

Company: Caerus Operating LLC

Well: Puckett 12B-26-697

Field: Grand Valley

County: Garfield State: Colorado

Cement Bond Log

RST Sigma Log

Gamma Ray - Collar Locator Log

County: Garfield
 Field: Grand Valley
 Location: Mesa F26
 Well: Puckett 12B-26-697
 Company: Caerus Operating LLC

Location:		Mesa F26		Elev.:		K.B.	8352.00 ft
Permanent Datum:		Ground Level		Elev.:		G.L.	8322.00 ft
Log Measured From:		Kelly Bushing		Elev.:		D.F.	8352.00 ft
Drilling Measured From:		Kelly Bushing		Elev.:		above Perm. Datum	
API Serial No.	Section:	Township:	Range:				
05045234040000	26	6S	97W				

Logging Date 10-May-2018

Run Number One

Depth Driller 8848.00 ft

Schlumberger Depth 8819.00 ft

Bottom Log Interval 8819.00 ft

Top Log Interval 2300.00 ft

Casing Fluid Type 2% KCL Water

Salinity

Density 8.49 lbn/gal

Fluid Level 8.00 ft

BIT/CASING/TUBING STRING

Bit Size 8.75 in

From 2519.00 ft

To 8848.00 ft

Casing/Tubing Size 4.5 in

Weight 11.6 lbn/ft

Grade P110

From 0.00 ft

To 8848.00 ft

Max Recorded Temperatures 233.04 degF

Logger on Bottom 10-May-2018 07:07:00

Unit Number 3046 Location: Evanson, Wy

Recorded By Beatriz Guaita

Witnessed By Ryan Tompkins

Disclaimer

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

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9.5 Parameter Listing

10. One CBL-VDL Free pipe

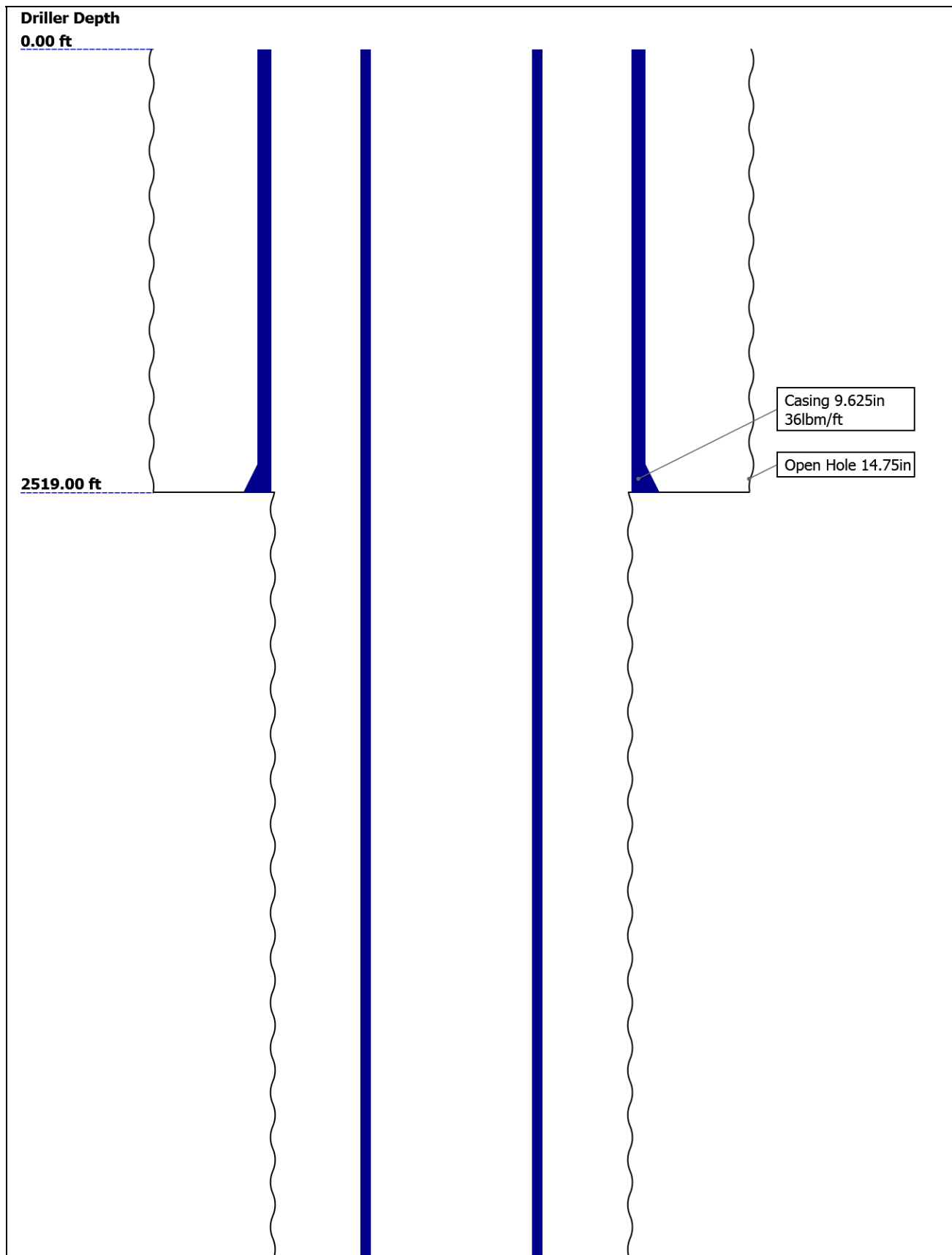
10.1 Integration Summary

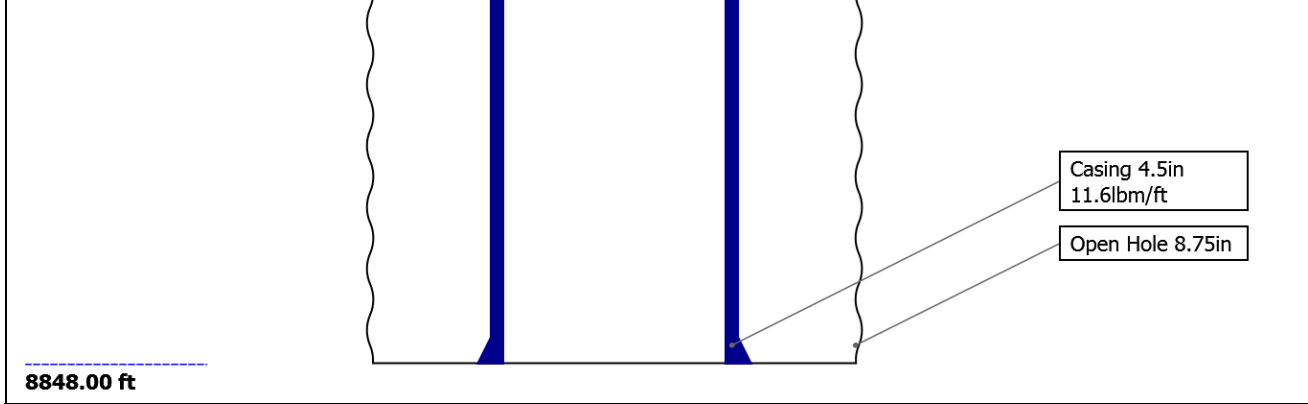
10.2 Software Version

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	2519			
Top Logger (ft)	0	2519			
Bottom Driller (ft)	2519	8848			
Bottom Logger (ft)	2519	8848			
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)	2519	8848			
Bottom Logger (ft)	2519	8848			

Remarks and Equipment Summary

One: Toolstring				One: Remarks	
Equip name	Length	MP name	Offset	Tool Ran as per tool Sketch	
PEH-E	53.4			3xGemcos used to enhance centralization	
				Max temperature 233.04 F	
AH-38	51.72			Schlumberger TD@ 8819 ft	
PSTP-A:378	51.44			Thanks for choosing Schlumberger	
1		GR	47.74		
PSC-A:3781		PSTC	47.44		
PSC-A:3781		PSTC Tool	0.00		
PBMS-A:3781		String Bot			
Sapphire 10kP		Temperatu	44.65		
SI:33930		re			
		Sapphire P	44.54		
		ressure			
		CCL	43.92		
		PBMS	43.17		
RST-C:424	43.17				
RSCH-A:277					
RSC-E:295					
RSS-A:373					
MNTR-F:1258					
RSXH-A:417					
RSX-E:424					
		RSC-E	36.82		



SCMT-CB:82 61 20.15
 SECH-CA
 SCMC-CA:815
 0
 CMIR-AG
 SCMS-CB:826
 1
 SCMX-CA:820
 0

BNS-P 0.14

Lengths are in ft
 Maximum Outer Diameter = 1.720 in
 Line: Sensor Location, Value: Gating Offset
 All measurements are relative to TOOL_ZERO

Depth Summary

	One		
Depth Measuring Device			
Type	IDW-B		
Serial Number	6459		
Calibration Date	22-Jan-2018		

Calibrator Serial Number	20		
Calibration Cable Type	1-25AXXS		
Wheel Correction 1	-5		
Wheel Correction 2	-2		

Tension Device

Type	CMTD-B/A		
Serial Number	5036		
Calibration Date	03-Apr-2018		
Calibrator Serial Number	86479A		
Number of Calibration Points	10		
Calibration Root Mean Square Error	5		
Calibration Peak Error	3		

Logging Cable

Type	1-25ZA-XXS		
Serial Number	F112140		
Length	17000.00 ft		
Conveyance Type	Wireline		
Rig Type	Rigless		

One:Depth Control Parameters

Log Sequence	First Log In the Well	Depth Control Remarks Schlumberger depth control procedures followed IDW used as primary depth measurement Z-chart used as secondary depth measurement Log down used as reference pass for correlation
Rig Up Length At Surface		
Rig Up Length At Bottom		
Rig Up Length Correction		
Stretch Correction	7.29 ft	
Tool Zero Check At Surface	30.00 ft	

One

CBL-VDL Main Pass

Software Version

Acquisition System	Version
Maxwell 2018	8.0.95333.3100
Application Patch	Wireline_NPD-PNX-2018CMZ_8.0.97346

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	2193.90 ft	8847.63 ft	10-May-2018 07:07:49	10-May-2018 10:57:17	ON	0.00 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Caerus Operating LLC

Well:Puckett 12B-26-697

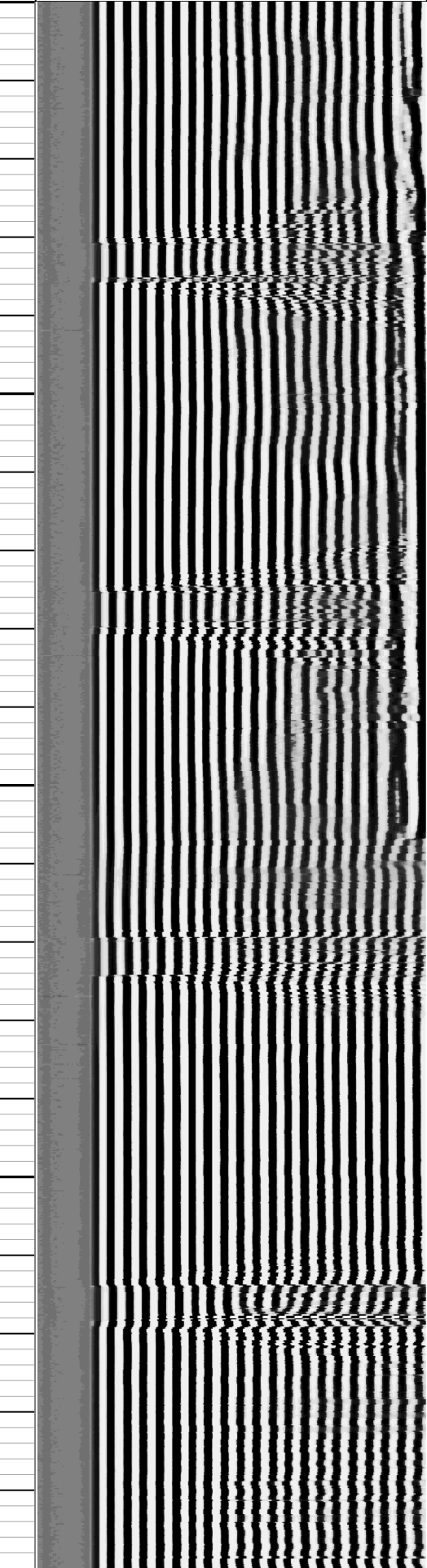
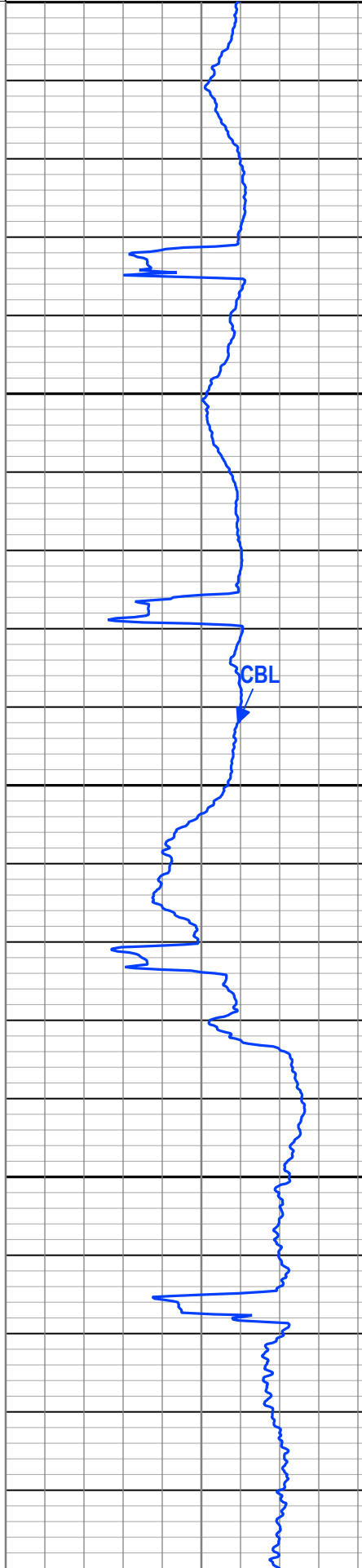
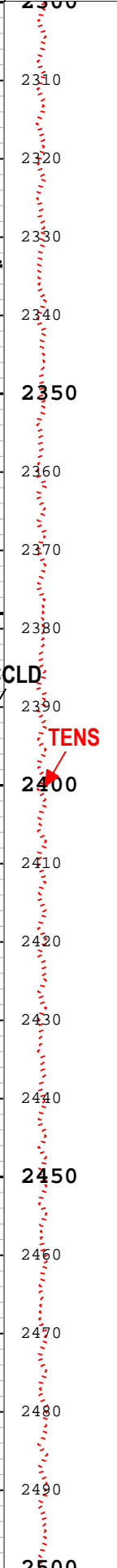
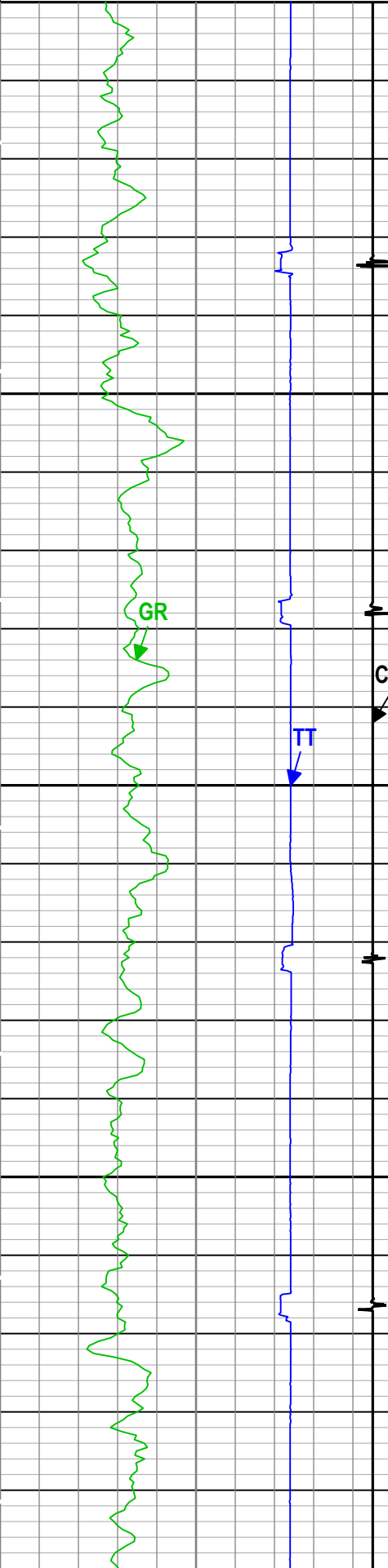
One: Log[3]:Up:S015

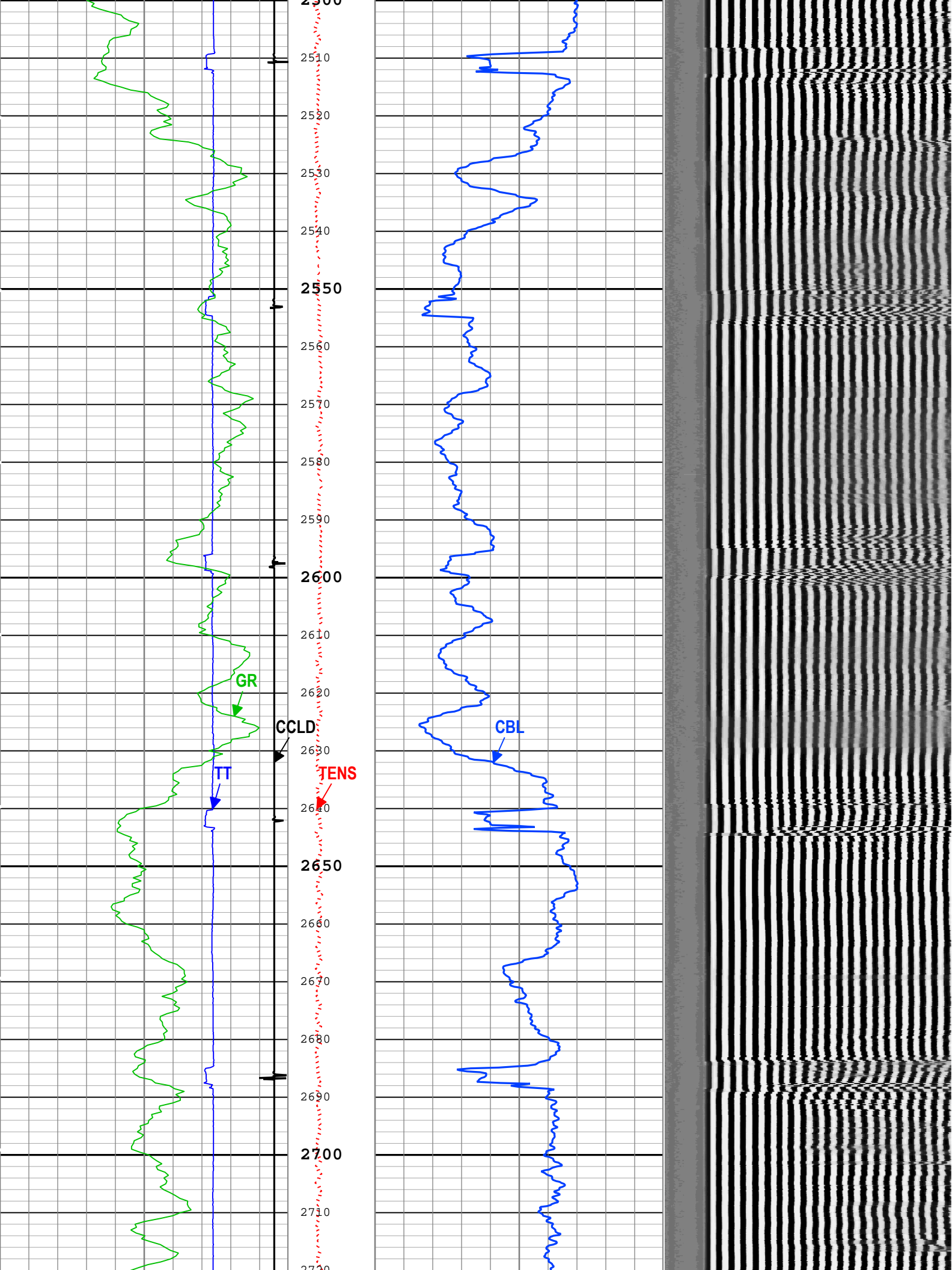
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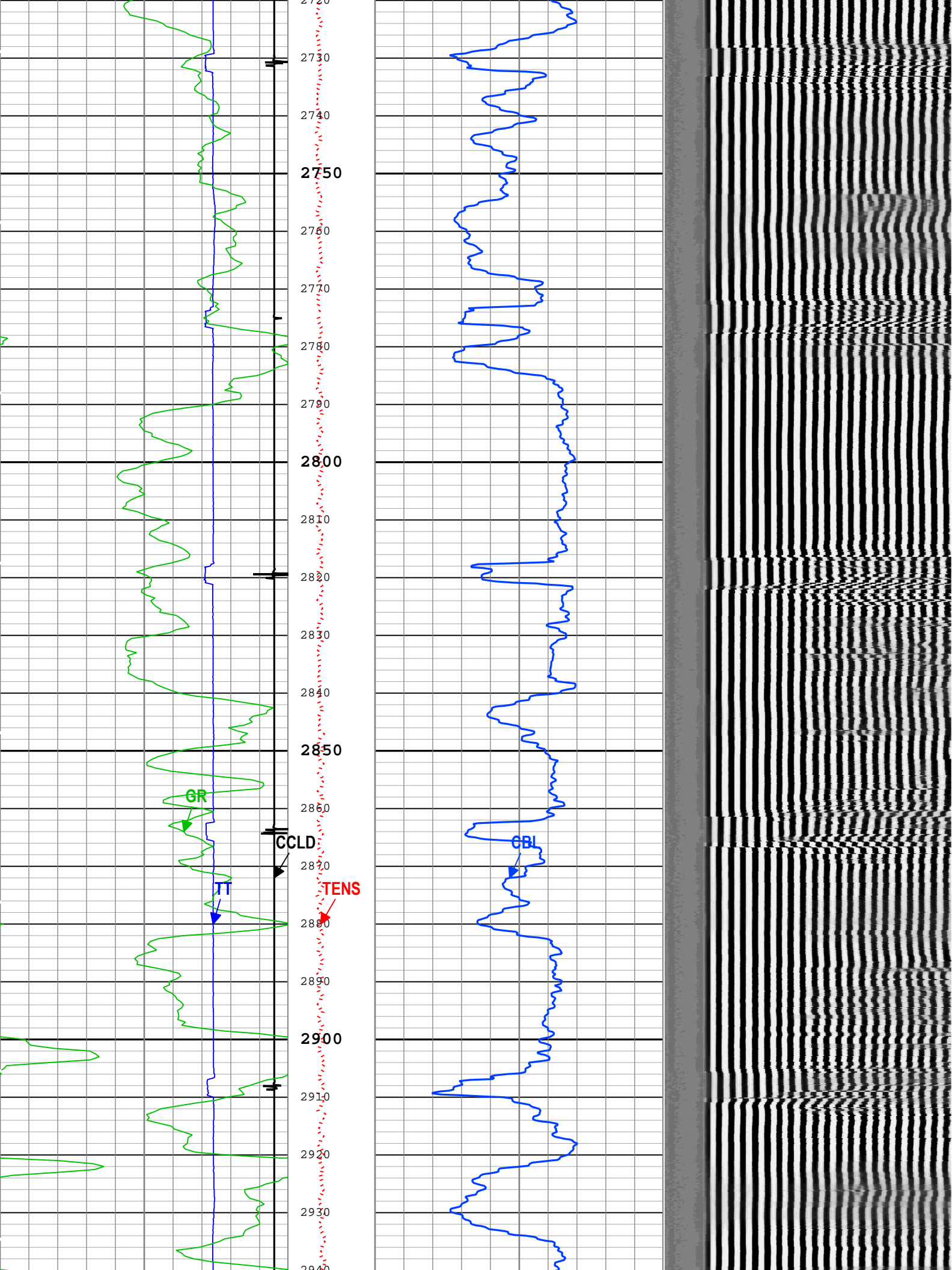
TIME_1900 - Time Marked every 60.00 (s)

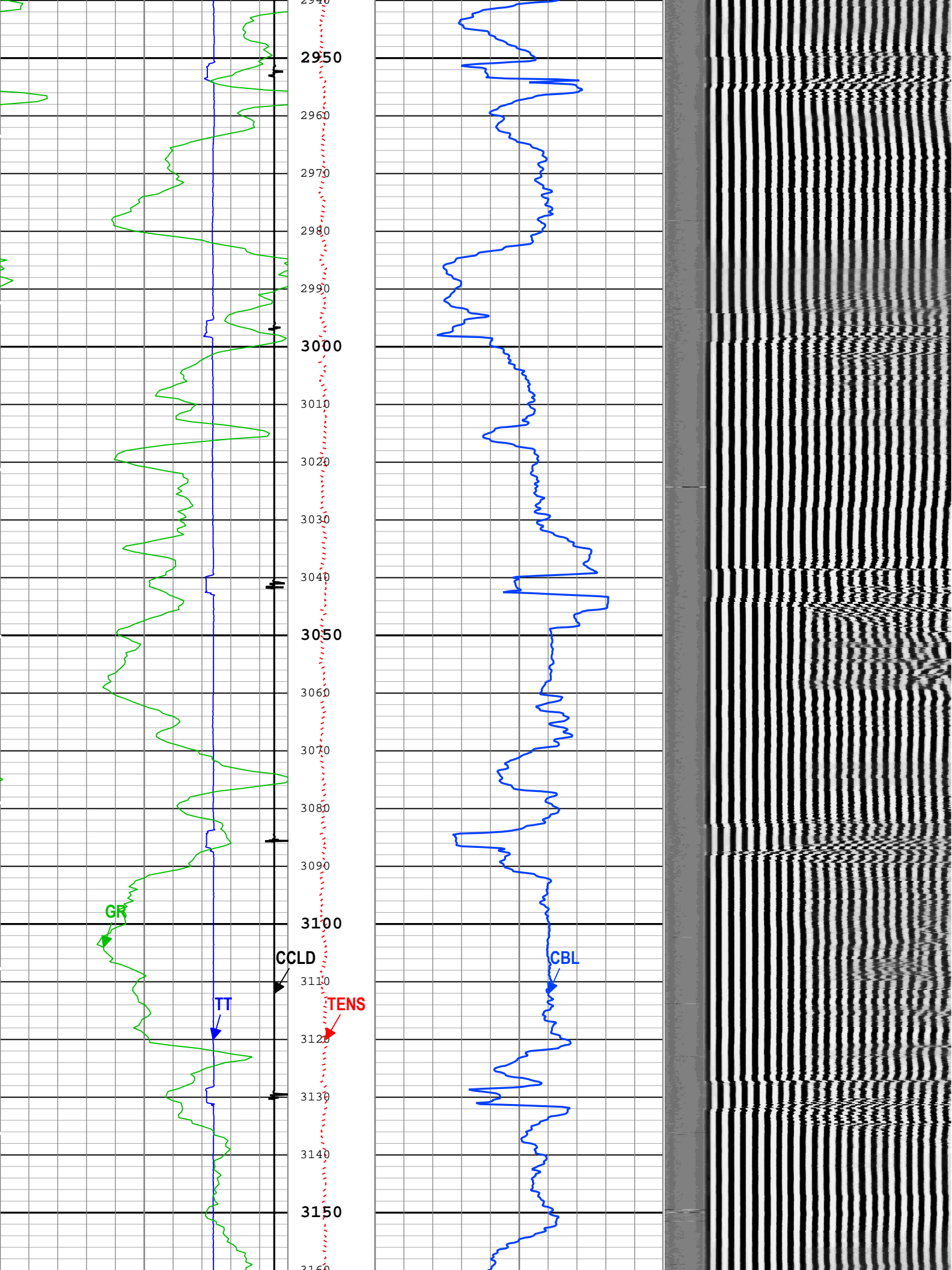
■ BIEP - Bond Index Event Pips SCMT-CB

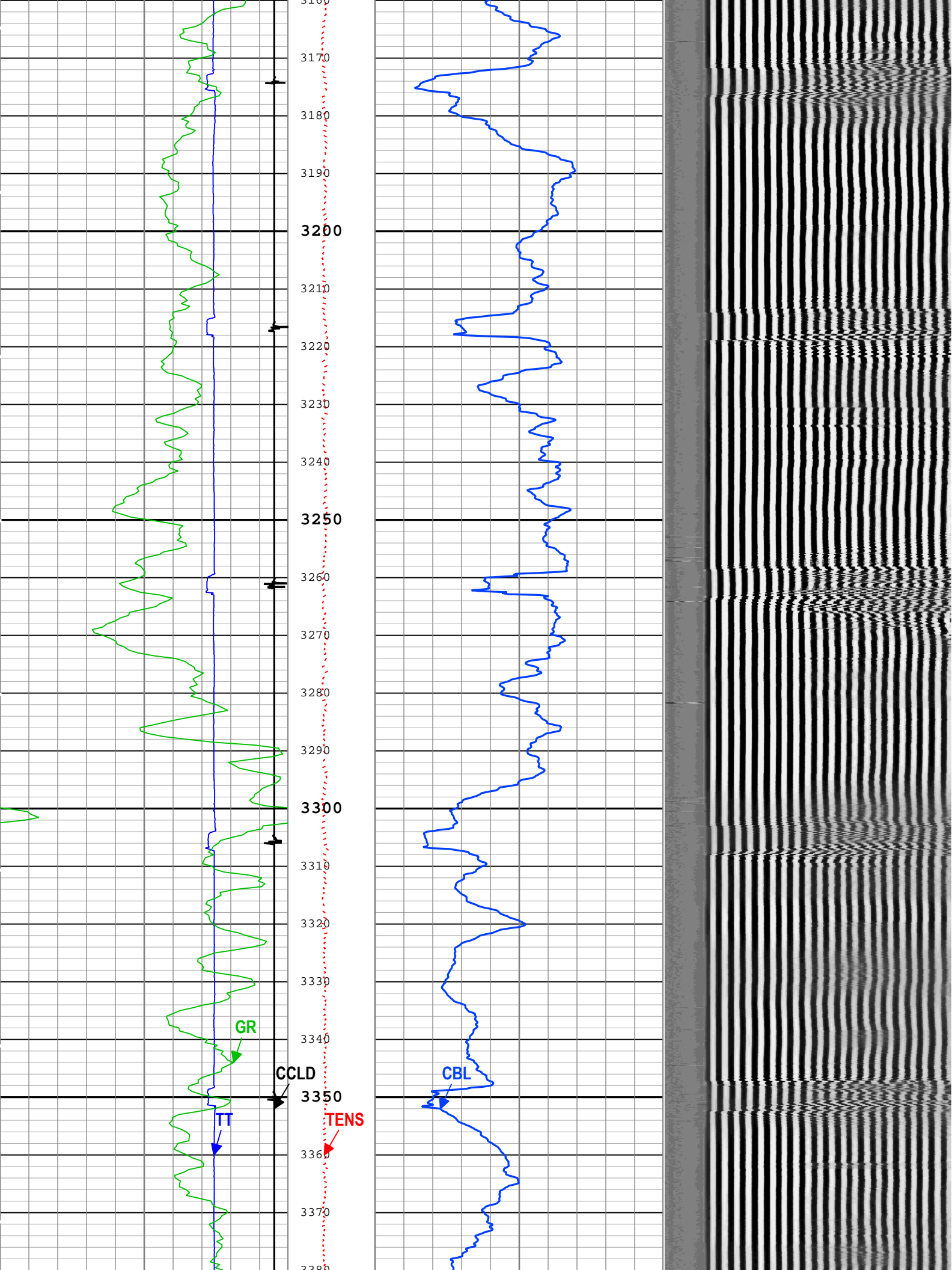
Transit Time for CBL (TT) SCMT-CB		
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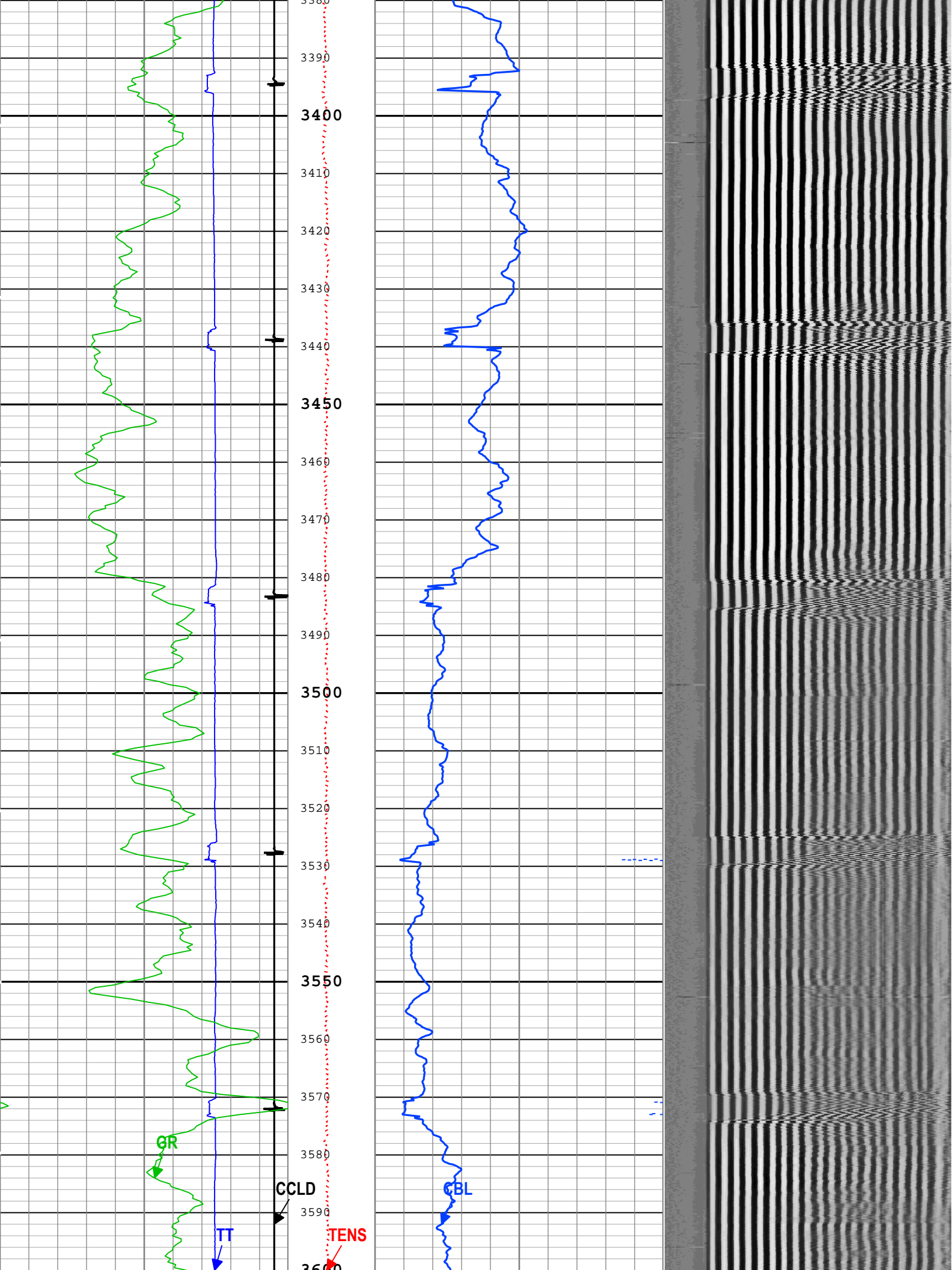


