

Company: Caerus Piceance LLC

Well: Puckett 13A-1

Field: Wildcat

County: Garfield State: Colorado

Slim Cement Mapping Tool

CBL-VDL

County:	Garfield		
Field:	Wildcat		
Location:	SHL: S2, T7S, R97W		
Well:	Puckett 13A-1		
Company:	Caerus Piceance LLC		
Location:	SHL: S2, T7S, R97W	Elev.: K.B. 8509.00 ft	
	2222' FNL & 628' FEL	G.L. 8479.00 ft	
	LAT: 39.475692 / LONG: -108.180228	D.F. 8508.00 ft	
	Permanent Datum:	Ground Level	Elev.: 8479.00 f
Log Measured From:		Kelly Bushing	30.00 ft
	Drilling Measured From:	Kelly Bushing	above Perm.Datum
API Serial No.	05-045-22633	Section: 2	Township: 7S
			Range: 97W

Logging Date 24-Jul-2015

Run Number ONE

Depth Driller 8899.00 ft

Schlumberger Depth 8899.00 ft

Bottom Log Interval 8893.00 ft

Top Log Interval 2500.00 ft

Casing Fluid Type 3% KCl

Salinity

Density 9 lbm/gal

Fluid Level 0.00 ft

BIT/CASING/TUBING STRING

Bit Size 8.75 in

From 2537.00 ft

To 8999.00 ft

Casing/Tubing Size 4.5 in

Weight 11.6 lbm/ft

Grade P110

From 0.00 ft

To 8899.00 ft

Max Recorded Temperatures

Logger on Bottom 24-Jul-2015 16:10:00

Unit Number 9108 Location: Fort Morgan, CO

Recorded By B. Dobinsky / B. Marmon

Witnessed By Natalie Naeve

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 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.

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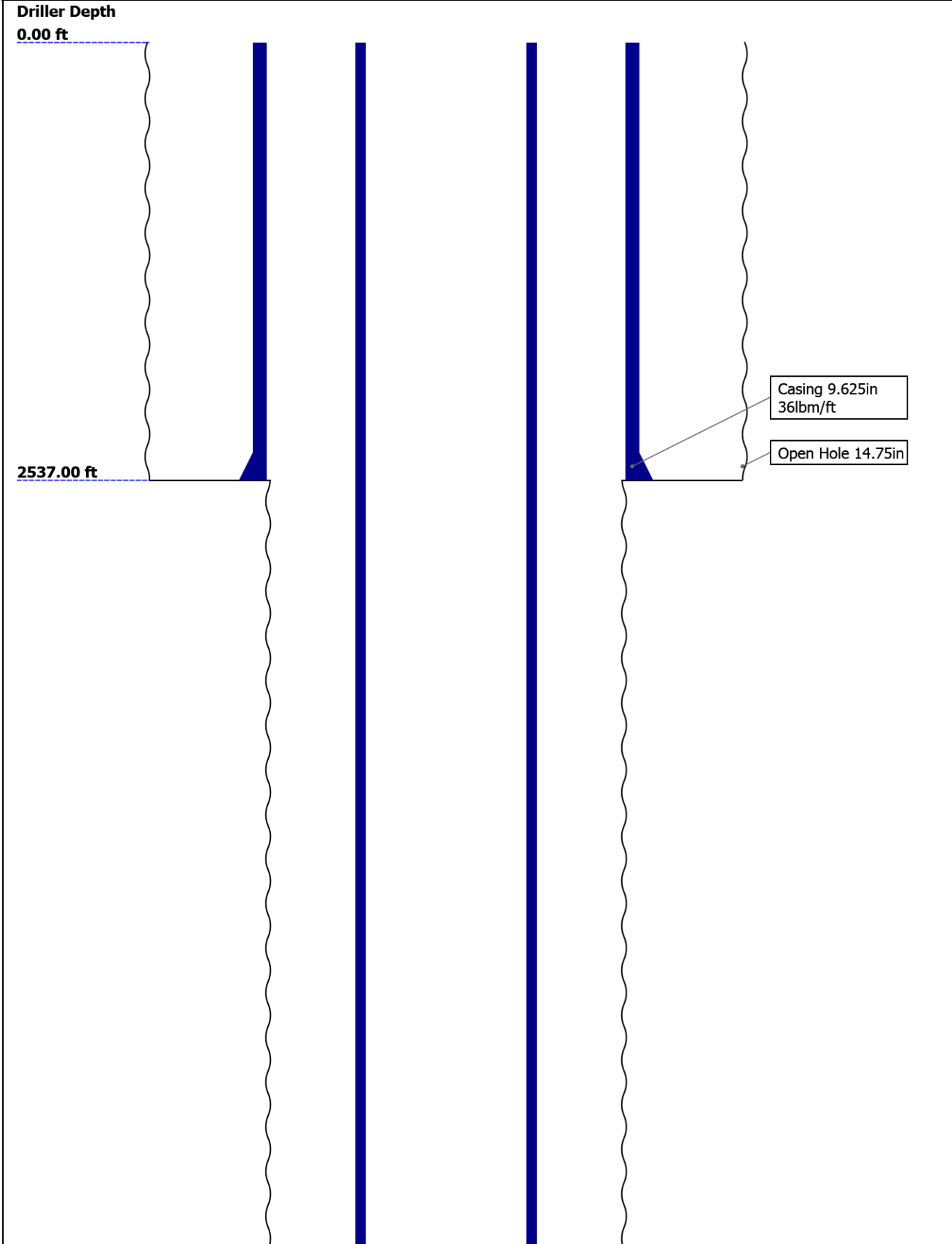
12.5 Parameter Listing

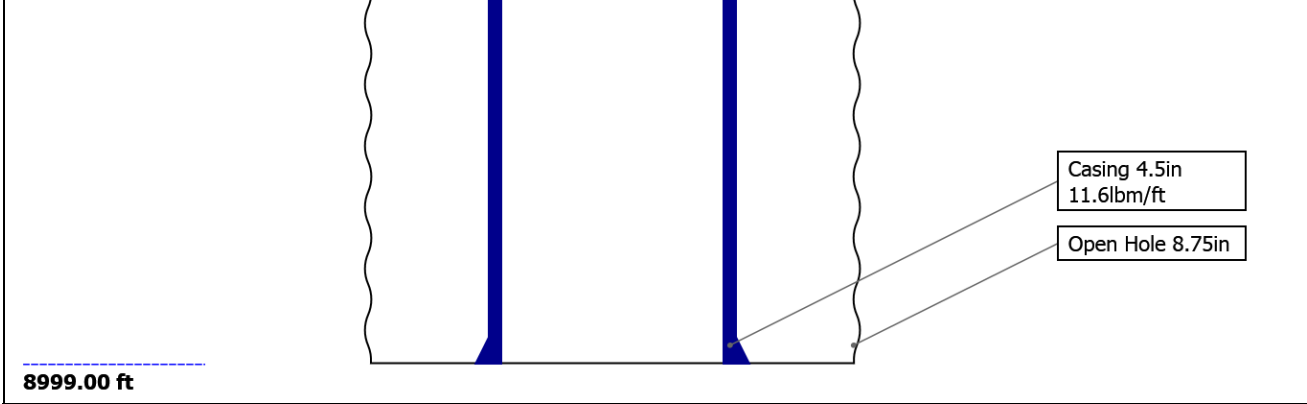
13. Calibration Report

14. Tail

- 10.3 Composite Summary
- 10.4 Log ( SCMT\_Amp\_Image\_1 )
- 10.5 Parameter Listing
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  - 11.1 Integration Summary
  - 11.2 Software Version
  - 11.3 Composite Summary

Well Sketch





Borehole Size/Casing/Tubing Record

Bit						
Bit Size ( in )	14.75	8.75				
Top Driller ( ft )	0	2537				
Top Logger ( ft )	0	2537				
Bottom Driller ( ft )	2537	8999				
Bottom Logger ( ft )	2537	8999				
Casing						
Size ( in )	9.625	4.5				
Weight ( lbm/ft )	36	11.6				
Inner Diameter ( in )	8.921	4				
Grade	J55	P110				
Top Driller ( ft )	0	0				
Top Logger ( ft )	0	0				
Bottom Driller ( ft )	2537	8999				
Bottom Logger ( ft )	2537	8999				

Operational Run Summary

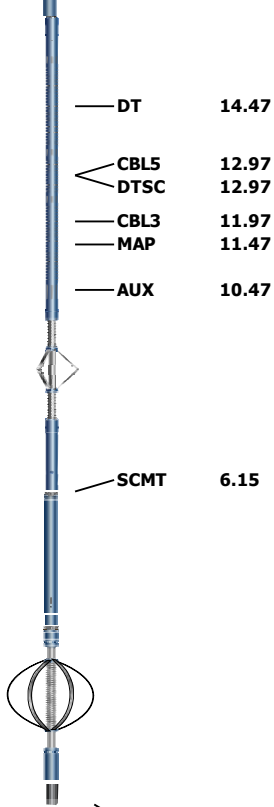
Parameter ( unit )	ONE					
Date Log Started	24-Jul-2015					
Time Log Started	15:00:38					
Date Log Finished	24-Jul-2015					
Time Log Finished	20:42:40					
Top Log Interval ( ft )	2500.00					
Bottom Log Interval ( ft )	8893.00					
Total Depth ( ft )	8999.00					
Max Hole Deviation ( deg )	0.00					
Azimuth of Max Deviation ( deg )	0.00					
Bit Size ( in )	8.750					
Logging Unit Number	9108					
Logging Unit Location	Fort Morgan, CO					
Recorded By	B. Dobinsky / B. Marmon					

Witnessed By	Natalie Naeve					
Service Order Number	D5ND-00075					

## Remarks and Equipment Summary

[illegible]





Lengths are in ft

Maximum Outer Diameter = 3.375 in

Line: Sensor Location, Value: Gating Offset

All measurements are relative to TOOL\_ZERO

## Depth Summary

ONE

### Depth Measuring Device

Type	IDW-JA		
Serial Number	6510		
Calibration Date	29-Mar-2015		
Calibrator Serial Number			
Calibration Cable Type	7-46 AXS		
Wheel Correction 1	-4		
Wheel Correction 2	-2		

### Tension Device

Type	CMTD-B/A		
Serial Number	171		
Calibration Date	26-JUN-2015		
Calibrator Serial Number	123		
Number of Calibration Points	10		
Calibration Root Mean Square Error	13		
Calibration Peak Error	31		

### Logging Cable

Type	7-46A-XS		
Serial Number	U714071		
Length	17500.00 ft		
Conveyance Type	Wireline		
Rig Type			

ONE:Depth Control Parameters				Depth Control Remarks			
Log Sequence		First Log In the Well		All Schlumberger Depth Policies Followed			
Rig Up Length At Surface				IDW used as primary Depth Control			
Rig Up Length At Bottom							
Rig Up Length Correction							
Stretch Correction		6.50 ft					
Tool Zero Check At Surface							

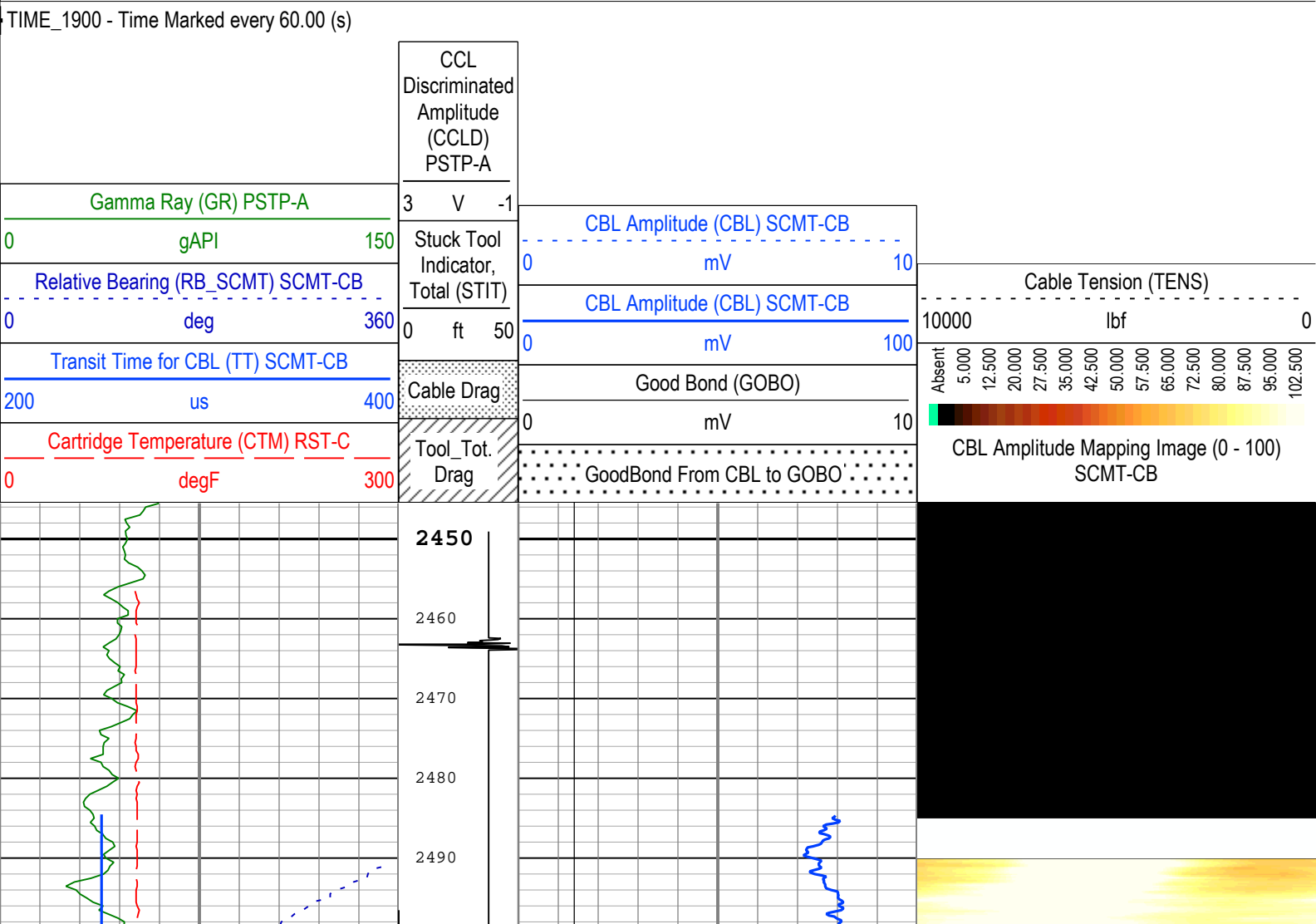
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Main Pass 2500 PSI							

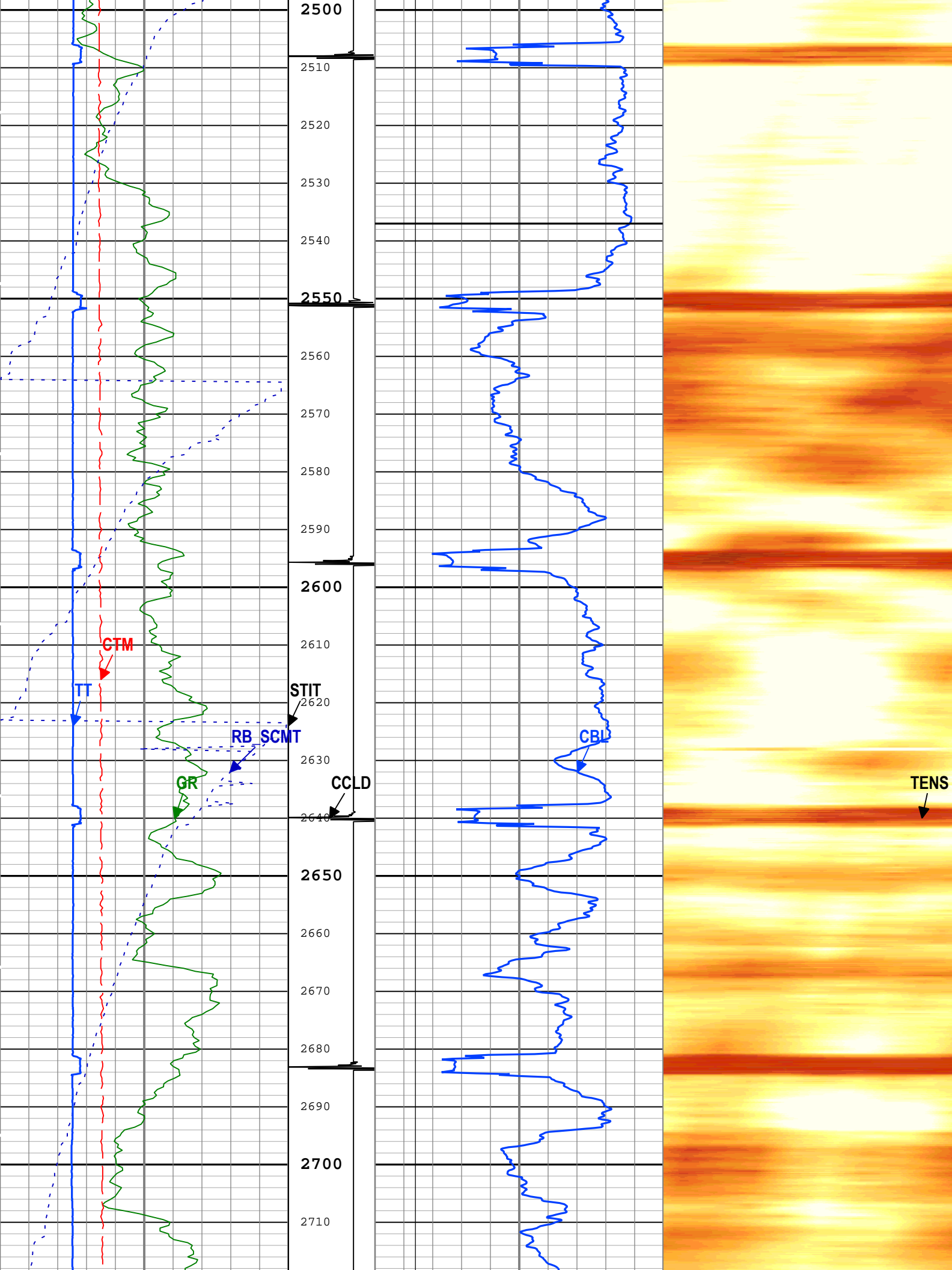
Software Version							
Acquisition System				Version			
Maxwell 2016				6.0.47569.3100			

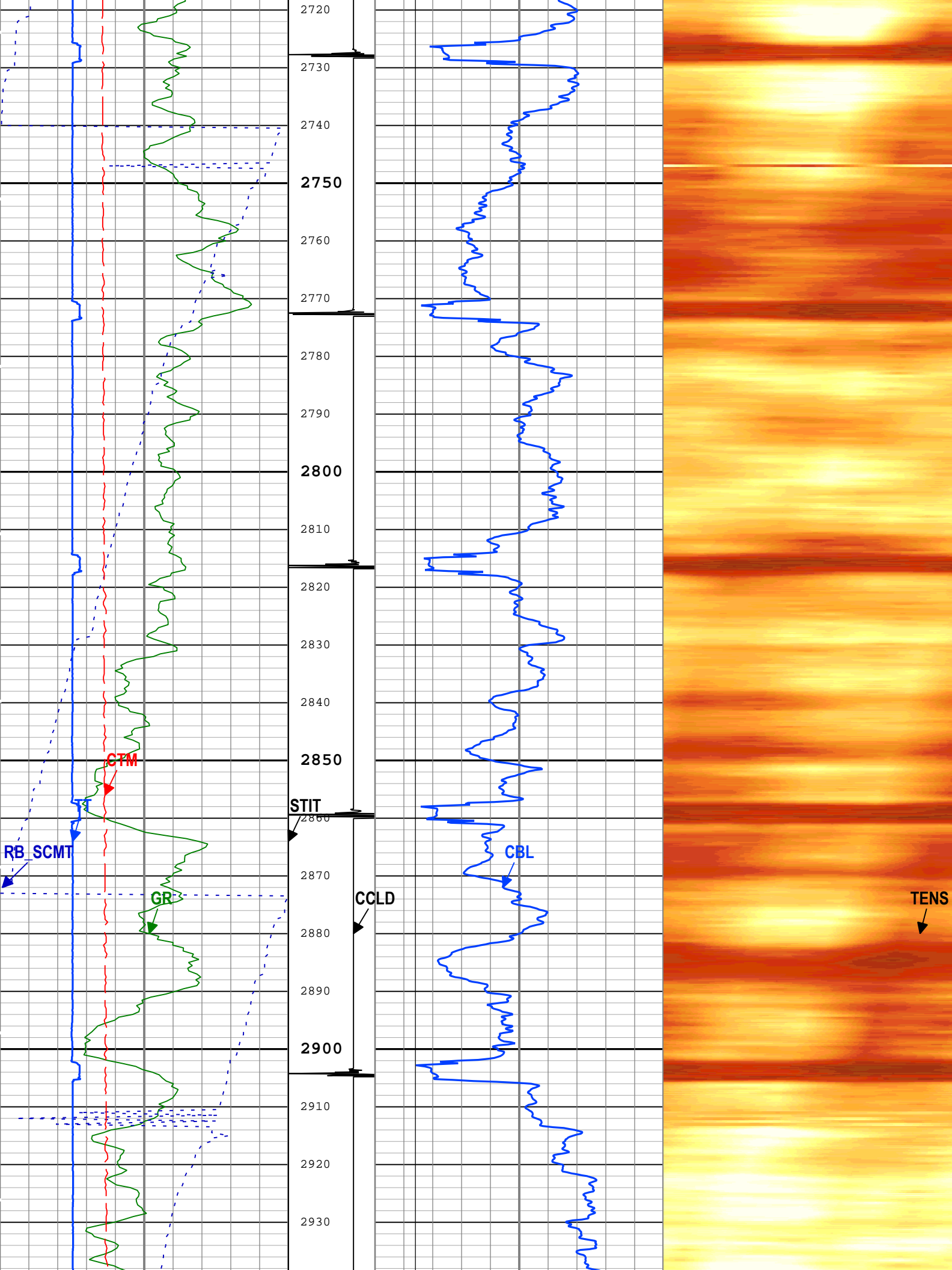
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Main[4]:Up	Up	2496.34 ft	8908.03 ft	24-Jul-2015 4:38:47 PM	24-Jul-2015 8:15:43 PM	ON	6.51 ft	Yes

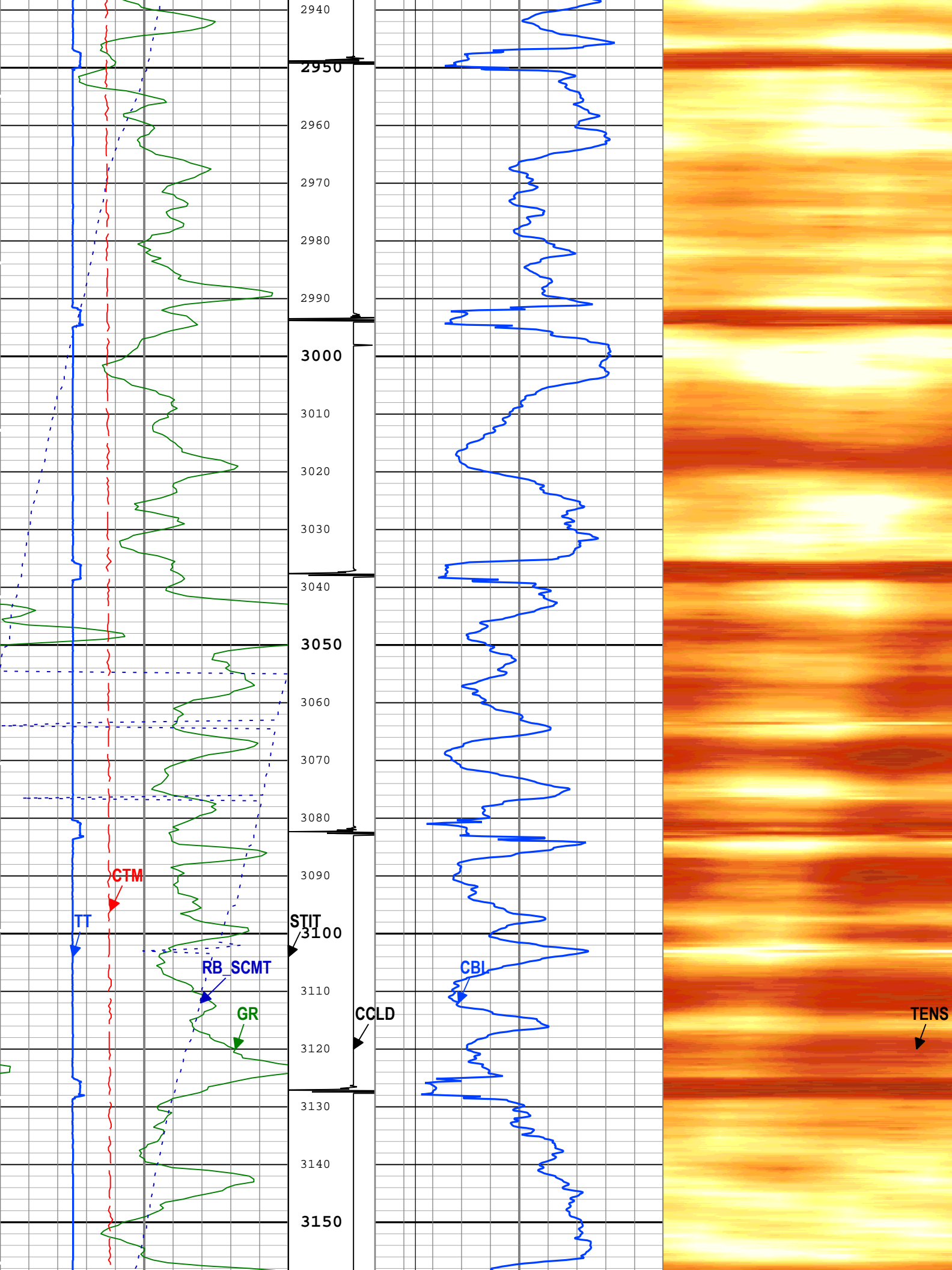
All depths are referenced to toolstring zero									
Log				Company:Caerus Piceance LLC      Well:Puckett 13A-1					
				ONE: Main[4]:Up:S011					

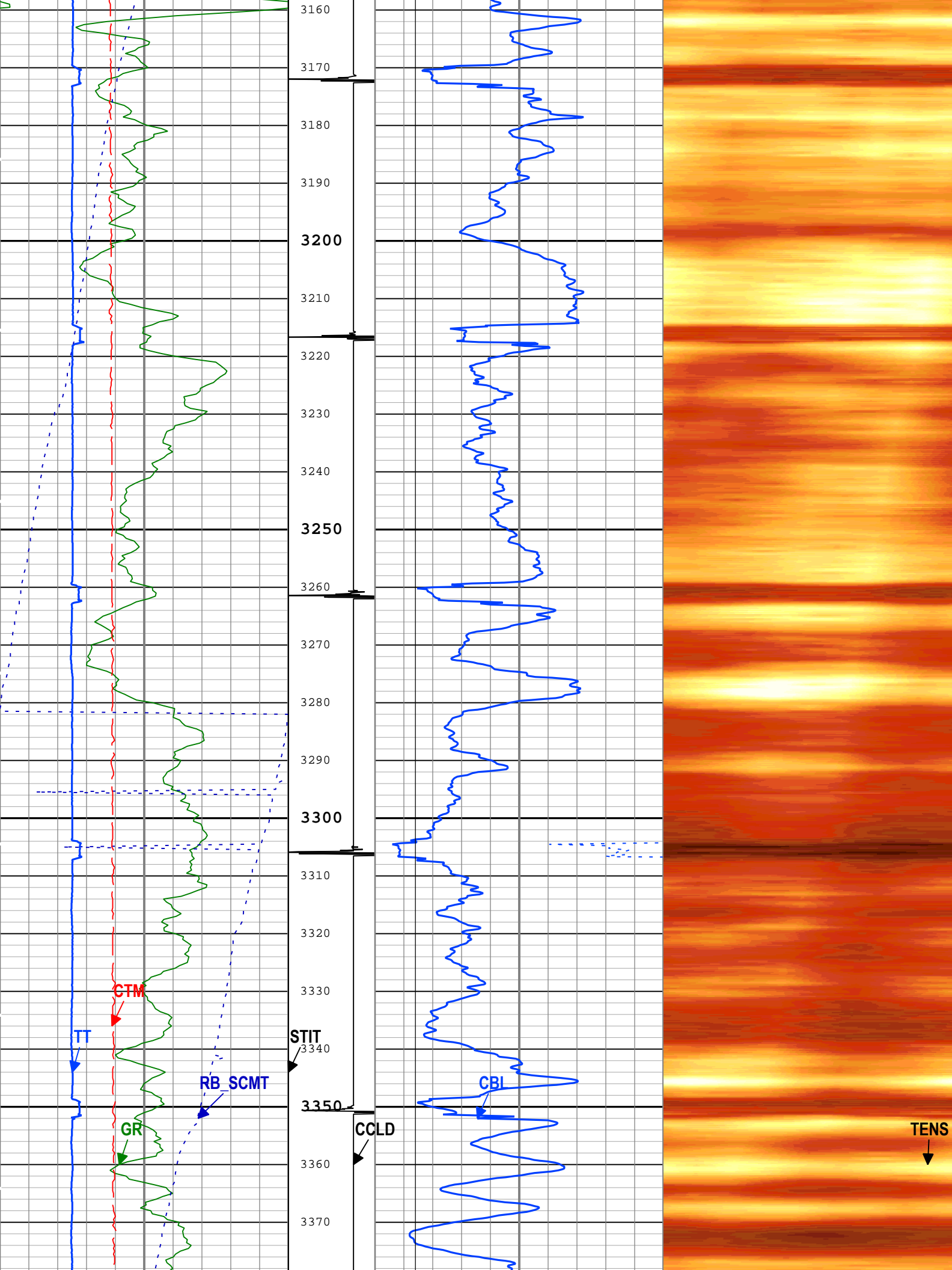
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Depth    Creation Date: 07-Aug-2015 11:18:20

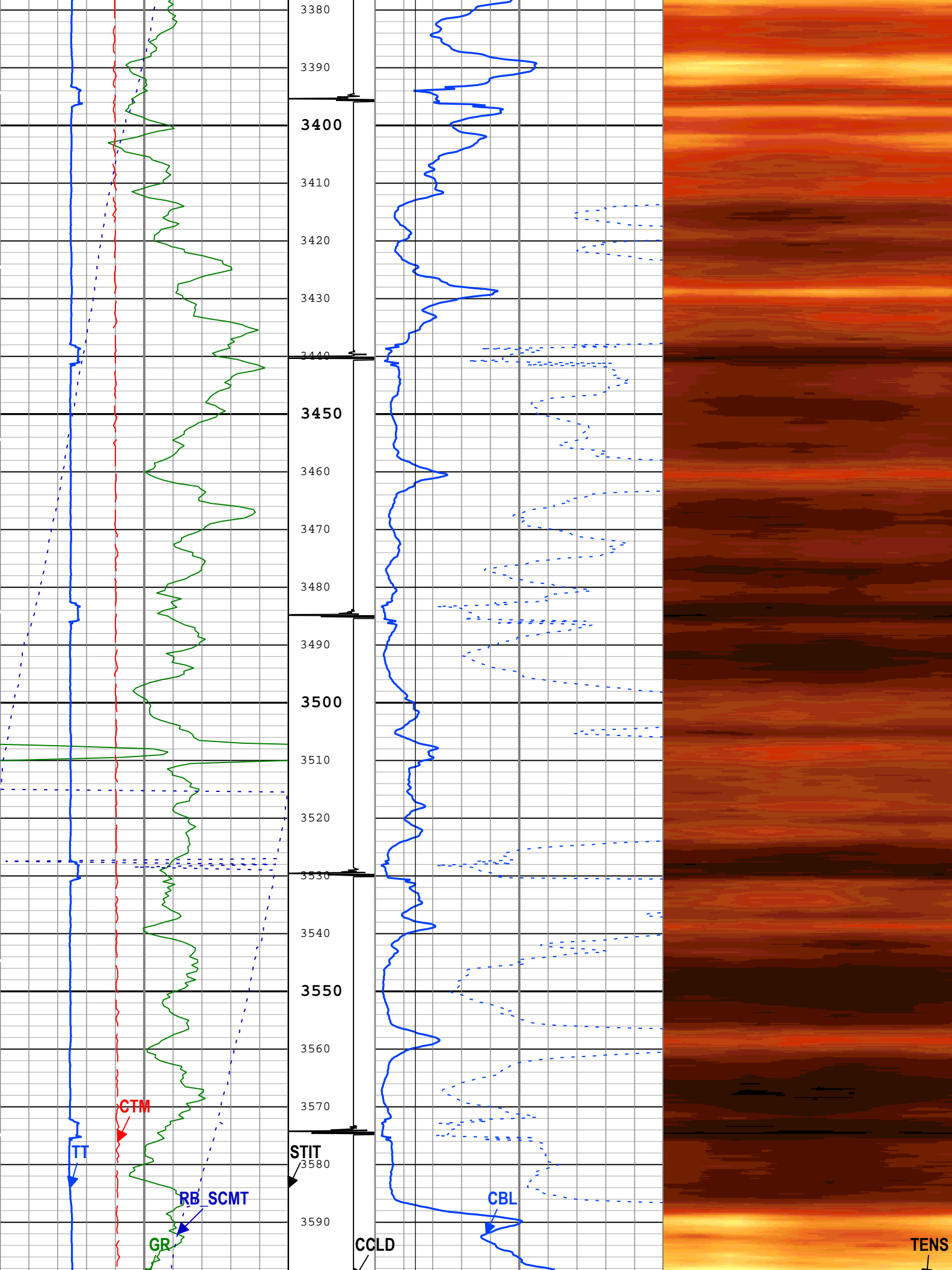


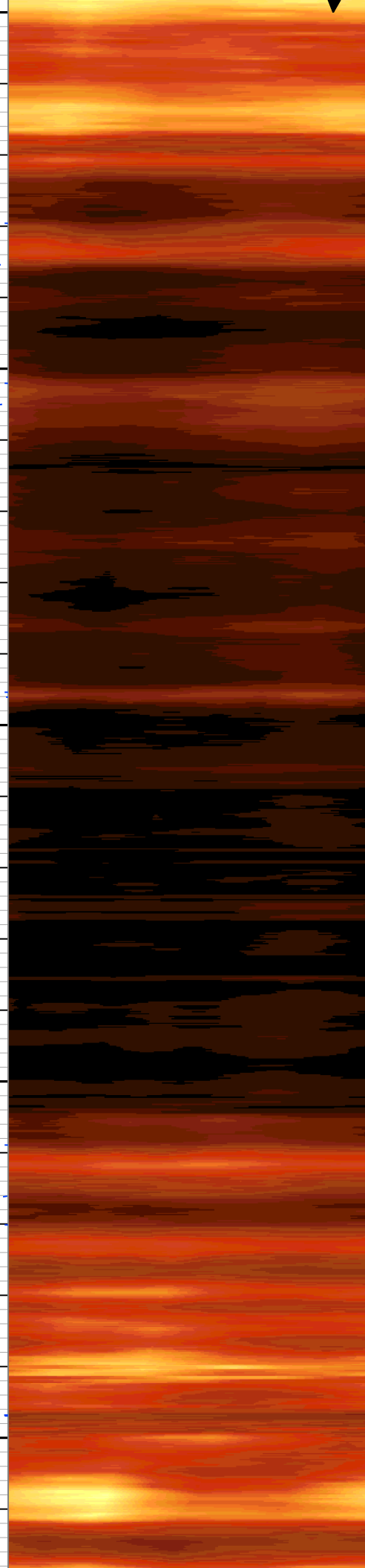
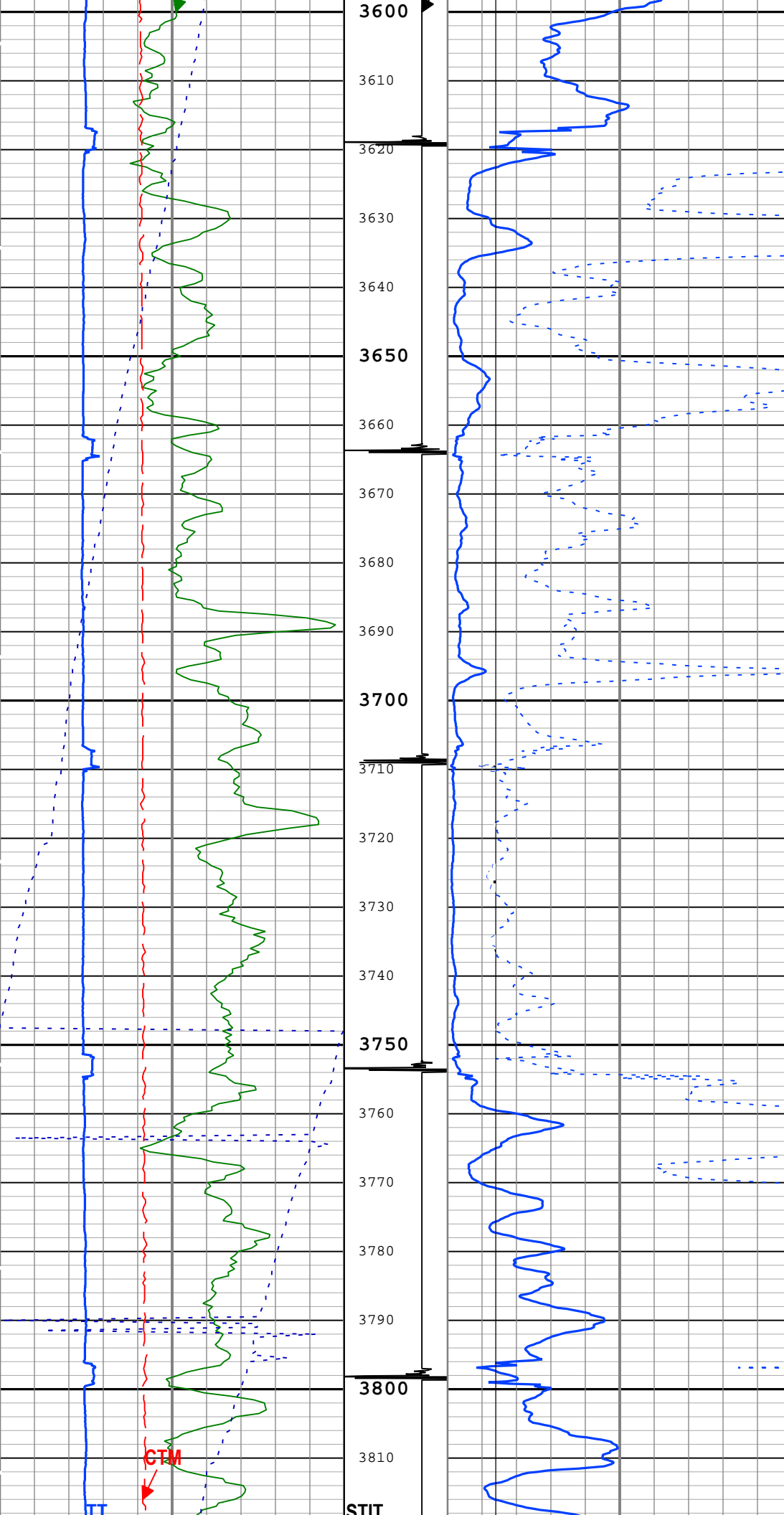




