

Company: CAERUS OIL & GAS LLC

Well: NPR 23C-3 596

Field: NPR

County: GARFIELD State: COLORADO

CEMENT BOND LOG
RST SIGMA LOG
GAMMA RAY - COLLAR LOCATOR LOG

County: GARFIELD
Field: NPR
Location: NPR A03 596 PAD
Well: NPR 23C-3 596
Company: CAERUS OIL & GAS LLC

Location:	NPR A03 596 PAD	Elev.:	K.B.	8361.00 ft
	SE 1/4 NE 1/4		G.L.	8331.00 ft
	SEC3, T5S, R96W		D.F.	8361.00 ft
	Permanent Datum:	Ground Level	Elev.:	8331.00 f
Log Measured From:		Kelly Bushing	30.00 ft	above Perm.Datum
Drilling Measured From:		Kelly Bushing		
API Serial No.	Section:	Township:	Range:	
5045239970000	3	5S	96W	

Logging Date	09-Mar-2019
Run Number	ONE
Depth Driller	11430.00 ft
Schlumberger Depth	11337.00 ft
Bottom Log Interval	11337.00 ft
Top Log Interval	1850.00 ft
Casing Fluid Type	Water
Salinity	
Density	8.4 lbm/gal
Fluid Level	8.00 ft
BIT/CASING/TUBING STRING	
Bit Size	8.75 in
From	2989.60 ft
To	11430.00 ft
Casing/Tubing Size	4.5 in
Weight	11.6 lbm/ft
Grade	P110
From	0.00 ft
To	11362.30 ft
Max Recorded Temperatures	278 degF
Logger on Bottom	09-Mar-2019 16:11:00
Unit Number	MSLC-AR2 3007
Recorded By	A. VOYAGE/B. GUAITA
Witnessed By	ED KOENIG

Disclaimer

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Contents

1. Header	10.5 Parameter Listing
2. Disclaimer	11. ONE RST SIGMA REPEAT PASS [5:100]
3. Contents	11.1 Integration Summary
4. Well Sketch	11.2 Software Version
5. Borehole Size/Casing/Tubing Record	11.3 Composite Summary
6. Remarks and Equipment Summary	11.4 Log (RST SIGMA Answer)
7. Depth Summary	11.5 Parameter Listing
8. ONE CBL-VDL MAIN PASS [5:100]	12. Tail
8.1 Integration Summary	
8.2 Software Version	
8.3 Composite Summary	
8.4 Log (Sonic CBL with VDL)	
8.5 Parameter Listing	
9. ONE RST SIGMA MAIN PASS [5:100]	
9.1 Integration Summary	
9.2 Software Version	
9.3 Composite Summary	

9.4 Log (RST SIGMA Answer)

9.5 Parameter Listing

10. ONE CBL-VDL REPEAT PASS [5:100]

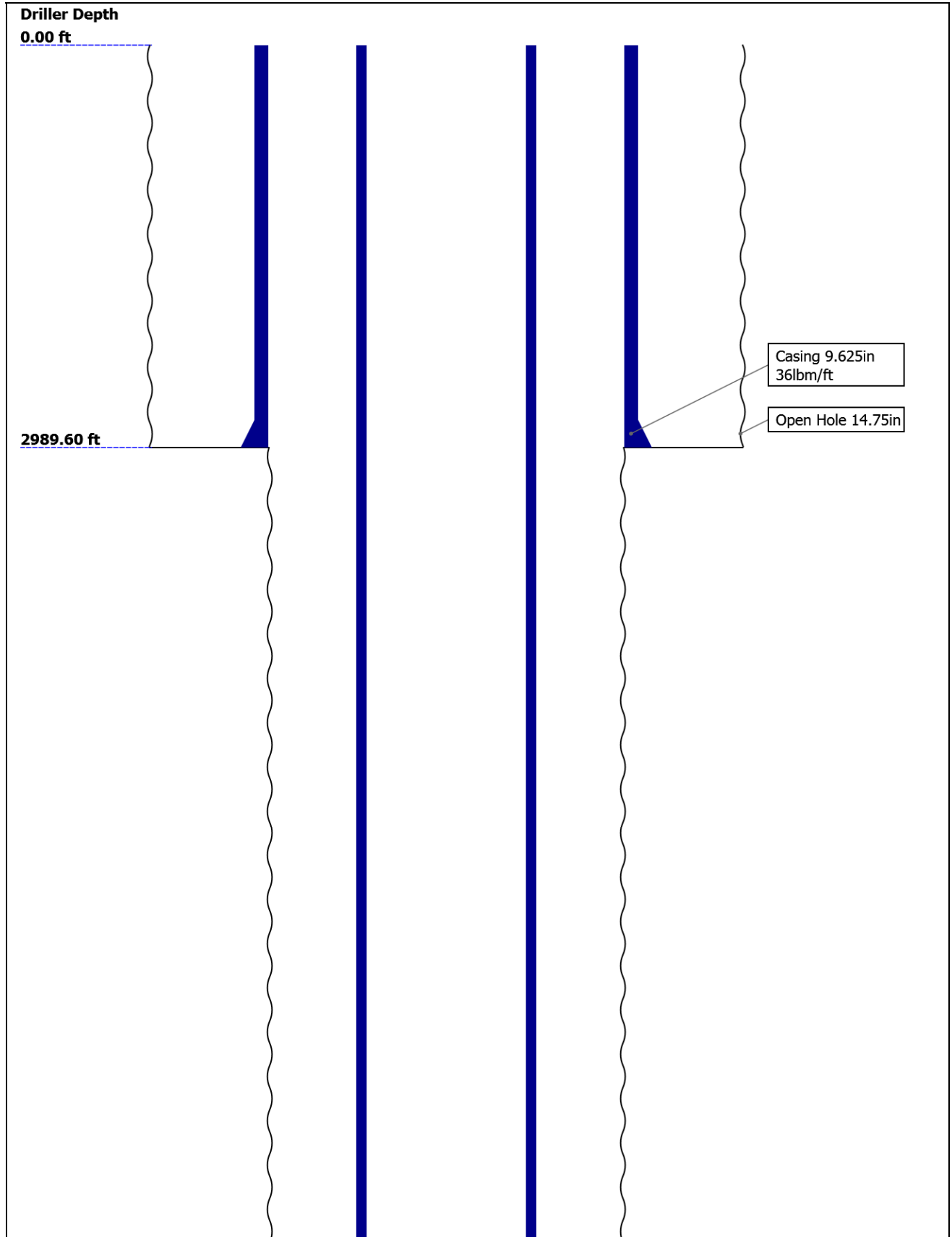
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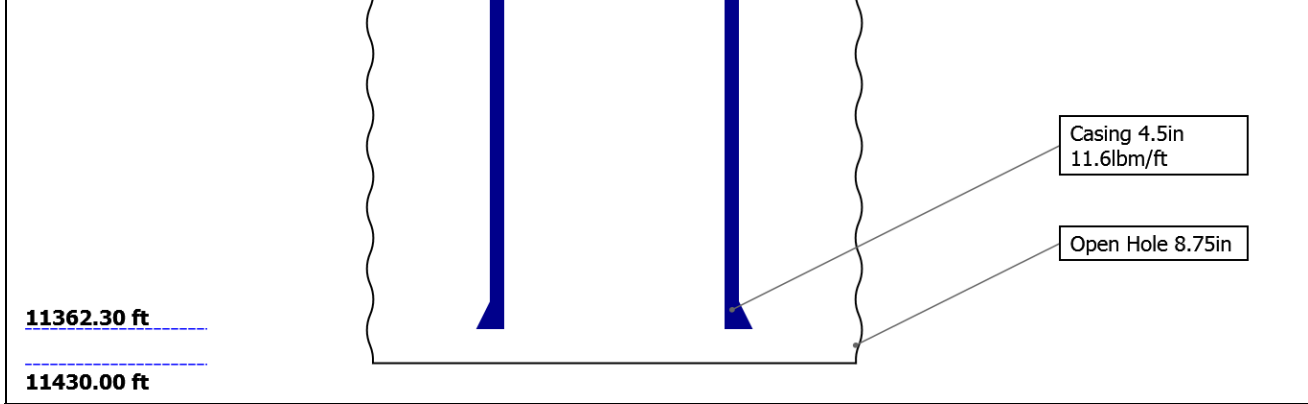
10.2 Software Version

10.3 Composite Summary

10.4 Log (Sonic CBL with VDL)

Well Sketch



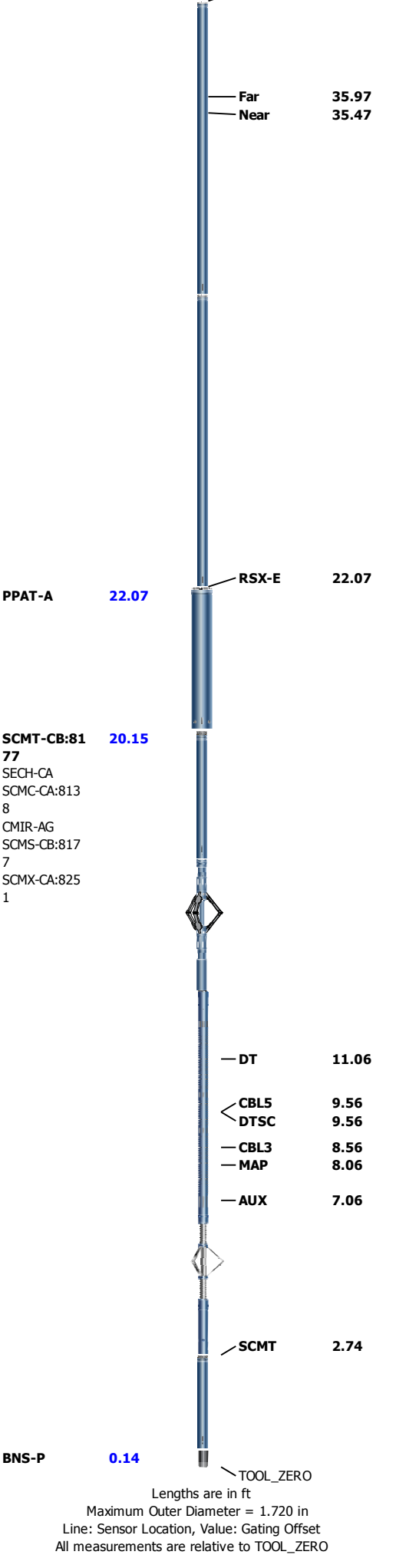


Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	14.75	8.75				
Top Driller (ft)	0	2989.6				
Top Logger (ft)	0	2989.6				
Bottom Driller (ft)	2989.6	11430				
Bottom Logger (ft)	2989.6	11430				
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)	2989.6	11362.3				
Bottom Logger (ft)	2989.6	11362.3				

Remarks and Equipment Summary

ONE: Toolstring				ONE: Remarks
Equip name	Length	MP name	Offset	THANK YOU FOR CHOOSING SCHLUMBERGER WIRELINE!
PEH-E	55.32			LOG OBJECTIVE: CEMENT AND FORMATION EVALUATION
AH-38	53.64			TOOLSTRING RAN AS PER TOOL SKETCH.
PSTP-E:824	53.36			GEMCOS USED FOR TOOL CENTRALIZATION.
PSC-A		GR	49.65	RST MODE: SIGMA.
PSTC-E:822		PSTC	49.36	MATRIX: SANDSTONE.
PBMS-E:824		PSTC Tool	0.00	MAX RECORDED TEMPERATURE: 278 DEGF
Sapphire 175:37216		String Bot		MAX RECORDED PRESSURE: 4823 PSI.
		tom		SLB DEPTH: 11337FT.
		Temperatu	46.57	CYCLE SKIPPING DUE TO GOOD QUALITY CEMENT.
		re		
		Board Tem	46.45	
		perature		
		Sapphire P	46.45	
		ressure		
		CCL	45.84	
		PBMS	45.09	
RST-C:389	45.09			
RSCH-A:218				
RSC-E:270				
RSS-A:507				
MNTR-F:1688				
-51463				
RSXH-A:386				
RSX-E:389				
		RSC-E	38.73	



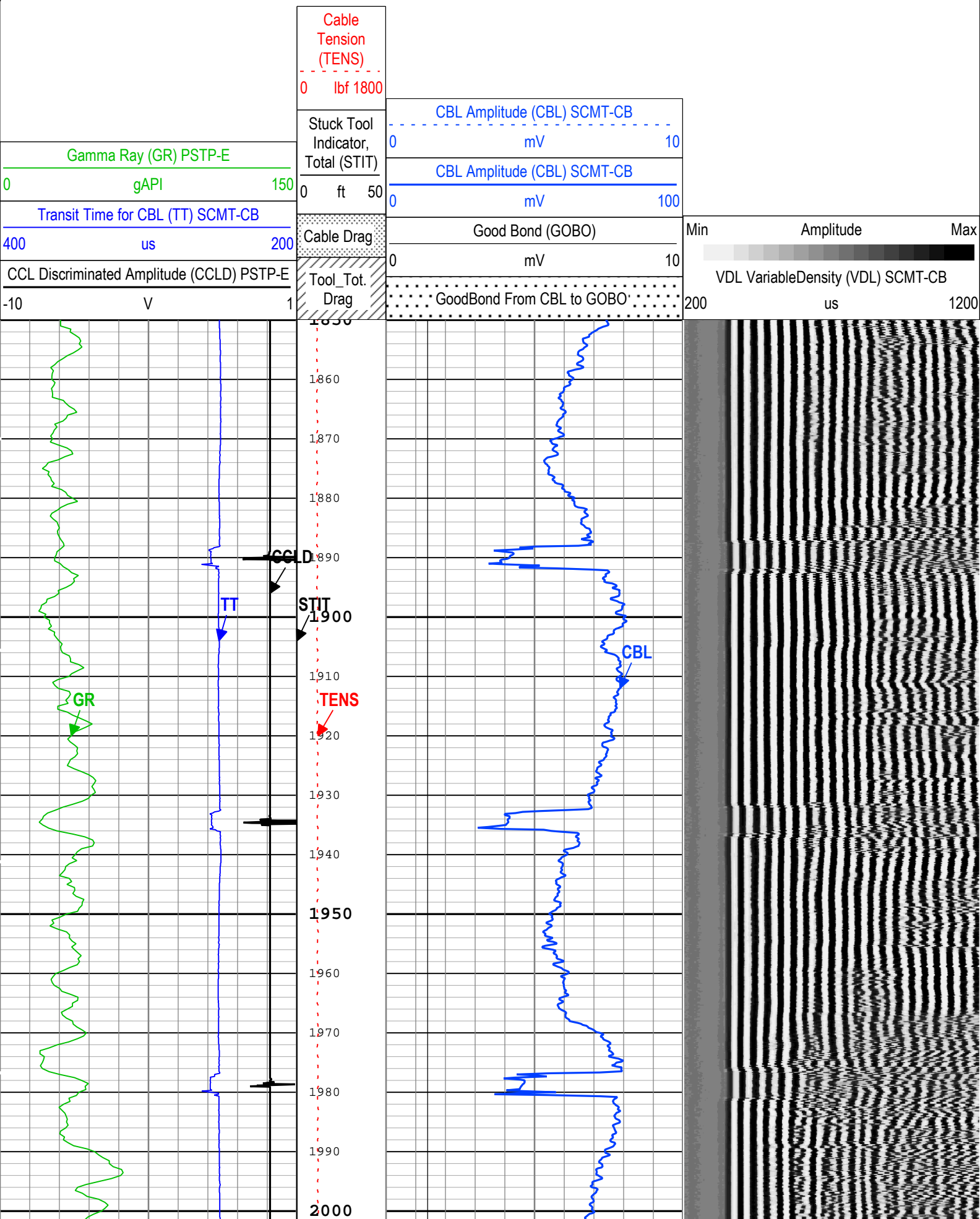
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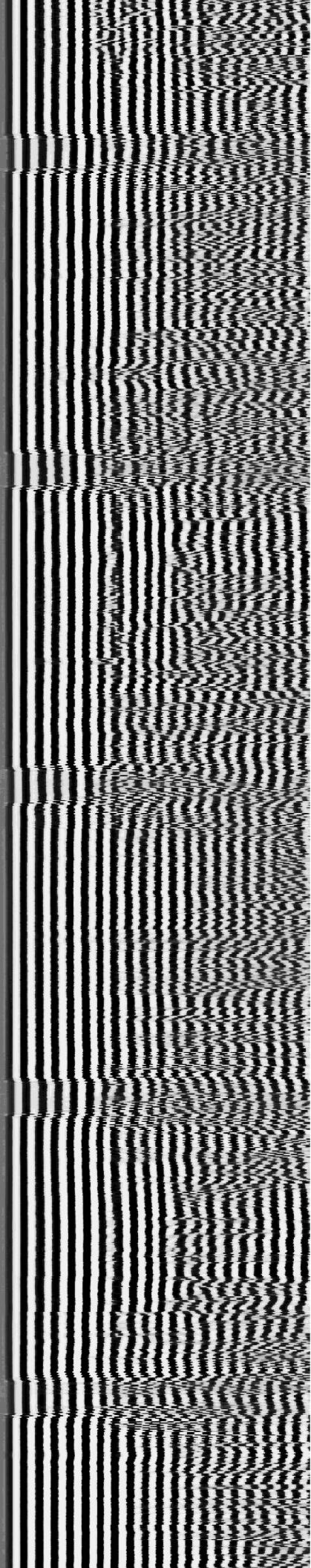
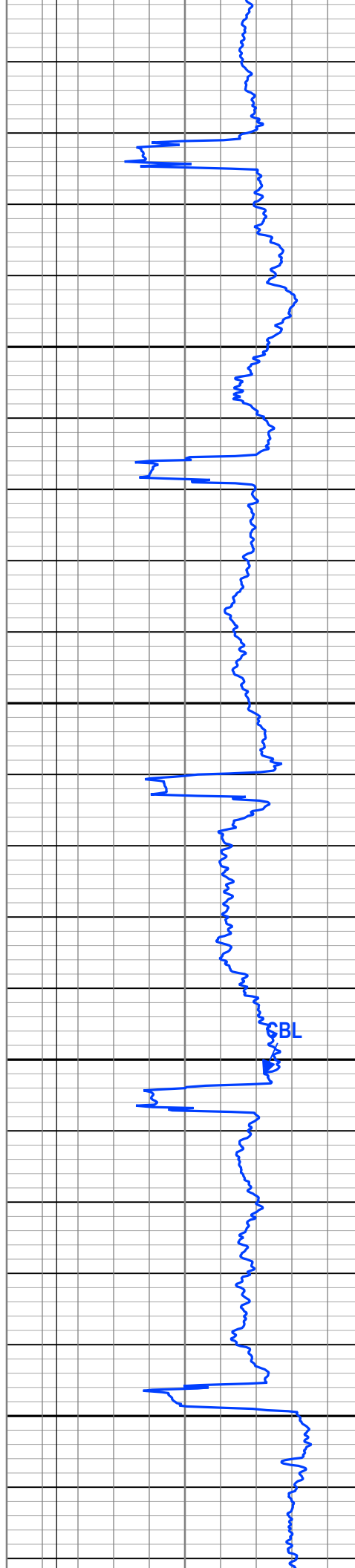
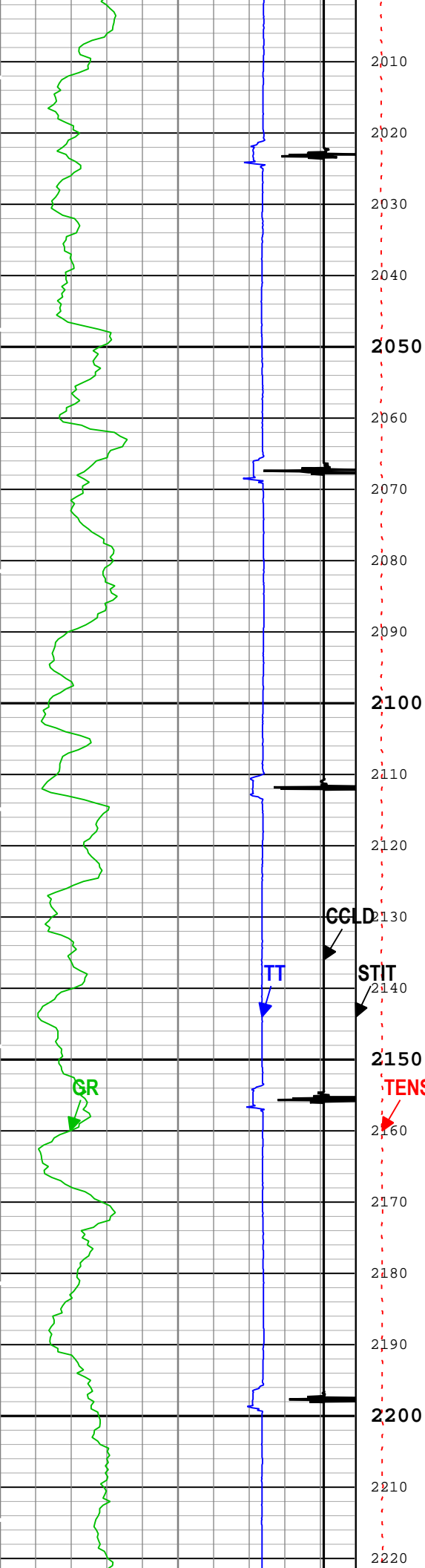
	ONE								
Depth Measuring Device									
Type	IDW-JA								
Serial Number	6912								
Calibration Date	21-JAN-2019								
Calibrator Serial Number	57								
Calibration Cable Type	1-25ZA-XXS								
Wheel Correction 1	-4								
Wheel Correction 2	-5								
Tension Device									
Type	CMTD-B/A								
Serial Number	5036								
Calibration Date	22-JAN-2019								
Calibrator Serial Number	282973A								
Number of Calibration Points	10								
Calibration Root Mean Square Error	16								
Calibration Peak Error	22								
Logging Cable									
Type	1-25ZA-XXS								
Serial Number	F112140								
Length	17000.00 ft								
Conveyance Type	Wireline								
Rig Type									
ONE:Depth Control Parameters		Depth Control Remarks							
Log Sequence	First Log In the Well	ALL SCHLUMBERGER DEPTH CONTROLS AND PROCEDURES FOLLOWED.							
Rig Up Length At Surface		IDW USED AS PRIMARY DEPTH CONTROL DEVICE.							
Rig Up Length At Bottom		Z-CHART USED AS SECONDARY DEPTH CONTROL DEVICE.							
Rig Up Length Correction		ALL LOGS CORRELATED TO DOWN PASS.							
Stretch Correction									
Tool Zero Check At Surface									
ONE									
CBL-VDL MAIN PASS [5:100]									
Software Version									
Acquisition System			Version						
Maxwell 2018 SP2			8.2.104493.3100						
Application Patch			Wireline_Hotfix-Mandatory-2018.2_8.2.108371						
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[6]:Up	Up	1845.95 ft	11352.66 ft	09-Mar-2019 4:13:12 PM	09-Mar-2019 9:25:55 PM	ON	4.04 ft	No
All depths are referenced to toolstring zero									
Log					Company:CAERUS OIL & GAS LLC		Well:NPR 23C-3 596		
							ONE: Log[6]:Up:S005		

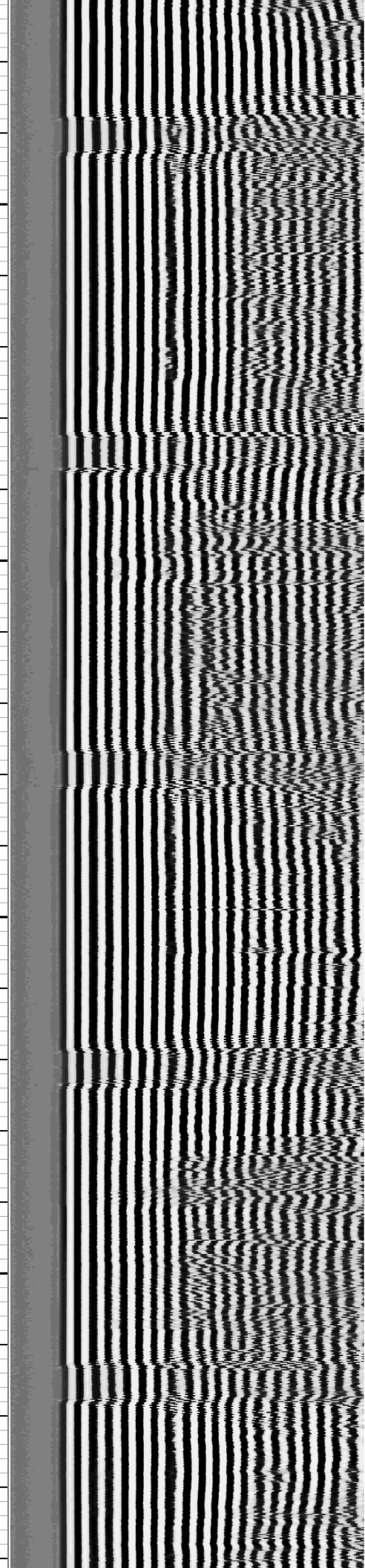
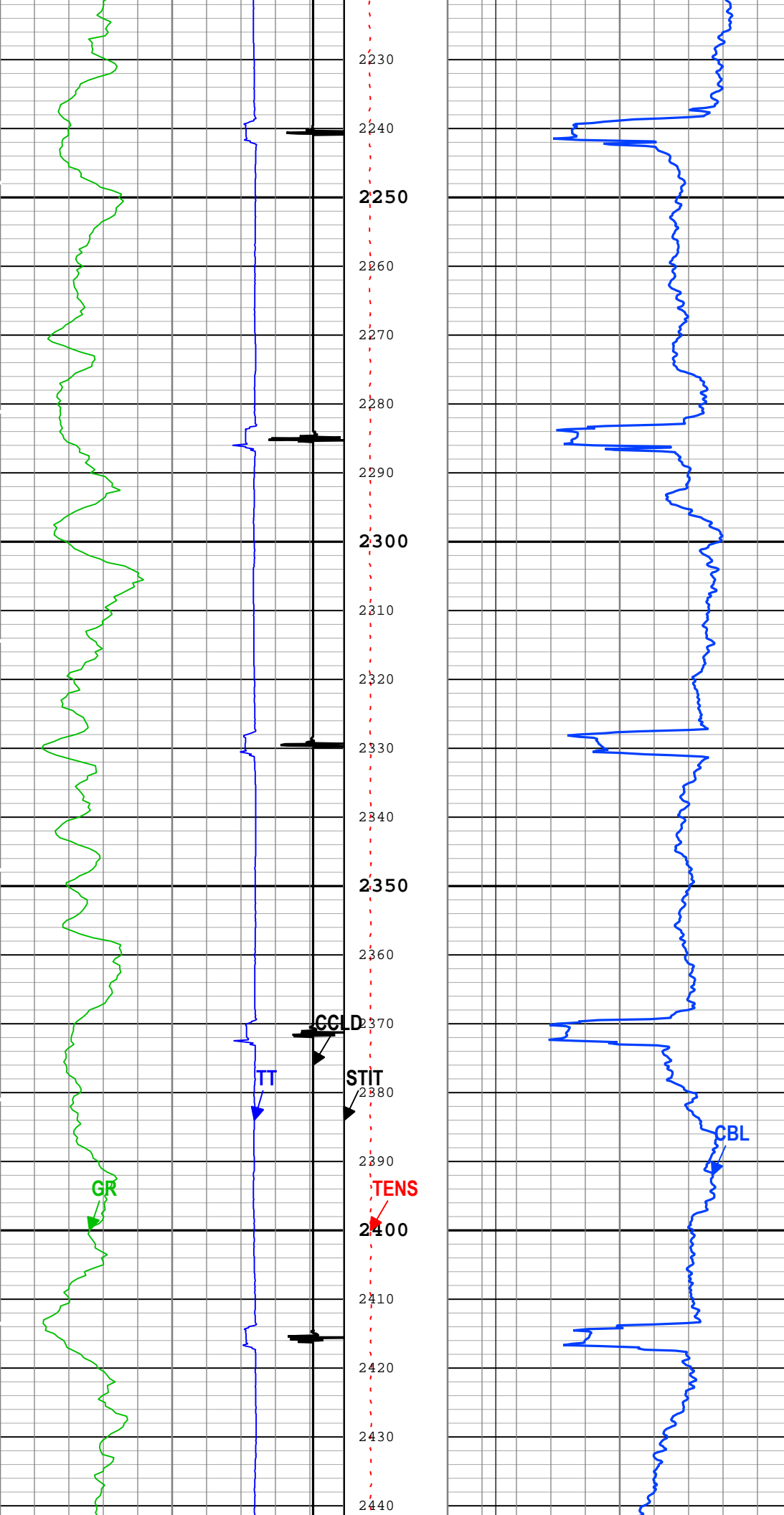
Position: Core: CBL-VDL Main Pass (Core: CBL-VDL) Shot: 5100 Shot: 100

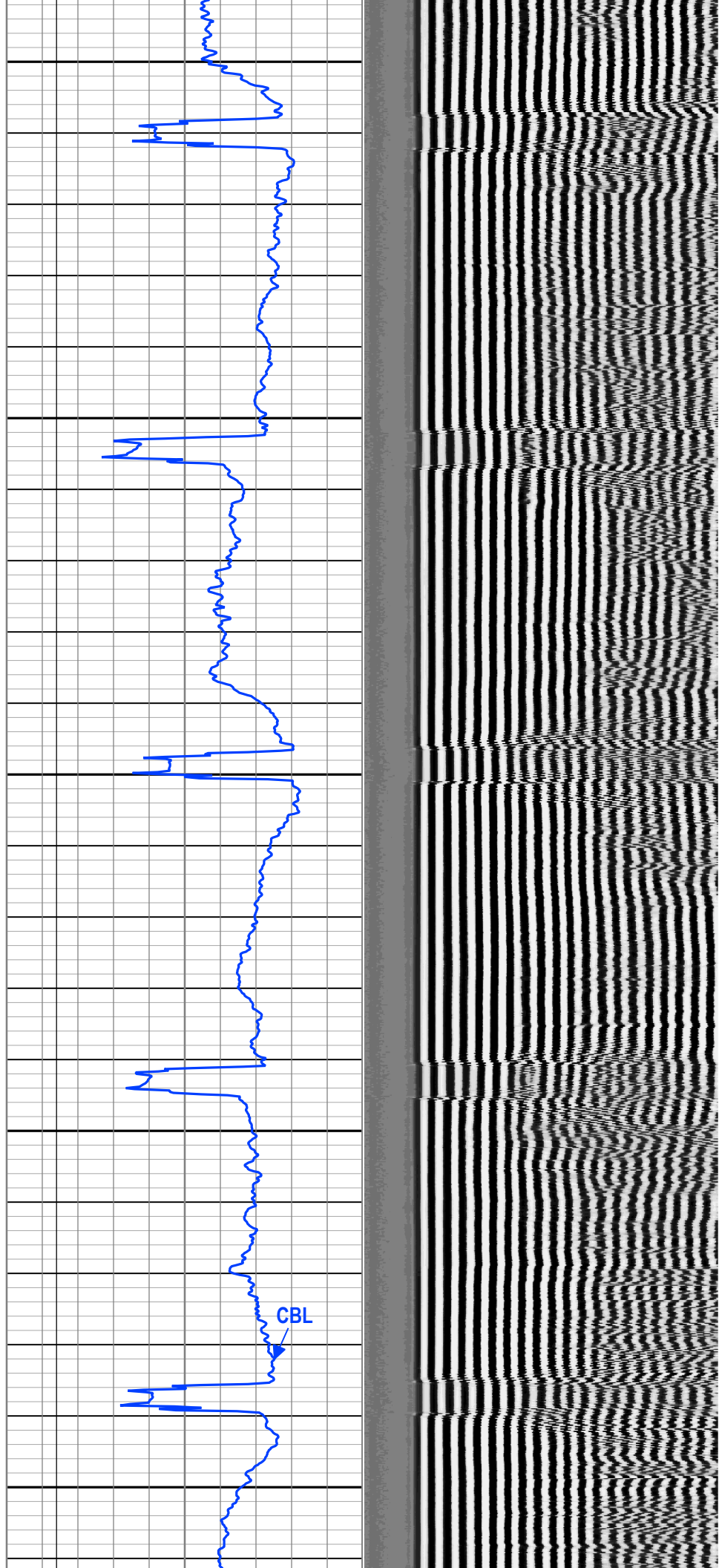
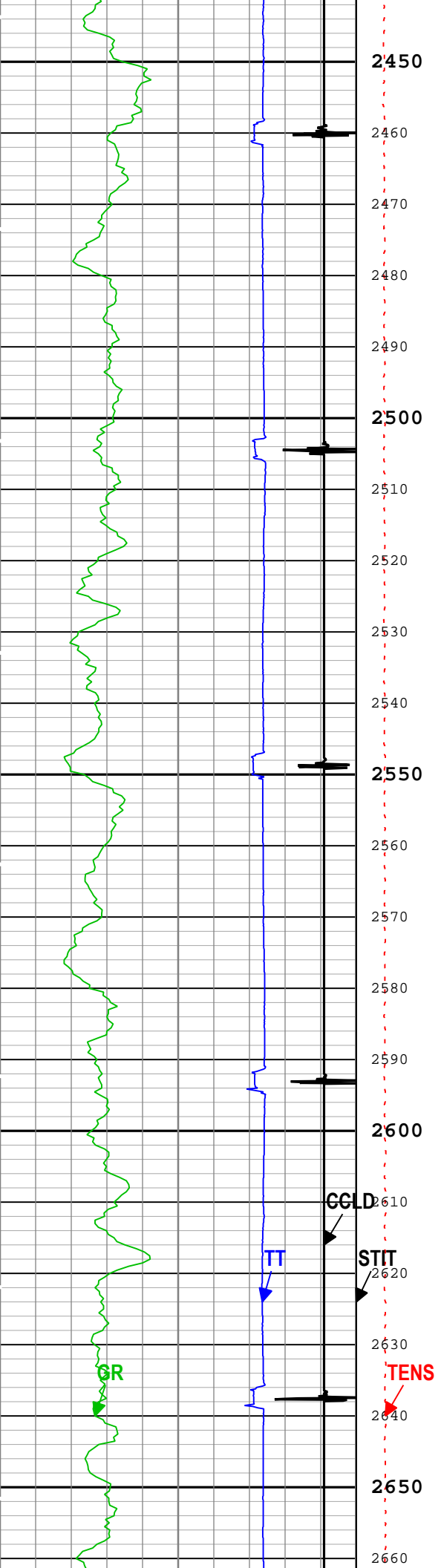
■ BIEP - Bond Index Event Pips SCMT-CB

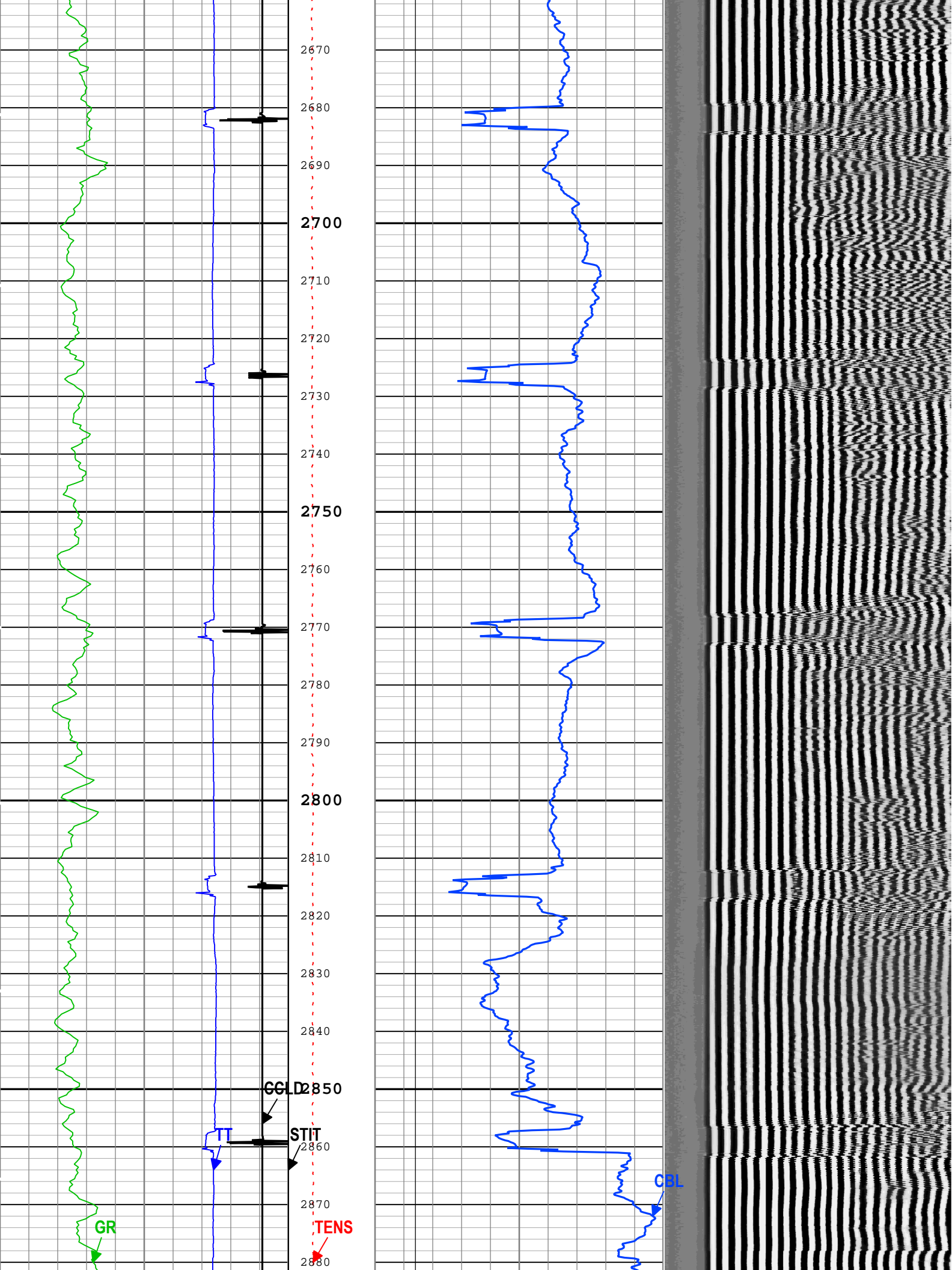
TIME_1900 - Time Marked every 60.00 (s)

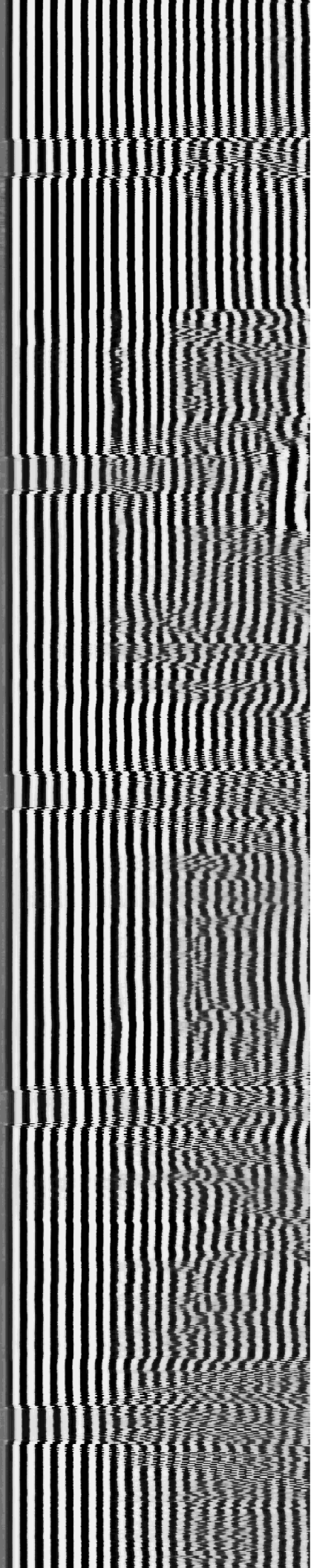
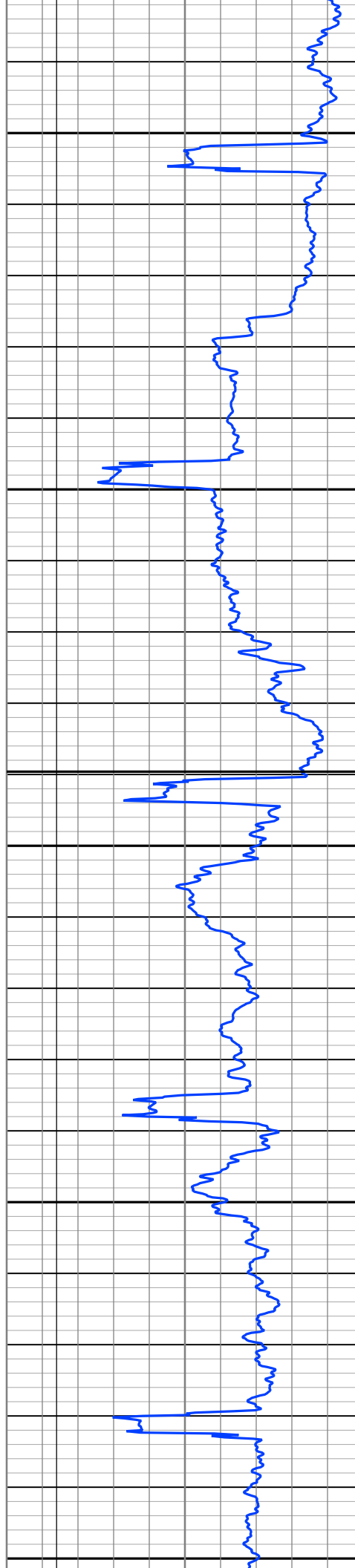
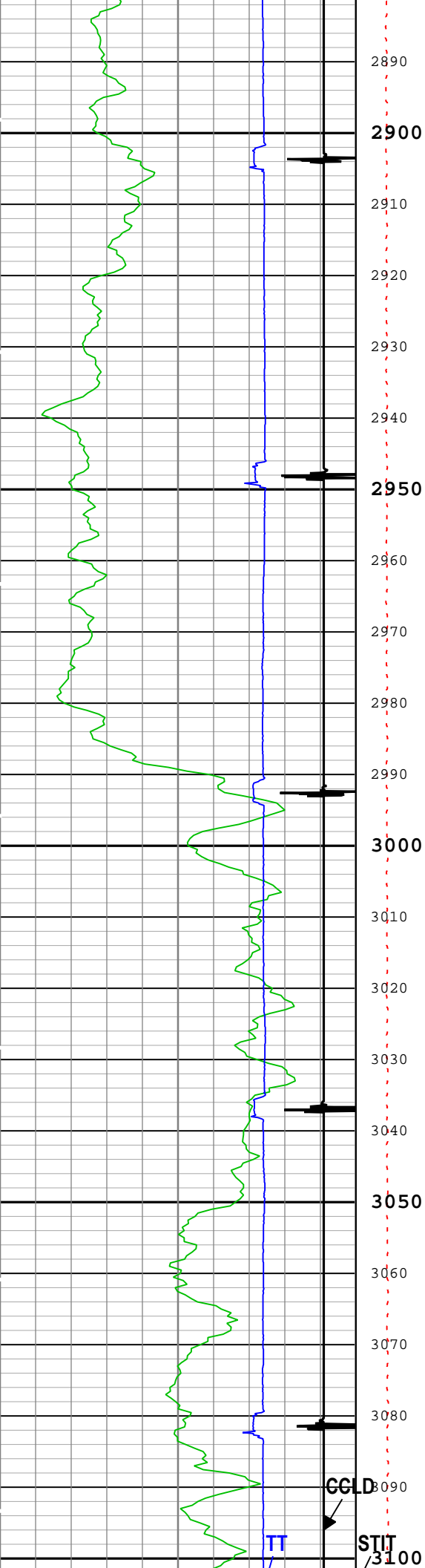


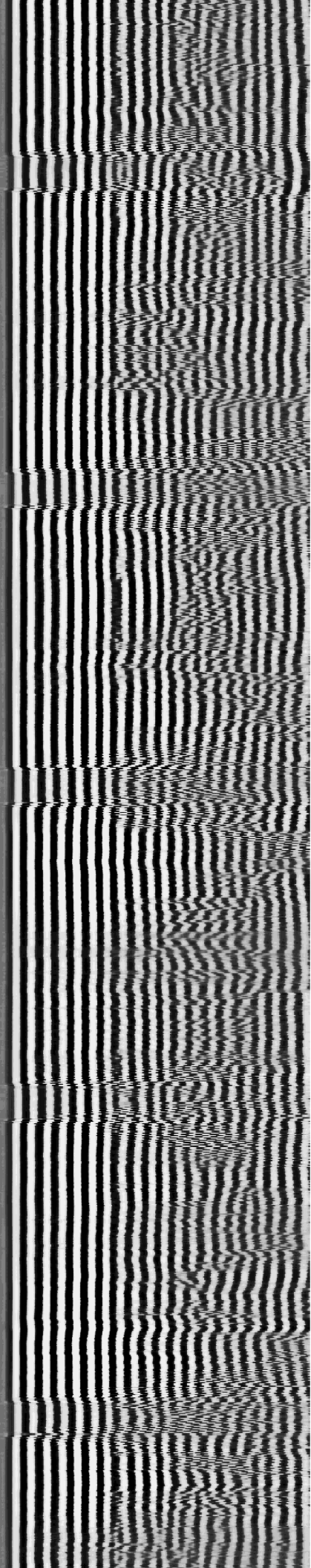
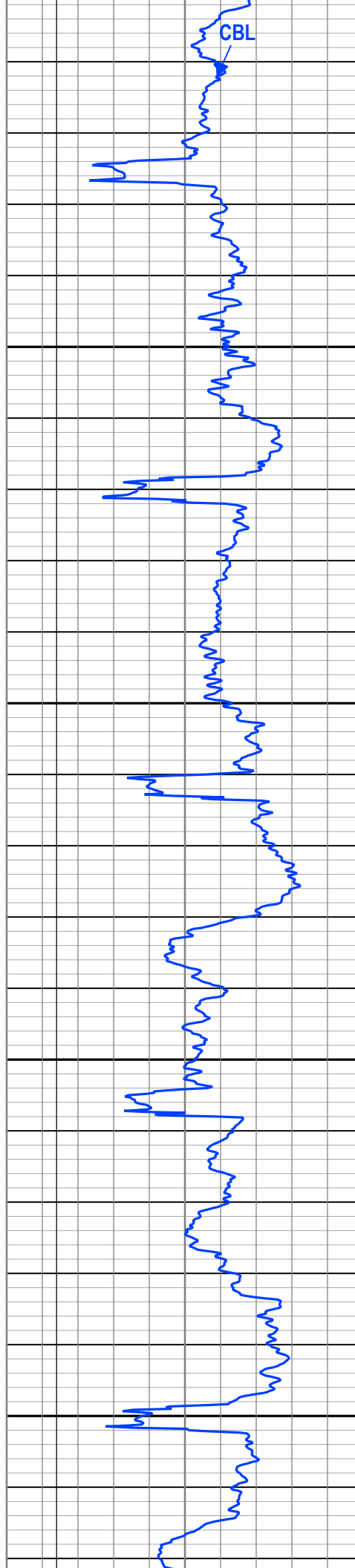
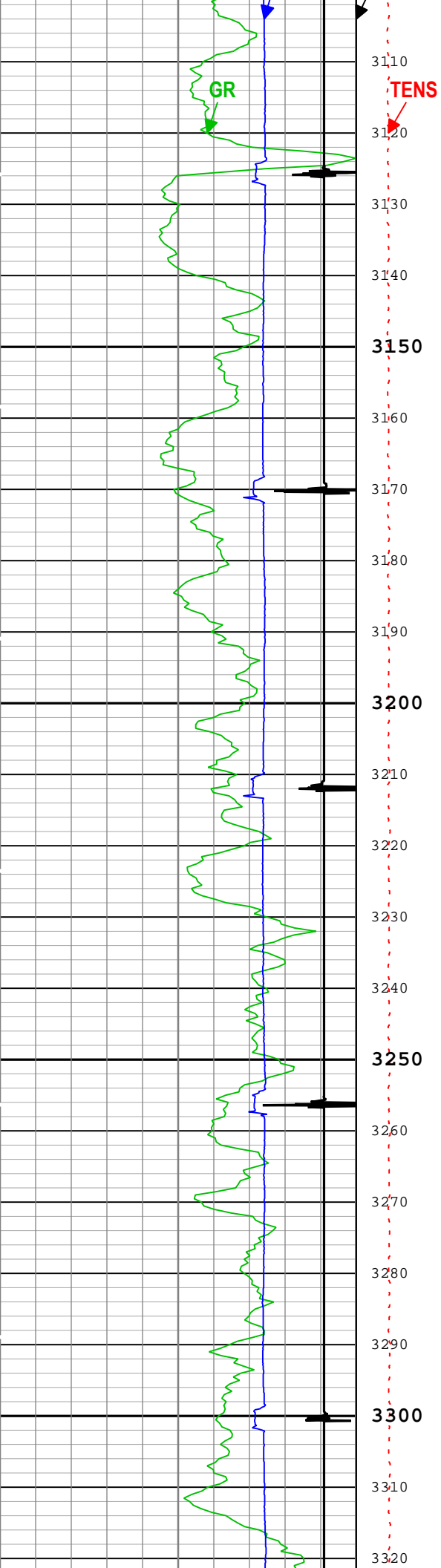


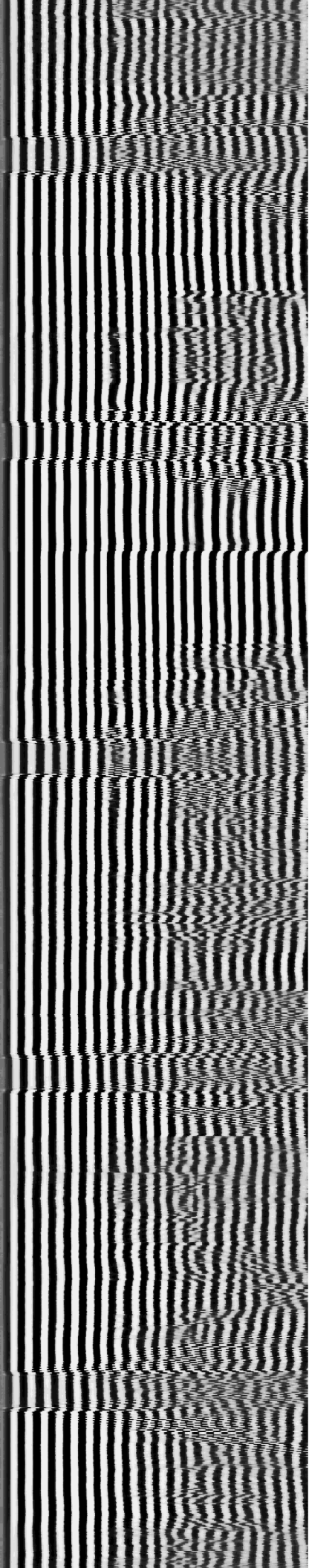
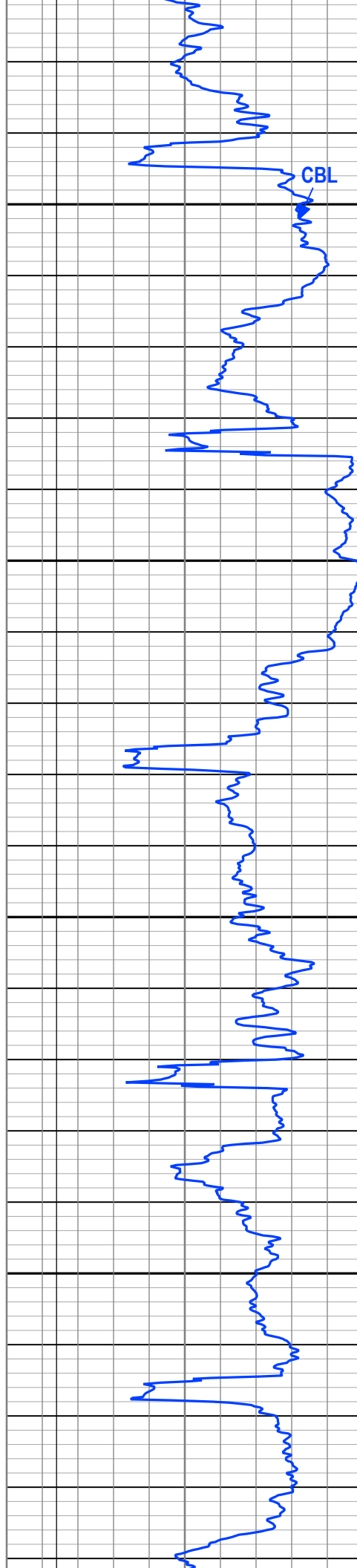
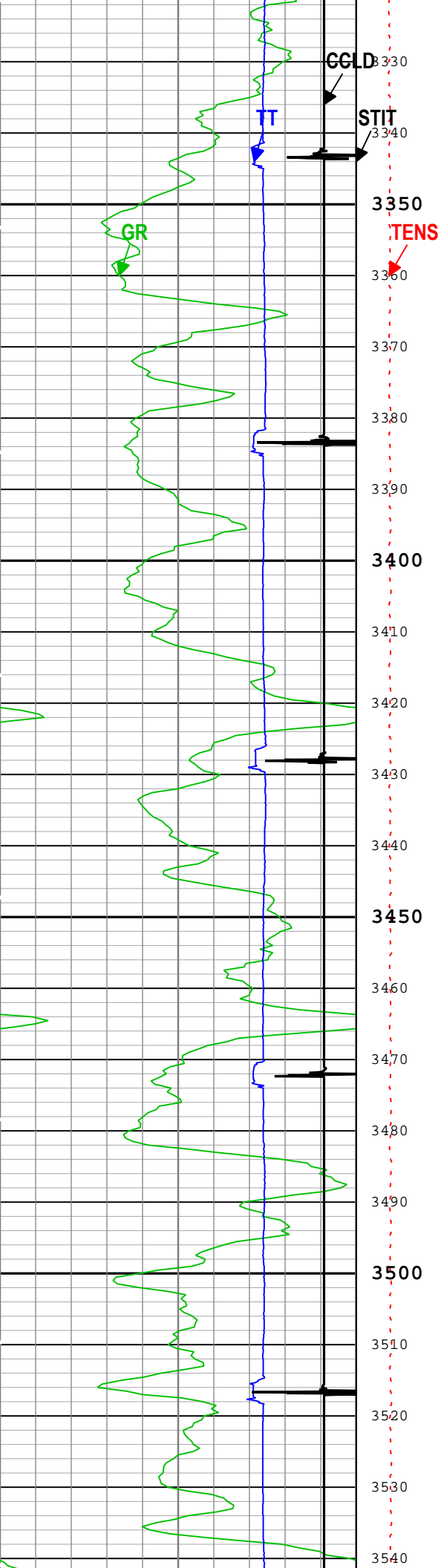


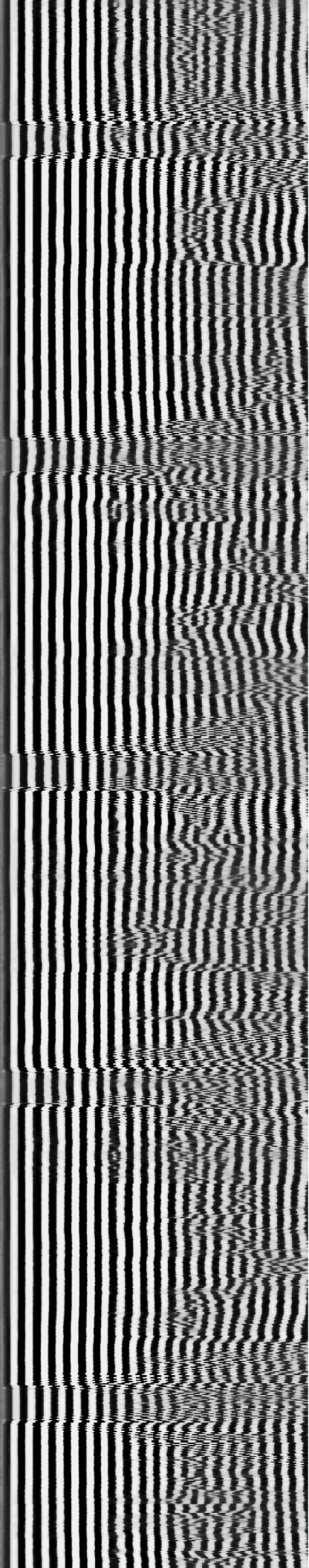
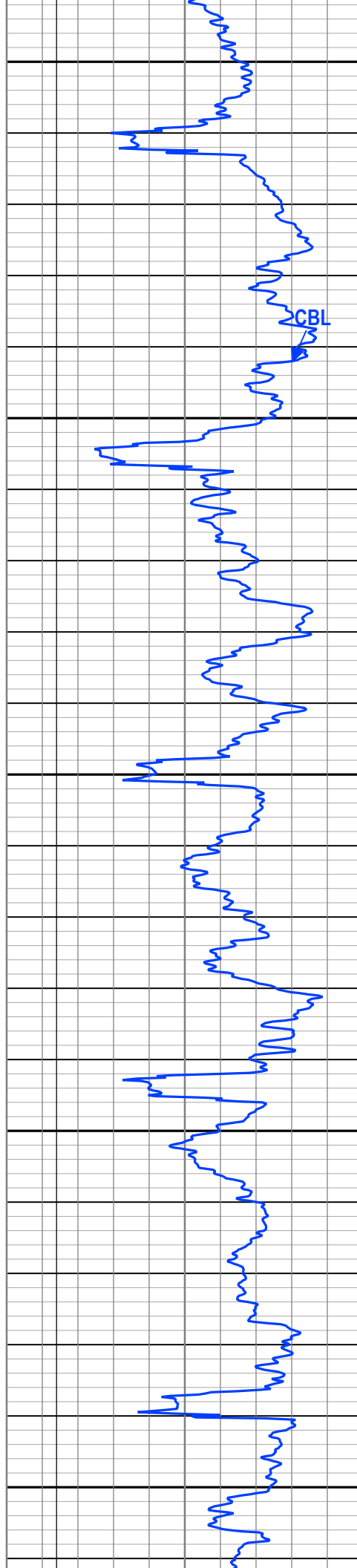
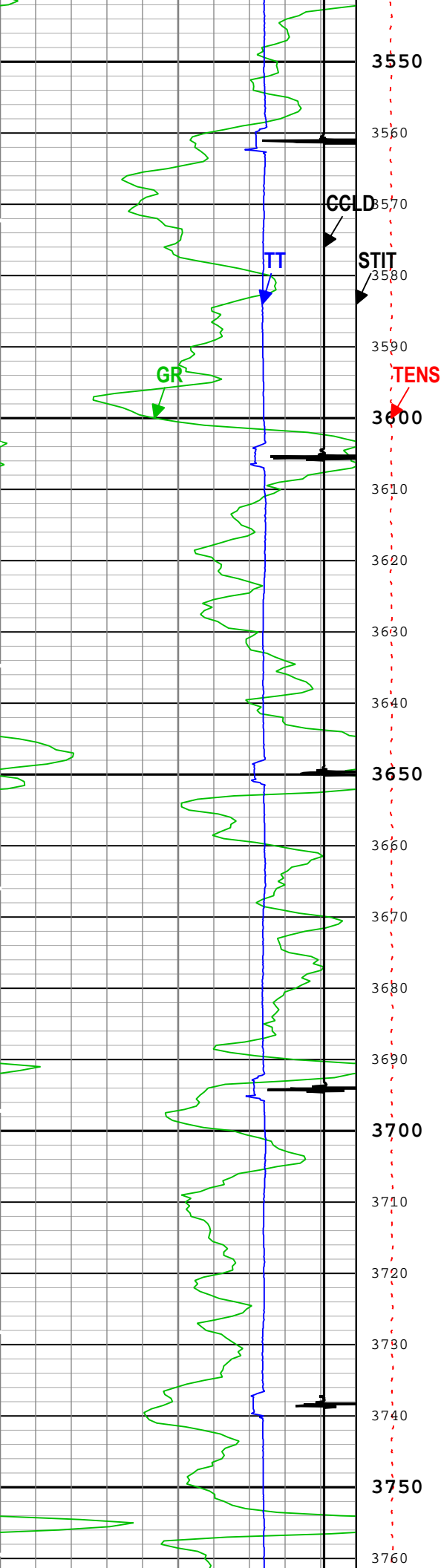


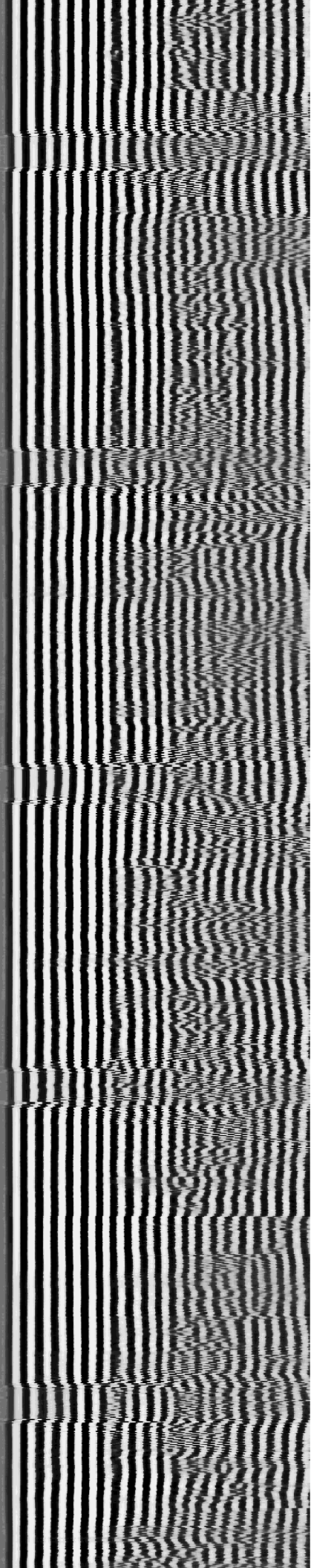
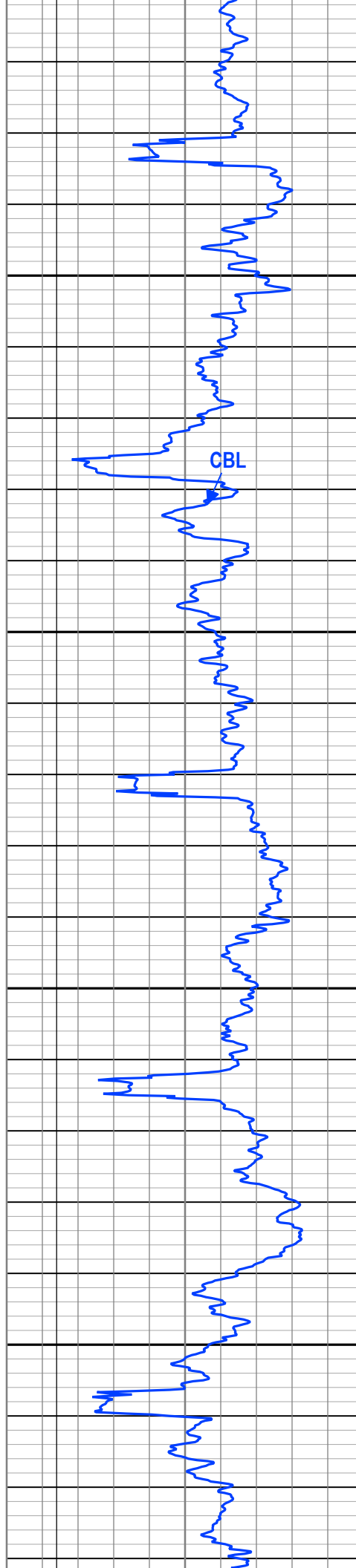
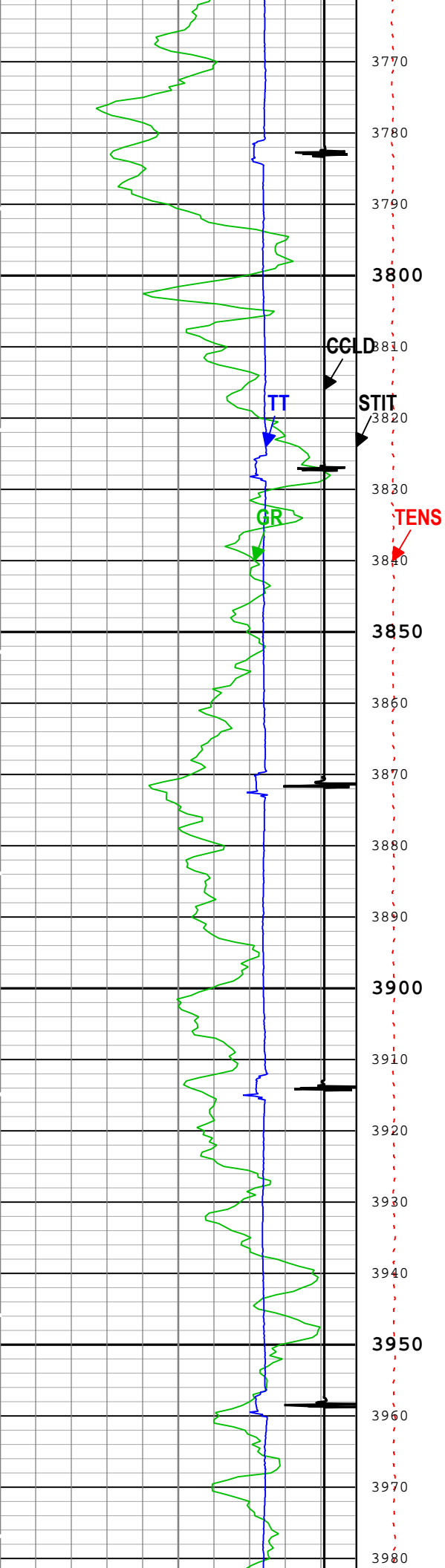


