

Company: Caerus Piceance LLC

Well: Puckett 41A-2

Field: Wildcat

County: Garfield State: Colorado

Slim Cement Mapping Tool

CBL-VDL

County: Garfield
Field: Wildcat
Location: SHL: S2, T7S, R97W
Well: Puckett 41A-2
Company: Caerus Piceance LLC

Location:		SHL: S2, T7S, R97W 2178' FNL 8648' FEL LAT: 39.475811 / LONG: -108.180297	Elev.: K.B. 8509.00 ft G.L. 8479.00 ft D.F. 8509.00 ft
Permanent Datum:	Ground Level		Elev.: 8479.00 f
Log Measured From:	Kelly Bushing		30.00 ft above Perm.Datum
Drilling Measured From:	Kelly Bushing		
API Serial No.	Section:	Township:	Range:
05-045-22625	2	7S	97W

Logging Date 22-Jul-2015

Run Number ONE

Depth Driller 9165.00 ft

Schlumberger Depth 9165.00 ft

Bottom Log Interval 9165.00 ft

Top Log Interval 2500.00 ft

Casing Fluid Type Water

Salinity

Density 9 lbm/gal

Fluid Level 8.00 ft

BIT/CASING/TUBING STRING

Bit Size 8.75 in

From 2520.00 ft

To 9165.00 ft

Casing/Tubing Size 4.5 in

Weight 11.6 lbm/ft

Grade P110

From 0.00 ft

To 9159.00 ft

Max Recorded Temperatures 225 degF

Logger on Bottom 22-Jul-2015 21:15:00

Unit Number 9108 Location: Fort Morgan, CO

Recorded By Benjamin Mamoun/A. Mustafa

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.

Contents

1. Header

2. Disclaimer

3. Contents

4. Well Sketch

5. Borehole Size/Casing/Tubing Record

6. Operational Run Summary

7. Remarks and Equipment Summary

8. Depth Summary

9. ONE Mainpass 2500 PSI

9.1 Integration Summary

9.2 Software Version

9.3 Composite Summary

9.4 Log (SCMT_Amp_Image_1)

9.5 Parameter Listing

10. ONE Repeat Pass 0 PSI

10.1 Integration Summary

10.2 Software Version
- 11.4 Log (SCMT_VDL_Image_1)

11.5 Parameter Listing

12. ONE Repeat Pass 0 PSI

12.1 Integration Summary

12.2 Software Version

12.3 Composite Summary

12.4 Log (SCMT_VDL_Image)

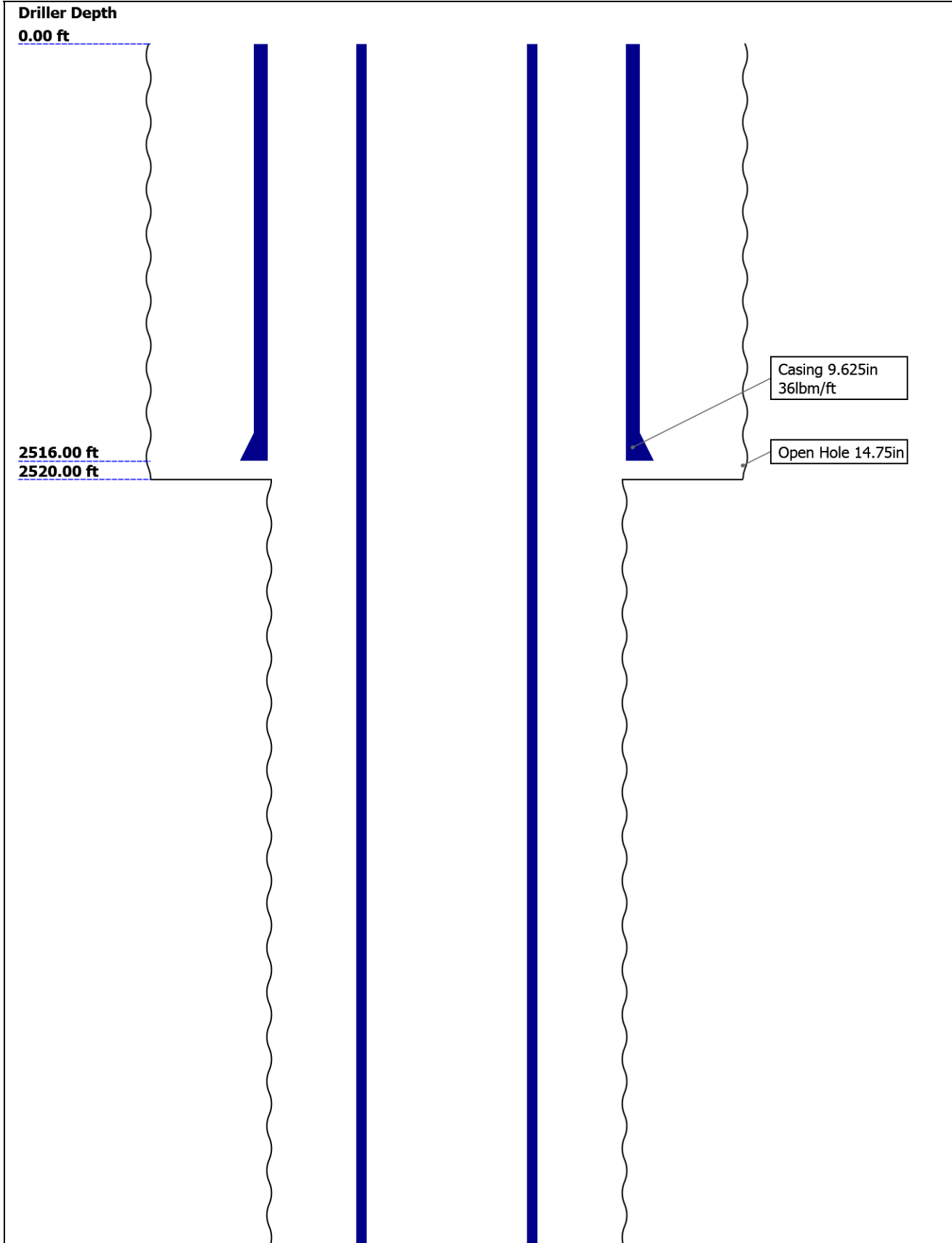
12.5 Parameter Listing

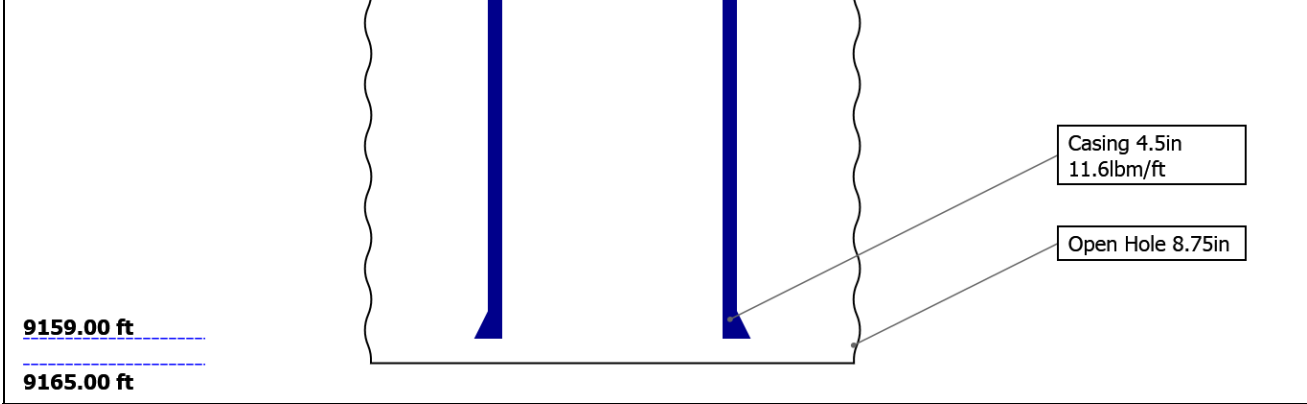
13. Calibration Report

14. Tail

- 10.3 Composite Summary
- 10.4 Log (SCMT_Amp_Image_1)
- 10.5 Parameter Listing
- 11. ONE Mainpass 2500 PSI
 - 11.1 Integration Summary
 - 11.2 Software Version
 - 11.3 Composite Summary

Well Sketch





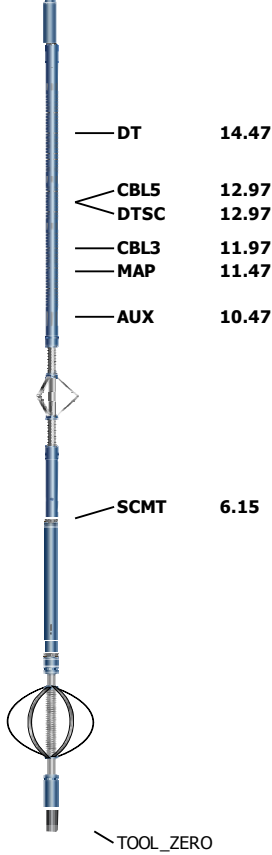
Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	14.75	8.75				
Top Driller (ft)	0	2520				
Top Logger (ft)	0	2520				
Bottom Driller (ft)	2520	9165				
Bottom Logger (ft)	2520	9165				
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)	2516	9159				
Bottom Logger (ft)	2516	9159				

Operational Run Summary

Parameter (unit)	ONE					
Date Log Started	22-Jul-2015					
Time Log Started	19:07:18					
Date Log Finished	23-Jul-2015					
Time Log Finished	01:35:33					
Top Log Interval (ft)	8202.10					
Bottom Log Interval (ft)	30068.90					
Total Depth (ft)						
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	Benjamin Marmon/A.					

ONE: Toolstring				ONE: Remarks	
Equip name LEH-QT LEH-QT	Length 58.91	MP name	Offset	Tool run as per Tool sketch	
				This is first run in hole	
				Main and Repeat Passes are correlated to Downlog	
				RST run in Sigma Mode	
				Matrix: Sandstone, 2.68 g/cc	
				Tagged Float Collar at 9096'	
				Repeat Pass done with 0 PSI	
				Main Pass done with 2500 PSI	
				Log Stopped at 2500' per client request	
PSTP-A:18 14 PSC-A PSTC-A PBMS-A:18 14 Sapphire 10 kPSI	54.85				
RST-C:178 7 RSCH-A:46 9 RSC-E:381 RSS-A:461 MNTR-F:1 RSXH-A:27 5 RSX-E:1787	46.58				
SCMT-CB: 8372 SECH-CA SCMC-CA CMIR-AG SCMS-CB:8 372 SCMX-CA AH-278 TTG-C:8295	23.56				



BNS-P **0.14**

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-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Cable Type			
Wheel Correction 1	0		
Wheel Correction 2	0		

Tension Device

Type	CMTD-B/A		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Number of Calibration Points	0		

Logging Cable

Type	7-46A-XS		
Serial Number			
Length	21000.00 ft		
Conveyance Type	Wireline		
Rig Type	Crane		

ONE:Depth Control Parameters

Depth Control Remarks

Log Sequence First Log In the Well

Rig Up Length At Surface
Rig Up Length At Bottom
Rig Up Length Correction
Stretch Correction
Tool Zero Check At Surface

ONE

Mainpass 2500 PSI

Software Version

Acquisition System

Maxwell 2016

Version

6.0.47569.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[3]:Up	Up	2499.07 ft	9136.16 ft	22-Jul-2015 9:02:50 PM	23-Jul-2015 12:48:38 AM	ON	8.07 ft	Yes

All depths are referenced to toolstring zero

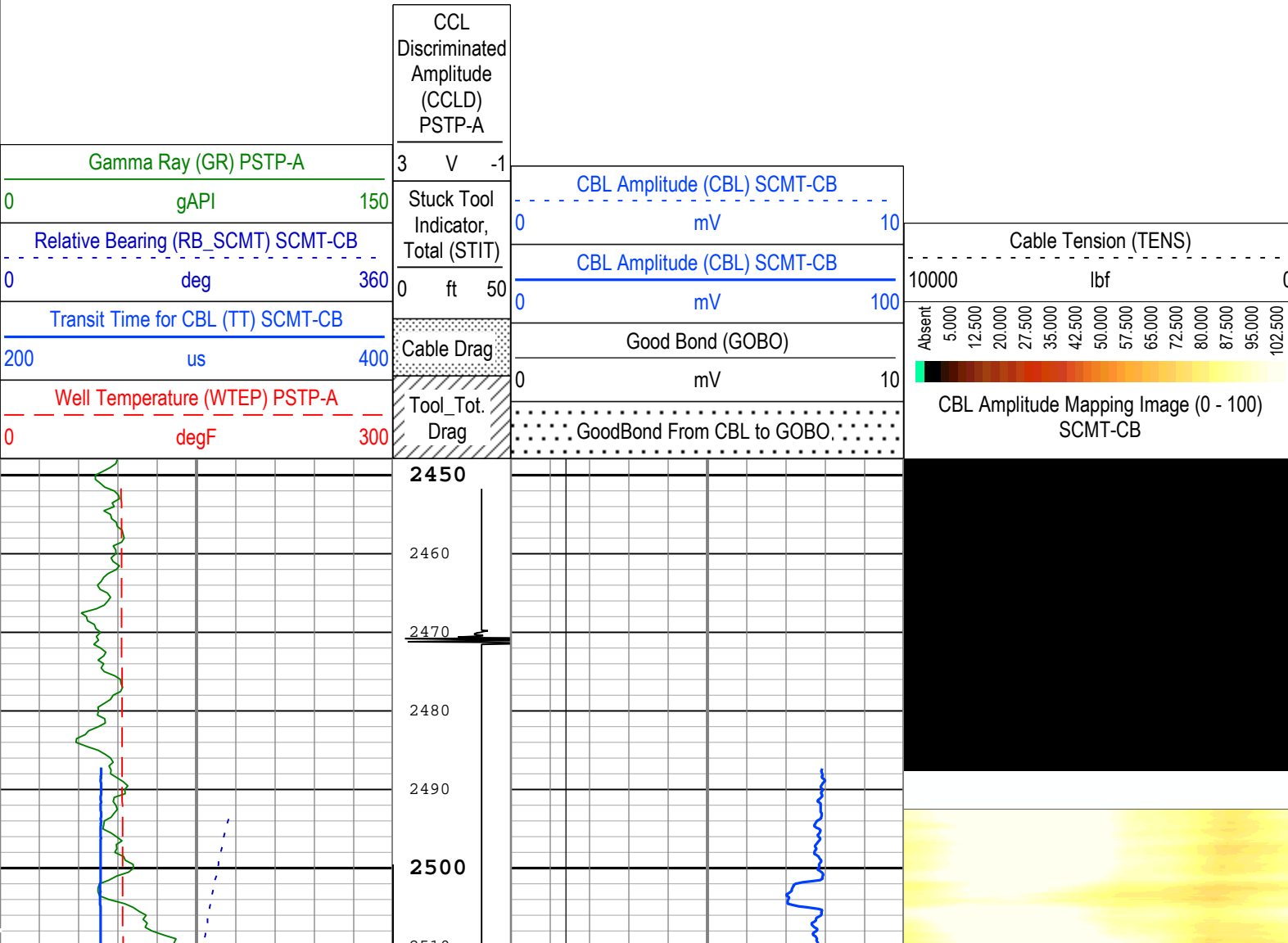
Log

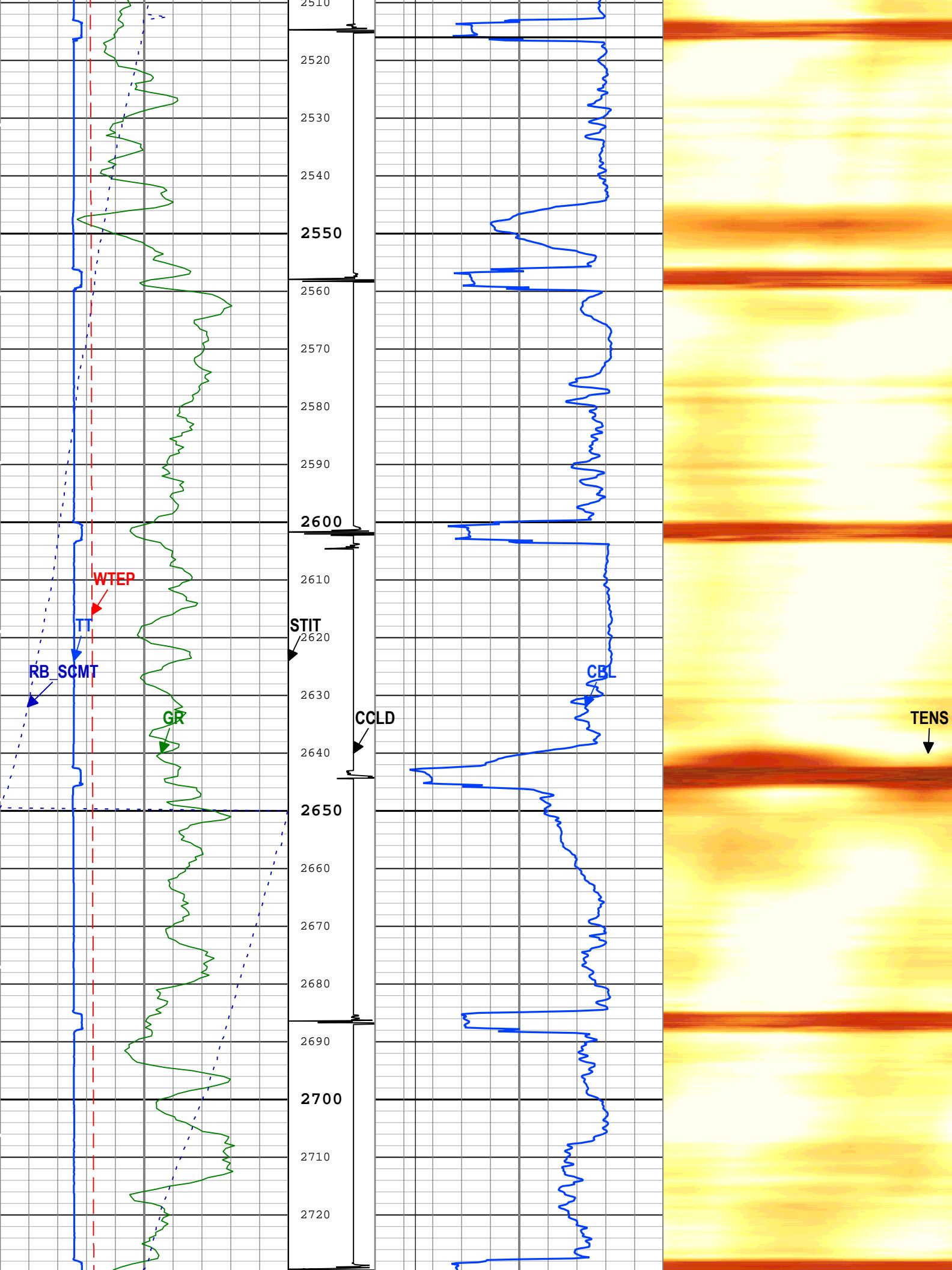
Company:Caerus Piceance LLC Well:Puckett 41A-2

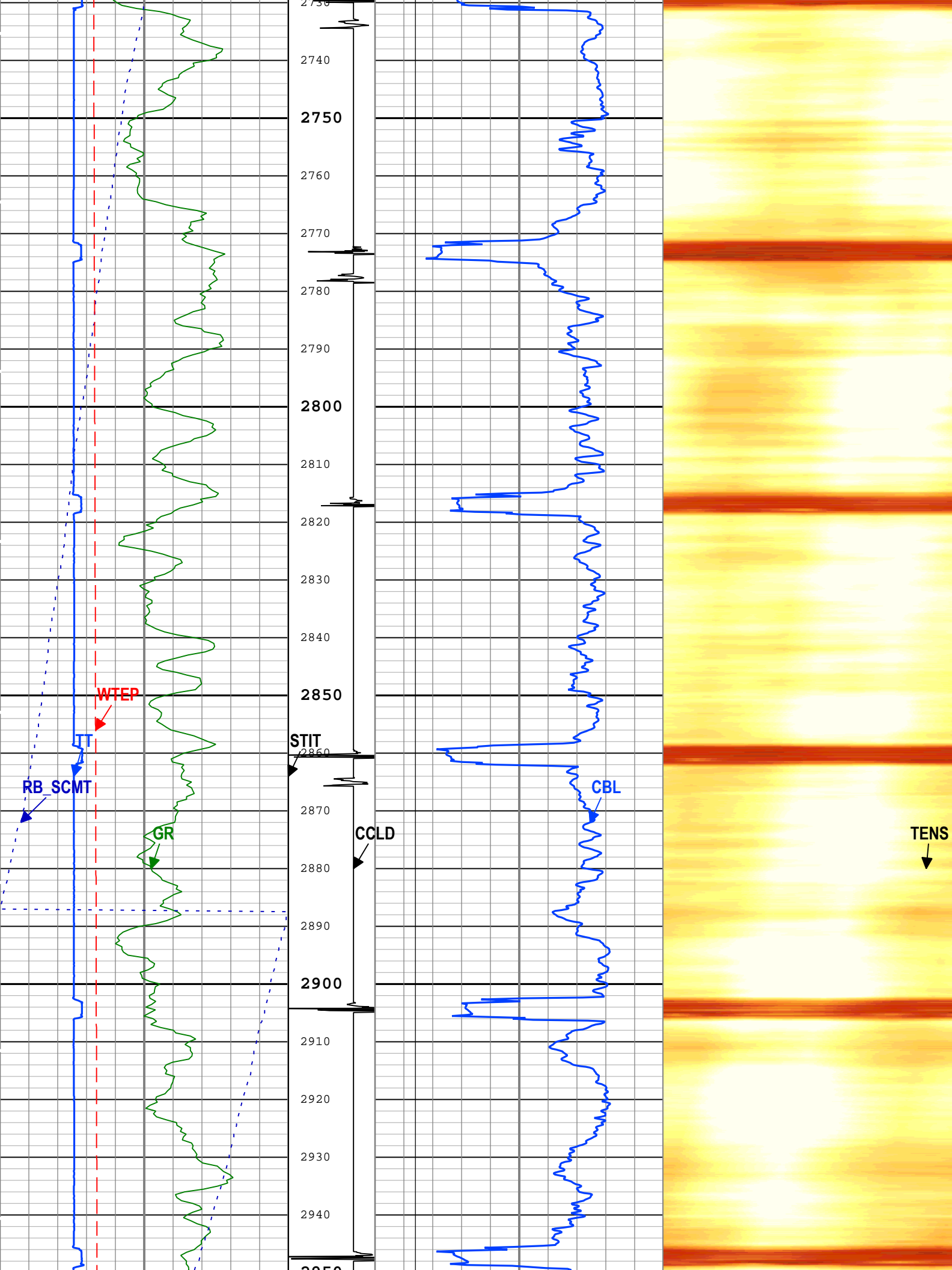
ONE: Log[3]:Up:S008

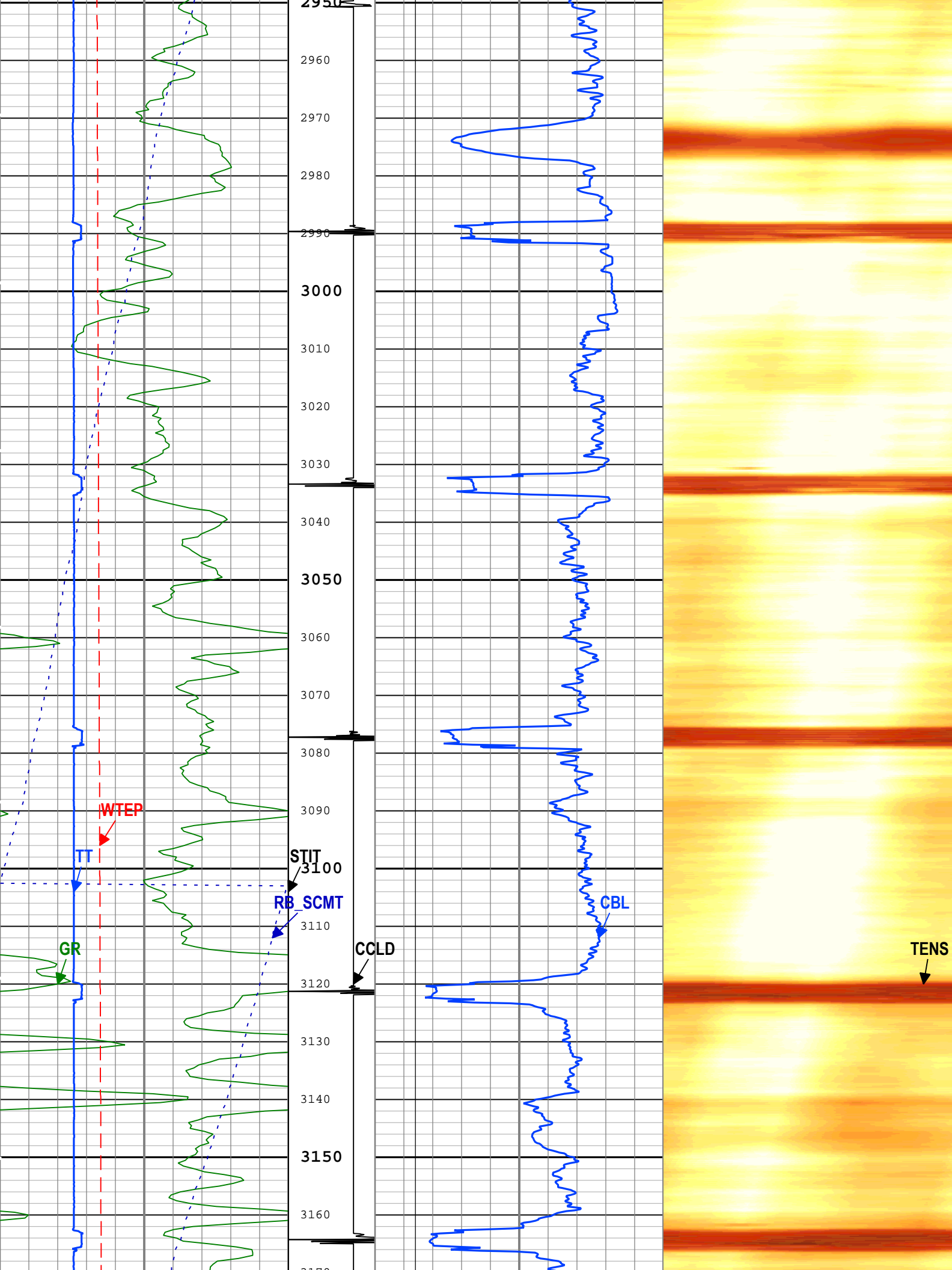
Description: SCMT Amplitudes and MAP Image Format: Log (SCMT_Amp_Image_1) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured
Depth Creation Date: 07-Aug-2015 11:38:36

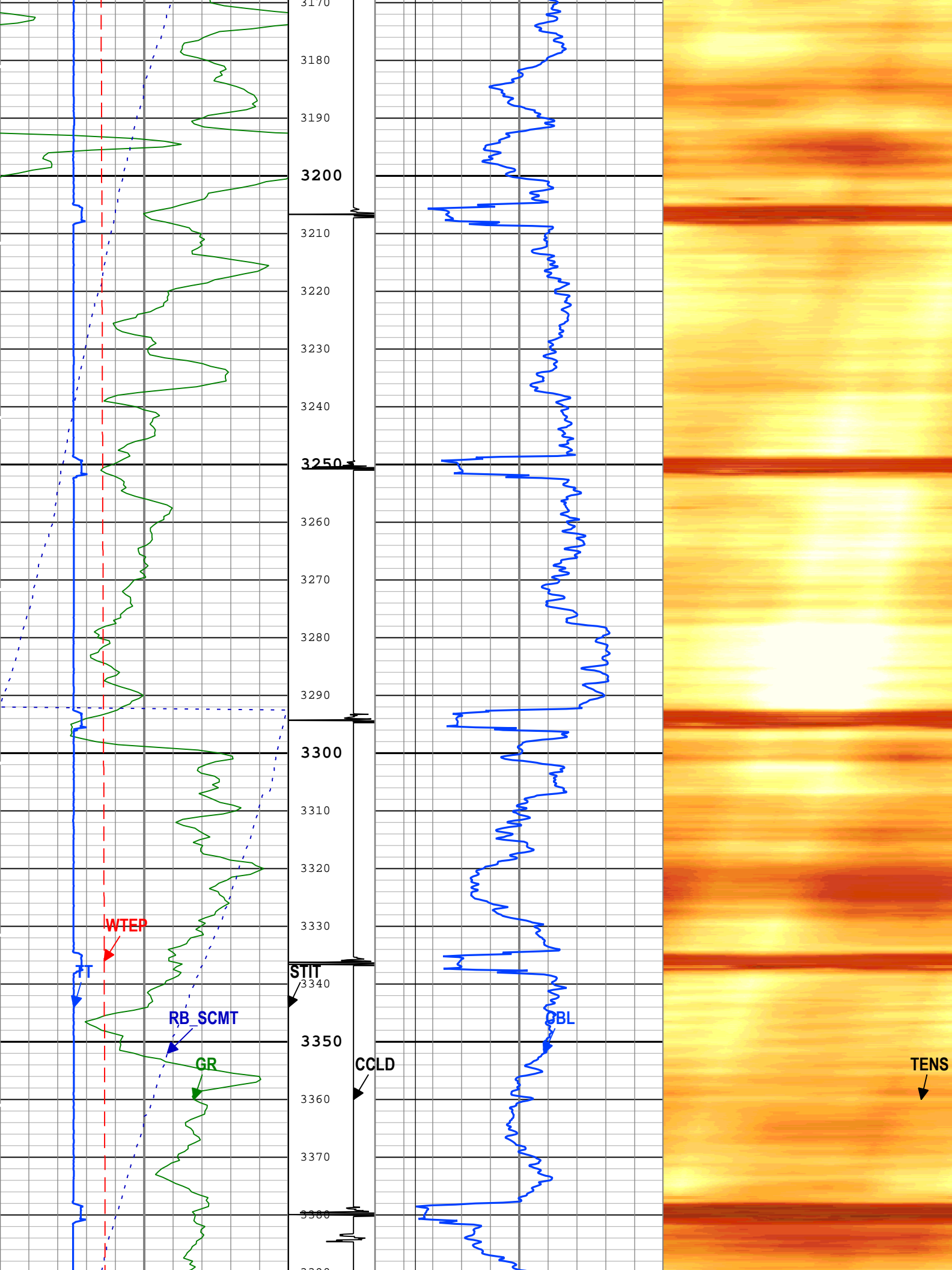
TIME_1900 - Time Marked every 60.00 (s)

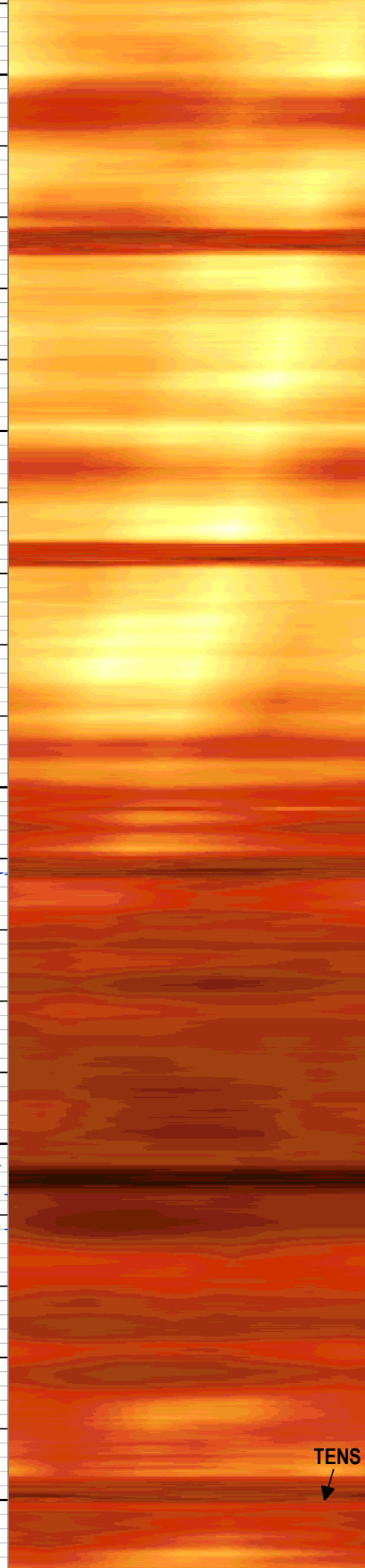
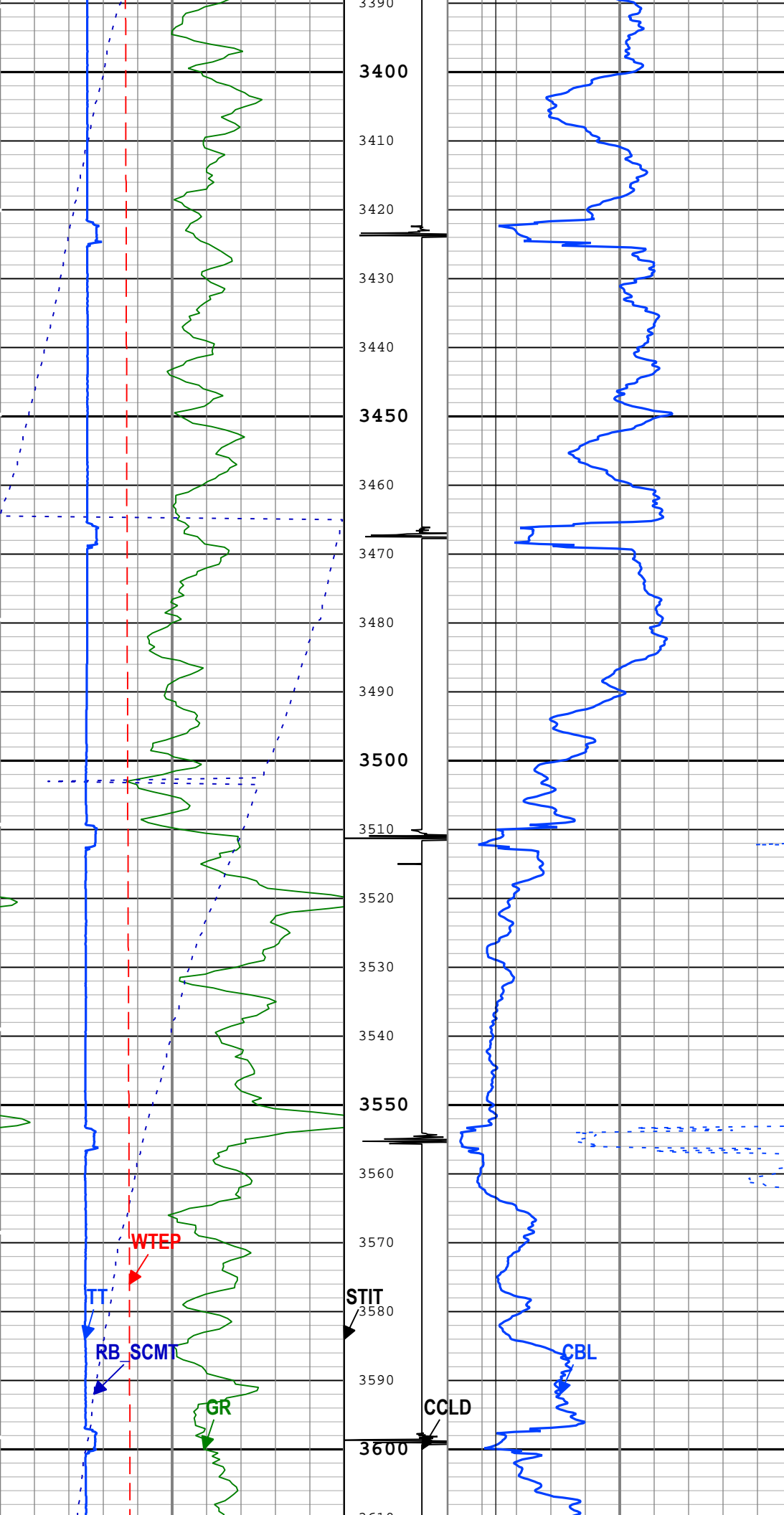




