

Company: ENCANA OIL & GAS (USA) INC

Well: SGU 8508C-36 (B36 496)

Field: NORTH PARACHUTE

County: GARFIELD State: COLORADO

CEMENT BOND LOG
CBL – VDL
GAMMA RAY – CCL

County: GARFIELD
Field: NORTH PARACHUTE
Location: SHL: NWNE 779 FNL 1643 FWL
Well: SGU 8508C-36 (B36 496)
Company: ENCANA OIL & GAS (USA) INC

| LOCATION | | | |
|----------------------------|---------------|-------------------|-------------------|
| SHL: NWNE 779 FNL 1643 FWL | Elev.: K.B. | 8374.00 ft | |
| BHL: SENE 2114 FSL 687 FEL | G.L. | 8352.00 ft | |
| | D.F. | 8373.00 ft | |
| Permanent Datum: | GROUND LEVEL | Elev.: 8352.00 ft | |
| Log Measured From: | KELLY BUSHING | 22.00 ft | above Perm. Datum |
| Drilling Measured From: | KELLY BUSHING | | |
| API Serial No. | Section 36 | Township 4S | Range 96W |
| 05-045-19839-000C | | | |

| | | | | 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 3-May-2011

Run Number ONE

Depth Driller 12274 ft

Schlumberger Depth 12196 ft

Bottom Log Interval 12187.1 ft

Top Log Interval 200 ft

Casing Fluid Type WATER

Salinity

Density 8.4 lbm/gal

Fluid Level 22 ft

BIT/CASING/TUBING STRING

Bit Size 7.875 in

From 22 ft

To 12241 ft

Maximum Recorded Temperatures 286 degF

Logger On Bottom 3-May-2011 21:56

Unit Number 391 Location GRAND JUNCTION

Recorded By SHOWKAT HOSSAIN

Witnessed By EMILIO RIVERA

| |
|-----------------------|
| DEPTH SUMMARY LISTING |
|-----------------------|

Date Created: 3-MAY-2011 23:56:17

Depth System Equipment

| Depth Measuring Device | | Tension Device | | Logging Cable | |
|---------------------------|-------------|-------------------------------|------------|--------------------|----------|
| Type: | IDW-B | Type: | CMTD-C | Type: | 1-25ZT |
| Serial Number: | 5083 | Serial Number: | | Serial Number: | 391 |
| Calibration Date: | 09-NOV-2011 | Calibration Date: | 27-APR-201 | Length: | 24000 FT |
| Calibrator Serial Number: | 33 | Calibrator Serial Number: | 17487 | | |
| Calibration Cable Type: | 1-25ZT | Number of Calibration Points: | 10 | Conveyance Method: | Wireline |
| Wheel Correction 1: | -5 | Calibration RMS: | 7 | 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: | 258.00 FT |
| Rig Up Length At Bottom: | 267.00 FT |
| Rig Up Length Correction: | -9.00 FT |
| Stretch Correction: | 14.00 FT |
| Tool Zero Check At Surface: | 0.50 FT |

| | |
|-----------------------|--|
| Depth Control Remarks | |
|-----------------------|--|

- | |
|---|
| <ol style="list-style-type: none">1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES FOLLOWED2. IDW USED AS PRIMAY DEPTH CONTROL.3. Z-CHART AND DRUM COUNTER USED AS SECONDARY DEPTH CONTROL4.5.6. |
|---|

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: RST SIGMA | OS1: |
| OS2: | OS2: |
| OS3: | OS3: |
| OS4: | OS4: |
| OS5: | OS5: |
| REMARKS: RUN NUMBER 1 | REMARKS: RUN NUMBER 2 |
| THIS IS THE FIRST RUN IN WELL. | |
| TOOL RAN AS PER TOOL SKETCH. | |
| | |
| TD TAGGED AT: 12196 FT | |
| MAXIMUM RECORDED TEMPERATURE AT TD: 285.5DEGF | |
| MAXIMUM RECORDED PRESSURE AT TD: 5073.3 PSIA | |
| | |

| | | | | | |
|--|-------|------|--|-------|------|
| SHORT JOINTS: 8081 FT – 8102 FT | | | | | |
| | | | | | |
| EXPECTED FREE PIPE AMPLITUDE: 80 mV | | | | | |
| CYCLE SKIPPING IN ZONES OF GOOD BOND, THUS TT READS HIGH. | | | | | |
| | | | | | |
| AFE: 10142803 | | | | | |
| | | | | | |
| | | | | | |
| THANK YOU FOR CHOOSING SCHLUMBERGER. | | | | | |
| CREW: B. CUPP, W. AZIZ, AND M. MYERS | | | | | |
| <div> <div>RUN 1</div> <div> <div>SERVICE ORDER #:</div> <div>PROGRAM VERSION:</div> <div>FLUID LEVEL:</div> </div> <div> <div>BOC2-00044</div> <div>18C0-147</div> <div>22 ft</div> </div> </div> | | | <div> <div>RUN 2</div> <div> <div>SERVICE ORDER #:</div> <div>PROGRAM VERSION:</div> <div>FLUID LEVEL:</div> </div> </div> | | |
| LOGGED INTERVAL | START | STOP | LOGGED INTERVAL | START | STOP |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EQUIPMENT DESCRIPTION | | | | | |
|--|--|--|-------|--|--|
| RUN 1 | | | RUN 2 | | |
| <div> <div>SURFACE EQUIPMENT</div> <div> <div>WITM-A 3412</div> <div>PSC_16MHZ 3412</div> </div> </div> | | | | | |
| <div> <div>DOWNHOLE EQUIPMENT</div> <div> <div> <div>MH-22</div> <div>MH-22 391</div> <div> <div>AH-38</div> <div> <div>HBMS-B</div> <div> <div>PSC-A 2874</div> <div>HUDH-A 2880</div> <div>HSTC-A 2874</div> <div>HBMC-A 2874</div> <div>GR 34384</div> <div>CCL 2880</div> <div>HBMC 2880</div> <div>HTPS-A 2880</div> <div>HCQG_E_Mano 2880</div> <div>RTD_Thermometer 2880</div> </div> </div> <div> <div>Detail MT</div> <div>TelStatus</div> <div>CTEM</div> </div> <div>GR</div> <div>CCL</div> <div>HSTC Aux.</div> <div>HBMC Aux.</div> <div>CQG Manom</div> <div>Well_Temp</div> </div> </div> <div> <div>56.5</div> <div>54.9</div> <div>54.6</div> <div>49.7</div> <div>47.3</div> <div>45.8</div> <div>44.4</div> <div>43.5</div> <div>34.4</div> <div>33.9</div> </div> </div> </div> | | | | | |

SCMT-CB
SCMC-CA 8120
SECH-CA 8120
CMIR-AG 2
SCMS-CB 8303
SCMX-CA 8251

20.5

DT 11.4
CBL5 DTSC 9.9
CBL3 8.9
MAP 8.4
AUX 7.4

AH-BNS
Tension SCMT HV
TOOL ZERO 0.0 0.5

MAXIMUM STRING DIAMETER 2.07 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

MAIN PASS 0 PSI

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC Well: SGU 8508C-36 (B36 496)

Input DLIS Files

DEFAULT SCMT_RST_HBMS_027LUP FN:26 PRODUCER 03-May-2011 21:56 12208.0 FT 84.5 FT

Output DLIS Files

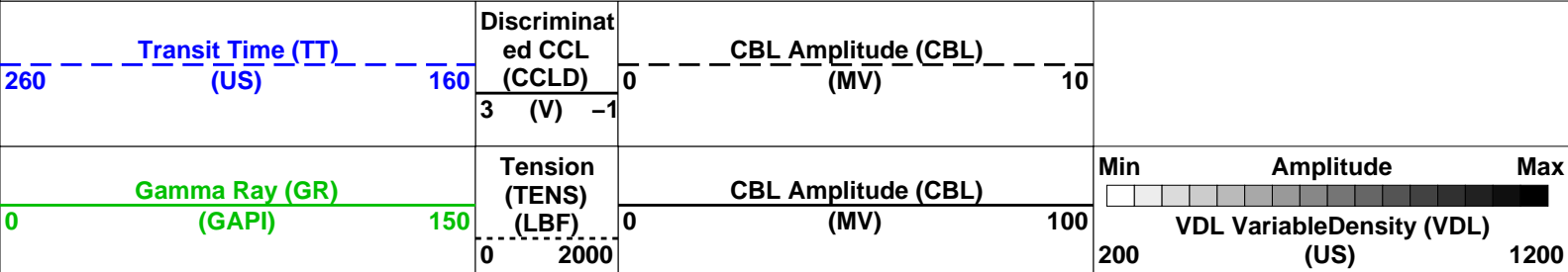
DEFAULT SCMT_RST_HBMS_030PUP FN:29 PRODUCER 04-May-2011 01:11 12222.0 FT 43.5 FT

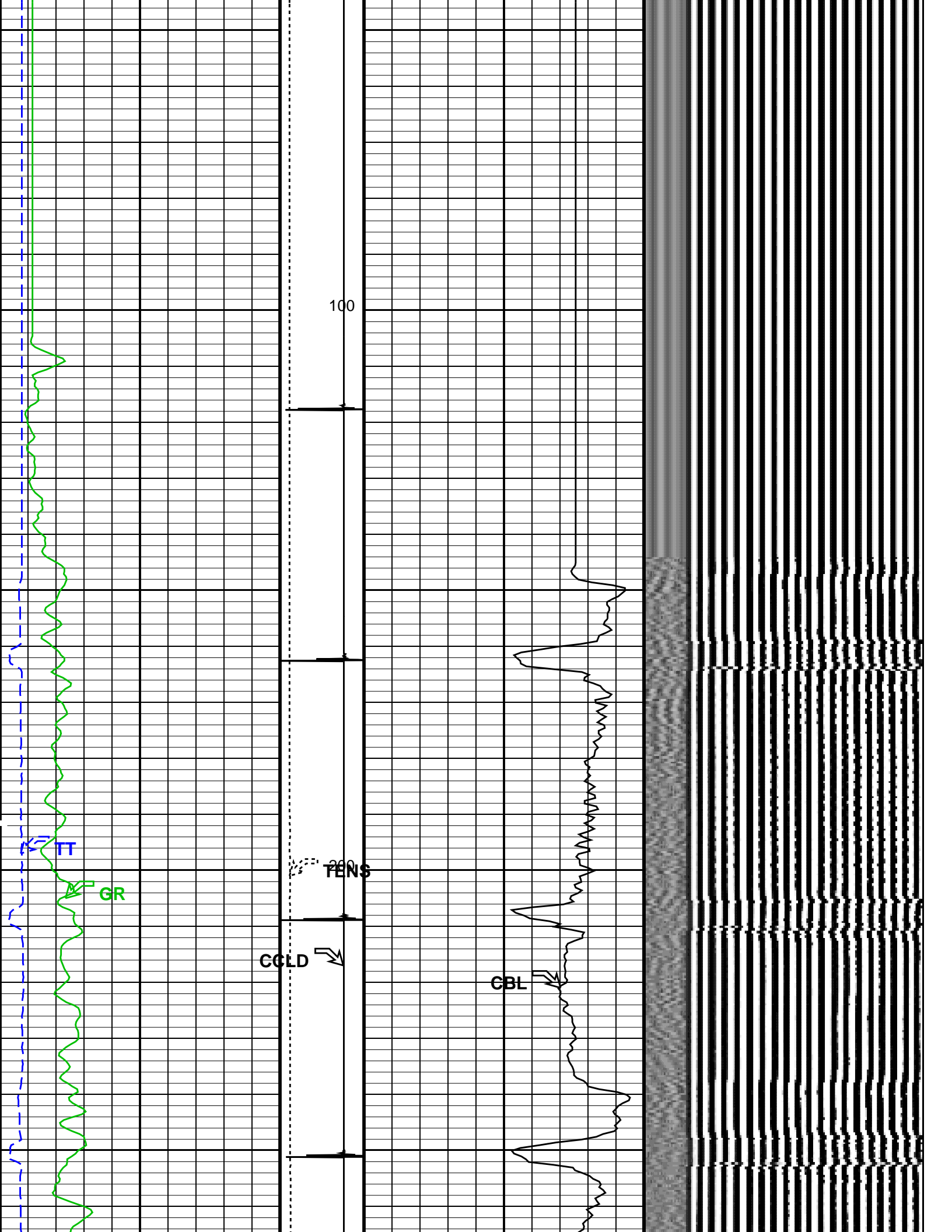
OP System Version: 18C0-147

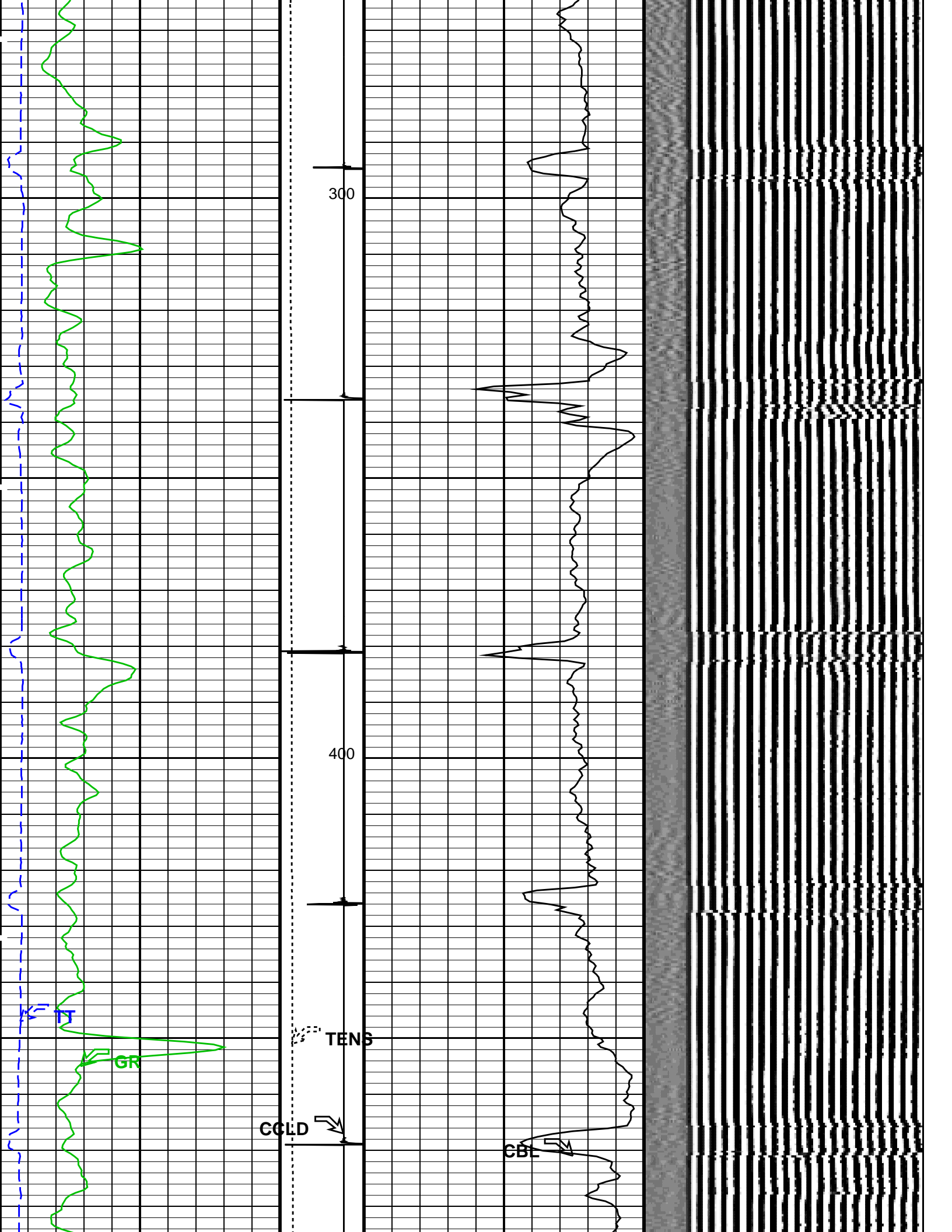
SCMT-CB 18C0-147 RST-C 18C0-147
HBMS-B 18C0-147