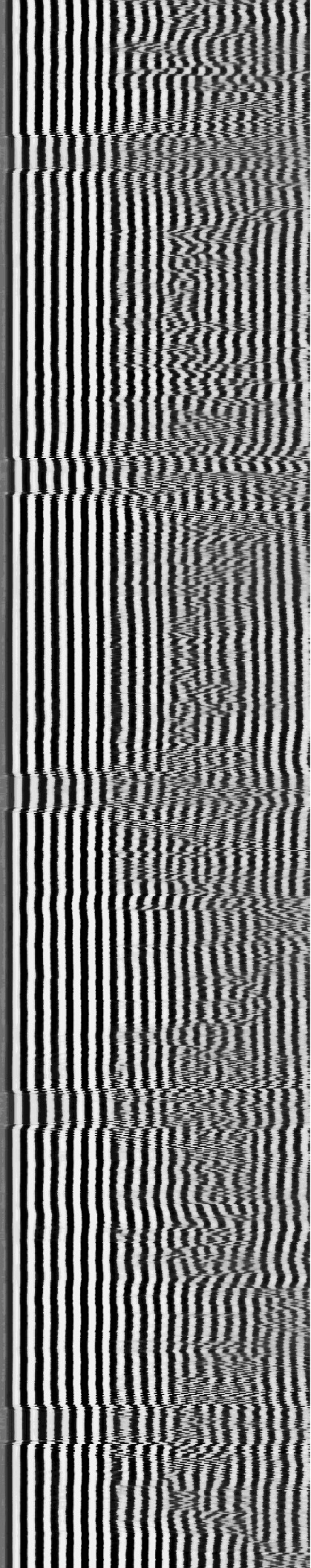
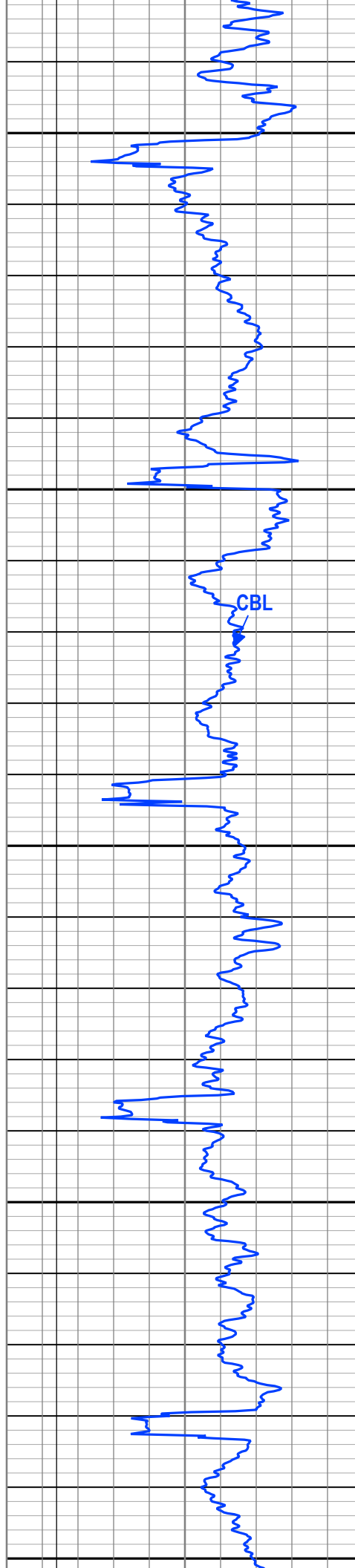
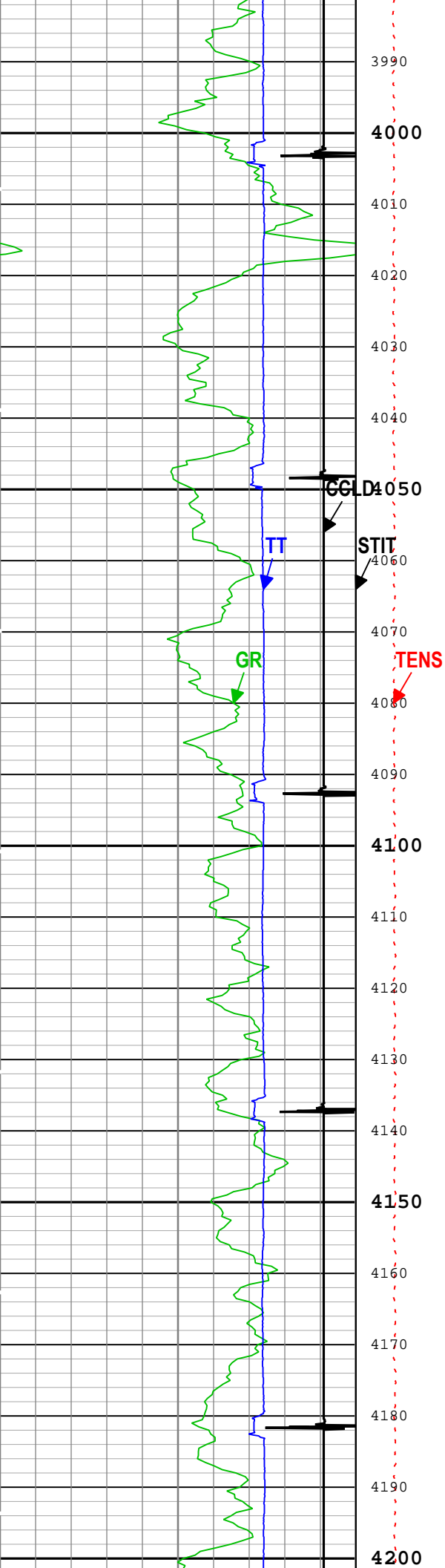


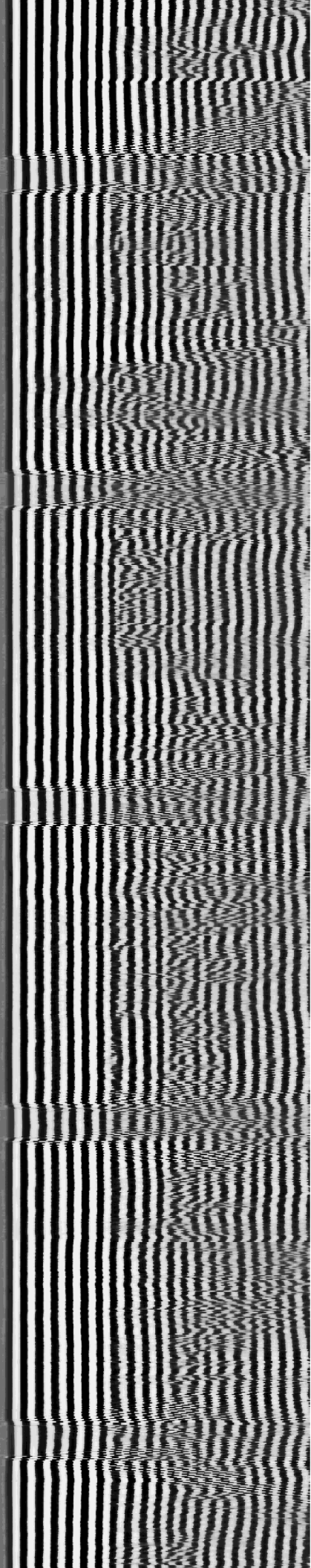
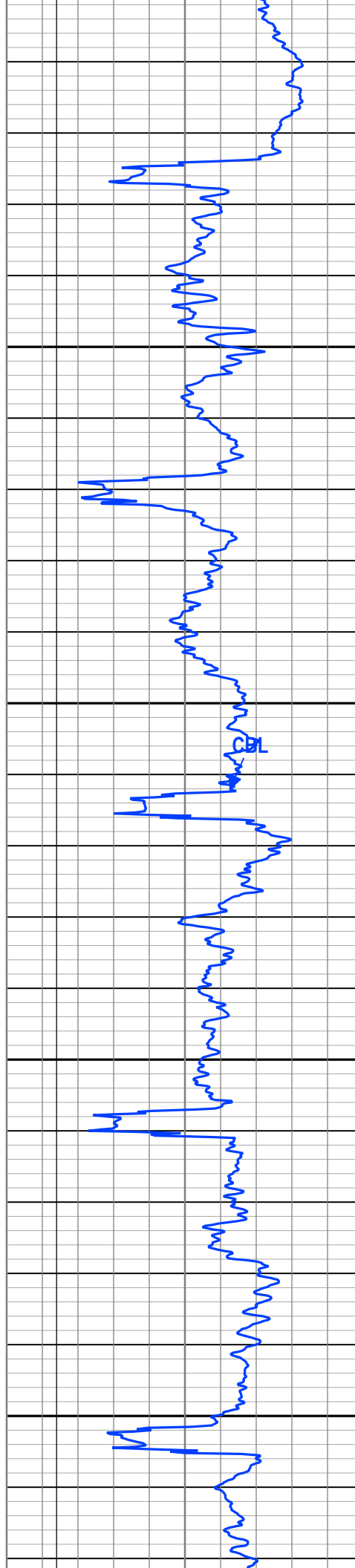
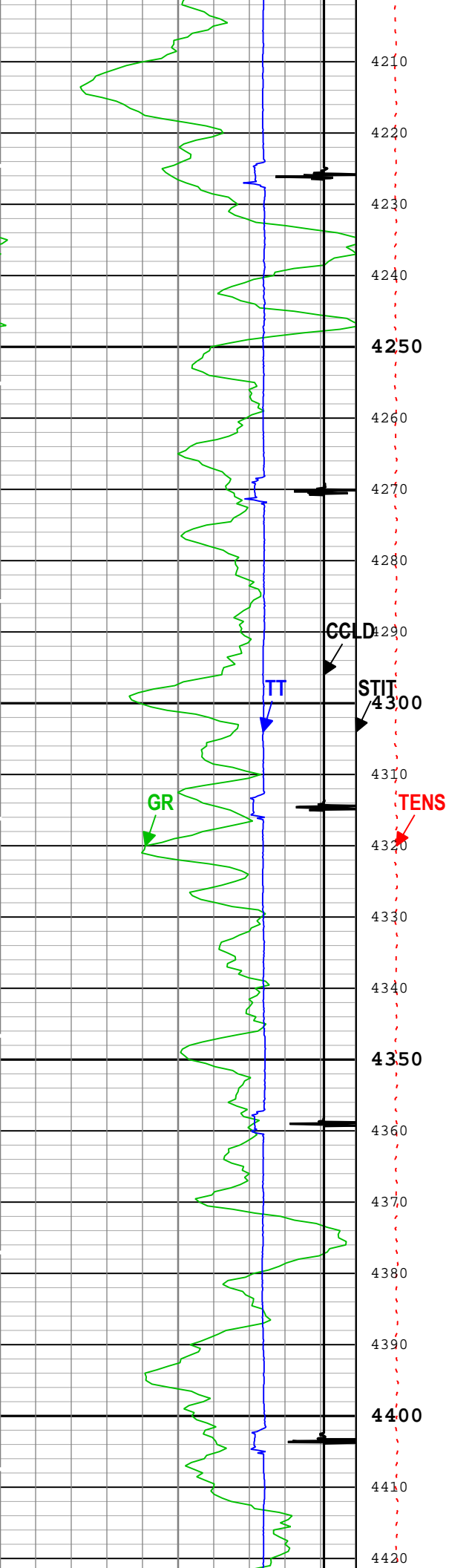


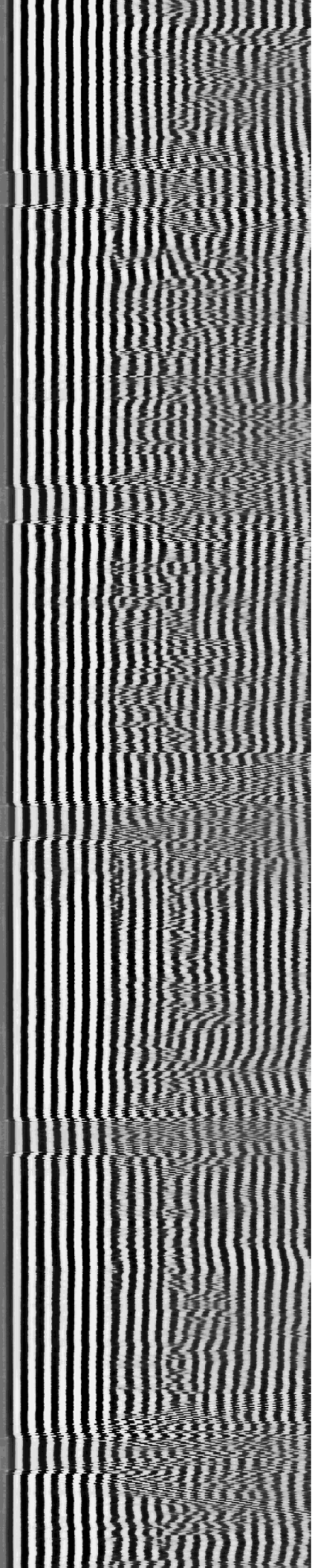
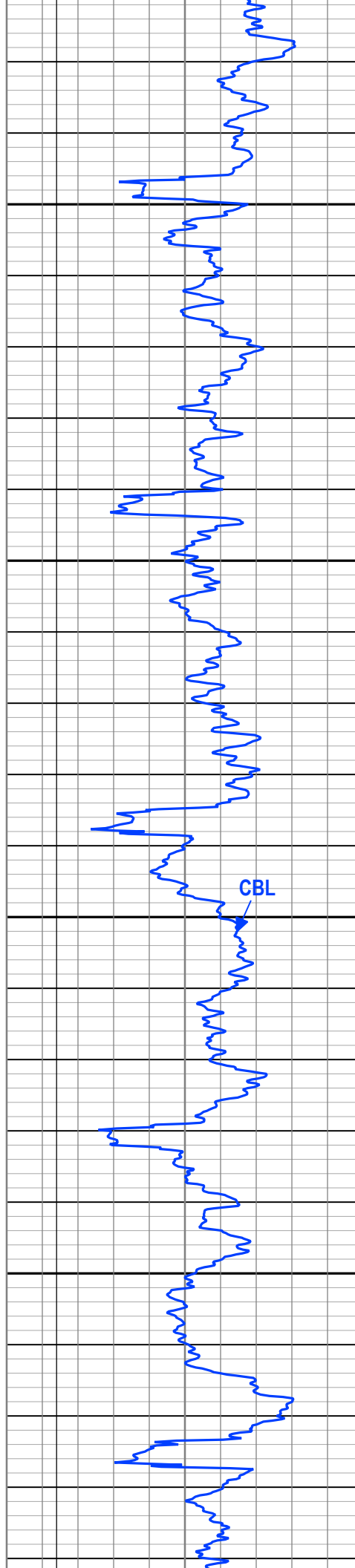
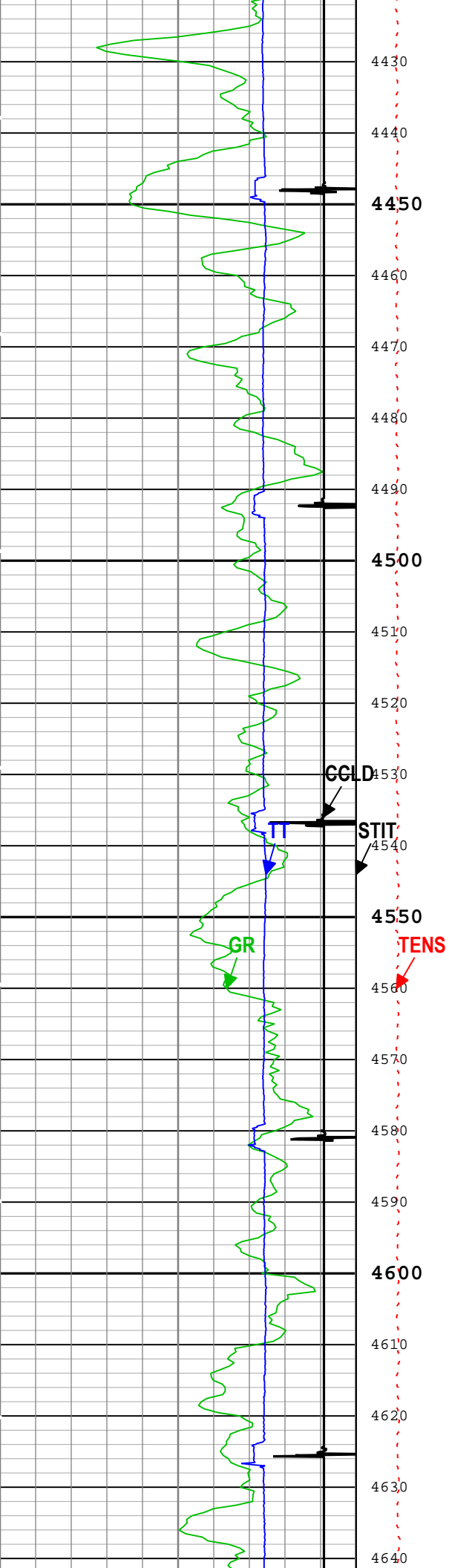


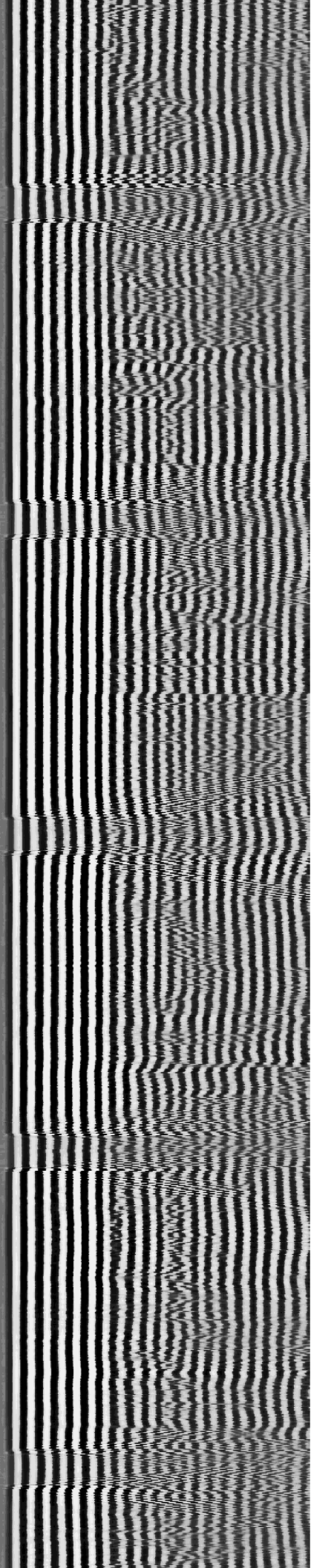
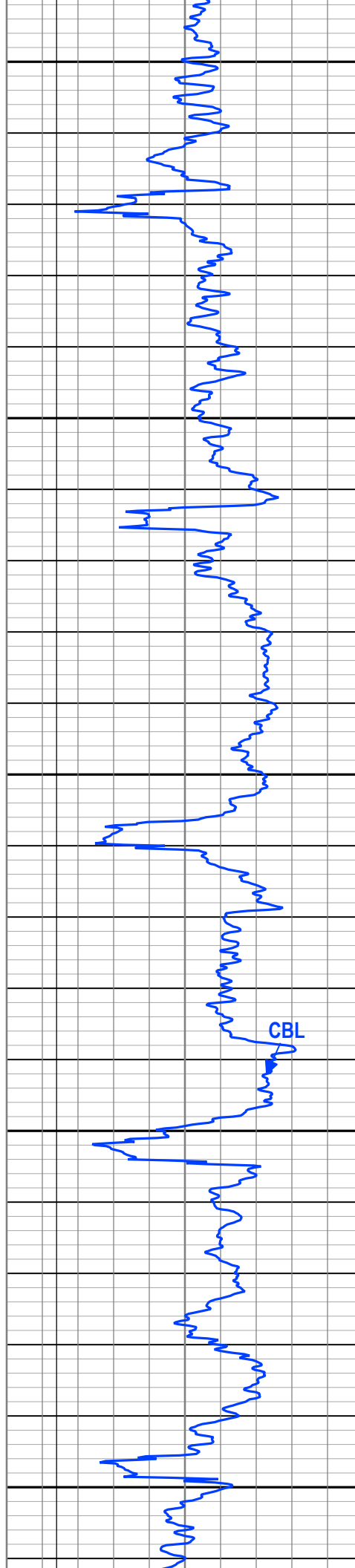
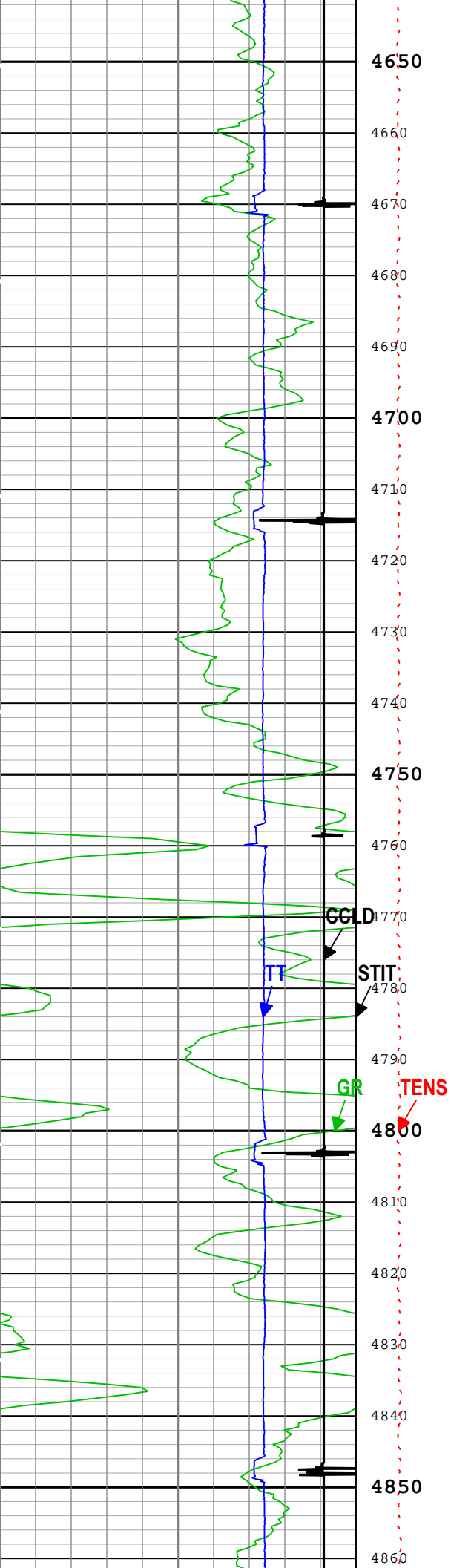


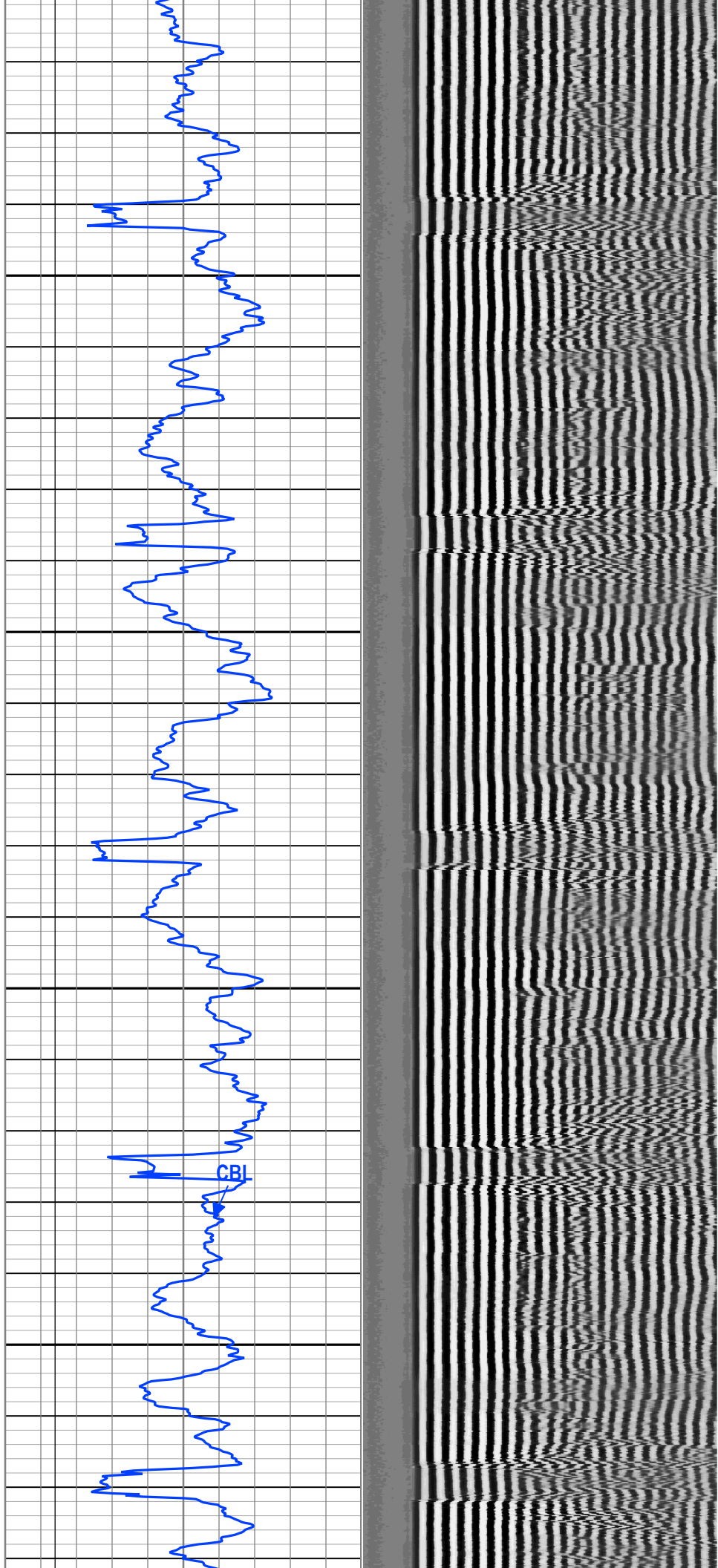
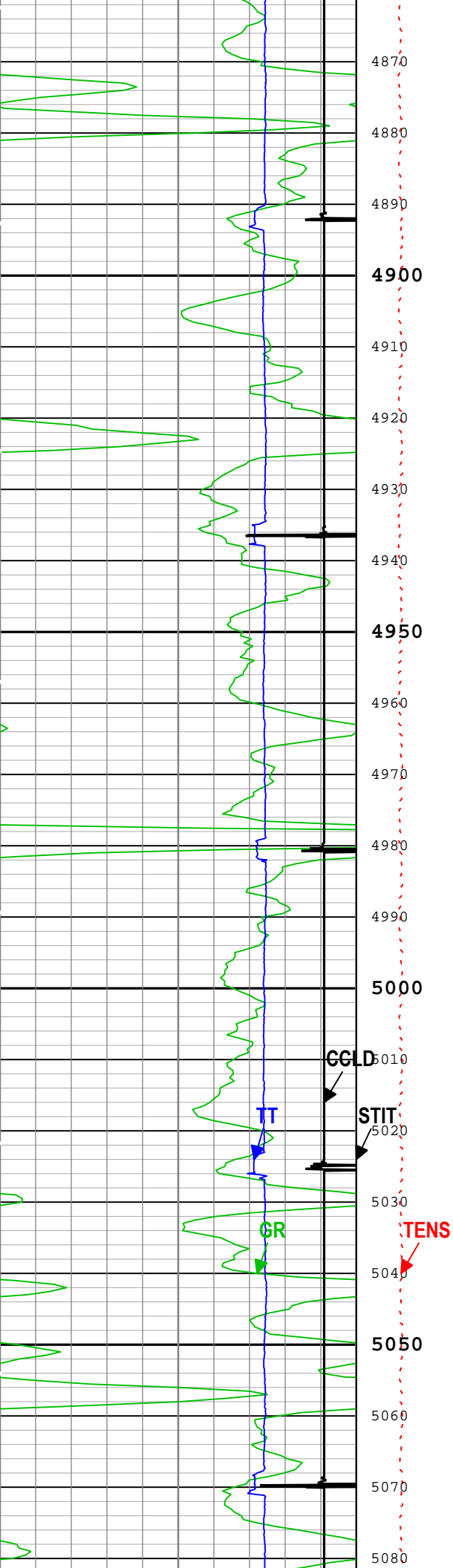


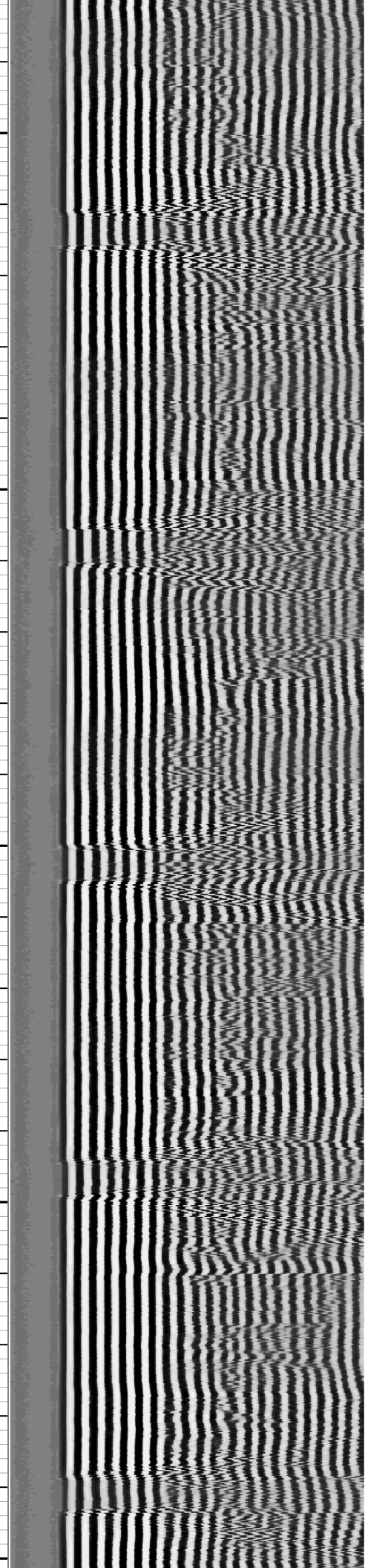
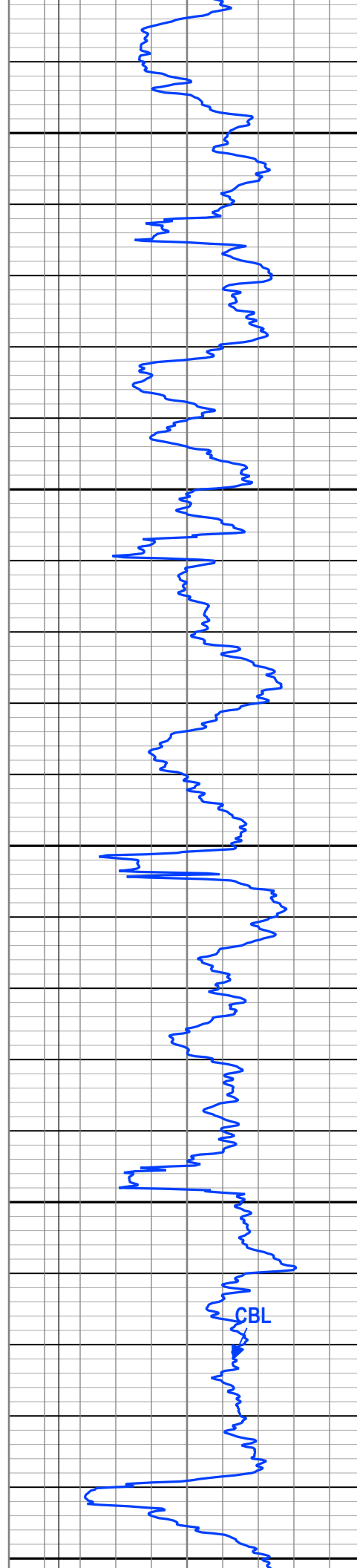
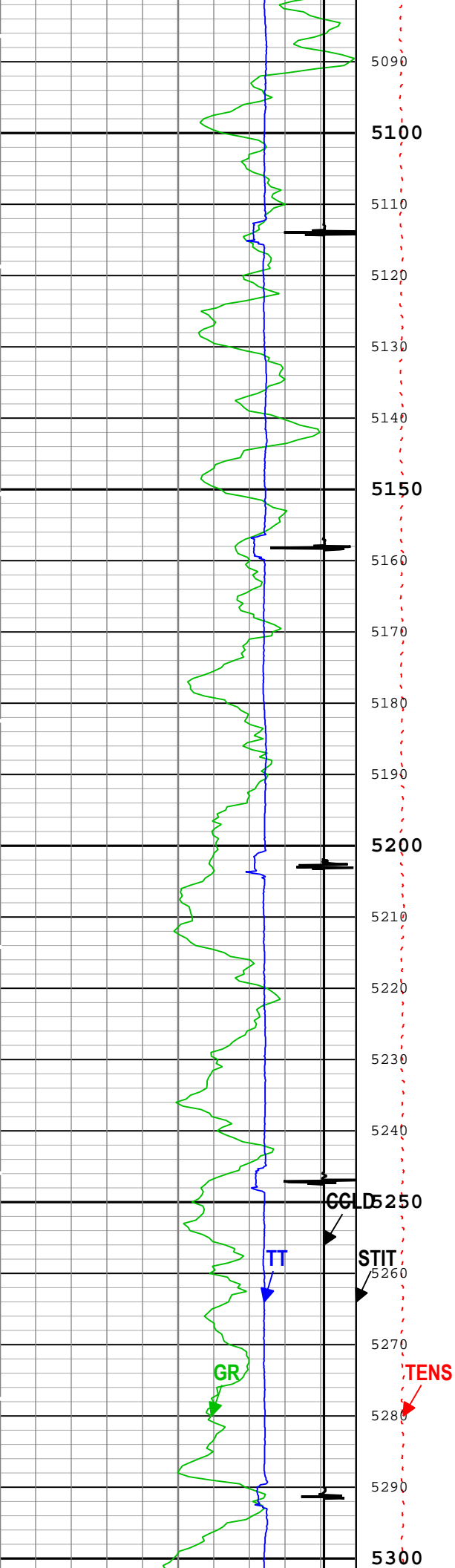


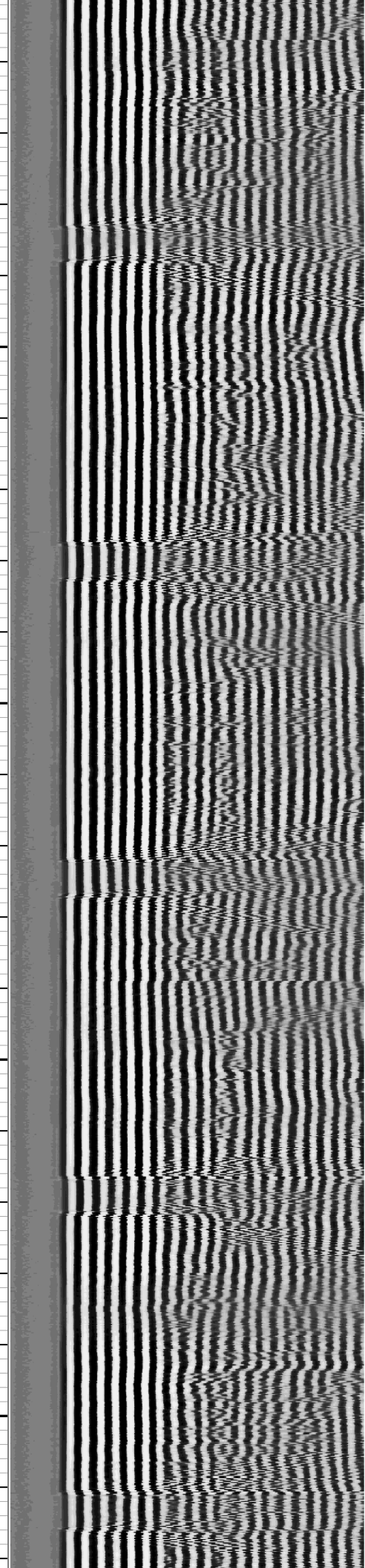
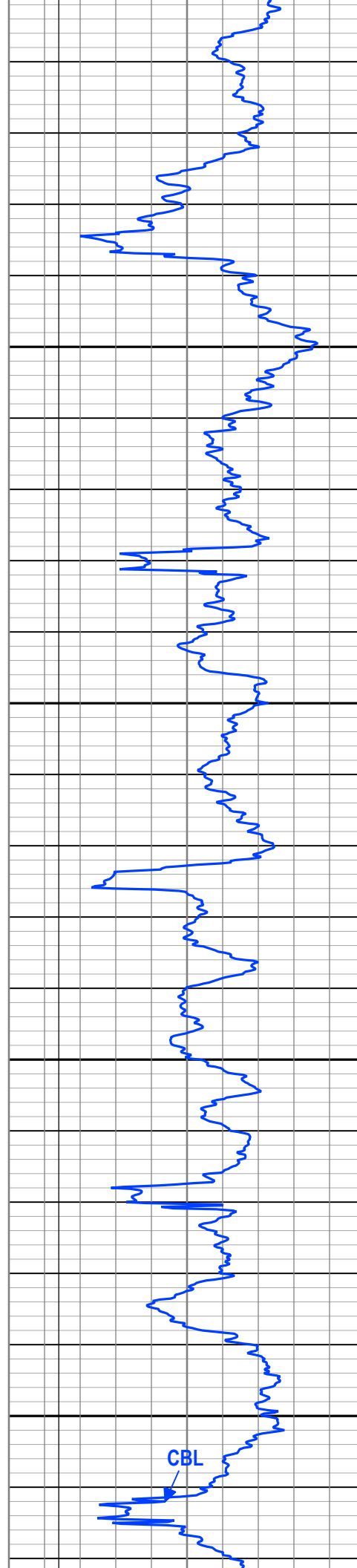
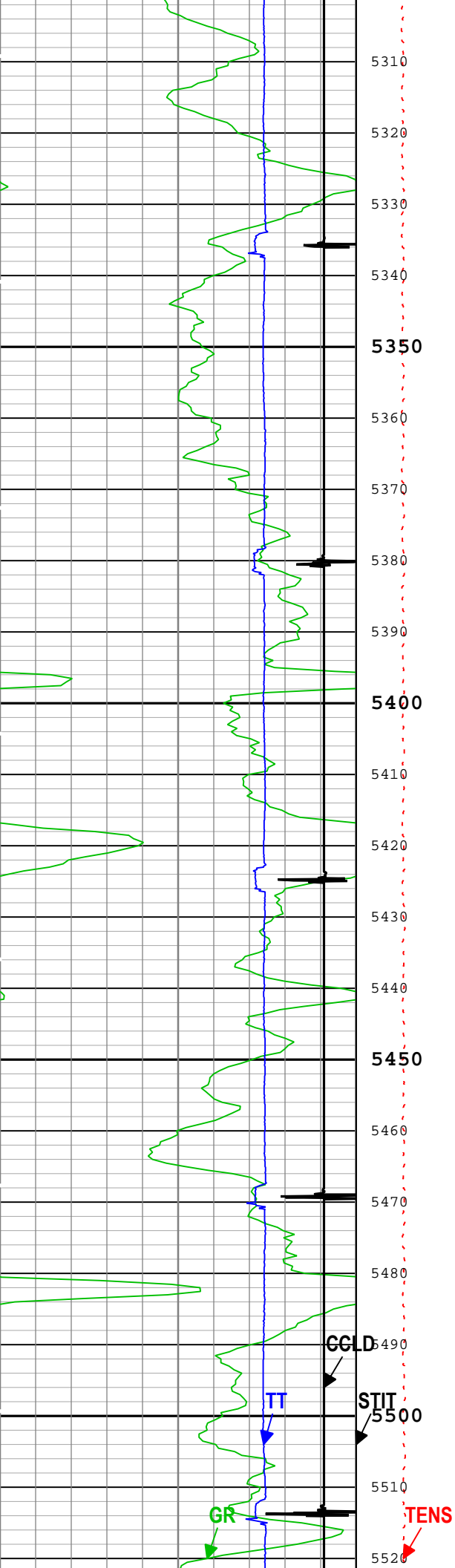


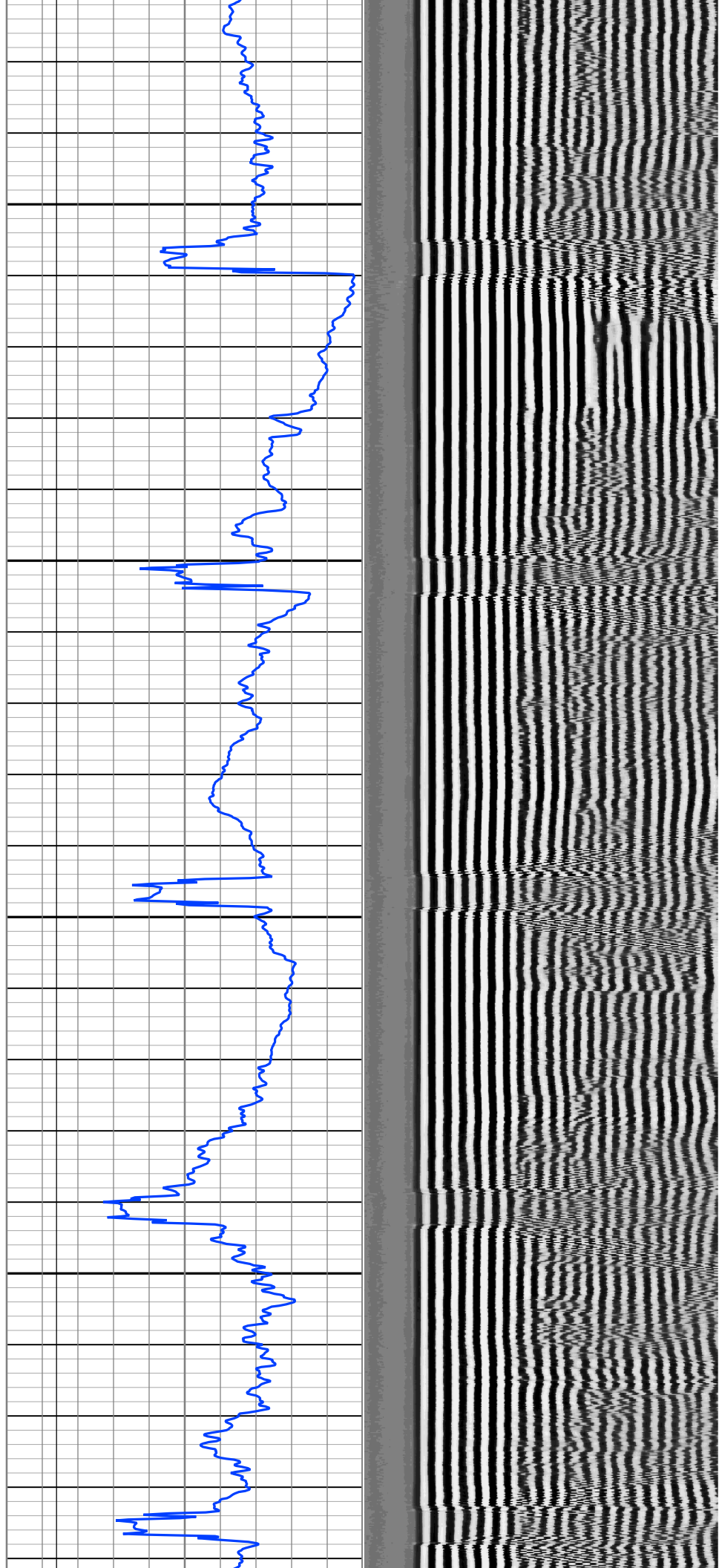
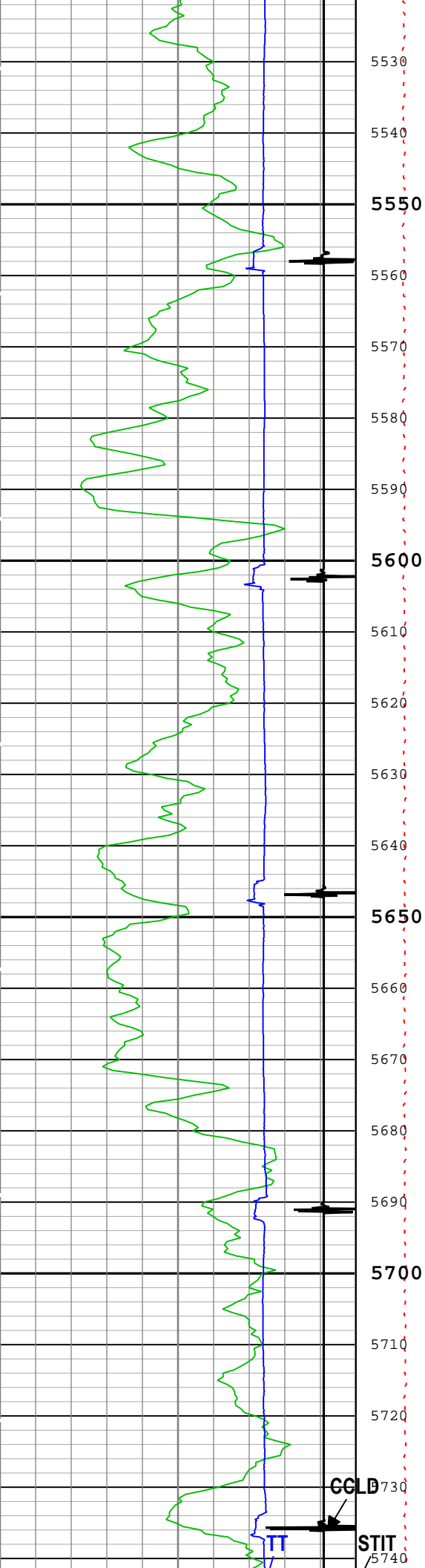


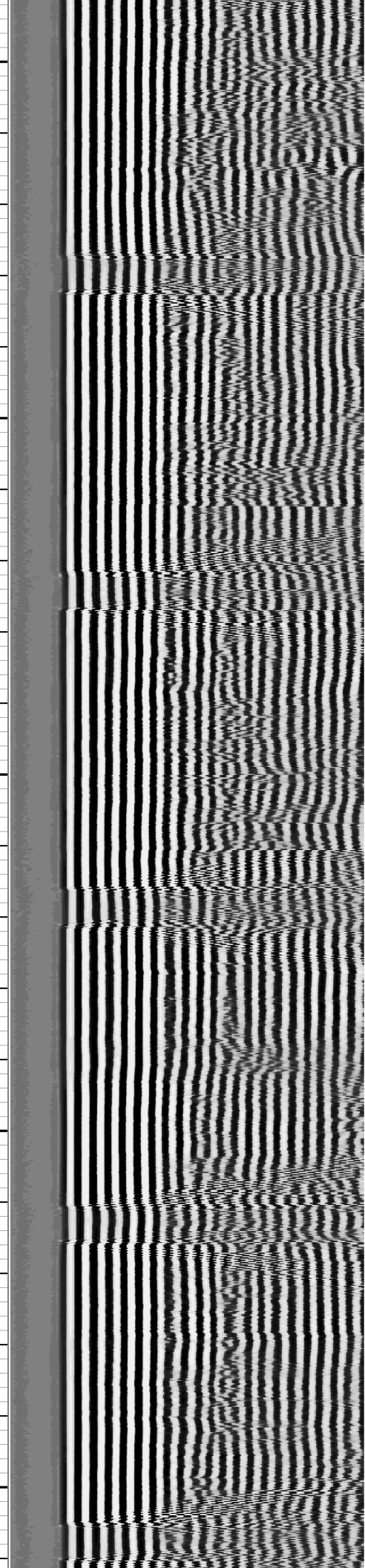
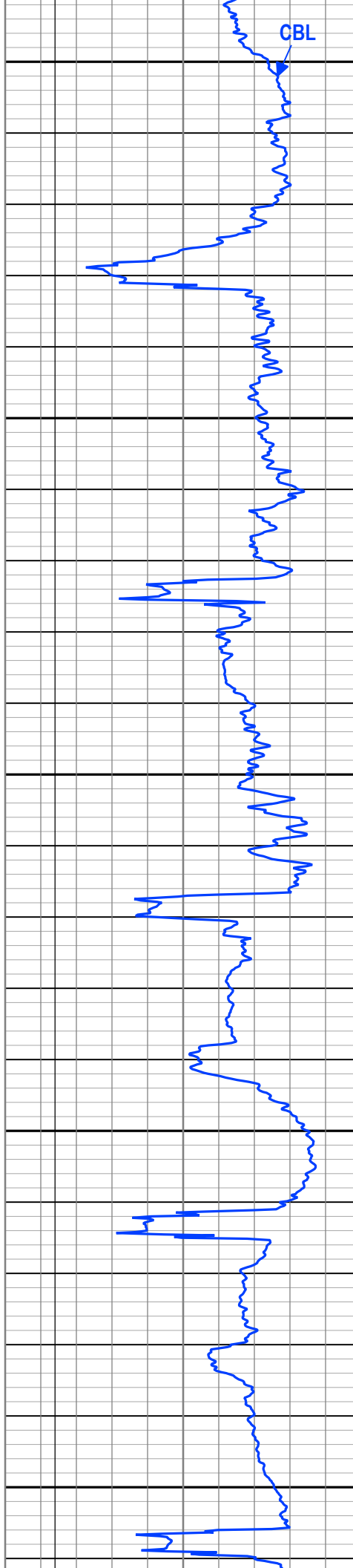
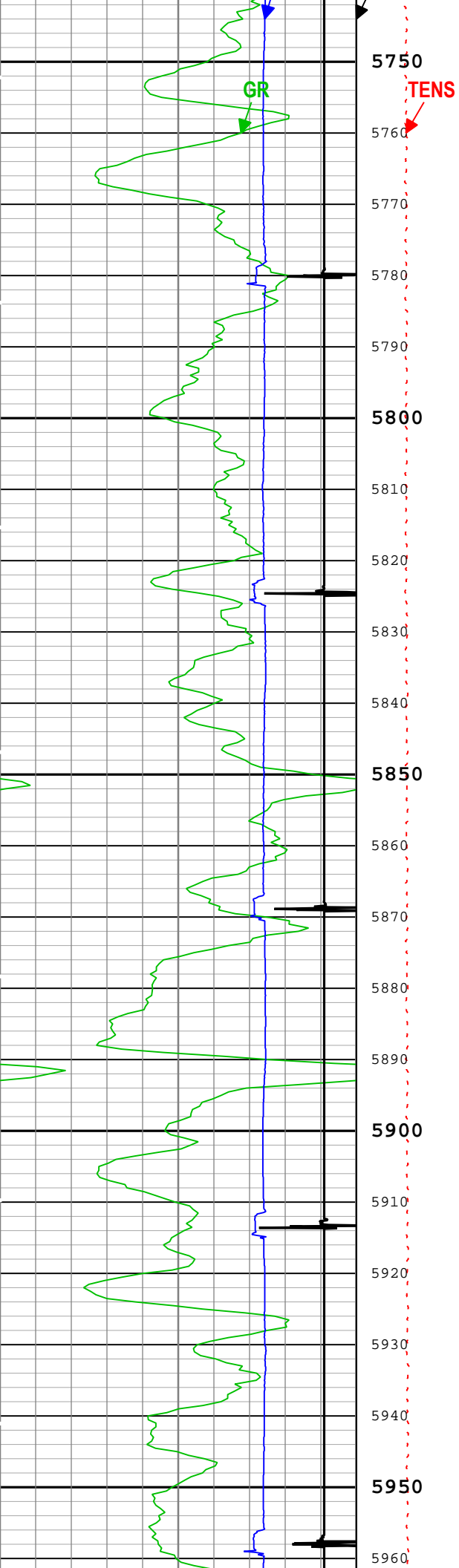


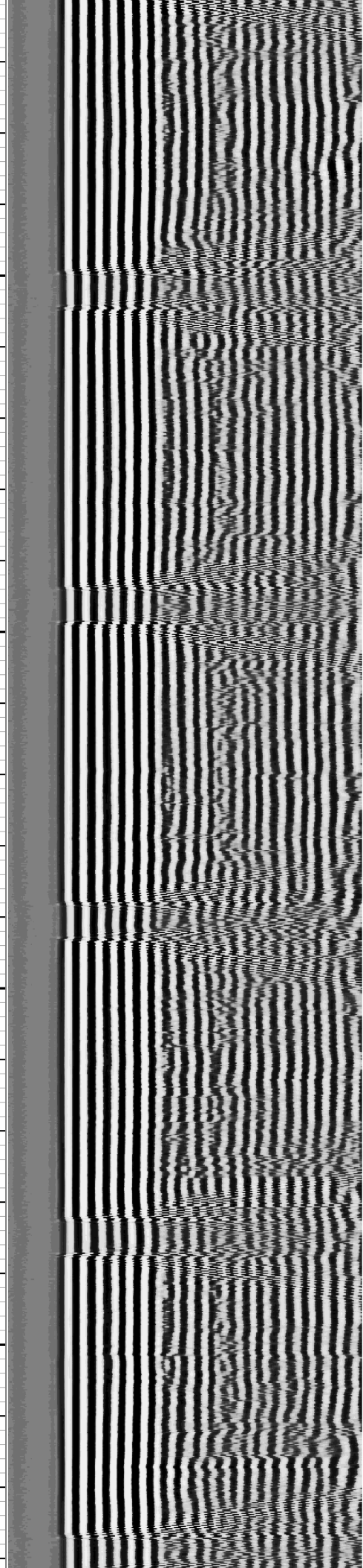
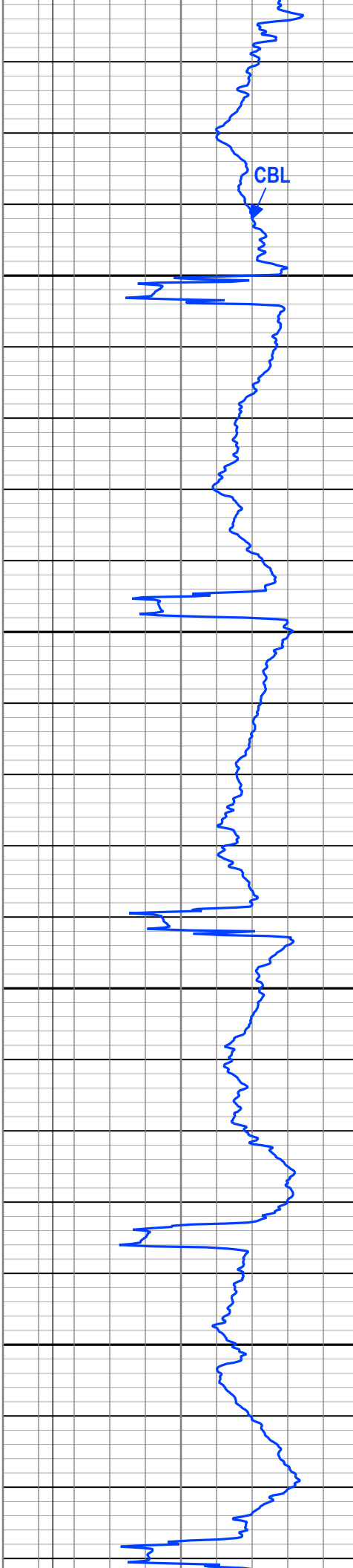
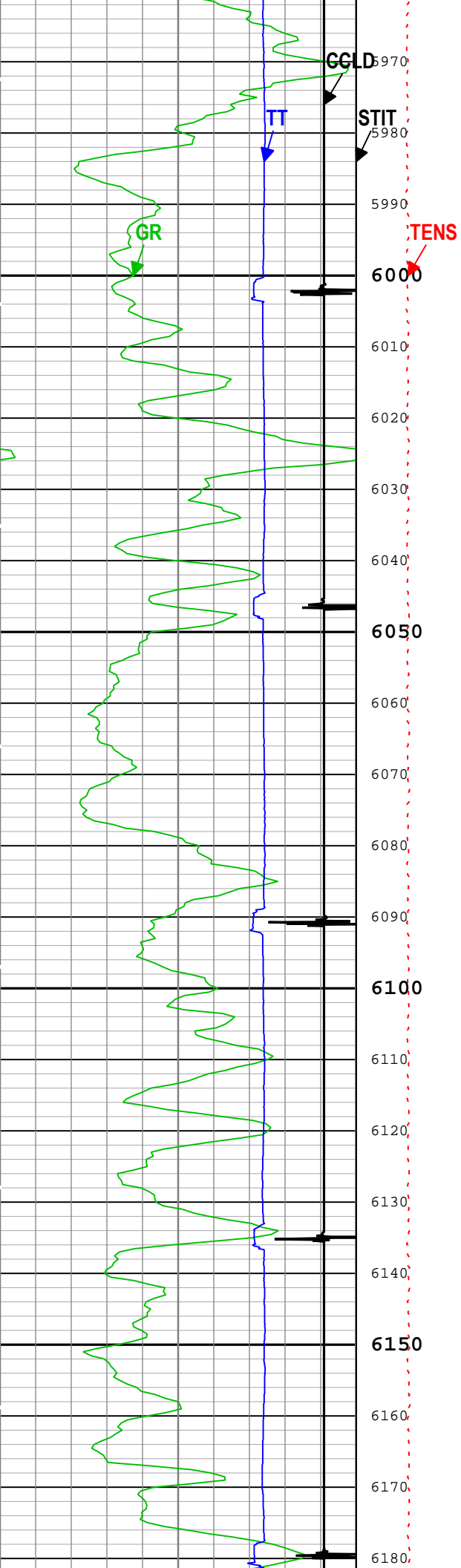


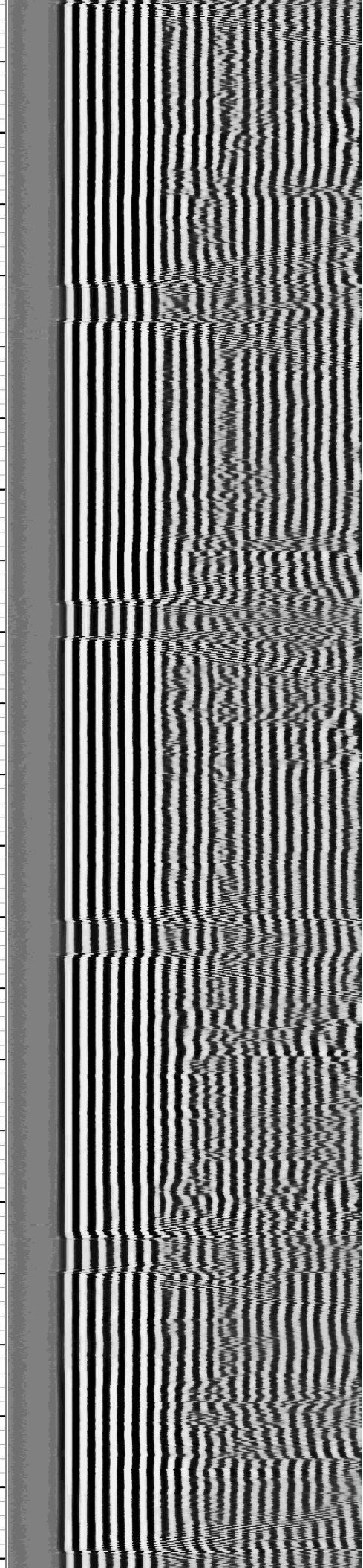
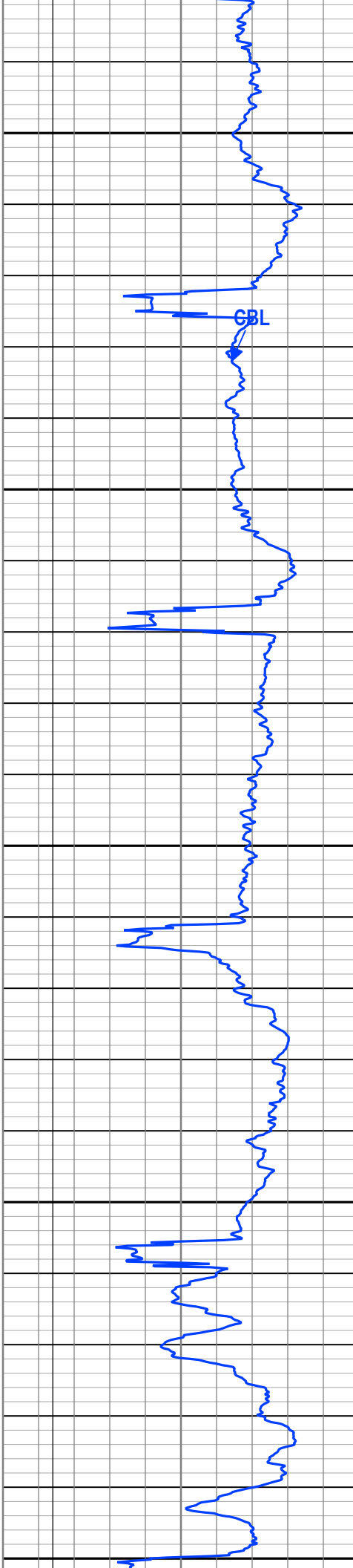
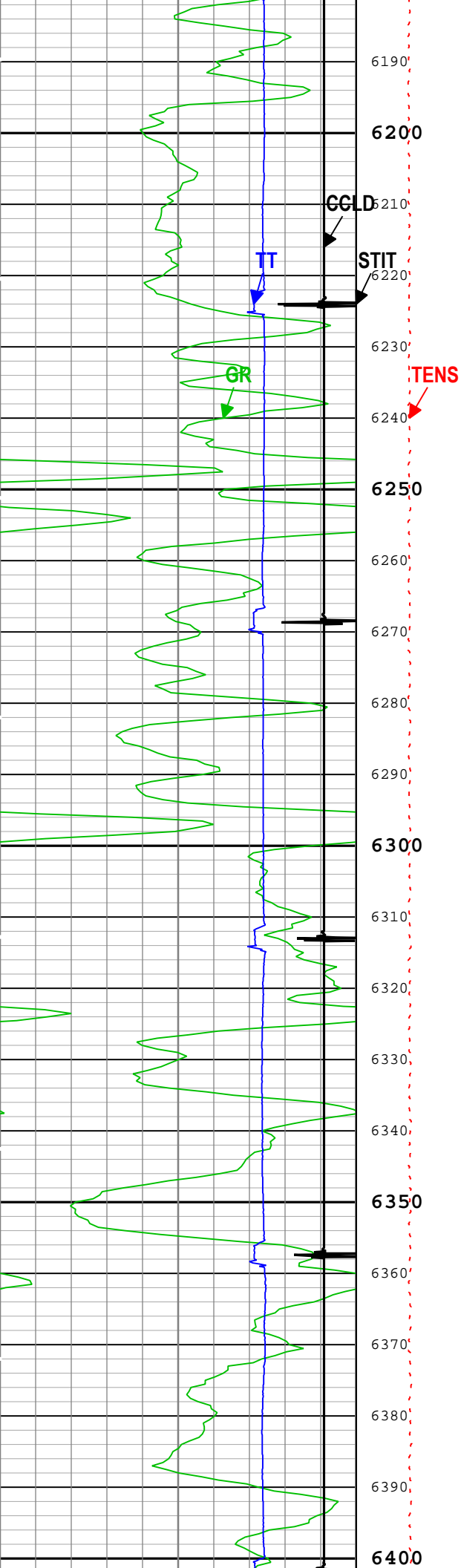