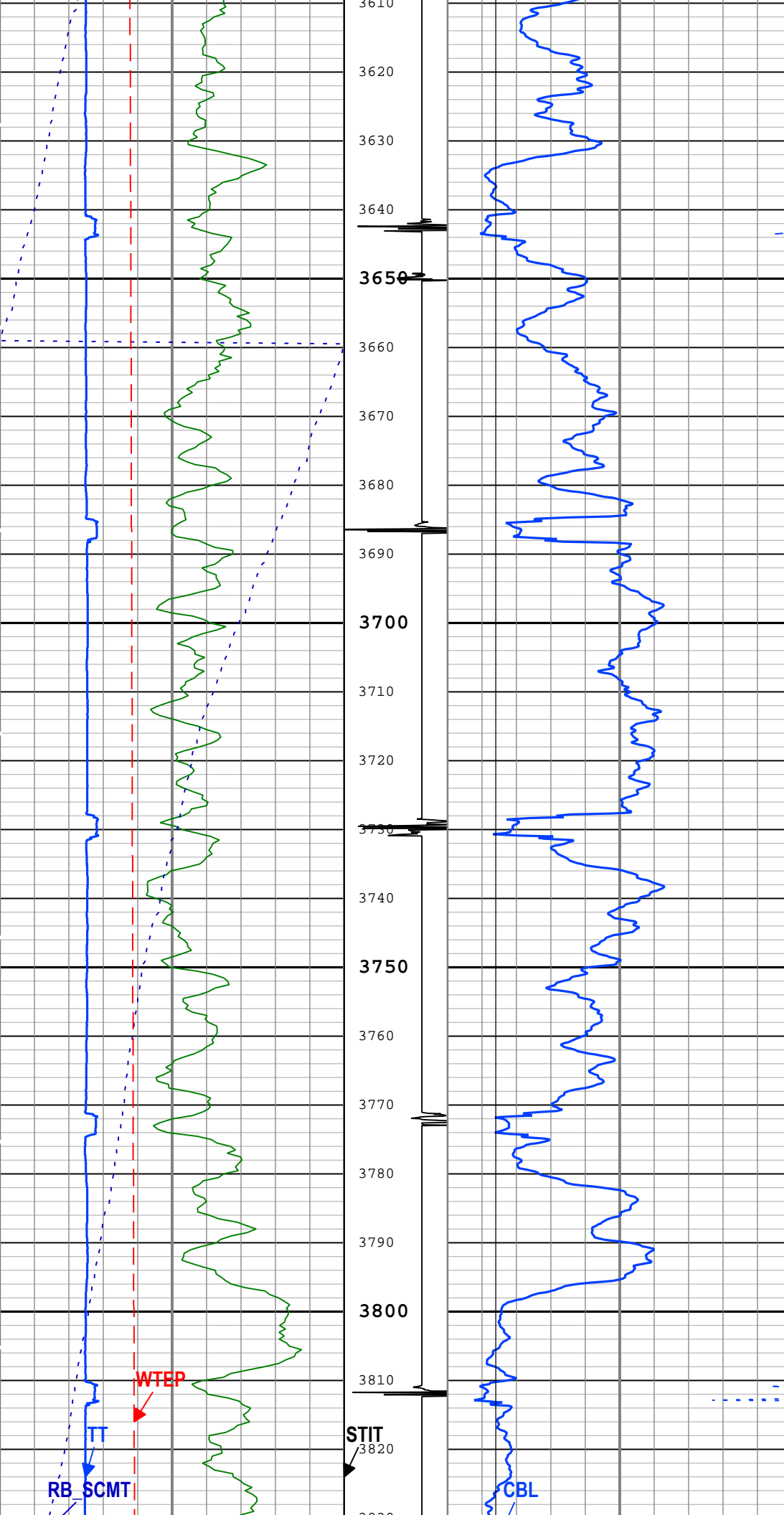


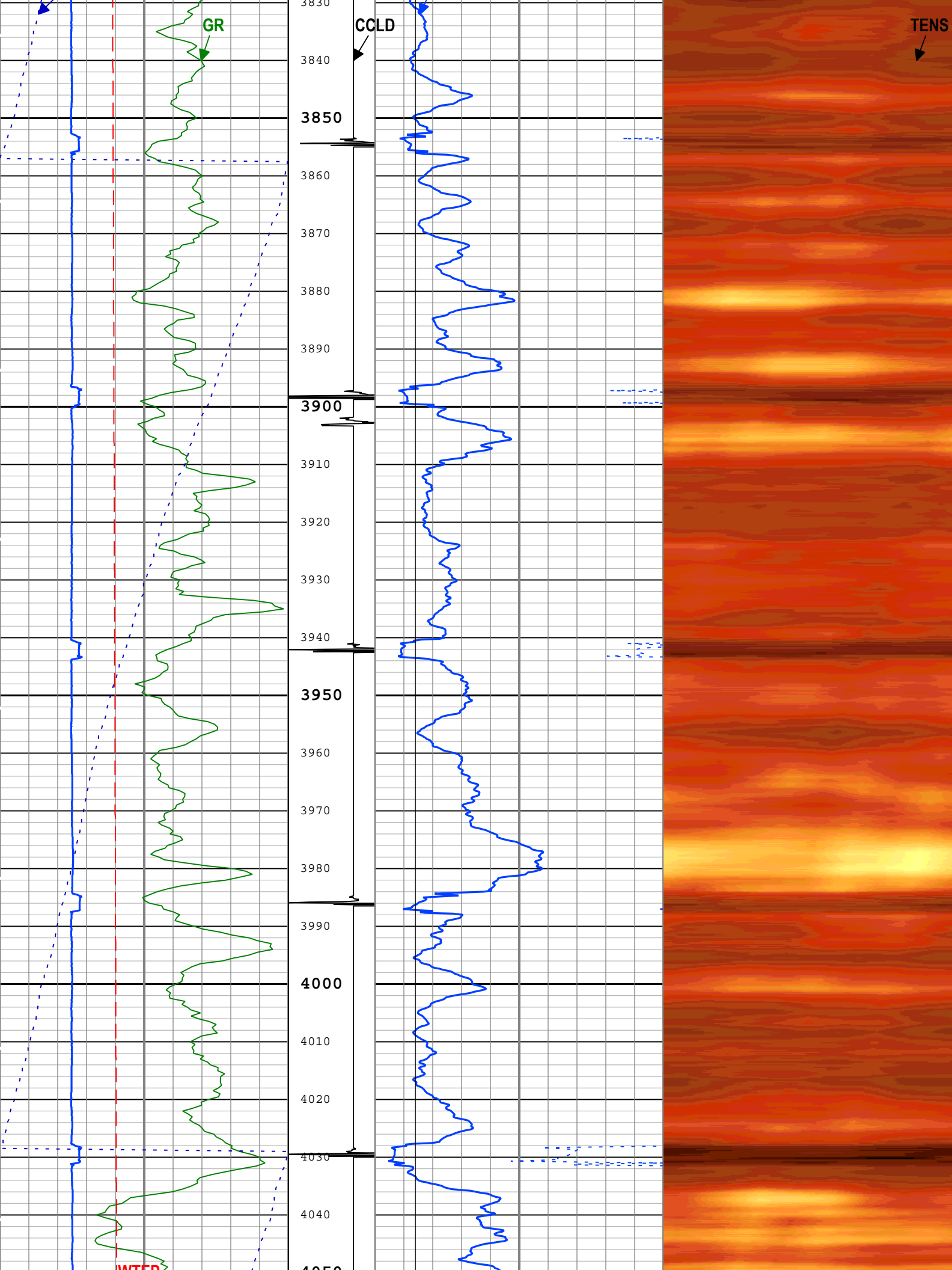


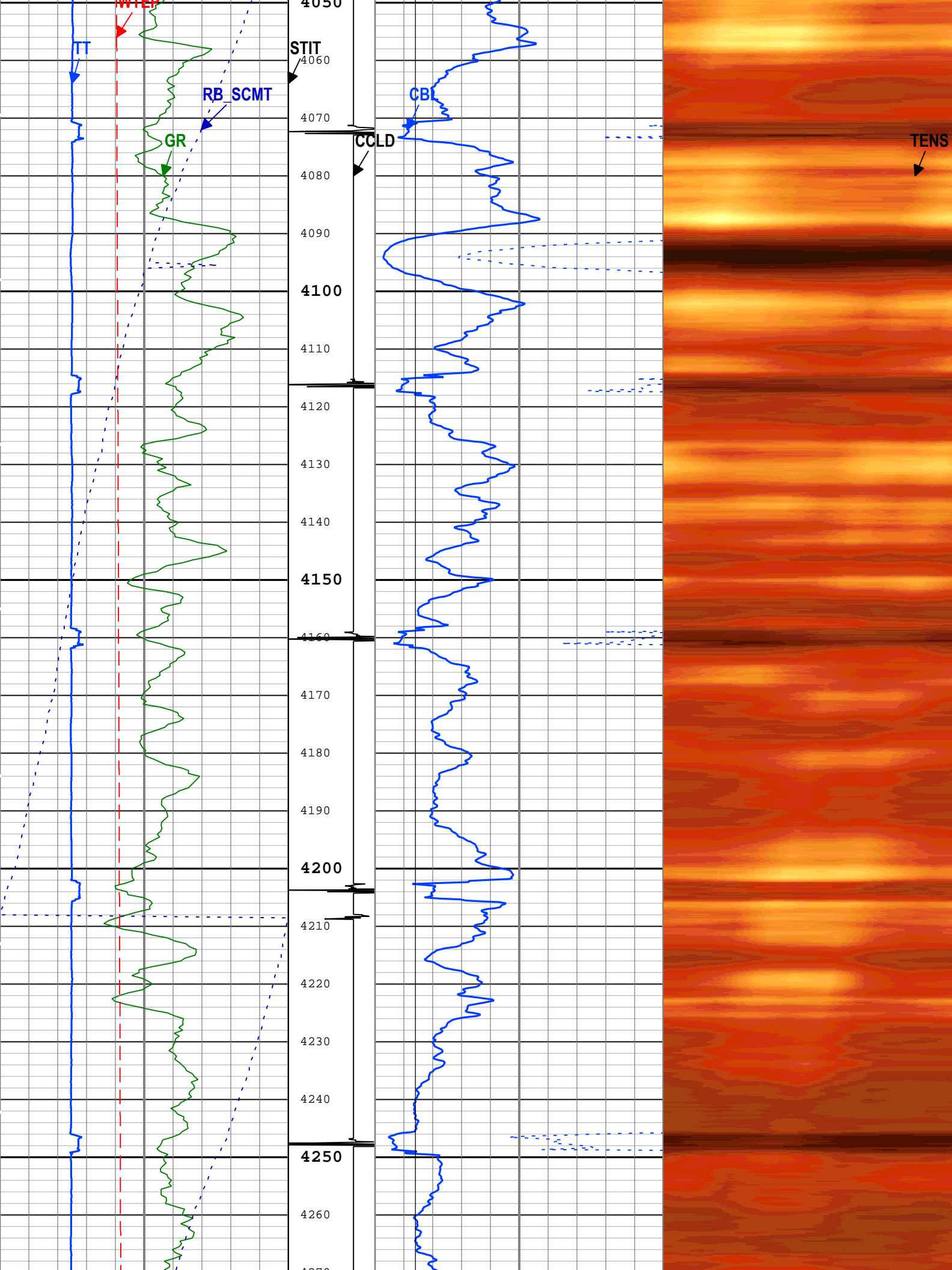


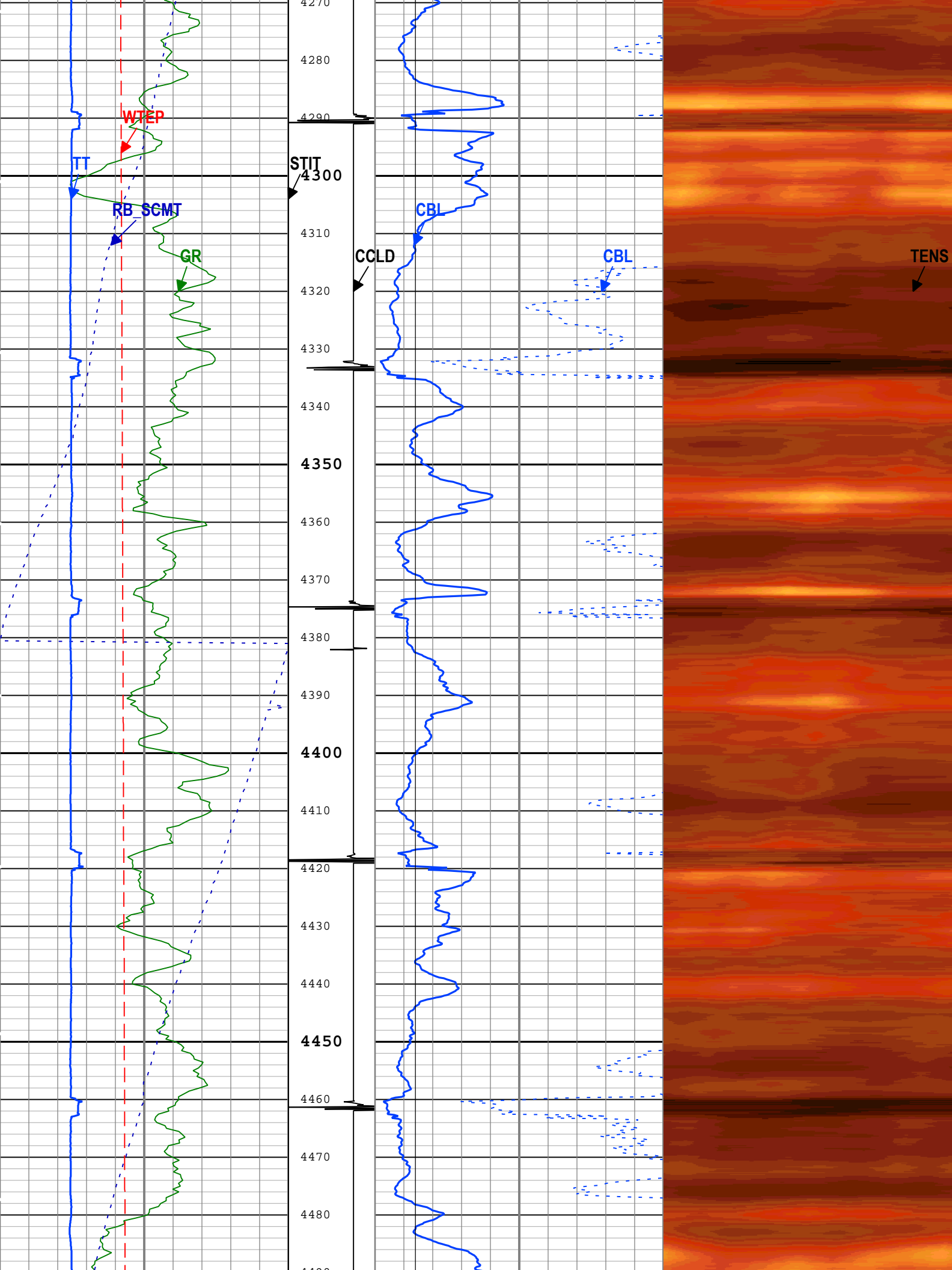


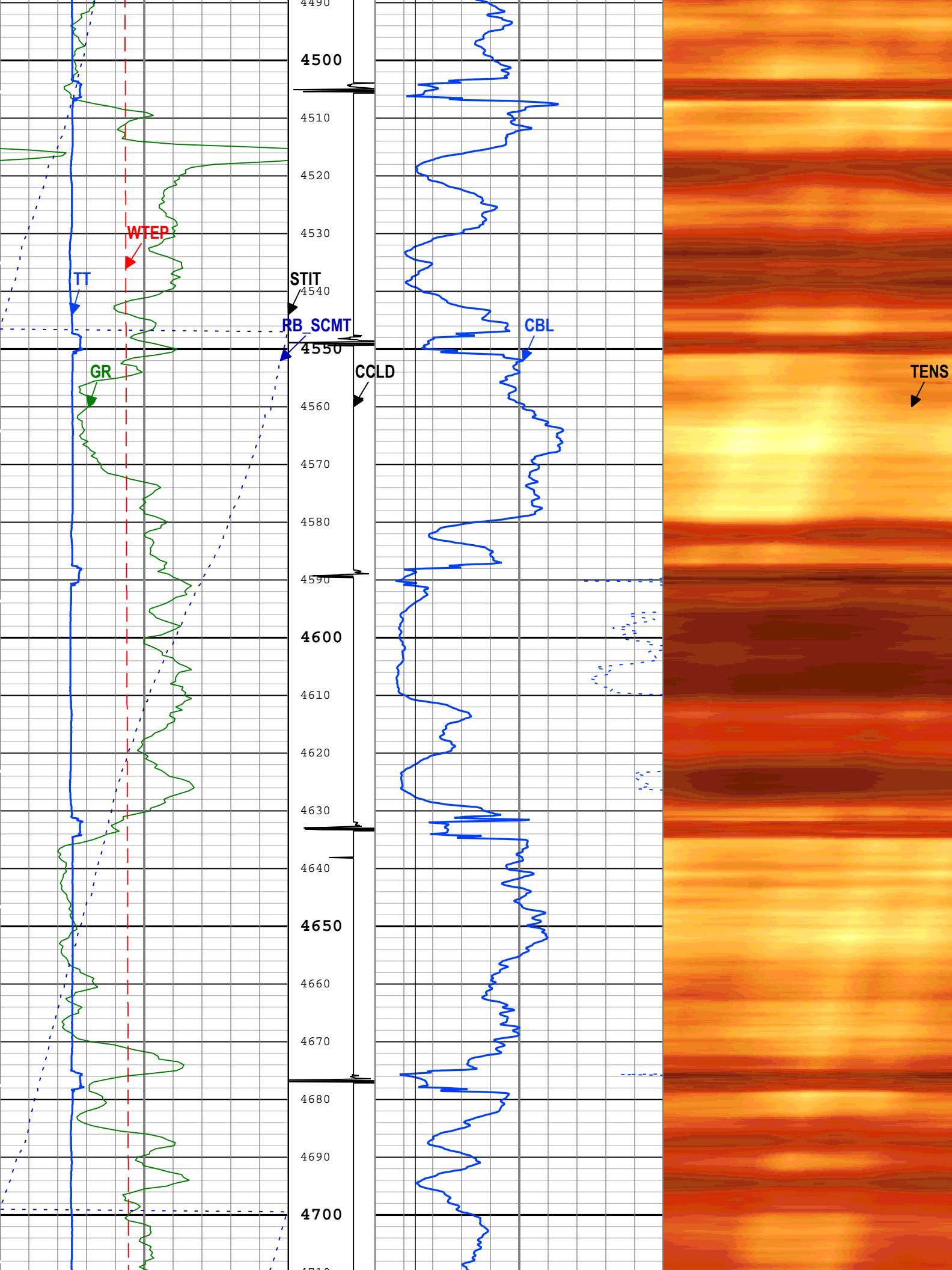
TENS
↓

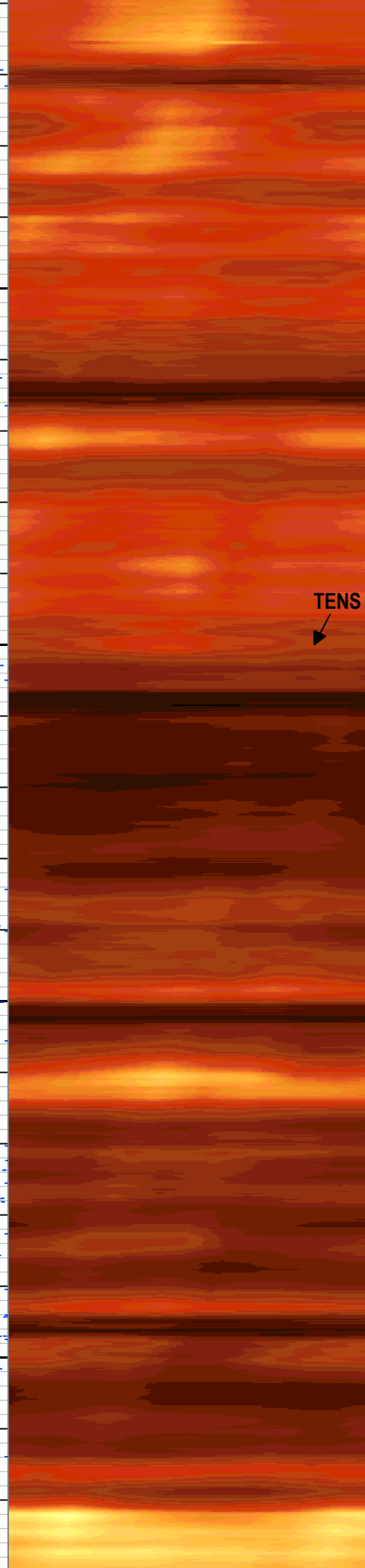
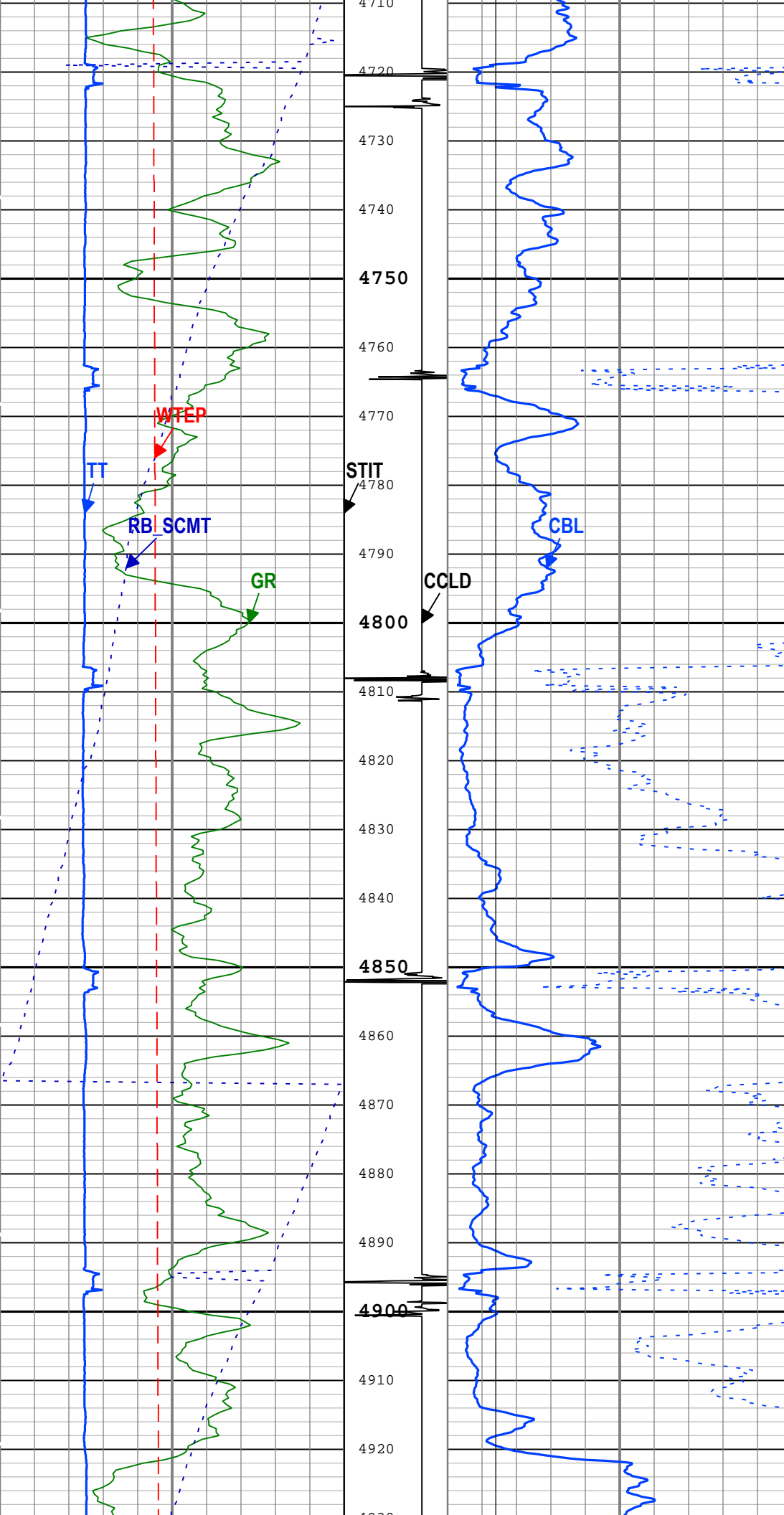