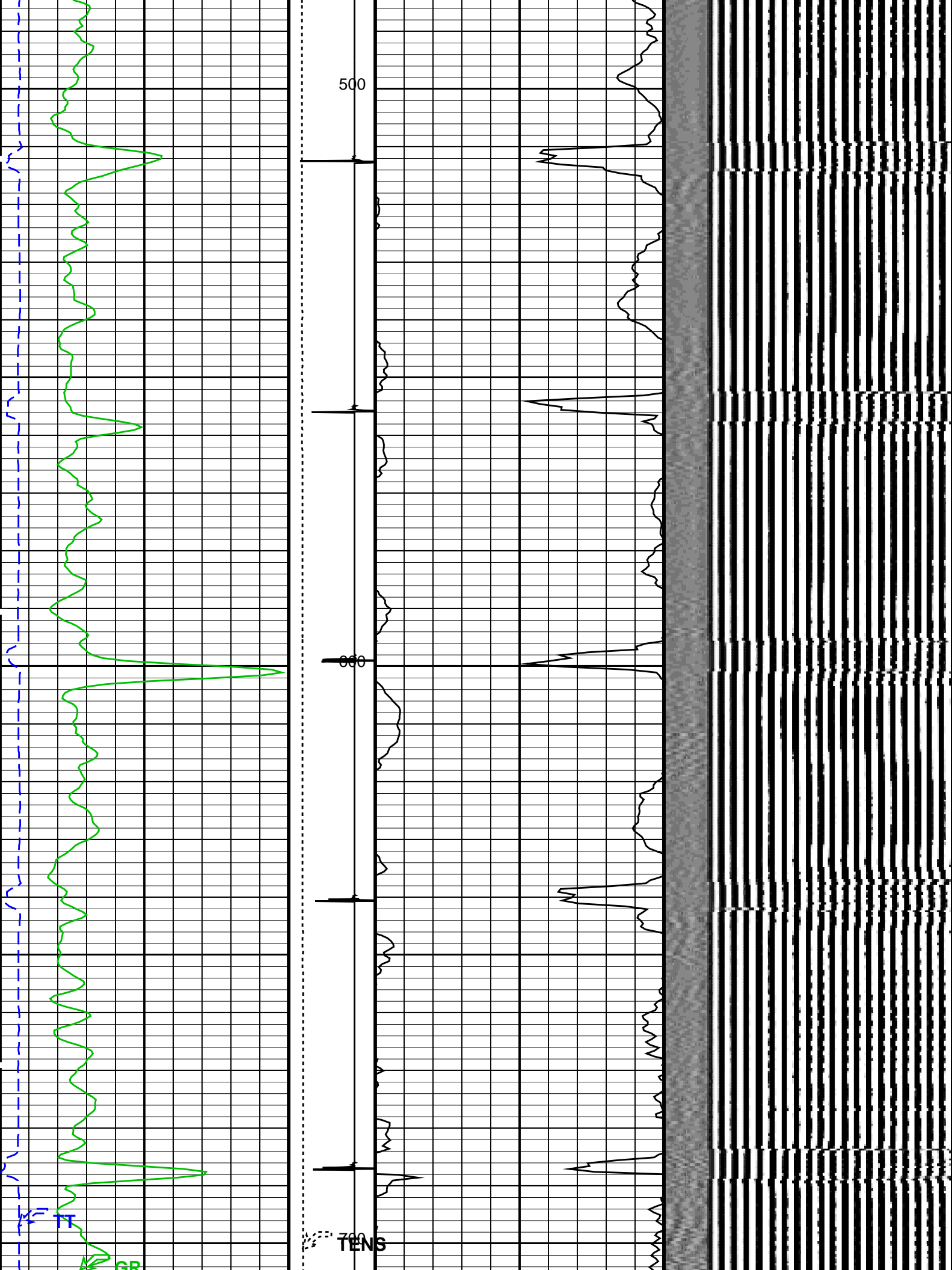
PIP SUMMARY

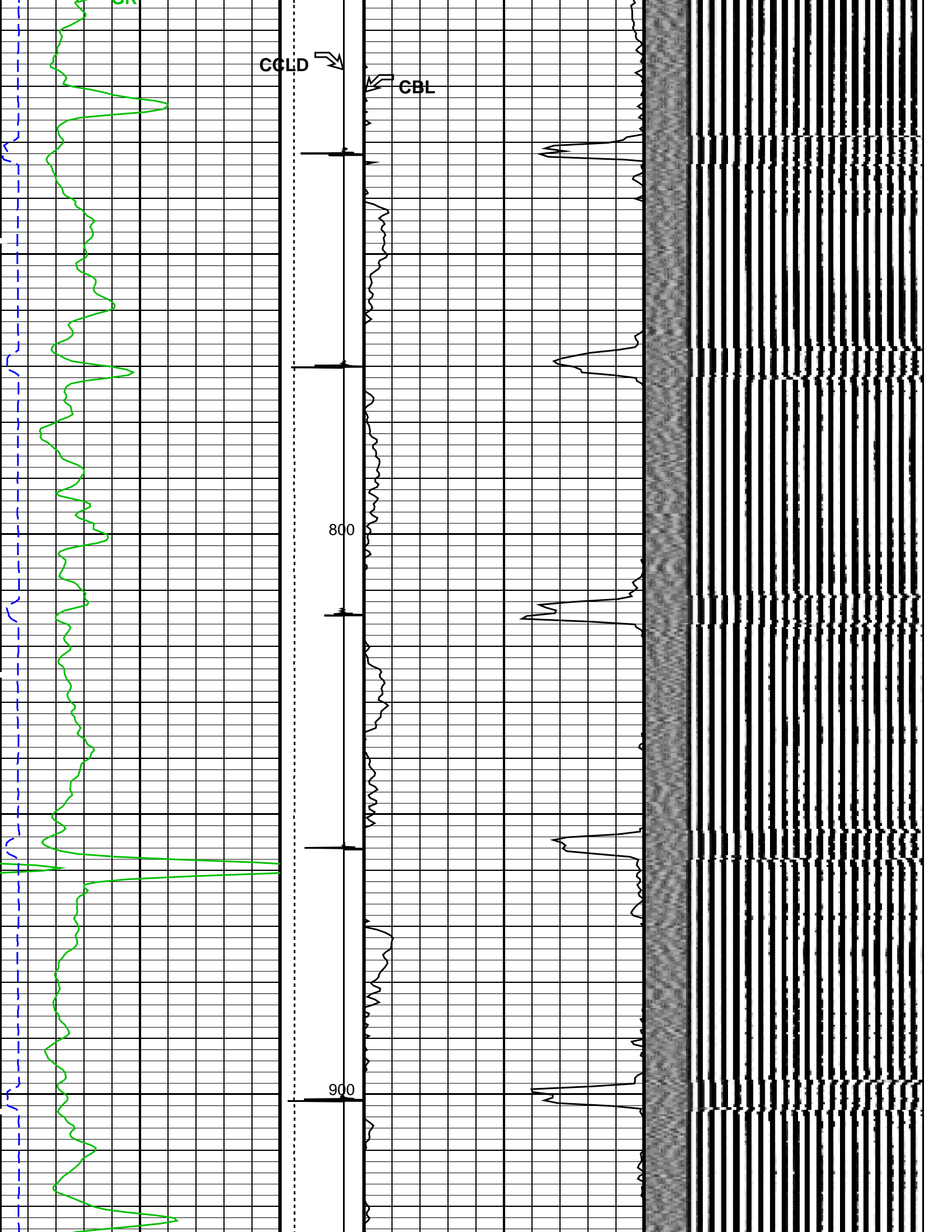
Time Mark Every 60 S

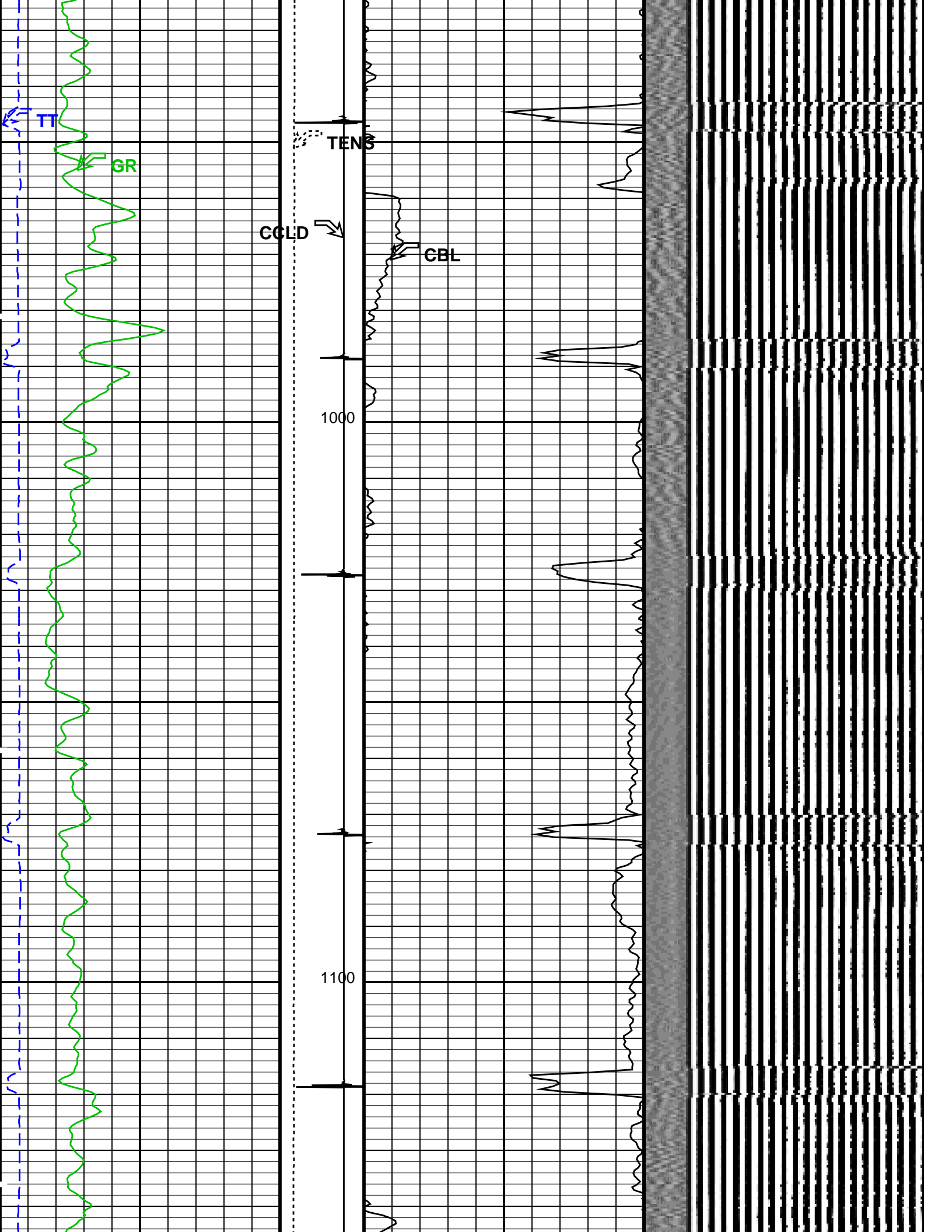


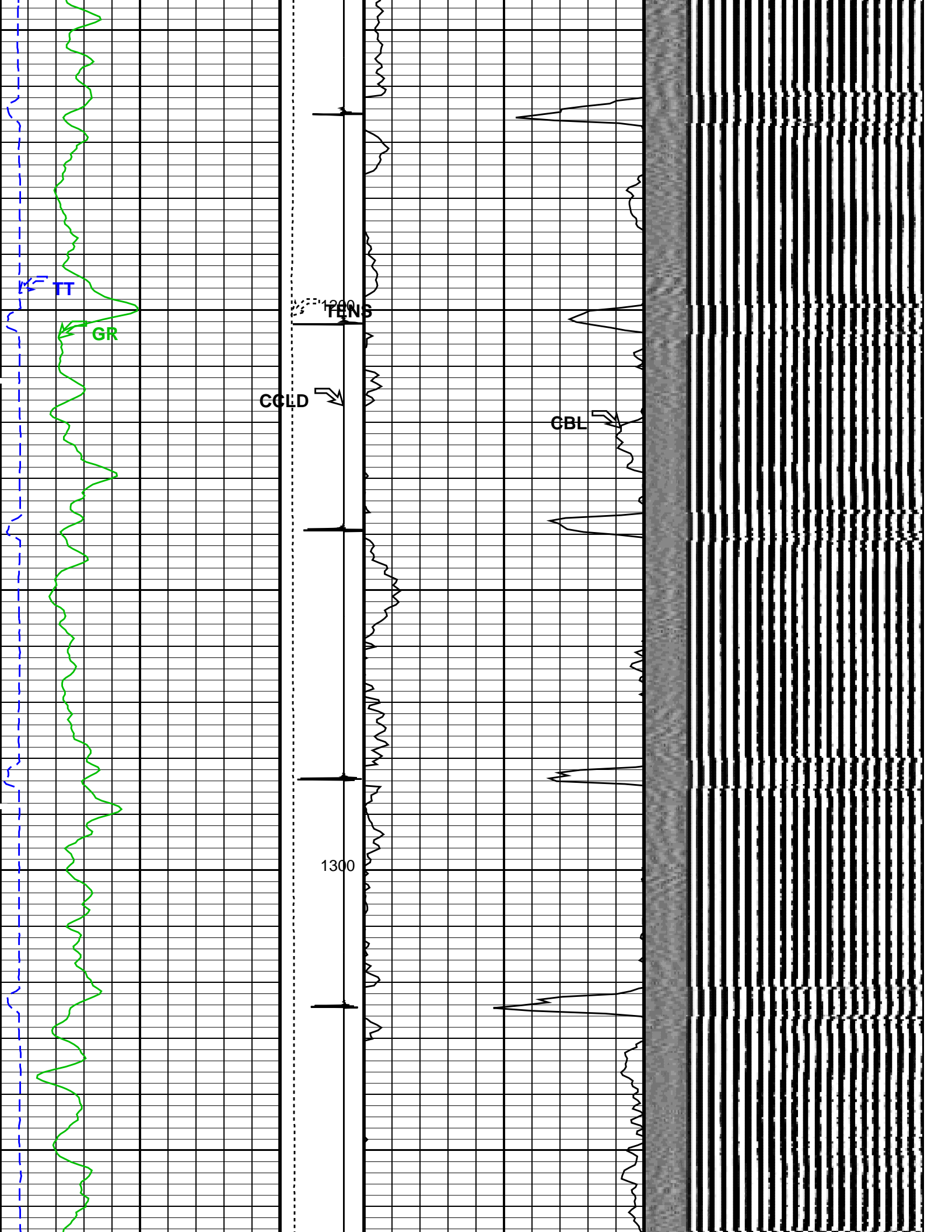


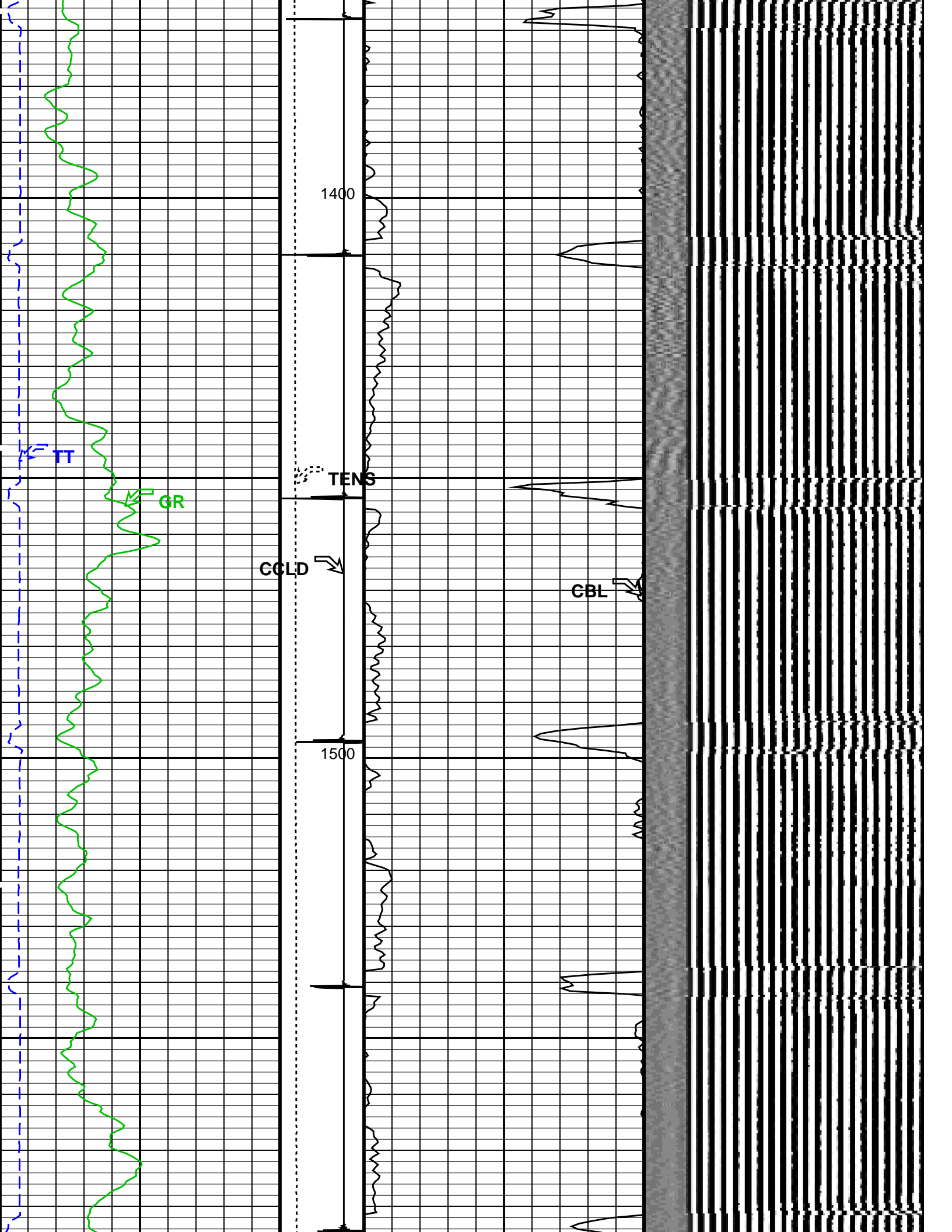


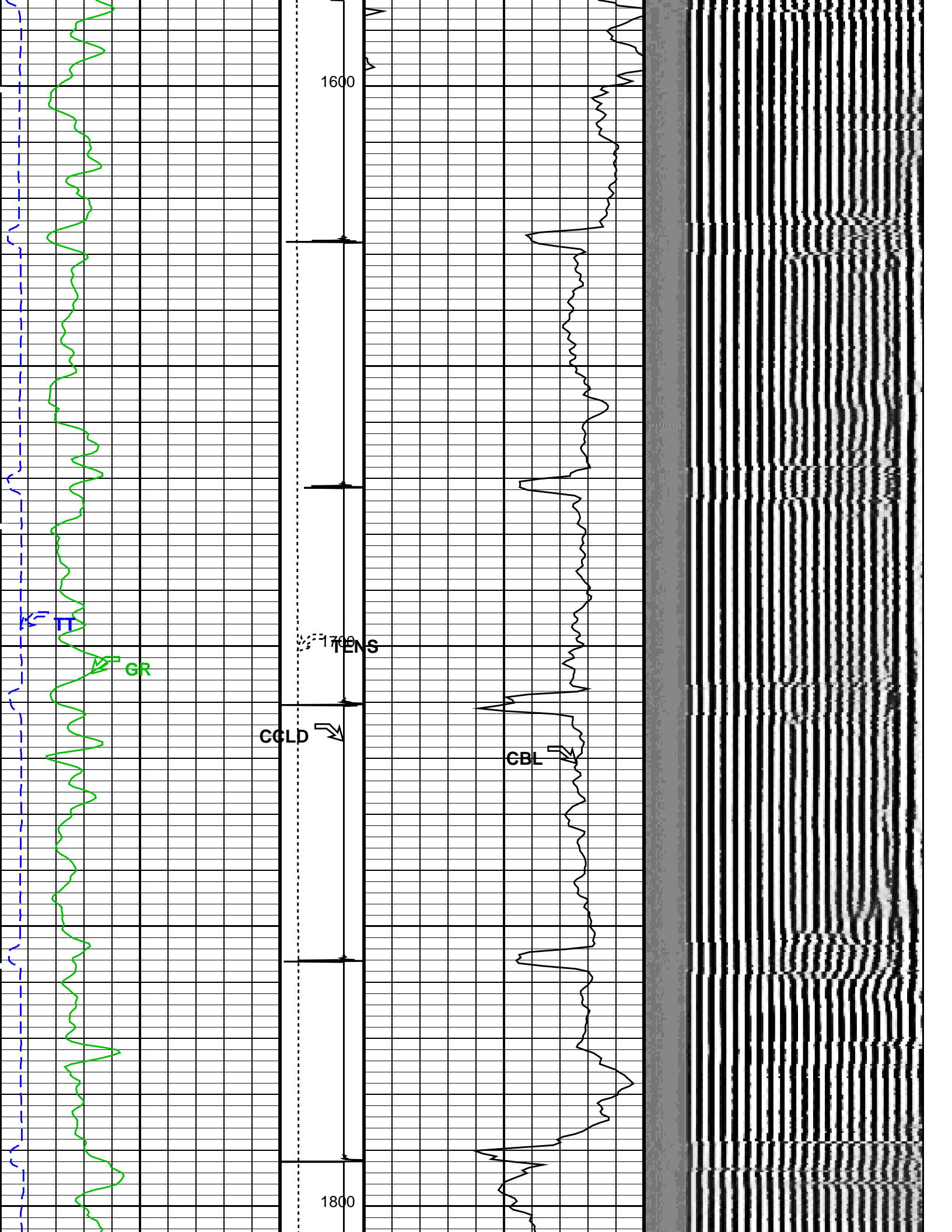


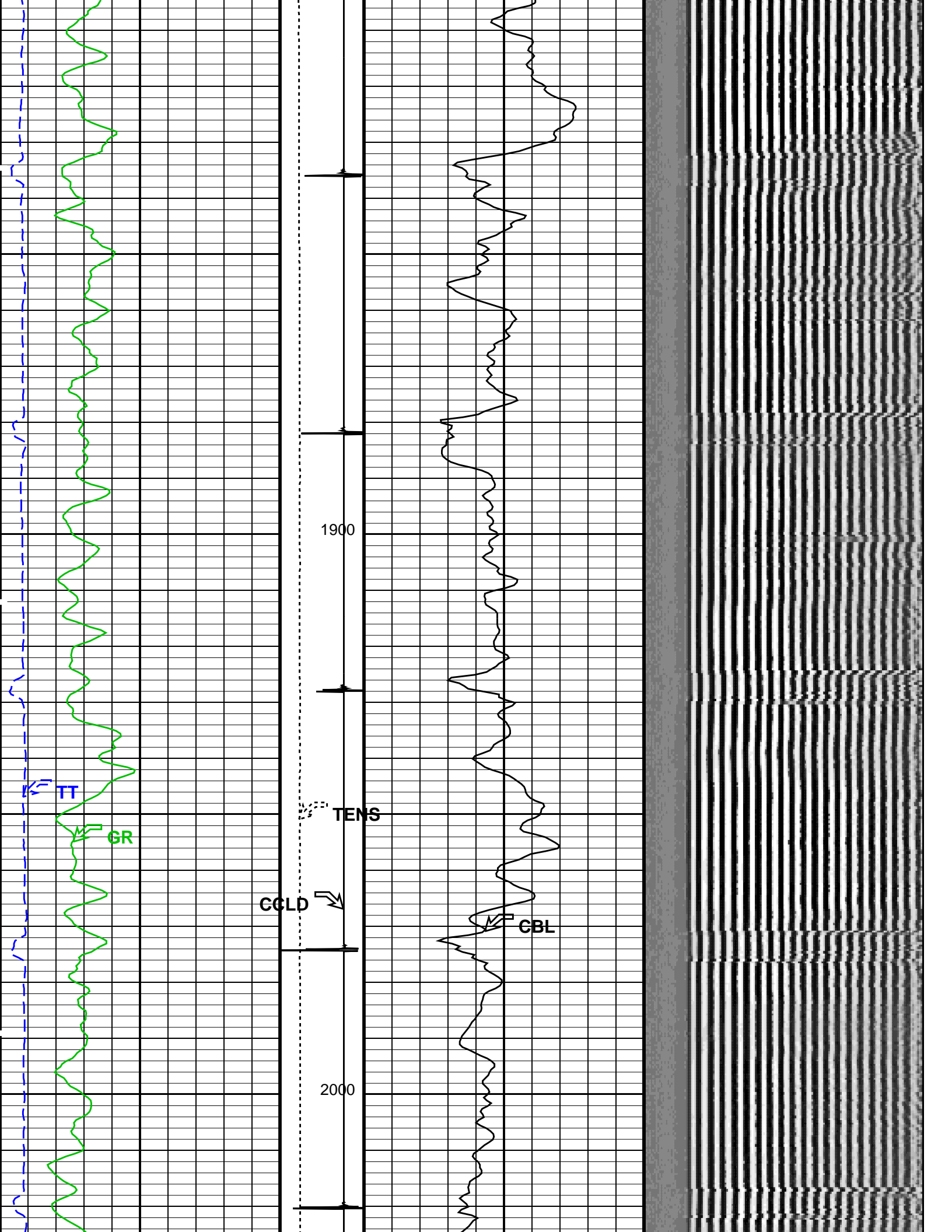


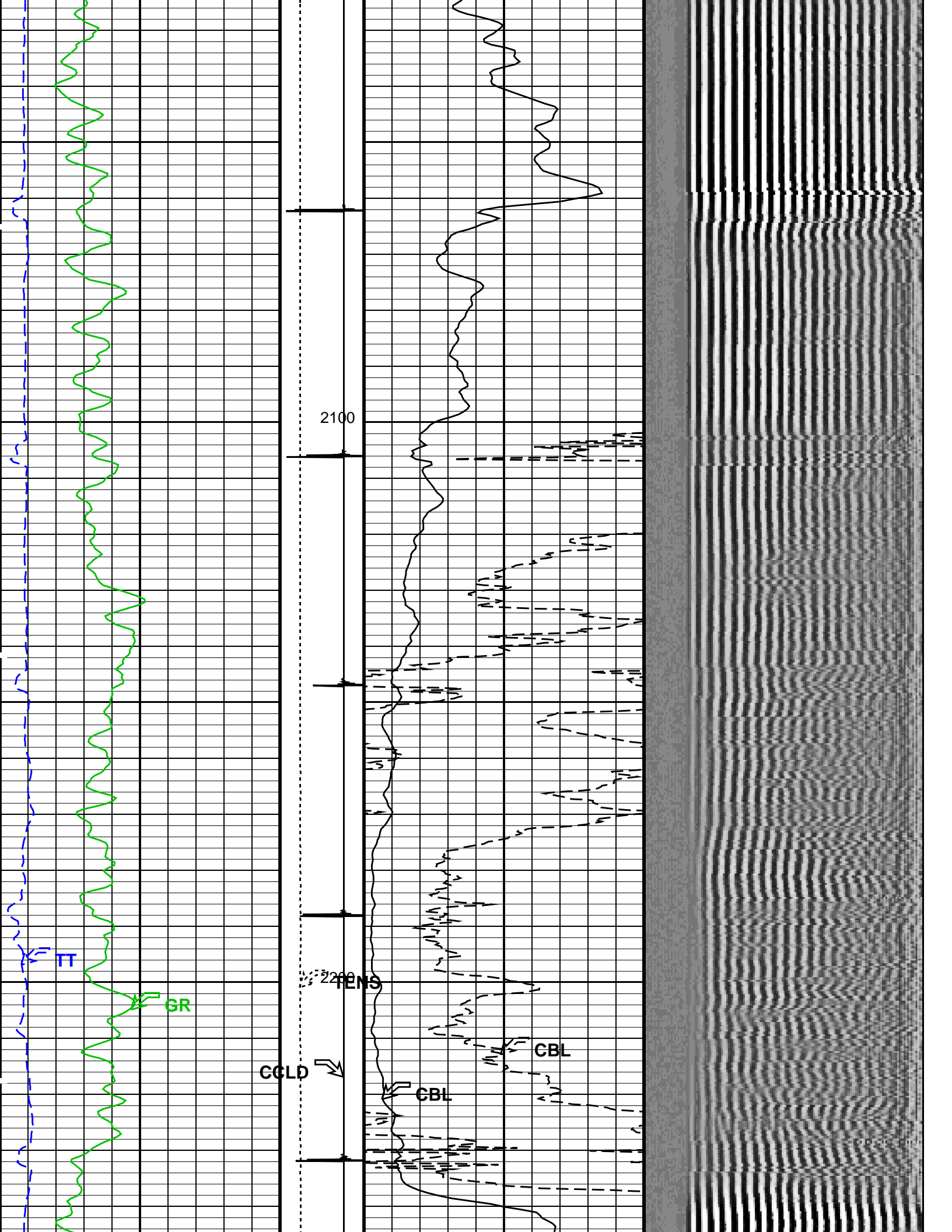


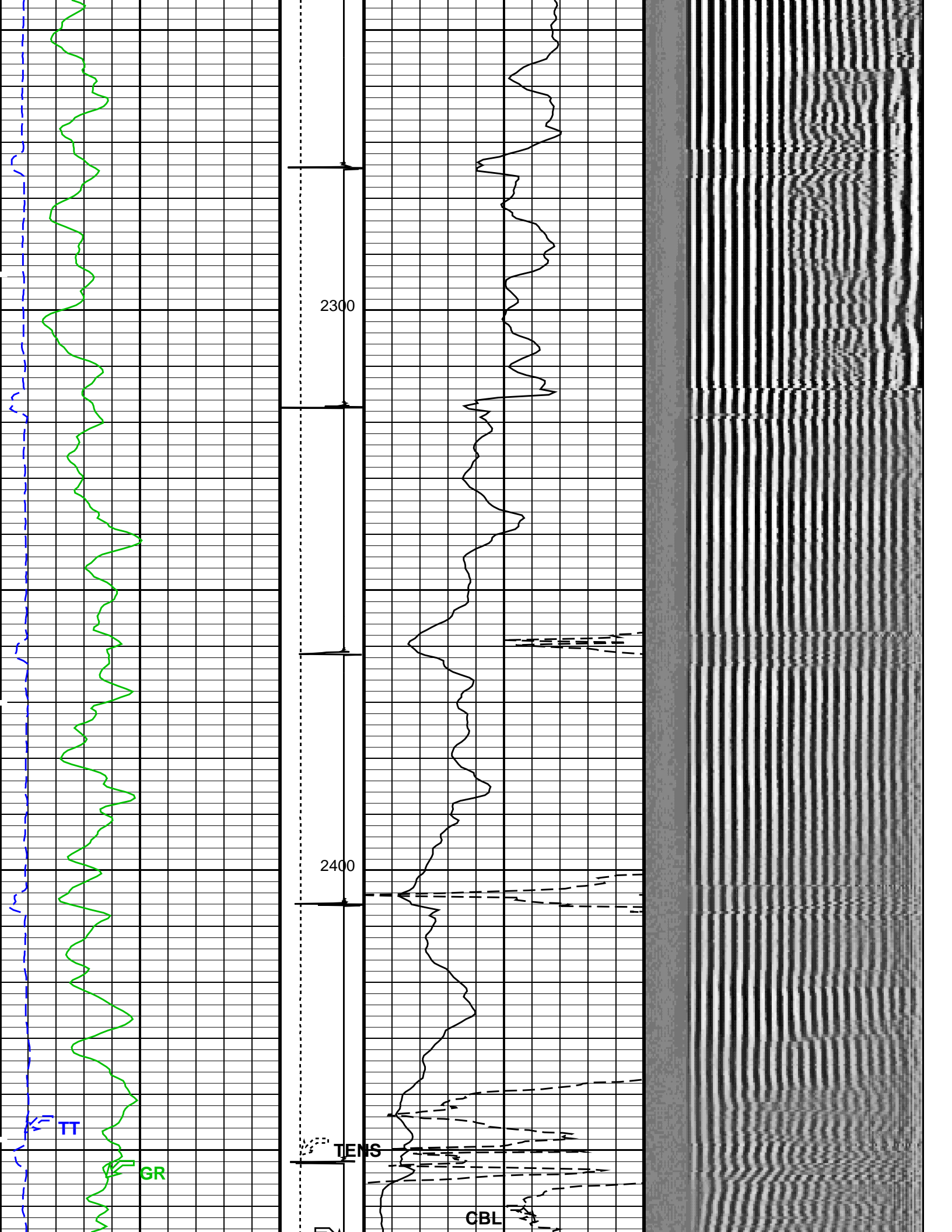


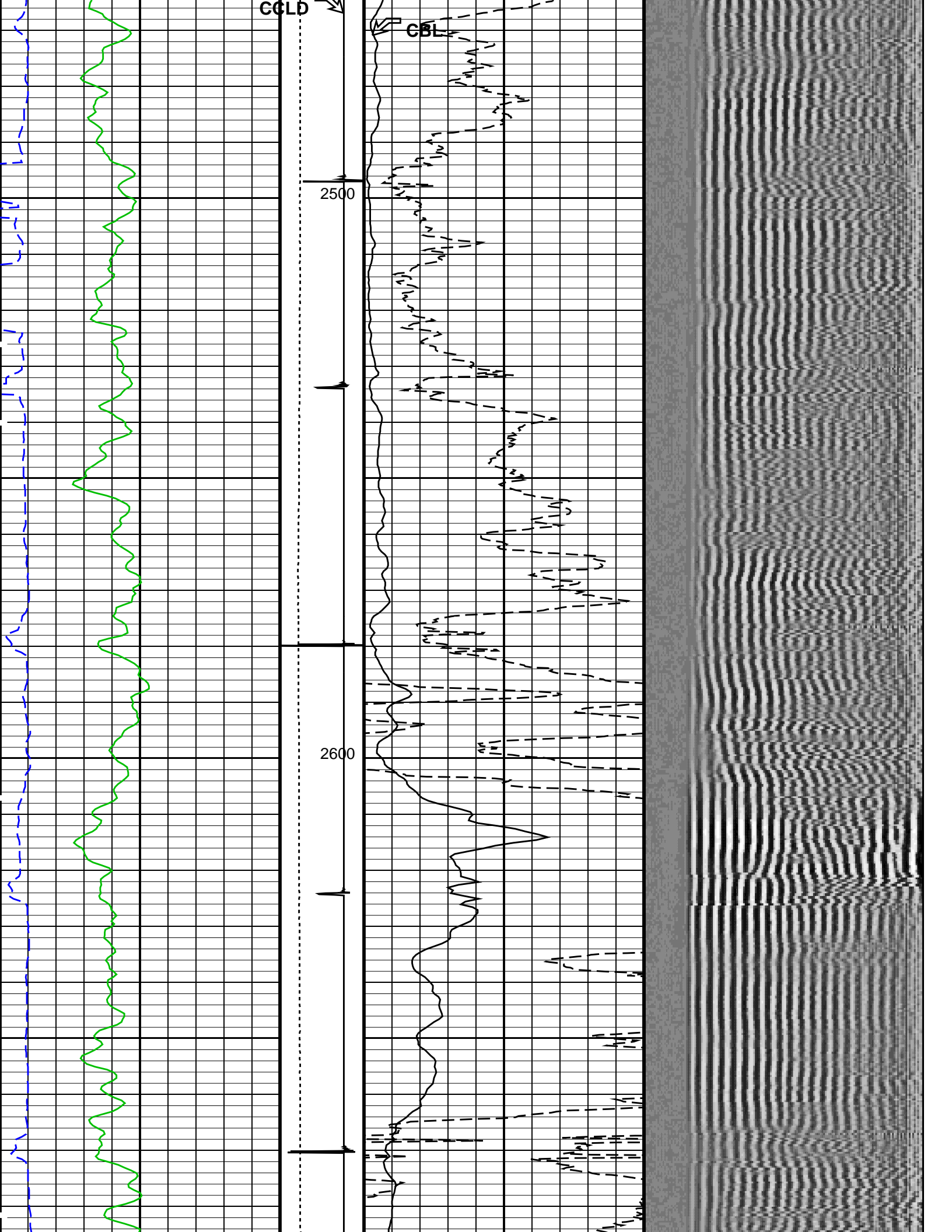


