

Company: Caerus Piceance LLC

Well: Puckett 41D-2

Field: Wildcat

County: Garfield State: Colorado

Slim Cement Mapping Tool

CBL-VDL

County:	Garfield				
Field:	Wildcat				
Location:	Sec. 2, T7S, R97W				
Well:	Puckett 41D-2				
Company:	Caerus Piceance LLC				
	Location:				
	Sec. 2, T7S, R97W SHL: 2175' FNL x 661' FEL	Elev.:		K.B.	8507.00 ft
				G.L.	8477.00 ft
				D.F.	8506.00 ft
	Permanent Datum: Log Measured From: Drilling Measured From:	Ground Level Kelly Bushing Kelly Bushing	Elev.: 30.00 ft	8477.00 f above Perm.Datum	
API Serial No. 5-045-22623	Section: 2	Township: 7S	Range: 97W		

Run Number	Run 1	
Depth Driller	8934.00 ft	
Schlumberger Depth	8934.00 ft	
Bottom Log Interval	8885.00 ft	
Top Log Interval	2500.00 ft	
Casing Fluid Type	3% KCl	
Salinity		
Density	9.1 lbm/gal	
Fluid Level	0.00 ft	
BIT/CASING/TUBING STRING		
Bit Size	8.75 in	
From	2515.00 ft	
To	8934.00 ft	
Casing/Tubing Size	4.5 in	
Weight	11.6 lbm/ft	
Grade	P110	
From	0.00 ft	
To	8934.00 ft	
Max Recorded Temperatures	228.2 degF	
Logger on Bottom	20-Jul-2015	09:50:00
Unit Number	9115	Ft. Morgan, CO
Recorded By	Aleksei Bekhterev	
Witnessed By	Natalie Naeve	

Disclaimer

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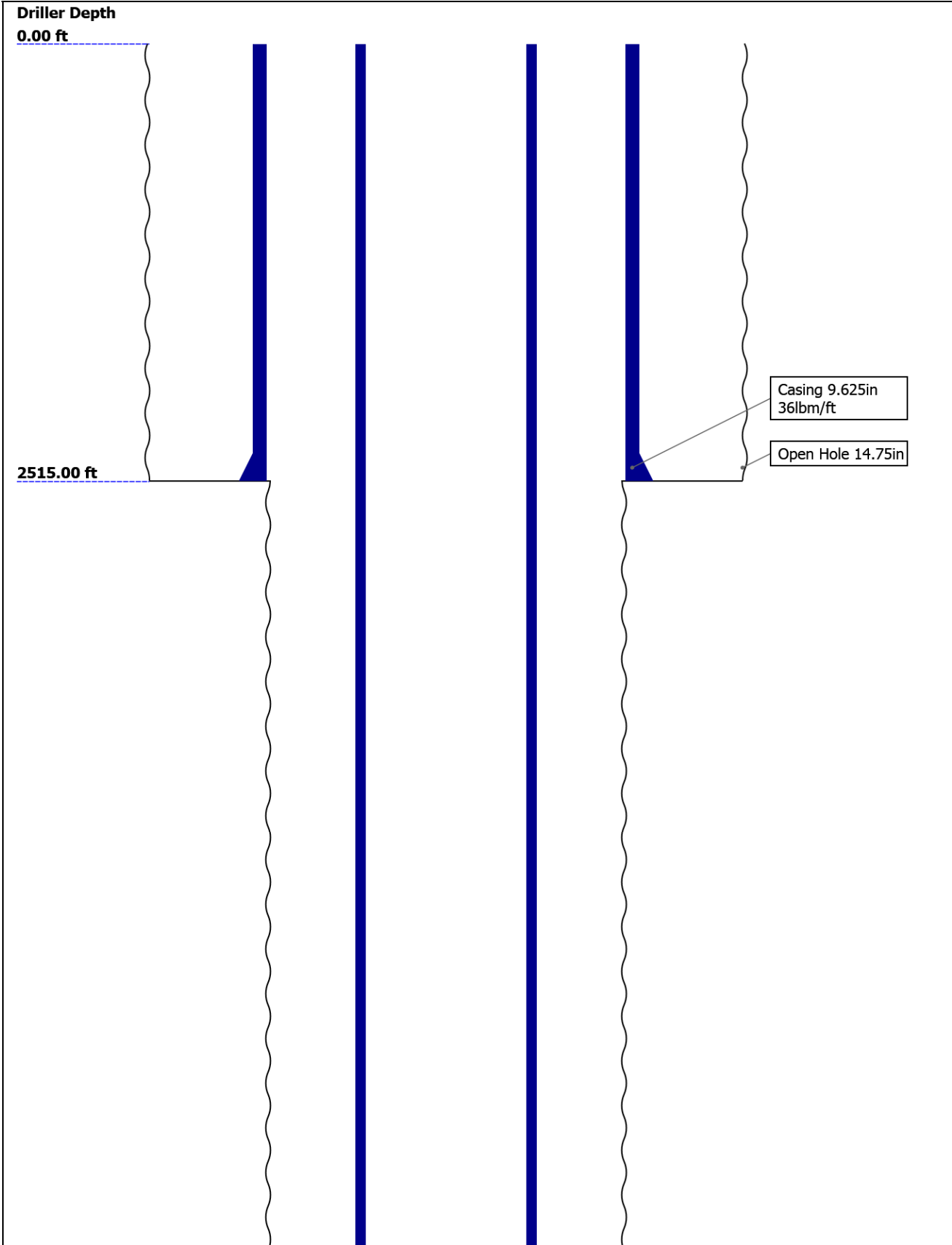
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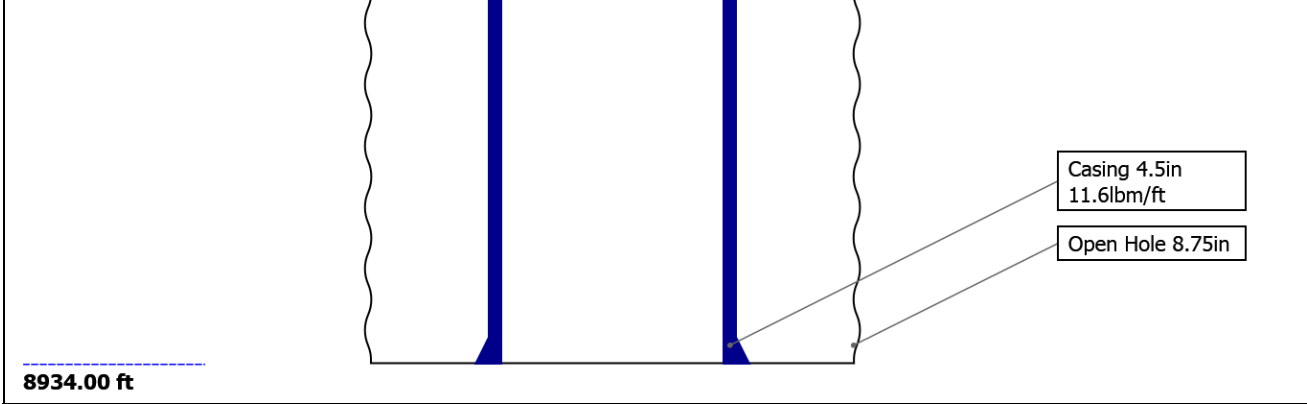
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Well Sketch





Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	14.75	8.75				
Top Driller (ft)	0	2515				
Top Logger (ft)	0	2515				
Bottom Driller (ft)	2515	8934				
Bottom Logger (ft)	2515	8934				
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)	2515	8934				
Bottom Logger (ft)	2515	8934				

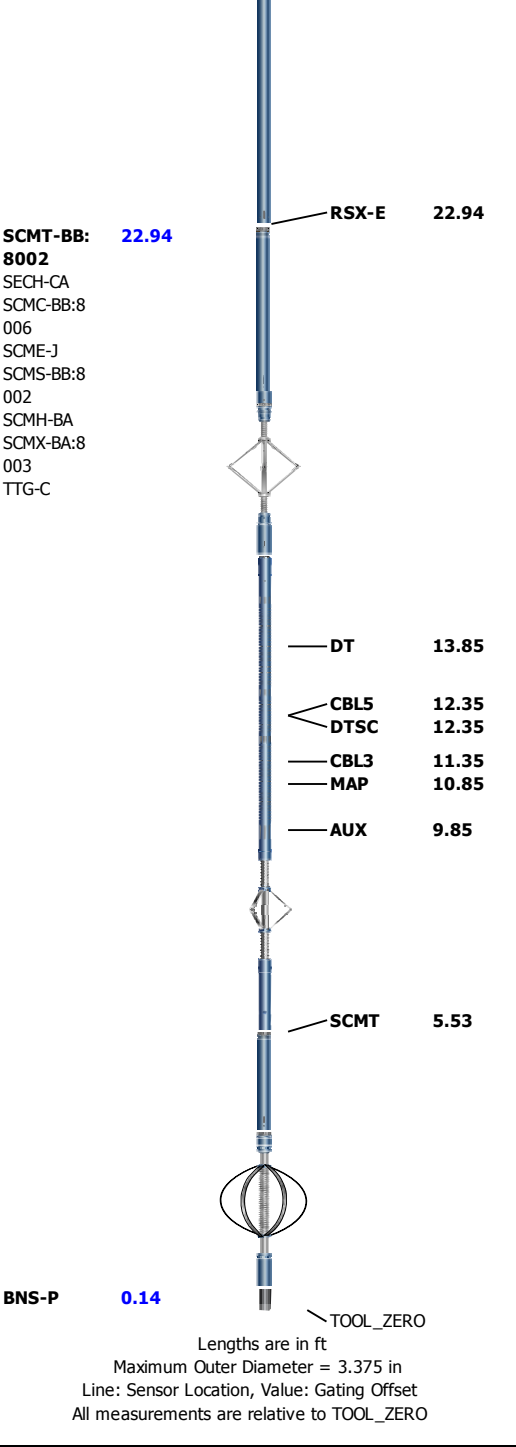
Operational Run Summary

Parameter (unit)	Run 1					
Date Log Started	20-Jul-2015					
Time Log Started	08:27:32					
Date Log Finished	20-Jul-2015					
Time Log Finished	15:09:35					
Top Log Interval (ft)	2500.00					
Bottom Log Interval (ft)	8885.00					
Total Depth (ft)	8897.00					
Max Hole Deviation (deg)	0.00					
Azimuth of Max Deviation (deg)	0.00					
Bit Size (in)	8.750					
Logging Unit Number	9115					
Logging Unit Location	Ft. Morgan, CO					
Recorded By	Aleksei Bekhterev					

Borehole Fluids						
Parameter(unit)	Run 1					
Fluid Type	Water					
Fluid Name	3% KCl					
Max Recorded Temperatures (degF)	228.2					
Salinity (ppm)	0					
Density (lbm/gal)	9.1					
Date Logger on Bottom	20-Jul-2015					
Time Logger on Bottom	09:50:00					
Total Solid (%)						
High Gravity Solids (%)						

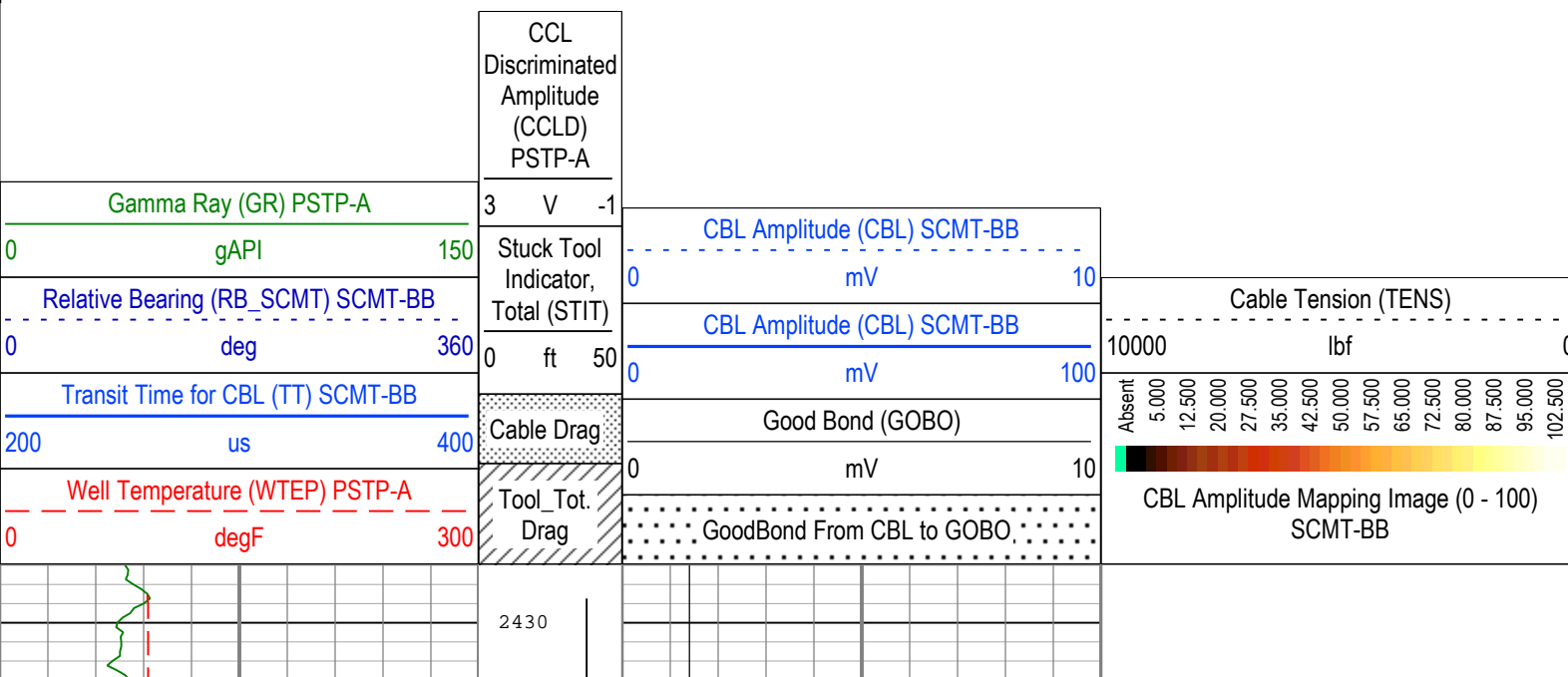
Run 1: Toolstring	Run 1: Remarks	
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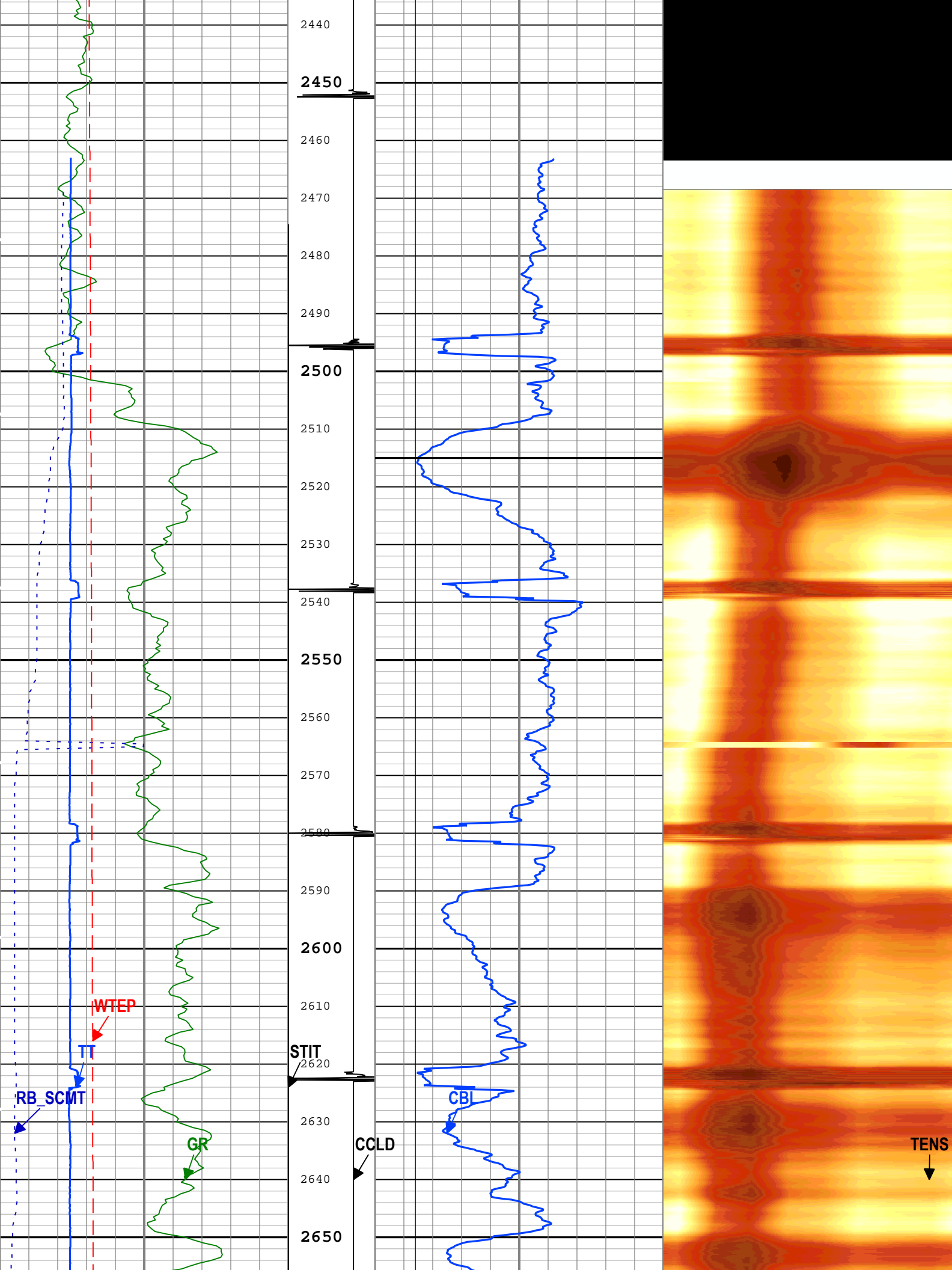
Run 1: Toolstring				Run 1: Remarks
Equip name	Length	MP name	Offset	Toolstring ran as per tool sketch
LEH-QT	58.3			This is first run in hole
LEH-QT				Main and repeat passes are correlated to downlog as per client's request
AH-63	55.38			RST ran in Sigma mode
AH-79	55.06			Matrix: Sandstone, 2.68 g/cc
PSTP-A:38	54.23	GR	50.53	Tagged floating collar at 8885'
69		PSTC	50.23	Repeat pass is done with no pressure
PSC-A		PSTC Tool String	0.00	Main pass is done with 2500 psi
PSTC-A:37		Bottom		Log stopped at 2500' as per client request
47		Temperature	47.44	Crew: Jay Musgrave, Jake Jump
PBMS-A:38		Sapphire	47.33	Thank you for choosing Schlumberger Wireline!
69		Pressure		
Sapphire 10		CCL	46.72	
kPSI		PBMS	45.97	
RST-C:282	45.97			
RSCH-A				
RSC-E:381				
RSS-A:278				
MNTR-F:1				
RSXH-A:27				
5				
RSX-E:282				
		RSC-E	39.61	
		Far	36.85	
		Near	36.35	

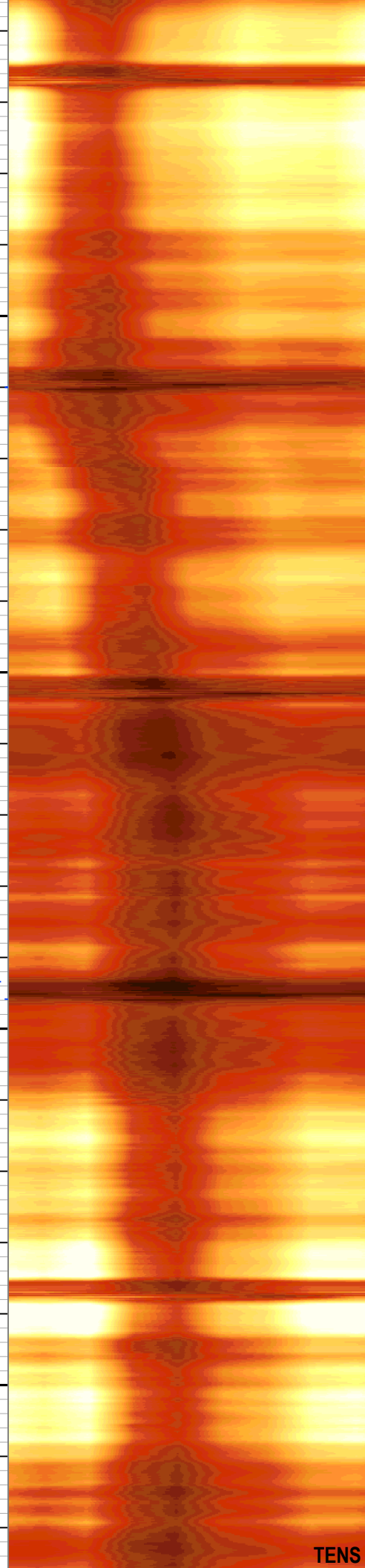
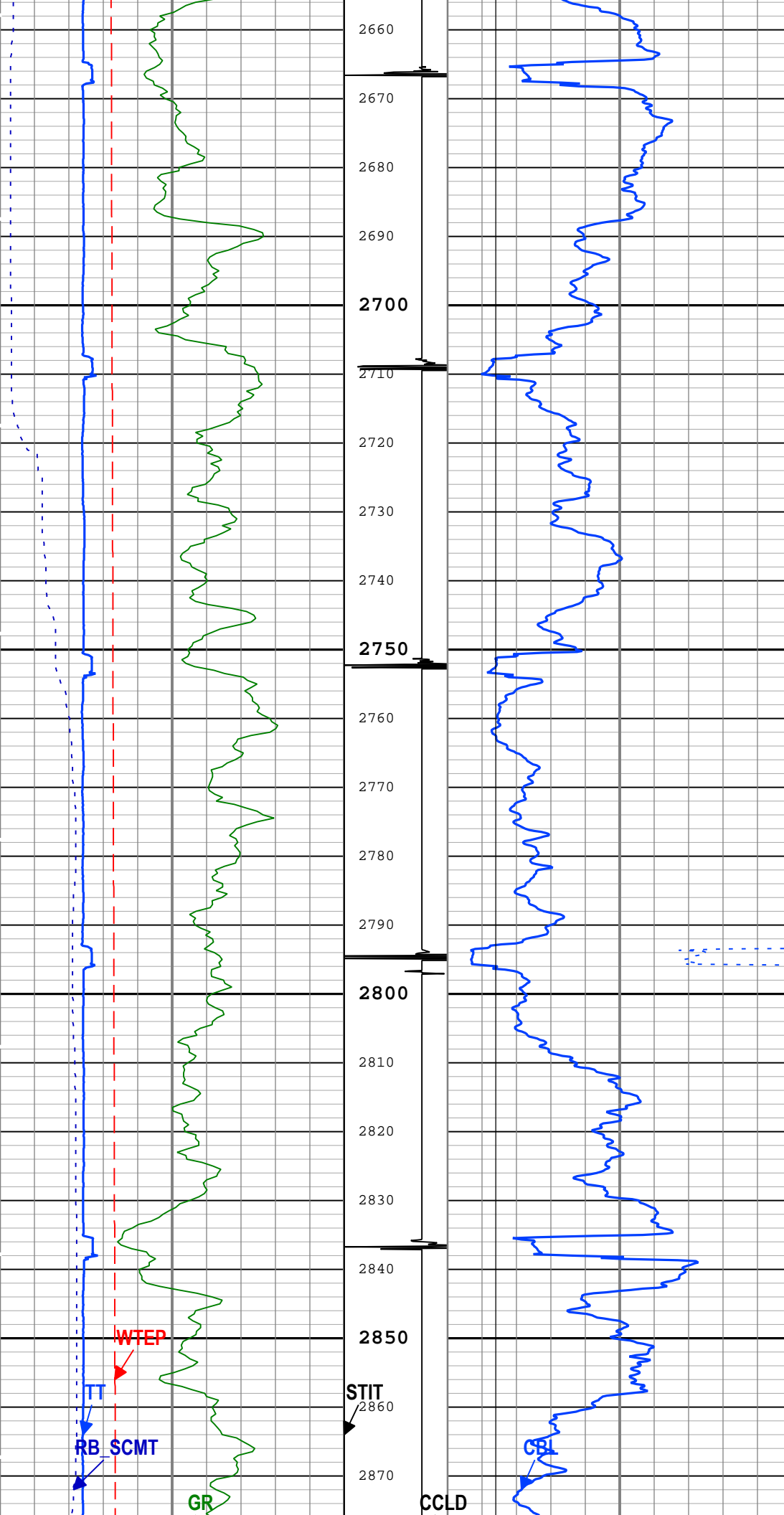


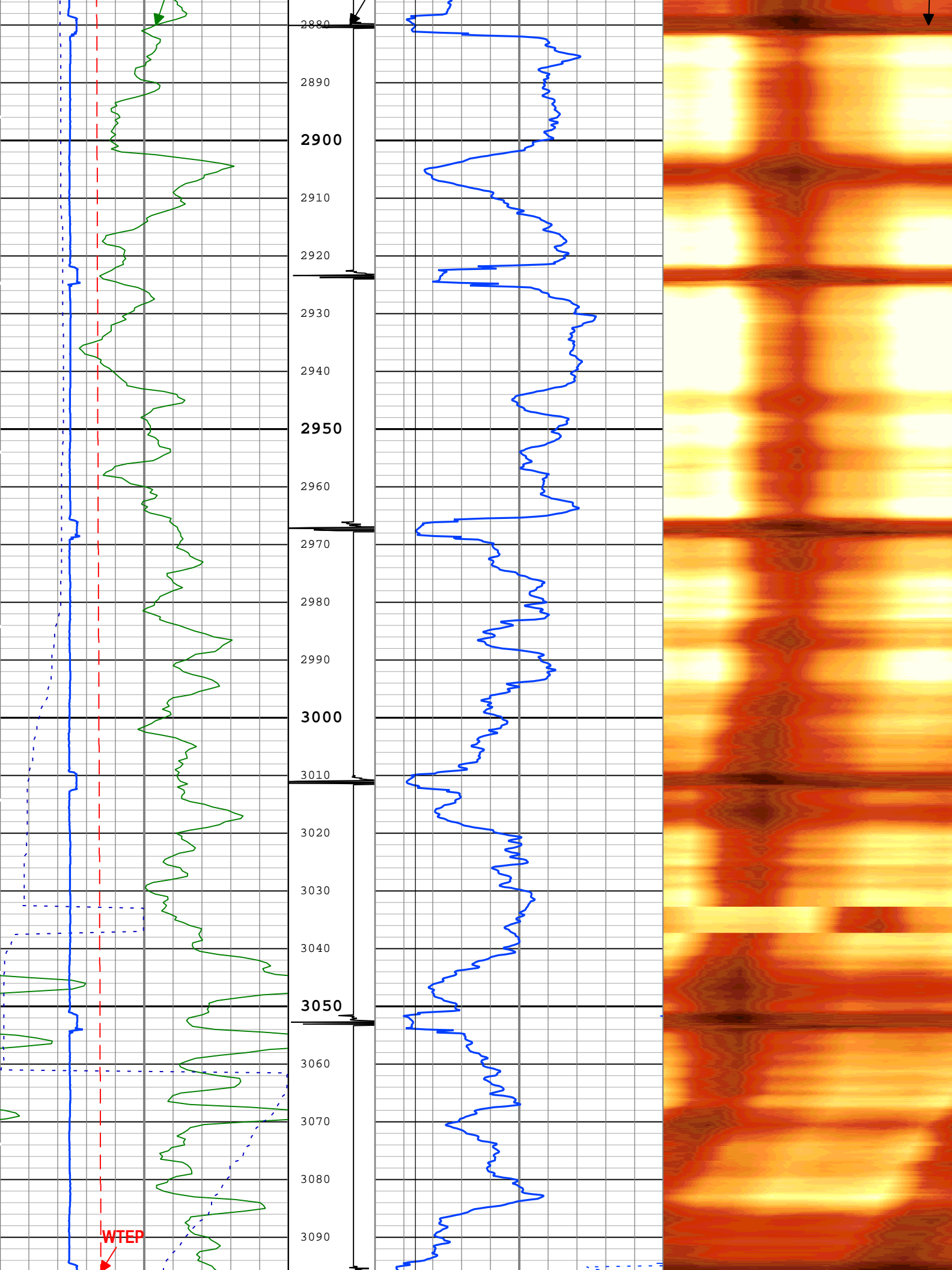
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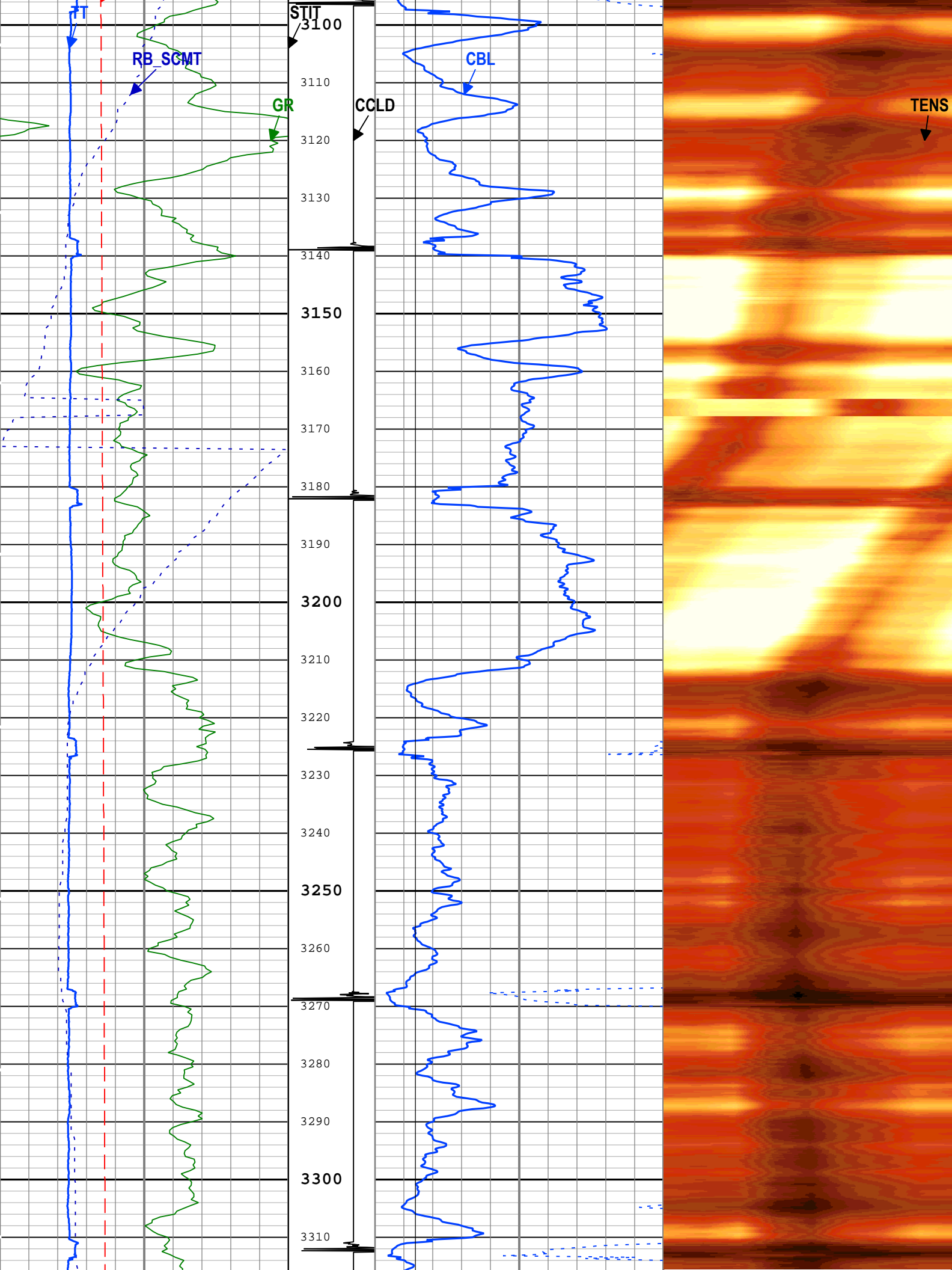
Run 1			
Depth Measuring Device			
Type	IDW-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Cable Type			
Wheel Correction 1	0		
Wheel Correction 2	0		
Tension Device			
Type	CMTD-B/A		
Serial Number			
Calibration Date			