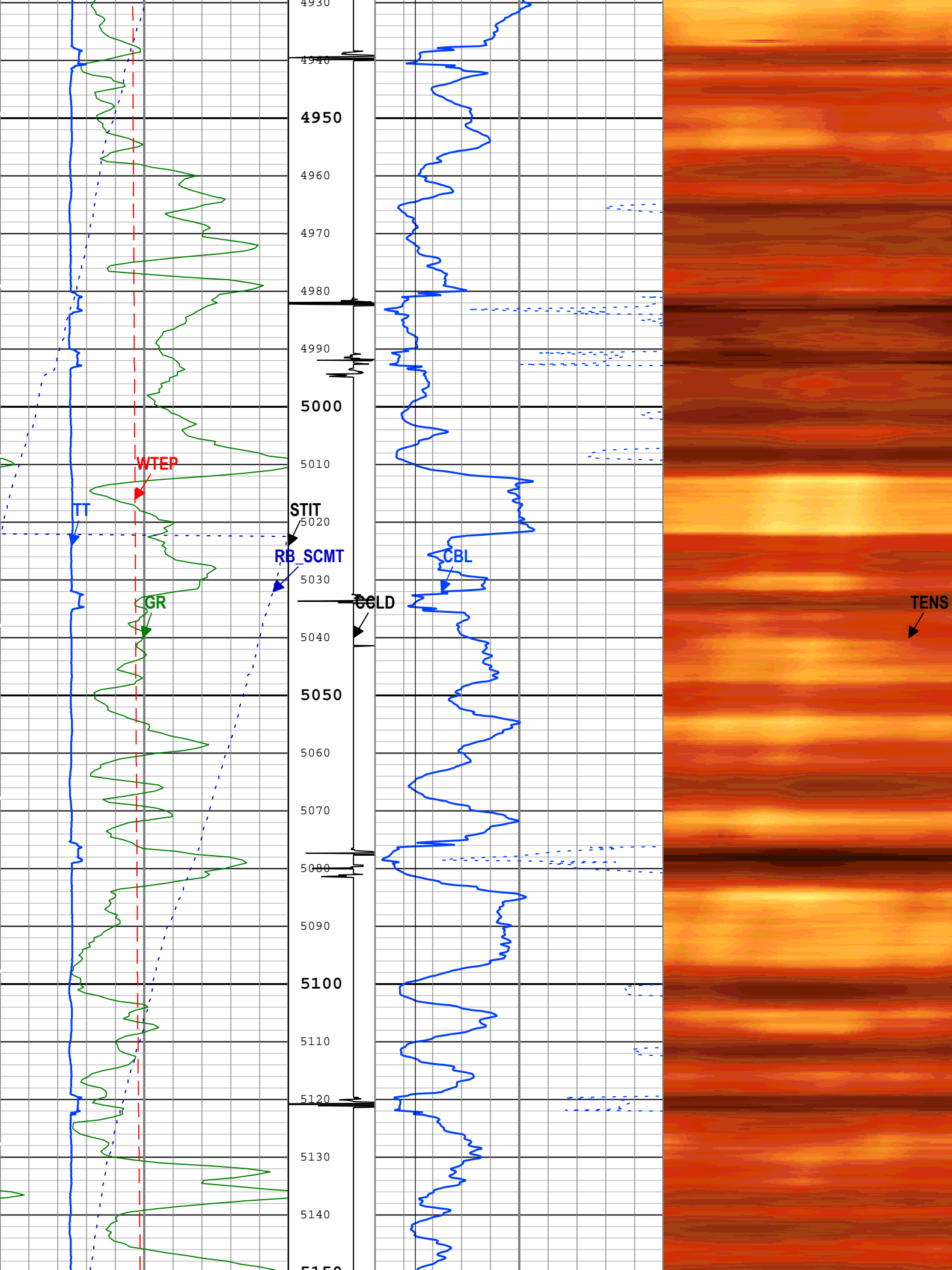


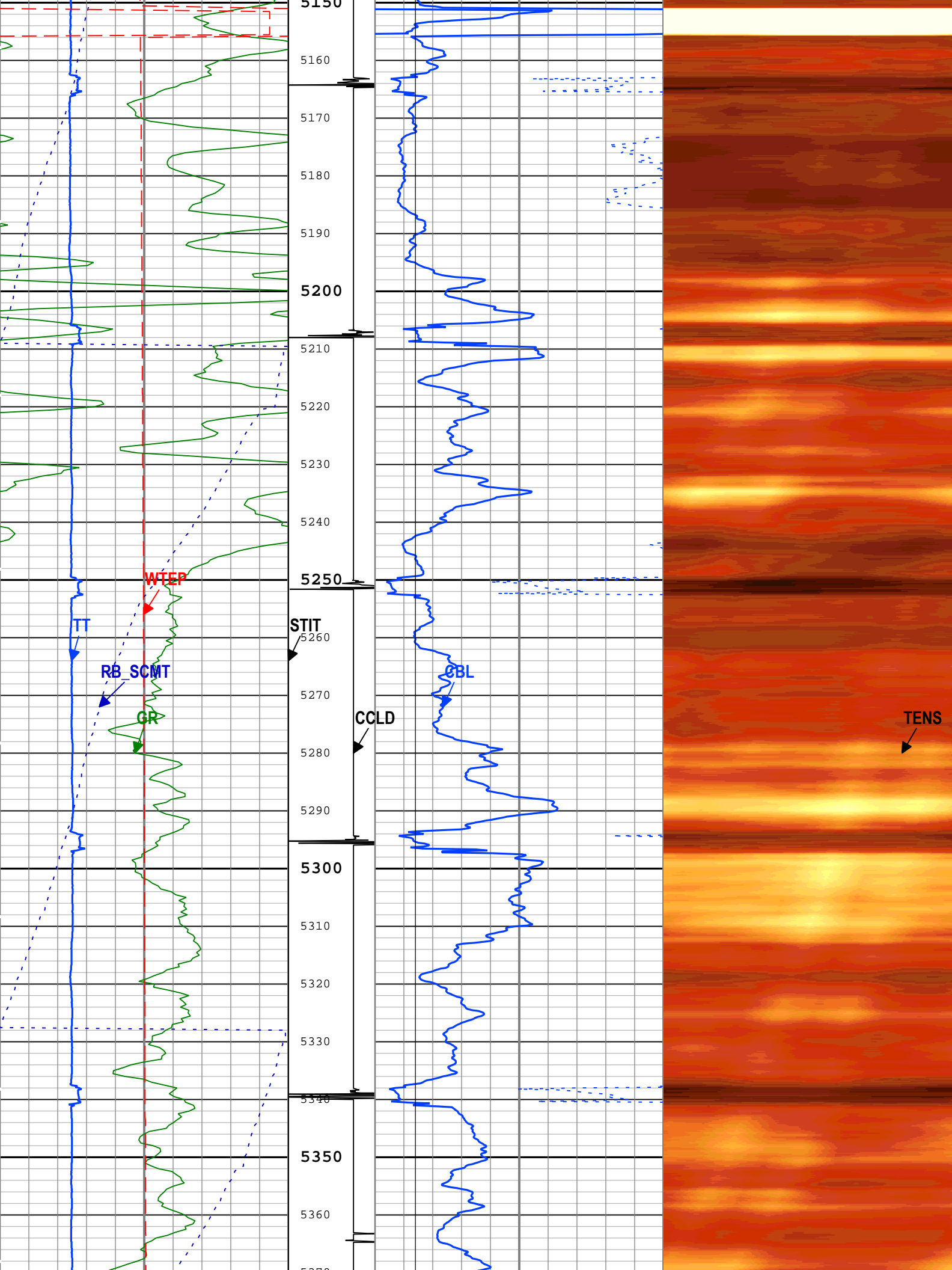


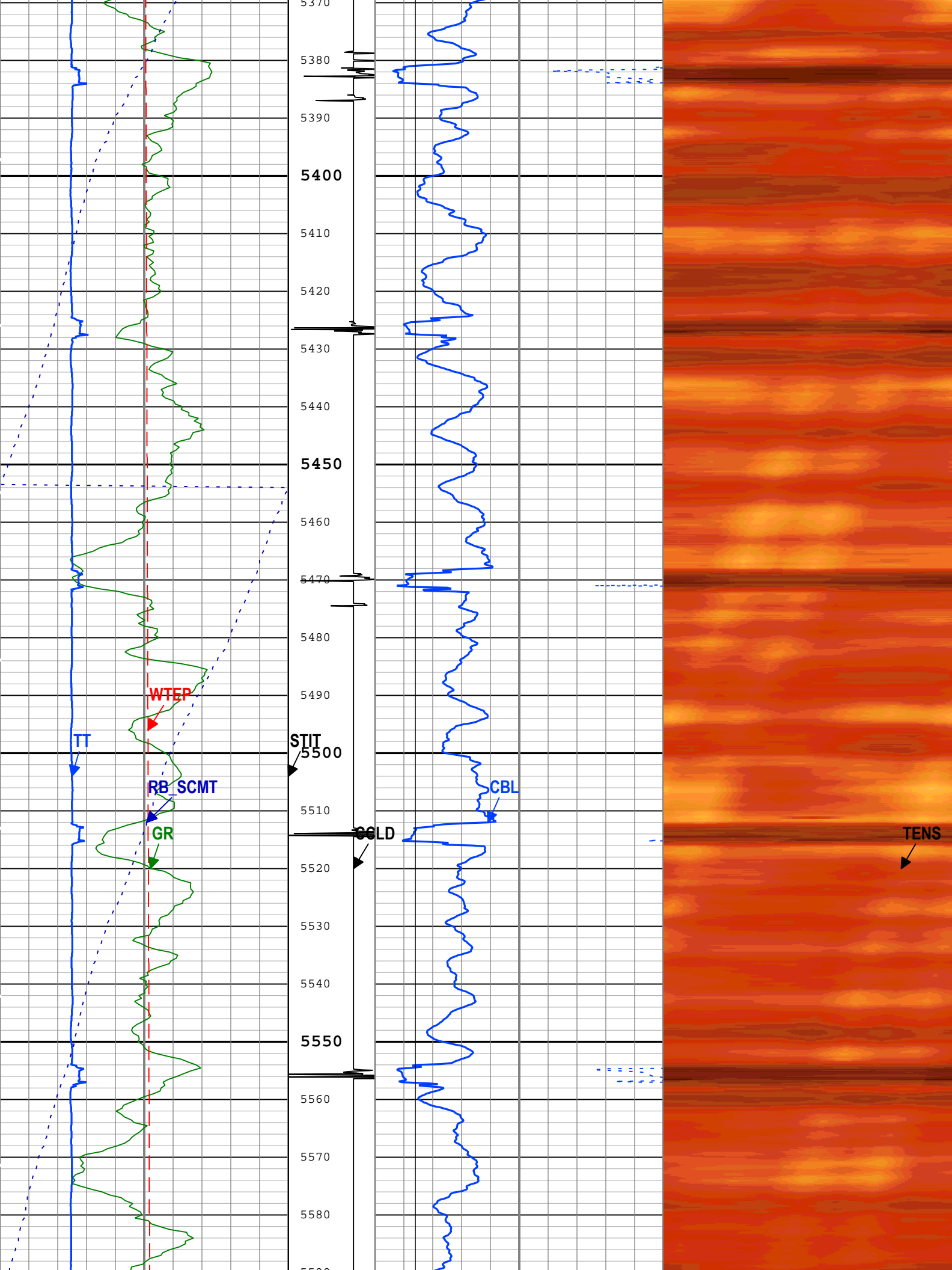


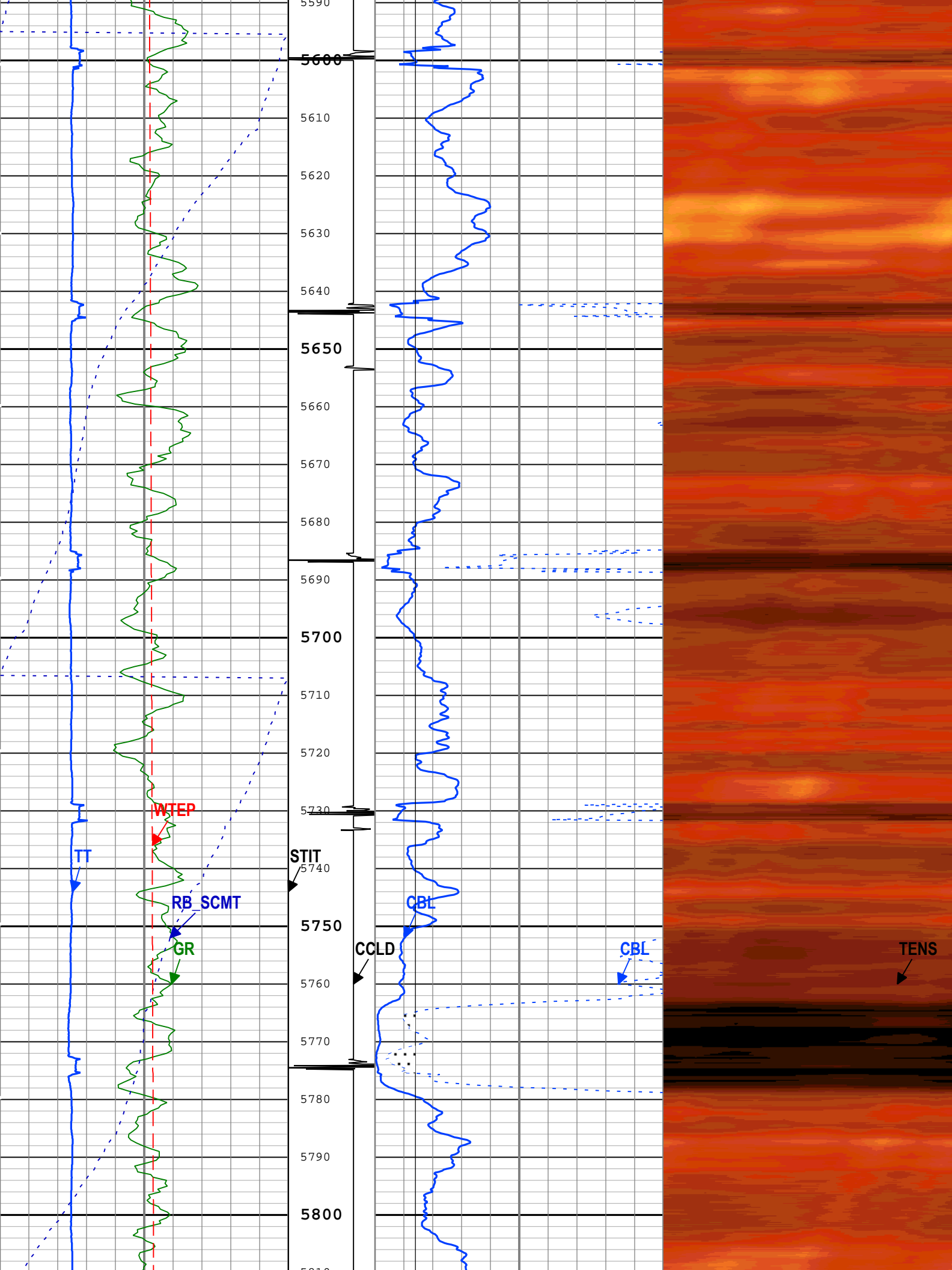


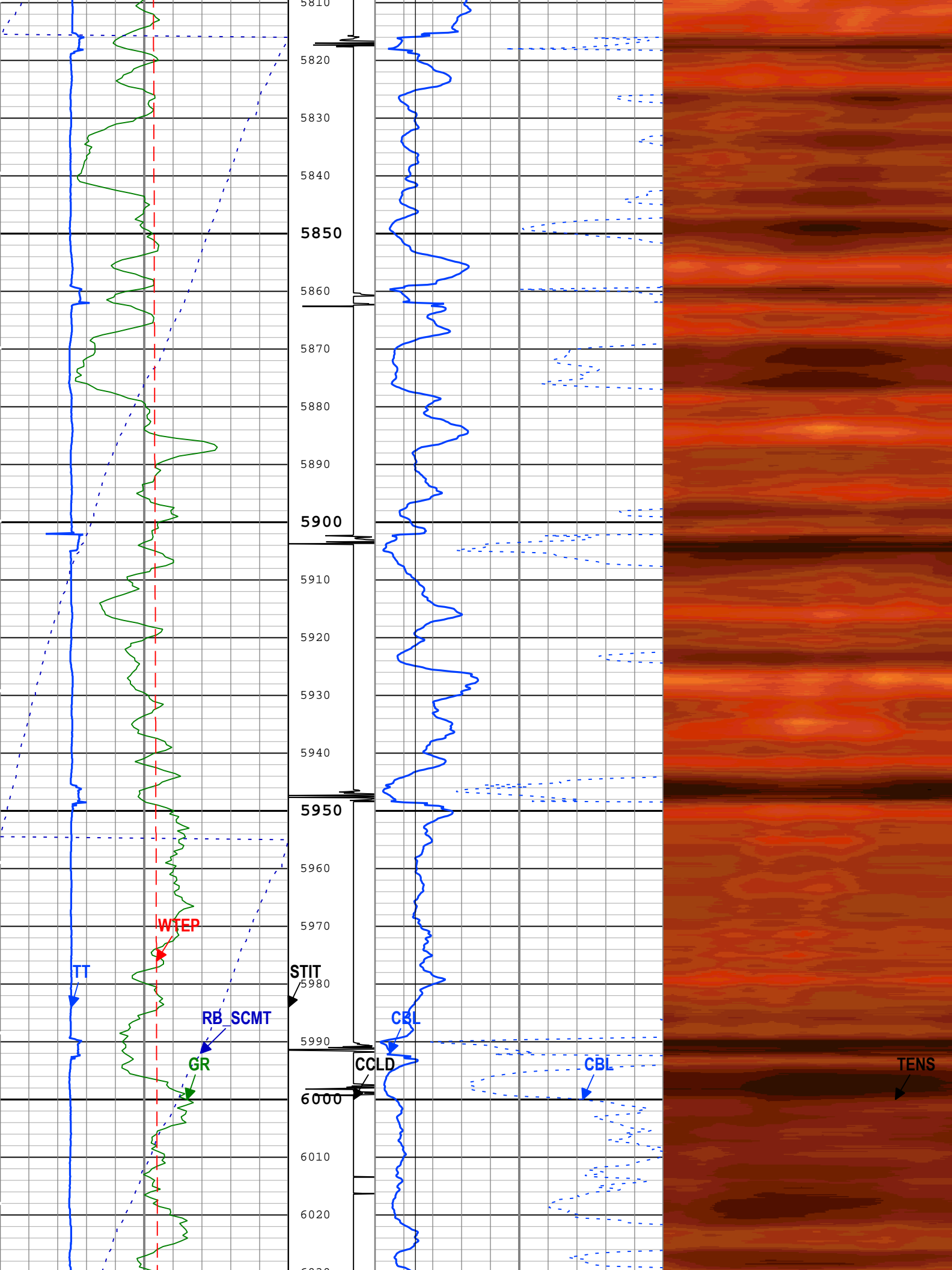


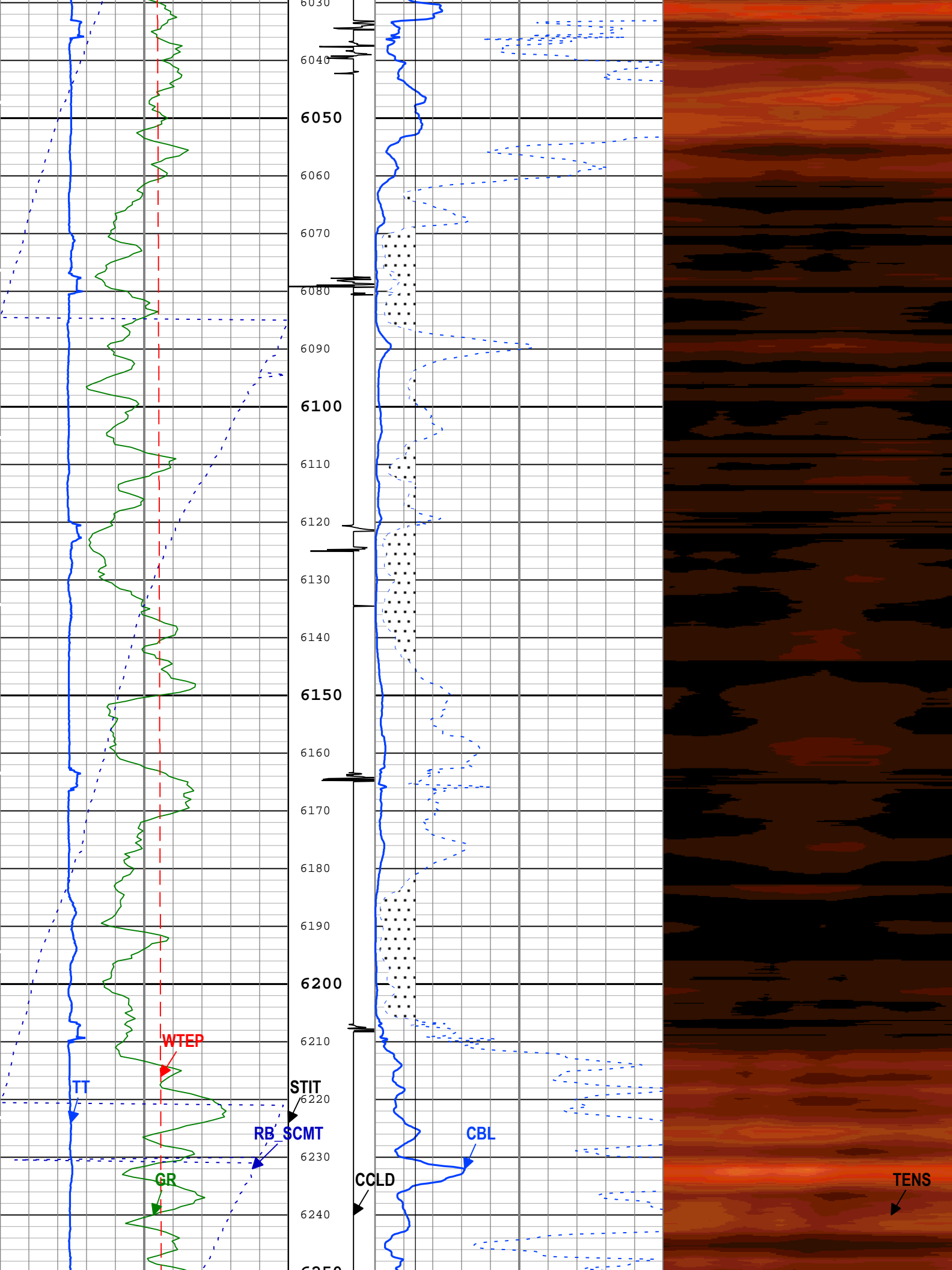


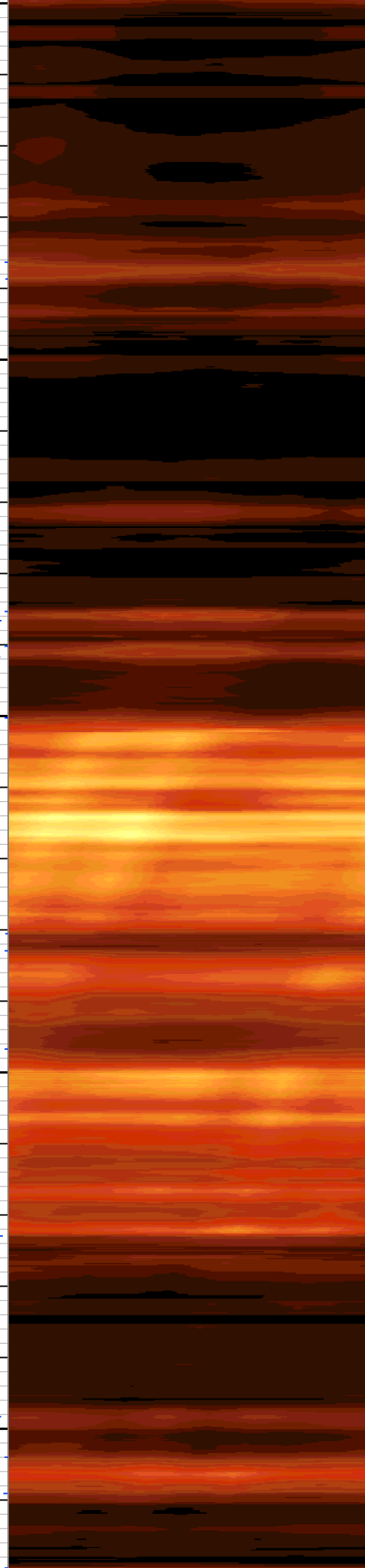
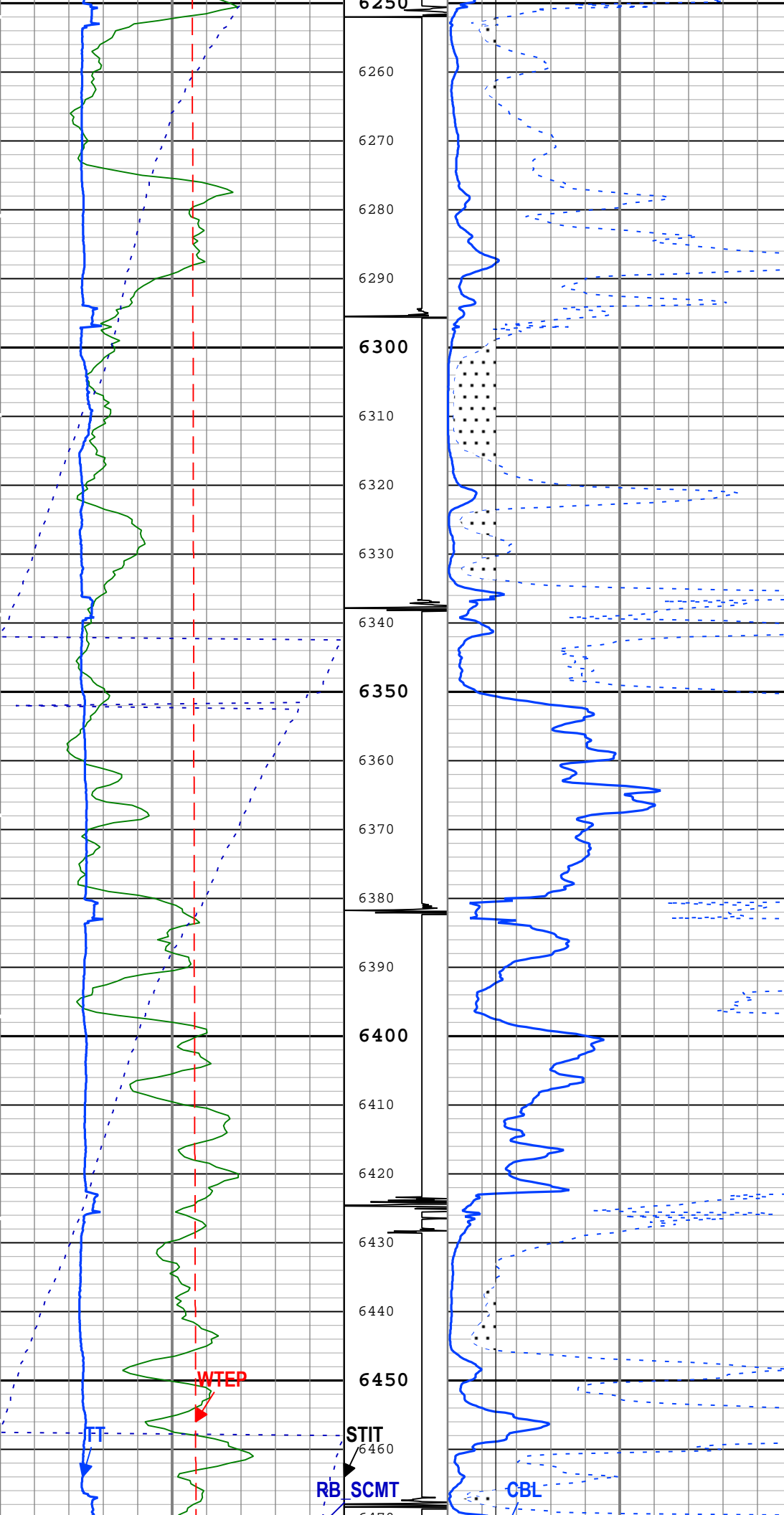


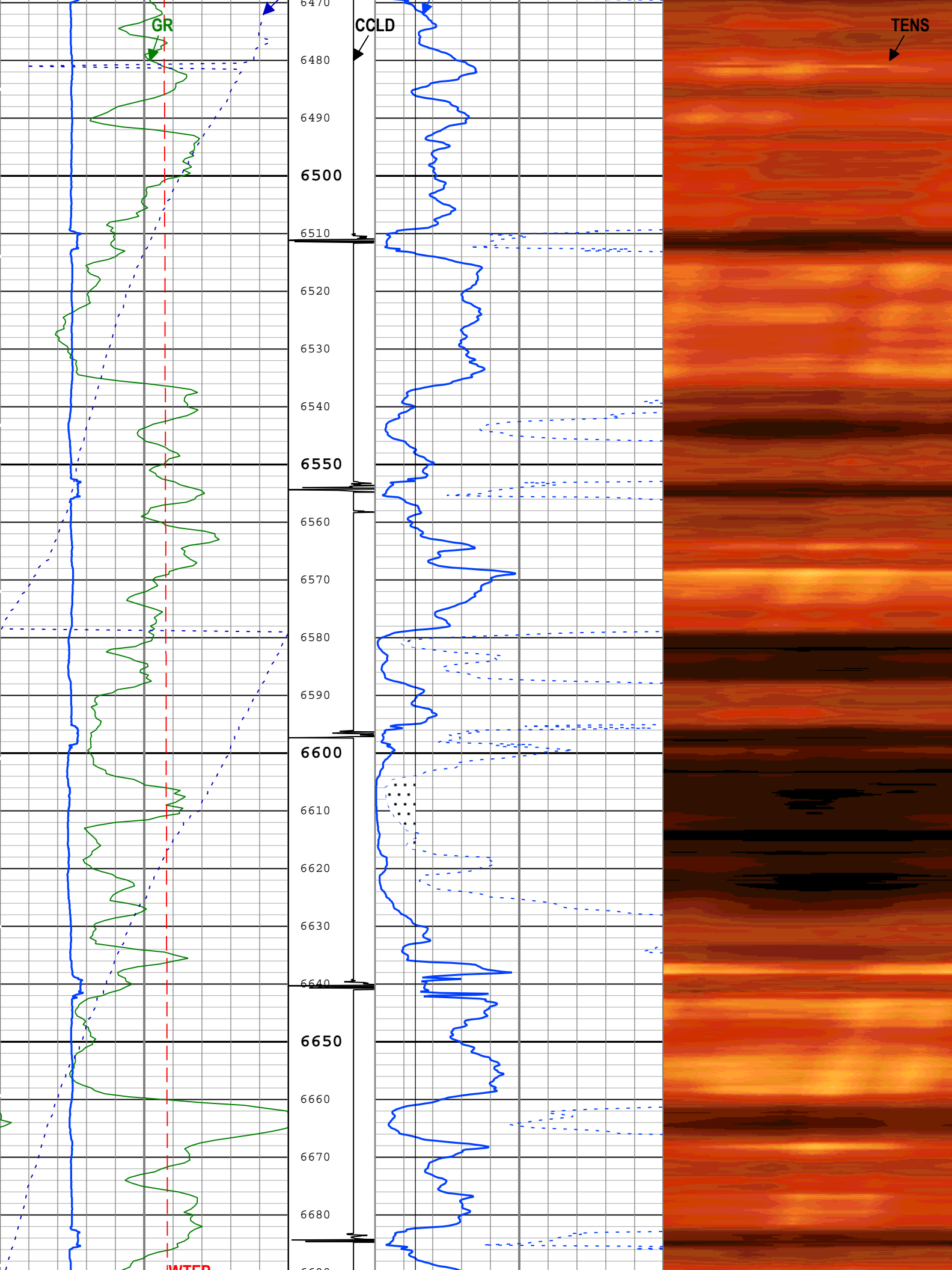


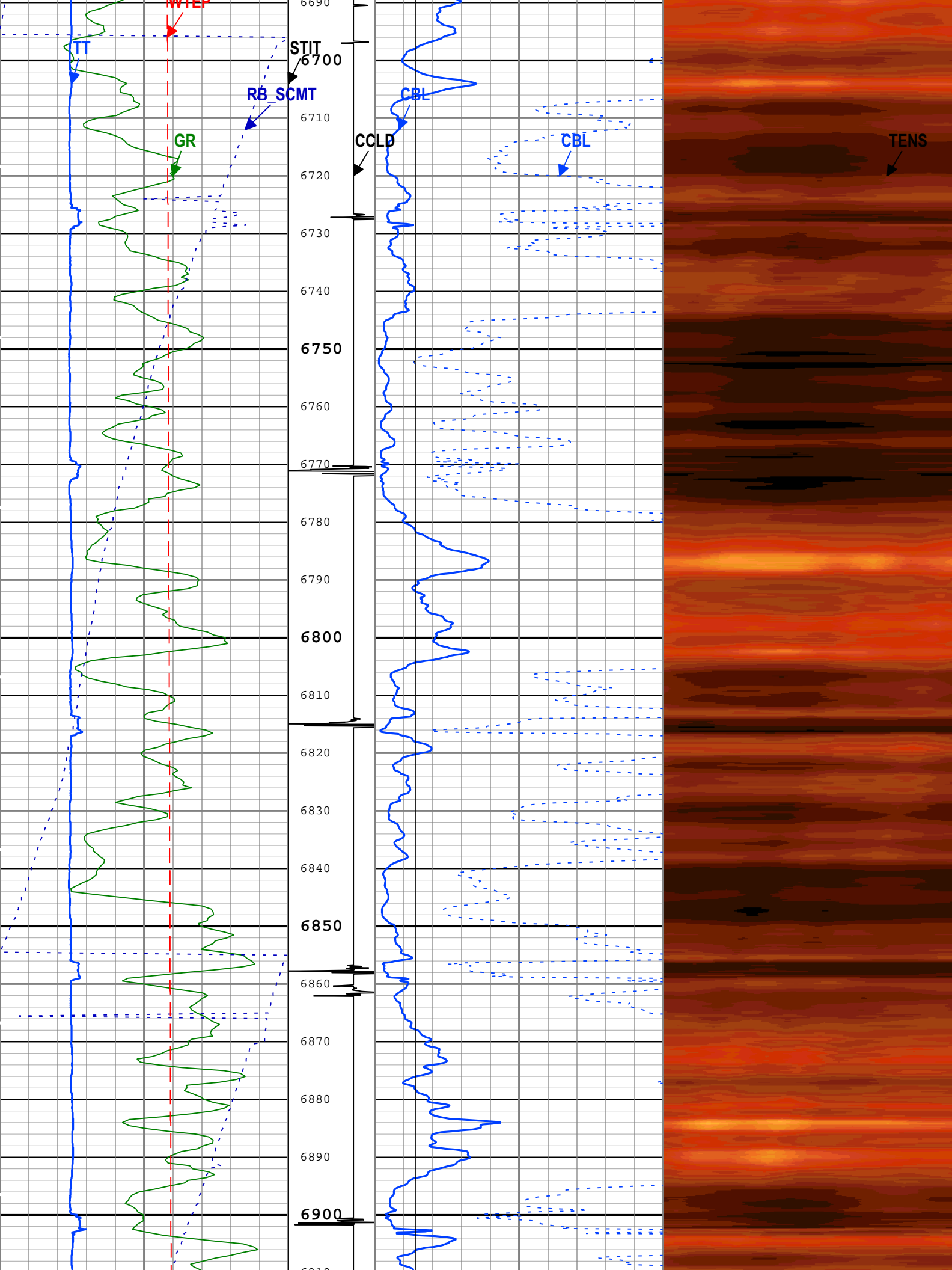


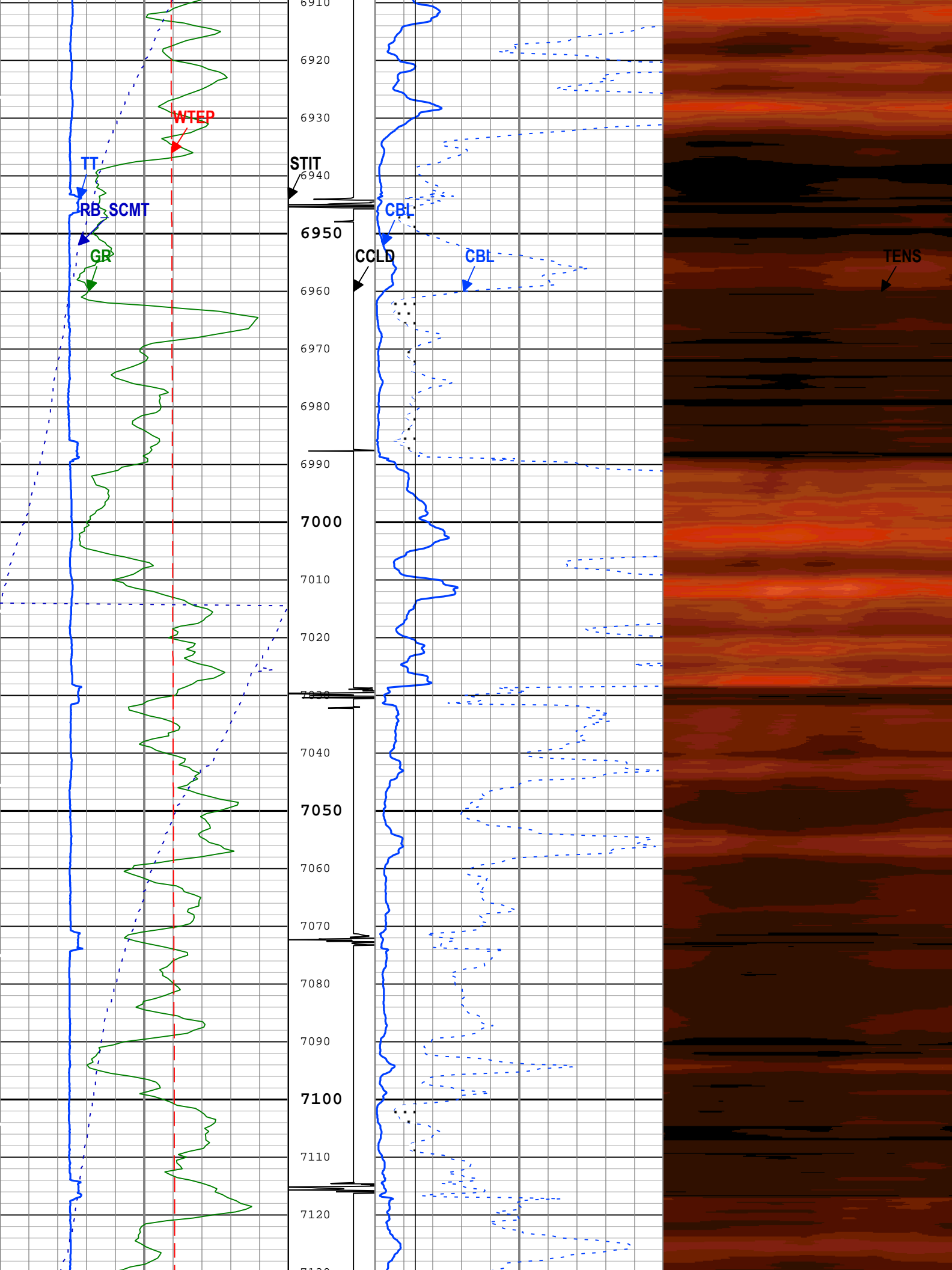


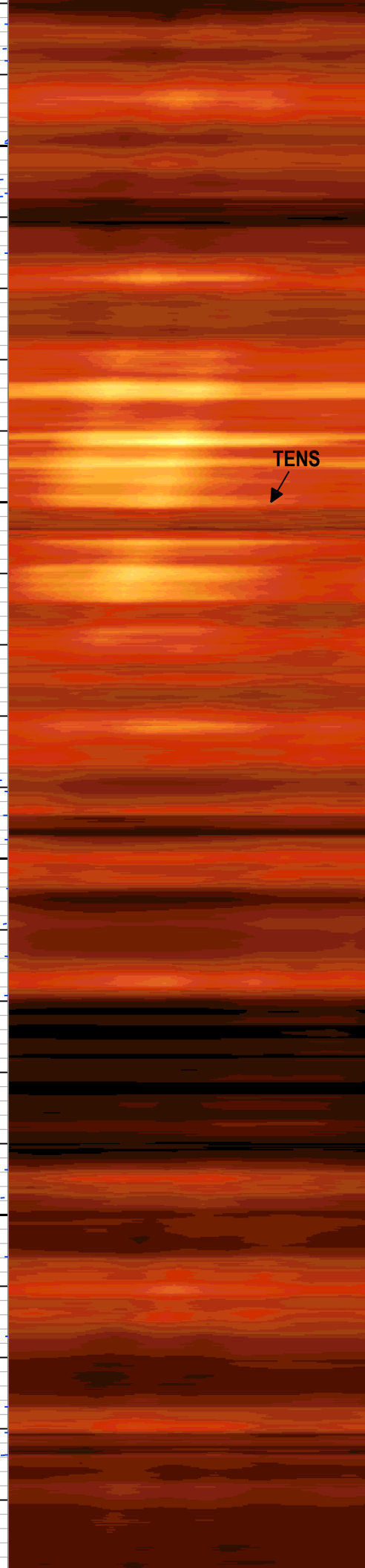
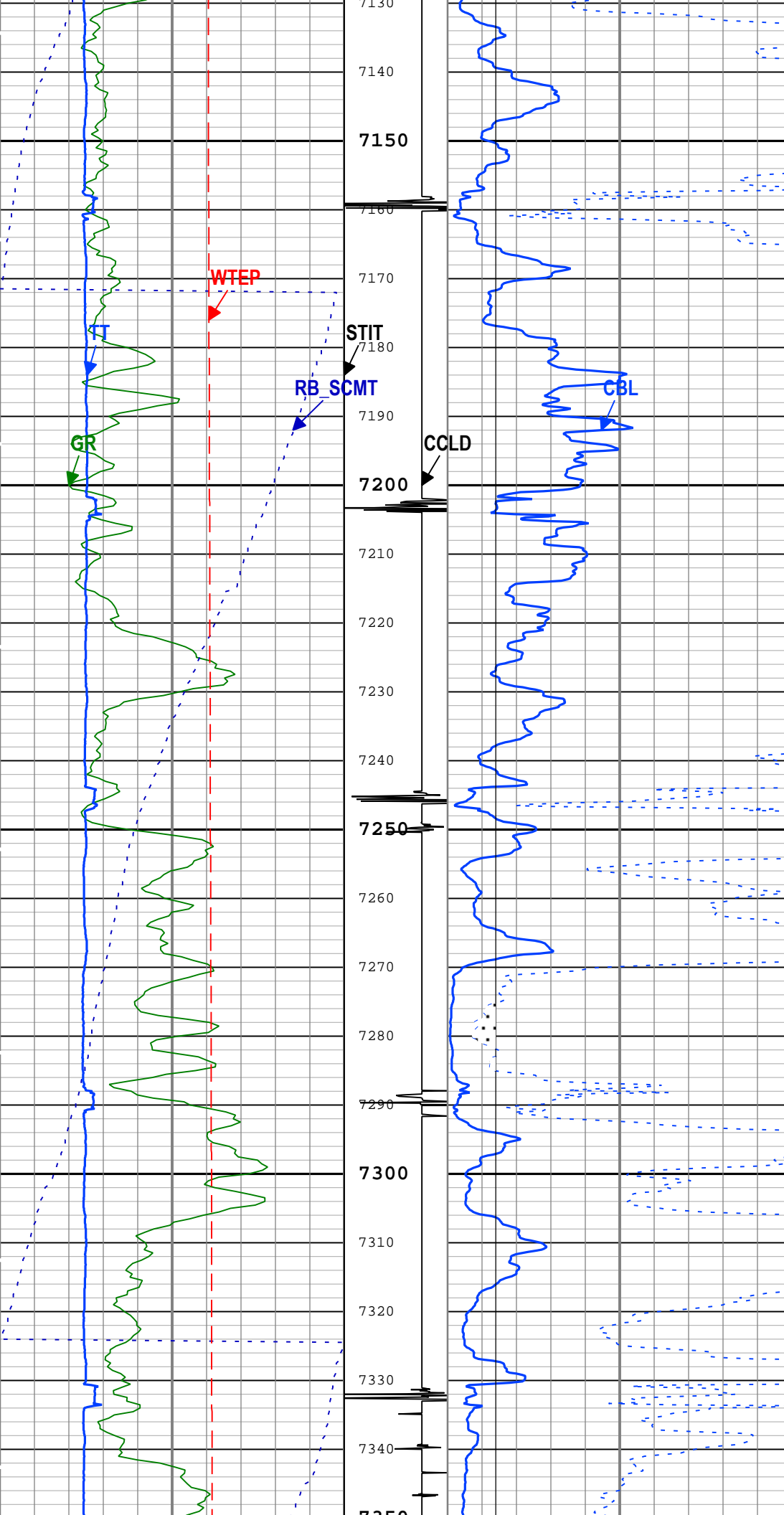


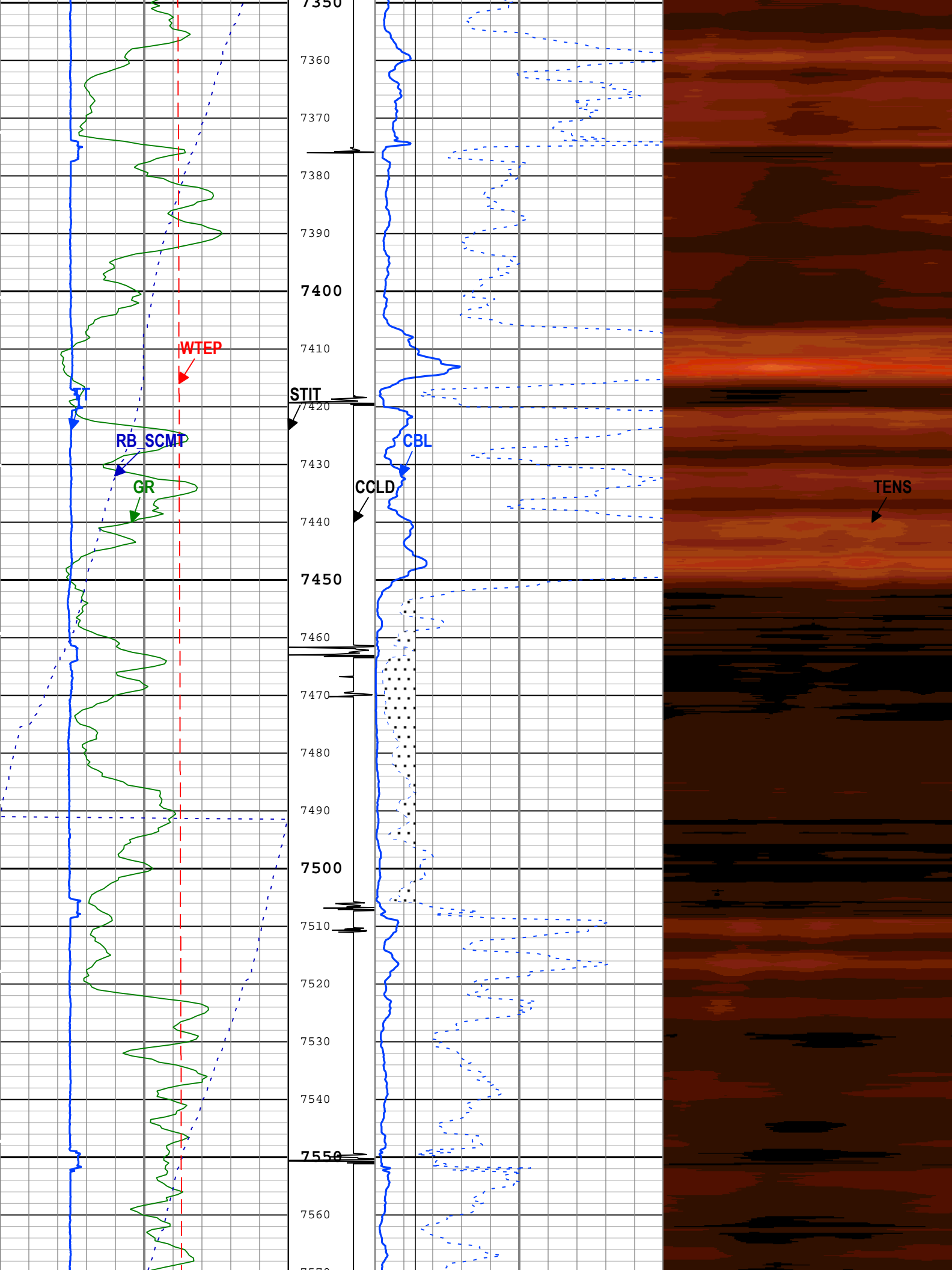


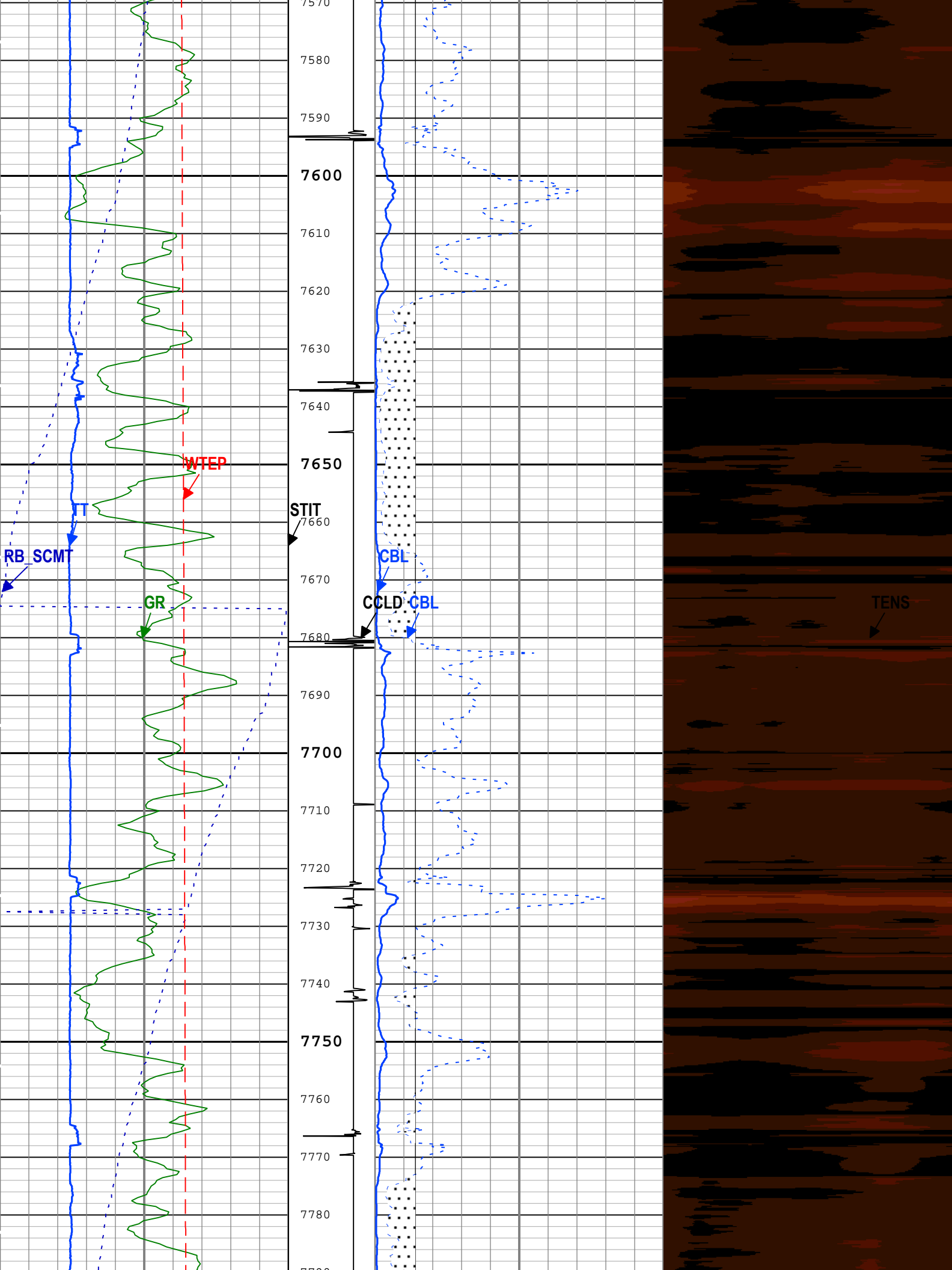


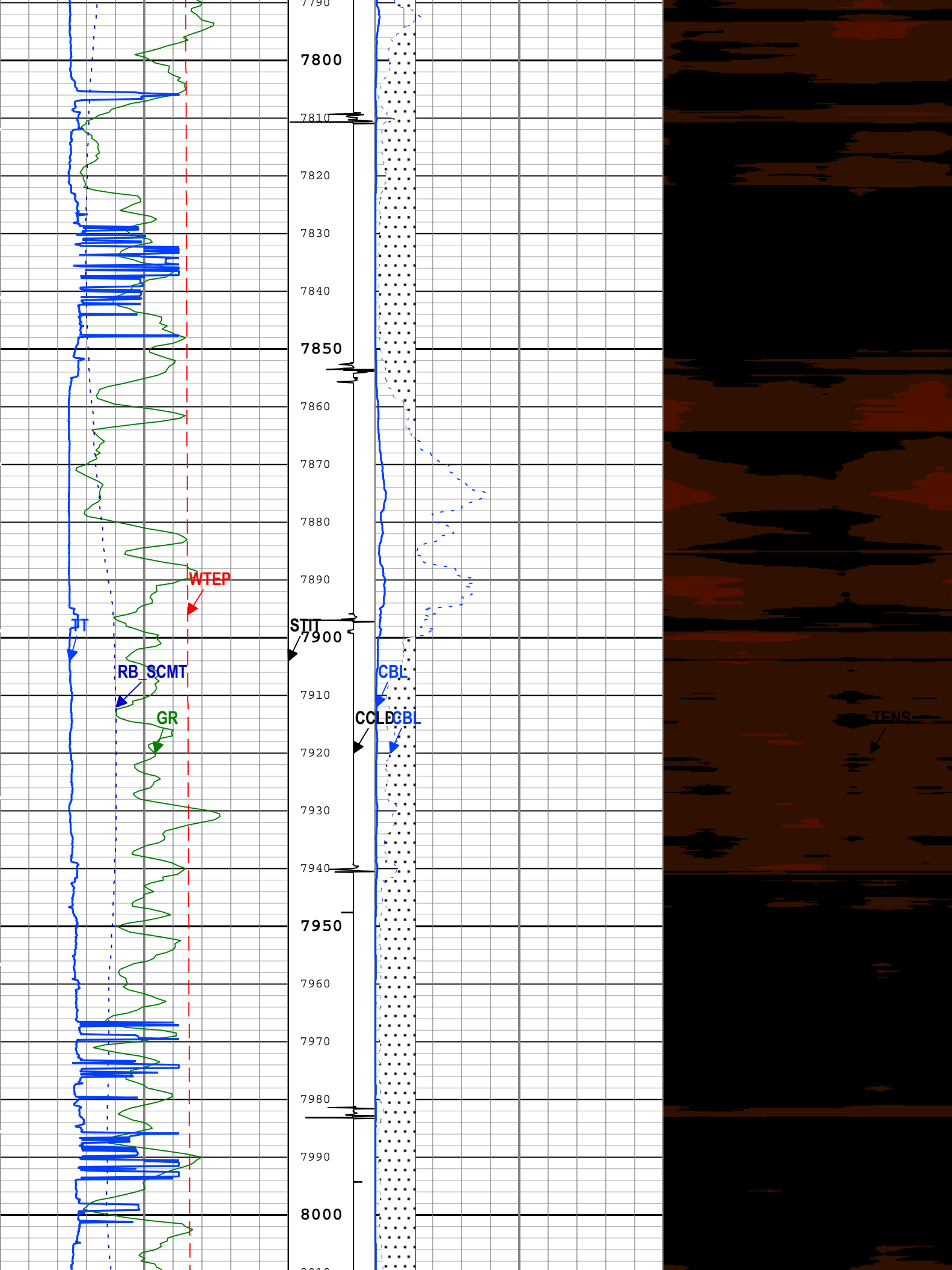


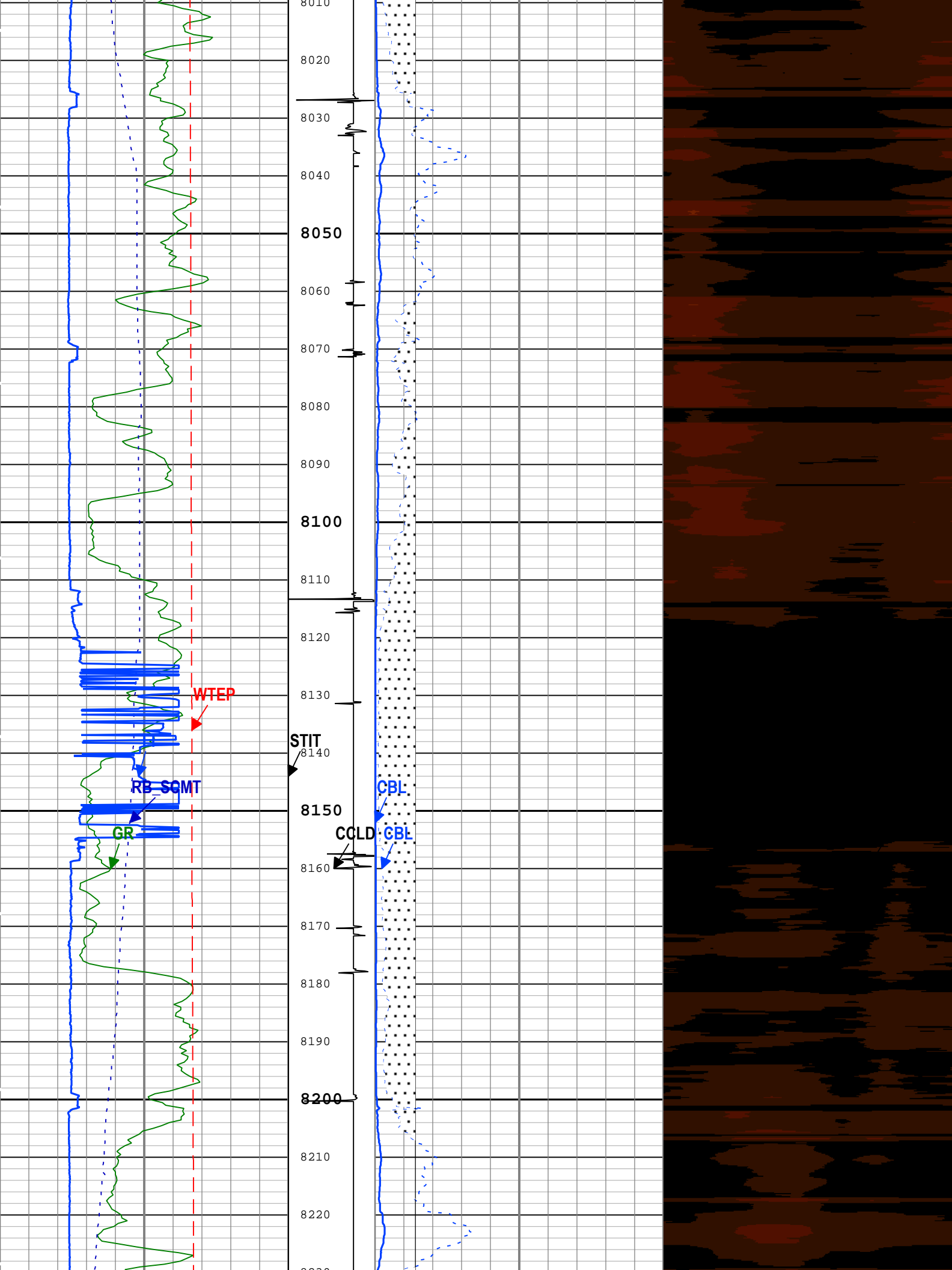


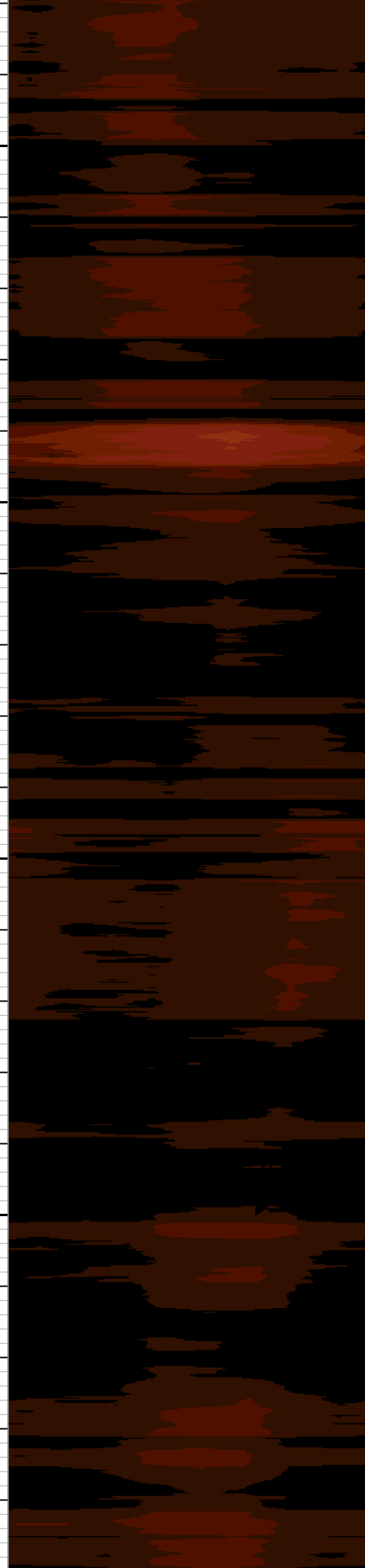
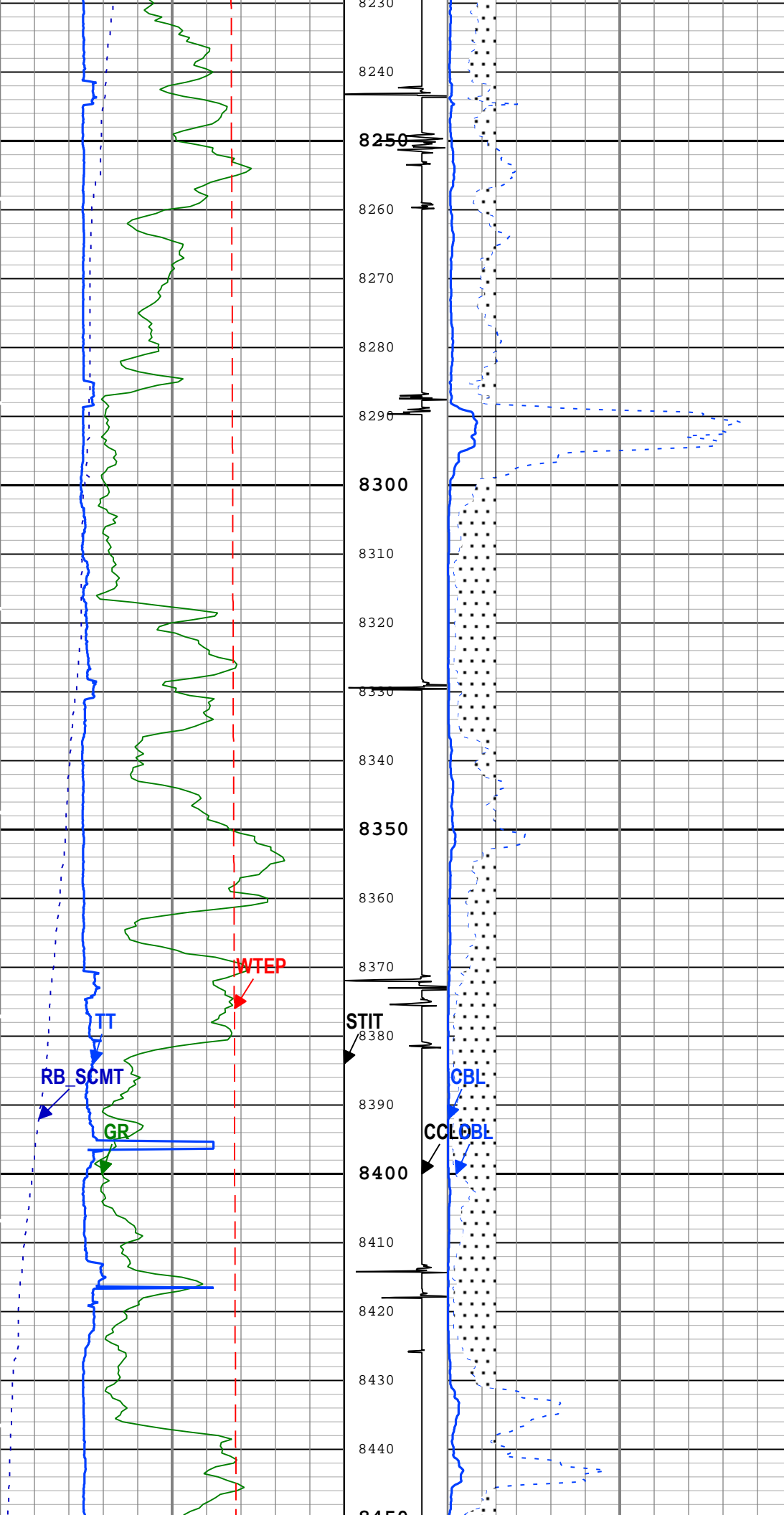


