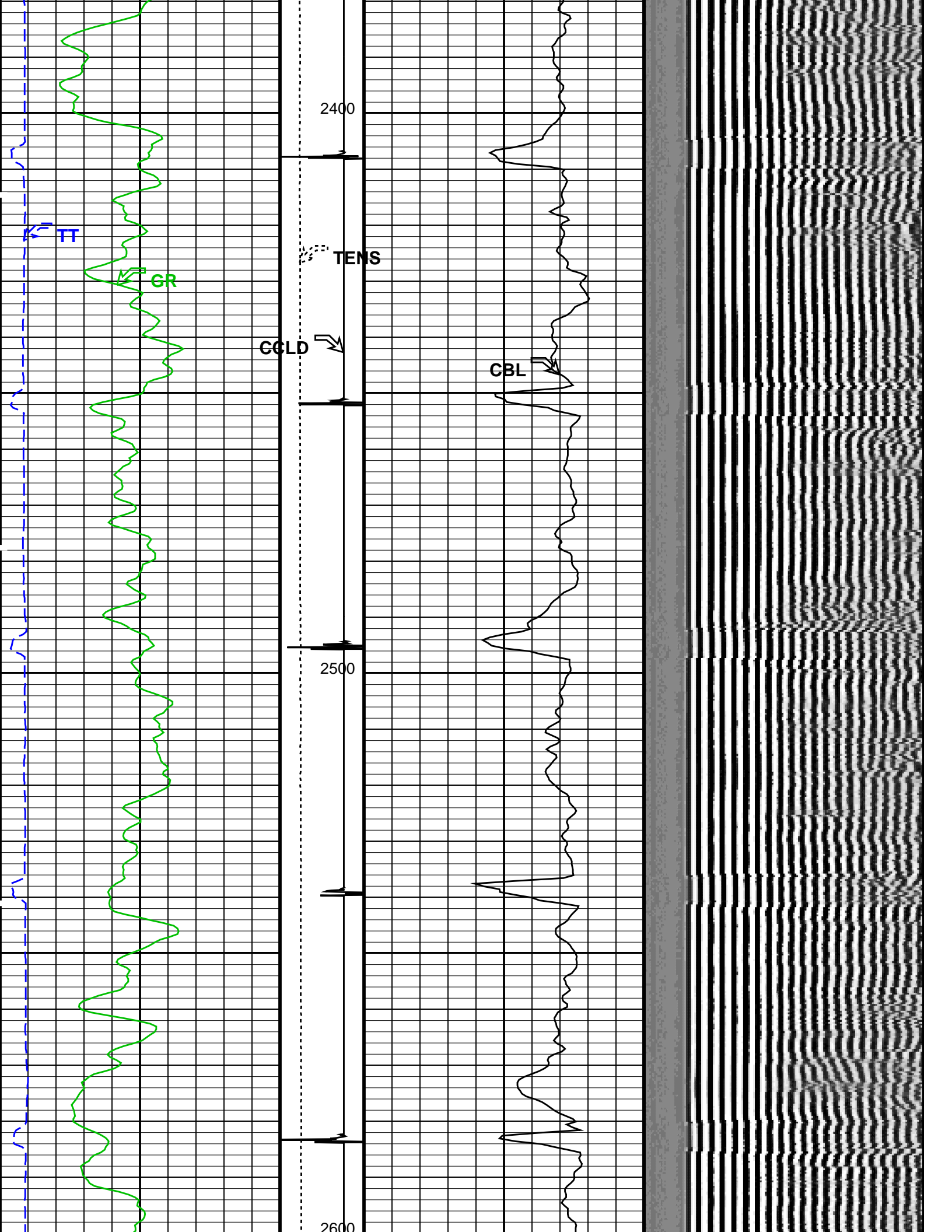


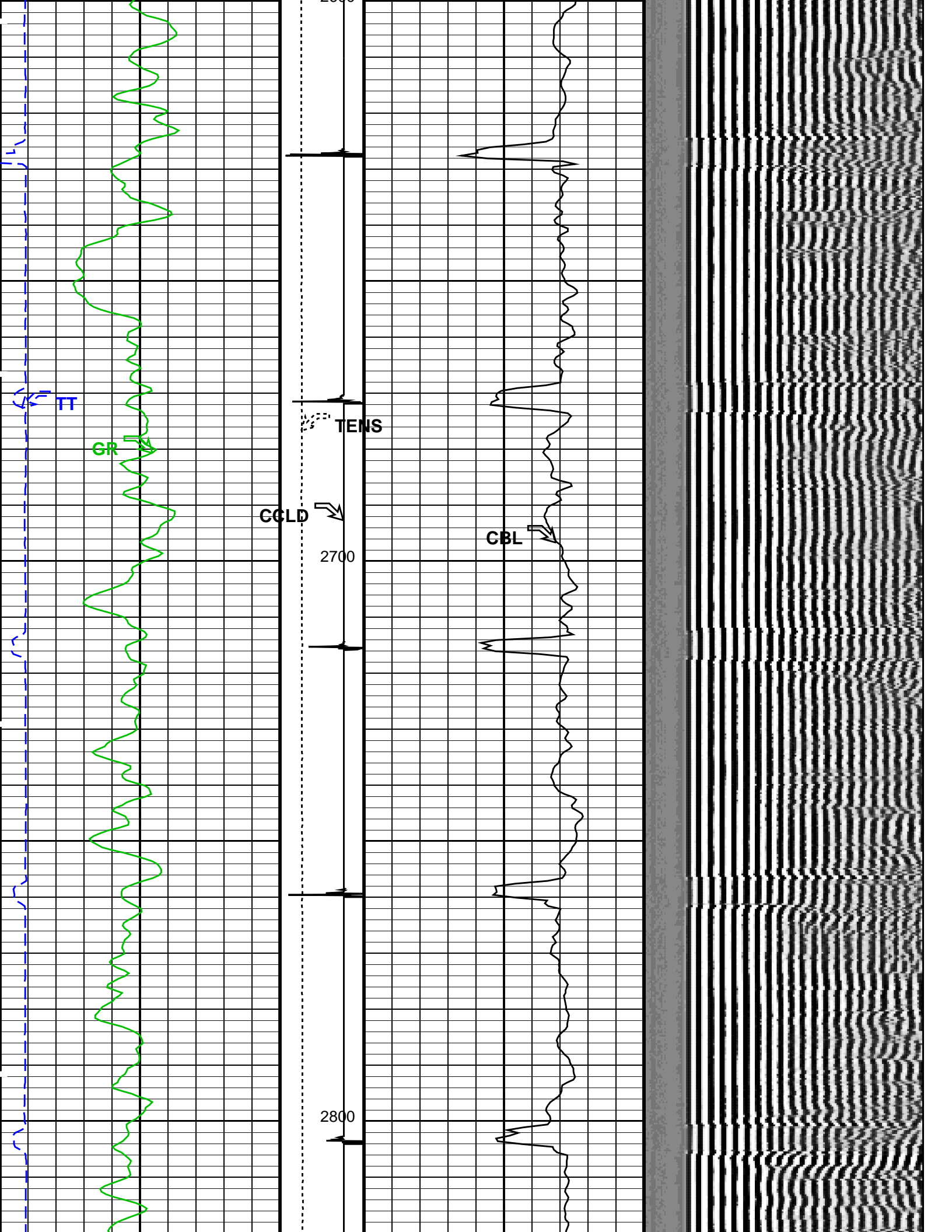


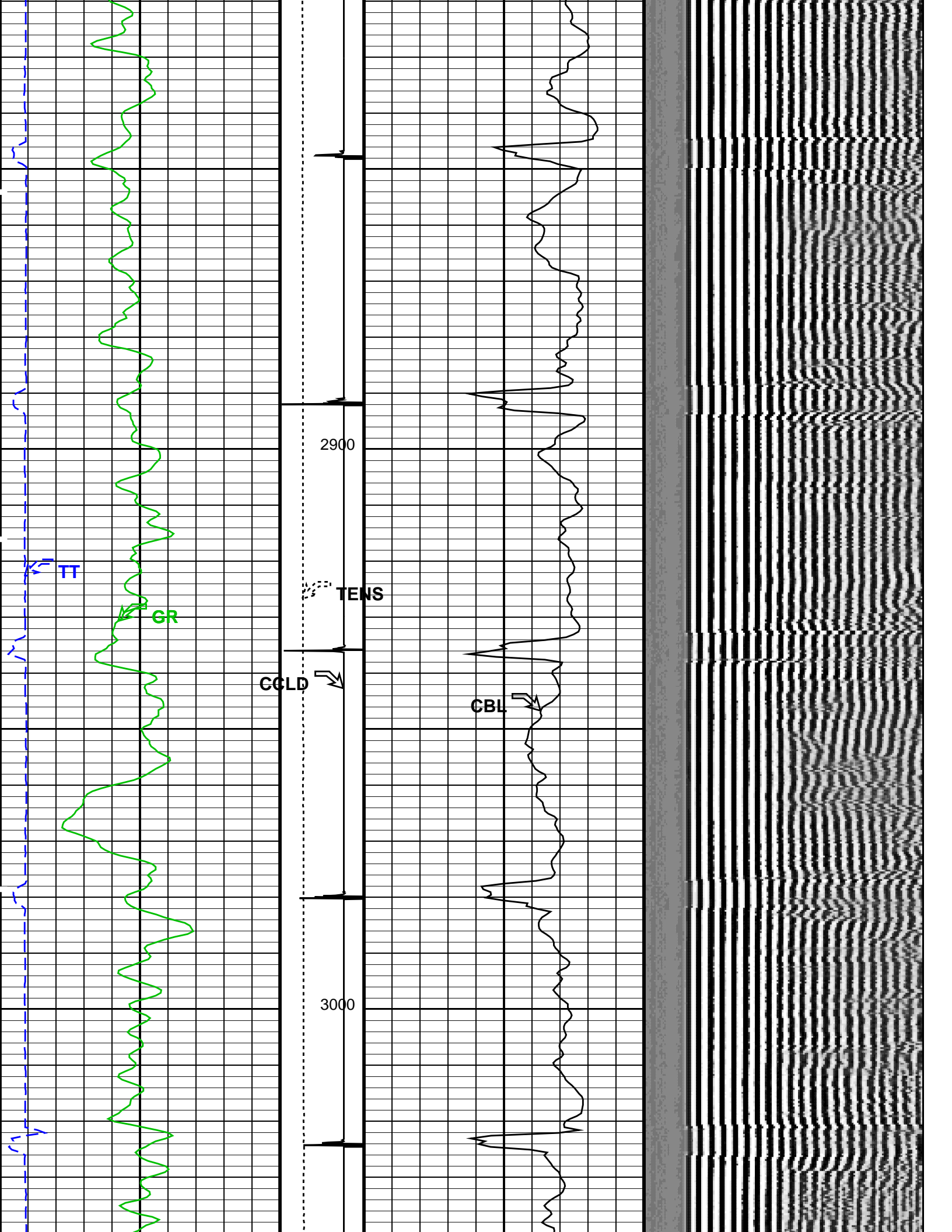


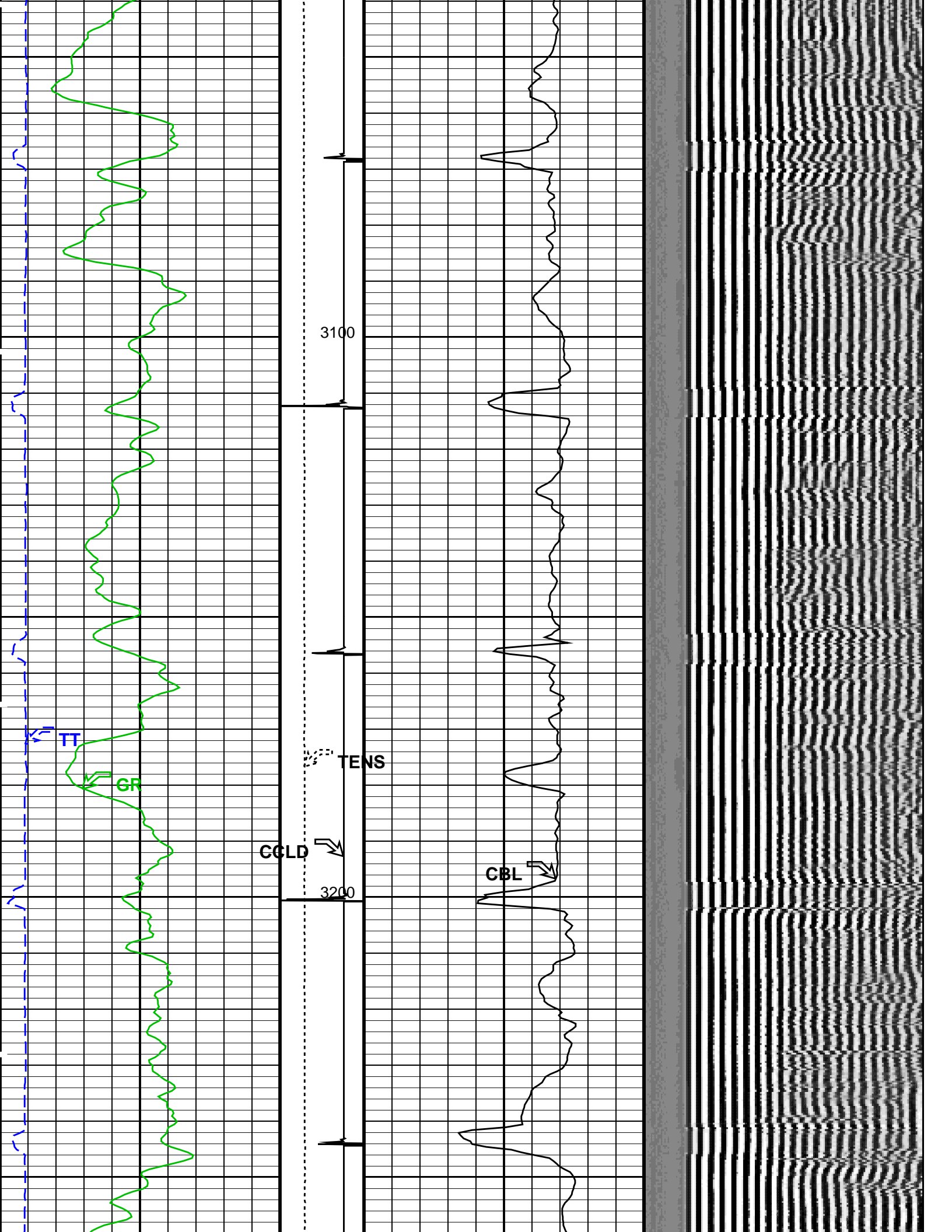


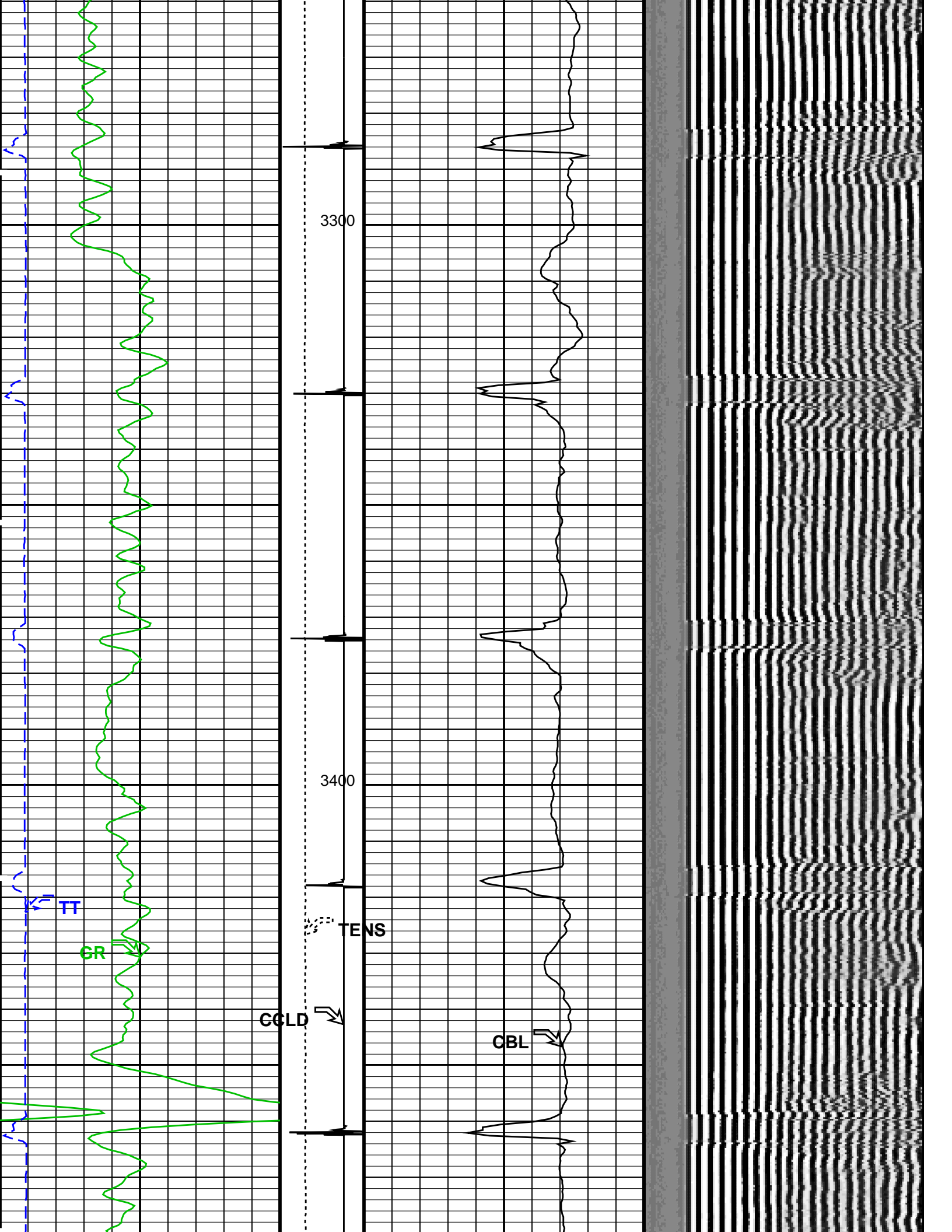


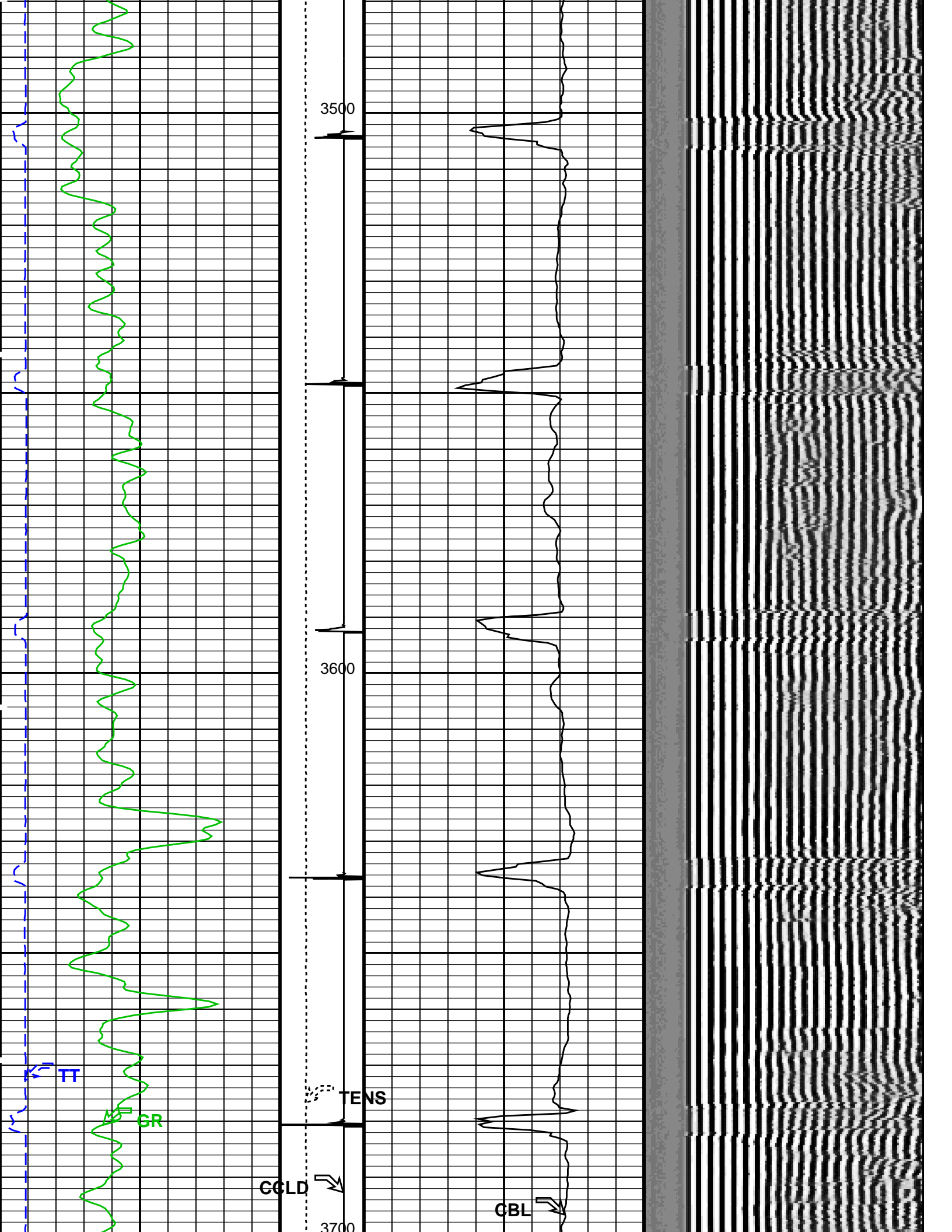


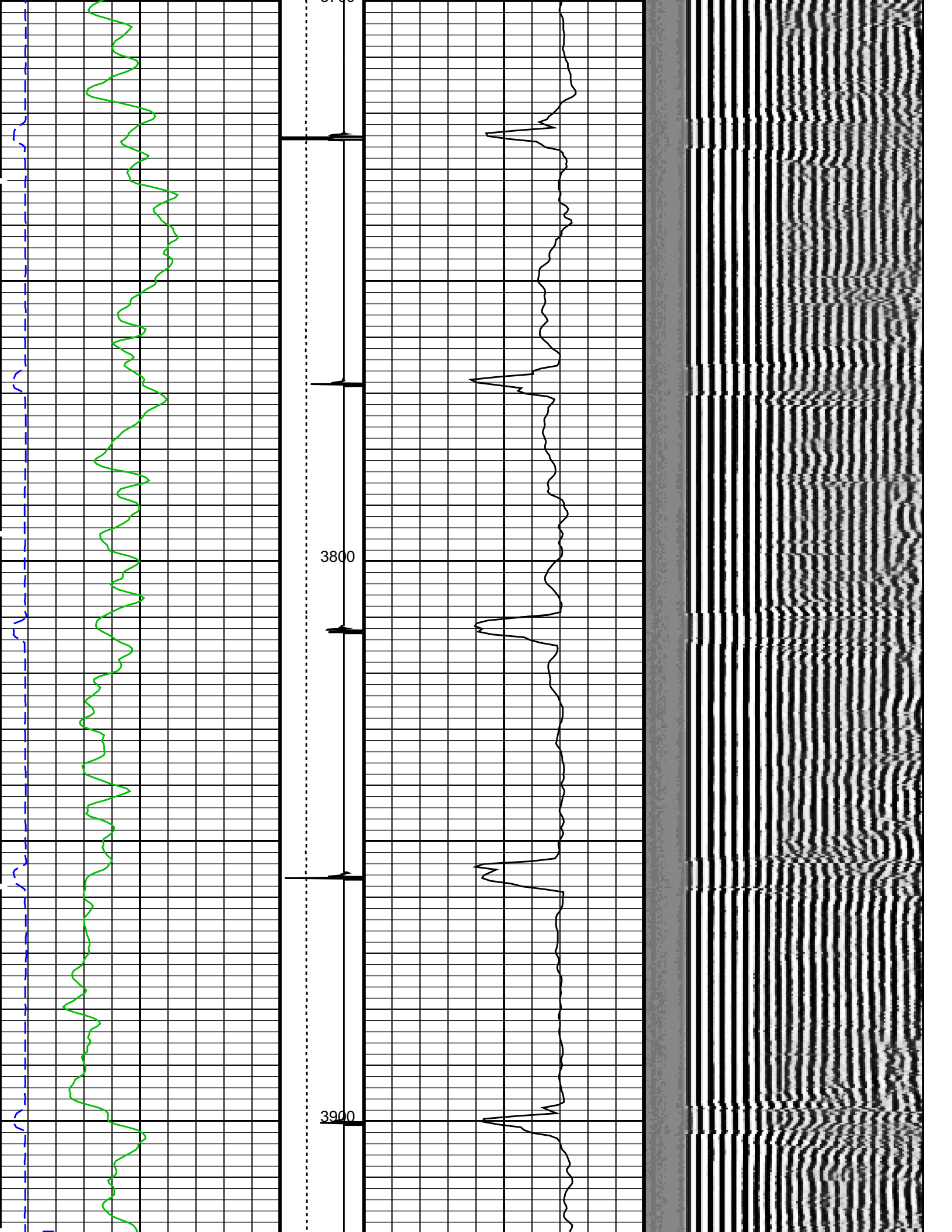


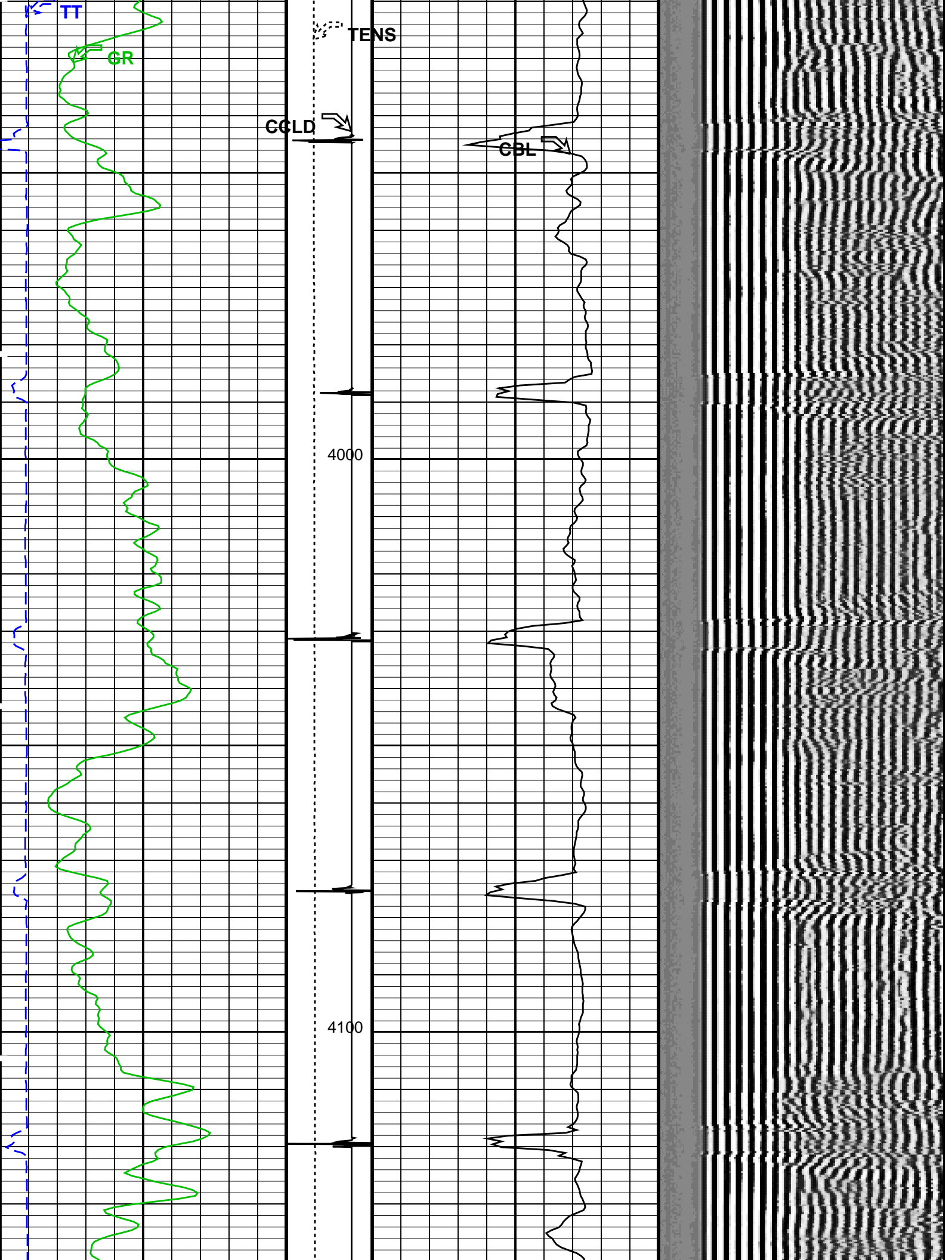


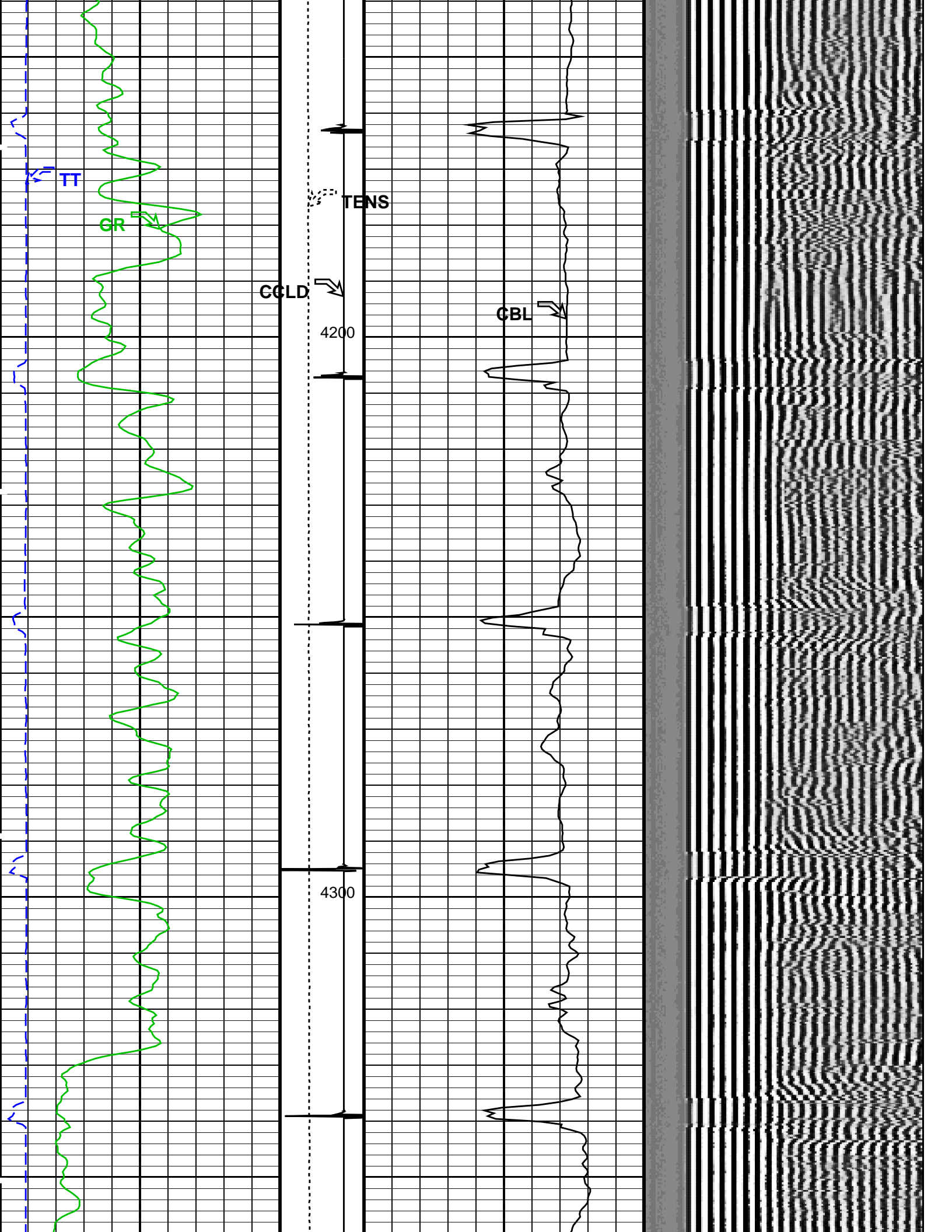