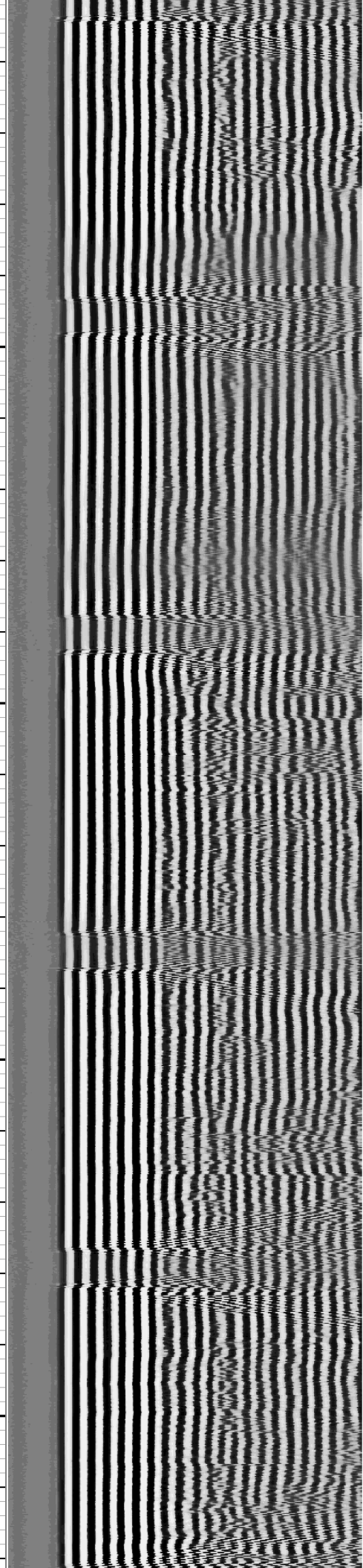
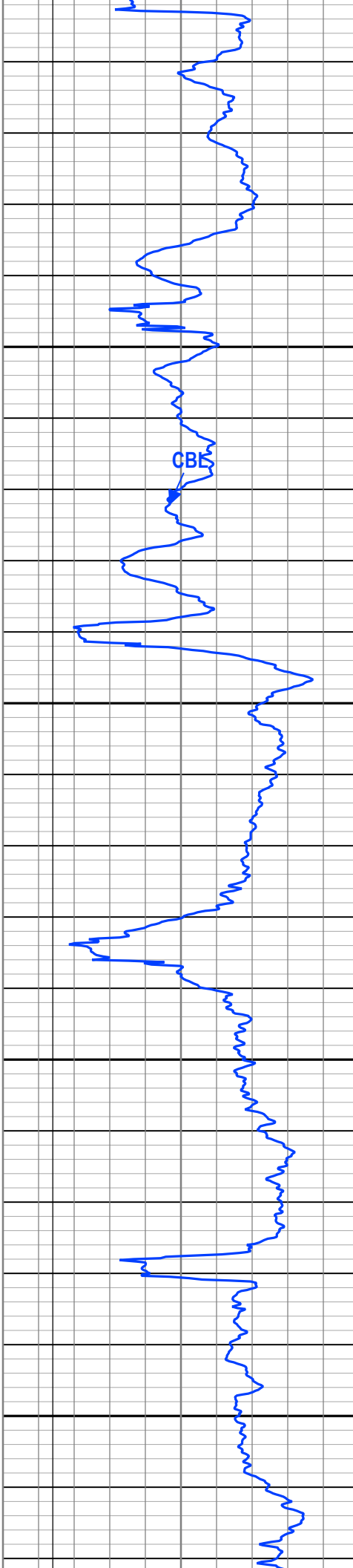
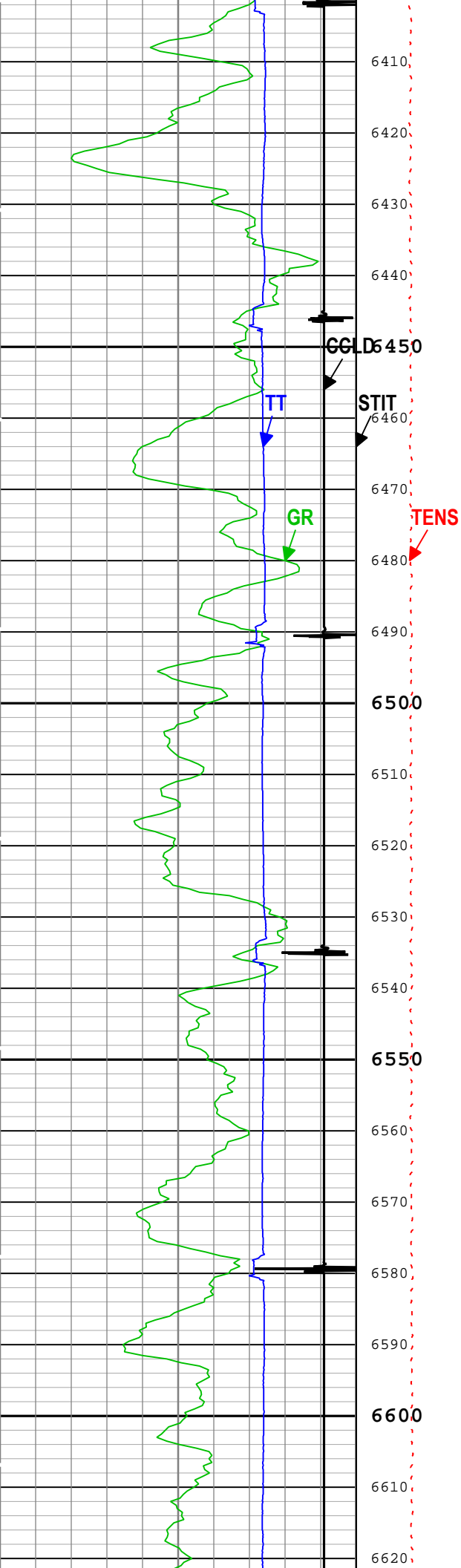


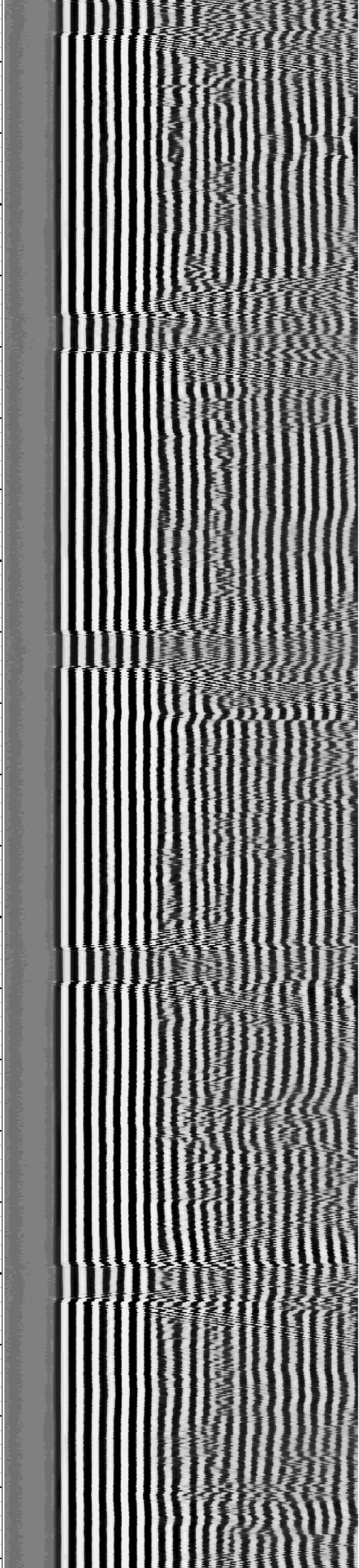
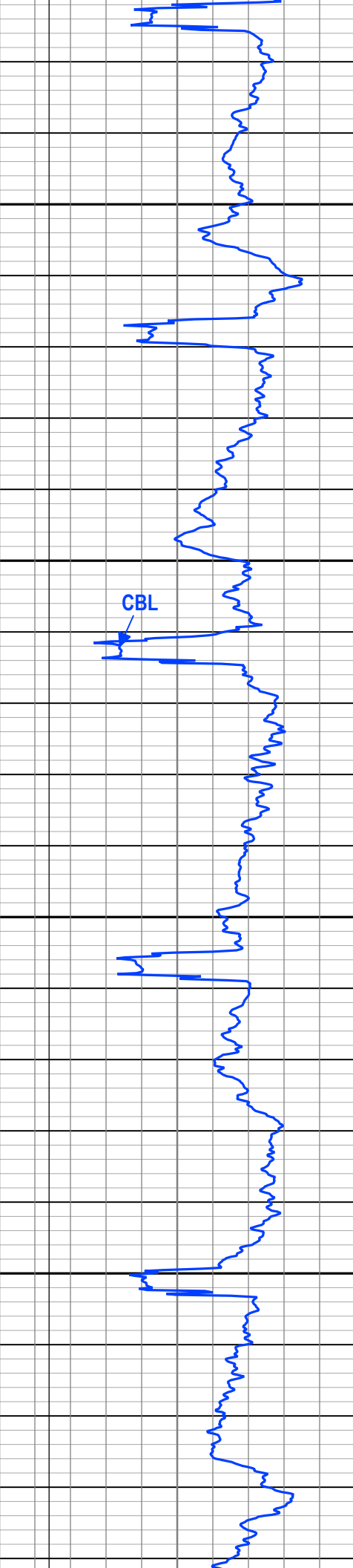
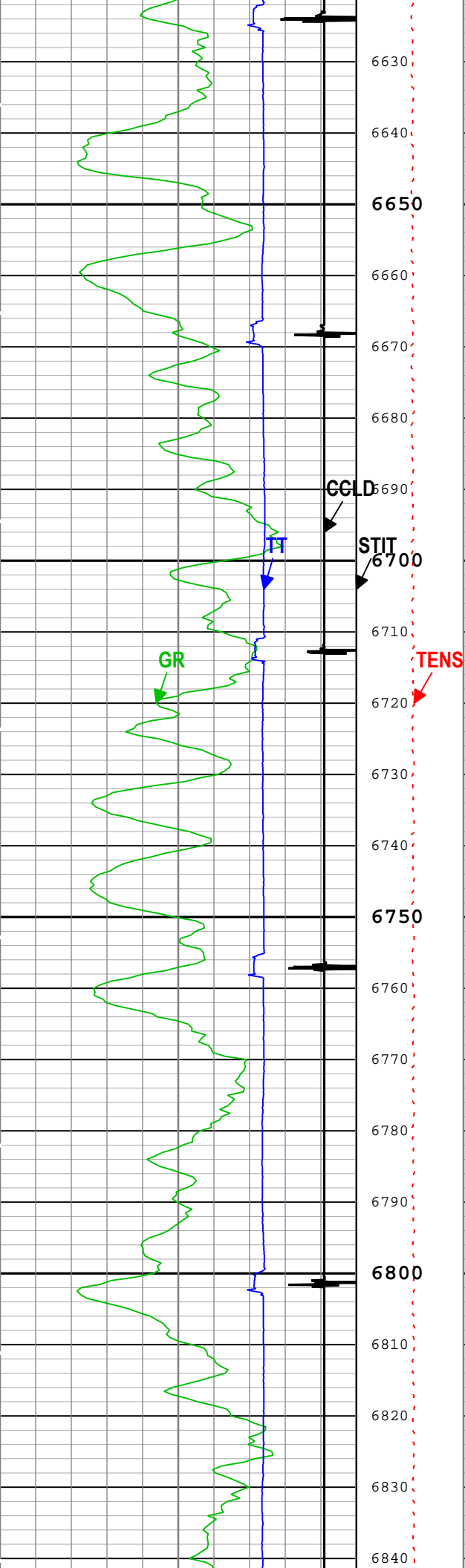


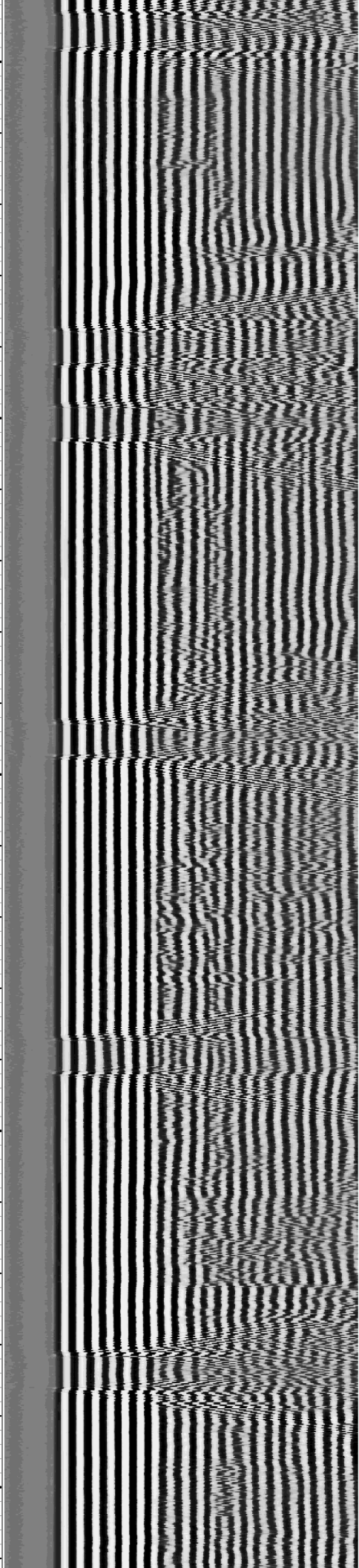
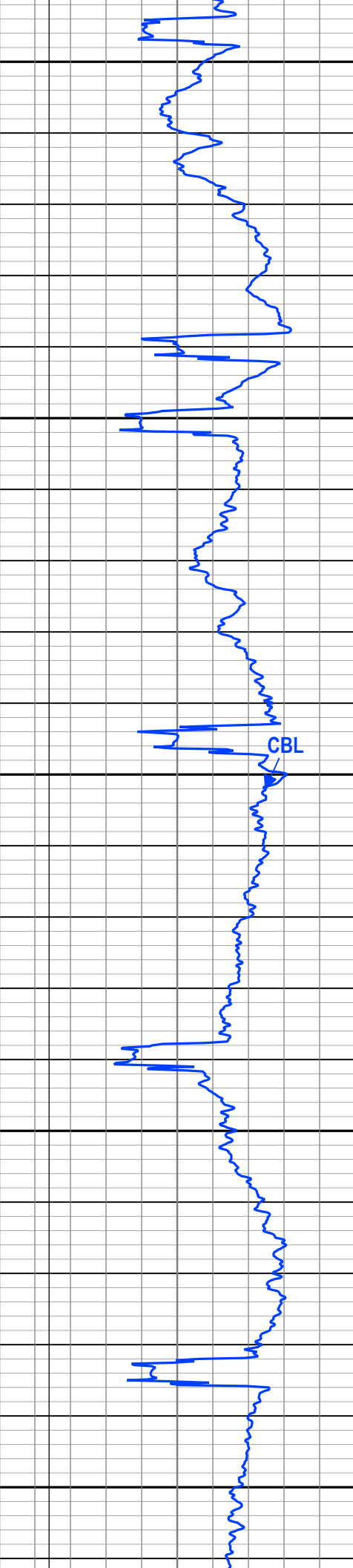
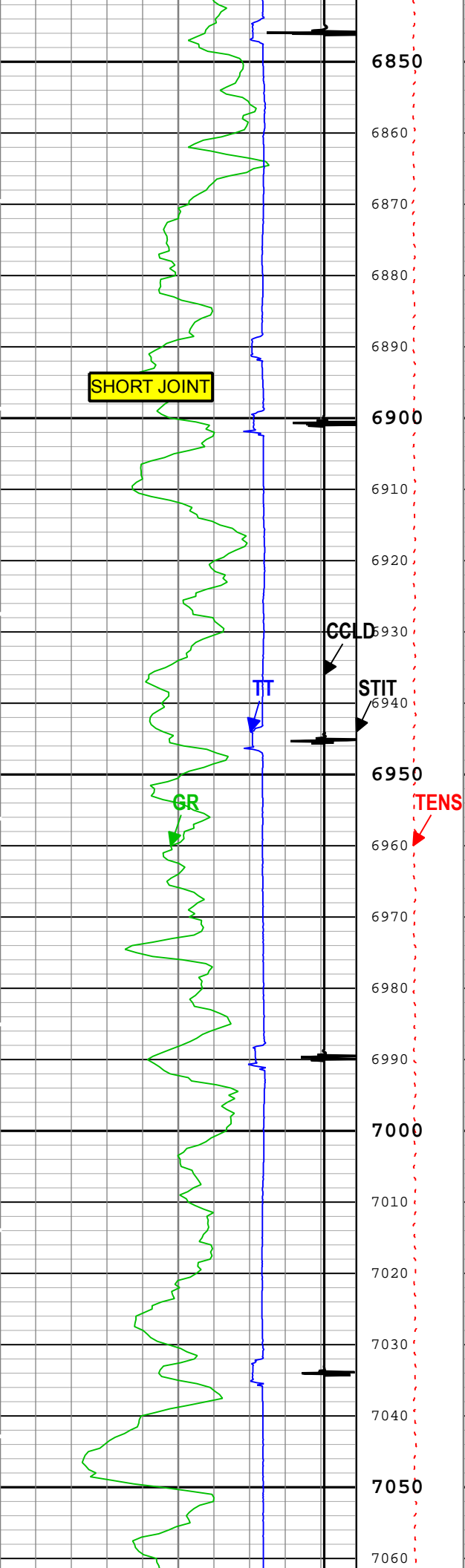


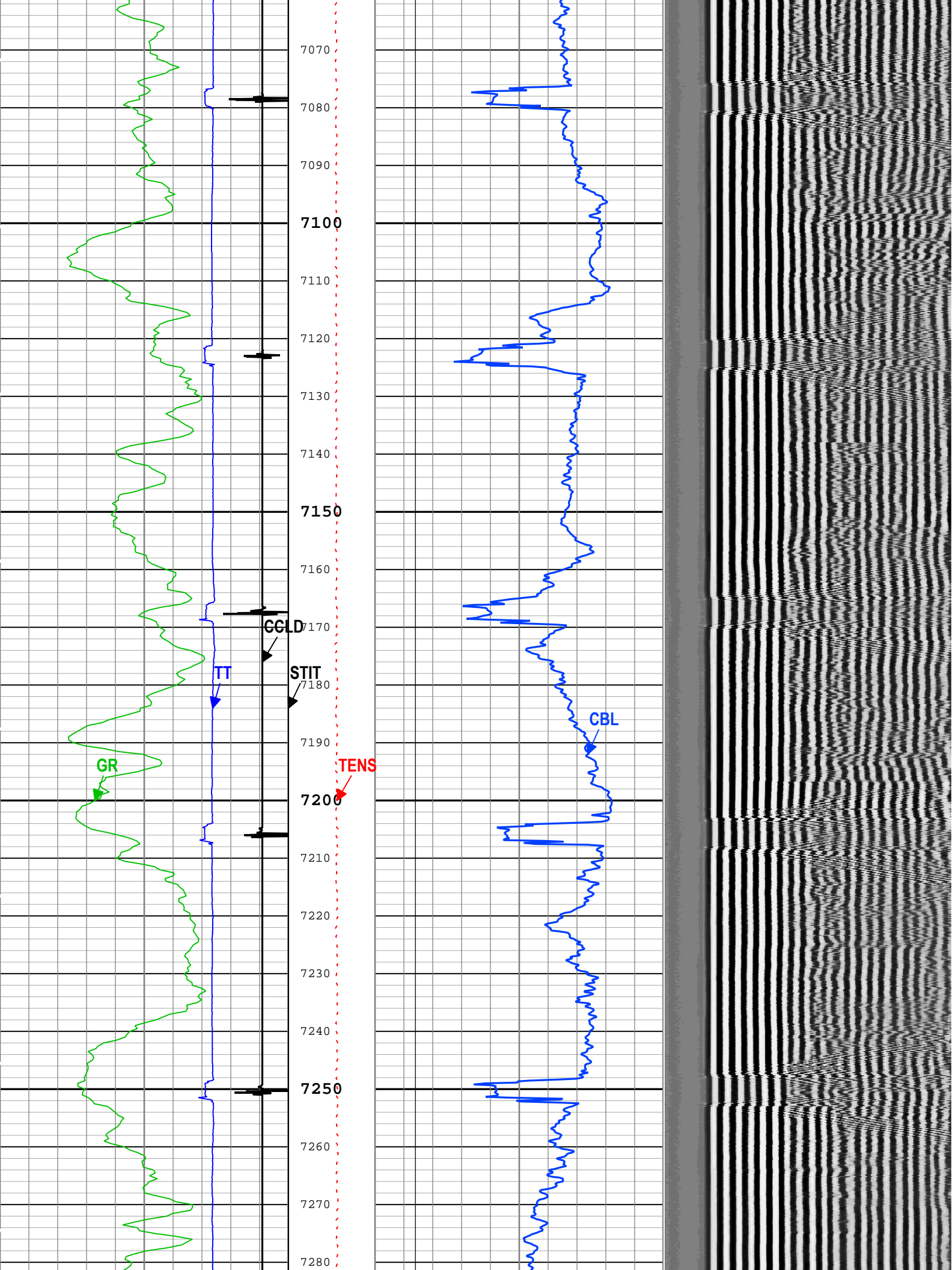


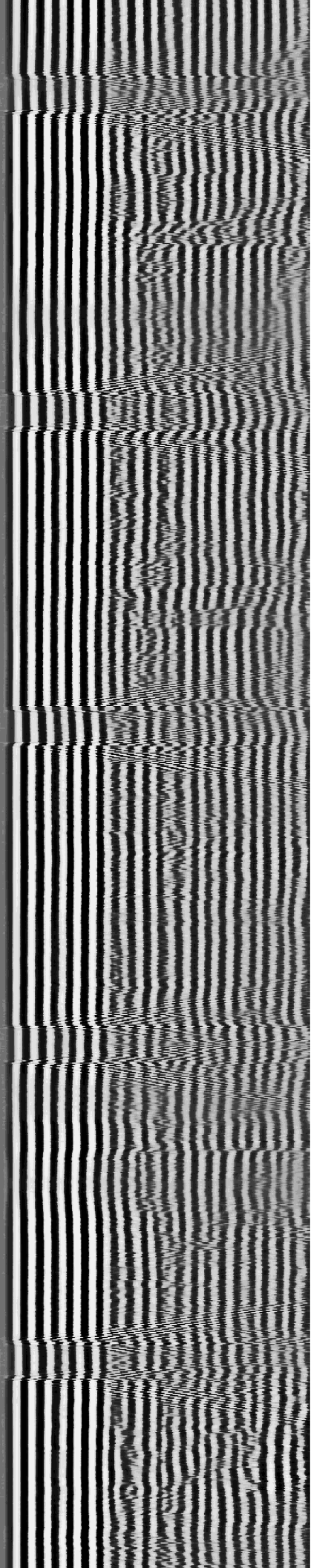
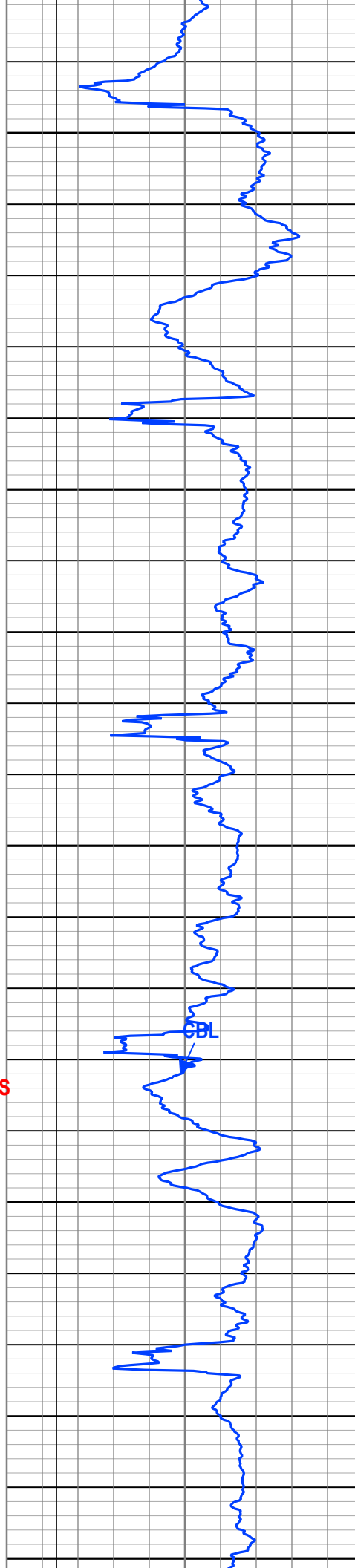
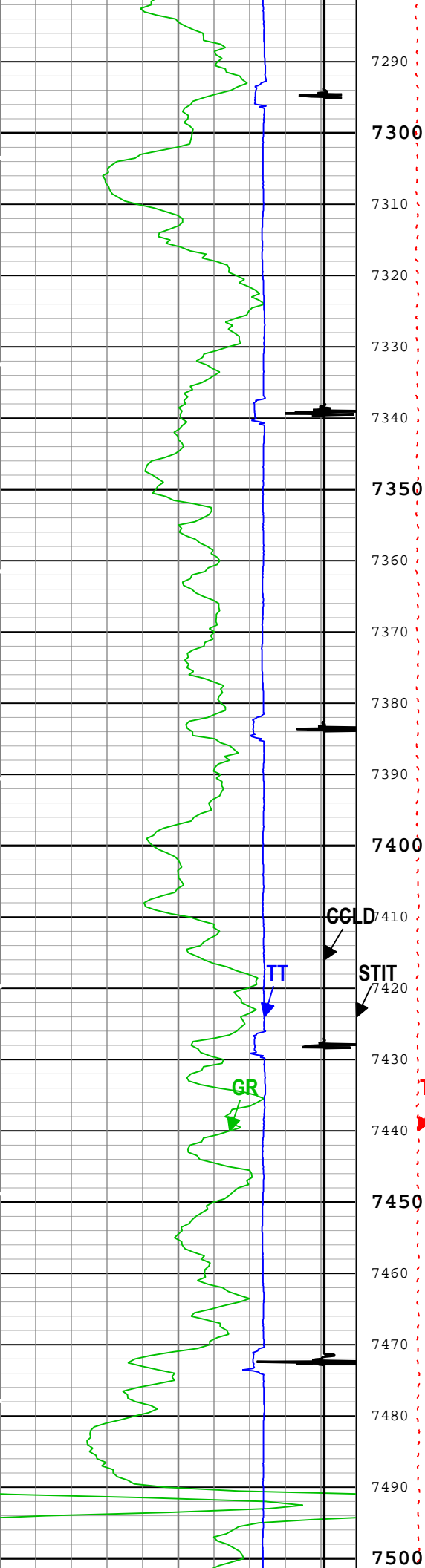


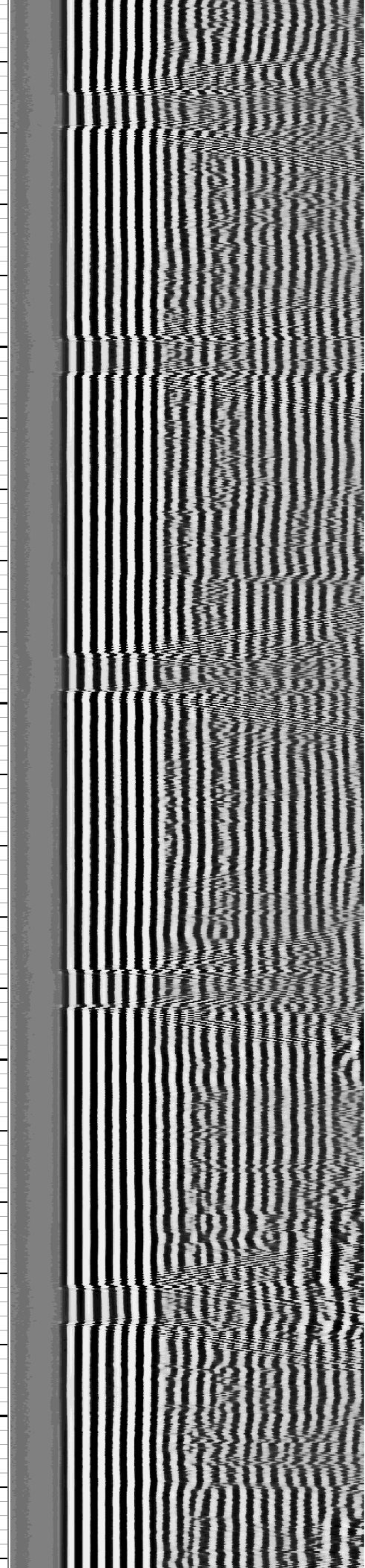
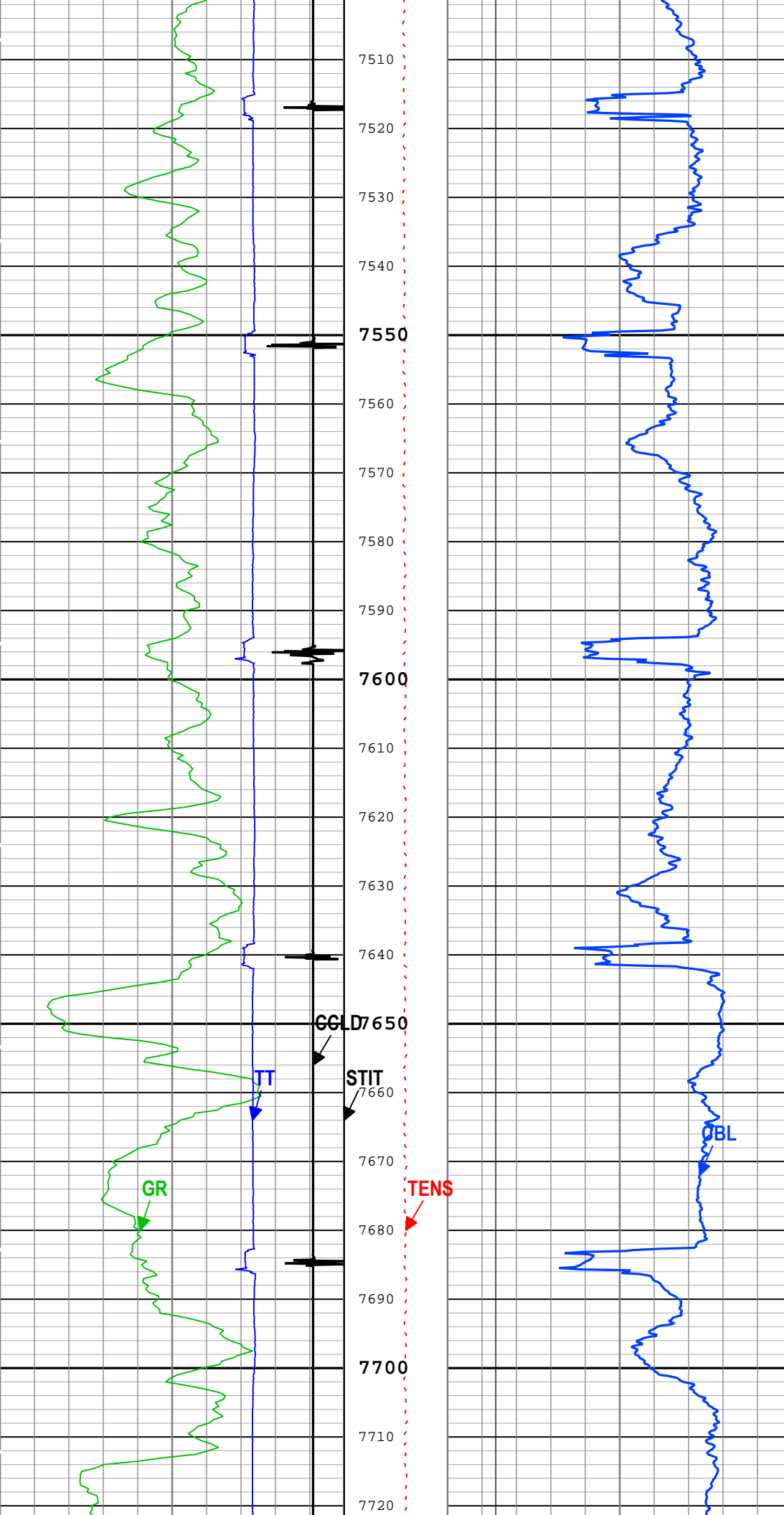


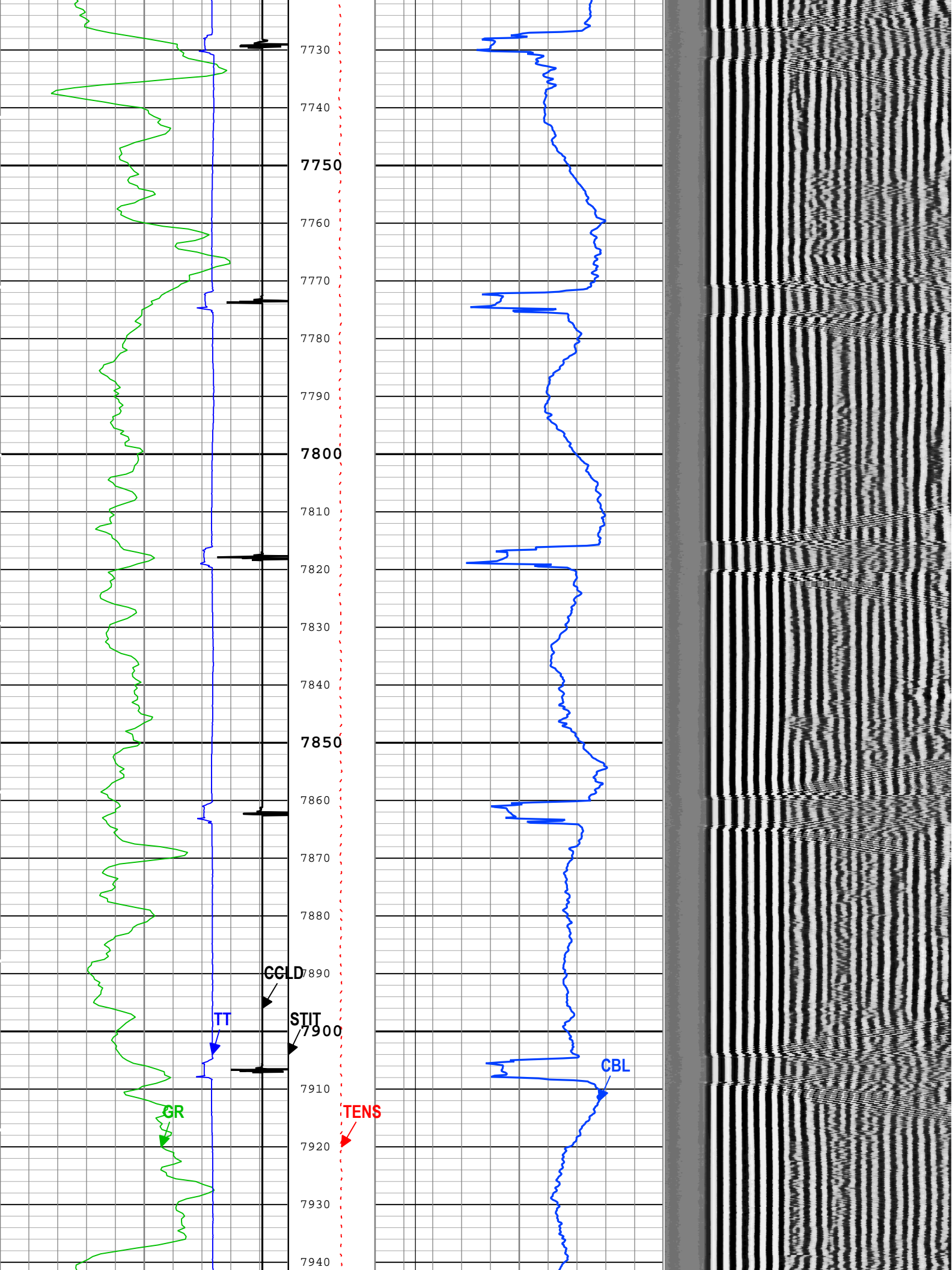


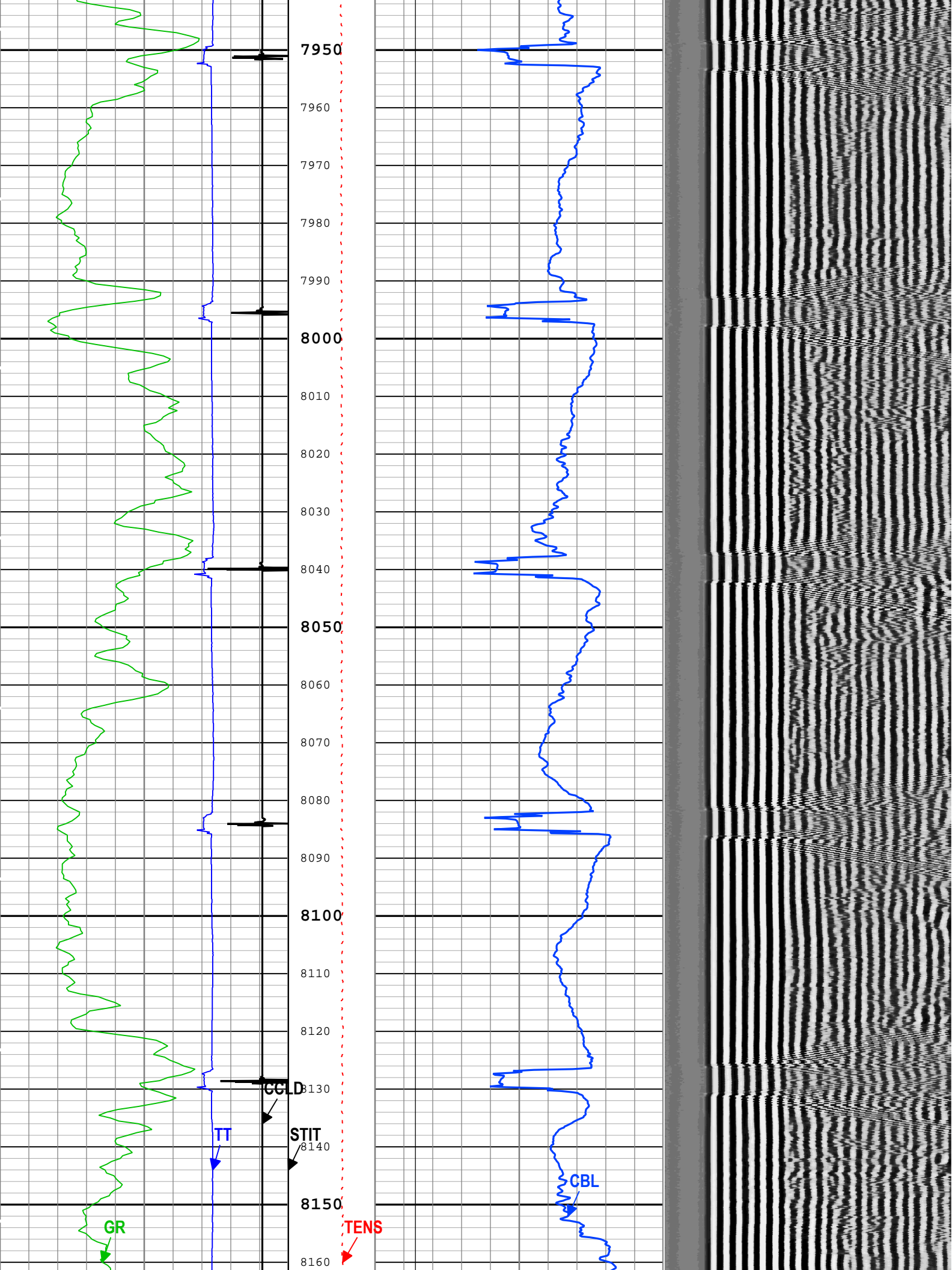


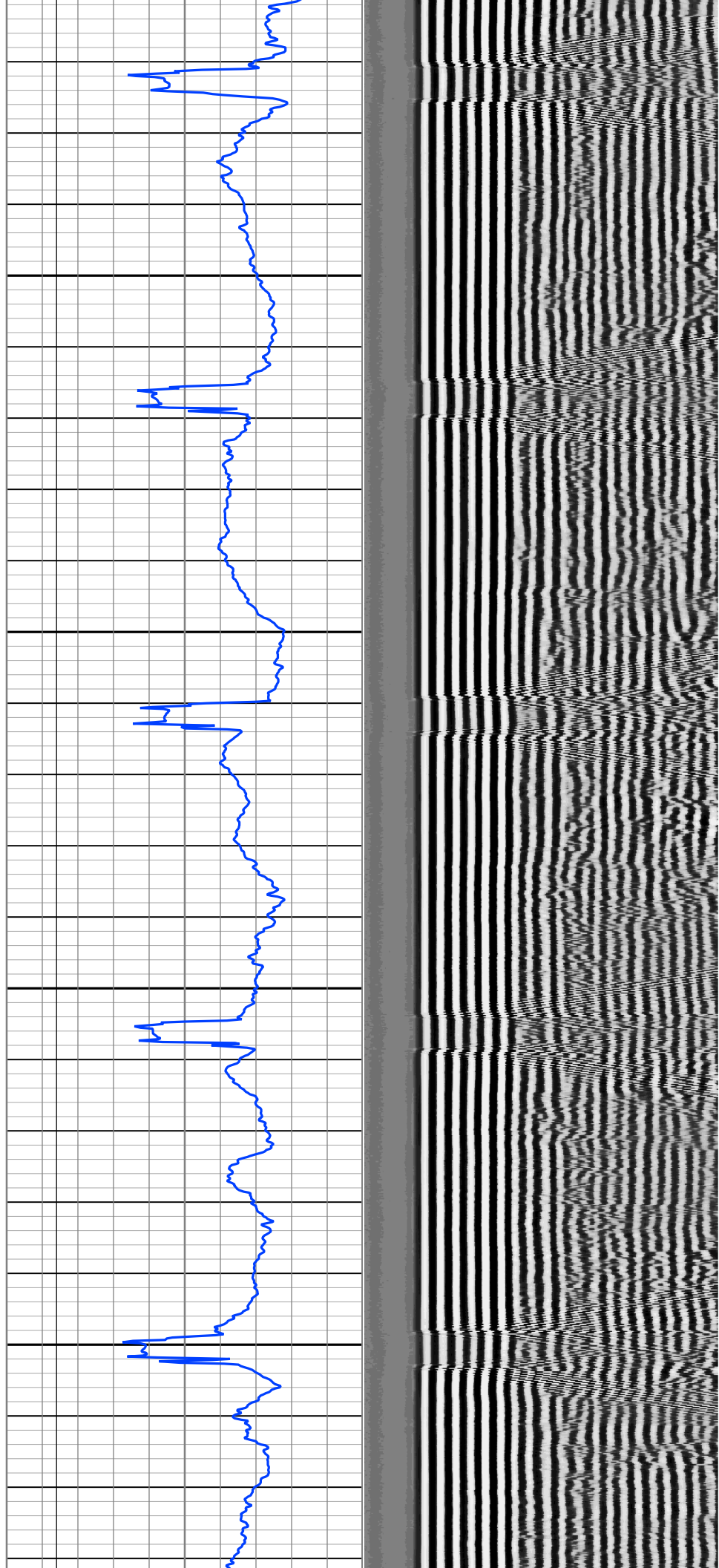
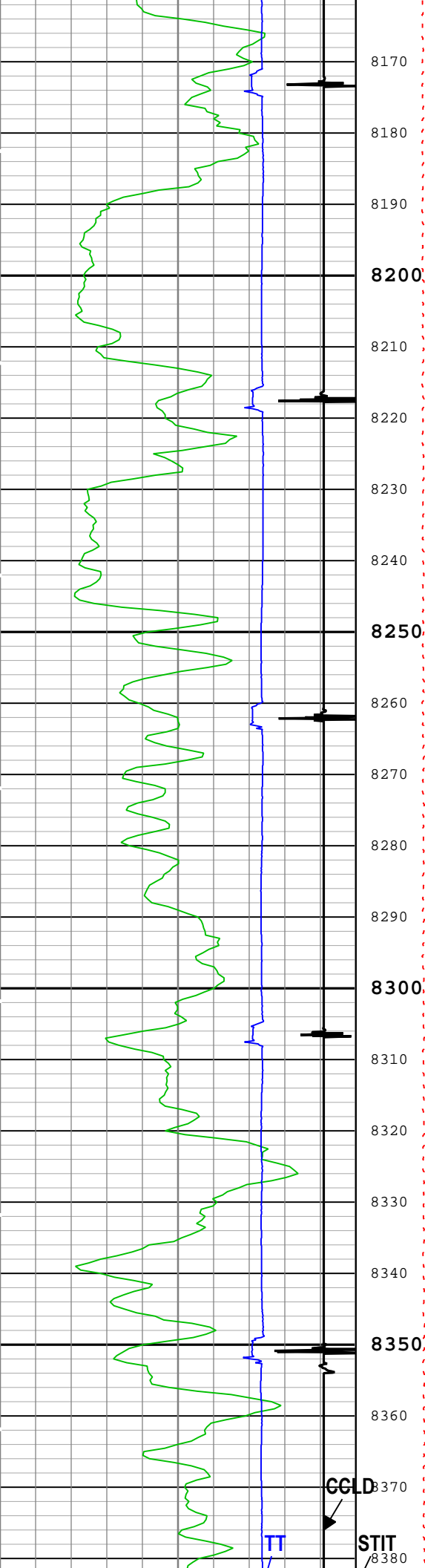


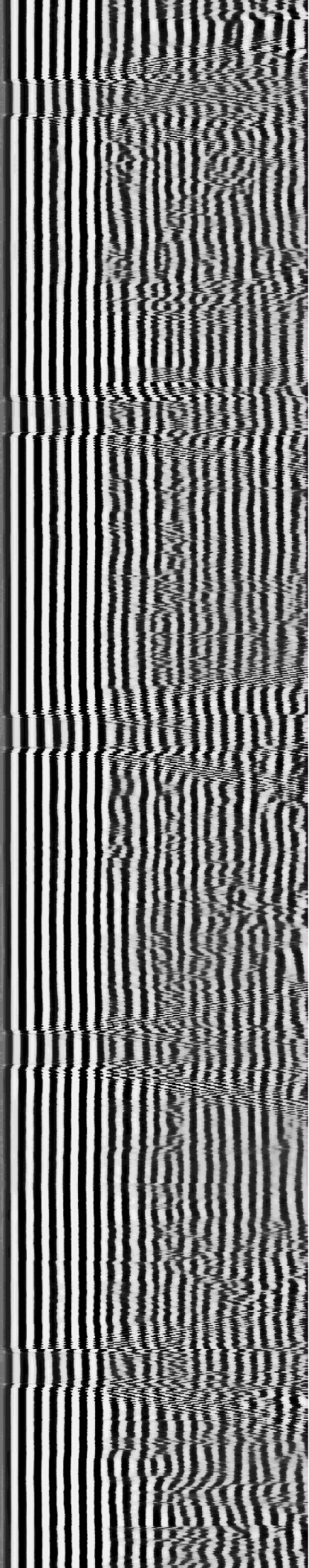
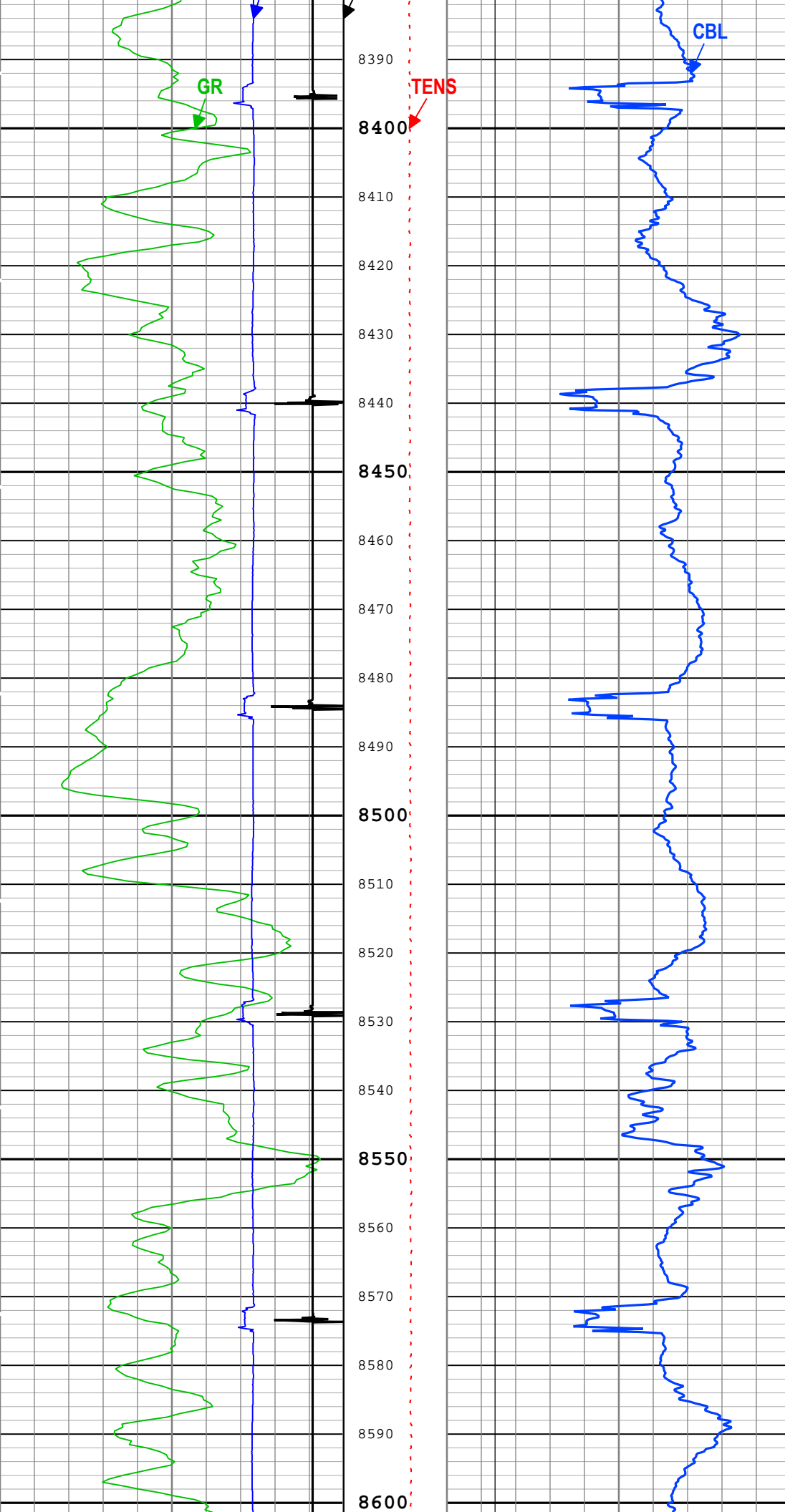


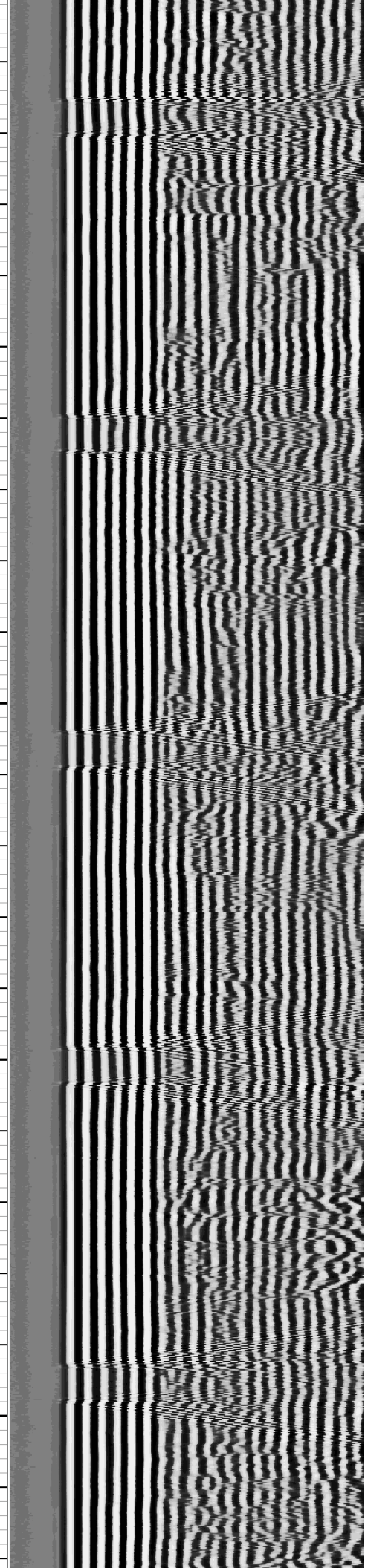
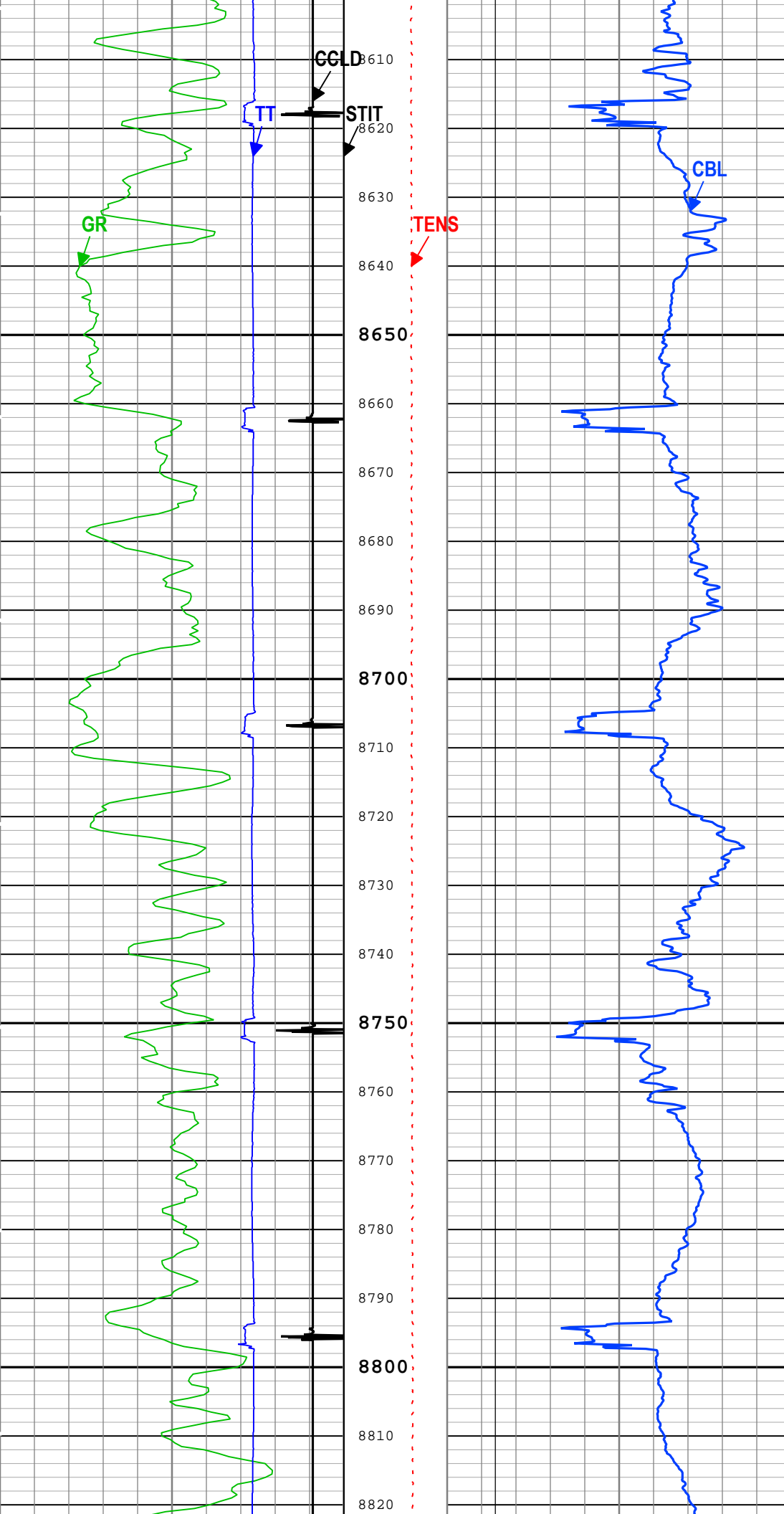


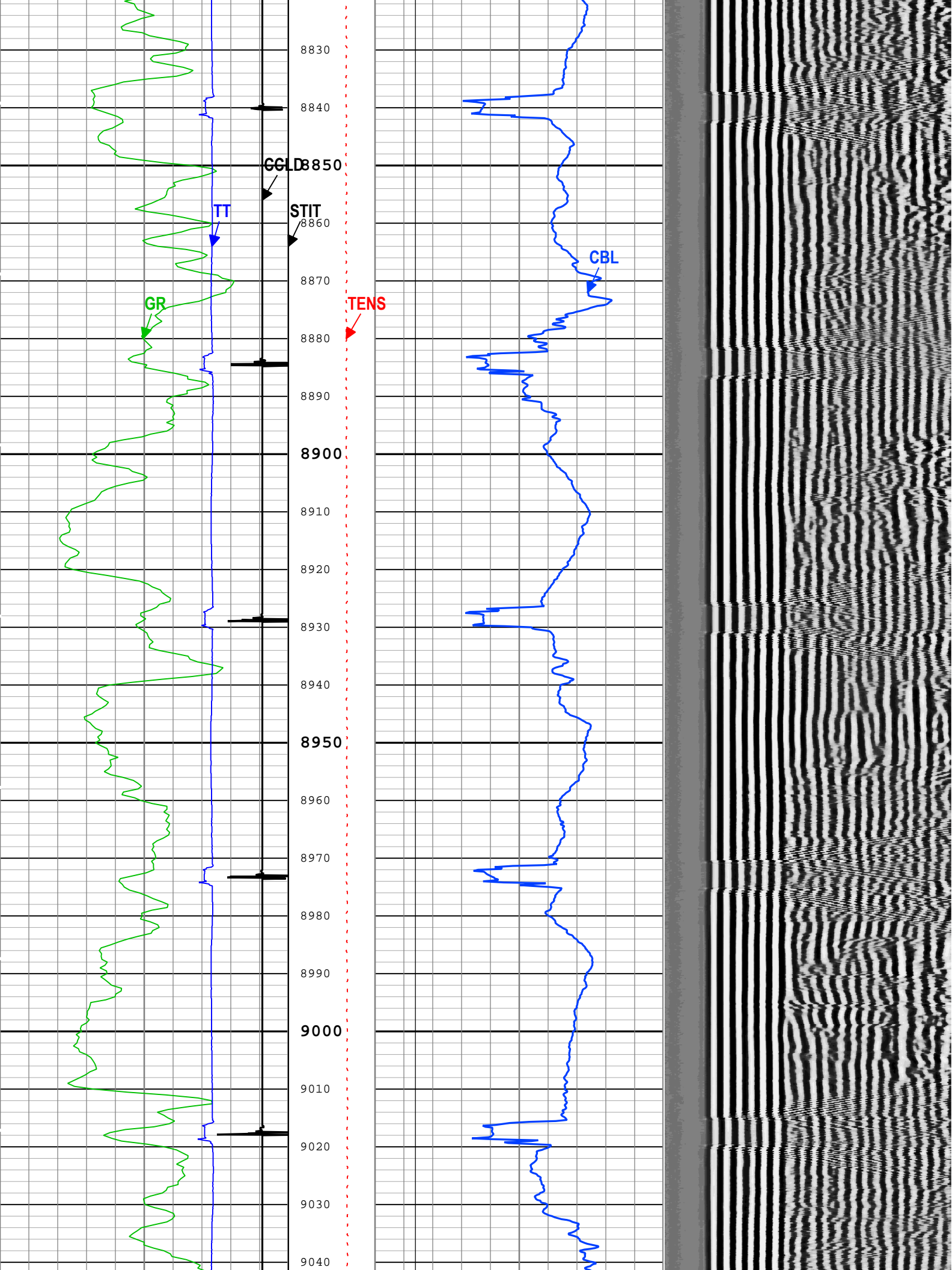


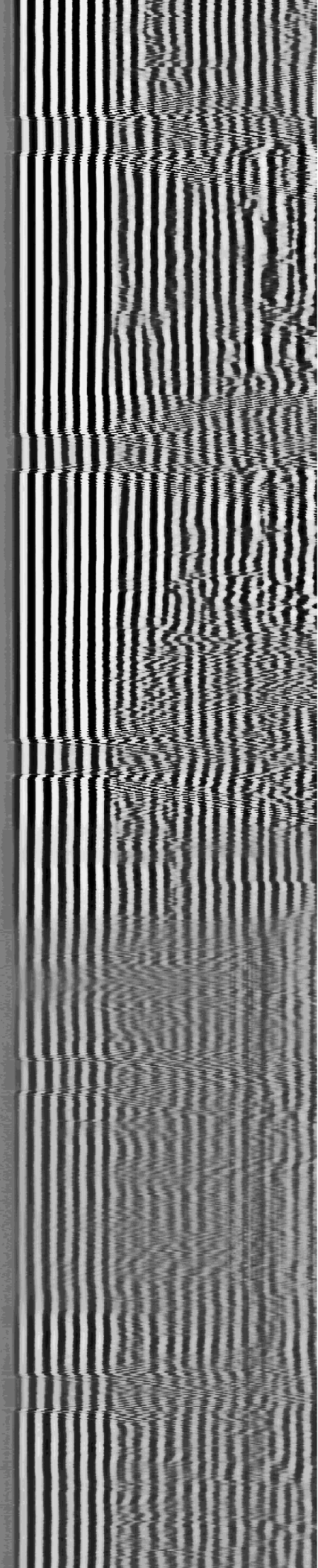
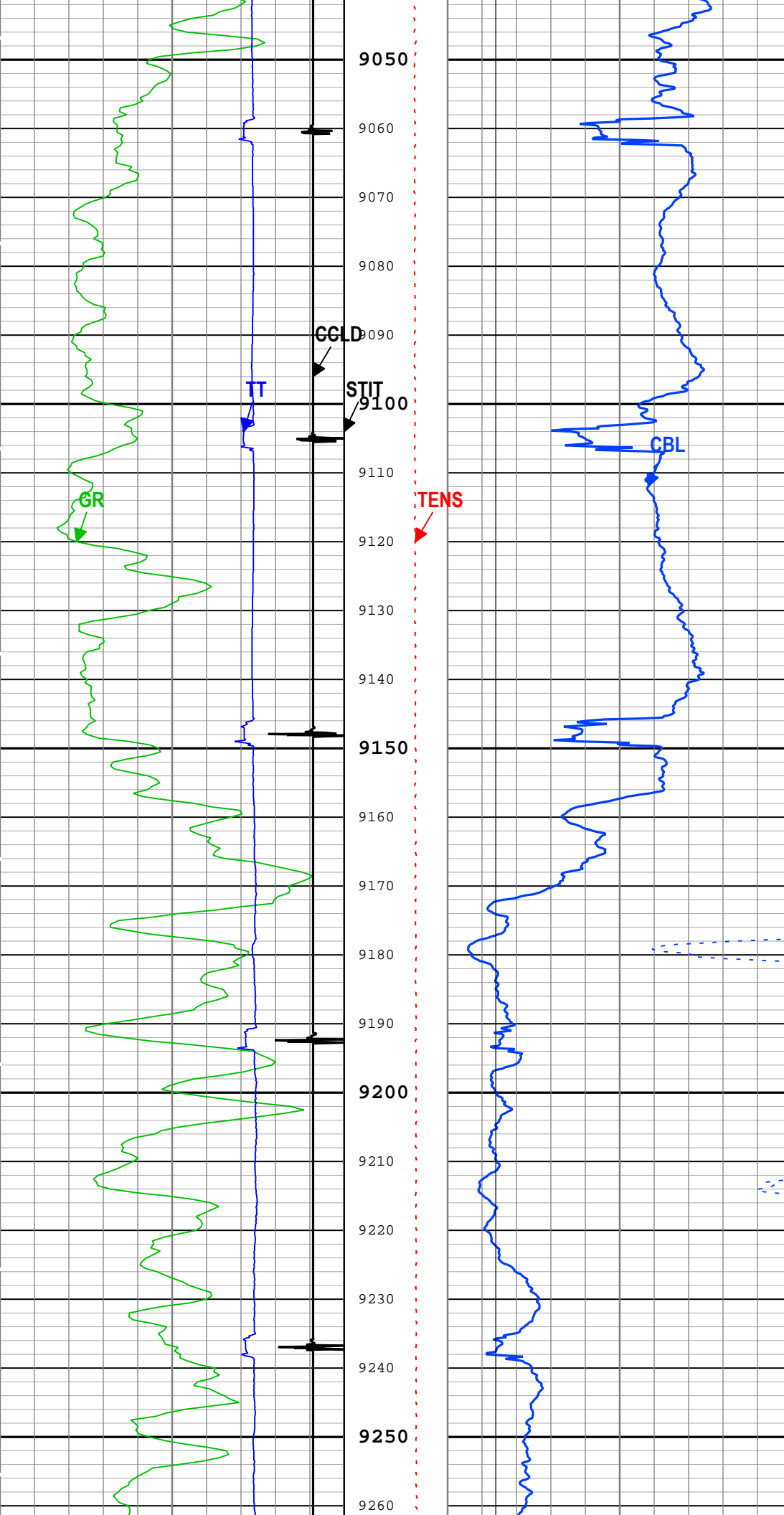