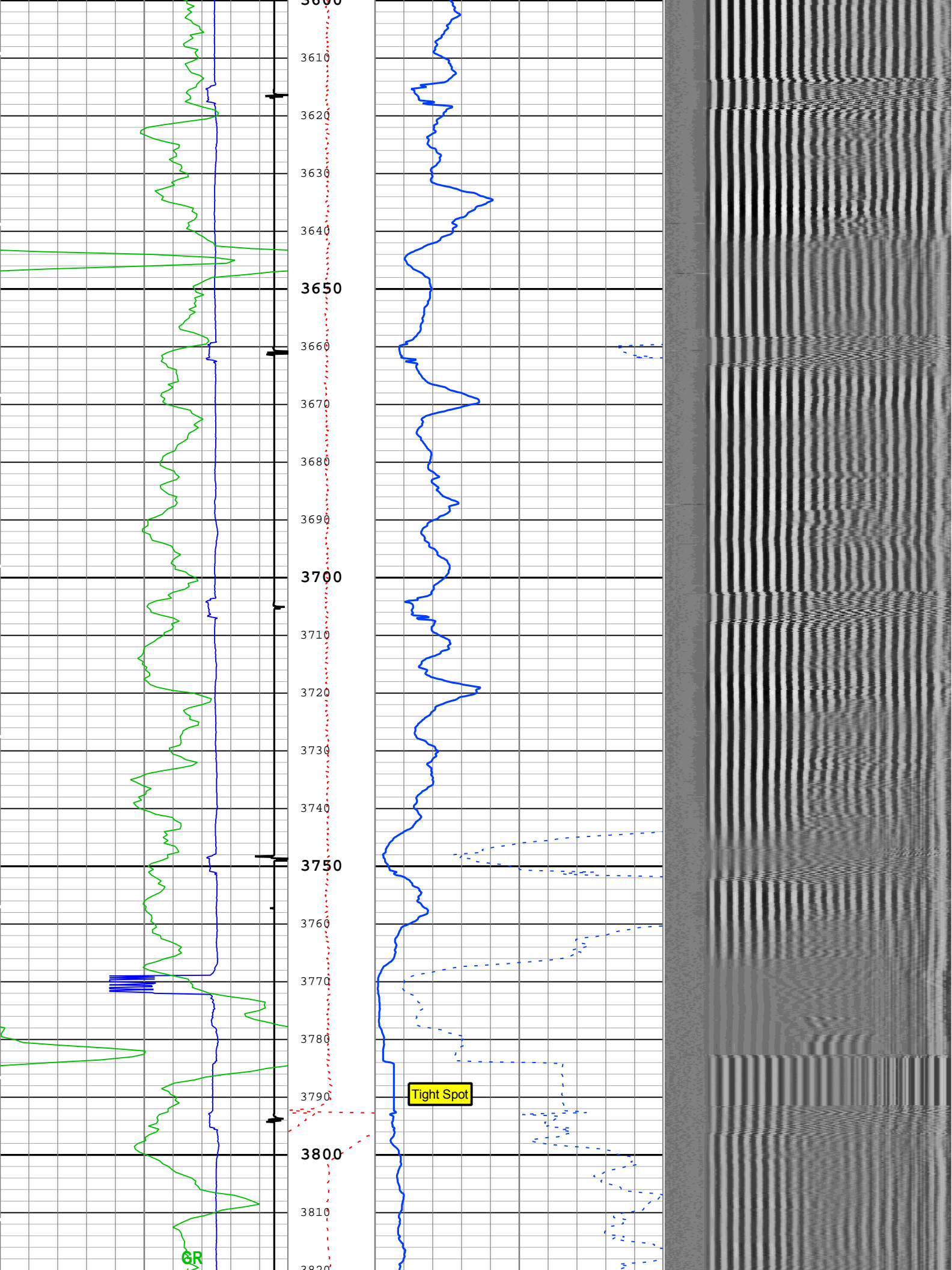


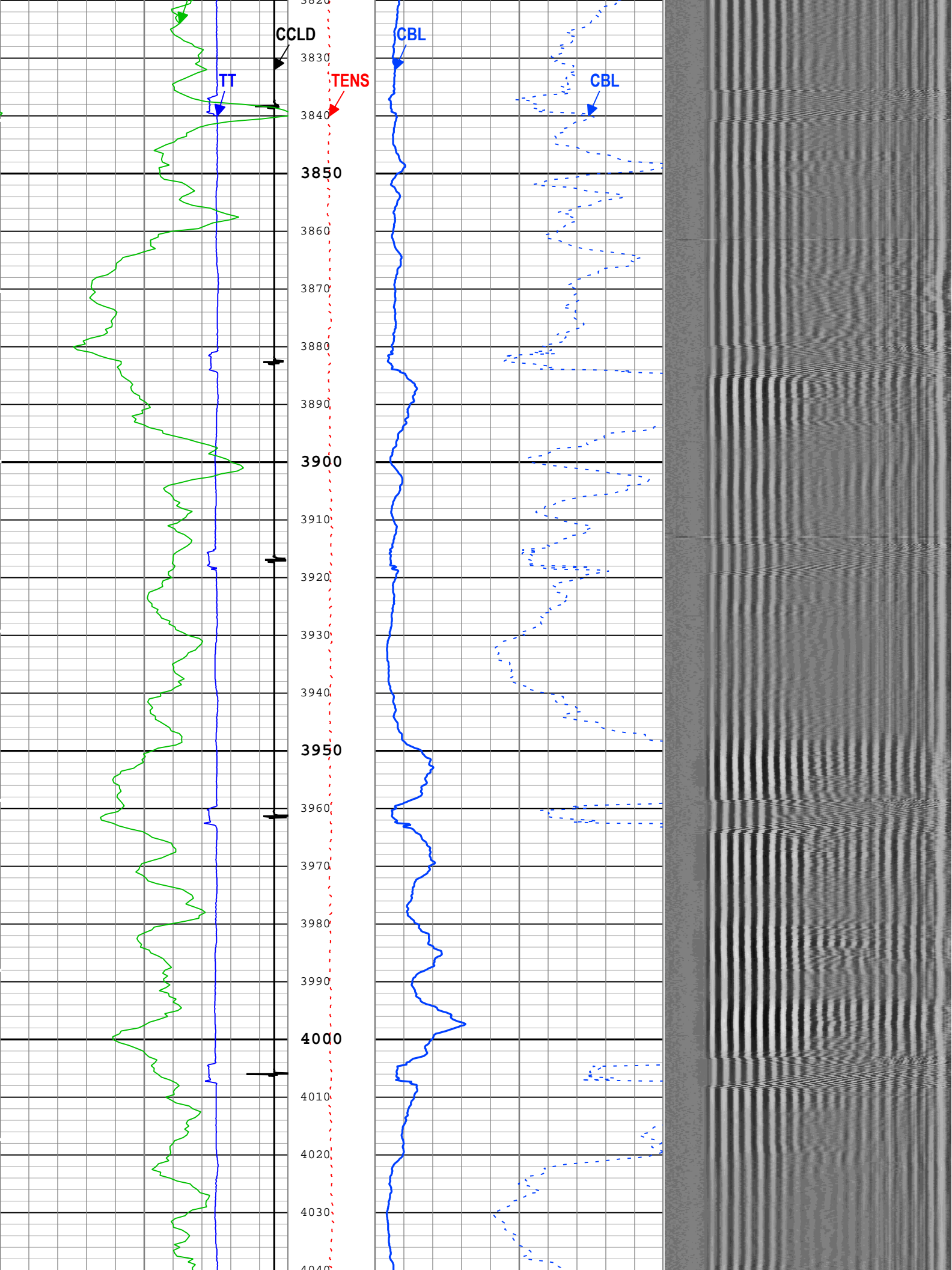


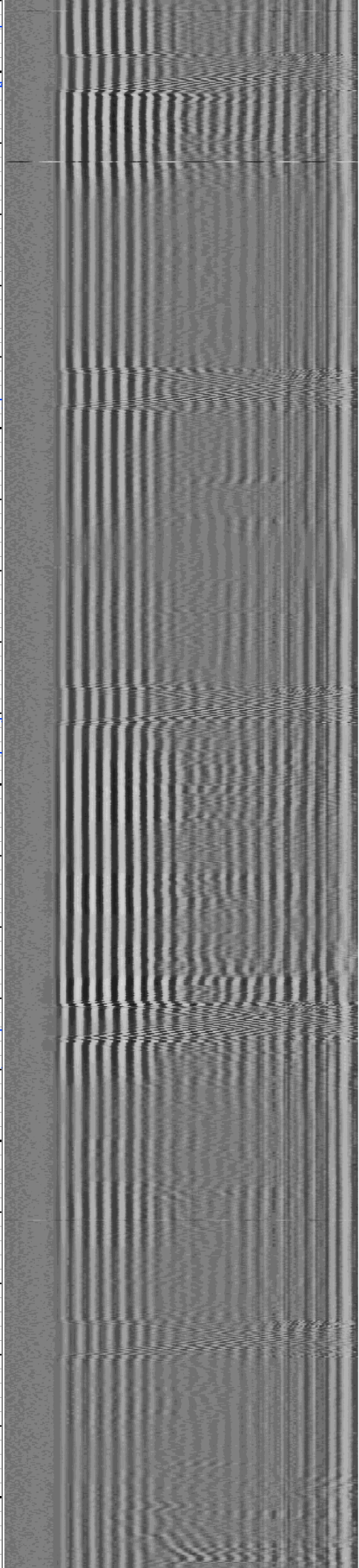
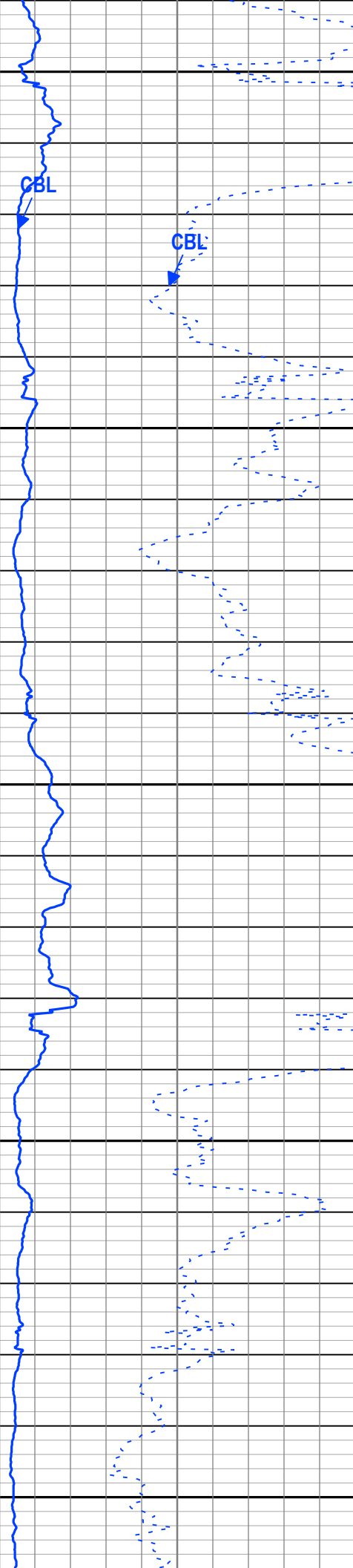
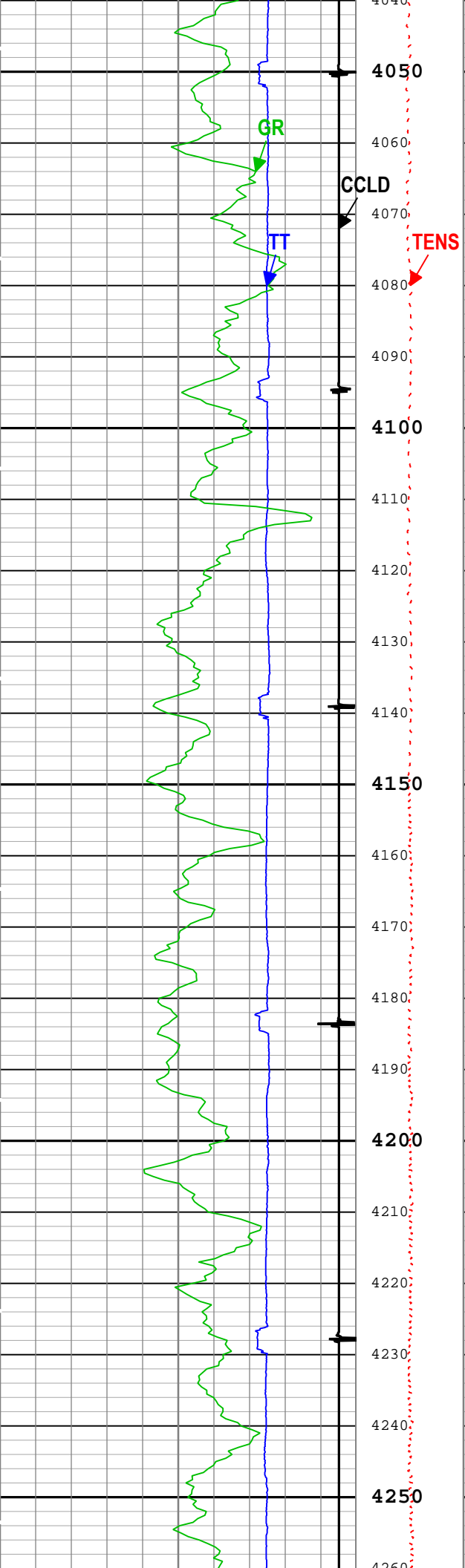


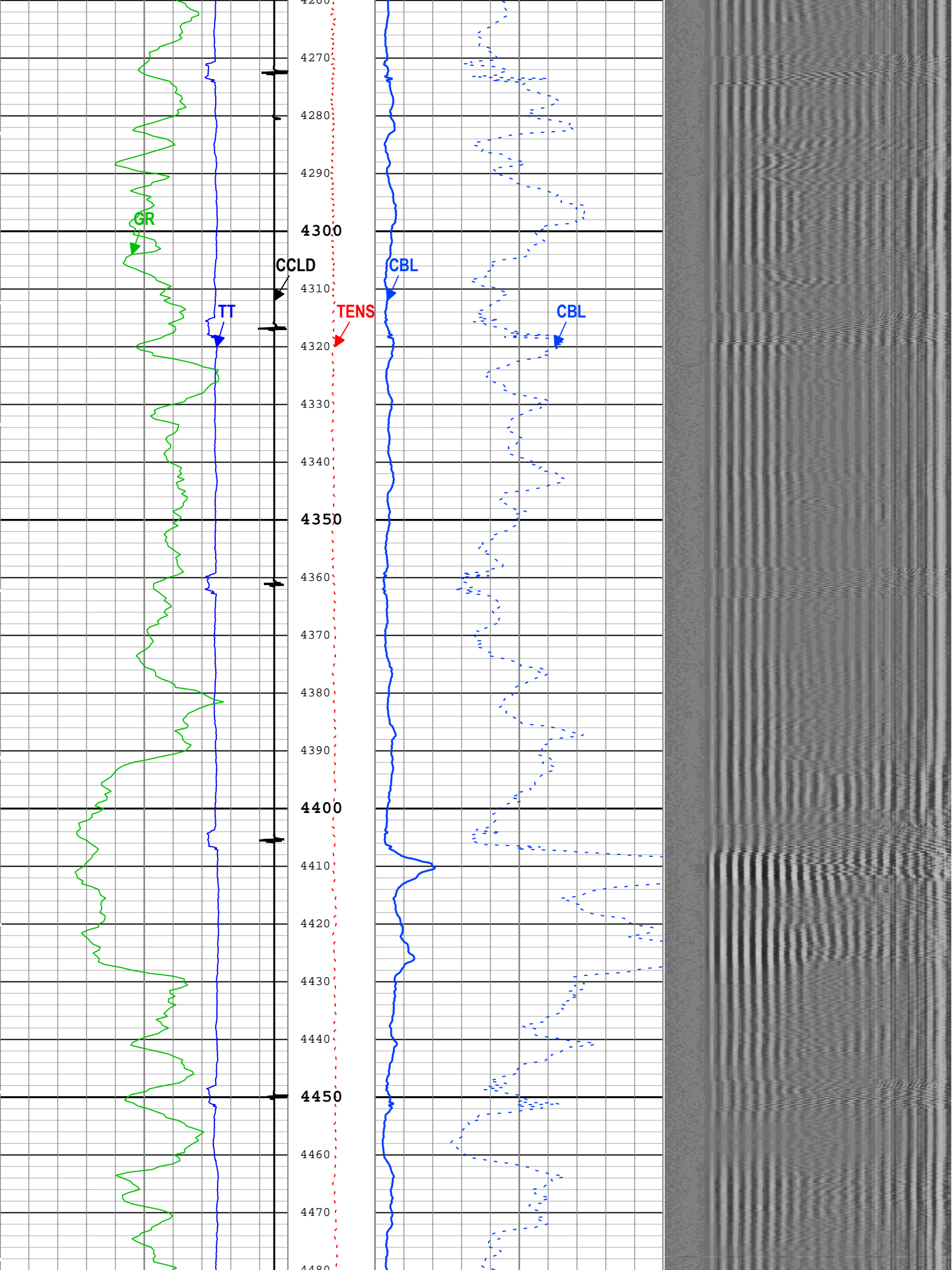


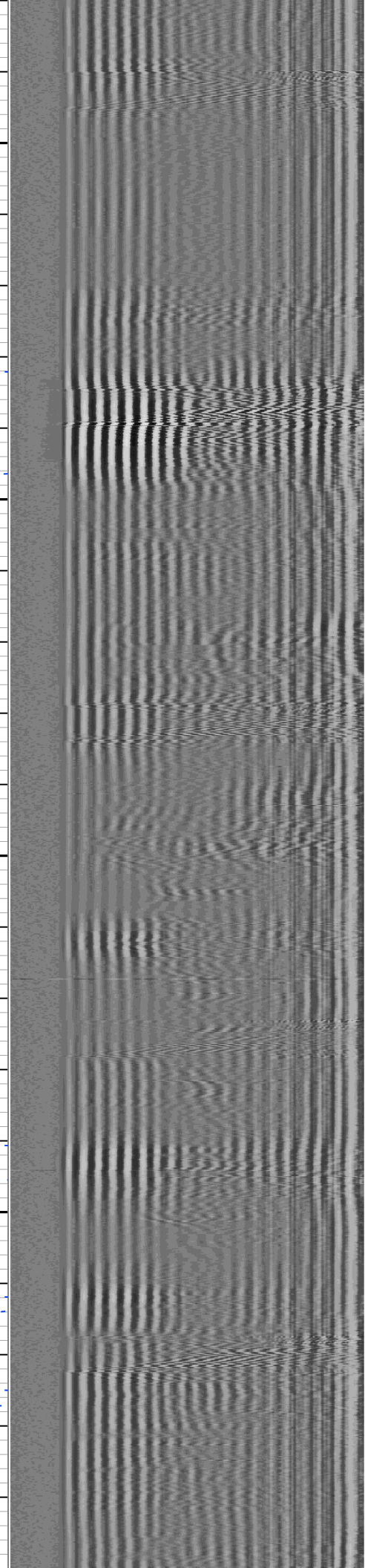
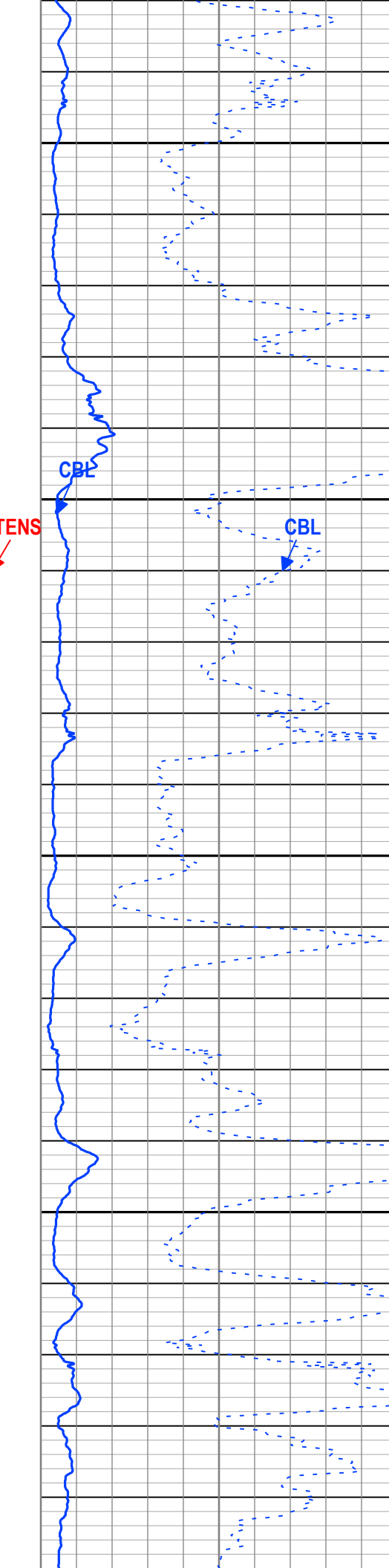
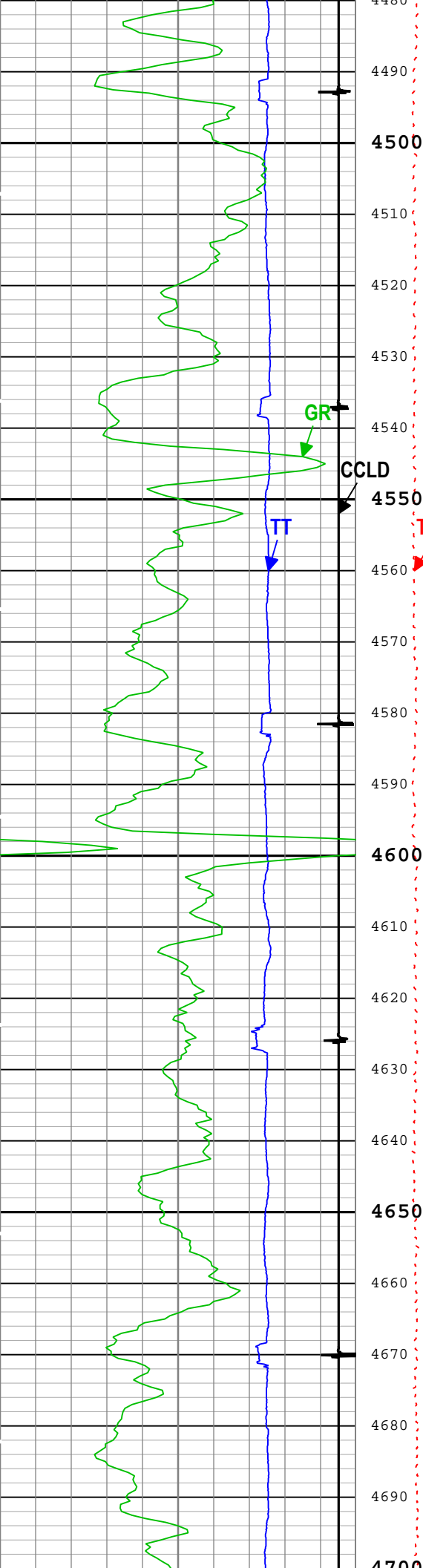