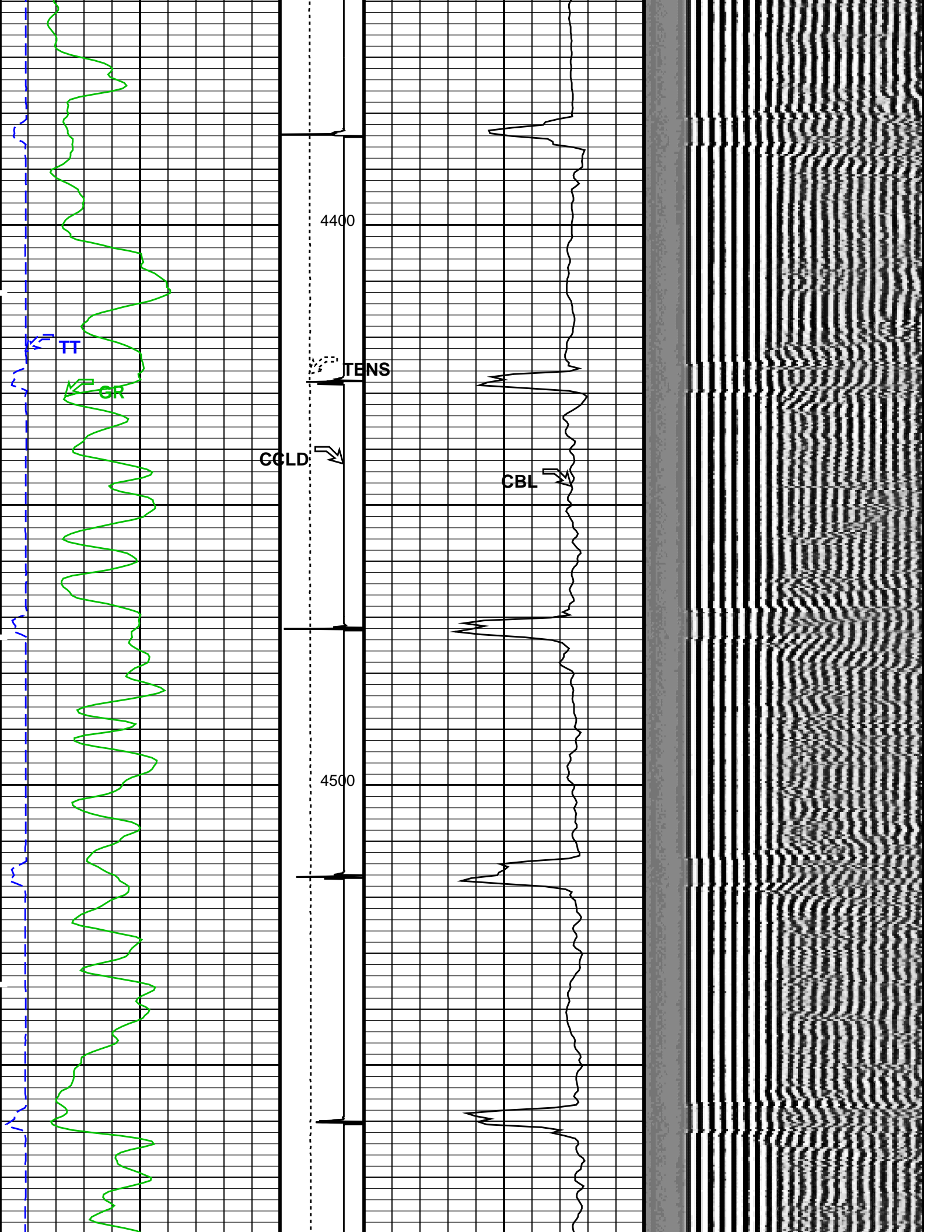


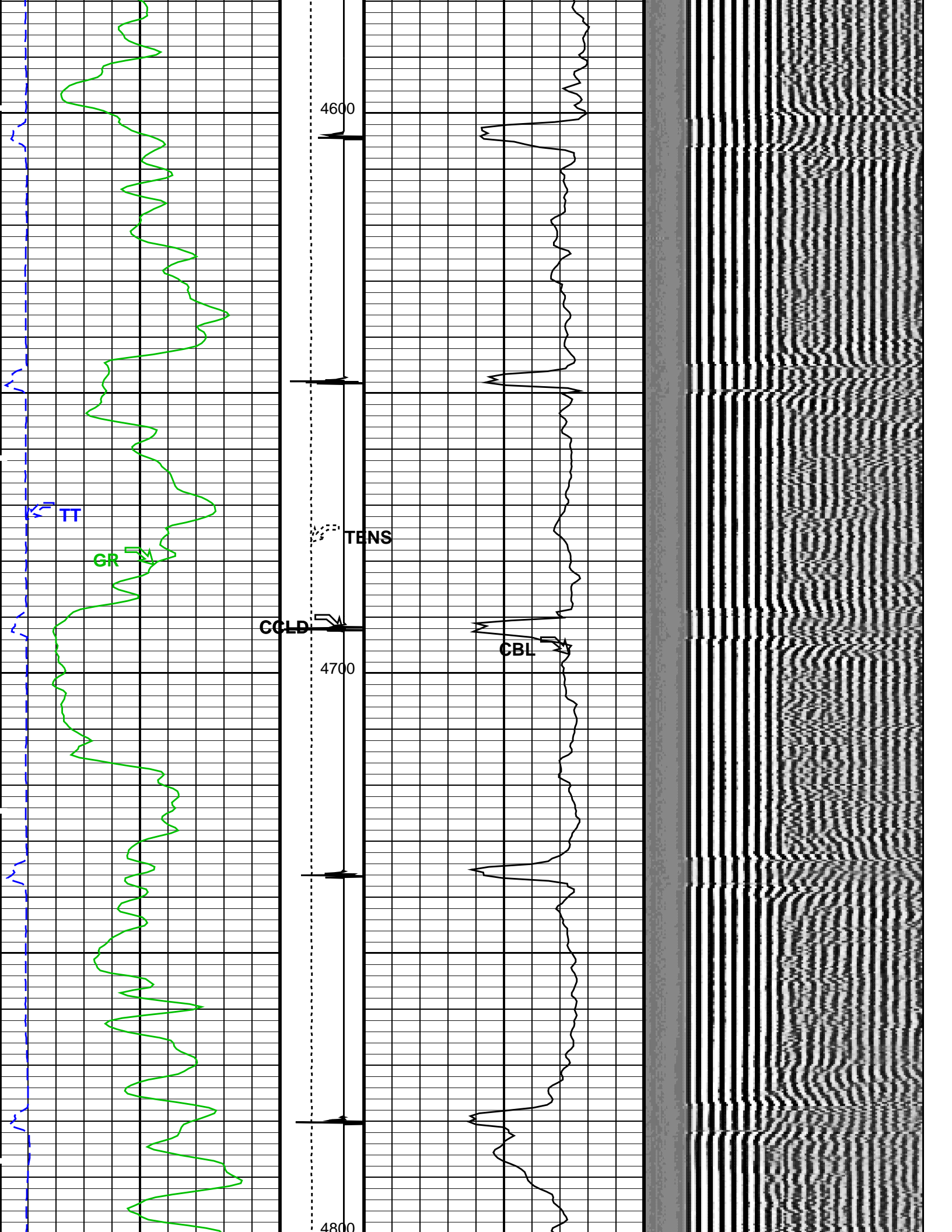


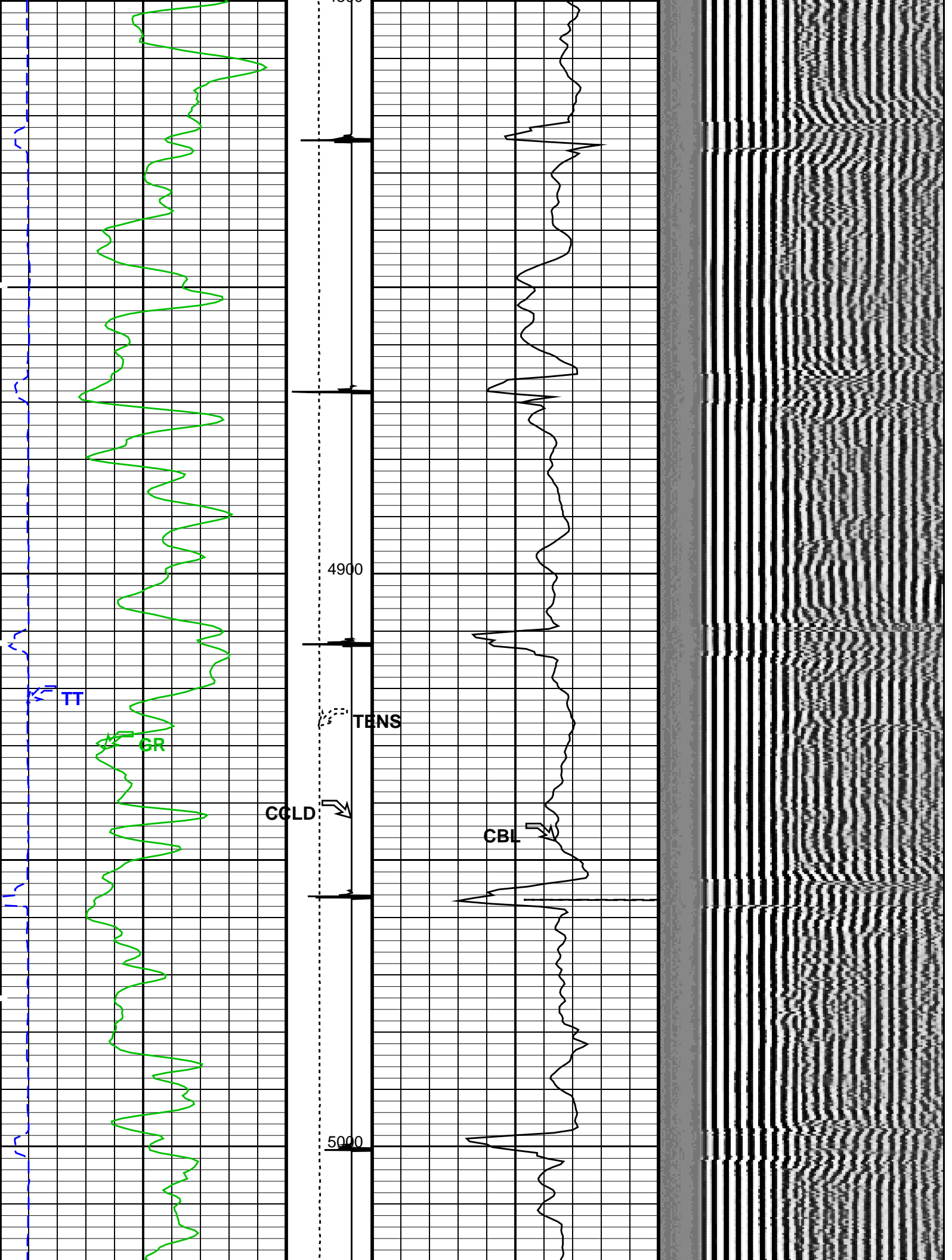


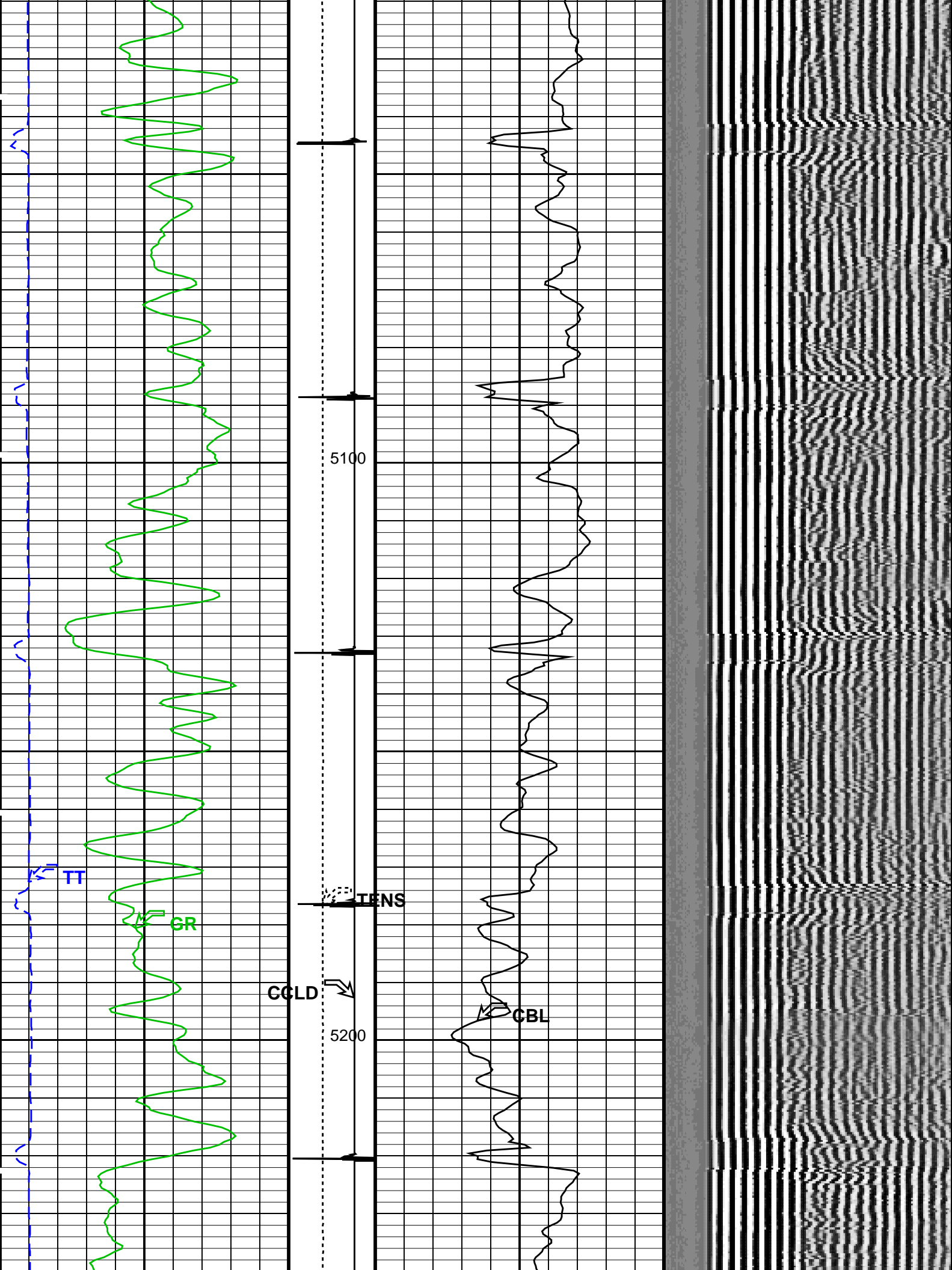


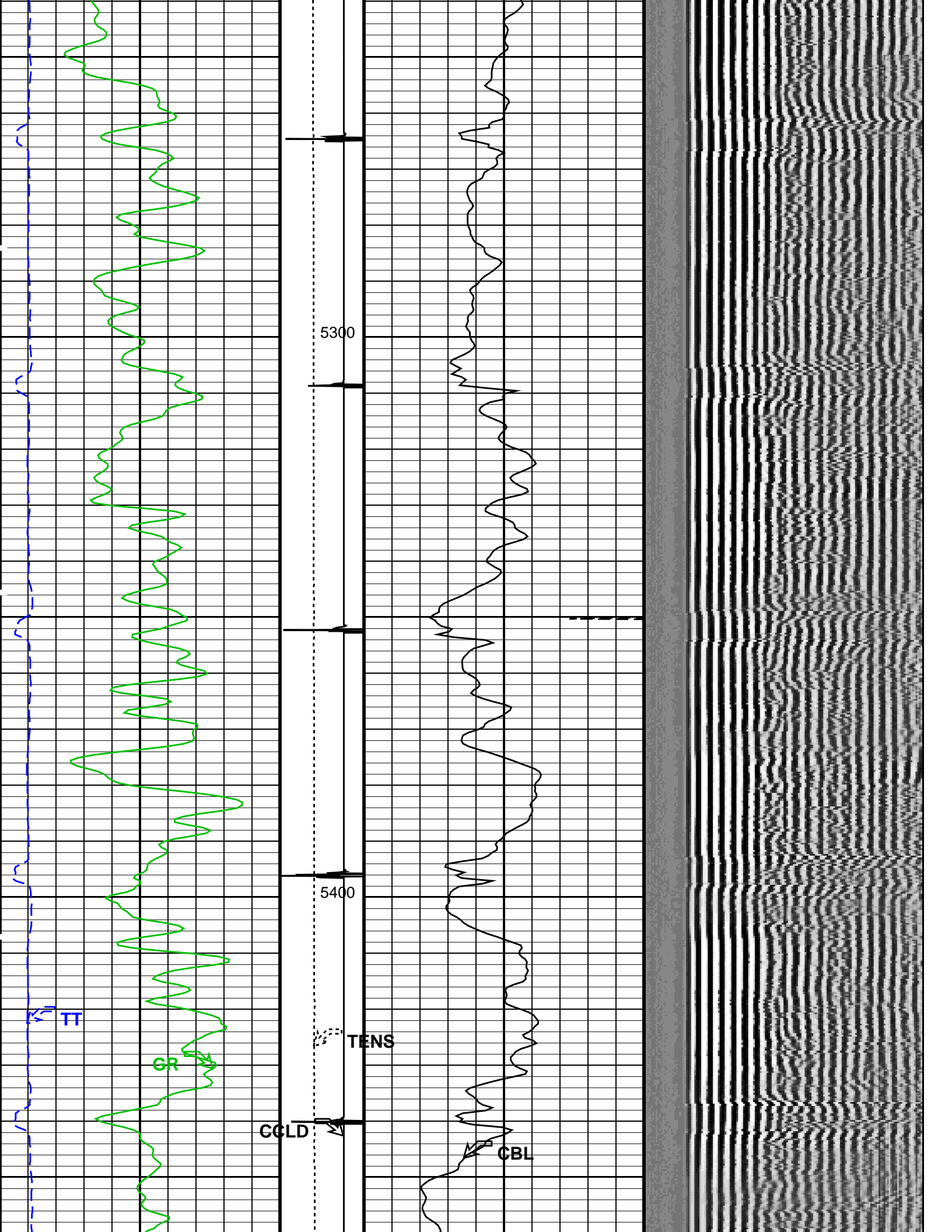


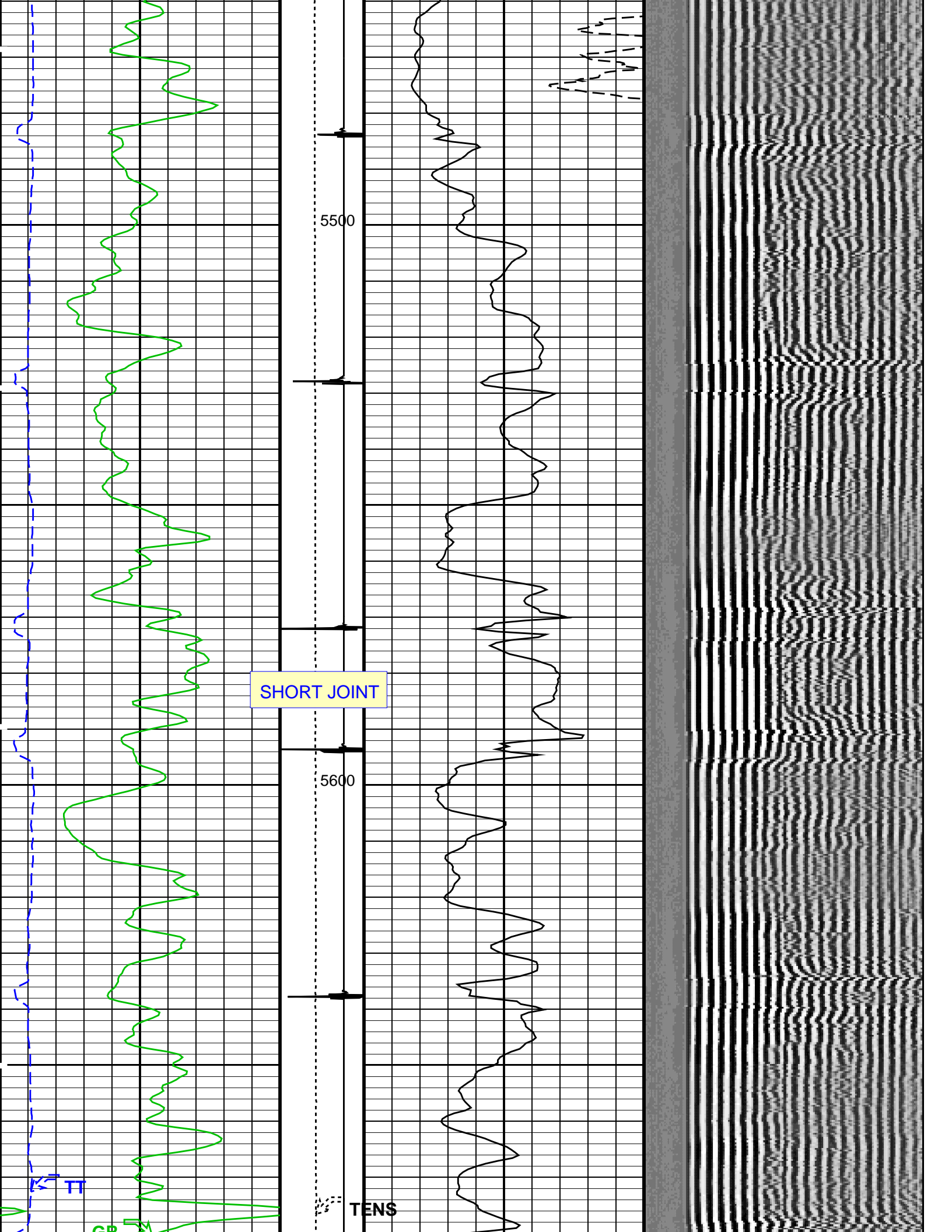


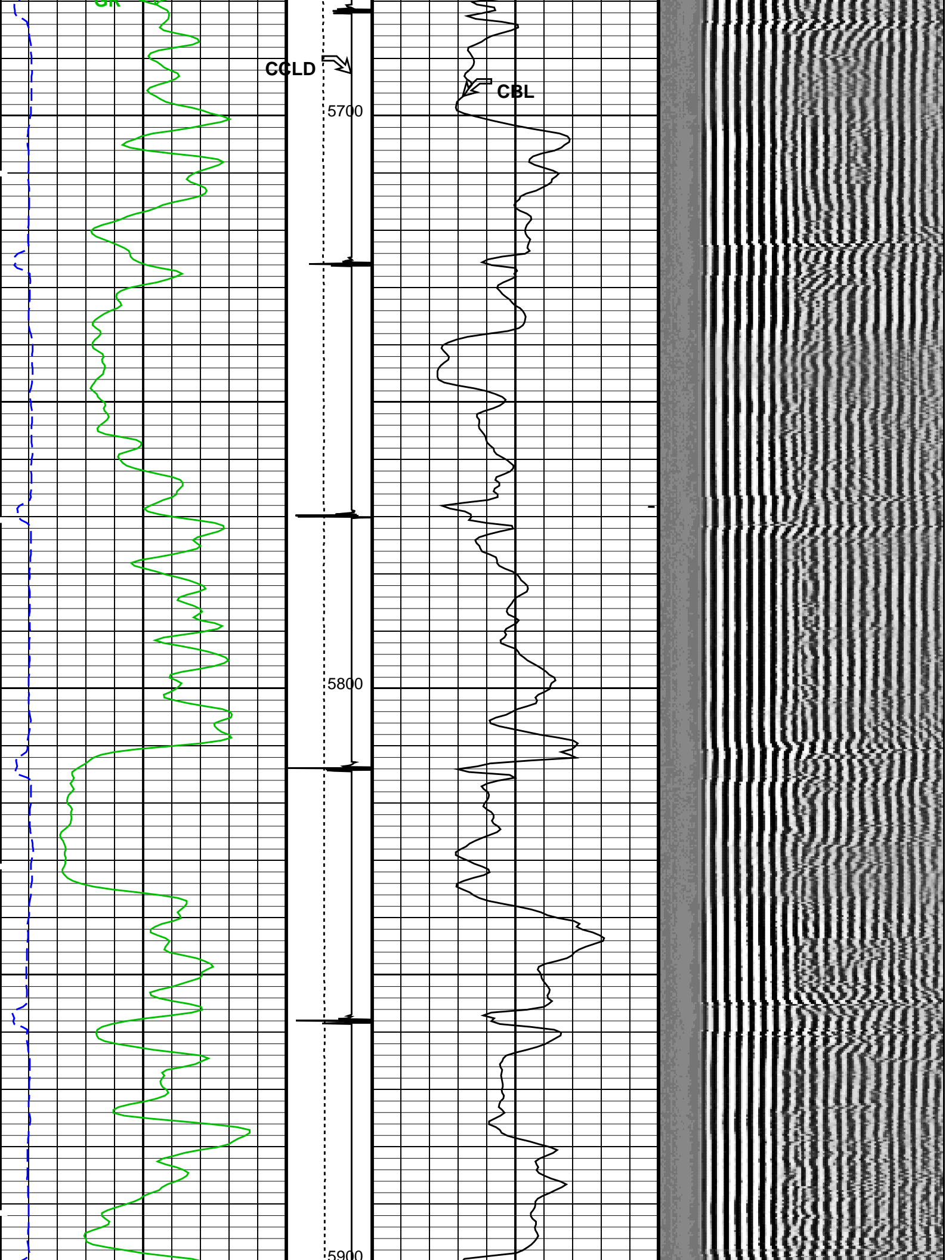


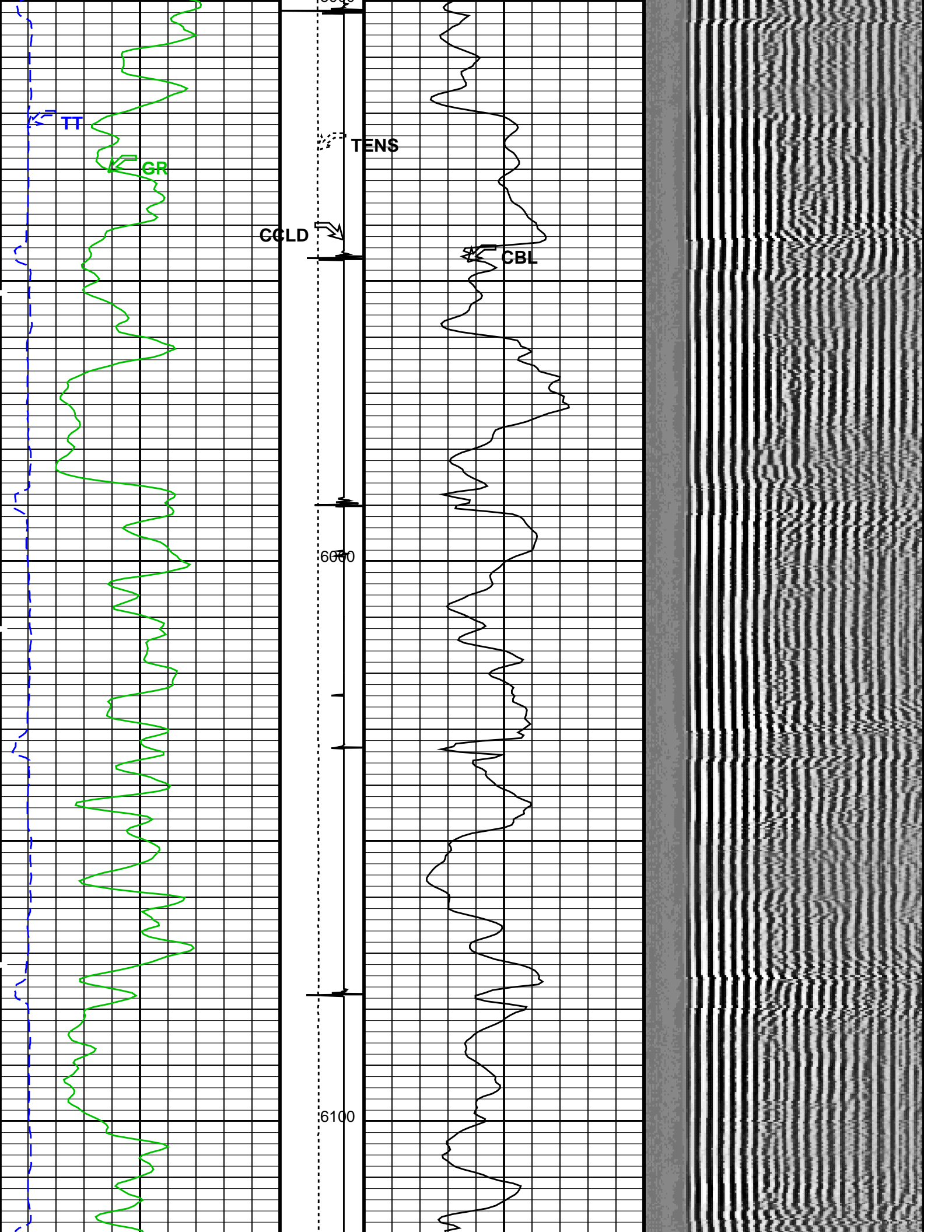


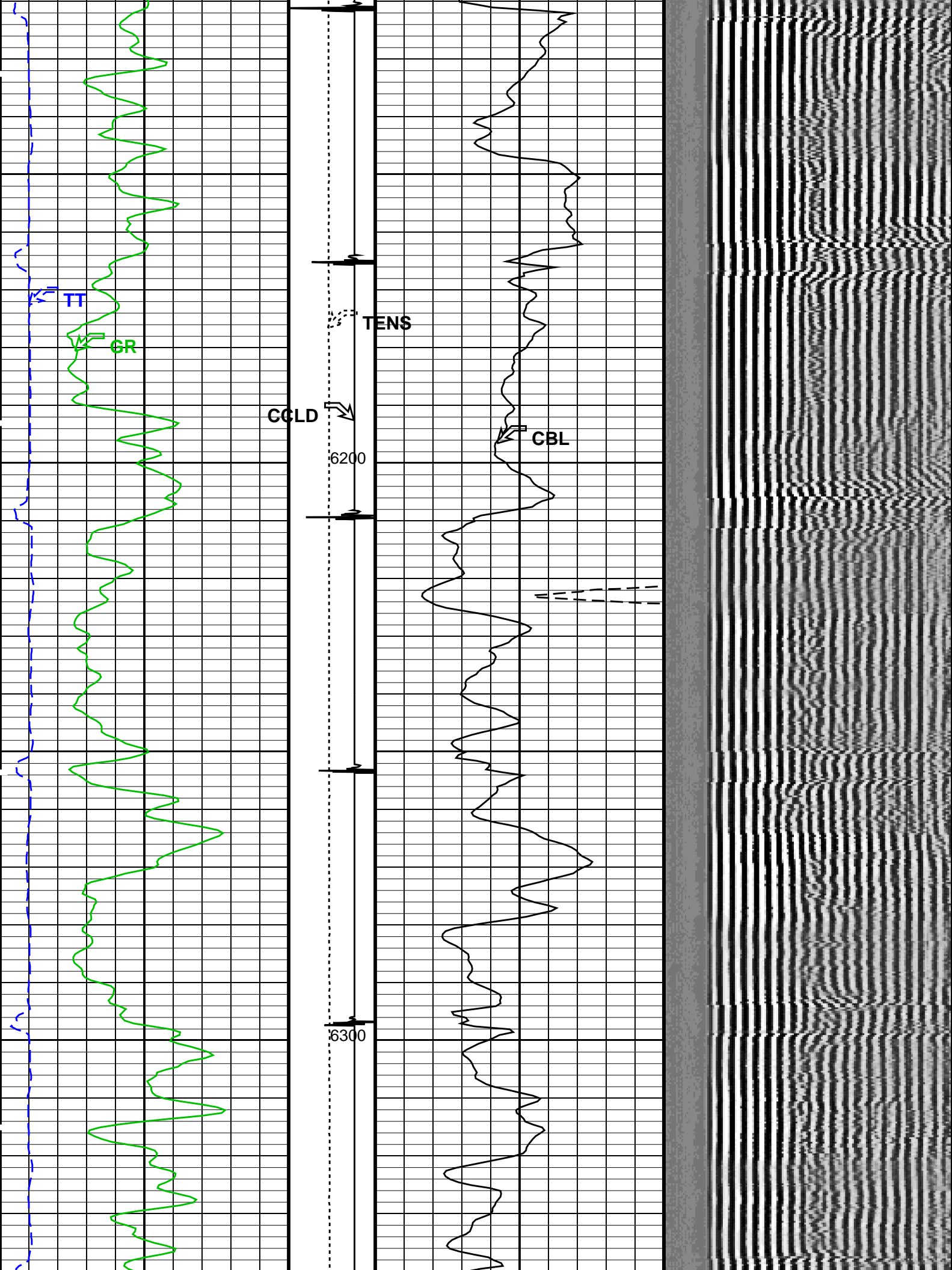