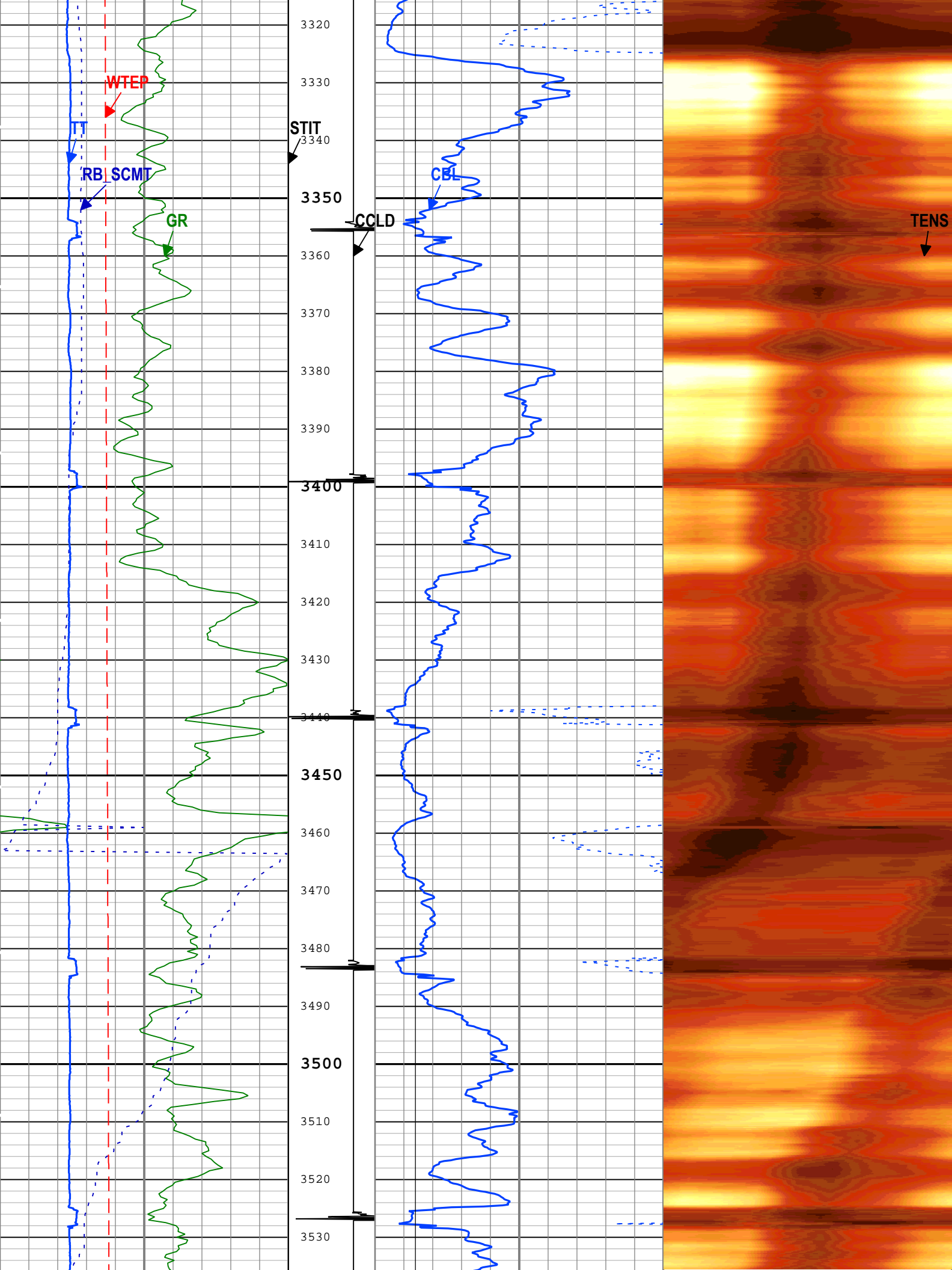


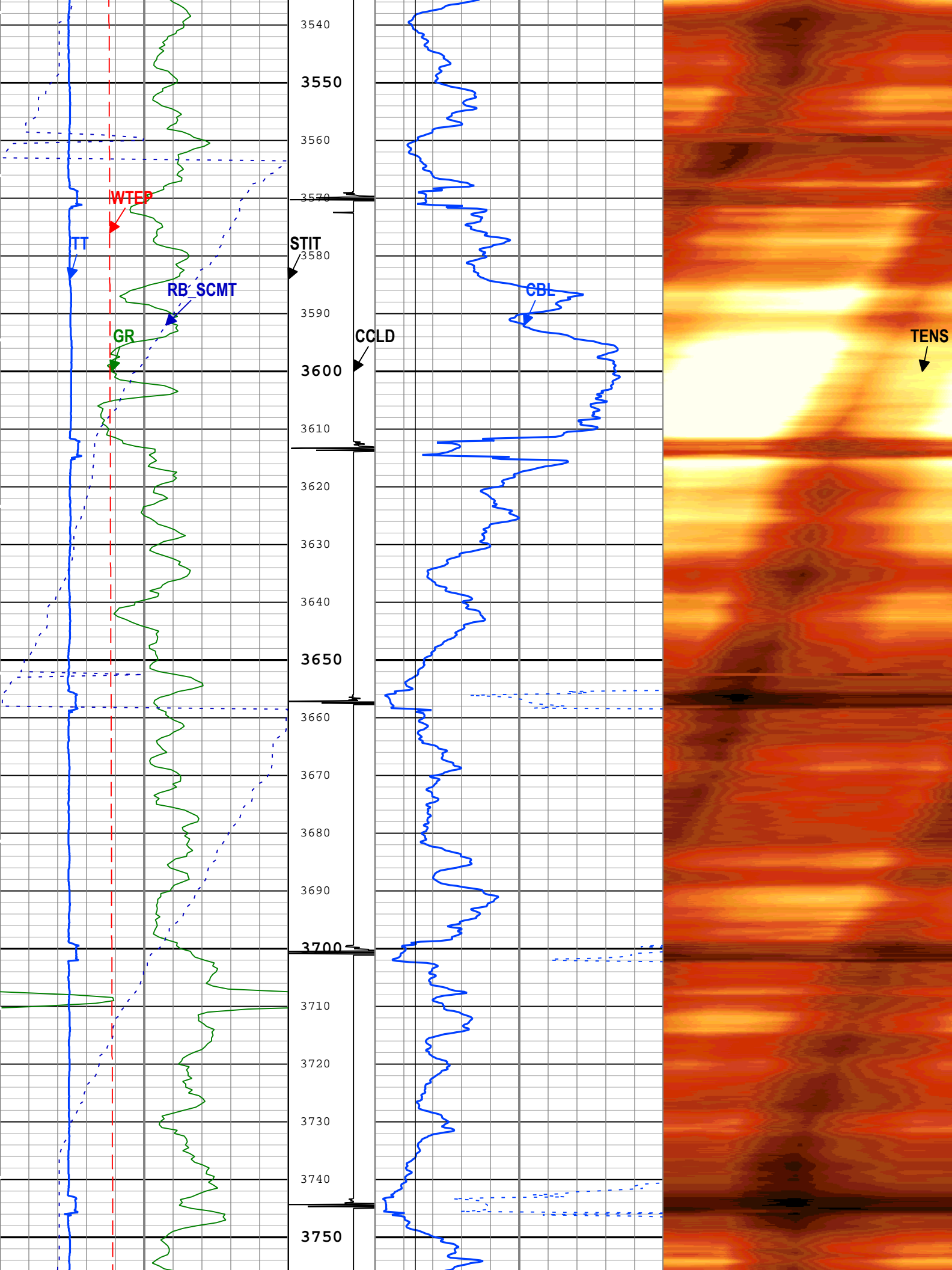


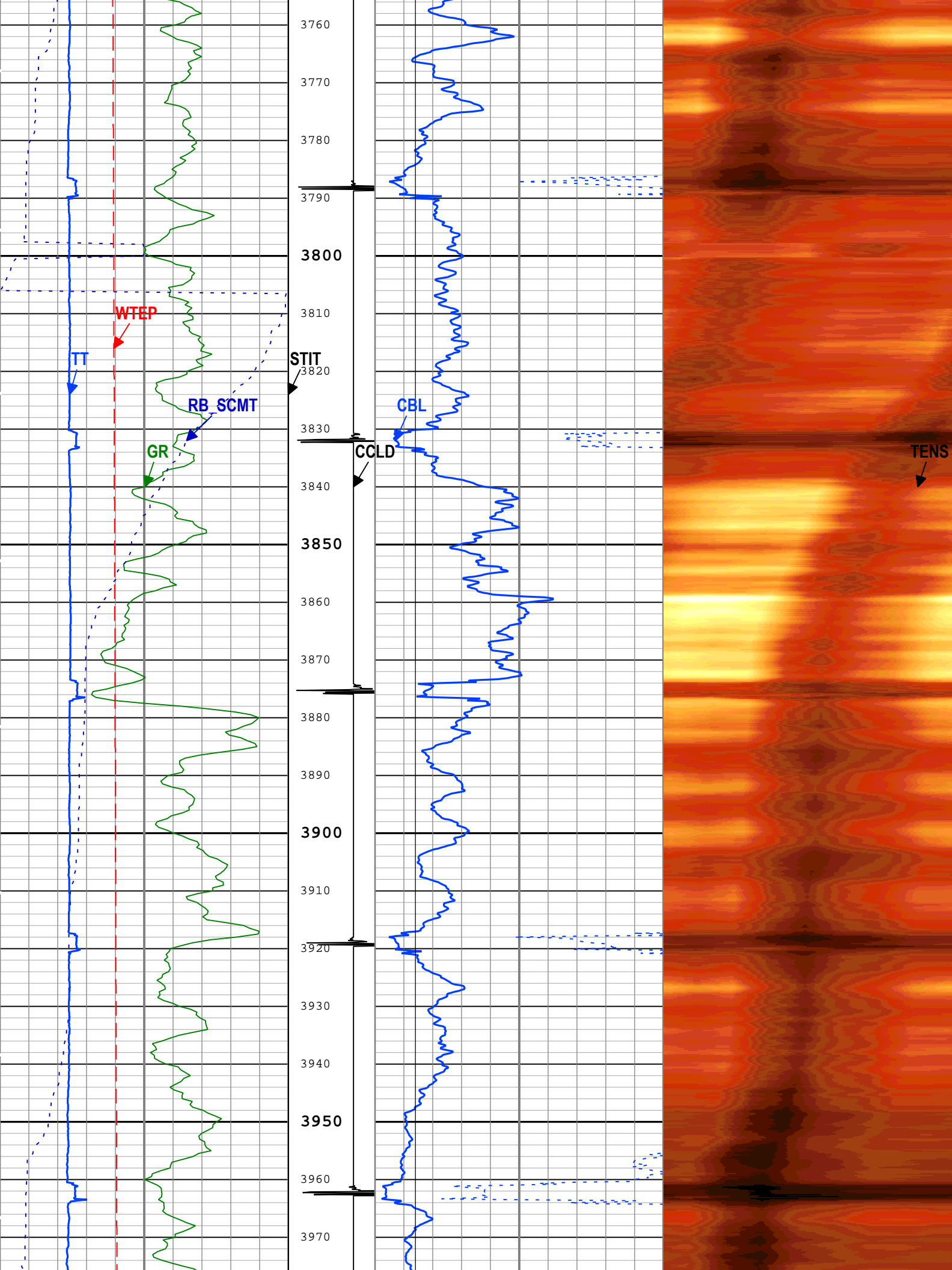


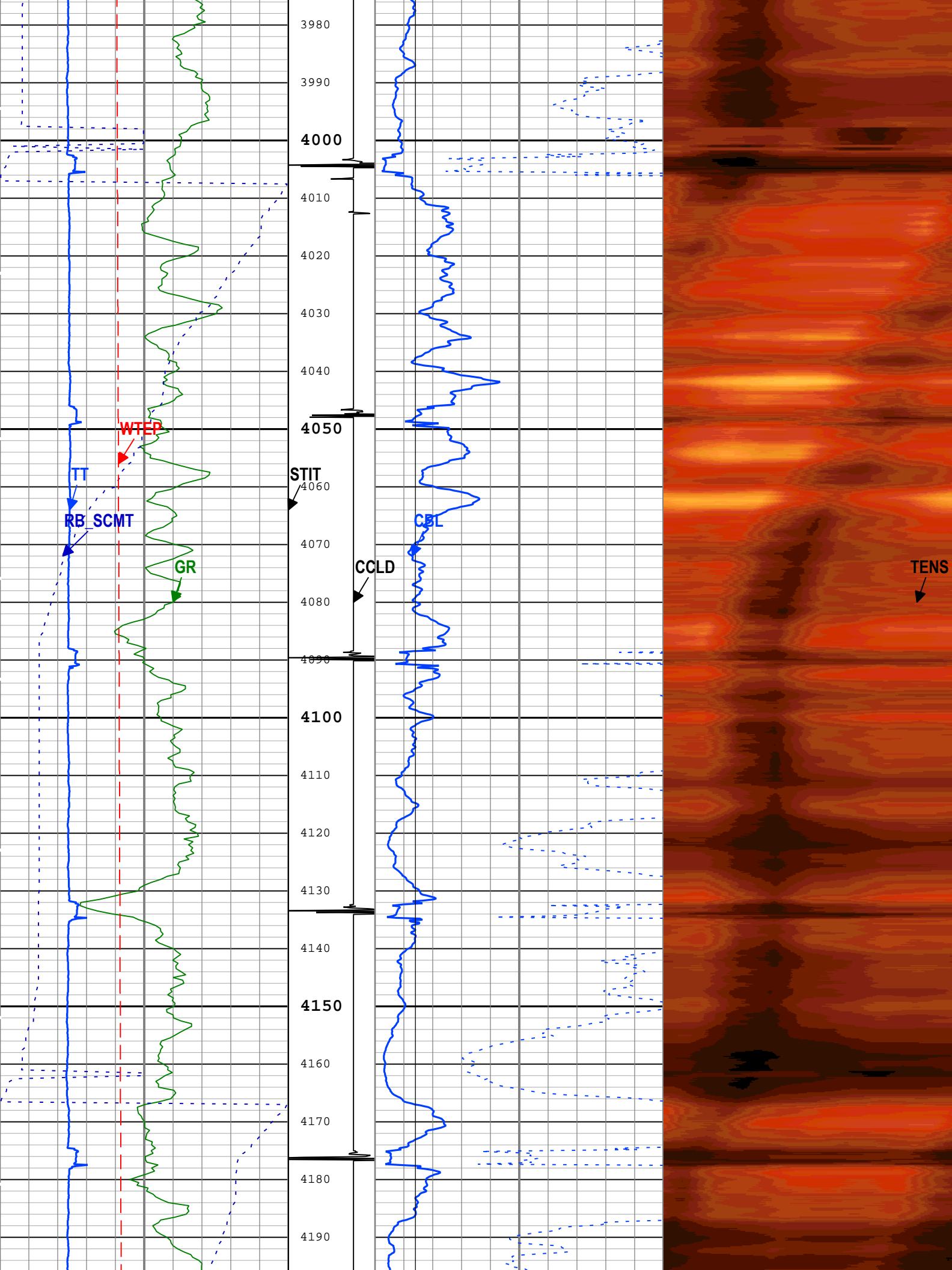


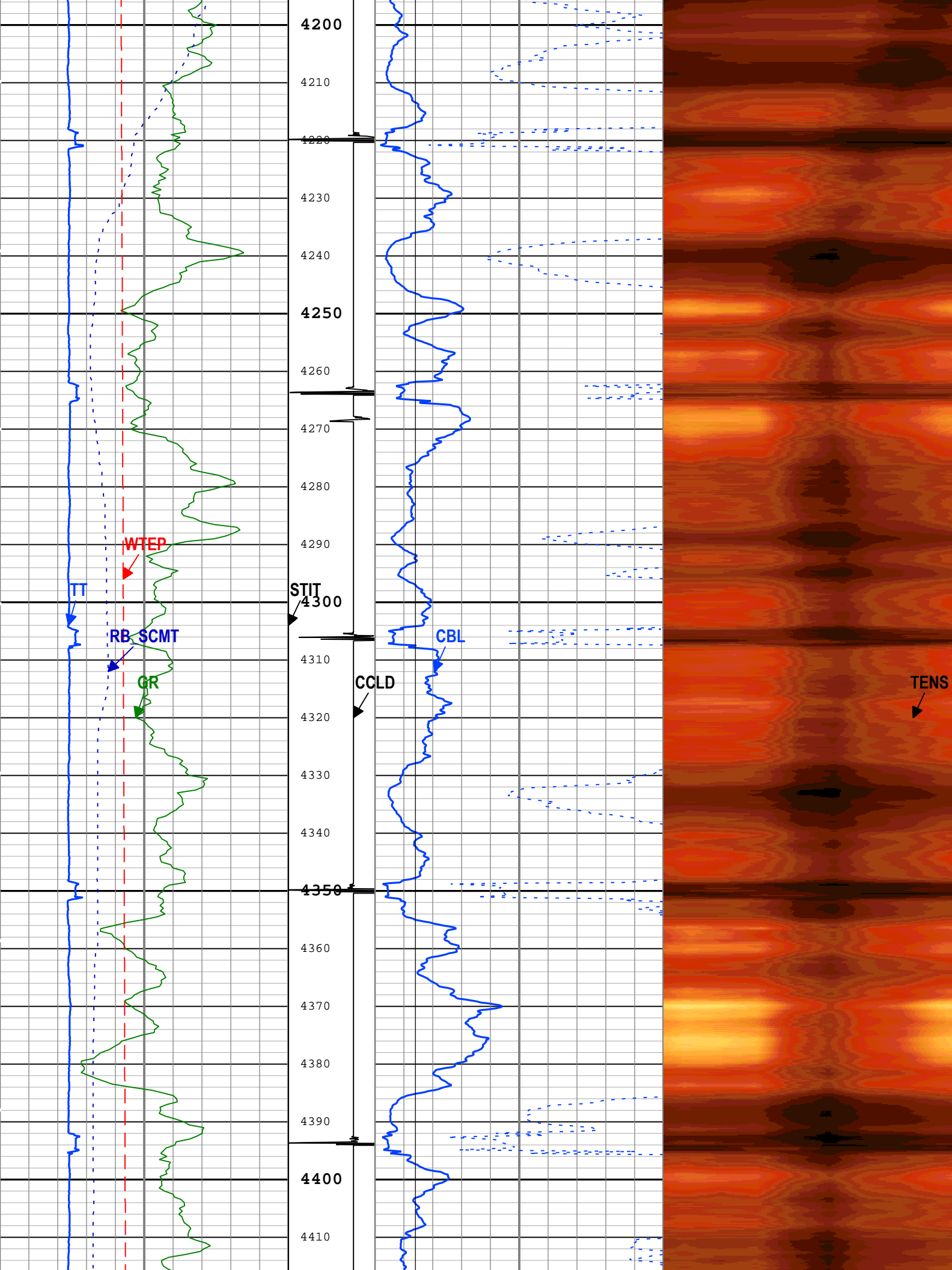


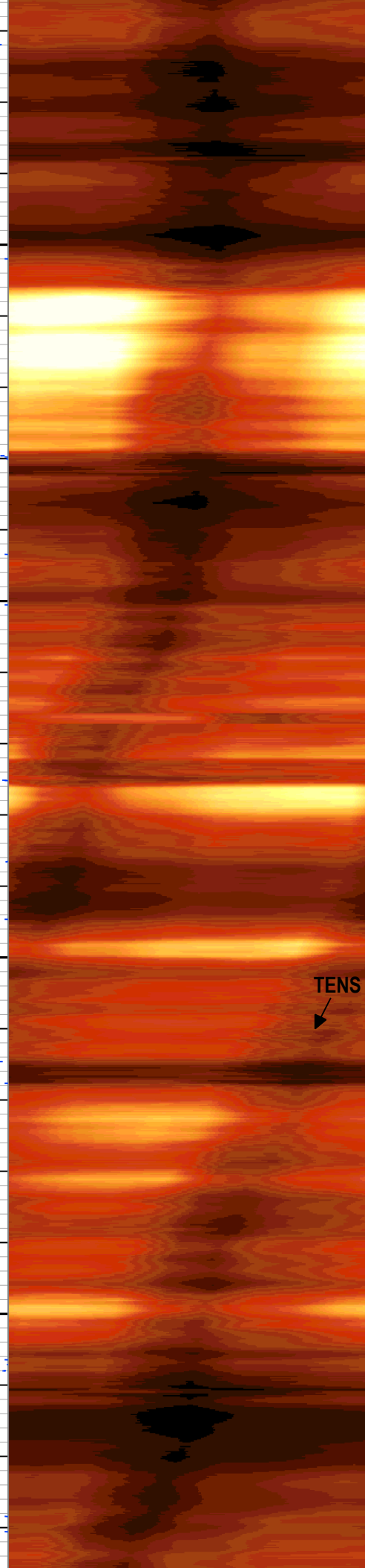
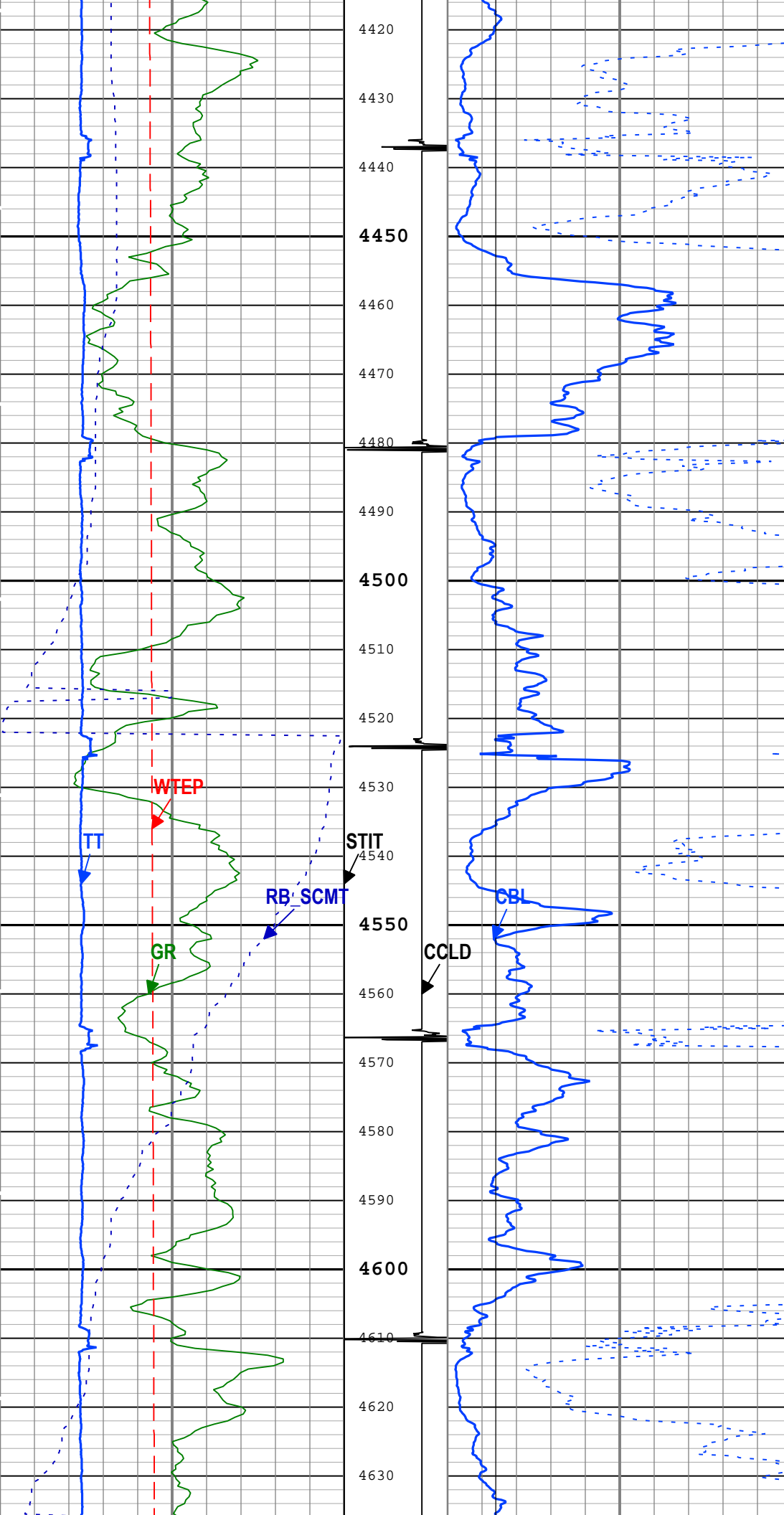




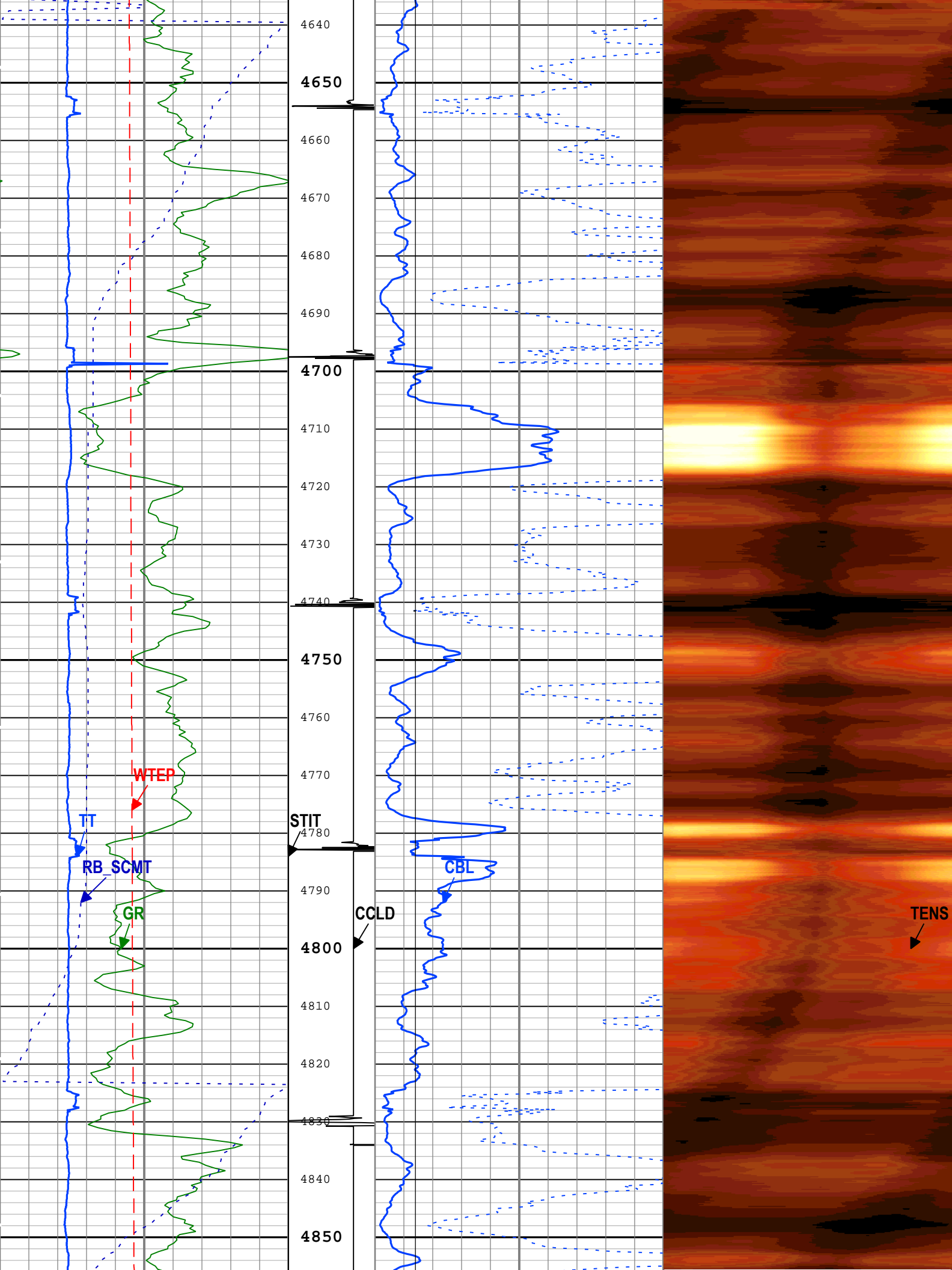


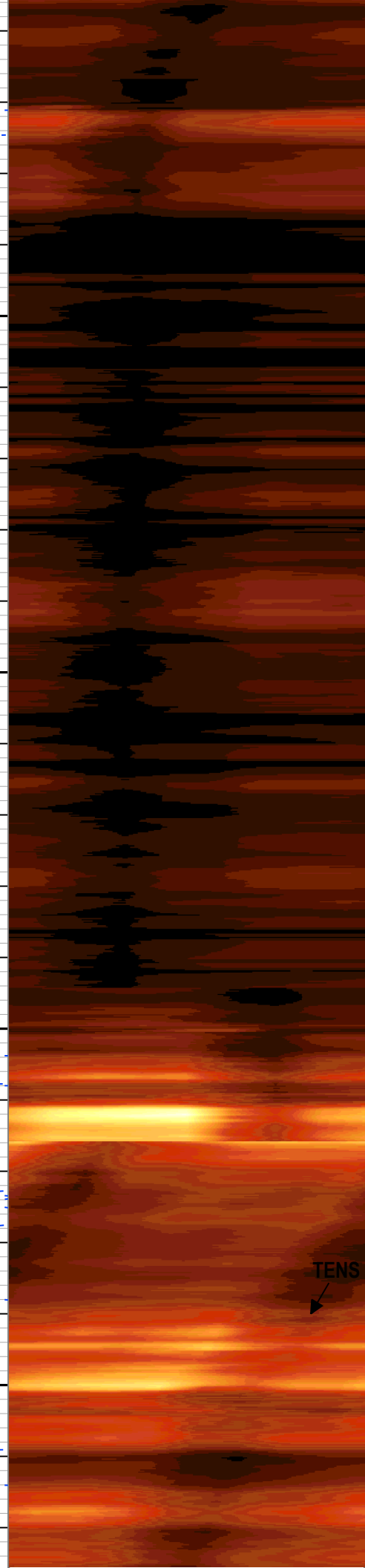
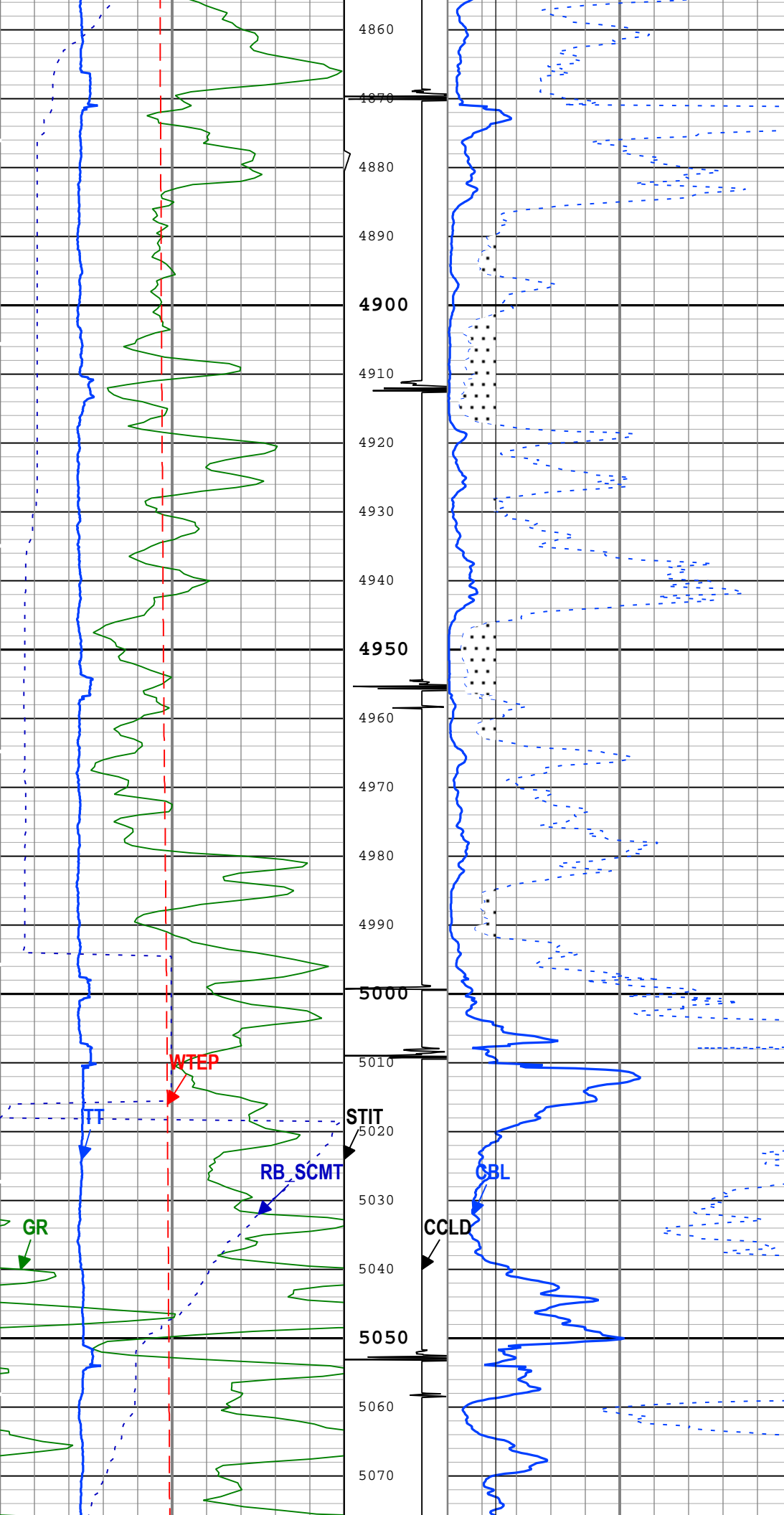


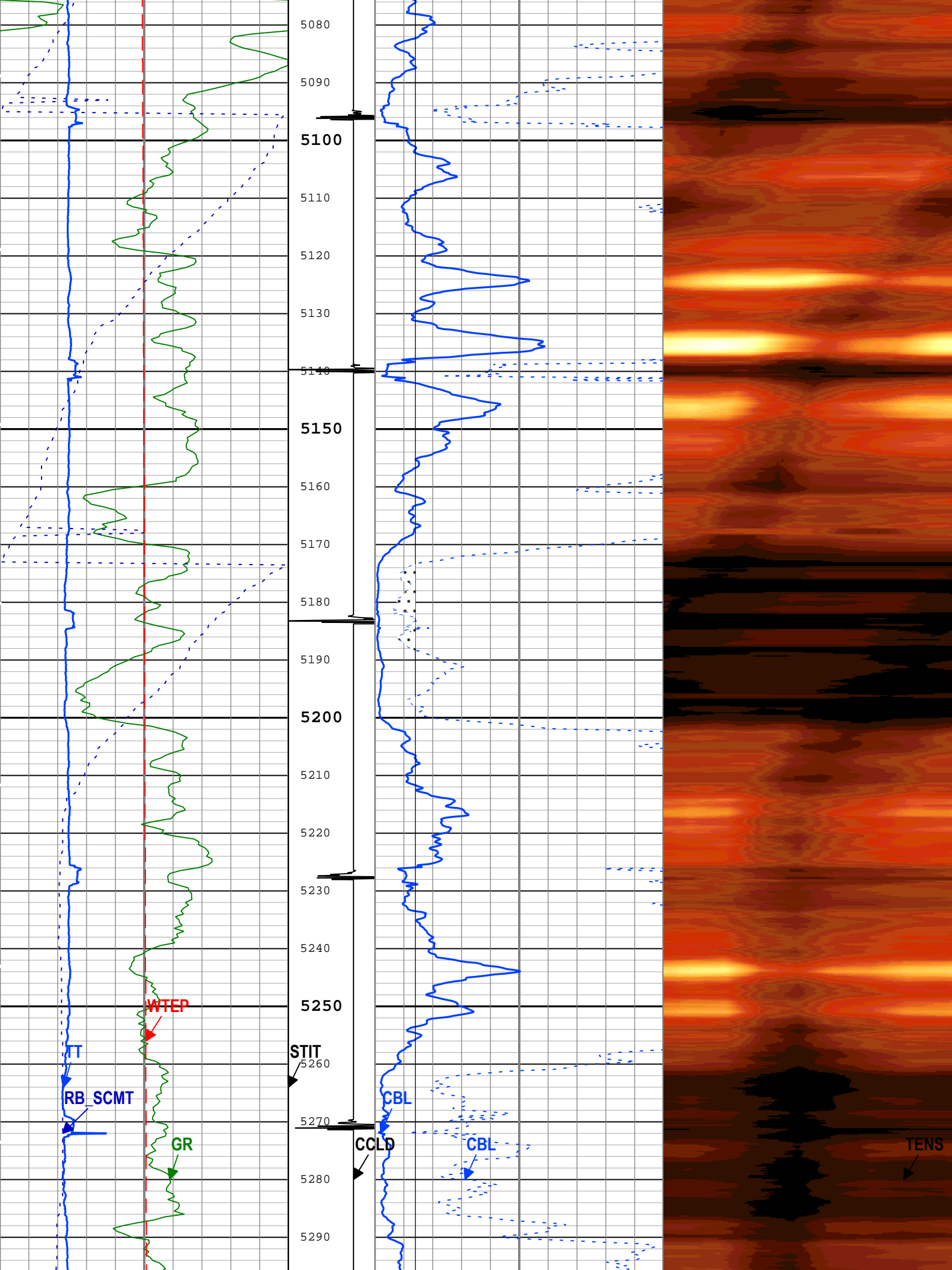


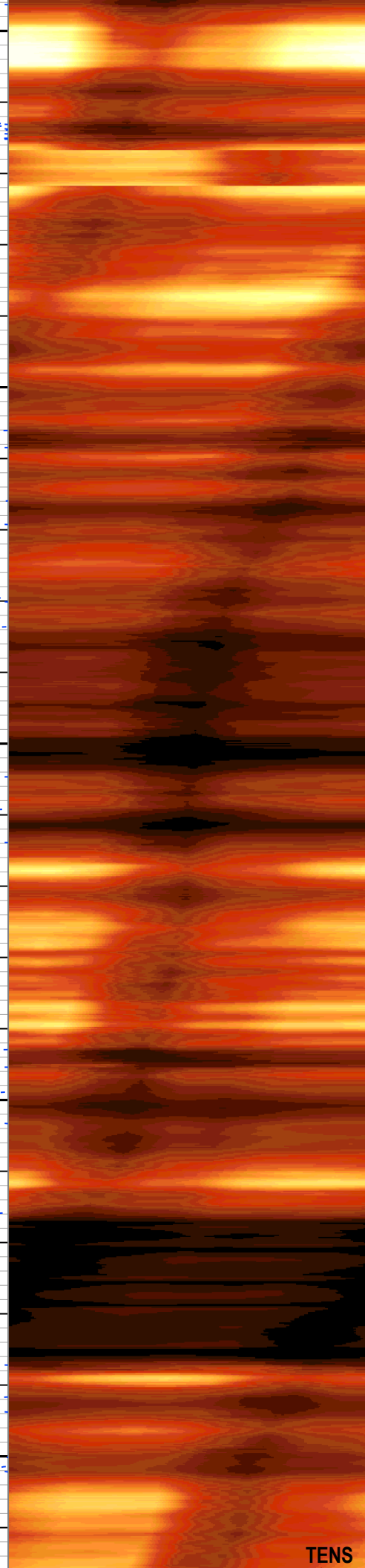
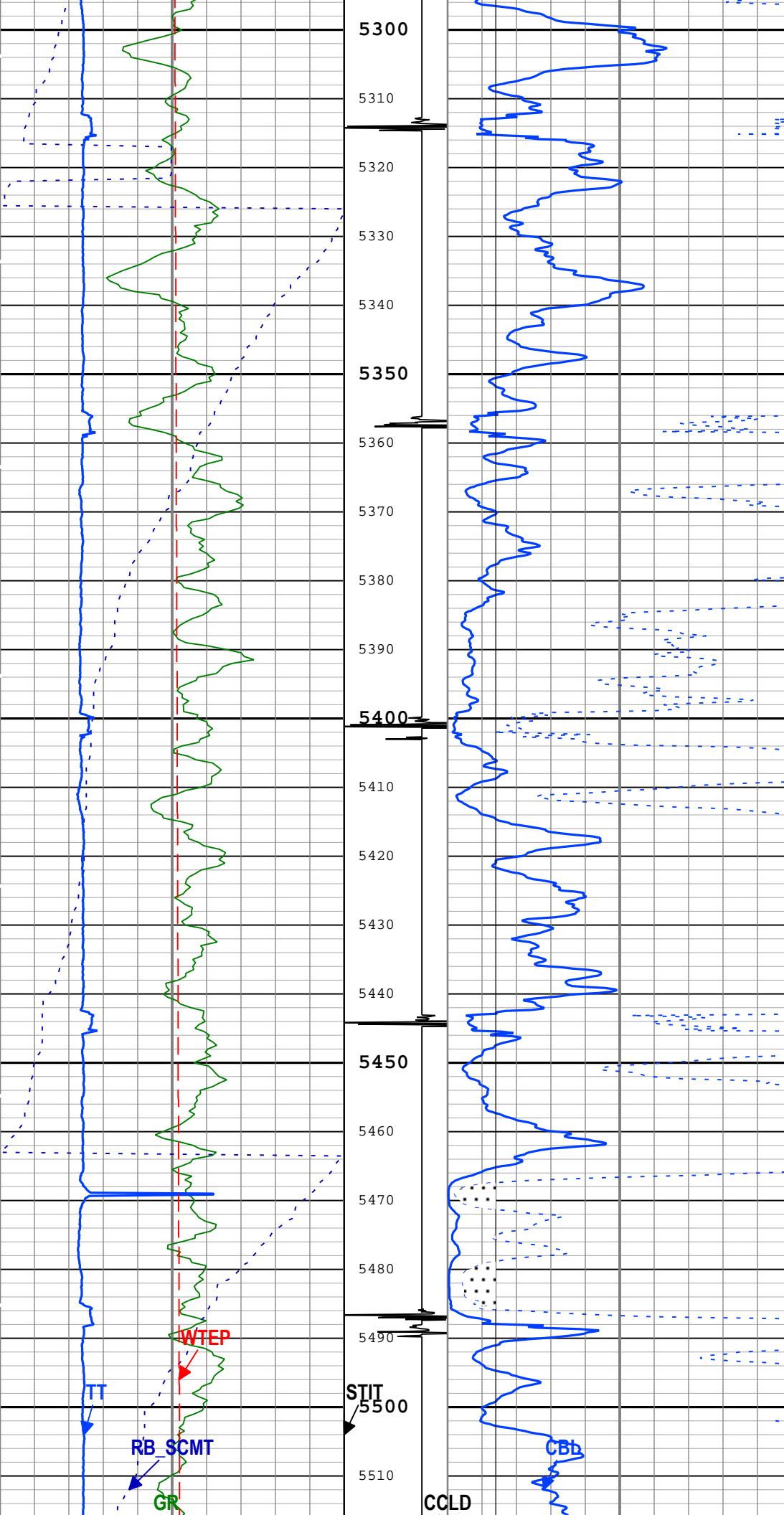


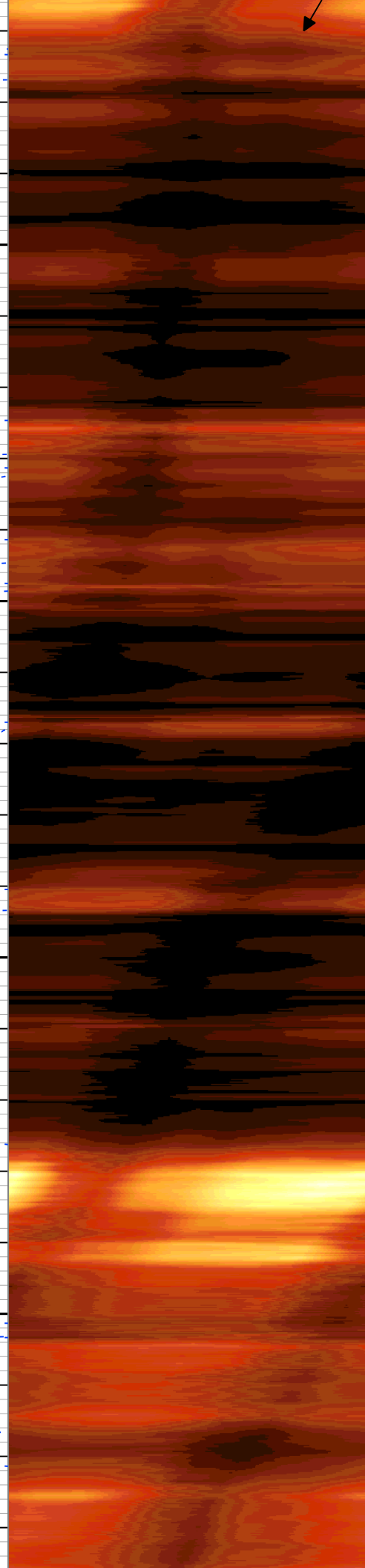
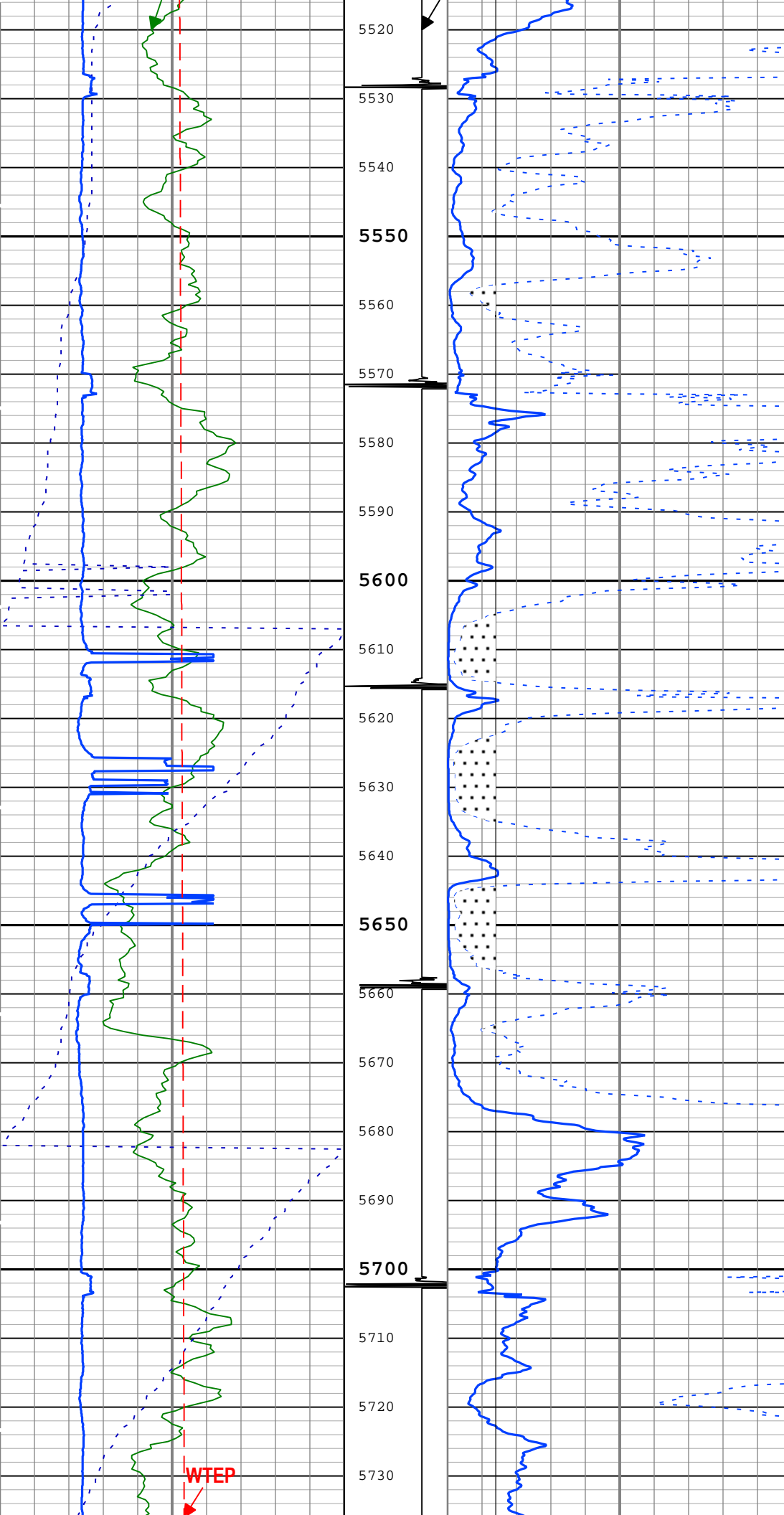
TENS