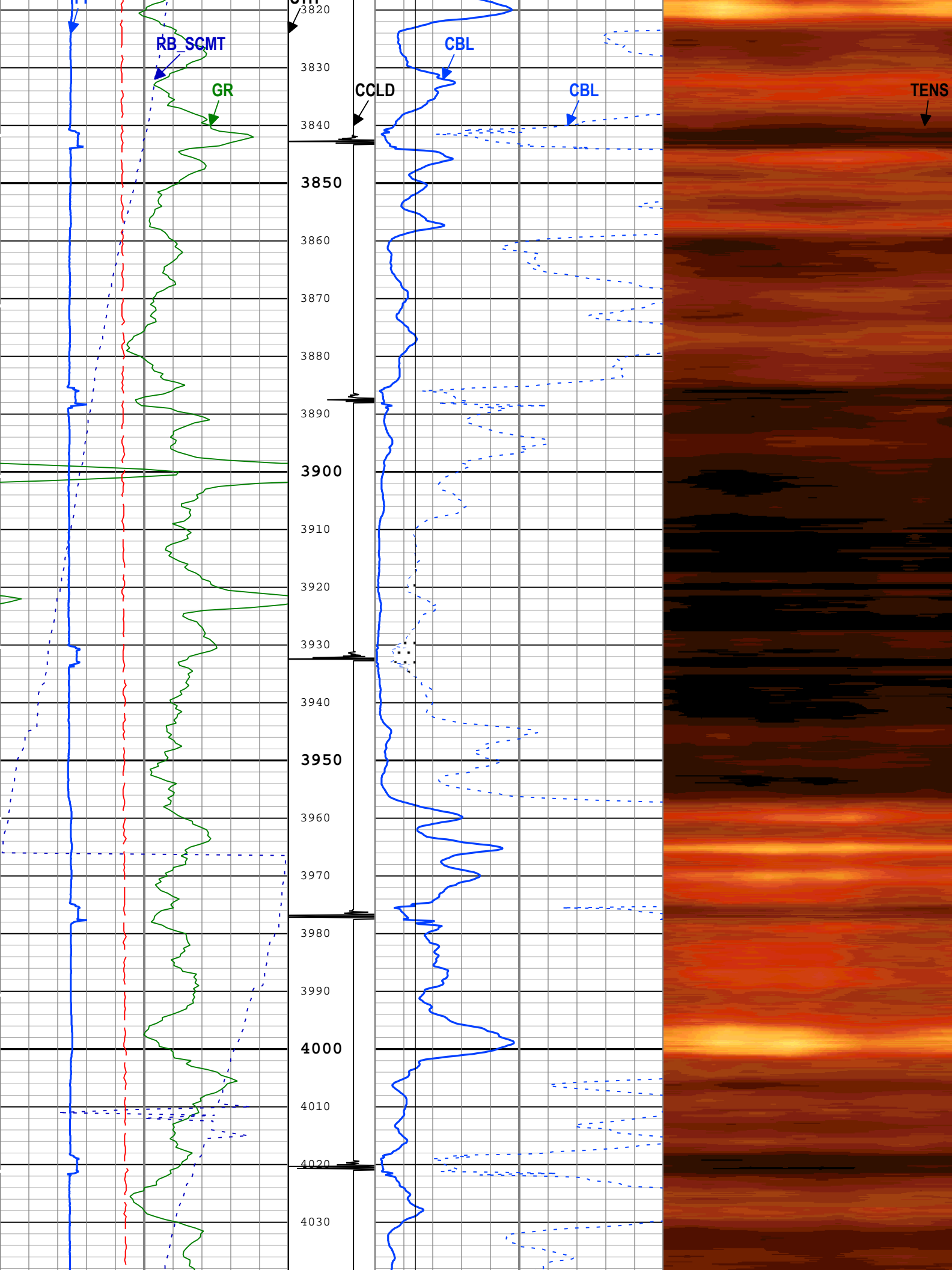


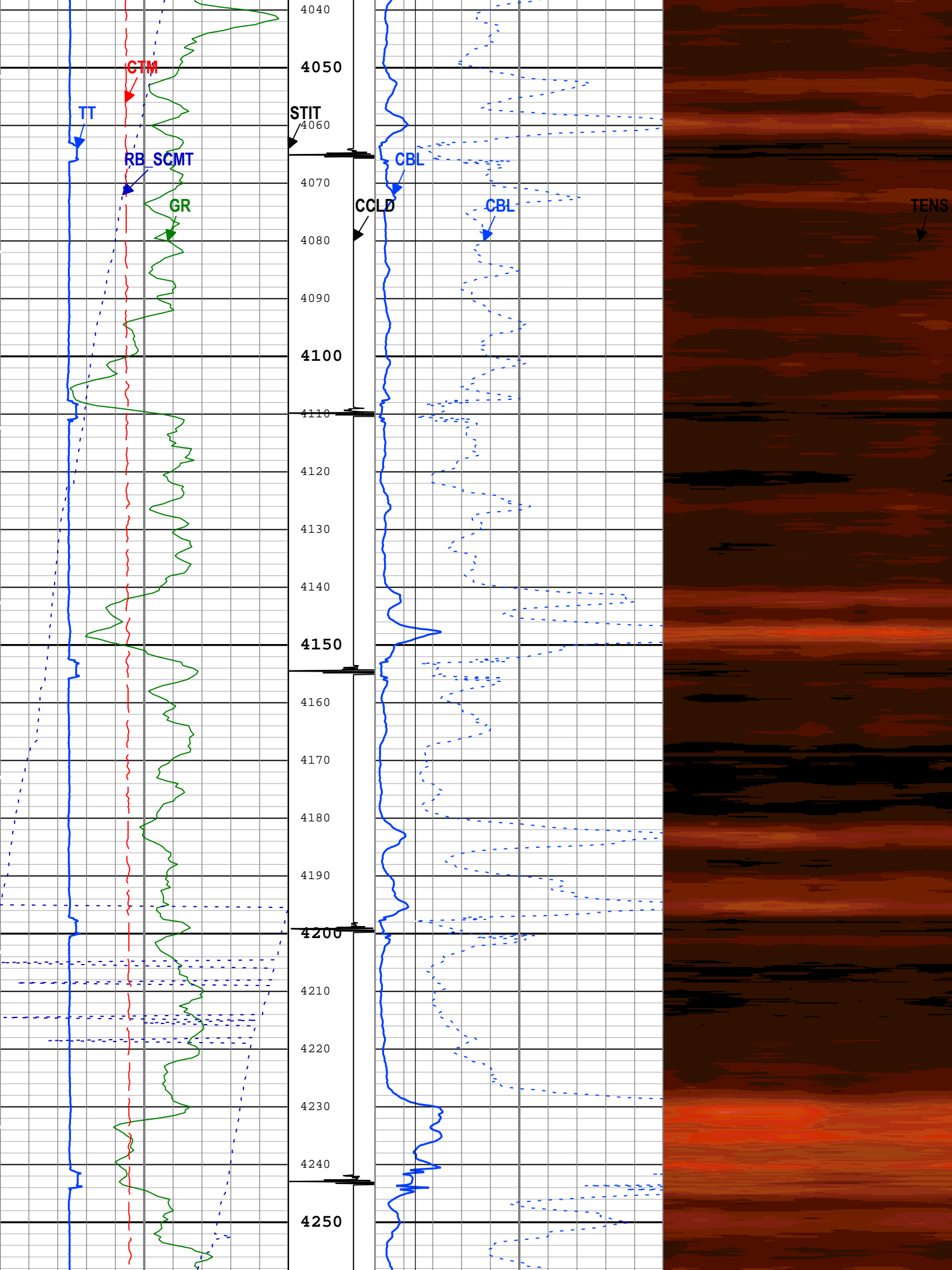


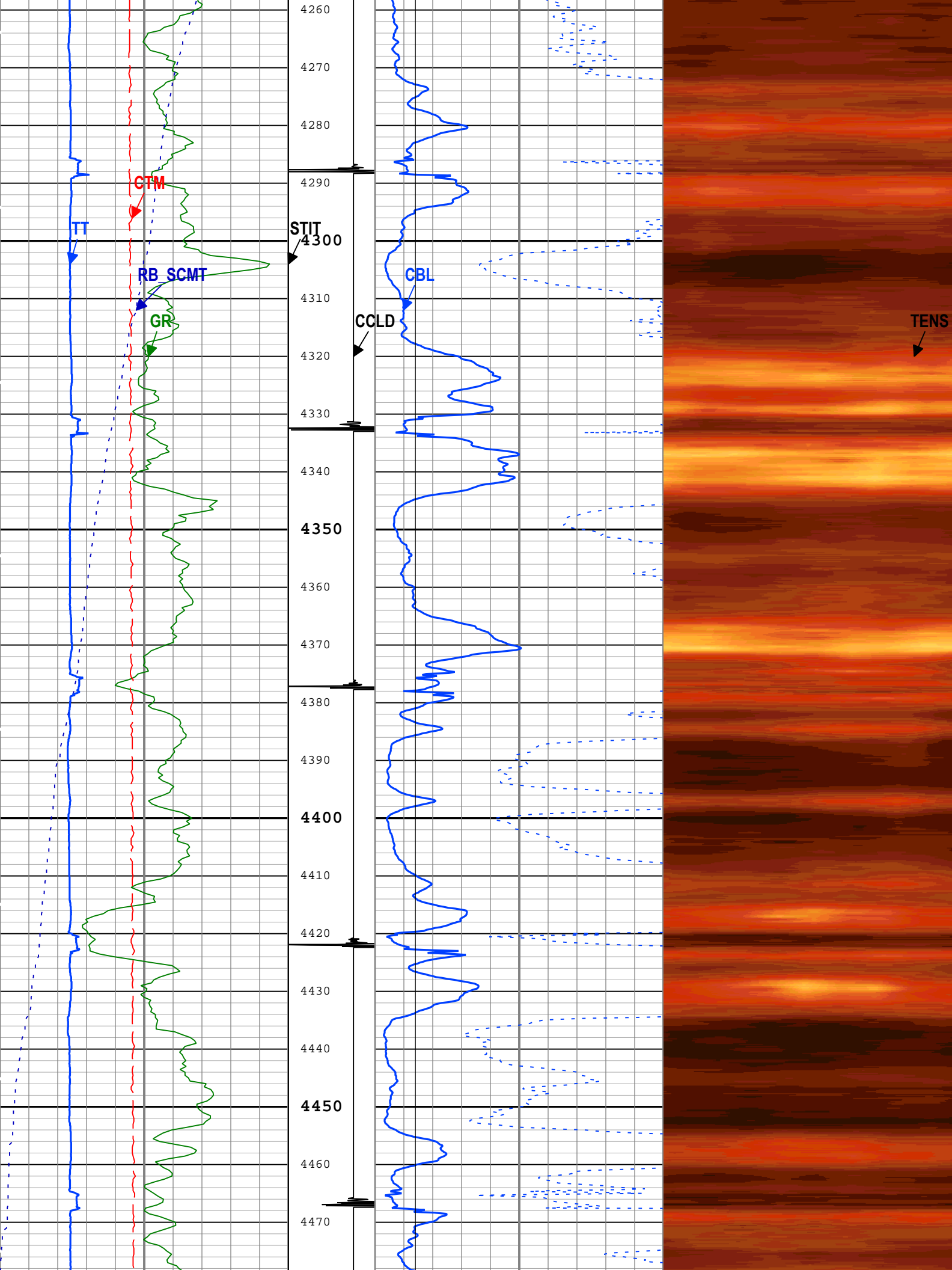


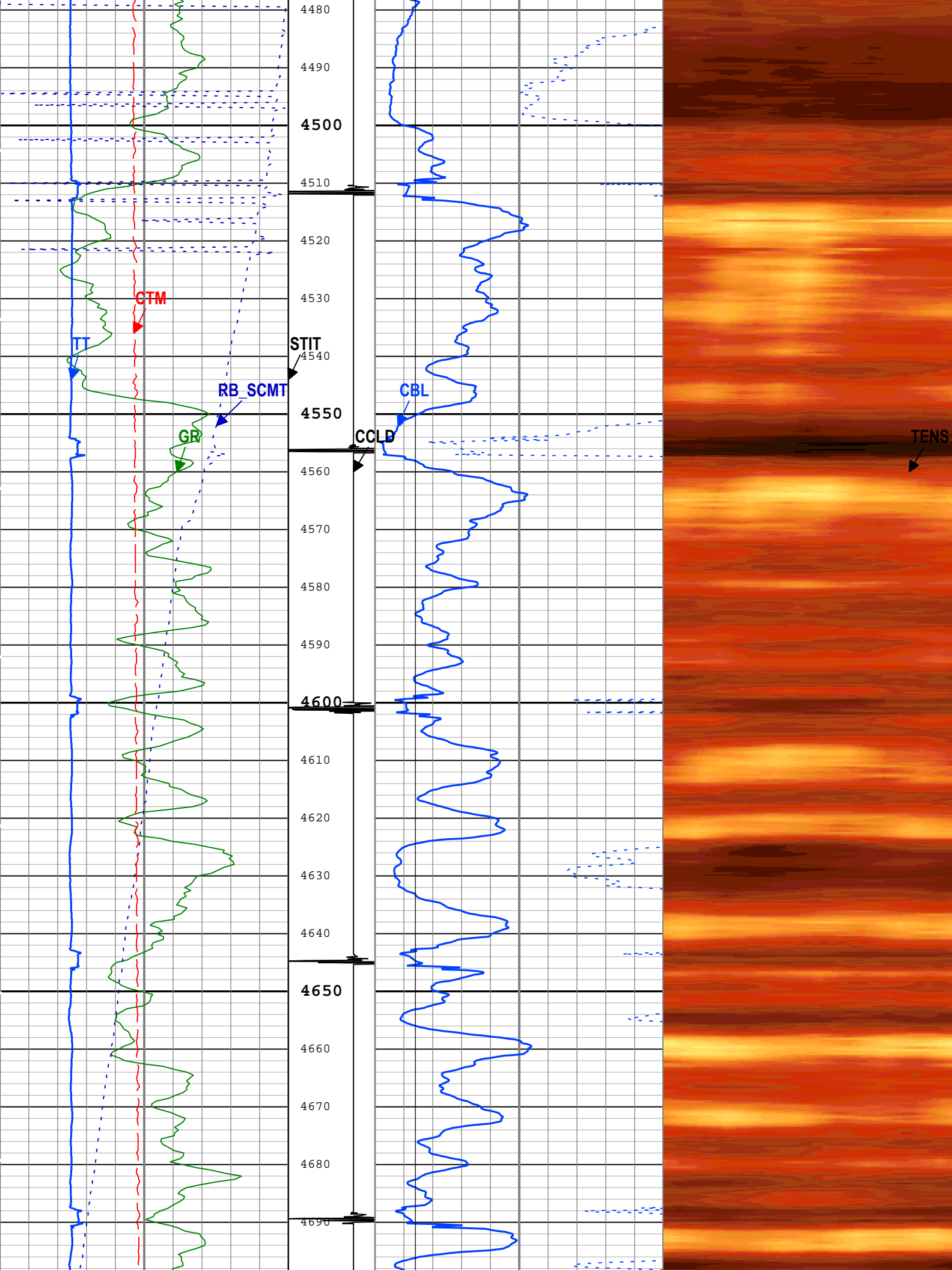


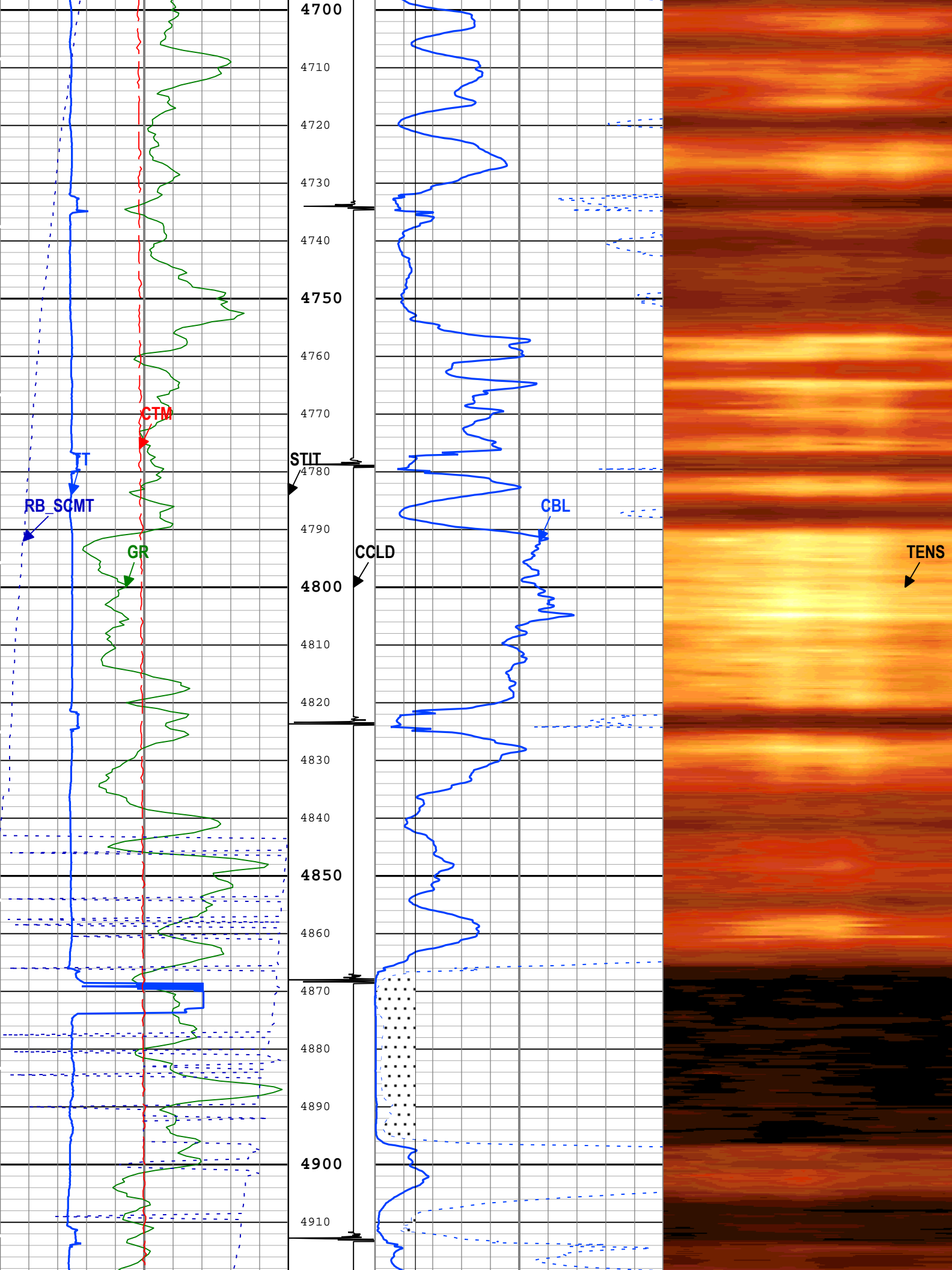


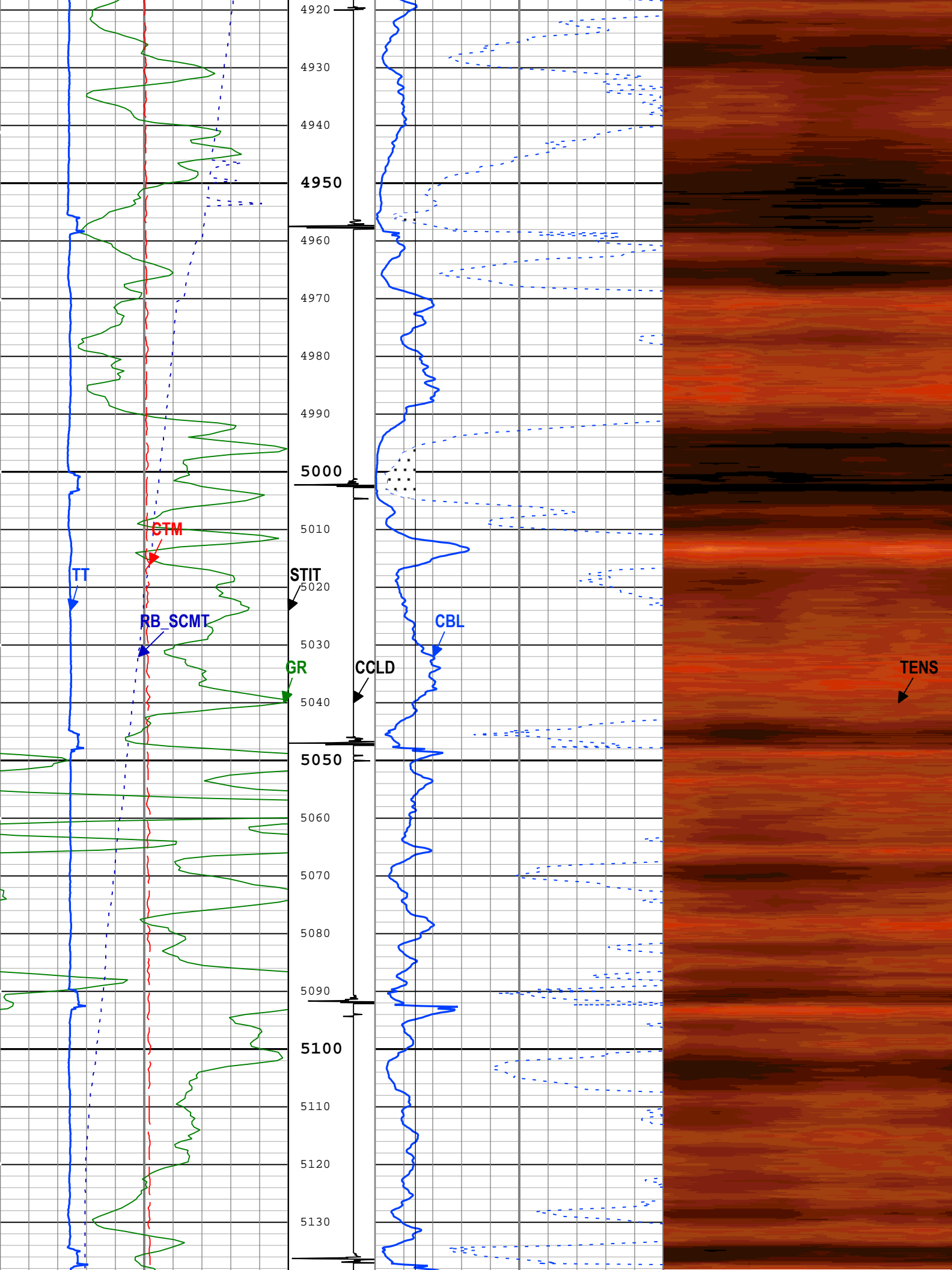


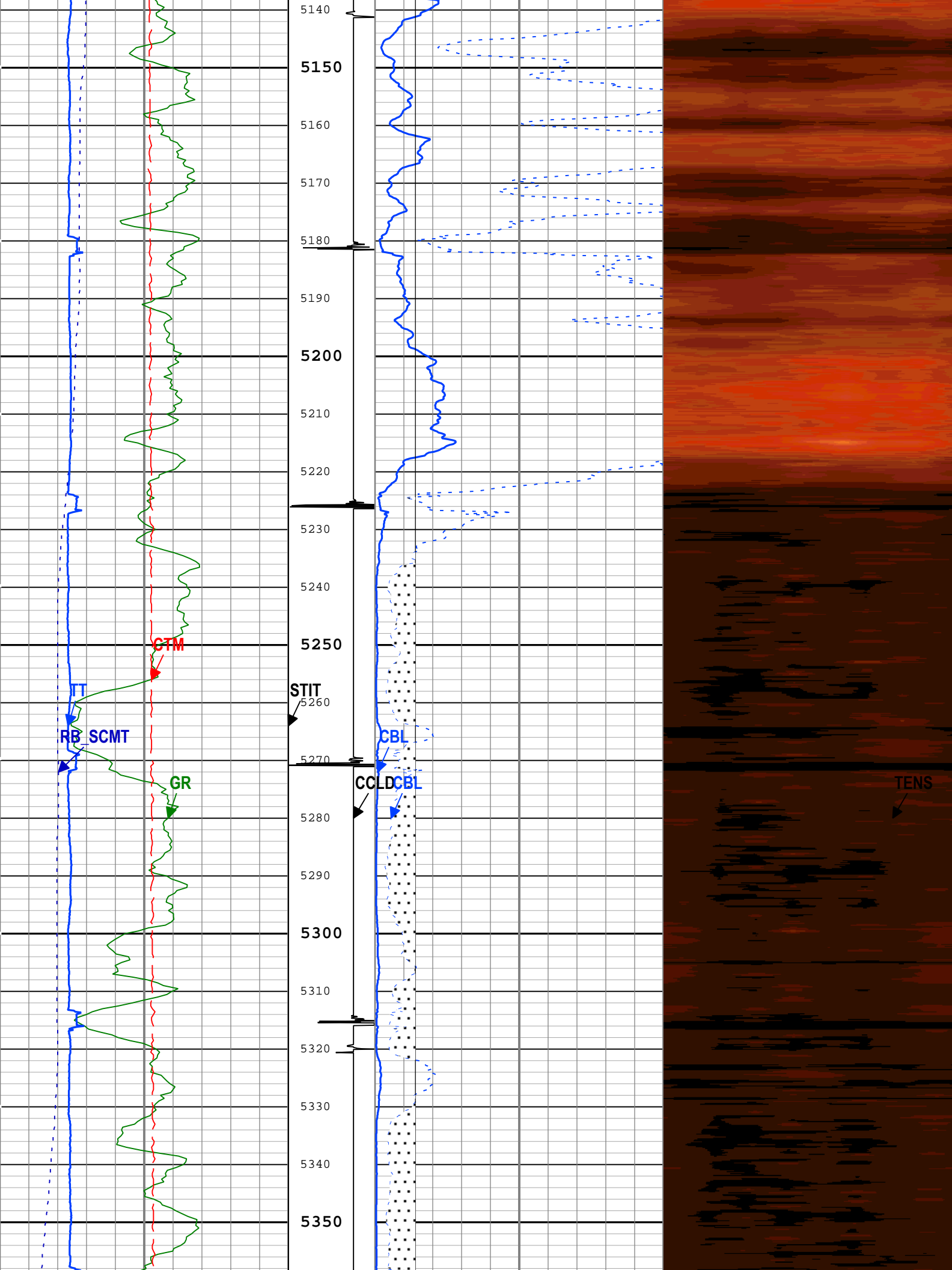


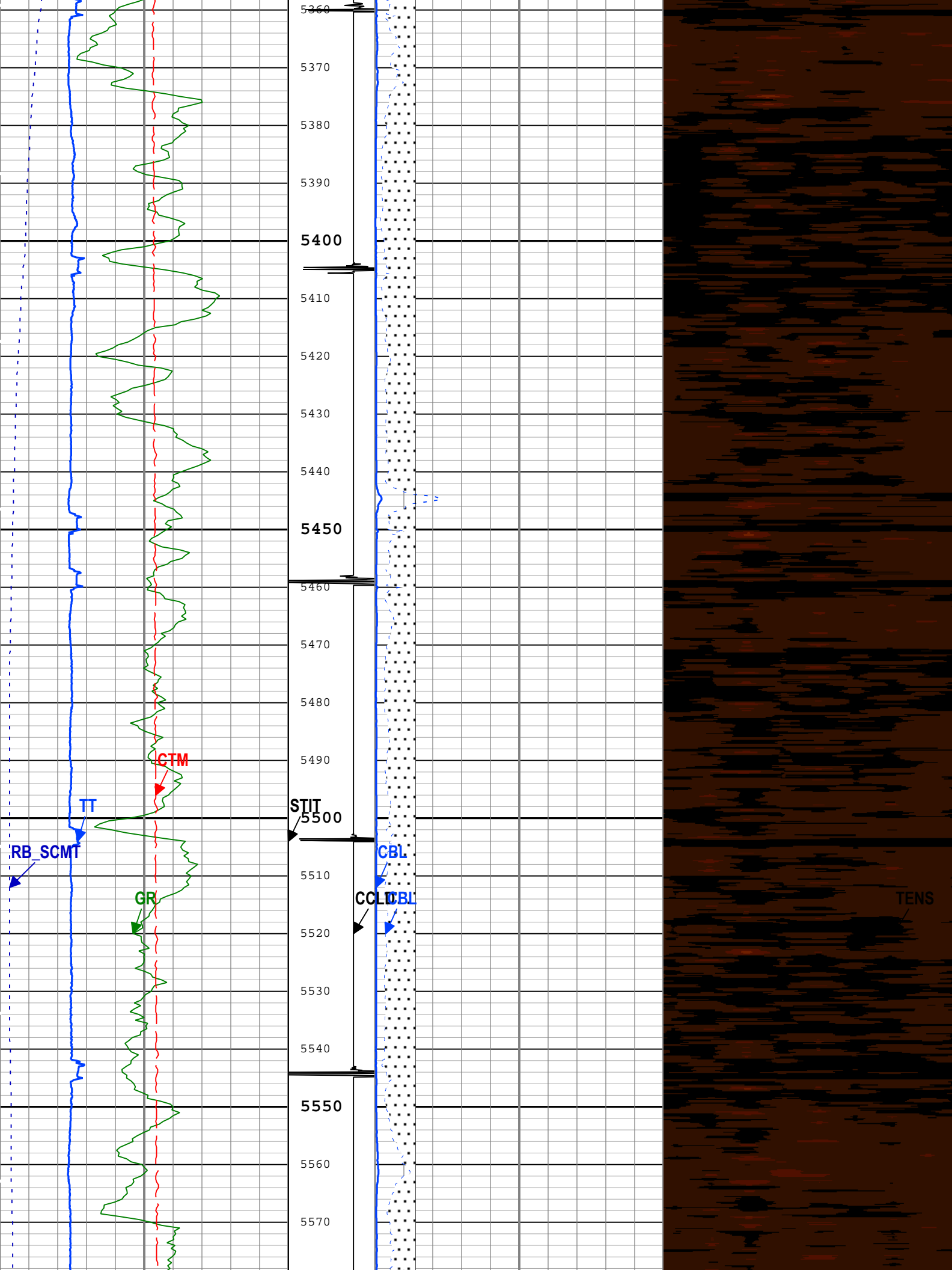




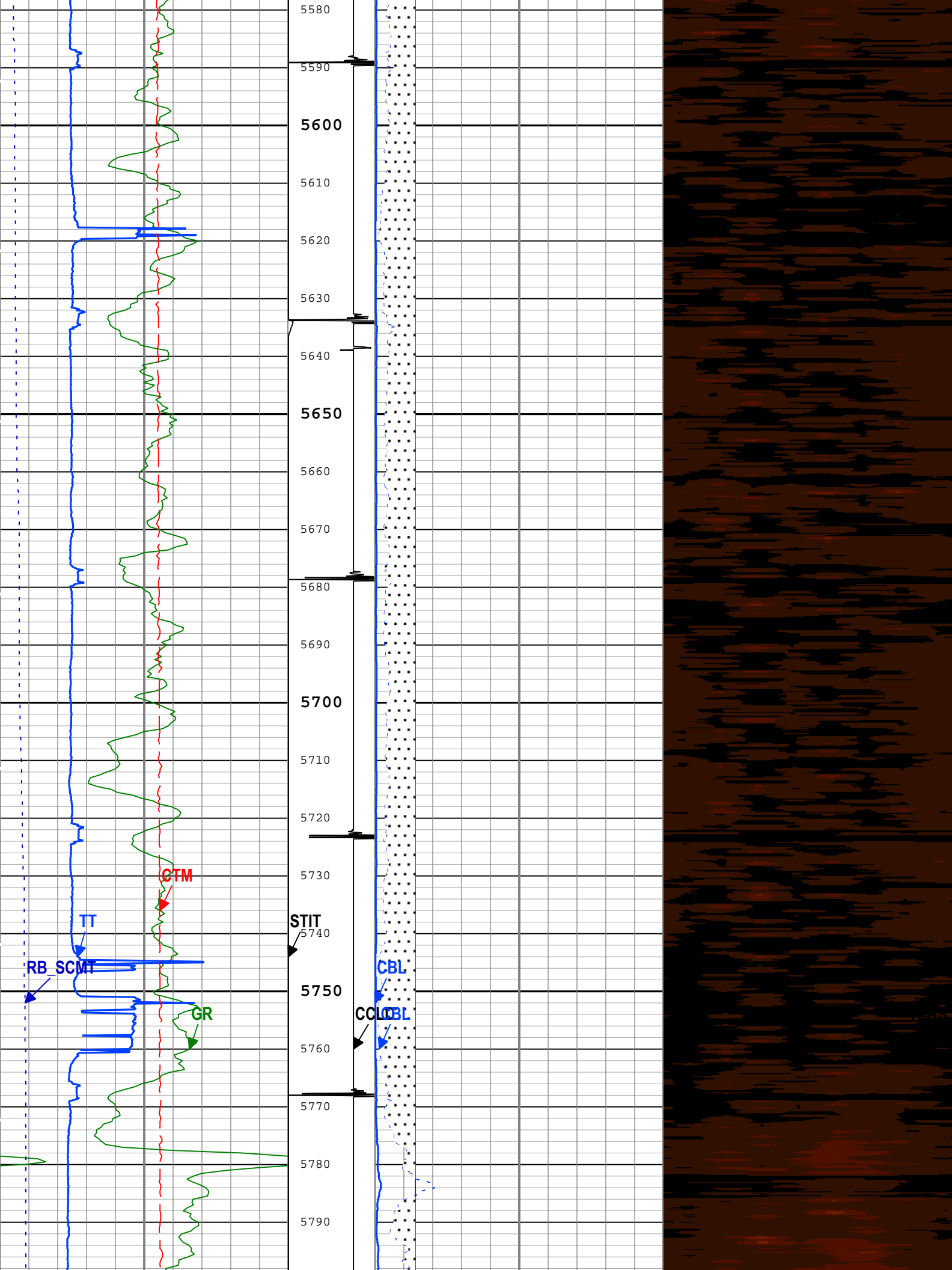


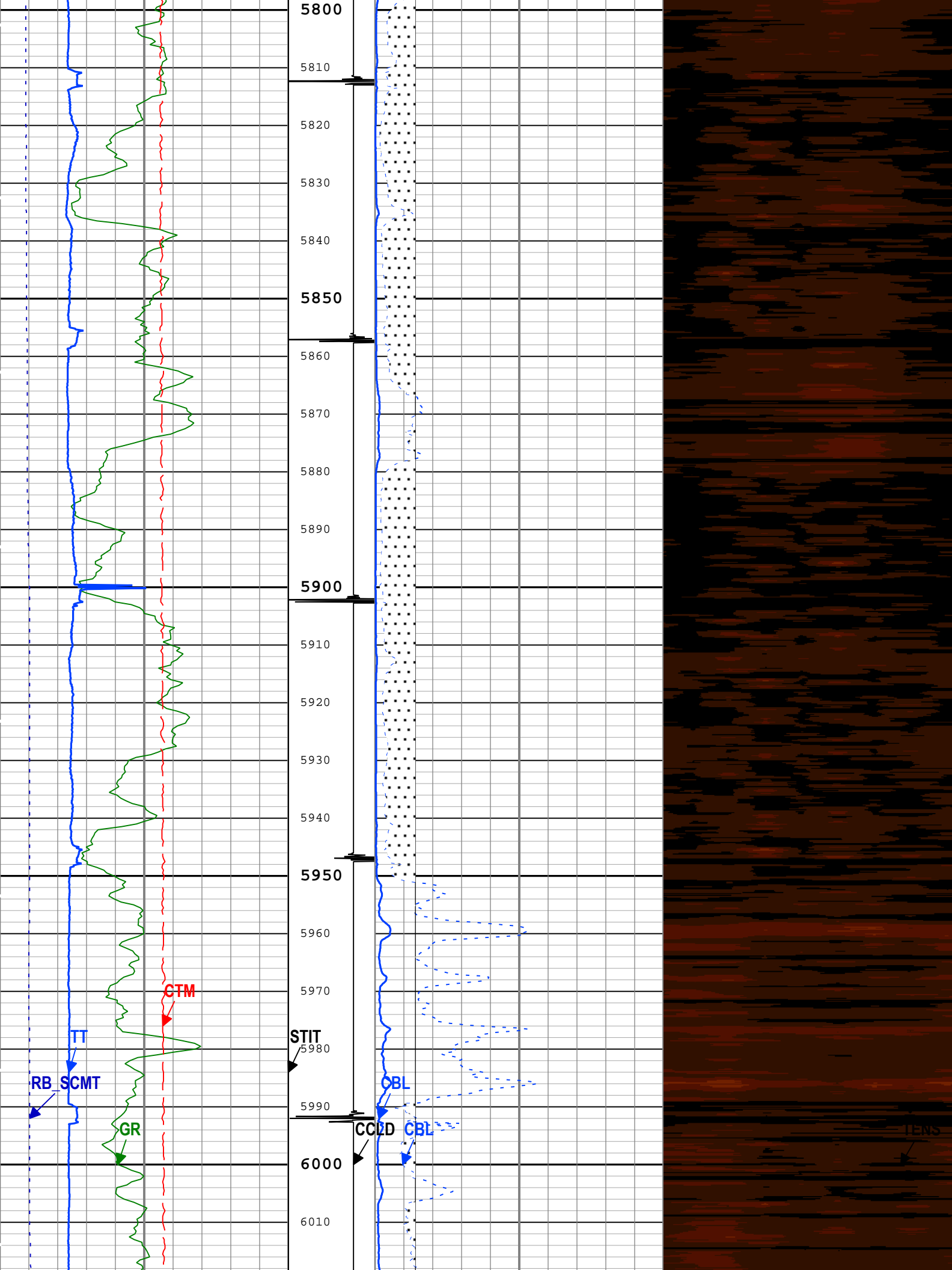


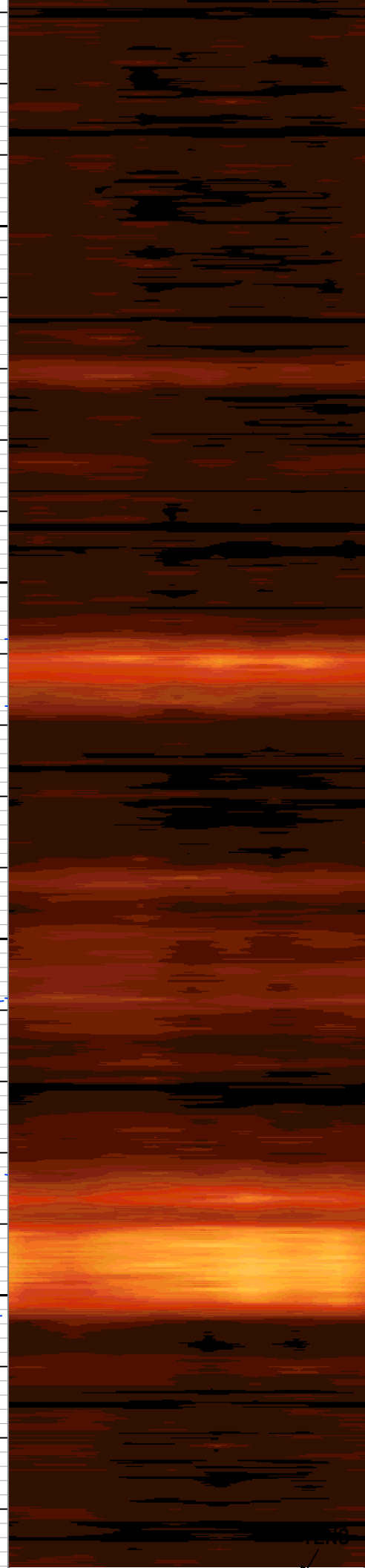
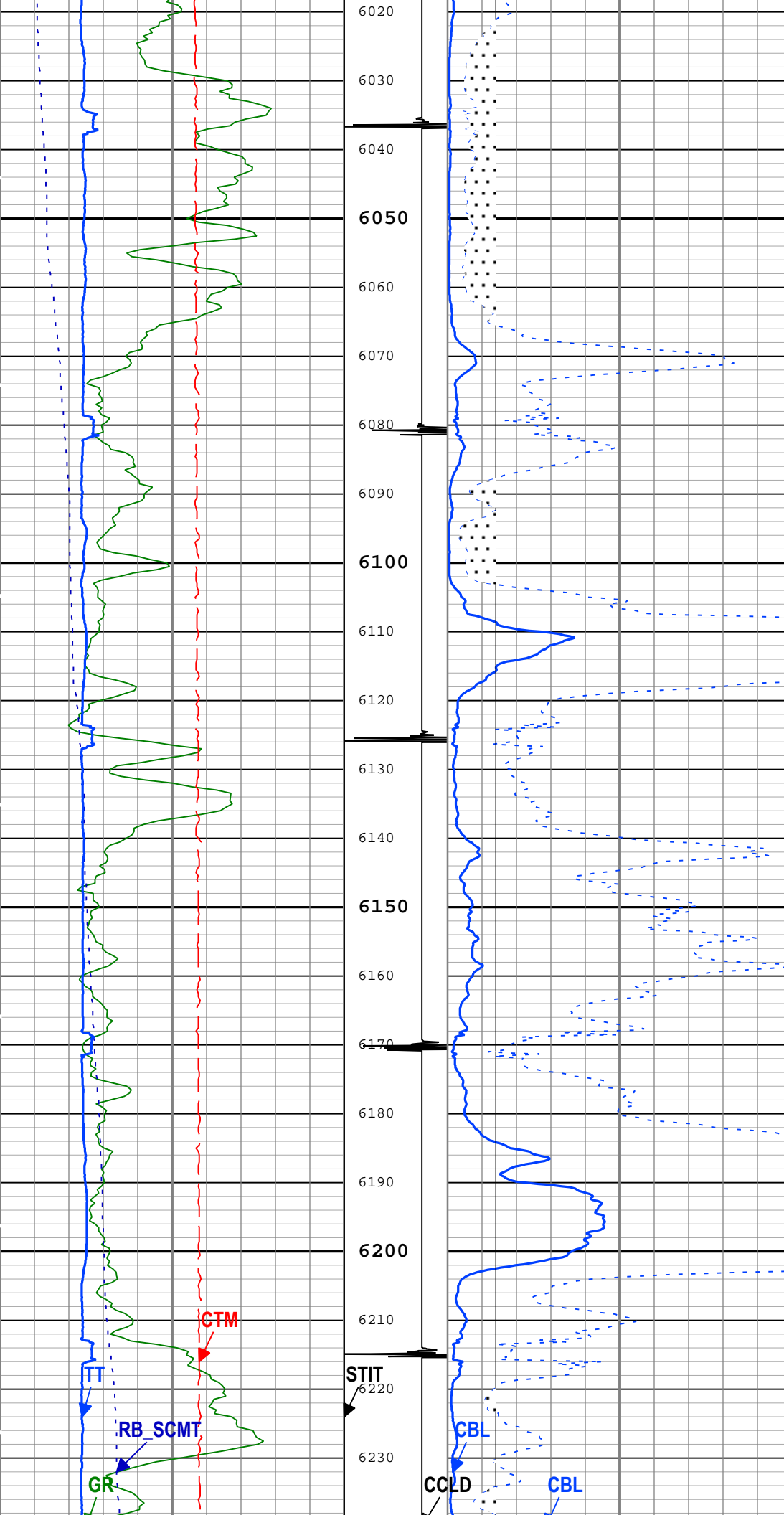