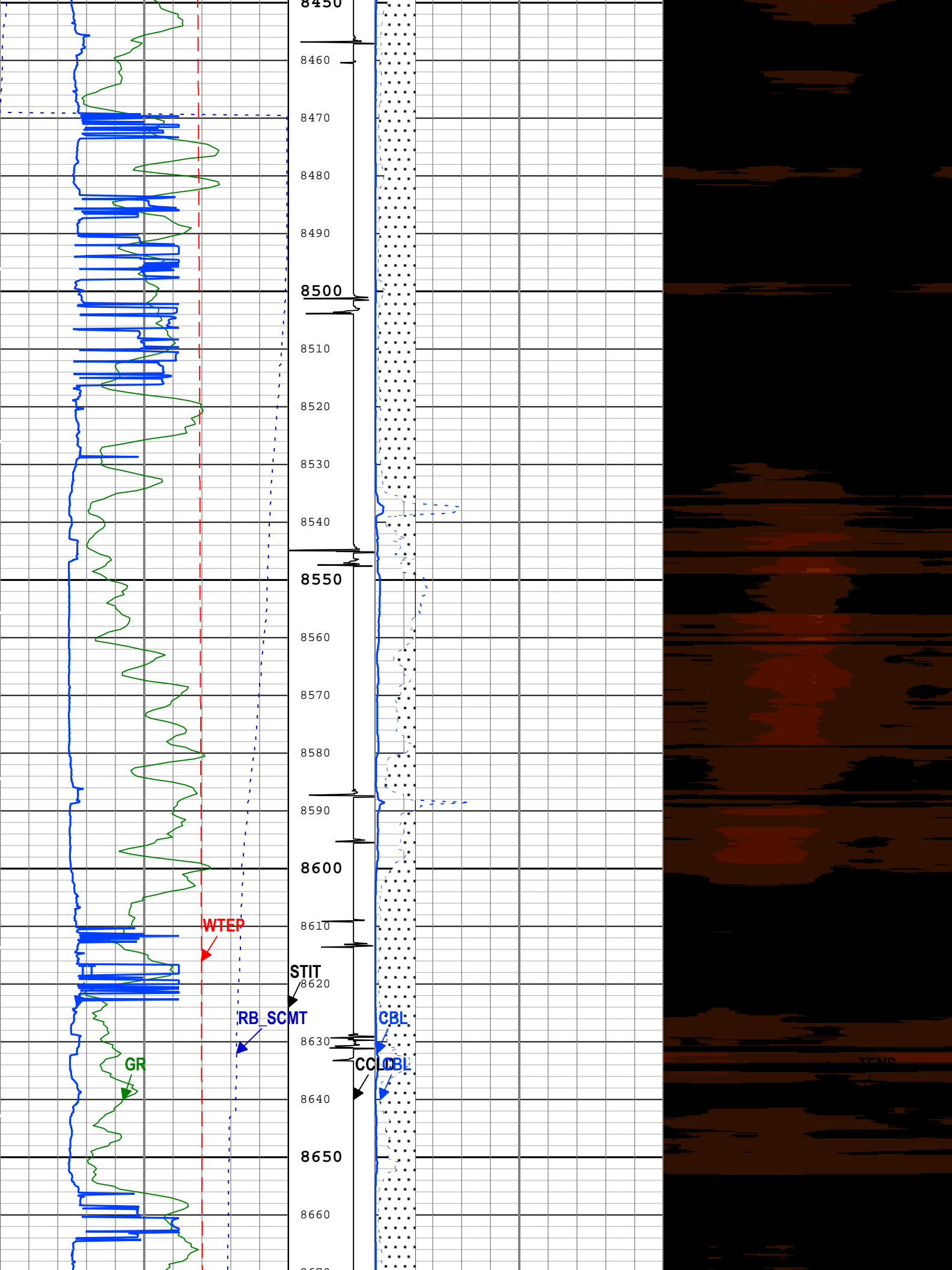


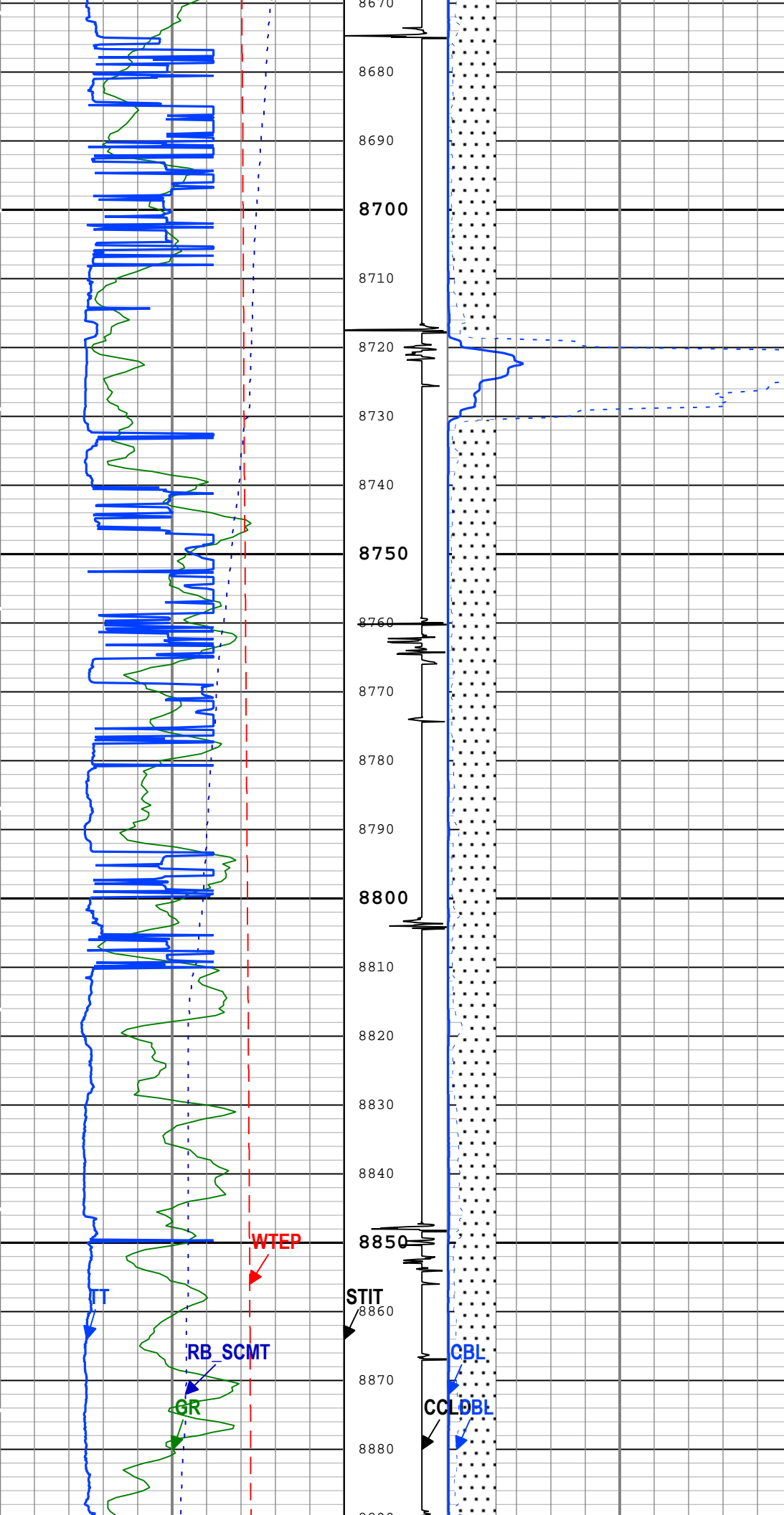


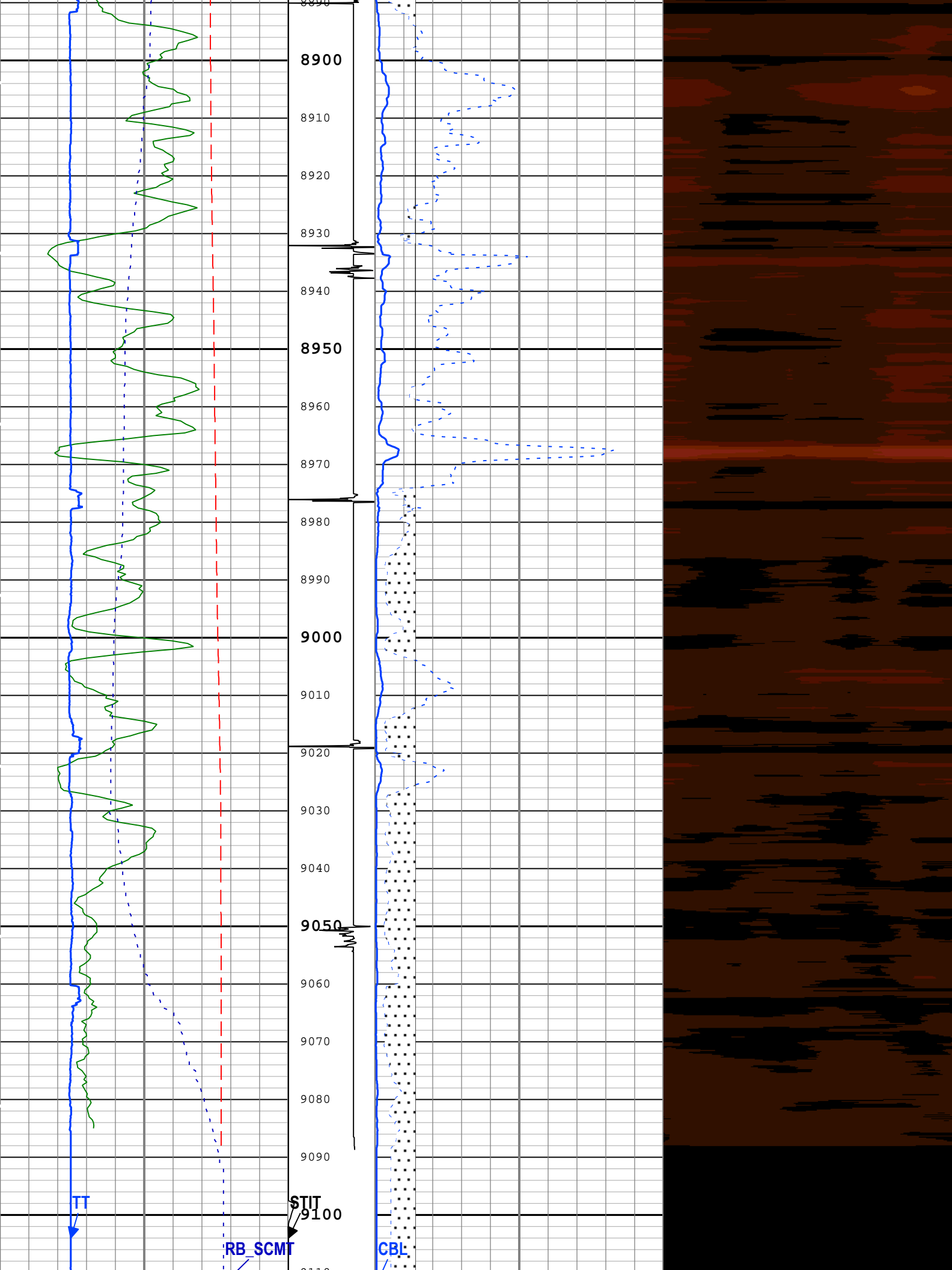


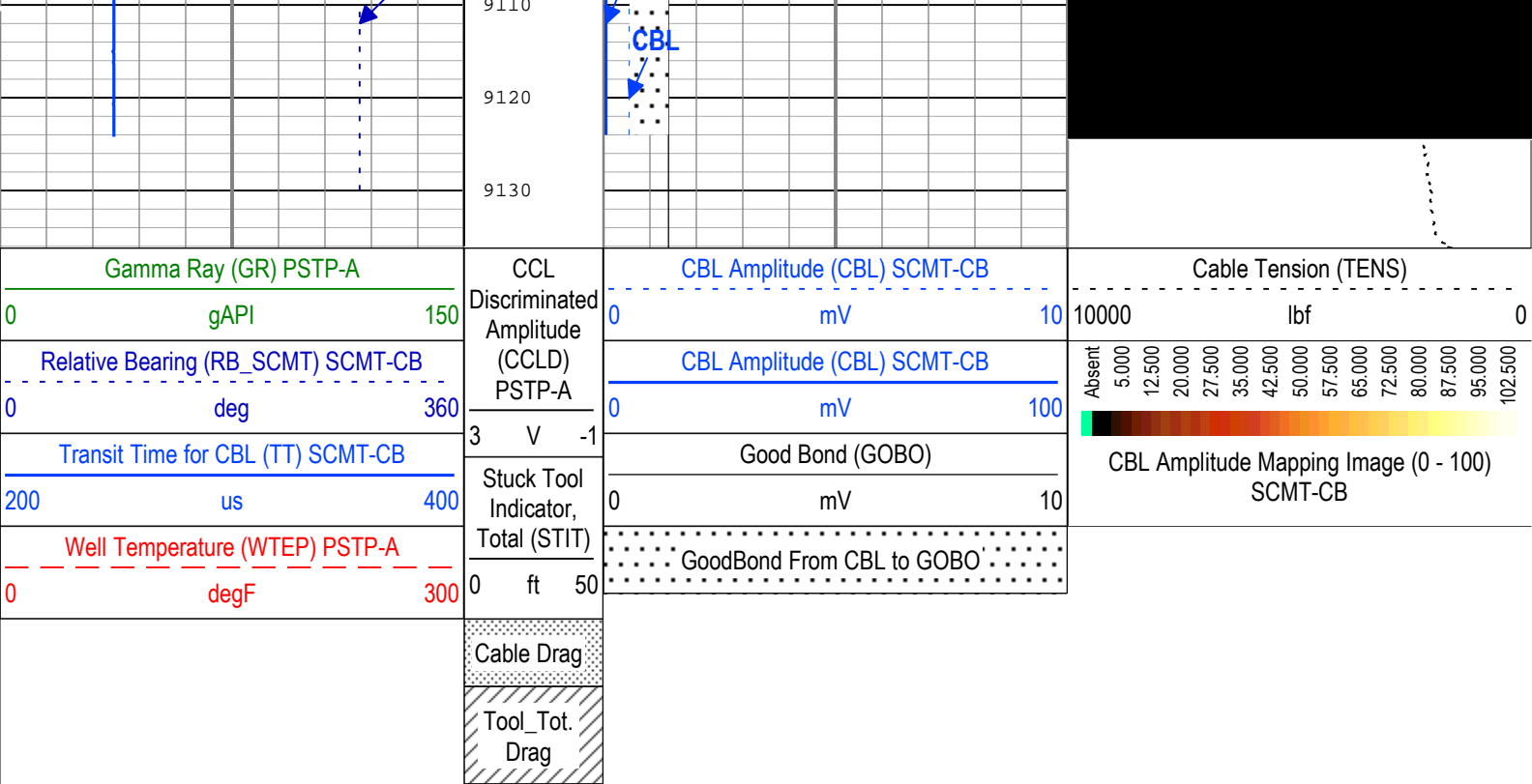












TIME_1900 - Time Marked every 60.00 (s)

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 11:38:36

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	239	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	224	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	
ETEM	HP Estimated Temperature	PSTP-A	212	degF
FCF	CBL Fluid Compensation Factor	SCMT-CB	1	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
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	167	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	
RBC	Relative Bearing Correction Allow/Disallow	SCMT-CB	Allow	
RUN_SNUM	Run Sequence Number	WSDRUN	1	
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	2448	2516
MCI	1.25	2516	9136.17
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	

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	Log[2]:Up	Up	8790.63 ft	9119.83 ft	22-Jul-2015 8:34:22 PM	22-Jul-2015 8:46:03 PM	ON	4.69 ft	Yes
All depths are referenced to toolstring zero									

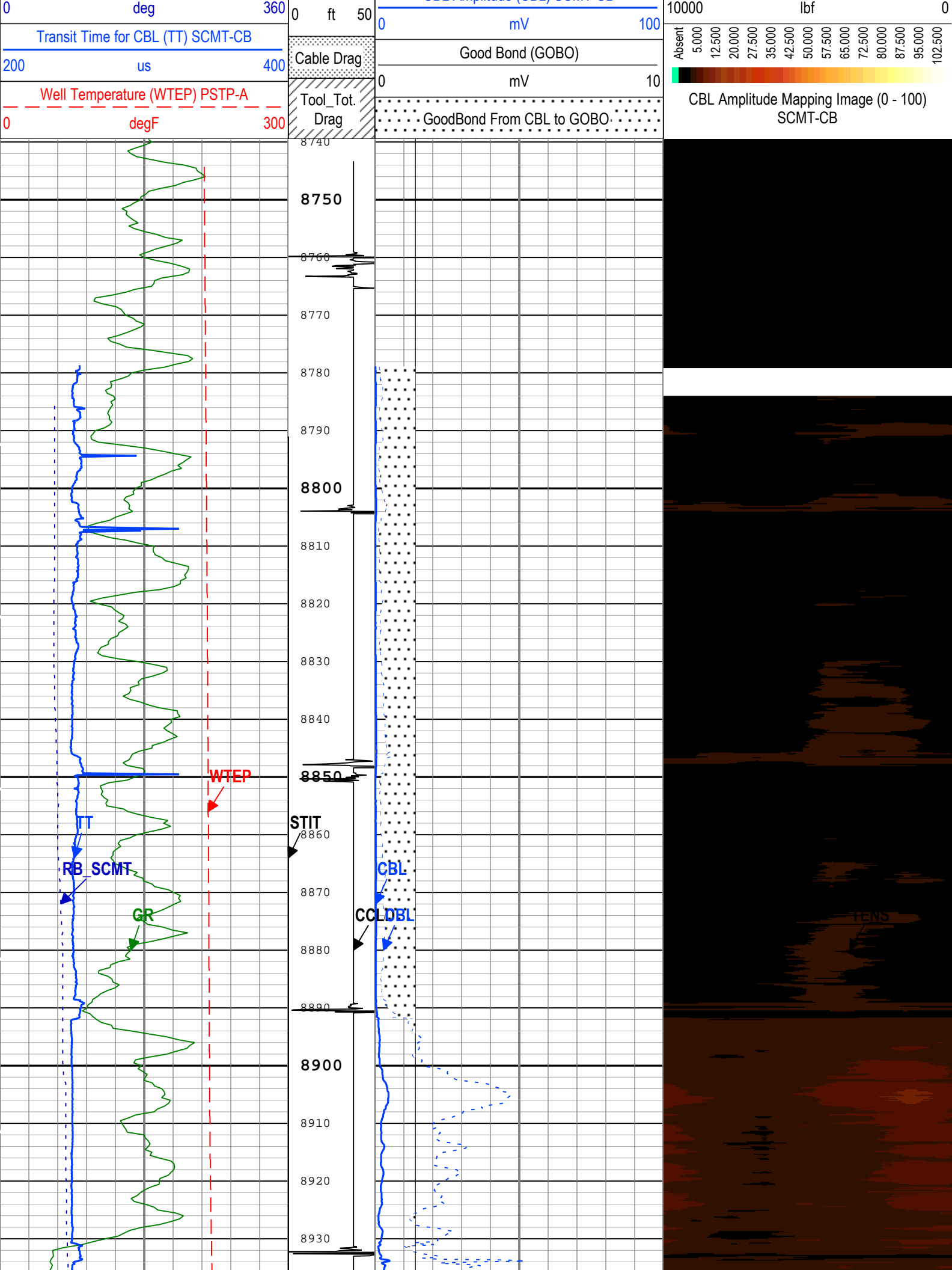
Log	<div> <div>Company:Caerus Piceance LLC</div> <div>Well:Puckett 41A-2</div> <div>ONE: Log[2]:Up:S008</div> </div>								
-----	--	--	--	--	--	--	--	--	--

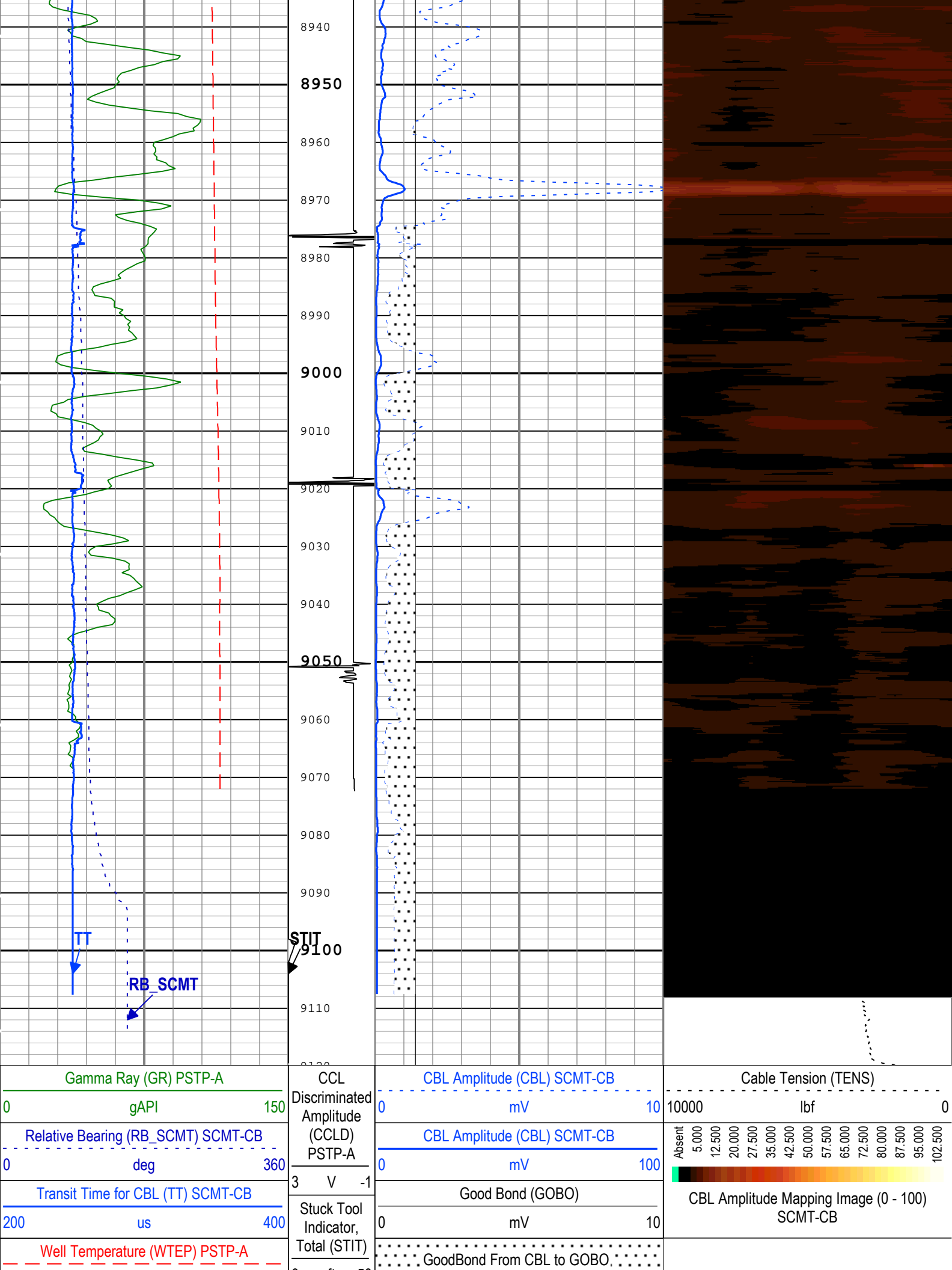
Description: SCMT Amplitudes and MAP Image
 Format: Log (SCMT_Amp_Image_1)
 Index Scale: 5 in per 100 ft
 Index Unit: ft
 Index Type: Measured

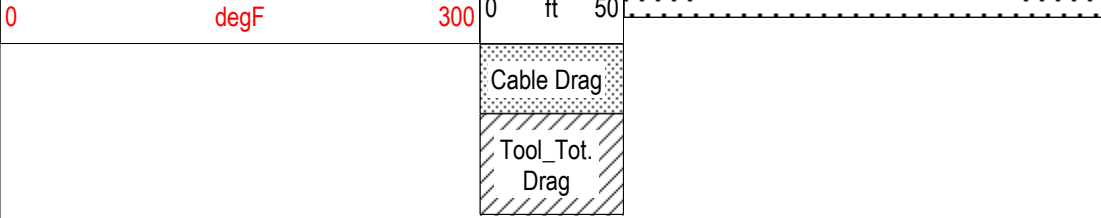
Depth
 Creation Date: 07-Aug-2015 11:38:42

TIME_1900 - Time Marked every 60.00 (s)

			CCL Discriminated Amplitude (CCLD) PSTP-A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</
--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----







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 11:38:42

Channel Processing Parameters

ONE: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	239	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	224	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	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-CB	167	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
RUN_SNUM	Run Sequence Number	WSDRUN	1	
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

ONE

Mainpass 2500 PSI

Software Version

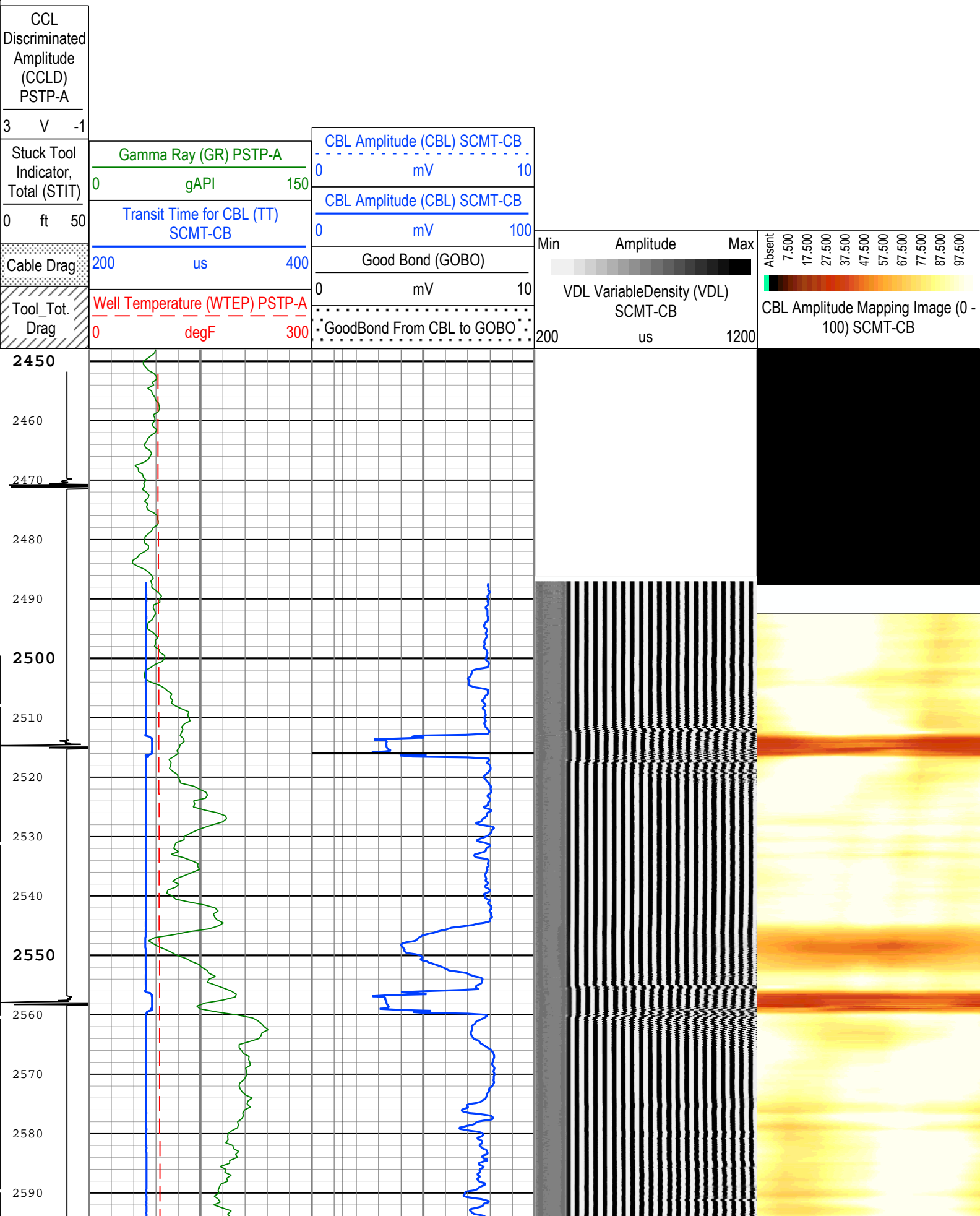
Acquisition System	Version
Maxwell 2016	6.0.47569.3100

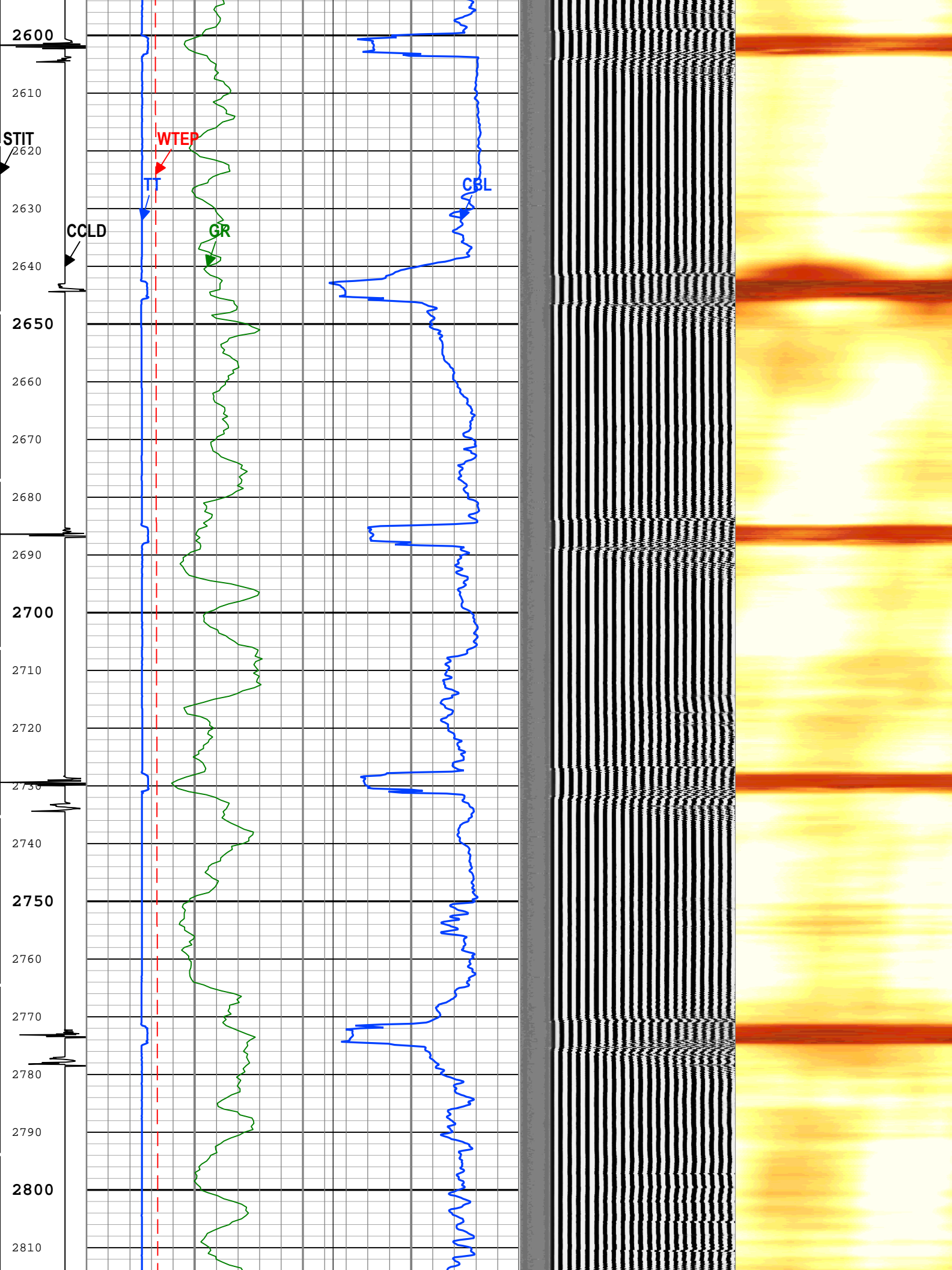
Pass Summary

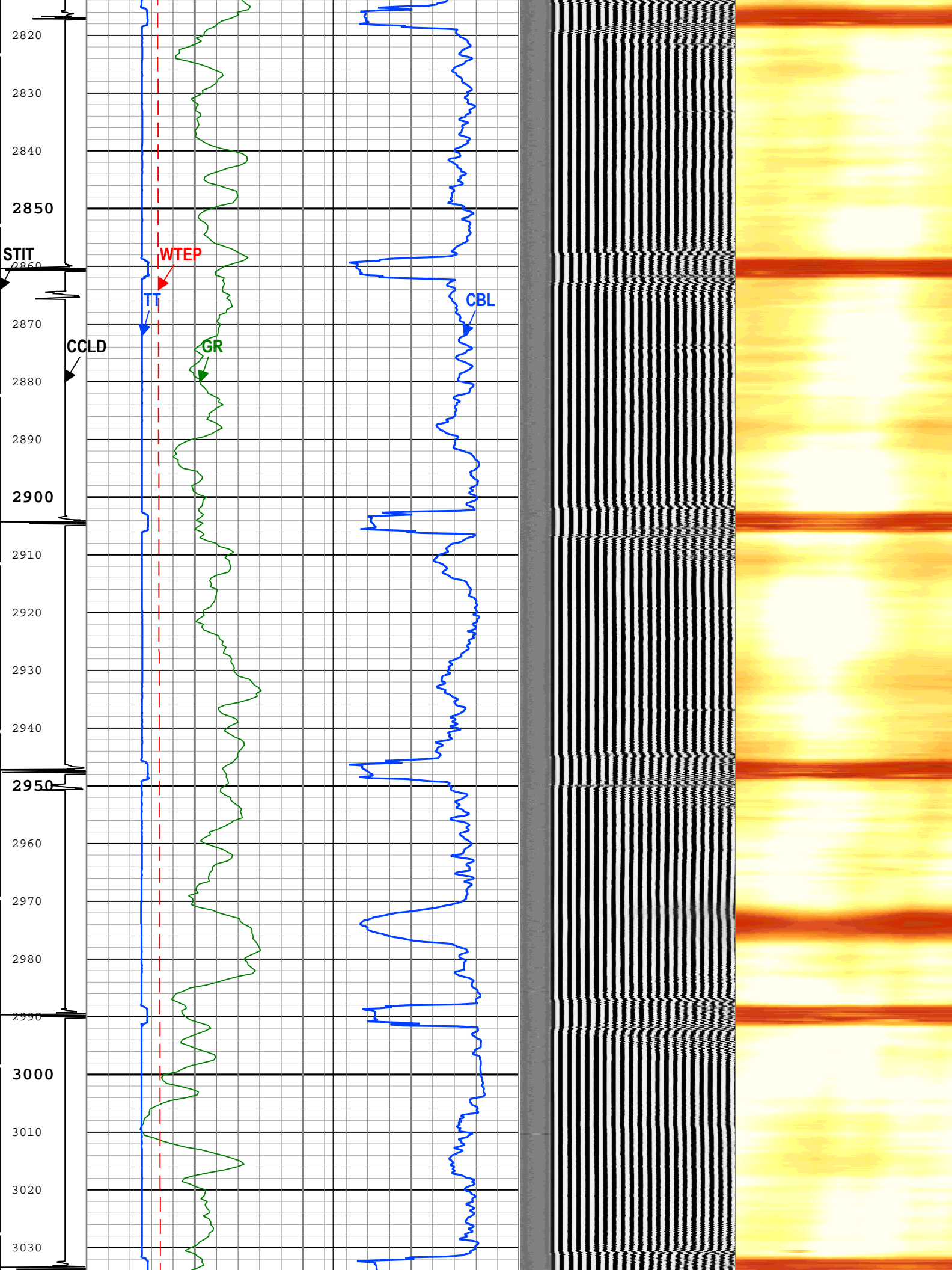
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[3]:Up	Up	2499.07 ft	9136.16 ft	22-Jul-2015 9:02:50 PM	23-Jul-2015 12:48:38 AM	ON	8.07 ft	Yes