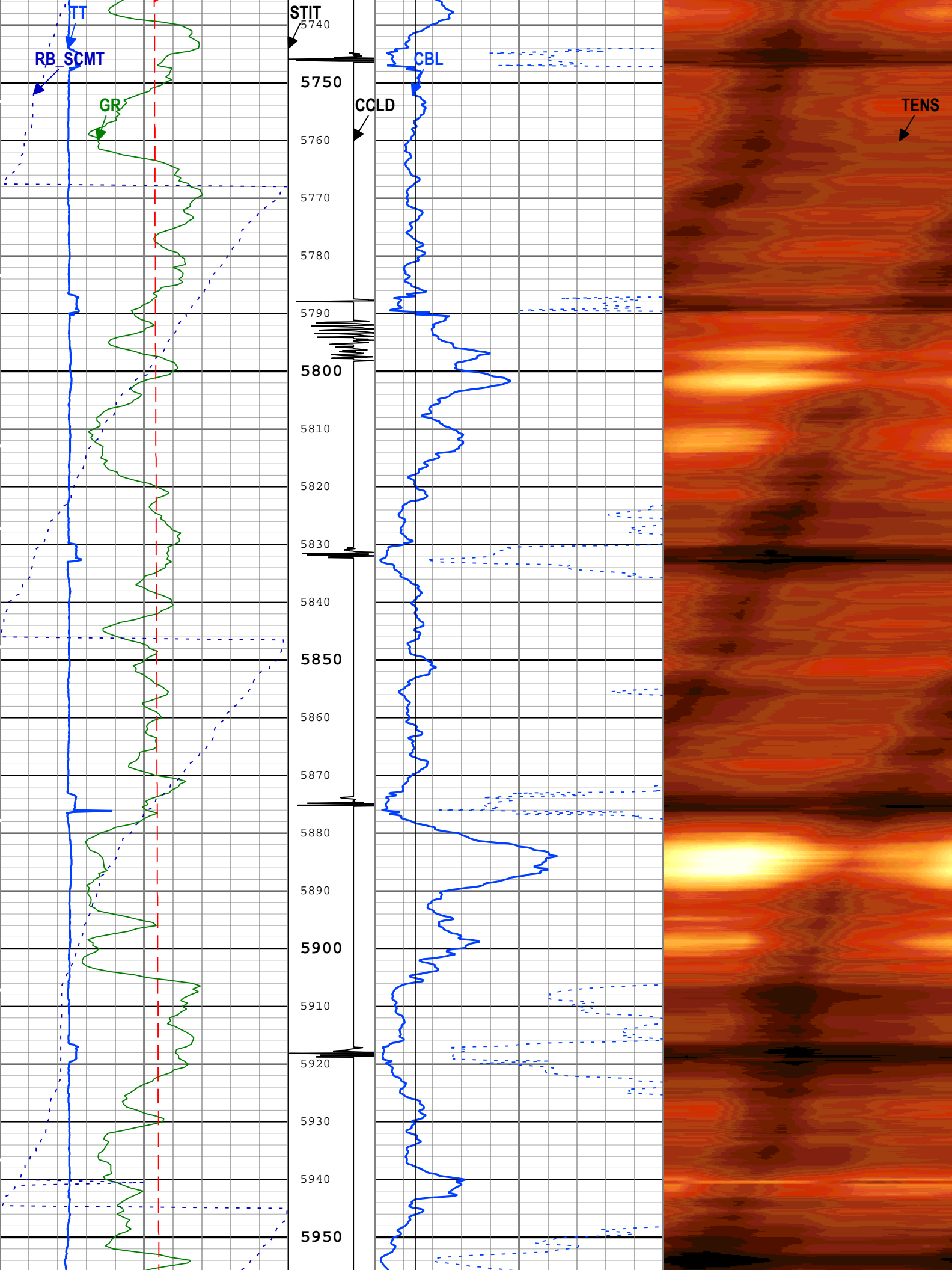


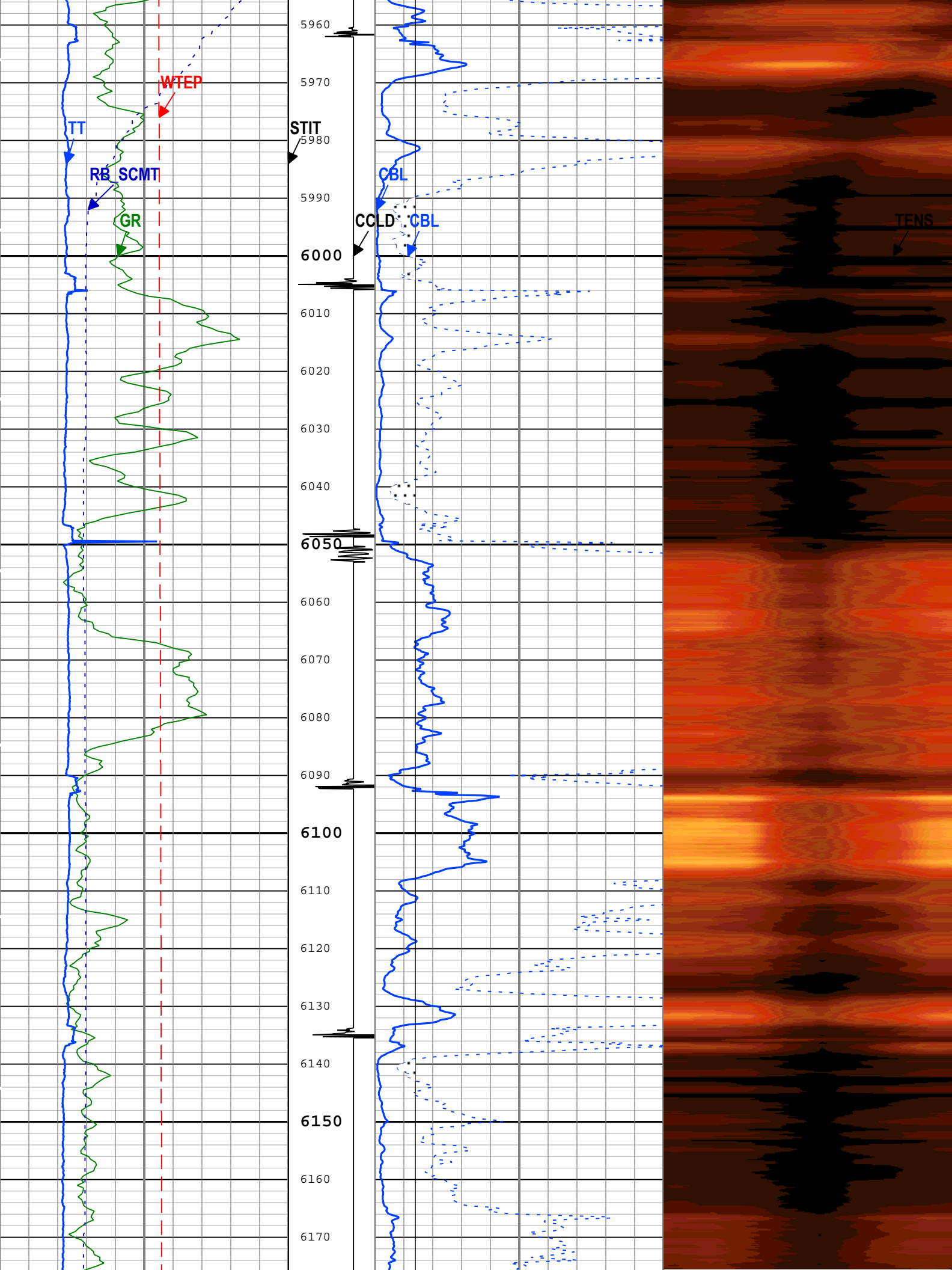


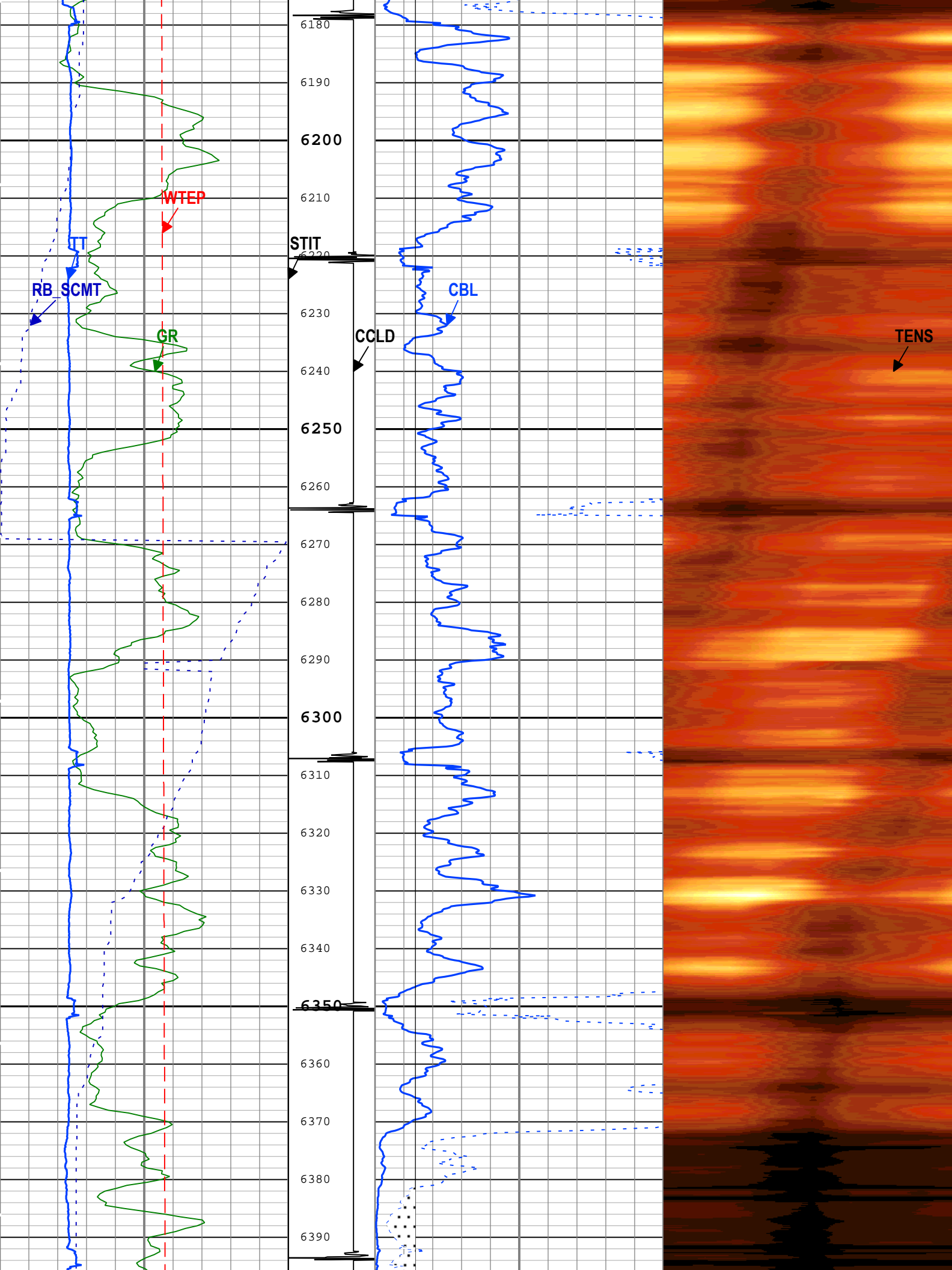


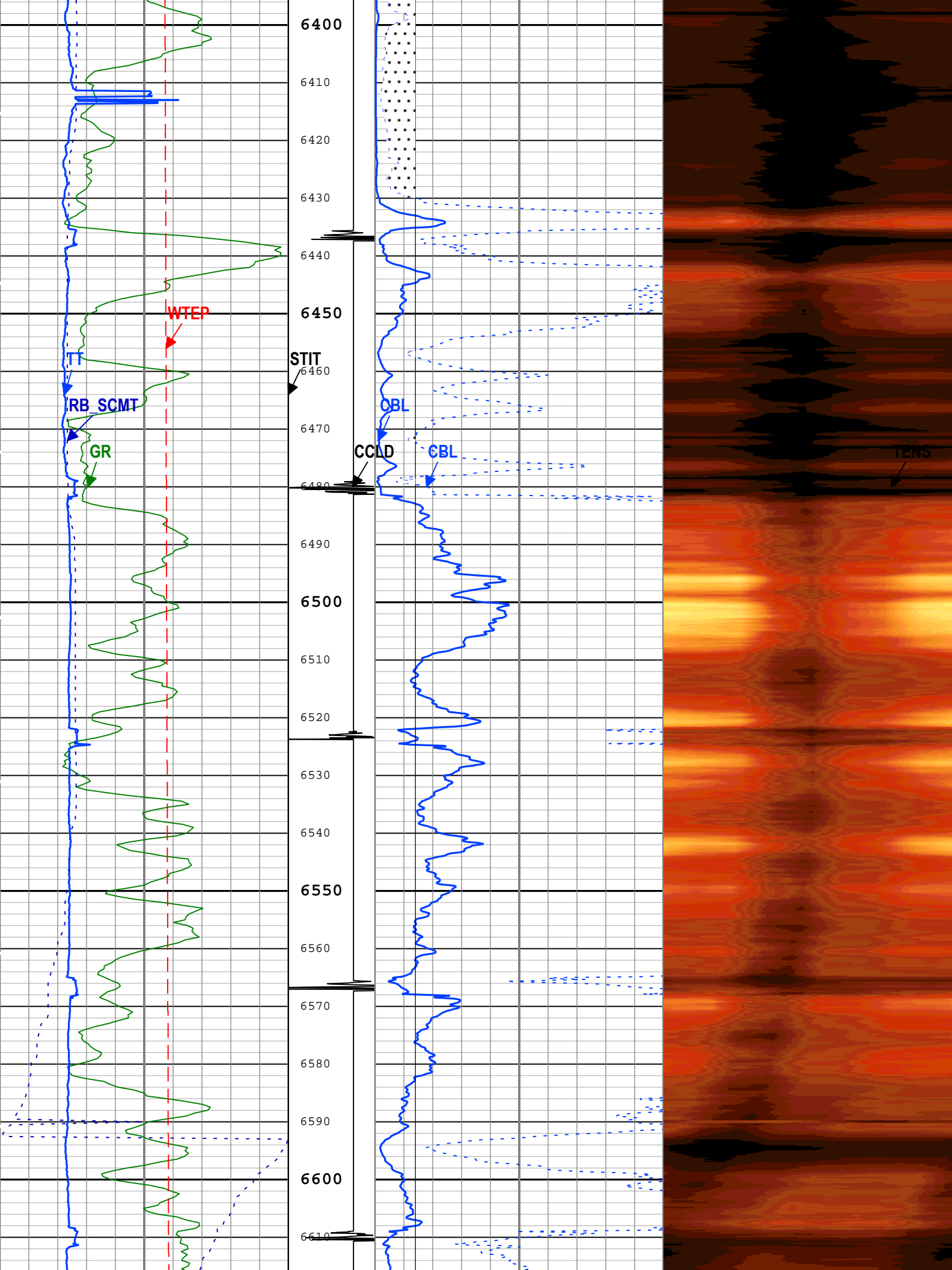


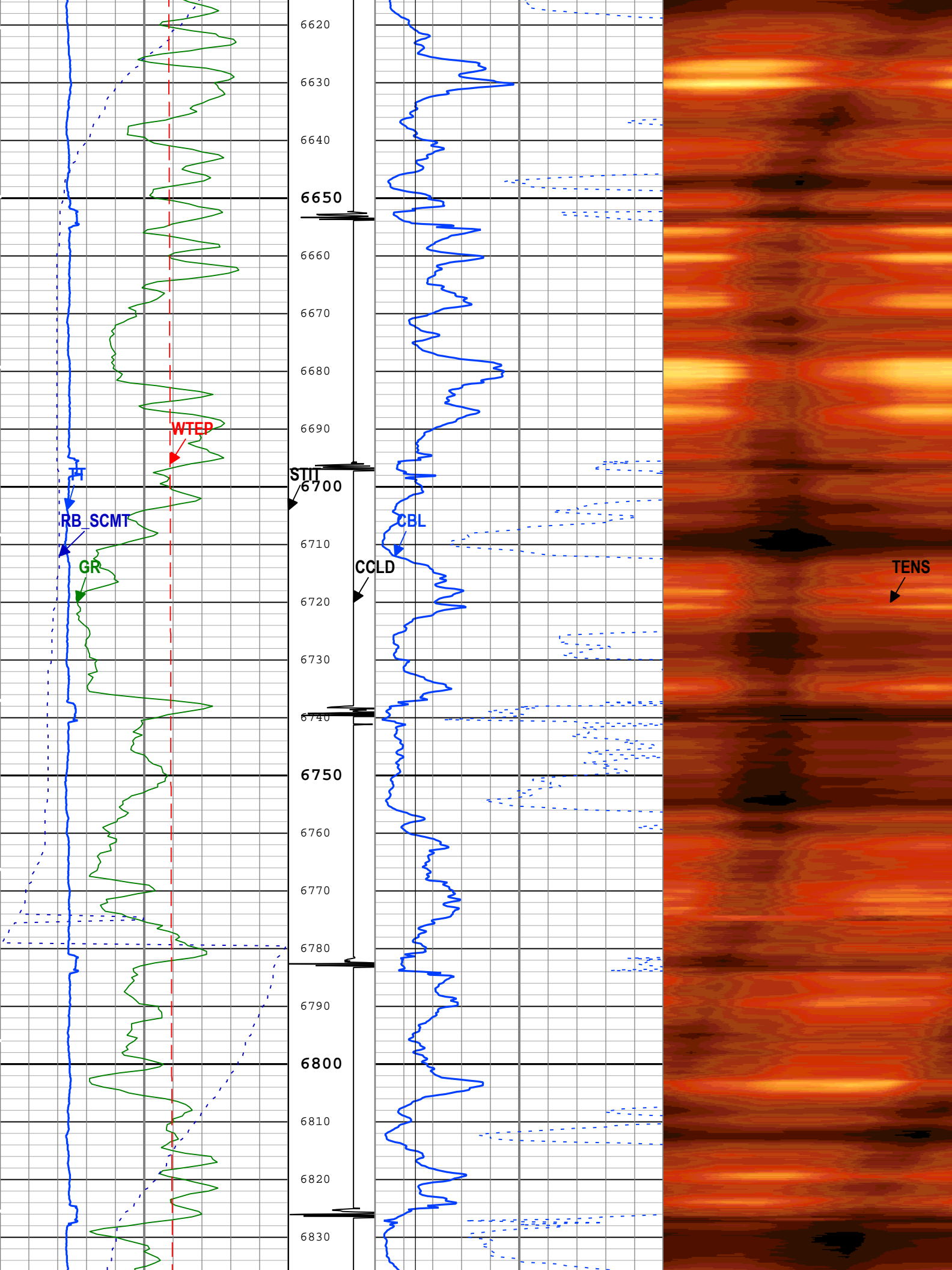


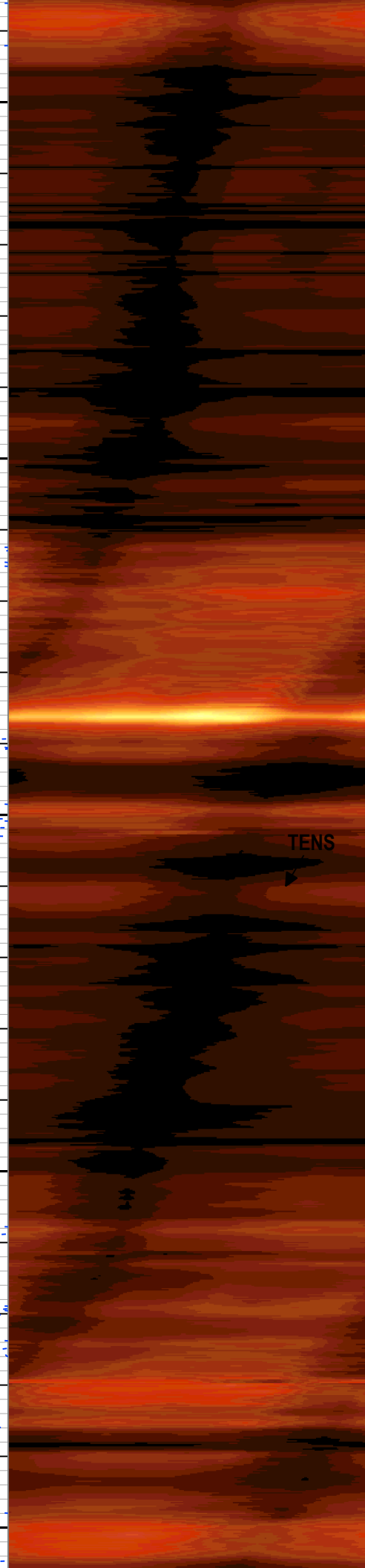
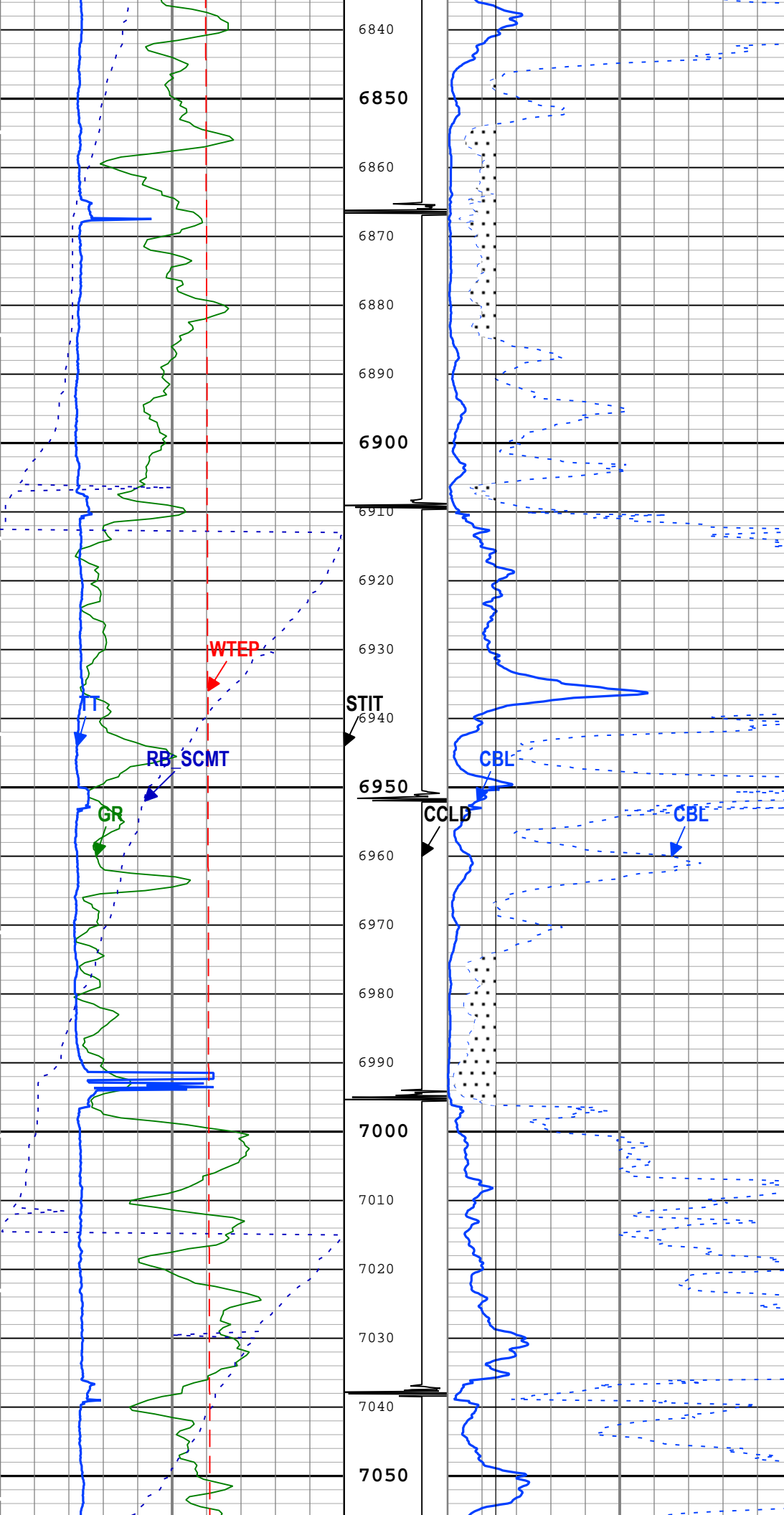


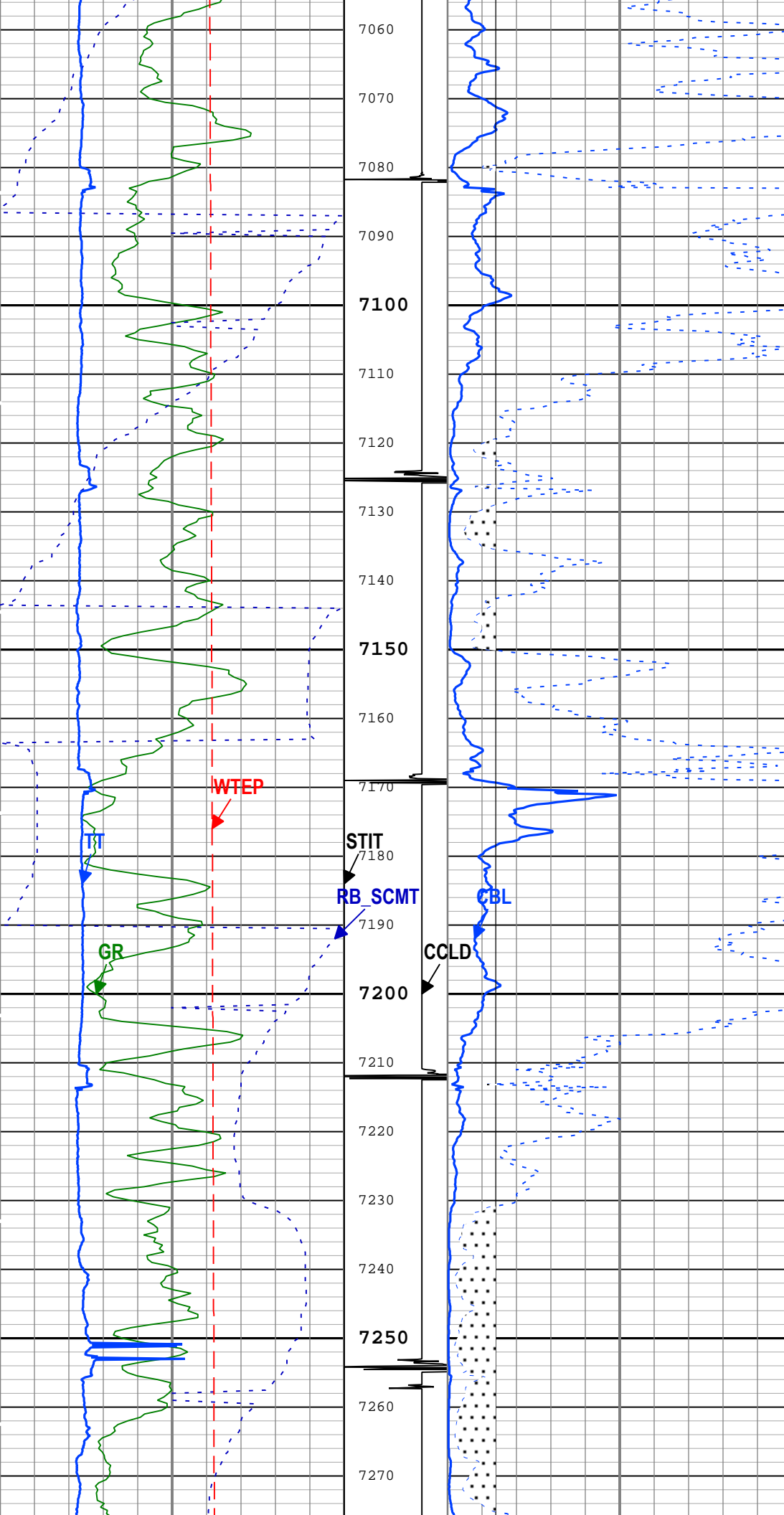


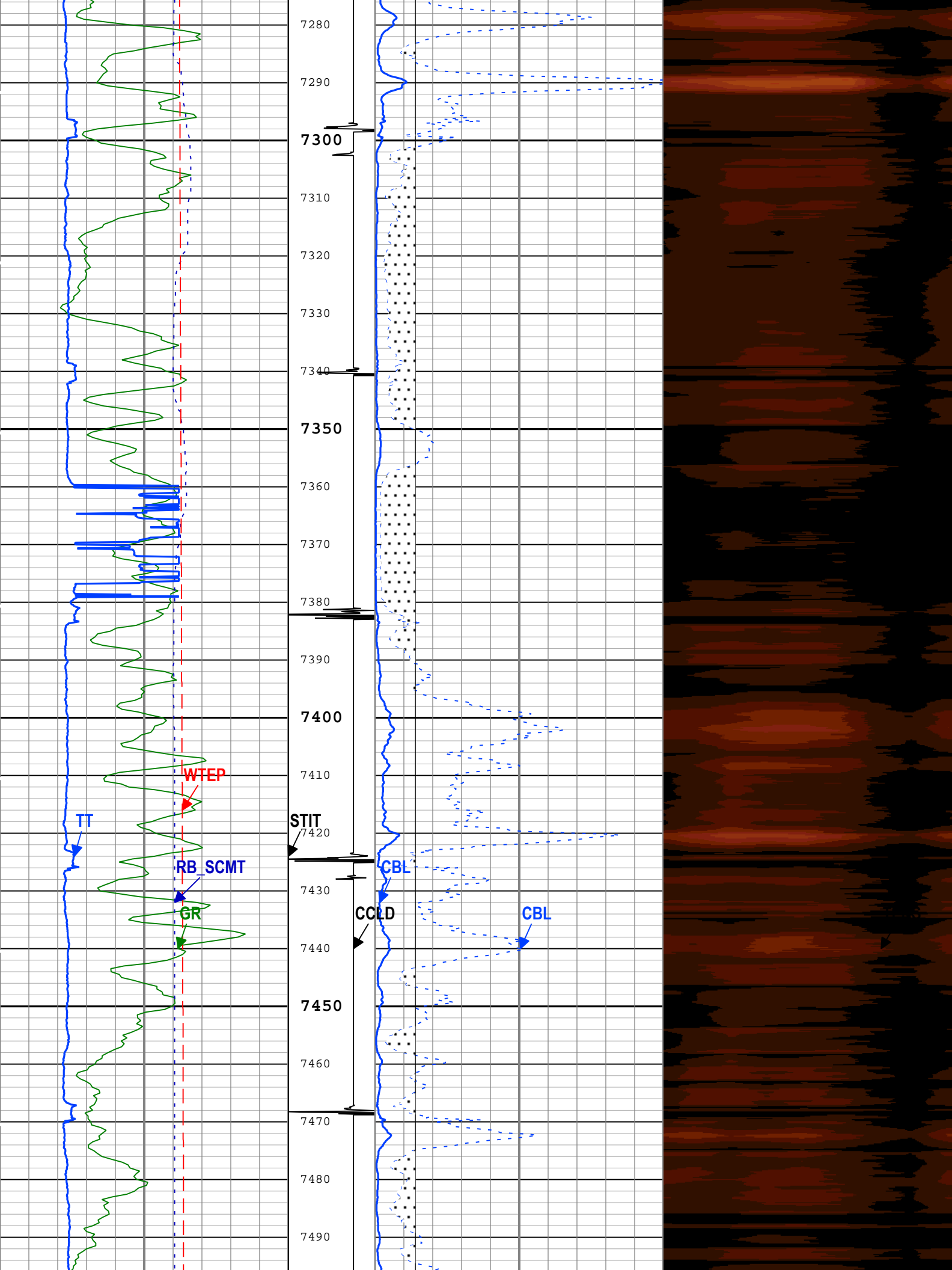


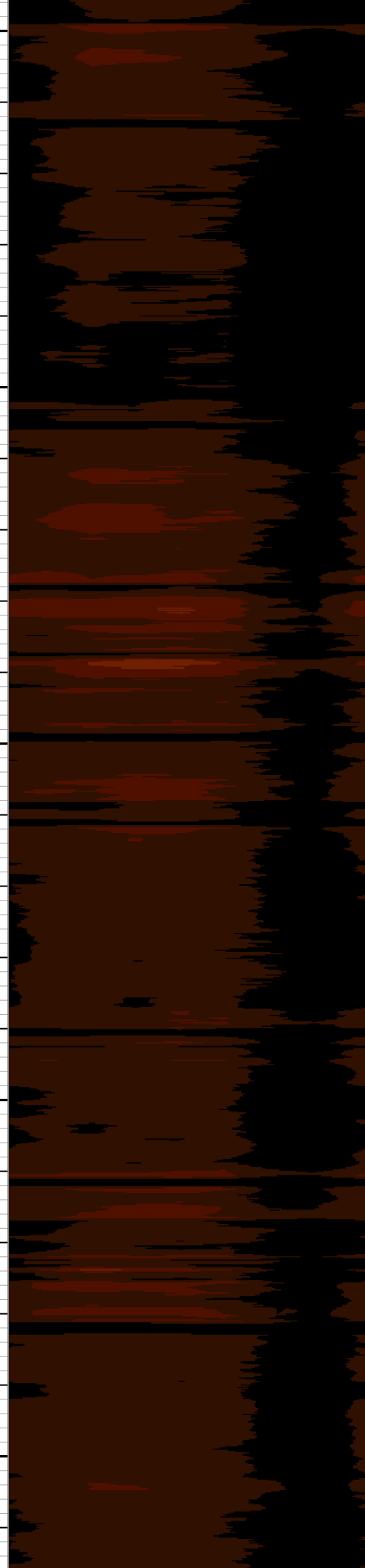
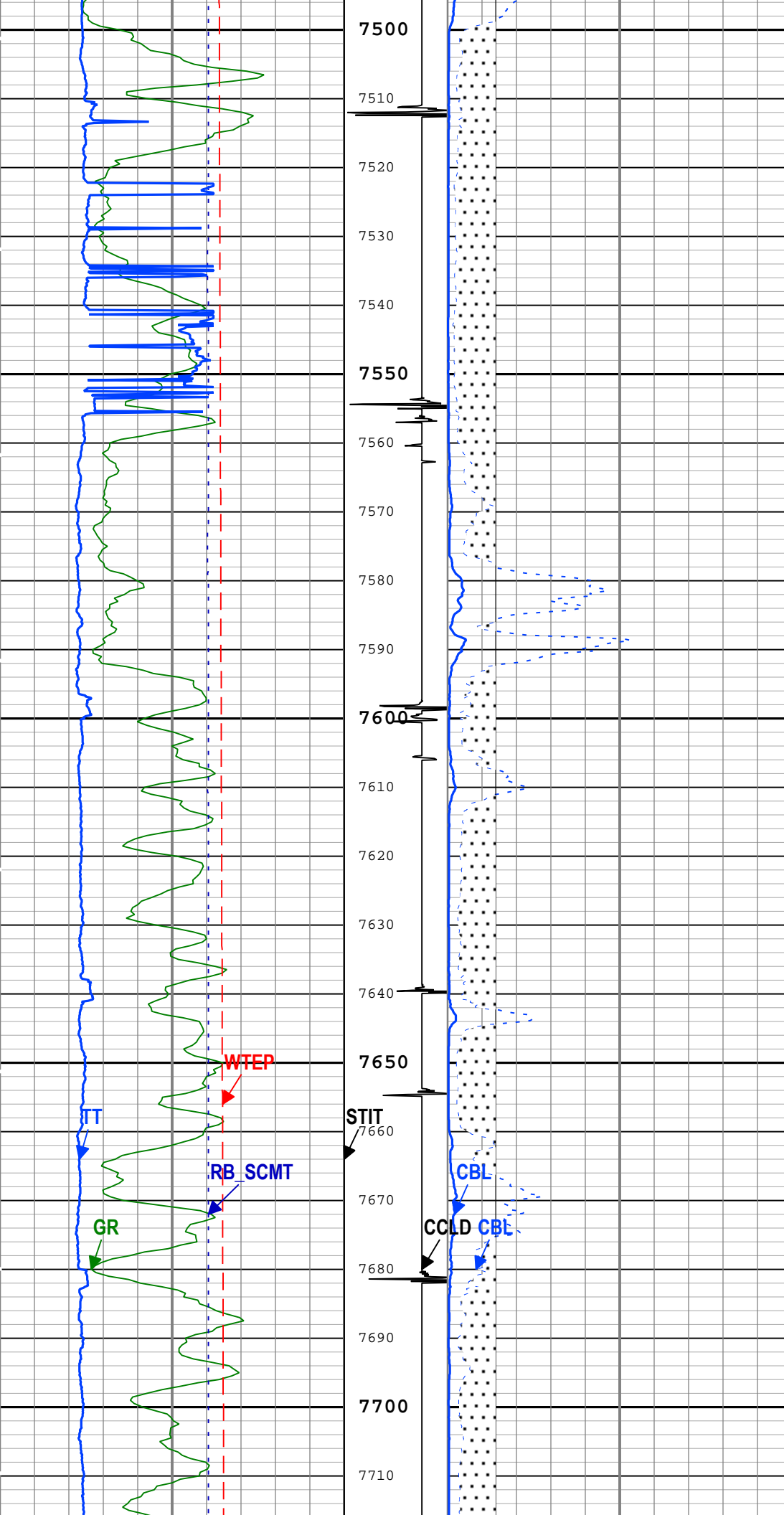


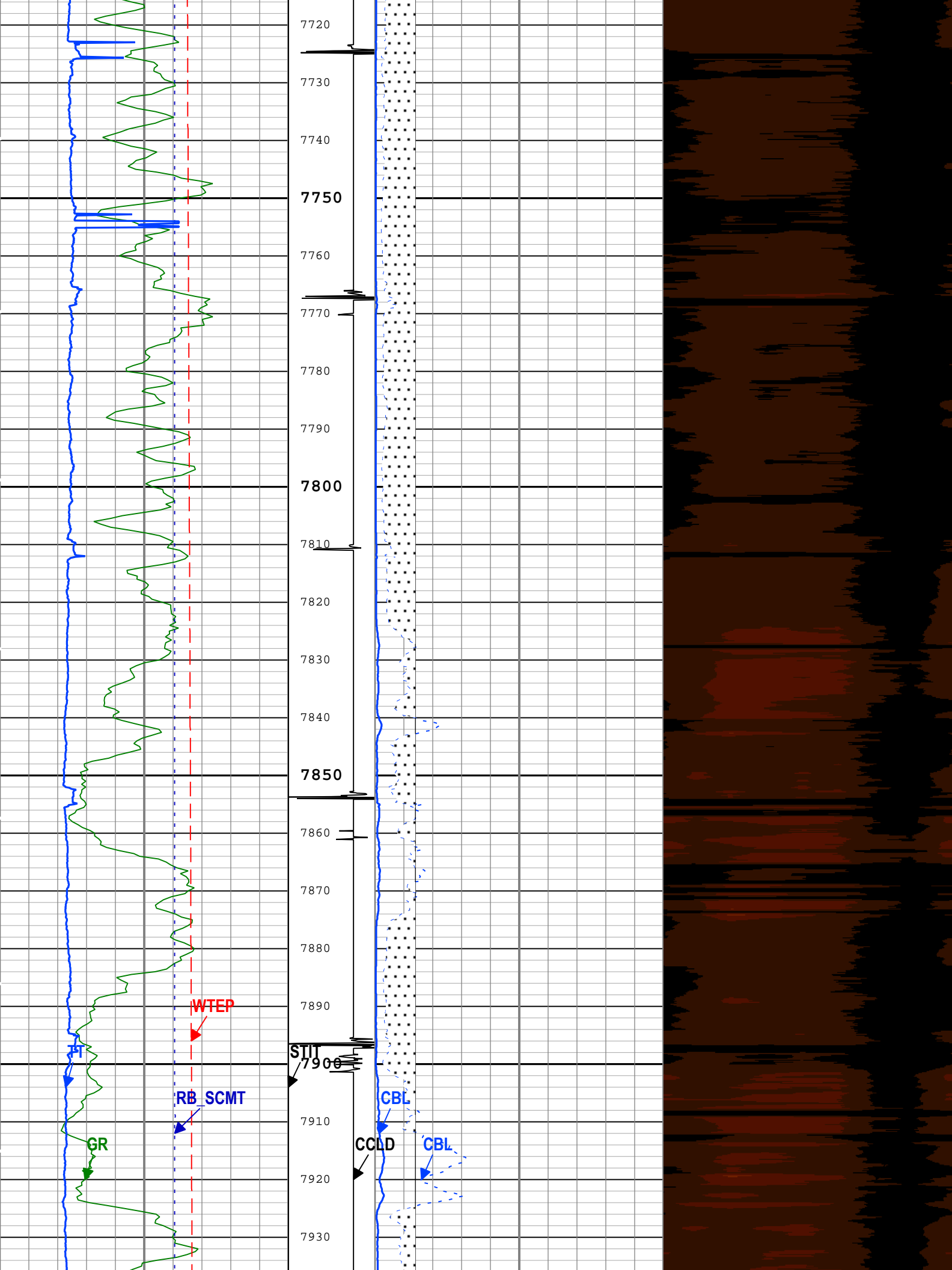


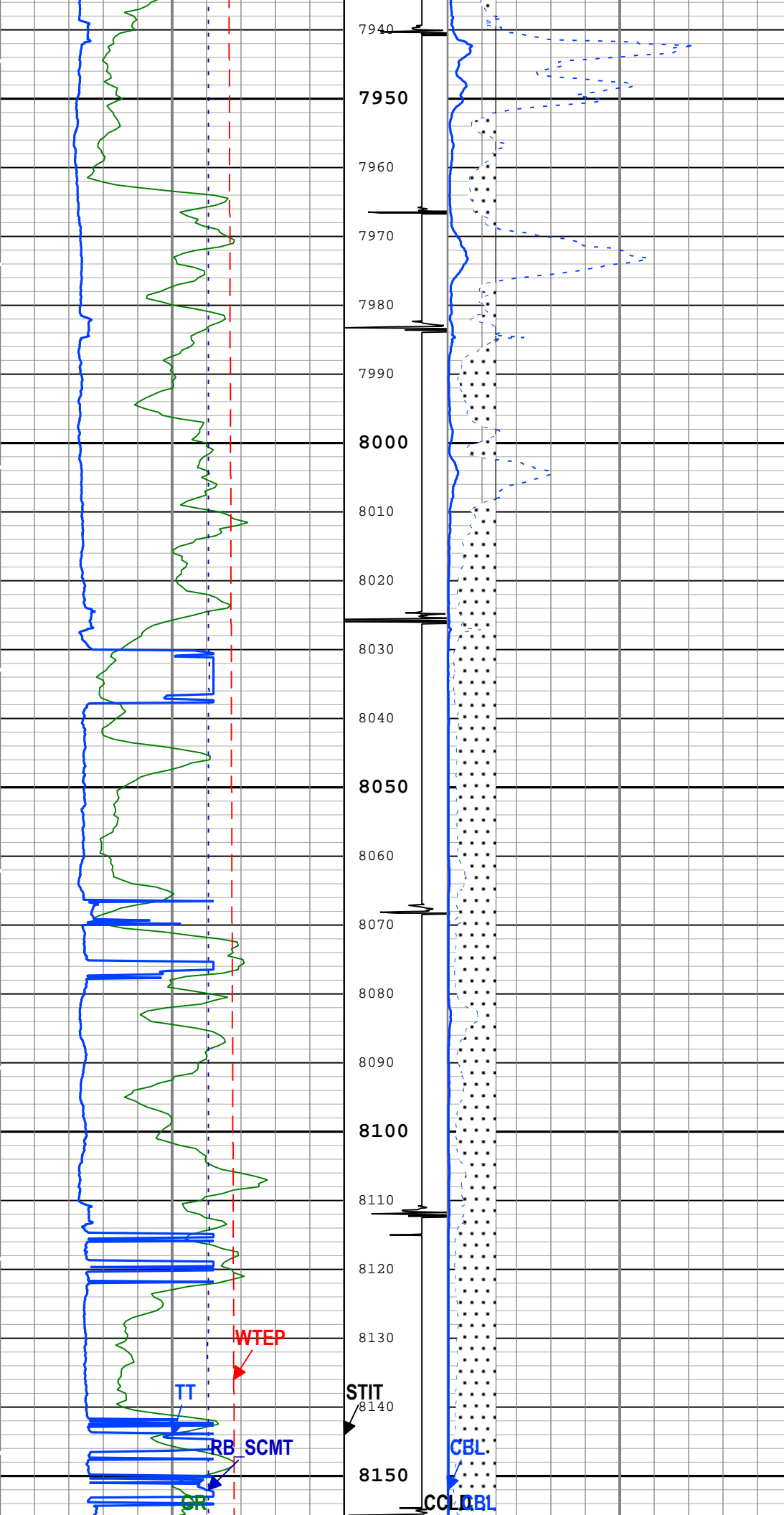


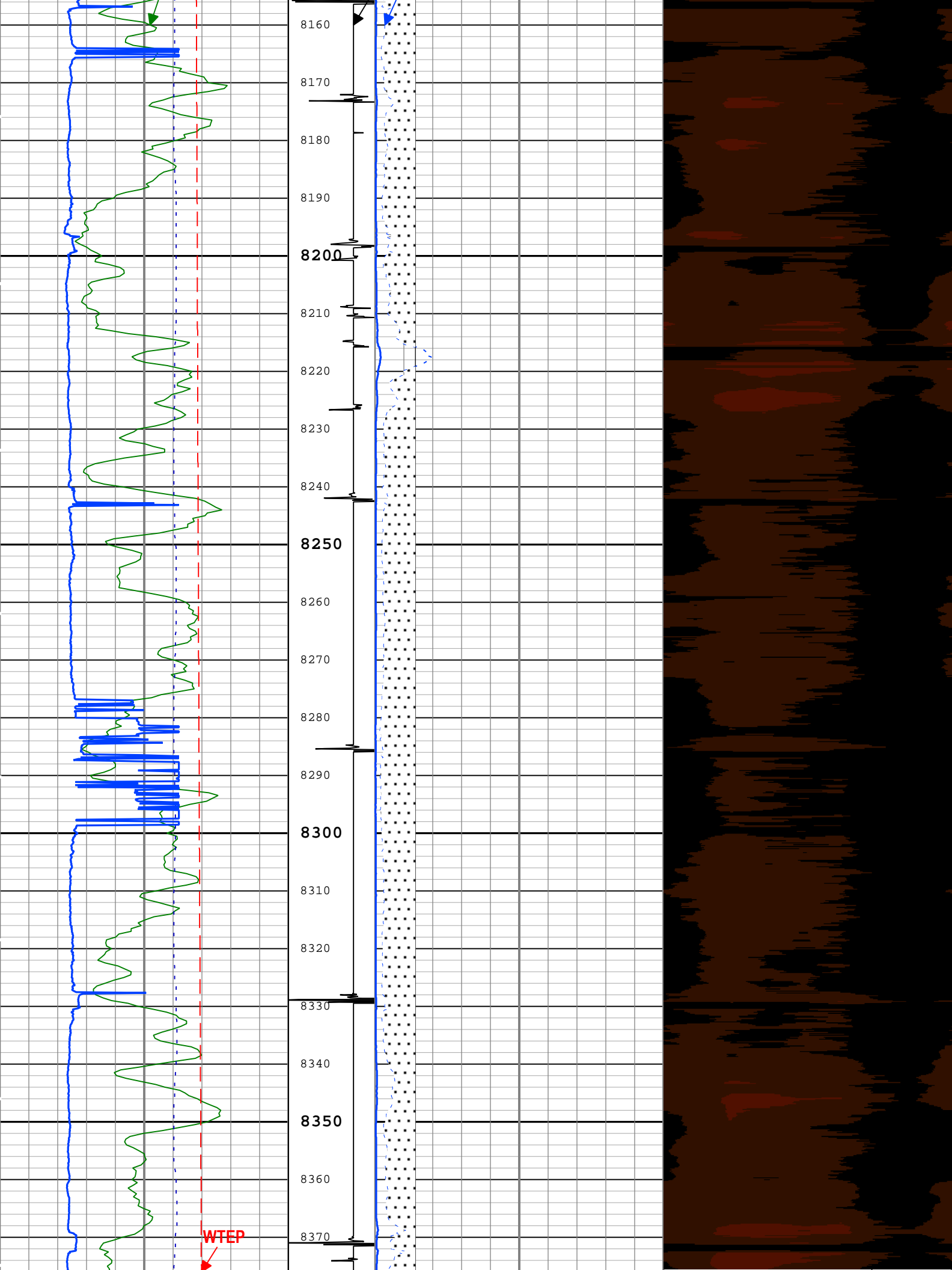


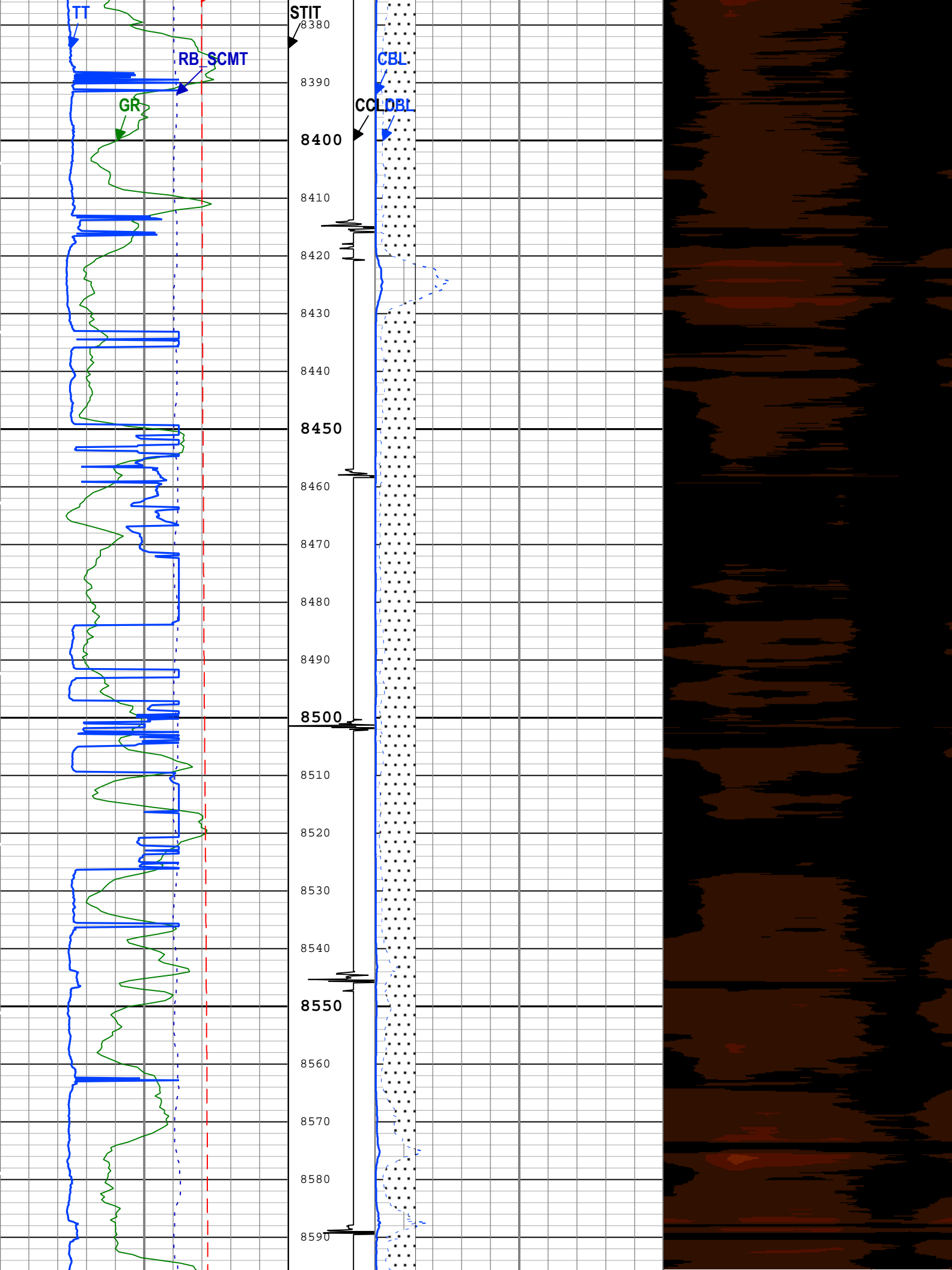


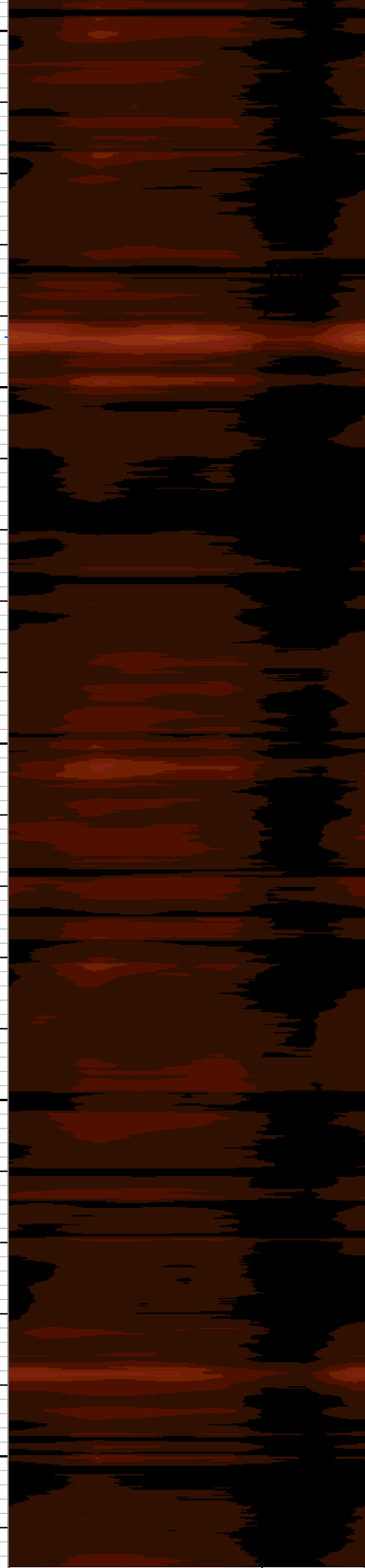
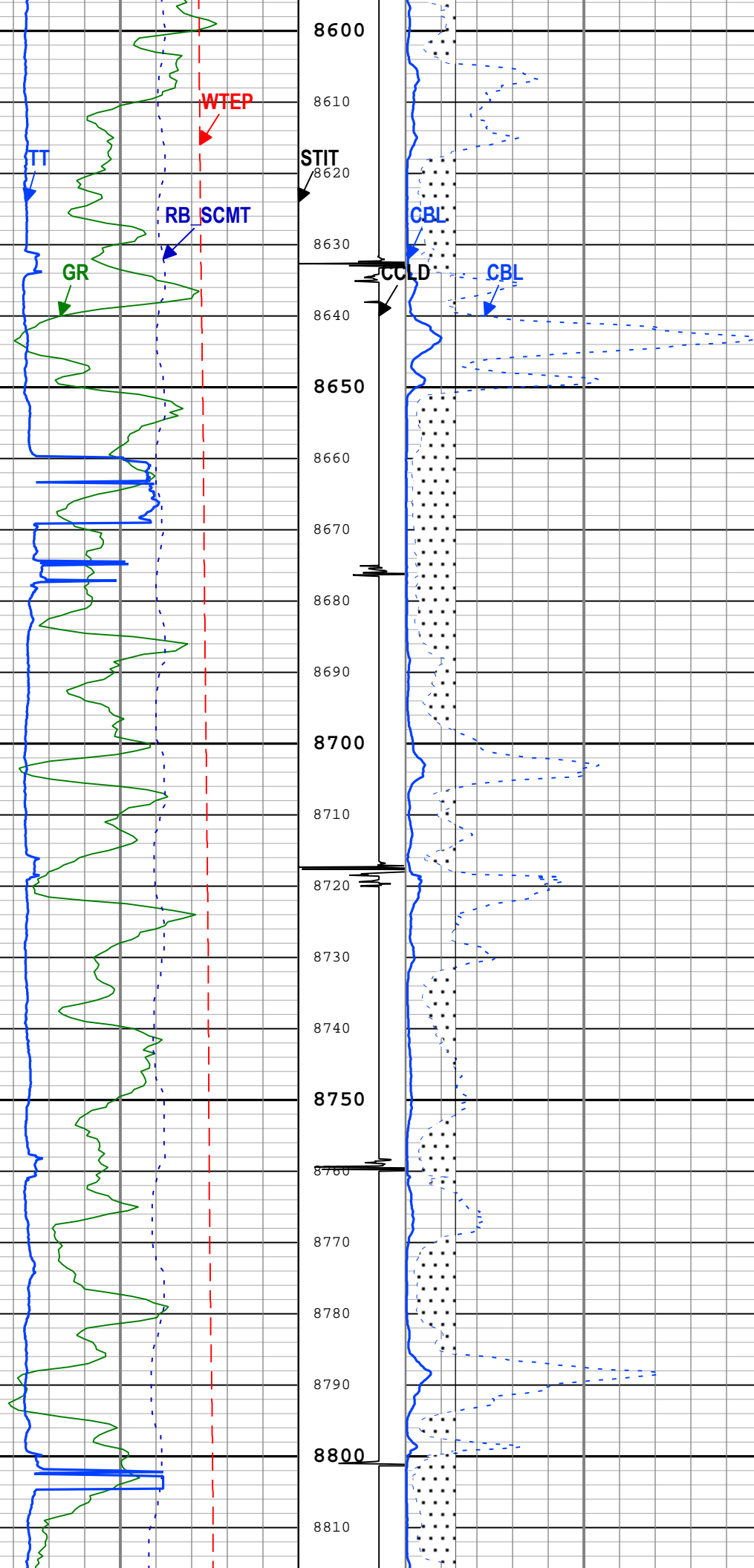