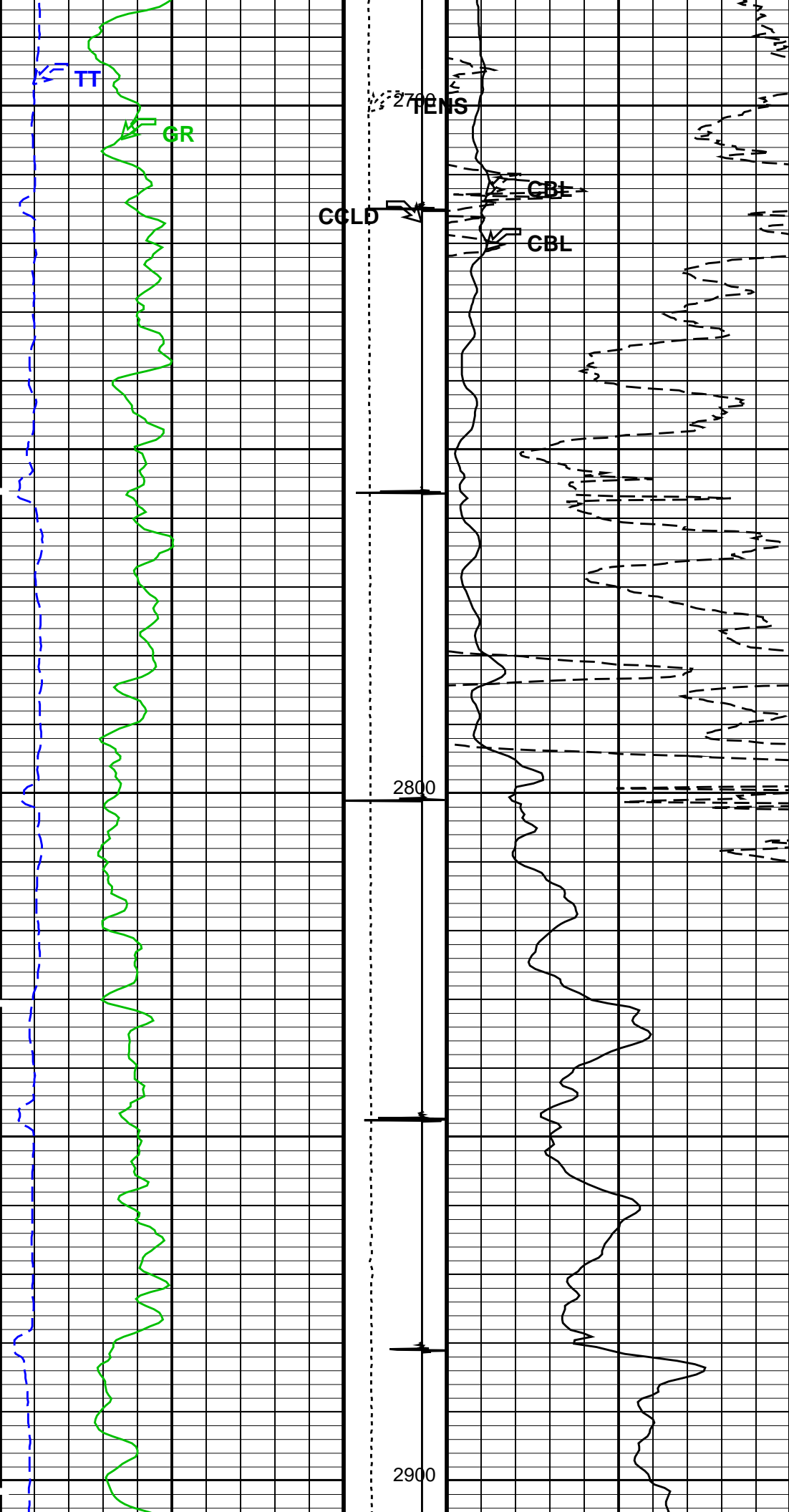


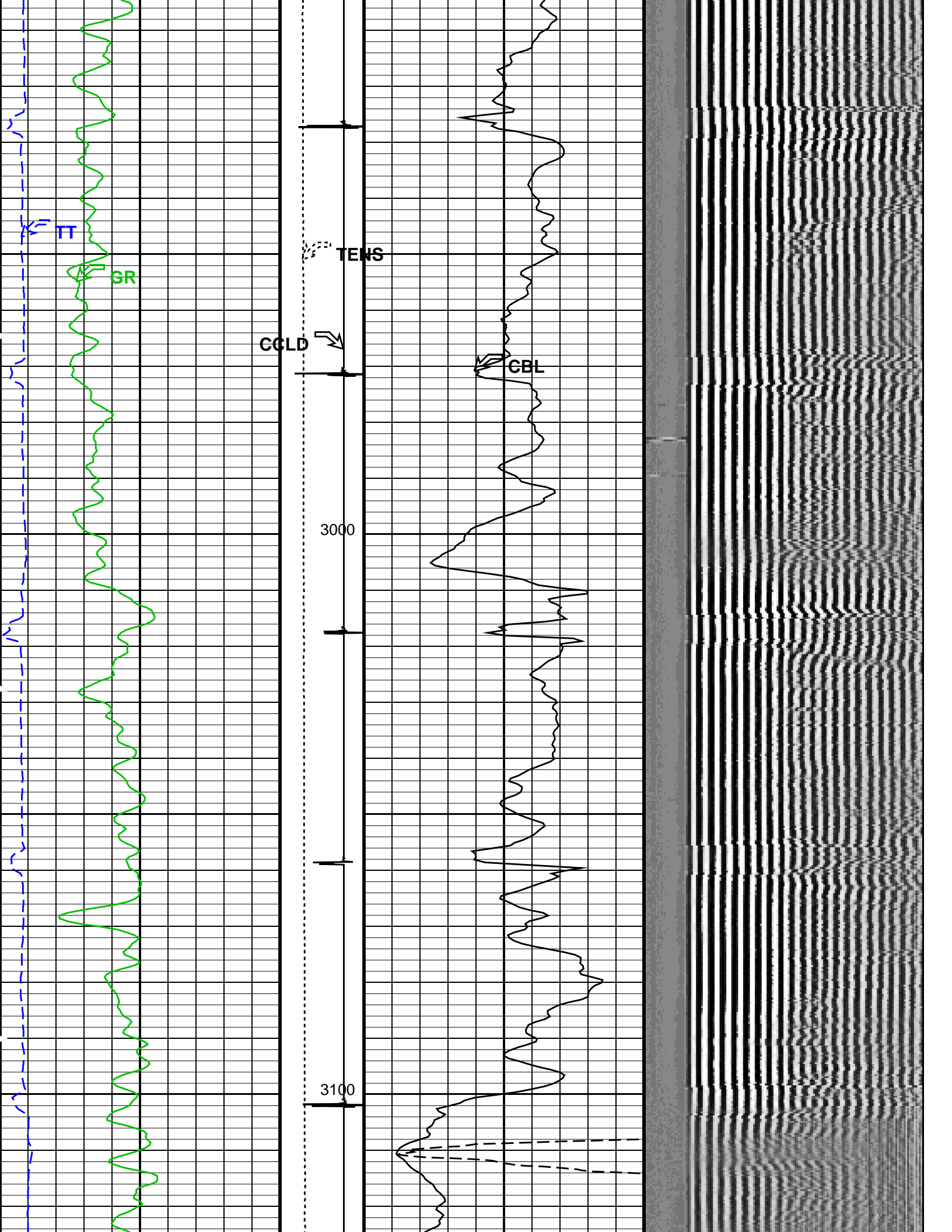


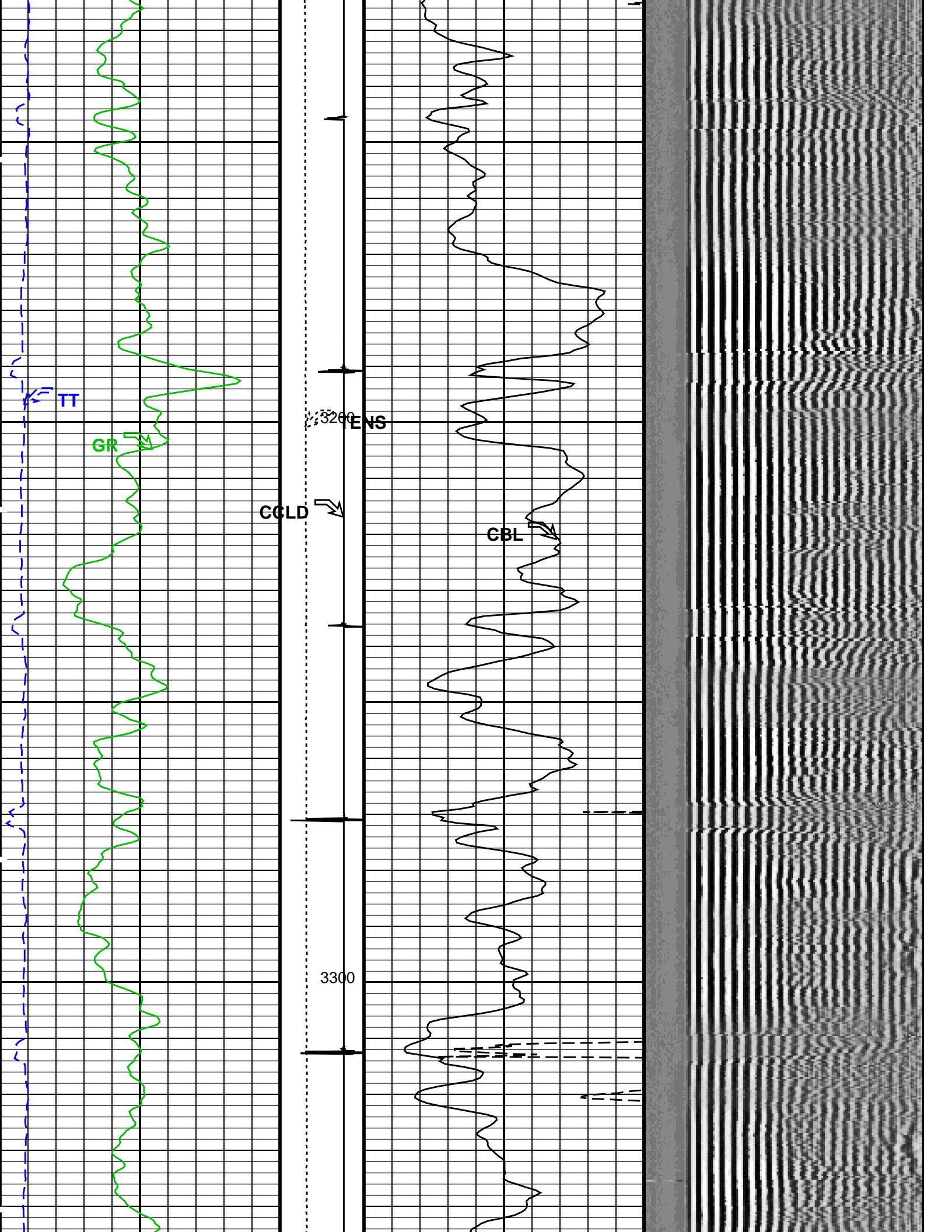


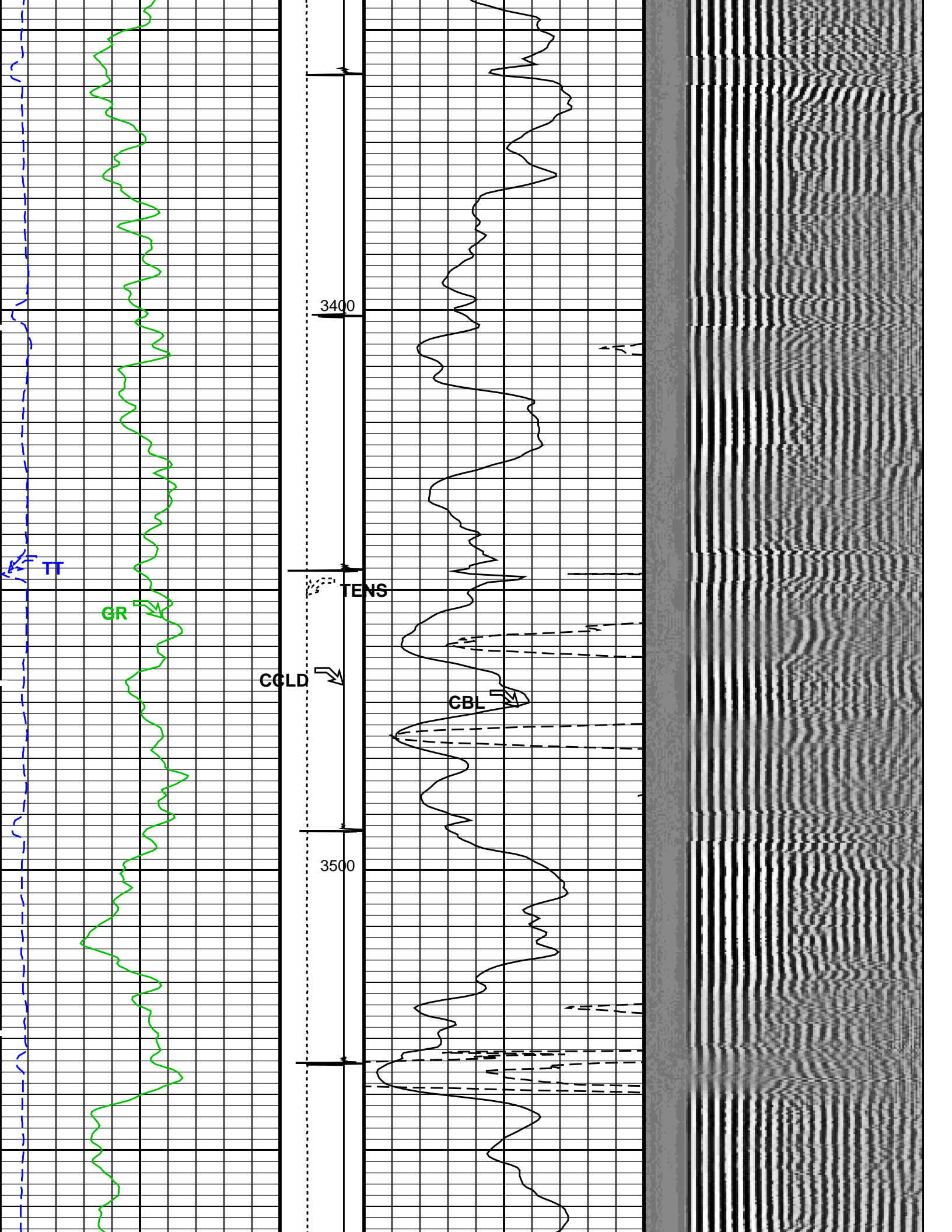


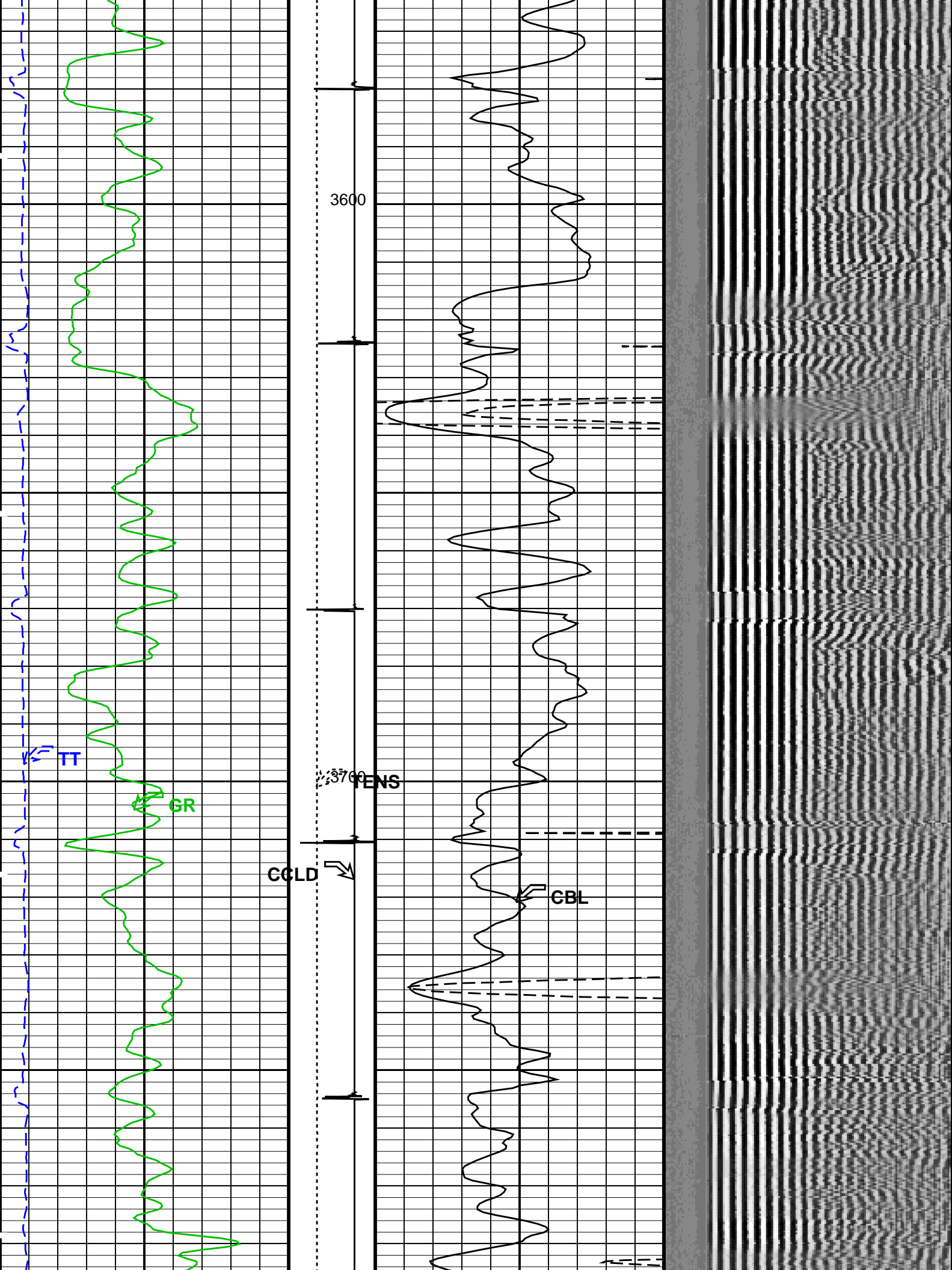


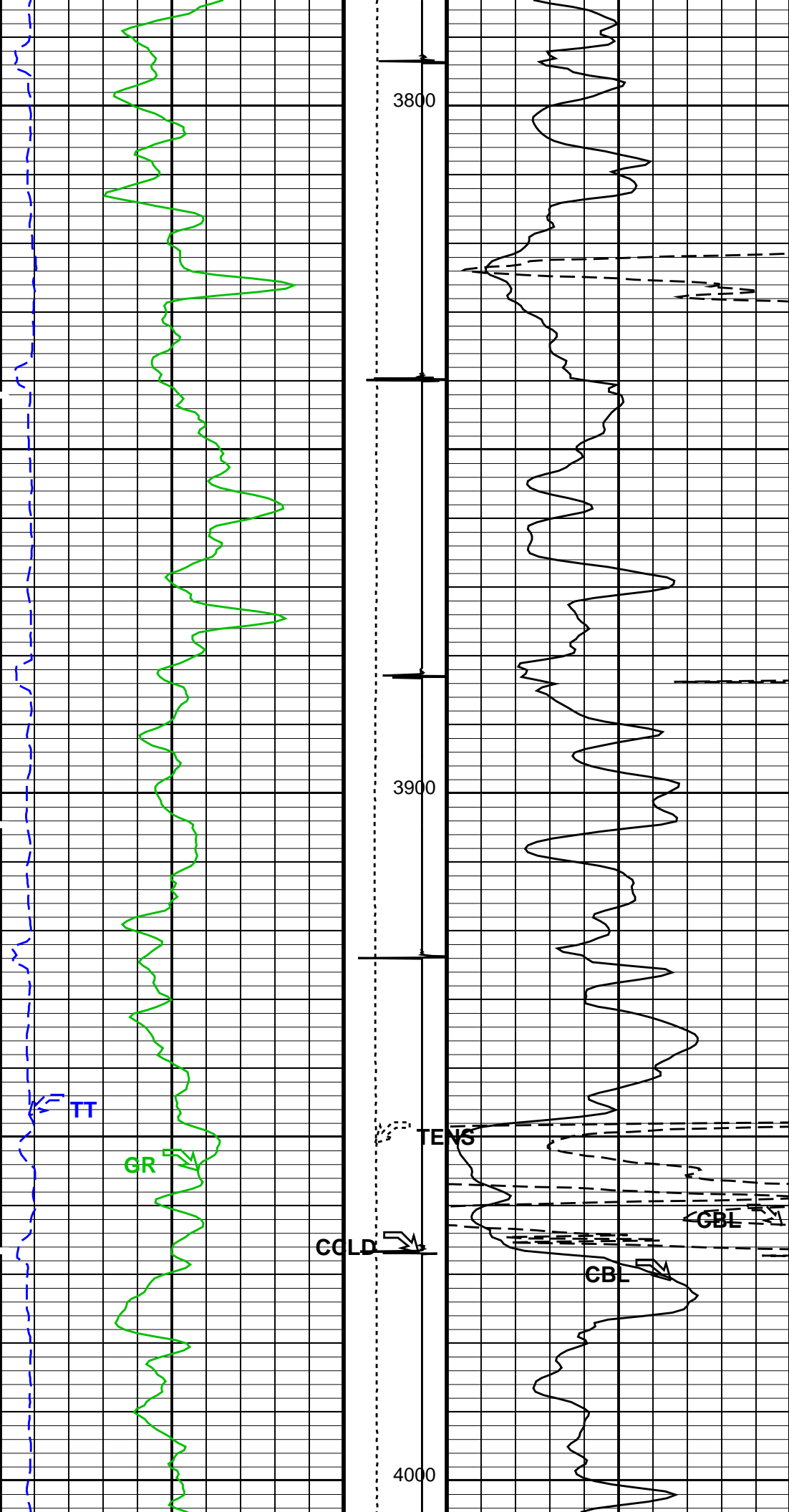


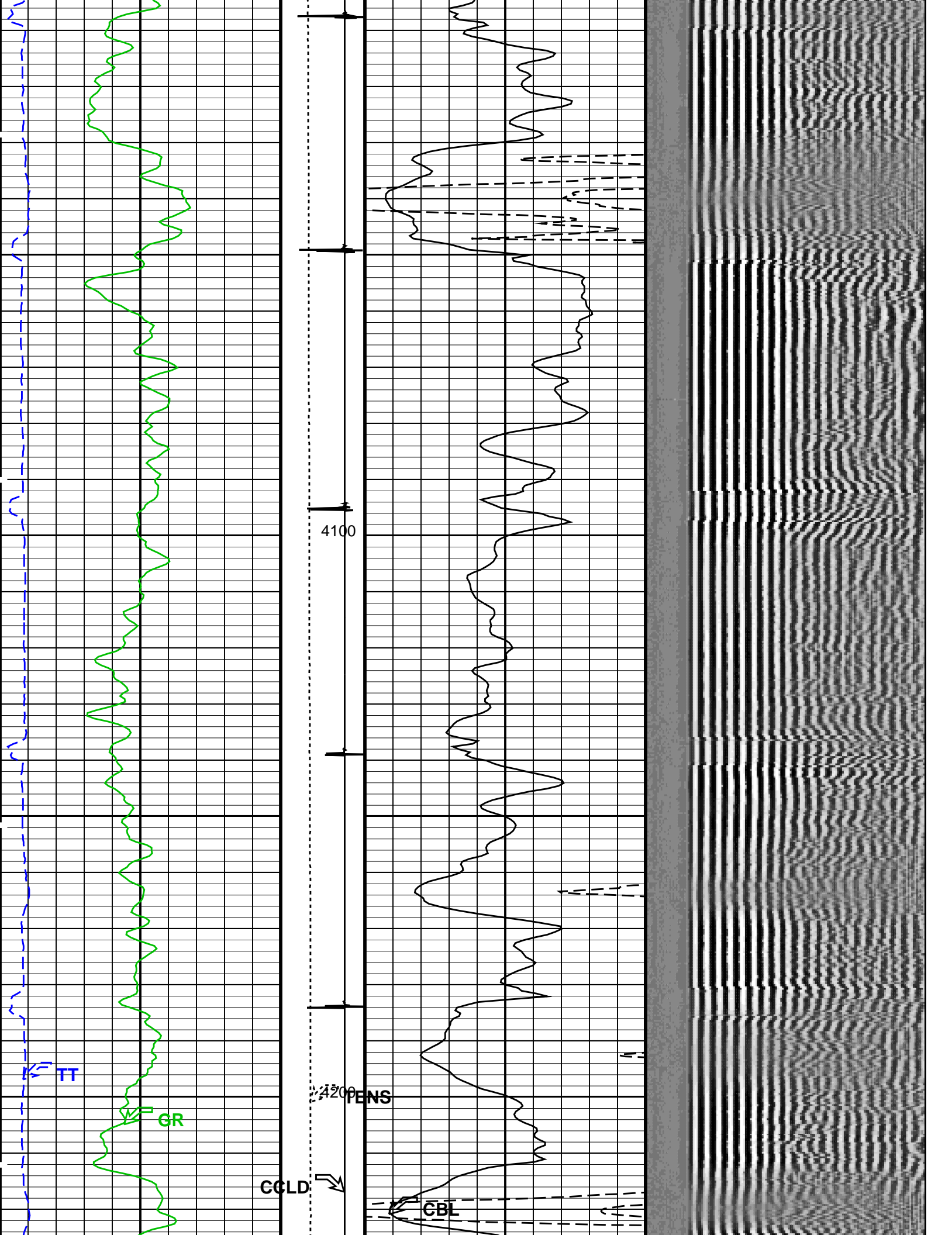


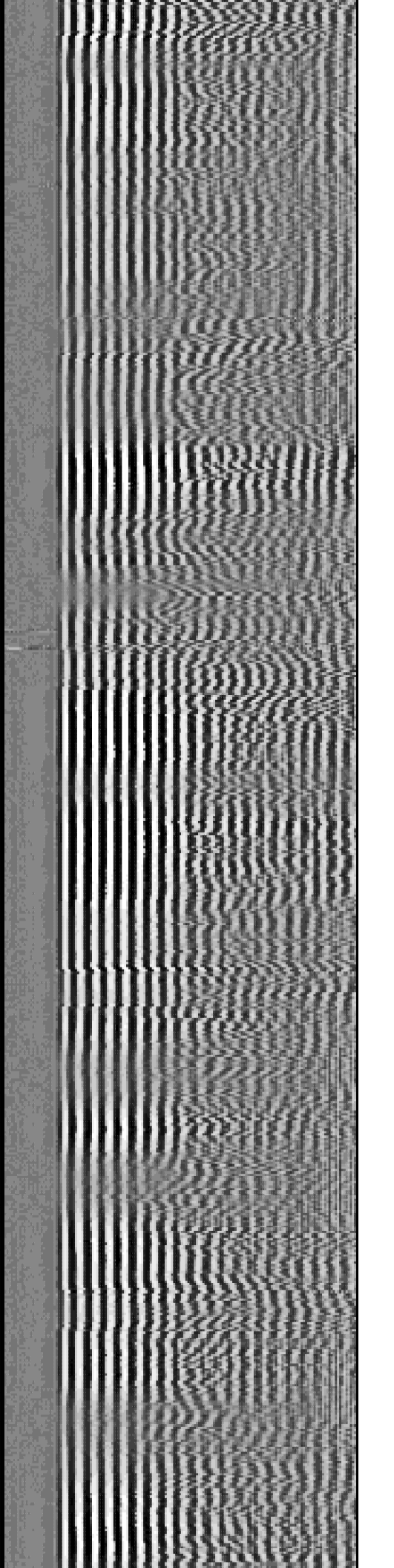
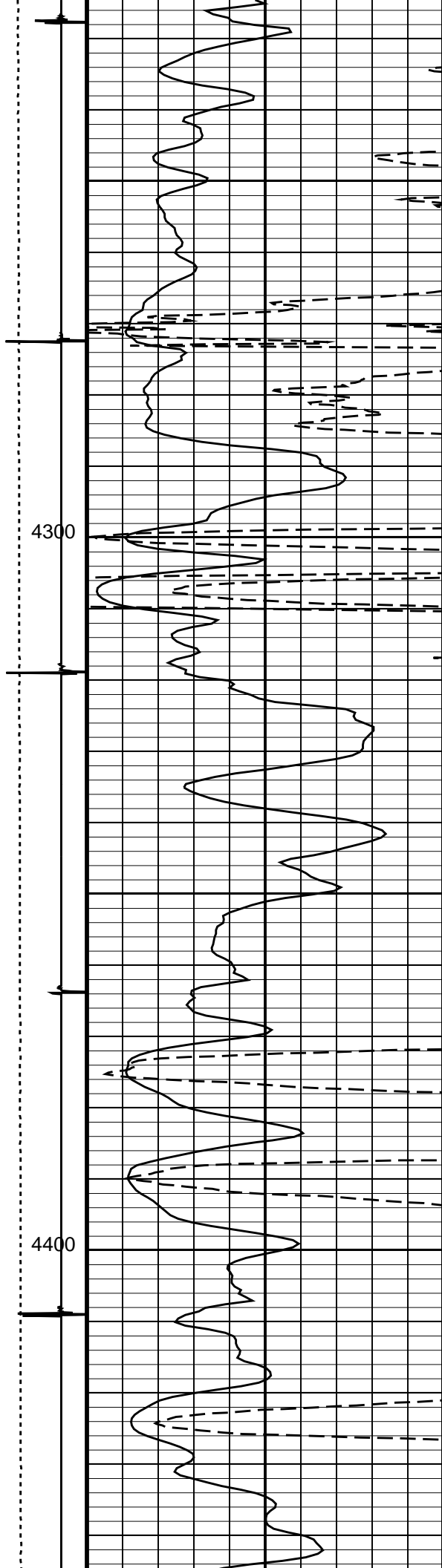
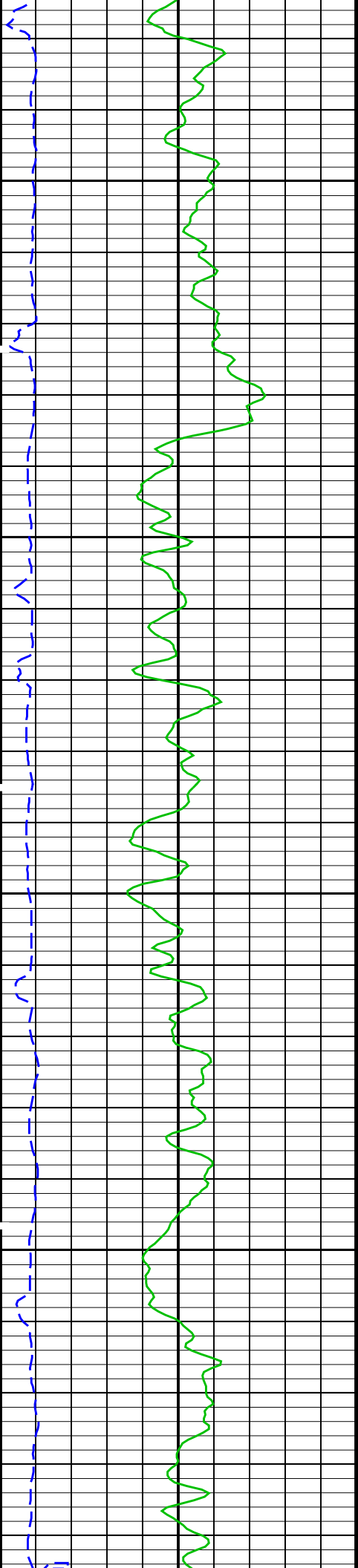