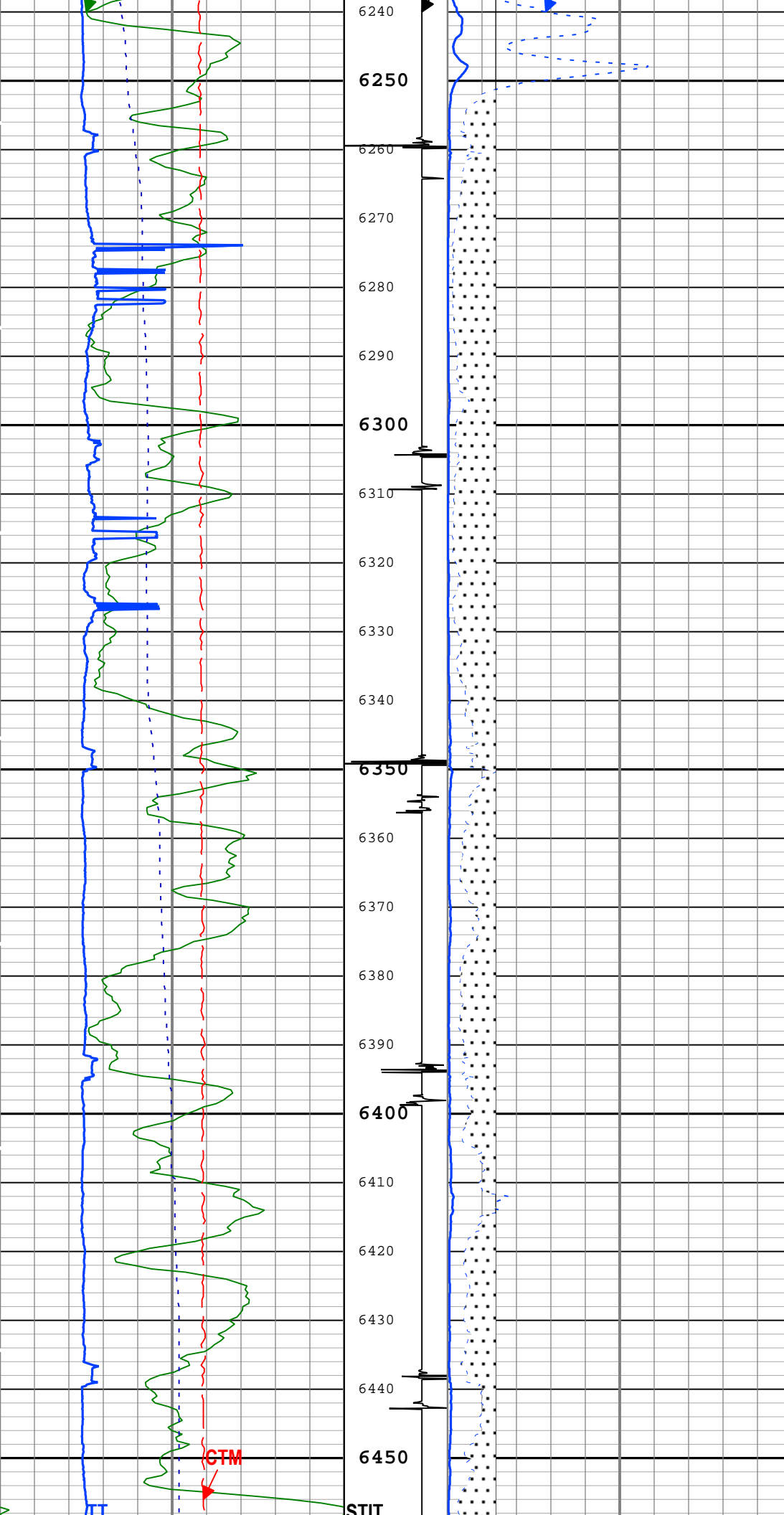


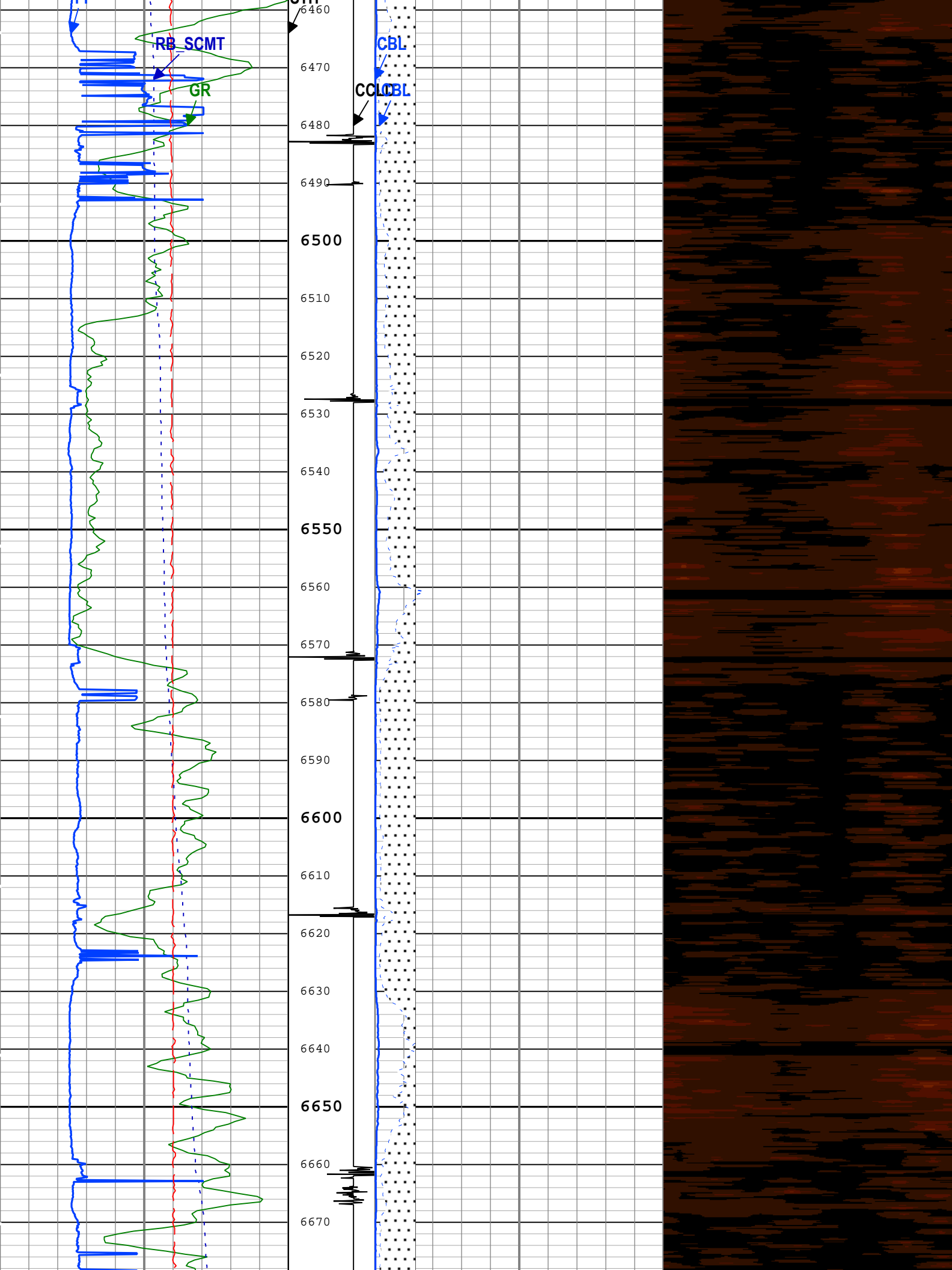


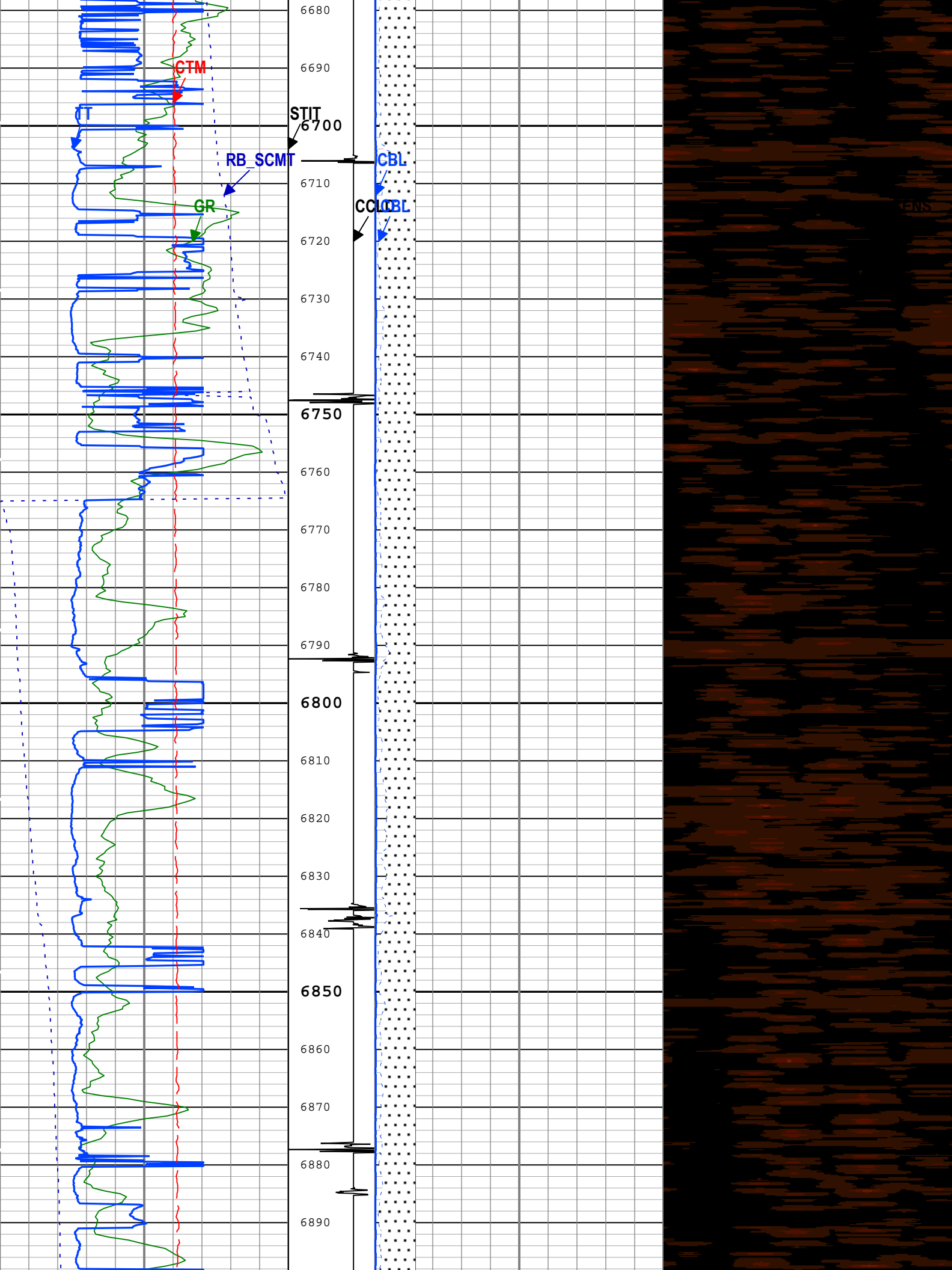


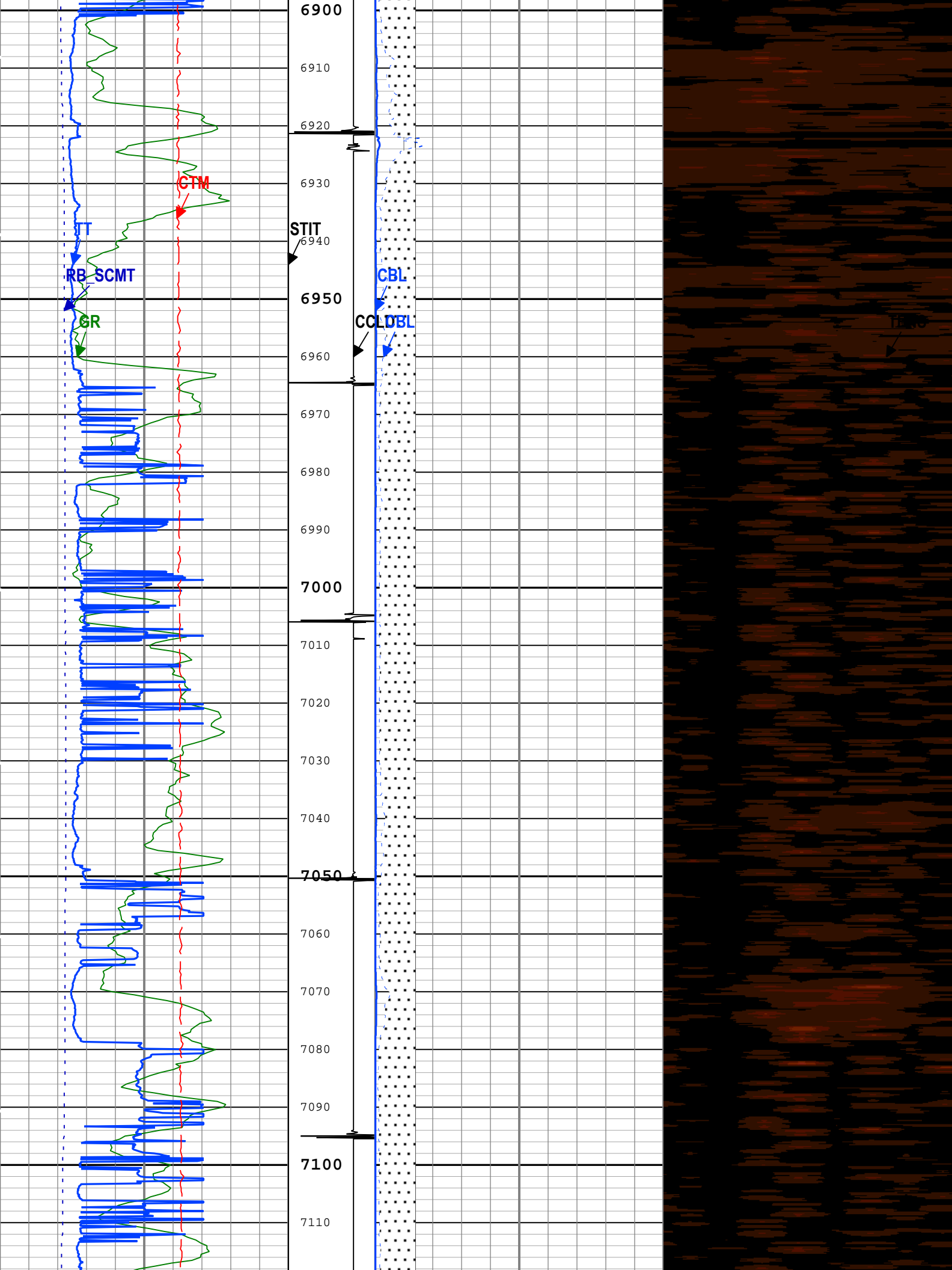


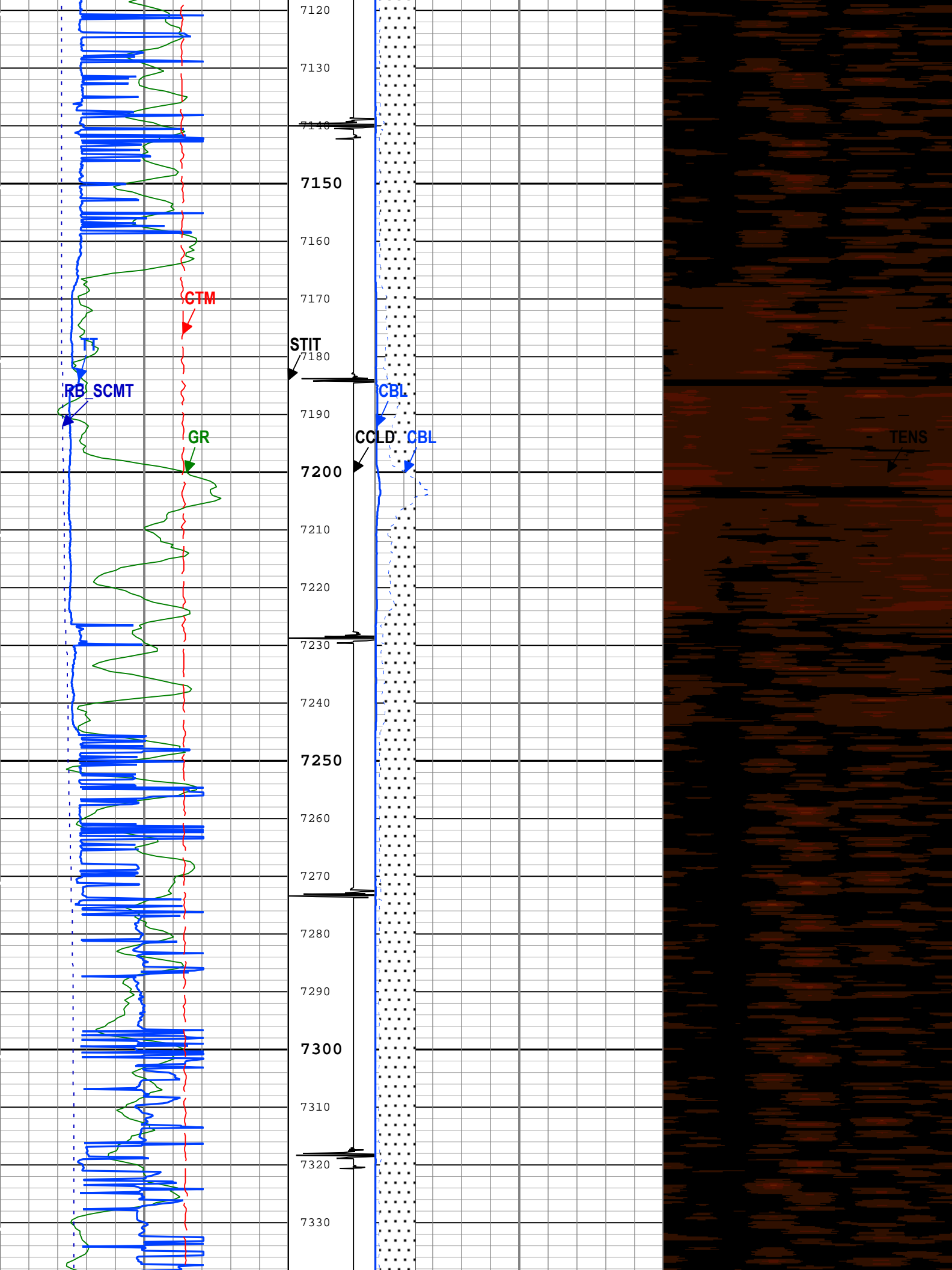




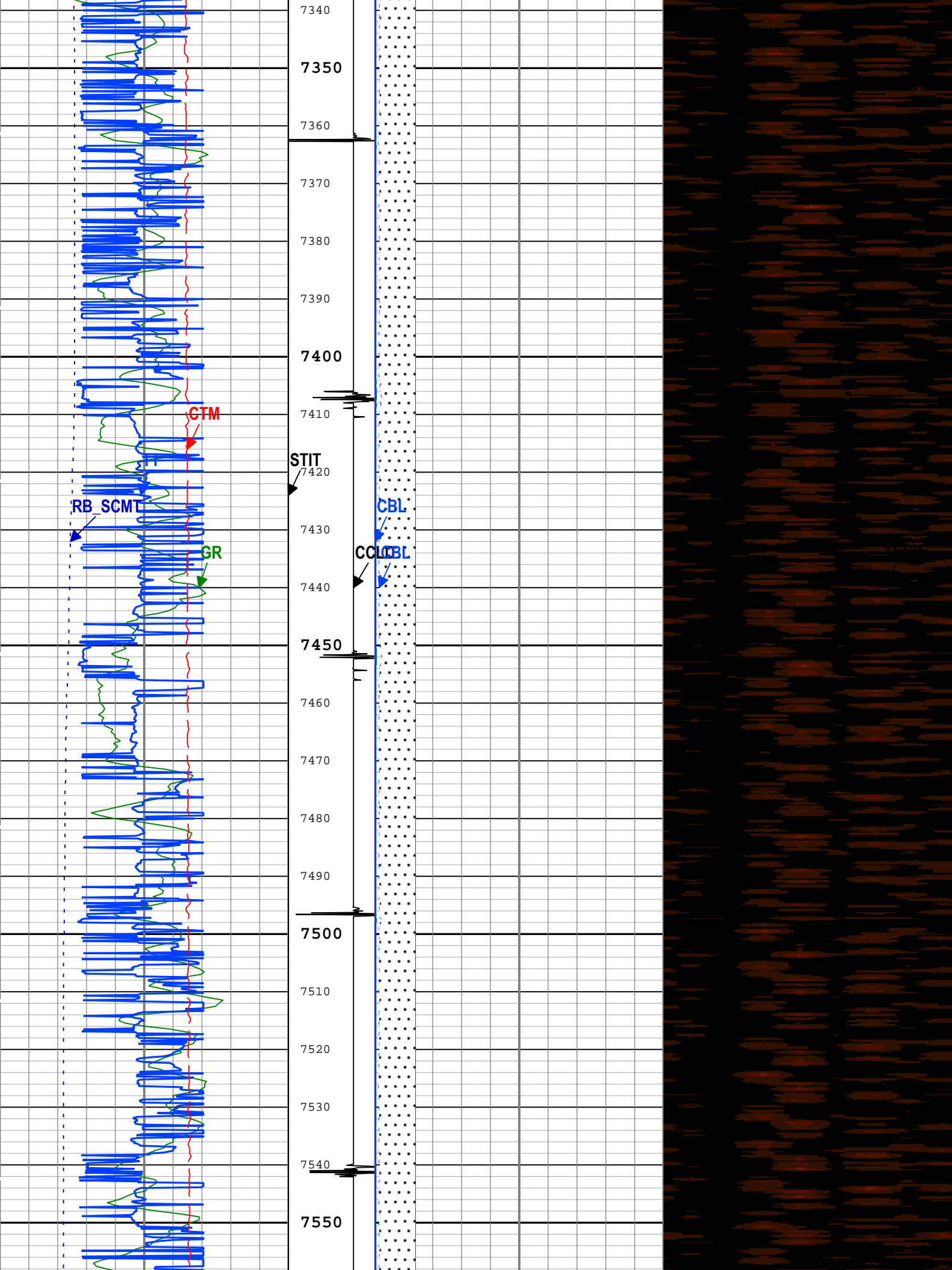


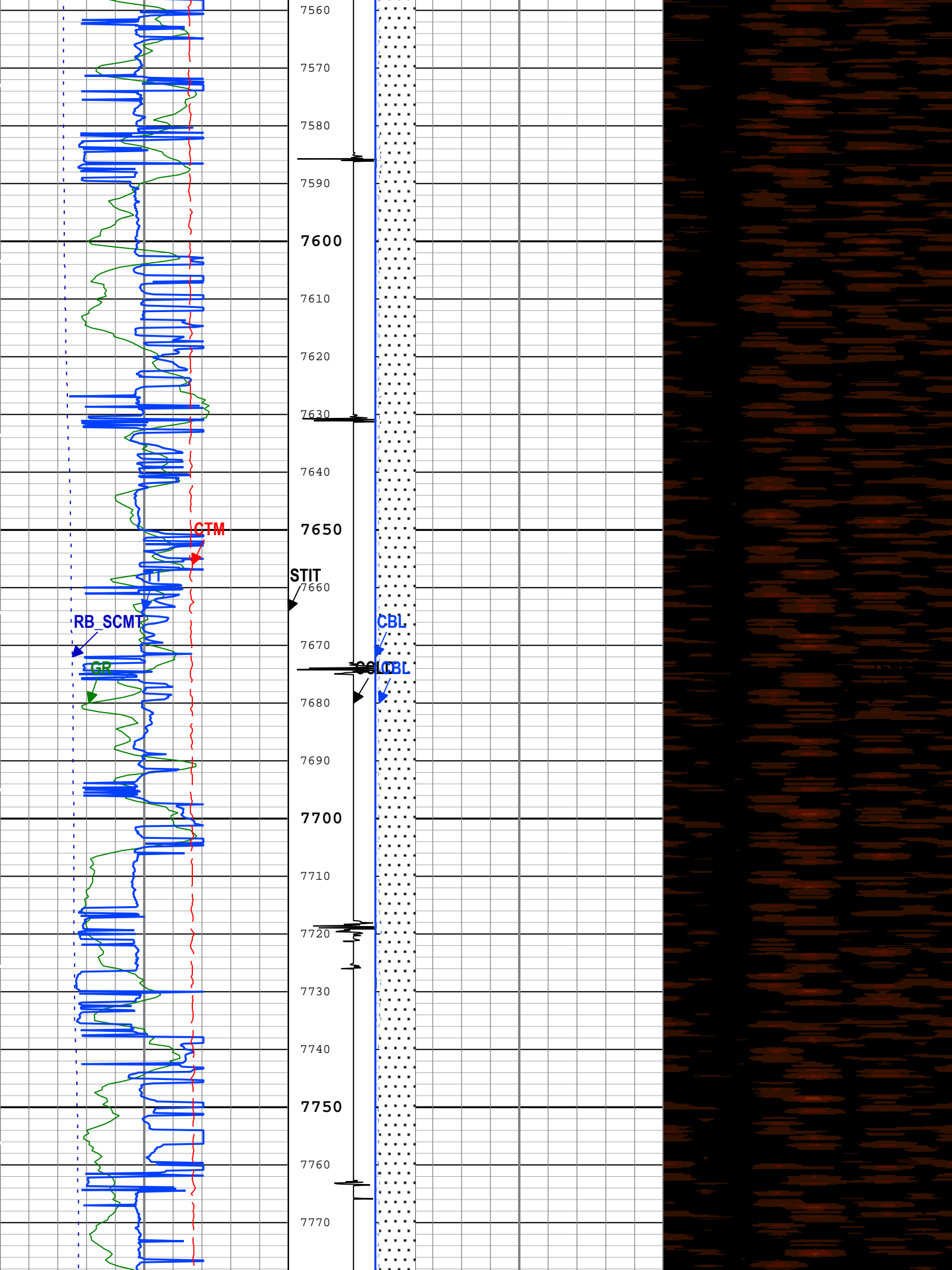


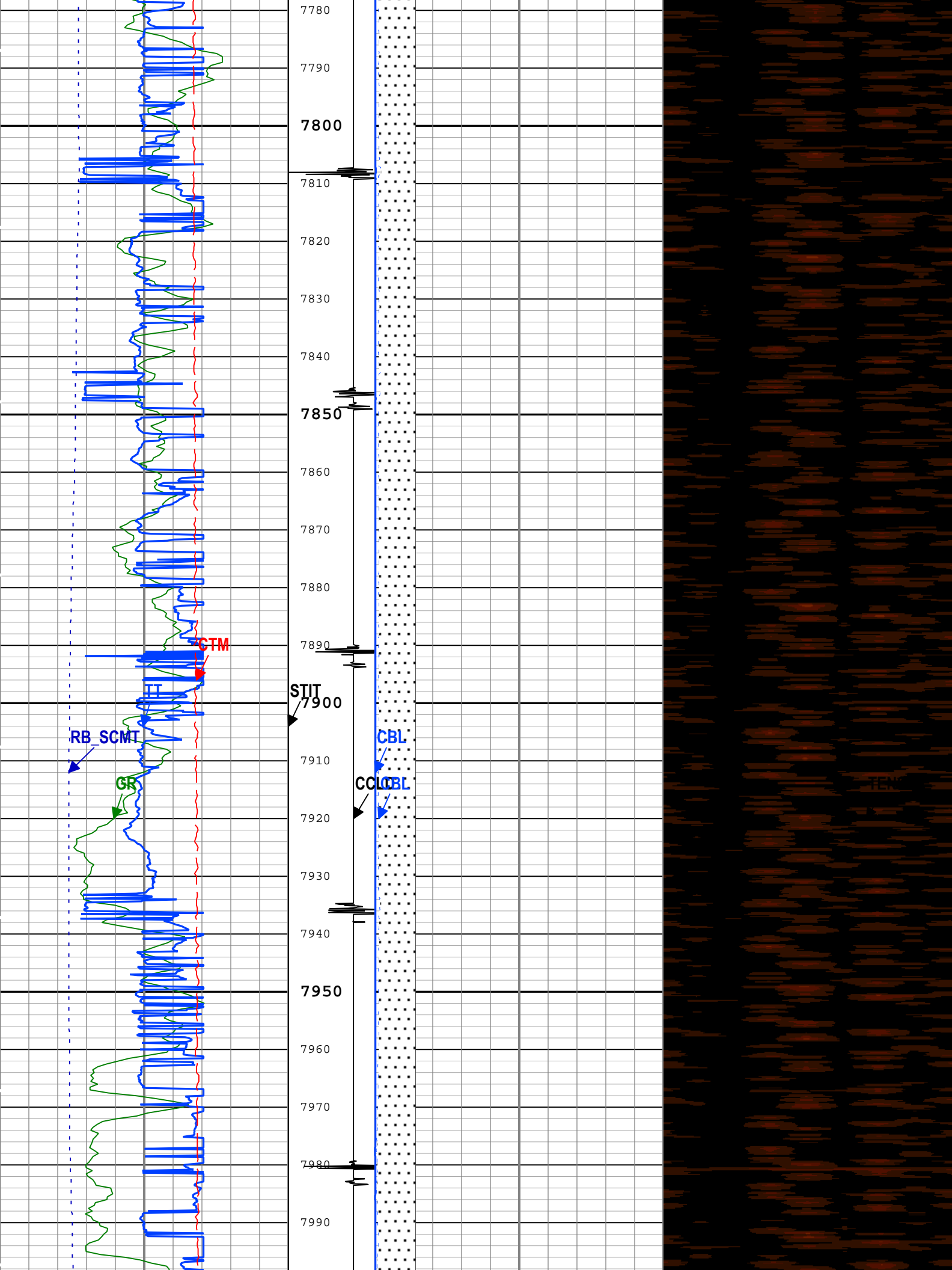


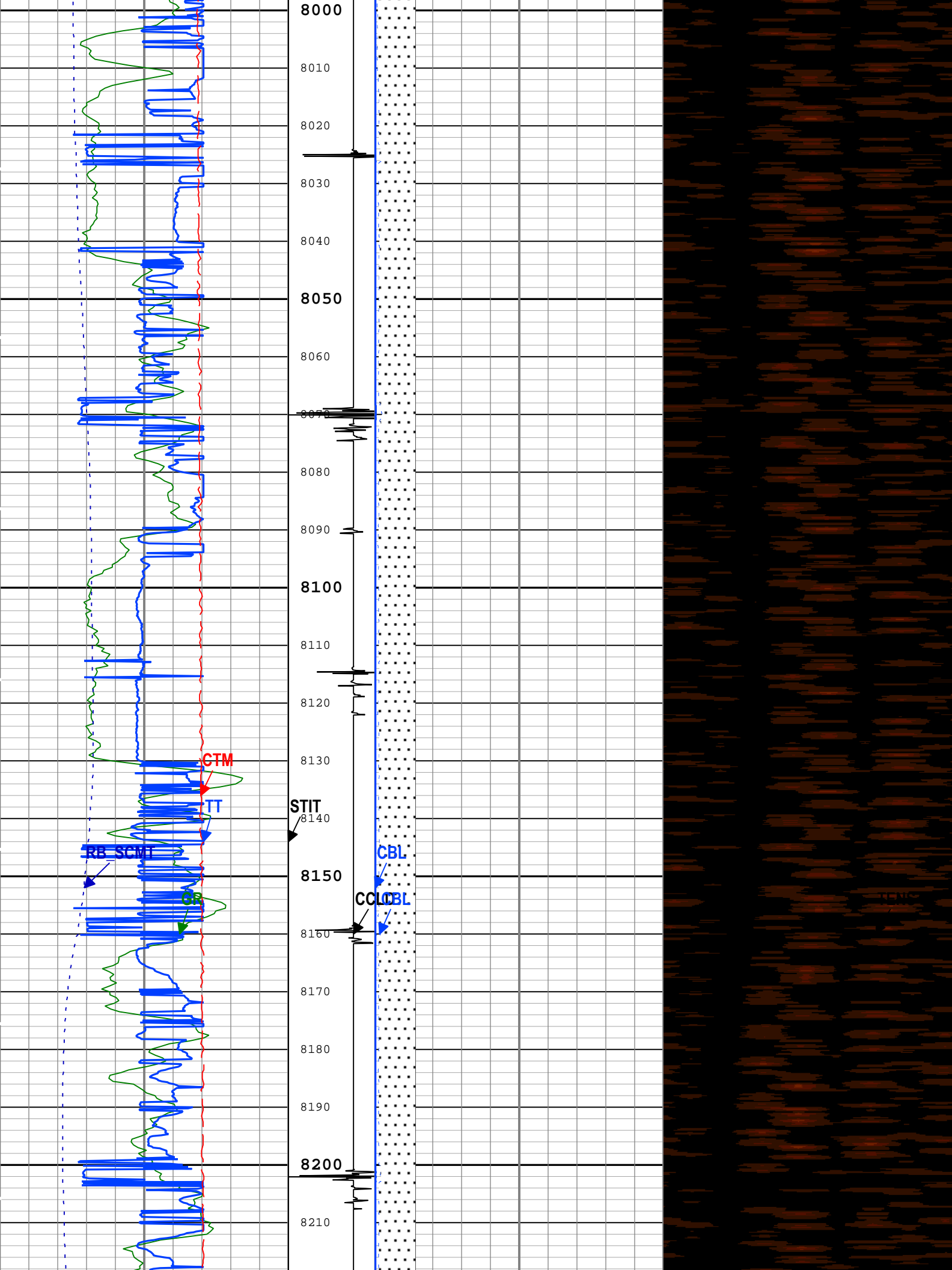


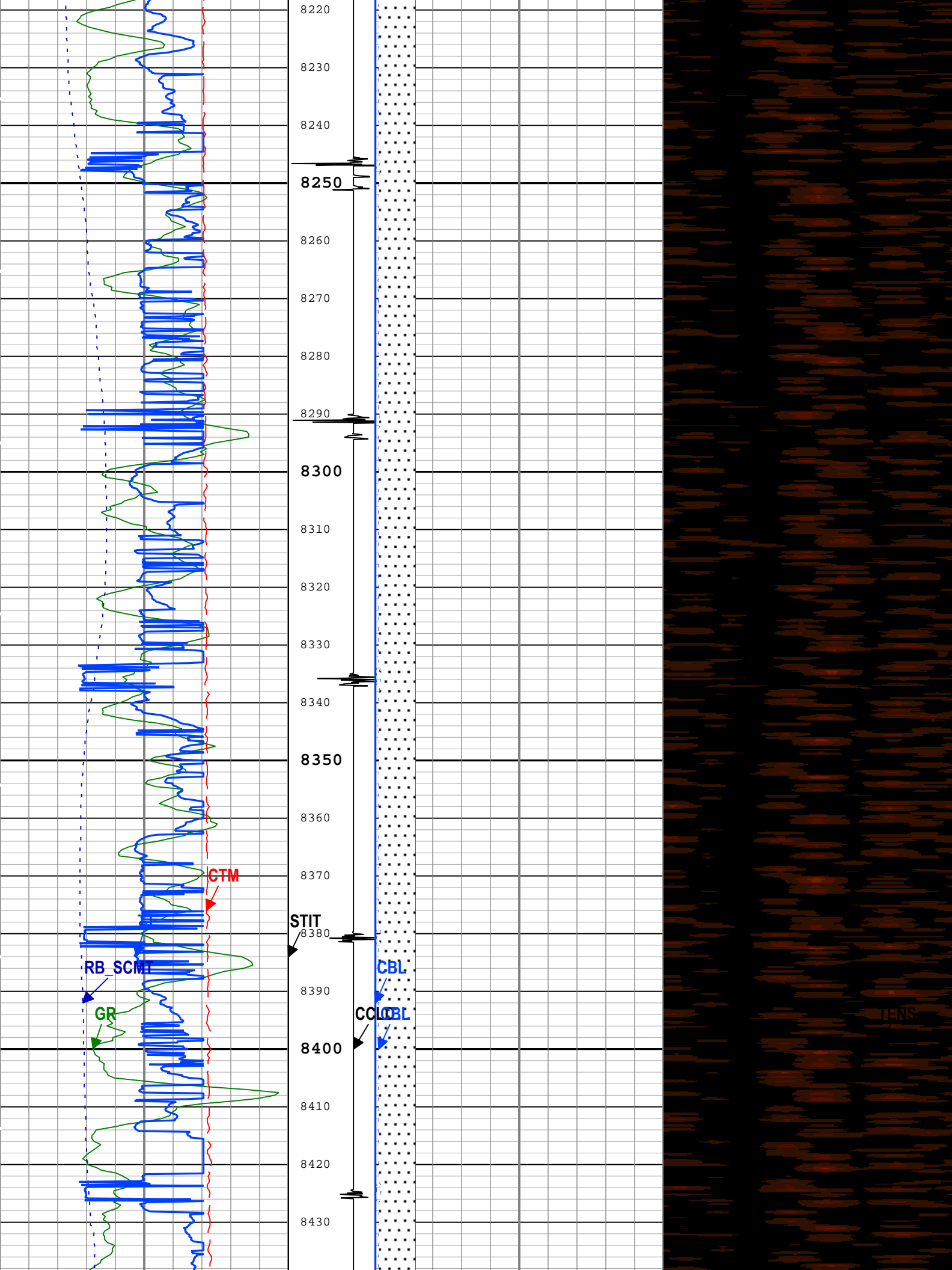


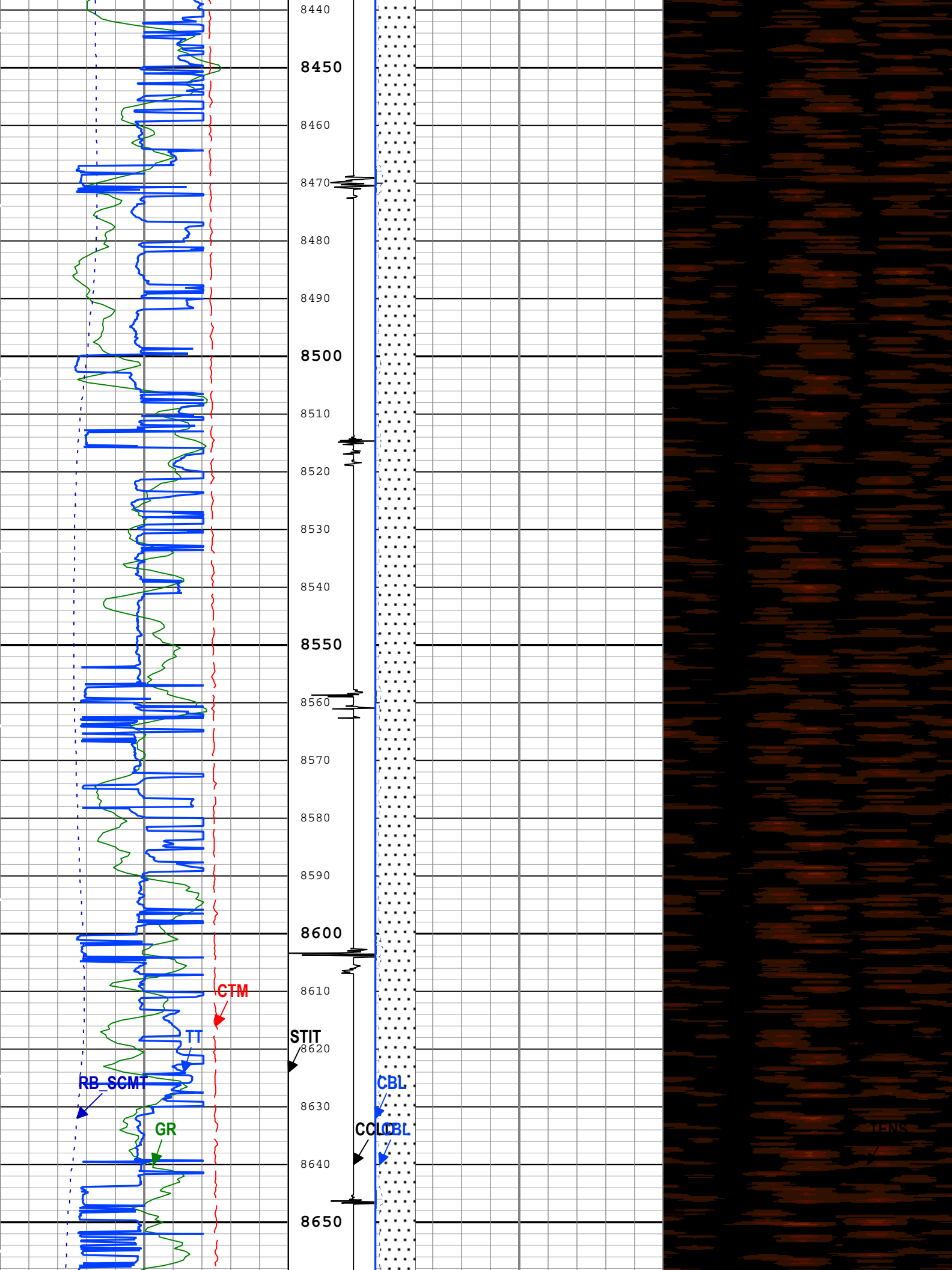


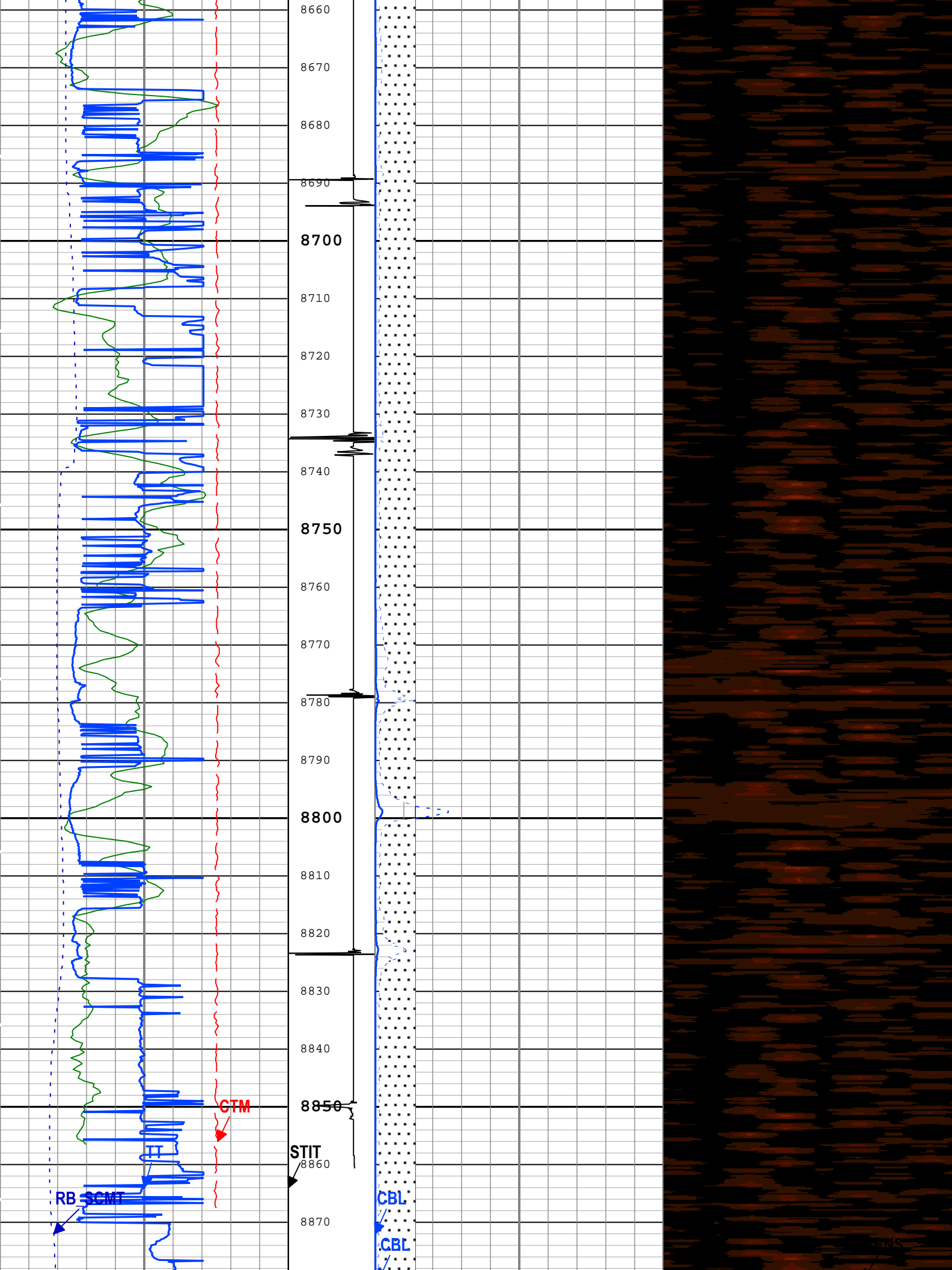


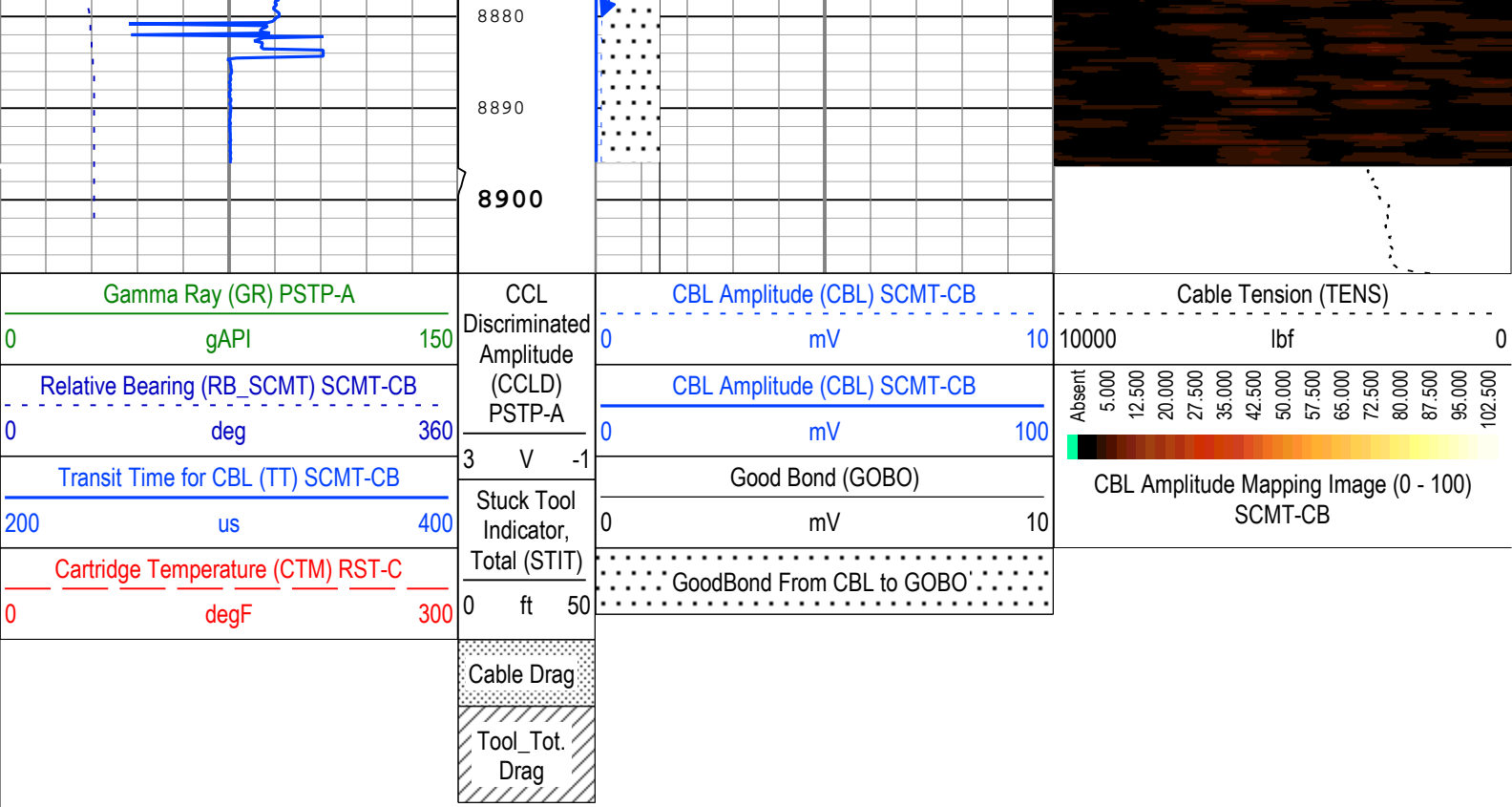












TIME\_1900 - Time Marked every 60.00 (s)

Description: SCMT Amplitudes and MAP Image    Format: Log ( SCMT\_Amp\_Image\_1 )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured  
Depth    Creation Date: 07-Aug-2015 11:18:20

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	238	degF
BILI	Bond Index Level for Zone Isolation	SCMT-CB	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	SCMT-CB	Peak	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	241	us
CB3T	SCMT CBL 3 ft Fixed Threshold Level	SCMT-CB	20	mV
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	80	mV
CMCF	CBL Cement Type Compensation Factor	SCMT-CB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	29	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8479	ft
ETEM	HP Estimated Temperature	PSTP-A	212	degF
FCF	CBL Fluid Compensation Factor	SCMT-CB	0.89	
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST	
M1EF	MAP sensitivity equalization factor of receiver 1	SCMT-CB	1	
M2EF	MAP sensitivity equalization factor of receiver 2	SCMT-CB	1	
M3EF	MAP sensitivity equalization factor of receiver 3	SCMT-CB	1	
M4EF	MAP sensitivity equalization factor of receiver 4	SCMT-CB	1	
M5EF	MAP sensitivity equalization factor of receiver 5	SCMT-CB	1	



M6EF	MAP sensitivity equalization factor of receiver 6	SCMT-CB	1	
M7EF	MAP sensitivity equalization factor of receiver 7	SCMT-CB	1	
M8EF	MAP sensitivity equalization factor of receiver 8	SCMT-CB	1	
MAPD	SCMT MAP Peak Detection Mode	SCMT-CB	Peak	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-CB	176	us
MAPT	SCMT MAP Fixed Threshold Level	SCMT-CB	30	mV
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	10.14	dB/ft