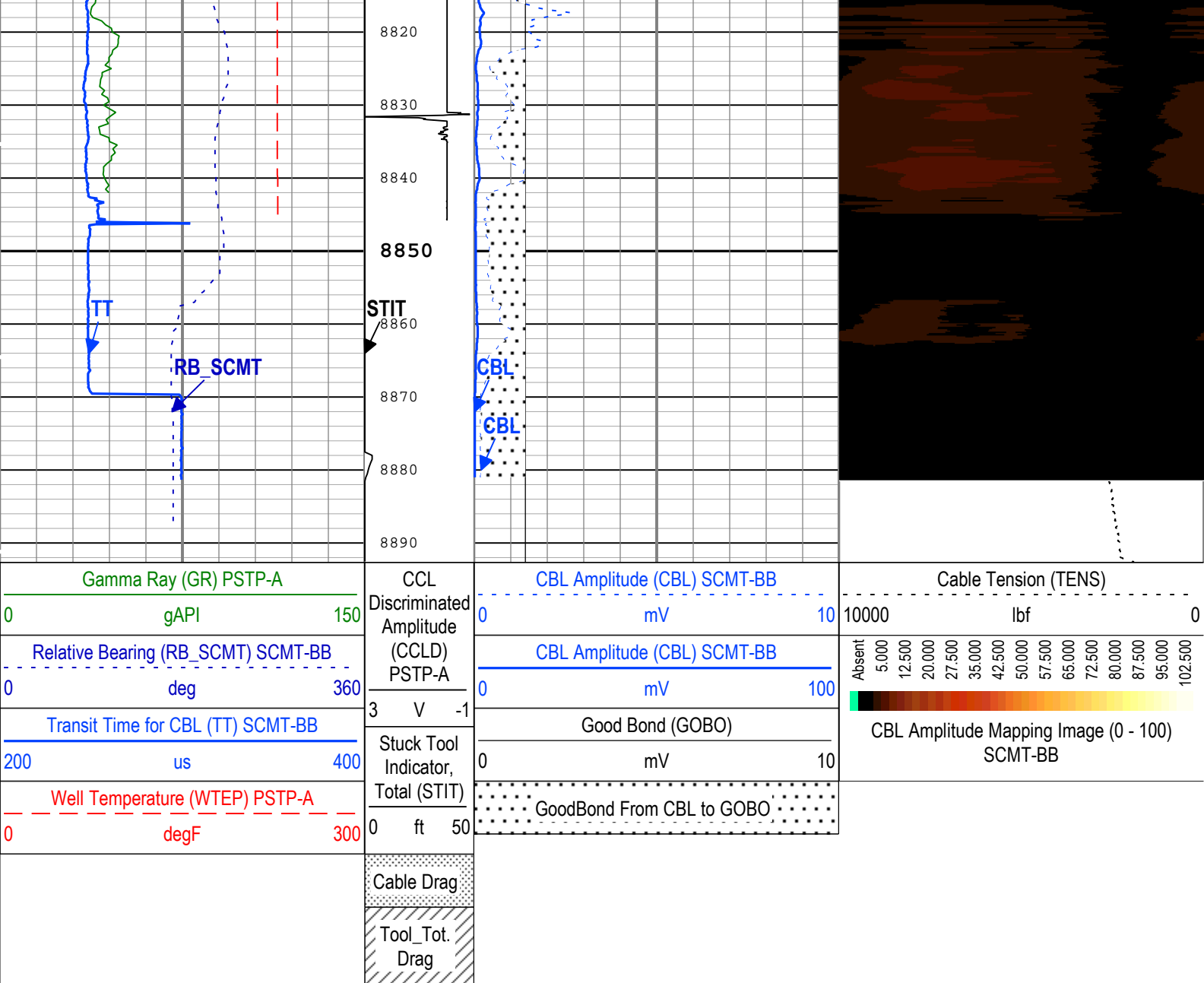












TIME_1900 - Time Marked every 60.00 (s)

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: 03-Aug-2015 16:44:24

Channel Processing Parameters				
Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	228.2	degF
BILI	Bond Index Level for Zone Isolation	SCMT-BB	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	SCMT-BB	Peak	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-BB	224	us
CB3T	SCMT CBL 3 ft Fixed Threshold Level	SCMT-BB	20	mV
CBLG	CBL Gate Width	SCMT-BB	Time Zoned	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-BB	80	mV
CMCF	CBL Cement Type Compensation Factor	SCMT-BB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
ETEM	HP Estimated Temperature	PSTP-A	212	degF
FCF	CBL Fluid Compensation Factor	SCMT-BB	1	

GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-BB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
M1EF	MAP sensitivity equalization factor of receiver 1	SCMT-BB	2.39	
M2EF	MAP sensitivity equalization factor of receiver 2	SCMT-BB	2.17	
M3EF	MAP sensitivity equalization factor of receiver 3	SCMT-BB	1.31	
M4EF	MAP sensitivity equalization factor of receiver 4	SCMT-BB	0.86	
M5EF	MAP sensitivity equalization factor of receiver 5	SCMT-BB	0.75	
M6EF	MAP sensitivity equalization factor of receiver 6	SCMT-BB	1.12	
M7EF	MAP sensitivity equalization factor of receiver 7	SCMT-BB	1.72	
M8EF	MAP sensitivity equalization factor of receiver 8	SCMT-BB	2.19	
MAPD	SCMT MAP Peak Detection Mode	SCMT-BB	Peak	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-BB	167	us
MAPT	SCMT MAP Fixed Threshold Level	SCMT-BB	30	mV
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-BB	10.14	dB/ft
MCCF	MAP Cement Type Compensation Factor	SCMT-BB	0.25	
MCI	Minimum Cemented Interval for Isolation	SCMT-BB	Depth Zoned	ft
MMSA	MAP Minimum Sonic Amplitude	SCMT-BB	3.98	mV
MSA	Minimum Sonic Amplitude	SCMT-BB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-BB	4.41	mV
PTCO	PBMS Pressure Temperature Correction Option	PSTP-A	Gauge Temperature	
RBC	Relative Bearing Correction Allow/Disallow	SCMT-BB	Allow	
RUN_SNUM	Run Sequence Number	WSDRUN	1	
TD	Total Measured Depth	Borehole	8897	ft
ZCMT	Acoustic Impedance of Cement	SCMT-BB	3.4	Mrayl
ZCMT_NEAT	Acoustic Impedance of Cement in Neat Cement	SCMT-BB	6.8	Mrayl

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
MCI	14.81	2424	2515
MCI	1.25	2515	8892.67

All depth are actual.

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
CBLG	40	20-Jul-2015 10:14:08	20-Jul-2015 10:51:00	8892.62	8061.73
CBLG	41	20-Jul-2015 10:51:00	20-Jul-2015 14:02:05	8061.73	2474.21
All depth are at tool zero.					

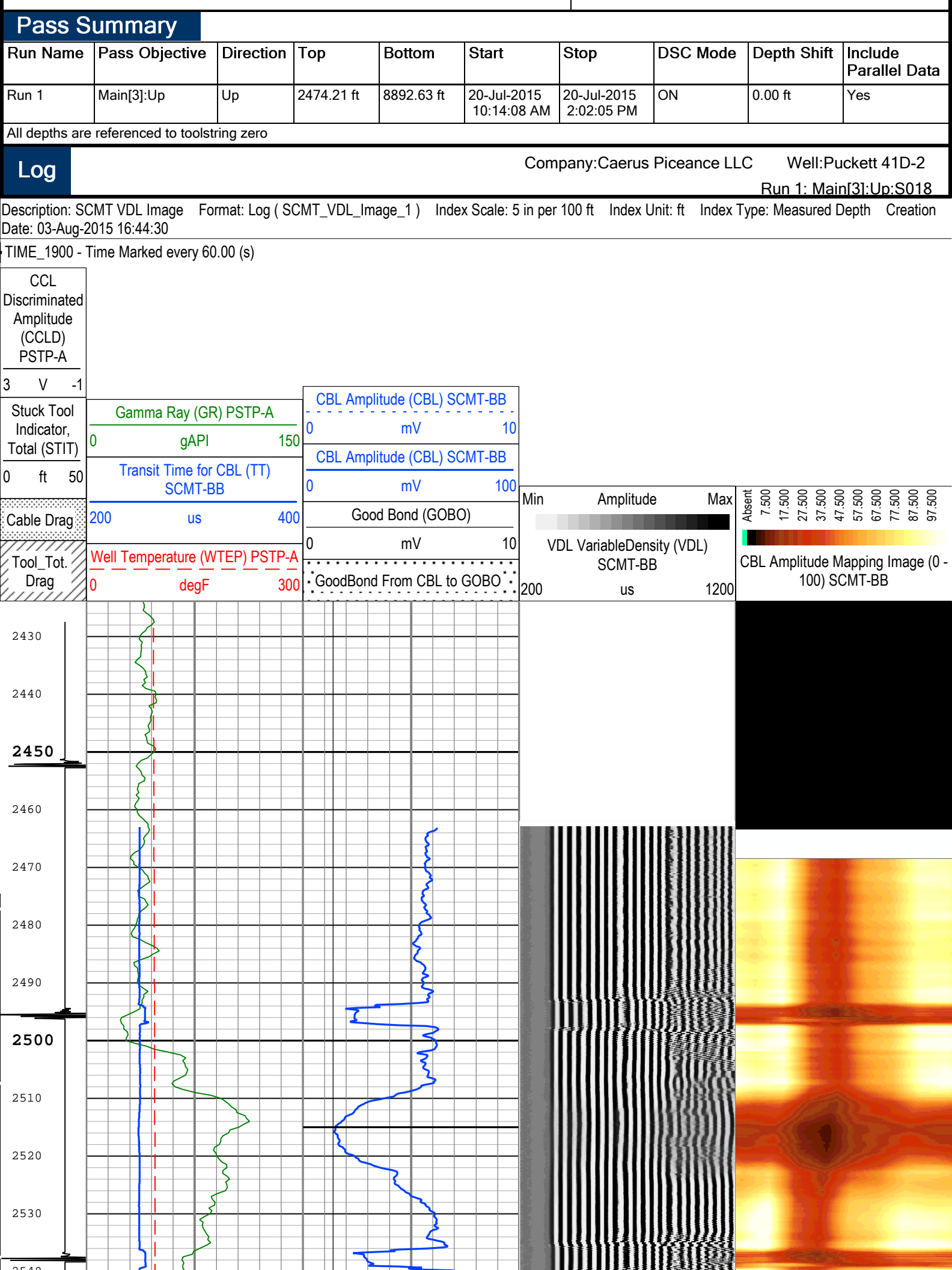
Tool Control Parameters	
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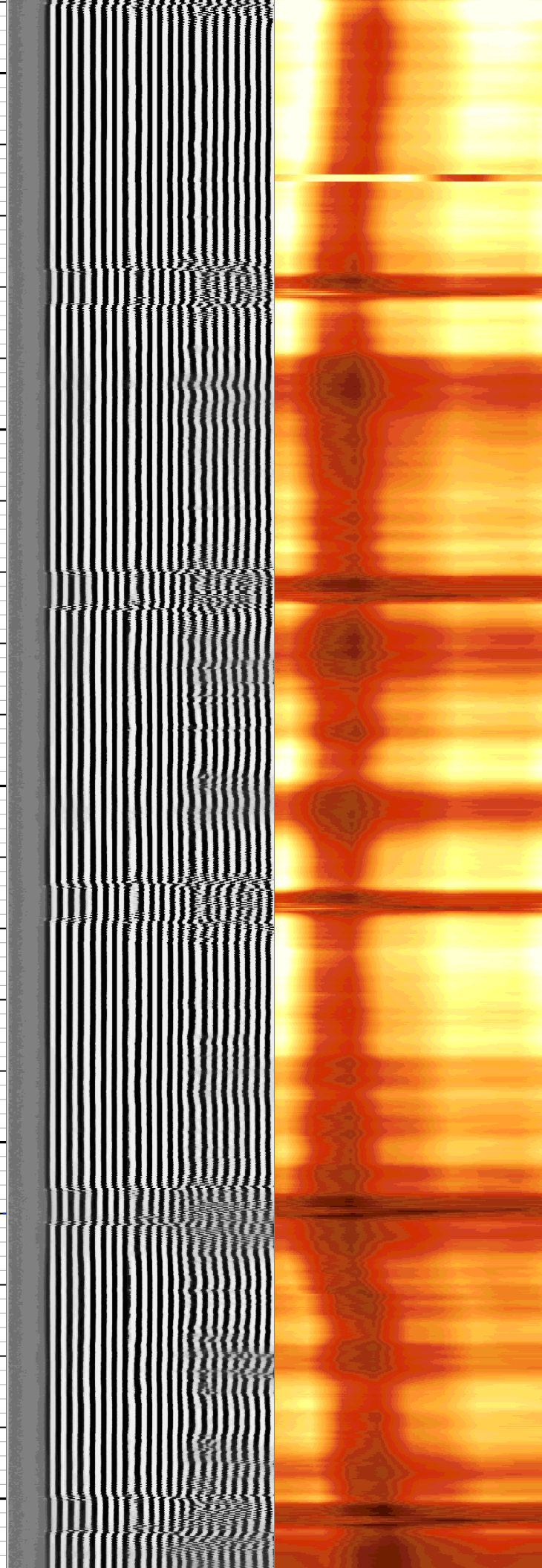
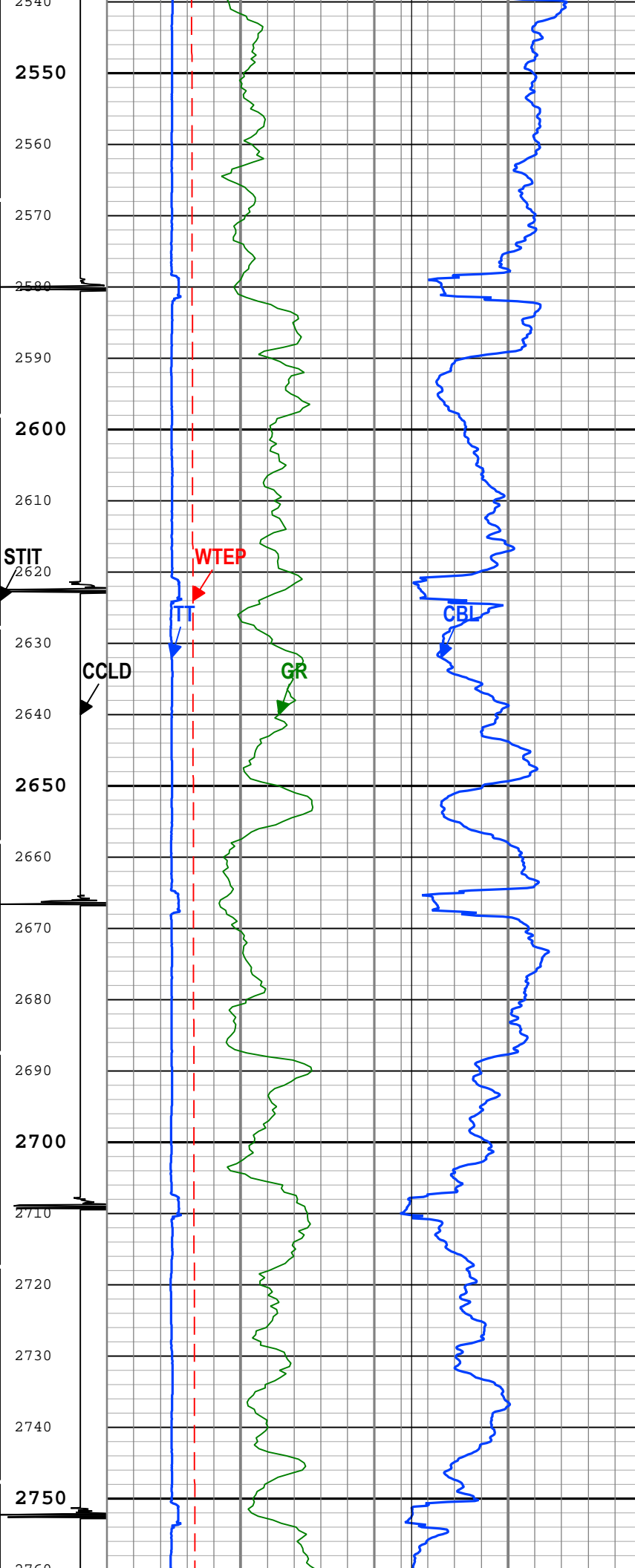
Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-BB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	36 dB	

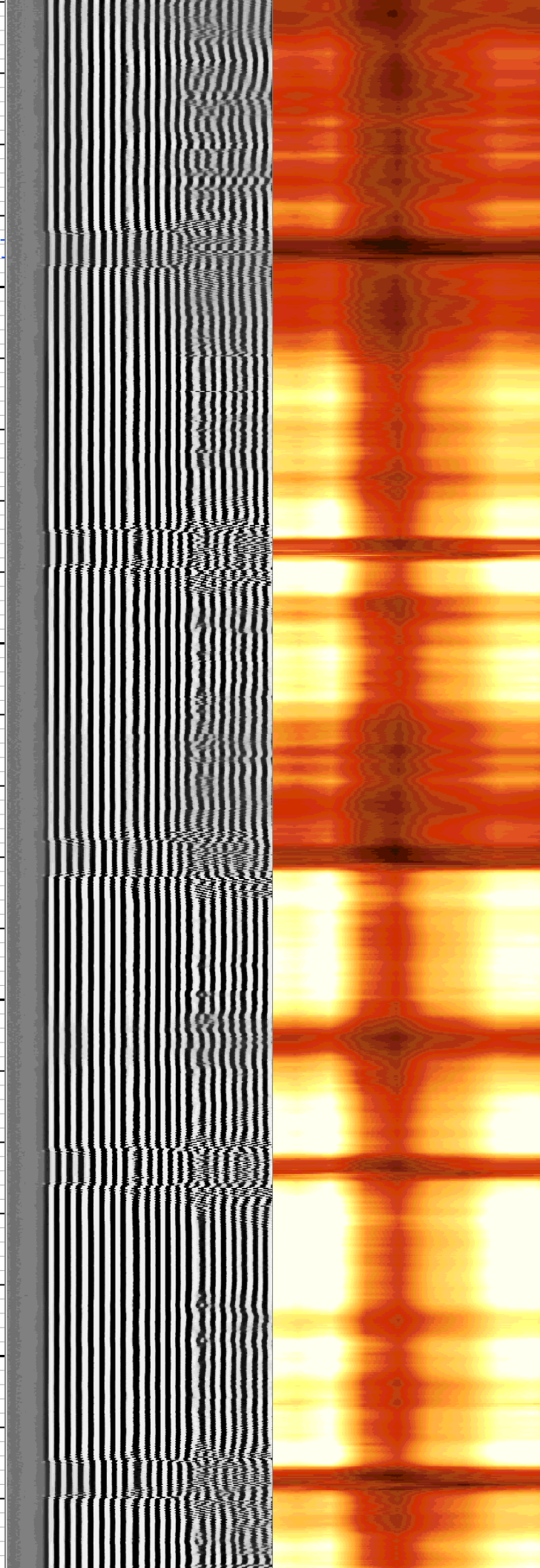
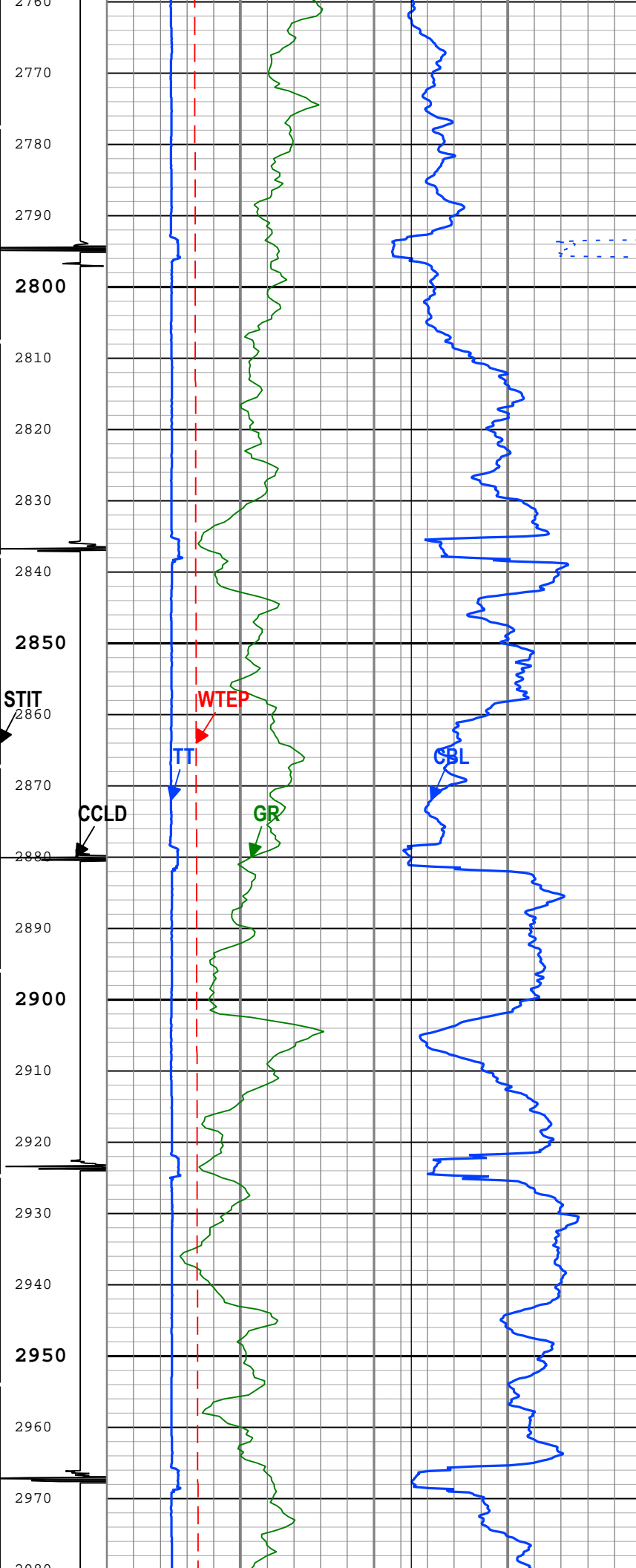
Run 1				

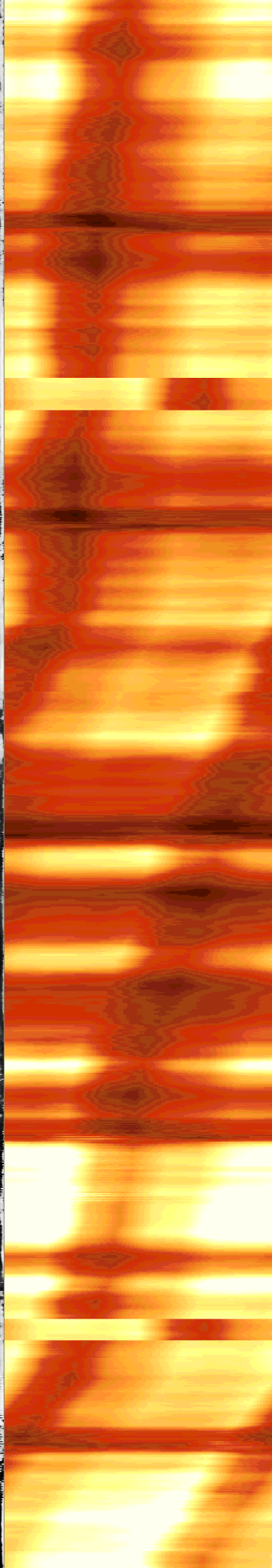
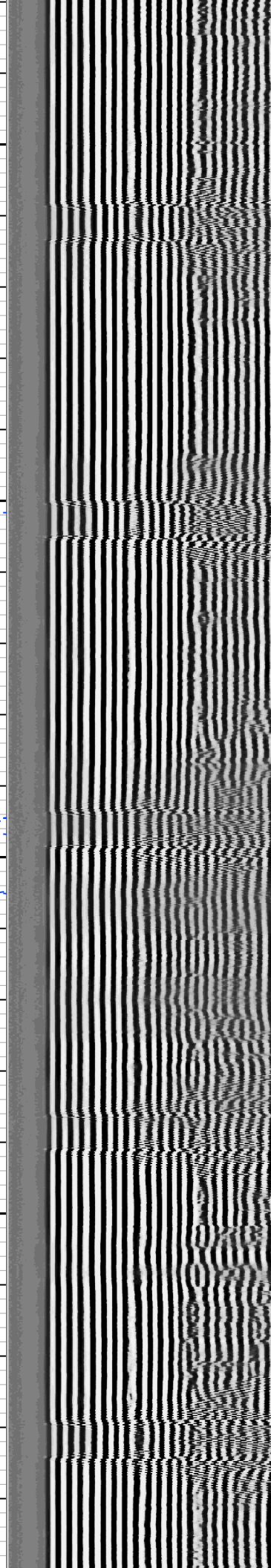
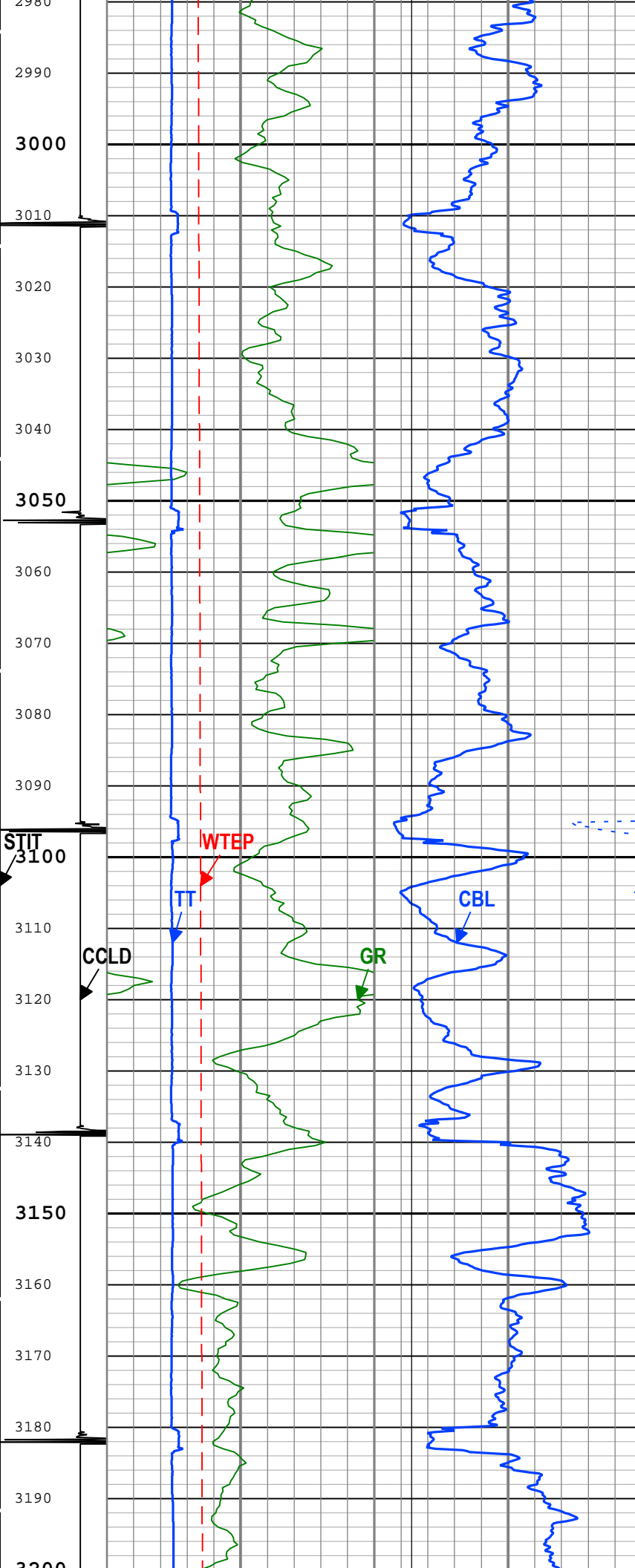
Main Pass				

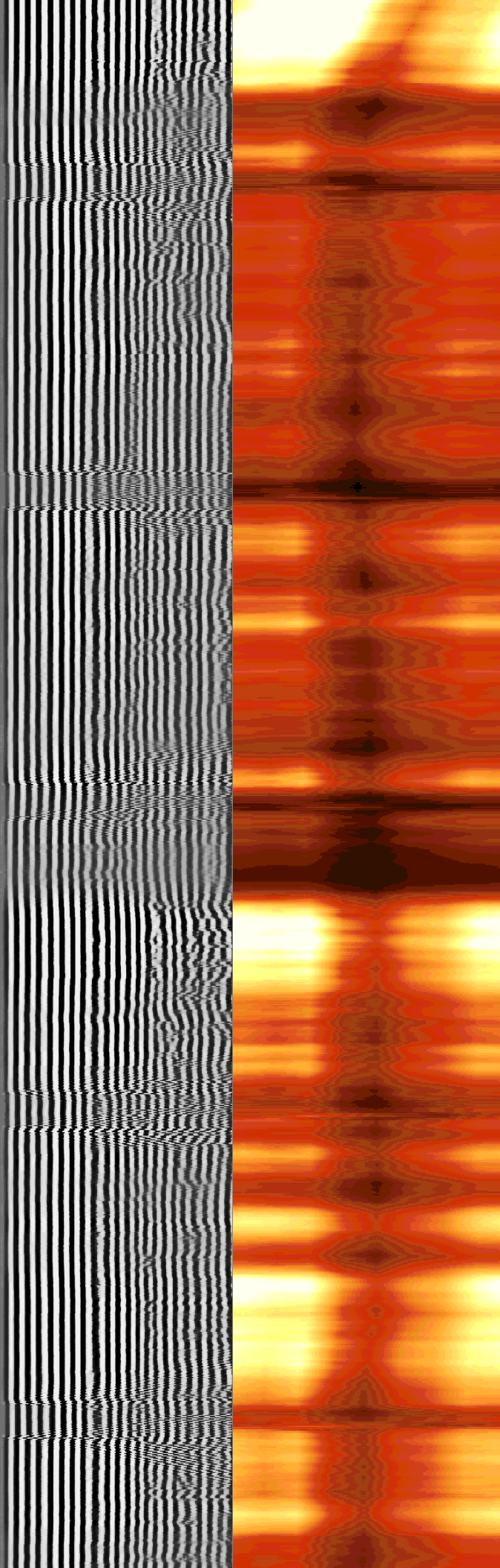
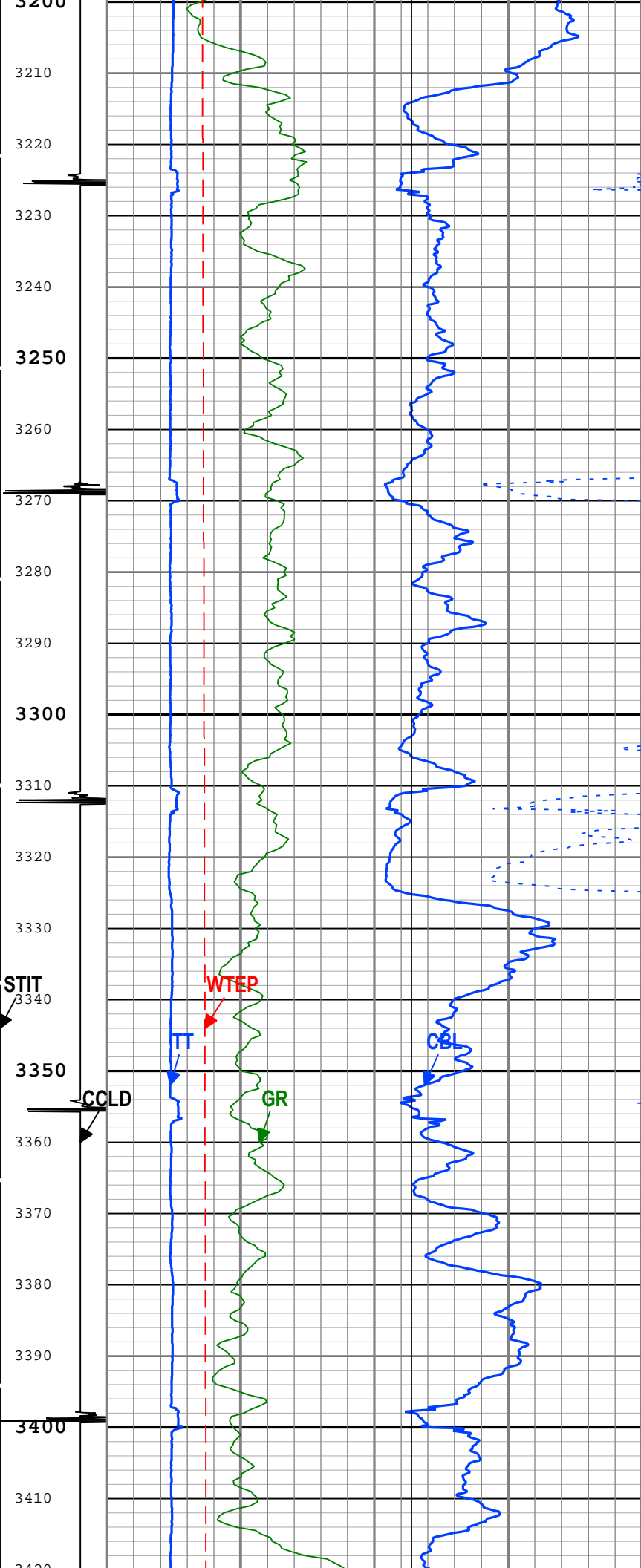
Software Version				
Acquisition System			Version	
Maxwell 2016			6.0.47569.3100	

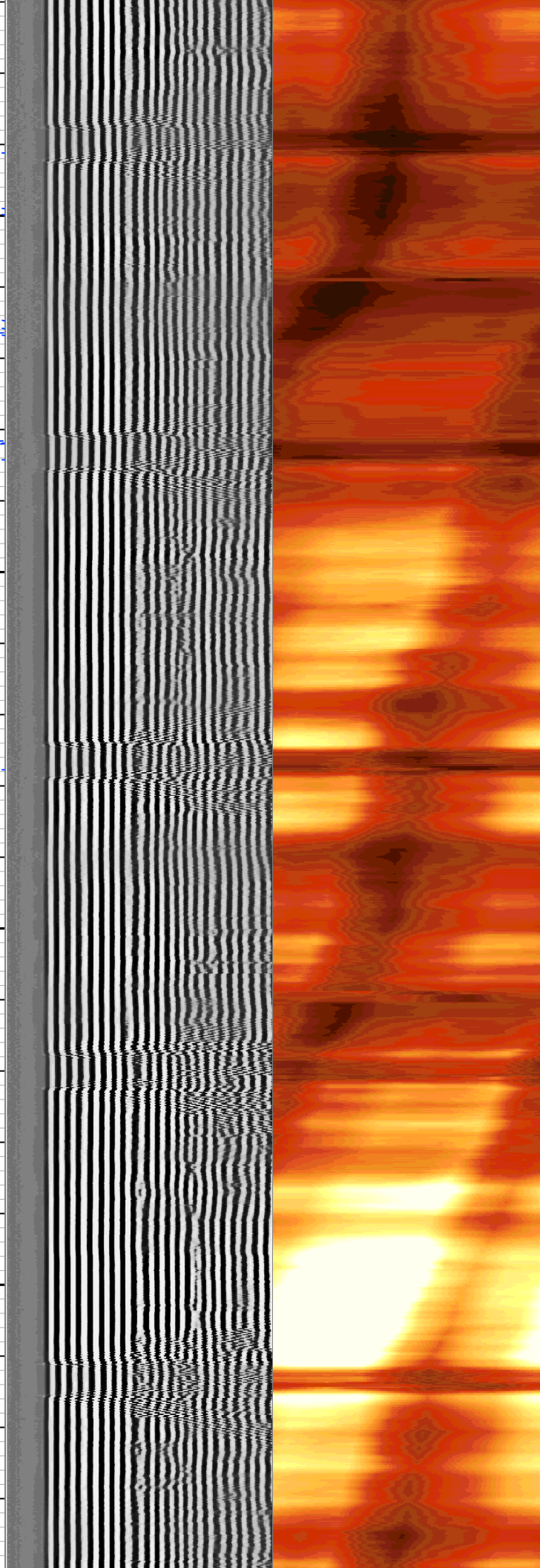
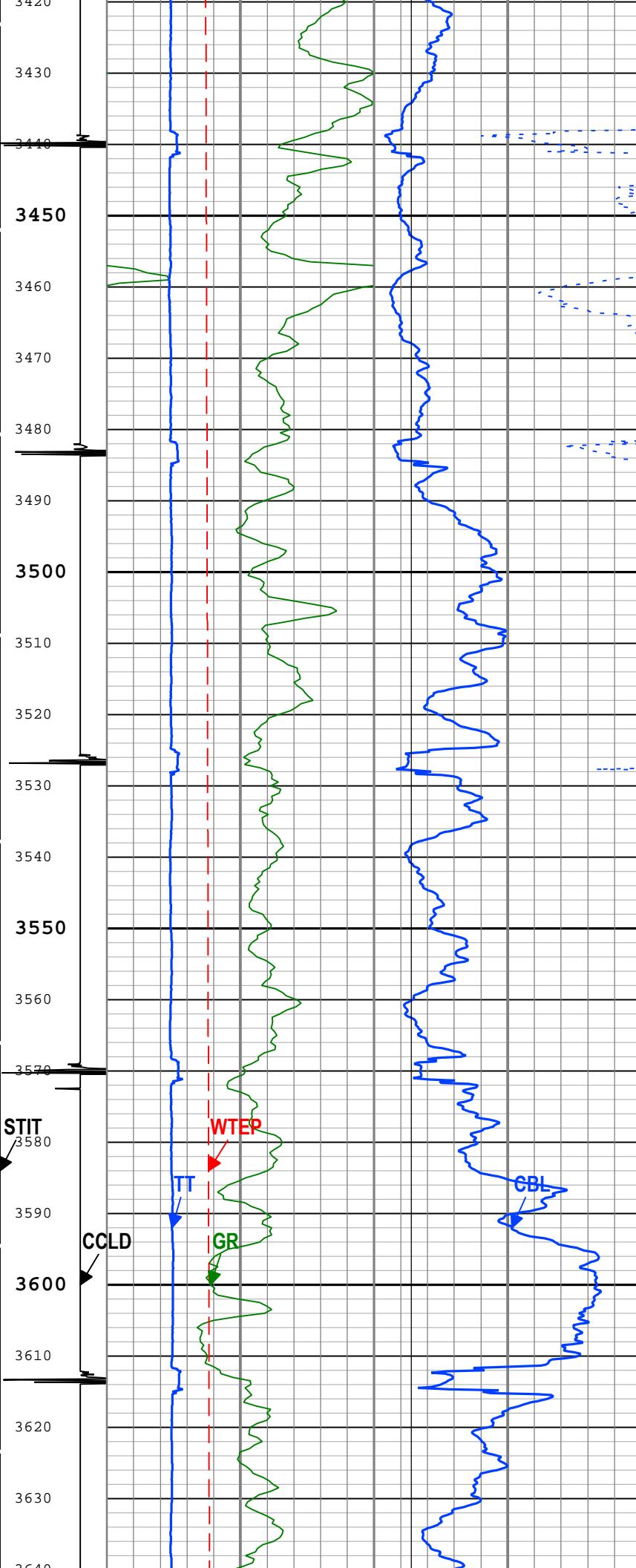