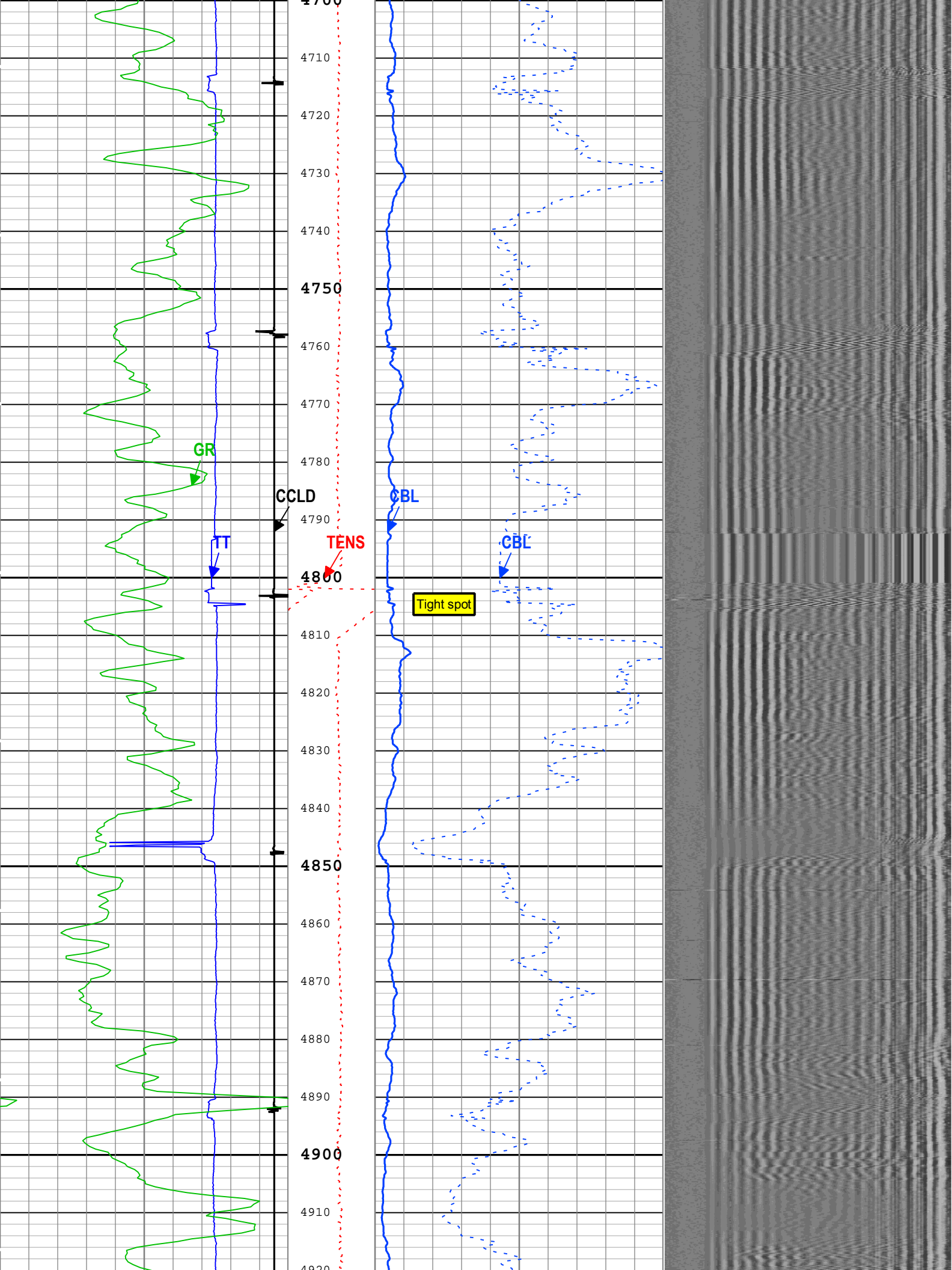


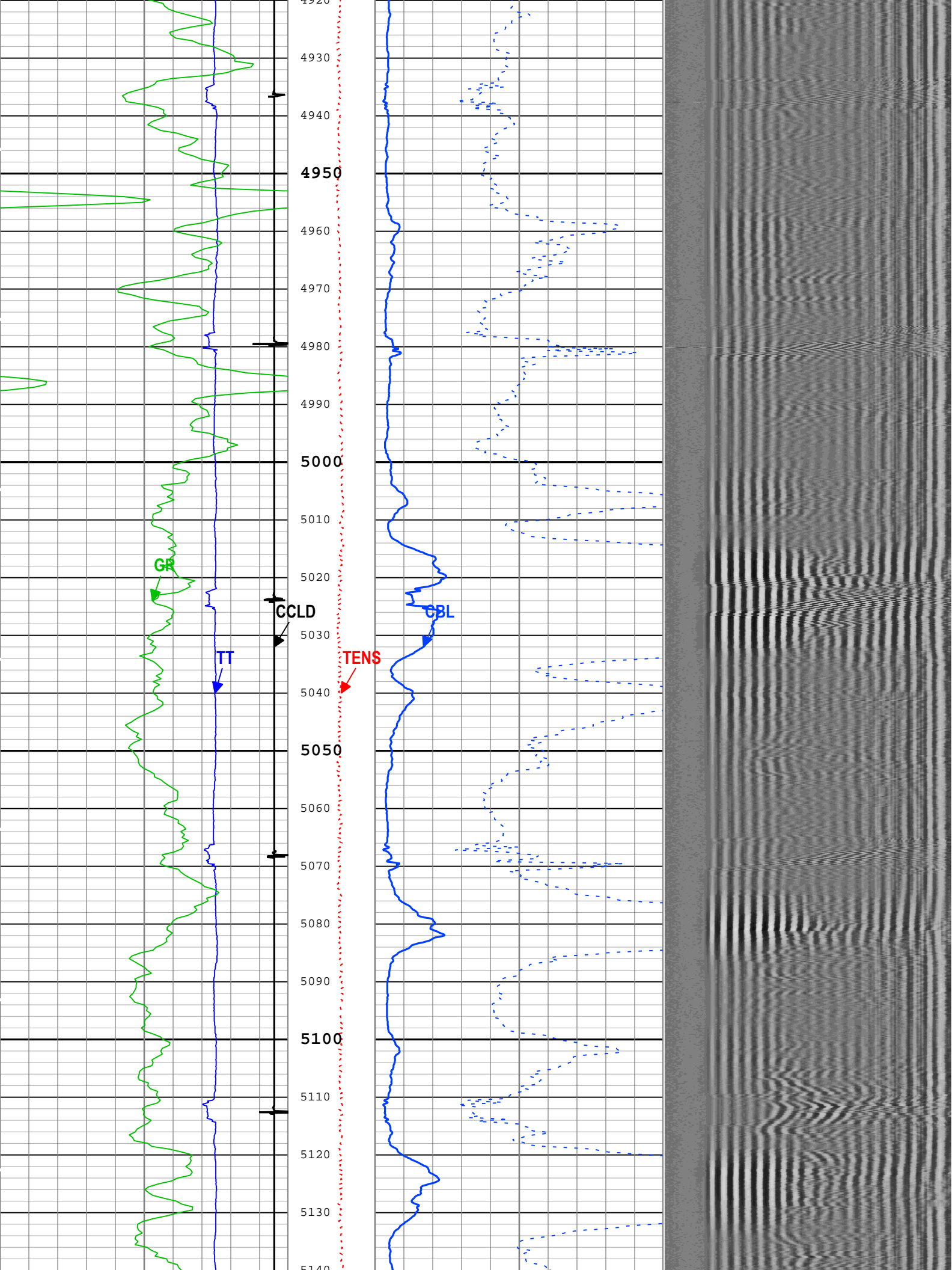


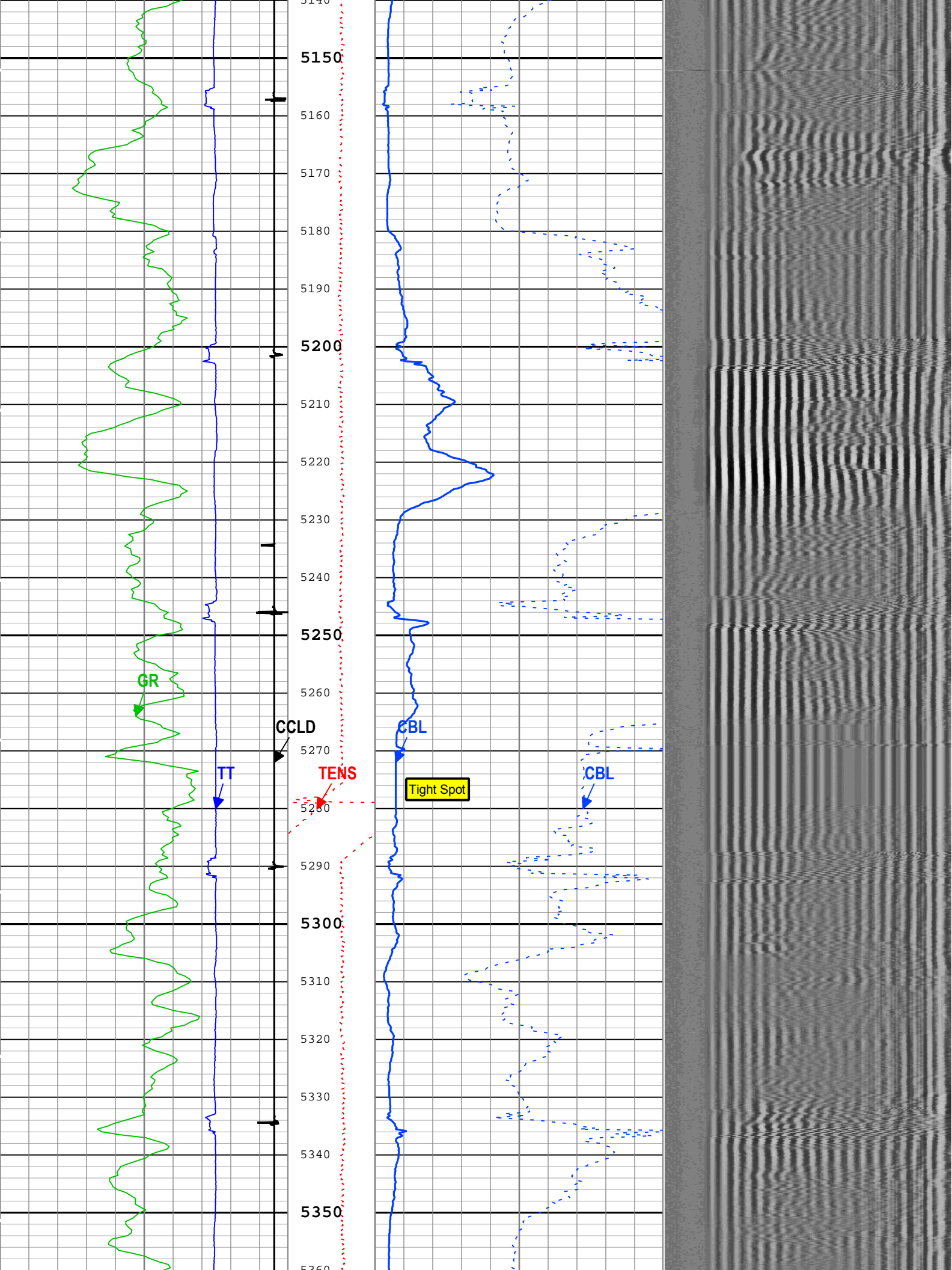


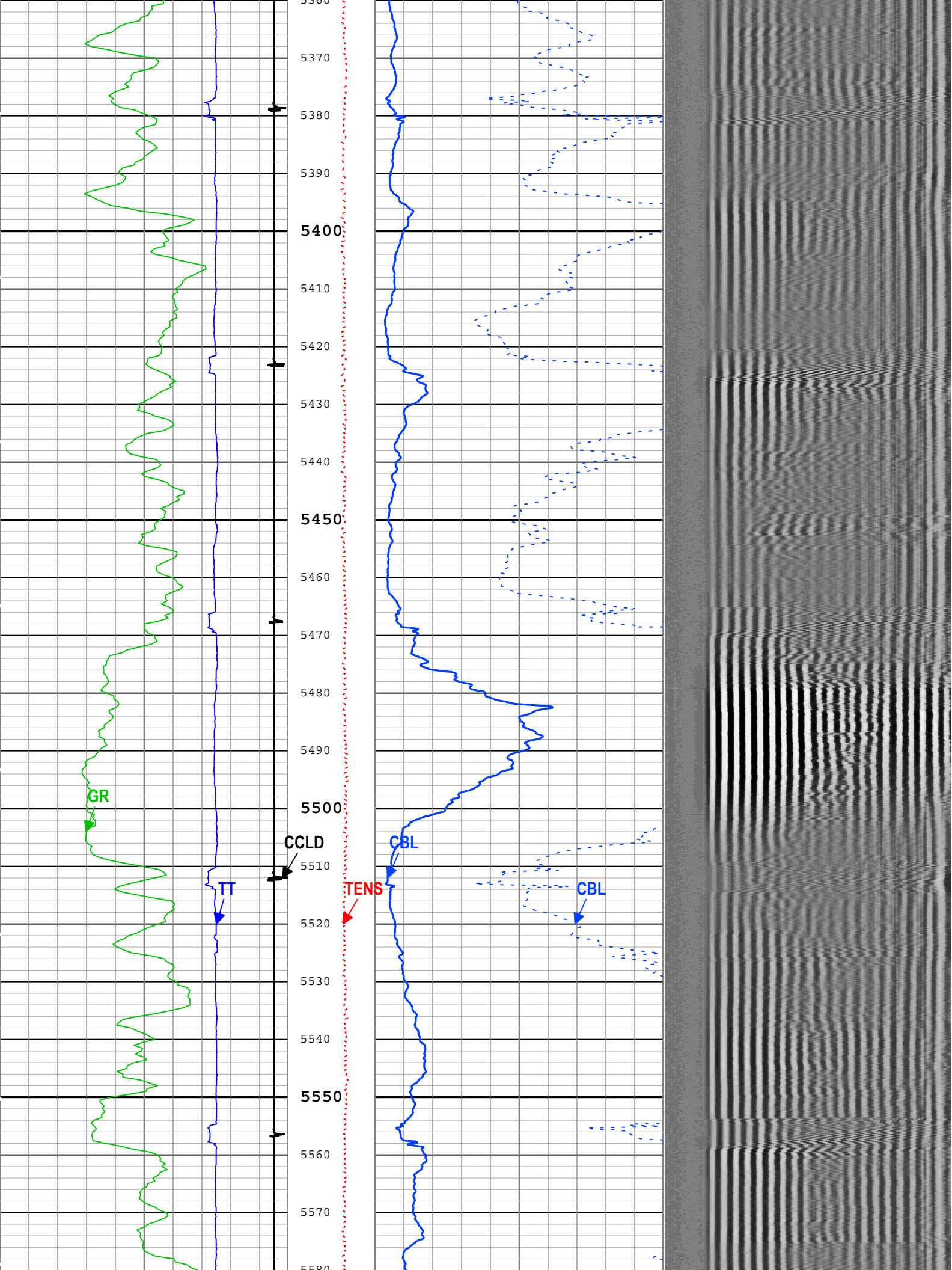


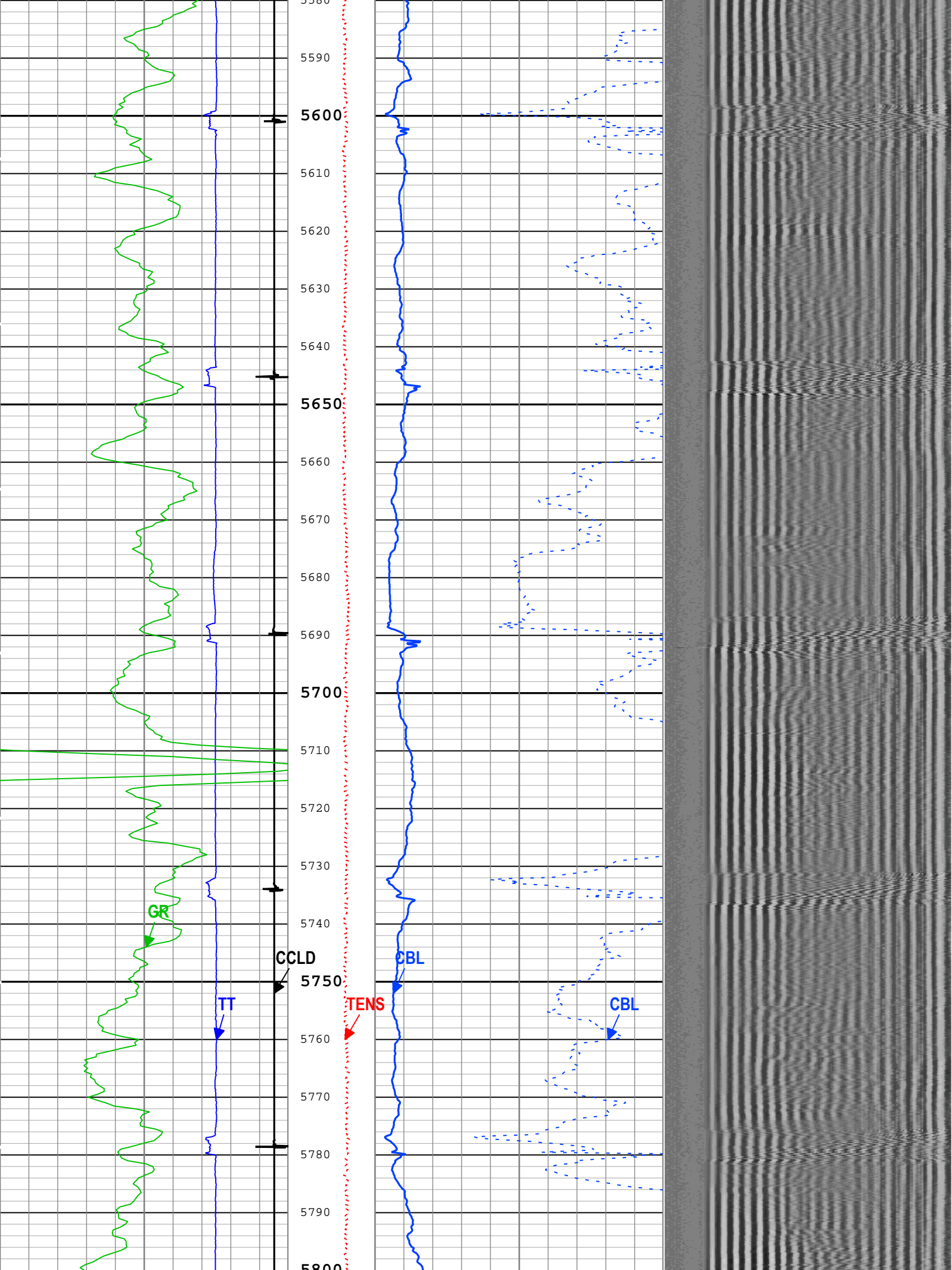


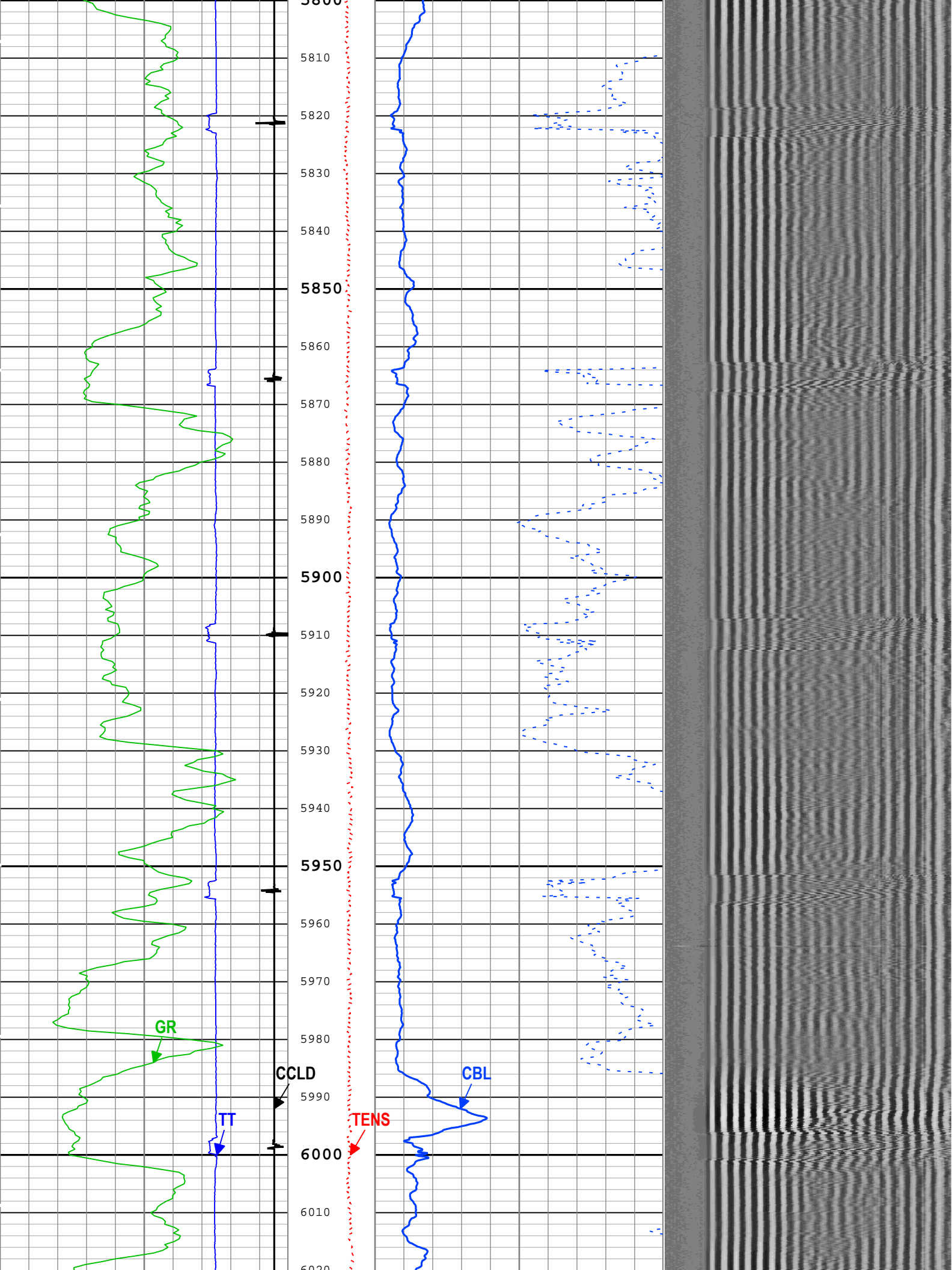


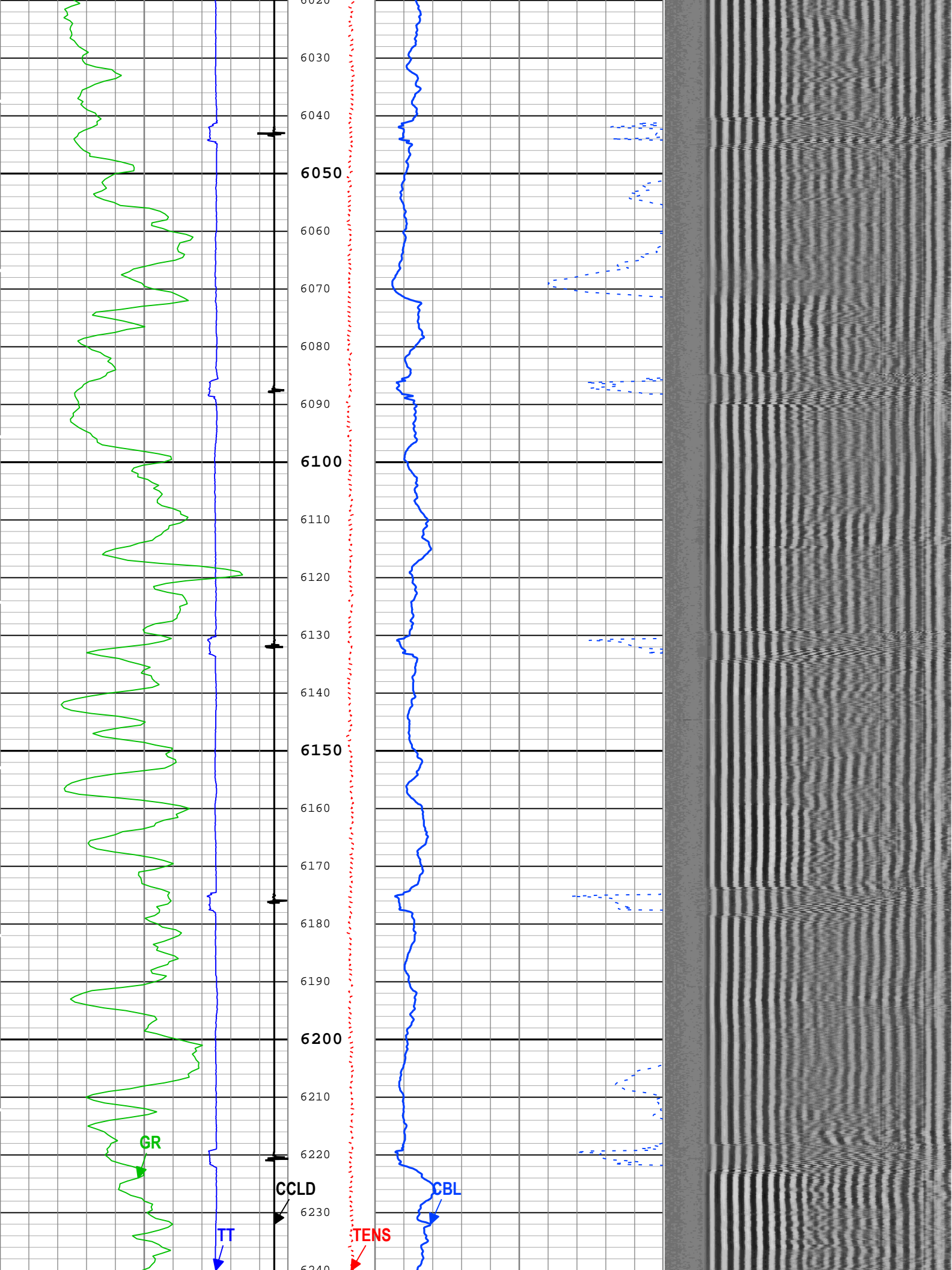


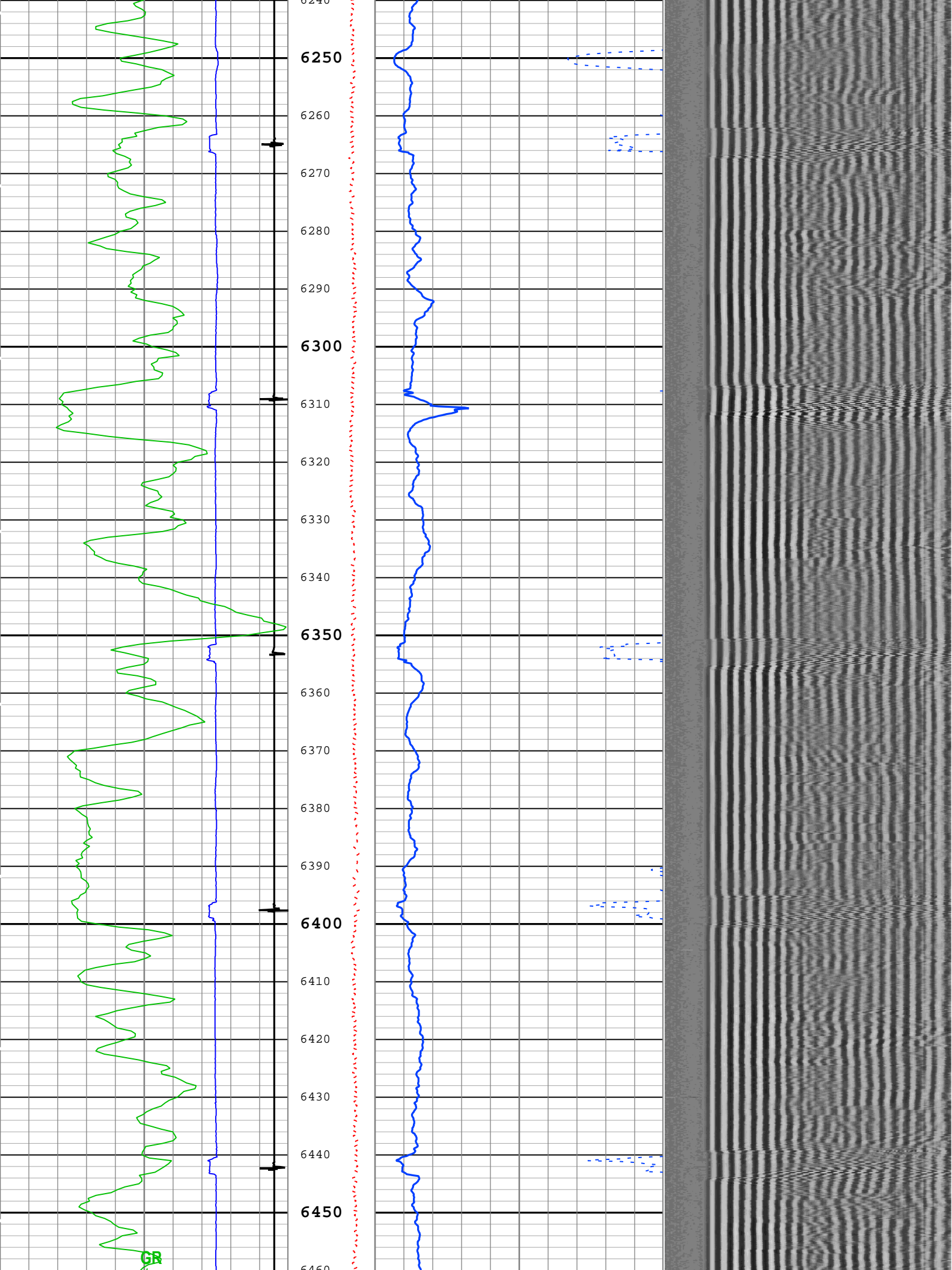


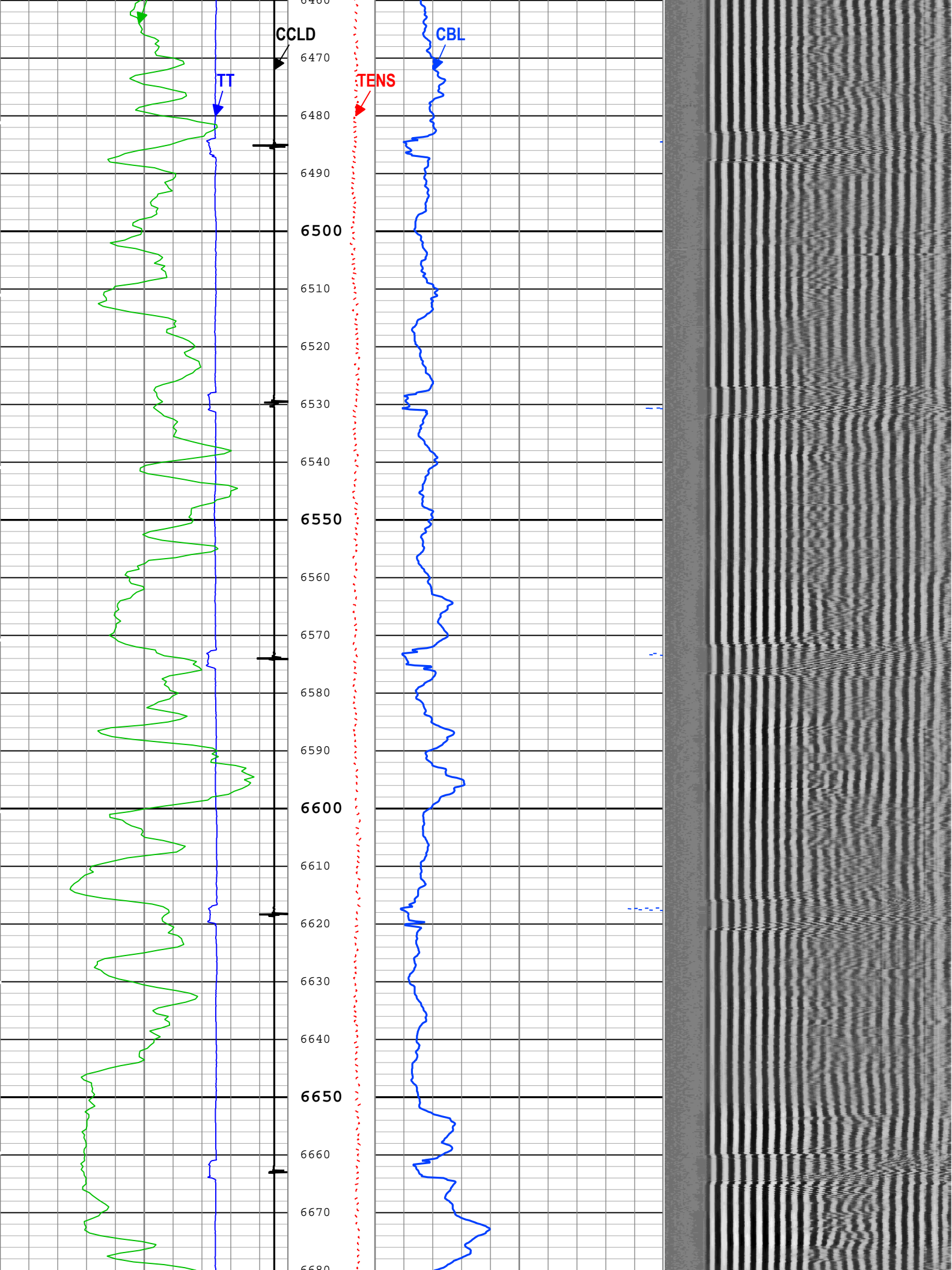


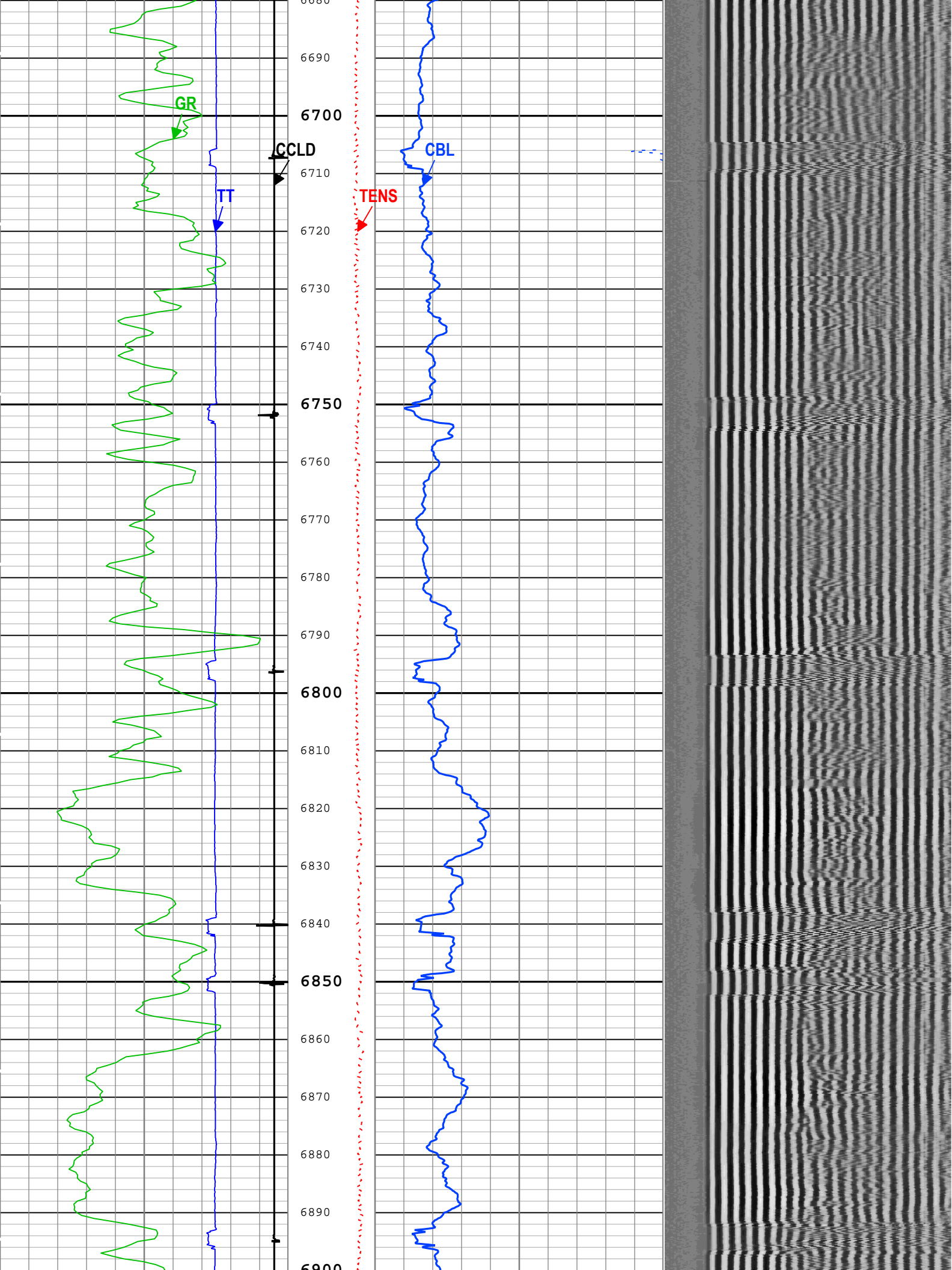


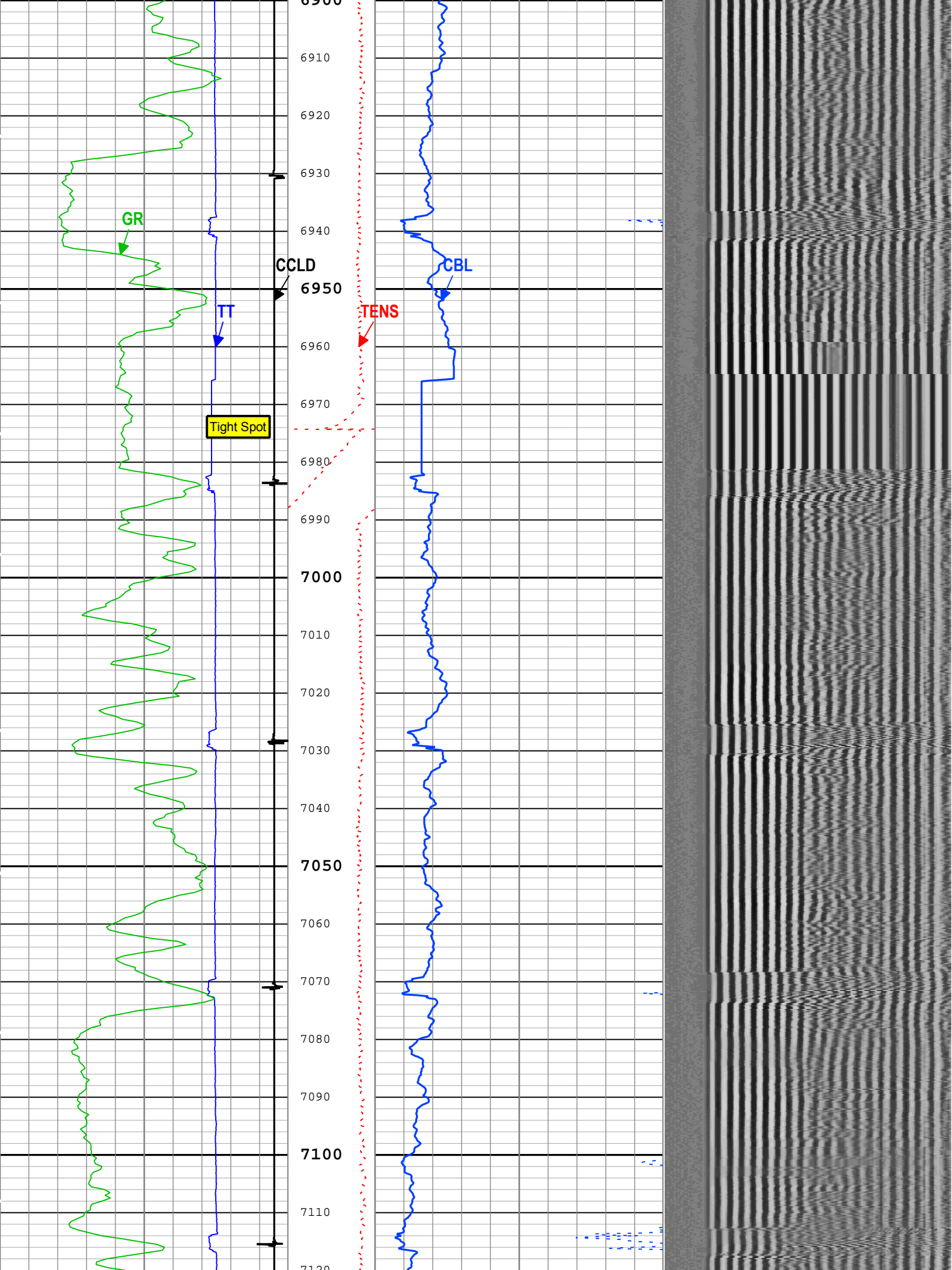


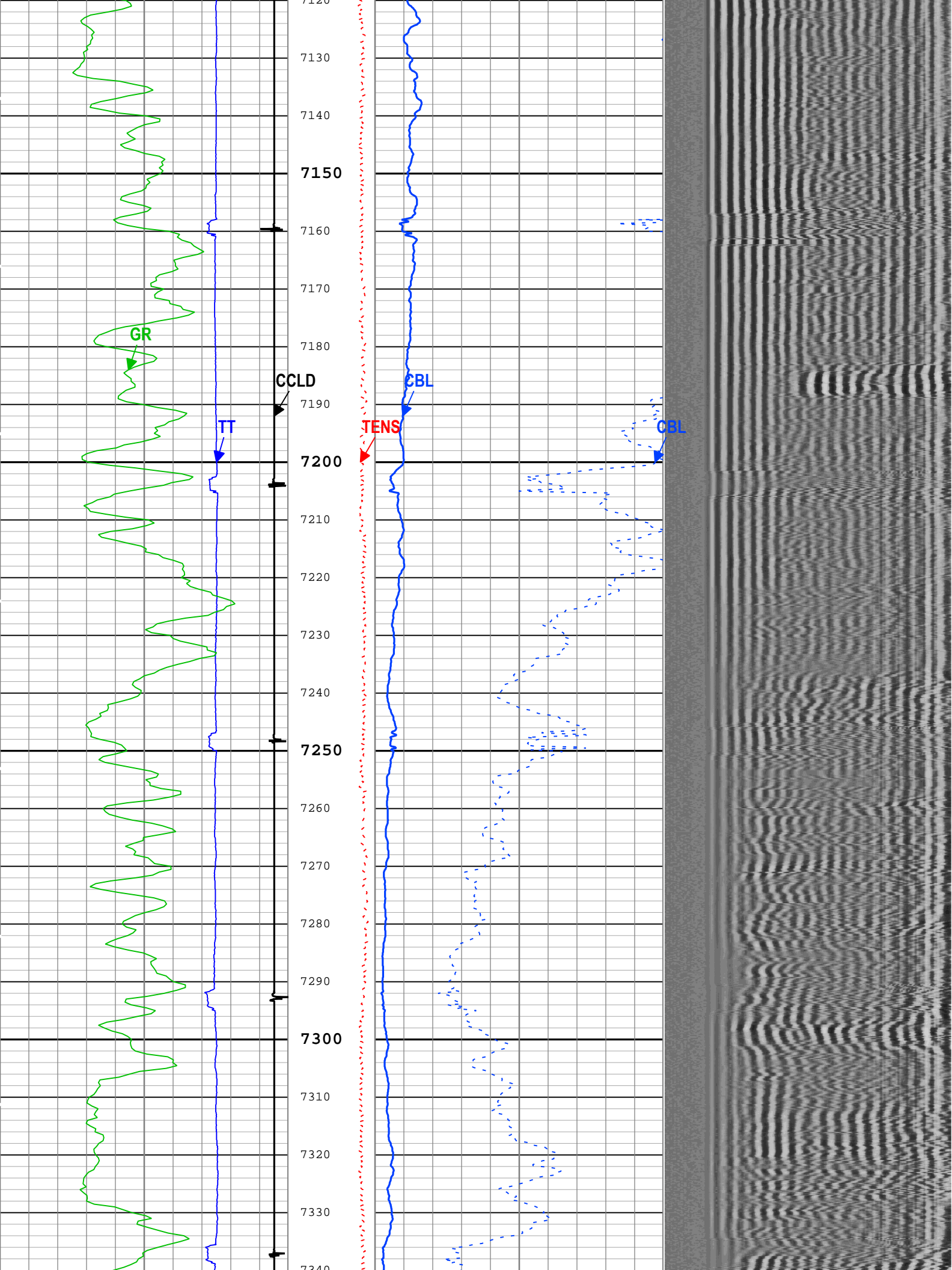


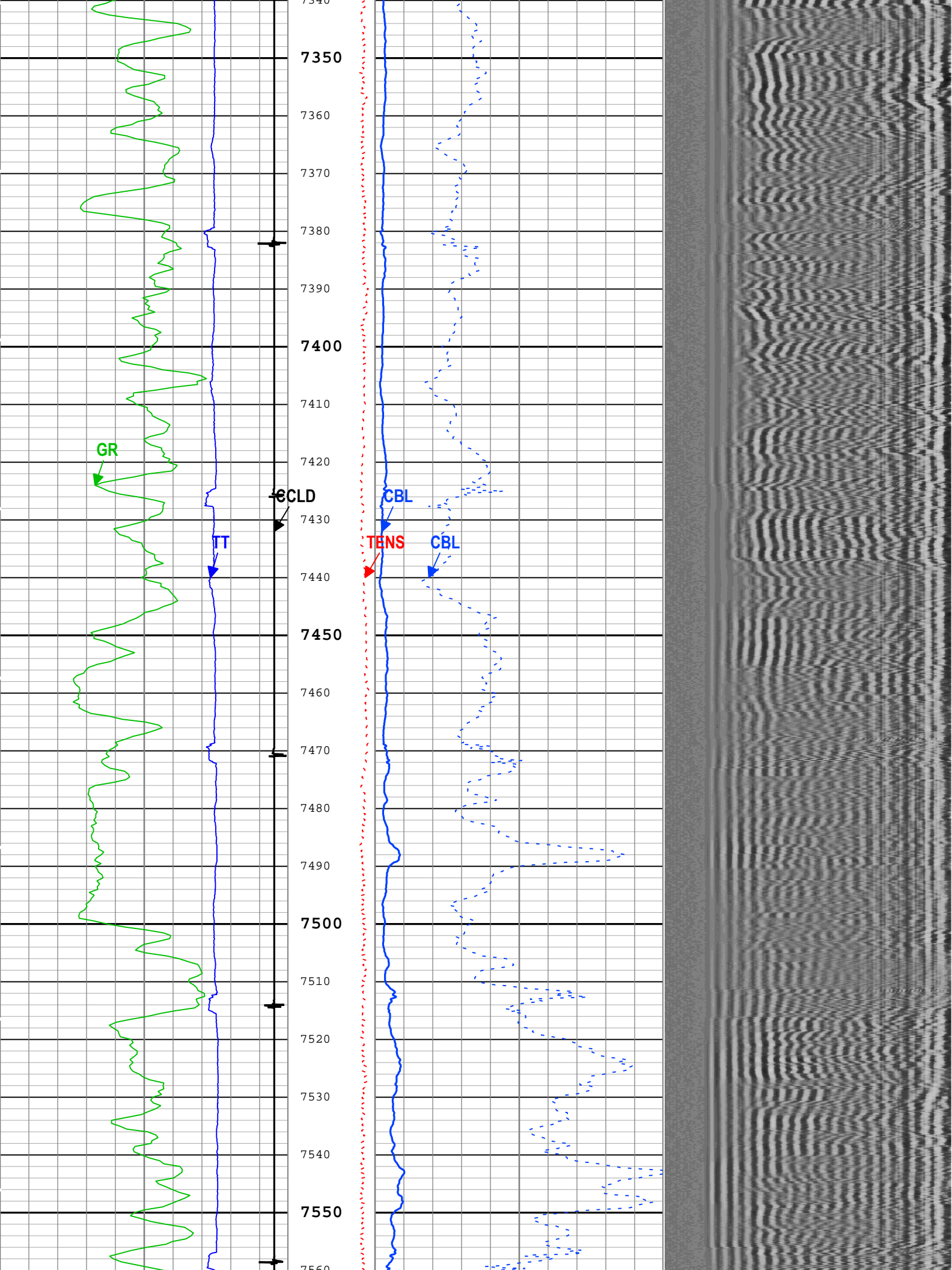


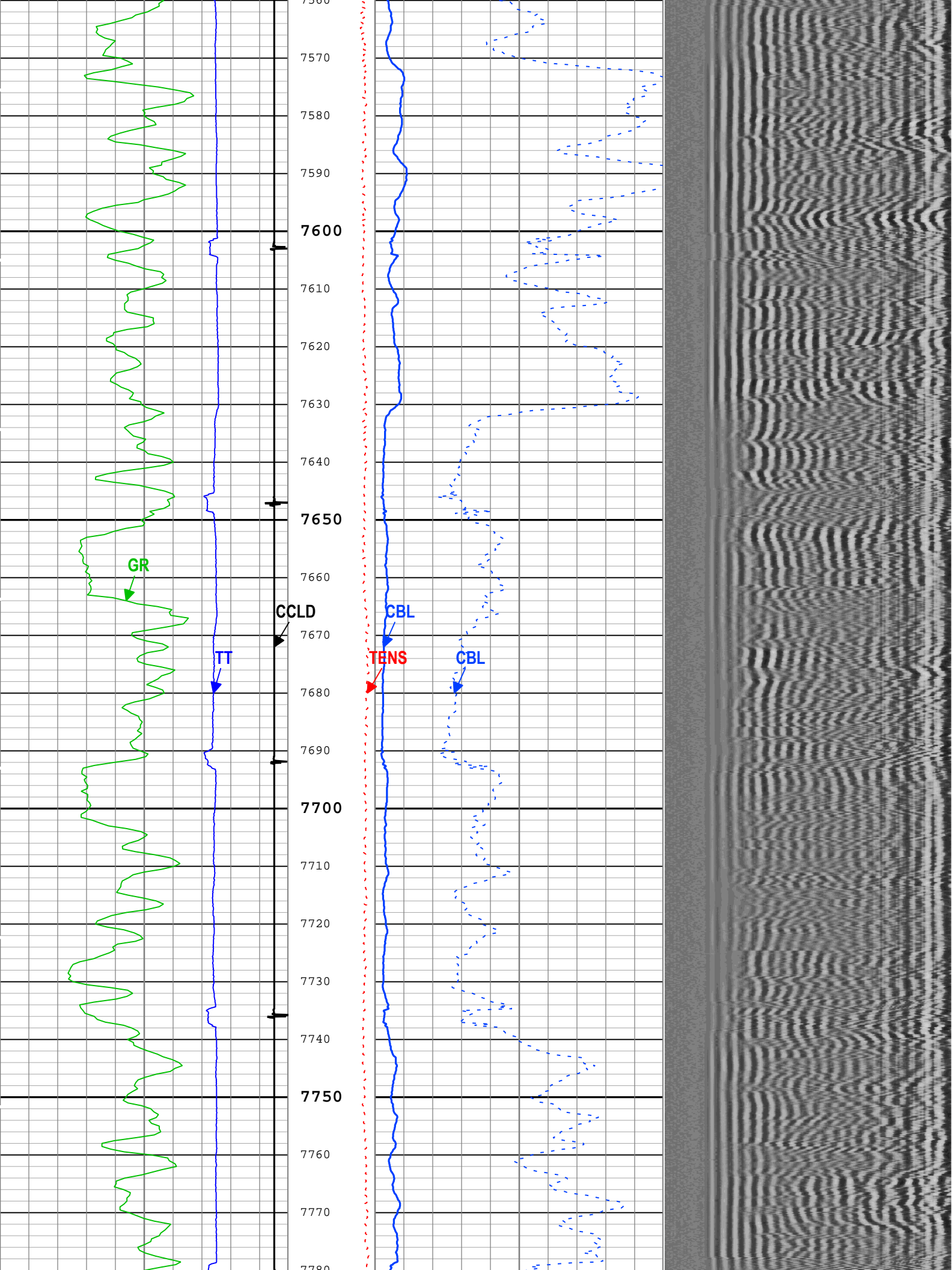


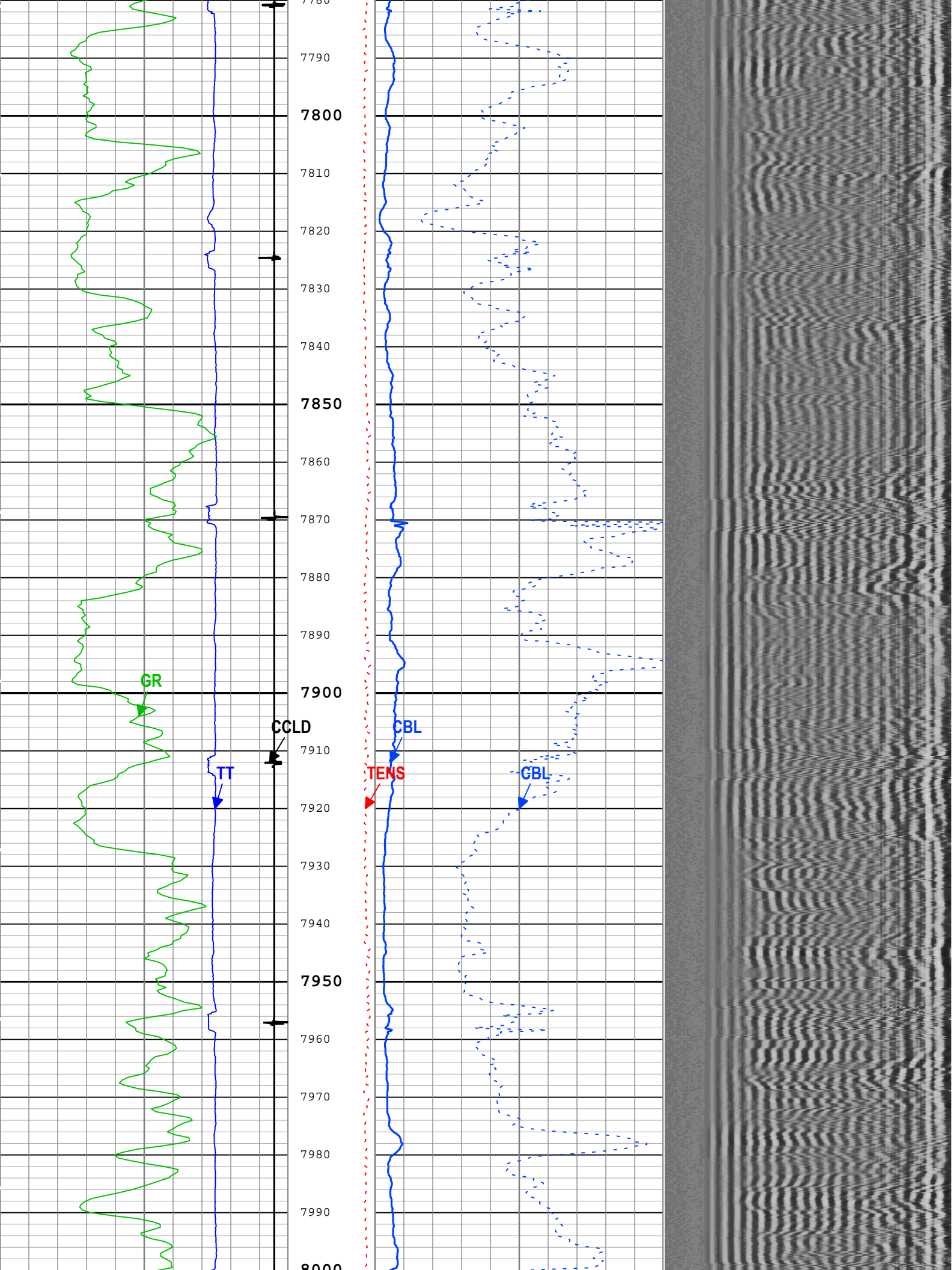


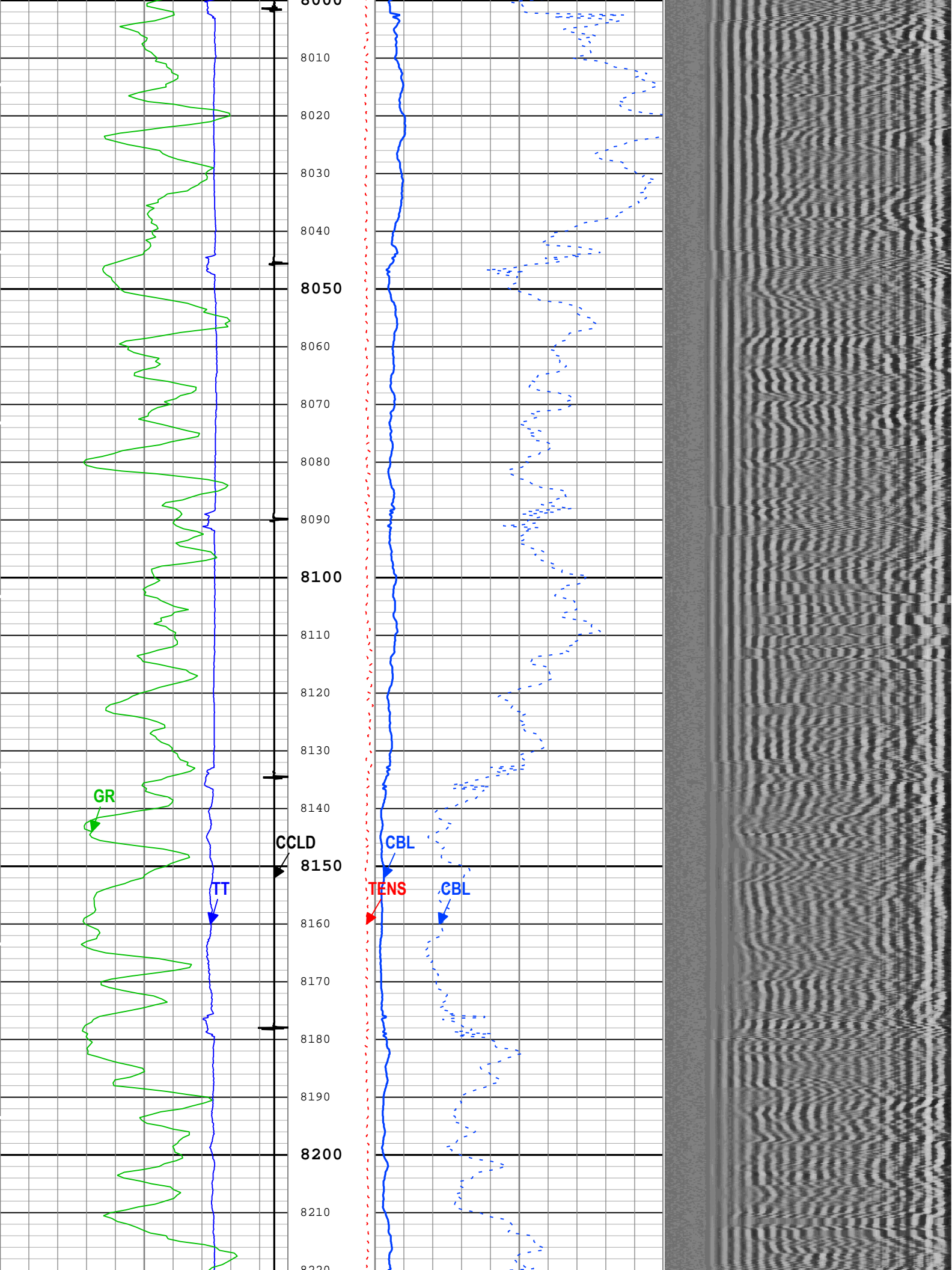


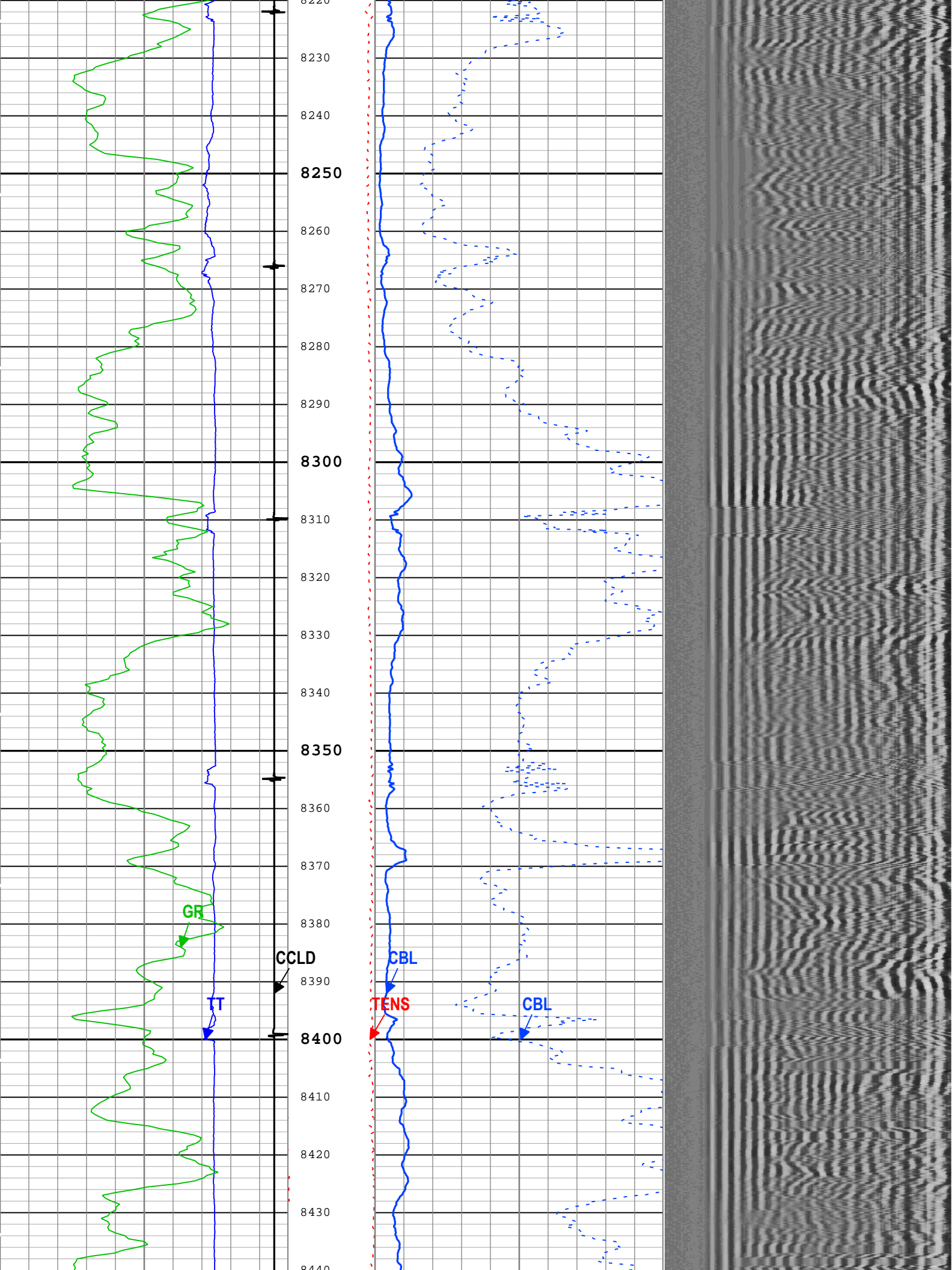


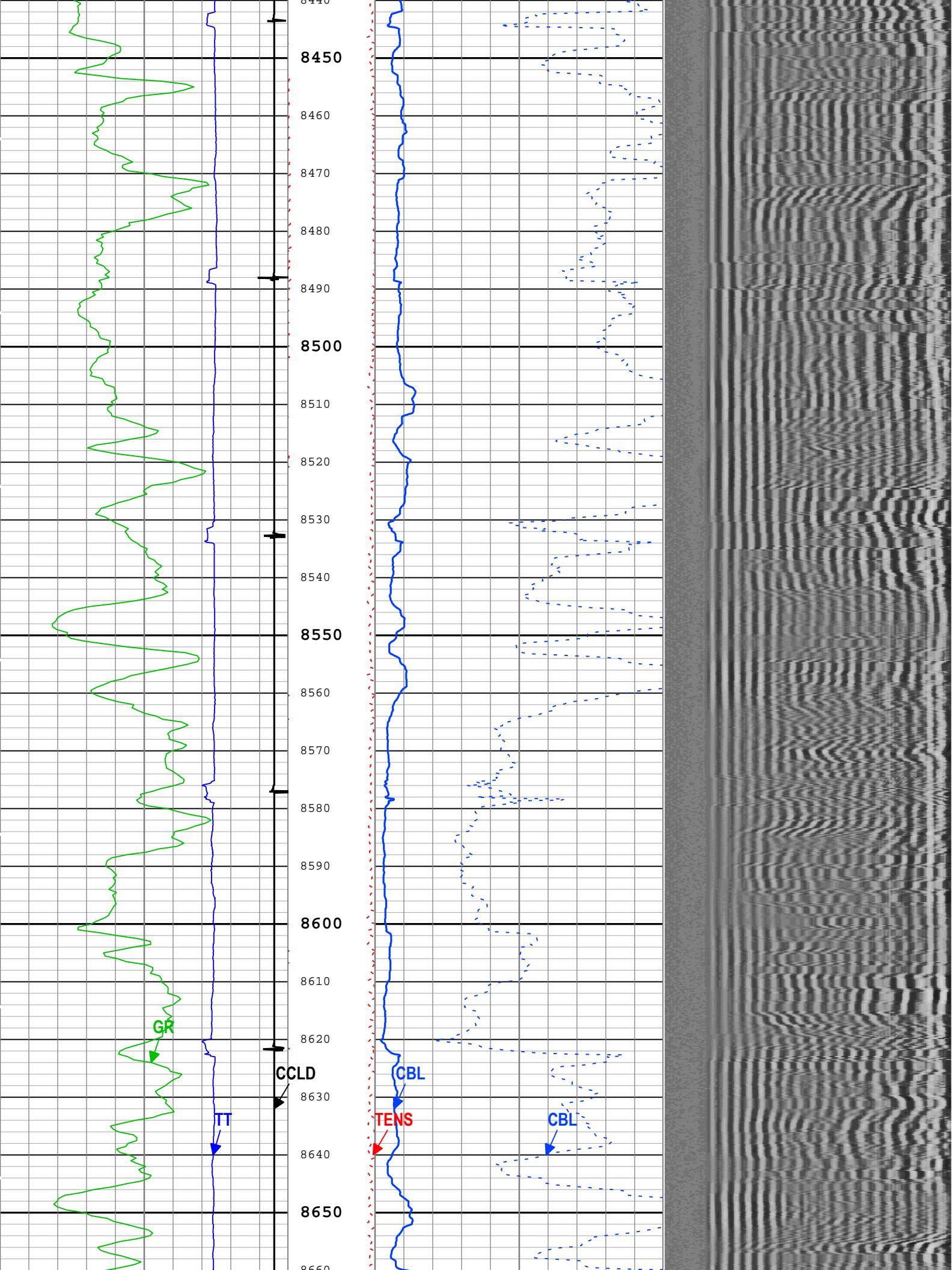


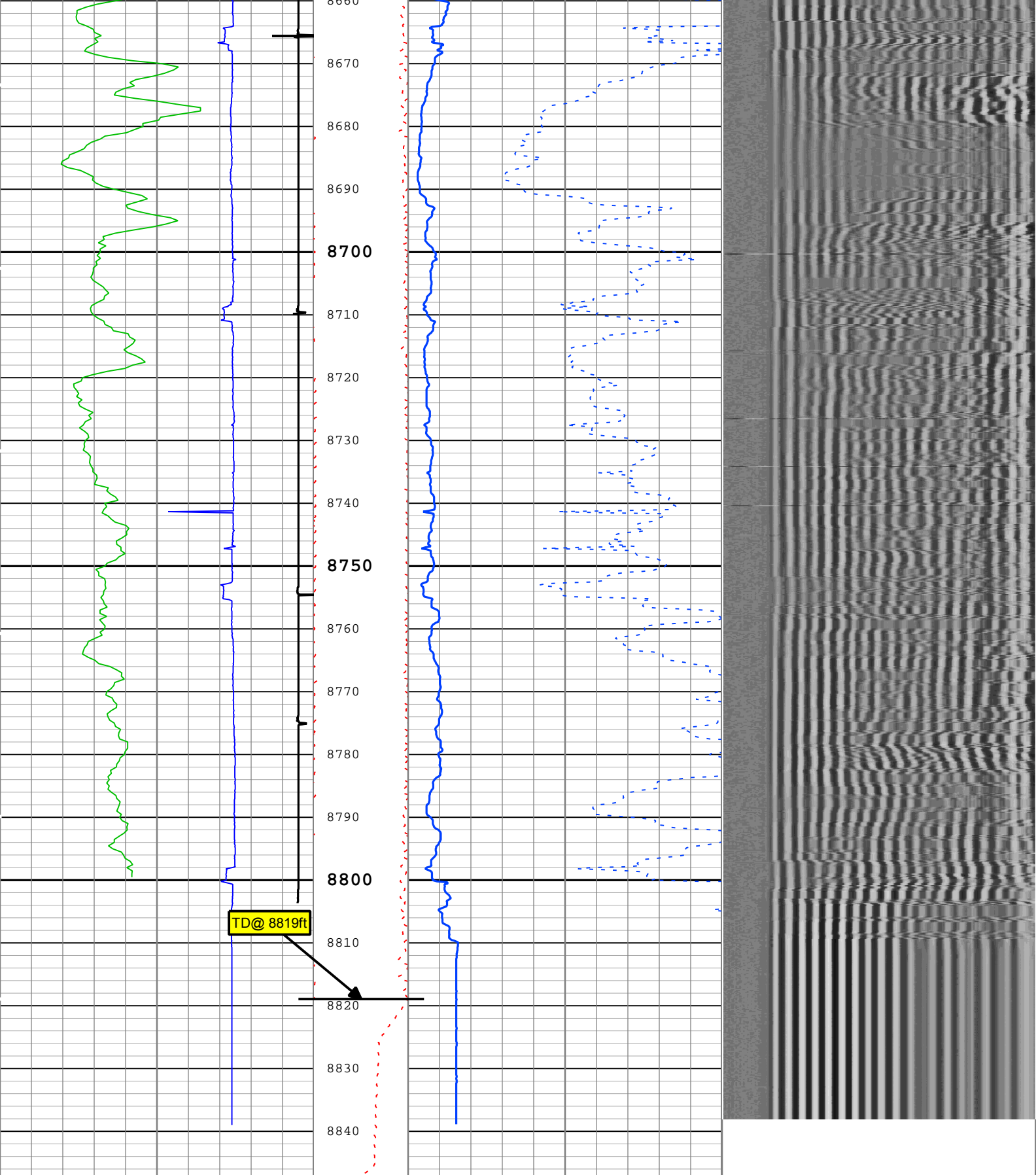












<u>Transit Time for CBL (TT) SCMT-CB</u> 400 us 200		Cable Tension (TENS) 0 lbf 1500	<u>CBL Amplitude (CBL) SCMT-CB</u> 0 mV 10		Min Amplitude Max VDL Variable Density (VDL) SCMT-CB 200 us 1200
CCL Discriminated Amplitude (CCLD) PSTP-A -19 V 1			<u>CBL Amplitude (CBL) SCMT-CB</u> 0 mV 100		
<u>Gamma Ray (GR) PSTP-A</u> 0 gAPI 150		-PIEP Bend Index Event Disc SCMT-CB			

TIME_1900 - Time Marked every 60.00 (s)

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: 10-May-2018 12:37:48

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
DFD	Drilling Fluid Density	Borehole	8.49	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	30	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8322	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	2300	2519
MCI	1.25	2519	8847.67

All depth are actual.

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	12 dB	

One

CBL-VDL Repeat Pass

Software Version

Acquisition System	Version
Maxwell 2018	8.0.95333.3100
Application Patch	Wireline_NPD-PNX-2018CMZ_8.0.97346

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[2]:Up	Up	8587.01 ft	8876.58 ft	10-May-2018 06:48:55	10-May-2018 06:59:43	ON	7.29 ft	Yes