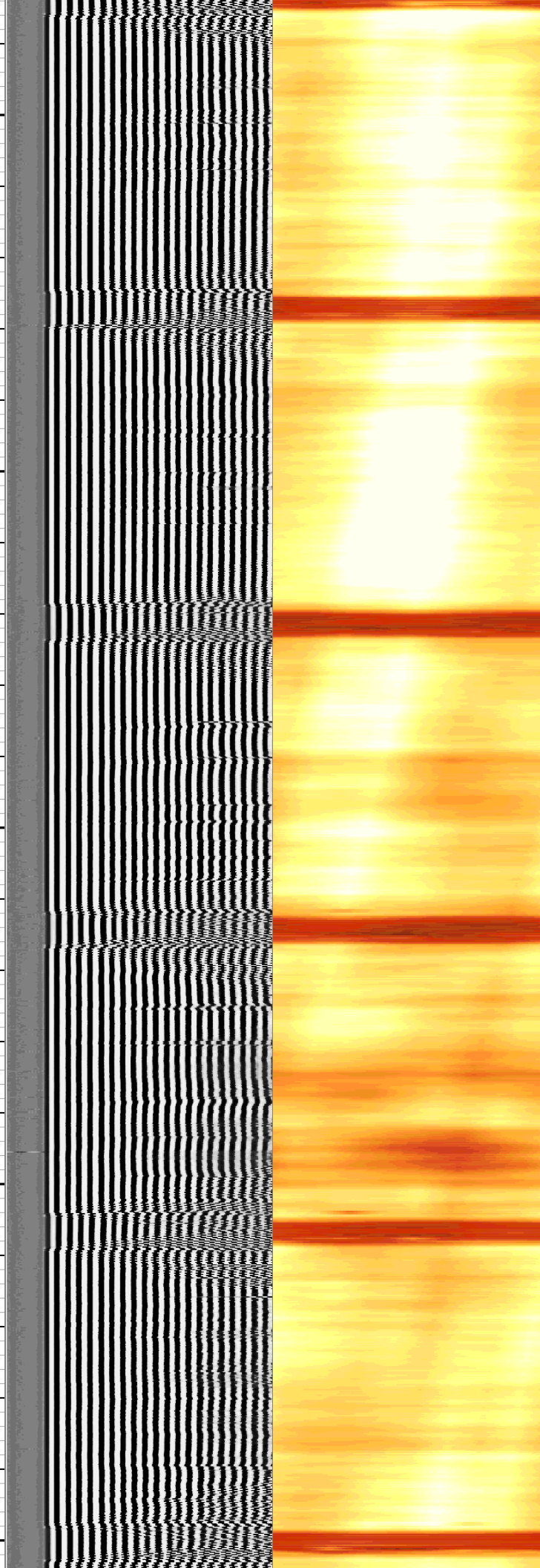
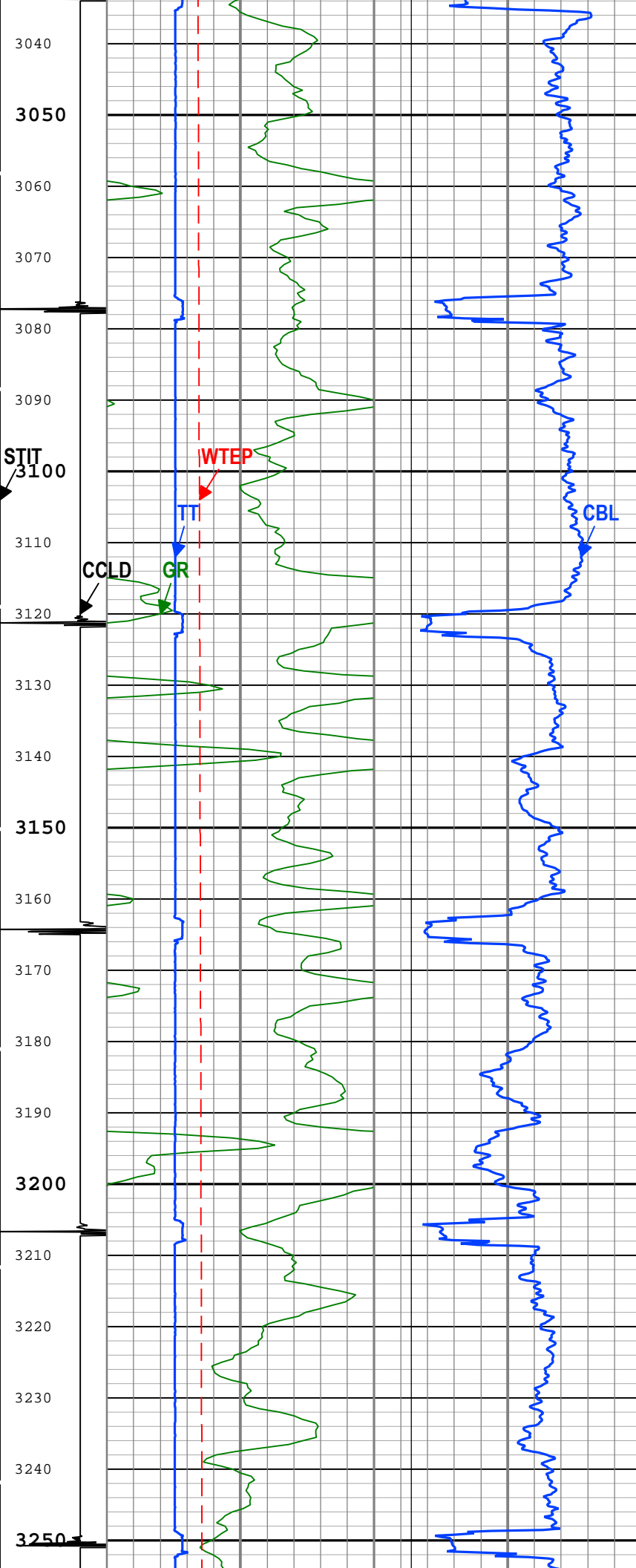
All depths are referenced to toolstring zero

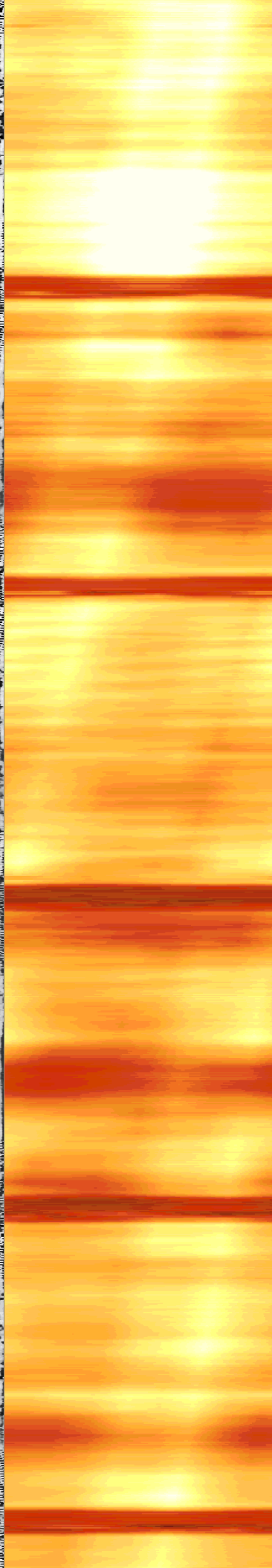
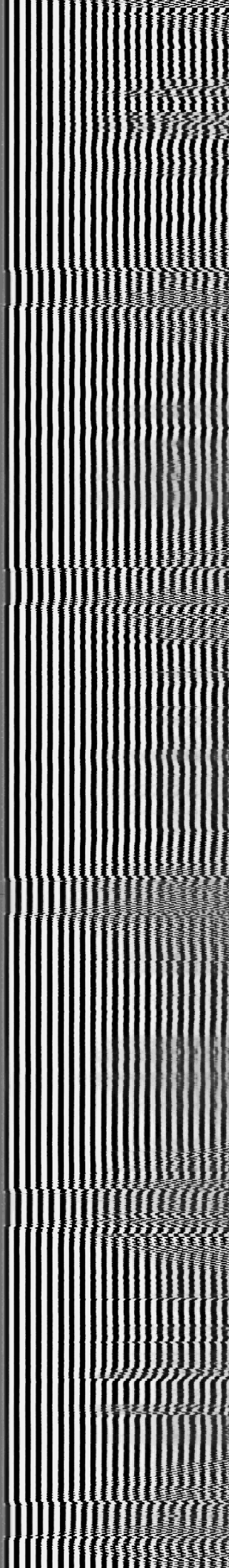
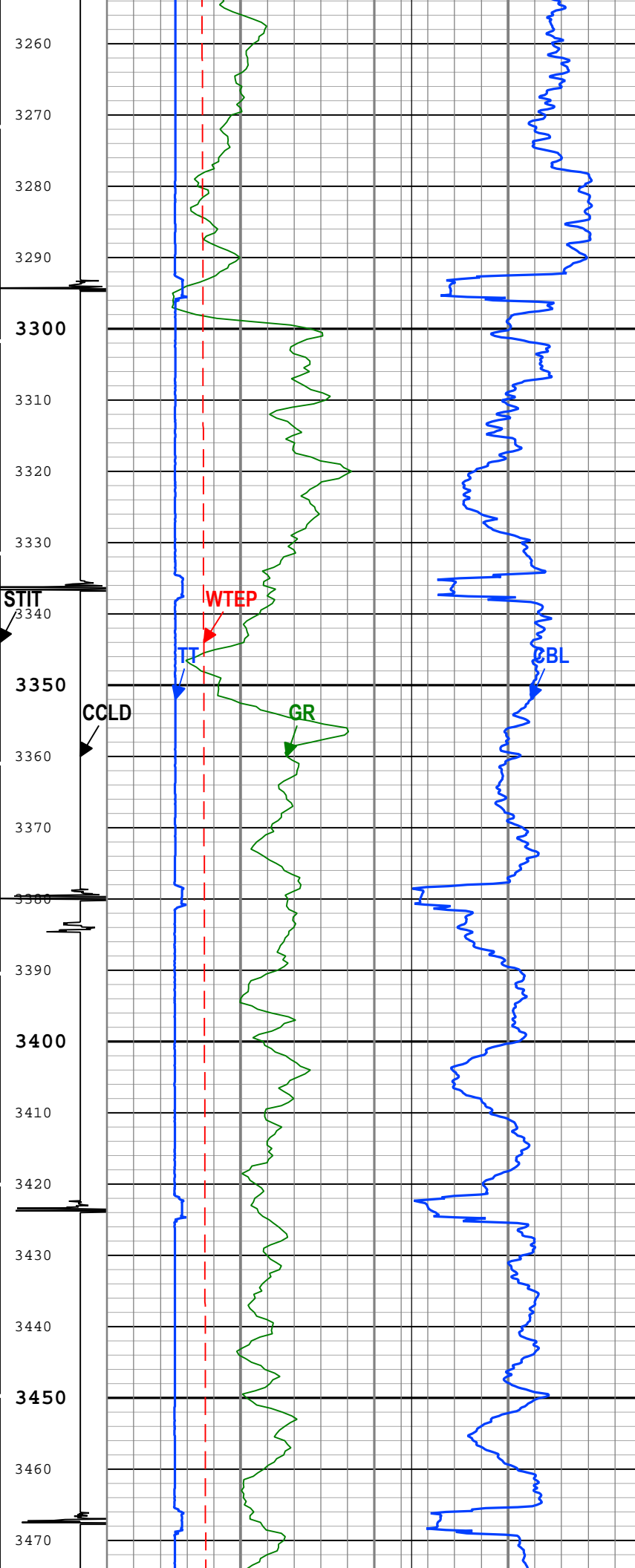
TIME_1900 - Time Marked every 60.00 (s)

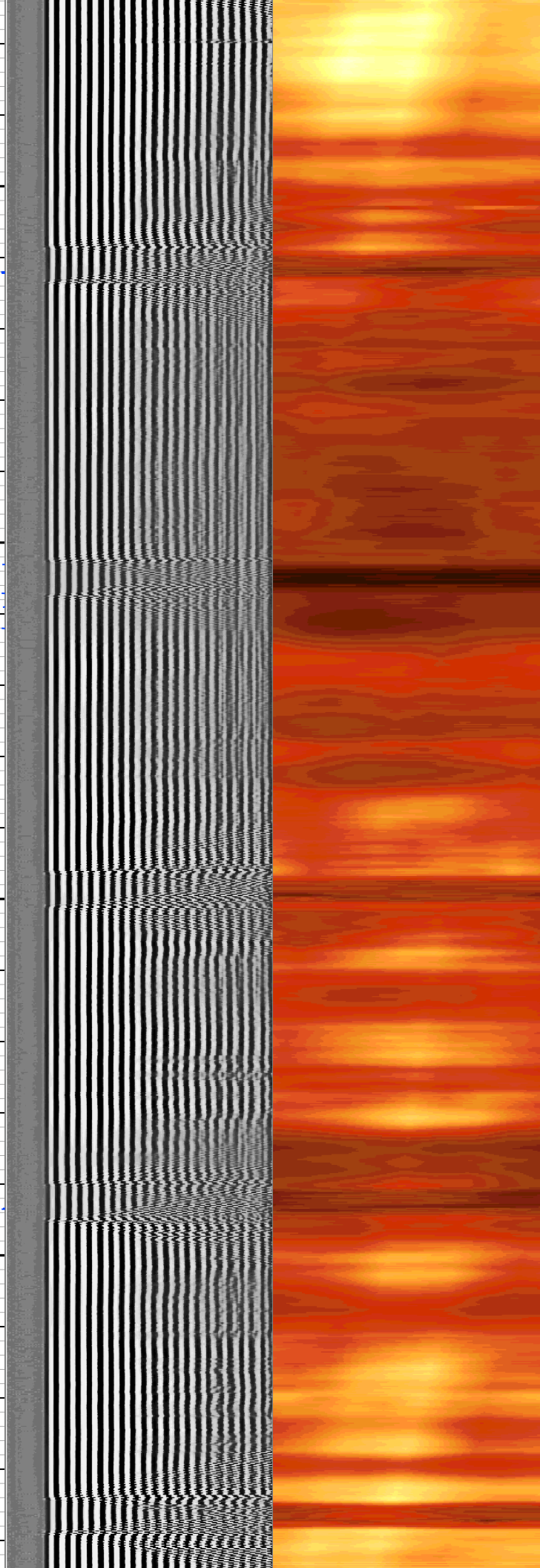
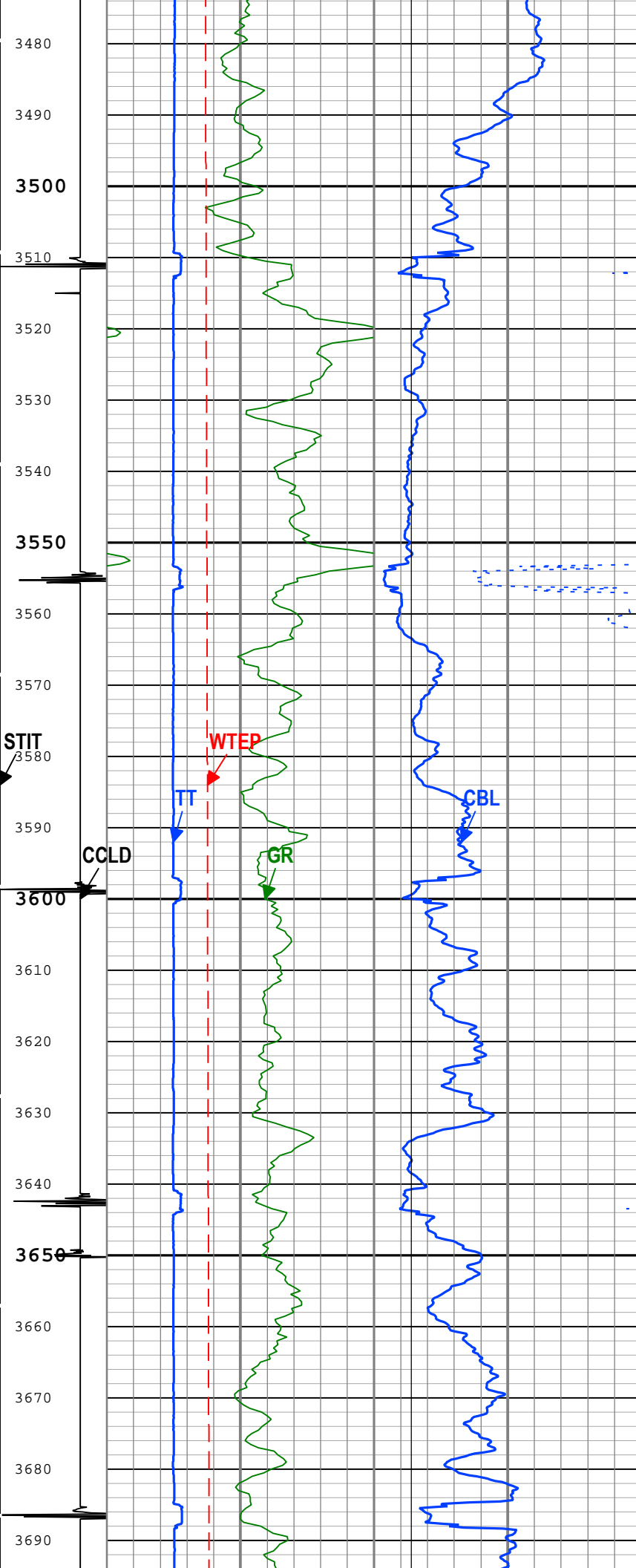


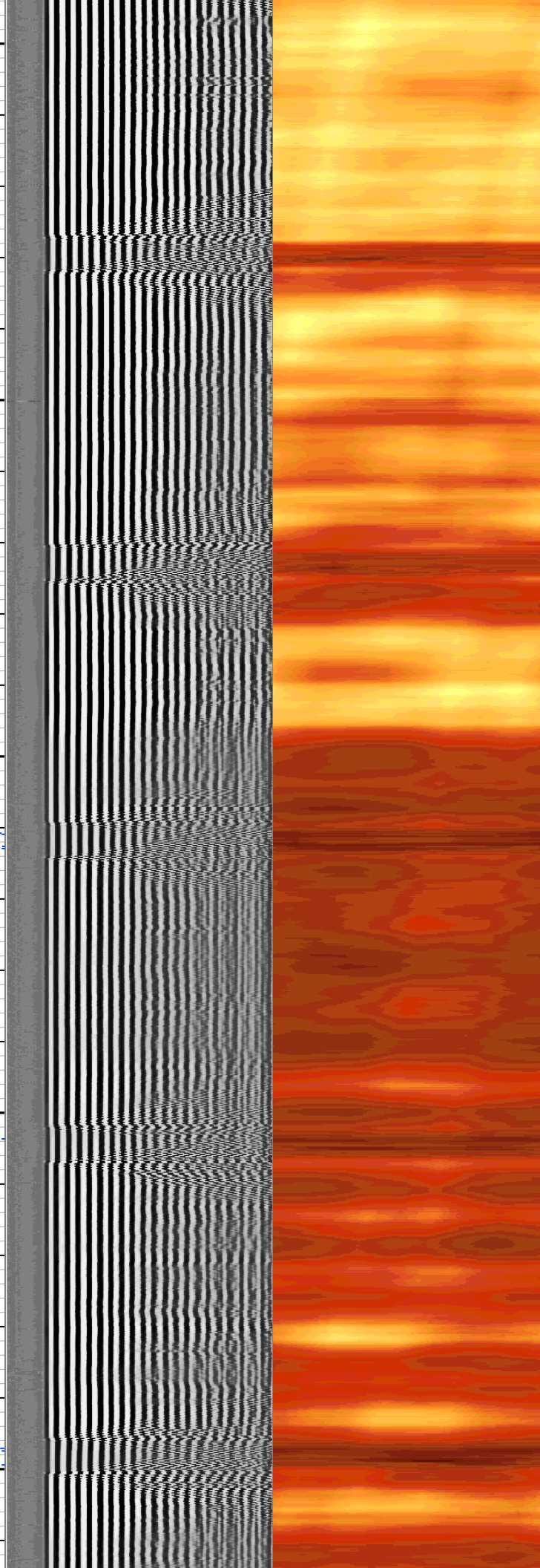
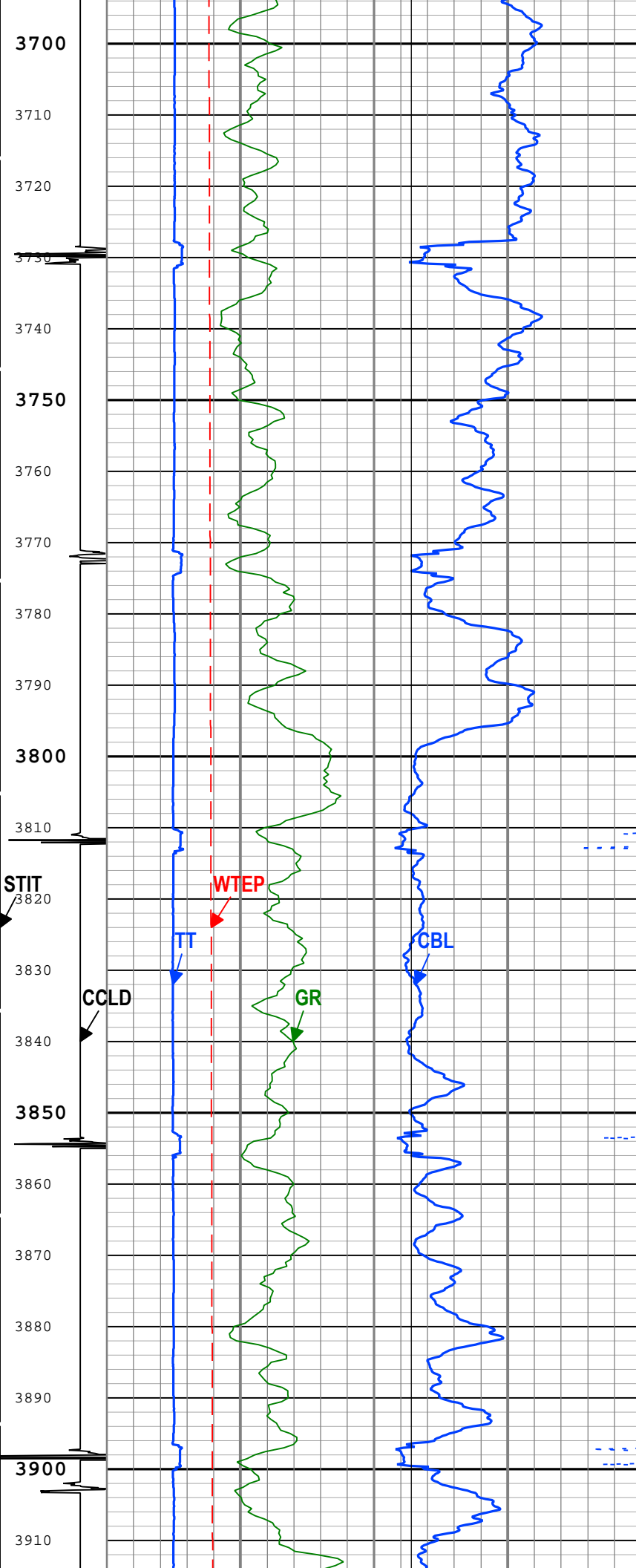


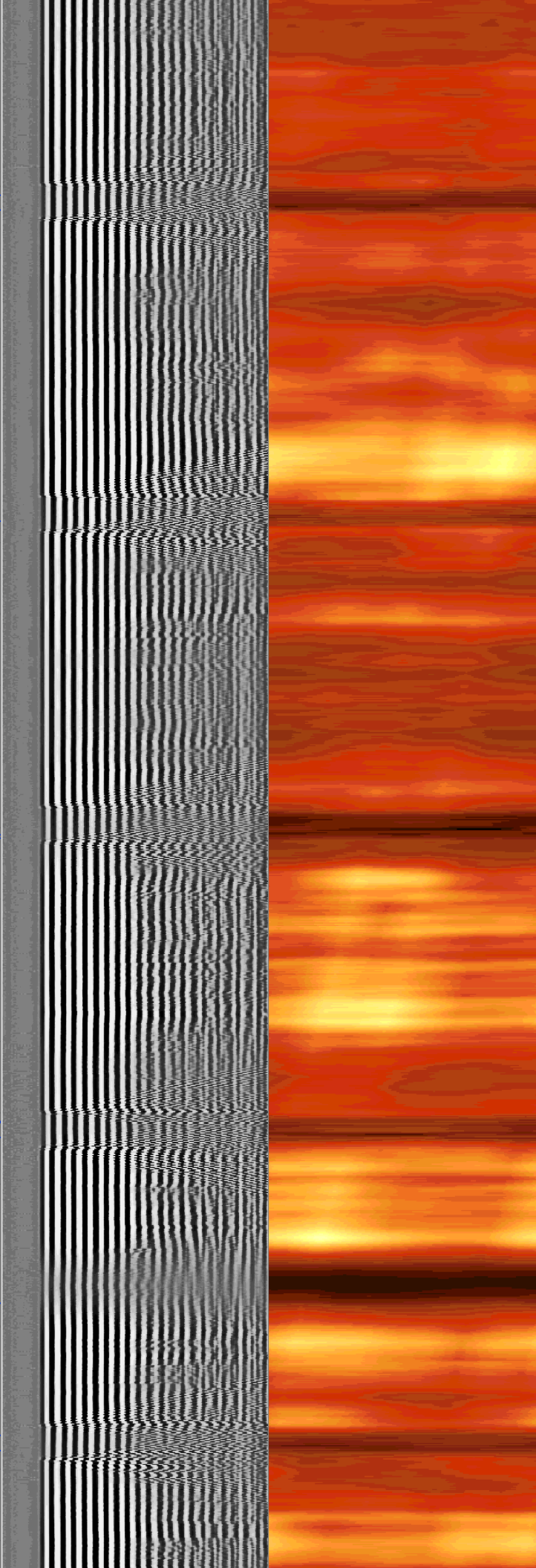
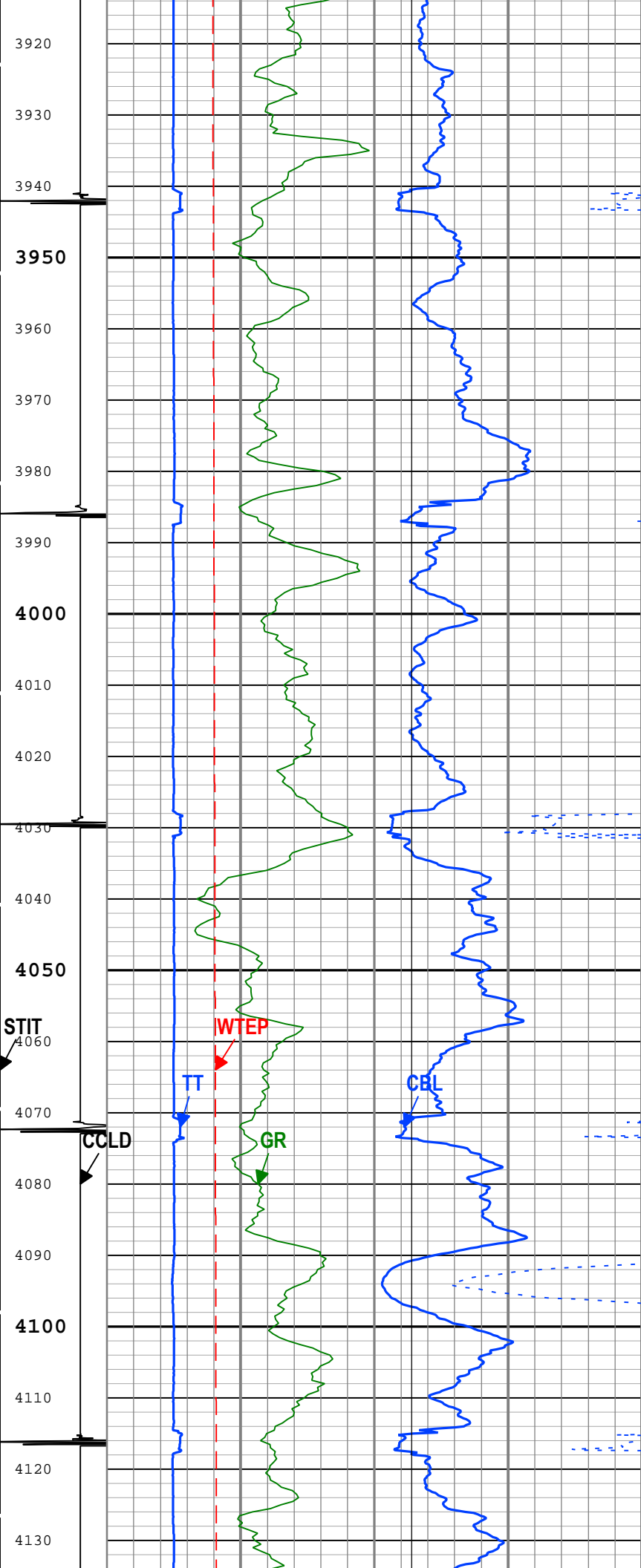


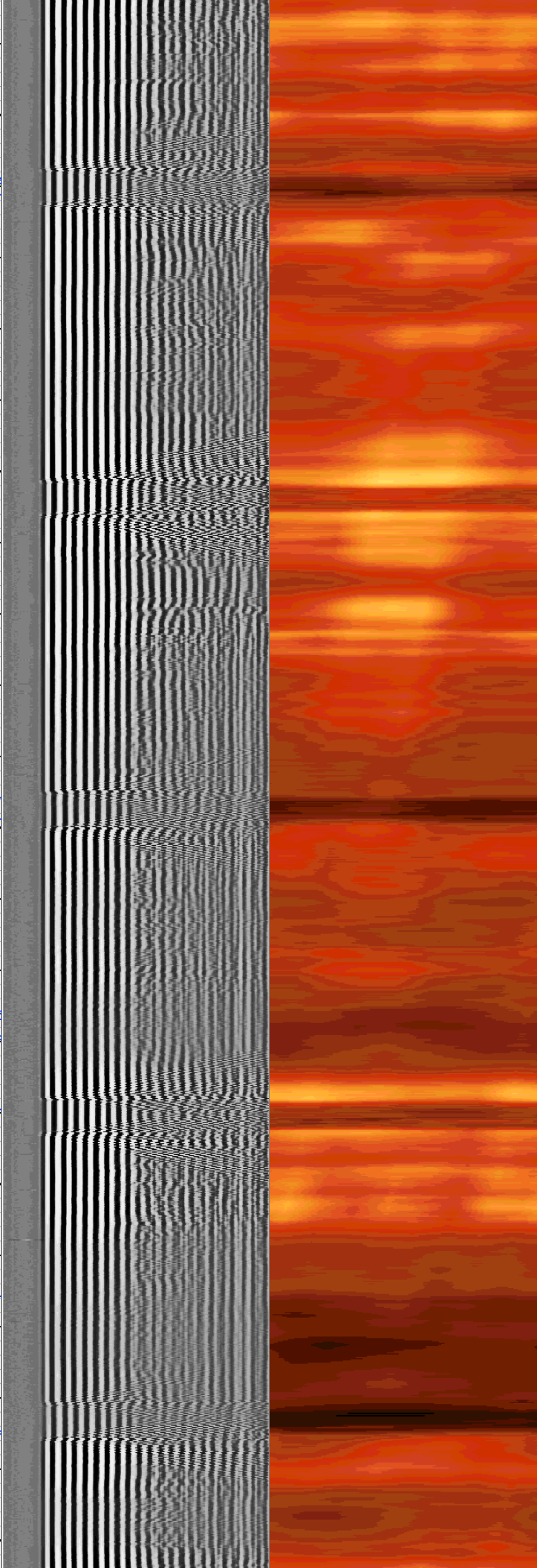
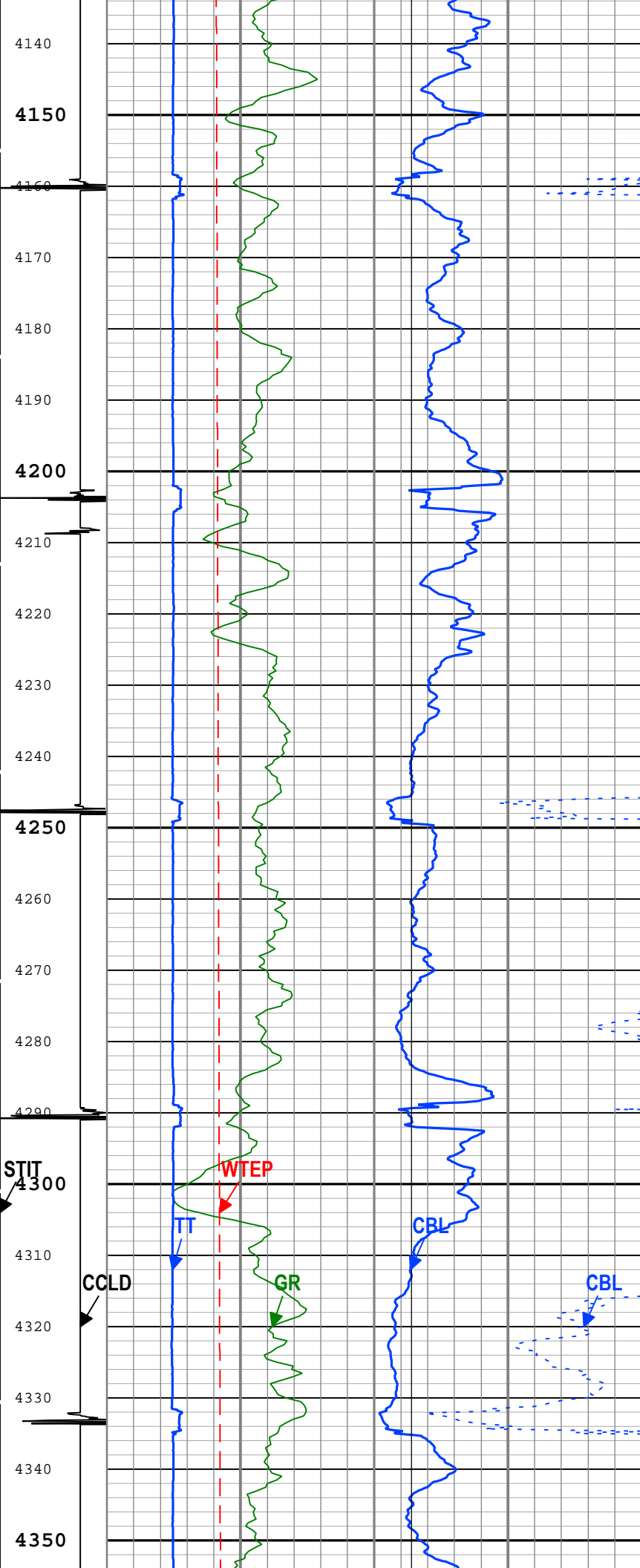


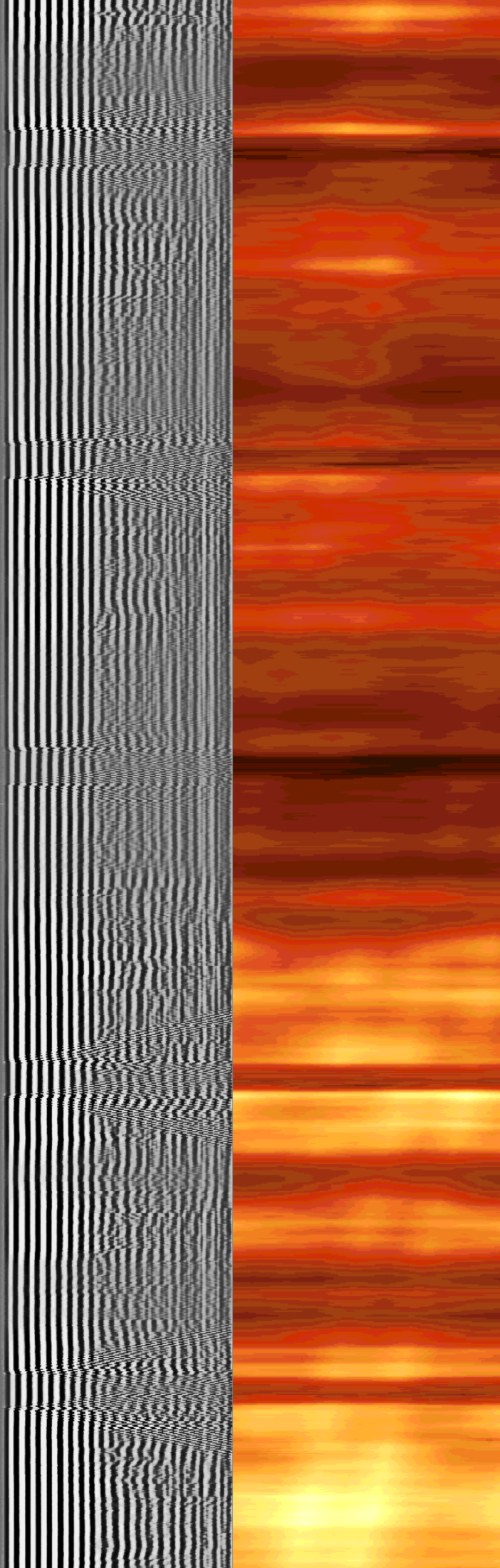
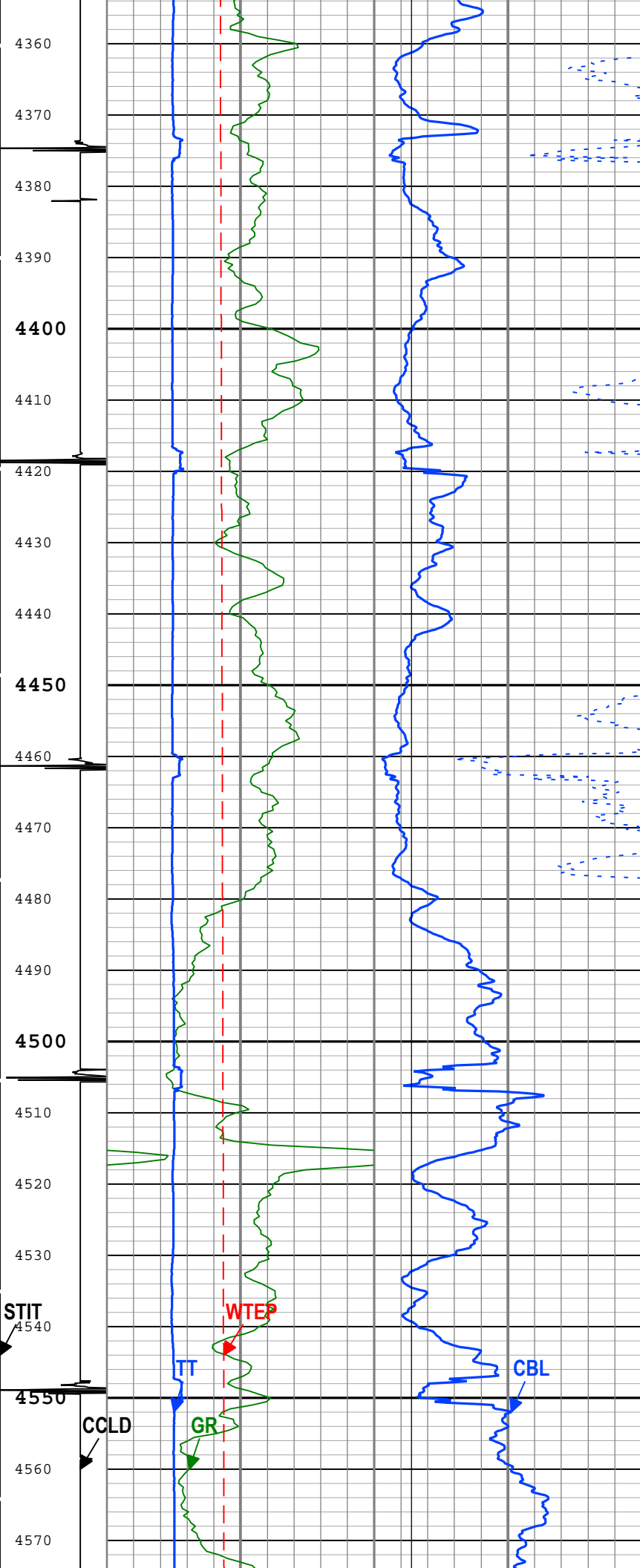