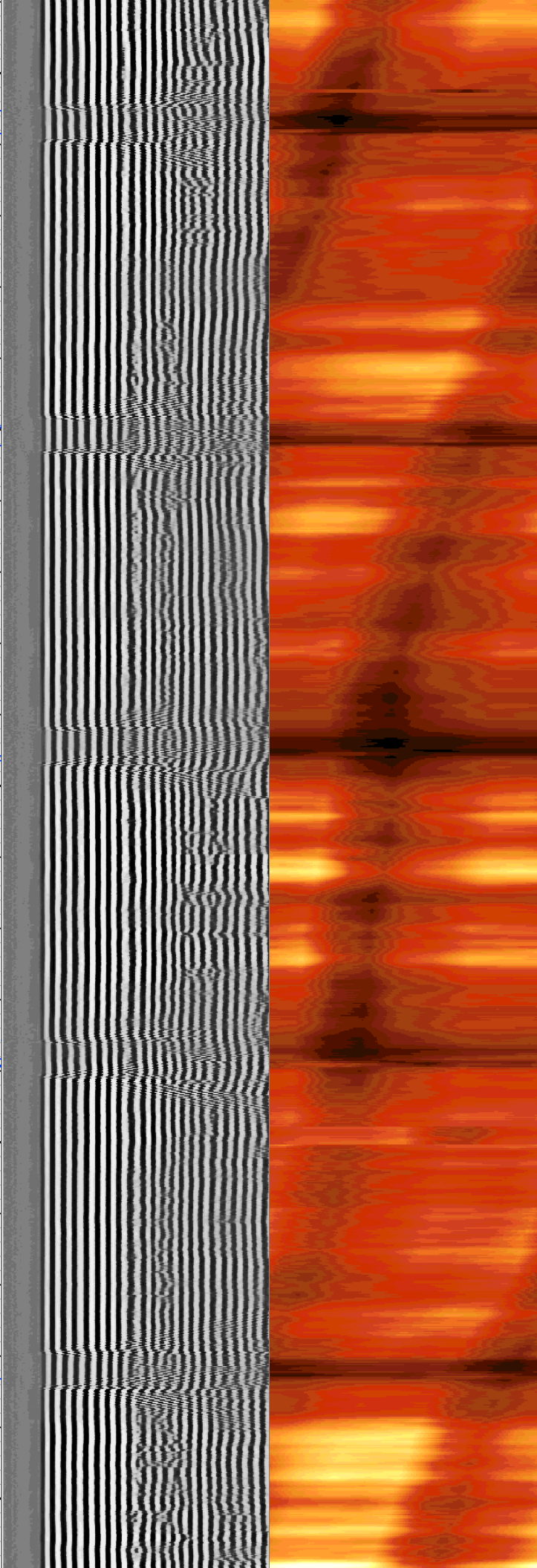
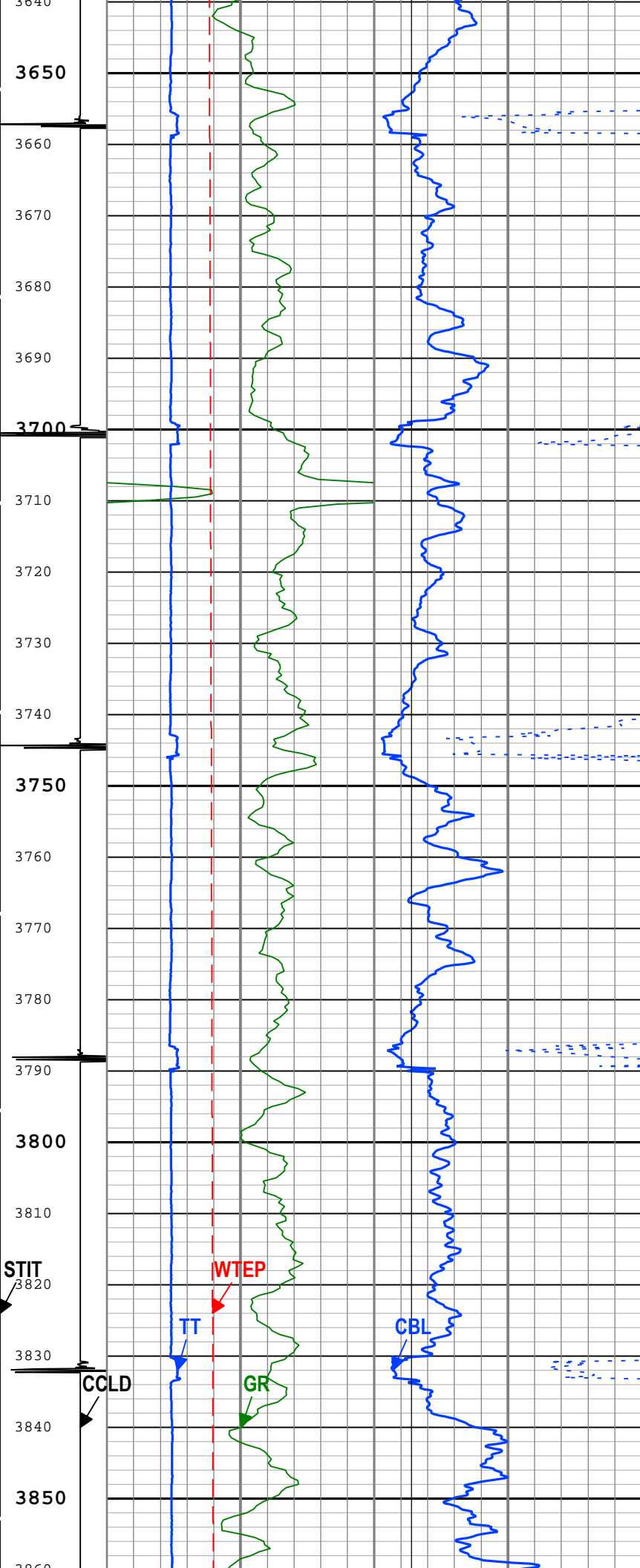


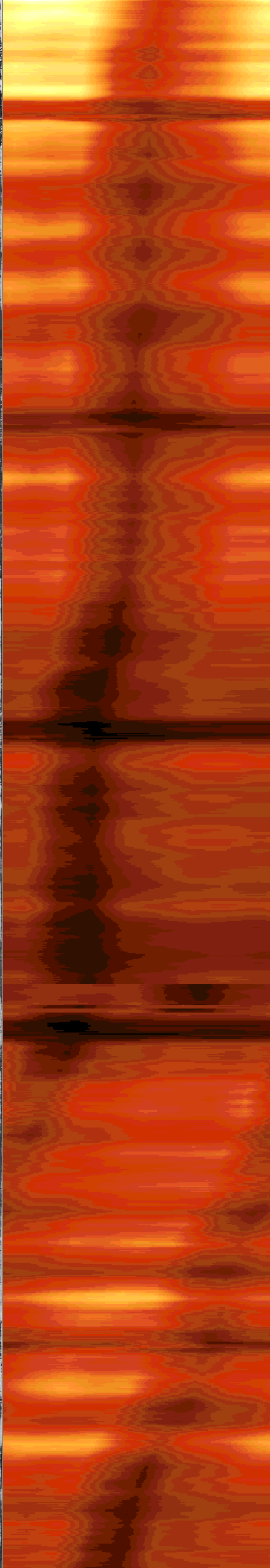
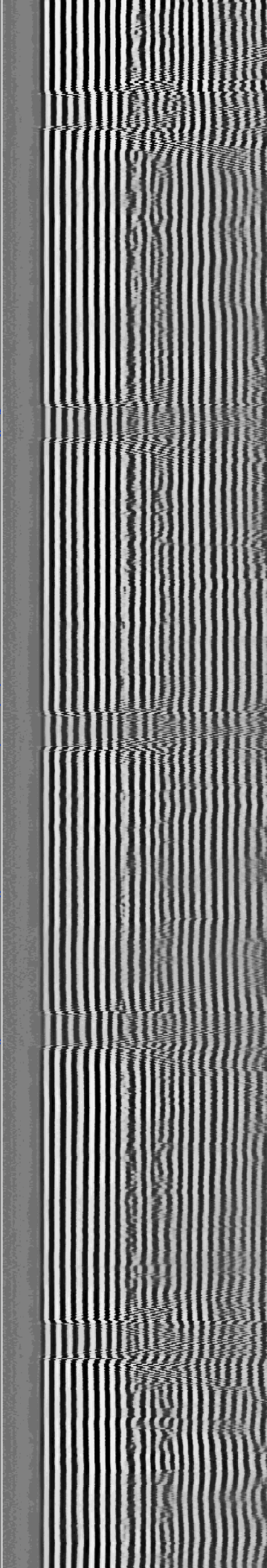
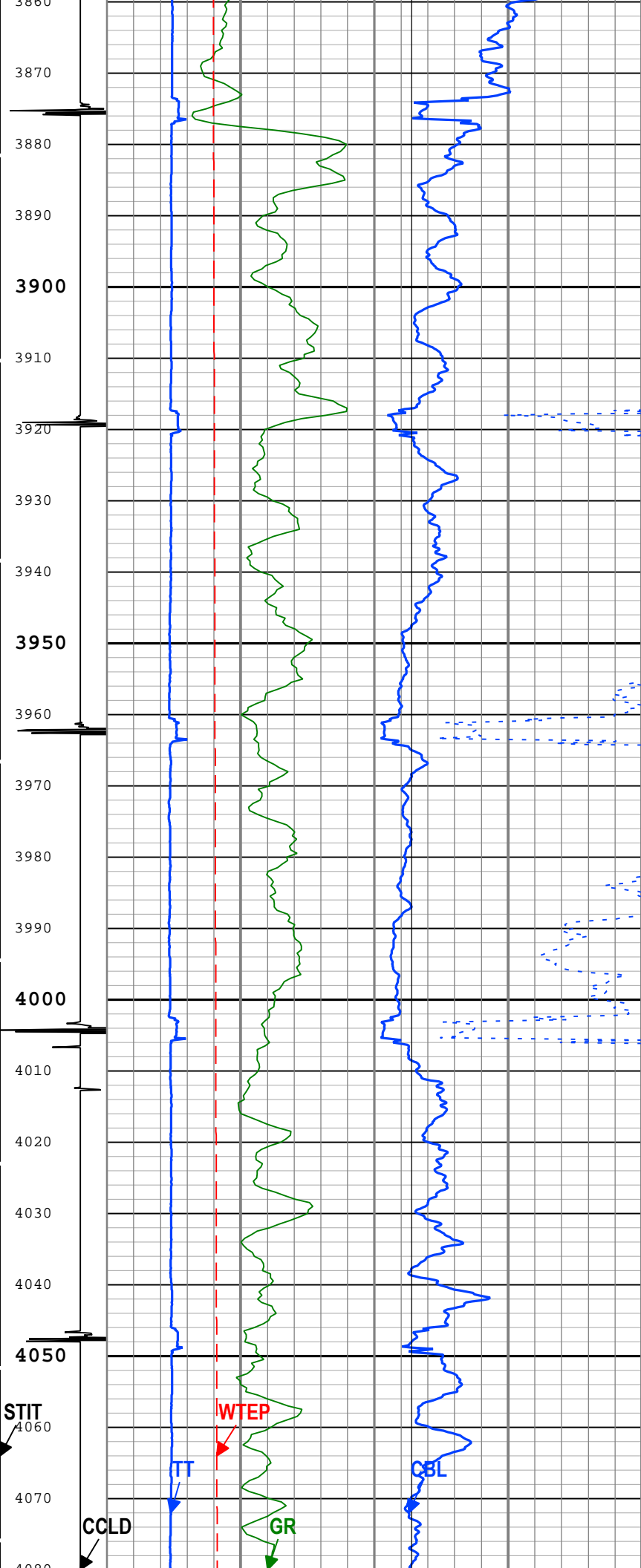


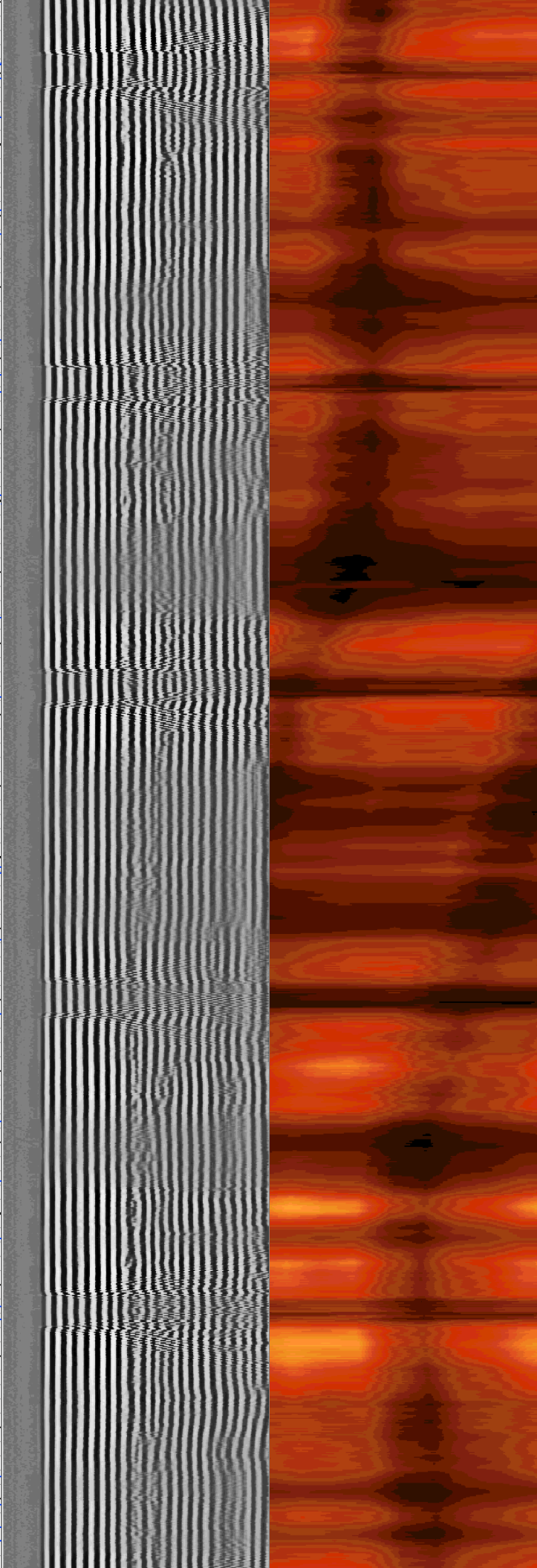
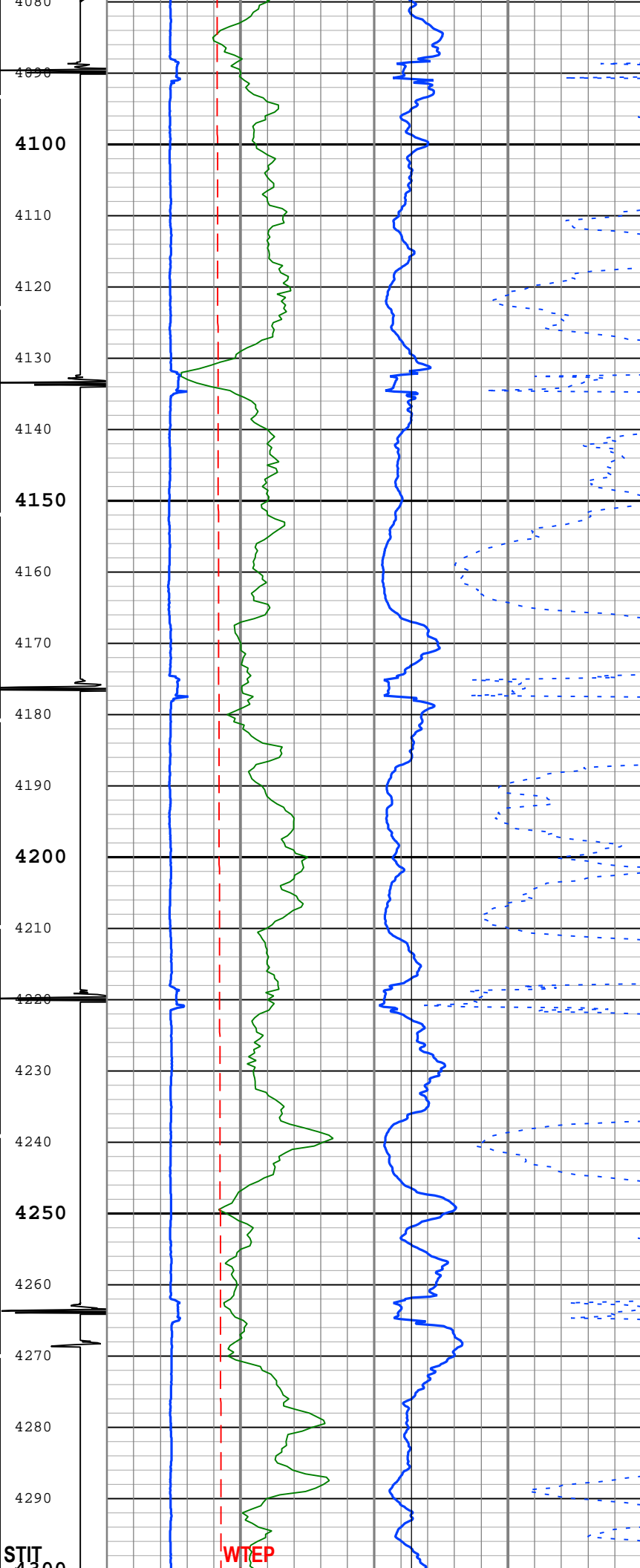


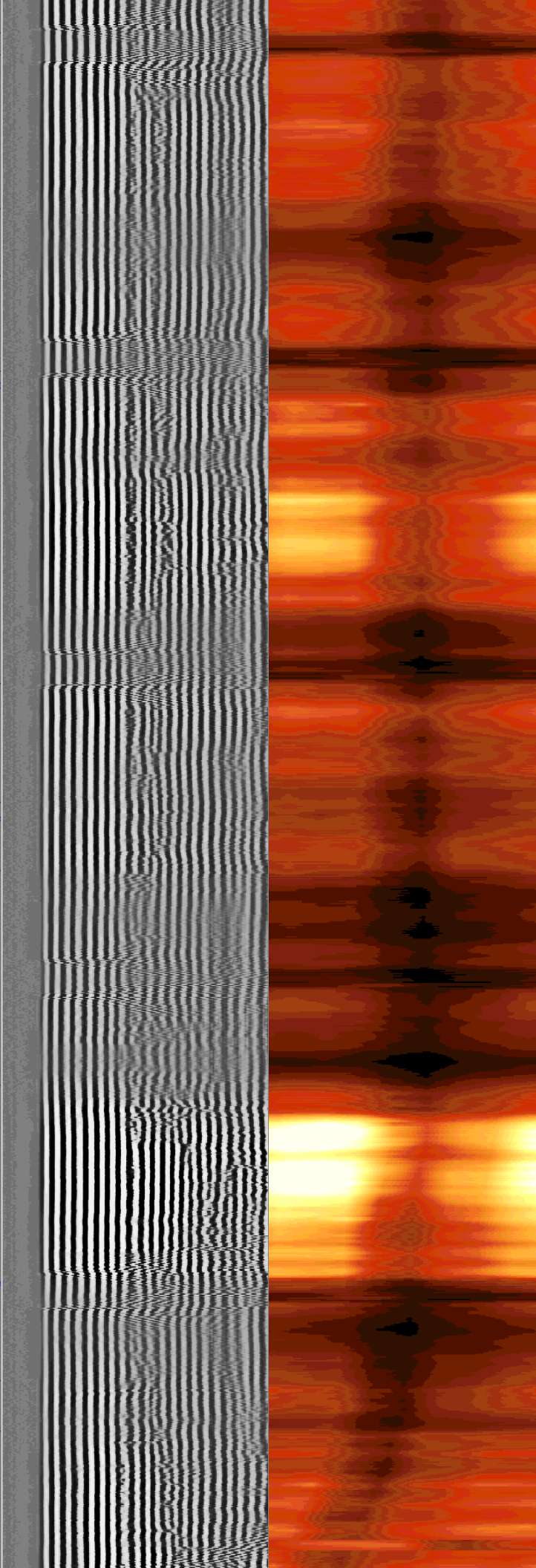
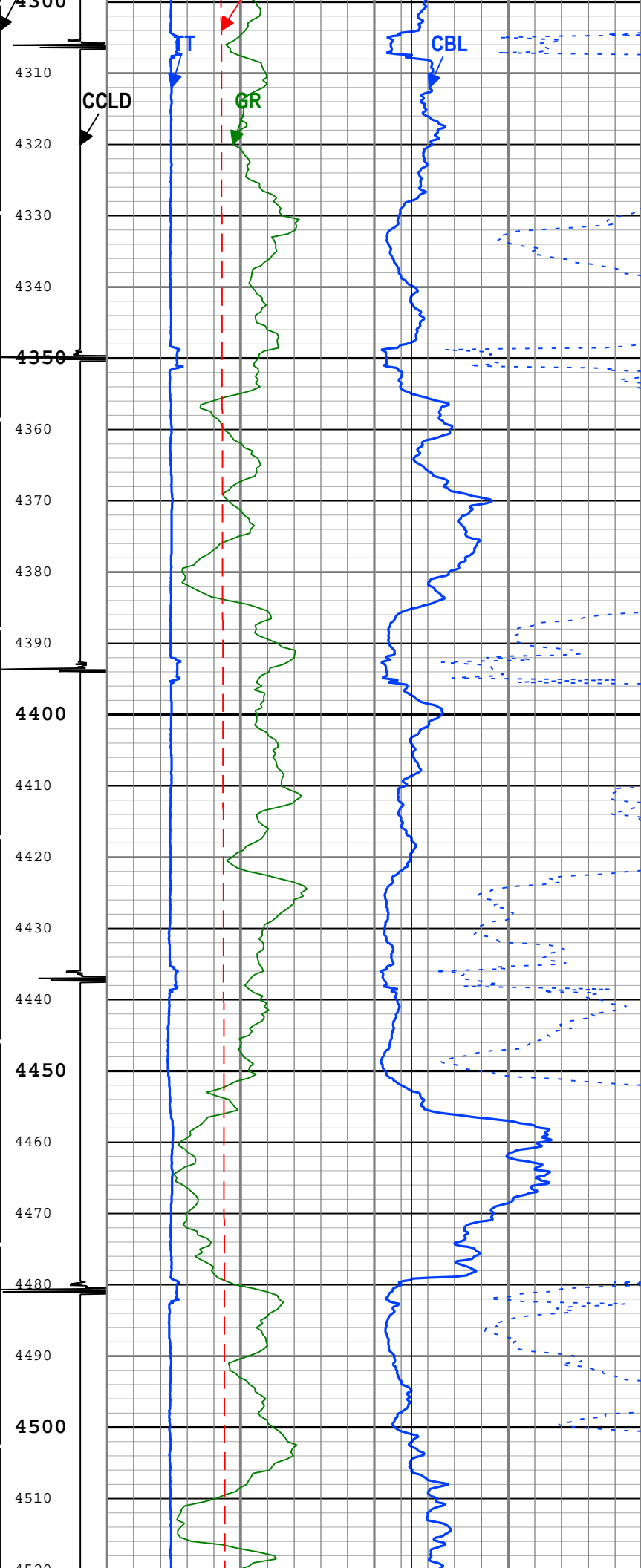


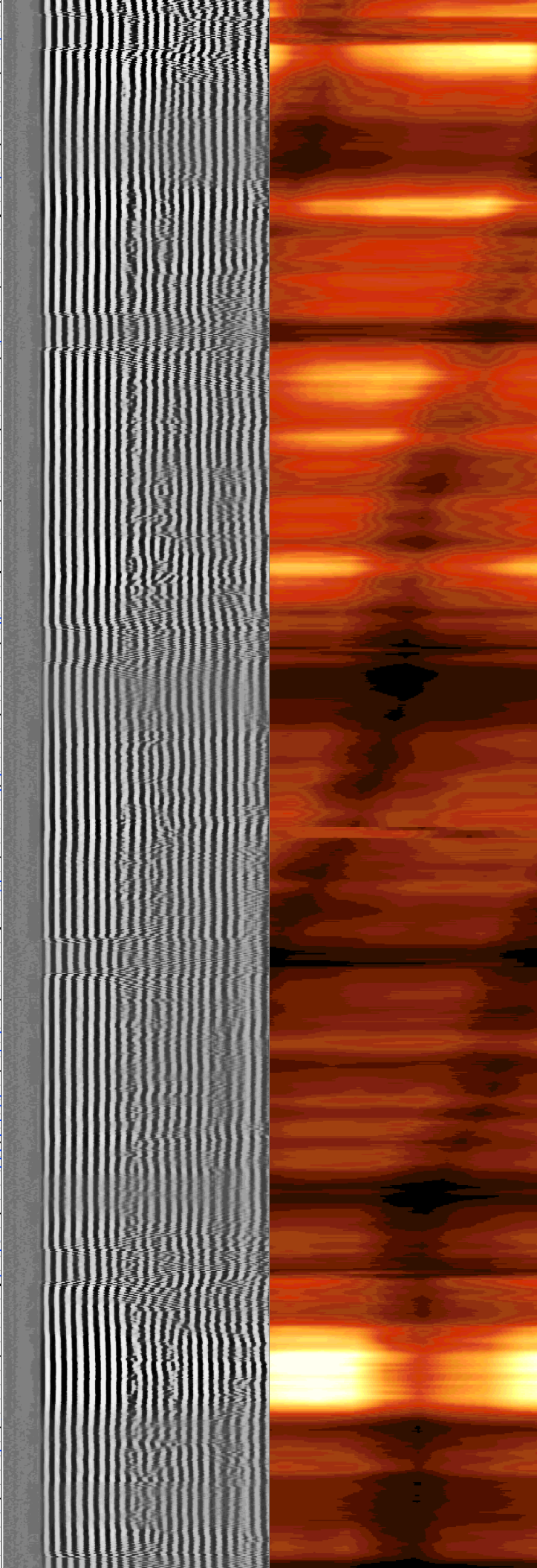
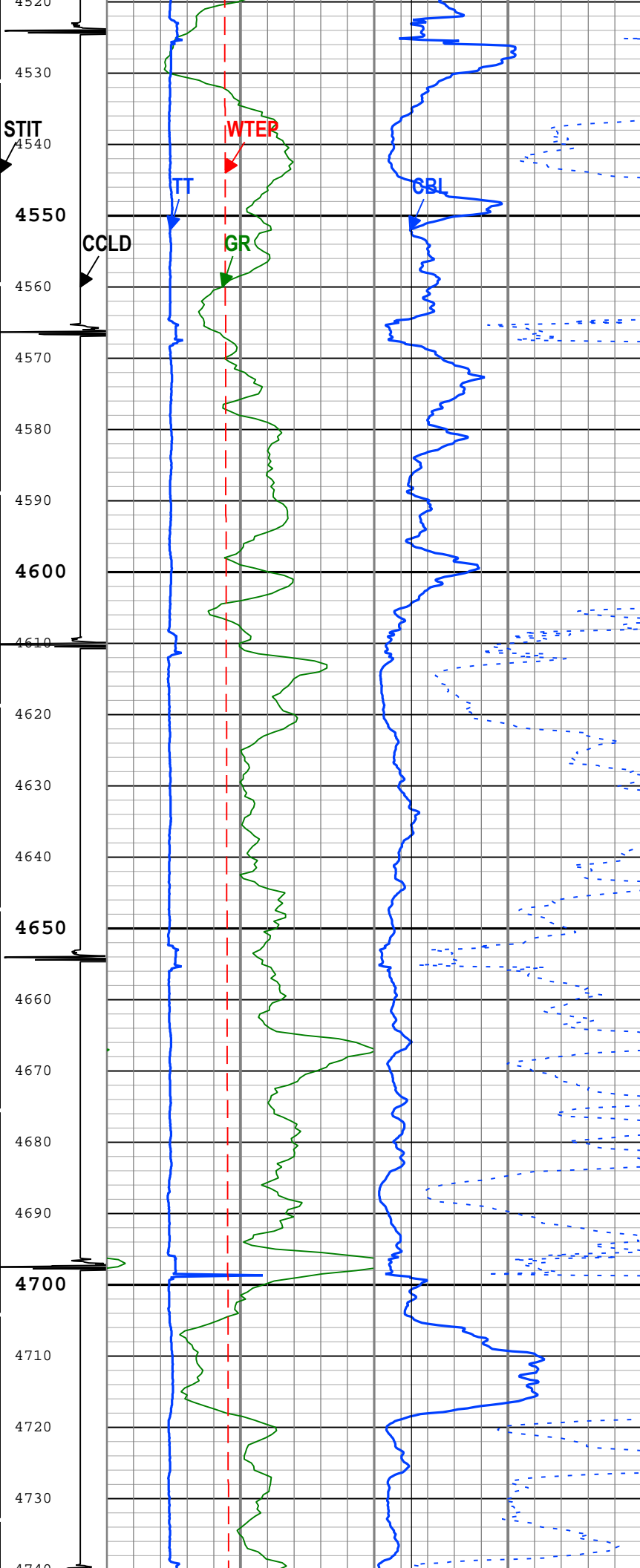


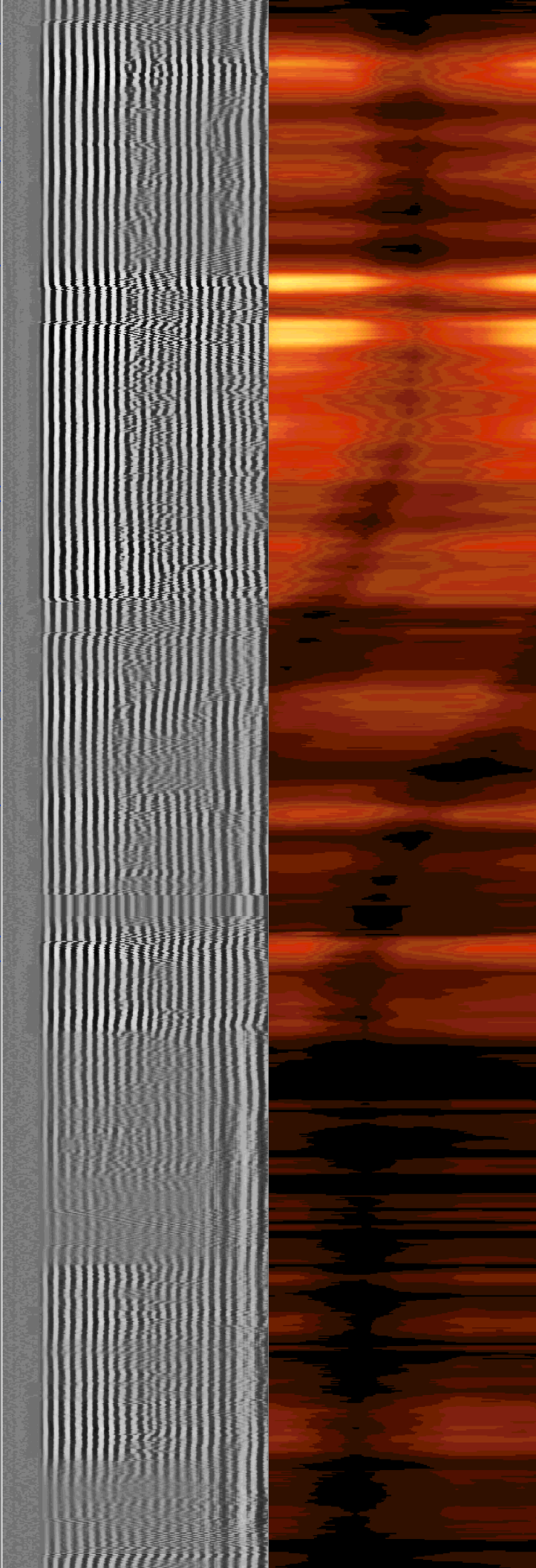
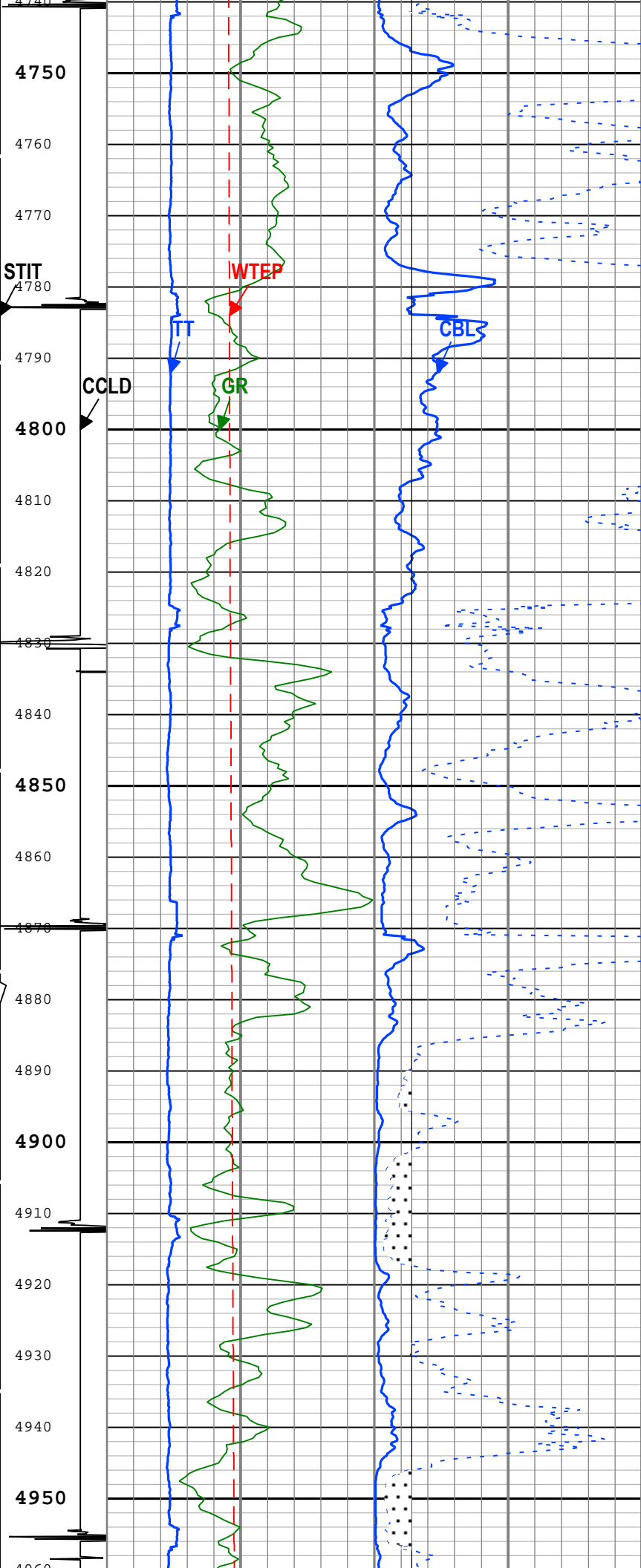


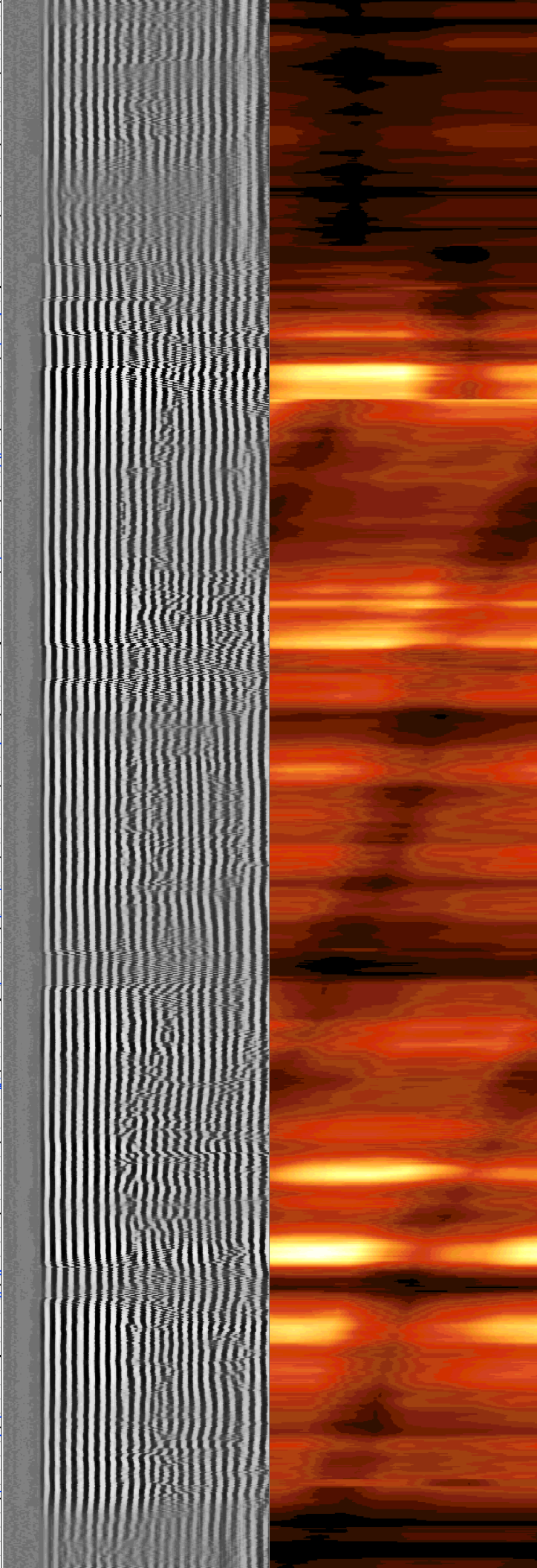
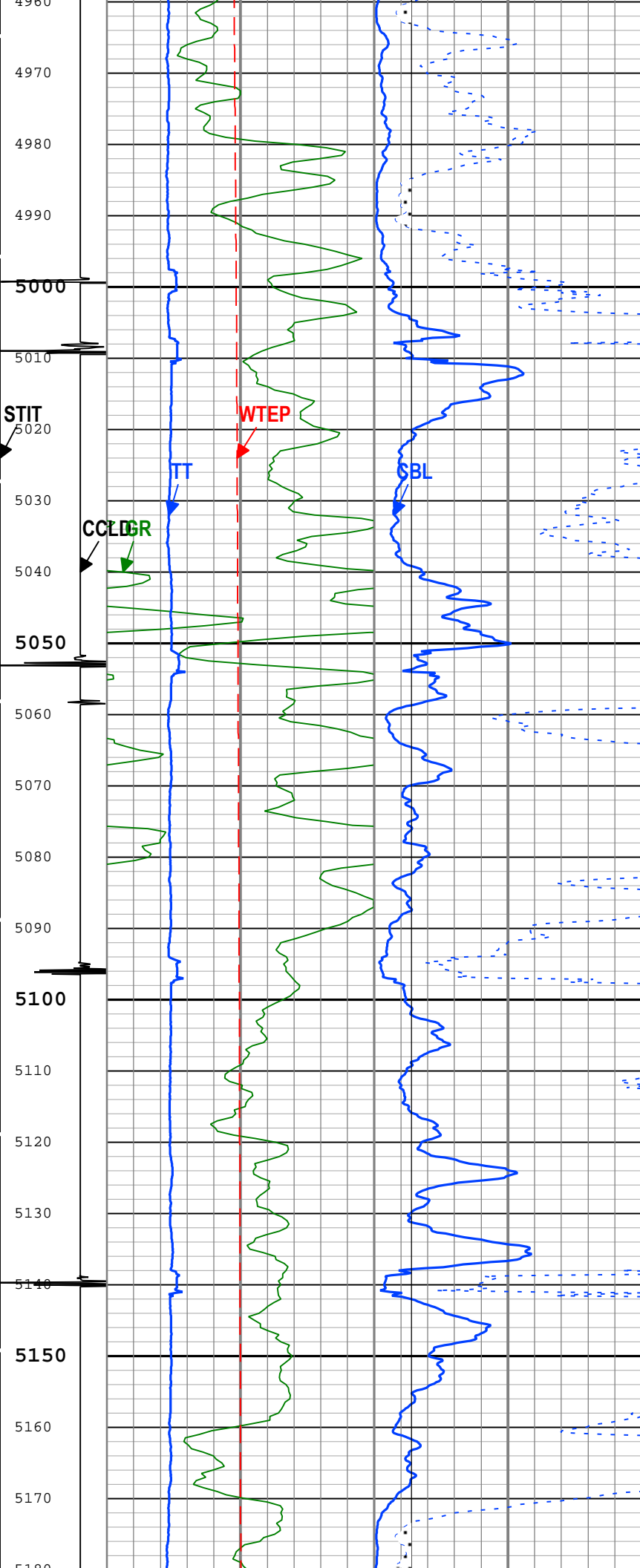