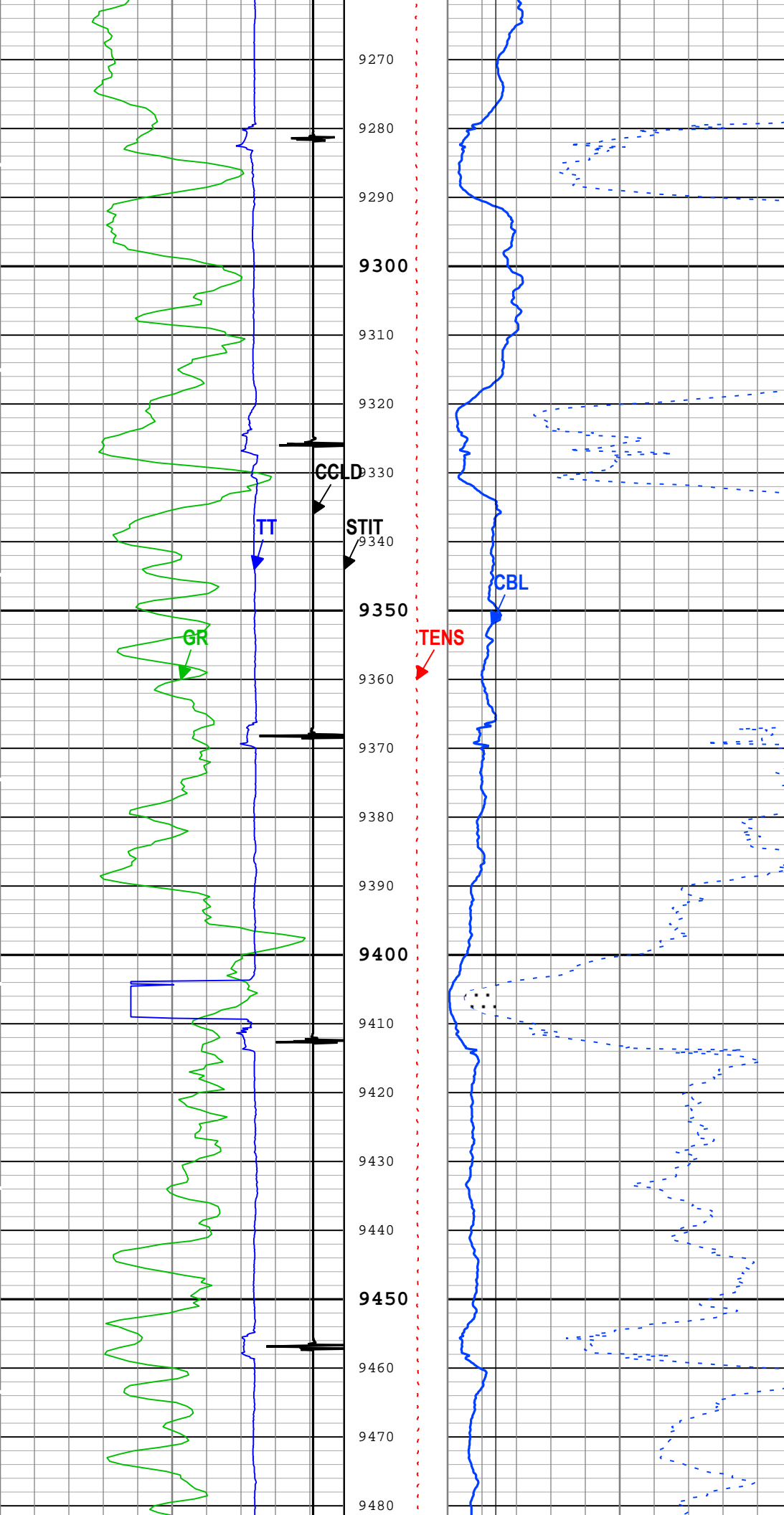


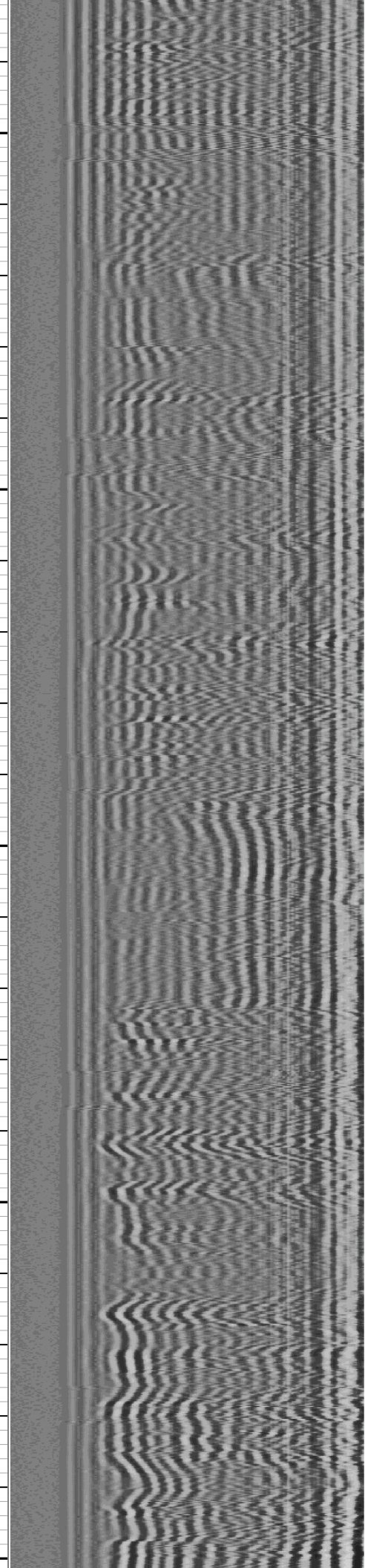
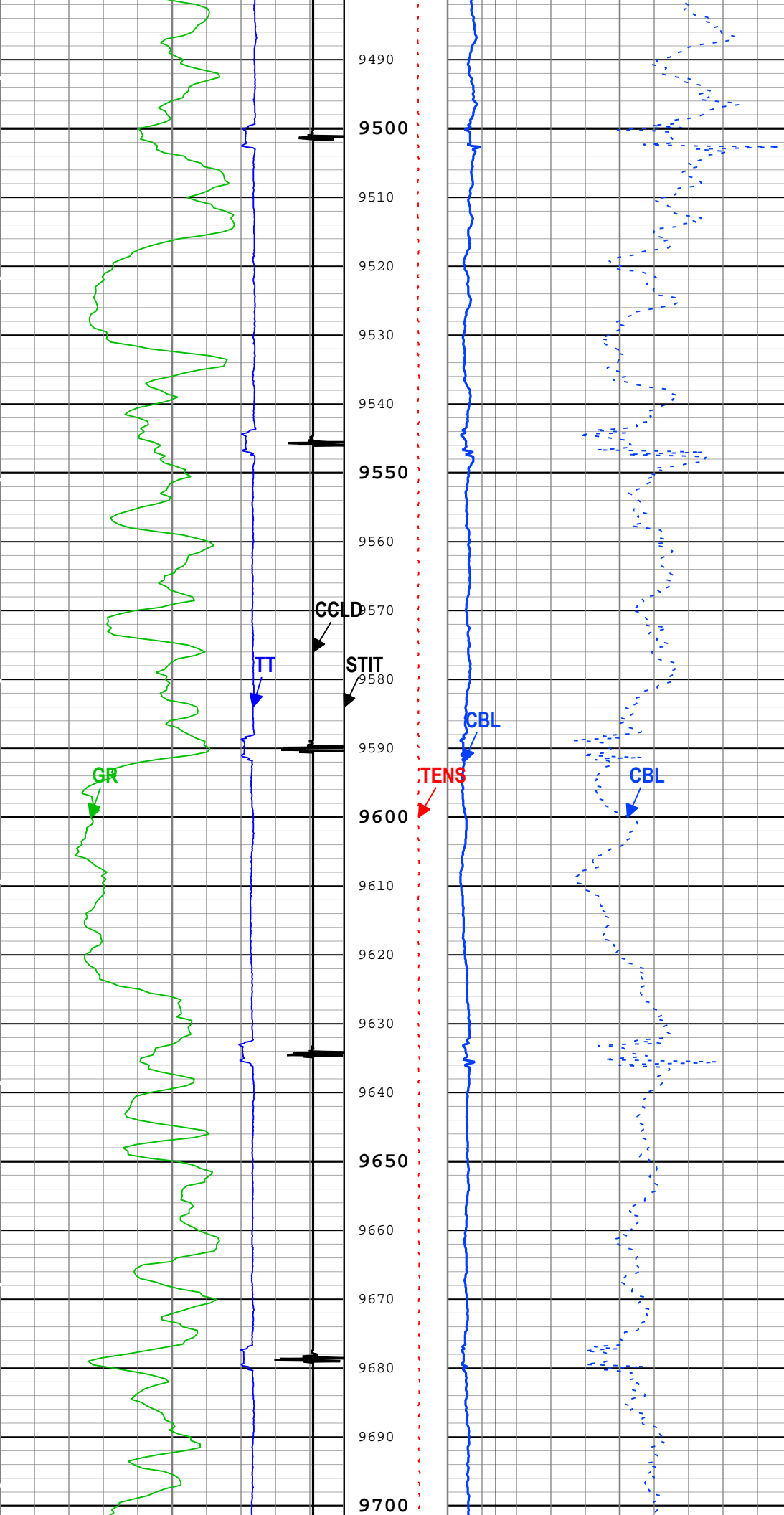


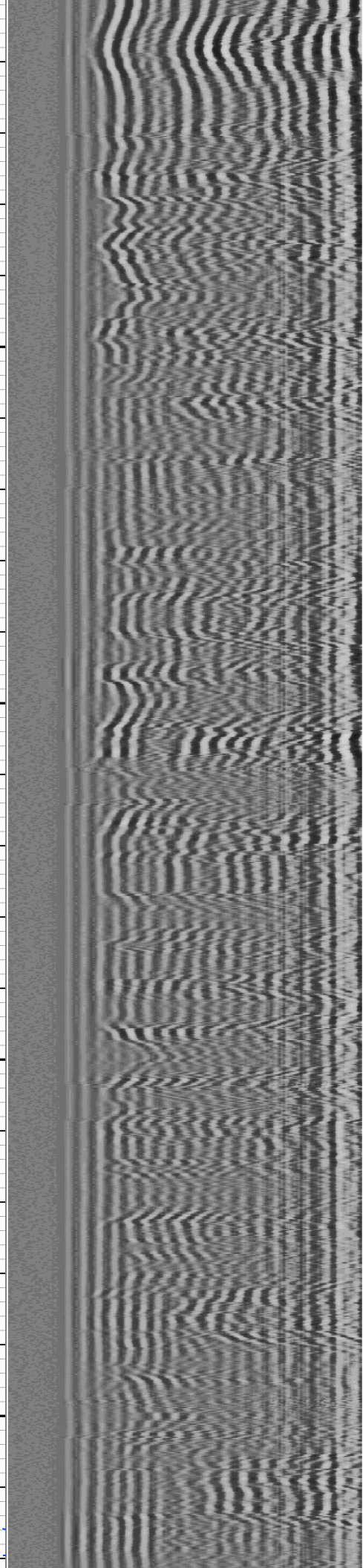
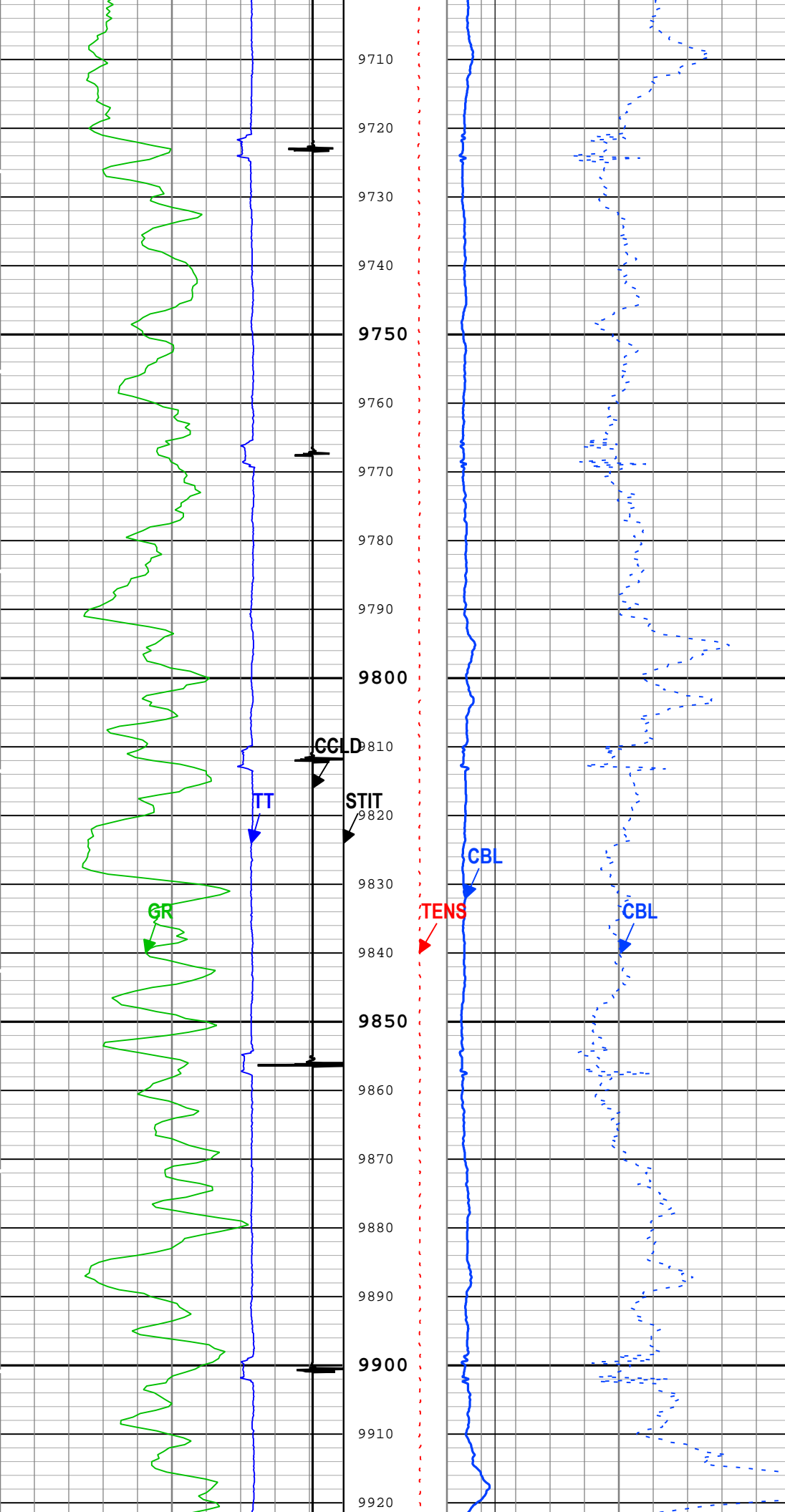




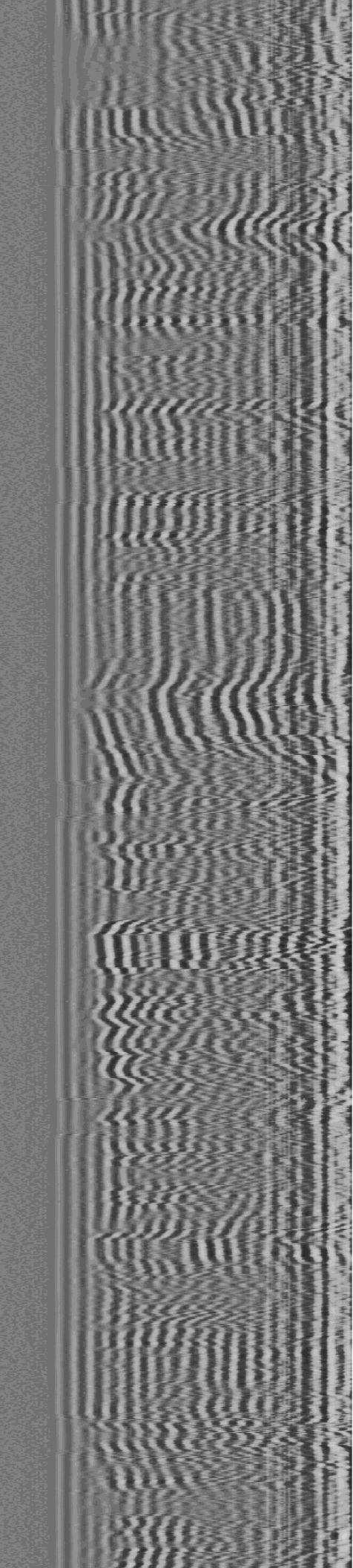
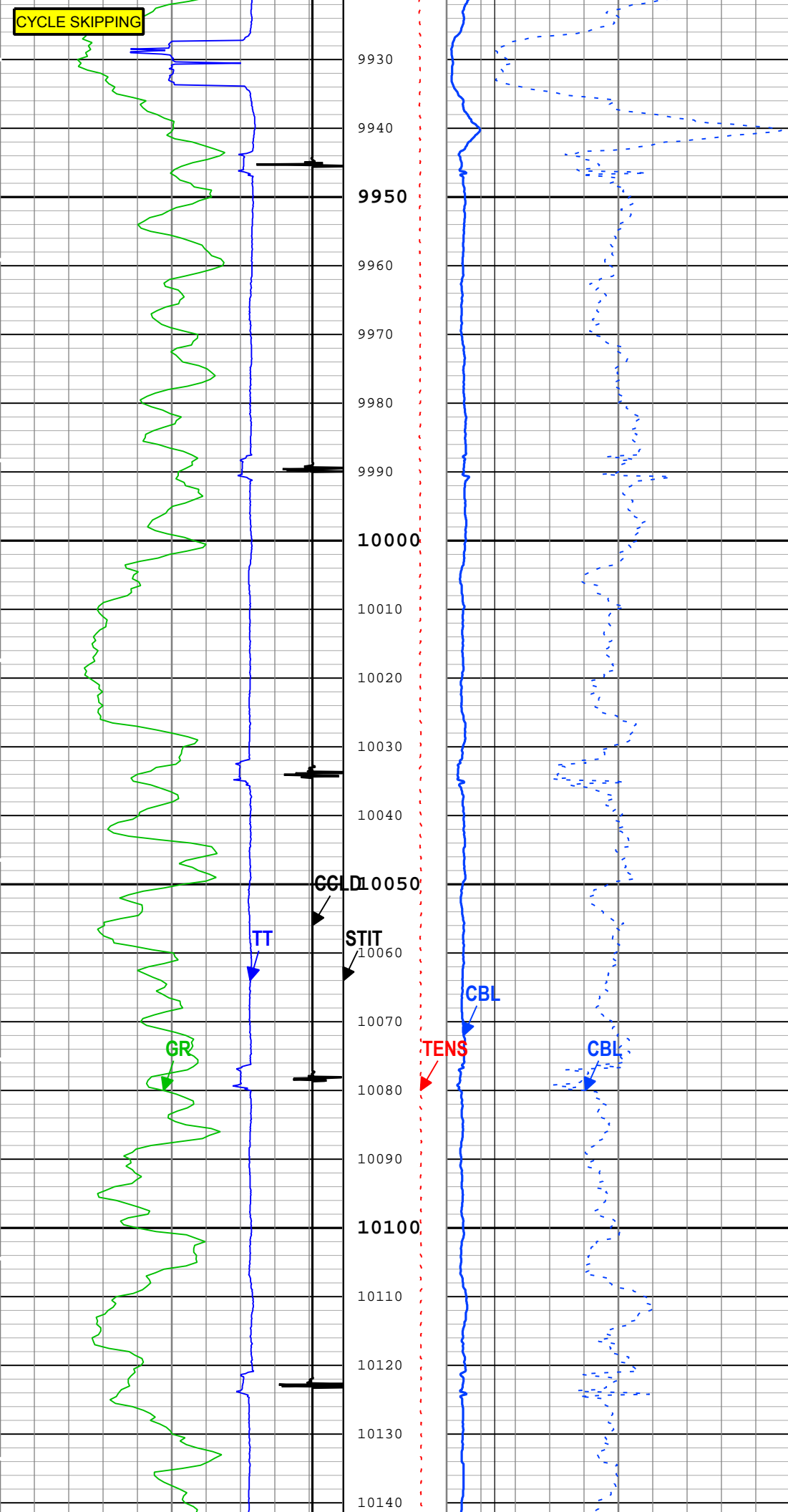


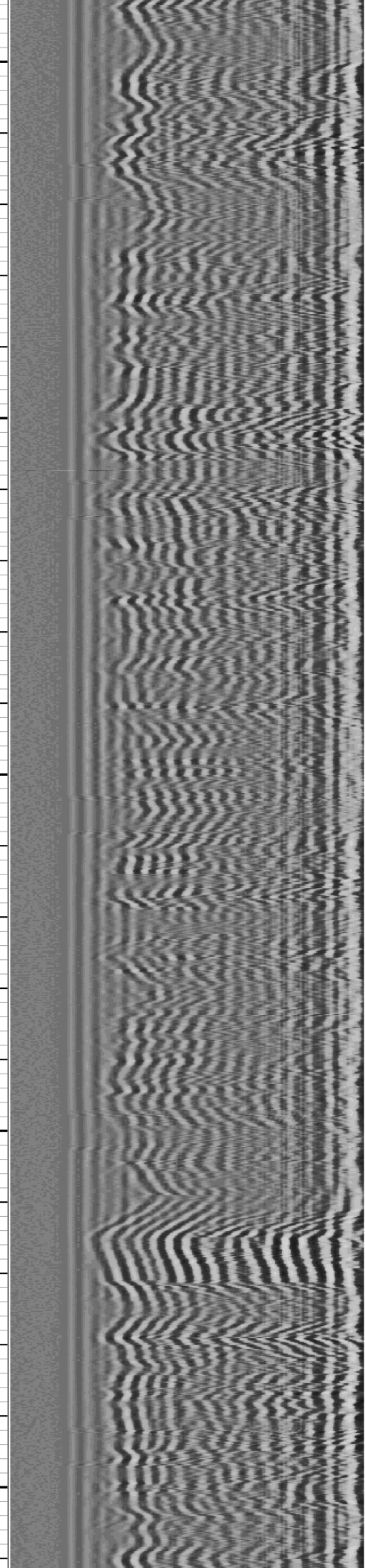
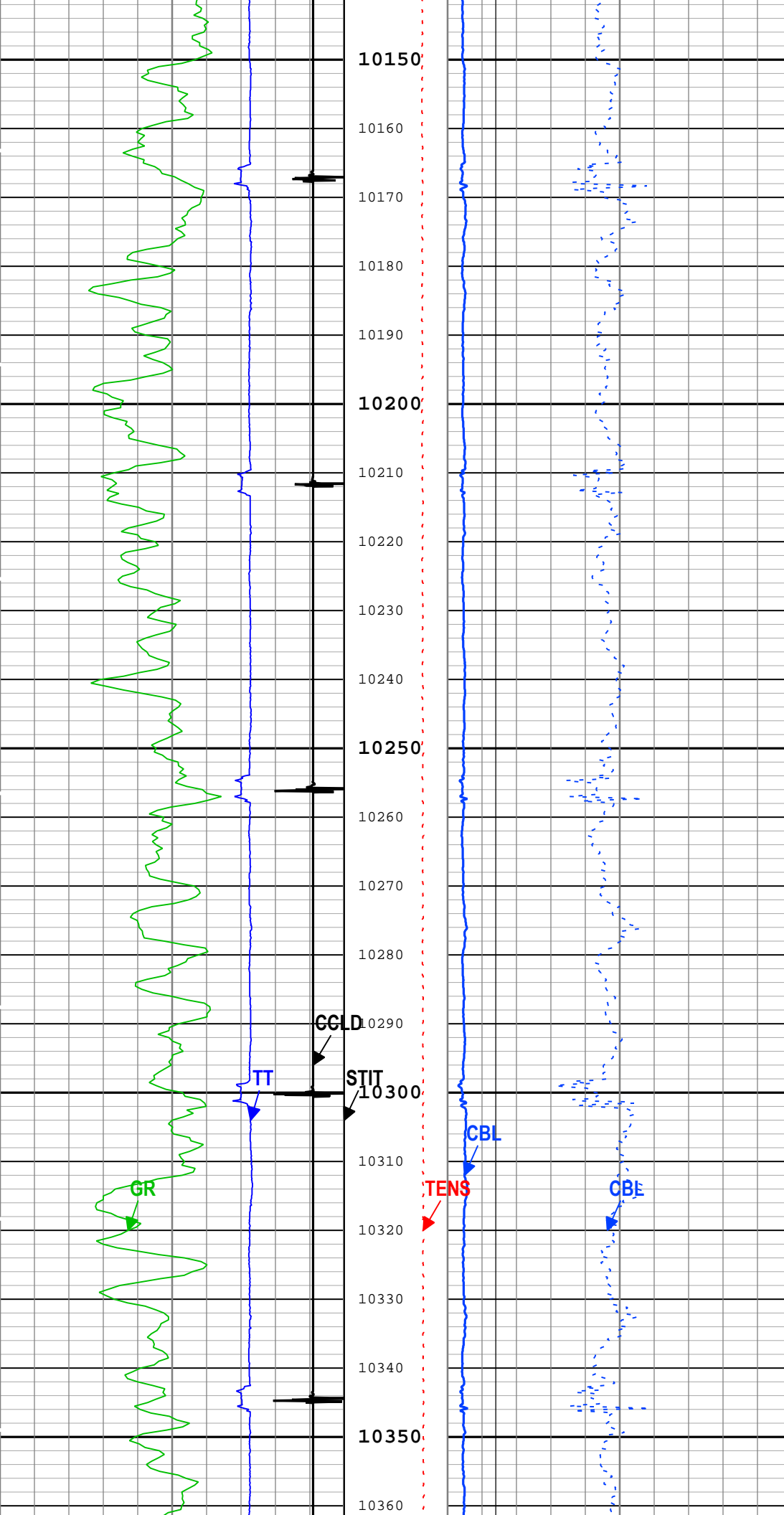


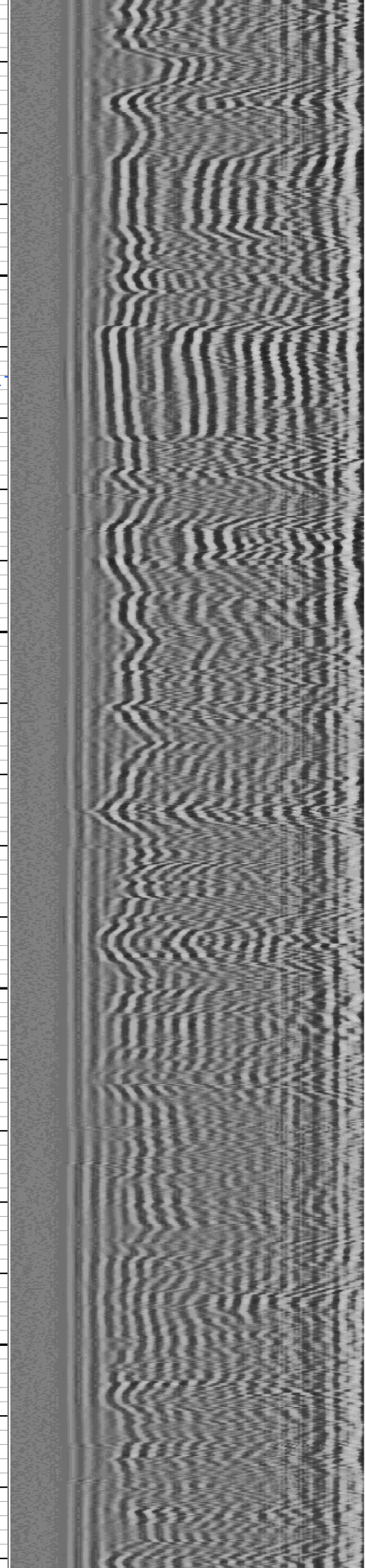
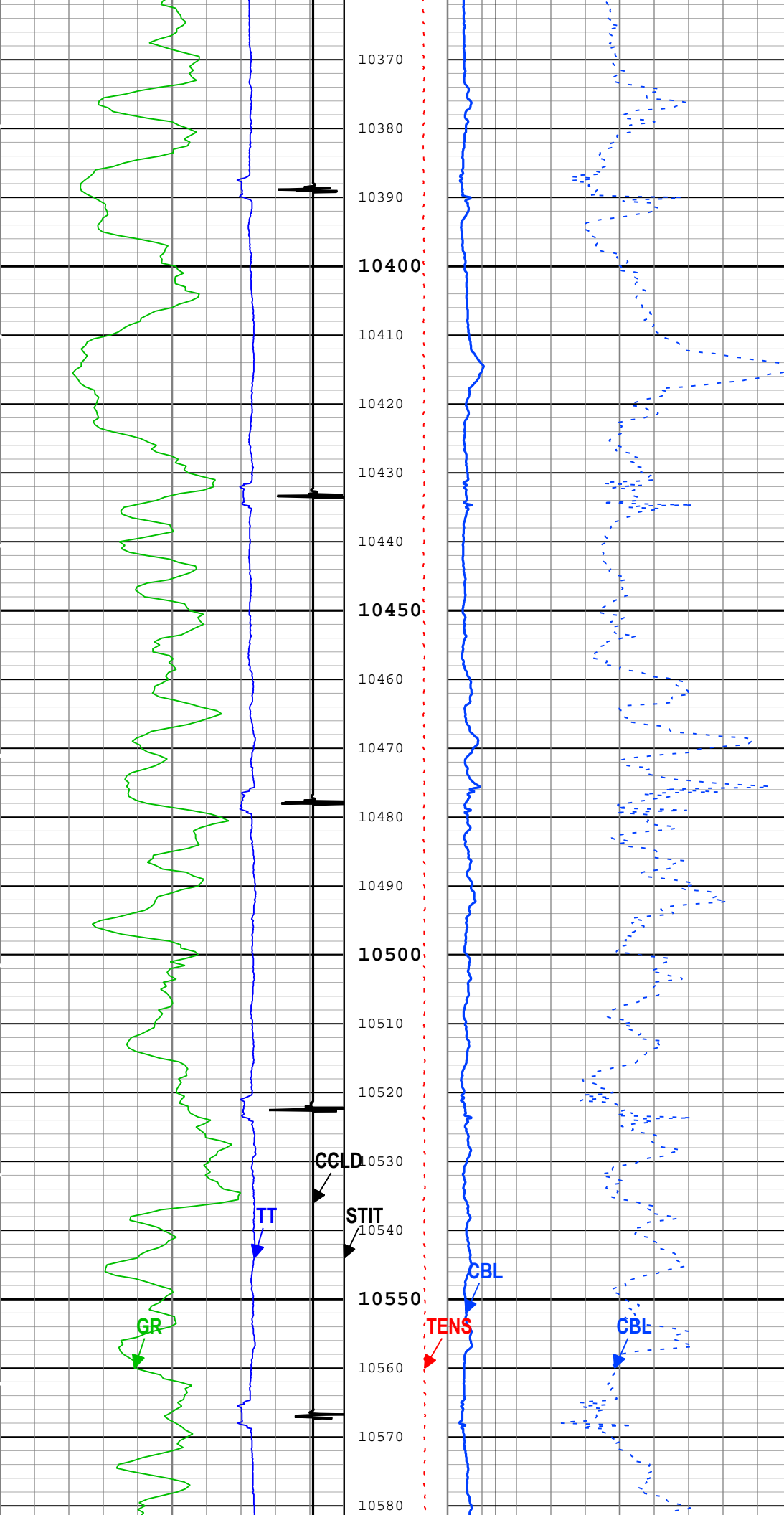


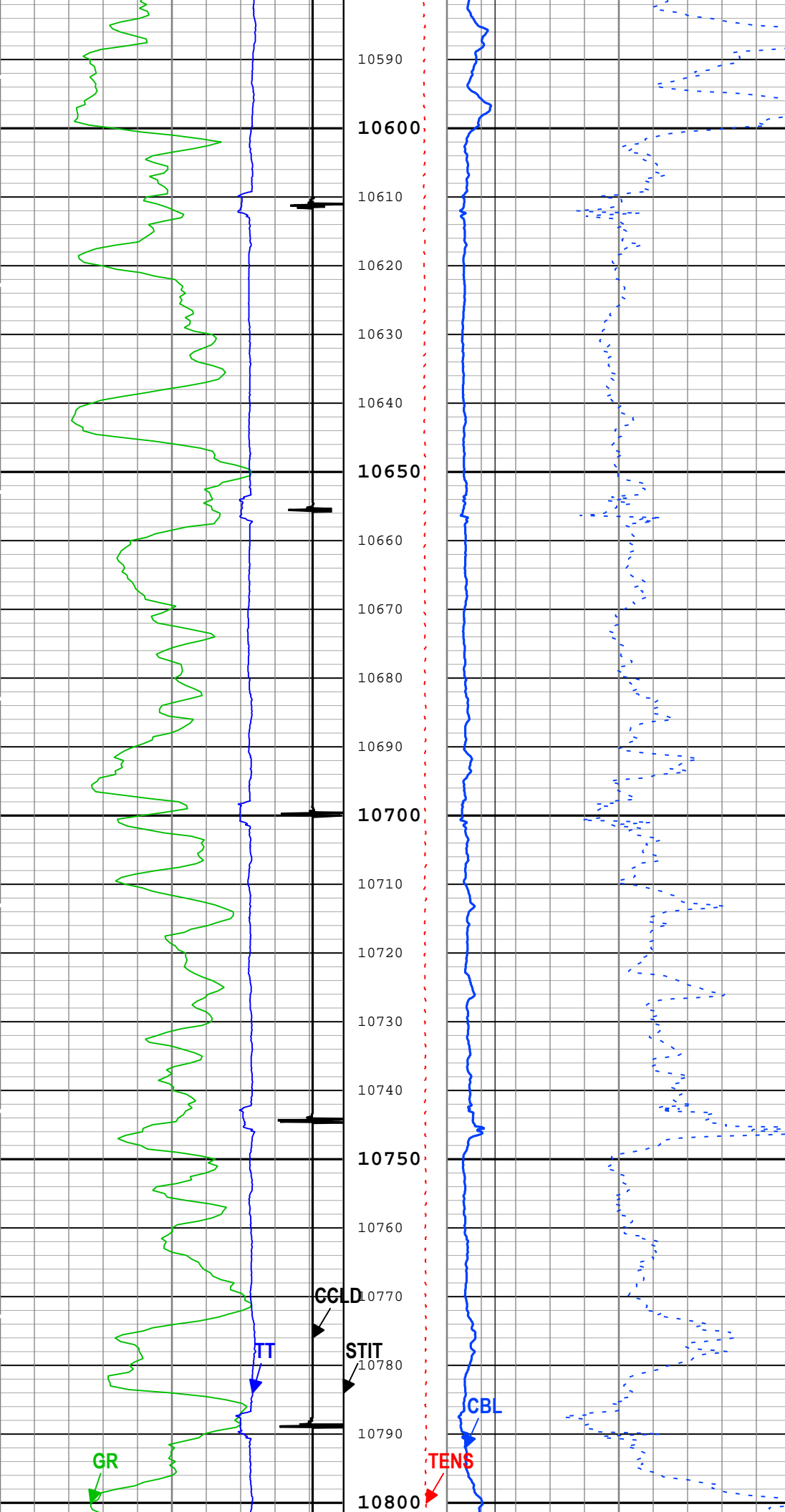


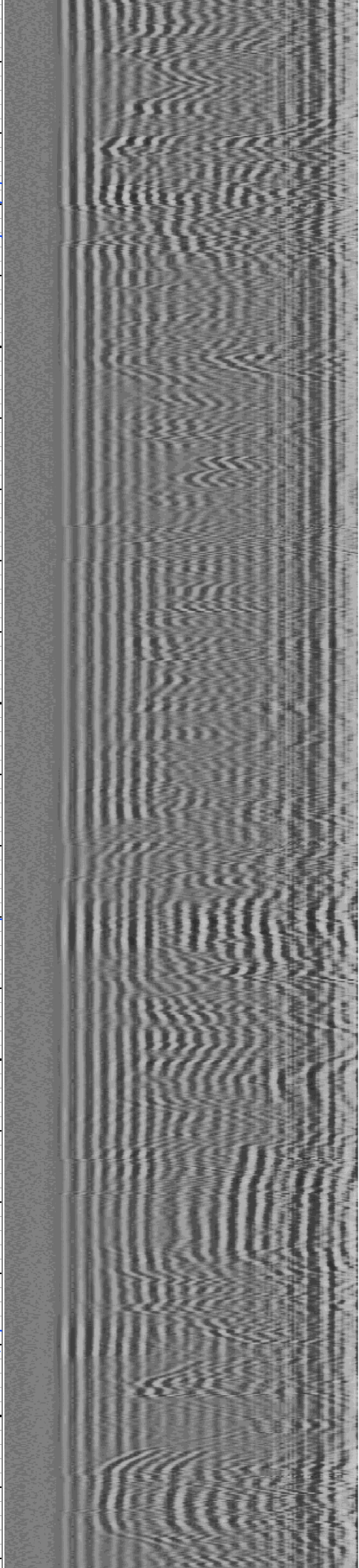
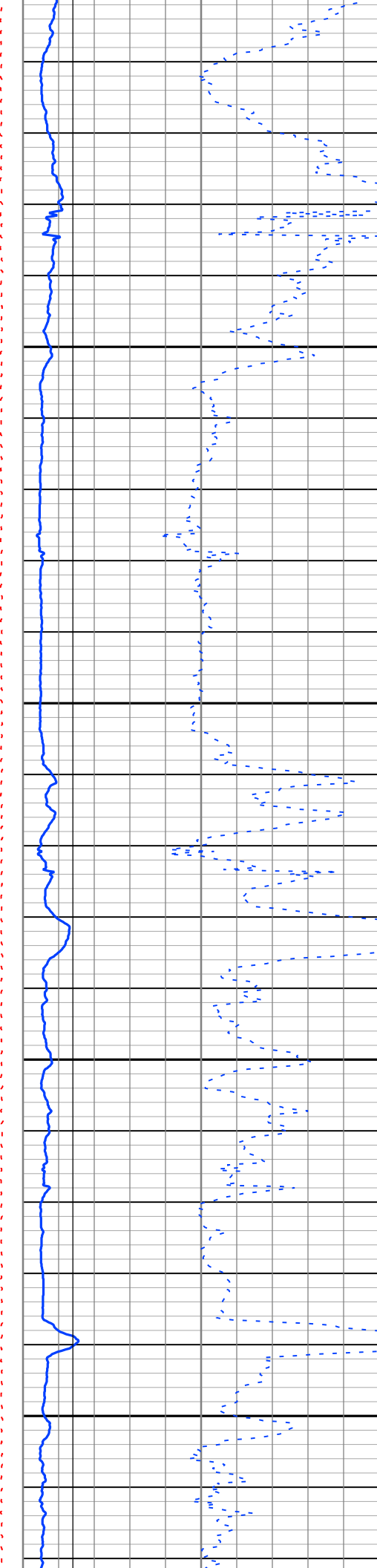
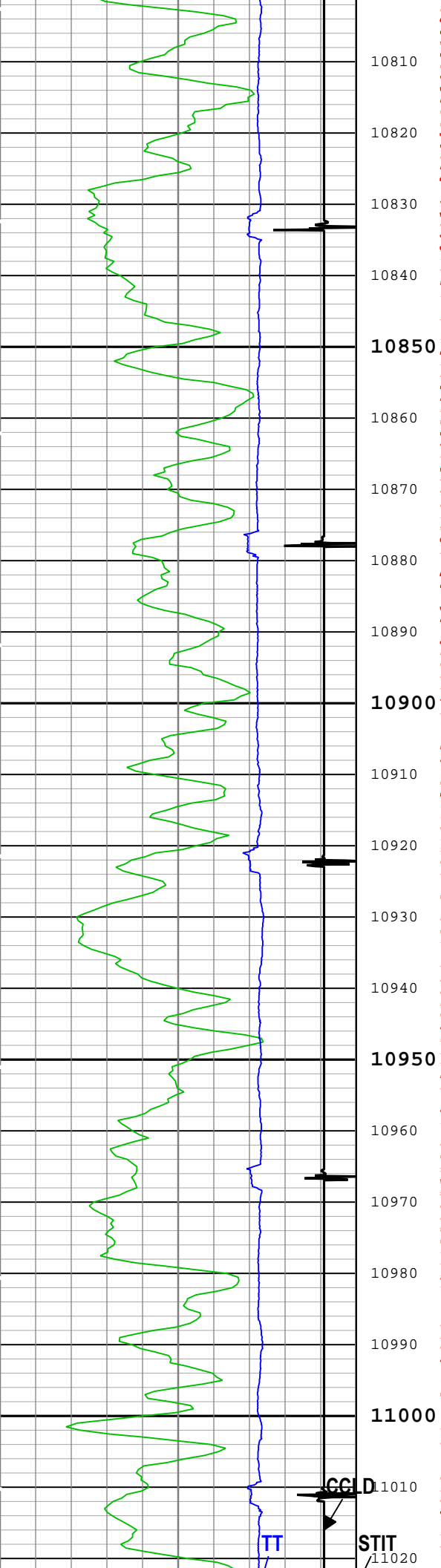
CYCLE SKIPPING

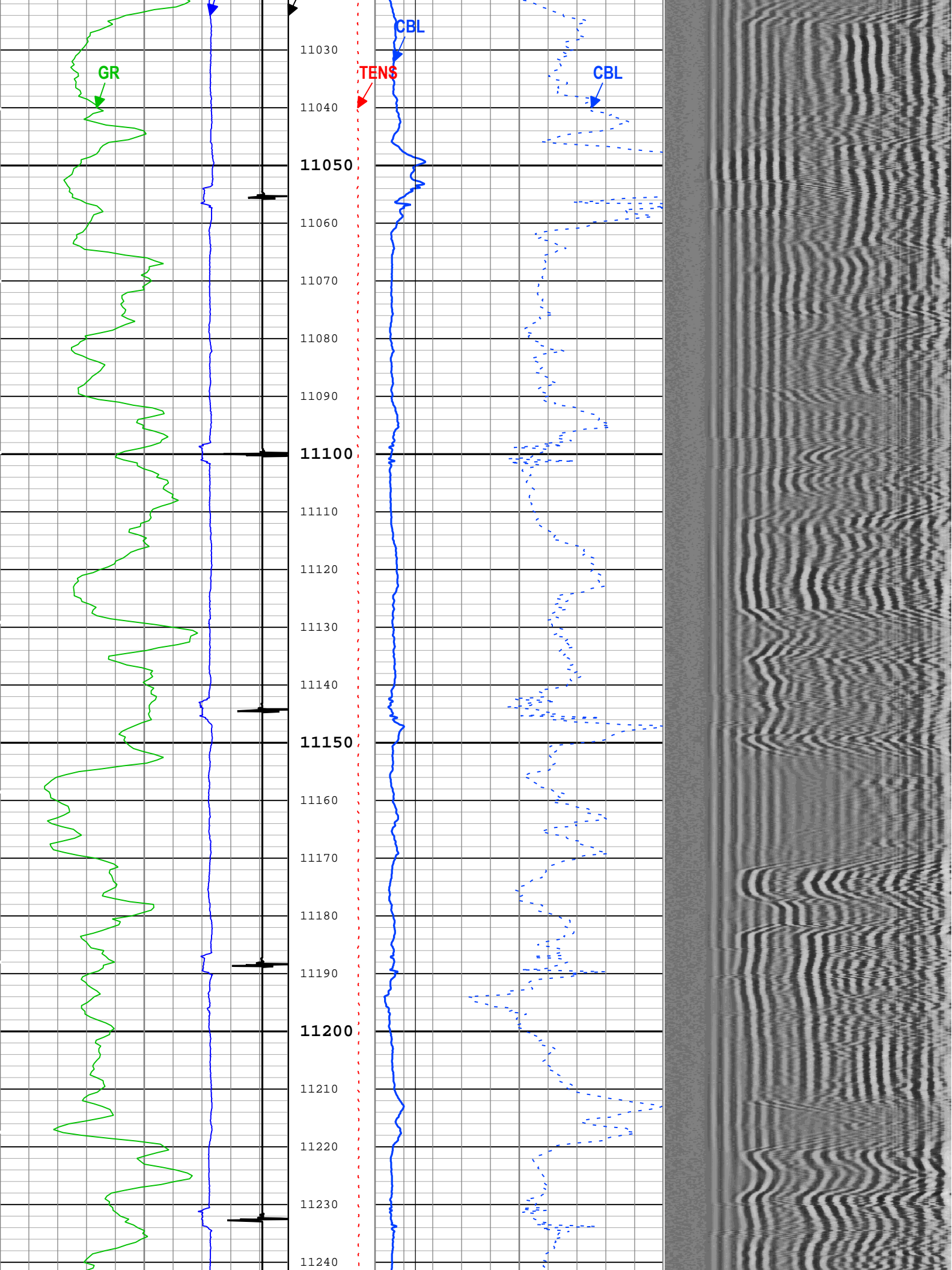


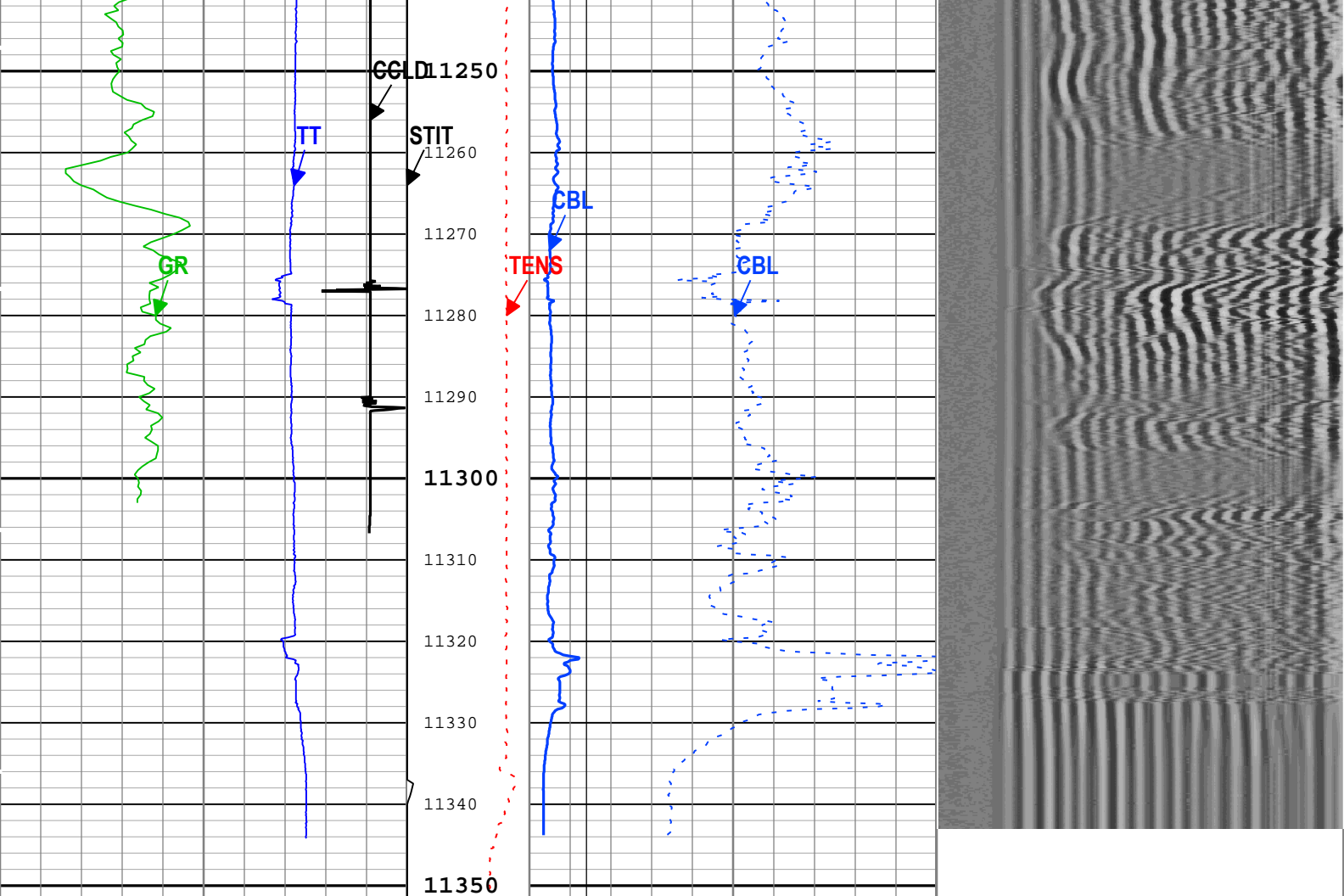












Gamma Ray (GR) PSTP-E	Cable Tension (TENS)	CBL Amplitude (CBL) SCMT-CB	Min	Amplitude	Max
0 gAPI 150	0 lbf 1800	0 mV 10			
Transit Time for CBL (TT) SCMT-CB	Stuck Tool Indicator, Total (STIT)	CBL Amplitude (CBL) SCMT-CB		VDL VariableDensity (VDL) SCMT-CB	
400 us 200	0 ft 50	0 mV 100	200	us	1200
CCL Discriminated Amplitude (CCLD) PSTP-E	Cable Drag	Good Bond (GOBO)			
-10 V 1	Tool_Tot. Drag	0 mV 10			
		GoodBond From CBL to GOBO.			

TIME_1900 - Time Marked every 60.00 (s)

■ BIEP - Bond Index Event Pips SCMT-CB

Description: Sonic CBL with VDL Format: Log (Sonic CBL with VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 09-Mar-2019 22:11:30

Channel Processing Parameters

ONE: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	212	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
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.25	in

DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	30	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8331	ft
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	1.4	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST(RT)	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	16.92	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	0.51	mV
PDAT	Permanent Datum	WLSESSION	GL	
RUN_SNUM	Run Sequence Number	WSDRUN	1	
SHT	Surface Hole Temperature	Borehole	68	degF

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
MCI	14.81	1850	2989.6
MCI	1.25	2989.6	11352.67

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-E	0 dB	

ONE

RST SIGMA MAIN PASS [5:100]

Software Version	
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Acquisition System	Version
Maxwell 2018 SP2	8.2.104493.3100
Application Patch	Wireline_Hotfix-Mandatory-2018.2_8.2.108371

Pass Summary	
1	100%
2	100%
3	100%
4	100%
5	100%
6	100%
7	100%
8	100%
9	100%
10	100%
11	100%
12	100%
13	100%
14	100%
15	100%
16	100%
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91	100%
92	100%
93	100%
94	100%
95	100%
96	100%
97	100%
98	100%
99	100%
100	100%

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[6]:Up	Up	1845.95 ft	11352.66 ft	09-Mar-2019 4:13:12 PM	09-Mar-2019 9:25:55 PM	ON	4.04 ft	No

All depths are referenced to toolstring zero

Log	Company:CAERUS OIL & GAS LLC	Well:NPR 23C-3 596
		ONE: Log[6]:Up:S005

Description: RST SIGMA Answer	Format: Log (RST SIGMA Answer)	Index Scale: 5 in per 100 ft	Index Unit: ft	Index Type: Measured Depth	Creation Date: 09-Mar-2019 22:11:41
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TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

TIME_1900 - Time Marked every 60.00 (s)

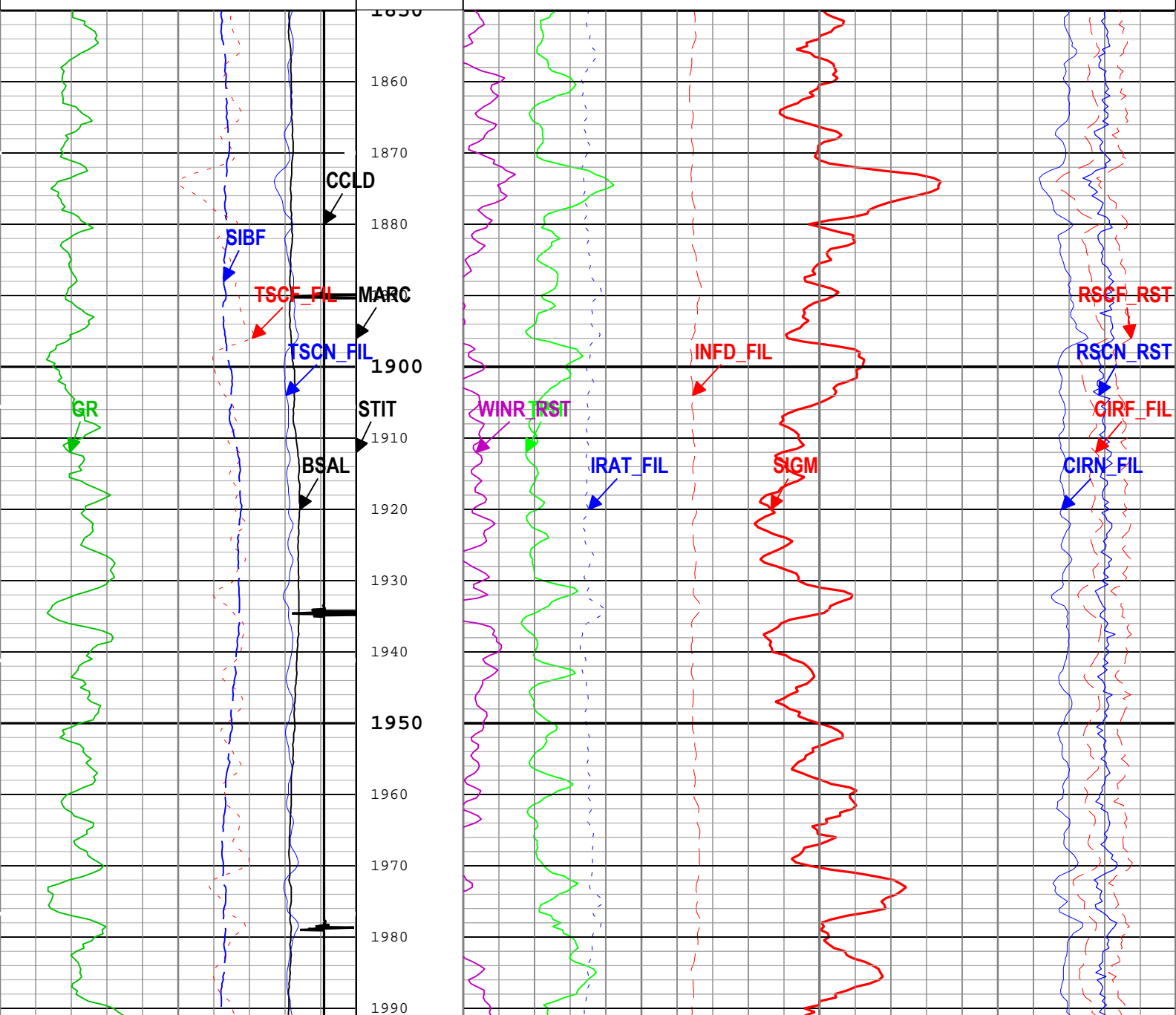
—IHV - Integrated Hole Volume every 10.00 (ft3)