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: 10-May-2018 12:37:58

■ BIEP - Bond Index Event Pips SCMT-CB

TIME_1900 - Time Marked every 60.00 (s)

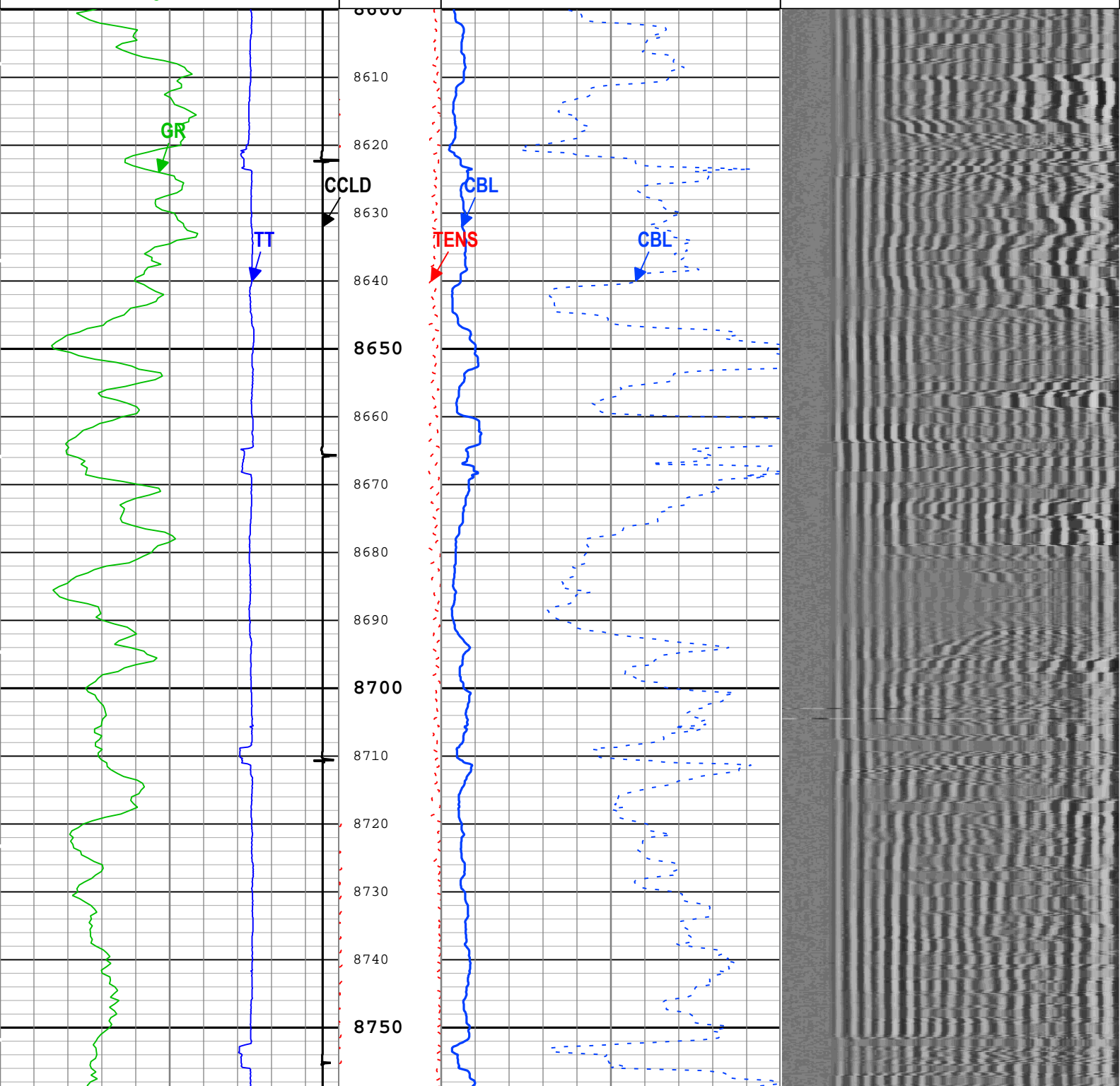
Transit Time for CBL (TT) SCMT-CB		
400	us	200

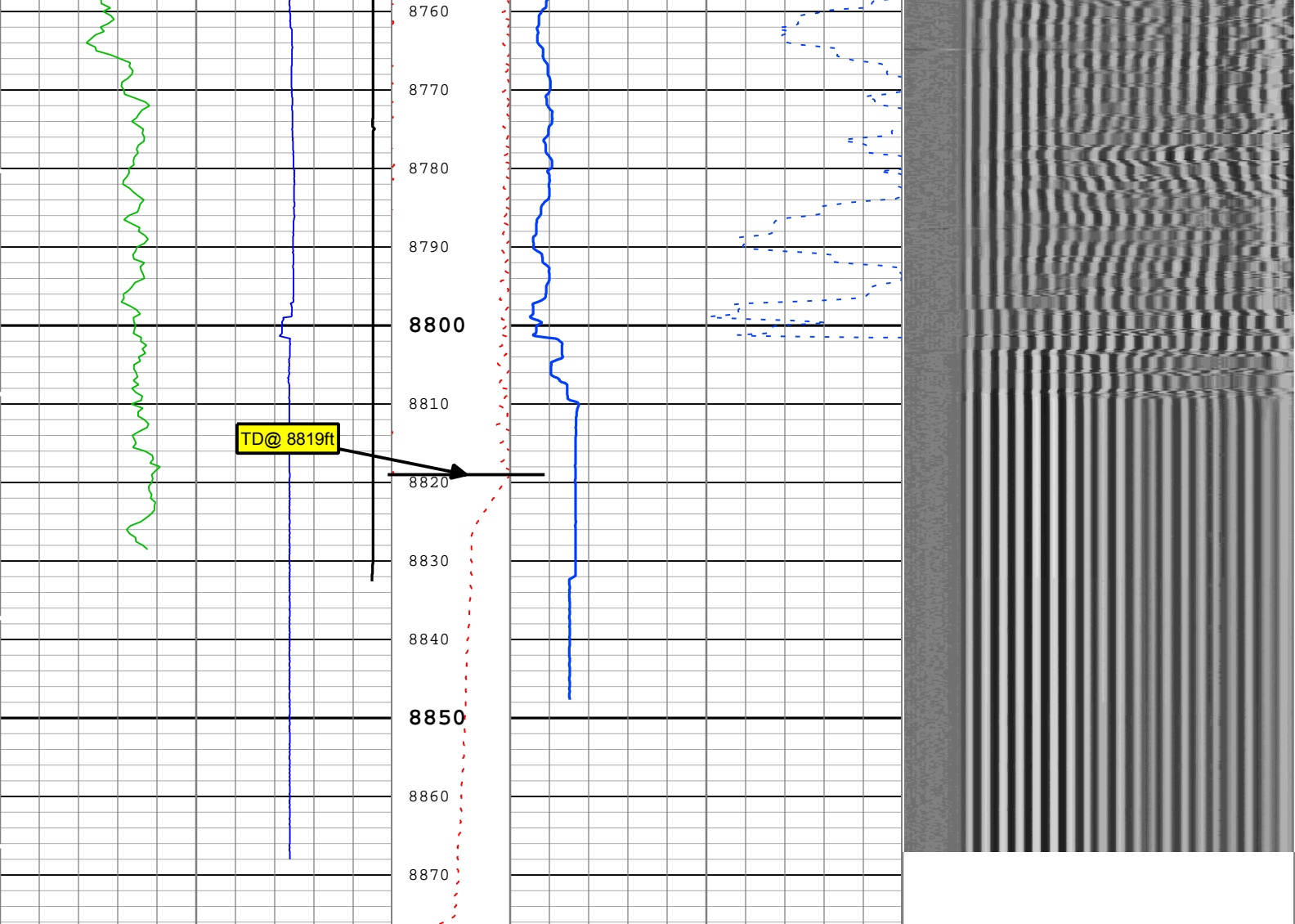
CCL Discriminated Amplitude (CCLD) PSTP-A		
-19	V	1

Gamma Ray (GR) PSTP-A		
0	gAPI	150

CBL Amplitude (CBL) SCMT-CB		
0	mV	10
CBL Amplitude (CBL) SCMT-CB		
0	mV	100

Min	Amplitude	Max
200	us	1200





Transit Time for CBL (TT) SCMT-CB		Cable Tension (TENS)	CBL Amplitude (CBL) SCMT-CB		Min	Amplitude	Max	
400	us		200	0	mV	10		
CCL Discriminated Amplitude (CCLD) PSTP-A		0 lbf 1500	CBL Amplitude (CBL) SCMT-CB		200	VDL Variable Density (VDL) SCMT-CB	1200	
-19	V		1	0	mV	100		
Gamma Ray (GR) PSTP-A								
0	gAPI							150

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: 10-May-2018 12:37:58

Channel Processing Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
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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	Depth Zoned	mV
DFD	Drilling Fluid Density	Borehole	8.49	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	30	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8322	ft
GGPD	Geothermal Gradient	Borehole	1	0.01 degF/ft

GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	Depth Zoned	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST(RT)	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	Depth Zoned	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	Depth Zoned	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	Depth Zoned	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)
CBRA	80	8600	8848
CBRA	0	8848	8876.58
GOBO_CURR	1.4	8600	8848
GOBO_CURR	0	8848	8876.58
MATT_CURR	16.92	8600	8848
MATT_CURR	0	8848	8876.58
MCI	1.25	8600	8848
MCI	0	8848	8876.58
MSA	0.51	8600	8848
MSA	0	8848	8876.58
MSA_CURR	0.51	8600	8848
MSA_CURR	0	8848	8876.58

All depth are actual.