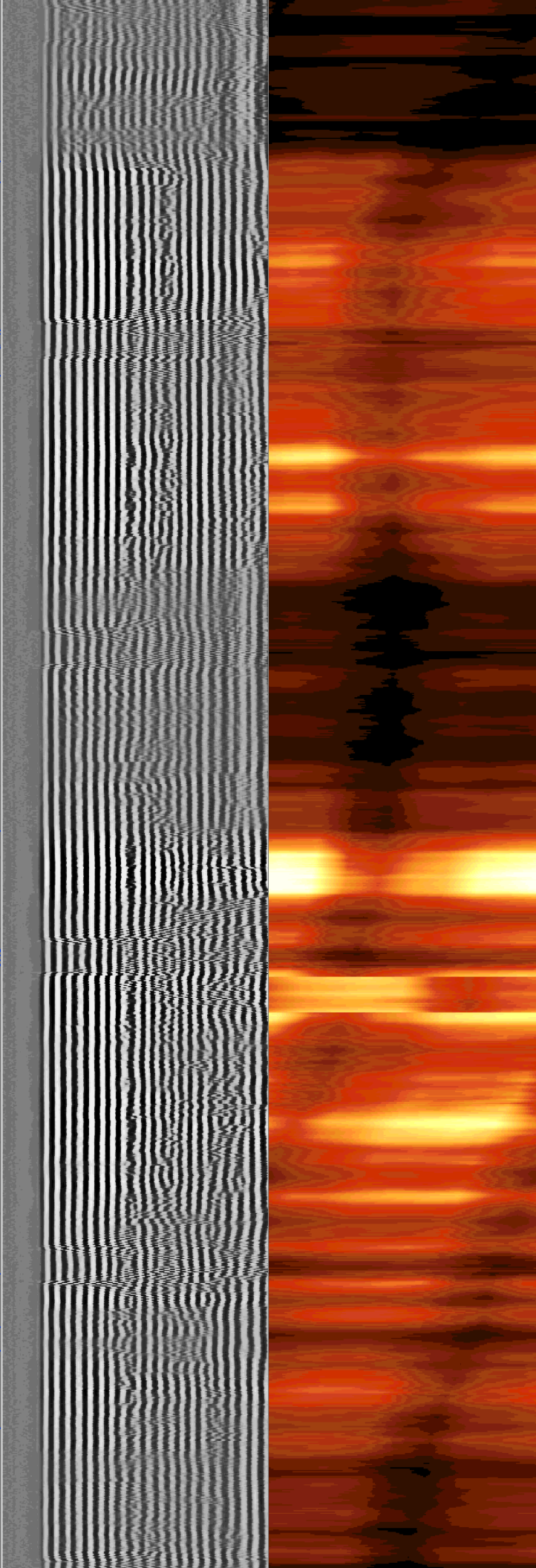
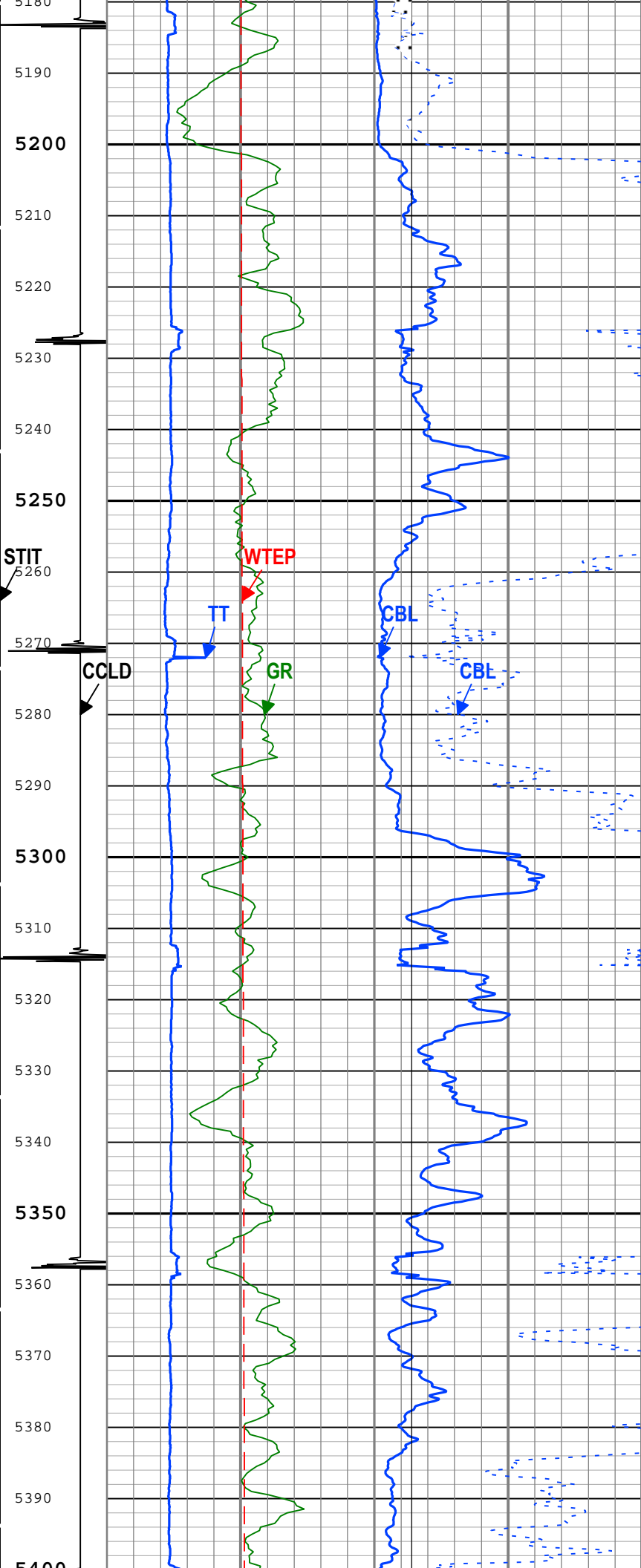


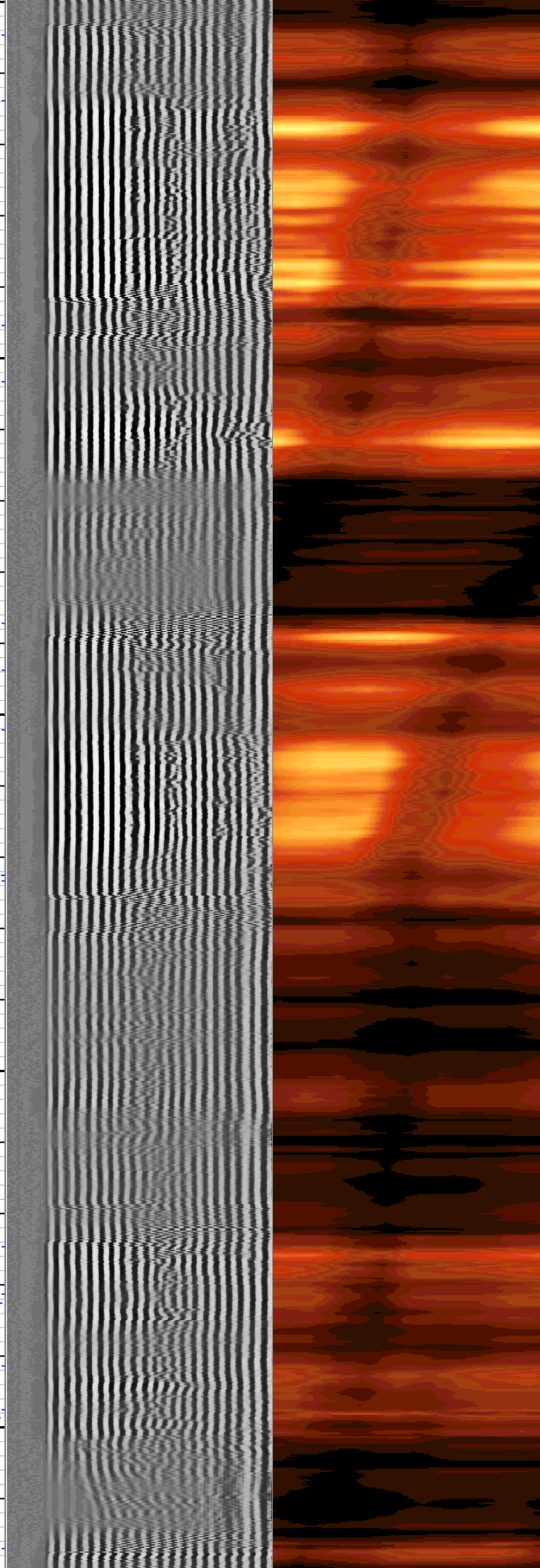
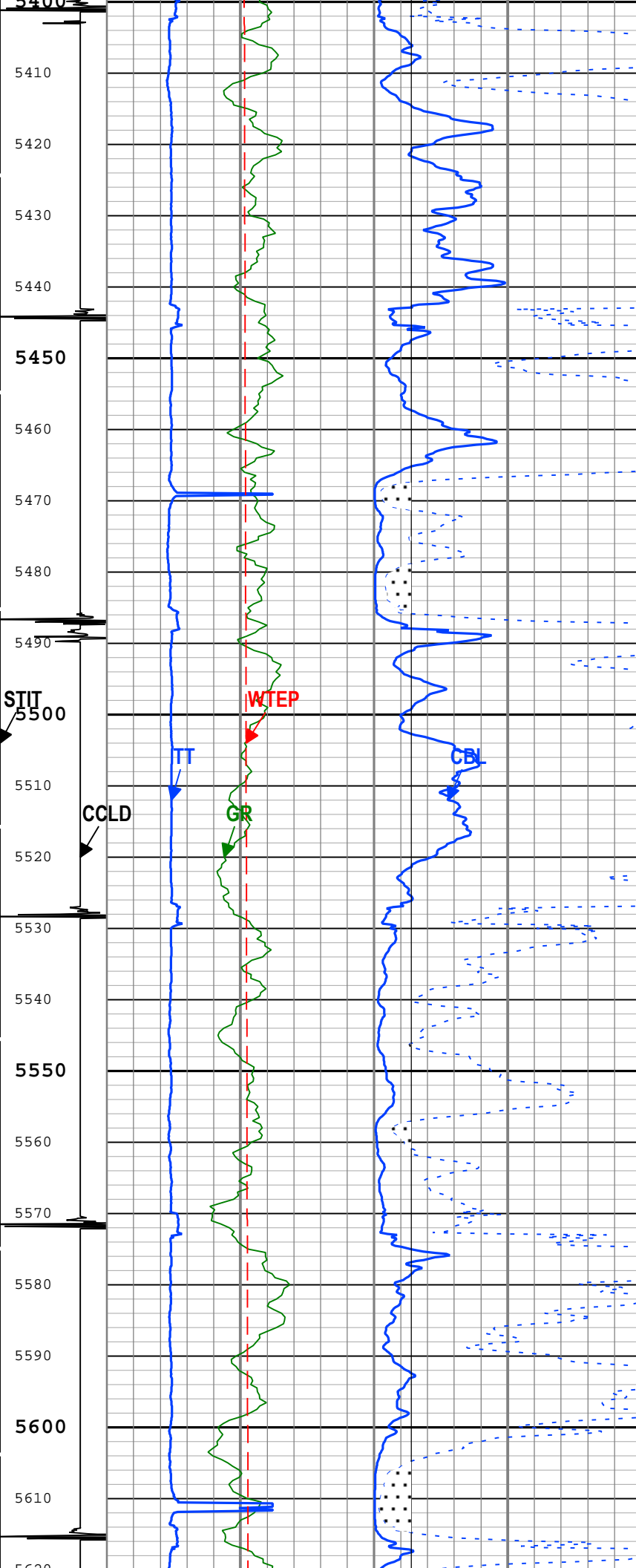


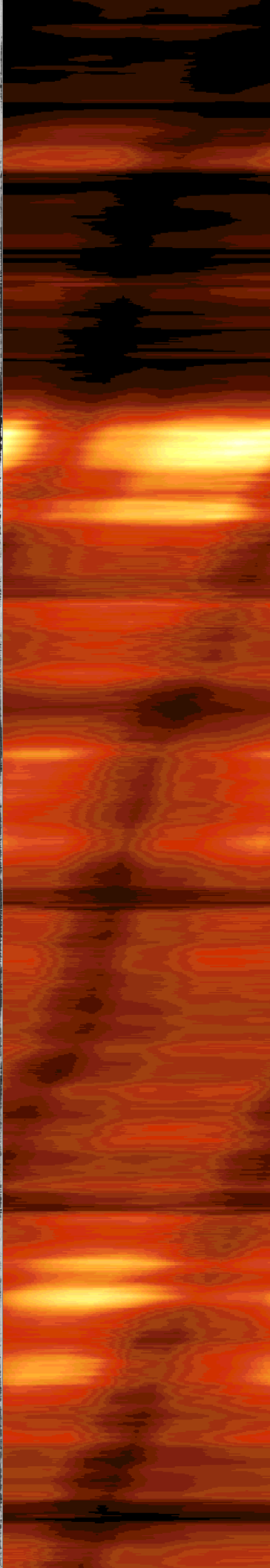
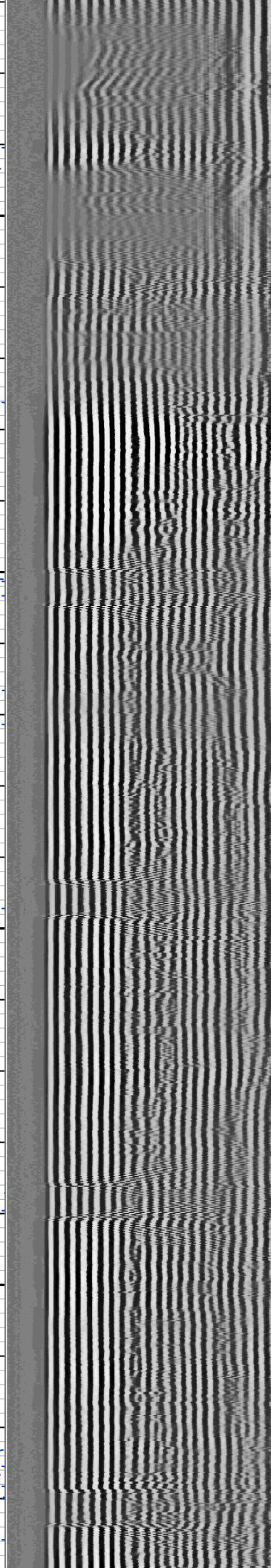
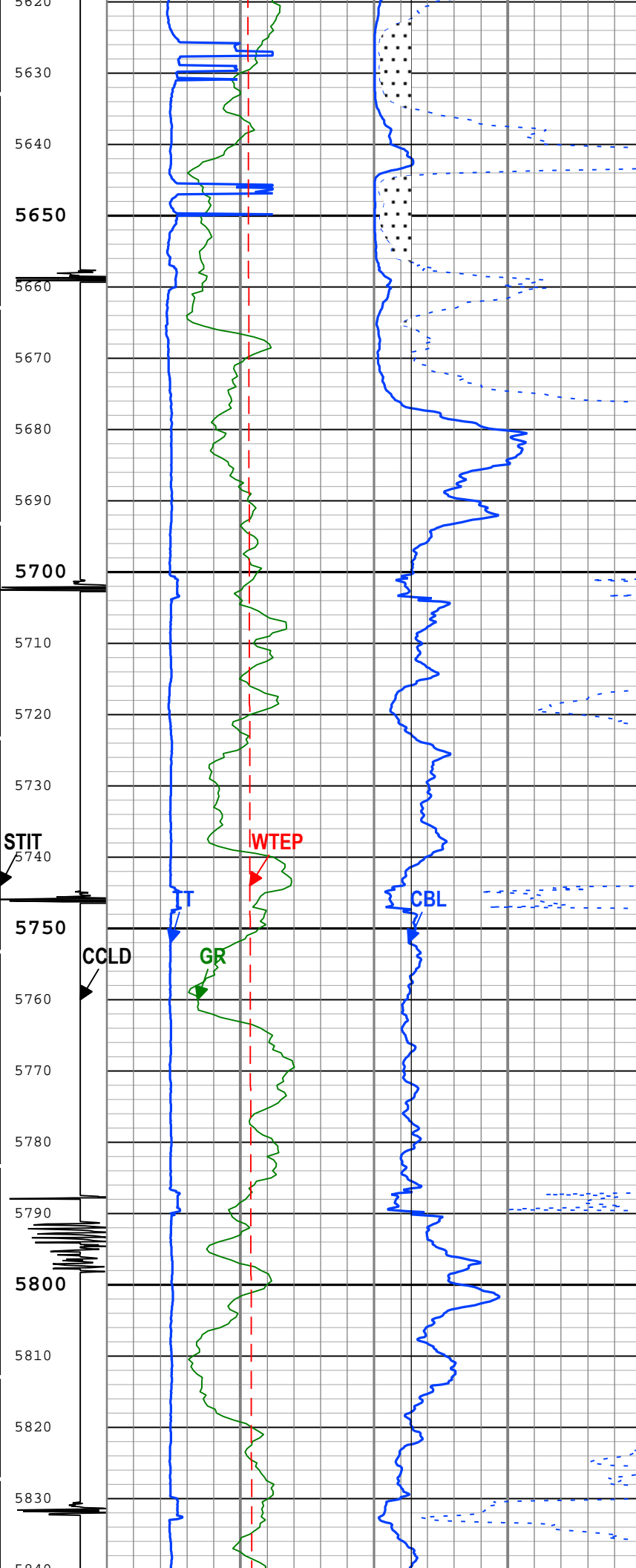


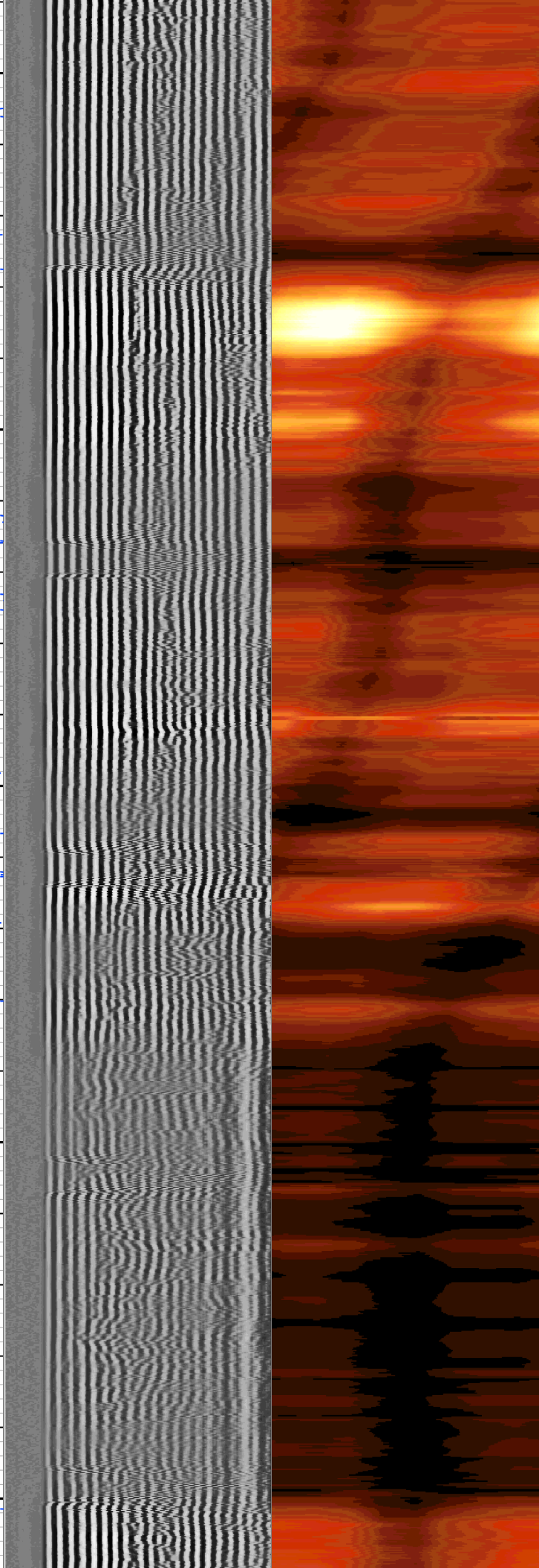
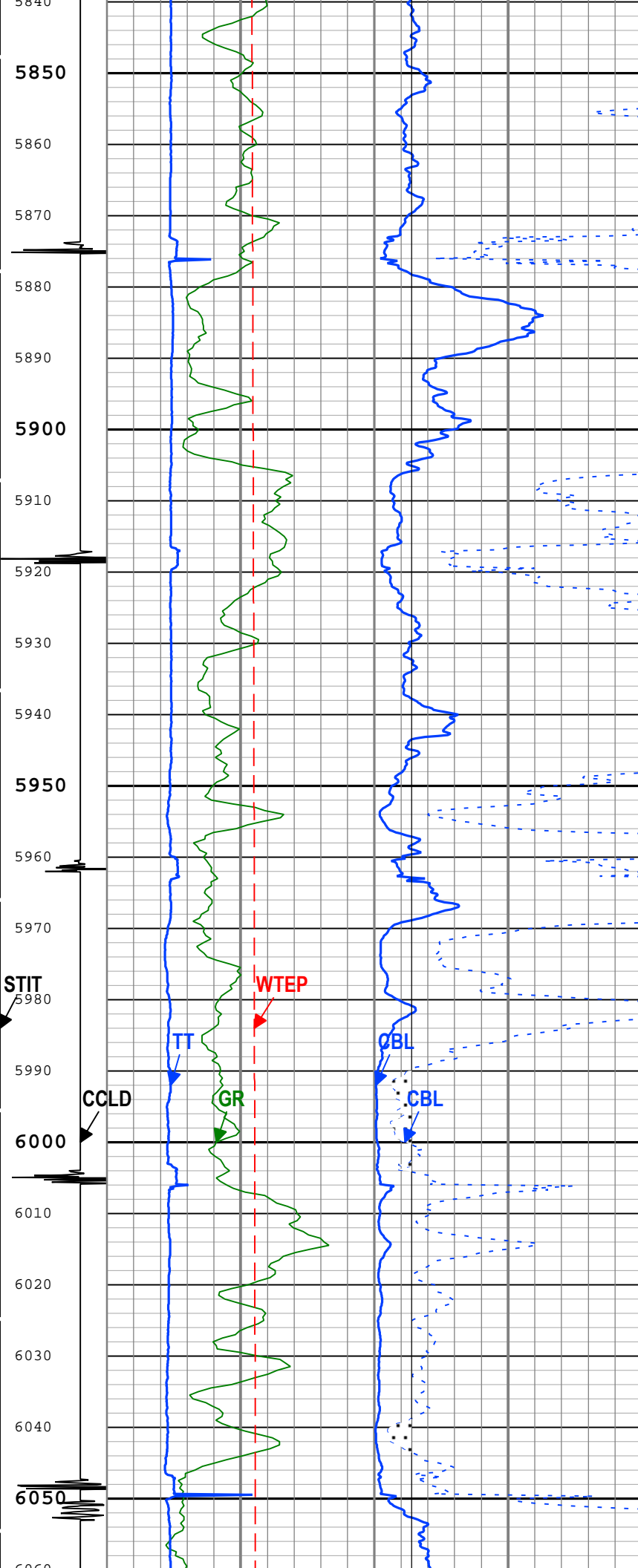


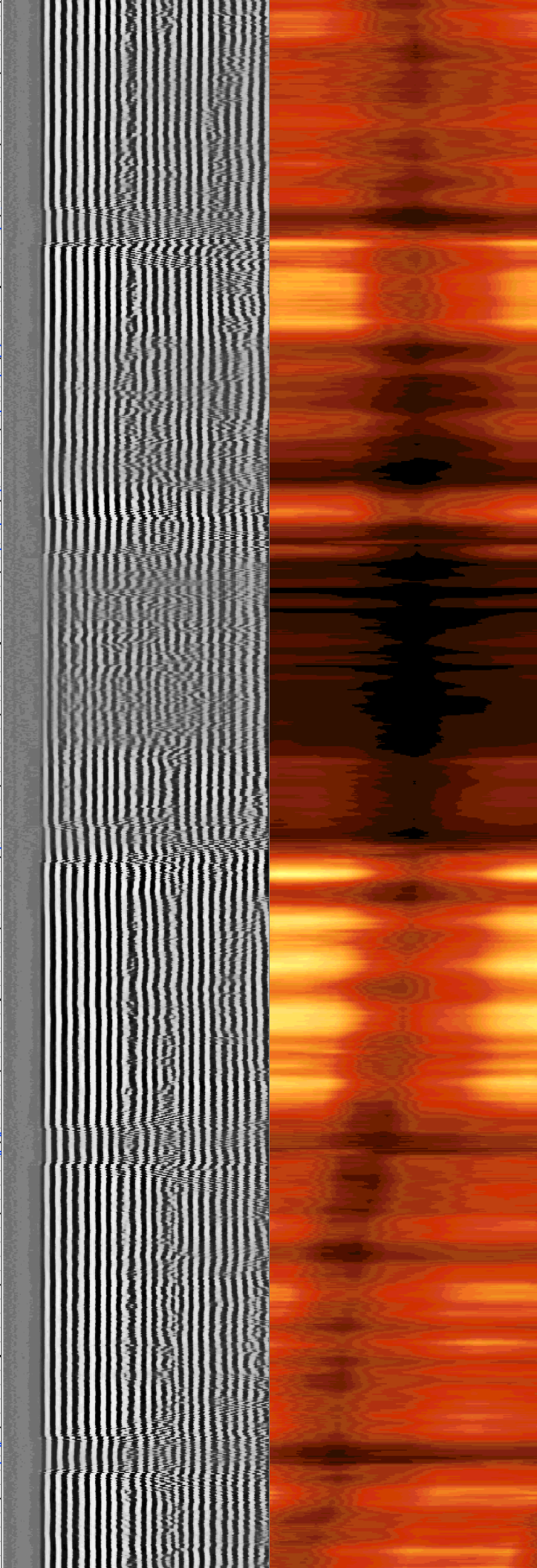
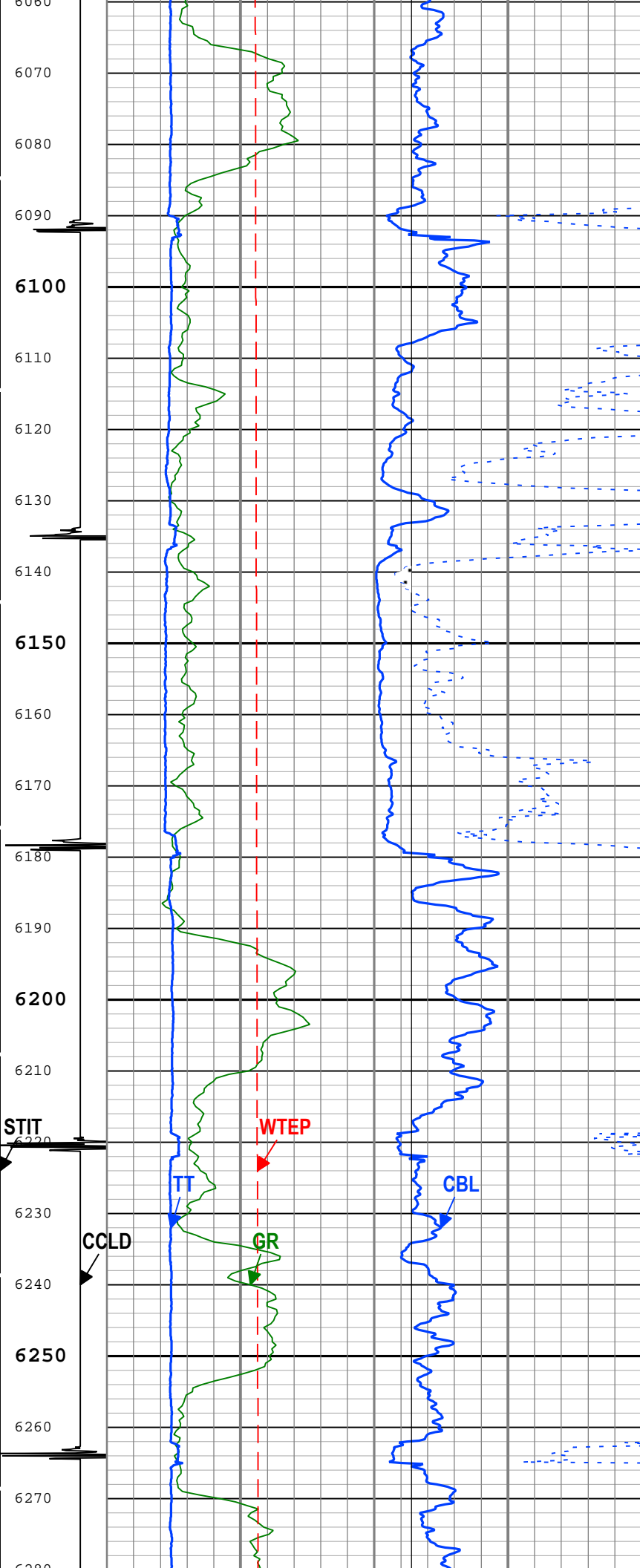


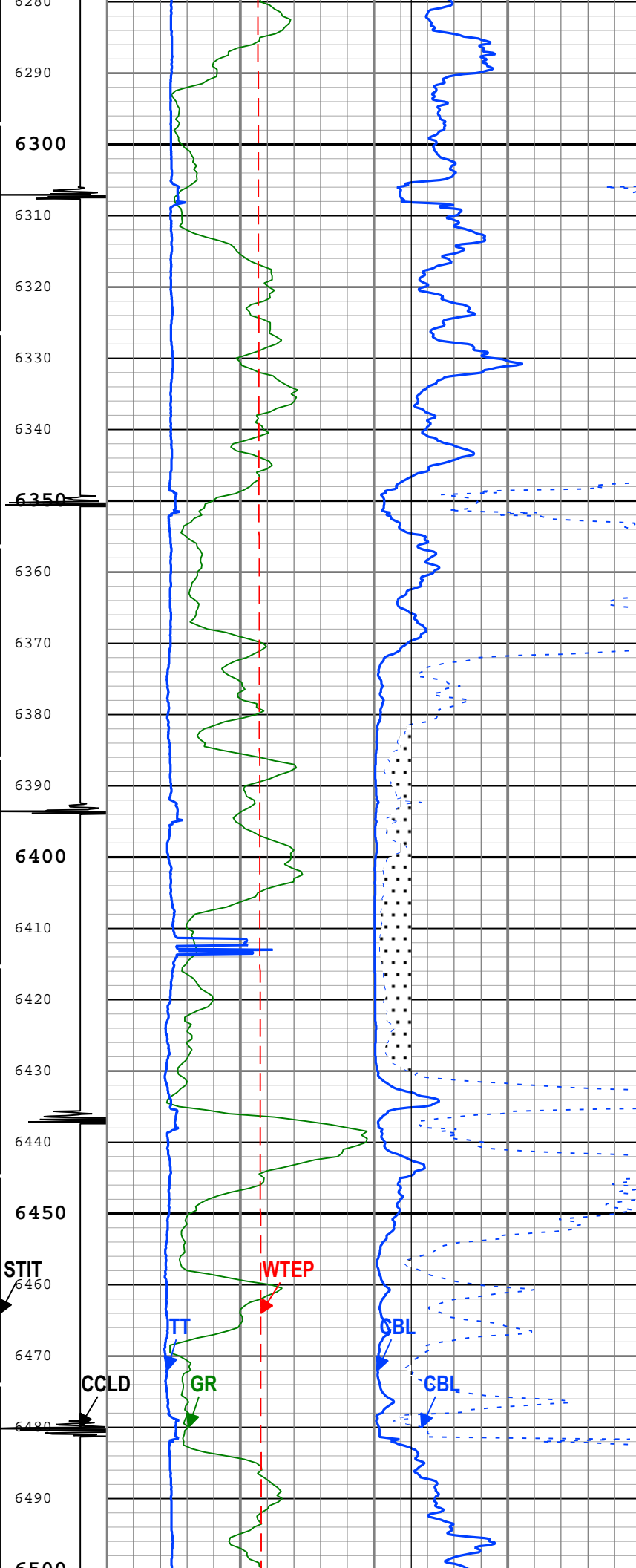


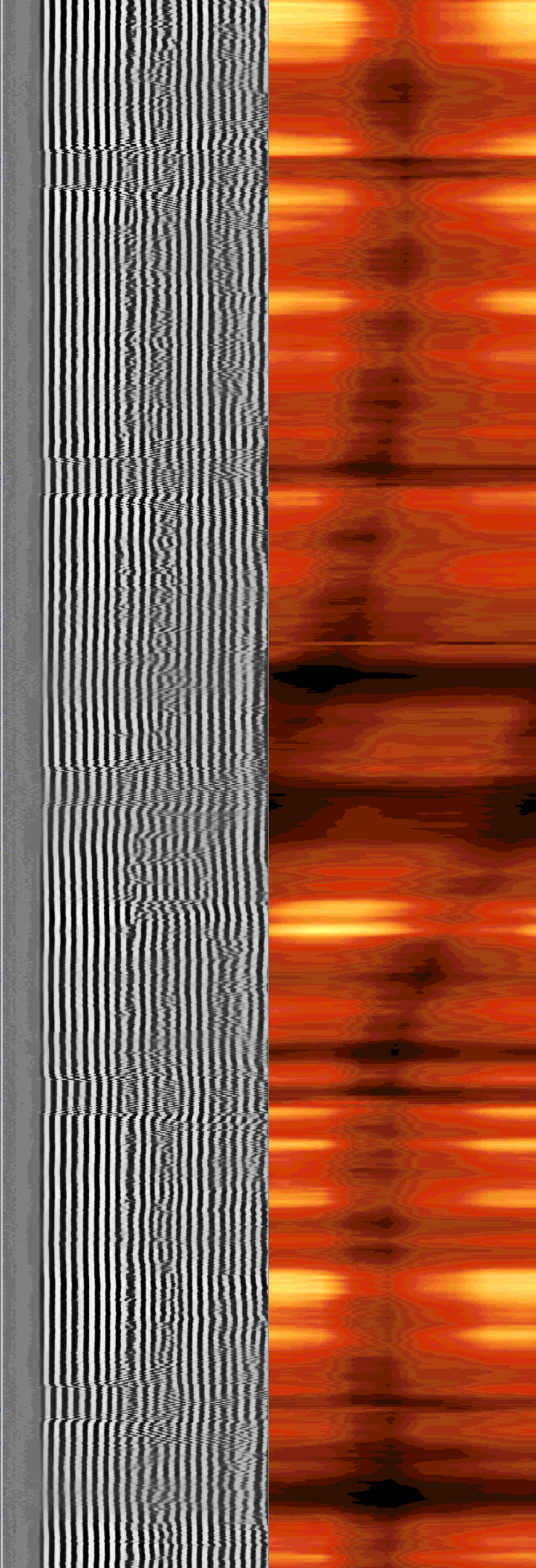
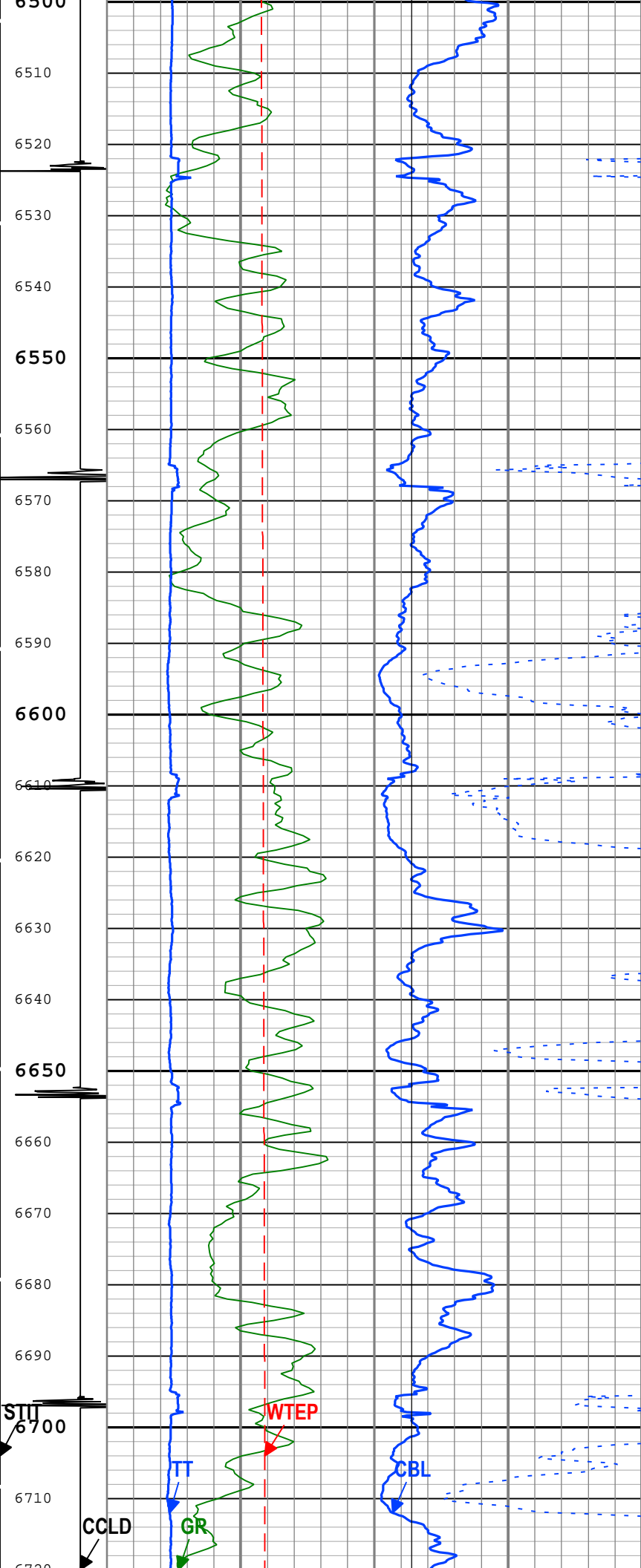


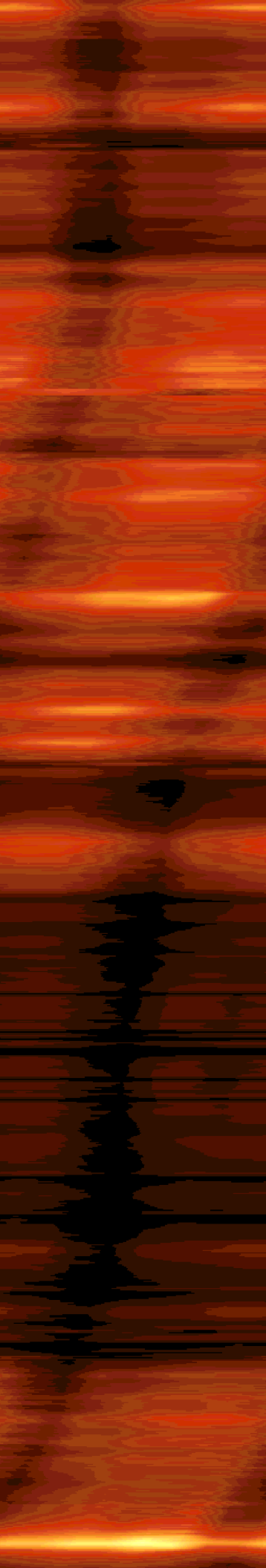
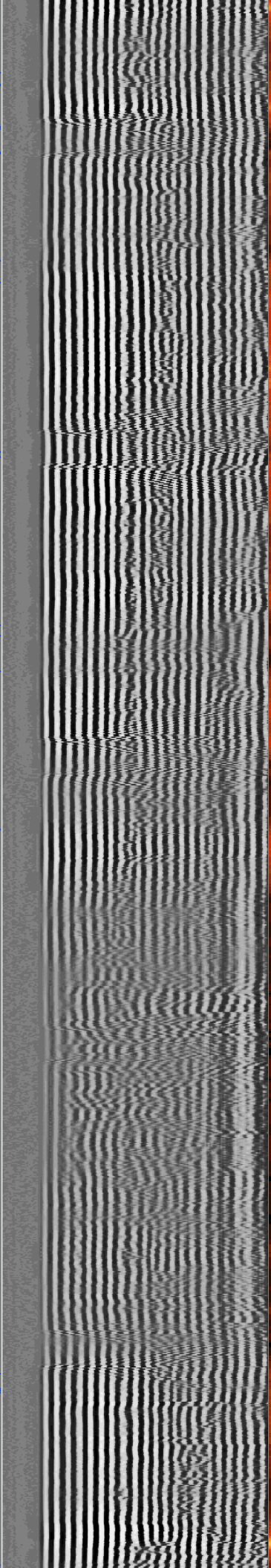
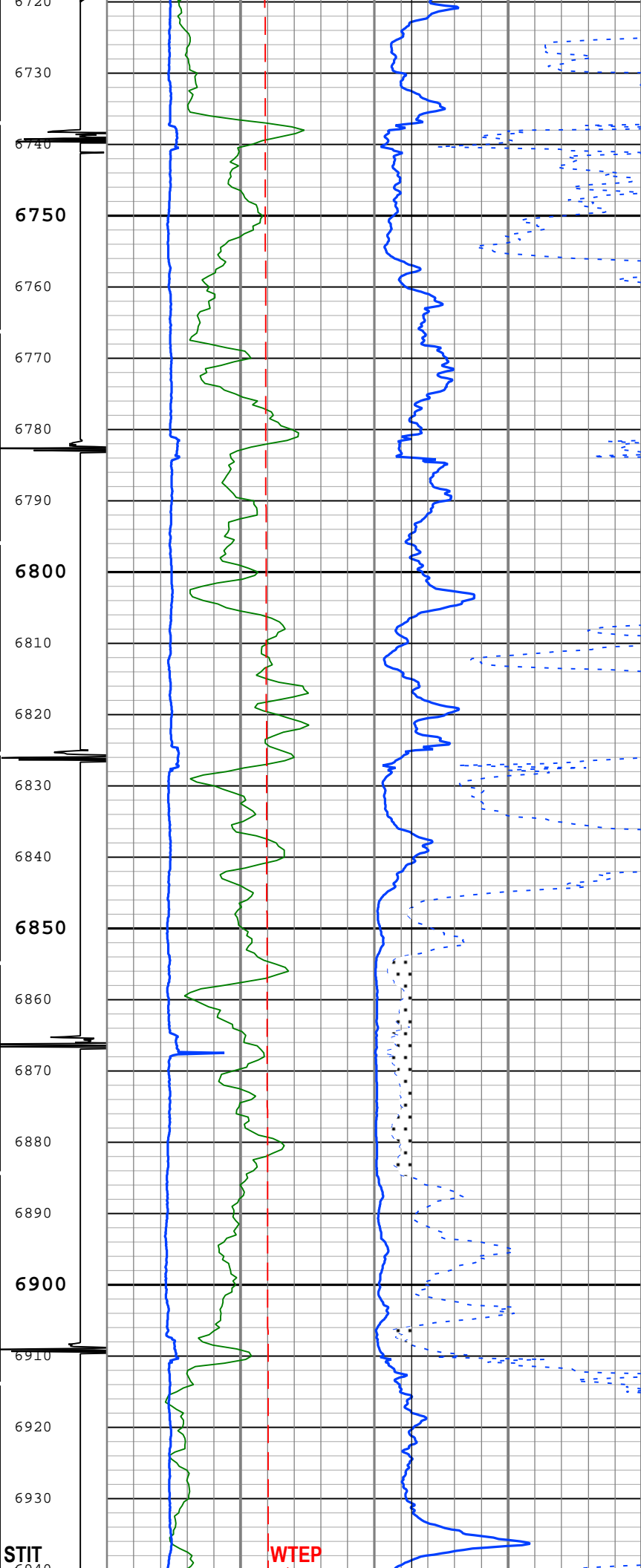


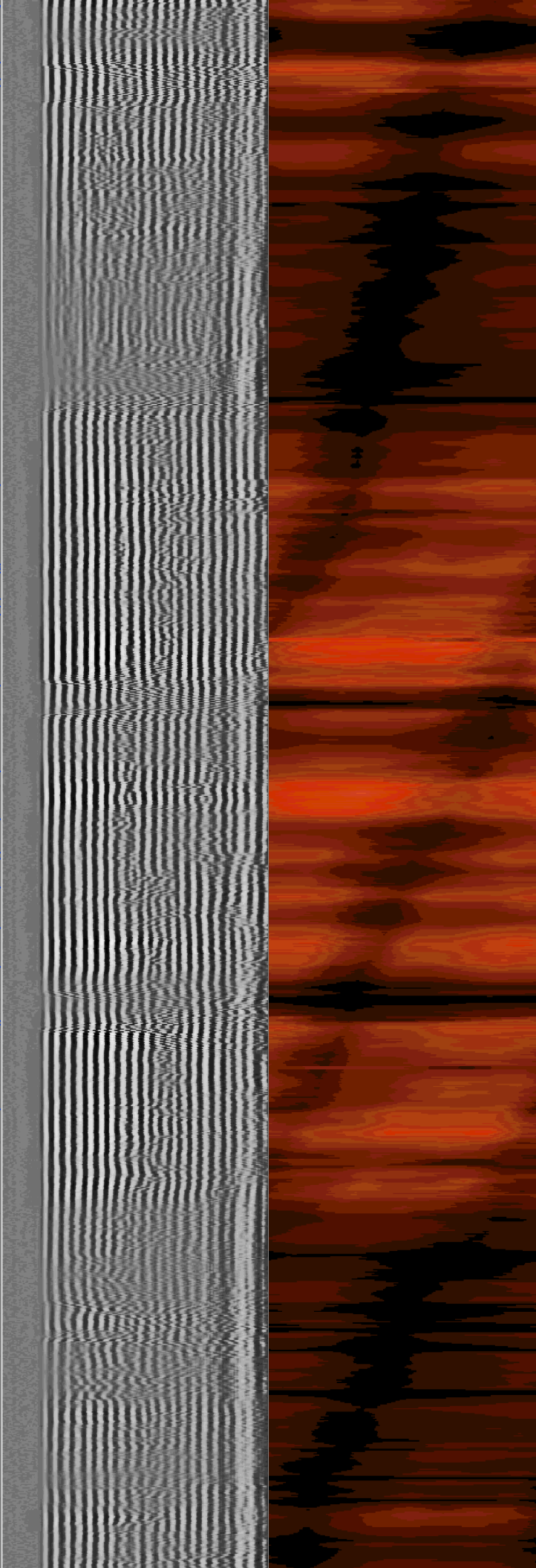
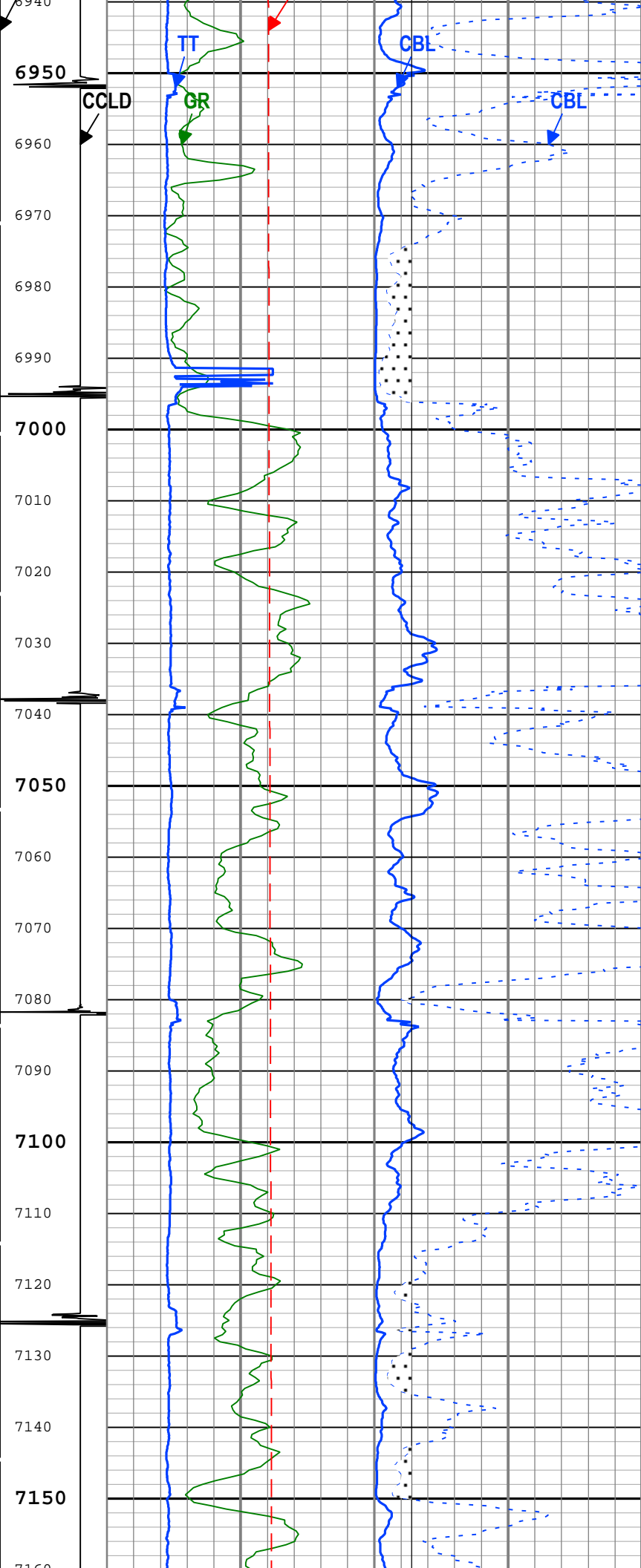