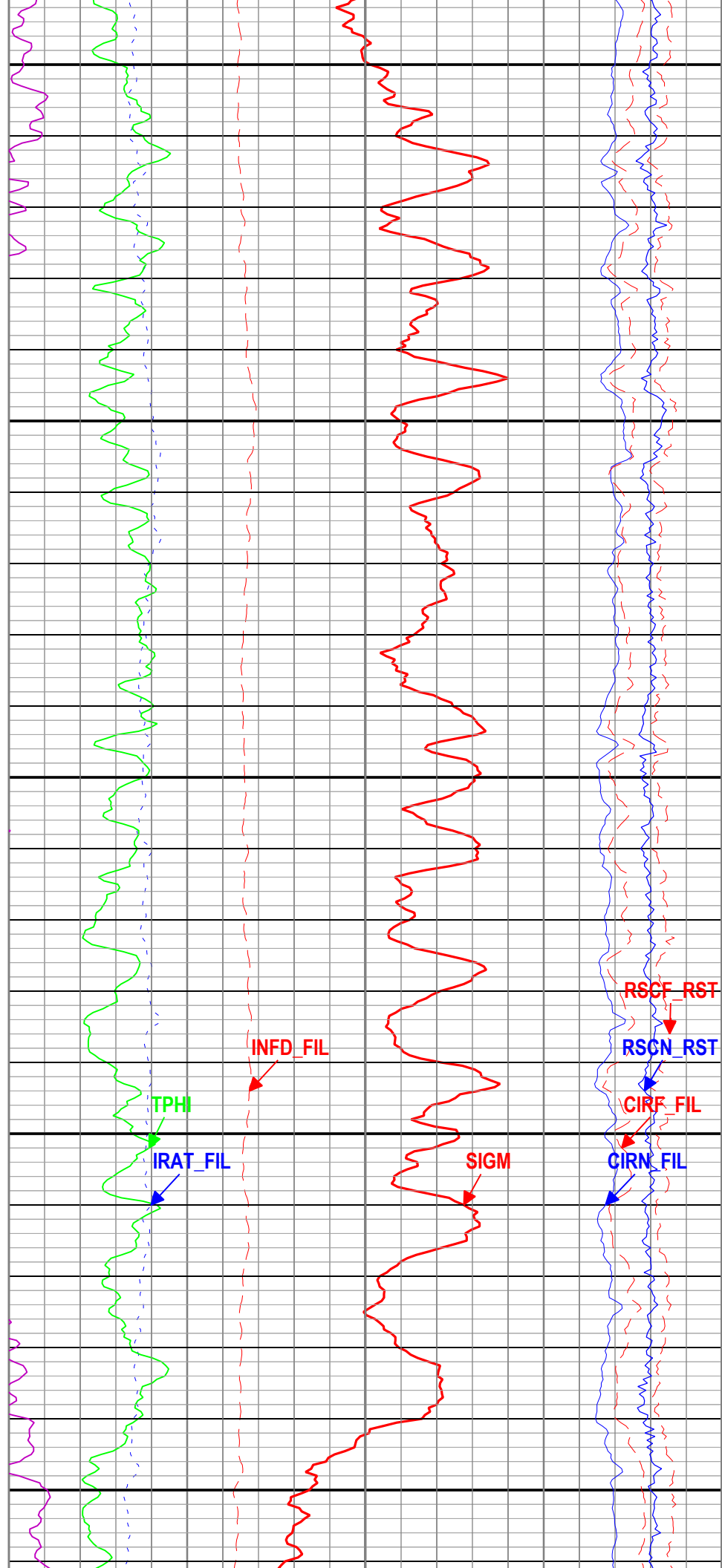
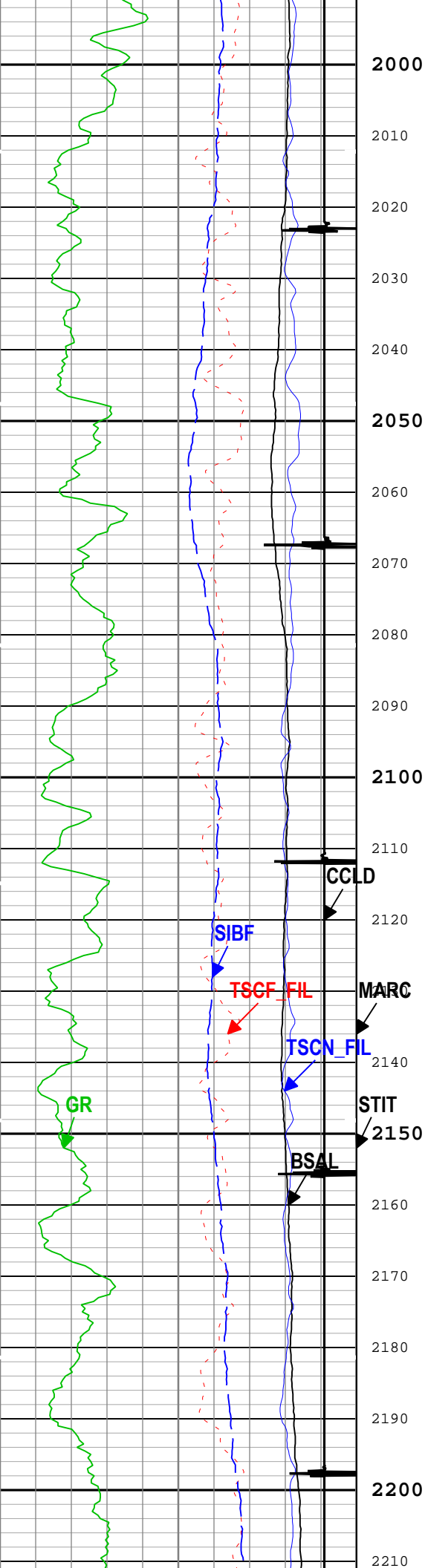
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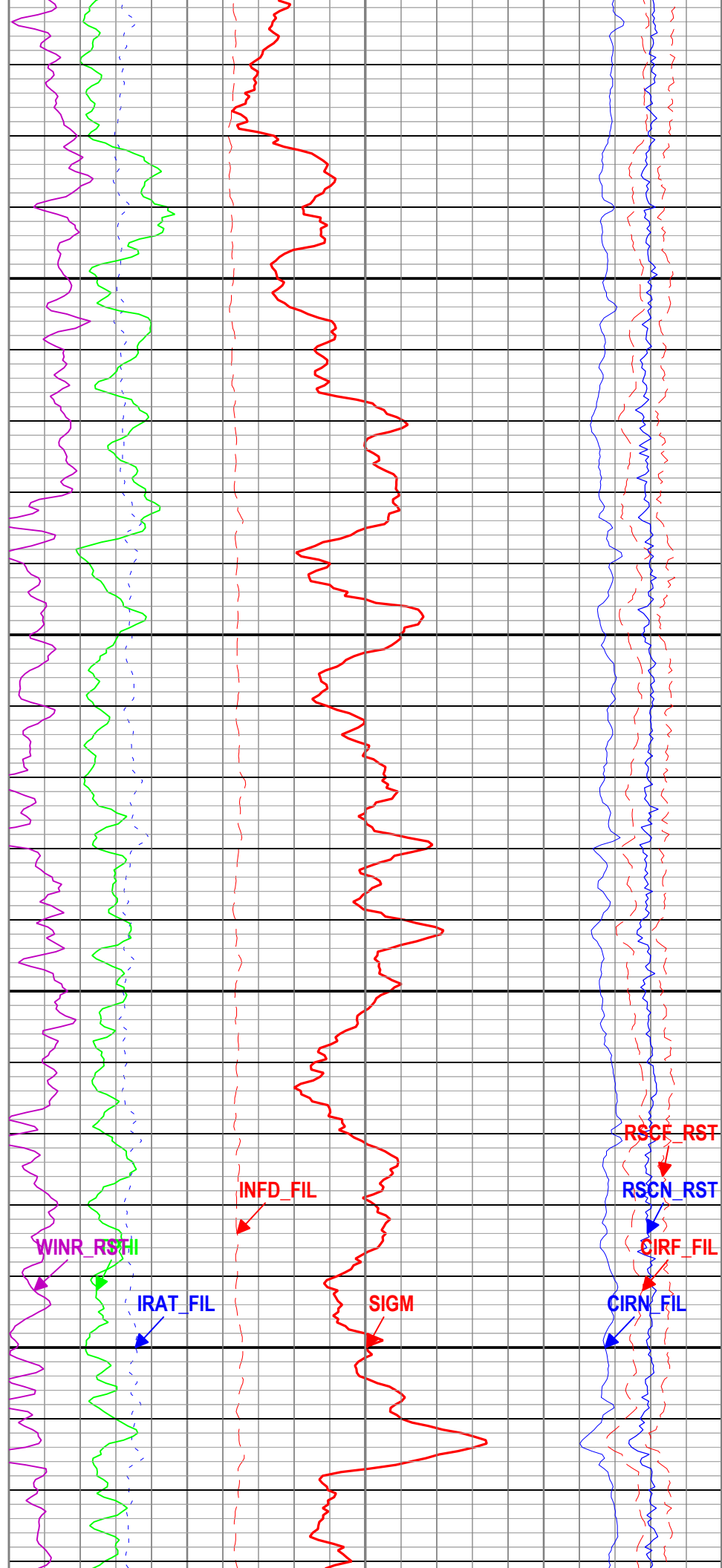
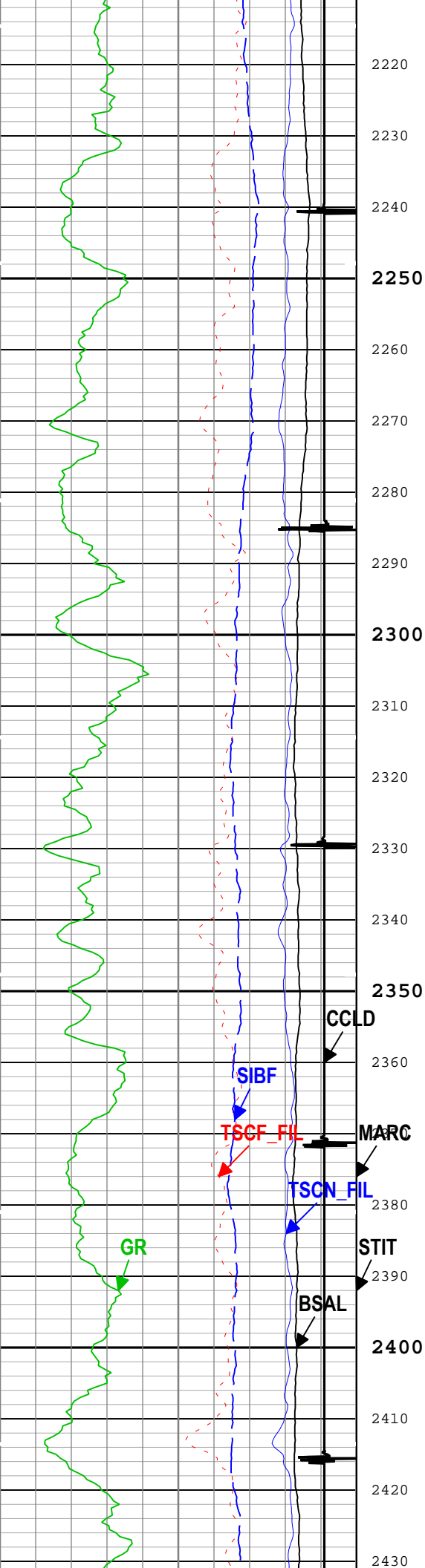
— ICSV - Integrated Cement Volume every 10.00 (ft3)

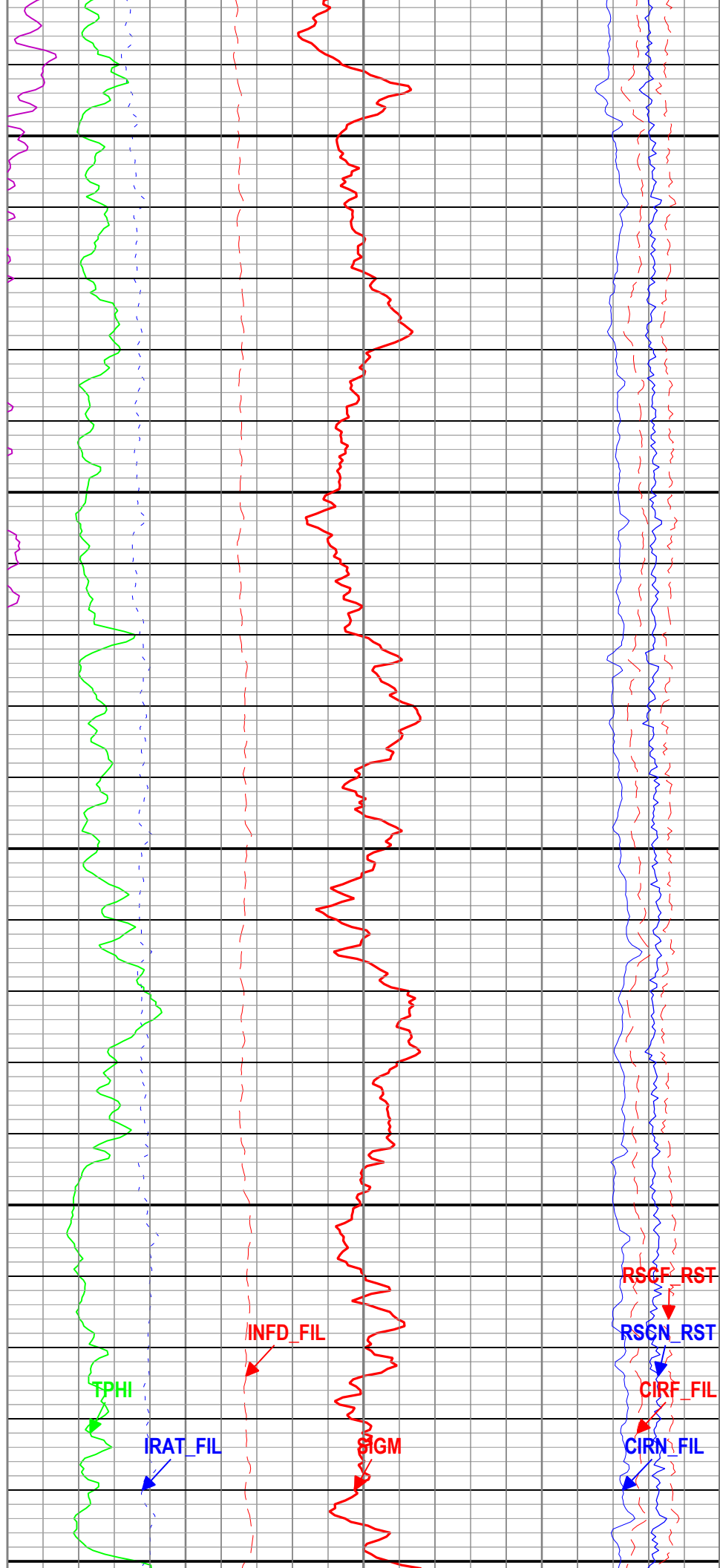
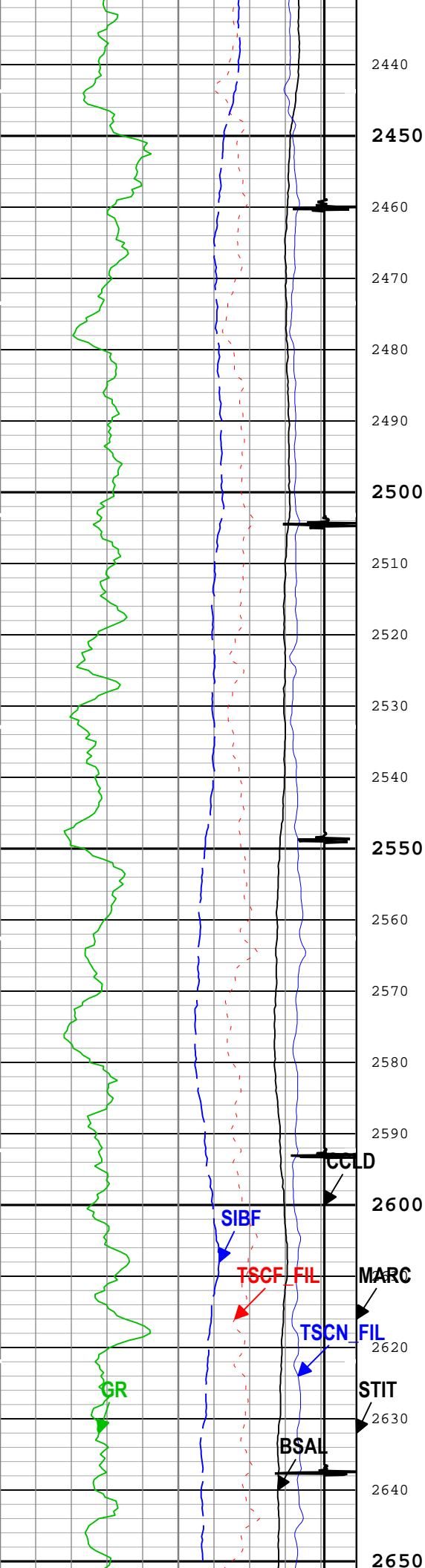
— ICV - Integrated Cement Volume every 100.00 (ft3)

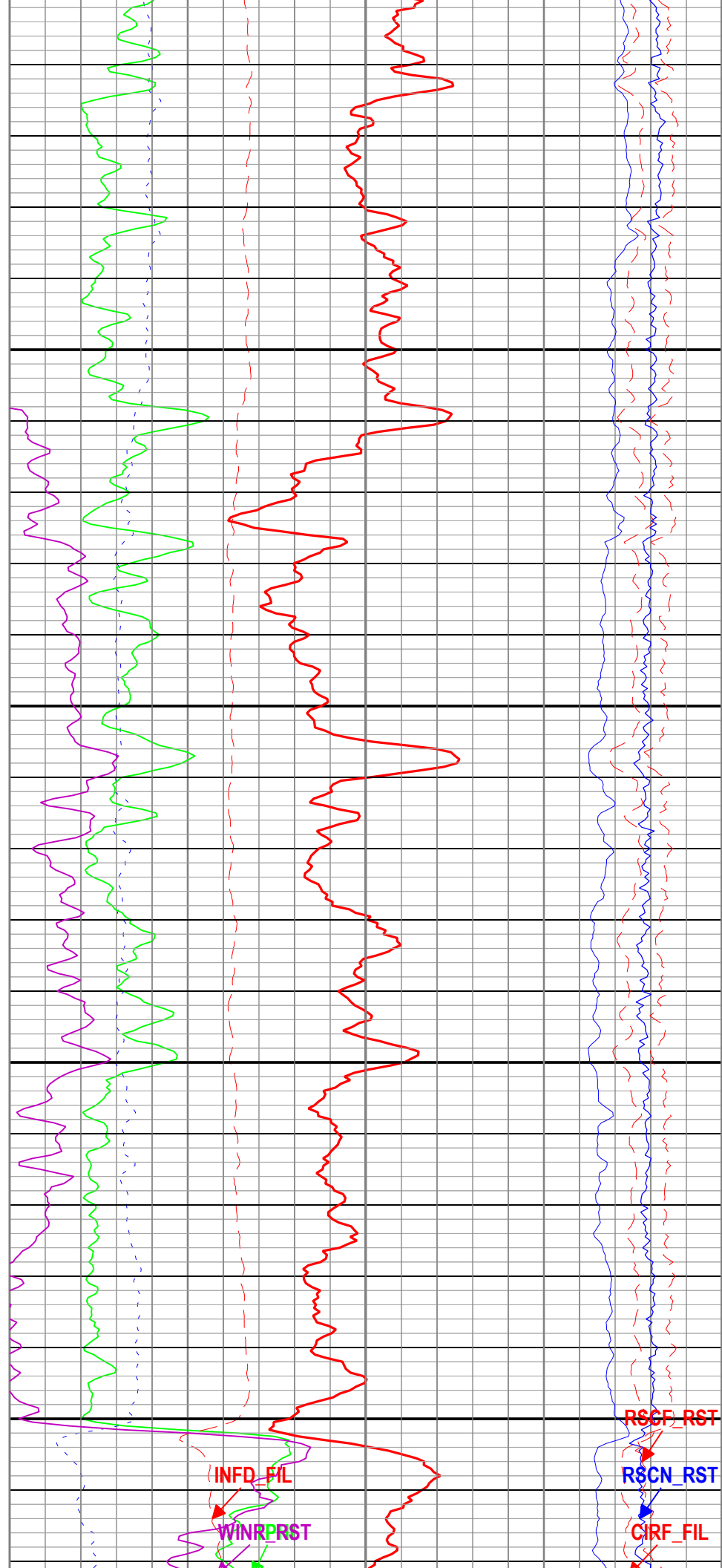
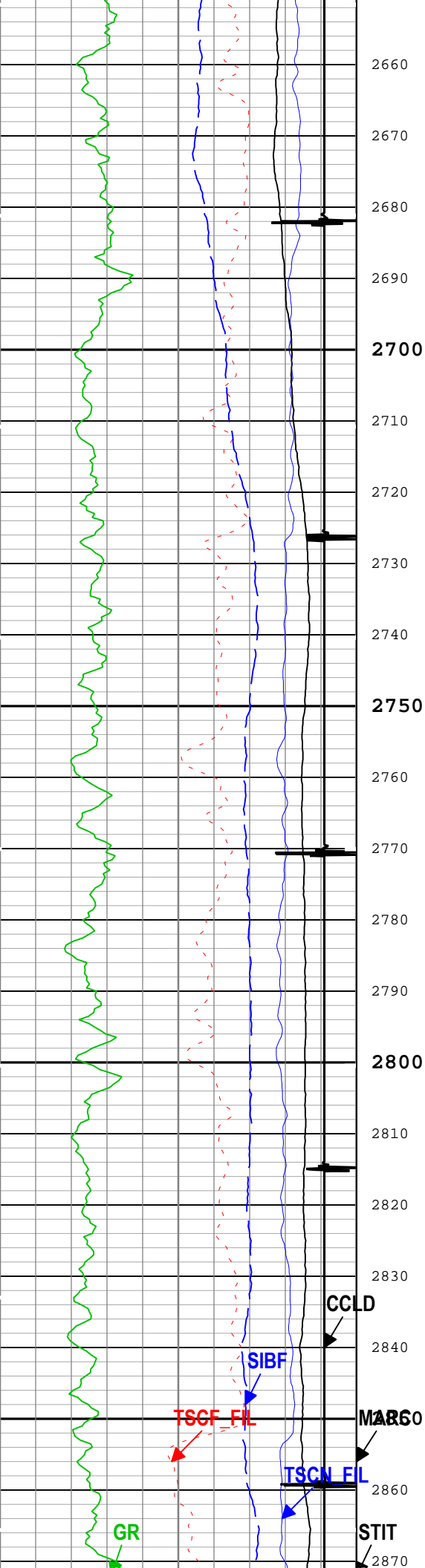
			Stuck Tool Indicator, Total (STIT)		Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C	
Borehole Salinity (BSAL) RST-C			0 ft 50		2.5 0	
450	ppk	-50			Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C	
Gamma Ray (GR) PSTP-E					5 0	
0	gAPI	150	Cable Drag From STIA to STIT		Inelastic Ratio Filtered (IRAT_FIL) RST-C	
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C					0.75 0	
30000	1/s	0			Thermal Decay Porosity (TPHI) RST-C	
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Tool_Tot. Drag From D3T to STIT		45 0	
12000	1/s	0			Far Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C	
Sigma Borehole Fluid (SIBF) RST-C			Minitron Arc Count (MARC) RST-C		45 0	
100	cu	0			Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C	
CCL Discriminated Amplitude (CCLD) PSTP-E					60 cu 0	
-10	V	1	0 5		Weighted Inelastic Ratio (WINR_RST) RST-C	
					0 0.4	

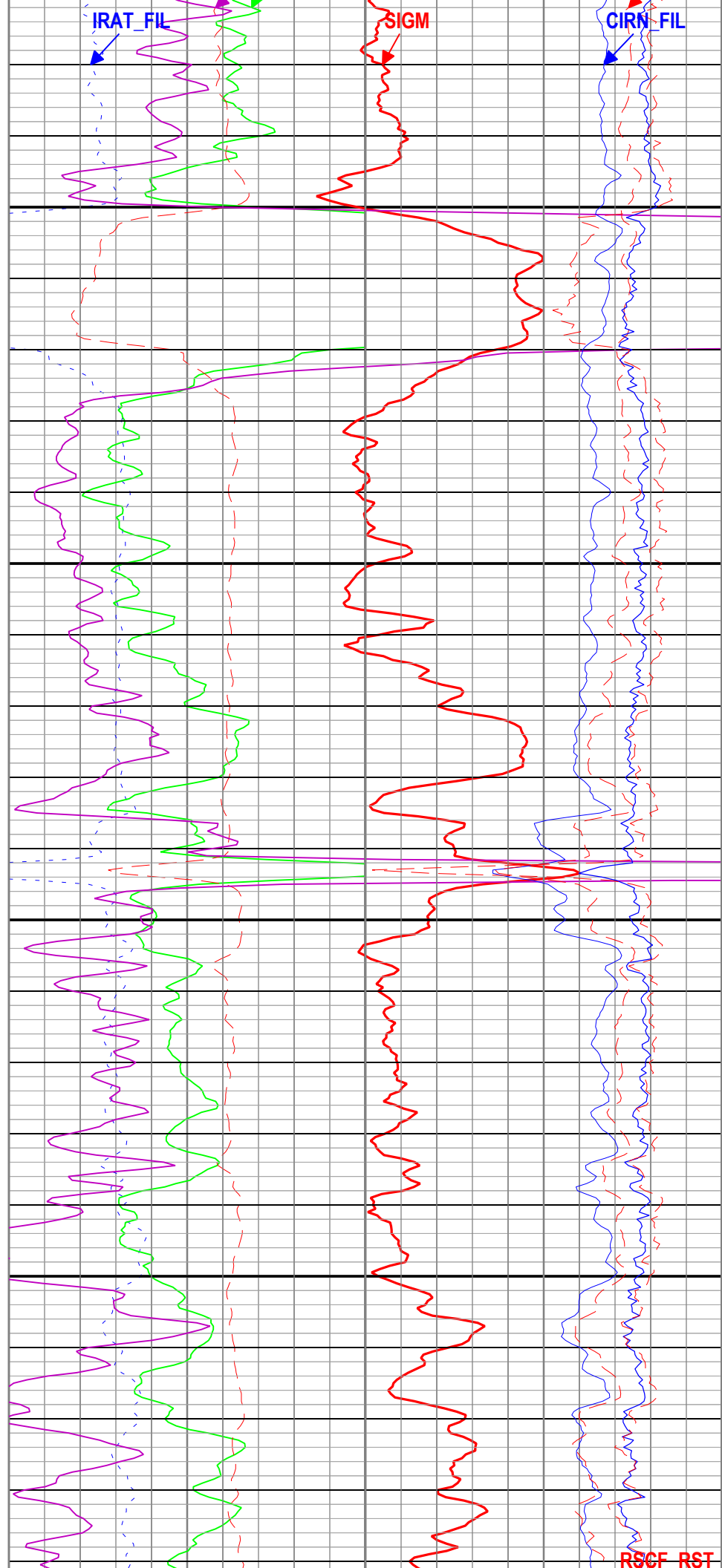
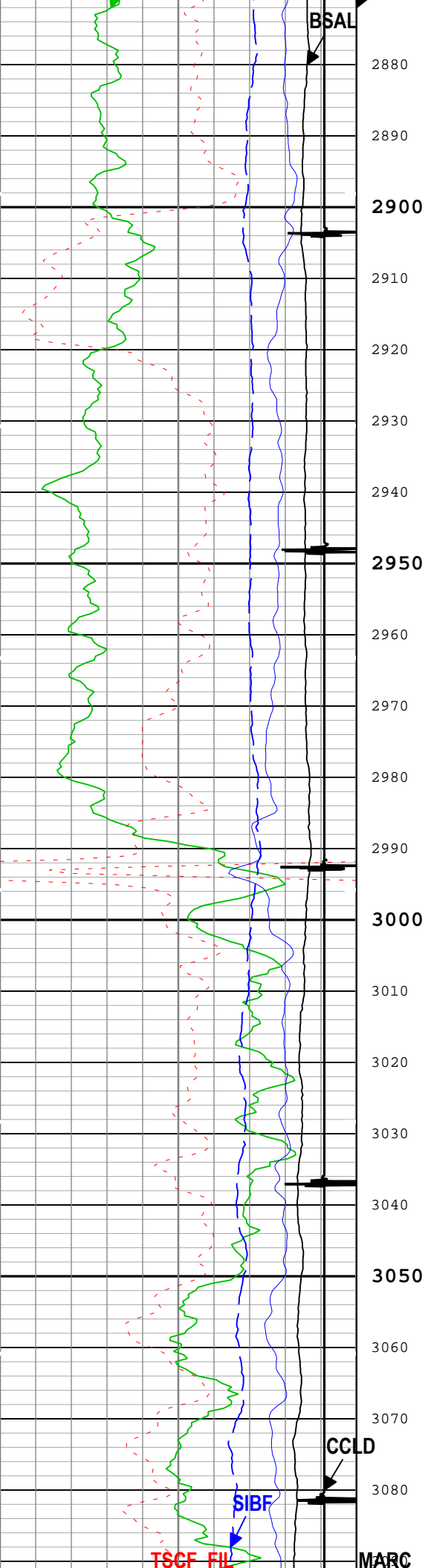


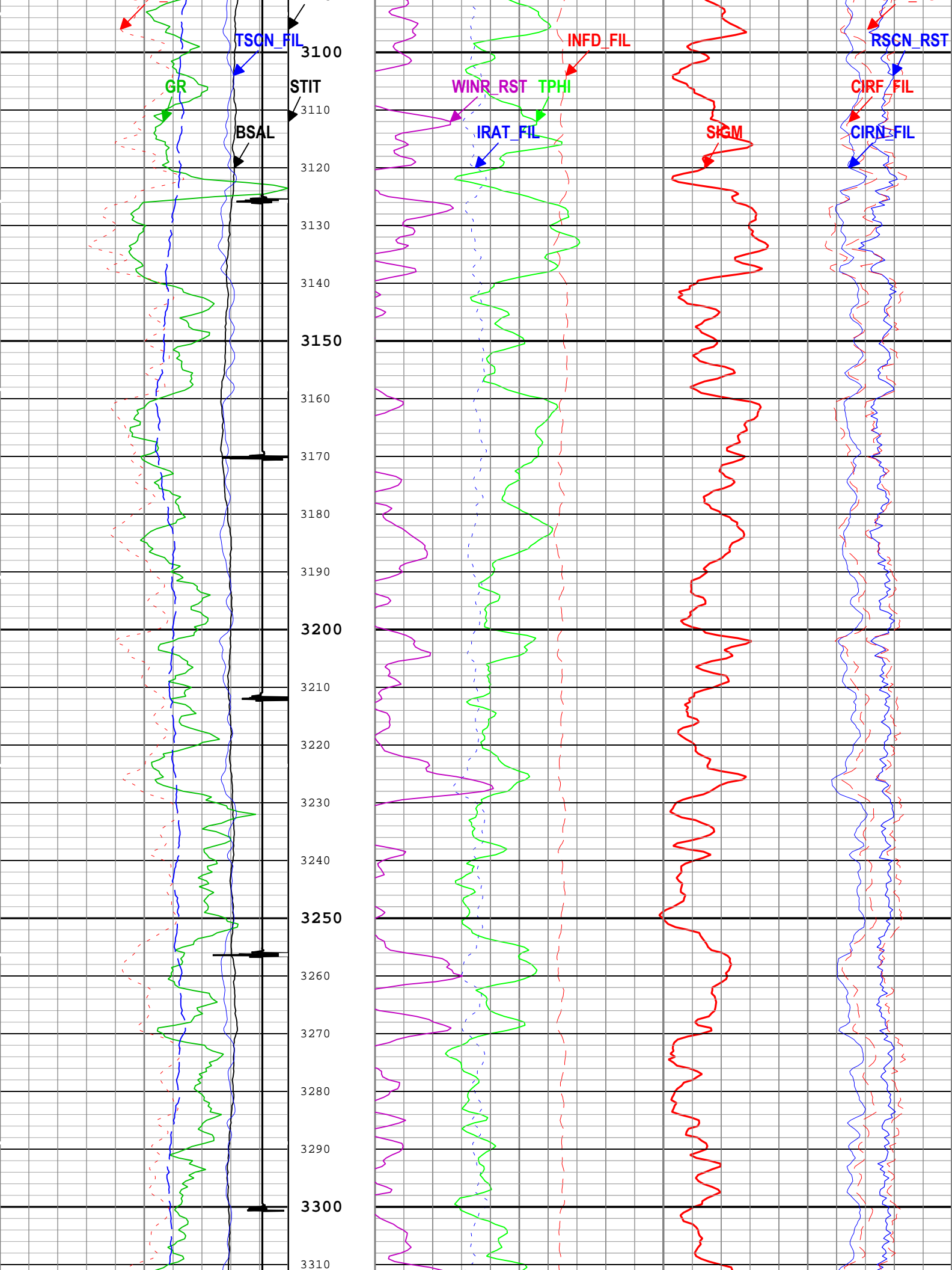


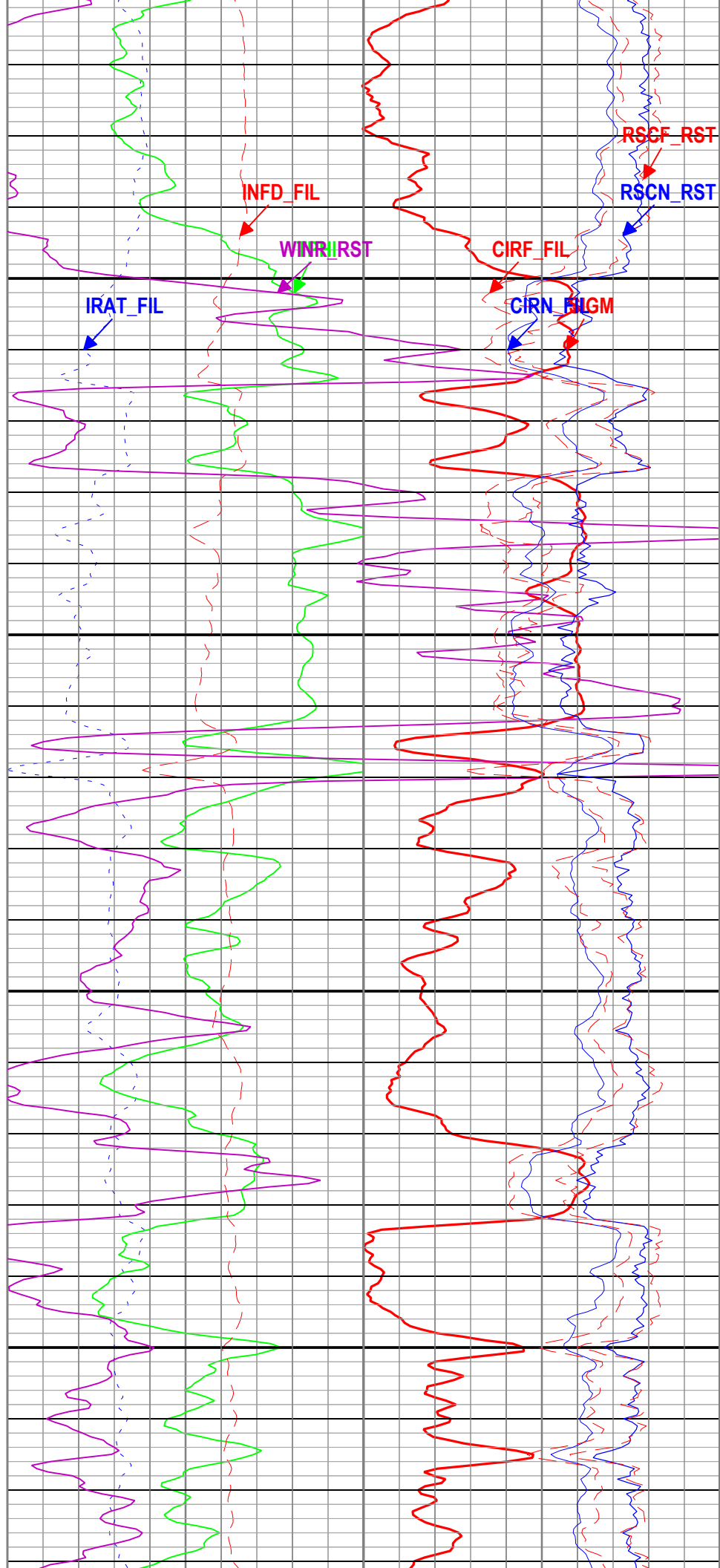
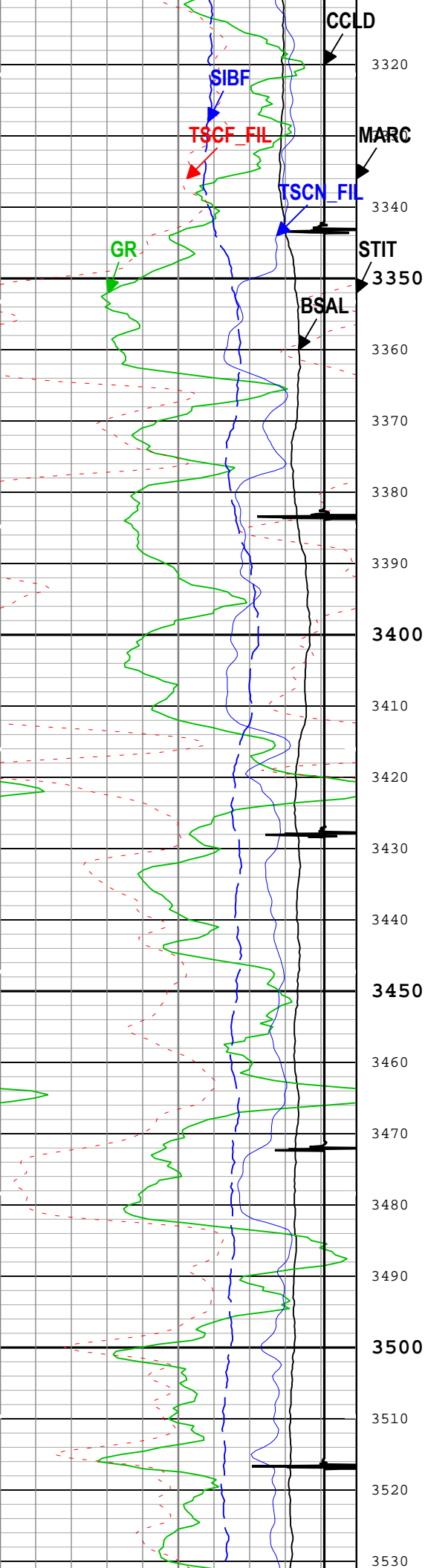


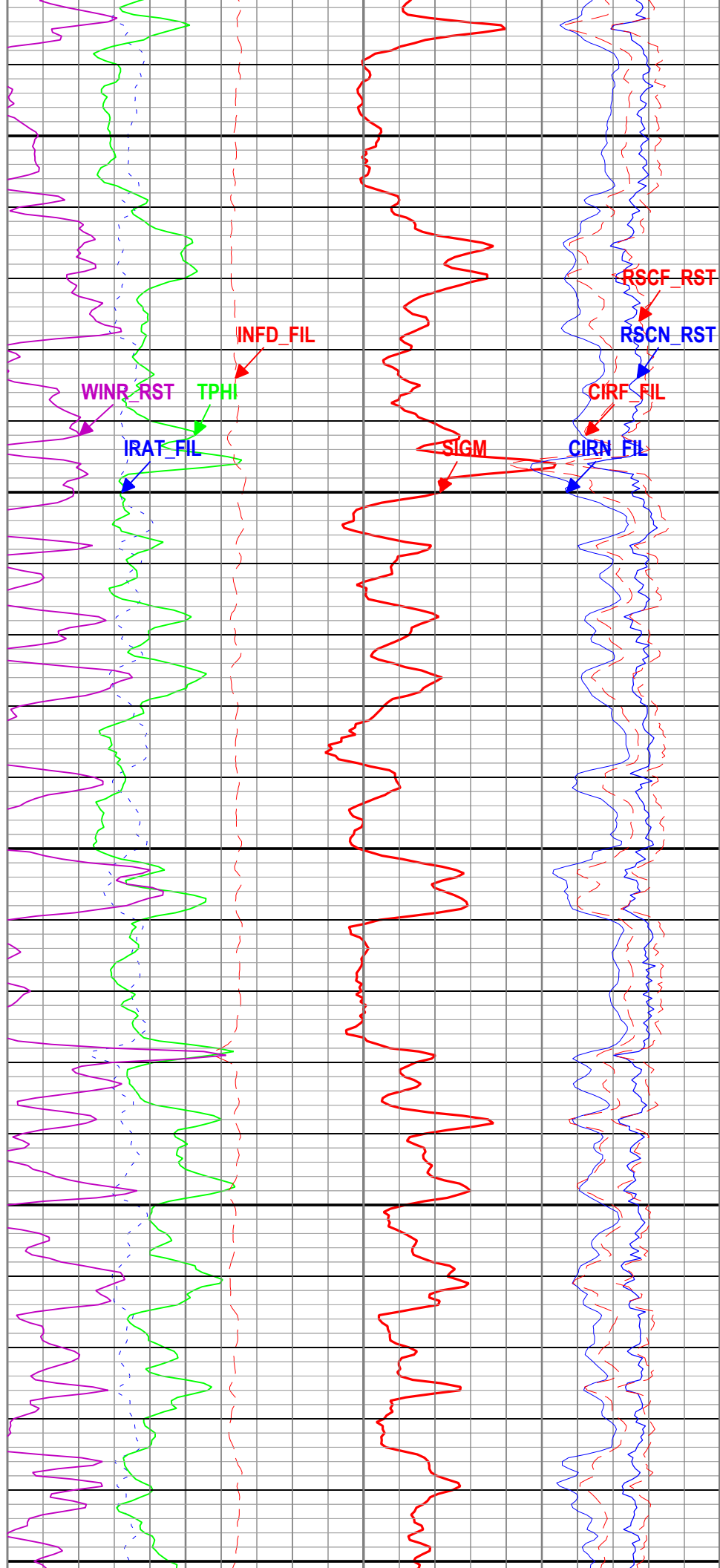
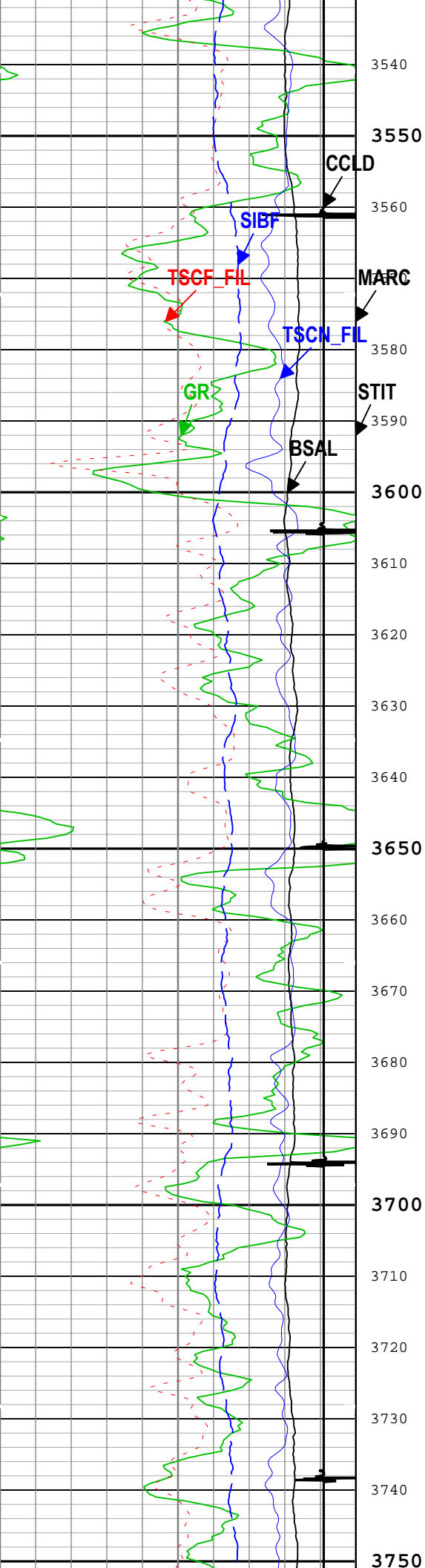


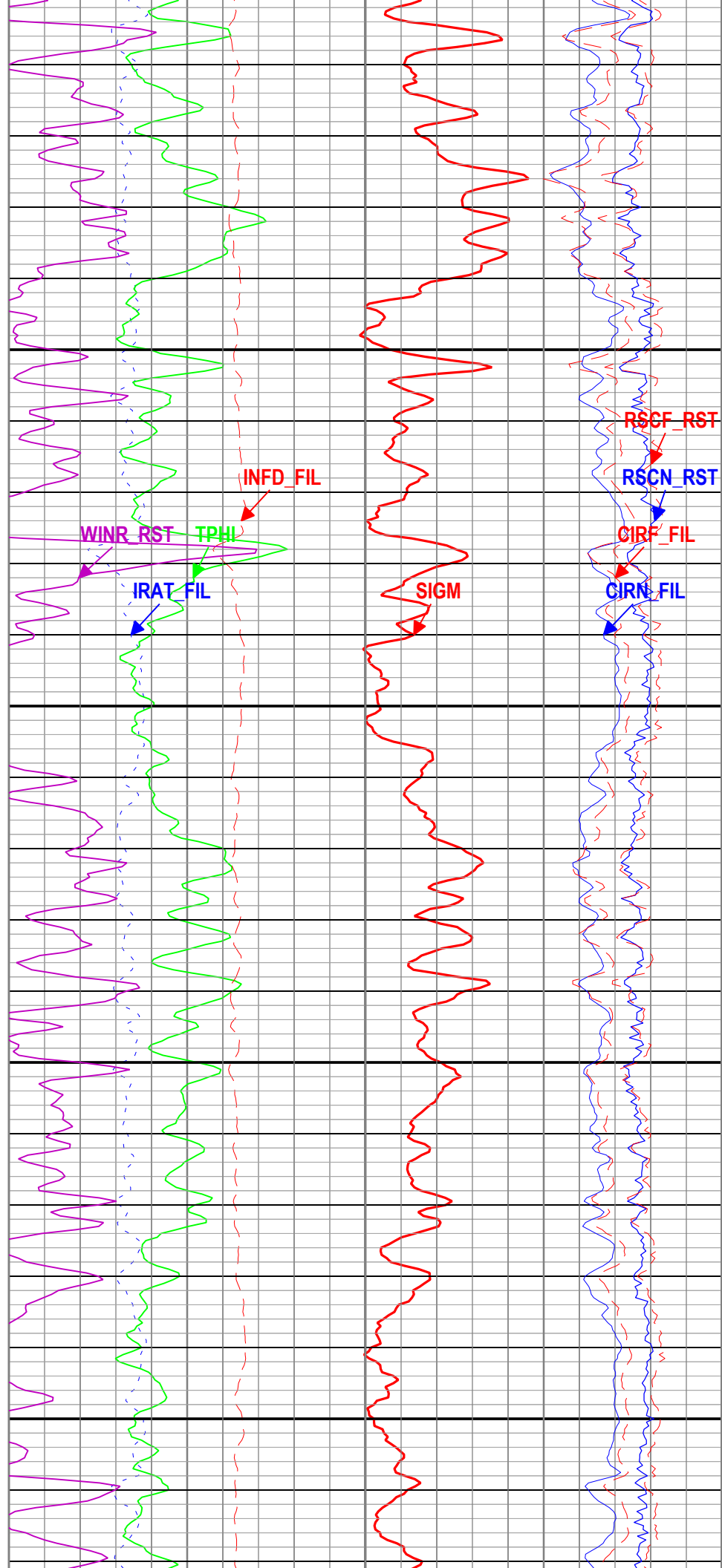
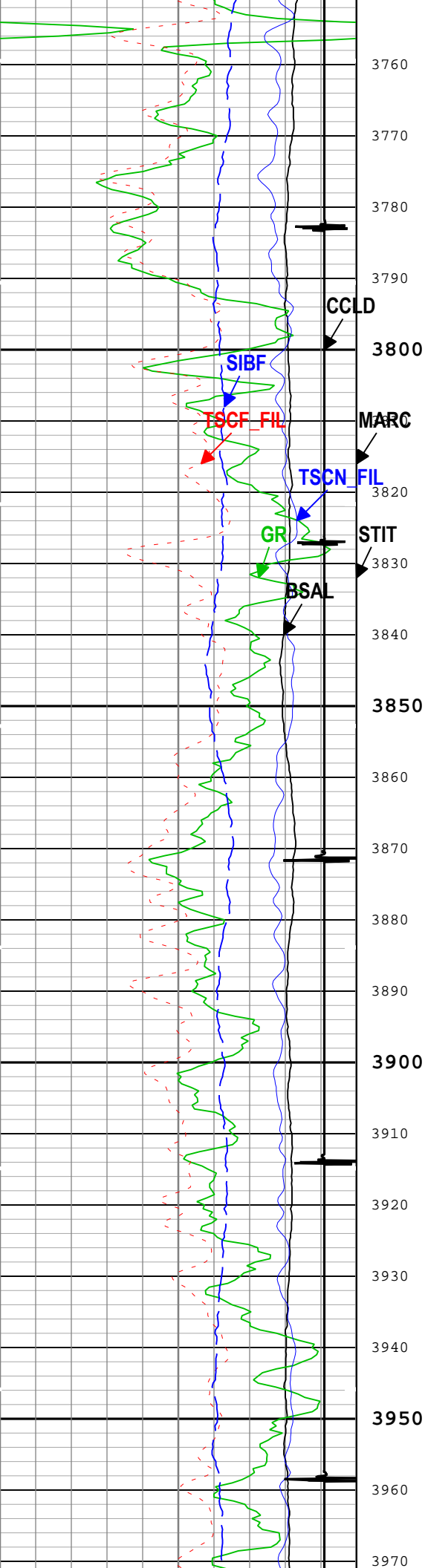


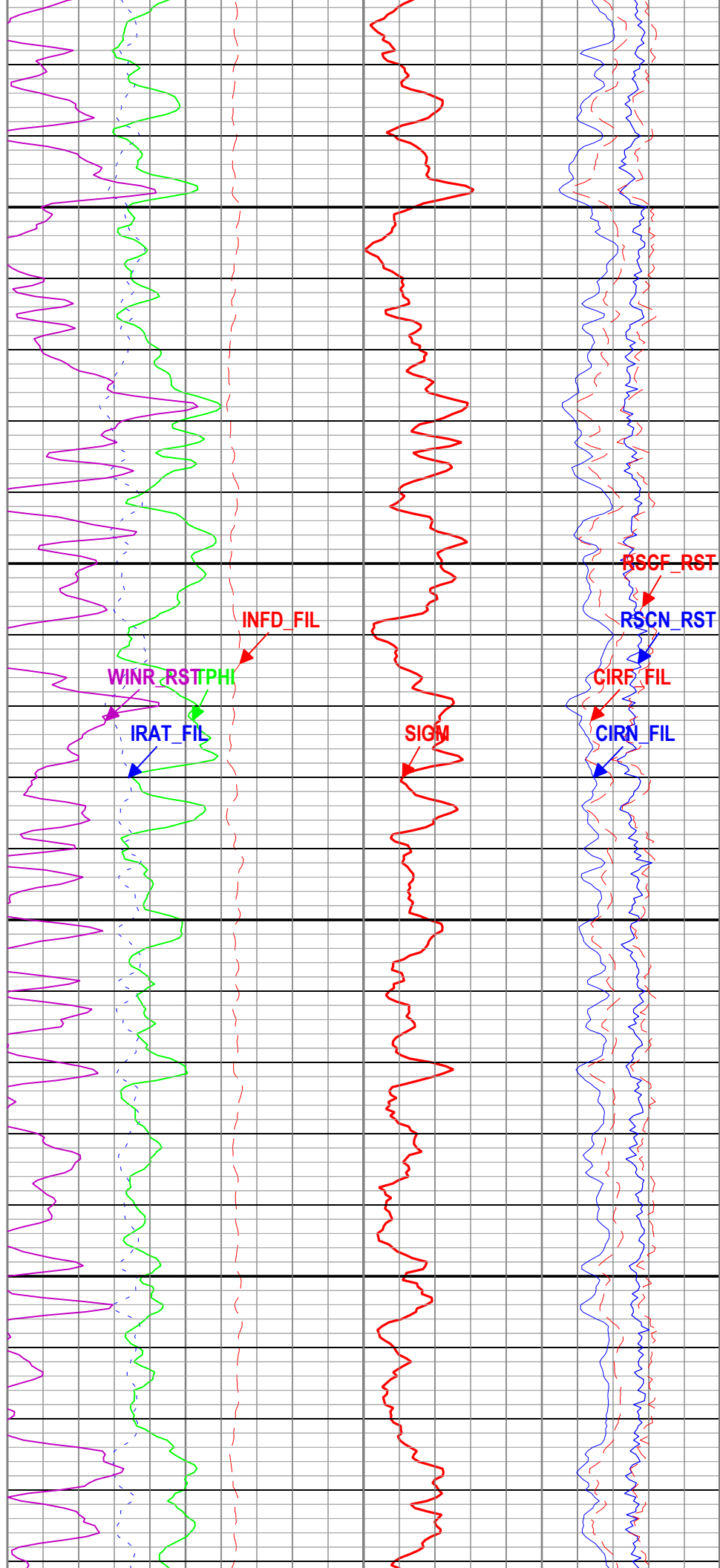
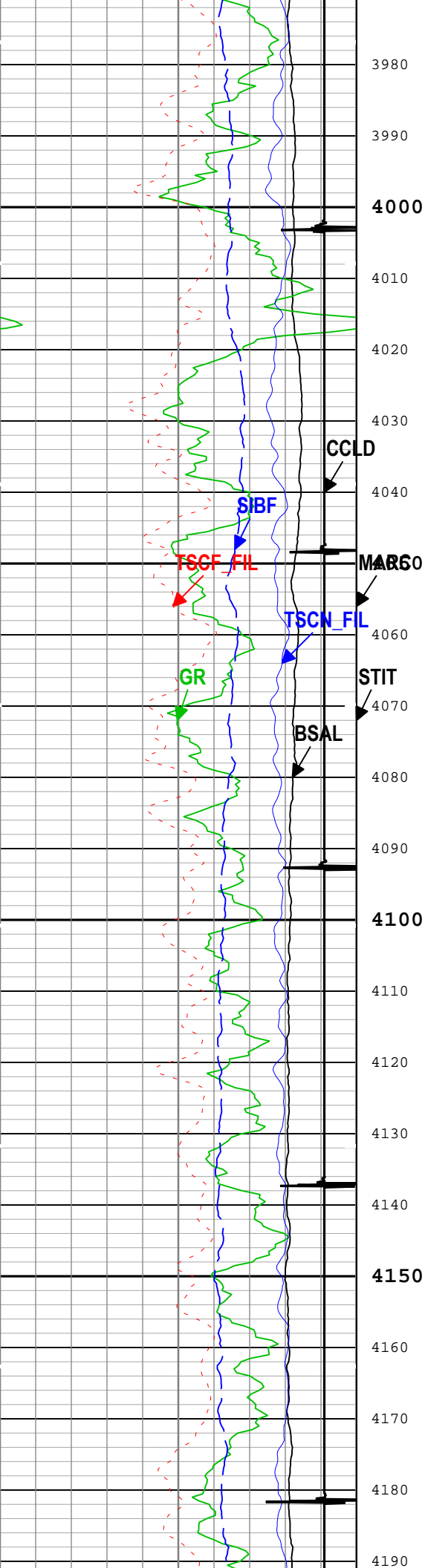


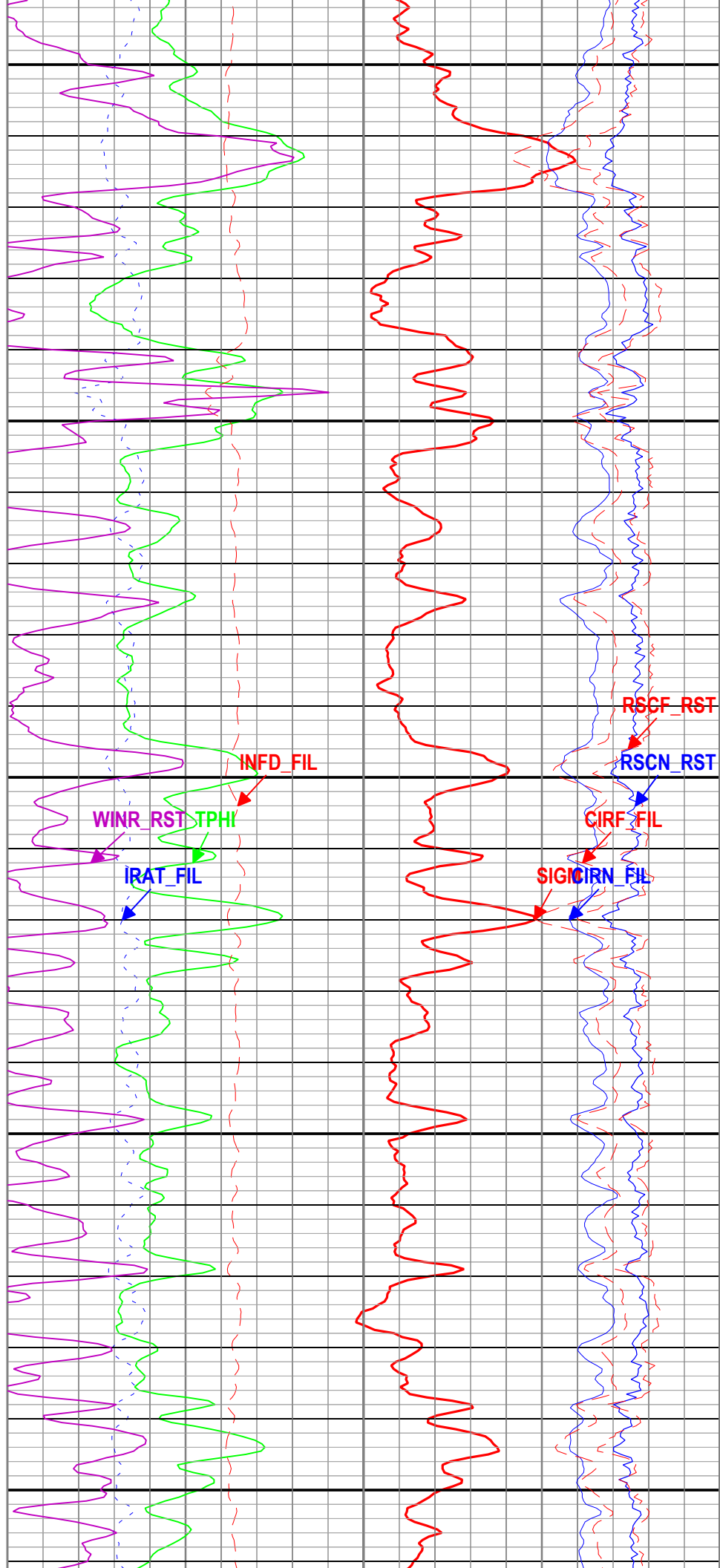
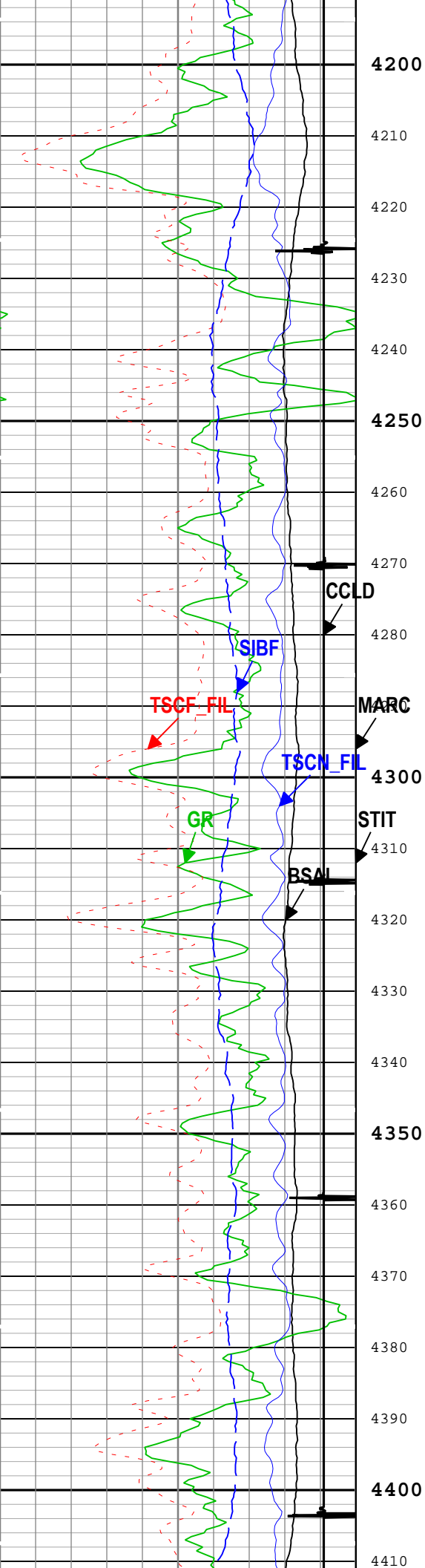


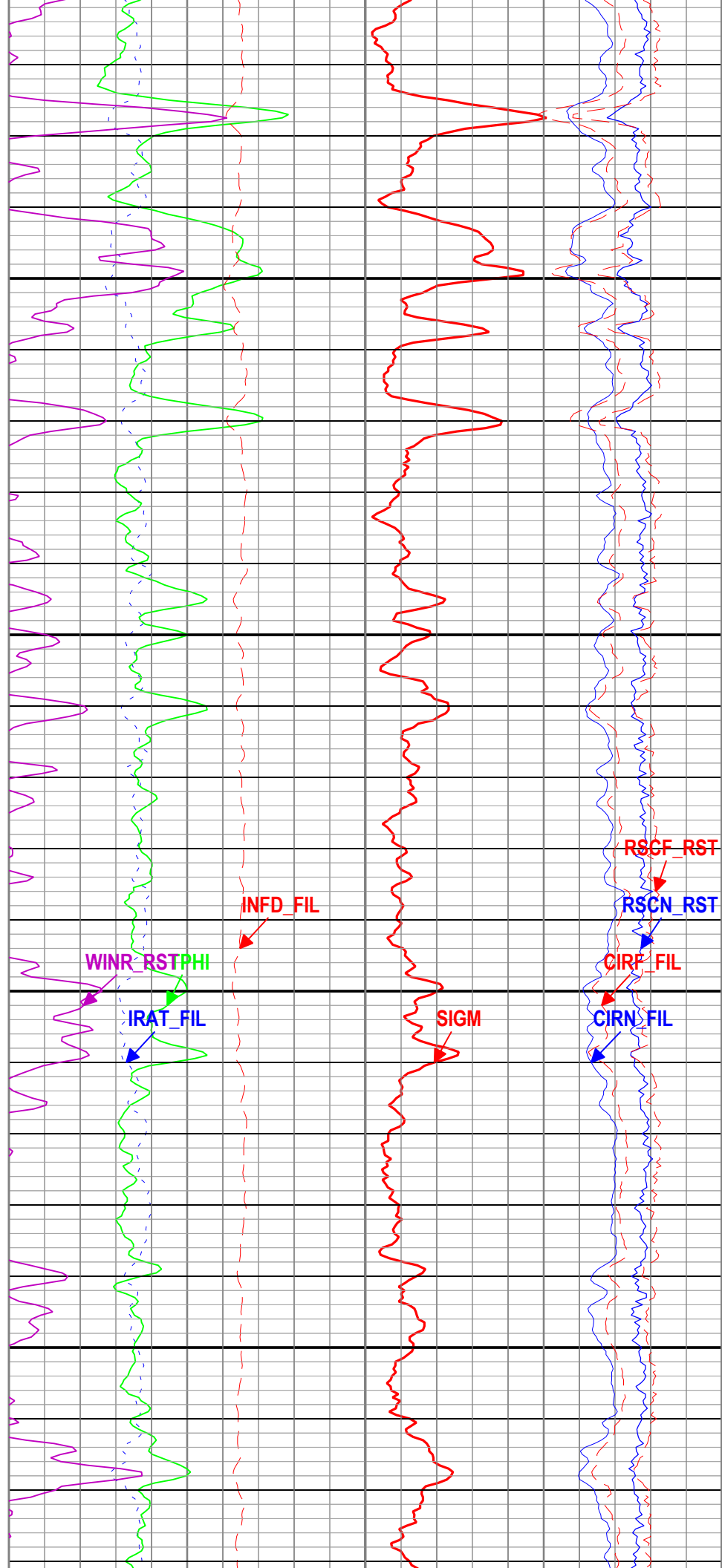
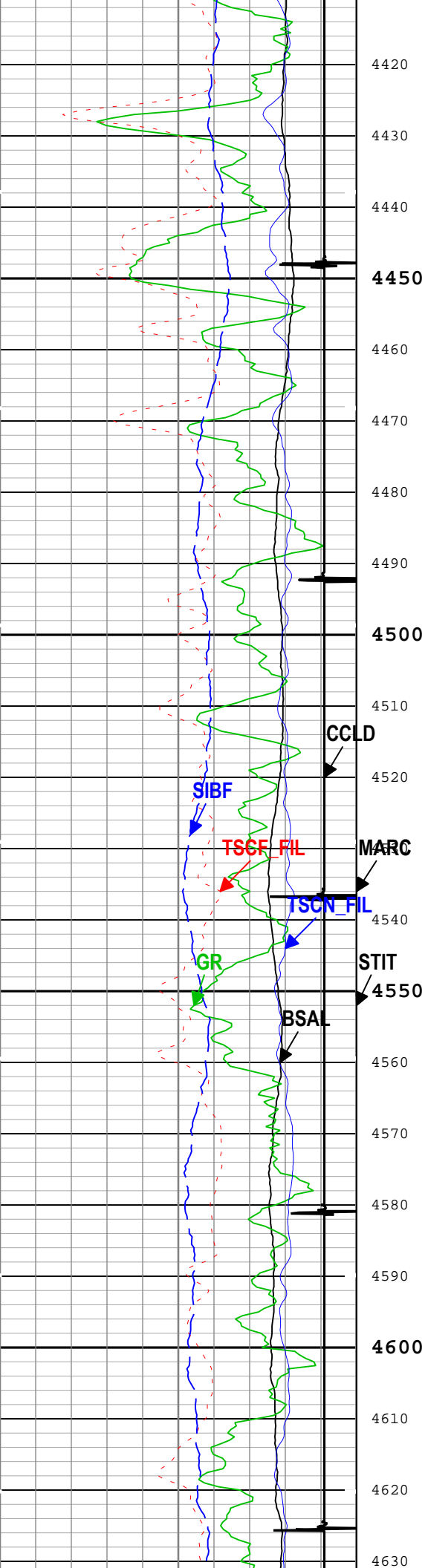