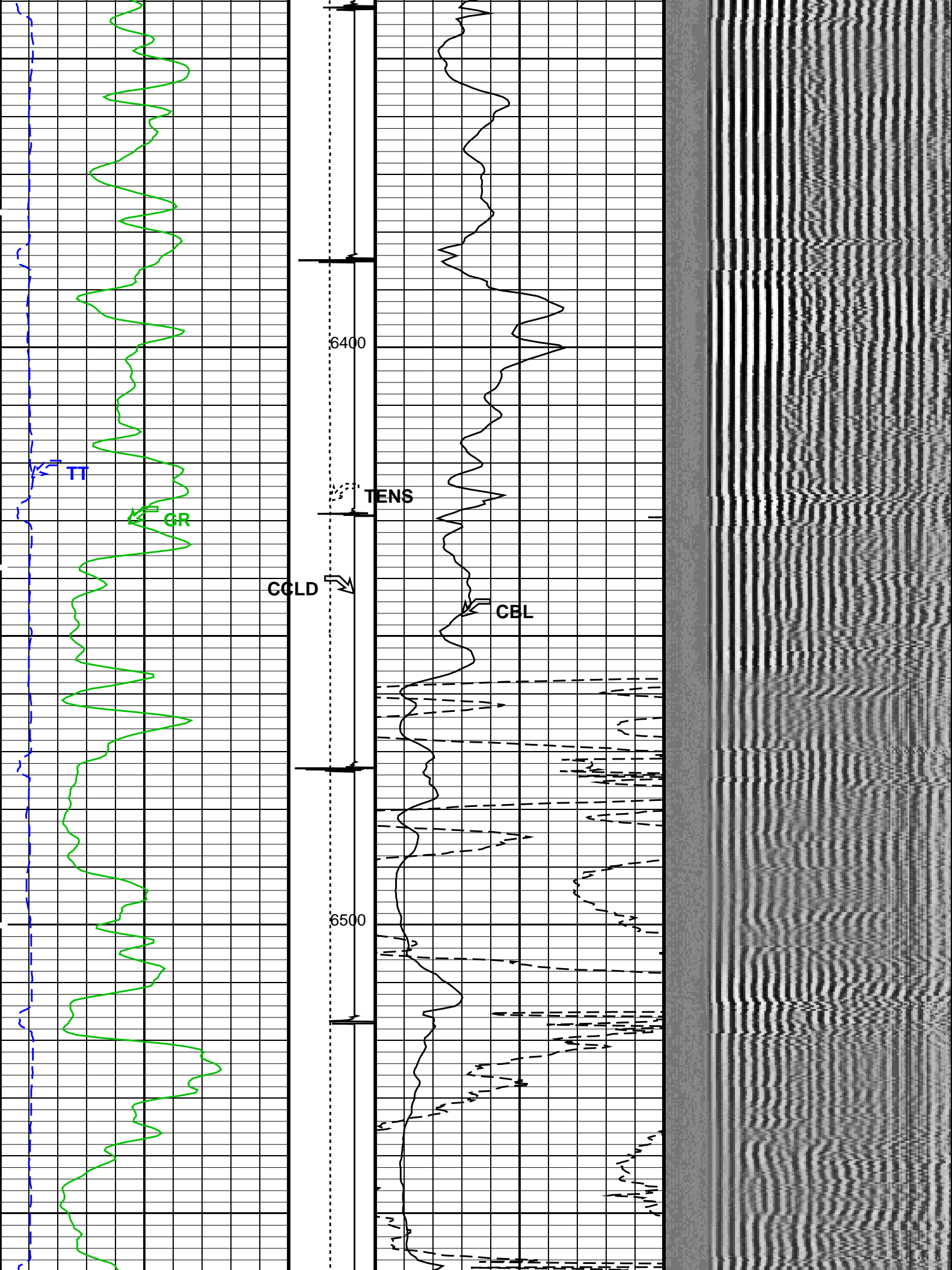


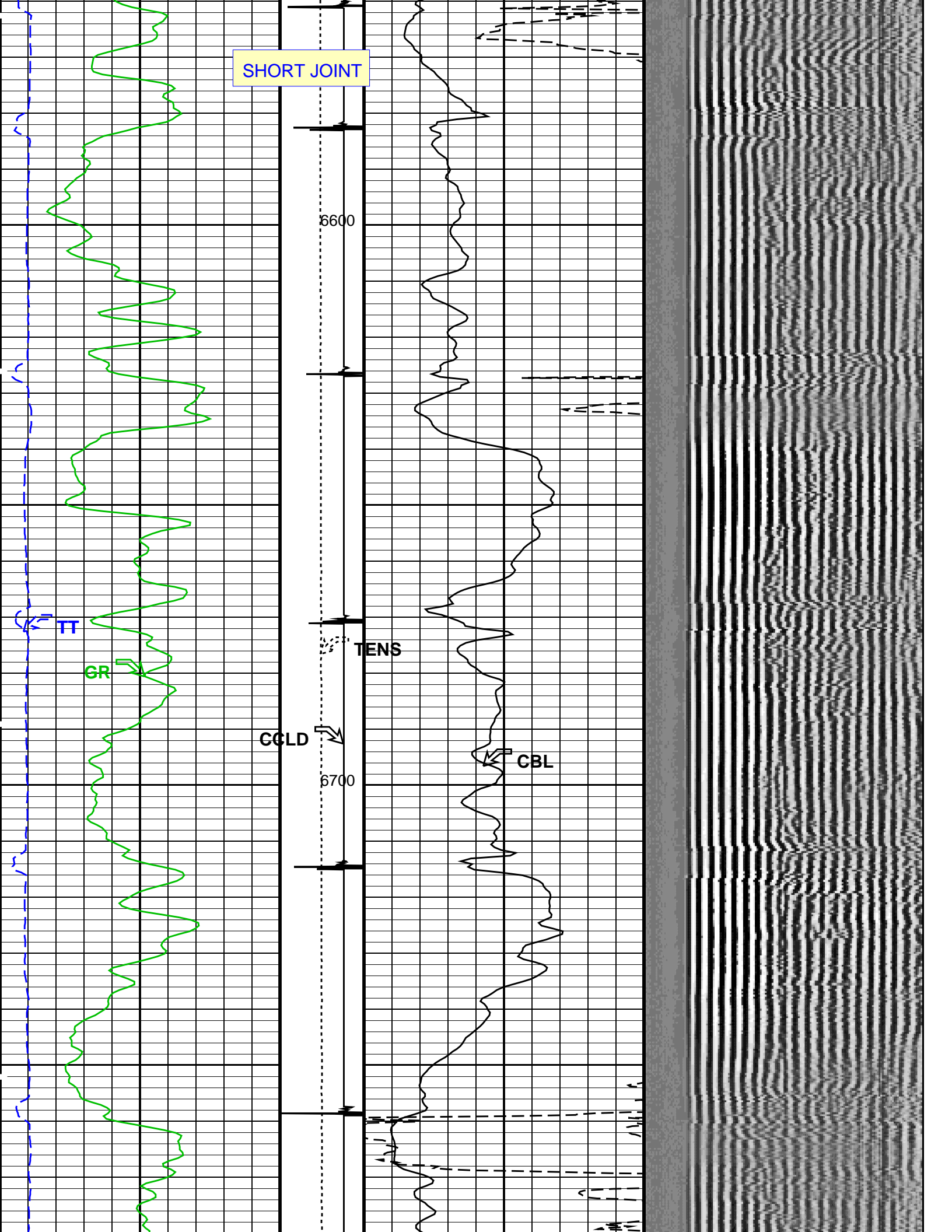


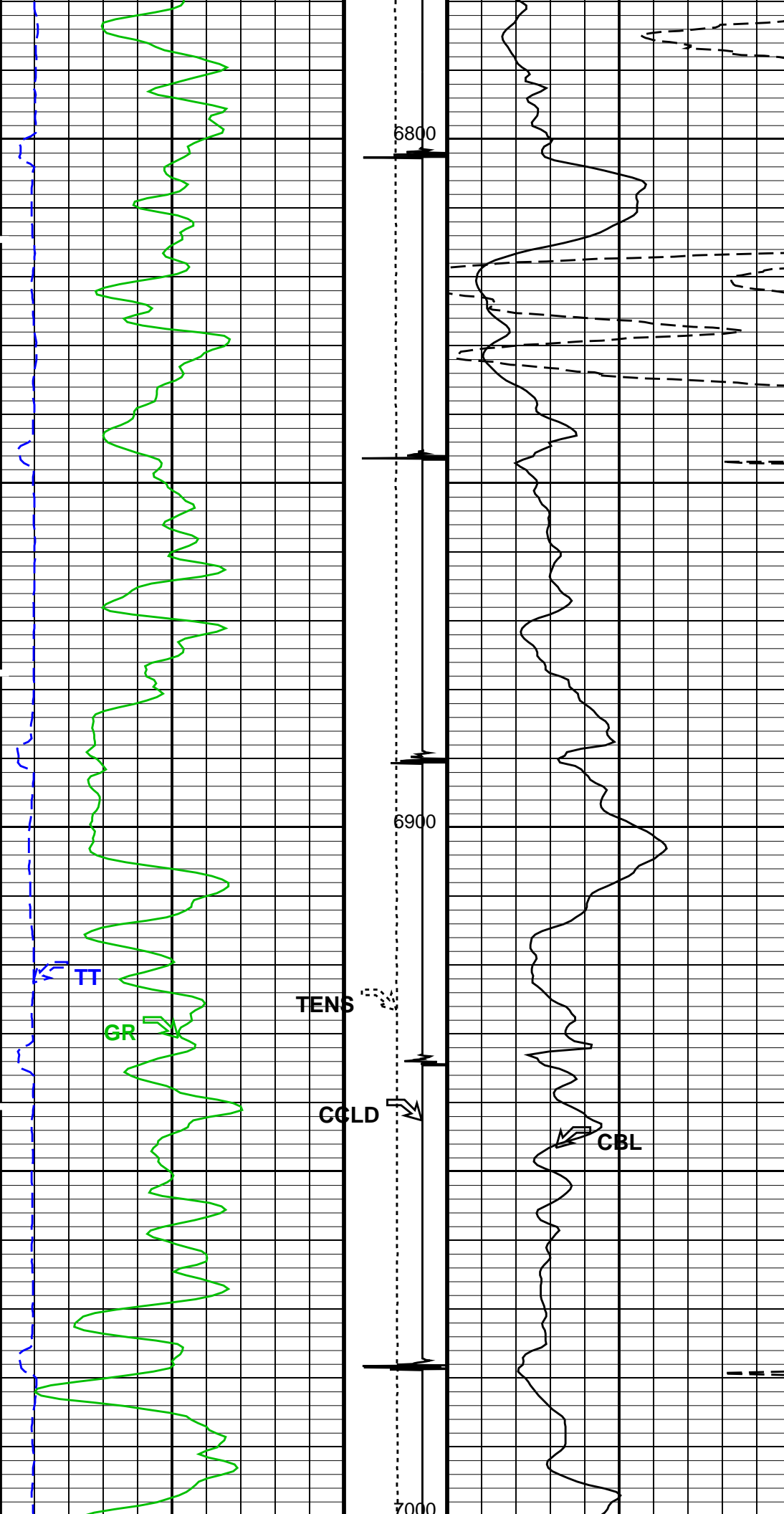


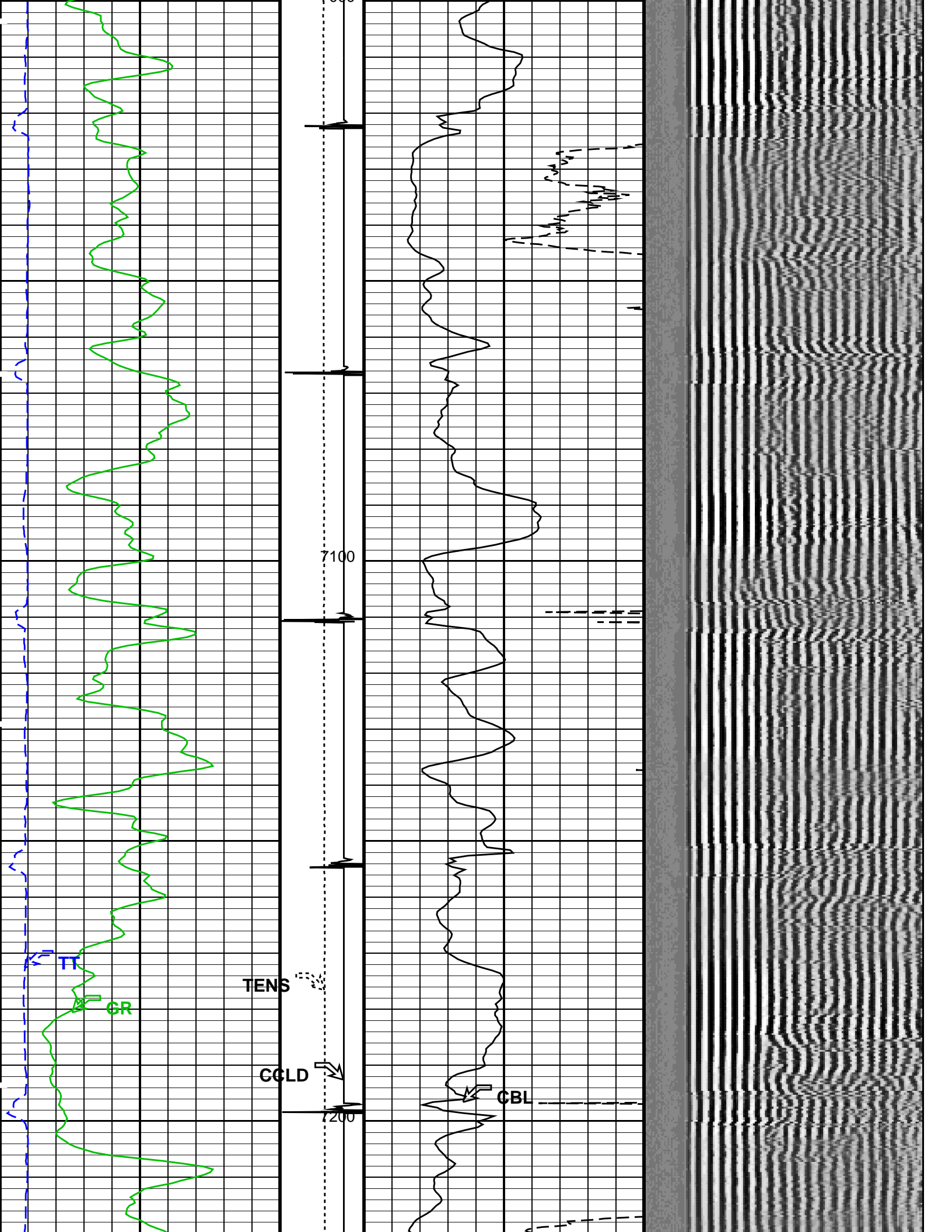


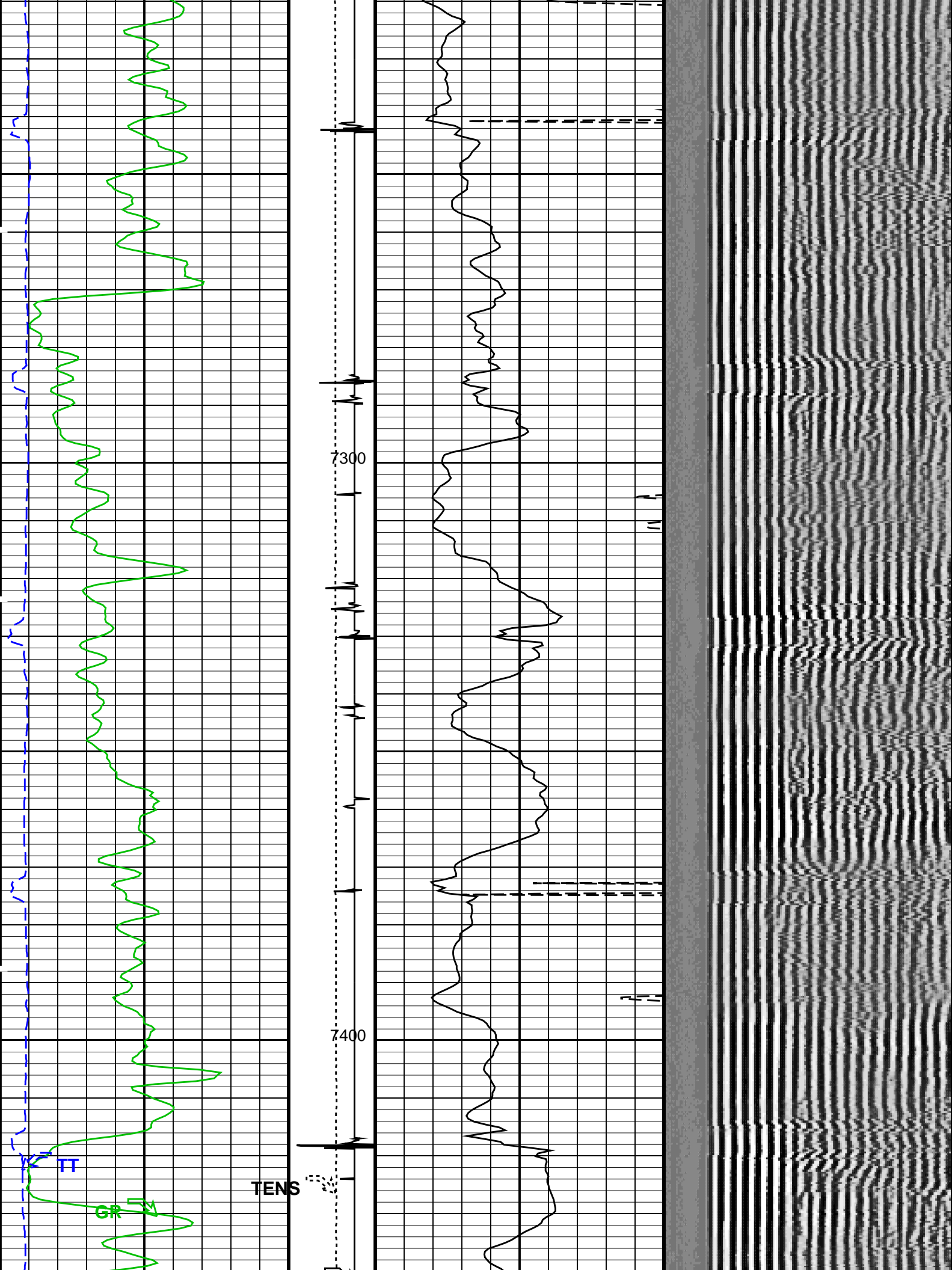


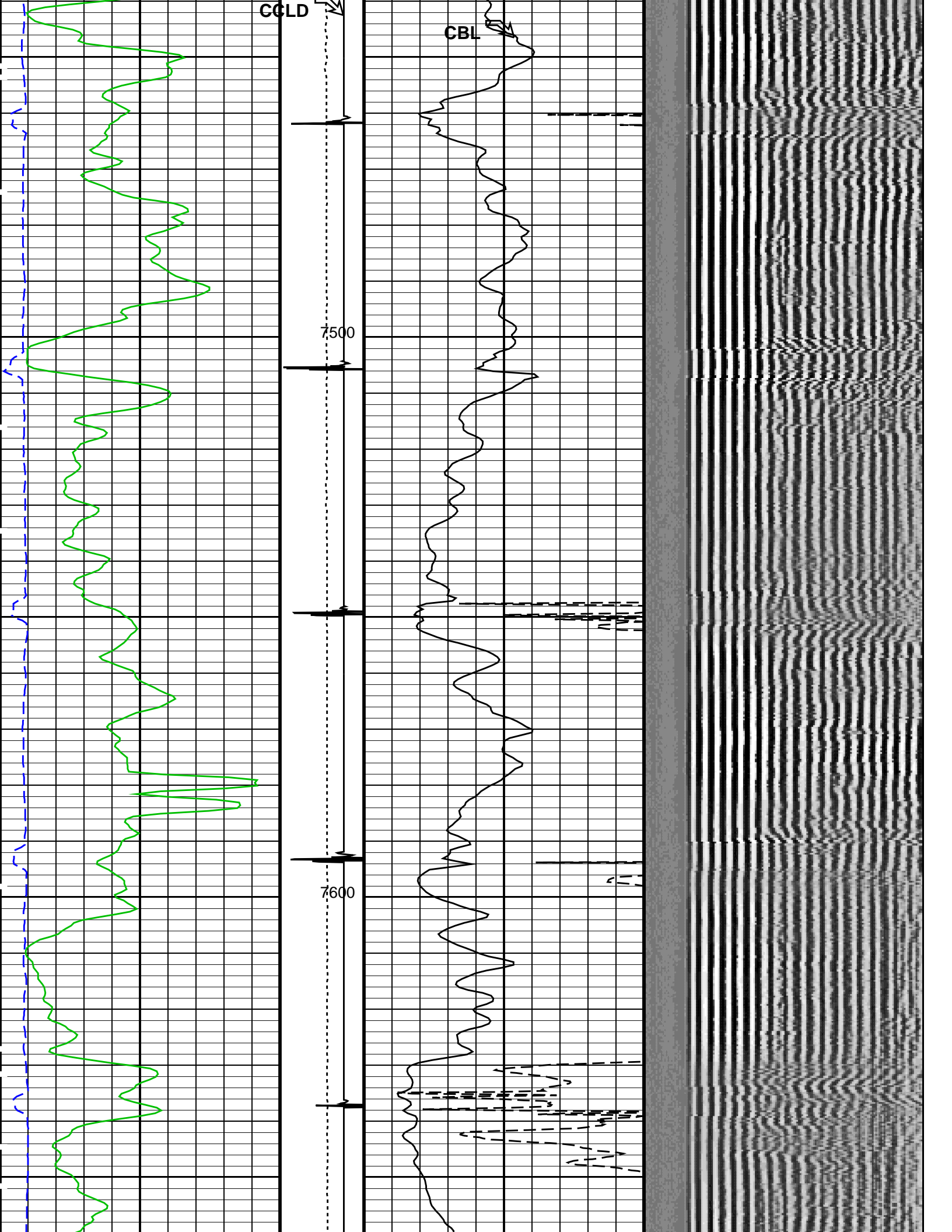


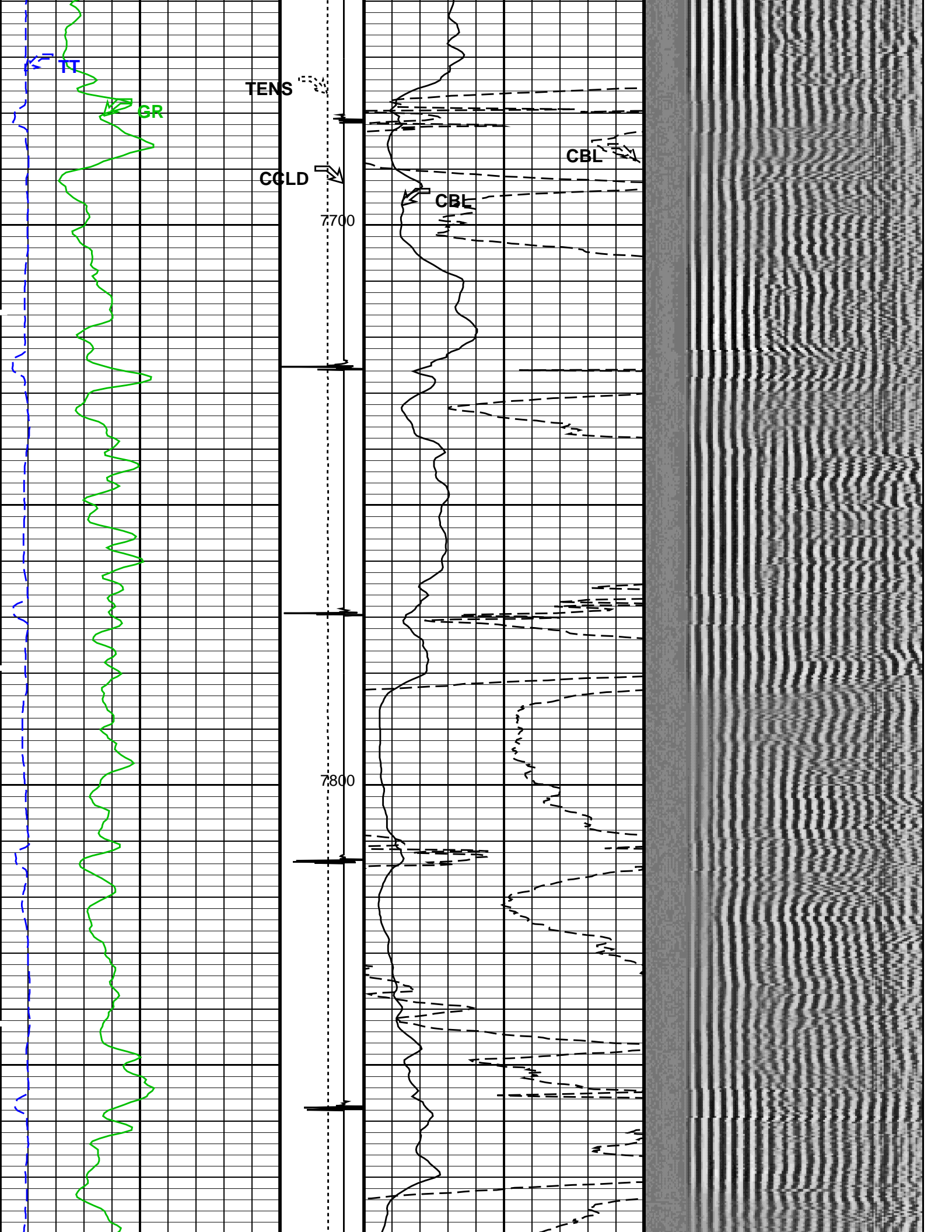


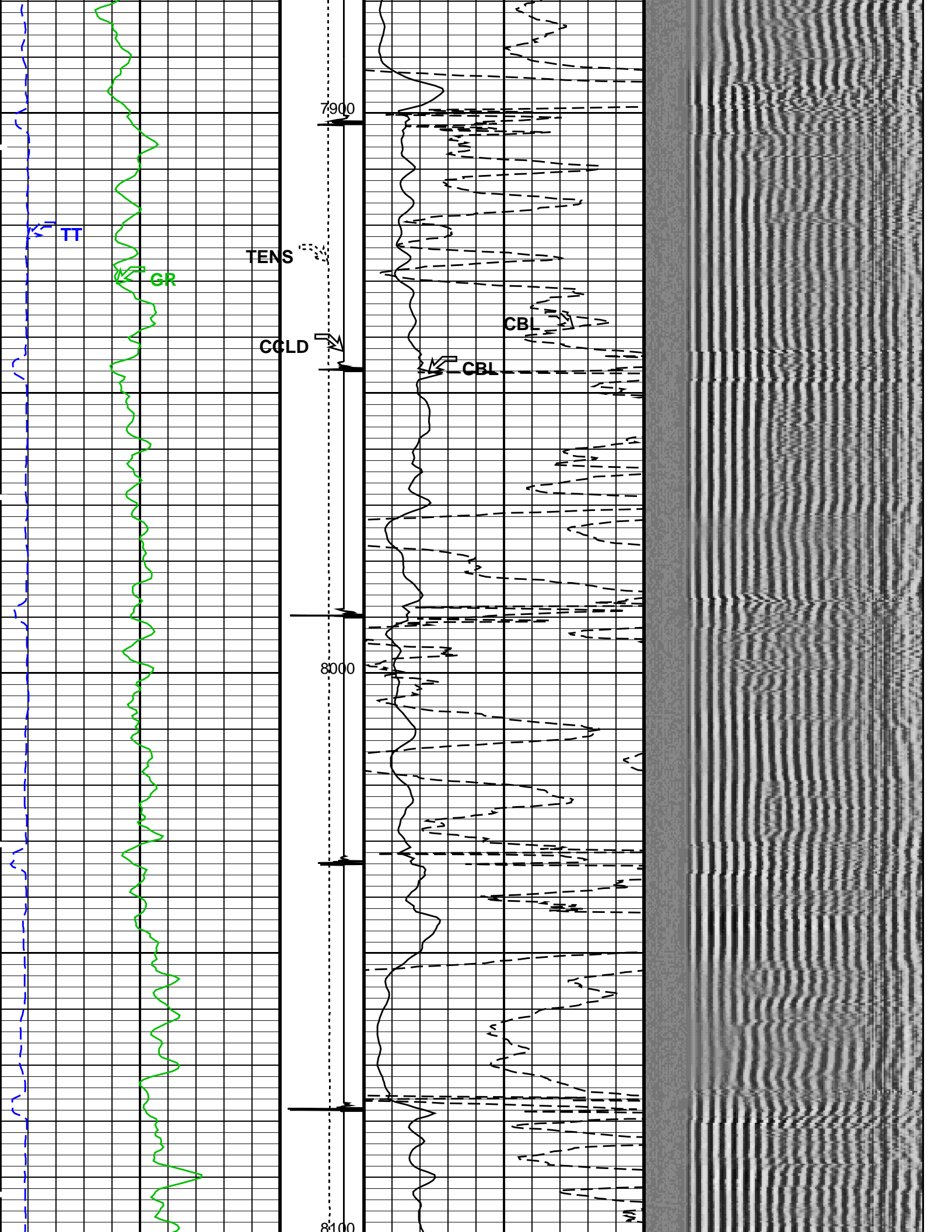