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	Time Zoned	

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
PCCG	0 dB	10-May-2018 06:48:55	10-May-2018 06:53:02	8876.58	8779.24
PCCG	12 dB	10-May-2018 06:53:02	10-May-2018 06:59:43	8779.24	8587.01

All depth are at tool zero.

One

CBL-VDL Free pipe

Software Version

Acquisition System	Version
Maxwell 2018	8.0.95333.3100
Application Patch	Wireline_NPD-PNX-2018CMZ_8.0.97346

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[8]:Up	Up	49.78 ft	1278.48 ft	10-May-2018 11:35:19	10-May-2018 11:54:01	ON	8.59 ft	Yes

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: 10-May-2018 12:38:01

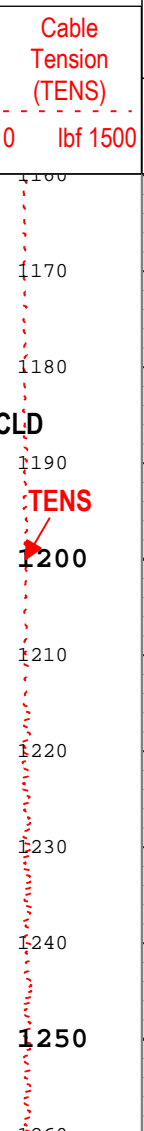
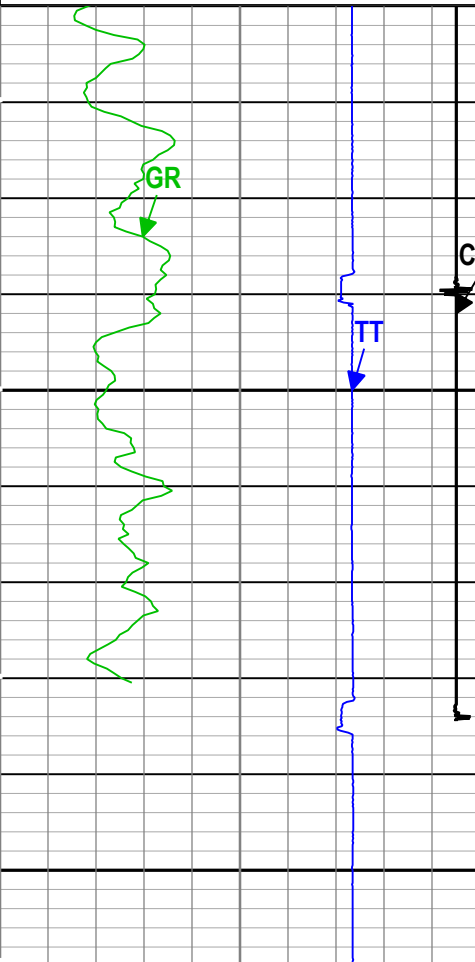
TIME_1900 - Time Marked every 60.00 (s)

BIEP - Bond Index Event Pips SCMT-CB

Transit Time for CBL (TT) SCMT-CB		
400	us	200

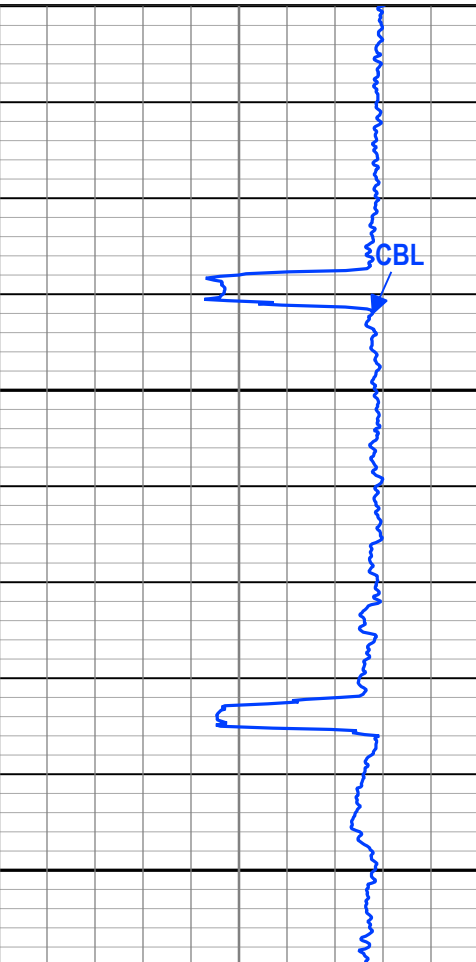
CCL Discriminated Amplitude (CCLD) PSTP-A		
-19	V	1

Gamma Ray (GR) PSTP-A		
0	gAPI	150



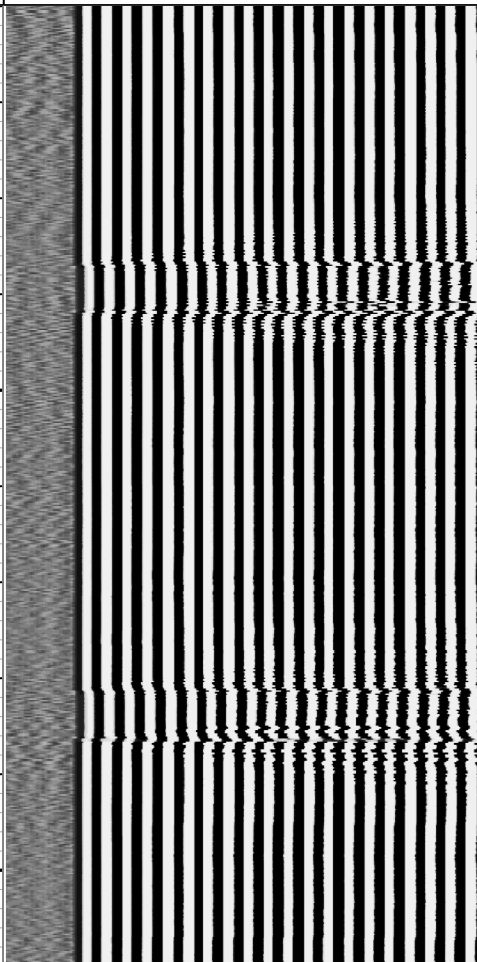
CBL Amplitude (CBL) SCMT-CB		
0	mV	10

CBL Amplitude (CBL) SCMT-CB		
0	mV	100



Min	Amplitude	Max
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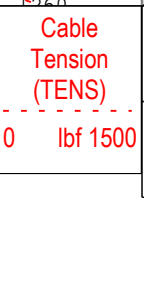
VDL VariableDensity (VDL) SCMT-CB		
200	us	1200



Transit Time for CBL (TT) SCMT-CB		
400	us	200

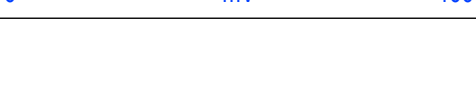
CCL Discriminated Amplitude (CCLD) PSTP-A		
-19	V	1

Gamma Ray (GR) PSTP-A		
0	gAPI	150



CBL Amplitude (CBL) SCMT-CB		
0	mV	10

CBL Amplitude (CBL) SCMT-CB		
0	mV	100



Min	Amplitude	Max
-----	-----------	-----

VDL VariableDensity (VDL) SCMT-CB		
200	us	1200



BIEP - Bond Index Event Pips SCMT-CB

TIME_1900 - Time Marked every 60.00 (s)

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: 10-May-2018 12:38:01

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
DFD	Drilling Fluid Density	Borehole	8.49	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	30	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8322	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	14.81	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

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	12 dB	

One

RST Main pass

Software Version

Acquisition System	Version
Maxwell 2018	8.0.95333.3100
Application Patch	Wireline_NPD-PNX-2018CMZ_8.0.97346

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	2193.90 ft	8847.63 ft	10-May-2018 07:07:49	10-May-2018 10:57:17	ON	0.00 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Caerus Operating LLC Well:Puckett 12B-26-697

One: Log[3]:Up:S015

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: 10-May-2018 12:38:03

—|IHV - Integrated Hole Volume every 10.00 (ft3)

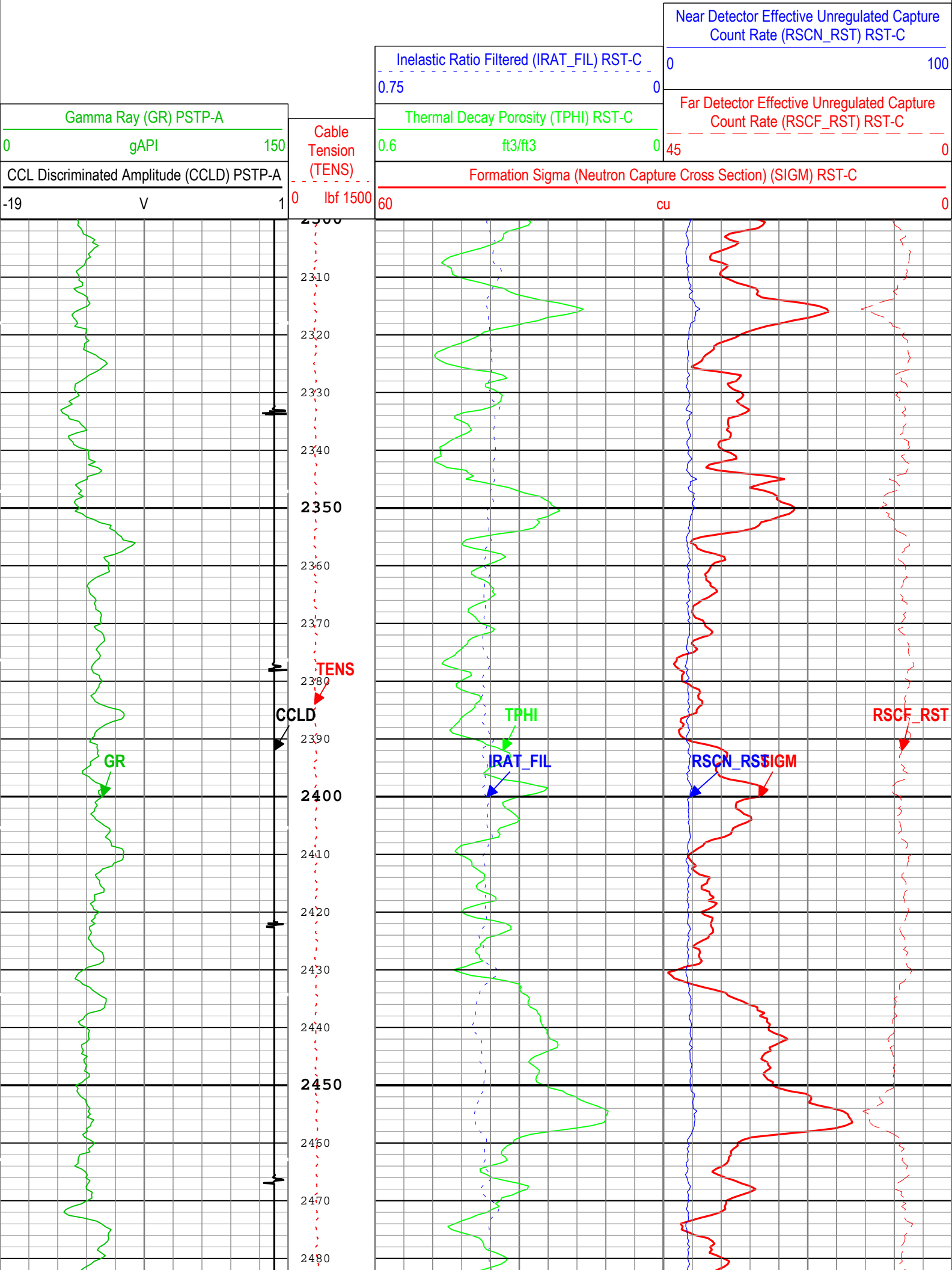
—|IHV - Integrated Hole Volume every 100.00 (ft3)

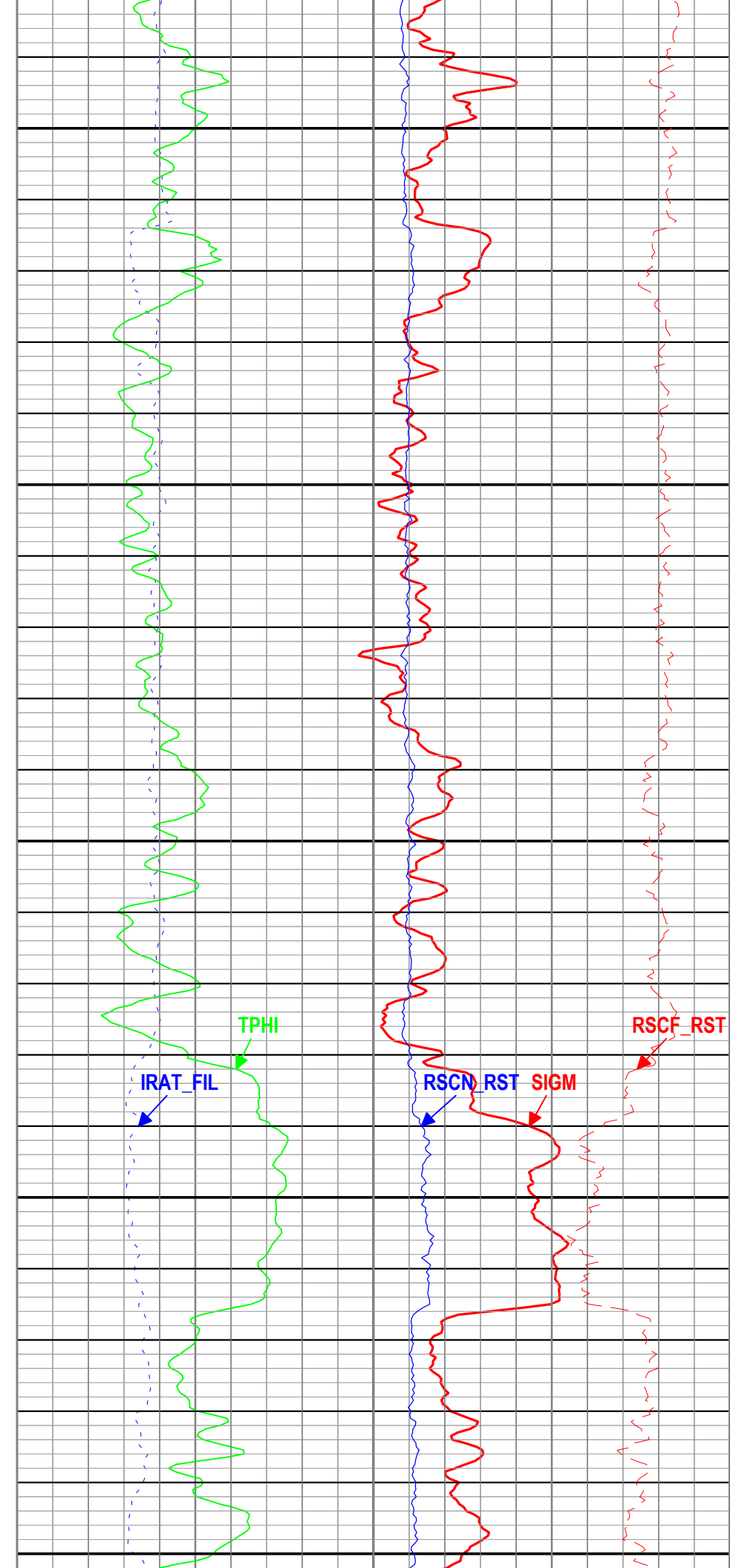
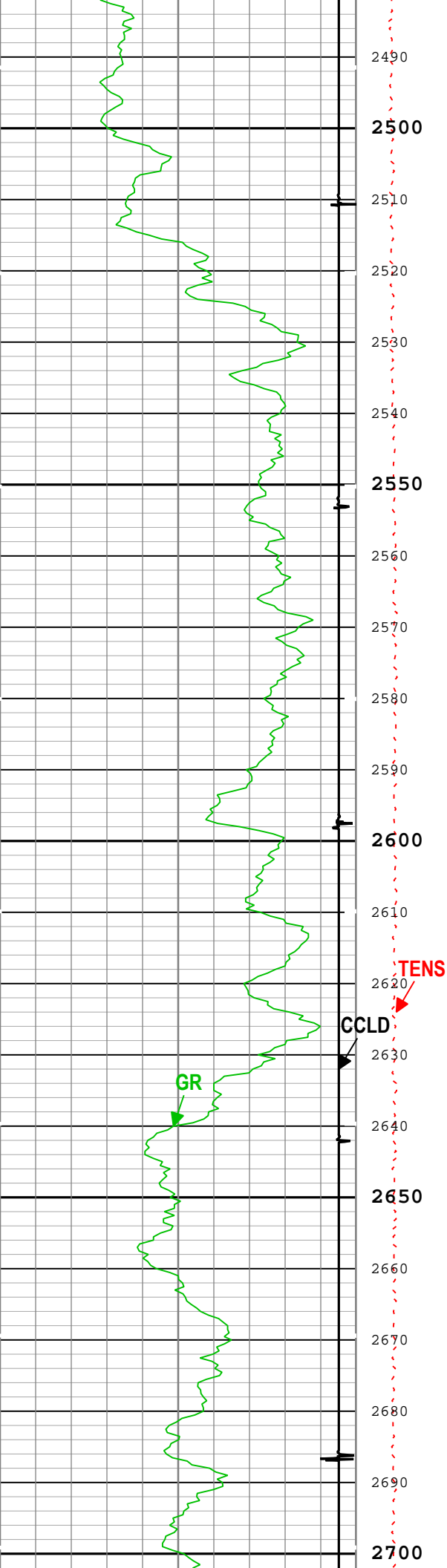
—|ICV - Integrated Cement Volume every 10.00 (ft3)

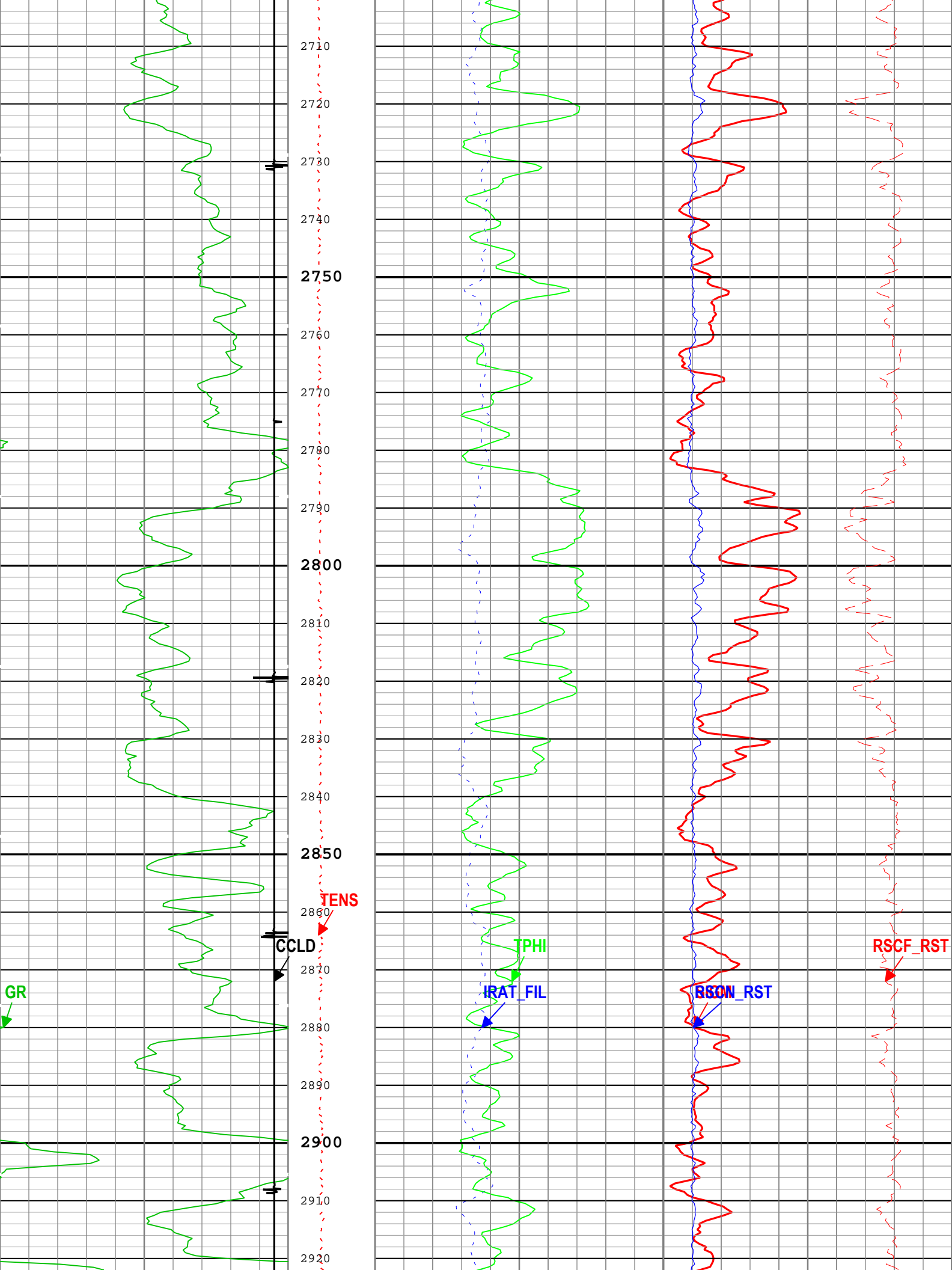
—|TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

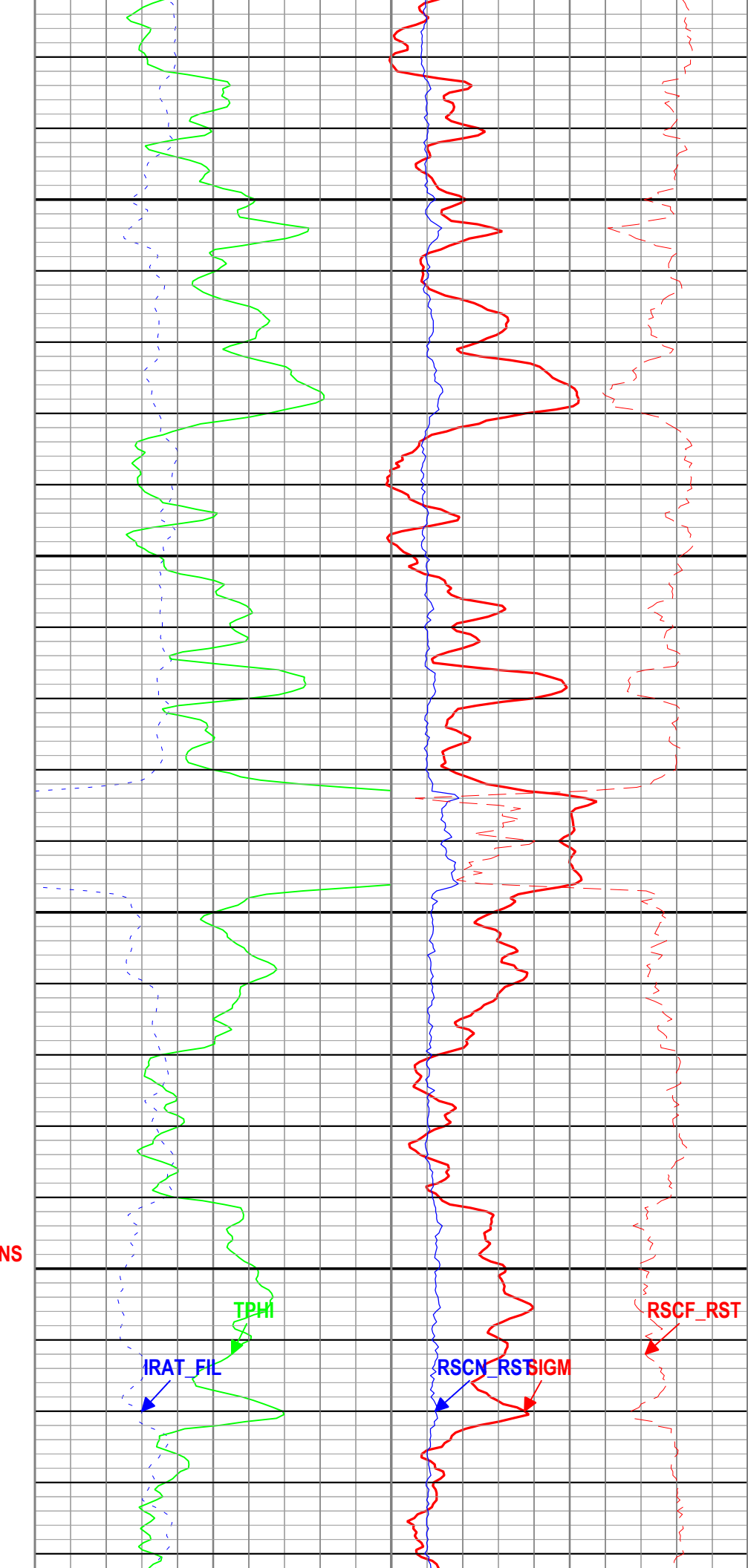
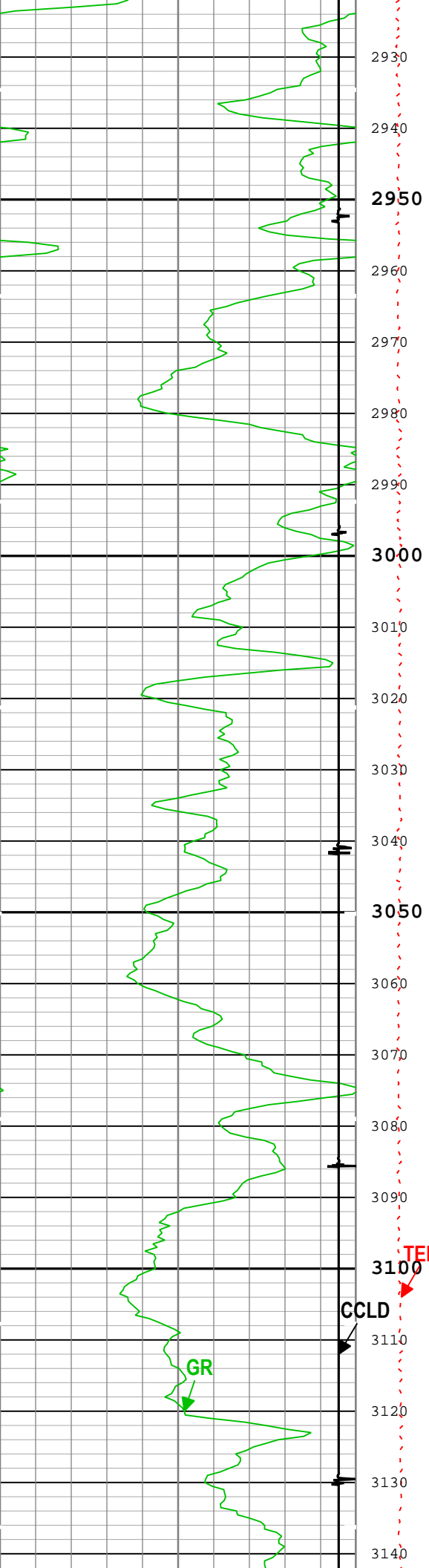
—|ICV - Integrated Cement Volume every 100.00 (ft3)

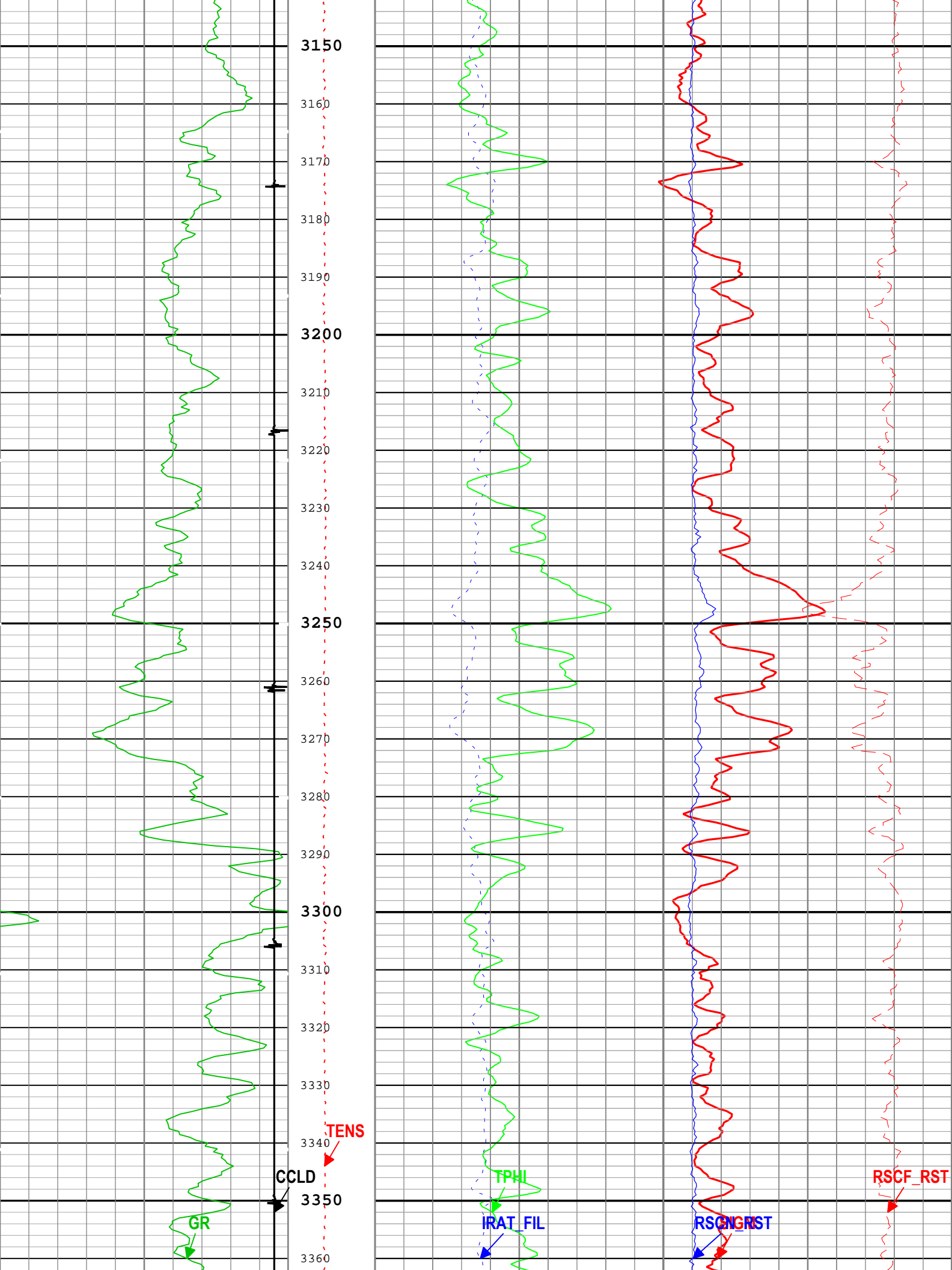
TIME_1900 - Time Marked every 60.00 (s)