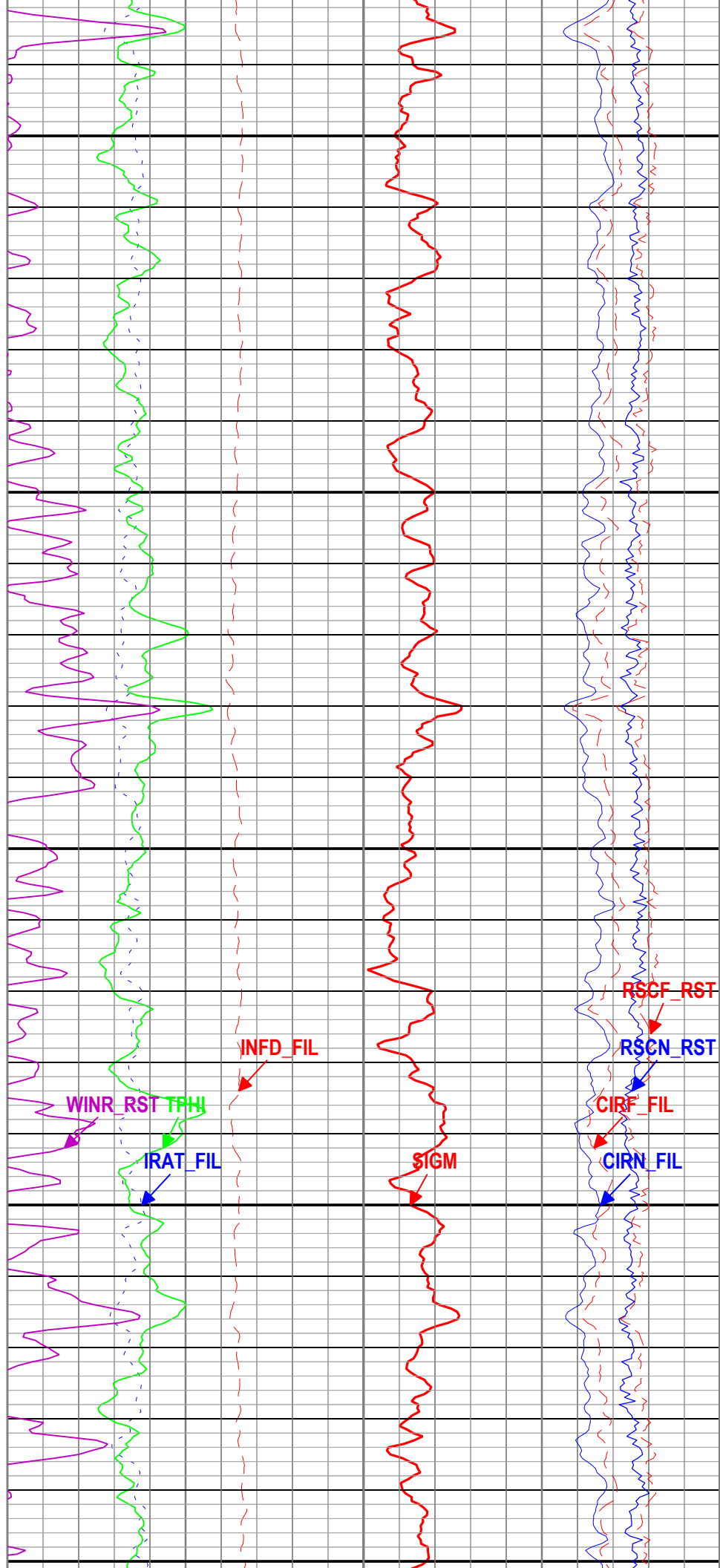
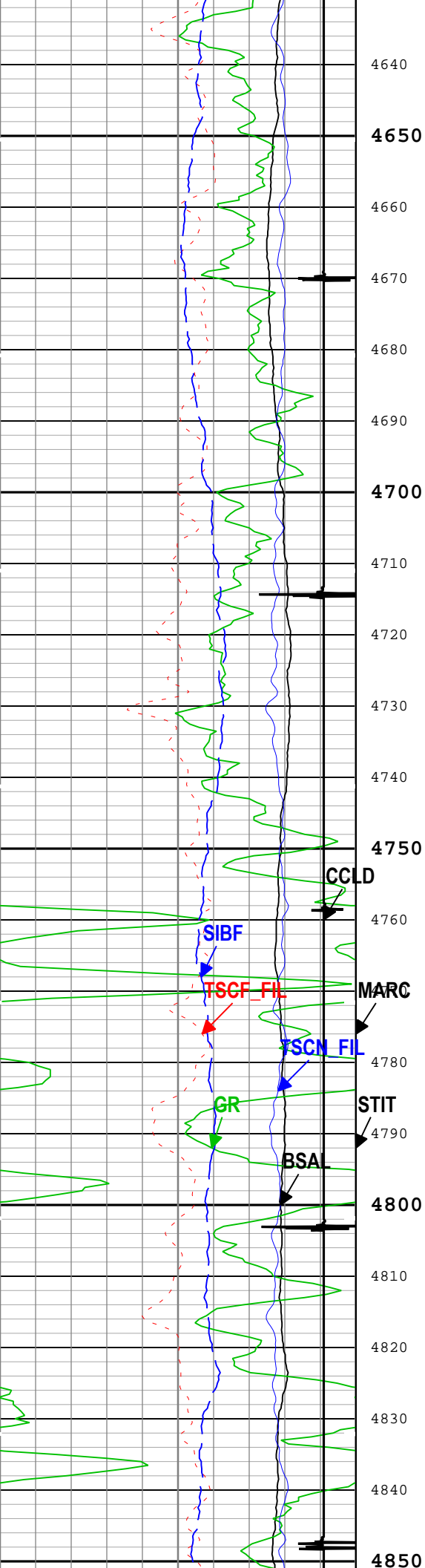


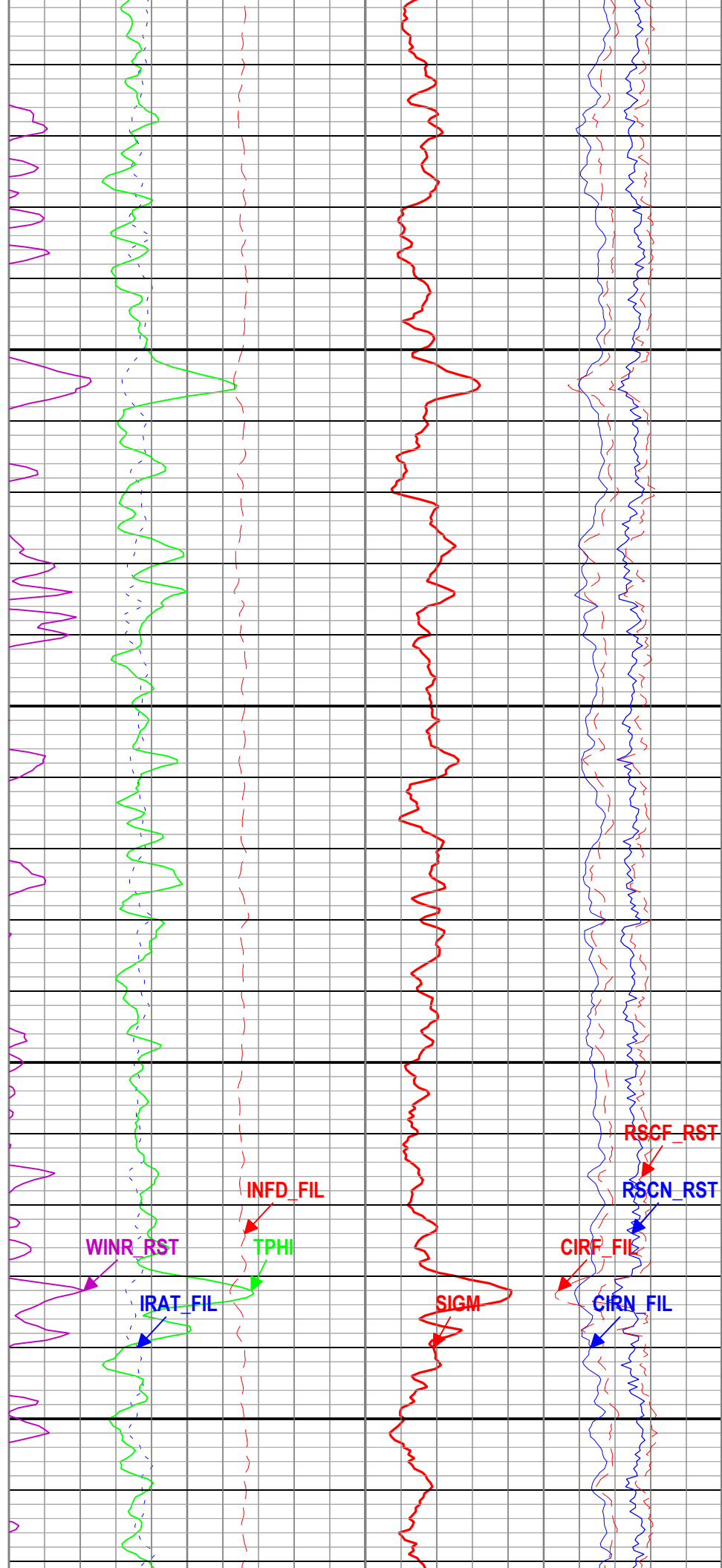
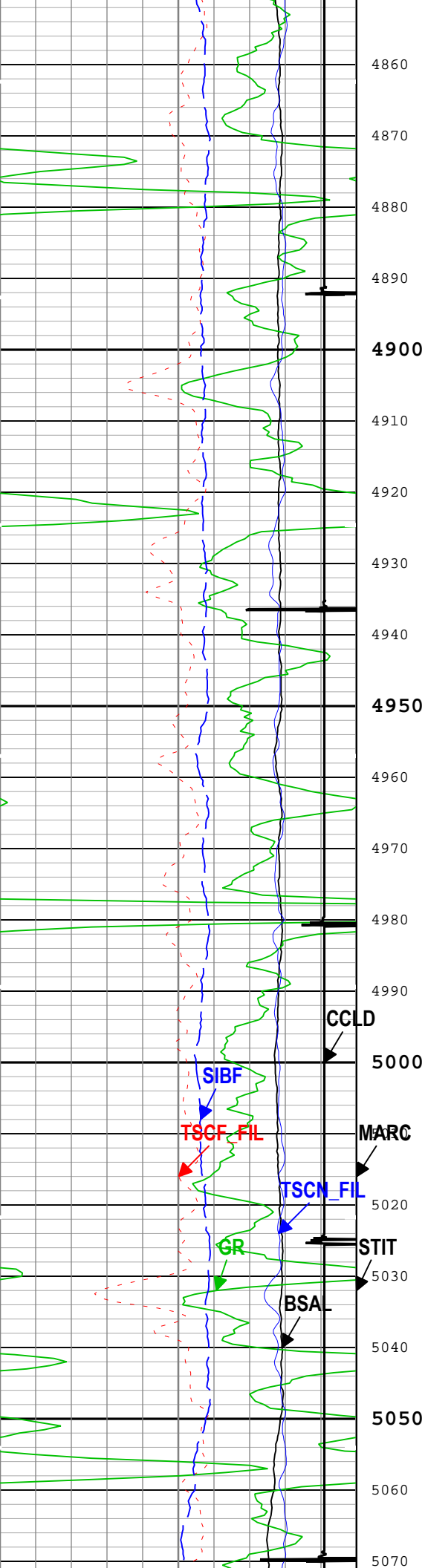


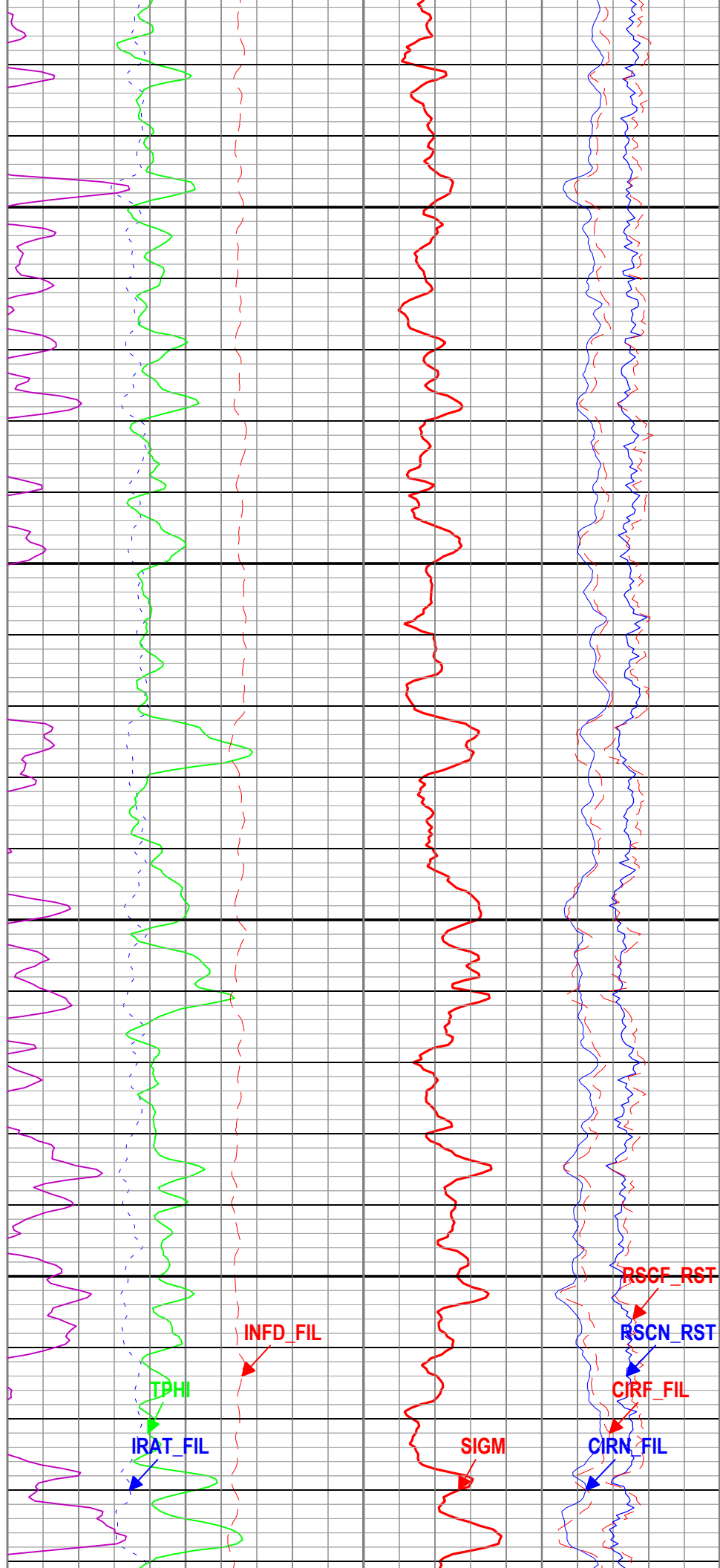
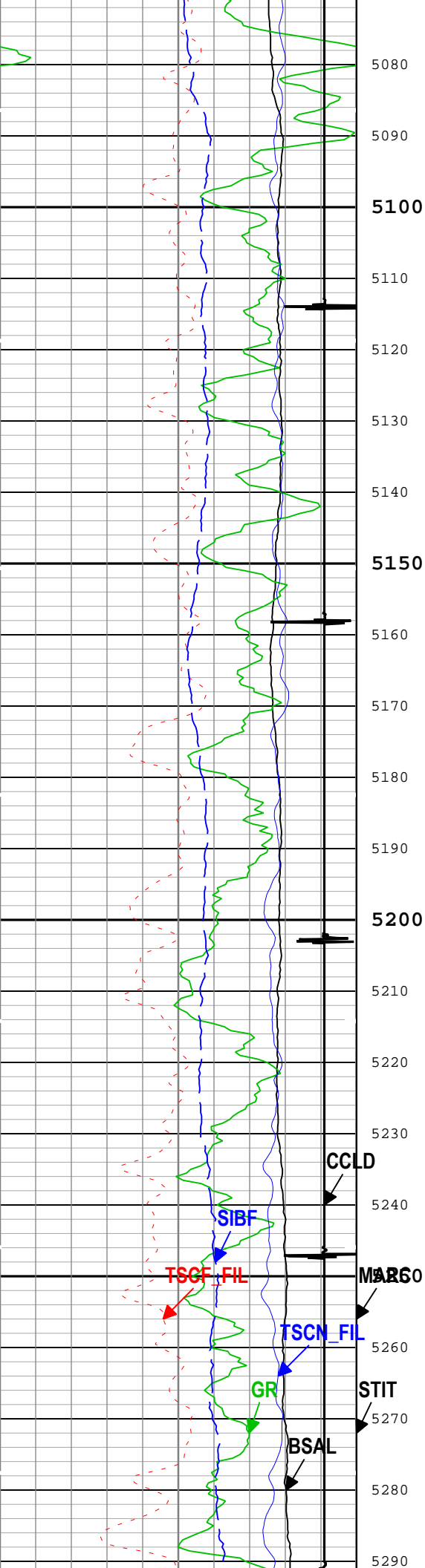


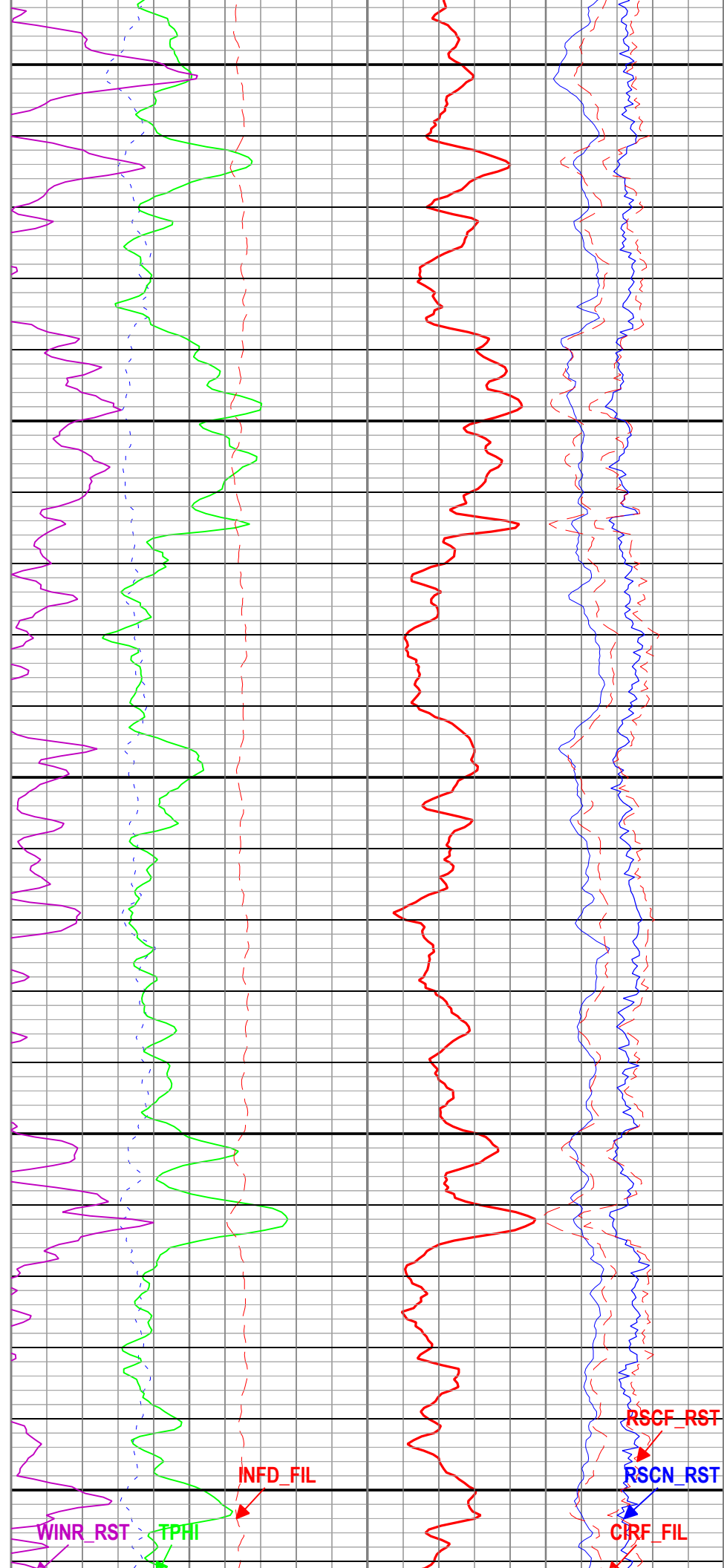
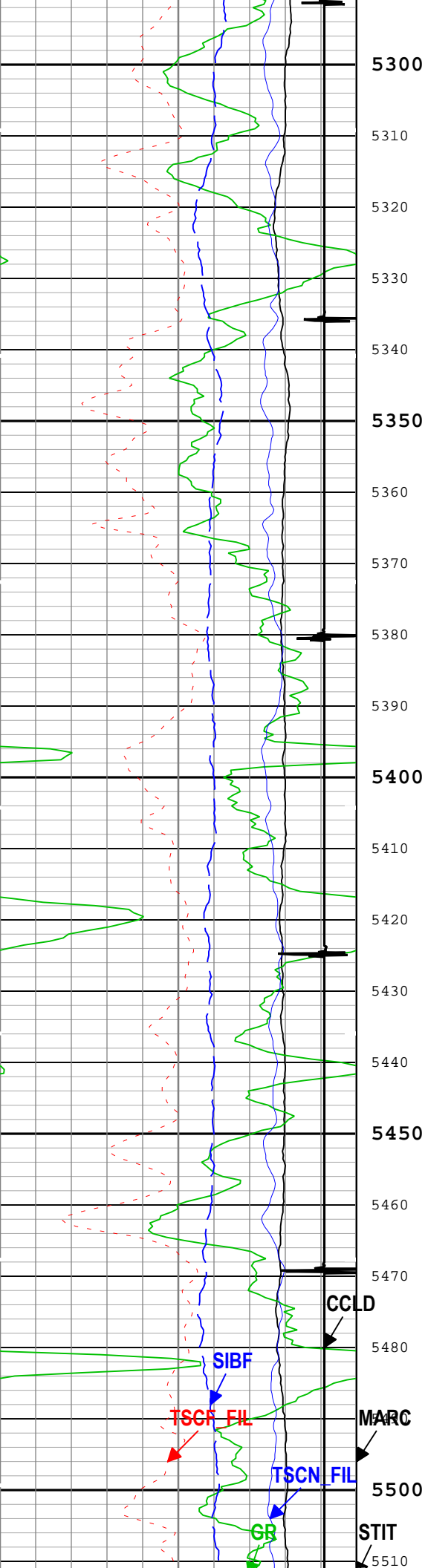


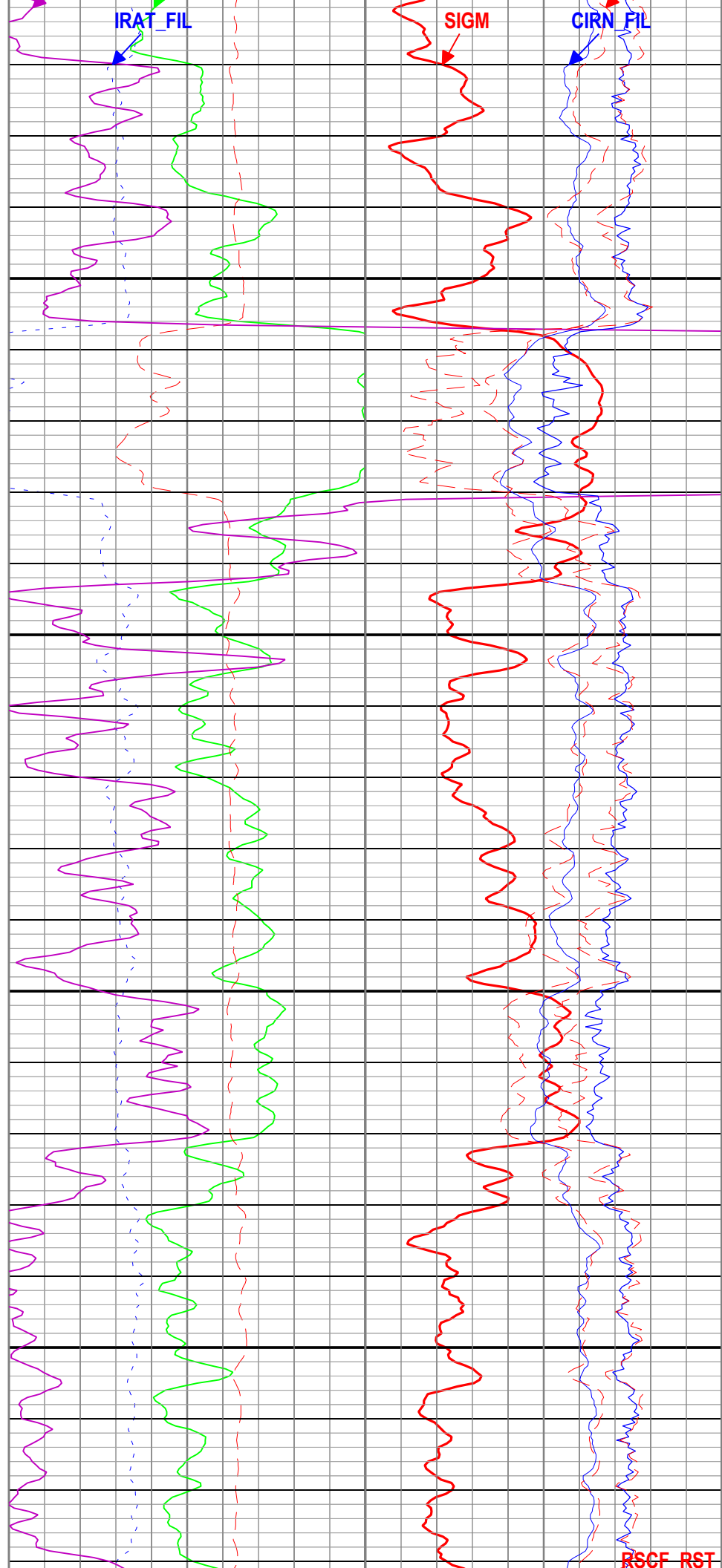
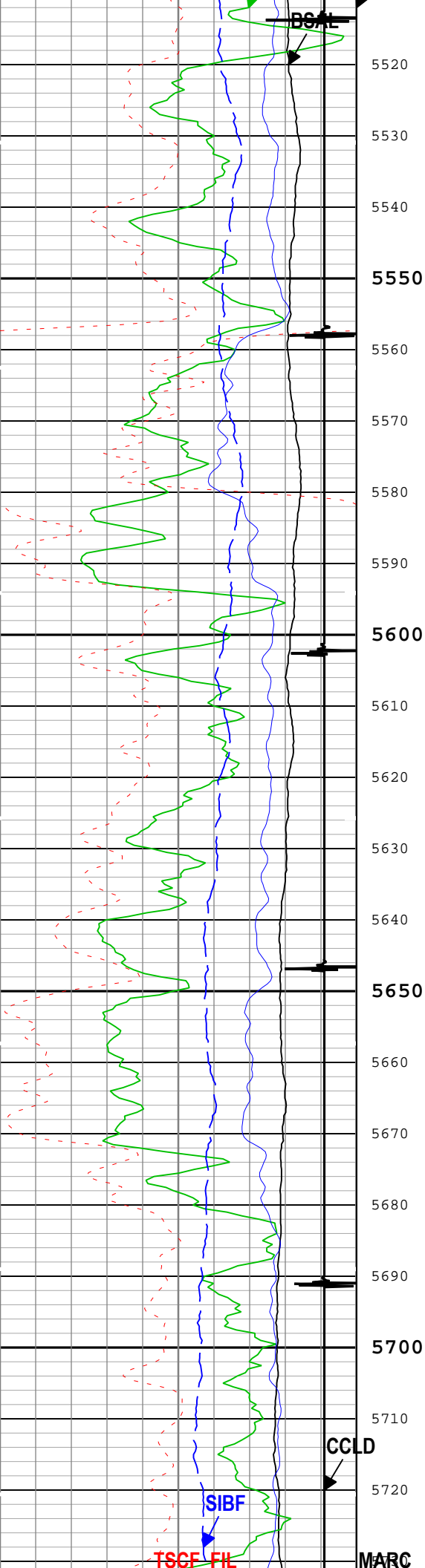


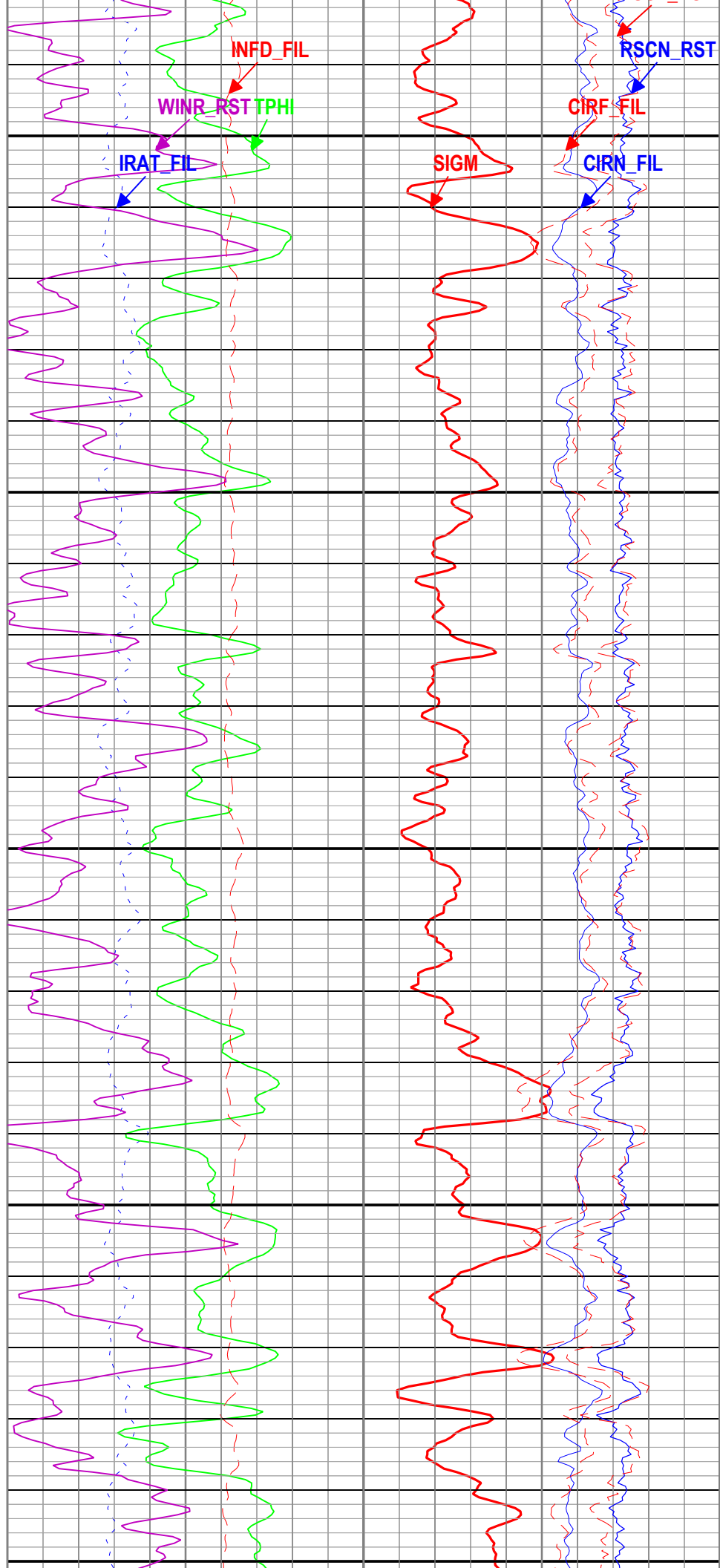
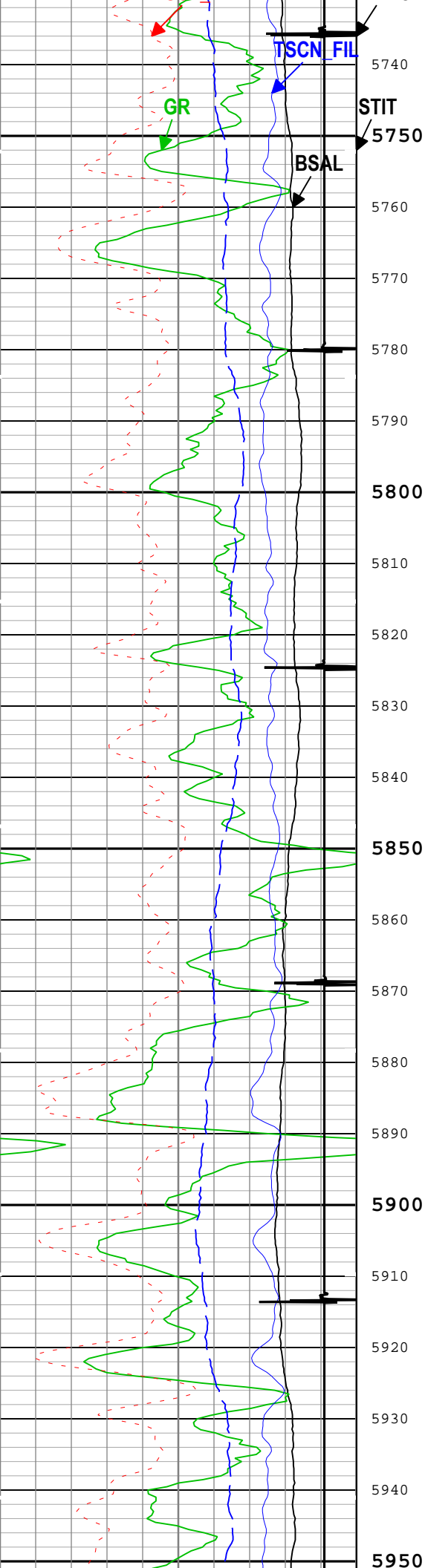


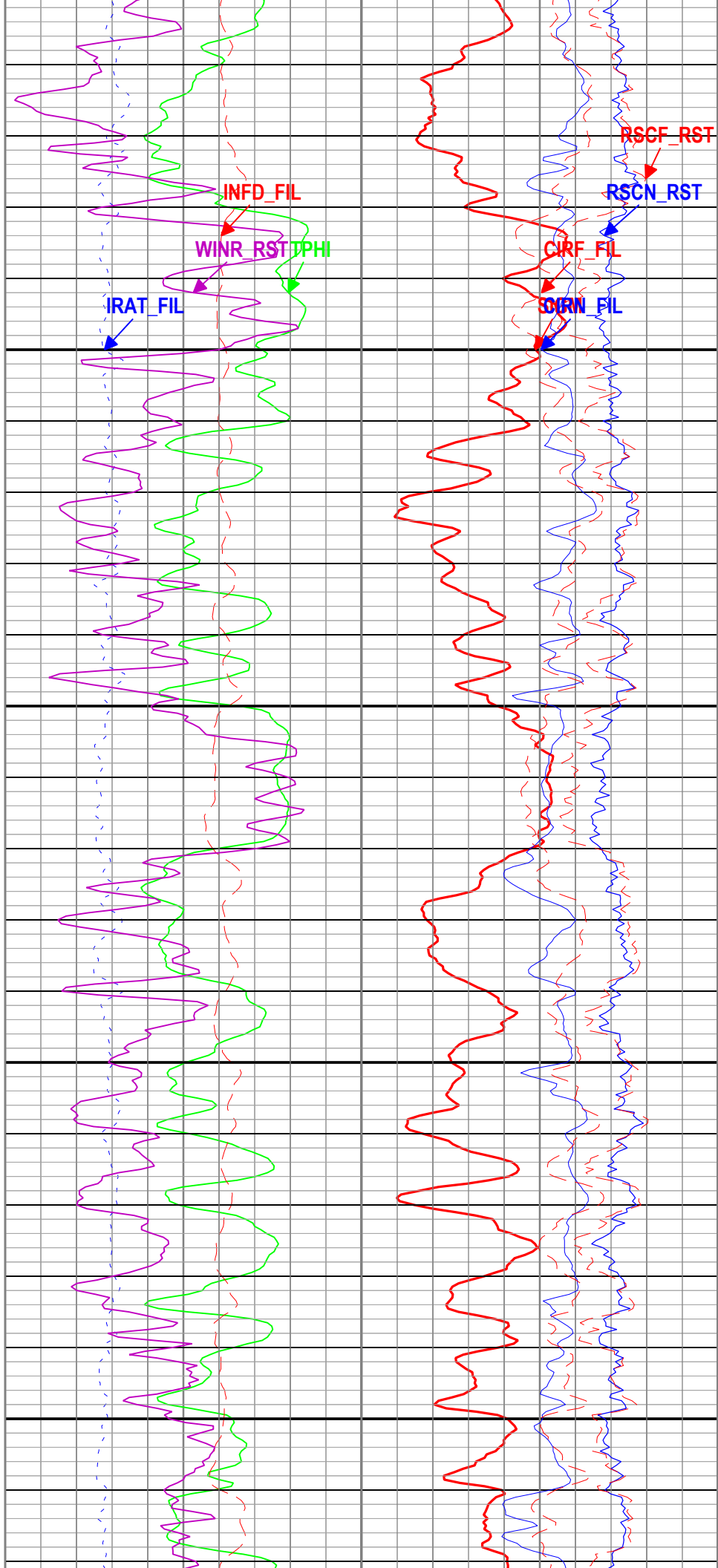
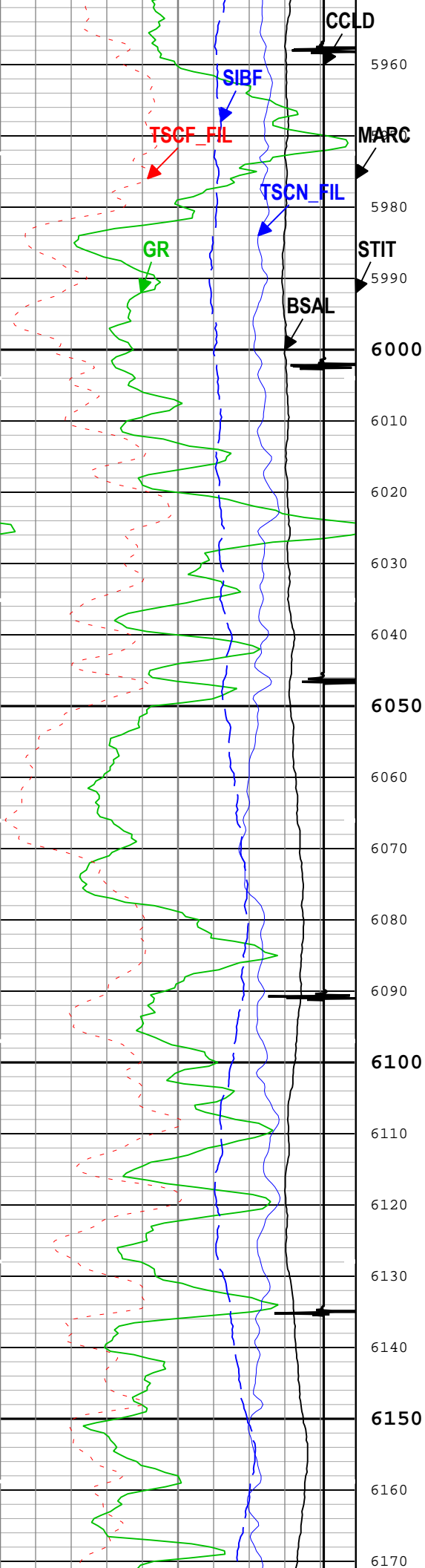


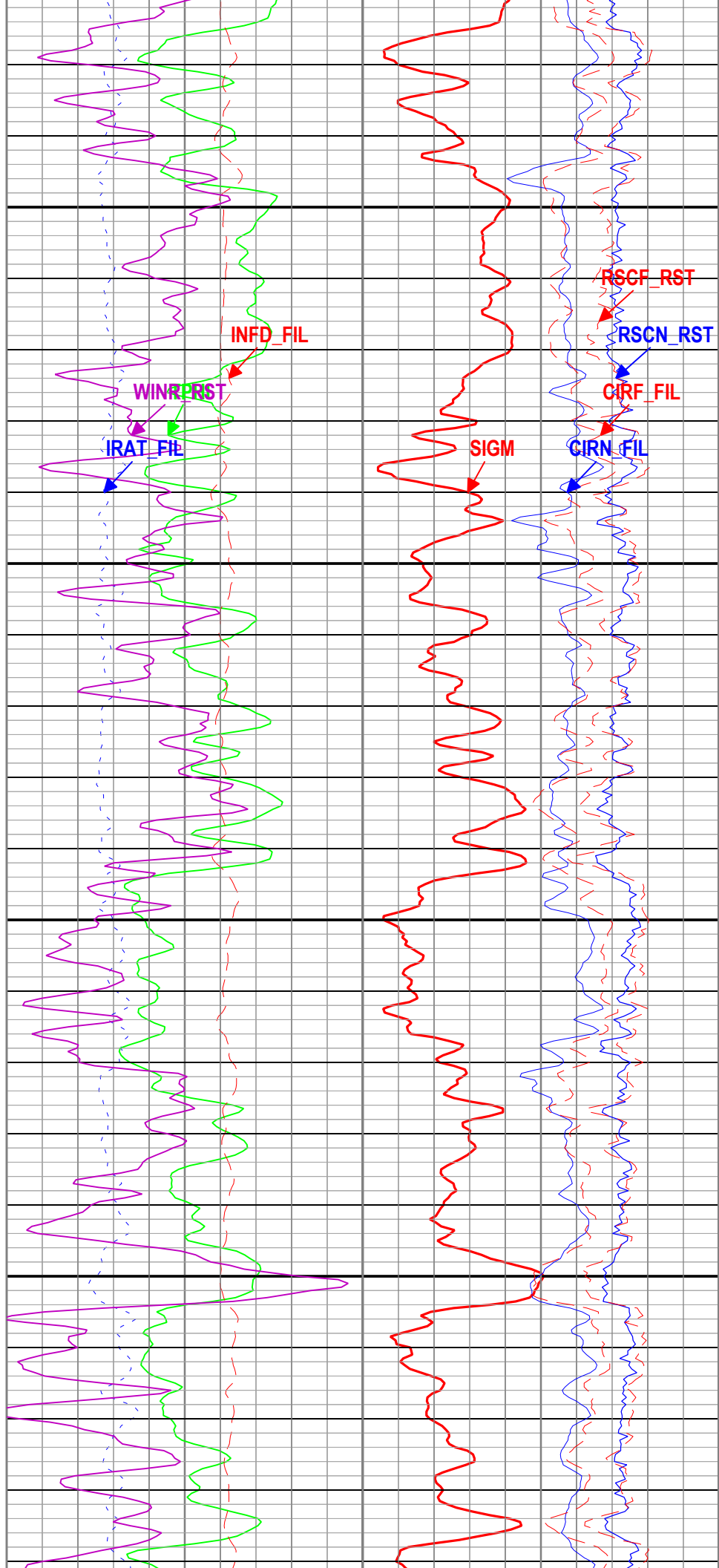
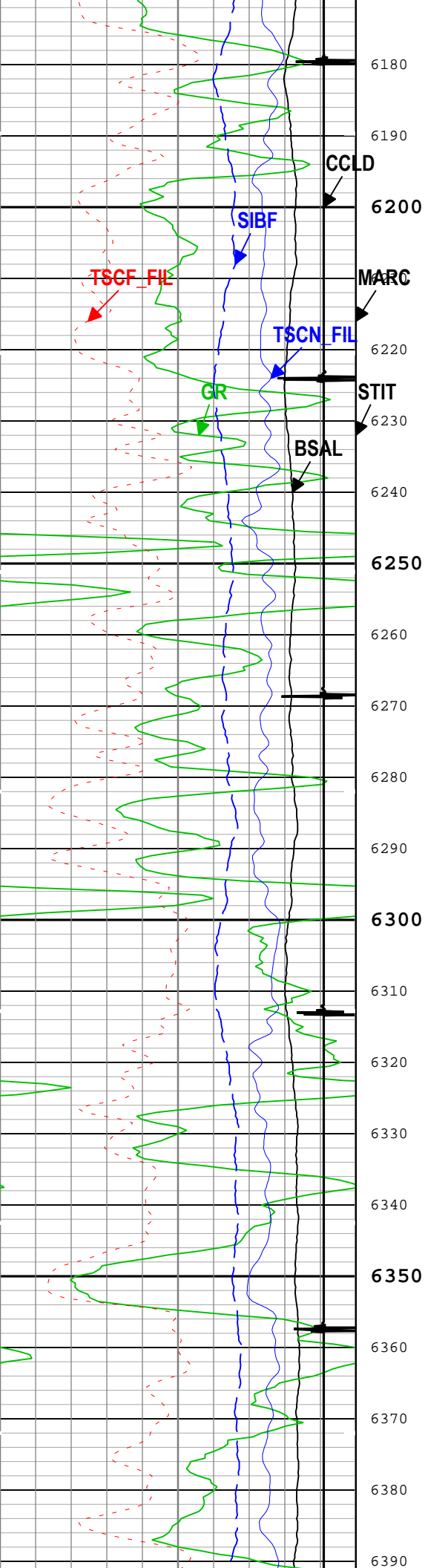


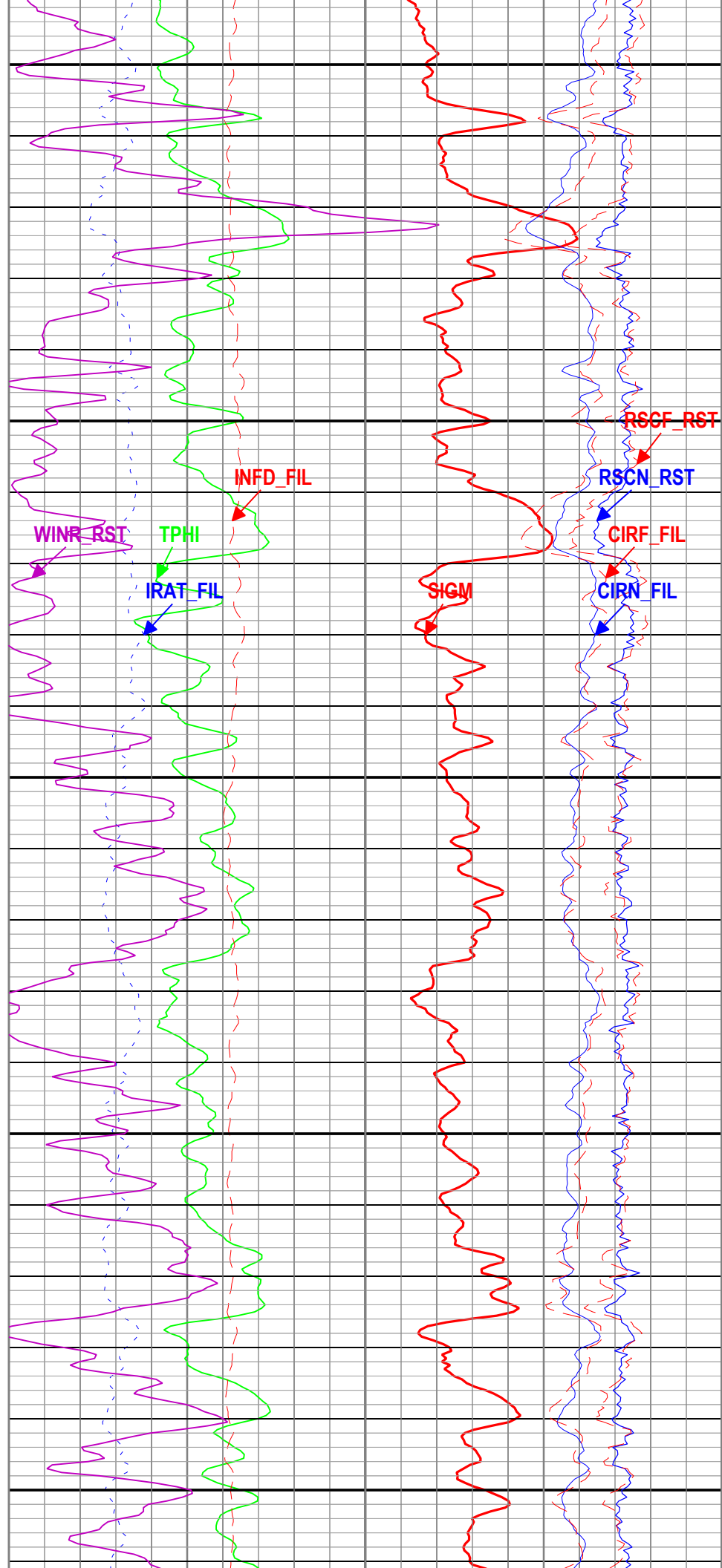
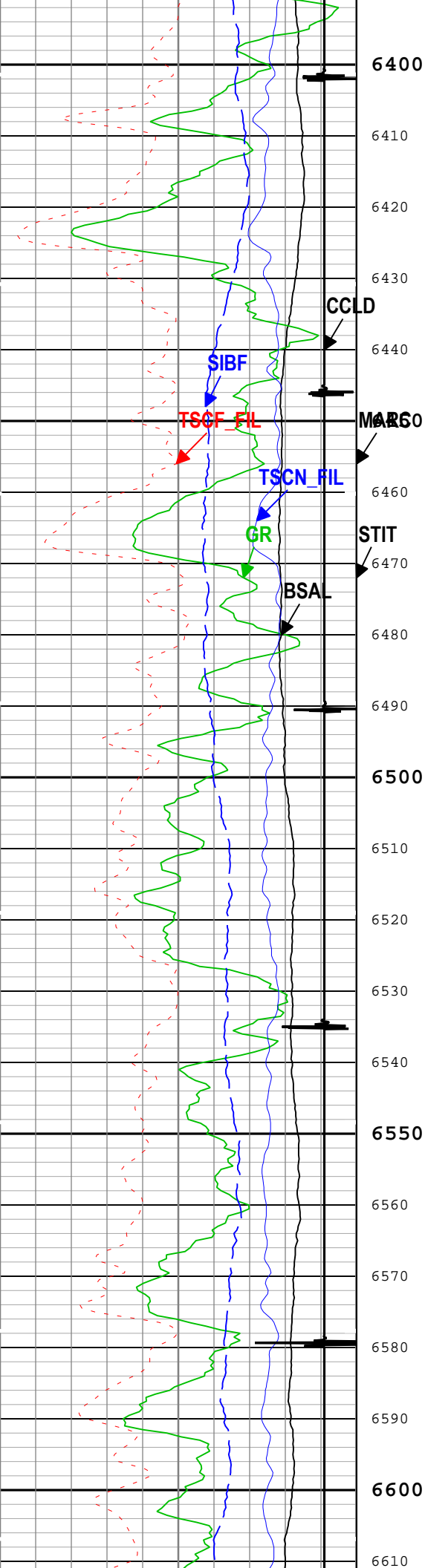


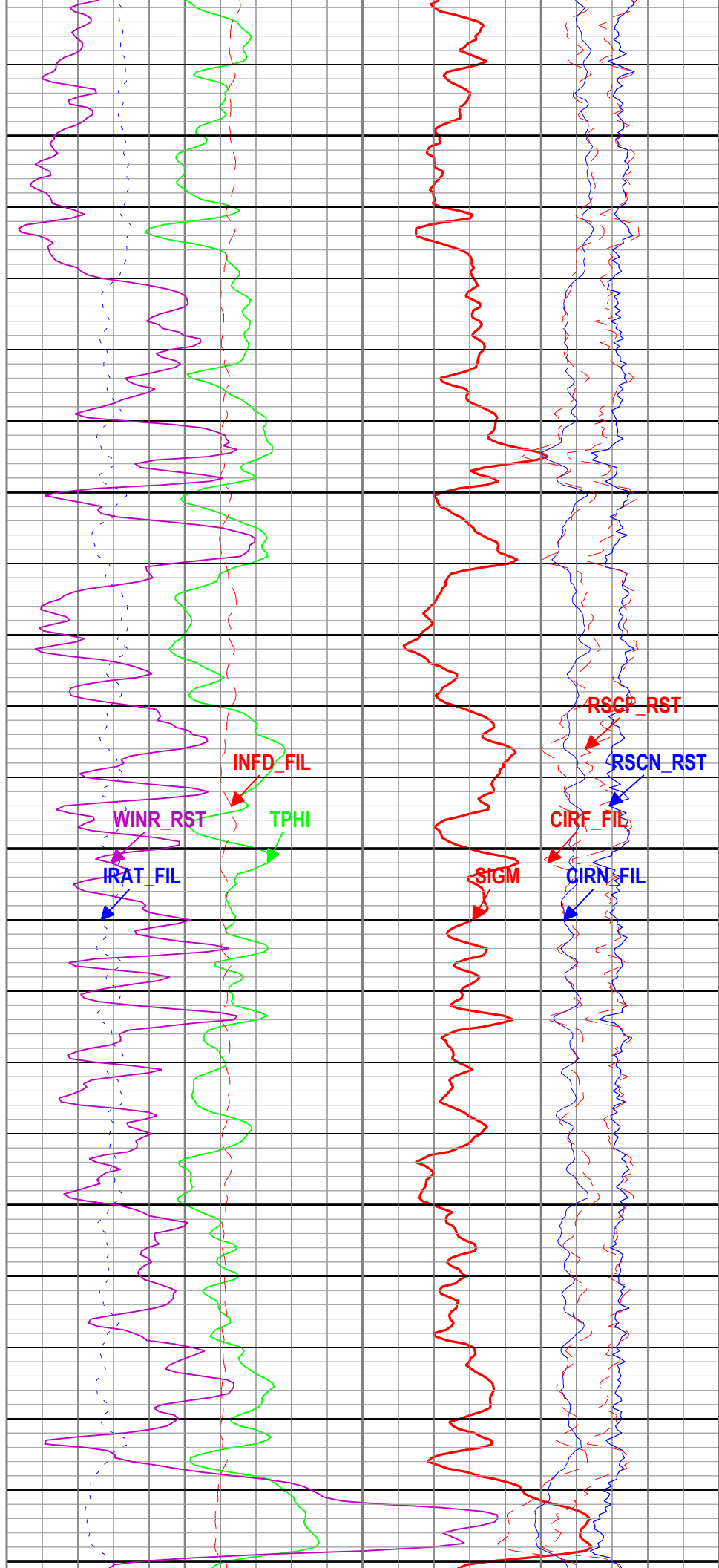
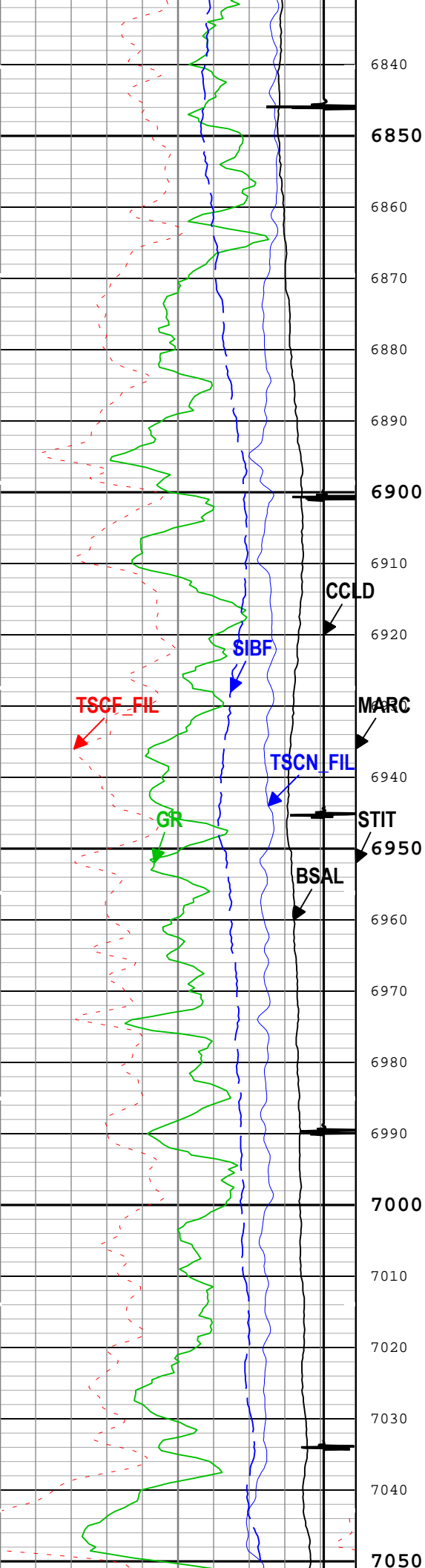


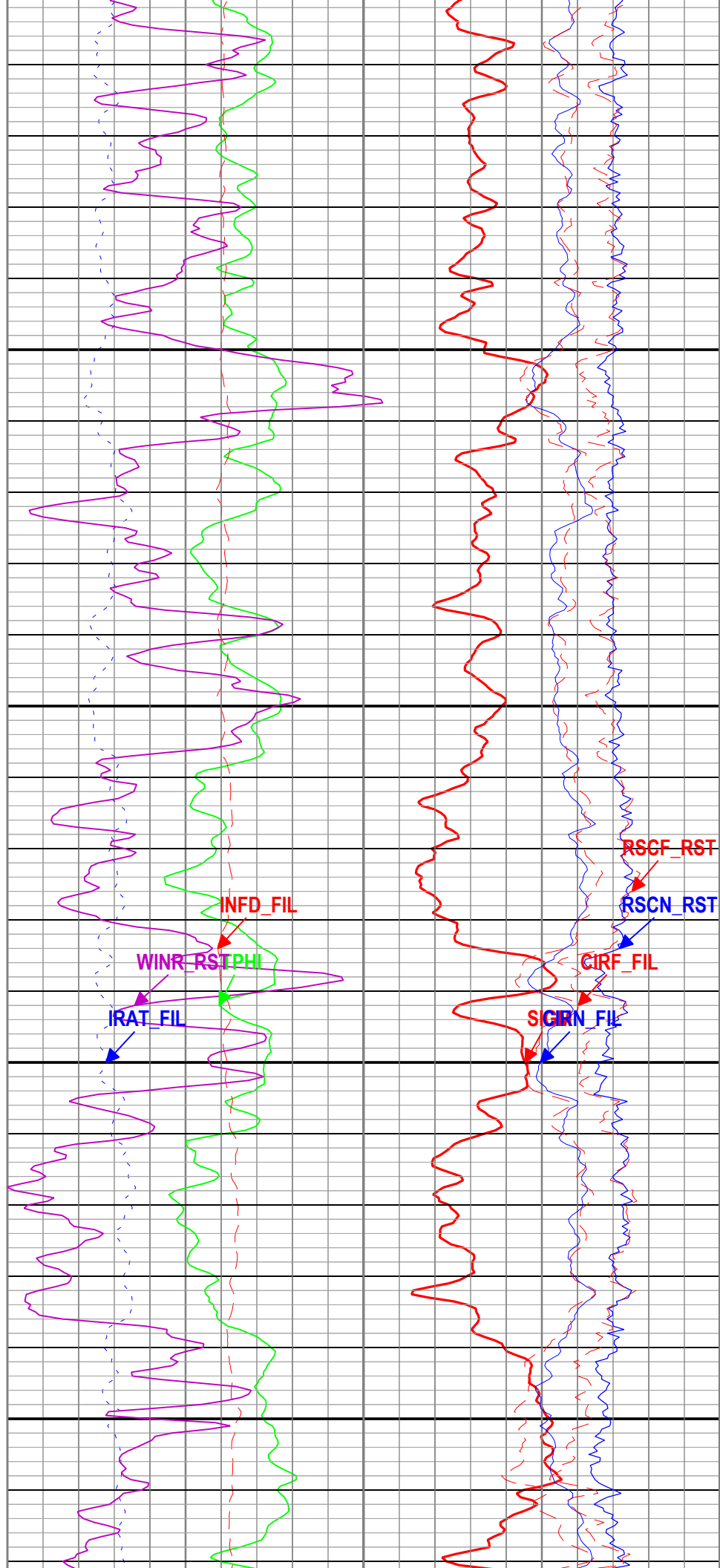
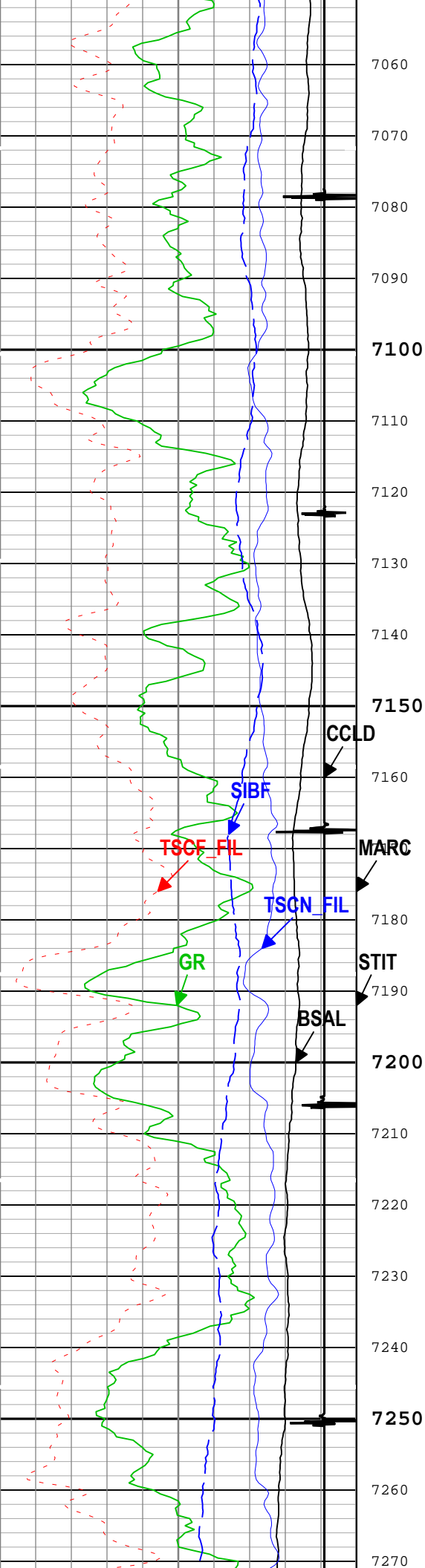


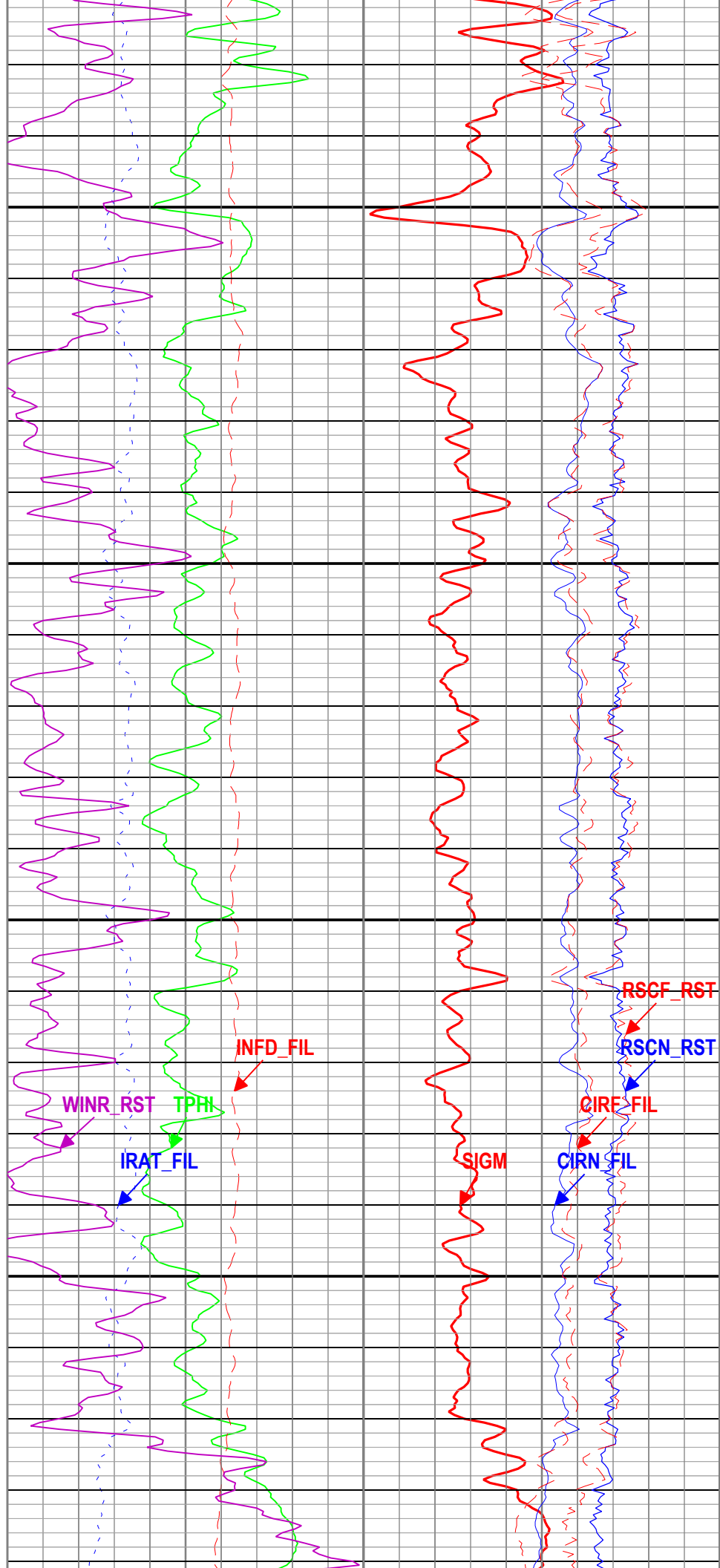
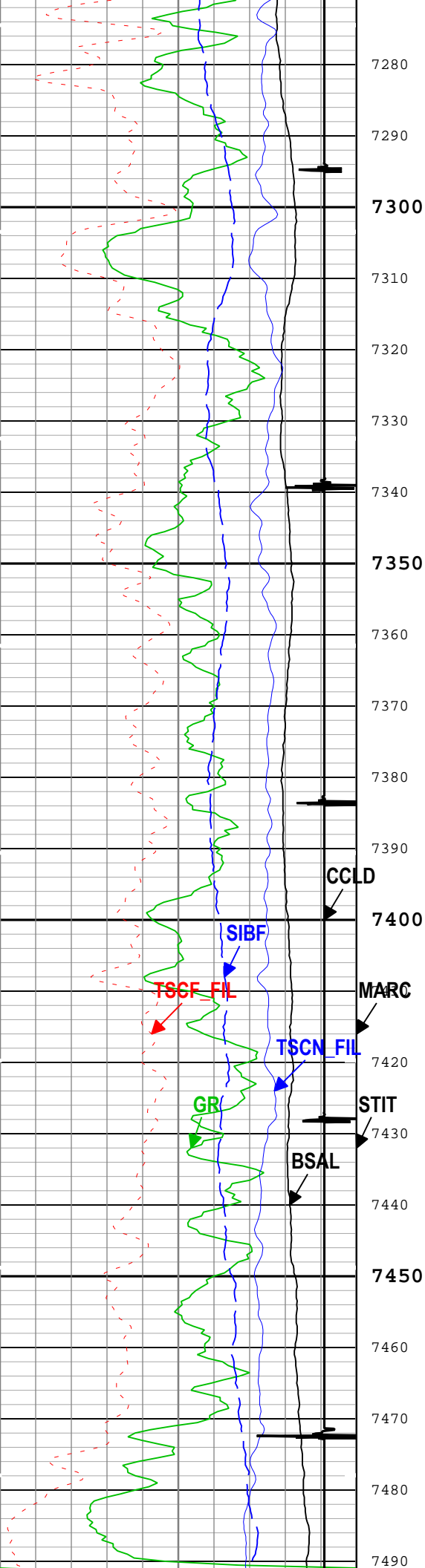