MCCF	MAP Cement Type Compensation Factor	SCMT-CB	0.25	
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MMSA	MAP Minimum Sonic Amplitude	SCMT-CB	3.98	mV
MSA	Minimum Sonic Amplitude	SCMT-CB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	4.41	mV
PTCO	PBMS Pressure Temperature Correction Option	PSTP-A	Gauge Temperature	
PDAT	Permanent Datum	WLSESSION	GL	
RBC	Relative Bearing Correction Allow/Disallow	SCMT-CB	Allow	
RUN_SNUM	Run Sequence Number	WSDRUN	1	
SHT	Surface Hole Temperature	Borehole	68	degF
TD	Total Measured Depth	Borehole	8999	ft
ZCMT	Acoustic Impedance of Cement	SCMT-CB	3.4	Mrayl
ZCMT_NEAT	Acoustic Impedance of Cement in Neat Cement	SCMT-CB	6.8	Mrayl

Depth Zone Parameters

Parameter	Value	Start ( ft )	Stop ( ft )
MCI	14.81	2445.5	2537
MCI	1.25	2537	8908

All depth are actual.

Tool Control Parameters

ONE: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	36 dB	
RST_DLM	Depth Log Mode	RST-C	Sigma	
RST_SLM	Station Log Mode	RST-C	Off	
RST_WDET	RST WFL Detectors List	RST-C	[,,,,,,,,,,,,,,]	

ONE

Repeat Pass 0 PSI

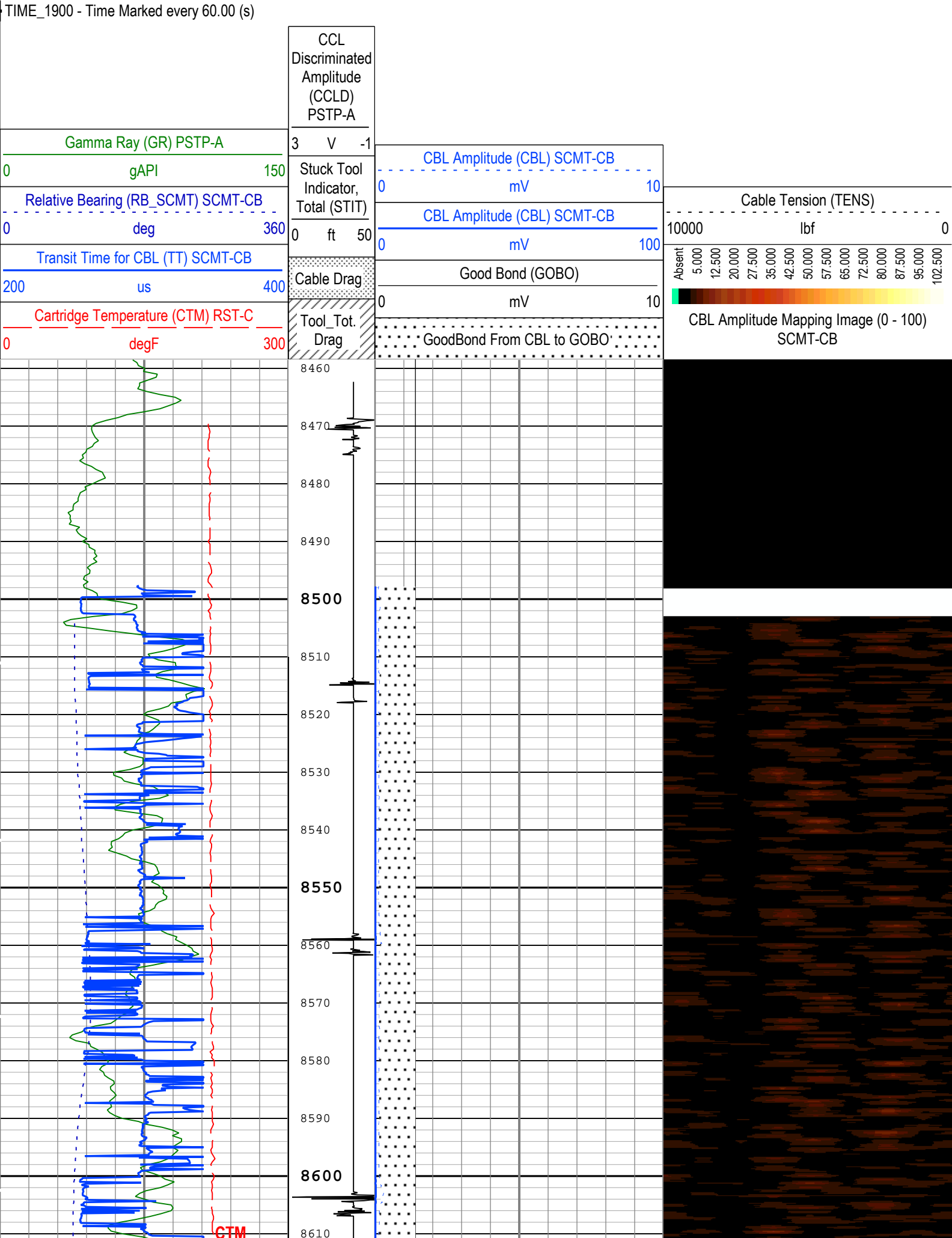
Software Version

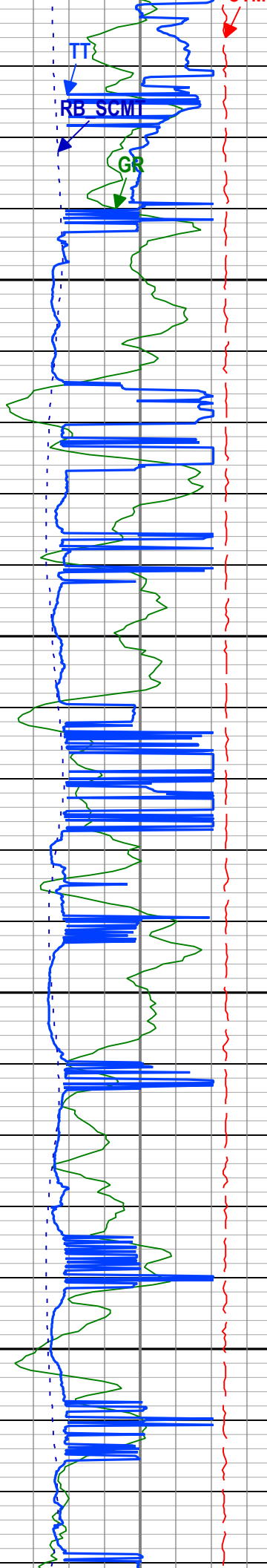
Acquisition System	Version
Maxwell 2016	6.0.47569.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Repeat[3]:Up	Up	8509.61 ft	8910.61 ft	24-Jul-2015 4:13:18 PM	24-Jul-2015 4:28:03 PM	ON	2.86 ft	Yes

All depths are referenced to toolstring zero





STIT  
8620

8630

8640

8650

8660

8670

8680

8690

8700

8710

8720

8730

8740

8750

8760

8770

8780

8790

8800

8810

8820

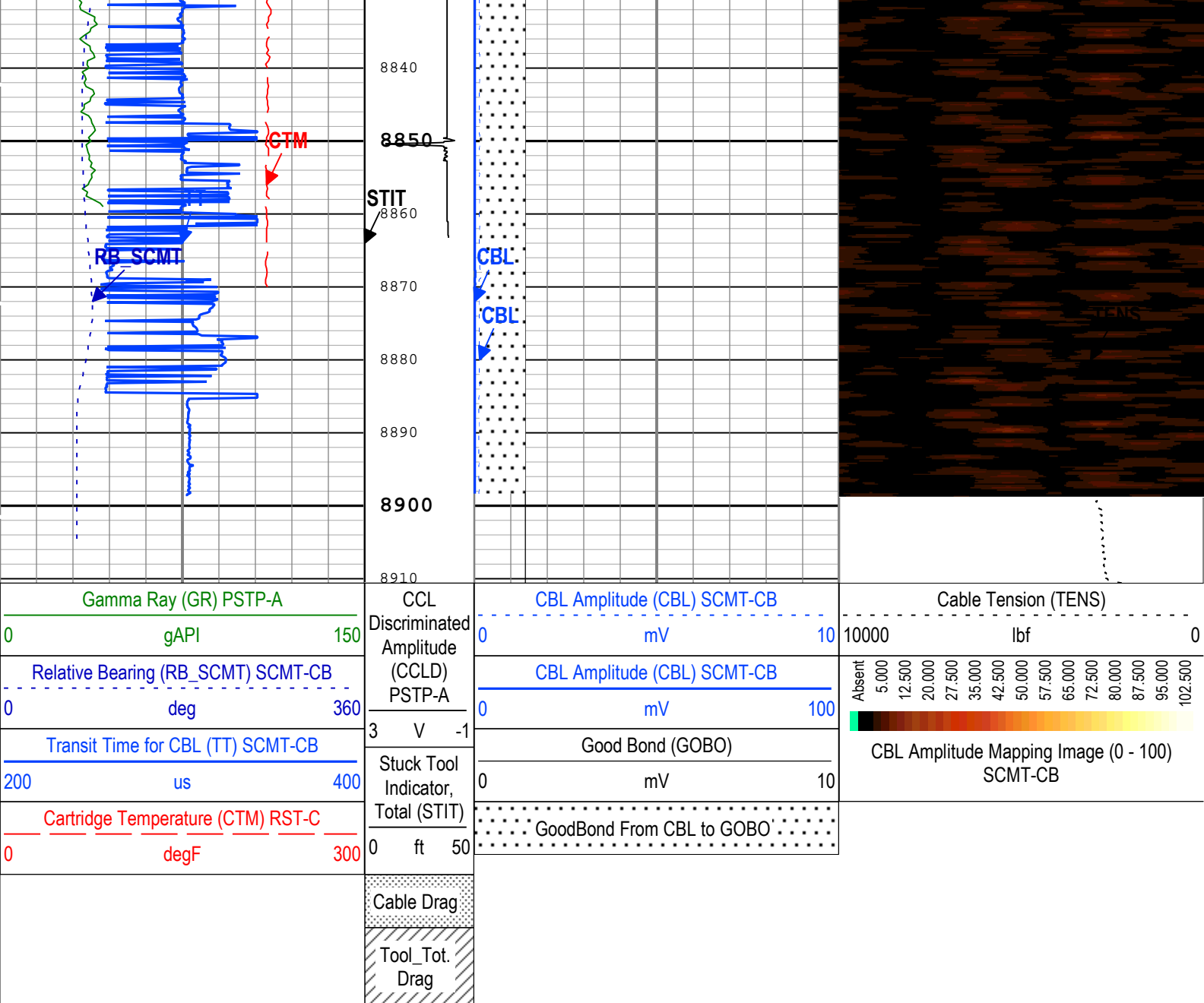
8830

CBL

CCL

CBL

CBL

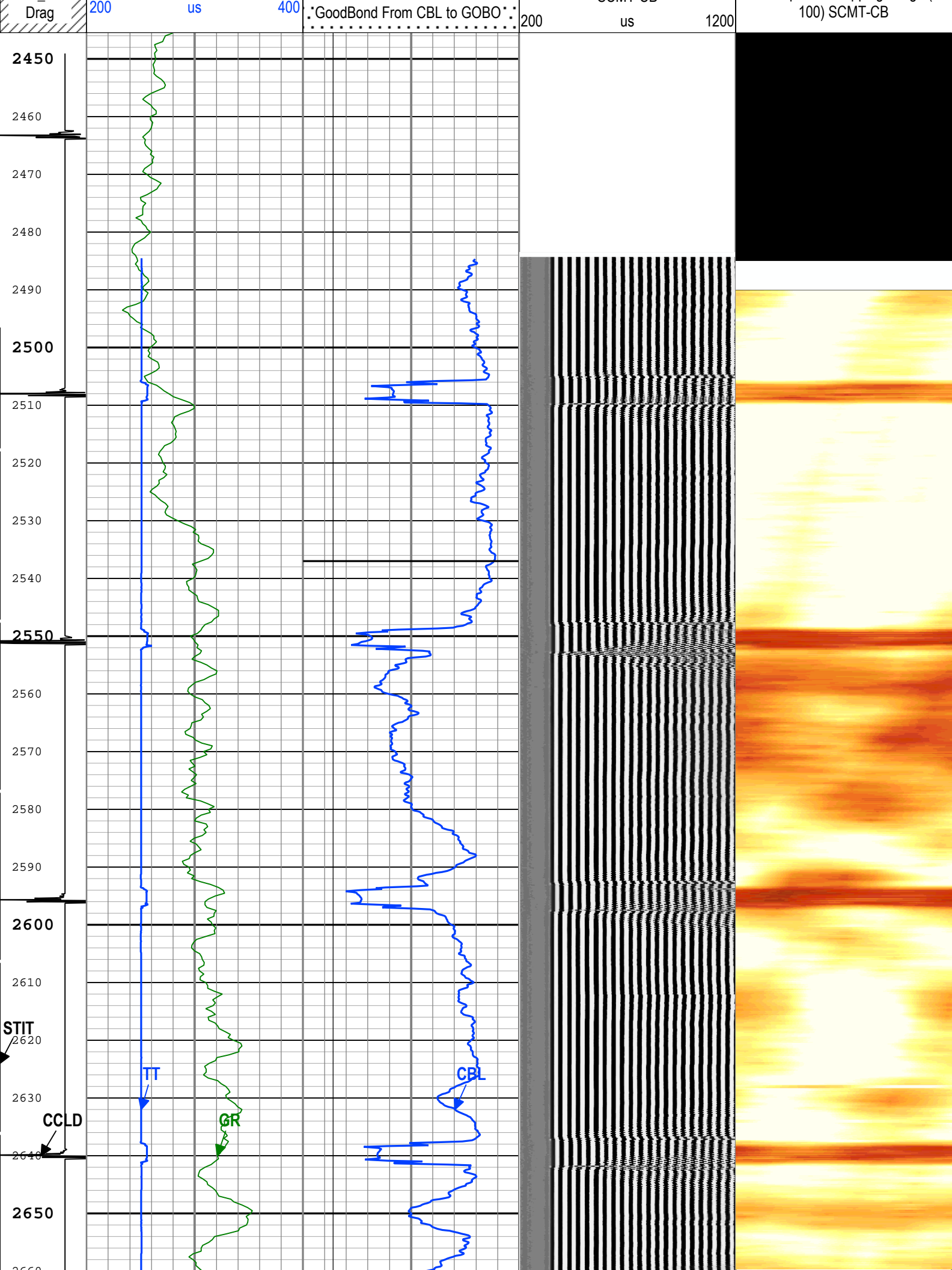


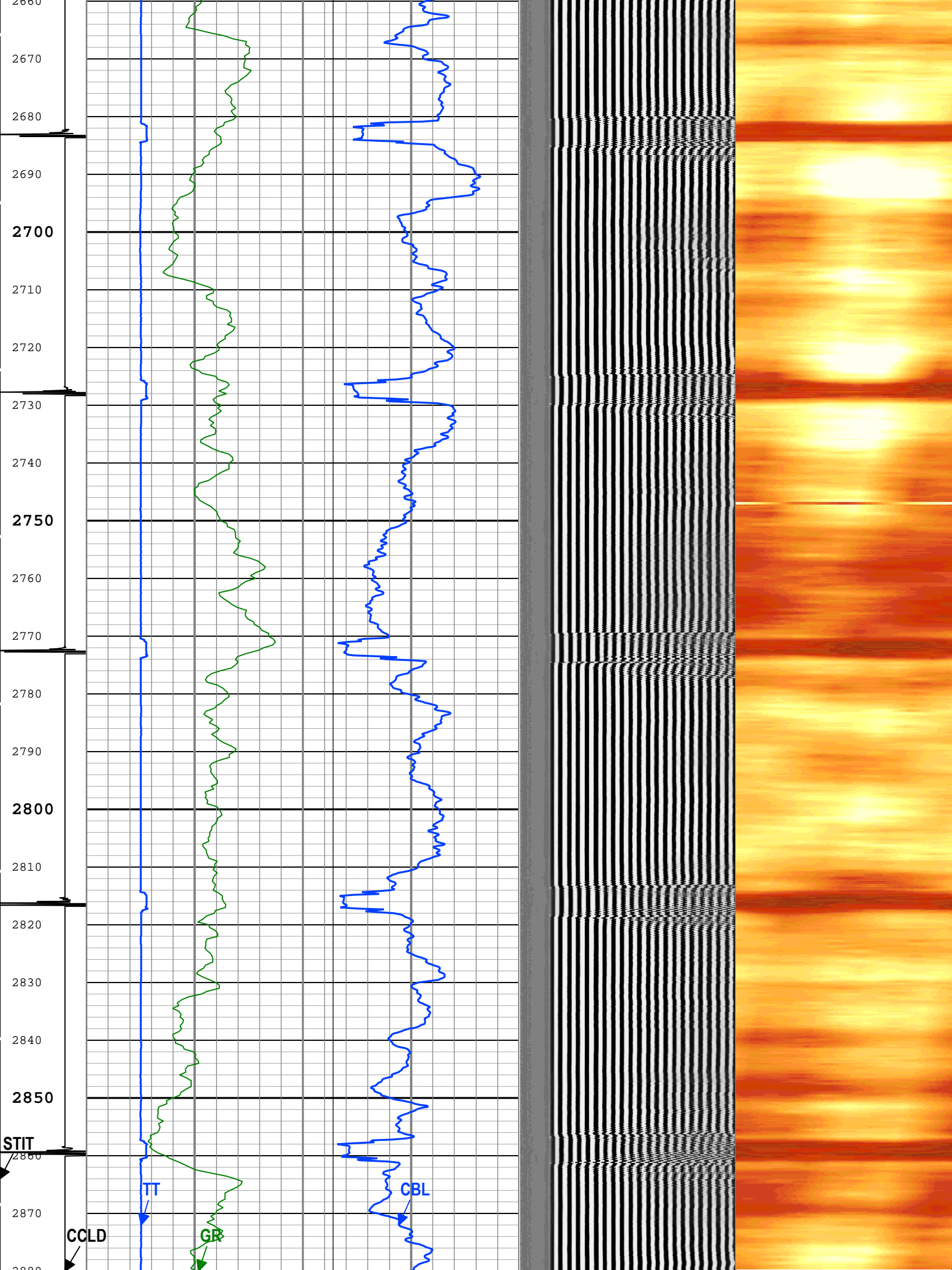
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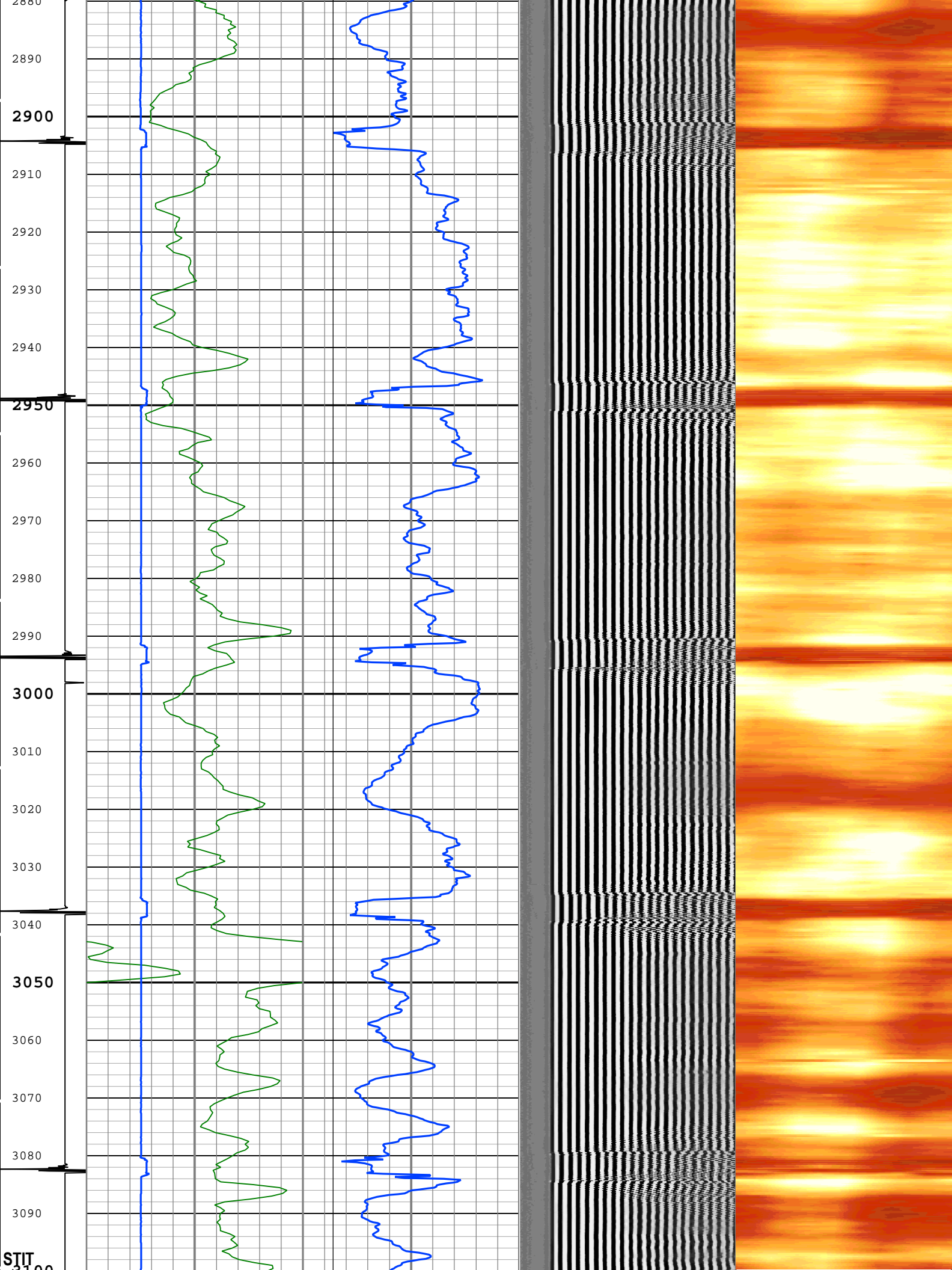
Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
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CMCF	CBL Cement Type Compensation Factor	SCMT-CB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	29	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8479	ft
FCF	CBL Fluid Compensation Factor	SCMT-CB	0.89	
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft



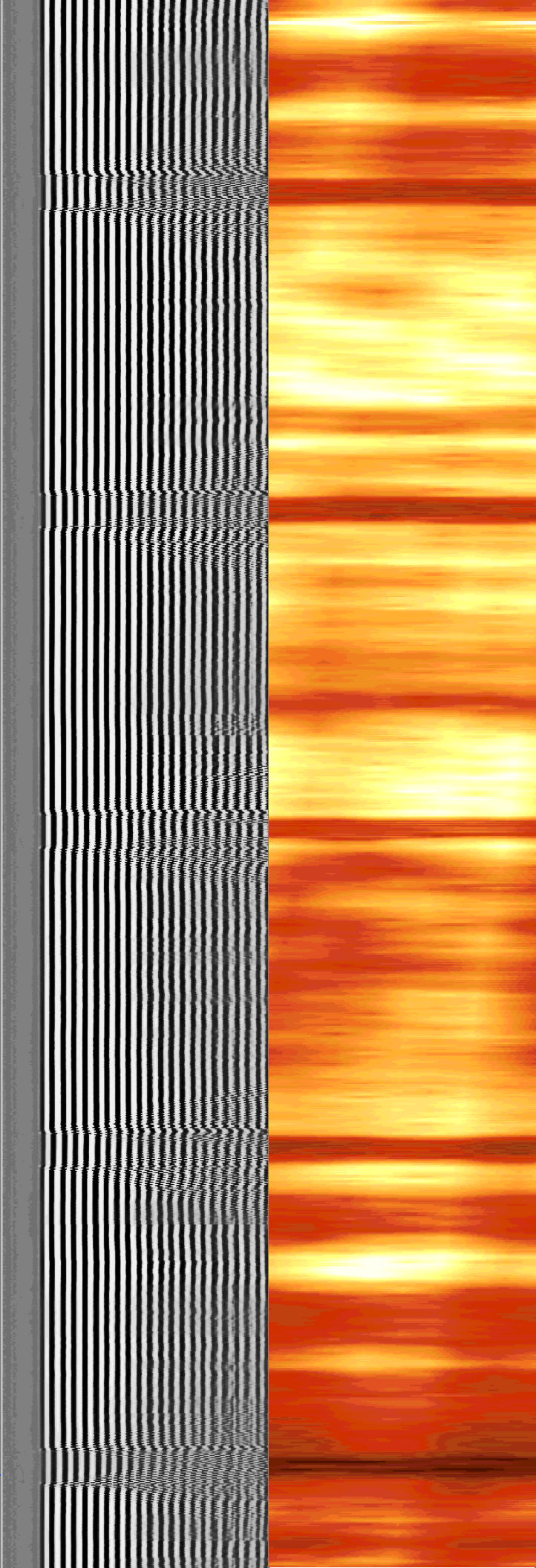
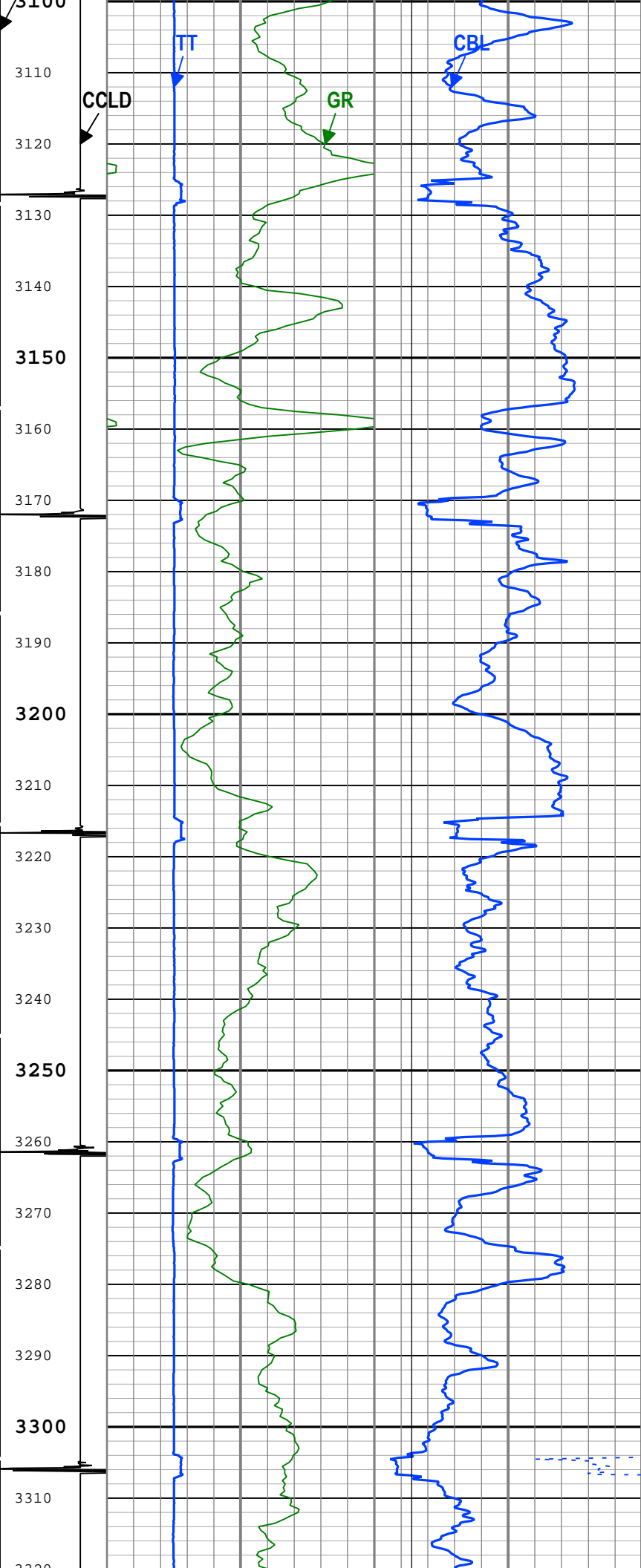