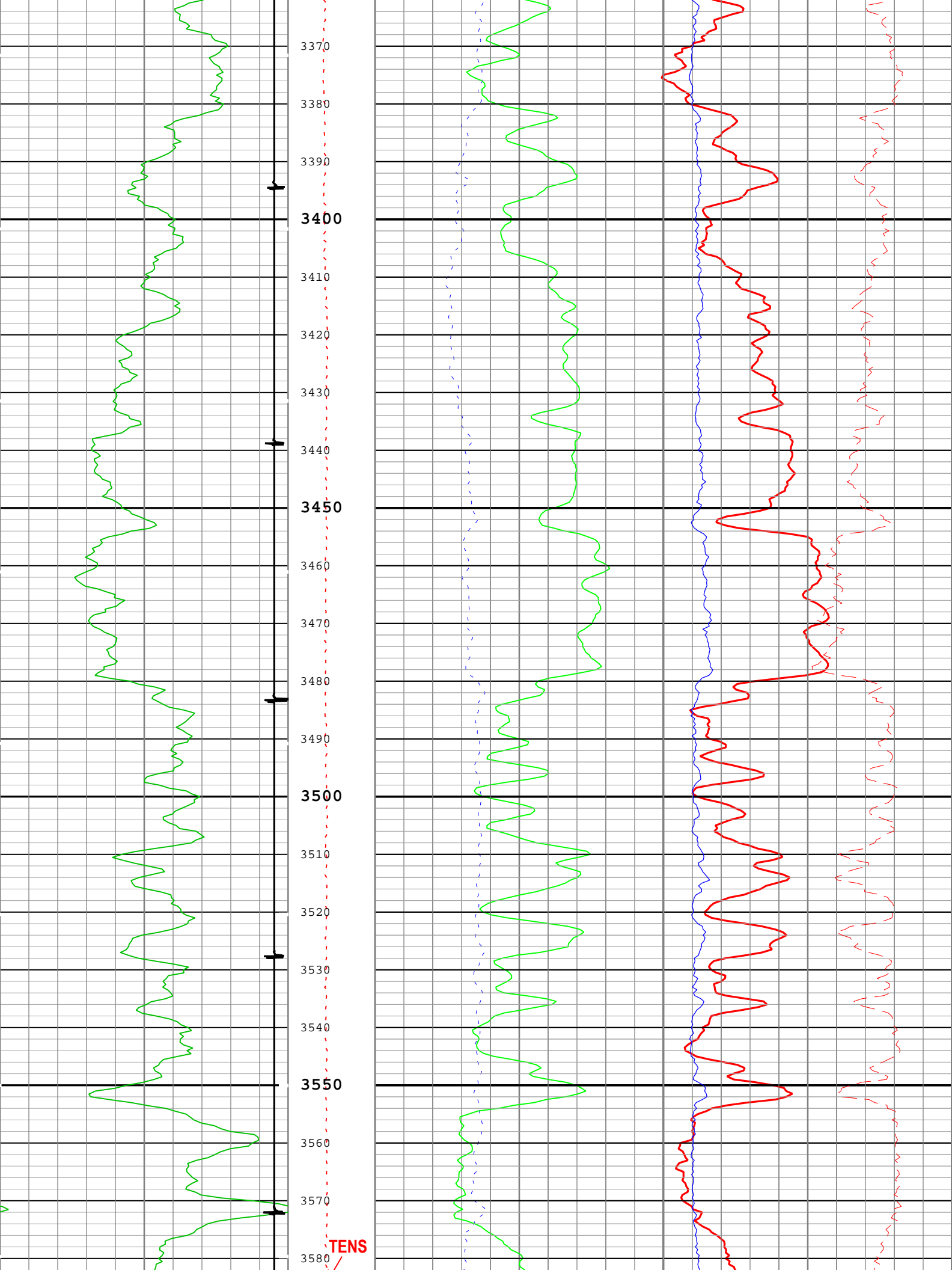


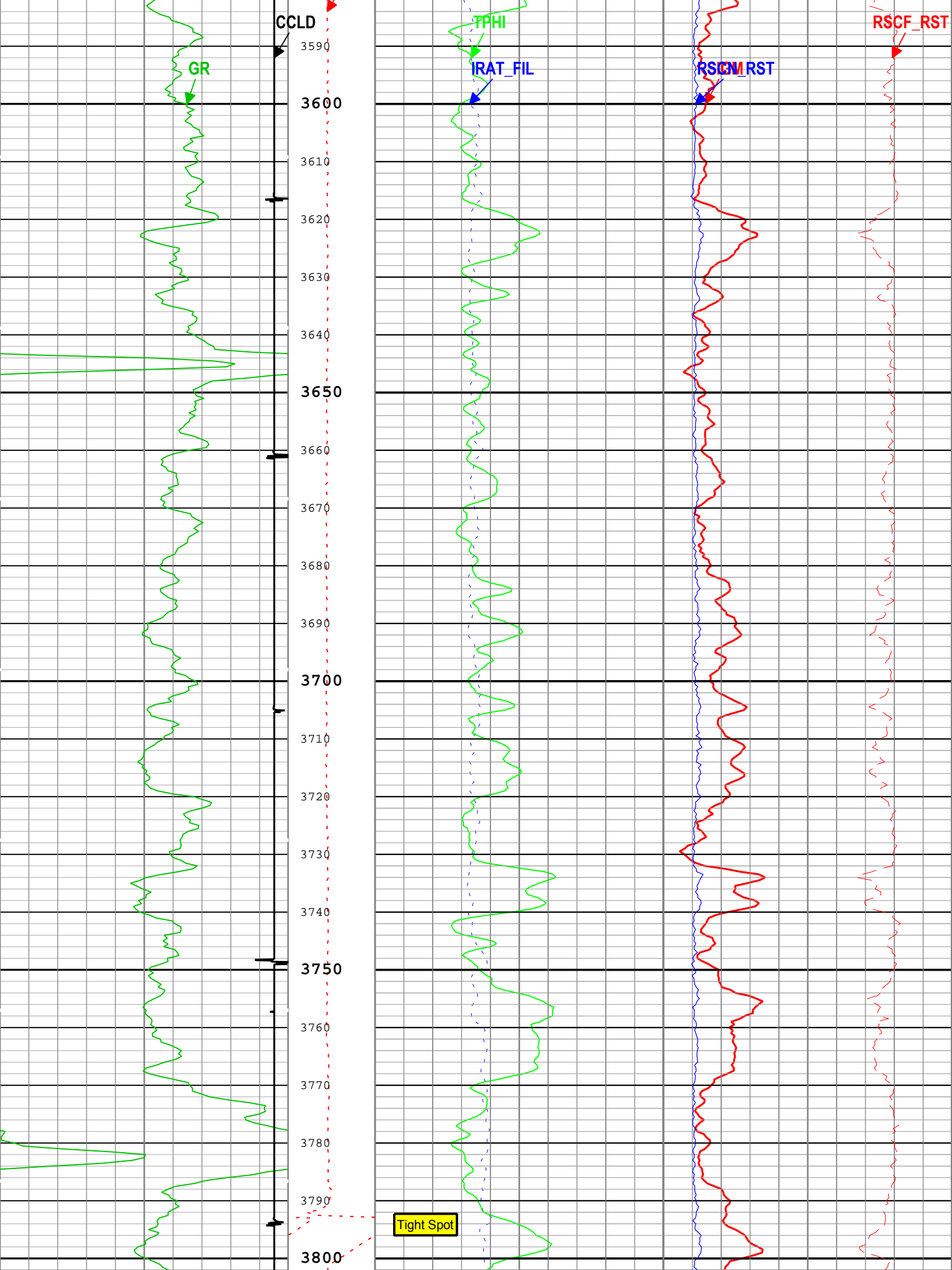


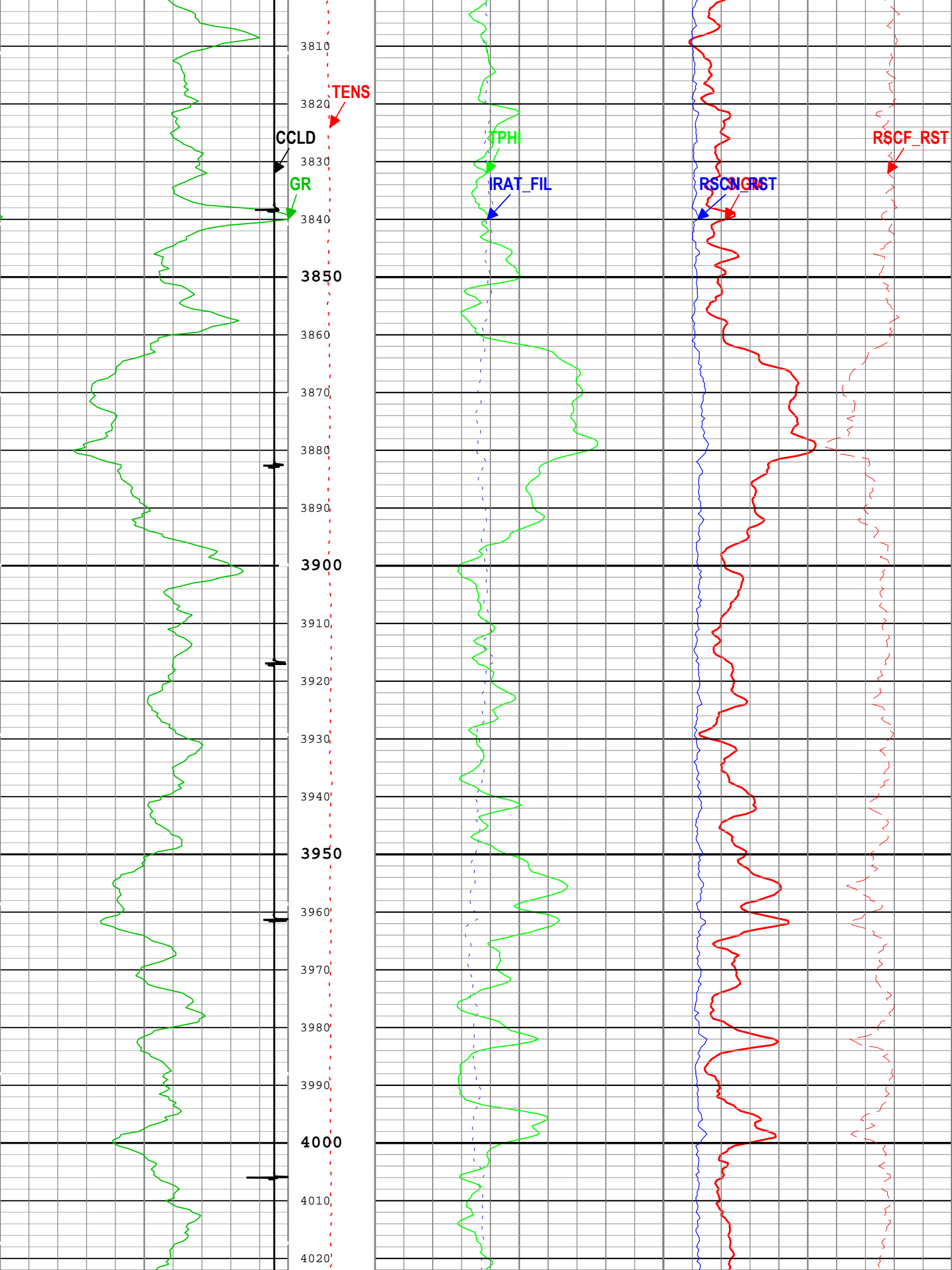


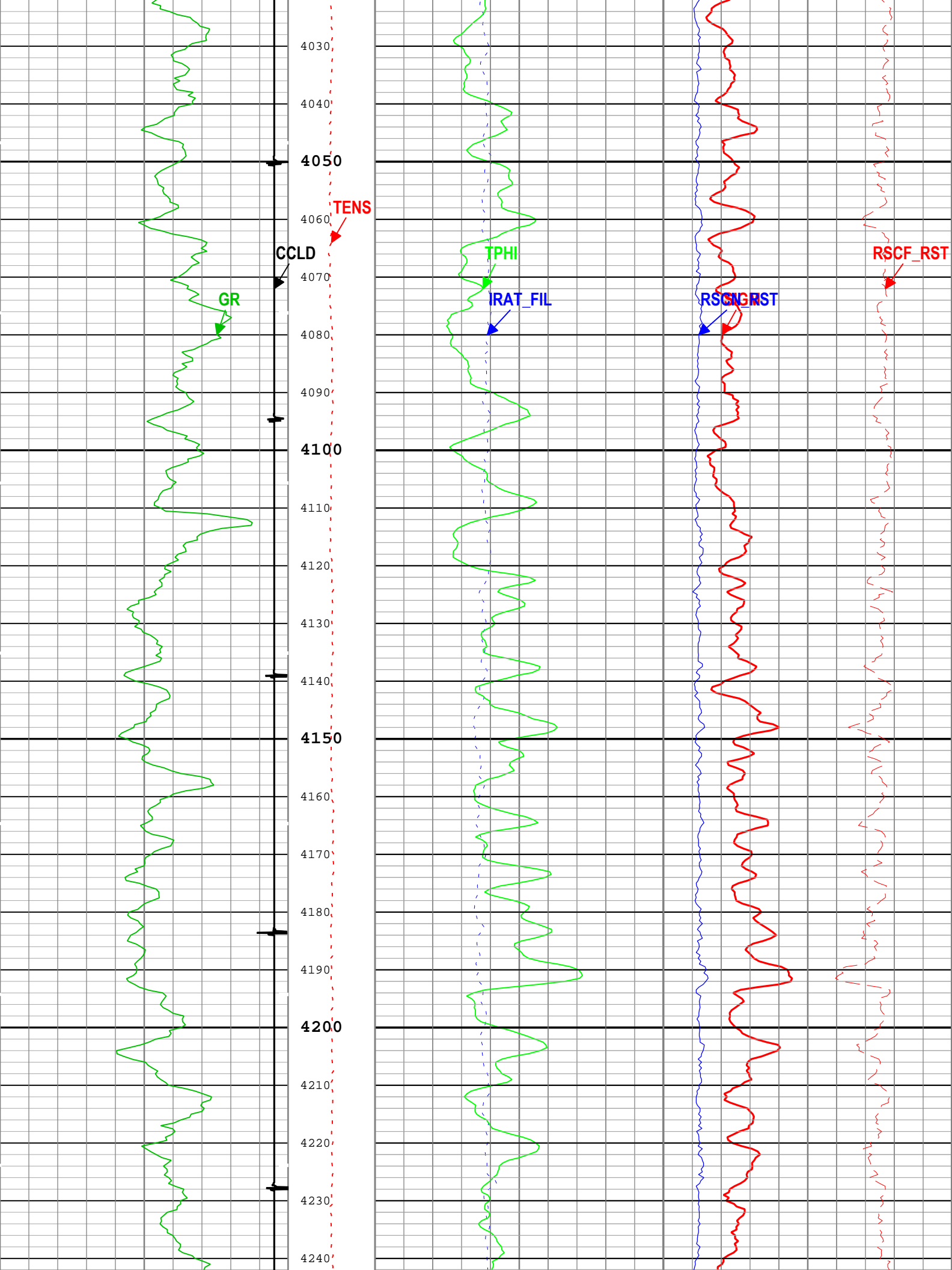


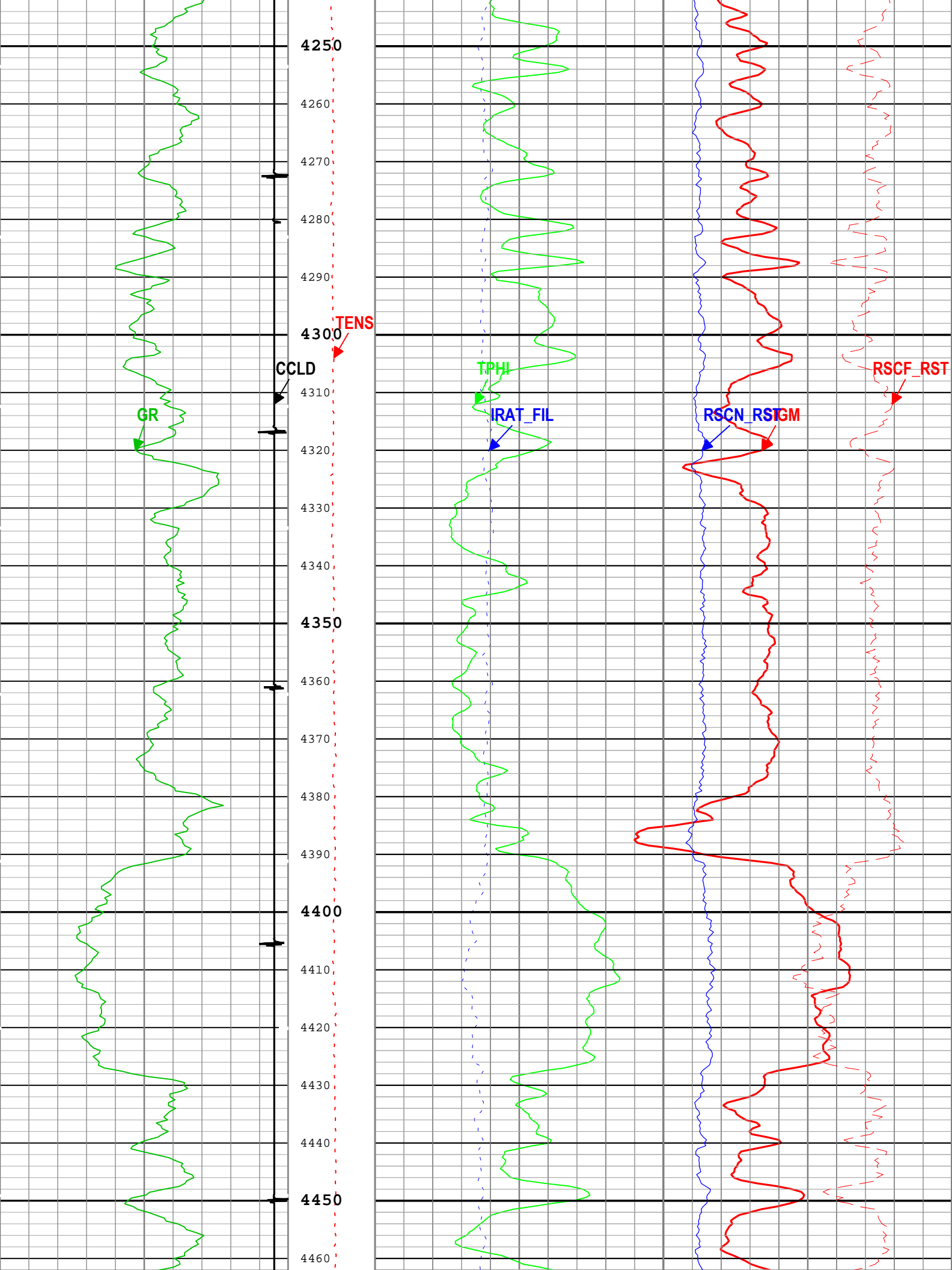


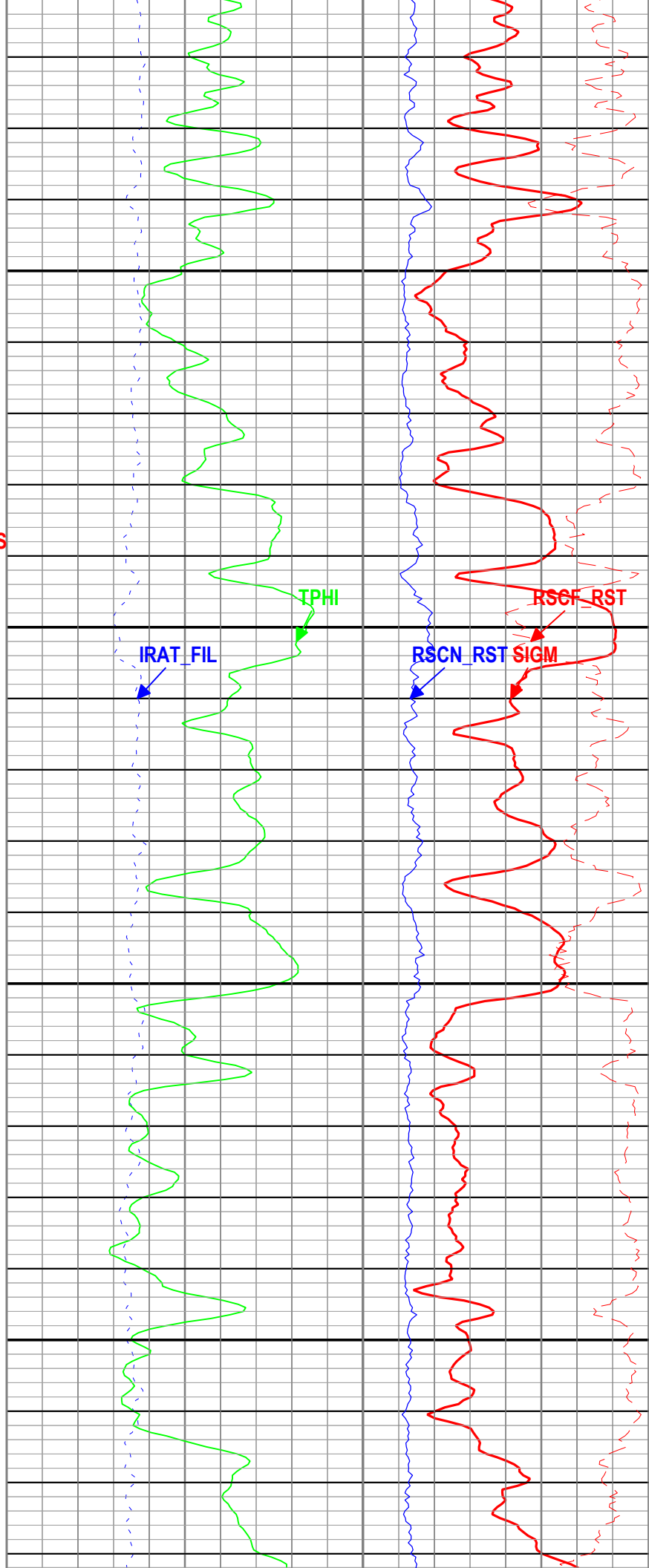
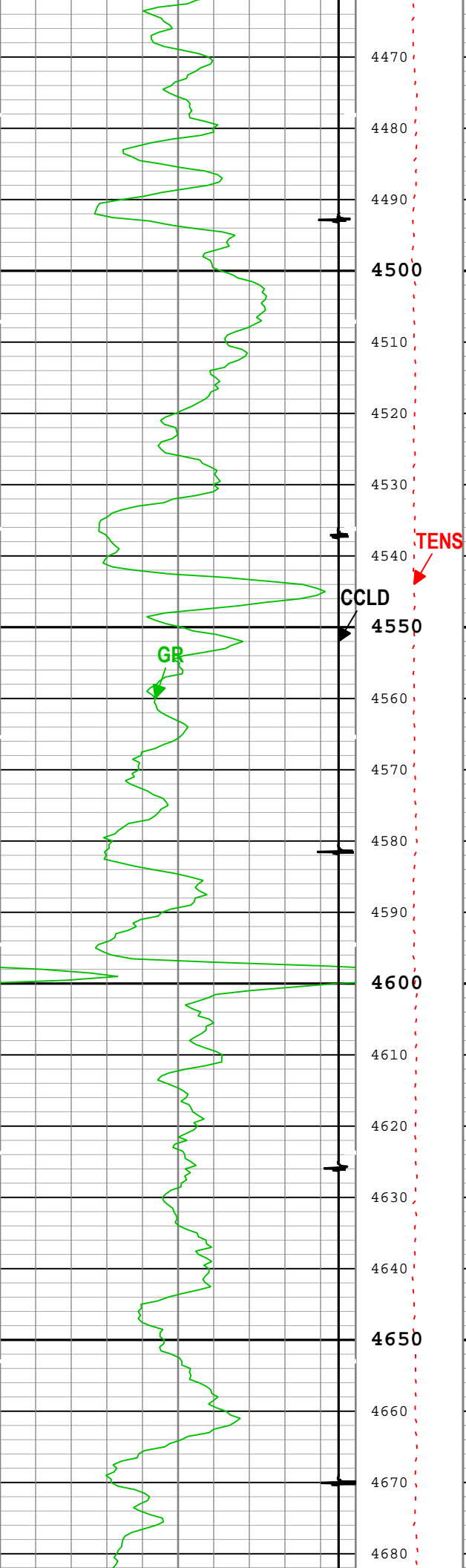