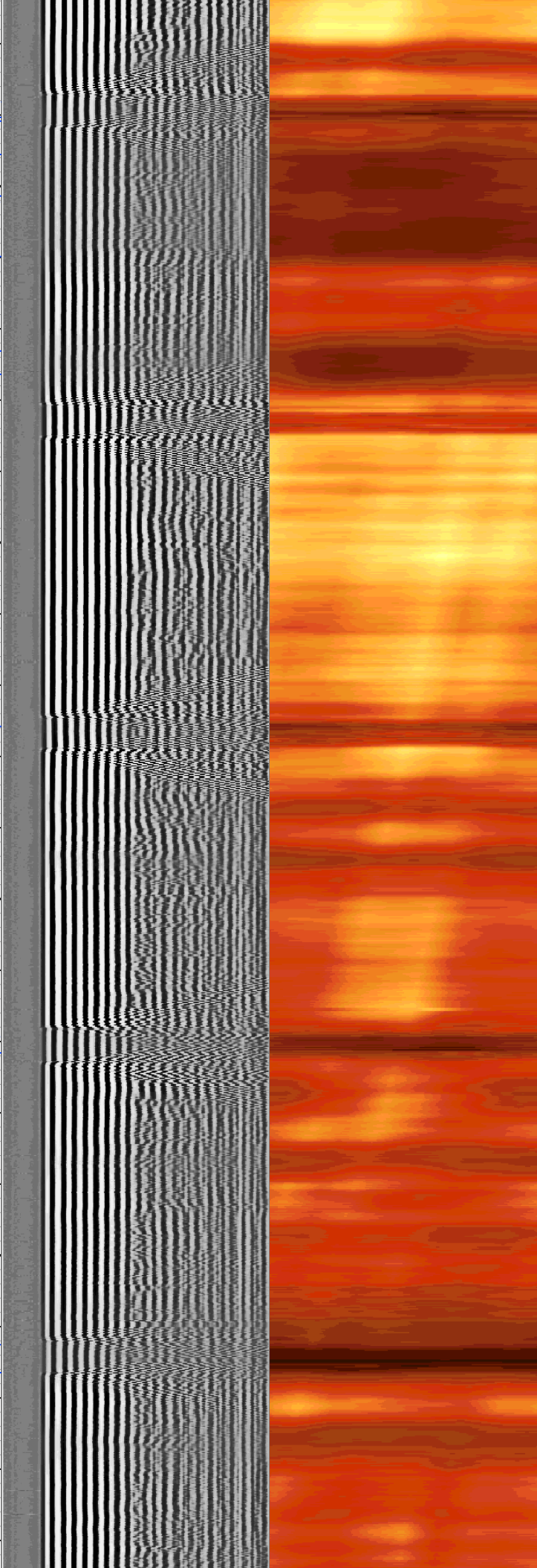
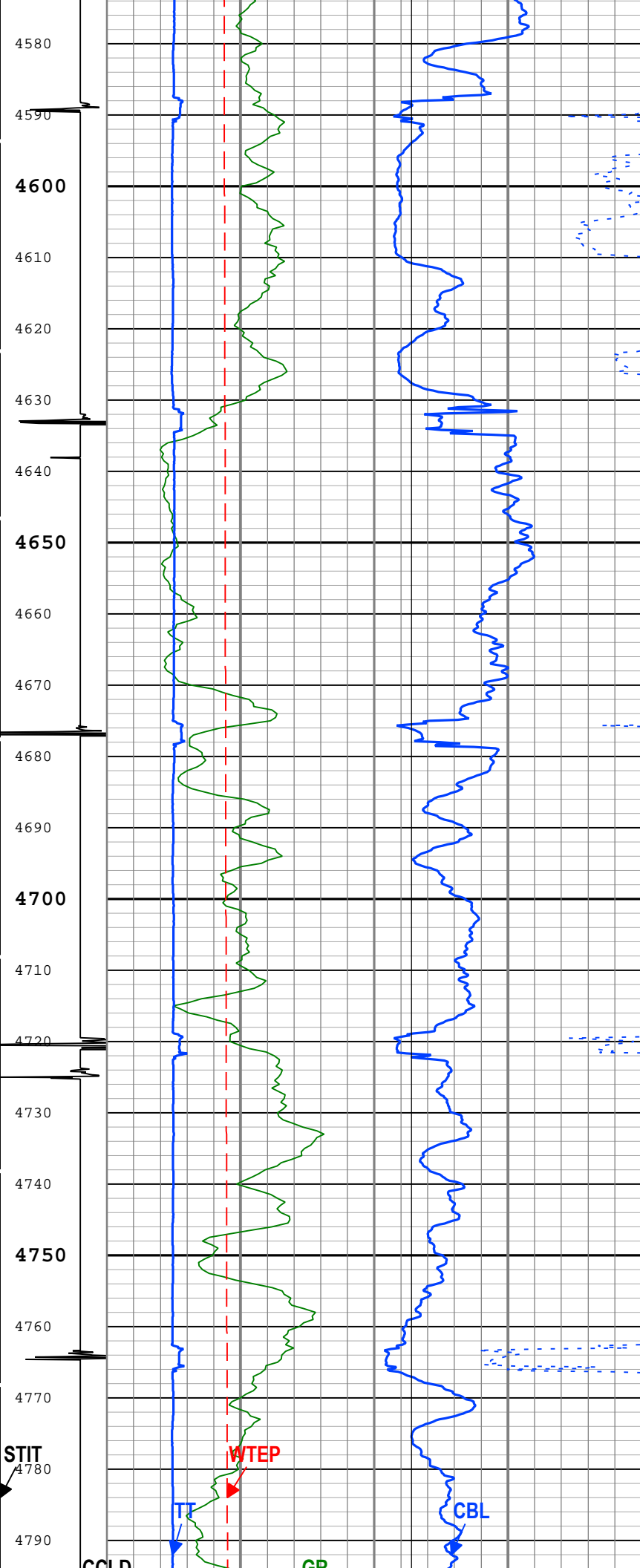


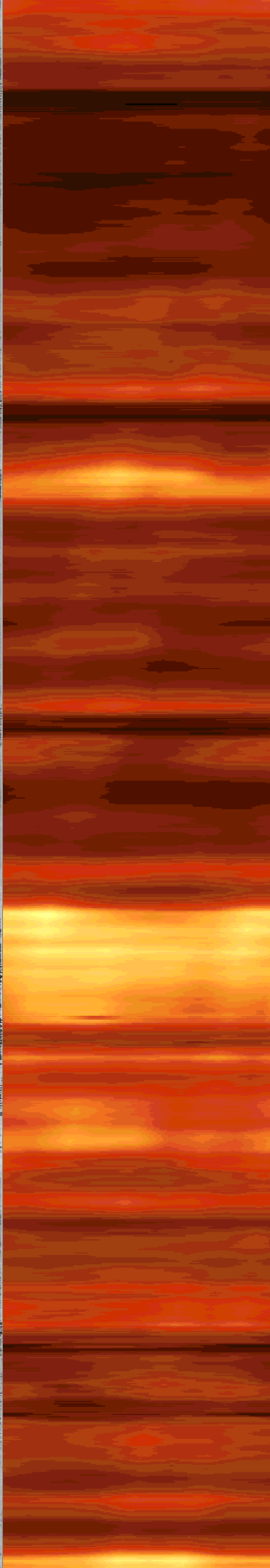
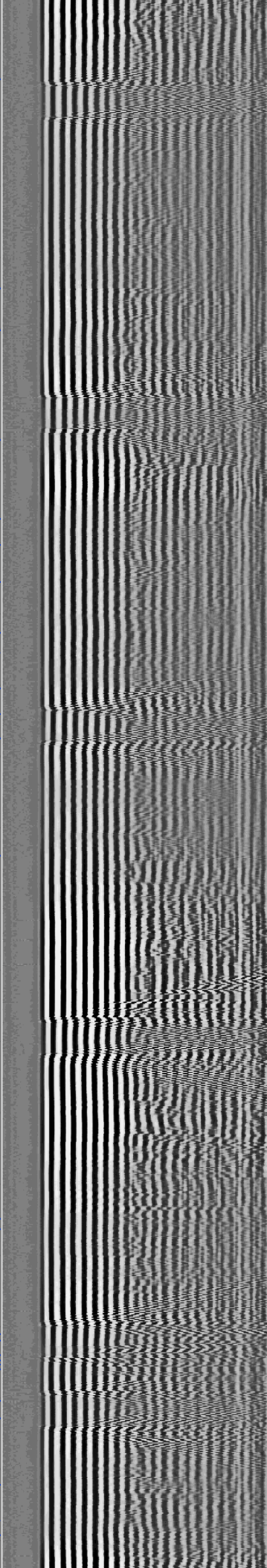
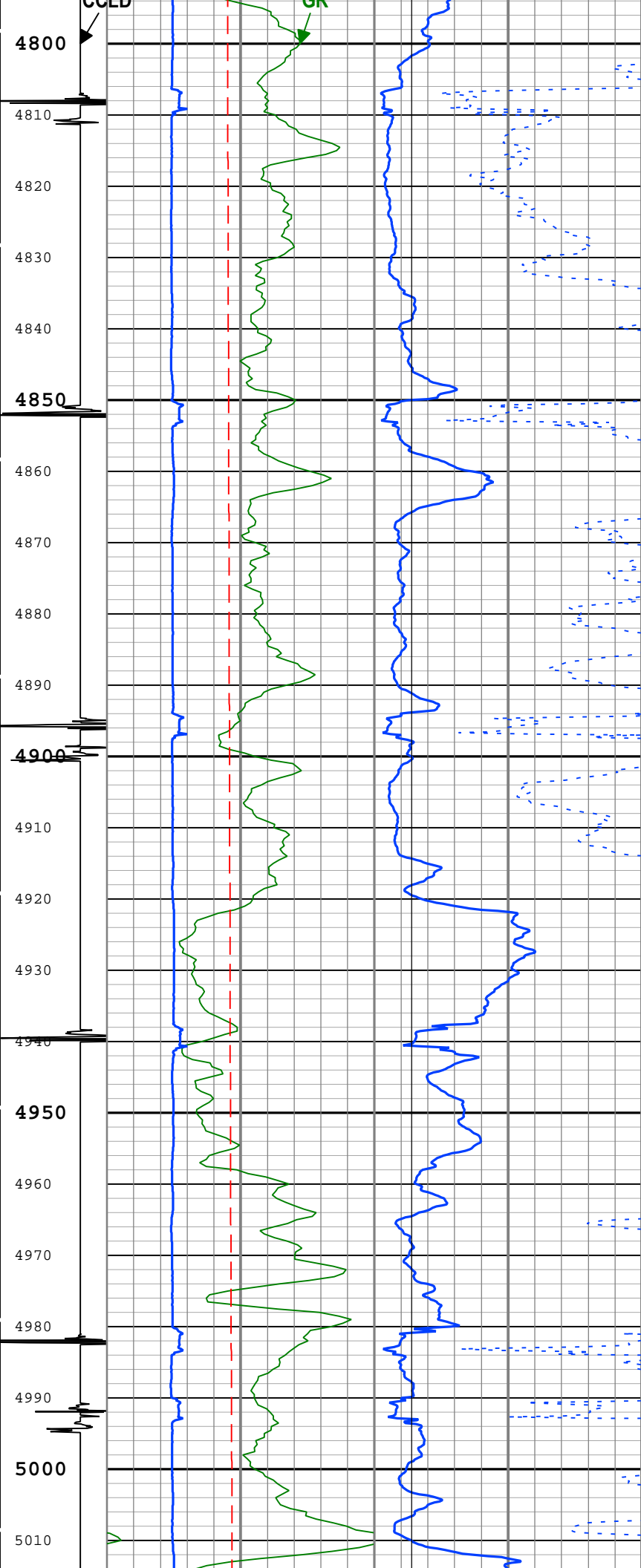


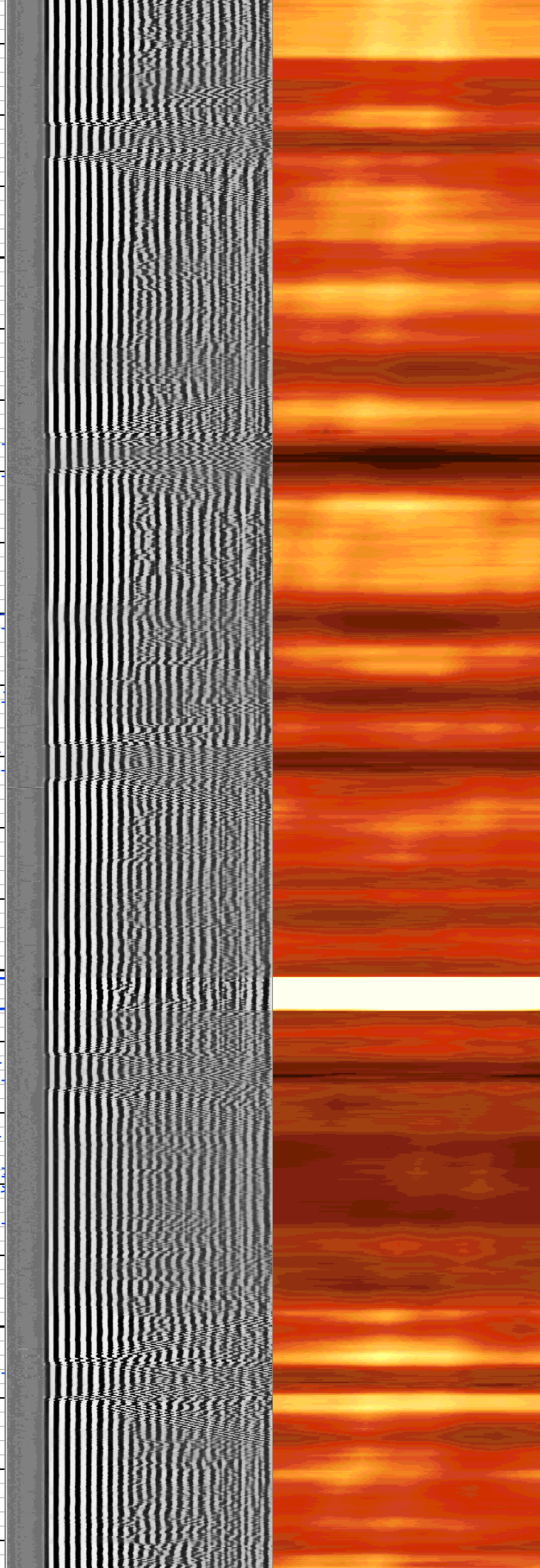
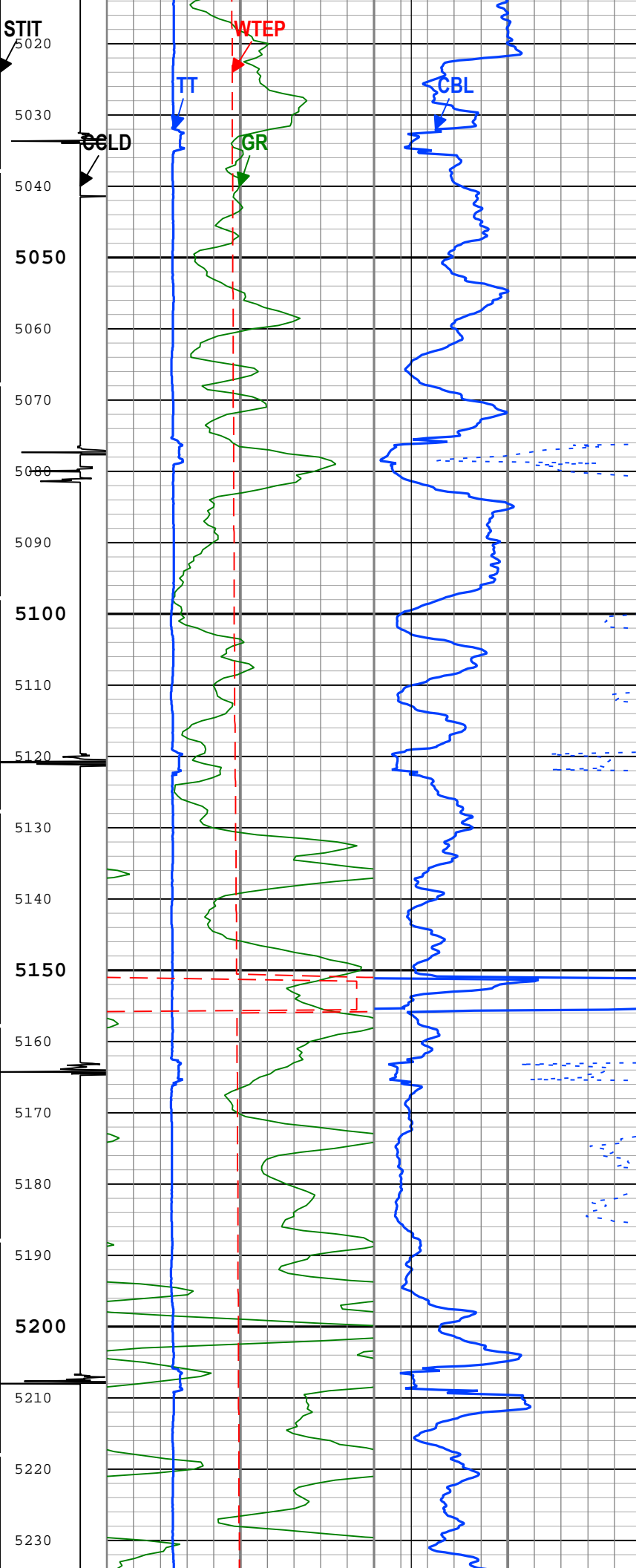


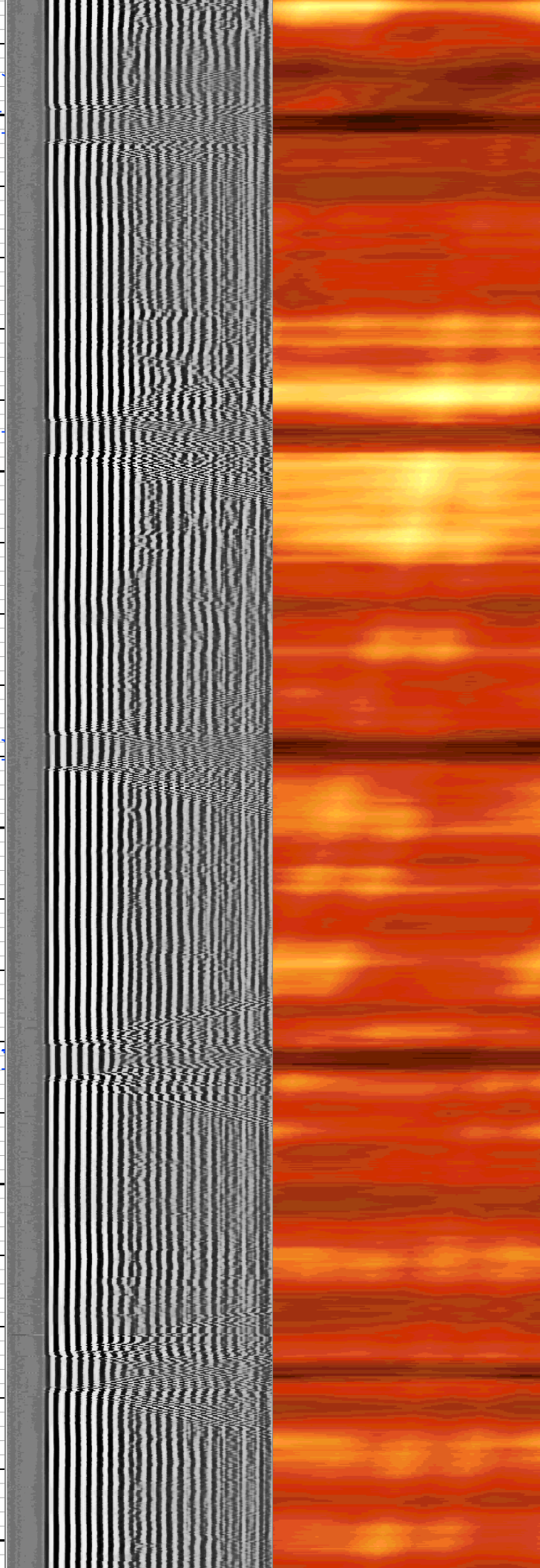
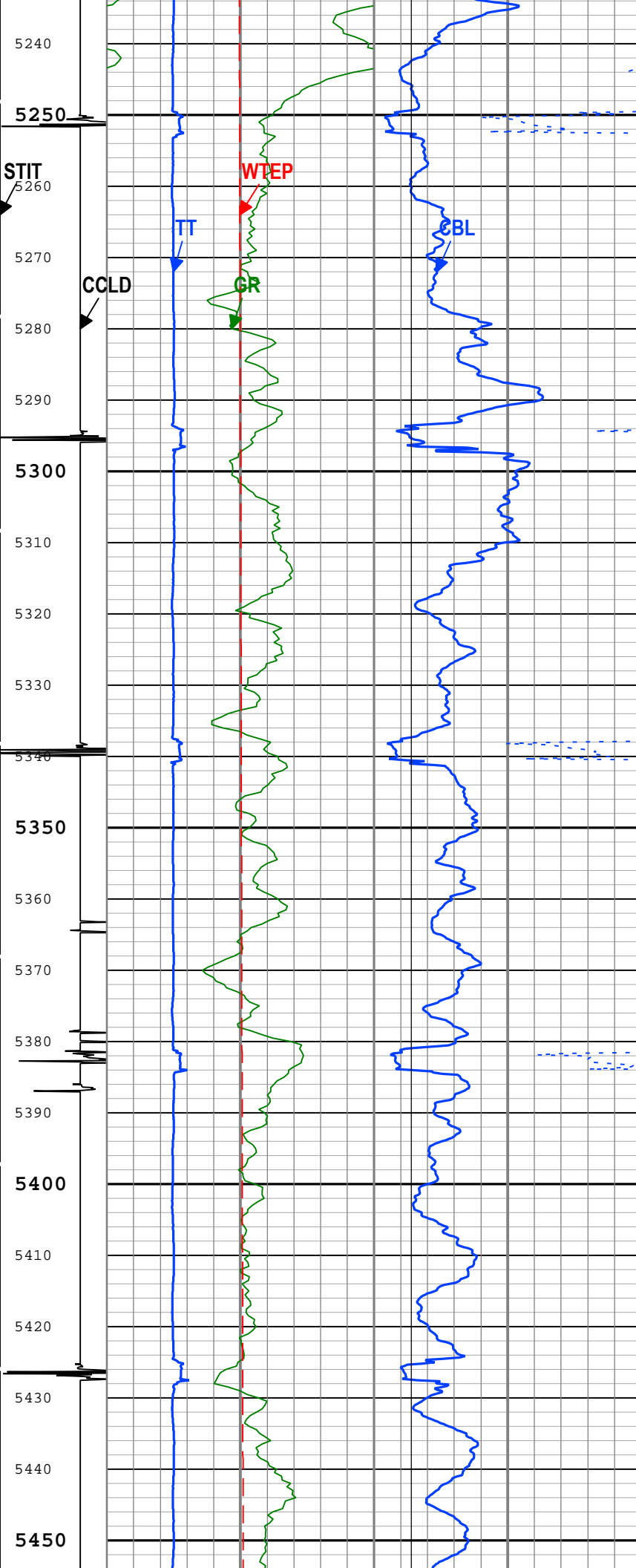


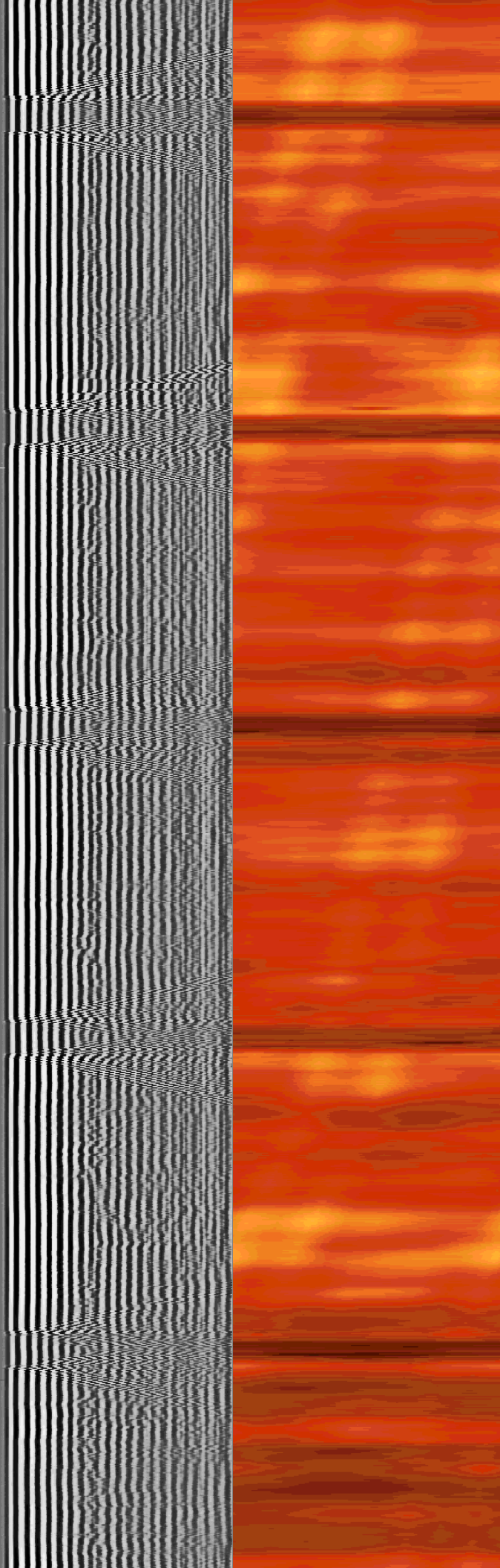
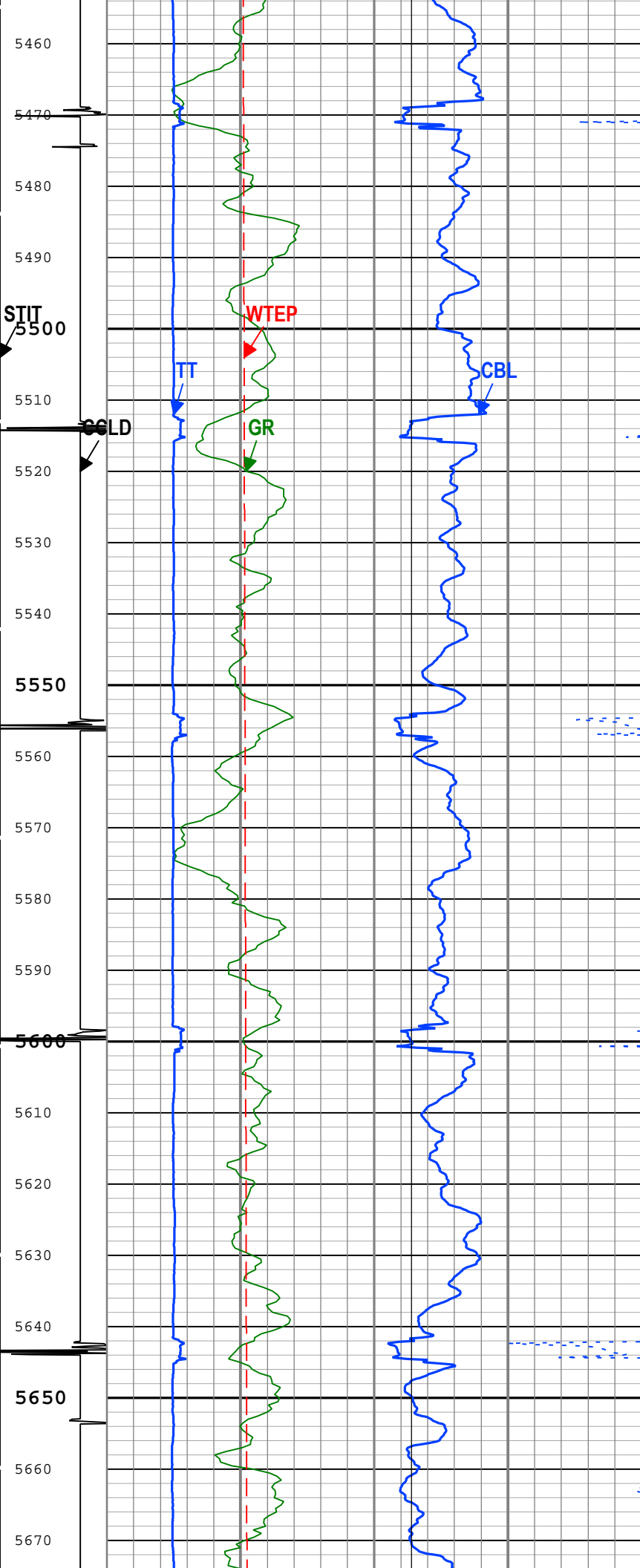


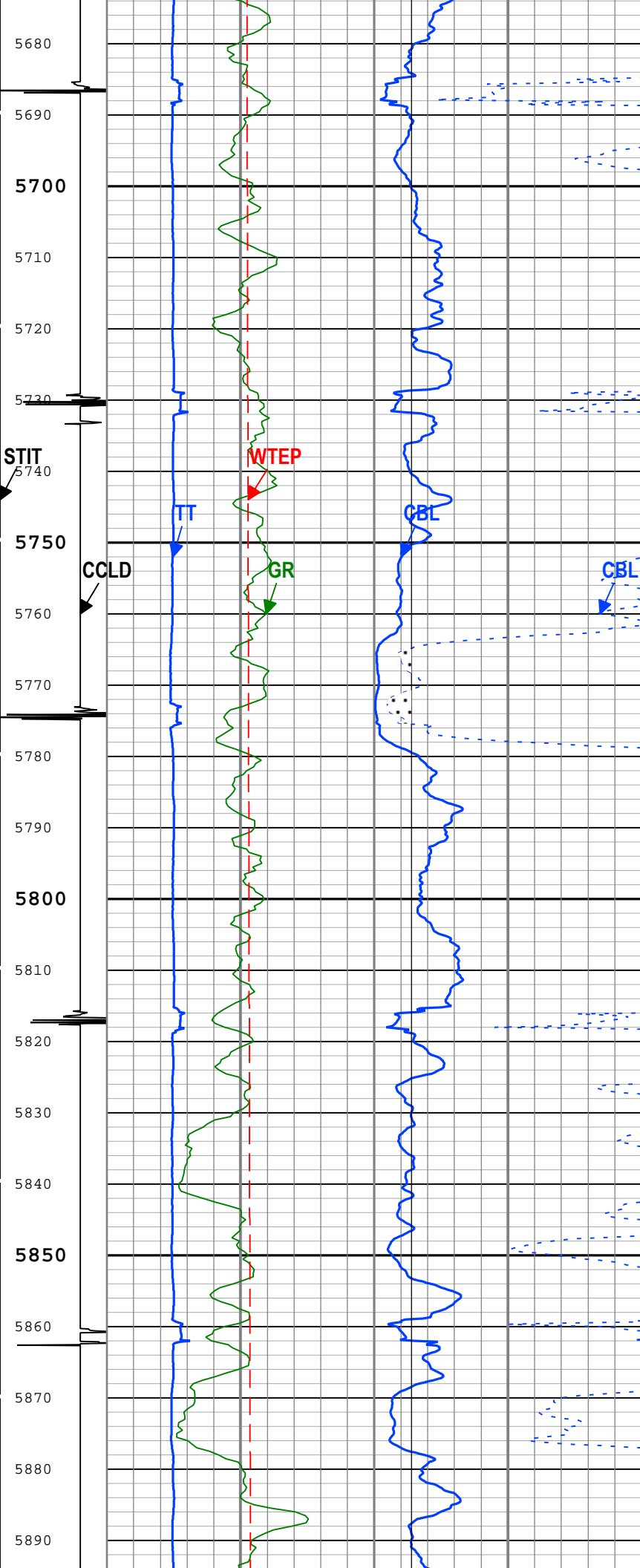


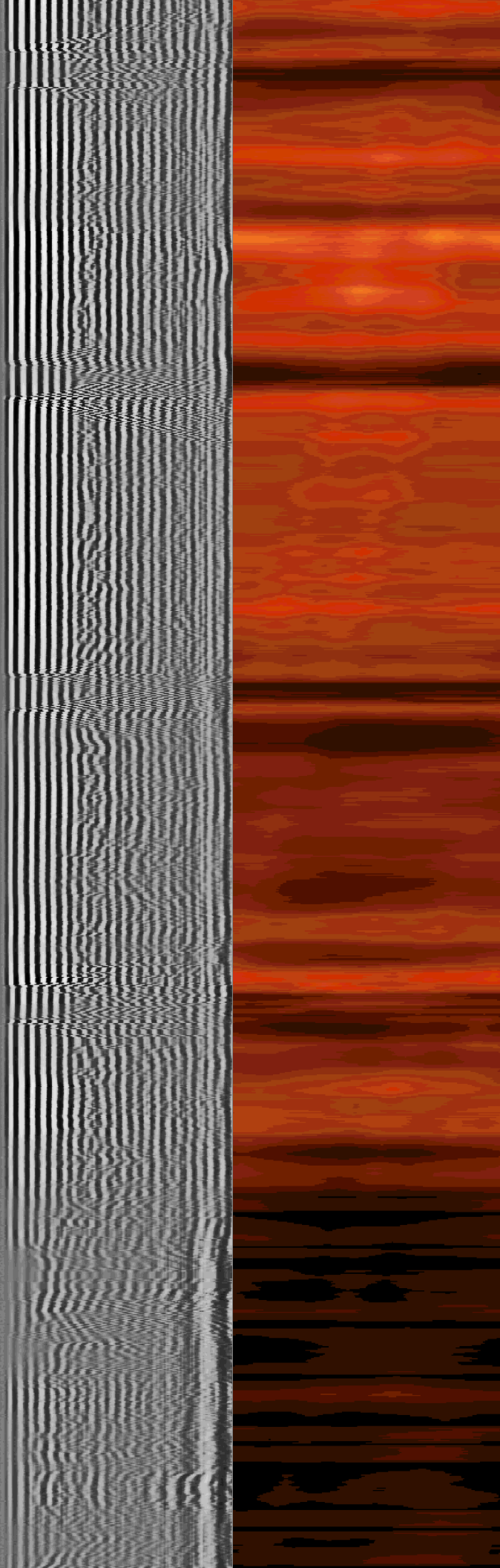
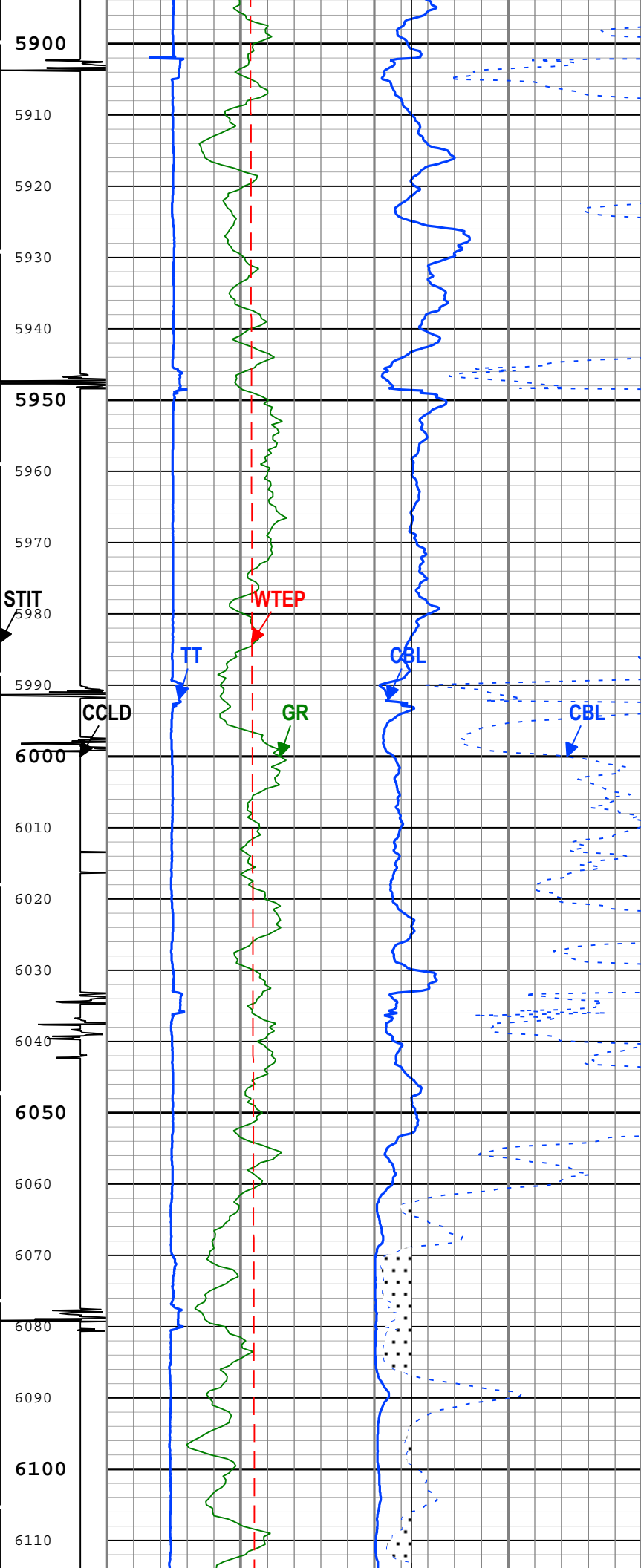