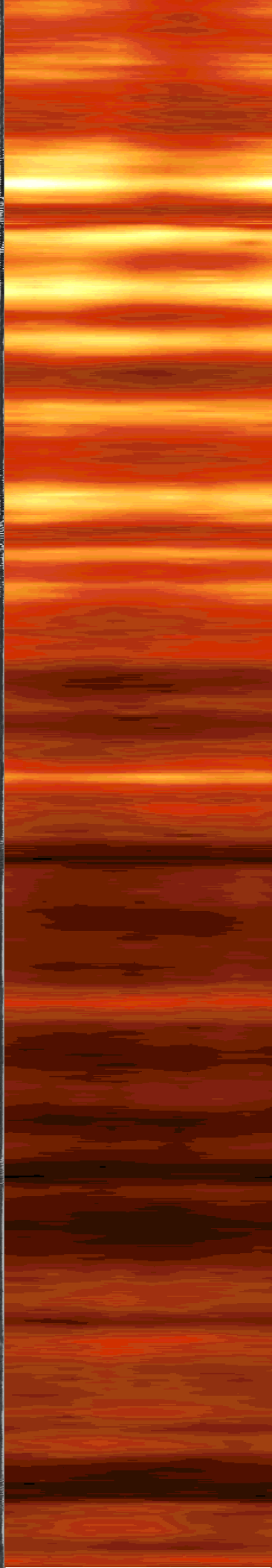
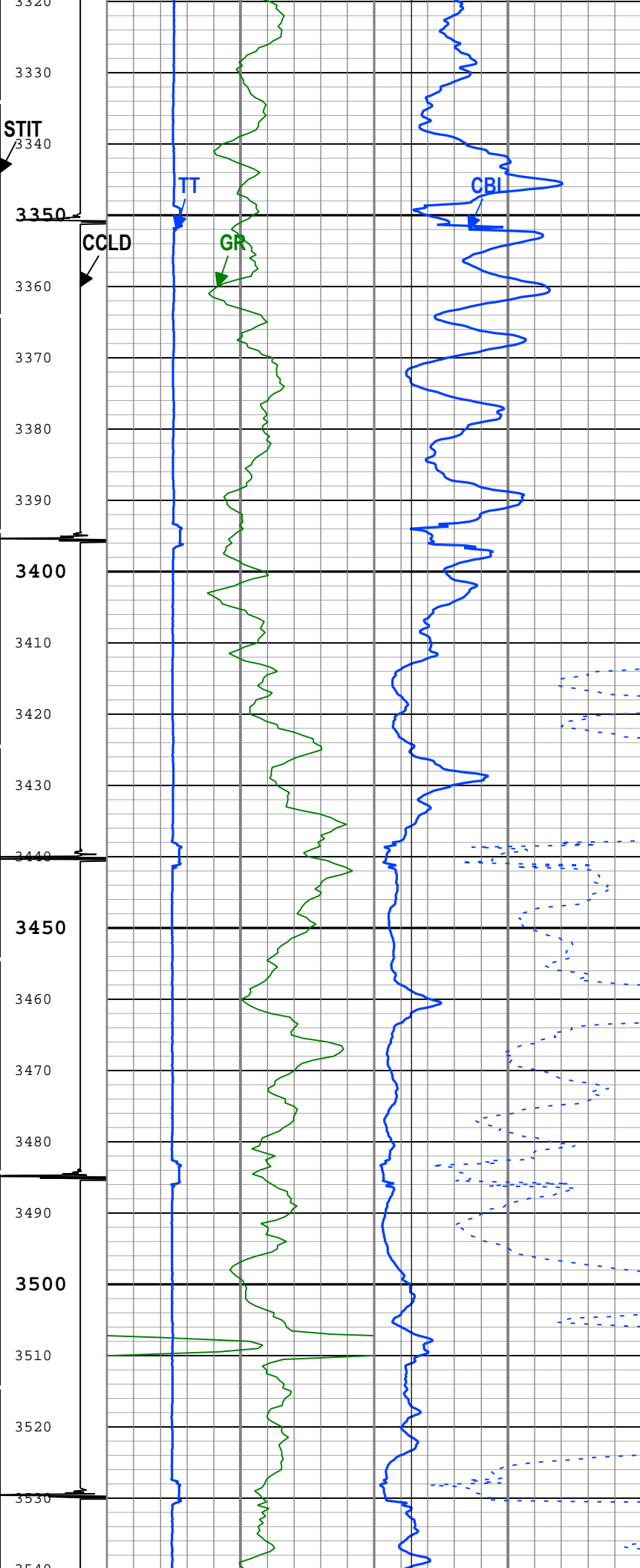


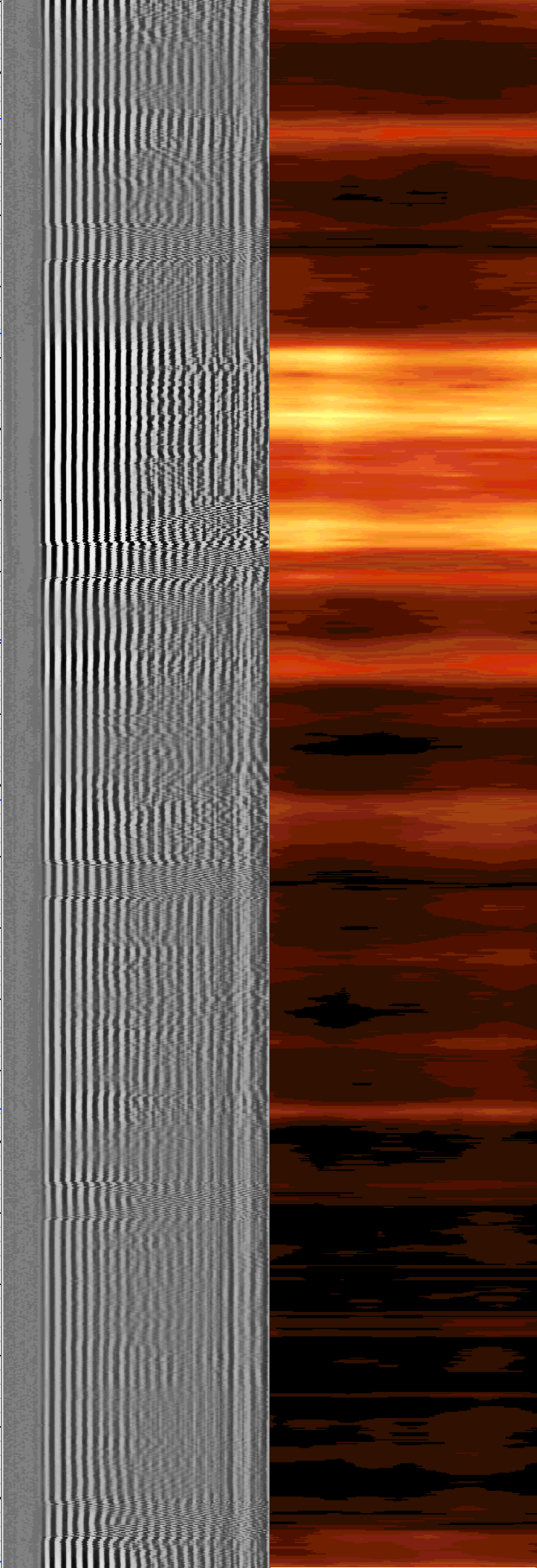
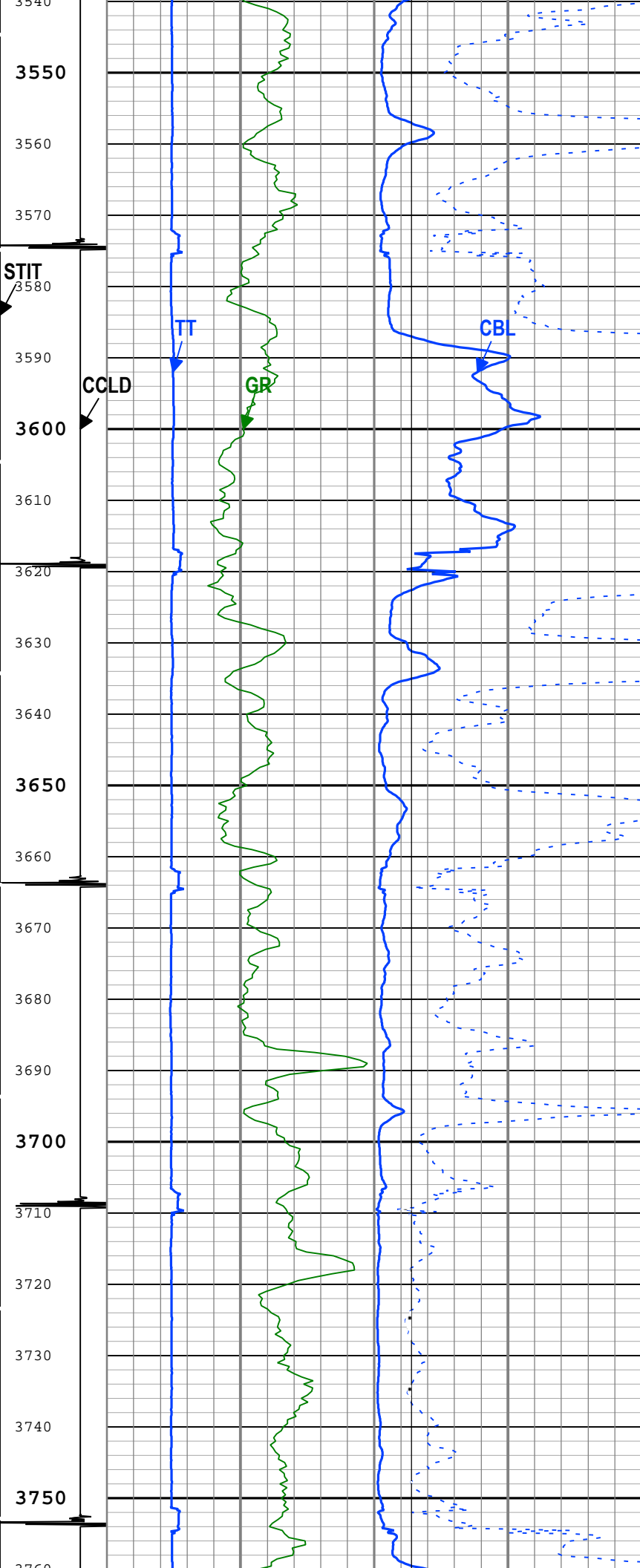




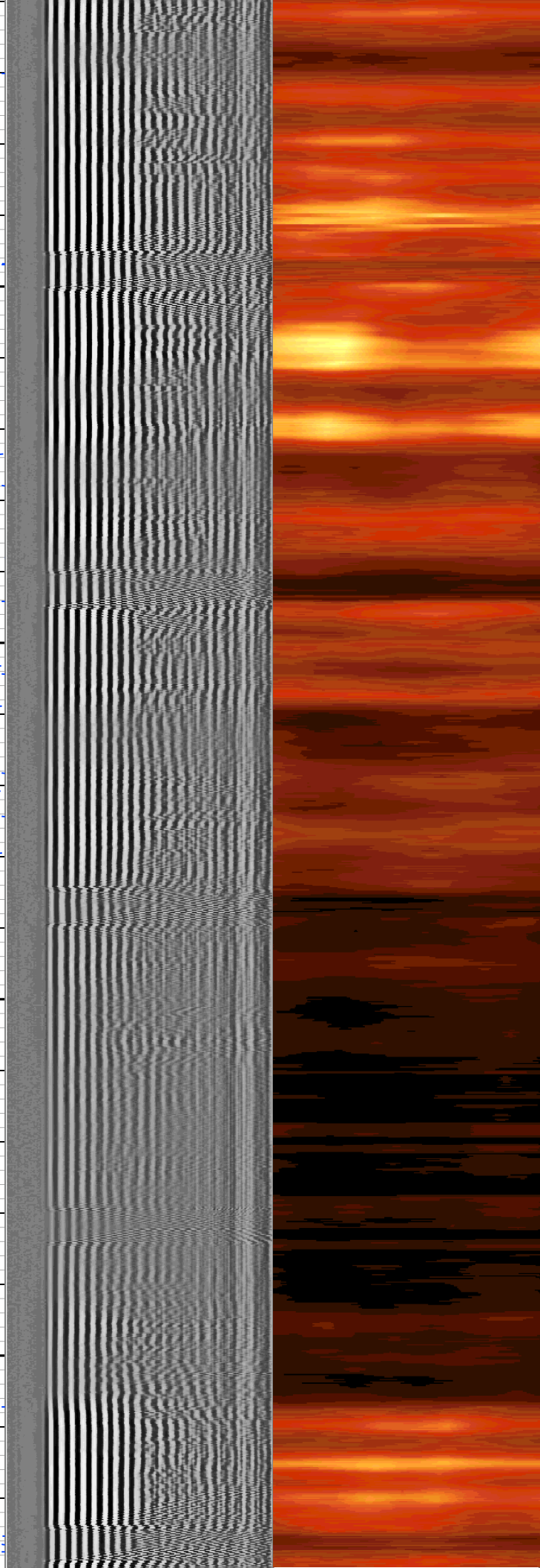
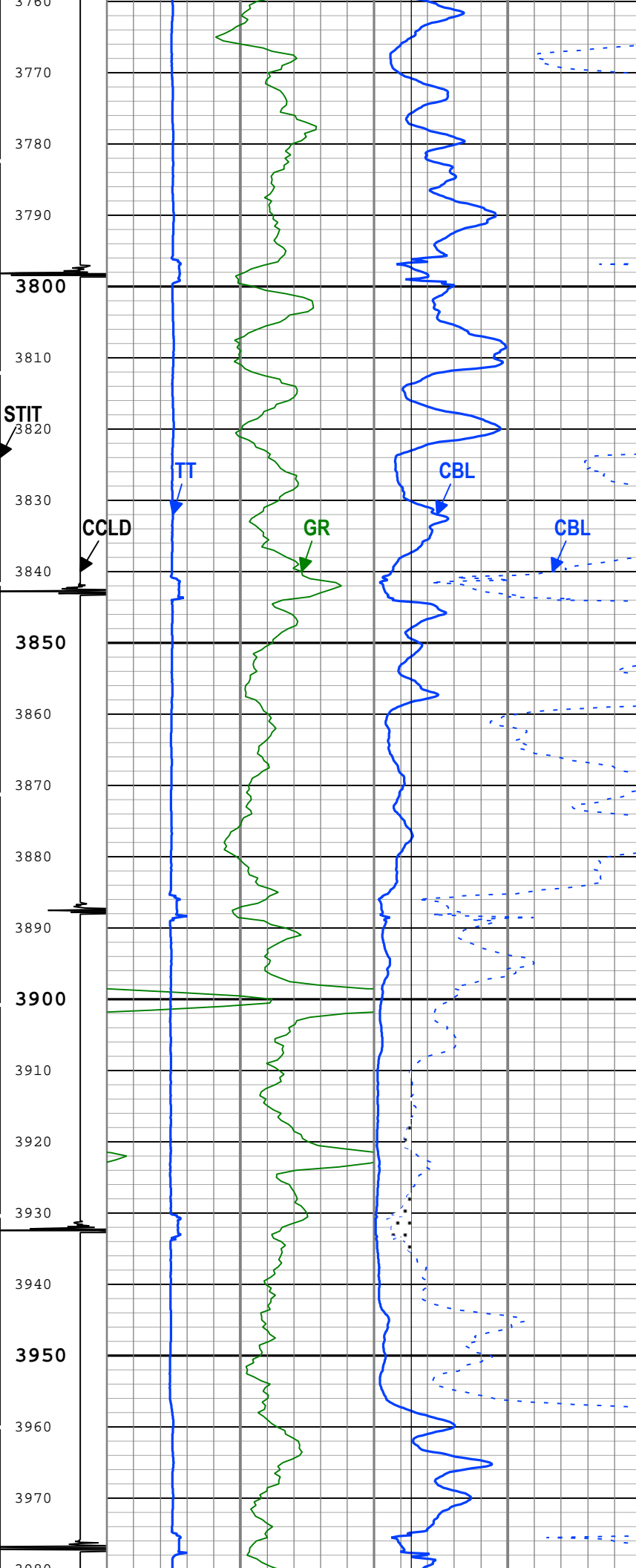


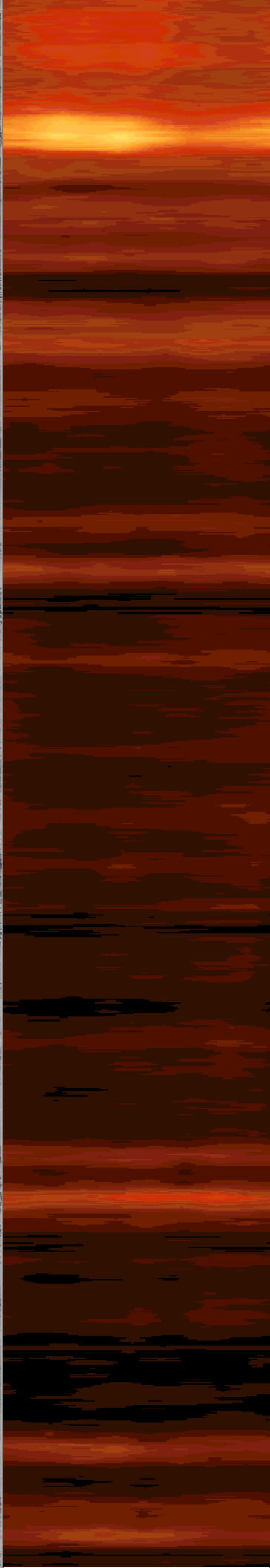
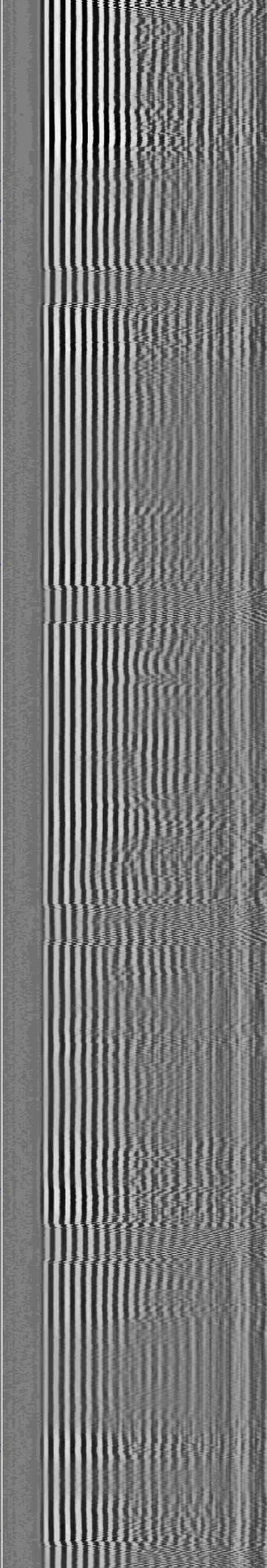
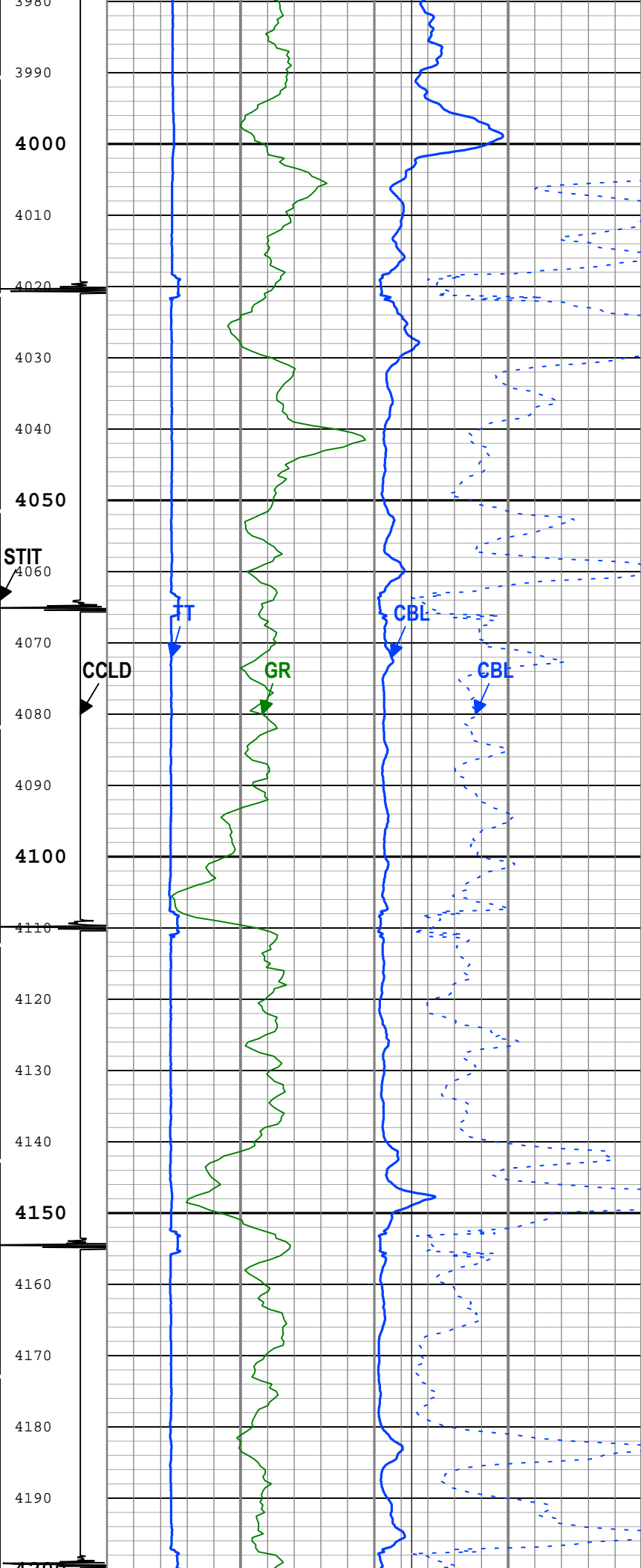


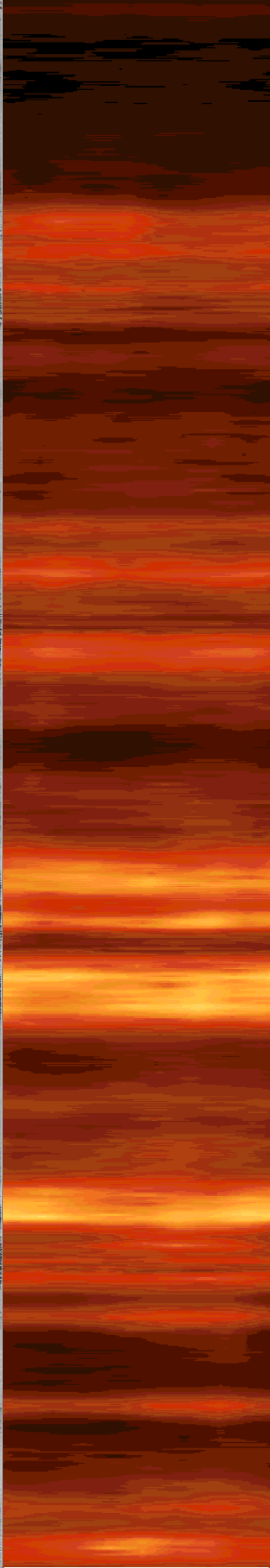
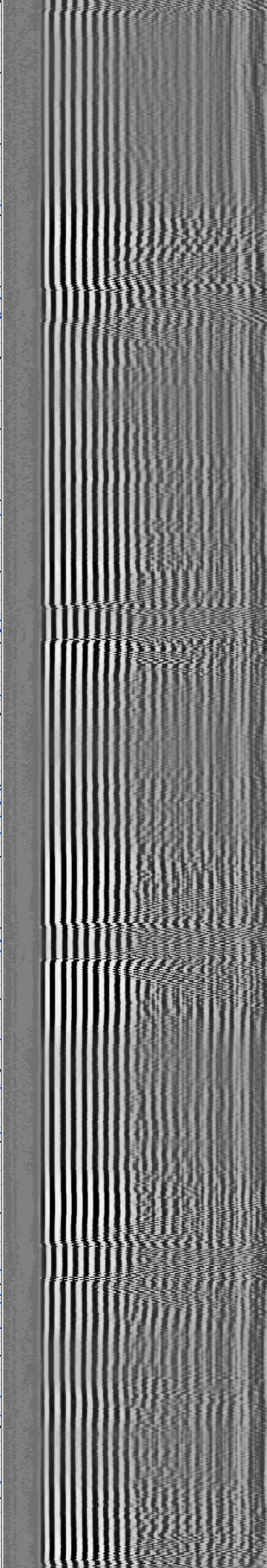
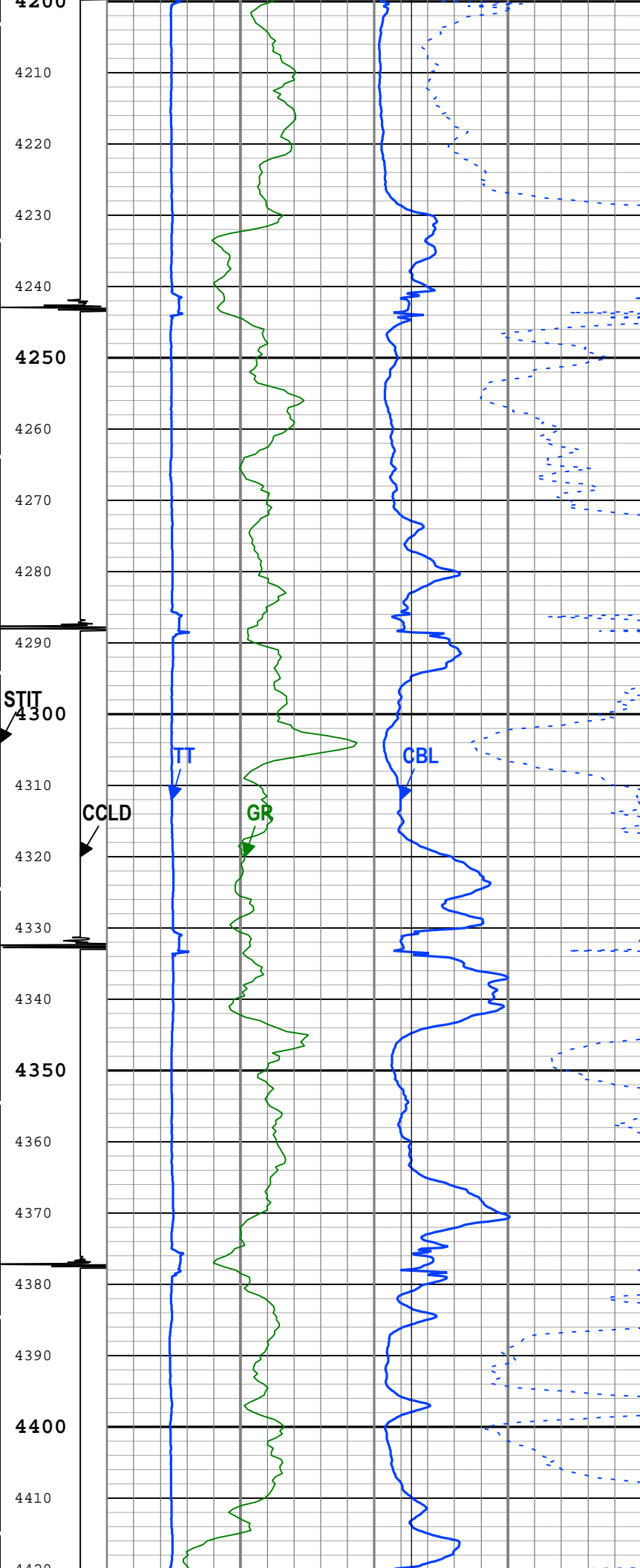




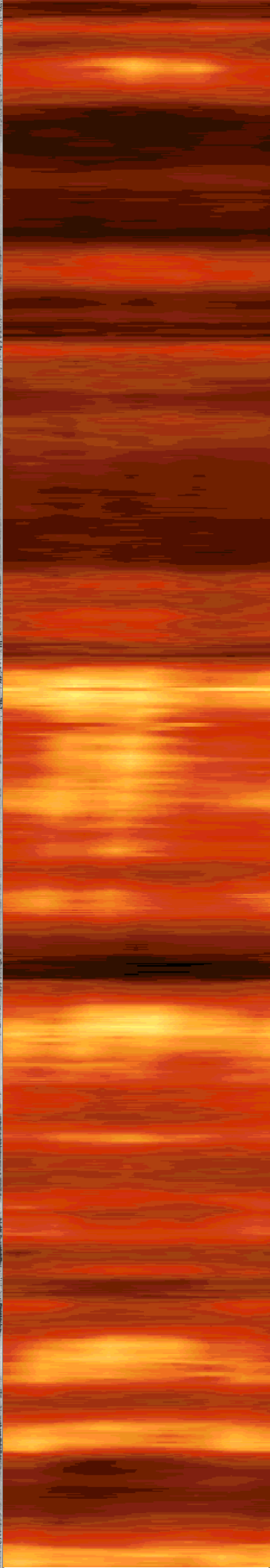
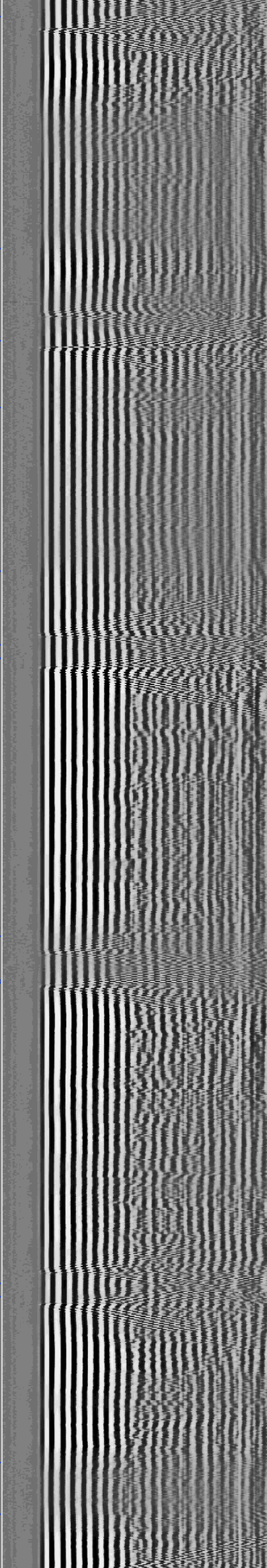
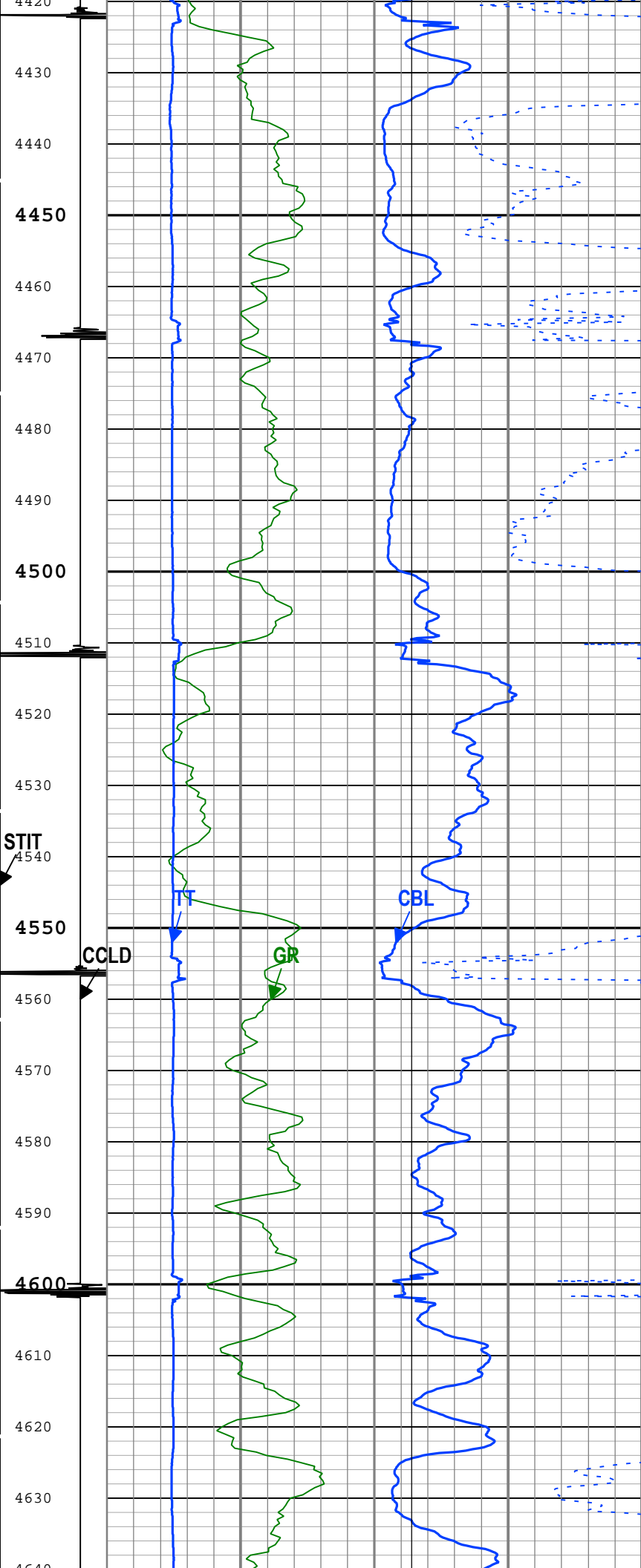


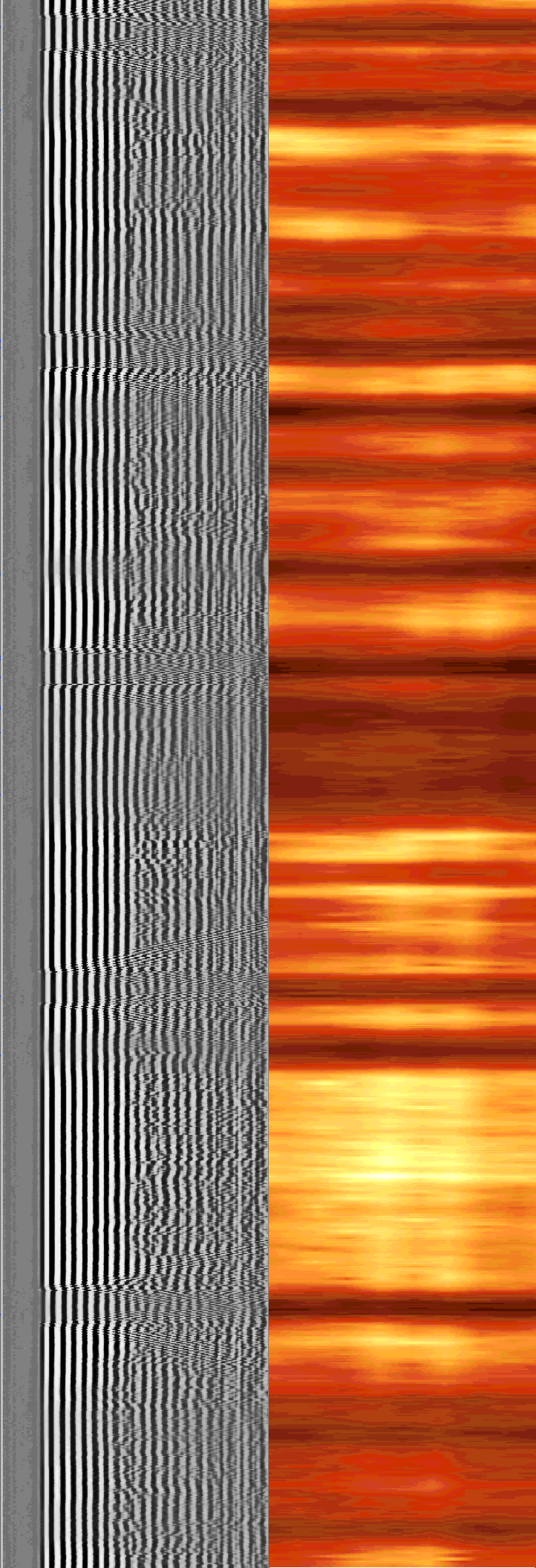
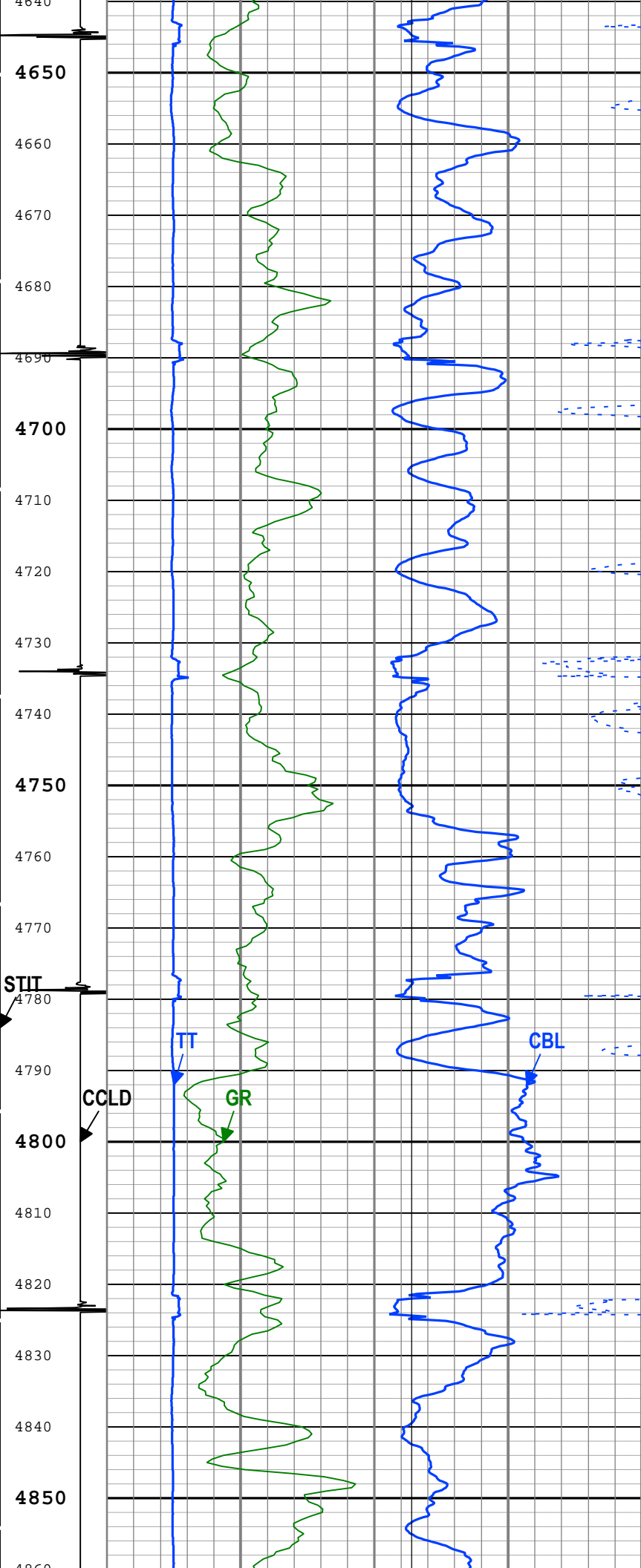