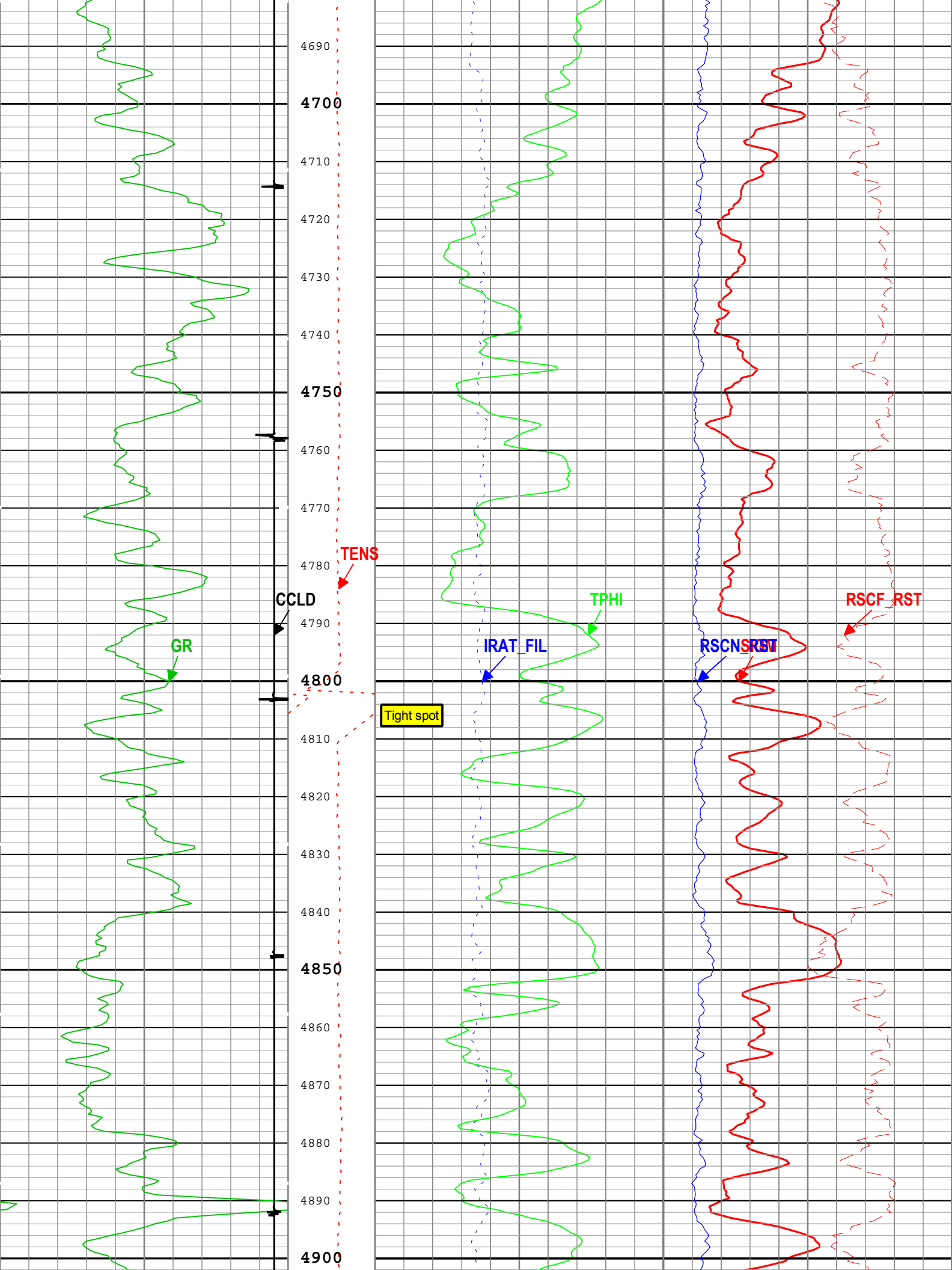


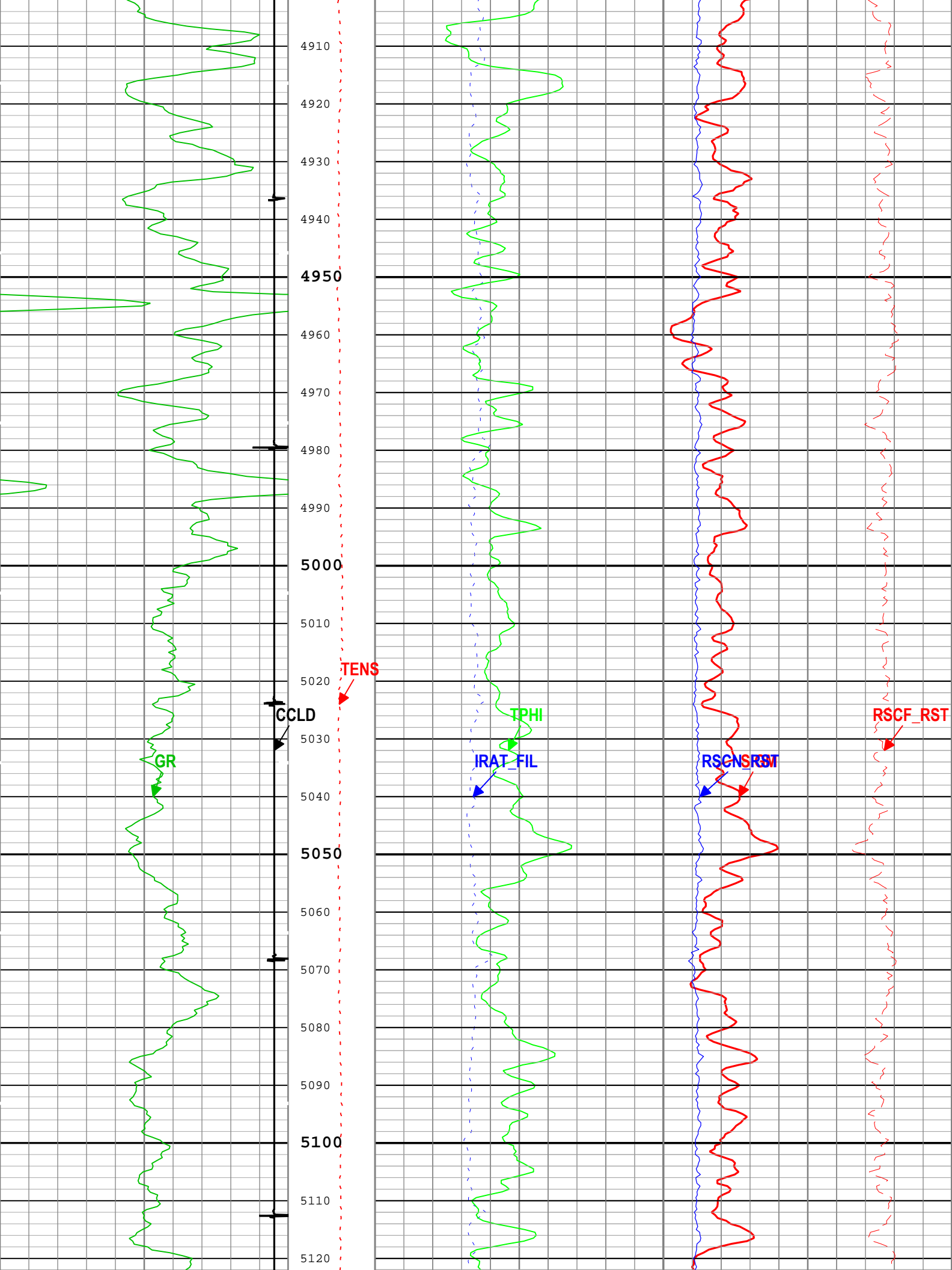


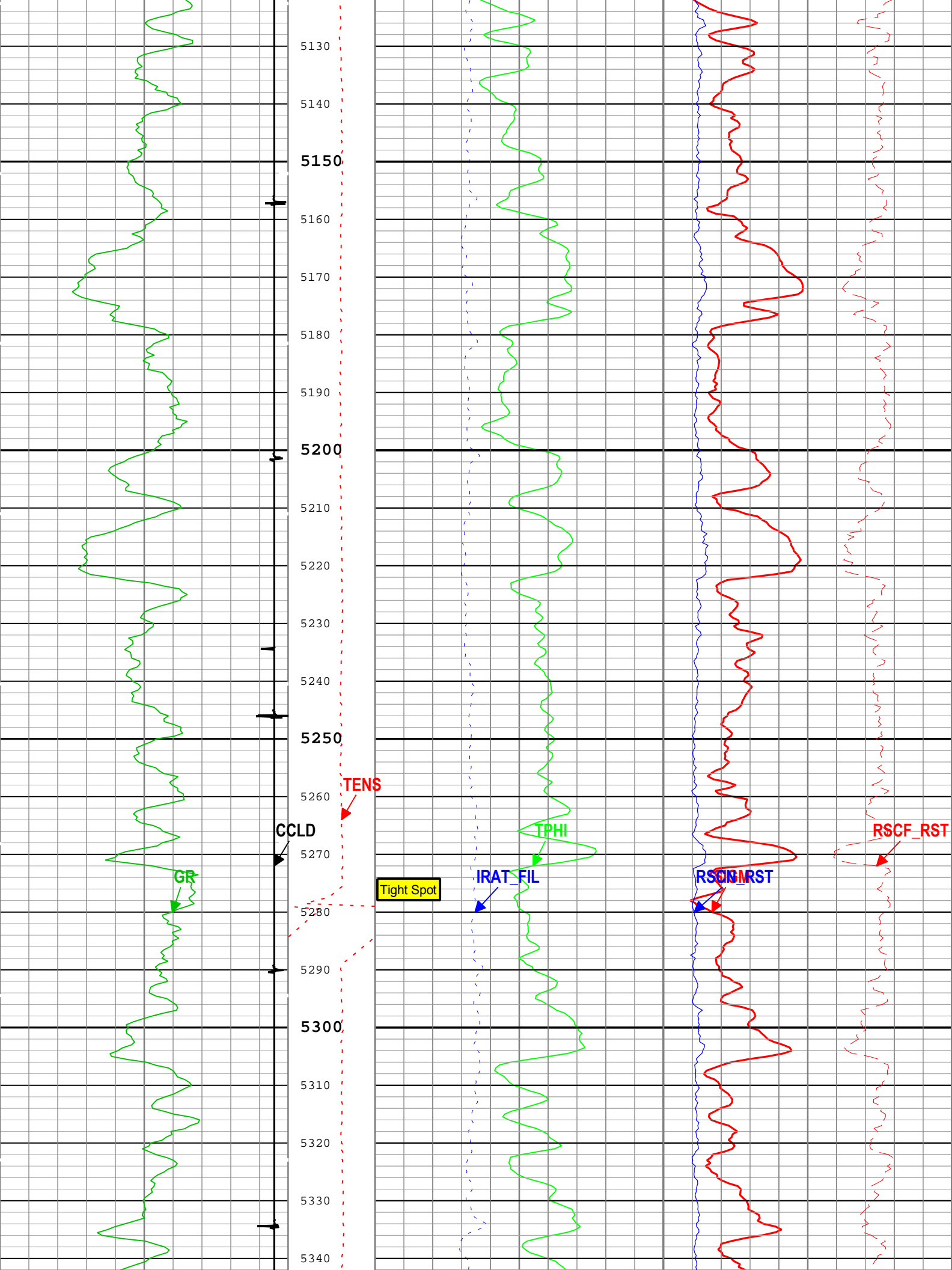


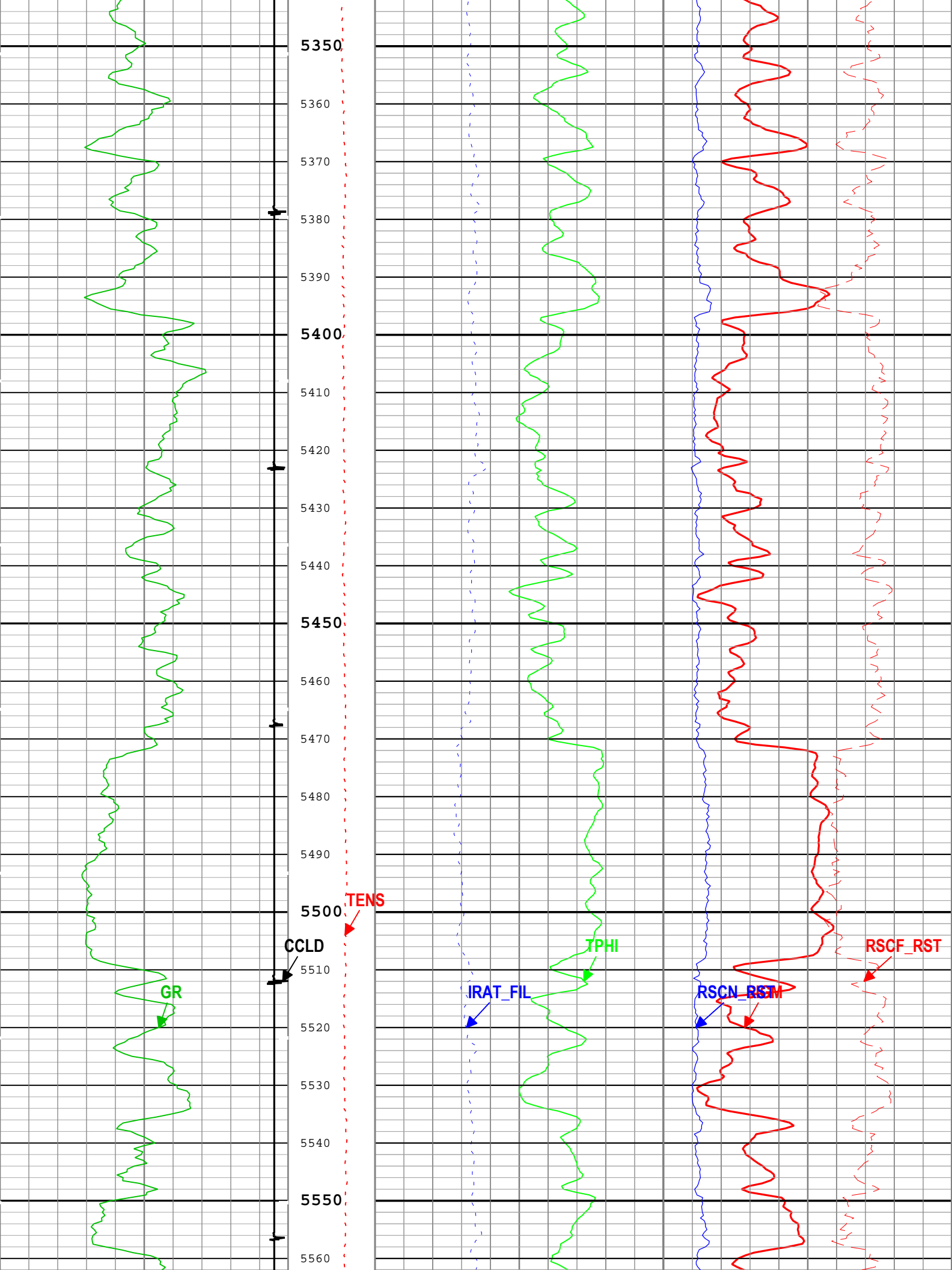


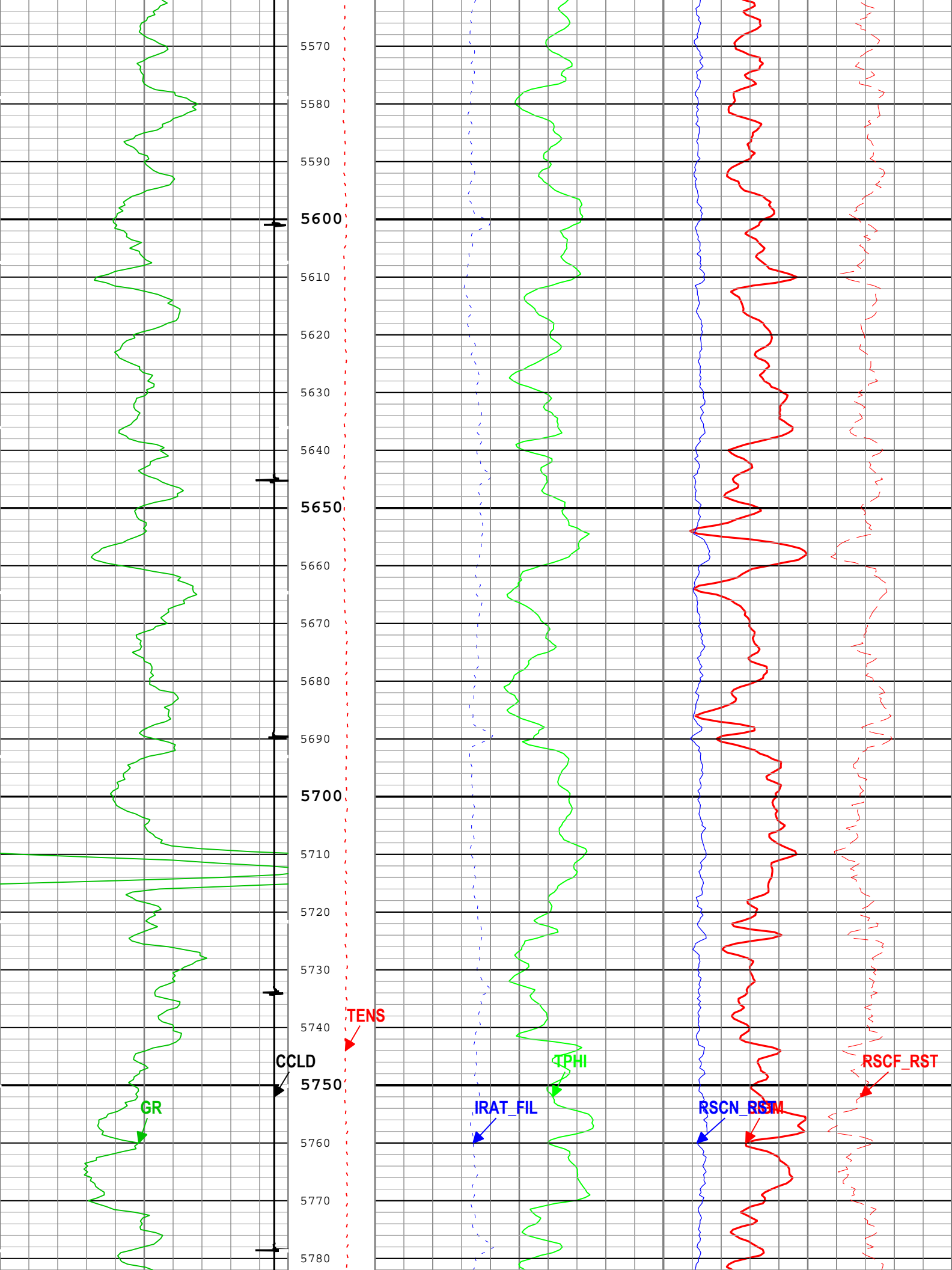


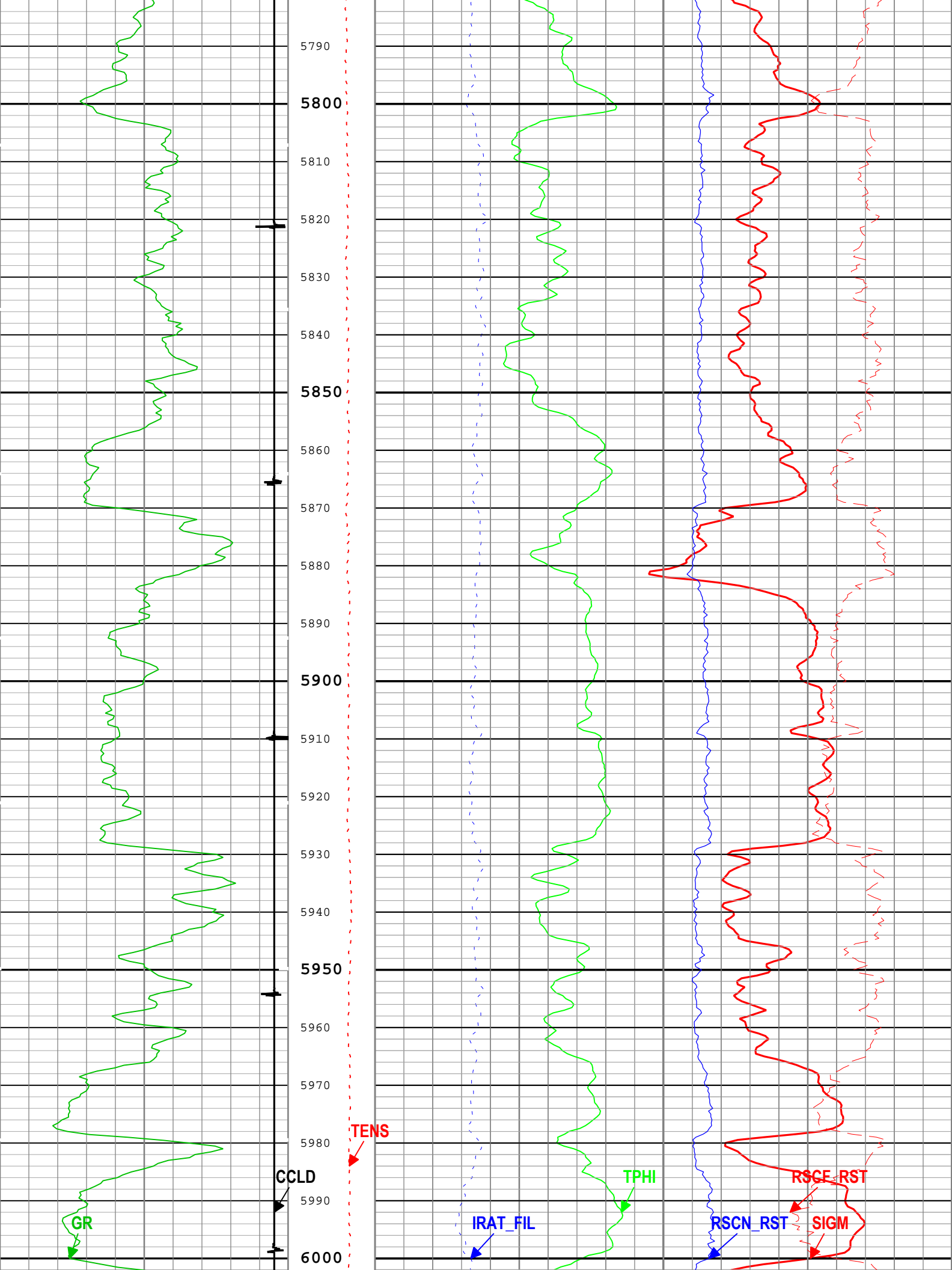


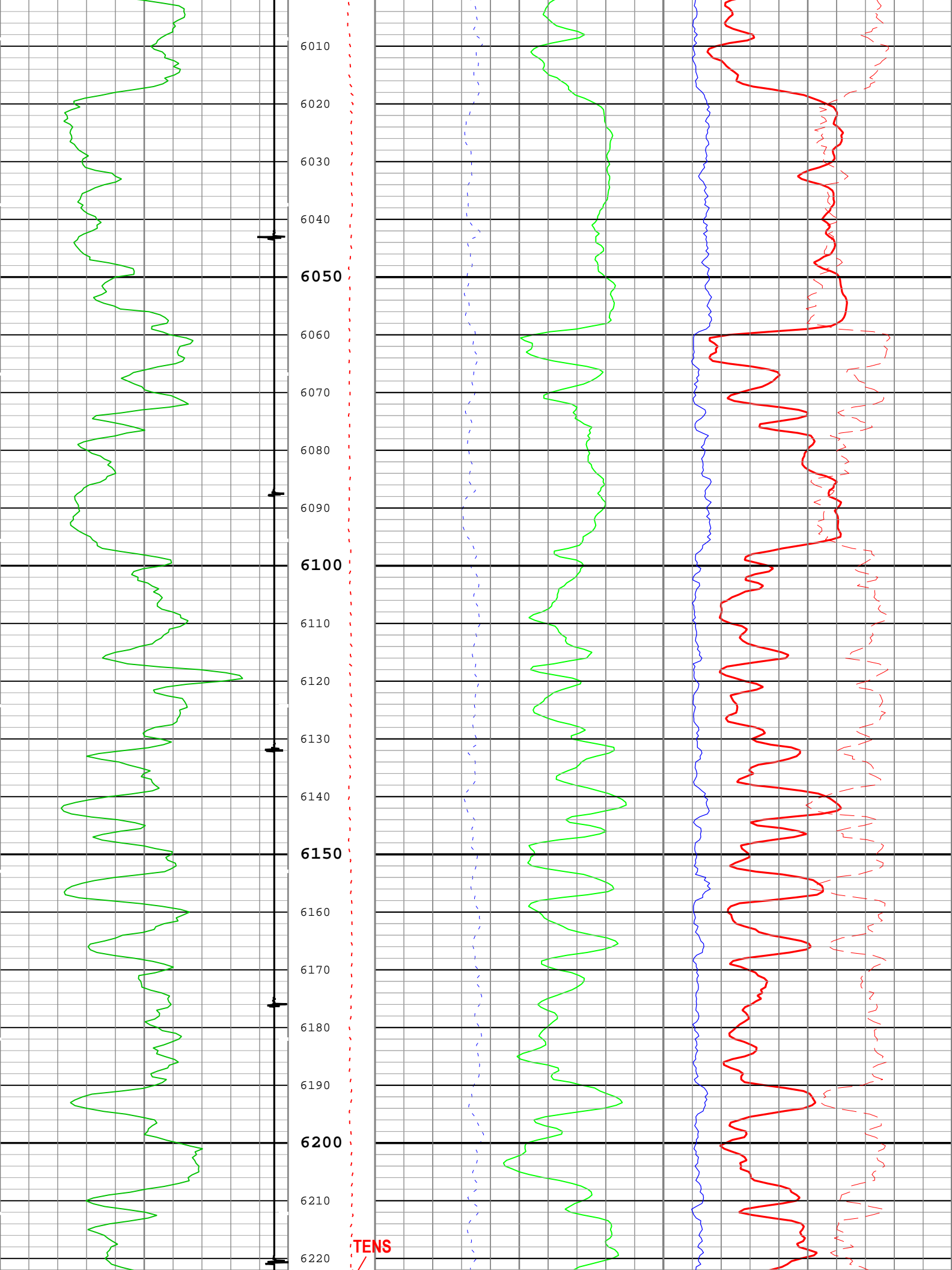


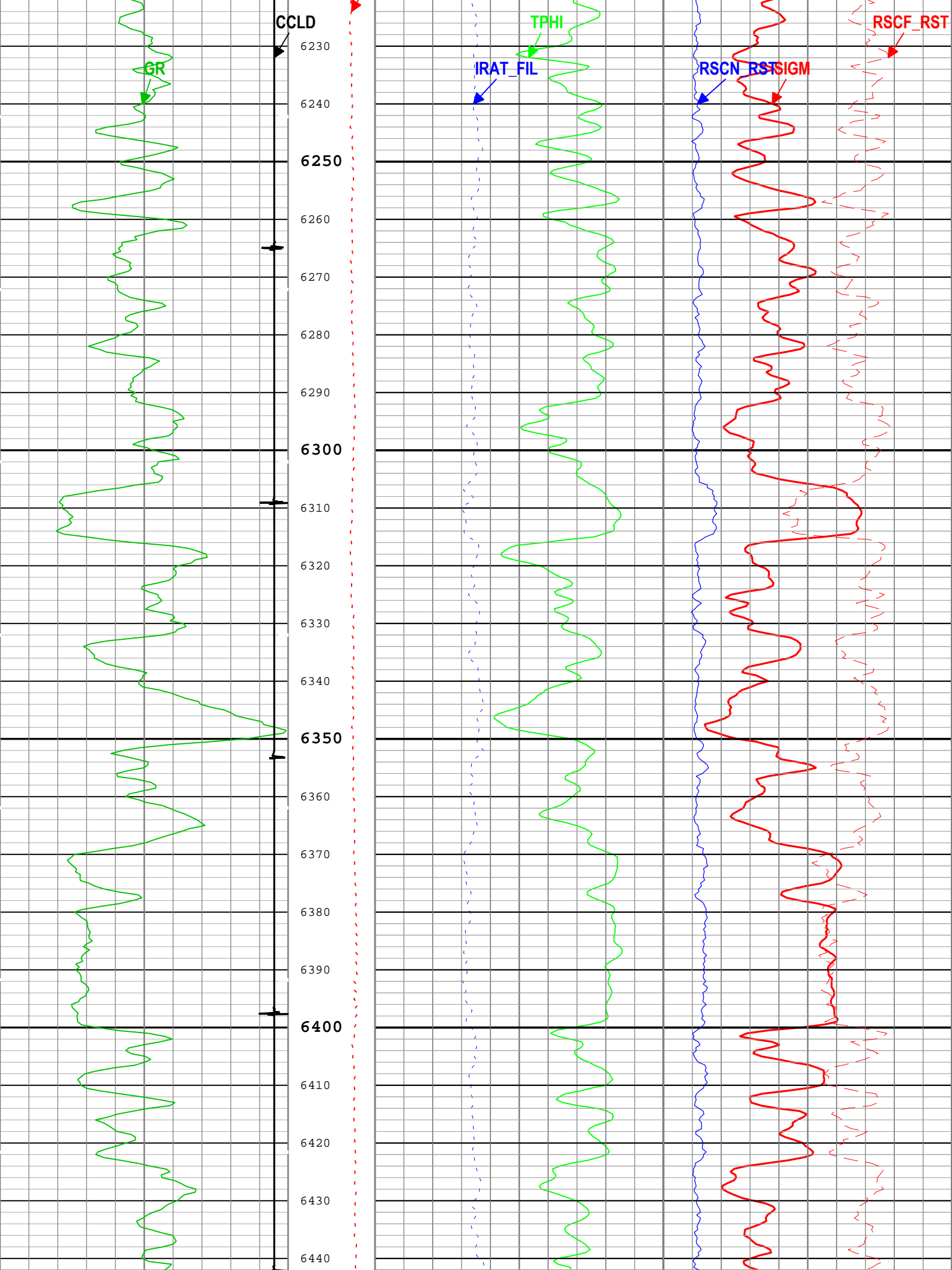


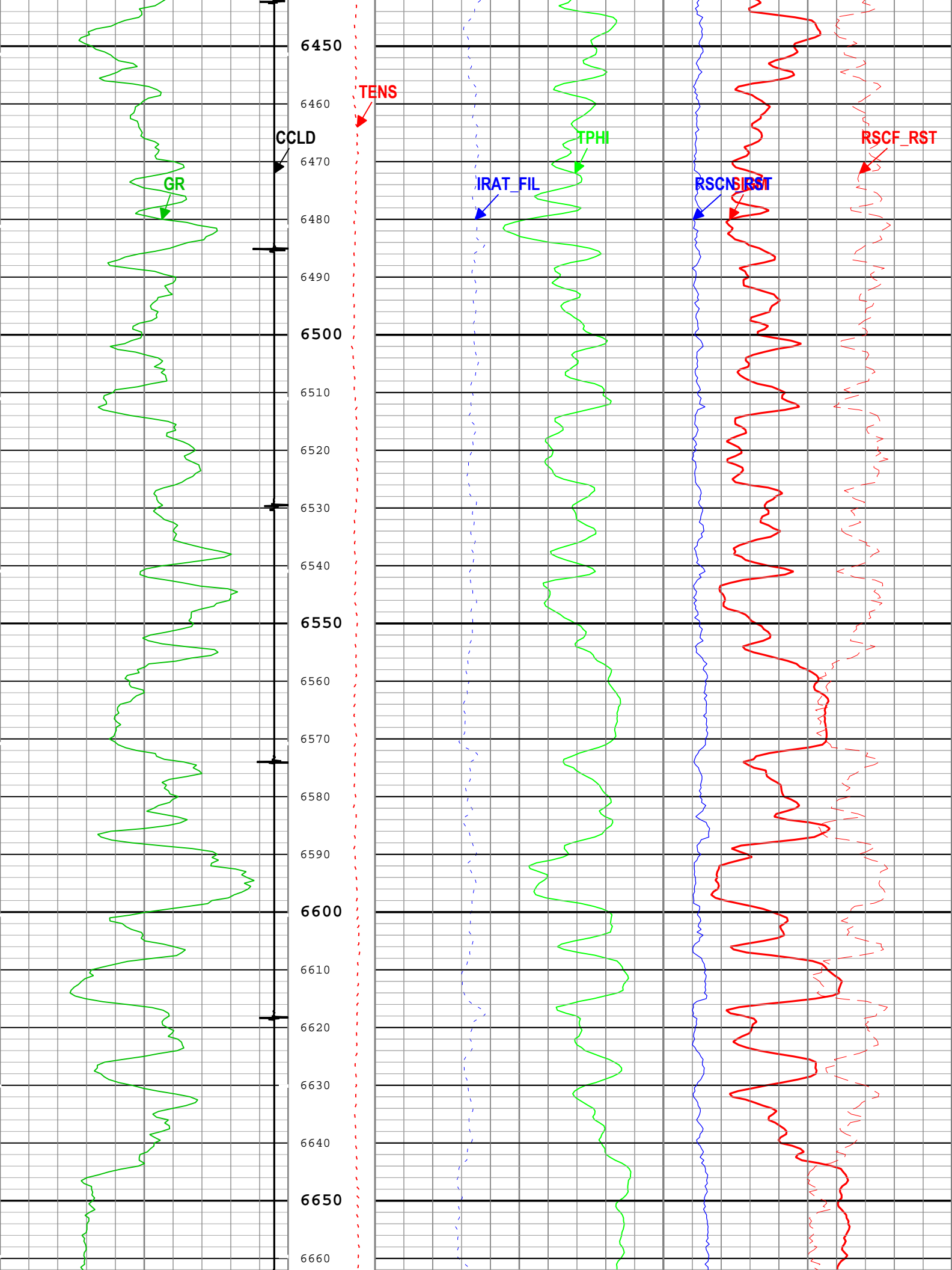


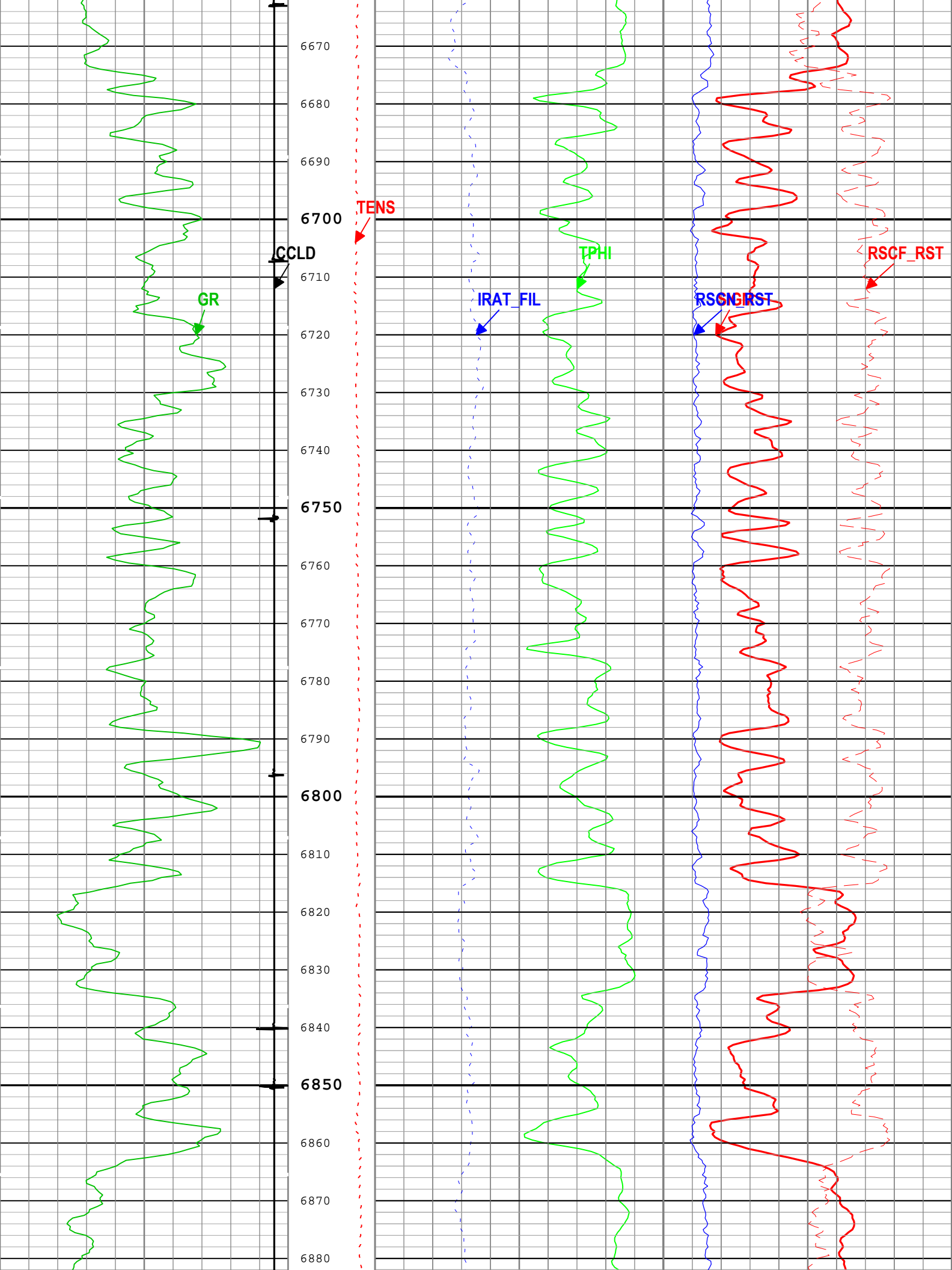


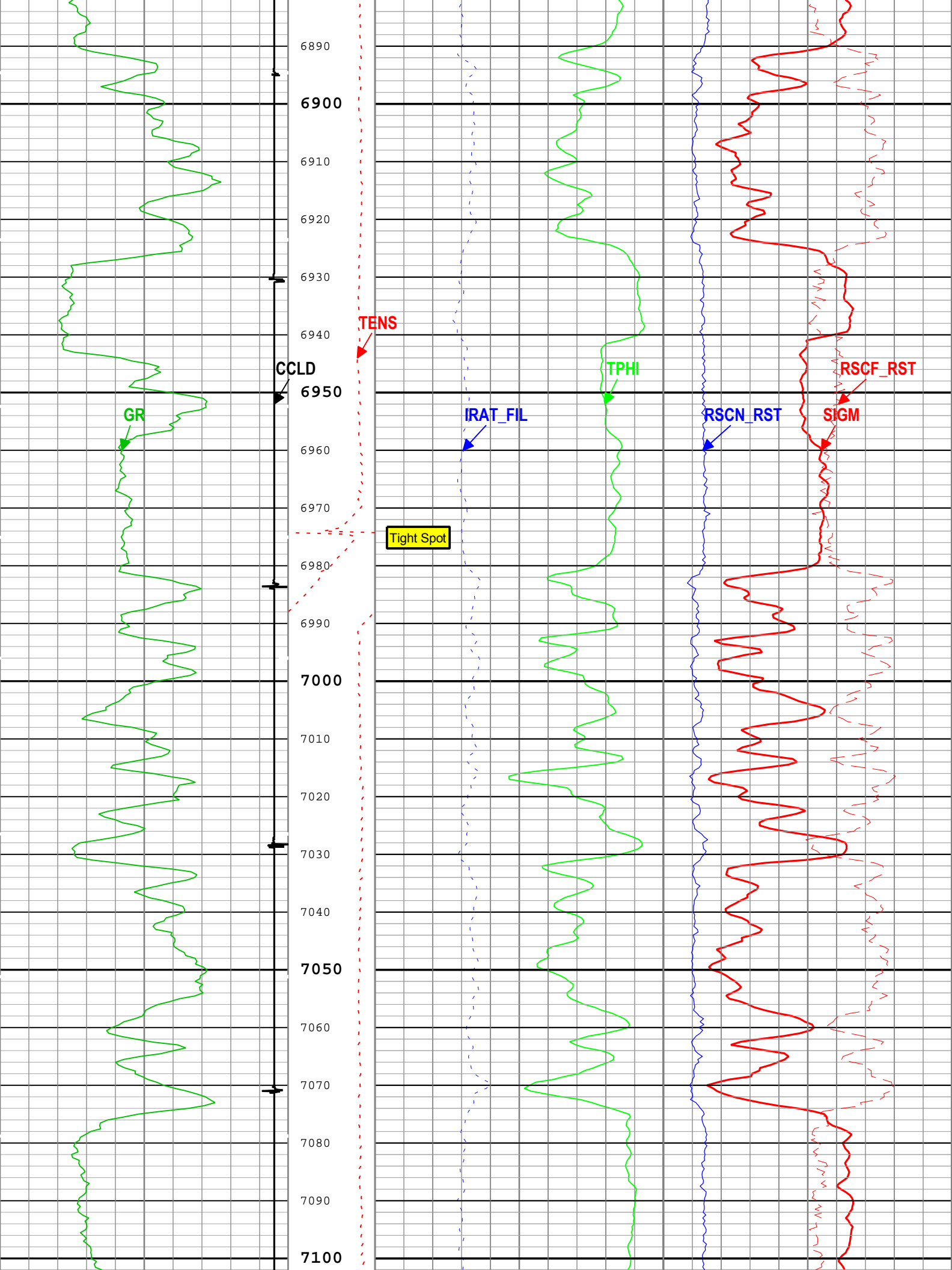


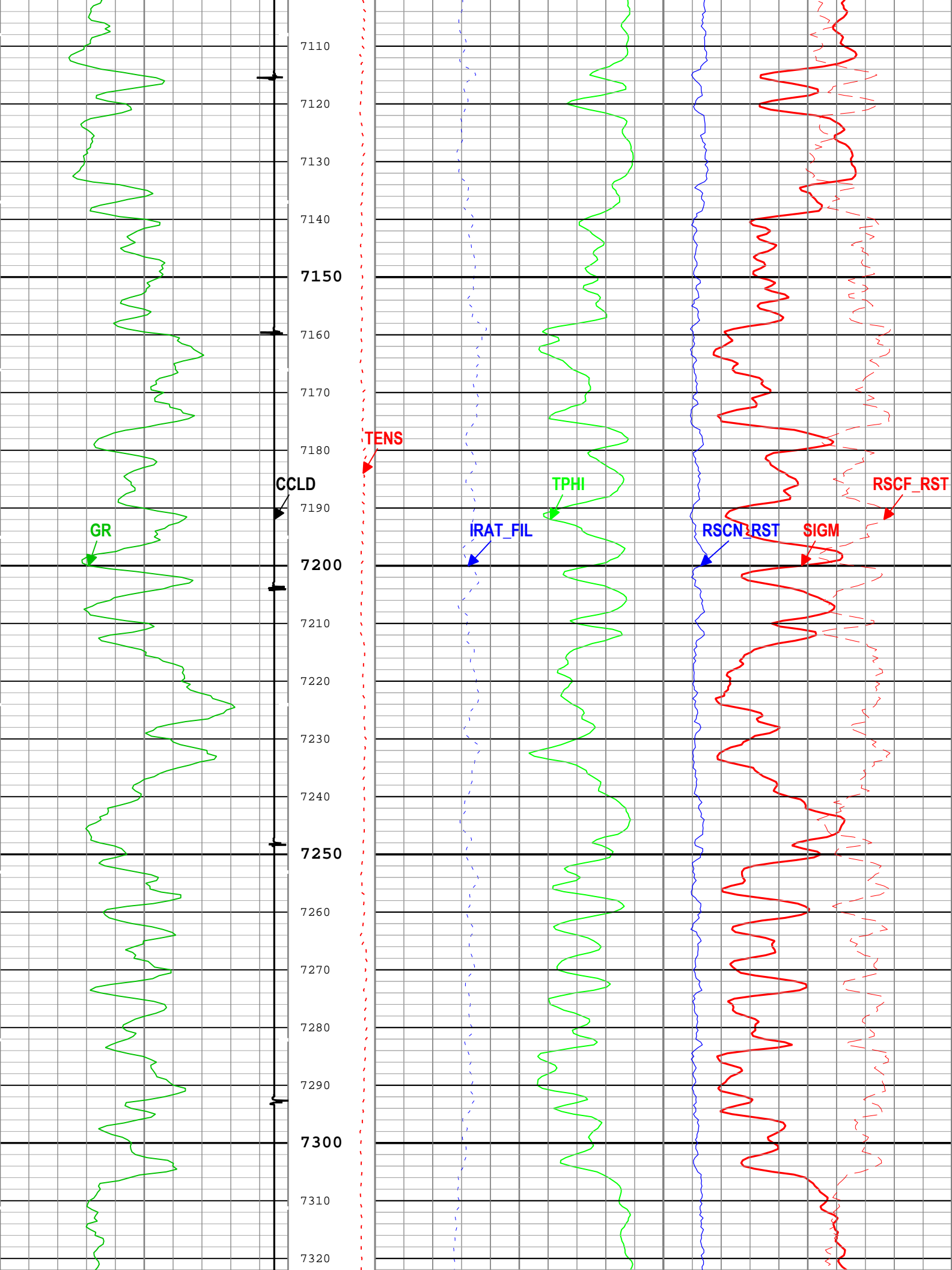


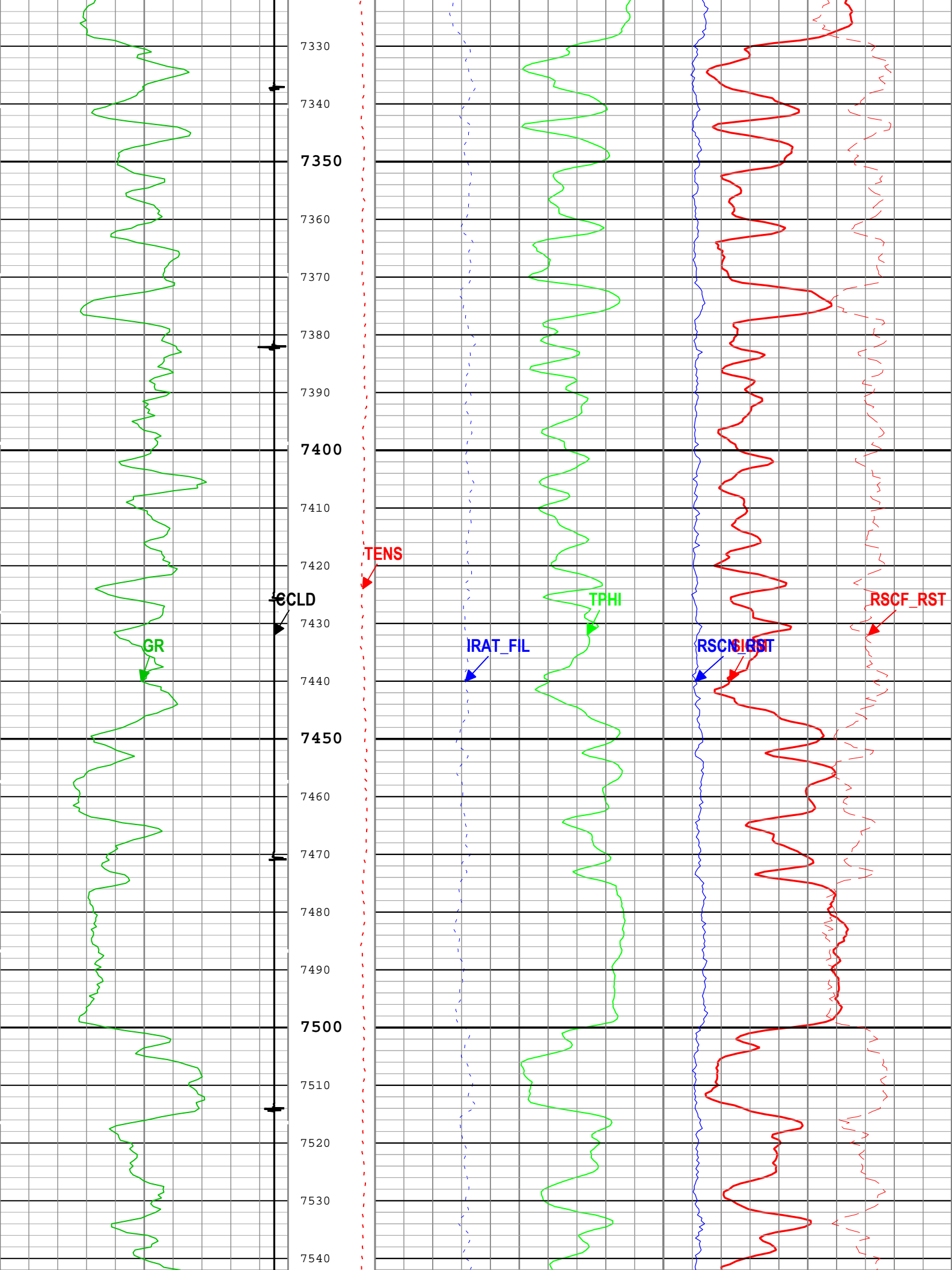


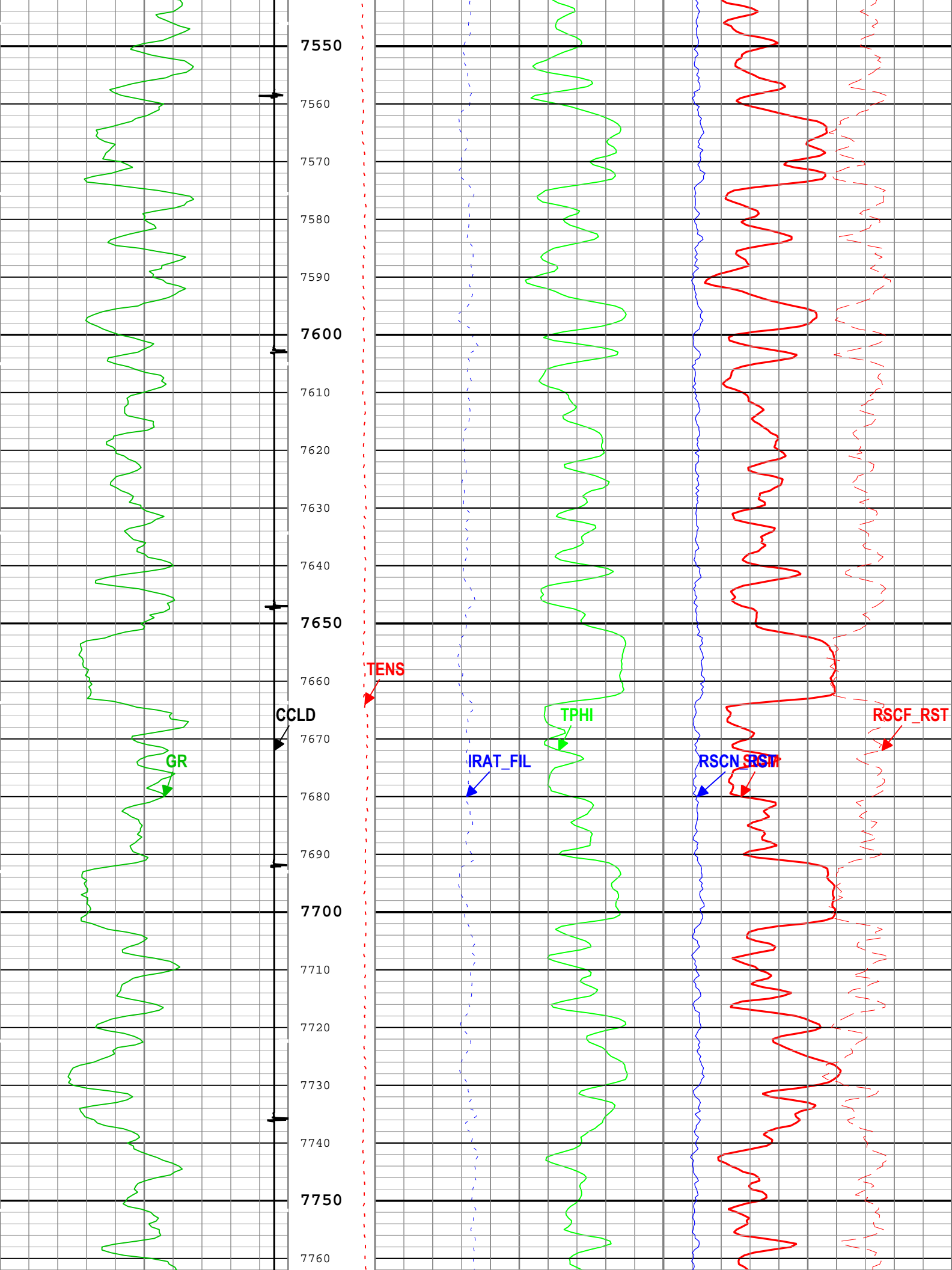


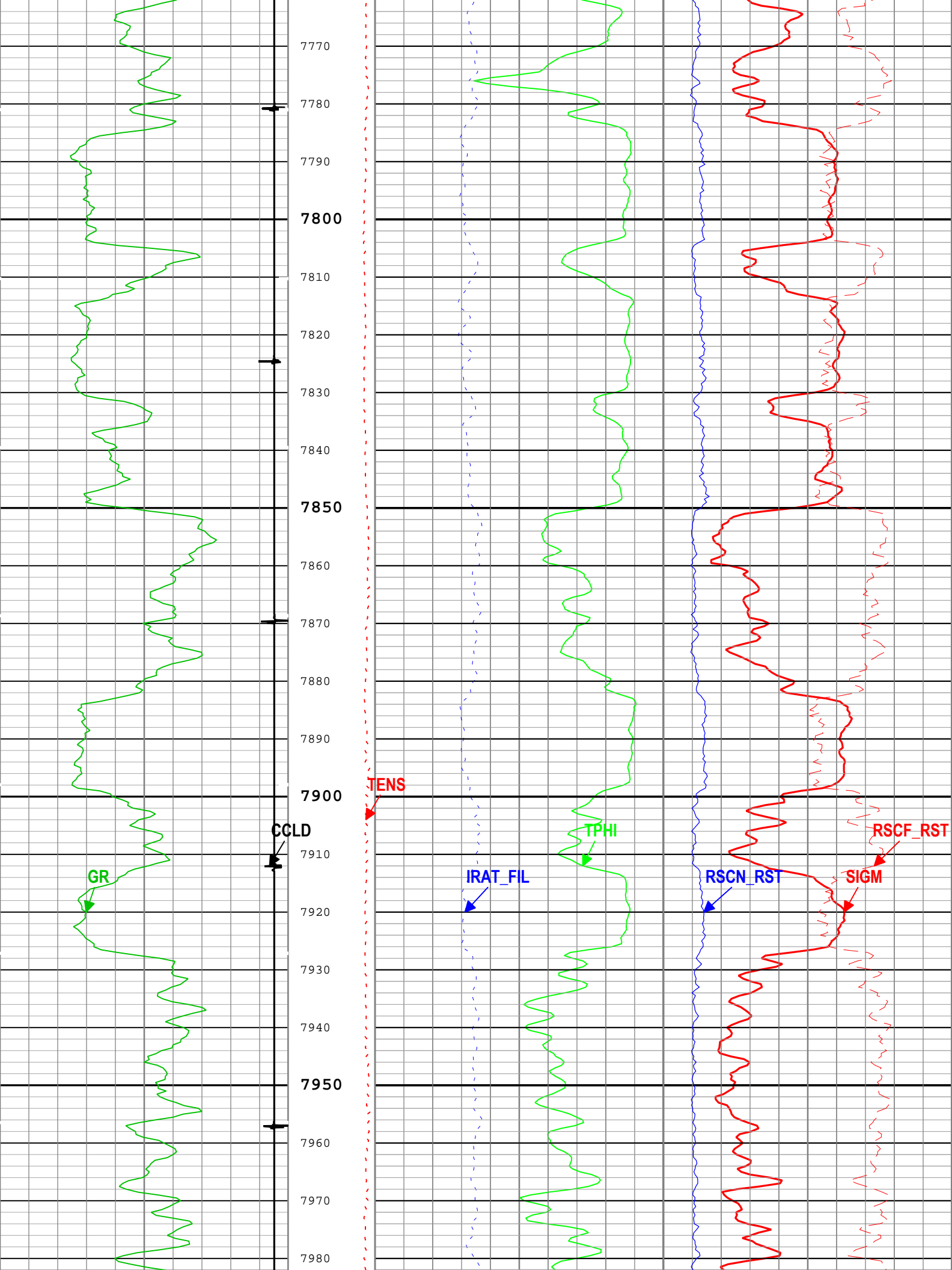


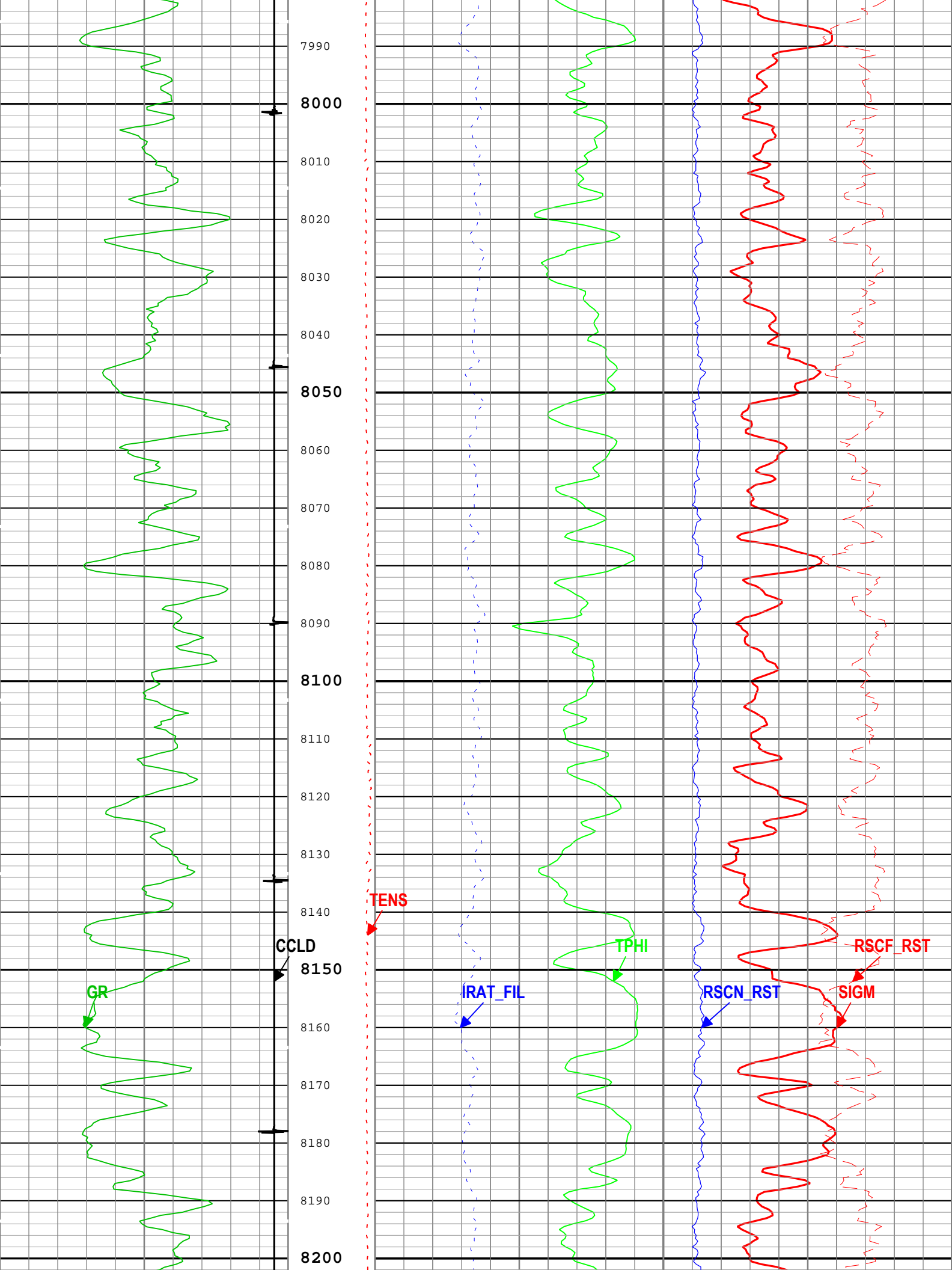


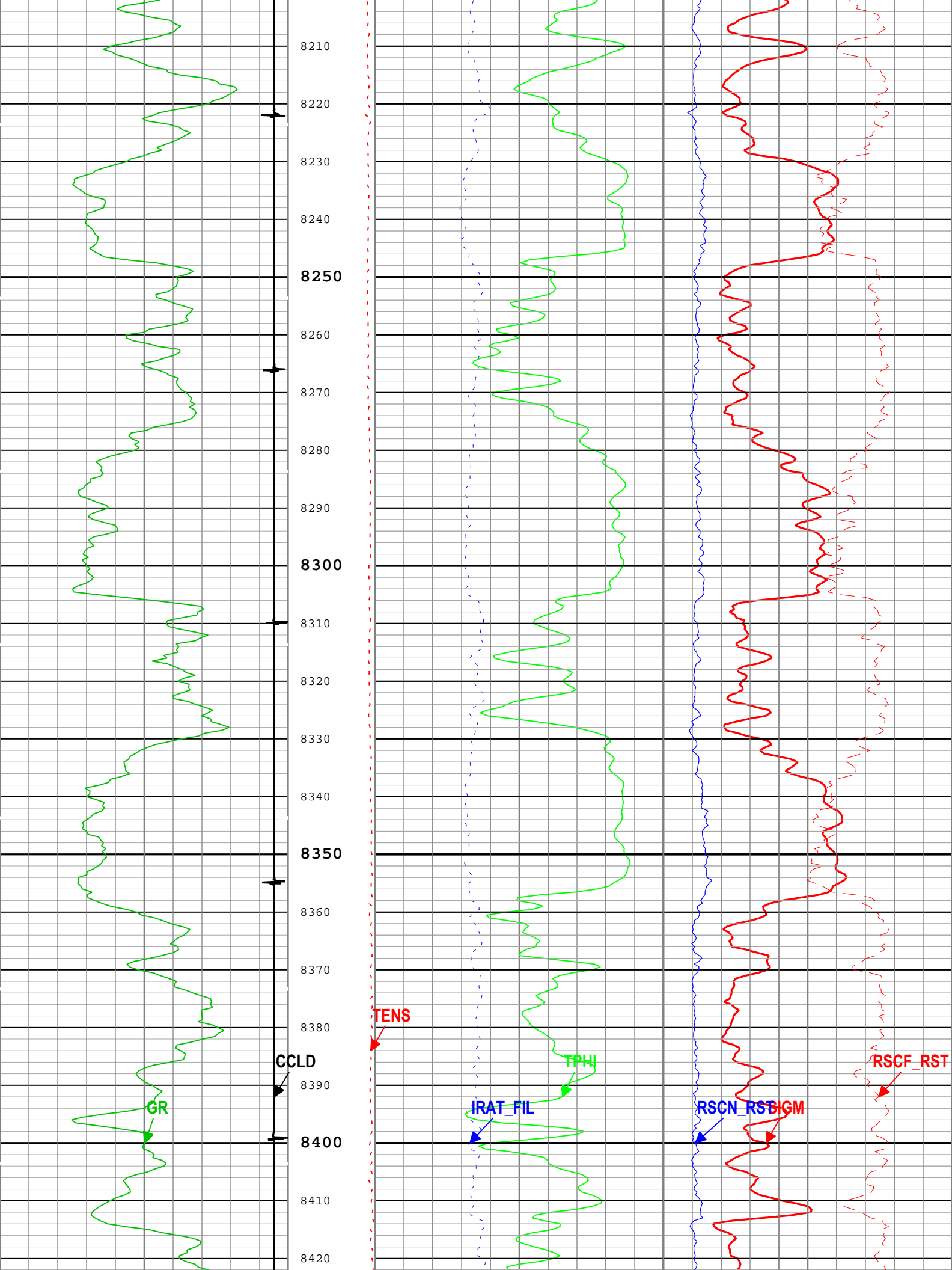


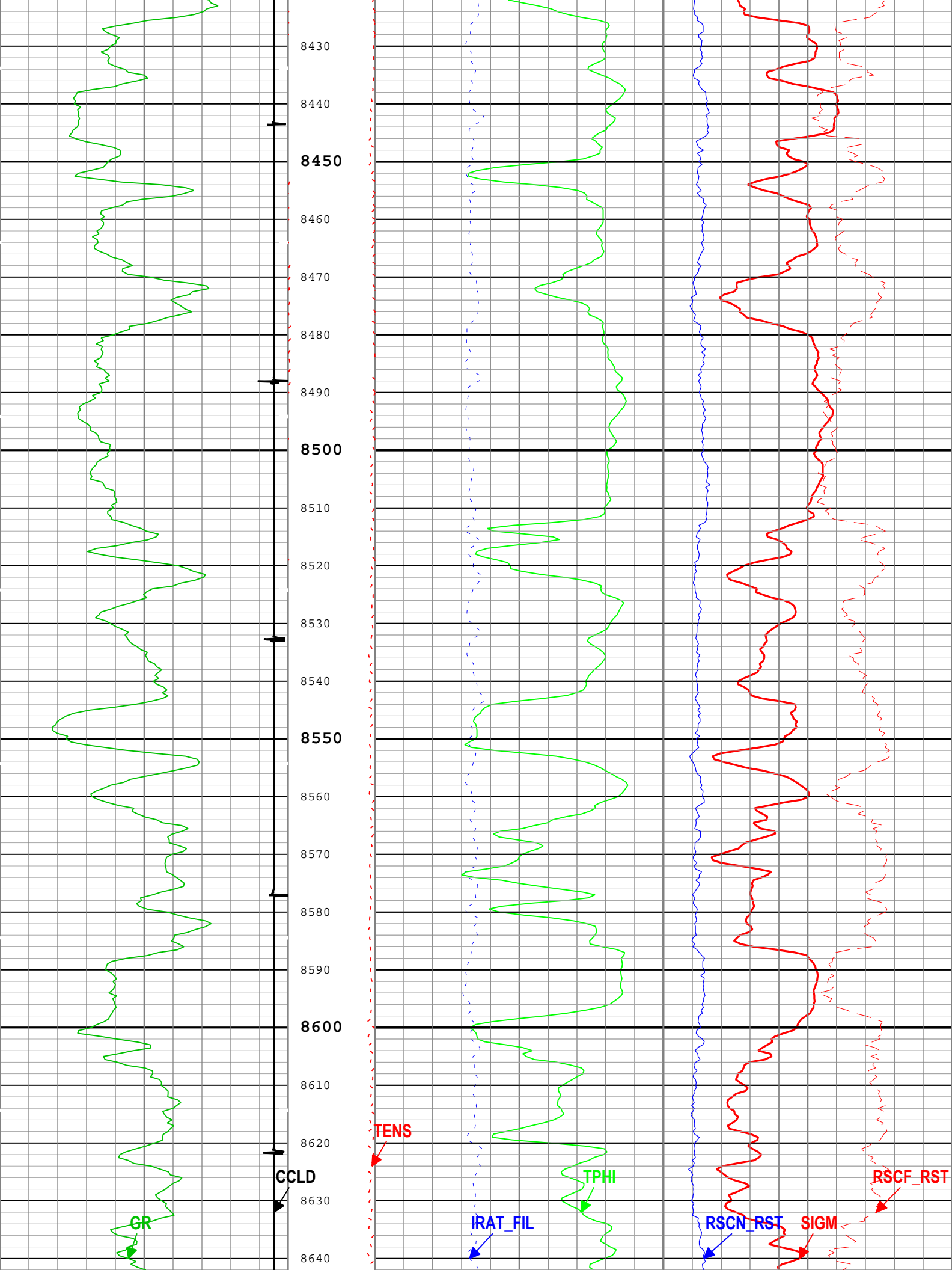


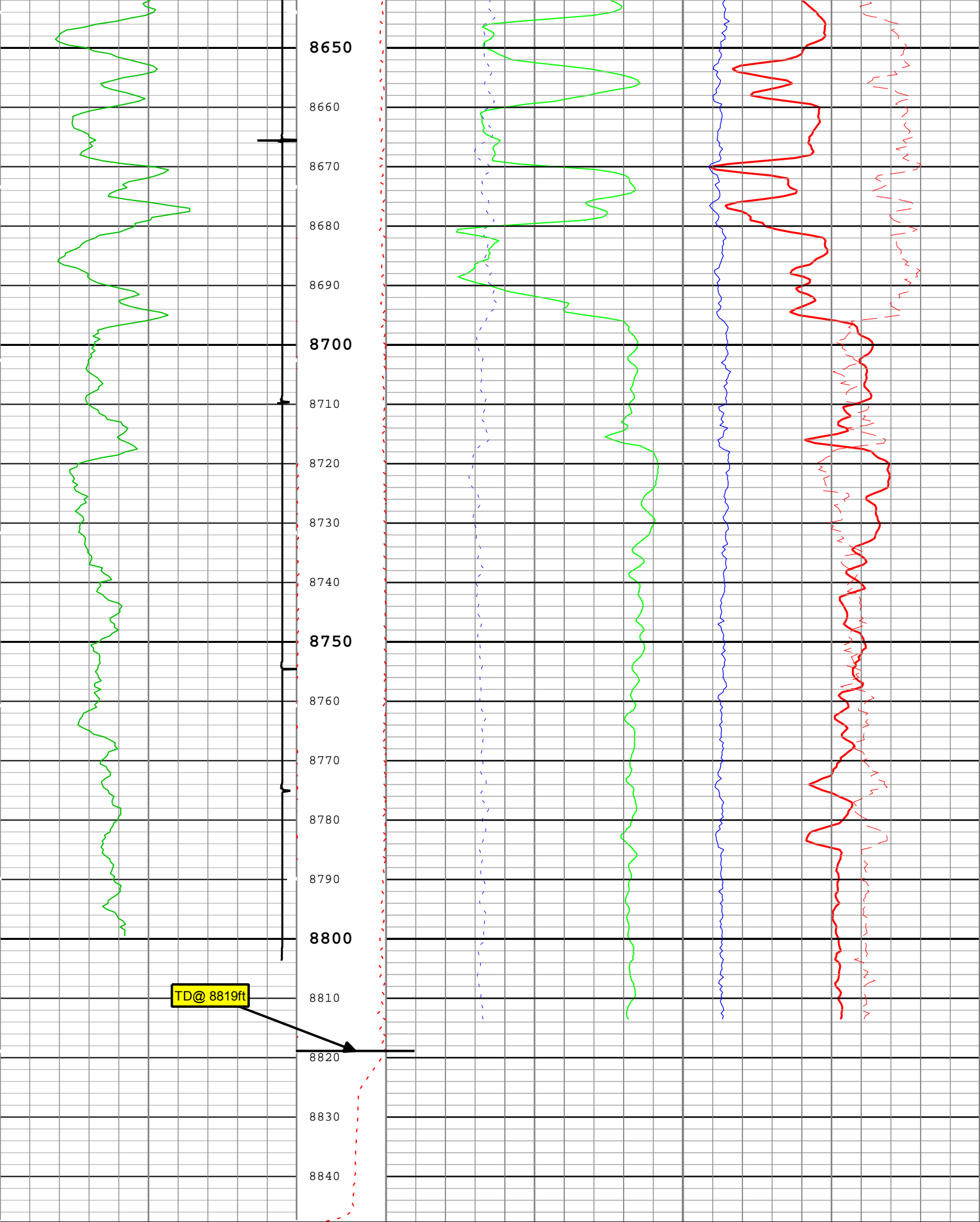












<p>Gamma Ray (GR) PSTP-A</p> <p>0 gAPI 150</p>	<p>Cable Tension (TENS)</p> <p>60 cu 0</p>	<p>Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C</p> <p>Inelastic Ratio Filtered (IRAT_FIL) RST-C</p>
<p>CCL Discriminated Amplitude (CCLD) PSTP-A</p>	<p>1500</p>	<p>Near Detector Effective Unregulated Capture</p>

-19	V	1	0.75	0	Count Rate (RSCN_RST) RST-C	0	100
			Thermal Decay Porosity (TPHI) RST-C				
			0.6	ft3/ft3	0	Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C	
					45	0	

TIME_1900 - Time Marked every 60.00 (s)

- | ICV - Integrated Cement Volume every 100.00 (ft3)
- TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)
- | ICV - Integrated Cement Volume every 10.00 (ft3)
- IHV - Integrated Hole Volume every 100.00 (ft3)
- IHV - Integrated Hole Volume every 10.00 (ft3)

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: 10-May-2018 12:38:03

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	2300	2519
BS	8.75	2519	8847.63

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-A	12 dB	
RST_DLM	Depth Log Mode	RST-C	Sigma	

One

RST Repeat Pass

Software Version

Acquisition System	Version
Maxwell 2018	8.0.95333.3100
Application Patch	Wireline_NPD-PNX-2018CMZ_8.0.97346

Pass Summary

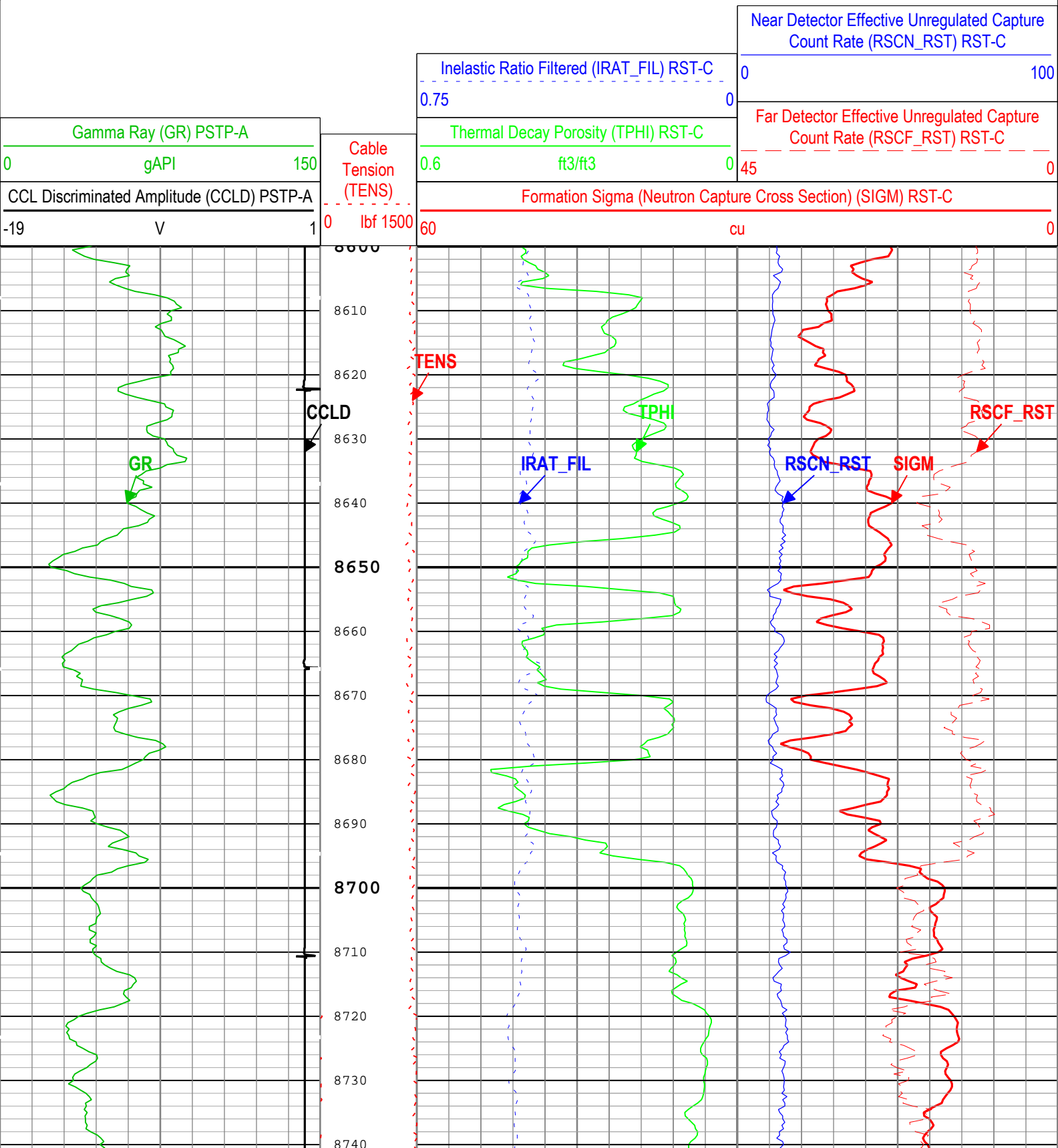