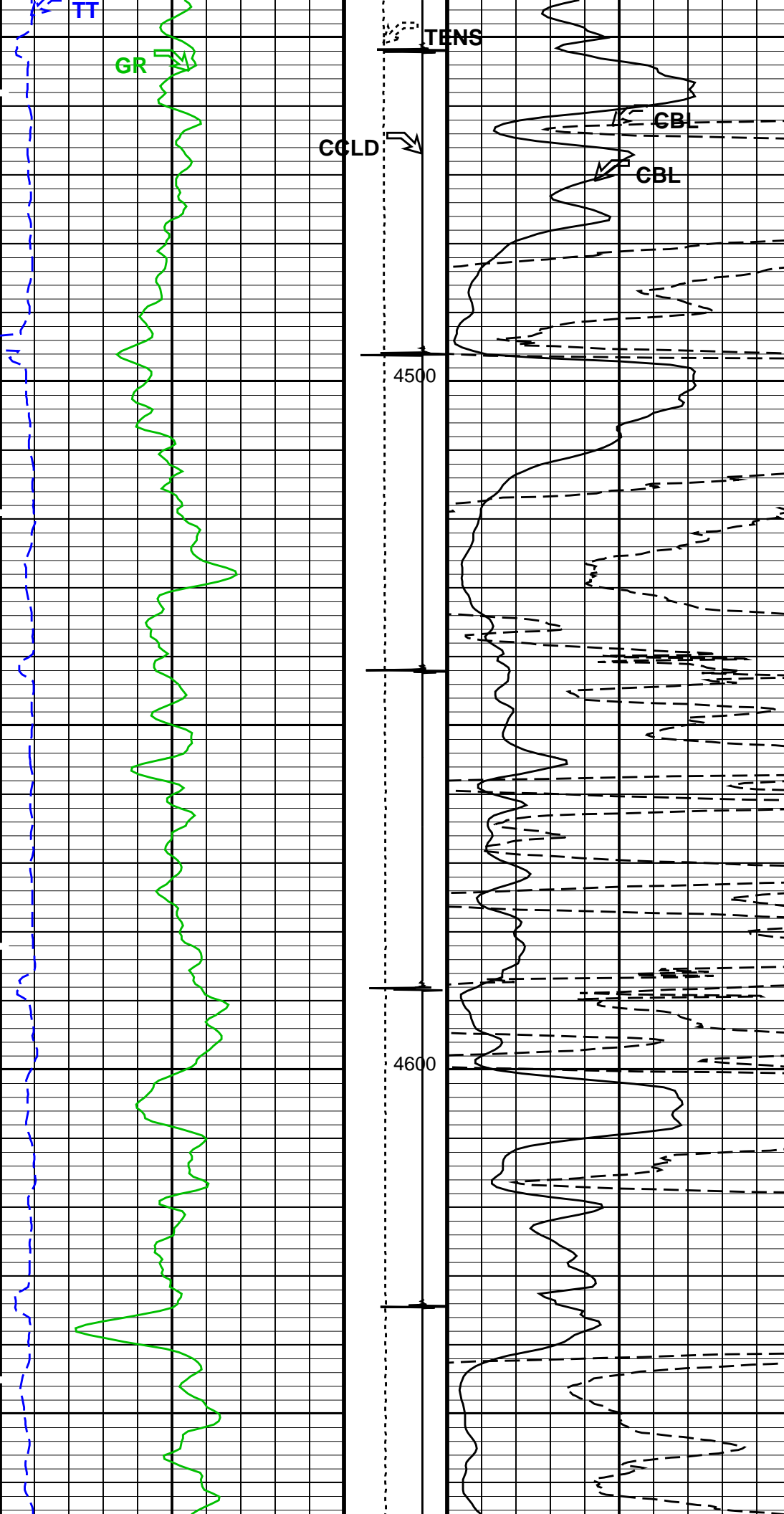


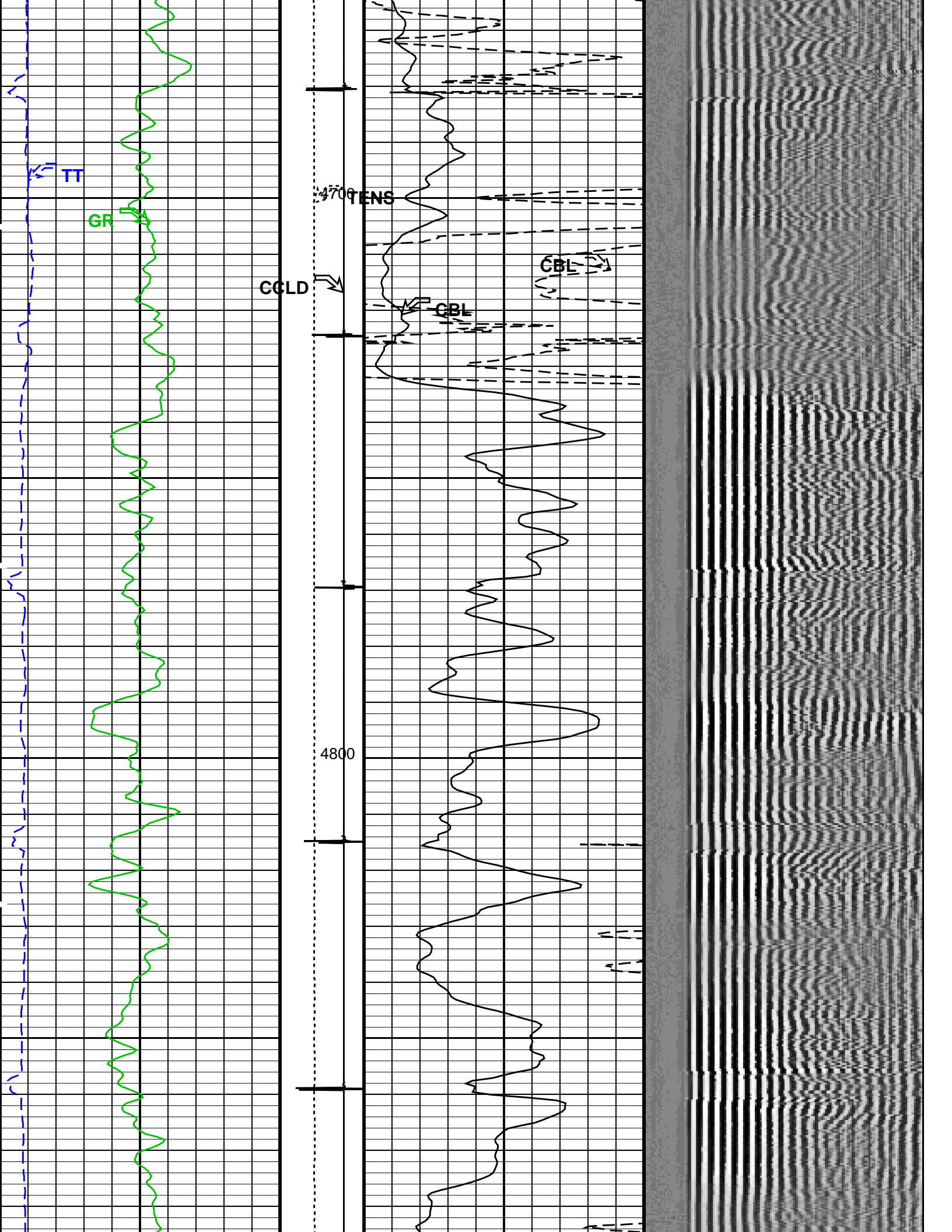


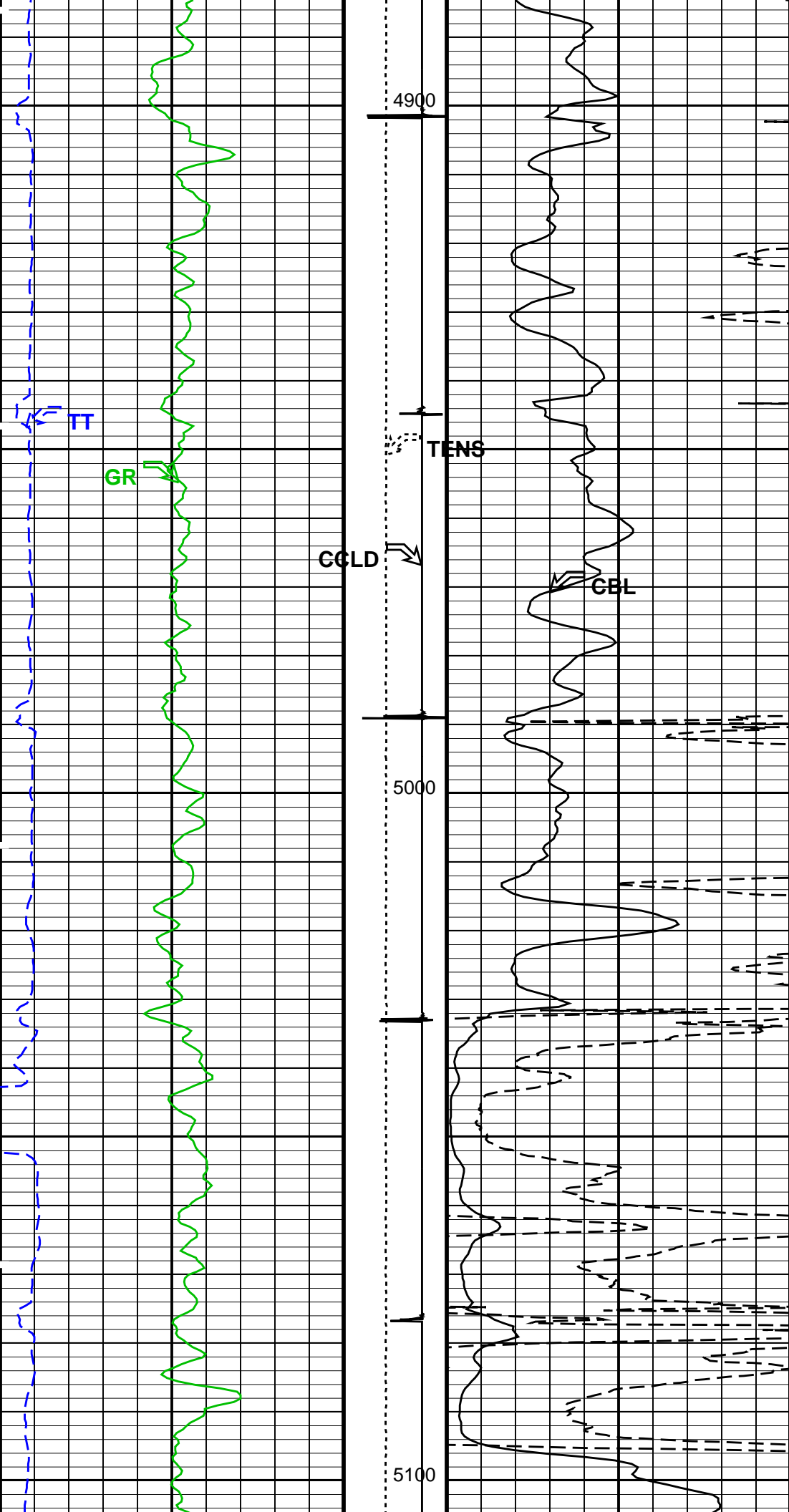


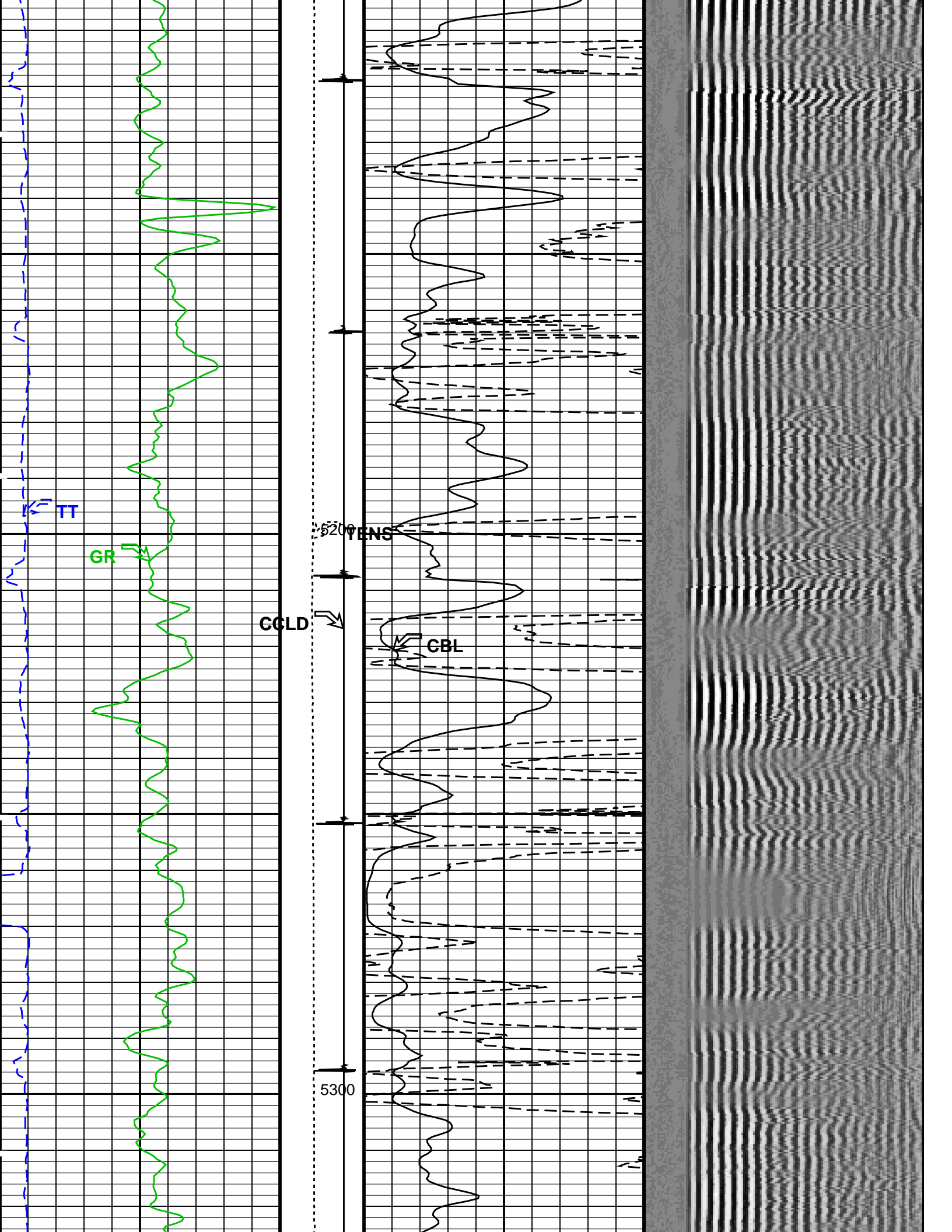


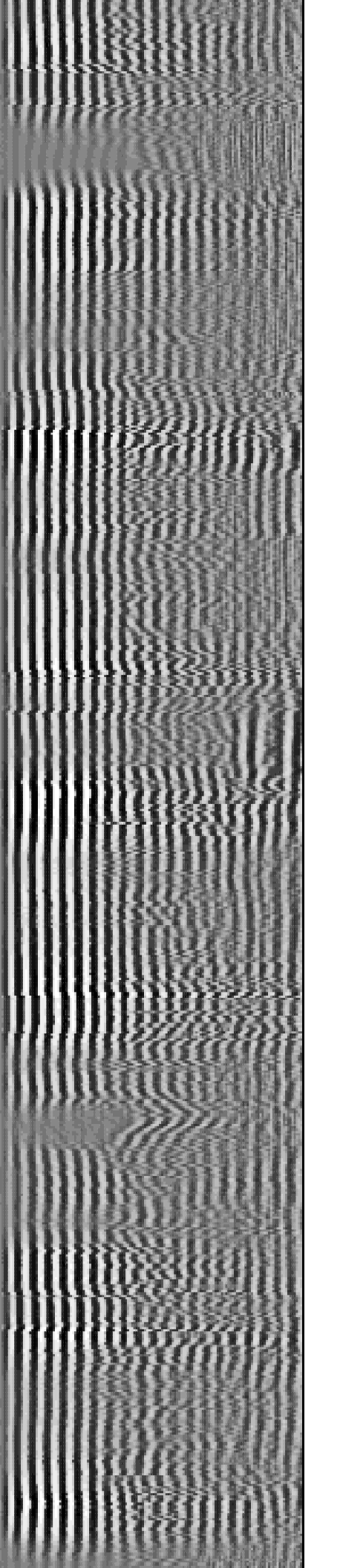
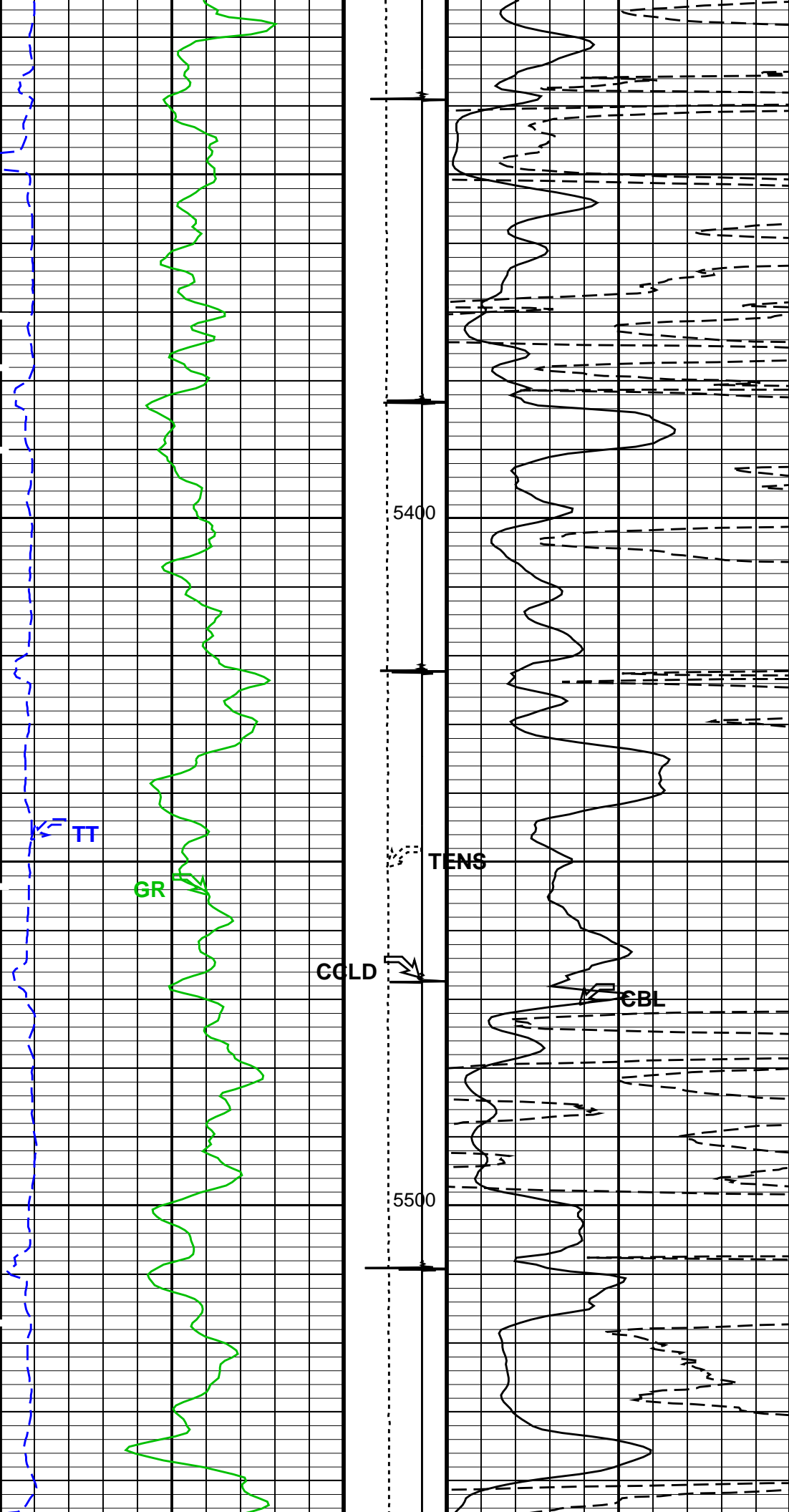


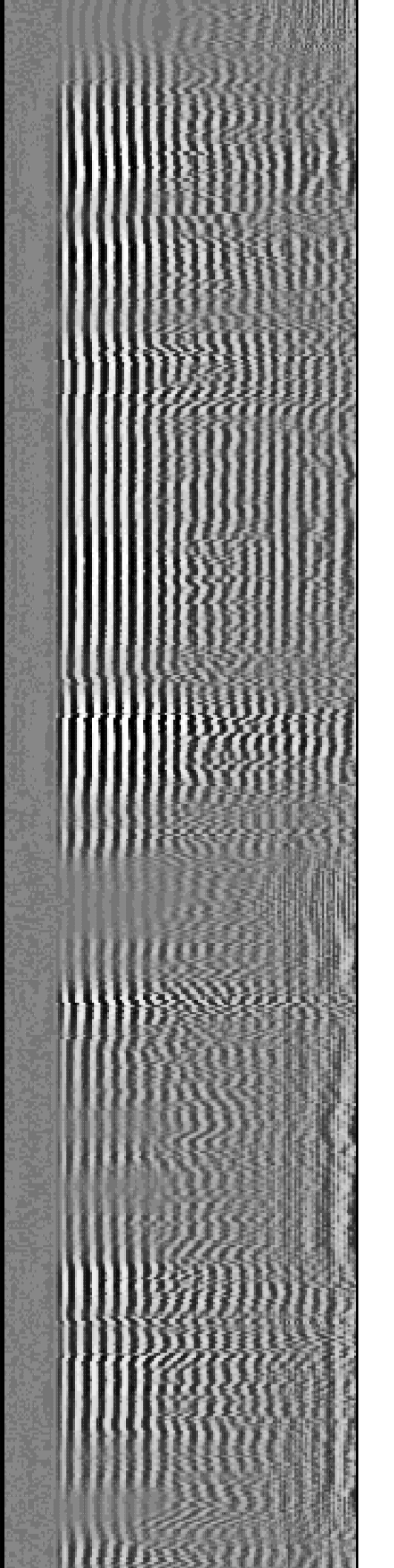
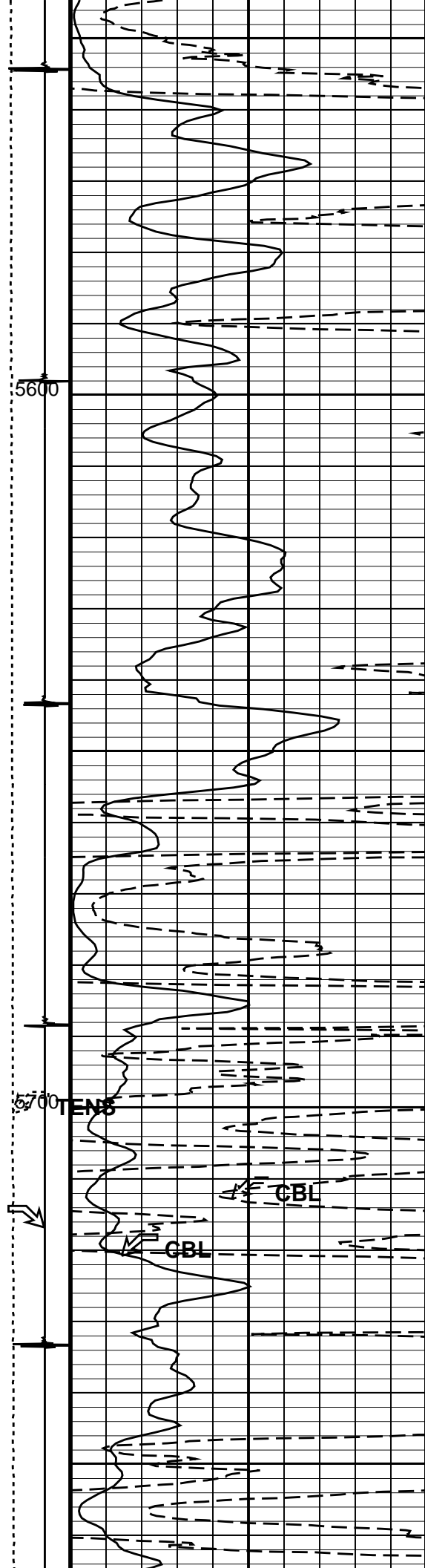
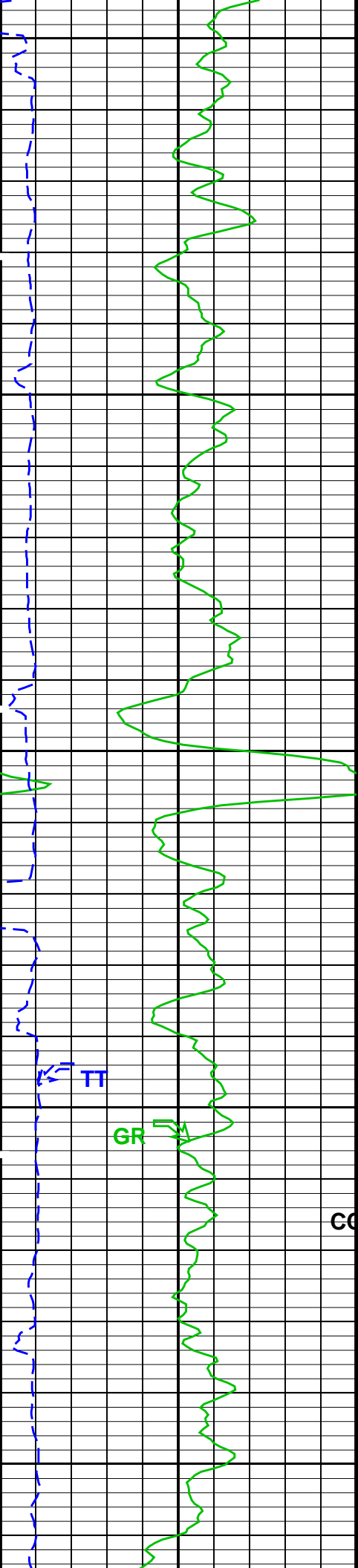


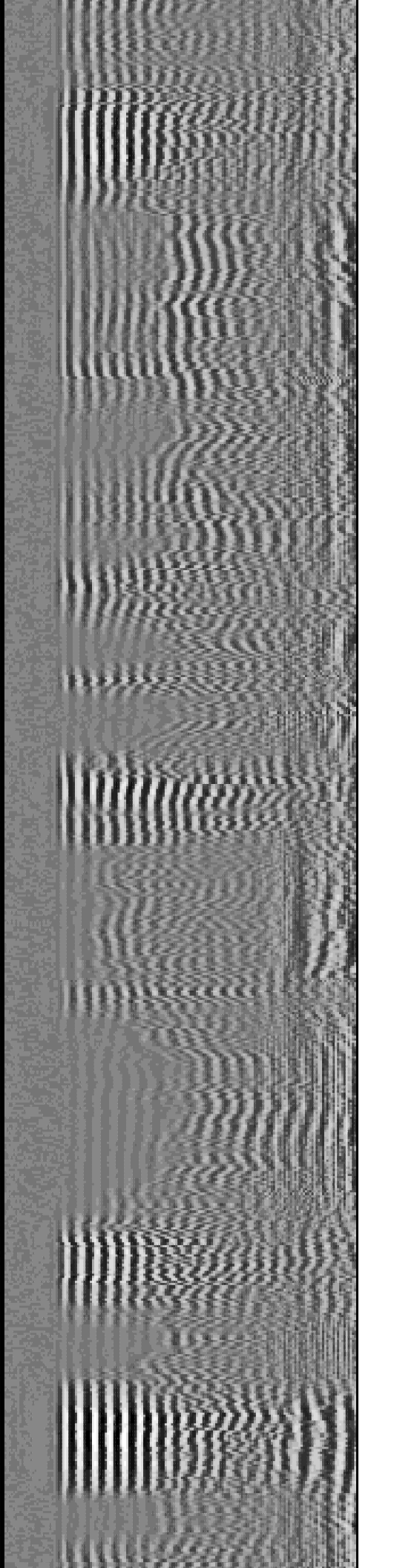
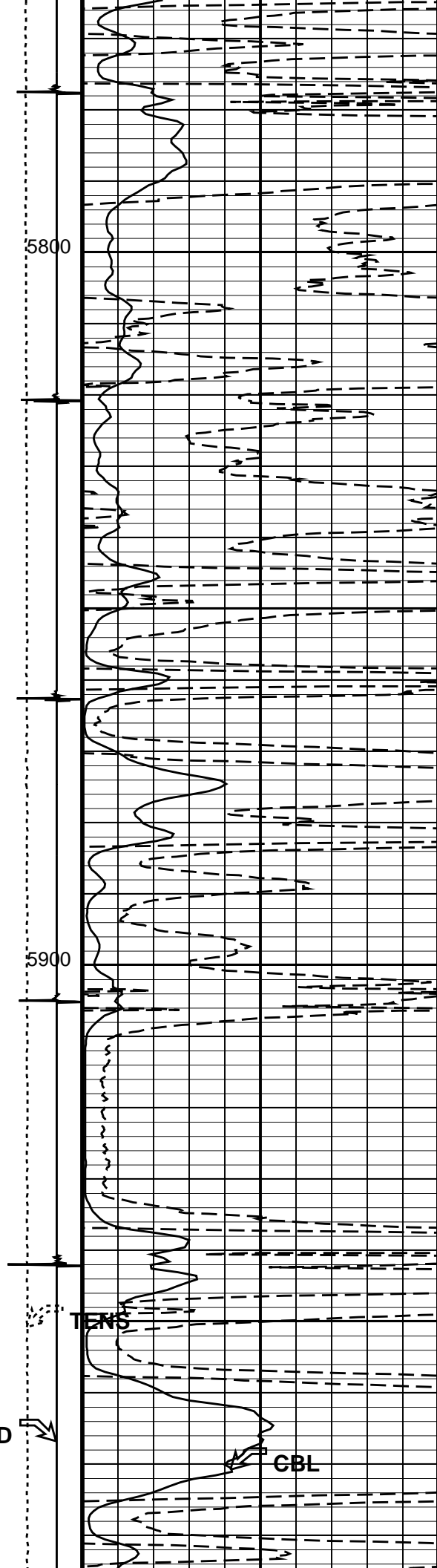
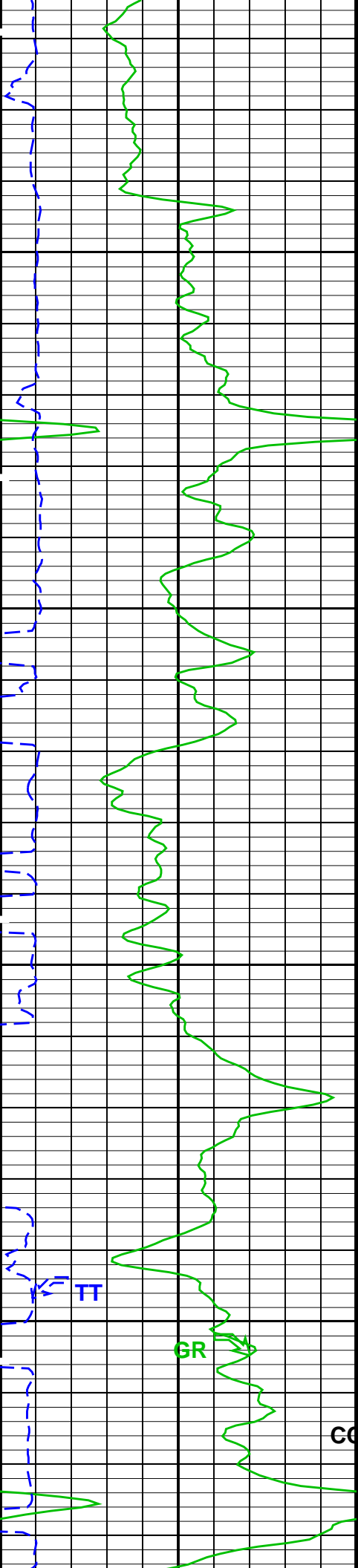








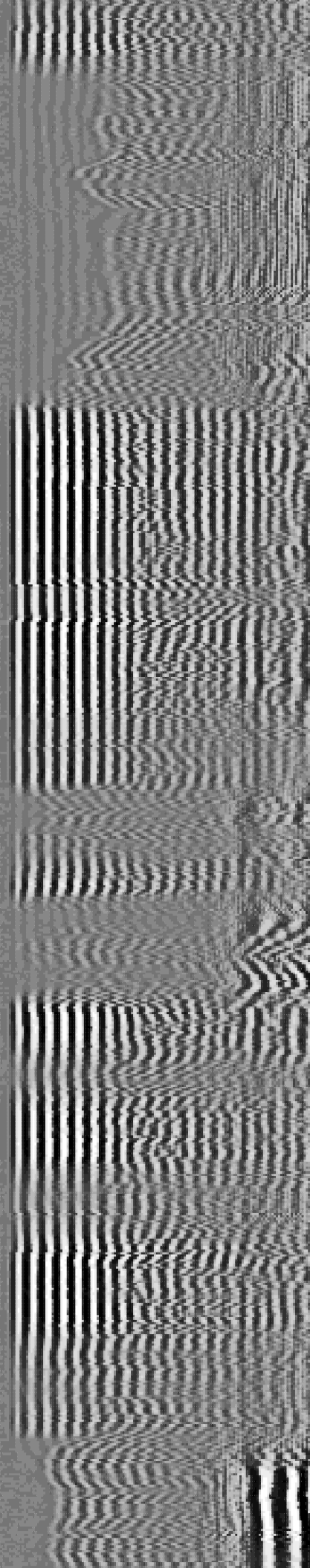
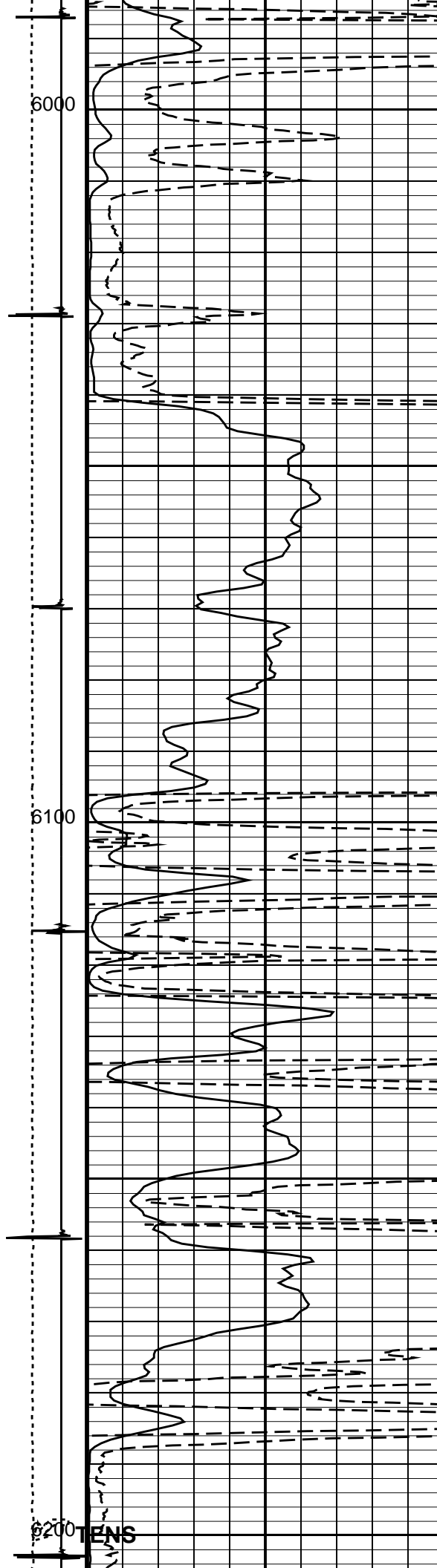
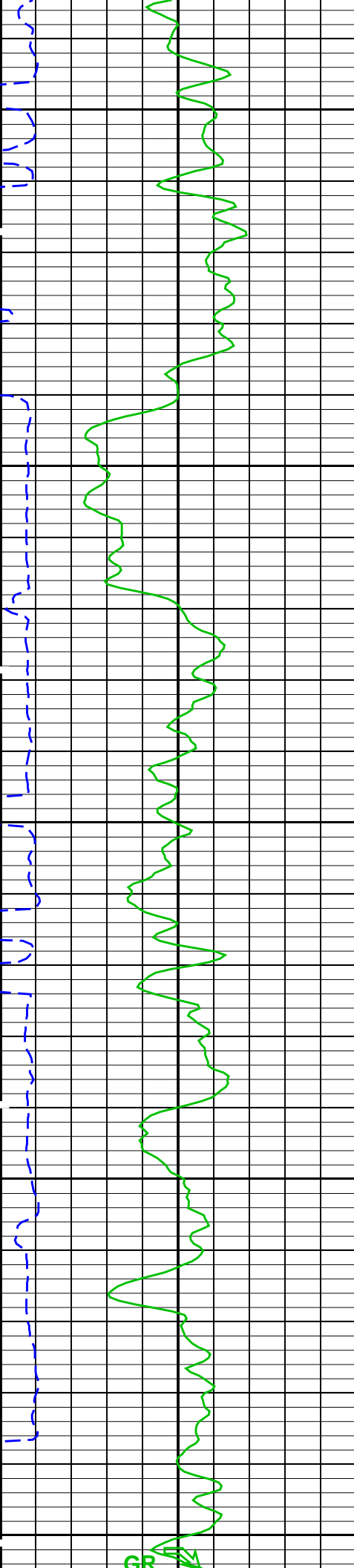


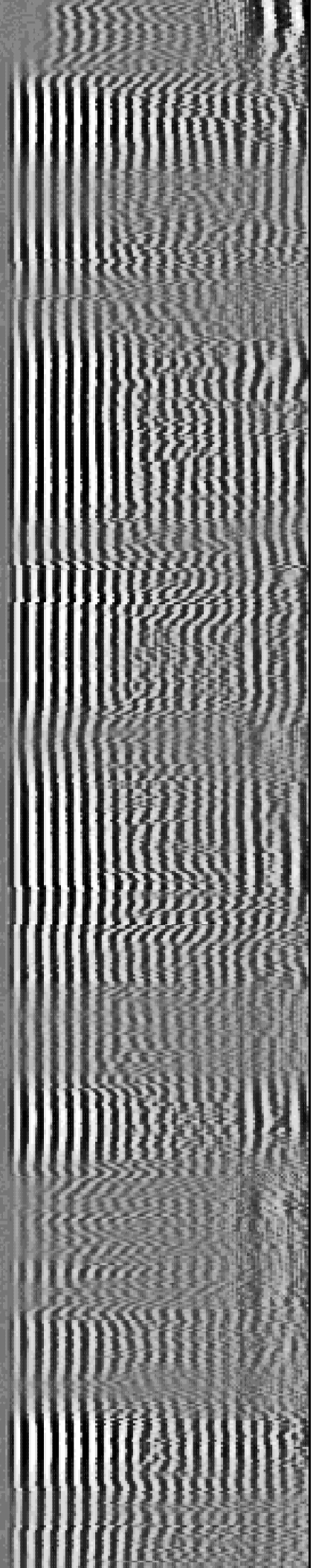
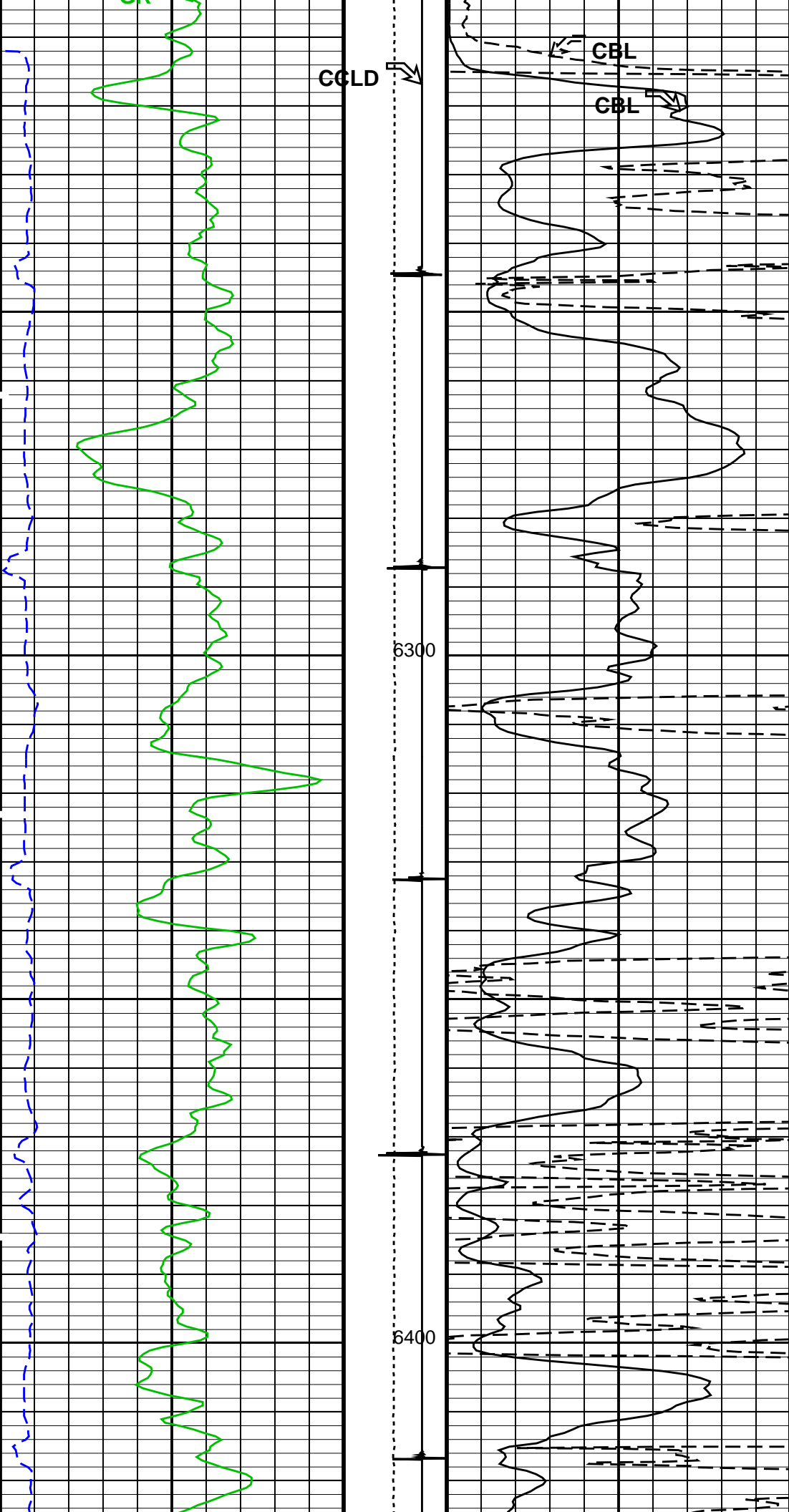