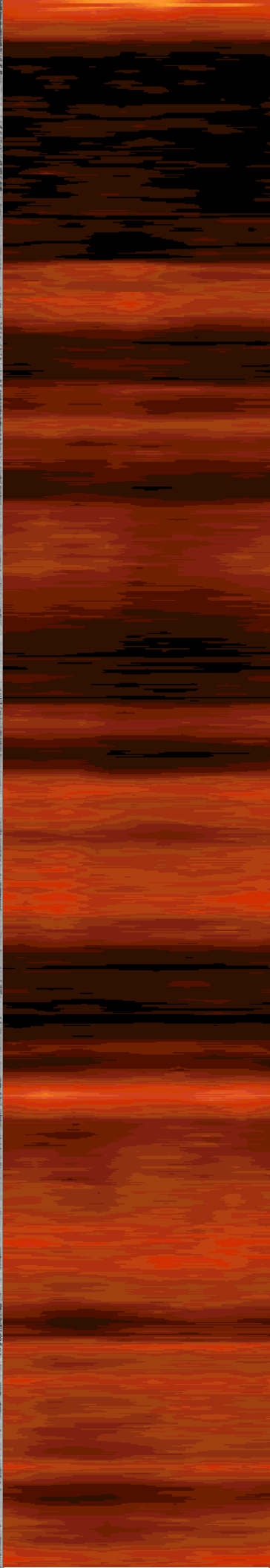
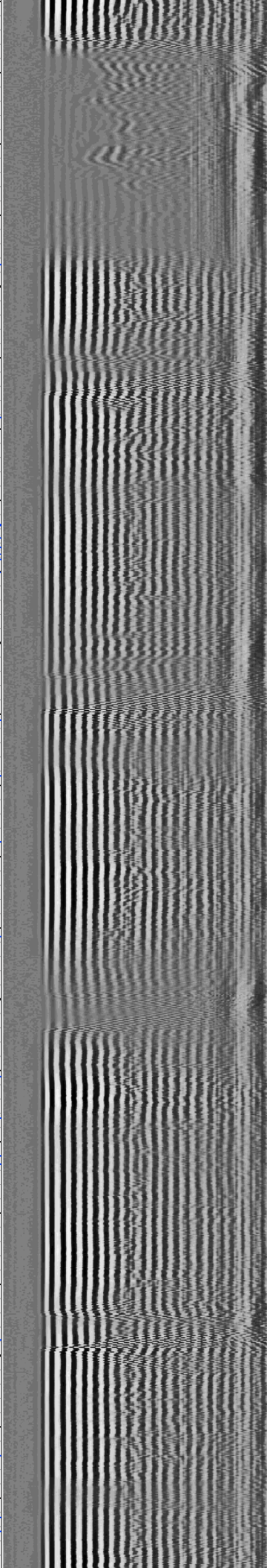
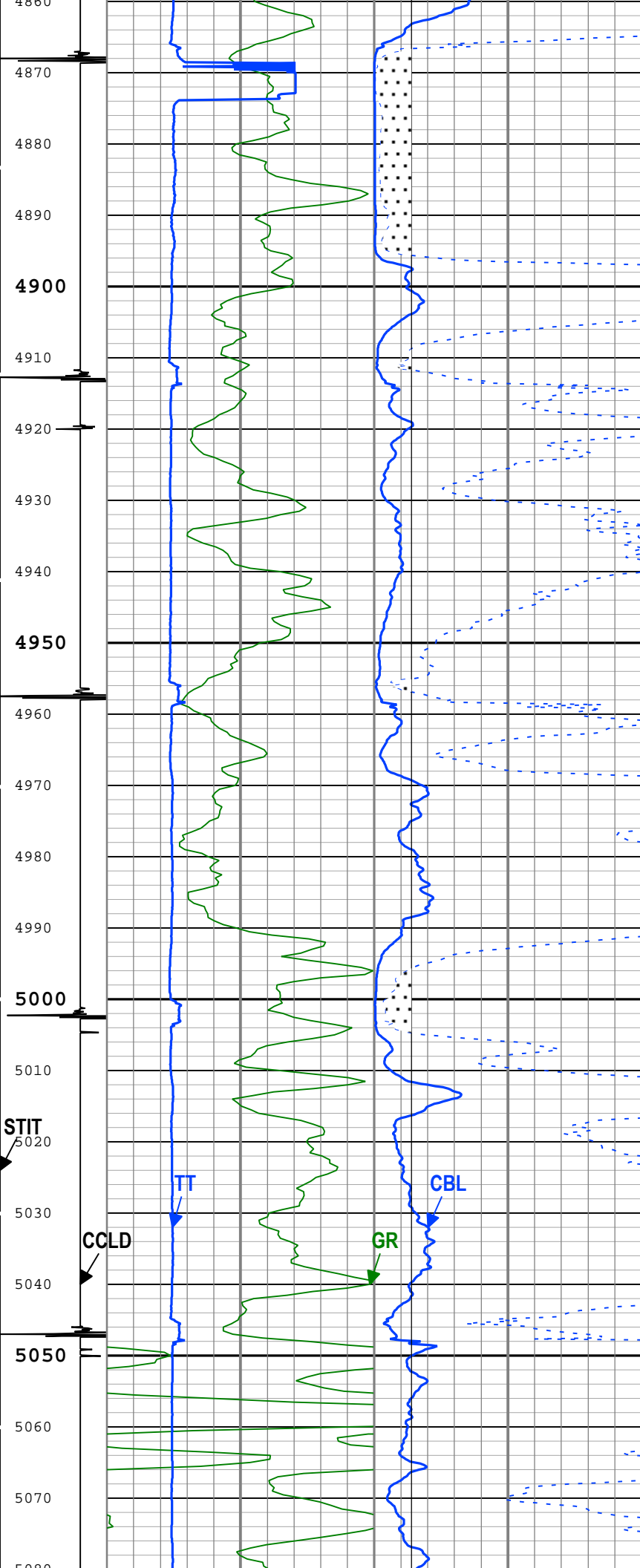


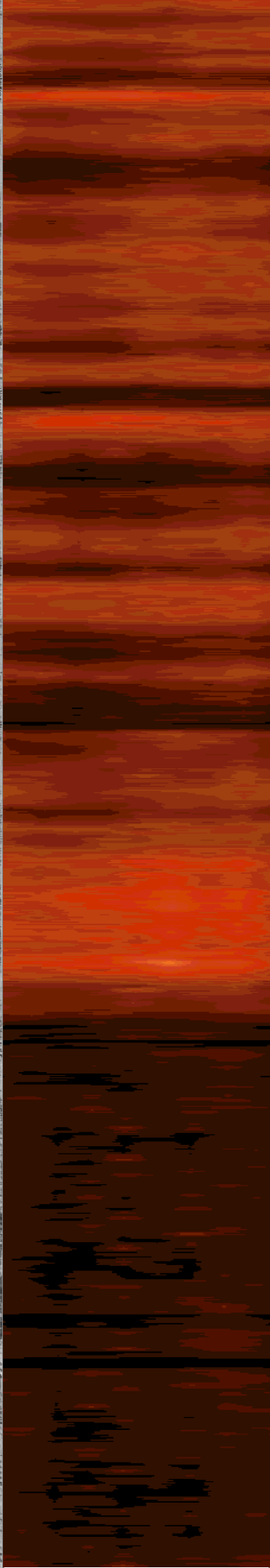
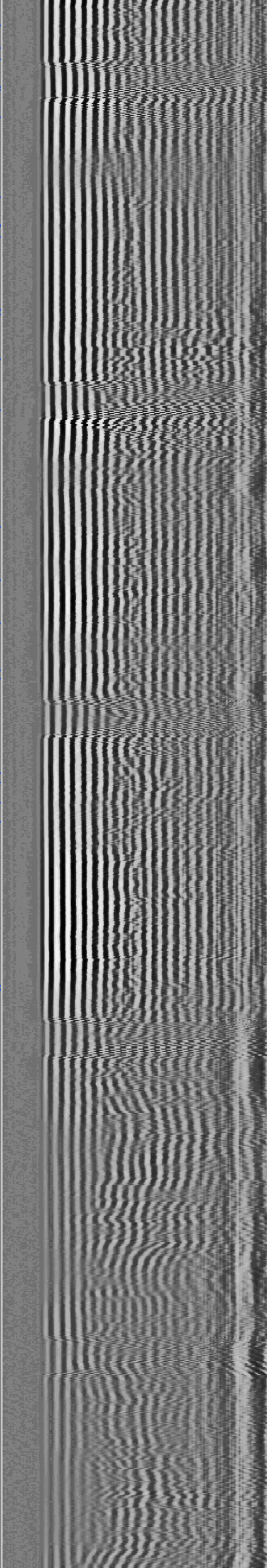
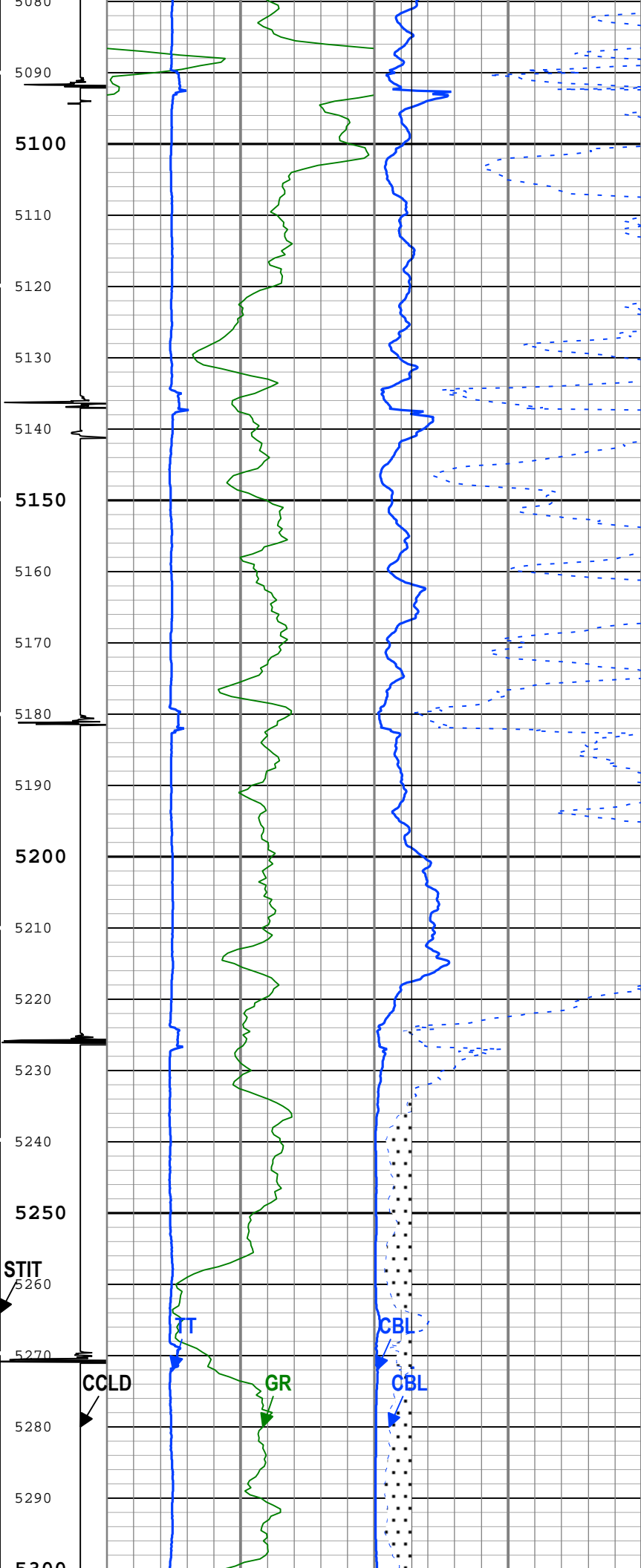


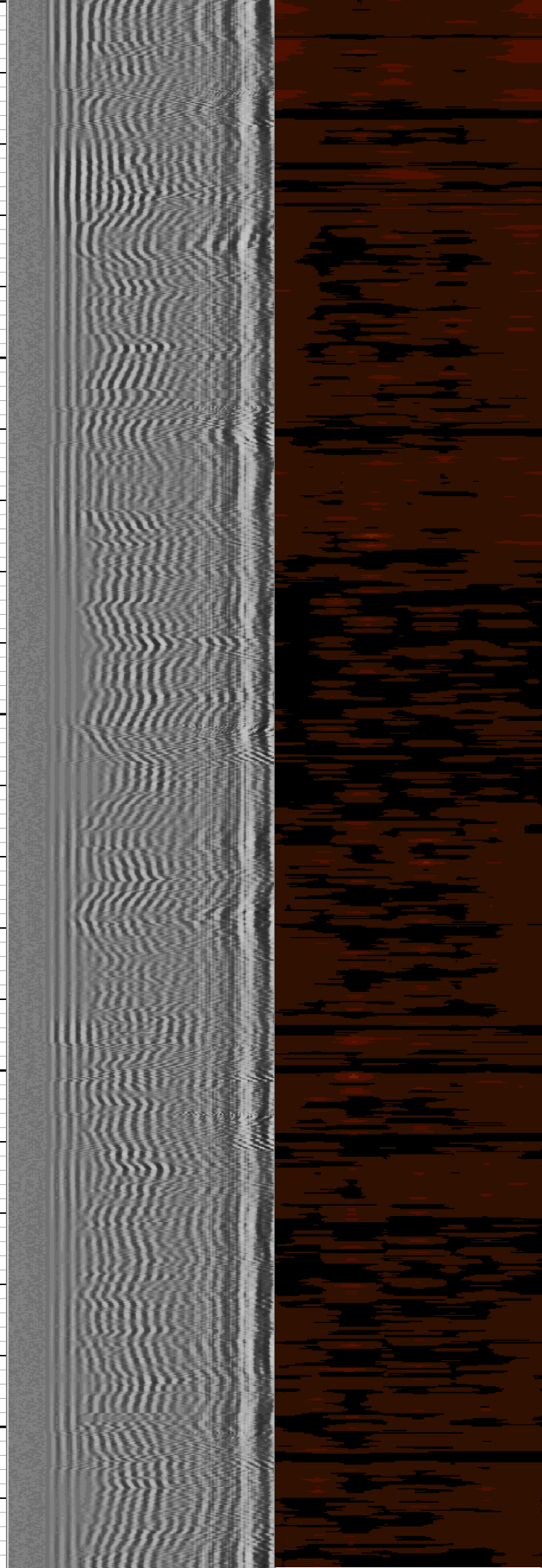
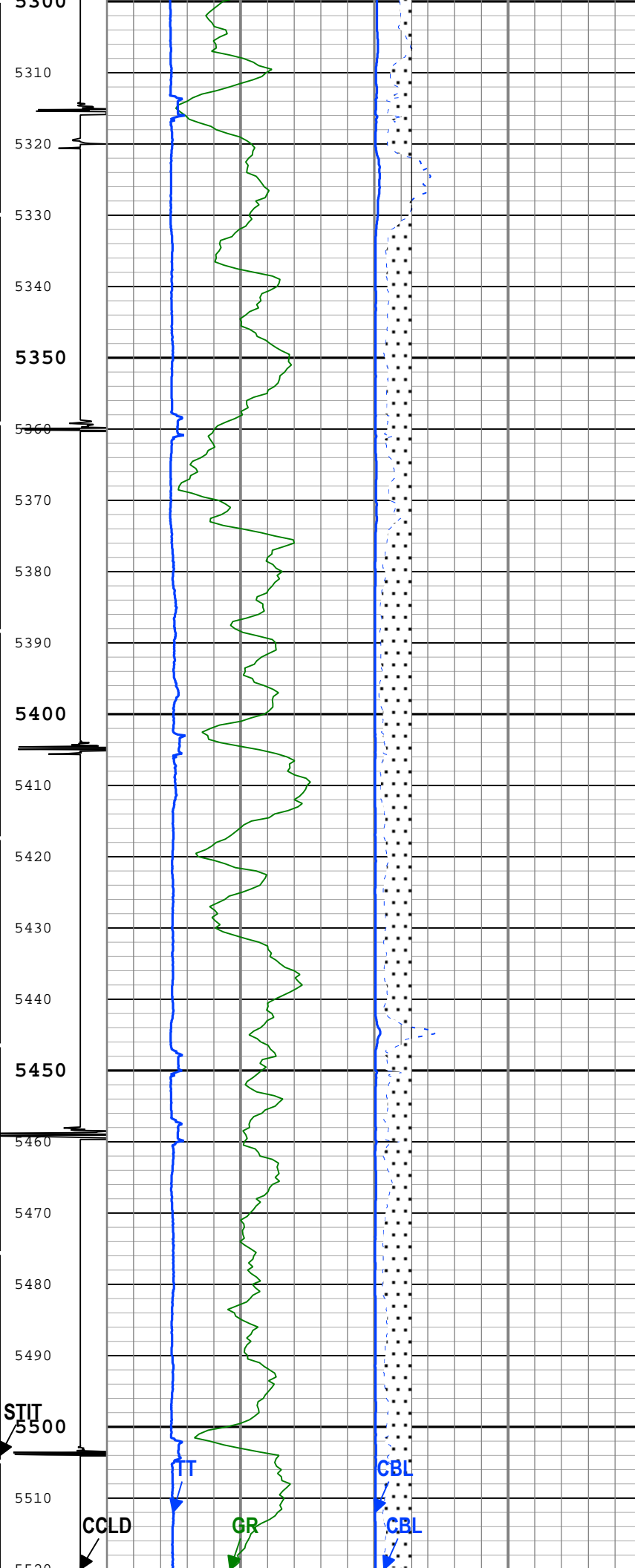




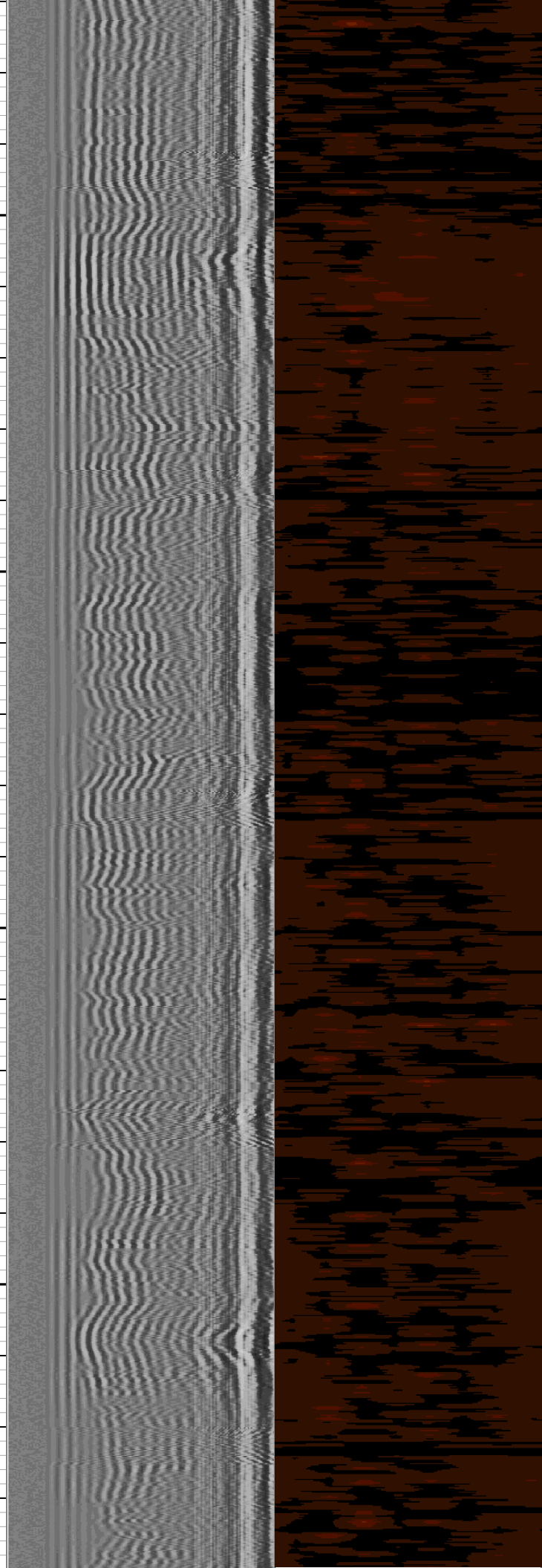
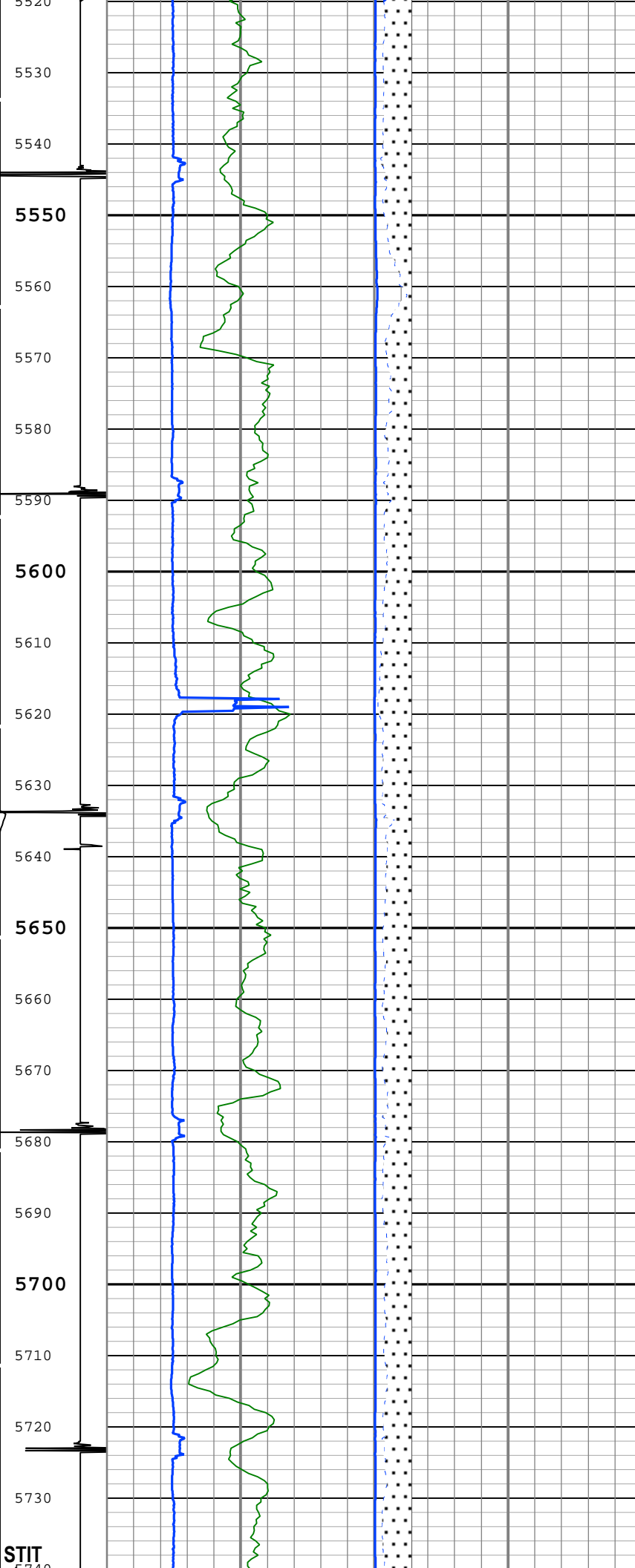


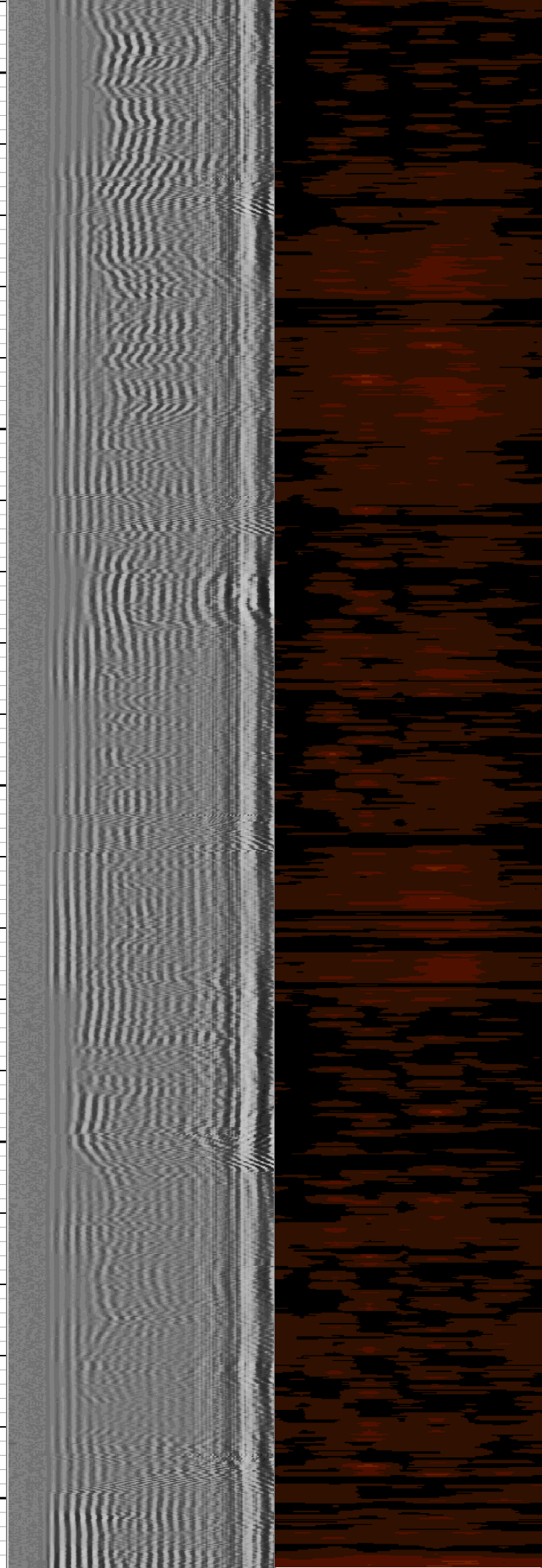
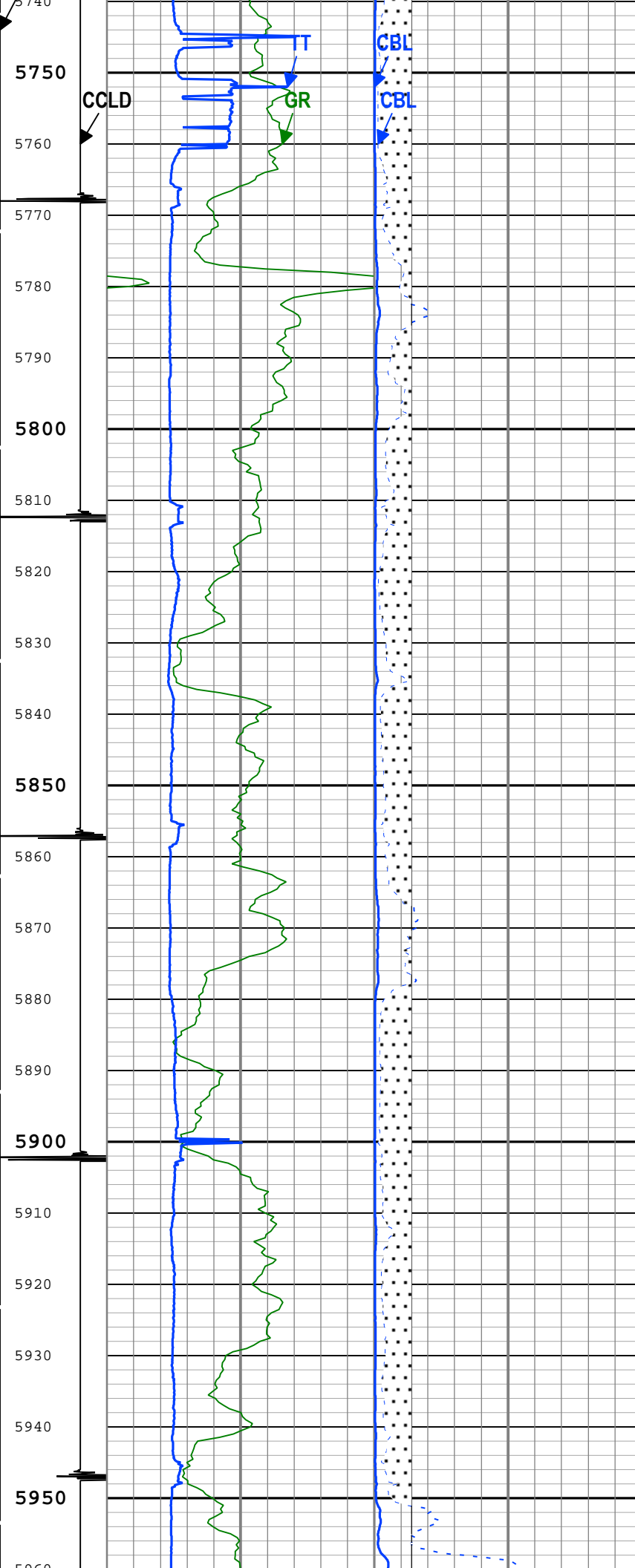


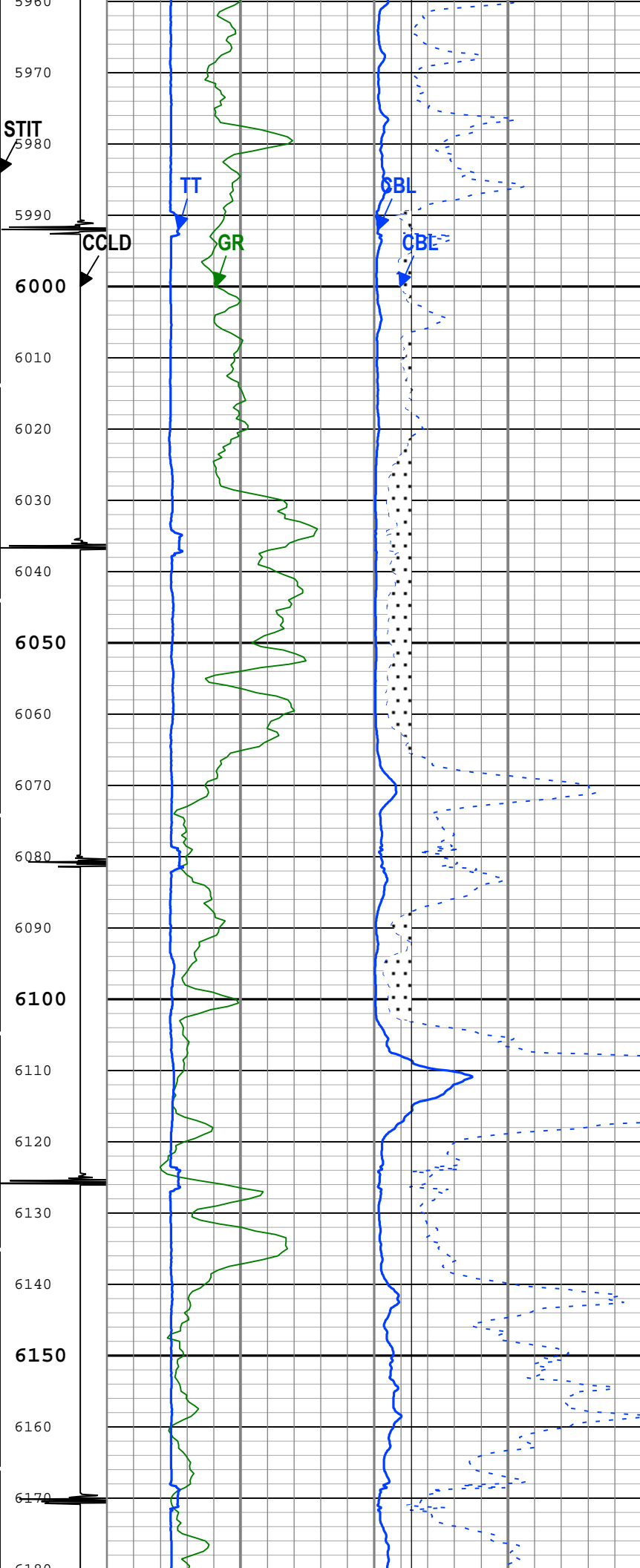




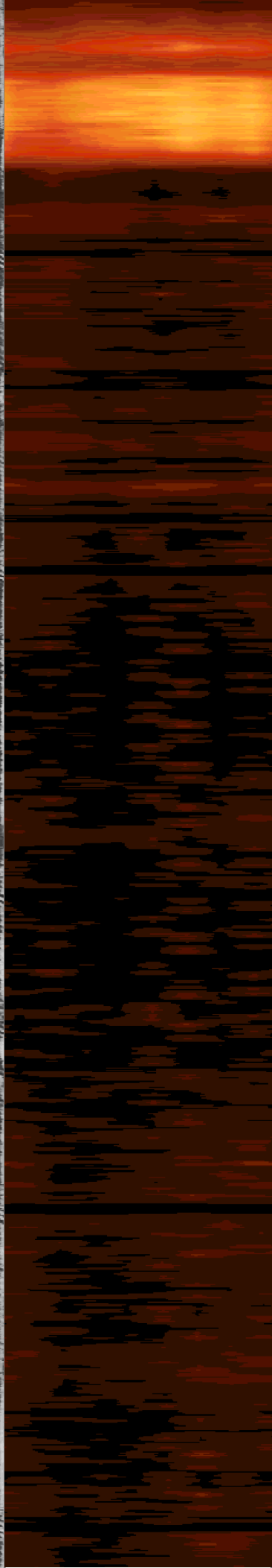
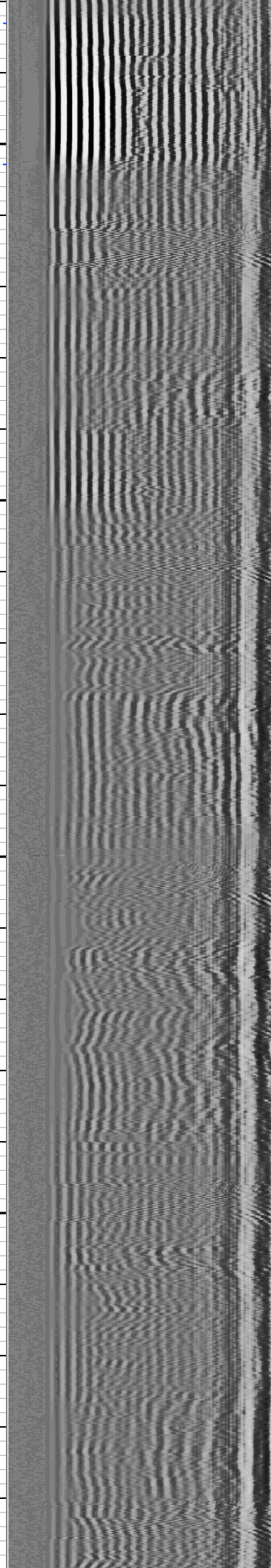
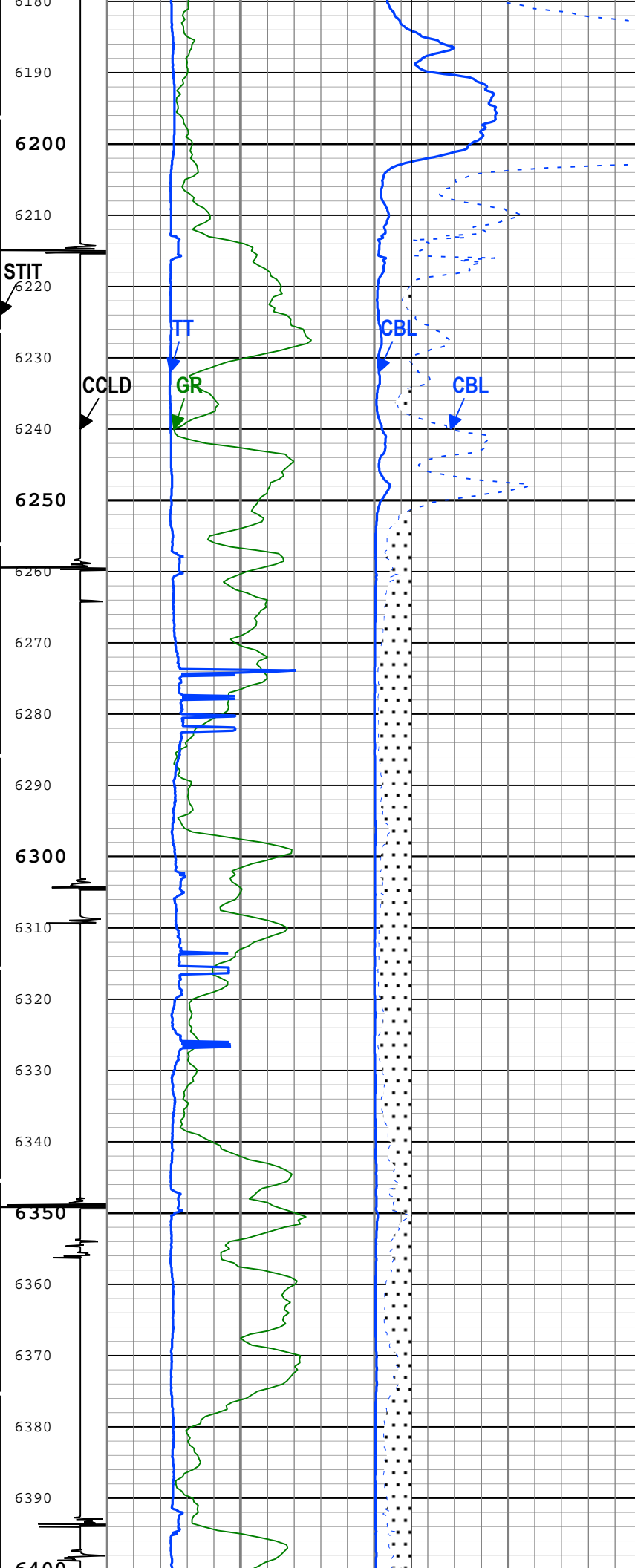


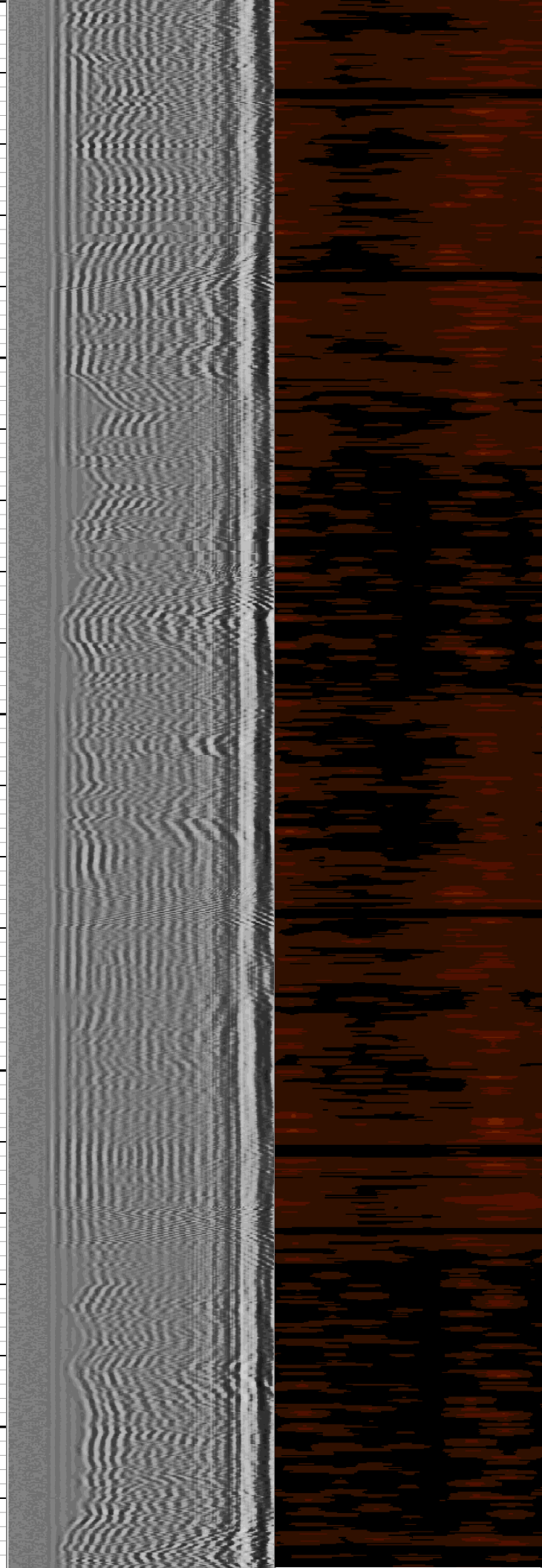
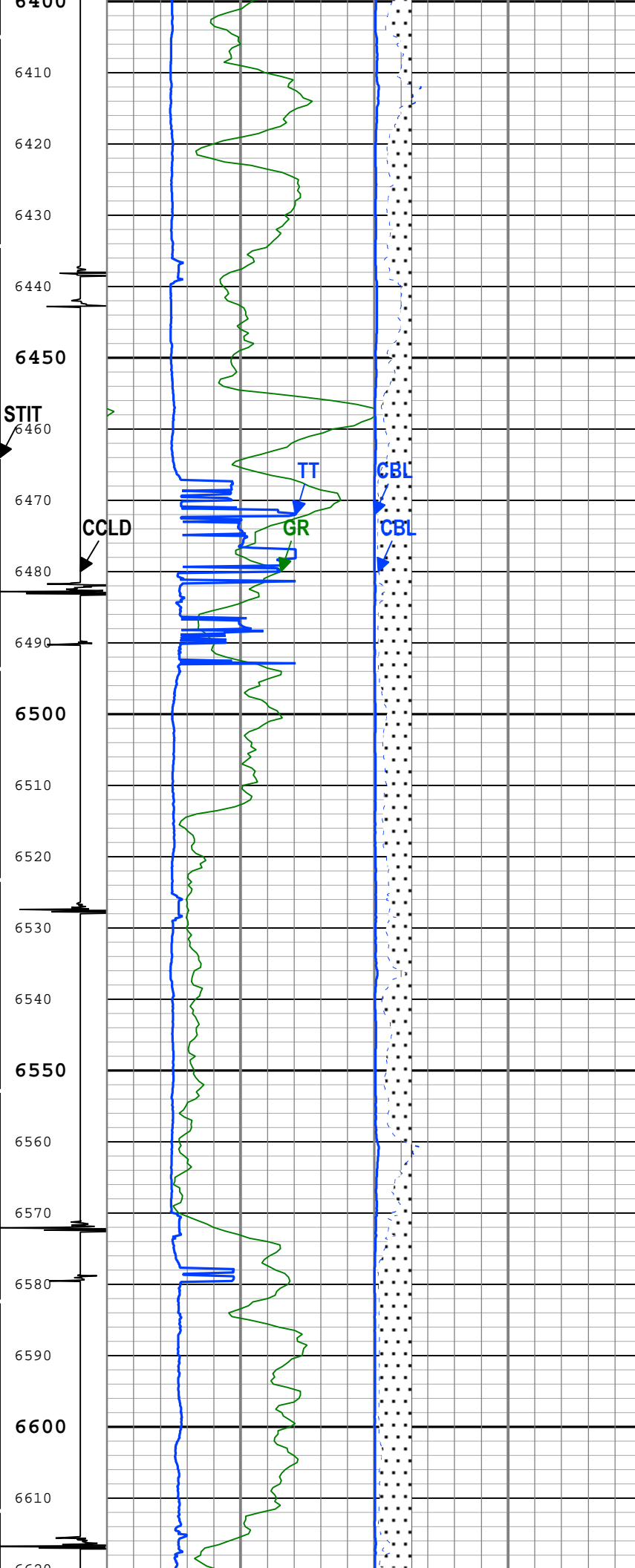