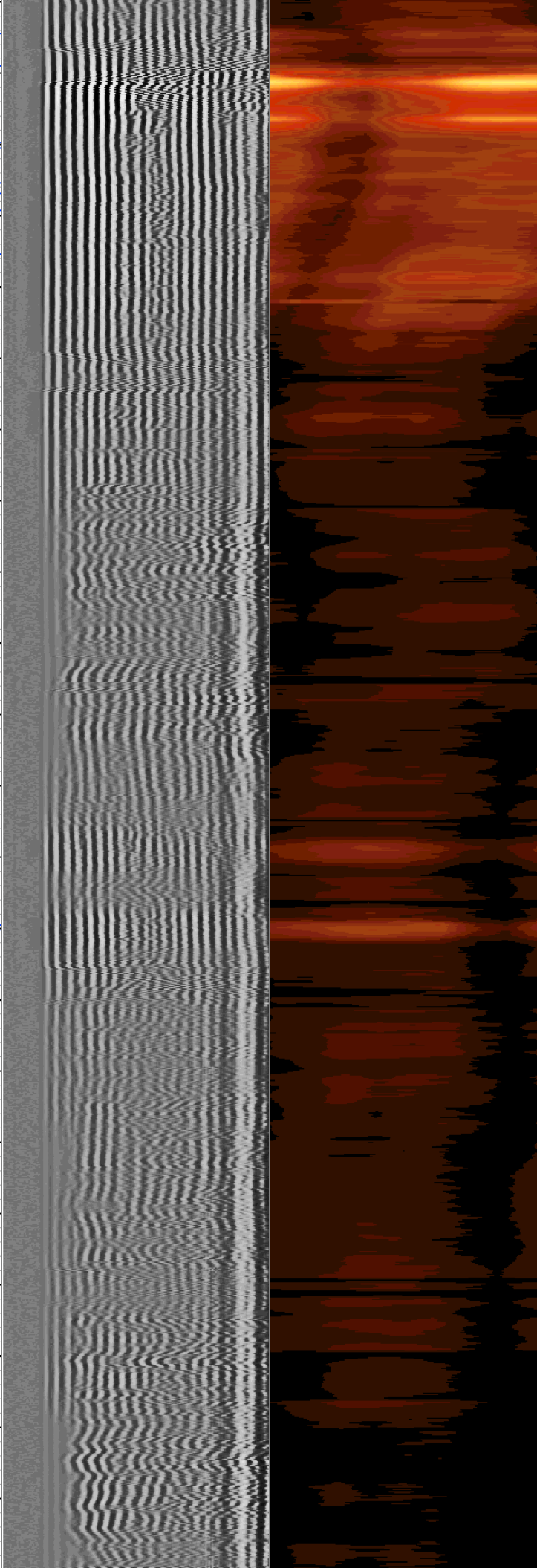
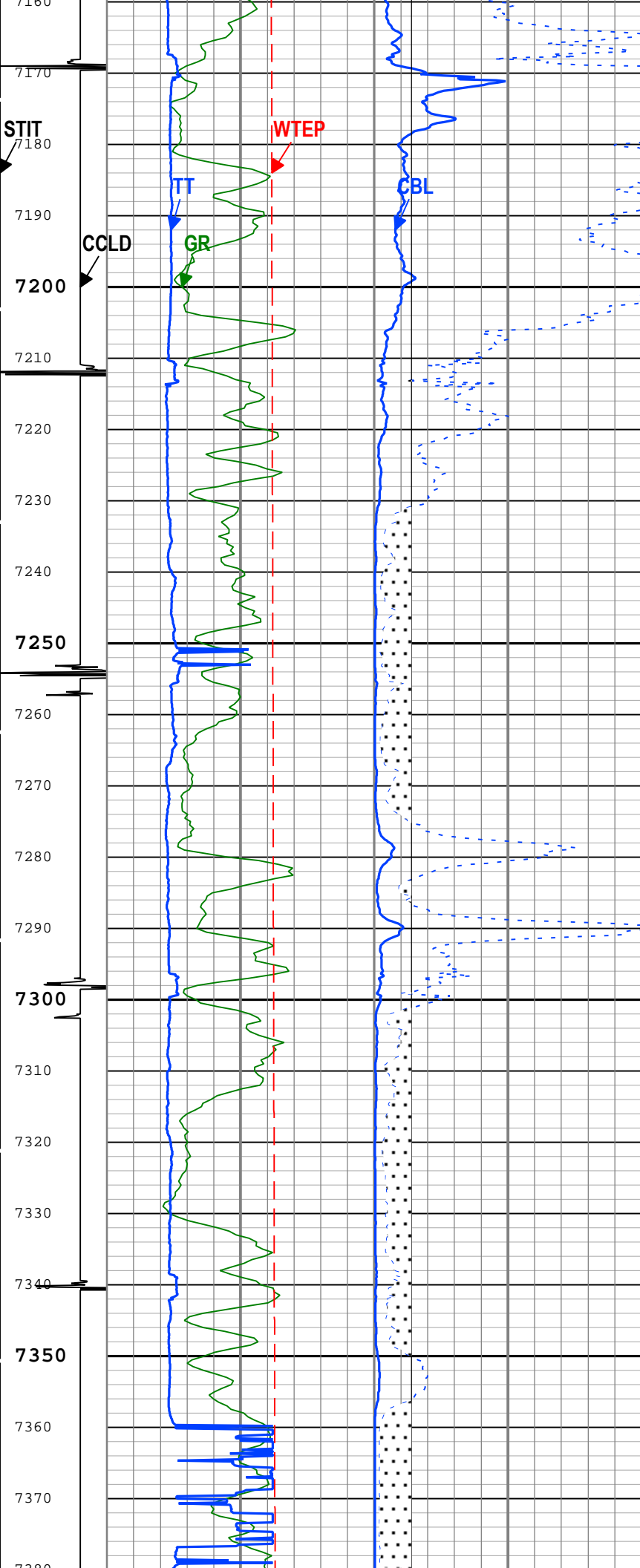


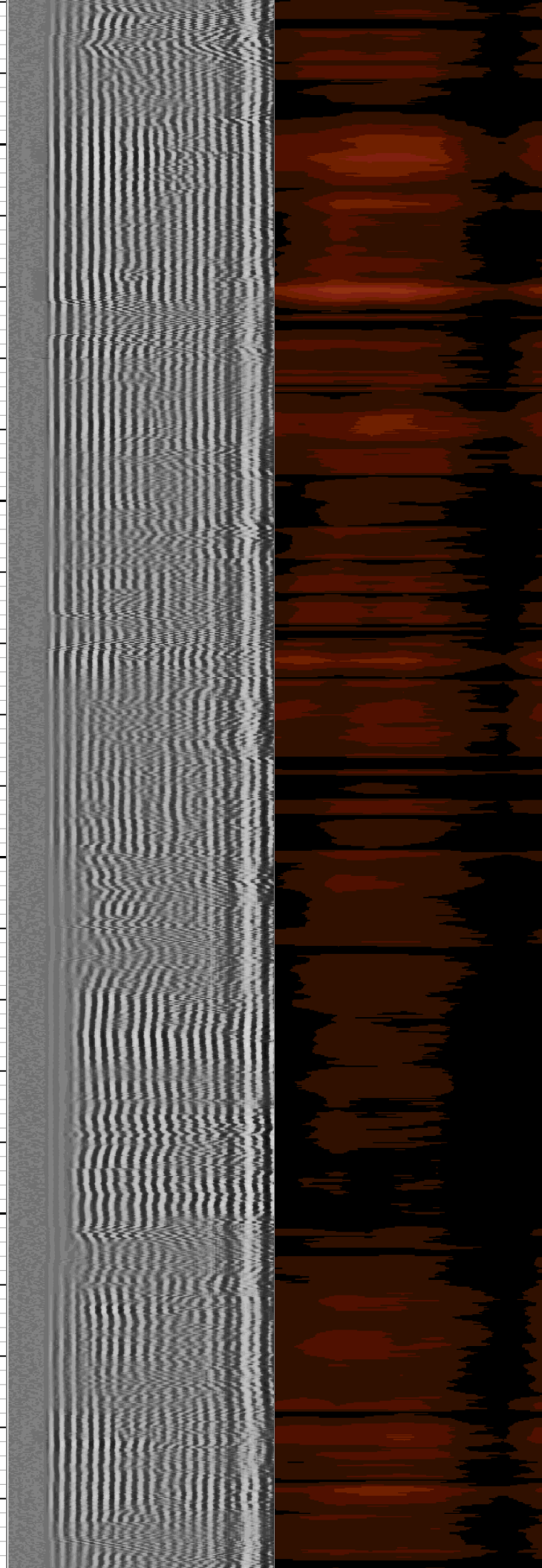
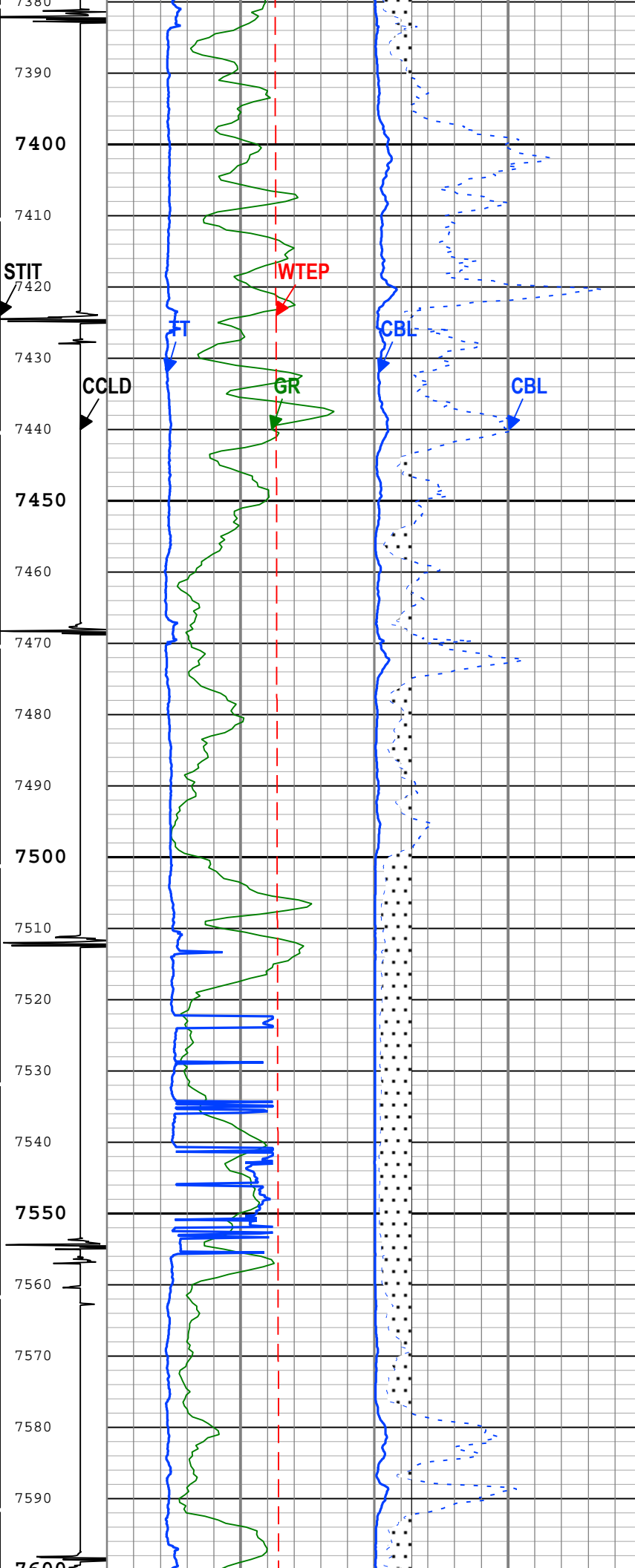


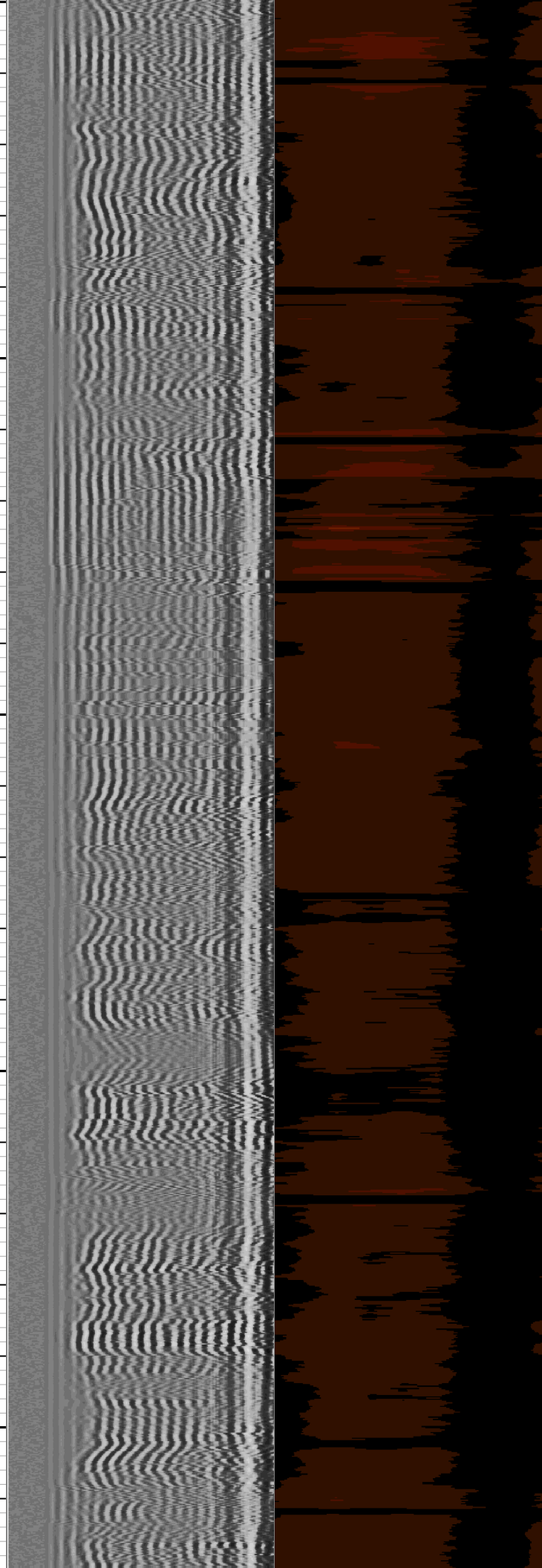
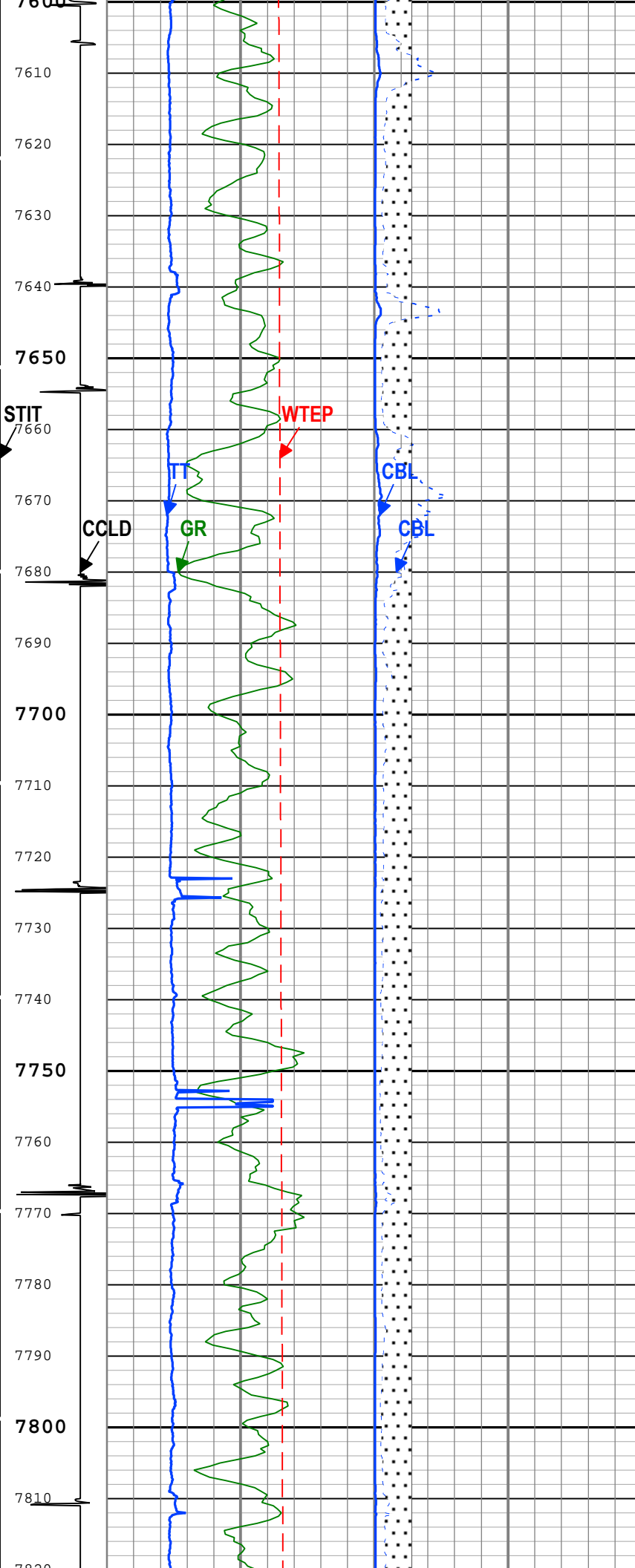


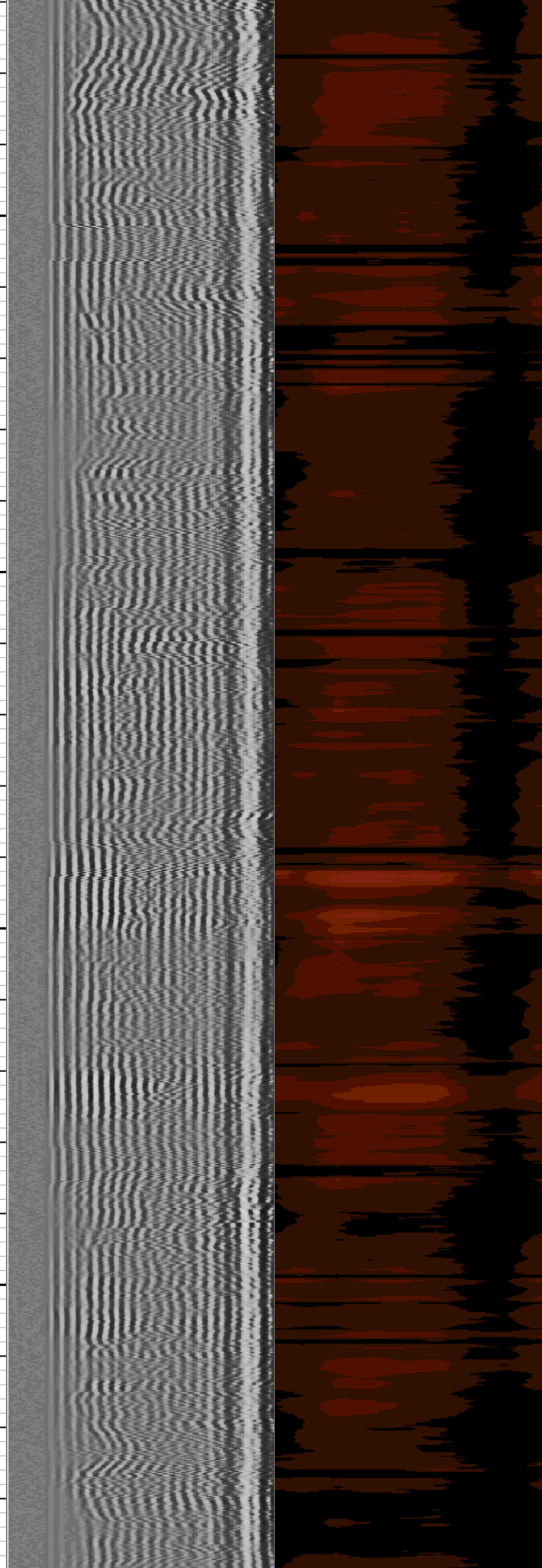
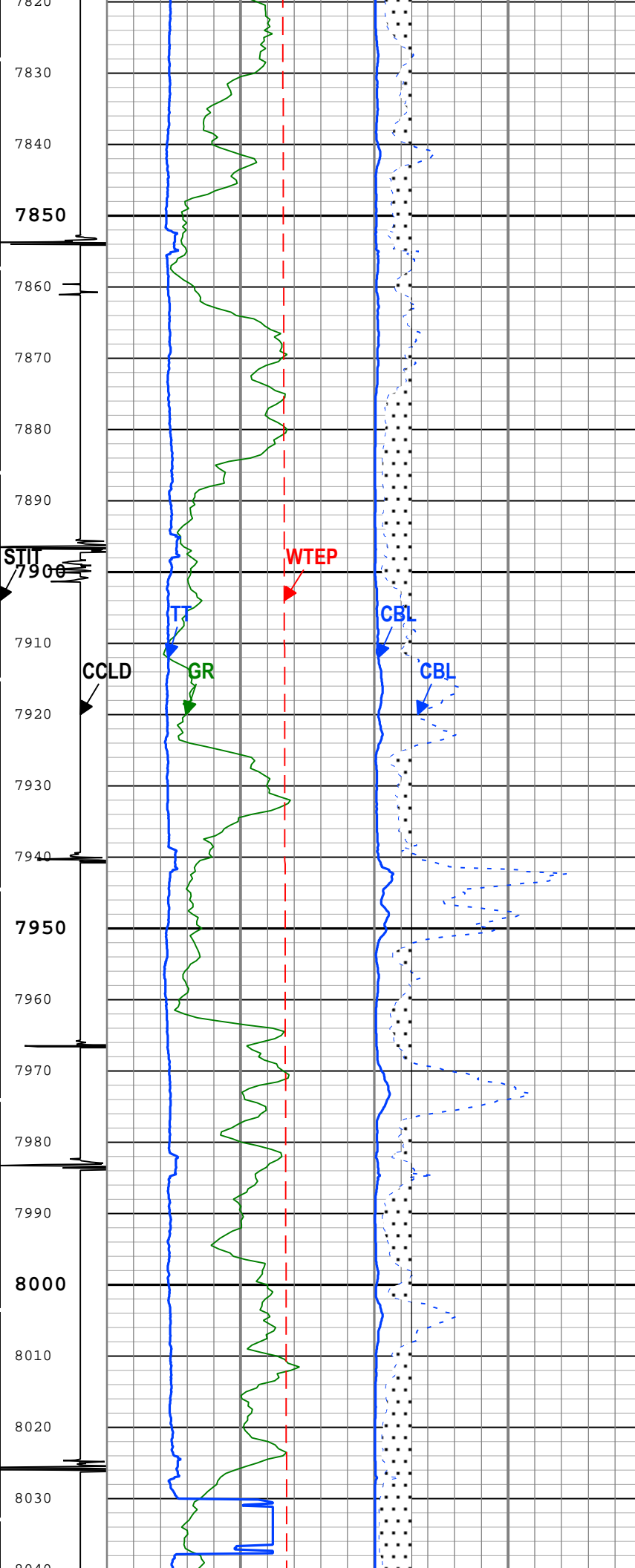


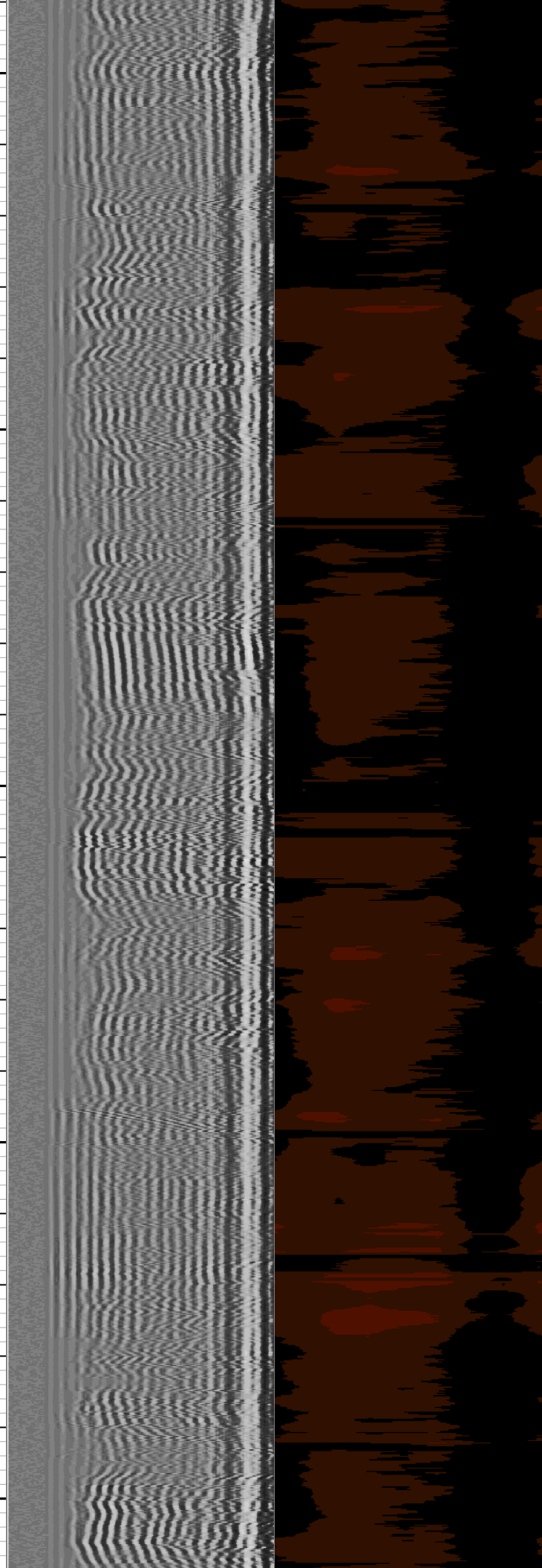
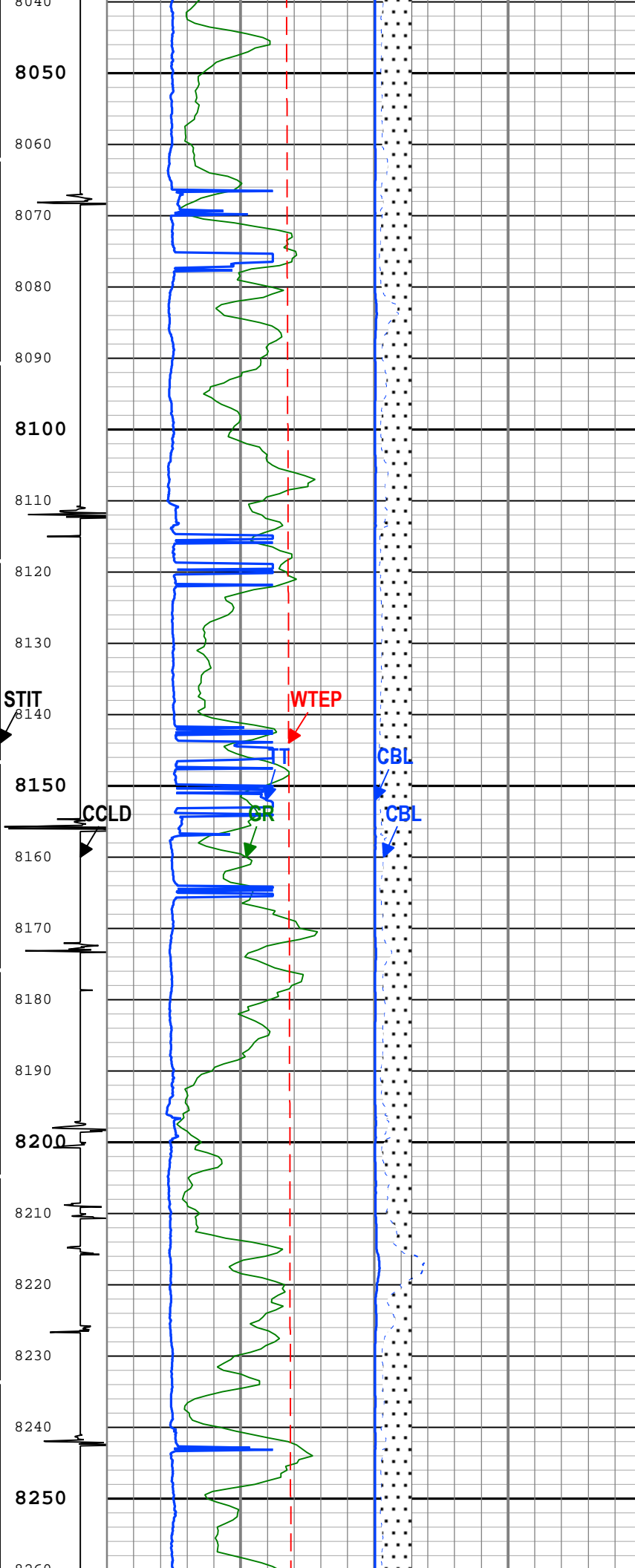


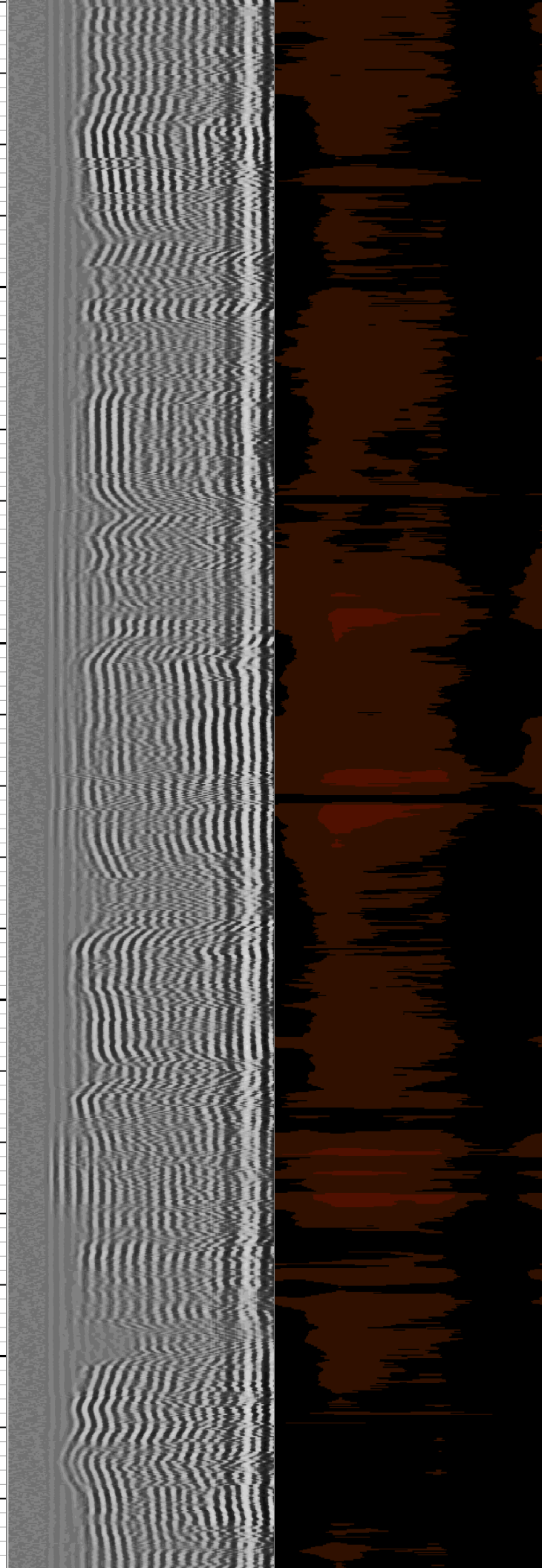
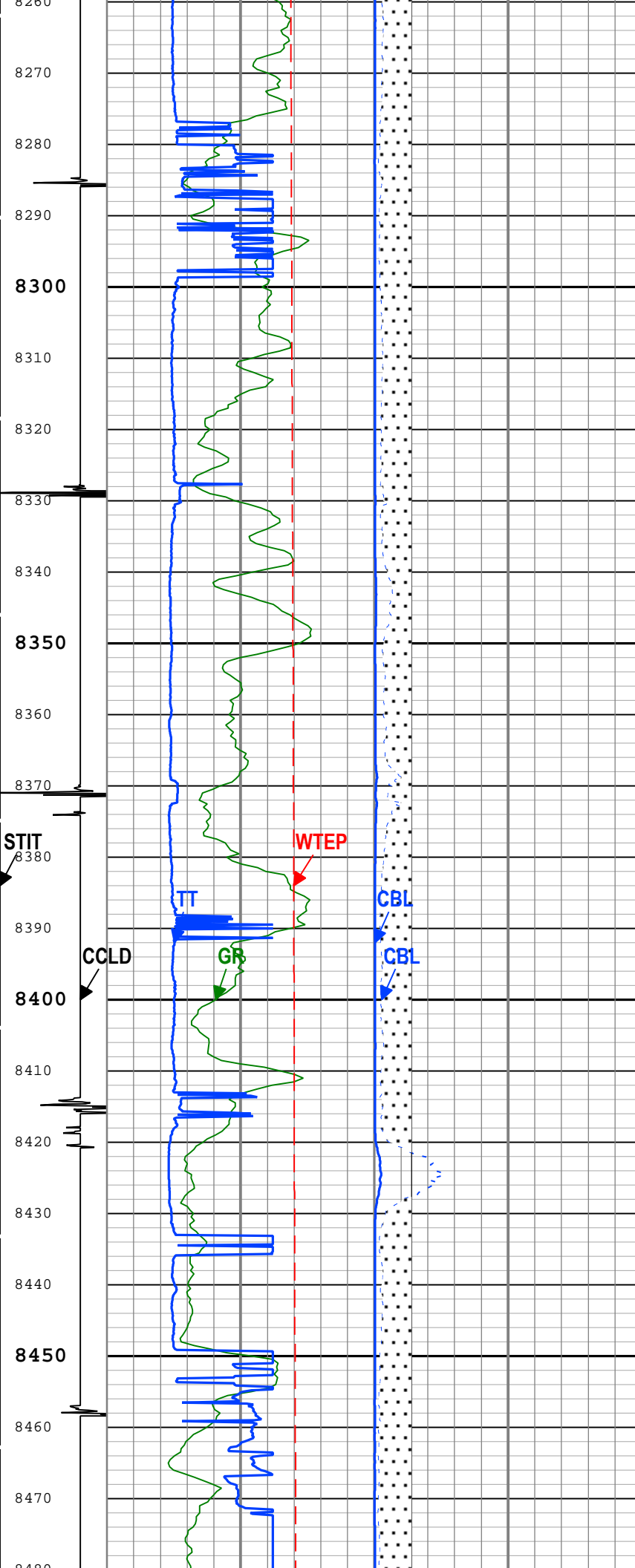


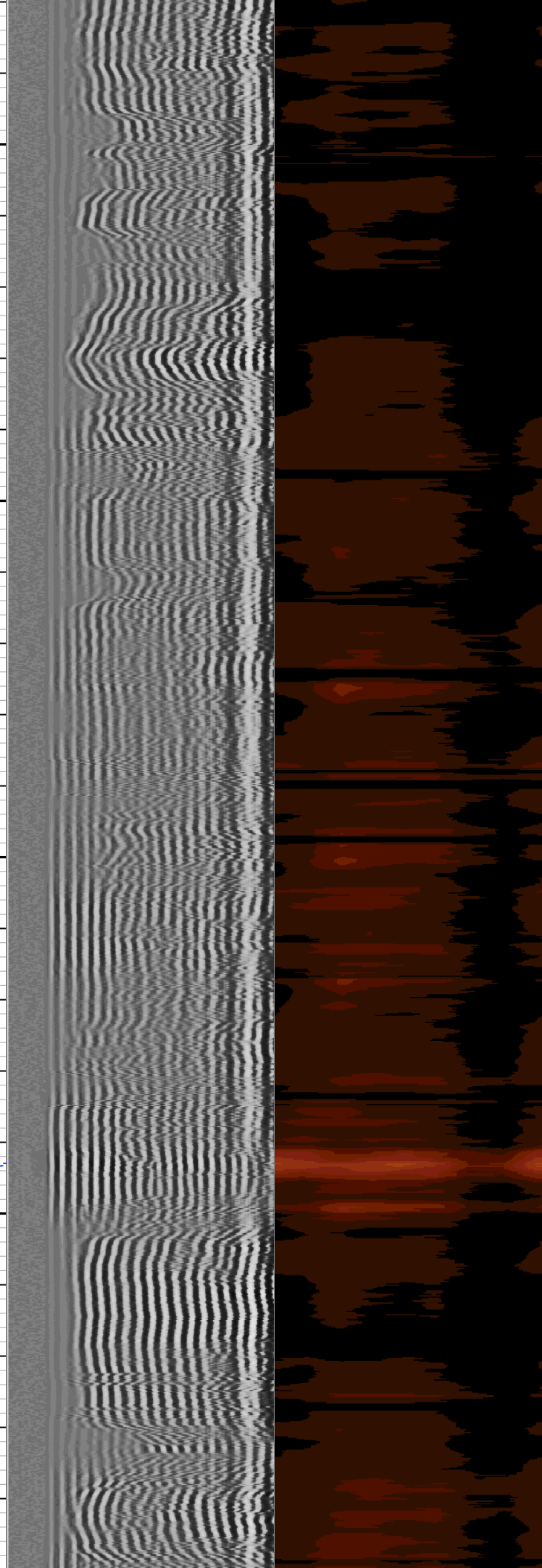
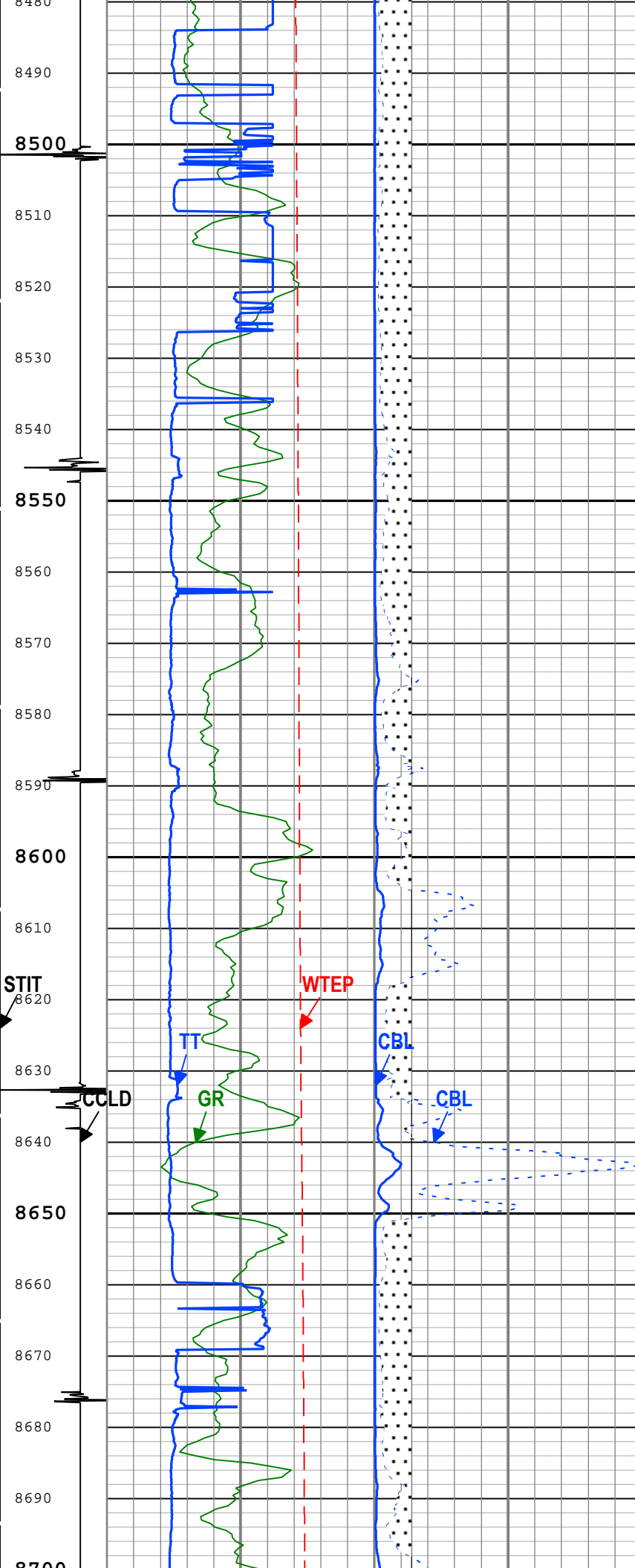