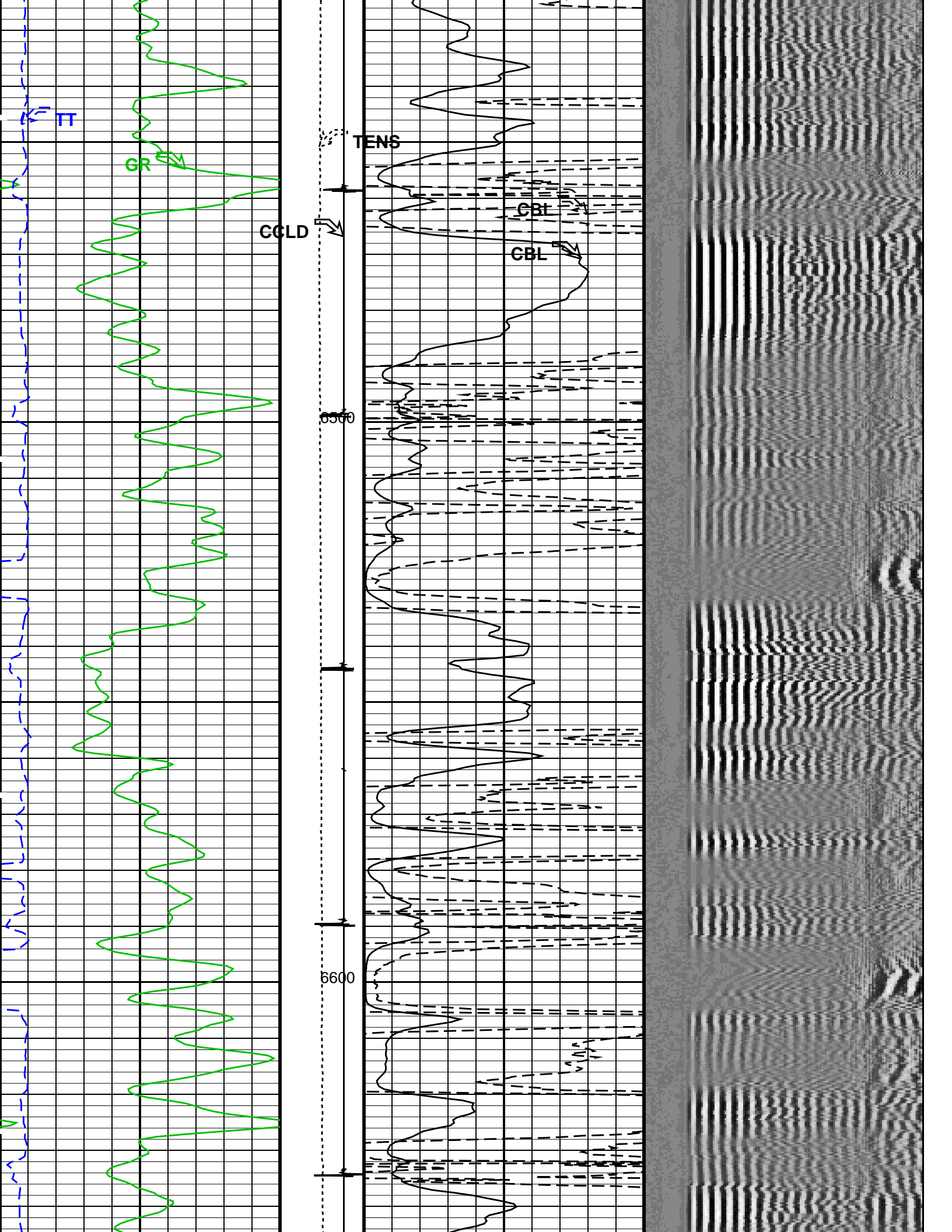
CCLD

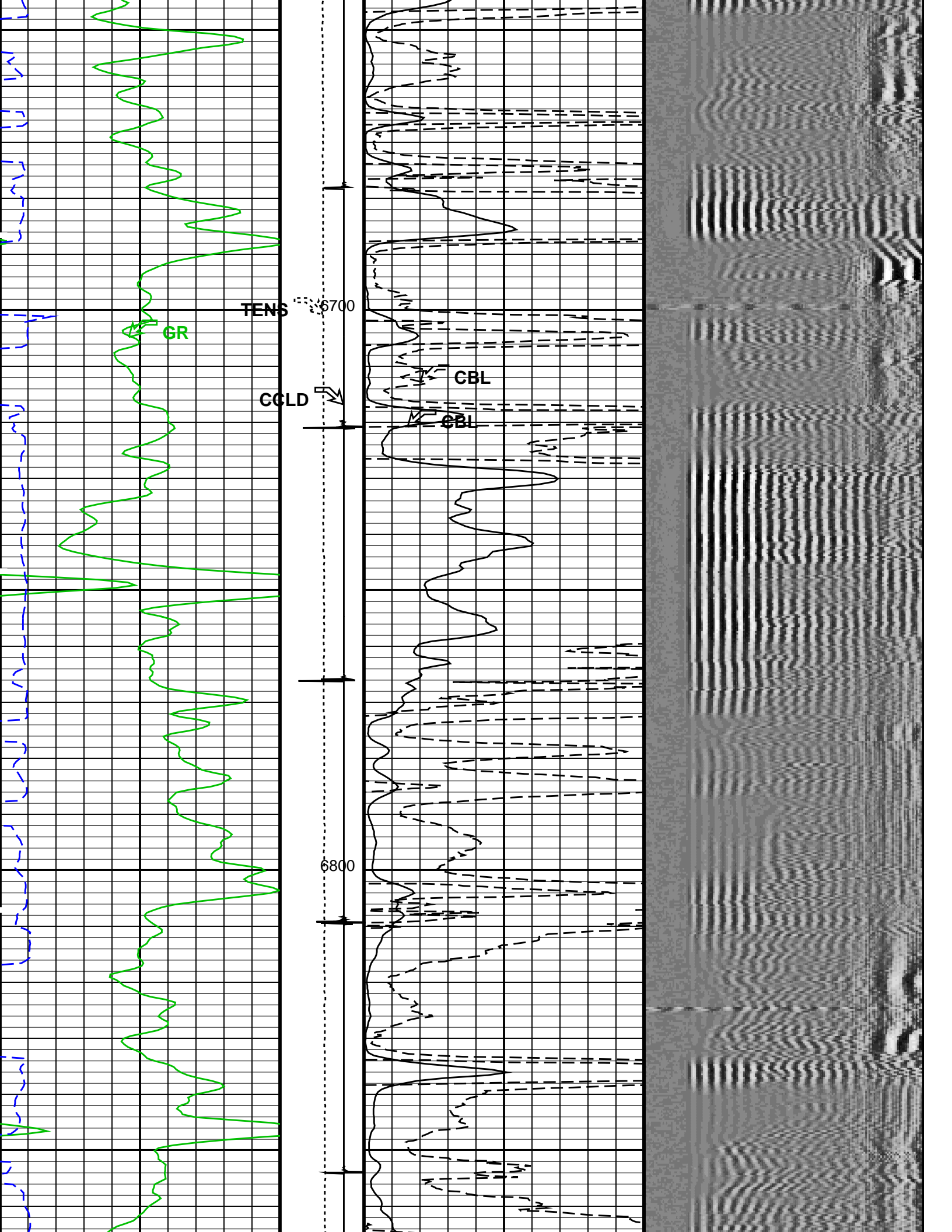
TENS

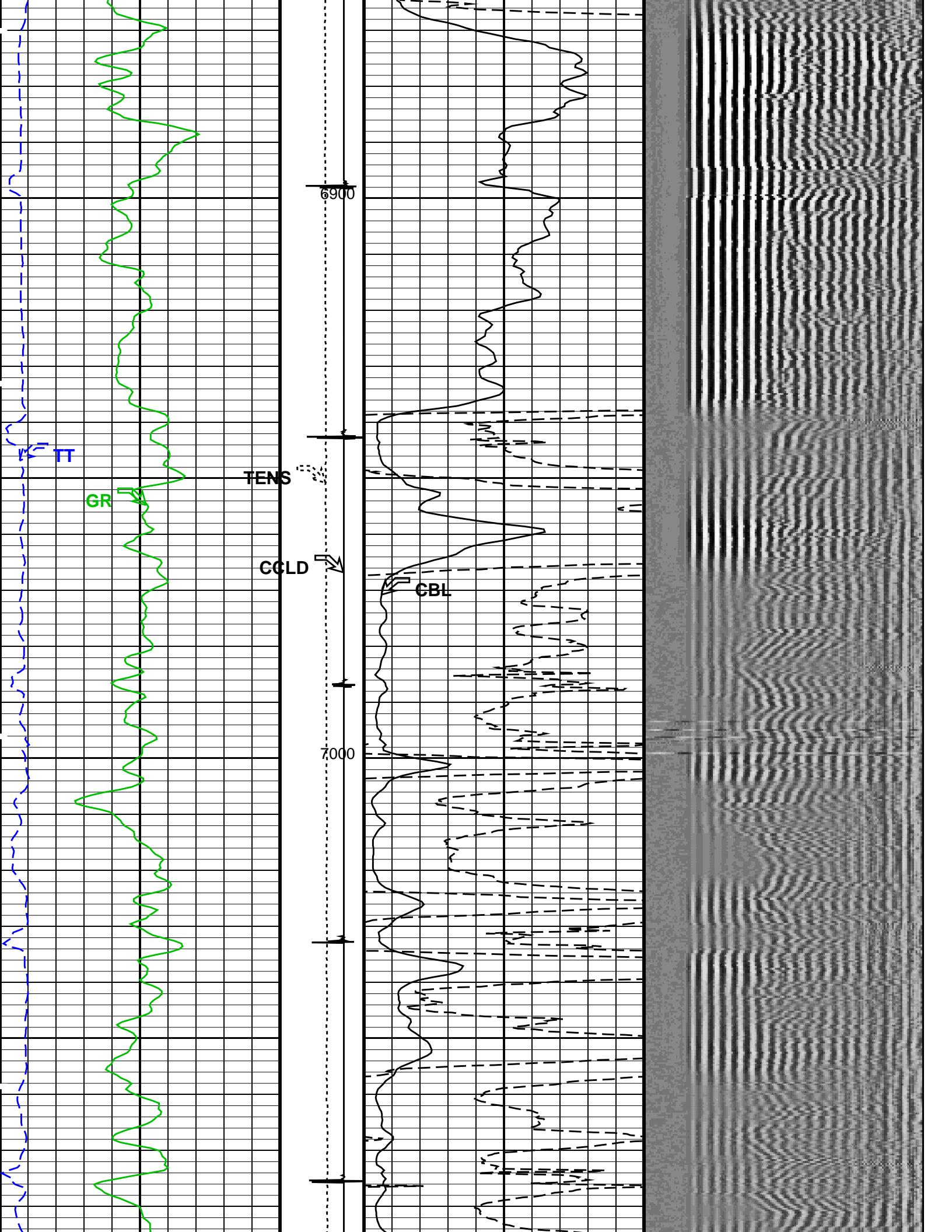
CBL

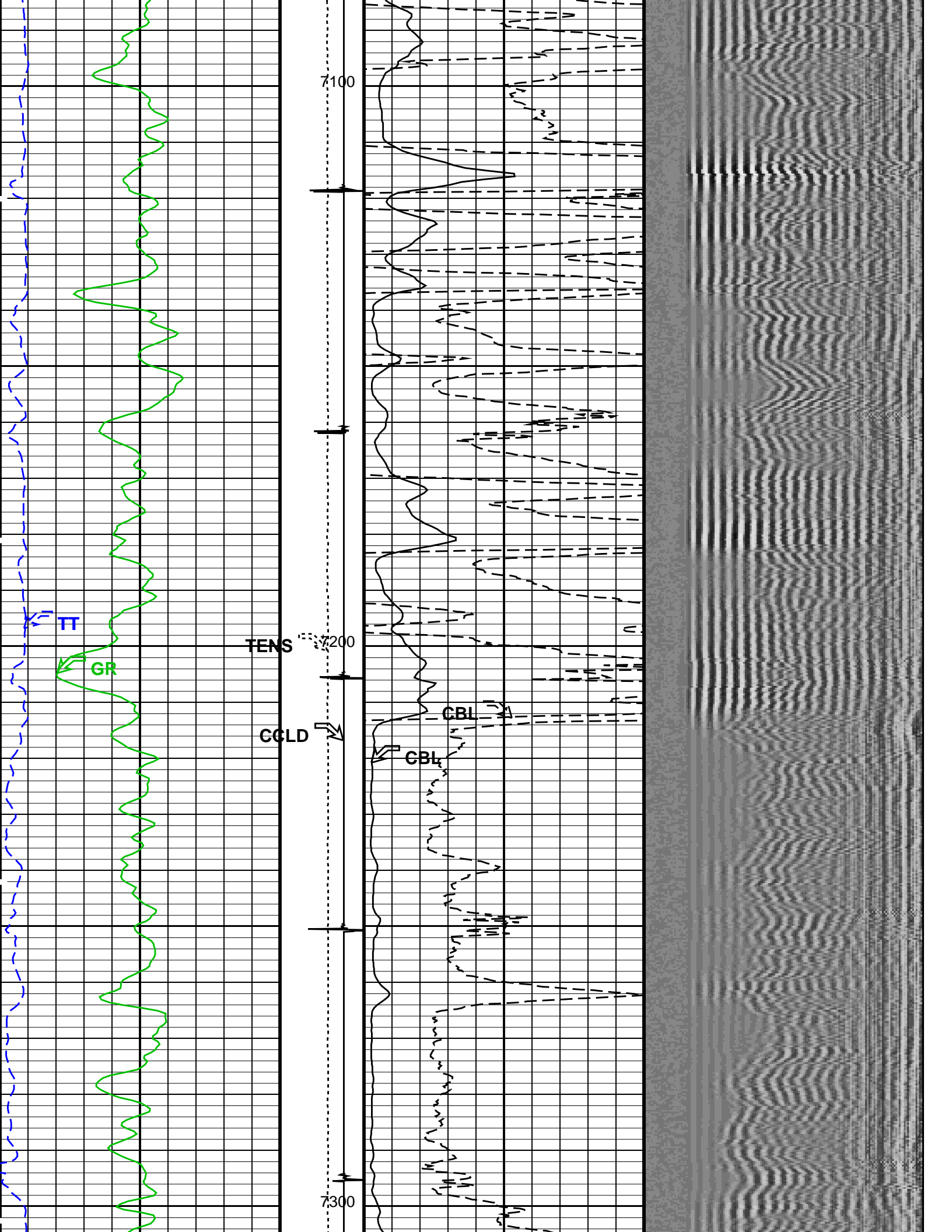


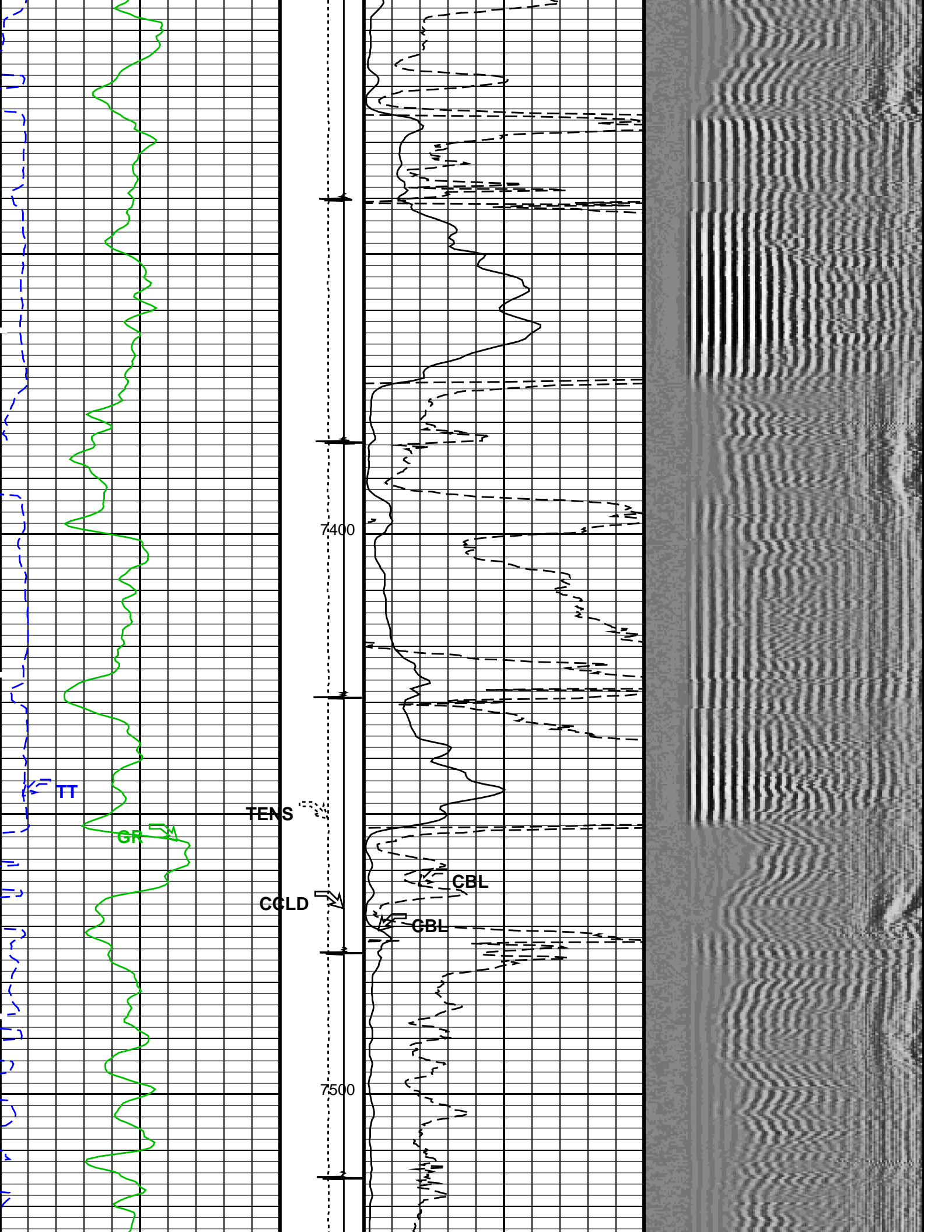


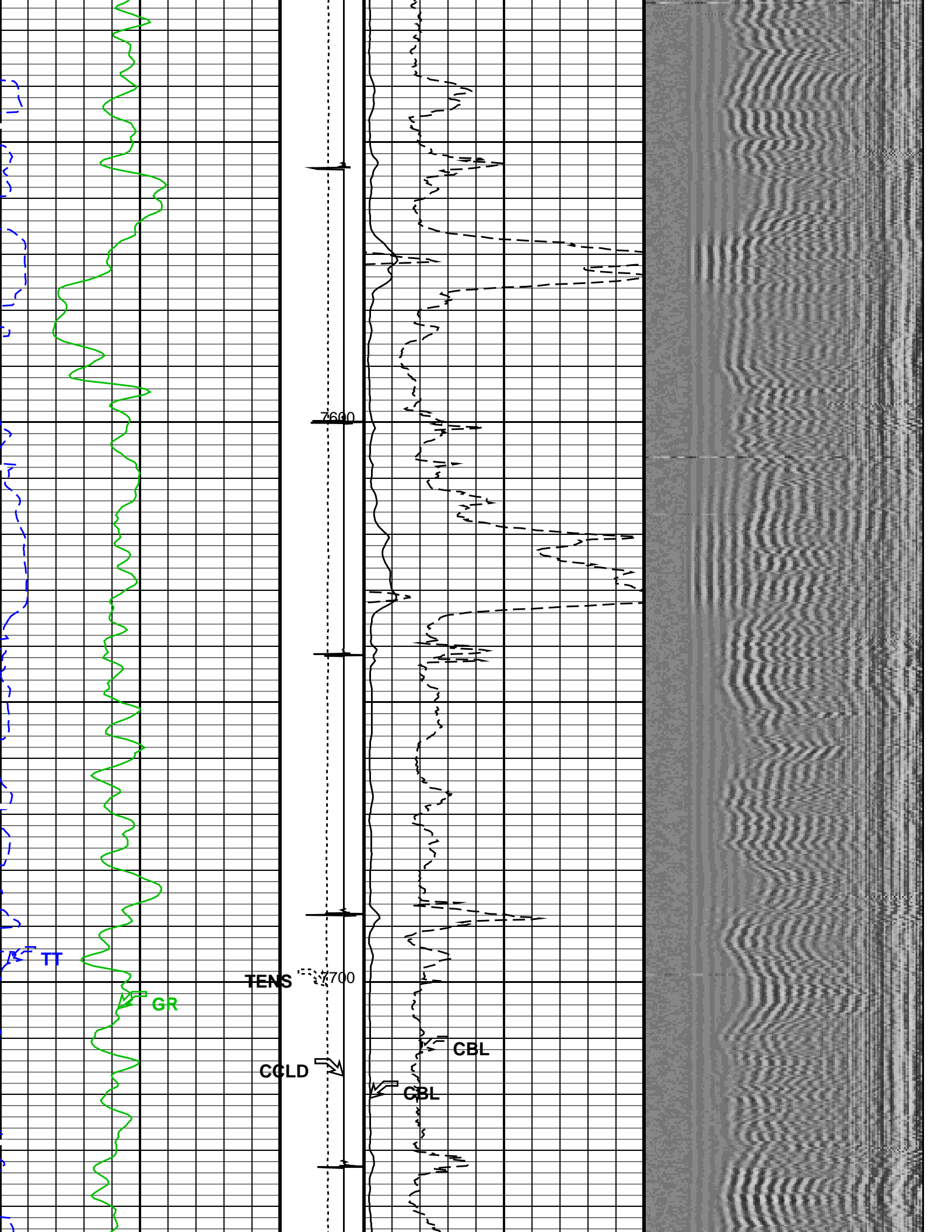


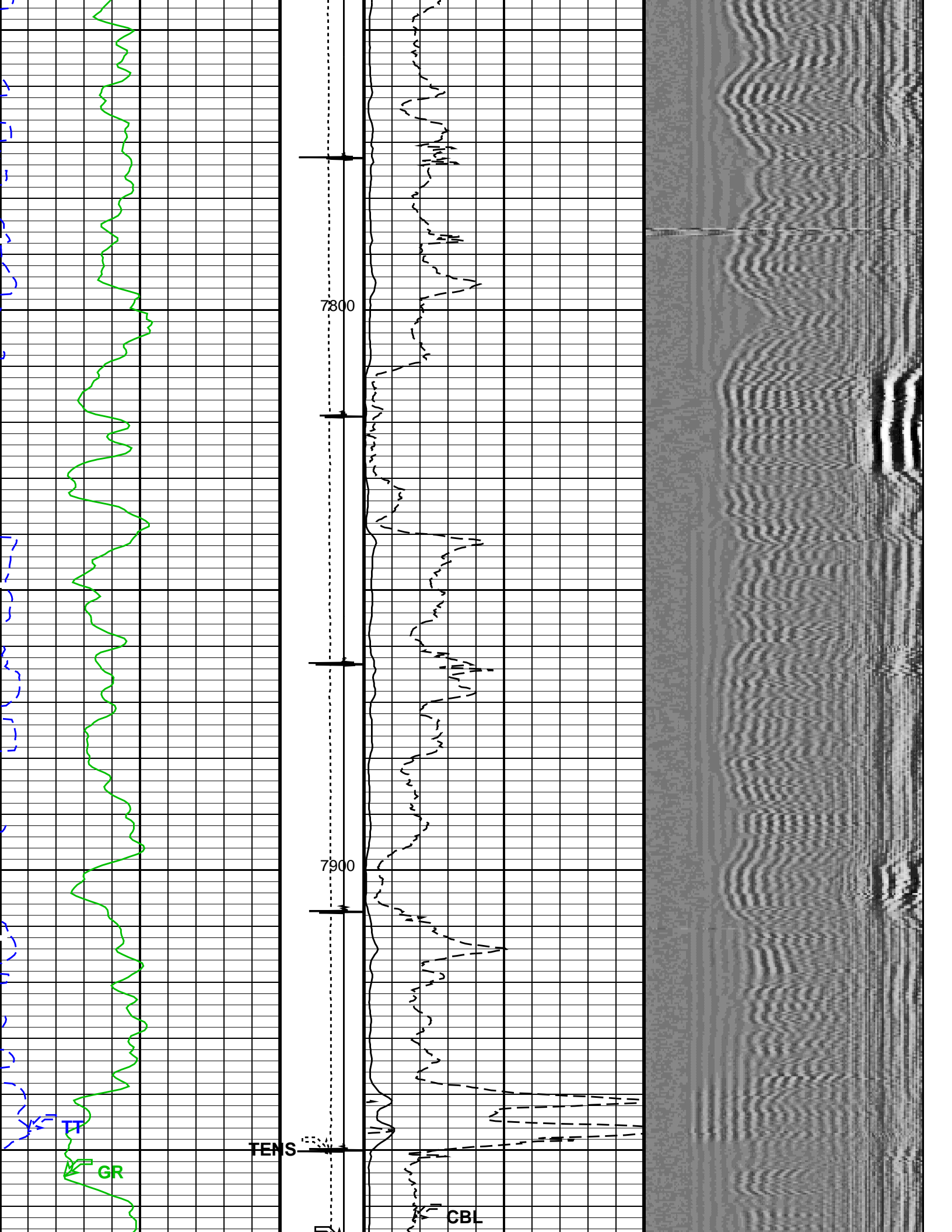


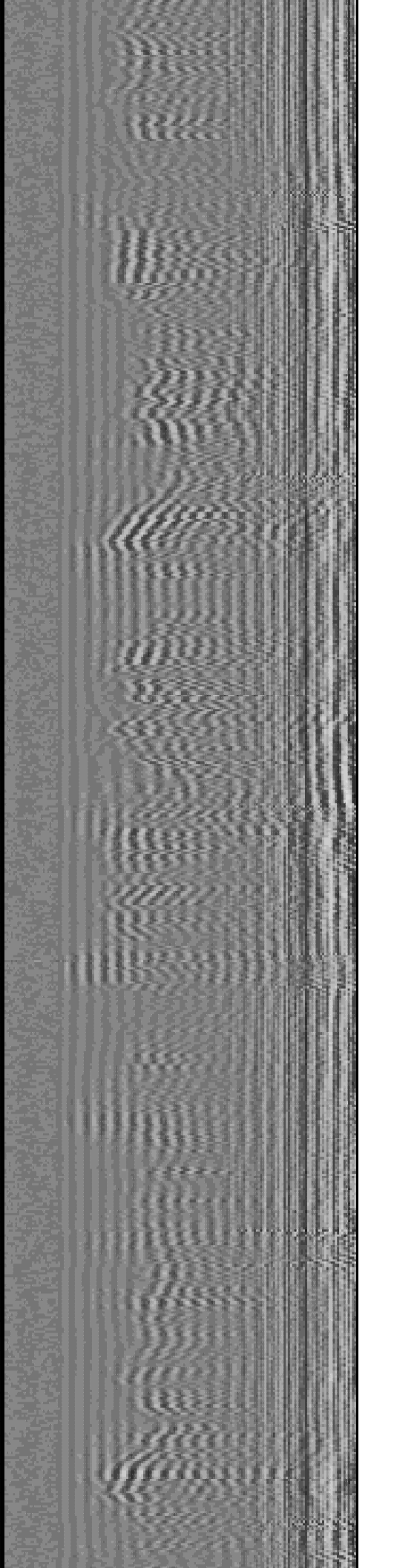
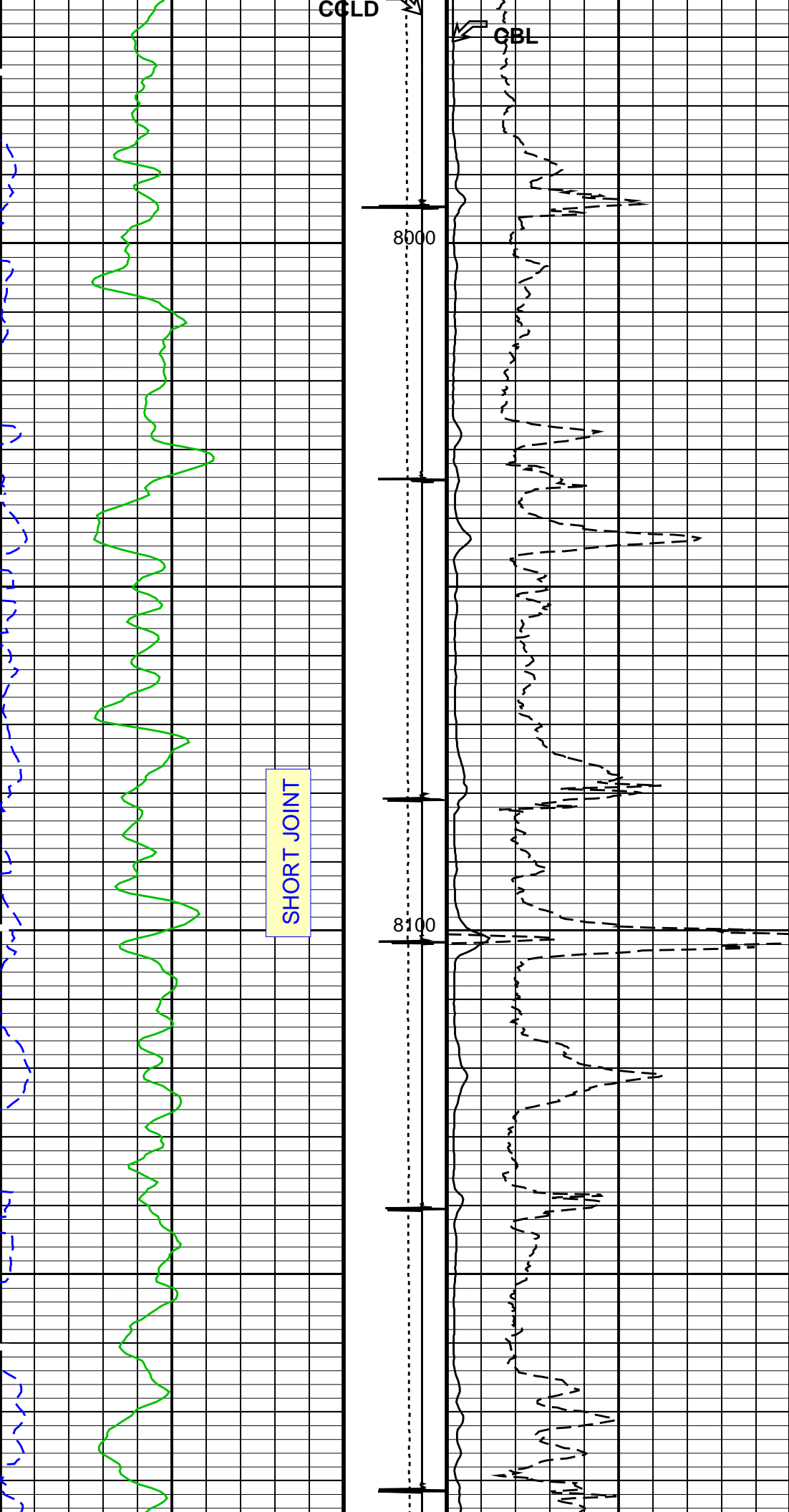