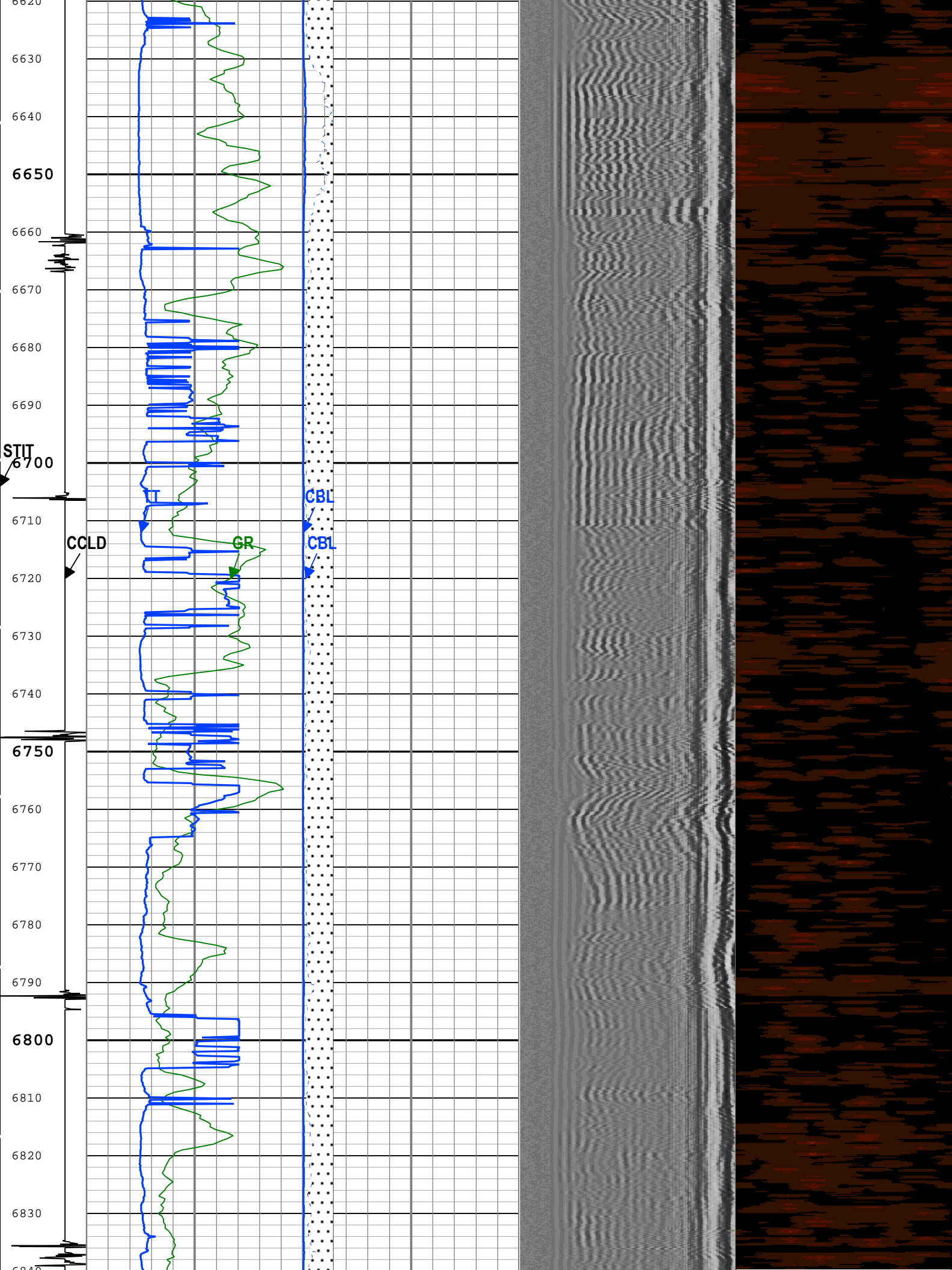


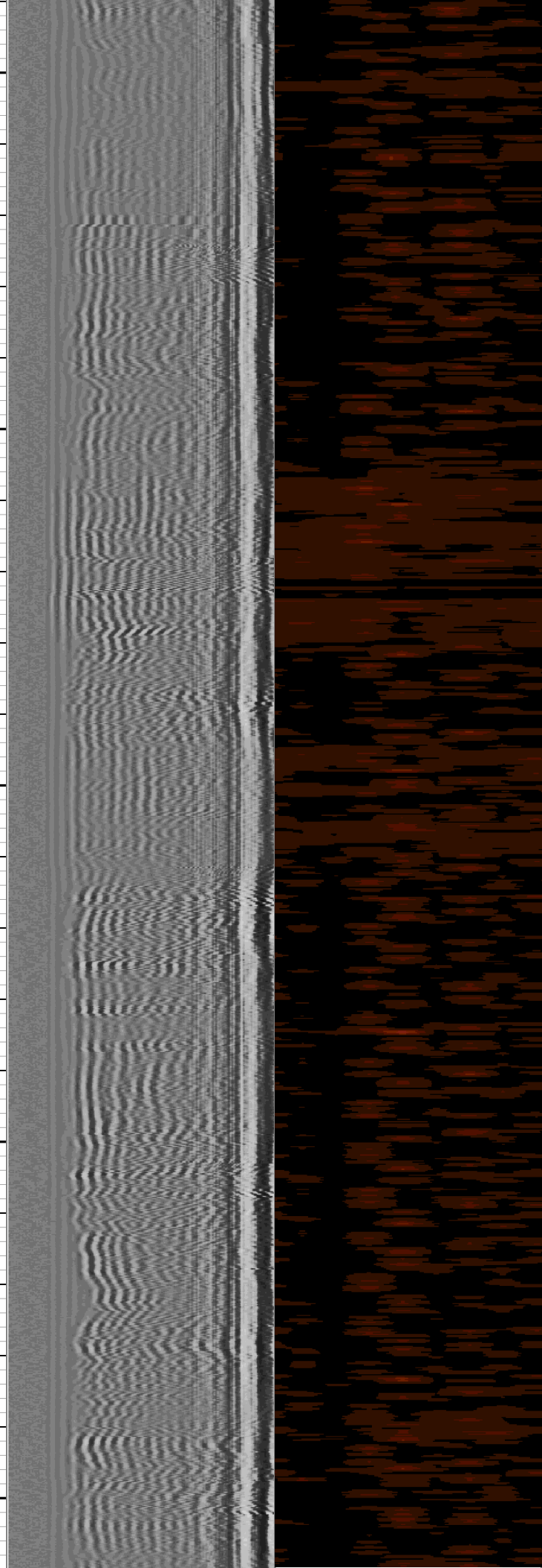
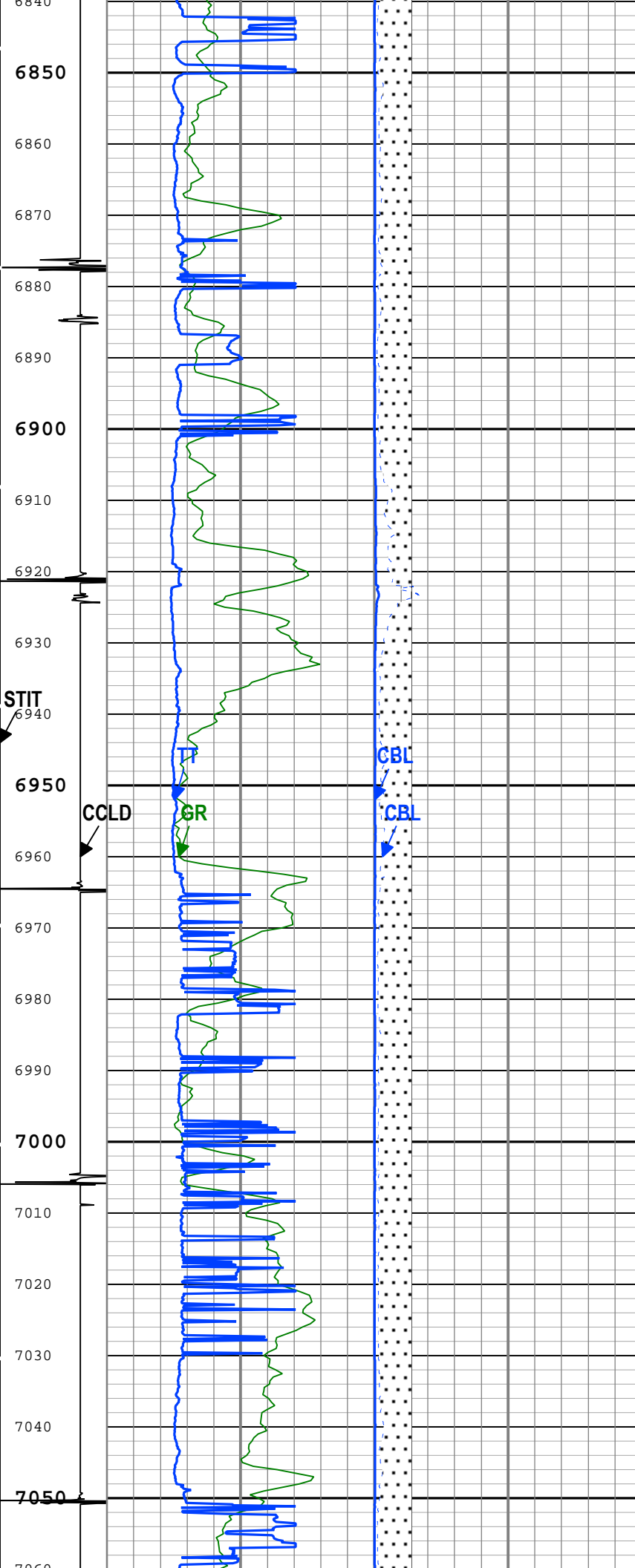


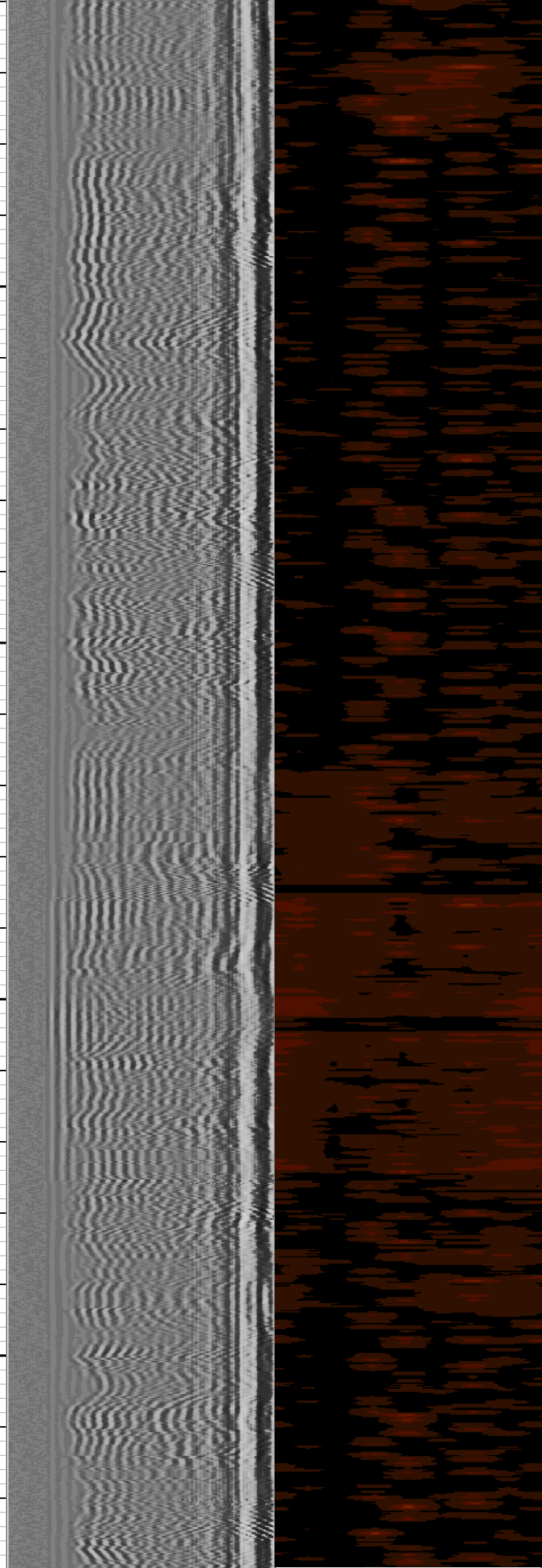
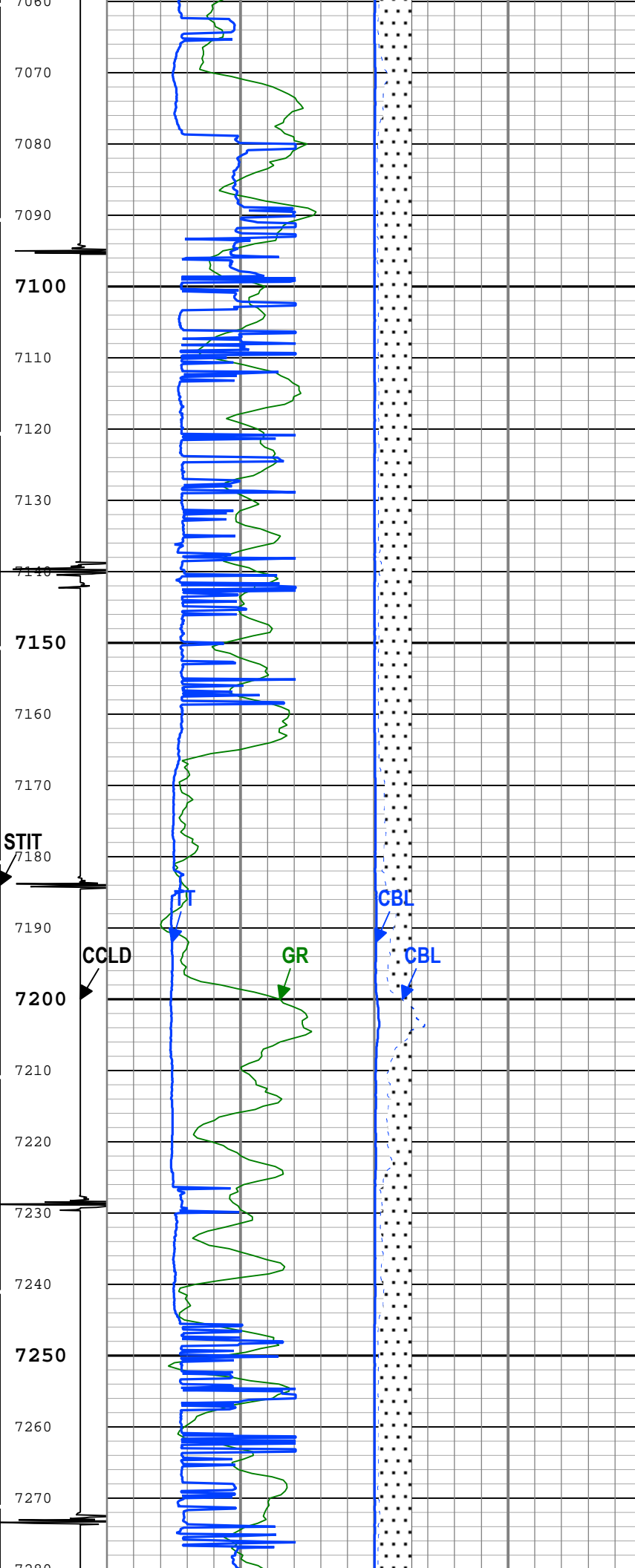




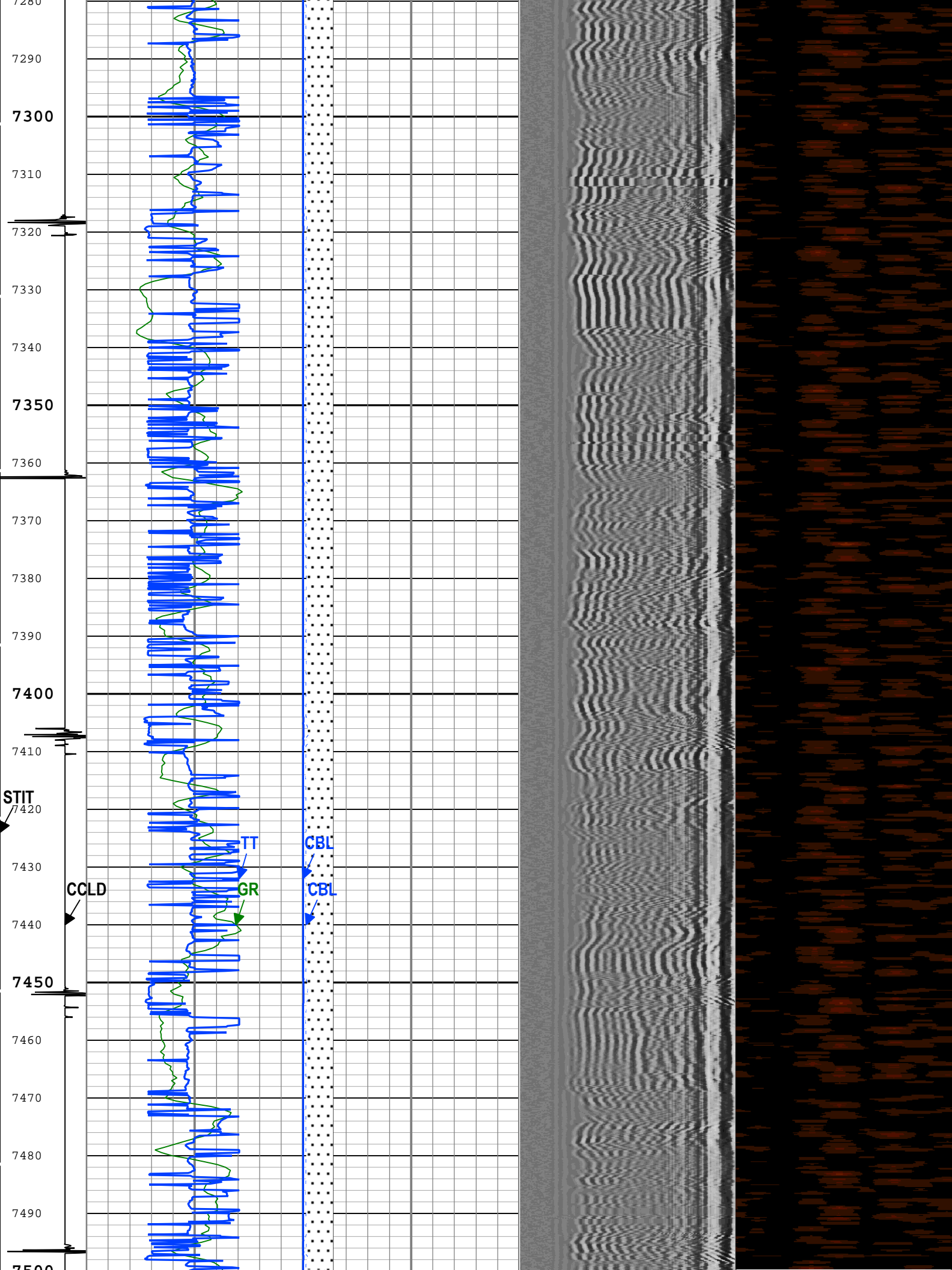


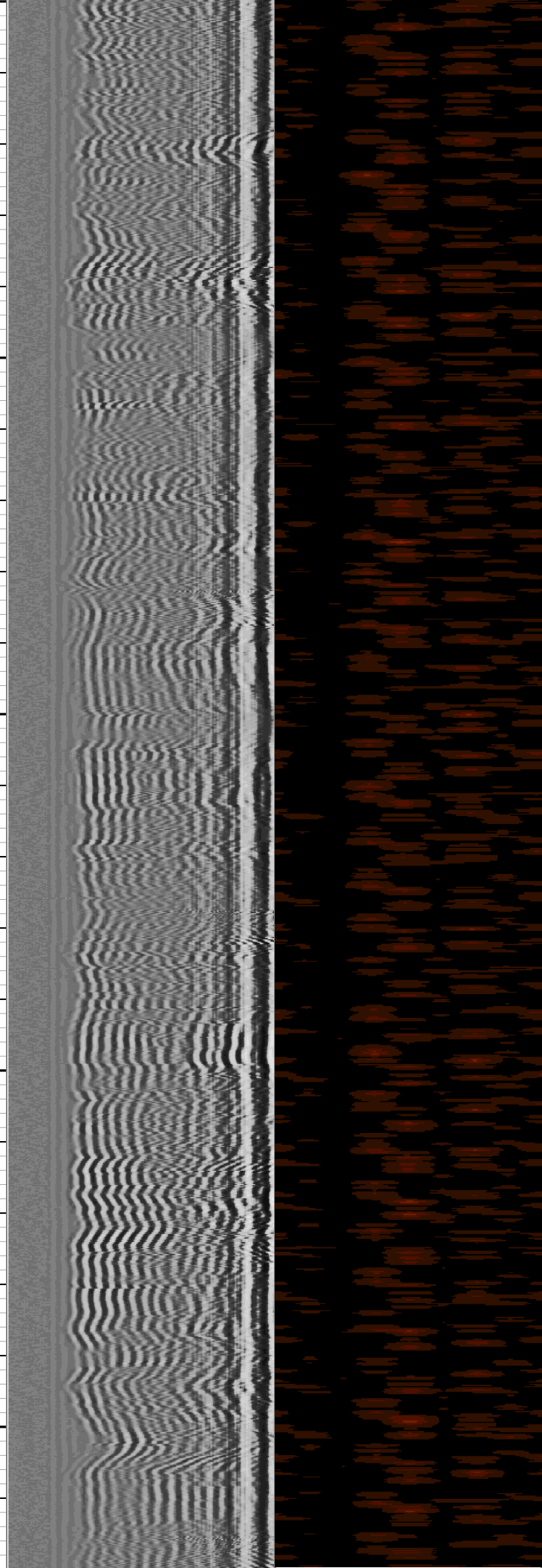
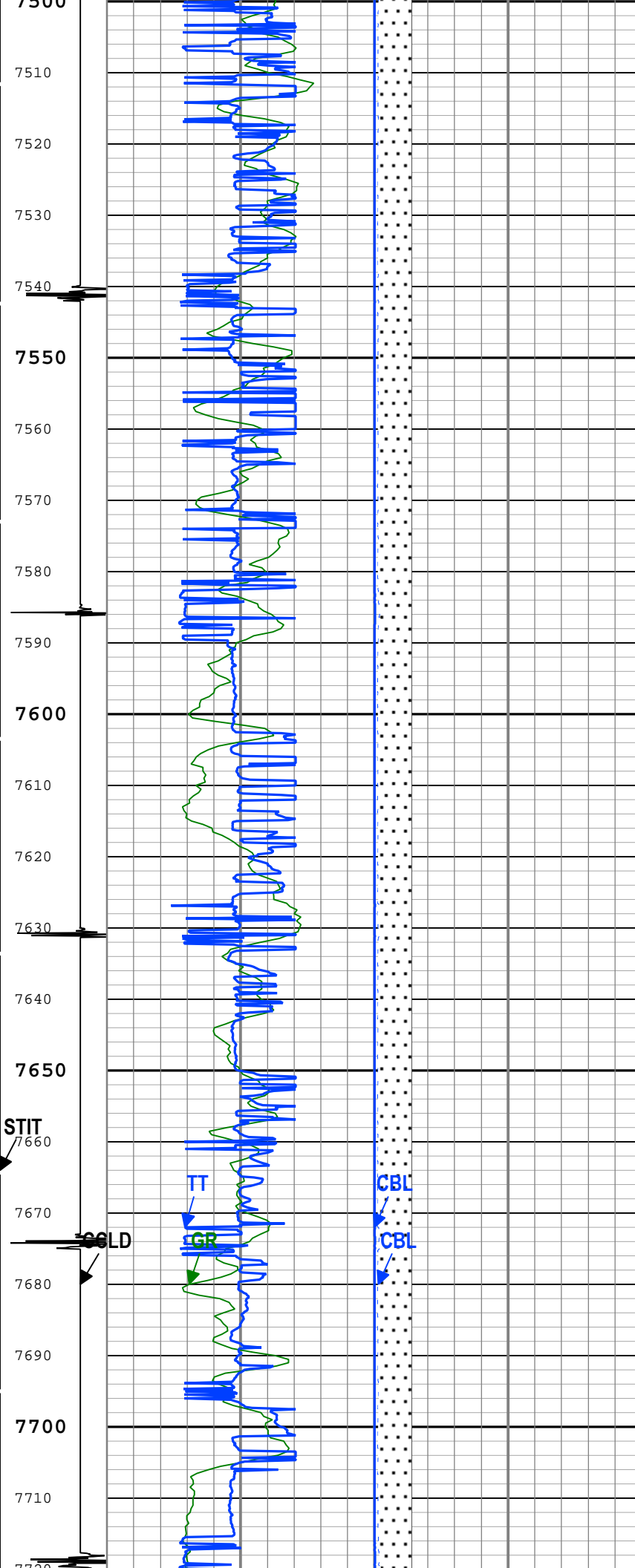


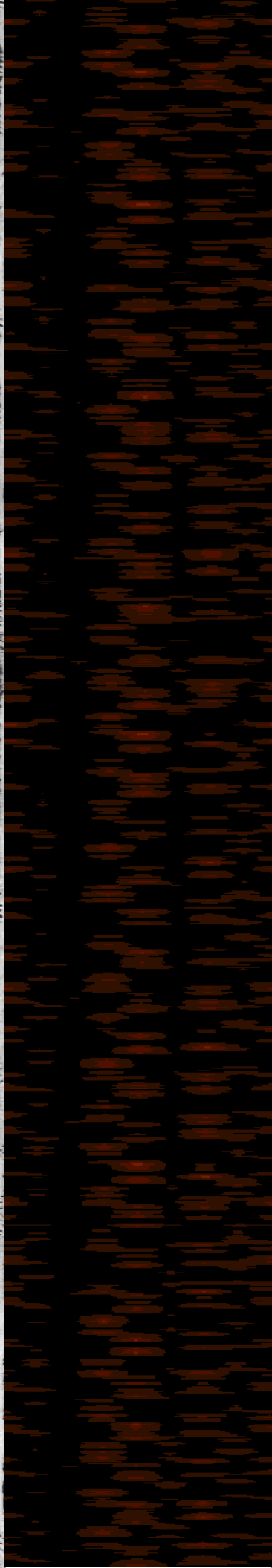
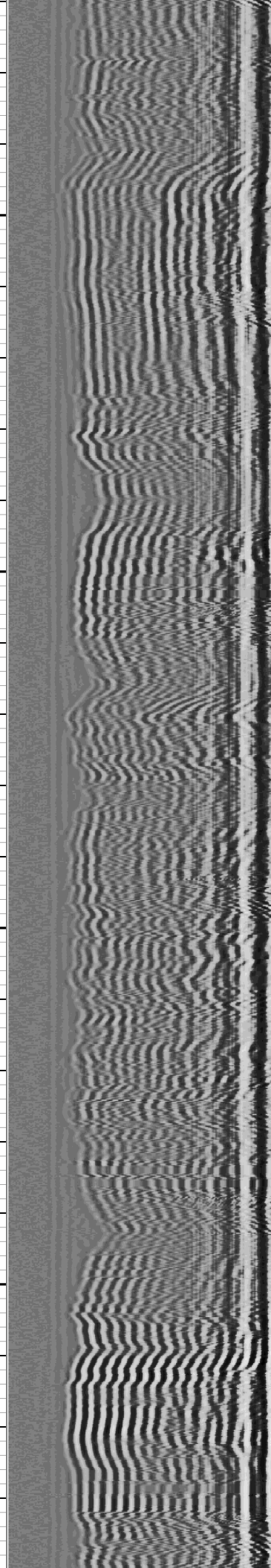
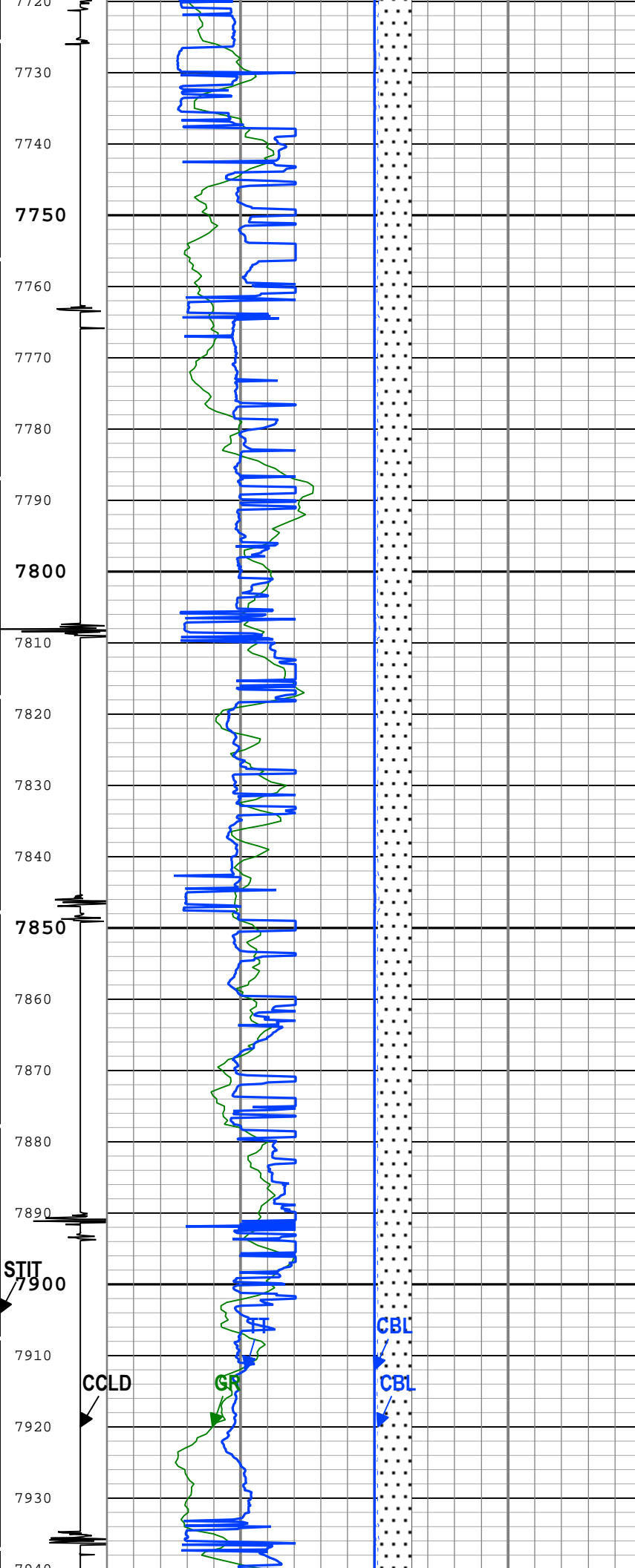




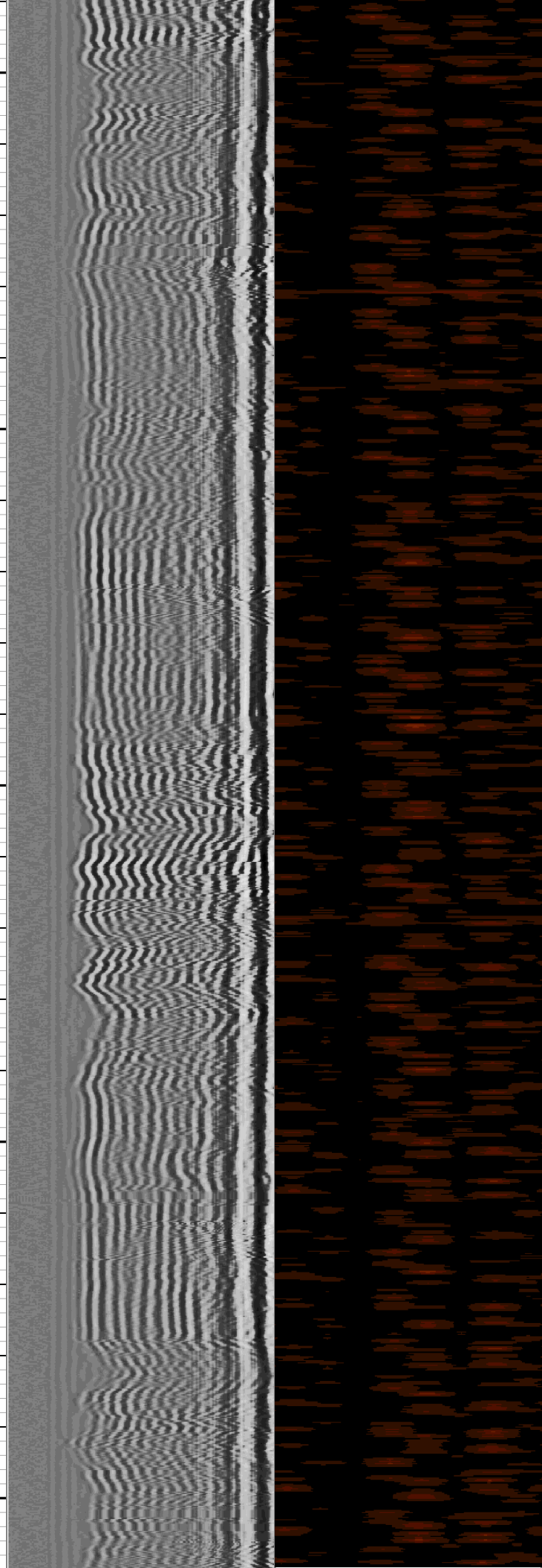
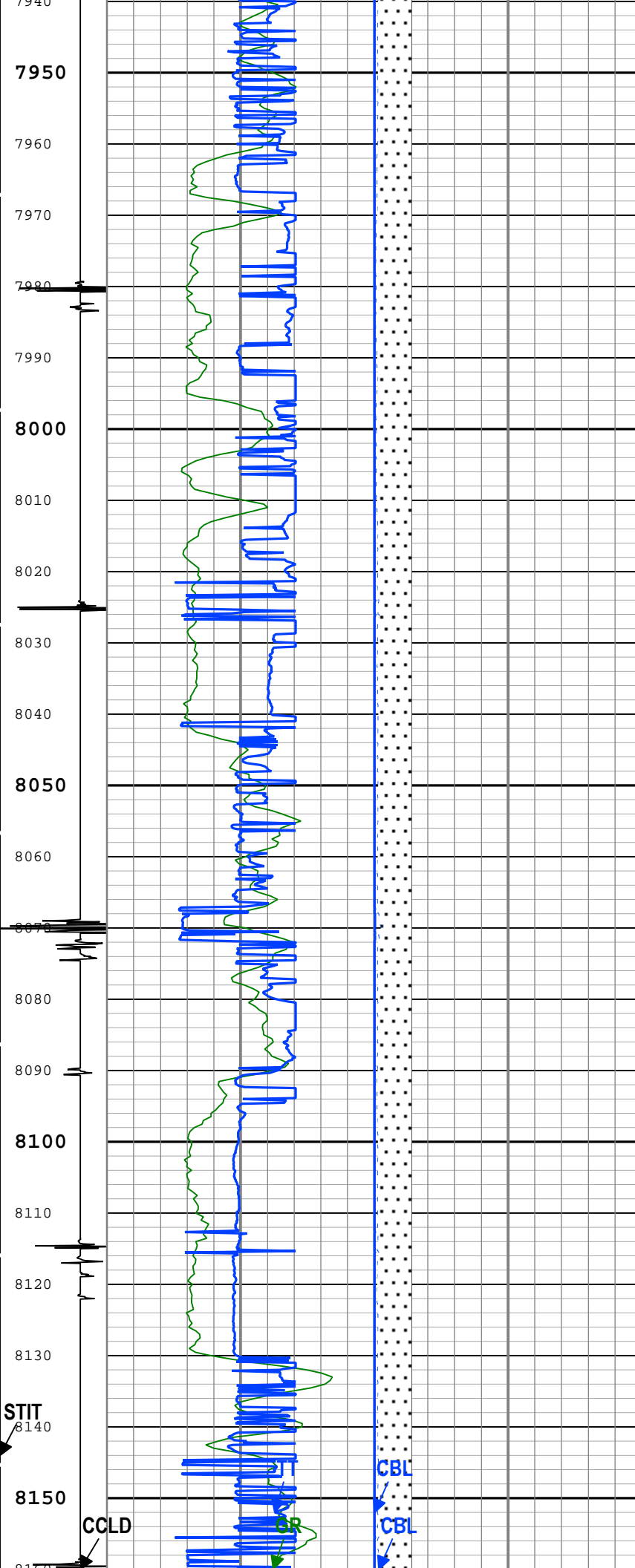