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[2]:Up	Up	8587.01 ft	8876.58 ft	10-May-2018 06:48:55	10-May-2018 06:59:43	ON	7.29 ft	Yes

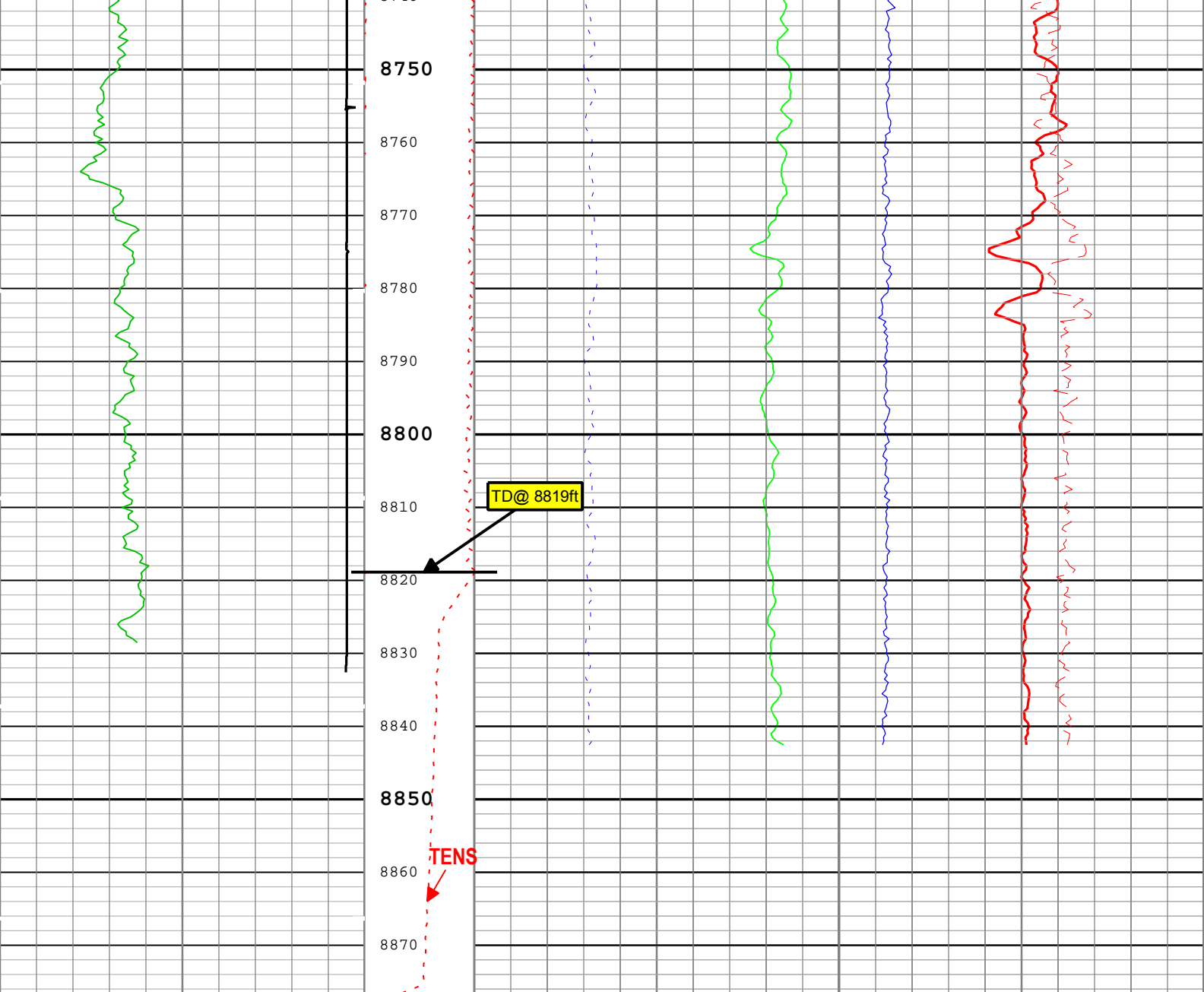
All depths are referenced to toolstring zero

Description: RST SIGMA Answer Format: Log (RST SIGMA Answer_1) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth
 Creation Date: 10-May-2018 12:38:09

- IHV - Integrated Hole Volume every 10.00 (ft3)
- IHV - Integrated Hole Volume every 100.00 (ft3)
- ICV - Integrated Cement Volume every 10.00 (ft3)
- TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)
- ICV - Integrated Cement Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)





Gamma Ray (GR) PSTP-A		Cable Tension (TENS)	Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C	
0	150		60	0
gAPI		0 lbf 1500	cu	
CCL Discriminated Amplitude (CCLD) PSTP-A			Inelastic Ratio Filtered (IRAT_FIL) RST-C	
-19	1	0.75		Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C
V		0		0
		Thermal Decay Porosity (TPHI) RST-C		100
		0.6		Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C
		ft3/ft3		45
		0		0

TIME_1900 - Time Marked every 60.00 (s)

- | ICV - Integrated Cement Volume every 100.00 (ft3)
- TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)
- | ICV - Integrated Cement Volume every 10.00 (ft3)
- IHV - Integrated Hole Volume every 100.00 (ft3)
- IHV - Integrated Hole Volume every 10.00 (ft3)

Description: RST SIGMA Answer Format: Log (RST SIGMA Answer_1) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth
 Creation Date: 10-May-2018 12:38:09

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-A	Time Zoned	
RST_DLM	Depth Log Mode	RST-C	Sigma	

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
PCCG	0 dB	10-May-2018 06:48:55	10-May-2018 06:53:02	8876.58	8779.24
PCCG	12 dB	10-May-2018 06:53:02	10-May-2018 06:59:43	8779.24	8587.01

All depth are at tool zero.

Company: Caerus Operating LLC

Schlumberger

Well: Puckett 12B-26-697

Field: Grand Valley

County: Garfield

State: Colorado

Cement Bond Log

RST Sigma Log

Gamma Ray - Collar Locator Log