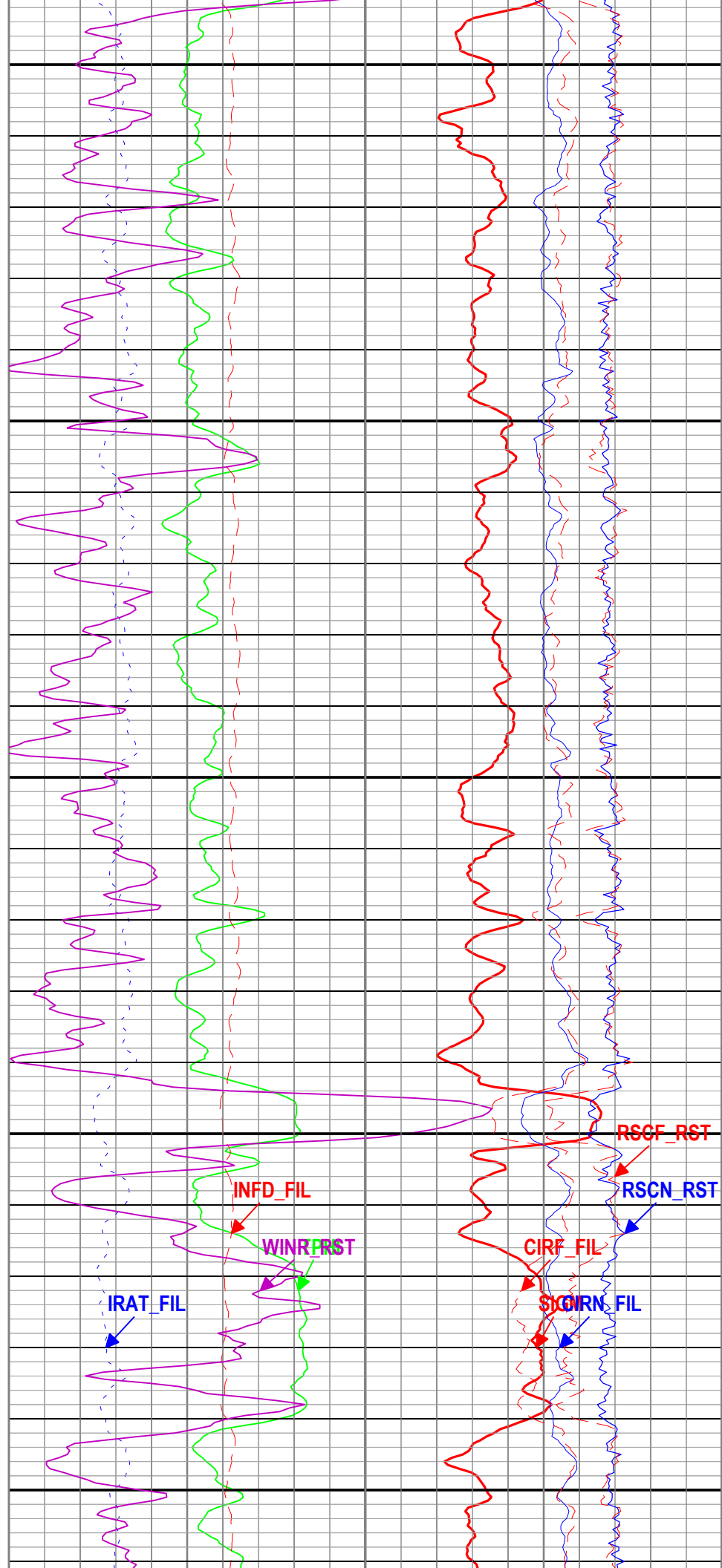
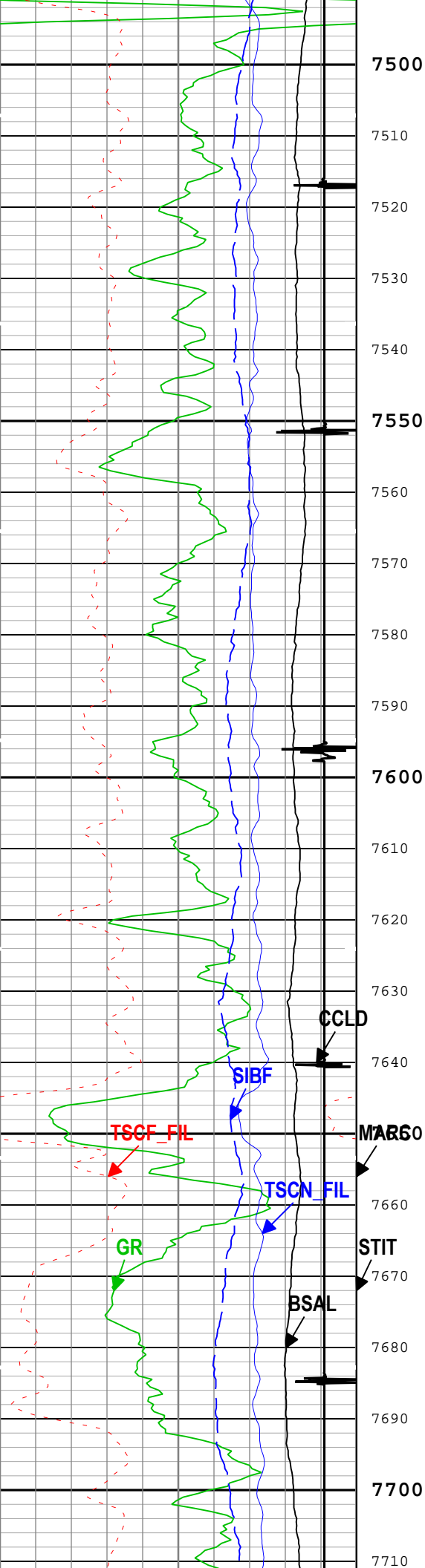


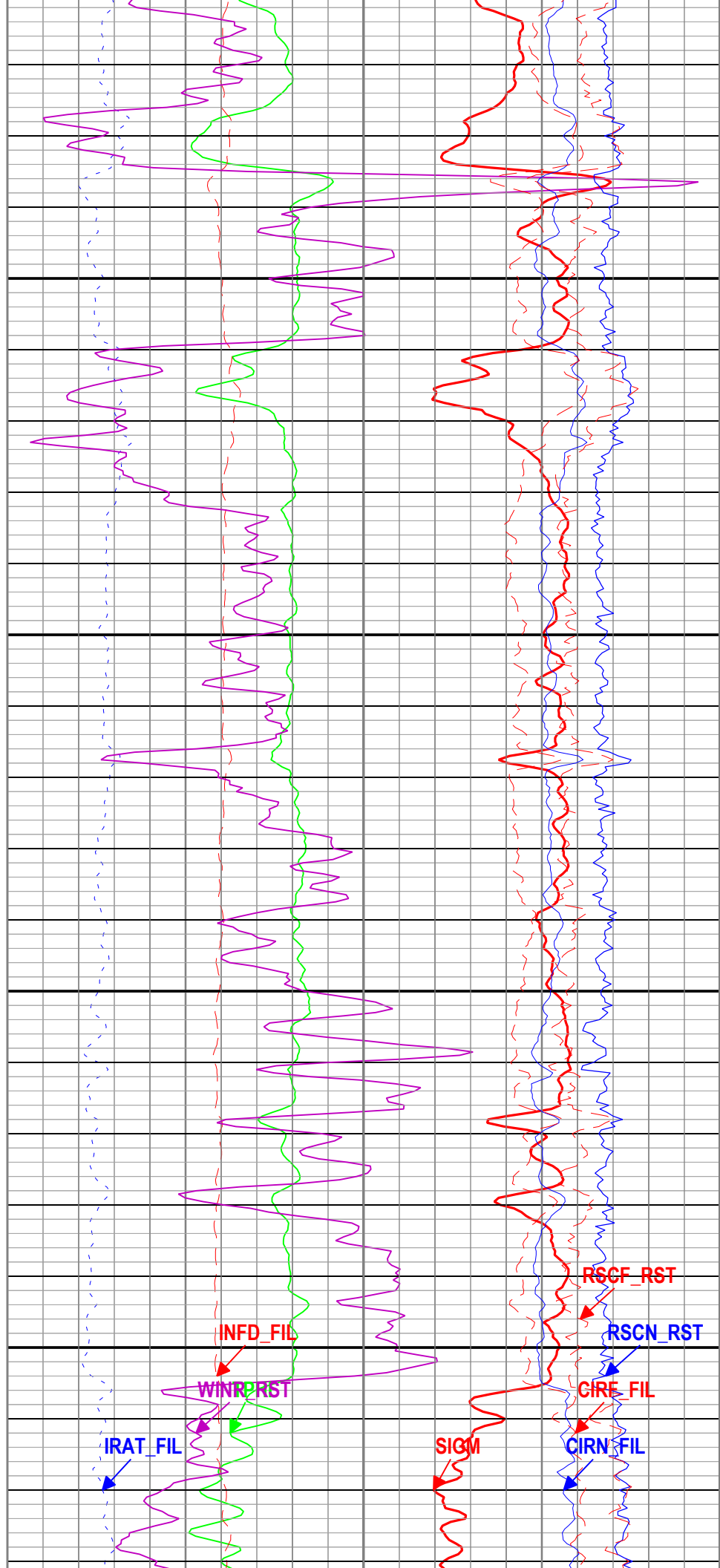
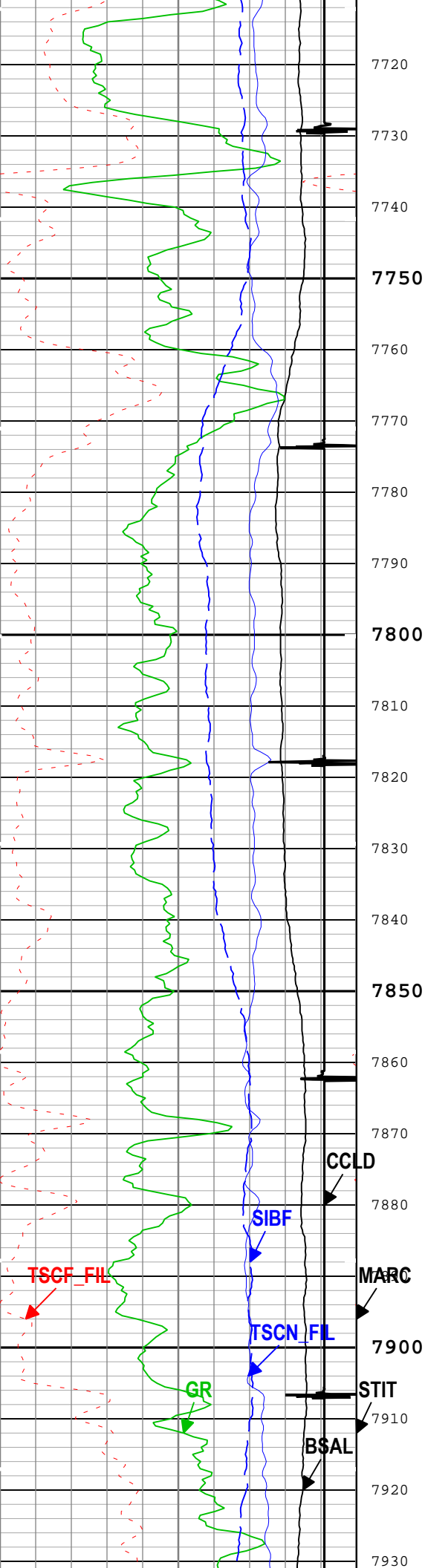


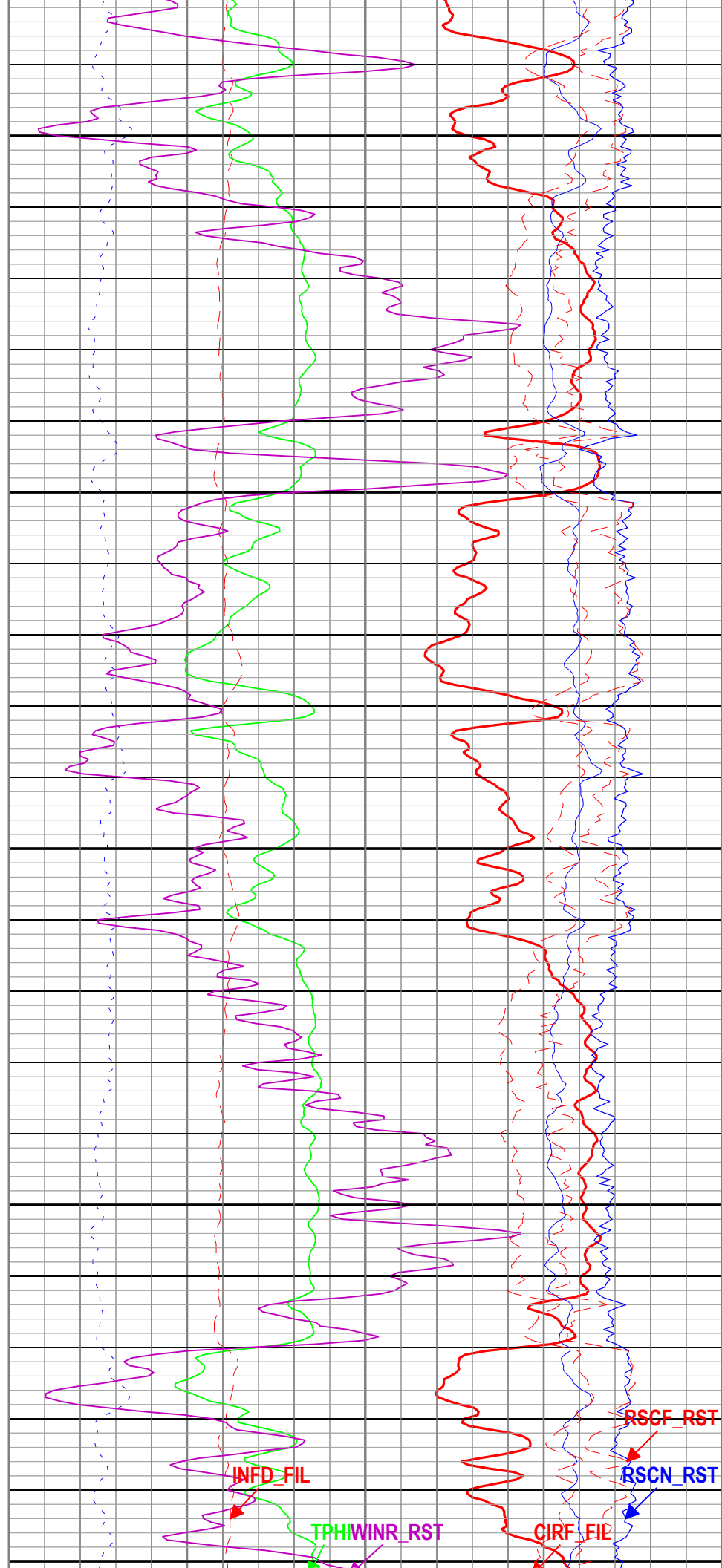
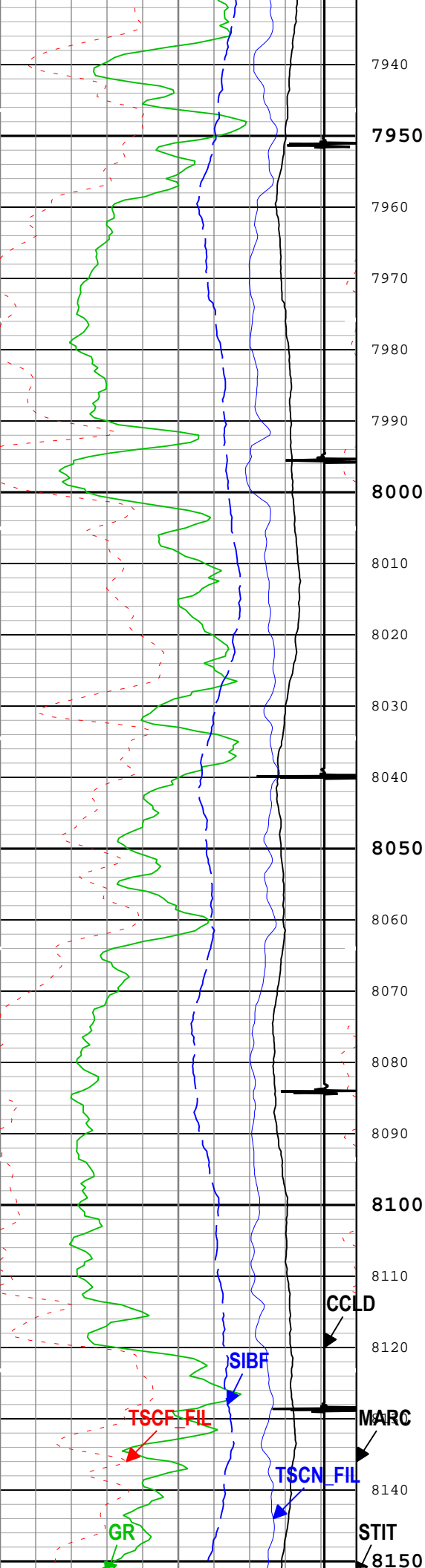


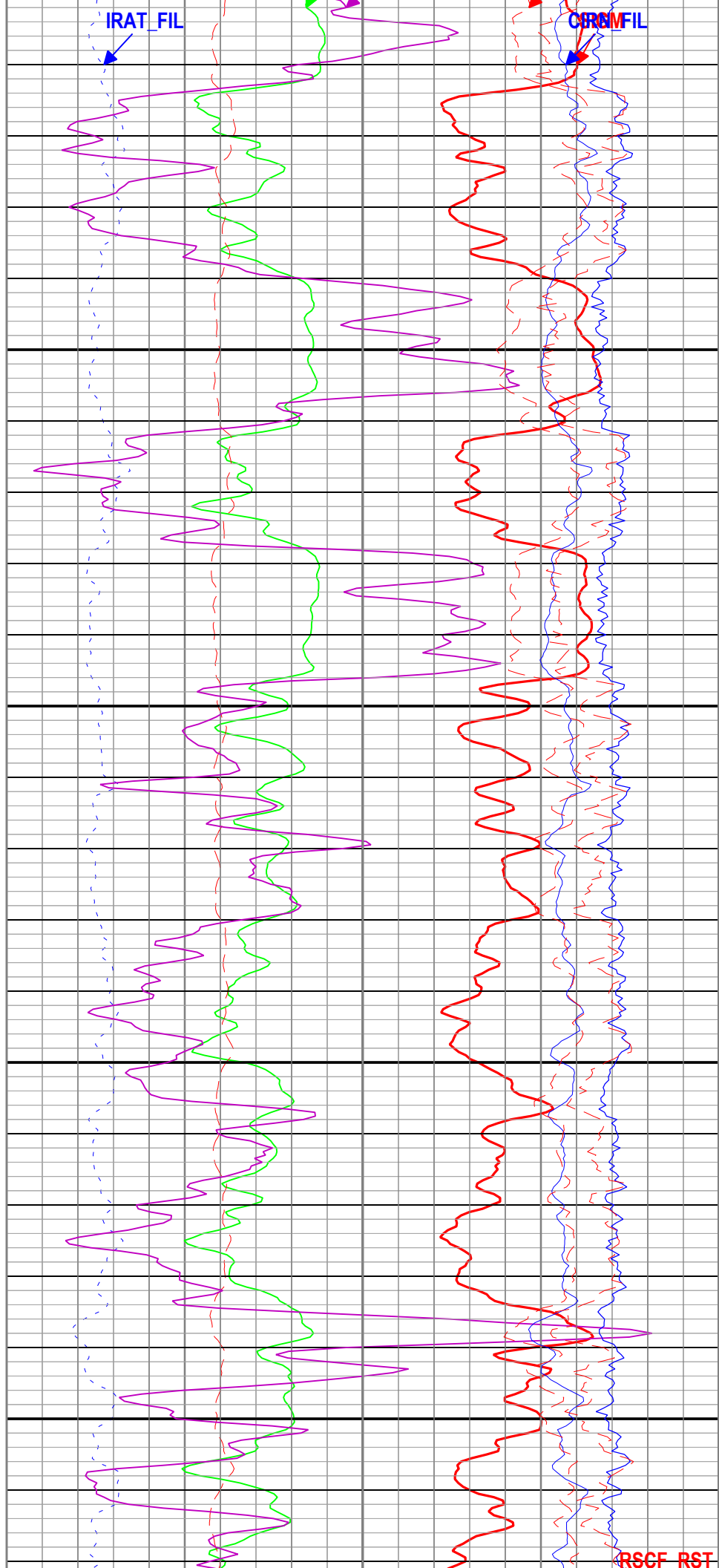
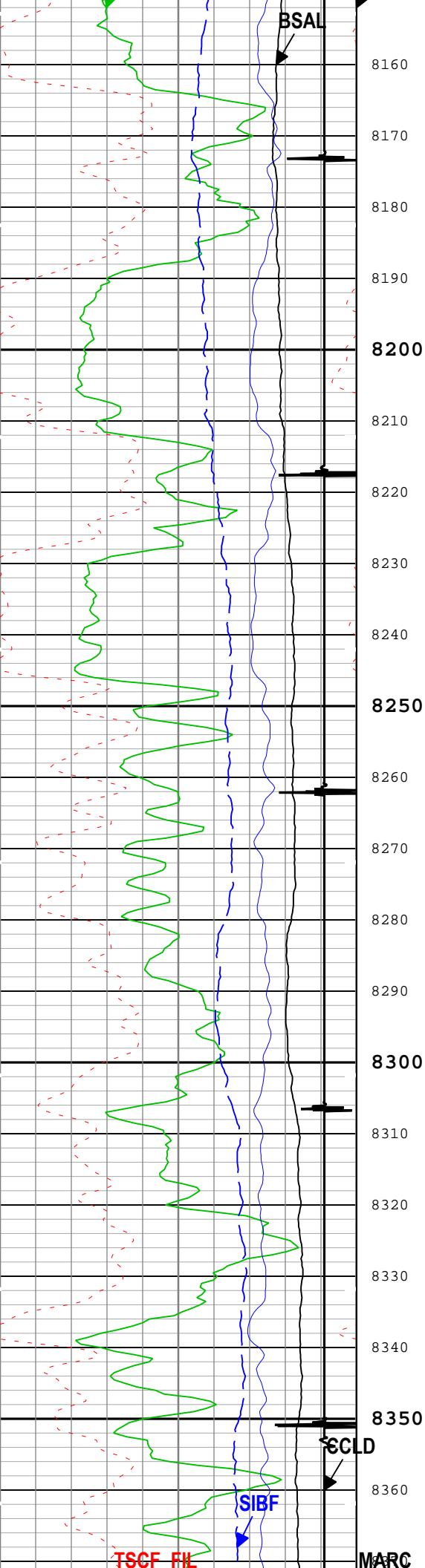


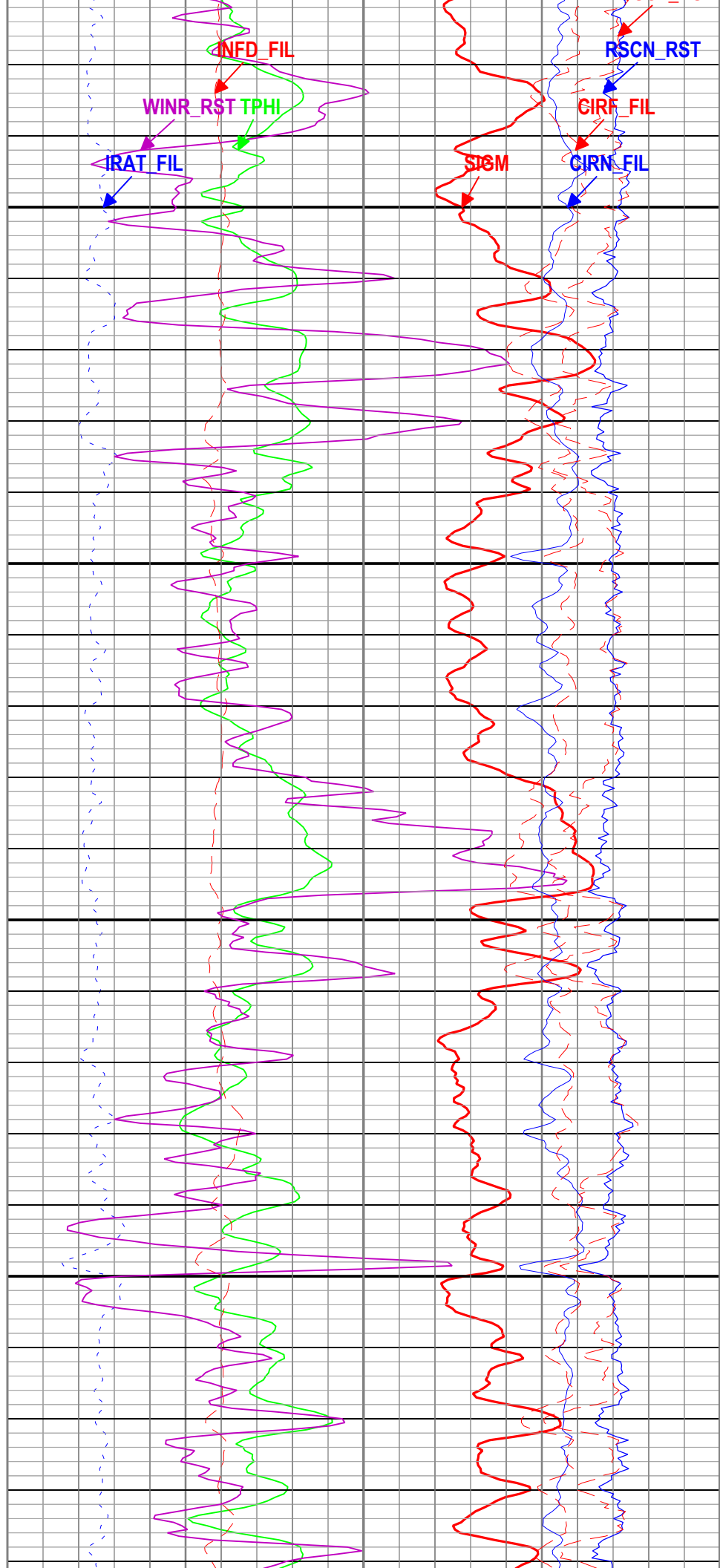
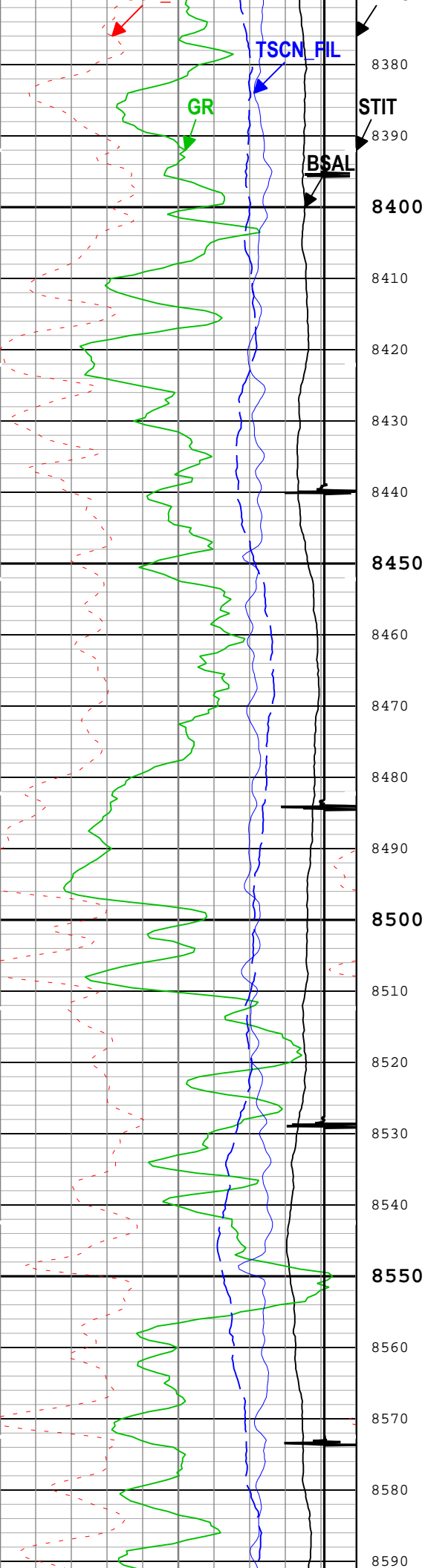


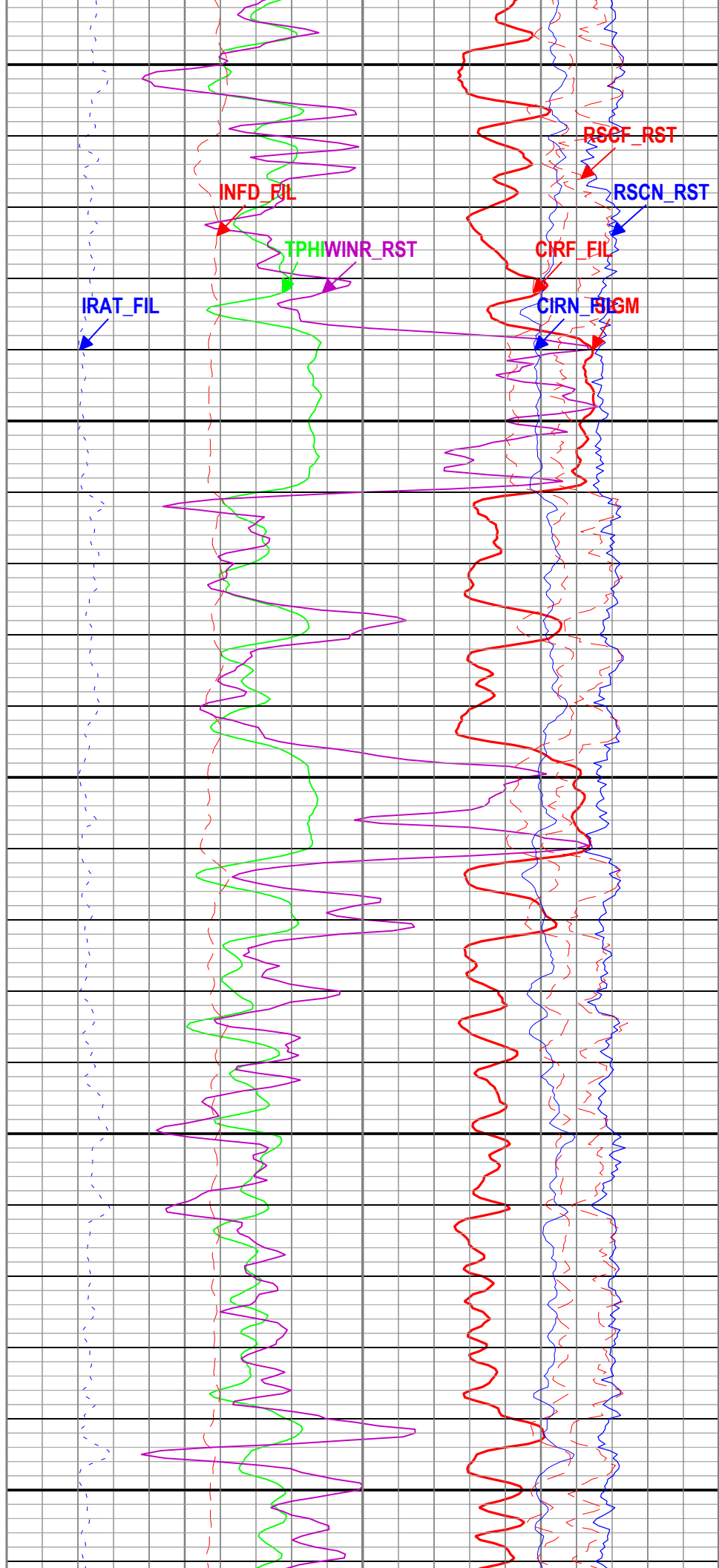
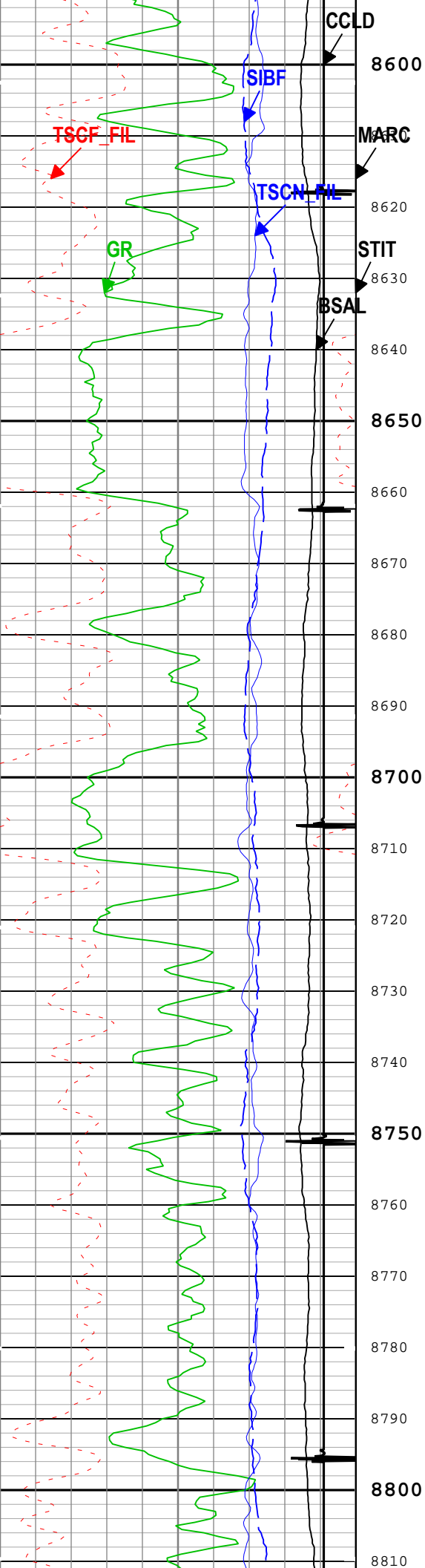


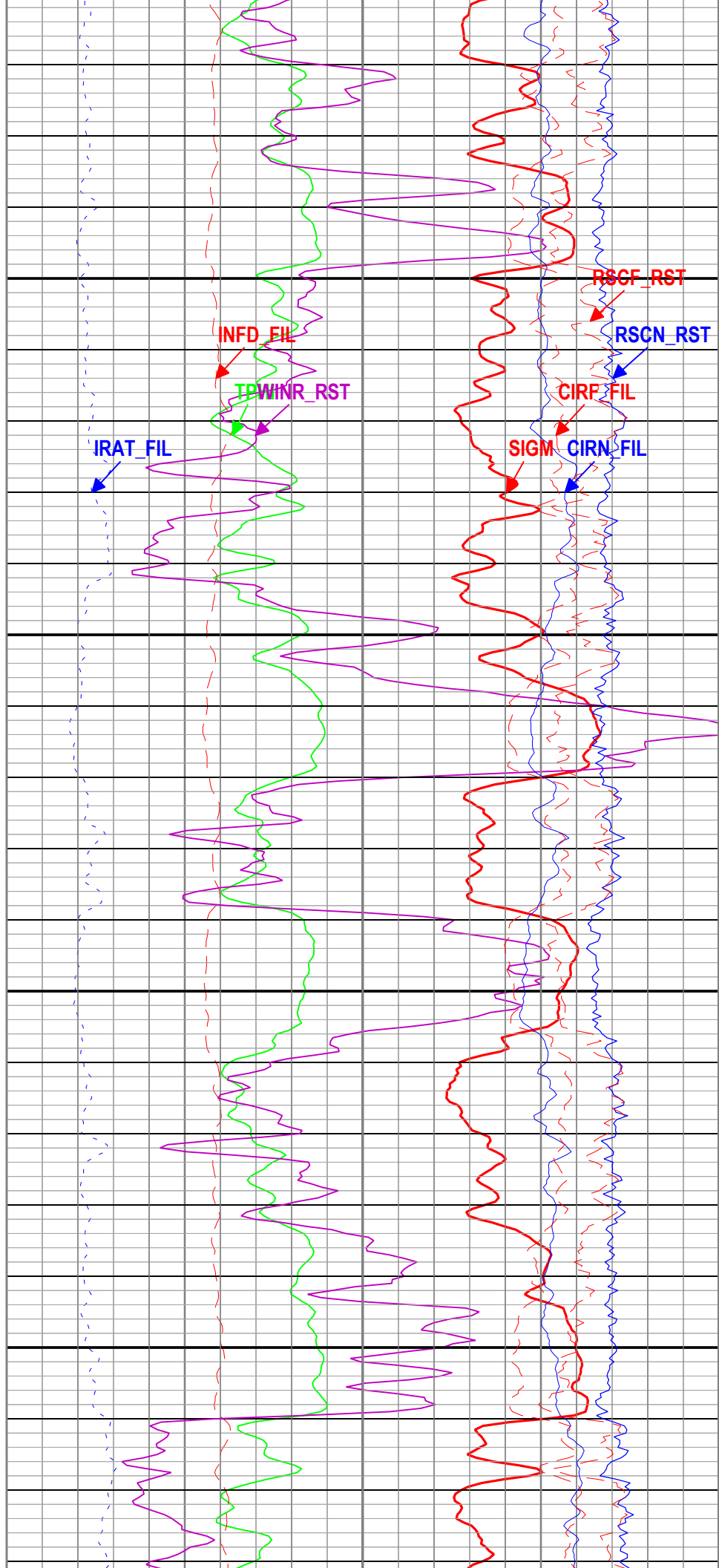
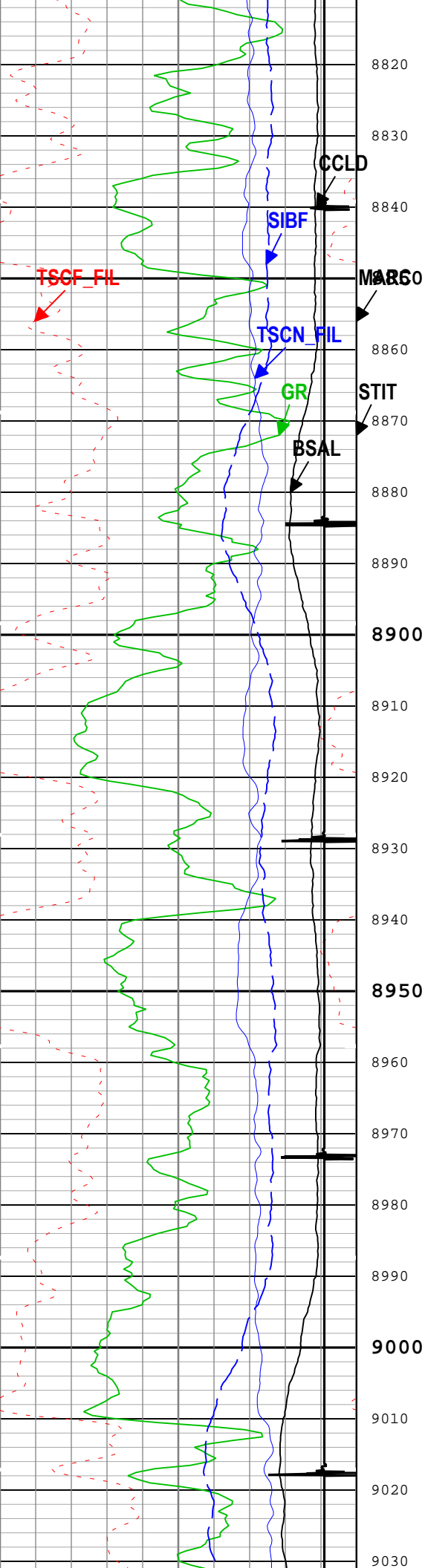


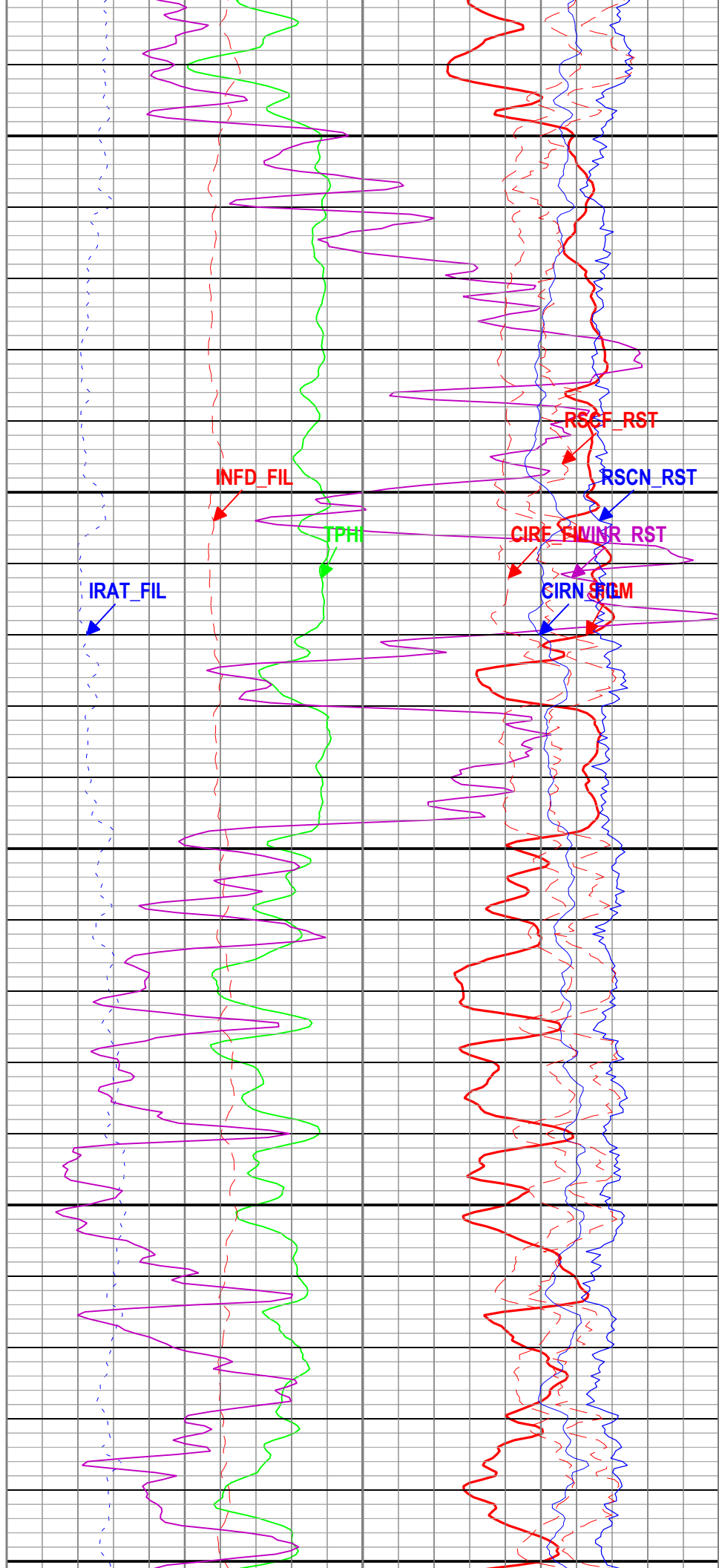
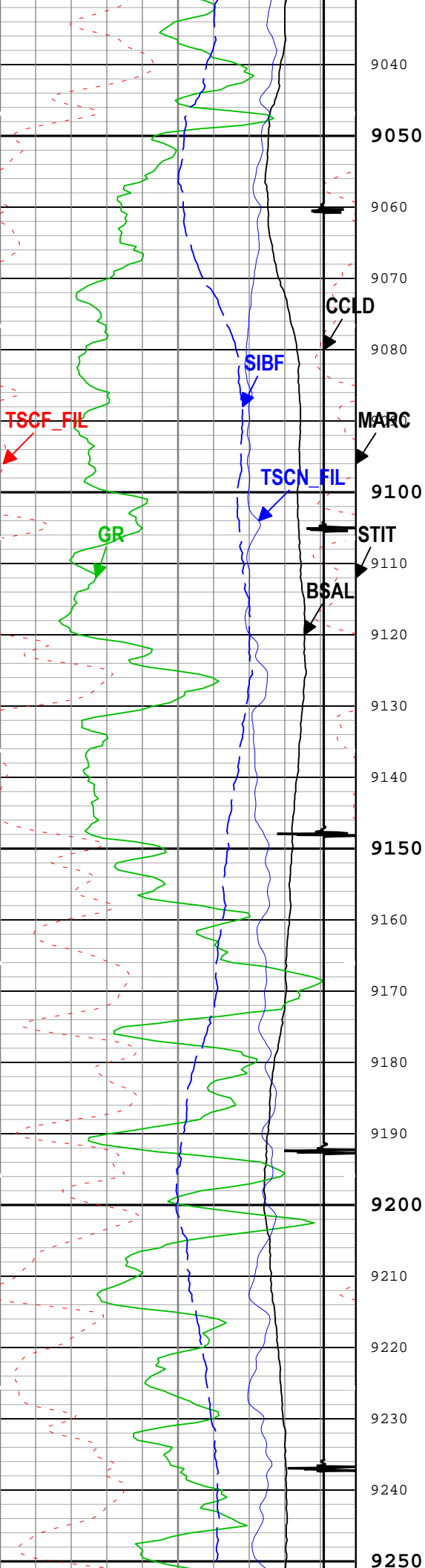


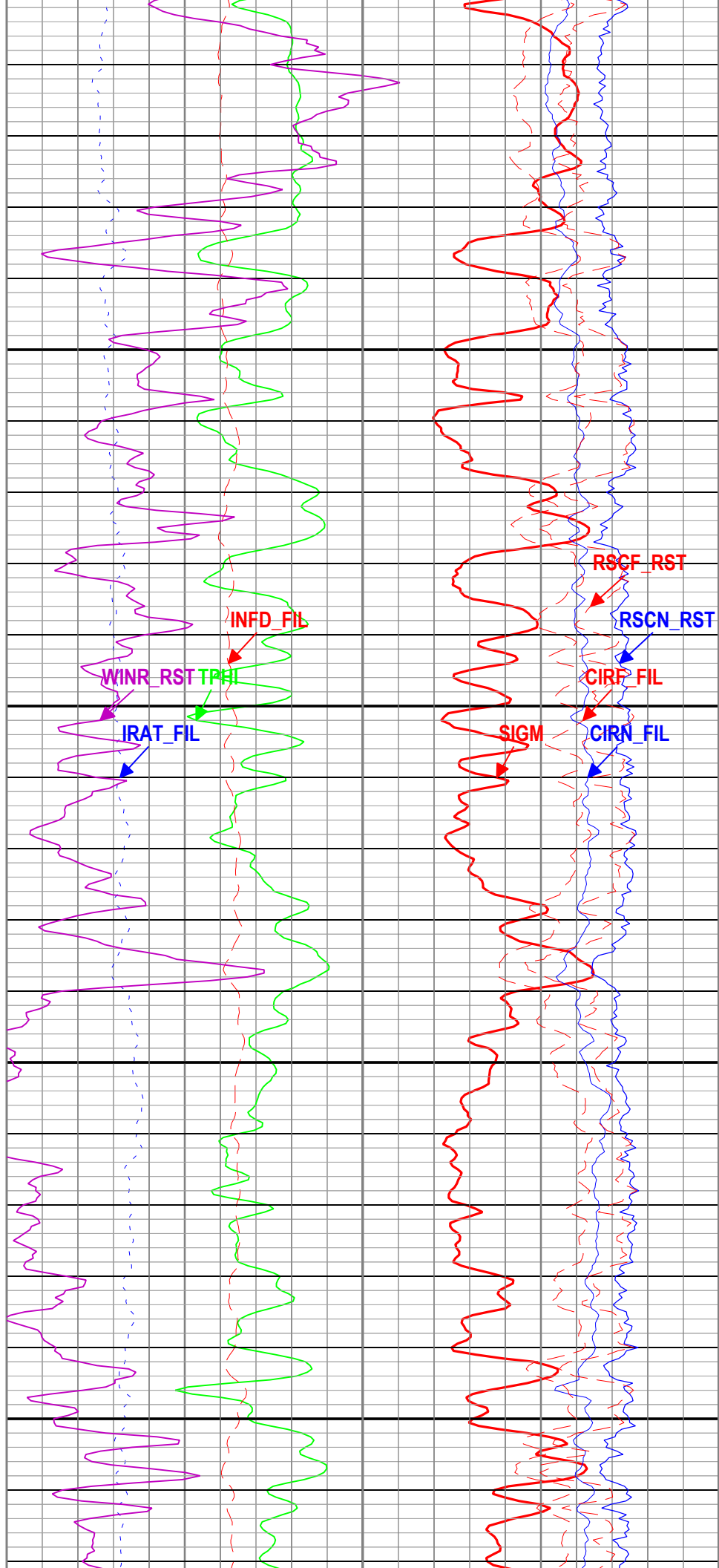
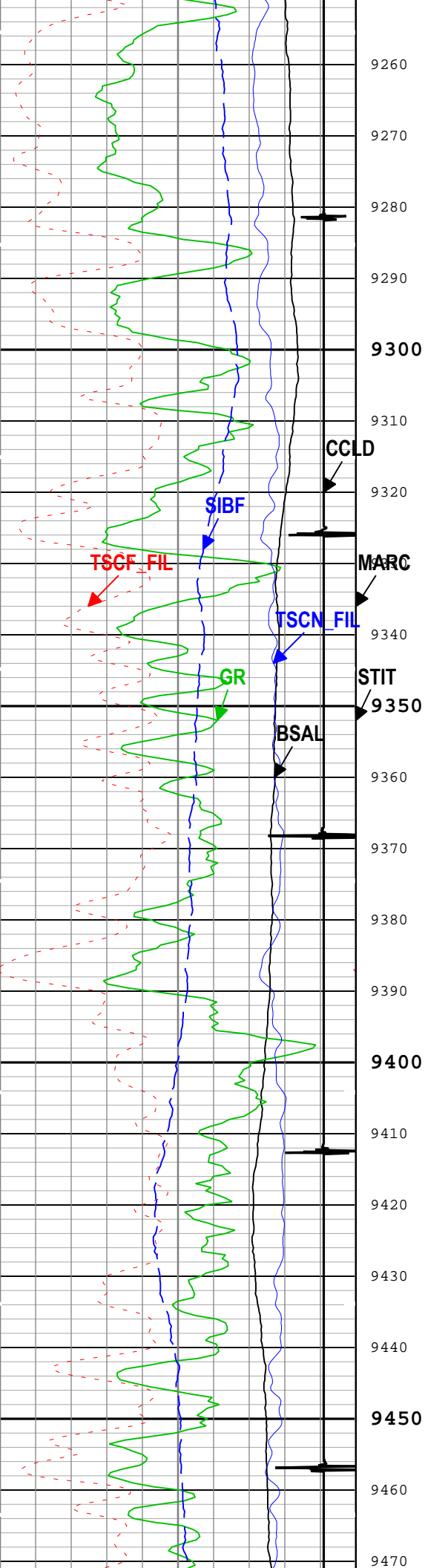


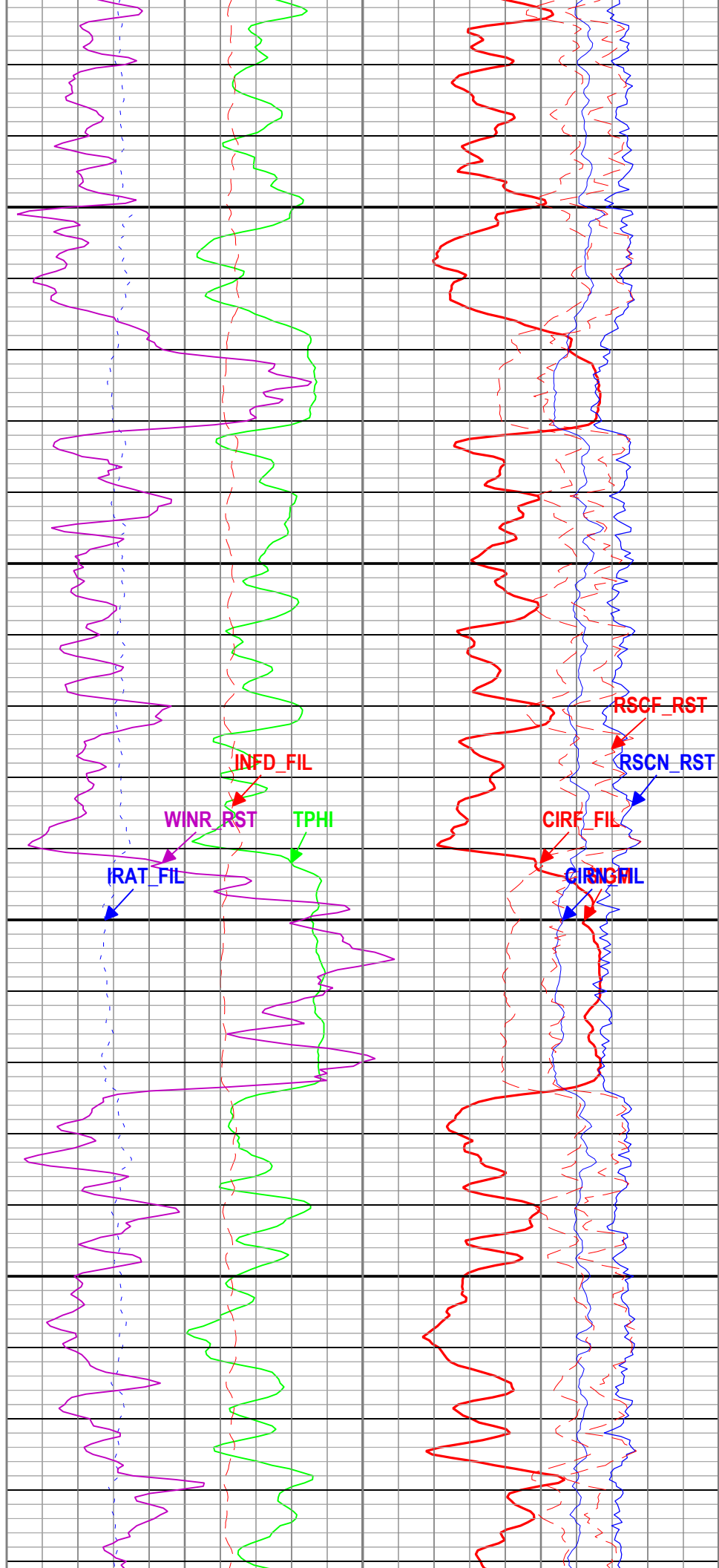
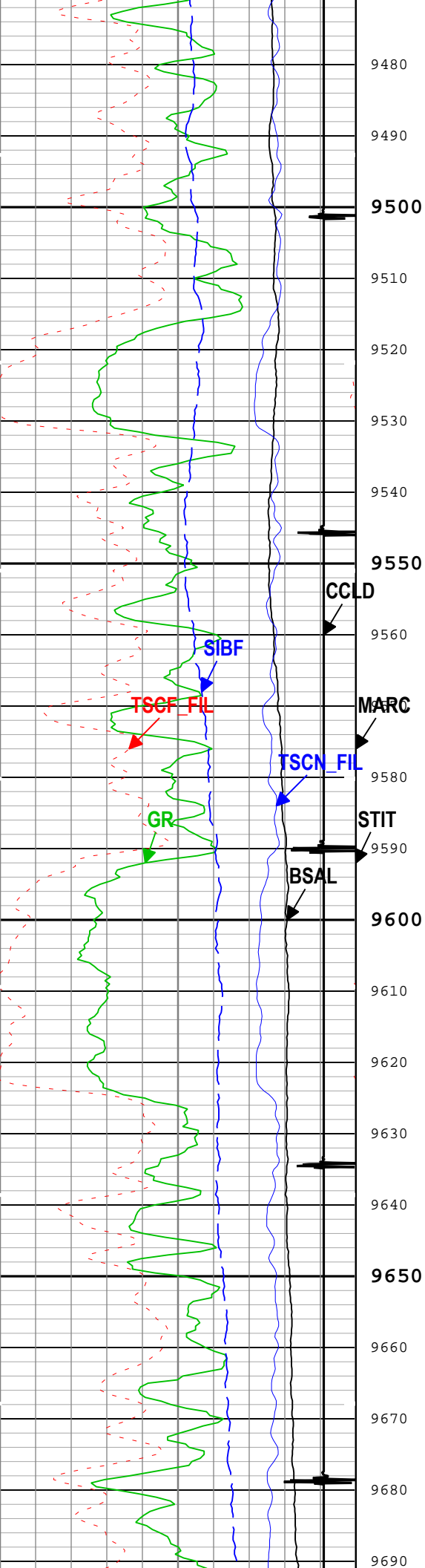


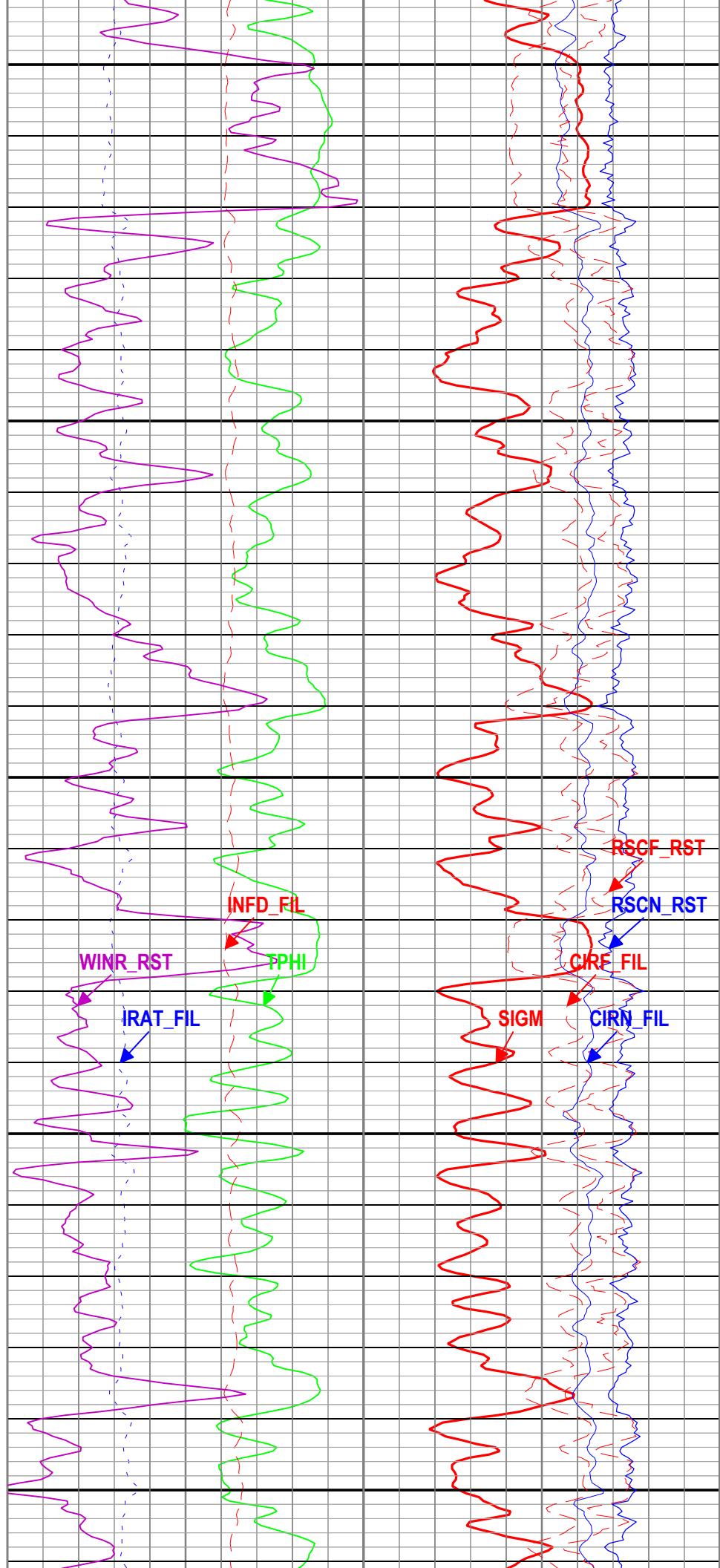
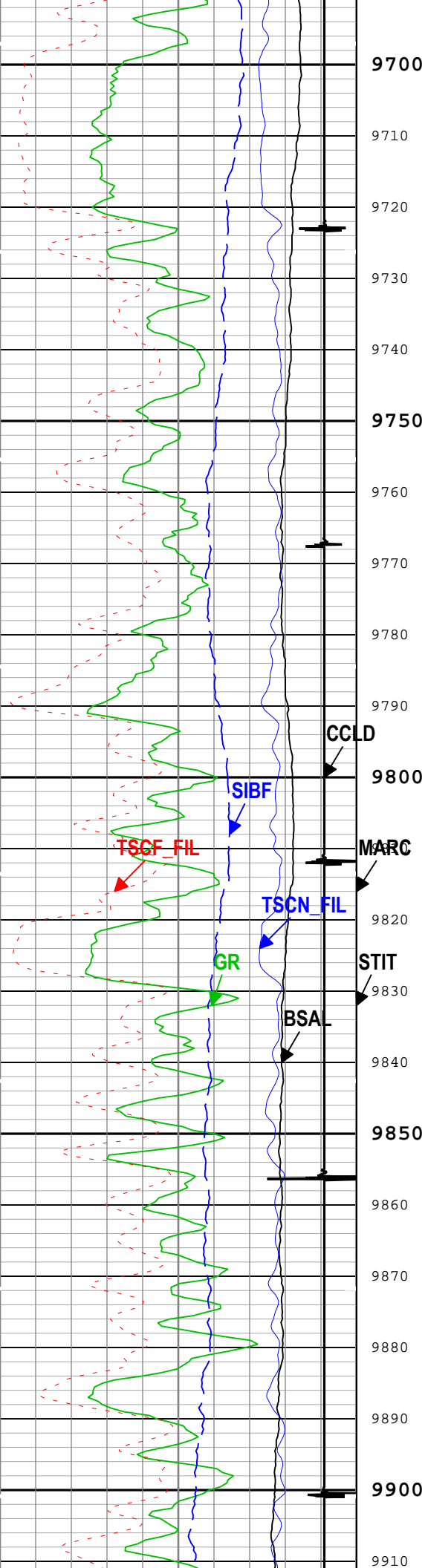