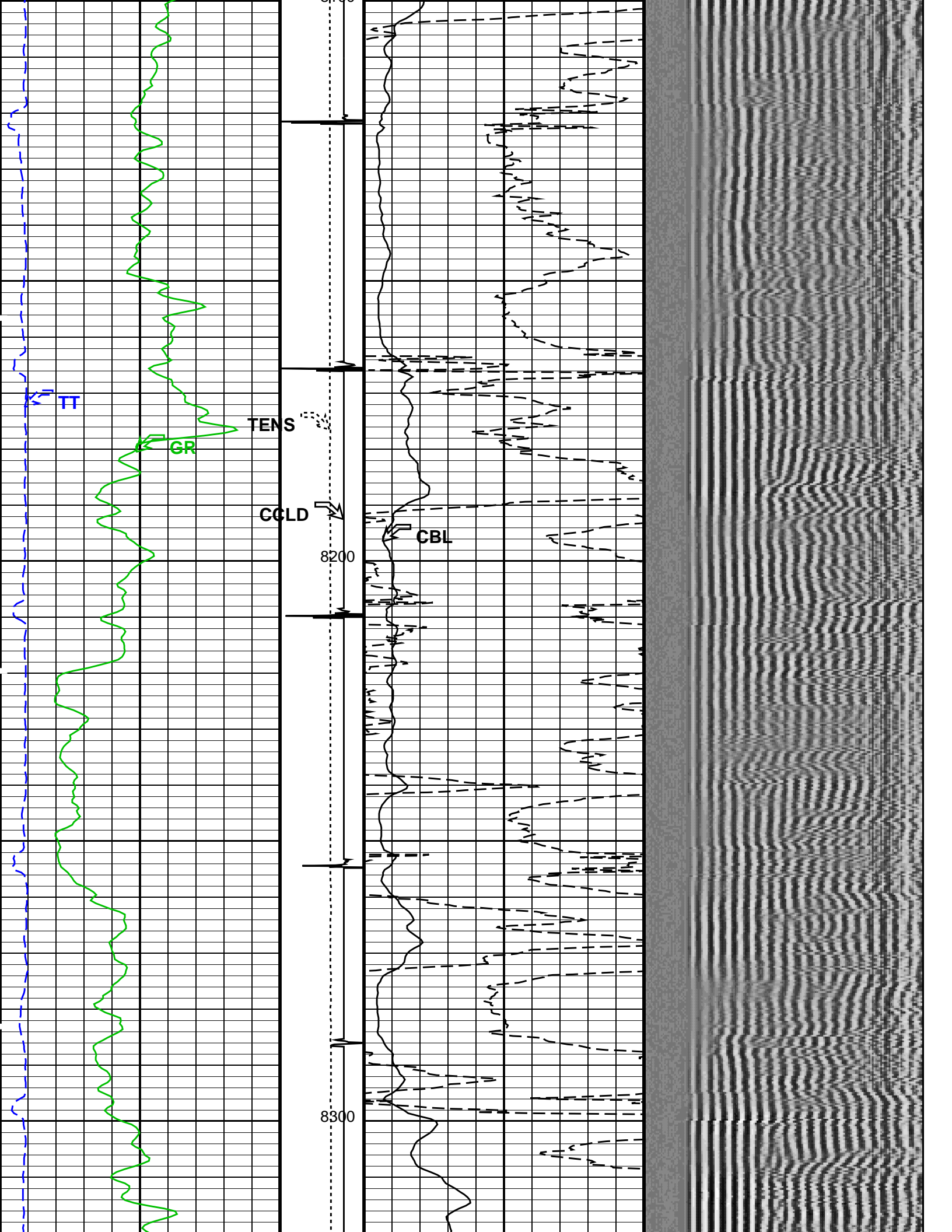


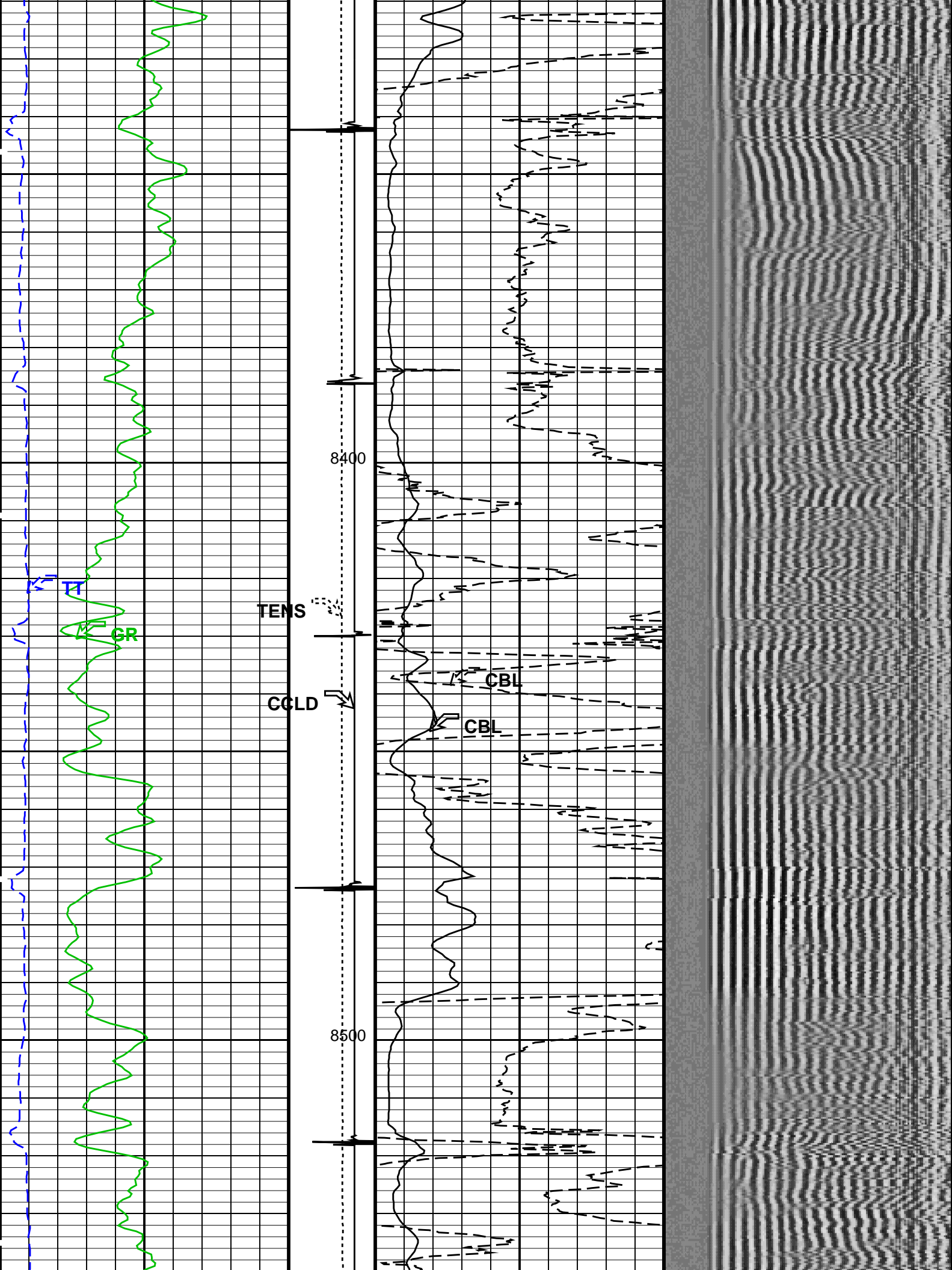


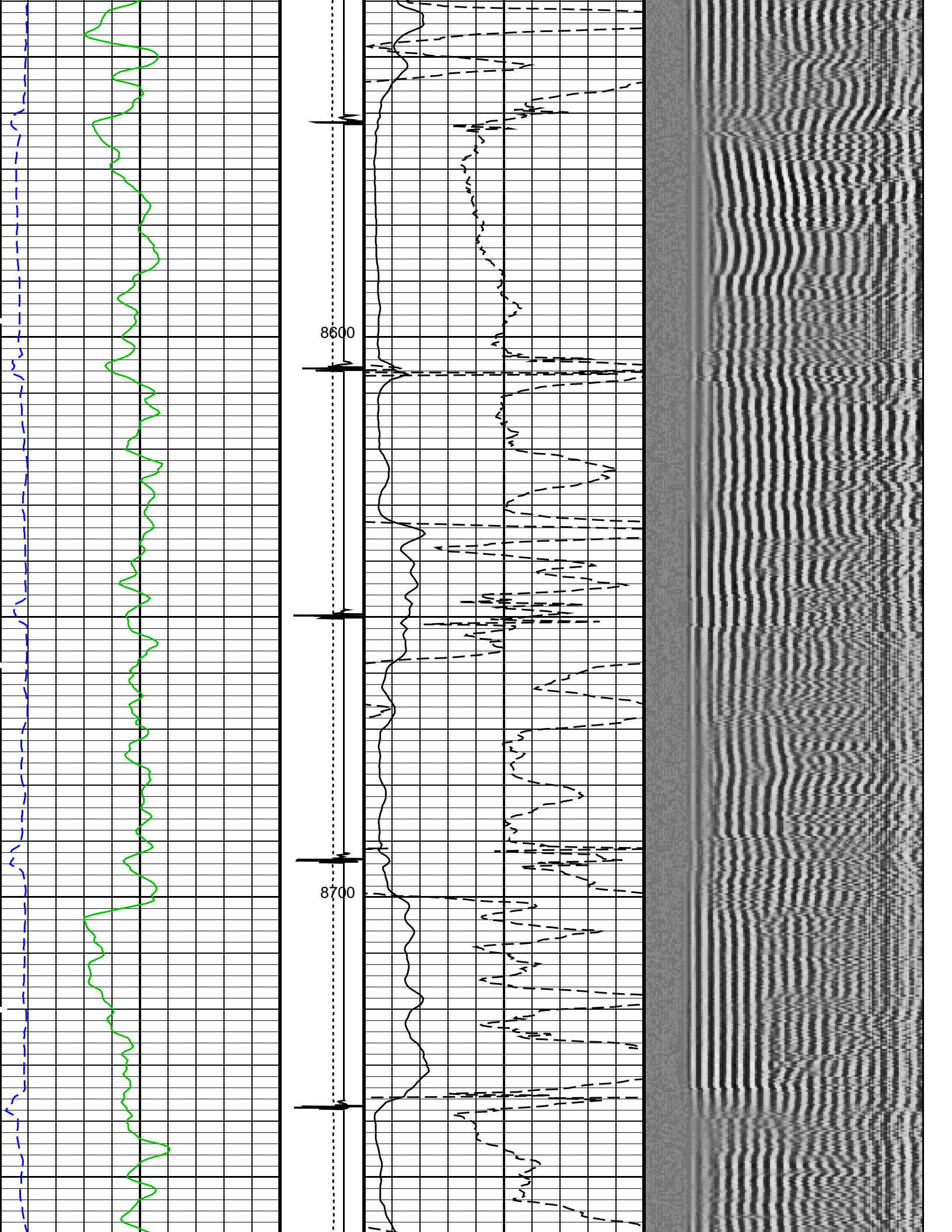


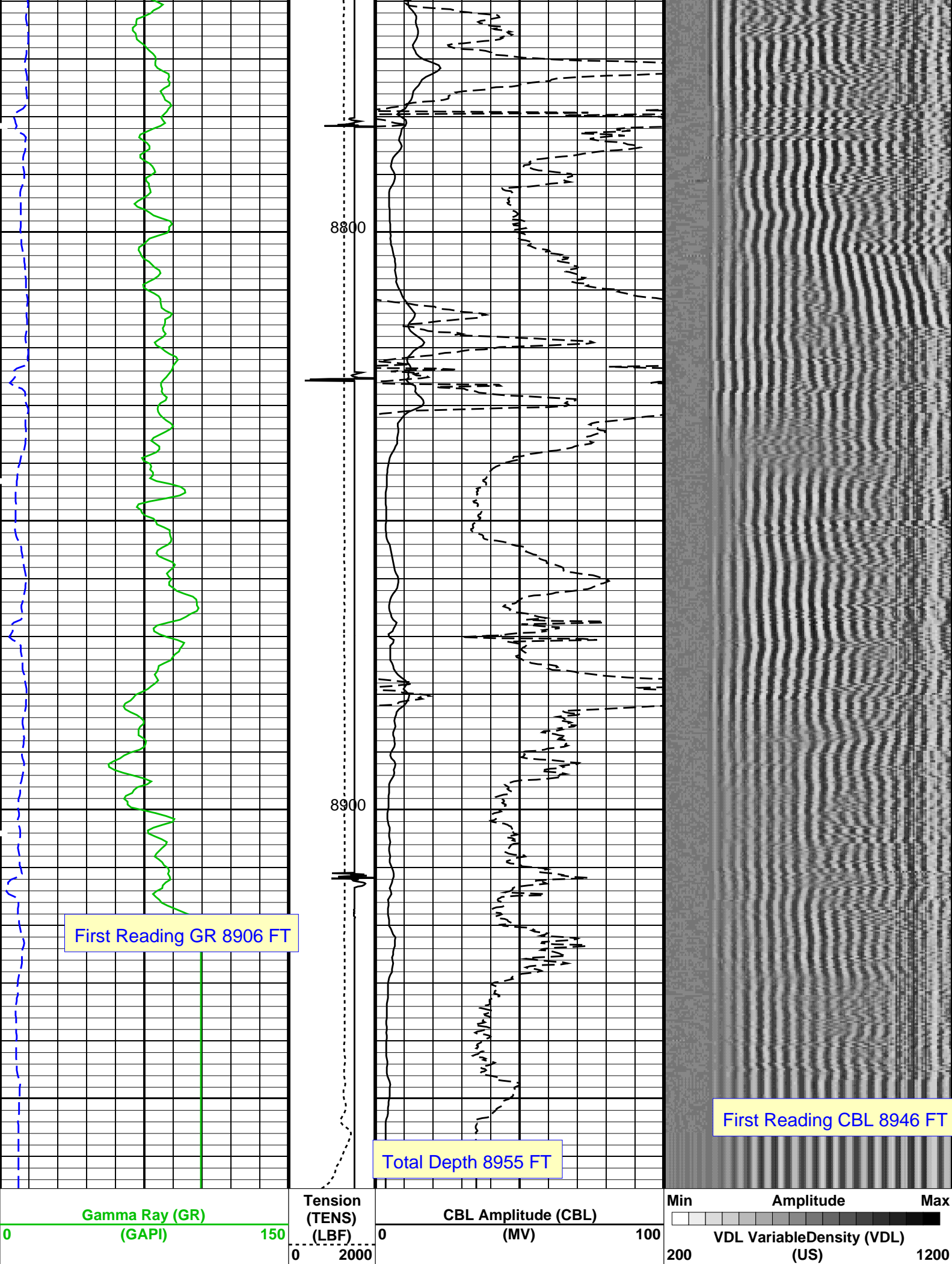












Transit Time (TT) (US) 160		Discriminat ed CCL (CCLD) 3 (V) -1	CBL Amplitude (CBL) (MV) 0 10	
PIP SUMMARY				
Time Mark Every 60 S				
Format: CBL_VDL		Vertical Scale: 5" per 100'		Graphics File Created: 28-Apr-2013 21:51
OP System Version: 19C0-187				
SCMT-CB PSPT	SRPC-5214-H2-2012-OP1! SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!	
<<<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)	0.900000	
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		
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		

PEDE	Peak Detection On/Off Switch in Playback	OFF	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
System and Miscellaneous			
CWEI	Casing Weight	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	8955	FT

Input DLIS Files

DEFAULT	SCMT_RST_PSP_090LUP	FN:88	PRODUCER	28-Apr-2013 19:13	8961.5 FT	-0.5 FT
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Output DLIS Files

DEFAULT	SCMT_RST_PSP_097PUP	FN:95	PRODUCER	28-Apr-2013 21:51
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Schlumberger

REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC	Well: SHIDELER 30-2C (O19EB)
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Input DLIS Files

DEFAULT	SCMT_RST_PSP_088LUP	FN:86	PRODUCER	28-Apr-2013 18:52	5710.0 FT	5370.5 FT
DEFAULT	SCMT_RST_PSP_097PUP	FN:95	PRODUCER	28-Apr-2013 21:51	8965.5 FT	-41.0 FT