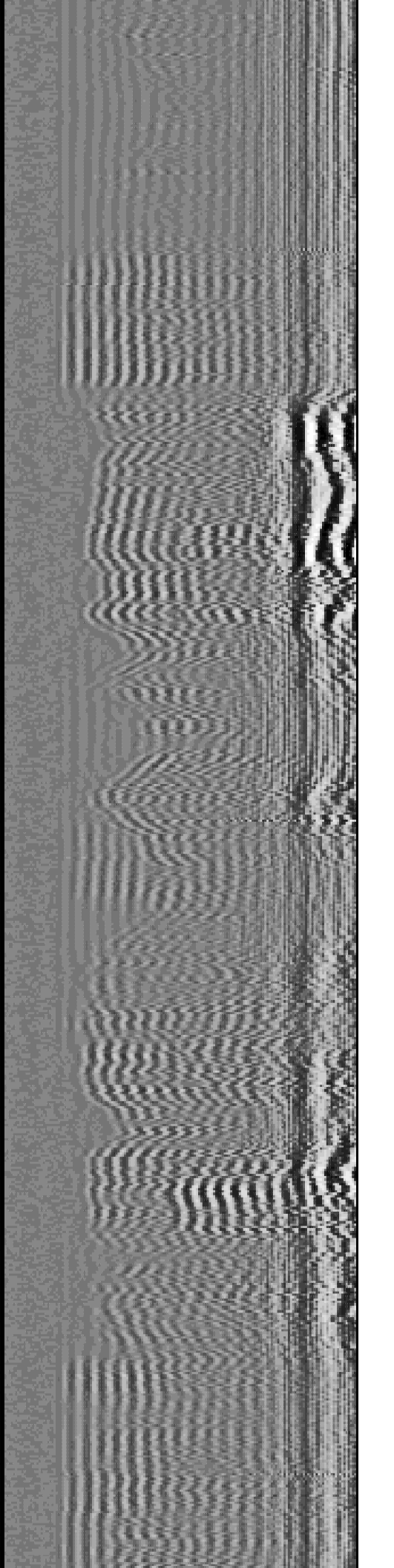
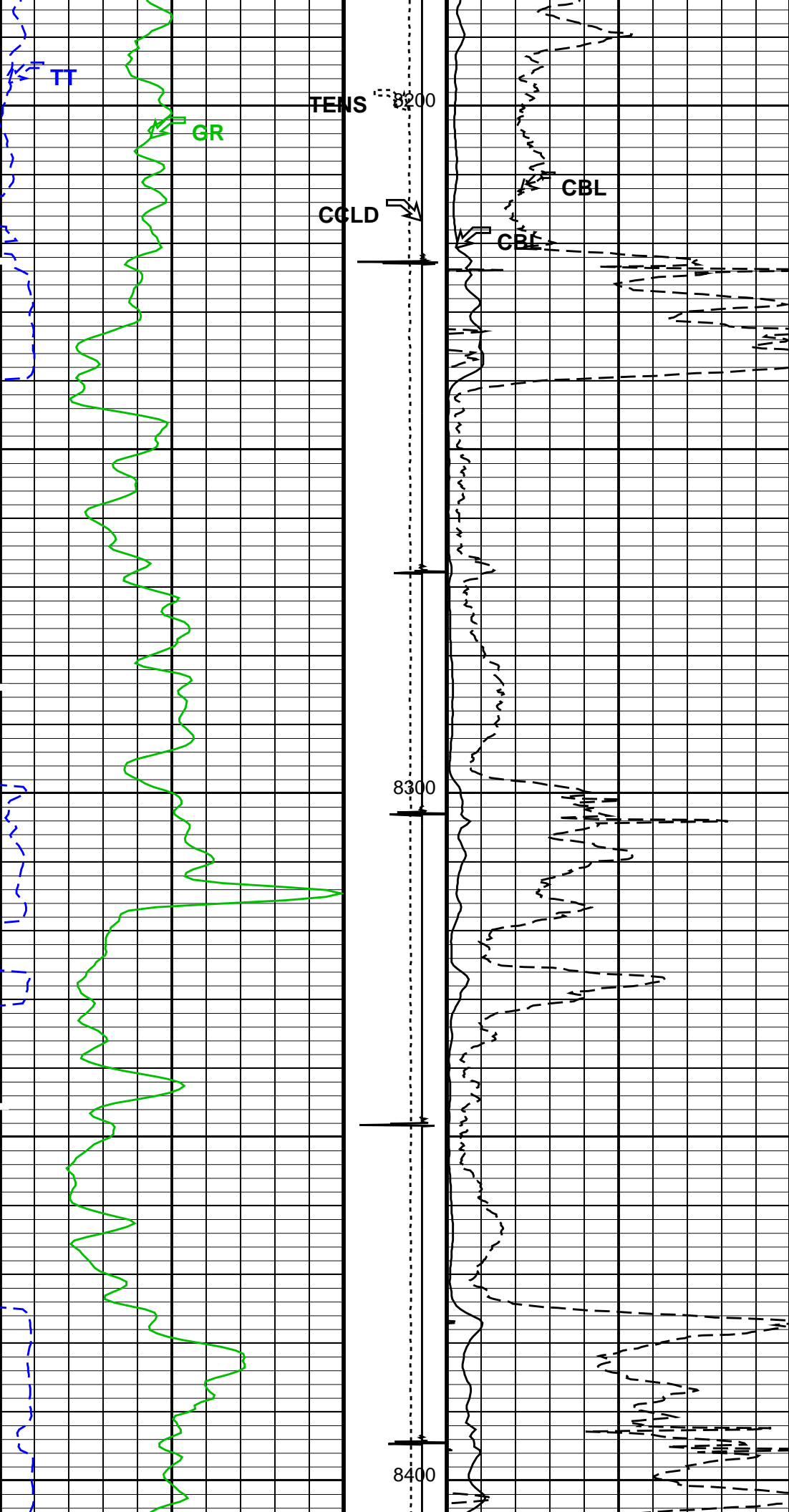


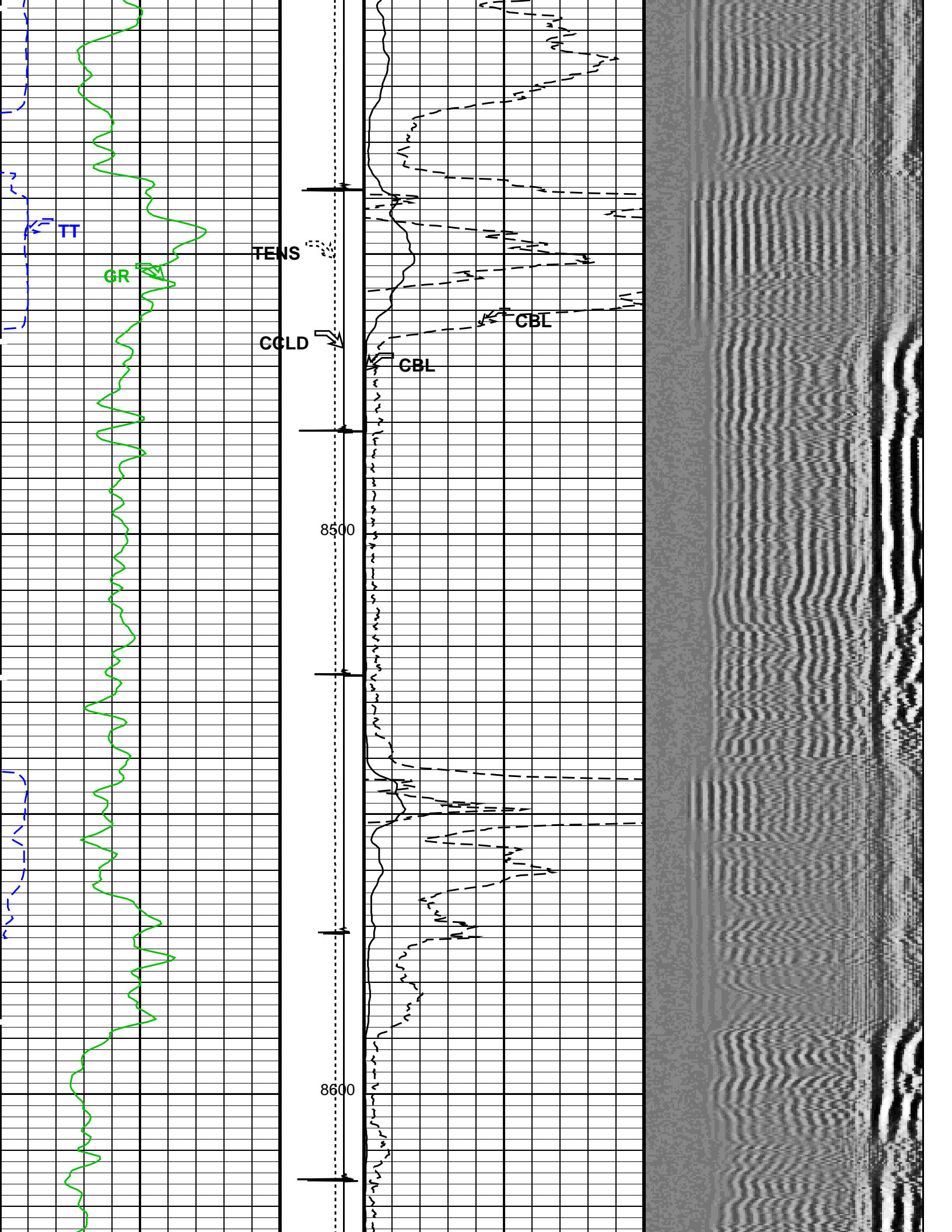


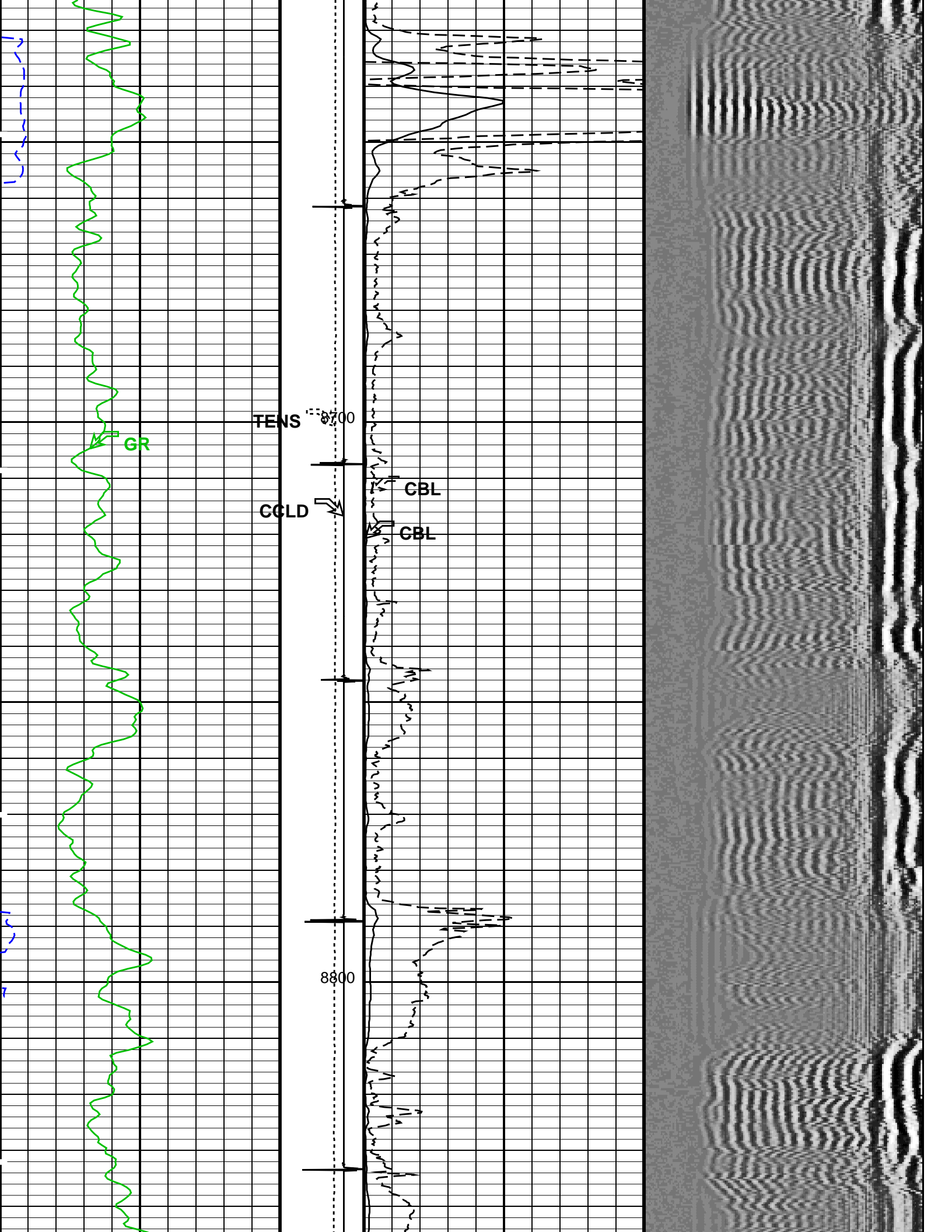


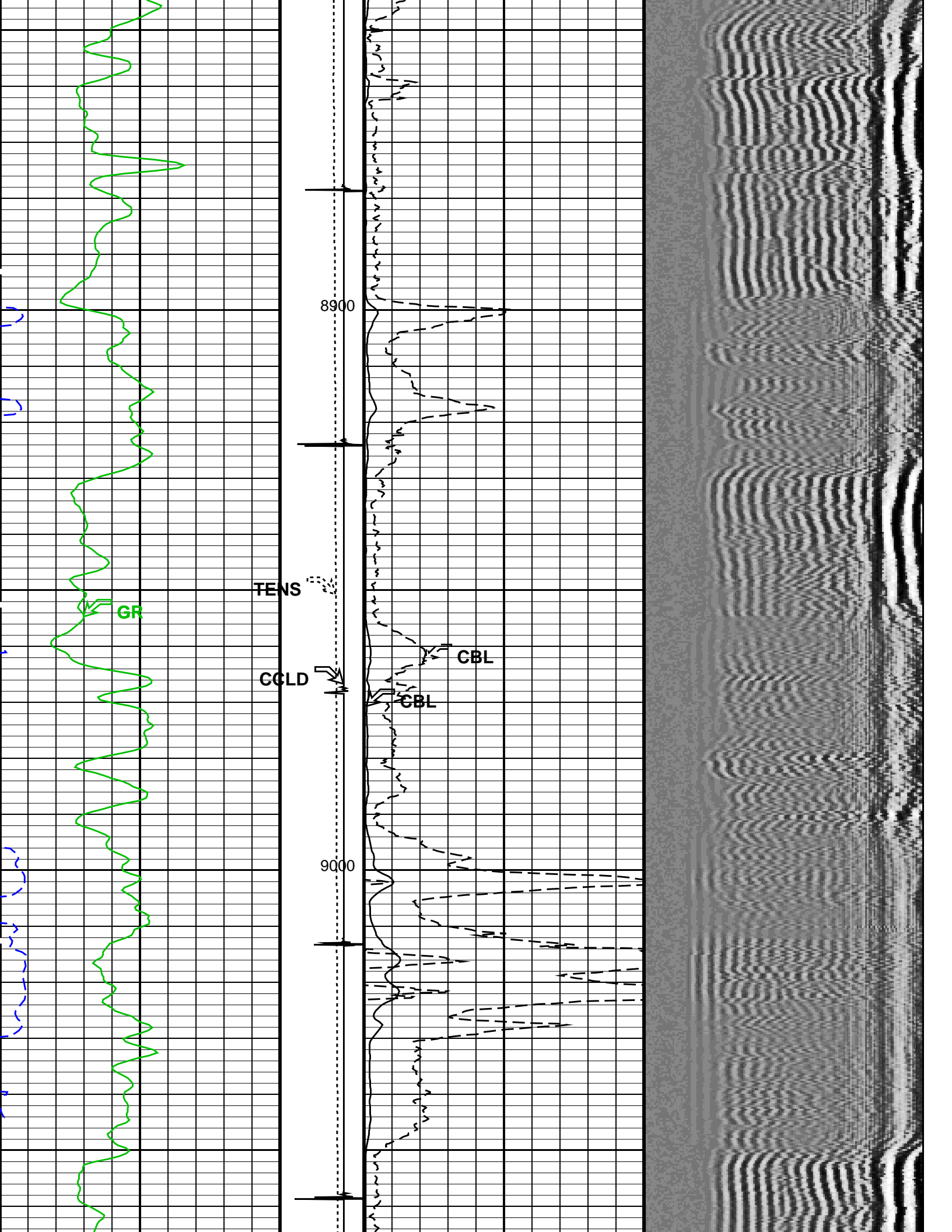


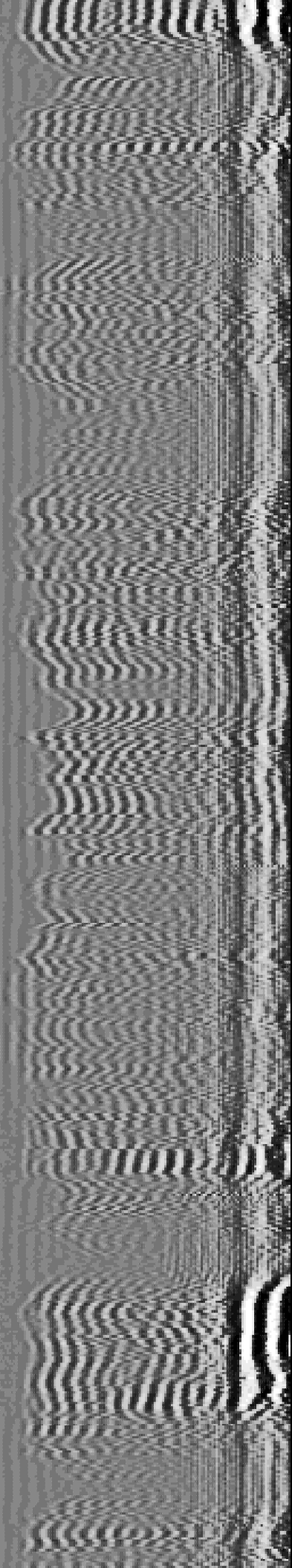
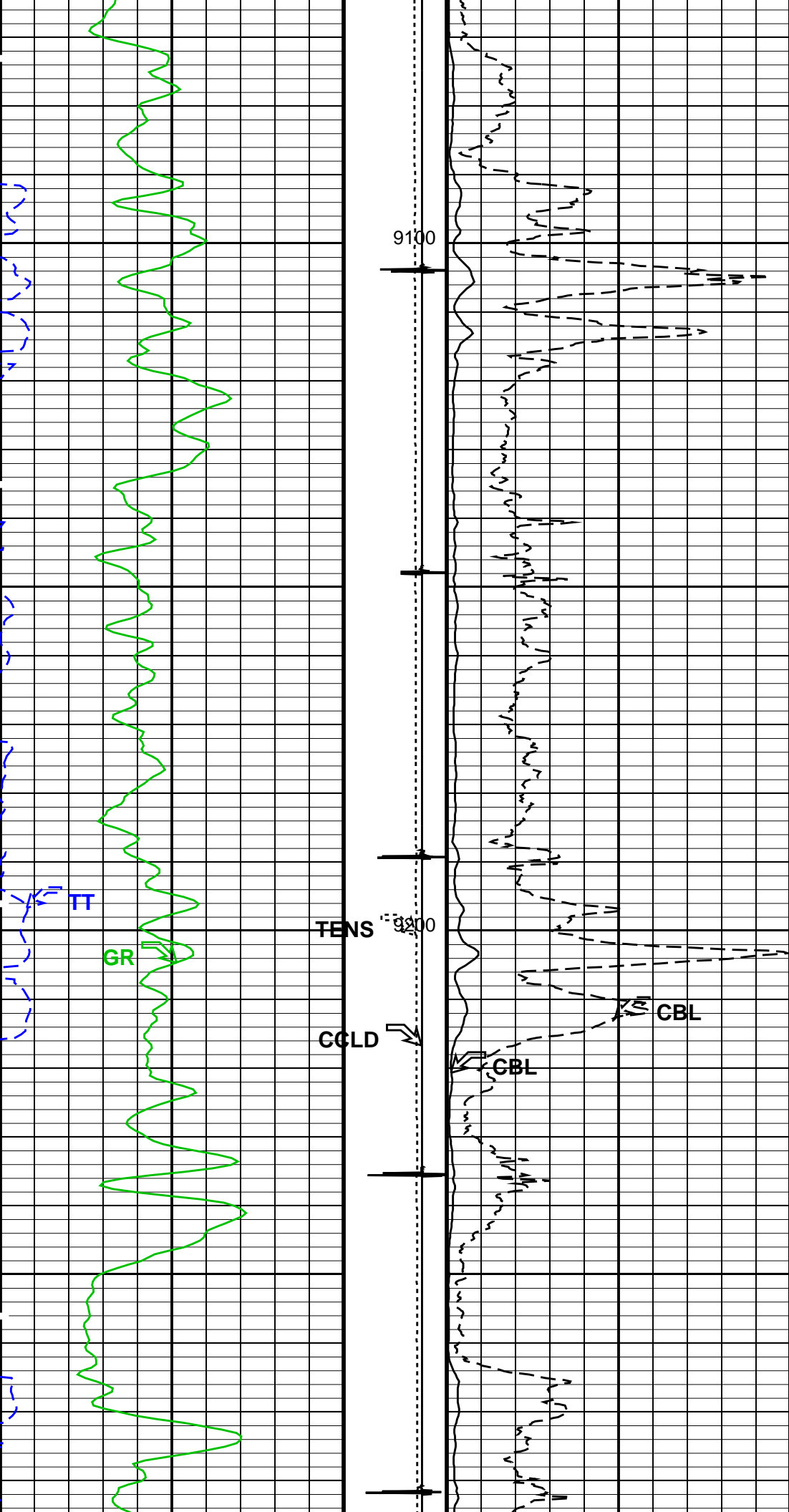