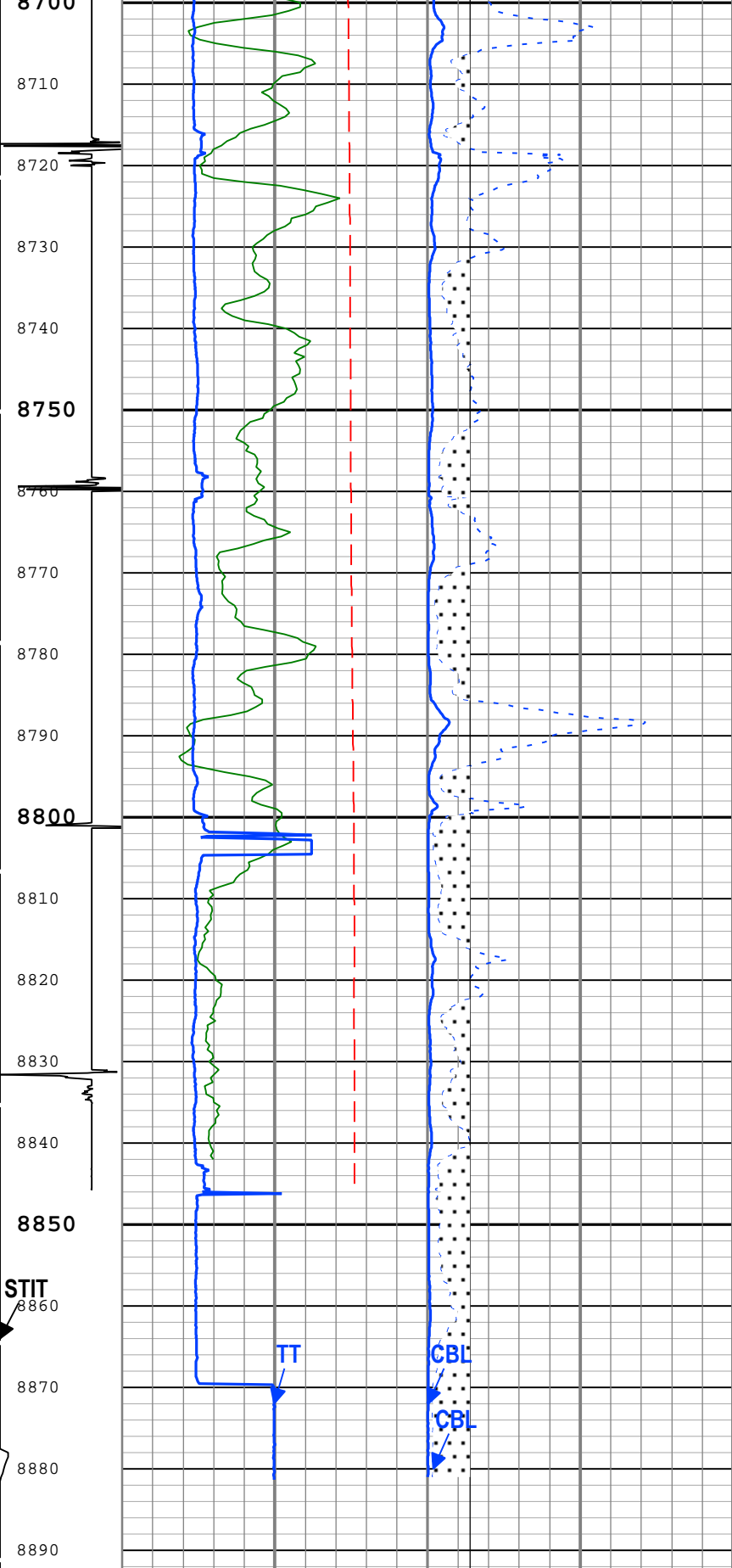




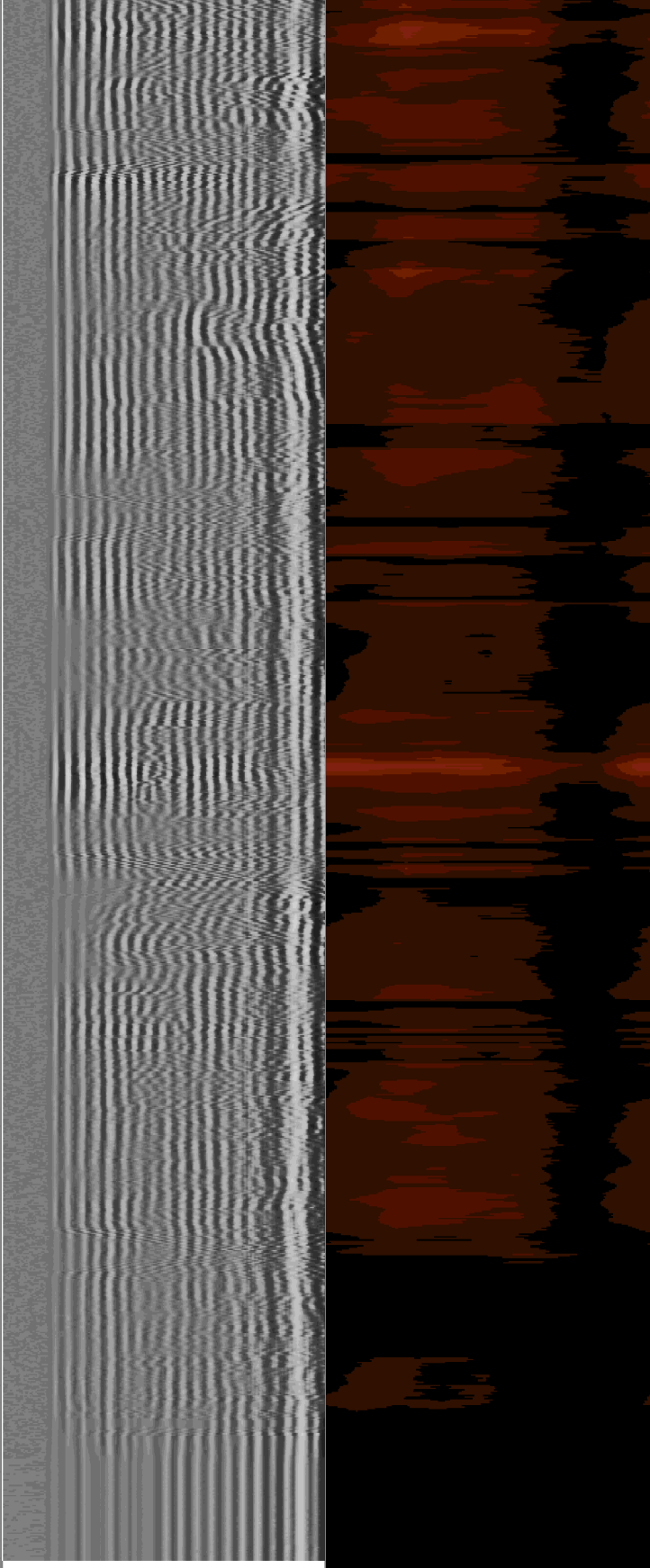








CCL Discriminated Amplitude (CCLD) PSTP-A	Gamma Ray (GR) PSTP-A	CBL Amplitude (CBL) SCMT-BB
	0 gAPI 150	0 mV 10
3 V -1	Transit Time for CBL (TT) SCMT-BB	CBL Amplitude (CBL) SCMT-BB
	200 us 400	0 mV 100
Stuck Tool	Good Bond (GOBO)	
	Well Temperature (WTEMP) PSTP-A	0 mV 10



Min	Amplitude	Max
200	us	1200
VDL VariableDensity (VDL) SCMT-BB		
CBL Amplitude Mapping Image (0 - 100) SCMT-BB		

Indicator, Total (STIT)	Well Temperature (WTEP) FSTP-A	0	mV	10
0	degF	300	GoodBond From CBL to GOBO	
ft				
50				
Cable Drag				
Tool_Tot. Drag				

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: 03-Aug-2015 16:44:30

Channel Processing Parameters				
Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	228.2	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-BB	224	us
CBLG	CBL Gate Width	SCMT-BB	Time Zoned	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-BB	80	mV
CMCF	CBL Cement Type Compensation Factor	SCMT-BB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-BB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
M1EF	MAP sensitivity equalization factor of receiver 1	SCMT-BB	2.39	
M2EF	MAP sensitivity equalization factor of receiver 2	SCMT-BB	2.17	
M3EF	MAP sensitivity equalization factor of receiver 3	SCMT-BB	1.31	
M4EF	MAP sensitivity equalization factor of receiver 4	SCMT-BB	0.86	
M5EF	MAP sensitivity equalization factor of receiver 5	SCMT-BB	0.75	
M6EF	MAP sensitivity equalization factor of receiver 6	SCMT-BB	1.12	
M7EF	MAP sensitivity equalization factor of receiver 7	SCMT-BB	1.72	
M8EF	MAP sensitivity equalization factor of receiver 8	SCMT-BB	2.19	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-BB	167	us
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-BB	10.14	dB/ft
MCCF	MAP Cement Type Compensation Factor	SCMT-BB	0.25	
MCI	Minimum Cemented Interval for Isolation	SCMT-BB	Depth Zoned	ft
MMSA	MAP Minimum Sonic Amplitude	SCMT-BB	3.98	mV
MSA	Minimum Sonic Amplitude	SCMT-BB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-BB	4.41	mV
RUN_SNUM	Run Sequence Number	WSDRUN	1	
TD	Total Measured Depth	Borehole	8897	ft
ZCMT	Acoustic Impedance of Cement	SCMT-BB	3.4	Mrayl

Depth Zone Parameters			
Parameter	Value	Start (ft)	Stop (ft)
MCI	14.81	2424	2515
MCI	1.25	2515	8892.5
All depth are actual.			

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)

CBLG	40	20-Jul-2015 10:14:08	20-Jul-2015 10:51:00	8892.62	8061.73
CBLG	41	20-Jul-2015 10:51:00	20-Jul-2015 14:02:05	8061.73	2474.21

All depth are at tool zero.

Tool Control Parameters

Run 1: Parameters

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

Run 1

Repeat

Software Version

Acquisition System	Version
Maxwell 2016	6.0.47569.3100

Pass Summary

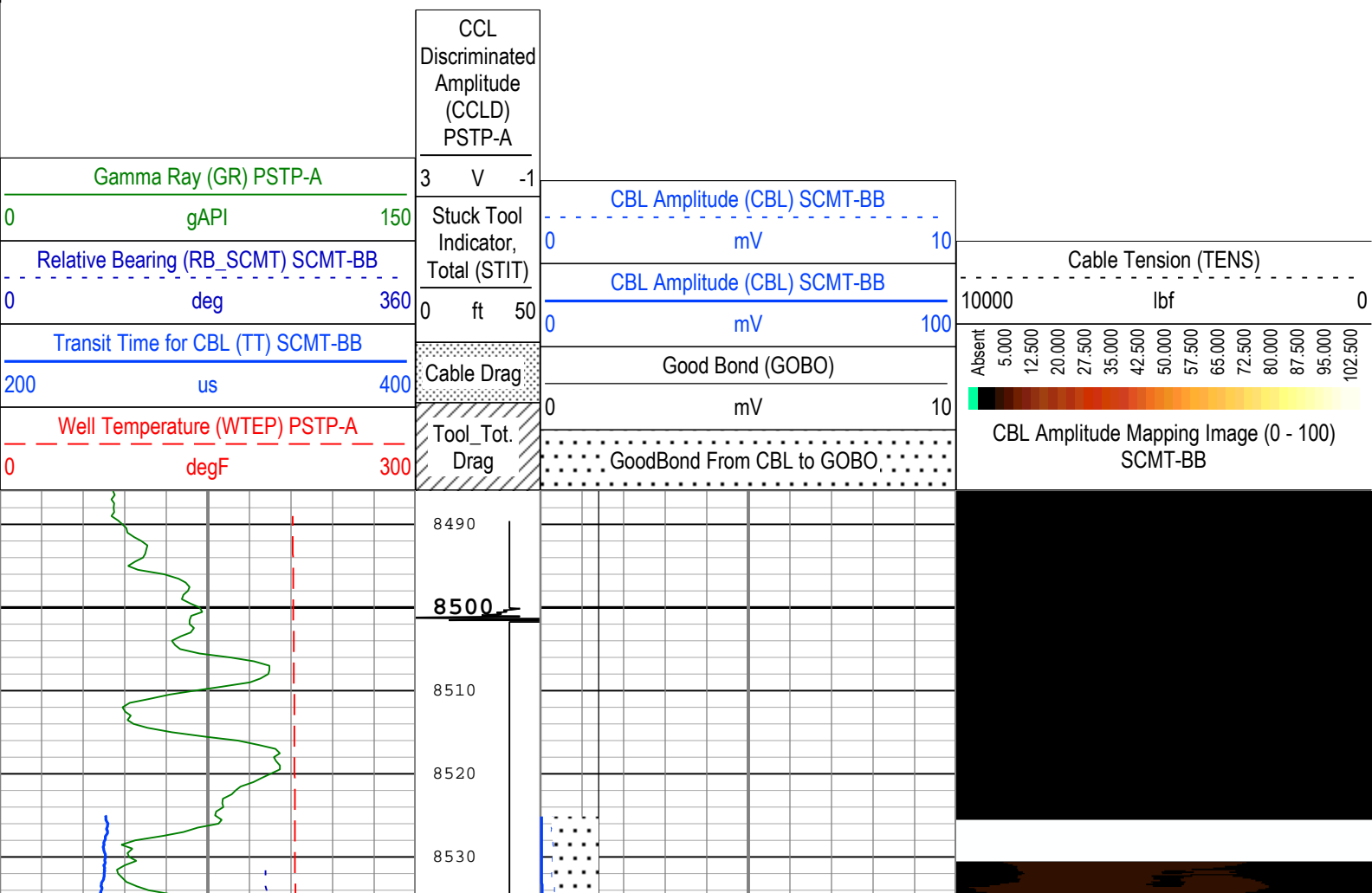
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Repeat[2]:Up	Up	8536.26 ft	8892.57 ft	20-Jul-2015 9:51:30 AM	20-Jul-2015 10:04:01 AM	ON	-0.26 ft	Yes

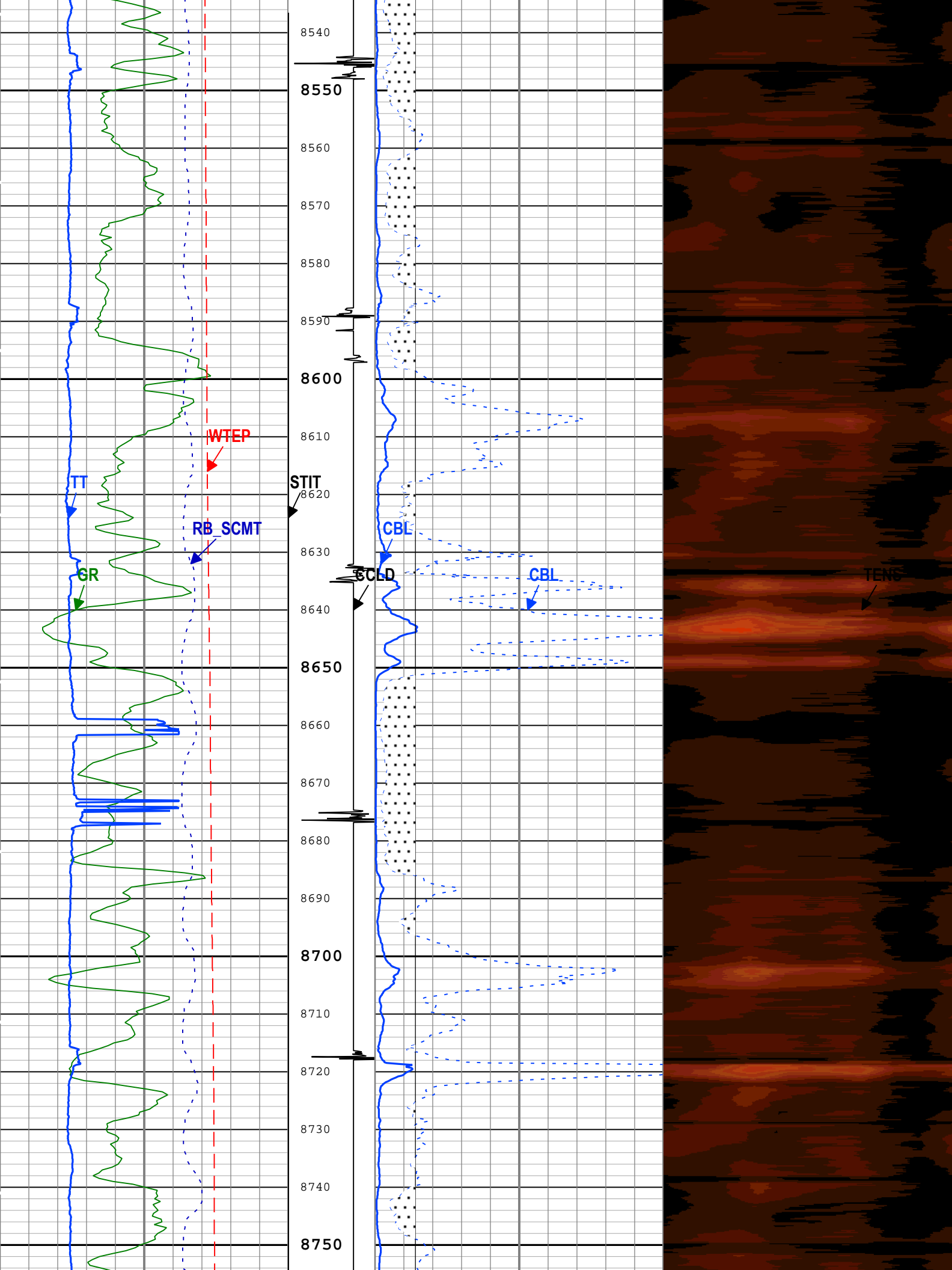
All depths are referenced to toolstring zero

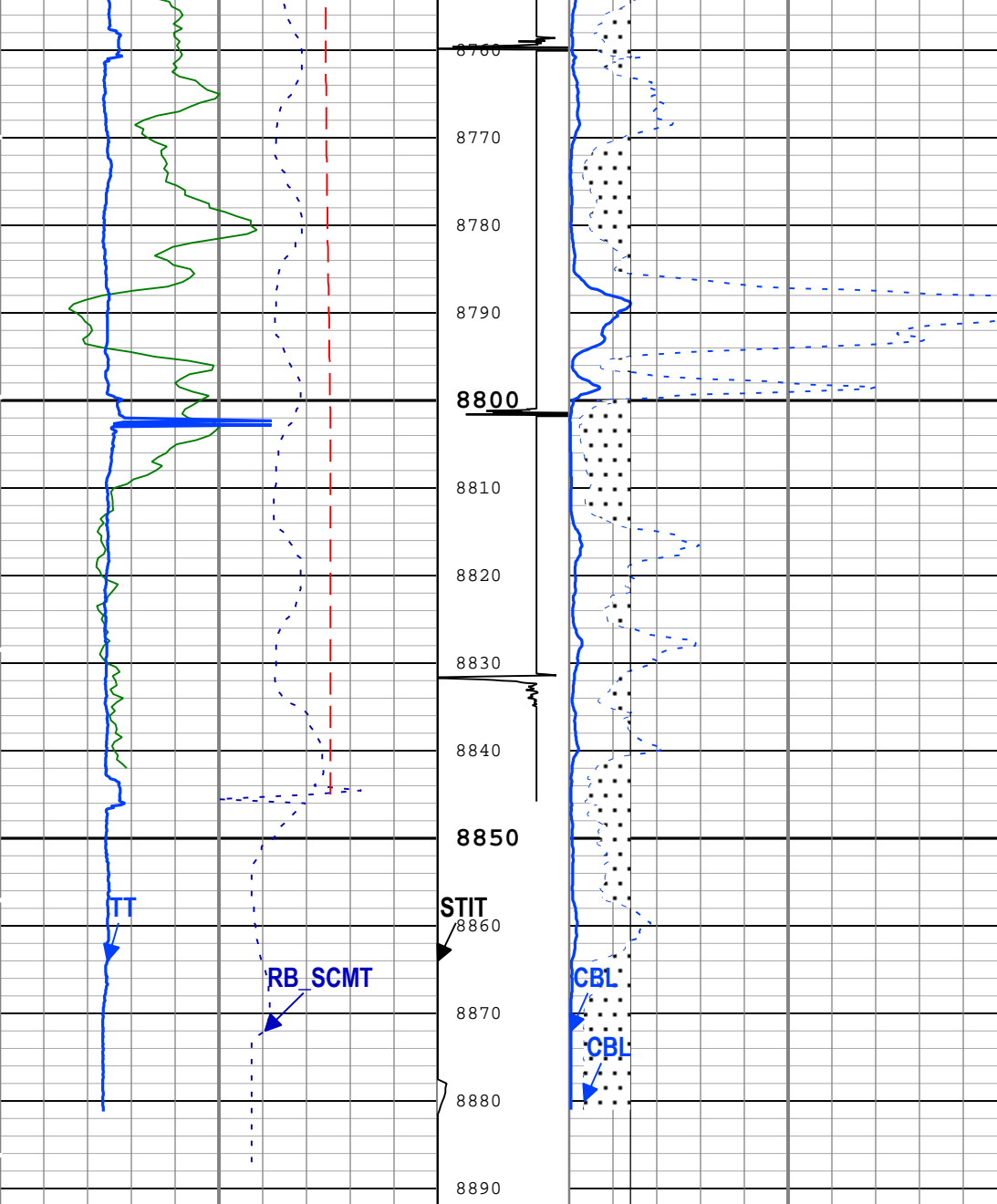
Log	Company:Caerus Piceance LLC Well:Puckett 41D-2 Run 1: Repeat[2]:Up:S018
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Description: SCMT Amplitudes and MAP Image Format: Log (SCMT_Amp_Image_1) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured
Depth Creation Date: 03-Aug-2015 16:44:38

TIME_1900 - Time Marked every 60.00 (s)

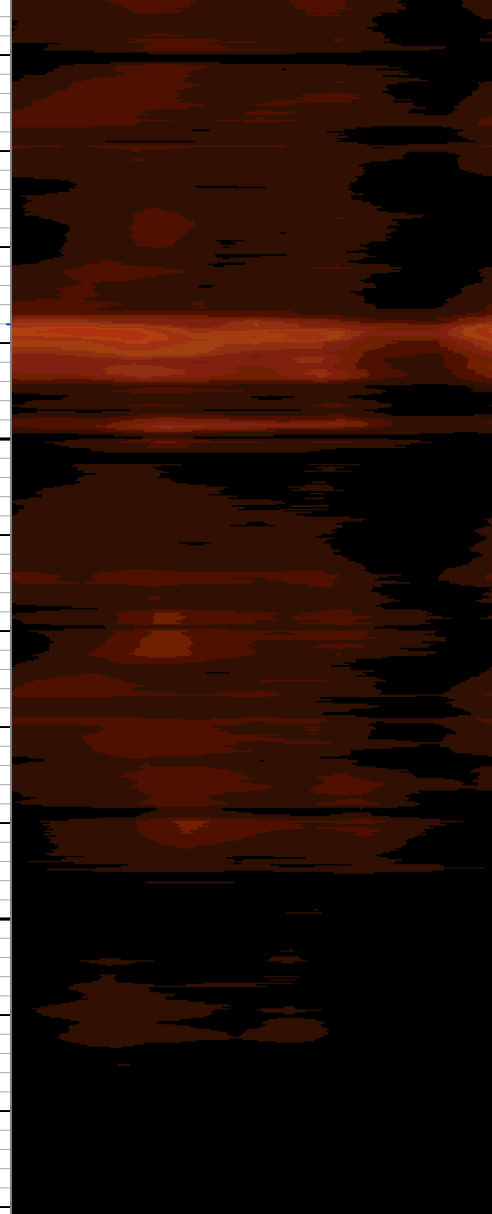






Gamma Ray (GR) PSTP-A		
0	gAPI	150
Relative Bearing (RB_SCMT) SCMT-BB		
0	deg	360
Transit Time for CBL (TT) SCMT-BB		
200	us	400
Well Temperature (WTEP) PSTP-A		
0	degF	300

CCL	CBL Amplitude (CBL) SCMT-BB
Discriminated	mV
Amplitude	10
(CCLD)	CBL Amplitude (CBL) SCMT-BB
PSTP-A	mV
3	100
V	Good Bond (GOBO)
-1	mV
Stuck Tool	0
Indicator,	10
Total (STIT)	
0	GoodBond From CBL to GOBO
ft	
50	
Cable Drag	
Tool_Tot.	
Drag	



Cable Tension (TENS)		
10000	lbf	0
Absent	5,000	102,500
12,500	20,000	87,500
27,500	35,000	95,000
42,500	50,000	80,000
57,500	65,000	72,500
72,500	80,000	65,000
87,500	95,000	57,500
102,500		42,500

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: 03-Aug-2015 16:44:38

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	228.2	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-BB	224	us
CBLG	CBL Gate Width	SCMT-BB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-BB	80	mV
CMCF	CBL Cement Type Compensation Factor	SCMT-BB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-BB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
M1EF	MAP sensitivity equalization factor of receiver 1	SCMT-BB	2.39	
M2EF	MAP sensitivity equalization factor of receiver 2	SCMT-BB	2.17	
M3EF	MAP sensitivity equalization factor of receiver 3	SCMT-BB	1.31	
M4EF	MAP sensitivity equalization factor of receiver 4	SCMT-BB	0.86	
M5EF	MAP sensitivity equalization factor of receiver 5	SCMT-BB	0.75	
M6EF	MAP sensitivity equalization factor of receiver 6	SCMT-BB	1.12	
M7EF	MAP sensitivity equalization factor of receiver 7	SCMT-BB	1.72	
M8EF	MAP sensitivity equalization factor of receiver 8	SCMT-BB	2.19	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-BB	167	us
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-BB	10.14	dB/ft
MCCF	MAP Cement Type Compensation Factor	SCMT-BB	0.25	
MCI	Minimum Cemented Interval for Isolation	SCMT-BB	1.25	ft
MMSA	MAP Minimum Sonic Amplitude	SCMT-BB	3.98	mV
MSA	Minimum Sonic Amplitude	SCMT-BB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-BB	4.41	mV
RUN_SNUM	Run Sequence Number	WSDRUN	1	
TD	Total Measured Depth	Borehole	8897	ft
ZCMT	Acoustic Impedance of Cement	SCMT-BB	3.4	Mrayl

Tool Control Parameters

Run 1: Parameters									
Parameter	Description					Tool	Value		Unit
CMTM	SCMT Operating Mode					SCMT-BB	Log		
MAX_LOG_SPEED	Toolstring Maximum Logging Speed					WLSESSION	150		ft/h

Run 1

Repeat

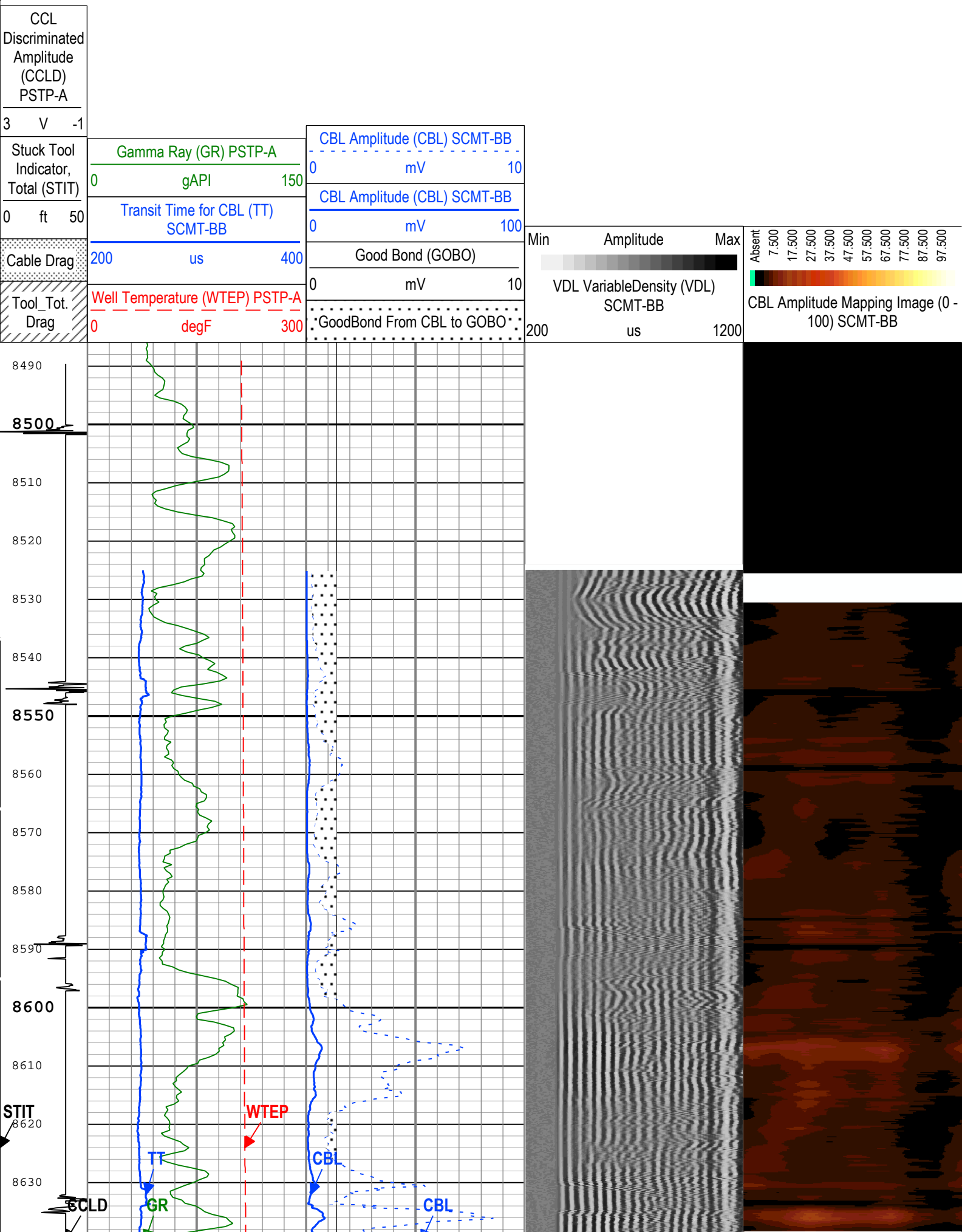
Software Version									
Acquisition System						Version			
Maxwell 2016						6.0.47569.3100			

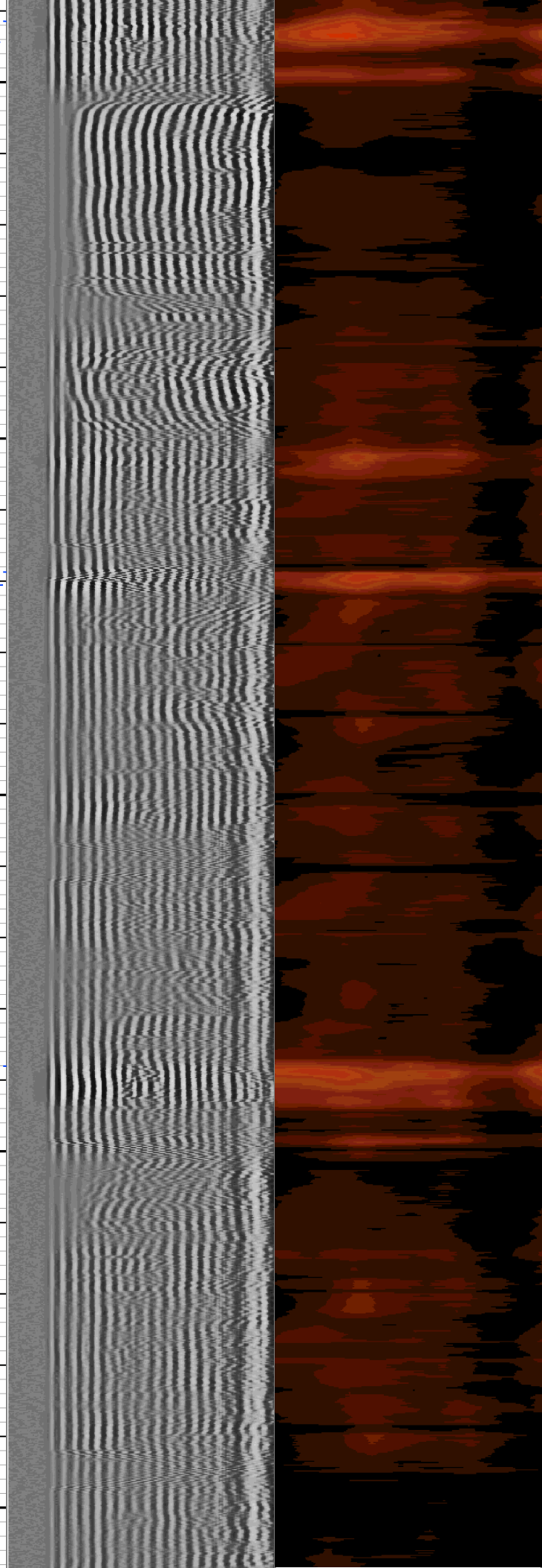
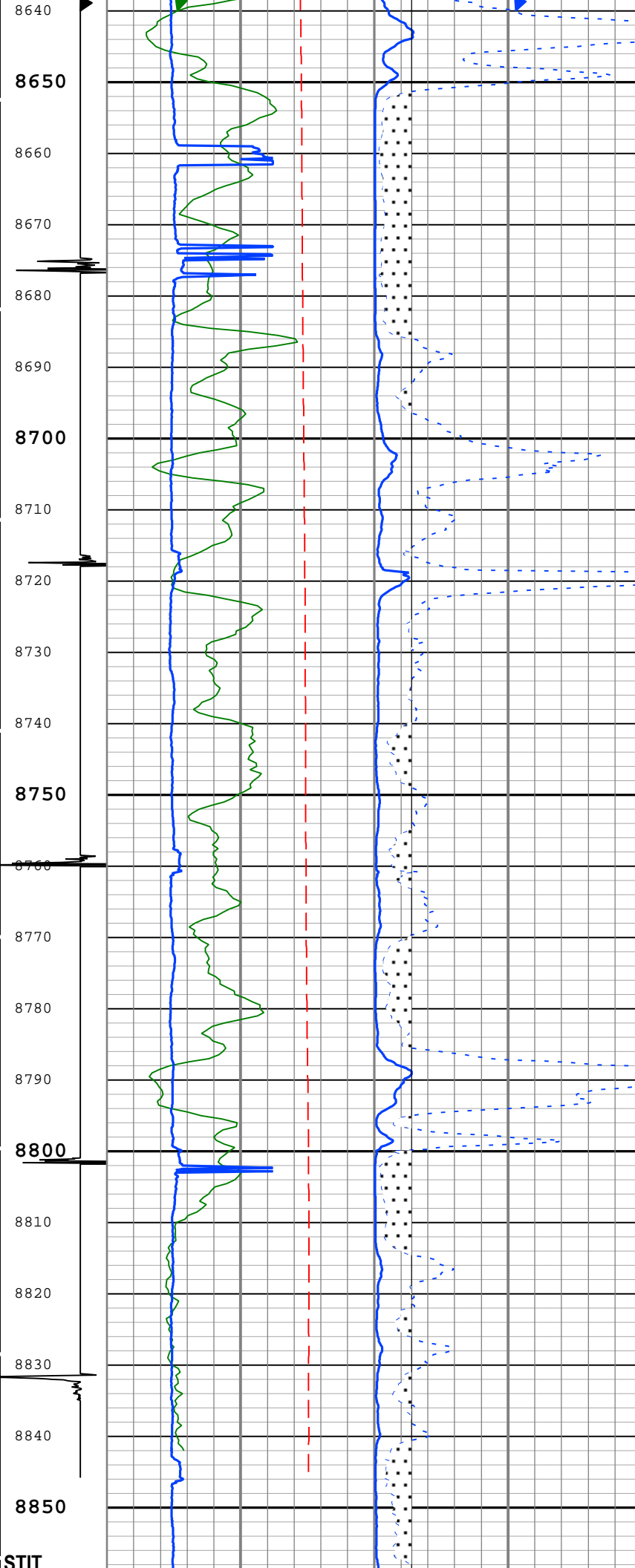
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Repeat[2]:Up	Up	8536.26 ft	8892.57 ft	20-Jul-2015 9:51:30 AM	20-Jul-2015 10:04:01 AM	ON	-0.26 ft	Yes
All depths are referenced to toolstring zero									

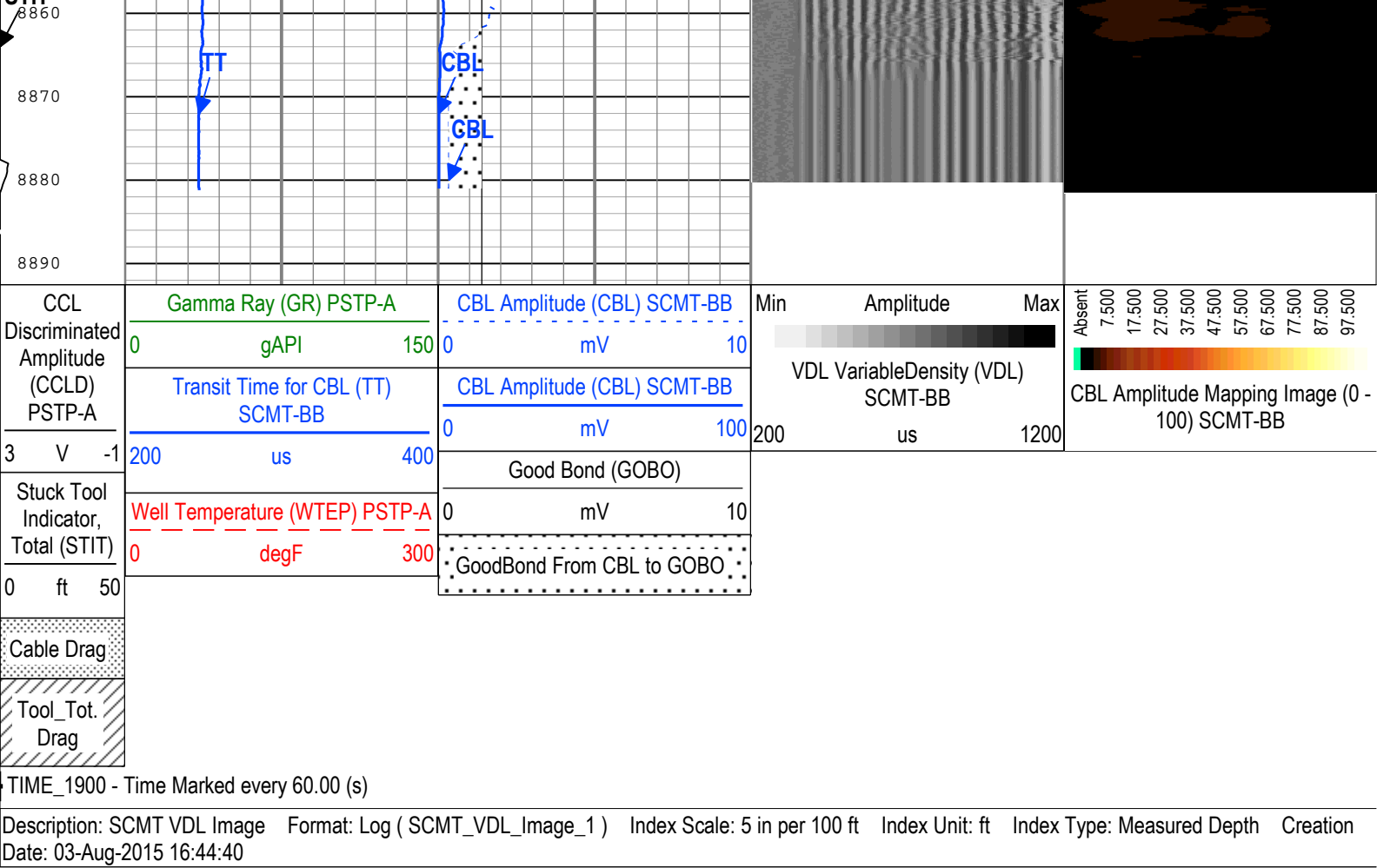
Log	<div> <div>Company:Caerus Piceance LLC</div> <div>Well:Puckett 41D-2</div> <div>Run 1: Repeat[2]:Up:S018</div> </div>								
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Description: SCMT VDI Image Format: Log (SCMT VDI Image 1) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation:

TIME_1900 - Time Marked every 60.00 (s)







Channel Processing Parameters				
Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	228.2	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-BB	224	us
CBLG	CBL Gate Width	SCMT-BB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-BB	80	mV
CMCF	CBL Cement Type Compensation Factor	SCMT-BB	0.12	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-BB	7.87	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
M1EF	MAP sensitivity equalization factor of receiver 1	SCMT-BB	2.39	
M2EF	MAP sensitivity equalization factor of receiver 2	SCMT-BB	2.17	
M3EF	MAP sensitivity equalization factor of receiver 3	SCMT-BB	1.31	
M4EF	MAP sensitivity equalization factor of receiver 4	SCMT-BB	0.86	
M5EF	MAP sensitivity equalization factor of receiver 5	SCMT-BB	0.75	
M6EF	MAP sensitivity equalization factor of receiver 6	SCMT-BB	1.12	
M7EF	MAP sensitivity equalization factor of receiver 7	SCMT-BB	1.72	
M8EF	MAP sensitivity equalization factor of receiver 8	SCMT-BB	2.19	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-BB	167	us
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-BB	10.14	dB/ft
MCCF	MAP Cement Type Compensation Factor	SCMT-BB	0.25	
MCI	Minimum Cemented Interval for Isolation	SCMT-BB	1.25	ft
MMQA	MAP Minimum Quality Assurance	SCMT-BB	2.22	mV

MMSA	MAP Minimum Sonic Amplitude	SCMT-BB	3.98	mV
MSA	Minimum Sonic Amplitude	SCMT-BB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-BB	4.41	mV
RUN_SNUM	Run Sequence Number	WSDRUN	1	
TD	Total Measured Depth	Borehole	8897	ft
ZCMT	Acoustic Impedance of Cement	SCMT-BB	3.4	Mrayl

Tool Control Parameters

Run 1: Parameters

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

Calibration Report

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

Primary Equipment :

Slim Cement Mapping Sonde

SCMS-BB

8002

CBL and MAP Amplitude Adjustment - Measurements

Before (Measured):

15:07:38 20-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Amplitude	mV	Before			86.34			
Average MAP Amplitude (Fluid Compensated)	mV	Before			121.92			
Measurement Depth	ft	Before			1110.17			

CBL and MAP Amplitude Adjustment - Coefficients

Before (Measured):

15:07:38 20-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Adjustment Factor		Before			0.927			
CBL LQC Reference Amplitude in Free Pipe	mV	Before			80.00			
MAP Adjustment Factor		Before			0.820			
Depth of Before Calibration	ft	Before			1110.17			

PSTP-A (PSP Telemetry Platform A - Sapphire) Calibration - Run 1

Primary Equipment :

PBMS-A

PBMS-A

3869

Calibration Parameter :

JIG-BKGD (Jig minus background reference)

160

PBMS Gamma Ray Check - PBMSA Gamma Ray Accumulations

Before (Measured):

15:56:11 17-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
GR Zero Average	gAPI	Before	30	0	78.13891	120		
GR Zero Standard Deviation	gAPI	Before			30.56431			
GR Zero Max Deviation	gAPI	Before			140.6766			
GR Plus Average	gAPI	Before			243.2695			
GR Plus Standard Deviation	gAPI	Before			52.43734			
GR Plus Max Deviation	gAPI	Before			155.7471			
Jig-Background	gAPI	Before	160	145	165.1305	175		

PBMS Well Temp Master Calibration

Master (EEPROM): 00:00:00 18-Jul-2007

PBMS_RTD_THERM (Master) RTD Coefficients

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tt**0	-756.3505	527.1629	-155.9385	25.88661	-1.571709	0

PBMS Gamma Ray Master Calibration

Master (EEPROM): 00:00:00 18-Jan-2007

PBMS_GR_MODEL GR Coefficients
(Master)

	Rt**0	Rt**1
Rt**0	2000	2000

PBMS A Reference Clock Master Calibration

Master (EEPROM): 00:00:00 18-Jul-2007

PBMS_REF_CLOCK PBMS A Clock Coefficients
(Master)

	Temp**0	Temp**1	Temp**2	Temp**3	Temp**4	Temp**5
Temp**0	-192.7617	-5.343637	-0.09015581	0.000751289	2.272868E-06	0

PBMS A Sapphire Master Calibration

Master (EEPROM): 00:00:00 18-Jul-2007

PBMS_P_GAUGE_PRES Sapphire Pressure Model Coefficients
(Master)

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tp**0	-10607.24	9983.964	-4422.383	811.7886	-55.39267	0
Tp**1	7317.382	-6510.243	3075.83	-562.8201	38.05563	0
Tp**2	27.61189	-4.173877	-2.572291	0	0	0
Tp**3	-4.186021	1.156646	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	-413.3419	3.522647	0.6707032	-0.5251858	0.07300035	0
Tt**1	168.969	-2.795898	-0.08934408	0.1774101	-0.0245917	0
Tt**2	-15.60143	0.6837218	-0.04823068	0	0	0
Tt**3	1.587509	-0.04120504	0	0	0	0
Tt**4	0	0	0	0	0	0
Tt**5	0	0	0	0	0	0

Well: Puckett 41D-2
Field: Wildcat
County: Garfield
State: Colorado

Slim Cement Mapping Tool
CBL-VDL