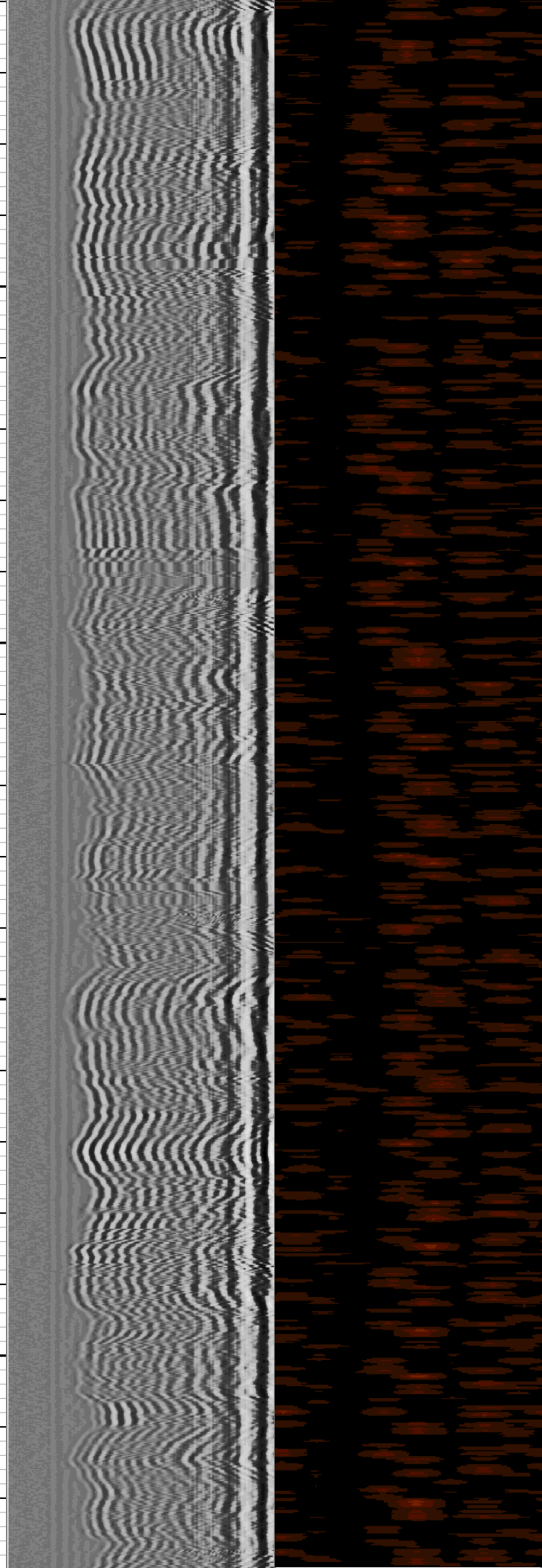
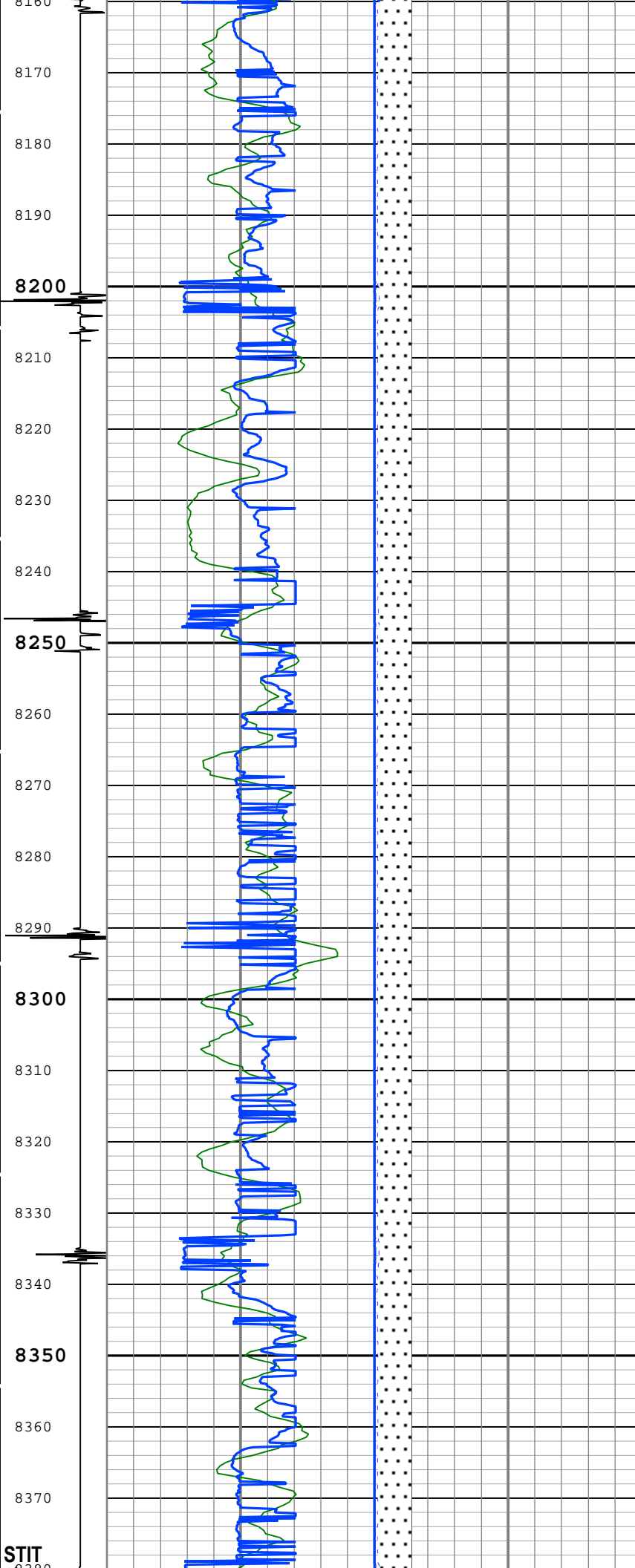






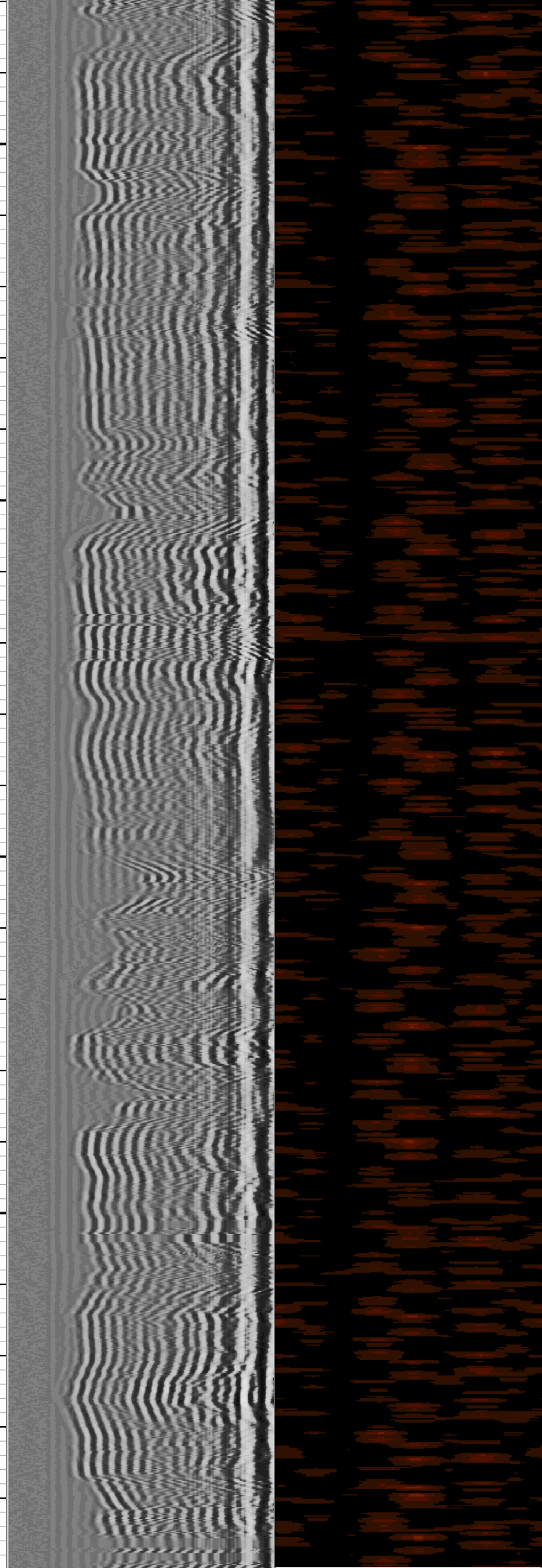
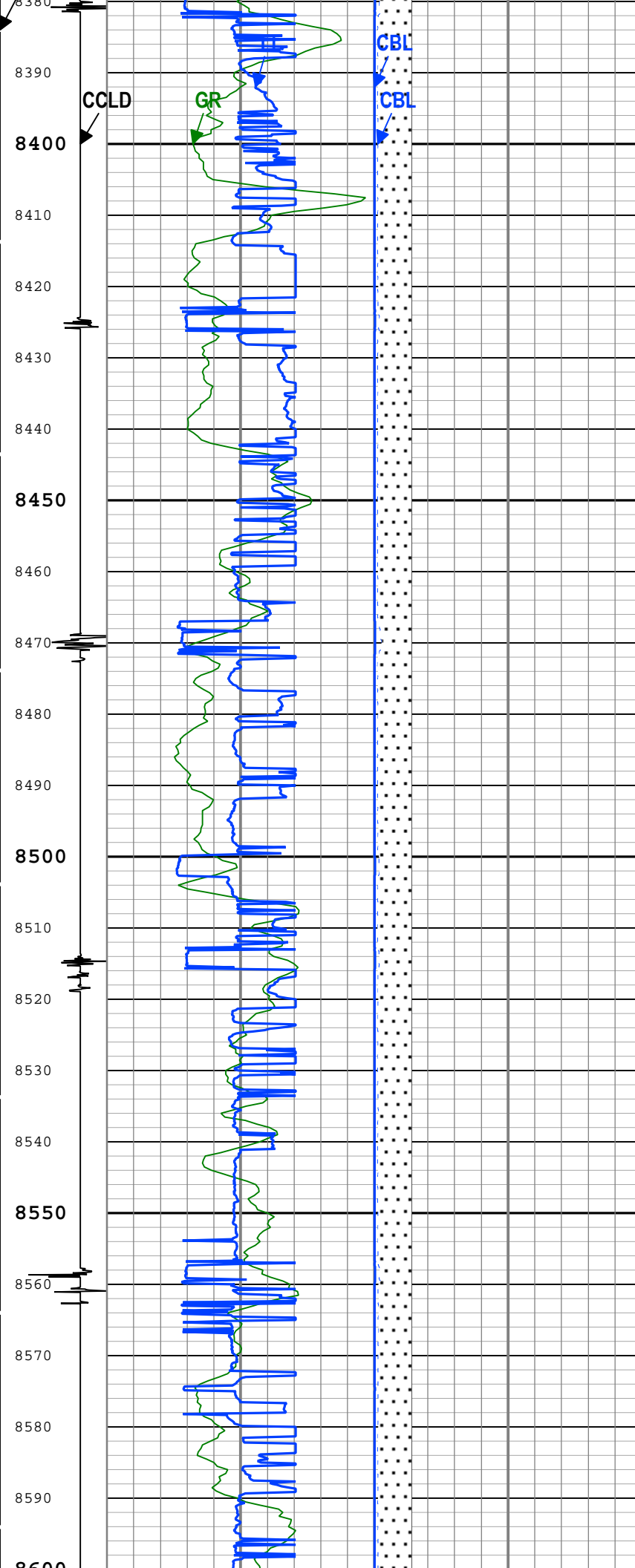


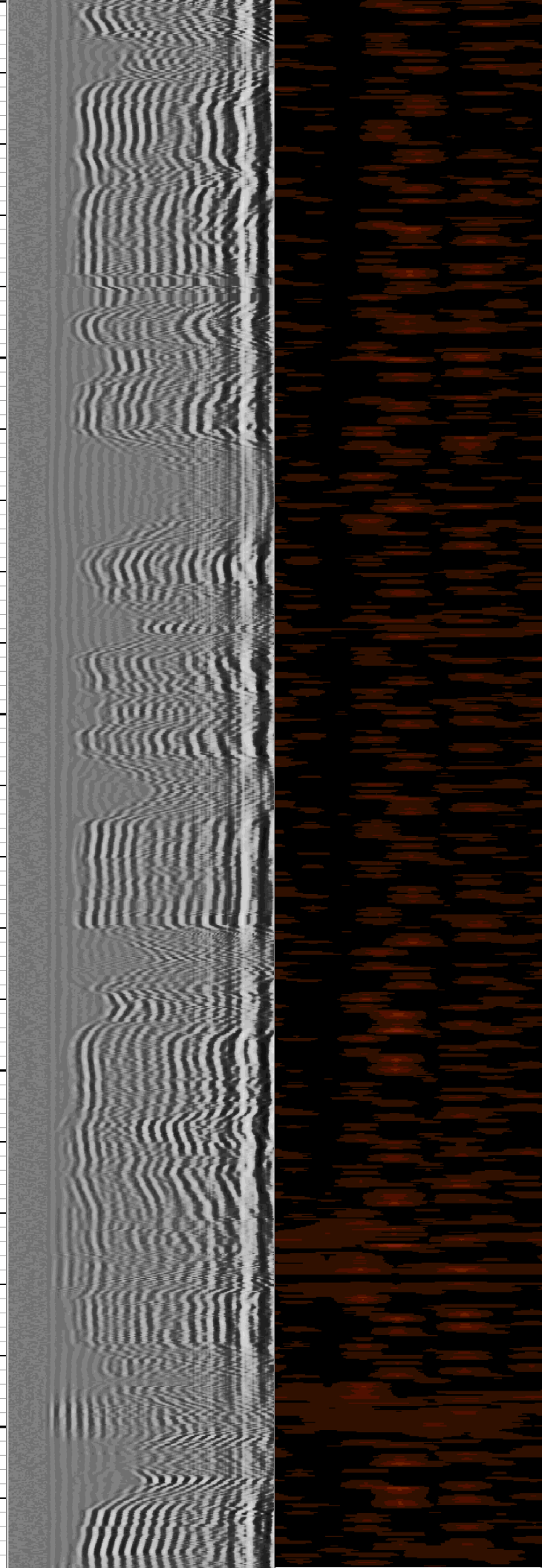
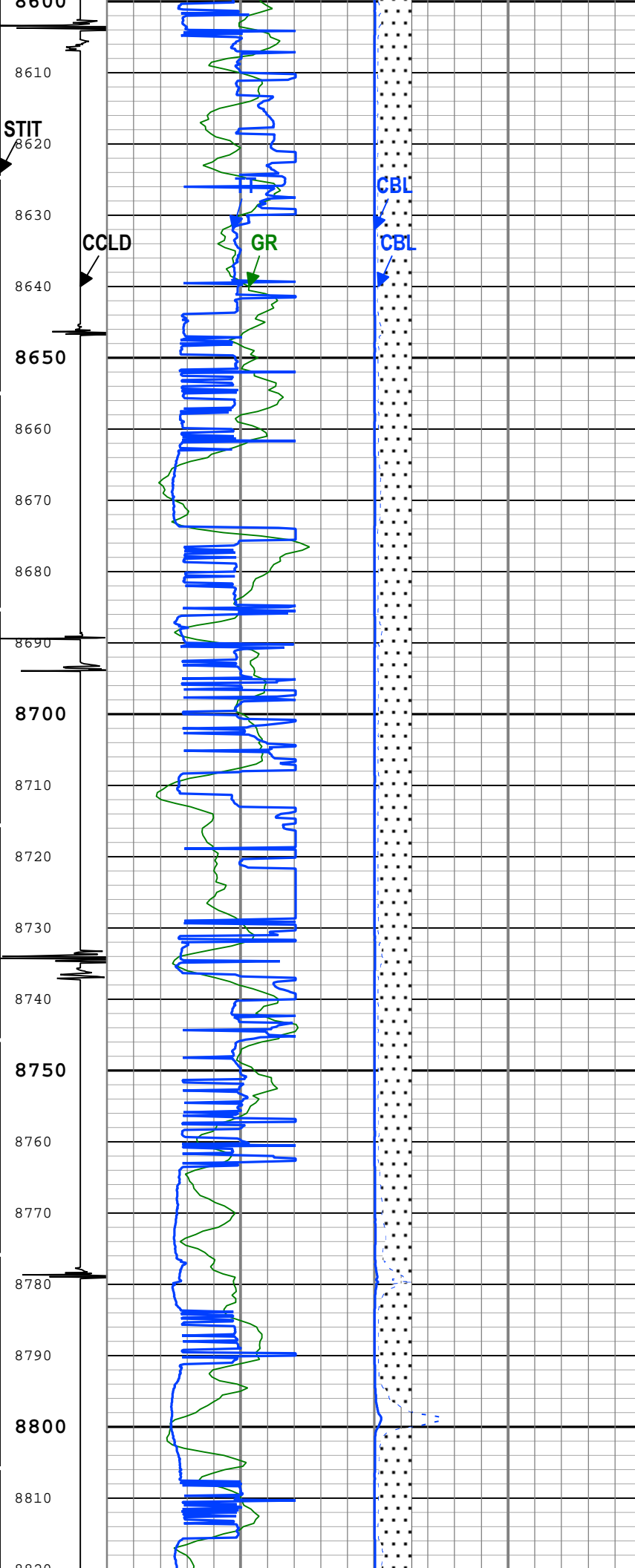


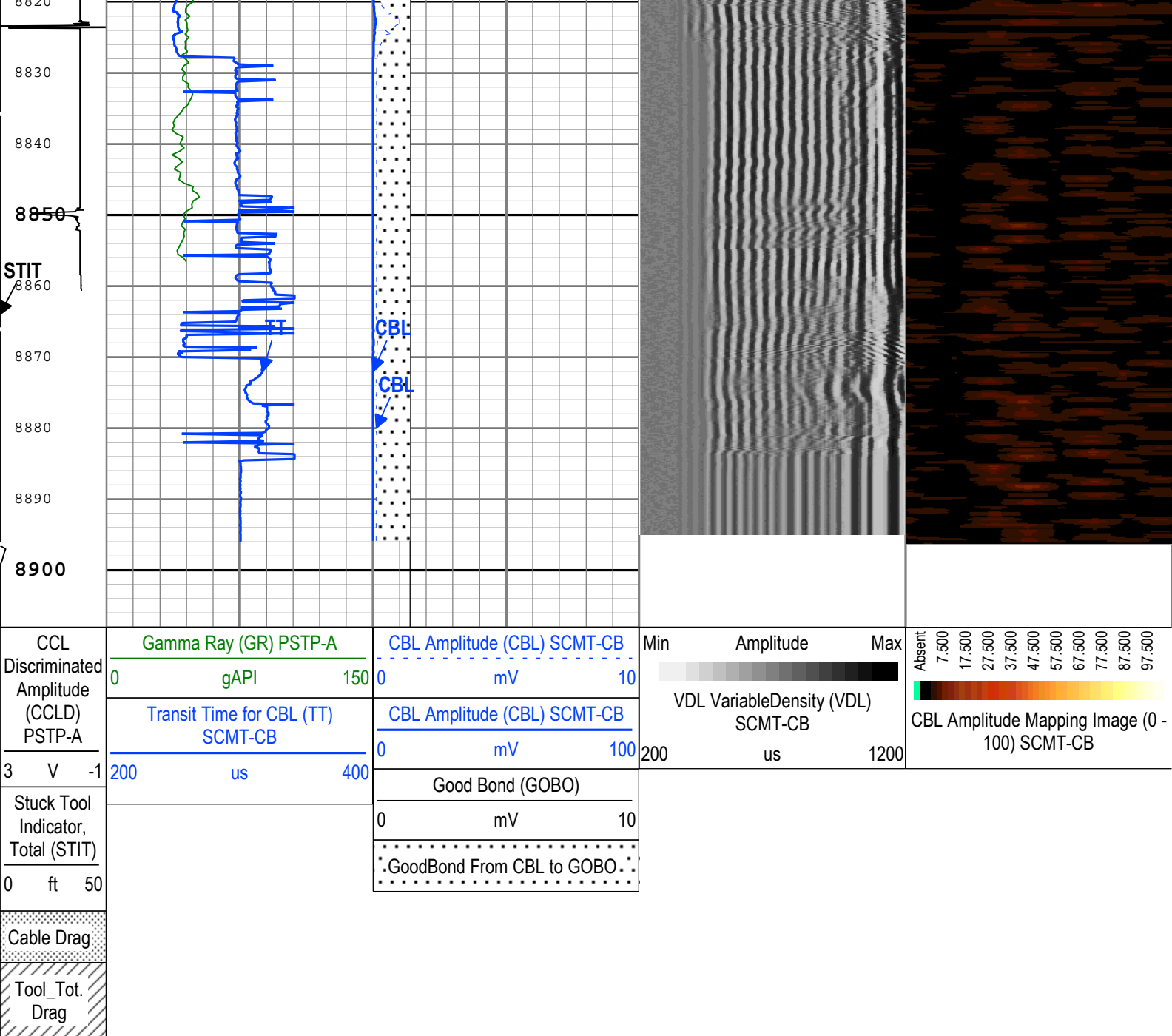


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TIME\_1900 - Time Marked every 60.00 (s)

Description: SCMT VDL Image Format: Log ( SCMT\_VDL\_Image\_1 ) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 07-Aug-2015 11:18:28

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	238	degF
BILI	Bond Index Level for Zone Isolation	SCMT-CB	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	SCMT-CB	Peak	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	241	us
CB3T	SCMT CBL 3 ft Fixed Threshold Level	SCMT-CB	20	mV
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	80	mV
CMCF	CBL Cement Type Compensation Factor	SCMT-CB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9	lbm/gal

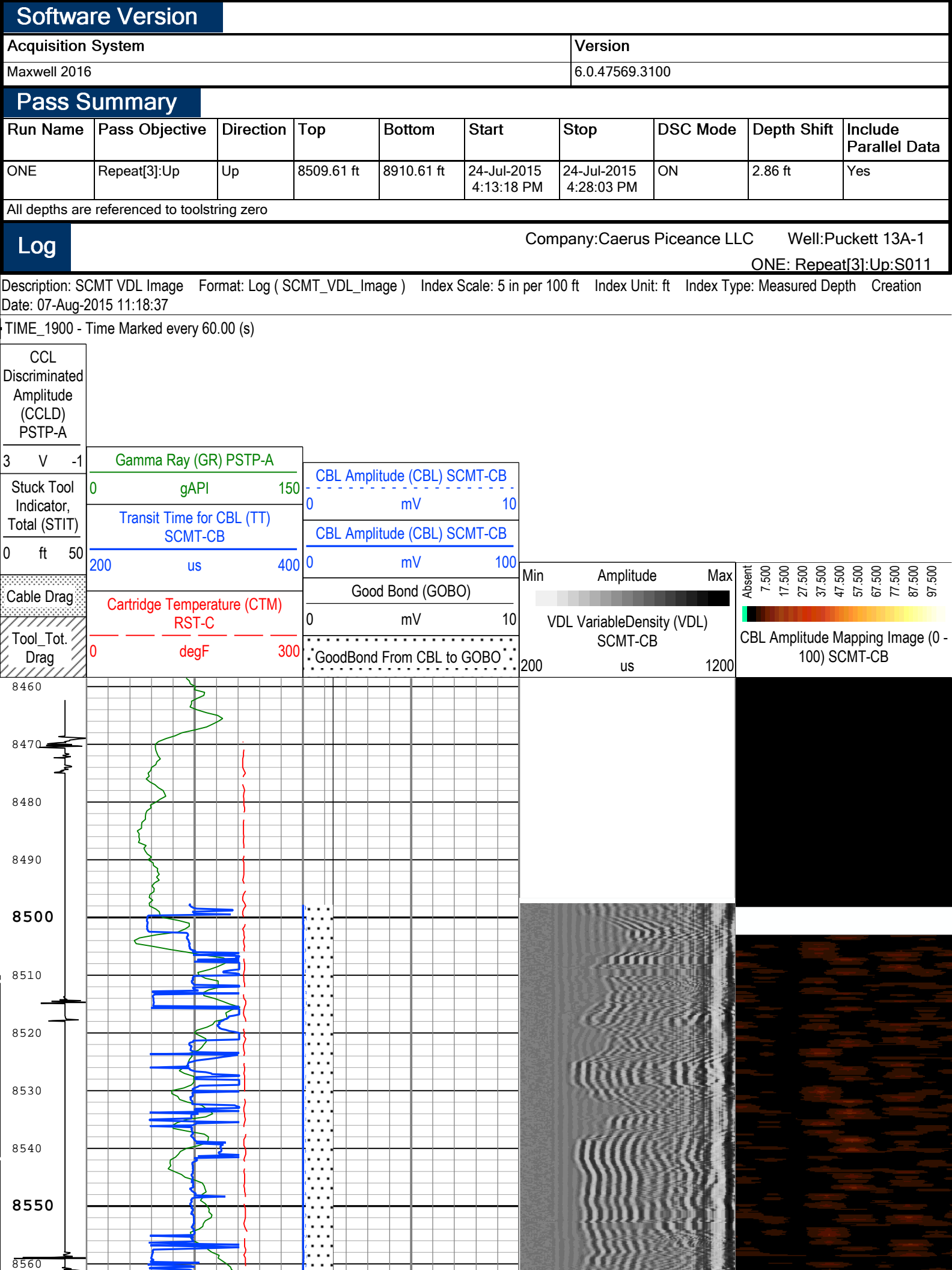
DFT	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	29	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8479	ft
ETEM	HP Estimated Temperature	PSTP-A	212	degF
FCF	CBL Fluid Compensation Factor	SCMT-CB	0.89	
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST	
M1EF	MAP sensitivity equalization factor of receiver 1	SCMT-CB	1	
M2EF	MAP sensitivity equalization factor of receiver 2	SCMT-CB	1	
M3EF	MAP sensitivity equalization factor of receiver 3	SCMT-CB	1	
M4EF	MAP sensitivity equalization factor of receiver 4	SCMT-CB	1	
M5EF	MAP sensitivity equalization factor of receiver 5	SCMT-CB	1	
M6EF	MAP sensitivity equalization factor of receiver 6	SCMT-CB	1	
M7EF	MAP sensitivity equalization factor of receiver 7	SCMT-CB	1	
M8EF	MAP sensitivity equalization factor of receiver 8	SCMT-CB	1	
MAPD	SCMT MAP Peak Detection Mode	SCMT-CB	Peak	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-CB	176	us
MAPT	SCMT MAP Fixed Threshold Level	SCMT-CB	30	mV
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	10.14	dB/ft
MCCF	MAP Cement Type Compensation Factor	SCMT-CB	0.25	
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MMSA	MAP Minimum Sonic Amplitude	SCMT-CB	3.98	mV
MSA	Minimum Sonic Amplitude	SCMT-CB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	4.41	mV
PTCO	PBMS Pressure Temperature Correction Option	PSTP-A	Gauge Temperature	
PDAT	Permanent Datum	WLSESSION	GL	
RBC	Relative Bearing Correction Allow/Disallow	SCMT-CB	Allow	
RUN_SNUM	Run Sequence Number	WSDRUN	1	
SHT	Surface Hole Temperature	Borehole	68	degF
TD	Total Measured Depth	Borehole	8999	ft
VDLG	VDL Manual Gain	SCMT-CB	5	
ZCMT	Acoustic Impedance of Cement	SCMT-CB	3.4	Mrayl
ZCMT_NEAT	Acoustic Impedance of Cement in Neat Cement	SCMT-CB	6.8	Mrayl

Depth Zone Parameters			
Parameter	Value	Start ( ft )	Stop ( ft )
MCI	14.81	2445.5	2537
MCI	1.25	2537	8908
All depth are actual.			

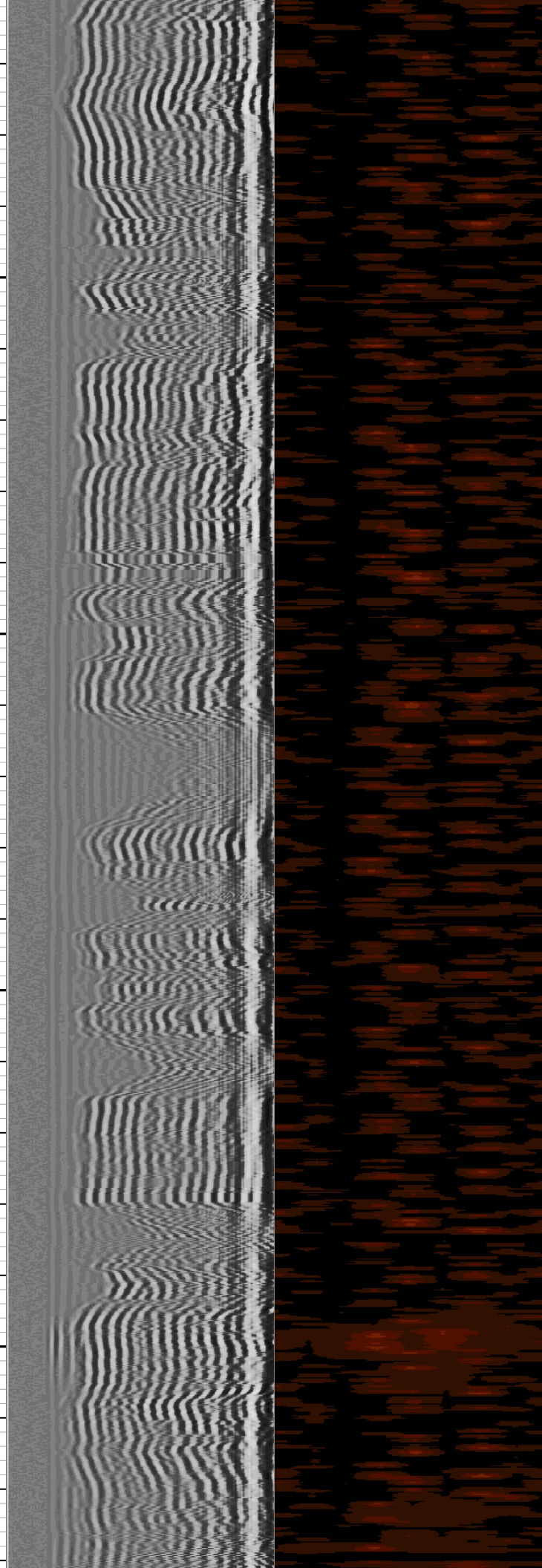
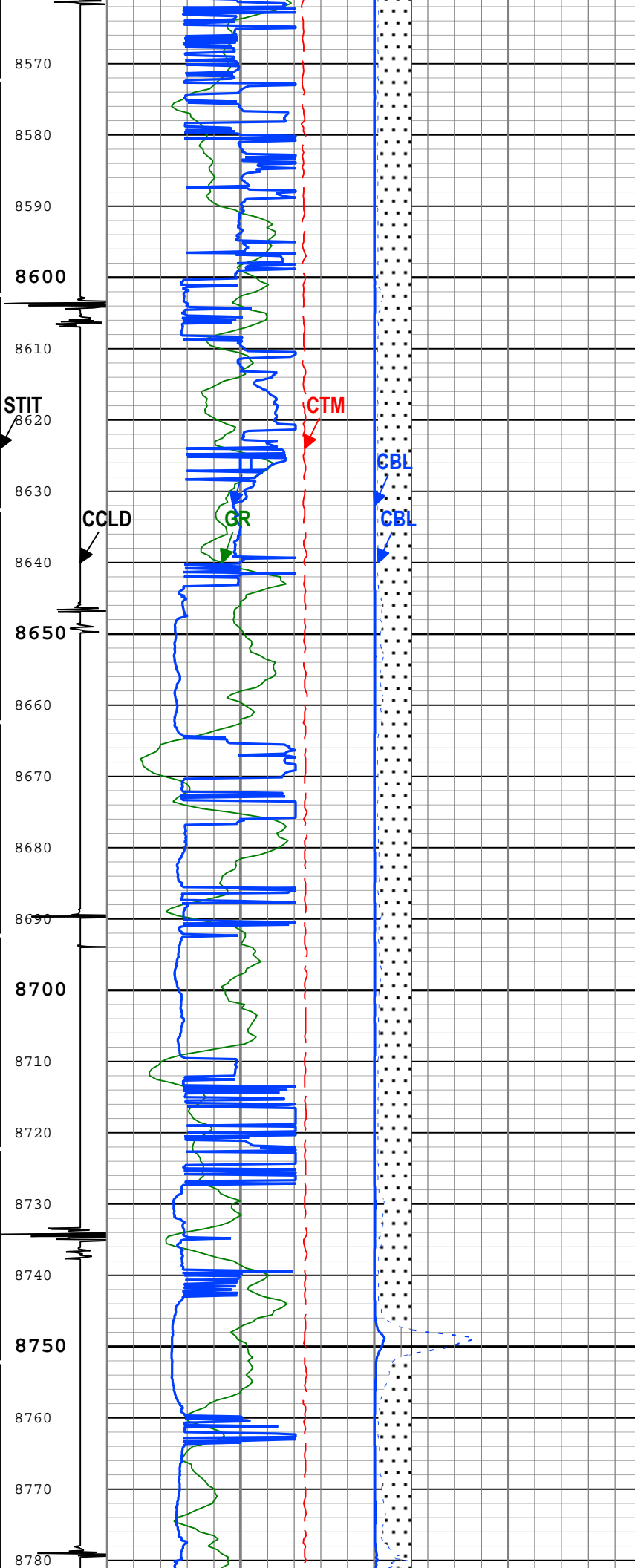
Tool Control Parameters	
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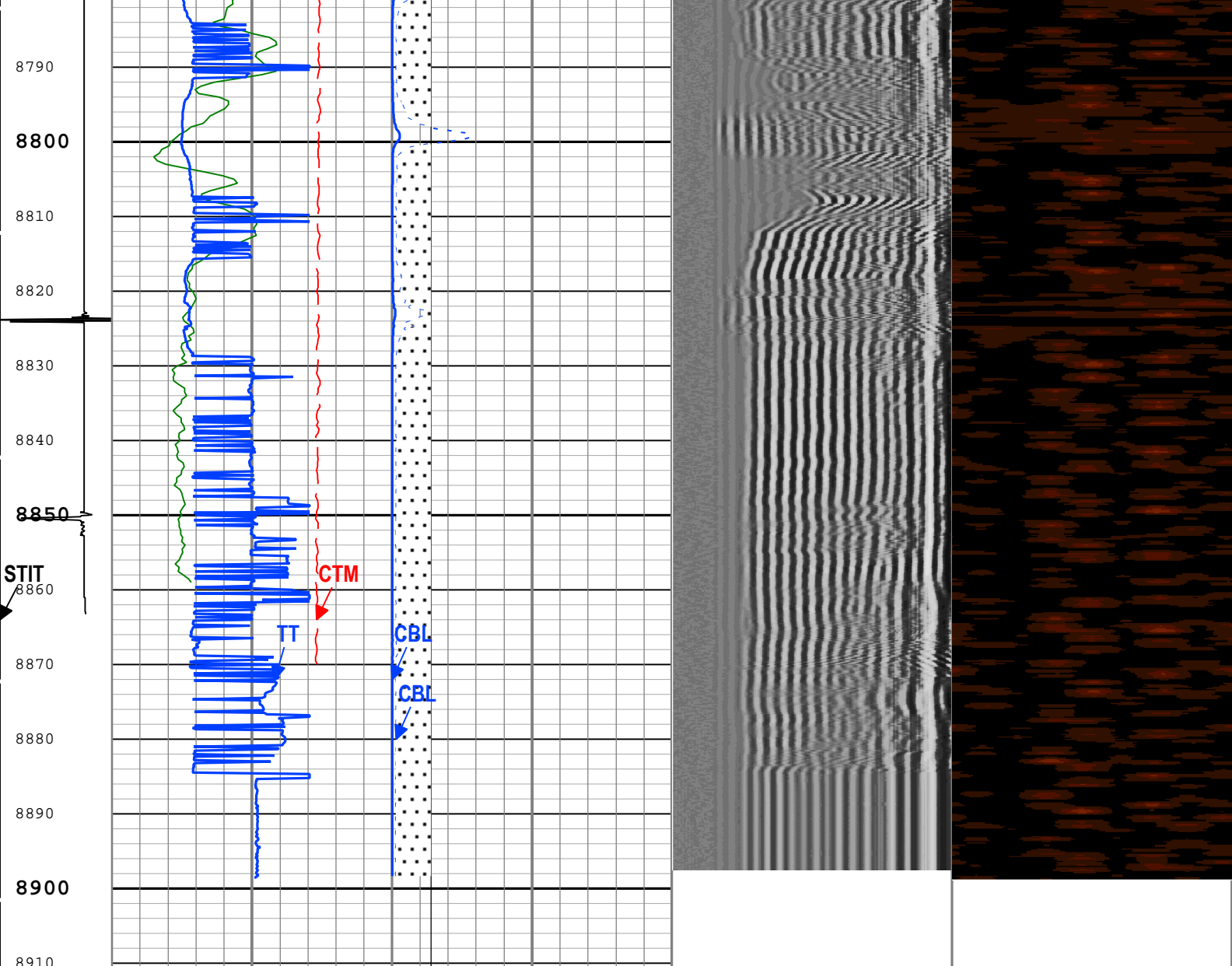
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	36 dB	

ONE		
Repeat Pass 0 PSI		









CCL Discriminated Amplitude (CCLD) PSTP-A	Gamma Ray (GR) PSTP-A	CBL Amplitude (CBL) SCMT-CB	Min	Amplitude	Max	Absent 7.500 17.500 27.500 37.500 47.500 57.500 67.500 77.500 87.500 97.500 CBL Amplitude Mapping Image (0 - 100) SCMT-CB
	0 gAPI 150	0 mV 10				
3 V -1	Transit Time for CBL (TT) SCMT-CB	CBL Amplitude (CBL) SCMT-CB	200	us	1200	
	200 us 400	0 mV 100				
Stuck Tool Indicator, Total (STIT)	Cartridge Temperature (CTM) RST-C	Good Bond (GOBO)				
	0 degF 300	0 mV 10				
0 ft 50		GoodBond From CBL to GOBO				

Cable Drag	
Tool_Tot. Drag	

TIME\_1900 - Time Marked every 60.00 (s)

Description: SCMT VDL Image    Format: Log ( SCMT\_VDL\_Image )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 07-Aug-2015 11:18:37

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	238	degF

CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	241	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	80	mV
CMCF	CBL Cement Type Compensation Factor	SCMT-CB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	29	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8479	ft
FCF	CBL Fluid Compensation Factor	SCMT-CB	0.89	
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-CB	176	us
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	10.14	dB/ft
MCCF	MAP Cement Type Compensation Factor	SCMT-CB	0.25	
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	1.25	ft
MMSA	MAP Minimum Sonic Amplitude	SCMT-CB	3.98	mV
MSA	Minimum Sonic Amplitude	SCMT-CB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	4.41	mV
PDAT	Permanent Datum	WLSESSION	GL	
RUN_SNUM	Run Sequence Number	WSDRUN	1	
SHT	Surface Hole Temperature	Borehole	68	degF
TD	Total Measured Depth	Borehole	8999	ft
ZCMT	Acoustic Impedance of Cement	SCMT-CB	3.4	Mrayl

## Tool Control Parameters

### ONE: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
RST_DLM	Depth Log Mode	RST-C	Sigma	

## Calibration Report

### SCMT-CB (Slim Cement Mapping Tool, 1-11/16 OD) Calibration - Run ONE

Primary Equipment :

Slim Cement Mapping Sonde

SCMS-CB

8372

### CBL and MAP Amplitude Adjustment - Measurements

Before (Manual Entry):

15:07:34 30-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Amplitude - 0	mV	Before	-----	-----	-----	-----		
Average MAP Amplitude (Fluid Compensated) - 0	mV	Before	-----	-----	-----	-----		
Measurement Depth - 0	ft	Before	-----	-----	-----	-----		

### CBL and MAP Amplitude Adjustment - Coefficients

Before (Manual Entry):

15:07:34 30-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Adjustment Factor		Before			0.795			
CBL LQC Reference Amplitude in Free Pipe	mV	Before			80.00			
MAP Adjustment Factor		Before			0.600			
Depth of Before Calibration	ft	Before			1002.29			

PSTP-A (PSP Telemetry Platform A - Sapphire) Calibration - Run ONE

Primary Equipment :

PBMS-A

PBMS-A

1814

Calibration Parameter :

JIG-BKGD (Jig minus background reference)

150

PBMS Well Temp Master Calibration

Master (EEPROM): 00:00:00 11-Mar-2002

PBMS\_RTD\_THERM (Master)      RTD Coefficients

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tt**0	166.2169	-442.9836	222.5367	-39.3639	2.621679	0

PBMS Gamma Ray Master Calibration

Master (EEPROM): 00:00:00 14-Nov-2001

PBMS\_GR\_MODEL (Master)      GR Coefficients

	Rt**0	Rt**1
Rt**0	1500	3840

PBMS A Reference Clock Master Calibration

Master (EEPROM): 00:00:00 11-Mar-2002

PBMS\_REF\_CLOCK (Master)      PBMS A Clock Coefficients

	Temp**0	Temp**1	Temp**2	Temp**3	Temp**4	Temp**5
Temp**0	-278.6698	2.064625	-0.2005075	0.001553137	-2.817383E-07	0

PBMS A Sapphire Master Calibration

Master (EEPROM): 00:00:00 11-Mar-2002

PBMS\_P\_GAUGE\_PRES (Master)      Sapphire Pressure Model Coefficients

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tp**0	-30895.39	22304.77	-7131.54	1088.081	-64.84312	0
Tp**1	22708.98	-15815.74	5200.516	-813.7849	49.69807	0
Tp**2	-206.2166	83.83393	-9.064614	0	0	0
Tp**3	3.194887	-0.7157836	0	0	0	0
Tp**4	0	0	0	0	0	0
Tp**5	0	0	0	0	0	0

PBMS\_P\_GAUGE\_TEMP (Master)      Sapphire Temperature Model Coefficients

	Tp**0	Tp**1	Tp**2	Tp**3	Tp**4	Tp**5
Tt**0	2222.343	-1.531535	-1.735451	0.3578298	-0.04106665	0
Tt**1	-1381.82	3.050812	0.4269152	-0.03685322	0.004793864	0
Tt**2	302.3562	-1.086123	-0.04274265	0	0	0
Tt**3	-23.36074	0.1179722	0	0	0	0
Tt**4	0	0	0	0	0	0
Tt**5	0	0	0	0	0	0





Company: Caerus Piceance LLC

**Schlumberger**

Well: Puckett 13A-1

Field: Wildcat

County: Garfield

State: Colorado

Slim Cement Mapping Tool

CBL-VDL