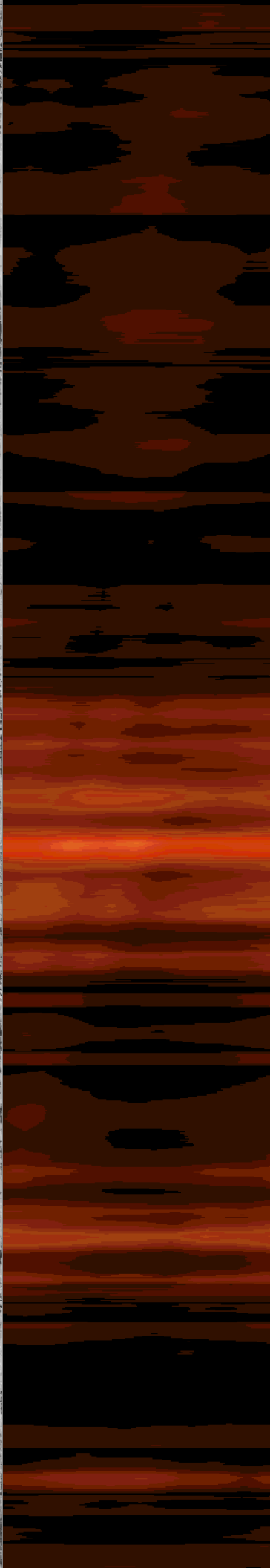
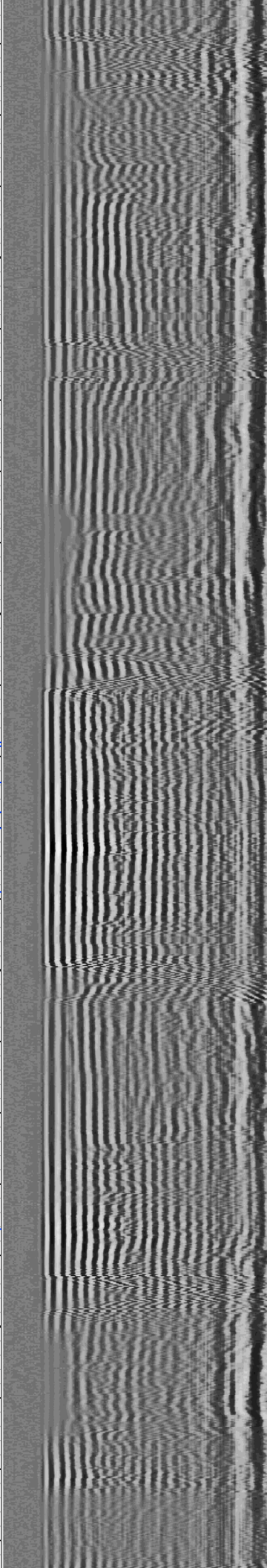
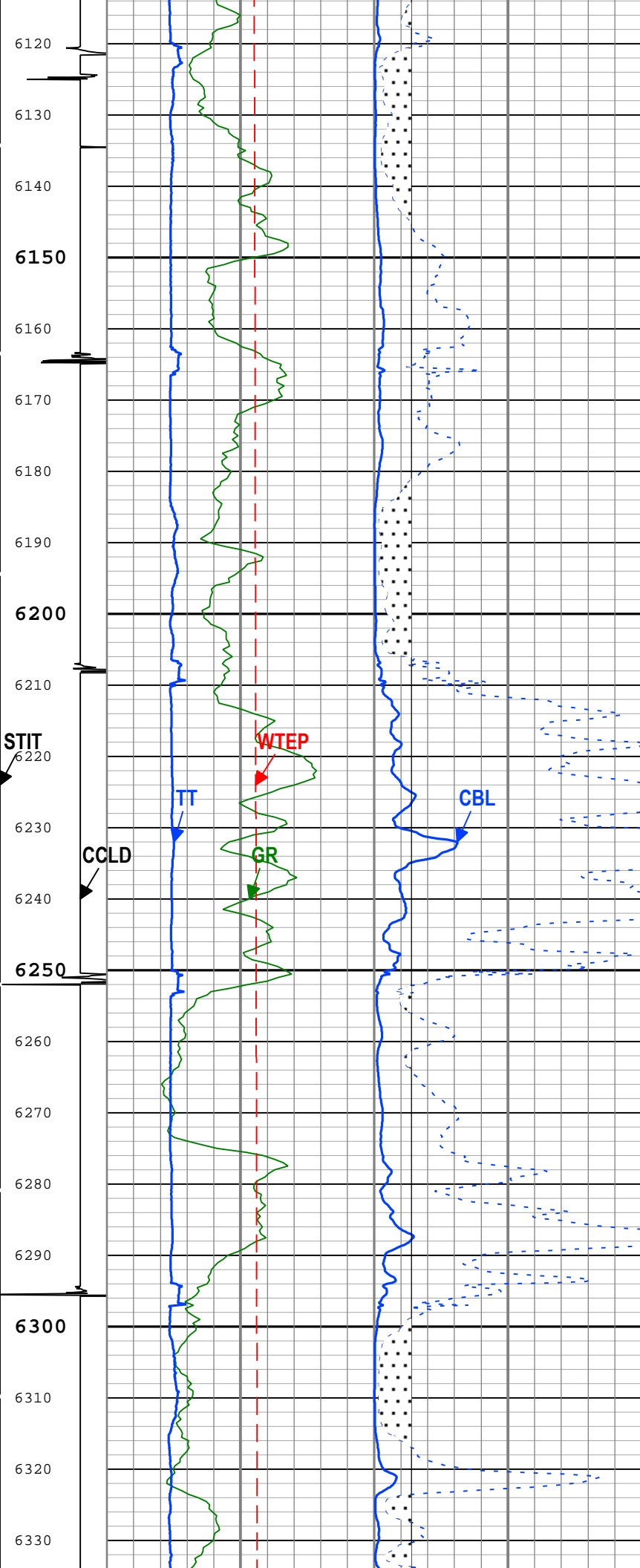


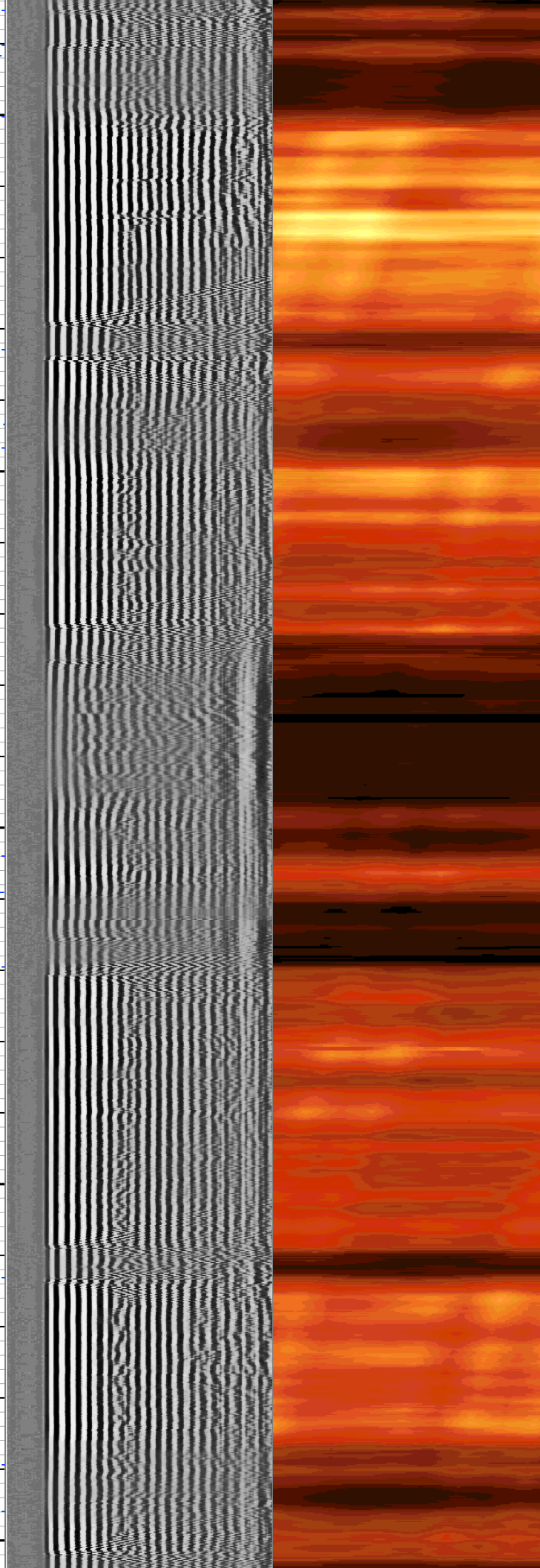
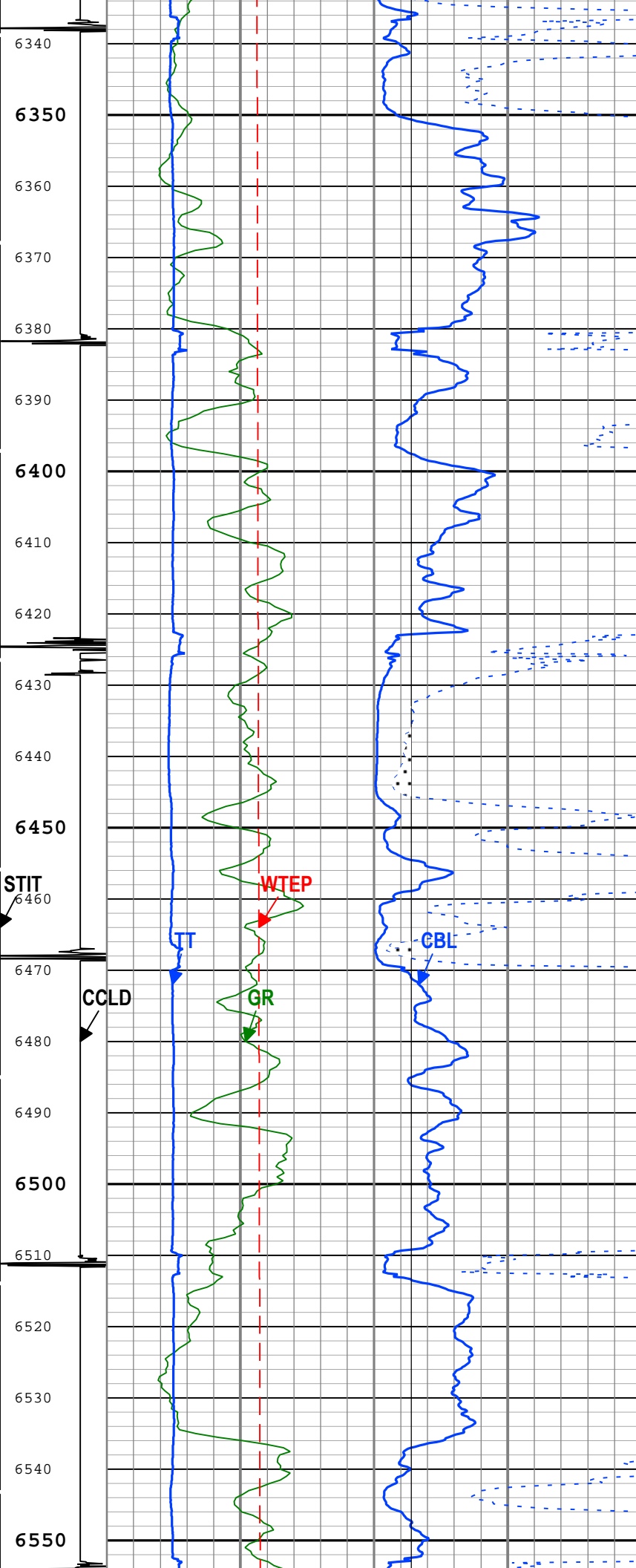


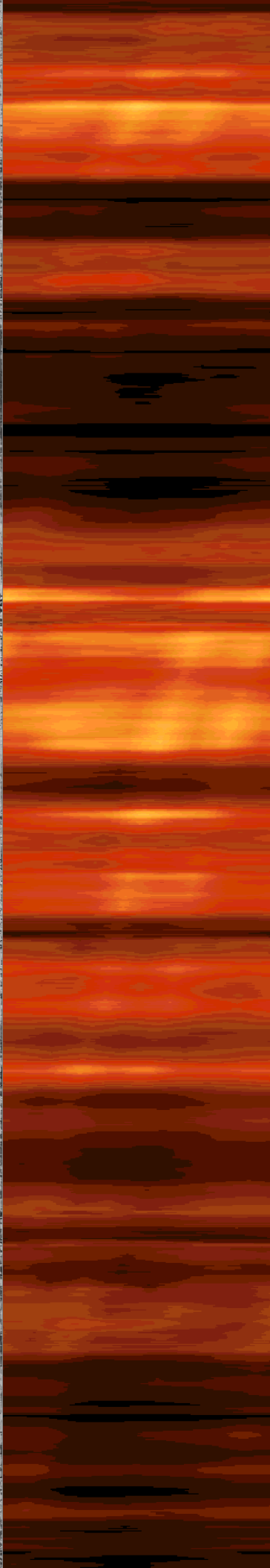
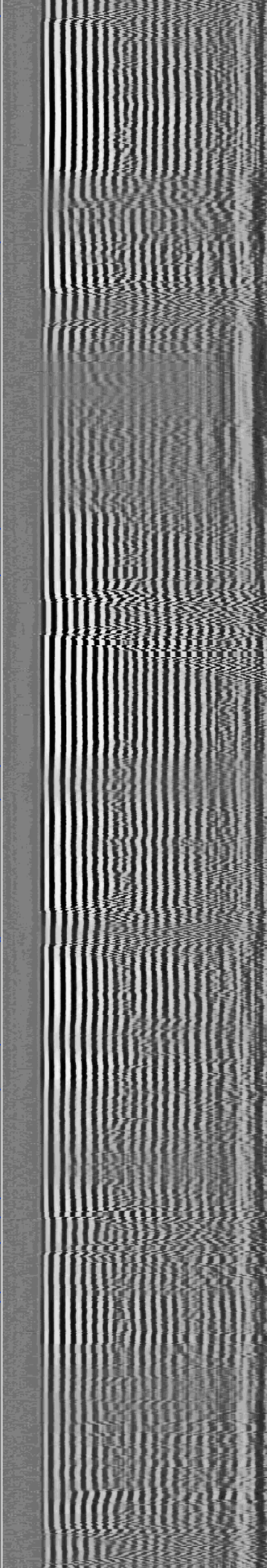
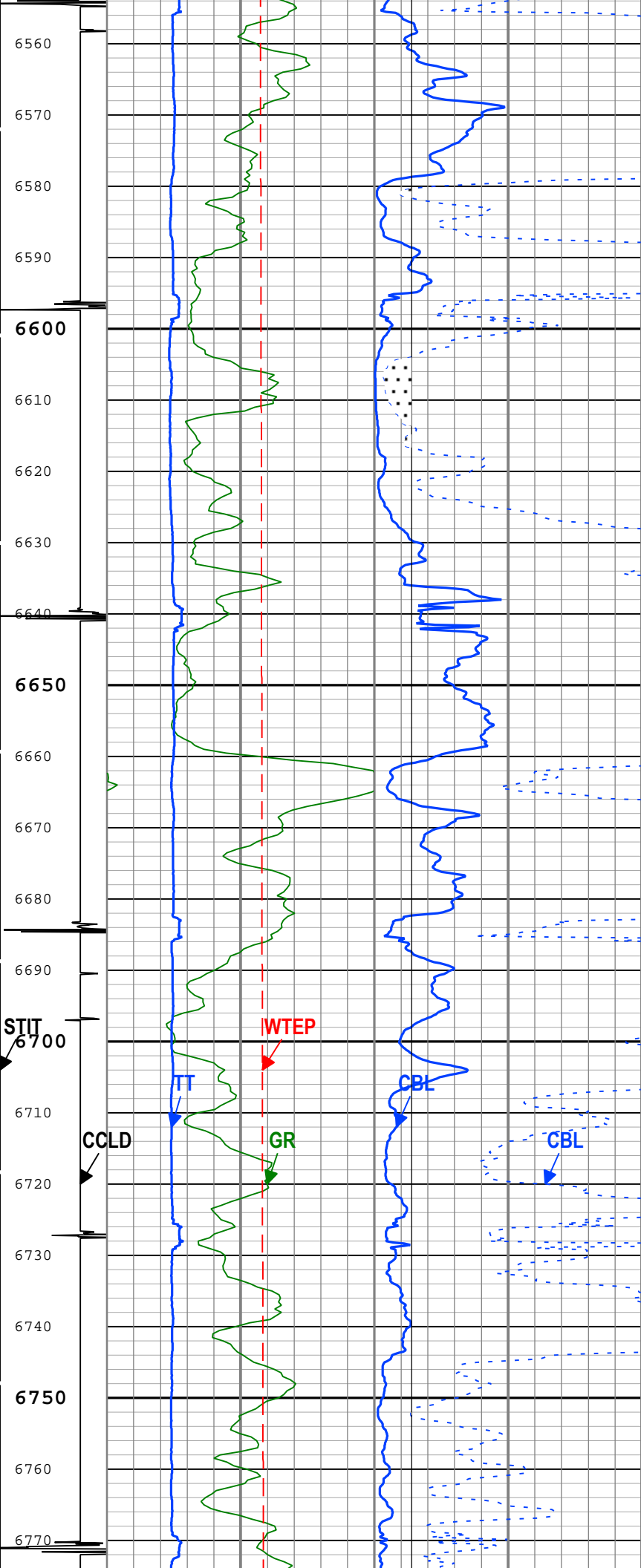


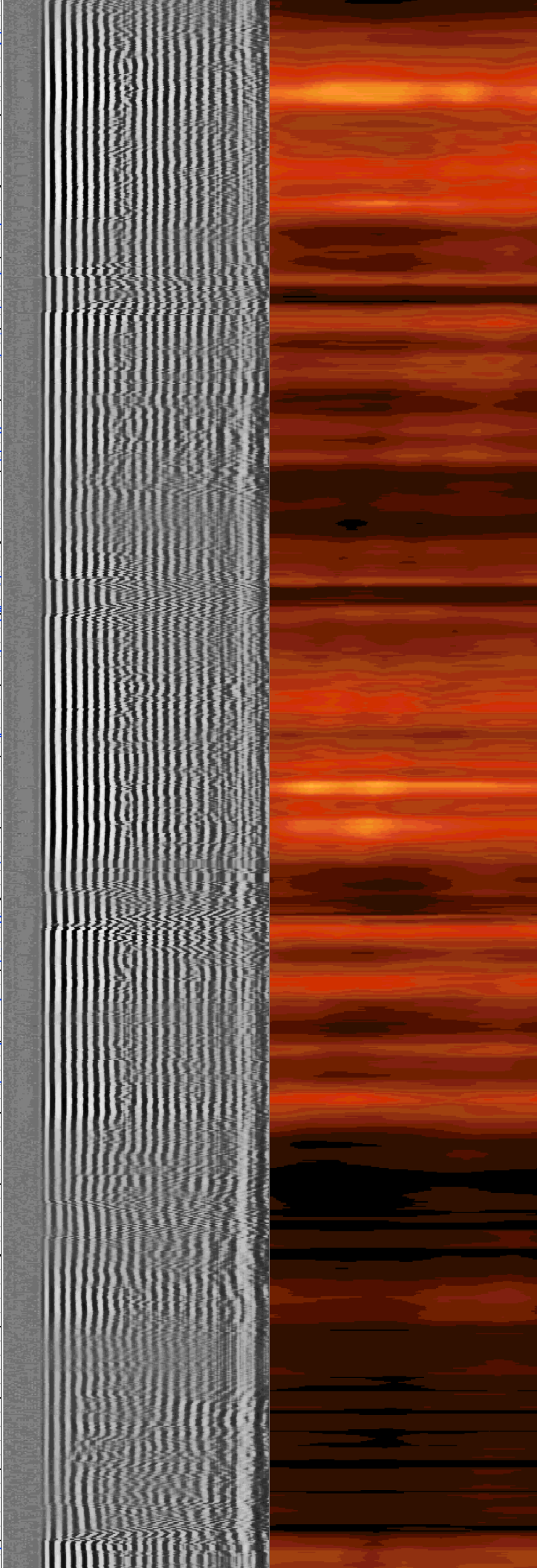
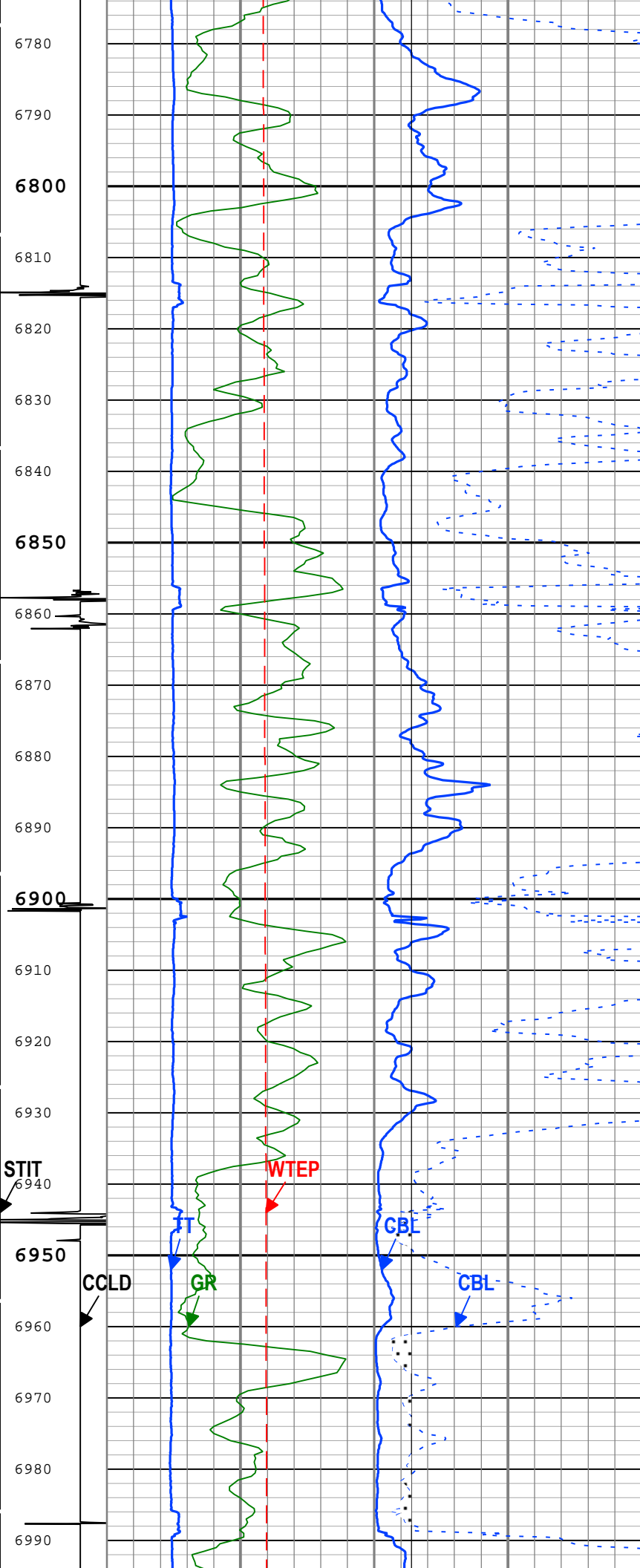


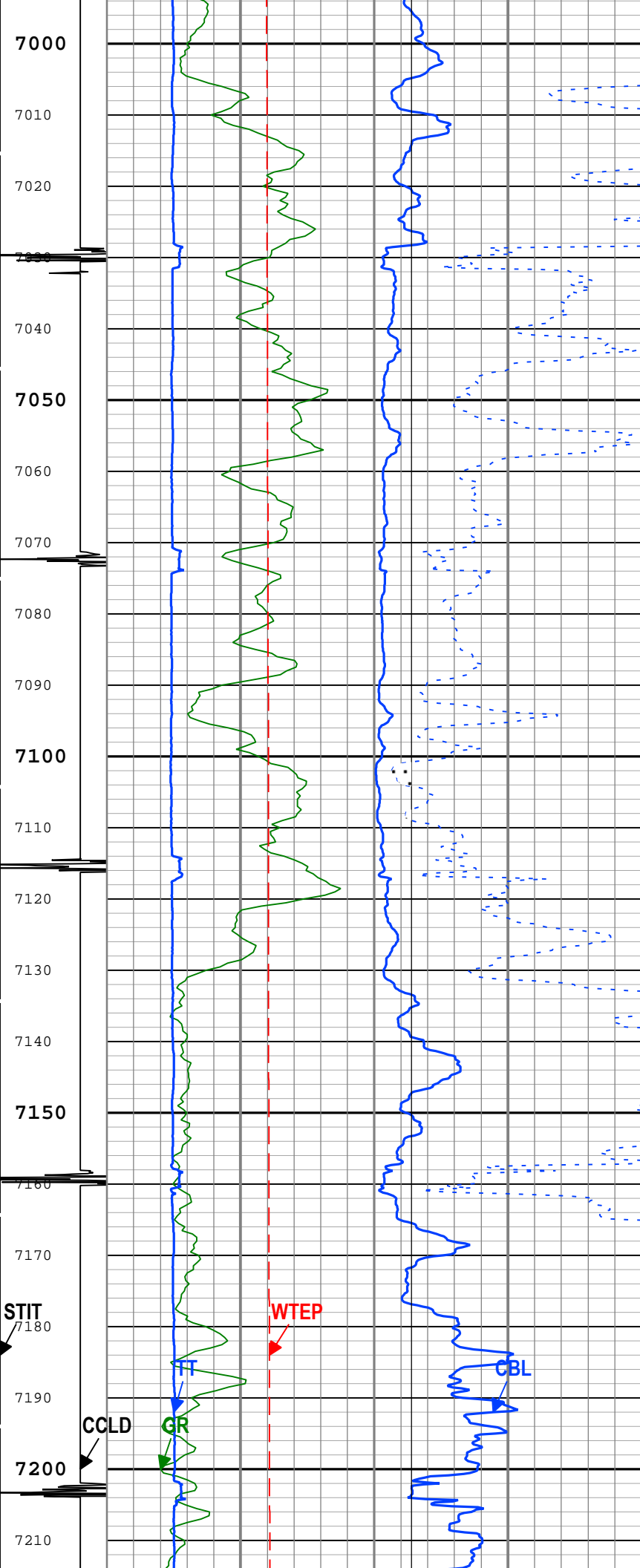


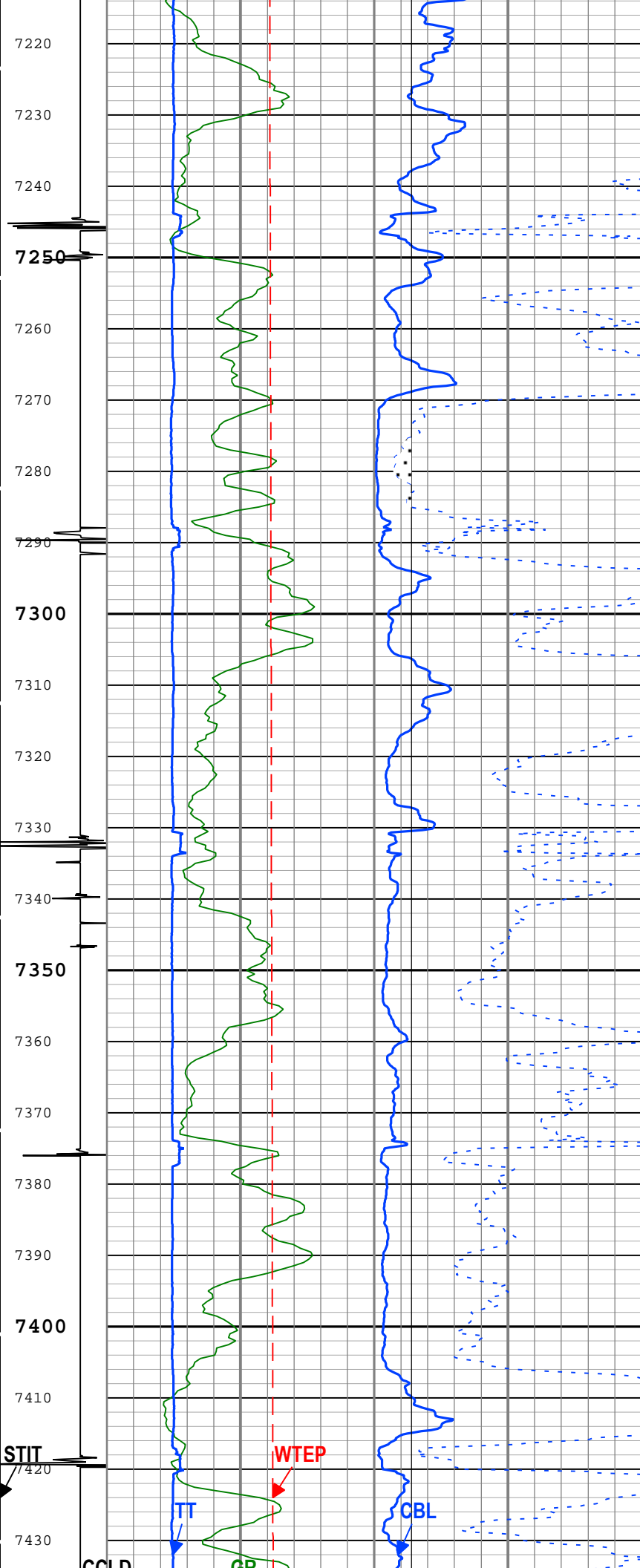


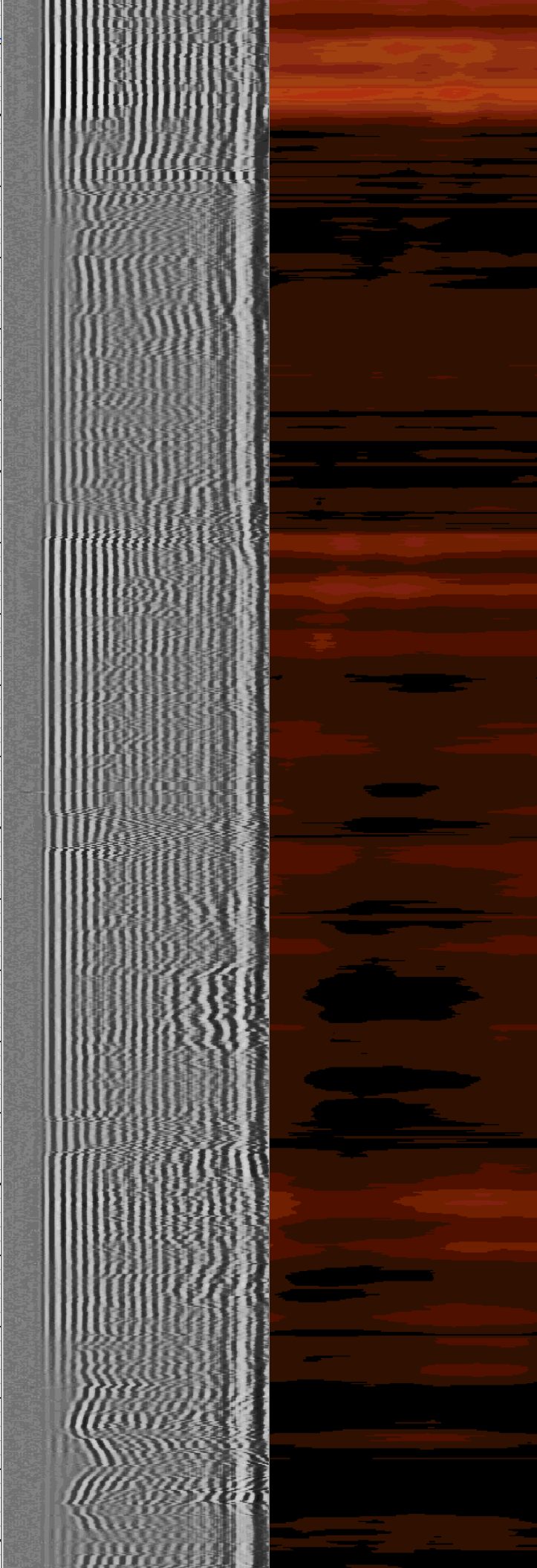
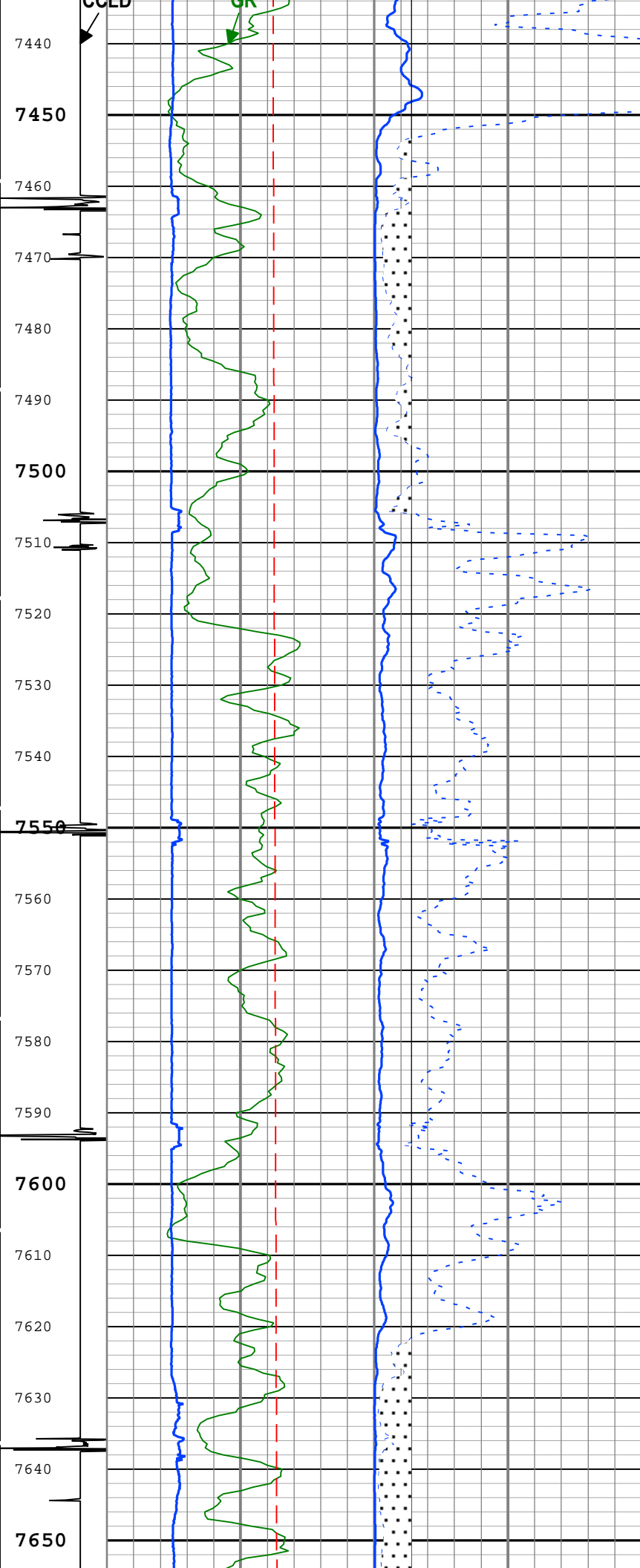


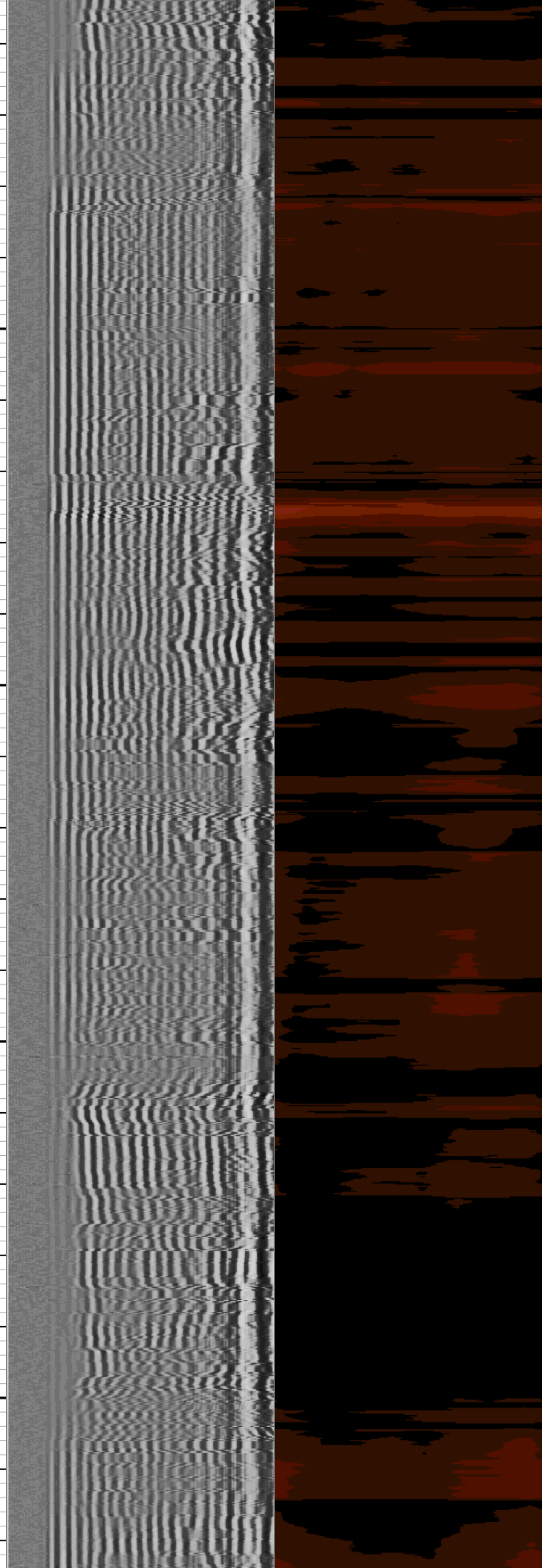
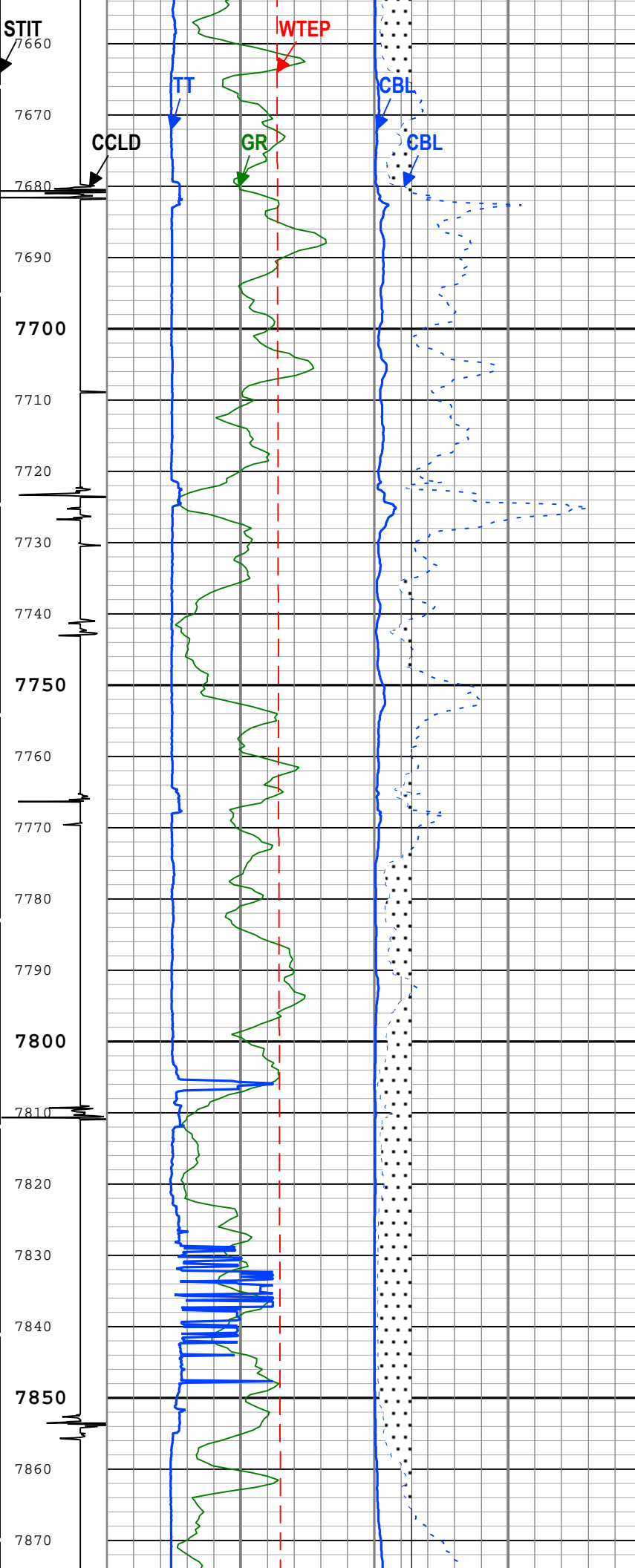