Output DLIS Files

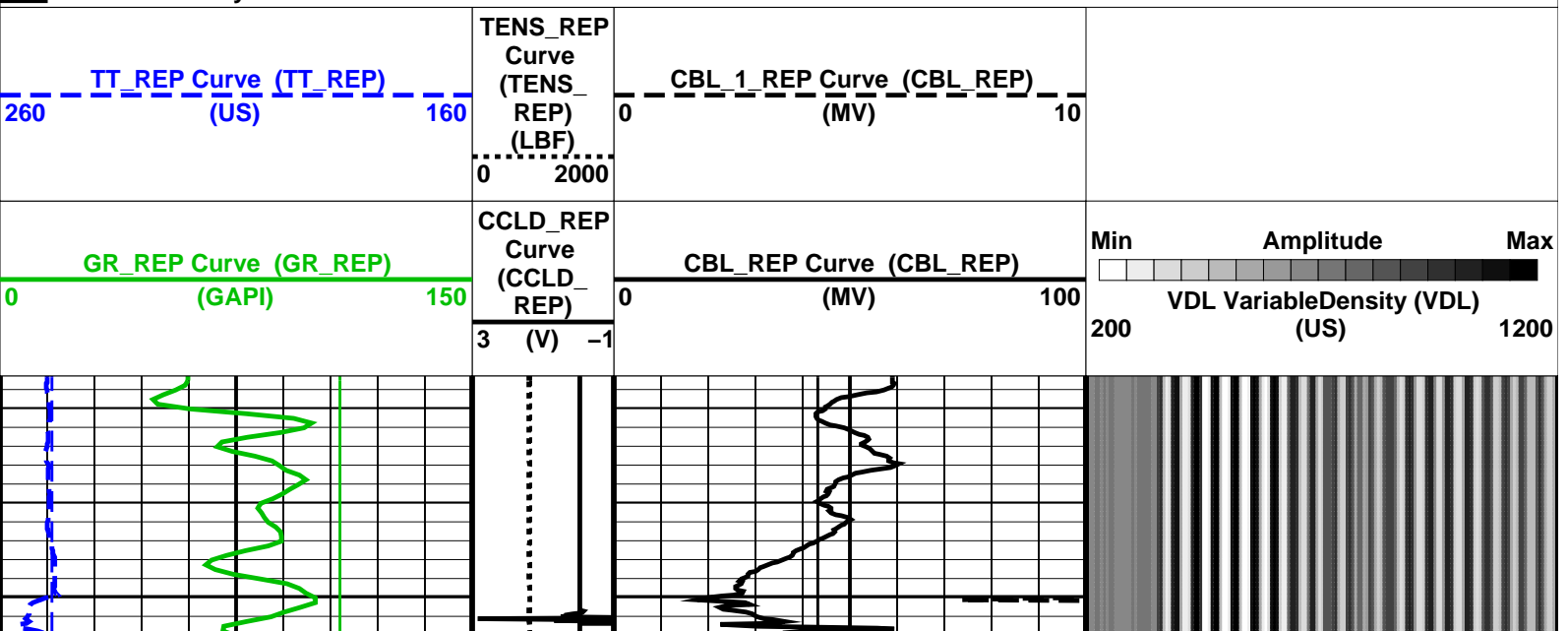
DEFAULT	SCMT_RST_PSP_098PUP	FN:96	PRODUCER	28-Apr-2013 21:59	5710.0 FT	5326.0 FT
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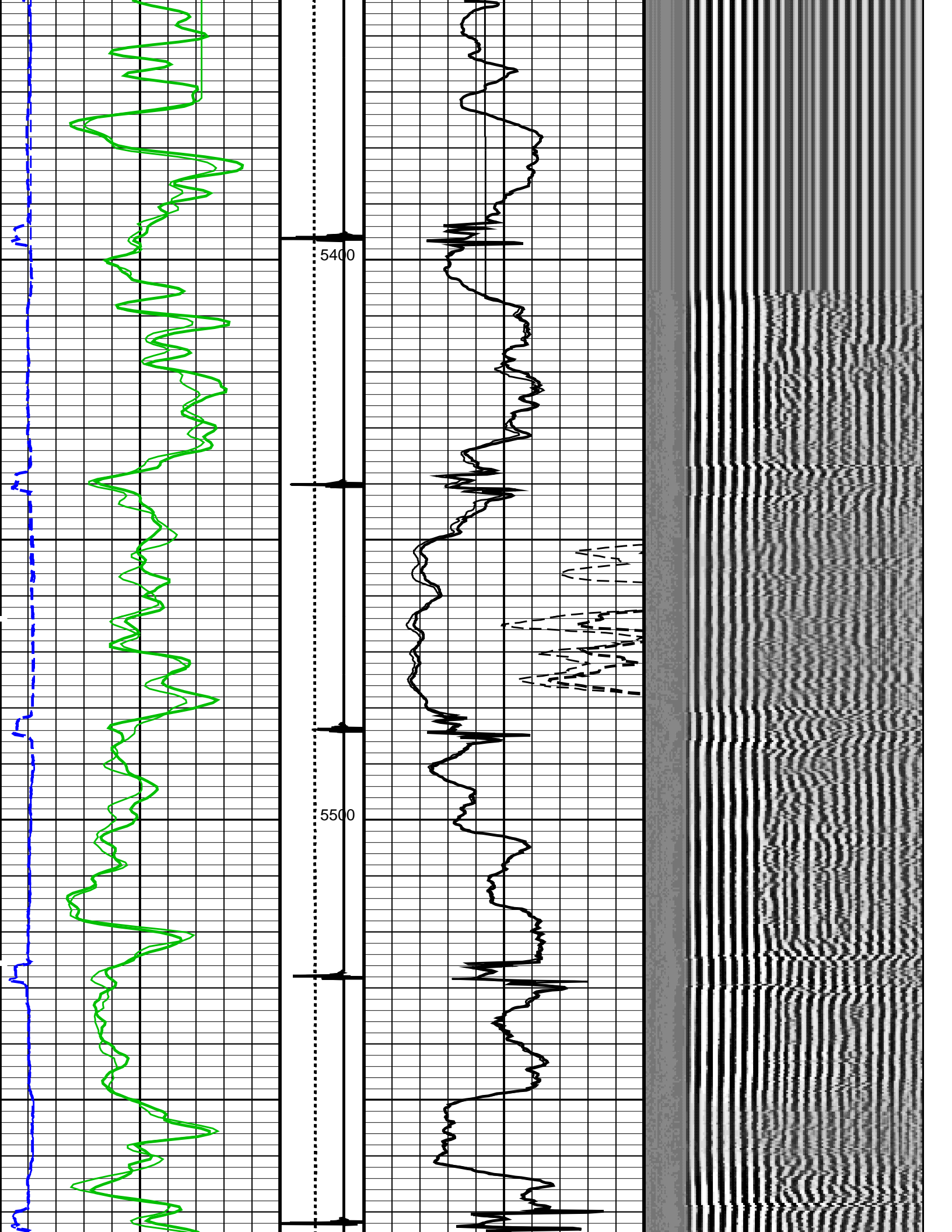
OP System Version: 19C0-187

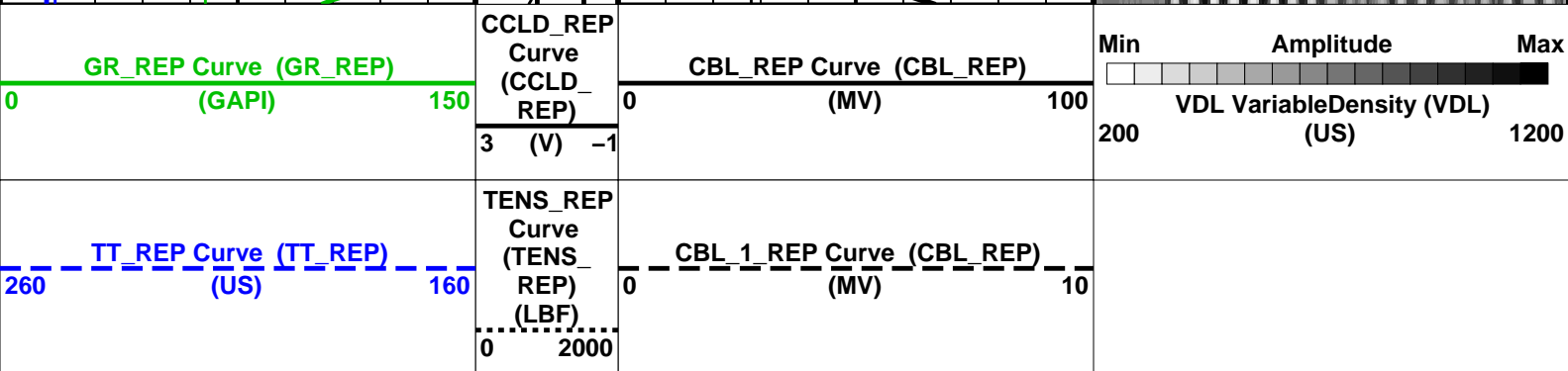
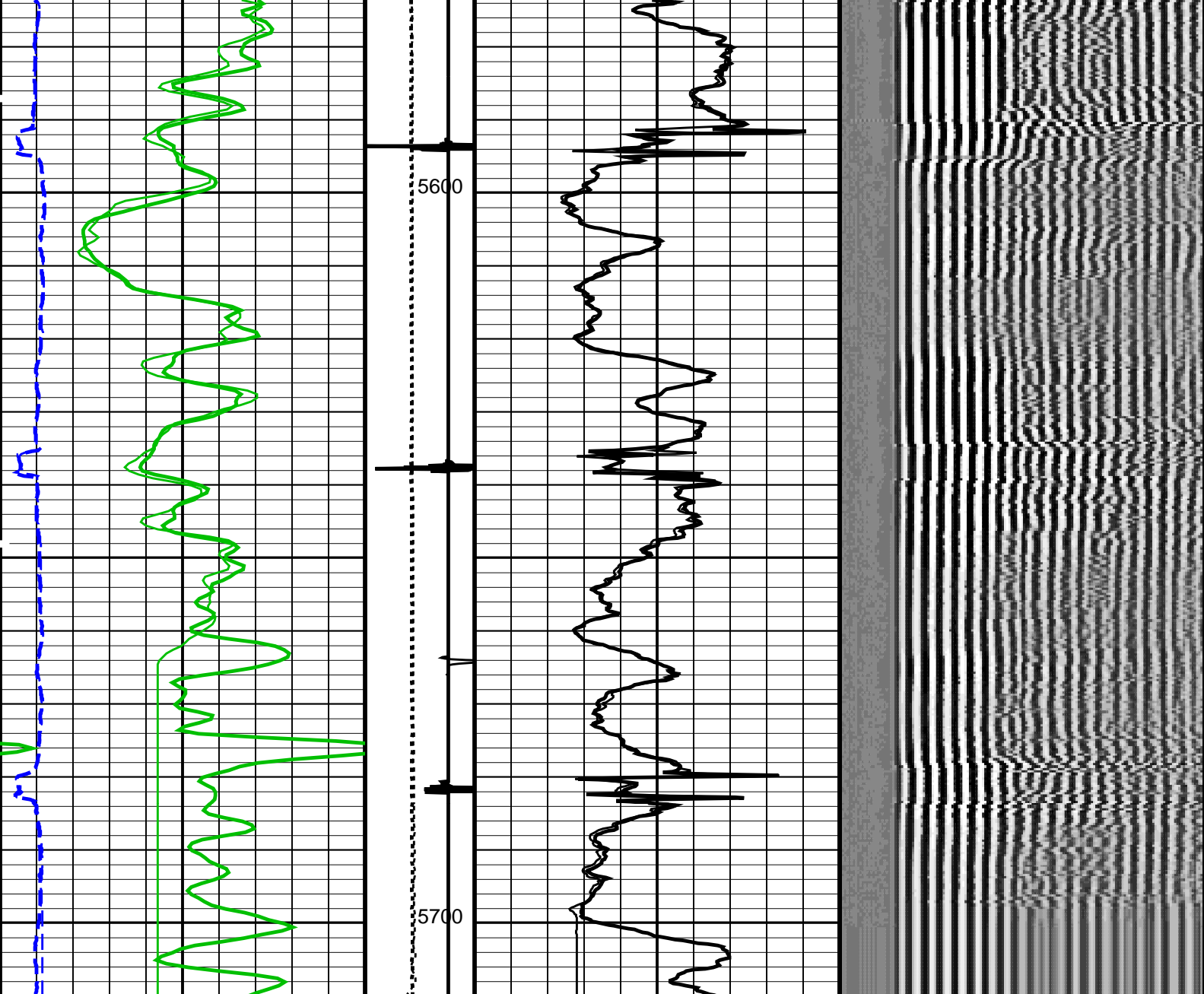
SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
PSPT	SRPC-5214-H2-2012-OP1!		

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL_REP Vertical Scale: 5" per 100'

Graphics File Created: 28-Apr-2013 21:59

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 8303
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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)	0.900000
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	
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			
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	8955	FT

Input DLIS Files

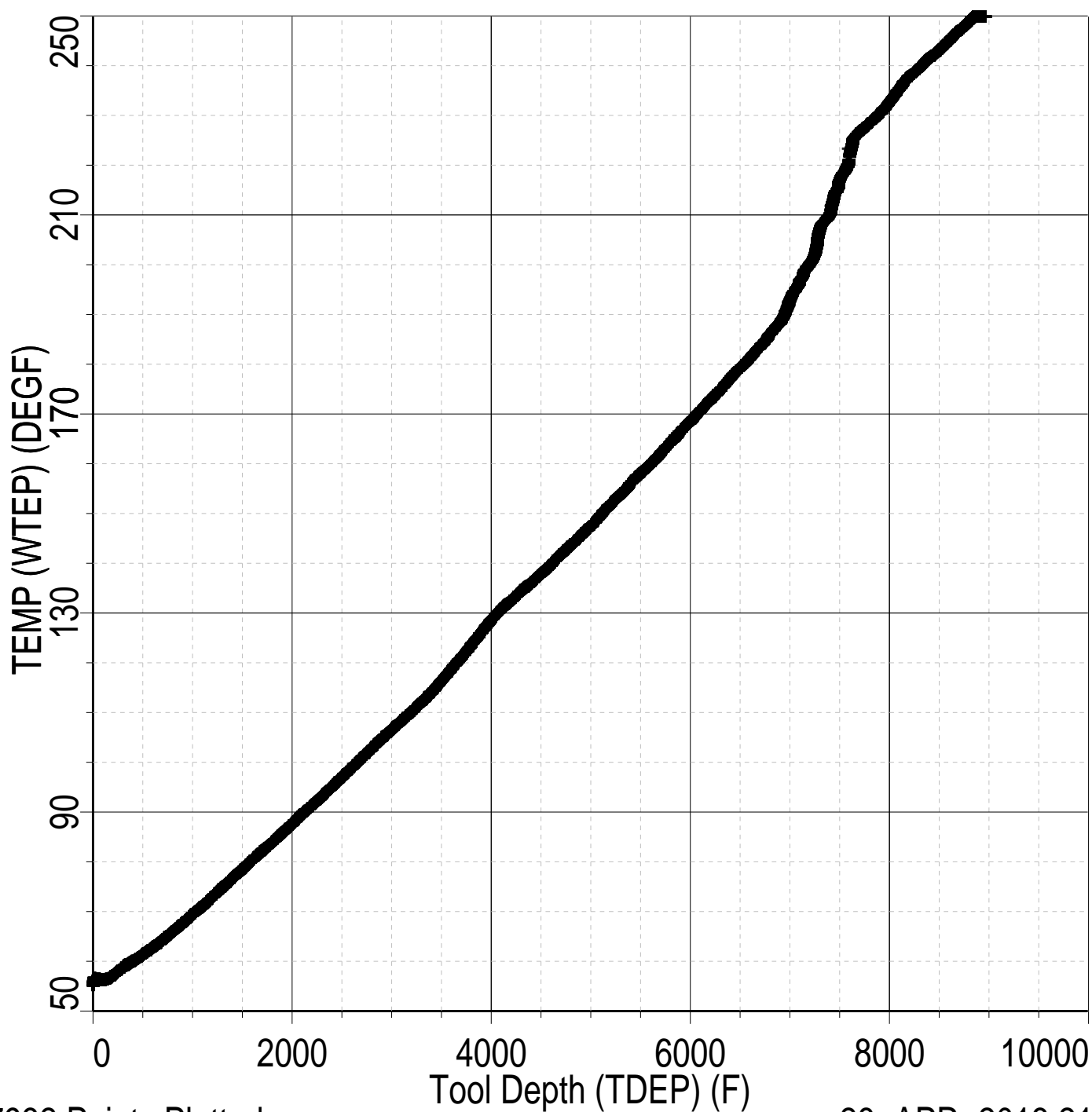
DEFAULT	SCMT_RST_PSP_088LUP	FN:86	PRODUCER	28-Apr-2013 18:52	5710.0 FT	5370.5 FT
DEFAULT	SCMT_RST_PSP_097PUP	FN:95	PRODUCER	28-Apr-2013 21:51	8965.5 FT	-41.0 FT

Output DLIS Files

DEFAULT	SCMT_RST_PSP_098PUP	FN:96	PRODUCER	28-Apr-2013 21:59
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MAXIS Field Log

Index: 8965.5 – -41.0 FT



17932 Points Plotted

28-APR-2013 21:58

MAXIS Field Log

Client:	ENCANA OIL & GAS (USA) INC	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	SHIDELER 30-2C (O19EB)	Sensor:	GR
Run date:	28-Apr-2013		

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**0Rt**1		
Rt**0	<table><tr><td>+.182000000000e+04</td><td>+.332000000000e+04</td></tr></table>	+.182000000000e+04	+.332000000000e+04
+.182000000000e+04	+.332000000000e+04		

Client:	ENCANA OIL & GAS (USA) INC	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	SHIDELER 30-2C (O19EB)	Sensor:	WellTemp RTD
Run date:	28-Apr-2013		

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: SHIDELER 30−2C (O19EB)
Run date: 28−Apr−2013

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.928 S/N:
928
280612
66
9DC3

Pres Coeff

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

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

PBMS Quartz Gauge type F
Sonde Serial NB :
Sensor Serial NB 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	+3.00601550309E-12	+3.11233548560E-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 :

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



MAXIS Field Log

Primary Equipment:

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				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



Well: SHIDELER 30-2C (O19EB)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

SLIM CEMENT MAPPING LOG
CBL – VDL
GR–CCL