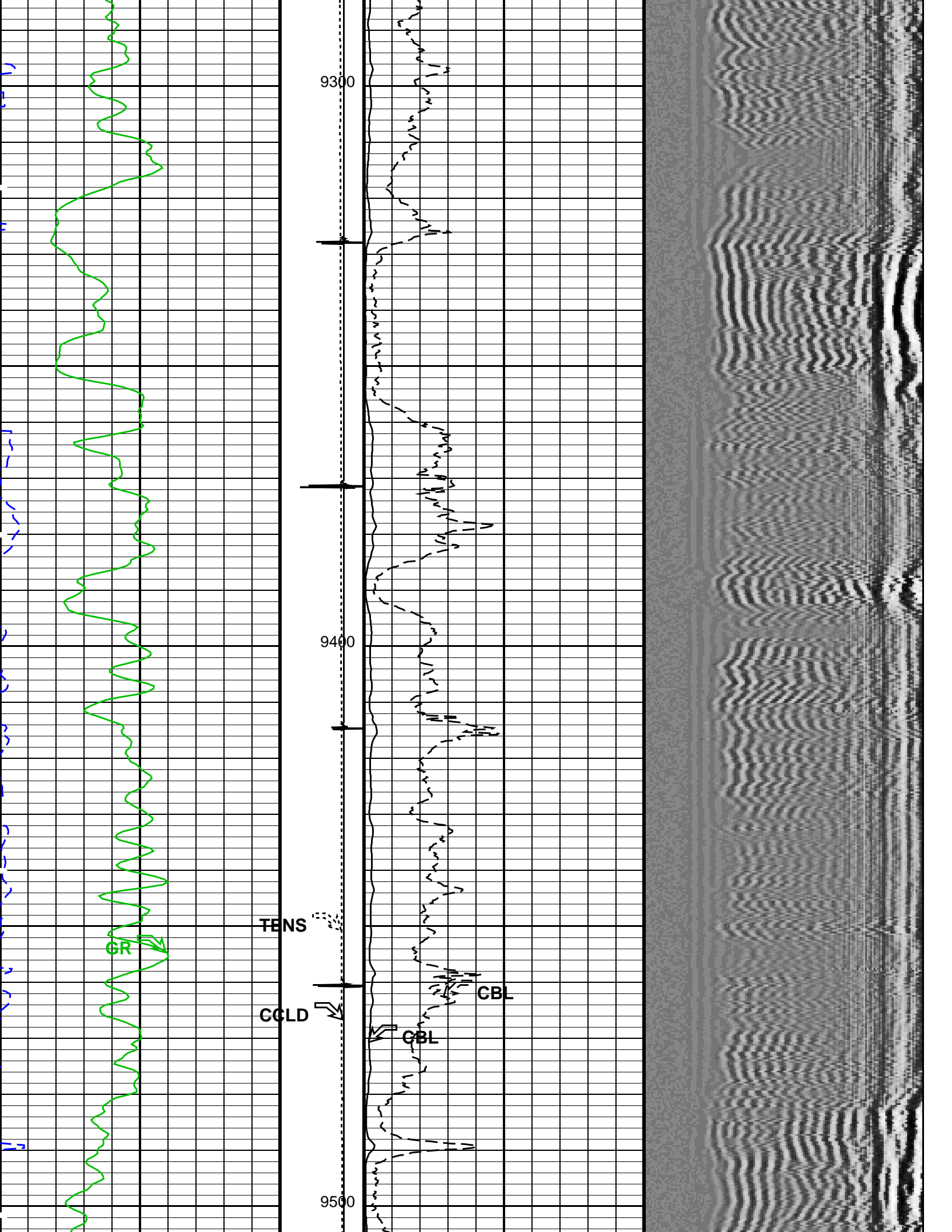


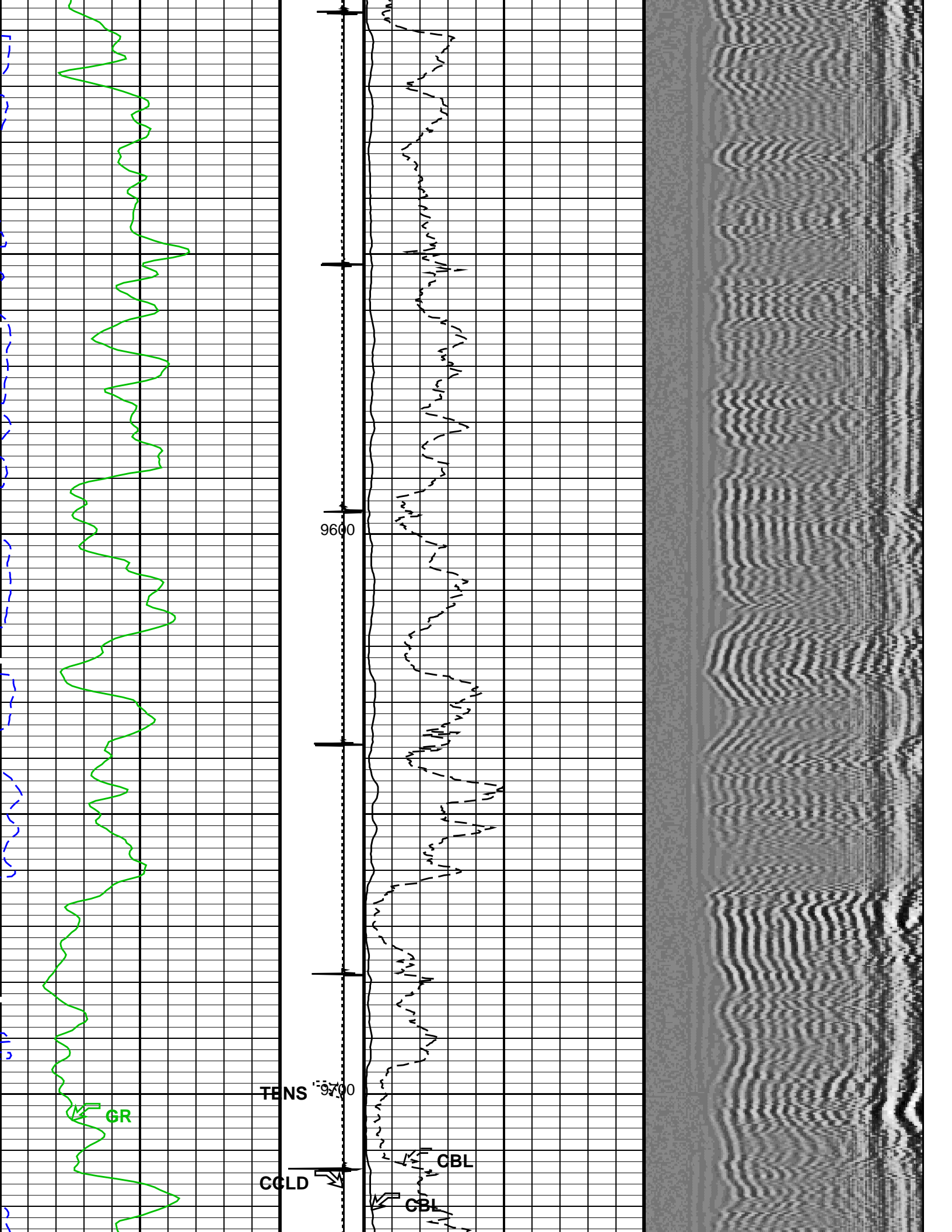


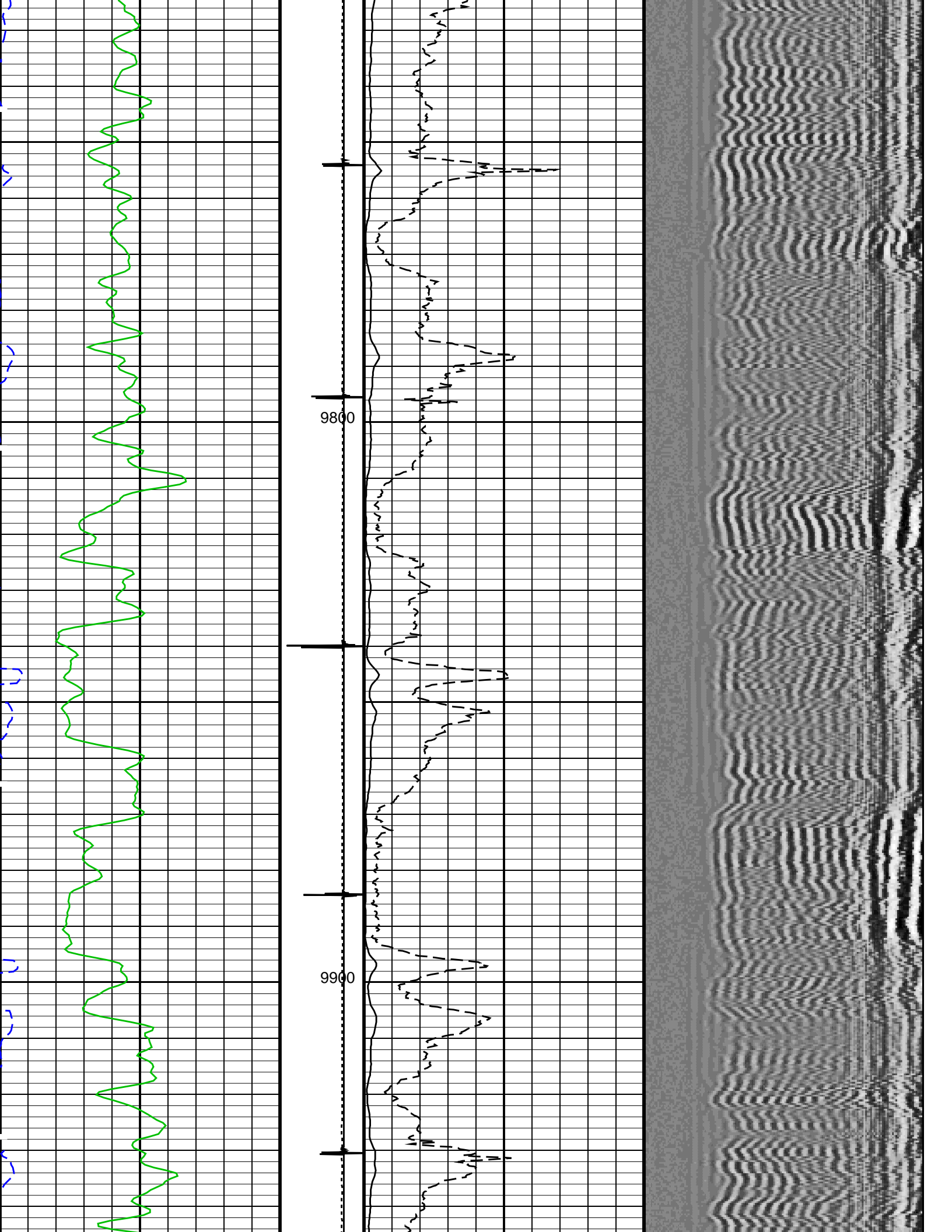


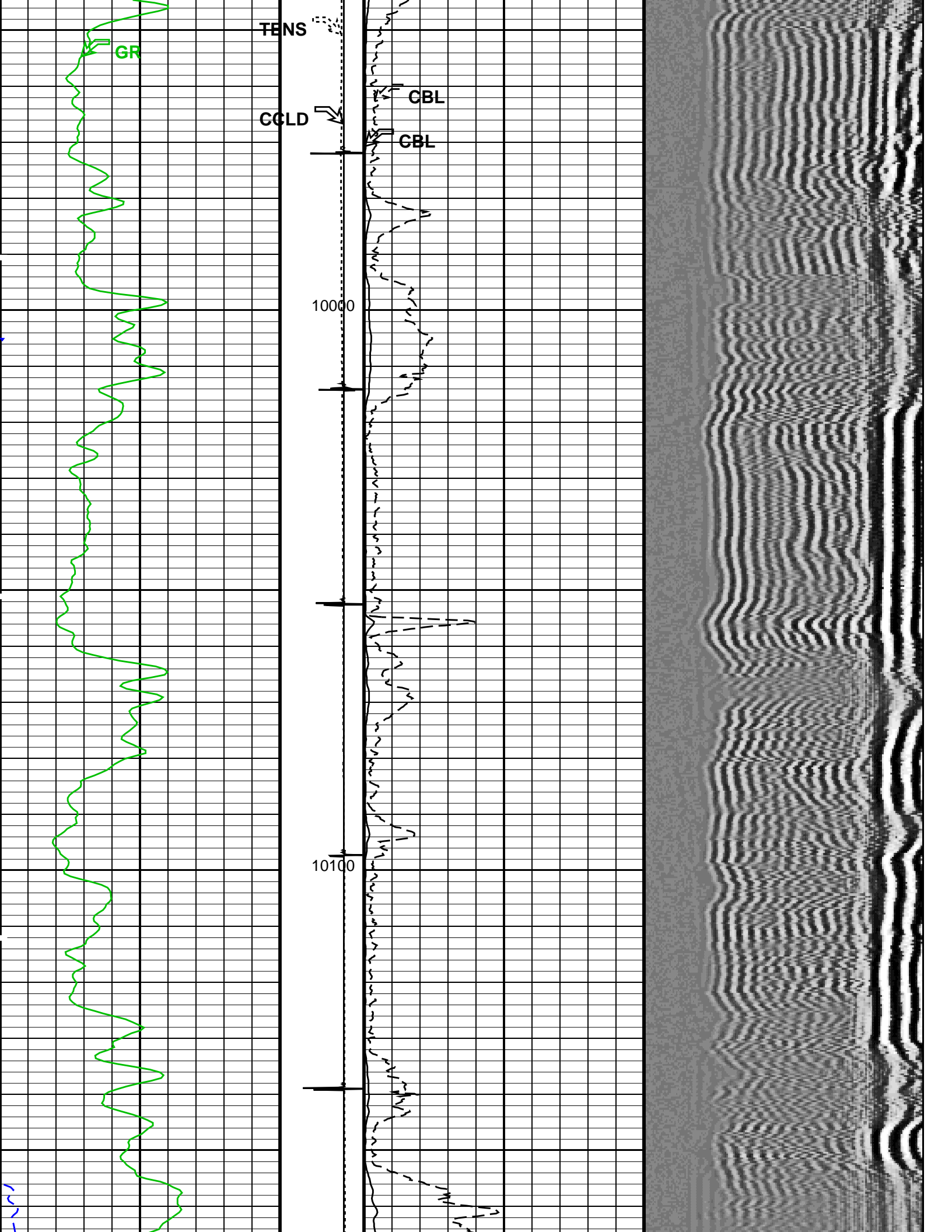


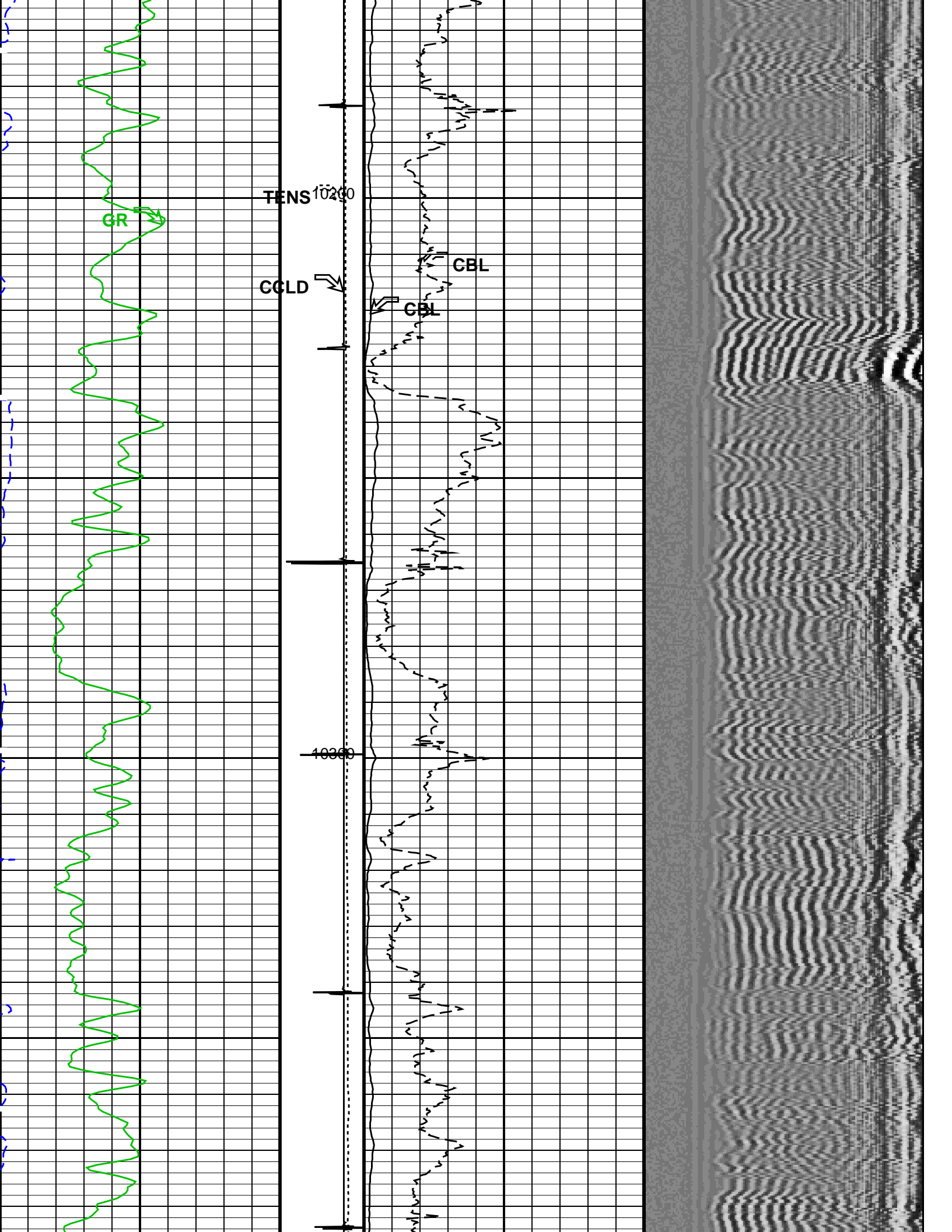


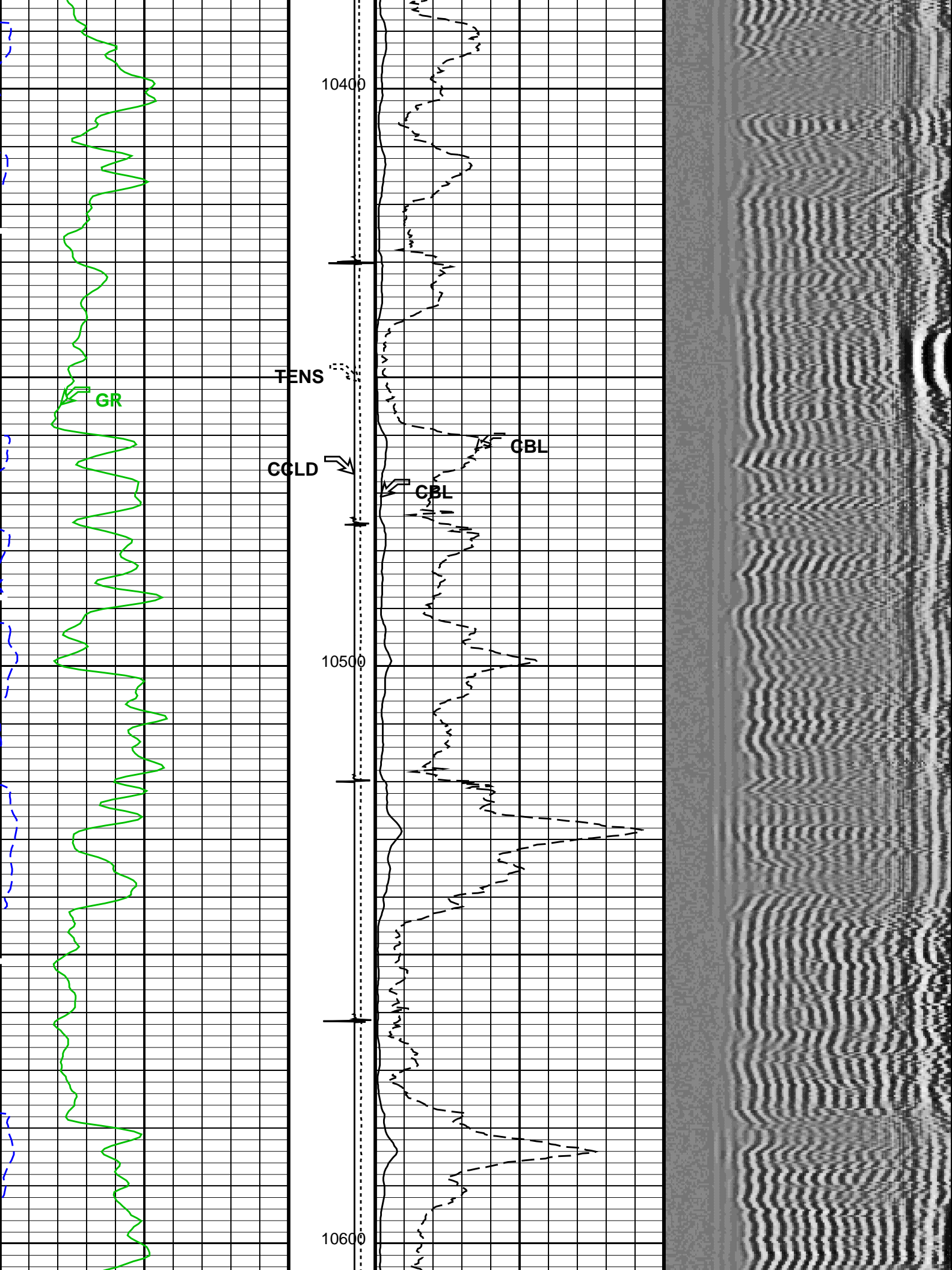


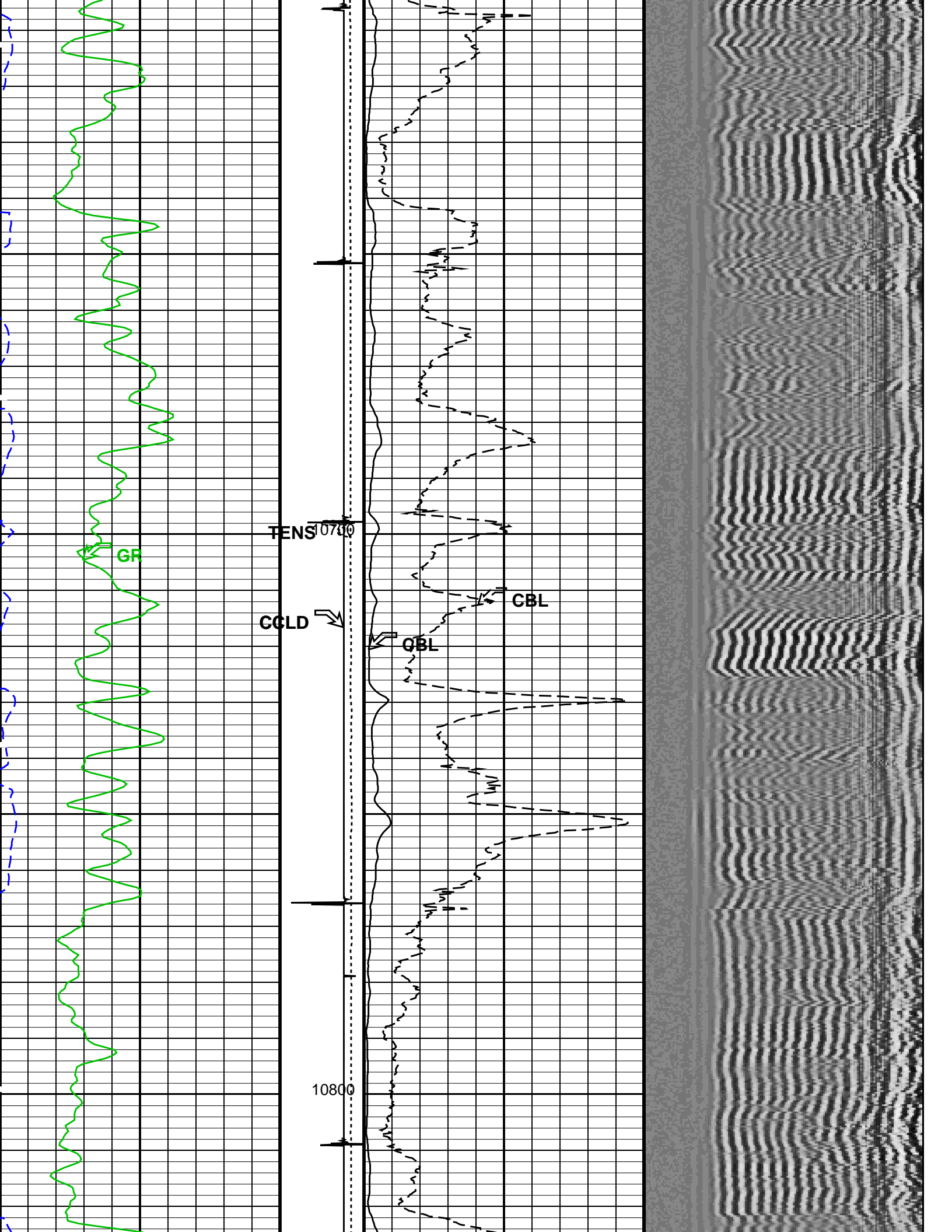


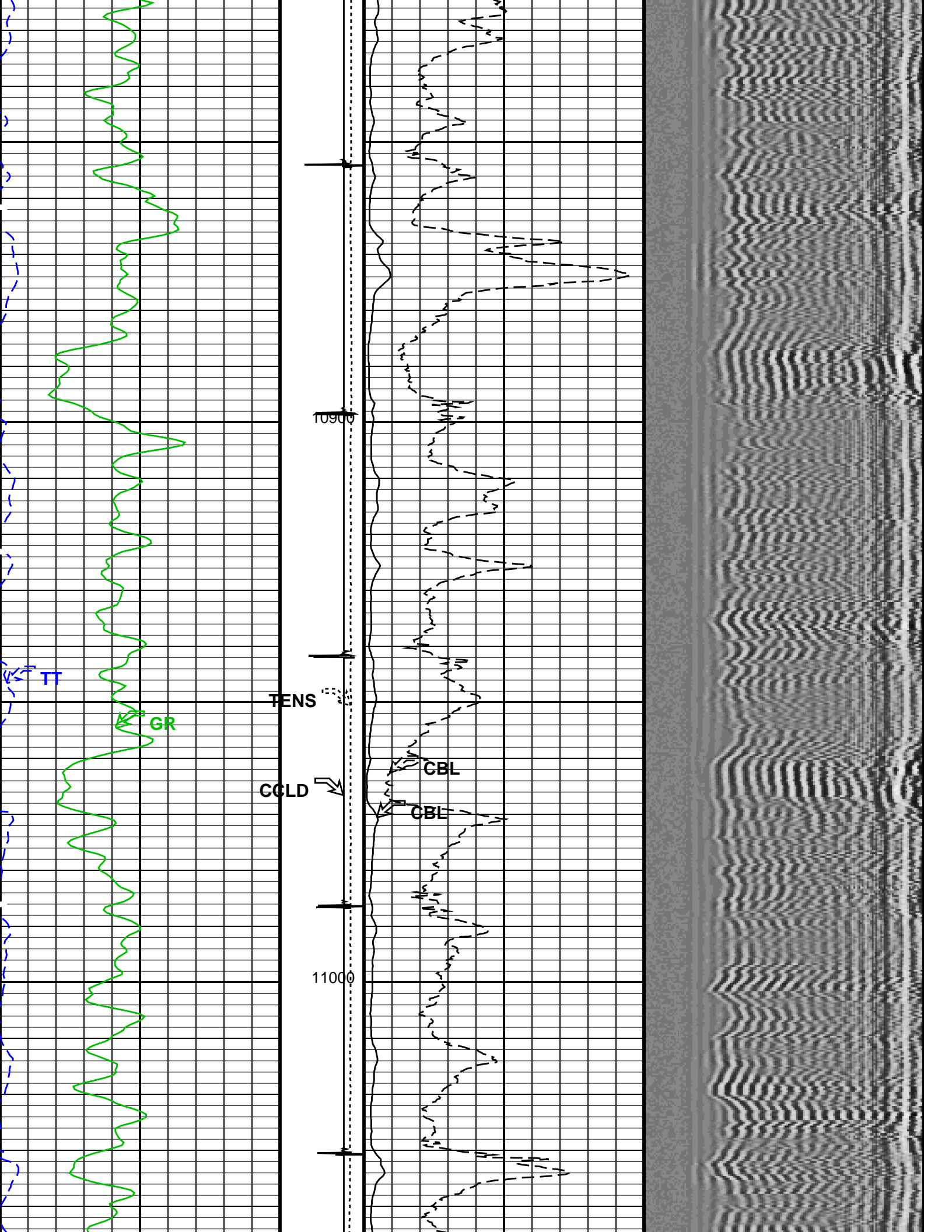


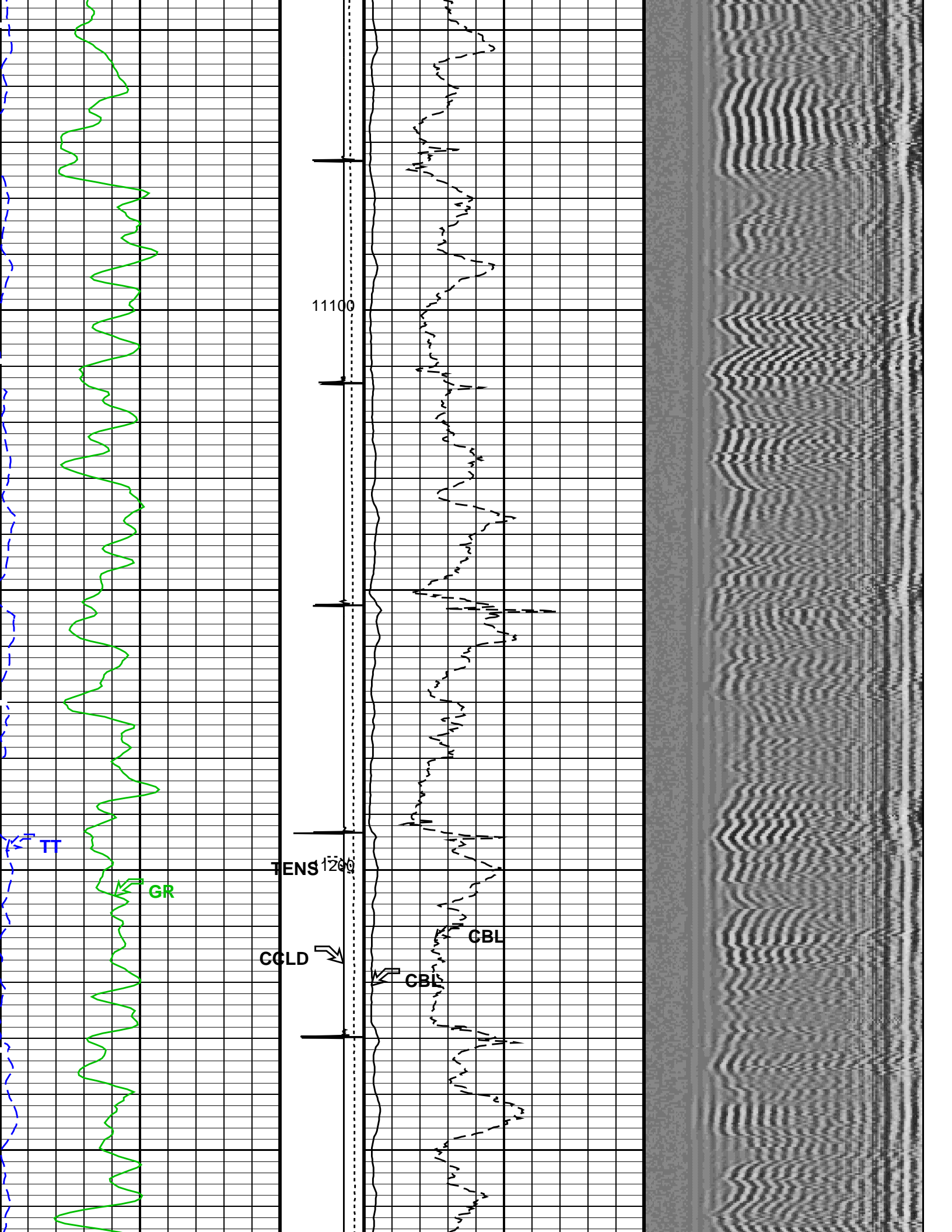


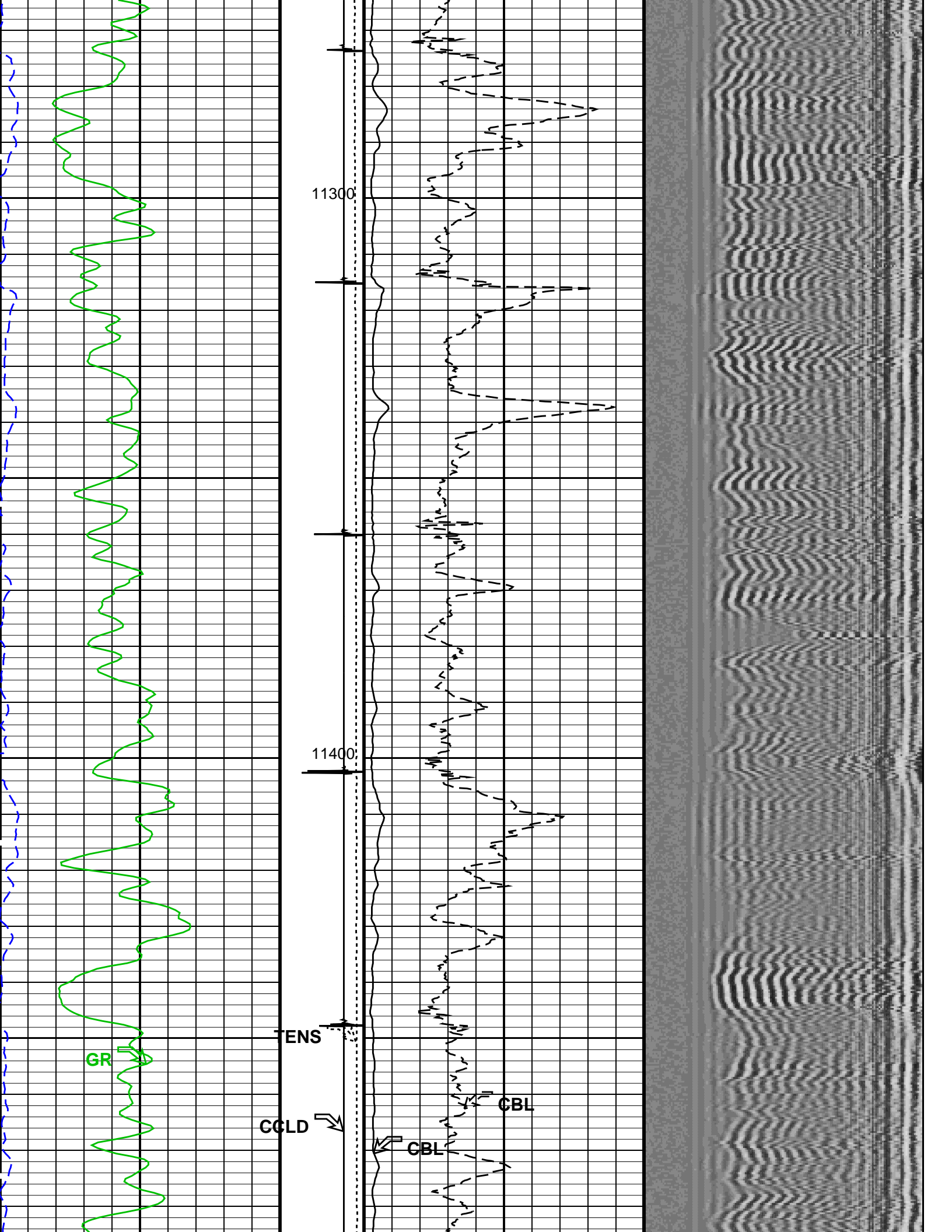


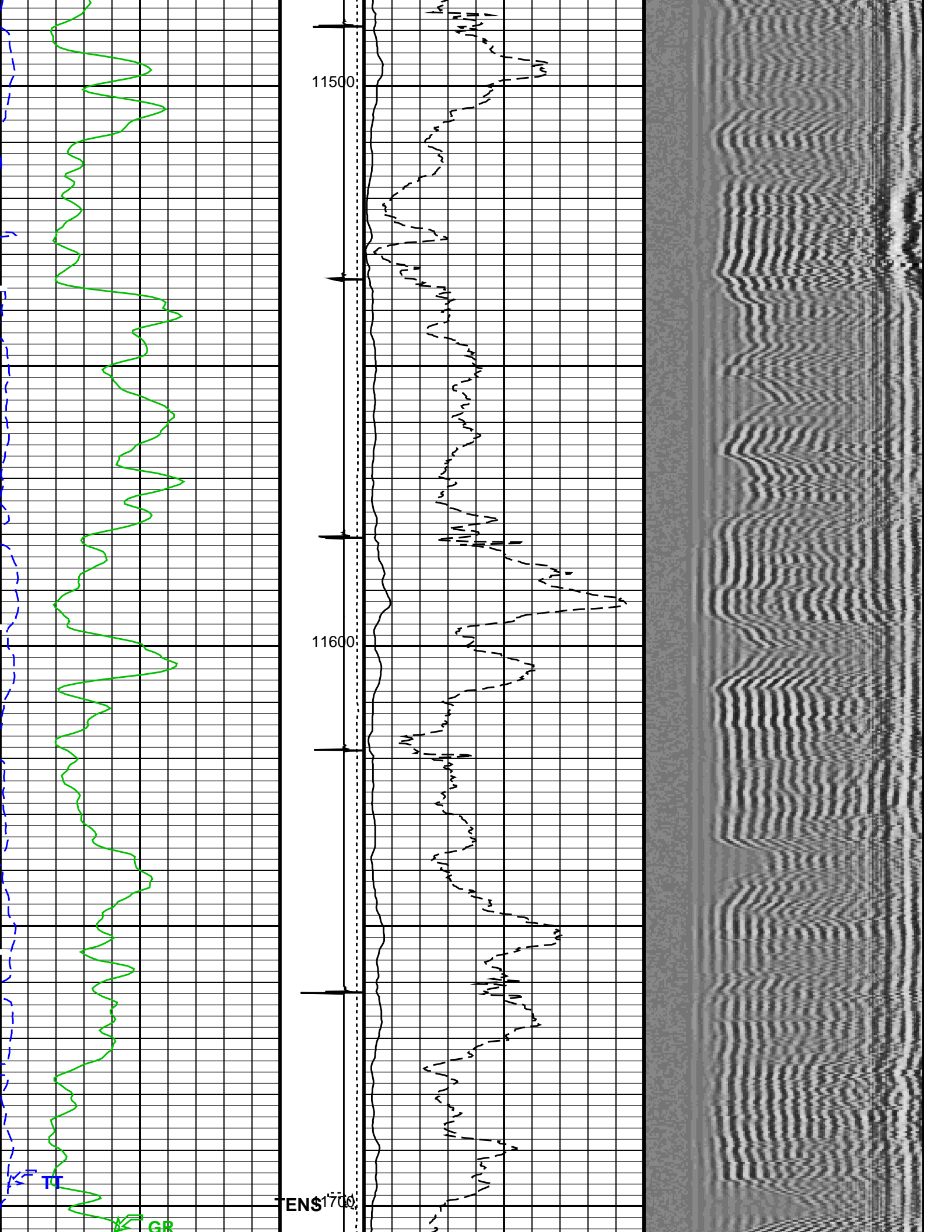


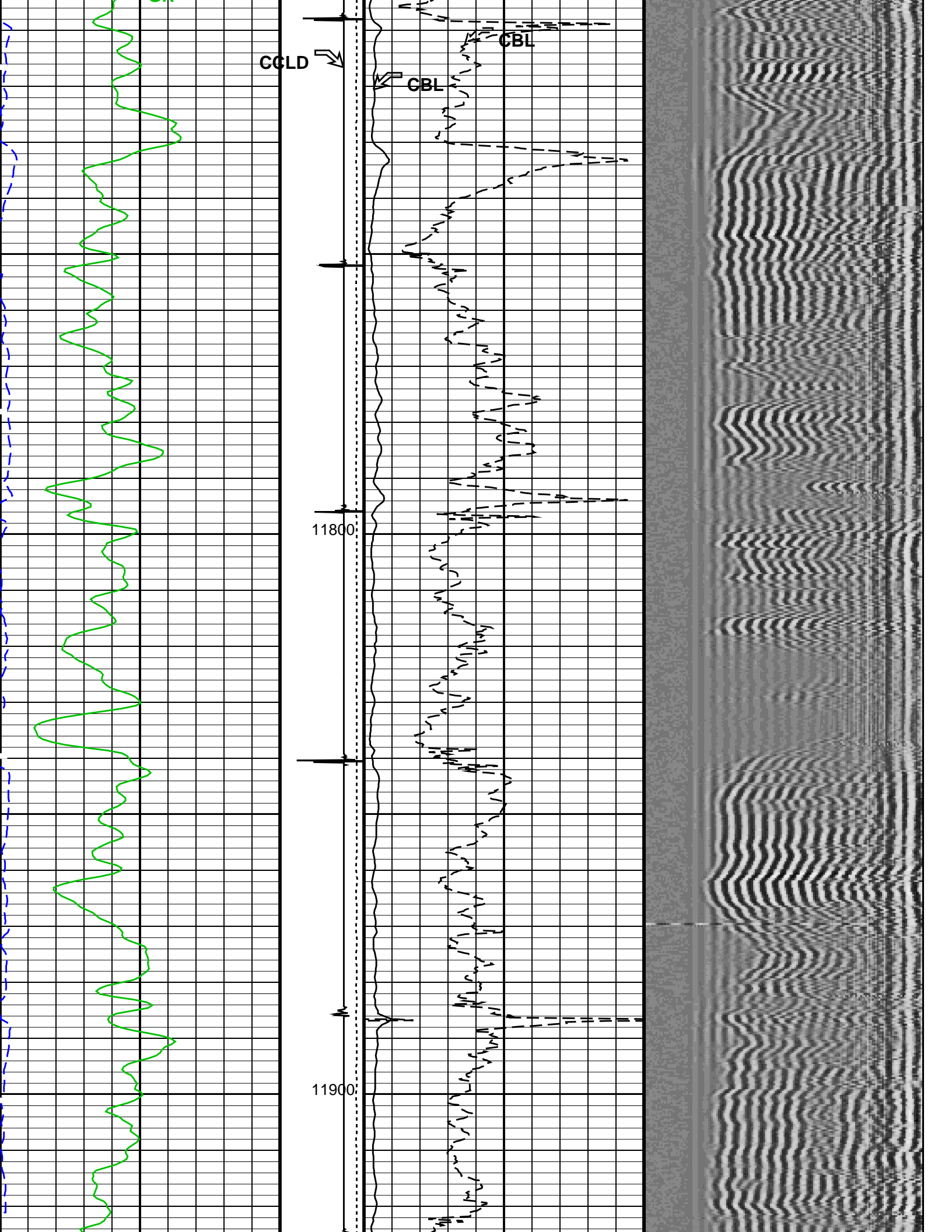


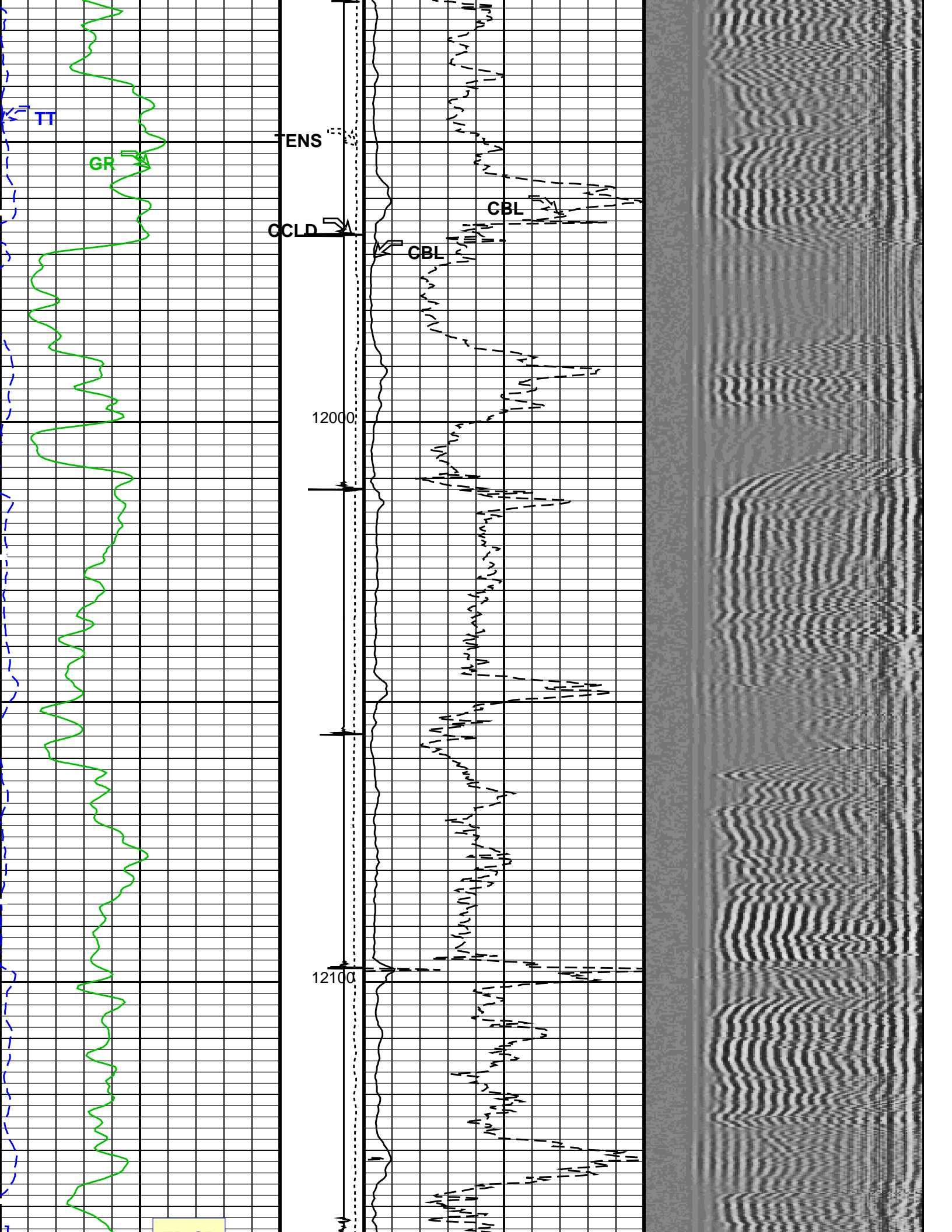


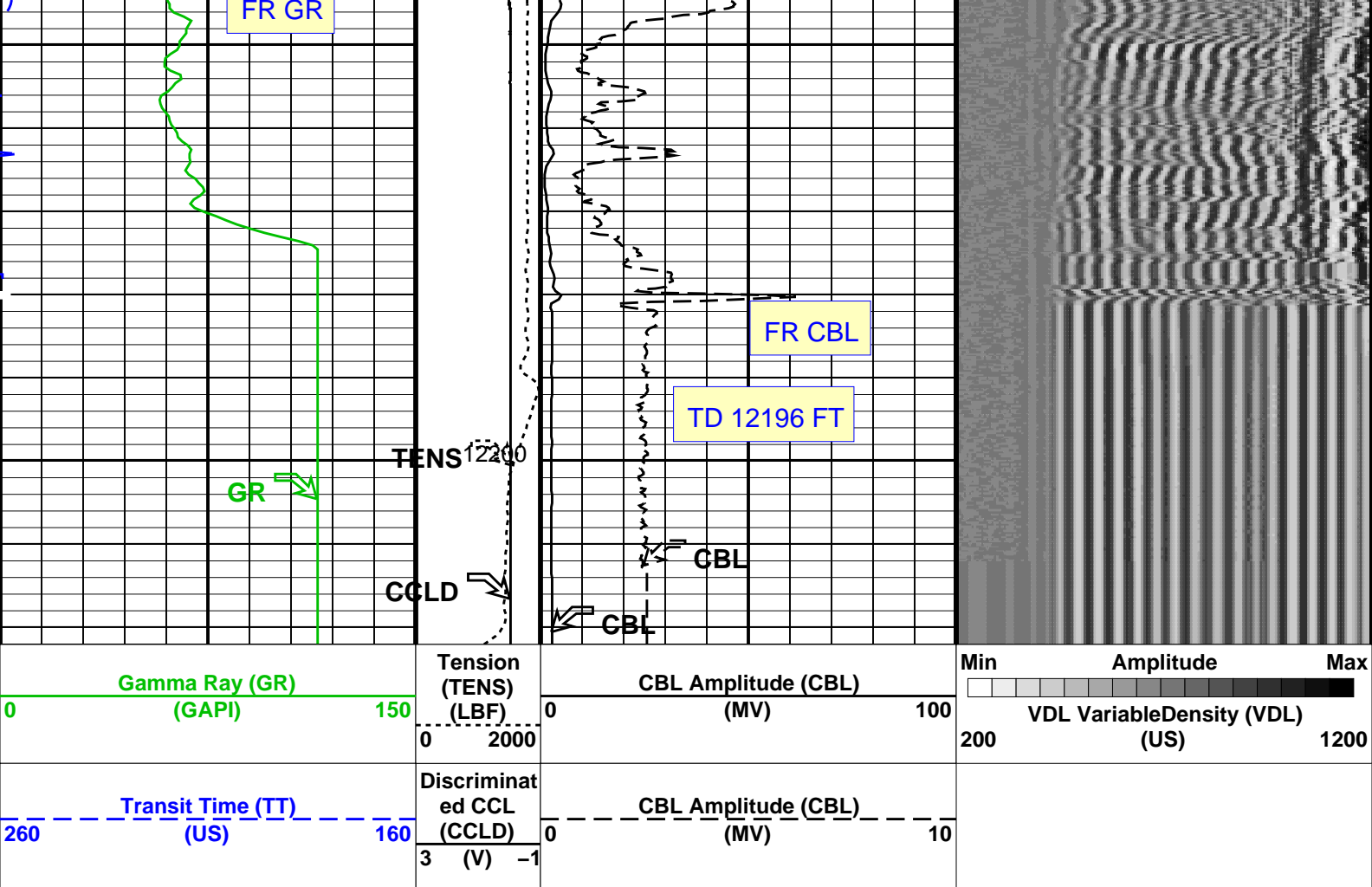












PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100'

Graphics File Created: 04-May-2011 01:11

OP System Version: 18C0-147

SCMT-CB 18C0-147 RST-C 18C0-147
HBMS-B 18C0-147

<<<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 80 MV
in Free Pipe Section

Minimum Sonic Amplitude 0.572744 MV (100% Cement)
1.53811 MV (80% Cement)
MAP Minimum Sonic Amplitude 4.27504 MV (100% Cement)
8.03067 MV (80% Cement)

Master Calibration (Normalization)

Before Calibration (Adjustment)

Date of Master Calibration 17-JAN-2011

CBL Correction Factor 0.0743637

CBL Adjustment Factor (CBAF) 1.0

MAP 1 Correction Factor 0.165722

MAP Adjustment Factor (MPAF) 1.0

MAP 2 Correction Factor 0.192039

MAP 3 Correction Factor 0.132977

MAP 4 Correction Factor 0.175062

MAP 5 Correction Factor 0.161562

MAP 6 Correction Factor 0.177685

MAP 7 Correction Factor 0.144065

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 | 228.424 | 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 | 342.424 | 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 | 204.5 | US/F |
| FATT | Acoustic Attenuation due to Fluid | 0 | DB/F |
| FCF | CBL Fluid Compensation Factor | 1 | |
| GOBO | Good Bond | 1.53811 | MV |
| MAPD | SCMT MAP Peak Detection Mode | PEAK | |
| MAPG | SCMT MAP Peak Detection T0_Delay and Noise Gate | 171.424 | 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 | 4.27504 | MV |
| MSA | Minimum Sonic Amplitude | 0.572744 | 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 | 14.0 | FT |
| DORL | Depth Offset for Repeat Analysis | 0.0 | FT |
| PP | Playback Processing | NORMAL | |
| TD | Total Depth | 12196 | FT |

Input DLIS Files

| | | | | | | |
|---------|----------------------|-------|----------|-------------------|------------|---------|
| DEFAULT | SCMT_RST_HBMS_027LUP | FN:26 | PRODUCER | 03-May-2011 21:56 | 12208.0 FT | 84.5 FT |
|---------|----------------------|-------|----------|-------------------|------------|---------|

Output DLIS Files

| | | | | |
|---------|----------------------|-------|----------|-------------------|
| DEFAULT | SCMT_RST_HBMS_030PUP | FN:29 | PRODUCER | 04-May-2011 01:11 |
|---------|----------------------|-------|----------|-------------------|



REPEAT ANALYSIS

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC

Well: SGU 8508C-36 (B36 496)

Input DLIS Files

| | | | | | | |
|---------|----------------------|-------|----------|-------------------|-----------|-----------|
| DEFAULT | SCMT_RST_HBMS_026PUP | FN:25 | PRODUCER | 03-May-2011 21:49 | 8350.5 FT | 7905.5 FT |
|---------|----------------------|-------|----------|-------------------|-----------|-----------|

Output DLIS Files

| | | | | |
|---------|----------------------|-------|----------|-------------------|
| DEFAULT | SCMT_RST_HBMS_030PUP | FN:29 | PRODUCER | 04-May-2011 01:11 |
|---------|----------------------|-------|----------|-------------------|

SCMT-CB
HBMS-B

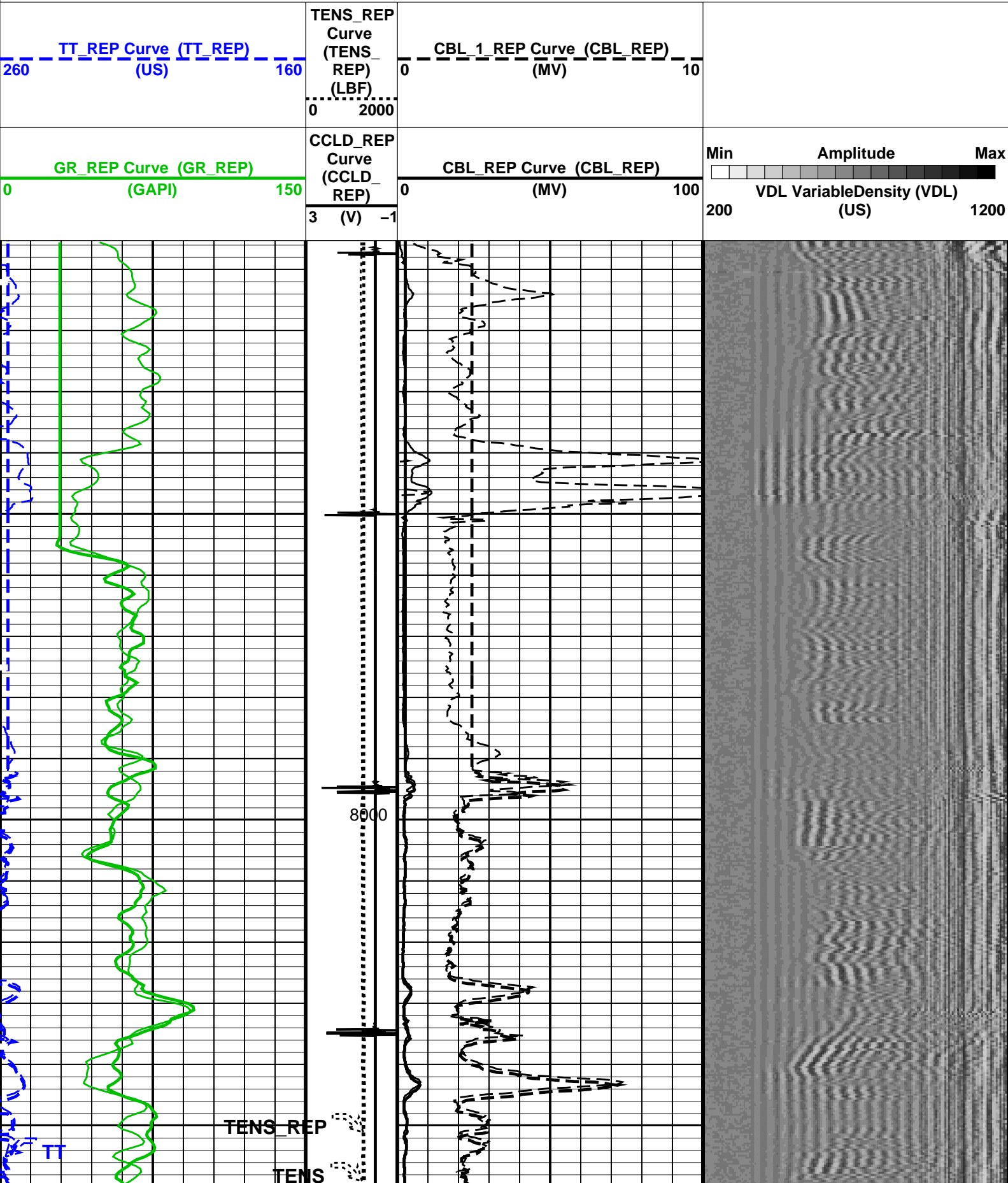
18C0-147
18C0-147

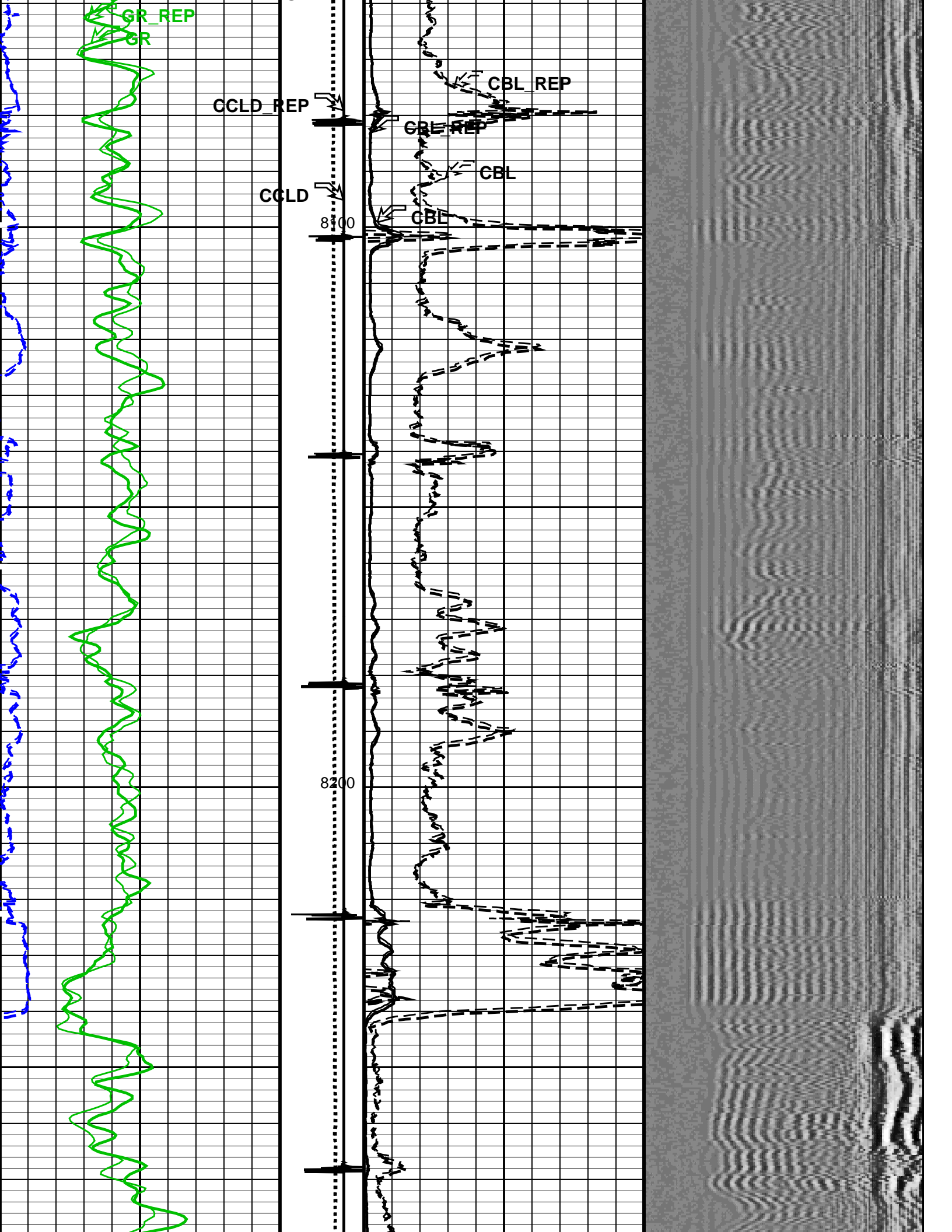
RST-C

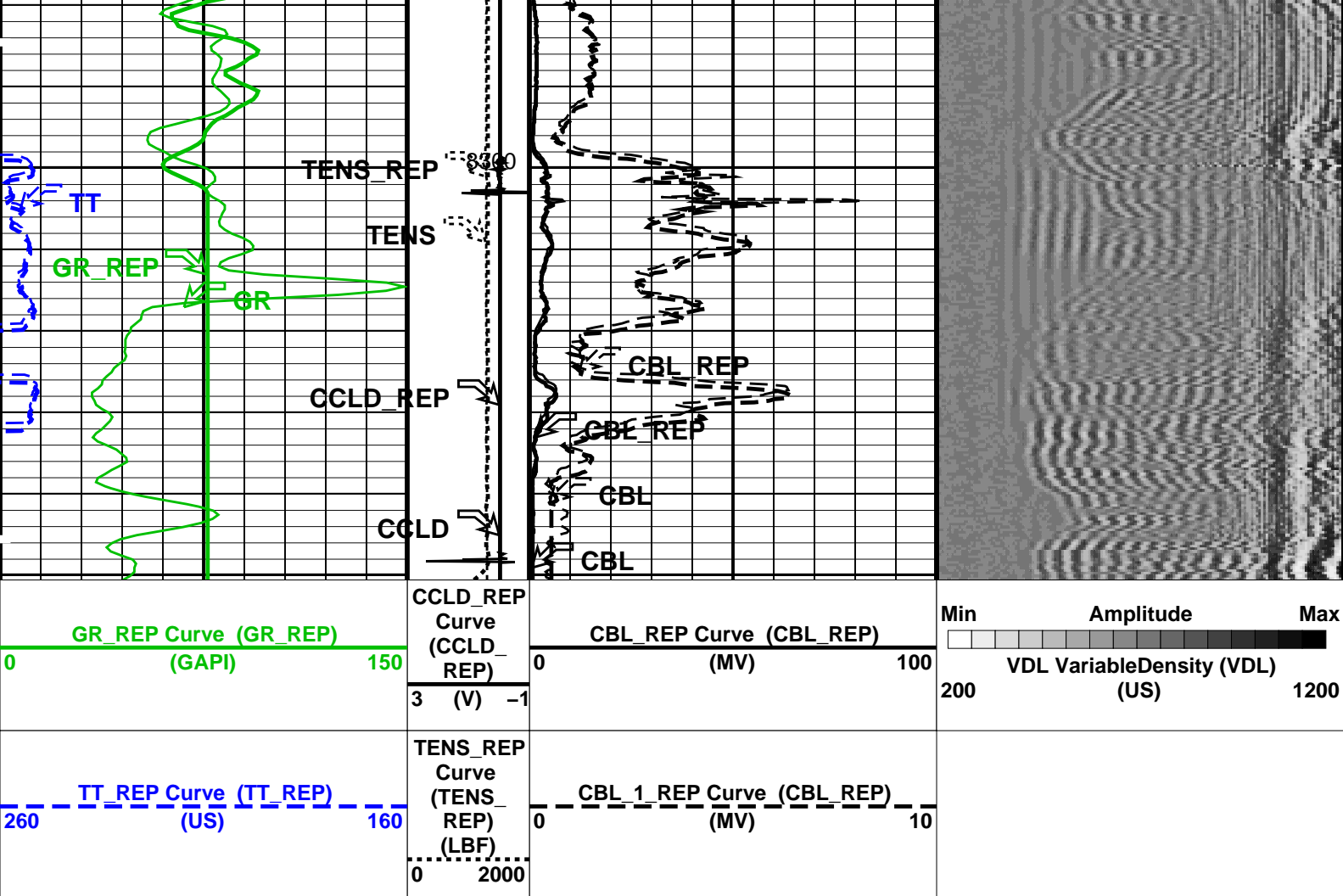
18C0-147

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: 04-May-2011 01:11

OP System Version: 18C0-147

| | | | |
|---------|----------|-------|----------|
| SCMT-CB | 18C0-147 | RST-C | 18C0-147 |
| HBMS-B | 18C0-147 | | |

<<<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 | 0.572744 MV (100% Cement) 1.53811 MV (80% Cement) |
| | | MAP Minimum Sonic Amplitude | 4.27504 MV (100% Cement) 8.03067 MV (80% Cement) |
| Master Calibration (Normalization) | | Before Calibration (Adjustment) | |
| Date of Master Calibration | 17-JAN-2011 | | |
| CBL Correction Factor | 0.0743637 | CBL Adjustment Factor (CBAF) | 1.0 |
| MAP 1 Correction Factor | 0.165722 | MAP Adjustment Factor (MPAF) | 1.0 |
| MAP 2 Correction Factor | 0.192039 | | |
| MAP 3 Correction Factor | 0.132977 | | |
| MAP 4 Correction Factor | 0.175062 | | |
| MAP 5 Correction Factor | 0.161562 | | |
| MAP 6 Correction Factor | 0.177685 | | |