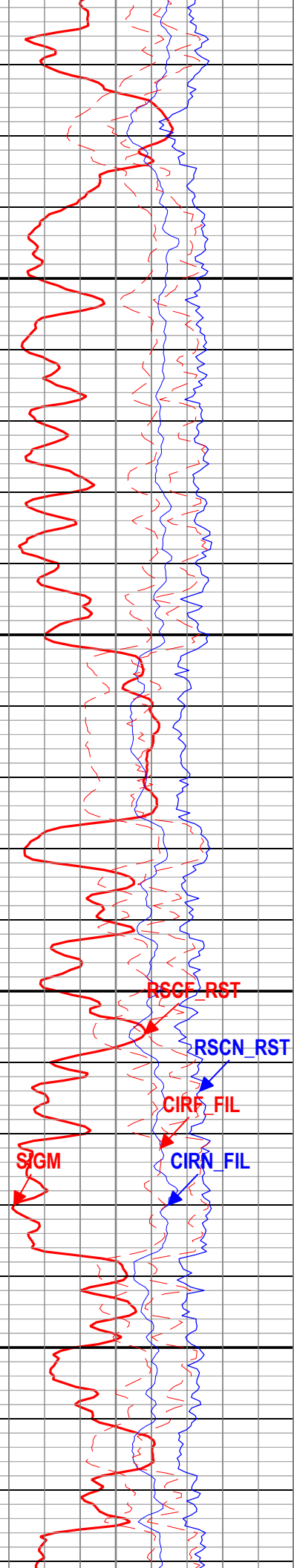
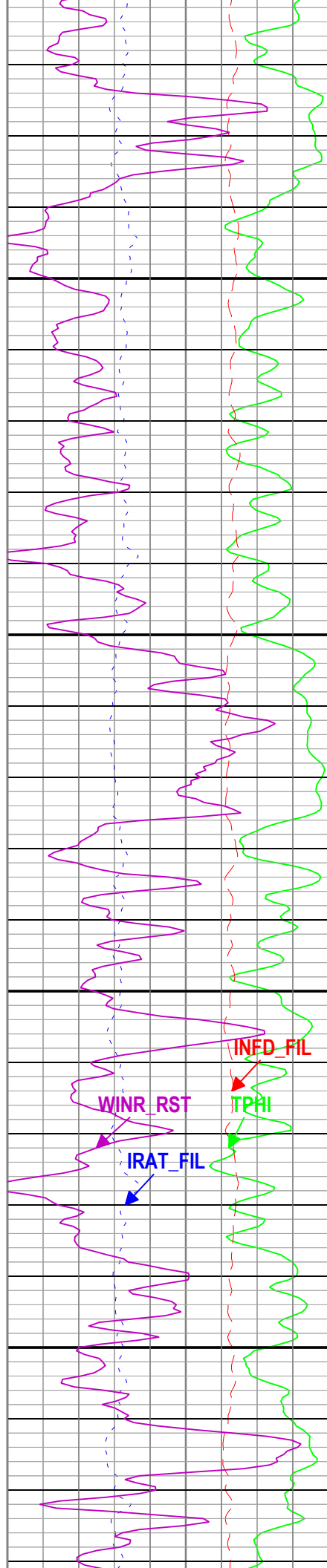
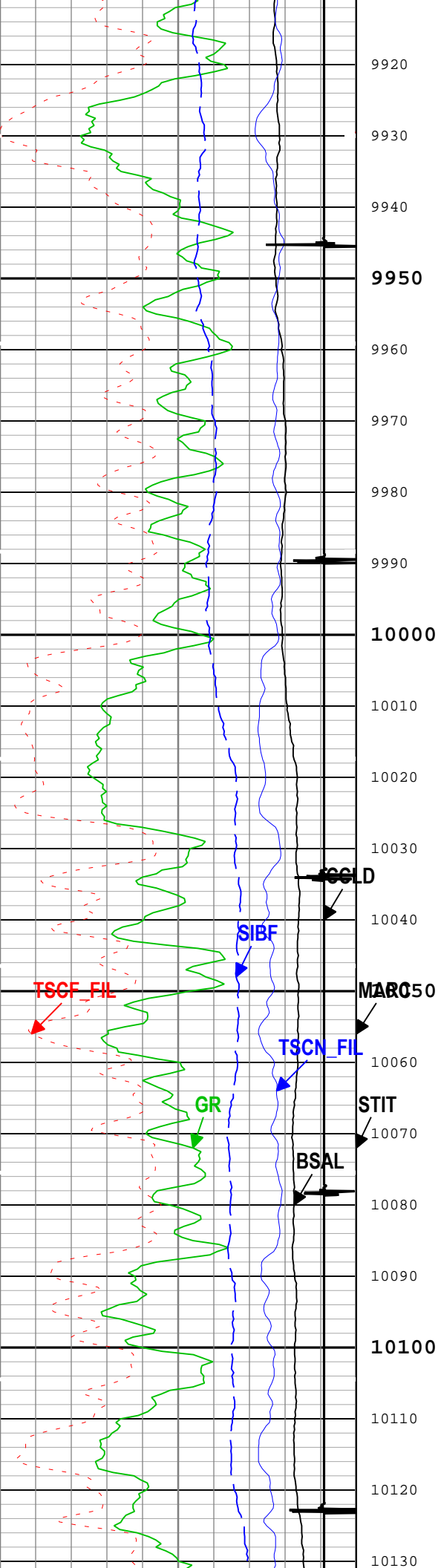


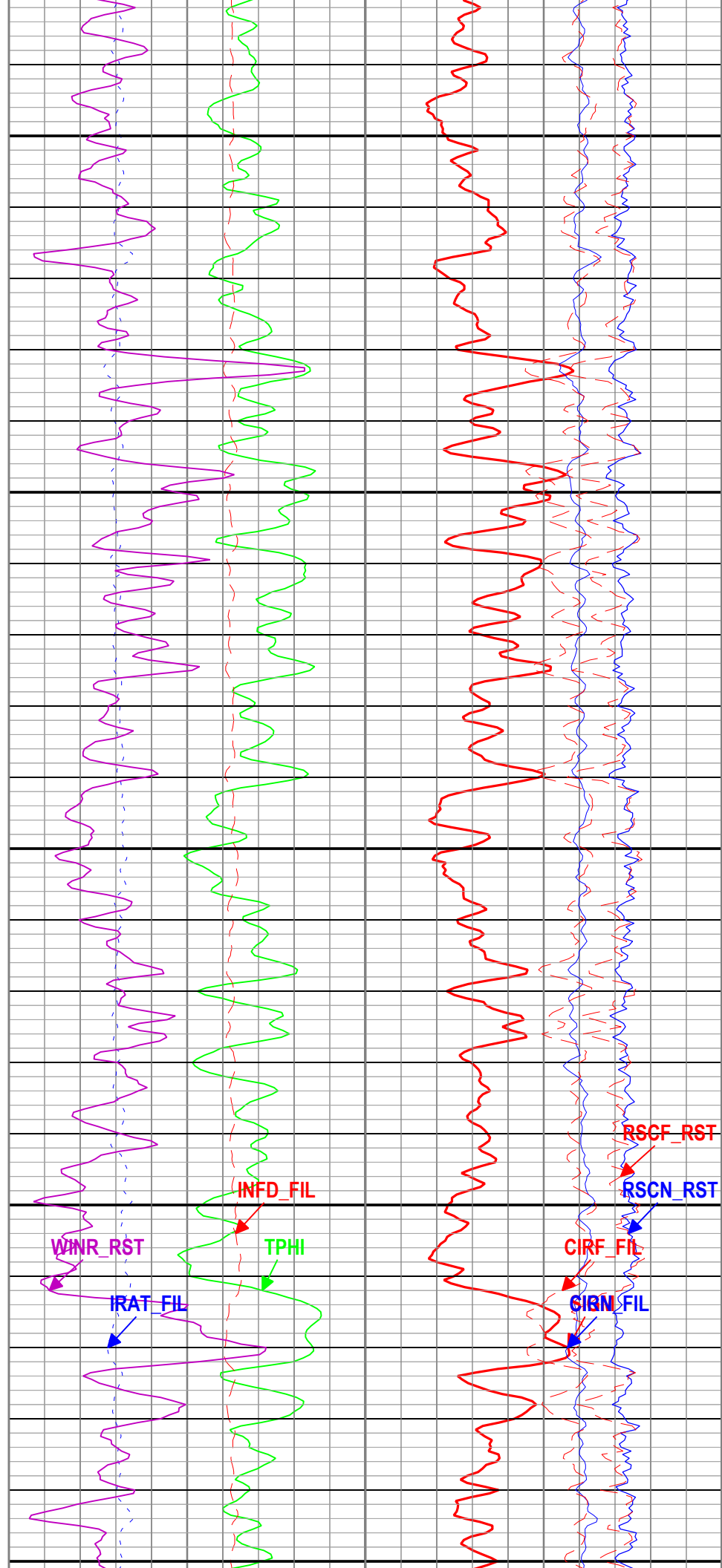
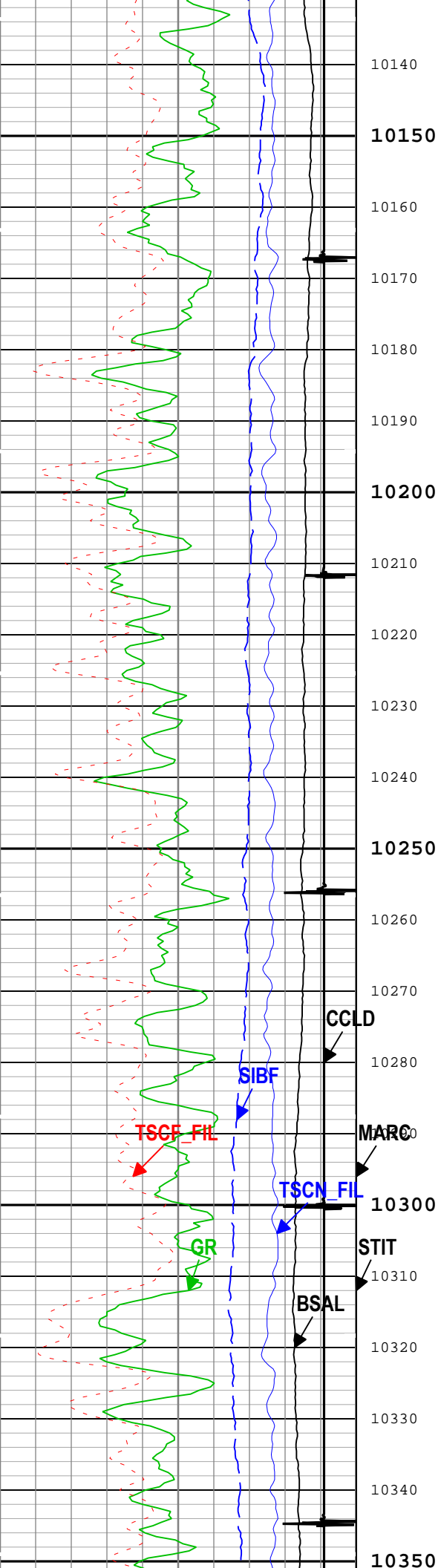


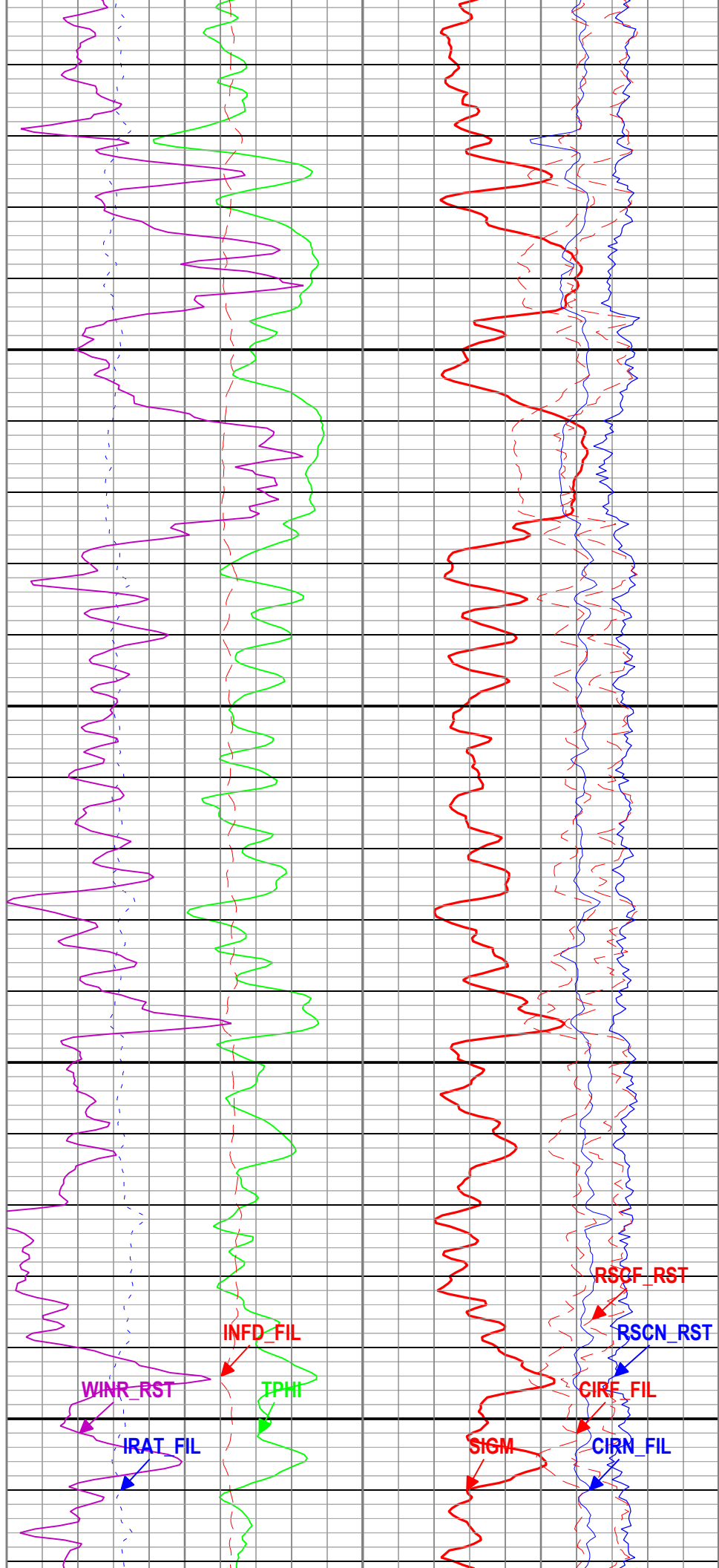
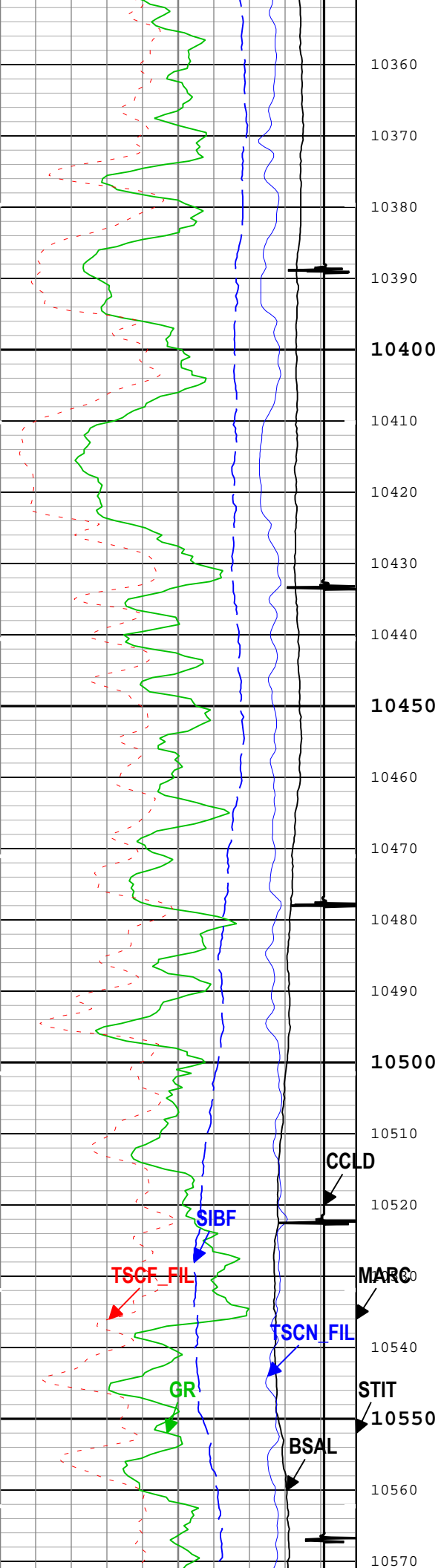


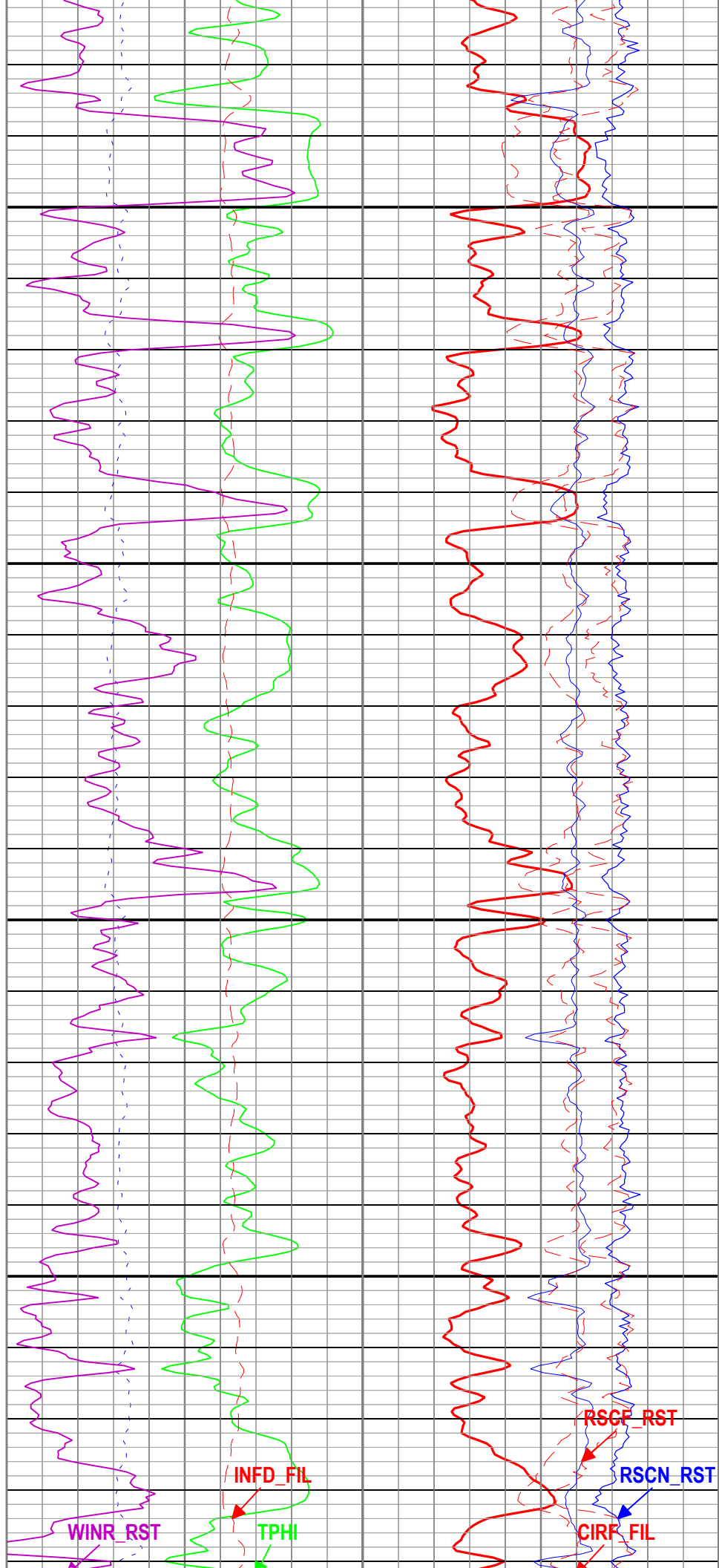
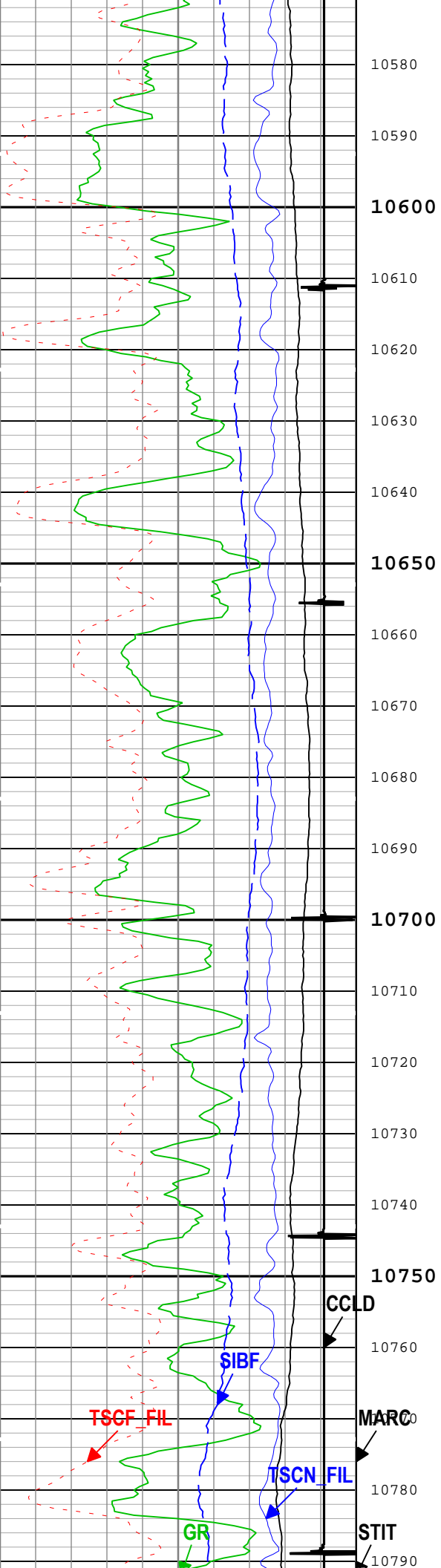


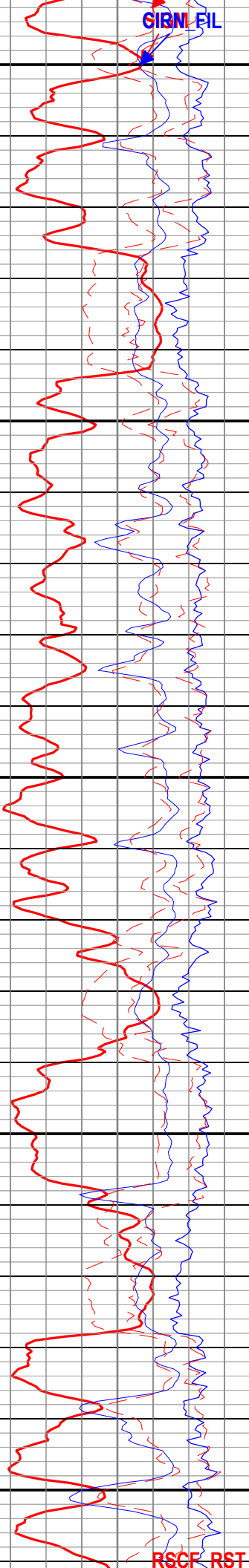
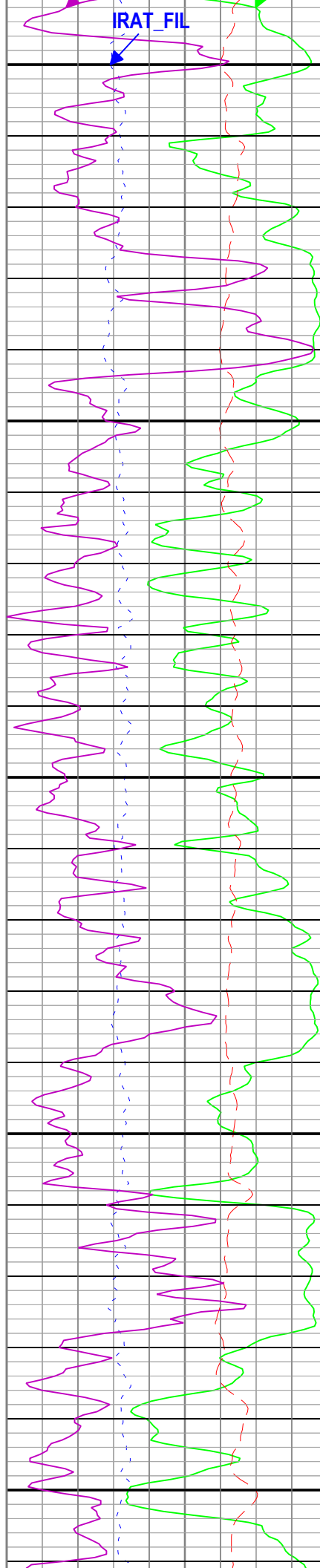
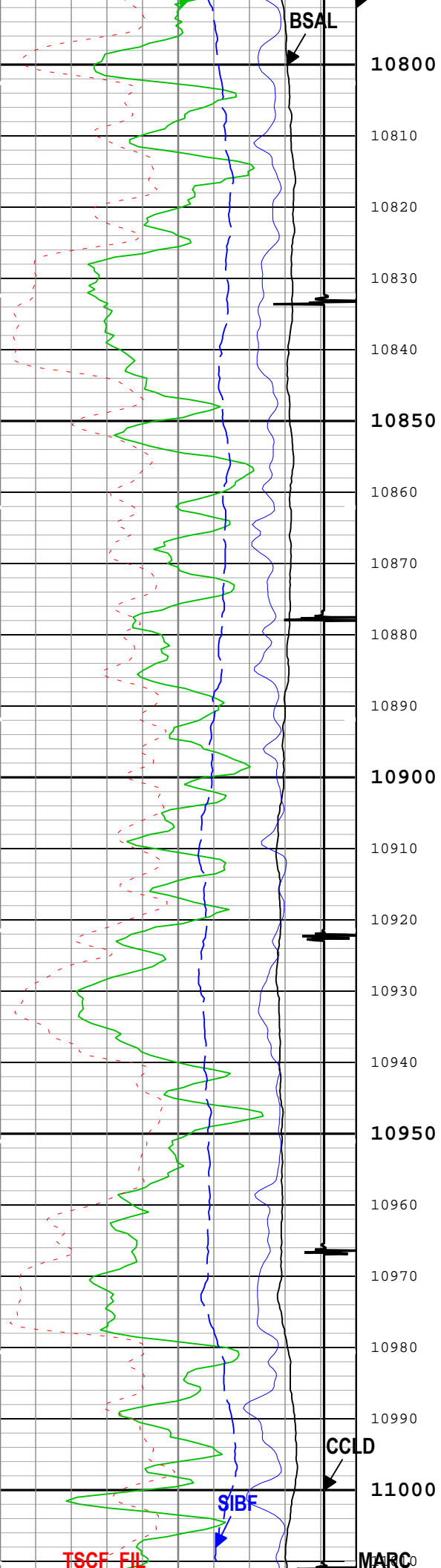


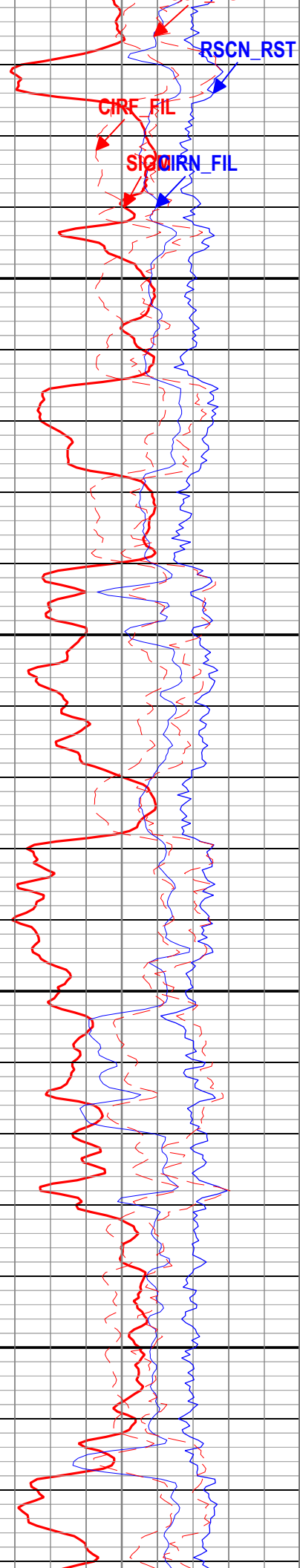
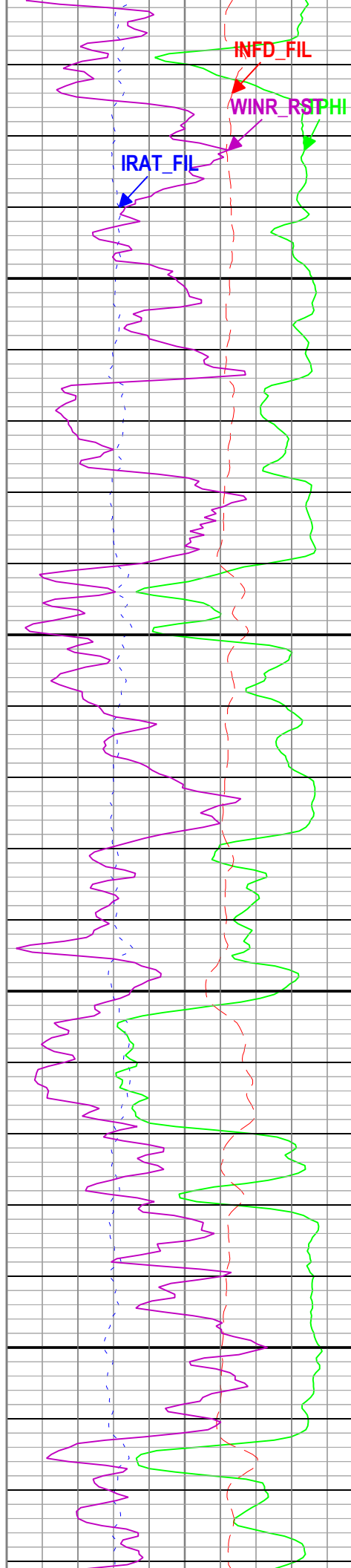
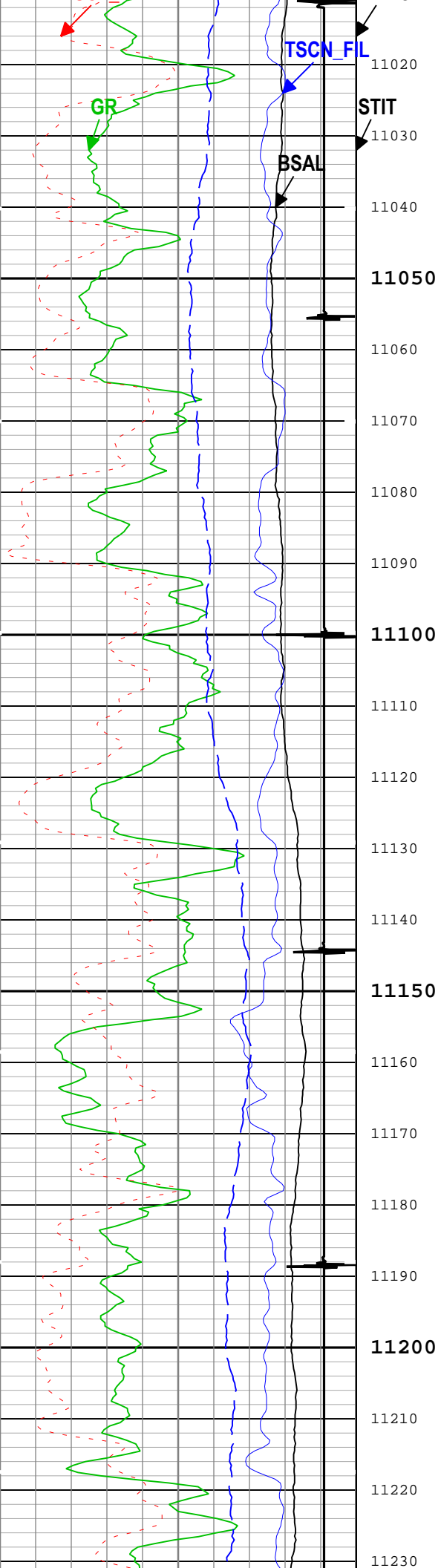


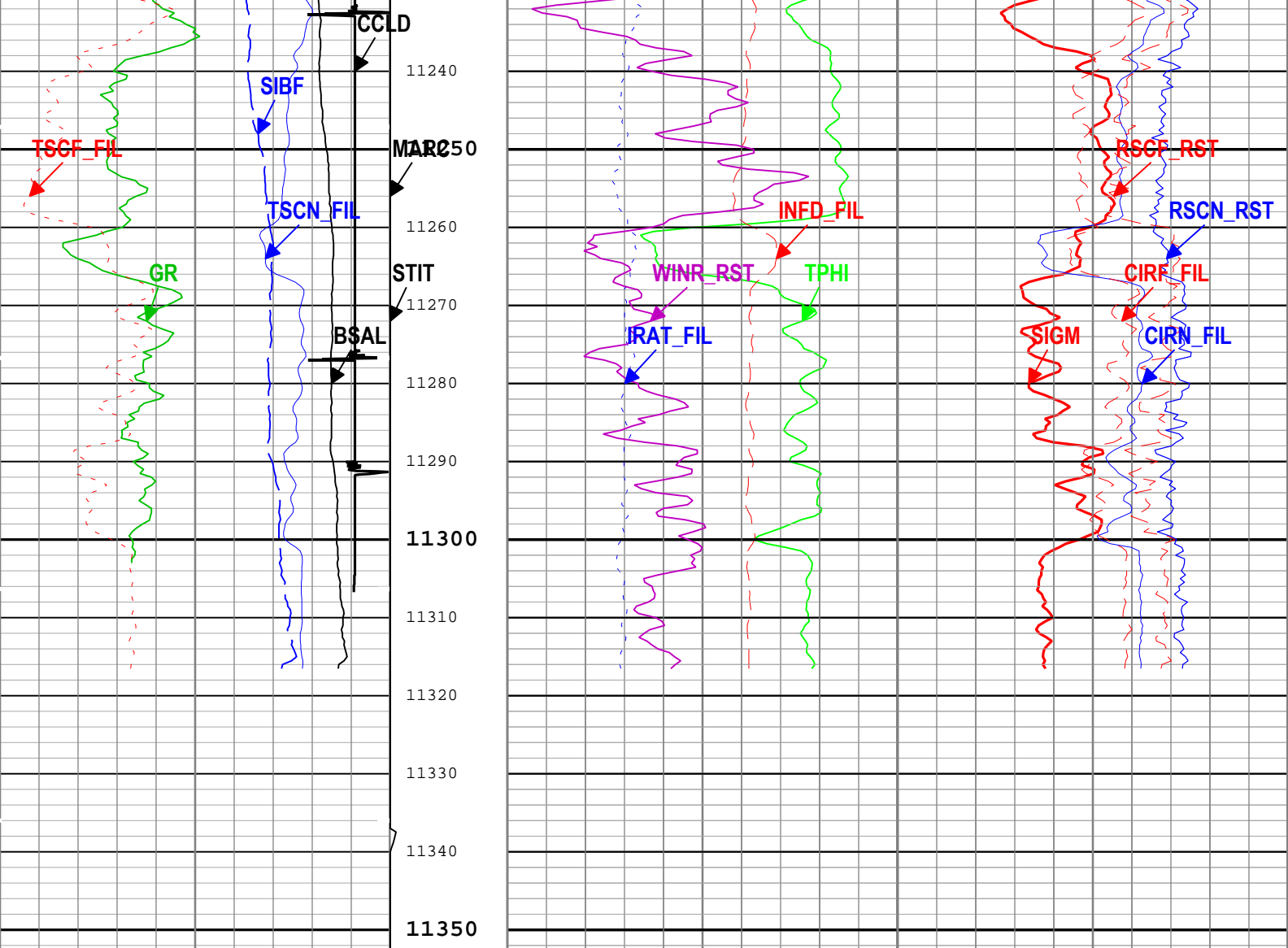












Borehole Salinity (BSAL) RST-C			Stuck Tool Indicator, Total (STIT)			Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C		
450	ppk	-50	0	ft	50	60	cu	0
Gamma Ray (GR) PSTP-E			Cable Drag From STIA to STIT			Weighted Inelastic Ratio (WINR_RST) RST-C		
0	gAPI	150	0			0		0.4
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C			Tool_Tot. Drag From D3T to STIT			Inelastic Ratio Filtered (IRAT_FIL) RST-C		
30000	1/s	0	0.75			0	Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C	
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Thermal Decay Porosity (TPHI) RST-C			2.5	Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C	
12000	1/s	0	0.6			0	5	
Sigma Borehole Fluid (SIBF) RST-C			Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C			10000	Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C	
100	cu	0	1			0	45	
CCL Discriminated Amplitude (CCLD) PSTP-E			Minitron Arc Count (MARC) RST-C			45	Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C	
-10	V	1	0			5	45	

— ICV - Integrated Cement Volume every 100.00 (ft3)
— ICV - Integrated Cement Volume every 10.00 (ft3)
— IHV - Integrated Hole Volume every 100.00 (ft3)
— IHV - Integrated Hole Volume every 10.00 (ft3)
TIME_1900 - Time Marked every 60.00 (s)

Channel Processing Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	0	ppm
BSALOPT	Borehole Salinity Option	RST-C	Unknown	
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	

Depth Zone Parameters			
Parameter	Value	Start (ft)	Stop (ft)
BS	14.75	1850	2989.6
BS	8.75	2989.6	11352.66
All depth are actual.			

Tool Control Parameters				
ONE: Parameters				
Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-E	0 dB	
RST_DLM	Depth Log Mode	RST-C	Sigma	

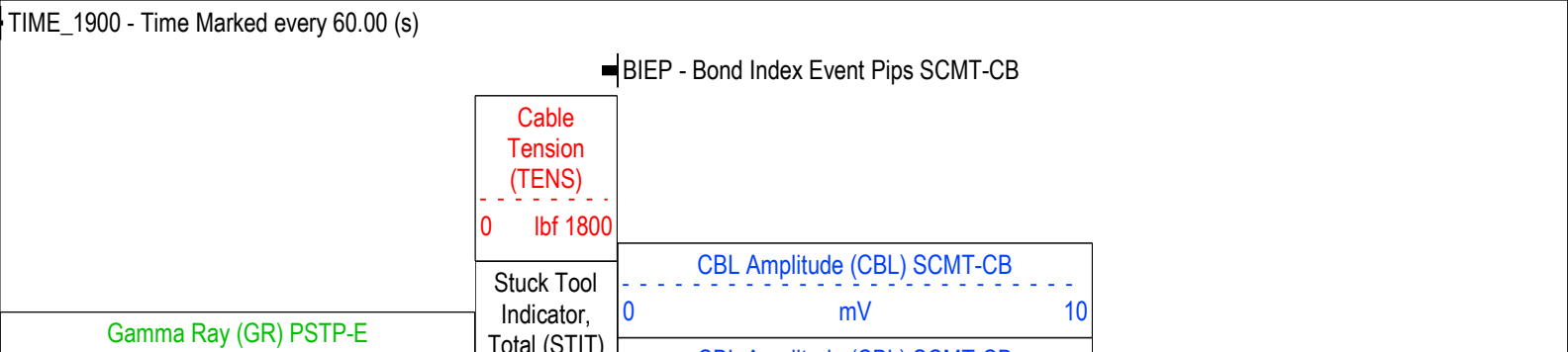
ONE

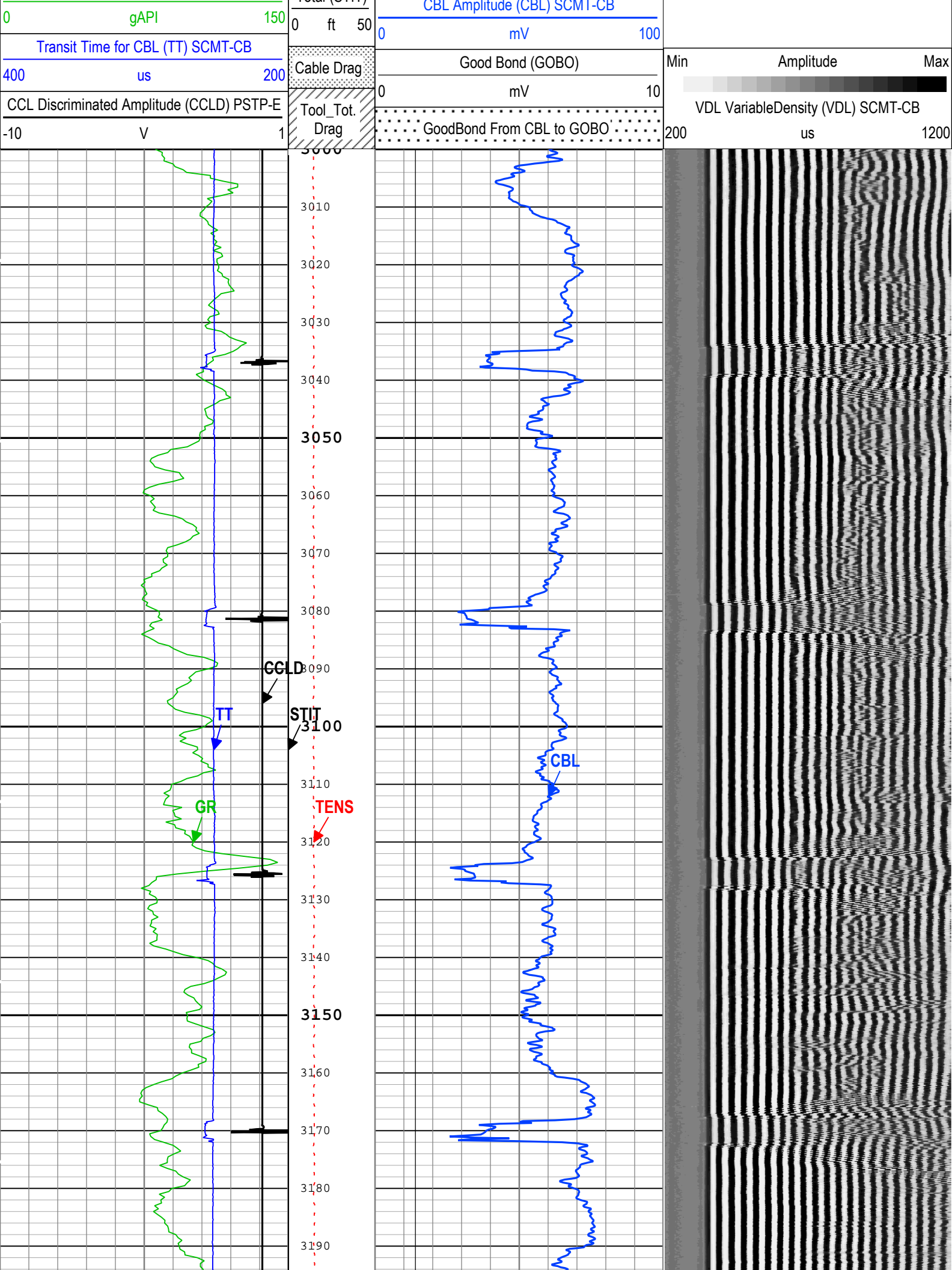
CBL-VDL REPEAT PASS [5:100]

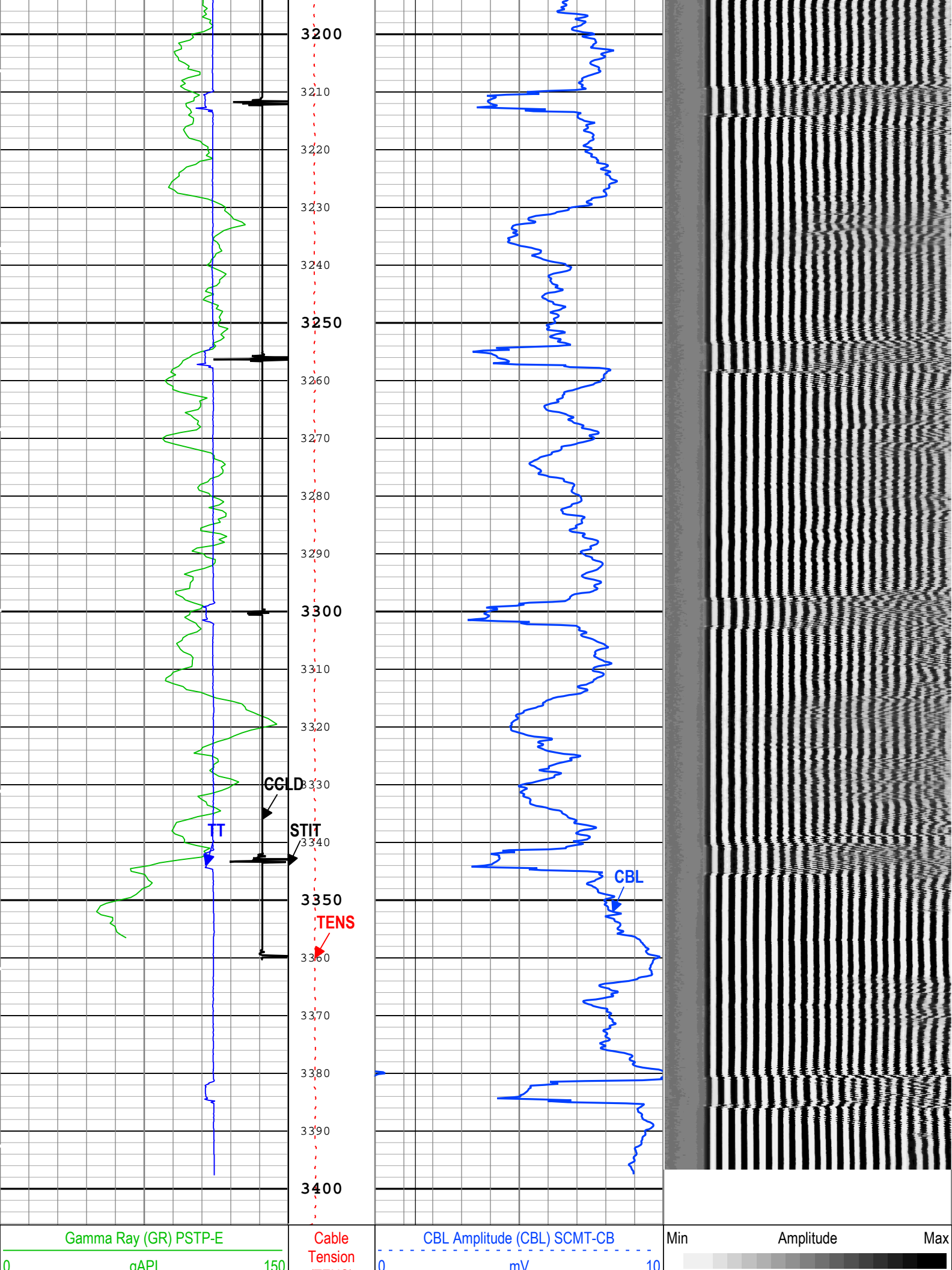
Software Version	
Acquisition System	Version
Maxwell 2018 SP2	8.2.104493.3100
Application Patch	Wireline_Hotfix-Mandatory-2018.2_8.2.108371

Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[7]:Up	Up	3000.81 ft	3406.23 ft	09-Mar-2019 9:34:25 PM	09-Mar-2019 9:50:50 PM	ON	5.21 ft	Yes
All depths are referenced to toolstring zero									

Log	Company:CAERUS OIL & GAS LLC Well:NPR 23C-3 596 ONE: Log[7]:Up:S005
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Acquisition System	Version
Maxwell 2018 SP2	8.2.104493.3100
Application Patch	Wireline_Hotfix-Mandatory-2018.2_8.2.108371

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[7]:Up	Up	3000.81 ft	3406.23 ft	09-Mar-2019 9:34:25 PM	09-Mar-2019 9:50:50 PM	ON	5.21 ft	Yes

All depths are referenced to toolstring zero

Log

Company:CAERUS OIL & GAS LLC

Well:NPR 23C-3 596

ONE: Log[7]:Up:S005

Description: RST SIGMA Answer Format: Log (RST SIGMA Answer) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 09-Mar-2019 22:11:49

TIME_1900 - Time Marked every 60.00 (s)

TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

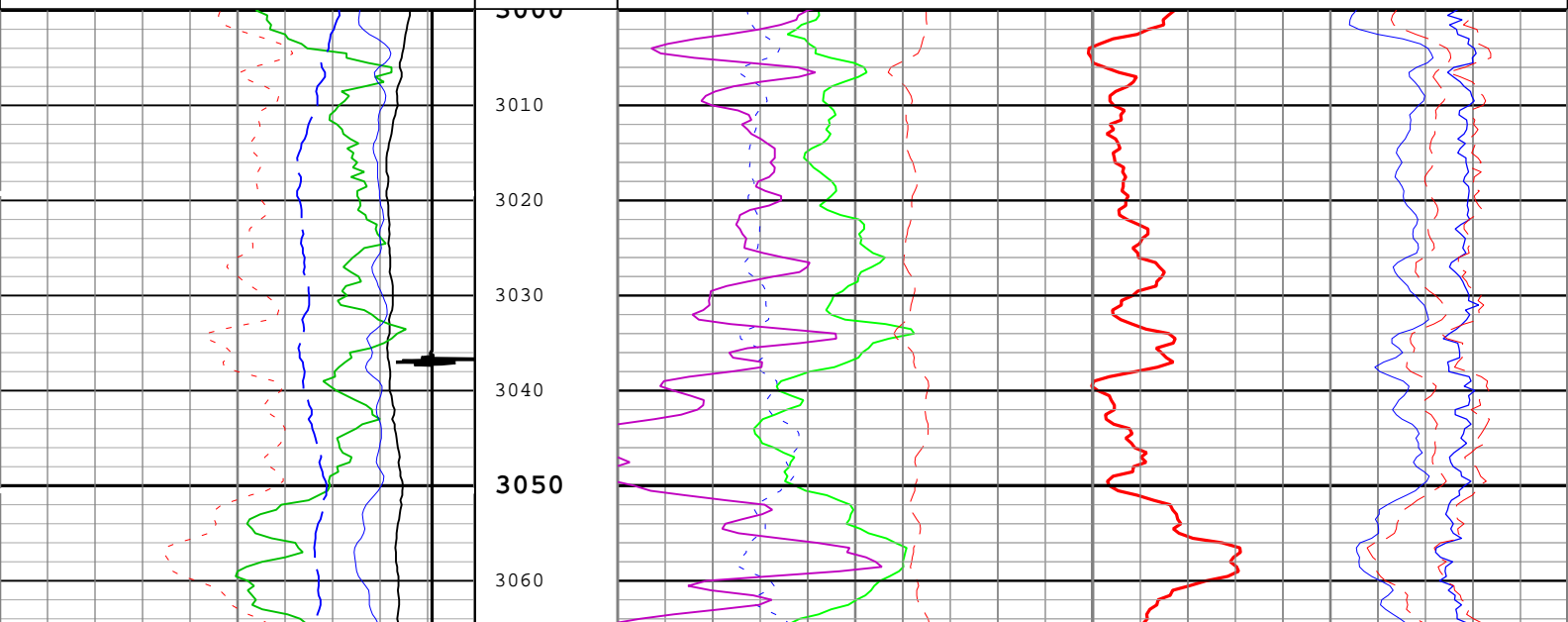
IHV - Integrated Hole Volume every 10.00 (ft3)

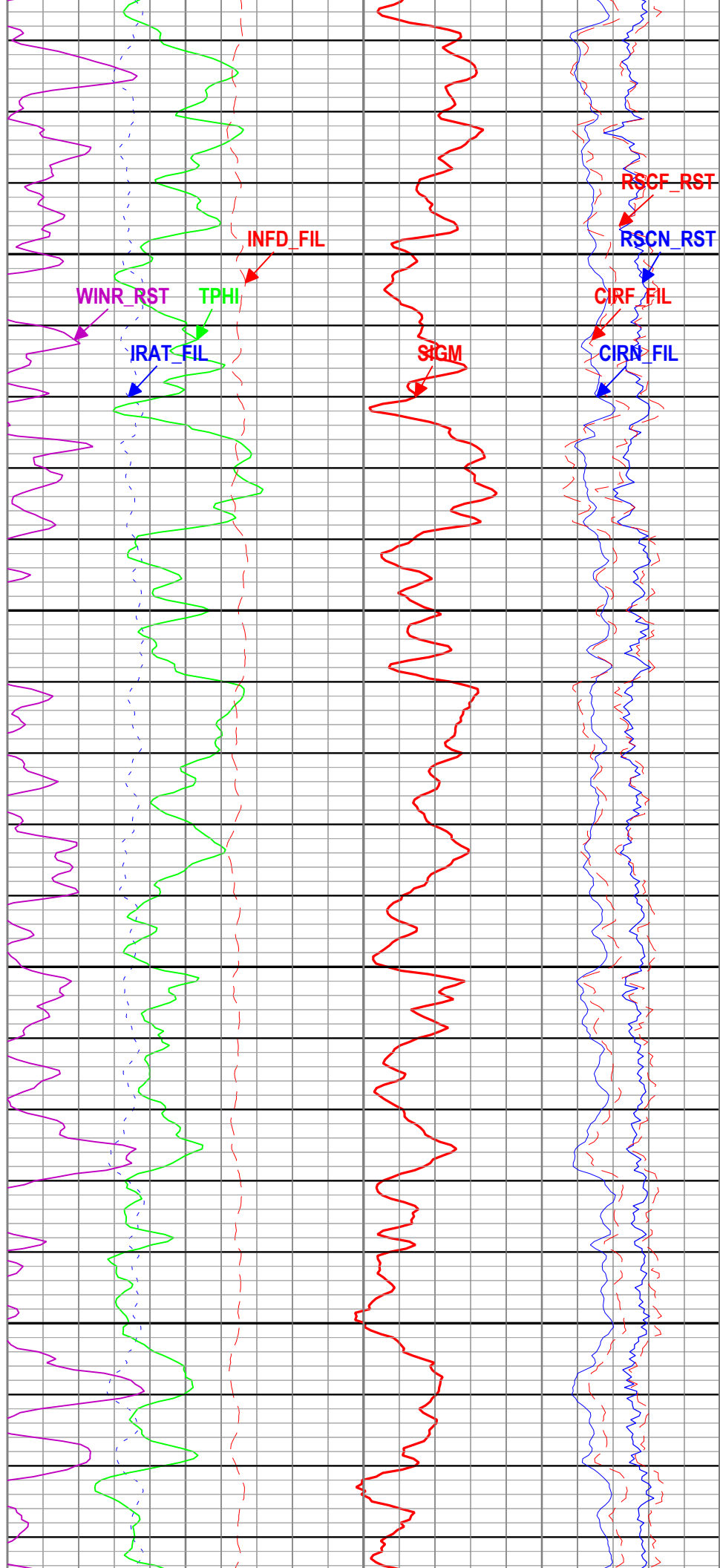
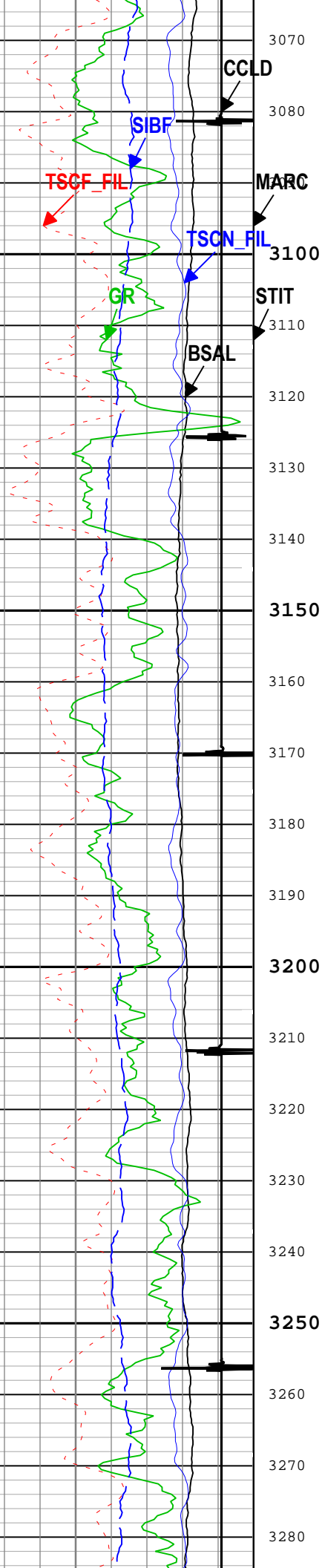
IHV - Integrated Hole Volume every 100.00 (ft3)

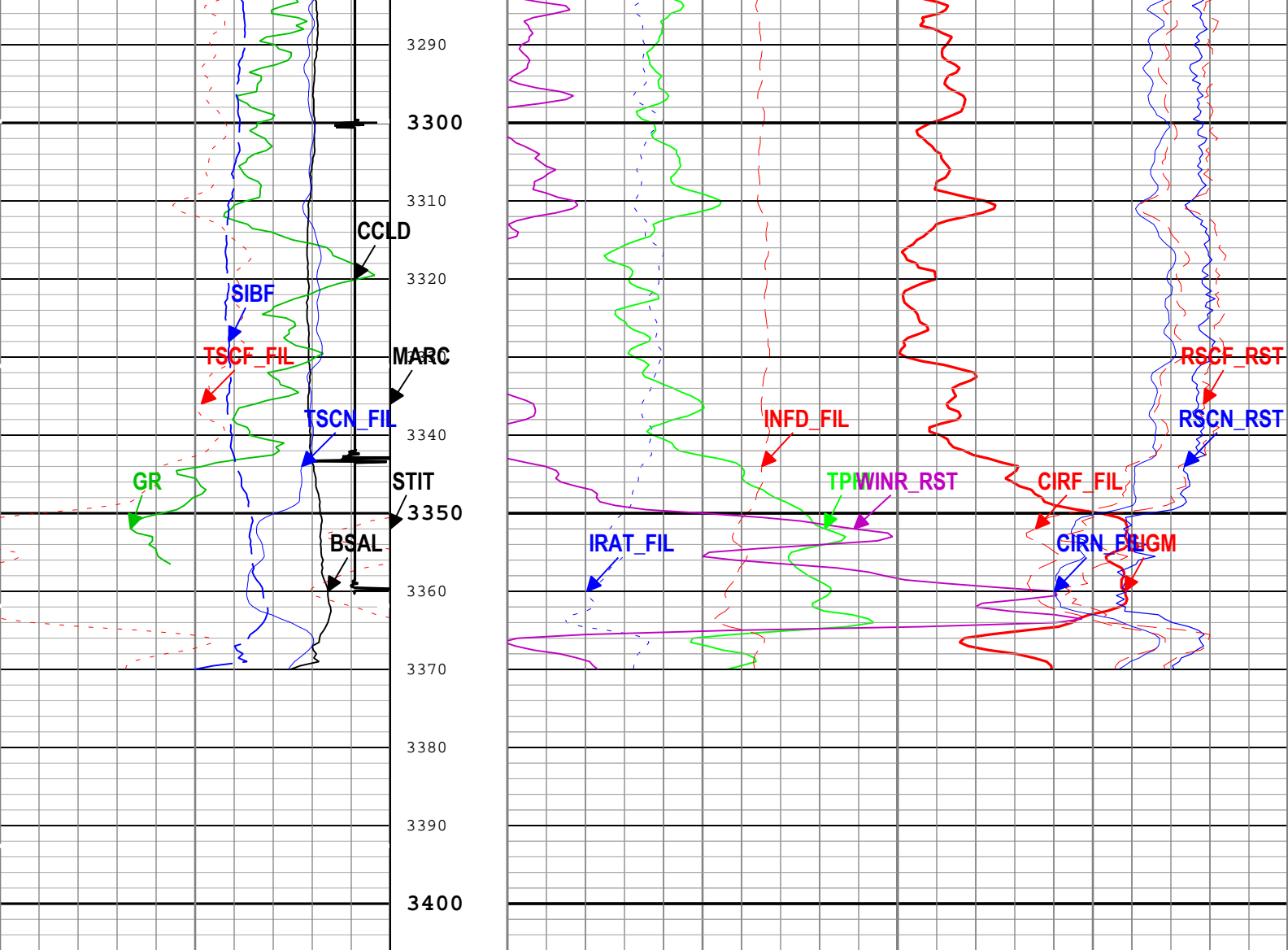
ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

			Stuck Tool Indicator, Total (STIT)	Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C		
Borehole Salinity (BSAL) RST-C				2.50		
450	ppk	-50	0 ft 50	Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C		
Gamma Ray (GR) PSTP-E			Cable Drag From STIA to STIT	Inelastic Ratio Filtered (IRAT_FIL) RST-C		
0	gAPI	150		50		
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C			Tool_Tot. Drag From D3T to STIT	Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C		
30000	1/s	0		450		
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Minitron Arc Count (MARC) RST-C	Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C		
12000	1/s	0		450		
Sigma Borehole Fluid (SIBF) RST-C				Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C		
100	cu	0		60cu0		
CCL Discriminated Amplitude (CCLD) PSTP-E				Weighted Inelastic Ratio (WINR_RST) RST-C		
-10	V	1		00.4		







Borehole Salinity (BSAL) RST-C			Stuck Tool Indicator, Total (STIT)			Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C		
450	ppk	-50	0	ft	50	60	cu	0
Gamma Ray (GR) PSTP-E			Cable Drag From STIA to STIT			Weighted Inelastic Ratio (WINR_RST) RST-C		
0	gAPI	150	Tool_Tot. Drag From D3T to STIT			0		0.4
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C			Minitron Arc Count (MARC) RST-C			Inelastic Ratio Filtered (IRAT_FIL) RST-C		
30000	1/s	0	0		5	0.75		0
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Thermal Decay Porosity (TPHI) RST-C			Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C		
12000	1/s	0	ft3/ft3			2.5		0
Sigma Borehole Fluid (SIBF) RST-C			Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C			Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C		
100	cu	0	1/s			5		0
CCL Discriminated Amplitude (CCLD) PSTP-E			Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C			Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C		
-10	V	1				45		0
						45		0

—ICV - Integrated Cement Volume every 100.00 (ft3)

—ICV - Integrated Cement Volume every 10.00 (ft3)

—IHV - Integrated Hole Volume every 100.00 (ft3)

—IHV - Integrated Hole Volume every 10.00 (ft3)

—TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

Channel Processing Parameters**ONE: Parameters**

Parameter	Description	Tool	Value	Unit
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	8.75	in
BSAL	Borehole Salinity	Borehole	0	ppm
BSALOPT	Borehole Salinity Option	RST-C	Unknown	
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	

Tool Control Parameters**ONE: Parameters**

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-E	0 dB	
RST_DLM	Depth Log Mode	RST-C	Sigma	

Well: NPR 23C-3 596
Field: NPR
County: GARFIELD
State: COLORADO

CEMENT BOND LOG

RST SIGMA LOG

GAMMA RAY - COLLAR LOCATOR LOG