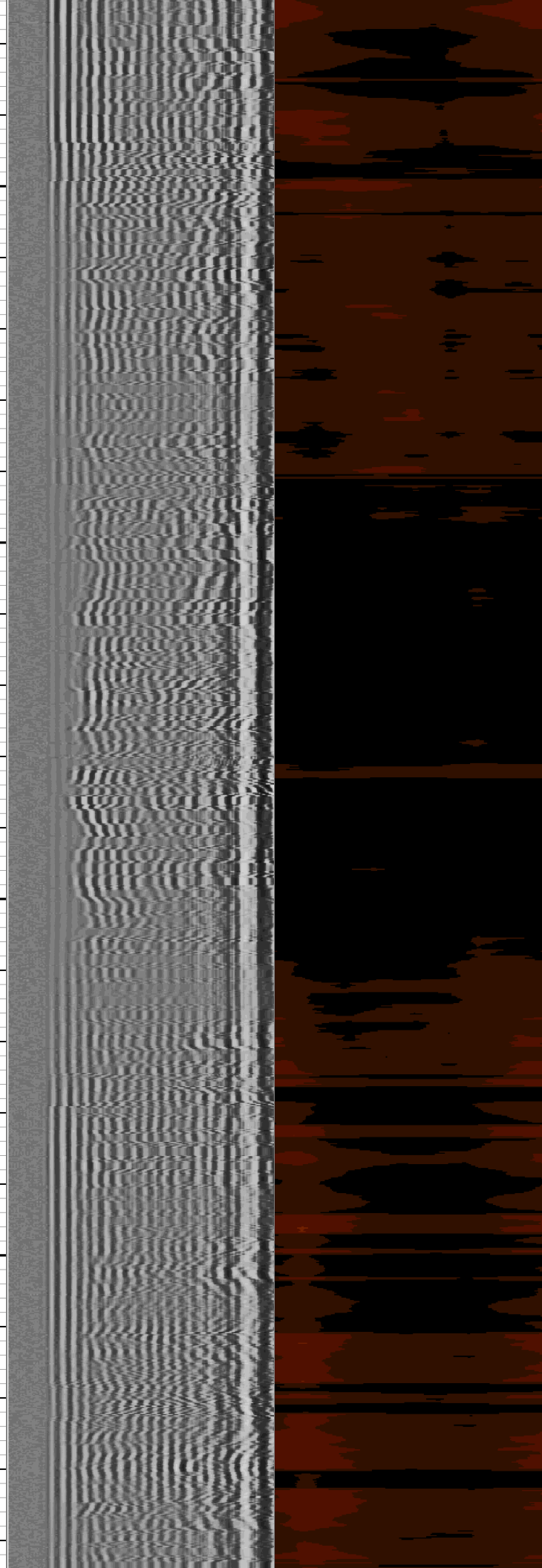
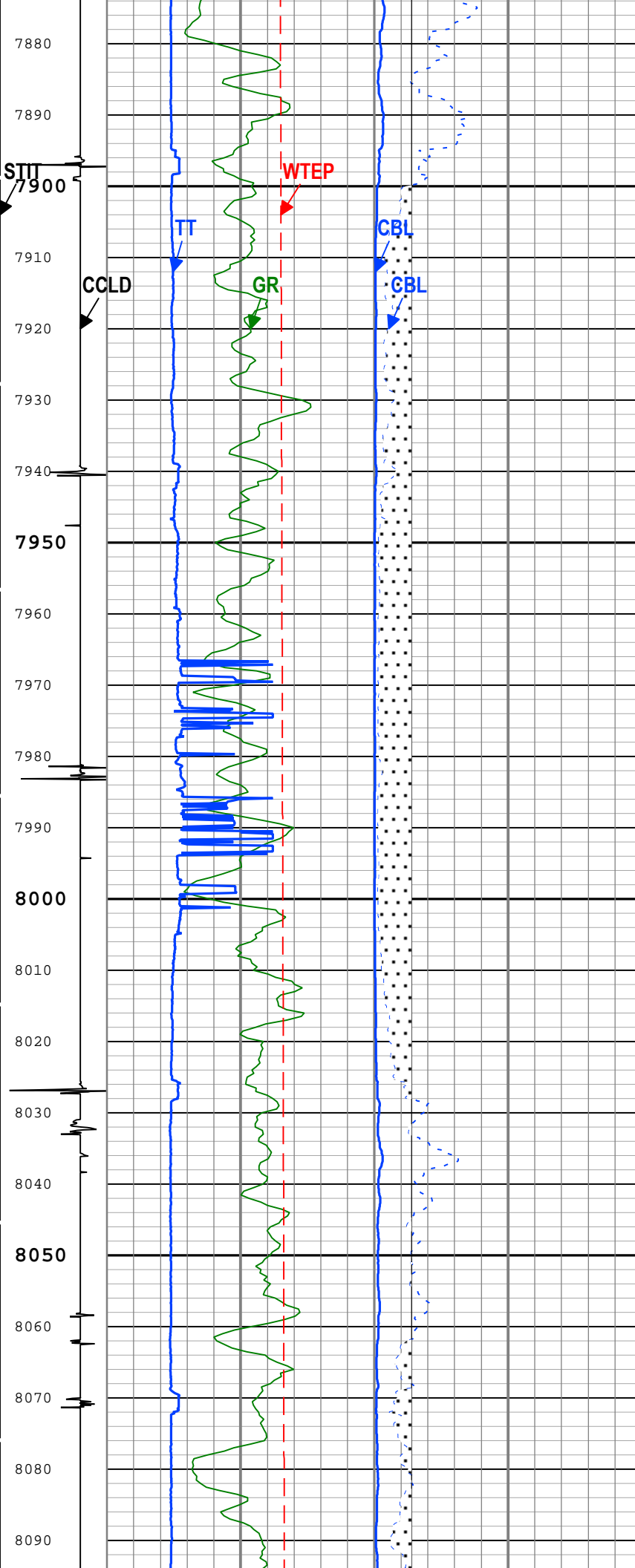


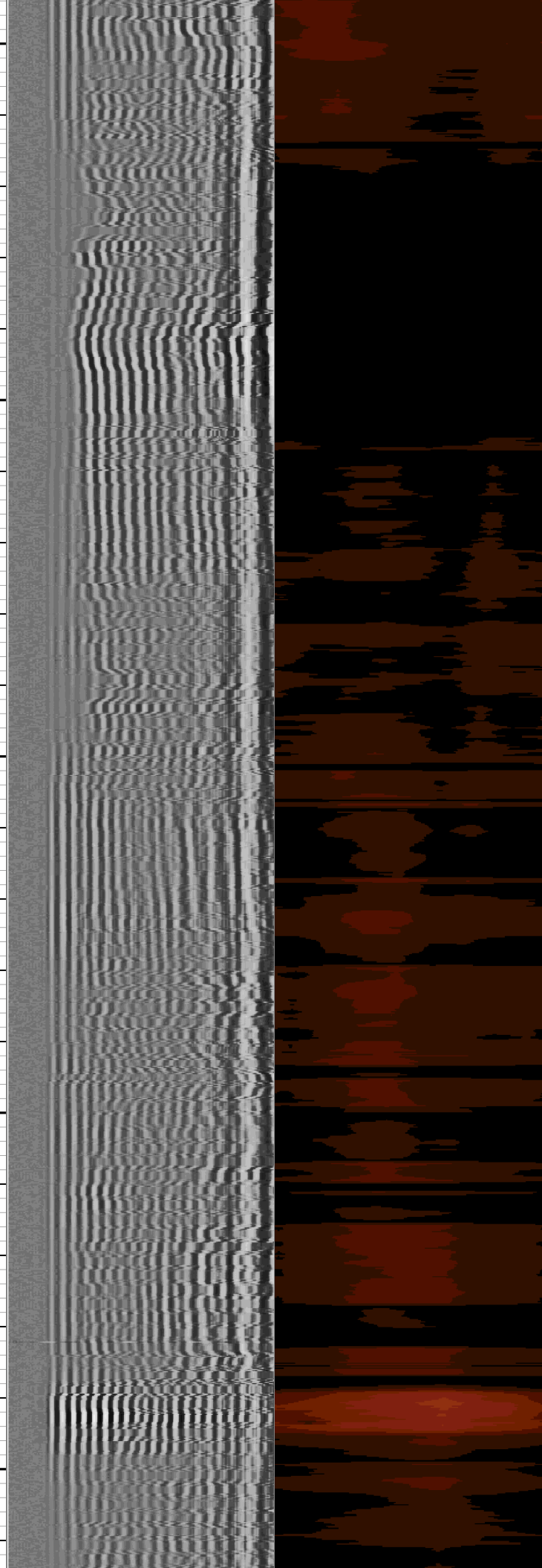
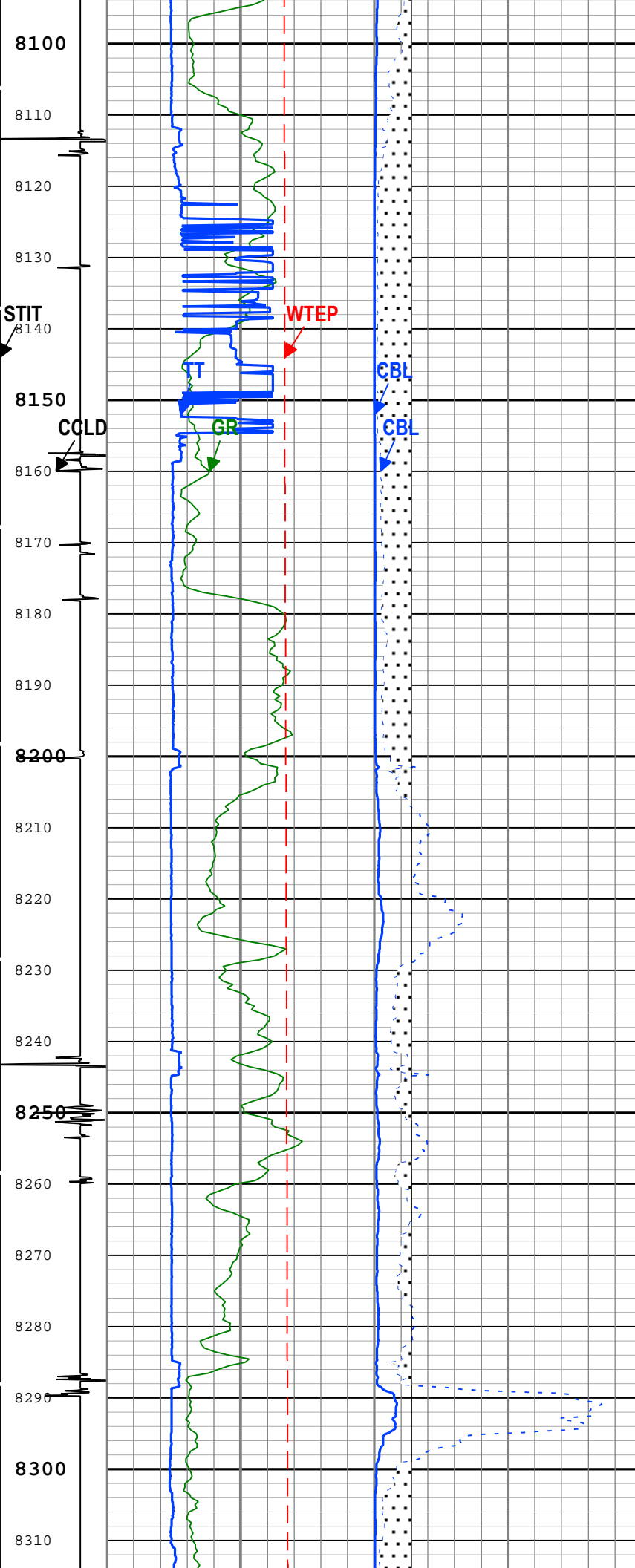


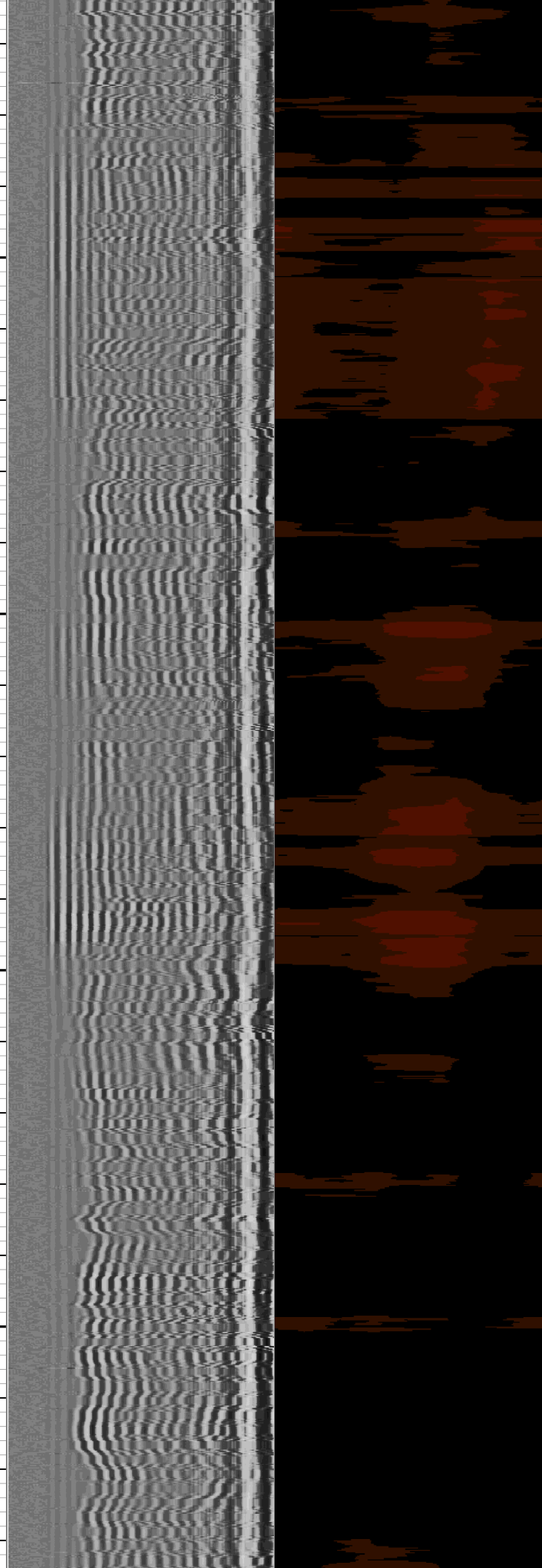
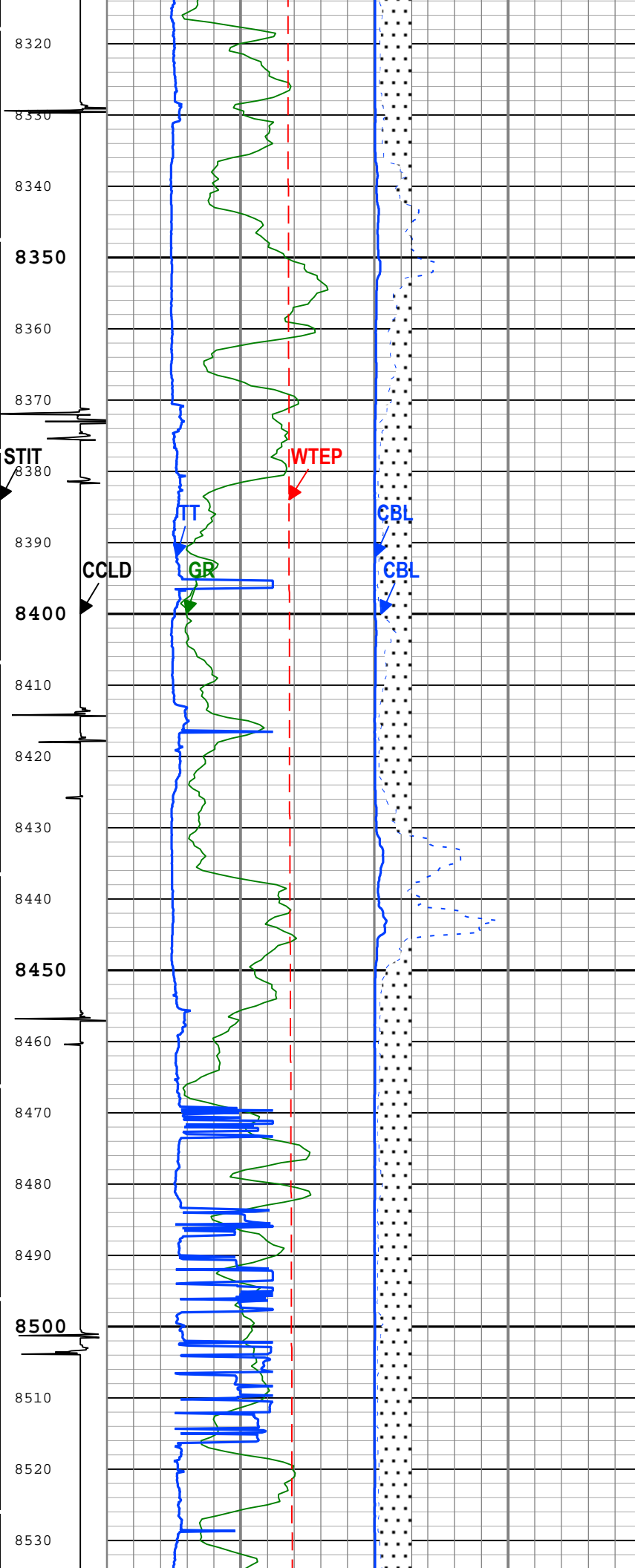


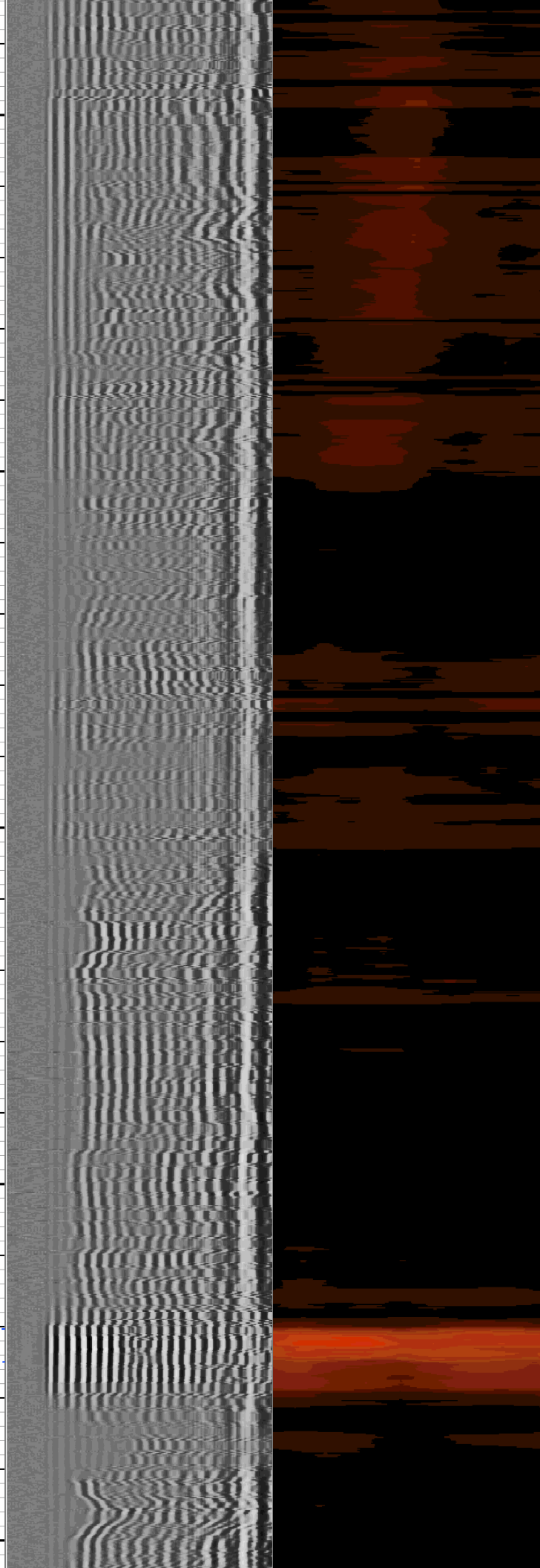
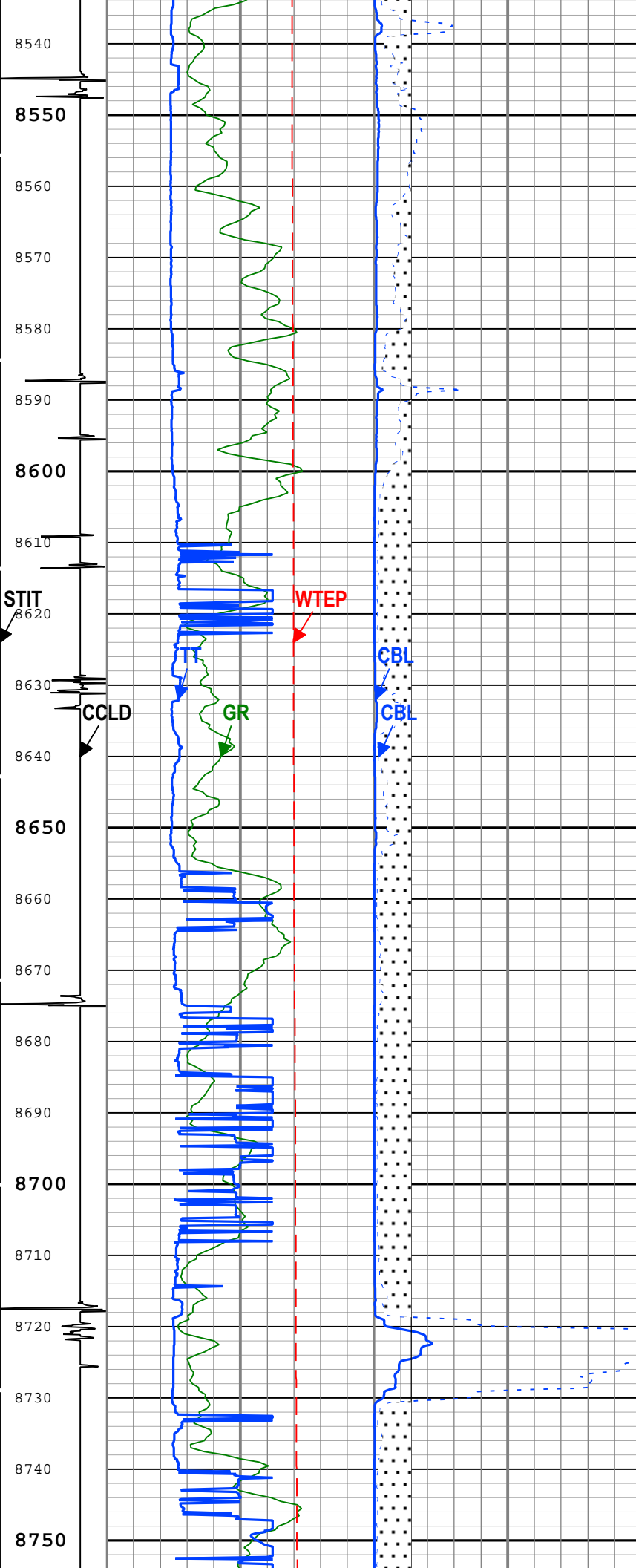


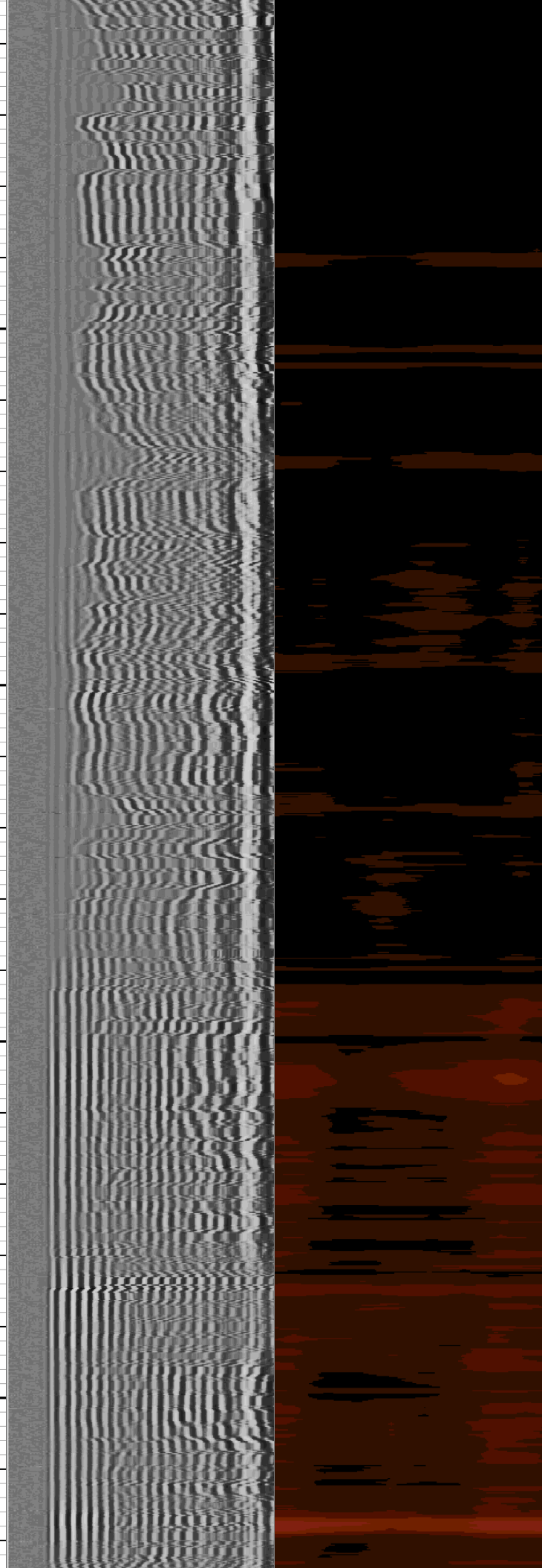
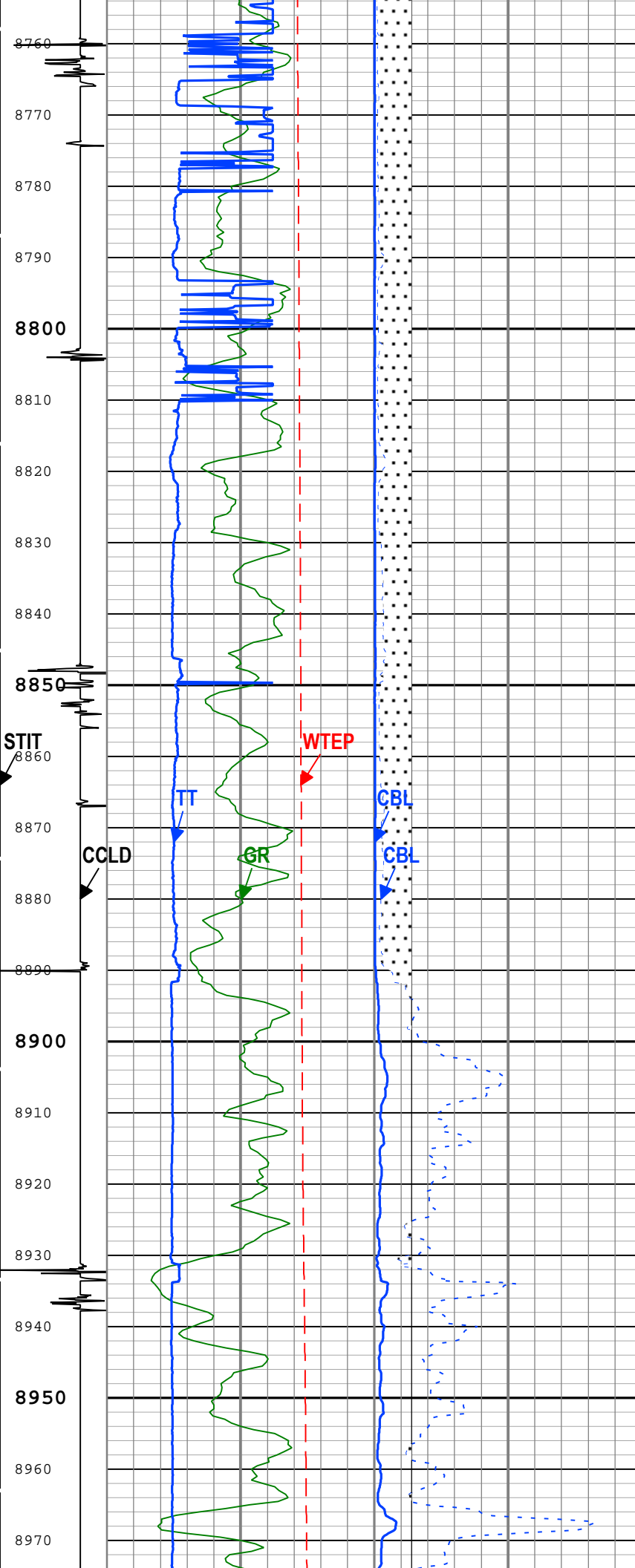


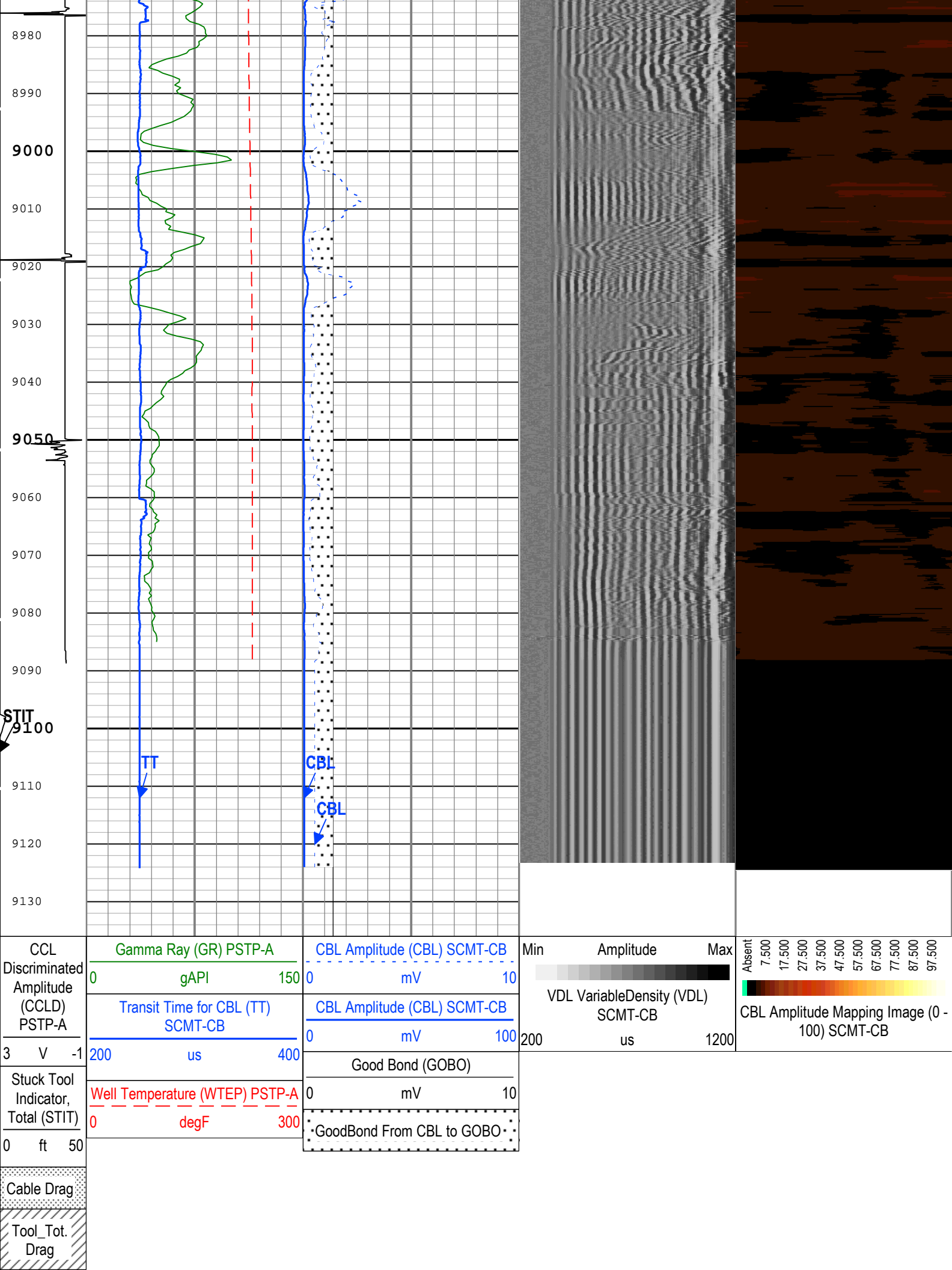












Description: SCMT VDL Image Format: Log (SCMT_VDL_Image_1) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 07-Aug-2015 11:38:44

ONE: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	239	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	224	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	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-CB	167	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	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
RUN_SNUM	Run Sequence Number	WSDRUN	1	
ZCMT	Acoustic Impedance of Cement	SCMT-CB	3.4	Mrayl

Parameter	Value	Start (ft)	Stop (ft)
MCI	14.81	2448	2516
MCI	1.25	2516	9136

Tool Control Parameters

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

Repeat Pass 0 PSI

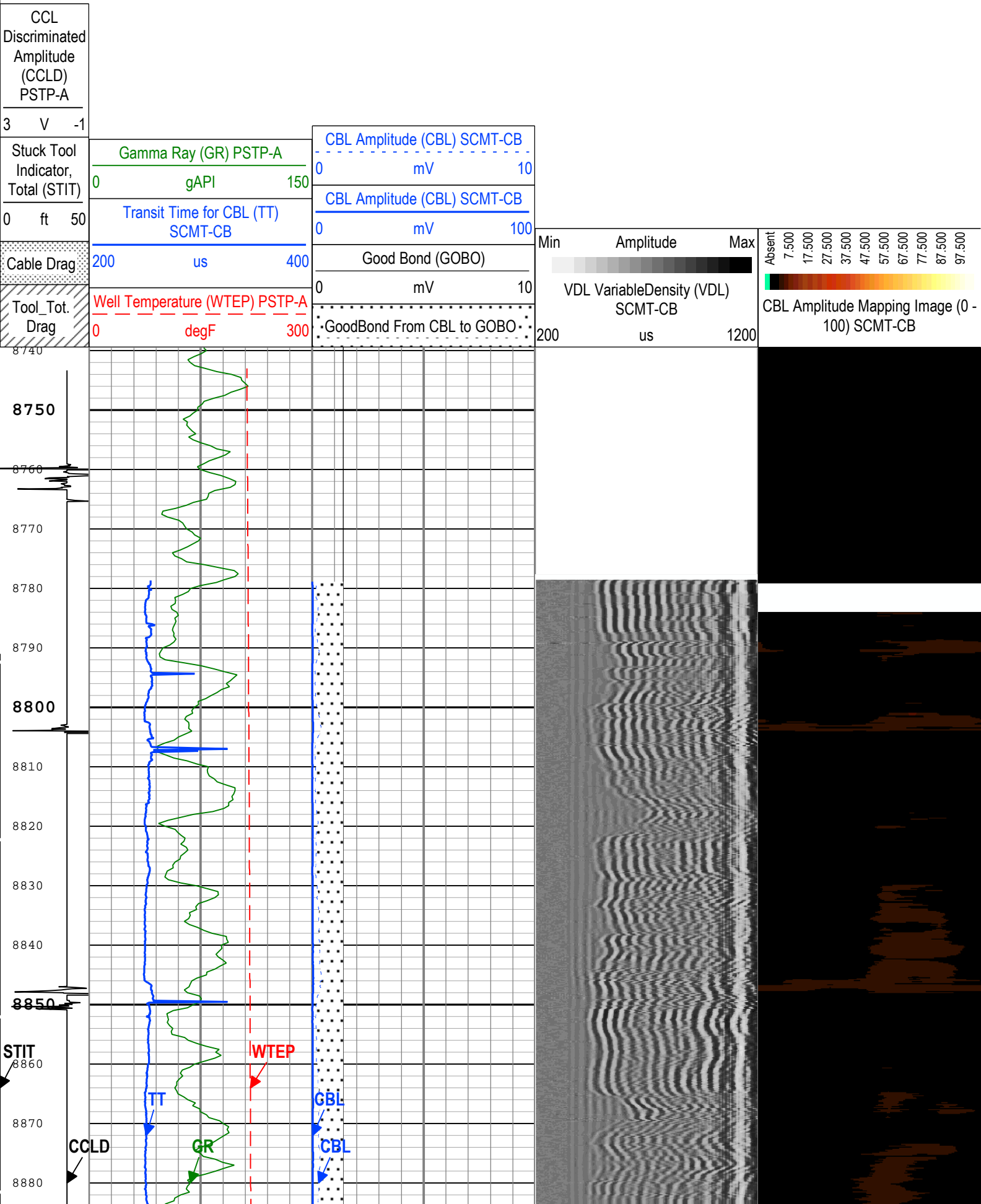
Acquisition System	Version
Maxwell 2016	6.0.47569.3100

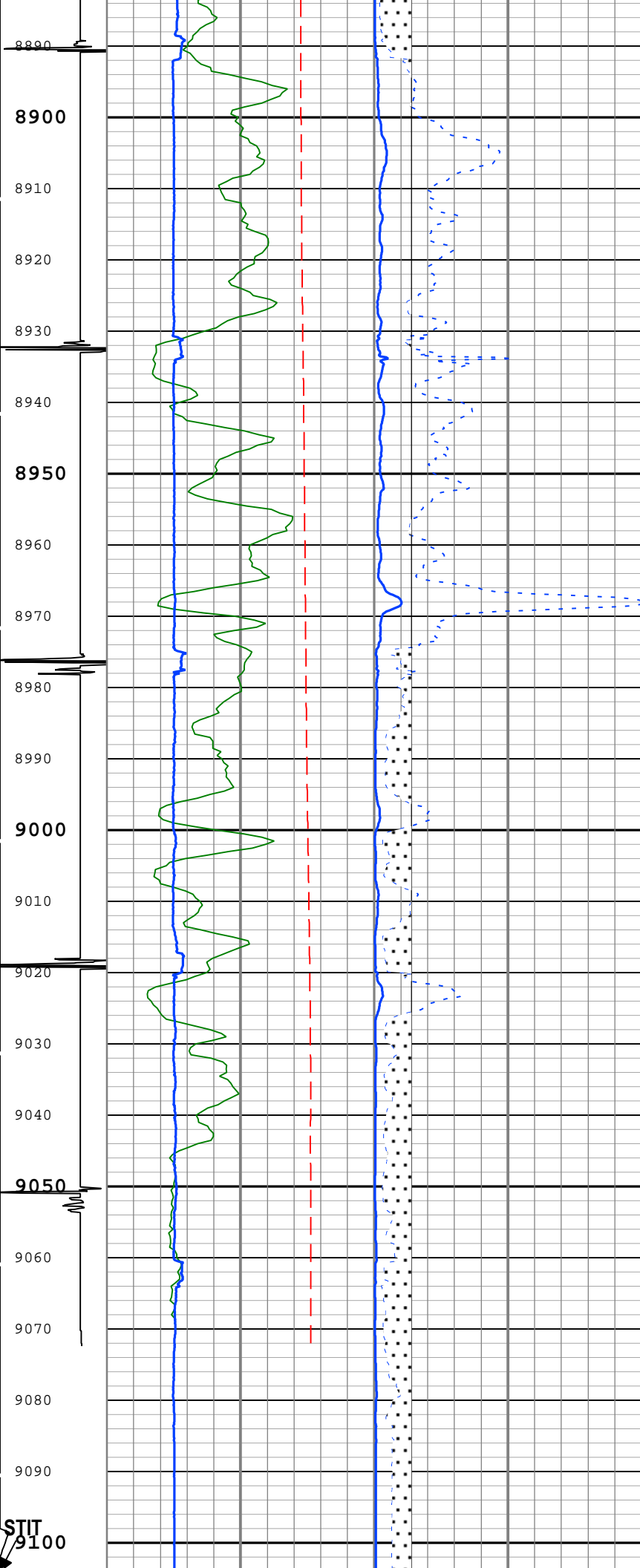
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[2]:Up	Up	8790.63 ft	9119.83 ft	22-Jul-2015 8:34:22 PM	22-Jul-2015 8:46:03 PM	ON	4.69 ft	Yes

Company: Caerus Piceance LLC Well: Buckett 41A 2

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 11:38:52

TIME_1900 - Time Marked every 60.00 (s)





STIT
9100

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 (Measured): 00:54:22 23-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Amplitude	mV	Before			112.56			
Average MAP Amplitude (Fluid Compensated)	mV	Before			133.52			
Measurement Depth	ft	Before			2490.95			

CBL and MAP Amplitude Adjustment - Coefficients

Before (Measured): 00:54:22 23-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Adjustment Factor		Before			0.711			
CBL LQC Reference Amplitude in Free Pipe	mV	Before			80.00			
MAP Adjustment Factor		Before			0.749			
Depth of Before Calibration	ft	Before			2490.95			

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_PREP
(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
Tt**1	22708.98	-15815.74	5200.516	-813.7849	49.69807	0

Tp**1	22700.00	10010.77	0.000000	0.000000	0.000000	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 Sapphire Temperature Model Coefficients
(Master)

	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 41A-2	
Field:	Wildcat	
County:	Garfield	
State:	Colorado	
Slim Cement Mapping Tool		
CBL-VDL		