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 | 228.424 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 | 342.424 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 |
| CMTG | 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 | 204.5 US/F |
| FATT | Acoustic Attenuation due to Fluid | 0 DB/F |
| FCF | CBL Fluid Compensation Factor | 1 |
| GOBO | Good Bond | 1.53811 MV |
| MAPD | SCMT MAP Peak Detection Mode | PEAK |
| MAPG | SCMT MAP Peak Detection T0_Delay and Noise Gate | 171.424 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 | 4.27504 MV |
| MSA | Minimum Sonic Amplitude | 0.572744 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 | 14.0 FT |
| DORL | Depth Offset for Repeat Analysis | 0.0 FT |
| PP | Playback Processing | NORMAL |
| TD | Total Depth | 12196 FT |

Input DLIS Files

DEFAULT SCMT_RST_HBMS_026PUP FN:25 PRODUCER 03-May-2011 21:49 8350.5 FT 7905.5 FT

Output DLIS Files

DEFAULT SCMT_RST_HBMS_030PUP FN:29 PRODUCER 04-May-2011 01:11

Schlumberger

COEFFICIENTS

MAXIS Field Log

Client: Tool: PSP
Field: Sub Type: PBMS
Well: Sensor: GR
Run date:

PBMS Gamma Ray

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

RESISTORS FOR GR SENSOR N.34384,TOOL HBMS–BA2880. SENSOR S/N:
34384
160206
12
D8B5

| | | |
|----------|-------------------------------|-------------------------------|
| GR HV Rt | | |
| | Rt**0 | Rt**1 |
| Rt**0 | <div>+.200000000000e+04</div> | <div>+.173000000000e+04</div> |

Client:

Field:

Well:

Run date:

Tool:

Sub Type:

Sensor:

PSP

PBMS

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.2880 S/N:
2880
260408
16
A3AF

| | | | |
|-------------|-------------------------------|-------------------------------|-------------------------------|
| WTemp Coeff | | | |
| | Tt**0 | Tt**1 | Tt**2 |
| Tt**0 | <div>–.104337336008E+04</div> | <div>+.798824971753E+03</div> | <div>–.251944021281E+03</div> |
| | Tt**3 | Tt**4 | Tt**5 |
| Tt**0 | <div>+.406192777109E+02</div> | <div>–.240958437264E+01</div> | <div>0.0</div> |

Client:

Field:

Well:

Run date:

Tool:

Sub Type:

Sensor:

PSP

PBMS

CQG

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

COEFFICIENTS FOR CQG PBMS-B.2880 S/N:

2880

260408

66

66B8

Pres Coeff

| | Fb**0 | Fb**1 | Fb**2 |
|-------|--------------------|--------------------|--------------------|
| Fc**0 | +.694668499013E+04 | +.138137467574E-01 | -.206148488488E-06 |
| Fc**1 | -.104285125976E+01 | -.125721589078E-04 | -.971577899959E-10 |
| Fc**2 | +.101045175546E-05 | +.480801816357E-10 | +.889110474366E-15 |
| Fc**3 | +.127326781620E-11 | +.130693902354E-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 | -.802395356069E-10 | -.148392899370E-14 | -.162952476494E-19 |
| Fc**1 | +.114970383999E-15 | +.186330526680E-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

:

2880

260408

66

3690

Temp Coeff

| | Fc**0 | Fc**1 | Fc**2 |
|-------|--------------------|--------------------|--------------------|
| Fb**0 | +.114978632240E+03 | -.318843725686E-03 | +.651766172344E-08 |

| | | | |
|-------|---------------------|---------------------|---------------------|
| Fb**1 | −.590205352250E−02 | + .168686572404E−07 | + .162345150354E−12 |
| Fb**2 | −.362996279263E−07 | + .407654559315E−12 | + .452411391342E−17 |
| Fb**3 | −.276281361281E−12 | + .871817059405E−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 | + .199118144093E−13 | −.260997933236E−18 | + .618908211390E−21 |
| Fb**1 | + .250084591851E−17 | + .455070709200E−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 2880
Calib Date ddmmyy 260408
Matrix Size 16
Coeff CRC 71B5

Clock Freq Coeff

| | | | |
|--------------|---------------------|---------------------|---------------------|
| | (Fb'−Fc')**0 | (Fb'−Fc')**1 | (Fb'−Fc')**2 |
| (Fb'−Fc')**0 | + .310736316923E+05 | + .273670214709E−02 | + .731815197856E−06 |
| | (Fb'−Fc')**3 | (Fb'−Fc')**4 | (Fb'−Fc')**5 |
| (Fb'−Fc')**0 | −.654219198492E−10 | −.150585137208E−15 | −.117697151708E−19 |

PBMS Quartz Gauge type F

Sonde Serial NB :
Sensor Serial NB 2880
Calib Date ddmmyy 260408
Matrix Size 16
Coeff CRC ECB5

Clock Temp Coeff

| | | | |
|--------------|---------------------|--------------------|--------------------|
| | (Fb'−Fc')**0 | (Fb'−Fc')**1 | (Fb'−Fc')**2 |
| (Fb'−Fc')**0 | + .116053417872E+03 | −.554118045908E−02 | −.348241454518E−07 |
| | (Fb'−Fc')**3 | (Fb'−Fc')**4 | (Fb'−Fc')**5 |
| (Fb'−Fc')**0 | + .207992675474E−12 | −.353168788938E−17 | −.345142848607E−21 |

Company: ENCANA OIL & GAS (USA) INC



Well: SGU 8508C–36 (B36 496)
Field: NORTH PARACHUTE
County: GARFIELD
State: COLORADO

CEMENT BOND LOG
CBL – VDL
GAMMA RAY – CCL